

Over many years Parker Hydraulics has supplied gear pumps and motors for mobile and industrial markets worldwide, especially for materials handling, commercial grass cutting and construction equipment applications. Many Parker pumps and motors have been developed and tested for the specific needs of these industries.

Parker's defined strategy to provide engineered solutions, coupled with an award winning flexible manufacturing system, has resulted in a wide range of SAE/DIN/European and other special options being available as standard.



Features

- Patented interlocking body design
- 12 tooth gears, bronze balance plates
- Tandem, triple and cross-frame pumps available
- Common inlets available for tandem and triple pumps
- Continuous operating pressures up to 310 bar
- Production run-in available to suite OEM application conditions and to provide optimized volumetric efficiencies
- Pressure balanced design for high efficiency
- Reduced system noise levels compared to earlier models
- High power through-drive capability
- Wide range of integral valves for power steering, power brakes, fan drivers and implement hydraulics
- Load sense and solenoid operated unloading valves
- Low noise version as "stealth" pump

Technical data

Pump type	Heavy-duty, cast iron, external gear.
Mounting	SAE, rectangular, thru-bolt standard specials on request.
Ports	SAE and metric split flanges and others
Shaft style	SAE splined, keyed, tapered, cylindrical tang drive, specials on request.
Speed	500 - 3500 rpm, see Technical Data
Theor. displacement	See Technical Data
Drive	Drive direct with flexible coupling is recommended.
Axial / Radial load	Units subject to axial or radial loads must be specified with an outboard bearing.
Inlet pressure	Operating range 0.8 to 2 bar abs. Min. inlet pressure 0.5 bar abs. Short time without load. Consultation is recommended.
Outlet pressure	See Technical Data
Pressure rising rate	Max. 3000 bar/s
Flow velocity	See Nomograph for Pipe Velocity
Hydraulic fluids	Hydraulic oil HLP, DIN 51524-2
Fluid temperature	Range of operating temperature -15 to +80 °C. Max. permissible operating pressure dependent on fluid temperature. Temperature for cold start -20 to -15 °C at speed ≤ 1500 rpm. Max. permissible operating pressure dependent on fluid temperature.

Fluid viscosity	Range of operating viscosity 8 to 1000 mm ² /s. Max. permissible operating pressure dependent on viscosity. Viscosity range for cold start 1000 to 2000 mm ² /s at operating pressure p ≤ 10 bar and speed n ≤ 1500 rpm.
Range of ambient temperature	-40 °C to +70 °C
Filtration	According to ISO 4406 Cl. 18/16/13
Direction of rotation (looking at the drive shaft)	Clockwise, counter-clockwise or double. Attention! Drive pump only in indicated direction of rotation.
Multiple pump assemblies	<ul style="list-style-type: none"> • Available in two or three section configuration. • Max. shaft load must be conform to the limitations shown in the shaft loading rating table in this catalogue. • Max. load is determined by adding the torque values for each pumping section that will be simultaneously loaded.
Separate or common inlet capability	Separate inlet configuration: <ul style="list-style-type: none"> • Each gear housing has individual inlet and outlet ports. Common inlet configuration: <ul style="list-style-type: none"> • Two gear sets share a common inlet.

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Gear design **Type** **Unit** **Dis- placement** **Rotation** **Shaft** **Flange** **Shaft seal** **Inlet side ports option** **Outlet side ports option** **No rear ports** (rear ports on request)

Code	Type
P	Pump
M	Motor

Code	Unit	
	Pump	Motor
A	Single unit	Standard motor with drain port
B	Multiple unit	Standard motor w. two checks
C	—	Standard motor w. one anti-cavitation check (ACC)

Displacement	
Code	ccm
0160	16.0
0190	19.0
0210	21.0
0230	23.0
0260	26.0
0290	29.0
0330	33.0
0360	36.0
0370	37.0
0410	41.0
0440	44.0
0460	46.0
0500	50.0
0520	52.0

Code	Rotation
C	Clockwise
A	Counter- clockwise
B	Bi-directional

Code	Shaft
D1 ²⁾	13T, 16/32DP, 41.2L, SAE "B" spline
E1	15T, 16/32DP, 46L, SAE "B-B" spline
T1 ³⁾	Ø21.59, 11.2L, 4.0key, M14x1.5, taper 1:8

Code	Port options (pumps)
E6E5	1"-11 BSP thread/ 3/4"-14 BSP thread rec. from 14 ccm to 26 ccm
E7E5	1¼"-11 BSP thread/ 3/4"-14 BSP thread rec. from 29 ccm to 41 ccm
E8E6	1½"-11 BSP thread/ 1"-11 BSP thread/ rec. from 41 ccm to 52 ccm
T3T2	1"-M10 SAE metric flange 3/4"-M10 SAE metric flange rec. from 16 ccm to 23 ccm
T4T3	1¼"-M10 SAE metric flange 1"-M10 SAE metric flange rec. from 26 ccm to 41 ccm
T5T3	1½"-M12 SAE metric flange 1"-M10 SAE metric flange rec. from 41 ccm to 52 ccm
Code	Port options (motors)
E5E5	3/4"-14 BSP thread 3/4"-14 BSP thread rec. from 16 ccm to 26 ccm
E6E6	1" - 11 BSP thread/ 1" - 11 BSP thread rec. from 29 ccm to 41 ccm
E7E7	1¼"-11 BSP thread/ 1¼"-11 BSP thread rec. from 41 ccm to 52 ccm

Example: T4 = inlet port
T3 = outlet port

Code	Shaft seal
X	No seal
N	NBR (2 bar)
V ⁴⁾	FPM (5 bar)

⁴⁾ for motors recommended

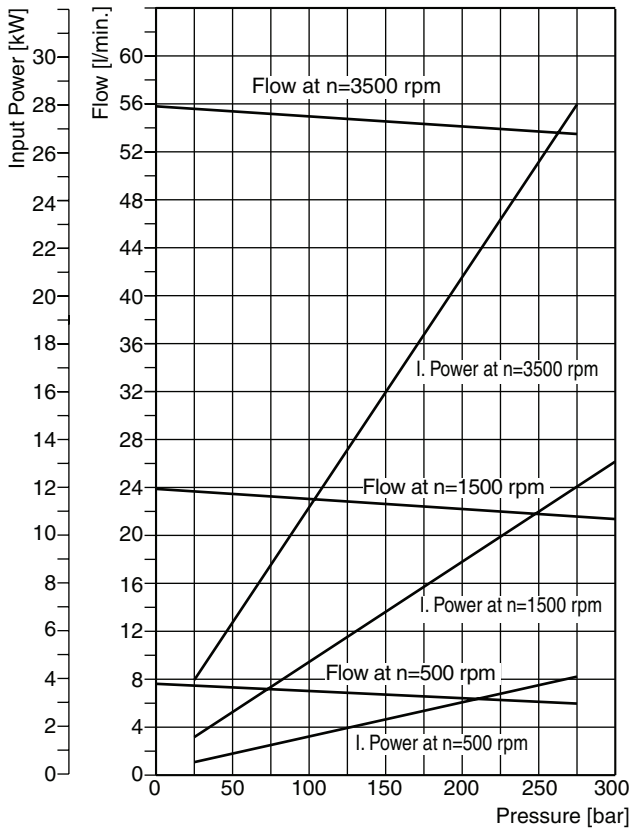
Code	Flange
D7	98.4x128.2 - Ø50.77 rectangular
H2	106.4 - Ø82.55 SAE "A" 2bolt flange
H3	146.1 - Ø101.06 SAE "B" 2bolt flange
A4	114.5 x 114.5 - Ø127 SAE "C" 4bolt square

¹⁾ Code of drain line for PGM620 only.
2 Options:
 G4 = 1/4-19 BSP rear drain.
 B1 = no drain, unit code must be "B" or "C".

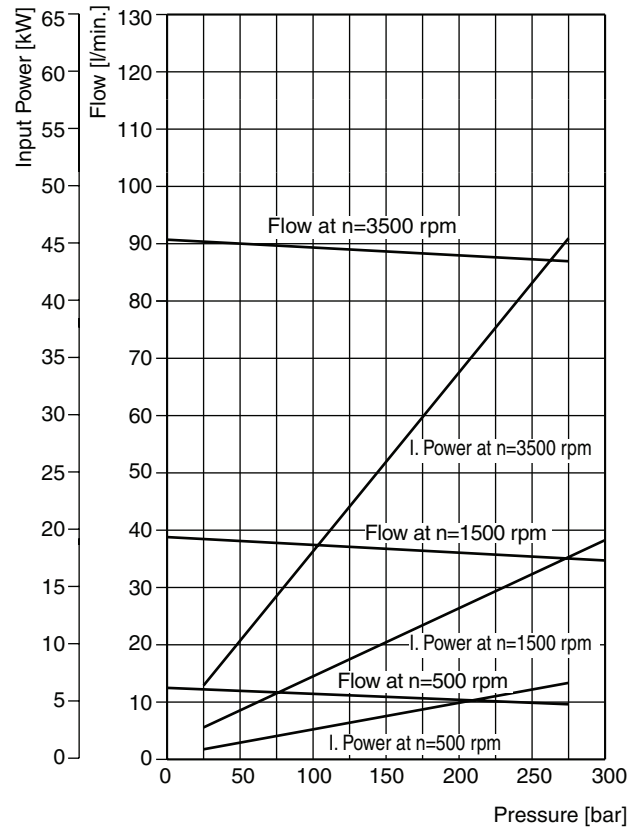
²⁾ Only used with flange H2, H3.
³⁾ Only used with flange D7.



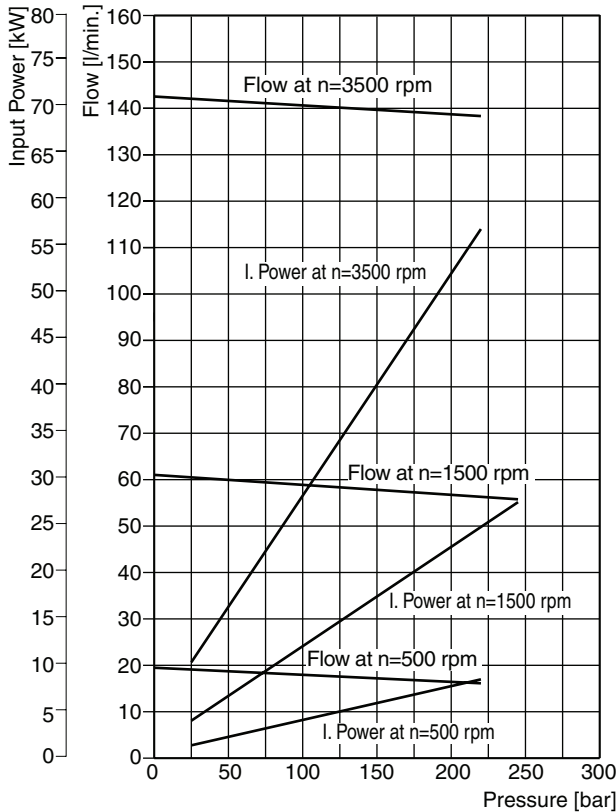
PGP620 - 16.0 CC



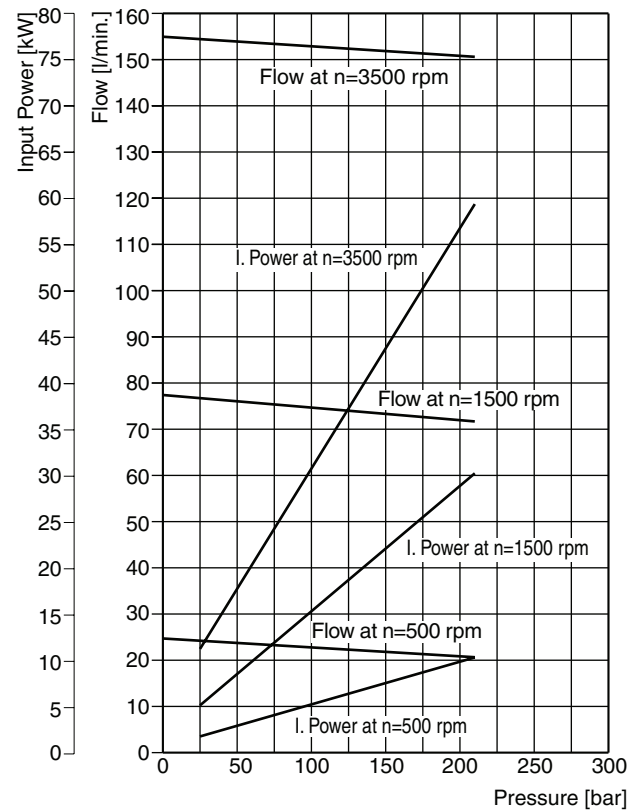
PGP620 - 26.0 CC



PGP620 - 41.0 CC



PGP620 - 52.0 CC



Fluid temperature: 45 °C ± 2K ; Viscosity: 36mm²/s ; Inlet pressure: 0.9 + 0.1 bar absolute

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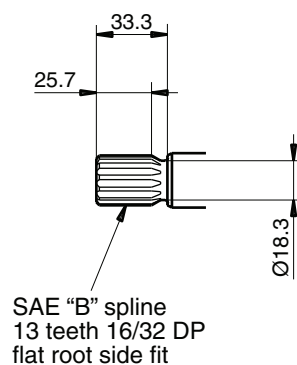
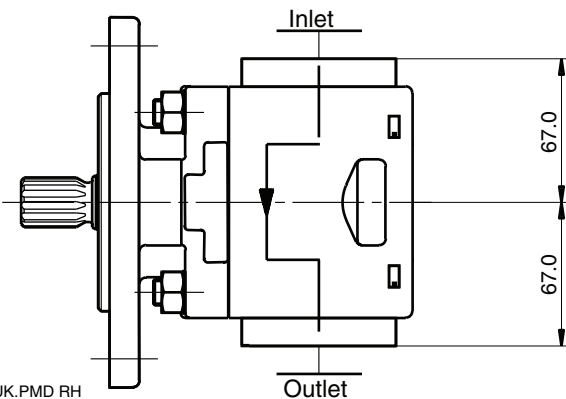
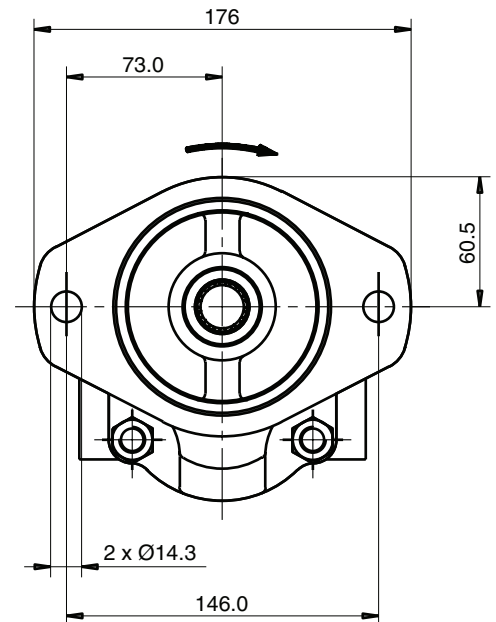
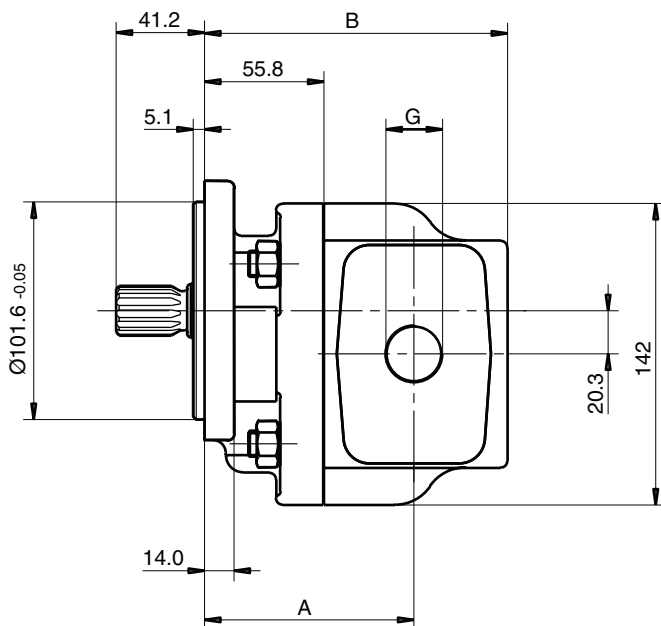
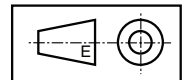


PGP620 A XXXX Y D1 H3 N SS PP B1 B1

“Y” = C (clockwise rotation)
 = A (counter-clockwise rotation)

Displacement XXXX	cm ³ /rev	Dimension		Inlet port		Outlet port		Speed of rotation		Working pressure max. bar	Order number direction of rotation	
		A	B	SS	G	PP	G	min. rpm	max. rpm		clockwise	counter-clockwise
0160	16.0	79.2	122.7	E6	1"-11	E5	¾"-14	500	3000	275	702 9111 052	702 9112 053
0190	19.0	82.5	126.0	E6	1"-11	E5	¾"-14	500	3000	275	702 9111 186	
0210	21.0	84.7	128.2	E6	1"-11	E5	¾"-14	500	3000	275	702 9111 168	
0230	23.0	86.9	130.4	E6	1"-11	E5	¾"-14	500	2700	275	702 9111 098	702 9112 054
0260	26.0	90.2	133.7	E6	1"-11	E5	¾"-14	500	2400	275	702 9111 112	702 9112 093
0290	29.0	93.5	137.0	E7	1¼"-11	E5	¾"-14	500	3000	275		
0330	33.0	97.9	141.4	E7	1¼"-11	E5	¾"-14	500	3000	275		
0360	36.0	101.2	144.7	E7	1¼"-11	E5	¾"-14	500	2900	250		
0370	37.0	102.3	145.8	E7	1¼"-11	E5	¾"-14	500	2900	250	702 9111 164	702 9112 046
0410	41.0	106.7	150.2	E7	1¼"-11	E5	¾"-14	500	2600	220		702 9112 071
0440	44.0	110.0	153.5	E8	1½"-11	E6	1"-11	500	3000	210		702 9112 105
0460	46.0	112.2	155.7	E8	1½"-11	E6	1"-11	500	3000	210		
0500	50.0	116.6	160.1	E8	1½"-11	E6	1"-11	500	3000	210		
0520	52.0	118.8	162.3	E8	1½"-11	E6	1"-11	500	3000	210		702 9112 104

Dimensions (clockwise rotation shown)



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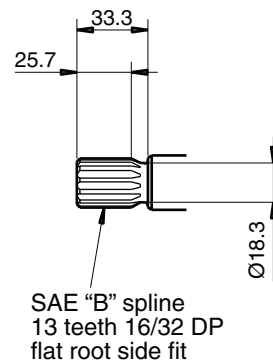
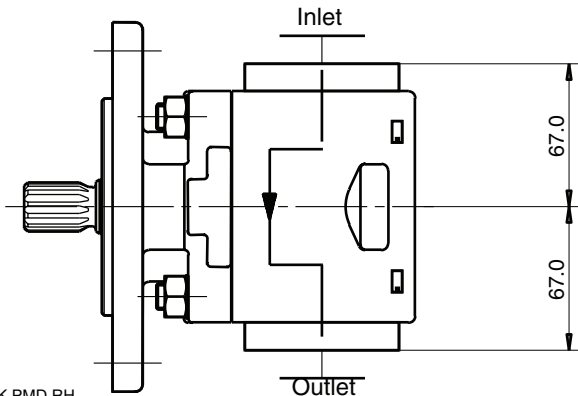
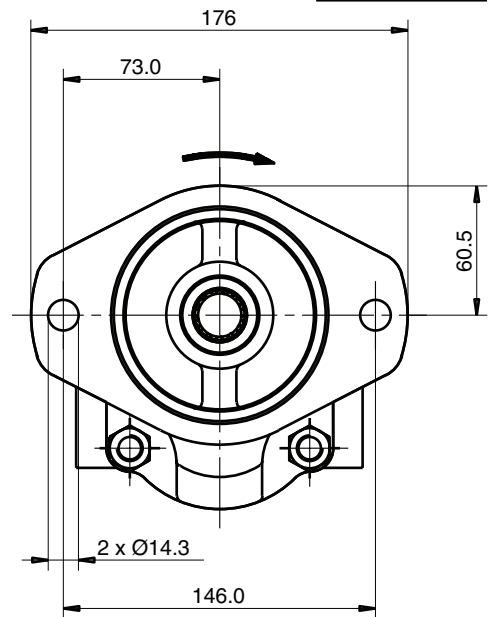
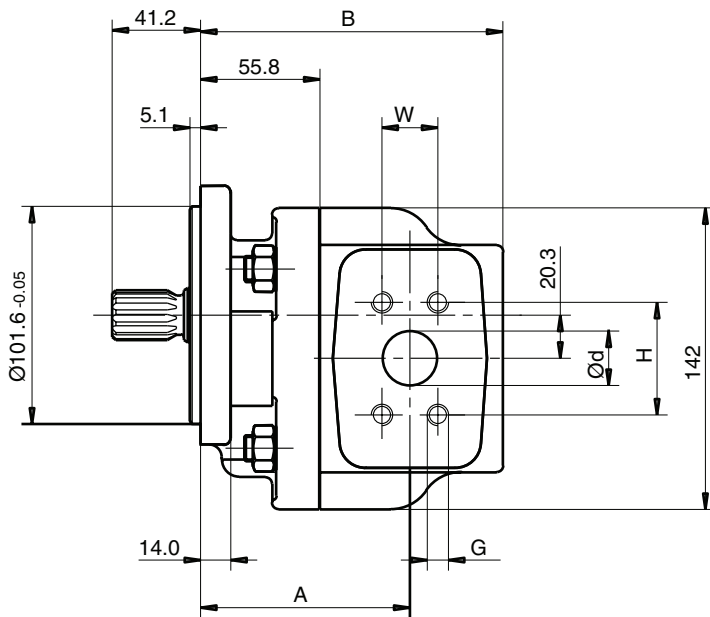
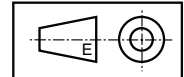


PGP620 A XXXX Y T1 D7 N SS PP B1 B1

“Y” = C (clockwise rotation)
 = A (counter-clockwise rotation)

Displacement XXXX	cm ³ / rev	Dimension		Inlet port					Outlet port					Speed of rotation		Working pressure max. bar	Order number direction of rotation	
		A	B	SS	d	G	H	W	SS	d	G	H rpm	W rpm	min.	max.		clockwise	counter-clockw.
0160	16	79.2	122.7	T3	1"	M10	52.37	26.19	T2	3/4"	M10	47.63	22.23	500	1500	275		
0190	19	82.5	126.0	T3	1"	M10	52.37	26.19	T2	3/4"	M10	47.63	22.23	500	2300	275		702 9112 062
0210	21	84.7	128.2	T3	1"	M10	52.37	26.19	T2	3/4"	M10	47.63	22.23	500	2000	275		
0230	23	86.9	130.4	T3	1"	M10	52.37	26.19	T2	3/4"	M10	47.63	22.23	500	1900	275		
0260	26	90.2	133.7	T4	1 1/4"	M10	58.72	30.17	T3	1"	M10	52.37	26.19	500	1600	275		
0290	29	93.5	137.0	T4	1 1/4"	M10	58.72	30.17	T3	1"	M10	52.37	26.19	500	3000	275	702 9111 151	
0330	33	97.9	141.4	T4	1 1/4"	M10	58.72	30.17	T3	1"	M10	52.37	26.19	500	2600	275	702 9111 087	702 9112 070
0360	36	101.2	144.7	T4	1 1/4"	M10	58.72	30.17	T3	1"	M10	52.37	26.19	500	2400	250		
0370	37	102.3	145.8	T4	1 1/4"	M10	58.72	30.17	T3	1"	M10	52.37	26.19	500	2300	250		
0410	41	106.7	150.2	T5	1 1/2"	M12	69.82	35.71	T3	1"	M10	52.37	26.19	500	2100	220	702 9111 179	702 9112 117
0440	44	110.0	153.5	T5	1 1/2"	M12	69.82	35.71	T3	1"	M10	52.37	26.19	500	2000	210		702 9112 037
0460	46	112.2	155.7	T5	1 1/2"	M12	69.82	35.71	T3	1"	M10	52.37	26.19	500	1900	210	702 9111 117	
0500	50	116.6	160.1	T5	1 1/2"	M12	69.82	35.71	T3	1"	M10	52.37	26.19	500	1700	210	702 9111 150	
0520	52	118.8	162.3	T5	1 1/2"	M12	69.82	35.71	T3	1"	M10	52.37	26.19	500	1700	210		702 9112 022

Dimensions (clockwise rotation shown)



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