

BB Series

Gear Pump Ordering Code

VGP	BB	b	R	BS ₂	1.88	1.38	3	S1	P2	GB	FB	FB	-	1	B1
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Veljan Gear Pump

Series

Pump type

b - Multiple Unit / Double pump
c - Piggyback / Tandem

Rotation

(Viewed from shaft end)

R - Clockwise

L - Counter Clockwise

Mounting type



BS₂ - SAE 'B' 2-bolt



BS₄ - SAE 'B' 4-bolt

Housing for 'H1' & 'H2'

(Displacement cc/rev)

0.88 = 9.8 cc/rev

1.13 = 14.9

1.38 = 19.9

1.63 = 24.8

1.88 = 29.8

2.13 = 34.9

2.38 = 39.9

Shaft end details (Shaft type)

1 = 7/8" KEY SHORT SAE B

2 = 9 SPLINE 5/8" SHORT SAE A

3 = 13 SPLINE 7/8" SHORT SAE B

Seal class

S 1 (for Mineral oil)

S 4 (for fire resistant fluids)

S 5 (for mineral oil and fire resistant fluids)

Port Block type

P0 - No ports

P1 - Pressure (1 Port) - side ported

P2 - Suction & Pressure (2 Ports) - side ported

R1 - Pressure (1 Port) - rear ported

R2 - Suction & Pressure (2 Port) - rear ported

H1 - Housing ported

Port connections-INLET

See page 135,136

Ports Position

B1 - Common Inlet,
Dual outlet
See page 14

Connecting shaft

(For Tandem units)
1 - BB

Rear Section

(For Tandem/piggyback)
VGP - B

Port connections

OUTLET(P1,P2)

See page 135,136

VGP
DGP

Performance Data:-

The performance data shown below are the average results based on a series of laboratory tests of production units and are not necessarily representative of any one unit. Test were run with an oil reservoir temperature of 50°C and a viscosity of 38mm²/S at 40°C.

Note: Pump output flow is at the maximum rated pressure (See page 16, General pump data)

VGP - B Performance Data:-

VGP - B Performance Data :

B-Series		Gear Housing Widths						
		0.88"	1.13"	1.38"	1.63"	1.88"	2.13"	2.38"
cc/rev		9.8	14.9	19.9	24.8	29.8	34.9	39.9
Pressure	(bar)	240	240	240	240	220	200	170
	(psi)	3500	3500	3500	3500	3250	3000	2500
Max.Speed	(rpm)	3000	3000	3000	3000	3000	3000	3000
Pump Weight	(kg)	8.50	8.55	8.60	9.0	9.50	9.80	10.50

Relational chart for Flow rate & Housing width:

B	Speed (rpm)	Gear Housing Widths / Flow Rate [VGP - B Series]													
		0.88"		1.13"		1.38"		1.63"		1.88"		2.13"		2.38"	
		gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm
B	1000	2.58	9.80	3.93	14.90	5.25	19.90	6.55	24.80	7.87	29.80	9.22	34.90	10.54	39.90
	1500	3.35	12.70	5.36	20.31	7.42	28.12	9.29	35.20	11.14	42.17	13.56	51.35	14.87	56.32
	2000	4.57	17.30	7.55	28.61	9.90	37.50	12.45	47.15	15.01	56.85	17.92	67.85	20.39	77.21
	2500	5.85	22.15	9.57	36.25	12.21	46.25	15.65	59.25	19.00	71.92	22.52	85.25	25.42	96.25
	3000	7.45	28.21	11.28	42.70	14.85	56.21	18.75	71.00	23.05	87.25	26.86	101.69	30.70	116.21

Relational chart for Housing width & Input Power :

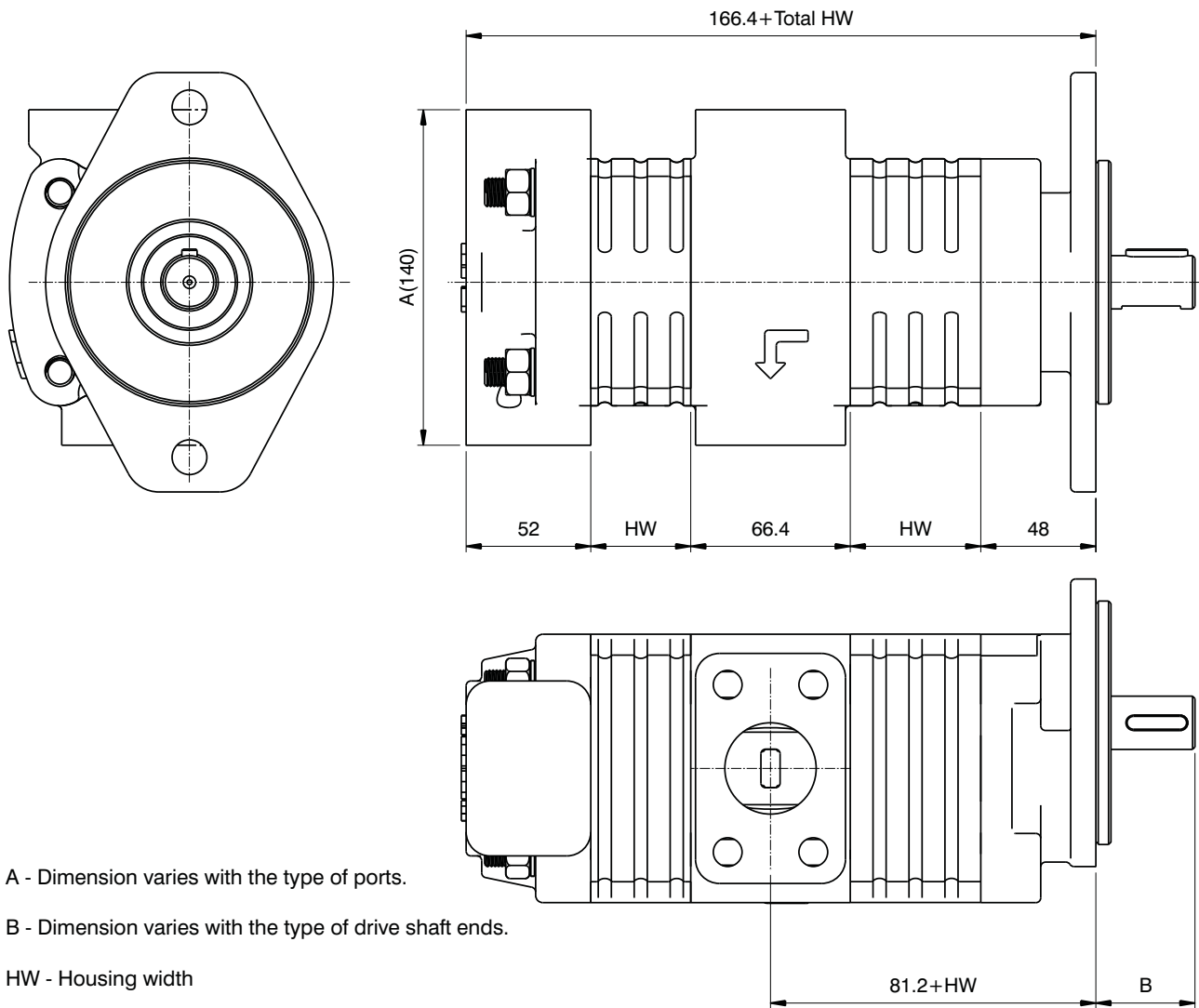
B	Speed (rpm)	Gear Housing Widths / Input power [VGP - B Series]													
		0.88"		1.13"		1.38"		1.63"		1.88"		2.13"		2.38"	
		HP	KW	HP	KW	HP	KW	HP	KW	HP	KW	HP	KW	HP	KW
B	1000	7	5	11	8	13	10	16	12	17	13	20	15	21	16
	1500	11	8	15	11	19	14	23	17	25	19	28	21	30	22
	2000	13	10	19	14	24	18	30	22	34	25	36	27	39	29
	2500	16	12	23	17	30	22	36	27	41	31	44	33	47	35
	3000	19	14	27	20	35	26	43	32	48	36	51	38	54	40

Note: In accordance with our policy of continuous development, we reserve the right to change specifications shown in this catalogue without notice.

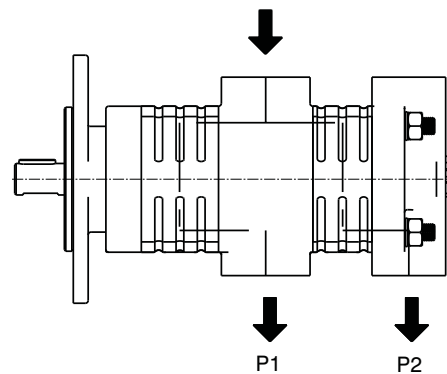
Double Pump Unit Dimensions of VGP - BB :-

COMMON INLET - B1 (One Inlet , Two Outlets) - VGP - BB

VGP
DGP

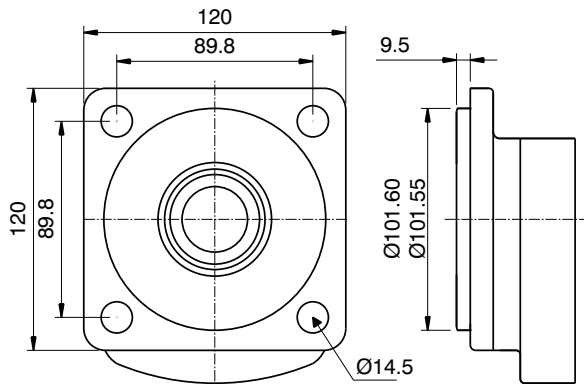


VGP-BB Series		
Housing Width Inches (HW)	Displacement (cc/rev)	
	P1	P2
0.88"	9.8	9.8
1.13"	14.9	14.9
1.38"	19.9	19.9
1.63"	24.8	24.8
1.88"	29.8	29.8
2.13"	34.9	34.9
2.38"	39.9	39.9



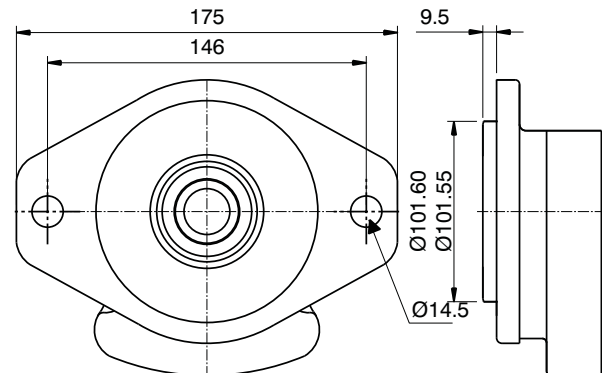
FLANGE DETAILS - 'BB' Series:-

S.A.E - "B" 4 - BOLT FLANGE



Code - BS₁

S.A.E - "B" 2 - BOLT FLANGE



Code - BS₂

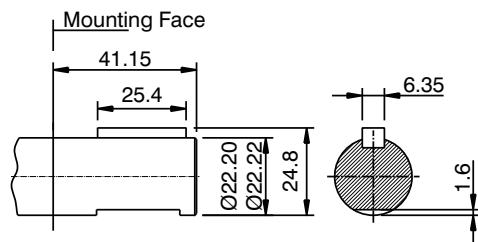
VGP
DGP

Drive shaft configurations:-

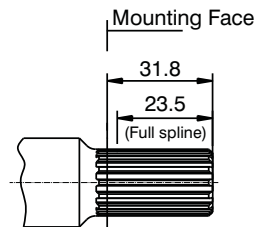
Side ported (SAE Versions) Shafts:-

- Satisfactory drive shaft transmission capacity is indicated with the product of pressure (P) & Displacement (D) is less than or equal to (<) a given constant. The units of P & D are expressed in psi & in³/rev. respectively
- Pump rotation as viewed from the shaft end: Clockwise rotation - outlet on right; Counter clockwise rotation outlet on left

Shaft code 1 :

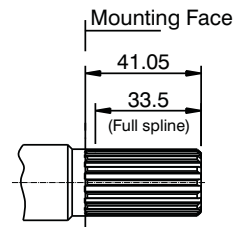


Shaft code 2 :



SAE-A splined shaft
Class 1-J498b
16/32 dp.9 teeth
30° PA flat root side fit.

Shaft code 3 :



SAE-B splined shaft
Class 1-J498b
16/32 dp.13 teeth
30° PA flat root side fit.

Drive shaft (Shaft loads) Maximum Input Torque for VGP - BB series :-

Code	Shaft type	Torque rating	
		Nm	lb-ft
1	7/8" KEY SHORT SAE B	225	165
2	9 SPLINE 5/8" SHORT SAE A	108	80
3	13 SPLINE 7/8" SHORT SAE B	326	240