



MACHINE CONSTRUCTION
AGRICULTURE IRRIGATION EARTH MOVING

AP IRRIGATION MACHINES



Irrigation according to your wishes



Dutch quality





A proven concept for more than 40 years

AP irrigation machines are, in close contact with the end users, developed on the basis of all possible wishes of the Dutch farmer. The AP irrigation machine is a high-quality, economic machine with numerous options that offers years of service and reliability.

Low on maintenance and failures

Thanks to the simple and full hydraulic design, the well thought-out and robust construction and the application of modern techniques the machine requires minimal maintenance and guarantees a practically fault-free operation.

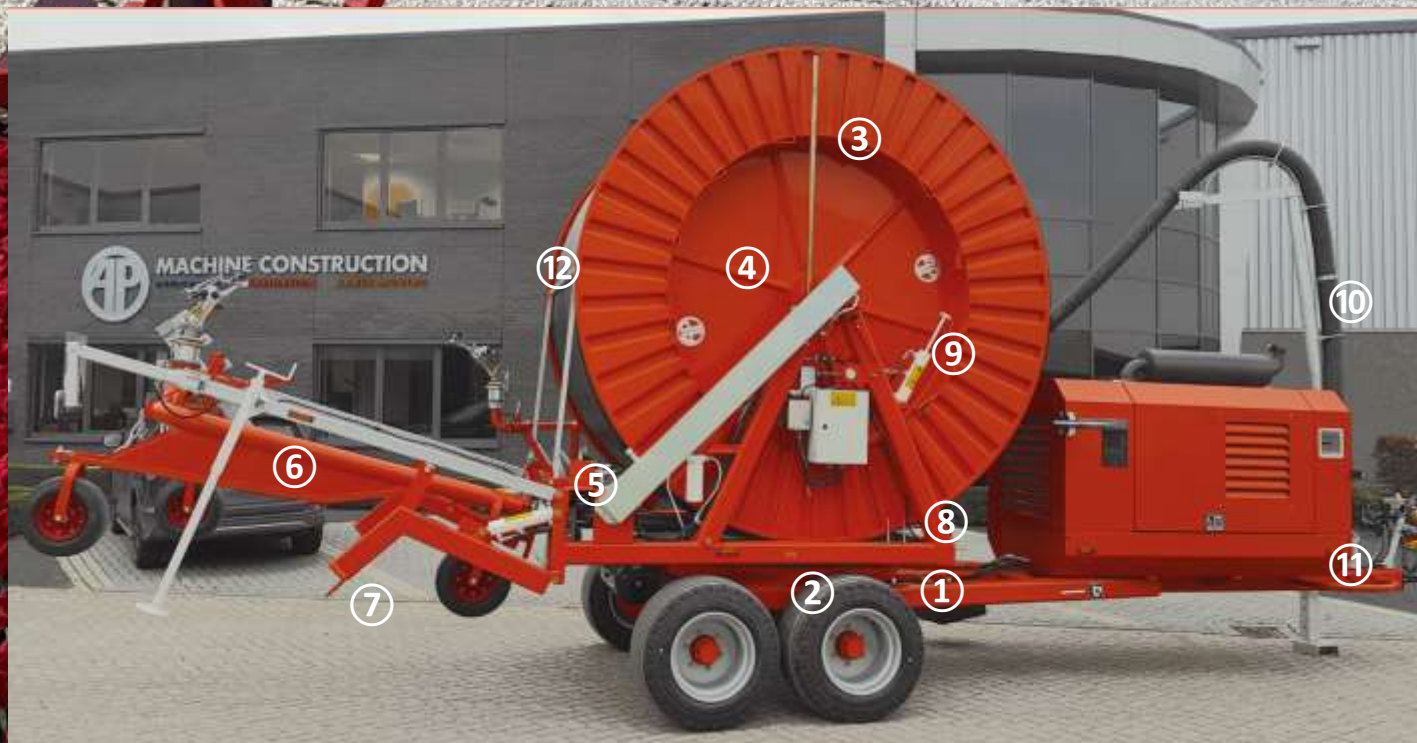
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Available with a build-on PTO pump or motor pump unit

- ① Heavy-duty undercarriage, steel thickness 8 mm, with 4 air braked wheels
- ② Maintenance-free turntable with heavy ball bearing impellers
- ③ Closed drum construction
- ④ No danger of inflection/damage of the hose due to the large core diameter of the drum
- ⑤ Heavy, maintenance-free hose guide with 1" duplex chain
- ⑥ Twin-track angle adjustable gun cart with unique idling system
- ⑦ Hydraulic support legs with automatic pick up of the gun cart at end of the cycle
- ⑧ Self-adjusting drum brake, only braking during pulling out
- ⑨ No loss of water pressure due to unique hydraulic winding system with 2 cylinders
- ⑩ Hydraulically controlled suction arm, provided with swivel joint, avoids unnecessary heavy lifting of the suction hose
- ⑪ Self-priming system, the centrifugal pump is self-priming which makes water pumping by hand redundant
- ⑫ High-quality irrigation hose

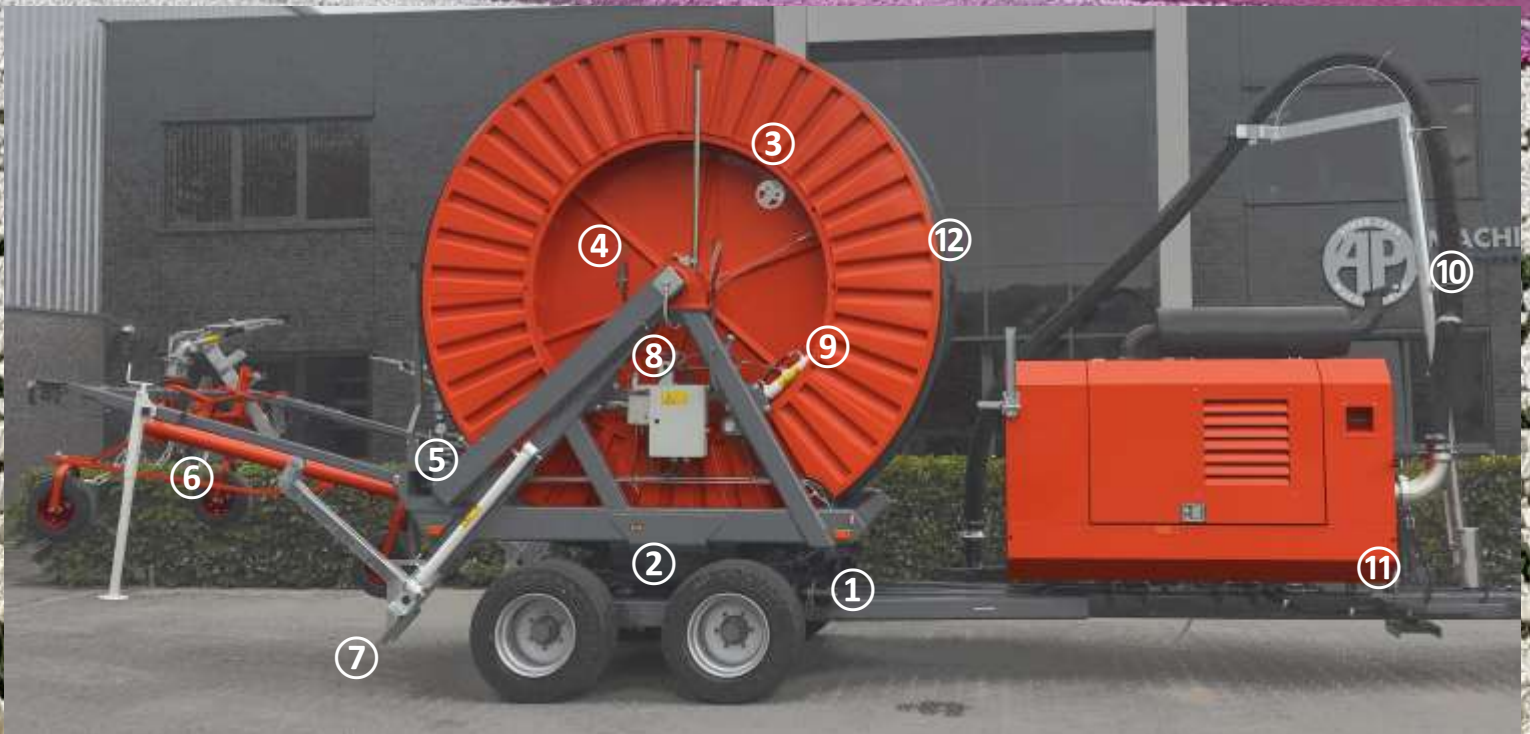
All models are delivered with the obligatory EU approval certificate



Available with a build-on PTO pump or motor pump unit

- ① Heavy-duty undercarriage, steel thickness 8 mm, with 4 air braked wheels
- ② Hydraulically adjustable, maintenance-free, double-row, ball bearing turntable
- ③ Closed drum construction
- ④ No danger of inflection/damage of the hose due to the large core diameter of the drum
- ⑤ Heavy, maintenance-free hose guide with 1" duplex chain
- ⑥ Twin-track angle adjustable gun cart with unique idling system
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Technical specifications

		Length incl. gun cart mm	Width mm	Height mm	Track width irrigation machine mm	Weight* kg	Diameter hose mm	Length hose mm
MIDI	Pump	7900	2340	3950	1940	5300	110	340 of 415
	Motor	9400	2340	3950	1940	6620	125	295
MIXI	Pump	8000	2530	3950	2130	5700	110	500
	Motor	9500	2530	3950	2130	7020	125	340
MAXI	Pump	8300	2650	3980	2250	7680	110	540 of 620
	Motor	9800	2650	3980	2250	9000	125	480 of 550
							140	340 of 420
GIGANT	Pump	8300	3000	3980	2600	9040	125	680
	Motor	9800	3000	3980	2600	10240	140	500

* Weights include hose / exclude water

Ground clearance: MIDI/MIXI: 350 mm MAXI/GIGANT : 230 mm

All types comply with the provisions of the Machinery Directive 2006/42/EC
and the European Regulation EU 167/2013.



Approval EU regulation 167/2013

All AP irrigation machines comply to the legally required European approval requirements for towed (agricultural) vehicles and are delivered with an approval certificate or license. Without this certificate or license it is not permitted to drive on public roads with a towed agricultural vehicle. The approval number can be found on the rating plate and is also engraved in the frame of the irrigation machine.

- Tandem undercarriage, with 4 air braked wheels inclusive of the required braking deceleration
- Tires with the proper load index (load capacity)
- Certified shaft ends
- Road lighting
- Length indicators / -reflectors
- Wideness safety signs
- Certified drawbar
- Shielding protruding parts
- Maximum height of 400 cm /
Maximum width of 300 cm



Hydraulic strutting

By a simple manual operation the support legs can be hydraulically strutted so the irrigation machine cannot be pulled or pushed over during an irrigation cycle. After each cycle the support legs will automatically be put in transport position.



Automatic pick-up gun cart

At the end of each irrigation cycle the gun cart will be picked-up automatically whereby the irrigation machine is immediately movable.



Twin-track angle and width adjustable gun cart

This unique gun cart, with a track following hose, ensures minimum crop damage. The optimal spray pattern can be achieved with the help of the angle adjustment.

Quick winding system through tractor's hydraulics

By using the two supplied hydraulic hoses, the gun cart can be reeled in quickly through tractor's hydraulics without irrigating, in case of rain or otherwise desired.

Automatic idling

Through a special valve in the gun cart, which allows air in the hose during the pulling out, water can flow back into the ditch via the suction hose so the pulling out of the hose takes 60% less power because the hose is empty and thus weighs less.

Automatic reel brake

Self-adjusting brake that is activated during the pulling out, to prevent loose windings. The models MAXI and GIGANT come as standard with an hydraulic drum brake.



Self-priming valve

De by AP especially developed self-priming valve allows the centrifugal pump to be self-priming. At the moment the suction hose hangs in the ditch the water can be sucked by the pump itself which saves a lot of time and energy.



Security

The irrigation machine is completely secured against water pressure, winding errors and the end of the irrigation cycle.





Turntable

The models MIDI and MIXI are equipped with a maintenance-free ball bearing turntable that enables a smooth adjustment of the spray direction (per 7 degrees). The models MAXI and GIGANT are provided with a double-row ball bearing turntable (picture) and are standardly hydraulically and infinitely adjustable.



Road lighting

All AP irrigation machines are, in accordance with the applicable European requirements, standardly equipped with road lighting, wideness safety signs and length and width reflectors.

Caprari water pump

For the water and oil supply the irrigation machine is equipped with a Caprari water pump with build-on oil pump, assembled on the drawbar. Model MIDI is provided with a 65 2-2 pump with 7 meters 4" suction hose and hydraulic lifting arm. The models MIXI and MAXI come with a 80 3-2 pump with 7 meters 5" suction hose and hydraulic lifting arm.

Model GIGANT is only available with a build-on motor pump unit with 7 meters 5" or 6" suction hose and hydraulic lifting arm.

Hose guide

Equipped with 1" duplex chain. Thanks to a heavy chain tensioner and a regreasable belt guide roller this robust hose guide is as good as maintenance-free.



Nelson sprinkler

Nelson SR 150 sprinkler with 3 nozzles of choice. This sprinkler ensures the most optimal spray pattern and meets the highest quality requirements.

Drain set and sponge ball

Unique system, designed especially for winter storage. With the help of compressed air a sponge ball is blown through the hose which consequently idles completely and is being cleaned internally.



Double swivel joint in suction hose

The suction hose is provided with a double swivel joint for a simple movement of the suction arm from the left to the right.

Although the AP irrigation machine as standard is equipped with very comprehensive features there are various options available for an even more convenient and efficient irrigation.



Second sprinkler

This small sprinkler is mounted on the guide tube, in the middle behind the drum of the irrigation machine. Control can be done by a ball valve or by the plc. Comes as standard with a River Sector sprinkler and optionally available with a Nelson SR 75 for just that bit more capacity and spray width.



Beacon

The build-on beacon is not only useful during road transport but it also signals when the maximum pulled out length is almost reached, especially pleasant in the evening and at night.



Work light

During maintenance or an unexpected malfunction when it is dark outside, the work light on magnetic base comes in handy.



Diesel tank in the drum

The closed drum construction makes it possible to use it as a diesel tank. Through a filler hole with screw-on cap the drums can be filled with a maximum of 900 liters gas oil allowing carefree irrigation for a considerable time. Furthermore gauge glasses are available as an optional extra.



Hydraulic drum brake

The hydraulic drum brake comes as standard on the MAXI and GIGANT and is optionally available on the MIDI and MIXI. This hydro motor is placed underneath the central axis and connected by a chain. If the drum is being pulled out the drum drives the hydro motor which now functions as a oil pump. The oil is pumped by a pressure relief valve, if the pressure is getting too high the drum will be decelerated to avoid loose windings. During the winding the motor runs pressureless. It thus only brakes when necessary and prevents extra wear.

Motor pump unit in low-noise housing

The motor pump consists of a combustion engine which drives a centrifugal pump. The moving parts are protected by fitting grills. All is easily accessible for service works and this unit is obviously provided with excellent sound insulation.

There are 3 motor types and 3 pump types available:

- FPT 74, 86 or 104 KW water cooled diesel motor
- Caprari MEC-MG 80 4/3, a MEC-MG 80 4/4 or a MEC-MG 100-2 pump

The models MAXI and GIGANT, with hose diameter 140 mm, will be equipped with a 6" rubber suction hose.



PLC control

Completely controlled and monitored irrigation!

Easily to achieve with the by AP developed control system.

Starting, stopping of the motor, hose length and speed regulation, selecting gun type, nozzle and pressure, irrigating different fields per cycle, pre- and post irrigation, controlling the 2e gun and an automatic pressure control.....
All easily and clearly to set and to read.



Web application & smartphone app

With this online application the present en past data of the AP irrigation can be monitored. Locations and working hours of the machine can be seen per date. In addition other irrigation settings like the number of millimetres, the operating pressure, the fuel consumption etc. can be shown.

In case of a fault or problem the irrigation machine and diesel engine can be read remotely by the dealer. In this way the correct diagnosis can be made quickly.



The app allows the user to follow the irrigation machine(s) real time via smartphone. No matter how many machines it concerns, the app can be used to check per machine the location, the end time, the pulled out length, the set number of millimetres, the operating pressure, the fuel consumption etc. etc. If the machine is ready or in case of a malfunction a message will be send to the smartphone so action can be taken immediately.



SMS modem

In case of a fault or when the machine is ready this modem sends a SMS to the mobile phone of the user or to a modem of a supply pump. It is possible to store multiple phone numbers.



1-, 2- or 3-fold hydraulic valve

The hydraulic lifting arm of the suction hose and the optional hydraulic turntable and draw bar support leg are as standard to control through hoses and the tractor's hydraulics. Depending on the option a 1-, 2-, or 3-fold hydraulic valve is available; with this valve and the own hydraulic system of the irrigation machine the machine can do his work independently without the use of a coupled tractor.



Hydraulic turntable (as standard on MAXI / GIGANT, optional on MIDI / MIXI)

By placing a hydro motor and chain it is no longer necessary to turn the irrigation machine manually but can it be carried out completely hydraulically.



Gauge glasses

The irrigation machine is standardly provided with one gauge glass. Optionally 3 gauge glasses can be added with which the diesel level in every position of the drum can be read.



Hydraulic support leg draw bar

Instead of the standard assembled support leg, that can be adjusted in height manually, a hydraulic support leg is optionally available.

Sled gun cart

The gun cart can be equipped with a sled, giving the gun cart more resistance during the winding. The sled replaces the middle wheel on the gun cart.

Irrigation from a distance

Separate feed pump

Irrigating with high efficiency from a water source or from a ditch/canal situated further away? This can be achieved by the use of an extra, separate PTO pump or a motor pump unit. This supplies the water with 1 à 2 bar; the pump of the irrigation machine now does not have to suck the water, which requires a lot of energy, and just needs to increase the pressure to 10 à 11 bar. The extra fuel costs for using an extra, separate PTO pump can be practically set off against the savings on fuel costs of the pump of the irrigation machine because it receives water instead of sucking it itself.

Thus because the inlet pressure at the irrigation machine is 10 à 11 bar a **much higher capacity** is achieved than when the water is being supplied at high pressure.



Motor pump unit

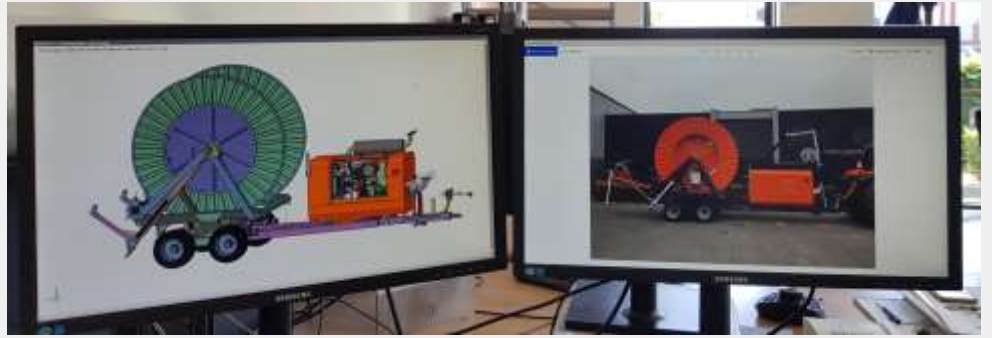


PTO pump

(Front) hose reel

With the help of a (front) hose reel it will be easier to roll out and transport the fire hose.









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dream machine

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