

## EH / EH1 Series

### Gear Pump Ordering Code

VGP	EH	a	R1	CS <sub>2</sub>	2.5	*	6	S1	P2	GB	FB	*	*	*	*
<b>Veljan Gear Pump</b> P - Pumps M - Motor					H1	H2					P1	P2			
<b>Series (EH / EH1)</b>															
<b>Pump type</b> a - Single Unit b - Multiple Unit / Double pump															
<b>Shaft End Cover (Rotation)</b> (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-EH 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-EH 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															
<b>Mounting type</b> - CS <sub>2</sub> - SAE 'C' 2-bolt - CS <sub>4</sub> - SAE 'C' 4-bolt															
<b>Housing for 'H1' &amp; 'H2'</b> (Displacement cc/rev) 1.75 = 50.20 cc/rev 2.00 = 67.00 2.25 = 84.10 2.50 = 100.50 2.75 = 117.40 3.00 = 134.20 3.25 = 151.20 3.50 = 168.10 3.75 = 184.40 4.00 = 200.10															
<b>Shaft end details</b> (Shaft type) 6 = 1 1/4" KEY SAE C 7 = 14 SPLINE 1 1/4" SAE C 10 = Ø 45mm Keyed Shaft															
<b>Seal class</b> S 1 (for Mineral oil) S 4 (for fire resistant fluids) S 5 (for mineral oil and fire resistant fluids)															
<b>Port Block type</b> 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															
<b>Port connections-INLET</b> See page 135,136															
<b>Ports Position</b> B1 - Common Inlet, Dual outlet															
<b>Connecting shaft</b> (For Double pump) 3 - EE															
<b>Rear Section</b> (For Tandem/piggyback) VGP - CH VGP - DH VGP - EH															
<b>Port connections</b> <b>OUTLET(P1,P2)</b> See page 135,136															
* :- 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<sup>2</sup>/S at 40°C.

**VGP  
BPM**

## VGP - EH/EH1 Performance Data:-

EH/EH1-Series		Gear Housing Widths									
		1.75"	2.00"	2.25"	2.50"	2.75"	3.00"	3.25"	3.50"	3.75"	4.00"
Displacement	cc/rev	50.20	67.00	84.10	100.50	117.40	134.20	151.20	168.10	184.40	200.10
	in <sup>3</sup> /rev	3.07	4.09	5.13	6.14	7.17	8.20	9.21	10.25	11.28	12.30
Max.Opreating Pressure	(bar)	170/205	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	2500/3000	2250/2500	2250/2500	2000/2250	2000/2250
Max.Speed	(rpm)	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
Pump Weight	(kg)	-	33.2	34.2	35.2	36.2	37.2	38.2	39.2	40.5	41.5

## Flow rate & Housing width Performance data - VGP EH/EH1

Flow data at 170 bar (2500 PSI) unless noted.

EH/ EH1	Speed (rpm)	Gear Housing Widths / Flow Rate [ VGP - EH/EH1 Series ]																	
		2.0"		2.25"		2.50"		2.75"		3.00"		3.25"		3.50"		3.75"*		4.00"*	
		gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm
	900	11.0	41.70	15.0	56.7	19.0	72.0	23.5	89.0	26.5	100.3	30.0	113.5	34.0	128.7	38.0	143.8	41.5	157.0
	1200	17.5	66.2	21.0	79.5	27.5	104.1	31.5	119.2	37.0	140.0	41.0	155.2	47.5	179.8	53.0	200.6	58.5	221.4
	1500	22.5	85.1	29.0	109.7	35.0	132.4	41.0	155.2	48.0	181.7	54.0	204.4	60.0	227.1	66.5	251.7	73.5	278.2
	1800	27.0	102.2	35.5	134.3	43.0	162.7	50.5	191.1	58.5	221.4	67.0	253.6	74.0	280.0	81.0	306.6	89.0	337.0
	2100	32.5	123.0	41.5	157.0	48.5	183.5	59.0	223.3	68.0	257.4	76.0	287.7	85.0	321.7	94.0	355.8	103.0	389.8
	2400	37.0	140.0	48.0	181.7	58.0	219.5	69.5	263.0	79.5	301.0	89.0	337.0	99.0	374.7	109.0	412.6	120.0	454.2

\*Flow data at 138 bar (2000 PSI) rated pressure

## Housing width & Input Power Performance data - VGP EH/EH1

Input Power at 170 bar (2500 PSI) unless noted.

EH/ EH1	Speed (rpm)	Gear Housing Widths / Input power [ VGP - EH/EH1 Series]																	
		2.0"		2.25"		2.50"		2.75"		3.00"		3.25"		3.50"		3.75"*		4.00"*	
		HP	KW	HP	KW	HP	KW	HP	KW	HP	KW	HP	KW	HP	KW	HP	KW	HP	KW
	900	27	20	33	25	39	29	46	34	51	38	58	43	65	48	58	43	63	47
	1200	36	27	44	33	53	39	61	45	70	52	78	58	87	65	77	57	83	62
	1500	45	33	56	42	65	48	76	56	88	65	99	74	110	82	97	72	106	79
	1800	54	40	67	50	80	59	94	70	107	80	120	89	133	99	115	86	126	94
	2100	63	47	78	58	94	70	108	80	125	93	140	104	154	115	135	101	147	110
	2400	72	54	89	66	107	80	125	93	141	105	160	119	177	132	155	116	168	125

\*Input Power at 138 bar (2000 PSI)

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<sup>2</sup>/S at 40°C.

**VGM - EH**

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

Speed (rpm)	Gear Housing Widths / Input flow-OutputTorque [EH Series]														
	1.75"			2.25"			2.75"			3.25"			3.25"		
	Input Flow	Output		Input Flow	Output		Input Flow	Output		Input Flow	Output		Input Flow	Output	
		Torque	Power		Torque	Power		Torque	Power		Torque	Power		Torque	Power
800	20.0	1060	14	28.0	1640	22	34.5	2210	29	44	2870	36	50	3650	45
	76.0	120	10	106	185	16	130.5	250	22	166	324	27	189	412	33.5
1200	26.5	1030	18.5	37.5	1600	29.5	49.0	2200	42	60	2860	53	71	3570	67
	100	116	14	142	181	22	185	248	31	227	323	39.5	269	403	50
1600	34.0	1000	24.5	48.0	1565	39	64.0	2175	54	77	2810	70	92	3500	88
	129	113	18	182	177	29	242	245	40	291	317	52	348	395	66
2000	42.0	960	30.5	55.5	1555	48	78.0	2170	67	96	2760	86	114	3430	108
	159	108	23	210	176	36	295	245	50	363	311	64	431	387.5	80.5

U.S / Metric      Input Flow :  $\frac{\text{gpm}}{\text{lpm}}$       Torque :  $\frac{\text{in-lbs}}{\text{Nm}}$       Power :  $\frac{\text{HP}}{\text{kW}}$

**VGM - EH1**

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

Speed (rpm)	Gear Housing Widths / Input flow-OutputTorque [EH Series]														
	1.75"			2.25"			2.75"			3.25"			3.25**		
	Input Flow	Output		Input Flow	Output		Input Flow	Output		Input Flow	Output		Input Flow	Output	
		Torque	Power		Torque	Power		Torque	Power		Torque	Power		Torque	Power
800	20.0	1410	18	28.0	2145	28	34.5	2880	36	44	3650	43	50	3630	46
	76.0	159	13.5	106	242	21	130.5	325	27	166	412	32	189	410	34
1200	26.5	1400	26	37.5	2140	38	49.0	2875	54	60	3640	69	71	3575	67
	100	158	19	142	242	28	185	325	40	227	411	51	269	404	50
1600	34.0	1370	34.5	48.0	2110	48	64.0	2840	72	77	3600	91	92	3500	88
	129	155	26	182	238	36	242	321	54	291	407	68	348	395	66
2000	42.0	1350	43	55.5	2095	58	78.0	2810	88	96	3500	111	114	3430	108
	159	152.5	32	210	237	43	295	317	65	363	395	83	431	387.5	80.5

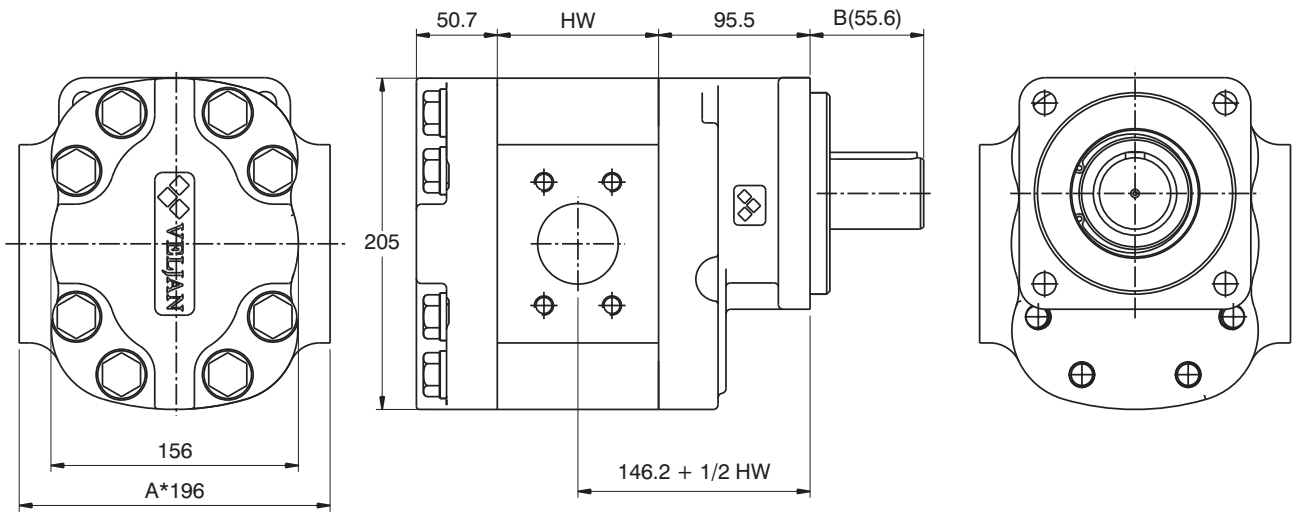
\*Motor performance data at 138 bar (2000 psi)

U.S / Metric      Input Flow :  $\frac{\text{gpm}}{\text{lpm}}$       Torque :  $\frac{\text{in-lbs}}{\text{Nm}}$       Power :  $\frac{\text{HP}}{\text{kW}}$

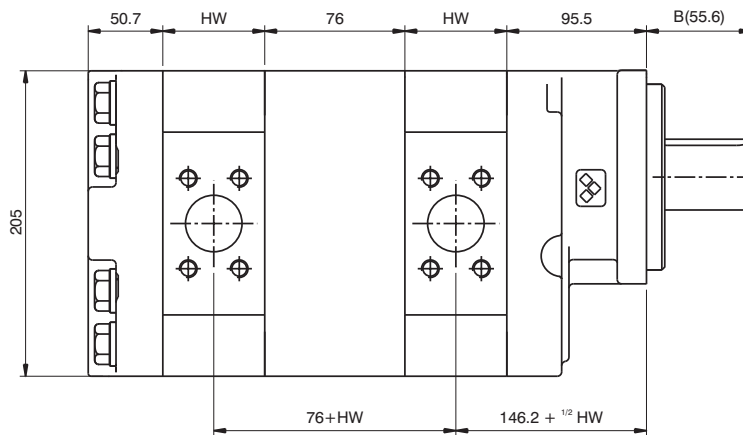
Note: In accordance with our policy of continuous development, we reserve the right to change specifications shown in this catalogue without notice.

**Unit Dimensions of VGP - EH/EH1 :**

VGP  
BPM



**SINGLE UNIT**



**MULTIPLE UNIT**

VGP-EH/EH1 Series	
Housing Width (HW)	
Inches	'mm'
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
3.50"	88.90
3.75"	95.25
4.00"	101.6

A\* - Dimension varies with the type of ports.

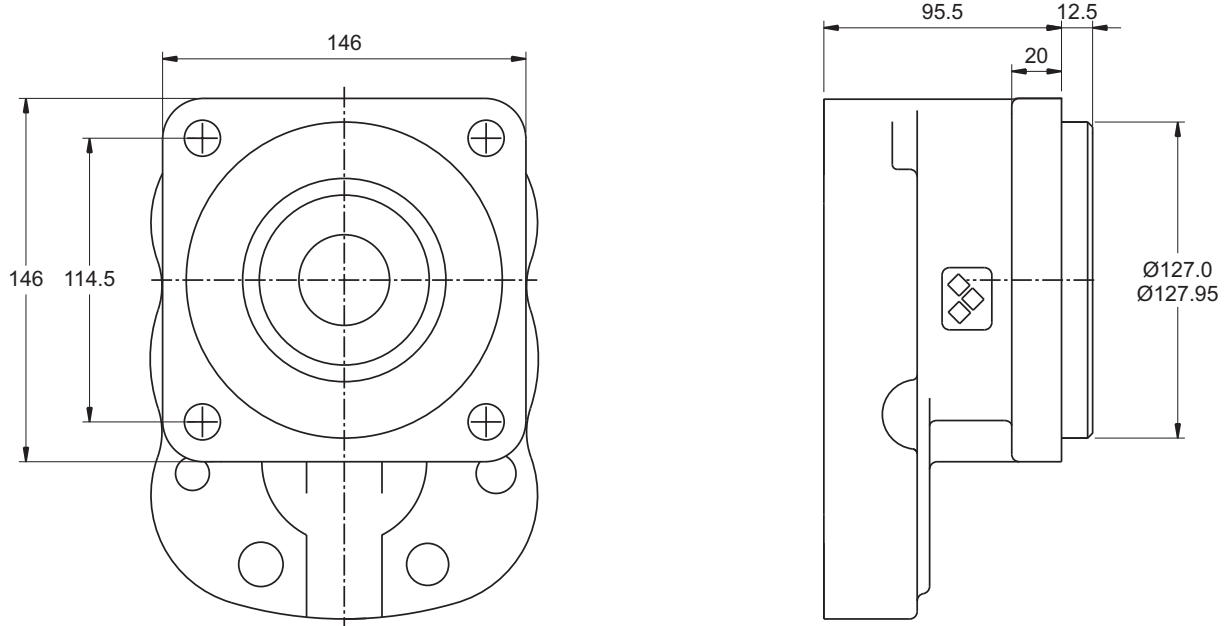
B - Dimension varies with the type of drive shaft ends.

HW - Housing width

**FLANGE DETAILS - 'EH/EH1' Series:-**

**CODE : - CS<sub>4</sub>**

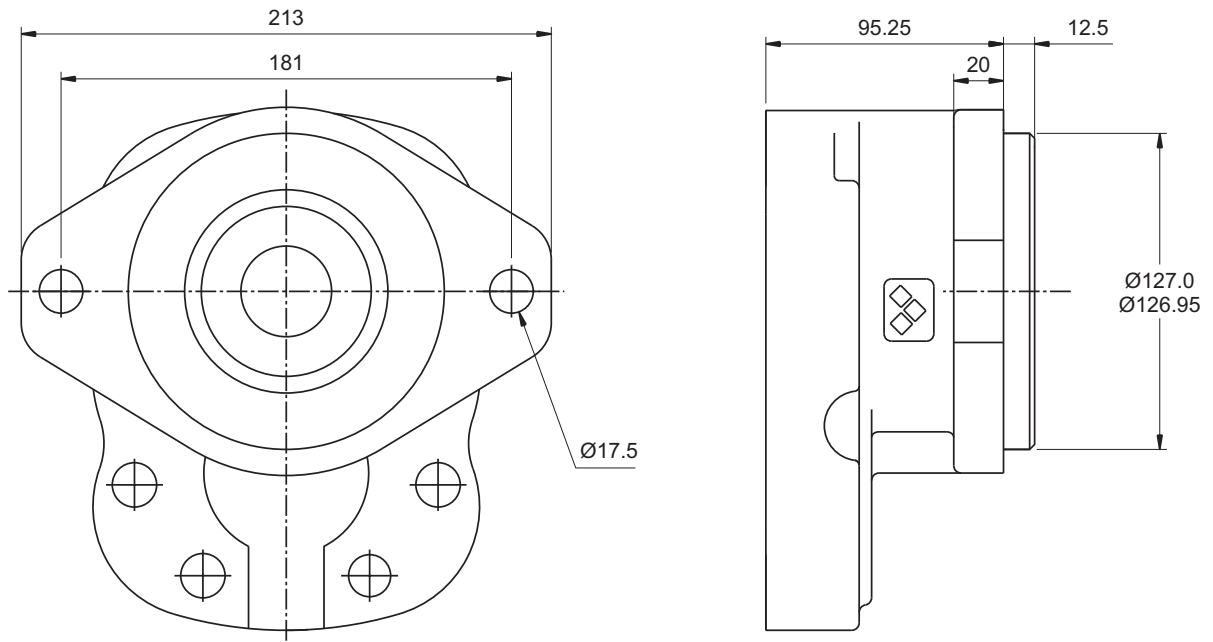
**(S.A.E - "C" 4-Bolt flange)**



**VGP**  
**BPM**

**CODE : - CS<sub>2</sub>**

**(S.A.E -"C" 2-Bolt flange)**



## Unit dimensions of VGP-EH/EH1

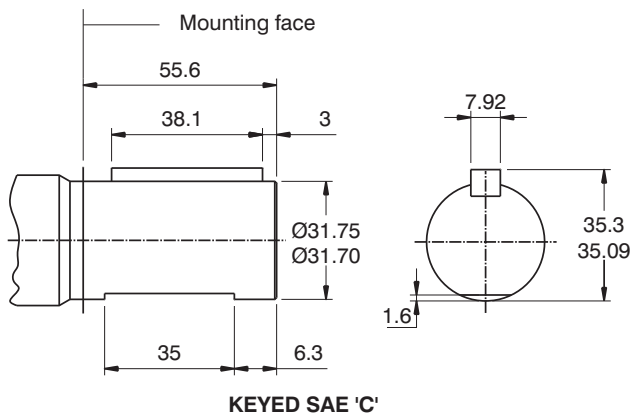
### Side ported (SAE Versions) Shafts:-

- Pump rotation as viewed from the shaft end: Clockwise rotation- outlet on right; Counter clockwise rotation - outlet on left
- 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<sup>3</sup>/rev. respectively

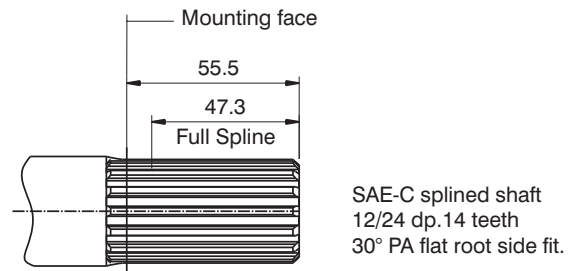
### Drive shaft configurations:-

VGP  
BPM

#### SHAFT CODE 6:-



#### SHAFT CODE 7:-



#### SHAFT CODE 10:-

