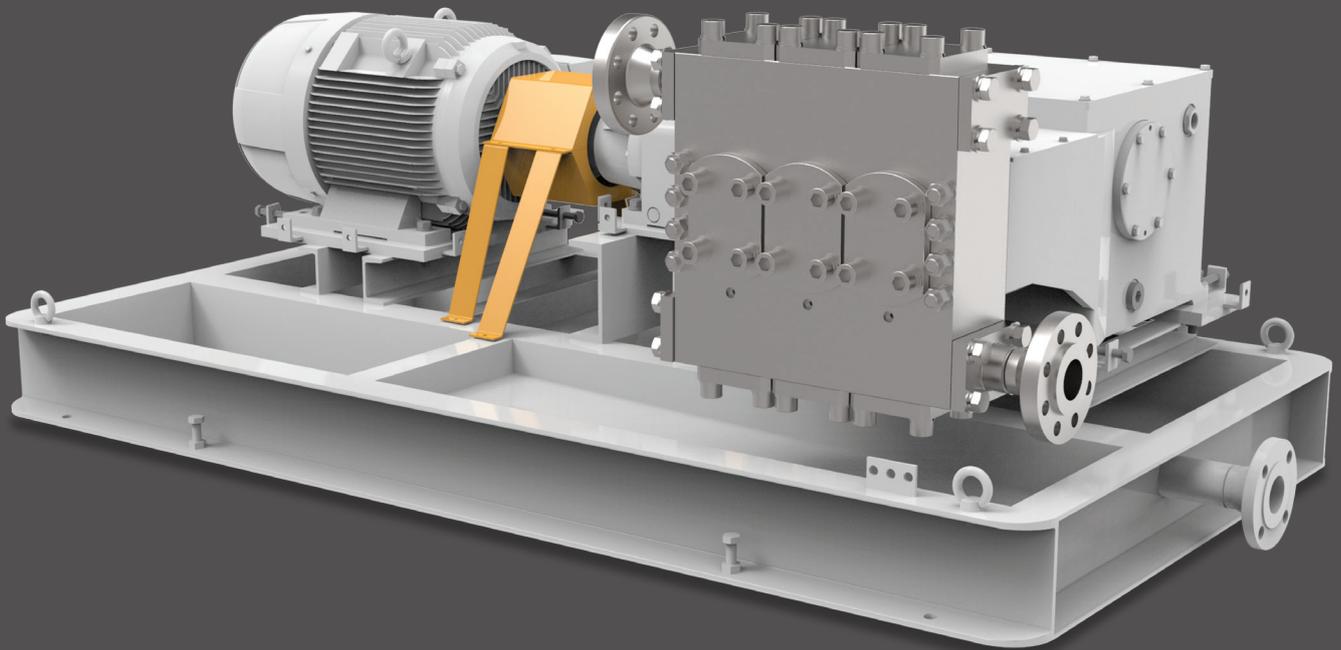


# exakta

A Division of SEKO Group

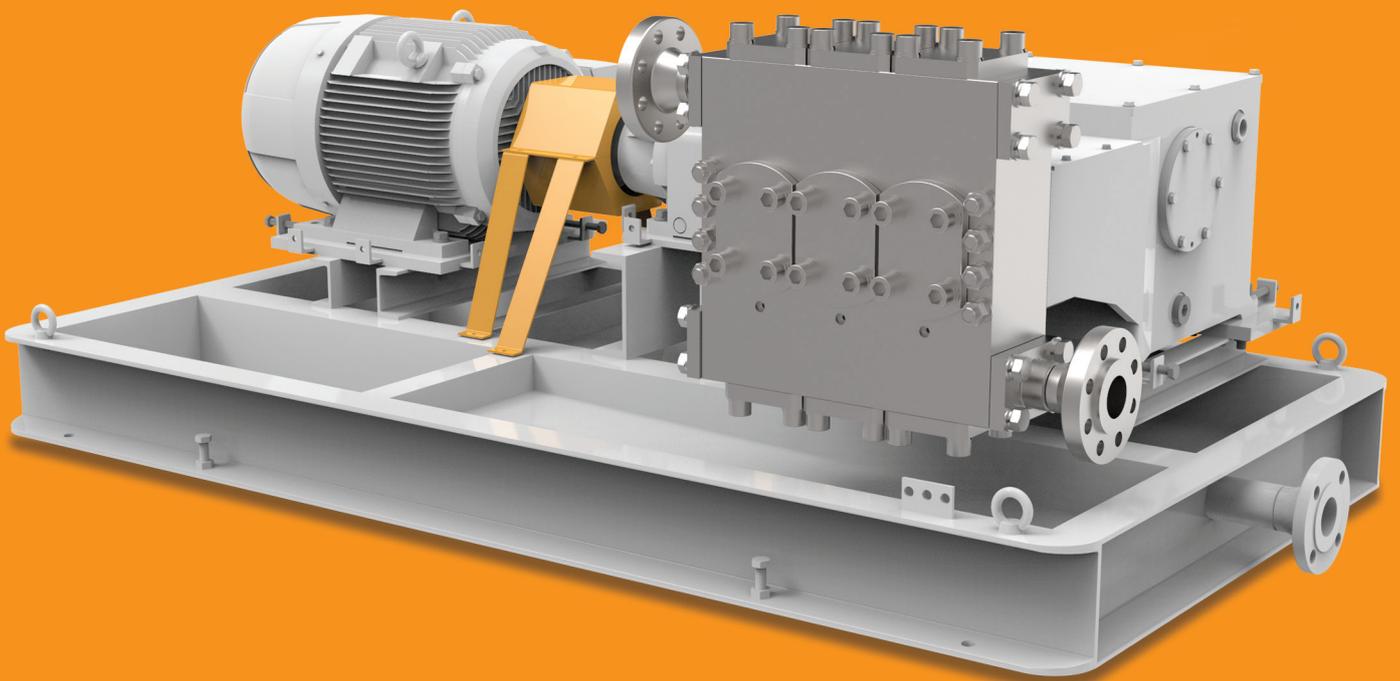


## Triplex Series

Process pumps for high-pressure duties

# 3C Triplex Pumps Series

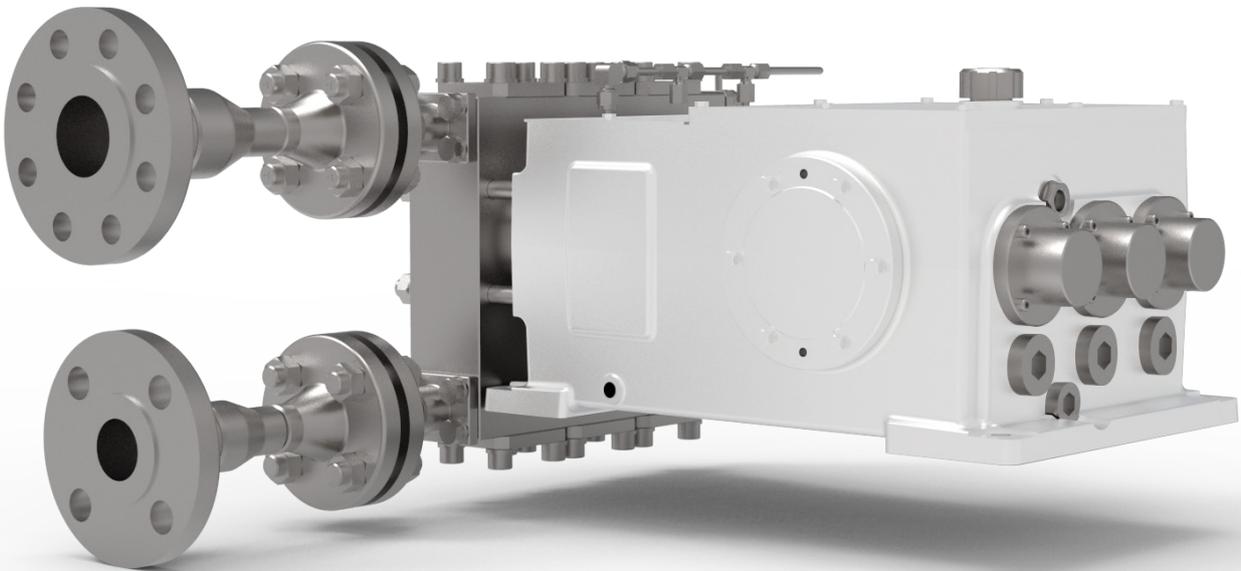
Process pumps for high-pressure duties



A flexible, robust and reliable solution to pumping high-temperature, abrasive and viscous liquids in a multitude of industrial applications, the 3C Triplex pump series offers the best total cost of ownership available on the market.

3C Triplex pumps achieve special operating requirements, allowing customers to build the ideal system for the unique demands of their application. The distinctive design of the 3C Triplex mechanism allows low-speed operation, resulting in reduced wear of moving parts and high reliability.

These pumps are built in accordance with API 674 standards, compliant to ATEX2014/34/ EU, TR CU 004-010-020-012/2011 and alignable with Shell DEP (various), Norsok M-501 & M-630, NACE 0175 specifications.



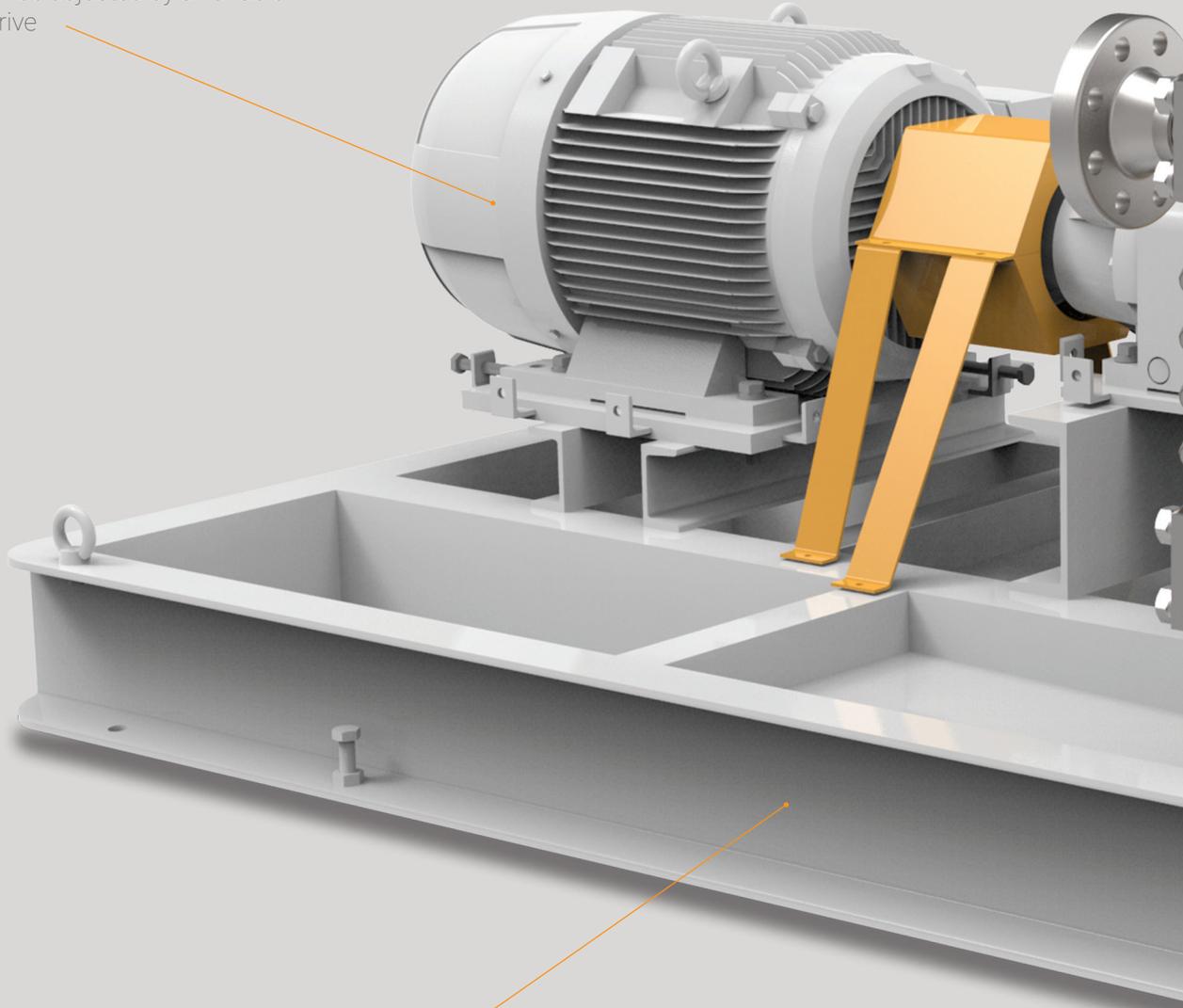
## Technical Features

<b>Capacity range:</b>	up to 65,000 l/h, up to 1150 bar
<b>Wetted parts:</b>	SS 316 L, LTCS, Super Duplex, different material (on request)
<b>Flow rate adjustment:</b>	by frequency converter
<b>Compliance:</b>	with international standard approvals as API 674, ASME, TR CU 012/2011

# Triplex Series Features

## Variable speed drive

Capacity can be adjusted by a variable frequency drive

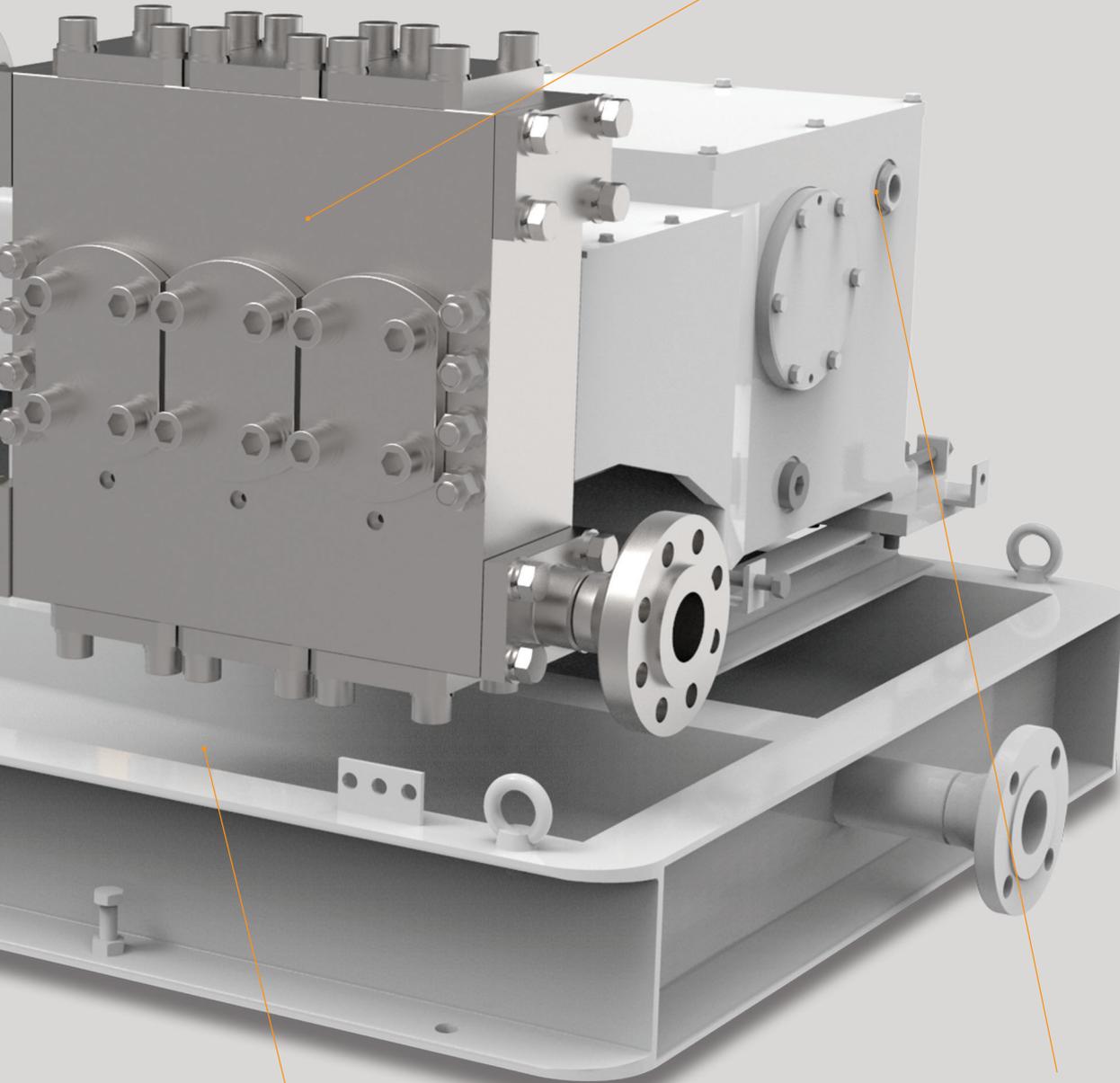


## Lower weight-to-performance ratio

Can be installed in different packages and pipelines without disassembling the plant

## Unique head design optimized for simple maintenance

Allowing extended packing life, increased productivity, reduced downtime and lower maintenance costs

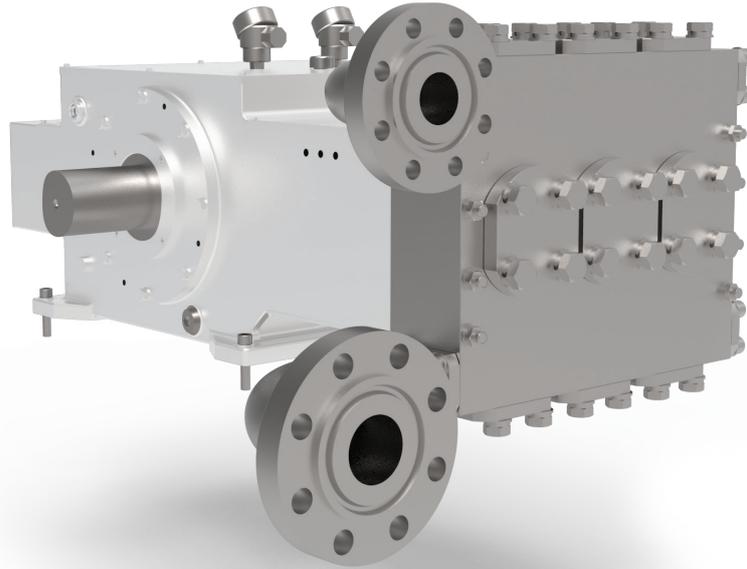


## Easily integrated into packages

Allows to be integrated in different packages and pipelines without disassembly the plant

## Integral lubrication system

Ensuring high reliability, reduced maintenance, small footprint and simple installation and commissioning



## Pump heads

Wetted parts: 316L or 304 stainless steel, duplex steel or carbon steel (exotic alloys available upon request)

The three-cylinder pump head is horizontally arranged, with single-acting plungers and valves and seats that can be selected among different executions depending on the handled fluid

Plungers and packing are easily maintained, with replacement of components for most pump sizes possible without disconnecting the pump from the pipework

Guarantee of a virtually leakage-free process through different options:

- Leakage recovery system
- Packing flushing
- Barrier fluid

## Mechanism

The unique design of the 3C Triplex mechanism allows the pump to operate at a very low speed without forced lubrication, making it ideal for applications requiring a slow plunger motion to avoid cavitation when pumping hot or viscous liquids or fluids with high vapour pressure. The range features:

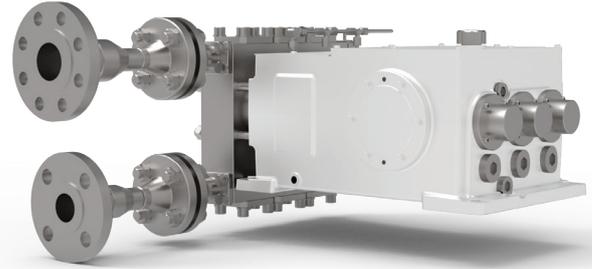
- Silent and vibration-free operation due to proper mass balancing and sizing. The integral crankshaft and crossheads are supported at both ends, giving precise alignment of the plunger rods for a longer sealing life
- A compact and robust assembly, providing high performance within a minimal footprint
- Low-speed operation without forced lubrication, resulting in reduced wear of moving parts and high reliability, ideal for applications requiring a slow plunger motion to avoid cavitation.

## Accessories

- Pulsation dampers
- Safety valves

# 3C 30

Plunger Diameter [mm]	Max. Pressure [barg]	Max. Flow Rate [m <sup>3</sup> /h]
10	1146	0.21
15	509	0.46
20	286	0.82
25	183	1.28
30	127	1.85
35	94	2.52
40	72	3.29
45	57	4.16
50	46	5.14



**Fluid Temperature [°C]** -20 / 200

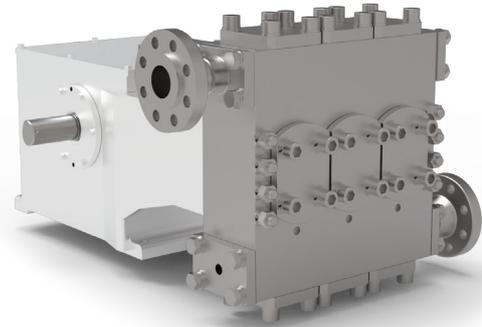
**Stroke Length [mm]** 30

**Max. Thrust [kN]** 9

**Motor Power Range [kW]** 2.2 - 15

# 3C 55

Plunger Diameter [mm]	Max. Pressure [barg]	Max. Flow Rate [m <sup>3</sup> /h]
20	477	1.18
25	306	1.85
30	212	2.66
35	156	3.62
40	119	4.73
45	94	5.98
50	76	7.39
55	63	8.94
60	53	10.64
65	45	12.48
70	39	14.48



**Fluid Temperature [°C]** -20 / 200

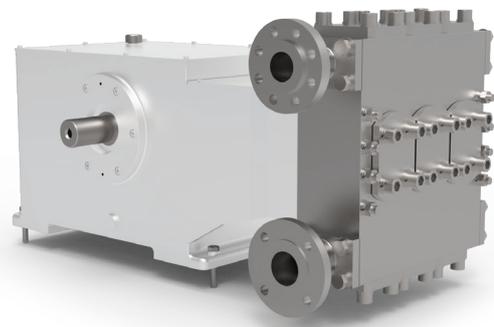
**Stroke Length [mm]** 55

**Max. Thrust [kN]** 15

**Motor Power Range [kW]** 5.5 - 30

# 3C 80

Plunger Diameter [mm]	Max. Pressure [barg]	Max. Flow Rate [m <sup>3</sup> /h]
25	530	2.01
30	368	2.90
35	270	3.95
40	207	5.16
45	163	6.53
50	132	8.06
55	109	9.75
60	92	11.60
65	78	13.62
70	68	15.79
75	59	18.13
80	52	20.63



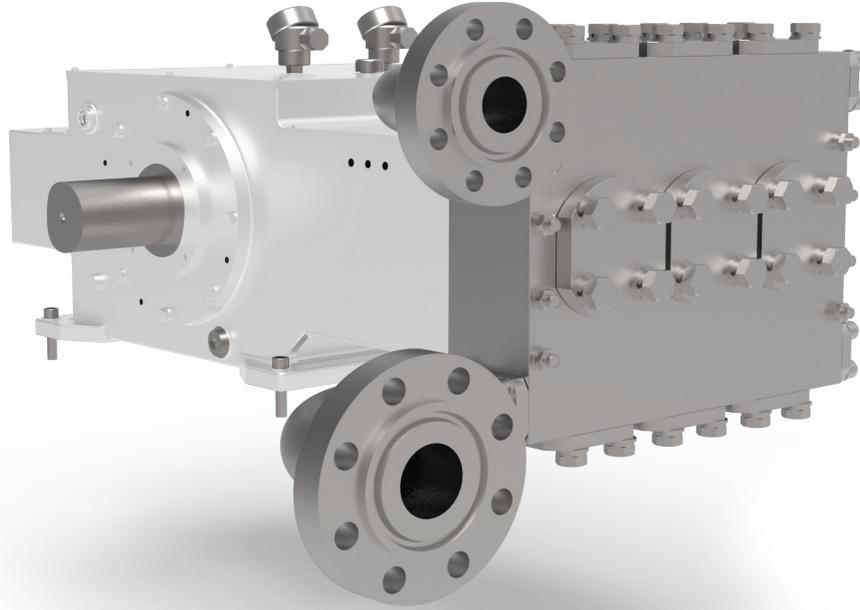
**Fluid Temperature [°C]** -20 / 200

**Stroke Length [mm]** 80

**Max. Thrust [kN]** 26

**Motor Power Range [kW]** 9.2 - 55

# 3C 120



Plunger Diameter [mm]	Max. Pressure [barg]	Max. Flow Rate [m <sup>3</sup> /h]
27	800	1.50
30	722	3.05
35	530	4.15
40	406	5.42
45	321	6.85
50	260	8.46
55	215	10.24
60	180	12.18
65	154	14.30
70	133	16.58
75	115	19.04
80	101	21.66
85	90	24.45
90	80	27.41
95	72	30.54
100	65	33.84

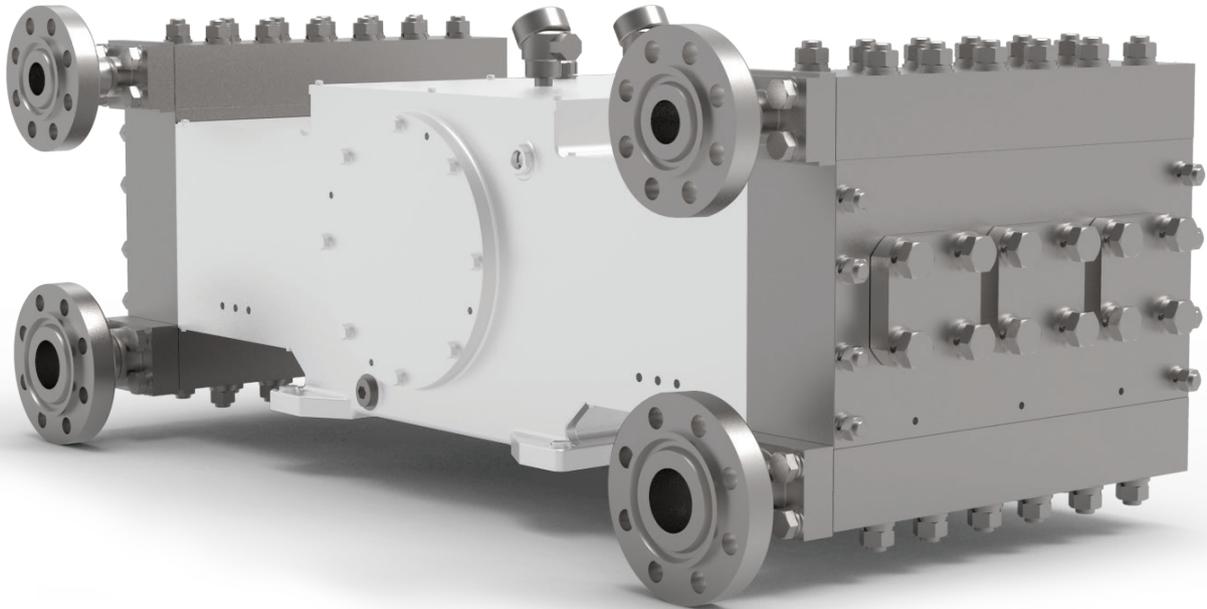
**Fluid Temperature [°C]** -20 / 200

**Stroke Length [mm]** 120

**Max. Thrust [kN]** 51

**Motor Power Range [kW]** 37 - 110

# 3C 120TC



Plunger Diameter [mm]	Max. Pressure [barg]	Max. Flow Rate [m³/h]
30	495	6.09
35	364	8.29
40	279	10.83
45	220	13.71
50	178	16.92
55	147	20.48
60	124	24.37
65	105	28.60
70	91	33.17
75	79	38.07
80	70	43.32
85	62	48.91
90	55	54.83
95	49	61.09
100	45	67.69

**Fluid Temperature [°C]** -20 / 200

**Stroke Length [mm]** 120

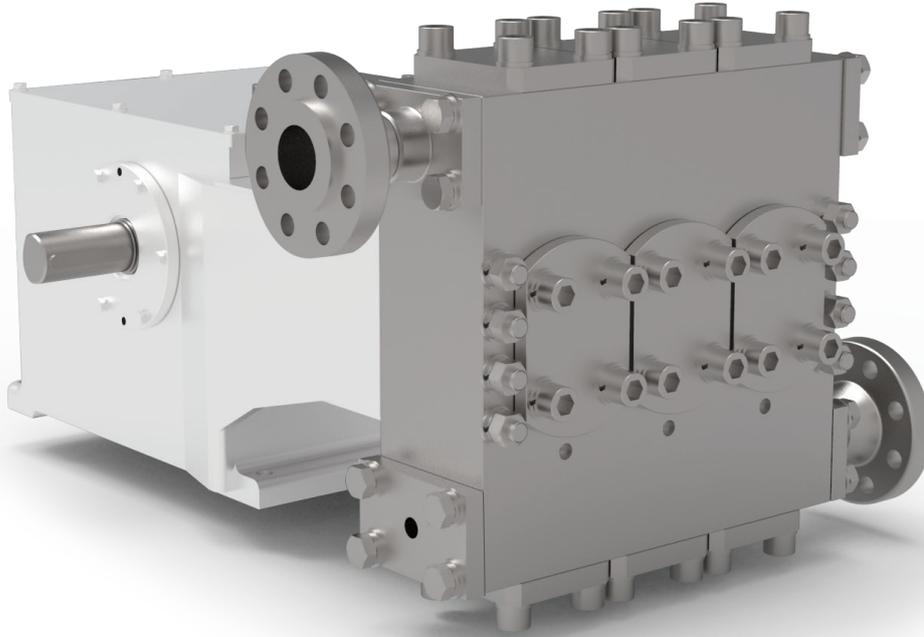
**Max. Thrust [kN]** 35

**Motor Power Range [kW]** 37 - 110

## 3C120 TC execution

The unique design of this pump allows two pump heads to be fitted on the same mechanism, therefore achieving a highly effective performance to footprint ratio.

# A range of benefits



## Customization

With Exakta's support at every stage, these pumps are designed around customers' requests, with a wide choice of wetted parts, leakage control and collection, paint colour, documentation and certification.



## Peace-of-mind solution

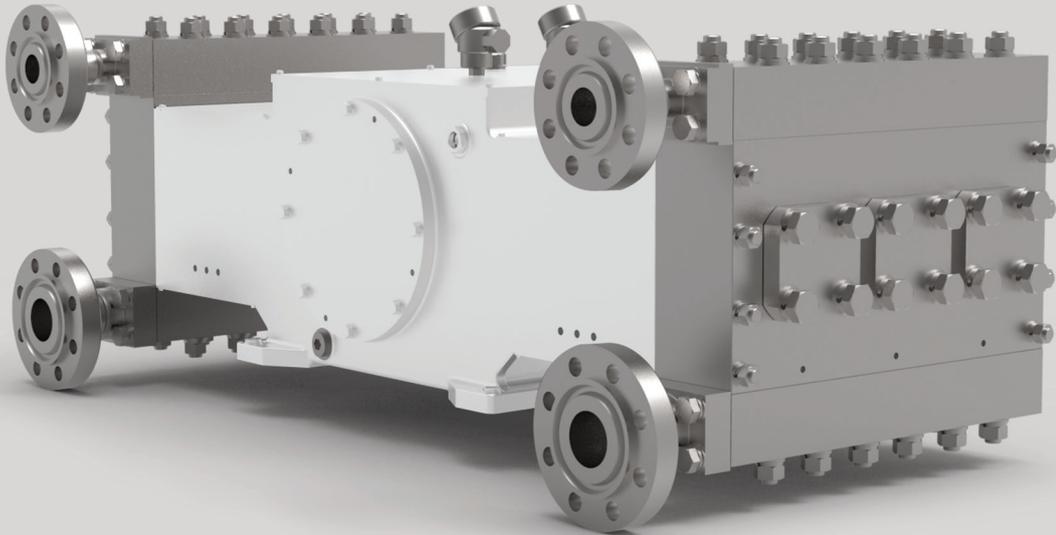
3C Triplex pumps can be supplied as part of a complete packaged solution by combining them with fully compatible in-house-designed accessories such as safety valves and pulsation dampers or any third-party ancillaries (motor, reducer, coupling, instrumentation) for a smooth pumping operation.



## Reliability

With their outstanding build quality, premium components, low total cost of ownership and long MTBF, 3C Triplex pumps embody Exakta's core values of reliability and robustness, in addition to the durability to withstand temperature extremes, aggressive chemicals and other severe operating conditions encountered in heavy-industrial applications.

# Industry applications



## Oil & Gas

- Glycol for gas dehydration
- Methanol injection for hydrate control
- Well stimulation and service
- Hydrocarbon condensate and oily water
- Closed drain circulation



## Oleochemicals

- Fatty acids pumping
- Glycerine production
- Raw material production for surfaceactive
- Stearin production



## Fertilizers

- Urea and ammonia production
- Multi-compound fertilizer production



## Metals & Mining

- Solid-liquid extraction or leaching in mineral ore processing
- Removal of sand, oil, rust, colloid and paint from castings
- Descaling in metallurgical plants
- Tailings water



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[www.exaktasaudi.com](http://www.exaktasaudi.com)

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