SCHMITT

NEOCHEM CORE

Heavy-Duty Standardized Chemical Pumps

PFA-lined with Magnetic Coupling

Reinventing flow.

Since 1964

NEOCHEM
CORE

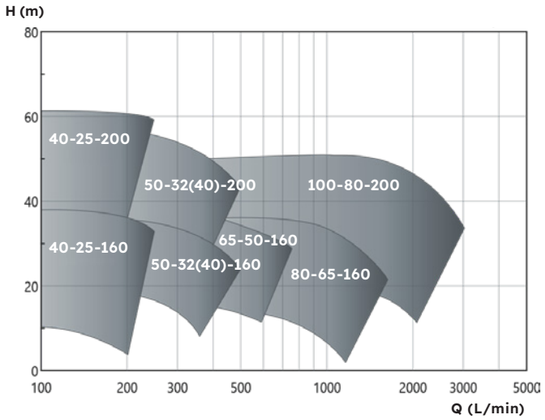
Heavy-Duty Standardized Chemical Pumps
PFA-lined, with magnetic coupling according to ISO2858 standard

Housing and impeller materials	PFA
Elastomers	EPDM, FKM (e. g. Viton®), PTFE+FKM
Bearing materials	Carbon, PTFE-CF, SSiC (silicon carbide)

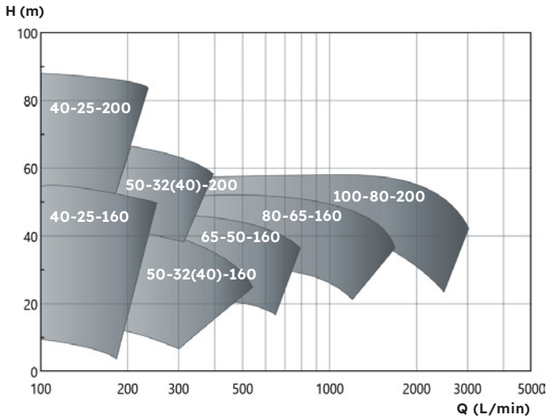
The NEOChem Core is a modern, chemically resistant plastic magnetic pump for demanding industrial applications. It combines a seal-less magnetic drive with a high-strength armored outer construction and PFA lining, offering high corrosion resistance and robustness even under harsh operating conditions. Additional features such as a back-pull-out maintenance design and a flow-through bearing cooling system ensure reduced maintenance cycles and high availability

Performance Overview

50 Hz



60 Hz

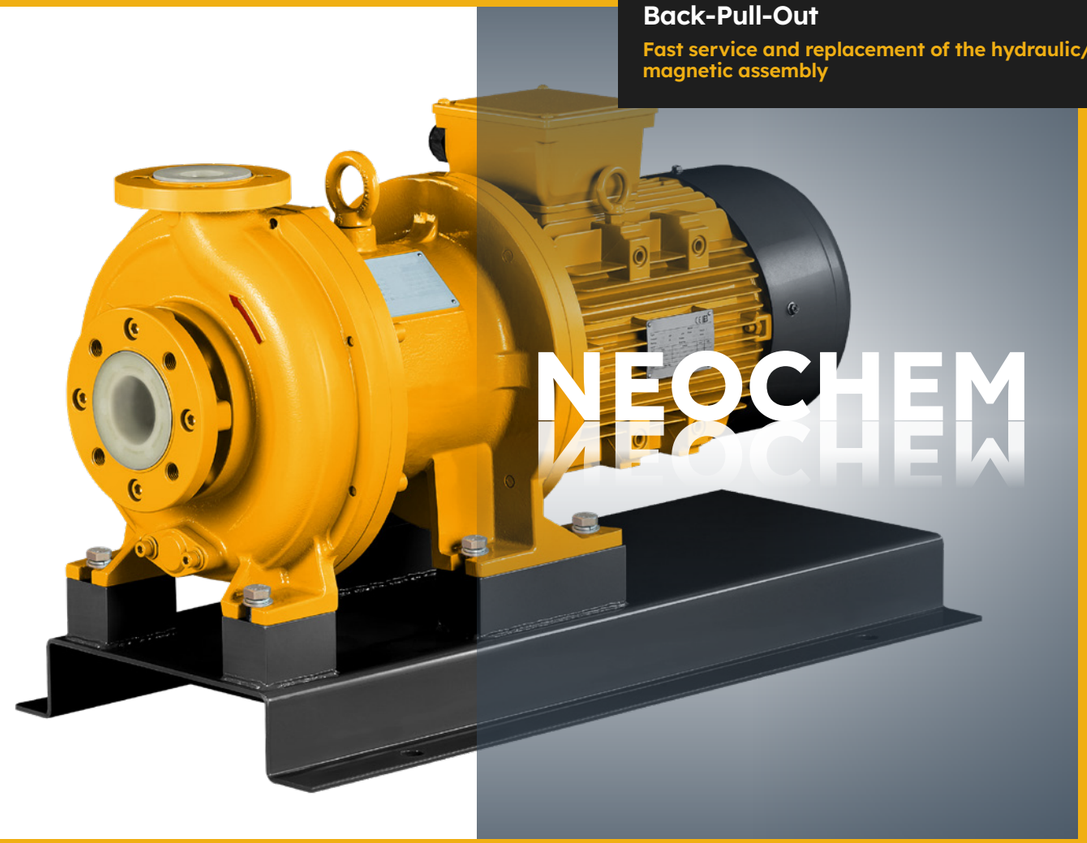


Advantages

- Hermetically sealed and completely leak-free – seal-less magnetic coupling (no mechanical seal), ensuring no leakage risk and maximum operational safety for expensive or environmentally hazardous media.
- Ideal for toxic, aggressive, and high-purity media: The PFA lining combined with a robust armored outer shell provides outstanding corrosion protection and prevents contamination.
- Back-pull-out design – fast service and replacement of the hydraulic/magnetic assembly without removing the piping, enabling minimal downtime.
- Suitable for high process temperatures up to +150 °C

High-Strength Outer Construction
Excellent corrosion resistance and robustness

Back-Pull-Out
Fast service and replacement of the hydraulic/magnetic assembly



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Description

Characteristics

Chemical-resistant, single-stage, PFA-lined plastic centrifugal pump in close-coupled design per ISO 2858, with magnetic coupling, normal-priming

Features

- Hermetically sealed and absolutely leak-free (no shaft seal)
- Contact-free magnetic coupling with high-performance magnets
- All wetted parts made of corrosion-resistant PFA
- Standard flange connections according to ISO, JIS, or ANSI

Fields of application

Pumping of acids, alkalis, or other corrosive, harmful, or toxic liquids in applications where even the smallest leaks are unacceptable and a hermetically sealed pump is required.

Pumping of high-purity or sensitive liquids where contamination must be prevented.

Typical uses:
Chemical and pharma industry – process and transfer (e.g. tanker unloading, bulk transfer)

Characteristics

Available materials

- Housing: PFA-lined
- Elastomers: EPDM, FKM (e.g. Viton®), PTFE+FKM
- Bearing combinations: Carbon, PTFE-CF, SSiC

Standard motors
(available from stock)

- Three-phase motors: D230/Y400 V-3ph 50 Hz, D277/Y480 V-3ph 60 Hz, IP55, Insulation class F, also with PTC thermistor
- All three-phase motors from 0.75 kW meet efficiency class IE3
- Single-phase motors (up to 1.1 kW: 230 V-1ph, 50/60 Hz, IP55, class F)
- ATEX motors, temperature class T3

Special motors
(on request)

- Special voltages and frequencies
- Three-phase motors with integrated frequency inverter
- ATEX motors with flameproof enclosure, temperature class T4
- 4-pole motors with 1450 rpm at 50 Hz
- UL and CSA designs
- Special protection types, e.g., IP65
- Special insulation classes, e.g., tropical
- Wide-range voltage, e.g., 220–290/380–500 V 50 Hz; 220–332/380–575 V 60 Hz
- DC or BLDC motors

Operating conditions

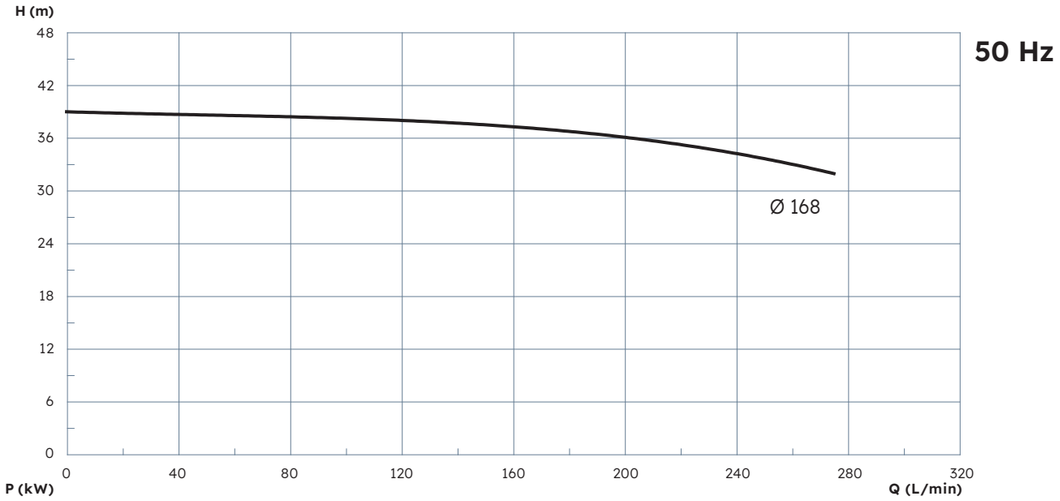
- Max. flow rate: 180 m^3/h
- Max. head: 88 m
- Medium temperature: 0 to 150 °C
- Drive power: 1.5 to 30 kW

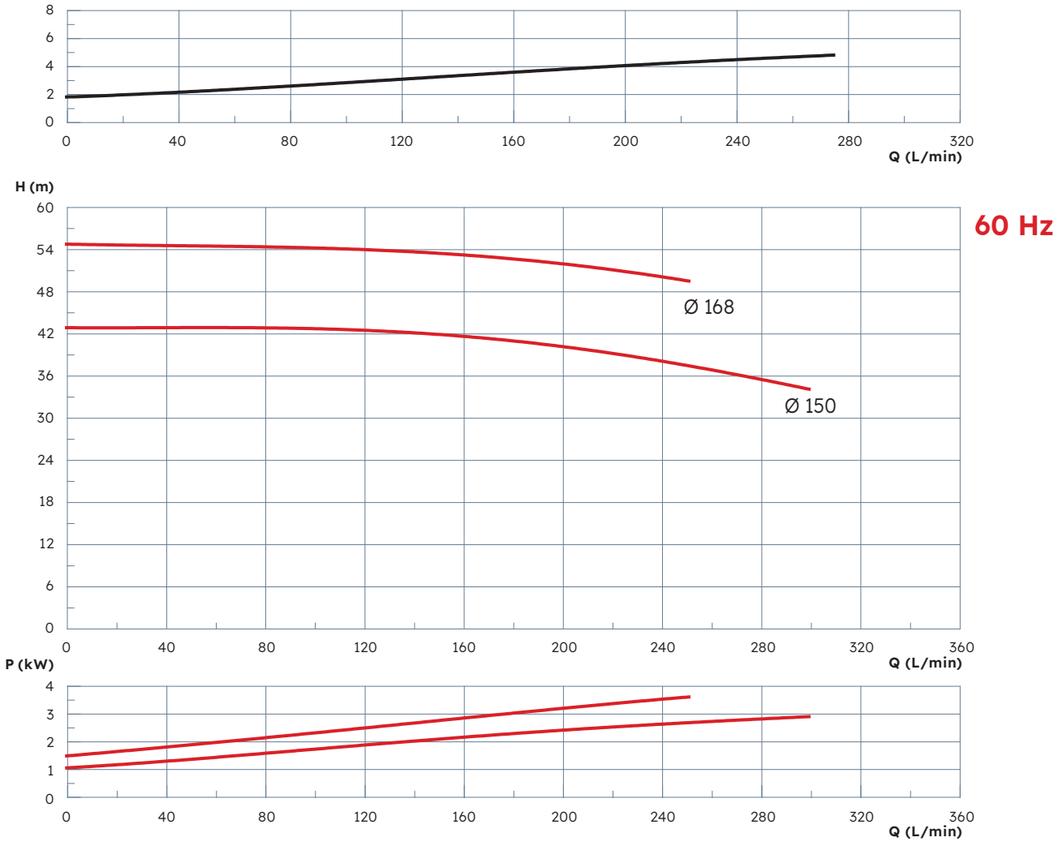
Accessories

SCHMITT offers an extensive range of fittings to facilitate the installation of the pump into your system:

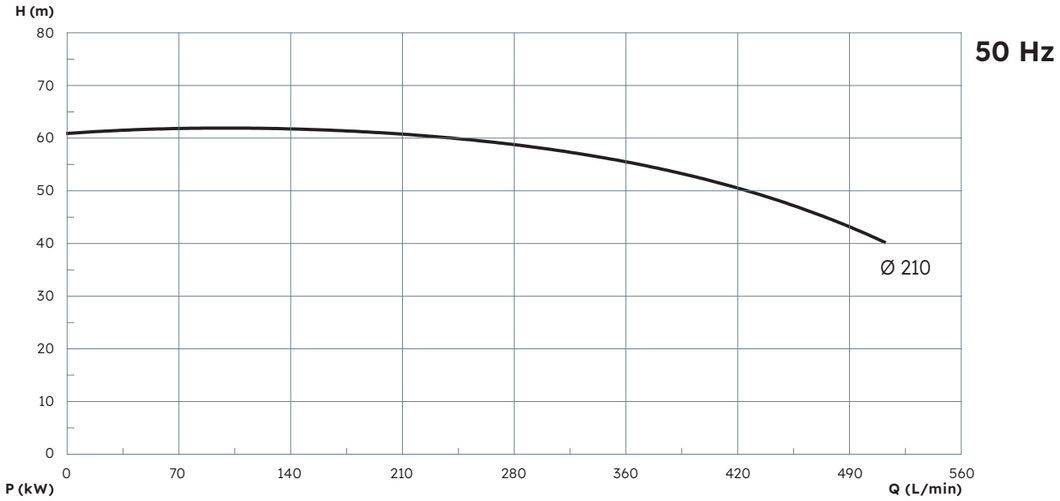
+ Flange adaptors
+ Hose connectors
+ Welding connectors for stainless steel pipes
+ Reducers and expanders

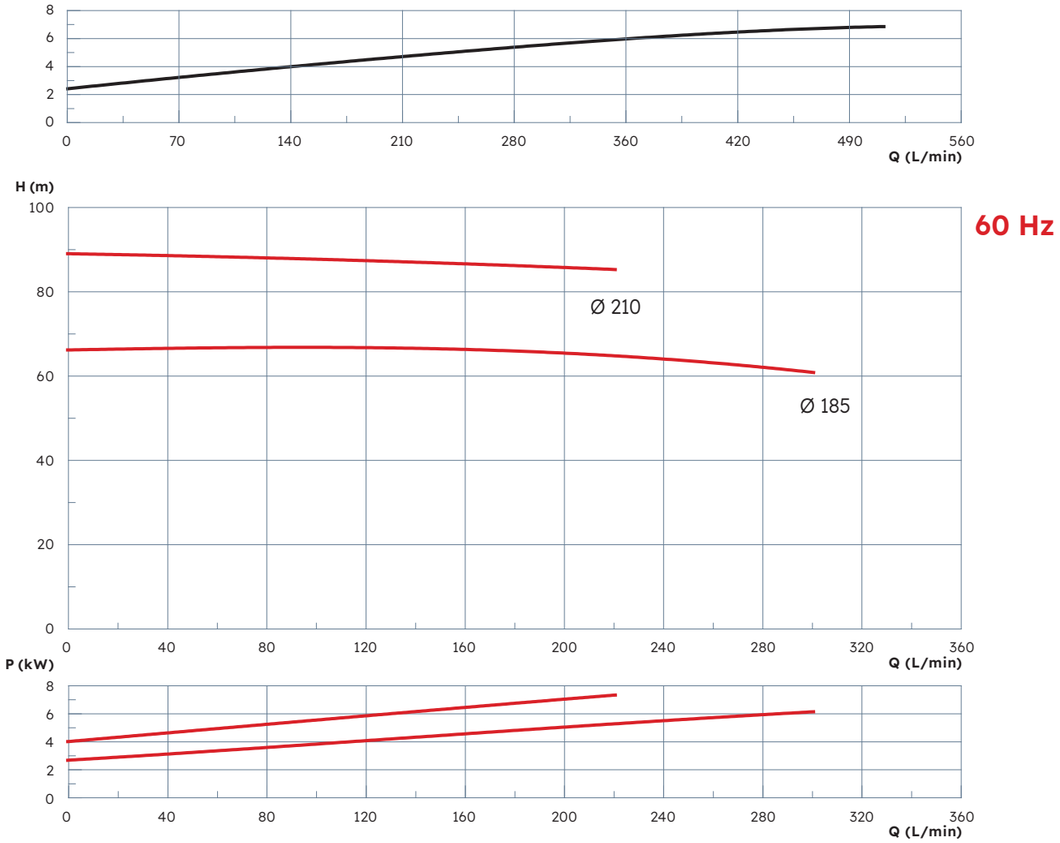
Performance Curve NEOCHEM CORE 40-25-160





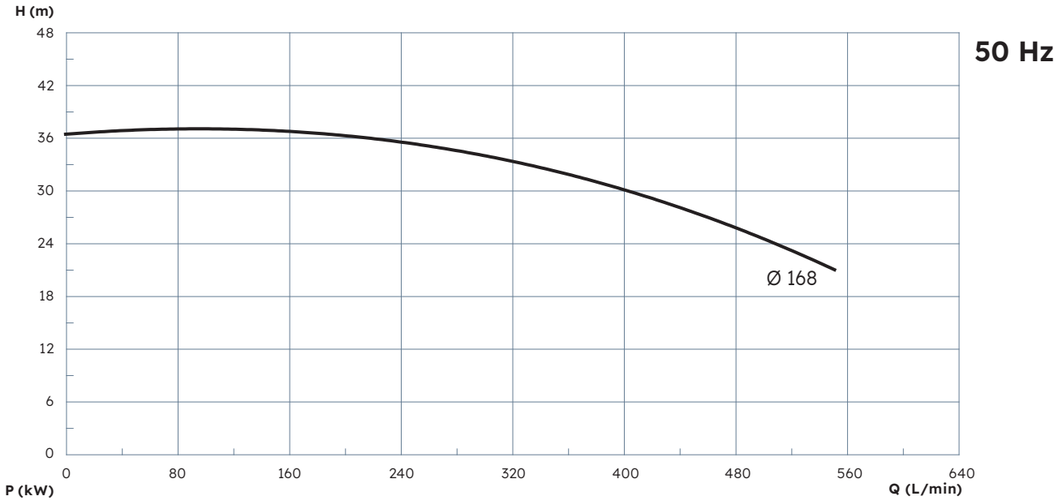
Performance Curve NEOCHEM CORE 40-25-200



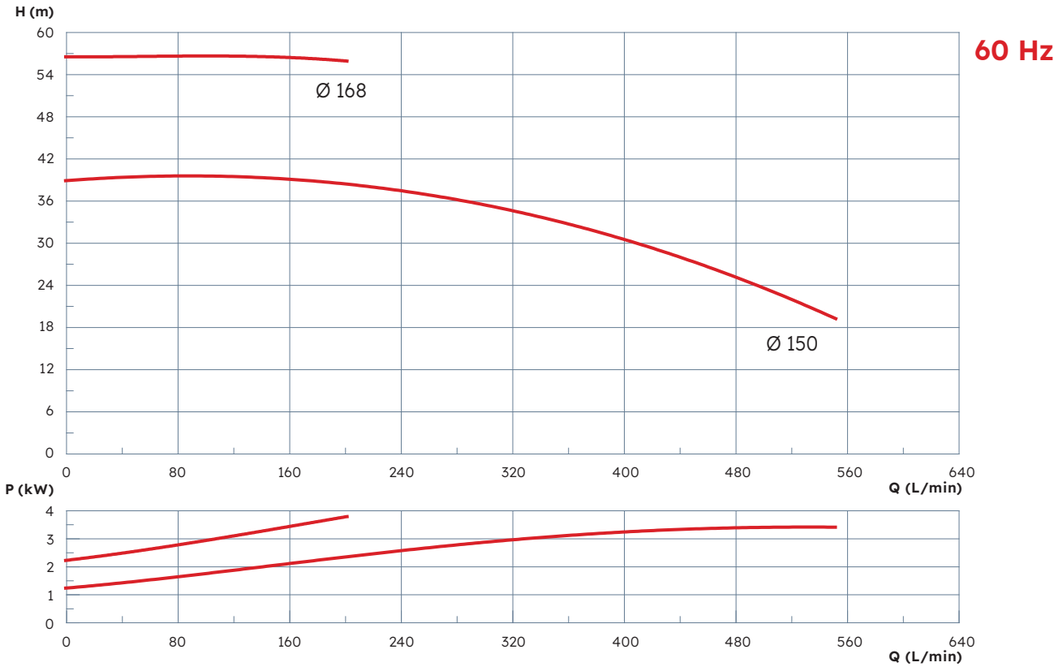


Performance Curve NEOCHEM CORE 50-32(40)-160

50 Hz

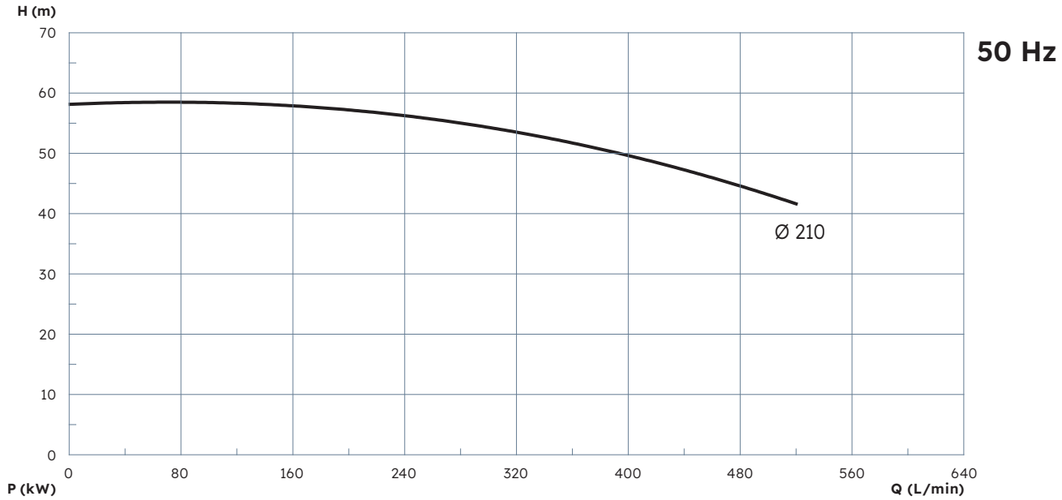


60 Hz

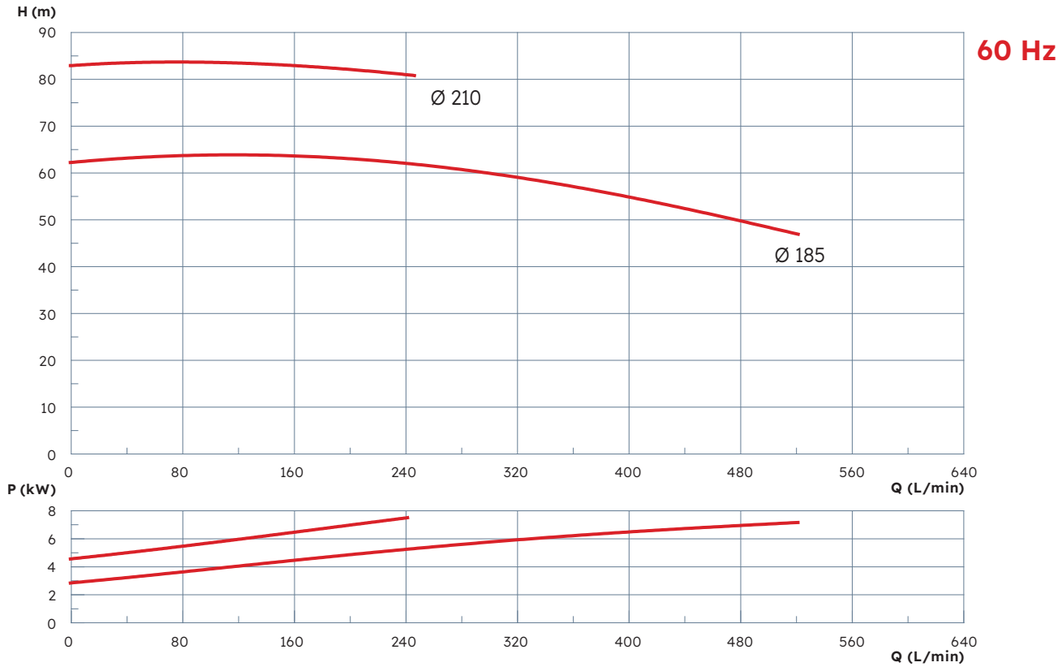


Performance Curve NEOCHEM CORE 50-32(40)-200

50 Hz

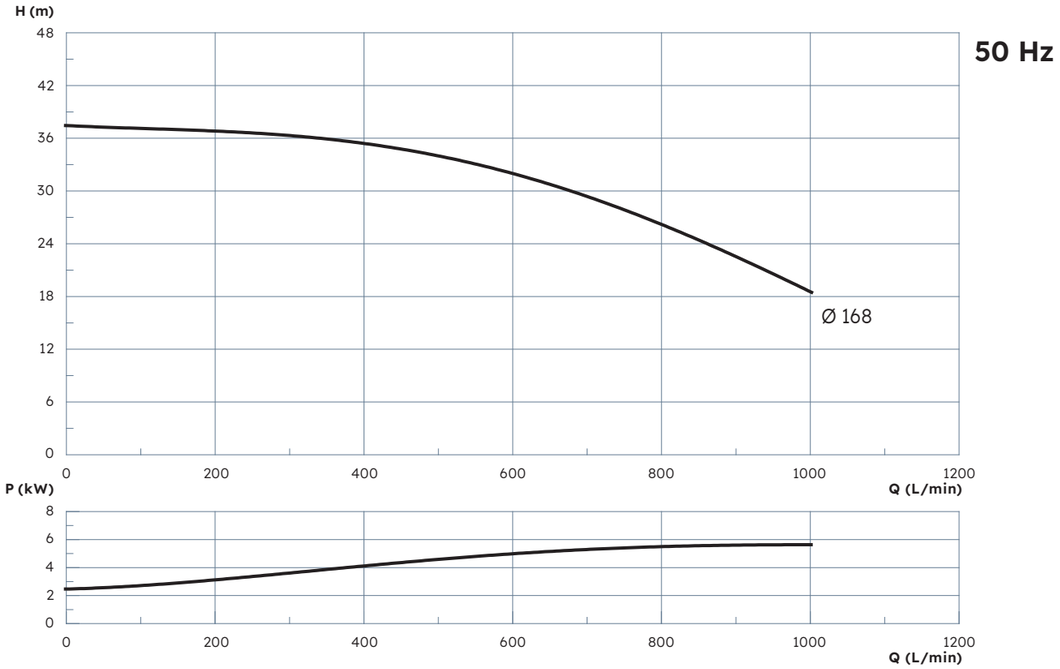


60 Hz

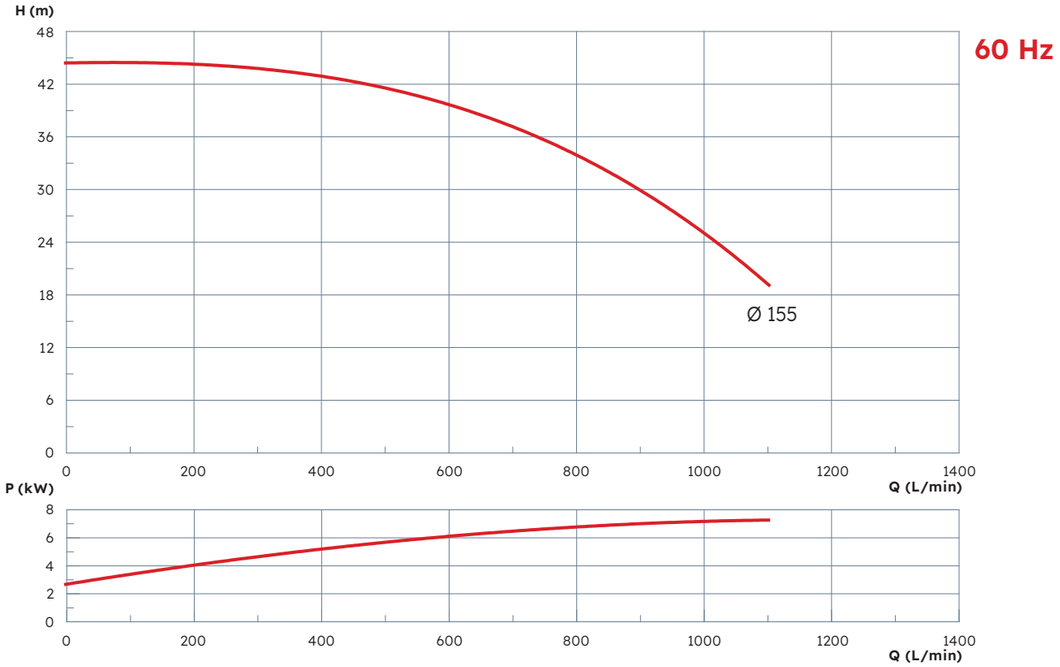


Performance Curve NEOCHEM CORE 65-50-160

50 Hz

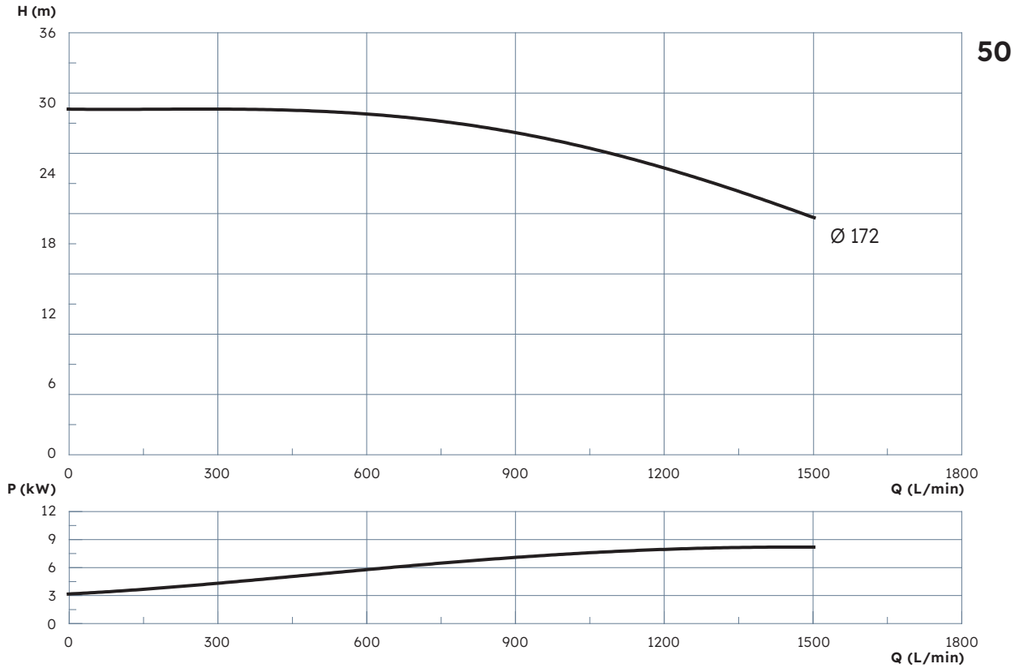


60 Hz

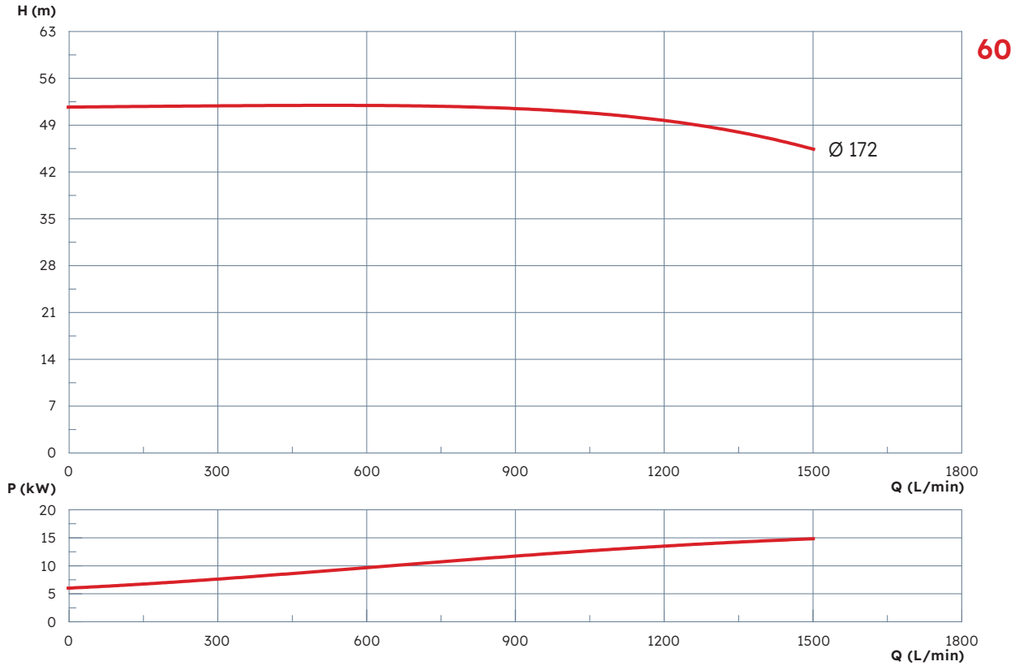


Performance Curve NEOCHEM CORE 80-65-160

50 Hz

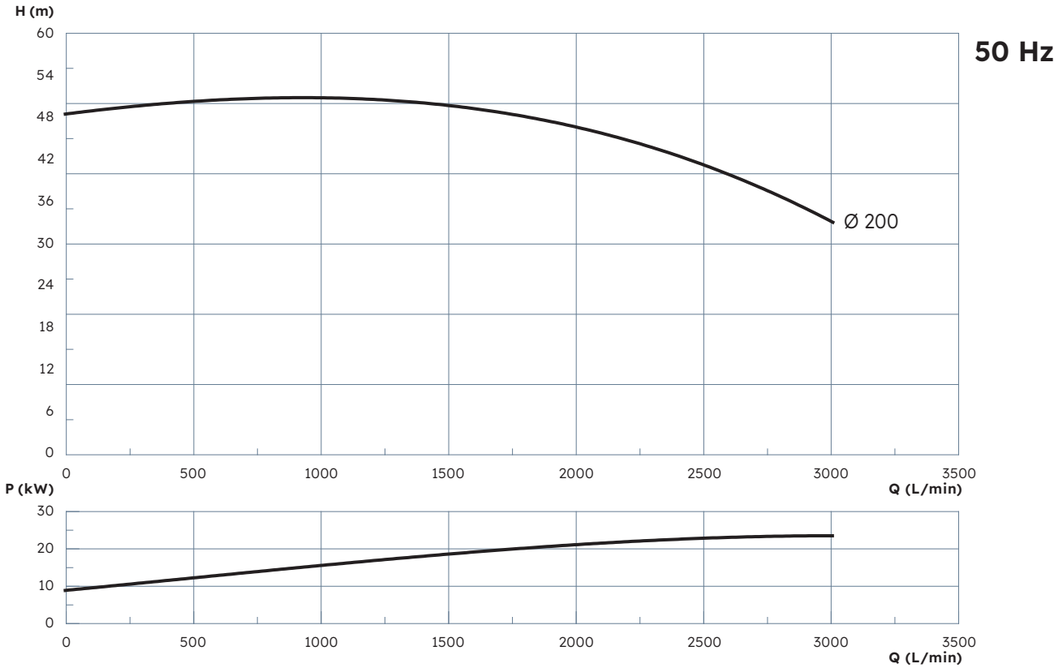


60 Hz

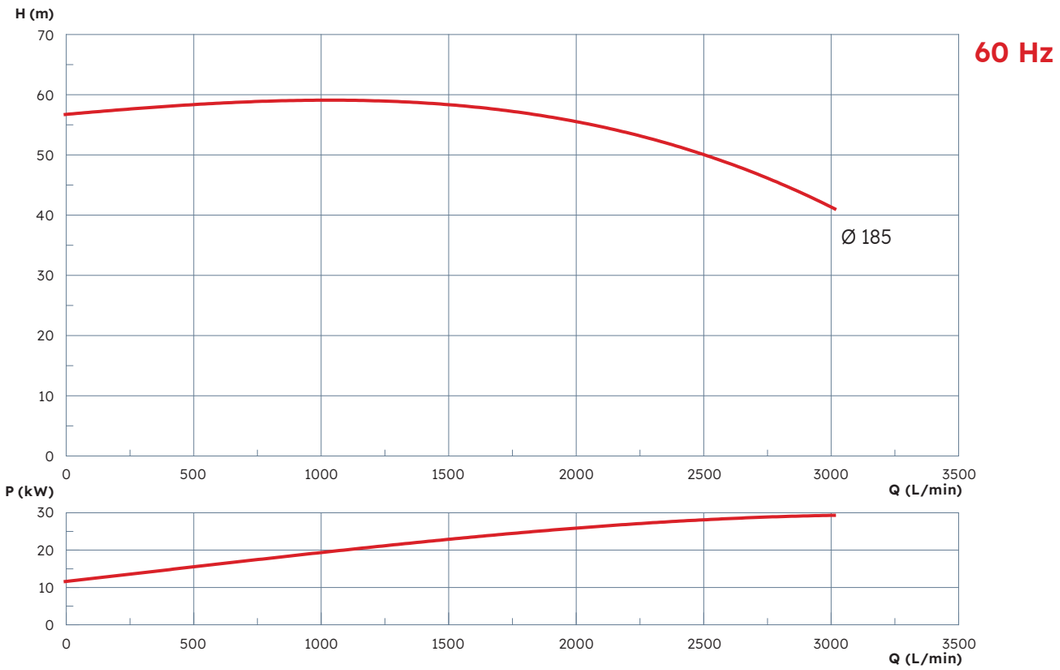


Performance Curve NEOCHEM CORE 100-80-200

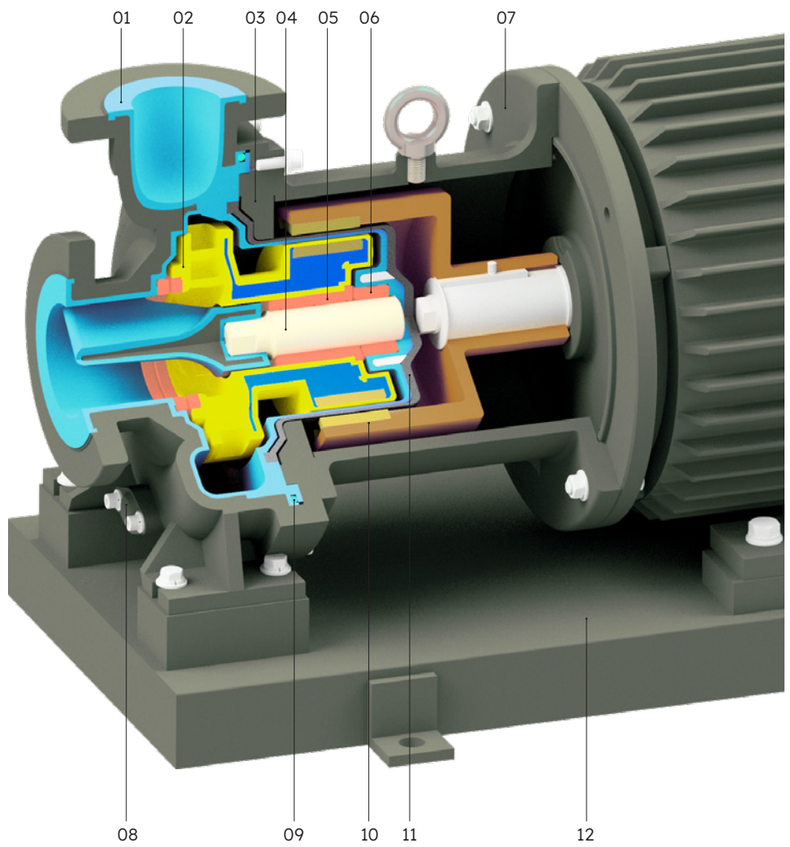
50 Hz



60 Hz



Spare Parts



Position	Description	Available materials
01	Pump casing assembly	Casing: EN-GJS-450-10 (5.3107)+PFA Bearing ring: 995 Al_2O_3/SSiC
02	Impeller assembly	Front ring: SSiC Impeller: PFA+CF
03	Backup plate	EN-GJS-450-10 (5.3107)
04	Shaft	995 Al_2O_3/SSiC
05	Bearing	SSiC /PTFE+CF/Carbon
06	Rear thrust ring	SSiC /PTFE+CF
07	Bracket	EN-GJS-450-10 (5.3107)
08	Drain cap	EN-GJS-450-10
09	O-Ring	EPDM/FKM/FKM+FEP
10	Drive magnet	Nd-Fe-B
11	Containment shell	PFA , CARBON FRP
12	Base plate	Stainless Steel (1.4301) (AISI 304)

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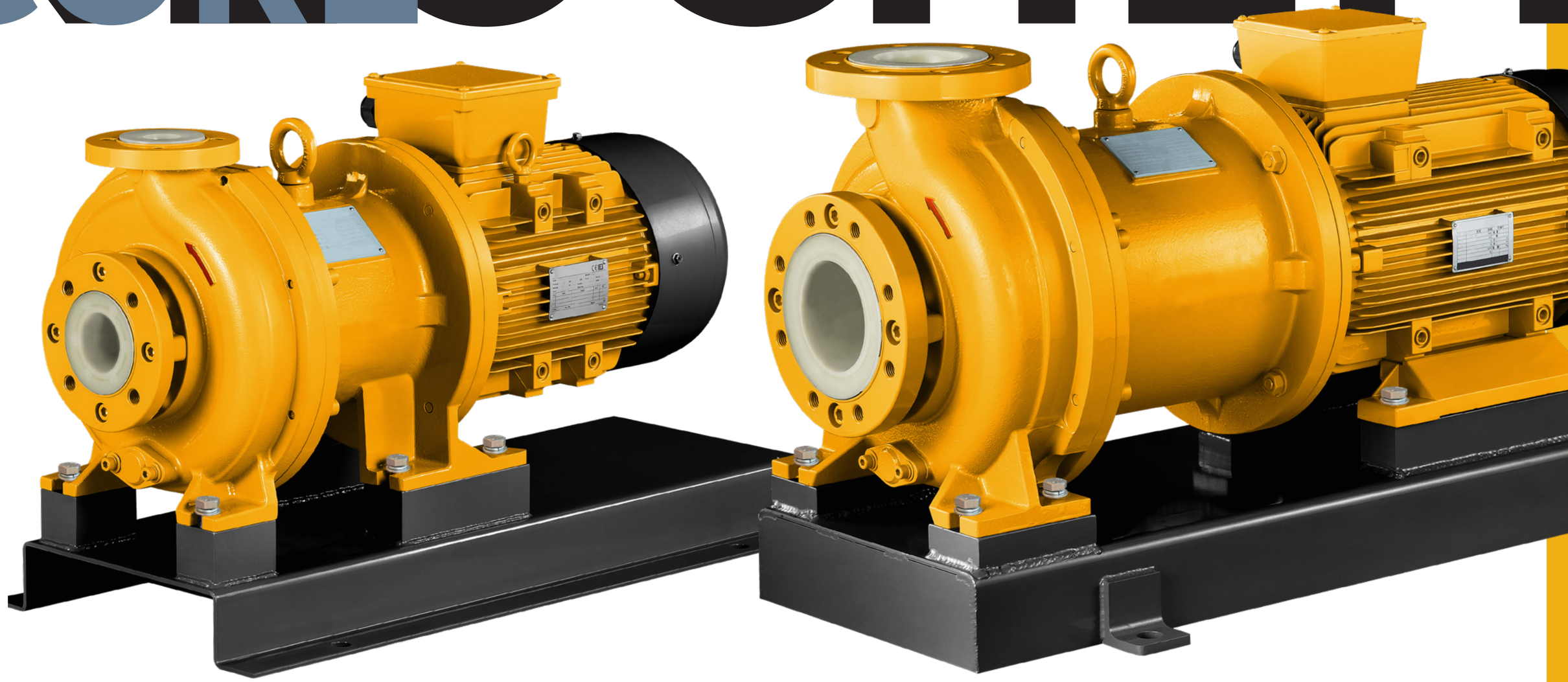

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