



# Irrigation efficiency

...for a sustainable world



Agriculture Irrigation Catalog

17





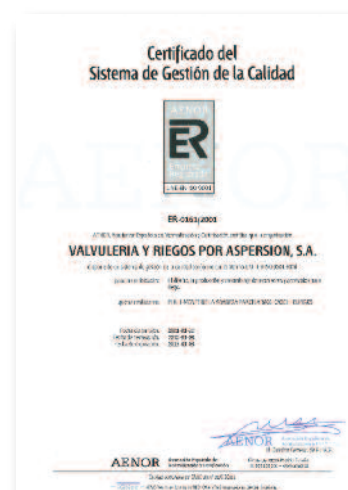
# The company VYR S.A.



**VYR S.A.** is a Spanish company with **over 40 years of experience** in the manufacture of sprinklers and irrigation systems. Today is one of the leading irrigation companies and has an international presence on the five continents through a network of distributors in over 90 countries worldwide.

One feature that has always defined our brand, and that always has concerned us, is to achieve the highest quality. So we want to thank all those who have placed their trust in VYR and from there to ensure that the quality and good service will always be our reason for being.

**Our Mission:** To manufacture high quality and reliable sprinkler irrigation equipment to increase energy efficiency, create high coefficients of uniformity in irrigation and improve water saving, thus increasing productivity and effectiveness to our customers.

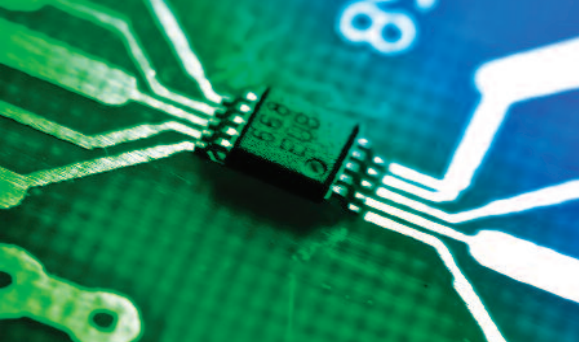
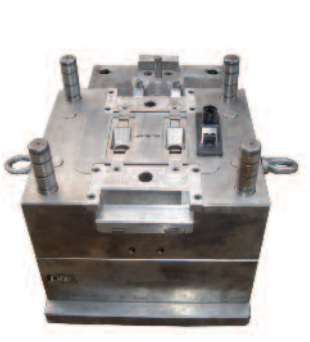
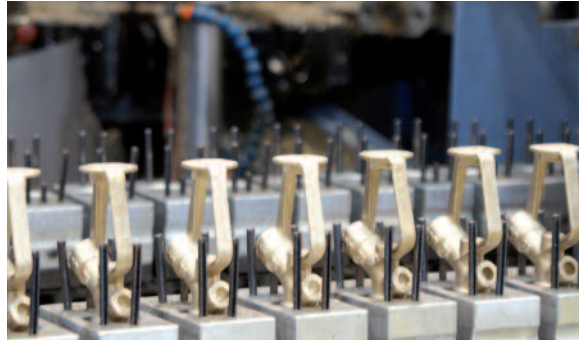




# MANUFACTURER

## Production 100%

CASTING FOUNDRY - PLASTIC INJECTION - STAMPING - DIECUTTING - MECHANIZATION



ASSEMBLING - ELECTRONICS - R+D+i - QUALITY ASSURANCE - LOGISTICS - TECH SUPPORT

The **R+D+i** (Research, Development and Innovation) of new products, quality control and implementation of the latest technological advances in the manufacturing process, make our brand to be the best tool to win our customers confidence .

**TECHNICAL SUPPORT AND TRAINING:** VYR S.A. offers to all our customers the technical support to develop your projects more easily and effectively. There are also different training courses to learn how to get the best possible performance for all VYR products.

**QUALITY ASSURANCE:** The quality is guaranteed at VYR S.A. by our AENOR certificate that proves we are under the ISO 9001:2000 (Quality Control) regulations, and UNE 16002 (I + D + i).

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# **WATER**

**VYR ensures that water arrives in an efficient way to your plants!**

**Sprinkler irrigation is characterized as the most natural irrigation system, and that most resembles the rainfall.**







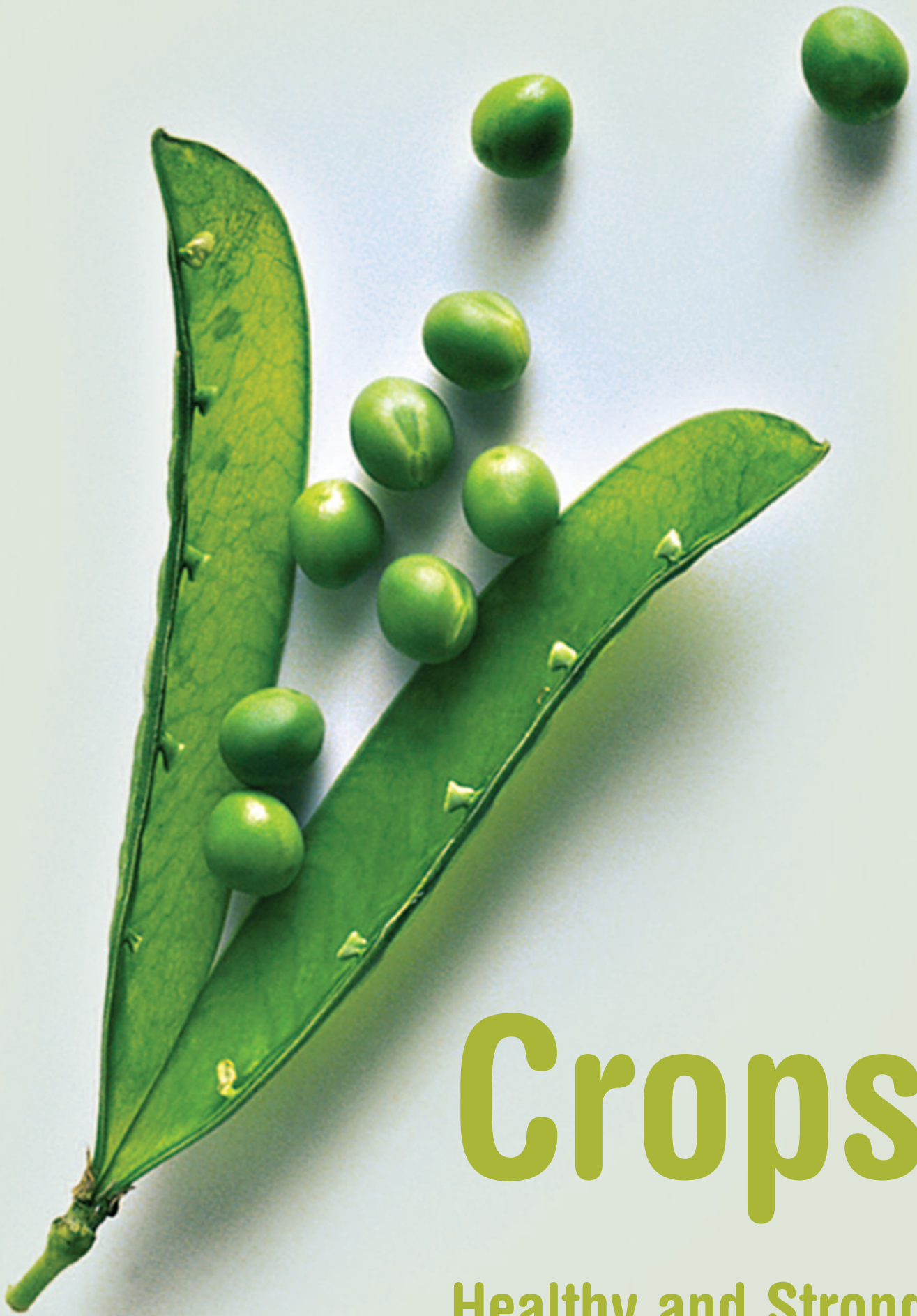


**SOIL**









# Crops

Healthy and Strong





# Global Solution



Energy  
Efficiency









# Technical Service



**Our engineering department and  
customer service brings you all the  
technical support needed to make  
perfect projects .**

# New Products 2017



Pg. 12

## VYR-3000 MICRO-TWISTER

Plastic micro-sprinkler with modular & interchangeable design for multiple assembly options.

**FLOW** 7,9-42 GPH (30-160 L/H)

**RANGE** 3,3-28 ft. (1-8,5 m).

**PRESSURE** : 16-44 PSI (1,1-3 BAR)



Pg. 54

## VYR-2 "ROTEC"

Rotor sprinkler full/part circle 3/4" male, made of plastic. Deflector opcional para sector de 180°. Silicon technology with 2-speed motor, color coded interchangeable plates and nozzles.

**FLOW**: 2,75-8,40 GPM

**RANGE**: 20-50 ft. (6-15 meters).

**PRESSURE**: 22-44 PSI (1,5-3 BAR)



Pg. 26

## NEW NOZZLES VYR-26 & VYR-16

Plastic sprinkler 1/2" male standard angle. Two nozzles with angles of 26° and 25°.

**FLOW**: 79-317 GPH (300-1200 L/H)

**RANGE**: 26-40 ft. (8-12 m).

**PRESSURE**: 22-44 PSI (1,5-3 BAR)



Pg. 42

## VYR-33 P

Anti-Frost plastic sprinkler 3/4" male and made of brass. Two nozzles of 25°.

**FLOW** 1,1-3,85 GPM (250-900 L/H)

**RANGE** 23-30 ft. (7-9 m).

**PRESSURE** : 22-44 PSI (1,5-3 BAR)



Pg. 94

## VYR-67

Part circle sprinkler 3/4" male/female, and made of plastic. Two bayonet nozzles with angles of 25° and 30°.

**FLOW** 210-555 GPH (800-2100 L/H)

**RANGE** 42-56 ft. (13-17 m).

**PRESSURE** : 29-73 PSI (2-5 BAR)



Pg. 67

## NEW DESIGN FOR VYR-56

This model has been redesigned, with a shovel with double counterweights inserted in plastic injection, making it more robust. Besides his body with curves gunboats increase their reach and uniformity coefficients.



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## Agro-Pipe

Aluminum dynamic coverage

We offer one of the widest ranges in the market and all kinds of aluminum pipes and fittings for installation of mobile coverage.



Pg. 170

## Agro-Stand & Agro-Flat

Low flow dynamic coverage

Fastening system for low flow sprinklers. It has male connectors, female and cap for PE pipe, sprinkler holder base, micro-tube of 15/32" and nailing steel rebar in the floor of 3.3 ft.



Pg. 174

## Agro-Rain Solid-Set

Underground solid-set coverage systems

Quick-coupling records made of brass for PE pipe of 32 mm for irrigation outlets of 3/4 "-F and 1"-M. Conical inner spike expansion vessels which ensure the connection and prevent any leakage.





Pg. 114

### LATCH 9 Vdc CONTROLLERS

Pulse Controllers "LATCHING" 9 Vdc alkaline batteries. Models 1-3 and 5-14 stations with 4 programs and independent and overlapping beginnings. Master valve, valve-MV delays, inhibition performance sensors and tele-control option.



Pg. 115

### Hydro-Plus Access-Point

#### Remote control for controllers

With our new electronic TRI and AP-1 you can connect to our controllers and remotely operate and modify programs through the web application [www.hydro-plus.es](http://www.hydro-plus.es) and the downloadable APP HydroPad.



Pg. 116

### HydroPlus & HydroPad Soft

#### La aplicación para móviles y tabletas!

Software for managing remotely hydrants, flow-meters, sensors, agro-meteorological stations, pumping station, etc.. Easy operation and intuitive display screens for IOS and Android.



Pg. 124

### METEO-PLUS STATIONS

Weather Stations VYR-Meteo & MeteoVYR-Pro2 and Vue, configured to integrate with all our programmers with option "meteo" and interact in the operation of the programmer and running times for water saving.



Pg. 118

### Cabinets & frames for outdoor for the assembly of control systems

Cabinets and special electronic racks for mounting of enclosures for controllers, hydraulic solenoid manifolds, solar chargers, and remote management systems.



Pg. 117

### VYR-6045 RAIN-PRO ELECTRIC CONTROLLER

Outdoor electrical controller with transformer at 24 Vac. 8 programs with 6 independent and overlapping starts. 4, 6, 9 and 11 stations, master-valve, valve delays, NC/NO sensors (rain sensor), calendar, 15 days of delays, 10% -200% water budget. Easy to install and operate. Anchor built padlock placement.

Pg. 158

### VYR-39 AIR-RELEASE VALVES

VYR completed the VYR-39 air-release valve range of single, double and triple effect. Made of ultra-resistant materials and docking option in brass or plastic. Free air facilities to prevent pipe breaks and leaks!



Pg. 134

### HYDRAULIC VALVES

Hydraulic valves from 1" to 12" threaded, flanged or Victaulic. Made of ductile iron and high resistance paint. Minimum flow lost with high strength in the diaphragm. Numerous mounting options with different accessories such as 3 way valve, solenoids, regulator pilots, etc.



Pg. 166

### Design software for irrigation sprinkler & drip systems

Modern and powerful design tool for hydraulic calculation of pipes, spacing between emitters, CU's, topographic settings, lists of materials, assessment of costs, efficiency audits, extensive library of products. Easy download of topographic maps from GoogleEarth.

Pg. 153

### VYR-19 HPR Pressure regulators

New range of fix pressure regulators 3/4" for high flow. This new model of regulator is configured to meet the agricultural needs in facilities of pivots, drip irrigation and green-houses. There are 2 types of outlet connection length depending of it use.



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# Agriculture

## Low Flow Irrigation

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nuevo  
VYRSA  
new



## VYR-3000 Micro-Twister

### AG Micro-Sprinklers

#### General properties:

- Modular assembly system.
- Quick barb and threaded connection.
- Manufactured in plastic Delrin for durability.
- Easy maintenance and cleaning.
- Nozzles in different color codes.
- Radius of irrigation : 360°.
- Optional anti-bugs cap .

#### Technical specifications:

- Range: 1,3-28 ft. (0,4-8,5 m).
- Flow: 0,1-0,7 GPM (130 - 290 l/h).
- OPTIONAL SELF-COMPENSATED!
- Working pressure: 16-44 PSI (1,1 - 3 BAR).
- Nozzles: Bayonet nozzles color coded.
- Nozzle angle: from 14° to +22°.
- Maximun jet height: 3,3 ft. (1,3 m.)

#### Aplications:

- These micro-sprinklers are suitable for undertree irrigation in areas with low pressure and low flow. Its long-range design "wind cutter" makes the spacing between sprinklers to be up to 23 ft. (7 m.).

#### Models:

- Ref. 430001: Body
- Ref. 003002: Black swivel, long range.
- Ref. 003003: Blue swivel, short range.
- Ref. 003004: Grey swivel, with deflector.
- Ref. 003005: Green swivel, upside down.
- Ref. 003006: Violet difuser.
- Ref. 003007: Anti-bugs cap.

- Ref. 003120: Grey nozzle with barb.
- Ref. 003121: White nozzle with barb.
- Ref. 003122: Brown nozzle with barb.
- Ref. 003123: Blue nozzle with barb.
- Ref. 003127: Black nozzle with barb.
- Ref. 003124: Green nozzle with barb.
- Ref. 003128: Red nozzle with barb.
- Ref. 003125: Yellow nozzle with barb.
- Ref. 003126: Violet nozzle with barb.

- Ref. 003220: Grey nozzle with thread.
- Ref. 003221: White nozzle with thread.
- Ref. 003222: Brown nozzle with thread.
- Ref. 003223: Blue nozzle with thread.
- Ref. 003227: Black nozzle with thread.
- Ref. 003224: Green nozzle with thread.
- Ref. 003228: Red nozzle with thread.
- Ref. 003225: Yellow nozzle with thread.
- Ref. 003226: Violet nozzle with thread.

- Ref. 003130: Spike 16 in. (40 cm).
- Ref. 003132: Double barb connector.
- Ref. 003133: Connector barb and thread.
- Ref. 003134: Double thread connector.
- Ref. 003135: Up-side-down weight stabilizer.
- Ref. 003136: Micro-pipe 6,5x4,5 mm of 24 in. (3280 ft).

- Ref. 430506: Self-comp. valve 6 GPH SILVER (22 L/H).
- Ref. 430508: Self-comp. valve 8 GPH ORANGE (30 L/H).
- Ref. 430510: Self-comp. valve 10 GPH GREY (38 L/H).
- Ref. 430512: Self-comp. valve 12 GPH GREY (45 L/H).
- Ref. 430514: Self-comp. valve 14 GPH VIOLETE (53 L/H).
- Ref. 430517: Self-comp. valve 17 GPH GREEN (64 L/H).
- Ref. 430520: Self-comp. valve 20 GPH YELLOW (76 L/H).
- Ref. 430525: Self-comp. valve 25 GPH RED (95 L/H).

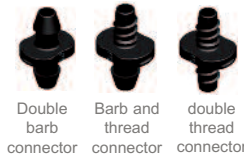


## VYR-3000 MicroTwister

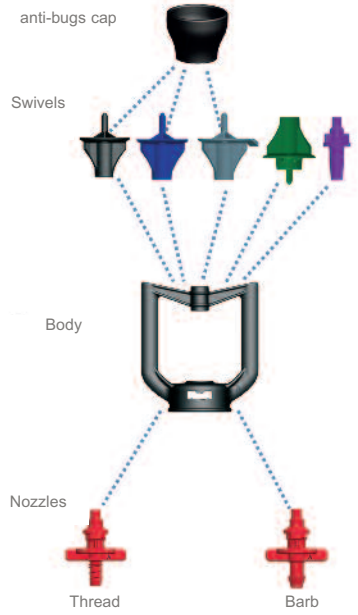
### Tables & Charts



Self-compensating valves for flow regulation.



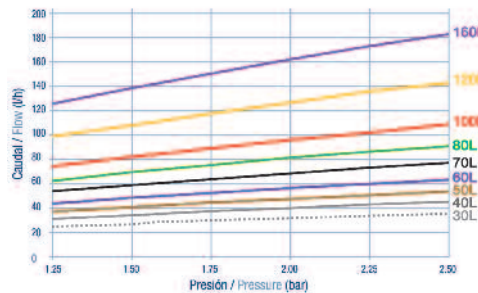
Double barb connector Barb and thread connector double thread connector



Número máximo de microaspersores en lateral Maximum number of micro-sprinklers							
Modelo Model	Diámetro tubería Pipe diameter	Separación de microaspersores* Spacing between micro-sprinklers (ft.)					
		6,6	9,8	13,1	16,4	19,7	23
Gris / Grey 7,9 GPH	1/2"	25	21	19	17	16	13
	3/4"	41	36	33	30	28	27
	1"	58	52	47	46	42	38
Blanco / White 10,6 GPH	1/2"	22	18	16	16	13	12
	3/4"	34	30	27	25	23	22
	1"	49	43	39	36	34	32
Marrón / Brown 13,2 GPH	1/2"	18	16	13	12	11	11
	3/4"	30	26	23	22	20	19
	1"	43	39	34	31	29	28
Azul / Blue 15,9 GPH	1/2"	15	13	12	11	10	9
	3/4"	26	23	21	19	18	17
	1"	38	33	30	28	26	24
Negro / Black 18,5 GPH	1/2"	14	11	10	9	8	8
	3/4"	23	20	18	16	15	14
	1"	33	29	26	24	22	21
Verde / Green 21,1 GPH	1/2"	11	10	9	8	7	7
	3/4"	20	17	16	14	13	12
	1"	29	25	23	21	20	20
Rojo / Red 26,4 GPH	1/2"	10	8	7	7	6	6
	3/4"	18	15	14	12	11	11
	1"	26	22	20	18	17	16
Amarillo / Yellow 31,7 GPH	1/2"	7	8	8	7	7	6
	3/4"	14	14	13	12	12	11
	1"	21	20	19	17	16	15
Violeta / Violet 42,3 GPH	1/2"	6	5	4	4	3	3
	3/4"	11	9	8	8	7	7
	1"	17	14	12	11	11	10

\* Presión de entrada 30 PSI (2 bar) / Inlet pressure 30 PSI (2 bar)

Modelo Model	q (l/h) · h (mca)
Gris / Grey 30L	$q = 6.75 \cdot h^{0.51}$
Blanco / White 40L	$q = 8.17 \cdot h^{0.53}$
Marrón / Brown 50L	$q = 9.48 \cdot h^{0.54}$
Azul / Blue 60L	$q = 11.50 \cdot h^{0.53}$
Negro / Black 70L	$q = 13.44 \cdot h^{0.54}$
Verde / Green 80L	$q = 16.13 \cdot h^{0.54}$
Rojo / Red 100L	$q = 18.44 \cdot h^{0.55}$
Amarillo / Yellow 120L	$q = 21.54 \cdot h^{0.55}$
Violeta / Violet 160L	$q = 31.50 \cdot h^{0.55}$



				Diámetro mojado / Wetted diameter (Ft.)				
Boquilla / Nozzle				Bailarinas / Swivels				Difusor / Sprayer
Modelo Model	Orificio boquilla Nozzle size (in)	Presión Pressure (PSI)	Caudal Flow (GPM)	Largo Alcance* Long range	Corto Alcance* Short range	Con deflector* Stream deflector	Invertida** Upside Down (Ft.)	Nebulizador Mist sprayer
Gris / Grey 7,9 GPH	1/42"	22	0,12	18	11,5	3	18	3,3
		29	0,14	18	11,5	5,9	18	3,3
Blanco / White 10,6 GPH	1/32"	22	0,15	19,7	11,5	3,9	19,7	3,6
		29	0,18	19,7	13,1	5,9	19,7	3,6
Marrón / Brown 13,2 GPH	3/72"	22	0,19	21,3	11,5	3,9	21,3	3,9
		29	0,21	21,3	13,1	5,9	21,3	3,9
Azul / Blue 15,9 GPH	3/64"	22	0,22	23	13,1	3,9	21,3	3,9
		29	0,25	26,2	13,1	5,9	21,3	3,9
Negro / Black 18,5 GPH	3/58"	22	0,26	24,6	13,1	3,9	21,3	4,3
		29	0,30	26,2	14,8	5,9	21,3	4,3
Verde / Green 21,1 GPH	3/52"	22	0,32	26,2	13,1	3,9	21,3	4,6
		29	0,36	27,9	14,8	5,9	21,3	4,6
Rojo / Red 26,4 GPH	1/16"	22	0,37	26,2	14,8	3,9	21,3	NR
		29	0,43	31,2	14,8	5,9	21,3	NR
Amarillo / Yellow 31,7 GPH	1/16"	22	0,48	27,9	16,4	5,4	21,3	NR
		29	0,56	31,2	18	5,9	26,2	NR
Violeta / Violet 42,3 GPH	5/64"	22	0,62	27,9	16,4	NR	23	NR
		29	0,72	29,5	19,7	NR	26,2	NR

ISO 7749 – ISO 15886 / ISO 7749 – ISO 15886 Standard.

\* Microaspersor dispuesto a 0,7 ft. (20 cm) del nivel del suelo. / Results at 0,7 ft. (20 cm) above the ground.

\*\* Altura respecto al suelo a 2 and 5 ft. (0.60 m y 1.50 m) / 2-5 ft. (0.6 m and 1.5 m) high above the ground.

NR: No recomendado / Not-recommended.

Rango de presión recomendado VYR MicroTwister: 19-36 PSI (1.3 - 2.5 bar) / VYR MicroTwister recommended working pressure: 19-36 PSI (1.3 - 2.5 bar)

Todas las bailarinas pueden llevar anti-insectos excepto la invertida y el nebulizador.

The anti-insect device can be used with all the swivels except the upside-down one and the mist-sprayer.



Adjustable angle

 $\angle -8 / 25^\circ$ 

ref. 003100

1/2"



## VYR-3100 Mini-Sprinkler

### Full circle AG

#### General properties:

- Low flow rotational sprinkler, with silicom technology.
- Color coded bayonet nozzle with adjustable jet angle from  $-8^\circ$  to  $+25^\circ$ .
- Riser-mounted 1/2" male connection.
- Made of Delrin plastic.
- High-resistance rotating joints.
- Colour-coded bayonet nozzles.
- Arc:  $360^\circ$ .
- Silicon brake technology.

#### Technical specifications:

- Range distance: 1,3-28 ft. (0,4 - 8,5 m).
  - Flow: 0,6-1,3 GPM (130-290 L/h). Auto-compensated
- OPTIONAL!
- Working pressure: 17 - 44 PSI (1,2 - 4 BAR).
  - Nozzle: Colour-coded from  $-8^\circ$  to  $+25^\circ$ . ADJUSTABLE!
  - Maximum height of waterjet: 9 ft. (2,7 m).

#### Applications:

- This low-flow rotator sprinkler is suitable for irrigation in areas with low pressure and flow. Its long range "wind-fighter" design means that the spacing between sprinklers can be up to 28 ft (8 m).

#### Dimensions:

- Height: 2,56 in (6,5 cm).
- Width: 3,15 in (8,0 cm).
- Weight: 0,6 lbs. (24 grs).
- Units per box: 200

#### Options:

- Threads in BSP or NPT under demand.
- Self-compensating flow control valves of 29 - 73 PSI (2-5 BAR).
- Assembled on a "AGRO-STAND kit" on a 3,3 ft. (1.3 m) galvanized stake with microtube and connectors.

#### Models:

Ref. 031000: Full-circle Micro-Rotaplus 1/2" M

For proper operation and uniform irrigation using self-compensating membranes is recommended for "Agro-Stand", or fix pressure regulators .










# VYR-3100 MiniSpinner

## Tables & Charts

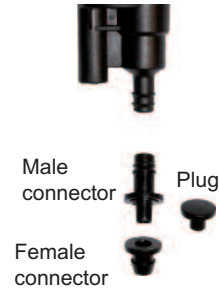
Technical guidance table for CU's of VYR-3100

NOZZLE COLOR	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)		
				20x20	23x23	26x26
BLUE 	29,0	34,3	21,3	0,09	0,07	0,05
	36,3	38,0	23	0,11	0,08	0,06
	43,5	41,5	24,6	0,12	0,09	0,07
GREEN 	29	51,0	23	0,14	0,11	0,09
	36,3	55,5	24,6	0,16	0,13	0,11
	43,5	60,8	26,2	0,17	0,14	0,12
RED 	29,0	61,5	23	0,16	0,11	0,08
	36,3	68,7	24,6	0,18	0,13	0,10
	43,5	80,0	26,2	0,19	0,15	0,11

P: Pressure D: Distance (Range Radius).  
Q: Flow at real test

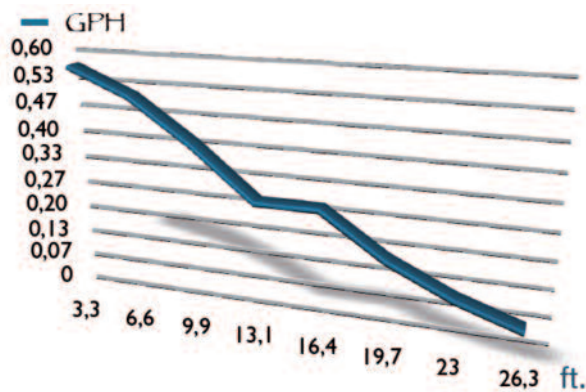
CU<85% CU 85-88% CU 88-92% CU>92%

Sprinkler stand



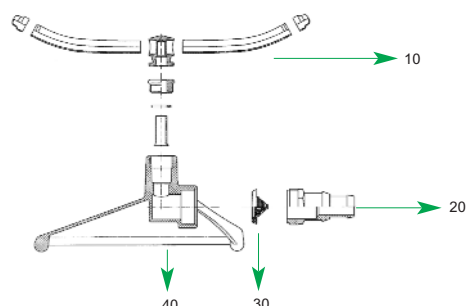
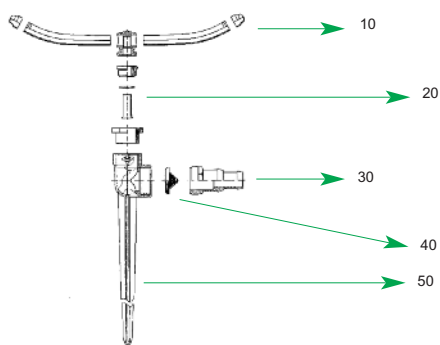
Sample chart for precipitation test

PSI	43,5
Flow	137,8 GPH
Nozzles	GREEN
Center	VYR
Rot. Veloc.	0,7 min/rev.
Height	2 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	10/04/2011



Self-compensation  
valve





ref. 086800



ref. 486802

## VYR-868 & VYR-968

### Rotative Overhead Sprinklers

#### General properties:

- Three-arm rotating sprinkler for gardening, agriculture, floriculture and greenhouses.
- Connection of the 3/8" male rotating head, and connection of the spike with a 15 and 20 mm hose coupling.
- Sprinkler made of chrome-plated brass and copper, and there are three models for the spike: plastic, aluminium and brass.
- Steel and rubber rotating joints.
- Three rotating perforated arms and spray sprinklers.
- Anti-sand filter.
- This sprinkler is strong and durable enough to work for many years in urban gardens in tough conditions, caused by vandalism and impact from maintenance equipment.

#### Technical specifications:

- Reach: 13-24 ft. (4 - 7 m).
- Flow: 1,6-4,6 GPM (360 - 1,044 l/h).
- Working pressure: 7,25-50 PSI (0.5 - 3.5 bar).
- Area: Circular.
- Nozzles: A multi-jet nozzle.
- Maximum stream height: 6,5 ft (2 m).
- Rotation time: Irregular
- Uniformity coefficient higher than 90% in areas of 17x17R, 20x20T, 20x24T.

#### Applications:

- Public and private gardens.
- Horticultural plantations, floriculture and fruit trees.

#### Measurements:

- Width: 4,5 in. (12 cm).
- Sprinkler height: 5,10 in. (13 cm).
- Weight: 0,5 lb. (220 g).
- Units per box: 100.

#### Options:

- Adapter with reduction for 1/2" male.
- Assembled as a "complete support kit" on an aluminium base.
- Assembled as a "complete support kit" on a 1.3 or 0.7 m galvanized stake with microtube and connectors.
- Assembled as a "complete support kit" on a 1.3 or 0.7 m galvanized stake with microtube and connectors.

#### Models:

Ref. 086800: Sprinkler + triangular base.

Ref. 486804: 3 arm sprinkler.

Ref. 096800: Sprinkler + brass spike.

Ref. 096810: Sprinkler + aluminium spike.

Ref. 096820: Sprinkler + plastic spike.

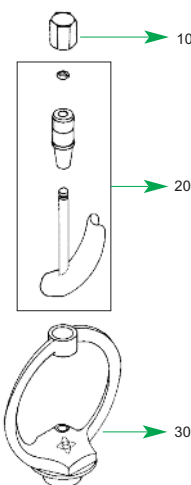
Ref. 486820: Reduced nut adapter 3/8" to 1/2".

Ref. 196802: Rubber gasquet & conical filter.





**ref. 005900**



**ref. 005910**



**ref. 486802**

## VYR-59

### Rotative Overhead Sprinklers

#### General properties:

- Riser-mounted rotating sprinkler for gardening, agriculture, floriculture and greenhouses.
- 1/2" male connection.
- Made of chrome-plated Zamac and copper.
- Steel and rubber rotating joints.
- Rotating diffuser and deflector.
- This sprinkler is strong and durable enough to work for many years in urban gardens in tough conditions, caused by vandalism and impact from maintenance equipment.

#### Technical specifications:

- Reach: 13-20 ft (4 - 6 m).
- Flow: 1,6-4,6 GPM (360 - 1,044 l/h).
- Working pressure: 7,25-50 PSI (0.5 - 3.5 bar).
- Area: Circular.
- Nozzles: One nozzle.
- Trajectory angles: 38°.
- Maximum stream height: 8,5 ft. (2.5 m).
- Rotation time: Irregular
- Uniformity coefficient higher than 90% in areas of 33x33R, 40x40T, 40x43T (ft).

#### Applications:

- Public and private gardens.
- Horticultural plantations, floriculture and fruit trees.
- Also for other industrial uses (cleaning out troughs and tankers) or with livestock (irrigation for pig farms to add moisture and lower the temperature).

#### Measurements:

- Width: 3,95 in (10 cm).
- Sprinkler height: 3,55 in. (9 cm).
- Weight: 0,32 lb. (144 g).
- Units per box: 150.

#### Options:

- Assembled as a "complete support kit" on a brass, aluminium or plastic spike.
- Assembled as a "complete support kit" on an aluminium base.
- Assembled as a "complete support kit" on a 3,3 or 1,6 ft. (1,3 or 0,7 m) galvanized stake with microtube and connectors.

#### Models:

**Ref. 005900:** Standard cromed sprinkler VYR-59.

**Ref. 005910:** VYR-59 cromed + rounded base.

**Ref. 196800:** Rubber gasquet & conical filter.



ref. 103271



ref. 003250



ref. 103251

1/2"



## VYR-3250 AGRO-PLUS

### Full circle AG

#### General properties:

- Riser-mounted 1/2" male connection.
- Made of Delrin plastic.
- High-resistance rotating joints.
- Colour-coded bayonet nozzles.
- Arc: 360° and 180°.

#### Technical specifications:

- Range distance: 28-39 ft. (8 - 12 m).
- Flow: 1,6-3,3 GPM. Self-compensated is OPTIONAL!
- Working pressure: 17- 44 PSI (1,2 - 3 BAR).
- Nozzle: Colour-coded at 25°, and low angle for 10° and 14°.
- Maximum height of waterjet: 8,9 ft. (2,7 m).

#### Applications:

- This low-flow rotative sprinkler is suitable for irrigation in areas with low pressure and flow. Its long range "wind fighter" design means that the spacing between sprinklers can be up to 39,4 ft (12 m).

#### Dimensions:

- Height: 4,5 in.
- Width: 2 in.
- Weight: 55 grs.
- Units per box: 100

#### Options:

- Threads in BSP or NPT under demand.
- 180 degree deflector.
- Self-compensating flow control valves of 29-73 PSI (2-5 BAR).
- Assembled on a "AGRO-STAND kit" on a 4,3 ft galvanized stake with microtube and connectors.

#### Models:

- Ref. 003250:** Full-circle Rotator 1/2" M - 25°.
- Ref. 003264:** Full-circle Rotator 1/2" M - 14°.
- Ref. 003260:** Full-circle Rotator 1/2" M - 10°.
- Ref. 103271:** Deflector 180°.
- Ref. 103251:** Kit sprinkler + deflector 180°.
- Ref. 103273:** Self-compensating valve (OPTIONAL).
- Ref. 103250:** Rotator 25° + Agro-Stand.
- Ref. 103254:** Rotator 14° + Agro-Stand.
- Ref. 103255:** Rotator 10° + Agro-Stand.



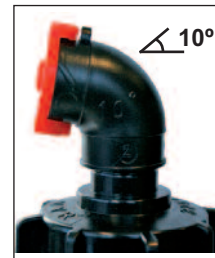
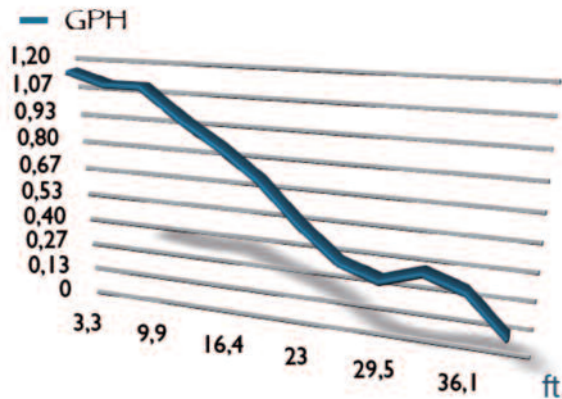


## VYR-3250

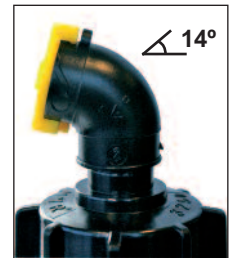
### Tables & Charts

Sample chart for precipitation test

PSI	43,5
Flow	169 GPH
Nozzles	RED
Center	VYR
Rot. Veloc.	14 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	10/06/2011



ref. 003260



ref. 003264

Technical guidance table for CU's of VYR-3250 - 25°

NOZZLE COLOR	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				30x30	30x33	30x39	33x33	33x39	39x39
BLUE	36	95	27,9	0,17	0,16	0,13	0,14	0,12	0,10
	44	104	29,5	0,19	0,17	0,15	0,16	0,13	0,11
	51	112	29,5	0,20	0,19	0,15	0,17	0,14	0,12
	58	120	29,5	0,22	0,20	0,17	0,18	0,15	0,13
SELF-COMPENS.	2,5-5	95	27,9	0,18	0,16	0,13	0,14	0,12	0,10
YELLOW	36	119	31,2	0,22	0,20	0,17	0,18	0,15	0,12
	44	131	31,2	0,24	0,22	0,18	0,20	0,16	0,13
	51	140	32,8	0,26	0,23	0,19	0,21	0,17	0,15
	58	151	32,8	0,28	0,25	0,21	0,22	0,19	0,16
SELF-COMPENS.	2,5-5	119	31,2	0,22	0,20	0,17	0,18	0,15	0,12
GREEN	36	145	34,4	0,27	0,24	0,20	0,22	0,18	0,15
	44	159	36,1	0,29	0,26	0,22	0,24	0,20	0,17
	51	172	36,1	0,31	0,28	0,24	0,26	0,21	0,18
	58	184	36,1	0,34	0,30	0,25	0,28	0,23	0,19
SELF-COMPENS.	2,5-5	145	34,4	0,27	0,24	0,20	0,22	0,18	0,15
RED	36	177	37,7	0,31	0,28	0,23	0,25	0,21	0,17
	44	188	37,7	0,34	0,31	0,26	0,28	0,23	0,19
	51	203	39,4	0,37	0,33	0,28	0,30	0,25	0,21
	58	217	39,4	0,40	0,36	0,30	0,32	0,27	0,22
SELF-COMPENS.	2,5-5	177	37,7	0,33	0,28	0,24	0,26	0,21	0,18

BROWN	36	85	26,2
	44	92	26,2
	51	100	26,2
	58	107	26,2
SELF-COMPENS.	2,5-5	85	26,2

Only for side 180° deflector

CU<85% CU 85-88% CU 88-92% CU>92%

P: Pressure  
Q: Flow at real test  
D: Distance (Range Radius).



Standard nozzle

- Sprinklers will be supplied with standard nozzles unless otherwise specified.  
- These results has been obtained at indoor laboratory with 0 m/seg win velocity. Outdoor results may change range distances.

Sprinkler stand



Male connector  
Female connector  
Plug



Galvanized stand

1,3 m

Micro-pipe 13mm

P: Pressure D: Distance (Range Radius).  
Q: Flow at real test



Self-compensated valve

**VYR-16****Full circle AG****General properties:**

- Riser-mounted low flow sprinkler.
- 1/2" male connection.
- Made of plastic and stainless steel.
- High-resistance rotating joints.
- Adjustable spring tension system to vary the rotation speed depending on the pressure.
- Variable multifunction arm so the same sprinkler can be used as a medium angle model (26° main and 8° secondary), or as a low angle model (8° main and 26° secondary). (PATENT PENDING)

**Technical specifications:**

- Range distance: 33-40 ft. (10-12 m).
- Flow: 0,4-3,25 GPM (168 - 1450 l/h).
- Working pressure: 22-51 PSI (1,5 - 3,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles, one long range and one short range.
- Colour-coded "click" bayonet nozzles.
- Trajectory angles: 26° and 8°.
- Maximum height of waterjet: 9,2-3,3 ft. (2.8m-1m) (low angle).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous (adjustable).
- Uniformity coefficient higher than 90% in areas of 26x26R, 26x33T ft.

**Dimensions:**

- Height: 4,3 in.
- Width: 5 in.
- Weight: 0,11 lb.
- Units per box: 300.

**Options:**

- Threads in BSP or NPT under demand.
- Standard or low angle assembly, as requested in the order.
- Self-compensating flow control valves of 30-75 PSI (2-5 BAR).
- Assembled as a "Agro-Stand" on a 4,3 ft. galvanized stake with microtube and connectors.

**Applications:**

Low flow plantations such as cotton. Ideal, given its low angle, for the irrigation of banana trees and other similar fruit trees.

**Models:**

**Ref. 001600:** Standard angle.

**Ref. 001610:** Low angle.

**Ref. 101600:** Standard angle + Agro-Stand.

**Ref. 101610:** Low angle + Agro-Stand.








## VYR-16

### Tables & Charts

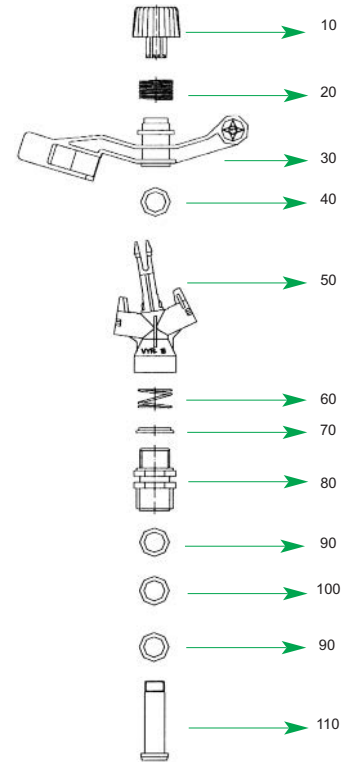
Technical guidance table for CU's of VYR-16

NOZZLE COLOR	P (PSI)	Q (GPM)	D (Ft.) Radius	Spacing (ft.) /Precipit. rate (in/h)					
				3030 Rect.	3030 Triang.	30x33 Rect.	33x33 Triang.	33x39 Triang.	39x39 Rect.
3/32"x 0,10" STANDARD ANGLE 	29	10320	36,1	0,31	0,29	0,28	0,24	0,18	0,18
	36	11580	36,1	0,35	0,33	0,32	0,26	0,20	0,20
	44	12660	39,4	0,39	0,36	0,35	0,29	0,22	0,22
0,12"x 3/32" STANDARD ANGLE 	29	13140	39,4	0,40	0,37	0,36	0,30	0,22	0,23
	36	14700	39,4	0,45	0,42	0,41	0,34	0,25	0,25
	44	16080	39,4	0,49	0,46	0,44	0,37	0,27	0,28
1/8"x 0,10" STANDARD ANGLE 	29	13800	39,4	0,42	0,39	0,38	0,31	0,23	0,24
	36	15420	39,4	0,47	0,44	0,43	0,35	0,26	0,27
	44	16860	39,4	0,52	0,48	0,46	0,39	0,29	0,29

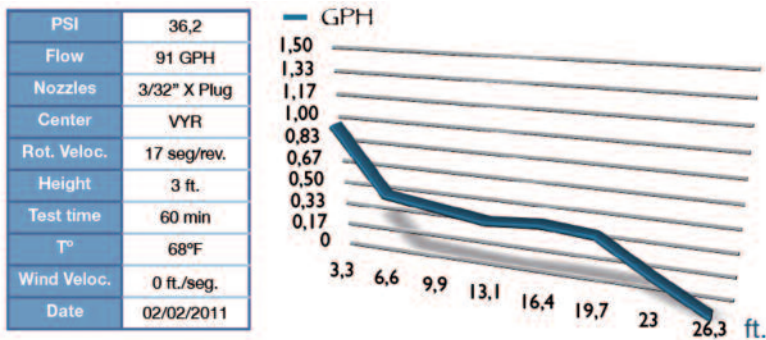
P: Pressure D: Distance (Range Radius).

Q: Flow at real test

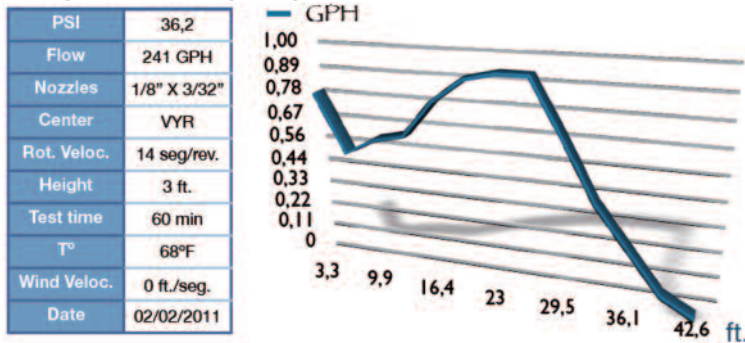
CU<85% CU 85-88% CU 88-92% CU>92%



Sample chart for precipitation test VYR-16 LA











Sample chart for precipitation test VYR-16



### Low-Angle/Standar-Angle Conversion



Nozzle performance table of VYR-16

								
	1/16" 1,8 mm. slotted flat	5/64" 2,0 mm. slotted flat	0,102" 2,4 mm. round conic	3/32" 2,6 mm. squared flat	7/64" 2,8 mm. round conic	0,117" 3 mm. round conic	1/8" 3,2 mm. round conic	9/64" 3,6 mm. round conic
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
22	0,42	59,1	0,74	68,9	1,25	68,9	1,30	68,9
29	0,44	60,7	0,86	70,5	1,52	70,5	1,57	70,5
36	0,46	62,3	0,96	72,2	1,67	72,2	1,72	70,5
44	0,51	64	1,04	73,8	1,74	73,8	1,78	73,8
51	0,55	64	1,10	73,8	1,78	73,8	1,82	73,8



STANDARD

Ø ft. : Diameter of coberage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- These results has been obtained at indoor laboratory with 0 m/seg win velocity. Outdoor results may change range distances.



**VYR-26****Full circle AG****General properties:**

- Riser-mounted low flow sprinkler.
- 1/2" male connection.
- Made of plastic and stainless steel.
- High-resistance rotating joints.
- Quick-coupling bayonet nozzles, color-coded for easy identification.

**Technical specifications:**

- Range distance: 33-40 ft. (10-12 m).
- Flow: 0,4-5,5 GPM (168 - 1450 l/h).
- Working pressure: 22-51 PSI (1,5 - 3,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles, one long range and the other short range.
- Trajectory angles: 26° and 18°.
- Maximum height of waterjet: 9,8 ft. (3,0 m).
- Uniformity coefficient higher than 90% in areas of 33x33R, 40x33T ft.

**Applications:**

- Low flow irrigation such as cotton, vegetables, floriculture, strawberry plants, etc.

**Dimensions:**

- Height: 4,7 in (12 cm).
- Width: 4,7 in (12 cm).
- Weight: 0,11 lb.
- Units per box: 300.

**Options:**

- Threads in BSP or NPT under demand.
- Standard assembly or with frost protection cover, as requested in the order.
- Self-compensating flow control valves of 22 & 30 PSI (1.5 and 2 bar).
- Device with "part circle click" connection to the secondary nozzle to turn this model into a part circle sprinkler.
- Assembled as a "complete support kit" on a 3,3 ft. galvanized stake with microtube and connectors.

**Models:**

**Ref. 002600:** Full circle.

**Ref. 002610:** VYR-26 with Anti-frost cap.

**Ref. 002620:** Full circle, GERMINATION.

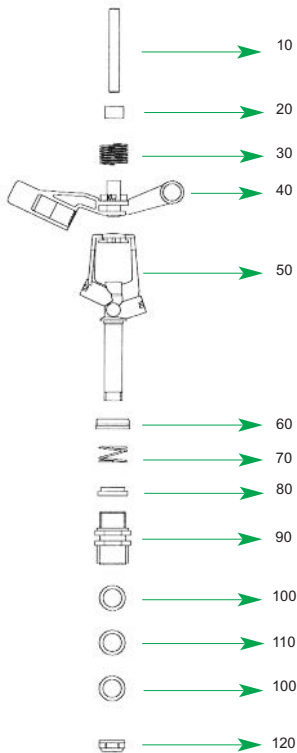
**Ref. 002625:** Full circle with Anti-frost cap, GERMINATION.




**Ref. 102660:** Nozzle tool.








## Tables & Charts

## GERMINATION

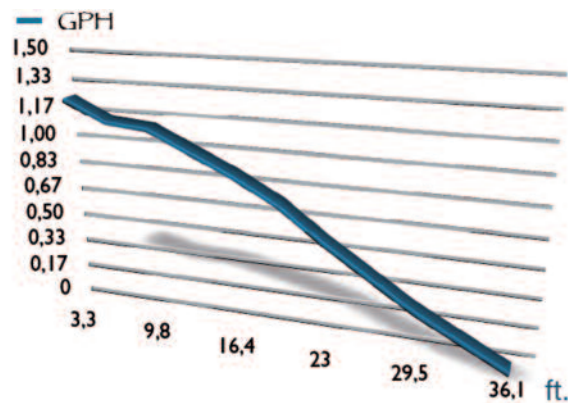


NOZZLE COLOR	P (PSI)	Q (GPH)	D (Ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)							
				33x33 Rect.	33x33 Triang.	39x33 Triang.	39x39 Rect.	39x39 Triang.	46x39 Triang.	46x46 Rect.	46x46 Triang.
 3/32" x 1/16"	36,3	92,5	32,8	0,21	0,21	0,17	0,15	0,15	0,13	0,11	0,11
	43,5	101,7	32,8	0,24	0,24	0,20	0,17	0,17	0,14	0,12	0,12
	50,8	113,6	32,8	0,26	0,26	0,21	0,18	0,18	0,15	0,13	0,13
 3/28" x 1/16"	36,3	103,0	36,1	0,21	0,21	0,18	0,15	0,15	0,13	0,11	0,11
	43,5	113,6	36,1	0,23	0,23	0,19	0,16	0,16	0,14	0,12	0,12
	50,8	121,5	36,1	0,22	0,22	0,19	0,16	0,16	0,13	0,11	0,11
 3/26" x 1/16"	36,3	111,0	32,8	0,22	0,22	0,19	0,16	0,16	0,14	0,12	0,12
	43,5	120,2	32,8	0,23	0,23	0,20	0,17	0,17	0,13	0,12	0,12
	50,8	134,7	32,8	0,24	0,24	0,20	0,17	0,17	0,15	0,13	0,13














NOZZLE COLOR	P (PSI)	Q (GPH)	D (Ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)							
				33x33 Rect.	33x33 Triang.	39x33 Rect.	39x39 Rect.	39x39 Triang.	46x39 Rect.	46x46 Rect.	46x46 Triang.
 7/64" x 1/16"	29	180	36,1	0,27	0,27	0,22	0,19	0,19	0,16	0,13	0,13
	44	197	36,1	0,29	0,29	0,24	0,20	0,20	0,17	0,15	0,15
	58	211	37,7	0,31	0,31	0,26	0,22	0,22	0,19	0,16	0,16
 0,12" x 1/16"	29	198	36,1	0,30	0,30	0,24	0,20	0,20	0,17	0,15	0,15
	44	221	37,7	0,33	0,33	0,26	0,22	0,22	0,19	0,16	0,16
	58	232	37,7	0,35	0,35	0,28	0,24	0,24	0,20	0,17	0,17
 1/8" x 3/32"	29	214	37,7	0,32	0,32	0,26	0,22	0,22	0,19	0,16	0,16
	44	234	39,4	0,35	0,35	0,29	0,24	0,24	0,20	0,17	0,17
	58	254	39,4	0,38	0,38	0,31	0,26	0,26	0,22	0,19	0,19
 9/64" x 3/32"	29	275	39,4	0,39	0,39	0,34	0,28	0,28	0,24	0,20	0,20
	44	291	41,0	0,43	0,43	0,37	0,31	0,31	0,26	0,22	0,22
	58	312	41,0	0,43	0,43	0,39	0,33	0,33	0,28	0,23	0,23
 5/32" x 3/32"	29	320	41,0	0,47	0,47	0,40	0,33	0,33	0,28	0,24	0,24
	44	349	42,7	0,51	0,51	0,44	0,37	0,37	0,31	0,26	0,26
	58	370	42,7	0,51	0,51	0,47	0,39	0,39	0,33	0,28	0,28

CU<85% CU 85-88% CU 88-92% CU>92%

PSI	44
Flow	180 GPH
Nozzles	7/64" X 1/16"
Center	VYR
Rot. Veloc.	7 seg/rev
Height	3,3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 m/seg.
Date	5/09/2012



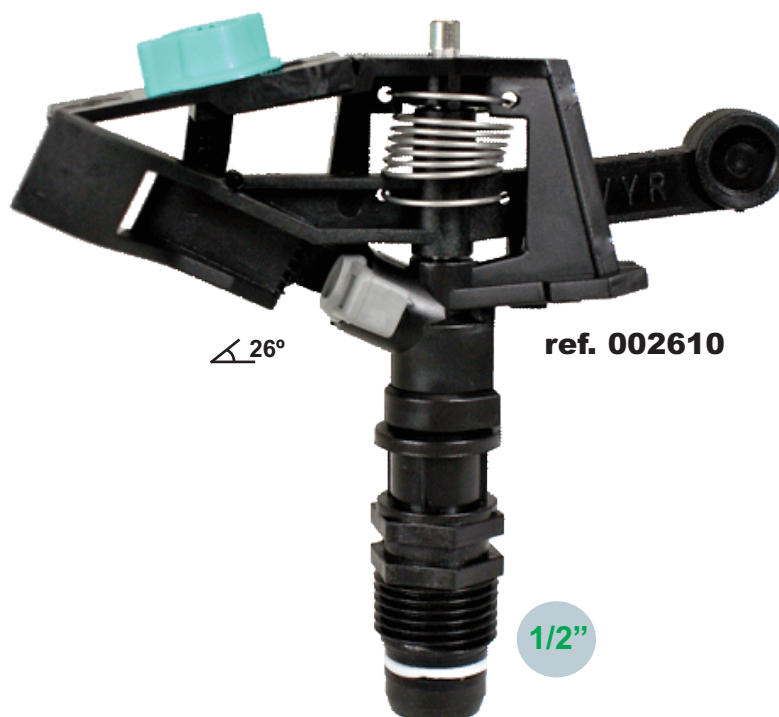
## Nozzle performance table of VYR-26

																								
	1/16" 1,6 mm. slotted flat		5/64" 2,0 mm. slotted flat plana		0,094" 2,4 mm. slotted flat		0,102" 2,5 mm. round flat		3/32" 2,6 mm. square flat		7/64" 2,8 mm. rounded conical		0,117" 3 mm. rounded conical		1/8" 3,2 mm. rounded conical		9/64" 3,6 mm. rounded conical		5/32" 4 mm. rounded conical					
PSI	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.				
29	0,44	52	0,69	59	1,00	66	1,08	72	1,50	75	1,91	77	2,19	77	2,49	82	3,15	84	3,89	84				
36	0,49	52	0,77	59	1,12	66	1,21	72	1,67	75	2,13	77	2,45	79	2,74	82	3,52	84	4,35	85				
44	0,54	52	0,85	59	1,22	69	1,36	75	1,83	75	2,33	79	2,68	80	3,05	83	3,86	84	4,76	85				
51	0,59	52	0,92	59	1,32	69	1,47	75	1,98	76	2,52	79	2,89	80	3,29	84	4,17	84	5,15	86				
58	0,63	52	0,98	59	1,41	69	1,61	75	2,11	77	2,69	79	3,10	82	3,52	84	4,46	84	5,50	86				



Ø ft. : Diameter of coberage

- These results has been obtained at indoor laboratory with 0 m/seg win velocity. Outdoor results may change range distances.



## VYR-802 AG

Full circle AG

### General properties:

- Part-circle plastic impact sprinkler for gardening, agriculture, floriculture and greenhouses.
- 1/2" male connection.
- Made of plastic, brass and stainless steel.
- High-resistance rotating joints.
- Arm with anti-splash design.
- Adjustable deflector plate.
- Upper "clip" for positioning inside a casing (VYR-962 AQUA-PRO).
- Irrigation area system controlled by rotating clips.
- Adjustable jet breaker diffuser pin.
- Its versatility and adaptability to all type of gardens make this model one of most common for home gardening.
- This model is also used in low flow agricultural irrigation systems as a complementary part-circle model to VYR-26 and VYR-16.

### Technical specifications:

- Reach: 33-43 ft. (10-13 m).
- Flow: • Caudal: 2-5,2 GPM (460 - 1,180 l/h).
- Working pressure: 22-58 PSI (1,5 - 4 BAR).
- Area: Full circle.
- Nozzles: A multi-jet nozzle.
- Trajectory angles: 25°.
- Maximum stream height: 8 ft. (2,5 m).
- Rotation time: Adjustable. Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 33x33R, 39x39T, 39x43T ft.

### Applications:

- Public and private gardens.
- Horticultural plantations, floriculture and fruit trees.

### Measurements:

- Width: 4,7 in. (12 cm).
- Sprinkler height: 4,7 in. (12 cm).
- Weight: 0,15 lbs. (70 grs).
- Units per box: 150.

### Options:

- Available with a brass arm for faster and more consistent rotation (in areas with strong winds).
- Self-compensating flow control valves of 36 PSI (2,5 BAR).
- Assembled as a "complete support kit" on a 3,3 ft. or 1,6 ft. galvanized stake with microtube and connectors.
- Assembled as a "complete support kit" on a brass, aluminium or plastic spike.
- Assembled as a "complete support kit" on an aluminium base.

### Models:

Ref. 008023: VYR-802 full circle plastic arm.

Ref. 008025: VYR-802 full circle brass arm.







## VYR-802 AG

### Tables & Charts

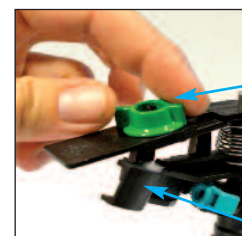
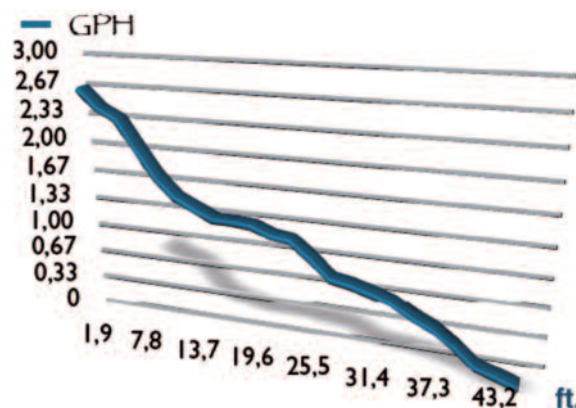
Technical guidance table for CU's of VYR-802

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				30x30 Rect.	30x30 Triang.	33x33 Rect.	33x33 Triang.	33x39 Triang.	39x39 Triang.
0,12" 3,0 mm.	36	208	39	0,26	0,24	0,18	0,17	0,16	0,14
	44	228	39	0,30	0,27	0,21	0,20	0,19	0,16
	51	246	39	0,33	0,30	0,23	0,22	0,21	0,18
9/64" 3,6 mm.	36	257	39	0,35	0,32	0,25	0,24	0,22	0,19
	44	281	39	0,40	0,36	0,28	0,27	0,25	0,21
	51	304	43	0,44	0,40	0,31	0,30	0,28	0,24
5/32" 4,0 mm.	36	367	43	0,45	0,41	0,33	0,31	0,29	0,24
	44	340	43	0,51	0,46	0,37	0,35	0,32	0,27
	51	367	44	0,56	0,51	0,41	0,39	0,36	0,30

P: Presión D: Distancia. Radio de alcance  
Q: Caudal en Prueba Real

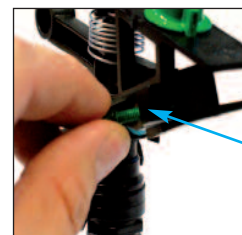
CU<75% CU 75-82% CU 83-89% CU>90%

PSI	44
Flow	277 GPH
Nozzles	5/32"
Center	VYR
Rot. Veloc.	18 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	15/03/2010

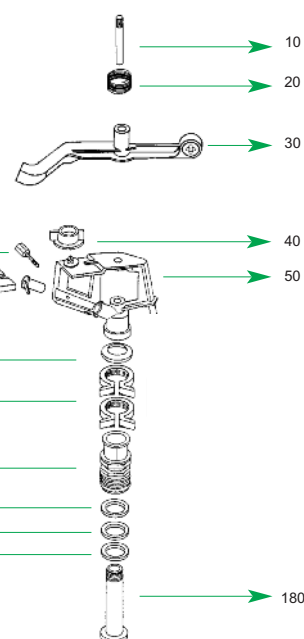


Ajustable deflector plate

Anti back-splash arm



Adjustable diffuser pin



Nozzle performance table of VYR-802

	0,117" 3,0 mm.		9/64" 3,5 mm.		5/32" 4 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
22	1,98	65,5	2,55	69	3,22	72
29	2,25	69	2,90	72	3,73	75,5
36	2,42	72	3,25	75,5	4,18	79
44	2,77	75,5	3,57	75,5	4,53	79
51	3,00	75,5	3,83	79	4,88	82
58	3,17	79	4,10	82	5,20	85,5



STANDARD

Ø ft.: Diameter of coverage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- These results has been obtained at indoor laboratory with 0 m/seg win velocity. Outdoor results may change range distances.



ref. 002630

14°

1/2"



ref. 002631



ref. 102640

GERMINATION



ref. 102641

GERMINATION

## VYR-26 LA

Full circle AG

### General properties:

- Riser-mounted low flow sprinkler, one nozzle and low angle.
- Model with cover for FROST PROTECTION.
- Made of plastic and stainless steel.
- High-resistance rotating joints.
- Quick-coupling bayonet nozzles, color-coded for easy identification.

### Technical specifications:

- Reach: 26-33 ft. (8-10 m).
- Flow: 0,7-5,5 GPM (345 - 990 l/h).
- Working pressure: 22-51 PSI (1,5 - 3,5 BAR).
- Area: Full circle.
- Nozzles: one nozzle, one long range.
- Trajectory angles: 14°.
- Maximum height of waterjet: 5 ft. (low angle).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 26x26R, 26x33T ft.

### Applications:

- Low flow irrigation such as cotton, vegetables, floriculture, strawberry plants, etc.
- Ideal in areas where the user prefers to take the sprinkler sets home once irrigation is complete, thanks to its quick coupling connection design.

### Dimensions:

- Height: 6,3 in.
- Width: 4,7 in.
- Weight: 0,14 lbs.
- Units per box: 250

### Options:

- Threads in BSP or NPT under demand.
- Standard assembly or with frost protection cover, as requested in the order.
- Assembled as a "complete support kit" on a 3,3 ft. ó 2 ft. galvanized stake with microtube and connectors.

### Models:

**Ref. 002630:** LOW-ANGLE 14°.

**Ref. 002631:** LOW-ANGLE 14° with anti-frost cap.

**Ref. 002640:** L-A 14°, GERMINATION.

**Ref. 002641:** L-A 14° + anti-frost cap, GERMINATION.

**Ref. 102660:** Nozzle tool.





# VYR-26 LA

## Tables & Charts



Color coded bayonet nozzles



Quick-coupling tool for bayonet nozzles

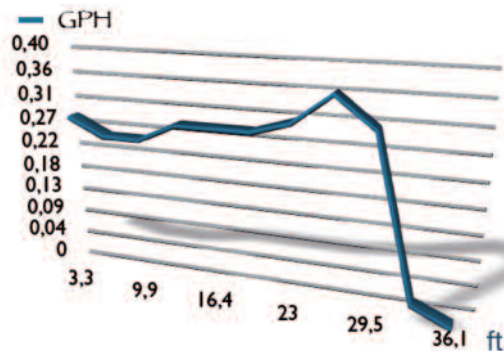
Technical guidance table for CU's of VYR-26 LA

NOZZLE	P (PSI)	Q (GPM)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				30x30 Triang.	30x33 Triang.	30x39 Triang.	33x33 Triang.	33x39 Triang.	39x39 Rectg.
3/32" 2,4 mm.	29	1,30	31,2	0,17	0,16	0,13	0,14	0,12	0,10
	36	1,57	32,8	0,19	0,17	0,15	0,16	0,13	0,11
	44	1,72	34,4	0,20	0,19	0,15	0,17	0,14	0,12
	51	1,80	34,4	0,22	0,20	0,17	0,18	0,15	0,13
7/64" 2,8 mm.	29	1,98	32,8	0,22	0,20	0,17	0,18	0,15	0,12
	36	2,18	32,8	0,24	0,22	0,18	0,20	0,16	0,13
	44	2,33	34,4	0,26	0,23	0,19	0,21	0,17	0,15
	51	3,30	36,1	0,28	0,25	0,21	0,22	0,19	0,16
0,12" 3 mm.	29	2,42	32,8	0,27	0,24	0,20	0,22	0,18	0,15
	36	2,65	34,4	0,29	0,26	0,22	0,24	0,20	0,17
	44	2,87	36,1	0,31	0,28	0,24	0,26	0,21	0,18
	51	3,07	37,7	0,34	0,30	0,25	0,28	0,23	0,19
0,13" 3,5 mm.	29	3,02	34,4	0,31	0,28	0,23	0,25	0,21	0,17
	36	3,20	36,1	0,34	0,31	0,26	0,28	0,23	0,19
	44	3,50	37,7	0,37	0,33	0,28	0,30	0,25	0,21
	51	3,68	39,4	0,40	0,36	0,30	0,32	0,27	0,22











P: Pressure D: Distance (Range Radius).  
Q: Flow at real test

CU<75% CU 75-82% CU 83-89% CU>90%

PSI	36,2
Flow	92,5 GPH
Nozzles	7/64" GREEN
Center	VYR
Rot. Veloc.	20 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	11/04/2012



Nozzle performance table of VYR-26

																		
	5/64" 2,0 mm. slotted flat		0,094" 2,4 mm. slotted flat		0,102" 2,5 mm. rounded flat		3/32" 2,6 mm. squared flat		7/64" 2,8 mm. rounded conical		0,117" 3 mm. rounded conical		1/8" 3,2 mm. rounded conical		9/64" 3,6 mm. rounded conical		5/32" 4 mm. rounded conical	
PSI	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.	GPM.	Ø ft.
29	0,69	59	1,00	66	1,08	72	1,50	75	1,91	77	2,19	77	2,49	82	3,15	84	3,89	84
36	0,77	59	1,12	66	1,21	72	1,67	75	2,13	77	2,45	79	2,74	82	3,52	84	4,35	85
44	0,85	59	1,22	69	1,36	75	1,83	75	2,33	79	2,68	80	3,05	83	3,86	84	4,76	85
51	0,92	59	1,32	69	1,47	75	1,98	76	2,52	79	2,89	80	3,29	84	4,17	84	5,15	86
58	0,98	59	1,41	69	1,61	75	2,11	77	2,69	79	3,10	82	3,52	84	4,46	84	5,50	86



STANDARD

Ø ft.: Diameter of coverage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- These results has been obtained at indoor laboratory with 0 m/seg win velocity. Outdoor results may change range distances.



# AgroStand

Accesorios Agro-Stand

## General properties:

- Sprinkler Stand System for 1/2" thread models.
- 3,3 ft. height steel spike, which 12-16 in. are stuck into the ground.
- Made of hi-quality PVC & POM plastics.
- Security-Lock for pipe connection.
- Working pressure of 0-90 PSI (0-6 BAR).



## Full set AgroStand



ref. 102670



ref. 496619



50 units Box with full assembled Agro-Stand



Self-compensating Valve



## greenflex pipes

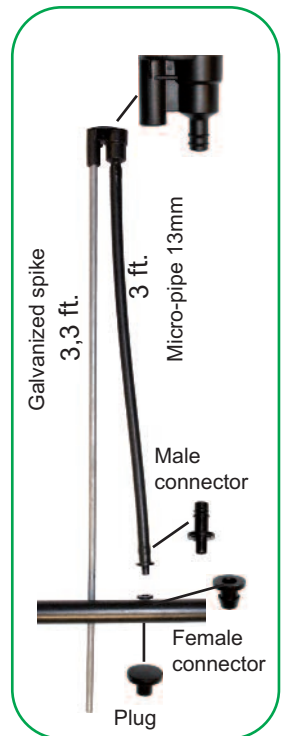
Anti-blending



Flexible anti-blending pipe GreenFlex.



Easy quick anti-drip connectors.



## Models:

Ref. 102670: **AGRO-STAND**: Sprinkler stand + 4,3 ft pipe 13 mm + male & female fitting.

Ref. 102630: Sprinkler stand.

Ref. 102672: Self-compensating valve.

Ref. 102620: Male connector thread-barbed 10 mm.

Ref. 102610: Male connector thread-barbed 10 mm.

Ref. 102600: Plug.

Ref. 102641: Galvanized steel spike 4 ft. for Agro-Stand (revited).

Ref. 102672: KIT: sprinkler coupler + 4,3 ft pipe 13 mm + male & female fitting.

Ref. 102680: KIT: sprinkler coupler + 4 ft pipe 13 mm + 4,3 ft steel spike + male & fem. connect..

Ref. 102682: KIT: sprinkler coupler + 4 ft pipe 13 mm + 4 ft galv. spike + male & female connector.

Ref. 102652: KIT: sprinkler coupler + 4 ft pipe 13 mm + 4 ft steel spike + male & fem. connect..

Ref. 102643: Micro-pipe roll of 330 ft. (ANTI-FLAT)

Ref. 496619: Pipe Cutter Tool (10-20 mm).

Ref. 103120: Eyelet hole punch Tool 10 mm MANUAL (PE low density).

Ref. 103130: Eyelet hole punch Tool 10 mm AUTO "Cut-turn-place".







## AGRO-PUNCHERS

### Tables & Charts

#### General properties:

- Tools for the punching and hole maker into PE pipes and quick connection of AGRO-STAND fittings.
- Quick and secure connection connection system without any leakage and water loose.

#### Models:

Ref. 103120: Manual puncher tool 10 mm.

Ref. 103130: Auto-puncher tool "Cut-Turn-Place"



ref. 103120



ref. 103130



## AGRO-FLAT

### Accesories Agro-Stand

ref. 103140



ref. 103150



#### General properties:

- Flat pipe PN-10 system for the quick connection of Agro-Stand lines by using a circular cutter pliers and a express outlet compression micro-fitting.
- Easy and quickly assemble, unassemble and storage, by rolling up the pipe.
- Quick and secure connection, connection system without any leakage and water loose.

#### CONNECTORS AND TOOLS:

Ref. 103150: Mini-express fitting for flat pipe, for quick-coupling connector.

Ref. 103140: Cutter pliers for 13 mm holes.

#### LAY-FLAT PIPE:

Ref. 102755: Lay-flat pipe AGRO-FLAT of 50 mm, 120 PSI, 330 ft.

Ref. 102775: Lay-flat pipe AGRO-FLAT of 75 mm, 120 PSI, 330 ft.

Ref. 102790: Lay-flat pipe AGRO-FLAT of 90 mm, 120 PSI, 330 ft.

Ref. 102711: Lay-flat pipe AGRO-FLAT of 110 mm, 120 PSI, 330 ft.

#### RACORDS:

Ref. 102755: Lay-flat pipe AGRO-FLAT of 50 mm, 120 PSI (8 BAR), 330 ft.

Ref. 102775: Lay-flat pipe AGRO-FLAT of 75 mm, 120 PSI (8 BAR), 330 ft.

Ref. 102790: Lay-flat pipe AGRO-FLAT of 90 mm, 120 PSI (8 BAR), 330 ft.

Ref. 102711: Lay-flat pipe AGRO-FLAT of 110 mm, 120 PSI (8 BAR), 330 ft.

Ref. 102715: Straight coupler AGRO-FLAT of 2".

Ref. 102719: Straight coupler AGRO-FLAT of 2 1/2".

Ref. 102716: Straight coupler AGRO-FLAT of 3".

Ref. 102717: Straight coupler AGRO-FLAT of 4".

Ref. 102720: Theaded coupler for hose AGRO-FLAT de 2" to 1 1/2".

Ref. 102723: Theaded coupler for hose AGRO-FLAT de 2 1/2" to 2".

Ref. 102721: Theaded coupler for hose AGRO-FLAT de 3" to 2 1/2".

Ref. 102722: Theaded coupler for hose AGRO-FLAT of 3" to 3".

Ref. 102725: End plug AGRO-FLAT of 2".

Ref. 102729: End plug AGRO-FLAT of 2 1/2".

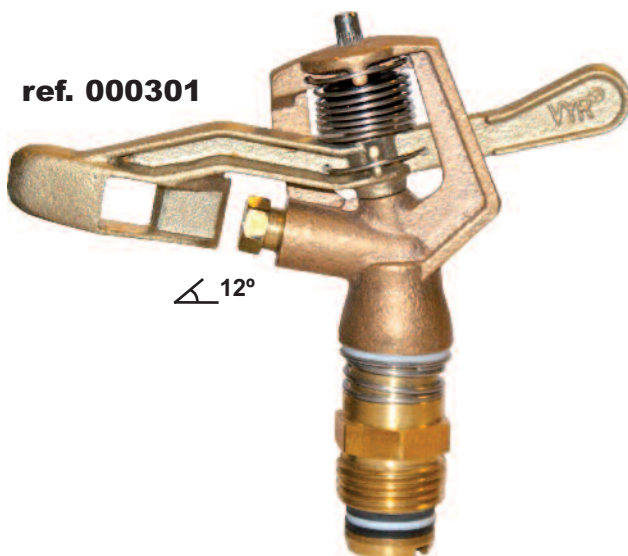
Ref. 102726: End plug AGRO-FLAT of 3".

Ref. 102727: End plug AGRO-FLAT of 4".

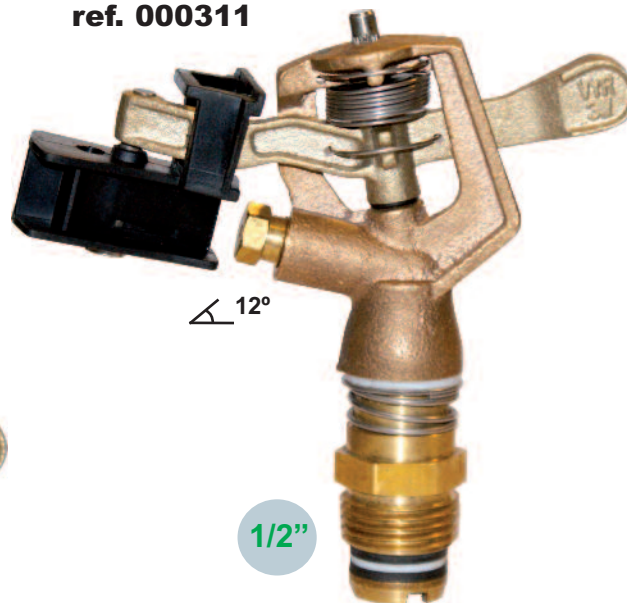
SEE PAGE 171 TO CHECK THE FULL RANGE



ref. 000301



ref. 000311



## VYR-3 & VYR-3W

Full circle AG

### General properties:

- Agricultural impact sprinkler with medium-low flow and low angle.
- 1/2" male connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angle of 12°.
- Two (2) different arm models: One with a **large spoon**, and other with a **wedge deflector** for optimal distribution in its uniformity coefficient.
- Ideal for irrigation under groves, nut trees, banana trees and other fruit trees.

### Technical specifications:

- Range distance: 23-33 ft. (7-10 m).
- Flow: 0,5-3,3 GPM
- Working pressure: 25-65 PSI (1,7 - 4,5 BAR).
- Area: Full circle.
- Nozzles: A deflector nozzle.
- Trajectory angles: 12°.
- Maximum stream height: 5 ft. (1,4 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 33x33R, 40x33T, 40x40T ft.

### Applications:

- Low flow applications such as horticultural plants, vegetables and fruit trees. Suitable for the irrigation of banana and other tropical fruit trees.

### Dimensions:

- Height: 5 in.
- Width: 5,5 in.
- Weight: 0,43 lbs.
- Units per box: 100.

### Options:

- Threads in BSP or NPT under demand.
- Assembled on "Agro-Stand" with 4,3 ft. galvanized steel spike, microtube and connectors.

### Models:

**Ref. 000301:** VYR-3 standard arm.

**Ref. 000311:** VYR-3 WEDGE arm.





## VYR-3 & VYR-3W

### Tables & Charts

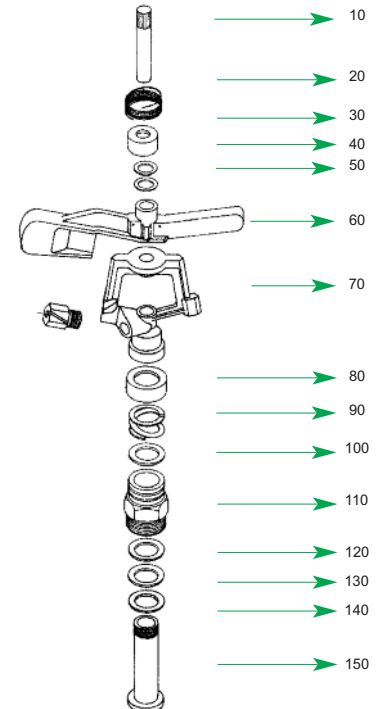
#### Technical guidance table for CU's of VYR-3

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				16x16	20x20	20x33	26x26	33x33	26x39
7/64" 2,8 mm.	29	111	32,8	0,66	0,46	0,28	0,26	0,17	0,17
	36	124	32,8	0,74	0,51	0,31	0,29	0,19	0,19
	44	136	36,1	0,81	0,56	0,34	0,31	0,20	0,21
0,12" 3 mm.	29	142	29,5	0,85	0,59	0,35	0,33	0,21	0,22
	36	159	32,8	0,94	0,66	0,39	0,37	0,24	0,25
	44	174	32,8	1,04	0,72	0,43	0,41	0,26	0,27
0,13" 3,5 mm.	29	186	32,8	1,11	0,77	0,46	0,43	0,28	0,29
	36	208	36,1	1,24	0,86	0,52	0,48	0,31	0,32
	44	227	36,1	1,35	0,94	0,56	0,53	0,34	0,35

P: Pressure D: Distance (Range Radius).

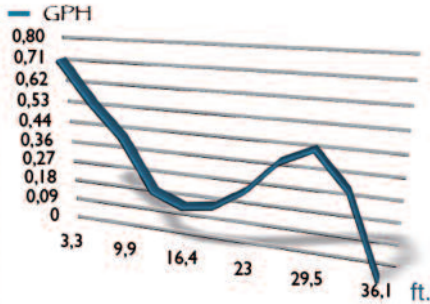
Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



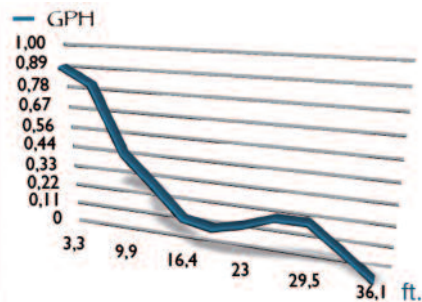
#### VYR-3

PSI	36,2
Flow	156 GPH
Nozzles	1/8"
Center	VYR
Rot. Veloc.	30 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	04/02/2011



#### VYR-3 W

PSI	36,2
Flow	62,4 GPH
Nozzles	3,15 mm
Center	VYR
Rot. Veloc.	30 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	06/03/2012



#### Nozzle performance table of VYR-3

	0,07" 1,6 mm. slotted flat	5/64" 2,0 mm. slotted flat	0,094" 2,4 mm. slotted flat	7/64" 2,8 mm. slotted conical	0,117" 3,0 mm. slotted conical	1/8" 3,2 mm. slotted conical
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
22	0,55	49	1,15	54	1,28	57
29	0,62	51	1,25	56	1,37	59
36	0,67	54	1,32	56	1,53	61
44	0,75	56	1,48	57	1,67	62
51	0,80	57	1,62	59	1,80	64
58	0,85	59	1,80	61	1,98	66
	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
	116	66	132	69	148	72
	161	75	172	75	182	79
	2,03	66	2,37	66	2,63	69
	2,90	72	3,15	74	3,30	77



STANDARD

Ø ft.: Diameter of coverage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- These results has been obtained at indoor laboratory with 0 m/seg win velocity. Outdoor results may change range distances.



ref. 002511

1/2"

## VYR-25 L

Full circle AG

### General properties:

- Low angle and low flow agricultural impact sprinkler.
- 1/2" male connection.
- Made of bronze, brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angle of 15°.

### Technical specifications:

- Range distance: 26-43 tf. (8-13 m).
- Flow: 0,5-5,2 GPM (660 - 3270 l/h).
- Working pressure: 25-65 PSI (1,7 - 4,5 BAR).
- Area: Full circle.
- Nozzles: One nozzle.
- Trajectory angles: 15° or 7°.
- Maximum stream height: 5 tf.
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 30x30R, 40x30T, 36x36T ft.

### Applications:

- Low flow crops and horticulture. Ideal for areas with strong winds and irrigation under trees.

### Dimensions:

- Height: 4,3 in.
- Width: 4,3 in.
- Weight: 0,52 lbs.
- Units per box: 100

### Options:

- Threads in BSP or NPT under demand.
- Oval-shaped deflector nozzle.
- Self-compensating flow control valves of 22 & 30 PSI (1,5 & 2 BAR).
- Assembled on "Agro-Stand" with a 3,3 ft. galvanized steel spike, microtube and connectors.

### Models:

Réf. 002511: Sprinkler of 15° male 1/2".





## VYR-25 L

### Tables & Charts

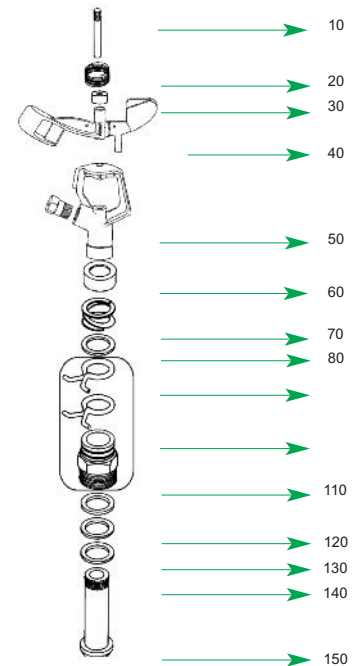
Technical guidance table for CU's of VYR-25 L

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				30x30 Rectg.	30x30 Triang.	33x33 Rectg.	33x33 Triang.	33x39 Triang.	26x39 Triang.
9/64" 3,6 mm.	36	205	32,8	0,38	0,35	0,31	0,28	0,21	0,20
	44	224	32,8	0,41	0,38	0,33	0,31	0,23	0,21
	51	242	32,8	0,44	0,41	0,36	0,33	0,25	0,23
5/32" 4 mm.	36	253	32,8	0,46	0,43	0,38	0,35	0,26	0,24
	44	277	32,8	0,51	0,47	0,41	0,38	0,28	0,26
	51	299	36,1	0,55	0,51	0,44	0,41	0,30	0,29
11/62" 4,4 mm.	36	306	36,1	0,56	0,52	0,46	0,42	0,31	0,29
	44	335	36,1	0,62	0,57	0,50	0,46	0,34	0,32
	51	362	39,4	0,67	0,61	0,54	0,50	0,37	0,35

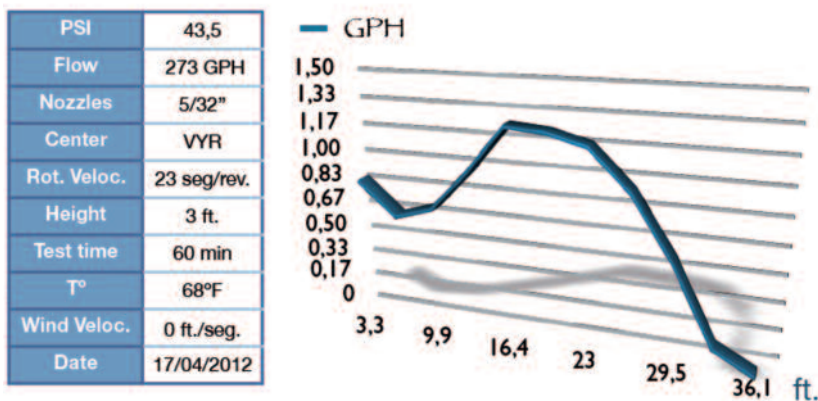
P: Pressure D: Distance (Range Radius).

Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



Sample chart for precipitation test VYR-25 L



Nozzle performance table of VYR-25

	0,07" 1,6 mm. sloted flat	5/64" 2,0 mm. sloted flat	0,094" 2,4 mm. sloted flat	7/64" 2,8 mm. sloted conical	1/8" 3,2 mm. sloted conical	5/32" 4 mm. sloted conical
PSI	GPM. Ø Ft.	GPM. Ø Ft.	GPM. Ø Ft.	GPM. Ø Ft.	GPM. Ø Ft.	GPM. Ø Ft.
22	0,55 49	1,15 54	1,28 57	1,67 64	2,03 66	3,3 70
29	0,62 51	1,25 56	1,37 59	1,85 66	2,37 66	3,7 73
36	0,67 54	1,32 56	1,53 61	2,07 69	2,63 69	4,2 76
44	0,75 56	1,48 57	1,67 62	2,25 72	2,90 72	4,6 76
51	0,80 57	1,62 59	1,80 64	2,47 74	3,15 74	4,8 80
58	0,85 59	1,80 61	1,98 66	2,68 75	3,30 77	5,2 83



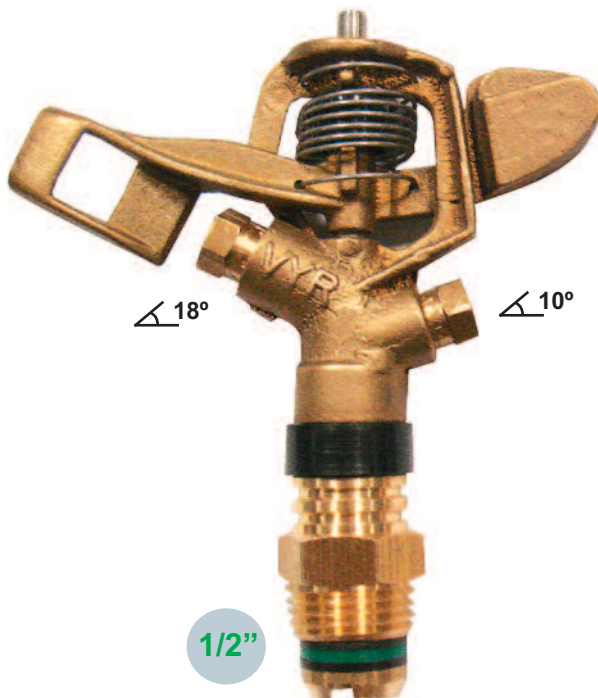
STANDARD

Ø ft.: Diameter of coberage

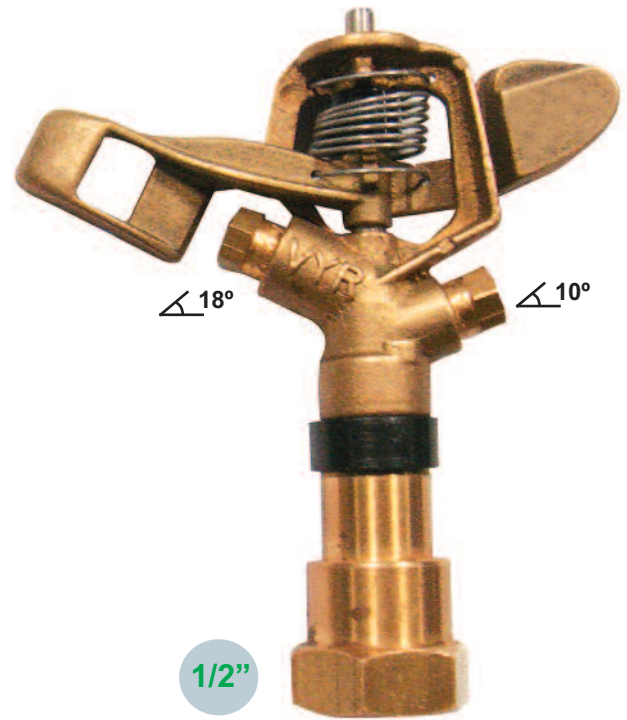
- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- These results has been obtained at indoor laboratory with 0 m/seg win velocity. Outdoor results may change range distances.





ref. 002812



ref. 002813



## VYR-28

### Full circle AG

#### General properties:

- Low flow agricultural impact sprinkler.
- 1/2" male or female connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angle of 18° and 10°.
- Rotating coupling with protective cover.

#### Technical specifications:

- Range distance: 39-50 ft. (12-15 m).
- Flow: 1-9 GPM (660 - 3270 l/h).
- Working pressure: 25-65 PSI (1,7 - 4,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary deflector nozzle.
- Trajectory angles: 18° and 10°.
- Maximum stream height: 6 ft. (1,7 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 36x36R, 40x40T, 43x36T ft.

#### Applications:

- Low flow and vegetable crops.

#### Dimensions:

- Height: 4,13 in. (10,5 cm).
- Width: 3,94 in. (10 cm).
- Weight: 0,43 lbs.
- Units per box: 100

#### Options:

- Threads in BSP or NPT under demand.
- Self-compensating flow control valves of 36 PSI (2.5 BAR).
- Assembled on "Agro-Stand" with a 3,3 ft. galvanized steel stipe, microtube and connectors.

#### Models:

Ref. 002812: 1/2" male.

Ref. 002813: 1/2" female.





# VYR-28

## Tables & Charts

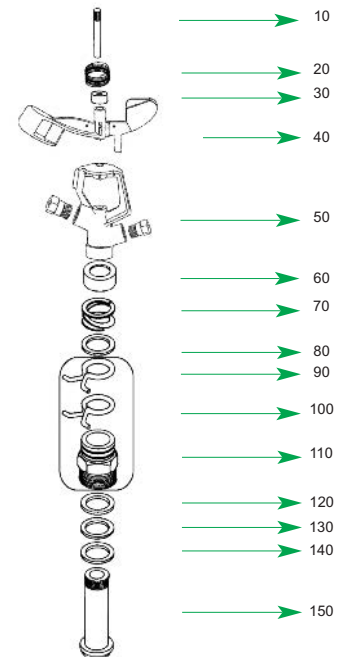
### Technical guidance table for CU's of VYR-28

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				30x30 Triang.	30x33 Triang.	30x39 Triang.	33x33 Triang.	33x39 Triang.	39x39 Rectg.
3/32" 2,4 mm.	29	78	31,2	0,17	0,16	0,13	0,14	0,12	0,10
	36	94	32,8	0,19	0,17	0,15	0,16	0,13	0,11
	44	103	34,4	0,20	0,19	0,15	0,17	0,14	0,12
	51	108	34,4	0,22	0,20	0,17	0,18	0,15	0,13
7/64" 2,8 mm.	29	119	32,8	0,22	0,20	0,17	0,18	0,15	0,12
	36	131	32,8	0,24	0,22	0,18	0,20	0,16	0,13
	44	140	34,4	0,26	0,23	0,19	0,21	0,17	0,15
	51	198	36,1	0,28	0,25	0,21	0,22	0,19	0,16
0,12" 3 mm.	29	145	32,8	0,27	0,24	0,20	0,22	0,18	0,15
	36	159	34,4	0,29	0,26	0,22	0,24	0,20	0,17
	44	172	36,1	0,31	0,28	0,24	0,26	0,21	0,18
	51	184	37,7	0,34	0,30	0,25	0,28	0,23	0,19
9/64" 3,5 mm.	29	181	34,4	0,31	0,28	0,23	0,25	0,21	0,17
	36	192	36,1	0,34	0,31	0,26	0,28	0,23	0,19
	44	210	37,7	0,37	0,33	0,28	0,30	0,25	0,21
	51	221	39,4	0,40	0,36	0,30	0,32	0,27	0,22









P: Pressure D: Distance (Range Radius).









Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



### Nozzle performance table of VYR-28

														
	3/32" 2,4 mm.		7/64" 2,8 mm.		0,117" 3,0 mm.		1/8" 3,2 mm.		9/64" 3,5 mm.		5/32" 4 mm.		11/64" 4,4 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
15	1,05	59	1,37	62	1,58	62	1,77	66	2,12	66	2,73	69	3,35	72
22	1,32	62	1,63	62	1,93	66	2,12	69	2,50	69	3,30	72	4,00	75
29	1,50	66	1,85	66	2,20	69	2,42	69	2,90	72	3,73	75	4,53	79
36	1,67	69	2,07	69	2,47	72	2,63	72	3,22	75	4,18	79	5,07	82
44	1,80	72	2,28	72	2,68	75	2,90	75	3,52	75	4,58	79	5,58	82
51	1,98	75	2,47	75	2,87	75	3,12	75	3,78	79	4,83	82	5,93	85
58	2,12	79	2,63	79	3,03	79	3,35	79	4,00	82	5,20	85	6,33	89

														
	0,094" x 0,07" 2,4 x 1,6 mm.		7/64" x 0,07" 2,8 x 1,6 mm.		0,117" x 5/64" 3 x 2 mm.		1/8" x 5/64" 3,2 x 2 mm.		9/64" x 5/64" 3,5 x 2 mm.		5/32" x 3/32" 4 x 2,4 mm.		11/64" x 3/32" 4,4 x 2,4 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
15	1,67	59	1,85	62	2,68	62	2,86	66	3,28	66	4,18	69	4,80	72
22	1,87	62	2,18	62	3,08	66	3,26	69	3,65	69	4,80	72	5,41	75
29	2,11	66	2,46	66	3,45	69	3,65	69	4,16	72	5,41	75	6,05	79
36	2,33	69	2,73	69	3,78	72	3,96	72	4,53	75	6,12	79	6,75	82
44	2,55	72	3,04	72	4,16	75	4,38	75	4,99	75	6,75	79	7,55	82
51	2,77	75	3,26	75	4,49	75	4,75	75	5,41	79	7,28	82	8,18	85
58	2,97	79	3,50	79	4,83	79	5,15	79	5,81	82	7,79	85	8,76	89



STANDARD

Ø ft. : Diameter of coverage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- These results has been obtained at indoor laboratory with 0 m/seg win velocity. Outdoor results may change range distances.

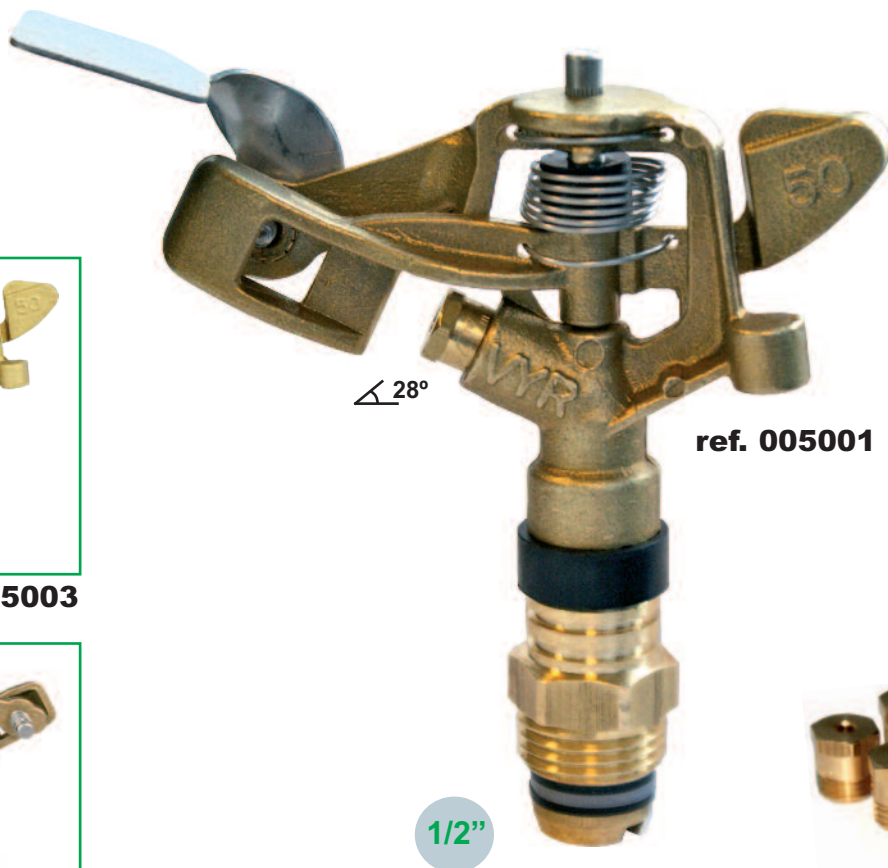




ref. 005003



ref. 005002



ref. 005001



## VYR-50 AG

### Full circle AG

#### General properties:

- Riser-mounted impact sprinkler for gardening, agriculture, floriculture and greenhouses.
- 1/2" male connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Adjustable deflector plate.
- Irrigation area control system by adjustment of rotating clips.
- Adjustable jet breaker diffuser pin.
- This sprinkler is strong and durable enough to work for years in urban gardens in punishing conditions, such as vandalism and impact from maintenance equipment.

#### Technical specifications:

- Range distance: 29-46 ft. (9-14 m).
- Flow: 1,05-6,33 GPM (240 - 1,440 l/h).
- Working pressure: 15-58 PSI (1 - 4 BAR).
- Area: Full or part circle.
- Nozzles: A single-jet nozzle.
- Trajectory angles: 28°.
- Maximum stream height: 7 ft. (2,2 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 33x33R, 40x40T, 40x43T ft.

#### Applications:

- Public and private gardens.
- Horticultural plantations, floriculture and fruit trees.

#### Measurements:

- Width: 4,7 in. (12 cm).
- Sprinkler height: 5,1 in. (13 cm).
- Weight: 0,49 lbs. (220 grs).
- Units per box: 50.

#### Options:

- Threads in BSP or NPT under demand.
- Special design with a threaded shaft for fitting to the VYR-961 pop-up head.
- Self-compensating flow control valves of 36 PSI (2.5 BAR).
- Assembled on "Agro-Stand" with a 3.3 ft. galvanized steel spike, microtube and connectors.
- Assembled on a brass, aluminium or plastic spike.
- Assembled on an aluminium round base.

#### Models:

**Ref. 005001:** Full circle sprinkler + Deflector + Difuser pin

**Ref. 005002:** Full circle sprinkler + Difuser pin

**Ref. 005003:** Full circle (without deflector or pin)





## VYR-50 AG

### Tables & Charts

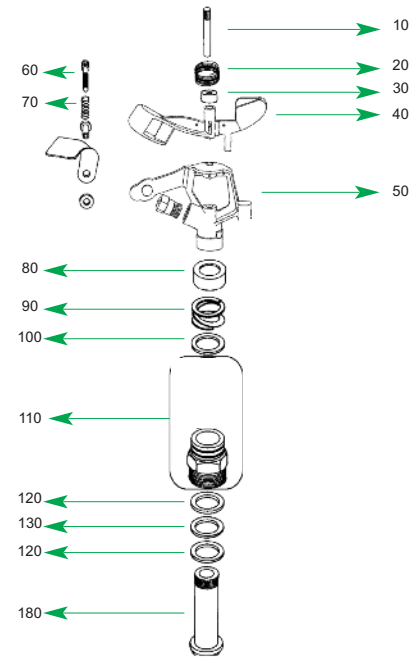
Technical guidance table for CU's of VYR-50 AG

NOZZLE	P (PSI)	Q (GPM)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				30x30 Rect.	30x30 Triang.	33x33 Rect.	33x33 Triang.	33x39 Triang.	39x39 Triang.
9/64" 3,5 mm.	36	3,42	32,8	0,38	0,35	0,31	0,28	0,21	0,20
	44	3,73	32,8	0,41	0,38	0,33	0,31	0,23	0,21
	51	4,03	32,8	0,44	0,41	0,36	0,33	0,25	0,23
5/32" 4,0 mm.	36	4,22	32,8	0,46	0,43	0,38	0,35	0,26	0,24
	44	4,62	32,8	0,51	0,47	0,41	0,38	0,28	0,26
	51	4,98	36,1	0,55	0,51	0,44	0,41	0,30	0,29
11/64" 4,4 mm.	36	5,10	36,1	0,56	0,52	0,46	0,42	0,31	0,29
	44	5,58	36,1	0,62	0,57	0,50	0,46	0,34	0,32
	51	6,03	39,4	0,67	0,61	0,54	0,50	0,37	0,35

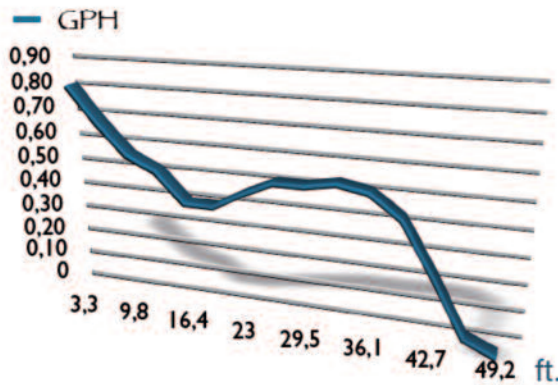
P: Pressure D: Distance (Range Radius).

Q: Flow at real test









CU<85% CU 85-88% CU 88-92% CU>92%



PSI	43,5
Flow	277 GPH
Nozzles	5/32"
Center	VYR
Rot. Veloc.	17 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	03/02/2011



Nozzle performance table of VYR-50

														
	3/32" 2,4 mm.		7/64" 2,8 mm.		0,117" 3,0 mm.		1/8" 3,2 mm.		9/64" 3,5 mm.		5/32" 4 mm.		11/64" 4,4 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
15	1,05	59	1,37	62	1,58	62	1,77	66	2,12	66	2,73	69	3,35	72
22	1,32	62	1,63	62	1,93	66	2,12	69	2,50	69	3,30	72	4,00	75
29	1,50	66	1,85	66	2,20	69	2,42	69	2,90	72	3,73	75	4,53	79
36	1,67	69	2,07	69	2,47	72	2,63	72	3,22	75	4,18	79	5,07	82
44	1,80	72	2,28	72	2,68	75	2,90	75	3,52	75	4,58	79	5,58	82
51	1,98	75	2,47	75	2,87	75	3,12	75	3,78	79	4,83	82	5,93	85
58	2,12	79	2,63	79	3,03	79	3,35	79	4,00	82	5,20	85	6,33	89



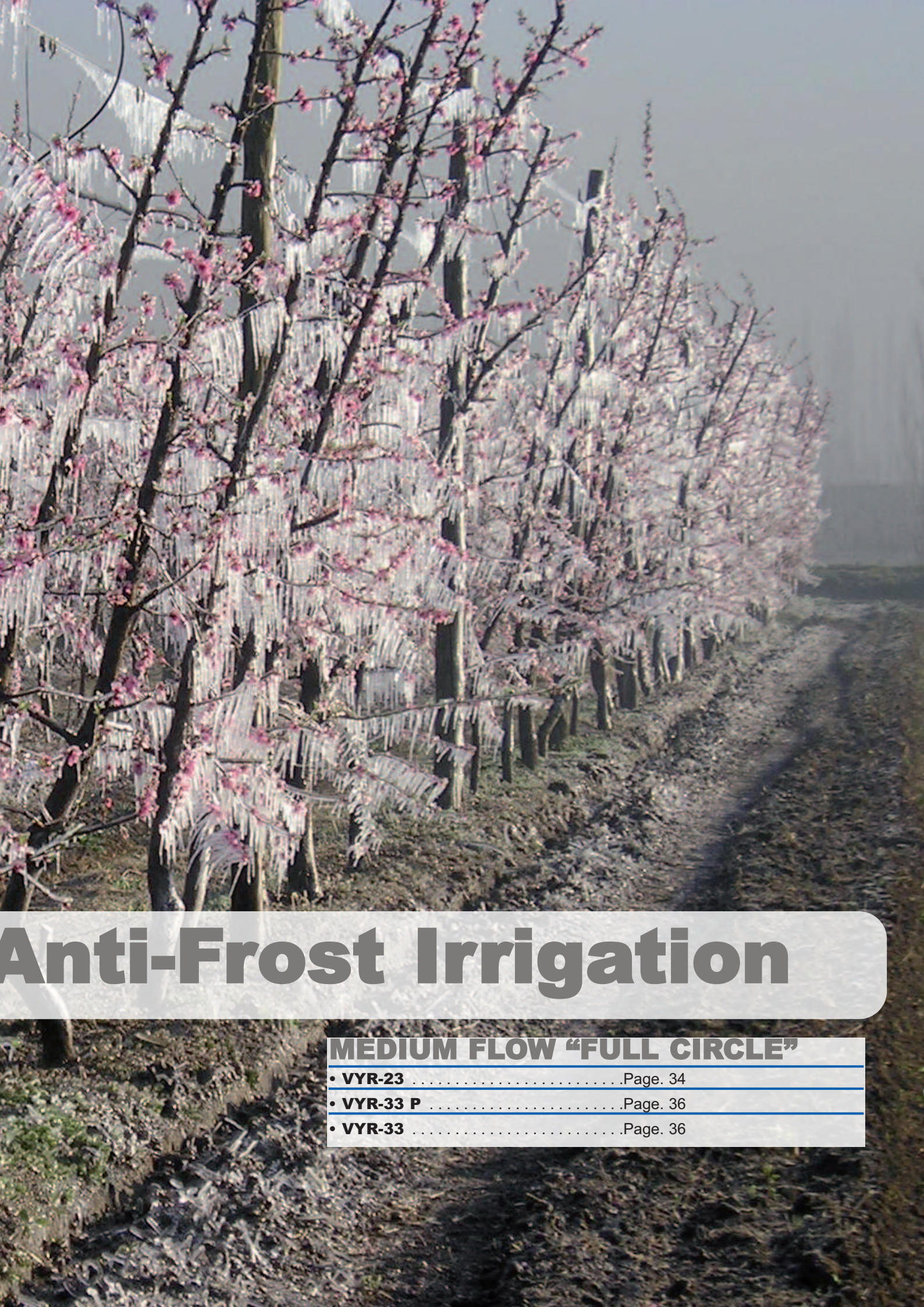
STANDARD

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.









# Anti-Frost Irrigation

## MEDIUM FLOW “FULL CIRCLE”

- **VYR-23** .....Page. 34
- **VYR-33 P** .....Page. 36
- **VYR-33** .....Page. 36





## VYR-23 FROST-PROTECTION

Full circle AG

### General properties:

- Medium flow and low angle agricultural impact sprinkler.
- ANTI-FROST protection cover with UV sun protector.
- 3/4" male or female connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 7° and 7°.
- Specially designed to achieve greater reach with Pivots and in windy areas.

### Technical specifications:

- Range distance: 33-45 ft. (10-13,50 m).
- Flow: 5-15 GPM (660 - 3270 l/h).
- Working pressure: 25-65 PSI (1,7 - 4,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles.
- Trajectory angles: 7° and 7°.
- Maximum stream height: 4 ft. (1,2 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.

### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees. Designed to work at a low angle on Pivots, in windy areas and ANTI-FROST conditions.

### Dimensions:

- Height: 6 in. (15 cm).
- Width: 6,3 in. (16 cm).
- Weight: 1,06 Lbs. (480 grs).
- Units per box: 50.

### Options:

- Threads in BSP or NPT under demand.
- Brass or plastic nozzles, depending on the customer's technical specifications.
- Secondary nozzle similar to the main nozzle.
- Assembled on a pressure regulator for self-compensation of pressure and flow in Pivots and sprinkler lines.

### Models:

Ref. 002301: 3/4" male.

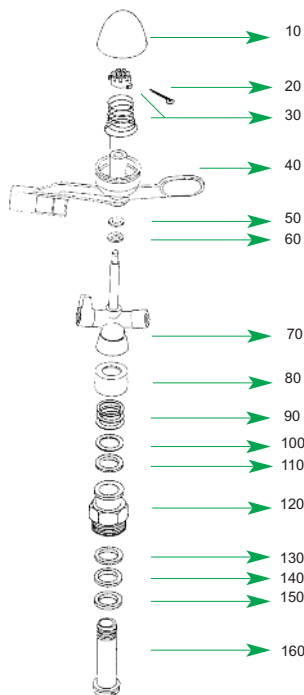
Ref. 002302: 3/4" female.



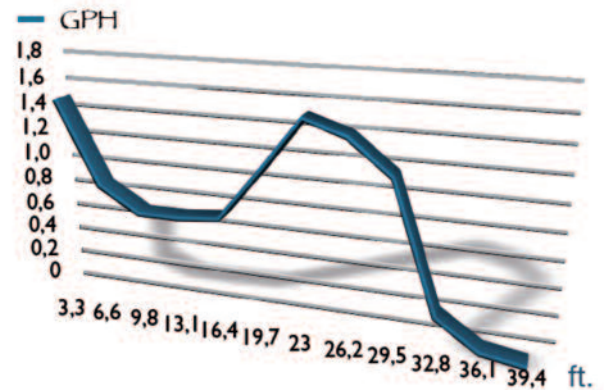


# VYR-23 FROST-PROTECTION

## Tables & Charts



PSI	51
Flow	444 GPH
Nozzles	5/32" x 7/64"
Center	VYR
Rot. Veloc.	54 sec./rev.
Height	3 ft.
Test time	60 min
T°	68 °F
Wind Veloc.	0 m/sec.
Date	10/06/2010



### Nozzle performance table of VYR-23

#### Long range nozzle (long vane) + short range nozzle

	4 x 2,4		4,4 x 2,4		4,8 x 2,4		5,5 x 2,4	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
22	5,06	90,2	5,68	91,9	6,87	98,4	8,28	101,7
29	5,77	91,9	6,32	95,1	7,71	101,7	9,20	106,3
36	6,25	96,8	6,82	98,4	8,45	105,0	10,08	108,9
44	6,74	100,4	7,31	102,4	9,03	108,3	10,83	111,5
51	7,18	101,7	7,79	106,0	9,60	111,5	11,54	115,8
58	7,57	102,4	8,23	106,6	10,13	111,5	12,20	118,1
65	7,93	104,3	8,67	106,6	10,70	111,5	12,86	118,1



#### Long range nozzle (long vane) + plug

	1/8" - 3,2 mm.		9/64" - 3,6 mm.		5/32" - 4 mm.		11/64" - 4,4 mm.		3/16" - 4,8 mm.		13/64" - 5,2 mm.		7/32" - 5,5 mm.		15/64" - 6 mm.		1/4" - 6,3 mm.		17/64" - 6,7 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
22	2,11	68,9	2,51	68,9	3,30	72,2	3,92	69,6	4,62	70,2	5,37	70,2	6,16	68,9	7,00	67,3	7,88	68,9	8,85	68,9
29	2,42	68,9	2,91	72,2	3,74	75,5	4,53	71,5	5,37	72,2	6,21	73,5	7,13	72,2	8,10	72,2	9,11	73,8	10,13	73,8
36	2,64	72,2	3,21	75,5	4,18	78,7	5,06	72,8	5,99	73,8	6,96	74,8	7,97	75,5	9,03	75,5	10,17	75,5	11,01	76,8
44	2,91	75,5	3,52	75,5	4,58	78,7	5,55	73,5	6,56	74,8	7,62	76,1	8,72	76,8	9,91	76,8	11,14	77,1	12,33	77,4
51	3,13	75,5	3,79	78,7	4,84	82,0	5,99	74,1	7,09	75,5	8,19	76,8	9,42	77,4	10,70	77,1	12,06	77,4	13,65	78,1
58	3,35	78,7	4,01	82,0	5,20	85,3	6,38	75,5	7,57	77,1	8,85	77,4	10,13	78,7	11,49	77,4	12,99	78,1	14,97	78,7

#### STANDARD

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.
- These results has been optained at indoor laboratory with 0 m/seg win velocity. Outdoor results may change range distances.



## VYR-33-P FROST-PROTECTION

Full circle AG

### General properties:

- Medium flow agricultural impact sprinkler.
- ANTI-FROST protection cover.
- 3/4" male or female connection.
- Made of SPECIAL PLASTIC and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 25° and 30°.
- Special design for ANTI-FROST irrigation using materials resistant to extreme conditions.

### Technical specifications:

- Range distance: 33-45 Ft. (10 - 13.50 m).
- Flow: 4-13 GPM.
- Working pressure: 36-95 PSI (2.5 - 6.5 bar).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary deflector nozzle or plug.
- Trajectory angles: 25° and 30°.
- Maximum stream height: 12 Ft. (3.7 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 55x55R, 59x59T and 62x55T.

### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees. Designed to work in ANTI-FROST conditions.

### Dimensions:

- Height: 5,9 in. (15 cm).
- Width: 6,7 in. (17 cm).
- Weight: 0,42 Lb. (190 g).
- Units per box: 50.

### Options:

- Threads in BSP or NPT under demand.
- Models with short arm with male or female connection.
- Brass or plastic nozzles, depending on the customer's technical specifications.
- Secondary nozzle with deflector slot or plug.
- Assembled on a pressure regulator for self-compensation of pressure and flow.

### Modelos:

**Ref. 003321:** Sprinkler 3/4" male.

**Ref. 003322:** Sprinkler 3/4" female brass racord.

**Ref. 105608:** Plastic sprinkler racord 3/4" F.

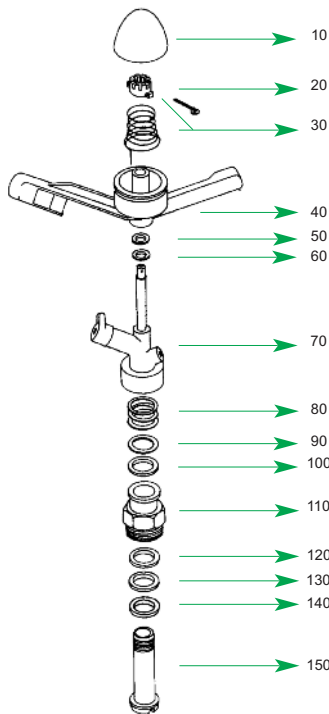




# VYR-33 P FROST-PROTECTION

## Tables & Charts

Technical guidance table for CU's of VYR-33



NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)				
				53x59 Rect.	53x66 Rect.	59x59 Rect.	59x66 Rect.	66x66 Rect.
5/32" 4,0 mm x plug	3,0	1048	15	3,6	3,3	3,2		
	3,5	1132	15	3,9	3,5	3,5	3,1	
	4,0	1210	15	4,2	3,8	3,7	3,4	3,0
	4,5	1284	15	4,5	4,0	4,0	3,6	3,2
	5,0	1353	15	4,7	4,2	4,2	3,8	3,4
3/16" 4,8 mm x plug	3,0	1509	16	5,2	4,7	4,7	4,2	
	3,5	1630	16	5,7	5,1	5,0	4,5	4,1
	4,0	1743	16	6,1	5,4	4,5	4,8	4,4
	4,5	1846	16	6,4	5,8	5,7	5,1	4,6
	5,0	1948	16	6,8	6,1	6,0	5,4	4,9
3/16"x 3/32" 4,8 x 2,4 mm.	3,0	1886	16	6,5	5,9	5,8	5,2	4,7
	3,5	2038	16	7,1	6,4	6,3	5,7	5,1
	4,0	2178	16	7,6	6,8	6,7	6,1	5,4
	4,5	2310	17	8,0	7,2	7,1	6,4	5,8
	5,0	2435	17	8,5	7,6	7,5	6,8	6,1

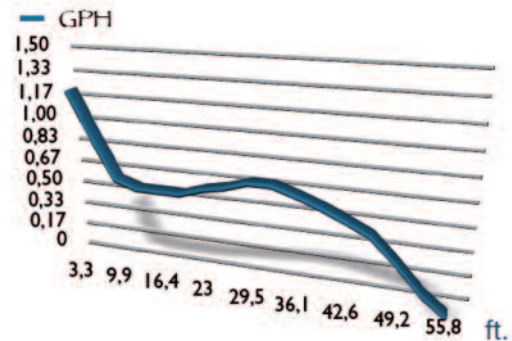
P: Pressure D: Distance (Range Radius).

Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



PSI	58
Flow	453 GPH
Nozzles	3/16" x tapón
Center	VYR
Rot. Veloc.	32 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	21/03/2011



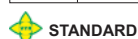
## Performance nozzle table of VYR-33

### Long range nozzles (long vane) + Plug

	5/32" 4 mm.			11/64" 4,4 mm.			3/16" 4,8 mm.			7/32" 5,5 mm.		
PSI	GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.	
29	3,97	90		4,40	92		5,58	98		7,17	102	
36	4,32	92		5,02	95		6,17	102		7,90	105	
44	4,68	97		5,38	98		6,82	105		8,62	109	
51	5,07	100		5,70	102		7,17	108		9,22	112	
58	5,42	102		6,12	103		7,78	112		9,77	115	
65	5,68	103		6,35	105		8,32	112		10,30	118	
73	5,98	105		6,65	107		8,72	112		10,87	118	

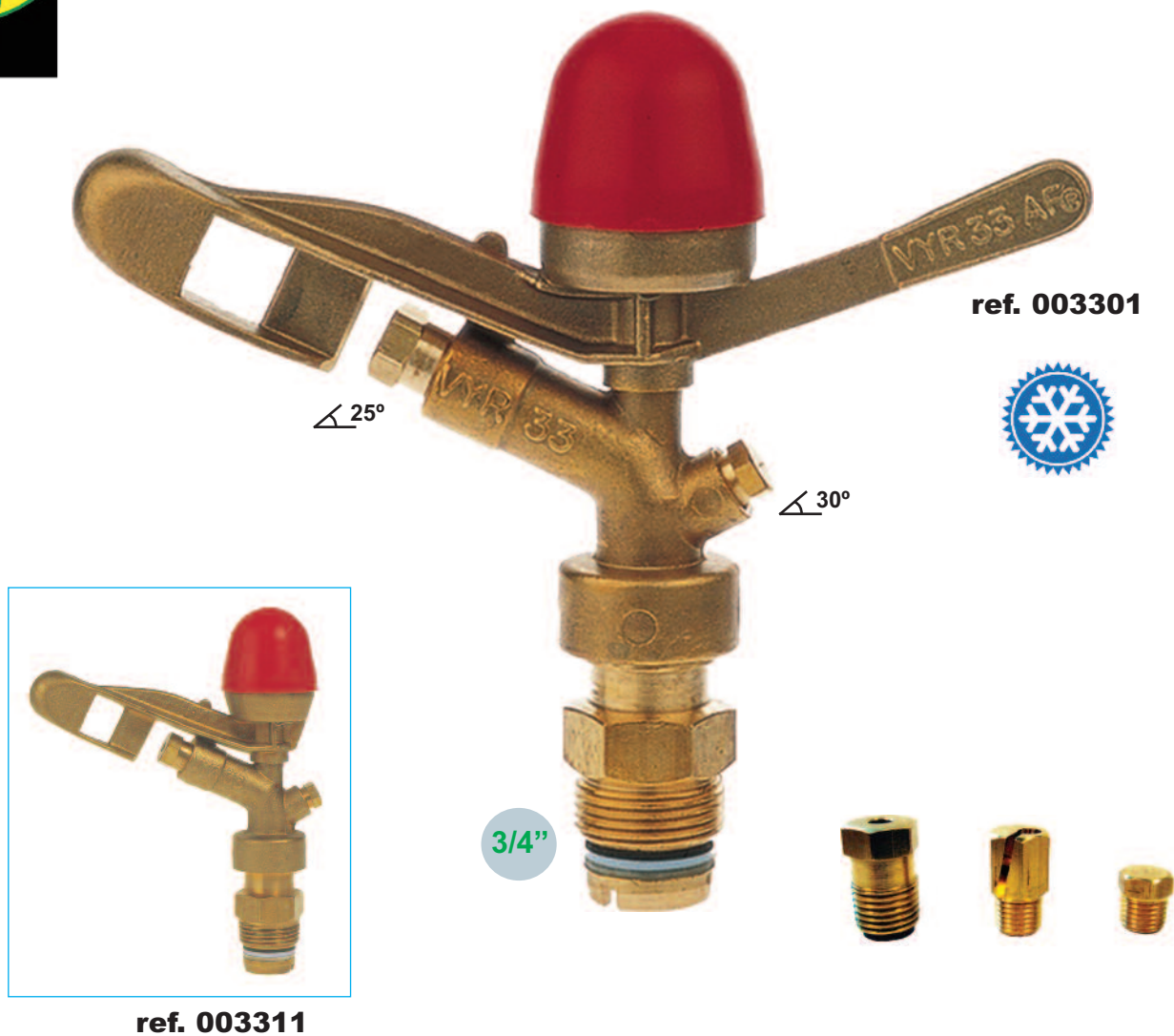
### Long range (long vane) + short range nozzles

	5/32 x 3/32" 4 x 2,4			11/64 x 3/32" 4,4 x 2,4			3/16 x 3/32" 4,8 x 2,4			7/32 x 3/32" 5,5 x 2,4		
PSI	GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.	
29	5,07	90		5,68	92		6,87	98		8,27	102	
36	5,77	92		6,32	95		7,70	102		9,20	105	
44	6,25	97		6,82	98		8,45	105		10,08	109	
51	6,73	100		7,30	102		9,02	108		10,82	112	
58	7,17	102		7,78	103		9,60	112		11,53	115	
65	7,57	103		8,23	105		10,12	112		12,18	118	
73	7,92	105		8,67	107		10,70	112		12,85	118	



STANDARD

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



## VYR-33 FROST-PROTECTION

Full circle AG

### General properties:

- Medium flow agricultural impact sprinkler.
- ANTI-FROST protection cover.
- 3/4" male or female connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 25° and 30°.
- Special design for ANTI-FROST irrigation using materials resistant to extreme conditions.

### Technical specifications:

- Range distance: 33-44 ft. (10-13,50 m).
- Flow: 4-13 GPM (900- 2920 l/h).
- Working pressure: 36-94 PSI (2,5 - 6,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary deflector nozzle or plug.
- Trajectory angles: 25° and 30°.
- Maximum stream height: 12 ft. (3,7 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 56x56R, 60x60T, 62x56T ft.

### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees. Designed to work in ANTI-FROST conditions.

### Dimensions:

- Height: 5,9 in. (15 cm).
- Width: 6,7 in. (17 cm).
- Weight: 1,08 Lbs. (490 grs).
- Units per box: 50.

### Options:

- Threads in BSP or NPT under demand.
- Models with short arm with male or female connection.
- Brass or plastic nozzles, depending on the customer's technical specifications.
- Secondary nozzle with deflector slot or plug.
- Assembled on a pressure regulator for self-compensation of pressure and flow.

### Models:

- Ref. 003301:** 3/4" male thread.
- Ref. 003302:** 3/4" female thread.
- Ref. 003311:** 3/4" short arm male thread.
- Ref. 003312:** 3/4" short arm female thread.

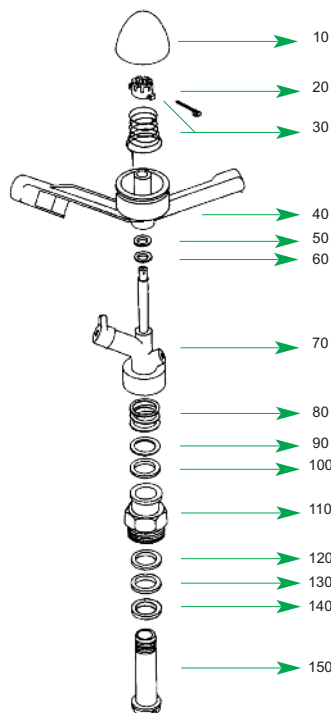




# VYR-33 FROST-PROTECTION

## Tables & Charts

Technical guidance table for CU's of VYR-33



NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)				
				53x59 Rect.	53x66 Rect.	59x59 Rect.	59x66 Rect.	66x66 Rect.
5/32" 4,0 mm x plug	3,0	1048	15	3,6	3,3	3,2		
	3,5	1132	15	3,9	3,5	3,5	3,1	
	4,0	1210	15	4,2	3,8	3,7	3,4	3,0
	4,5	1284	15	4,5	4,0	4,0	3,6	3,2
	5,0	1353	15	4,7	4,2	4,2	3,8	3,4
3/16" 4,8 mm x plug	3,0	1509	16	5,2	4,7	4,7	4,2	
	3,5	1630	16	5,7	5,1	5,0	4,5	4,1
	4,0	1743	16	6,1	5,4	4,5	4,8	4,4
	4,5	1846	16	6,4	5,8	5,7	5,1	4,6
	5,0	1948	16	6,8	6,1	6,0	5,4	4,9
3/16"x 3/32" 4,8 x 2,4 mm.	3,0	1886	16	6,5	5,9	5,8	5,2	4,7
	3,5	2038	16	7,1	6,4	6,3	5,7	5,1
	4,0	2178	16	7,6	6,8	6,7	6,1	5,4
	4,5	2310	17	8,0	7,2	7,1	6,4	5,8
	5,0	2435	17	8,5	7,6	7,5	6,8	6,1

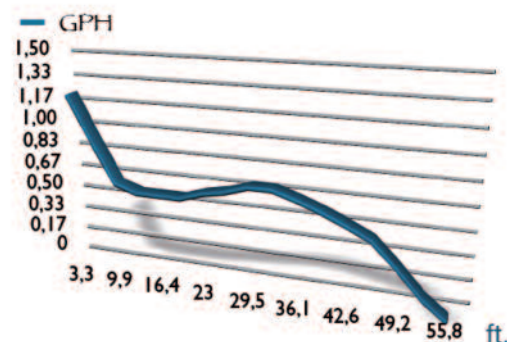
P: Pressure D: Distance (Range Radius).

Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



PSI	58
Flow	453 GPH
Nozzles	3/16" x tapón
Center	VYR
Rot. Veloc.	32 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	21/03/2011



## Nozzle performance table of VYR-33

### Long range nozzles (long vane) + Plug

	5/32"		11/64"		3/16"		7/32"	
	4 mm.		4,4 mm.		4,8 mm.		5,5 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
29	3,97	90	4,40	92	5,58	98	7,17	102
36	4,32	92	5,02	95	6,17	102	7,90	105
44	4,68	97	5,38	98	6,82	105	8,62	109
51	5,07	100	5,70	102	7,17	108	9,22	112
58	5,42	102	6,12	103	7,78	112	9,77	115
65	5,68	103	6,35	105	8,32	112	10,30	118
73	5,98	105	6,65	107	8,72	112	10,87	118

### Long range (long vane) + short range nozzles

	5/32 x 3/32"		11/64 x 3/32"		3/16 x 3/32"		7/32 x 3/32"	
	4 x 2,4		4,4 x 2,4		4,8 x 2,4		5,5 x 2,4	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
29	5,07	90	5,68	92	6,87	98	8,27	102
36	5,77	92	6,32	95	7,70	102	9,20	105
44	6,25	97	6,82	98	8,45	105	10,08	109
51	6,73	100	7,30	102	9,02	108	10,82	112
58	7,17	102	7,78	103	9,60	112	11,53	115
65	7,57	103	8,23	105	10,12	112	12,18	118
73	7,92	105	8,67	107	10,70	112	12,85	118



STANDARD

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.

# FROST-PROTECTION IRRIGATION

The sprinkler irrigation coverage method is the most efficient and reliable existing anti-freeze irrigation. The VYR33 is the most widely used sprinkler and most versatile in the use of anti-frost irrigation.

The special physical and technical equipment and issuers are also special anti-frost irrigation, with brass, steel and high strength plastics. Issuers are prepared to work with higher pressures than common and they have protections in their torsion springs and rotary joints that these are never blocked by foreign matter.

The VYR33 has these features that define a sprayer and also anti-freeze is justified in his long experience market. The solidity and robustness of VYR33 together with the high quality of materials that has made required confidence to use this model in a process as delicate as this in which their crops depend on the functioning of this model.

Sprinkler irrigation with frost-protection coverage on the foliage of plants is the most widely used by system best suited to most crops. The ice layer is produced on the flower in the future will yield the protected by a layer of ice, thereby maintaining the latent heat from inside the plant and not allowing the damaged wall of the flower, stem and / or fruit. Furthermore, the whole tree irrigation is unique in the formation of this layer of ice on the flower, while also protecting the pollen that bees need for pollination. This is very important to always use the correct pressure, rather high, getting a very small drop would not damage the flowers and also help faster freezing.

In most cases, damage caused by frost can be prevented by spraying the crops with water during periods. Sprinkler irrigation on plant foliage is one of the most effective methods of preventing damage to delicate plants.

## HOW IRRIGATION FOR FROST PROTECTION WORKS

This method is based on three factors:

1. Latent heat is released as water freezes. This latent heat prevents the temperature of the plants from falling below the freezing point.
2. A mixture of ice and water exposed to below-freezing conditions stays around 0°C until it is completely frozen.
3. Plant sap is not pure water; therefore plants have a lower freezing point than 0°C (32°F). Most plants are not damaged by frost until temperatures drop well below freezing.

## IMPORTANT CONSIDERATIONS

- 1 Sprinkler rotation speed:

In order to maintain a stable temperature the sprinkler must rotate quickly. The sprinkler must complete one rotation in less than 30 seconds in order to be deemed quick enough (the ideal rotation speed is no more than between 30 and 40 seconds).

- 2 Water application level:

The volume of water in relation to its application rate is one of the most important considerations in a frost protection irrigation system. The application rate is calculated after considering several factors: temperature, wind speed and humidity levels (see the table with minimum precipitation levels). Wind can affect evaporation levels as well as uniformity, resulting in more water having to be applied to provide the same protection as in the absence of wind.

- 3 Uniformity:

An effective frost protection system depends on how the sprinkler distributes the water. You must pay special attention when evaluating the spacing between sprinklers, operational pressure and conditions. An acceptable design should result in a Uniformity Coefficient equal to or greater than 75%. Distribution Uniformity equal to or greater than 75%.

## ADDITIONAL CONSIDERATIONS

Prolonged periods of frost and the application of frost protection irrigation may result in a significant accumulation of ice on the plants.

The irrigation system should generally be started at around 2°C to prevent water from freezing inside the plants.

## SPECIFIC FROST PROTECTION

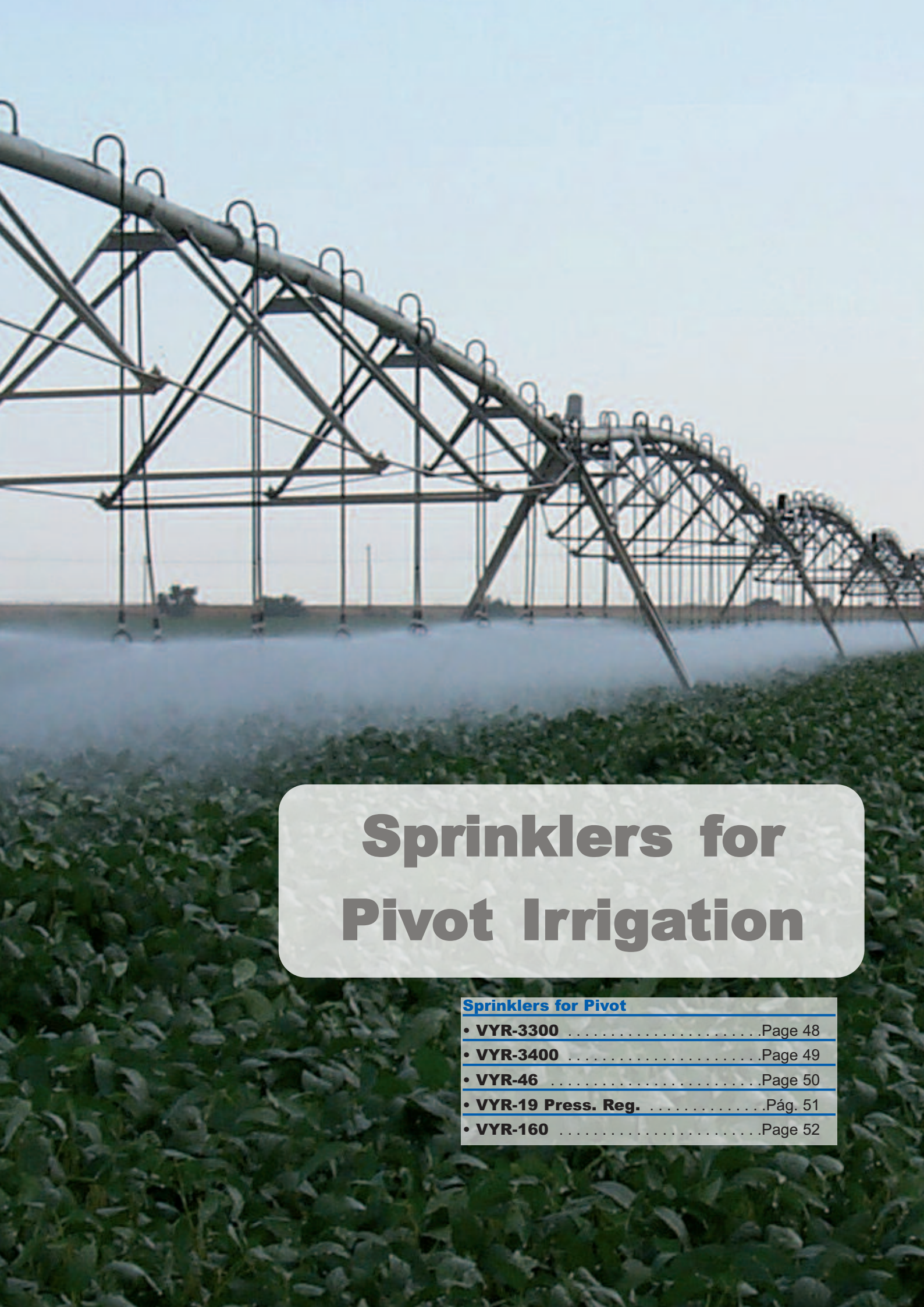
The reason for using specific frost protection is to reduce the protected area to just the plant crop. The system to operate with reduced flow and pressure, saving you water and money.

## CONCLUSIONS

A delicate crop can be destroyed by frost in just one night. The use of advanced irrigation systems for frost protection is an effective method for protecting your investment. Nevertheless, the correct design and use of the system is very important for satisfactory results.

Minimum application levels (fruit trees):					
Approx. minimum temperature (° F)	26 a 25	25 a 23	23 a 21	21 a 19	19 a 17
Application rate (GPH)	0,66	0,79	1	1,21	1,69





# Sprinklers for Pivot Irrigation

Sprinklers for Pivot	
• VYR-3300 .....	Page 48
• VYR-3400 .....	Page 49
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**nuevo  
VYRSA  
new**



3/4"



## VYR-3300 AERO-PIVOT


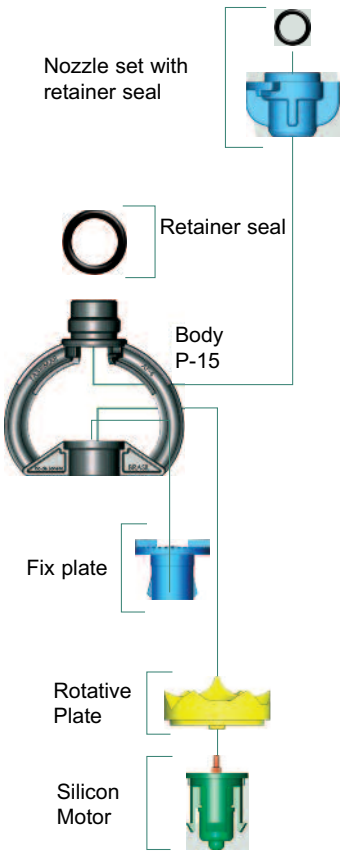
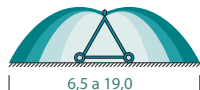




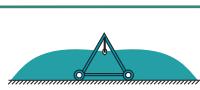
## VYR-3400 ROTO-PIVOT

### General properties:

- Modular diffuser sprinkler for inverted irrigation.
- Body made of POM male connection to 3/4 ".
- EZ-FIT nozzle bodies, comprising an inner nozzle and a bayonet attachment.
- Diffuser plates with 6 different designs and angles for a uniform circular irrigation.
- Seal in thread included.

### General properties:

- Modular ROTARY sprinkler for inverted irrigation.
- Motor of silicone and stainless steel shaft.
- Body made of POM male connection to 3/4 ".
- EZ-FIT nozzle bodies, comprising an inner nozzle and a bayonet attachment.
- Diffuser plates with 2 different designs and angles for a uniform circular irrigation.
- Seal in thread included.

tipo de placa	definición	presión	montaje	diámetro de riego	despiece
PEPG placa estriada plana gruesa	<ul style="list-style-type: none"> <li>• color: verde</li> <li>• menor número de jets y gotas mayores para reducir la evapotranspiración</li> </ul>	20 PSI 14 mca	sobre el tubo	 5,3 a 16,5	
PETG placa estriada triangular gruesa	<ul style="list-style-type: none"> <li>• color: gris</li> <li>• Produce jets con diferentes alcances y tamaños de gotas, para una mejor distribución del agua y una menor tasa de aplicación.</li> </ul>	15 a 20 PSI 10,5 a 14 mca	sobre el tubo	 6,5 a 19,0	
PEPF placa estriada plana fina	<ul style="list-style-type: none"> <li>• color: negro</li> <li>• 34 jets planos, gotas medias, menor deriva y evapotranspiración entre placas finas con buen alcance y distribución del agua.</li> </ul>	10 a 20 PSI 7 a 14 mca	sobre el tubo o pendular	 5,2 a 13,8	
PECF placa estriada cóncava fina	<ul style="list-style-type: none"> <li>• color: azul</li> <li>• 36 jets cóncavos, gotas finas con buen radio de riego debido a su ángulo de salida. Buena distribución del agua, pero con restricciones para el uso en condiciones de vientos fuertes.</li> </ul>	10 a 20 PSI 7 a 14 mca	pendular	 5,3 a 14,1	
PECVF placa estriada cóncava fina	<ul style="list-style-type: none"> <li>• color: blanco</li> <li>• 36 jets convexos, gotas finas, menor alcance que la PECF con menor deriva. Buena distribución del agua.</li> </ul>	10 a 20 PSI 7 a 14 mca	pendular	 5,1 a 13,1	
PLPL placa lisa plana	<ul style="list-style-type: none"> <li>• color: morado</li> <li>• gotas muy finas, usadas en cultivos muy sensibles. Mayor deriva, evapotranspiración y menor alcance. No recomendada en condiciones de vientos medios/fuertes.</li> </ul>	10 a 20 PSI 7 a 14 mca	pendular	 5,0 a 12,9	
placas rotativas	<ul style="list-style-type: none"> <li>• color: amarillo (21°); rojo (12°)</li> <li>• instalada con un mecanismo rotativo provoca mayor alcance de boquilla y diferentes tamaños de gotas, disminuyendo la tasa de aplicación instantánea y las pérdidas por evapotranspiración y deriva. Excelente distribución del agua. Usar boquillas mayores de 2.2 mm.</li> </ul>	10 a 20 PSI 7 a 14 mca	pendular	 8,0 a 17,0	



# NOZZLES & PLATES

## Pivot Irrigation Accesories

### General properties:

- Modular sprinklers for inverted irrigation.
- Body made of nylon with a male thread of 3/4 ".
- EZ-FIT nozzle bodies, comprising an inner nozzle and a bayonet attachment.
- 36 different possible COMBINATIONS of nozzles.
- 6 fixed diffuser plate models with different designs and angles for a uniform circular irrigation.
- 2 models of rotating plates with silicone brake motor.
- Seal in thread included.
- Diameter of coverage varies between 16-63 ft. (5- 19 m).

### Aplications:

- Diffuser for irrigation in PIVOT, RANGER or irrigation machines with similar characteristics.
- Irrigation in greenhouses.

### Models:

Ref. 013301: Sprinkler body 3/4" male.

Ref. 013308: Silicon rotational motor.

Ref. 013310: Violet plate..

Ref. 013311: White plate

Ref. 013312: Grey plate.

Ref. 013313: Green plate.

Ref. 013314: Blue plate.

Ref. 013321: Rotational Red plate.

Ref. 013322: Rotational Yellow plate.

Ref. 013330: Violet nozzle.

Ref. 013331: Green nozzle.














































Ref. 013332: Red nozzle.

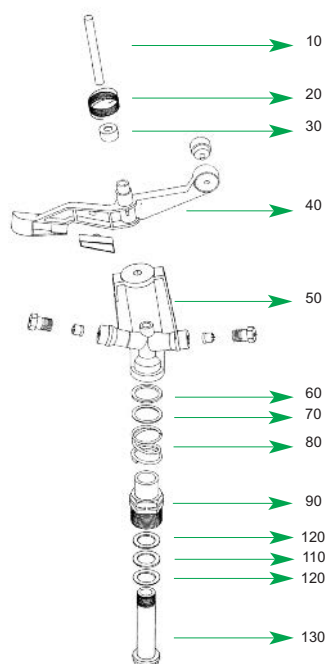
Ref. 013333: Grey nozzle.

Ref. 013334: Blue nozzle.

Ref. 013335: White nozzle.



colores de boquillas		diámetro nominal de boq. (mm)	presión de trabajo				
vaina	boquilla		7 mca	10,5 mca	14 mca	21 mca	28 mca
			caudal m³/h	caudal m³/h	caudal m³/h	caudal m³/h	caudal m³/h
 morado	 morado	1,8	0,11	0,13	0,15	0,18	0,21
	 verde	2,0	0,13	0,16	0,18	0,22	0,25
	 rojo	2,2	0,15	0,19	0,22	0,26	0,30
	 gris	2,4	0,18	0,22	0,26	0,31	0,36
	 azul	2,6	0,22	0,26	0,30	0,36	0,42
	 amarillo	2,8	0,25	0,31	0,35	0,42	0,49
 negro	 verde	3,0	0,29	0,35	0,40	0,48	0,56
	 rojo	3,2	0,33	0,40	0,46	0,55	0,64
	 gris	3,4	0,37	0,45	0,51	0,62	0,72
	 azul	3,6	0,41	0,50	0,57	0,69	0,80
	 amarillo	3,8	0,46	0,56	0,64	0,77	0,90
	 verde	 verde	4,0	0,51	0,62	0,71	0,85
 rojo		4,2	0,56	0,68	0,78	0,94	1,09
 gris		4,4	0,61	0,75	0,85	1,05	1,20
 azul		4,6	0,66	0,82	0,93	1,14	1,31
 amarillo		4,8	0,73	0,89	1,01	1,24	1,42
 rojo		 verde	5,0	0,79	0,96	1,11	1,33
	 rojo	5,2	0,85	1,04	1,19	1,44	1,67
	 gris	5,4	0,92	1,12	1,29	1,56	1,79
	 azul	5,6	0,99	1,21	1,37	1,67	1,94
	 amarillo	5,8	1,06	1,30	1,47	1,79	2,08
	 gris	 verde	6,0	1,16	1,37	1,57	1,93
 rojo		6,2	1,24	1,47	1,69	2,05	2,39
 gris		6,4	1,31	1,56	1,79	2,20	2,57
 azul		6,6	1,39	1,66	1,90	2,34	2,70
 amarillo		6,8	1,48	1,76	2,03	2,49	2,88
 azul		 verde	7,0	1,57	1,87	2,16	2,63
	 rojo	7,2	1,66	1,98	2,29	2,78	3,24
	 gris	7,4	1,75	2,09	2,43	2,99	3,45
	 azul	7,6	1,84	2,20	2,53	3,10	3,55
	 amarillo	7,8	1,93	2,32	2,68	3,25	3,76
	 amarillo	 verde	8,0	2,05	2,44	2,85	3,45
 gris		8,4	2,26	2,69	3,15	3,82	4,38
 amarillo		8,8	2,50	2,95	3,44	4,16	4,80
 rojo		9,2	2,73	3,23	3,78	4,56	5,25
 azul		9,6	2,97	3,51	4,12	5,02	5,70
 naranja		sin boquilla	10,0	3,15	3,85	4,45	5,39
	sin boquilla	10,4	3,40	4,17	4,81	5,83	6,69
 marrón	sin boquilla	10,4	3,40	4,17	4,81	5,83	6,69



ref. 004600



ref. 004601



**VYR-46**  
Full circle AG

## General properties:

- Medium flow and low angle agricultural impact sprinkler "WIND FIGHTER".
- 3/4" male or female connection.
- Made of plastic, brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 7° and 7°.
- Specially designed for greater reach on Pivots, windy areas or under-tree irrigation.

## Technical specifications:

- Range distance: 38-51 ft. (11,5-15,5 m).
- Flow: 82-930 GPH (310- 3520 l/h).
- Working pressure: 25-65 PSI (1,75 - 4,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary nozzle or plug.
- Trajectory angles: 7° and 7°.
- Maximum stream height: 4 ft. (1,2 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.

## Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

## Dimensions:

- Height: 5,5 in. (14 cm).
- Width: 7,5 in. (19 cm).
- Weight: 0,42 Lbs (190 grs).
- Units per box: 50.













## Options:

- Threads in BSP or NPT under demand.
- Secondary nozzle similar to the main nozzle.
- Connection coupling in plastic or brass.
- Assembled on a pressure regulator for self-compensation of pressure and flow.

## Models:

- Ref. 004600:** With plastic base.
- Ref. 004601:** With brass male base.
- Ref. 004602:** With brass female base.

## Nozzle performance table of VYR-44

																						
	7/64"= 2,8 mm.		1/8"= 3,2 mm.		9/64"= 3,6 mm.		5/32"= 4 mm.		11/64"= 4,4 mm.		3/16"= 4,8 mm.		13/64"= 5,15 mm.		7/32"= 5,5 mm.		15/64"= 6 mm.		1/4"= 6,35 mm.		17/64"= 6,75 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
15	1,37	75	1,77	75	2,25	75																
22	1,67	79	2,20	82	2,73	82																
29	1,93	84	2,47	85	3,12	87																
36	2,12	85	2,77	87	3,43	90	4,18	75	5,02	75	5,98	79	7,08	80	8,27	82	9,47	85	10,78	85	12,10	89
44	2,28	89	3,00	90	3,73	92	4,62	80	5,72	82	6,73	84	7,92	85	9,20	90	10,57	89	11,88	90	13,28	92
51	2,42	92	3,17	92	4,05	94	5,02	85	5,98	85	7,27	87	8,53	89	9,90	92	11,30	92	12,98	94	14,52	97
58							5,28	89	6,47	89	7,70	90	9,02	92	10,57	94	12,10	95	13,87	98	15,48	100



### STANDARD

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



## VYR-19 TP

### Pressure Regulators

#### General properties:

- Pressure regulators for agriculture professionals.
- Made of nylon 6.6, polypropylene, rubber and stainless steel.
- Designed with transverse and longitudinal reinforcements make this range of pressure regulators, one of the toughest market to the high pressures and water hammer.
- Thread 3/4 "H x 3/4" H (NPT/BSP).
- Stainless steel spring high quality strongly continuous and homogeneous.
- Flow rate of 0,5-12 GPM (0,12-2,8 m³/h).
- Maximum Working Pressure 175 PSI (12 BAR).

#### Models:

- |                                |                                |
|--------------------------------|--------------------------------|
| Ref. 101906: 6 PSI / 0,41 BAR  | Ref. 101930: 30 PSI / 2,07 BAR |
| Ref. 101910: 10 PSI / 0,70 BAR | Ref. 101940: 40 PSI / 2,76 BAR |
| Ref. 101920: 20 PSI / 1,38 BAR | Ref. 101950: 50 PSI / 3,45 BAR |
| Ref. 101925: 25 PSI / 1,73 BAR |                                |



ref. 101920



## VYR-19 AG-HPR

### Pressure Regulators

#### General properties:

- Pressure regulators for agriculture professionals.
- Made of nylon 6.6, polypropylene, rubber and stainless steel.
- Designed with transverse and longitudinal reinforcements make this range of pressure regulators, one of the toughest market to the high pressures and water hammer.
- Thread 3/4 "H x 3/4" H (NPT/BSP).
- Stainless steel spring high quality strongly continuous and homogeneous.
- Flow rate of 2 - 20 GPM (0,4 - 4,5 m³/h)
- Maximum Working Pressure 175 PSI (12 BAR).

#### Models:

- |                                |
|--------------------------------|
| Ref. 111906: 6 PSI / 0,41 BAR  |
| Ref. 111910: 10 PSI / 0,70 BAR |
| Ref. 111920: 20 PSI / 1,38 BAR |
| Ref. 111925: 25 PSI / 1,73 BAR |
| Ref. 111930: 30 PSI / 2,07 BAR |
| Ref. 111940: 40 PSI / 2,76 BAR |
| Ref. 111950: 50 PSI / 3,45 BAR |



ref. 111930



## VYR-19 AG-PRO

### Pressure Regulators Accesories

#### General properties:

- Connections 3/4 "with nut for tube placement pendulum.
- Made of high strength plastic.
- Connection 3/4 "male hose and spigot Express 3/4" (20 mm).

#### Models:

- |                    |
|--------------------|
| Ref. 111820: 1/2". |
| Ref. 111825: 3/4". |



ref. 111820



ref. 111825



## VYR-160

Part circle AG



### General properties:

- Part circle agricultural impact sprinkler, high flow.
- 1 1/4" male connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Part circle mechanical system using clips that are very easy and quick to adjust.
- Reach: 79-118 ft. (24-36 m).
- Flow: 27-125 GPM (6,200 - 28,000 l/h).
- Working pressure: 44-73 PSI (3 - 5 BAR).
- Area: Part or full circle.
- Nozzles: One main long reach nozzle and a secondary short reach nozzle.
- Trajectory angles: 21° and 12°.
- Maximum stream height: 11,5 Ft. (3,5 m).

See page 102 for more information.

### Models:

Réf. 016000



## VYR-144

Part circle AG



### General properties:

- Agricultural part-circle impact sprinkler with medium-high flow.
- 1 1/4" female connection.
- Made of aluminium, plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angle of 30°.
- Reach: 53-85 ft. (16-26 m).
- Flow: 10-48 GPM (2,250- 10,800 l/h).
- Working pressure: 22-65 PSI (1,5 - 4,5 BAR).
- Area: Part or full circle.
- Nozzles: One main nozzle with built-in deflector pin, and a second short range deflector nozzle.
- Trajectory angles: 30°.
- Maximum stream height: 18 ft. (5,5 m).

See page 104 for more information.

### Models:

Ref. 014404

### General properties:

- Turbine-driven Rain-Gun, high flow for agriculture.
- 2" female connection.
- Made of aluminium, brass, plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angle of 28°.
- Special design for long reach.
- Reach: 82-125 ft. (25-38 m).
- Flow: 37-120 GPM (8,500- 27,200 l/h).
- Working pressure: 36-65 PSI (2,5 - 4,5 BAR).
- Area: Part or full circle.
- Nozzles: One main multi-jet nozzle with built-in deflector pin.
- Trajectory angles: 28°.
- Maximum stream height: 19 ft. (5,8 m).

### Models:

Ref. 010000

## VYR-100

Part circle AG



See page 106 for more information.



# Agriculture

## Medium-High Flow

### MEDIUM FLOW "FULL CIRCLE"

• <b>VYR-4000 ROTEC</b> .....	Pág. 54
• <b>VYR-20</b> .....	Pág. 56
• <b>VYR-35</b> .....	Pág. 58
• <b>VYR-36</b> .....	Pág. 60
• <b>VYR-37</b> .....	Pág. 62
• <b>VYR-46</b> .....	Pág. 64
• <b>VYR-56</b> .....	Pág. 66
• <b>VYR-70</b> .....	Pág. 68

### ALTO CAUDAL "CIRCULAR"

• <b>VYR-70 V-C</b> .....	Pág. 70
• <b>VYR-70 V-L</b> .....	Pág. 72
• <b>VYR-86</b> .....	Pág. 74
• <b>VYR-144</b> .....	Pág. 76
• <b>VYR-155</b> .....	Pág. 78



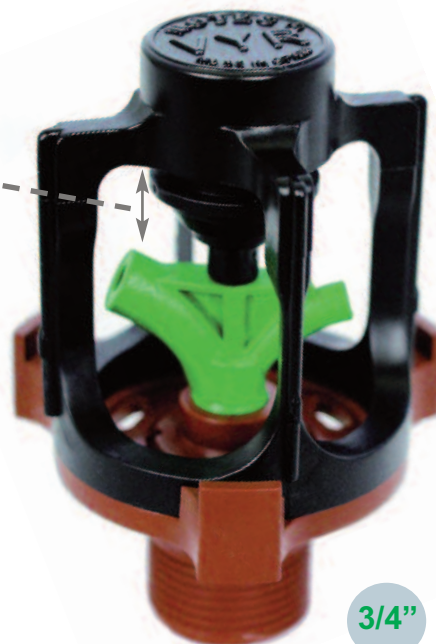


## Low-Flow sprinkler irrigation!!!

nuevo  
VYRSA  
new



2 speed motor  
selector



3/4"



## VYR-4000 ROTEC

Full circle AG

### General properties:

- Agricultural rotor sprinkler for low pressure/flow irrigation with silicone engine technology.
- Patented 2-speed motor selector.
- 3/4" male connection.
- Made of super-resistant plastic with UV treatments.
- Rotating joints of high strength.
- Angles of nozzles are 25° and 15° degrees.
- Special design for coverage irrigation at low pressures.
- Secondary plate deflector hole can be opened or plugged.

### Technical specifications:

- Range: 26-46 Ft. (8-14.0 m.)
- Flow rate: 2,4-8,2 GPM (560-1900 L/h.)
- Pressure: 26-65 PSI (1.8-4.5 BAR.)
- Sector: Circular or 180° degrees with the deflector.
- Nozzles: A nozzle plate with one or two outputs.
- Trajectory angles: 25° and 15°.
- Maximum height jet of 8,2 Ft. (2.3 m.)
- Rotation time: Depending on the pressure and nozzles is uniform and continuous.
- Coefficient of Uniformity above 90% in frames of 33x40R , 40x40T, 40x50T, 50x50R and 50x50T .

### Applications:

Horticultural plantations, cereals, tubers, legumes and fruit.

### Options:

- Pressure regulator VYR-19 to offset the pressures of your irrigation system.

### Dimensions:

- Height: 3,75 in. (9.5 cm.)
- Width: 2,56 in. (6.5 cm.)
- Weight: 0,17 Lbs. (75 grs.)
- Units per box: 50.

### Models:

Ref. 040000 ROTEC motor-body black (slow).

Ref. 040001 ROTEC motor-body black (fast).

Ref. 440009 Deflector 180°.

Ref. 440036 Grey nozzle of 9/64".

Ref. 440040 Purple nozzle of 5/32".

Ref. 440044 Green nozzle of 11/64".

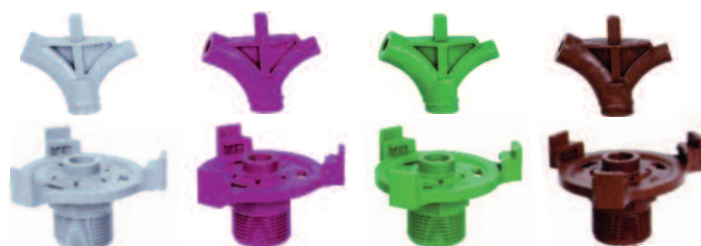
Ref. 440048 Brown nozzle of 3/16".

Ref. 440000 Grey plate of 9/64" x plug

Ref. 440024 Purple plate of 9/64" x 3/32"

Ref. 440028 Green plate of 9/64" x 7/64"

Ref. 440031 Brown plate of 9/64" x 1/8"







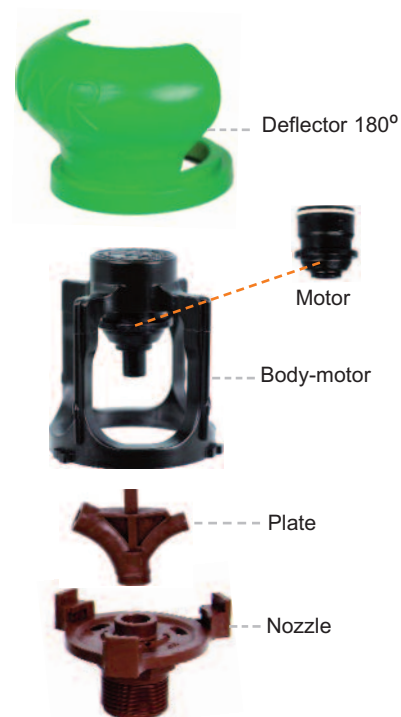
## Technical guidance table for CU's of VYR-4000 ROTEC

Nozzle	P (PSI)	Q (GPM)	D (ft.) Radio	Spacing (ft.) / Precipitation (Gal/h)					
				33X39 T	39X39 R	39X39 T	39X49 R	39X49 T	49X49 T
9/64" 3,6 mm.	29	2,51	31	1,2	1,1	0,9	1,0	0,8	0,7
	36	2,69	33	1,3	1,2	1,0	1,1	0,9	0,7
	44	2,96	36	1,4	1,2	1,0	1,1	0,9	0,8
5/32" 4,0 mm.	29	2,91	34	1,5	1,3	1,1	1,2	1,0	0,8
	36	3,22	36	1,6	1,5	1,2	1,3	1,1	0,9
	44	3,57	36	1,7	1,6	1,3	1,4	1,2	1,0
11/64" 4,4 mm.	29	4,25	38	1,8	1,6	1,3	1,5	1,2	1,0
	36	4,49	39	2,0	1,8	1,5	1,6	1,3	1,1
	44	4,97	39	2,1	1,9	1,6	1,7	1,4	1,2
3/16" 4,8 mm.	29	5,28	41	2,1	1,9	1,6	1,7	1,4	1,2
	36	6,02	43	2,3	2,1	1,7	1,8	1,6	1,3
	44	6,76	46	2,5	2,2	1,9	2,0	1,7	1,4

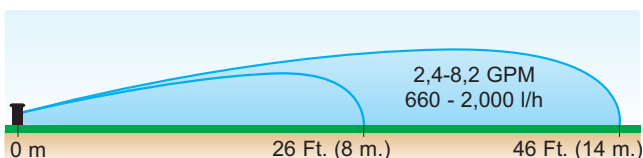
P: Pressure D: Distance (Range Radius).

Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



ref. 105608



MOTOR	26-44 PSI down		44-65 BAR up		26-44 PSI down		44-65 BAR up	
PLATE								
	27° 5 mm		27° 5 mm		27° y 15° 5 x 2,8 mm		27° y 15° 5 x 3,1 mm	
BOQ.								
	3,6 mm. / 9/64"		4,0 mm. / 5/32"		4,4 mm. / 11/64"		4,8 mm. / 3/16"	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
26	2,41	60,7	2,73	68,9	4,05	73,8	4,95	82,0
29	2,51	62,3	2,91	68,9	4,25	75,5	5,28	82,0
36	2,69	65,6	3,22	72,2	4,49	78,7	6,02	85,3
44	2,96	72,2	3,57	72,2	4,97	78,7	6,76	91,9
51	3,20	72,2	3,86	72,2	6,08	78,7	7,21	91,9
58	3,46	72,2	4,15	72,2	4,15	78,7	7,71	91,9
65	3,74	72,2	4,40	72,2	4,40	78,7	8,19	91,9

STANDARD Ø ft. : Diameter of coverage

- For optimum distribution avoid use in shady areas.

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.





ref. 002001



## VYR-20

Full circle AG

### General properties:

- Medium flow agricultural impact sprinkler.
- 3/4" male connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 22° and 26°.
- Special arm design for long reach.

### Technical specifications:

- Reach: 33-45 ft. (10-13,50 m).
- Flow: 2,7-15 GPM (660-3270 l/h).
- Working pressure: 25-65 PSI (1,7- 4,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary deflector nozzle.
- Trajectory angles: 22° and 26°.
- Maximum stream height: 11 ft. (3,4 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 49x49R, 49x59T, 56x56T ft.

### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Dimensions:

- Height: 5,1 in. (13 cm).
- Width: 6,3 in. (16 cm).
- Weight: 1 lbs. (458 grs.)
- Units per box: 50.

### Options:

- Threads in BSP or NPT under demand.
- Brass or plastic nozzles, depending on the customer's technical specifications.
- Secondary nozzle with deflector slot or plug.

### Models:

Ref. 002001







# VYR-20

## Tables & Charts

### Technical guidance table for CU's of VYR-20

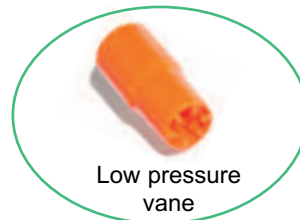
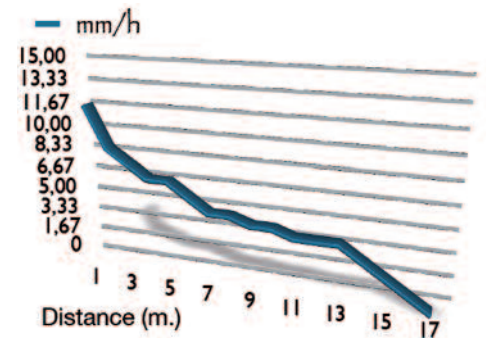
NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				39x49 Triang.	49x49 Triang.	49x59 Triang.	59x59 Triang.	59x66 Triang.	66x66 Triang.
5/32"x 3/32" 4,0x2,4 mm.	44	376	41,0	0,17	0,16	0,13	0,14	0,12	0,10
	51	407	41,0	0,19	0,17	0,15	0,16	0,13	0,11
	58	435	41,0	0,20	0,19	0,15	0,17	0,14	0,12
11/64"x 3/32" 4,4x2,4 mm.	44	435	42,7	0,22	0,20	0,17	0,18	0,15	0,12
	51	469	44,3	0,24	0,22	0,18	0,20	0,16	0,13
	58	502	44,3	0,26	0,23	0,19	0,21	0,17	0,15
3/16"x 1/8" 4,8x3,2 mm.	44	498	45,9	0,27	0,24	0,20	0,22	0,18	0,15
	51	538	47,6	0,29	0,26	0,22	0,24	0,20	0,17
	58	575	47,6	0,31	0,28	0,24	0,26	0,21	0,18
13/64"x 1/8" 5,2x3,2 mm.	44	646	49,2	0,31	0,28	0,23	0,25	0,21	0,17
	51	697	50,9	0,34	0,31	0,26	0,28	0,23	0,19
	58	745	50,9	0,37	0,33	0,28	0,30	0,25	0,21
	73	790	52,5	0,40	0,36	0,30	0,32	0,27	0,22

P: Pressure D: Distance (Range Radius).

Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%

BAR	3,5
Flow	1680 L/h
Nozzles	4,4 X 2,4 mm
Center	C.I.T
Rotation velocity	0,9 min/rev.
Height	60 cm
Duration	60m
T°	20°C
Wind velocity	4,5 m/sec.
Date	10/06/2010










Low pressure  
vane



Special nozzle for solid-set  
systems over 2 m height











### Performance nozzle table of VYR-20

#### Long range nozzles (long vane) + Plug

														
	1/8" 3,2 mm.		9/64" 3,6 mm.		5/32" 4,0 mm.		11/64" 4,4 mm.		3/16" 4,8 mm. 		13/64" 5,2 mm.		7/32" 5,6 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
36	2,73	85	3,48	87	4,27	90	5,10	98	6,12	105	7,22	107	7,57	112
44	3,00	85	3,78	87	4,62	92	5,58	100	6,65	105	7,88	110	8,27	115
51	3,25	87	4,10	89	5,02	97	6,07	103	7,22	108	8,50	113	9,42	118
58	3,48	87	4,40	92	5,37	97	6,47	107	7,70	112	9,07	116	9,97	121
65	3,70	89	4,67	95	5,68	98	6,82	110	8,18	115	9,60	118	10,60	126
73	3,87	90	4,93	97	5,98	100	7,22	112	8,62	118	10,08	123	11,08	130
80	4,10	92	5,15	98	6,30	102	7,57	115	9,07	120	10,47	125	11,62	131

(\*Sprinkler at 1 meter height)

#### Long range nozzles (long vane) + short range nozzle

	 15°	 15°	 15°	 15°	 15°	 15°	 15°	 15°	 15°	
	1/8" x 3/32" 3,2 x 2,4 mm.	9/64" x 3/32" 3,6 x 2,4 mm.	5/32" x 3/32" 4,0 x 2,4 mm.	11/64" x 3/32" 4,4 x 2,4 mm.	11/64" x 7/64" 4,4 x 2,8 mm.	3/16" x 7/64" 4,8 x 2,8 mm.	3/16" x 1/8" 4,8 x 3,2 mm.	13/64" x 1/8" 5,2 x 3,2 mm.	7/32" x 1/8" 5,6 x 3,2 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
36	4,32	85	5,07	87	5,80	90	6,68	98	7,62	105
44	4,70	85	5,50	87	6,38	92	7,35	100	8,43	103
51	5,10	87	5,93	89	6,87	97	7,92	103	9,02	105
58	5,45	87	6,38	92	7,35	97	8,45	107	9,53	110
65	5,80	89	6,78	95	7,78	98	8,93	110	10,12	112
73	5,98	90	7,13	97	8,23	100	9,42	112	10,57	115
80	6,42	92	7,48	98	8,62	102	9,85	115	10,97	118



STANDARD

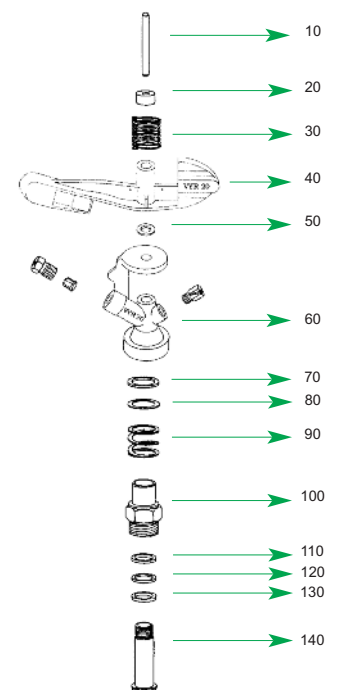
Ø ft : Diameter of coverage

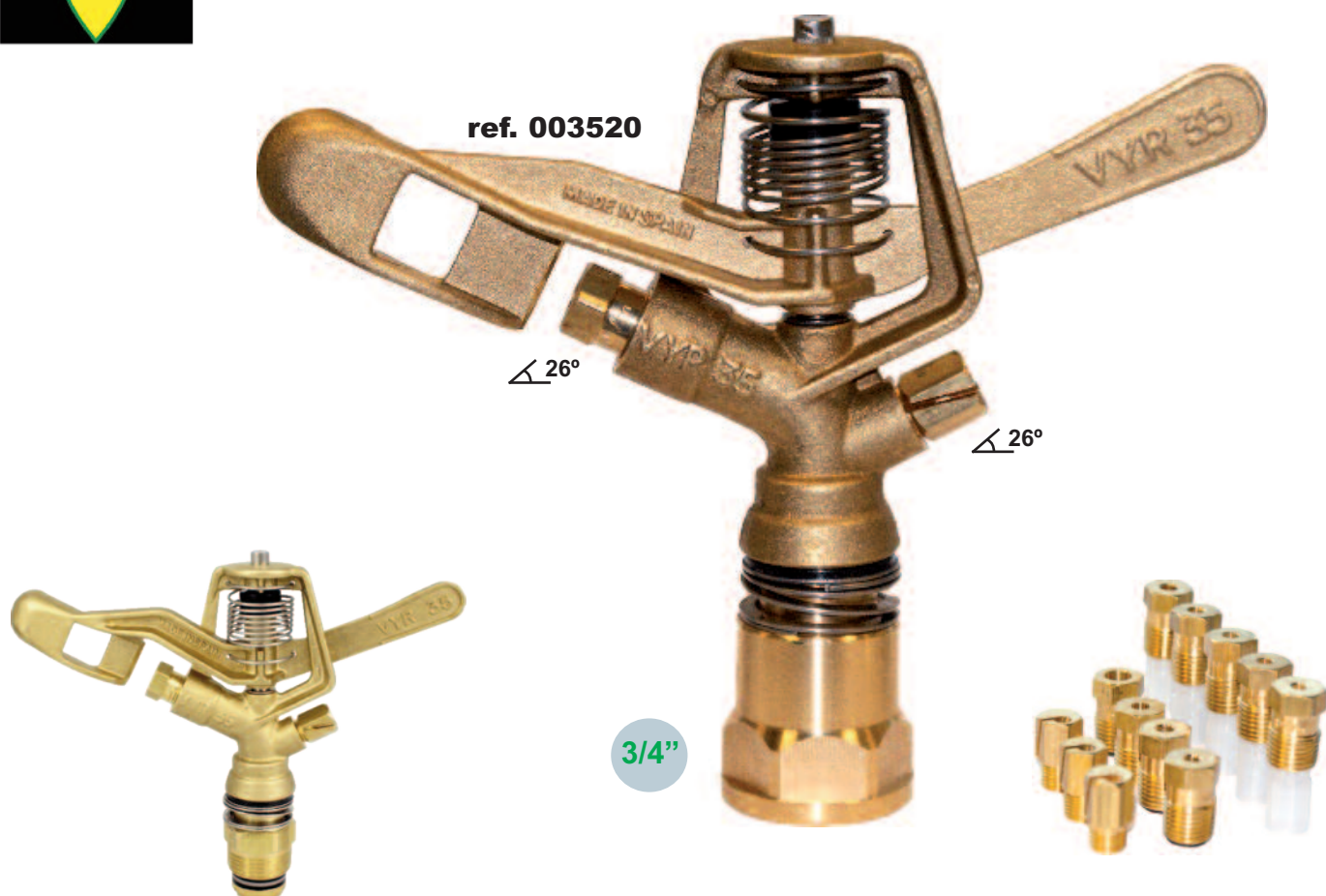
(\*Sprinkler at 1 meter height)

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



Nozzle set  
position at 21:00





## VYR-35

Full circle AG

### General properties:

- Medium flow agricultural impact sprinkler.
- 3/4" male or female connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 26° and 26°.
- Designed for full coverage irrigation offering best compliance with spacing standards in the market.
- Leading sprinkler in the agricultural market.

### Technical specifications:

- Range distance: 42-60 ft. (13-18 m).
- Flow: 2,7-15 GPM (660- 3270 l/h).
- Working pressure: 25-65 PSI (1,75- 4,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary deflector nozzle or plug.
- Trajectory angles: 26° and 26°.
- Maximum stream height: 14 ft. (4,2 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 60x60R, 50x60T, 60x60T ft.

### Applications:

- This model is compatible with almost any type of crop and with a wide range of pluviometric and spacing conditions, suitable for a large number of different crop types.
- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Dimensions:

- Height: 5,5 in. (14 cm).
- Width: 6,7 in. (17 cm).
- Weight: 0,95 lbs. (430 grs).
- Units per box: 50.

### Options:

- Threads in BSP or NPT under demand.
- Anti-frost cover with connection.
- Brass or plastic nozzles, depending on the customer's technical specifications.
- Secondary nozzle with deflector slot or plug.
- Assembled on a pressure regulator for self-compensation of pressure and flow.

### Models:

- Ref. 003501: 3/4" male.
- Ref. 003520: 3/4" female.
- Ref. 003511: 3/4" male, anti-frost.
- Ref. 003530: 3/4" female, anti-frost.





# VYR-35

## Tables & Charts

### Technical guidance table for CU's of VYR-35

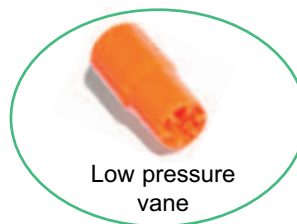
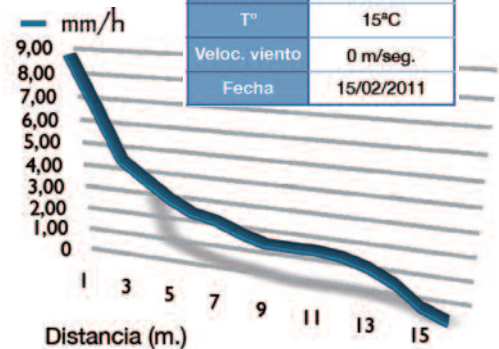
NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				40x50 Triang.	50x50 Triang.	50x60 Triang.	60x60 Triang.	60x66 Triang.	66x66 Rect.
4,0x2,4 mm. 5/32"x3/32"	44	376	50	0,39	0,31	0,25	0,23	0,17	0,17
	51	407	50	0,42	0,34	0,27	0,25	0,19	0,19
	58	435	50	0,45	0,36	0,29	0,27	0,20	0,20
	73	450	51	0,47	0,38	0,31	0,29	0,22	0,20
4,4x2,4 mm. 11/64"x3/32"	44	435	51	0,44	0,35	0,29	0,27	0,20	0,20
	51	469	51	0,48	0,39	0,31	0,29	0,21	0,22
	58	502	51	0,52	0,42	0,33	0,31	0,23	0,23
	73	532	52,5	0,54	0,44	0,35	0,33	0,25	0,26
4,8x3,2 mm. 3/16" x 1/8"	44	498	52,5	0,52	0,41	0,33	0,30	0,22	0,23
	51	538	52,5	0,56	0,44	0,36	0,33	0,24	0,25
	58	575	54	0,59	0,48	0,38	0,35	0,26	0,26
	73	610	54	0,62	0,50	0,41	0,38	0,29	0,29
5,2x3,2 mm. 13/64" x 1/8"	44	645	54	0,69	0,54	0,43	0,38	0,28	0,28
	51	697	54	0,72	0,58	0,46	0,43	0,31	0,32
	58	745	56	0,77	0,62	0,49	0,46	0,34	0,34
	73	790	56	0,82	0,67	0,54	0,50	0,39	0,39

P: Pressure D: Distance (Range Radius).

Q: Flow at real test










CU<85% CU 85-88% CU 88-92% CU>92%

BAR	3,5
Caudal	1777 L/h
Boquillas	4,4 X 2,4 mm
Centro	VYR
Veloc. Rot.	38 seg/rev
Altura	100 cm
Duración	60 min
T°	15°C
Veloc. viento	0 m/seg.
Fecha	15/02/2011













### Performance nozzle tables of VYR-35

#### Long range nozzles (long vane) + Plug

														
	1/8" 3,2 mm.		9/64" 3,6 mm.		5/32" 4,0 mm.		11/64" 4,4 mm.		3/16" 4,8 mm. 		13/64" 5,2 mm.		7/32" 5,6 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
36	2,73	85	3,48	87	4,27	90	5,10	98	6,12	105	7,22	107	7,57	112
44	3,00	85	3,78	87	4,62	92	5,58	100	6,65	105	7,88	110	8,27	115
51	3,25	87	4,10	89	5,02	97	6,07	103	7,22	108	8,50	113	9,42	118
58	3,48	87	4,40	92	5,37	97	6,47	107	7,70	112	9,07	116	9,97	121
65	3,70	89	4,67	95	5,68	98	6,82	110	8,18	115	9,60	118	10,60	126
73	3,87	90	4,93	97	5,98	100	7,22	112	8,62	118	10,08	123	11,08	130
80	4,10	92	5,15	98	6,30	102	7,57	115	9,07	120	10,47	125	11,62	131

(\*Sprinkler at 1 meter height)

#### Long range nozzles (long vane) + short range nozzle

	 15°	 15°	 15°	 15°	 15°	 15°	 15°	 15°	 15°	
	1/8" x 3/32" 3,2 x 2,4 mm.	9/64" x 3/32" 3,6 x 2,4 mm.	5/32" x 3/32" 4,0 x 2,4 mm.	11/64" x 3/32" 4,4 x 2,4 mm.	11/64" x 7/64" 4,4 x 2,8 mm.	3/16" x 7/64" 4,8 x 2,8 mm.	3/16" x 1/8" 4,8 x 3,2 mm.	13/64" x 1/8" 5,2 x 3,2 mm.	7/32" x 1/8" 5,6 x 3,2 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
36	4,32	85	5,07	87	5,80	90	6,68	98	7,62	98
44	4,70	85	5,50	87	6,38	92	7,35	100	7,92	98
51	5,10	87	5,93	89	6,87	97	7,92	103	8,43	103
58	5,45	87	6,38	92	7,35	97	8,45	107	9,10	107
65	5,80	89	6,78	95	7,78	98	8,93	110	9,53	110
73	5,98	90	7,13	97	8,23	100	9,42	112	10,12	112
80	6,42	92	7,48	98	8,62	102	9,85	115	10,57	115

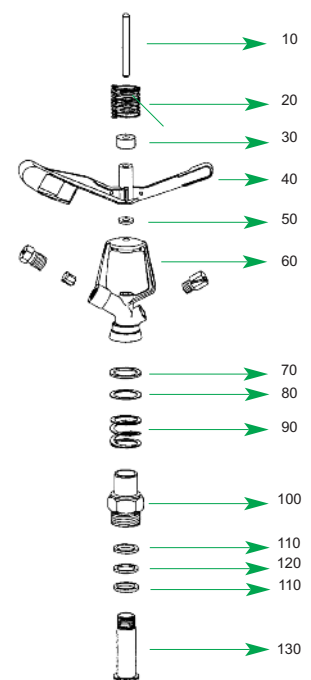


STANDARD

Ø ft. : Diameter of coverage

(\*Sprinkler at 1 meter height)

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.





## VYR-36 Full circle AG

### General properties:

- Medium flow agricultural impact sprinkler.
- 3/4" male or female connection.
- Made of plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 25° and 25°.
- Used in full coverage irrigation with the best compliance with spacing standards in the market.
- Curved design of the internal angles of the body to avoid internal hydraulic turbulence and for greater reach.
- Stainless steel ball counterweights inserted in the arm.
- Plastic sprinkler, leader in the agricultural market.

### Technical specifications:

- Range distance: 42,5-60 ft. (13-18 m).
- Flow: 2,7-5,1 GPM (620- 3430 l/h).
- Working pressure: 25-65 PSI (1,75 - 4,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary deflector nozzle or plug.
- Trajectory angles: 25° and 25°.
- Maximum stream height: 13 ft. (4,0 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 49x59R, 49x59T, 59x59T ft.

### Applications:

- This model is compatible with almost any type of crop and with a wide range of pluviometric and spacing conditions, suitable for a large number of different crop types.
- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Dimensions:

- Height: 5,5 in. (14 cm).
- Width: 6,7 in. (17 cm).
- Weight: 0,39 lbs. (178 grs).
- Units per box: 100.

### Options:

- Threads in BSP or NPT under demand.
- Models with anti-frost cover with male or female connection.
- Brass or plastic nozzles, depending on the customer's technical specifications.
- Secondary nozzle with deflector slot or plug.
- Assembled on a pressure regulator for self-compensation of pressure and flow.

### Models:

- Ref. 003600:** 3/4" male.
- Ref. 003602:** 3/4" female.
- Ref. 003620:** 3/4" male, anti-frost.
- Ref. 003622:** 3/4" female, anti-frost.









# VYR-36

## Tables & Charts

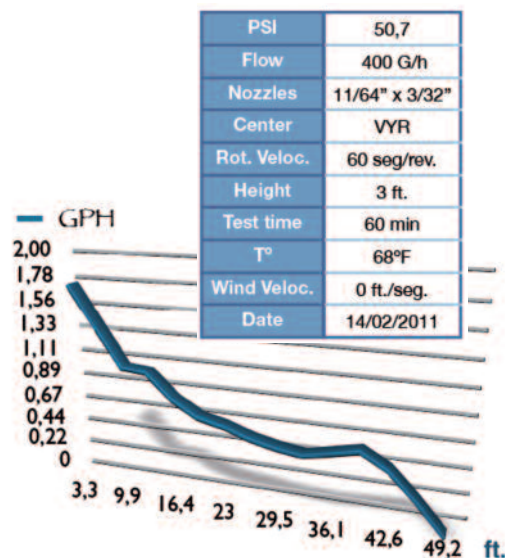
Technical guidance table for CU's of VYR-36

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				40x40 Rect.	40x50 Rect.	50x50 Rect.	50x50 Triang.	50x60 Triang.	60x60 Rect.
9/64" x 3/32" 3,6 x 2,4 mm. 	44	324	46	0,33	0,27	0,21	0,20	0,15	0,15
	51	350	46	0,36	0,29	0,23	0,21	0,16	0,16
	58	374	48	0,39	0,31	0,25	0,23	0,17	0,17
5/32" x 3/32" 4,0 x 2,4 mm. 	44	376	50	0,39	0,31	0,25	0,23	0,17	0,17
	51	407	50	0,42	0,34	0,27	0,25	0,19	0,19
	58	435	50	0,45	0,36	0,28	0,27	0,20	0,20
11/64" x 3/32" 4,4 x 2,4 mm. 	44	435	51	0,48	0,39	0,29	0,28	0,23	0,19
	51	469	51	0,52	0,43	0,28	0,30	0,24	0,20
	58	502	51	0,55	0,47	0,33	0,31	0,28	0,21
3/16" x 1/8" 4,8 x 3,2 mm. 	44	498	52,5	0,59	0,48	0,38	0,35	0,26	0,26
	51	538	52,5	0,64	0,52	0,41	0,38	0,28	0,29
	58	575	54	0,69	0,55	0,44	0,41	0,30	0,31

P: Pressure D: Distance (Range Radius).

Q: Flow at real test










CU<85% CU 85-88% CU 88-92% CU>92%



Special nozzle for solid-set systems over 2 m height

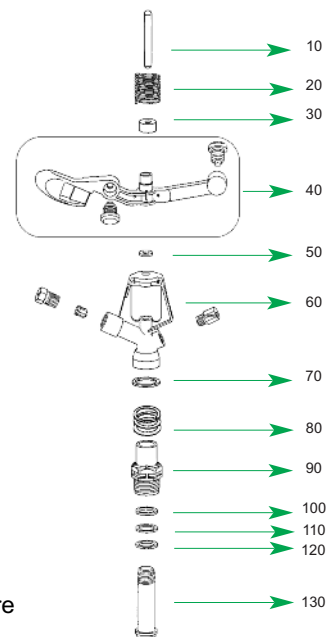
## Performance nozzle tables of VYR-36

### Long range nozzles (long vane) + Plug














									
	1/8" 3,2 mm.	9/64" 3,6 mm.	5/32" 4,0 mm.	11/64" 4,4 mm.	3/16" 4,8 mm.	13/64" 5,2 mm.	7/32" 5,6 mm.		
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM
36	2,7	85	3,5	87	4,3	90	5,1	98	6,1
44	3,0	85	3,8	87	4,6	92	5,6	100	6,7
51	3,3	87	4,1	89	5,0	97	6,1	103	7,2
58	3,5	87	4,4	92	5,4	97	6,5	107	7,7
65	3,7	89	4,7	95	5,7	98	6,8	110	8,2
73	3,9	90	4,9	97	6,0	100	7,2	112	8,6
80	4,1	92	5,2	98	6,3	102	7,6	115	9,1

(\*Sprinkler at 1 meter height)

Low pressure vane



### Long range nozzles (long vane) + short range nozzle

													
	7/64" x 3/32" 2,8 x 2,4 mm.	1/8" x 3/32" 3,2 x 2,4 mm.	9/64" x 3/32" 3,6 x 2,4 mm.	5/32" x 3/32" 4,0 x 2,4 mm.	11/64" x 3/32" 4,4 x 2,4 mm.	11/64" x 7/64" 4,4 x 2,8 mm.	3/16" x 3/32" 4,8 x 2,4 mm.	3/16" x 7/64" 4,8 x 2,8 mm.	3/16" x 1/8" 4,8 x 3,2 mm.	13/64" x 1/8" 5,2 x 3,2 mm.	7/32" x 1/8" 5,6 x 3,2 mm.		
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM
29	3,08	75,5	4,32	85	5,07	87	5,80	90	6,68	98	7,62	98	8,43
36	3,65	78,7	4,70	85	5,50	87	6,38	92	7,35	100	7,92	100	8,43
44	3,96	78,7	5,10	87	5,93	89	6,87	97	7,92	103	8,43	103	8,45
51	4,25	80,4	5,45	87	6,38	92	7,35	97	8,45	107	9,10	107	9,03
58	4,62	80,4	5,80	89	6,78	95	7,78	98	8,93	110	9,53	110	9,60
65	4,84	82,0	5,98	90	7,13	97	8,23	100	9,42	112	10,12	112	10,13
73	5,11	83,7	6,42	92	7,48	98	8,62	102	9,85	115	10,57	115	10,70

 STANDARD Ø ft. : Diameter of coverage (\*Sprinkler at 1 meter height)

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



## VYR-37

### Full circle AG

#### General properties:

- Medium flow agricultural impact sprinkler.
- 3/4" male or female connection.
- Colour-coded "click" bayonet nozzles.
- Made of plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 25° and 20°.
- Body specially designed for bayonet nozzles.
- Plastic sprinkler, leader in the agricultural market.

#### Technical specifications:

- Range distance: 42,5-60 ft. (13-18 m).
- Flow: 3-14 GPM (660- 3270 l/h).
- Working pressure: 25-65 PSI (1,75 - 4,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary nozzle or plug.
- Trajectory angles: 25° and 25°.
- Maximum stream height: 13 ft. (4,0 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 49x49R, 49x59T, 52x52T ft.



ref. 102660

Tool for bayonet  
nozzles

#### Applications:

- This model is compatible with almost any type of crop and with a wide range of pluviometric and spacing conditions, suitable for a large number of different crop types.
- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

#### Dimensions:

- Height: 5,5 in. (14 cm).
- Width: 6,7 in. (17 cm).
- Weight: 0,33 lbs. (150 grs).
- Units per box: 100.

#### Options:

- Threads in BSP or NPT under demand.
- Models with male or female connection.
- Assembled on a pressure regulator for self-compensation of pressure and flow.

#### Models:

- Ref. 003701: Male , **without weights.**
- Ref. 003702: Female, **without weights.**
- Ref. 003703: Male + AF CAPS, **without weights**
- Ref. 003704: Female + AF CAPS, **without weights.**

- Ref. 003711: Male , **with weights.**
- Ref. 003712: Female, **with weights.**
- Ref. 003713: Male + AF CAPS, **with weights.**
- Ref. 003714: Female + AF CAPS, **with weights.**





# VYR-37

## Tables & Charts

### Technical guidance table for CU's of VYR-37

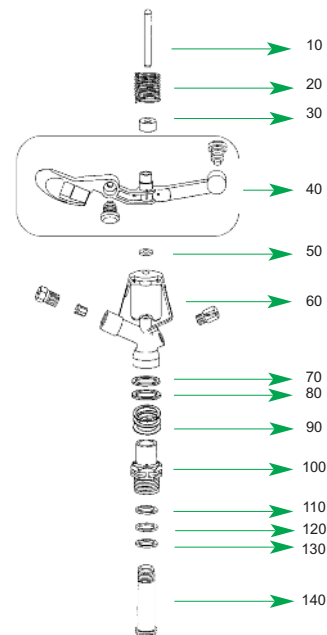
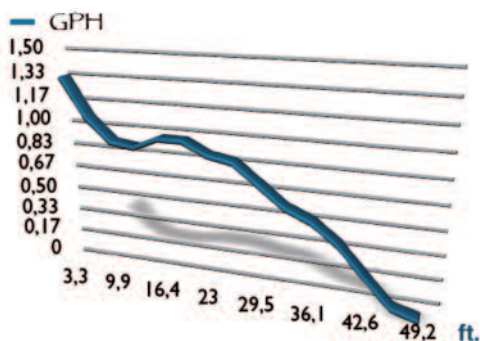
NOZZLE COLOR	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				40x40 Triang.	40x50 Rect.	40x50 Triang.	50x50 Rect.	50x60 Rect.	60x60 Triang.
9/64"x 0,10"	44	329	42,7	0,31	0,27	0,22	0,22	0,18	0,00
	51	355	45,9	0,34	0,30	0,24	0,24	0,20	0,15
	58	380	45,9	0,36	0,31	0,25	0,25	0,21	0,16
5/32"x 0,10"	44	383	45,9	0,37	0,31	0,25	0,25	0,21	0,16
	51	413	45,9	0,39	0,34	0,27	0,28	0,23	0,18
	58	440	45,9	0,42	0,37	0,29	0,29	0,24	0,19
3/16"x 1/8"	44	585	49,2	0,56	0,48	0,39	0,39	0,32	0,25
	51	632	49,2	0,60	0,52	0,42	0,42	0,35	0,27
	58	675	49,2	0,65	0,56	0,44	0,45	0,37	0,29

P: Pressure D: Distance (Range Radius).

Q: Flow at real test









CU<85% CU 85-88% CU 88-92% CU>92%

PSI	51
Flow	407 GPH
Nozzles	11/64" x 3/32"
Center	VYR
Rot. Veloc.	29 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	05/04/2011










### Performance nozzle tables of VYR-37

#### Long range nozzles (long vane) + Plug

												
	9/64" 3,6 mm.		5/32" 4,0 mm.		11/64 " 4,4 xmm.		3/16" 4,8 mm.		13/64" 5,20 mm.		7/32" 5,6 mm.	
												
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
29	3,05	85	4,10	87	4,77	90	5,68	95	6,48	102	6,82	107
36	3,38	85	4,60	87	5,38	92	6,30	97	7,22	105	7,57	110
44	3,72	87	5,07	89	5,85	97	6,90	102	7,92	108	8,27	113
51	4,00	87	5,45	92	6,35	97	7,35	105	8,60	110	9,42	115
58	4,27	89	5,80	95	6,87	98	8,03	107	9,28	112	9,85	116
65	4,52	90	6,23	97	7,32	100	8,58	108	9,78	113	10,60	118

(\*Sprinkler at 1 meter height)

#### Long range nozzles (long vane) + short range nozzle

												
	9/64 x 3/32" 3,6 x 2,6 mm.		5/32 x 3/32" 4,0 x 2,6 mm.		11/64 x 3/32" 4,4 x 2,6 mm.		3/16 x 1/8" 4,8 x 3,2 mm.		13/64" x 1/8" 5,2 x 3,2 mm.		7/32 x 1/8" 5,6 x 3,2 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
29	4,45	85	5,42	87	6,05	90	7,78	95	8,72	102	9,63	107
36	4,90	85	6,12	87	6,75	92	8,85	97	9,72	105	10,82	110
44	5,37	87	6,75	89	7,55	97	9,82	102	10,70	108	12,02	113
51	5,80	87	7,28	92	8,18	97	10,45	105	11,70	110	12,83	115
58	6,30	89	7,78	95	8,75	98	11,22	107	12,52	112	13,35	116
65	6,60	90	8,18	97	9,23	100	12,02	108	13,20	113	13,95	118

STANDARD

Ø ft. : Diameter of coverage

(\*Sprinkler at 1 meter height)

- For optimum distribution avoid use in shady areas.

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

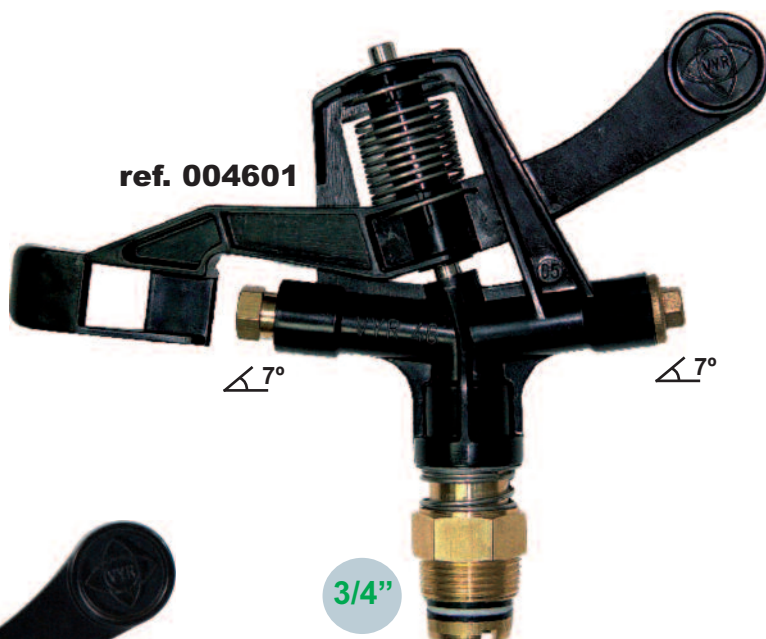
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.





WIND-FIGHTER  
DESIGN

ref. 004601



ref. 004600



## VYR-46

Full circle AG

### General properties:

- Medium flow and low angle agricultural impact sprinkler "WIND FIGHTER".
- 3/4" male or female connection.
- Made of plastic, brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 7° and 7°.
- Specially designed for greater reach on Pivots, windy areas or under-tree irrigation.

### Technical specifications:

- Range distance: 37-50 ft. (11,5-15,5 m).
- Flow: 5-15 GPM (310- 3520 l/h).
- Working pressure: 25-65 PSI (1,75 - 4,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary nozzle or plug.
- Trajectory angles: 7° and 7°.
- Maximum stream height: 4 ft. (1,2 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.

### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Dimensions:

- Height: 5,5 in. (14 cm).
- Width: 7,5 in. (19 cm).
- Weight: 0,42 lbs. (190 grs).
- Units per box: 50.

### Options:

- Threads in BSP or NPT under demand.
- Secondary nozzle similar to the main nozzle.
- Connection coupling in plastic or brass.
- Assembled on a pressure regulator for self-compensation of pressure and flow.

### Models:

Ref. 004600: With plastic base.

Ref. 004601: With brass male base.

Ref. 004602: With brass female base.

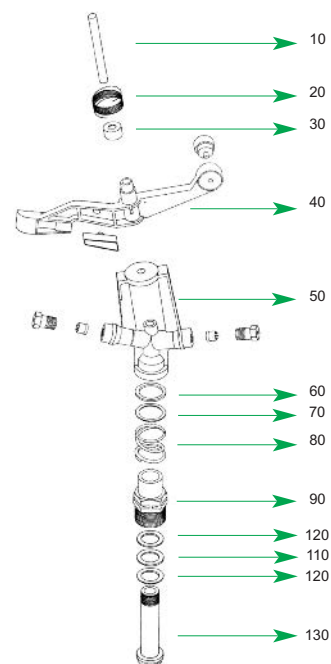
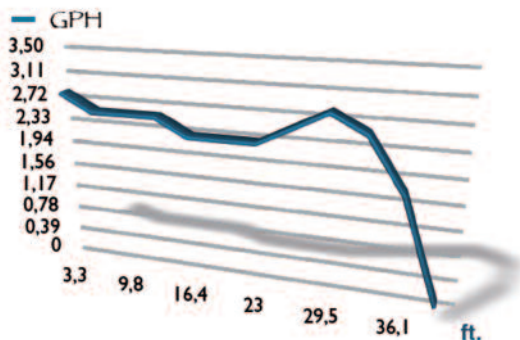




# VYR-46

## Tables & Charts

PSI	51
Flow	524 GPH
Nozzles	11/64" X 7/64"
Center	VYR
Rot. Veloc.	0,3 min/rev.
Height	60 cm
Test time	60 min.
T°	68°F
Wind Veloc.	0 ft./sec.
Date	10/06/2010



## Performance nozzle tables of VYR-46

### Long range nozzles (long vane) + Short range nozzle

	5/32 x 3/32" 4 x 2,4		11/64 x 3/32" 4,4 x 2,4		3/16 x 3/32" 4,8 x 2,4		7/32 x 3/32" 5,5 x 2,4	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
22	5,06	90,2	5,68	91,9	6,87	98,4	8,28	101,7
29	5,77	91,9	6,32	95,1	7,71	101,7	9,20	106,3
36	6,25	96,8	6,82	98,4	8,45	105,0	10,08	108,9
44	6,74	100,4	7,31	102,4	9,03	108,3	10,83	111,5
51	7,18	101,7	7,79	106,0	9,60	111,5	11,54	115,8
58	7,57	102,4	8,23	106,6	10,13	111,5	12,20	118,1
65	7,93	104,3	8,67	106,6	10,70	111,5	12,86	118,1

(\*Sprinkler at 1 meter height)



### Long range nozzles (long vane) + Plug

	1/8" - 3,2 mm.		9/64" - 3,6 mm.		5/32" - 4 mm.		11/64" - 4,4 mm.		3/16" - 4,8 mm.		13/64" - 5,2 mm.		7/32" - 5,5 mm.		15/64" - 6 mm.		1/4" - 6,3 mm.		17/64" - 6,7 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
22	2,11	68,9	2,51	68,9	3,30	72,2	3,92	69,6	4,62	70,2	5,37	70,2	6,16	68,9	7,00	67,3	7,88	68,9	8,85	68,9
29	2,42	68,9	2,91	72,2	3,74	75,5	4,53	71,5	5,37	72,2	6,21	73,5	7,13	72,2	8,10	72,2	9,11	73,8	10,13	73,8
36	2,64	72,2	3,21	75,5	4,18	78,7	5,06	72,8	5,99	73,8	6,96	74,8	7,97	75,5	9,03	75,5	10,17	75,5	11,01	76,8
44	2,91	75,5	3,52	75,5	4,58	78,7	5,55	73,5	6,56	74,8	7,62	76,1	8,72	76,8	9,91	76,8	11,14	77,1	12,33	77,4
51	3,13	75,5	3,79	78,7	4,84	82,0	5,99	74,1	7,09	75,5	8,19	76,8	9,42	77,4	10,70	77,1	12,06	77,4	13,65	78,1
58	3,35	78,7	4,01	82,0	5,20	85,3	6,38	75,5	7,57	77,1	8,85	77,4	10,13	78,7	11,49	77,4	12,99	78,1	14,97	78,7


**STANDARD**
**Ø ft. : Diameter of coberage**

(\*Sprinkler at 1 meter height)

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



## VYR-56

Full circle AG

### General properties:

- Medium flow agricultural impact sprinkler.
- 3/4" male or female connection.
- Made of plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 24° and 27°.
- Special design for long reach.
- Used in full coverage irrigation with medium-high flow.

### Technical specifications:

- Range distance: 42-60 ft. (13-18 m).
- Flow: 2,7-14,8 GPM (620- 3360 l/h).
- Working pressure: 25-65 PSI (1,75- 4,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary deflector nozzle or plug.
- Trajectory angles: 24° and 27°.
- Maximum stream height: 14 ft. (4,2 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 18x18R, 59x59R, 65x59T, 59x59T ft.

### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Dimensions:

- Height: 5,5 in. (14 cm).
- Width: 7,5 in. (19 cm).
- Weight: 0,42 lbs. (190 grs).
- Units per box: 100.

### Options:

- Threads in BSP or NPT under demand.
- Secondary nozzle with deflector slot or plug.
- Assembled on a pressure regulator for self-compensation of pressure and flow.

### Models:

Ref. 005600: 3/4" male.

Ref. 005620: 3/4" female.

Ref. 005610: 3/4" male + AF connection.

Ref. 005621: 3/4" hembra + AF connection.








# VYR-56

## Tables & Charts

### Technical guidance table for CU's of VYR-56

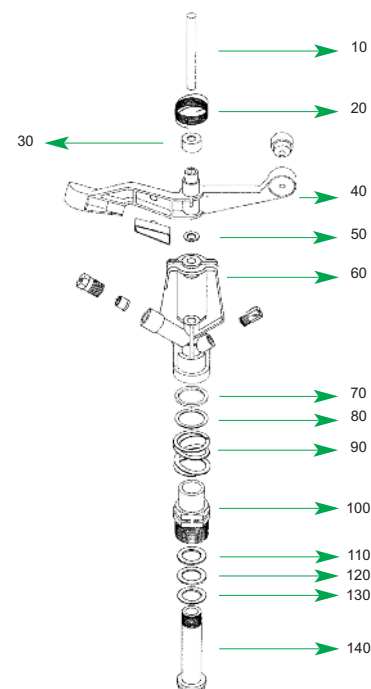
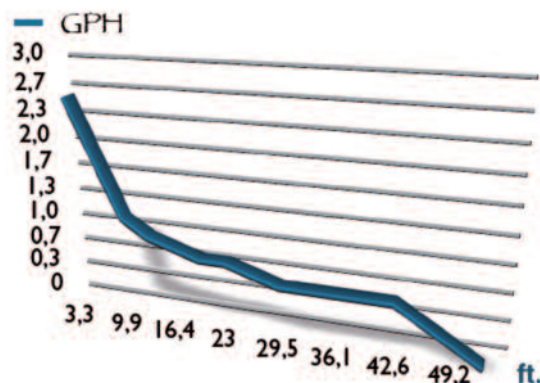
NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				50x50 Triang.	50x60 Triang.	60x60 Rect.	60x60 Triang.	60x66 Rect.	66x66 Rect.
5/32"x 3/32" 4.0 x 2.4 mm. 	44	376	45,9	0,23	0,17	0,17	0,16	0,16	0,00
	51	407	45,9	0,25	0,19	0,19	0,17	0,17	0,15
	58	435	45,9	0,27	0,20	0,20	0,19	0,18	0,16
11/64"x 3/32" 4.4 x 2.4 mm. 	44	435	49,2	0,27	0,20	0,20	0,19	0,18	0,16
	51	469	49,2	0,29	0,21	0,22	0,20	0,19	0,17
	58	502	49,2	0,31	0,23	0,23	0,21	0,21	0,19
3/16"x 1/8" 4.8 x 3.2 mm. 	44	576	52,5	0,35	0,26	0,26	0,24	0,24	0,22
	51	622	52,5	0,38	0,28	0,29	0,26	0,26	0,23
	58	665	52,5	0,41	0,30	0,31	0,28	0,28	0,25

P: Pressure D: Distance (Range Radius).

Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%








PSI	50,7
Flow	462 GPH
Nozzles	11/64" x 3/32"
Center	VYR
Rot. Veloc.	34 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	02/03/2011



Special nozzle for solid-set systems over 2 m height











### Performance nozzle tables of VYR-56

#### Long range nozzles (long vane) + Plug

														
	1/8" 3,2 mm.		9/64" 3,6 mm.		5/32" 4,0 mm.		11/64" 4,4 mm.		3/16" 4,8 mm.		13/64" 5,2 mm.		7/32" 5,6 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
36	2,73	88	3,48	90	4,27	93	5,10	101	6,12	108	7,22	110	7,57	115
44	3,00	88	3,78	90	4,62	95	5,58	103	6,65	108	7,88	113	8,27	118
51	3,25	90	4,10	92	5,02	100	6,07	106	7,22	111	8,50	116	9,42	121
58	3,48	90	4,40	95	5,37	100	6,47	110	7,70	115	9,07	119	0,98	124
65	3,70	92	4,67	98	5,68	101	6,82	113	8,18	118	9,60	121	10,60	130
73	3,87	93	4,93	101	5,98	103	7,22	115	8,62	121	10,08	126	11,08	133
80	4,10	95	5,15	101	6,30	105	7,57	118	9,02	123	10,47	128	11,62	134

(\*Sprinkler at 1 meter height)

#### Long range nozzles (long vane) + short range nozzle

																		
	15°	15°	15°	15°	15°	15°	15°	15°	15°									
	1/8" x 3/32" 3,2 x 2,4 mm.		9/64" x 3/32" 3,6 x 2,4 mm.		5/32" x 3/32" 4,0 x 2,4 mm.		11/64" x 3/32" 4,4 x 2,4 mm.		11/64" x 7/64" 4,4 x 2,8 mm.		3/16" x 3/32" 4,8 x 2,4 mm.		3/16" x 7/64" 4,8 x 2,8 mm.		3/16" x 1/8" 4,8 x 3,2 mm.		13/64" x 1/8" 5,2 x 3,2 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
36	4,32	88	5,07	90	5,80	93	6,68	101	7,62	101	7,71	108	8,33	108	9,02	108	10,17	110
44	4,70	88	5,50	90	6,38	95	7,35	103	7,92	103	8,45	108	9,23	108	9,85	108	11,08	113
51	5,10	90	5,93	92	6,87	100	7,92	106	8,43	106	9,03	111	9,92	111	10,65	111	11,97	116
58	5,45	90	6,38	95	7,35	100	8,45	110	9,10	110	9,60	115	10,57	115	11,40	115	12,80	119
65	5,80	92	6,78	98	7,78	101	8,93	113	9,53	113	10,13	118	11,20	118	12,10	118	13,50	121
73	5,98	93	7,13	101	8,23	103	9,42	115	10,12	115	10,70	121	11,80	121	12,67	121	14,22	126
80	6,42	95	7,48	101	8,62	105	9,85	118	10,57	118	11,05	123	12,37	123	13,25	123	14,78	128



STANDARD

Ø ft. : Diameter of coverage

(\*Sprinkler at 1 meter height)

- For optimum distribution avoid use in shady areas.

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.





## VYR-70 Full circle AG

### General properties:

- Medium flow agricultural impact sprinkler.
- 3/4" male or female connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 26° and 22°.
- Special design for long reach.
- Used in full coverage irrigation with medium-high flow.

### Technical specifications:

- Range distance: 42-60 ft. (13-18 m).
- Flow: 2,7-14,8 GPM (620- 3360 l/h).
- Working pressure: 25-65 PSI (1,75- 4,5 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary deflector nozzle or plug.
- Trajectory angles: 26° and 22°.
- Maximum stream height: 14 ft. (4,2 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 18x18R, 59x59R, 65x59T, 59x59T ft.

### Dimensions:

- Height: 5,9 in. (15 cm).
- Width: 7,9 in. (20 cm).
- Weight: 1,2 lbs (548 grs).
- Units per box: 50.

### Options:

- Threads in BSP or NPT under demand.
- Secondary nozzle with deflector slot or plug.
- Assembled on a pressure regulator for self-compensation of pressure and flow.

### Applications:

- Used in all types of agricultural irrigation, generally with medium-high flows. Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Models:

**Ref. 007001:** 3/4" male.

**Ref. 007020:** 3/4" female.








# VYR-70

## Tables & Charts

### Technical guidance table for CU's of VYR-70

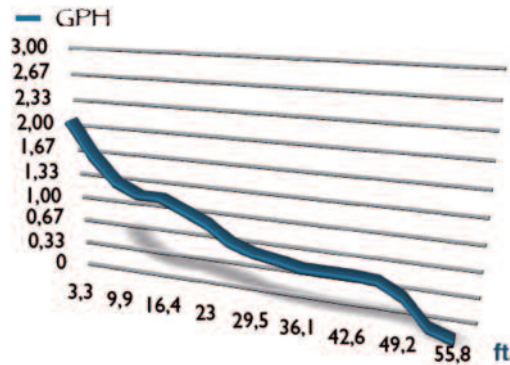
NOZZLE	P (PSI)	Q (GPH)	D (Ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				50x50 Triang.	60x60 Triang.	60x70 Rect.	60x70 Triang.	70x70 Triang.	70x80 Rect.
11/64" x 3/32" 4,4 x 2,4 mm. 	44	435	49,2	0,20	0,19	0,17	0,14	0,15	
	51	469	49,2	0,21	0,20	0,19	0,15	0,16	
	58	502	52,5	0,23	0,21	0,20	0,17	0,17	
3/16" x 1/8" 4,8 x 3,2 mm. 	44	576	49,2	0,26	0,24	0,23	0,19	0,19	
	51	622	52,5	0,28	0,26	0,24	0,20	0,21	0,19
	58	665	52,5	0,30	0,28	0,26	0,22	0,22	0,20
7/32" x 1/8" 5,5 x 3,2 mm. 	44	720	55,8	0,33	0,31	0,28	0,24	0,24	0,21
	51	777	55,8	0,35	0,33	0,31	0,26	0,26	0,23
	58	831	59,1	0,38	0,35	0,33	0,28	0,28	0,24

P: Pressure D: Distance (Range Radius).

Q: Flow at real test

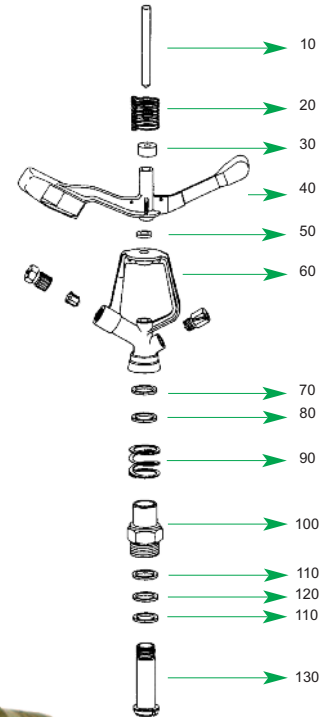
CU<85% CU 85-88% CU 88-92% CU>92%

PSI	50,7
Flow	612 GPH
Nozzles	3/16" x 1/8"
Center	VYR
Rot. Veloc.	56 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	04/03/2011













NEW  
VYRSA  
NEW

Special nozzle for solid-set systems over 2 m height















### Performance nozzle tables of VYR-70

#### Long range nozzles (long vane) + Plug

										
	1/8" 3,2 mm.	9/64" 3,6 mm.	5/32" 4,0 mm.	11/64" 4,4 mm.	3/16" 4,8 mm.	13/64" 5,2 mm.	7/32" 5,6 mm.			
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
36	2,73	88	3,48	90	4,27	93	5,10	101	6,12	108
44	3,00	88	3,78	90	4,62	95	5,58	103	6,65	108
51	3,25	90	4,10	92	5,02	100	6,07	106	7,22	111
58	3,48	90	4,40	95	5,37	100	6,47	110	7,70	115
65	3,70	92	4,67	98	5,68	101	6,82	113	8,18	118
73	3,87	93	4,93	101	5,98	103	7,22	115	8,62	121
80	4,10	95	5,15	101	6,30	105	7,57	118	9,07	123

(\*Sprinkler at 1 meter height)

#### Long range nozzles (long vane) + short range nozzle

												
	15° 1/8" x 3/32" 3,2 x 2,4 mm.	15° 9/64" x 3/32" 3,6 x 2,4 mm.	15° 5/32" x 3/32" 4,0 x 2,4 mm.	15° 11/64" x 3/32" 4,4 x 2,4 mm.	15° 3/16" x 7/64" 4,4 x 2,8 mm.	15° 3/16" x 3/32" 4,8 x 2,4 mm.	15° 3/16" x 7/64" 4,8 x 2,8 mm.	15° 3/16" x 1/8" 4,8 x 3,2 mm.	15° 13/64" x 1/8" 5,2 x 3,2 mm.			
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
36	4,32	88	5,07	90	5,80	93	6,68	101	7,62	101	7,71	108
44	4,70	88	5,50	90	6,38	95	7,35	103	8,45	103	8,45	108
51	5,10	90	5,93	92	6,87	100	7,92	106	9,03	106	9,03	111
58	5,45	90	6,38	95	7,35	100	8,45	110	9,60	110	9,60	115
65	5,80	92	6,78	98	7,78	101	8,93	113	10,13	113	10,13	118
73	5,98	93	7,13	101	8,23	103	9,42	115	10,70	115	10,70	121
80	6,42	95	7,48	101	8,62	105	9,85	118	11,05	118	11,05	123

STANDARD Ø ft. : Diameter of coverage

(\*Sprinkler at 1 meter height)

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.





## VYR-70 VC

Full circle AG

### General properties:

- Agricultural impact sprinkler with medium-high flow.
- 1" male or female connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 26° and 26°.
- Special design for long reach.
- Used in full coverage irrigation with medium-high flow.

### Technical specifications:

- Range distance: 43-89 ft. (13,5- 27 m).
- Flow: 16-40 (3700- 9000 l/h).
- Working pressure: 40-90 PSI (2,75 - 6 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary nozzle.
- Trajectory angles: 26° and 26°.
- Maximum stream height: 16 ft. (5 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 65x65R, 72x72T, 72x79T ft.

### Dimensions:

- Height: 7,9 in. (20 cm).
- Width: 8,7 in. (22 cm).
- Weight: 2,03 lbs. (920 grs).
- Units per box: 25.

### Options:

- Threads in BSP or NPT under demand.
- This model is one of the options to be used over our irrigation traveller VYR-5300.
- Male or female connection.

### Applications:

- Used in all types of agricultural irrigation, generally with medium-high flow. Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Models:

Ref. 007010: 1" female connection

Ref. 007012: 1" male connection

Ref. 106000: Difuser pin plate.








## VYR-70 VC

### Tables & Charts

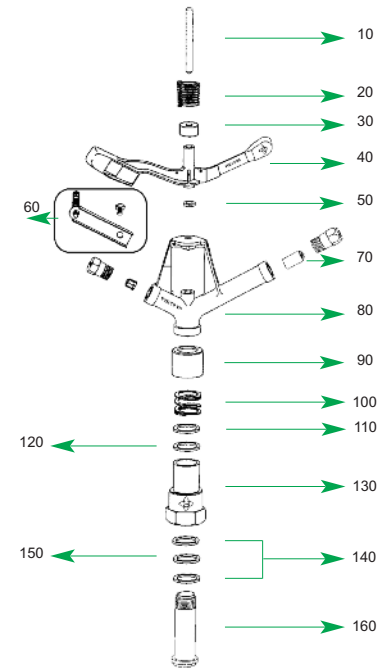
#### Technical guidance table for CU's of VYR-70 VC

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radio	Spacing (ft.) / Precipit. rate (in/h)					
				60x70 Rect.	70x70 Triang.	70x80 Triang.	80x80 Triang.	80x92 Rect.	92x92 Rect.
7/32"x 11/64" 5,6 x 4,4 mm. 	58	1013	62,3	0,37	0,31	0,28	0,24	0,20	0,18
	65	1075	64,0	0,38	0,33	0,29	0,25	0,22	0,19
	73	1141	65,6	0,39	0,33	0,28	0,26	0,22	0,19
1/4"x 3/16" 6,4 x 4,8 mm. 	58	1279	65,6	0,42	0,36	0,31	0,28	0,24	0,20
	65	1356	67,3	0,48	0,41	0,36	0,31	0,27	0,23
	73	1430	68,9	0,51	0,43	0,38	0,33	0,28	0,24
9/32"x 7/32" 7,2 x 5,6 mm. 	58	1576	68,9	0,61	0,52	0,45	0,40	0,34	0,29
	65	1671	72,2	0,64	0,55	0,48	0,42	0,36	0,31
	73	1762	75,5	0,65	0,56	0,49	0,43	0,37	0,31

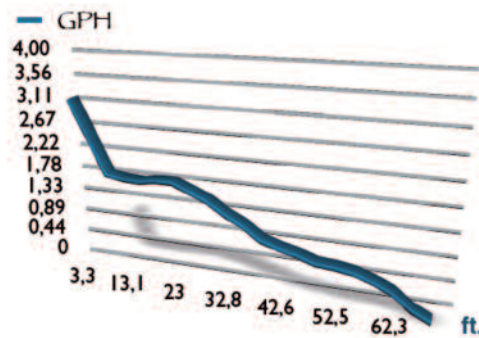
P: Pressure D: Distance (Range Radius).

Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



PSI	65
Flow	1355 GPH
Nozzles	1/4" x 3/16"
Center	VYR
Rot. Veloc.	117 seg/rev
Height	3,3 ft.
Test time	60 min.
T°	60°F
Wind Veloc.	0 m/seg.
Date	04/04/2011










ref. 106000



#### Performance nozzle tables of VYR-70 VC

##### Long range nozzles (long vane) + short range nozzle

							
	7/32 x 11/64" 5,55 x 4,4 mm.	1/4 x 11/64" 6,35 x 4,4 mm.	1/4 x 3/16" 6,35 x 4,8 mm.	9/32 x 3/16" 7,15 x 4,8 mm.	9/32 x 7/32" 7,15 x 5,55 mm.	11/32 x 7/32" 8,75 x 5,55 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM
44	16,37	128	18,10	128	19,52	128	22,82
51	17,55	131	19,32	138	20,88	138	24,63
58	18,78	138	20,97	144	22,43	144	26,27
65	19,55	144	21,70	151	24,02	151	28,25
73	20,70	151	22,83	157	25,45	157	29,30
80	21,93	154	24,15	161	26,53	161	30,75

 STANDARD

Ø ft. : Diameter of coverage

(\*Sprinkler at 1 meter height)

- For optimum distribution avoid use in shady areas.

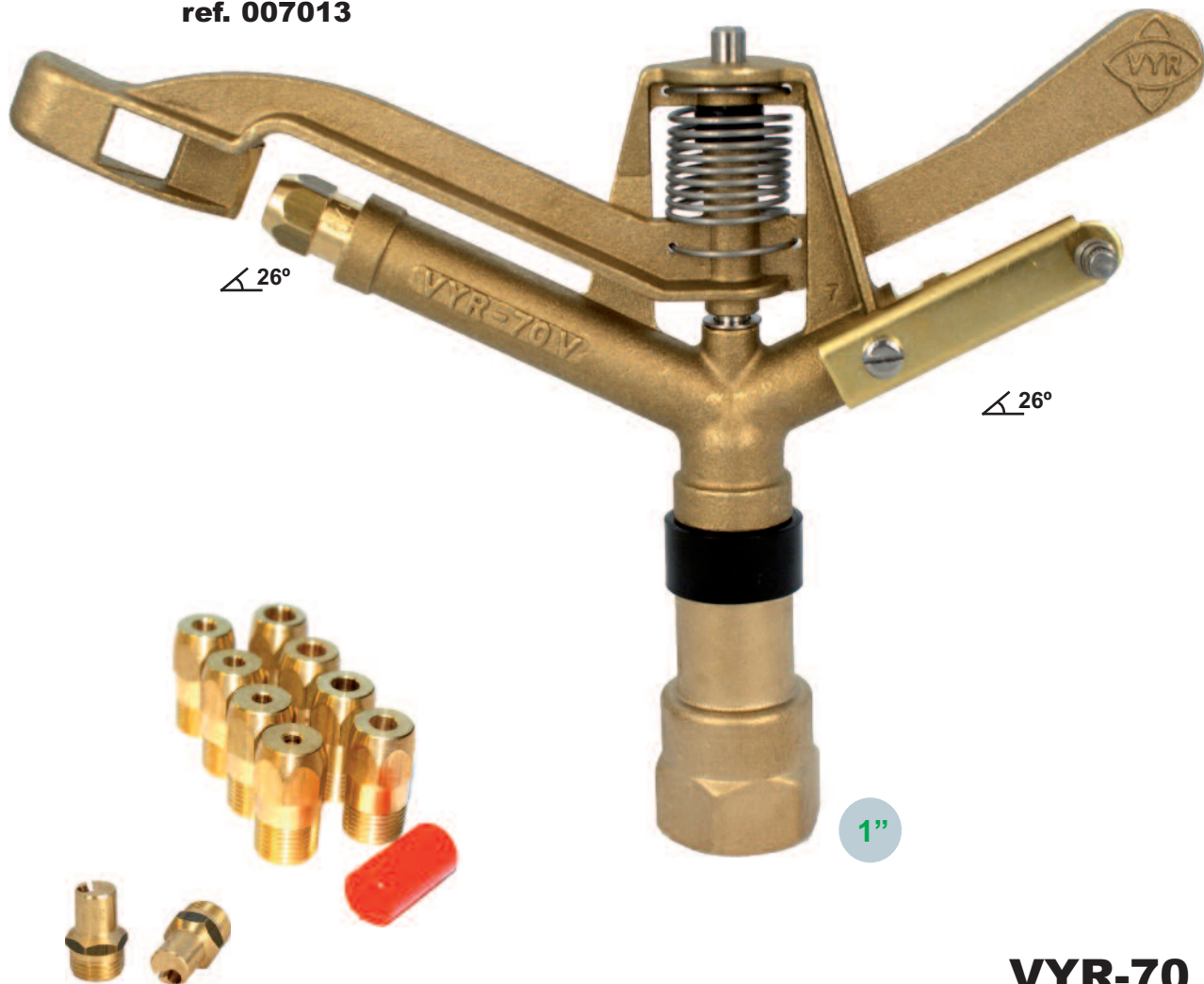
- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.





ref. 007013



## VYR-70 VL

Full circle AG

### General properties:

- Agricultural impact sprinkler with medium-high flow.
- 1" male or female connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 26° and 26°.
- Special design for long reach.
- Used in full coverage irrigation with medium-high flow.

### Technical specifications:

- Range distance: 43-89 ft. (13,5- 27 m).
- Flow: 10-40 GPM (2300- 9000 l/h).
- Working pressure: 40-90 PSI (2,75 - 6 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary nozzle.
- Trajectory angles: 26° and 26°.
- Maximum stream height: 16 ft. (5 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 65x65R, 72x72T, 72x79T ft.

### Dimensions:

- Height: 7,9 in. (20 cm).
- Width: 10,6 in. (27 cm).
- Weight: 2,38 lbs. (1080 grs).
- Units per box: 25.

### Options:

- Threads in BSP or NPT under demand.
- Long or short arm.
- Male or female connection.

### Applications:

- Used in all types of agricultural irrigation, generally with medium-high flow. Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Models:

Ref. 007011: 1" female connection.

Ref. 007013: 1" male connection.

Ref. 106000: Difuser pin plate.








# VYR-70 VL

## Tables & Charts

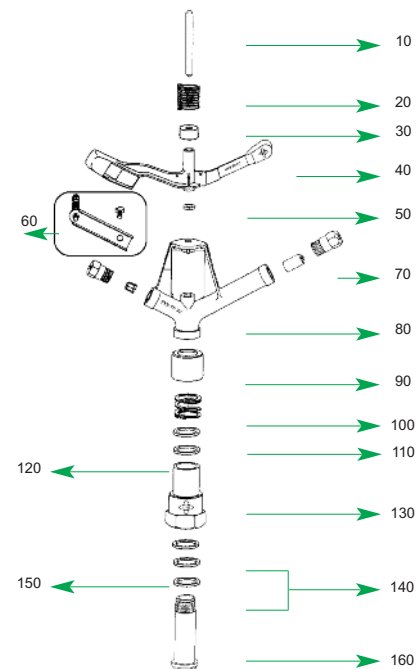
### Technical guidance table for CU's of VYR-70 VL

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				60x70 Rect.	70x70 Triang.	70x80 Triang.	80x80 Triang.	80x92 Rect.	92x92 Rect.
7/32"x 11/64" 5,6 x 4,4 mm. 	58	1013	62,3	0,40	0,31	0,26	0,24	0,22	
	65	1075	62,3	0,43	0,33	0,27	0,26	0,24	
	73	1141	65,6	0,44	0,35	0,28	0,27	0,25	
1/4"x 3/16" 6,4 x 4,8 mm. 	58	1279	65,6	0,50	0,40	0,32	0,31	0,28	0,24
	65	1356	65,6	0,54	0,43	0,34	0,32	0,30	0,26
	73	1430	68,9	0,56	0,44	0,36	0,34	0,32	0,27
9/32"x 7/32" 7,2 x 5,6 mm. 	58	1576	68,9	0,65	0,52	0,42	0,40	0,37	0,31
	65	1671	72,2	0,70	0,55	0,44	0,42	0,39	0,33
	73	1762	72,2	0,73	0,58	0,46	0,44	0,41	0,35

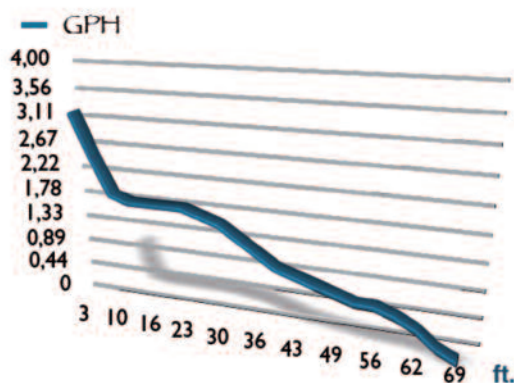
P: Pressure D: Distance (Range Radius).

Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%









PSI	65
Flow	1355 GPH
Nozzles	1/4" X 3/16"
Center	VYR
Rot. Veloc.	117 seg/rev
Height	3,3 ft.
Test time	60 min.
T°	68 °F
Wind Veloc.	0 m/seg.
Date	04/04/2011









### Performance nozzle tables of VYR-70 VL

#### Long range nozzles (long vane) + Plug

						
	7/32" 5,55 mm.	1/4" 6,35 mm.	9/32 " 7,14 mm.	5/16" 7,93 mm.	11/32" 8,73 mm.	3/8" 9,52 mm.
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
44	9,63	128	12,53	128	15,27	128
51	10,43	131	13,50	138	16,42	138
58	11,22	138	14,52	144	17,73	144
65	11,88	144	15,47	151	18,70	151
73	12,67	151	16,23	157	20,02	157
80	13,20	154	17,17	161	20,97	161

(\*Sprinkler at 1 meter height)

#### Long range nozzles (long vane) + short range nozzle

						
	7/32 x 11/64" 5,55 x 4,4 mm.	1/4 x 11/64" 6,35 x 4,4 mm.	1/4 x 3/16" 6,35 x 4,8 mm.	9/32 x 3/16" 7,15 x 4,8 mm.	9/32 x 7/32" 7,15 x 5,55 mm.	11/32 x 7/32" 8,75 x 5,55 mm.
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
44	16,37	128	18,10	128	19,52	128
51	17,55	131	19,32	138	20,88	138
58	18,78	138	20,97	144	22,43	144
65	19,55	144	21,70	151	24,02	151
73	20,70	151	22,83	157	25,45	157
80	21,93	154	24,15	161	26,53	161



STANDARD

Ø ft. : Diameter of coverage

(\*Sprinkler at 1 meter height)

- For optimum distribution avoid use in shady areas.

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.





ref. 008600

26°

26°

ref. 008601

1"

## VYR-86 Full circle AG

### General properties:

- Agricultural impact sprinkler with medium-high flow.
- 1" female connection.
- Made of plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 26° and 26°.
- Special design for long reach.
- Used in full coverage irrigation with medium-high flow.

### Technical specifications:

- Range distance: 43-89 ft. (13,5- 27 m).
- Flow: 10-40 GPM (2300- 9000 l/h).
- Working pressure: 40-90 PSI (2,75 - 6 BAR).
- Area: Full circle.
- Nozzles: Two nozzles: one main nozzle and a secondary deflector nozzle.
- Trajectory angles: 26° and 26°.
- Maximum stream height: 16 ft. (5 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 65x65R, 72x72T, 72x79T ft.

### Dimensions:

- Height: 7,5 in. (19 cm).
- Width: 10,6 or 8,7 in. (27 or 22 cm).
- Weight: 0,64 ó 0,88 lbs (290 ó 398 grs).
- Units per box: 25.

### Options:

- Threads in BSP or NPT under demand.
- Plastic or brass arm depending on the desired rotating speed and the pressure used.
- This is one of the models which can be used in conjunction with our travelling sprinkler cart VYR-5300.

### Applications:

- Used in all types agricultural irrigation, generally with medium-high flow.
- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Models:

Ref. 008600: Plastic.

Ref. 008601: Brass arm.








## VYR-86

### Tables & Charts

#### Technical guidance table for CU's of VYR-86

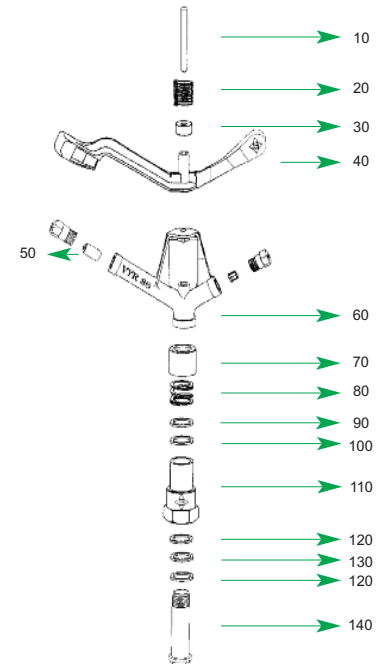
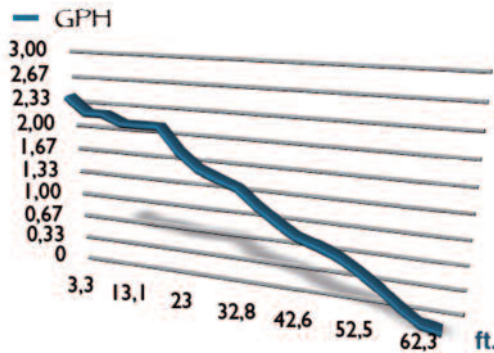
NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				60x70 Rect.	70x70 Triang.	70x80 Triang.	80x80 Triang.	80x92 Rect.	92x92 Rect.
7/32"x 11/64" 5,6 x 4,4 mm. 	58	1013	62,3	0,40	0,31	0,26	0,24	0,22	
	65	1075	62,3	0,43	0,33	0,27	0,26	0,24	
	73	1133	62,3	0,44	0,35	0,28	0,27	0,25	
1/4"x 3/16" 6,4 x 4,8 mm. 	58	1279	65,6	0,50	0,40	0,32	0,31	0,28	
	65	1356	65,6	0,54	0,43	0,34	0,32	0,30	0,26
	73	1430	65,6	0,56	0,44	0,36	0,34	0,32	0,27
9/32"x 3/16" 7,2 x 4,8 mm. 	58	1496	68,9	0,59	0,47	0,37	0,36	0,33	0,28
	65	1587	68,9	0,63	0,50	0,40	0,38	0,35	0,30
	73	1673	68,9	0,66	0,52	0,42	0,40	0,37	0,32

P: Pressure D: Distance (Range Radius).

Q: Flow at real test







CU<85% CU 85-88% CU 88-92% CU>92%

PSI	65,2
Flow	1335 GPH
Nozzles	1/4"x 3/16"
Center	VYR
Rot. Veloc.	57 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	12/04/2012









#### Performance nozzle tables of VYR-86


##### Long range nozzles (long vane) + Plug

						
	7/32" 5,55 mm.	1/4" 6,35 mm.	9/32 " 7,14 mm.	5/16" 7,93 mm.	11/32" 8,73 mm.	3/8" 9,52 mm.
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
44	9,63	128	12,53	128	15,27	128
51	10,43	131	13,50	138	16,42	138
58	11,22	138	14,52	144	17,73	144
65	11,88	144	15,47	151	18,70	151
73	12,67	151	16,23	157	20,02	157
80	13,20	154	17,17	161	20,97	161

(\*Sprinkler at 1 meter height)

##### Long range nozzles (long vane) + short range nozzle

						
	7/32 x 11/64" 5,55 x 4,4 mm.	1/4 x 11/64" 6,35 x 4,4 mm.	1/4 x 3/16" 6,35 x 4,8 mm.	9/32 x 3/16" 7,15 x 4,8 mm.	9/32 x 7/32" 7,15 x 5,55 mm.	11/32 x 7/32" 8,75 x 5,55 mm.
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
44	16,37	128	18,10	128	19,52	128
51	17,55	131	19,32	138	20,88	138
58	18,78	138	20,97	144	22,43	144
65	19,55	144	21,70	151	24,02	151
73	20,70	151	22,83	157	25,45	157
80	21,93	154	24,15	161	26,53	161

 STANDARD

Ø ft. : Diameter of coverage

(\*Sprinkler at 1 meter height)

- For optimum distribution avoid use in shady areas.
- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.





## VYR-144 C

Full circle AG

### General properties:

- Agricultural impact sprinkler with medium-high flow.
- 1 1/4" female connection.
- Made of aluminium, plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angle of 30°.
- Special design for long reach.
- Used in full coverage irrigation with medium-high flow.

### Technical specifications:

- Range distance: 52-85 ft. (16-26 m).
- Flow: 9,9-82 GPM (4,500- 15,600 l/h).
- Working pressure: 36-65 PSI (2,5 - 4,5 BAR).
- Area: Full circle.
- Spring tension adjustment system.
- 2 Nozzles: One main nozzle with built-in deflector pin, and a second short range deflector nozzle.
- Trajectory angles: 30°.
- Maximum stream height: 18 ft. (5,5 m).
- Rotation time: Adjustable. Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 72x72R, 79x79T, 79x89T ft.

### Dimensions:

- Height: 9,8 in. (25 cm).
- Width: 11,8 (30 cm).
- Weight: 2,20 lbs. (1000 grs).
- Units per box: 15.

### Options:

- Threads in BSP or NPT under demand.
- Complete set of nozzles.
- This is one of the models which can be used in conjunction with our travelling sprinkler cart VYR-5300.

### Applications:

- Used in all types agricultural irrigation, generally with medium-high flow.
- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Models:

Ref. 014401 Sprinkler with 5 nozzle set.





## VYR-144 C

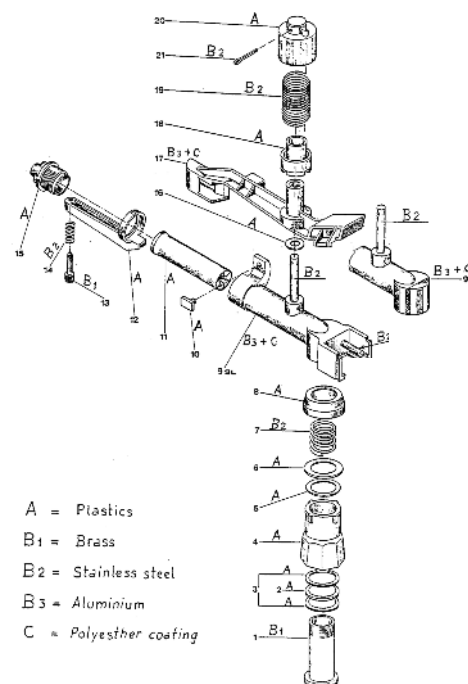
### Tables & Charts

#### Technical guidance table for CU's of VYR-144

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				66x80 Rect.	80x80 Rect.	80x85 Triang.	85x85 Triang.	92x92 Triang.	98x98 Triang.
9/32"x 9/64" 7 x 3,6 mm.	44	1085	65,6	0,34	0,28	0,23	0,22	0,19	
	51	1172	65,6	0,36	0,30	0,24	0,24	0,20	0,18
	58	1253	68,9	0,39	0,32	0,26	0,26	0,22	0,19
13/32"x 5/32" 10 x 4,0 mm.	44	2034	85,3	0,63	0,53	0,43	0,41	0,36	0,31
	51	2198	85,3	0,68	0,57	0,46	0,45	0,39	0,33
	58	2349	95,1	0,73	0,61	0,49	0,48	0,41	0,36
9/16"x 11/64" 14 x 4,4 mm.	44	3780	91,9	1,17	0,98	0,79	0,77	0,67	0,58
	51	4083	95,1	1,27	1,06	0,86	0,83	0,72	0,63
	58	4365	98,4	1,35	1,13	0,92	0,89	0,77	0,67

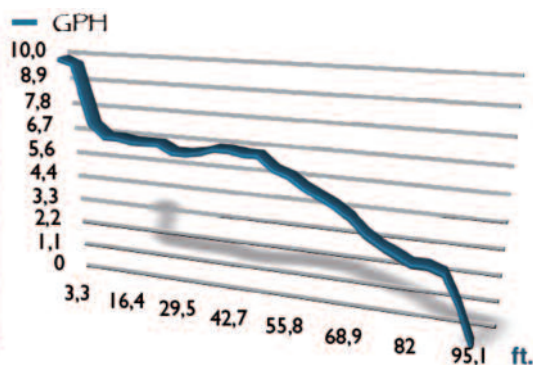
P: Pressure D: Distance (Range Radius)  
Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



A = Plastics  
B1 = Brass  
B2 = Stainless steel  
B3 = Aluminium  
C = Polyester coating

PSI	58
Flow	2310 GPH
Nozzles	13/32"x 5/32"
Center	VYR
Rot. Veloc.	66 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	16/04/2012



#### Performance nozzle tables of VYR-144

##### Long range nozzles (long vane) + short range nozzle

NOZZLE	P (PSI)	D (ft.) Radius	FLOW		□			△		
			GPS	GPM	A ft.	A' ft.	PL GPH	A ft.	A' ft.	PL GPH
9/32"x 9/64" 7 x 3,6 mm.	22	54,1	1,65	9,90	75	75	1,11	92	79	0,88
	29	55,8	1,91	11,45	75	75	1,29	95	82	0,94
	36	60,7	2,14	12,82	85	85	1,12	105	89	0,88
	44	65,6	2,33	14,00	92	92	1,07	112	98	0,82
5/16"x 9/64" 8 x 3,6 mm.	22	57,4	2,16	12,95	79	79	1,34	98	85	0,98
	29	60,7	2,49	14,97	85	85	1,32	105	89	1,03
	36	65,6	2,79	16,73	92	92	1,27	112	98	0,98
	44	68,9	3,05	18,32	95	95	1,30	118	102	0,98
13/32"x 9/64" 10 x 3,6 mm.	51	70,5	3,29	19,77	98	98	1,32	118	105	1,03
	29	68,9	3,90	23,38	95	95	1,66	118	102	1,25
	36	70,5	4,36	26,15	98	98	1,74	118	105	1,36
	44	75,5	4,77	28,62	105	105	1,67	128	112	1,29
15/32"x 11/64" 12 x 4,4 mm.	51	80,4	5,15	30,90	112	112	1,60	138	118	1,22
	58	82,0	5,51	33,07	115	115	1,61	141	121	1,24
	29	70,5	5,61	33,68	98	98	2,24	118	105	1,75
	36	72,2	6,28	37,65	102	102	2,34	125	108	1,80
9/16"x 11/64" 14 x 4,4 mm.	44	78,7	6,87	41,22	108	108	2,27	135	118	1,67
	51	83,7	7,43	44,55	115	115	2,18	144	125	1,60
	58	85,3	7,93	47,60	118	118	2,20	144	128	1,66
	51	102	9,04	54,27	115	115	2,75	144	128	2,27
9/16"x 11/64" 14 x 4,4 mm.	58	110	9,53	57,20	118	118	2,69	151	135	2,24
	65	112	9,90	59,40	125	125	2,77	157	141	2,19
	73	118	11	66,00	131	131	2,72	164	148	2,14
	80	125	11,5	68,63	138	138	2,69	167	151	2,14



STANDARD

Ø ft. : Diameter of coberage

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



Easy spring tension adjustment



#### SYMBOLS

P: Pressure in nozzle  
D: Range distance  
A: Distance in between heads  
A': Distance in between lines  
PL: Precipitation rate per Hour  
□: Squared spacing  
△: Triangular spacing



## VYR-155

**Full circle AG**

### General properties:

- Agricultural impact sprinkler with medium-high flow.
- 1 1/4" male connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzles angles of 28°, 28° and 13°.
- Special design for long reach.
- Used in full coverage irrigation with medium-high flow.
- Mechanical system for adjusting the spring tension to vary the rotation speed depending on the pressure used.
- Incredible Uniformity Coefficient results with very wide coverage areas.

### Technical specifications:

- Range distance: 85-115 ft. (26-35 m).
- Flow: 37-99 GPM (8,500- 22,300 l/h).
- Working pressure: 58-116 PSI (4 -8 BAR).
- Area: Full circle.
- Nozzles: A main nozzle for long reach, a second nozzle for medium reach and a third nozzle for short reach.
- Trajectory angles: 28°, 28° and 13°.
- Maximum stream height: 19 ft. (5,8 m).
- Rotation time: Adjustable. Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 92x92R, 92x98T, 98x98T ft.

### Dimensions:

- Height: 11,8 in. (30 cm).
- Width: 18,9 in. (48 cm).
- Weight: 3,69 lbs. (1,672 grs).
- Units per box: 10.

### Options:

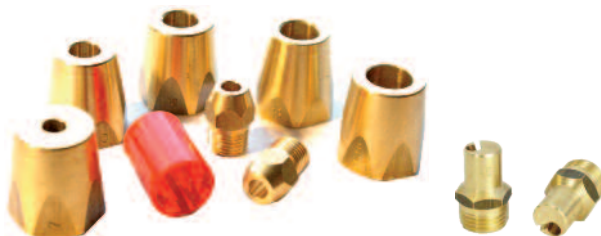
- Threads in BSP or NPT under demand.
- Telescopic tripod for mobile installation.
- This is one of the models which can be used in conjunction with our travelling sprinkler cart VYR-5300.

### Applications:

- Used in all types of agricultural irrigations, generally with medium-high flow for coverage of wide areas.
- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Models:

**Ref. 015500** Sprinkler with 3 nozzles











## VYR-155

### Tables & Charts

#### Technical guidance table for CU's of VYR-155

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				80x80 Rect.	80x80 Triang.	85x85 Rect.	85x85 Triang.	92x92 Rect.	92x92 Triang.
5/16"x 1/4"x 1/8" 8 x 6,3 x 3,2 mm. 	58	2322	90	0,41	0,38	0,27	0,24		
	73	2596	94	0,50	0,45	0,38	0,33		
	87	2844	95	0,59	0,53	0,45	0,40		
	102	3087	98	0,66	0,61	0,52	0,47		
13/32"x 1/4"x 1/8" 10 x 6,3 x 3,2 mm. 	58	3053	94	0,66	0,60	0,52	0,47	0,44	0,41
	73	3413	97	0,78	0,72	0,64	0,58	0,58	0,54
	87	3739	102	0,89	1,02	0,76	0,69	0,67	0,61
	102	4127	105	0,97	0,90	0,83	0,75	0,76	0,70
15/32"x 1/4"x 1/8" 12 x 6,3 x 3,2 mm. 	58	3946	100	1,00	0,93	0,87	0,78	0,78	0,70
	73	4412	105	1,09	1,02	0,95	0,85	0,80	0,71
	87	4832	108	1,26	1,14	1,10	1,00	0,96	0,87
	102	5026	112	1,28	1,20	1,13	1,03	0,98	0,88
9/16"x 1/4"x 1/8" 14,5 x 6,3 x 3,2 mm. 	58	4820	110	1,30	1,21	1,16	1,06	0,98	0,93
	73	5394	113	1,38	1,30	1,25	1,09	1,03	0,94
	87	5869	116	1,51	1,42	1,37	1,24	1,20	1,11
	102	6179	120	1,61	1,50	1,48	1,35	1,30	1,22

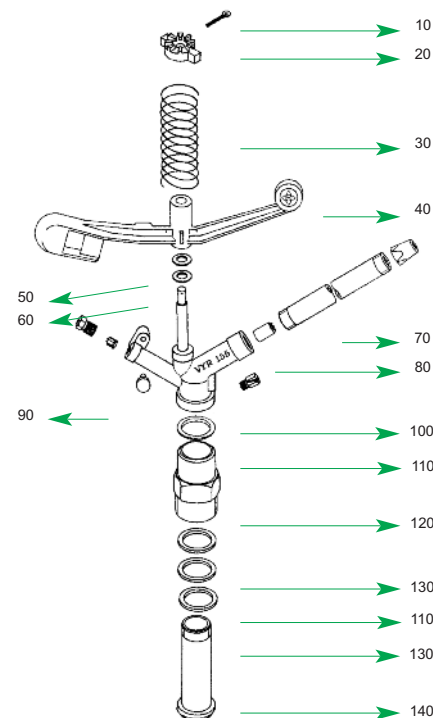
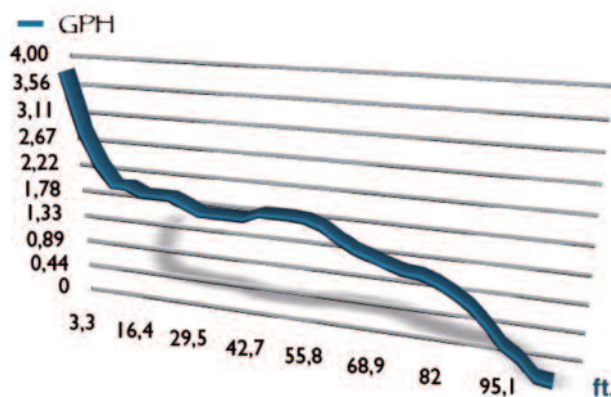
P: Pressure D: Distance (Range Radius).

Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



PSI	73
Flow	4409 GPH
Nozzles	15/32"x1/4"x1/8"
Center	VYR
Rot. veloc.	220 sec./rev
Height	3,3 ft.
Duration	60 min.
T°	68°F
Wind veloc.	0 m/sec.
Date	21/09/2010



#### Performance nozzle tables of VYR-155

PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
58	37,40	167	42,23	171	48,40	174	52,80	184	58,08	187	66,00	194	74,80	207
73	41,80	174	47,52	177	54,12	180	58,97	190	65,57	197	74,80	203	84,03	213
87	45,77	177	51,48	180	59,40	190	64,68	200	72,60	203	82,72	210	91,52	220
102	49,28	184	56,32	187	64,23	197	70,40	207	79,20	210	89,32	217	98,12	226

STANDARD Ø ft. : Diameter of coberage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.





# **Agriculture**

## **Part-circle**





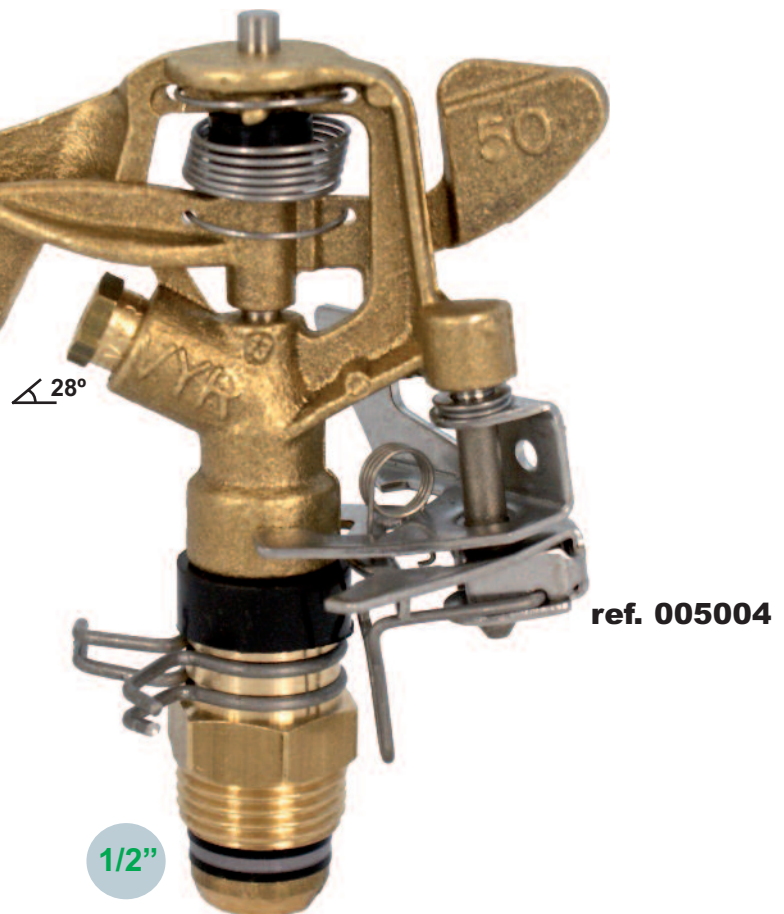


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ref. 005005



ref. 005004

## VYR-50

### Part circle AG

#### General properties:

- Riser-mounted impact sprinkler for gardening, agriculture, floriculture and greenhouses.
- 1/2" male connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Adjustable deflector plate.
- Irrigation area control system by adjustment of rotating clips.
- Adjustable jet breaker diffuser pin.
- This sprinkler is strong and durable enough to work for years in urban gardens in punishing conditions, such as vandalism and impact from maintenance equipment.

#### Technical specifications:

- Range distance: 29-46 ft. (9-14 m).
- Flow: 1-6,3 GPM (240 - 1,440 l/h).
- Working pressure: 15-58 PSI (1- 4 BAR).
- Area: Full or part circle.
- Nozzles: A single-jet nozzle.
- Trajectory angles: 28°.
- Maximum stream height: 7 ft. (2,2 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 33x33R, 40x40T, 40x43T ft.

#### Applications:

- Public and private gardens.
- Horticultural plantations, floriculture and fruit trees.

#### Measurements:

- Width: 4,3 in. (11 cm).
- Sprinkler height: 15,1 in. (13 cm).
- Weight: 0,53 lbs. (242 grs).
- Units per box: 50.

#### Options:

- Threads in BSP or NPT under demand.
- Special design with a threaded shaft for fitting to the VYR-961 pop-up head.
- Self-compensating flow control valves of 1.5 and 2 bar.
- Assembled as a "complete support kit" on a 1.3 or 0.7 m galvanized stake with microtube and connectors.
- Assembled as a "complete support kit" on a brass, aluminium or plastic spike.
- Assembled as a "complete support kit" on an aluminium base.

#### Models:

**Ref. 005004:** Part (or full) circle with deflector.

**Ref. 005005:** Part (or full) circle without deflector.





## VYR-50

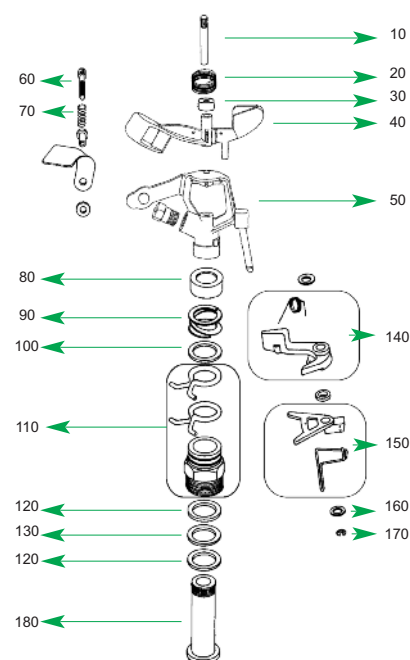
### Tables & Charts

#### Technical guidance table for CU's of VYR-50

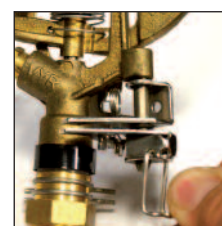
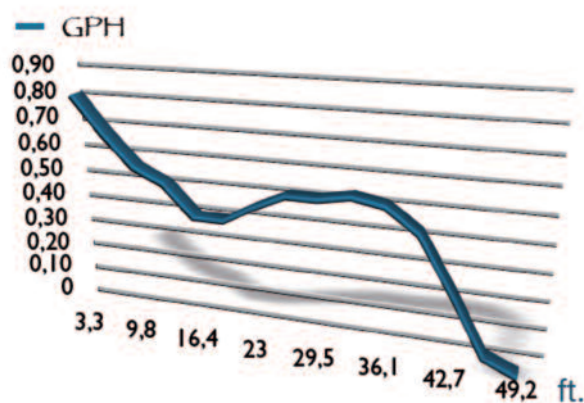
NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				30x30 Rect.	30x30 Triang.	33x33 Rect.	33x33 Triang.	33x39 Triang.	39x39 Triang.
9/64" 3,6 mm.	36	205	32,8	0,38	0,35	0,31	0,28	0,21	0,20
	44	224	32,8	0,41	0,38	0,33	0,31	0,23	0,21
	51	242	32,8	0,44	0,41	0,36	0,33	0,25	0,23
5/32" 4,0 mm.	36	253	32,8	0,46	0,43	0,38	0,35	0,26	0,24
	44	277	32,8	0,51	0,47	0,41	0,38	0,28	0,26
	51	299	36,1	0,55	0,51	0,44	0,41	0,30	0,29
11/64" 4,4 mm.	36	306	36,1	0,56	0,52	0,46	0,42	0,31	0,29
	44	335	36,1	0,62	0,57	0,50	0,46	0,34	0,32
	51	362	39,4	0,67	0,61	0,54	0,50	0,37	0,35

P: Pressure D: Distance (Range Radius).  
Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%












PSI	43,5
Flow	277 GPH
Nozzles	5/32"
Center	VYR
Rot. Veloc.	17 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	03/02/2011



Easy part-circle adjustment

#### Performance nozzle tables of VYR-50

											 			
	3/32" 2,4 mm.		7/64" 2,8 mm.		0,117" 3,0 mm.		1/8" 3,2 mm.		9/64" 3,5 mm.		5/32" 4 mm.		11/64" 4,4 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
15	1,05	59	1,37	62	1,58	62	1,77	66	2,12	66	2,73	69	3,35	72
22	1,32	62	1,63	62	1,93	66	2,12	69	2,50	69	3,30	72	4,00	75
29	1,50	66	1,85	66	2,20	69	2,42	69	2,90	72	3,73	75	4,53	79
36	1,67	69	2,07	69	2,47	72	2,63	72	3,22	75	4,18	79	5,07	82
44	1,80	72	2,28	72	2,68	75	2,90	75	3,52	75	4,58	79	5,58	82
51	1,98	75	2,47	75	2,87	75	3,12	75	3,78	79	4,83	82	5,93	85
58	2,12	79	2,63	79	3,03	79	3,35	79	4,00	82	5,20	85	6,33	89



STANDARD

Ø ft : Diameter of coberage

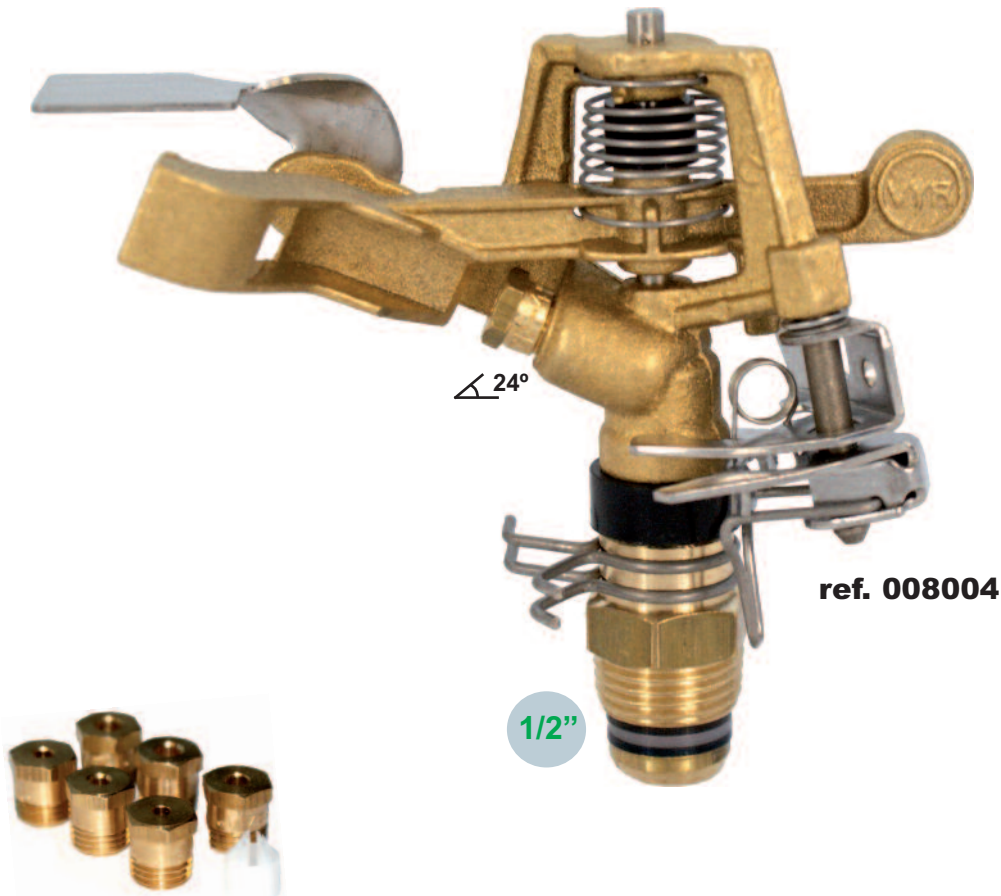
- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



Only for full circle series.





ref. 008004

## VYR-80 AG

Part circle AG

### General properties:

- Riser-mounted impact sprinkler for gardening, agriculture, flower growing and greenhouses.
- 1/2" male connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Arm with anti-splash design.
- Adjustable deflector plate.
- Irrigation area system controlled by rotating clips.
- Adjustable jet breaker diffuser pin.
- This sprinkler is strong and durable enough to work for many years in urban gardens in tough conditions, caused by vandalism and impact from maintenance equipment.

### Technical specifications:

- Range distance: 29-46 ft. (9-14 m).
- Flow: 1,9-5,2 GPM (460 -1,180 l/h).
- Working pressure: 22-58 PSI (1,5 - 4 BAR).
- Area: Full or part circle.
- Nozzles: A multi-jet nozzle.
- Trajectory angles: 24°.
- Maximum stream height: 9 ft. (2,6 m).
- Rotation time: Adjustable. Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 36x36R, 39x39T, 39x43T ft.

### Applications:

- Public and private gardens.
- Horticultural plantations, floriculture and fruit trees.

### Measurements:

- Width: 4,3 in. (11 cm).
- Sprinkler height: 5,1 in. (13 cm).
- Weight: 0,61 lbs. (276 grs).
- Units per box: 75.

### Options:

- Special design with a threaded shaft for fitting to the VYR-961 pop-up head.
- Self-compensating flow control valves of 22-29 PSI (1,5-2 BAR).
- Assembled as a "complete support kit" on a 3.3 or 1.7 ft. galvanized stake with microtube and connectors.
- Assembled as a "complete support kit" on a brass, aluminium or plastic spike.
- Assembled as a "complete support kit" on an aluminium base.

### Models:

**Ref. 008001:** Full circle with deflector.

**Ref. 008002:** Full circle.

**Ref. 008004:** Part (or full) circle with deflector.

**Ref. 008005:** Part (or full) circle.





# VYR-80 AG

## Tables & Charts

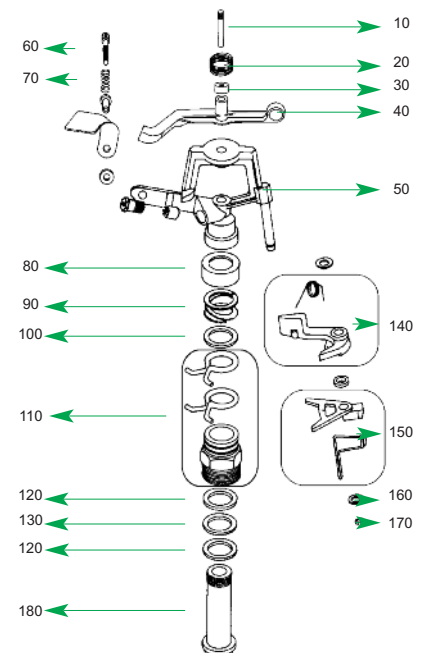
### Technical guidance table for CU's of VYR-80

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				30x30 Rect.	30x30 Triang.	33x33 Rect.	33x33 Triang.	33x39 Triang.	39x39 Triang.
0,12" 3,0 mm.	2,5	560	11	7,7	7,4	6,3	5,3	4,6	3,5
	3	650	11,5	8,2	7,8	6,6	6,0	5,2	4,0
	3,5	720	12	8,9	8,4	7,9	7,6	6,8	5,5
9/64" 3,6 mm.	2,5	787	11,5	9,7	9,0	7,6	7,3	6,6	5,5
	3	862	12	10,6	9,8	8,3	8,0	7,2	6,0
	3,5	931	12,5	11,5	10,6	8,9	8,6	7,8	6,5
5/32" 4,0 mm.	2,5	972	12,5	12,0	11,1	9,3	9,0	8,1	6,8
	3	1065	13	13,1	12,1	10,2	9,8	8,9	7,4
	3,5	1150	14	14,2	13,1	11,0	10,6	9,6	8,0

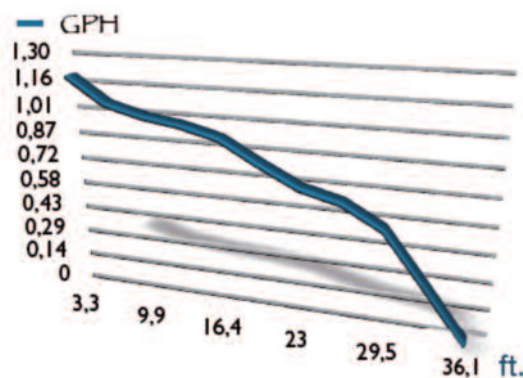
P: Pressure D: Distance (Range Radius).

Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



PSI	43,5
Flow	277 G/h
Nozzles	4,0 mm
Center	VYR
Rot. Veloc.	42 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	14/02/2011



### Performance nozzle tables of VYR-80

	0,117" 3,0 mm.		9/64" 3,5 mm.		5/32" 4 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
22	1,98	65,5	2,55	69	3,22	72
29	2,25	69	2,90	72	3,73	75,5
36	2,42	72	3,25	75,5	4,18	79
44	2,77	75,5	3,57	75,5	4,53	79
51	3,00	75,5	3,83	79	4,88	82
58	3,17	79	4,10	82	5,20	85



STANDARD

Ø ft. : Diameter of coverage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



## VYR-803 AG

Part circle AG

### General properties:

- Riser-mounted impact sprinkler for gardening, horticulture, agriculture, floriculture and greenhouses.
- 1/2" male connection.
- Made of plastic and stainless steel.
- High-resistance rotating joints.
- Arm with anti-splash design.
- Spring tension regulation system.
- Upper "clip" for positioning inside a casing (VYR-962 AQUA-PRO).
- Adjustable diffuser pin.
- Irrigation area system controlled by rotating clips.
- Adjustable jet breaker diffuser pin.
- Its versatility and adaptability to all types of gardens make this model one of most common for home gardening.
- This model is also used in low flow agricultural irrigation systems as a complementary part-circle model to VYR-26 and VYR-16.

### Technical specifications:

- Range distance: 33-43 ft. (10-13 m).
- Flow: 1,9-5,2 GPM (460 - 1,180 l/h).
- Working pressure: 22-58 PSI (1,5 - 4 BAR).
- Area: Full or part circle.
- Nozzles: A bayonet nozzle (color coded).
- Trajectory angles: 25°.
- Maximum stream height: 8 ft. (2,5 m).
- Rotation time: Adjustable. Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 33x33R, 39x39T, 39x43T ft.

### Applications:

- Public and private gardens.
- Horticultural plantations, floriculture and fruit trees.

### Measurements:

- Width: 3,5 in. (9 cm).
- Sprinkler height: 4,7 in. (12 cm).
- Weight: 0,15 lbs. (70 grs).
- Units per box: 100.

### Options:

- "Compact" Model with quick connection on a 4,3 or 2,3 ft. (130 cm or 70 cm).
- Special design with a threaded shaft for fitting to the pop-up head VYR-961.
- Self-compensating flow control valves of 36 PSI (2,5 BAR).
- Assembled as a "complete support kit" on a 3,3 ft. ó 2 ft. galvanized stake with microtube and connectors.
- Assembled as a "complete support kit" on a brass, aluminium or plastic spike.
- Assembled as a "complete support kit" on an aluminium base.

### Models:

Ref. 008030: Sprinkler VYR-803.





# VYR-803 AG

## Tables & Charts

Technical guidance table for CU's of VYR-803

NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				30x30 Rect.	30x30 Triang.	30x33 Triang.	33x33 Rect.	33x39 Rect.	39x39 Rect.
0,12" 3,0 mm.	36	142	36,1	0,24	0,22	0,19	0,19	0,16	0,13
	44	158	36,1	0,27	0,24	0,21	0,22	0,18	0,15
	51	171	36,1	0,29	0,27	0,23	0,24	0,20	0,17
9/64" 3,6 mm.	36	199	39,4	0,34	0,31	0,27	0,28	0,23	0,19
	44	221	42,7	0,38	0,35	0,30	0,31	0,26	0,22
	51	241	42,7	0,42	0,39	0,33	0,34	0,28	0,24
5/32" 4,0 mm.	36	243	42,7	0,42	0,39	0,33	0,34	0,28	0,24
	44	270	42,7	0,47	0,44	0,37	0,38	0,32	0,27
	51	294	42,7	0,52	0,48	0,40	0,42	0,35	0,29

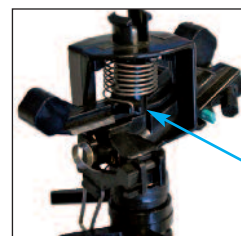
P: Pressure D: Distance (Range Radius).

Q: Flow at real test

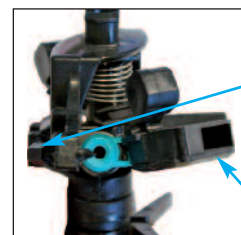
CU<85% CU 85-88% CU 88-92% CU>92%



Easy part-circle  
adjustment



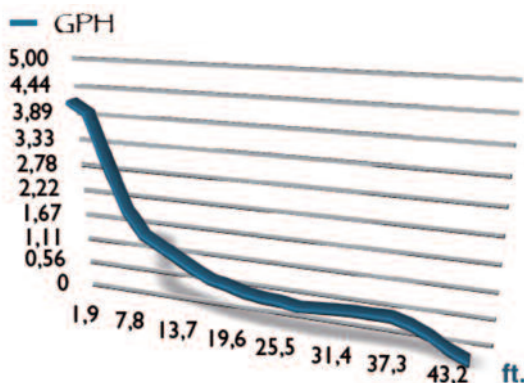
3 positions for the  
spring  
tension-speed  
selection.



Diffuser pin

Anti back-  
splash arm

PSI	36
Flow	253 GPH
Nozzles	5/32"
Center	VYR
Rot. Veloc.	15 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	16/03/2010



Performance nozzle tables of VYR-803

	0,117" 3,0 mm.		9/64" 3,5 mm.		5/32" 4 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
22	1,98	65,5	2,55	69	3,22	72
29	2,25	69	2,90	72	3,73	75,5
36	2,42	72	3,25	75,5	4,18	79
44	2,77	75,5	3,57	75,5	4,53	79
51	3,00	75,5	3,83	79	4,88	82
58	3,17	79	4,10	82	5,20	85,5

Only for full circle series.

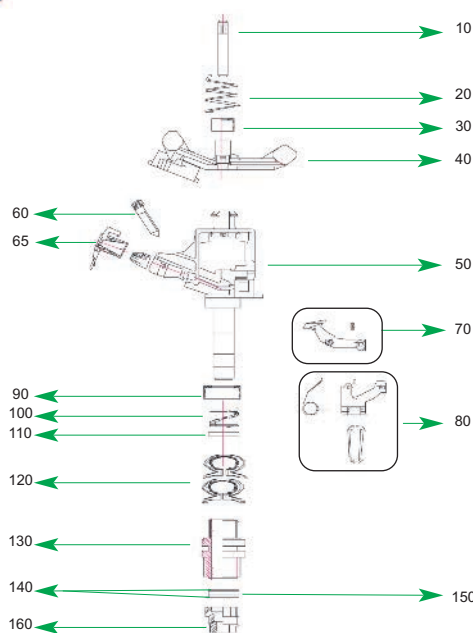


STANDARD

Ø ft. : Diameter of coberage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.





ref. 008023



ref. 008021



ref. 008020

25°

1/2"

## VYR-802 AG

Part circle AG

### General properties:

- Part-circle plastic impact sprinkler for gardening, agriculture, floriculture and greenhouses.
- 1/2" male connection.
- Made of plastic, brass and stainless steel.
- High-resistance rotating joints.
- Arm with anti-splash design.
- Adjustable deflector plate.
- Upper "clip" for positioning inside a casing (VYR-962 AQUA-PRO).
- Irrigation area system controlled by rotating clips.
- Adjustable jet breaker diffuser pin.
- Its versatility and adaptability to all type of gardens make this model one of most common for home gardening.
- This model is also used in low flow agricultural irrigation systems as a complementary part-circle model to VYR-26 and VYR-16.

### Technical specifications:

- Reach: 33-43 ft. (10-13 m).
- Flow: • Caudal: 1,9-5,2 GPM (460-1,180 l/h).
- Working pressure: 22-58 PSI (1,5-4 BAR).
- Area: Full or part circle.
- Nozzles: A multi-jet nozzle.
- Trajectory angles: 25°.
- Maximum stream height: 8 ft. (2,5 m).
- Rotation time: Adjustable. Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 33x33R, 39x39T, 39x43T ft.

### Applications:

- Public and private gardens.
- Horticultural plantations, floriculture and fruit trees.

### Measurements:

- Width: 4,7 in. (12 cm).
- Sprinkler height: 4,7 in. (12 cm).
- Weight: 0,15 lbs. (70 grs).
- Units per box: 150.

### Options:

- "Compact" Model with quick connection on a 4,3 or 2,3 ft. (130 cm or 70 cm).
- Special design with a threaded shaft for fitting to the pop-up head VYR-961.
- Self-compensating flow control valves of 36 PSI (2,5 BAR).
- Assembled as a "complete support kit" on a 3,3 ft. ó 2 ft. galvanized stake with microtube and connectors.
- Assembled as a "complete support kit" on a brass, aluminium or plastic spike.
- Assembled as a "complete support kit" on an aluminium base.

### Models:

Ref. 008020: VYR-802 part-circle (standard).

Ref. 008023: VYR-802 full-circle.

Ref. 008021: VYR-802 part-circle with brass arm.

Ref. 008025: VYR-802 full-circle with brass arm.







# VYR-802

## Tables & Charts

### Technical guidance table for CU's of VYR-802

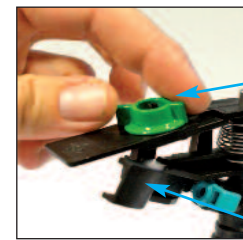
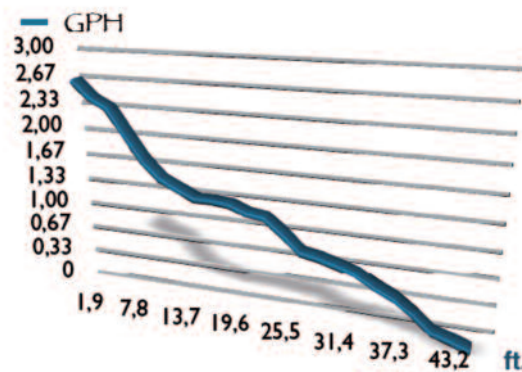
NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				30x30 Rect.	30x30 Triang.	33x33 Rect.	33x33 Triang.	33x39 Triang.	39x39 Triang.
0,12" 3,0 mm.	36	208	39	0,26	0,24	0,18	0,17	0,16	0,14
	44	228	39	0,30	0,27	0,21	0,20	0,19	0,16
	51	246	39	0,33	0,30	0,23	0,22	0,21	0,18
9/64" 3,6 mm.	36	257	39	0,35	0,32	0,25	0,24	0,22	0,19
	44	281	39	0,40	0,36	0,28	0,27	0,25	0,21
	51	304	43	0,44	0,40	0,31	0,30	0,28	0,24
5/32" 4,0 mm.	36	367	43	0,45	0,41	0,33	0,31	0,29	0,24
	44	340	43	0,51	0,46	0,37	0,35	0,32	0,27
	51	367	44	0,56	0,51	0,41	0,39	0,36	0,30

P: Pressure D: Distance (Range Radius).

Q: Flow at real test

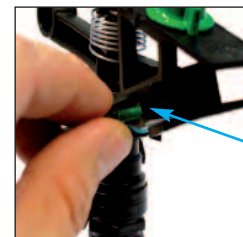
CU<85% CU 85-88% CU 88-92% CU>92%

PSI	44
Flow	277 GPH
Nozzles	5/32"
Center	VYR
Rot. Veloc.	18 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	15/03/2010

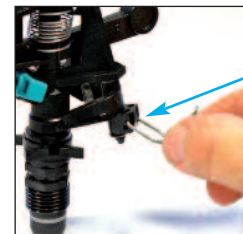


Ajustable deflector plate

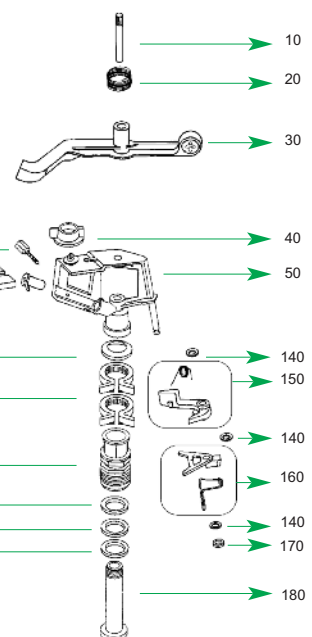
Anti back-splash arm



Adjustable difuser pin



Easy part-circle adjustmanet



### Performance nozzle tables of VYR-802

	0,117" 3,0 mm.		9/64" 3,5 mm.		5/32" 4 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
22	1,98	65,5	2,55	69	3,22	72
29	2,25	69	2,90	72	3,73	75,5
36	2,42	72	3,25	75,5	4,18	79
44	2,77	75,5	3,57	75,5	4,53	79
51	3,00	75,5	3,83	79	4,88	82
58	3,17	79	4,10	82	5,20	85,5

Only for full circle series.



STANDARD

Ø ft. : Diameter of coberage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



## VYR-60 Part circle AG

### General properties:

- Part circle impact sprinkler, medium flow.
- 3/4" male or female connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 24° and 12°.
- Part circle mechanical system using clips that are very easy and quick to adjust.
- Used in full coverage irrigation with medium flow to cover the side and corner areas.
- Special mechanical and hydraulic design for energy saving and an optimal coverage coefficient.

### Technical specifications:

- Reach: 42-60 ft. (13-18 m).
- Flow: 2,7-15,1 GPM (660- 3270 l/h).
- Working pressure: 25-65 PSI (1,75- 4,5 BAR).
- Area: Part or full circle.
- Nozzles: One main long reach nozzle and a secondary short reach nozzle.
- Trajectory angles: 24° and 12°.
- Maximum stream height: 12 ft. (3,8 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 60x60R, 50x60T, 60x60T ft.

### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Dimensions:

- Height: 6,3 in. (16 cm).
- Width: 7,1 in. (18 cm).
- Weight: 1,34 lbs. (608 grs).
- Units per box: 25.

### Options:

- Threads in BSP or NPT under demand.
- Plate with diffuser pin for the main jet.
- Foldable tripod for mobile installation.

### Models:

- Ref. 006001:** Without diffuser pin. Male.
- Ref. 006003:** With diffuser pin. Male.
- Ref. 006020:** Without diffuser pin. Female.
- Ref. 006021:** With diffuser pin. Female.
- Ref. 106000:** Diffuser pin assembly.



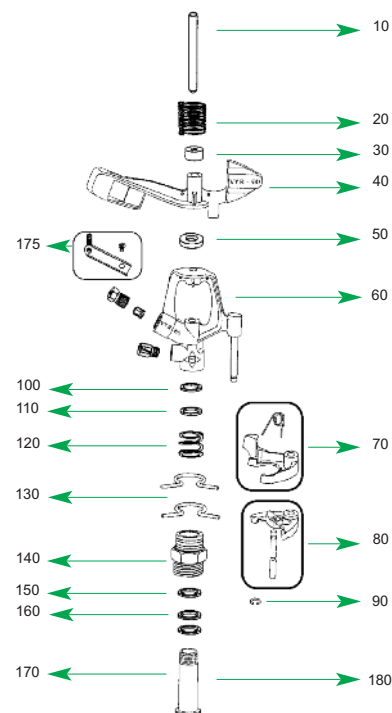
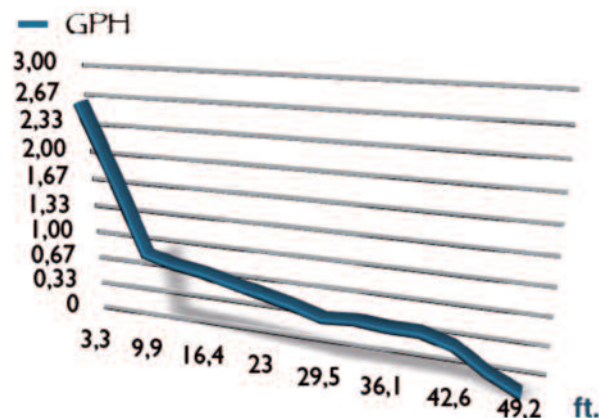




# VYR-60










## Tables & Charts

PSI	51
Flow	400 GPH
Nozzles	5/32" x 3/32"
Center	VYR
Rot. Veloc.	44 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	07/03/2011













## Performance nozzle tables of VYR-60

### Long range nozzles (long vane) + Plug

														
	1/8" 3,2 mm.		9/64" 3,6 mm.		5/32" 4,0 mm.		11/64" 4,4 mm.		3/16" 4,8 mm. 		13/64" 5,2 mm.		7/32" 5,6 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
36	2,73	85	3,48	87	4,27	90	5,10	98	6,12	105	7,22	107	7,57	112
44	3,00	85	3,78	87	4,62	92	5,58	100	6,65	105	7,88	110	8,27	115
51	3,25	87	4,10	89	5,02	97	6,07	103	7,22	108	8,50	113	9,42	118
58	3,48	87	4,40	92	5,37	97	6,47	107	7,70	112	9,07	116	9,97	121
65	3,70	89	4,67	95	5,68	98	6,82	110	8,18	115	9,60	118	10,60	126
73	3,87	90	4,93	97	5,98	100	7,22	112	8,62	118	10,08	123	11,08	130
80	4,10	92	5,15	98	6,30	102	7,57	115	9,07	120	10,47	125	11,62	131

(\*Sprinkler at 1 meter height)

### Long range nozzles (long vane) + short range nozzle

																		
	1/8" x 3/32" 3,2 x 2,4 mm.	9/64" x 3/32" 3,6 x 2,4 mm.	5/32" x 3/32" 4,0 x 2,4 mm.	11/64" x 3/32" 4,4 x 2,4 mm.	11/64" x 7/64" 4,4 x 2,8 mm.	3/16" x 7/64" 4,8 x 2,8 mm.	3/16" x 1/8" 4,8 x 3,2 mm.	13/64" x 1/8" 5,2 x 3,2 mm.	7/32" x 1/8" 5,6 x 3,2 mm.									
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.								
36	4,32	85	5,07	87	5,80	90	6,68	98	7,62	98	8,33	105	9,02	105	10,17	107	10,82	112
44	4,70	85	5,50	87	6,38	92	7,35	100	7,92	100	9,23	105	9,85	105	11,08	110	12,02	115
51	5,10	87	5,93	89	6,87	97	7,92	103	8,43	103	9,92	108	10,65	108	11,97	113	12,83	118
58	5,45	87	6,38	92	7,35	97	8,45	107	9,10	107	10,57	112	11,40	112	12,80	116	13,35	121
65	5,80	89	6,78	95	7,78	98	8,93	110	9,53	110	11,20	115	12,10	115	13,50	118	13,95	126
73	5,98	90	7,13	97	8,23	100	9,42	112	10,12	112	11,80	118	12,67	118	14,22	123	14,52	130
80	6,42	92	7,48	98	8,62	102	9,85	115	10,57	115	12,37	120	13,25	120	14,78	125	15,10	131

STANDARD

Ø ft. : Diameter of coverage

(\*Sprinkler at 1 meter height)

- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- For optimum distribution avoid use in shady areas.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



Nozzle set position at 21:00





## VYR-66

### Part circle AG

#### General properties:

- Part circle impact sprinkler, medium flow.
- 3/4" male or female connection.
- Made of plastic and stainless steel.
- Arm with 2 steel weights inserted.
- High-resistance rotating joints.
- Nozzle angles of 30° and 11°.
- Part circle mechanical system using clips that are very easy and quick to adjust.
- Used in full coverage irrigation with medium flow to cover the side and corner areas.
- Special mechanical and hydraulic design for energy saving and an optimal coverage coefficient.

#### Technical specifications:

- Reach: 39-62 ft. (12-19 m).
- Flow: 2,7-15,10 GPM (800-3,270 l/h).
- Working pressure: 25-75 PSI (1,75 - 5 BAR).
- Area: Part or full circle.
- Nozzles: One main long reach nozzle and a secondary short reach nozzle.
- Trajectory angles: 30° and 11°.
- Maximum stream height: 13 ft. (4,0 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 49x59R, 59x59T, 66x59T ft.

#### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

#### Dimensions:

- Height: 6,3 in. (16 cm).
- Width: 7,1 in. (18 cm).
- Weight: 0,40 lbs. (182 grs).
- Units per box: 50.

#### Options:

- Threads in BSP or NPT under demand.
- Plate with diffuser pin for the main jet.
- Foldable tripod for mobile installation.

#### Models:

**Ref. 006600:** Male without diffuser pin.

**Ref. 006610:** Male with diffuser pin.

**Ref. 006620:** Female without diffuser pin.

**Ref. 006621:** Female with diffuser pin.

**Ref. 006603:** Male without diffuser pin + AF Cap.

**Ref. 006613:** Male with diffuser pin + AF Cap.

**Ref. 006623:** Female without diffuser pin + AF Cap.

**Ref. 006633:** Female without diffuser pin + AF Cap.

**Ref. 106600:** Diffuser pin assembly.

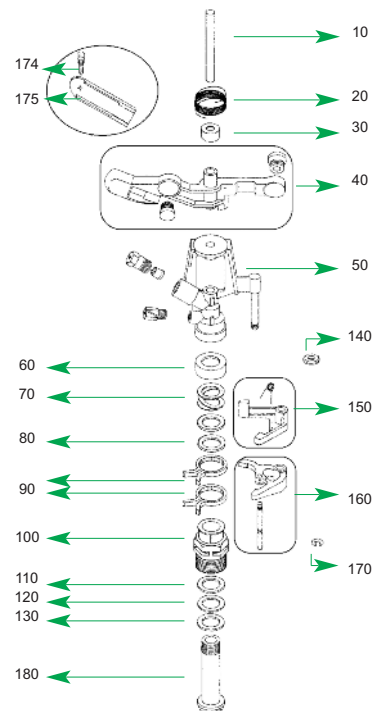
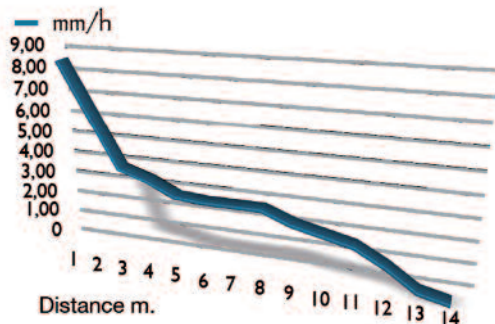




# VYR-66

## Tables & Charts

BAR	3,5
Flow	1540 L/h
Nozzles	4,0 X 2,4 mm
Center	VYR
Rotation velocity	45 sec/rev.
Height	100 cm
Duration	60 m <sup>2</sup>
T°	20°C
Wind velocity	0 m/sec.
Date	09/03/2011


















Arm weights



Easy Part-circle adjustment

## Performance nozzle tables of VYR-66

### Long range nozzles (long vane) + Plug

	 		 		 		 		 		 		 	
	1/8" 3,2 mm.		9/64" 3,6 mm.		5/32" 4,0 mm.		11/64" 4,4 mm.		3/16" 4,8 mm.		13/64" 5,2 mm.		7/32" 5,6 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
36	2,7	85	3,5	87	4,3	90	5,1	98	6,1	105	7,2	107	7,6	112
44	3,0	85	3,8	87	4,6	92	5,6	100	6,7	105	7,9	110	8,3	115
51	3,3	87	4,1	89	5,0	97	6,1	103	7,2	108	8,5	113	9,4	118
58	3,5	87	4,4	92	5,4	97	6,5	107	7,7	112	9,1	116	1,0	121
65	3,7	89	4,7	95	5,7	98	6,8	110	8,2	115	9,6	118	10,6	126
73	3,9	90	4,9	97	6,0	100	7,2	112	8,6	118	10,1	123	11,1	130
80	4,1	92	5,2	98	6,3	102	7,6	115	9,1	120	10,5	125	11,6	131









(\*Sprinkler at 1 meter height)



Difuser pin plate



### Long range nozzles (long vane) + short range nozzle

																						
	7/64" x 3/32" 2,8 x 2,4 mm.	1/8" x 3/32" 3,2 x 2,4 mm.	9/64" x 3/32" 3,6 x 2,4 mm.	5/32" x 3/32" 4,0 x 2,4 mm.	11/64" x 3/32" 4,4 x 2,4 mm.	3/16" x 7/64" 4,4 x 2,8 mm.	3/16" x 3/32" 4,8 x 2,4 mm.	3/16" x 1/8" 4,8 x 3,2 mm.	13/64" x 1/8" 5,2 x 3,2 mm.	7/32" x 1/8" 5,6 x 3,2 mm.												
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.												
29	3,08	75,5	4,32	85	5,07	87	5,80	90	6,68	98	7,62	98	6,87	98,4	8,33	105	9,02	105	10,17	107	10,82	112
36	3,65	78,7	4,70	85	5,50	87	6,38	92	7,35	100	7,92	100	7,71	101,7	9,23	105	9,85	105	11,08	110	12,02	115
44	3,96	78,7	5,10	87	5,93	89	6,87	97	7,92	103	8,43	103	8,45	105,0	9,92	108	10,65	108	11,97	113	12,83	118
51	4,25	80,4	5,45	87	6,38	92	7,35	97	8,45	107	9,10	107	9,03	108,3	10,57	112	11,40	112	12,80	116	13,35	121
58	4,62	80,4	5,80	89	6,78	95	7,78	98	8,93	110	9,53	110	9,60	109,9	11,20	115	12,10	115	13,50	118	13,95	126
65	4,84	82,0	5,98	90	7,13	97	8,23	100	9,42	112	10,12	112	10,13	111,5	11,80	118	12,67	118	14,22	123	14,52	130
73	5,11	83,7	6,42	92	7,48	98	8,62	102	9,85	115	10,57	115	10,70	113,2	12,37	120	13,25	120	14,78	125	15,10	131

(\*Sprinkler at 1 meter height)


**STANDARD**

Ø ft. : Diameter of coberage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.

**VYR-67****Part circle AG****General properties:**

- Part circle impact sprinkler, medium flow.
- 3/4" male or female connection.
- Made of plastic and stainless steel.
- Arm without weights.
- High-resistance rotating joints.
- Two (2) bayonet nozzle with angles of 30° and 11°.
- Part circle mechanical system using omega-clips that are very easy and quick to adjust.
- Used in full coverage irrigation with medium flow to cover the side and corner areas.
- Special mechanical and hydraulic design for energy saving and an optimal coverage coefficient.

**Technical specifications:**

- Reach: 39-62 ft. (12-19 m).
- Flow: 3-14 GPM (800-3,270 l/h).
- Working pressure: 25-75 PSI (1,75 - 5 BAR).
- Area: Part or full circle.
- Nozzles: One main long reach nozzle and a secondary short reach nozzle.
- Trajectory angles: 30° and 11°.
- Maximum stream height: 13 ft. (4,0 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 59x59R, 62x62T, 62x66T ft.

**Applications:**

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

**Dimensions:**

- Height: 6,3 in. (16 cm).
- Width: 7,1 in. (18 cm).
- Weight: 0,40 lbs. (182 grs).
- Units per box: 50.

**Options:**

- Threads in BSP or NPT under demand.
- Plate with diffuser pin for the main jet.
- Foldable tripod for mobile installation.

**Models:**

- Ref. 006700: Male.
- Ref. 006720: Female.
- Ref. 006701: Male + Cap.
- Ref. 006721: Female + Cap.



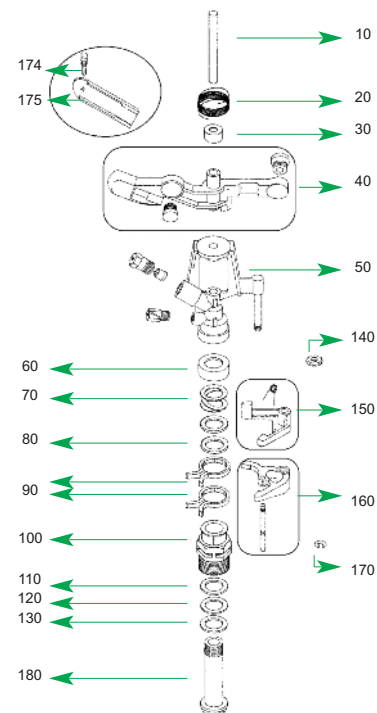
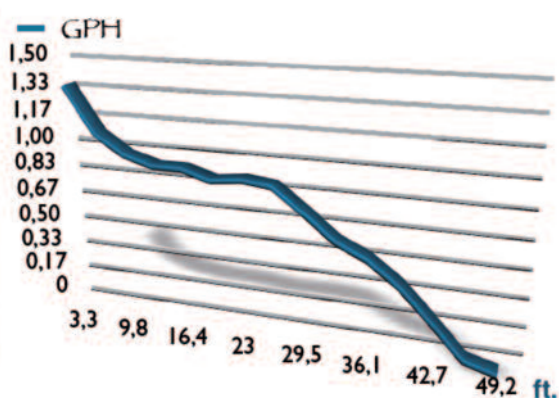




# VYR-67

## Tables & Charts

PSI	51
Flow	423 GPH
Nozzles	11/64" x 3/32"
Center	VYR
Rot. Veloc.	0,9 min/rev.
Height	2 ft.
Test time	60 min
T°	68 °F
Wind Veloc.	0 m/seg.
Date	10/06/2013



## Performance nozzle tables of VYR-67

### Long range nozzles (long vane) + Plug

	9/64" 3,6 mm.		5/32" 4,0 mm.		11/64" 4,4 xmm.		3/16" 4,8 mm.		13/64" 5,20 mm.		7/32" 5,6 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
29	3,05	85	4,10	87	4,77	90	5,68	95	6,48	102	6,82	107
36	3,38	85	4,60	87	5,38	92	6,30	97	7,22	105	7,57	110
44	3,72	87	5,07	89	5,85	97	6,90	102	7,92	108	8,27	113
51	4,00	87	5,45	92	6,35	97	7,35	105	8,60	110	9,42	115
58	4,27	89	5,80	95	6,87	98	8,03	107	9,28	112	9,85	116
65	4,52	90	6,23	97	7,32	100	8,58	108	9,78	113	10,60	118

(\*Sprinkler at 1 meter height)

### Long range nozzles (long vane) + short range nozzle

	9/64 x 3/32" 3,6 x 2,6 mm.		5/32 x 3/32" 4,0 x 2,6 mm.		11/64 x 3/32" 4,4 x 2,6 mm.		3/16 x 1/8" 4,8 x 3,2 mm.		13/64" x 1/8" 5,2 x 3,2 mm.		7/32 x 1/8" 5,6 x 3,2 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
29	4,45	85	5,42	87	6,05	90	7,78	95	8,72	102	9,63	107
36	4,90	85	6,12	87	6,75	92	8,85	97	9,72	105	10,82	110
44	5,37	87	6,75	89	7,55	97	9,82	102	10,70	108	12,02	113
51	5,80	87	7,28	92	8,18	97	10,45	105	11,70	110	12,83	115
58	6,30	89	7,78	95	8,75	98	11,22	107	12,52	112	13,35	116
65	6,60	90	8,18	97	9,23	100	12,02	108	13,20	113	13,95	118


**STANDARD**

Ø ft. : Diameter of coverage

(\*Sprinkler at 1 meter height)

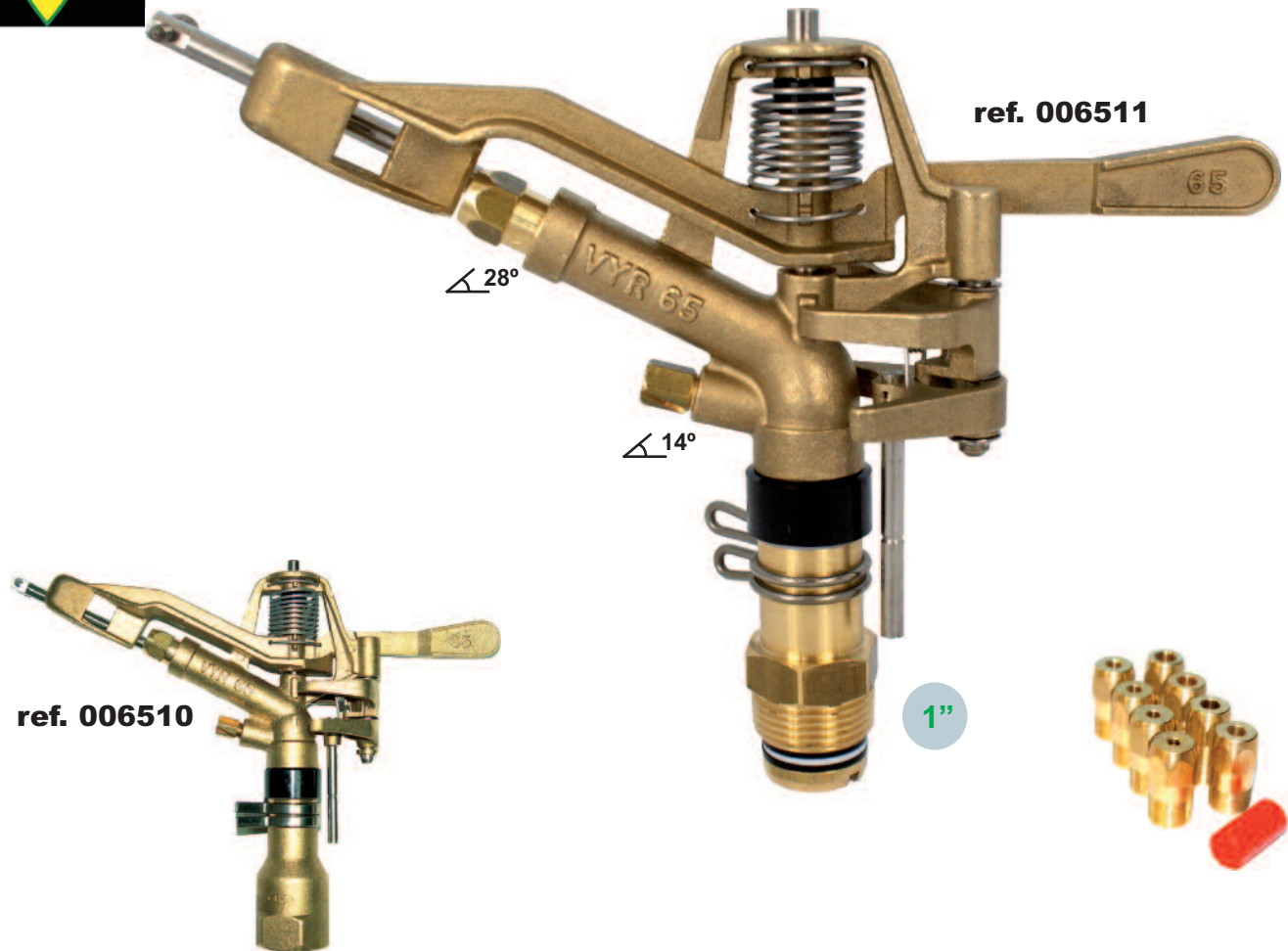
- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.


**ref. 102660**

Tool for quick-coupling bayonet nozzles





## VYR-65

### Part circle AG

#### General properties:

- Part circle agricultural impact sprinkler, medium-high flow.
- 1" male or female connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 28° and 14°.
- Part circle mechanical system using clips that are very easy and quick to adjust.
- Used in full coverage irrigation with medium-high flow to cover the side and corner areas.
- Special mechanical and hydraulic design for energy saving and an optimal coverage coefficient.

#### Technical specifications:

- Reach: 52-79 ft. (16-24 m).
- Flow: 10-38 GPM (2240 - 8000 l/h).
- Working pressure: 51-87 PSI (3,5 - 6 BAR).
- Area: Part or full circle.
- Nozzles: One main long reach nozzle and a secondary short reach nozzle.
- Trajectory angles: 28° and 14°.
- Maximum stream height: 20 ft. (6,0 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 79x79R, 82x82T, 82x85T ft.

#### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

#### Dimensions:

- Height: 9,4 in. (24 cm).
- Width: 9,8 in. (25 cm).
- Weight: 3,13 lbs. (1.420 grs).
- Units per box: 15.

#### Options:

- Threads in BSP or NPT under demand.
- Rod with jet breaker diffuser pin for the main nozzle.
- Foldable tripod for mobile installation.
- This is one of the models which can be used in conjunction with our travelling sprinkler cart VYR-5300.

#### Models:

**Ref. 006500:** Without diffuser pin. 1" female.

**Ref. 006501:** Without diffuser pin. 1" male.

**Ref. 006510:** With diffuser pin. 1" female.

**Ref. 006511:** With diffuser pin. 1" male.

**Ref. 106500:** Difuser pin set.

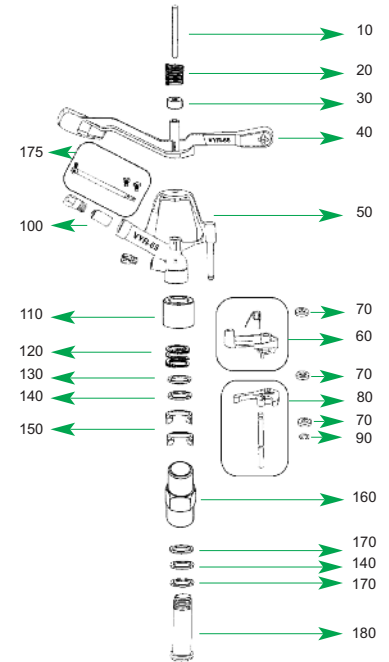
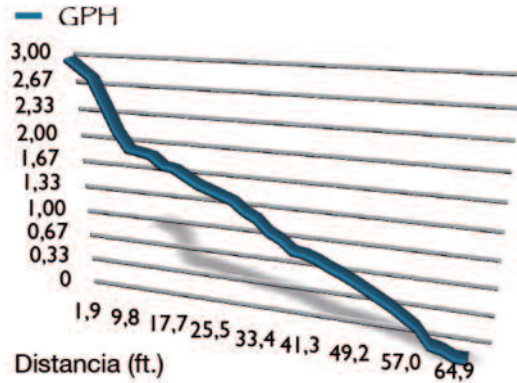




## VYR-65

### Tables & Charts

PSI	70
Caudal	1009 GPH
Boquillas	1/4" x 1/8"
Centro	VYR
Veloc. Rot.	87 seg/rev.
Altura	3 ft.
Duración	60 min
T°	68°F
Veloc. viento	0 ft./seg.
Fecha	14/06/2002



### Performance nozzle tables of VYR-65

#### Long range nozzles (long vane) + Plug

	7/32" 5,55 mm.		1/4" 6,35 mm.		9/32 " 7,14 mm.		5/16" 7,93 mm.		11/32" 8,73 mm.		3/8" 9,52 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
51	10,43	138	13,52	141	16,42	144	19,77	151	23,49	151	27,17	151
58	11,23	144	14,53	144	17,74	151	21,35	157	25,23	161	29,28	161
65	11,89	151	15,48	151	18,71	157	22,67	164	27,08	167	30,91	171
73	12,68	154	16,25	157	20,03	161	24,00	171	28,66	177	32,89	180
80	13,21	157	17,17	164	20,98	164	25,10	177	29,98	180	34,50	187

#### Long range nozzles (long vane) + short range nozzle

	3/16 x 1/8" 4,76 x 3,2 mm.		7/32 x 1/8" 5,55 x 3,2 mm.		1/4 x 1/8" 6,35 x 3,2 mm.		9/32 x 1/8" 7,14 x 3,2 mm.		5/16 x 1/8" 7,93 x 3,2 mm.		11/32 x 1/8" 8,73 x 3,2 mm.	
PSI	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.	GPM.	Ø Ft.
51	11,01	131	13,43	138	16,38	144	19,50	151	26,46	157	29,74	164,0
58	12,04	135	14,38	144	17,81	151	20,87	157	28,18	167	32,10	177,2
65	12,64	138	15,28	151	18,76	157	22,21	164	30,12	177	34,34	187,0
73	13,34	141	16,11	154	19,81	161	23,69	167	31,96	184	36,32	196,8
80	13,98	144	16,93	157	20,87	164	24,55	171	33,68	187	38,04	203,4



STANDARD

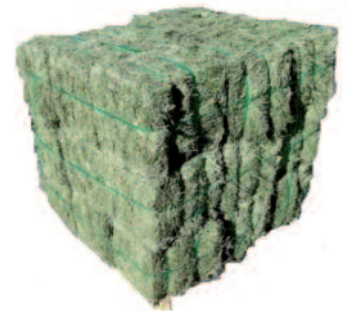
Ø ft. : Diameter of coverage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



Easy part-circle adjustment





## VYR-166

Part circle AG

### General properties:

- Part circle agricultural impact sprinkler, medium-high flow.
- 1" female connection.
- Made of plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 28° and 14°.
- Part circle mechanical system using clips that are very easy and quick to adjust.
- Used in full coverage irrigation with medium-high flow to cover the side and corner areas.
- Special mechanical and hydraulic design for energy saving and an optimal coverage coefficient.

### Technical specifications:

- Reach: 52-79 ft. (16-24 m).
- Flow: 5,7-24 GPM (1300 - 5400 l/h).
- Working pressure: 51-87 PSI (3,5 - 6 BAR).
- Area: Part or full circle.
- Nozzles: One main long reach nozzle and a secondary short reach nozzle.
- Trajectory angles: 28° and 14°.
- Maximum stream height: 18 ft. (5,5 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 79x79R, 82x82T, 82x85T ft.

### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Dimensions:

- Height: 9,4 in. (24 cm).
- Width: 9,8 in. (25 cm).
- Weight: 0,88 lbs. (380 grs).
- Units per box: 15.

### Options:

- Threads in BSP or NPT under demand.
- Arm with jet breaker diffuser pin for the main nozzle.
- Foldable tripod for mobile installation.
- This is one of the models which can be used in conjunction with our travelling sprinkler cart VYR-5300.

### Models:

**Ref. 016600:** Without diffuser pin.

**Ref. 016610:** With diffuser pin.

**Ref. 116600:** Diffuser pin set.



**ref. 116600**

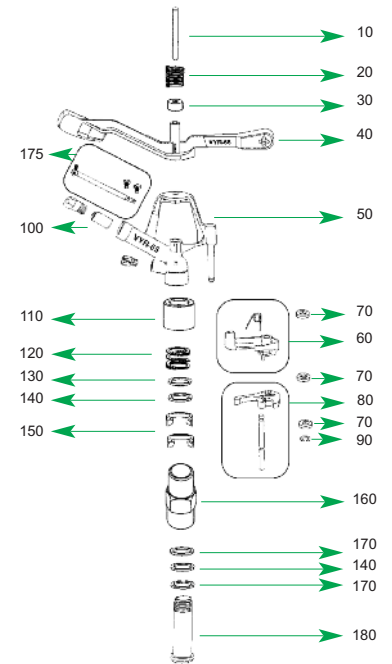
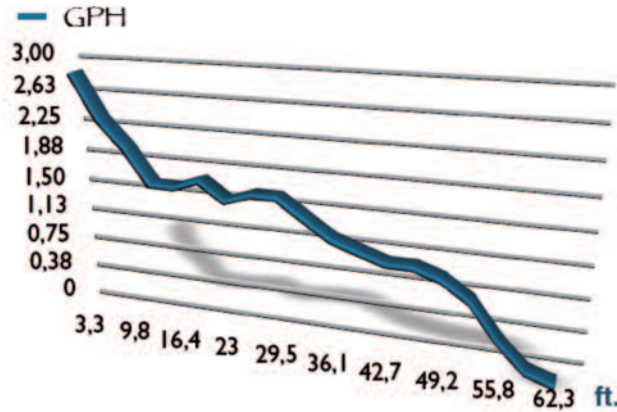




## VYR-166

### Tables & Charts

PSI	51
Flow	982 GPH
Nozzles	1/4" x 1/8"
Center	VYR
Rot. Veloc.	60 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	28/02/2007



### Performance nozzle tables of VYR-166

#### Long range nozzles (long vane) + Plug

	11/64" 4,4 mm.			3/16" 4,8 mm.			7/32" 5,55 mm.			1/4" 6,35 mm.			9/32" 7,14 mm.		
PSI	GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.	
3,00	5,72	108		6,65	112		8,62	115		11,40	118		14,25	125	
3,50	6,17	110		7,17	115		9,42	117		11,88	122		15,27	126	
4,00	6,60	112		7,75	118		10,17	118		12,32	125		16,55	128	
4,50	7,00	115		8,27	120		10,82	122		13,12	126		17,47	130	
5,00	7,43	118		8,67	122		11,35	125		13,77	128		18,27	131	



#### Long range nozzles (long vane) + short range nozzle

	11/64" x 1/8" 4,4 x 3,2 mm.			3/16" x 1/8" 4,8 x 3,2 mm.			7/32" x 1/8" 5,5 x 3,17 mm.			1/4 x 1/8" 6,35 x 3,2 mm.			9/32 x 1/8" 7,14 x 3,2 mm.			11/32 x 1/8" 8,73 x 3,2 mm.		
PSI	GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.		GPM	Ø Ft.	
3,00	8,37	108		9,55	112		11,22	115		13,87	118		16,68	125		18,70	126	
3,50	8,93	110		10,12	115		11,92	117		14,97	122		18,17	126		20,42	128	
4,00	9,63	112		10,78	118		12,90	118		16,28	125		19,45	128		22,00	130	
4,50	10,25	115		11,43	120		13,82	122		17,38	126		20,55	130		22,67	132	
5,00	10,92	118		12,15	122		14,60	125		18,27	128		21,60	131		23,85	133	



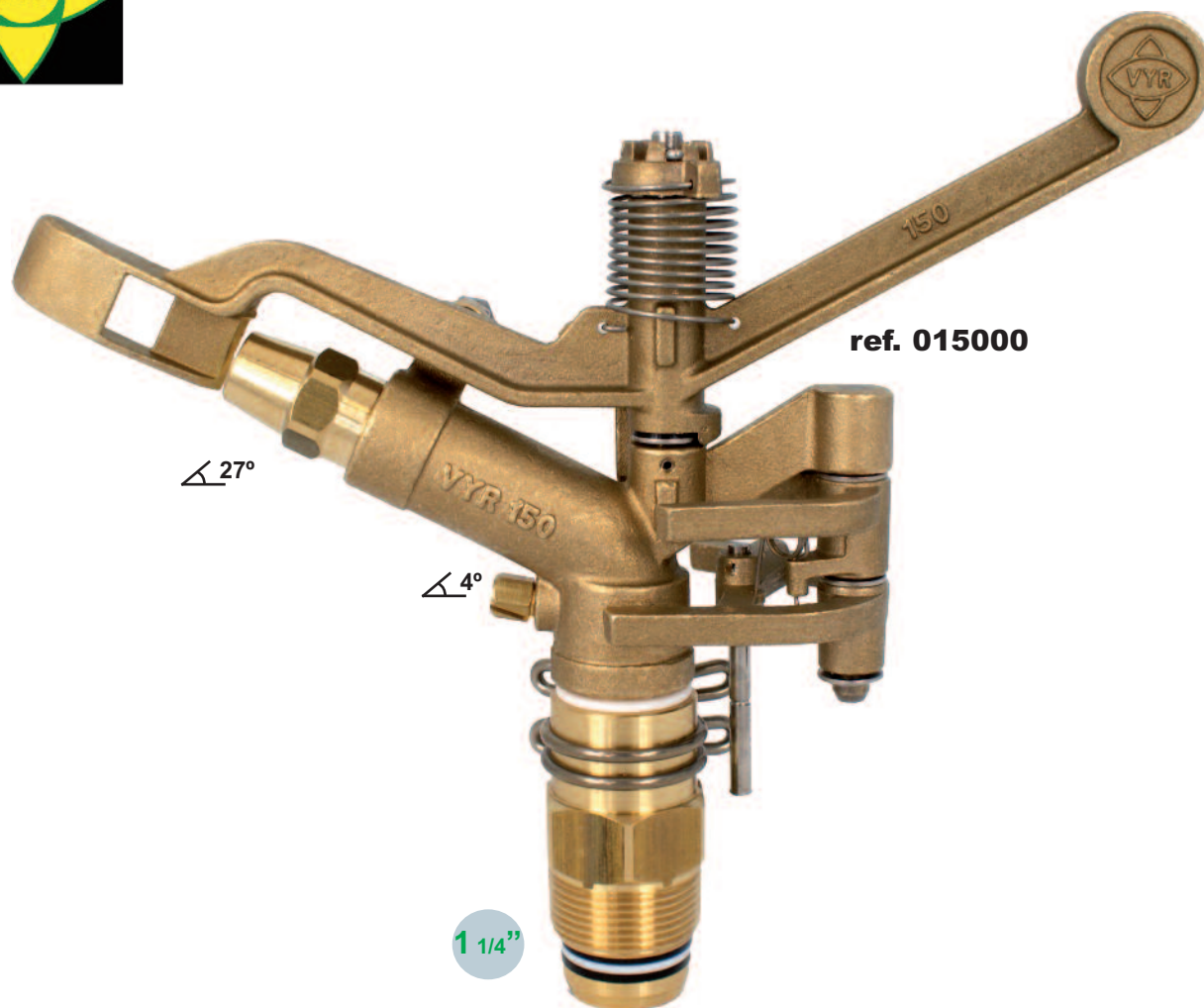
STANDARD

Ø ft. : Diameter of coverage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



Easy part-circle adjustment



## VYR-150

Part circle AG

### General properties:

- Part circle agricultural impact sprinkler, high flow.
- 1 1/4" male connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 27° and 4°.
- Part circle mechanical system using clips that are very easy and quick to adjust.
- Used in full coverage irrigation with high flow to cover the side, corner and pivot point areas.
- Special mechanical and hydraulic design for energy saving and an optimal coverage coefficient.
- Adjustable spring tension.

### Technical specifications:

- Reach: 82-122 ft. (25-37 m).
- Flow: 27-123 GPM (6,200 - 28,000 l/h).
- Working pressure: 58-102 PSI (4 - 7 BAR).
- Area: Part or full circle.
- Nozzles: One main long reach nozzle and a secondary short reach nozzle.
- Trajectory angles: 27° and 4°.
- Maximum stream height: 18 ft. (5,5 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 121x121R, 121x121T, 121x128T ft.

### Applications:

- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.
- Often used for Pivot points.

### Dimensions:

- Height: 11,8 in. (30 cm).
- Width: 14,2 in. (36 cm).
- Weight: 5,36 lbs. (2,430 grs).
- Units per box: 5.

### Options:

- Threads in BSP or NPT under demand.
- Foldable tripod for mobile installation.

### Models:

Ref. 015000: Standard male.



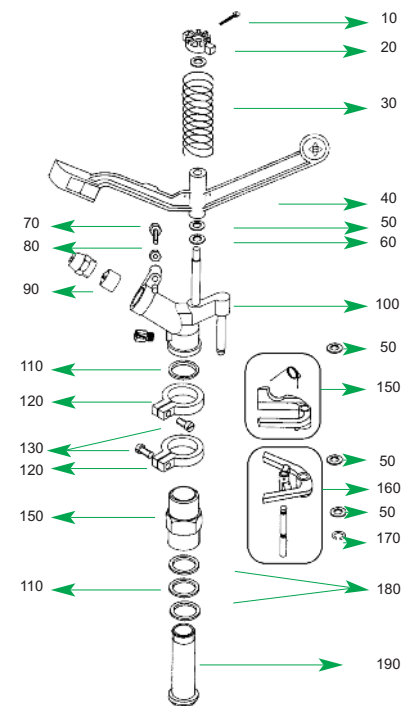
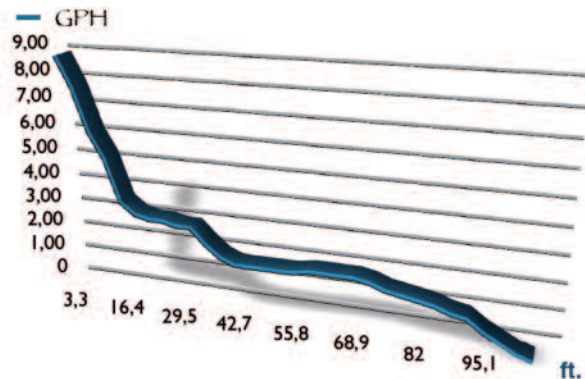




## VYR-150








### Tables & Charts

PSI	51
Caudal	222 GPH
Boquillas	1/2" x 1/4"
Centro	VYR
Veloc. Rot.	180 seg/rev.
Altura	3,3 ft.
Duración	60 min
T°	68°F
Veloc. viento	0 m/seg.
Fecha	1/10/2013



### Performance nozzle tables of VYR-150

#### Long range nozzles (long vane) + short range nozzle

												
	11/32" x 1/8" 9 x 3,2 mm.		13/32" x 1/8" 10 x 3,2 mm.		7/16" x 1/8" 11 x 3,2 mm.		1/2" x 2/8" 13 x 6,3 mm.		9/16" x 2/8" 14,5 x 6,3 mm.		5/8" x 2/8" 16 x 6,3 mm.	
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
58	27,3	164	33,9	171	41,4	177	62,9	190	71,7	197	88,9	203
73	30,8	171	37,8	177	46,6	184	71,3	203	80,5	210	102,1	217
87	34,3	177	41,8	184	51,5	190	80,1	223	88,0	226	113,5	236
102	37,4	184	45,3	190	55,4	197	85,8	236	94,6	240	123,2	243



STANDARD

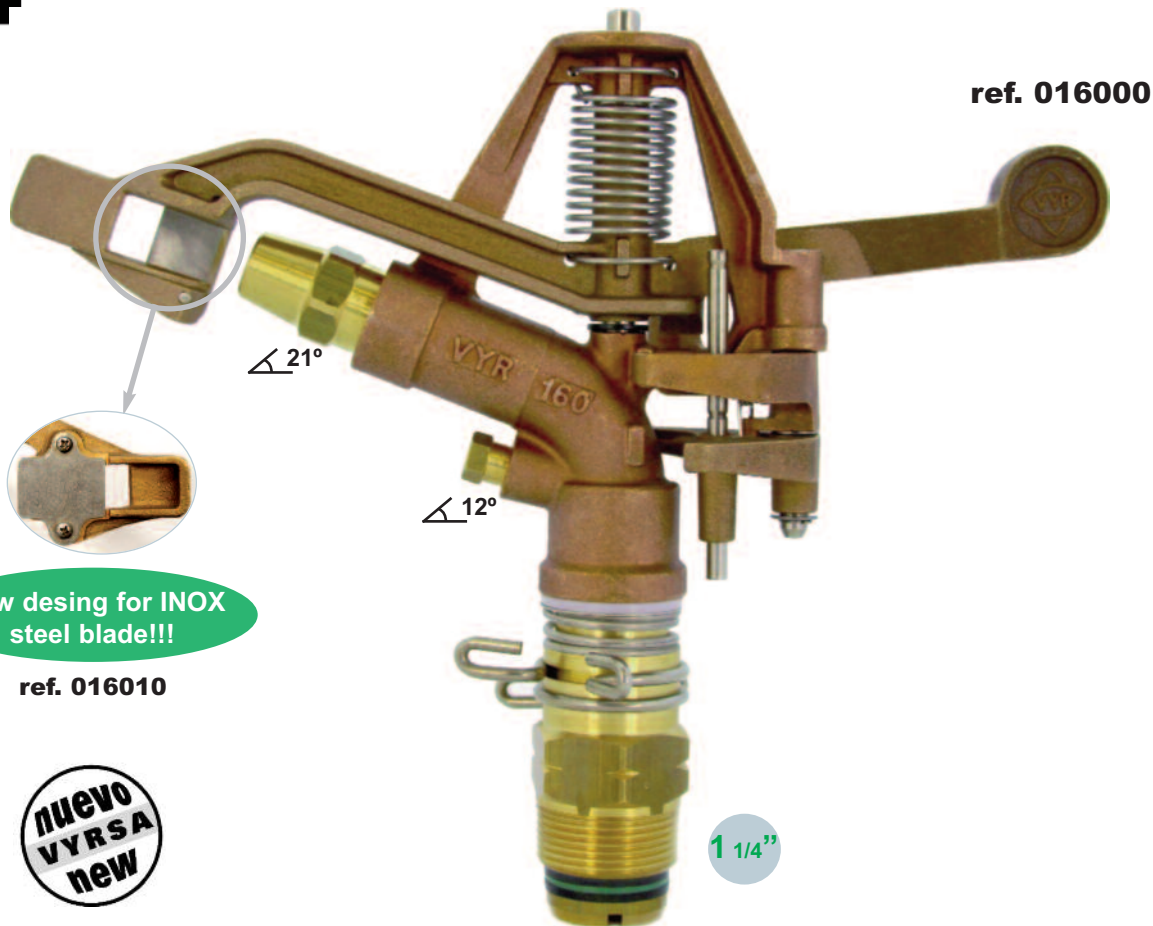
Ø ft. : Diameter of coverage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



Easy part-circle adjustment



ref. 016000

New desing for INOX  
steel blade!!!

ref. 016010



1 1/4"

## VYR-160

Part circle AG

### General properties:

- Part circle agricultural impact sprinkler, high flow.
- 1 1/4" male connection.
- Made of brass and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 21° and 12°.
- Part circle mechanical system using clips that are very easy and quick to adjust.
- Used in full coverage irrigation with high flow to cover the side, corner and pivot point areas
- Special mechanical and hydraulic design for energy saving and an optimal coverage coefficient.

### Technical specifications:

- Reach: 78-118 ft. (24-36 m).
- Flow: 27-123 GPM (6,200 - 28,000 l/h).
- Working pressure: 58-102 PSI (4 - 7 BAR).
- Area: Part or full circle.
- Nozzles: One main long reach nozzle and a secondary short reach nozzle.
- Trajectory angles: 21° and 12°.
- Maximum stream height: 16 ft. (5 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 122x122R, 125x125T, 125x128T ft.

### Applications:

- Pivot end points for the longest reach possible.
- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Dimensions:

- Height: 12,2 in. (31 cm).
- Width: 14,6 in. (37 cm).
- Weight: 6 lbs. (2,721 grs).
- Units per box: 5.

### Options:

- Threads in BSP or NPT under demand.
- Foldable tripod for mobile installation.

### Models:

Réf. 016000: VYR-160 with standard spoon.

Réf. 016010: VYR-160 with INOX spoon.



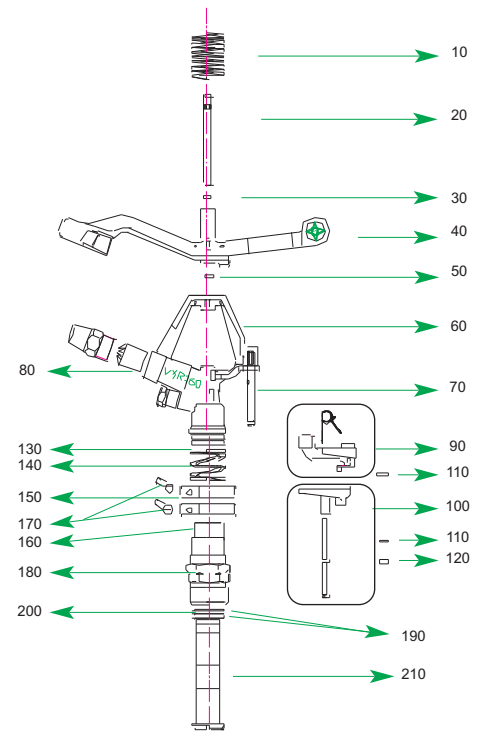
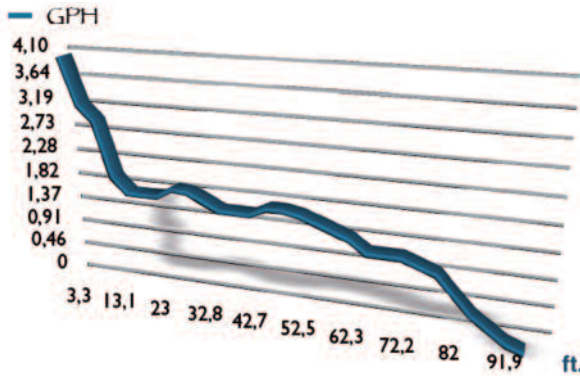




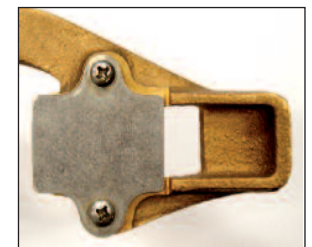
## VYR-160

### Tables & Charts

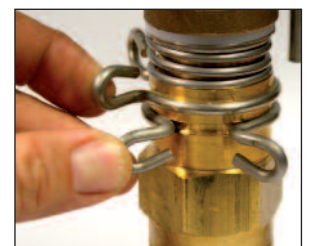
PSI	65
Flow	2645 GPH
Nozzles	7/16" x 9/64"
Center	VYR
Rot. Veloc.	60 seg/rev.
Height	3,3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 m/seg.
Date	2/1/2013



Part-circle blocking system



High-resistance design



Easy part-circle adjustment

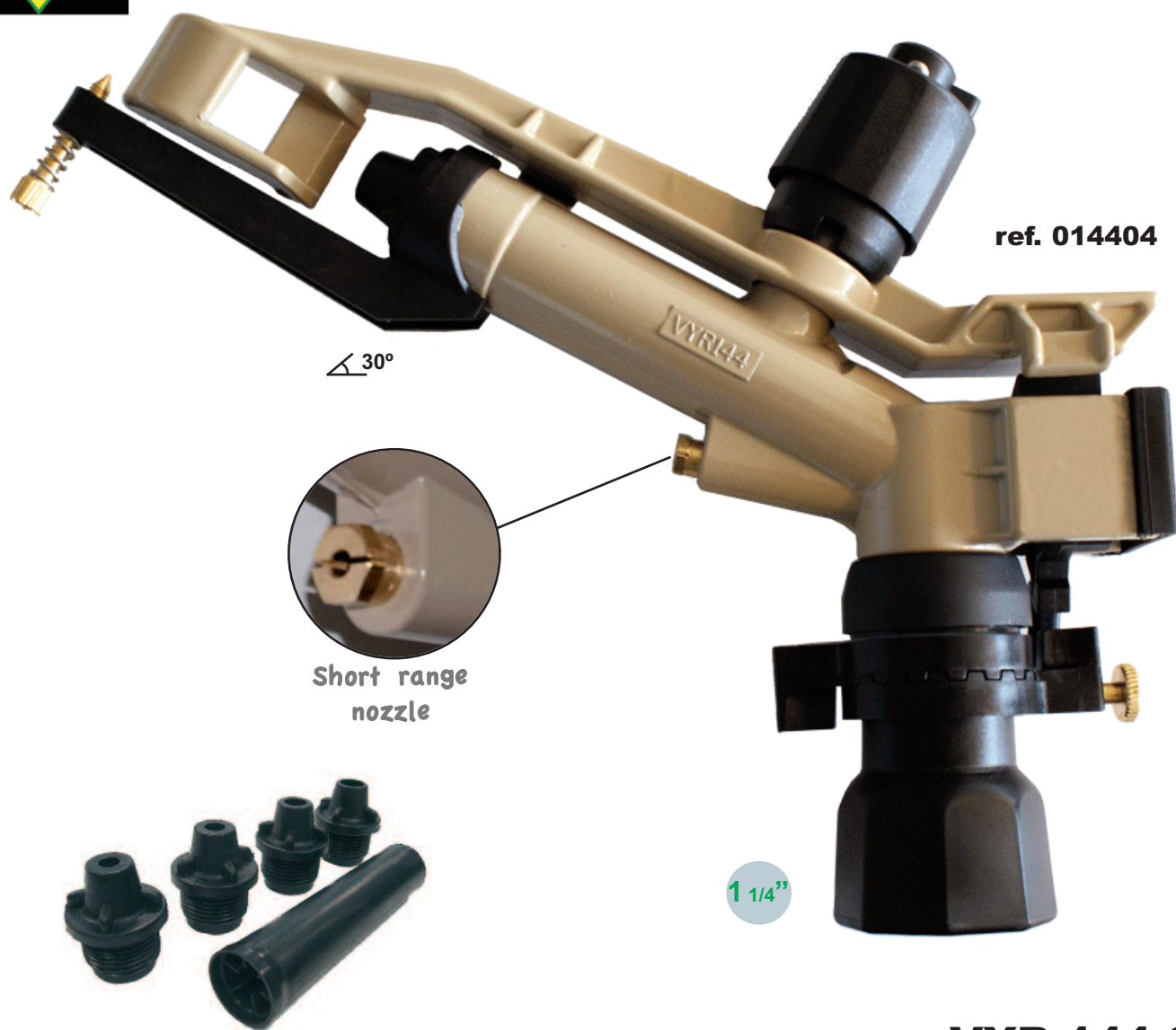
### Performance nozzle tables of VYR-155

#### Long range nozzles (long vane) + short range nozzle

	11/32" x 1/8"	13/32" x 1/8"	7/16" x 1/8"	1/2" x 2/8"	9/16" x 2/8"	5/8" x 2/8"						
	9 x 3,2 mm.	10 x 3,2 mm.	11 x 3,2 mm.	13 x 6,3 mm.	14,5 x 6,3 mm.	16 x 6,3 mm.						
PSI	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.	GPM	Ø Ft.
58	27,28	171	33,88	178	41,37	184	62,92	197	71,72	204	88,88	210
73	30,80	178	37,83	185	46,63	191	71,28	210	80,52	217	102,08	224
87	34,32	185	41,80	191	51,48	197	80,08	230	88,00	233	113,52	243
102	37,40	191	45,32	197	55,43	204	85,80	243	94,60	247	123,20	250

**STANDARD** Ø ft.: Diameter of coverage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.
- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



ref. 014404

30°

Short range  
nozzle

1 1/4"

## VYR-144 S

Part circle AG

### General properties:

- Agricultural part-circle impact sprinkler with medium-high flow.
- 1 1/4" female connection.
- Made of aluminium, plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angle of 30°.
- Special design for long reach.
- Used in full coverage irrigation with high flows.

### Technical specifications:

- Reach: 52-85 ft. (16-26 m).
- Flow: 9,9-69 GPM (2,250- 10,800 l/h).
- Working pressure: 22-65 PSI (1,5 - 4,5 BAR).
- Area: Part or full circle.
- Spring tension adjustment system.
- 2 Nozzles: One main nozzle with built-in deflector pin, and a second short range deflector nozzle.
- Trajectory angles: 30°.
- Maximum stream height: 5,5 m.
- Rotation time: Adjustable. Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 90% in areas of 72x72R, 79x79T, 79x89T ft.

### Dimensions:

- Height: 9,8 in. (25 cm).
- Width: 11,8 in. (30 cm).
- Weight: 2,2 lbs (1 Kg).
- Units per box: 10.

### Options:

- Threads in BSP or NPT under demand.
- Complete set of nozzles.
- This is one of the models which can be used in conjunction with our travelling sprinkler cart VYR-5300.

### Applications:

- Used in all types of agricultural irrigation, generally with medium-high flows.
- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.

### Models:

Ref. 014404





## VYR-144 S

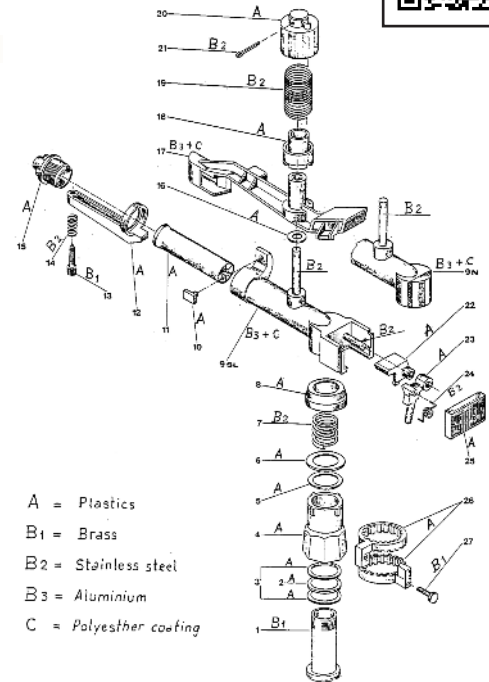
### Tables & Charts

#### Technical guidance table for CU's of VYR-144

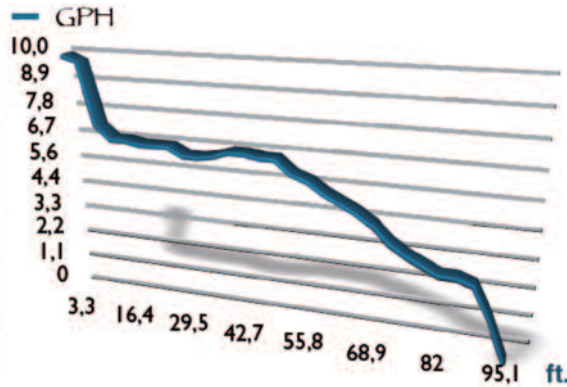
NOZZLE	P (PSI)	Q (GPH)	D (ft.) Radius	Spacing (ft.) / Precipit. rate (in/h)					
				66x80 Rect.	80x80 Rect.	80x85 Triang.	85x85 Triang.	92x92 Triang.	98x98 Triang.
9/32"x 9/64" 7 x 3,6 mm.	44	1085	65,6	0,34	0,28	0,23	0,22	0,19	
	51	1172	65,6	0,36	0,30	0,24	0,24	0,20	0,18
	58	1253	68,9	0,39	0,32	0,26	0,26	0,22	0,19
13/32"x 5/32" 10 x 4,0 mm.	44	2034	85,3	0,63	0,53	0,43	0,41	0,36	0,31
	51	2198	85,3	0,68	0,57	0,46	0,45	0,39	0,33
	58	2349	95,1	0,73	0,61	0,49	0,48	0,41	0,36
9/16"x 11/64" 14 x 4,4 mm.	44	3780	91,9	1,17	0,98	0,79	0,77	0,67	0,58
	51	4083	95,1	1,27	1,06	0,86	0,83	0,72	0,63
	58	4365	98,4	1,35	1,13	0,92	0,89	0,77	0,67

P: Pressure D: Distance (Range Radius).  
Q: Flow at real test

CU<85% CU 85-88% CU 88-92% CU>92%



PSI	58
Flow	2310 GPH
Nozzles	13/32"x 5/32"
Center	VYR
Rot. Veloc.	66 seg/rev.
Height	3 ft.
Test time	60 min
T°	68°F
Wind Veloc.	0 ft./seg.
Date	16/04/2012



Easy spring-tension adjustment

#### Performance nozzle tables of VYR-144

NOZZLE	P (PSI)	D (ft.) Radius	FLOW		□			△		
			GPS	GPM	A ft.	A' ft.	PL GPH	A ft.	A' ft.	PL GPH
9/32"x 9/64" 7 x 3,6 mm.	22	54,1	1,65	9,90	75	75	1,11	92	79	0,88
	29	55,8	1,91	11,45	75	75	1,29	95	82	0,94
	36	60,7	2,14	12,82	85	85	1,12	105	89	0,88
	44	65,6	2,33	14,00	92	92	1,07	112	98	0,82
5/16"x 9/64" 8 x 3,6 mm.	22	57,4	2,16	12,95	79	79	1,34	98	85	0,98
	29	60,7	2,49	14,97	85	85	1,32	105	89	1,03
	36	65,6	2,79	16,73	92	92	1,27	112	98	0,98
	44	68,9	3,05	18,32	95	95	1,30	118	102	0,98
	51	70,5	3,29	19,77	98	98	1,32	118	105	1,03
13/32"x 9/64" 10 x 3,6 mm.	29	68,9	3,90	23,38	95	95	1,66	118	102	1,25
	36	70,5	4,36	26,15	98	98	1,74	118	105	1,36
	44	75,5	4,77	28,62	105	105	1,67	128	112	1,29
	51	80,4	5,15	30,90	112	112	1,60	138	118	1,22
	58	82,0	5,51	33,07	115	115	1,61	141	121	1,24
15/32"x 11/64" 12 x 4,4 mm.	29	70,5	5,61	33,68	98	98	2,24	118	105	1,75
	36	72,2	6,28	37,65	102	102	2,34	125	108	1,80
	44	78,7	6,87	41,22	108	108	2,27	135	118	1,67
	51	83,7	7,43	44,55	115	115	2,18	144	125	1,60
	58	85,3	7,93	47,60	118	118	2,20	144	128	1,66
9/16"x 11/64" 14 x 4,4 mm.	51	102	9,04	54,27	115	115	2,75	144	128	2,27
	58	110	9,53	57,20	118	118	2,69	151	135	2,24
	65	112	9,90	59,40	125	125	2,77	157	141	2,19
	73	118	11	66,00	131	131	2,72	164	148	2,14
	80	125	11,5	68,63	138	138	2,69	167	151	2,14



STANDARD

Ø mts.: Diameter of coverage

- Sprinklers will be supplied with standard nozzles unless otherwise specified.

- In order to calculate the flow, add the flows of the two nozzles. The range of the rear nozzle must be less than that of the main nozzle.



Easy part-circle adjustment



#### SYMBOLS

P: Pressure in nozzle

D: Range distance

A: Distance in between heads

A': Distance in between lines

PL: Precipitation rate per Hour

□: Squared spacing

△: Triangular spacing



## VYR-100 GRILLO

Part circle AG

### General properties:

- Turbine-driven Rain-Gun, high flow for agriculture.
- 2" female connection.
- Made of aluminium, brass, plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angle of 28°.
- Special design for long reach.
- Used in full coverage irrigation with very high flow.

### Technical specifications:

- Reach: 82-25 ft. (25-38 m).
- Flow: 37-90 GPM (8,500- 27,200 l/h).
- Working pressure: 36-65 PSI (2,5 - 4,5 BAR).
- Area: Part or full circle.
- Nozzles: One main multi-jet nozzle with built-in deflector pin.
- Trajectory angles: 28°.
- Maximum stream height: 19 ft. (5,8 m).
- Rotation time: Depending on the pressure and the nozzles, the rotation will be constant and continuous.
- Uniformity coefficient higher than 83% in areas of 158x158R, 164x164T, 164x203T ft.

### Applications:

- Irrigation for sport fields.
- Travelling sprinkler irrigation.
- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.
- Mining.
- Firewall.

### Dimensions:

- Height: 14,6 in. (37 cm).
- Width: 27,6 in. (70 cm).
- Weight: 10,14 lbs. (4,600 grs).
- Units per box: 4.

### Options:

- Threads in BSP or NPT under demand.
- Foldable tripod for mobile installation.

### Models:

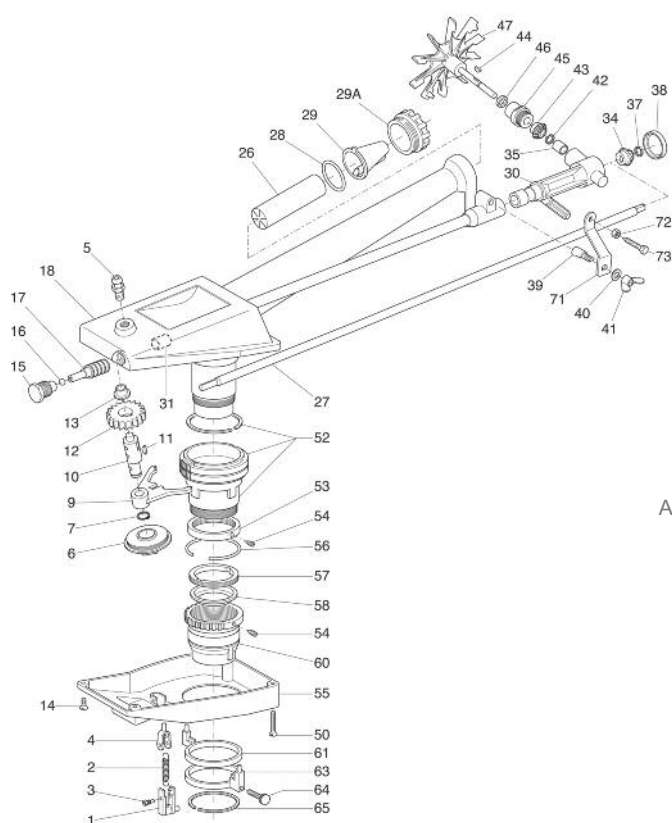
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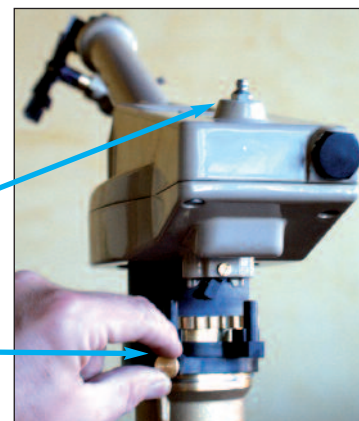
# VYR-100 GRILLO

## Tables & Charts



Greaser for the gear system

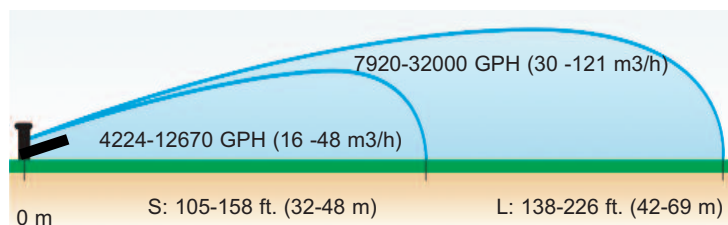
Simple angle of coverage adjustment system



Interchangeable nozzles

Axle adjustment shaft

Propeller turbine deflector



Racord de acoplamiento rápido

## Performance nozzle tables of VYR-100

### Long range nozzles (long vane)

NOZZLE	P (PSI)	D (ft.) Radius	Flow		□			△		
			GPS	GPH	A ft.	A' ft.	PL GPH	A ft.	A' ft.	PL GPH
15/32" 12 mm.	36	82	6,3	2252	115	115	1,84	141	121	1,42
	44	85	6,9	2471	118	118	1,91	144	128	1,44
	51	89	7,4	2669	125	125	1,85	151	131	1,45
	58	92	7,9	2851	128	128	1,87	157	138	1,41
9/16" 14 mm.	36	85	8,5	3068	118	118	2,37	144	128	1,79
	44	92	9,3	3363	128	128	2,21	157	138	1,67
	51	98	10,1	3630	138	138	2,06	167	148	1,58
	58	102	10,8	3886	141	141	2,10	174	151	1,59
5/8" 16 mm.	44	103	12,2	4390	144	144	2,27	177	154	1,73
	51	110	13,2	4741	154	154	2,15	187	164	1,66
	58	115	14,1	5074	161	161	2,11	197	171	1,63
	65	118	14,9	5378	164	164	2,15	203	177	1,61
11/16" 18 mm.	51	110	16,7	6006	154	154	2,72	187	164	2,11
	58	113	17,8	6423	157	157	2,79	194	167	2,13
	65	118	18,9	6814	164	164	2,72	203	177	2,03
	73	123	20,0	7183	171	171	2,66	210	184	2,00



Tripods (3 or 4 legs)

### SYMBOLS

- P: Pressure in nozzle
- D: Range distance
- A: Distance in between heads
- A': Distance in between lines
- PL: Precipitation rate per Hour
- : Squared spacing
- △: Triangular spacing



## VYR-157

Part circle AG

### General properties:

- Piston drive raingun sprinkler, high flow.
- 2 1/2" and 3" female connection.
- Made of aluminium, brass, plastic and stainless steel.
- High-resistance rotating joints.
- Nozzle angles of 28° and 28°.
- Special design for long reach.
- Used in full coverage irrigation with very high flow.
- Rotation speed adjustment.

### Technical specifications:

- Reach: 105-227 ft. (32-69 m).
- Flow: 70-530 GPM (16,000- 121,250 l/h).
- Working pressure: 58-116 PSI (4 - 8 BAR).
- Area: Part or full circle.
- Nozzles: One main multi-jet nozzle for long reach and a secondary nozzle for short reach.
- Trajectory angles: 28°.
- Maximum stream height: 26 ft. (7,5 m).
- Rotation time: Adjustable by a side control command screw.
- Uniformity coefficient higher than 90% in areas of 180x180R, 197x197T, 197x213T ft.

### Applications:

- DUST SUPPRESSION
- Irrigation for sport fields.
- Roller traveller sprinkler irrigation.
- Horticultural plantations, cereals, tubers, leguminous plants and fruit trees.
- Mining.
- Firewall.

### Dimensions:

- Height: 11,8 y 19,7 in. (30 cm y 50 cm).
- Width: 17,7 y 31,5 in. (45 cm y 80 cm).
- Weight: 8,8 y 16,5 lbs. (4000 grs. y 7,500 grs).
- Units per box: 1.

### Options:

- Automatic kit with 2" or 3" valve, hydraulically or electrically driven.
- Foldable tripod for mobile installation.
- Complete set of nozzles.

### Models:

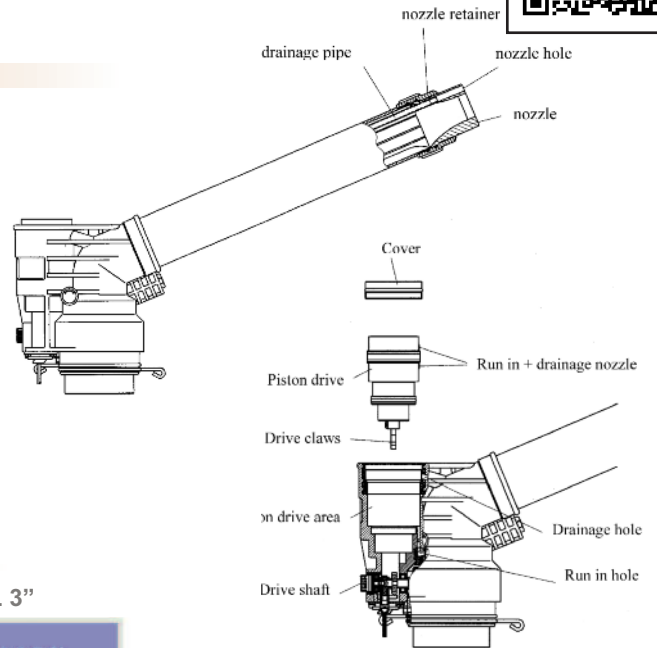
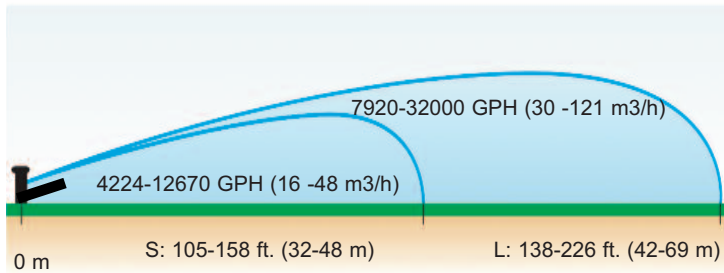
- Ref. 015702** 2 1/2" piston drive gun sprinkler.  
**Ref. 015703** 3" piston drive gun sprinkler.





## VYR-157

### Tables & Charts



### Performance nozzle tables of VYR-157

#### Long range nozzles (long vane) + short range nozzle for VYR-157 L 3"

NOZZLE	73 PSI		87 PSI		102 PSI		116 PSI	
ø in.	GPM	ft.	GPM	ft.	GPM	ft.	GPM	ft.
0,7" x 0,2"	130,7	138	143,0	148	154,4	157	165,0	164
0,78" x 0,2"	157,1	144	172,0	154	186,1	164	198,9	171
0,86" x 0,2"	186,6	151	204,6	161	220,9	171	235,8	177
0,94" x 0,2"	218,7	157	239,4	167	258,7	177	276,8	184
1" x 0,2"	253,9	164	278,1	174	300,1	187	320,8	194
1,1" x 0,2"	278,5	174	319,4	184	345,0	197	368,7	203
1,18" x 0,2"	332,2	180	363,9	190	392,9	207	420,2	213
1,26" x 0,2"	375,8	187	411,4	197	444,4	213	475,2	220
1,34" x 0,2"	422,0	190	462,0	200	499,0	217	533,7	226

#### Long range nozzles (long vane) + short range nozzle for VYR-157 S 2 1/2"

NOZZLE	58 PSI		73 PSI		87 PSI		102 PSI	
ø in.	GPM	ft.	GPM	ft.	GPM	ft.	GPM	ft.
0,55" x 0,2"	70,0	105	78,1	70	85,4	118	92,4	125
0,63" x 0,2"	88,7	112	99,0	74	108,7	125	117,0	131
0,7" x 0,2"	110,0	118	122,8	77	134,6	131	145,2	141
0,78" x 0,2"	133,8	121	149,6	81	163,7	141	176,9	148
0,86" x 0,2"	160,2	125	178,6	87	195,8	144	211,6	154
0,94" x 0,2"	188,8	131	211,2	92	231,0	151	249,9	157





# Irrigation Control

## BATTERY OPERATED CONTROLLERS

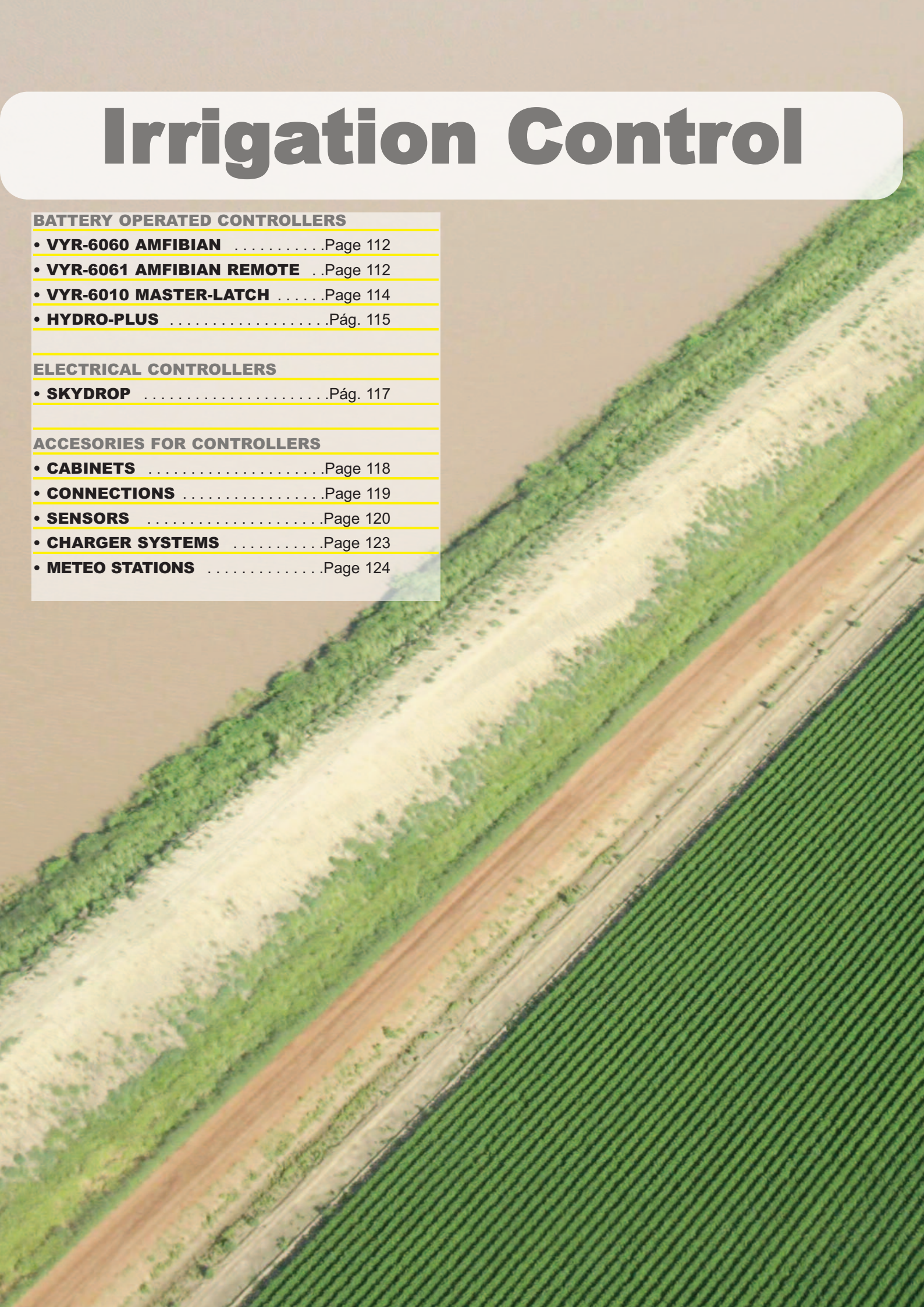
- **VYR-6060 AMFIBIAN** .....Page 112
- **VYR-6061 AMFIBIAN REMOTE** ..Page 112
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## ELECTRICAL CONTROLLERS

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## ACCESORIES FOR CONTROLLERS

- **CABINETS** .....Page 118
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- **METEO STATIONS** .....Page 124











ESPAÑOL  
ENGLISH  
FRANÇAIS

ref. 606011



Waterproof



## Anfibian PG-6060

Battery Operated Controller of 1 & 4 Stations

### General properties:

- Water-Proof battery operated controller (9 Vdc alkaline).
- Number of stations: 1 and 4 LATCH stations + N/O sensor.
- Number of programs: 1 program.
- Number of initiations: 18 starts per day.
- Duration of cycle: up to 7 days.
- Programming times: from 1 minute to 12 hours per valve, with a minute countdown counter.
- MANUAL STARTING of stations and programs with "count-down".
- Easy installation, programming and use because of its versatile design and logical control system.
- Ergonomic keyboard with 5 keys.
- Rubber cover cap for display and keyboard dirt protection.
- Digital screen with logical and easy to use icons.
- PAUSE and SKIP IRRIGATION positions.
- Water throughput adjustment between 25% and 100%.
- Security system with low battery ALARM (it closes all the valves and blocks them until the old battery has been replaced).
- Connection to sensor normally open (rain or temperature sensor) for temporary blocking of irrigation.
- The 1 station model includes a 2-way latch solenoid; the model with 4 stations does not include the solenoids.

### Applications:

- Suitable for isolated areas without electrical energy or with difficult access to the wiring.

### Technical specifications:

- Ingress protection: IP-68 (completely watertight and submersible).
- Voltage: 9 V ALKALINE battery.
- Output: Latch.
- Number of valves supported: 1 Latch solenoid (9V) per outlet at no more than 10 ft. (3 m) distance.
- Terminal strip: cables of up to 1.5 mm<sup>2</sup>.

### Measurements:

- Width: 9 cm diameter.
- Height: 6 cm.
- Weight: 200 grs.
- Units per box: 1.



### Options:

- Kit of 1 station model + 1" high-flow electrically operated valve.
- Kits for agricultural use with 3-way latch solenoids with hydraulic valves (if specifically ordered).

### Models:

Ref. 606001: VYR-6060 1 est. + solen. latch 2 w

Ref. 606011: VYR-6060 1 es. + solen. latch 3 w 1.6 mm

Ref. 606004: VYR-6060 4 est.





Easy to match and schedule from Mobile Phone!!!

## Anfibian Remote **PG-6061**

### Battery Operated Controller of 1 & 4 Stations

The **PG-6060 REMOTE** is a waterproof battery operated controller (9VDC alkaline) that allows us to connect via Bluetooth Low Energy 4.0 to our mobile devices by the Green-Pad ® APP application. Pressing one button pairing with the mobile device is enabled through an access code for user security. This model is ideal for communities, public parks and gardens to prevent theft or vandalism of equipment as it can not be used or manipulated without the access code.

#### General properties:

- Number of stations: 1 and 4 LATCH stations + N/O sensor.
- Number of programs: 1 program.
- Number of initiations: 18 starts per day.
- Duration of cycle: up to 48 days.
- Programming times: from 1 minute to 12 hours per valve, with a minute countdown counter.
- MANUAL STARTING of stations and programs with "count-down".
- Easy installation, programming and use because of its versatile design and logical control system.
- Ergonomic keyboard with 5 keys.
- Digital screen with logical and easy to use icons.
- PAUSE and SKIP IRRIGATION positions.
- Water throughput adjustment between 10% and 400%.
- Security system with low battery ALARM (it closes all the valves and blocks them until the old battery has been replaced).
- Connection to sensor normally open (rain or temperature sensor) for temporary blocking of irrigation.
- The 1 station model includes a 2-way latch solenoid; the model with 4 stations does not include the solenoids.

#### Applications:

- Suitable for isolated areas without electrical energy or with difficult access to the wiring.
- Its security system makes it ideal for parks and gardens in public spaces.
- Designed for use in urban or residential gardens and isolated farming areas.



**IRRIGATION  
CONTROL**  
ALWAYS IN YOUR HAND



#### Models:

Ref. 606101: VYR-6061-Bluetooth 1 est. + solen. latch 2 way

Ref. 606102: VYR-6060-Bluetooth 1 es. + solen. latch 3

Ref. 606104: VYR-6060-Bluetooth 4 est.

Ref. 606111: VYR-6061-RADIO 1 est. + solen. latch 2 way

Ref. 606112: VYR-6060-RADIO 1 es. + solen. latch 3 way

Ref. 606114: VYR-6060-RADIO 4 est.



ESPAÑOL  
ENGLISH  
FRANÇAIS



TRI  
Integrated  
Radio Card  
(optional)



Wall-mounting plate

## Master-Latch PG-6010 PRO-2.1

Battery Operated Controller of 5, 8 & 14 Stations

### General properties:

- Number of stations: 5, 8 and 14 stations + main valve.
- Number of programs: 4 independent and overlapping programs (A, B, C and D).
- Number of initiations: 6 initiations per program.
- Duration of cycle: up to 7 days.
- Programming times: from 1 minute to 12 hours per valve, with minute countdown counter.
- MANUAL STARTING of stations and programs with "count-down".
- **NEW!!!** Time delay between valves and pump & valves
- **NEW!!!** Communication port for tele-control systems through Green-Plus, Hydro-Plus ó Green-Pad.
- **NEW!!!** Stuffing box and lock outputs.
- **NEW!!!** Outlet antenna connection.
- Program "D" configurable in seconds or minutes with inhibition from the N/C sensor. This permits connection of differential pressure switches for automatic filter back washing, or connection to fertilizer injection pumps.
- Easy installation, programming and use because of its versatile design and hybrid control system.
- Rotary mechanical control and ergonomic keyboard with 4 keys.
- Digital screen with logical and easy to use icons.
- PAUSE and SKIP IRRIGATION positions.
- Water throughput adjustment between 10% and 400%.
- Input for main valve activation and two inputs for sensors, one normally open (differential pressure switch for filter washing), and the other normally closed (rain sensor).
- Security system with low battery ALARM (it closes all the valves and blocks them until the old battery has been replaced).
- Volatile memory that saves existing programs so they are not lost in the event of a blackout.

### Technical specifications:

- Voltage: 9V ALKALINE battery or converter. Internal battery in circuit to keep time in case of blackouts.
- Output: Latch.
- Number of valves supported: 1 Latch solenoid (9V) per outlet at no more than 3 metres distance.
- Terminal strip: cables of up to 1.5 mm<sup>2</sup>.

### Measurements:

- Width: 16 cm
- Height: 22 cm.
- Depth: 5 cm.
- Weight: 420 grs.



### Options:

- IP-68 sealed box.
- Aluminum cabinet with IP-54 key.
- 12 VDC solar kit (9-12 VDC solenoids).

### Models:

**Ref. 601055:** 5 Stations. LATCH + COMMUNIC. PORT  
**Ref. 601058:** 8 Stations. LATCH + COMMUNIC. PORT  
**Ref. 601064:** 14 Stations. LATCH + COMMUNIC. PORT

**Ref. 601074:** 14 Stations + TRI (RADIO).

**Ref. 601084:** 14 Stations + BOX.

**Ref. 601094:** 14 Stations + TRI + BOX.

**Ref. 601054:** 14 Stations + TRI + AP (GSM+RADIO).

\*\*All include lithium battery 9Vdc of 1200mAh.





## CAP PG-6025

Sistema de Tele-Control y Redes de Riego

### General properties:

- Communication GPRS / WIFI / RADIO for remote communication with programmers PG-6010, PG-6060 (2.1) and PG-6015.
- Application Hydro-Pad® free downloadable application for mobile devices and Hydro-Plus web environment.
- Digital inputs: 4 digital inputs for reading flow meters, pressure transmitters, humidity, soil moisture, etc.
- Analog Inputs: 3 analog inputs for sensors, rain sensors, anemómetros, etc.
- Relay outputs: 2 relay outputs for contactors (pump start)
- Remote Access: Radio links to the programmer and radio antennas.
- Outputs for GPRS antennas and RADIO. (antenna included)
- Window facility for SIM card.
- Very simple setup and commissioning.
- Power save 12 Vdc. Solar charging system built into the plastic box to prevent vandalism and theft.

### Models:

**Ref. 602501:** ACCESS POINT GPRS + RADIO.

**Ref. 602511:** CAP **GSM + RADIO** with **SENSOR** inputs (CAP+S).

**Ref. 602505:** ACCESS POINT **WIFI + ETHERNET**.

**Ref. 602502:** INTEGRATED RADIO CARD (TRI).

**Ref. 602503:** Remote sensor module **MSR** (field sensors).

**Ref. 602578:** Radio wire of 2 meters and mounting base.

**Ref. 602579:** Orientable antenna.

**Ref. 602580:** Long distance plastic antenna.

**Ref. 602581:** Long distance aluminum antenna.

**Ref. 602582:** Long distance plastic bumper antenna.

**Ref. 602583:** Super-long distance omnidirectional plate antenna.



ref. 602501



ref. 602511



ref. 602583



ref. 602580



ref. 602581



ref. 602582



Cajas para uso exterior con opciones de tele-gestión



Integración en una misma caja de todos los equipos: PG+CAP+TRI



TRI  
Tarjeta Radio Integrada

The best solution for intelligent and automatic control of your irrigation system is called Hydro-Plus. The integration of different control equipment and management make this tool one of the most sophisticated in the market for its range of low-power, long-range communications, and powerful software algorithms for auto-reset "Water Balance".

Communication equipment are:

- **CAP:** The manage centralizing communication link between programmers. It features 3 model options:
  - **CAP GSM / RADIO** (standard): Radio communication with TRI's programmers and Internet.
  - **CAP GSM / RADIO + SENSORY:** It also includes a card with 6 digital inputs, 4 analog and RS485 port.
  - **CAP WIFI-ETHERNET:** Communication in areas with Internet access point through a WIF/ETHERNET modem.
- **TRI:** The mini-card that is placed on the programmers and MSR's to establish wireless communication.
- **MSR:** The remote sensor module with 2 digital inputs and 2 analog outputs for remote sensing in culture.



# Hydroplus

The **HydroPlus** system is a smart irrigation management controller system for crops that interacts with local water, agronomical and meteorological values automatically adjusting the timing and frequency of irrigation. The system is designed in a modular way so that it suits different types and sizes of plots.

Based on our autonomous programmer "**PG-6010 PRO-2.1**" with battery 9Vdc, on this will be incorporated at any time a mini-card hailing **TRI** (integrated radio card) to communicate locally or remotely with the **CAP** (Communication Access Point) that is responsible for communicating with all programmers within the same radio network **868/900Mhz** and **GPRS** transfer all data through the internet cloud. The **CAP** can be only "communicator" or also be "receiver-transmitter" for data (6 digital and 4 analog) besides having a **MOD-BUS / RS-485** port to integrate weather stations or local special sensors, and also 2 contactor relay outputs for pump start. The scope of radio in direct vision is more than 20 Km range between controllers and will vary according to the antenna installed and local geography (trees, natural obstacles, geography). In case due to the geography of the land does not reach either the radio signal from the **CAP** to the **TRI's**, the latter can be set in "**jump Multihop**" and route-shaped rebound communications through other equipment network (up to 3 jumps per CAP).

In addition, other optional devices such as **MSR** (Sensory Remote Module) that are responsible for collecting data remotely and download them to the chosen database. These data will serve to ascertain the water conditions within the crop so that intelligent algorithms interact **HydroPlus** adjusting watering times as needed. This module has 2 digital inputs (counters, wind, ... etc) and 2 analog inputs (pressure, temperature, etc ...).

## PROGRAMS:

- 4 prog. (PG-6010) + 2 prog. (CAP)
- 6 starts per program
- 14 valves + master valv. (PG-6010)

## CONDITIONS AND ALARMS:

- Flow
- Pressure
- Rain
- Temperature
- Soil moisture
- Evp
- Hydric balance
- Level

## METEO:

- Local Weather Station
- Internet

## FLOW METER HYDRANTS:

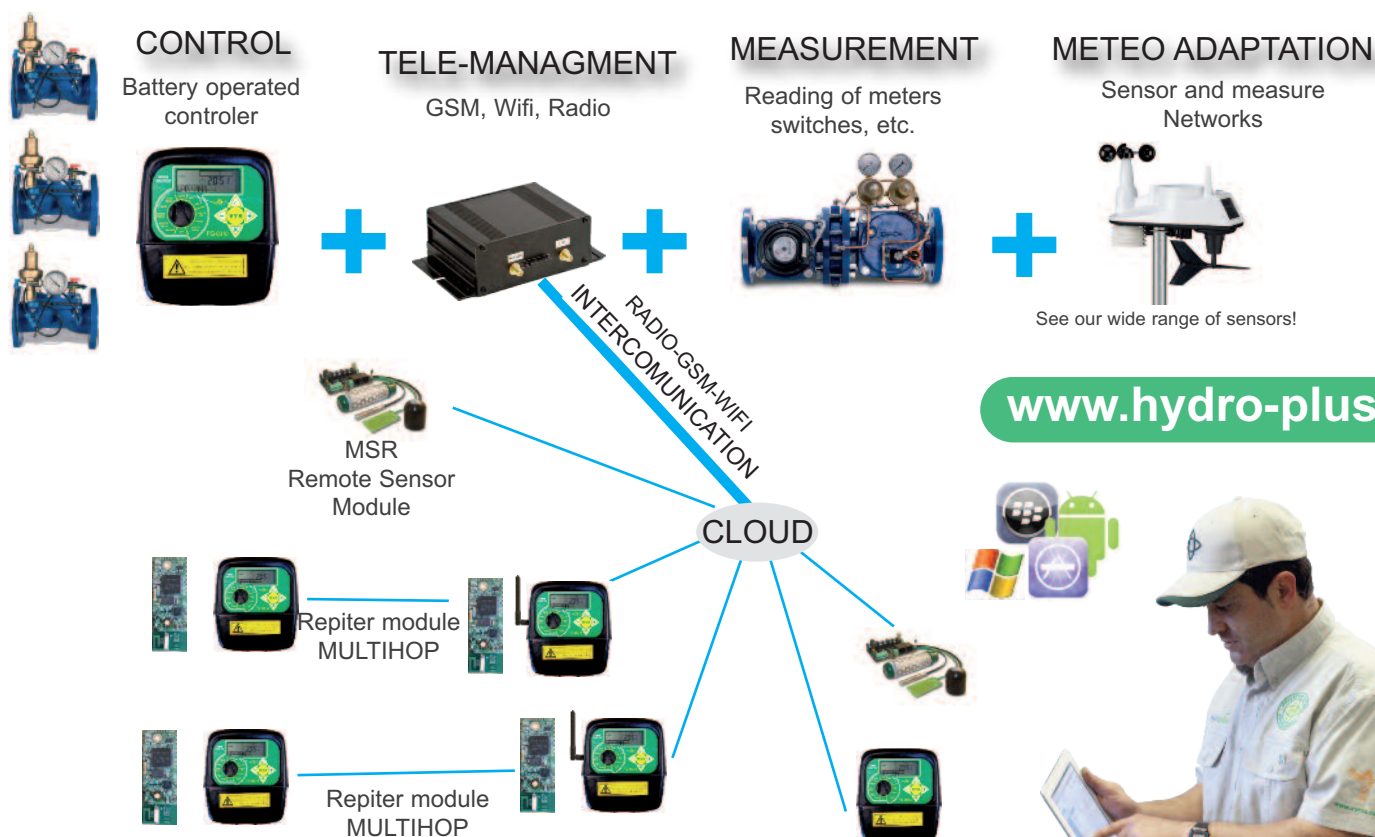
- Flow
- Pressure
- Irrigation

## MAP:

- Google Earth
- CAD drawings

## HISTORICAL:

- Irrigation
- Alarms and Events
- Flow
- Pressure
- Rain
- Temperature
- Soil moisture
- Hydric balance





# Hydro-Plus & Hydro-Pad

The APP for mobile devices



**Hydro-Plus & Hydro-Pad** are our software applications for control of irrigation VYR equipment PG-access communications, designed for PCs, phones and tablets PDA with Internet access. These applications are based on the Hydro-Plus software and allows us logically and visually analyze the actual situation of our irrigation controllers and make changes to their settings.

## Hydro-Plus ([www.hydro-plus.es](http://www.hydro-plus.es))

Hydro-Plus is a web application for remote control from any device with internet access. After programming and integration of different system components (valves, pumps, meters, nozzles, weather stations and sensors, etc ...), we can generate management patterns depending on the agro-meteorological and physical conditions of the system, thus generating different types of alarm.

GPS for location and actual positioning network maps of the different components of the system. Organize easily create different groups of plants per irrigation plot, crop types, etc ... and independently manage their programming.

Other devices than irrigation can be controlled for activation such as lighting, power, alarms, cameras, doors, etc.

Examples:

- If the case of precipitation above a given range or set to a moisture content of soil also out of range, the start times will be delayed and even adjust watering times to the needs of the plant and soil.
- If the level of evapotranspiration is a large percentage increase run times for recovering the lost water.

## Hydro-Pad

The APP application to Hydro-Pad mobile devices is based on the web application [www.hydro-plus.es](http://www.hydro-plus.es) and includes an intelligent software with common remote management tools. Thanks to its use will increase savings and good management of risks. Also this version is ready to bind with mobile devices via Bluetooth.

Easy and quick to install and configure.

### CORE CONDITIONING

Using this intelligent software you can adjust watering times to the needs of demand for their crops taking into account the weather and measuring sensors in culture.

Condiciones Some of these are:

- Soil moisture > / = ..... RUN CANCEL
- Soil moisture < / = .....% INCREASE OF IRRIGATION
- If the ETo > / = .... SLOW
- Reset by precipitation mm / m2 / h
- Delay wind speed
- Program soda if temperature > C ....
- anti-freeze if the temperature program < .... °C.

### ALARM WARNINGS

Hydro-Plus system is able to generate alarms and automatic alarm-system inabiltación. Alarms can be by:

- Intrusion relay.
- Pressure / flow (delay irrigation valve from where it left off).
- Failure of communication.
- Level.

These alarms can be sent to mobile devices via SMS or e-mail.

### Models:

**Ref. 602590:** Service IRRI-COM 7 controllers. INCLUDE: SIM card service, software, remote service.

**Ref. 602595:** Service IRRI-COM 18 controllers. INCLUDE: SIM card service, software, remote service.





## SKYDROP Smart Irrigation

Tele-Management Systems & Control Networks

### General properties:

- Smart Scheduler 220 / 24Vac for network connection via WiFi, which interact with agronomic data and local meteorological data for re-programs the timing and frequency of watering as needed.
- Enter the characteristics of the land and its plants to automate settings Intelligent Irrigation Skydrop (soil type, plant type, sunny or shady area, level sloping terrain)
- The SKYDROP® application is a free download for mobile devices and also features a web application environment for installers-administradores and manage user groups.
- Automatic detection of connection of the valves 24 Vac.
- Detection of short circuits or faulty wiring.
- Humidity Sensor Inputs / rain.
- Input for flowmeter and contabilizador water consumption.
- Very simple configuration and commissioning.

### Models:

**Ref. 602501:** Controller SKYDROP.

**Ref. 602502:** 8 station module + MV y sensores.

**Ref. 602503:** Expansion module 9-16 stations + sens.

**Ref. 602505:** outdoor secure box.



Flow-Meter 1"



Soil Moisture Sensor



## Experience the Skydrop Difference.

**Easy To Install**  
Connects to your existing sprinkler system wiring in minutes.

**The Right Way To Water**  
Use up to 50% less water.

**Wi-Fi Enabled**  
Access real-time information from anywhere.

**Simple to Use**  
Quickly to program to meet local water restrictions.

**Manage Anywhere**  
Phone, computer, tablet—precision control at your fingertips.

**Real-Time Neighborhood Weather Data**  
Predictively adjusts to hyper-local, real-time weather conditions.

**Control the Savings**  
Dynamic schedule for maximum conservation.

**Integrates With Other Smart Home Systems**  
Quickly to program to meet local water restrictions.

# www.skydrop.com

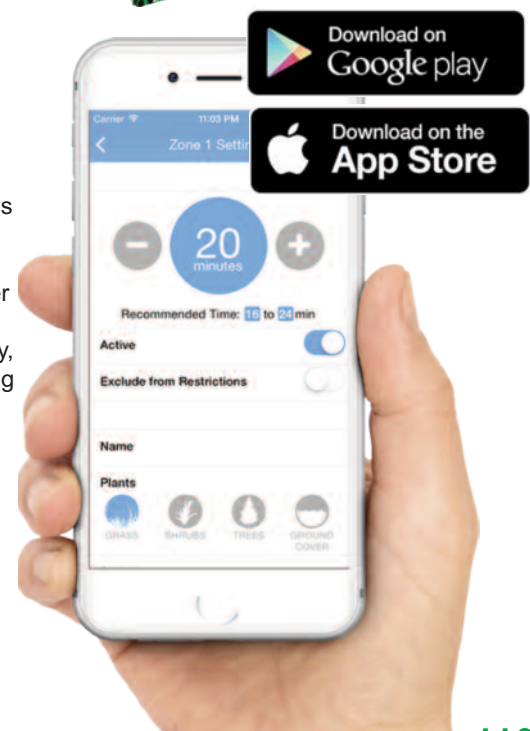
## The application for mobile devices

SkyDrop smart programmer has a free application APP for both IOS as Android devices that lets you view and remotely operate everything that happens in your programmer. Create your account quickly and easily through **MySkyDrop.com** and link your mobile device with your programmer using the security code will be provided.

In addition SkyDrop also has a WEB application for professional control irrigation networks and manage a set of local customers. In this way a professional installer can configure and manage all customers and programmers to ensure that programming is optimal and that is saving water while the appearance of the gardens is improved.

Simply follow the initial setup steps that the same programmer will guide you to enter the agronomic data of different irrigation stations: soil type (sand, screening, clayey, silty), type of plant (grass, shrubs, trees, flowers), solar radiation (sunny, semi-sunny, shaded), type of issuer (diffuser, rotary, turbine-sprinkler, drip), tilt (flat, slightly sloping steeply inclined). With all this information with meteorological data and you know at all times the optimal way to run the risks.

From SkyDrop applications we can program the desired time starts and irrigation. Also, if the option "Smart Irrigation" is activated watering times are automatically re-adjusted daily depending on the weather forecast and actual status of the land. Another of the options is "Active Minutes" that allows us to make small adjustments to the irrigation recommended increasing or decreasing this proportion.





## DELUXE ALUMINUM CABINET VYR-6500

Controller Accesories



ref. 650000

### General properties:

- Leak-tight aluminium cabinet with stainless steel hinges and double lock with safety key.
- Movable plate with the capacity to house V-6000/6001/6010/6015 controllers, RTU and SATELINE SERIES (radio, gprs, modems), transformers and temperature sensor.
- Mostly used on golf courses and municipal urban areas for the remote management of multiple and varied irrigation zones.
- IP-55 sealing and interior ventilation to avoid condensation.
- Lower cubicle for hydraulic valves (15) or communication systems, modem and modules supporting 8 stations (up to 48).
- "Hydro-control" kit of up to 15 hydraulic solenoid valves to drive the valves hydraulically.
- Painted with light grey polyester-epoxy resin. (20x15x115 cm).

### Models:

Ref. 650000. Model for hydraulic systems.

Ref. 650001. Model for electrical systems.

## PLASTIC CABINETS

Controller Accesories

### General properties:

- Plastic cases of polycarbonate reinforced with fiberglass and IP-66 sealing for protection of electronics.
- Covers with cut-outs M20, M25 / 32 and M32 / 40.
- Set of hinges with drilling template.
- IP-68 cable entry gland and anti-condensation cap included.
- Machined to accommodate programmers VYR-6000/6001/6010/6015, transformer and temperature sensor plate.

### MODELS:

Ref. 650101: IP-66 180 X 180 X 90 mm

Ref. 650100: IP-66 254 X 180 X 115 mm

Ref. 650104: IP-66 with colum collar 254 X 180 X 115 mm

Ref. 650108: IP-66 conjunction box for 8 estat. (COMMON)

Ref. 650115: IP-66 conjunction box for 15 estat. (COMMON)

Ref. 106101: Frame of INOX for mobile controllers.

Ref. 650290: Humidity valve plug.

Ref. 625051: Gland of 16 mm.

Ref. 625052: Gland of 20 mm.

Ref. 625053: Gland of 25 mm.



ref. 650102

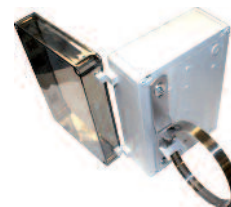
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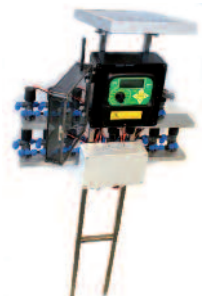
ref. 650101



ref. 650115



ref. 650104





## ISOLATION WIRE CONNECTORS

### Controller Accesories

#### General properties:

- Accessories for connecting cables, packing gland, and anti-condensation vents to prevent short-circuits or shunts electric irrigation facilities, wiring closets and programmers.

#### Modelos:

**Ref. 624501:** Kit of isolation gel of 600 ml. to filled up boxes. Isolation IP-68.

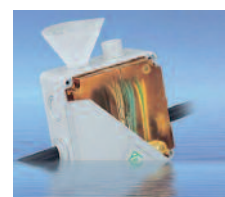
**Ref. 625511:** Multiconnector 5 ports for common wires.

**Ref. 625125:** Conector Hembra-Macho IP-68 para 3 cables de 0,5-1,5 mm<sup>2</sup>, max. 30V

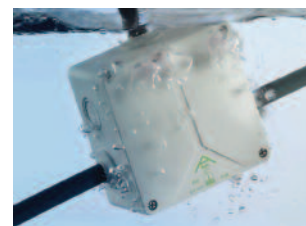
**Ref. 625130:** Connector standard for 3 wire of 0,5-1,5 mm<sup>2</sup>, max. 30V

**Ref. 625133:** Connector standard for 3 wire of 1-2,5 mm<sup>2</sup>, max. 30V

**Ref. 625131:** Connector standard for 3 wire of 4 mm<sup>2</sup>, max. 30V



**ref. 624501**



**ref. 625511**



**ref. 625133**



**ref. 625130**



**ref. 625131**

**ref. 625125**



## POWER TRANSFORMERS

### Controller Accesories



**640224**



**640424**

### VYR-6400 POWER TRANSFORMERS / CONVERTERS

**Ref. 640212** TRANFORM. EUROPE 220 V - 12 V DC - 1,5 Amp

**Ref. 640112** TRANFORM. AMERICA 110 V - 12 V DC - 1,5 Amp (Flat pin)

**Ref. 640224** TRANFORM. EUROPE 220 V - 24 V AC - 1,5 Amp

**Ref. 640124** TRANFORM. AMERICA 110 V - 24 V AC - 1,5 Amp (Flat pin)

**Ref. 640324** TRANFORM. EUROPE 220 V - 24 V AC - 0,3 Amp

## PUMP RELAYS & STARTERS

### Controller Accesories

#### RELAY CONTACTORS & STARTERS

**Ref. 620112:** CONTACTOR 12V dc / 110-220V, 2-3 PHASES / 5-7,5 HP

**Ref. 620124:** CONTACTOR 24V ac /110-220V, 2-3 PHASES / 5-7,5 HP

**Ref. 620109:** CONTACTOR 9/12V dc LATCH / 110-220V

**Ref. 620107:** BASIC PUMP STARTER BOX 110-220V up to 7,5 Hp.

**Ref. 620125:** PROGRESIVE PUMP STARTER BOX 220-400V up to 25 Hp

**Ref. 620140:** VARIATOR PUMP STARTER BOX 220-400V up to 200 Hp.



**Ref. 620109**



**Ref. 620107**

**ref. 603001**

# RAIN-CLICK VYR-6030

## Controller Accesories

## VYR-6030 RAIN SENSOR

- Safe and reliable. Adjustable humidity level.
- Very easy to connect to the controller.
- Saves water!

### Models:

**Ref. 603001:** Rain-clik.

**ref. 603301**

# WIND-CLICK VYR-6033

## Controller Accesories

## VYR-6032 WIND SENSOR

- Safe and reliable. Adjustable humidity level.
- Very easy to connect to the controller.
- Saves water!

### Models:

**Ref. 603301:** Wind-clik.

**Ref. 603305:** Wind-clik PRO.

**Ref. 603305:** Wind-clik PRO + reg. relay 12-24Vdc.



ref. 603305

# FLOW-CLICK VYR-6034

## Controller Accesories



## VYR-6035 FLOW SENSOR

- Safe and reliable. Flow level from 1,5-2500 L/min.
- For 3/4"-8" pipes
- Very easy to connect to the controller.
- Saves water!

### Models:

**Ref. 603501:** FLOW-clik.

# HUMI-CLICK VYR-6031

## Controller Accesories

## SOIL MOISTURE HUMIDITY SENSOR VYR-6031

- Safe and reliable. Adjustable humidity level.
- Very easy to connect to the controller.
- Saves water!
- Bypass NO/NC. Reprogrammable.
- ON-OFF switch.

### Models:

**Ref. 603101:** HUMI-click Power of 24 Vac

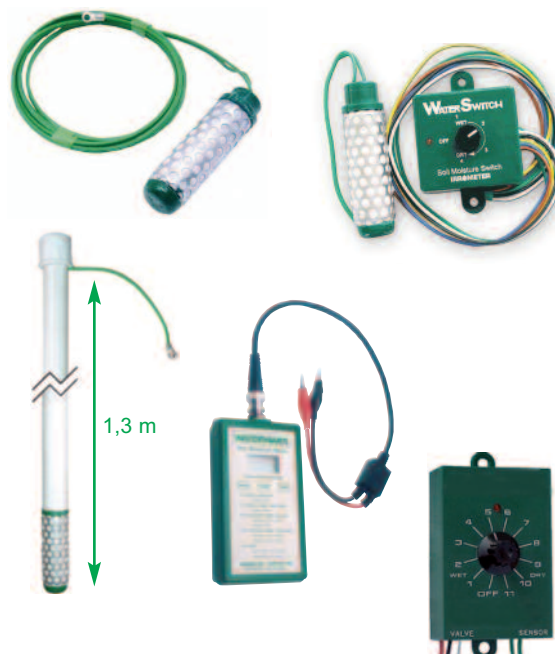
**Ref. 603102:** HUMI-click Power of 9 Vdc LATCH.

**Ref. 890002:** Soil-moisture sensor.

**Ref. 633111:** Soil-moisture sensor with PVC pipe of 1,3 m.

**Ref. 633120:** Mobile display for soil-moisture sensor.

**Ref. 633113:** Soil auger of Ø 33 mm.





## FIELD-SCOUT VYR-6032

Controller Accesories

### SOIL MOISTURE SENSOR VYR-6032

- Reading of instantaneous temperature and humidity.
- Very easy to connect to any programmer with sensor input.
- Bypass NO / NC. Reprogrammable.
- Enabling switch.

#### Models:

**Ref. 603201:** Humidity-temperature Instantaneous sensor "WaterScout".

**Ref. 603202:** Portable tool with soil-moisture sensor. Instant + Display TDR 300.



## CLIMA-CLICK VYR-6040

Controller Accesories

### TEMPERATURE SENSOR VYR-6040

- Safe and reliable. Adjustable temperature switch level.
- Very easy to connect to the controller.
- Saves water!
- Bypass NO/NC. Reprogrammable.
- ON-OFF switch.

#### Models:

**Ref. 604001:** CLIMA-click



ref. 604001

### TEMPERATURE SENSORS VYR-6042

- Reading range -10 to +60 C. of
- 4-20 mA analog output.
- Power 12Vdc
- Easy connection to any controller with sensor input.

#### Models:

**Ref. 604201:** Analog temperature sensor.

**Ref. 604202:** Analog temperature sensor with display.



## SOIL MOISTURE PROBE VYR-6036

Controller Accesories

### Soil Moisture Sensor VYR-6039

- Professional soil moisture sensor with 6-9 humidity sensors inside to measure moisture in different soil levels.
- Intelligent Electronics calculation built for use with HydroPlus.
- Measurement of soil moisture for calculating crop water needs.

#### Models:

**Ref. 603601:** Probe of 9 sensor, 900 mm.

**Ref. 603602:** Probe of 6 sensors, 600 mm.



ref. 603601





## Rainfall Sensor VYR-6037

### Controller Accesories

#### Rainfall Sensor VYR-6037

- Made of plastic.
- Digital output with 1% accuracy by rocker with spoons system dump.
- Very easy to connect to any programmer with digital sensor input.
- Equipped with filter and anti-bird needles.
- Cable of 10 meters.
- Flanges Tube clamps INOX-column.

#### Models:

Ref. 603701: Rainfall digital sensor.



## Presence Sensor VYR-6039

### Controller Accesories

#### Presence Sensor VYR-6037

- Made of plastic.
- Output to NC / NO by magnetic system locked.
- Very easy to connect to any programmer with sensor input NO / NC.

#### Models:

Ref. 603901: Magnetic presence sensor.



## Flow-Readers VYR-6033

### Controller Accesories

#### Digital Flow Reader Sensor for Hydraulic Valves

- Made of highly resistant plastic.
- Digital output with accuracy of 0.2%.
- Very easy to connect to any programmer with digital input flow reading.

#### Models:

Ref. 603301: Flow meter of 1" compact 2-100 L/min

Ref. 603302: Digital reader for flowmeters series CH500.

Ref. 603303: Digital reader for flowmeters series CH1000.



ref. 603801



ref. 603303



ref. 603302

## PRESSURE-CLICK VYR-6034

### Controller Accesories

#### PRESSURE SWITCH SENSOR VYR-6037

- Made of stainless steel.
- Output 4-20 mA with high precision of 0,1%.
- Easy to connect to our date collector controllers.

#### Models:

Ref. 603401: 0-10 BAR output 4-20 mA.

Ref. 603402: 0-2 BAR DIFFERENCIAL output 4-20 mA.



## Level sensor VYR-6041

### Controller Accesories

#### LEVEL SENSOR VYR-6041

- Made of plastic.
- Very easy to connect to any programmer with sensor input NO / NC.

#### Models:

Ref. 604101: Magnetic level sensor



ref. 604101



## SOLAR KIT

### Controller Accesories



### CHARGING SOLAR SYSTEM

- Charging system using solar panels and voltage regulators.
- Aluminum frames and safety glass for maximum protection of the panels.

#### Models:

Ref. 607052: SOLAR PANEL A-1/4 W. (PG-6010 y Green-Plus)

Ref. 607060: SOLAR PANEL A-10/10 W. (PG-6010 y Green-Plus)

Ref. 607065: SOLAR PANEL A-50/50 W.

Ref. 607097: Adjustable pole fastening base 3.5 meters.

## BATTERIES

### Controller Accesories



### BATTERIES

- Heavy duty batteries and rechargeable for our programmers and data communication systems.

#### Models:

Ref. 607002: LITIUM BATTERY 9 V, 1200 mAh

Ref. 607005: RECHARGABLE LITIUM BATTERY 4400 mAh

Ref. 607010: RECHARGABLE BATTERY 12 Vdc, 1,2 Ah

Ref. 607011: RECHARGABLE BATTERY 12 Vdc, 3,2 Ah

Ref. 607012: RECHARGABLE BATTERY 12 Vdc, 9 Ah

Ref. 607030: RECHARGABLE BATTERY 24 V, 38 Ah

Ref. 607040: LIMITADOR DE VOLTAGE A 12Vdc.

## Charging Regulator

### Controller Accesories



### Battery Charging Regulator VYR-3301

It is a charge controller developed to be able to keep the battery charging system remote, taking the external energy (solar, wind, hydro). The power supplied is approximately 12W, for charging the battery.

#### General properties:

- Visual indicators for load adjustment.
- Control maneuver EV ON / OFF.
- General purpose digital input.
- Pressure switch digital input.
- Relay output NO contact 250V / 2A
- Ability to monitor battery charge.
- Low consumption product.

#### Models:

Ref. 607090: 12Vdc charging regulator.

**AGRO-WEATHER STATIONS VYR-6900****Controller Accesories****ref. 890003****ref. 890015****ref. 893210****ref. 890005****ref. 893280****ref. 893200**

**NOTE:** Agro-Weather stations are configured for the communication link with developers VYR PG-control equipment and Green-Plus.

**General properties:**

- Control agro-meteorological and soil conditions in all types of agricultural crops: fruits, vegetables, cereals.
- These stations are configured for the integration of agro-meteorological data in our irrigation controllers (HydroPlus & Hydro-Pad).
- The data collected is stored and processed for the creation of conditions I have adjusted the times and types of irrigation depending on bond the weather situation, land, and culture.
- Tele-communications via radio between stations and sensors and wireless, cable, GSM / GPRS or WIFI for readings and remote control.
- Optional display console and programming "Control-Display".
- Frost control.
- Inhibition by alarms: wind, temperature, humidity, etc.

**Full Integration with Hydro-Plus!!!****ref. 893200****ref. 893280****ref. 890011****ref. 890012**



## Station Models:

**Ref 893200 AGRO-METEO VP-2** with internal barometer and sensor temp / hum sensor, outdoor temperature and humidity, vane cup anemometer (12m cable), rocker gauge, 0.2 mm resolution. Wired models include a 30 m cable for connection between console and sensors and wireless models include a transmitter and a receiver for the wireless connection between sensors and console (up to 300m line of sight). The set of sensors are pre-assembled for easy installation. **Sensors are optional solar radiation and UV.**

**Ref 893210 AGRO-METEO VP-1** with internal barometer and temperature sensors. / Hum, temperature and humidity sensor outside, cup anemometer and wind vane, rain gauge spoon, a 0.2 mm resolution; wireless connection between sensor and console (up to 300m. line of sight) pre-assembled set of sensors, sensor array pre-assembled for easy installation.

**Ref 893280 AGRO-METEO FIELD** remote field station (1 km) with temperature sensors and soil moisture. **It is optional humidity sensor sheet.**

**Ref 890011 AGRO-WEATHER CONTROL-DISPLAY** for storage, transmission, display and control data network or Ethernet connection, data processing software, support for Green-Green-Pad Plus and update data in real-time output IP. It also sends daily reports and e-mails for alarm.

**Ref 890012 AGRO-WEATHER CONTROL-LINK** for storage and transmission of data and USB or serial port, data processing software, data support, support for Green-Green-Pad Plus to update data in real time.

## Sensor Models:

**Ref. 893280** FIELD STATION WIRELESS.: HUM. / TEMP. LEAF-SOIL

**Ref. 890002** SOIL HUMIDITY MOISTURE SENSOR

**Ref. 890003** SOIL TEMPERATURE SENSOR

**Ref. 890004** LEAF HUMIDITY SENSOR

**Ref. 890031** INOX STAND 1 m FOR FIELD STATION.

**Ref. 890005** SOLAR RADIATION SENSOR (only for VP-2)

**Ref. 890006** UV SENSOR (only for VP-2)

**Ref. 890007** TRAY for SENSOR ASSEMBLY OF RADIATION & UV

**Ref. 890008** KIT PH SENSOR MEASUREMENT

**Ref. 890009** SOIL CONDUCTIBILITY SENSOR

**Ref. 890015** HYDRO-PLUS WEATHER-BRIDGE.

**Ref. 890010** MODEM GSM/GPRS FOR DATA TRANSMISSION

**Ref. 890013** FIELD WIRELESS REPEATER

**Ref. 890014** DATALOGGER & SOFTWARE FOR REMOTE CONTROL

**Ref. 890030** SEALED BOX WITH ELECTRONIC DATA LOGGER XP+SOFTW.

**Ref. 890031** INOX STAND 2,5 m FOR WEATHER STATIONS.

**Ref. 890033** STORM GUARD

**ref. 890002**



**ref. 890009**



**ref. 890030**



**ref. 890013**



**ref. 890033**





# Valves

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- **VYR-6110 METAL THREAD/SLOT** Pág. 138
- **VYR-6110 METAL FLANGE** .....Pág. 139
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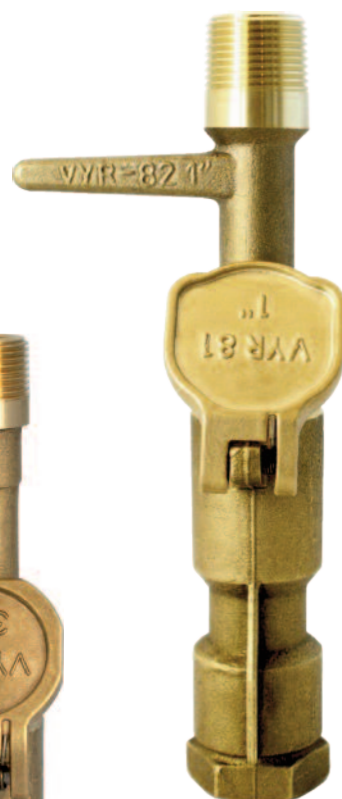
ref. 108111



ref. 108110



ref. 108100



ref. 108100



ref. 108301



ref. 108300

## VYR-81

### QCV Hydrants

#### General properties:

- Quick Coupling Valves designed for permanent irrigation systems in private gardens, municipal parks and sports facilities.
- Instant opening with the insertion and turning of a bayonet key. When the key is removed, the valve automatically closes.
- Body made of brass, with stainless steel springs and shaft.
- Brass or thermoplastic cover, depending on model.
- These hydrants make water available at all points in the system, providing easily accessible connection points for hoses and sprinklers.
- Ideal for providing supplementary irrigation.
- Maximum flow of up to 70 GPM (16 m<sup>3</sup>/h).
- Working pressure between 3-145 PSI (0.2 and 10 bar).
- Pressure loss lower than 5 PSI (0.35 bar) in maximum flows.

#### Applications:

- Private gardens and municipal parks.
- Sports facilities and golf courses.

#### Measurements:

- Visible cover width: 3,1 in. (8 cm).
- Height: 3,9 y 5,5 in. (10 y 14 cm).
- Weight: 1,05 y 1,83 lbs. (475 Y 830 grs).
- Units per box: 50 or 30.

#### Options:

- Complete kit with key and swivel elbow.

#### Models:

Ref. 108100: 3/4" FEMALE. (brass tap)

Ref. 108110: 1" FEMALE.

Ref. 108111: 1" FEMALE COMPATIBLE with R.B.

Ref. 108200: 1/2" female, 3/4" male thread.

Ref. 108210: 3/4" female, 1" male thread.

Ref. 108211: 3/4" female, 1" male thread compatible with R.B.

Ref. 108300: 3/4" female thread, hose outlet. 20 mm

Ref. 108301: 3/4" thread, threaded outlet. 3/4" male.

Ref. 108310: 1" female thread, hose outlet. 25 mm

Ref. 108311: 1" female thread, 1" male outlet.





## VYR-81P QCV Hydrants

### General properties:

- Irrigation outlet designed for permanent irrigation systems in private gardens, municipal parks and sports facilities.
- Instant opening by insertion and turning of a bayonet key. When the key is removed, the valve automatically closes.
- Made of nylon 6.6 and reinforced with fibreglass, with stainless steel spring.
- Thermoplastic cover.
- These hydrants make water available at all points in the system, providing easily accessible connection points for hoses and sprinklers.
- Ideal for providing supplementary irrigation.
- Maximum flow of up to 587 GPM (16 m<sup>3</sup>/h).
- Working pressure between 3-145 PSI (0.2 and 10 bar).
- Pressure loss lower than 5 PSI (0.35 bar) in maximum flows.

### Applications:

- Private gardens and municipal parks.
- Sports facilities and golf courses.

### Measurements:

- Visible cover width: (8 cm).
- Height: 3,94 or 5,51 in (10 or 14 cm).
- Weight: 0,47 & 0,60 lb (215 and 275 g).
- Units per box: 15 or 10.

### Options:

- Complete kit with key and swivel elbow.

### Models:

**Réf. 108120:** 3/4" M.

**Ref. 108130:** 1" M.

**Réf. 108220:** Full set 3/4" M.

**Ref. 108230:** Full set 1" M.

**Ref. 108125:** Saddle 3/4"

**Ref. 108126:** Saddle 1"



ref. 623004



ref. 623001



ref. 623005



FILTER



## VYR-6230 MICRO-VALVES

### Solenoid Valves

#### General properties:

- 2-way microvalves.
- 3/4" male thread BSP.
- Normally closed.
- Valve body made of nylon 6.6 with 30% fibreglass.
- Permanently clean because of the built-in steel mesh filter.
- Assembled with screws and stainless steel spring.
- Nitrile diaphragm.
- 24 VAC solenoid.
- Working temperature between 2 and 80 C degrees.
- Recommended working pressure of 1 to 10 bar.
- Opening and closing response time of 0.5 seconds.
- Resistance test carried out for 25,000 cycles at 15 BAR and 80 C degrees.
- Complies with standard UNE 68-074-86/ISO 7714.

#### Applications:

- Drip irrigation and micro-sprinklers.
- Threaded directly to a sprinkler to create automatic sprinklers with independent opening valve.

#### Measurements:

- Visible width from the cover: 1,6 in. (4 cm)
- Sprinkler height: 2 in. (5 cm).
- Length: 3,9 in. (10 cm).
- Weight: 0,24 Lbs. (110 grs).
- Units per box: 10.



#### Options:

- Valve with 12 VDC solenoid.
- Valve with 9-12 VDC LATCH solenoid.

**Ref. 623001:** Micro-valv. 24Vac. 3/4"M -10,5 mm.

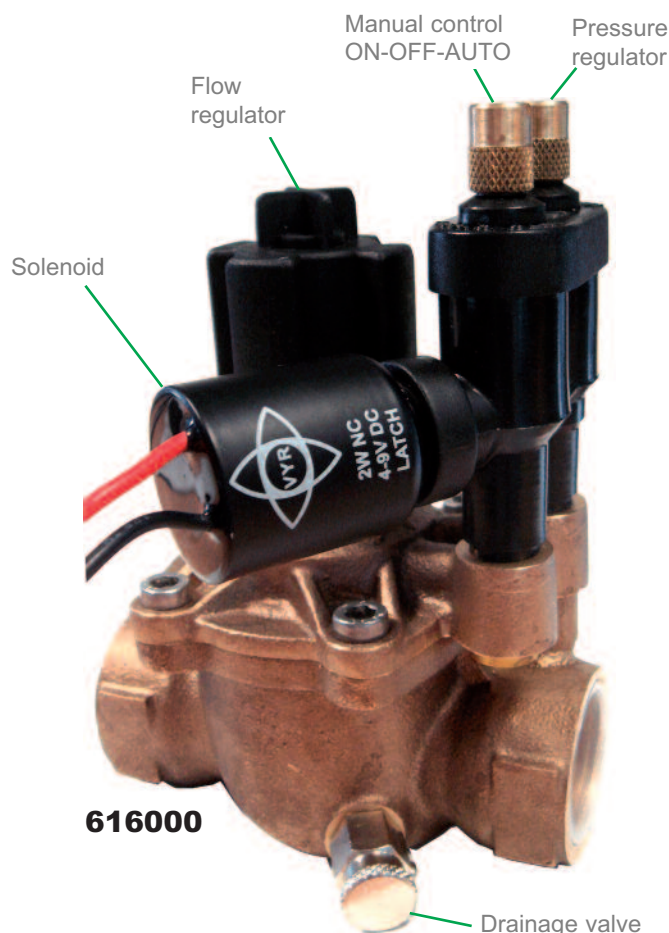
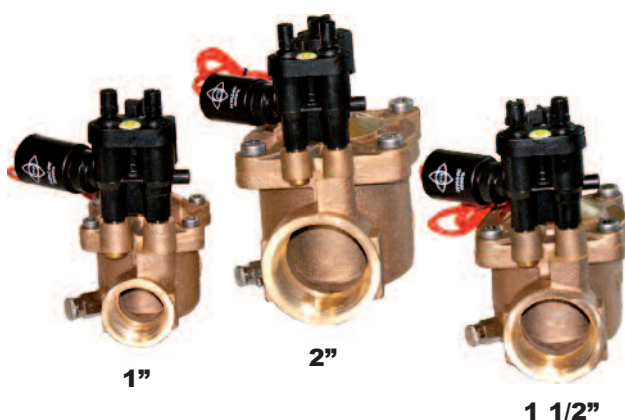
**Ref. 623002:** Micro-valv 24Vac. 3/4"M -20 mm.

**Ref. 623004:** Micro-valv HIGH-FLOW 24Vac. 3/4"M -3/4"M

**Ref. 623005:** Micro-valv. + Manifold 24Vac. 3/4"M - 3/4"M







## VYR-6160 BRASS SOLENOID VALVES

### Solenoid Valves

#### General properties:

- Valve made of brass and stainless steel. Hi-flow diaphragm and resistant to high pressure.
- Manual Steering Kit with 3-way valve.
- Kit pressure regulator and sustainer control.
- Solenoid valve.
- Flow regulator.
- Clean permanent filter through the steel mesh incorporated.
- Assembled with screws and stainless steel spring.
- reinforced EPDM diaphragm material.
- Solenoid Series 24 V. ac. (SEE OPTIONS).
- Working temperature between 36-176°F (2°-80°C).
- Recommended working pressure of 15-145 PSI (1-10 BAR).
- Opening and closing response time of 0.5 seconds.
- Resistance test carried out for 25,000 cycles at 218°F and 176°F (15 BAR and 80°C).
- built-in flow control.
- Flow range between 600-3800 GPH (38 y 240 l/min).
- Removable from the top to the settlement or replacement of parts
- Meet the UNE 68-074-86 / ISO 7714 quality standards.

#### Applications:

- Gardening residential particular.
- Industrial uses for fluid control.
- Drip irrigation and agricultural plants in greenhouses and horticultural facilities.

#### Measurements respectively:

- Width visible from top: 3,3, 3 y 4,1 in. (7,5, 8,5 y 10,5 cm).
- Height: 5,7, 6,3 y 7,1 in. (14,5, 16 y 18 cm).
- Length: 4,1, 5,1 y 6,1 in. (10,5, 13 y 15,5 cm).
- Weight: 3,4 lbs. (1"), 5,3 lbs. (2") y 7,2 lbs. (1 1/2").
- Pack size: 10, 4 & 2.

#### Options:

- Pilot Kit Manual
- pressure regulator kit.
- solenoid valve 12 V dc
- solenoid valve 9-12 V dc LATCH

#### Models:

- Ref. 616000:** 1" BRASS, SOSTEINER + FLOW REG.  
**Ref. 616002:** 1 1/2" BRASS, SOSTEINER + FLOW REG.  
**Ref. 616012:** 2" BRASS, SOSTEINER + FLOW REG.





## VYR-6150 HF-VALVES

### Solenoid Valves

#### General properties:

- Two way **HIGH-FLOW** valves, body design allows full flow.
- 1", 1 1/2", 2" and 3" female thread BSP.
- Kit for manual opening with 1/4" lever turn.
- Valve body made of nylon 6.6 with 30% fibreglass.
- Permanently clean because of the built-in steel mesh filter.
- Assembled with screws, shaft and spring made of stainless steel.
- Body with brass inserts for screws.
- EPDM diaphragms reinforced with fabric.
- 24 VAC solenoid (SEE OPTIONS).
- Working temperature between 36-176°F (2°-80°C).
- Recommended working pressure of 15-174 PSI (1-12 BAR).
- Opening and closing response time of 0.5 seconds.
- Resistance test carried out for 25,000 cycles at 218°F and 176°F (15 BAR and 80°C).
- Built-in flow regulator.
- Flow range between 600-3800 GPH (38 y 240 l/min).
- Removable from the upper section for repair or replacement of parts.
- Recommended working pressure of 15-145 PSI (1-10 BAR).
- Works at very low flows and pressure 9 PSI (0,6 BAR), ideal for drip irrigation.
- Resistant when operating with wastewater.
- Complies with standard UNE 68-074-86/ISO 7714.

#### Applications:

- Professional landscaping, urban and commercial areas, sports fields, golf courses, residential and private areas.
- Industrial use for fluid control & Water treatment.
- Drip irrigation and agricultural installations in greenhouses and fields.

#### Measurements:

- Width: 3,5 in. (1"), 3,5 in. (1 1/2"), 6,3 in. (2"), and 6,3 in. (3").
- Height: 5,5 in. (1"), 5,5 in. (1 1/2"), 8,3 in. (2"), and 8,7 in. (3").
- Length: 4,7 in. (1"), 5,5 in. (1 1/2"), 9,1 in. (2"), and 9,4 in. (3").
- Weight: 0,55 lbs. (1"), 0,7 lbs. (1 1/2"), 3, lbs. (2") and 3,5 lbs. (3").
- Units per box: 24 (1"), 12 (1 1/2"), 4 (2"), and 4 (3").

#### Options:

- Manual driving kit.
- Pressure regulator kit.
- Valve with 12 VDC solenoid.
- Valve with 9-12 VDC LATCH solenoid.

#### Models:

Ref. 615010: 1" NYLON, 2-WAY W/O FLOW-REG

Ref. 615011: 1" NYLON, 2-WAY W FLOW-REG

Ref. 615012: 1 1/2" NYLON, 2-WAY W FLOW-REG

Ref. 615020: 2" NYLON, 2-WAY, W FLOW-REG

Ref. 615030: 3" NYLON, 2-WAY, W FLOW-REG

Ref. 615050: 1" NYLON, HYDRAULIC W/O FLOW-REG

Ref. 615051: 1" NYLON, HYDRAULIC W FLOW-REG

Ref. 615052: 1 1/2" NYLON, HYDRAULIC W FLOW-REG

Ref. 615070: 2" NYLON, HYDRAULIC W FLOW-REG

Ref. 615080: 3" NYLON, HYDRAULIC W FLOW-REG



TABLE OF PRESSURE LOST

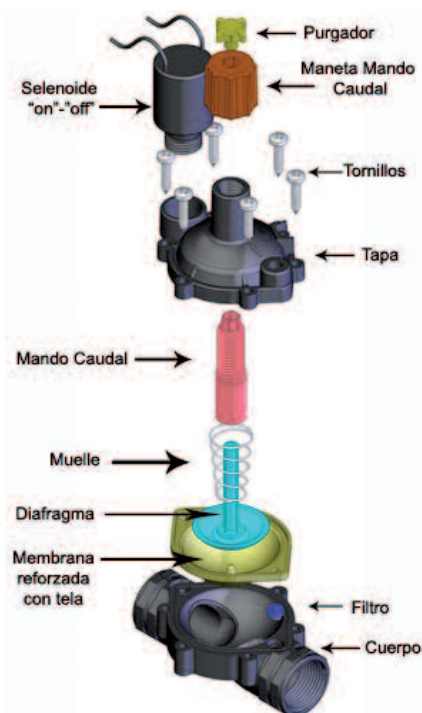
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1"	60,8	63,4	74,0	92,5	121,5	158,5	216,6	256,2	322,3									
1" 1/2				39,6	44,9	47,6	50,2	52,8	55,5									
2"									42,3	52,8	63,4	76,6	84,5	105,7	132,1	145,3	161,1	206,1
3"									47,6	58,1	71,3	81,9	92,5	113,6	145,3	158,5	171,7	216,6

## Solenoid-Valves "VYR Hi-Flow"

The design and quality of the product range offered VYR one of the valves more reliable and robust in the market.

Hi-Flow design provides maximum performance, and with a minimum pressure drop. Furthermore, the internal cavity of the seat of the membrane is self-cleaning, preventing the accumulation of dirt and possible blockage.

The top cover can be injected in lavender color for use with recycled water.



### DIAPHRAGMS:

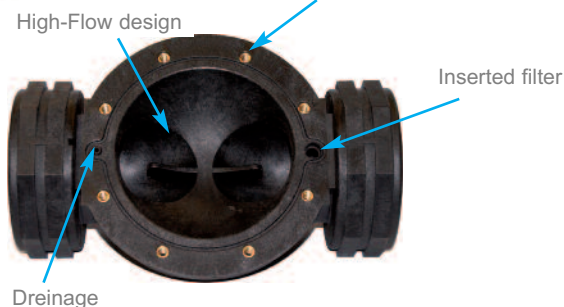
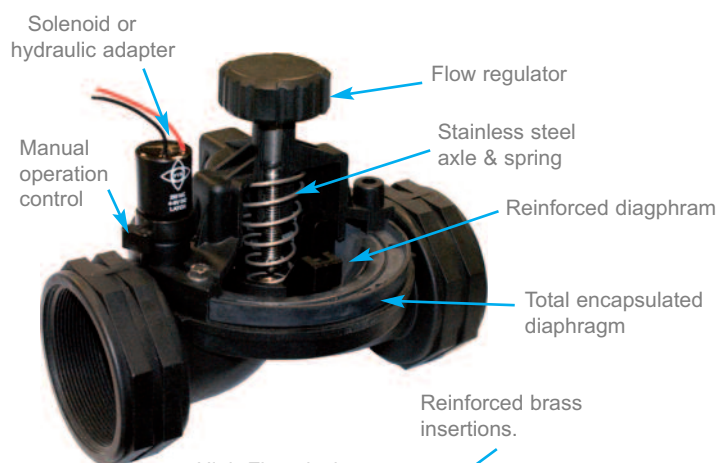
- A: 15-87 PSI (1-6 BAR) (drip)
- B: 22-145 PSI (1,5-10 BAR) (sprinkler)



Hydraulic adapter for 3 wayr valve VYR-27.

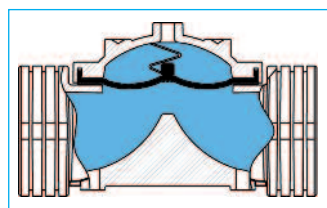
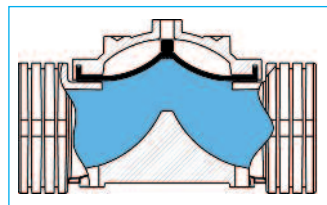
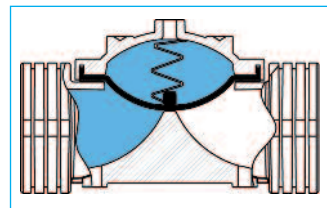


Hydraulic manual control adapter for solenoid valves.





ref. 615230



## VYR-6152 HYDRAULIC PLASTIC VALVES

### Hydraulic valves

#### General properties:

- Hydraulic Hi-Resistance Plastic Valves.
- Body and lid made of reinforced nylon 6.6 with 30% glass fiber.
- Reinforced EPDM diaphragm material.
- Clean permanent filter through the brass with steel mesh embedded in any assembly.
- Assembled with screws, shaft and stainless steel spring.
- MOUNTING OPTIONS SEE TABLE "VALVES".
- Working temperature between 32-158 °F (2 and 70 °C).
- Recommended working pressure of 15-145 PSI (1-10 BAR).
- Opening and closing response of 0.7 s.
- resistance test performed for 25,000 cycles at 220 PSI and 175°F.
- Flow range of 400-460 GPM (90 m3/h to 105 m3/h)
- Removable from the top to the settlement or replacement of parts.
- Meet the UNE 68-074-86 / ISO 7714.

#### Applications:

- Agricultural irrigation, sports facilities, golf courses, urban and commercial areas.
- Industrial use for fluid control.
- Drip irrigation and greenhouses.

#### Measurements:

- Width: 5,5 in. (2"), y 6,3 in. (3").
- Height: 5,5 in. (2"), y 5,9 in. (3").
- Length: 9,1 in. (2"), y 29,6 in. (3").
- Weight: 2,62 lbs. (2") y 3,15 lbs. (3").
- Units per box: 4 (2"), y 2 (3").

#### Models:

- Ref. 615220: 2" NYLON, 3 WAY
- Ref. 615225: 2 1/2" NYLON, 3 WAY
- Ref. 615230: 3" NYLON, 3 WAY
- Ref. 615240: 4" NYLON, 3 WAY



#### DIAPHRAGMS:

- A: 14,5-87 PSI (1-6 BAR) (drip)
- B: 22-145 PSI (1,5-10 BAR) (sprinkler)





## ASSEMBLY OPTIONS VYR-6152

	Ø	HV+HP	HV+SO	HV+HP+SO	HV+HP+SO+RP	HV+HP+RP	HV+SO+RP	HV+HP+RP+SO	HV+HP+SO+RP+SP
		Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
ROSCA THREAD	2"	615211	615212	615213	615214	615215	615216	615217	615218
	2" 1/2	615221	615222	615223	615224	615225	615226	615227	615228
	3"	615251	615252	615253	615254	615255	615256	615257	615258
	4"	615231	615232	615233	615234	615235	615236	615237	615238

C: ANGLE 90 DEGREES (mark C after the ref.).

VH: Hydraulic Valve.

RG: Pressure Regulator Pilot.

PH: Hydraulic accessories (3 way-valve +records +filter +pipe+ assembl.).

SOS: Pressure Sustainer Pilot.

FL: Flow limiter.

CN: Flow Meter (digital output).

SO: Solenoid.

VF: Float valve.

BROWSE OUR VALVE CATALOG FOR MORE TECHNICAL INFORMATION AND MEASURES AVAILABLE

**NOTE:** All valves includes mounted filter, installation, fittings, micropipe and solenoid of 24 Vac model will be served if not other specified voltage.

## CONNECTIONS & ADAPTERS

Hydraulic valves

### General properties:

- Adapters for plastic hydraulic valves.
- Made of PVC and PE.
- Reinforced flanges with metal ring.
- System for PE thermo-sealed .

### Models:

Ref. 615280: Nipple 2" - VITAULIC

Ref. 615281: Nipple 3" - VITAULIC

Ref. 615250: Nipple 2"

Ref. 615251: Nipple 3"

Ref. 615252: Nipple 4"

Ref. 615260: Nipple 2" for glued PVC

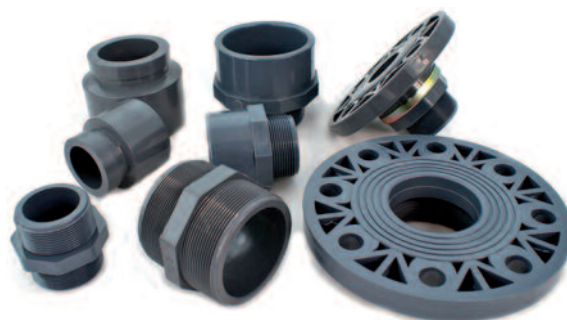
Ref. 615261: Nipple 3" for glued PVC

Ref. 615270: Adapter 3" M for FLANGE.

Ref. 615271: Adapter 4" M for FLANGE.

Ref. 615290: Thread adapter 3" M for PE-THERMO.

Ref. 615291: Thread adapter 4" M for PE-THERMO.





## VYR-6110 THREAD & GROOVE HYDRAULIC VALVES

**Metal hydraulic valves**

### General properties:

- Metal hydraulic valves for full flow through elbows and straight sections.
- Body and cover made of high quality cast iron.
- EPDM diaphragms reinforced with fabric.
- Always clean because of its brass filter with steel mesh built into all assemblies.
- Assembled with screws and stainless steel spring.
- Working temperature between 32-158 °F (2 and 70 °C).
- Recommended working pressure of 15-230 PSI (1-16 BAR).
- Opening and closing response of 0.7 s.
- resistance test performed for 25,000 cycles at 220 PSI and 175°F.
- Flow range between 38 and 240 l/min.
- Removable from the upper section for repair or replacement of parts.
- Complies with standard UNE 68-074-86/ISO 7714.

### Basic valve models:

#### THREAD CONNECTION

- Ref. 611010: 1"
- Ref. 611110: 1 1/2"
- Ref. 611020: 2"
- Ref. 611020C: 2" ANGLE
- Ref. 611120: 2 1/2"
- Ref. 611120C: 2 1/2" ANGLE
- Ref. 611030: 3"
- Ref. 611030C: 3" ANGLE

#### GROOVE CONNECTION

- Ref. 611530: 3"
- Ref. 611530C: 3" ANGLE
- Ref. 611540: 4"
- Ref. 611540C: 4" ANGLE
- Ref. 611560: 6"

### CONFIGURATION OPTIONS VYR-6110

	Ø	HV+HP	HV+SO	HV+HP+SO	HV+HP+SO+RP	HV+HP+RP	HV+HP+SO+RP	HV+HP+RP+SP	HV+HP+SO+RP+SP
		Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
ROSCA THREAD	1"	611011	611012	611013	611014	611015	611016	611017	611018
	1 1/2"	611111	611112	611113	611114	611115	611116	611117	611118
	2"	611021	611022	611023	611024	611025	611026	611027	611028
	2" AV-90°	611021C	611022C	611023C	611024C	611025C	611026C	611027C	611028C
	2" 1/2	611121	611122	611123	611124	611125	611126	611127	611128
	2" 1/2 AV-90°	611121C	611122C	611123C	611124C	611125C	611126C	611127C	611128C
	3"	611031	611032	611033	611034	611035	611036	611037	611038
RANURA SLOT	3"	611531	611532	611533	611534	611535	611536	611537	611538
	3" AV-90°	611531C	611532C	611533C	611534C	611535C	611536C	611537C	611538C
	4"	611541	611542	611543	611544	611545	611546	611547	611548
	4" AV-90°	611541C	611542C	611543C	611544C	611545C	611546C	611547C	611548C
	6"	611561	611562	611563	611564	611565	611566	611567	611568

C: ANGLE 90 DEGREES (mark C after the ref.).

VH: Hydraulic Valve.

RG: Pressure Regulator Pilot.

PH: Hydraulic accessories (3 way-valve +records +filter +pipe+ assembl.).

SOS: Pressure Sustainer Pilot.

FL: Flow limiter.

CN: Flow Meter (digital output).

SO: Solenoid.

VF: Float valve.

BROWSE OUR VALVE CATALOG FOR MORE TECHNICAL INFORMATION AND MEASURES AVAILABLE

**.NOTE:** All valves includes mounted filter, installation, fittings, micropipe and solenoid of 24 Vac model will be served if not other specified voltage.



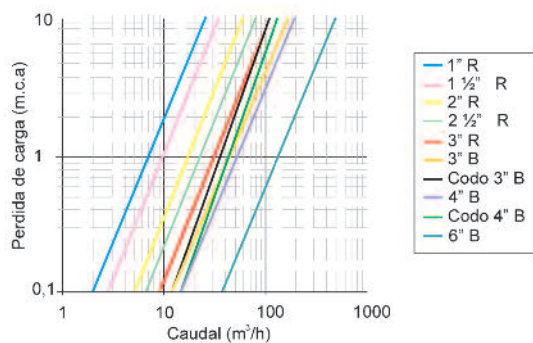


## VYR-6120 HYDRANTS

Hydraulic valves

### General properties:

- Metal hydraulic valves for full flow through elbows and straight sections.
- Body and cover made of high quality cast iron.
- EPDM diaphragms reinforced with fabric.
- Always clean because of its brass filter with steel mesh built into all assemblies.
- Assembled with screws and stainless steel spring.
- Working temperature between 36-176°F (2°-80°C).
- Recommended working pressure of 15-230 PSI (1-16 BAR).
- Opening and closing response time of 0.7 seconds.
- Resistance test carried out for 25,000 cycles at 218°F and 176°F (15 BAR and 80°C).
- Flow range between 6-4400 GPM (38 y 240 l/min).
- Removable from the upper section for repair or replacement of parts.
- Complies with standard UNE 68-074-86/ISO 7714.



### CONFIGURATION OPTIONS VYR-6110

	Ø	VH +HP	VH +SO	VH +HP+SO	VH +HP+SO+RP	VH +HP+RP	VH +HP+SO+RP	VH +HP+RP+SP	VH +HP+SO+RP+SP
		Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
BRIDA FLANGED	3"	611131	611132	611133	611134	611135	611136	611137	611138
	3" AV-90°	611131C	611132C	611133C	611134C	611135C	611136C	611137C	611138C
	4"	611141	611142	611143	611144	611145	611146	611147	611148
	4" AV-90°	611141C	611142C	611143C	611144C	611145C	611146C	611147C	611148C
	5"	611151	611152	611153	611154	611155	611156	611157	611158
	6"	611161	611162	611163	611164	611165	611166	611167	611168
	8"	611181	611182	611183	611184	611185	611186	611187	611188
	10"	611191	611192	611193	611194	611195	611196	611197	611198
	12"	611221	611222	611223	611224	611225	611226	611227	611228

C: ANGLE 90 DEGREES (mark C after the ref.).

VH: Hydraulic Valve.

RG: Pressure Regulator Pilot.

PH: Hydraulic accessories (3 way-valve +racords +filter +pipe+ assembl.).

SOS: Pressure Sustainer Pilot.

FL: Flow limiter.

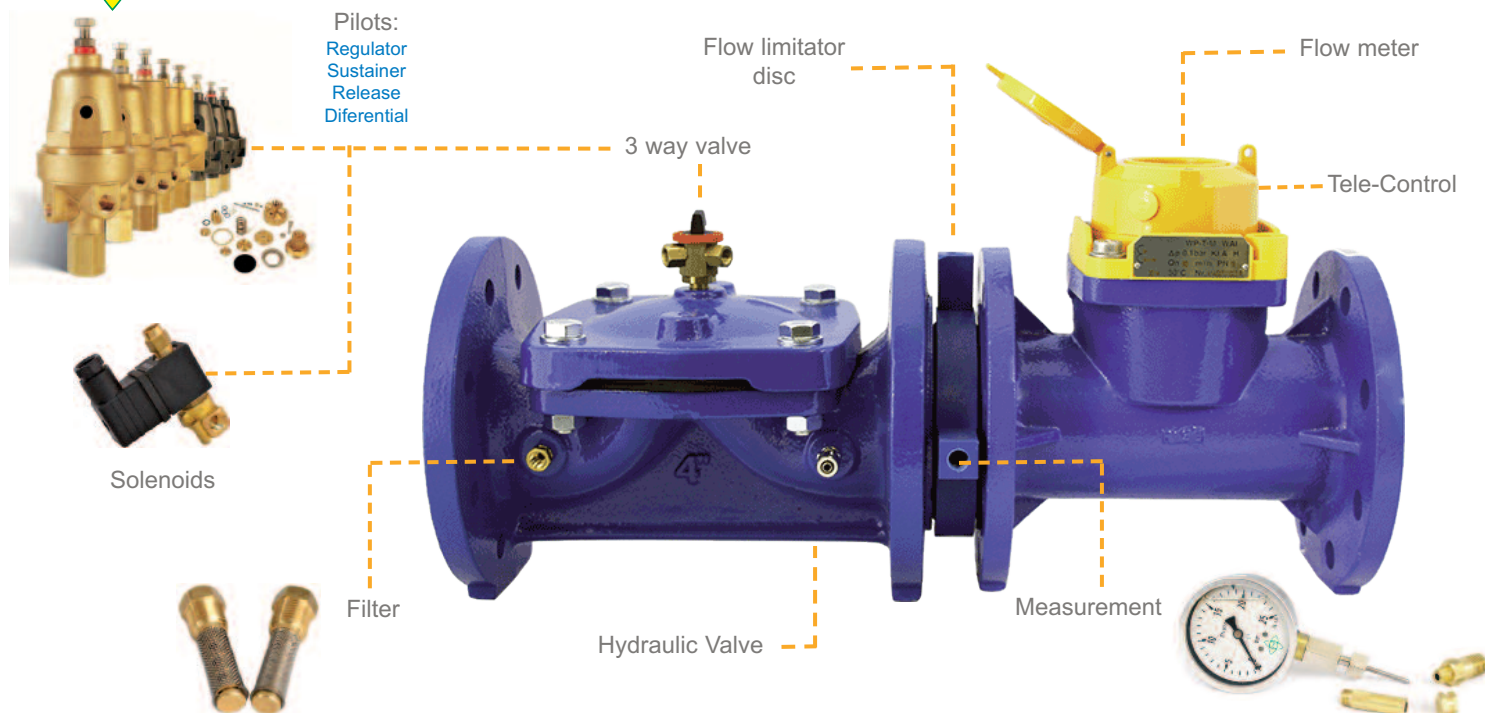
CN: Flow Meter (digital output).

SO: Solenoid.

VF: Float valve.

BROWSE OUR VALVE CATALOG FOR MORE TECHNICAL INFORMATION AND MEASURES AVAILABLE

.NOTE: All valves includes mounted filter, installation, fittings, micropipe and solenoid of 24 Vac model will be served if not other specified voltage.



## VYR-6120 HYDRANTS

### hydraulic valves

#### General properties:

- Metal hydraulic valves + Flow meter for full flow through elbows and straight sections.
- Body and cover made of high quality cast iron.
- EPDM diaphragms reinforced with fabric.
- Always clean because of its brass filter with steel mesh built into all assemblies.
- Assembled with screws and stainless steel spring.
- Working temperature between 36-176°F (2°-80°C).
- Recommended working pressure of 15-230 PSI (1-16 BAR).
- Opening and closing response time of 0.7 seconds.

- Resistance test carried out for 25,000 cycles at 218°F and 176°F (15 BAR and 80°C).
- Flow range between 600-3800 GPH (38 y 240 l/min).
- Removable from the upper section for repair or replacement of parts.
- Complies with standard UNE 68-074-86/ISO 7714.

#### OPCIONES DE MONTAJE VYR-6120

	Ø	HV+HP+CN	HV+RP+HP+CN	HV+RP+HP+ST+CN	HV+RP+HP+ST+FL+CN	HV+RP+HP+FL+CN+SO	HV+RP+HP+SP+FL+CN+SO	HV+HP+RP+CN+FL+SP	HV+HP+SO+CN+FL+RP+SP
		Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
ROSCA THREAD	2"	612011	612012	612013	612014	612015	612016	612017	612018
	2" 1/2	612021	612022	612023	612024	612025	612026	612027	612028
	3"	612031	612032	612033	612034	612035	612036	612037	612038
BRIDA FLANGED	3"	612131	612132	612133	612134	612135	612136	612137	612138
	4"	612141	612142	612143	612144	612145	612146	612147	612148
	6"	612161	612162	612163	612164	612165	612166	612167	612168
	8"	612181	612182	612183	612184	612185	612186	612187	612188

C: ANGLE 90 DEGREES (mark C after the ref.).

VH: Hydraulic Valve.

RG: Pressure Regulator Pilot.

PH: Hydraulic accessories (3 way-valve + records + filter + pipe+ assembl.).

SOS: Pressure Sustainer Pilot.

FL: Flow limiter.

CN: Flow Meter (digital output).

SO: Solenoid.

VF: Float valve.

BROWSE OUR VALVE CATALOG FOR MORE TECHNICAL INFORMATION AND MEASURES AVAILABLE

**NOTE:** All valves includes mounted filter, installation, fittings, micropipe and solenoid of 24 Vac model will be served if not other specified voltage. The standard flow meters are Woltman type and if you prefer TANGENTIAL type, please ask for the correct reference to our commercial department.



## CH-100 FLOW METERS

### Hydraulic flow meters



#### TANGENTIALS

- Ref. 640102 FLOW-METER 2" Q.max: 30 m<sup>3</sup>/h.
- Ref. 640103 FLOW-METER 3" Q.max: 80 m<sup>3</sup>/h.
- Ref. 640104 FLOW-METER 4" Q.max: 120 m<sup>3</sup>/h.
- Ref. 640105 FLOW-METER 5" Q.max: 120 m<sup>3</sup>/h.
- Ref. 640106 FLOW-METER 6" Q.max: 300 m<sup>3</sup>/h.
- Ref. 640108 FLOW-METER 8" Q.max: 500 m<sup>3</sup>/h.
- Ref. 640109 FLOW-METER 10" Q.max: 800 m<sup>3</sup>/h.

#### WOLTMAN

- Ref. 640202 FLOW-METER 2" Q.max: 30 m<sup>3</sup>/h.
- Ref. 640203 FLOW-METER 3" Q.max: 80 m<sup>3</sup>/h.
- Ref. 640204 FLOW-METER 4" Q.max: 120 m<sup>3</sup>/h.
- Ref. 640205 FLOW-METER 5" Q.max: 120 m<sup>3</sup>/h.
- Ref. 640206 FLOW-METER 6" Q.max: 300 m<sup>3</sup>/h.
- Ref. 640208 FLOW-METER 8" Q.max: 500 m<sup>3</sup>/h.
- Ref. 640210 FLOW-METER 10" Q.max: 800 m<sup>3</sup>/h.

Ref. 640110 PULSE METER KIT.

Ref. 640111 PULSE METER READER DEVICE.



### FLOW METERS CH

VYR S.A. flowmeters are clasify in three groups:

- The flow-meters for irrigation **CH500** series belong to the type of turnstile counters. Its operation is based on the movement of the reel caused by the pressure of the water passing through the meter. This movement is transmitted to the register, using a magnetic coupling, thereby performing reading.
- The **CH4000** is designed for measuring high flow mainly cold water for irrigation applications. Its accuracy is higher than the 500 and 1000 class both horizontally and vertically. The basis of operation is the turn of a woltmann helix in the flow direction. There is a proportion between the angular velocity of rotation and which drives the propeller flow.
- The **CH5000** flow-meter is a hybrid (electronic sphere) designed for measuring large volumes of cold water for commercial and industrial applications. It has a high precision metrological class according to EN 14154, with a R800 (standard version) in production. The basis of operation is the turn of a helix woltmann in the flow direction. There is a proportion between the angular velocity of rotation and which drives the propeller flow.



## FLOW METERS WOLMAN CH-500

### Hydraulic flow meters



#### General properties:

- Body made of cast iron GG25 counter, lined plastic resin spray.
- Degree of protection IP67
- Internal mechanisms made of engineering plastics in combination with 18/8 stainless steel for metal parts.
- Mechanism fully removable from the meter body measurement.
- Totalizer dry polycarbonate.
- Pre-equipped for pulse generators.
- Connections flanged to PN16 (ISO 7005).

#### Models:

- Ref. 670502: Flow-meter 2"
- Ref. 670503: Flow-meter 3"
- Ref. 670504: Flow-meter 4"
- Ref. 670506: Flow-meter 6"
- Ref. 670525: Pulse electronic adapter.



## FLOW METERS CH-1000

### Hydraulic flow meters



#### General properties:

- Body cast resin coated to prevent oxidation.
- Plastic Sphere with 360 rotation for easy reading.
- Pre-installation for bidirectional pulse emitter.
- Range of sizes from 40 to 300 mm.
- PN16 flanged connections.
- For use with cold water (maximum 50).

#### Models:

- Ref. 671002: Flow-meter 2"
- Ref. 671003: Flow-meter 3"
- Ref. 671004: Flow-meter 4"
- Ref. 671006: Flow-meter 6"
- Ref. 671008: Flow-meter 8"
- Ref. 671010: Flow-meter 10"
- Ref. 671025: Pulse electronic adapter.



## FLOW METERS CH-5000

### Hydraulic flow meters



#### General properties:

- Body made of cast iron.
- High degree of protection IP68 moisture and damage.
- Inductive transmission. Adjustable dry dial 360.
- 7 digit totalizer m3. Integrated output pulses.
- Provides statistical parameters, consumption data UNE version. Flanges according to ISO7005.
- For use with cold water.

#### Models:

- Ref. 675002: Flow-meter 2" with integrated pulse wire.
- Ref. 675003: Flow-meter 3" with integrated pulse wire.
- Ref. 675004: Flow-meter 4" with integrated pulse wire.
- Ref. 675006: Flow-meter 6" with integrated pulse wire.
- Ref. 675008: Flow-meter 8" with integrated pulse wire.
- Ref. 675010: Flow-meter 10" with integrated pulse wire.





## VYR-6120 HYDRAULIC VALVES

### Hydraulic Valves

#### HYDRANTS

VYR hydrants are made of 3 basic elements:

A multi-jet meter (TANGENCIAL) or turbine Wolt-Mann type approved for Ø from 1/2" to 20".

A hydraulic valve membrane.

Bronze or plastic pilots for pressure regulation and sustainer.

Hydrants VYR add the experience and technology VYR S.A. in the water handling. It can perform functions such as open, close, regulation of pressure, limiting flow rates, etc.

#### FUNCTIONS

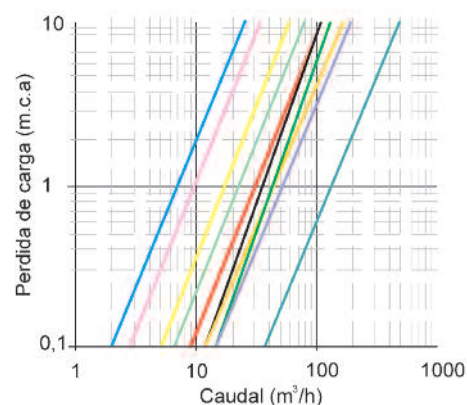
Regardless of total circulating water flow, fire hydrants may exercise:

1. Hydraulic control valve. (with val. 3 way w / o solen.)
2. Pressure reducing downstream.
3. Pressure sustaining valve downstream.
4. Flow control.
5. Excess flow.
6. Pump control valve.
7. Upstream pressure Holder with or without solenoid.
8. Level float valve.
9. Anti-drain valve.
10. Valve.
10. Quick release valve.

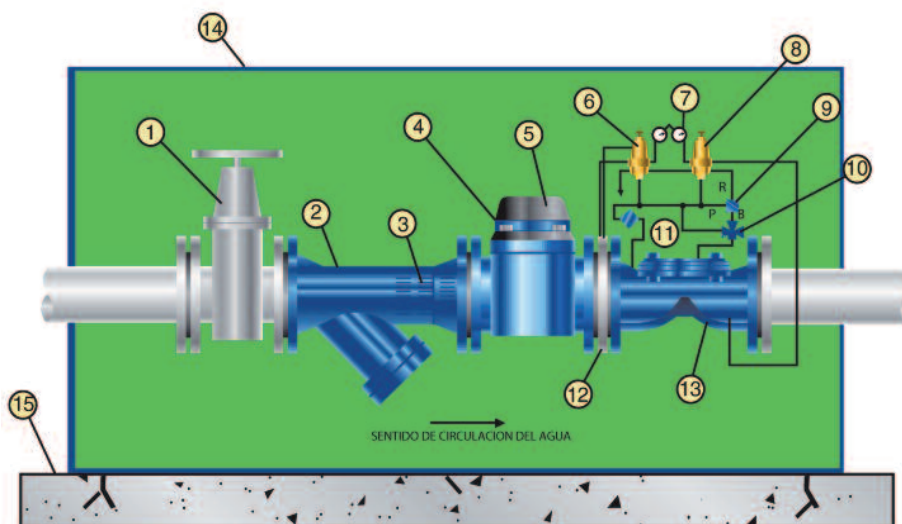
**It allows the combination of all these functions.**

All these actions are possible due to equipment that VYR SA provides a wide range of hydraulic pilot control which uses the different pressures on the network and the mechanical control imposed.

Hydrants	Nominal Flows
1/2"	6,60 GPM
3/4"	11,00 GPM
1"	15,40 GPM
1 1/4"	22,00 GPM
1 1/2"	44,00 GPM
2"	110,00 GPM
3"	264,00 GPM
4"	440,0 GPM
6"	1100,0 GPM
8"	1760,0 GPM
10"	2640,0 GPM
12"	4400,0 GPM



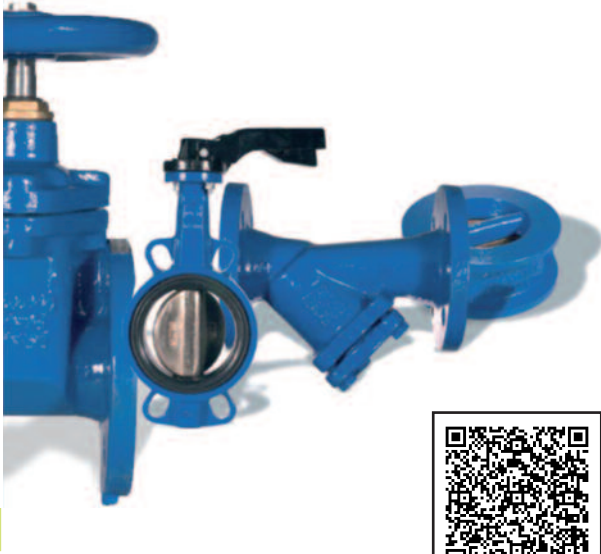
- 1" R
- 1 1/2" R
- 2" R
- 2 1/2" R
- 3" R
- 3" B
- Codo 3" B
- 4" B
- Codo 4" B
- 6" B



- ① Gate valve
- ② Stone collector filter
- ③ Flow corrector
- ④ Pulse emitter
- ⑤ Woltmann Flow Meter
- ⑥ Limiter Pilot
- ⑦ Pressure Gauges
- ⑧ Reductor Pilot
- ⑨ Latch Solenoid
- ⑩ 3 way valve
- ⑪ External filter
- ⑫ Hole disc
- ⑬ Hydraulic Valve
- ⑭ Valve-box cover
- ⑮ Foundation



## VYR-6530 MANUAL SECURITY VALVES



### General properties:

- Body made of cast iron GG25, coated RILSAN plastic resin paint.
- Internal mechanisms made of engineering plastics in combination with 18/8 stainless steel for metal parts.
- Connections flanged to ISO 7005.

### Models:

Ref. 653013 WHEEL GATE VALVES, 3".

Ref. 653014 WHEEL GATE VALVES, 4".

Ref. 653016 WHEEL GATE VALVES, 6".

Ref. 653023 BUTTERFLY VALVES, INOX-SWING, 3".

Ref. 653024 BUTTERFLY VALVES, INOX-SWING, 4".

Ref. 653026 BUTTERFLY VALVES, INOX-SWING, 6".

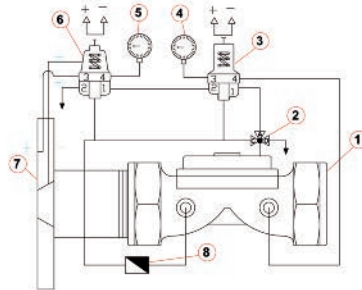
Ref. 653033 CHECK-VALVES WITH DUAL PLATE, 3".

Ref. 653034 CHECK-VALVES WITH DUAL PLATE, 4".

Ref. 653036 CHECK-VALVES WITH DUAL PLATE, 6".

## VYR-6471 FLOW LIMITATOR ORIFICE DISCS

### Hydraulic valves accessories



1.- Válvula  
2.- Válvula de 3 vías.  
3.- Piloto reductor 3 Vías.  
4.- Manómetro Presión Salida.  
5.- Manómetro Presión Entrada.

6.- Piloto Limitador 3 Vías.  
7.- Racor brida 50 y 65mm. preparado con disco de orificio.  
8.- Filtro de cigarrera.

### General properties:

- Orifice discs for flow limitation made of high strength plastic.
- With 3 outlets 1/4 "H for connection to pilot regulator drivers.
- Rubber sealings for flanges built.

### Models:

Ref. 653043 Orifice disc of 3".

Ref. 653044 Orifice disc of 4"

Ref. 653046 Orifice disc of 6"

## Screws & Gaskets for flanged hydraulic valves

### Hydraulic valves accessories

### Models:

Ref. 633043 Rubber disc for 3" flange.

Ref. 633044 Rubber disc for 4" flange.

Ref. 633046 Rubber disc for 5" flange.

Ref. 633046 Rubber disc for 6" flange.

Ref. 633046 Rubber disc for 8" flange.

Ref. 633046 Rubber disc for 10" flange.

Ref. 633046 Rubber disc for 12" flange.

Ref. 633043 Screw 8 x 20 + ring + Nut.

Ref. 633044 Screw 8 x 24 + ring + Nut.

Ref. 633044 Screw 12 x 24 + ring + Nut.

Ref. 633044 Screw 12 x 27 + ring + Nut.





## PETERSON VALVE & NIDDLE

Accesories for irrigation



### General properties:

- Peterson Needles and Valves for gauges 1/4 "BSP / NPT.
- Made of brass, stainless steel and special rubbers.
- Ideal for fast field measurements without leaving the gauge installed.
- Rotational nut for clamping needle gauge.
- needle protection housing.
- Sealing plug safety valve.

### Models:

**Ref. 101890:** Peterson 1/4"-M valve.

**Ref. 101895:** Needle for Peterson valve with 1/4"-F adapter.

**Ref. 101897:** Needle for Peterson valve with 1/4"-F special security record adapter.

## GLICERINE PRESSURE GAUGES

Accesories for irrigation



### VYR-18

#### Pressure gauges

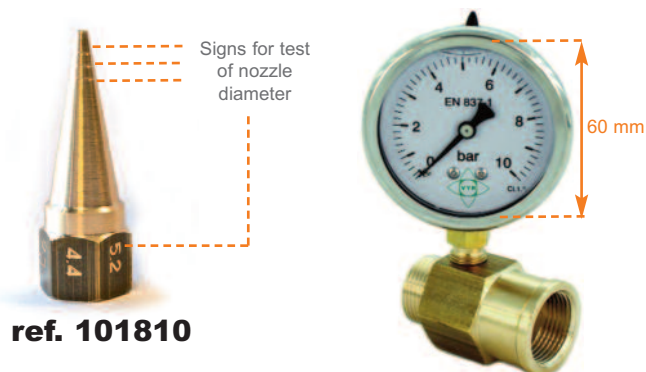
- Glycerine pressure gauge 0-145 PSI or 360 PSI.
- Stainless steel body and stamped brass connections.

#### Aplications:

- Agriculture and gardening.
- Industrial uses.

#### Measurements:

- Width: 3,5 in. (9 cm).
- Weight: 0,53 Lbs (240 grs).
- Deep: 1,6 in. (4 cm).
- Unids per box: 10.



### Options:

- Mounted on rear body adapter male to female 3/4 "jack.
- Gauge Kit with side inlet and outlet needle nozzle pressures.

### Models:

**Ref. 101800:** Mini-gauge, toma trasera de 0-145 PSI (0-10 BAR.)

**Ref. 101800:** Pres. gauge with lateral inlet of 0-187 PSI 0-6 BAR.

**Ref. 101802:** Pres. gauge with back inlet of 0-187 PSI 0-6 BAR.

**Ref. 101810:** Pres. gauge with lateral inlet of 0-145 PSI (0-10 BAR.)

**Ref. 101812:** Pres. gauge with back inlet of 0-145 PSI (0-10 BAR.)

**Ref. 101820:** Pres. gauge with lateral inlet of 0-360 PSI (0-25 BAR.)

**Ref. 101822:** Pres. gauge with back inlet of 0-360 PSI (0-25 BAR.)

**Ref. 101810:** Brass needle for instantaneous pressure measurement and orific diameter measurement.

**Ref. 101812:** In-pipe adapter 3/4" female output.

**Ref. 101801:** Fixed differential P.G. of 0-15-30 PSI (0-1-2 BAR.)

**Ref. 101803:** Adjustable differential P.G. of 0-145 PSI (0-10 BAR.)



## VYR-6200 SOLENOIDS

### Valve accessories

#### 2 WAY SOLENOIDS

- Ref. 620121 Solenoid 12 V DC **2W** NC 1.6 mm
- Ref. 620240 Solenoid 24 V AC **2W** NC 1.6 mm
- Ref. 620247 Solenoid 24 V AC **2W** NO 1.6 mm
- Ref. 620249 Solenoid 24 V AC **2W** NC 1.6 mm PLASTIC
- Ref. 620241 Solenoid 24 V DC **2W** NC 1.6 mm
- Ref. 621201 Solenoid 9/12 V DC **LATCH 2W** NC/NO 1.2 mm



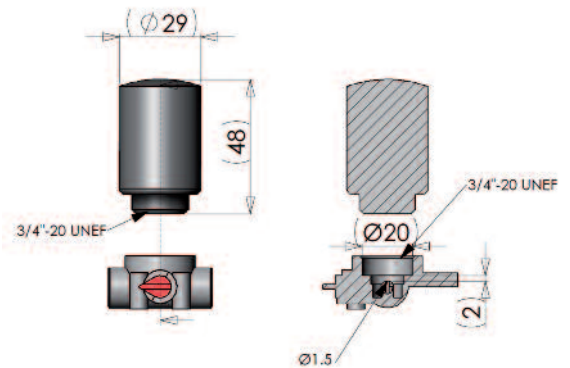
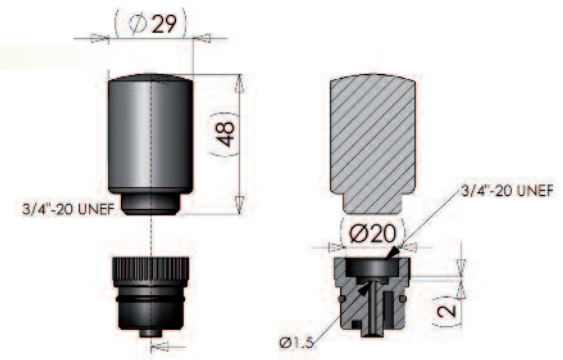
ref. 621201



ref. 620249



ref. 620240



#### 3 WAY SOLENOIDS

- Ref. 621212 Solenoid 6/30 Vdc **LATCH 3W** + PILOTO NC/NO 1,6 mm
- Ref. 621202 Solenoid 6/24 Vdc **LATCH 3W** + PILOTO NC/NO 1.2 mm

Ref. 621203 Solenoid 12 Vdc **3W** + PILOT NC/NO 1.2 mm

- Ref. 621204 Solenoid 24 Vac **3W** + PILOT NO 1.6 mm
- Ref. 621205 Solenoid 24 Vac **3W** + PILOT NC 1.6 mm



ref. 621202



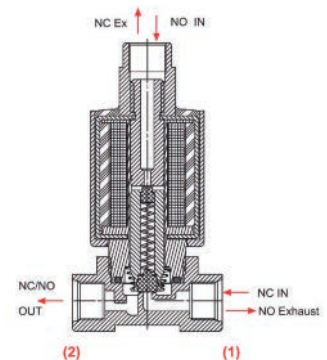
ref. 621212



ref. 621204



ref. 621203



#### BASE FOR SOLENOIDS

- Ref. 620010 Universal adapter for 2 way solenoid with manual pilot.
- Ref. 620012 Universal adapter for 3 way solenoid with manual pilot.
- Ref. 620018 Universal adapter base for 3 way solenoid 1,8 mm.
- Ref. 620026 Universal adapter base for 3 way solenoid 2,6 mm.
- Ref. 620011 Universal brass hydraulic adapter for 3 way valve.





## Brass Base Solenoids **VYR-6400**

Valve accessories



ref. 625024

### General properties:

- Solenoids 2/3 way metal base brass.
- Made of brass, stainless steel and special plastics.
- Max. Operating 150 PSI.
- Outlets 1/8 " F.
- 2 mm water pass.

### Models:

Ref. 625012: 24 Vac metal base 1/8".

Ref. 625024: 12 Vdc metal base 1/8".

## Brass Base Solenoids **VYR-6450**

Valve accessories



ref. 628024

### General properties:

- 2/3 way Solenoid N / C precision metal brass base.
- Made of brass, stainless steel and special plastics.
- Max. Operating 150 PSI.
- Manual control at base AUTO-ON-OFF.
- Outlets 1/8 ".
- 2 mm water pass.

### Models:

Ref. 628024: 24 Vac metal base 1/8" manual pilot at base.

Ref. 628012: 12 Vdc metal base 1/8" manual pilot at base.

Ref. 628009: LATCH 9 Vdc metal base 1/8" manual pilot at base.

Ref. 628013: LATCH 12 Vdc metal base 1/8" manual pilot at base.

ref. 628014



Ref. 628014: LATCH 12 Vdc metal manifold-base 1/8" manual pilot.

## Plastic Hydraulic Relay **VYR-6800**

Valve accessories



ref. 627001

### General properties:

- Hydraulic relay N.C. or N.A. made of plastic suitable for opening and closing hydraulic solenoid valves with large volumes of chambers due to the larger bore step of this relay with respect to the most conventional solenoids.
- It also allows the actuation of hydraulic valves at certain distances in which the hydraulic signal alone is insufficient to actuate or excessive, acting as a signal amplifier. Similarly gets troubleshoot command by topographical differences in height.
- Another use of this valve will be able to remotely commandeer hydraulically reducing equipment and / or holders and hydraulic signals switch generically.
- 3-way socket 1/8 "F.
- inner membrane reinforced with nylon mesh.
- Manual steering selector control ON-OFF-AUTO.

### Models:

Ref. 627001: Plastic Hydraulic Relay with GREY spring (standart no painted).  
0-10 meter of topographic differential

Ref. 627002: Plastic Hydraulic Relay with GREEN spring.  
10-20 meter of topographic differential



## Metal Hydraulic Relay VYR-6275

### Valve accessories



#### General properties:

- Designed as hydraulic control relay N.C. or N.A. suitable for opening and closing hydraulic solenoid valves with large volumes of chambers due to the larger bore step of this relay with respect to the most conventional solenoids.
- It also allows the actuation of hydraulic valves at certain distances when the hydraulic signal alone is insufficient to actuate or excessive, acting as a signal amplifier. Similarly gets troubleshoot command by topographical differences in height.
- Another use of this valve will be able to remotely commandeer hydraulically reducing equipment and / or holders and hydraulic signals switch generically.
- Body cast in brass with female thread 1/8" F.
- Smart design that allows the valve to be NC or NO by changing the hydraulic connections.

#### Models:

**Ref. 627501:** Metal Hydraulic Relay with YELLOW spring (0-10 meter of topographic differential).

**Ref. 627502:** Metal Hydraulic Relay with GREY spring (standart no painted) (4-15 meter of topographic differential).

**Ref. 627503:** Metal Hydraulic Relay with GREEN spring (8-24 meter of topographic differential).

**Ref. 627504:** Metal Hydraulic Relay with RED spring (9-29 meter of topographic differential).

**Ref. 627505:** Metal Hydraulic Relay with BLUE spring (11-38 meter of topographic differential).

## Hydraulic Selector T

### Valve accessories



#### General properties:

- Stamping brass body.
- Connections of 1/8" F
- Communicates via common with the higher pressure of 2 the inputs.

#### Models:

**Ref. 683002:** T selector 1/8" F.



## Filter Y for hydraulic control manifolds

### Valve accessories



#### General properties:

- Stamping brass body.
- female connections 3/8" (DN 10).
- INOX mesh filter 500 microns.
- PN-10
- Nitrile seals high tightness.

#### Models:

**Ref. 687002:** Screen Y filter BRASS-INOX 3/8" F.



## HYDRAULIC PRESSURE REDUCING PILOTS

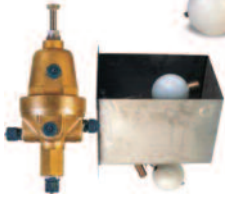
Valves accessories



### General properties:

The wide range of pilots for pressure regulators allow us to tailor solutions to the needs that arise in the facilities of our customers. Brass Metal Pilots VYR® are specially designed to work at high pressures. They are highly reliable and easy to use. The adjustment is adjustable by a screw located at the top.

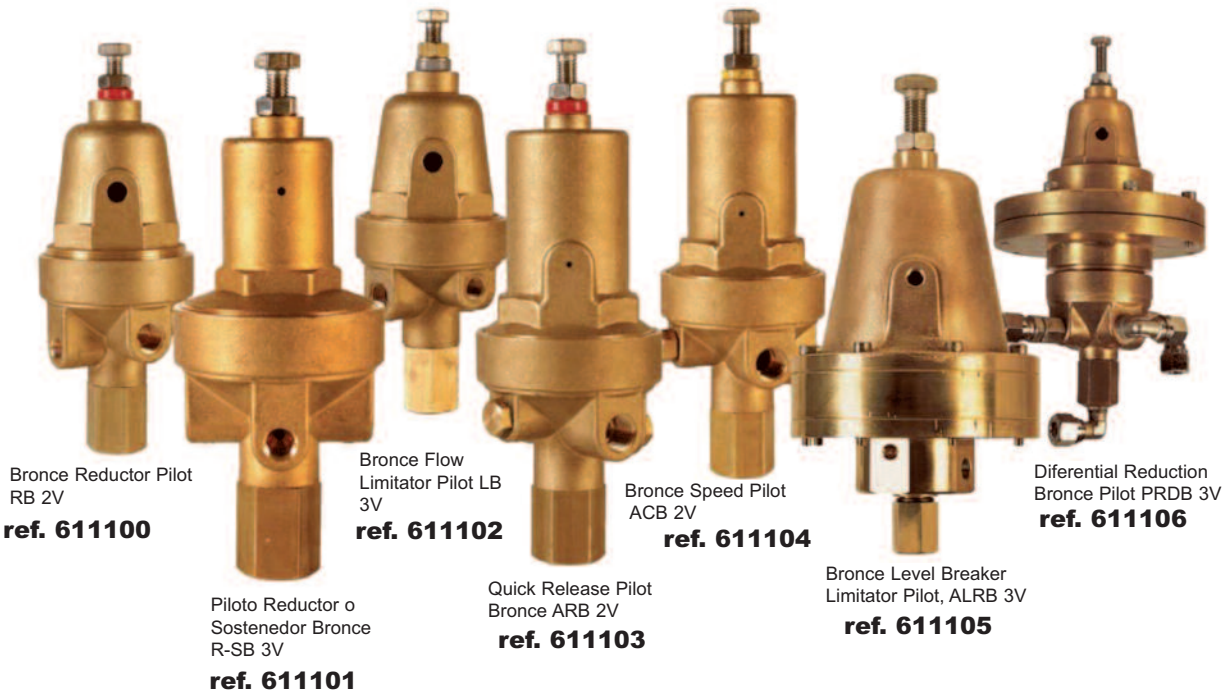
- Pilots regulators mount hydraulic valves, with different options and features of regulation depending on the model and its mode of installation.
- Body and lid made of brass.
- Permanent Cleaning brass filter through the steel mesh embedded in any assembly.
- Assembled with screws, shaft and stainless steel spring.



**ref. 611108**

Pilot float valve  
PVF 3V

**ref. 611107**



Bronze Reductor Pilot  
RB 2V  
**ref. 611100**

Bronze Flow  
Limitator Pilot LB  
3V  
**ref. 611102**

Bronze Speed Pilot  
ACB 2V  
**ref. 611104**

Diferential Reduction  
Bronze Pilot PRDB 3V  
**ref. 611106**

Piloto Reductor o  
Sostenedor Bronze  
R-SB 3V  
**ref. 611101**

Quick Release Pilot  
Bronze ARB 2V  
**ref. 611103**

Bronze Level Breaker  
Limitator Pilot, ALRB 3V  
**ref. 611105**



Long

Short



500 microns

300 microns

## HYDRAULIC FILTERS

Valve accessories

### General properties:

- Screen filters for hydraulic steering jacks.
- external thread 1/4" male and female thread 1/8" female.
- Made of highly resistant materials in brass and stainless steel.
- Two models depending on the size (long and short) and in turn filtración two degrees of 300 and 500 microns.
- Easily removed for washing.

### BRASS FILTERS FOR HYDRAULIC VALVES

**Ref. 611002** LONG filter (1/4"M -1/8" F), 36 mesh/ 300 micron.

**Ref. 611009** SHORT filter (1/4"M -1/8" F), 36 mesh/ 300 micron.

**Ref. 611012** LONG filter (1/4"M -1/8" F), 55 mesh/ 500 micron.

**Ref. 611032** SHORT filter (1/4"M -1/8" F), 55 mesh/ 500 micron.



## PRH-71 HYDRAULIC PRESSURE REGULATORS

### General properties:

Made of nylon (P.A. F.V.33%). Great versatility. Reduced size. Under differential. Lower working pressure range 5-40 mts. Standard pressure of 10 to 60 meters. High pressure of 10 to 90 meters. "Just screw models." Tolerance to chemicals and temperature. Operated by screw or lever. Support anchor valve M-8 (optional M-14).

#### Range:

- Low pressure 16-130 ft. (5-40 mts).
- Standard pressure 33-197 ft. (10-60 mts).
- High pressure 33-295 ft. (10-90 mts). "Optional screw models"

Pressure Hydraulic Regulator PRH-71, which is necessary for hydraulic control of pressures in the hydraulic application facilities agricultural and industrial.

With the installation of PRH-71 pilots on hydraulic valves we can assemble the valve on different modular ways depending of your needs. Connecting the pilots to the upper chamber of the hydraulic valve and the inlet and outlet, we can achieve effects such as:

- Pressure Regulating Valve (regulate output pressure of the valve, downstream).
- Pressure Sustaining Valve (inlet pressure regulate in valve, upstream).
- Safety valve or quick relief (open valve from "x" upstream pressure).
- Differential of Altitude Valve (unlike absorb pressure gradient).
- Sustaining valve and pressure regulator (with 2 pilots upstream regulatory premium regulation downstream).

All these applications with a single device, the PR-71 Pilot Regulator. VYR S.A. This product offers suitable versions for different applications, either for control of valves that trasieguen water at temperatures up to 60° so as valves trasieguen water with concentrations of chemicals with high corrosive characteristics, this will include request internal components made of stainless steel, Viton or silicone, and various ranges in pressure.



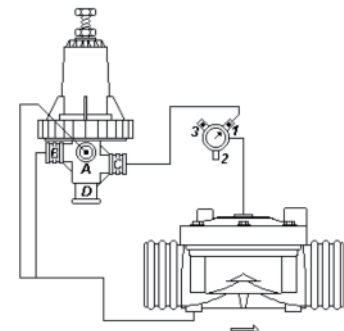
ref. 612010

ref. 612006

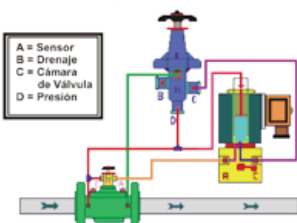
Plastic Pressure Regulator  
BROWN: 90 PSI / BLUE: 145 PSI

### Models:

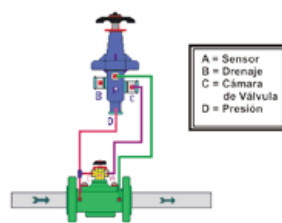
- Ref: 612006 PRH 0-90 PSI (0-6 BAR) (brown)  
Ref: 612010 PRH 0-145 PSI (0-10 BAR) (blue)



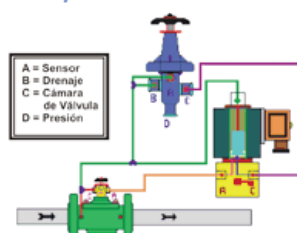
Reguladora de Presión con Llave y solenoide de 3 vías



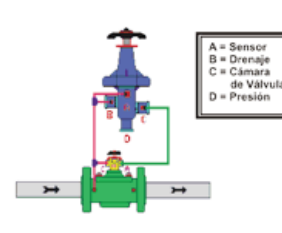
Reguladora de Presión con Llave de 3 vías en válvula



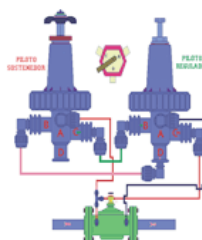
Sostenedora de Presión con Llave y solenoide de 3 vías



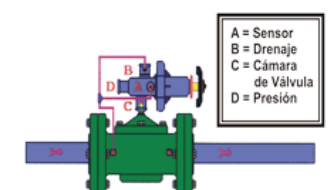
Sostenedora de Presión con Llave de 3 vías



Conexión de Piloto Sostenedor + Piloto Regulador en Válvula con llave de 3 vías



Reguladora como Válvula de Seguridad para sistema de Filtrado



Este sistema es recomendado para protección de sistemas de filtrado, desviando el exceso de presión



## HYDRAULIC COMMAND MICRO-PIPE

### Valves accesories

#### General properties:

- Reels of pilot micro-pipe for installations of hydraulic valves automation.
- Made from high strength PE and hi-flexibility.
- Rolled in reels of 800 and 1000 meters for quick and easy handling on site.
- Its flexibility and thickness makes it very difficult to get pinched causing tube blockages or narrowing of flow.

greenflex  
pipes



#### MICRO-TUBO DE PILOTAJE Y ACCESORIOS

Ref. 611910 Roll of micropipe 6 mm of 3280 ft. (1000m).

Ref. 611911 Roll of micropipe 8 mm of 2625 ft. (800m).

Ref. 611902 Roll of micropipe 8 mm of 3280 ft. (1000m).

Ref. 611950 Pipe cutter pliers.

Ref. 611900 Pipe spool.

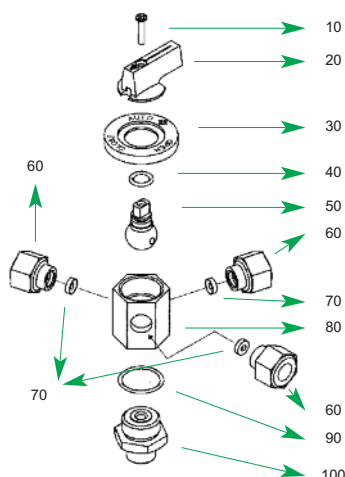


Ref. 619002



## VYR-27 THREE-WAY HYDRAULIC CONTROL VALVE

### Accesorios para válvulas



#### General properties:

- 3-way valves for manual control valves, hydraulic systems.
- Made of brass with steel shaft, chrome plated ball, seats fluoropolymers and plastic knobs.
- Available with controls in different colors to identify different uses.
- Models 1/8", 1/4" and 1/4" high flow.
- Identifying engraving position ON-OFF-AUTO.

#### Models:

Ref. 102700: Three-way valve 1/8" MALE

Ref. 102701: Three-way valve 1/4" MALE

Ref. 102710: Three-way valve 1/8" FEMALE

Ref. 1027011: Three-way valve 1/4" FEMALE

Ref. 102702 Three-way valve HI-FLOW 1/4" FEMALE

Ref. 102703: Sleeve coupler 3/4" with double 1/8" H outlet.



Ref. 102711

Ref. 102710



Ref. 102702

Ref. 102701



Ref. 102700



## HYDRAULIC MICRO-PIPE RACORDS

Valve accessories



### METAL "COMPRESSION" MICRO-PIPE FITTINGS

- Ref.611701** T EXPRESS - EXPRESS - EXPRESS, 6 mm  
**Ref.611702** T EXPRESS - 1/8" M - EXPRESS, 6 mm  
**Ref.611703** T EXPRESS - 1/4" M - EXPRESS, 6 mm  
**Ref.611704** T ASIMETRIC 1/8" M - EXPRESS - EXPRESS, 6 mm  
**Ref.611705** T ASIMETRIC 1/4" M - EXPRESS - EXPRESS, 6 mm  
**Ref.611706** ELBOW 1/8" M - EXPRESS, 6 mm  
**Ref.611716** ELBOW 1/4" M - EXPRESS, 6 mm  
**Ref.611707** SLEEVE 1/8" M - EXPRESS, 6 mm  
**Ref.611708** SLEEVE 1/4" M - EXPRESS, 6 mm  
**Ref.611709** SLEEVE EXPRESS 6 mm - EXPRESS, 6 mm
- Ref.611801** T EXPRESS - EXPRESS - EXPRESS, 8 mm  
**Ref.611802** T EXPRESS - 1/8" M - EXPRESS, 8 mm  
**Ref.611803** T EXPRESS - 1/4" M - EXPRESS, 8 mm  
**Ref.611804** T ASIMETRIC 1/8" M - EXPRESS - EXPRESS, 8 mm  
**Ref.611805** T ASIMETRIC 1/4" M - EXPRESS - EXPRESS, 8 mm  
**Ref.611806** ELBOW 1/8" M - EXPRESS, 8 mm  
**Ref.611816** ELBOW 1/4" M - EXPRESS, 8 mm  
**Ref.611807** SLEEVE 1/8" M - EXPRESS, 8 mm  
**Ref.611808** SLEEVE 1/4" M - EXPRESS, 8 mm  
**Ref.611809** REDUCED SLEEVE EXPRESS 6 mm - EXPRESS, 8 mm
- Ref.611301** NIPPLE 1/8"M-1/8"M  
**Ref.611302** NIPPLE 1/4"M-1/4"M  
**Ref.611303** REDUCED NIPPLE 1/4"M-1/8"M  
**Ref.611304** PLUG 1/8"M  
**Ref.611305** PLUG 1/4"M



### METAL "PUSH-IN" MICRO-PIPE CONNECTORS

- Ref.611801** T EXPRESS - EXPRESS - EXPRESS, 8 mm  
**Ref.611802** T EXPRESS - 1/8" M - EXPRESS, 8 mm  
**Ref.611803** T EXPRESS - 1/4" M - EXPRESS, 8 mm  
**Ref.611804** T ASIMETRIC 1/8" M - EXPRESS - EXPRESS, 8 mm  
**Ref.611805** T ASIMETRIC 1/4" M - EXPRESS - EXPRESS, 8 mm  
**Ref.611806** ELBOW 1/8" M - EXPRESS, 8 mm  
**Ref.611816** ELBOW 1/4" M - EXPRESS, 8 mm  
**Ref.611807** SLEEVE 1/8" M - EXPRESS, 8 mm  
**Ref.611808** SLEEVE 1/4" M - EXPRESS, 8 mm  
**Ref.611809** SLEEVE EXPRESS - EXPRESS, 8 mm  
**Ref.611810** Y EXPRESS - EXPRESS - EXPRESS, 8 mm



### PLASTIC "COMPRESSION" MICRO-PIPE FITTINGS

- Ref.611501** T EXPRESS - EXPRESS - EXPRESS, 6 mm  
**Ref.611502** T EXPRESS - 1/8" M - EXPRESS, 6 mm  
**Ref.611503** T EXPRESS - 1/4" M - EXPRESS, 6 mm  
**Ref.611504** T ASIMETRIC 1/8" M - EXPRESS - EXPRESS, 6 mm  
**Ref.611505** T ASIMETRIC 1/4" M - EXPRESS - EXPRESS, 6 mm  
**Ref.611506** ELBOW 1/8" M - EXPRESS, 6 mm  
**Ref.611507** ELBOW W/SHORT FILTER 1/4" M - EXPRESS, 6 mm  
**Ref.611508** ELBOW W/LONG FILTER 1/4" M - EXPRESS, 6 mm  
**Ref.611509** SLEEVE 1/8" M - EXPRESS, 6 mm  
**Ref.611510** SLEEVE 1/4" M - EXPRESS, 6 mm  
**Ref.611511** SLEEVE EXPRESS 6 mm - EXPRESS, 6 mm
- Ref.611601** T EXPRESS - EXPRESS - EXPRESS, 8 mm  
**Ref.611602** T EXPRESS - 1/8" M - EXPRESS, 8 mm  
**Ref.611603** T EXPRESS - 1/4" M - EXPRESS, 8 mm  
**Ref.611604** T ASIMETRIC 1/8" M - EXPRESS - EXPRESS, 6 mm  
**Ref.611605** T ASIMETRIC 1/4" M - EXPRESS - EXPRESS, 6 mm  
**Ref.611606** ELBOW 1/8" M - EXPRESS, 8 mm  
**Ref.611607** ELBOW W/SHORT FILTER 1/4" M - EXPRESS, 8 mm  
**Ref.611608** ELBOW W/LONG FILTER 1/4" M - EXPRESS, 8 mm  
**Ref.611609** SLEEVE 1/8" M - EXPRESS, 8 mm  
**Ref.611610** SLEEVE 1/4" M - EXPRESS, 8 mm  
**Ref.611611** SLEEVE EXPRESS 8 mm - EXPRESS, 8 mm
- Ref.611512** REDUCED SLEEVE EXPRESS 6 mm - EXPRESS, 8 mm  
**Ref.611201** NIPPLE 1/8"M-1/8"M  
**Ref.611202** NIPPLE 1/4"M-1/4"M  
**Ref.611203** REDUCED NIPPLE 1/4"M-1/8"M  
**Ref.611204** PLUG 1/8"M  
**Ref.611205** PLUG 1/4"M



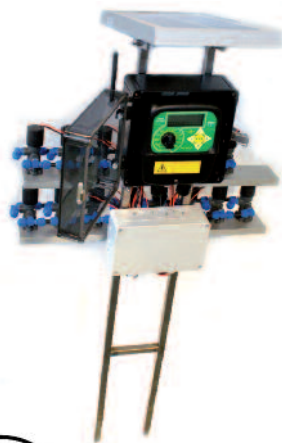


## FRAMES & MANIFOLDS FOR VALVE CONTROL

Valve accessories



Ref. 106101



### General properties

- Fully manifold mounted on aluminum frame for controller and solenoids.
- Connects to micro-pipe of 6 mm or 8 mm with thread sealed with fluoropolymer sealing and PE micro-pipe.
- Profile machining to allow lateral movement.

### Models:

Ref. 106101. Outdoor frame of INOX for mobile systems.

Ref. 106102. Outdoor frame for 5+1 stations.

Ref. 106103. Outdoor frame for 8+1 stations.

Ref. 106104. Outdoor frame for 14+1 stations.

Ref. 106105. Outdoor frame for 5+1 stations + SOLAR KIT.

Ref. 106106. Outdoor frame for 8+1 stations + SOLAR KIT.

Ref. 106107. Outdoor frame for 14+1 stations + SOLAR KIT.

### COLECTORES COMANDO HIDRÁULICO (aluminium frame)

Ref. 106111. Hydraulic manifold of 8 mm for 2 stations latching sol.

Ref. 106112. Hydraulic manifold of 8 mm for 3 stations latching sol.

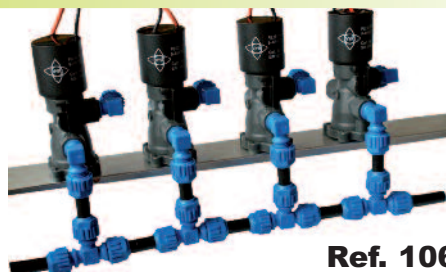
Ref. 106113. Hydraulic manifold of 8 mm for 4 stations latching sol.

Ref. 106114. Hydraulic manifold of 8 mm for 5 stations latching sol.

Ref. 106115. Hydraulic manifold of 8 mm for 6 stations latching sol.

Ref. 106116. Hydraulic manifold of 8 mm for 7 stations latching sol.

Ref. 106117. Hydraulic manifold of 8 mm for 8 stations latching sol.



Ref. 106113



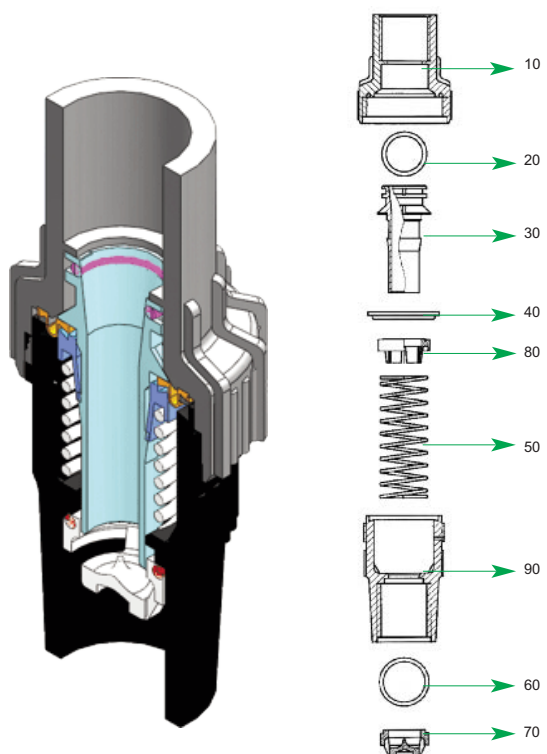


# Pressure Regulators

## FIX PRESSURE REGULATORS

- **VYR-19** .....Pág. 155
- **VYR-19 HF** .....Pág. 156





## VYR-19 FPR

### Fixed Pressure Regulators

#### General properties:

- Pressure regulators for agricultural and landscape use.
- Made of nylon 6.6, polypropylene, rubber and stainless steel.
- The design, with cross-sectional and longitudinal reinforcements, makes this range of pressure regulators one of most resistant on the market against high pressures and water hammer.
- Thread 3/4" F x 3/4" F (BSP / NPT).
- Stainless steel spring, high quality with continuous and uniform strength.
- Flow of **2,2-13,2 GPM (0,5 hasta 3 m³/hora)**.
- Maximum working pressure: **174 PSI (12 BAR)**.

#### Applications:

- Pivots, drip irrigation, sprinkler irrigation, industrial uses.

#### Measurements:

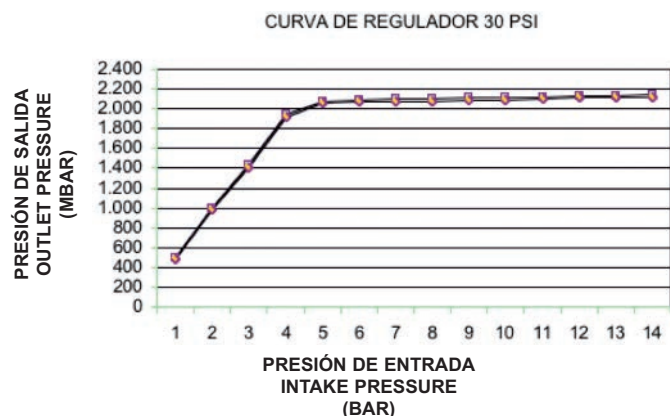
- Width: 2,1 in. (5,3 cm).
- Weight: 0,23 lbs. (105 gr).
- Height: 4,5 in. (11,5 cm).
- Units per box: 50.



#### Models:

Ref. 101910: 10 PSI / 0,70 BAR  
Ref. 101920: 20 PSI / 1,38 BAR  
Ref. 101925: 25 PSI / 1,73 BAR

Ref. 101930: 30 PSI / 2,07 BAR  
Ref. 101940: 40 PSI / 2,76 BAR  
Ref. 101950: 50 PSI / 3,45 BAR



REF. MUELLES		
6 PSI / 0,5 BAR	401906	
10 PSI / 0,7 BAR	401910	
20 PSI / 1,4 BAR	401920	
25 PSI / 1,8 BAR	401925	
30 PSI / 2,1 BAR	401930	
40 PSI / 2,8 BAR	401940	
50 PSI / 3,5 BAR	401950	

	SERIE 2	SERIE 1
P. Entrada Intake press.	P.S. (5m³/h) Outlet pres.	P.S. (1m³/h) Outlet pres.
500	500	480
1.000	1.000	980
1.500	1.400	1.380
2.000	1.420	1.400
2.500	1.430	1.410
3.000	1.430	1.410
3.500	1.440	1.420
4.000	1.440	1.420
4.500	1.450	1.430
5.000	1.450	1.430
5.500	1.460	1.440
6.000	1.460	1.440
6.500	1.460	1.440
7.000	1.470	1.450



## VYR-19 HPR

### Fixed Pressure Regulators

#### General properties:

- Pressure regulators for agricultural and landscape use VYR-19 HPR.
- Made of nylon 6.6, polypropylene, rubber and stainless steel.
- The design, with cross-sectional and longitudinal reinforcements, makes this range of pressure regulators one of most resistant on the market against high pressures and water hammer.
- Thread *EXTRA-LARGE* 3/4" H X 3/4" H (BSP).
- Muelle de acero inoxidable de alta calidad con fuerza continua y homogénea.
- Flow of **8,8-22 GPM GPH (2-5 m³/h)**.
- Maximum working pressure of **174 PSI (12 BAR)**.

#### Applications:

- Pivots, drip irrigation, sprinkler irrigation, industrial uses.

#### Measurements:

- Width: 2,7 in (6,9 cm).
- Height: 5,43 in (13,8 cm).
- Weight: 0,43 lb (197 gr).
- Units per box: 50.

#### Models:

Ref. 111906: 6 PSI / 0,41 BAR	Ref. 111930: 30 PSI / 2,07 BAR
Ref. 111910: 10 PSI / 0,70 BAR	Ref. 111935: 35 PSI / 2,46 BAR
Ref. 111915: 15 PSI / 1,05 BAR	Ref. 111940: 40 PSI / 2,80 BAR
Ref. 111920: 20 PSI / 1,40 BAR	Ref. 111950: 50 PSI / 3,45 BAR
Ref. 111925: 25 PSI / 1,85 BAR	Ref. 111960: 60 PSI / 3,95 BAR



SPRINKLERS

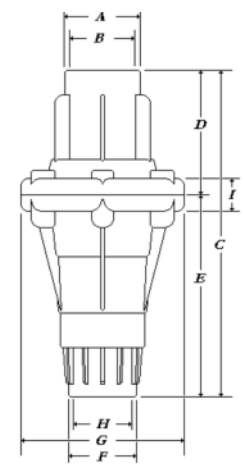


PIVOTS



DRIP



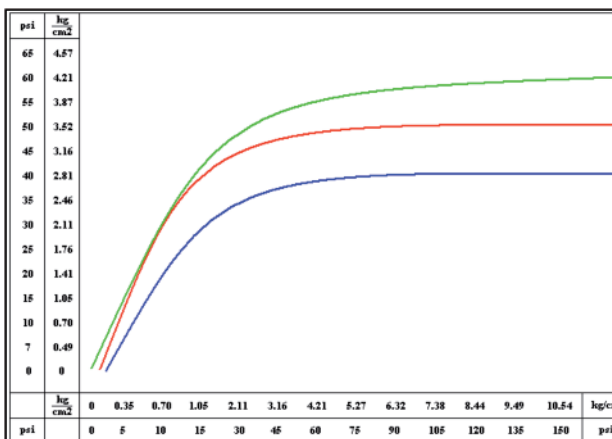
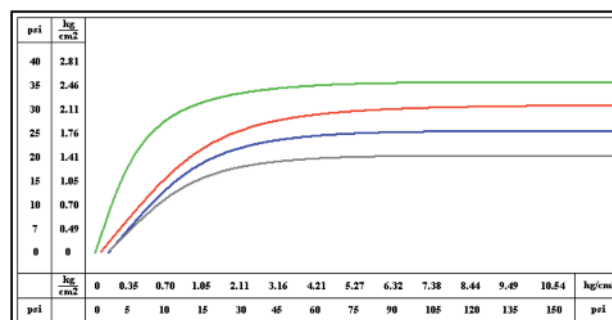
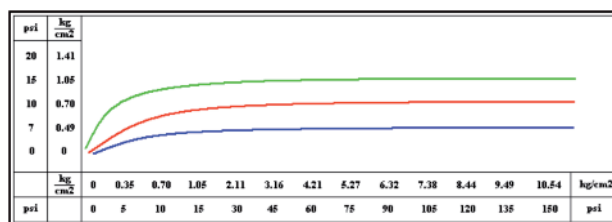


A	33 mm
B	3/4"bsp x 28 mm
C	138 mm
D	54 mm
E	84 mm
F	34 mm
G	70 mm
H	3/4"bsp x 18 mm
I	15 mm

PSI	M <sup>3</sup> /H MIN.	M <sup>3</sup> /H MAX.
15	2,163	4,812
20	2,163	4,812
25	2,163	4,812
30	2,163	4,812
40	2,163	4,812
50	2,163	4,812

	SERIE 2	SERIE 1
P. Entrada Intake press.	P.S. (5m <sup>3</sup> /h) Outlet pres.	P.S. (1m <sup>3</sup> /h) Outlet pres.
500	500	480
1.000	1.000	980
1.500	1.400	1.380
2.000	1.420	1.400
2.500	1.430	1.410
3.000	1.430	1.410
3.500	1.440	1.420
4.000	1.440	1.420
4.500	1.450	1.430
5.000	1.450	1.430
5.500	1.460	1.440
6.000	1.460	1.440
6.500	1.460	1.440
7.000	1.470	1.450

REF. MUELLES		
6 PSI / 0,5 BAR	401906	
10 PSI / 0,7 BAR	401910	
20 PSI / 1,4 BAR	401920	
25 PSI / 1,8 BAR	401925	
30 PSI / 2,1 BAR	401930	
40 PSI / 2,8 BAR	401940	
50 PSI / 3,5 BAR	401950	



Just the pressure that  
your system needs









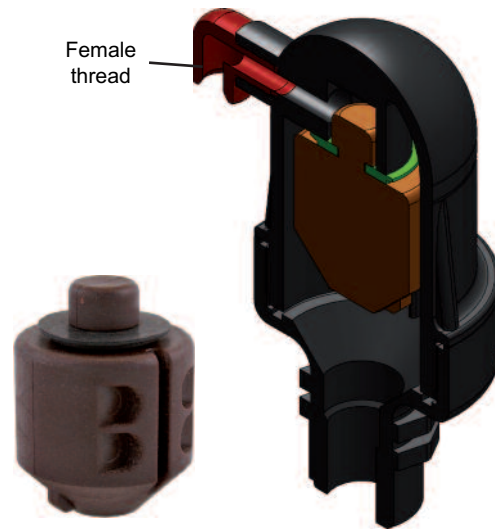
# Air release Valves

## AIR RELEASE VALVES

- **VYR-39 SIMPLE EFFECT** .....Pág. 160
- **VYR-39 DOUBLE EFFECT** .....Pág. 161
- **VYR-39 TRIPLE EFFECT** .....Pág. 162



ref. 103905



## VYR-39 CINECTIC Air Release Valves

### General properties:

- Double or triple action kinetic air valves to extract and impel air from and into irrigation systems.
- Made of nylon 6.6 and reinforced with 30% fibreglass. Rubber closure gasket and polystyrene float.
- Operating range of 3-232 PSI (0,2 a 16 BAR).
- Continuous operation.
- Automatic effect.
- Extracts more than 2200 GPM (500 m3/h) of air on filling the installation, without the valve closing through absence of air.
- Extraction of more than 200 GPM (45 m3/h) of air in installations with hydraulic pressures of 6 PSI (0,4 BAR).
- **It extracts** the air from the installation while the pipelines are filling. When the water reaches the inside of the valve, the float rises and closes the discharge outlet.

### Applications:

- Agricultural installations, professional landscaping of all types and industrial use.

### Models:

Ref. 103904: 3/4" simple.

Ref. 103905: 1" simple.

Ref. 103924: 3/4" simple BRASS.

Ref. 103925: 1" simple BRASS.

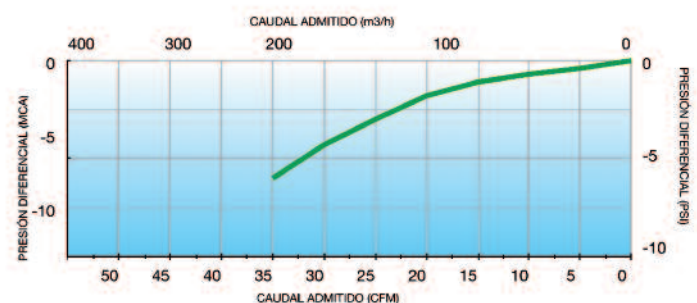
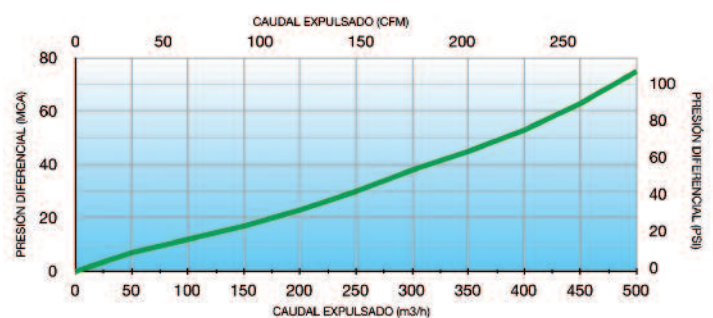
### Identification



Grey color= Simple effect  
Black color= Doble effect  
Red color= Triple effect

Plastic or Brass base

Thread 3/4", 1" or 2"



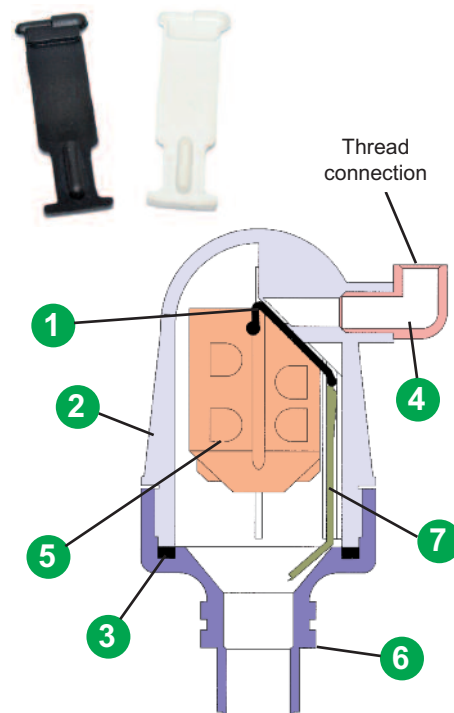




ref. 103901



ref. 103960



## VYR-39 BI-FUNCTIONAL

### Air release valves

#### General properties:

- Double or triple action kinetic air valves to extract and impel air from and into irrigation systems.
- Made of nylon 6.6 and reinforced with 30% fibreglass. Rubber closure gasket and polystyrene float.
- Operating range of 3-232 PSI (0,2 a 16 BAR).
- Continuous operation.
- Automatic effect.
- Extracts more than 2200 GPM GPH (500 m3/h) of air on filling the installation, without the valve closing through absence of air.
- Extraction of more than 200 GPM (45 m3/h) of air in installations with hydraulic pressures of 6 PSI (0,4 BAR).
- **It extracts** the air from the installation while the pipelines are filling. When the water reaches the inside of the valve, the float rises and closes the discharge outlet.

- **It prevents** the pipes from collapsing due to pressure decrease when the system is emptied. As the system is being emptied, the float drops and opens the seal, allowing air to enter the pipe.

#### Applications:

- Agricultural installations, professional landscaping of all types and industrial use.

#### Models:

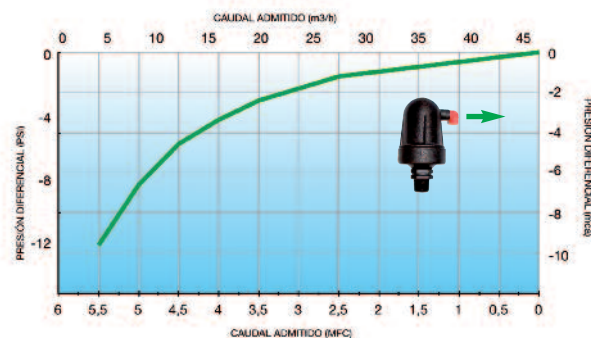
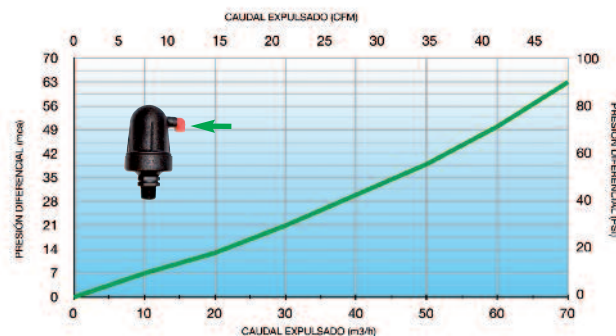
Ref. 103900: 3/4" DOUBLE , 3-90 PSI (0,2-6 BAR).

Ref. 103901: 1" DOUBLE , 3-90 PSI (0,2-6 BAR).

Ref. 103920: 3/4" DOUBLE BRASS , 3-90 PSI (0,2-6 BAR).

Ref. 103921: 1" DOUBLE BRASS , 3-90 PSI (0,2-6 BAR).

Nº	Descripción	Referencia	Material
1	Cierre	403901	EPDM
2	Cuerpo	433902	Poliamida con fibra de vidrio
3	Junta tórica	403903	NBR
4	Codo giratorio	403904	Polipropileno
5	Boya	403905	Poliéstereno
6	Base en 3/4"	403906	Poliamida con fibra de vidrio
7	Base en 1"	403907	Poliamida con fibra de vidrio
	Pestaña de seguridad	403908	Polipropileno



Ref. 103950: 3/4" DOUBLE , 30-230 PSI (2-16 BAR).

Ref. 103951: 1" DOUBLE , 30-230 PSI (2-16 BAR).

Ref. 103970: 3/4" DOUBLE BRASS , 30-230 PSI (2-16 BAR).

Ref. 103971: 1" DOUBLE BRASS , 30-230 PSI (2-16 BAR).



ref. 103972



ref. 103952

## VYR-39 TRI-FUNCTIONAL

### Air release valves

#### General properties:

- Double or triple action kinetic air valves to extract and impel air from and into irrigation systems.
- Made of nylon 6.6 and reinforced with 30% fibreglass. Rubber closure gasket and polystyrene float.
- Operating range of 0.2 to 15 bar.
- Continuous operation.
- Automatic effect.
- Extracts more than 500 m<sup>3</sup>/h of air on filling the installation, without the valve closing through absence of air.
- Extraction of more than 45 m<sup>3</sup>/h of air in installations with hydraulic pressures of 4 bar.
- **It extracts** the air from the installation while the pipelines are filling. When the water reaches the inside of the valve, the float rises and closes the discharge outlet.
- **It provides** automatic control, eliminating any residual air pockets from reaching the valve. This causes the float to drop, partially or totally opening the discharge outlet. The system pressure does not prevent this function from being carried out. (ONLY IN TRIPLE FUNCTION VALVES)
- **It prevents** the pipes from collapsing due to pressure decrease when the system is emptied. As the system is being emptied, the float drops and opens the seal, allowing air to enter the pipe.

#### Technical Specifications:

- Made of nylon 6.6 and reinforced with 30% fibreglass.
- Sealing gasket, rubber and polystyrene float.
- Male Thread 2" BSP or NPT.
- Swivel female elbow with 1/2" thread and anti-insects inner screen.

#### Applications :

- Drip irrigation systems, sprinkler irrigation systems and industry.

#### Medidas:

- Width: 10 cm.
- Height: 25 cm.
- Weight: 860 gr. y 1250 grs. (brass base)
- Unids per box: 10.

#### Models:

**Ref. 103902:** 2" TRIPLE , 3-90 PSI (0,2-6 BAR).

**Ref. 103922:** 2" TRIPLE BRASS , 3-90 PSI (0,2-6 BAR).

**Ref. 103952:** 2" TRIPLE , 30-230 PSI (2-16 BAR).

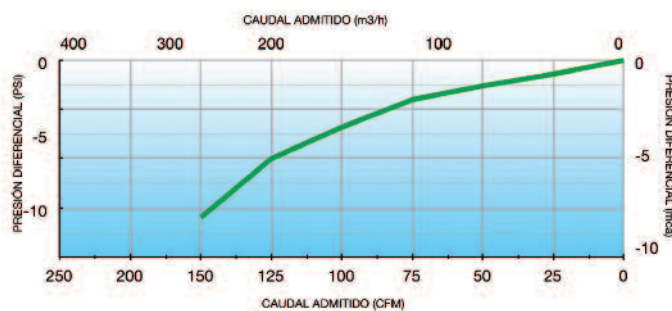
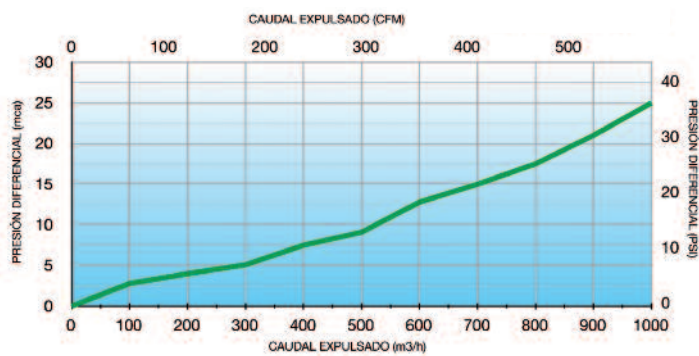
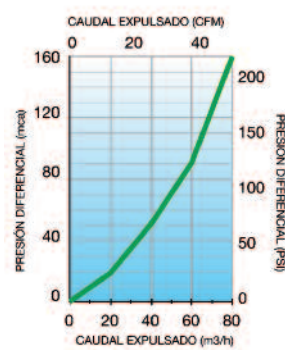
**Ref. 103972:** 2" TRIPLE BRASS , 30-230 PSI (2-16 BAR).





**Black membrane:** 0,2-6 BAR / 3-90PSI

**White membrane:** 2-16 BAR / 30-230 PSI



# COVERAGE

Agro-Stand, Agro-Flat,





# E SYSTEMS

Agro-Pipe, Agro-Rain



# Irrigation Methods

## THE MOST APPROPRIATE SYSTEM FOR YOUR FIELDS



There are different methods of applying sprinkler systems depending on various factors: crop type, land extension, water requirements, soil texture, etc. VYR S.A. has created a series of adaptable designs to different types of crops depending on seasonality and hydraulic design models.

We can differentiate into 2 groups, mobile systems and fixed systems, and within these sub-groups:

### - Mobile Systems

- Low flow mobile coverage systems **Agro-Stand & Agro-Flat**.
  - Spacing up to 12x12 meters.
- Medium flow aluminium/plastic mobile system, **AGRO-PIPE**.
  - Spacing from 12x12 up to 28x28 meters.
- Medium flow mix aluminium/PE-PVC mobile systems-PE/PVC.
  - Spacing from 12x12 up to 28x28 meters.
- Side-Rolls.



### - Fix Systems:

- Semi-fix coverage system. Secondary lines buried and mobile laterals.
- Systems with main line buried and branch lines with hydrant outlets.
- Automatic fix underground system (**AGRO-RAIN**).
  - Spacing from 15 up to 24 meters. (18x18 standard).
  - Long range spacing of 28x28 meters.

## Investment and profitability:

When deciding on the ideal method of irrigation projects you should take into account not only the initial investment costs of equipment and civil works but should also consider maintenance costs, profitability and efficiency. There will not be a good investment just by buying a cheap irrigation system if later you will not get an optimal crop production and if maintenance costs are constant and costly (labor, energy costs, spare parts, etc). We believe that to make such decisions should take a minimum amortization period of 10 years to know the final cost of the system.

Be informed by our profesionarles to offer the solution with the irrigation method that best suits your needs and cultures.







# Crop Applications

IRRIGATION SOLUTION FOR EVERY TYPE OF CROP

## Cereals



Fixed irrigation systems and automatic mobile extension. Automation and sectorization recommended for maximum performance.



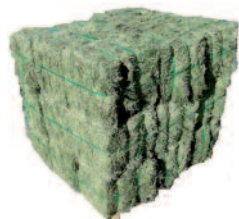
## Horticultural and Tuberculous

Fixed irrigation systems and automatic mobile high turnover. Stationary systems adaptable to varying flow rates and frames with high frequency irrigation.



## Trees and Trellises

Systems fixed and mobile automatic irrigation adapted to trellises and irrigation sub-arboreal and arboreal-. Anti-ice systems irrigation.



## Pastures and Forages

Mainly fixed irrigation systems. Automation of weather adaptation and use of fertigation.



## Green-Houses

Irrigation drip and micro-spray mist. Fixed and mobile with high automation. Hydroponics systems.



## Citrus Industry

Systems fixed and mobile automatic irrigation extension. It is desirable irrigation sub-arboreal (drip or micro spray) and on-arboreal (spraying).



## Sugar Industry

Fixed irrigation systems and automatic mobile extension. Marcos extensive irrigation. Automation and sectorization recommended for maximum performance.





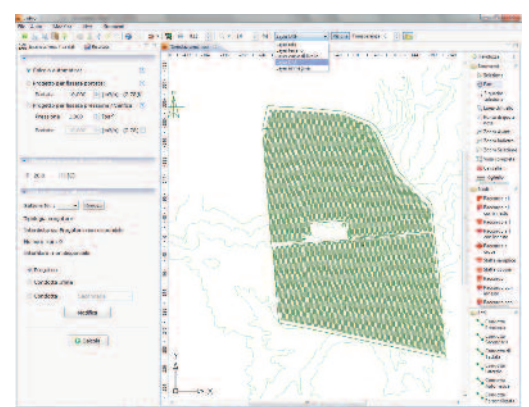
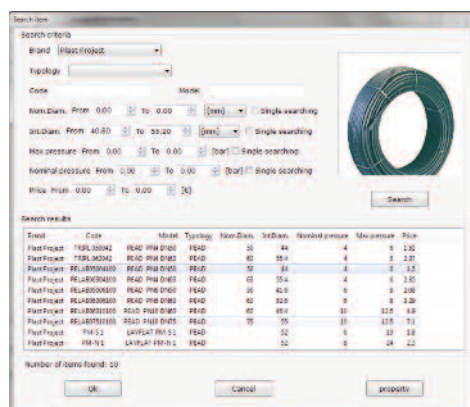
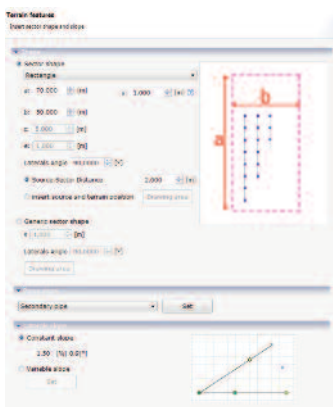
**HydroCAD** computing platform is **VYR S.A.** development and marketing of software design for hydraulic and irrigation systems in agricultural exploitations, green spaces, sports facilities and industry.

**IRRIPRO 3.7.2** is our latest version and the perfect tool for designing irrigation systems that enables users to save time when developing irrigation projects with the greatest possible efficiency and savings through its calculation algorithms and optimization of results. This software has the latest technology and adaptation to popular operating systems market.

Starting either a plane or a defined plot from **GOOGLE-EARTH**, we will topographic calculations, and introduce the flow and pressure available. Start by selecting the type of irrigation (sprinkler or drip) we want to do, number of sectors, spacing between issuers and distribution of flowlines.

**IRRIPRO** contains a comprehensive database that stores more than 9000 products from pipes, transmitters, valves, connectors, etc ... including the most representative brands in the market among which is of course **VYR S.A.** (**NETAFIM**, **IRRITEC**, **RAINBIRD**, **NELSON**, **DALMINE**, etc). Continuous product updates increasingly expanding this list of products and suppliers.

Another advantage thanks to our powerful database is the ability to bring all selected within a "product listing" materials, and otherwise the list is completed with generic materials. The list of materials generated by **IRRIPRO** accurately calculates the number of pipeline units, transmitters, valves, etc ... necessary for the construction of the irrigation system. Once the list of materials generated, it can be exported and saved in different formats: PDF, RTF, HTML, XLS. In conclusion, with the presence of our database **IRRIPRO** users will not need to consult the many catalogs from different manufacturers to complete your BOM (bill of materials).





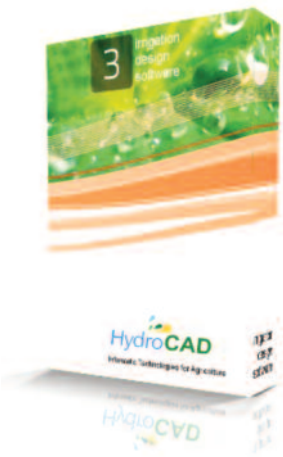


# IRRIPRO

## 3.7.2

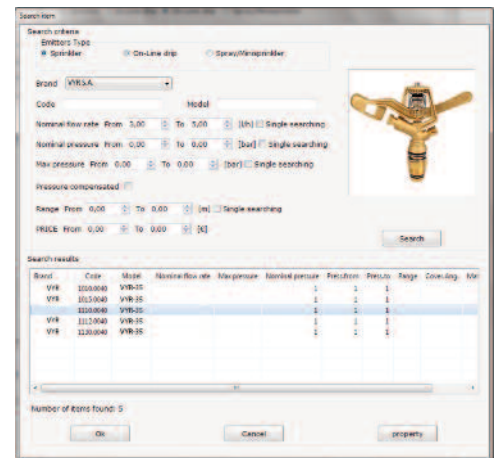
Contact our sales department for more information and video tutorials on using the software. You can also learn the various training courses both on-line and physical presence that offers specialized personnel every year.

Do not miss the opportunity to have the most powerful on the market for design tool irrigation systems. Save time and optimize costs in order to become the most competitive in the offers of their projects.



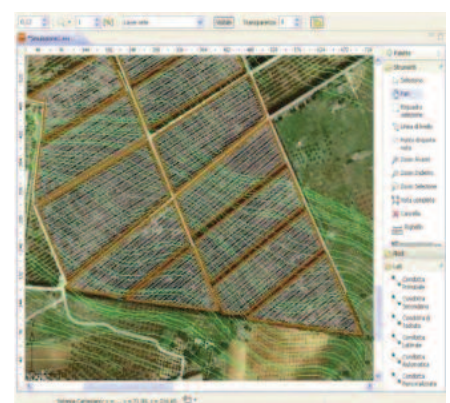
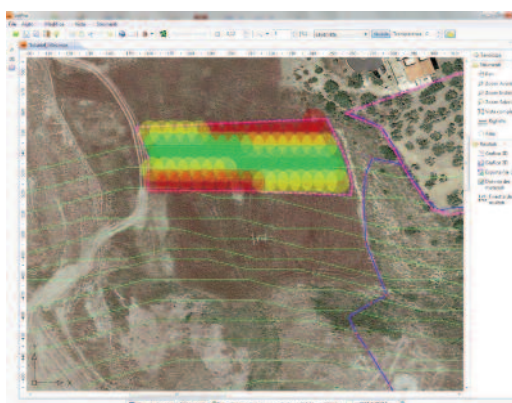
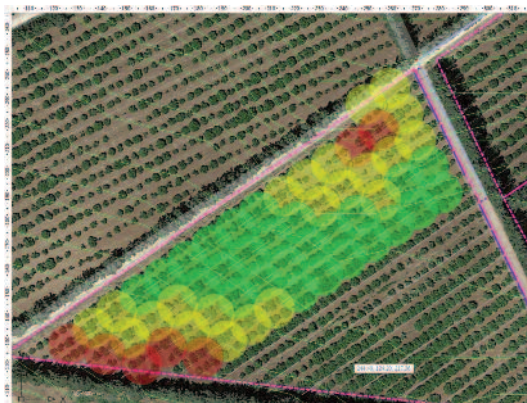
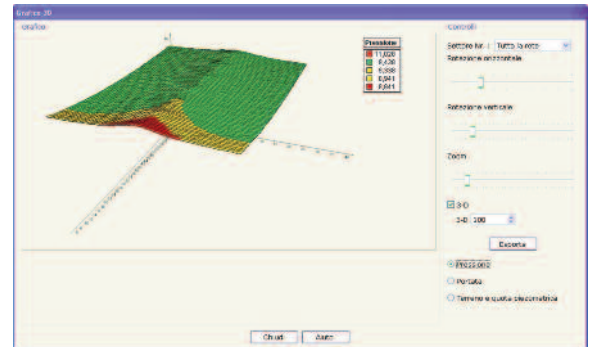
ON DEMAND

	EMITTERS	SECTORS	SURVEY	PERIOD
<b>IrriPro SM</b>  <i>SMALL for plants up to 5 Ha / 12 Ac</i>	50.000	25	10 Ha / 25 Ac	1 Month
	50.000	25	10 Ha / 25 Ac	3 Months
	50.000	25	10 Ha / 25 Ac	1 Year
<b>IrriPro MD</b>  <i>MEDIUM for plants up to 30 Ha / 74 Ac</i>	120.000	50	50 Ha / 125 Ac	1 Month
	120.000	50	50 Ha / 125 Ac	3 Months
	120.000	50	50 Ha / 125 Ac	1 Year
<b>IrriPro BF</b>  <i>BIGFARM for plants of any size</i>	Unlimited	Unlimited	600 Ha / 1.500 Ac	1 Month
	Unlimited	Unlimited	600 Ha / 1.500 Ac	3 Months
	Unlimited	Unlimited	600 Ha / 1.500 Ac	1 Year



PROPRIETARY

<b>SMALL</b>	50.000	25	10 Ha	Unlimited
Update	1 Year			
<b>MEDIUM</b>	120.000	50	50 Ha	Unlimited
Update	1 Year			
<b>BIGFARM</b>	Unlimited	Unlimited	600 Ha	Unlimited



# IrriDesign

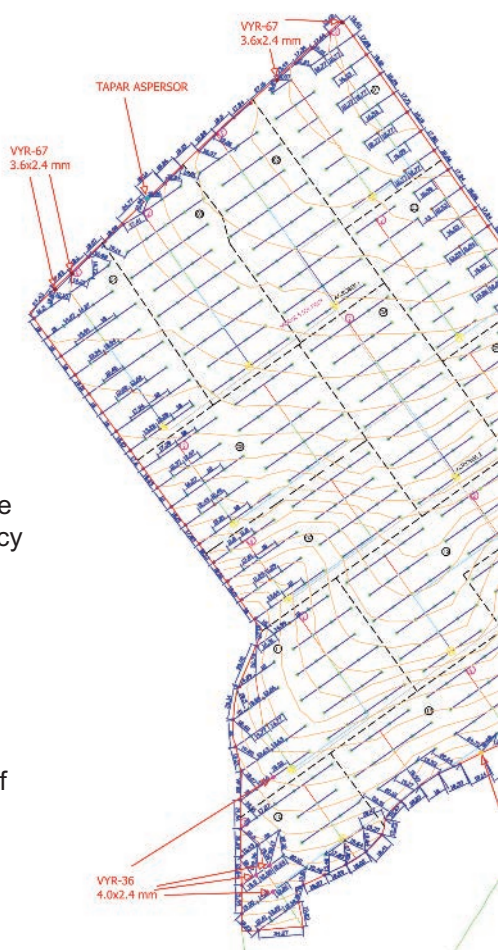
## DESIGN, SIZING CALCULATION AND PROJECTS !!!

VYR S.A. has specialized for the calculation and design of all types of sprinkler irrigation projects . Since its initial phase and topographic measurement of the land to the hydrographic calculation and design of sprinkler and lateral spacings. Our engineers will offer the best possible solution for your needs.

These are some of the different engineering design services VYR S.A. can offer:

- Collection of data (topography, soil type, prevailing winds, availability of flow and pressure measurements machinery tillage, crop types, meteorology, etc.)
- Conceptual design and choice of best "Method" (see page 168).
- Topographic Calculus.
- Differences in height and pressure. Design supply rafts.
- Calculations pumping and filtration.
- Options "Ferti-Irrigation" with injectors.
- Calculation of crop water requirements. (Crop coefficients and  $E_p$ )
- Spacing between sprinklers and laterals. Setback in perimeters.
- Full list of building materials.
- Sizing of hydraulic pipes and hydrants.
- Plan procurement of Civil Works.
- System Automation and Control options and Tele-management.
- Integration Irrigation Communities.
- Start up.
- Advice and training for maintenance.

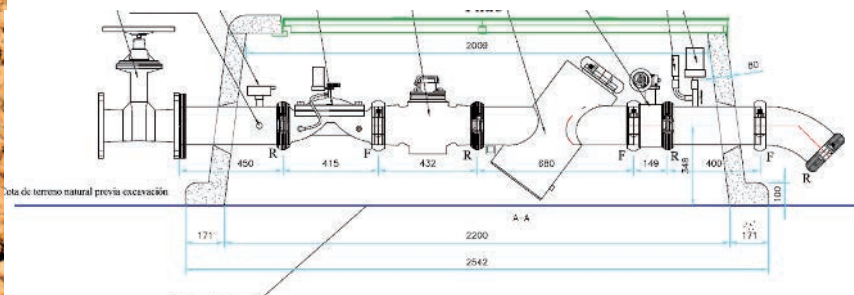
Be informed by our professionals to get the most out of our irrigation systems. The extensive experience and our engineering capabilities will provide greater efficiency and better production results.



### Supply of equipment and materials:

Our engineers will provide the best solutions in the design of irrigation taking into account all the components that in turn will supply:

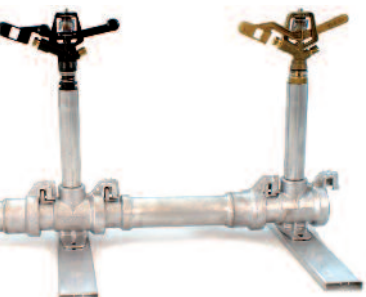
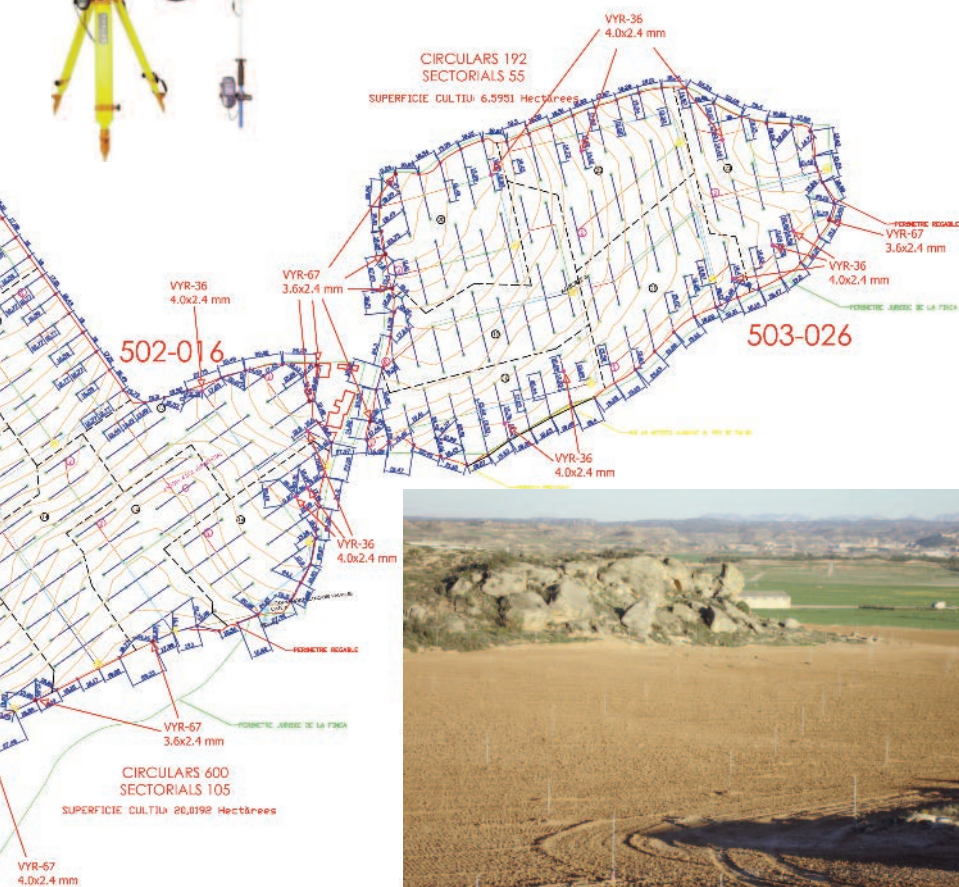
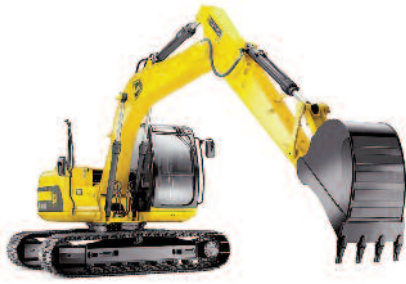
- Sprinklers. The widest range on the market!
- Pipes, fittings and special adapters.
- Filtration and dosage of fertilizers.
- Hydraulic valves and solenoid valves.
- Suction, pressure regulators and flow regulators.
- Control Systems and Tele-management and automation and sensors.
- Pumping Systems.
- Manifolds and other watering accessories.







## BOMBEO





## LOW FLOW QUICK-COUPLING COVERAGE SYSTEM

### General properties:

- Agro-Stand 1/2" sprinkler stand system.
- 1,3 meters height, to be 30-40 cm stuck into the ground.
- Made of special plastics PVC & POM.
- Security pipe-lock for a save fasten.
- Working pressure from 0-6 BAR.

### Applications:

- AG farms, green-houses, industrial mobile systems.

### Models:

Ref. 102670: **AGRO-STAND**: Sprinkler stand + 1,3 m pipe 13 mm + ale & female fitting. **ref. 102670**

Ref. 102630: Sprinkler stand.

Ref. 102672: Self-compensating valve.

Ref. 102620: Male connector thread-barbed 10 mm.

Ref. 102610: Male connector thread-barbed 10 mm.

Ref. 102600: Plug.

Ref. 102641: Galvanized steel spike 1,2 m for Agro-Stand (revited).

Ref. 102672: KIT: sprinkler coupler + 1,3 m pipe 13 mm + male & female fitting.

Ref. 102680: KIT: sprinkler coupler + 0,9 m pipe 13 mm + 1,3 m steel spike + male & fem. connect..

Ref. 102682: KIT: sprinkler coupler + 0,9 m pipe 13 mm + 0,9 galv. spike + male & female connector.

Ref. 102652: KIT: sprinkler coupler + 0,9 m pipe 13 mm + 0,9 m steel spike + male & fem. connect..

Ref. 102643: Micro-pipe roll of 100 m. (ANTI-FLAT)

Ref. 496619: Pipe Cutter Tool (10-20 mm).

Ref. 103120: Eyelet hole punch Tool 10 mm MANUAL (PE low density).

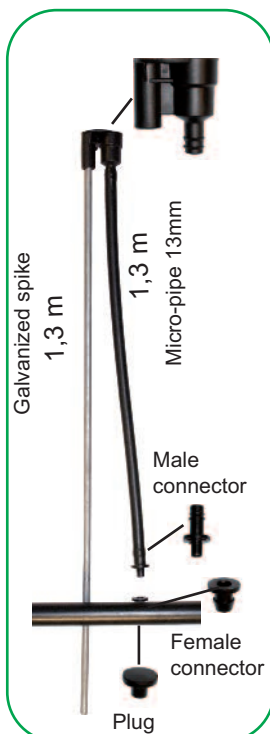
Ref. 103130: Eyelet hole punch Tool 10 mm AUTO "Cut-turn-place".

Ref. 496619: Pipe cutter tool (10-20 mm).

AgroStand



50 units Box with full assembled Agro-Stand



greenflex  
pipes

Anti-blending



Flexible anti-blending pipe GreenFlex.



Easy quick anti-drip connectors.



Self-compensating Valve



ref. 102691

ref. 102690



ref. 496619



### General properties:

- Flat pipe PN-10 system for the quick connection of Agro-Stand lines by using a circular cutter pliers and a express outlet compression micro-fitting.
- Easy and quickly assamble, unassamble and storage, by rolling up the pipe.
- Quick and secure connection, connection system without any leakage and water loose.

### CONNECTORS AND TOOLS:

**Ref. 103150:** Mini-express fitting for flat pipe, and female outlet for quick-couplig connector.

**Ref. 103140:** Cutter pliers for 13 mm holes.

**ref. 102697**



**ref. 102695**

### LAY-FLAT PIPE:

**Ref. 102755:** Lay-flat pipe AGRO-FLAT of 50 mm, 8 BAR, 100 meters.

**Ref. 102775:** Lay-flat pipe AGRO-FLAT of 75 mm, 8 BAR, 100 meters.

**Ref. 102790:** Lay-flat pipe AGRO-FLAT of 90 mm, 8 BAR, 100 meters.

**Ref. 102711:** Lay-flat pipe AGRO-FLAT of 110 mm, 8 BAR, 100 meters.



### RACORDS:

**Ref. 102710:** Reduced coupler AGRO-FLAT of 50 mm - 75 mm.

**Ref. 102711:** Reduced coupler AGRO-FLAT of 75 mm - 90 mm.

**Ref. 102712:** Reduced coupler AGRO-FLAT of 90 mm - 100 mm.

**Ref. 102715:** Straight coupler AGRO-FLAT of 50 mm.

**Ref. 102716:** Straight coupler AGRO-FLAT of 75 mm.

**Ref. 102717:** Straight coupler AGRO-FLAT of 100 mm.

**Ref. 102720:** Straight threaded coupler AGRO-FLAT of 50 mm to 1 1/2".

**Ref. 102721:** Enlace recto roscado tuberia AGRO-FLAT of 50 mm to 2".

**Ref. 102722:** Enlace recto roscado tuberia AGRO-FLAT of 75 mm to 3".

**Ref. 102725:** End plug AGRO-FLAT of 50 mm.

**Ref. 102726:** End plug AGRO-FLAT of 75 mm.

**Ref. 102727:** End plug AGRO-FLAT of 100 mm.



### General properties:

- Irrigation coverage pipe systems of extrusion aluminum pipes with different coupling systems for quick-mounting hydraulic supply.
- All pipes are available in lengths of 3, 6, 9 and 12 meters in diameter in different sizes
- Quick and easy to assemble. Very light and resistant at the same time.
- Operating range of 0 to 10 BAR.
- Made of special aluminum alloys and certified for different utilities.
- Evacuation of more than 500 m<sup>3</sup> / h of air during the filling of the installation occurs without closing the valve in the absence of air.

### Applications:

- Agriculture, mining, construction, forestry, water and services.

### Models:

#### PIPES WITH BAYONET COUPLING H

**Ref. TCMH-503:** Pipe of 3 meters with bayonet H record of 50 mm (1 1/2").

**Ref. TCMH-506:** Pipe of 6 meters with bayonet H record of 50 mm (1 1/2").

**Ref. TCMH-509:** Pipe of 9 meters with bayonet H record of 50 mm (1 1/2").

**Ref. TGHS-23:** Pipe of 3 meters of 2" bayonet.

**Ref. TGHS-26:** Pipe of 6 meters of 2" bayonet.

**Ref. TGHS-33:** Pipe of 3 meters of 3" bayonet.

**Ref. TGHS-36:** Pipe of 6 meters of 3" bayonet.

**Ref. TGHS-43:** Pipe of 3 meters of 4" bayonet.

**Ref. TGHS-46:** Pipe of 6 meters of 4" bayonet.



#### PIPES WITH HOOK COUPLING

**Ref. TRUS-23:** Pipe of 3 meters with 2" HOOK record.

**Ref. TRUS-33:** Pipe of 3 meters with 3" HOOK record.

**Ref. TRUS-43:** Pipe of 3 meters with 4" HOOK record.

**Ref. TRUS-63:** Pipe of 3 meters with 6" HOOK record.

**Ref. TRUS-26:** Pipe of 6 meters with 2" HOOK record.

**Ref. TRUS-36:** Pipe of 6 meters with 3" HOOK record.

**Ref. TRUS-46:** Pipe of 6 meters with 4" HOOK record.

**Ref. TRUS-66:** Pipe of 6 meters with 6" HOOK record.



#### PIPES WITH BAUER COUPLING

**Ref. TPS-503:** Pipe of 3 meters of 50 mm.

**Ref. TPS-703:** Pipe of 3 meters of 70 mm.

**Ref. TPS-903:** Pipe of 3 meters of 90 mm.

**Ref. TPS-113:** Pipe of 3 meters of 110 mm.

**Ref. TPS-506:** Pipe of 6 meters of 50 mm.

**Ref. TPS-706:** Pipe of 6 meters of 70 mm.

**Ref. TPS-906:** Pipe of 6 meters of 90 mm.

**Ref. TPS-116:** Pipe of 6 meters of 110 mm.



#### SPRINKLER STANDS (stabilizer plate included)

**Ref. TMHR-50:** Sprinkler-stand for Ø50H with fematle thread 3/4".

**Ref. TMHR-51:** Sprinkler-stand for Ø50H with raiser of 0,5 meters.

**Ref. TMHR-52:** Sprinkler-stand for Ø50H with raiser of 0,75 meters.

**Ref. TMHR-53:** Sprinkler-stand for Ø50H with raiser of 1,25 meters.

**Ref. TMHR-54:** Sprinkler-stand for Ø50H with raiser of 2 meters.

**Ref. TEMH-60:** Sprinkler-stand Ø63H with fematle thread 3/4".

**Ref. TEMH-61:** Sprinkler-stand Ø63H with raiser of 0,5 meters.

**Ref. TEMH-62:** Sprinkler-stand Ø63H with raiser of 0,75 meters.

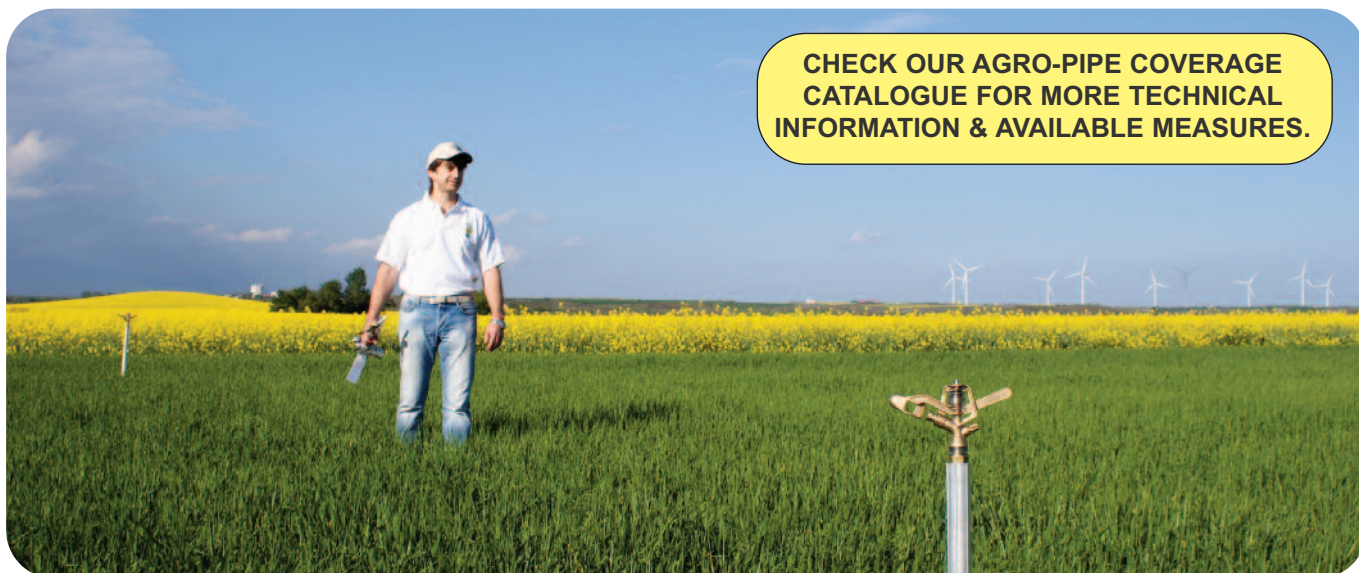
**Ref. TEMH-63:** Sprinkler-stand Ø63H with raiser of 1,25 meters.

**Ref. TEMH-64:** Sprinkler-stand Ø63H with raiser of 2 meters.





**CHECK OUR AGRO-PIPE COVERAGE  
CATALOGUE FOR MORE TECHNICAL  
INFORMATION & AVAILABLE MEASURES.**



## RAISER EXTENSIONS

- Ref. CA-3405:** Raiser of 0,5 meters 3/4"H-3/4"M  
**Ref. CA-3410:** Raiser of 1 meters 3/4"H-3/4"M  
**Ref. CA-3415:** Raiser of 1,5 meters 3/4"H-3/4"M  
**Ref. CA-3420:** Raiser of 2 meters 3/4"H-3/4"M



## RACORDS

- Ref. AHRM-50:** Adapt. male thread 1 1/2"- pipe 50 mm (H).  
**Ref. HRGH-2:** Adapt. male thread 1 1/2"- pipe 2" (H).  
**Ref. HRGH-3:** Adapt. male thread 1 1/2"- pipe 3" (H).  
**Ref. HRGH-4:** Adapt. male thread 1 1/2"- pipe 4" (H).  
**Ref. HBGH-2:** Adapt. flanged 3"- pipe 2" (H).  
**Ref. HBGH-3:** Adapt. flanged 3"- pipe 3" (H).  
**Ref. HBGH-4:** Adapt. flanged 4"- pipe 4" (H).  
**Ref. AMBU-2:** Adapt. flanged 3"- pipe 2" (hook).  
**Ref. AMBU-3:** Adapt. flanged 3"- pipe 3" (hook).  
**Ref. AMBU-4:** Adapt. flanged 4"- pipe 4" (hook).



## ELBOWS

- Ref. CU-2::** Elbow 90° hook 2"  
**Ref. CU-3:** Elbow 90° hook 3"  
**Ref. CU-4:** Elbow 90° hook 4"  
**Ref. CCU-2:** Elbow 45° hook 2"  
**Ref. CCU-3:** Elbow 45° hook 3"  
**Ref. CCU-4:** Elbow 45° hook 4"



## THREADED CROSS

- Ref. CRRU-21:** T 2" side thread 1 1/2" M ( hook).  
**Ref. CRRU-31:** T 3" side thread 1 1/2" M ( hook).  
**Ref. CRRU-41:** T 4" side thread 1 1/2" M ( hook).



## PLUGS

- Ref. TFC-50:** End line plug 1 1/2" (H)  
**Ref. TGH-2:** End line plug 2" (H)  
**Ref. TU-2:** End line plug 2" ( hook)  
**Ref. TU-3:** End line plug 3" ( hook)  
**Ref. TU-4:** End line plug 4" ( hook)



## BALL VALVES

- Ref. 103204:** Brass ball valve of 1 1/2"  
**Ref. 103205:** Brass ball valve of 2"  
**Ref. 103207:** Brass ball valve of 3"

- Ref. 103214:** Plastic ball valve of 1 1/2"  
**Ref. 103215:** Plastic ball valve of 2"



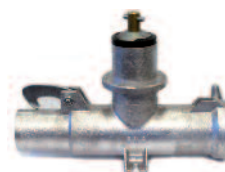
## HYDRANTS

- Ref. CMH-3:** Elbow wheel hydrant 3" ( hook).  
**Ref. CMH-4:** Elbow wheel hydrant 4" ( hook).  
**Ref. HALB-3:** Hidr. Valv. 3" flanged.  
**Ref. HALB-4:** Hidr. Valv. 4" flanged.  
**Ref. VHLU-3:** Hidr. Valv. 3" in-line ( hook).  
**Ref. VHLU-4:** Hidr. Valv. 4" in-line ( hook).  
**Ref. TMH-32:** Hidr. Valv. 3"+ 2 x 2" T (hook).  
**Ref. TMH-33:** VHidr. Valv. 3" T ( hook).  
**Ref. TMH-44:** Hidr. Valv. 4" T ( hook).



## CROSS

- Ref. CR-2:** Cross 50 mm pipe bayonet  
**Ref. CR-2:** Cross 2" pipe bayonet  
**Ref. CRU-2:** Cross 2" pipe hook.  
**Ref. CRU-3:** Cross 3" pipe hook.  
**Ref. CRU-4:** Cross 4" pipe hook.



## HOSE ADAPTERS

- Ref. AHM-2:** Hook female adapt. 2" for hose.  
**Ref. AHM-3:** Hook female adapt. 3" for hose.  
**Ref. AHM-4:** Hook female adapt. 4" for hose.  
**Ref. AMM-2:** Hook male adapt. 2" for hose.  
**Ref. AMM-3:** Hook male adapt. 2" for hose.  
**Ref. AMM-4:** Hook male adapt. 2" for hose.

## T FINAL

- Ref. TF-2:** T FINAL 2" of H.  
**Ref. TF-3:** T FINAL 3" of H.  
**Ref. TF-4:** T FINAL 4" of H.  
**Ref. TFU-2:** T FINAL 2" of HOOK.  
**Ref. TFU-3:** T FINAL 3" of HOOK.  
**Ref. TFU-4:** T FINAL 4" of HOOK.





### PVC lateral outlets

#### Pipe Connections

#### General properties:

- Connection system for mounting PEHD pipe high density on secondary PVC pipes.
- Output 1" female with reinforcement ring in stainless steel.
- High sealing bilabials gaskets.
- Operating Range 0 to 10 Bar.

#### Models:

Ref. 693010: T outlet 1" H for pipe PVC of 63

Ref. 693012: T outlet 1" H for pipe PVC of 75

Ref. 693020: T outlet 1" H for pipe PVC of 90



### PIPE SADDLES

#### Pipe Connections



#### PLASTIC (PPR & stainless screws INOX 305)

Ref. 108901: Pipe saddles of 32 mm w/outlet 1/2" .

Ref. 108902: Pipe saddles of 32 mm w/outlet 3/4" .

Ref. 108903: Pipe saddles of 63 mm w/outlet 3/4" .

Ref. 108904: Pipe saddles of 63 mm w/outlet 1" .

Ref. 108905: Pipe saddles of 75 mm w/outlet 1" .

Ref. 108906: Pipe saddles of 90 mm w/outlet 1 1/2" .

Ref. 108907: Pipe saddles of 110 mm w/outlet 2" .

Ref. 108908: Pipe saddles of 140 mm w/outlet 2" .



#### METAL (ductil casting & stainless screws INOX 305)

Ref. 108911: Pipe saddles of 32 mm w/outlet 1/2" .

Ref. 108912: Pipe saddles of 32 mm cw/outlet 3/4" .

Ref. 108913: Pipe saddles of 63 mm w/outlet 3/4" .

Ref. 108914: Pipe saddles of 63 mm w/outlet 1" .

Ref. 108915: Pipe saddles of 75 mm w/outlet 1" .

Ref. 108916: Pipe saddles of 90 mm w/outlet 1 1/2" .

Ref. 108917: Pipe saddles of 110 mm w/outlet 2" .

Ref. 108918: Pipe saddles of 140 mm w/outlet 2" .



## QUICK-RACORDS FOR UNDERGROUND SYSTEMS

### General properties:

- Quick-coupling connection system for HD PE-Ø32mm.
- Secure system hi-fastener & anti-drip.
- Made of brass under the UNE regulations.
- Working range from 0 to 16 BAR.
- Hi-mechanization precisión and guaranteed.

### QUICK CONNECTION FOR PE-32 mm.

**Ref. 107901** ELBOW 32 mm EXPRESS - 32mm EXPRESS

**Ref. 107902** ELBOW 32 mm EXPRESS - 1" M

**Ref. 107903** ELBOW 32 mm EXPRESS - 3/4" H

**Ref. 107911** T TRIPLE BARBED 32 mm

**Ref. 107912** T 2 EXPRESS 32 mm x 1" M

**Ref. 107913** T 2 EXPRESS 32 mm x 3/4" H

**Ref. 107921** COUPLER 32 mm EXPRESS - 32 mm EXPRESS

**Ref. 107923** COUPLER 32 mm EXPRESS - 1" MALE.

**Ref. 107922** COUPLER 32 mm EXPRESS - 3/4" FEMALE.

**Ref. 107918** CROSS 32 mm EXPRESS x 4

**Ref. 107919** CROSS 32 mm EXPRESS x 3 - 1" M

**Ref. 107952** T 2 EXPRESS 32 mm x 3/4"H + galv. pipe 2 m (ASSEMBLED).

**Ref. 107962** ELBOW 32 mm EXPRESS - 3/4"H + galv. pipe 2 m (ASSEMBLED).

**Ref. 107951** T 2 EXPRESS 32 mm x 3/4"H + galv. pipe 3 m (ASSEMBLED).

**Ref. 107961** ELBOW 32 mm EXPRESS - 3/4"H + galv. pipe 3 m (ASSEMBLED).

**Ref. 107955** T 2 EXPRESS 32 mm x 3/4" H + galv. pipe 2+1 m w/coupler ( ASSEMBLED).

**Ref. 107956** ELBOW EXPRESS 32 mm - 3/4" H + galv. pipe 2+1 m w/coupler ( ASSEMBLED).

**Ref. 107952** 1 meter PE cover for raisers of 3/4".

**Ref. 107959** 3/4" female coupler of galvanized steel.

**Ref. 107981** 1 meter galvanized steel pipe ISO special for underground coverage.

**Ref. 107982** 2 meter galvanized steel pipe ISO special for underground coverage.

**Ref. 107983** 3 meter galvanized steel pipe ISO special for underground coverage.





# Accessories

## RACORDS & CONNECTORS

- **CONNECTORS** .....Page 178
- **HOSE RACORDS** .....Page 180
- **HOSE CLAMPS** .....Page 182
- **HOSE NOZZLES** .....Page 182

## BALL VALVES

- **VYR-17** .....Page 183
- **VYR-30 ARTIC** .....Page 183
- **VYR-31** .....Page 184
- **VYR-32** .....Page 184

## STAND SYSTEMS

- **VYR-76 STANDS** .....Page 185
- **VYR-87 TRIPODS** .....Page 186







**ref. 105608**



**ref. 105600**



**ref. 105801**



**ref. 105831**



**ref. 105802**



**ref. 103841**



**ref. 103821**



**ref. 103831**



**ref. 103850**



**ref. 103847**

## THREADED AND BARBED COUPLING

**Racords, coupling & connections**

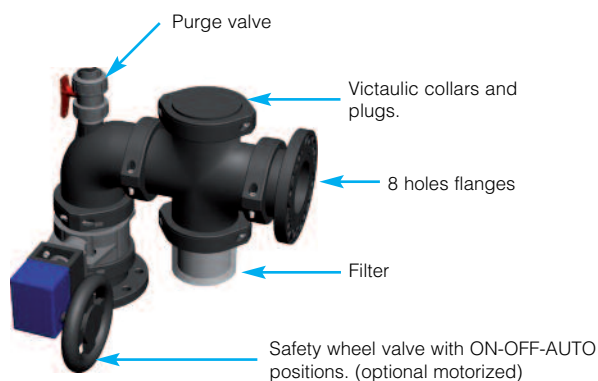
### PLASTIC

- Ref. 105801: MALE COUPLER 1/2" - 1/2"
- Ref. 105802: MALE COUPLER 3/4" - 3/4"
- Ref. 105803: MALE COUPLER 1" - 1"
- Ref. 105804: MALE COUPLER 1 1/2" - 1 1/2"
- Ref. 105805: MALE COUPLER 2" - 2"
- Ref. 105811: SLEEVE 1/2" - 1/2"
- Ref. 105812: SLEEVE 3/4" - 3/4"
- Ref. 105608: SPRINKLER SLEEVE 3/4" - 3/4"
- Ref. 105813: SLEEVE 1" - 1"
- Ref. 105814: SLEEVE 1 1/2" - 1 1/2"
- Ref. 105815: SLEEVE 2" - 2"
- Ref. 105821: REDUCER M COUPLERS 1/2" - 3/4"
- Ref. 105822: REDUCER M COUPLERS 3/4" - 1"
- Ref. 105823: REDUCER M COUPLERS 1 1/2" - 1"
- Ref. 105831: REDUCER NUT 3/4" M - 1/2" F
- Ref. 105832: REDUCER NUT 1" M - 3/4" F
- Ref. 105833: REDUCER NUT 2" M - 1 1/2" F
- Ref. 105600: FEMALE REDUCER COUPLER 3/4" F - 1" F
- Ref. 105841: FEMALE REDUCER COUPLER 3/4" F - 1/2" F
- Ref. 105842: FEMALE REDUCER COUPLER 1" F - 3/4" F
- Ref. 105843: FEMALE REDUCER COUPLER 2" F - 1 1/2" F
- Ref. 105871: PLUG 1/2" - 1/2" M
- Ref. 105872: PLUG 3/4" - 3/4" M
- Ref. 105873: PLUG 1" - 1" M
- Ref. 105874: PLUG 1" - 1" H

### BRASS

- Ref. 103801 MALE COUPLER 1/2" - 1/2"
- Ref. 103802 MALE COUPLER 3/4" - 3/4"
- Ref. 105803 MALE COUPLER 1" - 1"
- Ref. 103804 MALE COUPLER 1 1/2" - 1 1/2"
- Ref. 103805 MALE COUPLER 2" - 2"
- Ref. 103821 REDUCER M COUPLERS 1/2" - 3/4"
- Ref. 103822 REDUCER M COUPLERS 3/4" - 1"
- Ref. 103823 REDUCER M COUPLERS 1 1/2" - 2"
- Ref. 103824 REDUCER M COUPLERS 2 1/2" - 2"
- Ref. 103825 REDUCER M COUPLERS 2 1/2" - 3"
- Ref. 103831 REDUCER NUT 3/4" M - 1/2" H
- Ref. 103832 REDUCER NUT 1" M - 3/4" H
- Ref. 103833 REDUCER NUT 2" M - 1 1/2" H
- Ref. 103835 REDUCER NUT 3/4" H - 1" H
- Ref. 103841 SLEEVE COUPLER 1/2" H
- Ref. 103842 SLEEVE COUPLER 3/4" H
- Ref. 103843 SLEEVE COUPLER 1" H
- Ref. 103844 SLEEVE COUPLER 1 1/4" H
- Ref. 103845 SLEEVE COUPLER 1 1/2" H
- Ref. 103846 SLEEVE COUPLER 2" H
- Ref. 103847 SLEEVE REDUCER COUPLER 3/4" H - 1/2" H
- Ref. 103848 SLEEVE REDUCER COUPLER 1" H - 3/4" H
- Ref. 103849 SLEEVE REDUCER COUPLER 2" H - 1 1/2" H
- Ref. 103850 PLUG 1/2"
- Ref. 103851 PLUG 3/4"
- Ref. 103852 PLUG 1"





## MANIFOLDS AG-PPR VYR-6920

### Hydraulic manifolds

#### General properties:

- Modular Plastic manifolds made from high tensile strength polypropylene.
- Models in 2" and 3"
- System linkage by Victaulic flanges high security seal on APDM.

#### Models:

- Ref. 692010: T of 2"
- Ref. 692012: CROSS of 2"
- Ref. 692014: ELBOW of 2"
- Ref. 692016: 2" ELBOW w/OUTLET of 1"
- Ref. 692018: FLANGE-THREAD ADAPTER 2"
- Ref. 692020: THREAD ADAPTER 2"
- Ref. 692022: SHORT FILTER SET 2"
- Ref. 692024: LONG FILTER SET 2"
- Ref. 692026: WHEEL SECURITY VALVE 2"
- Ref. 692028: PLUG 2"
- Ref. 692030: VITAULIC ADAPTER 2"

- Ref. 693050: T of 3"
- Ref. 693052: CROSS of 3"
- Ref. 693054: ELBOW of 3"
- Ref. 693056: 3" ELBOW w/OUTLET of 1"
- Ref. 693058: FLANGE-THREAD ADAPTER 3"
- Ref. 693060: THREAD ADAPTER 3"
- Ref. 693062: SHORT FILTER SET 3"
- Ref. 693064: LONG FILTER SET 3"
- Ref. 693066: WHEEL SECURITY VALVE 3"
- Ref. 693068: PLUG 3"
- Ref. 693070: VITAULIC ADAPTER 3"





ref.100600



ref. 100801



ref.100602



ref. 100800



ref.100601



## HOSE QUICK-COUPLING RACORDS VYR-6 & 8

Fittings, couplings and connections

### VYR-6

#### Hose quick connector

- It is the quickest and most secure type of coupling on the market.
- Made of brass.
- For hoses and standardised plastic or rubber tubes of diameter 15, 20 and 25 mm (interior).
- On one side there is a male threaded connection of 1/2" or 3/4" (or female, if using a reducer nut).
- The special design of the barbed quick coupling connection for hoses make this connector one of the most secure on the market. Once the pipes are connected, the sharp rear-facing barbs make it almost impossible to disconnect the piping.
- Coupling gasket made out of rubber and lubricated to ensure that it is watertight.

#### Applications:

- Agriculture and landscaping.
- Industrial use.
- City maintenance vehicles.
- Concrete trucks with hoses.

#### Measurements:

- Width: 3, 3.5 and 4 cm.
- Height: 8, 9 and 10 cm.
- Weight: 150, 200 and 240 g.
- Units per box: 100, 150 and 200.

#### Options:

- Assembled with reducer nut.
- Spare gaskets.

#### Models:

Ref. 100600: 3/8" thread for 15 mm hose.

Ref. 100601: 1/2" thread for 15 mm hose.

Ref. 100602: 1/2" thread for 20 mm hose.

Ref. 100603: 3/4" thread for 20 mm hose.

Ref. 100604: 3/4" thread for 25 mm hose.

Ref. 400605: Reducer nut 3/4" F to 1/2" F.





## VYR-8

### Fittings, couplings and connections

#### EXPRESS RACORD VYR-11GK

- Fittings, fast and secure coupling.
- Brass construction.
- For standard hoses and pipes of 25 mm.
- The special design of fast link connecting hose fittings make these some of the safest in the market.
- Gasket made of rubber coupling.

#### Models:

- Ref. 100815: 3/4" male thread.  
 Ref. 100814: 3/4" female thread.  
 Ref. 100810: 3/4" barb hose (25 mm).  
 Ref. 100813: 1" male thread.  
 Ref. 100812: 1" female thread.  
 Ref. 100811: 1" barb hose (32 mm).

ref. 100811

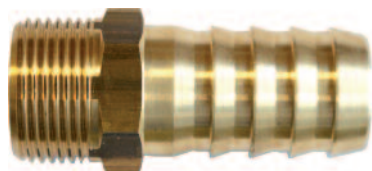


ref. 100813

ref. 100812

## VYR-7 RACORDS

### Fittings, couplings and connections



ref. 100703



ref. 100700



ref. 100701



#### VYR-7

##### Fixed coupling

- Made of brass
- 3/4" female connection.
- For 20 mm plastic or rubber hoses.

#### Models:

- Ref. 310300 Copling of 1/8" MALE for hose of 10 mm  
 Ref. 310301 Copling of 1/4" MALE for hose of 13 mm  
 Ref. 310302 Copling of 3/8" MALE for hose of 16 mm  
 Ref. 310303 Copling of 1/2" MALE for hose of 20 mm  
 Ref. 310304 Copling of 3/4" MALE for hose of 25 mm  
 Ref. 100700 Copling of 3/4" FEMALE for hose of 25 mm  
 Ref. 310305 Copling of 1" MALE for hose of 32 mm

Ref. 100701 Reduced nut of 3/4" F to 1/2" F.

## HOSE CLAMPS VYR-9

Hose clamps

### Adjustable hose clamps:

- An adjustable hose clamp is used to securely attach a hose onto a fitting.
- Made of stainless steel.
- Worm screw for adjustment with a screwdriver.



ref. 100900

### Models:

- Ref. 100900: 6-13 mm
- Ref. 100901: 11-20 mm
- Ref. 100902: 18-32 mm
- Ref. 100903: 27-51 mm
- Ref. 100904: 46-70 mm

## VYR-102 ADJUSTABLE HOSE SPRAY-NOZZLE

Hose nozzles

ref. 101021



ref. 101020

### VYR-102 SPRAY NOZZLE

- Same characteristics as model VYR-101, but made of brass.
- Adjustable from a light rain to a powerful jet.
- Total closure.
- Valid for any standard hose diameter.

### Models:

- Ref. 101020: 3/4" female thread, without connector.
- Ref. 101021: With 15/20 mm connection.
- Ref. 101022: Spray nozzle M reg. quick-connector.

## VYR-10 HOSE FIXED JET-NOZZLE

Hose nozzles



ref. 101002

ref. 101001

### VYR-10 SPRAY NOZZLE

- Fixed jet spray nozzles.
- Made of brass.

### Models:

- Ref. 101001: Hose ø 20 mm
- Ref. 101002: Hose ø 25 mm



## VYR-17 BRASS BIBCOCKS WITH SWIVEL ELBOW

Válvulas y soportes de riego



ref. 101700

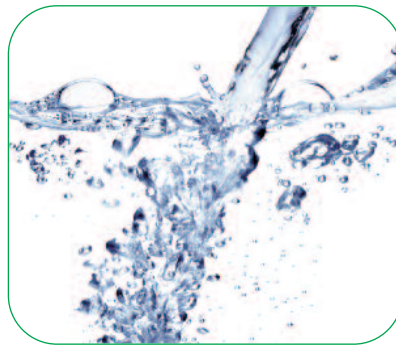
### VYR-17

Brass tap with rotating spout elbow.

- Ball tap valve for stopping the water flow.
- Teflon seals and swivel elbow.
- Made of hot stamped brass.
- 1" male connection.
- Outlet for connection to 1/2" female.
- Facilitates the movement of the hose.

### Models:

Ref. 101700.



## VYR-30 FROST PROTECTION BALL-VALVES



ref. 103010

-25 °C

THREAD ISO 228/1

### BALL VALVE - PN20

Plastic, for high pressures and low temperatures

- Special valve for high pressures and frost conditions which may cause bursting and blockage of this type of valve.
- Made of nylon 6.6 and a high percentage of fibreglass.
- Stainless steel ball and Teflon seals.
- Hot stamped brass reinforcements on the plastic injected piece to reinforce the different parts of the valve.

### Models:

Ref. 103010: 1/2".

Ref. 103011: 3/4".

Ref. 103012: 1".

Ref. 103013: 1 1/4".

Ref. 103014: 1 1/2".

Ref. 103015: 2".

## VYR-32 BALL VALVES



ref. 103200

### BALL VALVES IN BRASS AND NYLON PLASTIC - PN20

- Brass and plastic valves for installation and connection of pipes and hoses.
- Made of nickel-plated brass or plastic with hot stamped brass reinforcements on the injected piece to reinforce the different parts of the valve.
- Stainless steel ball and Teflon seals.
- Models available with latch lock.

#### BRASS

Ref. 103200: 1/2"  
Ref. 103201: 3/4"  
Ref. 103202: 1"  
Ref. 103203: 1 1/4"  
Ref. 103204: 1 1/2"  
Ref. 103205: 2"  
Ref. 103206: 2 1/2"  
Ref. 103207: 3"  
Ref. 103208: 4"

#### NYLON PLASTIC

Ref. 103210: 1/2"  
Ref. 103211: 3/4"  
Ref. 103212: 1"  
Ref. 103213: 1 1/4"  
Ref. 103214: 1 1/2"  
Ref. 103215: 2"



ref. 103212

## VYR-31 BALL-VALVE BIBCOCKS



ref. 103101



ref. 103110

### BIBCOCK - PN16

- Brass and plastic bibcock valves for installation in walls and hose connections.
- Made of nickel-plated brass or plastic with hot stamped brass reinforcements on the injected piece to reinforce the different parts of the valve.
- Stainless steel ball and Teflon seals.
- Outlet with 1/2" or 3/4" male thread, with quick connector adapter for hoses of 16-20 mm. Gasket included for preventing leaks.

#### Models:

Ref. 103100: 1/2" BRASS.  
Ref. 103101: 3/4" BRASS.

Ref. 103110: 1/2" PLASTIC AND BRASS.  
Ref. 103111: 3/4" PLASTIC AND BRASS.  
Ref. 103112: 1" PLASTIC AND BRASS.



## VYR-87 & 187

### Stands & tripods



ref. 108700

#### GALVANIZED TRIPOD VYR-187

Ref. 018703: 200 cm. for 2".  
 Ref. 018704: 250cm for 2 1/2" (4 legs).  
 Ref. 018705: 250cm for 3" (4 legs).

Ref. 018713: Express Connector 2" F-M  
 Ref. 018714: Express Connector 2 1/2" F-M  
 Ref. 018715: Express Connector 3" F-M



ref. 108701

#### GALVANIZED SLED VYR-87

Ref. 108700: 75 cm. 3/4"M-3/4"H  
 Ref. 108706: 60 cm. 3/4"M-3/4"M  
 Ref. 108701: 35 cm. 1/2"M-1/2"H



ref. 108704



ref. 108713



## SPIKES VYR-84

### SPIKE VYR-84

- Brass, plastic and aluminum spikes
- Outlet of 1/2" F and inlet of 3/4" F.
- Hose racord of 3/4" M for diameters 20-25 mm.

#### Models:

Ref. 108400: Brass spike.  
 Ref. 108410: Aluminum spike.  
 Ref. 108420: Plastic Spike

Ref. 486803: Racord 20-25 Brass.  
 Ref. 486806: Racord 20-25 Alum.  
 Ref. 486805: Racord 20-25 Plast.



ref. 486802



ref. 310402

#### ref. 108420

Plastic

#### ref. 108400

Brass.

#### ref. 108410

Aluminium.



## BASES VYR-2000

### BASE VYR-2000

- Aluminum base.
- Double thread outlet of 1/2" female.

#### Models:

Ref. 120001: Base w plastic racord express + plug.  
 Ref. 120011: Base w plastic racord express + express.  
 Ref. 120000: Base w racord 15-20 mm. + plug.  
 Ref. 120010: Base w double racord 15-20 mm.



ref. 486806



ref. 412001



ref. 486802



## VYR-324 - HOSES



### HIGH RESISTANCE HOSES

Ref. 103215 50 meters of 15 mm

Ref. 103220 50 meters of 20 mm

Ref. 103225 50 meters of 25 mm

Ref. 137050 50 meters of 32 mm



Ref. 102755: Lay-flat hose AGRO-FLAT of 50 mm, 8 BAR, 100 meter.

Ref. 102775: Lay-flat hose AGRO-FLAT of 75 mm, 8 BAR, 100 meter.

Ref. 102790: Lay-flat hose AGRO-FLAT of 90 mm, 8 BAR, 100 meter.

Ref. 102791: Lay-flat hose AGRO-FLAT of 110 mm, 8 BAR, 100 meter.

## VYR-78 - DEFLECTOR SCREENS

### General properties:

- Smooth deflector plate to protect roads and sides from splash of part-circle sprinklers under wind drifts.
- Made of galvanized steel with double mooring for 3/4" cane.

### Models:

Ref. 107801: 180° curved deflector plate.

Ref. 107802: 180° flat deflector plate.



ref. 107801

## VYR-395 AUTOMATIC DRAINAGE VALVES

ref. 103990



### General properties:

- Discharge valves for extracting water from irrigation installations during winter and maintenance.
- Male thread of 1/2".
- Installation inverted directly on the pipe.
- Discharge opening at 0.2 bar or lower.
- Made of brass and stainless steel. Rubber closure gasket and polystyrene float.
- Operating range of 0.2 to 15 bar.

### Models:

Ref. 103990: Opens at 0,2 BAR



# Filtration & Dosing Systems



## FILTRACIÓN Y DOSIFICACIÓN

- **FILTRACIÓN** ..... Pág. 187
- **DOSIFICACIÓN** ..... Pág. 190

## Y-FILTERS VYR-1300



ref. 130025

### LOW FLOW Y FILTERS



Ref. 130020: 3/4" LOW FLOW Y SCREEN FILTER 5 m³/h 2W

Ref. 130021: 3/4" LOW FLOW Y DISC FILTER 5 m³/h 2W

Ref. 130022: 1" LOW FLOW Y SCREEN FILTER 5 m³/h 2W

Ref. 130023: 1" LOW FLOW Y DISC FILTER 5 m³/h 2W



Discos/Disc	Malla/Screen
 <ul style="list-style-type: none"> <li>200 micron. (75 mesh)</li> <li>130 micron. (120 mesh)</li> <li>100 micron. (150 mesh)</li> <li>50 micron.</li> <li>20 micron.</li> </ul>	 <ul style="list-style-type: none"> <li>200 micron. (75 mesh)</li> <li>130 micron. (120 mesh)</li> <li>100 micron. (150 mesh)</li> </ul>

## Y-FILTERS VYR-1350



### MEDIUM FLOW Y FILTERS

Ref. 135024: 1 1/2" LOW FLOW SCREEN FILTER 12 m³/h 2W + DRAINAGE

Ref. 135025: 1 1/2" LOW FLOW DISC FILTER 12 m³/h 2W + DRAINAGE

Ref. 135030: 2" Y SCREEN FILTER 30 m³/h 3W + DRAINAGE

Ref. 135031: 2" Y DISC FILTER 30 m³/h 3W + DRAINAGE

## MODULAR FILTERS VYR-1400



### T HIGH FLOW FILTERS

Ref. 140030: 2" MODULAR SCREEN FILTER 30 m³/h 3W, INOX 2 mm.

Ref. 140031: 2" MODULAR DISC FILTER 30 m³/h 3W

Ref. 140130: 2" MODULAR SCREEN FILTER 30 m³/h 3W (SHORT), INOX 2 mm.

Ref. 140131: 2" MODULAR DISC FILTER 30 m³/h 3W (SHORT)

Ref. 140032: 3" MODULAR SCREEN FILTER 50 m³/h 3W, INOX 2 mm.

Ref. 140033: 3" MODULAR DISC FILTER 50 m³/h 3W

Ref. 140032: 3" MODULAR SCREEN FILTER 50 m³/h 3W (SHORT), INOX 2 mm.

Ref. 140033: 3" MODULAR DISC FILTER 50 m³/h 3W (SHORT)

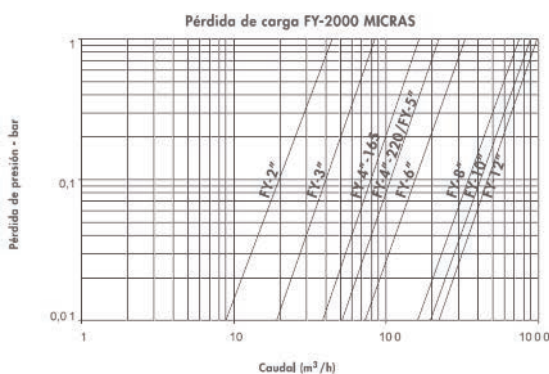
Ref. 140034: 4" MODULAR SCREEN FILTER 70 m³/h 3W, INOX 2 mm.

Ref. 140035: 4" MODULAR DISC FILTER 70 m³/h 3W



## VYR-2750 METAL SCREEN FILTERS

Accesorios para hidrantes



### Metal Stone-Hunter Filters

The Stone-Hunter VYR-2750 filters have been explicitly designed for sprinkler installations and could prevent any entry of small stones that can cause jams in pipe or sprinkler outlets themselves.

### Technical Specifications:

- Carbon steel body.
- Tomas Gauge side.
- Screws bichromate, quality 5.6 and 5.8.
- Spray Cartridge: Stainless Steel AISI-304.
- Working pressure: 10 BAR.
- Shot blasting surfaces to grade SA 2 1/2.
- Coating with paint epoxy powder.

### Models:

**Ref. 275002:** Stone-Hunter Filter of 2" thread.

**Ref. 275003:** Stone-Hunter Filter of 3" flanged.

**Ref. 275004:** Stone-Hunter Filter of 4" flanged.

**Ref. 275005:** Stone-Hunter Filter of 5" flanged.

**Ref. 275006:** Stone-Hunter Filter of 6" flanged.

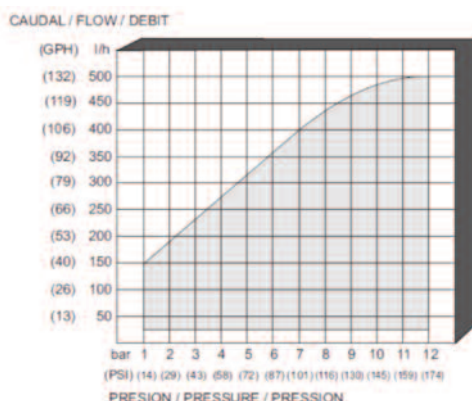
**Ref. 275008:** Stone-Hunter Filter of 8" flanged.

**Ref. 275010:** Stone-Hunter Filter of 10" flanged.

**Ref. 275012:** Stone-Hunter Filter of 12" flanged.

## VYR-490 HYDRAULIC DOSING PUMP

Hydraulic injectors



### Hydraulic dosing pumps

Hydraulic piston metering pumps hydraulically.

Flow rates from 25 l / h 500 l / h with pressures of 1-12 bar.

Made of plastic materials resistant to most chemicals used in applications in agriculture, water treatment.

### Technical Specifications:

- Carbon steel body and special plastics.
- Flow: 25 - 500 l / h.
- Pressure: 1-12 bar
- Water consumption: twice injecting fertilizer
- Materials in contact with fertilizer: PP - FPM
- Connections: Hose Coupling 20.
- Resistant to agro-chemicals.
- Weight: 3 and 2.5 Kgs.

### Models:

**Ref. 249001:** FERTIC.

**Ref. 249002:** ECO-FERTIC.





## VENTURI INJECTORS VYR-49

### Inyectores venturi

PRESIÓN		3/4"Venturi		1"Venturi		1" 1/2 Venturi		2" LF Venturi		2"Venturi				
Presión entrada BAR	Presión salida BAR	Caudal inyección L/H	Caudal aspiración L/H	Caudal inyección L/H	Caudal aspiración L/H	Caudal inyección L/H	Caudal aspiración L/H	Caudal inyección L/H	Caudal aspiración L/H	Caudal inyección L/H	Caudal aspiración L/H			
1	0	828	162	3.540	460	5.700	1.020	5.820	1.020	14.400	2.320			
	0,25		144		460		680		1.020		2.320			
	0,5		78		315		680		910		1.950			
1,5	0	1.056	160	4.020	460	6.660	1.020	6.750	1.100	16.800	2.320			
	0,5		138		460		1.020		1.100		2.320			
	0,75		72		408		800		960		1.780			
2	1	1.212	42	4.500	355	7.440	408	7.540	660	18.900	1.020			
	0		157		450		1.020		1.100		2.320			
	0,5		151		450		1.020		1.060		2.320			
	0,75		145		450		1.020		1.020		2.320			
	1		112		450		970		970		2.320			
2,5	1,25	1.350	52	4.920	340	8.160	630	8.280	700	20.100	1.780			
	1,5		24		64		-		400		980			
	0		160		450		1.020		1.100		2.300			
	0,5		157		450		1.020		1.100		2.320			
	0,75		156		450		970		1.020		2.320			
3	1	1.482	150	5.280	408	8.880	970	8.990	1.020	22.500	2.320			
	1,25		132		408		970		980		2.320			
	1,5		88		408		740		720		1.720			
	2		45		280		315		520		920			
	2,25		-		135		-		200		450			
	2,5		-		110		-		-		-			
	0		159		440		8.880		1.020		8.990	1.060	22.500	2.320
	1		156		440		1.020		1.060		2.320			
3,5	1,25	1.548	154	5.700	395	9.540	970	9.700	1.060	24.300	2.320			
	1,5		144		395		970		1.060		2.320			
	1,75		99		395		950		920		1.870			
	2		55		395		510		620		1.250			
	2,25		-		204		160		200		780			
	2,5		-		110		-		-		-			
	0		157		440		9.540		1.020		9.700	1.060	24.300	2.320
	1		156		440		1.020		1.060		2.320			
4	1,5	1.644	154	6.000	440	10.080	970	10.220	960	25.800	2.320			
	1,75		152		440		970		960		2.320			
	2		114		440		970		780		2.320			
	2,25		79		360		710		620		1.620			
	2,5		45		360		310		320		1.050			
	2,75		-		235		105		-		450			
	0		157		440		10.080		1.020		10.220	1.060	25.800	2.320
	1		156		440		1.020		1.060		2.320			
4,5	2	1.750	153	6.360	440	10.680	1.020	10.850	1.060	26.400	2.320			
	2,25		140		440		970		980		2.180			
	2,5		91		440		850		820		2.080			
	2,75		55		425		550		540		1.320			
	3		-		315		210		220		580			
	3,25		-		155		-		-		-			
	0		158		425		10.680		1.020		10.850	1.060	26.400	2.320
	1		157		425		1.020		1.060		2.320			
5	2	1.840	157	6.600	425	11.160	1.020	11.310	1.060	28.500	2.320			
	2,5		154		425		1.020		1.060		2.320			
	2,75		114		425		970		980		1.780			
	3		84		425		680		620		680			
	3,25		72		420		340		350		420			
	3,5		44		290		-		210		-			
	3,75		12		145		-		-		-			
	0		157		425		11.160		1.020		11.310	1.060	28.500	2.320
5,5	1	1.935	156	6.900	425	11.700	1.020	11.850	1.060	30.000	2.320			
	2		156		425		1.020		1.060		2.320			
	3		150		425		970		980		2.320			
	3,25		120		425		760		420		1.480			
	3,5		90		425		490		480		880			
	3,75		66		330		190		180		450			
	4		31		235		-		-		-			
	4,25		-		110		-		-		-			
6	0	2.025	157	7.200	425	12.240	1.020	12.400	1.060	31.500	2.320			
	1		156		425		1.020		1.060		2.320			
	2		156		425		1.020		1.060		2.320			
	3		156		425		1.020		1.060		2.280			
	3,25		150		425		970		980		2.120			
	3,5		132		425		970		950		1.120			
	3,75		102		420		650		650		1.020			
	4		72		420		340		320		950			
6,5	4,25	2.115	46	7.500	320	12.780	-	12.950	-	33.000	240			
	4,5		12		170		-		-		-			
	4,75		-		90		-		-		-			
	0		157		425		11.700		1.020		11.850	1.060	30.000	2.320
	1		156		425		1.020		1.060		2.320			
	2		156		425		1.020		1.060		2.320			
	3		156		425		1.020		1.060		2.280			
	3,25		150		425		970		980		2.120			
7	3,5	2.205	132	7.800	425	13.320	970	13.500	950	34.500	1.120			
	3,75		102		420		650		650		1.020			
	4		72		420		340		320		950			
	4,25		46		320		-		-		240			
	4,5		12		170		-		-		-			
	4,75		-		90		-		-		-			
	0		157		425		12.240		1.020		12.400	1.060	31.500	2.320
	1		156		425		1.020		1.060		2.320			
2	156	425	1.020	1.060	2.320									
3	156	425	1.020	1.060	2.280									
3,25	150	425	970	980	2.120									
3,5	132	425	970	950	1.120									
3,75	102	420	650	650	1.020									
4	72	420	340	320	950									
4,25	46	320	-	-	240									
4,5	12	170	-	-	-									
4,75	-	90	-	-	-									





# TECHNICAL INFO





## CHOOSING A SPRINKLER AND ITS NOZZLES

- 1 The application rate of the sprinkler must be lower than the maximum permeability of the ground.
- 2 The application rate is obtained dividing the flow of the sprinkler, expressed in litres/hour, by area being irrigated, in square meters.  
  
Example: if we have a sprinkler that at 3 kg/cm<sup>2</sup> pressure delivers a flow of 1870 litres/hour, and the sprinklers are installed in areas of 18 x 18 metres<sup>2</sup> (324 m<sup>2</sup>), the application rate would be:  
  
 $1870 \text{ (l/h)} / 324 \text{ m}^2 = 5.7 \text{ millimetres/hour (mm/h)}$
- 3 The sprinkler irrigation systems must have application rates of between 5 and 7 mm/h.
- 4 Small application rates are recommended for heavy ground (clay soil) or unlevel land.
- 5 The maximum amount of water that a surface is able to absorb in a hour, depending on its soil texture shown in the following chart:  
  
Texture of the ground and maximum permeability (mm/h):  
Sandy .....19  
Loamy sand .....12.7  
Sandy loam .....10.9  
Loam .....8.9  
Silt loam .....7.6  
Clay loam .....6.4  
Silty clay .....5  
Clayey .....3.8
- 6 The sprinklers must contribute sufficient flow to the crops according to the number of irrigations.
- 7 Sprinkler irrigation characteristics
 

Characteristic	Recommendations
Pressure	Irrigate at an average pressure higher than 3 kg/cm <sup>2</sup> section. Frost protection sprinklers work at higher pressures. If, due to technical reasons, you must change nozzles for ones with larger diameters, make sure that you have enough pump pressure for the specific area. If there is not enough pressure you must create new areas with sprinklers per area. Check the installation's pressure gauge values frequently.
Nozzles	We recommend using two nozzle sprinklers. The main nozzle (jet) provides longer distances and flow. Never modify the nozzles; do not try to increase the size of the outlet orifice. The horizontal cut in the secondary nozzle must always be positioned 9 o'clock. Make sure that all the sprinklers are the same type and brand and have the same number and size of nozzles.
Irrigation area	For travelling systems we recommend using rectangular areas of 12 x 15 or 12 x 18 metres (try to keep these areas constant). For in-ground irrigation systems we recommend using the following nozzles: 4 + 2.4 mm (18 x 15 triangular area) 4.4 + 2.4 mm (15 x 15 area) and 4.8 + 2.4 mm (18 x 18 area).
Other	Using your irrigation system at night will result in less evaporation loss and lower costs. Program irrigation considering ground permeability and water availability. Use irrigation products that are quality certified and guaranteed.
- 8 The recommended calculating distance between sprinklers depending on the irrigation diameter.
- 9 Sprinklers do not distribute water evenly; the area closest to the sprinkler receives the most water, the area farthest from the sprinkler receives the least. Therefore, for full coverage, it is necessary to use an overlapping sprinkler pattern when using a multiple sprinkler system.  
  

Between sprinklers	50%	45%	30%
Between lines	65%	60%	50%

## PRECIPITATION RATE

### What is the Precipitation Rate?

A storm that covers an area with 20 l/m<sup>2</sup> of water in one hour has a "precipitation rate" of 20 l/m<sup>2</sup> of water per hour. Likewise, the precipitation rate is the "speed" at which a sprinkler or irrigation system applies water. If someone told you that they were caught in a storm that dropped 20 l/m<sup>2</sup> (1 inch) of water in one hour, you would have a good idea of how "strong" the storm was.

### Are all the precipitation rates the same?

Absolutely not! There are different levels and rates of precipitation, depending on the type of nozzle used and the spacing of the sprinklers (quadrangular, triangular or linear).

### The rates normally vary between:

LOW: 0.5 inches/hour (13 mm) and lower • MEDIUM: 0.5 - 1.0 inch/hour (13 - 25 mm) • HIGH: 1.0 inch/hour (25 mm) and higher

### Calculating Precipitation Rates

Depending on the design of the irrigation system, the precipitation rate may be calculated by either the "sprinkler spacing" method or the "total area" method.

Sprinkler spacing method. The precipitation rate must be calculated individually in each area. If all the sprinklers have the same spacing pattern, flow and arc, use one of the following formulae:

#### ■ ? Any arc and spacing distance:

$$\text{P.R. (inches/h)} = \frac{\text{GPM (for any arc)} \times 34,650}{\text{Arc Degree} \times \text{Sprinkler Spacing (feet)} \times \text{Line Spacing (feet)}}$$

$$\text{P.R. (mm/h)} = \frac{\text{m}^3/\text{hour (for any Arc)} \times 360,000}{\text{Arc Degree} \times \text{Sprinkler Spacing (m)} \times \text{Line Spacing (m)}}$$

$$\text{P.R. (mm/h)} = \frac{\text{l/min (for any Arc)} \times 21,600}{\text{Arc Degree} \times \text{Sprinkler Spacing (m)} \times \text{Line Spacing (m)}}$$

#### ▲ ? Equilateral triangular spacing:

$$\text{P.R. (inches/h)} = \frac{\text{GPM arc of } 360 \times 96.25}{(\text{Sprinkler Spacing})^2 \times 0.866}$$

$$\text{P.R. (mm/h)} = \frac{\text{m}^3/\text{hour Arc of } 360 \times 1,000}{(\text{Sprinkler Spacing})^2 \times 0.866}$$

$$\text{P.R. (mm/h)} = \frac{\text{l/min} \times 60}{\text{Total Area}}$$

## UNIFORMITY COEFFICIENT

### FORMULA FOR CALCULATING THE UC OF AN AREA:

$$\text{CU}_{\text{zona}} = 100 \times \frac{\text{volumen medio de la cuarta parte de los vasos con menos agua}}{\text{volumen medio de todos los vasos}} = 100 \times \frac{V_{25\%}}{V_m}$$

### FORMULA FOR CALCULATING THE UNIFORMITY OF AN IRRIGATION UNIT TAKING PRESSURE CHANGES INTO ACCOUNT:

$$\text{CU} = \text{CU}_{\text{zona}} \times \frac{1 + 3 \times \sqrt{\frac{\text{Presión mínima}}{\text{Presión media}}}}{4} = \text{CU}_{\text{zona}} \times \frac{1 + 3 \times \sqrt{\frac{P_{\text{min}}}{P_{\text{m}}}}}{4}$$

$$P_{\text{media}} = \frac{2 \times P_{\text{mínima}} + P_{\text{máxima}}}{3}$$



FROST PROTECTION IRRIGATION

In most cases, damage caused by frost can be prevented by spraying the crops with water during periods of frost. Sprinkler irrigation on plant foliage is one of the most effective methods of preventing damage to delicate crops.

HOW IRRIGATION FOR FROST PROTECTION WORKS

This method is based on three factors:

1. Latent heat is released as water freezes. This latent heat prevents the temperature of the plants from falling below the freezing point.
2. A mixture of ice and water exposed to below-freezing conditions stays around 0°C until it is completely frozen.
3. Plant sap is not pure water; therefore plants have a lower freezing point than 0°C (32°F). Most plants are not damaged by frost until temperatures drop well below freezing.

IMPORTANT CONSIDERATIONS

1. Sprinkler rotation speed:  
In order to maintain a stable temperature the sprinkler must rotate quickly. The sprinkler must complete one full rotation in less than 30 seconds in order to be deemed quick enough (the ideal rotation speed is normally between 30 and 40 seconds).
2. Water application level:  
The volume of water in relation to its application rate is one of the most important considerations in a frost protection irrigation system. The application rate is calculated after considering several factors including temperature, wind speed and humidity levels (see the table with minimum precipitation levels). Wind can affect evaporation levels as well as uniformity, resulting in more water having to be applied to provide the same protection as in the absence of wind.
3. Uniformity:  
An effective frost protection system depends on how the sprinkler distributes the water. You must pay special attention when evaluating the spacing between sprinklers, operational pressures and other conditions. An acceptable design should result in a Uniformity Coefficient equal to or greater than 75%. Distribution Uniformity equal to or greater than 75%.

ADDITIONAL CONSIDERATIONS

Prolonged periods of frost and the application of frost protection irrigation may result in a significant accumulation of ice on the plants. The irrigation system should generally be started at around 2°C to prevent water from freezing inside the pipes.

SPECIFIC FROST PROTECTION

The reason for using specific frost protection is to reduce the protected area to just the plant crop. This allows the system to operate with reduced flow and pressure, saving you water and money.

CONCLUSIONS

A delicate crop can be destroyed by frost in just one night. The use of advanced irrigation systems for frost protection is an effective method for protecting your investment. Nevertheless, the correct design and use of these systems are very important for satisfactory results.

Minimum application levels (fruit trees):					
Approx. minimum temperature (°C)	to 24	24 to 25	25 to 26	26 to 27	27 to 28
Application rate (mm/h)	2.5	3	3.8	4.6	6.4





## CONVERSION TABLE

In order to convert	From:	To:	Multiply by:
AREA	metres <sup>2</sup>	feet	10.764
	inches <sup>2</sup>	centimetres	6.452
	hectares	metres	10000
	hectares	acres	2.471
ENERGY	kilowatts	horsepower	1.341
FLOW	feet/minute	metres/second	0.0004719
	feet/second	metres/second	0.02832
	yards/minute	metres/second	0.01274
	gallon/minute	metres/hour	0.22716
	gallon/minute	litre/minute	3.7854
	gallon/minute	litre/second	0.06309
	metres/hour	litre/minute	16.645
	metres/hour	litre/second	0.2774
	litre/minute	litre/second	60
LENGTH	inches	centimetres	2.540
	feet	metres	0.30481
	kilometre	miles	0.6214
	miles	feet	5280
	miles	metres	1609.34
	millimetres	inches	0.03937
PRESSURE	PSI (lbs. per square inch)	kilopascals (Kpa)	6.89476
	PSI	bars	0.068948
	bars	kilopascals (Kpa)	100
	PSI	feet of head	2.31
SPEED	feet/second	metre/second	0.3048
VOLUME	feet	litre	28.32
	metres	feet	35.31
	metres <sup>3</sup>	yards	1.3087
	yards	feet	27
	yards	gallon	202
	acres/feet	feet	43.56
	gallon	metres	0.003785
	gallon	litre	3.785

## WIRING SIZES

Copper Wire Resistance Table 1		
Wire Size AWG No.	Diameter (mm)	Resistance at 20... C (68... F) ohms per 300 m (1,000 ft)
18	1.02	6.39
16	1.29	4.02
14	1.63	2.52
12	2.05	1.59
10	2.59	1.00
8	3.26	0.63
6	4.11	0.40
4	5.19	0.25

Necessary information:

¥ Actual length of wire between the controllers and the energy source.

¥ The distance from the controller to the electrically operated valves.

¥ Allowable voltage loss along the wire circuit.

¥ Cumulative current flow in the wire section, measured in amperes.

Resistance is calculated using this formula:

$$R = \frac{1000 \times AVL}{2 L \times I}$$

R = Maximum allowable resistance of the wire in ohms per 300 m (1,000 ft)  
 AVL = Allowable voltage loss  
 L = Length of the wire (one direction)  
 I = Inrush current

Examples of valve wire sizing:

Valve wire sizing (maximum one-way distance in metres between the controller and the valve)								
Earth wire		Control wire						
AWG No.	Diameter mm.	18	16	14	12	10	8	6
18	1.02	250	30	360	400	440	460	480
16	1.29	310	400	500	580	650	710	740
14	1.63	360	500	650	800	930	1050	1120
12	2.05	410	580	800	1000	1270	1480	1640
10	2.59	440	650	930	1270	1640	2030	2340
8	3.26	460	710	1050	1480	2030	2650	3200
6	4.11	480	740	1120	1640	2340	3200	4000

Solenoid: 24 V. Pressure: 10 bar (150 PSI). Voltage drop: 4 V  
 Minimum operating voltage: 20 V. Maximum amperage: 0.37 A (60 Hz)

The distance from the controller to the valve is 366 m (1200 feet). The output of the controller is 24 V. The electrically operated valve has a minimum operating voltage of 20 V and an inrush current of 370 mA (0.37 A).

$$R = \frac{1000 \times 4}{2(1200) \times 0.37} = \frac{4000}{888}$$

$$R = 4.5 \text{ ohms} / 300 \text{ m (1000 ft)}$$

Therefore, the resistance of the wire cannot exceed 4.5 ohms per 300 metres (1,000 feet). Now, go to table 1 and select the appropriate wire size. Since 6 gauge wire has a lower resistance than 4.5 ohms per 300 metres (1,000 feet), choose 4 gauge wire.



## TECHNICAL SUPPORT

If you need any technical assistance, contact your nearest VYRSA dealer or installer. Please feel free to contact us at any time, simply e?mail [vyrsa@vyrsa.com](mailto:vyrsa@vyrsa.com) or phone us during office hours 34 947 26 22 26

## WARRANTY

VYRSA guarantees that all of our Irrigation Control System products (controllers, sensors, valves and actuators) will be in proper working order and free from defects for a period of one (1) year from the date of manufacture. Our models of agricultural sprinklers, garden sprinklers and irrigation accessories are warranted against material and manufacturing defects for a period of three (3) years from the date of manufacture. If you notice a defect in one of our products while under warranty, VYRSA, at its option, will repair or replace the defective part.

This warranty does not apply to repairs, adjustments or replacements of products that have been: altered, damaged, neglected, exposed to chemical agents or improperly installed/maintained. This warranty only extends to the original installer of the VYR product.

If a defect occurs in a VYR product during the time covered by our warranty, you should contact your nearest VYR Distributor or Installer as soon as possible.

VYRSA'S OBLIGATION IS TO REPAIR OR REPLACE THE DEFECTIVE PRODUCT ACCORDING TO THE INFORMATION PRESENTED ABOVE IN OUR WARRANTY. THERE IS NO OTHER TYPE OF WARRANTY, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES REGARDING TRANSPORT OR FITNESS FOR A PARTICULAR PURPOSE. VYRSA SHALL NOT BE LIABLE IN CONTRACT, TORT, NEGLIGENCE, OR OTHERWISE FOR DAMAGES CAUSED OR CLAIMED TO BE CAUSED AS A RESULT OF ANY DESIGN OR DEFECT IN VYR PRODUCTS, OR FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE.

If you have any questions regarding this warranty or its application, please contact us at:

VYRSA S.L. Polig. Ind. N?1 09001 Burgos, SPAIN

## TRAINING

Ask a professional and all your problems will be solved efficiently and cost-effectively. In our training courses, we offer our customers courses to help them get the best possible performance out of our products. Let us share our knowledge with you; we will show you how to manage your sprinkler irrigation system to best effect.

We at VYRSA would like to offer you our wide range of irrigation products for all your cultivation needs as well as technical support to provide the best possible service.

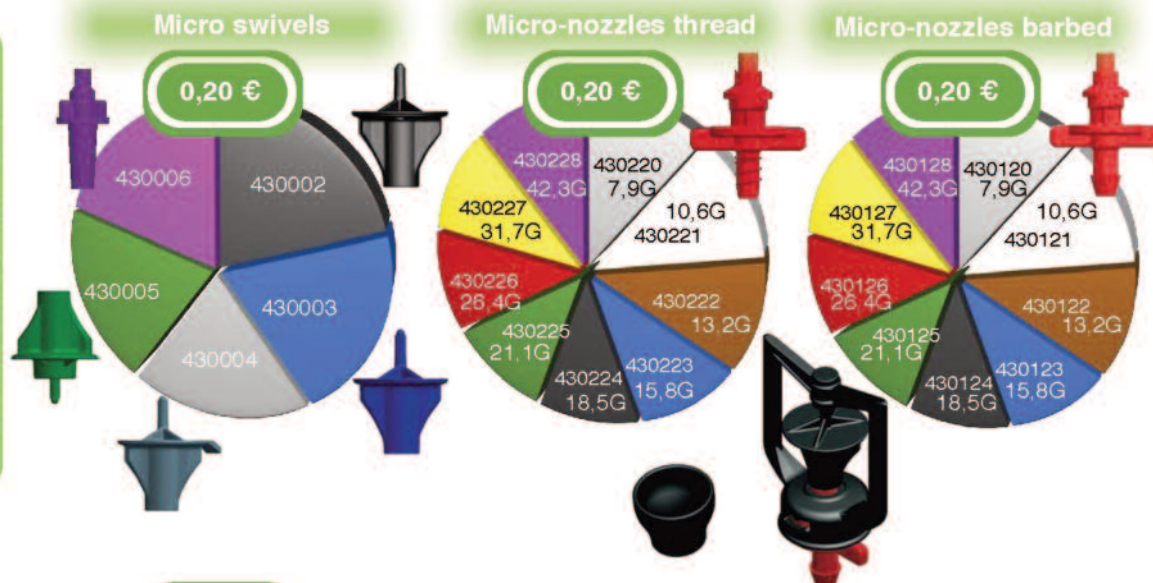


# NOZZLES

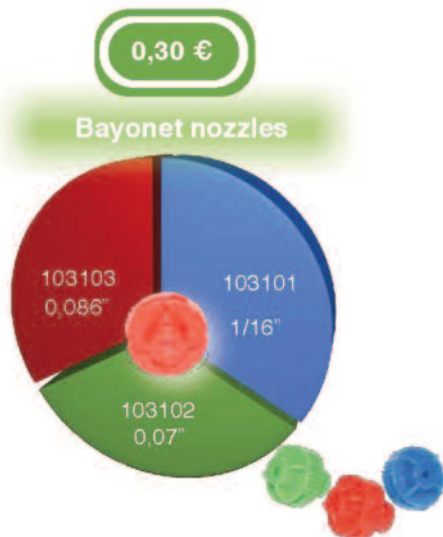
Measures, Combinations and References.



VYR-3000 MICRO



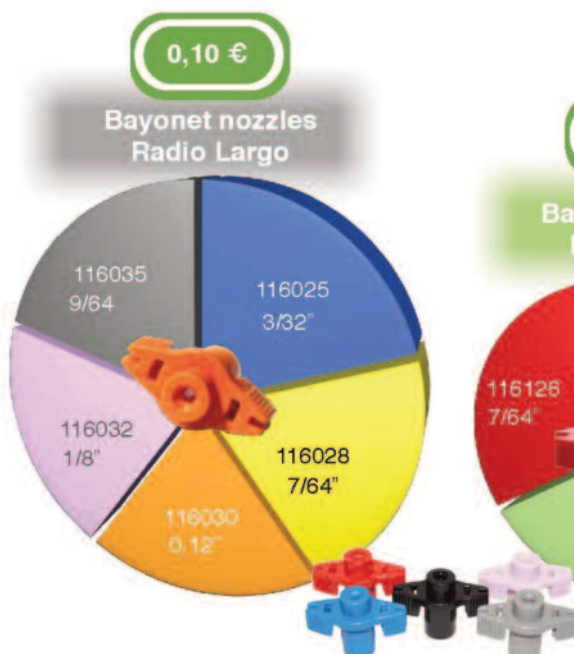
VYR-3100



VYR-3250



VYR-16





# NOZZLES

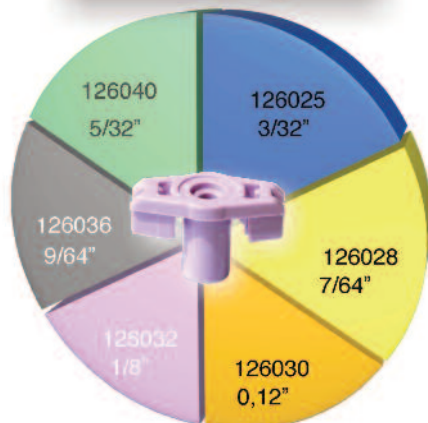
Measures, Combinations and References.



VYR-26

0,10 €

Bayonet nozzles  
Radio Largo



0,10 €

Bayonet nozzles  
Radio Corto



0,10 €

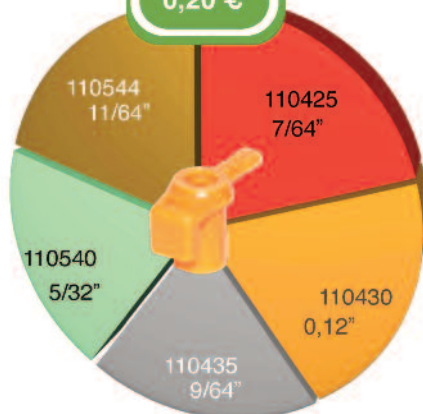
Plugs



VYR-802-803-962

Bayonet nozzles

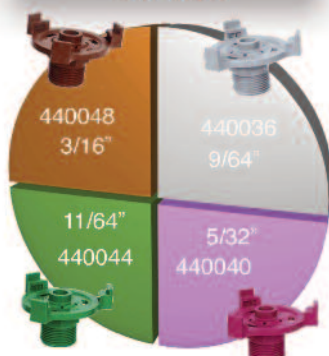
0,20 €



VYR-4000 ROTEC

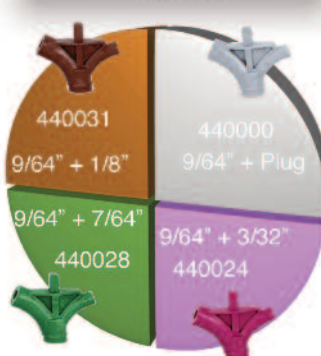
0,20 €

Nozzles



0,20 €

Plates



# NOZZLES

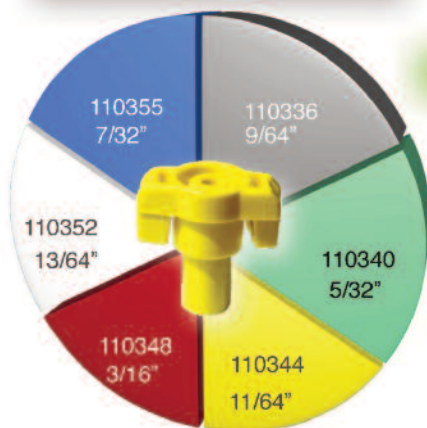
Measures, Combinations and References.



VYR-37-67

0,15 €

Long range bayonet nozzles



Bayonet nozzles

0,10 €

Short range bayonet nozzles



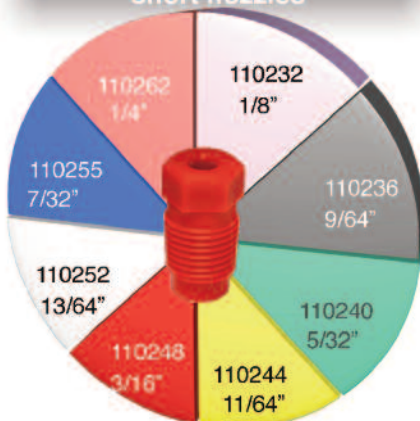
0,10 €

Plugs



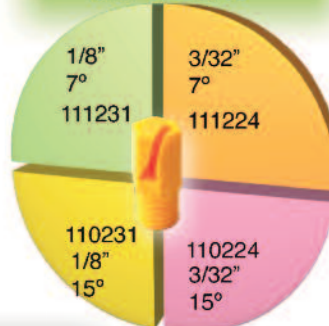
0,15 €

Long range nozzles 1/4" short nozzles



0,15 €

Short range slot 3/8" nozzles



0,10 €

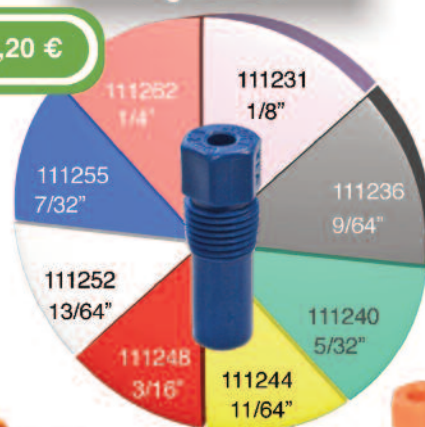
Plugs



VYR-36-66-35-60-46-70

Long range 1/4" long nozzles

0,20 €



¡NUEVO  
VYRSA  
new





# NOZZLES

Measures, Combinations and References.



VYR-3-25-50-80

0,20 €

Rounded 3/8" nozzles



0,30 €

Slotted 3/8" nozzles

Only VYR-25



0,20 €

Plugs



VYR-20-23-33-35-36  
-46-56-60-66-70

0,30 €

Long range 1/4" rounded



0,30 €

Short range 3/8" slotted



0,35 €

Short range 1/4" slotted  
(Only VYR-23-46)



Plugs

0,20 €



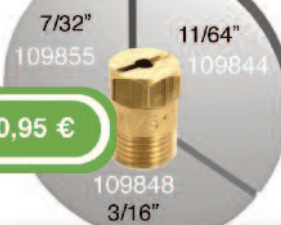
VYR-70V-86

1,20 €

Long range 5/8" rounded



0,95 €



Short range 5/8" slotted

0,95 €



0,20 €

Plugs



# NOZZLES

Measures, Combinations and References.



VYR-65-166

Long range 5/8" rounded

1,20 €



Short range 3/8" slotted

0,30 €



0,20 €

Plugs



VYR-155

Long range 1/2" rounded

2,20 €



Medium range 1/4"

1,40 €



Short range nozzles & Plugs



0,30 €

0,20 €

VYR-150-160

Long range 5/8" rounded

3,05 €

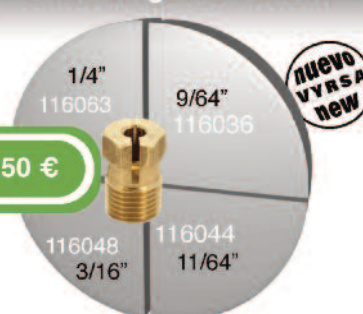


0,30 €



Short range 3/8" slotted

0,50 €



Plugs

0,20 €





# NOZZLES

Measures, Combinations and References.



VYR-144

Long range 1/2" rounded nozzles



Short range 3/8" slotted nozzles



VYR-100

Long range rounded nozzles



VYR-157 S - 157 L

Long range rounded nozzles



Short range 1/2" slotted nozzles



\*\* Only for VYR-157 L

## Nozzles

### Selection of a nozzle

When choosing the optimum sprinkler nozzles you must first ensure that the working pressure is within the recommended range on our catalog charts for each sprinkler model and the flow in the network is enough. Depending on the operating pressure you may use different nozzles to get a good coefficient of uniformity (CU) at different spacing between sprinklers and laterals, so please follow as well our recommendations in the charts for each sprinkler model. Try to get a proper drop size to prevent wind drift. The secondary nozzles (tail nozzles) are always recommended for increasing the uniformity.

Please consult with our professionals when choosing your sprinkler nozzles!



## Vanes

### Description

All VYR sprinklers are shipped assembled with nozzles and standard vanes unless our customers requested by other desired combination, depending on the format of your installation. You should always take into account factors such as the spacing between sprinklers, prevailing winds media, crop type, soil types, etc. Some plastic nozzles incorporate louvers already inside so the additional installation of vanes are not required. The exchange of vanes influences mainly for the 3/4" sprinkler brass nozzles.

### Technical specifications

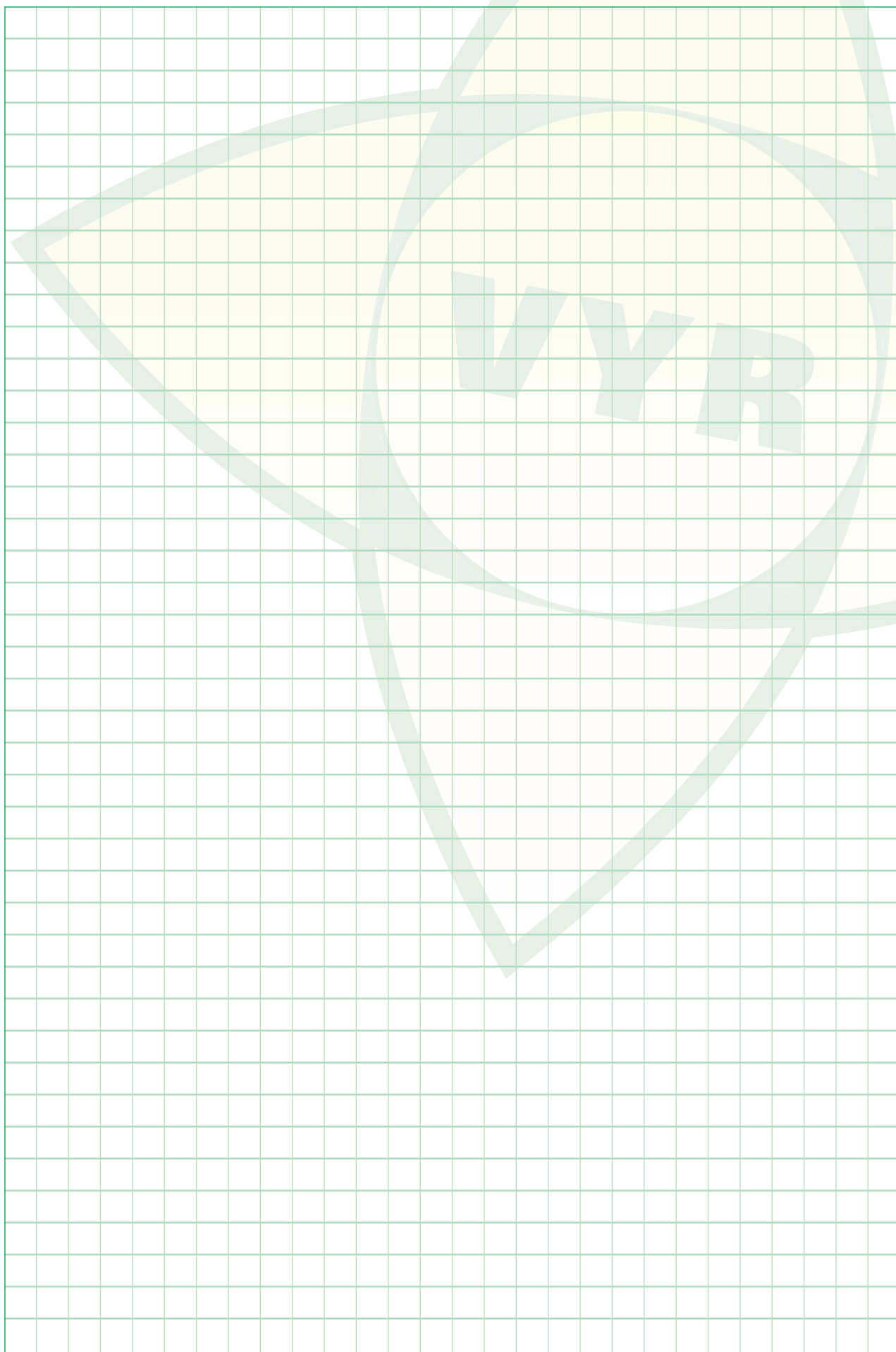
- **Long white vane VL:** Removes turbulence before the water outlet the nozzle thereby achieving maximum range under conditions of medium-high pressure 3-6 BAR (35-50 PSI).
- **Short black vane VC:** Remove some of the turmoil in the last stretch of water before leaving the nozzle. Recommended use in conditions for pressures of 3-4.5 BAR (35-50 PSI).
- **Without vane VS:** It doesn't eliminates the turbulence coming right out of the nozzle causing more broken drops and less range distance. Medium pressure 3-4.5 BAR (35-50 PSI).
- **Red vane VR:** Helical causes turbulence before the water outlet from the nozzle thus causing a smaller drops at broken jet. This causes sacrificing part of the scope of the sprinkler in the middle-high pressures, but improves the operation of the sprinkler at low pressures with higher CU's at 1.8-2.5 BAR (25-35 PSI).
- **Blue vane VA:** Turbulence causes less strong helical flow path before the water outlet from the nozzle thus causing a smaller drop at broken jet. This causes sacrificing part of the scope of the sprinkler in the middle-low pressures, but improves the operation of the sprinkler and higher CU's at a very low pressures 1.4-2.2 BAR (20-30 PSI).

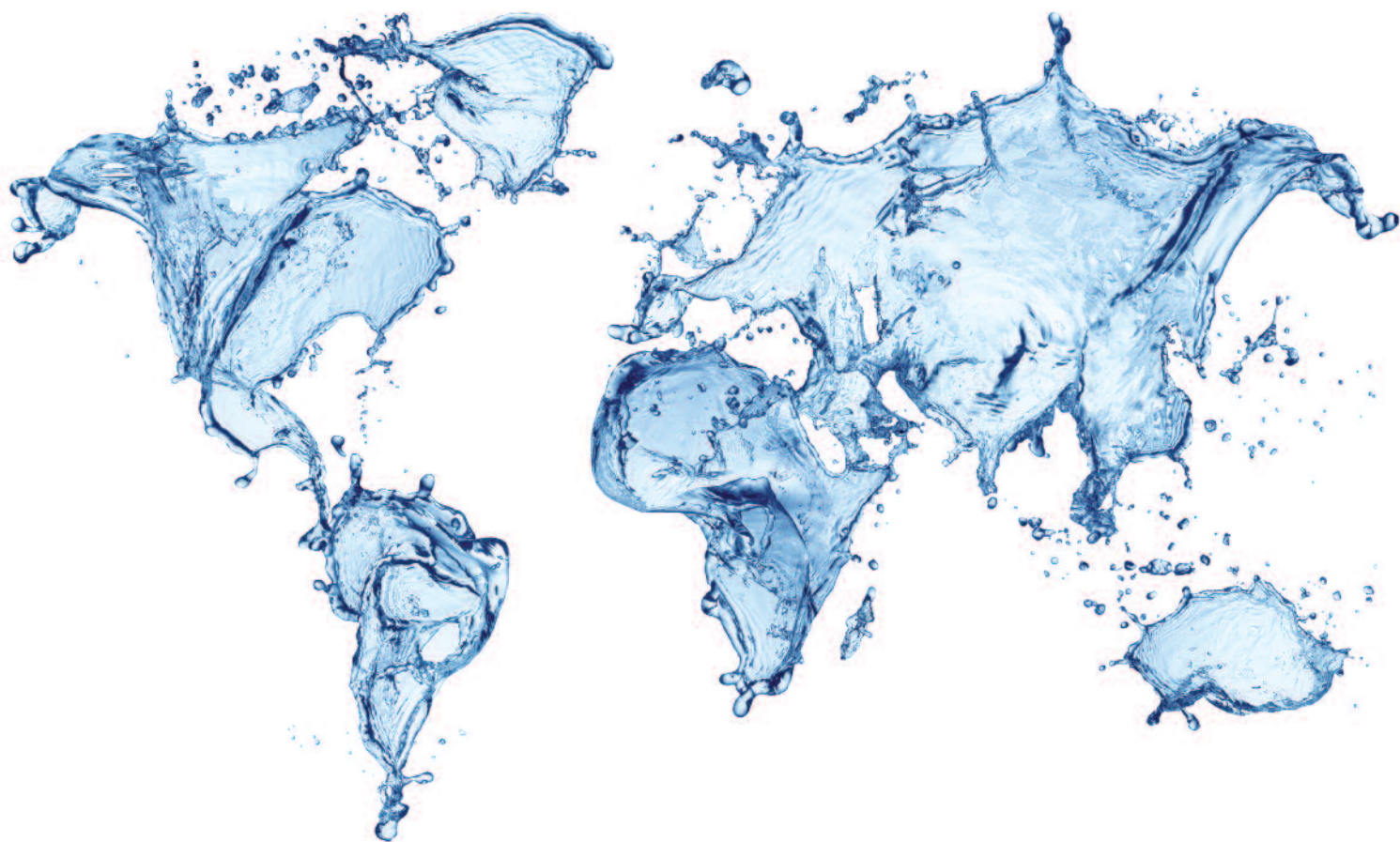


**NOTE:** When ordering the -VL, -VC, -VS, VA VR add these at the end of the sprinkler nozzle's reference to specify the type of vane to be installed. (Eg 0035204424-VR / "Sprinkler VYR-35 female with 4,4x2,4 mm nozzles and red vane").









# Efficient Irrigation

...for a sustainable world

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