

- > RAINSTAR A
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IRRIGATION

RAINSTAR

THE „STARS“ AMONG THE SPRINKLERS



RAINSTAR HISTORY

**Leader in technology for decades
and No. 1 on the world market.**

Growth through efficient irrigation.

Nearly 40 years ago, BAUER revolutionised the world of irrigation with the drum system. Since then a lot has happened. We have not been resting on our laurels but continuously developed the BAUER-system further.

By innovations, e.g. the introduction of the turbine technology, our own gearboxes and turbine production we were able to further extend our lead. From decades of field experience new technologies emerged and from them the new BAUER RAINSTAR family.



RAINSTAR PRODUCT OVERVIEW

The advantages of the different models speak for themselves.

- BAUER RAINSTAR – a range of models designed to accommodate any size and shape of farming system
- Cost and energy saving irrigation – user-friendly – optimum performance and reliability
- Quality workmanship – decades of experience in the manufacture of irrigation machines – particularly attractive price-performance ratio
- Laser-machined precision-toothed chain sprockets ensure precise chain drive and high reliability
- Pipe reel and steelwork fully hot galvanised – high quality corrosion protection ensures lasting value and high resale value
- Modern design – central control, easily accessible unit with irrigation computer
- New radial full flow turbine – cost and energy saving irrigation, particularly efficient when low precipitation rates are applied
- Raingun trolley with automatic angle compensator for uneven ground and trolley inlet
- The RAINSTAR E55 completes the 11 RAINSTAR models offered with over 80 different pipe lengths

RAINSTAR T
THE
UNIVERSAL
ONE



RAINSTAR E
THE
PROFESSIONAL
ONE



RAINSTAR A
THE
COMPACT
ONE



RAINSTAR A

The compact series in a modern design

Easy handling, optimal output and innovative technology make the new A-Series irrigation machines from BAUER ideal for a wide variety of applications such as Sports facilities, parkland, schools, golf courses, garden centers, cemeteries, etc.

The same philosophy of quality, technology, and precision applied to our larger Rainstar units used in agriculture can also be found in the A-Series models.

Highest value due to an extraordinary price-performance ratio, best irrigation efficiency and wide range of applications.

Quick and easy swiveling of the reel into its required working position is easily done by only one person due to a 3-wheel chassis and automatic gun trolley lift.

Use of reinforced PE pipes for rolled turf.

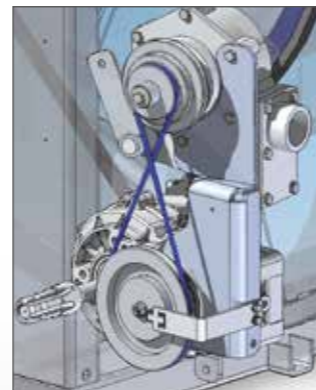
RAINSTAR
A2



Compact Drive Unit

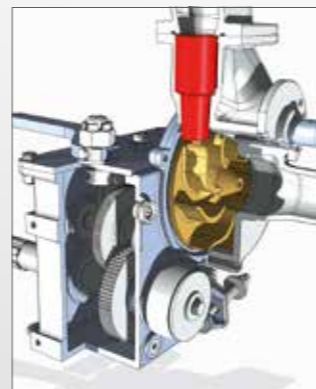
The compact drive unit includes the BAUER full-flow turbine, the V-belt transmission and speed change gearbox.

This unit offers the optimum in economy and operating efficiency. Power transmission to the pipe reel is via a strong high-quality chain and precision laser-cut toothed gear elements. This optimised design offers extremely low pressure loss and high efficiency power output.



New generation of turbines

Powerful, compact BAUER turbine/gear box combination for RAINSTAR A2 with precise adjustment and exchangeable nozzles for high efficiency.



RAINSTAR A2 – THE SMALL ONE

- Hot-dip galvanizing for reel and frame
- Drive with new BAUER turbine-gear-combination
- PTO-reel equipment
- Automatic cart load
- BAUER special-PE-pipe



Largest model in the A-Series is a true Irrigation Specialist

Pro-gardening, Parkland, horticulture, golf courses, sports facilities and model farms – the RAINSTAR A3 multi-tasks in most applications – a smart choice for irrigation.

- RAINSTAR A3 with BAUER specific PE-pipe, Hot-galvanized pipe reel, turntable and chassis
- Two-wheel gun-trolley with wide-profile tyres. Adapts easily to any crop row spacing. The chassis has a rotating pipe reel and integrated leg supports.
- Drive system is BAUER full-flow turbine
- 3 Speed adjustable V-belt transmission
- Mechanical speed regulator with automatic pipe layering compensator
- Speed-change gearbox with PTO winding system
- Power transmission is via precision chain drive
- Automatic gun-trolley lift
- Automatic final shut-off device
- PE-pipe rewind system with precision rewind shaft and strong support chassis
- Single axle chassis with universal variable track width ranging from 1000 – 1500 mm



RAINSTAR T

The compact series for cost saving irrigation

Advantages

- Revolving pipe reel – with integrated hydraulic leg supports
- 2 wheel chassis with adjustable track width and mechanical jack
- Energy saving BAUER full flow turbine TVR 20 (T51 – T61) with BAUER 4-speed gearbox
- Newly developed turbine TVR 18 (T32 – T42) with BAUER 4-speed gearbox
- Irrigation computer ECOSTAR 4300 with back up battery and solar panel for exact precipitation rates and high performance and reliability
- User friendly – hydraulic jack, unit connection on both sides, central control unit, hydraulic gun trolley lift (together with supports)
- Gun trolley with automatic angle compensation – keeps the Rainer in an ideal position, on uneven rough ground
- Special BAUER PE-pipe – High form stability and tensile strength
- Reinforced PE pipe when used on rolled turf

RAINSTAR T61

RAINSTAR T32



Cost efficient irrigation by saving energy, convenient, time saving handling and operational safety even at extreme stress are only a few of the many advantages of this generation of machines.

The RAINSTAR T with the new TVR-radial full flow turbine is available with an ECOSTAR irrigation computer

No matter which field size or form, the innovative modular design of the RAINSTAR T easily adapts to every condition and offers tailor made equipment for every irrigation process.

The particularly attractive price-performance ratio guarantees in the first place the cost effectiveness of your purchase for the next irrigation season.



Combi-wheel cart gentle to the crops

The multi talent among the carts: infinitely adjustable track, symmetric or asymmetric PE-pipe retraction (simple retrofitting), large clearance height. This reduces damage even with tall growing plants. The large dimensioned tires guarantee a safe irrigation process, even in difficult terrain.

Boom cart AS 26 / AS 32

Irrigating with a boom cart guarantees a precipitation which is very gentle to all crops and plants. Even a very low connection pressure is sufficient for operation. This means efficient use of energy and water. The boom cart made of steel and aluminum parts convinces with high stability despite its light weight construction.

RAINSTAR E

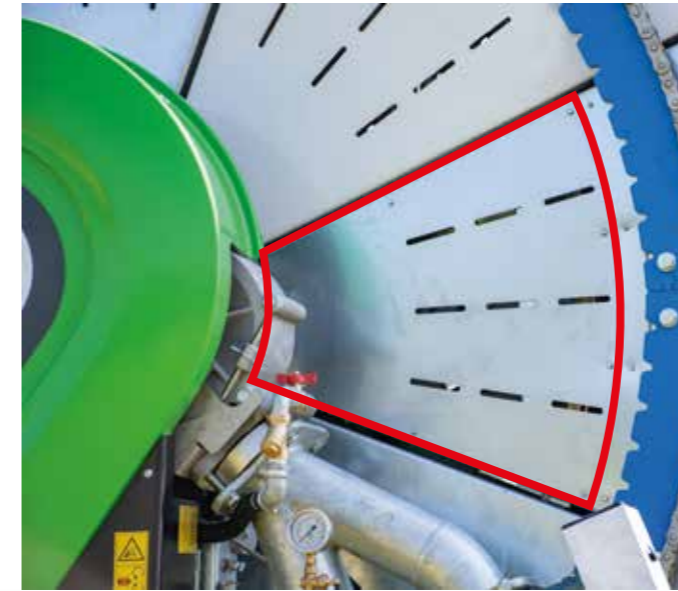
The high-quality series –
a continuing success

Advantages

- Revolving pipe reel with integrated hydraulic leg supports
- 2 wheel chassis with adjustable track width and mechanical jack
- Energy saving BAUER full flow turbine TVR 60
- Irrigation computer ECOSTAR 4300 with back up battery and solar panel for exact precipitation rates, high performance and reliability
- Comfortable handling by means of a hydraulic cart lift (together with device supports) as well as an optional hydraulic support foot, HK 108 water supply on both sides or a central control unit
- BAUER 4-speed gearbox with brake and tractor PTO rewind
- Gun trolley with automatic slope compensation – keeps the raingun in an ideal position on uneven rough ground
- Special BAUER PE-pipe – high formstability and tensile strength
- Reinforced PE pipe when used on rolled turf
- Optimized gearbox for increased ease of use
- Reinforced slewing ring console for increased stability



Reliability, durability and efficiency are the priorities regarding the requirements for an irrigation machine. With the RAINSTAR E models these requirements are not only met but even exceeded. This generation of RAINSTARS has a completely new design. The hot-dip galvanizing of the entire steel construction is a visual proof of the traditional BAUER-syntheses of technology, robustness, durability and design. The entire production is carried out in compliance with the highest quality standards in accordance to the ISO 9001 guidelines.



Advantage of the Rainstar E600

The innovative service cover allows access to the reel centre without major dismantling work. This enables a reduction in service times and an increase in efficiency.



Swivel Cover

The innovative hinged cover allows barrier-free access to the gearbox and turbine and impresses with increased comfort for the operator. There is no need to dismantle the cover.



Foldable solar panels

The fold-out solar panels accelerate the charging process of the battery, thus enabling increased efficiency and usability.

RAINSTAR E55 L & E55 XL

The professional series with high quality level

Advantages

- Pipe reel can be lowered hydraulically and swivelled 360° – pull-out possible in each direction
- 4-wheel chassis with tandem swing axle for lower ground pressure and uniform weight distribution
- Separately controlled Hydraulic machine supports, adjust to uneven ground
- Energy saving BAUER full flow turbine TVR 60
- Irrigation computer ECOSTAR 4300 with back up battery and solar panel for exact precipitation rates, high performance and reliability
- User friendly – hydraulic jack, HK 108 unit connection on both sides, central command unit
- BAUER 4-speed gearbox with brake and tractor PTO rewind
- Raingun trolley with automatic slope compensation – keeps the sprinkler in an ideal position on uneven ground
- BAUER PE-pipe – high form stability and tensile strength
- Reinforced PE pipe when used on rolled turf



Plant Protection

Despite the large 3.5 m diameter of the drum, the unit is very compact. The PE pipe is lowered hydraulically and the drum then pivots a full 360°. Thanks to minimal space requirements, the unit causes little damage to plants.



RAINSTAR
E55 L
E55 XL



Firmly anchored to the ground

Strong, hydraulic supports anchor the unit to the ground. The overall construction is extremely strong and suited for retraction forces up to 40% stronger when compared to competitors similar offerings.



RAINSTAR CONTROL

Irrigation control on a high-tech level

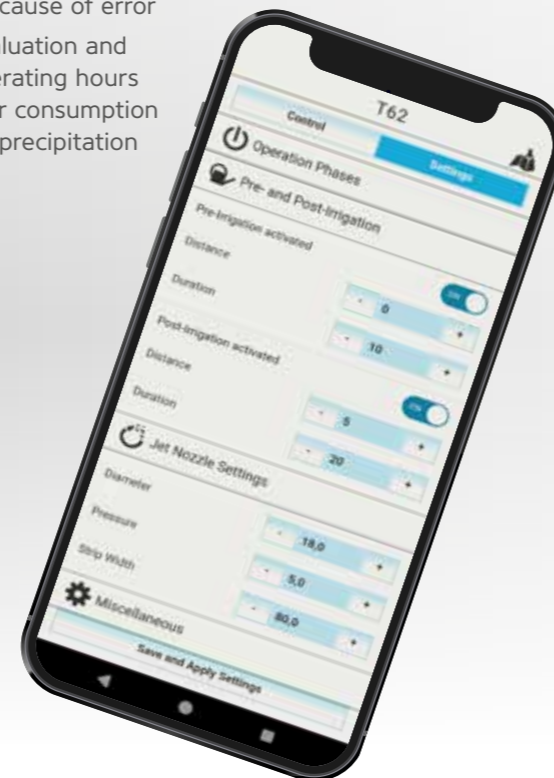
- Easy operation at the push of one button
- A multi-line display with lighting shows the respective irrigation status
- Due to permanent target-performance comparison of the retraction speed the most exact precipitation rates are possible
- Programming of pre- and post-irrigation easy and comfortable at the push of a button
- A solar panel and a 12 volts battery provide adequate power supply
- Simple operation as well as clear menu navigation speak for themselves

SMARTRAIN



Simple monitoring and control of different irrigation machines via App directly from the smartphone or the office on the PC.

- Permanent GSM-internet-communication between user and irrigation machine
- Monitoring and control of the irrigation process with smartphone, tablet or PC
- Clear, visual representation of the irrigation machines on the field
- Optimized irrigation process via entering different irrigation sectors with different precipitation rates
- Warning in case of errors and recording the cause of error
- Automatic evaluation and reports of operating hours wet/dry, water consumption and historical precipitation



ECOSTAR 6000



Latest irrigation electronics for precise control of precipitation rates, as well as control and monitoring via SMS function.

- Powerful irrigation electronics with 4.3 „Full LED, Touch display
- Basic functions can be accessed via buttons as well as be selected via the display
- Program preselection of 12 different programs
- Recording of water consumption on different levels
- Switching of operation / programming of retraction speed to precipitation rate
- SMS-control and monitoring
- Signal for user if end of PE-pipe is reached
- Signal for operation of short distance sprinkler
- Record and if required read out the last operating steps for error analysis
- Automatic functional analysis of all components and sensors



ECOSTAR 4300

High-tech irrigation control.

- Easy operation at the push of one button
- 4-line display
- Irrigation status indication
- Permanent set-actual speed comparison
- Solar panel +12V battery
- Real-time clock-start time indication
- Operation-hour counter
- Variable irrigation speed zones
- Precipitation indicator



RAINSTAR GEAR

Power and economy in one drive unit

Turbine TVR 60 and TVR 20

The radial full-flow economy turbine TVR 60 (E models) and TVR 20 (T models) with the unique Vario nozzle is a power pack and energy saver in one.

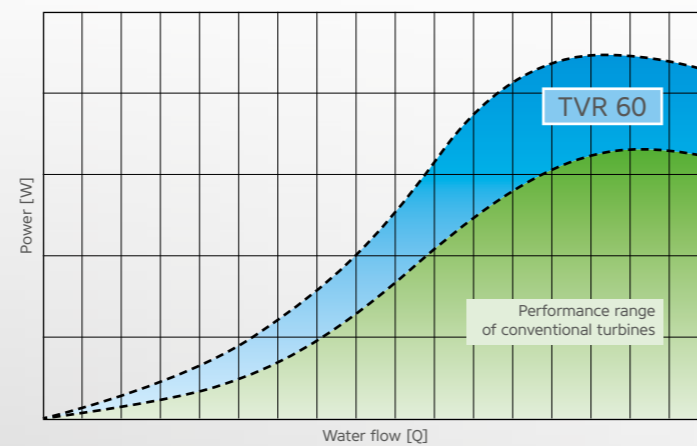
Extremely low pressure loss helps to save money, particularly when low precipitation & hence water-saving rates are applied.

Advantages – precise regulation plus broad performance range, even with high retraction speeds.



Comparing efficiency levels

The extremely high efficiency level of the Bauer turbine, plus excess performance capacity & minimal pressure loss during normal range operation, ensures reliability and extensive savings under particularly difficult operating conditions ie: compared to turbines of competitors.



Pinpoint precision assembly results in the highest operating efficiency. Each individual part of the high-tech turbine is engineered in the headquarters at Voitsberg. The turbine is assembled by highly qualified technicians. Prior to being fitted to the Rainstar, the turbine's quality and performance are tested on a highly modern engine test bench.



Cost savings thanks to highest efficiency

The drive train of the BAUER RAINSTAR is design optimised in every detail. This ensures highest efficiency, reliability and ease of operation.

A v-belt transfers the turbine's concentrated power without energy loss direct to the BAUER 4-speed gearbox. 4 different transmission gear ratios ensure the turbine operates at cost saving maximum efficiency.

The power required to rewind the PE-pipe onto the large-diameter pipe reel is transmitted via a high strength, high quality chain plus a laser-machined precision-toothed gear sprocket. The retraction power is evenly distributed over a large surface area, due to the expanded outer diameter of the chain wheel & higher density of gear-teeth sprockets.

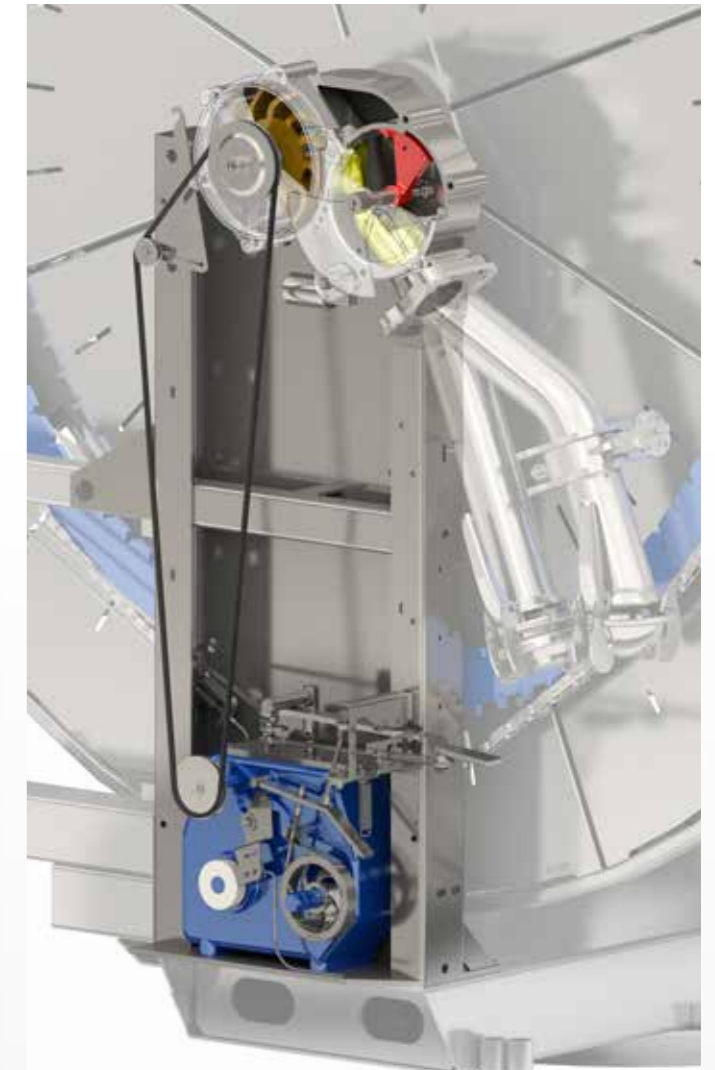
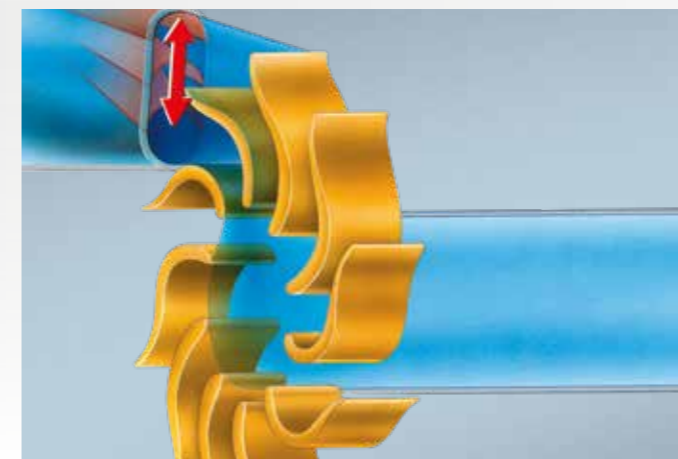
At the end of the irrigated strip, the drive gear is disengaged automatically, and the power transmission is stopped. The aerated drum brake is placed directly on the drive & ensures highest security during road transport.

Computer-controlled regulation

The regulation of the turbine is controlled electronically. The Vario nozzle keeps the retraction speed constant from the beginning to the end of the strip, with precise & optimum pressure utilisation.

Vario nozzle

Maximum use of output is achieved by direct flow from the Vario nozzle onto the impeller. At maximum and minimum nozzle settings, the full stream flows over the turbine's impeller. This ensures the highest efficiency and minimum pressure loss at all flow rates.



Comfortable gear changes with precise shift gate and indication of the gear selected. Safe and simple gear-shift.

The safety lock on the clutch lever prevents changing gear while the drive is engaged.

Safety has priority!

Certified engine production standards, following the highest quality requirements for high durability and maximum reliability.

RAINSTAR FEATURES

Convincing arguments for
successful irrigation



Galvanisation

Hot dip galvanising to pipe drum, turntable and undercarriage.



PE-pipe manufacture

In house PE-pipe production with special granulate material for highest strength & quality.



Blow out device (optional)

The PE-pipe is exhausted via an original BAUER compressor and ball matching the pipe diameter.



Fully rolled inner reel drum

The inner reel drum of each RAINSTAR is fully closed and equipped with a pipe guiding device.



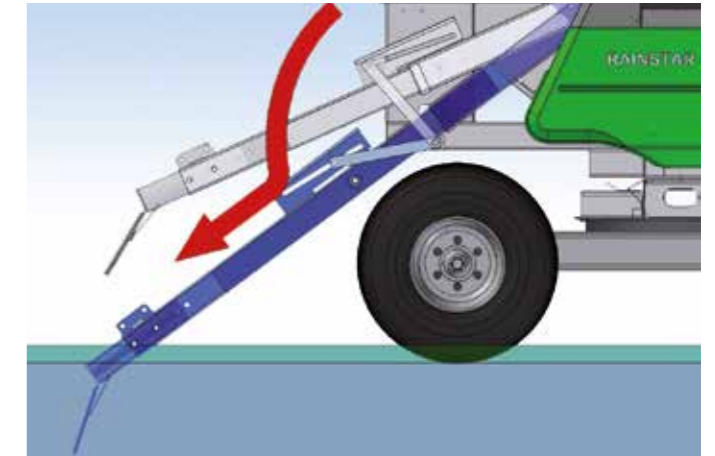
Winding gear

The PE pipe is gently layered by a double guided winding mechanism & precisely driven by a helically grooved spindle.



Brake (optional)

For safe road transport, a compressed air brake can also be installed on the Rainstar as an option.



Sturdy machine supports

The specific kinematics and the flat angle of the hydraulic unit supports direct the forces into the machine's centre.



Precision chain drive

Precision-manufactured drive sprocket for the reel drive ensure even distribution of forces on a large surface area.



Lighting (optional)

In addition, a lighting can be ordered for better visibility of the machines in traffic.

RAINSTAR A
Specification

RAINSTAR Model	Type	PE-pipe Ø mm	PE-pipe Length m	Strip width m	Consumption m ² /h	Nozzle sizes mm	Connection press bar	Weight kg	
								with water	less water
A2	50 - 135	50	135	28 - 56	3,2 - 13	7 - 14	3,2 - 8	526	341
	55 - 120	55	120	30 - 61	4,0 - 16	8 - 16	3,2 - 8	546	351
A3	55 - 170	55	170	38 - 57	7,5 - 18	10 - 16	4,0 - 8	792	515
	63 - 125	63	125	38 - 62	7,5 - 20	10 - 16	4,0 - 8	778	512
	63 - 150	63	150	38 - 62	7,5 - 20	10 - 16	4,0 - 8	855	537

Dimensions

RAINSTAR Model	A mm	B mm	C mm	D mm	E mm
A2	3.420	1.480	1.490	1.240	1.000 - 1.500
A3	3.550	1.690	1.730	1.250	1.000 - 1.500

RAINSTAR T
Specification

RAINSTAR Model	Type	PE-pipe Ø mm	PE-pipe Length m	Strip width m	Consumption m ² /h	Nozzle sizes mm	Connection press bar	Weight kg	
								with water	less water
T32	65 - 270	65	270	53 - 68	14 - 35	14,0 - 22,0	3,5 - 11,0	2.060	1.407
	65 - 320	65	320	53 - 67	14 - 35	14,0 - 22,0	3,5 - 11,0	2.227	1.452
	65 - 350	65	350	53 - 67	14 - 31	14,0 - 20,0	3,5 - 11,0	2.325	1.479
	75 - 250	75	250	53 - 79	14 - 49	14,0 - 26,0	3,5 - 11,0	2.269	1.460
	75 - 280	75	280	53 - 78	14 - 49	14,0 - 26,0	3,5 - 11,0	2.401	1.496
	75 - 300	75	300	53 - 76	14 - 44	14,0 - 24,0	3,5 - 11,0	2.489	1.520
	75 - 330	75	330	53 - 75	14 - 44	14,0 - 22,0	3,5 - 11,0	2.622	1.555
	85 - 220	85	220	55 - 93	17 - 64	16,0 - 28,0	3,5 - 11,0	2.412	1.538
	75 - 350	75	350	53 - 74	14 - 39	14,0 - 22,0	3,5 - 11,0	2.781	1.650
	85 - 270	85	270	53 - 83	14 - 60	14,0 - 28,0	3,5 - 11,0	2.767	1.672
T42	85 - 300	85	300	53 - 81	14 - 60	14,0 - 28,0	3,5 - 11,0	2.937	1.720
	85 - 320	85	320	53 - 90	14 - 55	14,0 - 26,0	3,5 - 11,0	3.051	1.752
	90 - 260	90	260	55 - 94	17 - 73	16,0 - 30,0	3,5 - 11,0	2.889	1.718
	90 - 280	90	280	55 - 83	17 - 71	16,0 - 30,0	3,5 - 11,0	3.016	1.775
	90 - 300	90	300	55 - 92	17 - 69	16,0 - 30,0	3,5 - 11,0	3.144	1.792
	75 - 400	75	400	53 - 70	14 - 33	14,0 - 20,0	3,5 - 11,0	3.577	2.309
T51	75 - 420	75	420	53 - 70	14 - 33	14,0 - 20,0	3,5 - 11,0	3.666	2.349
	85 - 350	85	350	53 - 80	14 - 55	14,0 - 26,0	3,5 - 11,0	3.796	2.325
	85 - 370	85	370	53 - 80	14 - 52	14,0 - 26,0	3,5 - 11,0	3.910	2.378
	90 - 330	90	330	55 - 83	17 - 69	16,0 - 30,0	3,5 - 11,0	3.909	2.334
	90 - 350	90	350	55 - 83	17 - 64	16,0 - 28,0	3,5 - 11,0	4.037	2.389
	85 - 400	85	400	53 - 78	14 - 49	14,0 - 26,0	3,5 - 11,0	4.040	2.443
	85 - 450	85	450	53 - 75	14 - 44	14,0 - 24,0	3,5 - 11,0	4.324	2.592
	90 - 370	90	370	55 - 82	17 - 60	16,0 - 28,0	3,5 - 11,0	4.124	2.449
T61	90 - 390	90	390	55 - 80	17 - 55	16,0 - 26,0	3,5 - 11,0	4.251	2.512
	90 - 420	90	420	55 - 79	17 - 55	16,0 - 26,0	3,5 - 11,0	4.442	2.615
	90 - 450	90	450	55 - 78	17 - 52	16,0 - 26,0	3,5 - 11,0	4.633	2.714
	100 - 300	100	300	55 - 87	17 - 73	16,0 - 30,0	3,5 - 11,0	4.126	2.462
	100 - 330	100	330	55 - 83	17 - 73	16,0 - 30,0	3,5 - 11,0	4.362	2.531
	100 - 350	100	350	55 - 83	17 - 69	16,0 - 30,0	3,5 - 11,0	4.519	2.577

Dimensions

RAINSTAR Model	Height mm	Width mm	Length with trolley mm	Length less trolley mm	Clearance mm	Tyres	Track width mm
T32	2.600	1.950	5.370	3.720	260	195/70 R14	1.500 - 2.000
T42	2.850	1.950	5.370	3.720	275	205 R 14 C	1.500 - 2.000
T51	3.140	2.298	5.306	4.045	275	205/R 14C	1.500 - 2.000
T61	3.180	2.298	5.306	4.045	310	10,5/75-15,3	1.500 - 2.000

Coupling height (mm)

220	500	367
240	520	373
235	510	382
270	545	417

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