

BAUER

Operating Instructions for

Rainstar TiH

85-270 TiH

85-320 TiH

85-380 TiH

90 TiH

90-300 TiH

90-360 TiH

90-370 TiH

90-420 TiH

100-320 TiH

110 TiH

100-380 TiH

110-300 TiH

90-480 TiH

100-430 TiH

110-350 TiH

120 TiH

110-400 TiH

120-300 TiH

100-500 TiH

110-450 TiH

110-500 TiH

125 TiH

120-390 TiH

125-350 TiH

125-370 TiH

Rainstar
90/110/120/125
TiH
Art.Nr. 800 2016
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GENERAL

All BAUER products are designed and constructed carefully and subject to continuous quality control . The BAUER RAINSTAR 90/110/120 TiH is a turbine -driven machine which makes irrigation a fully mechanized and thus labor saving job. There's no need to move individual pipes and the machine is positioned and operated with the tractor only.

BAUER Rainstars efficiently irrigate fields of different lengths and widths and operate completely unattended during the entire run.

Strict adherence to the handling, operating and service instructions contained in this manual is the basic prerequisite for long years of satisfactory and trouble-free operation. Make sure that all machine operators are familiar with this manual before they start working with the Rainstar.

The nameplate of the machine states the model and the serial number. In addition, the serial number is stamped in on the underframe. Please refer to these data in all your inquiries and correspondence, warranty matters and parts orders.

We warrant for this machine in accordance with our General Conditions of Sale.

SAFETY PRECAUTIONS

1. Study this manual carefully before handling the machine for the first time.
2. Never handle the PE-pipe near the machine or the machine itself while the pipe is unreeled or pulled in.
3. Never adjust or service the machine (except for setting the speed) while the machine is running.
4. Keep clear off all moving parts.
5. Never disclose moving parts by removing protective devices.
6. Keep a safe distance from the operating sprinkler.
7. Beware of high supply pressure.
8. Ensure that the sprinkler's water jet does not hit public roads.
9. The Rainstar is approved for transport in agricultural use only. If required, driving on public roads is subject to the appropriate traffic regulations.
10. If the machine is loaded on a truck always keep in mind that residual water that is left in the pipe shifts the machine's center of gravity upward.
11. When driving in curves with the loaded machine the maximum permissible driving speed is reduced considerably dependant on the position of the machine's center of gravity.
12. Arresting requirements according to the general specifications for the transport of the machine must be strictly adhered to.
13. Before starting to irrigate fields in the area of overhead transmission lines consult your power supply company regarding the safety distances that have to be allowed.

DESCRIPTION

The Rainstar can generally be used on fields of varying lengths and widths and is best suited for irrigating vegetable cultures, seedbed production units, and any kind of grassland.

Its major components are the two-wheel undercarriage, the turntable with the hydraulical machine supports, the revolving reel with the special PE-pipe, a multifunctional compact gearbox with the turbine Ti 15 or Ti 50, and the special high-rise sled that is best suited for high crops, with the BAUER wide-range sprinkler.

The special PE-pipe is made of state-of-art material and connects to the pipe reel and through its axle to the water supply on one end, while the other end is coupled with the sled. The sled track is infinitely variable from 1500 to 2800 mm.

The BAUER turbine Ti 15 (PE-pipe dia. 85, 90) or Ti 50 (PE-pipe dia. 100, 110) is the heart of the machine. It is a high-efficiency full-flow turbine with an injector-type control, and largely insensitive to dirty water. Drive shaft and impeller are made of stainless steel. The nozzle flap inside the turbine housing functions like an injector and is coated with a wear-proof rubber lining.

The lifetime lubricated drive-shaft bearing is sealed by a maintenance-free mechanical seal.

The turbine model Ti 15 is suited for capacities from 15 to 70 m³/h and features a high control range. The model Ti 50 is suited for capacities from 30 to 100 m³/h. The impeller speed of both turbines ranges between 150 and 950 r.p.m.

The retraction speed is infinitely adjustable. It is set by means of the control lever and displayed on the tachometer, and lies between 8 and 60 m/h with the turbine Ti 15 and between 8 and 100 m/h with the Ti 50, dependent on the flow rate and the existing connection pressure.

Power is transmitted from the turbine over a V-belt drive (with belt coupling), the compact reduction gear with integrated claw coupling, the drum brake and the chain drive to the reel. The drum brake prevents the PE-pipe windings from loosening on the reel during the pull-off operation.

Depending on the existing drive (Ti 15 or Ti 50), the machine is equipped with a two-stage or three-stage V-belt drive. The Ti 15 drive features a 3-stage V-belt drive whose 1st, 2nd, and 3rd stage is designed for retraction speeds of 8-15 m/h, 15-25 m/h, and over 25 m/h respectively.

The Ti 50 drive is equipped with a 2-stage belt drive whose 1st and 2nd stage is suitable for retraction speeds of 8 - 25 m/h and over 25 m/h respectively.

For safety reasons, the drive system is equipped with an automatic return stop which becomes operative if the final shut-off is actuated prematurely by external influence such as e.g. shifting of the START/STOP lever or faulty windings of the PE-pipe on the reel, or automatically at the end of the run.

The PE-pipe remains tensioned. To slacken the tensioned PE-pipe slowly shift the Start/stop lever up (for the proper procedure refer to the functional description).

A guide block moved by the winding chain ensures that the PE-pipe is guided properly on all layers. To keep the retraction speed constant on all layers independent of the length of pipe lying on the field, the machine is equipped with a layering mechanism. This compensating mechanism is actuated by the speed compensator bar that remains in touch with the PE-pipe through all layers, over the control rods and the nozzle flap of the turbine.

The sled actuates the automatic end-of-run shut-off. The V-belt of the drive is slackened by a systems of rods. Simultaneously, the return stop prevents the reel from backward rotation on account of the tensioned pipe.

By retraction of the hydraulic machine supports the sled is automatically lifted into its transport position. After retraction of the supports the Rainstar can be moved to the next working position right away, the PE-pipe pulled off or laid down, the water supply connected, and the unit put into operation again.

For transport the reel must be turned into the driving direction and secured with the lock pin. The PE-pipe must be fully wound up and the sled lifted. The jack must be in the uppermost position.

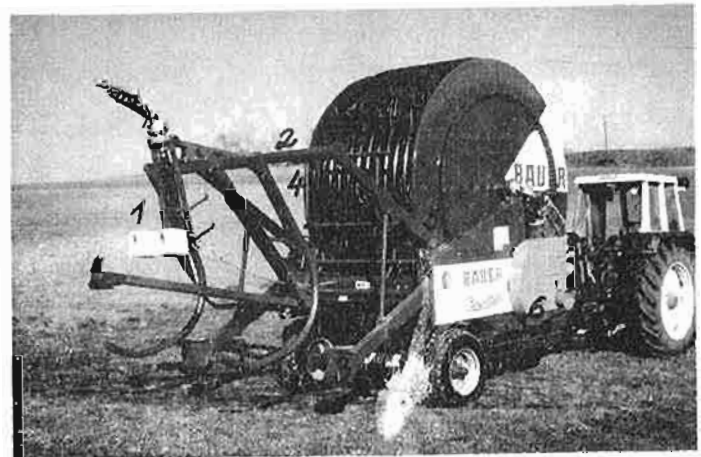
On public roads, the drawbar must be hitched to the tractor and except for an official permit the max. permissible driving speed of 10 km/h must not be exceeded.

Required hydraulic equipment on the tractor:

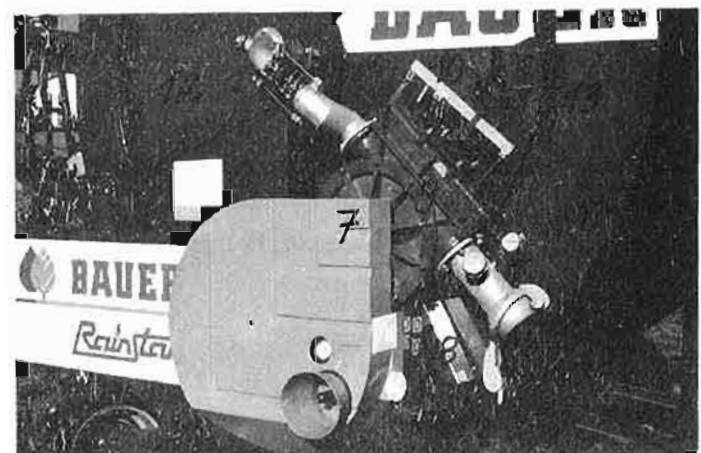
For operating the hydraulic machine supports, the hydraulic system of the tractor must meet the following specifications:

1. Minimum 160 bar overpressure
2. Control for double-acting hydraulic cylinders, that means the tractor must have two connections - one delivery line and one free return line.
On tractors whose delivery and return line cannot be switched over the hoses for extending and retracting the cylinders must be uncoupled and exchanged and then connected again.

- 1 Sled
- 2 Automatic sled lift
- 3 Hydraulic machine supports
- 4 Shut-off frame with mechanical speed compensator bar
- 5 Shut-off rods
- 6 Compact chain drive



- 7 V-belt drive (2 or 3-stage)
- 8 START/STOP lever
- 9 Full-flow turbine
- 10 Speed control
- 11 PE-pipe
- 12 Reel
- 13 Drive chain
- 14 Turntable

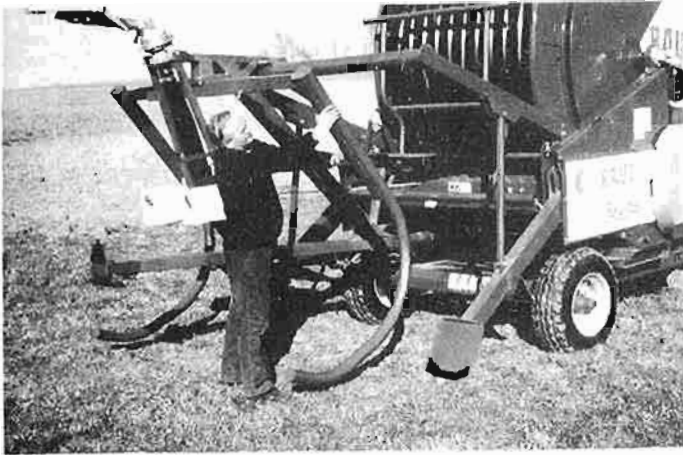


START-UP

Before and during the initial start-up of the machine, all bearings, and the chains and guide pulleys of the winding mechanism must be greased. All bearing assemblies with a grease zerk should be greased with normal ball bearing grease, a viscous and durable grease should be used for the chains, guide rods and joints.

The wheel nuts must be tightened before the initial start-up and the tires checked for the specified pressure (see Technical Data).

STEPS TO BE PERFORMED ONCE OR FROM TIME TO TIME



Set the desired track width on the high-rise sled and on the undercarriage.



Place balancing weights on the sled, if required. (Refer to the chart for the proper number of weights!)



Adjust the part circle setting of the wide-range sprinkler (approx. 220° for full strip width). Refer to sprinkler manual for detailed instructions. Adjust the WIND-GUN to the prevailing wind conditions by changing the trajectory angle.

WORKING MODE I: Pulling off the PE-pipe

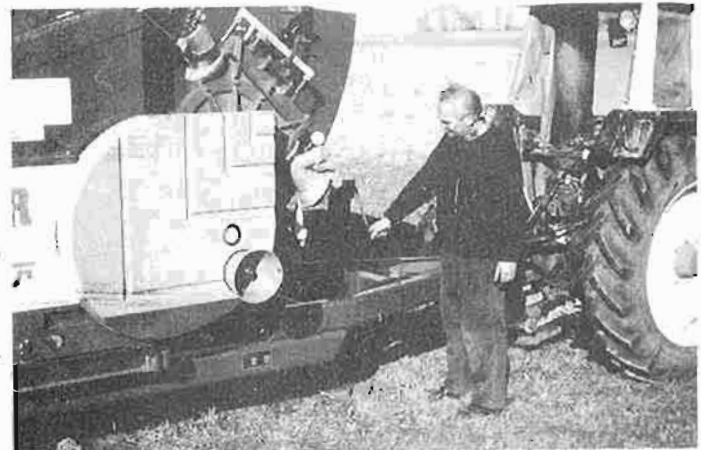
Transport the machine to the place of operation.

The reel must be turned into the driving direction and secured with the lock pin. The sled, the jack, and both rear machine supports must be lifted.



Position the Rainstar on the headland at right angles to the selected irrigation strip and unhitch it from the tractor.

Adjust the undercarriage in a level position with the Jack.

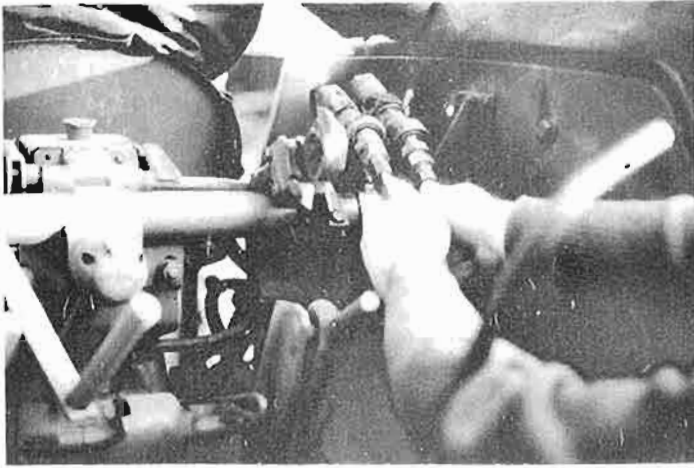


When positioning the Rainstar make sure that the vertical axis of the turntable assumes a position in the middle of the irrigation lane or between two crop rows.



For pulling off the PE-pipe laterally, pull out the lock pin swivel the reel until parallel with the irrigation lane, and secure it again with the lock pin.





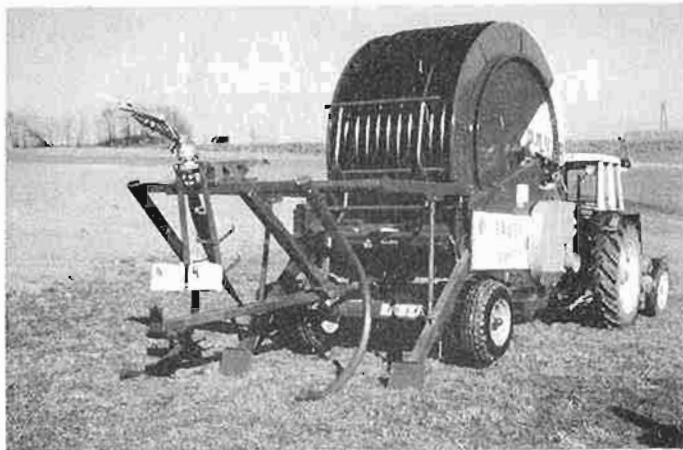
Couple both hydraulic hoses with the hydraulic system of the tractor and extend the machine supports.

NOTE: There is no control block on the Rainstar! Therefore the tractor's hydraulic equipment must be switched over as required for the extension or retraction of the machine supports. If that isn't possible the two hoses must be exchanged.



To stabilize the machine properly the supports should be extended until their end position is reached (wheels should be a few centimeters above the ground).

NOTE: On uneven ground or hard soil the machine may become tilted when the supports are extended. In such a case special care is required when the supports are retracted. If the machine is tilted too much, a suitable material should be placed underneath the respective wheel to compensate when the machine is lowered. Rocks which cause the inclination of the machine should be removed.



When the supports are extended the sled is lowered into the "pulling off position" of the PE-pipe automatically. Then the hydraulic system must be depressurized and the hydraulic hoses uncoupled.



Now disengage the drive by shifting the coupling lever to the "pulling off PE-pipe" position.

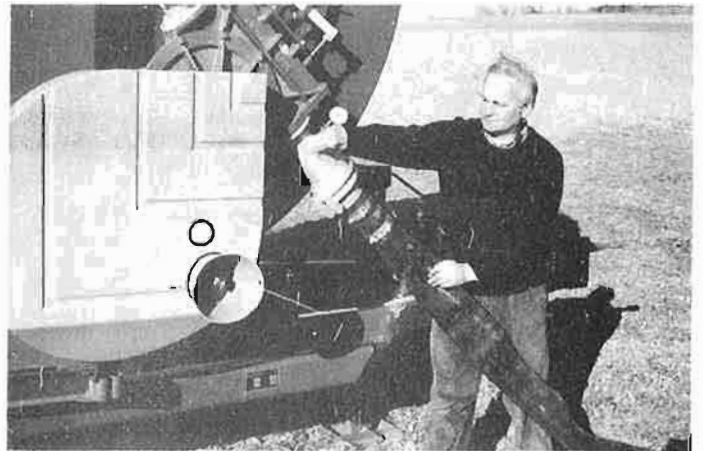
Pick up and lift the sled, burdened with balancing weights as required, at the drawing-out hook with the tractor toolbar. Check once again if the drive is disengaged (coupling lever in "Pulling off PE-pipe" position and fixed properly with lock pin). Disengage the chain that secures the self-balanced mounting assembly of the sprinkler.



Pull off the PE-pipe (max. driving speed 5 km/h). Avoid sudden stops, slow down gradually in the field or when the pipe has been fully unwound. Stop pulling off the pipe as soon as the white marking on the reel becomes visible. **CAUTION:** If the PE-pipe has been exposed to the sun for a longer period of time or its surface temperature reaches 35 °C for some other reason, let water run through it to cool it off before the unwinding or retraction procedure!

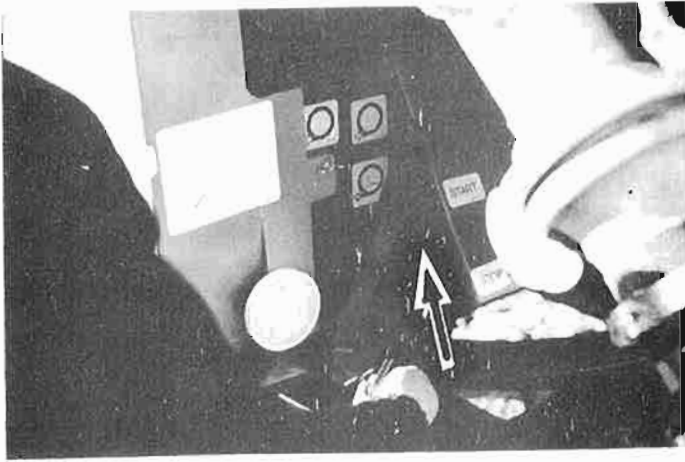


Couple the pressure hose.

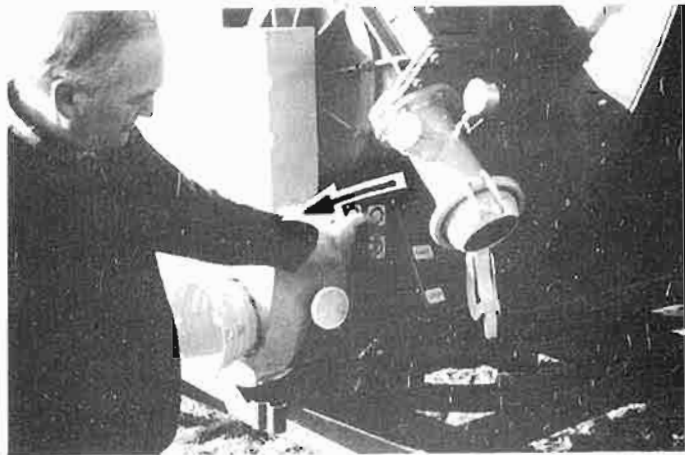


Open the water supply at the pump station or at the hydrant.

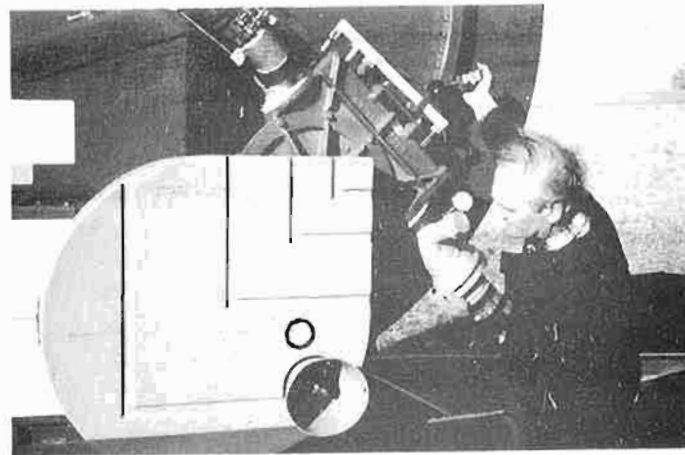




Now engage the drive by vigorously pushing the START/ STOP lever upward to the START position (V-belt is tensioned).



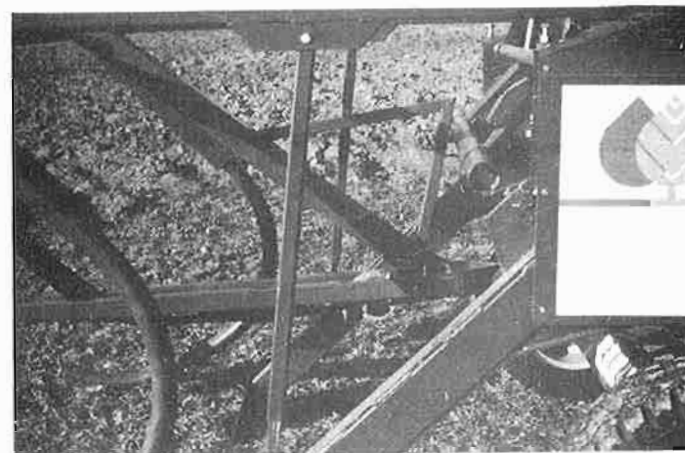
When the correct operation pressure is reached and clean water is discharged in a full jet from the wide-range sprinkler, pull out the lock pin to unlock the coupling lever and shift the lever to the left into the "PE-pipe retraction" position.



Speed adjustment

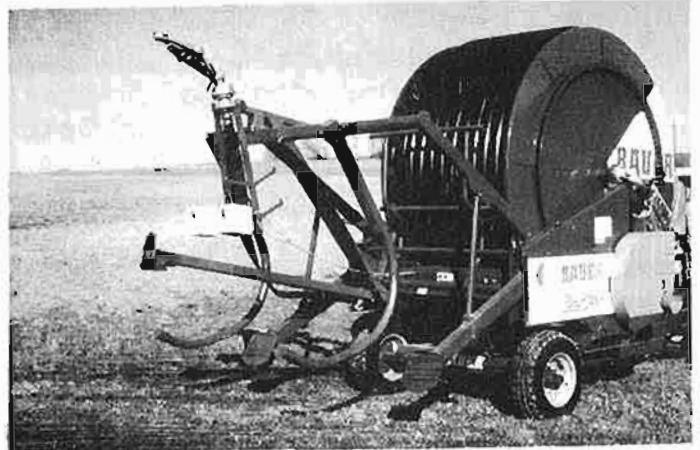
Important: Don't set the speed before one half winding of the PE-pipe has been reeled up and the pipe is under tension. Loosen the knurled nut that fixes the control lever 1/2 turn . Adjust the speed that is indicated on the tachometer by means of the control lever and tighten the nut again.

For the correct V-belt transmission refer to the detailed description.

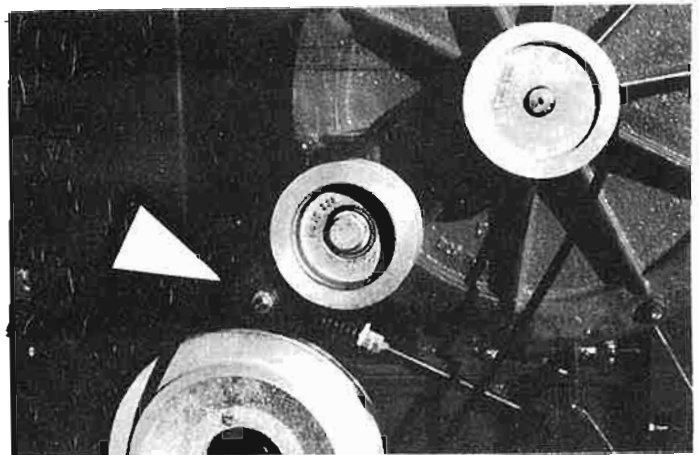


At the end of the run the sled will mount the sled lift and the shut-off frame automatically and the retraction is stopped through the shut-off rods that actuate the START/STOP mechanism. This, however, does not shut down the water supply. For this purpose an optional shut-off valve (over-pressure or low pressure model) can be mounted on request!

After the PE-pipe is fully rewound carefully retract the machine's supports using the tractor's hydraulic system. Thereby the sled is lifted to its transport position automatically. For transport the self-balanced sprinkler mounting assembly must be secured with the transport chain.



The return stop in the drive secures the sled in the end position.



If the Rainstar is misaligned during the retraction of the PE-pipe, it must be realigned and for this purpose the PE-pipe must be slackened first.

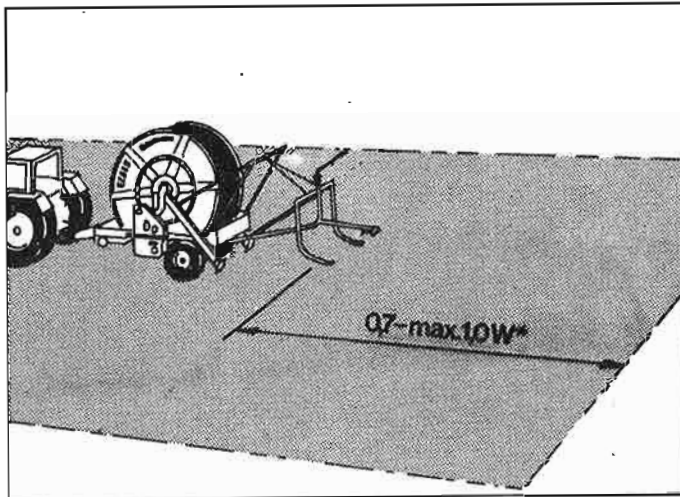
Caution: Never use the hand wheel to slacken a tensioned PE-pipe!

Correct procedure:

1. Turn off the water supply for the Rainstar. The PE-pipe will slacken automatically through the turbine that acts like a hydraulic brake.
2. Realign the machine and stabilize it properly.
3. Open water supply again. PE-pipe retraction is continued.
If the START/STOP or the coupling lever is actuated under point 2. above, the drive must be engaged in addition.

WORKING MODE II: Unreeling the PE-pipe - Pipe-guiding mechanism 120 TIH

In addition to pulling it off the reel the PE-pipe can be laid down while the machine is hauled over the field with the tractor. This method is preferably used when heavy soil makes it impossible to pull the sled with the pipe over the ground or the field length is more than twice the length of the PE-pipe. This type of unreeling also allows the use of smaller tractors because no tensile force is applied on the PE-pipe.

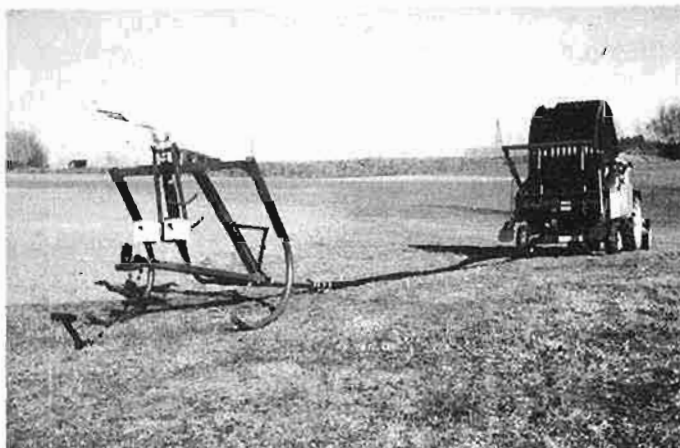


Drive the Rainstar into the field allowing for the sprinkler's distance of throw.

*) W = distance of throw of the sprinkler



Lower the sled hydraulically and secure it on the ground with the chain and the earth nail.



Disengage the drive by shifting the coupling lever to the "pulling off PE-pipe" position. Then drive the Rainstar 10 to 15 m into the field and mount the pipe guiding mechanism, if desired. For the mounting and operating instructions for this pipe guiding mechanism which lays down the pipe properly in the wheel track of the Rainstar please refer to the separate manual.

Carry out all other steps as already described before.

FUNCTIONAL DESCRIPTION OF THE MAIN COMPONENTS

HYDRAULIC SYSTEM

The BAUER Rainstar is equipped with double acting hydraulic cylinders which operate the machine supports. These support legs stabilize the Rainstar efficiently even on roughest terrain.

The tractor's hydraulic equipment must meet the following specifications:

1. Minimum 160 bar overpressure
2. Control unit for double-acting hydraulic cylinders, that means there must be two connections on the tractor, a delivery line and a free return line.

On tractors whose hydraulic system cannot be switched over for delivery and return line, the hoses for EXTENDING and RETRACTING the cylinders must be uncoupled, exchanged and coupled again in each case.

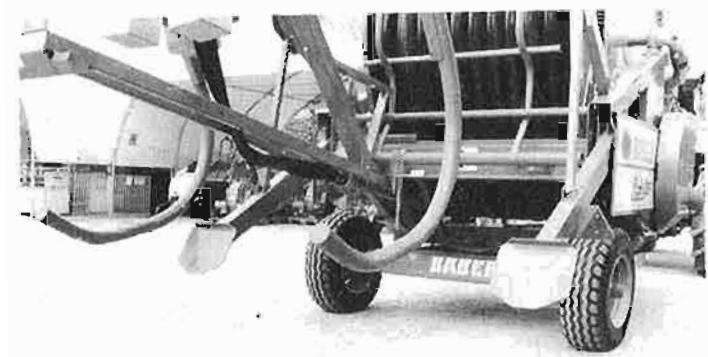
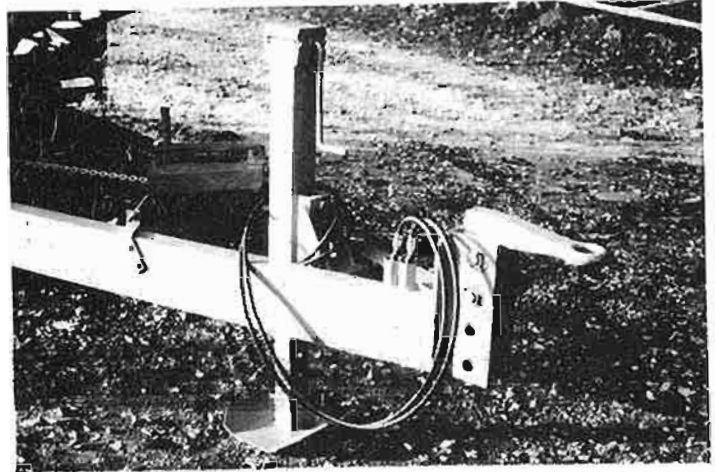
The coupling plugs of the hydraulic lines are fitted with throttling ports (perforated hexagon socket screw). They reduce the speed and the flow rate of the oil and allow the hydraulic cylinders to be EXTENDED and RETRACTED continuously.

NOTE: There is no control block on the Rainstar. Therefore the hydraulic cylinders must always be fully extended for operation. Individual control of the left or right support leg is possible only with an additional control unit. If the Rainstar is mainly operated on uneven ground or on hard and rocky soil, it is strongly recommended to mount a separate control unit on the Rainstar (optional).

Important: Controlling the hydraulic cylinders without a control block on the Rainstar may cause a tilted position of the machine. With the smallest track width the max. permissible difference in height on the horizontal plane before the supports are extended is 15 cm (measured by the wheels). The drawbar should be fully lowered for this purpose.

When the hydraulic cylinders are retracted, special care is required because the cylinders react differently depending on the distribution of weight. If the machine is tilted too much, suitable pieces of hardwood should be placed underneath the affected wheel.

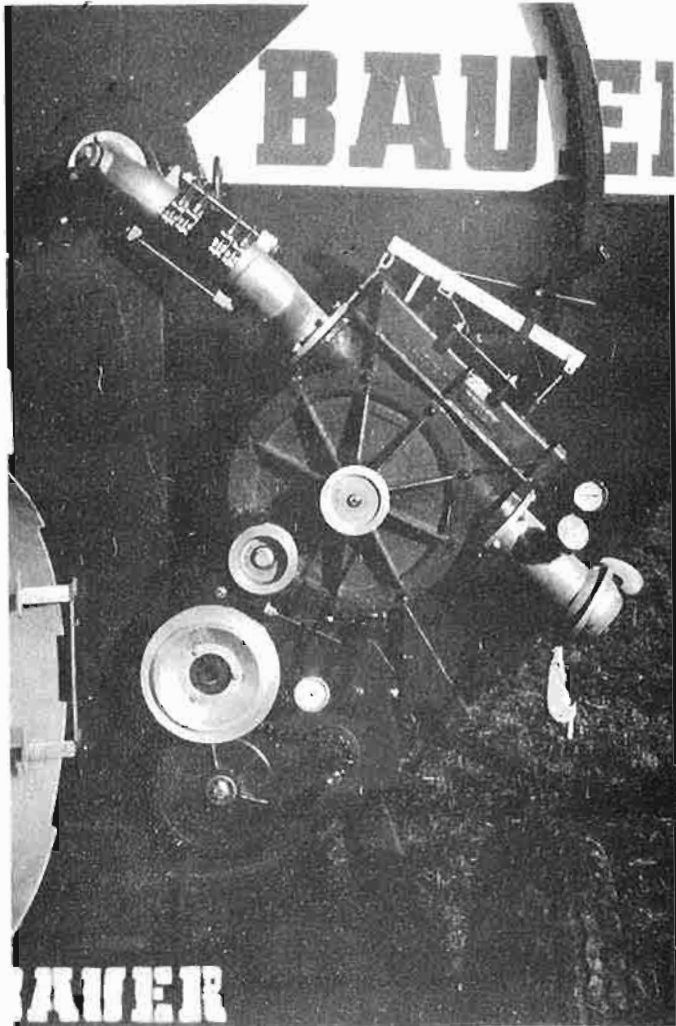
When the supports are extended or retracted the sled is automatically lifted to its transport position or lowered to its working position. The return stop of the drive secures the sled in the raised position (transport position).



MACHINE DRIVE - FULL-FLOW TURBINE

Drive Ti 15

Drive Ti 50



The full-flow turbine, model Ti 15 (for PE-pipe dia. 85, 90 mm) or Ti 50 (PE-pipe dia. 100, 110 mm) provides the necessary energy for the retraction of the PE-pipe. The speed is transferred directly from the impeller shaft over a V-belt drive to the compact gearbox.

The Ti 15 features a 3-stage V-belt drive.

1st stage from 8 - 15 m/h retraction speed

2nd stage from 15 - 25 m/h retraction speed

3rd stage over 25 m/h retraction speed

The Ti 50 features a 2-stage V-belt drive

1st stage from 8 - 25 m/h retraction speed

2nd stage over 25 m/h retraction speed

The compact gearbox includes chain drives and a claw coupling operable with the coupling lever from outside. The compact gearbox offers a high level of efficiency and represents one of the most important components apart from the full-flow turbine.

A return stop prevents loose windings of the PE-pipe on the reel when the V-belt is slackened.



PTO WINDING EQUIPMENT

If necessary, the PE-pipe can be wound up with the tractor via a PTO drive shaft and chain drive. For this purpose shift the coupling lever to the right and arrest it with the lock pin. This will disengage the drive.

Winding up with the PTO shaft is necessary if natural rain makes it unnecessary to continue irrigating a field or if the PE-pipe has been pulled off the reel to drain it for winterization.

Caution: Max. PTO speed 400 rpm. If the pipe is stuck in mud it requires tensile forces beyond the permissible range to free it. Therefore the pipe must be lifted from the ground and loosened before starting to rewind it.

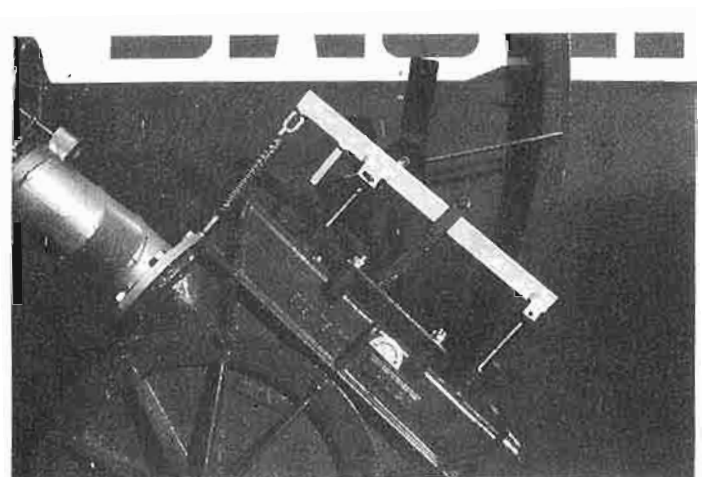
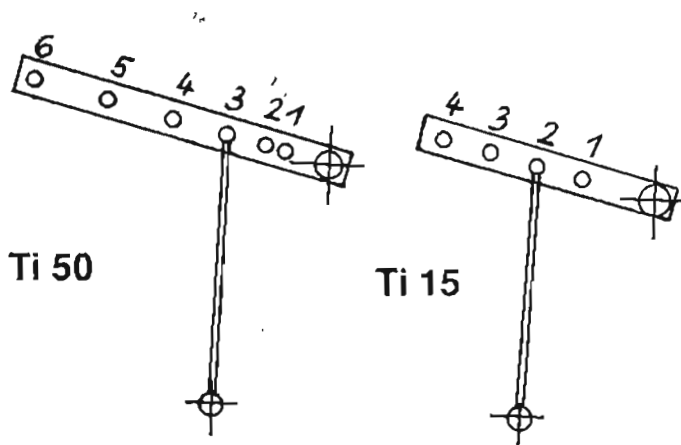


When the pipe is rewound with the PTO shaft, the automatic final shut-off is inoperative. Therefore the PTO drive should be stopped in time and the remaining length of pipe reeled in with the hand wheel to avoid damage to the sled or the shut-off system of the Rainstar.



SPEED CONTROL

The retraction speed is adjusted steplessly with the speed control lever which is secured with the knurled nut after the speed has been selected. It remains nearly constant from the first to the last layer of pipe and within the individual layers, too. This is a result of the readjustment of the nozzle flap of the turbine and thus of the impeller speed through the speed compensator bar which is always in close contact with the pipe on the reel on all layers, over the control rod and the control system mounted directly on the turbine. Varying soil conditions and low flow rates may cause uneven retraction speeds in spite of the layering mechanism. As a remedy for increasing PE-pipe retraction speed the control rod should be hooked up to a hole with a lower number and for decreasing speed in a hole with a higher number in the lever of the layering mechanism.



RECOMMENDED ARRESTING POSITIONS OF THE CONTROL ROD IN THE LEVER OF THE LAYERING MECHANISM

**Turbine Ti 15 A (PE-pipe dia. 85 mm, 90 mm) - basic unit 90 TiH, 110 TiH
(Numbers 1 - 4 on the lever)**

Water consumption (m ³ /h)	Retraction speed (m/h)				
	10	20	30	45	60
	Numbers on the lever				
20	2	2	2	2	-
30	2	2	2	2	3
40	1	1	1	1	2
50	1	1	1	1	1
60	1	1	1	1	1

8 - 15 m/h i = 4 ---> small pulley on the turbine
 15 - 25 m/h i = 2,15 ---> middle pulley on the turbine
 ab 25 m/h i = 1,2 ---> large pulley on the turbine

**Turbine Ti 50 (PE-pipe dia. 100 mm, 110 mm) - Basic unit 110 TiH, 120 TiH
(Numbers 1 - 6 on the lever)**

(m ³ /h)	Retraction speed (m/h)				
	10	20	30	45	60
	Number on the lever				
40	5	5	5	-	-
60	3	3	4	5	6
80	3	3	3	5	6
100	1	2	2	3	3

8 - 25 m/h i = 4 ---> small pulley on the turbine
 ab 25 m/h i = 1,67 ---> large pulley on the turbine

Important:

In case of varying retraction speeds make sure that the most economical belt transmission is selected for each individual case.

1.

Drive TI 15 A -Basic unit 90 TI (PE dia. 85,90mm)

Drive TI 15 A -Basic unit 110 TI (PE dia.90mm)

8-15 m/h: $i=4$... belt on small turbine pulley

15-25 m/h: $i=2.15$..belt on middle turbine pulley

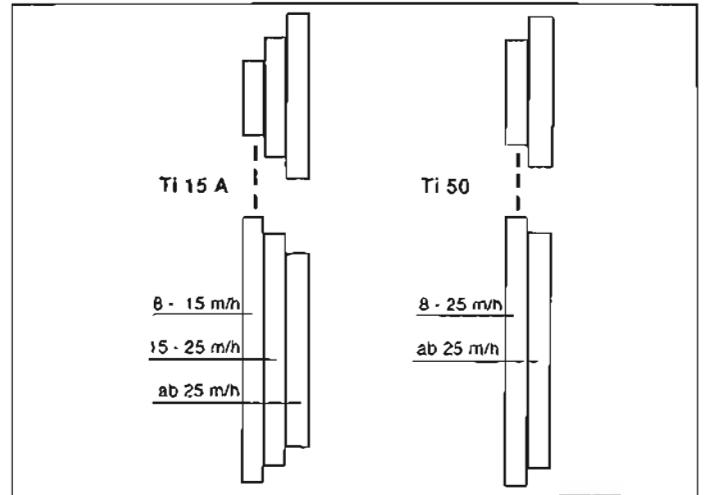
over 25 m/h: $i=1.2$ belt on large turbine pulley

2.

Drive TI 50 - Basic unit 110 TI (PE dia.100,110mm)

8-25 m/h: $i=4$ belt on small turbine pulley

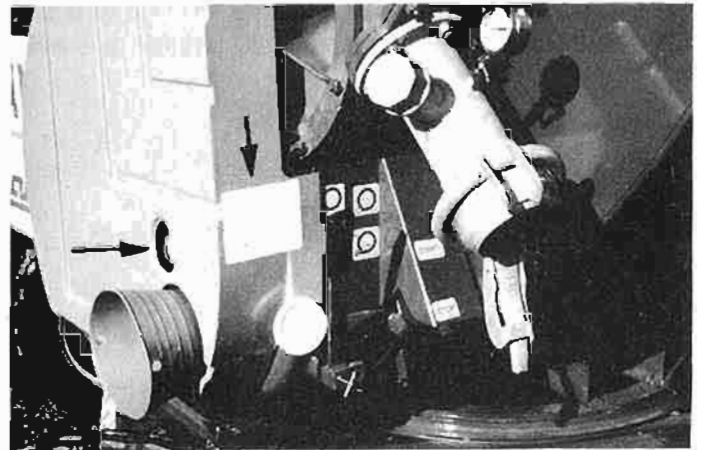
over 25 m/h: $i=1.67$..belt on large turbine pulley



TACHOMETER

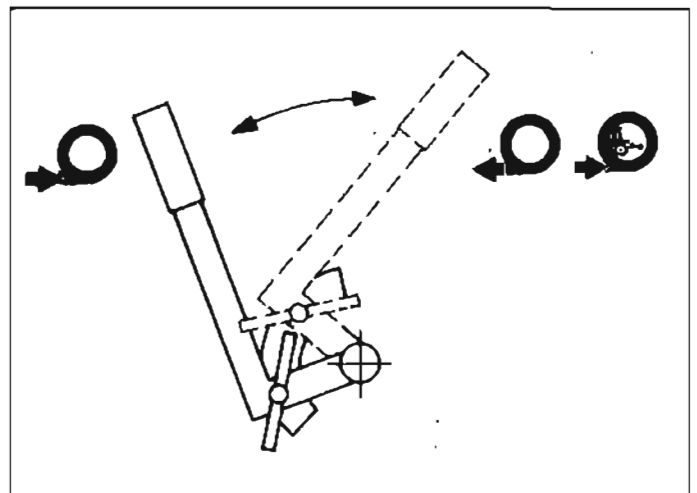
The retraction speed of the sprinkler is directly indicated on the tachometer and selected from the table (in accordance with the machine connection pressure, the nozzle size and the precipitation rate).

NOTE: The indicated speed applies to the innermost PE-pipe layer only. For the layers number 2, 3, 4, and 5 the speed has to be taken from the diagram. The radial lines on the diagram sticker represent the individual PE-pipe layers.

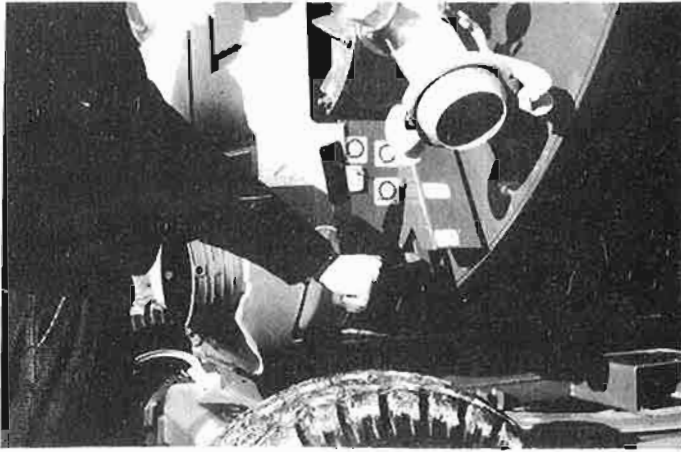


COUPLING LEVER

The drive coupling in the chain drive consists of two interlocking claws. With the coupling lever they are engaged in the left and disengaged in the right position. The lever is secured with the lock pin both in the left and in the right position to prevent the coupling from engaging while the PE-pipe is pulled off the reel or wound up with the PTO shaft. For coupling the drive the lock pin is pulled out and the lever shifted to the left. Since the coupling lever is pretensioned with a tension spring the drive should be engaged when the turbine is operating.



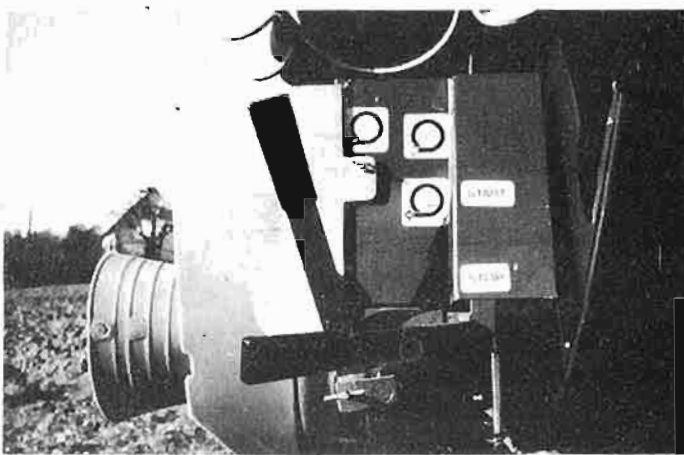
CAUTION: The drive should not be disengaged while the machine is operating or when the PE-pipe is tensioned. For this purpose the PE-pipe must be first slackened by turning off the water supply.



START - STOP lever

By shifting the START - STOP lever vigorously up to the START position the chain drive of the turbine is engaged. The transmission element is the V-belt. The lever will then return to its initial position (middle position). If the lever is shifted to the STOP position, the V-belt is slackened and the return stop mechanism becomes operative at the same time. The return stop engages in the V-belt pulley of the drive and prevents the reel from reverse rotation even if the PE-pipe is tensioned.

EMERGENCY STOP: If something happens that requires the sudden shut-down of operation, the retraction of the PE-pipe is stopped instantly when the STOP lever is shifted downward. To continue the pipe retraction simply push the lever up to START again gradually (the PE-pipe will slacken).



BRAKE

The drum brake is mounted directly on the rear of the chain drive. The brake force is just strong enough to allow the PE-pipe to be pulled off without effort while it keeps the reel from overwinding.

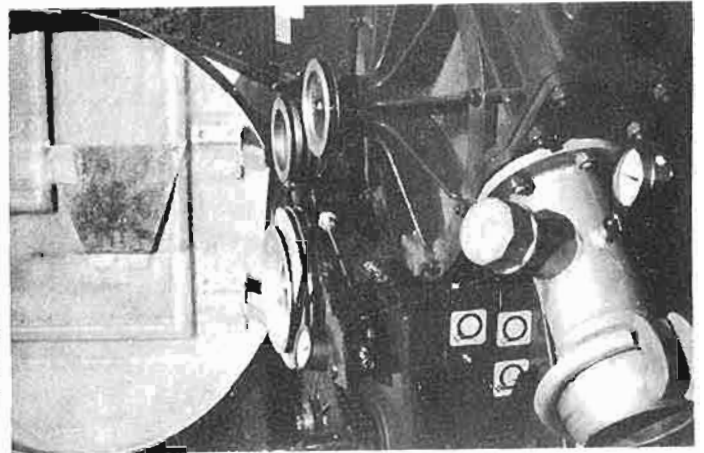
WINDING MECHANISM

This mechanism operates synchronously with the reeling or unreeling of the PE-pipe. Starting from the reel, it is operated through a chain, the angular gear, and the winding chain that moves the guide block of the PE-pipe. The winding mechanism ensures that the pipe is guided properly winding for winding. When the machine is put into operation for the first time, the full length of pipe should be pulled off the reel to enable it to take a circular shape under pressure. This is very important for the proper function of the winding mechanism.



SHUT-OFF AND SAFETY EQUIPMENT

Unattended operation of the Rainstar is made possible by a final and safety shut-off system. The final shut-off is actuated when the sled presses against the shut-off frame which then actuates the pretensioning mechanism of the V-belt through a system of rods. The V-belt is slackened and the chain drive stops. To avoid trouble by faulty windings of pipe on the reel, the shut-off is also actuated through the speed compensator bar that is part of the shut-off frame.



SLED

The high construction of the sled is best suited for optimum crop protection. Its track width is steplessly variable from 1500 to 2800 mm and allows optimum adjustment to practically any crop row spacing. For easier haulage the sled is equipped with a draw-out hook which is picked up by the tractor toolbar to lift the sled and pull the PE-pipe off the reel. When the machine is turned or repositioned, the sled must be in its end position.

The nozzle height of the mounted sprinkler is about 2.2 m. On account of the self-balanced mounting assembly, the sprinkler is not tilted when it moves up to the Rainstar. It remains in the optimum position in view of its distance of throw and the distribution of the irrigation water. This self-balanced mounting assembly also compensates any slopes in the field in longitudinal direction of the retraction.



TABLE FOR SELECTION OF THE CONCRETE WEIGHTS

Nozzle Ø in mm	1500				1800				Track in mm 2000				2400				2300			
	Nozzle pressure in bar																			
	3	4	5	6	3	4	5	6	3	4	5	6	3	4	5	6	3	4	5	6
26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
28	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
30	2	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
32	2	2	4	6	2	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2
34	2	2	4	6	2	2	4	4	2	2	2	4	2	2	2	2	2	2	2	2
36	2	2	6	6	2	2	4	6	2	2	2	4	2	2	2	2	2	2	2	2

From nozzles 18 to 24 Ø 2 burdening weights are required.

WINTERIZATION - DRAINING

In areas where frost is likely in the winter, after the irrigation season, the machine must be drained in time. A compressor with a minimum capacity of 800 ltrs. at 2.5 bar overpressure is best suited for that purpose. The compressor is connected on the inlet side of the machine. The PE-pipe remains on the reel and is not pulled off. If pulled off for draining, the pressureless pipe would take an impermissible oval shape and become impossible to rewind properly winding for winding. Before starting to blow out the water, the nozzle of the wide-range sprinkler must be turned out or the inlet hose of the sprinkler disconnected. The coupling claws of the drive and the V-belt (STOP lever towards STOP position) should be disengaged before the draining operation. The water remaining in the PE-pipe after the draining is negligible. A PE-pipe that has been wound on the reel at very high temperatures (over 30 °C) and with high tensile force should be unreeled and rewound again one more time just before the beginning of the cold season to prevent damage to the reel by possibly existing stress.

The drain plug on the bottom of the turbine (Ti 15 or Ti 50) must be turned out. We recommend not to turn it in again until the machine is put into operation again at the beginning of the next season. If the machine is equipped with a shut-off valve, the small hoses must also be drained by opening the screwed joints

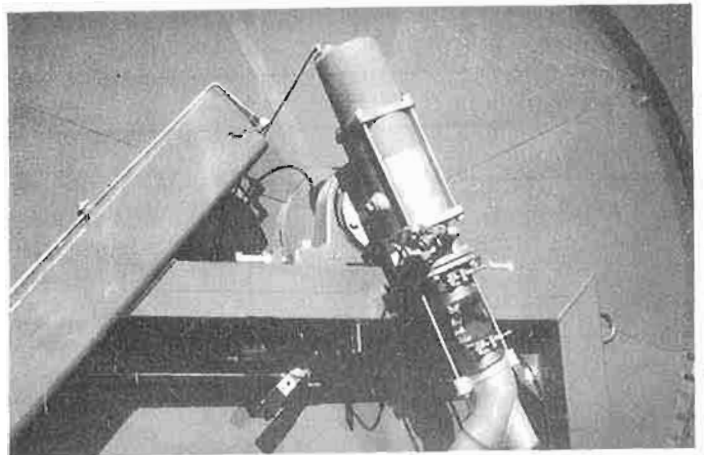
Clean the Rainstar thoroughly and regrease all appropriate parts. The machine should preferably be stored in a roofed shelter where it is not directly exposed to the influences of the weather.

AUTOMATIC SHUT-DOWN OF WATER SUPPLY AND PUMP UNIT

OVERPRESSURE SHUT-OFF VALVE (OPTIONAL)

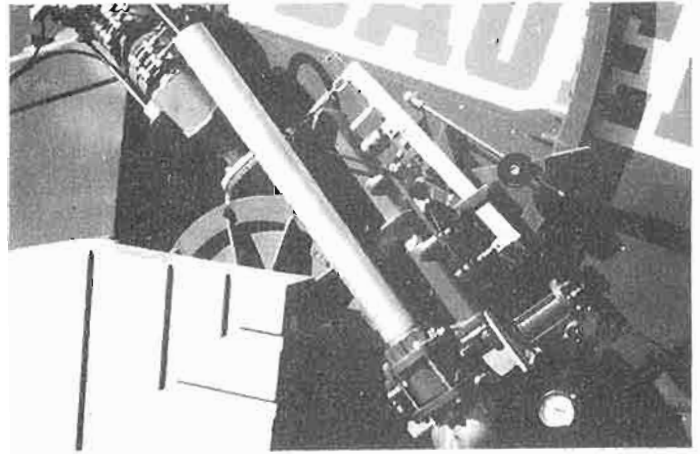
With the overpressure shut-off valve the water supply to the machine is shut down completely at the end of the irrigation run. When the valve closes the pressure in the supply line increases.

Therefore this valve can only be used in combination with an automatic pump-unit shut-down device. Before a new start with water the hand lever must be shifted to "START" (to the right) to release and open the shut-off valve.



LOW-PRESSURE SHUT-OFF VALVE (OPTIONAL)

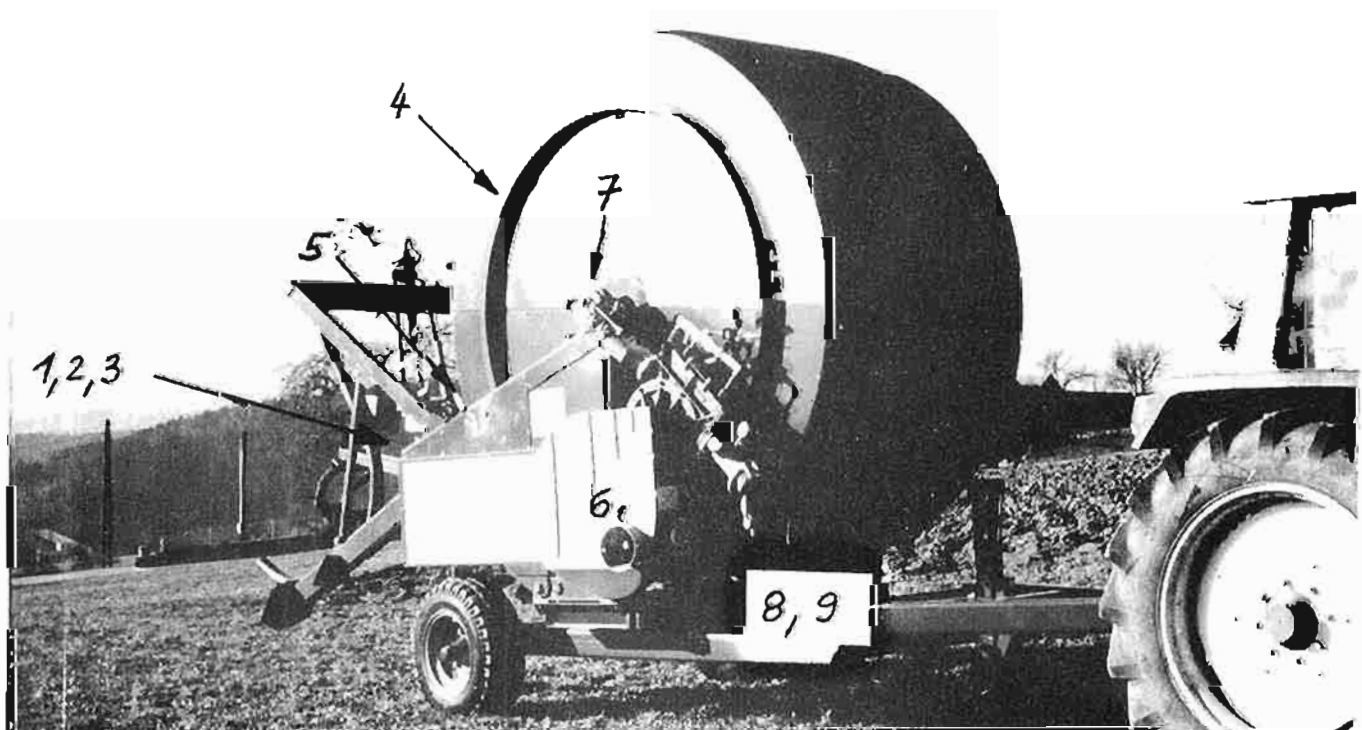
At the end of the run the low-pressure shut-off valve opens a stop valve through which a considerable amount of water is discharged into the open, causing a sudden decrease of pressure in the delivery line (to about half the original pressure). As a result, a pressure switch mounted on the pump shuts down the pump and consequently the water supply. When started again with water the hand lever of the three-way cock must be shifted to the "START" position (to the right). This closes the stop valve through the pressure of the water.



SERVICE AND MAINTENANCE

It cannot be emphasized often enough that proper and timely servicing influence the operating reliability and the service life of machines considerably. At the end of the irrigation season, the Rainstar must be thoroughly checked, cleaned and greased.

<i>Machine part</i>	<i>Service Interval</i>	<i>Lubricant, grease, oil</i>
1. Guide rod of the winding mechanism	250 hours	Alvania Grease 3
2. Drive chain of the winding mechanism	250 hours	Alvania Grease 3
3. Winding chain, driver, bracket, guide pulleys	250 hours	Alvania Grease 3
4. Drive chain	as required	Alvania Grease 3
5. Winding gear	250 hours	Alvania Grease 3
6. Chain drive	first oil change after 250 hours, then every 3000 hours of operation	4.0 I SAE 20
7. Reel inlet	250 hours	through grease zerk Alvania Grease 3
8. Ball race	every 500 hours	through grease zerk Alvania Grease 3
9. Screwed joints, turntable undercarriage	tighten once after 50 hours of operation	---



FAULT DESCRIPTION

FAULT	CAUSE	REMEDY
PE-pipe cannot be pulled off the reel	Coupling claws engaged	Shift the coupling lever to the right towards "pulling off PE-pipe"
	Brake set too tight	Check brake setting or loosen brake. CAUTION: No too much, otherwise the reel will start overwinding
The PE-pipe retraction stops before the final shut-off is actuated	Turbine is blocked by foreign body	Remove foreign body
	Pressure drop in supply line	Check pump station and connection on hydrant
	Coupling claws not fully engaged	Engage coupling claws properly by operating the coupling lever again
	V-belt damaged	Replace V-belt
	V-belt slack	Check mechanical arrestment
	Overwinding of PE-pipe actuates safety shut-off	Adjust winding mechanism Repair broken winding chain
Final shut-off actuated but shut-off valve does not close	Setting values of the shut-off actuation not correct	Adjust according to instructions
	Thin plastic hose of shut-off valve blocked or broken	Replace plastic hose
The reel overwinds when the PE-pipe is pulled off and the windings become loose	Incorrect brake setting	Adjust setting according to instructions
	Brake force too low	Replace brake lining
Retraction speed varies from layer to layer	Varying ground conditions	Adjust control system to the ground conditions (shift rods on lever of layering mechanism)
Selected retraction speed cannot be reached	Incorrect drive transmission	Turn over the V-belt pulley on the turbin.

TECHNISCHE DATEN - TECHNICAL DATA - DONNEES TECHNIQUES

RAINSTAR 90 TIH	Typ model type	85-270	85-320	85-380	90-300	90-360
Länge incl. Stativ Length incl. sledge Longueur avec traîneau	mm	6000				
Breite ohne Stativ Width without sledge Largeur sans traîneau	mm	2365				
Höhe Height Hauteur	mm	3000				
Gewicht mit PE-Rohr mit Wasser Weight with water-filled PE-pipe Poids avec tube PE rempli d'eau	kg	3340	3630	3970	3720	4100
Gewicht mit PE-Rohr ohne Wasser Weight with empty PE-pipe Poids avec tube PE sans eau	kg	2220	2350	2530	2350	2530
PE-Rohr Ø x Länge PE-pipe Ø x length Ø Tube PE x longueur	mm x m	85 - 270	85 - 320	85 - 380	90 - 300	90 - 360
Spurweite Fahrgestell verstellbar Rainstar track width adjustable Voie châssis réglable	mm	1500 - 2000				
Bereifung Tyres Pneus	AM	10/80-12/8 Ply				
Reifendruck Tyre pressure Pression de pneus	bars	4,2				
Schleppstativ Sledge Traîneau	Spurweite stufenlos verstellbar infinitely adjustable track width voie réglable sans intervalles	1500 - 2800				

Die technischen Angaben, Abbildungen und Maße sind unverbindlich. Irgendwelche Ansprüche können daraus nicht abgeleitet werden. Wir behalten uns vor, Änderungen an den Geräten vorzunehmen, ohne diese Anleitung zu korrigieren

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TECHNISCHE DATEN - TECHNICAL DATA - DONNEES TECHNIQUES

RAINSTAR 110 TH	Typ model type	90-370	90-420	100-320	100-380	110-300
Länge incl. Stativ Length incl. sledge Longueur avec traîneau	mm	7400				
Breite ohne Stativ Width without sledge Largeur sans traîneau	mm	2410				
Höhe Height Hauteur	mm	3430				
Gewicht mit PE-Rohr mit Wasser Weight with waterfilled PE-pipe Poids avec tube PE rempli d'eau	kg	4760	5080	4920	5390	5250
Gewicht mit PE-Rohr ohne Wasser Weight with empty PE-pipe Poids avec tube PE sans eau	kg	3180	3360	3150	3370	3210
PE-Rohr Ø x Länge PE-pipe Ø x length Ø Tube PE x longueur	mm x m	90-370	90-420	100-320	100-380	110-300
Spurweite Fahrgestell verstellbar Rainstar track width adjustable Voie châssis réglable	mm	1800 – 2250				
Bereifung Tyres Pneus	AM	10/75-15/12 Ply				
Reifendruck Tyre pressure Pression de pneus	bars	5,5				
Schleppstativ Spurweite stufenlos verstellbar Sledge infinitely adjustable track width Traîneau voie réglable sans intervalles	mm	1500 – 2800				

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TECHNISCHE DATEN - TECHNICAL DATA - DONNEES TECHNIQUES

RAINSTAR 120 TIH	Typ model type	90-480	100-430	110-350	110-400	120-300
Länge incl. Stativ Length incl. sledge Longueur avec traîneau	mm	7400				
Breite ohne Stativ Width without sledge Largeur sans traîneau	mm	2420				
Höhe Height Hauteur	mm	3460				
Gewicht mit PE-Rohr mit Wasser Weight with waterfilled PE-pipe Poids avec tube PE rempli d'eau	kg	5610	5930	5880	6360	5890
Gewicht mit PE-Rohr ohne Wasser Weight with empty PE-pipe Poids avec tube PE sans eau	kg	3760	3810	3610	3890	3730
PE-Rohr Ø x Länge PE-pipe Ø x length Ø Tube PE x longueur	mm x m	90-480	100-430	110-350	110-400	120-300
Spurweite Fahrgestell verstellbar Rainstar track width adjustable Voie châssis réglable	mm	1800 – 2250				
Bereifung Tyres Pneus	AM	11,5/80-15,3/12 Ply				
Reifendruck Tyre pressure Pression de pneus	bars	5				
Schleppstativ Sledge Traîneau	Spurweite stufenlos verstellbar infinitely adjustable track width voie réglable sans intervalles	mm	1500 – 2800			

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TECHNISCHE DATEN - TECHNICAL DATA - DONNEES TECHNIQUES

RAINSTAR 125 T1H		Typ model type	100 - 500	110 - 450	110 - 500	120 - 390	125 - 350	125 - 370
Länge incl. Stativ Length incl. sledge Longueur avec traîneau	mm	8550						
Breite ohne Stativ Width without sledge Largeur sans traîneau	mm	2570						
Höhe Height Hauteur	mm	3740						
Gewicht mit PE-Rohr mit Wasser Weight with waterfilled PE-pipe Poids avec tube PE rempli d'eau	kg	6700	7050	7500	7200	7050	7300	
Gewicht mit PE-Rohr ohne Wasser Weight with empty PE-pipe Poids avec tube PE sans eau	kg	4400	4400	4570	4340	4160	4250	
PE-Rohr Ø x Länge PE-pipe Ø x length Ø Tube PE x longueur	mm x m	100-500	110-450	110-500	120-390	125-350	125-370	
Spurweite Fahrgestell verstellbar Rainstar track width adjustable Voie châssis réglable	mm	1800 – 2100						
Bereifung Tyres Pneus	AM	12,5/80-15,3/14 Ply						
Reifendruck Tyre pressure Pression de pneus	bars	5,7						
Schleppstativ Sledge Traîneau	Spurweite stufenlos verstellbar infinitely adjustable track width voie réglable sans intervalles	mm	1500 – 2800					

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BAUER

PERFORMANCE TABLE BAUER RAINSTAR 85 - 270 TIH

Nozzle diameter (mm)	Nozzle pressure (bar)	Spray range (m)	Width of strip (m)	Water consumption (m ³ /h)	PE-Pipe outs. diameter 85 mm		PE-Pipe length 270 m		Sprinkler BAUER SR25/SR35	max. irrigated area 2 x 2.78 = 5.6 ha		max. width of irrig. strip 87 m							
					10 mm	15 mm	20 mm	25 mm		30 mm	35 mm	40 mm	45 mm	50 mm					
Retraction speed (m/h) & connection pressure (bar) at precipitot. rate																			
		10 mm		15 mm		20 mm		25 mm		30 mm		35 mm		40 mm		45 mm		50 mm	
		m/h - bar		m/h - bar		m/h - bar		m/h - bar		m/h - bar		m/h - bar		m/h - bar		m/h - bar		m/h - bar	
16	3.5	36.4	61	18.4	20 - 5.3	15 - 4.7	12 - 5.4	10 - 4.7	9 - 4.6	9 - 4.6	9 - 4.6	9 - 4.6	9 - 4.6	9 - 4.6	9 - 4.6	9 - 4.6	9 - 4.6	9 - 4.6	9 - 4.6
	4.0	37.7	64	19.7	20 - 5.8	15 - 5.3	12 - 5.7	10 - 5.3	9 - 5.2	9 - 5.2	9 - 5.2	9 - 5.2	9 - 5.2	9 - 5.2	9 - 5.2	9 - 5.2	9 - 5.2	9 - 5.2	9 - 5.2
	4.5	38.9	66	20.9	21 - 6.3	16 - 5.9	13 - 6.2	11 - 6.0	9 - 5.8	9 - 5.8	9 - 5.8	9 - 5.8	9 - 5.8	9 - 5.8	9 - 5.8	9 - 5.8	9 - 5.8	9 - 5.8	9 - 5.8
	3.0	36.1	61	19.2	21 - 5.0	16 - 4.3	13 - 4.9	11 - 4.3	9 - 4.2	9 - 4.2	9 - 4.2	9 - 4.2	9 - 4.2	9 - 4.2	9 - 4.2	9 - 4.2	9 - 4.2	9 - 4.2	9 - 4.2
	3.5	37.6	63	20.8	22 - 5.4	16 - 4.9	13 - 5.3	11 - 5.0	9 - 4.8	9 - 4.8	9 - 4.8	9 - 4.8	9 - 4.8	9 - 4.8	9 - 4.8	9 - 4.8	9 - 4.8	9 - 4.8	9 - 4.8
17	4.0	39.0	66	22.2	22 - 5.9	17 - 5.5	13 - 5.8	11 - 5.6	10 - 5.5	10 - 5.5	10 - 5.5	10 - 5.5	10 - 5.5	10 - 5.5	10 - 5.5	10 - 5.5	10 - 5.5	10 - 5.5	10 - 5.5
	4.5	40.2	68	23.5	23 - 6.4	17 - 6.2	14 - 6.4	12 - 6.2	10 - 6.1	10 - 6.1	10 - 6.1	10 - 6.1	10 - 6.1	10 - 6.1	10 - 6.1	10 - 6.1	10 - 6.1	10 - 6.1	10 - 6.1
	5.0	41.3	70	24.8	24 - 7.0	18 - 6.8	14 - 7.0	12 - 6.8	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7
	3.0	37.3	63	21.5	23 - 4.9	17 - 4.5	14 - 4.9	11 - 4.6	10 - 4.5	10 - 4.5	10 - 4.5	10 - 4.5	10 - 4.5	10 - 4.5	10 - 4.5	10 - 4.5	10 - 4.5	10 - 4.5	10 - 4.5
	3.5	39.0	66	23.3	24 - 5.5	18 - 5.2	14 - 5.4	12 - 5.2	10 - 5.1	10 - 5.1	10 - 5.1	10 - 5.1	10 - 5.1	10 - 5.1	10 - 5.1	10 - 5.1	10 - 5.1	10 - 5.1	10 - 5.1
18	4.0	40.5	68	24.9	24 - 6.1	18 - 5.8	15 - 6.1	12 - 5.9	10 - 5.8	10 - 5.8	10 - 5.8	10 - 5.8	10 - 5.8	10 - 5.8	10 - 5.8	10 - 5.8	10 - 5.8	10 - 5.8	10 - 5.8
	4.5	41.9	71	26.4	25 - 6.7	19 - 6.4	15 - 6.7	12 - 6.5	11 - 6.4	11 - 6.4	11 - 6.4	11 - 6.4	11 - 6.4	11 - 6.4	11 - 6.4	11 - 6.4	11 - 6.4	11 - 6.4	11 - 6.4
	5.0	43.2	73	27.8	25 - 7.3	19 - 7.1	15 - 7.0	13 - 7.1	11 - 7.0	11 - 7.0	11 - 7.0	11 - 7.0	11 - 7.0	11 - 7.0	11 - 7.0	11 - 7.0	11 - 7.0	11 - 7.0	11 - 7.0
	3.0	39.5	67	26.6	26 - 5.0	20 - 5.0	16 - 4.9	13 - 5.1	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0
	3.5	41.3	70	28.7	27 - 5.7	21 - 5.7	16 - 5.6	14 - 5.8	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7
20	4.0	42.9	72	30.7	28 - 6.4	21 - 6.4	17 - 6.4	14 - 6.5	12 - 6.4	12 - 6.4	12 - 6.4	12 - 6.4	12 - 6.4	12 - 6.4	12 - 6.4	12 - 6.4	12 - 6.4	12 - 6.4	12 - 6.4
	4.5	44.3	75	32.6	29 - 7.1	22 - 7.1	17 - 7.1	14 - 7.2	12 - 7.1	12 - 7.1	12 - 7.1	12 - 7.1	12 - 7.1	12 - 7.1	12 - 7.1	12 - 7.1	12 - 7.1	12 - 7.1	12 - 7.1
	5.0	45.7	77	34.3	30 - 7.9	22 - 7.9	18 - 7.8	15 - 7.9	13 - 7.8	13 - 7.8	13 - 7.8	13 - 7.8	13 - 7.8	13 - 7.8	13 - 7.8	13 - 7.8	13 - 7.8	13 - 7.8	13 - 7.8
	3.0	39.5	67	26.6	26 - 5.0	20 - 5.0	16 - 4.9	13 - 5.1	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0	11 - 5.0
	3.5	41.3	70	28.7	27 - 5.7	21 - 5.7	16 - 5.6	14 - 5.8	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7	12 - 5.7
22	4.0	45.2	76	37.2	33 - 7.2	24 - 7.3	20 - 7.2	16 - 6.9	14 - 7.2	14 - 7.2	14 - 7.2	14 - 7.2	14 - 7.2	14 - 7.2	14 - 7.2	14 - 7.2	14 - 7.2	14 - 7.2	14 - 7.2
	4.5	46.7	79	39.4	33 - 8.0	25 - 8.1	20 - 7.7	17 - 7.6	14 - 8.0	14 - 8.0	14 - 8.0	14 - 8.0	14 - 8.0	14 - 8.0	14 - 8.0	14 - 8.0	14 - 8.0	14 - 8.0	14 - 8.0
	5.0	48.1	81	41.6	34 - 8.6	26 - 8.5	21 - 8.5	17 - 8.4	15 - 8.6	15 - 8.6	15 - 8.6	15 - 8.6	15 - 8.6	15 - 8.6	15 - 8.6	15 - 8.6	15 - 8.6	15 - 8.6	15 - 8.6
	3.0	41.6	70	32.2	31 - 5.6	23 - 5.6	18 - 5.5	15 - 5.5	13 - 5.6	13 - 5.6	13 - 5.6	13 - 5.6	13 - 5.6	13 - 5.6	13 - 5.6	13 - 5.6	13 - 5.6	13 - 5.6	13 - 5.6
	3.5	43.0	73	34.8	32 - 6.4	24 - 6.5	19 - 6.4	16 - 6.3	14 - 6.4	14 - 6.4	14 - 6.4	14 - 6.4	14 - 6.4	14 - 6.4	14 - 6.4	14 - 6.4	14 - 6.4	14 - 6.4	14 - 6.4
24	4.0	47.2	80	44.2	36 - 7.7	27 - 7.8	22 - 7.7	18 - 7.7	15 - 7.7	15 - 7.7	15 - 7.7	15 - 7.7	15 - 7.7	15 - 7.7	15 - 7.7	15 - 7.7	15 - 7.7	15 - 7.7	15 - 7.7
	4.5	48.9	83	46.9	37 - 8.8	28 - 8.7	23 - 8.7	19 - 8.6	16 - 8.5	16 - 8.5	16 - 8.5	16 - 8.5	16 - 8.5	16 - 8.5	16 - 8.5	16 - 8.5	16 - 8.5	16 - 8.5	16 - 8.5
	5.0	50.4	85	49.5	39 - 9.7	29 - 9.5	23 - 9.6	19 - 9.5	17 - 9.4	17 - 9.4	17 - 9.4	17 - 9.4	17 - 9.4	17 - 9.4	17 - 9.4	17 - 9.4	17 - 9.4	17 - 9.4	17 - 9.4
	3.0	43.6	74	38.3	35 - 6.4	26 - 6.1	21 - 6.3	17 - 6.0	15 - 6.4	15 - 6.4	15 - 6.4	15 - 6.4	15 - 6.4	15 - 6.4	15 - 6.4	15 - 6.4	15 - 6.4	15 - 6.4	15 - 6.4
	3.5	45.6	77	41.4	36 - 7.3	27 - 7.0	21 - 7.0	18 - 6.9	15 - 6.8	15 - 6.8	15 - 6.8	15 - 6.8	15 - 6.8	15 - 6.8	15 - 6.8	15 - 6.8	15 - 6.8	15 - 6.8	15 - 6.8
26	4.0	49.4	84	51.9	40 - 8.1	30 - 8.0	24 - 8.0	20 - 7.9	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8
	4.5	50.4	85	49.5	41 - 9.2	31 - 8.9	25 - 9.1	21 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8
	5.0	51.9	87	56.3	45 - 9.4	34 - 9.1	27 - 9.0	22 - 9.2	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0
	3.0	45.5	77	45.0	39 - 7.1	29 - 6.9	23 - 7.0	19 - 6.9	17 - 6.8	17 - 6.8	17 - 6.8	17 - 6.8	17 - 6.8	17 - 6.8	17 - 6.8	17 - 6.8	17 - 6.8	17 - 6.8	17 - 6.8
	3.5	47.6	80	48.6	40 - 8.1	30 - 7.9	24 - 8.2	20 - 7.9	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8	17 - 7.8
28	4.0	49.4	84	51.9	41 - 9.2	31 - 8.9	25 - 9.1	21 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8	18 - 8.8
	3.5	49.5	84	56.3	45 - 9.4	34 - 9.1	27 - 9.0	22 - 9.2	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0	19 - 9.0



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FOR A BETTER WORLD

PERFORMANCE TABLE BAUER RAINSTAR 85 - 320 TIH

PE-Pipe outs. diameter 85 mm		Sprinkler BAUER SR25/SR35		max. irrigated area 2 x 3.15 - 6.3 ha										
PE-Pipe length 320 m		max. length of strip 2 x 370 m		max. width of irrig. strip 85 m										
Nozzle diameter [mm]	Nozzle press [bar]	Spray range [m]	Width of strip [m]	Water consupt. [m ³ /h]	Retraction speed [m/h] & connection pressure [bar] at precipitat. rate									
					1.0 mm m/h - bar	1.2 mm m/h - bar	1.5 mm m/h - bar	2.0 mm m/h - bar	2.5 mm m/h - bar	3.0 mm m/h - bar	3.5 mm m/h - bar	4.0 mm m/h - bar	5.0 mm m/h - bar	
16	2.5	33.3	56	15.5	---	---	---	11 - 6.3	10 - 4.4	8 - 4.2	---	---	---	---
	3.0	34.9	59	17.0	25 - 5.8	---	---	12 - 4.9	10 - 4.9	9 - 4.8	---	---	---	---
	3.5	36.4	61	18.4	26 - 6.0	15 - 5.0	---	12 - 5.7	10 - 5.5	9 - 5.4	---	---	---	---
	4.0	37.7	64	19.7	26 - 6.5	15 - 5.6	16 - 6.2	13 - 6.0	10 - 6.3	9 - 6.1	---	---	---	---
	4.5	38.9	66	20.9	21 - 6.6	16 - 6.2	---	13 - 6.5	11 - 6.3	9 - 6.1	---	---	---	---
17	3.0	36.1	61	19.2	26 - 5.2	16 - 4.5	---	13 - 5.2	11 - 4.5	9 - 4.4	---	---	---	---
	3.5	37.6	63	20.8	27 - 5.6	16 - 5.2	---	13 - 5.6	11 - 5.3	9 - 5.1	---	---	---	---
	4.0	39.0	66	22.2	28 - 6.1	17 - 5.8	---	13 - 6.2	11 - 5.9	10 - 5.9	---	---	---	---
	4.5	40.2	69	23.5	29 - 6.7	17 - 6.5	---	14 - 6.8	12 - 6.5	10 - 6.5	---	---	---	---
	5.0	41.3	70	24.8	30 - 7.3	18 - 7.2	---	14 - 7.4	12 - 7.2	10 - 7.1	---	---	---	---
18	3.0	37.3	63	21.5	29 - 5.1	17 - 4.9	---	14 - 5.2	11 - 4.9	10 - 4.8	---	---	---	---
	3.5	39.0	66	23.9	29 - 5.7	18 - 5.5	---	14 - 5.8	12 - 5.5	10 - 5.4	---	---	---	---
	4.0	40.5	68	24.4	30 - 6.3	18 - 6.2	---	15 - 6.4	12 - 6.2	10 - 6.1	---	---	---	---
	4.5	41.9	71	26.4	31 - 7.0	19 - 6.9	---	15 - 7.1	12 - 6.9	11 - 6.8	---	---	---	---
	5.0	43.2	73	27.8	32 - 7.7	19 - 7.5	---	15 - 7.5	13 - 7.6	11 - 7.5	---	---	---	---
20	3.0	39.5	67	26.6	33 - 5.6	20 - 5.6	---	16 - 5.3	13 - 5.5	11 - 5.4	---	---	---	---
	3.5	41.3	70	28.7	34 - 6.3	21 - 6.2	---	16 - 6.1	14 - 6.2	12 - 6.1	---	---	---	---
	4.0	42.9	72	30.7	36 - 7.1	21 - 7.0	---	17 - 6.9	14 - 7.0	12 - 6.9	---	---	---	---
	4.5	44.3	75	32.6	36 - 7.8	22 - 7.7	---	17 - 7.6	14 - 7.8	12 - 7.7	---	---	---	---
	5.0	45.7	77	34.3	37 - 8.6	22 - 8.5	---	18 - 8.4	15 - 8.6	13 - 8.5	---	---	---	---
22	3.0	41.6	70	32.2	38 - 6.3	23 - 6.2	---	18 - 6.1	15 - 6.1	13 - 6.2	---	---	---	---
	3.5	43.2	73	34.9	40 - 7.4	24 - 7.1	---	19 - 7.0	16 - 7.0	14 - 7.1	---	---	---	---
	4.0	44.7	76	37.2	41 - 8.1	24 - 8.0	---	20 - 7.9	17 - 8.0	14 - 8.0	---	---	---	---
	4.5	46.1	79	39.4	42 - 9.0	25 - 8.9	---	20 - 8.6	17 - 8.5	14 - 8.9	---	---	---	---
	5.0	48.1	81	41.6	43 - 9.9	26 - 9.4	---	21 - 9.4	17 - 9.3	15 - 9.8	---	---	---	---
24	3.0	43.6	74	38.3	43 - 7.3	26 - 7.1	---	21 - 7.1	17 - 6.8	15 - 7.2	---	---	---	---
	3.5	45.6	77	41.4	45 - 8.4	27 - 7.9	---	21 - 7.9	18 - 7.8	15 - 7.7	---	---	---	---
	4.0	47.3	80	44.2	46 - 9.4	29 - 8.9	---	22 - 8.9	18 - 8.9	16 - 8.7	---	---	---	---
	4.5	48.9	83	46.9	47 - 10.6	28 - 9.8	---	23 - 9.8	19 - 9.7	16 - 9.7	---	---	---	---
	5.0	50.4	85	49.5	---	---	---	---	---	---	---	---	---	---
26	3.0	45.5	77	45.0	49 - 8.7	29 - 9.0	---	23 - 8.0	19 - 7.9	17 - 7.8	---	---	---	---
	3.5	47.6	80	48.6	51 - 9.9	30 - 9.1	---	24 - 9.4	20 - 9.0	17 - 9.0	---	---	---	---
	4.0	49.4	84	51.9	---	---	---	25 - 10.5	21 - 10.2	18 - 10.1	---	---	---	---
	4.5	49.4	84	51.9	---	---	---	---	---	---	---	---	---	---

Performance table does not consider PE-pipe tolerances

• 95% from irrigated circle diameter

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PERFORMANCE TABLE BAUER RAINSTAR 85 - 380 TIH

PE-Pipe outs. diameter 85 mm		Sprinkler BAUER SR25/SR35		max. irrigated area 2 x 3.44 = 6.9 ha																
PE-Pipe length 380 m		max. length of strip 2 x 425 m		max. width of irrig. strip 81 m																
Nozzle diameter [mm]	Nozzle pressure [bar]	Spray range [m]	Width of strip [m]	Water consumption [m ³ /h]	Retraction speed [m/h] & connection pressure [bar] at precipitat. rate															
					10 mm m/h - bar	15 mm m/h - bar	20 mm m/h - bar	25 mm m/h - bar	30 mm m/h - bar	35 mm m/h - bar	40 mm m/h - bar	45 mm m/h - bar	50 mm m/h - bar							
16	2.5	33.3	56	15.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.0	34.9	59	17.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	36.4	61	18.4	20 - 6.5	15 - 5.3	12 - 5.4	12 - 5.4	10 - 4.6	8 - 4.5	---	---	---	---	---	---	---	---	---	---
	4.0	37.7	64	19.7	20 - 6.6	15 - 5.9	12 - 6.4	12 - 6.4	10 - 5.3	9 - 5.1	---	---	---	---	---	---	---	---	---	---
	4.5	38.9	66	20.9	21 - 7.1	16 - 6.6	13 - 6.9	13 - 6.9	10 - 5.9	9 - 5.8	---	---	---	---	---	---	---	---	---	---
5.0	39.9	67	22.0	22 - 7.6	16 - 7.2	13 - 7.5	13 - 7.5	11 - 6.6	9 - 6.4	---	---	---	---	---	---	---	---	---	---	---
17	2.5	34.4	58	17.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.0	36.1	61	19.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	37.6	63	20.8	21 - 6.0	16 - 4.9	13 - 5.6	13 - 5.6	11 - 4.9	9 - 4.8	---	---	---	---	---	---	---	---	---	---
	4.0	39.0	66	22.2	22 - 6.2	16 - 5.6	13 - 6.1	13 - 6.1	11 - 5.7	9 - 5.5	---	---	---	---	---	---	---	---	---	---
	4.5	40.2	68	23.5	22 - 6.7	17 - 6.3	13 - 6.6	13 - 6.6	11 - 6.3	10 - 6.2	---	---	---	---	---	---	---	---	---	---
5.0	41.3	70	24.8	23 - 7.5	17 - 7.0	14 - 7.2	14 - 7.2	12 - 7.0	9 - 6.8	---	---	---	---	---	---	---	---	---	---	---
18	3.0	37.3	63	21.5	24 - 7.9	18 - 7.7	14 - 7.9	14 - 7.9	12 - 7.7	10 - 7.6	---	---	---	---	---	---	---	---	---	---
	3.5	39.0	66	23.3	23 - 5.8	17 - 5.2	14 - 5.6	14 - 5.6	11 - 5.3	10 - 5.2	---	---	---	---	---	---	---	---	---	---
	4.0	40.5	68	24.9	24 - 6.3	18 - 6.0	14 - 6.3	14 - 6.3	12 - 6.0	9 - 5.8	---	---	---	---	---	---	---	---	---	---
	4.5	41.9	71	26.4	24 - 7.0	18 - 6.7	15 - 7.0	15 - 7.0	12 - 6.7	8 - 6.5	---	---	---	---	---	---	---	---	---	---
	5.0	43.2	73	27.8	25 - 7.7	19 - 7.4	15 - 7.6	15 - 7.6	12 - 7.5	8 - 7.3	---	---	---	---	---	---	---	---	---	---
20	3.0	39.5	67	26.6	25 - 8.2	19 - 8.2	15 - 8.1	15 - 8.1	13 - 8.2	11 - 8.1	---	---	---	---	---	---	---	---	---	---
	3.5	41.3	70	28.7	26 - 6.0	20 - 6.0	16 - 5.9	16 - 5.9	13 - 6.0	10 - 5.9	---	---	---	---	---	---	---	---	---	---
	4.0	42.9	72	30.7	27 - 6.9	21 - 6.9	16 - 6.8	16 - 6.8	14 - 6.9	9 - 6.7	---	---	---	---	---	---	---	---	---	---
	4.5	44.3	75	32.6	28 - 7.7	21 - 7.7	17 - 7.6	17 - 7.6	14 - 7.8	9 - 7.6	---	---	---	---	---	---	---	---	---	---
	5.0	45.7	77	34.3	29 - 8.6	22 - 8.6	17 - 8.5	17 - 8.5	14 - 8.6	10 - 8.4	---	---	---	---	---	---	---	---	---	---
22	3.0	47.0	79	36.0	30 - 9.4	22 - 9.4	18 - 9.3	18 - 9.3	15 - 9.5	10 - 9.3	---	---	---	---	---	---	---	---	---	---
	3.5	41.6	70	32.2	30 - 10.3	23 - 10.3	18 - 10.2	18 - 10.2	15 - 10.0	10 - 10.0	---	---	---	---	---	---	---	---	---	---
	4.0	43.5	73	34.8	31 - 7.0	23 - 7.0	18 - 6.9	18 - 6.9	15 - 6.9	9 - 6.9	---	---	---	---	---	---	---	---	---	---
	4.5	45.2	76	37.2	32 - 8.0	24 - 8.1	19 - 7.9	19 - 7.9	16 - 7.9	10 - 7.9	---	---	---	---	---	---	---	---	---	---
	5.0	46.7	79	39.4	33 - 9.1	24 - 9.1	20 - 9.0	20 - 9.0	16 - 8.7	11 - 8.7	---	---	---	---	---	---	---	---	---	---
24	3.0	48.1	81	41.6	33 - 10.1	25 - 10.1	20 - 9.8	20 - 9.8	17 - 9.7	11 - 9.7	---	---	---	---	---	---	---	---	---	---
	3.5	43.6	74	38.3	---	26 - 10.7	21 - 10.7	21 - 10.7	17 - 10.6	10 - 10.6	---	---	---	---	---	---	---	---	---	---
	4.0	45.6	77	41.4	---	26 - 10.7	21 - 10.7	21 - 10.7	17 - 10.6	10 - 10.6	---	---	---	---	---	---	---	---	---	---
	4.5	46.7	79	43.3	35 - 8.3	26 - 8.2	21 - 8.2	21 - 8.2	17 - 8.0	12 - 8.0	---	---	---	---	---	---	---	---	---	---
	5.0	48.1	81	45.0	36 - 9.5	27 - 9.2	21 - 9.2	21 - 9.2	18 - 9.1	12 - 9.1	---	---	---	---	---	---	---	---	---	---
26	3.0	45.5	77	45.0	39 - 10.0	29 - 9.5	23 - 9.5	23 - 9.5	19 - 9.4	13 - 9.4	---	---	---	---	---	---	---	---	---	---
	3.5	43.6	74	41.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Performance table does not consider PE-pipe tolerances

© 85% from irrigated circle diameter

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FOR A GREEN WORLD

PERFORMANCE TABLE BAUER RAINSTAR 90 - 300 TiH

PE-Pipe outs. diameter 90 mm		Sprinkler BAUER SR35		max. irrigated area 2 x 3.15 = 6.3 ha											
PE-Pipe length 300 m		max. length of strip 2 x 350 m		max. width of irrig. strip 90 m											
Nozzle diameter [mm]	Nozzle pressure [bar]	Spray range [m]	* Width of strip [m]	Water consupt. [m ³ /h]	Retraction speed [m/h] & connection pressure [bar] at precipitat. rate										
					1.0 mm m/h - bar	1.2 mm m/h - bar	1.5 mm m/h - bar	2.0 mm m/h - bar	2.5 mm m/h - bar	3.0 mm m/h - bar	3.5 mm m/h - bar	4.0 mm m/h - bar	5.0 mm m/h - bar		
18	2.5	35.4	60	19.7	27 - 4.5	23 - 4.7	16 - 4.0	13 - 4.5	11 - 4.0	10 - 4.3	9 - 4.3	---	---	---	---
	3.5	37.3	63	21.3	29 - 4.9	23 - 4.9	17 - 4.4	14 - 4.9	11 - 4.5	10 - 5.0	9 - 4.9	---	---	---	---
	4.0	40.5	66	24.9	29 - 5.3	24 - 5.4	18 - 5.1	15 - 5.7	12 - 5.8	10 - 5.7	9 - 5.6	---	---	---	---
	4.5	41.9	71	26.4	30 - 5.9	24 - 6.0	18 - 5.7	15 - 6.0	12 - 6.4	11 - 6.3	9 - 6.2	---	---	---	---
	5.0	43.2	73	27.8	31 - 6.5	25 - 6.5	19 - 6.4	15 - 6.6	13 - 7.0	11 - 6.9	10 - 6.9	---	---	---	---
20	3.0	39.5	67	26.6	33 - 5.1	26 - 4.9	20 - 4.9	16 - 4.9	13 - 5.0	11 - 4.8	10 - 4.8	---	---	---	---
	3.5	41.3	70	28.7	34 - 5.7	27 - 5.6	21 - 5.6	16 - 5.5	14 - 5.6	12 - 5.5	10 - 5.5	---	---	---	---
	4.0	42.9	72	30.7	36 - 6.4	28 - 6.3	21 - 6.3	17 - 6.2	14 - 6.4	12 - 6.3	11 - 6.2	---	---	---	---
	4.5	44.3	75	32.6	36 - 7.3	29 - 7.0	22 - 7.0	17 - 6.9	14 - 7.0	12 - 7.0	11 - 6.9	---	---	---	---
	5.0	45.7	77	34.3	37 - 7.8	30 - 7.7	22 - 7.7	18 - 7.6	15 - 7.9	13 - 7.7	11 - 7.6	---	---	---	---
22	3.0	41.6	79	36.0	38 - 8.5	30 - 8.4	23 - 8.4	18 - 8.3	15 - 8.1	13 - 8.4	11 - 8.3	---	---	---	---
	3.5	43.5	80	38.2	38 - 9.5	31 - 9.1	23 - 9.0	18 - 8.9	15 - 8.9	13 - 8.9	11 - 8.8	---	---	---	---
	4.0	45.2	82	40.8	40 - 10.2	32 - 9.6	24 - 9.5	19 - 9.4	16 - 9.3	14 - 9.2	12 - 9.1	---	---	---	---
	4.5	46.7	84	43.6	41 - 11.0	33 - 10.2	25 - 10.0	20 - 9.9	17 - 9.8	15 - 9.6	13 - 9.5	---	---	---	---
	5.0	49.4	88	45.9	43 - 11.8	35 - 10.6	26 - 10.6	21 - 10.2	17 - 10.2	15 - 10.1	13 - 10.0	---	---	---	---
24	3.0	43.6	84	38.3	43 - 6.3	35 - 6.2	26 - 6.1	21 - 6.1	17 - 5.9	15 - 6.2	13 - 6.1	---	---	---	---
	3.5	45.6	87	41.4	45 - 7.3	36 - 7.1	27 - 6.8	21 - 6.8	18 - 6.7	15 - 6.6	13 - 6.6	---	---	---	---
	4.0	47.3	89	44.2	46 - 8.2	37 - 7.8	28 - 7.6	22 - 7.6	18 - 7.5	16 - 7.4	14 - 7.4	---	---	---	---
	4.5	48.9	91	46.9	47 - 9.1	38 - 8.6	28 - 8.4	23 - 8.4	19 - 8.3	16 - 8.2	14 - 8.2	---	---	---	---
	5.0	50.4	95	49.5	48 - 10.0	39 - 9.4	29 - 9.2	23 - 9.2	19 - 9.1	17 - 9.1	15 - 9.0	---	---	---	---
26	3.0	45.5	88	41.9	49 - 10.6	39 - 10.2	29 - 10.0	24 - 10.2	20 - 9.9	17 - 9.9	15 - 9.8	---	---	---	---
	3.5	47.6	90	45.0	49 - 11.6	40 - 10.6	29 - 10.6	24 - 10.6	19 - 10.5	17 - 10.3	15 - 10.3	---	---	---	---
	4.0	49.4	92	48.6	51 - 12.4	41 - 11.0	30 - 10.9	25 - 10.9	21 - 10.8	18 - 10.7	16 - 10.6	---	---	---	---
	4.5	51.1	95	51.1	53 - 13.0	43 - 11.6	32 - 11.0	26 - 11.0	21 - 10.9	18 - 10.8	16 - 10.7	---	---	---	---
	5.0	52.7	99	53.0	54 - 13.8	43 - 12.2	33 - 11.6	26 - 11.6	22 - 11.5	19 - 11.3	16 - 11.2	---	---	---	---
28	3.5	49.5	84	56.3	56 - 9.2	45 - 8.9	34 - 8.7	27 - 8.6	22 - 8.5	19 - 8.5	17 - 8.5	---	---	---	---
	4.0	51.4	87	60.2	58 - 10.2	46 - 10.0	35 - 9.8	28 - 9.7	23 - 9.7	20 - 9.7	17 - 9.6	---	---	---	---
	4.5	53.2	90	63.9	---	47 - 11.0	35 - 10.9	29 - 10.8	24 - 10.8	20 - 10.8	18 - 10.7	---	---	---	---
30	3.5	51.4	87	64.7	74 - 10.9	50 - 10.2	37 - 10.0	30 - 9.9	25 - 10.0	21 - 9.9	19 - 9.9	---	---	---	---

Performance table does not consider PE-pipe tolerances

* 85% from irrigated circle diameter

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PERFORMANCE TABLE BAUER RAINSTAR 90 - 370 TIH

PE-Pipe outs. diameter 90 mm		Sprinkler		Buller SR25/SR35		max. irrigated area 2 x 3.61 = 7.2 ha									
PE-Pipe length 370 m		max. length of strip 2 x 42.0 m		max. width of irrig. strip 86 m											
Nozzle diameter (mm)	Nozzle pressure (bar)	Spray range (m)	Width of strip (m)	Water cons. (m ³ /h)	Retraction speed (m/h) & connection pressure (bar) at precipitat. rate										
					10 mm	15 mm	20 mm	25 mm	30 mm	35 mm	40 mm	50 mm	60 mm		
					m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar
16	3.0	34.9	59	17.0	20-10.1	12-6.9	10-4.5	8-4.3	---	---	---	---	---	---	---
	3.5	36.4	61	18.4	15-5.1	12-6.6	10-5.0	9-4.8	---	---	---	---	---	---	---
	4.0	37.7	64	19.7	15-5.6	12-6.3	10-5.7	9-5.4	---	---	---	---	---	---	---
	4.5	38.9	66	20.9	21-6.9	13-6.7	11-6.3	9-6.1	---	---	---	---	---	---	---
17	3.0	36.1	61	19.2	21-6.9	13-5.9	11-4.8	9-4.4	---	---	---	---	---	---	---
	3.5	37.6	63	20.9	22-6.2	13-5.9	11-5.3	9-5.1	---	---	---	---	---	---	---
	4.0	39.0	66	22.2	22-6.4	13-6.3	11-5.9	10-5.9	8-5.0	---	---	---	---	---	---
	4.5	40.2	68	23.5	23-6.9	14-6.9	12-6.6	10-6.4	8-5.7	---	---	---	---	---	---
18	3.0	37.3	63	21.5	23-5.6	14-5.5	11-4.9	10-4.8	---	---	---	---	---	---	---
	3.5	39.0	66	23.3	24-6.0	14-5.9	12-5.6	10-5.4	9-4.6	---	---	---	---	---	---
	4.0	40.5	69	24.9	24-6.6	15-6.5	12-6.2	10-6.1	9-5.4	---	---	---	---	---	---
	4.5	41.9	71	26.4	25-7.2	15-7.1	12-6.9	11-6.8	9-6.0	---	---	---	---	---	---
20	3.0	39.5	67	26.6	26-5.4	16-5.3	13-5.5	11-5.3	---	---	---	---	---	---	---
	3.5	41.3	70	28.7	27-6.2	16-6.1	14-6.2	12-6.1	10-5.3	---	---	---	---	---	---
	4.0	42.9	72	30.7	28-6.9	17-6.8	14-7.0	12-6.9	10-6.0	8-6.0	---	---	---	---	---
	4.5	44.3	75	32.6	29-7.7	17-7.6	14-7.9	12-7.6	11-6.8	9-6.7	---	---	---	---	---
22	3.0	45.5	77	34.4	30-8.5	18-8.4	15-8.5	13-8.4	11-8.3	---	---	---	---	---	---
	3.5	46.6	81	36.3	31-9.7	18-9.3	15-9.2	13-9.8	11-8.3	9-8.3	---	---	---	---	---
	4.0	48.1	84	39.2	33-10.1	20-9.3	17-9.2	15-9.8	13-8.3	11-8.3	---	---	---	---	---
	4.5	49.7	88	41.6	34-10.9	21-10.9	18-10.6	16-10.5	14-9.4	12-8.3	10-8.3	---	---	---	---
24	3.0	41.4	70	35.0	33-6.1	20-6.0	17-5.9	14-6.1	12-6.0	10-6.0	---	---	---	---	---
	3.5	43.6	74	38.3	35-7.1	21-7.0	17-6.8	15-7.1	13-6.0	11-6.0	---	---	---	---	---
	4.0	45.6	77	41.4	36-8.2	22-7.9	18-7.7	16-8.6	14-7.0	12-6.7	10-6.7	---	---	---	---
	4.5	47.3	80	44.2	37-9.2	23-8.8	19-8.7	17-9.5	15-7.7	13-6.7	11-6.7	---	---	---	---
26	3.0	48.9	83	46.9	38-9.9	23-9.7	19-9.6	17-10.3	15-8.6	13-8.6	---	---	---	---	---
	3.5	50.4	86	49.5	39-10.9	23-10.9	19-10.6	17-10.5	15-9.5	13-9.5	---	---	---	---	---
	4.0	51.9	89	51.9	41-10.1	25-10.7	21-10.7	19-10.6	17-9.6	15-9.6	---	---	---	---	---
	4.5	53.5	92	54.5	45-10.8	27-10.7	23-10.9	21-10.6	19-10.5	17-10.5	---	---	---	---	---
28	3.0	45.5	77	45.0	39-8.4	29-7.9	23-8.0	19-7.8	17-7.7	15-7.7	13-7.7	11-7.7	10-7.7	10-7.7	10-7.7
	3.5	47.6	80	48.6	40-9.3	30-9.0	24-9.3	20-8.9	18-8.9	16-8.9	14-8.9	12-8.9	11-8.9	10-8.9	10-8.9
	4.0	49.4	84	51.9	41-10.5	31-10.1	25-10.4	21-10.1	19-10.0	17-10.0	15-10.0	13-10.0	12-10.0	11-10.0	11-10.0
	4.5	49.5	84	56.3	45-10.8	34-10.5	27-10.7	23-10.6	20-10.4	18-10.4	17-10.4	15-10.4	14-10.4	13-10.4	11-10.4



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PERFORMANCE TABLE BAUER RAINSTAR 90 - 480 TiH

PE-Pipe outs. diameter 90 mm		Sprinkler BAUER SR75/SR35		max. irrigated area 2 x 4.15 = 8.3 ha														
PE-Pipe length 480 m		max. length of strip 2 x 525 m		max. width of irrig. strip 79 m														
Nozzle diameter [mm]	Nozzle press. [bar]	Spray range [m]	Width of strip [m]	Water con- sumpt. [m ³ /h]	Retraction speed (m/h) & connection pressure [bar] at precipitat. rate													
					12 mm m/h - bar	15 mm m/h - bar	20 mm m/h - bar	25 mm m/h - bar	30 mm m/h - bar	35 mm m/h - bar	40 mm m/h - bar	50 mm m/h - bar	60 mm m/h - bar					
16	2.5	33.9	56	15.5	---	9 - 5.0	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	34.4	61	17.0	---	10 - 5.1	---	---	---	---	---	---	---	---	---	---	---	---
	4.0	36.7	64	18.4	---	10 - 5.7	---	---	---	---	---	---	---	---	---	---	---	---
	4.5	37.9	66	19.7	20 - 8.8	15 - 5.9	12 - 9.3	---	---	---	---	---	---	---	---	---	---	---
	5.0	39.9	67	20.9	21 - 8.1	15 - 6.4	12 - 7.2	---	---	---	---	---	---	---	---	---	---	---
17	2.5	34.4	58	17.5	---	11 - 7.7	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	36.6	63	19.0	---	11 - 6.1	13 - 7.4	---	---	---	---	---	---	---	---	---	---	---
	4.0	39.0	66	22.2	22 - 7.5	16 - 5.4	13 - 6.9	---	---	---	---	---	---	---	---	---	---	---
	4.5	40.2	68	23.5	23 - 8.0	17 - 6.0	13 - 7.2	---	---	---	---	---	---	---	---	---	---	---
	5.0	41.3	70	24.8	24 - 8.6	17 - 7.5	14 - 7.8	---	---	---	---	---	---	---	---	---	---	---
18	2.5	35.4	60	19.7	---	12 - 8.2	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	37.3	63	21.5	---	11 - 5.1	13 - 7.3	---	---	---	---	---	---	---	---	---	---	---
	4.0	40.5	68	24.4	24 - 7.6	11 - 5.7	14 - 6.4	---	---	---	---	---	---	---	---	---	---	---
	4.5	41.9	71	26.4	25 - 8.4	12 - 6.5	14 - 6.9	---	---	---	---	---	---	---	---	---	---	---
	5.0	43.2	73	27.8	25 - 8.8	12 - 8.0	15 - 8.2	---	---	---	---	---	---	---	---	---	---	---
20	2.5	37.5	63	24.3	26 - 5.9	13 - 5.0	15 - 5.5	---	---	---	---	---	---	---	---	---	---	---
	3.5	39.3	67	26.6	26 - 6.6	17 - 5.7	16 - 6.4	---	---	---	---	---	---	---	---	---	---	---
	4.0	41.3	70	28.7	27 - 7.5	18 - 6.4	16 - 6.4	---	---	---	---	---	---	---	---	---	---	---
	4.5	44.3	75	32.2	28 - 8.4	18 - 7.2	17 - 9.3	---	---	---	---	---	---	---	---	---	---	---
	5.0	45.7	77	34.3	29 - 9.3	19 - 8.0	18 - 8.4	---	---	---	---	---	---	---	---	---	---	---
22	2.5	39.5	67	29.0	30 - 10.2	19 - 8.7	18 - 10.1	---	---	---	---	---	---	---	---	---	---	---
	3.5	41.6	70	32.2	---	20 - 6.5	15 - 5.5	---	---	---	---	---	---	---	---	---	---	---
	4.0	43.5	73	34.8	29 - 6.7	22 - 6.6	16 - 6.4	---	---	---	---	---	---	---	---	---	---	---
	4.5	45.2	76	37.2	31 - 7.8	23 - 7.9	16 - 7.3	---	---	---	---	---	---	---	---	---	---	---
	5.0	46.7	79	39.4	32 - 8.9	24 - 8.9	17 - 9.3	---	---	---	---	---	---	---	---	---	---	---
24	2.5	41.4	70	35.0	33 - 10.0	24 - 10.0	20 - 9.8	---	---	---	---	---	---	---	---	---	---	---
	3.5	43.6	74	38.3	---	25 - 8.0	20 - 10.9	---	---	---	---	---	---	---	---	---	---	---
	4.0	45.6	77	41.4	33 - 8.0	25 - 8.0	21 - 10.5	---	---	---	---	---	---	---	---	---	---	---
	4.5	47.0	80	44.8	35 - 9.3	26 - 9.2	21 - 9.2	---	---	---	---	---	---	---	---	---	---	---
	5.0	48.5	83	48.1	36 - 10.6	27 - 10.5	21 - 10.5	---	---	---	---	---	---	---	---	---	---	---

Performance table does not consider PE-pipe tolerances



BAUER

BAUER RAINSTAR 100 - 380 TIH

PERFORMANCE TABLE BAUER RAINSTAR 100 - 380 TIH

Nozzle diameter [mm]	Nozzle pressure [bar]	Spray range [m]	Width of strip [m]	Water consumption [m ³ /h]	PE-Pipe outs. diameter 100 mm		Sprinkler BAUER SR25/SR35		Retraction speed (m/h) @ connection pressure (bar) at precipitat. rate		40 mm		50 mm		60 mm	
					380 m	max. length of strip 2 x 430 m	max. irrigated area 2 x 3.96 = 7.9 ha	10 mm	15 mm	20 mm	25 mm	30 mm	35 mm	40 mm	50 mm	60 mm
16	3.0	34.9	59	17.0	---	---	---	10 - 4.3	8 - 4.0	---	---	---	---	---	---	---
	3.5	36.4	61	18.4	15 - 5.0	---	---	10 - 4.8	9 - 4.6	---	---	---	---	---	---	---
	4.0	37.7	64	19.7	15 - 5.4	---	---	10 - 5.4	9 - 5.1	---	---	---	---	---	---	---
17	3.0	36.1	61	19.2	---	---	---	11 - 4.5	9 - 4.1	---	---	---	---	---	---	---
	3.5	37.6	63	20.8	16 - 4.5	---	---	11 - 5.0	9 - 4.7	---	---	---	---	---	---	---
	4.0	39.0	66	22.2	16 - 5.0	34 - 7.8	---	11 - 5.5	10 - 5.4	8 - 4.6	---	---	---	---	---	---
18	3.0	37.3	63	21.5	---	---	---	14 - 4.6	10 - 4.4	---	---	---	---	---	---	---
	3.5	39.0	66	23.3	17 - 4.5	---	---	14 - 5.1	10 - 5.0	9 - 4.2	---	---	---	---	---	---
	4.0	40.5	68	24.9	18 - 5.1	---	---	12 - 5.7	10 - 5.6	9 - 4.9	---	---	---	---	---	---
20	3.0	39.5	67	26.6	---	---	---	15 - 6.3	11 - 6.2	---	---	---	---	---	---	---
	3.5	41.3	70	28.7	20 - 4.9	---	---	13 - 4.9	11 - 4.8	10 - 4.7	---	---	---	---	---	---
	4.0	42.9	72	30.7	21 - 5.5	---	---	14 - 5.6	12 - 5.4	10 - 5.4	---	---	---	---	---	---
22	3.0	44.3	75	32.6	---	---	---	17 - 6.9	12 - 6.2	---	---	---	---	---	---	---
	3.5	46.1	77	34.8	22 - 6.9	---	---	14 - 6.2	12 - 6.1	11 - 6.0	---	---	---	---	---	---
	4.0	47.7	79	37.2	22 - 6.9	---	---	14 - 6.9	12 - 6.8	11 - 6.7	---	---	---	---	---	---
24	3.0	41.8	70	32.2	---	---	---	18 - 5.2	13 - 5.3	---	---	---	---	---	---	---
	3.5	43.5	73	34.8	23 - 5.4	---	---	15 - 5.2	13 - 5.3	11 - 5.2	---	---	---	---	---	---
	4.0	45.2	76	37.2	24 - 6.1	---	---	16 - 5.9	14 - 6.1	12 - 6.0	---	---	---	---	---	---
26	3.0	45.9	77	41.4	---	---	---	20 - 7.6	14 - 6.8	---	---	---	---	---	---	---
	3.5	47.3	80	44.2	27 - 6.8	---	---	15 - 6.4	15 - 6.3	13 - 6.8	---	---	---	---	---	---
	4.0	48.9	83	46.9	28 - 7.3	---	---	18 - 8.0	16 - 7.9	14 - 8.6	---	---	---	---	---	---
28	3.0	50.4	85	49.5	---	---	---	29 - 9.2	19 - 8.9	---	---	---	---	---	---	---
	3.5	47.6	80	48.6	36 - 6.9	---	---	19 - 8.8	17 - 8.7	15 - 9.1	---	---	---	---	---	---
	4.0	49.4	84	51.9	37 - 7.8	---	---	21 - 7.2	16 - 7.9	14 - 7.8	---	---	---	---	---	---
30	3.0	51.1	86	55.1	---	---	---	23 - 8.1	18 - 8.0	---	---	---	---	---	---	---
	3.5	52.7	89	58.0	32 - 9.1	---	---	19 - 8.0	16 - 7.9	14 - 8.6	---	---	---	---	---	---
	4.0	47.6	80	48.6	33 - 10.0	---	---	20 - 7.2	17 - 7.1	15 - 7.0	---	---	---	---	---	---
32	3.0	42.5	86	60.2	---	---	---	26 - 9.9	20 - 8.9	---	---	---	---	---	---	---
	3.5	44.5	89	63.9	43 - 10.2	---	---	22 - 9.9	19 - 9.8	16 - 8.8	---	---	---	---	---	---
	4.0	42.5	84	56.3	45 - 8.5	---	---	22 - 8.3	19 - 8.1	17 - 8.0	---	---	---	---	---	---
34	3.0	51.4	90	63.9	---	---	---	27 - 9.2	22 - 9.2	---	---	---	---	---	---	---
	3.5	53.2	90	67.3	46 - 9.5	---	---	23 - 10.0	20 - 10.1	18 - 9.2	---	---	---	---	---	---
	4.0	42.5	84	56.3	47 - 10.4	---	---	24 - 10.2	20 - 10.1	18 - 9.2	---	---	---	---	---	---
36	3.5	51.4	87	64.7	74 - 11.0	---	---	30 - 9.3	21 - 9.2	19 - 9.2	---	---	---	---	---	---



BAUER

100 - 500 TIH

PERFORMANCE TABLE BAUER RAINSTAR 100 - 500 TIH

PE-Pipe outs. diameter 100 mm		Sprinkler BAUER SR35/SR35		max. irrigated area 2 x 4.58 = 9.2 ha																
PE-Pipe length 500 m		max. length of strip 2 x 545 m		max. width of irrig. strip 84 m																
Nozzle diameter [mm]	Nozzle pressure [bar]	Spray range [m]	Width of strip [m]	Water consumpt. [m ³ /h]	Retraction speed (m/h) & connection pressure (bar) at precipitat. rate															
					10 mm m/h - bar	15 mm m/h - bar	20 mm m/h - bar	25 mm m/h - bar	30 mm m/h - bar	35 mm m/h - bar	40 mm m/h - bar	50 mm m/h - bar	60 mm m/h - bar							
16	3.0	34.9	59	17.0	15 - 5.9	10 - 4.8	8 - 4.5	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	36.4	61	18.4	15 - 6.1	10 - 5.2	9 - 5.0	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.0	37.7	64	19.7	20 - 10.8	12 - 6.5	12 - 7.3	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.5	38.9	66	20.9	21 - 7.9	13 - 6.9	13 - 6.9	---	---	---	---	---	---	---	---	---	---	---	---	---
	5.0	39.9	67	22.0	22 - 7.9	13 - 7.4	13 - 7.4	---	---	---	---	---	---	---	---	---	---	---	---	---
17	3.0	36.1	63	19.2	16 - 5.2	11 - 4.8	9 - 4.6	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	37.0	66	20.8	16 - 5.7	11 - 5.5	9 - 5.3	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.0	39.0	68	22.2	22 - 7.0	13 - 6.5	13 - 6.5	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.5	40.2	70	23.5	23 - 7.4	14 - 7.0	14 - 7.0	---	---	---	---	---	---	---	---	---	---	---	---	---
	5.0	41.3	70	24.8	24 - 7.9	14 - 7.6	14 - 7.6	---	---	---	---	---	---	---	---	---	---	---	---	---
18	3.0	37.3	63	21.5	17 - 5.2	12 - 5.6	10 - 4.9	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	39.0	66	23.3	18 - 5.8	14 - 6.1	10 - 5.6	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.0	40.5	68	24.9	18 - 6.5	15 - 6.7	10 - 6.3	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.5	41.9	71	26.4	19 - 7.2	15 - 7.3	11 - 7.0	---	---	---	---	---	---	---	---	---	---	---	---	---
	5.0	43.2	73	27.8	19 - 7.9	15 - 7.7	11 - 7.7	---	---	---	---	---	---	---	---	---	---	---	---	---
20	3.0	39.5	67	26.6	20 - 5.7	13 - 5.7	11 - 5.6	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	41.3	70	28.7	21 - 6.5	14 - 6.4	12 - 6.4	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.0	42.9	72	30.7	21 - 7.3	14 - 7.2	12 - 7.2	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.5	44.3	75	32.6	22 - 8.1	14 - 8.1	12 - 8.0	---	---	---	---	---	---	---	---	---	---	---	---	---
	5.0	45.7	77	34.3	22 - 8.9	15 - 8.8	13 - 8.8	---	---	---	---	---	---	---	---	---	---	---	---	---
22	3.0	41.6	70	32.2	23 - 6.6	15 - 6.4	13 - 6.5	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	43.5	73	34.8	24 - 7.5	16 - 7.4	14 - 7.4	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.0	45.2	76	37.2	24 - 8.4	16 - 8.2	14 - 8.3	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.5	46.7	79	39.4	25 - 9.4	17 - 9.0	14 - 9.3	---	---	---	---	---	---	---	---	---	---	---	---	---
	5.0	48.1	81	41.6	26 - 10.2	17 - 9.8	15 - 10.2	---	---	---	---	---	---	---	---	---	---	---	---	---
24	3.0	43.6	74	39.3	26 - 7.6	17 - 7.5	15 - 7.6	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	45.6	77	41.4	27 - 8.7	18 - 8.3	15 - 8.3	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.0	47.3	80	44.2	28 - 9.8	18 - 9.3	16 - 9.3	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.5	48.9	83	46.9	28 - 10.6	19 - 10.4	16 - 10.3	---	---	---	---	---	---	---	---	---	---	---	---	---
	5.0	50.4	85	49.9	28 - 11.0	20 - 10.9	17 - 10.8	---	---	---	---	---	---	---	---	---	---	---	---	---
26	3.0	45.5	77	45.0	29 - 9.0	19 - 8.5	17 - 8.4	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	47.6	80	48.6	30 - 9.9	20 - 9.7	17 - 9.6	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.0	49.4	83	51.9	---	21 - 10.9	18 - 10.3	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.5	51.4	86	55.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	5.0	53.4	89	59.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---



PERFORMANCE TABLE BAUER RAINSTAR 110 - 300 TIH

PE-Pipe outs. diameter 110 mm		Sprinkler		max. irrigated area 2 x 3.78 = 7.6 ha							
PE-Pipe length 300 m		BAUER SR35		max. width of irrig. strip 105 m							
Nozzle diameter [mm]	Nozzle press [bar]	Spray range [m]	Width of strip [m]	Water con- sumpt. [m ³ /h]	Retraction speed [m/h] & connection pressure [bar] at precipitat. rate						
					12 mm m/h - bar	15 mm m/h - bar	20 mm m/h - bar	25 mm m/h - bar	30 mm m/h - bar	35 mm m/h - bar	40 mm m/h - bar
24	3.0	43.6	74	38.3	26-4.5	21-4.5	17-4.6	15-4.9	13-4.8	11-4.7	9-4.7
	3.5	47.3	80	41.4	27-5.0	21-4.9	18-5.0	16-5.5	14-5.4	11-5.4	9-5.4
	4.0	47.9	83	44.2	28-5.6	22-5.5	19-5.6	16-6.1	14-6.1	11-6.0	9-6.0
	4.5	50.4	85	46.9	28-6.4	23-6.1	19-6.2	16-6.7	14-6.7	12-6.7	10-6.6
	5.0	51.8	88	49.5	29-7.0	23-6.8	19-6.8	17-7.4	15-7.3	12-7.3	10-7.3
26	3.0	45.5	70	45.0	29-5.0	23-4.5	19-4.7	17-4.5	15-4.5	12-4.5	10-5.1
	3.5	48.6	84	48.9	30-5.5	24-5.2	20-5.2	17-5.2	15-5.2	12-5.1	10-5.8
	4.0	51.1	86	51.1	31-6.1	25-5.9	21-5.9	19-5.9	16-5.8	12-5.8	10-6.5
	4.5	52.7	89	53.0	32-6.6	26-6.6	22-6.5	19-6.6	16-6.5	13-6.5	11-7.1
	5.0	54.1	92	55.0	33-7.4	26-7.3	22-7.2	19-7.2	16-7.2	13-7.2	11-7.8
28	3.5	49.5	87	56.3	34-5.7	27-5.7	22-5.6	19-5.7	17-5.6	13-5.6	11-5.5
	4.0	51.4	90	60.2	35-6.4	28-6.4	23-6.4	20-6.4	17-6.4	14-6.3	12-6.3
	4.5	53.2	93	63.9	35-7.2	28-7.1	24-7.1	20-7.1	18-7.1	14-7.0	12-7.7
	5.0	54.8	95	67.0	36-7.9	29-7.9	24-7.8	21-7.8	18-7.8	14-7.8	12-8.4
	5.5	56.3	95	70.6	37-8.6	30-8.6	25-8.6	21-8.6	19-8.6	15-8.4	12-8.4
30	3.5	51.4	87	64.7	37-6.2	30-6.2	25-6.2	21-6.2	19-6.2	15-6.1	12-6.1
	4.0	53.4	93	69.1	38-7.0	31-7.0	26-7.0	22-7.0	19-7.0	15-6.9	13-6.8
	4.5	55.2	96	73.3	39-7.9	32-7.8	26-7.8	23-7.8	20-7.8	16-7.6	13-7.6
	5.0	56.9	99	77.3	40-8.7	32-8.6	27-8.6	23-8.6	20-8.4	16-8.4	13-8.4
	5.5	58.5	99	81.1	41-9.5	33-9.4	27-9.4	23-9.2	20-9.2	16-9.2	14-9.2
32	3.5	53.2	90	73.6	41-6.9	33-6.8	27-6.8	23-6.8	20-6.8	16-6.6	14-6.6
	4.0	55.3	94	79.6	42-7.8	33-7.7	28-7.7	24-7.7	21-7.5	17-7.5	14-7.5
	4.5	57.2	97	83.4	43-8.8	34-8.6	29-8.5	25-8.4	21-8.4	17-8.4	14-8.4
	5.0	58.9	102	87.9	44-9.6	35-9.4	29-9.3	25-9.3	22-9.3	18-9.3	15-9.3
	5.5	60.6	102	92.2	45-10.5	36-10.2	30-10.2	26-10.2	23-10.2	18-10.2	15-10.1
34	3.5	55.0	93	83.0	45-7.7	36-7.6	30-7.4	26-7.4	22-7.4	18-7.4	15-7.4
	4.0	57.1	99	88.8	46-8.7	37-8.6	31-8.4	26-8.4	23-8.4	18-8.4	15-8.3
	4.5	59.1	103	94.3	47-9.6	38-9.4	31-9.4	27-9.4	24-9.3	19-9.4	16-9.3
	5.0	60.9	103	99.5	48-10.6	39-10.4	32-10.3	28-10.3	24-10.3	19-10.4	16-10.3
	5.5	61.0	103	105.6	49-10.6	41-10.5	34-10.4	29-10.4	24-10.4	19-10.4	16-10.3
36	3.5	56.7	96	93.1	49-8.6	39-8.3	32-8.3	28-8.3	24-8.3	19-8.3	16-8.2
	4.0	58.9	100	99.5	50-9.7	40-9.4	33-9.4	29-9.3	25-9.3	20-9.4	17-9.4
	4.5	61.0	103	105.6	51-10.6	41-10.5	34-10.4	29-10.4	25-10.4	20-10.4	17-10.4
	5.0	61.0	103	105.6	51-10.6	41-10.5	34-10.4	29-10.4	25-10.4	20-10.4	17-10.4
	5.5	61.0	103	105.6	51-10.6	41-10.5	34-10.4	29-10.4	25-10.4	20-10.4	17-10.4

Performance table does not consider PE-pipe tolerances • 85% from irrigated circle diameter BAUER Ges.m.b.H. 9570 VOITSBERG, AUSTRIA 01/92



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PERFORMANCE TABLE BAUER RAINSTAR 110 - 350 TiH

PE-Pipe outs. diameter 110 mm		Sprinkler		max. irrigated area 2 x 4.14 = 8.3 ha									
PE-Pipe length 350 m		BAUER SR35		max. width of irrig. strip 101 m									
Nozzle diameter [mm]	Nozzle press [bar]	Spray range [m]	Width of strip [m]	Water con- sumpt. [m ³ /h]	Retraction speed [m/h] & connection pressure [bar] at precipitat. rate								
					15 mm	20 mm	25 mm	30 mm	35 mm	40 mm	50 mm	60 mm	
					m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar
24	3.0	43.6	74	38.3	---	13 - 4.7	11 - 5.1	9 - 5.0	---	---	---	---	---
	3.5	45.6	77	41.4	---	13 - 5.2	11 - 5.7	9 - 5.7	---	---	---	---	---
	4.0	47.3	80	44.2	28 - 6.1	14 - 5.9	11 - 6.4	9 - 6.4	---	---	---	---	---
	4.5	48.9	83	46.9	28 - 6.7	16 - 6.0	14 - 6.5	10 - 7.1	---	---	---	---	---
	5.0	50.4	85	49.5	29 - 7.3	16 - 6.6	15 - 7.2	10 - 7.7	---	---	---	---	---
26	3.0	43.2	73	41.0	---	15 - 5.2	12 - 7.9	10 - 7.8	---	---	---	---	---
	3.5	45.6	77	45.0	---	15 - 5.4	12 - 8.2	10 - 8.4	---	---	---	---	---
	4.0	47.3	80	48.6	29 - 5.1	16 - 4.6	12 - 4.8	10 - 4.8	---	---	---	---	---
	4.5	49.1	84	51.9	30 - 5.8	17 - 5.1	12 - 5.6	10 - 5.5	---	---	---	---	---
	5.0	52.1	89	58.0	31 - 6.5	17 - 5.8	12 - 6.3	10 - 6.2	---	---	---	---	---
28	3.5	49.4	84	56.3	32 - 7.2	18 - 6.5	13 - 7.0	11 - 7.0	---	---	---	---	---
	4.0	51.1	88	60.9	32 - 7.9	18 - 7.2	13 - 7.7	11 - 7.7	---	---	---	---	---
	4.5	52.7	92	64.9	33 - 8.6	19 - 7.9	13 - 8.5	11 - 8.4	---	---	---	---	---
	5.0	54.4	96	70.9	33 - 9.6	19 - 8.6	13 - 9.3	11 - 9.3	---	---	---	---	---
	6.0	57.7	101	73.7	34 - 10.5	19 - 9.3	13 - 10.1	11 - 10.0	---	---	---	---	---
30	3.5	51.4	87	64.7	34 - 6.3	20 - 7.1	14 - 6.9	12 - 6.9	---	---	---	---	---
	4.0	53.2	90	69.1	35 - 7.1	20 - 7.7	14 - 7.7	12 - 7.7	---	---	---	---	---
	4.5	55.0	93	73.3	35 - 7.9	20 - 8.5	14 - 8.5	12 - 8.5	---	---	---	---	---
	5.0	56.7	96	77.3	36 - 8.7	21 - 9.3	14 - 9.3	12 - 9.3	---	---	---	---	---
	6.0	59.9	101	84.7	37 - 9.5	21 - 10.1	15 - 10.1	13 - 10.0	---	---	---	---	---
32	3.5	53.4	87	64.7	37 - 7.0	21 - 6.2	15 - 6.8	13 - 6.8	---	---	---	---	---
	4.0	55.2	90	69.1	38 - 7.9	22 - 7.0	15 - 7.7	13 - 7.7	---	---	---	---	---
	4.5	57.0	93	73.3	38 - 8.8	22 - 7.7	15 - 8.6	13 - 8.6	---	---	---	---	---
	5.0	58.8	96	77.3	39 - 9.8	23 - 8.6	16 - 9.3	13 - 9.3	---	---	---	---	---
	6.0	62.9	101	84.7	40 - 10.8	23 - 9.5	16 - 10.2	14 - 10.2	---	---	---	---	---
34	3.5	53.2	90	73.6	41 - 7.8	23 - 6.9	16 - 6.8	14 - 7.6	---	---	---	---	---
	4.0	55.0	94	78.6	42 - 8.8	23 - 7.7	16 - 7.7	14 - 8.5	---	---	---	---	---
	4.5	57.0	97	83.4	43 - 9.8	24 - 8.6	16 - 8.6	14 - 9.6	---	---	---	---	---
	5.0	58.8	100	87.9	44 - 10.9	24 - 9.5	16 - 9.5	15 - 10.5	---	---	---	---	---
	6.0	62.9	101	94.2	44 - 11.0	25 - 10.4	16 - 10.4	15 - 10.5	---	---	---	---	---
36	3.5	55.0	93	83.0	45 - 8.8	25 - 6.9	16 - 6.8	15 - 8.6	---	---	---	---	---
	4.0	57.1	97	88.0	46 - 9.9	26 - 7.8	16 - 7.7	15 - 8.7	---	---	---	---	---
	4.5	59.1	100	94.2	47 - 11.0	26 - 8.7	16 - 8.6	15 - 9.6	---	---	---	---	---
	5.0	60.9	100	98.9	47 - 11.0	27 - 9.5	16 - 9.5	15 - 10.5	---	---	---	---	---
	6.0	64.9	101	104.2	47 - 11.0	27 - 10.4	16 - 10.4	15 - 10.5	---	---	---	---	---

Performance table does not consider PE-pipe tolerances

• 85% from irrigated circle diameter

BAUER Ges.m.b.H. 8570 VOITSBERG, AUSTRIA 01/92



PERFORMANCE TABLE BAUER RAINSTAR 110 - 400 TIH

PE-Pipe outs. diameter 110 mm		BAUER SR35		max. irrigated area 2 x 4.46 = 8.9 ha																	
PE-Pipe length 400 m		max.length of strip 2 x 455 m		max. width of irrig. strip 98 m																	
Nozzle diameter (mm)	Nozzle pressure [bar]	Spray range [m]	Width of strip [m]	Water cons. sumpt. [m ³ /h]	Retraction speed [m/h] & connection pressure [bar] at precipitat. rate																
					15 mm m/h - bar	20 mm m/h - bar	25 mm m/h - bar	30 mm m/h - bar	35 mm m/h - bar	40 mm m/h - bar	50 mm m/h - bar	60 mm m/h - bar	70 mm m/h - bar								
24	2.5	41.4	70	35.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	45.6	77	41.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.0	47.3	80	44.2	22 - 6.3	18 - 7.6	15 - 5.9	13 - 5.6	11 - 5.4	9 - 5.4	9 - 6.1	9 - 6.8	8 - 6.8	8 - 7.5	8 - 8.2	8 - 8.2	8 - 8.2	8 - 8.2	8 - 8.2	8 - 8.2	8 - 8.2
	4.5	48.9	83	46.9	23 - 7.0	19 - 7.6	16 - 7.1	14 - 7.0	12 - 7.7	11 - 6.9	9 - 6.8	10 - 7.5	10 - 8.3	10 - 8.3	10 - 8.3	10 - 8.3	10 - 8.3	10 - 8.3	10 - 8.3	10 - 8.3	10 - 8.3
	5.0	50.4	85	49.5	23 - 7.7	19 - 8.2	17 - 7.8	15 - 8.4	14 - 8.4	12 - 8.5	11 - 7.8	12 - 8.3	12 - 8.3	12 - 8.3	12 - 8.3	12 - 8.3	12 - 8.3	12 - 8.3	12 - 8.3	12 - 8.3	12 - 8.3
26	2.5	43.2	73	41.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	3.5	45.6	77	45.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	4.0	47.4	80	48.6	30 - 6.3	20 - 6.1	17 - 5.6	15 - 5.4	14 - 5.4	12 - 5.2	10 - 5.2	10 - 5.2	10 - 5.2	10 - 5.2	10 - 5.2	10 - 5.2	10 - 5.2	10 - 5.2	10 - 5.2	10 - 5.2	
	4.5	49.1	86	55.1	31 - 7.0	21 - 6.9	18 - 7.0	15 - 6.1	14 - 6.1	12 - 6.0	10 - 6.0	10 - 6.0	10 - 6.0	10 - 6.0	10 - 6.0	10 - 6.0	10 - 6.0	10 - 6.0	10 - 6.0	10 - 6.0	
	5.0	52.7	92	58.0	32 - 7.8	21 - 7.7	18 - 7.8	15 - 6.9	14 - 6.9	12 - 6.8	10 - 6.8	10 - 6.8	10 - 6.8	10 - 6.8	10 - 6.8	10 - 6.8	10 - 6.8	10 - 6.8	10 - 6.8	10 - 6.8	
28	3.5	49.5	84	56.3	33 - 8.6	22 - 8.4	19 - 8.6	16 - 8.5	14 - 8.4	13 - 8.4	11 - 8.4	11 - 8.4	11 - 8.4	11 - 8.4	11 - 8.4	11 - 8.4	11 - 8.4	11 - 8.4	11 - 8.4	11 - 8.4	
	4.0	51.4	87	60.2	33 - 9.3	22 - 9.2	19 - 9.4	16 - 9.3	14 - 9.2	13 - 9.2	11 - 9.1	11 - 9.1	11 - 9.1	11 - 9.1	11 - 9.1	11 - 9.1	11 - 9.1	11 - 9.1	11 - 9.1		
	4.5	53.9	90	63.9	34 - 6.9	23 - 6.8	20 - 6.9	17 - 6.8	15 - 6.8	14 - 6.7	12 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7	10 - 6.7		
	5.0	54.8	93	67.3	35 - 7.8	23 - 7.7	20 - 7.9	17 - 7.7	15 - 7.6	14 - 7.6	12 - 7.6	10 - 7.6	10 - 7.6	10 - 7.6	10 - 7.6	10 - 7.6	10 - 7.6	10 - 7.6	10 - 7.6		
	6.0	57.7	98	70.6	35 - 8.7	24 - 8.5	20 - 8.5	17 - 8.6	15 - 8.5	14 - 8.5	12 - 8.5	10 - 8.5	10 - 8.5	10 - 8.5	10 - 8.5	10 - 8.5	10 - 8.5	10 - 8.5	10 - 8.5		
30	3.5	51.4	87	64.7	36 - 9.6	24 - 9.4	21 - 9.4	18 - 9.5	16 - 9.4	14 - 9.4	12 - 9.3	10 - 9.3	10 - 9.3	10 - 9.3	10 - 9.3	10 - 9.3	10 - 9.3	10 - 9.3	10 - 9.3		
	4.0	53.2	93	72.3	37 - 10.4	25 - 10.3	21 - 10.3	18 - 10.4	16 - 10.3	14 - 10.3	12 - 10.2	11 - 10.1	11 - 10.1	11 - 10.1	11 - 10.1	11 - 10.1	11 - 10.1	11 - 10.1			
	4.5	55.9	96	77.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
	5.0	56.9	96	77.3	37 - 7.8	25 - 7.6	21 - 7.6	19 - 7.6	17 - 7.6	15 - 7.6	12 - 7.6	11 - 7.6	11 - 7.6	11 - 7.6	11 - 7.6	11 - 7.6	11 - 7.6	11 - 7.6			
32	3.5	53.2	90	73.6	38 - 8.8	26 - 8.6	22 - 8.6	19 - 8.8	17 - 8.8	15 - 8.6	12 - 8.6	11 - 8.6	11 - 8.6	11 - 8.6	11 - 8.6	11 - 8.6	11 - 8.6	11 - 8.6			
	4.0	55.3	94	78.6	39 - 9.8	26 - 9.6	23 - 9.6	20 - 9.8	18 - 9.8	16 - 9.6	14 - 9.6	12 - 9.6	12 - 9.6	12 - 9.6	12 - 9.6	12 - 9.6	12 - 9.6	12 - 9.6			
	4.5	57.2	97	83.4	40 10.8	27 - 10.6	23 - 10.6	20 - 10.6	18 - 10.6	16 - 10.6	14 - 10.6	12 - 10.6	12 - 10.6	12 - 10.6	12 - 10.6	12 - 10.6	12 - 10.6	12 - 10.6			
34	3.5	55.0	93	83.0	41 - 8.8	27 - 8.7	23 - 8.7	20 - 8.7	18 - 8.7	16 - 8.7	14 - 8.6	12 - 8.6	12 - 8.6	12 - 8.6	12 - 8.6	12 - 8.6	12 - 8.6	12 - 8.6			
	4.0	57.1	97	89.8	42 - 9.9	28 - 9.8	24 - 9.8	21 - 9.9	19 - 9.9	17 - 9.8	14 - 9.8	12 - 9.8	12 - 9.8	12 - 9.8	12 - 9.8	12 - 9.8	12 - 9.8	12 - 9.8			

Performance table does not consider PE-pipe tolerances ♦ 85% from irrigated circle diameter BAUER Ges.m.b.H. 8570 VOITTSBERG, AUSTRIA 01/92



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PERFORMANCE TABLE BAUER RAINSTAR 125 - 350 TTH

PE-Pipe outs. diameter 125 mm PE-Pipe length 350 m		Sprinkler BRUEP SR35 max. length of strip 2 x 410 m		max. irrigated area 2 x 4.47 = 8.9 ha max. width of irrig. strip 109 m											
Nozzle diameter (mm)	Nozzle pressure (bar)	Spray range (m)	Width of strip (m)	Water consumption (m ³ /h)	Retraction speed (m/h) & connection pressure [bar] at precipitator rate	10 mm m/h - bar	15 mm m/h - bar	20 mm m/h - bar	25 mm m/h - bar	30 mm m/h - bar	35 mm m/h - bar	40 mm m/h - bar	45 mm m/h - bar	50 mm m/h - bar	55 mm m/h - bar
24	3.5 4.0 4.5 5.0	45.6 47.3 48.9 50.4	77 80 83 85	41.4 44.2 46.9 49.5	---	---	---	---	21 - 6.0 22 - 5.7 23 - 6.1 23 - 6.6	18 - 4.8 19 - 5.3 19 - 5.9 19 - 6.5	15 - 4.6 16 - 5.2 16 - 5.8 17 - 6.4	---	---	---	---
26	3.0 3.5 4.0 4.5 5.0	45.5 47.6 49.4 51.1 52.1	77 80 84 89	45.0 48.6 51.9 55.1 58.0	---	40 - 6.0 41 - 6.0 43 - 6.5 43 - 7.1	---	23 - 4.9 24 - 5.3 25 - 5.8 26 - 6.4 26 - 7.0	19 - 4.4 20 - 5.0 21 - 5.6 21 - 6.2 22 - 6.8	17 - 4.3 17 - 4.9 18 - 5.5 18 - 6.1 19 - 6.8	15 - 4.8 15 - 5.5 16 - 6.1 16 - 6.7	---	---	---	---
28	3.0 3.5 4.0 4.5 5.0	49.5 51.4 53.2 54.8 56.1	82 90 93 95	56.0 60.2 63.9 67.3 70.6	---	45 - 5.6 46 - 6.2 47 - 6.9 48 - 7.5 50 - 8.2	---	27 - 5.5 28 - 6.2 28 - 6.8 29 - 7.5 30 - 8.2	22 - 5.3 23 - 6.0 24 - 6.6 24 - 7.3 25 - 8.0	19 - 5.2 20 - 5.9 20 - 6.6 21 - 7.2 21 - 7.9	17 - 5.2 17 - 5.8 18 - 6.5 18 - 7.2 19 - 7.9	---	---	---	---
30	3.0 3.5 4.0 4.5 5.0	51.4 53.2 55.1 56.9 58.5	87 93 96 99	64.7 69.1 73.3 77.3 81.1	24 - 7.5 29 - 7.7 29 - 8.2 80 - 8.8 82 - 9.5	50 - 5.9 51 - 6.7 53 - 7.4 54 - 8.0 55 - 8.8	---	30 - 5.9 31 - 6.4 32 - 7.1 32 - 7.9 33 - 8.6	25 - 5.7 26 - 6.5 26 - 7.2 27 - 8.0 27 - 8.7	21 - 5.6 22 - 6.4 23 - 7.1 23 - 7.9 23 - 8.6	19 - 5.6 19 - 6.3 20 - 7.1 20 - 7.8 20 - 8.5	---	---	---	---
32	3.0 3.5 4.0 4.5 5.0	53.2 55.1 57.2 59.2 61.0	90 94 97 100 102	73.6 78.6 83.4 87.9 92.2	82 - 7.6 84 - 8.1 86 - 8.8 88 - 9.6 90 - 10.3	54 - 6.5 56 - 7.1 57 - 7.9 59 - 8.7 60 - 9.5	---	33 - 6.2 33 - 7.0 34 - 7.8 35 - 8.6 36 - 9.4	27 - 6.3 28 - 7.1 29 - 7.9 29 - 8.7 30 - 9.3	23 - 6.1 24 - 7.0 25 - 7.8 25 - 8.6 26 - 9.4	22 - 6.9 23 - 7.6 24 - 8.5 24 - 9.2 25 - 10.0	---	---	---	---
34	3.0 3.5 4.0 4.5 5.0	55.1 57.1 59.1 60.9 62.2	93 97 100 103 106	83.0 88.8 94.4 99.4 104.1	89 - 8.1 92 - 8.8 94 - 9.6 96 - 10.4 ---	60 - 6.9 61 - 7.8 63 - 8.7 64 - 9.6 65 - 10.4	---	36 - 6.8 37 - 7.6 38 - 8.5 39 - 9.4 39 - 10.1	30 - 6.9 31 - 7.6 31 - 8.5 32 - 9.2 33 - 10.0	26 - 6.9 26 - 7.7 27 - 8.5 28 - 9.4 28 - 10.3	22 - 6.9 23 - 7.6 24 - 8.5 24 - 9.2 25 - 10.0	---	---	---	---
36	3.0 3.5 4.0 4.5 5.0	58.7 61.0 62.2 63.8 65.0	96 100 103 106 111	93.1 99.5 105.6 111.7 ---	97 - 8.9 100 - 9.7 102 - 10.5 ---	65 - 7.6 66 - 8.6 68 - 9.5 70 - 10.5 ---	---	39 - 7.4 40 - 8.4 41 - 9.2 42 - 10.1 ---	32 - 7.4 33 - 8.2 34 - 9.1 35 - 10.1 ---	28 - 7.5 28 - 8.4 29 - 9.4 30 - 10.2 ---	24 - 7.4 25 - 8.2 26 - 9.1 26 - 10.1 ---	---	---	---	---

PERFORMANCE TABLE BAUER RAINSTAR 125 - 370 T/H

PE-Pipe outs. diameter 125 mm				BAUER SR35				max. irrigated area 2 x 4.69 = 9.4 ha						
PE-Pipe length 370 m				max. length of strip 2 x 430 m				max. width of irrig. strip 109 m						
Nozzle diameter (mm)	Nozzle pressure (bar)	Spray range (m)	Width of strip (m)	Water consumption (m ³ /h)	Retraction speed (m/h) & connection pressure (bar) at precipitat. rate									
					15 mm	20 mm	25 mm	30 mm	35 mm	40 mm	50 mm	60 mm	70 mm	
					m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	m/h - bar	
24	3.5	45.6	77	41.4	---	---	21 - 6.8	18 - 4.9	15 - 4.7	---	---	---	---	
	4.0	47.3	80	44.2	---	---	22 - 5.8	18 - 5.4	16 - 5.3	---	---	---	---	
	4.5	48.9	83	46.9	---	---	23 - 6.2	19 - 5.9	16 - 5.9	---	---	---	---	
	5.0	50.4	85	49.5	---	---	23 - 6.7	19 - 6.5	17 - 6.4	---	---	---	---	
	3.5	47.6	80	43.9	40 - 6.5	30 - 5.6	24 - 5.4	20 - 5.0	17 - 4.9	15 - 4.9	---	---	---	
26	4.0	49.1	84	46.1	41 - 6.2	31 - 6.0	25 - 5.9	21 - 5.6	18 - 5.4	15 - 5.5	---	---	---	
	4.5	51.1	86	48.1	43 - 6.7	32 - 6.4	26 - 6.5	21 - 6.3	18 - 6.2	16 - 6.2	---	---	---	
	5.0	52.7	89	50.0	43 - 7.2	33 - 7.0	26 - 7.1	22 - 6.9	19 - 6.8	16 - 6.8	---	---	---	
	5.5	54.1	92	52.9	44 - 7.8	33 - 7.6	26 - 7.7	22 - 7.5	19 - 7.5	17 - 7.4	---	---	---	
	3.5	49.5	80	43.9	45 - 5.8	34 - 5.5	27 - 5.6	22 - 5.3	19 - 5.3	17 - 5.2	---	---	---	
28	4.0	51.4	85	46.0	46 - 6.3	35 - 6.1	28 - 6.3	23 - 6.0	20 - 6.0	17 - 5.9	---	---	---	
	4.5	53.2	90	47.7	47 - 7.0	35 - 6.8	28 - 6.9	24 - 6.7	20 - 6.6	18 - 6.6	---	---	---	
	5.0	54.8	93	49.3	48 - 7.6	36 - 7.5	29 - 7.6	24 - 7.4	21 - 7.3	18 - 7.3	---	---	---	
	5.5	56.3	95	50.6	50 - 8.3	37 - 8.2	30 - 8.3	25 - 8.1	21 - 8.0	19 - 8.0	---	---	---	
	3.5	51.4	85	46.0	50 - 6.1	37 - 5.8	30 - 6.0	25 - 5.8	21 - 5.7	19 - 5.7	---	---	---	
30	4.0	53.1	90	49.1	51 - 6.8	38 - 6.6	31 - 6.5	26 - 6.6	22 - 6.5	19 - 6.4	---	---	---	
	4.5	55.2	93	51.1	53 - 7.5	39 - 7.3	32 - 7.3	26 - 7.3	23 - 7.2	20 - 7.2	---	---	---	
	5.0	56.9	96	52.9	54 - 8.2	40 - 8.1	32 - 8.0	27 - 8.1	23 - 8.0	20 - 7.9	---	---	---	
	5.5	58.5	99	54.8	55 - 8.9	41 - 8.8	33 - 8.8	27 - 8.8	23 - 8.7	20 - 8.7	---	---	---	
	3.5	51.4	85	46.0	50 - 6.1	38 - 6.6	31 - 6.5	26 - 6.6	22 - 6.5	19 - 6.4	---	---	---	
32	4.0	53.2	90	49.3	51 - 6.8	39 - 7.3	32 - 7.3	26 - 7.3	23 - 7.2	20 - 7.2	---	---	---	
	4.5	55.2	94	51.1	53 - 7.5	40 - 8.1	32 - 8.0	27 - 8.1	23 - 8.0	20 - 7.9	---	---	---	
	5.0	57.2	97	52.9	54 - 8.2	41 - 8.8	33 - 8.8	27 - 8.8	23 - 8.7	20 - 8.7	---	---	---	
	5.5	59.2	100	54.8	55 - 8.9	41 - 8.8	33 - 8.8	27 - 8.8	23 - 8.7	20 - 8.7	---	---	---	
	3.5	53.1	90	49.1	54 - 6.6	41 - 6.4	33 - 6.3	27 - 6.4	23 - 6.3	20 - 6.2	---	---	---	
34	4.0	55.2	94	51.1	56 - 7.3	42 - 7.2	33 - 7.1	28 - 7.2	24 - 7.1	21 - 7.0	---	---	---	
	4.5	57.2	97	52.9	57 - 8.1	43 - 8.0	34 - 7.9	29 - 8.0	25 - 7.9	21 - 7.9	---	---	---	
	5.0	59.2	100	54.8	59 - 8.9	44 - 8.8	35 - 8.7	29 - 8.9	25 - 8.7	22 - 8.7	---	---	---	
	5.5	60.6	102	56.3	60 - 9.7	45 - 9.6	36 - 9.5	30 - 9.5	26 - 9.5	23 - 9.5	---	---	---	
	3.5	53.1	90	49.1	60 - 7.1	45 - 7.0	36 - 6.9	30 - 7.0	26 - 6.9	22 - 6.9	---	---	---	
36	4.0	55.2	95	51.1	61 - 8.0	46 - 7.9	37 - 7.8	31 - 7.9	27 - 7.8	23 - 7.7	---	---	---	
	4.5	57.2	100	52.9	63 - 8.9	47 - 8.7	38 - 8.7	31 - 8.6	28 - 8.7	24 - 8.6	---	---	---	
	5.0	59.2	103	54.8	64 - 9.7	48 - 9.6	39 - 9.6	32 - 9.4	29 - 9.6	25 - 9.4	---	---	---	
	5.5	62.2	106	56.3	65 - 10.6	49 - 10.5	39 - 10.3	33 - 10.2	29 - 10.5	25 - 10.2	---	---	---	
	3.5	53.1	95	51.1	60 - 7.1	46 - 7.0	36 - 6.9	30 - 7.0	26 - 6.9	22 - 6.9	---	---	---	

PROPER USAGE

The BAUER RAINSTAR is designed exclusively for use in agricultural operation (proper usage).

Any employment beyond the specified field of application shall be considered improper usage. The producer shall not be liable for any damage resulting from such improper usage, the user shall be solely responsible for any such damage.

Proper usage also incorporates the strict observance of any of the producer's instructions relating to the operation, maintenance and service of the machine.

The BAUER RAINSTAR shall be operated, serviced and repaired by no other person except those who are familiar with the machine and informed about the potential risks.

All appropriate regulations concerning accident prevention and any other generally accepted regulations regarding safety, occupational medicine, and road traffic must be strictly adhered to.

Arbitrary changes of the machine's configuration are impermissible and shall discharge the producer from any liability for damage resulting from such changes.

General Safety and Accident Prevention Specifications

Basic rule:

Before every use the Rainstar and the tractor must be checked for traffic and operating safety!

General:

1. In addition to the instructions in this manual, the generally valid safety and accident prevention specifications must be observed!

2. The attached warning and information signs contain very important instructions for safe and reliable operation. To observe them means safety for you!

3. When driving on public roads, the appropriate regulations must be observed!

4. Be sure to acquaint yourself with all parts and control elements of the machine and their principle of operation! It's too late when you've started operation!

5. The operator's clothing should fit tightly! Avoid wearing loose clothes.

6. Keep the machine clean to avoid the risk of fire!

7. Before starting to drive and operate check the area around the machine (children!)! Make sure that to have a good view of the working area!

8. Riding on the machine during operation and transport is prohibited!

9. Couple and secure the machine in accordance with regulations and with the specified equipment only!

10. During the assembly and disassembly of the machine the machine supports must be positioned properly! (Stability!)

11. Special care is required when the machine is coupled with or unhitched from the tractor!

12. Observe the permissible weight on the axle and the total weights!

13. Observe the permissible dimensions for transport!

14. Observe the permissible carrying capacity of the trailer coupling, drawbar, or hitch coupling!

15. Ensure sufficient flexibility of the drawbar coupling point!

16. Inspect and mount all equipment required for traffic on public roads, such as lighting, reflectors, and existing protective devices.

17. All operating devices (cables, chains, rods, a.s.o.) of distance-controlled equipment must be fitted in a manner that prevents unintentional actuations in all transport and operating positions!

18. For driving on public roads the machine must be adjusted according to regulations and secured according to the supplier's instructions!

19. Never leave the driver's cab during a ride!

20. Always adjust the driving speed to the condition of the road! Avoid sudden turns when driving uphill or downhill or traversing a slope!

18. For driving on public roads the machine must be adjusted according to regulations and secured according to the supplier's instructions!

19. Never leave the driver's cab during a ride!

20. Always adjust the driving speed to the condition of the road! Avoid sudden turns when driving uphill or downhill or traversing a slope!

21. The tractor's behaviour with regard to driving, steering and braking is influenced by trailed equipment and also by any amount of water remaining in the pipe! Make sure that the available steering and braking capacities are sufficient!

22. Take into consideration the centrifugal mass of the machine when driving in curves!

23. Operate the machine only with all protective devices mounted and properly adjusted!

24. Staying within the machine's operating and danger zone is prohibited!

25. Never stay in the turning zone of the machine!

26. All externally powered devices (e.g. hydraulic) include points of danger of bruising and crushing!

27. Never fail to secure the machine before you leave the tractor! Turn off the engine and pull out the ignition key!

28. Nobody must stay in between the tractor and the irrigation machine unless the tractor has been secured against rolling off by setting the parking brake and/or placing wedges underneath the wheels!

29. Before driving on public roads, drain all water from the pipes and spraying devices and arrange them in the specified position!

30. Before starting to irrigate you should contact your competent power supply company with regard to the safety distances that have to be allowed near overhead transmission lines. (VDE rule 0105 Part 15 Art. 6.3)!

PTO drive (applies to PTO driven machines only)

1. Use only PTO drive shafts recommended by the machine supplier!
2. The drive shaft protection tube and funnel and the PTO guard must always be mounted and in proper condition!
3. When using a telescoping PTO shaft, observe the specified tube overlapping measure in the transport and working position.
4. Never couple or uncouple the drive shaft unless the PTO is stopped, the engine turned off and the ignition key pulled out!
5. When using a drive shaft with a safety or free-wheel clutch that is not covered by the protective device on the tractor, the safety or free-wheel clutch must be mounted on the machine side!
6. Always ensure that the drive shaft is mounted and secured properly!
7. Hook up the chain to keep the drive shaft protection from revolving!
8. Before starting the PTO make sure that the selected speed and direction of rotation of the tractor's PTO correspond with the permissible speed and direction of rotation of the machine!
9. Before starting the PTO, make sure that nobody is within the danger zone of the machine!
10. Never engage the PTO when the engine is turned off!
11. When working with the PTO nobody is permitted near the operating PTO or drive shaft!
12. Always turn off the PTO when the bend becomes too large or the device is no longer needed!
13. For cleaning, greasing, or adjusting the PTO driven machine or the drive shaft, the PTO shaft must be idle, the engine turned off, and the ignition key pulled out!
14. Place the uncoupled drive shaft on the provided holder!
15. After the drive shaft is removed, slip protective cap on the PTO shaft!
16. If defects occur, repair them immediately before starting to operate the machine!

Hydraulic system

1. The hydraulic system is under high pressure!
2. When connecting hydraulic cylinders and motors make sure that the hydraulic hoses are coupled according to specifications!
3. Before coupling the hydraulic hoses with the tractor's hydraulic equipment make sure that the entire hydraulic system is depressurized both on the tractor and on the machine side!
4. The coupling sleeves and plugs of the functional hydraulic lines between the tractor and the machine that control functions of the machine should be marked to make functional errors impossible! Exchanged connections will cause reversed functions - e.g. lifting instead of lowering - risk of accident!
5. The hoses of the hydraulic system must be inspected periodically and replaced immediately in case of damage or aging! The replaced hoses must comply with the technical specifications of the machine supplier!
6. When looking for leakages use proper facilities to avoid accidents!
7. Liquids leaking under high pressure (hydraulic oil) can penetrate the skin and cause severe injuries! A person who has been injured must see a doctor immediately! Danger of infection!
8. Before handling the hydraulic system, depressurize the system and turn off the engine!

Brakes and tires

1. Check the brakes before every ride!
2. The entire brake systems must be thoroughly inspected periodically!
3. Adjustments and repairs of the brake system may be performed only by a professional workshop or a proven brake inspection service!
4. When handling the tires make sure that the machine is firmly parked and secured against rolling (wedges)!
5. Mounting tires and wheels requires sufficient knowledge and proper tools!

6. Repairs of tires and wheels may be performed only by specialists and with the appropriate tools!

7. Check the tire pressure regularly. Observe the specified tire pressure.

Maintenance

1. Service, maintenance and repair work and the elimination of operational faults may only be performed with the drive disengaged and the engine turned off. Pull out the ignition key!
2. Check proper seat of all nuts and bolts periodically and tighten them, if necessary.
3. Always wear gloves and use proper tools when replacing operational tooling!
4. Dispose of used oil, grease and filters in accordance with regulations!
5. Turn off the power supply before handling the electrical system!
6. Protective devices that are subject to wear must be checked regularly and replaced in time!
7. All spare parts must comply with the producer's minimum engineering specifications. This is ensured e.g. by the use of genuine spare parts!
8. For electrical welding operations on the tractor and built-on implements, the battery and generator cables must be disconnected!