



Noavaran Tose Tejarat Rasta

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The reel irrigation machines produced by Rasta are designed and manufactured based on the latest production methods for irrigation machines with booms and have significantly higher efficiency compared to similar models. These irrigation machines, which are designed and produced in four models, come with a 1-year warranty and 5 years of reliable after-sales service.





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Technical Specifications:

- **Frame:** The machine frame is reinforced with industrial materials and has a hot-dip galvanized coating.
- **Reel:** The reel has an epoxy paint coating and is capable of full rotation on the frame. It is equipped with a steering wheel for irrigating opposing fields.
- **Pipes:** Made of polyethylene according to national and international standards, resistant to abrasion, and equipped with Anti-UV properties.
- **Boom Support and Lift System:** Equipped with hydraulic jacks.
- **Automatic Shut-Off System:** Automatically stops the boom movement at the end of the irrigation cycle.
- **Power Transmission System:** Direct power transmission from the gearbox to the reel gear.
- **Manual Winding System:** Operated via PTO shaft.
- **Automatic Pipe Winding System:** Ensures precise and orderly pipe collection.
- **Tires:** Specially designed for agricultural land.
- **Speed Control Levers:** Equipped with levers to adjust the carriage movement speed.
- **Bolts and Nuts:** Coated with galvanized or dacromet.
- **Irrigation Carriage Specifications:**

Mist Boom:

- Equipped with 4 wheels with tires specifically designed for agricultural land.
- Adjustable length, creating an irrigation band of 30 to 58 meters.
- Adjustable boom height from 1.2 meters to 2.4 meters.
- Chain winch for adjusting the boom height.
- Swivel on the frame with a steering wheel to navigate obstacles.
- Hot-dip galvanized coating.
- Reinforced couplings for quick and easy assembly and disassembly.
- **Automatic Balance System:** For stability on uneven terrain.
- Designed for placement on the boom lift arms of the machine and easy transfer.
- Designed for dual-purpose operation, allowing the installation of a gun on it.

Gun Carriage:

- Equipped with 4 wheels with tires specifically designed for agricultural land.
- Hot-dip galvanized coating.
- Lightweight.



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مشخصات فنی ماشین های آبیاری قرقره ای به همراه بوم مهپاش

وزن (کیلوگرم)		فشار کاری (بار)	سایز نازل (میلی متر)	مصرف آب (متر مکعب بر ساعت)	عرض نوار خیس شده (متر)	طول لوله پلی اتیلن (متر)	قطر لوله پلی اتیلن (میلی متر)	تیپ	مدل
با آب	بدون آب								
4190	2090	4-10	6/7/8/9/10	34.2-64.9	36-58	400	100	100/400	TG100
3670	1830	4-10	6/7/8/9/10	34.2-64.9	36-58	350	100	100/350	
3140	1570	4-10	6/7/8/9/10	34.2-64.9	36-58	300	100	100/300	
3820	1900	4-10	5/6/7/8/9	27.8-52.4	36-58	450	90	90/450	TG90
3390	1690	4-10	5/6/7/8/9	27.8-52.4	36-58	400	90	90/400	
2970	1480	4-10	5/6/7/8/9	27.8-52.4	36-58	350	90	90/350	
2550	1270	4-10	5/6/7/8/9	27.8-52.4	36-58	300	90	90/300	TG85
3030	1510	4-10	5/6/7/8/9	24.6-46.7	36-58	400	85	85/400	
2650	1320	4-10	5/6/7/8/9	24.6-46.7	36-58	350	85	85/350	
2270	1140	4-10	5/6/7/8/9	24.6-46.7	36-58	300	85	85/300	TG75
1890	950	4-10	5/6/7/8/9	24.6-46.7	36-58	250	85	85/250	
2060	1030	4-10	4/5/6/7/8	19.2-46.6	36-58	350	75	75/350	
1770	880	4-10	4/5/6/7/8	19.2-46.6	36-58	300	75	75/300	TG75
1470	730	4-10	4/5/6/7/8	19.2-46.6	36-58	250	75	75/250	
1180	590	4-10	4/5/6/7/8	19.2-46.6	36-58	200	75	75/200	





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What is a Boom Reel Irrigation Machine?

A boom reel irrigation machine is a modern device that, by using irrigation pipes and the ability to be transported within agricultural fields, provides conditions for uniform and optimal irrigation of plants. This type of irrigation system, considered one of the most advanced irrigation systems in the world, can irrigate fields with both tall and short plants, as well as fields with both even and uneven terrains.

In the new generation of its irrigation machines, Tarah Go star Ab Ara has produced a device suited to the climatic conditions of our beloved country, Iran, by utilizing the latest systems implemented in European models. This machine offers very high efficiency in irrigating various fields.





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Introduction to the Various Components of the Reel Irrigation Machine:

In this section, we introduce the different parts of this irrigation machine:

Sturdy Frame: Tarah Go star Ab Ara has used industrial-grade sturdy frames in this machine. To increase the machine's lifespan, hot-dip galvanized sheets have been applied to these frames. The use of these materials has significantly extended the durability of the machine.

Special Reel: The reel of this irrigation machine is coated with epoxy paint. One of the features of this machine is the ability of the reel to rotate fully without any jerks or impacts on the frame, which enhances the machine's efficiency.

Irrigation Pipes: The pipes used in this irrigation machine are made of polyethylene. These pipes are completely UV-resistant and meet all international standards for irrigation pipes for agricultural lands. The use of high-quality raw materials ensures that the pipes have a very long lifespan and that wear and tear do not affect their performance.

The length and diameter of the pipes vary depending on the selected model, which can be seen in the specifications table of Tarah Go star Ab Ara irrigation machines.

Special Agricultural Tires: Tarah Go star Ab Ara has used special tires designed for use on agricultural lands in this machine. These tires are designed to be wider to increase the contact surface with the soil, thereby providing optimal weight distribution when the machine moves.

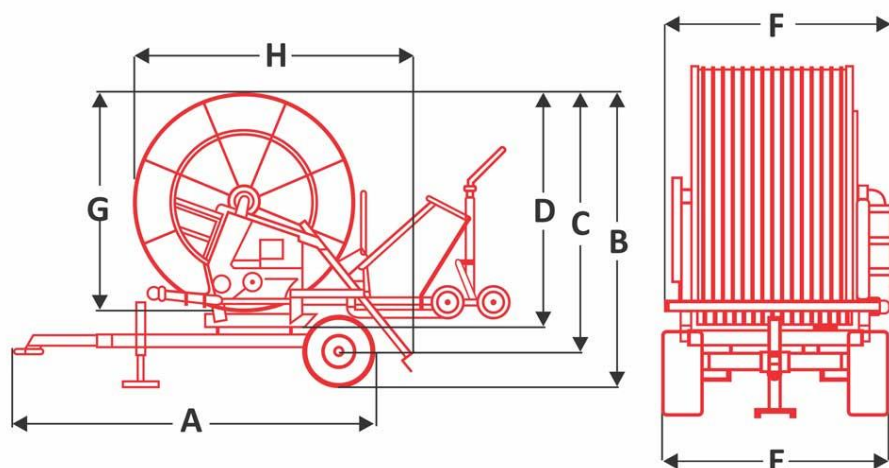
The agricultural tires on this machine are designed to move without damage on fields with wet soil and terrains with various levels of unevenness.

Automatic Speed Control of the Machine:

An increase in the machine's speed for any reason, such as uneven conditions in the agricultural fields, can reduce the amount of water delivered to plants along the irrigation path. This issue arises because the water flow rate and spray amount are constant along the path.

As a result, Tarah Go star Ab Ara has developed a system where the artificial intelligence of the reel irrigation machine maintains the parameters affecting the machine's speed constant, thereby preventing speed changes across different paths.

In traditional and older models of reel irrigation machines, the operator had to check the machine every 30 to 45 minutes and adjust the speed if it deviated from the set value. This process has been fully automated in Tarah Go star Ab Ara machines.





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TYPE	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm
100-400	4160	3360	2990	2820	2420	2310	2650	3270
100-350	3990	3190	2820	2650	2420	2310	2480	3100
100-300	3990	3190	2820	2650	2420	2310	2480	3100
90-450	3910	3110	2740	2570	2250	2140	2400	3020
90-400	3910	3110	2740	2570	2250	2140	2400	3020
90-350	3910	3010	2640	2470	2250	2140	2200	2920
90-300	3910	3010	2640	2470	2250	2140	2200	2920
85-400	3750	2950	2580	2410	2160	2050	2240	2860
85-350	3610	2810	2440	2270	2160	2050	2100	2720
85-300	3610	2810	2440	2270	2160	2050	2100	2720
85-250	3470	2670	2300	2130	2160	2050	1960	2580
75-350	3510	2710	2340	2170	1990	1880	2000	2620
75-300	3390	2590	2220	2050	1990	1880	1880	2500
75-250	3390	2590	2220	2050	1990	1880	1880	2500
75-200	3260	2460	2090	1920	1990	1880	1750	2370



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Optimized Water Consumption in Reel Irrigation Machines:

One of the main goals of producing reel irrigation machines is to prevent water waste. These machines can specify the amount of water sprayed and distribute it evenly across the field, resulting in minimal energy loss while maximizing efficiency.

Easy Transportation Without Worrying About Equipment Theft:

A major concern for farmers when using modern irrigation systems is the potential theft of various system components. Reel irrigation machines are easily portable and do not require keeping equipment on the field, making them an ideal option for irrigating agricultural lands.

Custom Features and Special Add-ons for Tarah Gostar Ab Ara's Reel Irrigation Machine:

Tarah Gostar Ab Ara designs and produces its reel irrigation machines with the option to customize various parts. If you need these add-ons, you can contact the sales experts at Tarah Gostar Ab Ara.

Some of the customizable elements include:

- **Direct Water Intake:** The machine can be equipped with special pumps for direct water intake from channels, ponds, or rivers. For this purpose, gasoline or diesel engines are installed on the frame. It is also possible to mount special pumps on the reel irrigation machine's frame for connection to a tractor.
- **Solar Panel Installation for Battery Charging:** The batteries of this reel irrigation machine can operate continuously for three days. To charge these batteries, you can use special solar panels that can be custom-installed on the machine.
- **Data Analysis System Installation:** The data analysis system is one of the add-ons designed to fully monitor the irrigation system's status on agricultural lands. This system records and stores the machine's behavior in different seasons, such as movement speed, water flow rate, etc. This data is logged in tables, which can be extracted and analyzed after a while.

Using this data, a standard program can be uploaded to the machine's control panel to maximize the machine's performance on similar agricultural lands. This eliminates the need for the operator to rely on trial and error to optimize the irrigation efficiency on their land.

- **TGSAMRT Smart Package:** Tarah Gostar Ab Ara first writes the device's control philosophy and then, using the available data and the buyer's needs, adds various add-ons through programming in the control panel.

The use of modern programming systems is among the most advanced methods available, significantly impacting the device's efficiency.



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The TGSAMRT smart package is prepared based on this idea. In this package, you have access to the following add-ons:

- A special controller equipped with a modern digital display
- Display and control of the carriage's movement speed
- Display of the length of the pipe that has been extended or retracted
- Display of the incoming water flow rate
- Display of incoming and outgoing water pressure
- Warning systems, including irrigation completion and obstacle collision
- Display of the remaining time until irrigation completion
- Ability to stabilize the input voltage to the system
- Two batteries with a maximum lifespan of three days and rechargeable capability
- A data recording and analysis system
- Battery charge level indicator
- And more...

One of the special features of this add-on package is the ability to communicate with the machine's control panel via the internet or SMS. This allows you to remotely monitor various aspects of the machine and make changes such as starting or stopping its operation.

Measure	T- 30	T- 36	T- 42
A	38	44	50
B	30	36	42



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