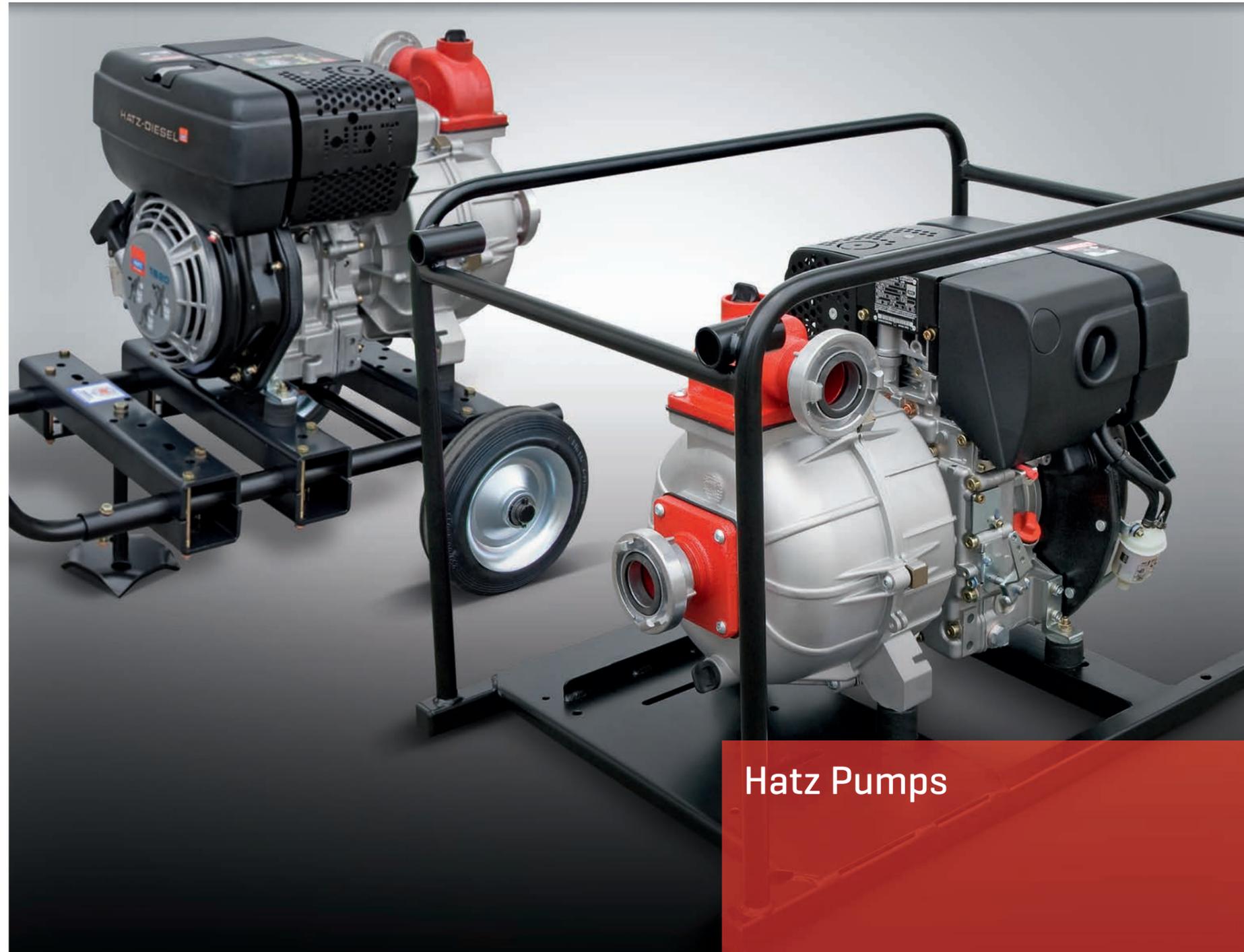


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CREATING POWER SOLUTIONS.



Hatz Pumps

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We reserve the right to make all changes that
serve technical development.



CREATING POWER SOLUTIONS.



Hatz Systems – Made in Germany

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The Hatz Systems business unit develops and produces special systems based on industrial engines.

Hatz Systems

Key areas of focus include solutions relating to power and energy supply, scalable electricity stations, pumping generating sets and special applications for the marine and military sector. As a manufacturer of diesel engines with over 100 years' experience, our name is known and in demand all over the world. For more than 30 years, we have been developing and producing customer-specific systems based on industrial engines in our Hatz Systems business unit.

The range of Hatz systems stretches from 2 kW to several 100 kW of power. All of our

systems can also be fully customised. The Special Applications division particularly focuses on individual concepts and customer requirements in relation to systems that have industrial engines as their source of power.

Hatz Systems product areas:

- Power systems
- Pumps
- Marine applications
- Special applications

Choosing the right pump

The selection of type and size of a pump is very important to have a proper working and reliable application. When selecting a pump, the following basic information is needed:

Suction height

The height between the water surface and the pump inlet.

Pressure height

The height between the pump inlet and the highest point of the delivery pipe.

Discharge hose length

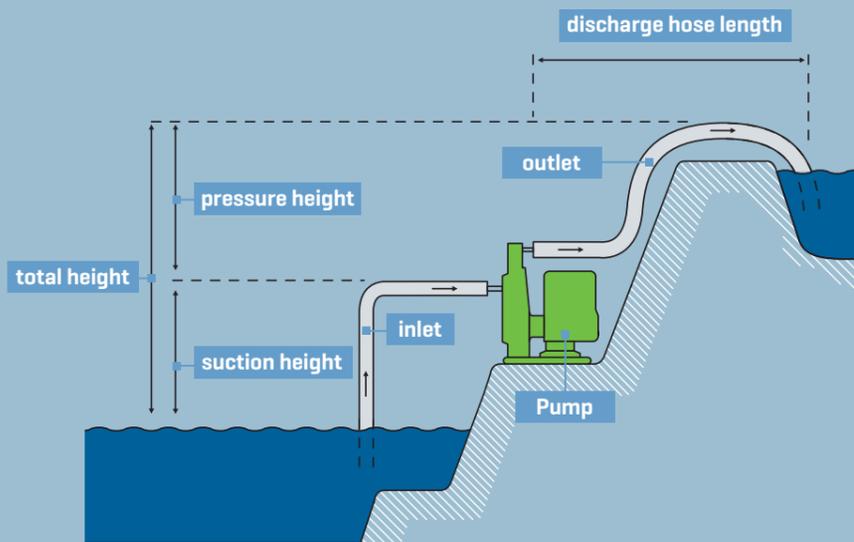
The total length of the outlet hose.

Delivery rate/quantity

The amount of fluid that needs to be processed in a certain time.

Fluid quality

When the basic requirement is defined, also the type of water and the content and size of solids within the water is an important information.



Long-lasting and powerful: Hatz diesel-powered pumps

Hatz supplies robust, resilient, diesel-powered pumps for operation in tough conditions in the construction trade, industry, and agriculture as well as for local authorities and deployments of national and international aid organisations.

Optimum pump technology for professionals

From small, easy-to-transport pumps to large, powerful dirt and heat transfer pumps – Hatz offers a broad spectrum of engine-powered pumps for a variety of applications. Ideal for anyone who wants to work quickly, reliably and efficiently when there's no power supply.

Hatz water pumps are equipped with industrial diesel engines and deliver dependability and a long service life.

They operate in accordance with the circulating pump principle and, depending on the design, pump between 20 and 800 m³/h of liquid per hour in the standard configuration.

Whether it be clean water for irrigating gardens or crops, trash water or mud on construction sites, drainage in the case

of floods or chemicals and cleaning agents in industry - Hatz has the perfect pump for the job, whatever it is.

As well as the rapidly-available standard range, Hatz Systems also develops customised solutions such as mounted pumps on trailers with road approval or Bronze pumps for critical media.

Hatz Systems product range:

- Clean water pumps
- Trash water pumps
- Sludge pumps
- Sea water pumps
- Chemical liquid pumps
- Thermal oil / heat transfer pumps

Application	Pump Model						
Construction (Page 4 – 5)	C3-G20M	S2-K36P	C2-G46	C3-G68	C4-R105	C5-R140	
max. suction height	5	4.5	4 – 5	4 – 5	2.5	2.5	
max. pressure height	7.5	38	32	27	17	35	
quantity [m ³ /h / l/min]	20 / 333	36 / 600	45.60 / 760	68.40 / 1,140	105 / 1,750	140 / 2,333	
Special application (Page 6 – 7)	C3-G20M	S2-K36P	S2-R9	S2.5-A105	S2.5-S108	S4-K150	S4-A280
max. suction height	5	4.5	7	6	4.5	6	4
max. pressure height	7.5	38	160	36	72	30	80
quantity [m ³ /h / l/min]	20 / 333	36 / 600	9 / 150	105 / 1,750	108 / 1,800	150 / 2,500	280 / 4,667
Agriculture pressure (Page 8 – 9)	AP1.5-R24	AP2-R48	AP2.5-R72	AP2.5-R95	AP4-R240		
max. suction height	6	4.5	4	5	5		
max. pressure height	47	53	53	62	54		
quantity [m ³ /h / l/min]	24 / 400	48 / 800	72 / 1,200	95 / 1,583	240 / 4,000		
Agriculture volume (Page 10)	AQ5-R300	AQ8-R520	AQ10-R830				
max. suction height	5	4	4				
max. pressure height	20	16	16				
quantity [m ³ /h / l/min]	300 / 5,000	520 / 8,667	830 / 13,833				

Robust and reliable: Hatz trash water pumps

Hatz trash water pumps for construction sites are known for their reliability and robustness. They cover both the professional as well as the private customer side.



Construction pumps

Specially designed for extreme conditions, the "C" product-line offers pumps which can even process sand, leaves and other solids with a size of up to 40 mm. Reinforced sealings and a robust housing and components protect the engine and allow for a high running time even under adverse conditions. With a flow rate from 20 up to 140 m³/h the Hatz pumps are available for all kinds of application.

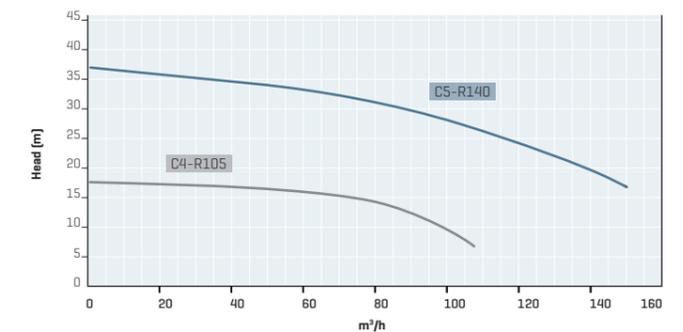
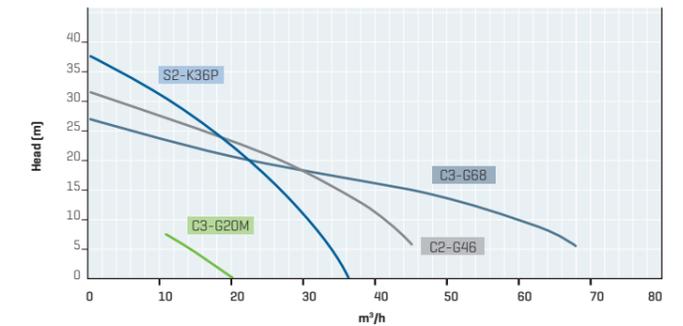
For increased reliability and robustness, the pump housing is made of aluminium casting and the pump impeller of a very rigid grey cast iron.

Combined with the air cooled Hatz diesel engines of the B-, D- L- and M-Series, the pump system offers the best combination to achieve a long lifetime at low running cost.

Application areas

On construction sites or for disaster relief organisations to drain excavations, cable channels or cellars, as well as for gardening and landscape construction the Hatz C-Series pumps deliver a reliable service.

Pump performance



Trash water pumps

Hatz Systems' standard range includes self priming trash water pumps with closed tubular frame or frame with trolley, covering pumping capacities of up to 140 m³/h.



Self-priming diaphragm pump

The Hatz diaphragm pumps can even process mud, slurry and thick liquids with a content of solids up to 80 %.

Technical data	C3-G20M	S2-K36P	C2-G46	C3-G68	C4-R105	C5-R140
engine	1B20	1B20	1B20	1B30	1D81 / 1D81C	2M41 / 2L41C
type of engine	1 cylinder diesel	1 cylinder diesel	1 cylinder diesel	1 cylinder diesel	1 cylinder diesel	2 cylinder diesel
power (kW/HP) ICFN	3.1 / 4.2	3.1 / 4.2	3.1 / 4.2	4.5 / 6.1	7.4 / 10	20.2 / 27.4
engine speed (min-1)	3,600	3,600	3,600	3,600	2,200	2,000
starter	recoil start	recoil start	recoil start (electric start possible)		crank handle start	electric start
fuel consumption (l/h)	0.81	0.81	0.81	1.2	1.7	4.2
tank capacity (l)	3	3	3	5	10	21 or 90
inlet Ø (inch)	3	2	2	3	4	5
outlet Ø (inch)	3	2	2	3	4	5
max. suction height (m)	5	4.5	4 - 5	4 - 5	2.5	2.5
max. pressure height (m)	7.5	38	32	27	17	35
max. solid diameter (mm)	40	8	25	32	16	25
quantity (m³/h / l/min)	20 / 333	36 / 600	45.6 / 760	68.4 / 1,140	105 / 1,750	140 / 2,333
type of chassis	trolley	closed tubular frame	closed tubular frame / trolley		rigid base frame	rigid base frame
dimensions L x W x H (mm)	1,090 x 760 x 560	600 x 400 x 530	670 x 480 x 520 (recoil start) / 780 x 520 x 560 (electric start)		870 x 630 x 805	1,400 x 780 x 995
weight (kg)	83	71	73	79	225	460
type	diaphragm pump	self-priming pump	self-priming pump	self-priming pump	self-priming pump	self-priming pump
material	aluminium	reinforced polycarbonate	aluminium	aluminium	grey cast iron	grey cast iron

Standard or customized: Hatz special pumps

Whenever there are special requirements to be met whether it be chemicals or thermal oil Hatz offers special pumps which can even be configured based on customer demand.



Special pumps

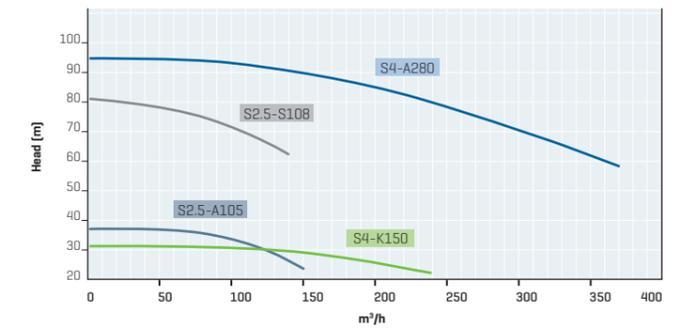
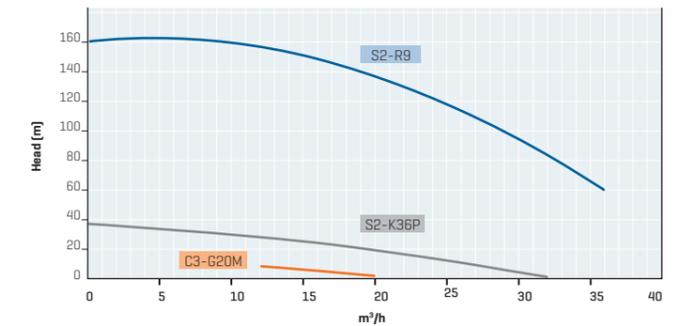
Hatz special pumps are used in applications where a normal pump is not robust enough or where some special requirements are needed. This, for example is the case for thermal oil pumps. With temperatures of up to 350° C these pumps have a totally different requirement compared to trash or clean-water pumps. Very often there are synthetic oils used for this application because of their lower cost. They are particularly bad for the pumps because of their reduced viscosity and lubricating properties. S-Series pumps are also able to deliver a high pressure at a low flow rate. With a housing made of reinforced polycarbonate even chemicals and sea water can be processed.

Hatz special pumps can cope with strong requirements and are very well suited for all application areas. Hatz pumps can also be developed and produced based on customer demand.

Application areas

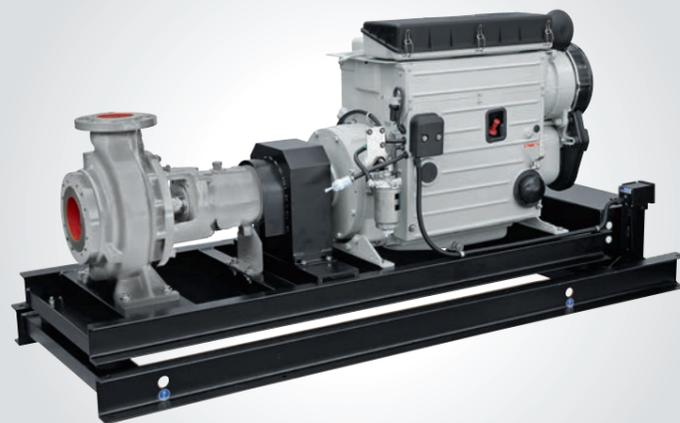
Hatz S-Series pumps can be found in application areas such as district heating or the chemical industry.

Pump performance



Reinforced polycarbonate pump

The Hatz S2-K36P is made of a corrosion-free glass reinforced polycarbonate pump for use in the chemical industry or for pumping of sea-water.



Thermal oil pumps

The large standard version of the thermal oil / heat transfer pumps from Hatz Systems is powered by a 4-cylinder 4M41 diesel engine. The maximum pumping capacity is 188 m³/h up to a pressure head of 43 metres.

Technical data	C3-G20M	S2-K36P	S2-R9	S2.5-A105	S2.5-S108	S4-K150	S4-A280
engine	1B20	1B20	2G40	2G40	3M41 / 3L41C	2M41 / SL41C	4M42 / 4L42C
type of engine	1 cyl. diesel	1 cyl. diesel	2 cyl. diesel	2 cyl. diesel	3 cyl. diesel	2 cyl. diesel	4 cyl. diesel
power [kW/HP] ICFN	3.1 / 4.2	3.1 / 4.2	12.4 / 16.8	13.5 / 18.3	35.4 / 48.1	18.2 / 24.7	44.4 / 60.3
engine speed [min-1]	3.600	3.600	2.600	2.900	2.900	1.800	2.900
starter	recoil start	recoil start	electric start	electric start	electric start	electric start	electric start
fuel consumption [l/h]	0.81	0.81	2.6	2.9	7.7	3.6	9.6
tank capacity [l]	3	3	7	7	60	60	60
inlet Ø [inch]	3	2	2.5	3	3	5	5
outlet Ø [inch]	3	2	2	2.5	2.5	4	4
max. suction height [m]	5	4.5	7	6	4.5	6	4
max. pressure height [m]	7.5	38	160	36	72	30	80
max. solid diameter [mm]	40	8	0	thermal oil	thermal oil	thermal oil	thermal oil
quantity [m³/h / l/min]	20 / 333	36 / 600	9 / 150	105 / 1,750	108 / 1,800	150 / 2,500	280 / 4,667
type of chassis	trolley	closed tubular frame	rigid base frame	rigid base frame	rigid base frame	rigid base frame	rigid base frame
dimensions LxWxH [mm]	1,090 x 760 x 560	600 x 400 x 530	1,440 x 700 x 734	1,300 x 540 x 700	1,920 x 800 x 1,095	1,900 x 800 x 999	2,120 x 800 x 1,054
weight [kg]	83	71	310	265	510	475	575
type	diaphragm pump	self-priming pump	normal priming pump	normal priming pump	normal priming pump	normal priming pump	normal priming pump
material	aluminium	reinforced polycarbonate	grey cast iron				

Long-lasting and powerful: Hatz clean water pumps

Hatz Systems offers robust and resilient diesel engines for agriculture use. Whether it be a pressure or quantity pump Hatz has the right product for operation under tough conditions.



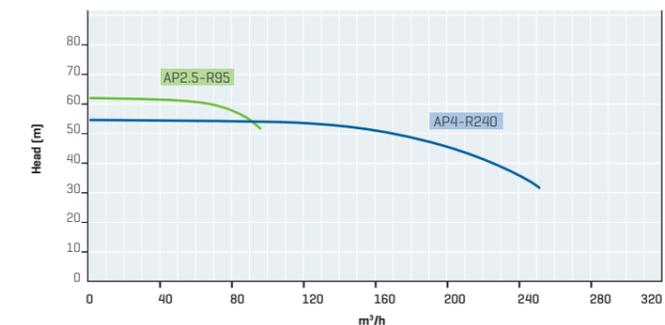
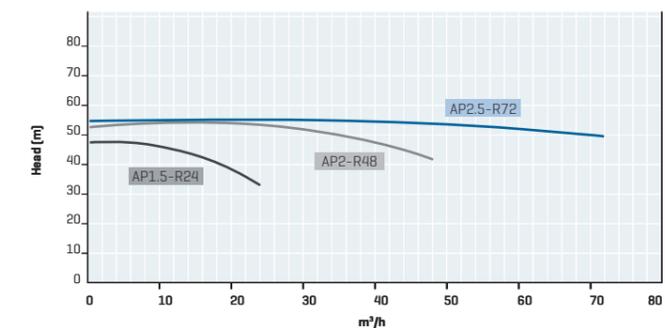
Agricultural pressure pumps

The Hatz self-priming clean water pumps are known for their quality and user friendliness. The pressure pumps are specifically used for irrigation systems and as booster pumps. With a capacity of up to 4,000 liters/min. the pumps are designed for handling large amounts of water. Smaller pumps are also available with a capacity of 400 liters/min. and are suitable for a variety of professional applications. All materials used for the pump match the quality levels which are expected from Hatz products. The pump impeller for example is made of very rigid hardened grey cast iron. Gaskets are made of ceramics to further enhance lifetime. Depending on the design a Hatz diesel engine with 1-, 2- or 3-cylinders is used to always offer the best possible performance combined with the optimal consumption. Even under extreme conditions the engines operate reliably and efficiently.

Application areas

Hatz pressure pumps are used predominantly in the agriculture field in irrigation systems but also as a booster pump where water needs to be transported over long distances or great heights.

Pump performance



More pressure in the pipe network

Hatz booster pumps stabilise the water pressure in the supply networks of residential homes and industrial buildings. If the pressure falls due to high demand, booster pumps kick in to restore the normal level.

Technical data	AP1.5-R24	AP2-R48	AP2.5-R72	AP2.5-R95	AP4-R240
engine model	1B30	1D81	2G40	2M41 / 2L41C	3M41 / 3L41C
type of engine	1 cylinder diesel	1 cylinder diesel	2 cylinder diesel	2 cylinder diesel	3 cylinder diesel
power (kW/HP) ICFN	4.2 / 5.7	9.2 / 12.5	12.4 / 16.8	22.9 / 31.1	35 / 47.6
engine speed (min-1)	3,000	2,900	2,600	2,300	2,300
starter	recoil start	electric start	electric start	electric start	electric start
fuel consumption (l/h)	1.1	2.3	2.6	4.8	7.2
tank capacity (l)	3	10	21	21 / 35 / 60 / 100 / on request	
inlet Ø (inch)	2	2.5	3	3	5
outlet Ø (inch)	1.5	2	2.5	2.5	4
max. suction height (m)	6	4.5	4	5	4.5
max. pressure height (m)	47	53	53	62	54
max. solid diameter (mm)	20	20	20	20	20
quantity (m³/h / l/min)	24 / 400	48 / 800	72 / 1,200	95 / 1,583	240 / 4,000
type of chassis	trolley	rigid base frame	rigid base frame	rigid base frame	rigid base frame
dimensions L x W x H (mm)	900 x 505 x 600	1,000 x 630 x 790	1,100 x 580 x 735	1,240 x 820 x 1,020	1,380 x 820 x 1,020
weight (kg)	86	196	235	402	452
type	normal priming pump	normal priming pump	normal priming pump	normal priming pump	normal priming pump
material	grey cast iron	grey cast iron	grey cast iron	grey cast iron	grey cast iron

Hatz agricultural volume pumps

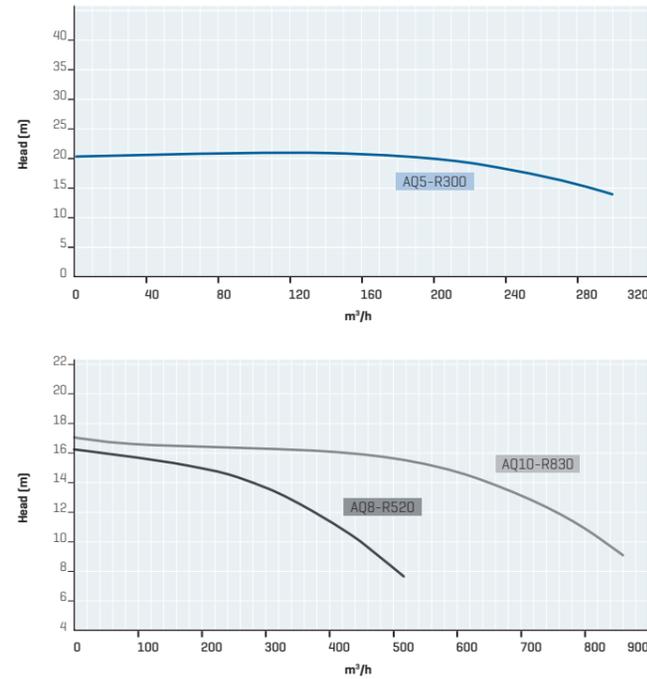
If higher amounts of clean water need to be raised, Hatz has a number of solutions available. When there is a low sand content and no solids in the water, Hatz pumps can process higher amounts of water rapidly. The pump flow rate ranges from 5,000 up to almost 14,000 l/min. The maximum sand content allowed is 40 g/m³.

The pumps use the larger air-cooled Hatz engines of the L- and M-Series range with 2-, 3- or 4-cylinders. All engines are equipped with an automatic engine protector, which for example could shut off the engine automatically in case of a drop in oil pressure or a failure of the cooling fan.

Application areas

The agricultural volume pump is used mainly for field irrigation systems or when higher amounts of water need to be transported over closer distances. They can also be used by disaster relief organisations in case of floods.

Pump performance



Volume pumps for irrigation projects

Hatz has particular expertise in the construction of special pumps for the irrigation of dryer regions. These pumps demand a reliable construction and the lowest possible risk of failure.

Technical data	AQ5-R300	AQ8-R520	AQ10-R830
Engine			
engine	2M41 / 2L41C	3M41 / 3L41C	4M41 / 4L41C
type of engine	2 cylinder diesel	3 cylinder diesel	4 cylinder diesel
power (kW/HP) ICFN	18.2 / 24.7	22.5 / 30.6	30.6 / 41.6
engine speed (min-1)	1,800	1,500	1,500
starter	electric start	electric start	electric start
fuel consumption (l/h)	3.6	4.3	5.8
tank capacity (l)	21 / 35 / 60 / 100 / on request		
Pump			
inlet Ø (inch)	6	8	10
outlet Ø (inch)	5	8	10
max. suction height (m)	5	4	3.5
max. pressure height (m)	20	16	16
max. sand content (g/m ³)	40	40	40
quantity (m ³ /h / l/min)	300 / 5,000	520 / 8,667	830 / 13,833
Frame			
type of chassis	rigid base frame	rigid base frame	rigid base frame
dimensions L x W x H (mm)	1,250 x 840 x 954	1,540 x 840 x 954	1,950 x 920 x 982
weight (kg)	410	511	698
type	normal priming pump	normal priming pump	normal priming pump
material	grey cast	grey cast	grey cast

The perfect add-ons: Hatz pump parts and accessories

With a worldwide service network with more than 500 service centres Hatz can ensure a quick and reliable parts supply for all Hatz diesel engines and pumps. In addition we stock a variety of accessories for our pumps including suction strainer, suction hoses, couplings and discharge hoses. All parts and accessories are selected and built according to our high quality standards.



Accessory kit

The accessory kit contains all parts which are needed to operate the 2, 3 and 4 inch pumps:

- Flexible discharge hose
- Reinforced suction hose
- Storz couplings and
- Suction strainer



Suction strainer

The suction strainer is made of robust and durable materials. It includes a non return valve and is available for 2, 3 or 4 inch pumps.



Storz couplings

Robust Storz coupling for pump side assembly. Both internal screw thread and external screw thread are available.



Reinforced suction hose

A high quality PVC hose designed for a wide variety of suction applications. It is made of a flexible clear PVC with smooth bore and an external helix that increases stability and enables easy dragging.

- Complete assembly with Storz couplings
- Available for 2, 3 and 4 inch pumps



Flexible discharge hose

The general purpose lay-flat discharge hose is made of PVC covered with a polyester mesh for increased robustness.

- Complete assembly with Storz couplings
- 5, 10 or 20 metres available
- For 2, 3 or 4 inch pumps



Maintenance kits

It only remains an original with an original. Therefore Hatz offers maintenance kits that work trouble-free and contain all required parts for the regular service of Hatz products.

Maintenance kits offer a price advantage compared to purchasing the parts individually.