SGP1 Series

Cast- iron body



C621-E004A

◆Model number

SGP1 - 36 D 2 H 1 - L XXX

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

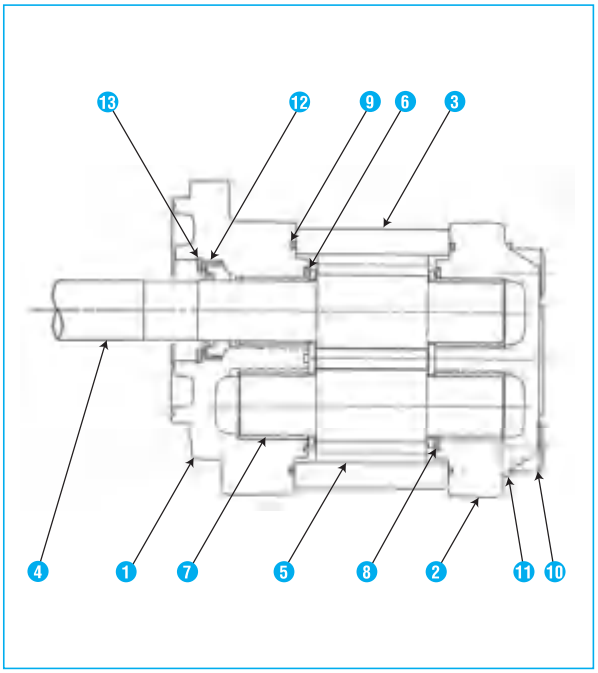
❶ Series number
SGP 1 series (Cast Iron body)
❷ Mounting spigot diameter
- : $\phi 82^{-0.035}_{-0.090}$
A : $\phi 82.55^{0}_{-0.05}$
❸ Size
❹ Position of ports
F : rear cover side ports
D : rear ports
❺ Port configuration
1 : flange port (sides only)
2 : G screw thread
❻ Mounting
H : horizontal 2 bolts
❼ Shaft end
1 : SAE Spline 13 teeth
5 : SAE Spline 10 teeth
❽ Rotation viewing from shaft end
L = counterclockwise
R = clockwise
❾ Code number in 3 figures

◆Specifications

Size	Displacement		Rated pressure			Max. peak pressure			Speed min^{-1}		Inlet pressure	Mass	
	cm^3	in^3	MPa	bar	psi	MPa	bar	psi	MIN.	MAX.		kg	lb
16	16.2	0.988	20.6	206	2987	24.5	245	3553	500	4000	bar -0.20~2.0	3.3	7.26
18	18.3	1.116										3.4	7.48
20	20.4	1.244										3.5	7.70
23	23.7	1.446							400			3.7	8.14
25	24.9	1.519								3500	MPa -0.02~0.2	3.8	8.36
27	27.8	1.696										4.0	8.80
30	29.9	1.824								3000	psi -2.9 ~29	4.1	9.02
32	33.2	2.025										4.2	9.24
34	34.1	2.080	20.6 (18.6)	206 (186)	2987 (2697)							4.3	9.46
36	36.6	2.233	20.6 (17.2)	206 (172)	2987 (2494)	22.6	226	3277				4.5	9.90

NOTE : ( ) SAE spline 10 teeth

◆Typical assembly



Item No.	Name	QTY	Material
❶	Front cover	1	Aluminum alloy
❷	Rear cover	1	Aluminum alloy
❸	Body	1	Cast iron
❹	Drive gear	1	Alloy steel
❺	Driven gear	1	Alloy steel
❻	Side plate	2	Special alloy steel
❼	Bush	4	Special alloy steel
❽	Gasket	2	Nitrile rubber
❾	Gasket	2	Nitrile rubber
❿	Bolt	4	Alloy steel
⓫	Washer	4	Carbon steel
⓬	Oil seal	1	Nitrile rubber
⓭	Retainer ring	1	Carbon tool steel

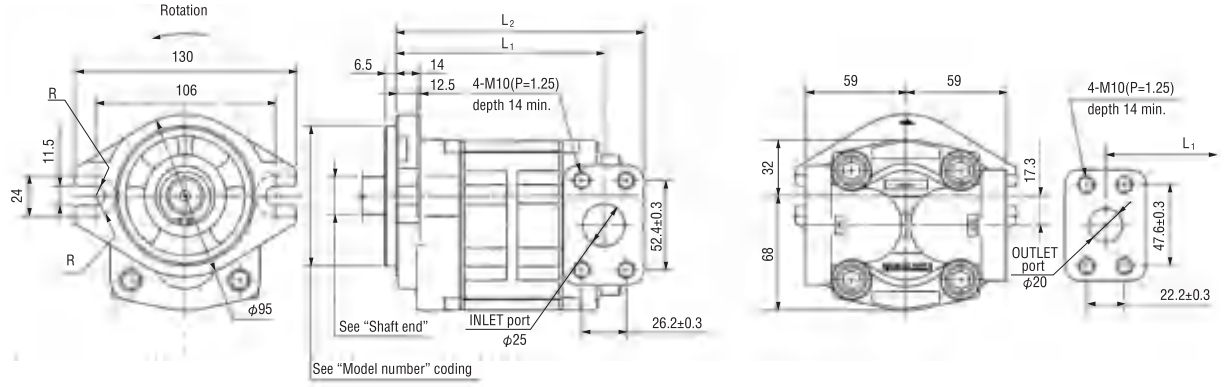
NOTES : “QTY” shows the amount per one

SGP1 Series Cast- iron body

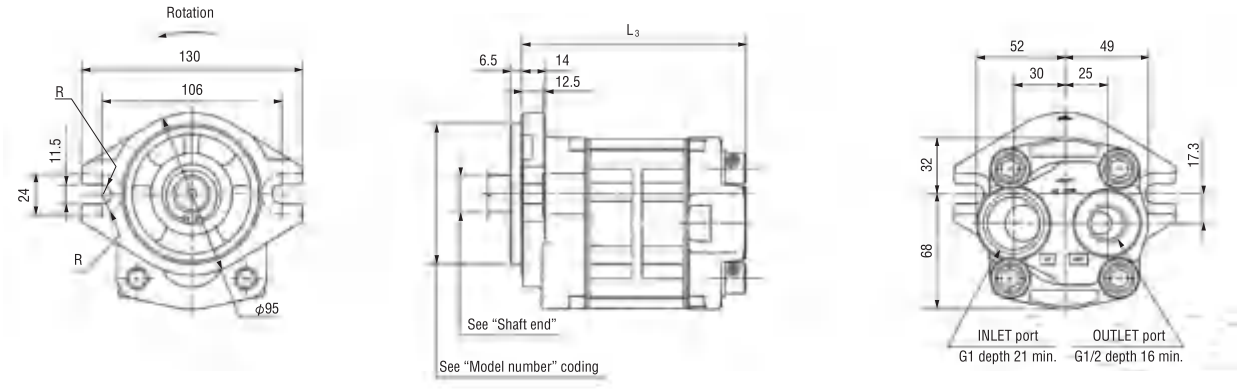
◆Outline dimensions

dimensions in mm

SGP1-A□F1H□-LXXX (Side ports)



SGP1-A□D2H□-LXXX (Rear ports)



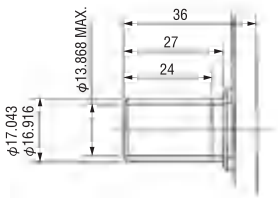
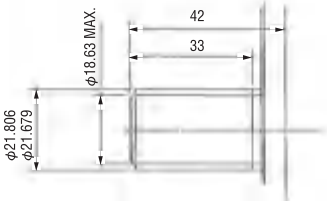
NOTE 1. Figure shown indicated counterclockwise rotation "L" viewing from shaft end. Clockwise rotation "R" is mirror image of this.

2. Unless otherwise specified, tolerance on dimension are ±1.0 mm.

Size	L_1	L_2	L_3
16	98.0	121.5	108.0
18	100.5	124.0	110.5
20	103.0	126.5	113.0
23	107.0	130.5	117.0
25	108.5	132.0	118.5
27	112.0	135.5	122.0
30	114.5	138.0	124.5
32	118.5	142.0	128.5
34	119.5	143.0	129.5
36	122.5	146.0	132.5

●Shaft end

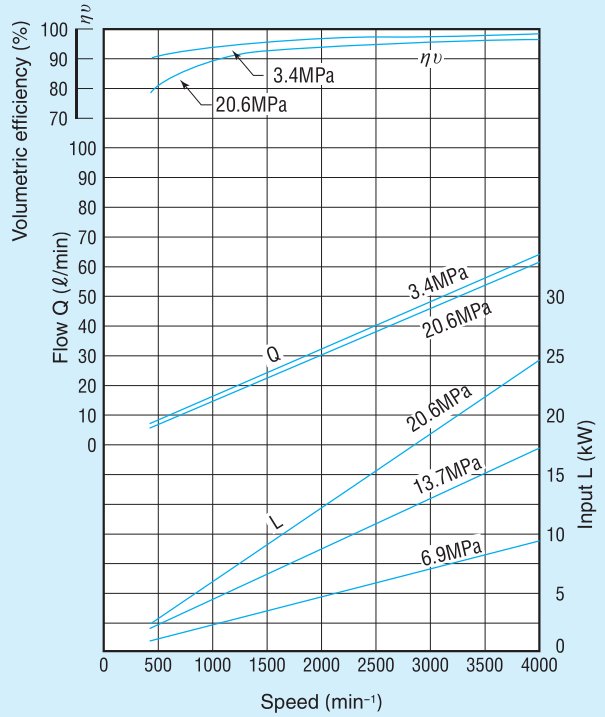
SAE Spline (Some dimensions are different form SAE standard.)

SAE Spline 10 teeth	SAE Spline 13 teeth
	
No. of teeth : 10 D.P. : 16/32 Pressure angle : 30° Over pin dia. : 20.263～20.193 Pin dia. : φ3.048	No. of teeth : 13 D.P. : 16/32 Pressure angle : 30° Over pin dia. : 24.891～24.819 Pin dia. : φ3.048

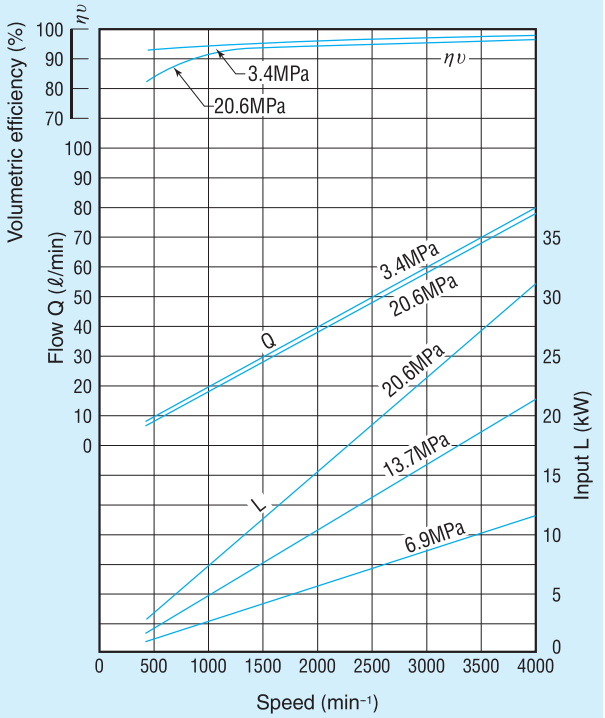
SGP1 Series Performance curves

OIL: ISO VG32 Hydraulic Fluid at 40°C

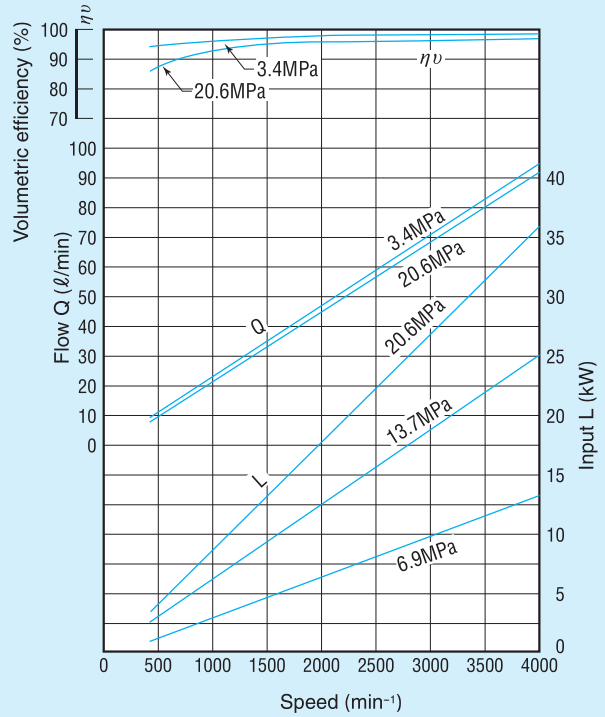
SGP1-16



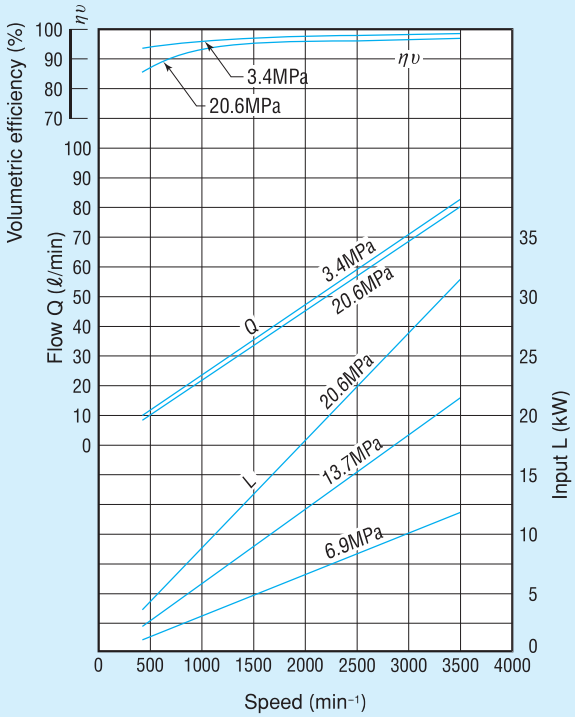
SGP1-20



SGP1-23



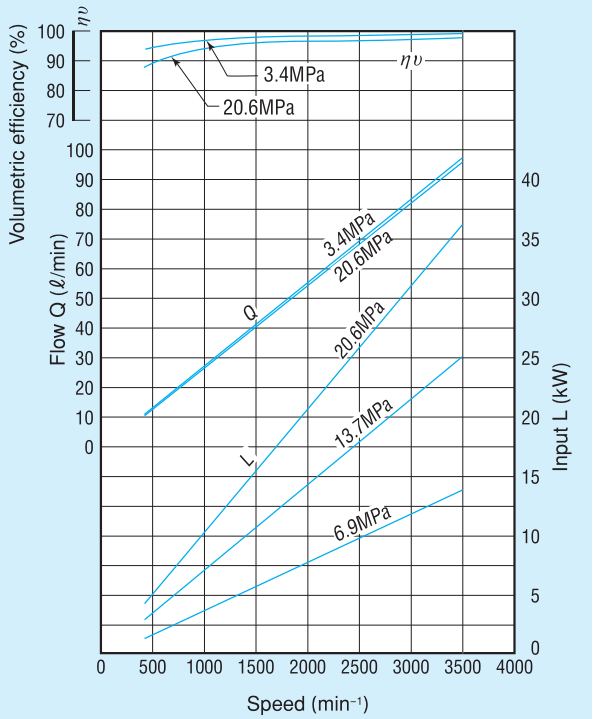
SGP1-25



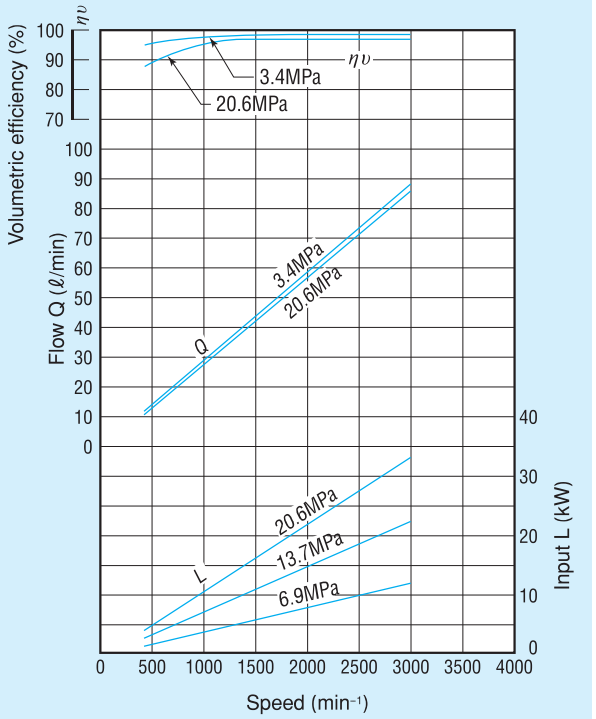
SGP1 Series Performance curves

OIL: ISO VG32 Hydraulic Fluid at 40°C

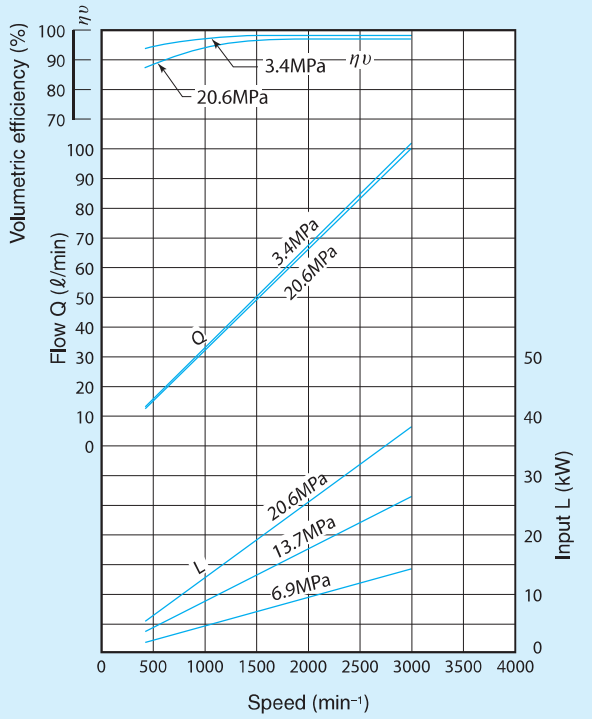
SGP1-27



SGP1-30



SGP1-34



SGP1-36

