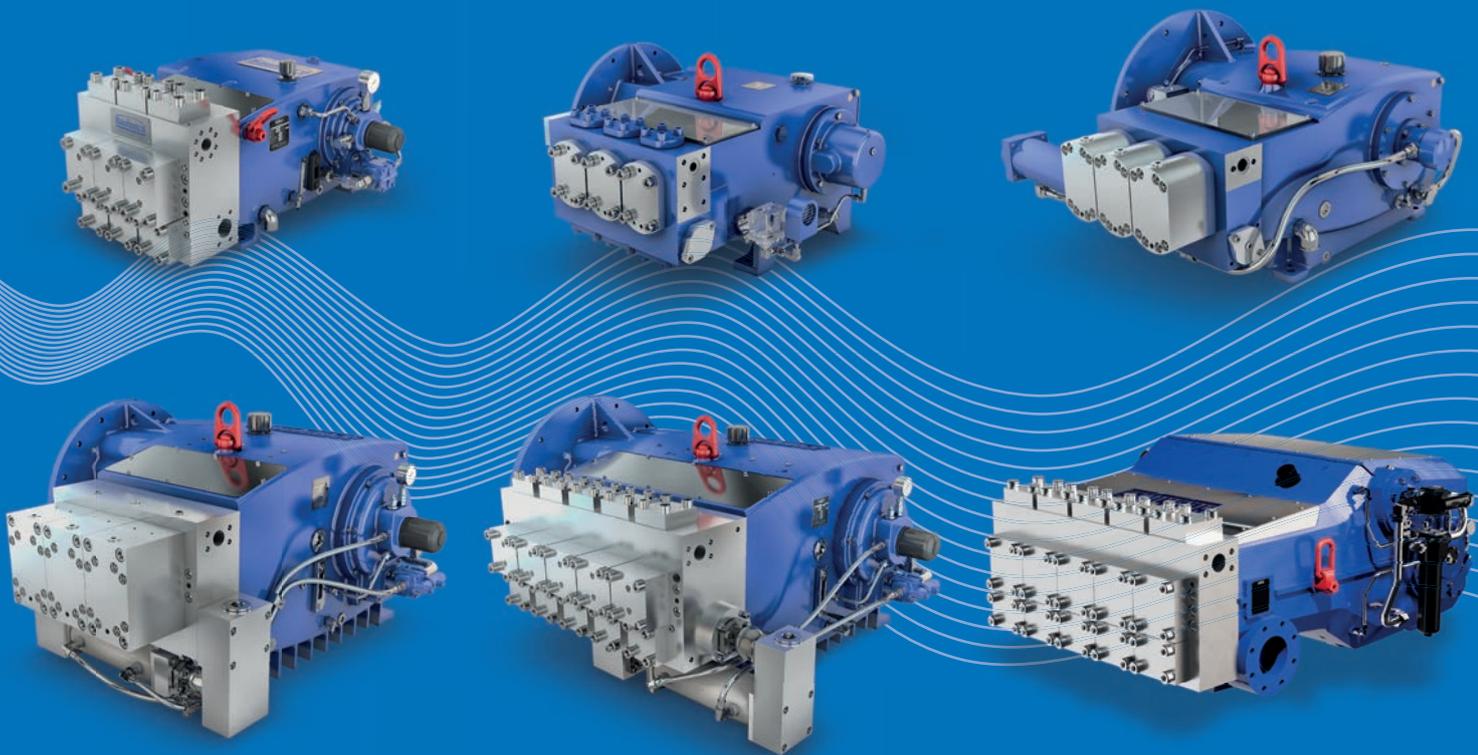
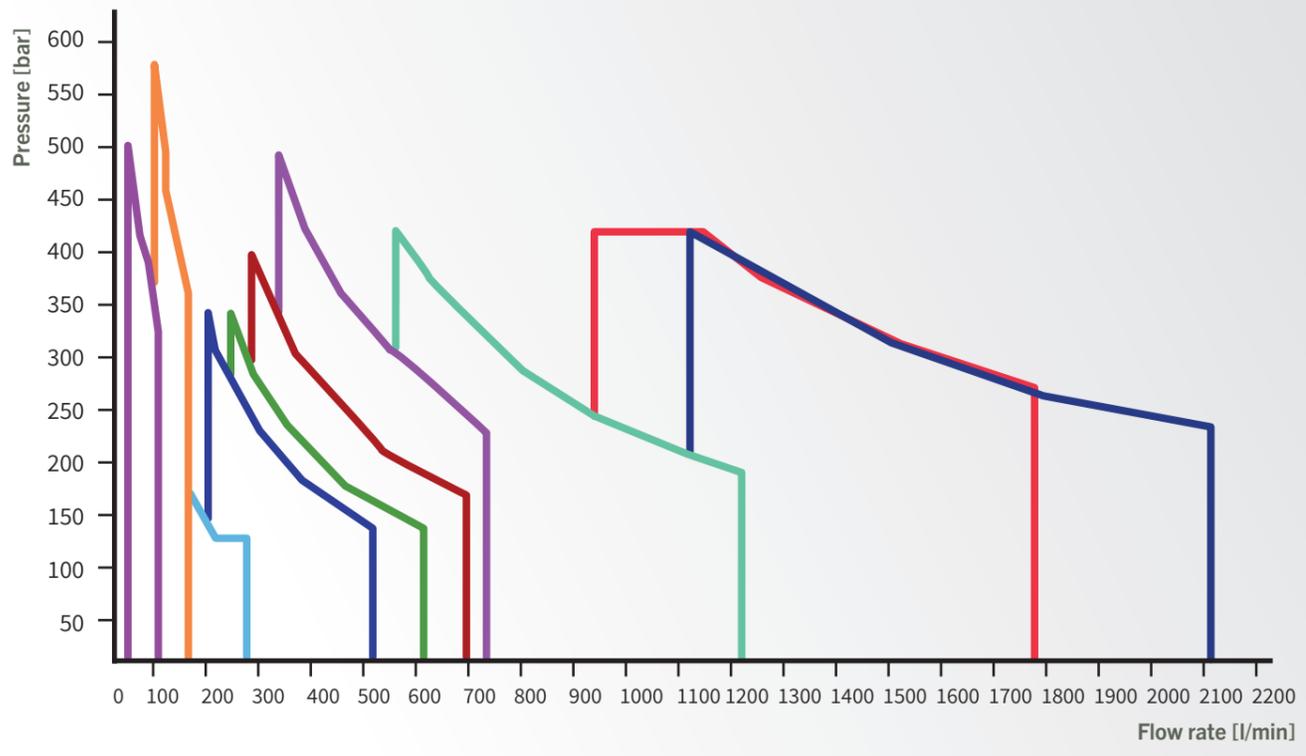


High Pressure Plunger Pumps for continuous operation





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From a mining supplier to an expert for water-hydraulic solutions

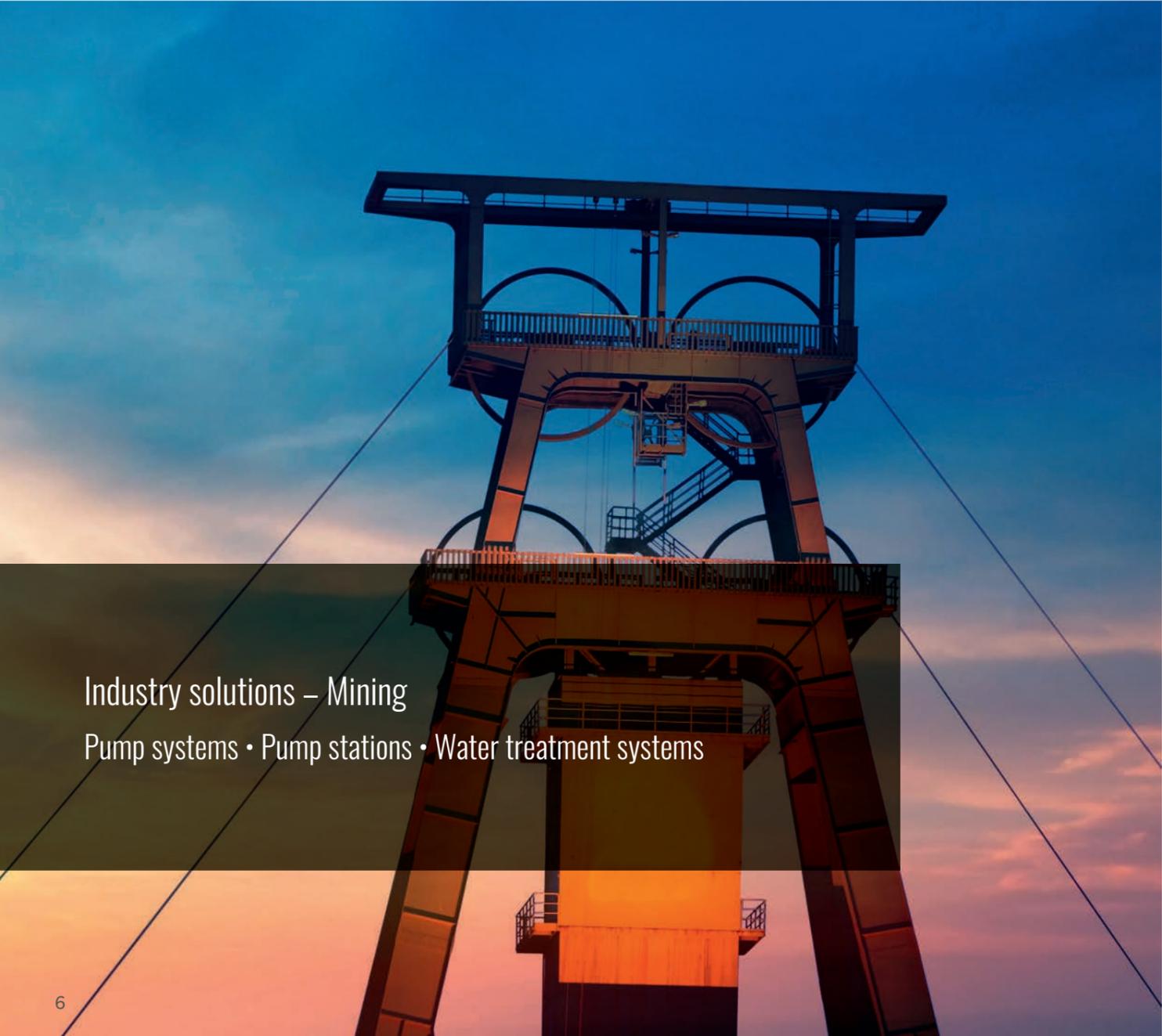
Tradition and innovation go hand in hand at Hauhinco. Founded in 1908 in Sprockhövel, Germany in the cradle of Ruhr mining, Hauhinco has remained true to its roots – up to the present time. For over 114 years, the company has adapted to many changes in structure and circumstances and continually brought new, innovative products onto the market.

This experience makes Hauhinco unique in the market place. We have been developing and producing high-pressure plunger pumps for over 50 years and water-hydraulic valves and controls for over 30 years. This know-how makes Hauhinco the partner for today's sustainable and intelligent water-hydraulic solutions.

Turnkey, all from a single source

Hauhinco is represented in a large number of industries with water hydraulic components and system solutions. In particular with comprehensive engineering solutions Hauhinco creates high quality systems that set standards.

Hauhinco offers complete engineering solutions in the area of modernization, expansion and also in the design of new control systems and drives for water-hydraulic presses.



Industry solutions – Mining
Pump systems • Pump stations • Water treatment systems



Industry solutions - Industrial
Control systems for drives and presses • Descaling systems

Industry solutions

Numerous amounts of large-scale projects realized with equipment manufacturers and global companies from the steel, non-ferrous metal, light metal and automotive industry reflect our competence and the confidence placed in our products and services. Our control systems and drives distinguish themselves through safety, precision, reliability, efficiency and repeat accuracy and are tailored to the customer-specific processes and needs.

Because of this, the product quality is sustainably improved and the process and work safety regulations are fulfilled to 100%.

Using the power of water

As one of the most powerful elements in the world, a variety of reasons ensure that even today water is an important and indispensable hydraulic medium. Water hydraulics have been in daily use for decades in underground longwall mining and in numerous industrial applications. Strict regulations and laws make environmentally friendly, safe, clean and hygienic hydraulic systems indispensable in many sensitive processes, production facilities and applications.

Continuous further development, the ready availability of the medium water and also the low life cycle costs (LCC) make water-hydraulics a commercially interesting alternative. Particularly storage, cleaning, disposal and insurance conditions are far more attractive.

Water-hydraulic engineering competence

Through a high degree of expertise in engineering science we are developing powerful, intelligent and environmentally friendly water-hydraulic systems for every requirement with the medium water. Thanks to our decades of expert knowledge and a well-founded process understanding of a diversity of markets, we know the high demands in mining and industry. This first-hand experience enables us to speak the language of our customers and to develop tailor-made systems.

Research & development

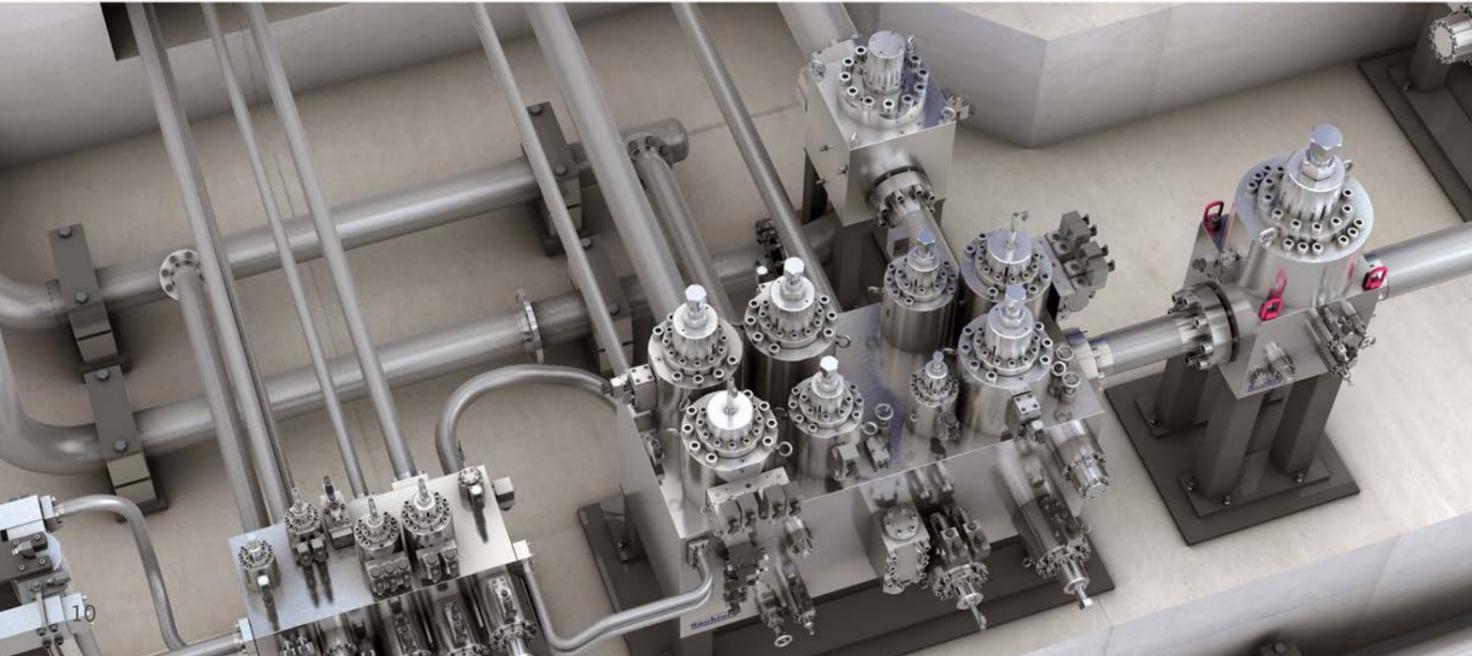
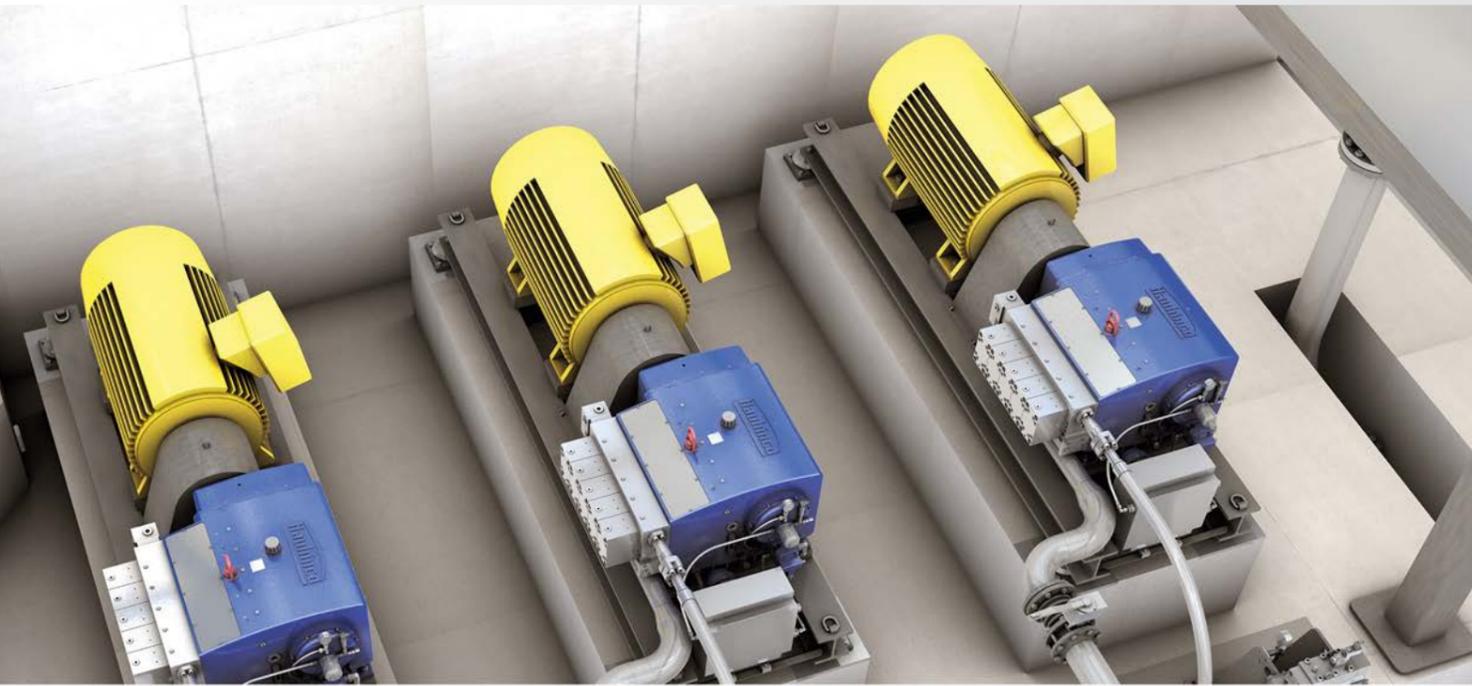
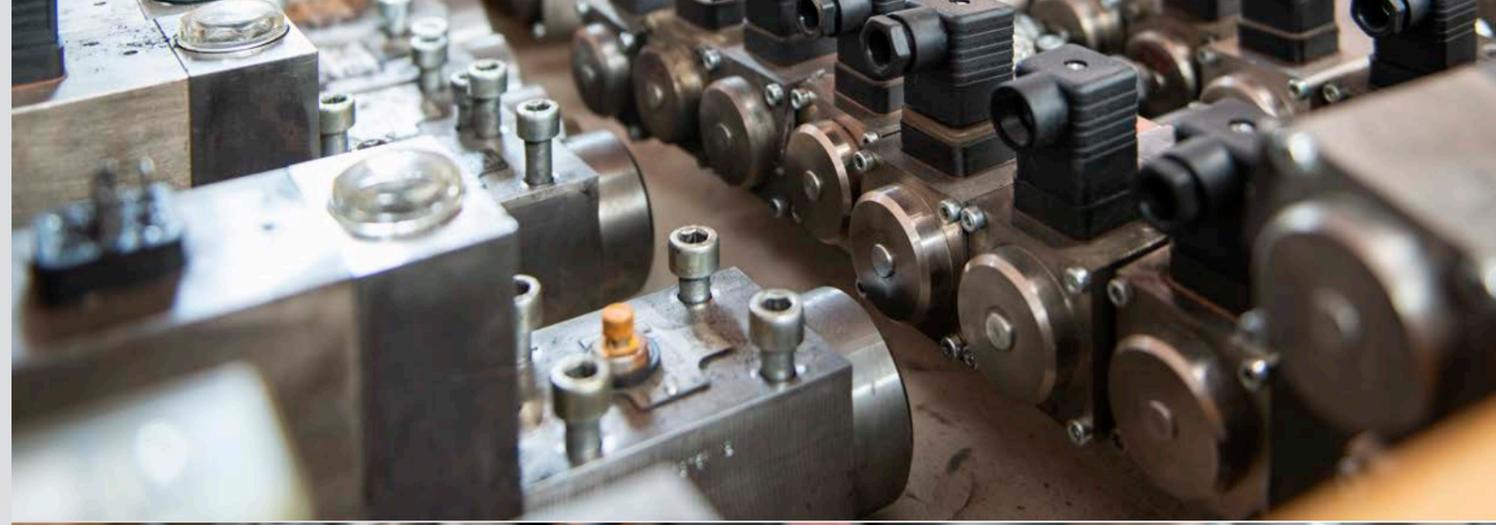
Research into new and existing areas, the development of new products as well as continuous further development of existing products, services and processes are of major significance at Hauhinco. For this purpose we regularly exchange information with our customers, other organisations, institutes and universities. New findings from a very wide range of areas often promote new ways of thinking and approaches and as a consequence flow into the development of our water-hydraulic products and systems.



Cross-sector process understanding
for customer-specific **engineering solutions**

Water Hydraulic Valves

A complete valve product portfolio, as well as many years of experience in water hydraulics guarantee an optimal selection for numerous applications. The volumetric flow rate is up to 30 000 dm³/min at operating pressures of up to 800 bar.



For numerous applications

Along with control blocks (controls, manifolds), control technology and modular fluid systems, valves are among the most important components in water hydraulic installations.

They perform a wide variety of tasks: they reliably control, regulate and limit hydraulic flow rates – even in the toughest conditions under high pressure..

A complete valve product portfolio, as well as many years of experience in water hydraulic engineering guarantee an optimal selection for numerous applications, especially for press controls (manifolds, valve blocks) for water hydraulic presses of all kinds. Like all Hauhinco products, all valves are subjected to a complete function test prior to delivery.

High Pressure Plunger Pumps for continuous operation

Hauhinco high pressure plunger pumps have proven their reliability in a wide range of water hydraulic fluid applications and in the harshest conditions for more than 50 years. Decades of water hydraulic experience and the continuous exchange of information with users and research in fluid technology have facilitated the further development of the compact triplex and quintuplex plunger pumps and radial piston pumps.

The advantages of Hauhinco high pressure plunger pumps

Hauhinco triplex and quintuplex high pressure plunger pumps are energy-efficient, robust units designed for continuous operation. As is typical for Hauhinco, every high pressure pump is available in a foot type and a flange type.

High quality materials, wear-resistant and corrosion-resistant coatings, innovative technical designs as well as the latest manufacturing and inspection processes guarantee low wear and long service lives.

With a broad flow rate range from 50 - 2,109 l/min and operating pressures up to 575 bar, Hauhinco plunger pumps are a natural fit for all water hydraulic applications, such as for example for the high pressure and water spray supply in underground longwall mining, as press drives and in descaling systems.

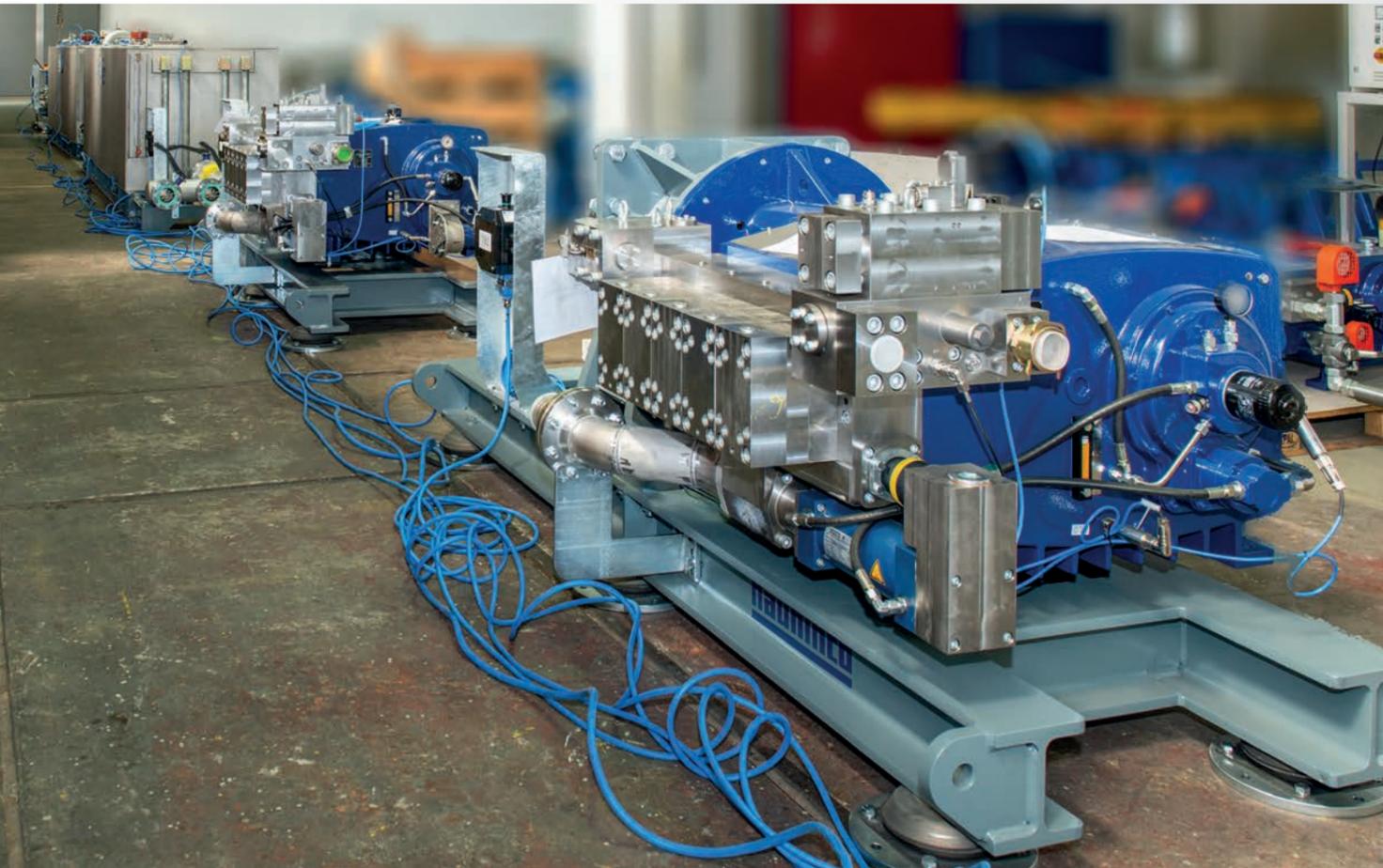


All high pressure pumps are equipped with a crankshaft drive and integrated helical gearing with circulating oil lubrication. Optionally, every pump type can be equipped with an external lubricating oil supply and a variable frequency drive.

Various volumetric flow rate and pressure combinations are possible with every pump type by simply replacing the pump inserts. As a consequence Hauhinco units can be adapted flexibly if the conditions and requirements change.

All components are easy to access due to the maintenance-friendly design.

Quick, straightforward replacement is therefore guaranteed when required. With this innovative engineering quality „Made in Germany“, Hauhinco sets standards worldwide in water hydraulics. Hauhinco high pressure pumps stand for maximum efficiency and cost-effectiveness. Numerous additions and adaptations are available for all pumps. Fully tailored pump units can be manufactured, starting with pump bypass, pressure limiting and safety valves, through pulsation dampeners, to custom designs.



Fluids

- HFA/HFC fluids
- Non-oily water/clear water
- Mine water
- Industrial water
- Descaling water
- Neutral fluids with a viscosity of 0.5 – 4.0 mm²/s

Control systems

- Pump circulation control
- Pressure relief valve
- Pulsation
- Combi block

Range of Applications

- High Pressure Supply
- Water Spraying and Cooling
- Hydraulic Drives (Water hydraulics, Emulsion hydraulics)
- Press Drives
- Descaling
- Pressurized Water Systems
- Pump Stations
- Cleaning

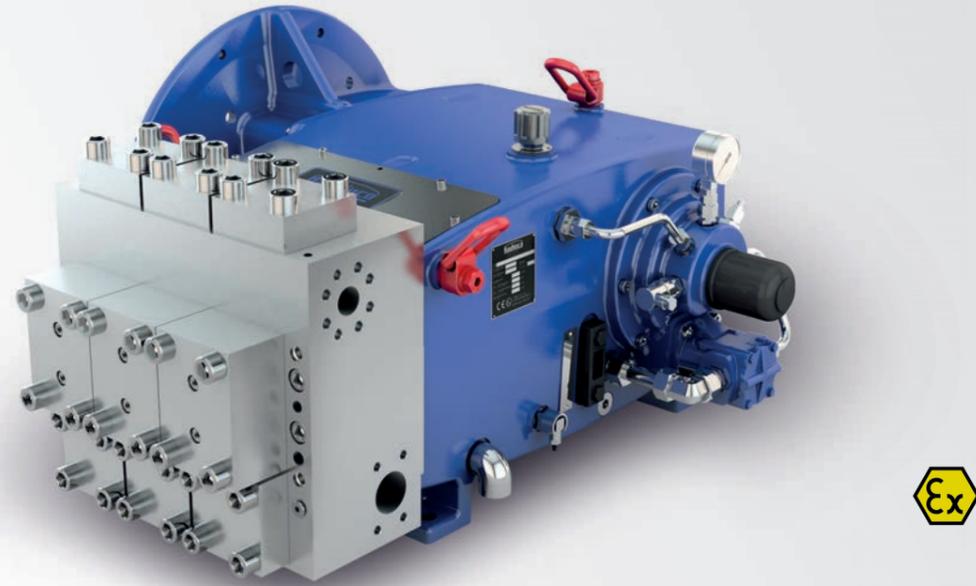
And many more.

Key data at a glance

- Flow rate up to 2,109 dm³/min
- Operating pressures up to 575 bar
- Drive powers up to 855 KW

EHP-3K 75

Stainless Steel Pumphead



Technical data

Type	Plunger diameter	Flow rate Q_{th} dm ³ /min		max. Operating pressure ^[1]	Crankshaft speed	
		Input speed 1,500 1/min	Input speed 1,800 1/min		1,500 1/min	1,800 1/min
HD	mm			bar		
	25	42	50	500		
	32	69	82	420	474	568
	36	87	104	400		
ND	40	107	129	360		
	50	167	201	160	474	568
	57.5	221	266	140		
	57.5	278	-	140	594	

■ max. input speed:
1,500 / 1,800 1/min

■ max. input power:
75 kW

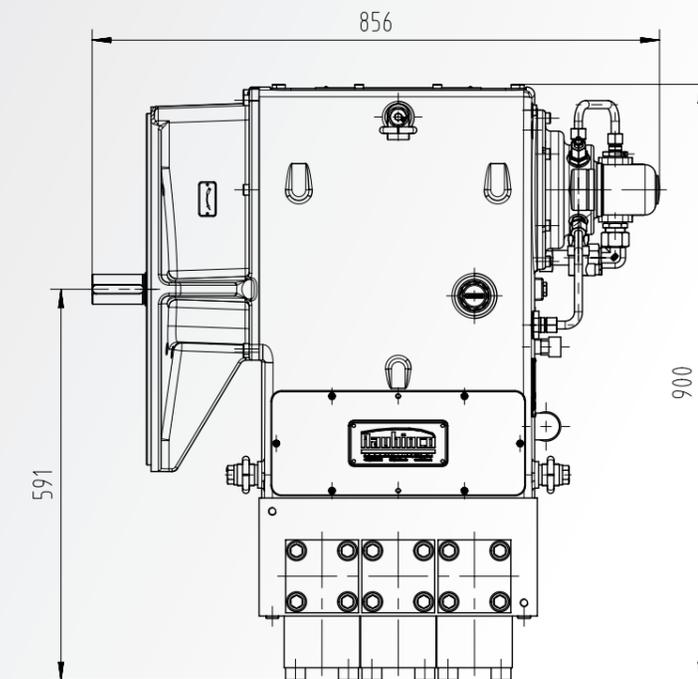
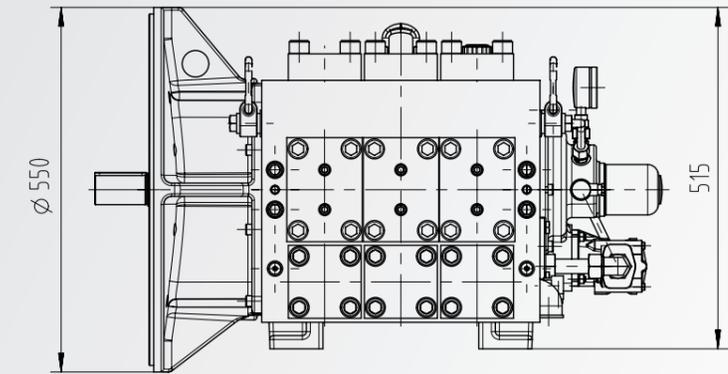
■ available variations:
Stainless steel pumphead cylinder valve design (SZ)

1 kW = 1.3410 HP 1 bar = 14.5038 psi
1 kg = 2.205 lbs 1 l = 0.26417 Gal.

■ Weight^[2]
660 kg

EHP-3K 75

Flange-type



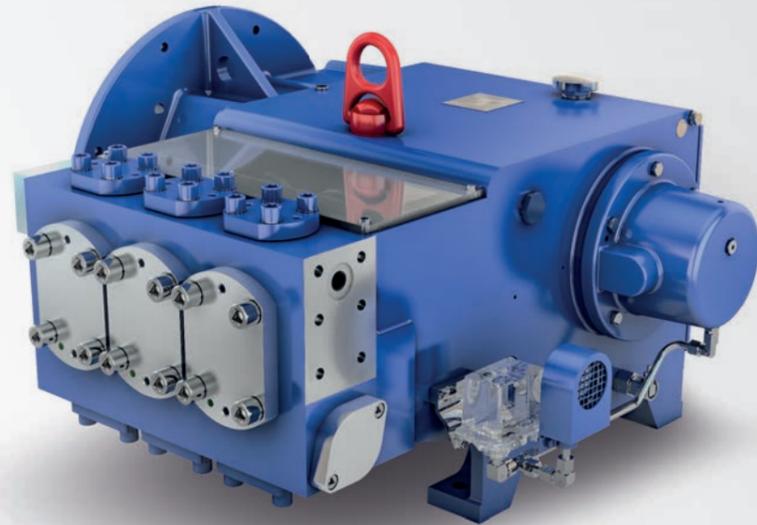
EHP-3K 75

^[1] Max. approved operating pressure at the pressure connection pump head.

^[2] The weight specifications apply for pumps without any attachment parts.

EHP-3K 110

Cast-on pump head



Technical data

Plunger diameter	Flow rate Q_{th} dm ³ /min		max. Operating pressure ^[2]	
	mm	Input speed 1,500 1/min		Input speed ^[1] 1,800 1/min
36		105	103	575
40		129	127	465
45		163	161	365

■ **max. input speed:**
1,500 / 1,800 1/min

■ **max. input power:**
110 kW

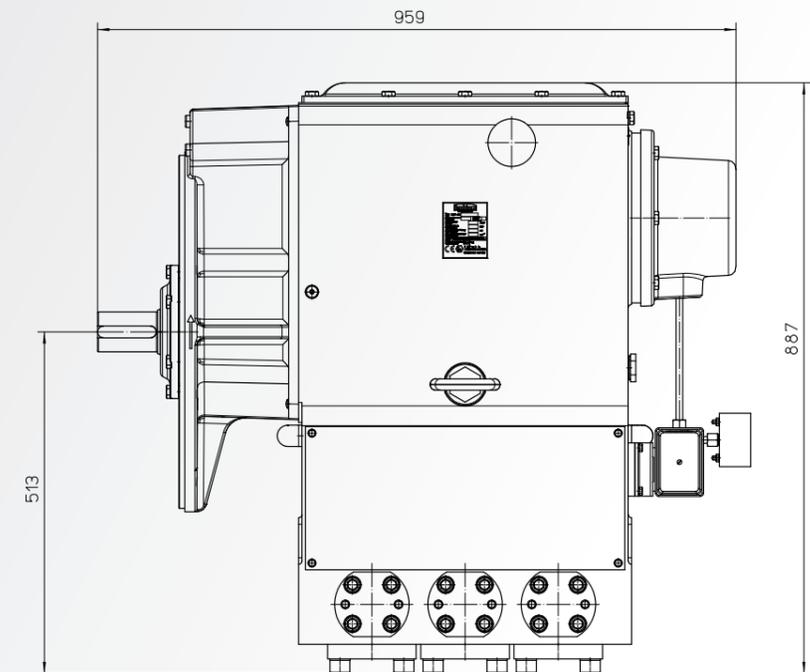
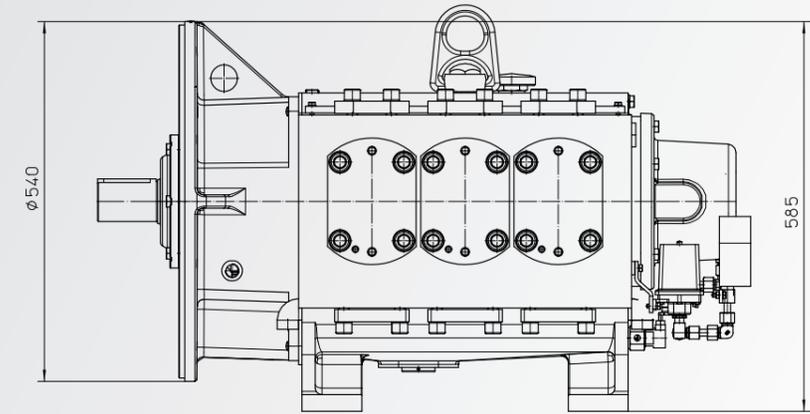
■ **available variations:**
Cast-on pump head flange type (GF)

1 kW = 1.3410 HP 1 bar = 14.5038 psi
1 kg = 2.205 lbs 1 l = 0.26417 Gal.

■ **Weight^[3]**
620 kg

EHP-3K 110

Flange-type



EHP-3K 110

^[1] Reduction gear box for 60 Hz operation (input speed = 1,800 1/min).
^[2] Max. approved operating pressure at the pressure connection pump head.
^[3] The weight specifications apply for pumps without any attachment parts.

Plate and cylinder valve technology

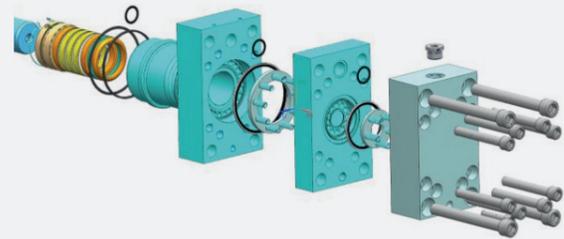
Plate Valves



Characteristics

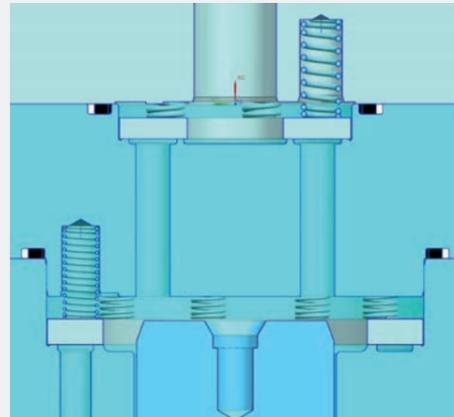
- Integrated construction
re-machining of the seat possible
- Valve plates can be turned
- Large flow cross-sections
- Self priming
- High dynamics due to low mass
- Low pulsation
- No pressure changes in the head

Basic design



Pressure Valves

Suction Valves



Comparison of the valve properties

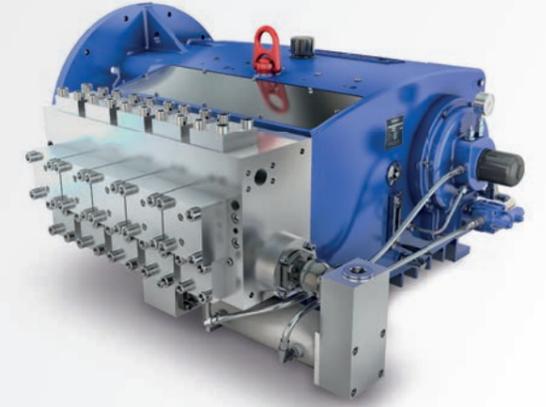
Design	Cylinder valves	Plate valves
Robust design	++	+
Security against loosening of components	++	++
Less Parts	++	-
Complexity of the components	++	--

Fluid	Cylinder valves	Plate valves
Pollution resistance	++	+
Adaptable to media quality	++	o
Reliability (service life)	++	++

Legende: ++ (very good); + (good); o (Is not given (intended)); - (unfavorable); -- (does not apply)

With the example of: EHP-5K 400S

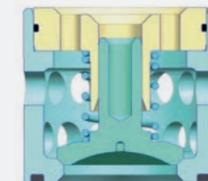
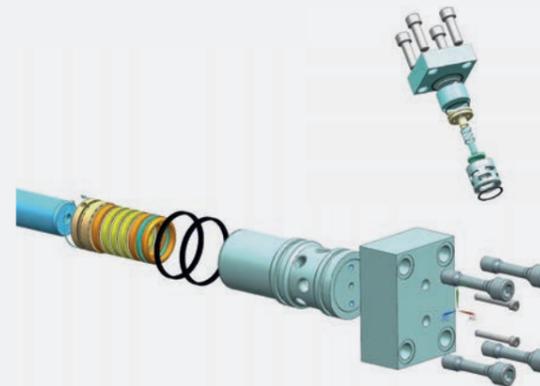
Cylinder Valves



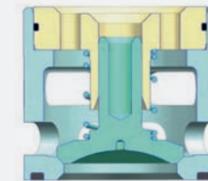
Characteristics

- Installation cartridge
- Seats can be regrinded manually
- LP housing with optimized suction flow
- Pulsation-optimized springs

Basic design



Pressure Valves



Suction Valves

Comparison of the valve properties

Maintenance	Cylinder valves	Plate valves
Low maintenance	+	+
Easy maintenance	++	- / +
Assembly without lifting gear	+	-
Repair	++	--
Inexpensive spare parts	+	++ (--)

Hydraulic	Cylinder valves	Plate valves
Efficiency	-	++
Hydraulic load on the pump head	--	++
Pulsation	-	+
Self priming	+	++

Our quality is your market advantage



We are your partner for intelligent, sustainable and economical water-hydraulic solutions

Hauhinco, as the world's leading manufacturer of water hydraulics solutions and systems, provides customers exclusively with high-quality, intelligent and high-performance high-pressure technologies and services.

With our water hydraulics expertise, we design tailor-made solutions for underground mining as well as innovative descaling systems for hot rolled products. Whether high-pressure pump station, spray pump stations or press water stations, with or without water treatment, we manufacture certified pump systems with all necessary approvals for the international market.

Hauhinco stands for high quality plunger pumps and systems that guarantee the necessary safety and reliability during operation.

The satisfaction of the customer is the highest priority at all times during the business relationship. We do not merely develop solutions, but we also want to supply our customers with our products and systems to provide long-term support so that they can achieve their own business targets.

One of the keys to the achievement of our targets is our highly qualified and motivated workforce, another is the well thought out structure which we live and breathe, which facilitates and promotes our flexible and innovative way of working. Our medium-sized business, short decision-making routes and quick communication with one another are the basis for the development of optimum, customised solutions.

The modern production process, in which specialists from all technical disciplines work together to achieve great things, ensures our customers the highest quality and efficiency. Environmental protection is not just an important aspect of water hydraulics but also of great significance in our daily work.

Quality management systems and certifications are the basis of sustainable business success. The entire value-added chain is therefore characterised by a high demand for quality.

A constant exchange with our customers, research in new and existing areas and close cooperation with institutions of higher education are of immense importance at Hauhinco.

Our employees benefit from constant training and further education courses to learn the newest methods and findings. Because we have one aim:

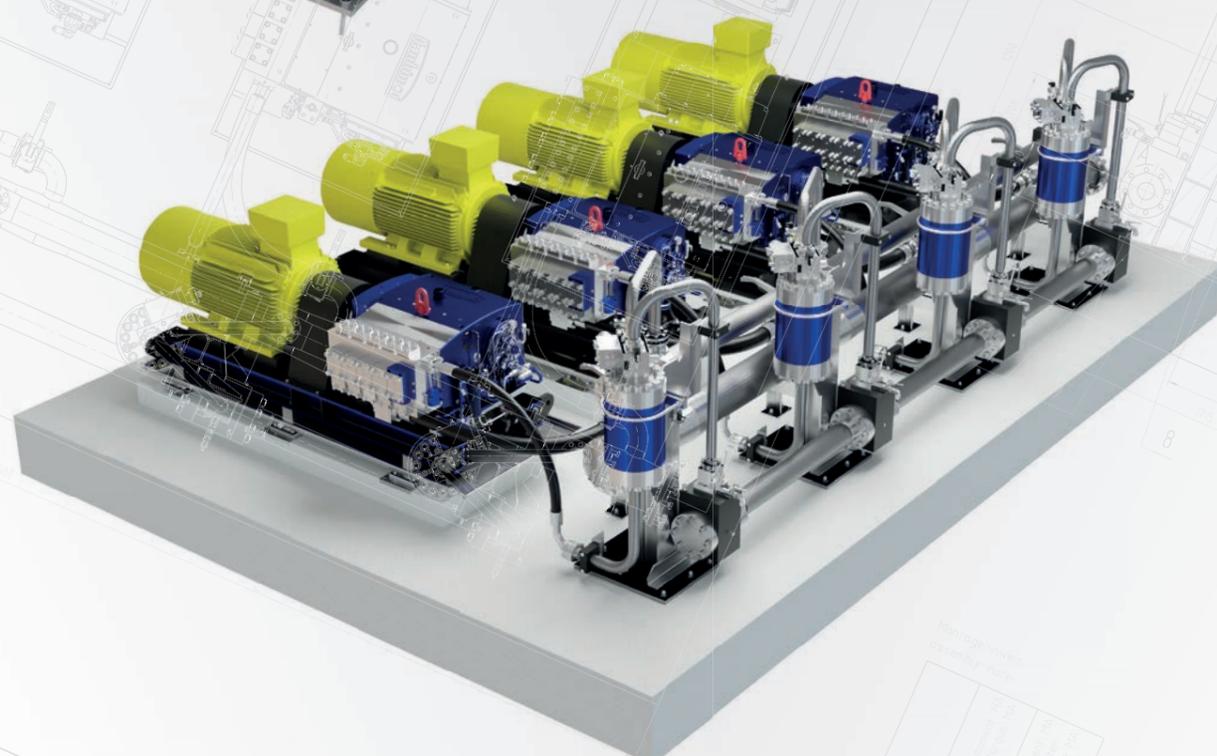
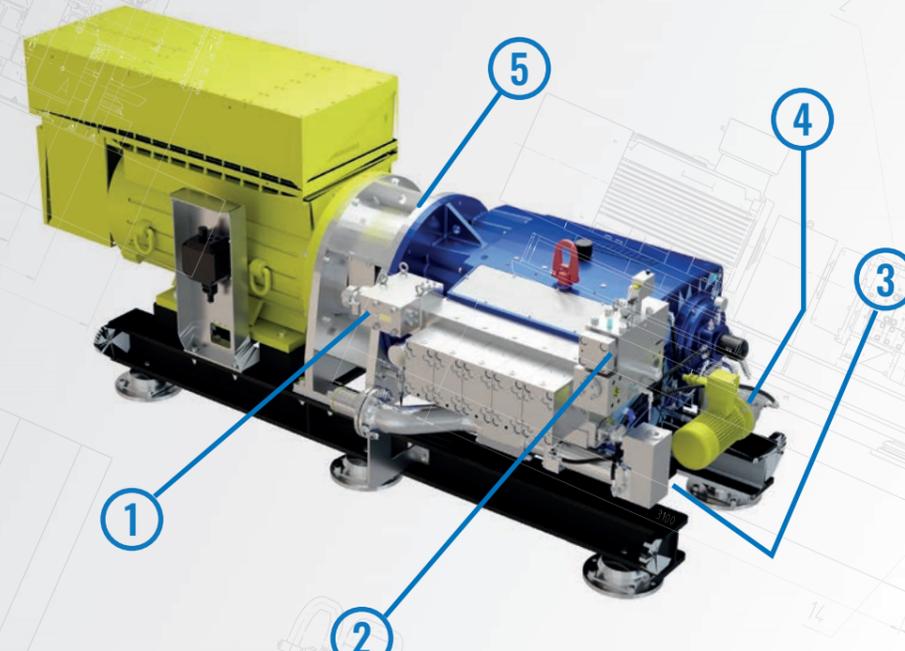
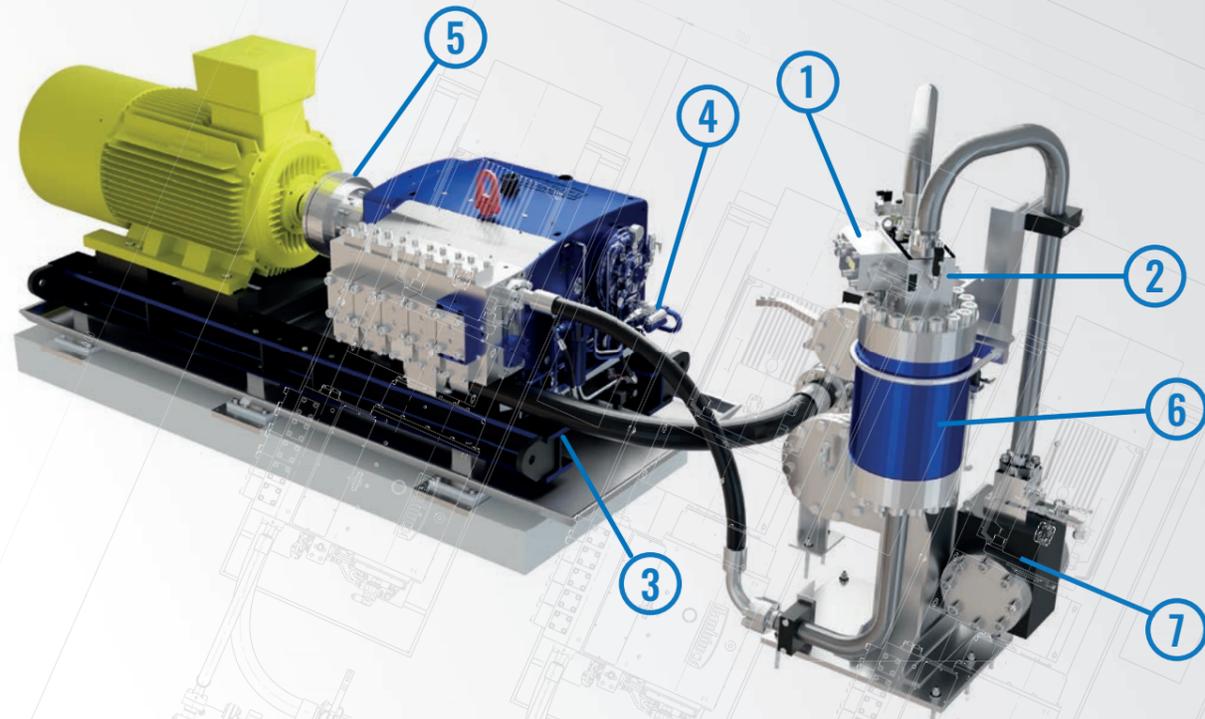
To consolidate and build on our position as the leading water hydraulics competence centre.

Standard design pump system mining / industry

Industry

With the example of: EHP-5K 400S

Mining

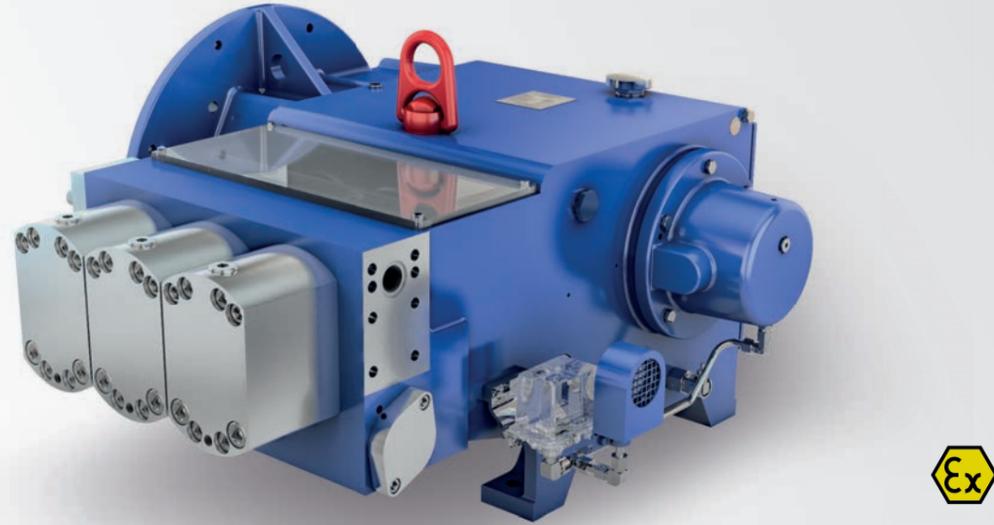


- ① Pressure relief valve / Overflow tube
- ② Pump circulation control system
- ③ Cooler integrated into the frame
- ④ Internally driven lube oil pump
- ⑤ Foot-type
- ⑥ Resonator
- ⑦ Module block

- Pressure relief valve / Overflow tube ①
- Pump unloader control system ②
- Inline shell and tube cooler ③
- Externally driven lube oil pump ④
- Flange-type ⑤

EHP-3K 125, 150

Cast-on Pump Head



Technical data

Pumptyp	Plunger diameter	Flow rate Q_m dm ³ /min		max. Operating pressure ^[2]
		Input speed 1,500 1/min	Input speed ^[1] 1,800 1/min	
EHP-3K 125	mm			bar
	50	202	199	340
	53	226	223	300
	55	244	241	280
	62	310	306	220
	70	395	389	170
EHP-3K 150	80	516	508	130
	50	242	239	340
	53	271	268	300
	55	293	289	280
	62	372	367	220
	70	474	467	170
	80	619	610	130

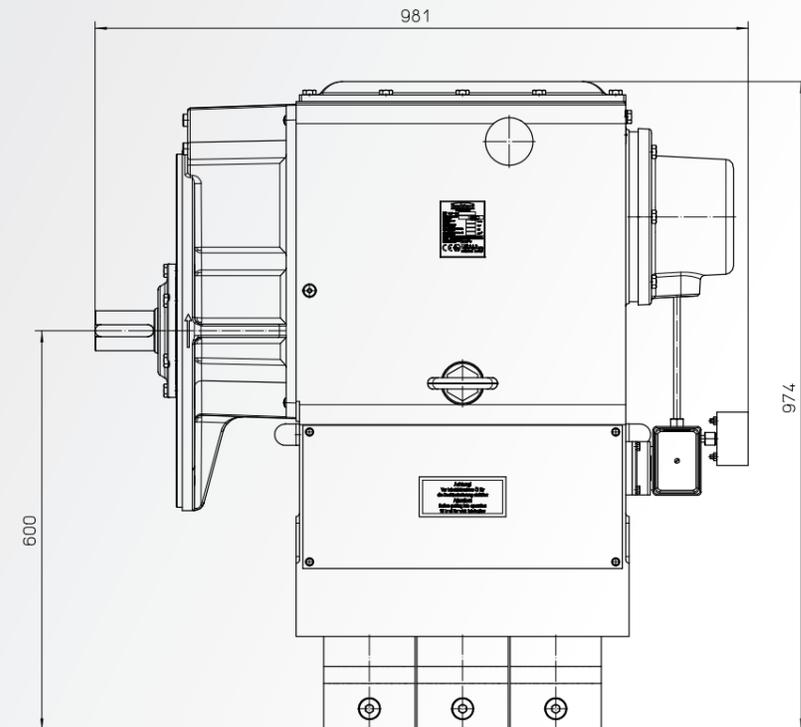
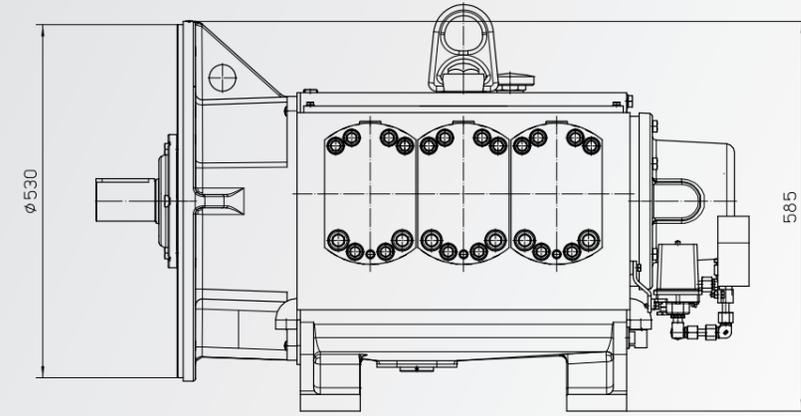
- max. input speed: 1,500 / 1,800 1/min
- max. input power: 125 resp. 150 kW
- available variations: Cast-on pump head plate valve design (GP)

1 kW = 1.3410 HP 1 bar = 14.5038 psi
 1 kg = 2.205 lbs 1 l = 0.26417 Gal.

■ Weight^[3]
 650 kg

EHP-3K 125, 150

Flange-type

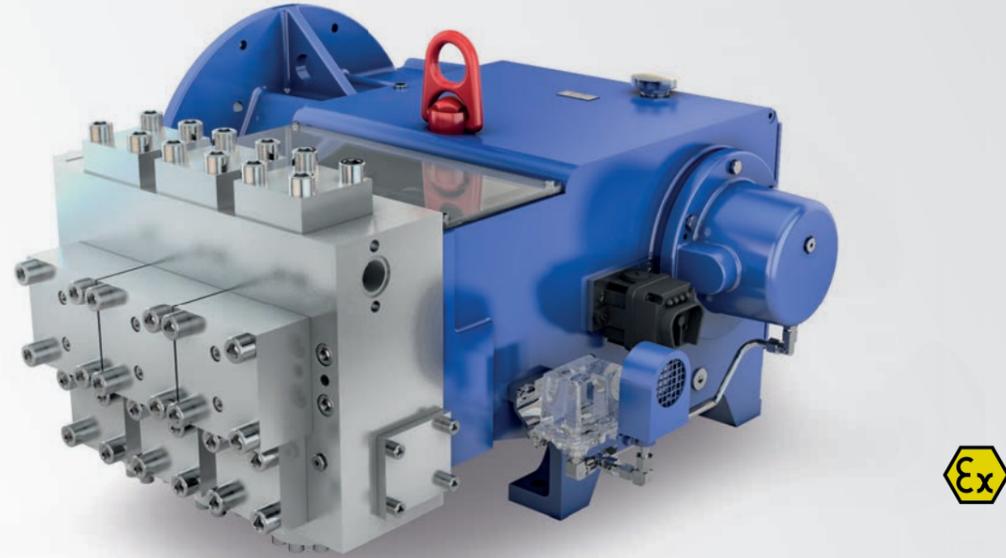


EHP-3K 125, 150

^[1] Reduction gear box for 60 Hz operation (input speed = 1,800 1/min).
^[2] Max. approved operating pressure at the pressure connection pump head.
^[3] The weight specifications apply for pumps without any attachment parts.

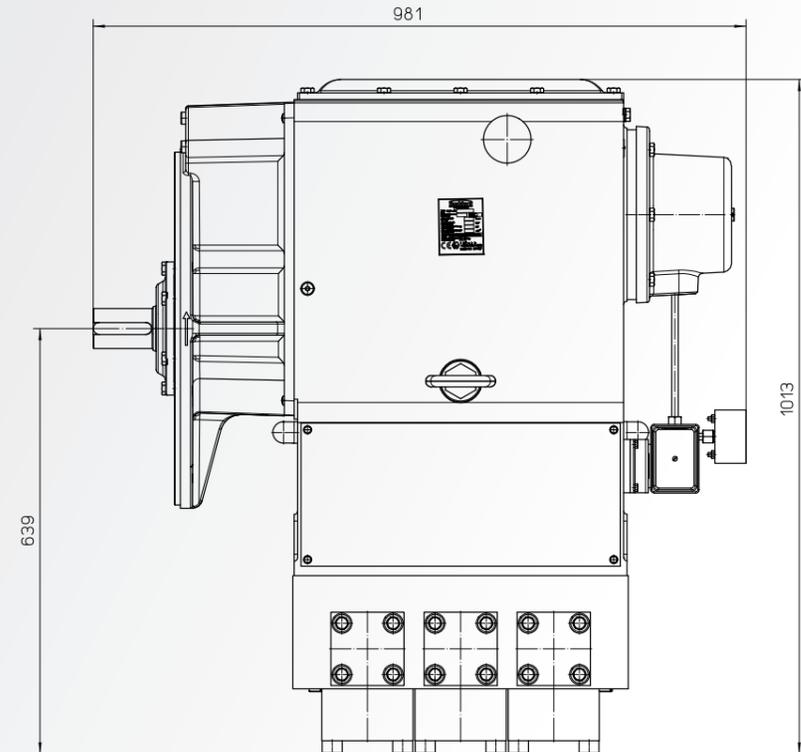
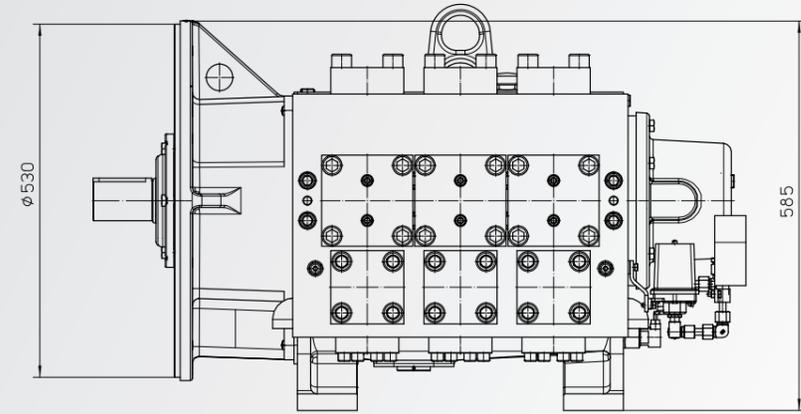
EHP-3K 125S, 150S

Stainless Steel Pumphead



EHP-3K 125S, 150S

Flange-type



Technical data

Type	Plunger diameter	Flow rate Q_{th} dm ³ /min		max. Operating pressure ^[2]
		Input speed 1,500 1/min	Input speed ^[1] 1,800 1/min	
EHP-3K 125S	mm			bar
	50	202	199	340
	55	244	241	280
	62	310	306	220
EHP-3K 150S	50	242	239	340
	55	293	289	280
	62	372	367	220

■ **max. input speed:**
1,500 / 1,800 1/min

■ **max. input power:**
125 resp. 150 kW

■ **available variations:**
Stainless steel pumphead cylinder valve design (SZ)
Stainless steel pumphead plate valve design (SP)

1 kW = 1.3410 HP 1 bar = 14.5038 psi
1 kg = 2.205 lbs 1 l = 0.26417 Gal.

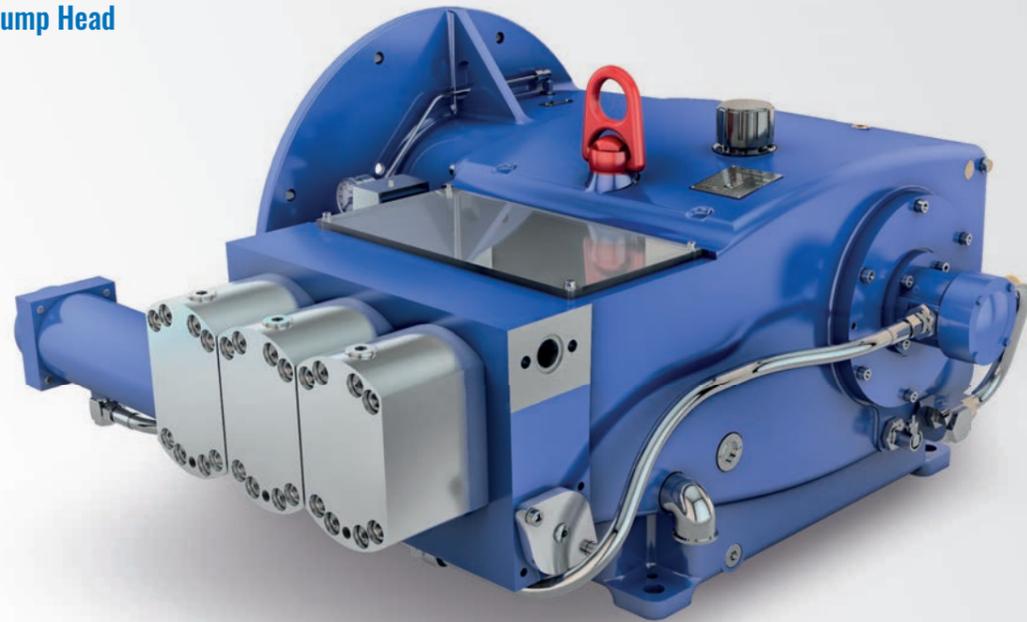
■ **Weight^[3]**
782 kg

^[1] Reduction gear box for 60 Hz operation (input speed = 1,800 1/min).
^[2] Max. approved operating pressure at the pressure connection pump head.
^[3] The weight specifications apply for pumps without any attachment parts.

EHP-3K 125S, 150S

EHP-3K 200

Cast-on Pump Head



Technical data

Plunger diameter	Flow rate Q_{th} dm ³ /min		max. Operating pressure ^[2]
	mm	Input speed 1,500 1/min	
50	275	275	400
53	309	309	360
55	364	332	330
57.5	364	363	300
62	423	423	260
70	539	537	200
80	704	702	150

■ **max. input speed:**
1,500 / 1,800 1/min

■ **max. input power:**
200 kW

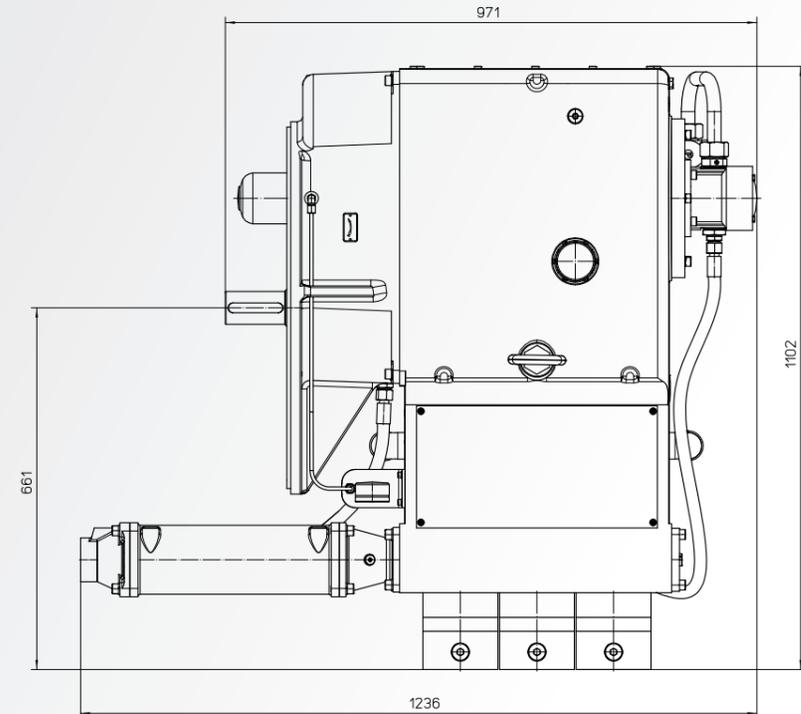
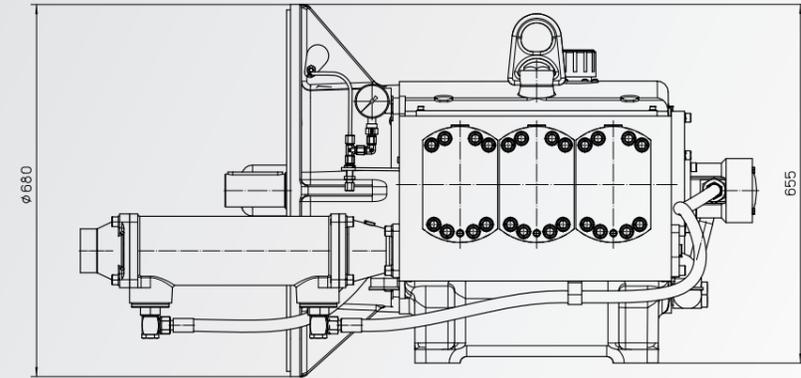
■ **available variations:**
Cast-on pump head plate valve design (GP)
Nickel-plated pump head

1 kW = 1.3410 HP 1 bar = 14.5038 psi
1 kg = 2.205 lbs 1 l = 0.26417 Gal.

■ **Weight^[3]**
830 kg

EHP-3K 200

Flange-type

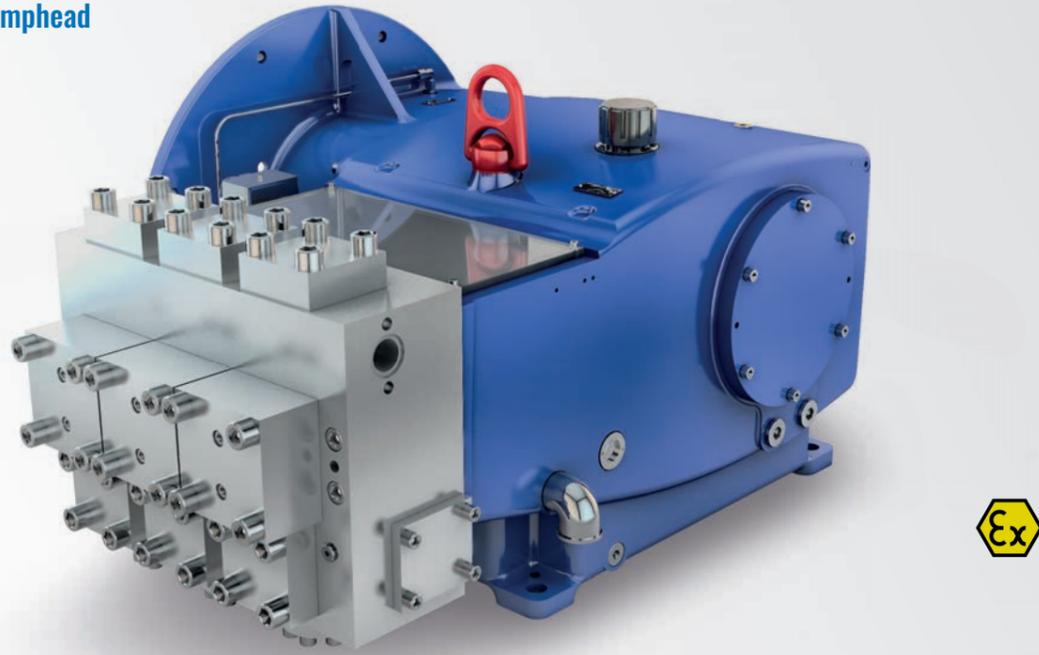


EHP-3K 200

^[1] Reduction gear box for 60 Hz operation (input speed = 1,800 1/min).
^[2] Max. approved operating pressure at the pressure connection pump head.
^[3] The weight specifications apply for pumps without any attachment parts.

EHP-3K 200S

Stainless Steel Pumphead



Technical data

Plunger diameter	Flow rate Q_{th} dm ³ /min		max. Operating pressure ^[2]
	Input speed 1,500 1/min	Input speed ^[1] 1,800 1/min	
mm			bar
50	275	275	400
53	309	309	360
55	364	332	330
57.5	364	363	300
62	423	423	260
70	539	537	200
80	704	702	150

■ **max. input speed:**
1,500 / 1,800 1/min

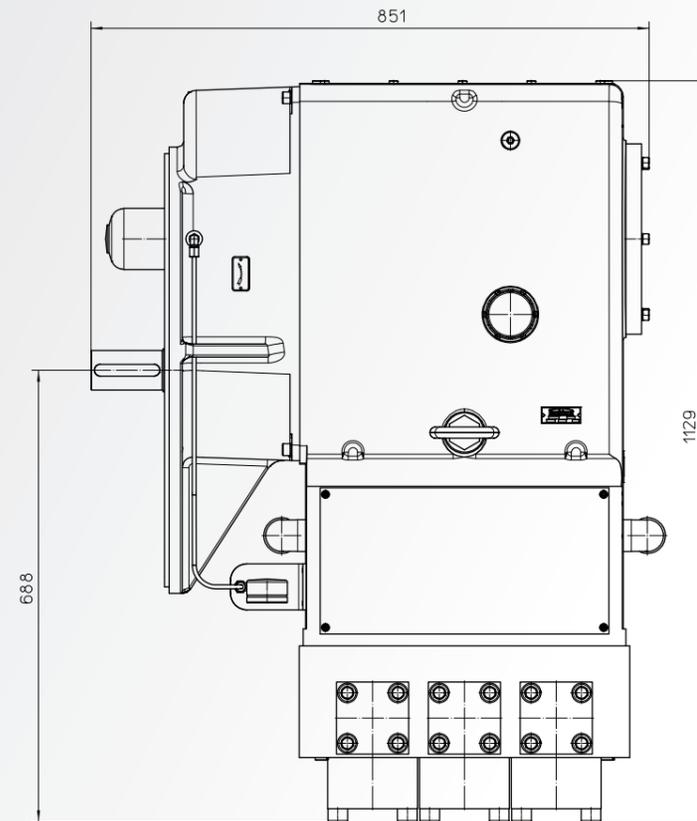
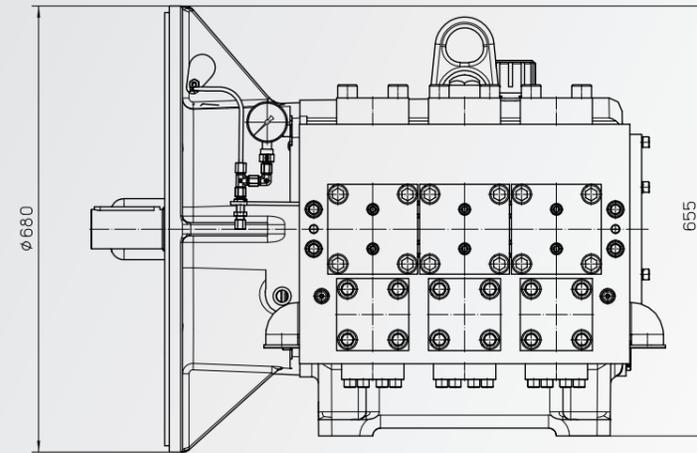
■ **max. input power:**
200 kW

■ **available variations:**
Stainless steel pumphead cylinder valve design (SZ)
Stainless steel pumphead plate valve design (SP)

1 kW = 1.3410 HP 1 bar = 14.5038 psi
1 kg = 2.205 lbs 1 l = 0.26417 Gal.

EHP-3K 200S

Flange-type



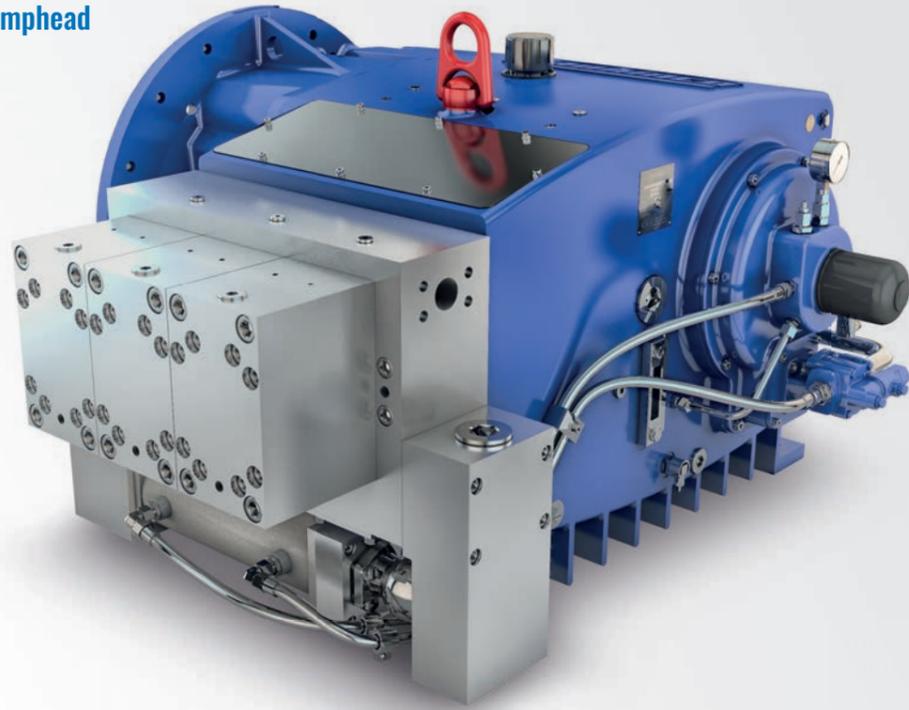
■ **Weight^[3]**
897 kg

EHP-3K 200S

^[1] Reduction gear box for 60 Hz operation (input speed = 1,800 1/min).
^[2] Max. approved operating pressure at the pressure connection pump head.
^[3] The weight specifications apply for pumps without any attachment parts.

EHP-3K 300S

Stainless Steel Pumphead



Technical data

Plunger diameter	Flow rate Q_{th} dm ³ /min		max. Operating pressure ^[2]
	mm	Input speed 1,500 1/min	
53	324	326	500
57.5	381	383	420
62	443	445	360
65	486	489	330
70	564	568	290
80	737	741	220

■ **max. input speed:**
1,500 / 1,800 1/min

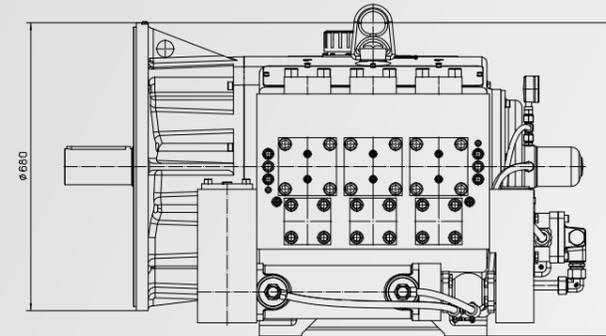
■ **max. input power:**
300 kW

■ **available variations:**
Stainless steel pumphead cylinder valve design (SZ)
Stainless steel pumphead plate valve design (SP)

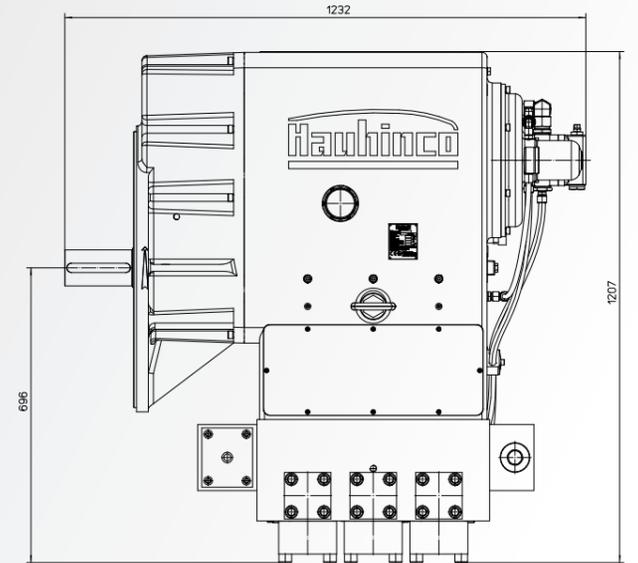
1 kW = 1.3410 HP 1 bar = 14.5038 psi
1 kg = 2.205 lbs 1 l = 0.26417 Gal.

EHP-3K 300S

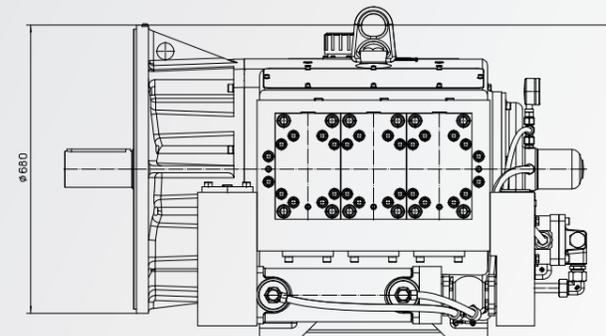
Flange-type with cylinder valve design



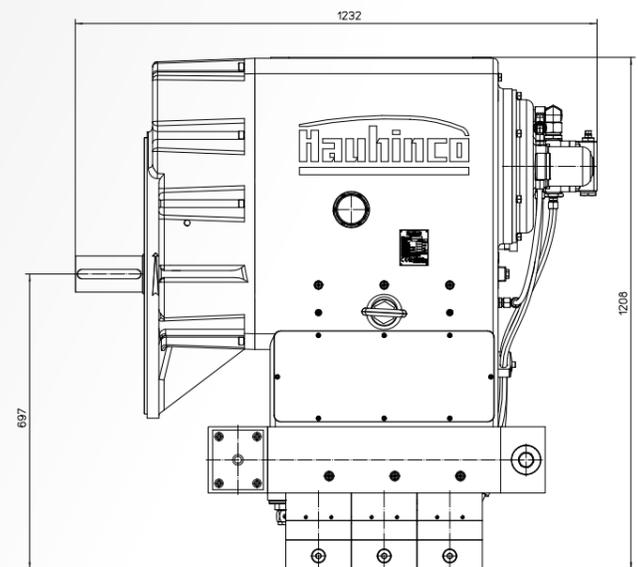
■ **Weight^[3]**
1,830 kg



Flange-type with plate valve design



■ **Weight^[3]**
1,770 kg



EHP-3K 300S

^[1] Reduction gear box for 60 Hz operation (input speed = 1,800 1/min).
^[2] Max. approved operating pressure at the pressure connection pump head.
^[3] The weight specifications apply for pumps without any attachment parts.

Quintuplex-Plunger Pump
EHP-5K 400S

Stainless Steel Pumphead



Technical data

Plunger diameter	Flow rate Q_{th} dm ³ /min		max. Operating pressure ^[2]
	mm	Input speed 1,500 1/min	
53	540	543	420
57.5	635	639	360
62	738	742	315
65	803	815	280
70	932	946	240
80	1216	1236	180

■ max. input speed:
1,500 / 1,800 1/min

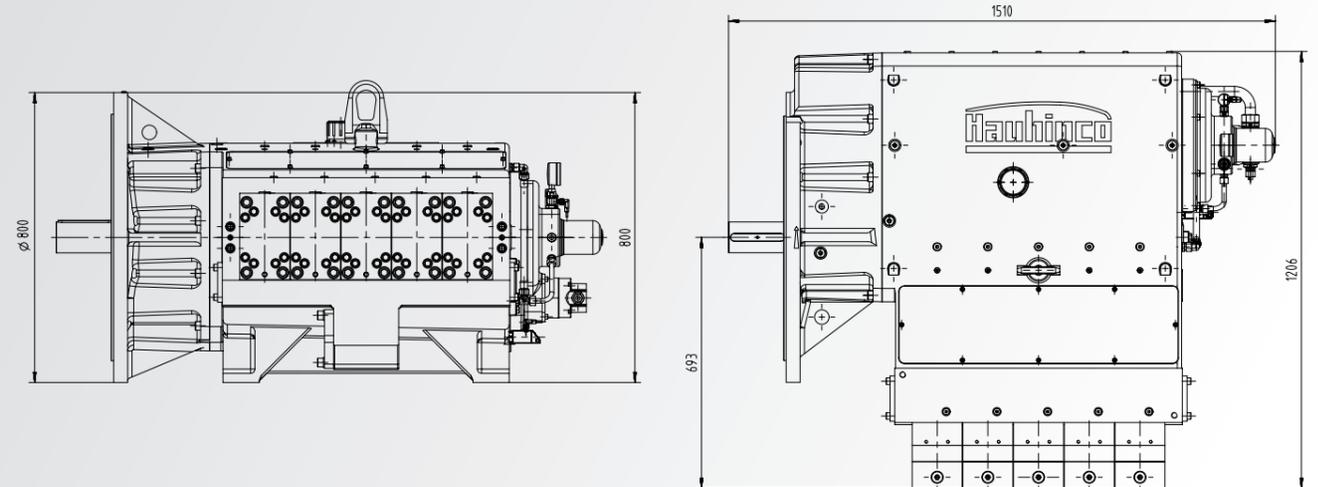
■ max. input power:
400 kW

■ available variations:
Stainless steel pumphead plate valve design (SP)

1 kW = 1.3410 HP 1 bar = 14.5038 psi
 1 kg = 2.205 lbs 1 l = 0.26417 Gal.

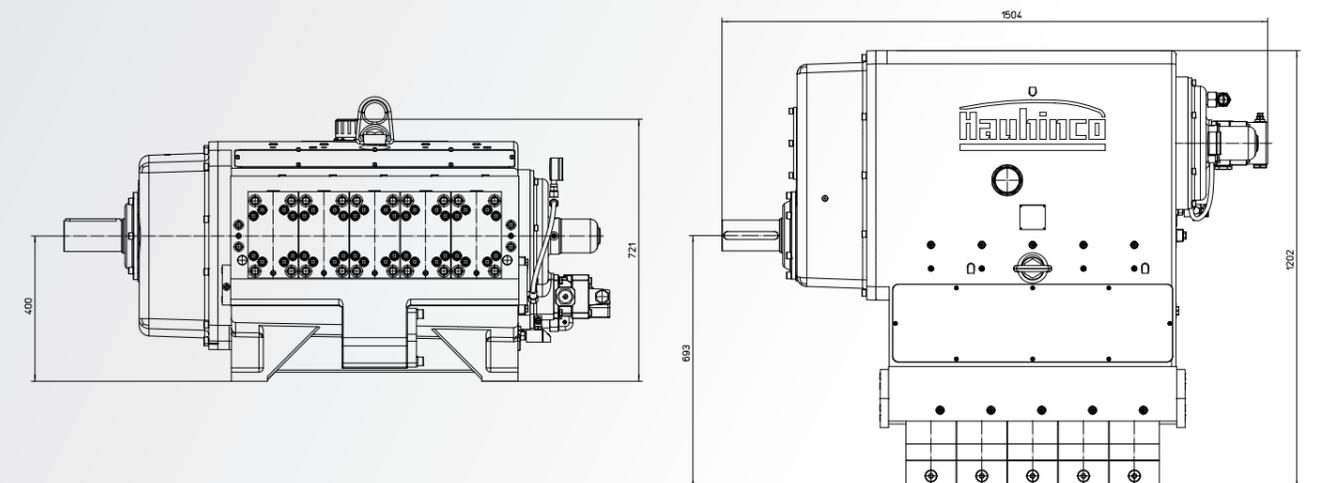
Quintuplex-Plunger Pump
EHP-5K 400S

Flange-type with plate valve design



■ Weight^[3]
2,200 kg

Foot-type with plate valve design



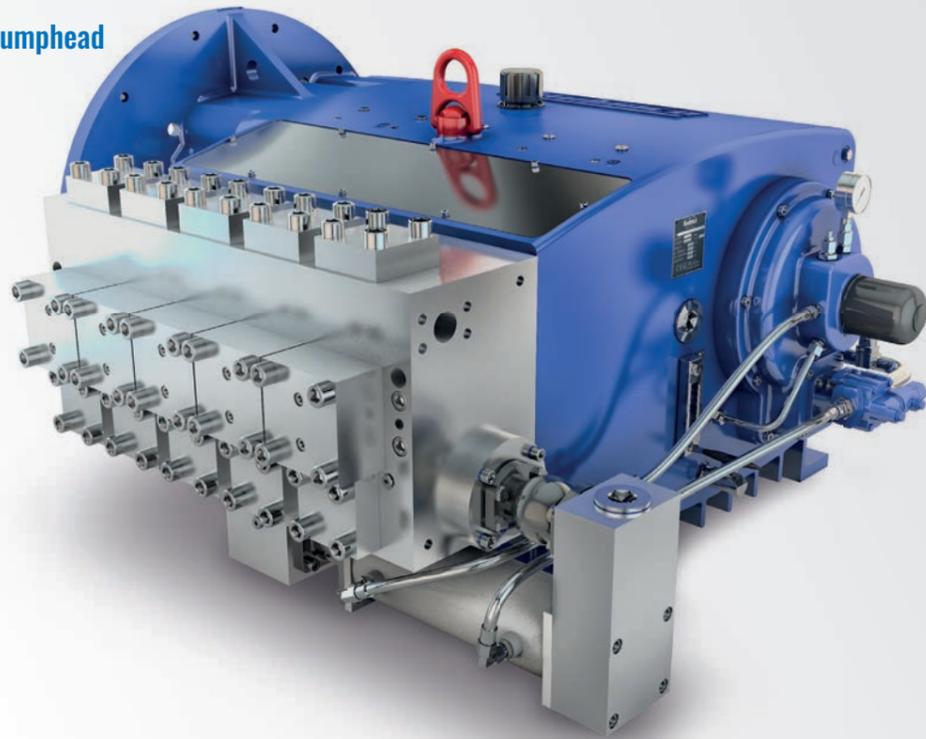
■ Weight^[3]
2,040 kg

EHP-5K 400S

^[1] Reduction gear box for 60 Hz operation (input speed = 1,800 1/min).
^[2] Max. approved operating pressure at the pressure connection pump head.
^[3] The weight specifications apply for pumps without any attachment parts.

Quintuplex-Plunger Pump
EHP-5K 400S

Stainless Steel Pumphead



Technical data

Plunger diameter	Flow rate Q_{th} dm ³ /min		max. Operating pressure ^[2]
	mm	Input speed 1,500 1/min	
53	540	543	420
57.5	635	639	360
62	738	742	315
65	803	815	280
70	932	946	240
80	1216	1236	180

■ max. input speed:
1,500 / 1,800 1/min

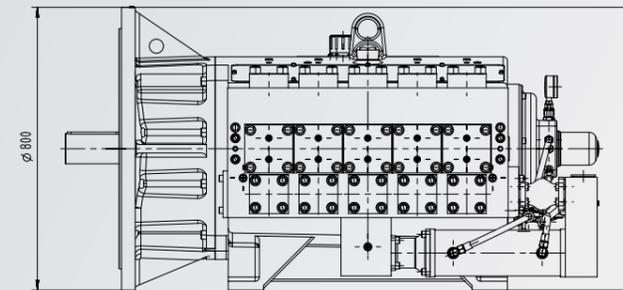
■ max. input power:
400 kW

■ available variations:
Stainless steel pumphead cylinder valve design (SZ)

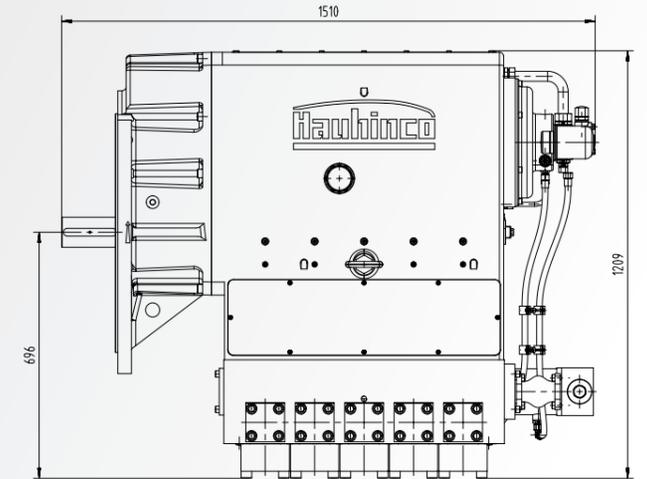
1 kW = 1.3410 HP 1 bar = 14.5038 psi
 1 kg = 2.205 lbs 1 l = 0.26417 Gal.

Quintuplex-Plunger Pump
EHP-5K 400S

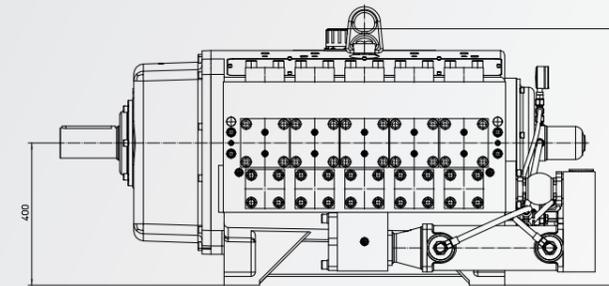
Flange-type with cylinder valve design



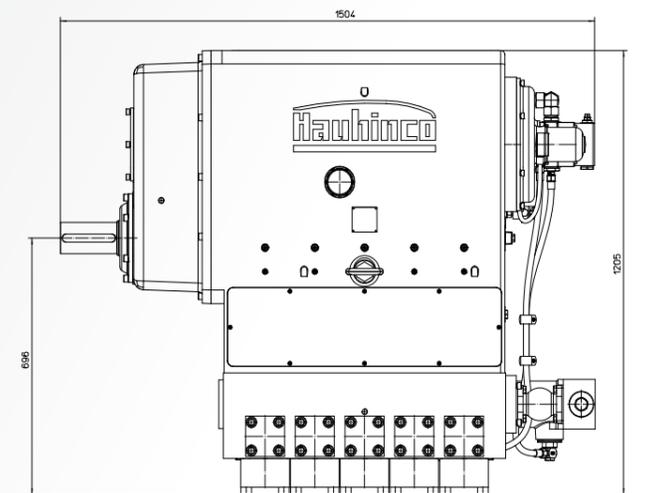
■ Weight^[3]
2,280 kg



Foot-type with cylinder valve design



■ Weight^[3]
2,120 kg

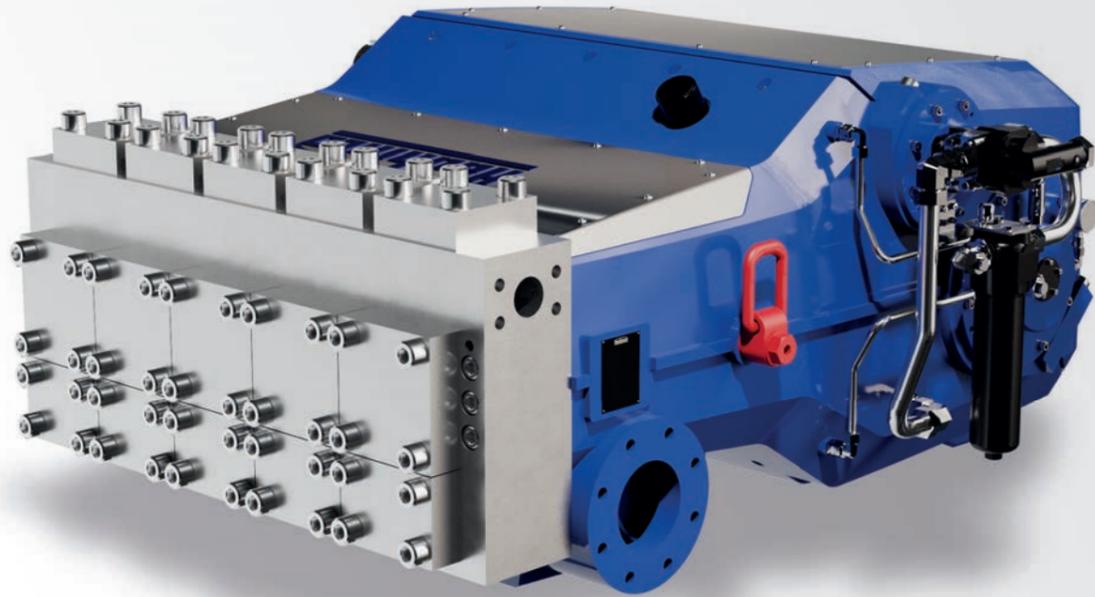


EHP-5K 400S

^[1] Reduction gear box for 60 Hz operation (input speed = 1,800 1/min).
^[2] Max. approved operating pressure at the pressure connection pump head.
^[3] The weight specifications apply for pumps without any attachment parts.

EHP-5K 850

Stainless Steel Pumphead



Technical data

Plunger diameter	Input speed 1,500 1/min		Input speed 1,800 1/min	
	Flow rate Q_{th} dm ³ /min	max. Operating pressure ^[1] bar	Flow rate Q_{th} dm ³ /min	max. Operating pressure ^[1] bar
62	940	420	1122	420
66	1066	420	1271	375
68.5	1148	420	1370	350
72.5	1286	375	1534	310
78.5	1508	320	1799	265
85	1768	270	2109	230

■ **max. input speed:**
1,500 / 1,800 1/min

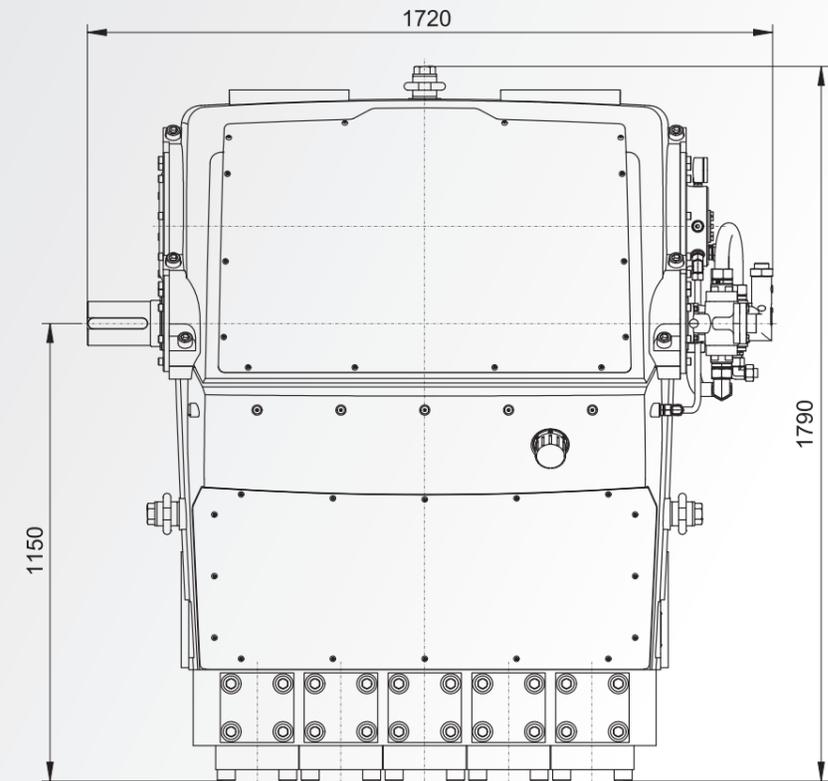
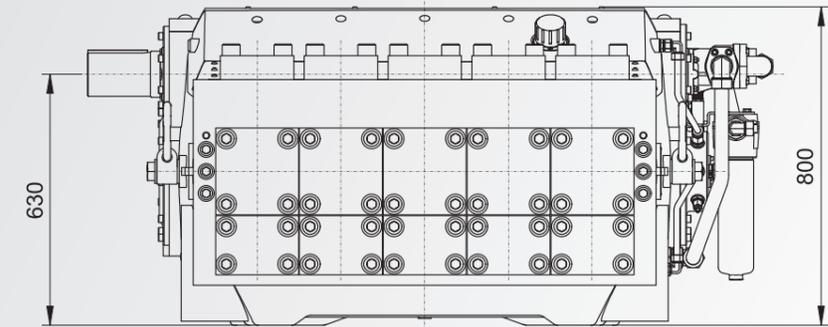
■ **max. input power:**
855 kW

■ **available variations:**
Stainless steel pumphead cylinder valve design (SZ)

1 kW = 1.3410 HP 1 bar = 14.5038 psi
1 kg = 2.205 lbs 1 l = 0.26417 Gal.

EHP-5K 850

Foot-type with cylinder valve design



■ **Weight^[2]**
4,380 kg

EHP-5K 850

^[1] Max. approved operating pressure at the pressure connection pump head.

^[2] The weight specifications apply for pumps without any attachment parts.



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Technical specifications are subject to change. All information and illustrations are non-binding.