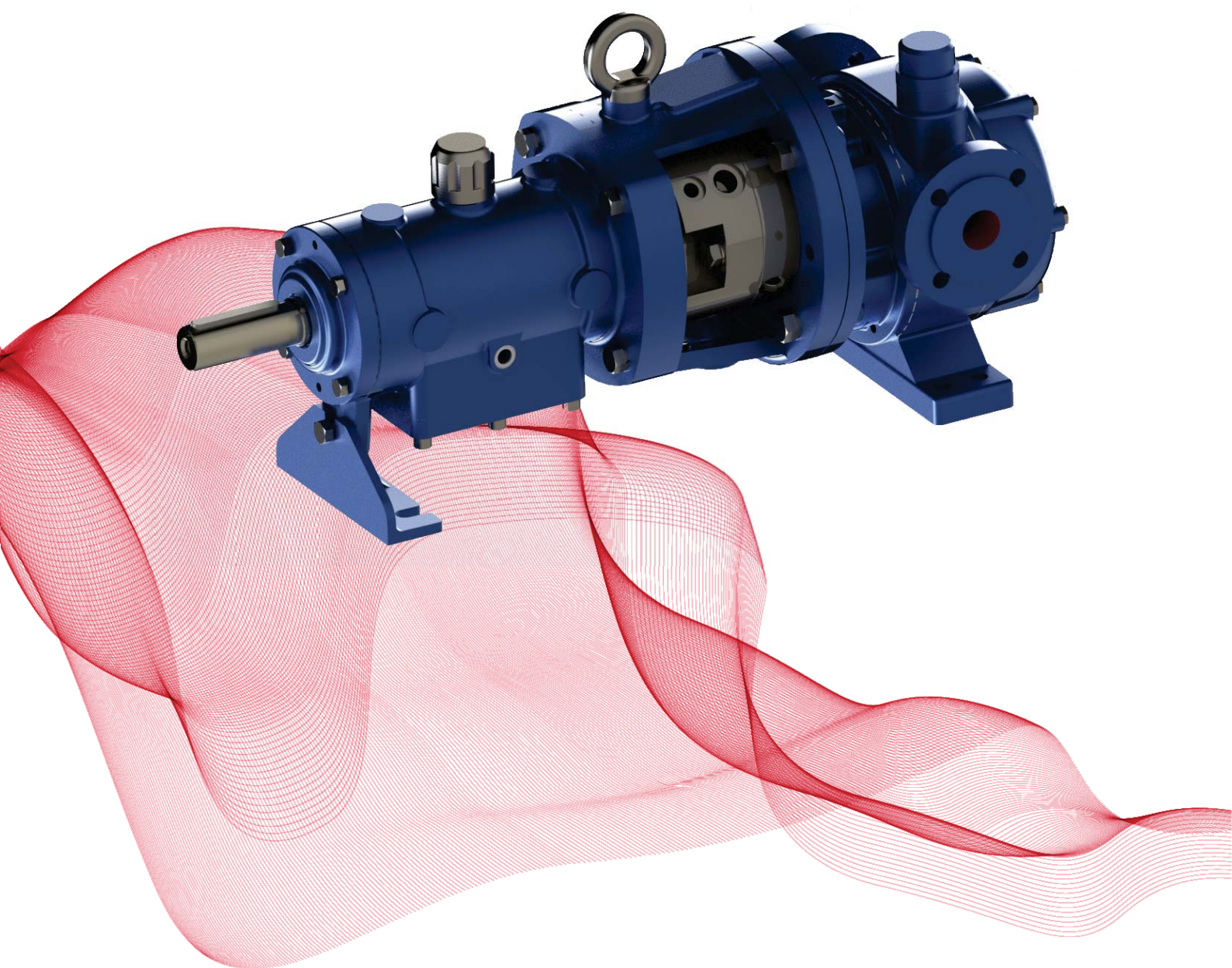


EGP Series



Technical Catalogue

2015



Our Vision

ASK's vision is to be a recognized leader in innovative, sustainable, engineered, and customer-focused solutions for performance critical applications in the oil and gas, hydrocarbon processing, power generation, pulp and paper, and other selected industries.



Our mission

ASK aims to be a multi-industry company with a strong brand, which provides solutions that combine products, services, engineering, and customer-application expertise. The corporation is close to the customer by being direct-sales driven.

Engineering, innovation, and technology are cornerstones. ASK strives to be an attractive employer and to create an environment where employees can excel. The company focuses on creating value for its customers.



ASK Innotec

The research and development unit of ASK supports the other divisions of the company and industrial companies in their development projects by providing a contract including research and special technical services like diagnostics and certified testing as well as one-off production and engineering. ASK innotec has expertise in materials and surface engineering, fluid technology, as well as in mechanics. Its core competencies in research contract also lie in these classical disciplines.



Product Description

Using modern computer aided design methods, the pumps are specially designed as heavy duty, minimal wear, long life pumps which have been designed in a modular way, with a number of options available, to ensure full compliance to the customers' exact requirements and specifications. A fully compliant API 676 heavy duty baseplate helps achieve low vibration and noise levels which in turn extends the pump's life and ensures maximum running time. A 'space saving' reduced footprint is also available for use where space is at a premium.

The pumps can be fitted with a variety of proprietary components (i.e. seals, motors & couplings) from all the major manufacturers to cater for customers site preferences. Double mechanical seal arrangements can be fitted with an attached seal support system. This can be supplied by Seal Support System which is designed and manufactured by ASK, or another manufacturer's seal support system can be fitted.

To complete the package a full range of standard material options from SG iron and stainless steel, to duplex are available to match your process fluid. NACE compliant materials are also available. Standard documentation packs including manufacturing data books, material certification, and installation & operating manuals are available to suit the application. Performance testing to API 676 and various NDE (nondestructive examination) & NDT (nondestructive testing) options are offered to ensure full compliance to our customers' applications. Alternative bespoke package can be tailored to fit your exact requirements.

Field of Application

ASK pumps, EGP series, external gear pumps are suitable for pumping a wide variety of liquids which have some lubricating property.

EGP series can be used for pumping the following liquids::

- Fuel Oils
- Open Circuit Servo
- Quenching
- Cutting and Cooling Fluids
- Oil/Water Emulsions
- Viscous Vegetable and Animal Fats
- Bitumen
- Wax
- Paint
- Lacquers
- Viscose



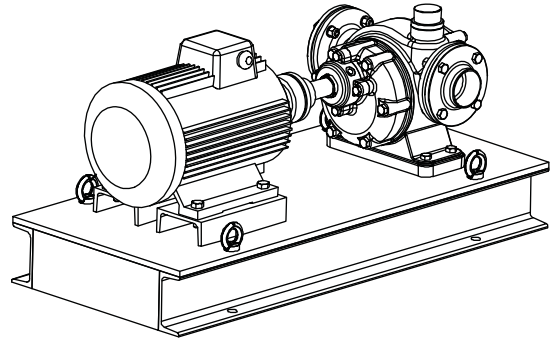
Key Features

- External gear pump with straight spur gear teeth
- 8 bar pump to API 676 3rd & Atex compliant
- -15°C to 400°C temperature applications
- Side suction, side discharge nozzles with same pressure grade
- A range of alloys available on request including NACE compliant materials
- Tested to API676 procedures
- A range of API682 seals & systems (PED compliant)
- Grouted and Non-grouted base plates as per API 676 or Factory Standard.



Product Overview

General description	EGP series are twin spindle, horizontal external gear pumps	
Construction	Heavy duty modular design, maximizing flexibility to meet rigorous customer requirements	
Design methodology	Advanced computer techniques including 3D modeling, FEA & CFD	
Design standards	API 676, 3rd	
MAWP	8 bar g @ 20°C	
Suction pressure rating	Up to 8 bar g	
Operating temperature	-15°C to 120°C (Standard construction)	
	-15°C to 320°C (With heating system)	
Flow rate	Up to 200 m3/h	
Viscosity	Up to 8000 cP	
Speed	Up to 1000 rpm	
Configuration	Motor-pump (Long coupled, Belt driven, Geared)	
	Bare shaft pump	
	Rotating assembly	
Discharge Sizes	Up to DN 150	
Design life	20 years (3 years uninterrupted operation)	



Designation

Example: EGP 100 / 45 6 A8 D115261 0.9 CD / EXT4

EGP	100	45	6	A8	D	115261*	0.9	CD	EXT4
Pump type	Discharge nominal dia. in millimeters	Nominal power of installed driver in kW	No. of poles	Material code	Seal type	Seal plan code acc. to API682	Speed Ratio	Options	Area classification
EGP: Horizontal external gear pumps	Up to 150mm	up to 90kW	4: 1500rpm 6: 1000rpm 8: 750rpm	I1 S4 S5 S6 S8 A8 D1	P: Packing S: Single mechanical seal D: Double mechanical seal	Each two digits stands for a plan: For example "115261" means plans 11, 52, and 61 have been utilized together.	Pump speed ÷ Motor speed	A: No option B: Oil mist lubrication C: Vibration sensors D: Temp. Sensors E: Heating jacket F: Special bearing arrangement	SA: Safe area EX: Explosion proof T1~T6: Temperature class

* Other seal arrangements are available on request.

Material Options*

Material Code	Casing	Shaft	Gears
I1	ASTM 48 Class 40B	ASTM A 576 Gr. 1045	ASTM A 576 Gr. 1045
S4	ASTM A 216 WCB	ASTM A 576 Gr. 1045	ASTM A 576 Gr. 1045
S5	ASTM A 216 WCB	ASTM A 276 Type 420	ASTM A 576 Gr. 1045
S6	ASTM A 216 WCB	ASTM A 276 Type 420	ASTM A 276 Type 420
S8	ASTM A 216 WCB	AISI 316	AISI 316
A8	ASTM A744 CF-8M	AISI 316	AISI 316
D1	EN10213-4 / 1.4517	ASTM A 240-SS31803	ASTM A 240-SS31803

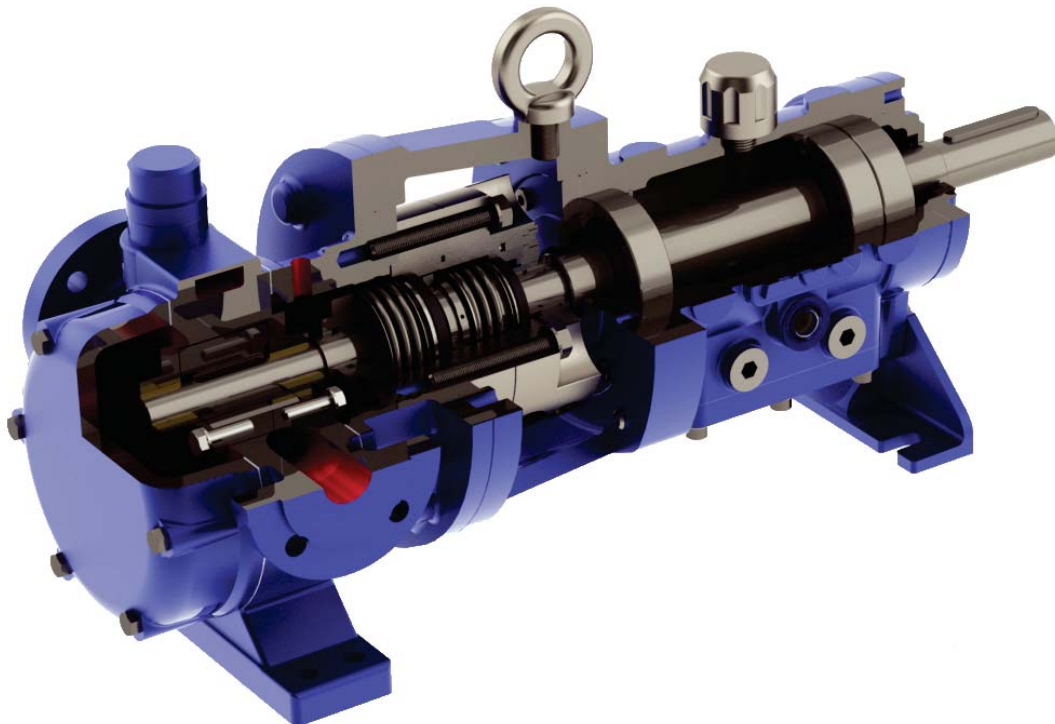
* Other materials are available on request.

Product Benefits

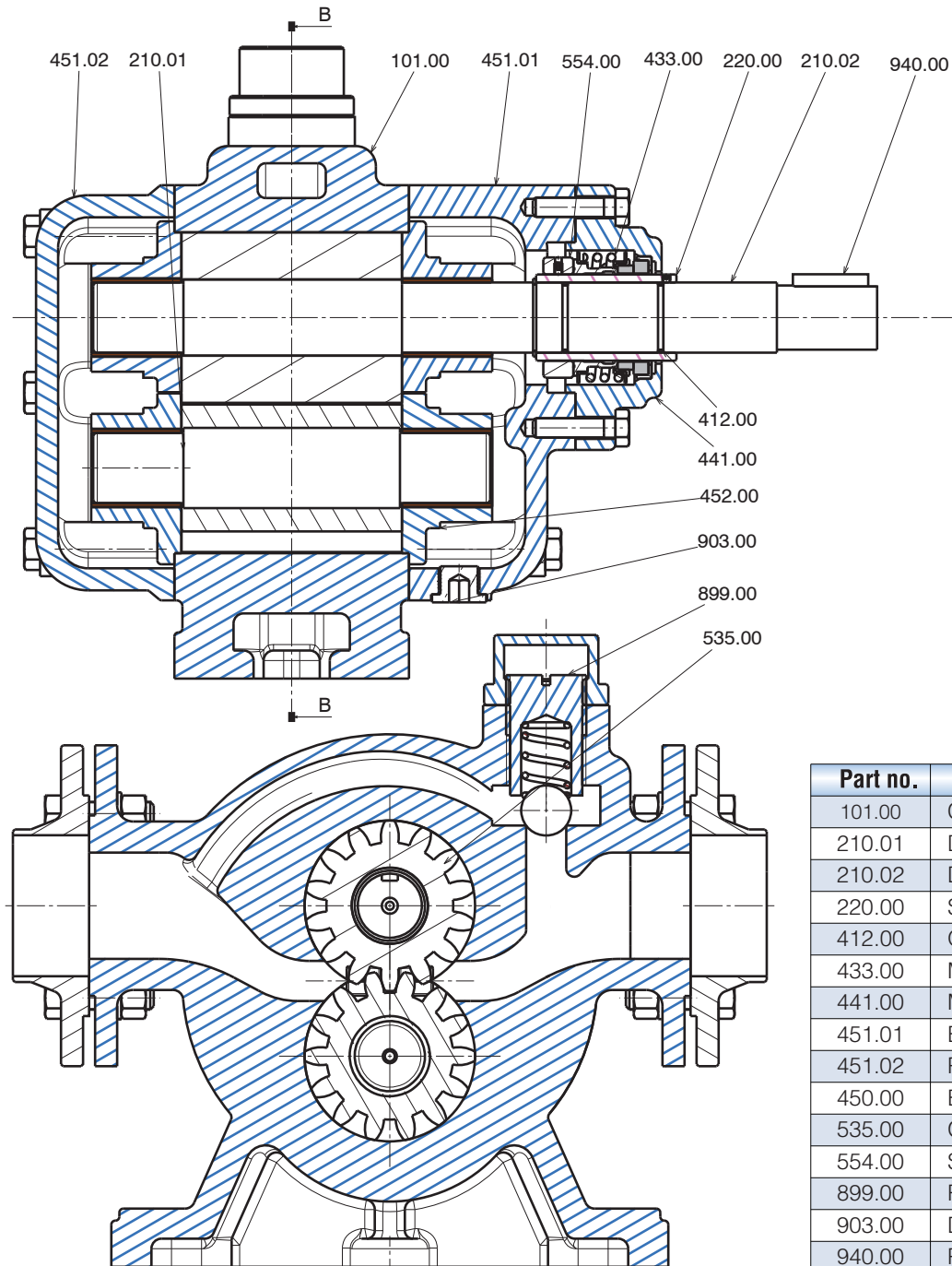
- A corrosion allowance of at least 3 mm (0.12 in.) as per API 676 3rd.
- Between Bearings Gear Design minimizes shaft deflection and reduces bearing loads, improving high pressure and high-speed capabilities while increasing efficiency and lowering costs.
- The high suction performance, i.e. very low NPSHr was guaranteed by the special design of pump.
- Convertible Stuffing Box allows for ample packing or mechanical seals to be used for greater flexibility.
- Adopted the external heavy duty bearing housing which lubricated individually for double mechanical seal usages.
- Shafts are generously sized to minimize deflection.
- Integral safety relief valve provides short-term emergency bypass
- Back Pullout Design facilitates maintenance and enables inspection without disturbing piping.
- Various construction completely such as horizontal, vertical and casing with liner, and so on. The pump can handle various clean liquid without solid grain, low or high viscosity medium, even can deliver some corrosive medium with a correct material selection.
- Low Pulsation and smooth flow.
- In conformity with API 676.

Product Options

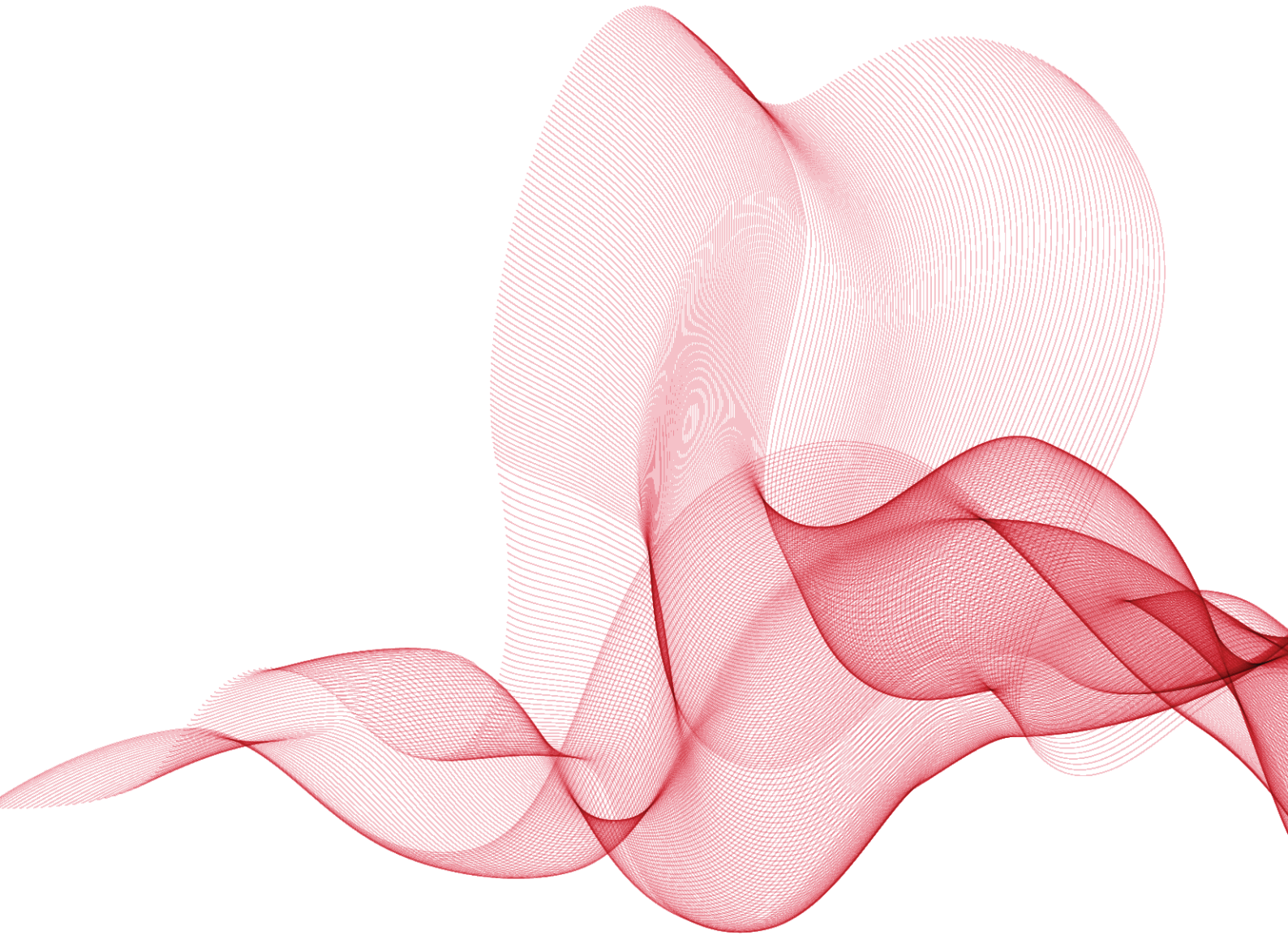
- Materials variety acc. to API 676
- Various types of shaft sealing types available
- Impeller trimmed to match the specified duty point
- Optional double suction large eye first stage impeller for lower NPSH performance
- Several hydraulic systems per pump size
- Several bearing types available
- Heating jacket available as option
- Flanges to ASME or DIN
- A variety of instrumentation options are available for monitoring all key operating parameters (temperaure, pressure, vibrations, etc.)
- Standard or heavy duty base plates available



General Sectional Drawings



Part no.	Part name
101.00	Casing
210.01	Driven gear shaft
210.02	Driving gear shaft
220.00	Shaft sleeve
412.00	O-ring
433.00	Mechanical seal
441.00	Mechanical seal seat
451.01	Boss plug
451.02	Plain plug
450.00	Bush bearing
535.00	Gear
554.00	Seal clamp
899.00	Relief valve
903.00	Drain plug
940.00	Parallel key



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