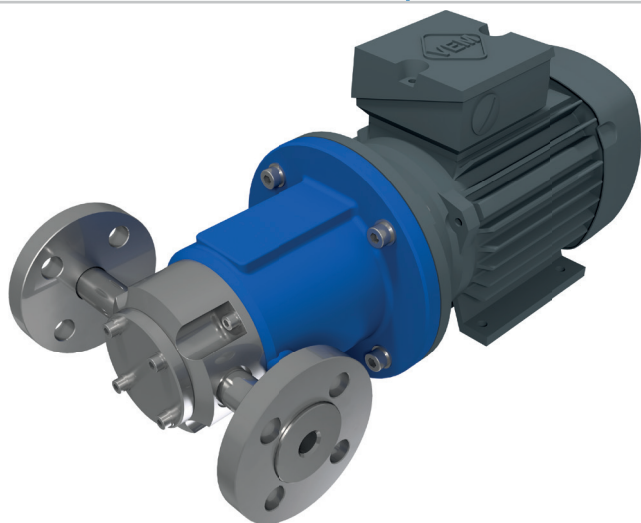


MAGNETICALLY COUPLED ROTARY SLIDING VANE PUMP

Series VANE-MAG MPA

MPA 114 - 514 (MPA I° Range)



PERFORMANCE DATA

| | |
|-------------------------|---|
| Nominal speed: | 1450 1/min / 1750 1/min |
| Nominal frequency: | 50 Hz / 60 Hz |
| Nominal flow rate: | |
| MPA 114: | 140 l/h / 210 l/h (55,48 US gph) |
| MPA 214: | 240 l/h / 280 l/h (73,97 US gph) |
| MPA 314: | 330 l/h / 395 l/h (104,35 US gph) |
| MPA 414: | 410 l/h / 510 l/h (134,73 US gph) |
| MPA 514: | 500 l/h / 575 l/h (151,9 US gph) |
| Differential pressure: | 13 bar (188,55 psi) |
| Design pressure: | PN 16 bar (232,06 psi) |
| High Pressure Versions: | PN 25, PN40, PN63, PN100 >PN100 on request |
| Temperature, max.: | 120°C (248°F) >120°C on request |
| Viscosity, max.: | 5000 mPa s |
| Density, max.: | 1,9 kg/dm ³ |

APPLICATIONS

The VANE-MAG® sliding vane pumps have proven their performance in every application that requires lower flow rates at high discharge pressure, when corrosive liquids must be metered.

Typical Applications:

- Ammonia metering in Flue-Gas Denitrification Plants (SNCR)
- Pentane metering in Polyurethane Insulation Production Plants
- Metering pump for Sodium Methylate in Biodiesel production
- Pump for cooling agents in refrigeration technology
- Dosing / metering applications

MATERIALS

| | |
|-----------------|---------------------------|
| Housing: | Stainless steel AISI316Ti |
| O-Rings: | EPDM, FKM, FFKM, FEP |
| Rotor: | Stainless steel AISI316Ti |
| Stator, Vanes:: | Carbon-Graphite |
| Bearings: | SSiC |

CONNECTIONS

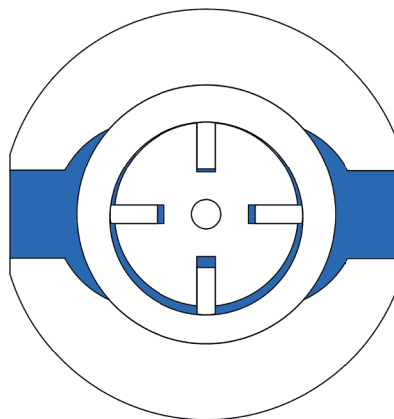
| | |
|--------------------|----------------------|
| Threads: | G3/8" threaded ports |
| Lap Joint Flanges: | DN15 , 1/2" ANSI |

DESIGN FEATURES

- Rotating positive displacement pump
- Sliding Vane Pump
- Metallic housing materials
- Magnetically coupled
- Leak-Free
- Rugged
- Wet self-priming
- Dry running capable
- Compact block design
- Approximately no pulsation
- Middle to high discharge pressure
- Low capacity flow rates
- Metering capable

PRODUCT DESCRIPTION

MARCH Series: VANE-MAG® MPA pumps are rotary positive displacement pumps, magnetically coupled and made of stainless steel AISI316Ti. Characteristic wise, rotary sliding vane pumps generate low volumetric flows with middle to high discharge pressures and approximately no pulsation. The operating principle is based on radial sliding vanes, which are rotating in an eccentric stator.

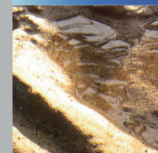
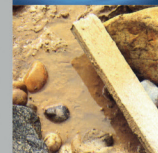
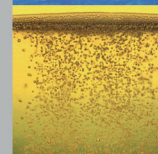
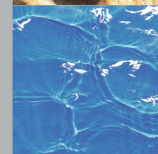
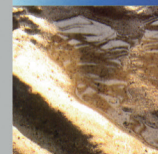
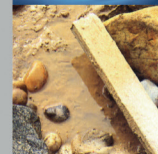


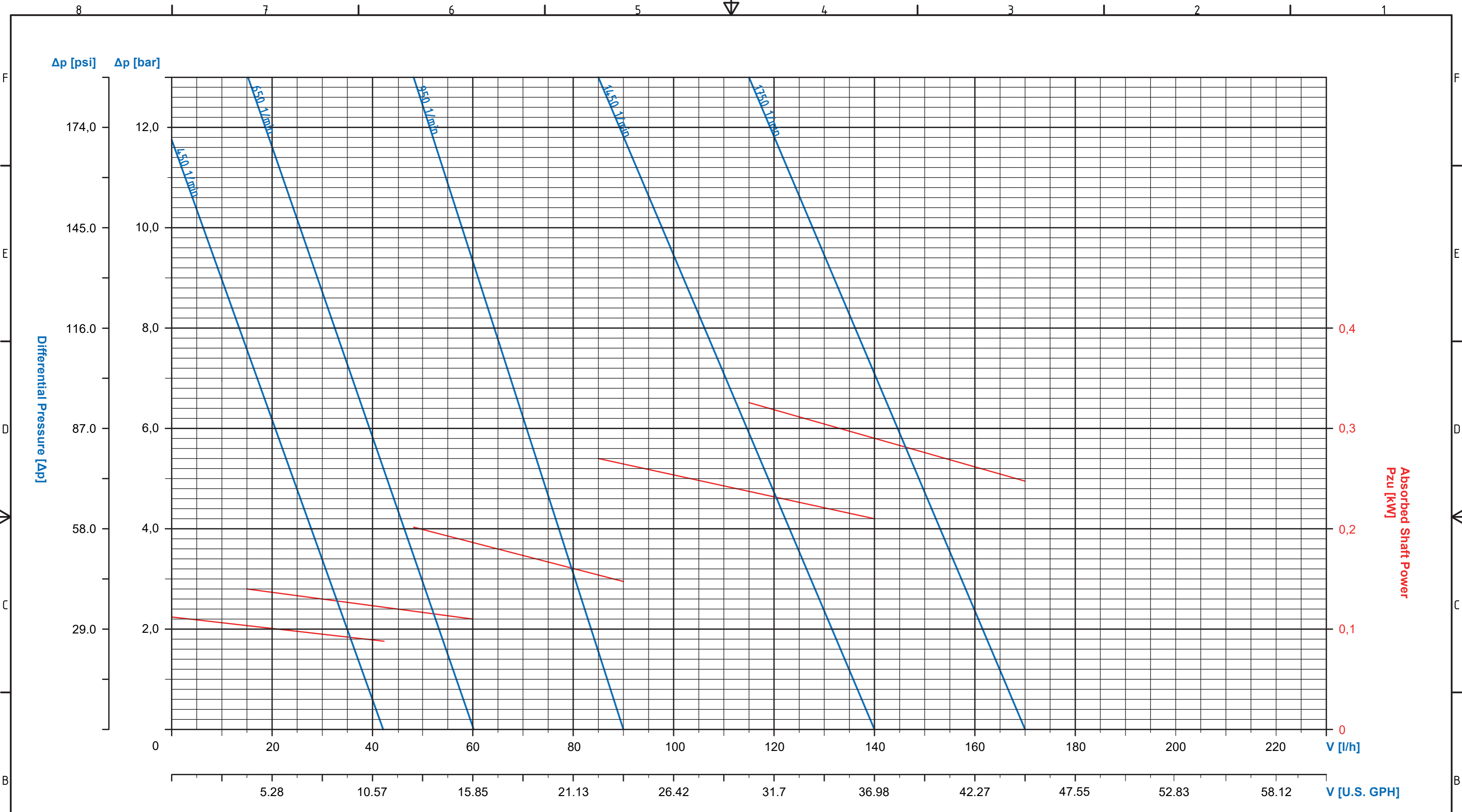
The pump housings are machined of solid block materials.

The motor power is transmitted by a frictional connection to the hydraulic part of the pumps by strong Neodymium-Permanent-Magnets. The pump is able to work without any shaft seals, which guarantees a safe and maintenance-free transfer of the liquid without any leakage of corrosive, toxic and explosive fluids. Pumps for hazardous explosive areas, zone 1 or 2, are available upon request.

MOTOR ADAPTION

| | |
|-------------|---------------------------------------|
| EU Version: | IEC Size 71 B35, 0,37kW 1500 1/min |
| US Version: | NEMA56C, 0.5 HP 1750 1/min |

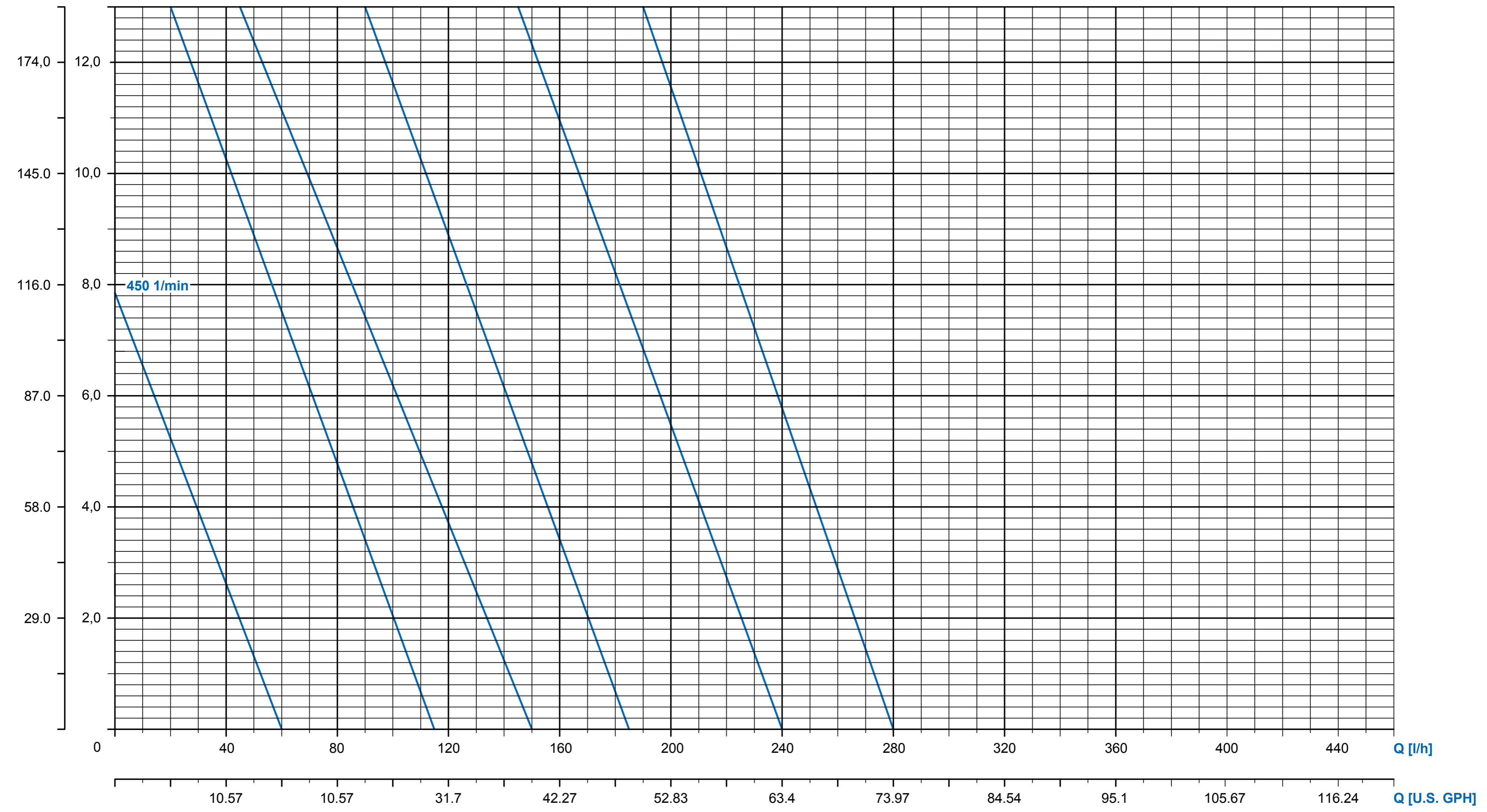




| KENNLINIEN / PERFORMANCE CURVES | | | |
|---------------------------------|----------------------|--------------------|----------------------|
| Series | VANE-MAG MPA | | |
| Pump Size | MPA 114 | | |
| Motor Power | 0,12kW | 0,25kW | 0,37kW / 0.5HP |
| Speed | 8-pole (650 1/min) | 6-pole (950 1/min) | 4-pole (1450 1/min) |
| Fluid Viscosity | 1 mm ² /s | Fluid Density | 1 kg/dm ³ |

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D-35394 Gießen
www.march-pumpen.com
info@march-pumpen.com

H [psi] H [bar]

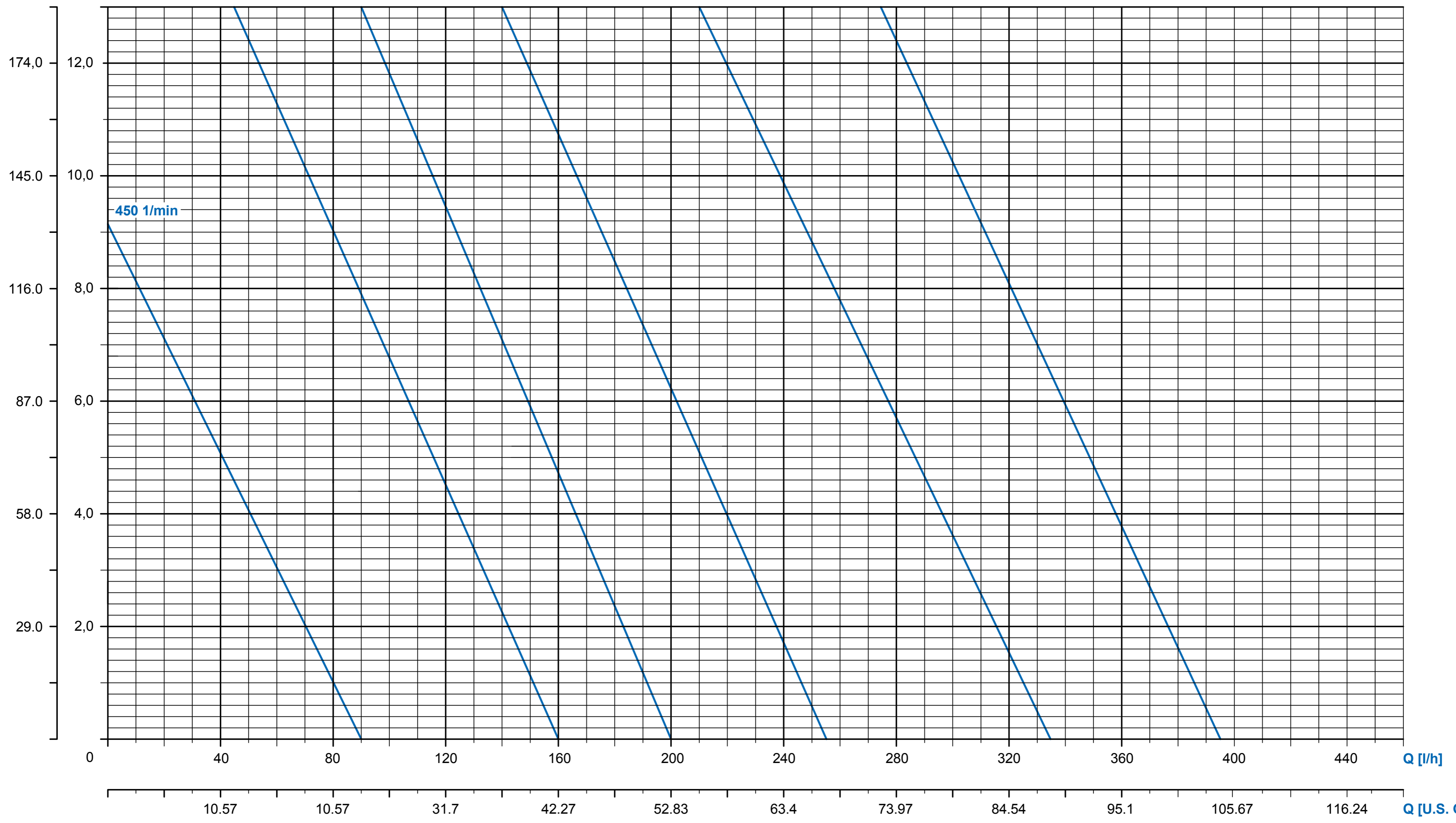


| KENNLINIEN / PERFORMANCE CURVES | | | |
|---------------------------------|----------------------|------------------|----------------------|
| Series | VANE-MAG | | |
| Pump Size | MPA 214 | | |
| Motor Power | 0,12kW | 0,25kW | 0,37kW / 0.5HP |
| Speed | 750 / 900 1/min | 900 / 1150 1/min | 1450 / 1750 1/min |
| Fluid Viscosity | 1 mm ² /s | Fluid Density | 1 kg/dm ³ |



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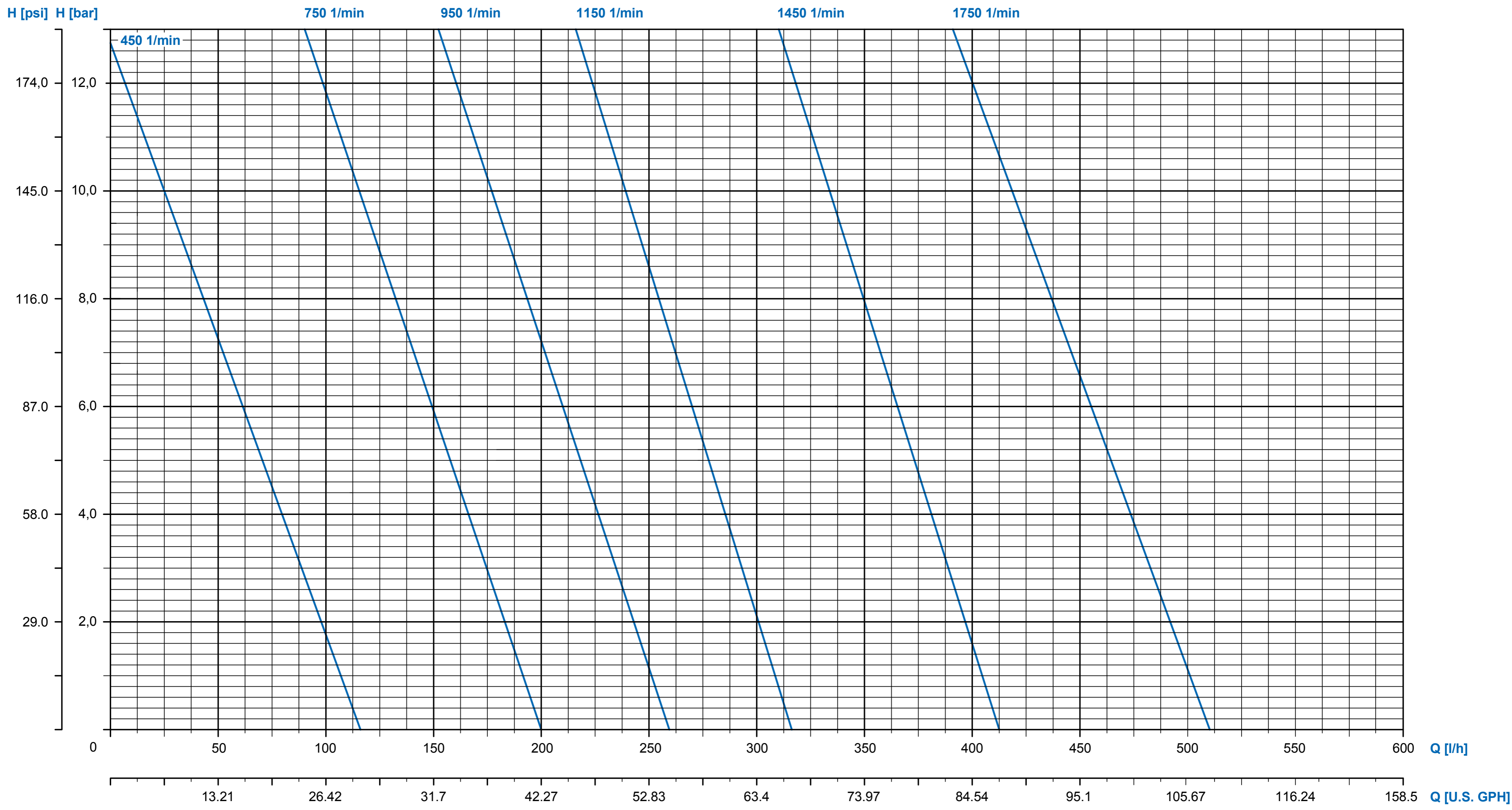
H [psi] H [bar]



| KENNLINIEN / PERFORMANCE CURVES | | | |
|---------------------------------|----------------------|------------------|----------------------|
| Series | VANE-MAG | | |
| Pump Size | MPA 314 | | |
| Motor Power | 0,12kW | 0,25kW | 0,37kW / 0.5HP |
| Speed | 750 / 900 1/min | 900 / 1150 1/min | 1450 / 1750 1/min |
| Fluid Viscosity | 1 mm ² /s | Fluid Density | 1 kg/dm ³ |

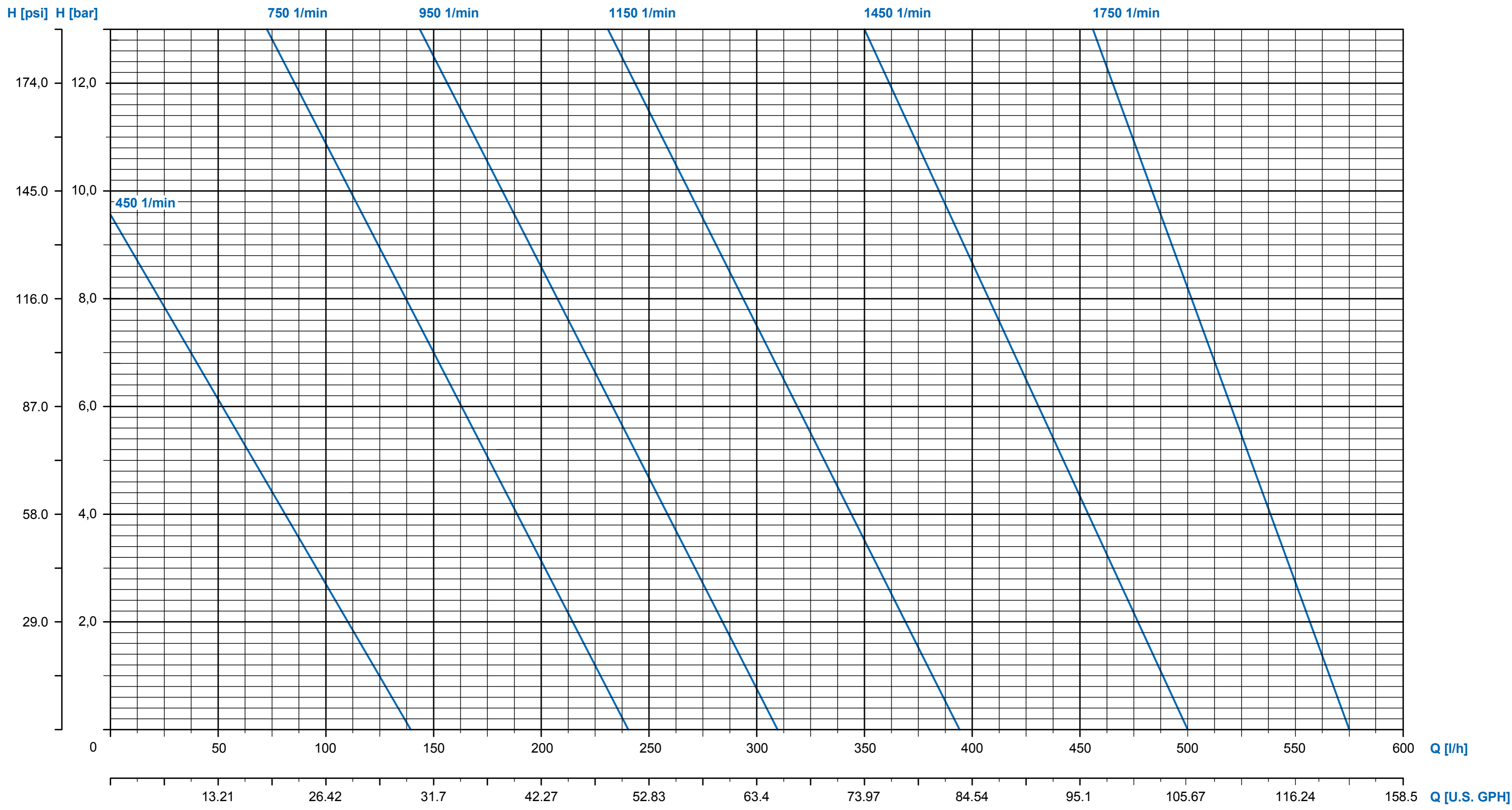


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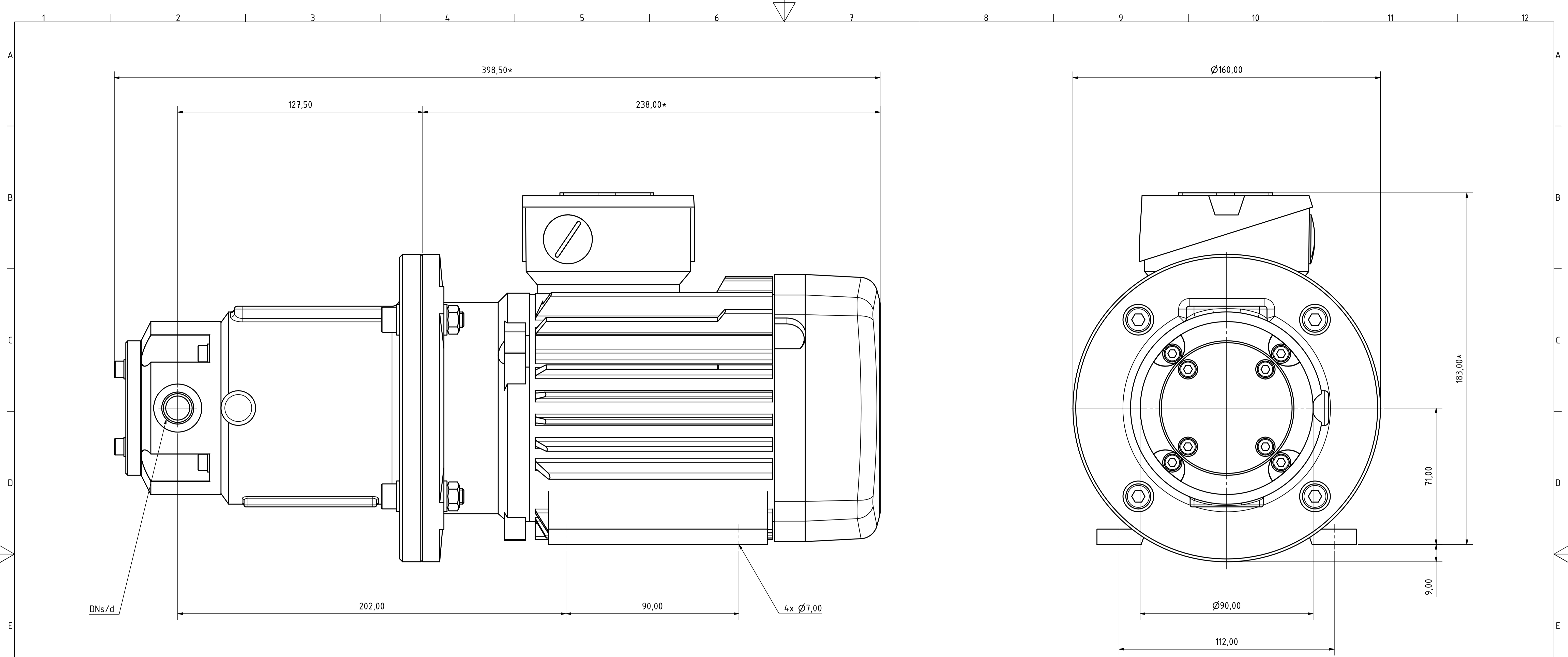
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| KENNLINIEN / PERFORMANCE CURVES | | | |
|---------------------------------|----------------------|------------------|----------------------|
| Series | VANE-MAG | | |
| Pump Size | MPA 414 | | |
| Motor Power | 0,12kW | 0,25kW | 0,37kW / 0.5HP |
| Speed | 750 / 900 1/min | 900 / 1150 1/min | 1450 / 1750 1/min |
| Fluid Viscosity | 1 mm ² /s | Fluid Density | 1 kg/dm ³ |



| KENNLINIEN / PERFORMANCE CURVES | | | |
|---------------------------------|----------------------|------------------|----------------------|
| Series | VANE-MAG | | |
| Pump Size | MPA 514 | | |
| Motor Power | 0,12kW | 0,25kW | 0,37kW / 0.5HP |
| Speed | 750 / 900 1/min | 900 / 1150 1/min | 1450 / 1750 1/min |
| Fluid Viscosity | 1 mm ² /s | Fluid Density | 1 kg/dm ³ |

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- ABMESSUNGEN

mm
* Maß kann bei anderen Motorenfabrikaten abweichen

- DIMENSIONS

mm
* may change with different motor manufacturer

- ANTRIEB

Drehstrom-Asynchronmotor nach IEC Richtlinien.
Fabrikat: VEM
Typ: IE3-W41R 71 GY4
Größe: IEC BG71 IM B35, 0,37kW , 1420 1/min

- DRIVE

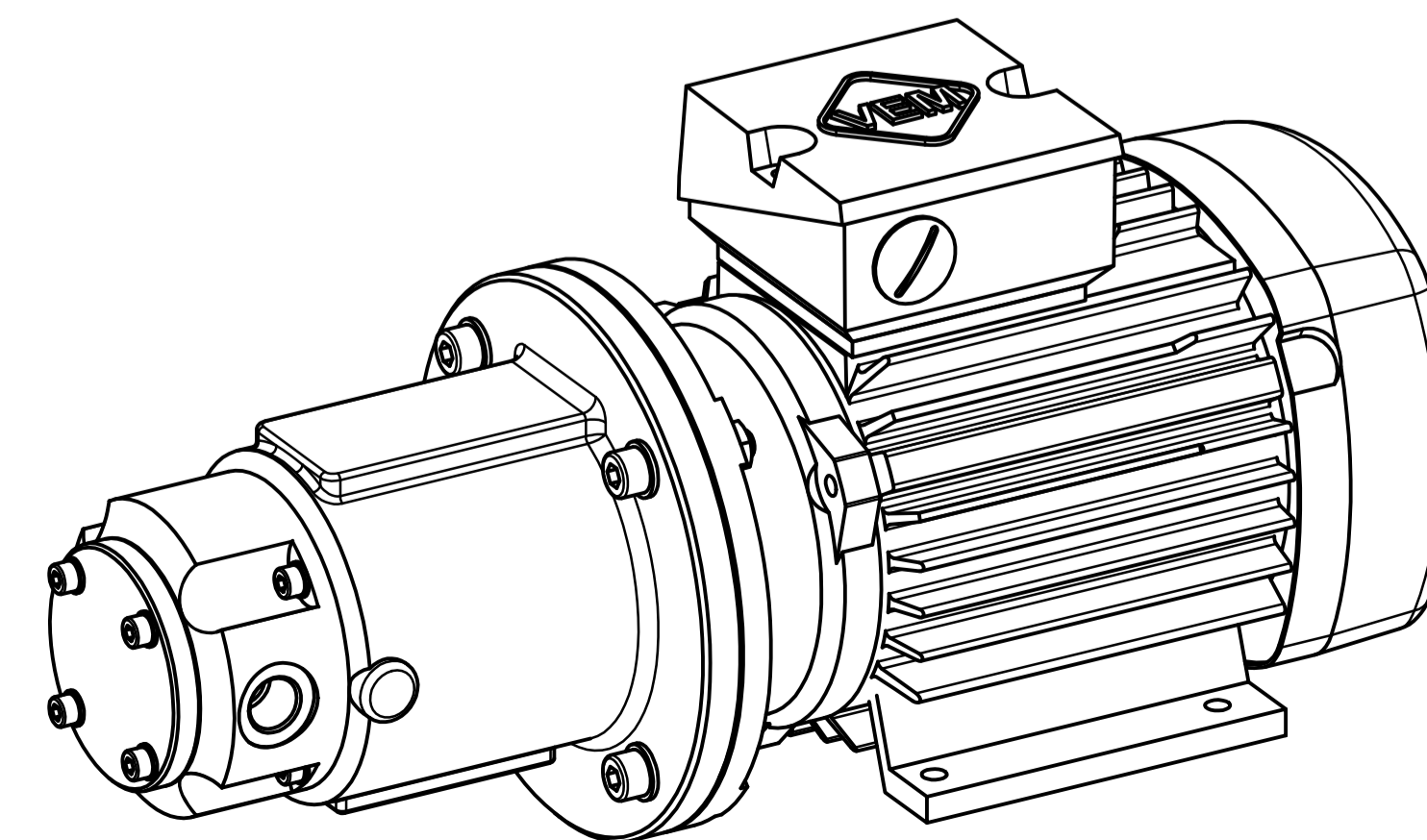
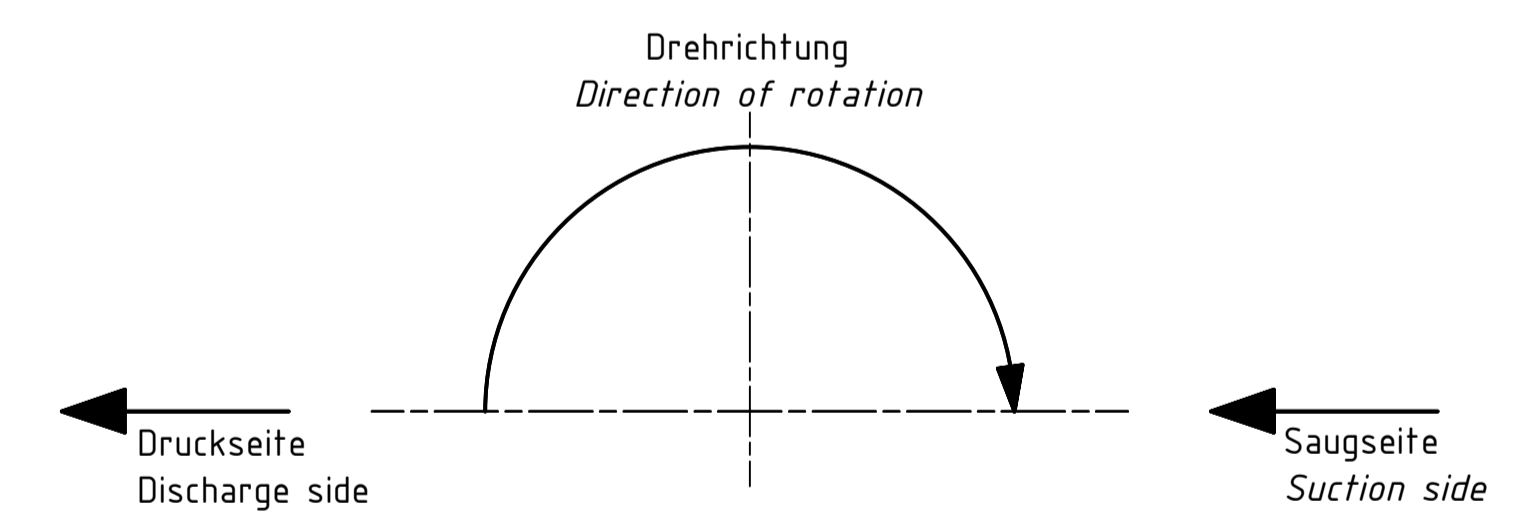
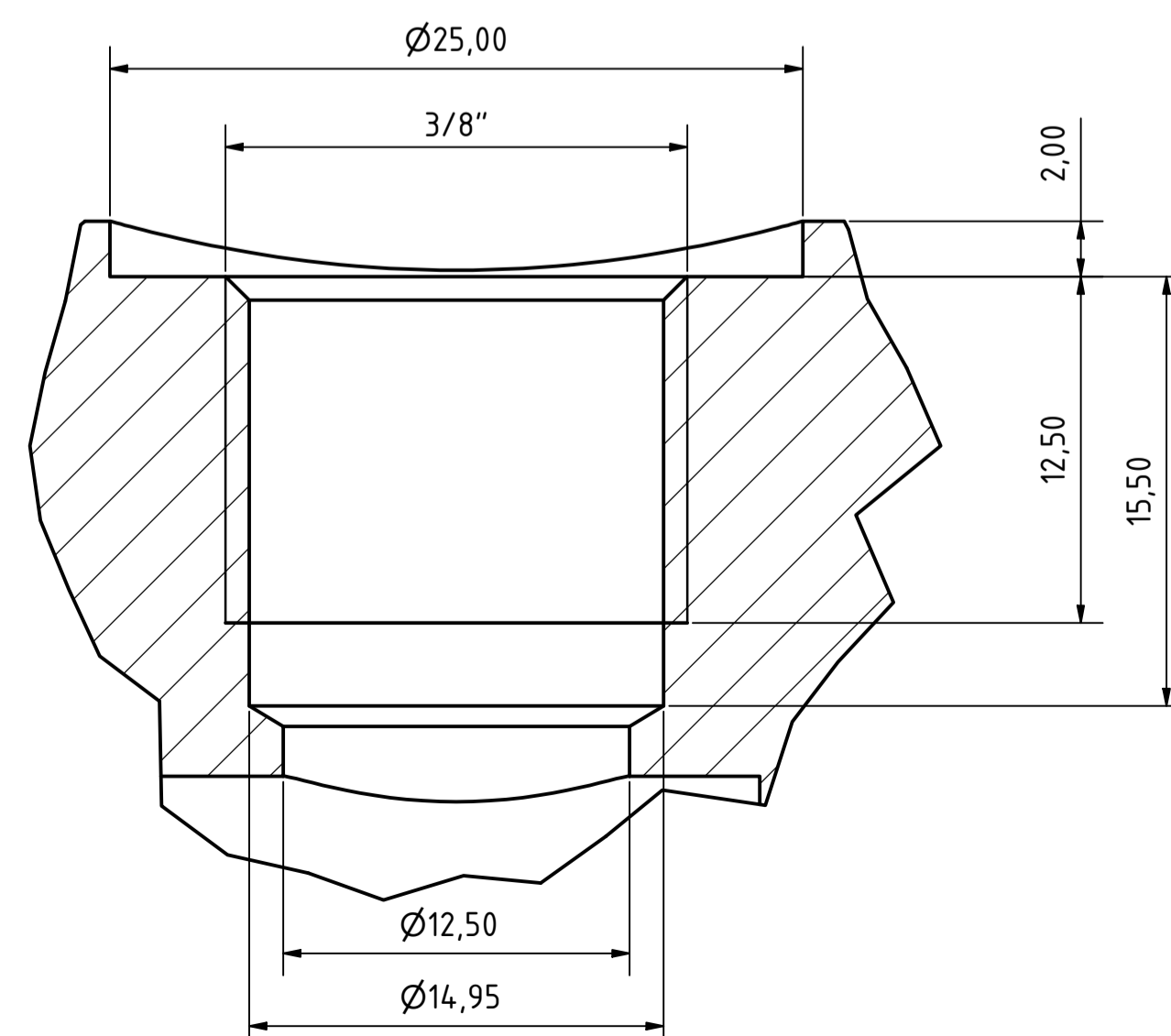
Three phase TEFC electric motor acc. to IEC Standards
Manufacturer: VEM
Type: IE3-W41R 71 GY4
Size: IEC71 B35, 0,37kW, 1420 rpm

- PROZESS ANSCHLÜSSE DN_s/d

3/8" Einschraubloch nach ISO 1179-1 Form W (breit)

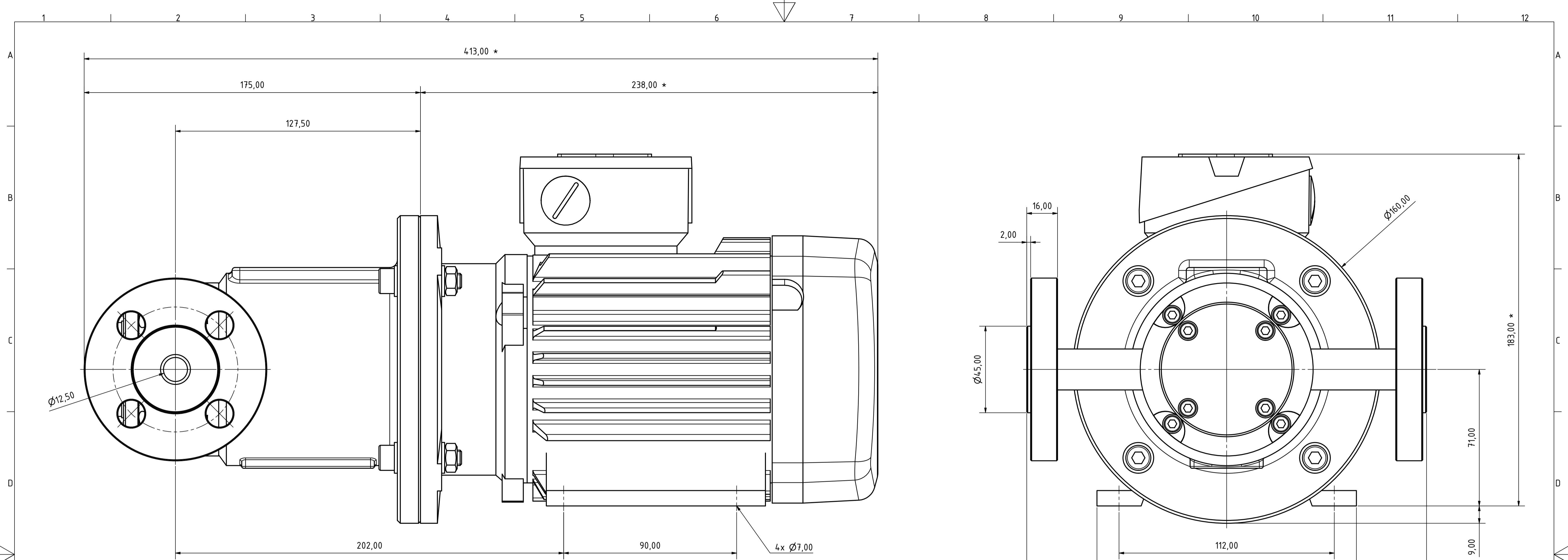
- PROCESS NOZZLES DN_s/d

3/8" Threaded Port acc. to ISO 1179-1 Form W (wide)



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| | MARCH PUMPEN GmbH & Co.KG Rateneustraße 2 D-30396 Gerdau info@march-pumpen.com www.march-pumpen.com | | 1:1 | | |
| | Gezeichnet | 20.06.2022 | | Name | VANE-MAG MPA 0100 |
| | Kontrolliert | | ABMESSUNGEN / DIMENSIONS | | |
| | Notiert | | SSR - ISO 1179-1 | | |
| | | | MPA-0100_SSR-ISO1179 | | 1 |
| | | | | | A1 |
| Status | Änderungen | Datum | Name | | |



- ABMESSUNGEN
mm
* Maß kann bei anderen Motorenfabrikaten abweichen

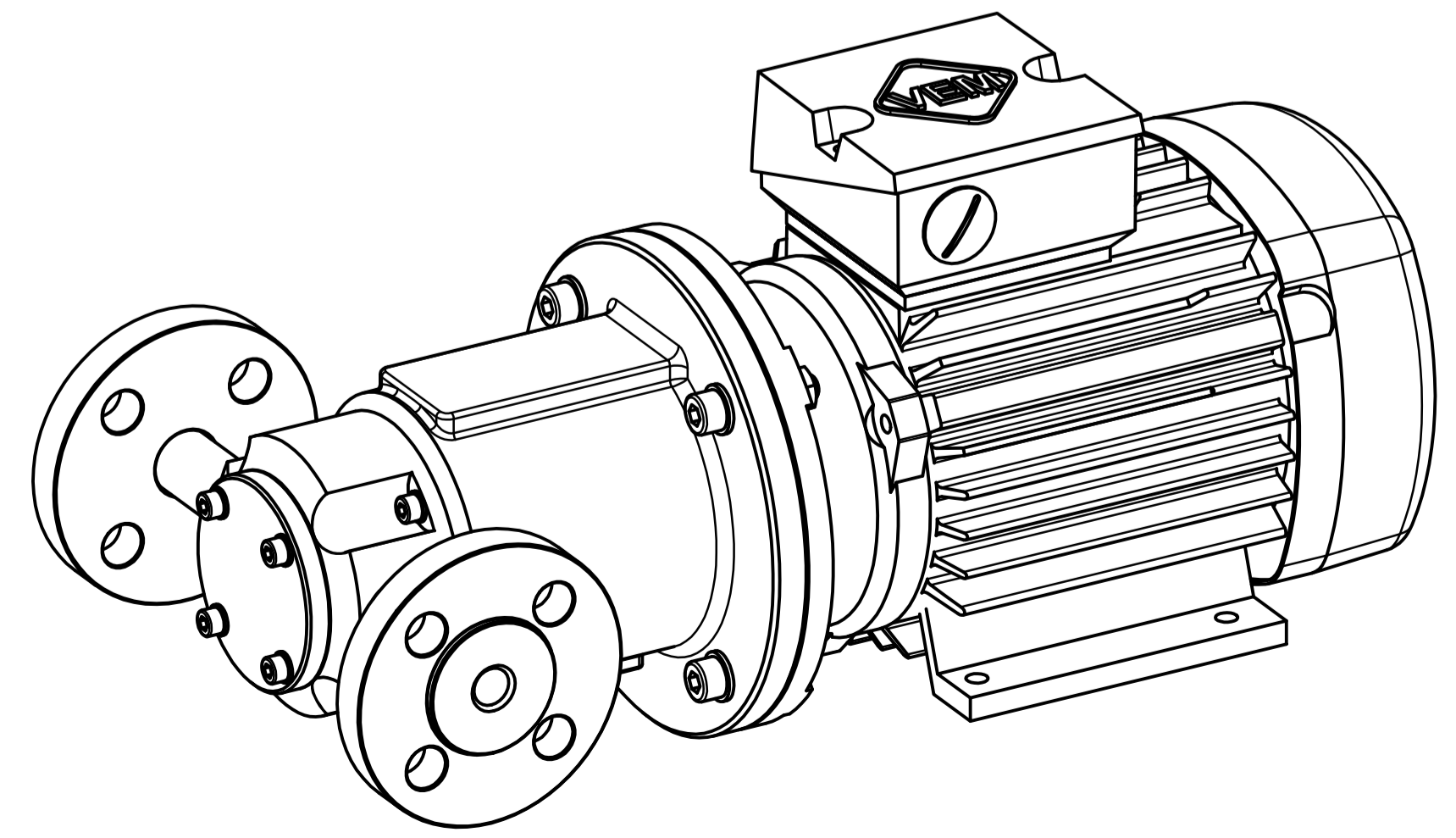
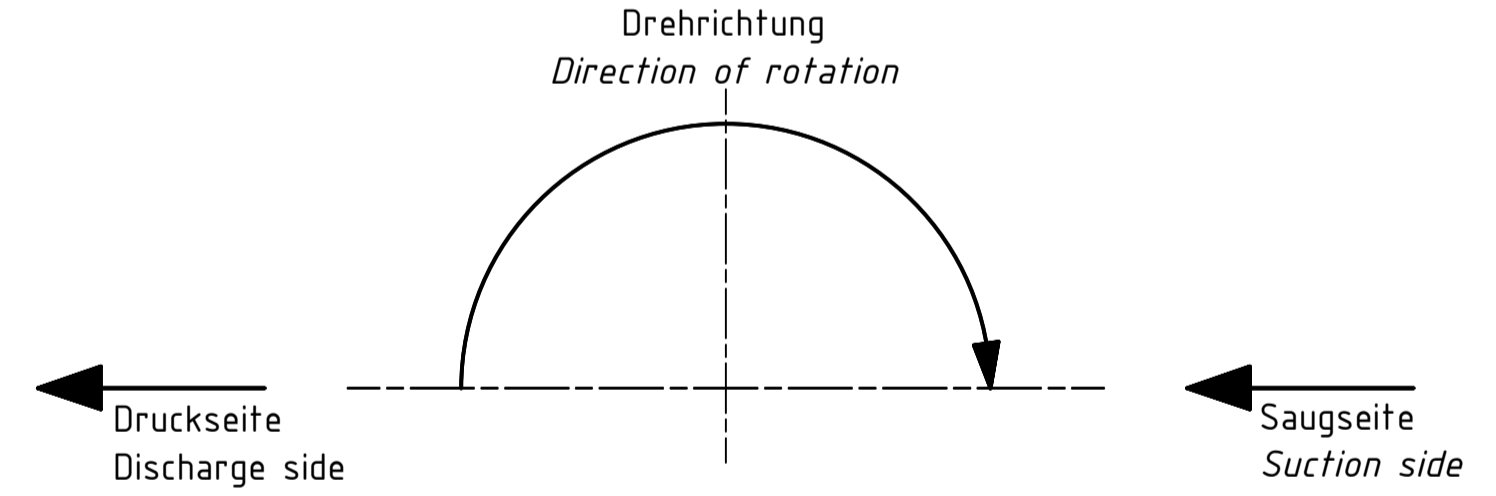
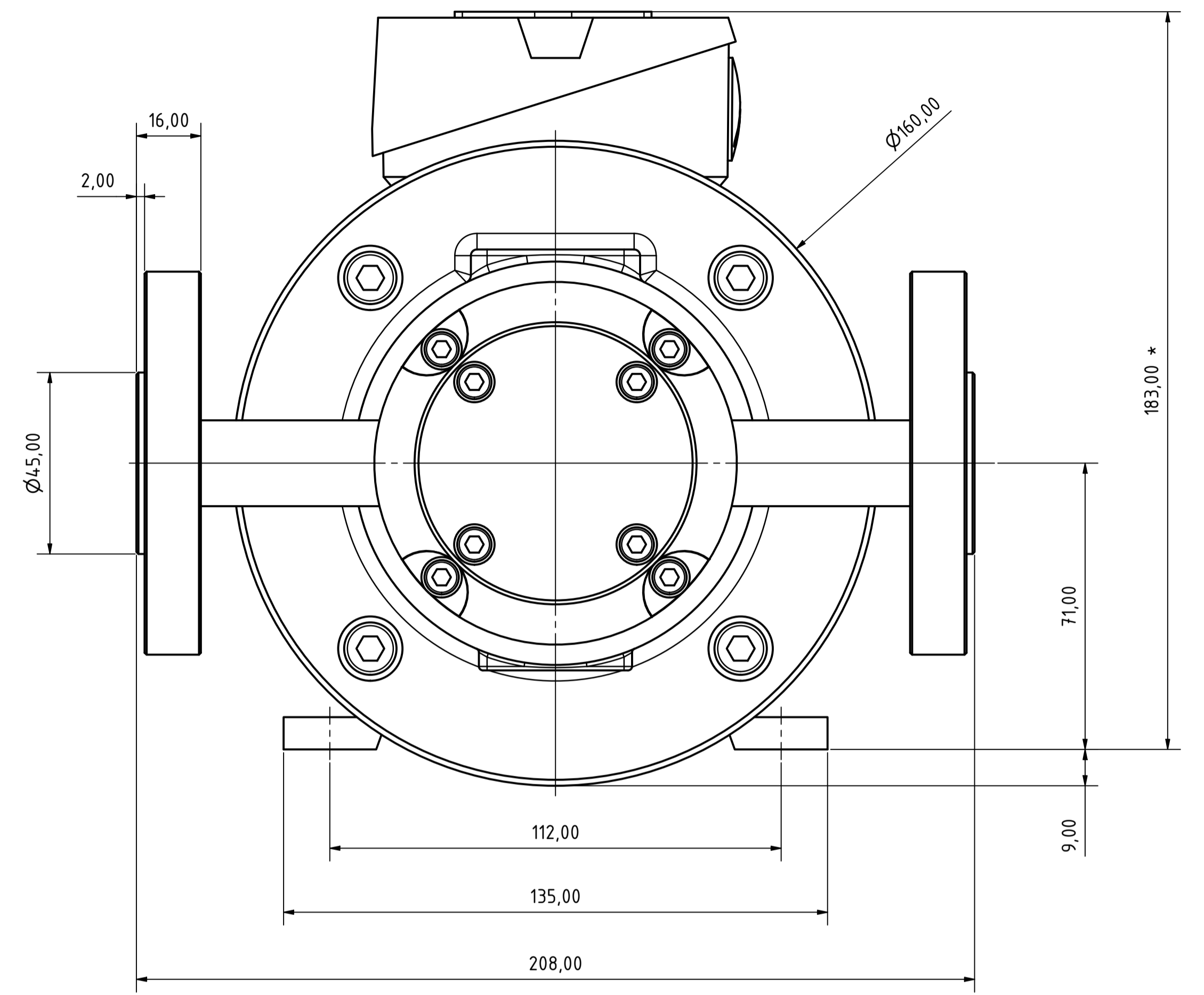
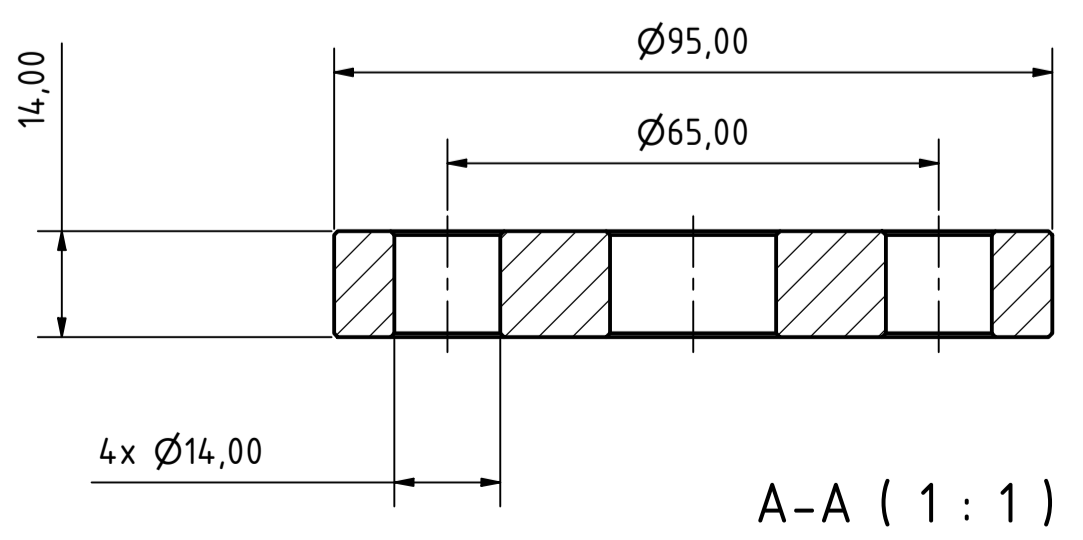
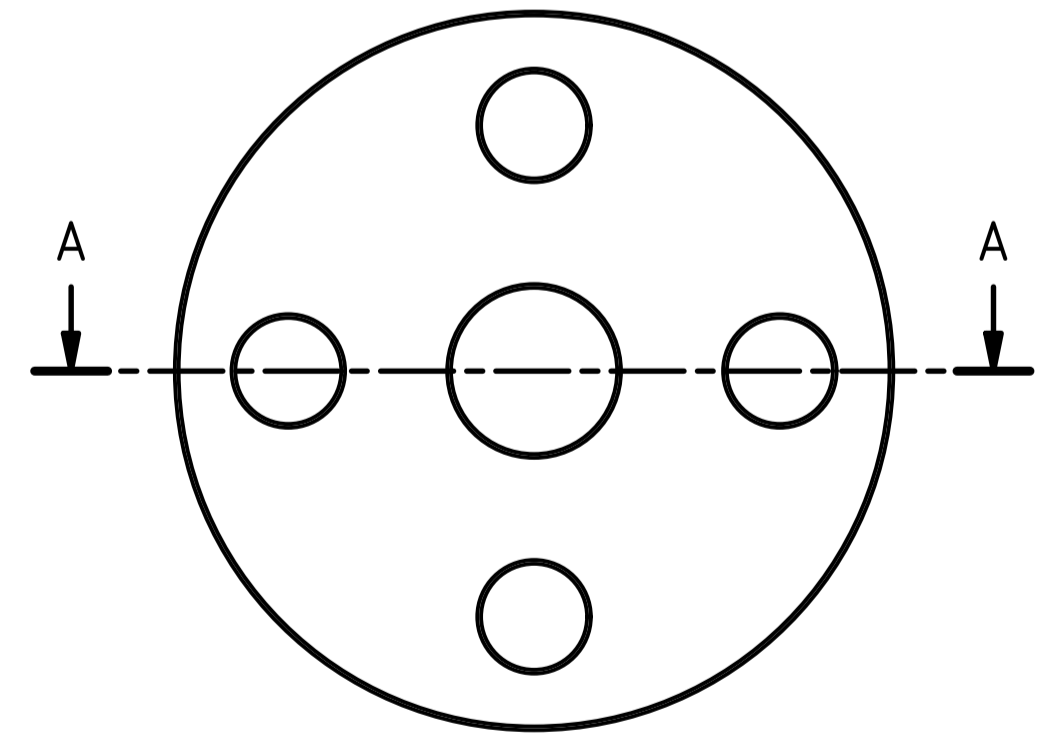
- DIMENSIONS
mm
* may change with different motor manufacturer

- ANTRIEB
Drehstrom-Asynchronmotor nach IEC Richtlinien.
Fabrikat: VEM
Typ: IE3-W41R 71 GY4
Größe: IEC BG71 IM B3/B5, 0,37kW , 1450 1/min

- DRIVE
Three phase TEFC electric motor acc. to IEC Standards
Manufacturer: VEM
Type: IE3-W41R 71 GY4
Size: IEC71 B3/B5, 0,37kW, 1450 rpm

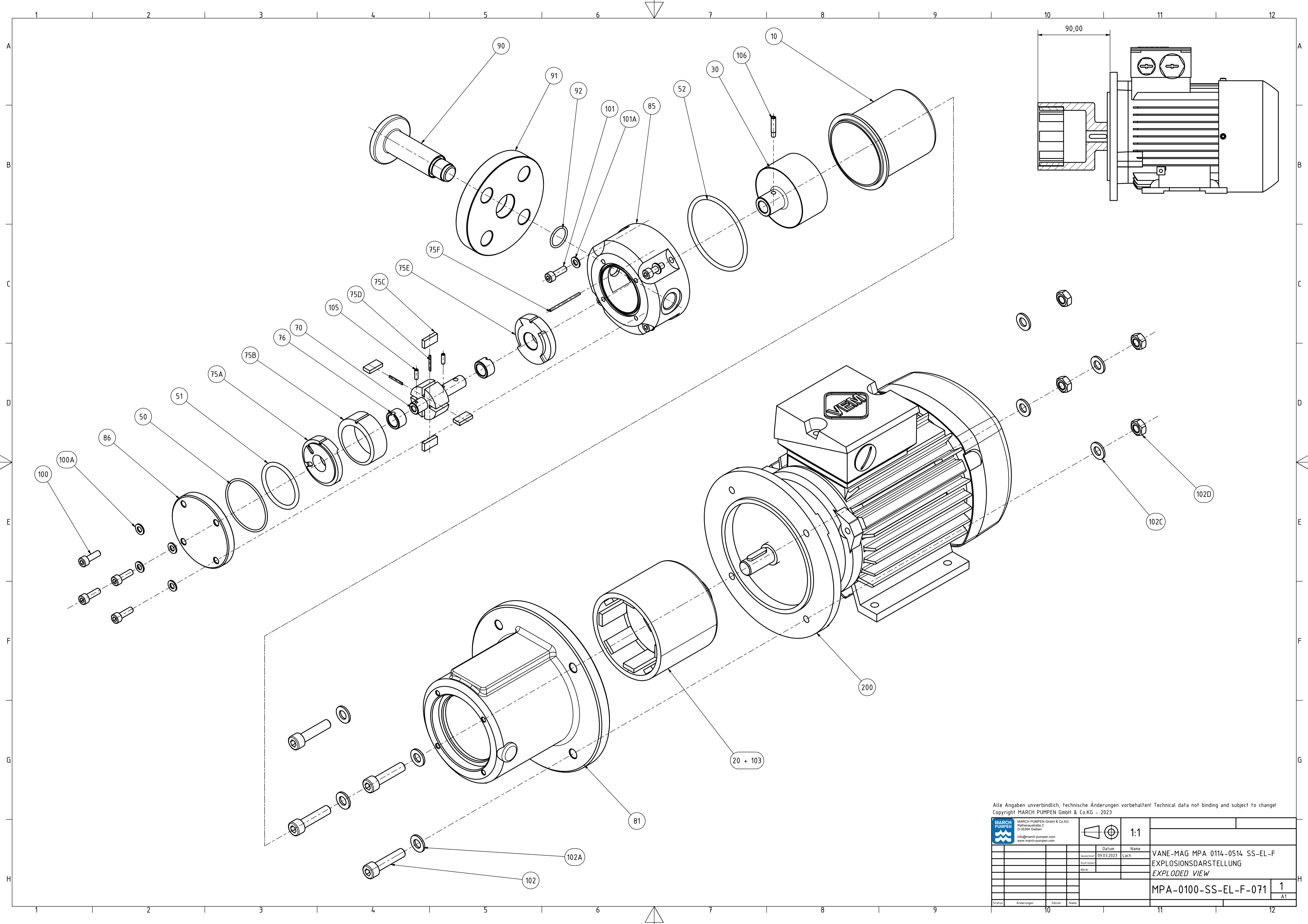
- ANSCHLÜSSE DN_s/d
Losflansch DN15 PN10...40 - 1.4571
Dichtleiste Form B
nach DIN EN 1092-1:2018

- CONNECTIONS DN_s/d
Lap Joint Flange DN15 PN10...40 - 1.4571 (AISI316Ti)
Flange Raised face, form B
Acc. to DIN EN 1092-1:2018



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| | MARCH PUMPEN GmbH & Co.KG Rateneckstraße 2 D-30396 Gerdau info@march-pumpen.com www.march-pumpen.com | | | 1:1 | VANE-MAG MPA 0100 ABMESSUNGEN DIMENSIONS |
| | Gezeichnet 14.02.2023 | Name Lech | | | |
| Status Änderungen Datum Name | MPA 0100 EL-F VEM IE3 | | | | 1 A1 |



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| | MARCH PUMPEN GmbH & Co.KG Rateneckstraße 2 D-30394 Gerdau info@march-pumpen.com www.march-pumpen.com | | 1:1 | Datum Name 09.03.2023 Läch | VANE-MAG MPA 0114-0514 SS-EL-F EXPLOSIONSDARSTELLUNG EXPLODED VIEW |
| | MPA-0100-SS-EL-F-071 | | | | |
| Status | Änderungen | Datum | Name | | |