



# PIVOTS CATALOG

*At the forefront of irrigation technology*



**SULREGAS**  
Equipamentos de Rega

EFFICIENCY  
RELIABILITY  
ROBUSTNESS  
INNOVATION



## SUNPOR® Proven Quality and Reliability

SUNPOR® pivots are manufactured and distributed by the Sulregas Lda group.

The SUNPOR® Pivots brand was created by the Sulregas group with the aim of looking for the best irrigation solutions for the global market, guaranteeing superior quality. Twenty years after the creation of the SUNPOR® brand, we continue to manufacture and develop our Pivots with the most robust and technologically advanced irrigation solutions to maximize the economic return on their production and reduce the costs of water and energy consumption.

As part of its development, we subjected all models of SUNPOR® Pivots and their components to intense tests before launching them to the market. Our reputation as a highly reliable Pivot manufacturer is proven daily on the ground.

The SUNPOR® brand is synonymous with high quality products that exceed customer expectations. For you, nothing is as important as knowing that your Pivot is manufactured to the highest levels of quality, and that you will not be disappointed. We talk to our customers and listen to what they tell us. Your opinions help us to develop equipment that increases the success of your activity and maximizes the return on your farm.

SUNPOR® is a registered trademark in Portugal at the National Institute of Industrial Property with nº 516193





# SUNPOR® distribution network

SUNPOR® Pivots are manufactured and distributed in the national and international market by Sulregas Lda. With headquarters in Évora and with support from branches in Foros de Salvaterra de Magos, Beja and Montemor-o-Novo.



Sulregas Lda. Headquarters in Évora

Factory and branch in Foros de Salvaterra de Magos



The SUNPOR® brand is part of the Sulregas business group, thus benefiting from a vast and wide experience that extends for about 4 decades serving the country in the art of managing water resources in irrigation systems.

Efficient irrigation is one of the most important factors in agricultural production. Intensive farming practices require the entire irrigation system to function reliably to maximize crop productivity. In today's competitive world, it is essential that farmers use highly reliable equipment.

These are the values that SUNPOR® assumes globally.

Official distributor in Cáceres (Spain)



Branch Sulregas de Beja





# SUNPOR® Development - Manufacturing - Assembly - Finishing

SUNPOR® Pivots are built in our factories in Foros de Salvaterra de Magos and Montemor-o-Novo to provide customers with an agricultural experience with superior performance, ensured by the best production technologies, using the best materials available and trying to apply constant innovation in the final product.

Galvanized pipe stock warehouse



Welding robot



Welding robot



Welding robot

SUNPOR® Pivots are built with certified materials and robotic production methods to guarantee the highest quality standards in the production of the structure.

In the production of the structure, components with certified galvanization are used, with the main structure consisting of 3mm thick tubes in order to guarantee the maximum strength and durability of the Pivots.



# SUNPOR® Development - Manufacturing - Assembly - Finishing



CNC automatic punching and cutting machine

Our products are built to last, constantly undergoing rigorous and thorough quality tests during the development and production phases so that we can offer our customers the perfect Pivot for their needs.

CNC molding machine



CNC automatic punching and cutting machine



# SUNPOR® PIVOTS - Models



| Model           | AS4500   | AS5500             | AS6500          | AS8500          |
|-----------------|--|--------------------|-----------------|-----------------|
| Ø Tube Diameter | 114mm<br>(4 ½")                                    | 140mm<br>(5 9/16") | 170mm<br>(6 ⅝") | 219mm<br>(8 ⅝") |
| Diameter center | 114mm<br>(4 ½")                                    | 219mm<br>(8 ⅝")    | 219mm<br>(8 ⅝") | 219mm<br>(8 ⅝") |
| Height Options  | Standard Height 3,15m<br>Height "Açucareiro" 4,70m |                    |                 |                 |
| Towers          | 36,70 m  | ✓                  | ✓               | ✓               |
|                 | 41,65 m  | ✓                  | ✓               | ✓               |
|                 | 47,55 m  | ✓                  | ✓               | ✓               |
|                 | 53,45 m  | ✓                  | ✓               | ✓               |
|                 | 59,35 m  | ✓                  | ✓               | ✓               |
| Throw Suspended | 6,5 m  | ✓                  | ✓               | ✓               |
|                 | 12,5 m   | ✓                  | ✓               | ✓               |
|                 | 18,5 m   | ✓                  | ✓               | ✓               |
|                 | 24,5 m   | ✓                  | ✓               | ✓               |

The structure of the SUNPOR® Pivots has been designed to maximize their service life and to deal with the most demanding operational conditions on the ground. In our range of Pivots you will be able to count on top technical components and details.

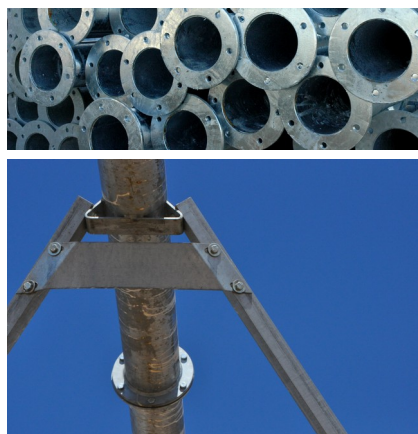
## Galvanized Steel Center

Robust galvanized steel center designed to operate in the most demanding conditions with the longest Pivot systems.



## Steel Structure Reinforced galvanized

Galvanized structure resistant to corrosion with 3mm thick tubes in order to guarantee the maximum strength and durability of the Pivots. Improved structure with reinforcement at critical points.



## Connection between Torres

The connection between Cardan type towers designed to optimize the good mechanical functioning between towers during the Pivot operation.

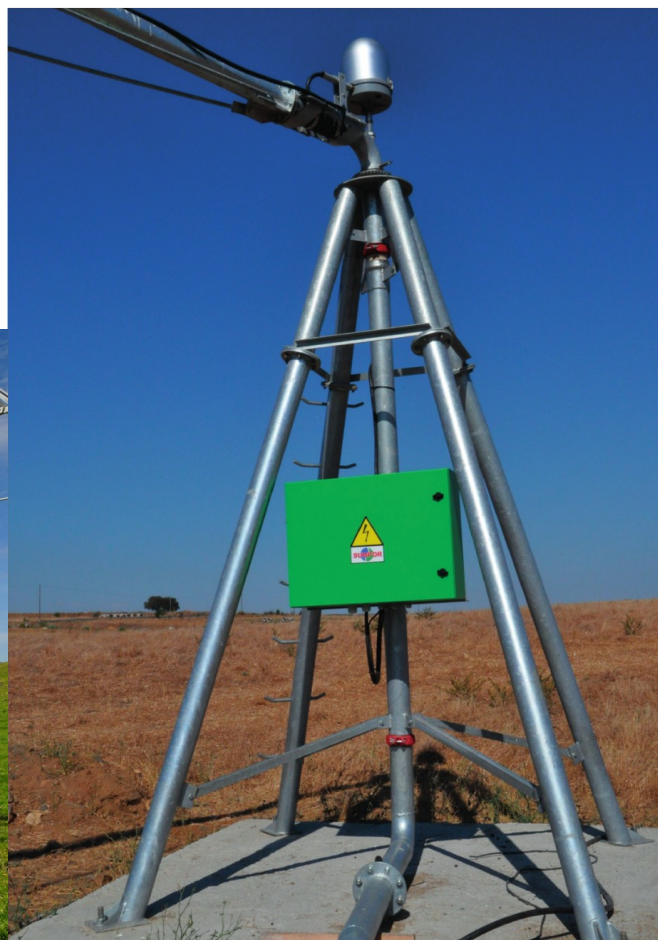
These connections guarantee the robustness of the set and are dimensioned in order to allow the critical points of the structure to easily absorb the irregularities of the terrain.





# SUNPOR® AS4500 | Irrigation areas up to 15ha

The SUNPOR® AS4500 pivot was designed as a suitable solution for irrigating areas up to 15 ha, maintaining all the specifications of strength and durability of the brand. All driving and sprinkler components follow the same high quality parameters as the rest of the range, but with a structure optimized to cover the irrigation of smaller areas at lower costs.





# SUNPOR® AS5500 | Irrigation areas up to 40 ha

The SUNPOR® AS5500 pivot was designed to irrigate areas up to 40ha, with a 219mm reinforced galvanized center and a 140mm main tube offering a highly durable solution for medium-sized areas. This model has been highly successful since it was placed on the market and is already a reference in the market and is one of the best proposals in the national and international market for this type of irrigation systems.





# SUNPOR® AS6500 | Irrigation areas up to 100 ha

The SUNPOR® AS6500 pivot was designed to irrigate large areas of up to 100ha, with a 219mm reinforced galvanized center and a 170mm main tube that guarantees the high levels of structural strength required for long pivots in order to cover larger areas with total reliability. This model guarantees the highest standards of robustness for the most difficult conditions, with a flexible configuration to adapt the pivot to any type of terrain.





# SUNPOR® AS8500 | Irrigation areas up to 130 ha

The SUNPOR® AS8500 pivot complements the SUNPOR range in applications for watering large areas up to 130ha, with a reinforced 219mm galvanized center and a 219mm diameter main tube that combines high structural strength with the ability to function in large area applications with large flow rates irrigation. This model has had as major customers the international market with a significant number of units operating in Africa, thus confirming the reliability and the ability to operate successfully in the most difficult weather conditions and with low maintenance requirements.

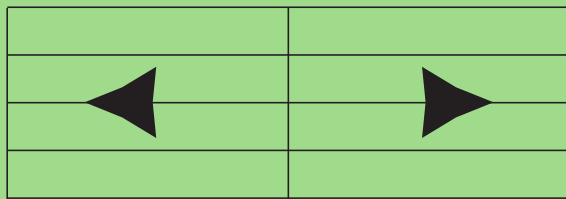




# SUNPOR® SIDE PIVOT | Rectangular Plots

To complete the range of Pivots and provide a wider range of irrigation solutions, SUNPOR® has developed a range of side pivot models with various configurations designed to respond to situations where the objective is to water rectangular plots.

- Exclusive SUNPOR® model
- Lateral and angular pivot systems
- Available in "skating" or "cable" driving
- Galvanized steel construction
- Centers available in 2, 3 or 4 wheel drive configurations.



Movimento Pivot Lateral - Linear



2-Wheel Side Pivot



3-Wheel Side Pivot



Angular Lateral Pivot



4-Wheel Side Pivot



# SUNPOR<sup>®</sup> SOLAR PIVOT

In order to reduce irrigation costs, SUNPOR developed a pivot powered by solar energy. This Pivot was developed in a logic of efficiency and sustainability, which allows it to generate and consume its own energy. By combining the irrigation efficiency provided by the pivot system with the solar power independent of the network, a solution was created with this system to irrigate small areas with lower operating costs.

## Advantages of SUNPOR Solar Pivots

- Energy independence of operation without fuel and grid electricity costs
- Reduced operating costs
- Low maintenance and long service life
- It is not necessary to install electrical mains at the site
- Battery system allows you to store solar energy to have a power reserve to operate on cloudy days.





# SUNPOR® PIVOTS - Command and Control Systems

## Control panels for SUNPOR Pivots



### SUNPOR Analog Board

The SUNPOR® Analog Control Panel is the solution that combines ease of operation with classic manual operating controls with proven reliability.

#### Functionalities:

- Left right
- Dry walking / running water
- Speed in percent
- Auto reverse
- Voltmeter
- Safety cut due to low pressure or misalignment



### SUNVISION Touch Board

The SUNPOR® Touch Control Panel SUNVISION is the most technologically advanced solution, allowing remote control of your Pivot via PC, smartphone or tablet

#### Operations:

- Connect without water (right / left)
- Connect with water (right / left)
- Change the speed
- Inverted March
- Angle irrigation

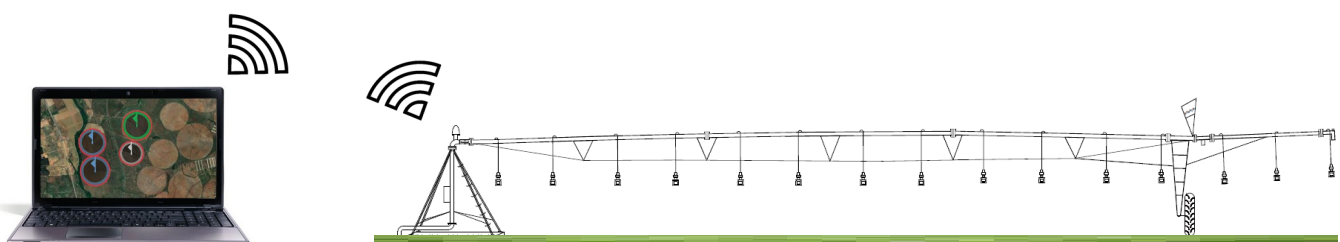
#### Visualization (PC, Smartphone, Tablet):

- Pressure
- Flow rate
- Precipitation
- Position / Angle
- Security alarm
- Lack of tension
- Lack of pressure
- Skating
- Final progress on the barrier

The SUNVISION board was specially developed for the SUNPOR® Pivots to provide the pivots with the most advanced control and monitoring solutions on the market.

The SUNPOR® remote management system integrates the latest generation of IOT (Internet of Things) technology, which provides stable and comprehensive connectivity.

The system allows the operation of Pivots from any device with an internet connection and the collection of operating states in real time, introducing innovative features.





# SUNPOR® PIVOTS - Command and Control Systems

## Pivot center collector

Exterior box totally watertight against water penetration;

High quality copper conductor rings allow the collector to function for years without maintenance difficulties.

Available with 11 or 13 tracks



## Tower Frame

Tower frame with outer box totally watertight against water penetration;

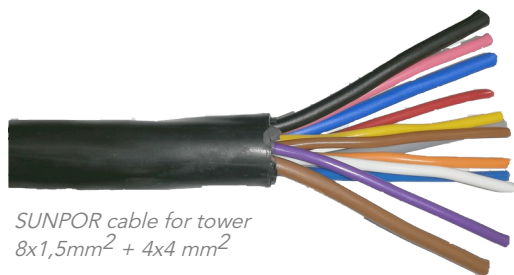
The tower frames are equipped with certified electrical components including high quality contactors, relays and microswitches for industrial use that guarantee high levels of reliability and durability.

The SUNPOR® tower frames are equipped with stainless steel tuning rods.

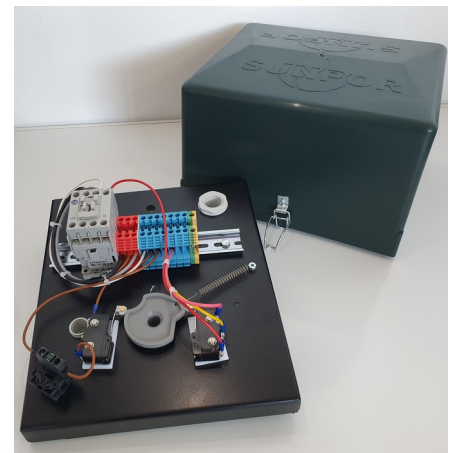
The cables used are manufactured specifically for SUNPOR® pivots with the best specifications on the market for this class of products.



*Tower Frame*



*SUNPOR cable for tower  
8x1,5mm² + 4x4 mm²*



*INOX tuning rod*

## Components and Accessories

SUNPOR® Pivots are equipped with components carefully selected to guarantee the perfect operation of all control, safety and signaling systems.

We use high quality pressure switches  
For an efficient maneuver correct reading of the water pressure during operation.

The Pivot's motion signaling system consists of high-level LED signaling durability.

*Pressure transducer*



*PS3D pressure switch*



*LED night light*



## SUNPOR® PIVOTS - Driving Components and Accessories

# Motor-Reducers

SUNPOR® Pivots are equipped with the most proven motor-reducers on the market. Its high-efficiency engine provides exceptional torque to propel your Pivot over the most rugged terrain and the most difficult ground conditions. They are available in low, medium and high speed according to the length of the Pivot and the specific needs of the irrigation system.



## Reducers

SUNPOR® Pivots are equipped with the most advanced and robust gearboxes available on the market in order to guarantee a long service life in all types of operating conditions. All the details of these reducers were designed to transmit all the engine torque to the Pivot wheels and withstand the driving load necessary to move the entire Pivot structure in the watering path. The gearboxes used have two shaft connections and all the features necessary for the most intensive use as a large expansion chamber.



# Cardans

The cardans used in the SUNPOR® Pivots complement the transmission system with the following characteristics:

- Noveon polyurethane inserts
- Galvanized fasteners
- High strength aluminum alloy
- Compensates for shaft misalignment
- Absorb start-up vibration and compensate for misalignment



## Galvanized Wheels

- Pivot wheels are a fundamental component to ensure the best possible traction of the system and reduce the creation of grooves in the ground.
- A variety of tire options allows you to select the appropriate wheels according to the soil and terrain conditions, maximizing performance and minimizing the formation of grooves in the trail left by the wheels.
- The **14.9 x 24** size wheels have a larger contact area to minimize the creation of grooves in the track and provide greater flotation effect on the ground.
- For other specific applications, wheels with a larger diameter of **11.2 x 38** are also available.





# SUNPOR® PIVOTS – Accessories

Pivot irrigation is a solution that offers flexibility that other irrigation methods cannot offer, with high efficiency in water management and a high economic return value for large irrigation areas. SUNPOR® Pivots have several options to adjust the performance of the system to the needs of each client and to guarantee the correct functioning in all situations.

## Autoreverse System with Barriers

For sectoral pivots in which the irrigated area is a partial circle, SUNPOR® pivots have an extra safety measure with the option of permanent or mobile galvanized barriers built, with the necessary strength to ensure that your pivot stops or reverses the direction of the shape intended.



## Galvanized filters with perforated stainless steel mesh

The galvanized mesh filters were specially designed to equip the water inlet in the SUNPOR® pivots and to prevent particles from entering the system. This type of filter ensures easy maintenance, simply removing the mesh periodically to clean the trapped particles.



## Booster Pump

The plunge pumps are an option that allows you to increase the reach in the final sprinkler of the pivot and thus increase the total irrigation area beyond the effective length of the pivot. The SUNPOR® Pivots can be equipped with monoblock rebound pumps made of STAINLESS STEEL AISI 304 steel to be selected according to the desired flow and range.





# SUNPOR<sup>®</sup> PIVOTS – Efficiency in water distribution

SUNPOR<sup>®</sup> Pivots have several options to adjust the performance of the sprinkler system to the needs of each crop and type of soil.



## komet | *Precision Spray (KPS)*

### Girdle of nozzles

45 nozzles  
Ø 1.6 - 10.3 mm  
Ø 8 - 52 1 / 128 "

### Flow Belt

64.7 - 5973.5 l/hr  
0.28 - 26.30 gpm

### Reach Range

Ø 5.3 - 18.2 m  
Ø 17.5 - 59.7 ft

a 1.8 m (6ft)  
ground height



## Available Models

### Precision Spray (KPS)

360°



### Precision Spray (KPS)

180° PARTIAL CIRCLE



### KPS Deflectors (Adaptable to each type of soil and weather conditions)

BLUE DEFLECTOR CC 33



BLACK DEFLECTOR FL 33



GRAY DEFLECTOR FL 24



YELLOW DEFLECTOR FL 30



BLACK MINI DEFLECTOR FL 24



MINI DEFLECTOR TURQUOISE FL



BLUE DEFLECTOR CC 15 - PC 180°



## komet | *Precision Regulator (KPR)*



Watering uniformity  
is guaranteed by the range of  
KPR pressure regulators

Pressure range:

6 to 30 psi  
0.4 to 2,2 kg/m<sup>2</sup>



# SUNPOR® PIVOTS – Efficiency in water distribution

SUNPOR® Pivots have several options to adjust the performance of the sprinkler system to the needs of each crop and type of soil.



## komet | Precision Twister (KPT)

### Girdle of nozzles

43 nozzles  
 $\varnothing$  2.0 - 10.3 mm  
 $\varnothing$  10 - 52 1 / 128 "

### Flow Belt

100.7 - 4844.4 l/hr  
 0.44 - 21.33 gpm

### Reach Range

$\varnothing$  9.0 - 16.8 m  
 $\varnothing$  30.0 - 55.0 ft

a 1.8 m (6ft)  
 ground height



**Black Deflector**  
**Standard Trajectory Angle**  
 Ideal for most applications



**Blue Deflector**  
**Low Trajectory Angle**  
 For windy applications

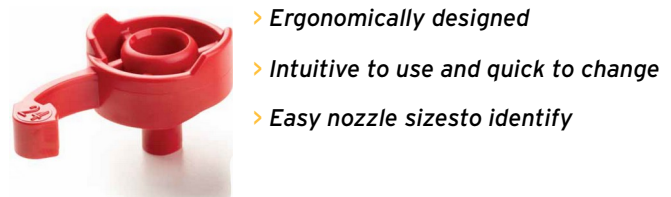


**Yellow Deflector**  
**Ultra-low trajectory angle**  
 For extreme conditions, such as high winds, high temperatures and / or low flow



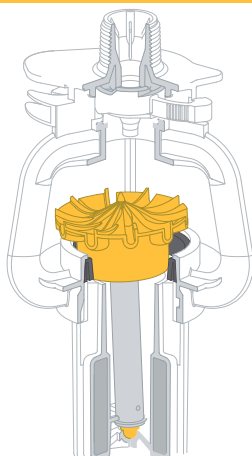
**White Deflector**  
**Low trajectory profile**  
 For use over the pipe  
 For tall, dense plants

### Komet Rapid Fit Nozzle System

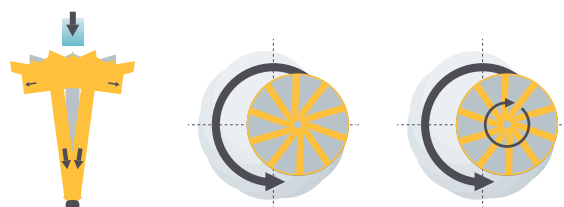


- > Ergonomically designed
- > Intuitive to use and quick to change
- > Easy nozzle sizes to identify

### Komet 3-D Distribution Movement System



- > Excellent reaction to minimum pressure and flow
- > Optimum uniformity within the distribution pattern
- > Unsistent distribution uniformity throughout the operating range
- > Large wet diameter



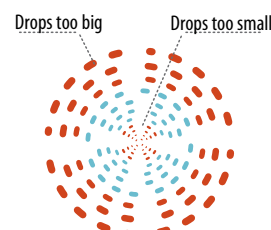
### Drop Size Consistency

#### Komet Deflektor



- > Consistent water drops over the entire flow range
- > Special configuration of the groove and surface structure
- > Reduced presence of small drops and spraying

#### Typical drop distribution



#### Komet Precision Twister (KPT) Drops distribution

Optimized drop size consistency over the entire wet diameter





# SUNPOR<sup>®</sup> PIVOTS – Efficiency in final distribution

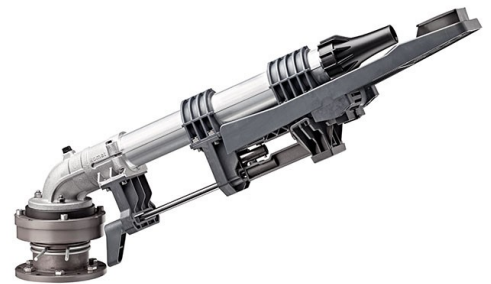
SUNPOR Pivots have several high quality and low maintenance solutions for the final sprinkler in order to guarantee the best efficiency in the distribution of water at the end of the pivots and an optimal flexibility in all applications. The brass sprinklers model 160 allow to effectively cover a radius of up to 20m. For greater ranges, Komet spray guns are the recommended option, being manufactured with high quality and high resistance materials, they operate with a slow and constant rotation. The brake automatically adapts to the existing pressure and the rotation speed of the sprinkler remains constant to obtain a uniform application of water.



Brass | 160  
Range up to 20m



Komet | TwinMax  
Range up to 30m



Komet | Twin140  
Range up to 40m

## Final sprinkler SENNINGER END SPRAY Range up to 10m



Senninger's final low-pressure spray is designed for use at the end of the pivot. It can help to irrigate the area between the last sprinkler of the pivot and the final cannon. The low angle design resists the effects of wind and the outlet resists clogging.

### Features:

- No moving parts for longer life
- Water distribution at 180°
- Several nozzles available
- Flow rate between 1840L / hr to 11106 L / hr
- Output pressure 10 - 25 PSI (0.69 to 1.72bar)
- Range up to 10m



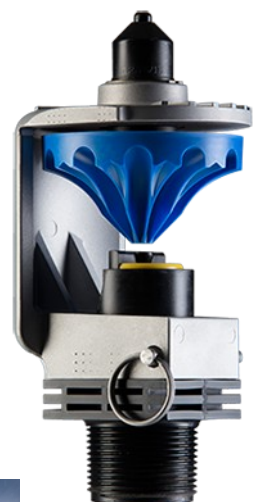
## Final sprinkler NELSON R55 VT Range up to 15m



The final sprinkler R55 VT can be equipped with several nozzles depending on the desired irrigation range.

### Features:

- No moving parts for longer life
- Water distribution at 180° with good uniformity guaranteeing low soil compaction and runoff.
- Various outlet nozzles available
- Outlet pressure 15-60 PSI (1.0-4.0 bar)
- Range up to 15m







**SUNPOR**  
PIVOT®



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Management  
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