

Technology in practice

Convincing arguments

Technical details

Benefit for the customer

STEEL STRUCTURE and UNDERCARRIAGE

Modern design and hot dip galvanisation of entire steel structure supply visible evidence of the traditional synthesis of technology, robustness, ease of operation, long life, and shape.

Hot dip galvanisation of entire steel structure including pipe reel.	Durable corrosion protection, lasting value.
Low centre of gravity due to lower machine height.	Machine transport is particularly safe on uneven terrain or when driving in curves with small track width.
Closed inner reel drum.	PE-pipe is protected from damage by closed inner reel drum because it fits tightly on the drum without buckling.
Screwed drive cover made of ABS in appealing design.	Material from automobile industry, long-lived, dimensionally stable and absolutely weatherproof.
Integrated mounting bracket for irrigation computer, battery, solar panel, or digital speedometer.	Devices mounted at comfortable height for easy operation, with optimum protection.
Lockable cover for irrigation computer comes as standard.	Helps to prevent unauthorised computer operation.
Adjustable screen for display.	Computer display clear to read even in bright sunlight.
Long drawbar.	Sharp turning radii possible also with large tractors.
Track width infinitely adjustable from 1560 to 2000 mm.	Adapts perfectly to crop rows and road conditions.

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Track width indication on the undercarriage with track width limitation.	Simple track width adjustment, rule no longer required, excessive axle adjustment is prevented, therefore the system is always safe.
Length-increased telescopic machine supports.	Machine is safely and firmly supported even if there are steps on the ground between driving lane and irrigated area.
Additional transmission for winch of machine supports.	Machine supports can be pressed into the ground with higher force to assure absolute stability.
Integrated and completely covered winding chain guidance with chain tensioner.	Chain protected from dirt and impacts of the weather – therefore long service life and little maintenance.
Undercarriage extremely torsionally strong and stable.	Provides maximum stability also under difficult operating conditions.
Coupling eye can be mounted below or above the drawbar or with an additional adapter.	Easy and stable adaptation of the coupling eye to fit existing coupling requirements.
Large-size tyres.	Low surface pressure, sufficient load-bearing capacity also with boom carts.
Exact adjustment of the pipe reel position by means of double lock-pin guidance.	Reel can be aligned precisely with the irrigation lane.

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DRIVE	
Particularly energy-saving high-duty radial full-flow turbine with Varionozzle.	Low operating cost particularly at low precipitation rates and high retraction speeds; the full water stream is conducted over the impeller.
Maximum turbine efficiency with optimum output utilisation through the entire flow range.	Very high retraction speeds can be reached also with low flow rates. This is of interest particularly when applying low precipitation heights (vegetable irrigation) and when operating a spray boom.
Flow-promoting position of the turbine directly on the reel shaft.	Saves additional pressure because there are no losses in elbows and adapters.
Large cross sections of flow with low pressure losses.	Reduces the energy requirement still further, the results are higher pressure at the sprinkler, better distribution, and reliable operation also with soiled water.
4-speed gearbox on all models for large speed range and precise adjustment to operating requirements.	Comfortable speed selection for the desired precipitation height; it is no longer necessary to shift belts, the turbine always operates in the ideal speed range.
Comfortable gearshift assembly with precision shifting gate and gear indication.	Safe and comfortable change between gears, a safety lock prevents gear change when the drive is coupled.
Large-size aerated brake drum	Highest operational safety and long service life, efficient braking power; prevents inadmissible heating and increased wear of the band brake.

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Drive belt from turbine to gearbox with V-belt tensioner.	Proper belt tension increases the service life and saves energy by high transmission efficiency.
Combined shut-off valve for overpressure and low-pressure shut-off.	Can be used for both shut-off systems.
CART	
Automatic cart loading at the end of the irrigated strip.	Time-saving and comfortable, no efforts required any more.
Easy conversion into asymmetric wheel cart with PE-pipe laid down in the cart's track.	Crop-protecting, particularly on bed crops in vegetable farming. Also requires lower pulling forces for PE-pipe pull-off and retraction with the tractor.
Automatic sprinkler balancing mechanism with new ball joint, reliable in service and long-lived.	Protects the crop when the cart reaches the end of the irrigated strip and on uneven soil.
Increased cart track width: symmetric carts: 1200 – 3000 mm asymmetric carts: 1200 – 2000 mm	Adapts ideally to crop row spacings and bed widths as well as the tractors used. Prevents damage to plants.
High cart clearance: 1100 mm	Protects plants also in higher crops.
High cart clearance in transport position	Machine and cart assembly is easy to transport irrespective of uneven ground or other obstacles.
Uniform, large-size cart tyres: dimensions 165 / 70 R 13 dia. 578 mm, width 170 mm	Safe operation also under difficult crop and soil conditions. Sufficient also when used with spray boom AS 26.

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OPTIONAL EQUIPMENT	
ECOSTAR 4000 S or 4200 Length detection contactless through magnetic sensors, therefore always accurate and protected against dirt under the drive cover.	Assures precise precipitation height down to the millimetre from the beginning - through the full length of the irrigated strip – to the end; clear and easy to operate.
Digital speedometer for speed indication on units with mechanical precision speed control.	Direct read-out of retraction speed and turbine speed on large LCD display.
Adjustable precision pressure switch.	Serves for pressure monitoring and making contact to the electric shut-off valve through the ECOSTAR.
Combined shut-off valve for overpressure and low pressure shut-off; electrical in combination with the ECOSTAR, mechanical for machines with mechanical precision speed control	Both functions are possible, adjusted ideally to the operating requirements – can be used both for supply with a single pumping unit and for collective systems with a ring mainline.
Mechanical swivel aid for T51 and T61	Still more ease of operation, particularly when using the spray boom AS 26.
Larger machine tyres	For special operating conditions, with still lower surface pressure.
Adapter for height increase of the coupling ring.	For adaptation to varying coupling requirements.
Yoke instead of coupling ring.	For adaptation to available tractors.
Pipe guide for laying down the PE-pipe in a straight line between the crop rows (T51 and T61)	This device is necessary when the RAINSTAR itself is pulled across the field and the PE-pipe unreeled.
Portal-type axle with increased clearance up to 400 mm (T51 and T61)	This type of axle is required when the RAINSTAR itself is pulled across the field and the PE-pipe unreeled.

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Engine drive for retraction speeds up to 350 m/h with turbine and engine drive or with engine drive only	For slurry and waste water distribution or for special uses with lowest water application heights
Spray boom AS 26	For field vegetables, produces a fine spray also at supply pressures from as low as 3.5 bar, the retraction speed of the machines also allows lowest precipitation heights of only 8 – 10 mm in vegetable farming.