

High-pressure pump

550MX

The 550MX high-pressure plunger pump offers a max. operating pressure of 3,000 bar and a max. Nominal flow rate of 107.5 l/min.



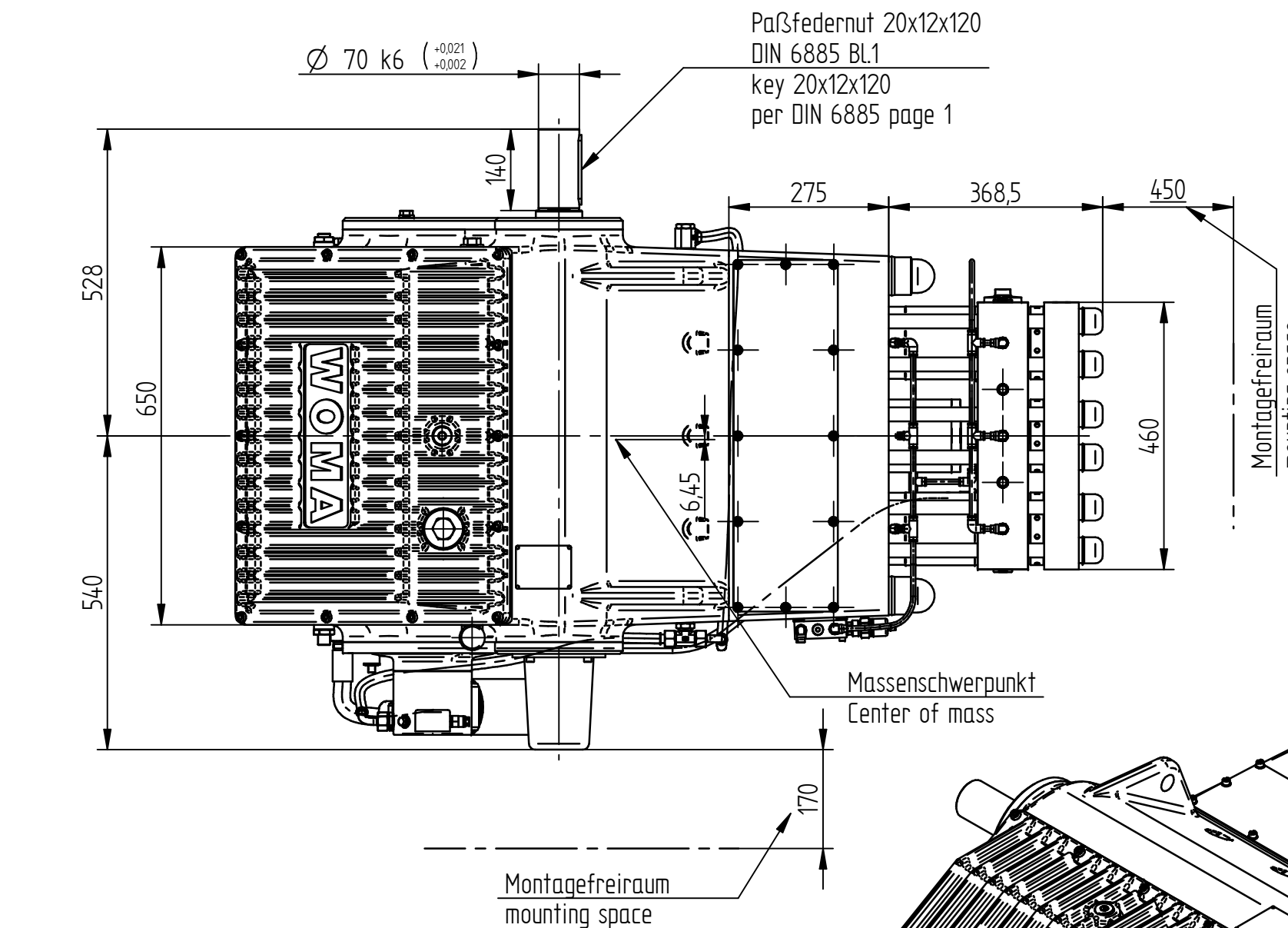
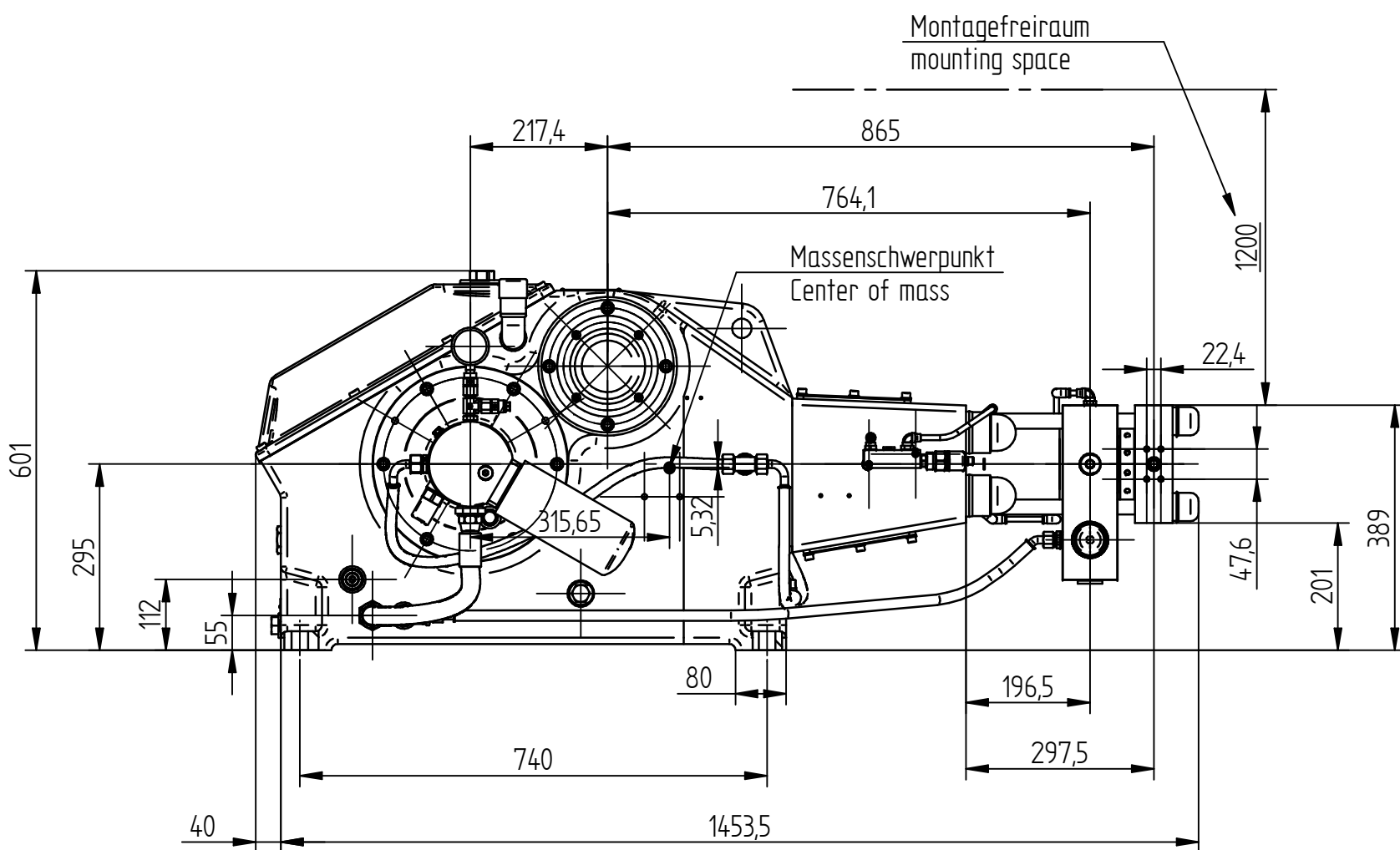
The high-pressure plunger pumps in the MX series deliver working pressures of up to 3,000 bar. This makes the pumps in the MX series ideal for tasks such as cutting, dismantling, decoating and derusting.

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.	1390 kg
Inlet pressure connection		IG 2"
Pressure connection with flange		9/16" UNF LH
Cooling water connections		IG ½"
Crankshaft speed	max. min.	455 1/min depending on operational parameters
Drive shaft		Diameter 70 mm k6, feather key to DIN 6885 sheet 1, A20 x 12 x 120
Average torque at the drive shaft max.	i = 3,30 i = 3,96 i = 4,60	2877 Nm 2398 Nm 2064 Nm
Moment of inertia J.	i = 3.30 i = 3,96 i = 4,60	0.491 kgm ² 0.411 kgm ² 0.327 kgm ²
Moment of inertia GD ²	i = 3.30 i = 3,96 i = 4,60	19.26 Nm ² 16.14 Nm ² 12.80 Nm ²
Pumped medium inlet pressure	min. max.	1.5 bar 5.0 bar
Permissible pressure amplitude during operation	max.	±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.	45 l
Oil viscosity ISO VG according to DIN 51517-2 or -3		320 mm ² /s
Oil pressure for forced lubrication		0.8 - 8.0 bar
Oil pressure for overflow valve (setting)		8.0 bar
Oil filter fineness		0.01 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										
Speed Drive shaft		Speed Crankshaft	P22		P24		P26		P 28	
1,500 [rpm]	1,800 [rpm]		3,000 bar*		2,800 bar		2,500 bar		2,100 bar	
Gear ratio		[rpm]	[kW]	[l/min]	[kW]	[l/min]	[kW]	[l/min]	[kW]	[l/min]
3.30	3.96	455	321	63.5	362	76.5	387	91	388	107.5
	4.6	391	277	55	312	66	334	78.5	334	92.5
3.96		379	268	53	302	63.5	322	76	324	89.5
4.60		326	231	45.5	260	55	278	65	279	77

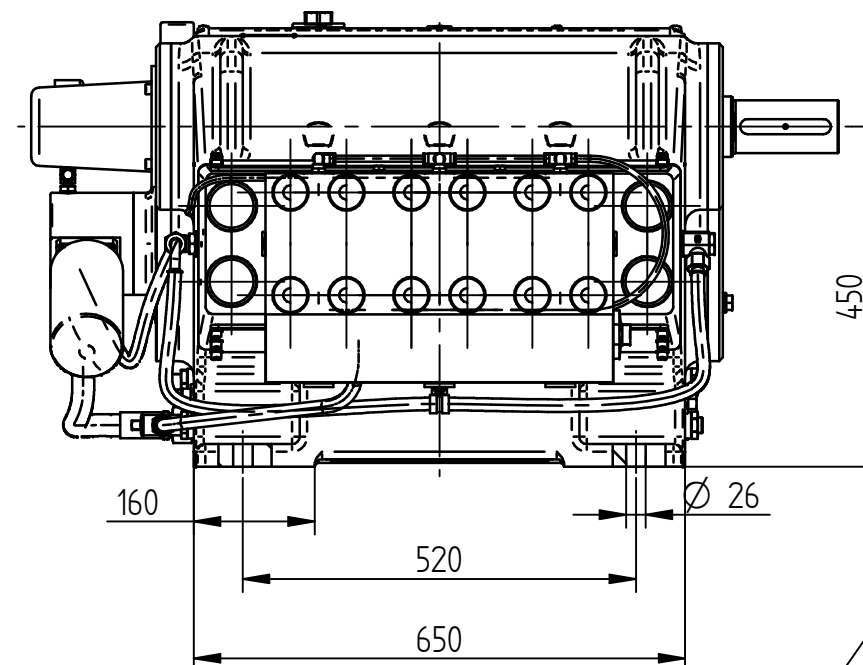
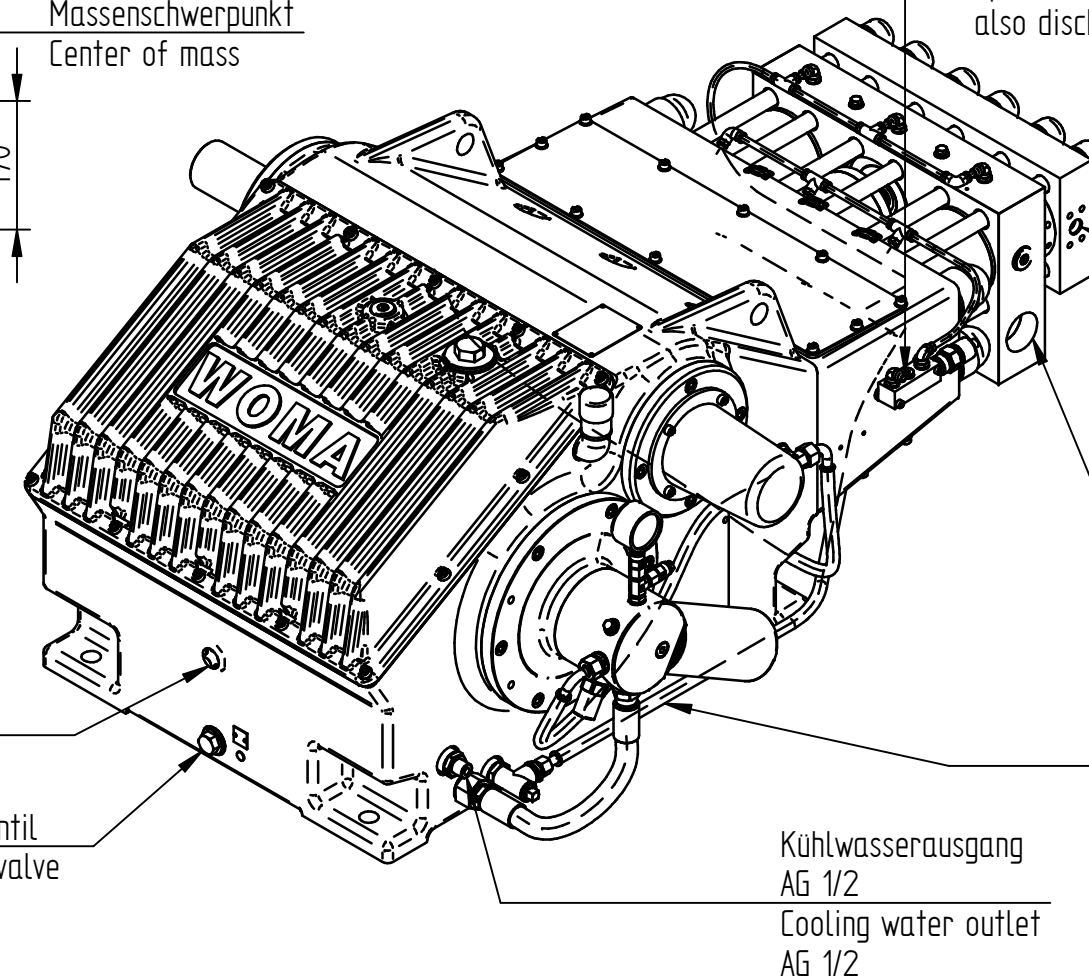
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Ölfüllung: ca. 45l
Gewicht: ca. 1.324 kg netto
Alle Maße in mm
Gewinde "M" nach DIN 13 / ISO 261
Gewinde "G" nach DIN ISO 228/1

Oil filling: approx. 45l
Weight: approx. 1.324 kg net
ALL dimensions in mm
Thread "M" according to DIN 13 / ISO 261
Thread "G" according to DIN ISO 228/1

Ölstandsschauglas
oil sight glass
Ölablaßventil
oil outlet valve



Anschluss Öltemperatursensor
IG 1/4 x 12 tief
Connection Oil temperature sensor
IG 1/4 x 12 deep

Anschluss Ölmanometer oder -schalter
IG 1/4 x 14,5 tief
Connection Oil pressure sensor or switch
IG 1/4 x 14,5 deep

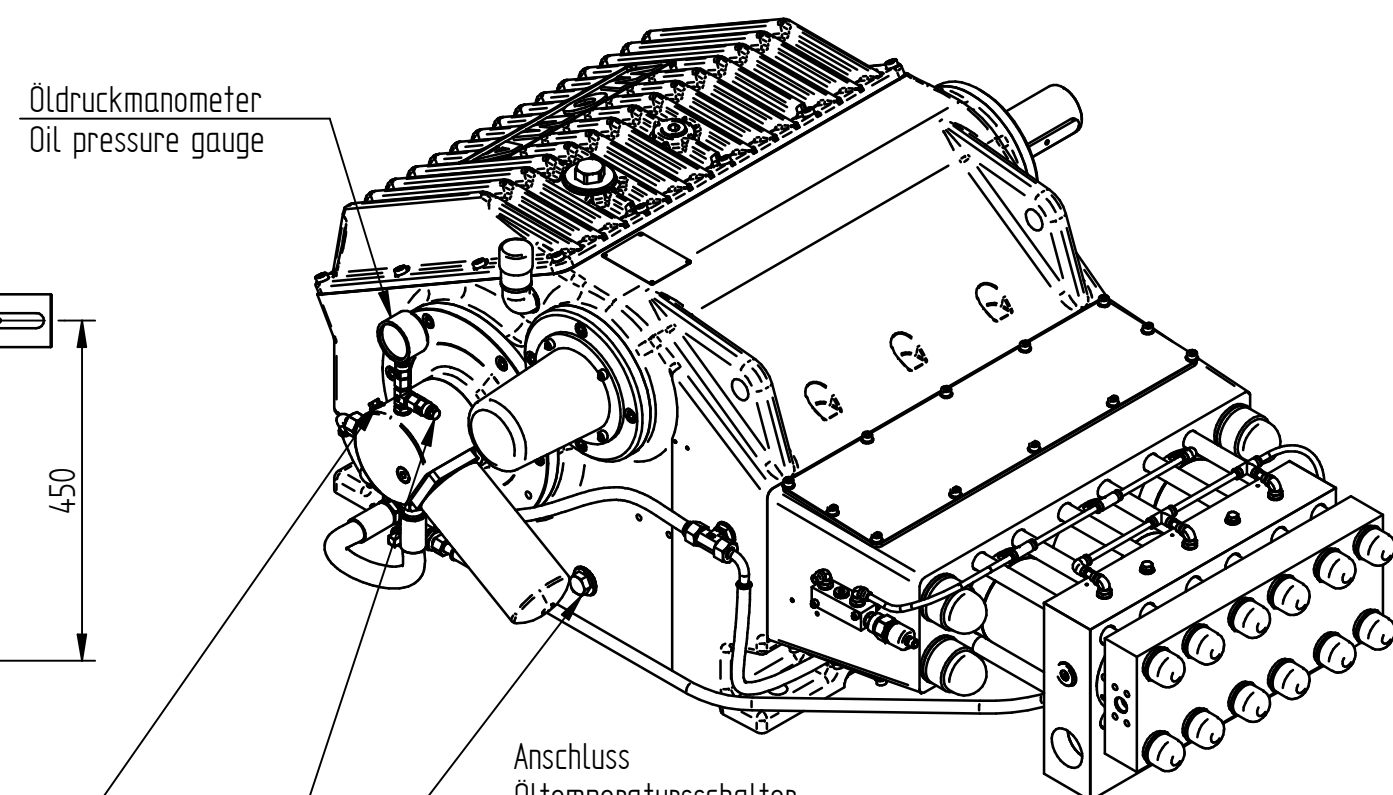
Hebepunkte nur zum
Anheben der Pumpe
vorgesehen!
Lifting points only for
lifting the pump
intended!

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 15/22 tief
Flange pattern for WOMA
High pressure flanges and valve technology
Ø20 H7 x 12 deep
4x M10 x 15/22 deep

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

Kühltwasserleitung
zwischen Saugleiste und Kühltzschlange
opt. Kühltwassereingang AG 1/2
Cooling water pipe
between squeegee and cooling coil
opt. Cooling water inlet AG 1/2

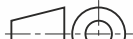


Anschluss Öltemperaturschalter
IG 1/2 x 22 tief unter Verwendung von Reduzierhülsen 9.878-278.0.
Tauchhülsenlänge: 25-35 mm
Connection
Oil temperature switch
IG 1/2 x 22 deep using Reducing sleeves 9.878-278.0.
Thermowell length: 25-35 mm

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

Maße werden besonders geprüft
especially checked dimensions

Werkstoff material / substance	Allgemeintoleranzen general tolerances	Projection E  dimensions in mm	Oberfläche / surface						
			EN ISO 1302		9.744-338.0				
Halbzeug semi finished product	DIN ISO 2768-mK	Benennung / description Massblatt Pumpe 550 MX Dimension sheet pump 550 MX							
	Tolerierung / toleration DIN EN ISO 8015								
Werkstoffbez. / mat. designation	☐ geprüft ☐ checked	document	number	type	version	status	scale	sheet	of
Schweißtechn. / welding techn.		5942333-0	5942333	DRK	00	FR	1:1	1	1
Ausgabedatum date of issue	Gezeichnet drawn by	Technische Referenz technical reference	Genehmigt approved by	Änderung / Engineering change		ersetzt / replaces			
				index	Anzahl / count	number	Datum / date	index	
2025-03-10	DE881314	DE881314	DE8819317	0	0	2212703			