CH / CH1 Series

Gear Pump Ordering Code

VGP	CH	a	R1	BS_2	1.5	*	5	S1	P2	GB	FB	*	*	*	*
					H1	H2					P1	P2			

Veljan Gear Pump
P - Pump
M - Motor

Series (CH / CH1)

Pump type
a - Single Unit
b - Multiple Unit / Double pump

Shaft End Cover (Rotation)
(Viewed from shaft end)
R1 - Pump CW with Shaft bearing(S.B)
L1 - Pump CCW with S.B
B1 - Pump Bi-rotational with S.B (For VGP-CH series only)
R2 - Pump CW w/o S.B
L2 - Pump CCW w/o S.B
B2 - Pump Bi-rotational w/o S.B (For VGP-CH series only)
MB1 - Motor Bi-rot. with S.B+1/4" BSPP drain
MB2 - Motor Bi-rot. w/o S.B+1/4" BSPP drain
MB3 - Motor Bi-rot. with S.B+1/4" NPT drain
MB4 - Motor Bi-rot. w/o S.B+1/4" NPT drain

Mounting type

BS_2 - SAE 'B' 2-bolt
CS_2 - SAE 'C' 2-bolt

BS_4 - SAE 'B' 4-bolt
CS_4 - SAE 'C' 4-bolt

Housing for 'H1' & 'H2'
(Displacement cc/rev)
1.25 = 15.90 cc/rev
1.50 = 24.00
1.75 = 32.00
2.00 = 40.10
2.25 = 48.10
2.50 = 56.30
2.75 = 64.40

Shaft end details (Shaft type)
3 = 13 SPLINE 7/8" SAE B
4 = 1" KEY SAE BB
5 = 15 SPLINE 1" SAE BB

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 83,84

Ports Position
B1 - Common Inlet, Dual outlet

Connecting shaft
(For Double pump)
2 - CC

Rear Section
(For Tandem/piggyback)
VGP - CH

Port connections OUTLET(P1,P2)
See page 83,84

*** :- For Double pumps / Tandem pumps & Motors**

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.Tests were run with an oil reservoir temperature of 50°C and a viscosity of 38mm^2/S at 40°C.

VGP - CH / CH1 Performance Data :

VGP CH/CH1 Series		Gear Housing Widths								
		1.25"	1.50"	1.75"	2.00"	2.25"	2.50"	2.75"	2.50"	2.75"
Displacement	cc/rev	15.90	24.0	32.0	40.10	48.10	56.30	64.40	72.50	80.0
	in^3/rev	0.99	1.48	1.97	2.46	2.96	3.45	3.94	4.43	4.92
Max.Opreating Pressure	(bar)	170/205	170/205	170/205	170/205	170/205	153/170	153/170	138/153	138/153
	(psi)	2500/3000	2500/3000	2500/3000	2500/3000	2500/3000	2250/2500	2250/2500	2000/2250	2000/2250
Max.Speed	(rpm)	2400	2400	2400	2400	2400	2400	2400	2400	2400
Pump Weight	(kg)	-	-	15.0	15.5	16.0	16.5	17.0	17.5	18.0

Flow rate & Housing width Performance Data - VGP CH / CH1

Flow data at 170 bar unless noted.

	Speed (rpm)	Gear Housing Widths / Flow Rate [VGP - CH Series]													
		1.25"		1.5"		1.75"		2.0"		2.25"		2.50"		2.75"	
		gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm
CH/ CH1	900	–	–	–	–	6.5	24.1	8.0	30.2	10.0	37.8	12.0	45.4	13.5	51.0
	1200	–	–	–	–	8.5	33.0	11.0	43.0	14.0	53.0	16.0	61.0	18.5	70.4
	1500	–	–	–	–	11.5	43.6	14.5	55.5	17.5	66.5	20.5	77.6	24.0	90.0
	1800	–	–	–	–	13.5	52.0	17.5	66.5	21.5	81.5	25.0	94.5	29.0	110.0
	2100	–	–	–	–	16.0	62.5	21.0	79.5	25.5	97.0	29.5	112.0	34.5	130.5
	2400	–	–	–	–	18.5	70.5	24.0	91.0	29.5	111.5	34.0	129.0	39.5	149.5

Housing width & Input Power Performance Data - VGP CH / Ch1

Input Power at 170 bar unless noted.

	Speed (rpm)	Gear Housing Widths / Input power [VGP - CH Series]									
		1.75"		2.0"		2.25"		2.5"		3.0"	
		HP	KW	HP	KW	HP	KW	HP	KW	HP	KW
CH/ CH1	900	15	11	18	13	21	16	24	18	25	18
	1200	19	14	22	16	27	20	30	22	34	25
	1500	24	18	28	21	33	24	38	28	41	30
	1800	27	20	34	25	39	29	45	33	50	37
	2100	33	24	39	29	45	33	52	38	57	42
	2400	36	26	45	33	52	38	58	43	65	48

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

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.Tests were run with an oil reservoir temperature of 50°C and a viscosity of 38mm^2/S at 40°C.

VGM - CH

Motor performance data at 138 bar (2000 psi)unless noted.

Speed (rpm)	Gear Housing Widths / Input flow-OutputTorque [CH Series]																	
	1.75"						2.25"						2.75"					
	Input Flow		Output				Input Flow		Output				Input Flow		Output			
			Torque		Power				Torque		Power				Torque		Power	
	gpm	lpm	In-lbs	Nm	HP	kW	gpm	lpm	In-lbs	Nm	HP	kW	gpm	lpm	In-lbs	Nm	HP	kW
800	8.7	33	550	62	7	5	12.5	47	867	98	11	8	17.5	66	1155	130	14.5	11
1200	13	49	550	62	10.5	8	18.5	70	867	98	16.5	12.5	23.5	89	1155	130	22	16.5
1600	16.5	62	550	62	14	10	23.5	89	860	97	22	16.5	30.0	113	1140	129	29	21.5
2000	19	72	536	61	17	12.5	28	106	850	96	27	20	37.0	140	1125	127	36	27

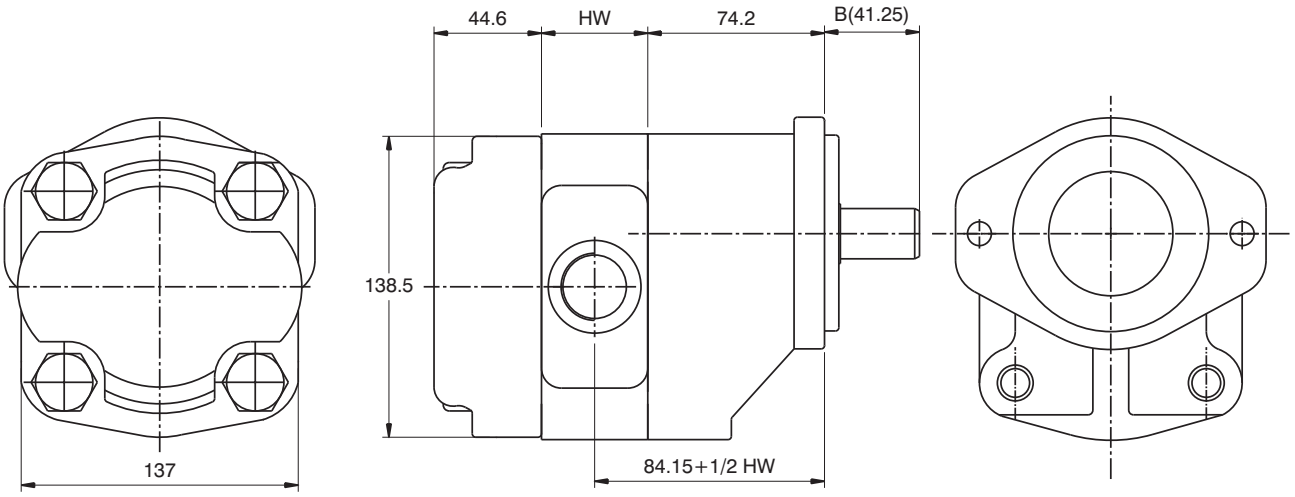
VGM - CH1

Motor performance data at 172 bar (2500 psi) unless noted.

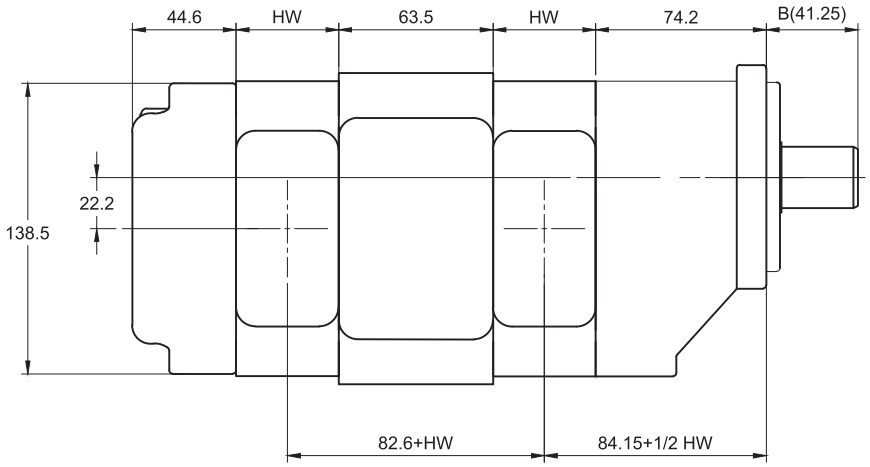
Speed (rpm)	Gear Housing Widths / Input flow-OutputTorque [CH Series]																	
	1.75"						2.25"						2.75"					
	Input Flow		Output				Input Flow		Output				Input Flow		Output			
			Torque		Power				Torque		Power				Torque		Power	
	gpm	lpm	In-lbs	Nm	HP	kW	gpm	lpm	In-lbs	Nm	HP	kW	gpm	lpm	In-lbs	Nm	HP	kW
800	8.7	33	670	76	8.5	6.5	12.5	47	1040	117	13	9.5	17.5	66	1380	156	17.5	13
1200	13	49	685	77	13	9.5	18.5	70	1050	118	20	15	23.5	89	1410	159	27	20
1600	16.5	62	680	76	17.5	13	23.5	89	1030	116	26	19.5	30.0	113	1400	158	35.5	26
2000	19	72	660	74.5	21	15.5	28	106	1010	114	32	24	37.0	140	1370	155	43	32

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

Unit Dimensions of VGP - CH / CH1 :



SINGLE UNIT



MULTIPLE UNIT

VGP- CH / CH1 Series	
Housing Width (HW)	
Inches	'mm'
1.25"	31.75
1.50"	38.10
1.75"	44.45
2.00"	50.8
2.25"	57.15
2.50"	63.50
2.75"	69.85
3.00"	76.20
3.25"	82.55

A* - Dimension varies with the type of ports

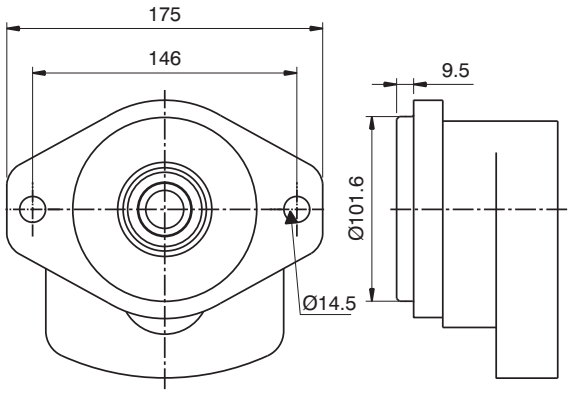
B - Dimension varies with the type of drive shaft ends

HW - Housing width

FLANGE DETAILS - 'CH / CH1' Series :

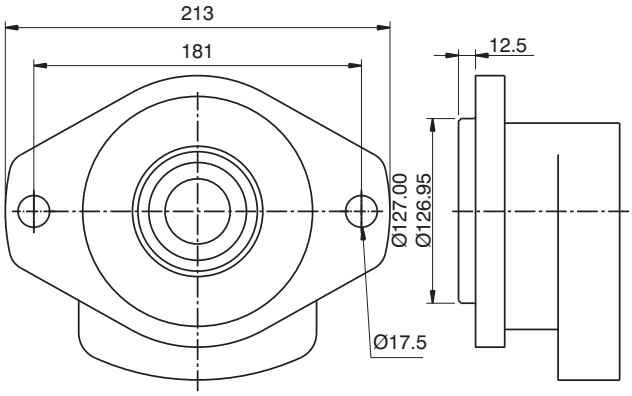
Code - BS_2

S.A.E - "B" 2 - Bolt flange



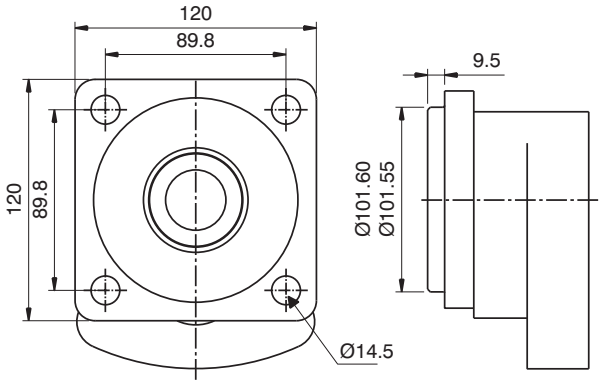
Code - CS_2

S.A.E - "C" 2 - Bolt flange



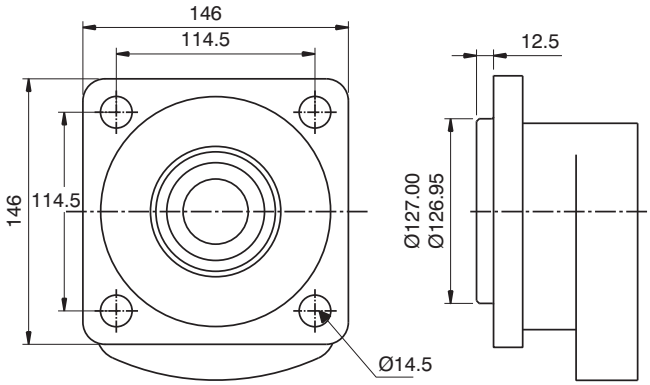
Code - BS_4

S.A.E - "B" 4 - Bolt flange



Code - CS_4

S.A.E - "C" 4 - Bolt flange



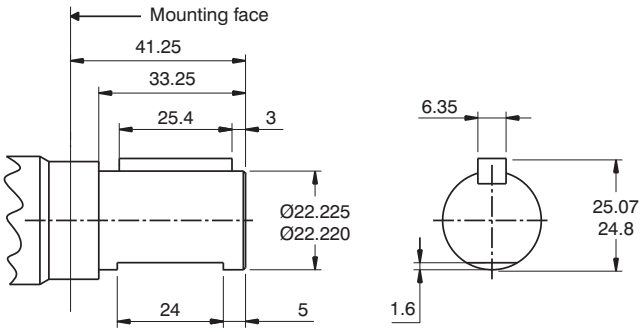
Unit dimensions of VGP - CH / CH1

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 & in^3/rev. respectively

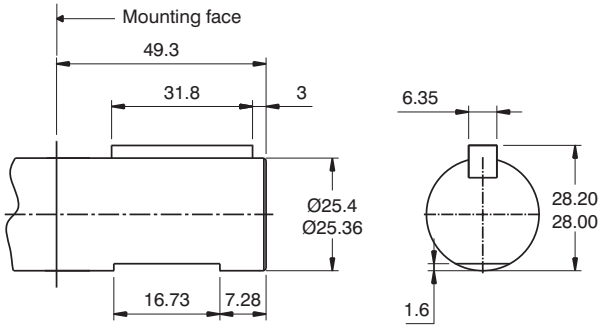
Drive shaft configurations:-

CODE 1 - CH



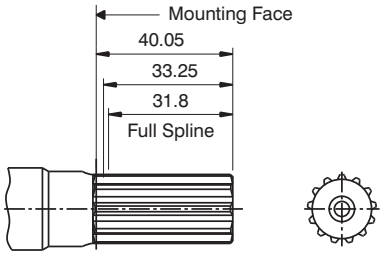
KEYED SAE 'B'

CODE 4 - CH



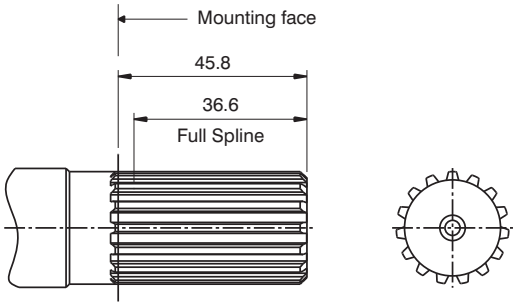
KEYED SAE 'BB'

CODE 3 - CH



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

CODE 5 - CH



SAE 'BB' SPLINE

SAE-BB splined shaft
Class 1-J498b
16/32 dp.15 teeth
30° PA flat root side fit.