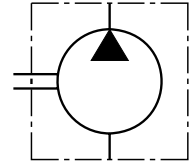


P_{max} 1700 to 4200 PSI • Q_{max} 1.0 to 17.0 GPM


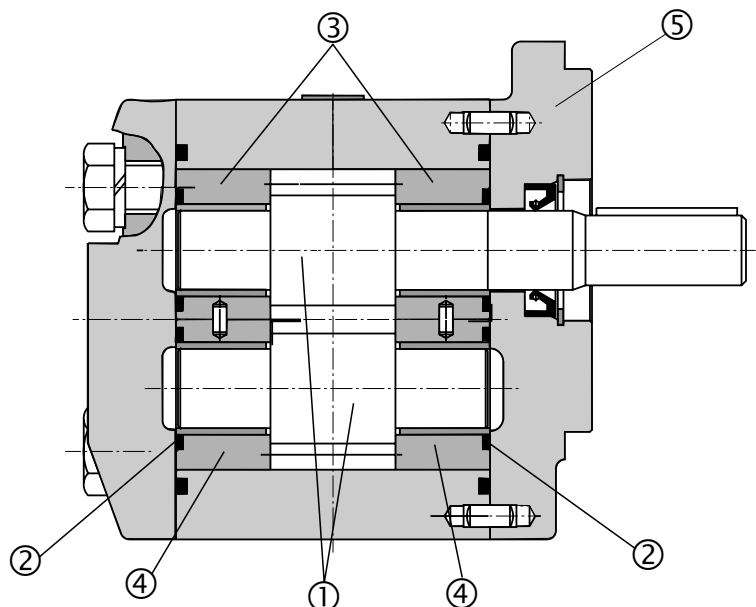
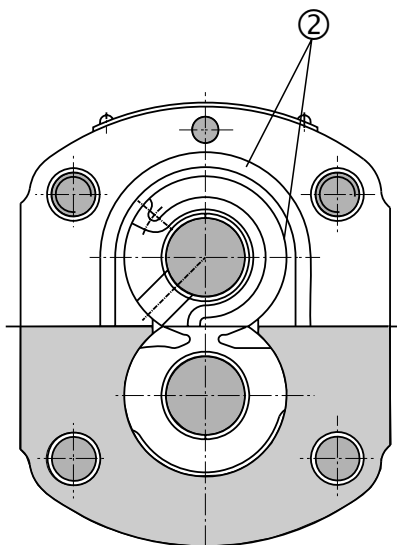
- High reliability
- High dimensional and general effect
- Low noise level in whole operating range
- High volumetric efficiency



Functional Description

The gear Pumps Series GP1-T consists of 2 intermeshing gears (1), one of them connected to the drive shaft. Right or Left hand rotation on the drive shaft generates pressure and flow as given in the technical data section on page 2. The pumps have optimized efficiency through pressurized internal sealing technology (2). The floating bushings (3) with special

bearings (4) are pressure dependent pushed against the gears which guarantee minimum gap clearance between bushing and gears thereby sealing the gears axially. The radial sealing is done by forcing the gears against the body. The gear pumps have 2-Bolt SAE mounting flange (5) and keyed shaft. Pressure and Suction ports are SAE p-Ring Ports.



1

Order Code

GP1- T

Gear pump	
Series	
Nominal displacement	
0.244 cinch/rev (4cm ³ /rev)	4
0.305 cinch/rev (5cm ³ /rev)	5
0.385 cinch/rev (6.3cm ³ /rev)	6.3
0.488 cinch/rev (8cm ³ /rev)	8
0.610 cinch/rev (10cm ³ /rev)	10
0.763 cinch/rev (12.5cm ³ /rev)	12.5
0.976 cinch/rev (16cm ³ /rev)	16
1.221 cinch/rev (20cm ³ /rev)	20
1.343 cinch/rev (22cm ³ /rev)	22
1.526 cinch/rev (25cm ³ /rev)	25
1.953 cinch/rev (32cm ³ /rev)	32
Direction of rotation:	
Clockwise	R
Counterclockwise	L

Seals no designation (Other upon request)	NBR
A	SAE A (SAE J744C)
O	Pressure Ports O- Ring Ports to SAE J1926 (ISO 11926)
I	Suction Ports O- Ring Ports to SAE J1926 (ISO 11926)
K5	Cylindrical Keyed Shaft 5/8

Technical Data

NOMINAL SERIES SPECIFICATIONS		T-4	T-5	T-6,3	T-8	T-10	T-12,5	T-16	T-20	T-22	T-25	T-32
Nominal displacement	C.I.R	0.244	0.305	0.385	0.488	0.610	0.763	0.976	1.221	1.343	1.526	1.953
Speed - nominal		1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
maximum	RPM	4000	4000	4000	3600	3600	3600	3200	3200	3000	2800	2000
minimum		500	500	500	500	500	500	500	500	500	500	500
Pressure on the inlet - nominal												
maximum	PSI	+7.25										
minimum		-4.35										
Pressure on the outlet - max												
continuous	PSI	4203	4203	4203	4058	3914	3769	3769	3479	3189	2899	2174
maximum		4493	4493	4493	4348	4203	4058	4058	3769	3479	3189	2464
Nominal outlet flow (min.)*	GPM	1.677	2.100	2.642	3.355	4.200	5.257	6.736	8.427	9.378	10.567	13.473
Max. flow **	GPM	3.833	4.861	6.129	7.001	8.744	10.937	12.443	15.560	16.023	17.013	15.560
Power demand-nominal (max.)*	HP	5.50	6.84	8.45	10.46	12.47	15.15	19.31	22.26	22.80	23.20	22.40
Max. Power demand **	HP	13.23	16.53	20.83	23.04	27.84	33.60	38.23	44.37	43.20	41.07	19.10
Efficiency - hydraulic total		min. 0,9 min. 0,8										
Pressure fluid		Petroleum oils HM, HV, according CETOP RP 91 H Viscosity classes SO VG 32, 46 and 68										
Fluid temperature range (operating)	°F	+5 to +158										
Operating viscosity range	SUS	98 to 1840										
Maximum degree of fluid contamination		Class 21/18/15 according to ISO 4406 (1999).										
Ambient temperature range	°F	-4 to +131										
Mass	lb (kg)	7.49 (3.40)	7.65 (3.47)	7.76 (3.52)	7.98 (3.62)	8.18 (3.71)	8.42 (3.82)	8.82 (4.00)	9.26 (4.20)	9.39 (4.26)	9.52 (4.32)	11.11 (5.04)
Mounting position		any										

* at nominal speed and maximum continuous pressure ** at maximum speed and maximum pressure

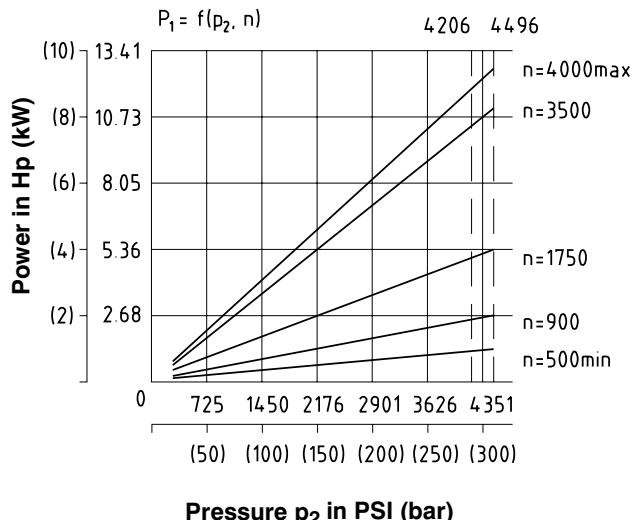
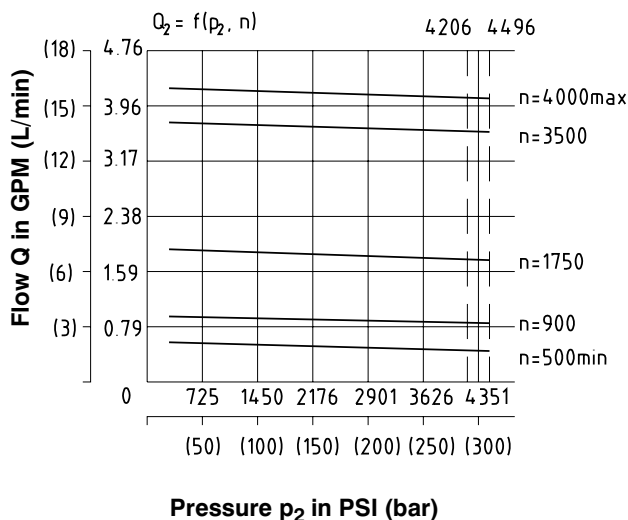
Performance Data

measured at $v = 166 \text{ SUS } (35 \text{ mm}^2 \cdot \text{s}^{-1})$ and $t = 122^\circ\text{F } (50^\circ\text{C})$

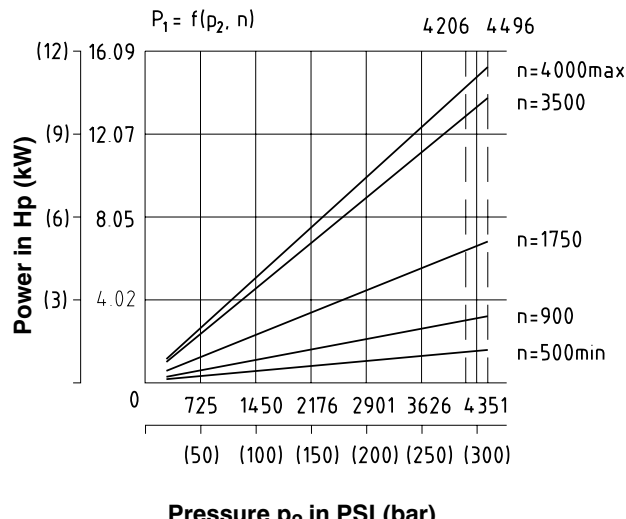
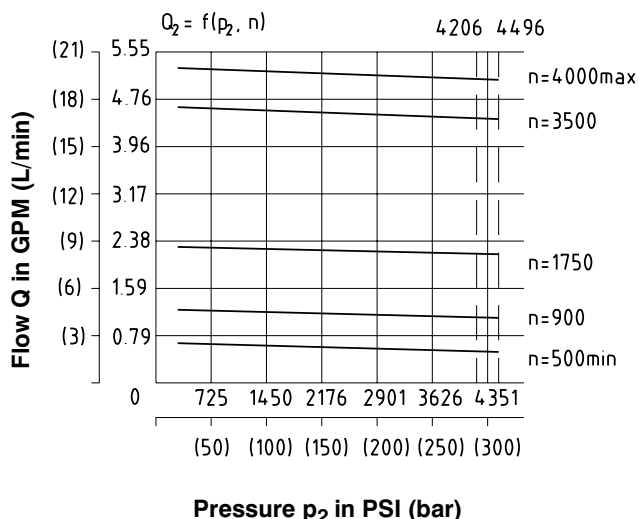
1

Outlet flow in relation to power demand and outlet pressure

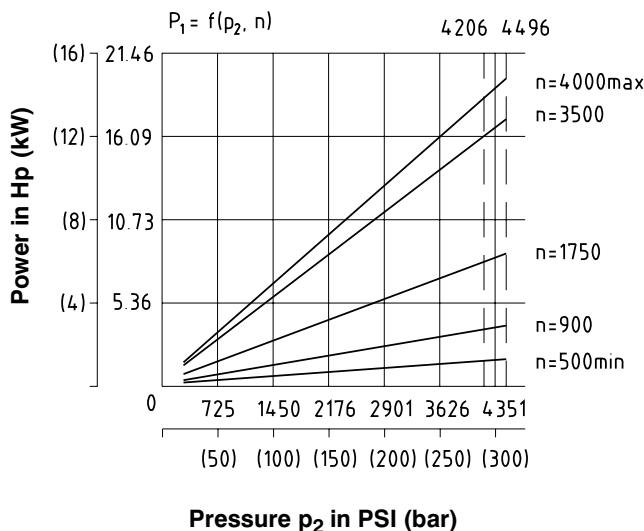
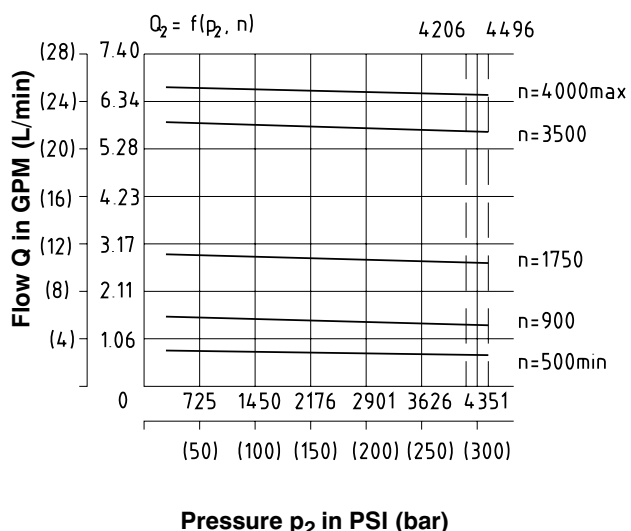
Nominal Size 4



Nominal Size 5



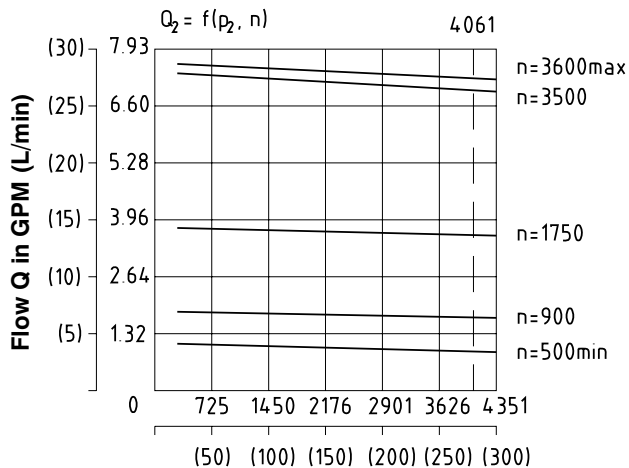
Nominal Size 6.3



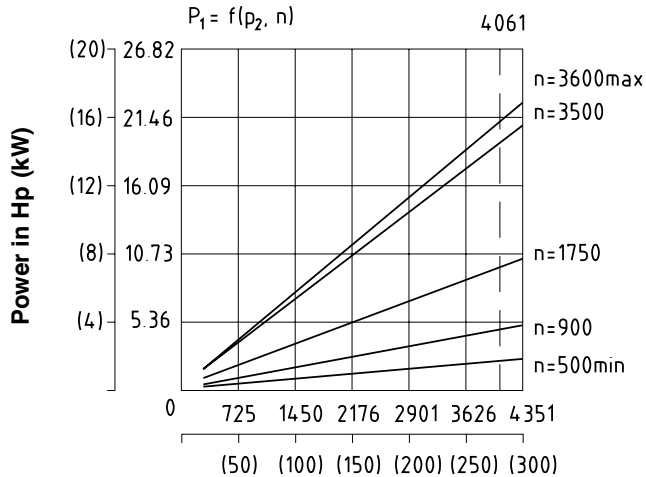
Performance Data

measured at $v = 166 \text{ SUS } (35 \text{ mm}^2 \cdot \text{s}^{-1})$ and $t = 122^\circ\text{F } (50^\circ\text{C})$

Nominal Size 8

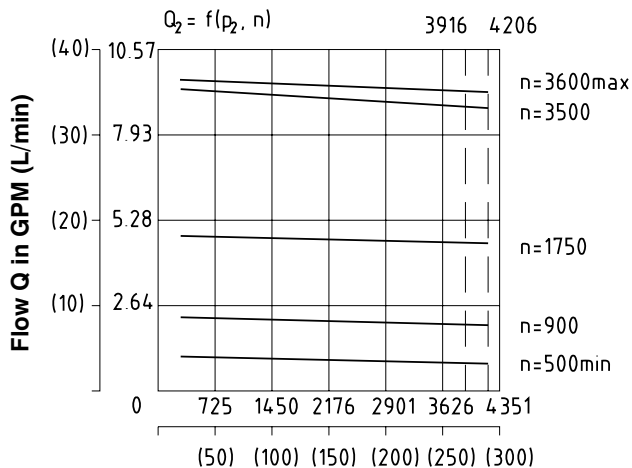


Pressure p_2 in PSI (bar)

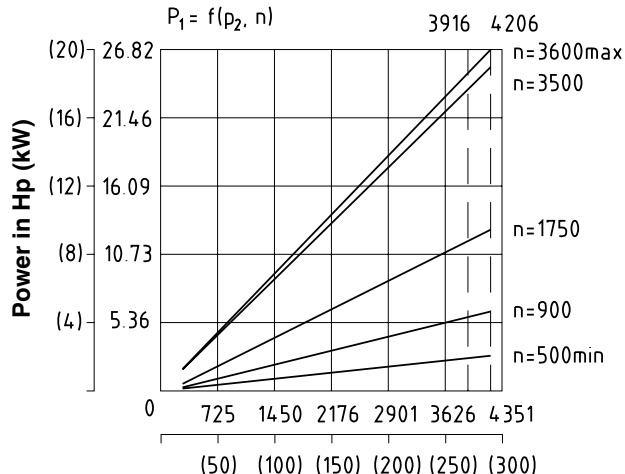


Power in Hp (kW)

Nominal Size 10

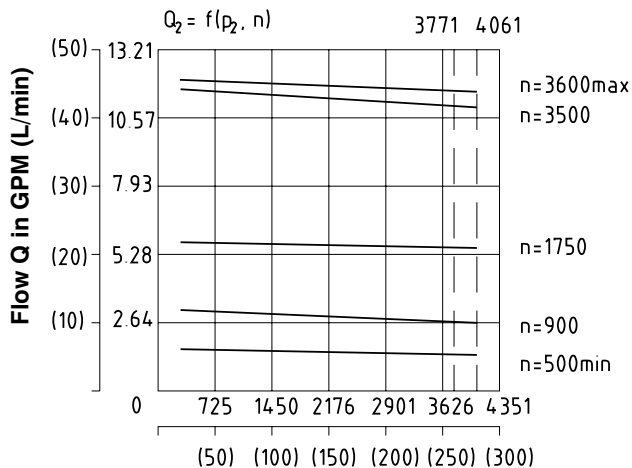


Pressure p_2 in PSI (bar)

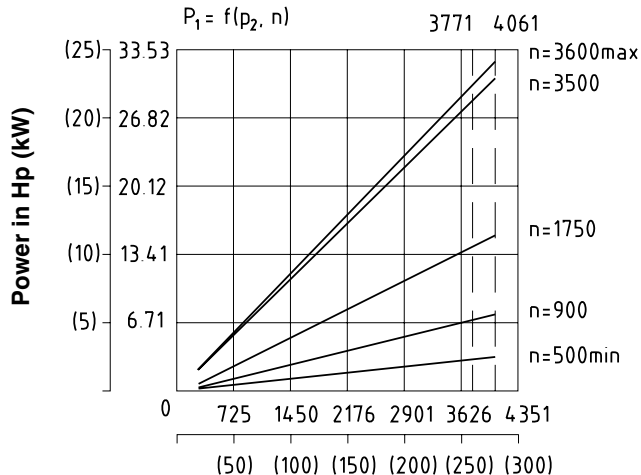


Power in Hp (kW)

Nominal Size 12.5



Pressure p_2 in PSI (bar)



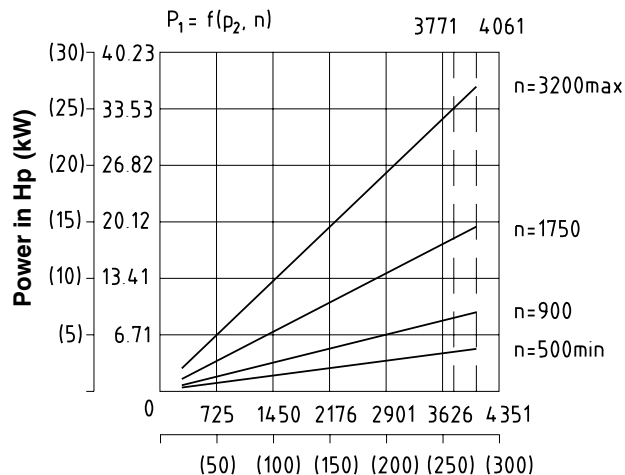
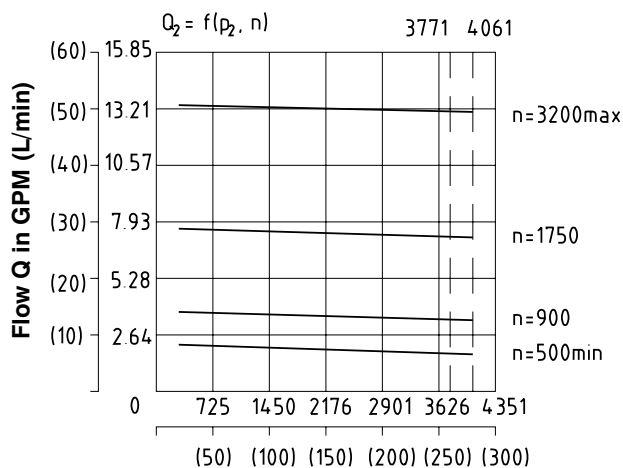
Power in Hp (kW)

Performance Data

measured at $v = 166 \text{ SUS } (35 \text{ mm}^2 \cdot \text{s}^{-1})$ and $t = 122^\circ\text{F } (50^\circ\text{C})$

1

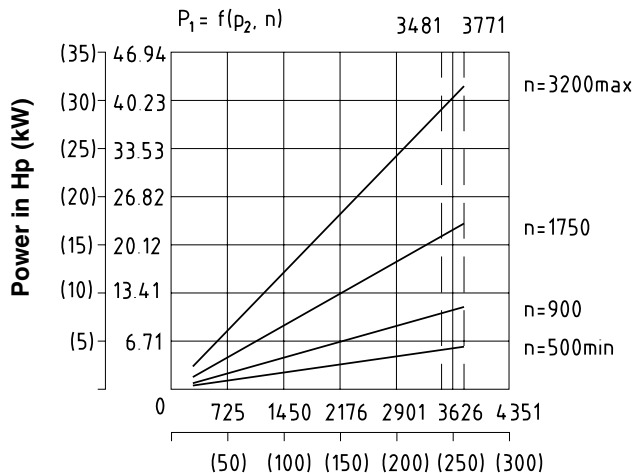
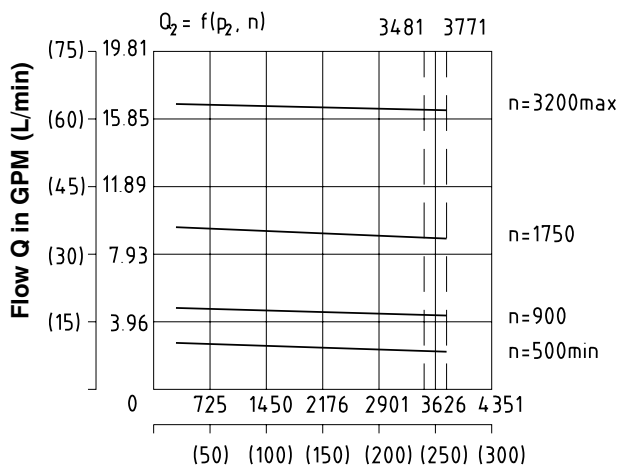
Nominal Size 16



Pressure p_2 in PSI (bar)

Pressure p_2 in PSI (bar)

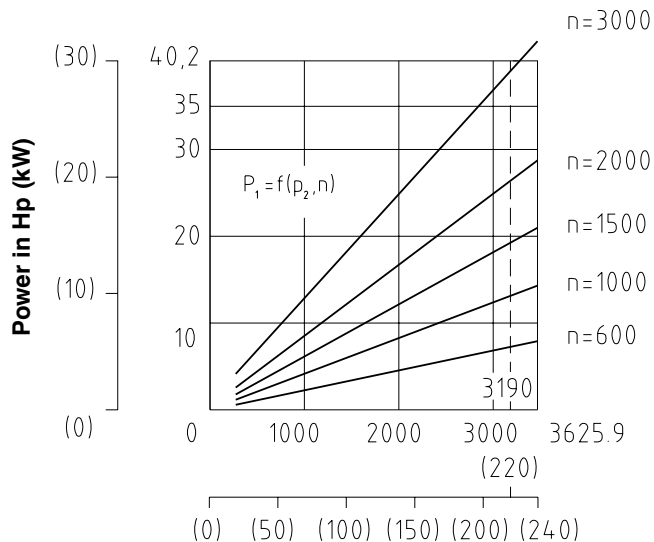
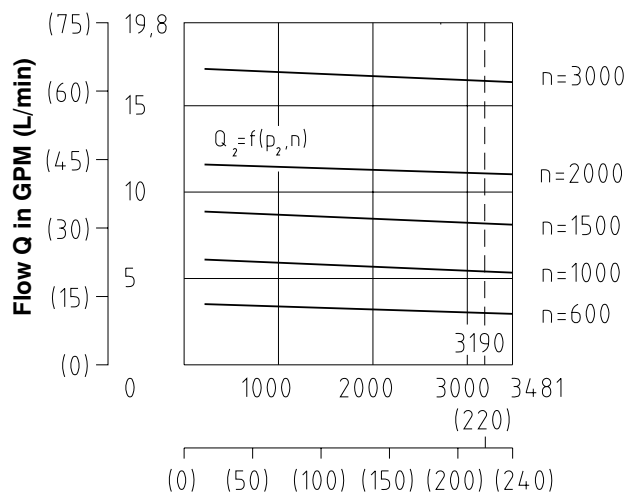
Nominal Size 20



Pressure p_2 in PSI (bar)

Pressure p_2 in PSI (bar)

Nominal Size 22



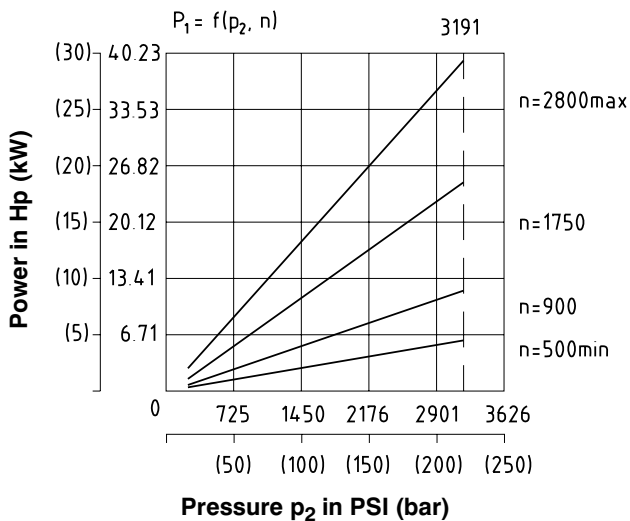
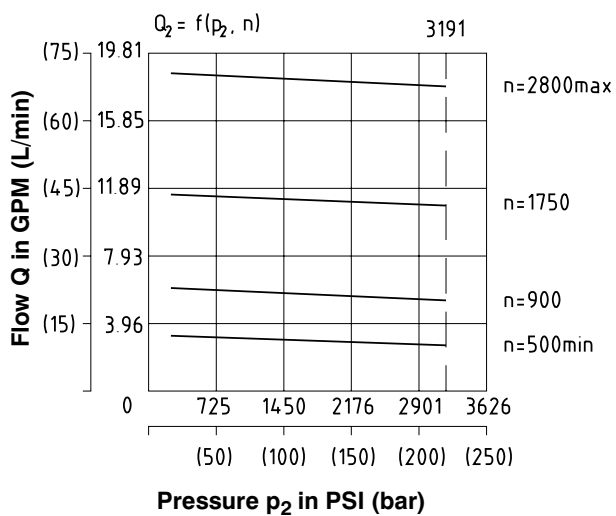
Pressure p_2 in PSI (bar)

Pressure p_2 in PSI (bar)

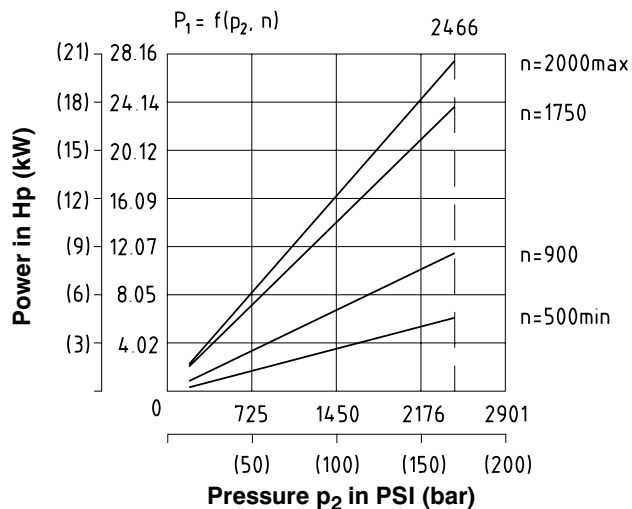
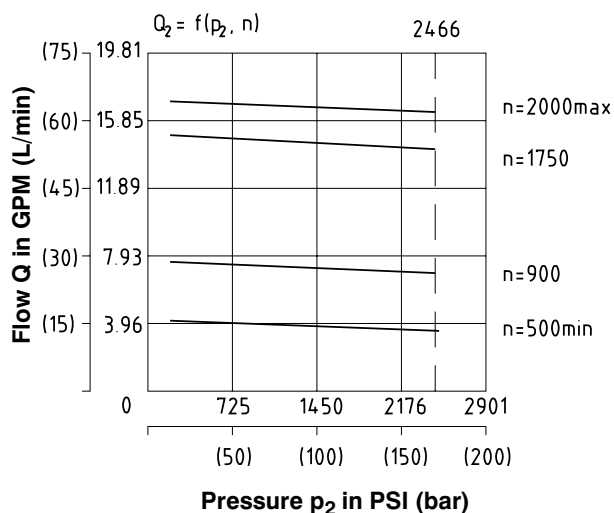
Performance Data

measured at $v = 166 \text{ SUS } (35 \text{ mm}^2 \cdot \text{s}^{-1})$ and $t = 122^\circ\text{F } (50^\circ\text{C})$

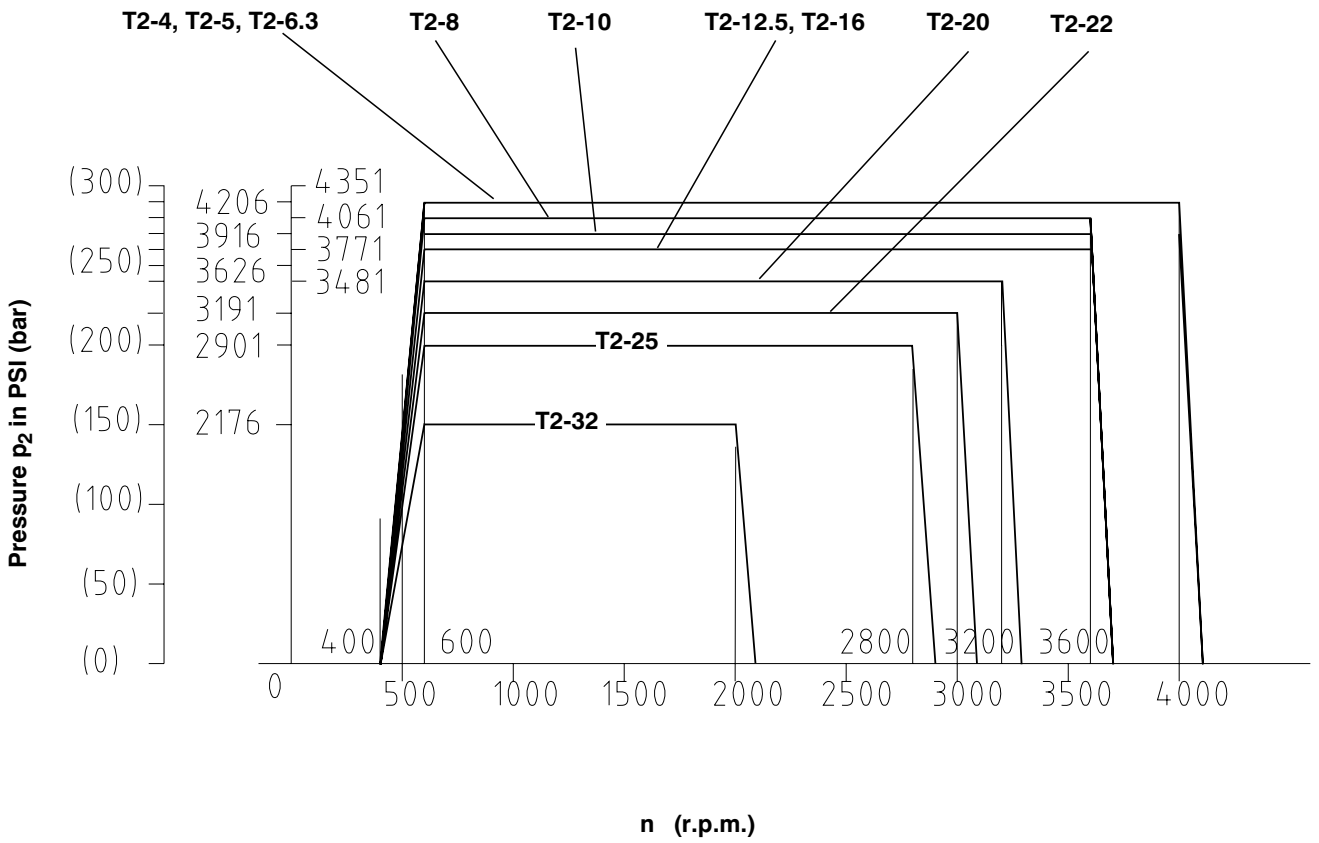
Nominal Size 25



Nominal Size 32



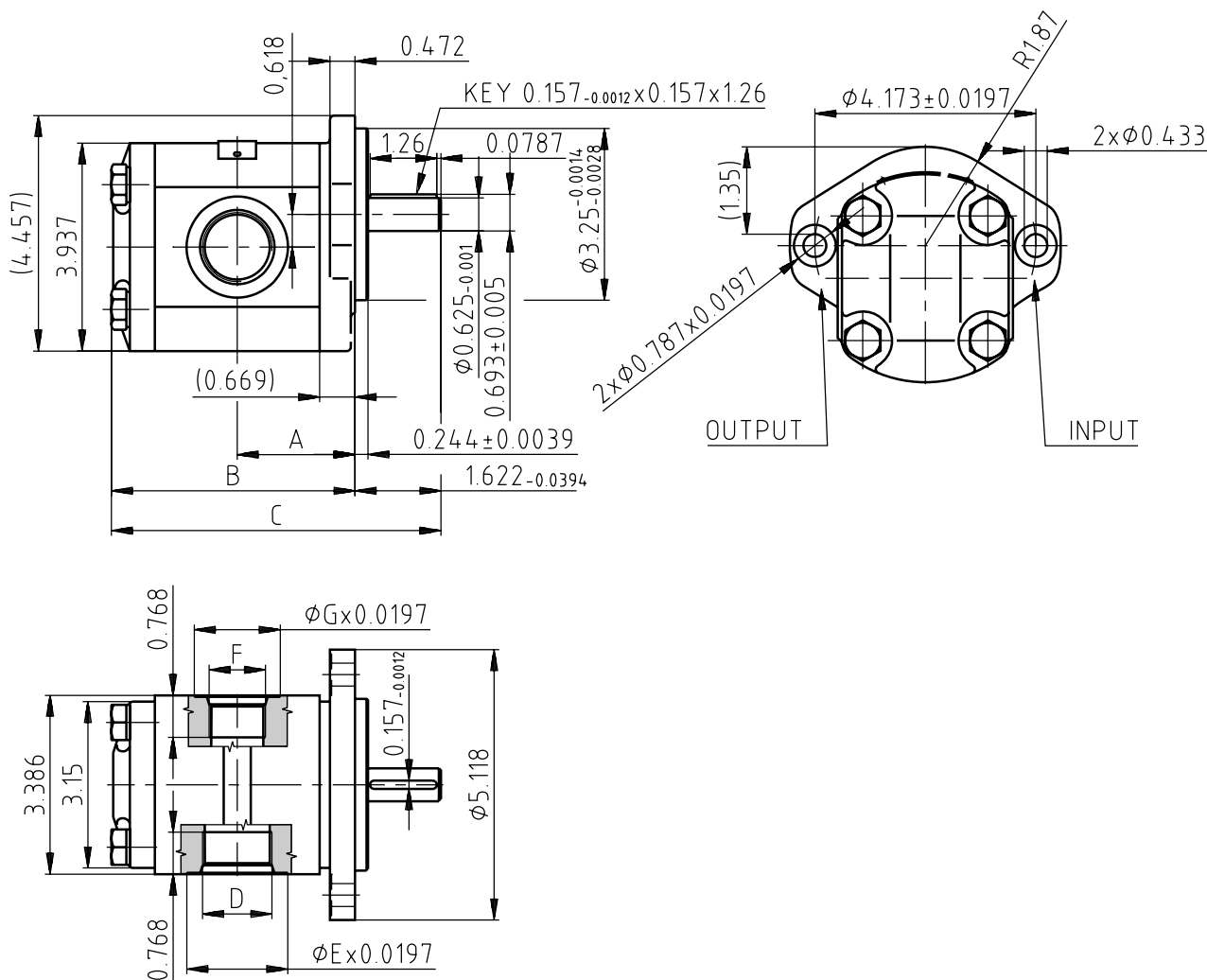
Pressure rating on the T - series gear pumps in relationship to revolutions



1

Pump Dimensions

Dimensions in inches



Note: The right hand rotation pump is drawn, the inlet and outlet ports of the left hand rotation are interchanged.

Table of dimensions

CODE	Displacement in ³ /1 (cm ³ /l)	Nom. Press. PSI (bar)	Dimension (")						
			A	B	C	D	E	F	G
T-32	1.953 (32.0)	2174 (150)	2.618	5.393	7.016	1-5/16-12 UN-2B	1.937	1-1/16-12 UN-2B	1.622
T-22	1.343 (22.0)	3189 (220)	2.291	4.744	6.366	1-5/16-12 UN-2B	1.937	1-1/16-12 UN-2B	1.622
T-25	1.526 (25.0)	2899 (200)	2.401	4.961	6.582	1-5/16-12 UN-2B	1.937	1-1/16-12 UN-2B	1.622
T-20	1.221 (20.0)	3479 (240)	2.224	4.606	6.228	1-5/16-12 UN-2B	1.937	1-1/16-12 UN-2B	1.622
T-16	0.976 (16.0)	3769 (260)	2.075	4.311	5.933	1-5/16-12 UN-2B	1.937	1-1/16-12 UN-2B	1.622
T-12,5	0.763 (12.5)	3769 (260)	1.957	4.074	5.697	1-5/16-12 UN-2B	1.937	1-1/16-12 UN-2B	1.622
T-10	0.610 (10.0)	3914 (270)	1.870	3.898	5.520	1-5/16-12 UN-2B	1.937	1-1/16-12 UN-2B	1.622
T-8	0.488 (8.0)	4058 (280)	1.791	3.740	5.362	1-5/16-12 UN-2B	1.937	1-1/16-12 UN-2B	1.622
T-6,3	0.385 (6.3)	4203 (290)	1.732	3.622	5.244	1-1/16-12 UN-2B	1.622	7/8-14 UNF-2B	1.346
T-5	0.305 (5.0)	4203 (290)	1.693	3.543	5.165	1-1/16-12 UN-2B	1.622	7/8-14 UNF-2B	1.346
T-4	0.244 (4.0)	4203 (290)	1.653	3.464	5.087	1-1/16-12 UN-2B	1.622	7/8-14 UNF-2B	1.346

Caution!

- The packing foil is recyclable.
- Certified documentation is available per request.

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