High-pressure pump
400MX

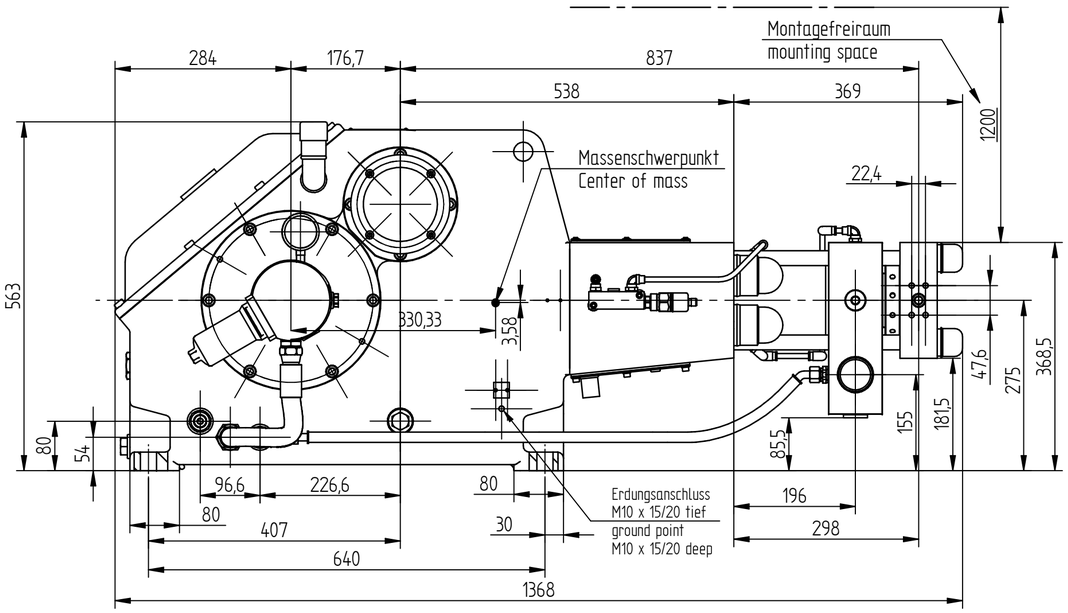
The 400MX high-pressure plunger pump offers a max. operating pressure of 3,000 bar and a max. Nominal flow rate of 68.5 l/min.

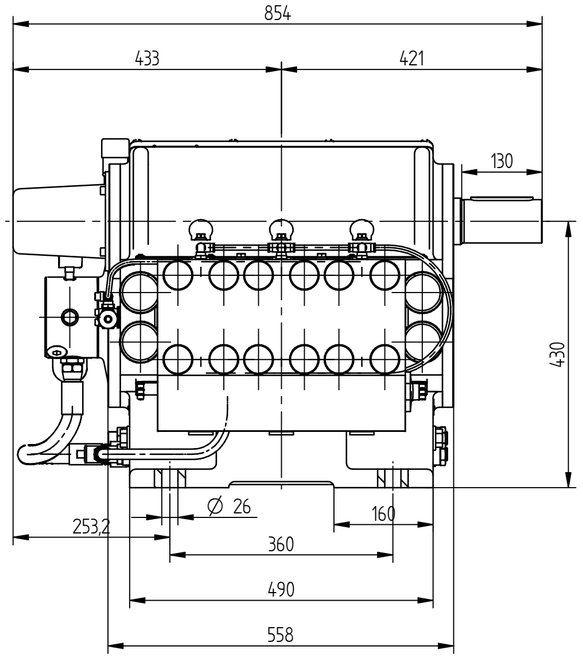
The high-pressure plunger pumps in the MX series deliver working pressures of up to 3,000 bar. This makes the pumps in the MX series ideal for tasks such as cutting, dismantling, decoating and derusting.

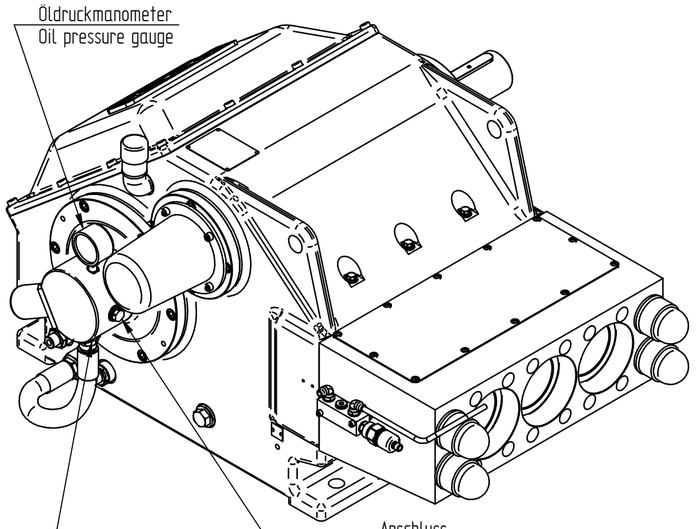
Featuring a central valve design, these plunger pumps also have high volumetric efficiencies at high pressures. The carbide plungers used are extremely stable, and guarantee a long service life and therefore low maintenance costs. They are also unaffected by sudden changes in temperature. The plunger guide ensures a long service life for the seal system. The sealing water system used prevents leakage, enables a higher level of durability for the high-pressure seals and counteracts the ingress of air.

Technical data		
Total weight	approx.	883 kg
Inlet pressure connection		IG 2“
Pressure connection with flange		9/16" UNF LH
Cooling water connections		IG ½"
Crankshaft speed	max. min.	507 1/min depending on operational parameters
Drive shaft		Diameter 70 mm k6, feather key to DIN 6885 sheet 1, A20 x 12 x 100
Average torque on the drive shaft max.	 i = 2.96 i = 3.60	 1.826 Nm 1.501 Nm
Moment of inertia J	i = 2.96 i = 3.60	0.167 kgm² 0.135 kgm²
Moment of inertia GD²	i = 2.96 i = 3.60	6.54 Nm² 5.29 Nm²
Pumped medium inlet pressure Permissible pressure amplitude during operation	min. max. max.	1.5 bar 5.0 bar ±2.0 bar (pressure must not fall below 0.5 bar at any time)
Pumped medium temperature	min. max.	+5 °C +30 °C (higher temperatures on request)
Pumped medium supply requirement	min.	1.5 times the nominal flow rate of the pump depending on the change set.
Emission sound pressure level according to DIN EN ISO 11200		>80 dB(A)
Gearbox end oil capacity	approx.	30 l
Oil viscosity ISO VG according to DIN 51517-2 or -3		320 mm²/s
Oil pressure for forced lubrication		1.5–5.0 bar
Oil pressure for overflow valve (setting)		5.0 bar
Oil filter fineness		0.025 mm
Oil temperature	max. setpoint	80 °C 60–70 °C
Heat exchanger cooling water requirement	approx.	10 - 20 l/min
Heat exchanger cooling water temperature	min. max.	+5 °C +45 °C
Heat exchanger cooling water pressure	min. max.	1.5 bar 10 bar

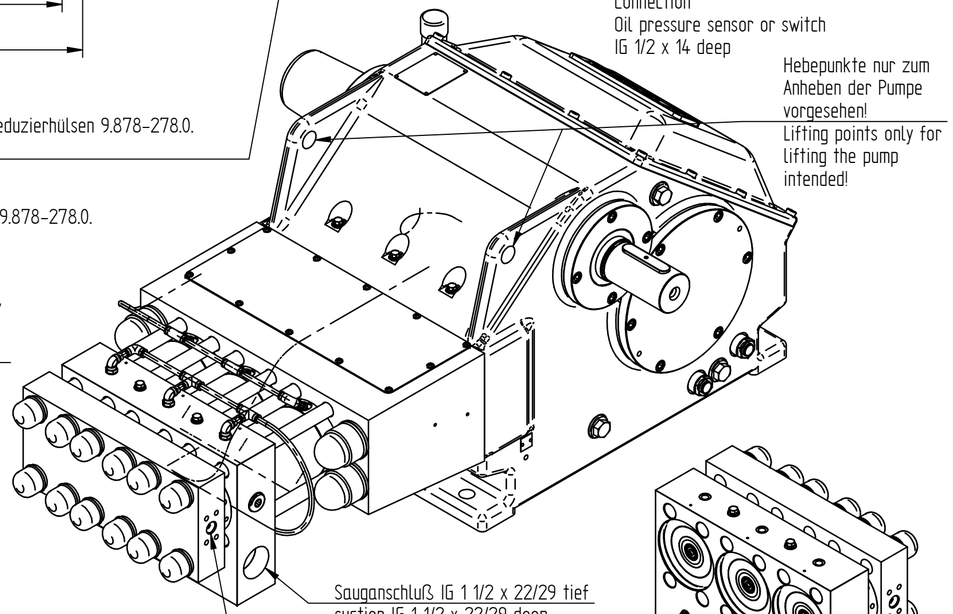
Performance variants								
Drive shaft speed		**Crankshaft speed**	P18		P20		P22	
1,500 [rpm]	1,800 [rpm]		3,000 bar*		2,500 bar		2,100 bar	
Gear ratio		**[rpm]**	**[kW]**	**[l/min]**	**[kW]**	**[l/min]**	**[kW]**	**[l/min]**
2.96		507	223	44	238	55	248	68.5
	3.60	500	220	43.5	234	55	245	67.5
3.60		417	183	36	195	45.5	204	56.5

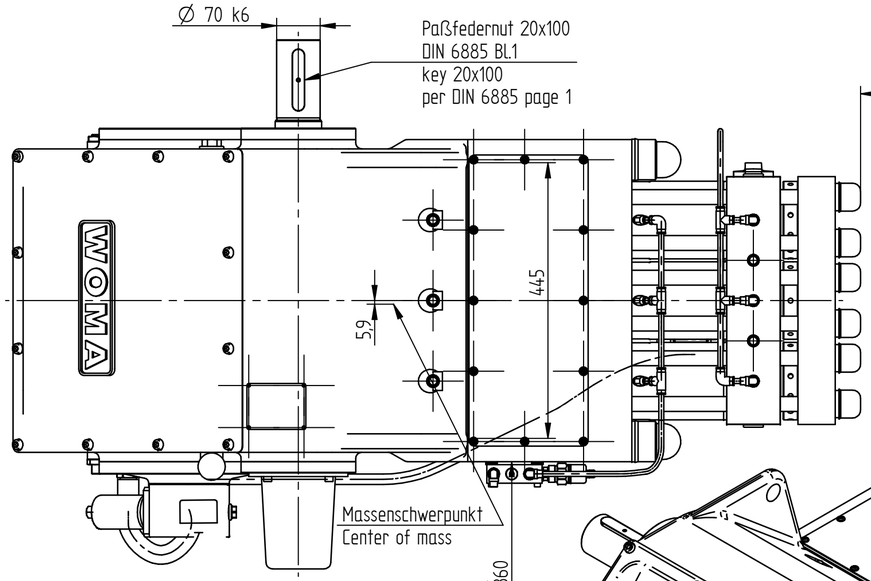




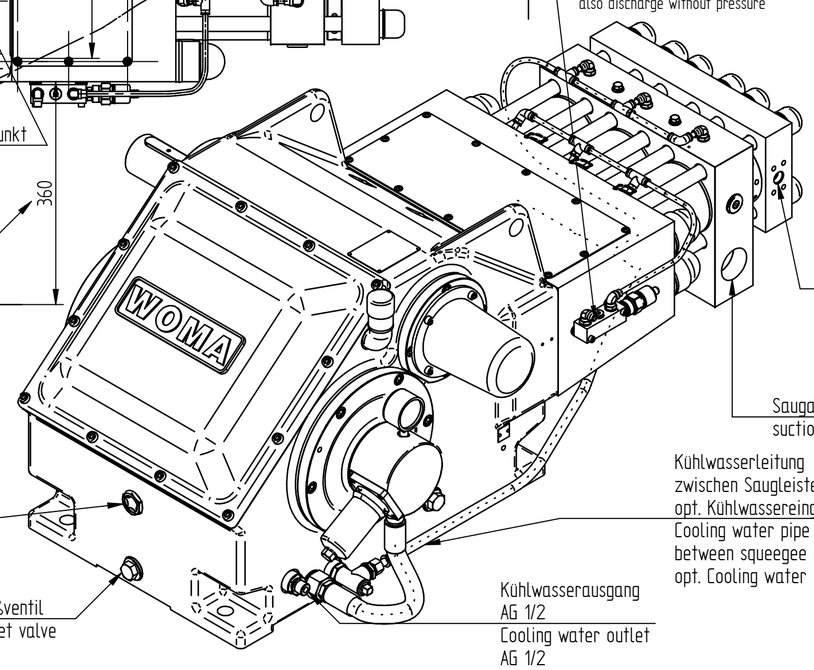


Anschluss
Öltemperatursensor oder -schalter
IG 1/2 x 22 tief unter Verwendung von Reduzierhülsen 9.878-278.0.
Tauchhülsenlänge: 25-35 mm
Connection
Oil temperature sensor or switch
IG 1/2 x 22 deep using Reducing sleeves 9.878-278.0.
Thermowell length: 25-35 mm





möglichst direkt und ohne (!)
Verbindungen zu anderen Rückläufen drucklos abführen,
z.B. in den Tank
opt. Ohne Sperrwasserüberwachung
ebenfalls drucklos abführen
as directly as possible and without (!)
connections to other discharge unpressurised returns,
e.g. into the tank
opt. Without sealing water monitoring
also discharge without pressure



Flanschbild für WOMA
Hochdruckflansche und Ventiltechnik
Ø20 H7 x 12 tief
4x M10 x 15/20 tief
Flange pattern for WOMA
High pressure flanges and valve technology
Ø20 H7 x 12 deep
4x M10 x 15/20 deep

Sauganschluß IG 2 x 30/50 tief
suction IG 2 x 30/50 deep

Kühlwasserleitung
zwischen Saugleiste und Kühlschlange
opt. Kühlwassereingang AG 1/2
Cooling water pipe
between squeegee and cooling coil
opt. Cooling water inlet AG 1/2

Sauganschluß IG 1 1/2 x 22/29 tief
suction IG 1 1/2 x 22/29 deep

Anschluss Wasservordruck IG 1/4 x 12 tief:
Drucksensor oder -schalter
Temperatursensor oder -schalter
Tauchhülsenlänge: 25 - 55 mm
Connection for water inlet pressure IG 1/4 x 12 deep:
Pressure sensor or switch
Temperature sensor or switch
Thermowell length: 25 - 55 mm

Ölfüllung: ca. 30l
Gewicht: ca. 887 kg netto
Alle Maße in mm
Gewinde "M" nach DIN 13 / ISO 261
Gewinde "G" nach DIN ISO 228/1

Oil filling: approx. 30l
Weight: approx. 887 kg net
All dimensions in mm
Thread "M" according to DIN 13 / ISO 261
Thread "G" according to DIN ISO 228/1

887 kg

Erstmusterprüfung
first sample examination ☐
Bescheinigung EN 10204
certification EN 10204 ☐

Maße werden besonders geprüft
especially checked dimensions

Werkstoff *material / substance*	Allgemeintoleranzen *general tolerances* DIN ISO 2768-mK	Projection E, dimensions in mm	Oberfläche / *surface* EN ISO 1302
Halbzeug *semi finished product*	Tolerierung / *toleration* DIN EN ISO 8015		Material-Nr. / *material no.* 9.744-337.0
			Benennung / *description* Massblatt Pumpe 330 – 400 MX / Dimension sheet pump 330 – 400 MX

Werkstoffbez. / *mat. designation* ☐ geprüft *checked* ☐ Schweißtechn. / *welding techn.* ☐	document	number	type	version	status	scale	sheet	of
	5941452-0	5941452	DRK	00	PN	1:7	1	1

Ausgabedatum *date of issue*	*Gezeichnet drawn by*	Technische Referenz *technical reference*	Genehmigt *approved by*	Änderung / *Engineering change* index	Anzahl / *count*	number	ersetzt / *replaces* Datum / *date*	index
	DE881314	DE881314	DE881314	0	0	2212703		