



Automatic Systems

GENERAL CATALOGUE



RKD CENTER PIVOT

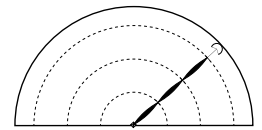
RKD circular irrigation system: The sturdiest pivot .

The pyramidal structure of the RKD central pivot is built up with galvanized-steel angular profiles and the bolts are anchored to a square reinforced concrete platform. Both of these result in the RKD pivot's having a remarkable sturdiness and stability which allow it to handle the turning movements of the machine.

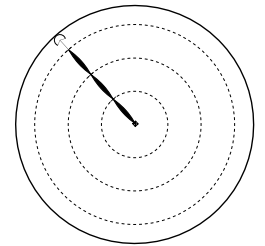
The pivot is water-fed through a vertical inlet pipe and elbow, both made of galvanized steel of 8 5/8" (219mm) diameter, except model 450, which has a vertical pipe of 5 1/2" (139.7 mm) diameter.

It contains a 13-way external electrical collector ring and an access ladder.

The standard height of this pivot is 4,220m from the base to the centre of the elbow, and can be bigger in particular crops such as sugar cane, etc.



SECTORIAL PIVOT



CENTER PIVOT



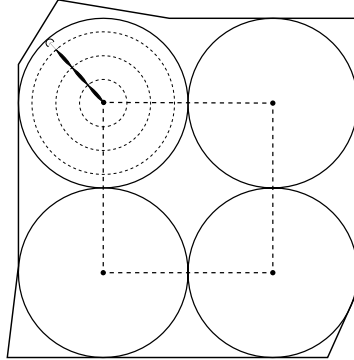
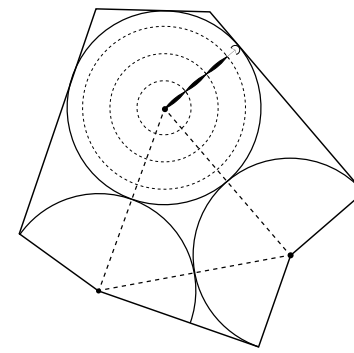
RKD MULTICENTER PIVOT

RKD pivot for irrigation in several circles.

This works similarly to the center pivot, but it can be transported automatically in order to irrigate 2, 3, or more positions, providing a high increase of irrigation area with only one machine. This is a self-propelled system and neither a tractor nor any other kind of machine is needed to change its position.

It moves sideways, and may be guided with alignment performed by means of a furrow or a cable; all required security systems are provided. It does not require the turn of the tower's wheels in order to move.

The revolving main cart has two driving wheels, used for the circular function, and it is performed by rotating the wheels 90° once the cart is lifted with the hydraulic lifts installed in it.



MULTICENTER PIVOT

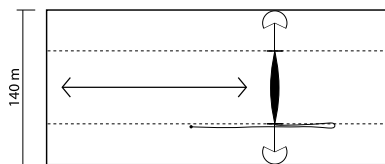


RKD LATERAL SYSTEM

Front-advance lateral irrigation system.

RKD Lateral Systems are suitable especially for irrigating rectangular plots and are guided by a precise system of alignment by means of a furrow or a cable.

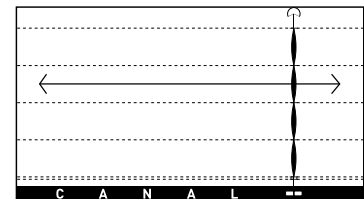
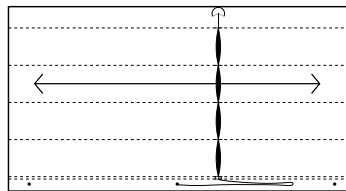
The cart is mounted on two or four driving wheels and the feeding of the equipment can be accessed by means of a hose connected to one or more hydrants, depending on the dimensions of the plot and the volume of flow it must provide; or by means of a motor-pump group fixed on top of the main cart, which takes the water directly from a ditch to feed the system.



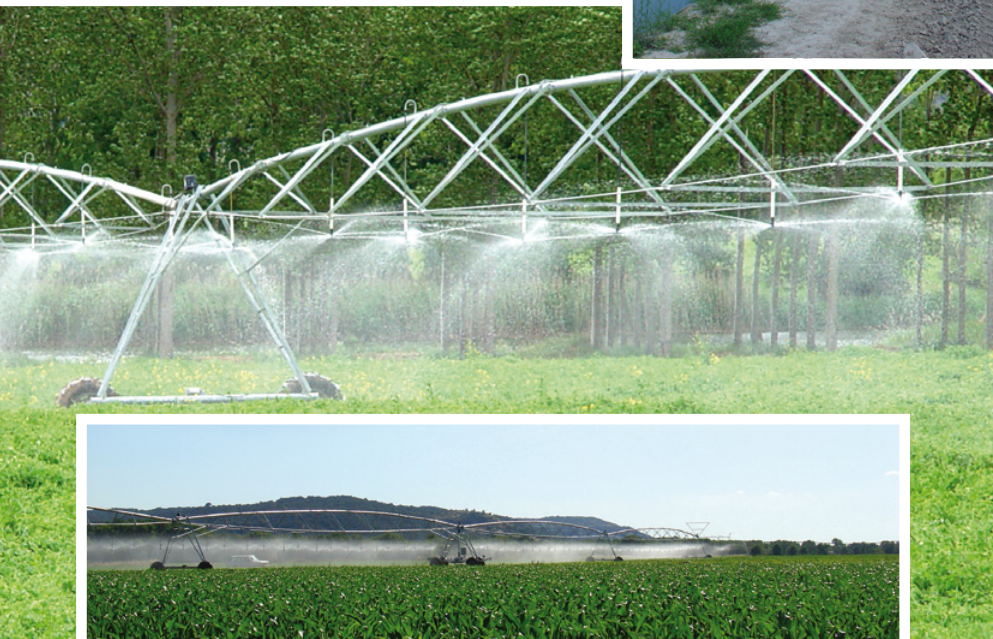
TWO SIDES LATERAL SYSTEM



HOSE FEED LATERAL SYSTEM



DITCH FEED LATERAL SYSTEM



LATERAL SYSTEMS

- 2 wheels lateral system (hose)
- 2 wheels lateral system (channel)
- 2 wheels revolving lateral system (hose)
- 2 wheels revolving lateral system (channel)
- 2 wheels auto-towable lateral system (hose)
- 2 wheels auto-towable lateral system (channel)

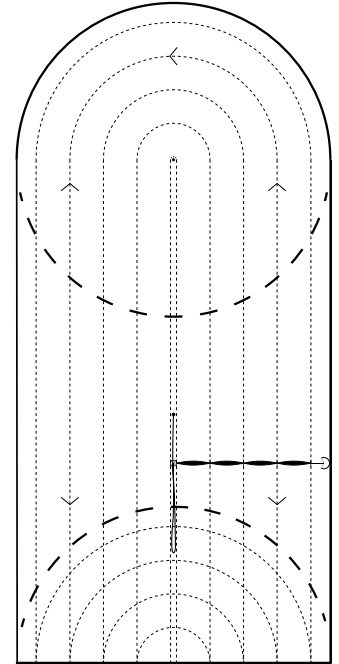
- 4 wheels lateral system (hose)
- 4 wheels lateral system (channel)
- 2 sides lateral system (hose)
- 2 sides lateral system (channel)



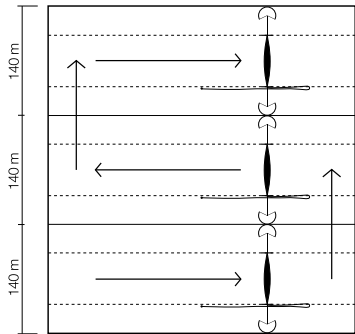
HIPPODROME SYSTEM

RKD's circular and lateral irrigation system.

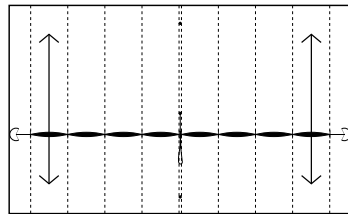
RKD hippodrome systems have been designed to irrigate square, rectangular or unusually shaped plots, allowing lateral irrigation and making the turn possible by pivoting at one or more points, internal or externally. They are able to irrigate when necessary, without requiring the anchoring of the central cart.



HIPPODROME SYSTEM



TOWABLE MONOSPAN LATERAL SYSTEM



TWO SIDES LATERAL SYSTEM



Components

STRUCTURES

RKD produces all the frameworks with high-quality steel, manufacture and origin certificate, both for piping and rolled steels. Our pipes stand out from other brands thanks to the larger wall thickness (3mm standard), and at the present it is one of the sturdiest pipes on the market.

The structure is designed by means of computer-assisted programmes, entirely symmetrical, so that a completely regular curvature of the span is produced, which gives it a greater resistance both to its own weight and water contents, as well as to the lateral effects caused by wind loads.

GALVANIZED (1)

The whole of RKD framework is hot-deep-galvanized according to UNE-EN ISO 1461:1999 standards and is highly durable, with strong resistance to rusting and corrosion.

CENTRAL TOWER (2)

The central tower of the circular pivots is manufactured with elbow and extension pipe of large thickness, in a guide pipe where the four anchorage feet are welded. Likewise it possesses a connection for the exit of the electrical collector rings fixing pipe, entirely hermetic by the means of cable glands.

COUPLING BETWEEN SPANS (3)

RKD coupling system is cardan-type, and it is developed by a ring that provides great resistance to the framework and makes possible the adaptation to highly uneven surfaces, both radially and tangentially. The coupling sleeve is made of vulcanized anti-wearing natural rubber, creating a perfect union with great durability.

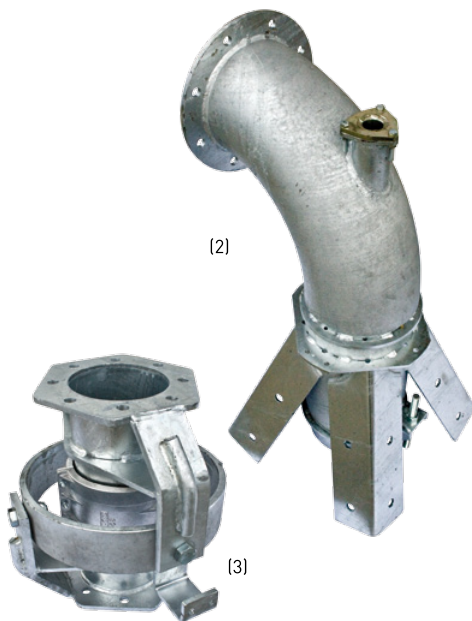
DRIVE UNIT MECHANISM

The drive unit mechanism has been designed to support the weight of the spans and hold all the system of gearboxes, transmissions shafts, motor-drives and wheels. It consists of four upright angular braced profiles, which join the end of every span with the drive unit, making an extraordinarily heavy duty structure.

MOTOR DRIVE (4)

The motor drive is a compact group consisting of a tropicalized motor, mounted in a frame of extruded aluminium with external refrigeration panels for heat dissipation, with a 95% performance, low amperage, double set of gears, and IP-55 protection. The whole of it features a fully watertight homogenous group with the highest reliability.

Depending of the needs of each use, engines can be of 0,75 HP, 1,0 HP and 1,5 HP, the last one used for high-speed engines.



GEARBOX (5)

This is a transmission group of steel augers and crown highly resistant of cast iron GS, with reversible double exit which makes very easy changing spare parts. It is provided of an internal oil expansion chamber to avoid escapes as a result of the oil expansion.

TRANSMISSION (6)

The geared motor is linked to the wheel gear units by means of a transmission shaft consisting of telescopic bars with cardan links on both extremes, completely covered and protected in order to avoid interference with the crops. The axles of motor drive are totally aligned with the reducers to allow the transmission to work straight, which considerably extends its durability. The transmission can also be installed with aluminium cardan and urethane inserts.

WHEELS

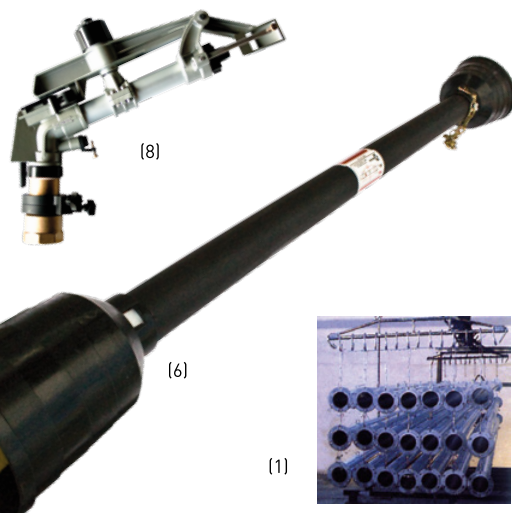
All the standard wheels on RKD machines are 14.9/13x24 high-flotation tyres, with an inner tube, galvanized rim and valve protection. The tyre tread design has a special shape to be used specifically for irrigation purposes. In particular cases we can put other wheel types.

MAIN CONTROL PANEL (7)

On all RKD machines, the electrical elements of the control box are top-quality products and are mounted inside of a closet of polyester reinforced with fibreglass (IP-55), which makes the unit completely watertight and immune to atmospheric agents, preventing the rusting and corrosion common to other types of boxes made with metallic sheet.

OVERHANGS END GUN (8)

Its range oscillates between 10 and 30 metres reach depending on the end gun model, the capacity and available pressure, increasing the plot irrigated with this system.



Spans and overhangs

MODEL 450

L. (m)	Ø. (mm)	A	A1	B	C1	D1 ^a	D	E	L
35,8	114,3	4,22	4,06	35,3	35,8	3,675	3,33	5,3	4,06
41,7	114,3	4,22	4,06	41,2	41,7	3,675	3,33	5,3	4,06
47,6	114,3	4,22	4,06	47,1	47,6	3,675	3,33	5,3	4,06
53,5	114,3	4,22	4,06	53	53,5	3,675	3,33	5,3	4,06
59,4	114,3	4,22	4,06	58,9	59,4	3,675	3,33	5,3	4,06

MODEL 596

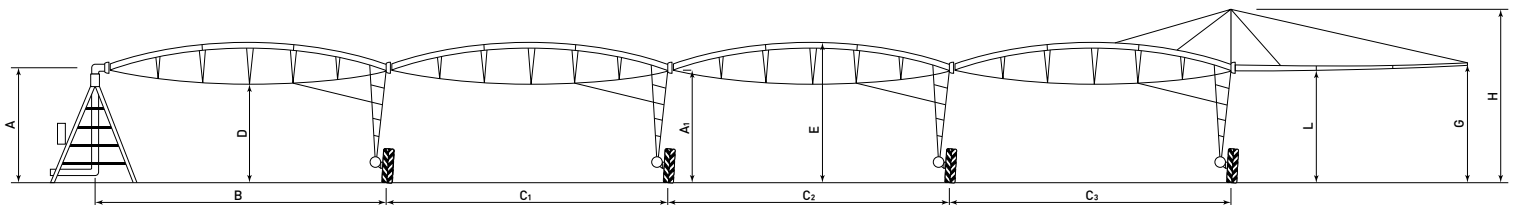
L. (m)	Ø. (mm)	A	A1	B	C1	D1 ^a	D	E	L
35,8	141,3	4,22	4,06	35,3	35,8	3,675	3,33	5,3	4,06
41,7	141,3	4,22	4,06	41,2	41,7	3,675	3,33	5,3	4,06
47,6	141,3	4,22	4,06	47,1	47,6	3,675	3,33	5,3	4,06
53,5	141,3	4,22	4,06	53	53,5	3,675	3,33	5,3	4,06
59,4	141,3	4,22	4,06	58,9	59,4	3,675	3,33	5,3	4,06

MODEL 658

L. (m)	Ø. (mm)	A	A1	B	C1	D1 ^a	D	E	L
35,8	168,3	4,22	4,06	35,3	35,8	3,675	3,33	5,3	4,06
41,7	168,3	4,22	4,06	41,2	41,7	3,675	3,33	5,3	4,06
47,6	168,3	4,22	4,06	47,1	47,6	3,675	3,33	5,3	4,06
53,5	168,3	4,22	4,06	53	53,5	3,675	3,33	5,3	4,06
59,4	168,3	4,22	4,06	58,9	59,4	3,675	3,33	5,3	4,06

MODEL 858

L. (m)	Ø. (mm)	A	A1	B	C1	D1 ^a	D	E	L
47,6	219	4,22	4,06	47,1	47,6	3,675	3,33	5,3	4,06



OVERHANGS

L. (m)	Ø. (mm)	G	H	L
0,6	141,3	4,06	4,06	4,06
4,6	88,9	4,06	6,35	4,06
6,6	88,9	4,26	6,35	4,06
10,6	88,9	4,26	6,35	4,06
12,6	141,3-88,9	4,46	6,35	4,06
16,6	141,3-88,9	4,66	6,35	4,06
18,6	141,3-88,9	4,86	6,35	4,06
22,6	141,3-88,9	5,40	6,35	4,06
24,6	141,3-88,9	5,60	6,35	4,06



RKD IRRIGACIÓN S.L.

Polígono La Mora, Pº de la Acacia, 13.
47193 La Cistèrniga (Valladolid).
España (Spain).

Tel.: (34) 983 401 896 Fax: (34) 983 401 897
info@rkd.es www.rkd.es

ISO 9001

BUREAU VERITAS
Certification



RKD IRRIGACIÓN, S.L. whose policy is the constant innovation, reserves the right to revise any modification in all its products of this or other catalogues, without prior warning, or any derived obligation.