



Variable Speed Single & Double Vane Pump

Catalogue 2025



BUREAU
VERITAS

Bureau Veritas Certification

FLO-TECH ENGINEERING CO., LTD.

47 SOI SUKSAWAD 14/18 JOMTONG, JOMTONG, BANGKOK 10150 THAILAND

Bureau Veritas Certification Holding SAS - UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015

Scope of certification

**DESIGN & DEVELOP, PRODUCTION AND TRADING OF HYDRAULIC PUMP,
HYDRAULIC MOTOR, HYDRAULIC VALVE, PNEUMATIC VALVE,
POWER UNIT AND HYDRAULIC ACCESSORIES**

Original cycle start date:	17 March 2009
Expiry date of previous cycle:	NA
Certification / Recertification Audit date:	NA
Certification / Recertification cycle start date:	16 March 2024
Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on:	16 March 2027

Certificate No.: TH022197

Version: 1

Issue date: 16 March 2024



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Signed on behalf of BVCH SAS UK Branch

Certification Body Address: 5th Floor, 66 Prescott Street, London, E1 8HG, United Kingdom

Local Office: Bureau Veritas Certification (Thailand) Ltd. 16th Floor, Bangkok Tower, 2170 New Petchburi Road, Bangkapi, Huaykwang, Bangkok 10310, Thailand

Further clarifications regarding the scope and validity of this certificate, and the applicability of the management system requirements, please call: 66 2 670 4800

UKAS Certificate Template Single Site Rev.4.1

28 Aug 2023



HOF Hydraulic Solutions Warranty Policy

Warranty

Flowlution Co.,Ltd, sole distributor of "HOF Hydraulic Solutions", Warrants all of its products to be free from defects in material and workmanship under normal operating conditions and proper application in accordance with the specifications for operation as described by the manufacturer for the period of twelve (12) months in service.

Limitations on Warranty

This Warranty is expressly in lieu of any other warranties expressed or implied. Buyer's sole and exclusive remedy under this Warranty shall be limited to the repair, replacement or exchange of warranted products at our option, F.O.B. our factory, or designated service center.

No special, incidental, consequential or other damage shall be recoverable. Flowlution Co.,Ltd shall not be liable for consequential damages or contingent liabilities including, but not limited to, loss of life, personal injury, loss of crops, loss due to fire or water damage, loss of business or business income, down time costs and trade or other commercial loss arising out of the failure of the product. Flowlution Co.,Ltd will in no event be liable for any sum in excess of the price received by it for the product for which liability is claimed or asserted.

No product shall be returned without prior authorization from Flowlution Co.,Ltd. Buyers and their agents shall prepay all transportation charges for the return of such products to Flowlution Co.,Ltd's factory or designated service center. There will be no acceptance of any charges for labor and/or parts incidental to the removal or remounting of product repaired or replaced under this Warranty.

The above Warranty does not cover conditions over which Flowlution Co.,Ltd has no control, including, without limitation, contamination, pressures in excess of recommended maximum, products damaged or subject to accident abuse or misuse after shipment from our factory, products altered or repaired by anyone other than Flowlution Co.,Ltd personnel, authorized Flowlution Co.,Ltd factory personnel or persons so designated in writing by Flowlution Co.,Ltd prior to commencement of said work.

A return goods authorization number must be obtained from Flowlution Co.,Ltd or Flowlution Co.,Ltd's authorized Service center, or Flowlution Co.,Ltd's authorized agent prior to any products being returned for Warranty.

For more details please contact info@flowlution.com or contact@hofhydraulic.com



Variable Speed Single Vane Pump HT7B/HT7BS Series

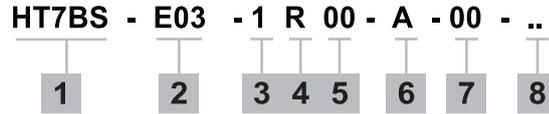
Specification

HT7B, HT7BS for Single pump

Size	Displacement cm ³ /r 1(in ³ /r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Max. Speed rpm	Weight
E03	9.8 (0.59)	320 (4640)	290 (4200)	3600	23.5 (51.8)
E04	12.8 (0.78)				
E05	15.9 (0.97)				
E06	19.8 (1.20)				
E07	22.5 (1.37)				
E08	24.9 (1.51)				
E09	28.0 (1.70)				
E10	31.8 (1.94)	300 (4350)	275 (4000)	3000	
E11	35.0 (2.13)				
E12	41.0 (2.50)				
E14	45.0 (2.74)	280 (4060)	240 (3500)	3000	
E15	50.0 (3.05)				

Variable Speed Single Vane Pump HT7B/HT7BS Series

Ordering Code : Single Pump



1. Model :

- Industrial - HT7B ISO 2 bolts 3019-2 mounting flange 100 A2 HW
- HT7BS SAE B 2 bolts mounting flange J744

2. Displacement

Volumetric displacement cm³/rec (in³/rev)

- E03 - 9.8 (0.60)
- E04 - 12.8 (0.78)
- E05 - 15.9 (0.97)
- E06 - 19.8 (1.20)
- E07 - 22.5 (1.37)
- E08 - 24.9 (1.51)
- E09 - 28.0 (1.70)
- E10 - 31.8 (1.92)
- E11 - 35.0 (2.14)
- E12 - 41.0 (2.47)
- E14 - 45.0 (2.70)
- E15 - 50.0 (3.01)

3. Type of shaft

- HT7B
- 2 - ISO R775-G38M Keyed Shaft

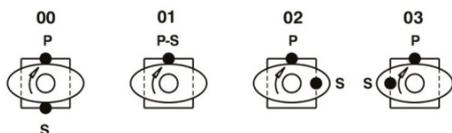
- HT7BS
- 1 - SAE B Keyed Shaft
 - 3 - SAE B Splined Shaft
 - 4 - SAE BB Splined Shaft

4. Direction of rotation (Viewed from shaft end)

- R - Turn right
- L - Turn left

5. Porting combination

- 00 - standard



S - Suction port P - Pressure port

6. Design letter

7. Port Connection (4 bolts SAE flange J518C)

- 00 - UNC Port Connection (Except HT7B)
- M0 - Metric Port Connection

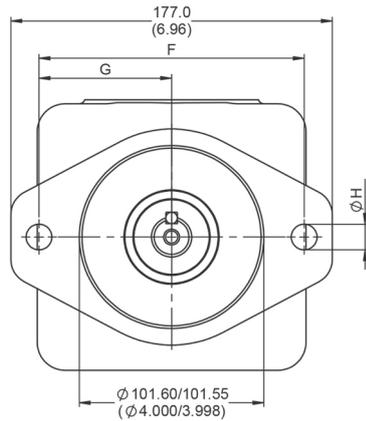
8. Modifications

- Omit - Standard
- 718 - Surface grinding the flange face for the manifold

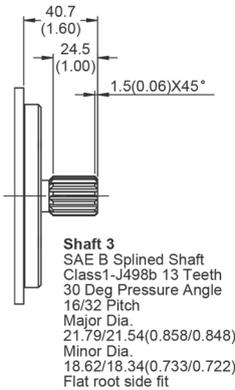
Variable Speed Single Vane Pump HT7B/HT7BS Series

Installation Dimension mm (inch)

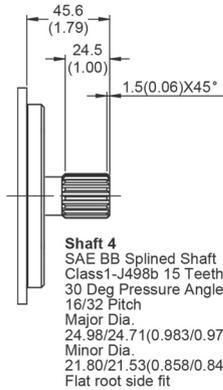
HT7B, HT7BS



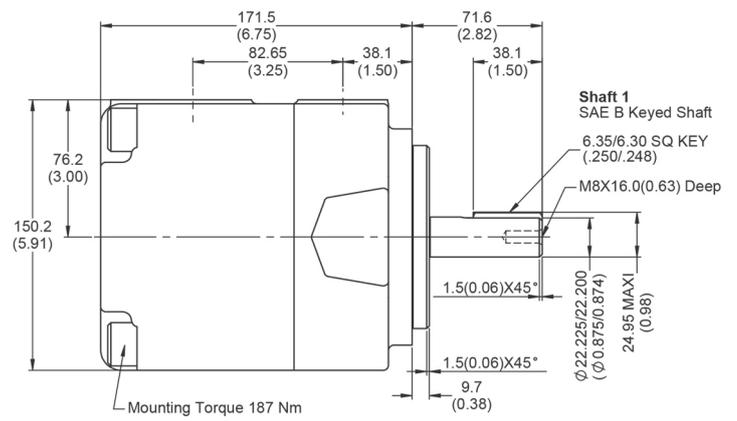
HT7BS
(FLANGE SAE B)



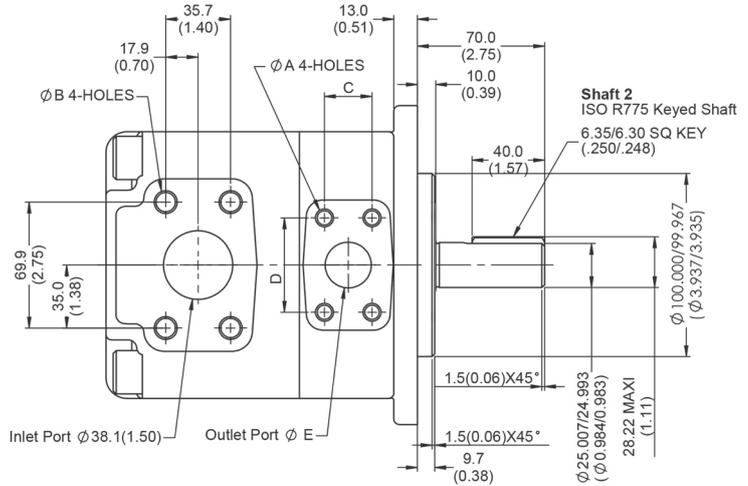
Shaft 3
SAE B Splined Shaft
Class1-J498b 13 Teeth
30 Deg Pressure Angle
16/32 Pitch
Major Dia. 21.79/21.54(0.858/0.848)
Minor Dia. 18.62/18.34(0.733/0.722)
Flat root side fit



Shaft 4
SAE BB Splined Shaft
Class1-J498b 15 Teeth
30 Deg Pressure Angle
16/32 Pitch
Major Dia. 24.98/24.71(0.983/0.973)
Minor Dia. 21.80/21.53(0.858/0.848)
Flat root side fit



HT7B
(FLANGE ISO 3019/2 100A 2HW)



Model	HT7B/BS		HT7BS	
	M0	M1	00	01
ØA	M10 x19.0 DEEP		3/8"-16 UNC x 19.0 DEEP	
ØB	M12 x 22.4 DEEP		1/2" -13 UNC x 22.4 DEEP	
C	26.2	22.25	26.2	22.25
D	52.4	47.65	52.4	47.65
ØE	25.4	19.1	25.4	19.1
F	140.0		146.0	
G	70.0		73.0	
ØH	14.0		14.3	

Shaft torque limits [ml/rev. x bar]	
Shaft	Vi x p max.
1	16500
2	20600
3	
4	

Variable Speed Single Vane Pump HT7B/HT7BS Series

Performance Characteristics

HT7B, HT7BS

OPERATING CHARACTERISTICS - TYPICAL [115 SUS]

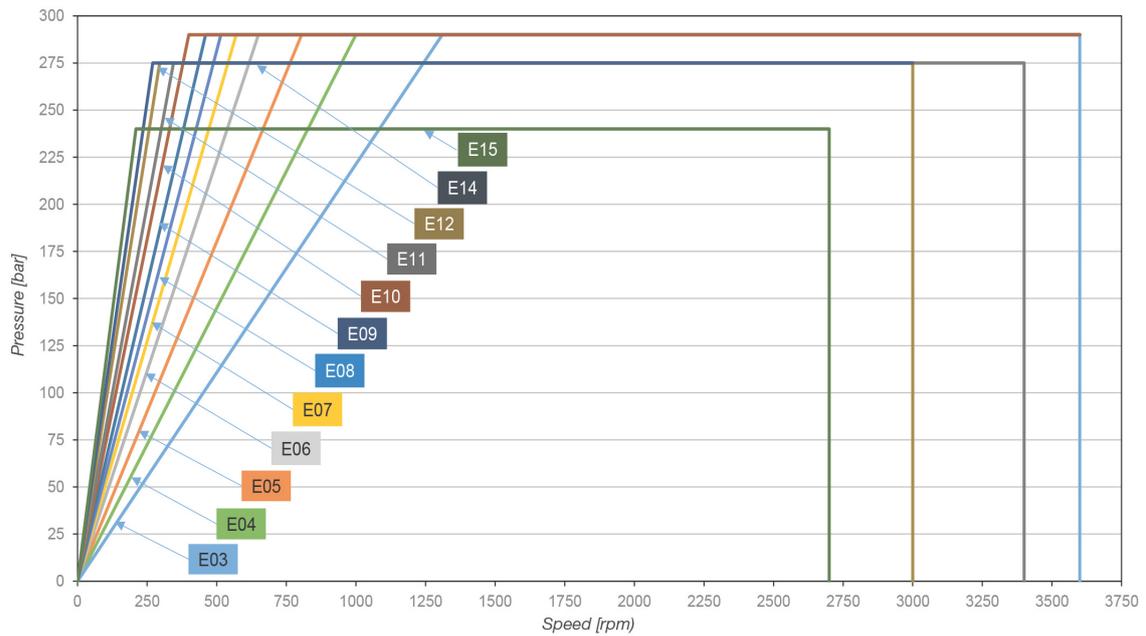
Series	Volumetric Displacement	Flow Q (GPM) & n = 1500 RPM			Input power P (HP) & n = 1500 RPM		
		p = 0 PSI	p = 2000 PSI	p = 4650 PSI	p = 0 PSI	p = 2000 PSI	p = 4650 PSI
E03	0.59 in ³ /rev	3.88	3.43	2.85	0.80	5.36	11.52
E04	0.78 in ³ /rev	5.07	4.62	4.04	0.80	6.70	14.74
E05	0.97 in ³ /rev	6.31	5.86	5.28	0.93	8.17	18.09
E06	1.20 in ³ /rev	7.84	7.39	6.81	0.93	10.05	22.25
E07	1.37 in ³ /rev	8.90	8.45	7.89	1.07	11.39	25.20
E08	1.51 in ³ /rev	9.88	9.43	8.84	1.07	12.46	27.74
E09	1.70 in ³ /rev	11.09	10.56	10.06	1.20	13.94	31.09
E10	1.94 in ³ /rev	12.60	12.15	11.57	1.20	15.68	35.12
E11	2.13 in ³ /rev	13.86	13.41	12.91 ¹⁾	1.34	17.15	36.19 ¹⁾
E12	2.50 in ³ /rev	16.24	15.79	15.29 ¹⁾	1.47	19.97	42.22 ¹⁾
E14	2.74 in ³ /rev	17.83	17.38	16.88 ¹⁾	1.60	21.84	46.24 ¹⁾
E15	3.05 in ³ /rev	19.81	19.36	18.91 ²⁾	1.74	24.26	47.85 ²⁾

1) 11 - 12 - 14 = 4350 PSI max. int. 2) 15 = 4000 PSI max. int.
 - Not to use because internal leakage greater than 50% theoretical flow.
 - Port connection can be furnished with metric threads.

Variable Speed Single Vane Pump HT7B/HT7BS Series

Performance Graph

HT7B, HT7BS Operating Range



Variable Speed Single Vane Pump HT7D/HT7DS Series

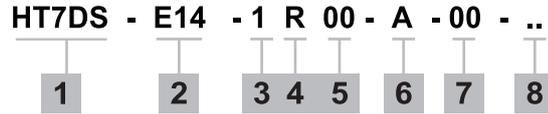
Specification

HT7D, HT7DS for Single pump

Size	Displacement cm ³ /r 1(in ³ /r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Max. Speed rpm	Weight
E14	47.6 (2.90)	300 (4350)	250 (3600)	3000	27.0 (59.4)
E17	58.2 (3.55)				
E20	66.0 (4.03)				
E22	70.0 (4.27)				
E24	79.5 (4.85)				
E28	89.7 (5.47)				
E31	98.3 (6.00)	280 (4060)	2800	2500	
E35	111.0 (6.77)				
E38	120.3 (7.34)	260 (3770)	235 (3400)	2500	
E42	136.0 (8.30)				

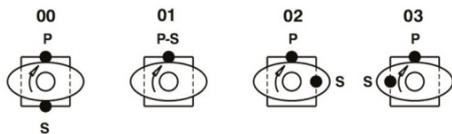
Variable Speed Single Vane Pump HT7D/HT7DS Series

Ordering Code : Single Pump



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| <p>1. Model :
 Industrial - HT7D ISO 2 bolts 3019-2 mounting flange 125 A2 HW
 - HT7DS SAE C 2 bolts mounting flange J744</p> <p>2. Displacement
 Volumetric displacement cm³/rec (in³/rev)
 E14 - 47.6 (2.90)
 E17 - 58.2 (3.55)
 E20 - 66.0 (4.03)
 E22 - 70.0 (4.27)
 E24 - 79.5 (4.85)
 E28 - 89.7 (5.47)
 E31 - 98.3 (6.00)
 E35 - 111.0 (6.77)
 E38 - 120.3 (7.34)
 E42 - 136.0 (8.30)</p> <p>3. Type of shaft
 HT7D
 5 - ISO 3019-G38M Keyed Shaft

 HT7DS
 1 - SAE C Keyed Shaft
 3 - SAE C Splined Shaft</p> <p>4. Direction of rotation (Viewed from shaft end)
 R - Turn right
 L - Turn left</p> <p>5. Porting combination
 00 - standard</p> | <p>6. Design letter</p> <p>7. Port Connection (4 bolts SAE flange J518C)
 00 - UNC Port Connection (Except HT7D)
 M0 - Metric Port Connection</p> <p>8. Modifications
 Omit - Standard
 718 - Surface grinding the flange face for the manifold</p> |
|--|--|



S - Suction port P - Pressure port

Variable Speed Single Vane Pump HT7D/HT7DS Series

Performance Characteristics

HT7D, HT7DS

OPERATING CHARACTERISTICS - TYPICAL [115 SUS]

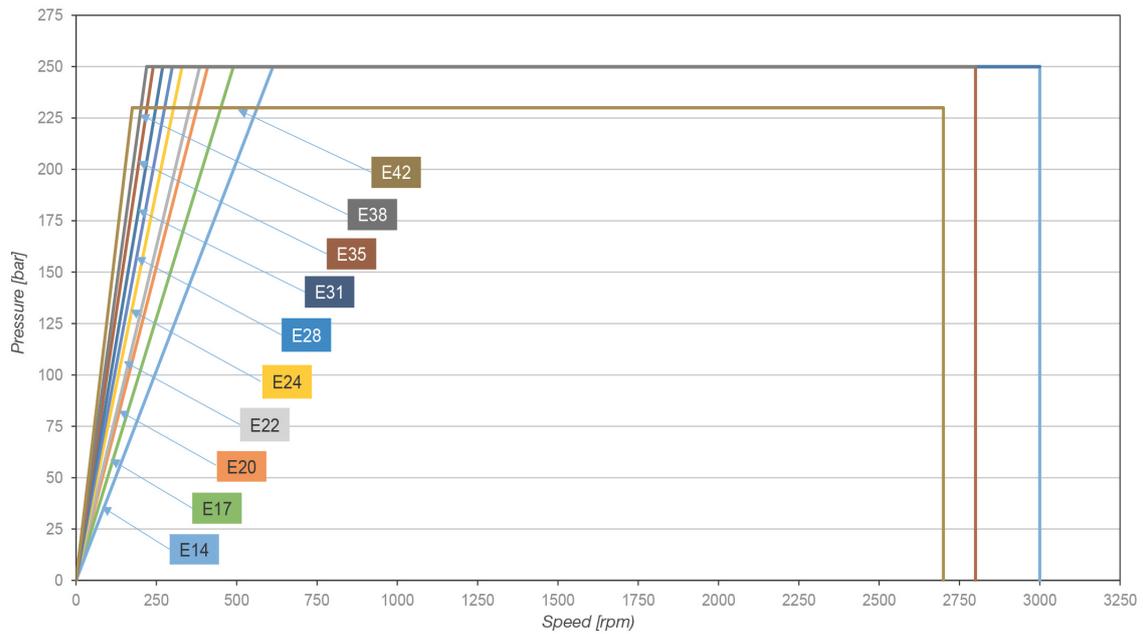
Series	Volumetric Displacement	Flow Q {GPM} & n = 1800 RPM			Input power P {HP} & n = 1800 RPM		
		p = 0 PSI	p = 2000 PSI	p = 4350 PSI	p = 0 PSI	p = 2000 PSI	p = 4350 PSI
E14	2.68 in ³ /rev	20.92	19.18	17.19	3.46	27.77	58.49
E17	3.36 in ³ /rev	26.16	24.41	22.42	3.77	33.88	71.92
E20	4.03 in ³ /rev	31.39	29.64	27.65	4.07	39.98	85.35
E22	4.29 in ³ /rev	33.43	31.69	29.70	4.19	42.37	90.60
E24	4.95 in ³ /rev	38.57	36.82	34.83	4.49	48.36	103.78
E28	5.49 in ³ /rev	42.80	41.06	39.06	4.74	53.30	114.65
E31	6.05 in ³ /rev	47.18	45.43	43.44	4.99	58.41	125.88
E35	6.92 in ³ /rev	53.93	52.18	50.44 ¹⁾	5.39	66.29	130.39 ¹⁾
E38	7.36 in ³ /rev	57.35	55.61	53.87 ¹⁾	5.59	70.28	138.38 ¹⁾
E42	8.39 in ³ /rev	65.39	63.65	62.15 ²⁾	6.05	79.66	149.39 ²⁾

1) 35 - 38 = 4060 PSI max. int. 2) 42 = 3770 PSI max. int.
*Special 2½" (2.5 dia) suction also available

Variable Speed Single Vane Pump HT7D/HT7DS Series

Performance Graph

HT7D, HT7DS Operating Range



Variable Speed Double Vane Pump HT7BB/HT7BBS Series

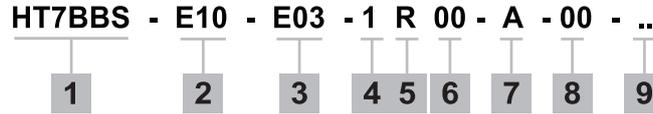
Specification

HT7BB, HT7BBS for Double pump

Shaft End Pump				Cover End Pump				Max. speed rpm	Weight kg (lb)
Size	Displacement cm ³ /r 1(in ³ /r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Size	Displacement cm ³ /r 1(in ³ /r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)		
E03	9.8 (0.59)	300 (4350)	275 (4000)	E03	9.8 (0.59)	300 (4350)	275 (4000)	3000	32.6 (71.87)
E04	12.8 (0.78)			E04	12.8 (0.78)				
E05	15.9 (0.97)			E05	15.9 (0.97)				
E06	19.8 (1.20)			E06	19.8 (1.20)				
E07	22.5 (1.37)			E07	22.5 (1.37)				
E08	24.9 (1.51)			E08	24.9 (1.51)				
E09	28.0 (1.70)			E09	28.0 (1.70)				
E10	31.8 (1.94)			E10	31.8 (1.94)				
E11	35.0 (2.13)			E11	35.0 (2.13)				
E12	41.0 (2.50)			E12	41.0 (2.50)				
E14	45.0 (2.74)	280 (4060)	240 (3500)	E14	45.0 (2.74)	280 (4060)	240 (3500)	2700	
E15	50.0 (3.05)			E15	50.0 (3.05)				

Variable Speed Double Vane Pump HT7BB/HT7BBS Series

Ordering Code : Double Pump

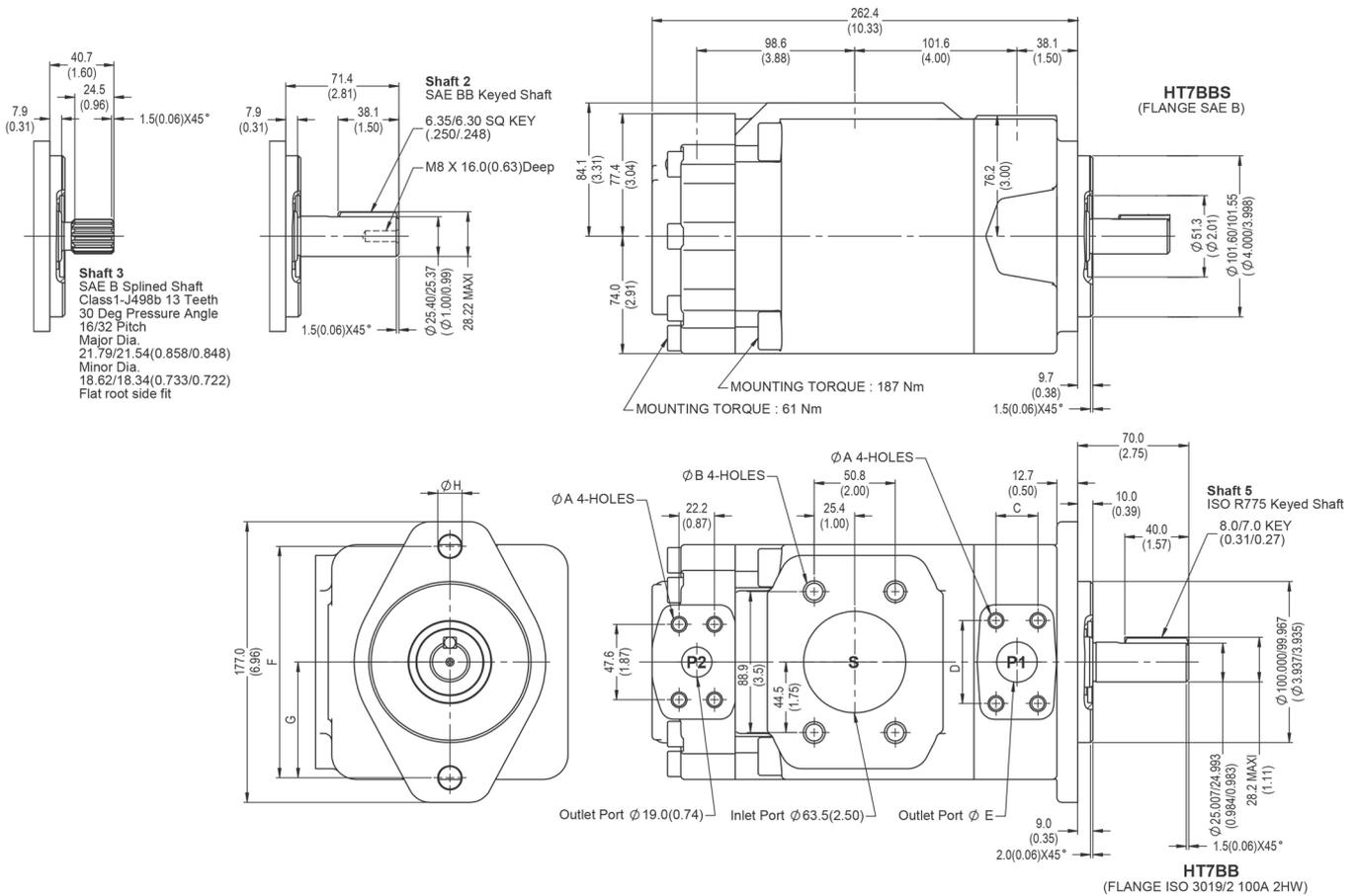


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|--|---|
| <p>1. Model :</p> <p>Industrial - HT7BB ISO 2 bolts 3019-2 mounting flange 100 A2 HW</p> <p>- HT7BBS SAE B 2 bolts mounting flange J744</p> <p>2. Displacement P1
Volumetric displacement cm³/rec (in³/rev)</p> <ul style="list-style-type: none"> E03 - 9.8 (0.60) E04 - 12.8 (0.78) E05 - 15.9 (0.97) E06 - 19.8 (1.20) E07 - 22.5 (1.37) E08 - 24.9 (1.51) E09 - 28.0 (1.70) E10 - 31.8 (1.92) E11 - 35.0 (2.14) E12 - 41.0 (2.47) E14 - 45.0 (2.70) E15 - 50.0 (3.01) <p>3. Displacement P2
Volumetric displacement cm³/rec (in³/rev)</p> <ul style="list-style-type: none"> E03 - 9.8 (0.60) E04 - 12.8 (0.78) E05 - 15.9 (0.97) E06 - 19.8 (1.20) E07 - 22.5 (1.37) E08 - 24.9 (1.51) E09 - 28.0 (1.70) E10 - 31.8 (1.92) E11 - 35.0 (2.14) E12 - 41.0 (2.47) E14 - 45.0 (2.70) E15 - 50.0 (3.01) <p>4. Type of shaft</p> <p>HT7BB</p> <ul style="list-style-type: none"> 5 - ISO R775-G38M Keyed Shaft <p>HT7BBS</p> <ul style="list-style-type: none"> 2 - SAE BB Keyed Shaft 3 - SAE B Splined Shaft | <p>5. Direction of rotation (Viewed from shaft end)</p> <ul style="list-style-type: none"> R - Turn right L - Turn left <p>6. Porting combination</p> <ul style="list-style-type: none"> 00 - Standard <p>7. Design letter</p> <p>8. Port Connection (4 bolts SAE flange J518C)</p> <ul style="list-style-type: none"> 00 - UNC Port Connection (Except HT7BB) M0 - Metric Port Connection <p>9. Modifications</p> <ul style="list-style-type: none"> Omit - Standard 718 - Surface grinding the flange face for the manifold. |
|--|---|

Variable Speed Double Vane Pump HT7BB/HT7BBS Series

Installation Dimension mm (inch)

HT7BB, HT7BBS



Model	HT7BB		HT7BBS	
Code	M0	M1	00	01
ØA	M10 x19.0 DEEP		3/8"-16 UNC x 19.0 DEEP	
ØB	M12 x 22.4 DEEP		1/2" -13 UNC x 22.4 DEEP	
C	26.2	22.25	26.2	22.25
D	52.4	47.65	52.4	47.65
ØE	25.4	19.1	25.4	19.1
F	140.0		146.0	
G	70.0		73.0	
ØH	14.0		14.3	

Shaft torque limits [ml/rev. x bar]	
Shaft	Vi x p max.
1	14300
2	21420
3	20600
4	32670
5	25300

Variable Speed Double Vane Pump

HT7BB/HT7BBS Series

Performance Characteristics

HT7BB, HT7BBS

OPERATING CHARACTERISTICS - TYPICAL [115 SUS]

Pressure port	Series	Volumetric Displacement	Flow Q {GPM} & n = 1800 RPM			Input power P {HP} & n = 1800 RPM		
			p = 0 PSI	p = 2000 PSI	p = 3500 PSI	p = 0 PSI	p = 2000 PSI	p = 3500 PSI
P1	E03	0.59 in ³ /rev	3.88	3.43	2.85	0.80	5.36	11.52
	E04	0.78 in ³ /rev	5.07	4.62	4.04	0.80	6.70	14.74
	E05	0.97 in ³ /rev	6.31	5.86	5.28	0.93	8.17	18.09
	E06	1.20 in ³ /rev	7.84	7.39	6.81	0.93	10.05	22.25
	E07	1.37 in ³ /rev	8.90	8.45	7.89	1.07	11.39	25.20
	E08	1.51 in ³ /rev	9.88	9.43	8.84	1.07	12.46	27.74
	E09	1.70 in ³ /rev	11.09	10.56	10.06	1.20	13.94	31.09
	E10	1.94 in ³ /rev	12.60	12.15	11.57	1.20	15.68	35.12
	E11	2.13 in ³ /rev	13.86	13.41	12.91 ¹⁾	1.34	17.15	36.19 ¹⁾
	E12	2.50 in ³ /rev	16.24	15.79	15.29 ¹⁾	1.47	19.97	42.22 ¹⁾
	E14	2.74 in ³ /rev	17.83	17.38	16.88 ¹⁾	1.60	21.84	46.24 ¹⁾
	E15	3.05 in ³ /rev	19.81	19.36	18.91 ²⁾	1.74	24.26	47.85 ²⁾
P2	E03	0.59 in ³ /rev	3.88	3.43	2.85	0.80	5.36	11.52
	E04	0.78 in ³ /rev	5.07	4.62	4.04	0.80	6.70	14.74
	E05	0.97 in ³ /rev	6.31	5.86	5.28	0.93	8.17	18.09
	E06	1.20 in ³ /rev	7.84	7.39	6.81	0.93	10.05	22.25
	E07	1.37 in ³ /rev	8.90	8.45	7.89	1.07	11.39	25.20
	E08	1.51 in ³ /rev	9.88	9.43	8.84	1.07	12.46	27.74
	E09	1.70 in ³ /rev	11.09	10.56	10.06	1.20	13.94	31.09
	E10	1.94 in ³ /rev	12.60	12.15	11.57	1.20	15.68	35.12
	E11	2.13 in ³ /rev	13.86	13.41	12.91 ¹⁾	1.34	17.15	36.19 ¹⁾
	E12	2.50 in ³ /rev	16.24	15.79	15.29 ¹⁾	1.47	19.97	42.22 ¹⁾
	E14	2.74 in ³ /rev	17.83	17.38	16.88 ¹⁾	1.60	21.84	46.24 ¹⁾
	E15	3.05 in ³ /rev	19.81	19.36	18.91 ²⁾	1.74	24.26	47.85 ²⁾

1) 011 - 012 - 014 = 4350 PSI max. int. 3) 015 = 4000 PSI max. int.
 - Not to use because internal leakage greater than 50% theoretical flow.
 - Port connection can be furnished with metric threads.

Variable Speed Double Vane Pump HT7DB/HT7DBS Series

Specification

HT7DB, HT7DBS for Double pump

Shaft End Pump				Max. speed rpm	Cover End Pump				Max. speed rpm	Weight kg (lb)
Size	Displacement cm ³ /r 1(in ³ /r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)		Size	Displacement cm ³ /r 1(in ³ /r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)		
E14	47.6 (2.90)	300 (4350)	250 (3600)	3000	E03	9.8 (0.59)	300 (4350)	275 (4000)	3000	38.6 (85.1)
E17	58.2 (3.55)				E04	12.8 (0.78)				
E20	66.0 (4.03)				E05	15.9 (0.97)				
E22	70.0 (4.27)				E06	19.8 (1.20)				
E24	79.5 (4.85)				E07	22.5 (1.37)				
E28	89.7 (5.47)				E08	24.9 (1.51)				
E31	98.3 (6.00)				E09	28.0 (1.70)				
E35	111.0 (6.77)	280 (4060)		2800	E10	31.8 (1.94)				
E38	120.3 (7.34)				E11	35.0 (2.13)				
E42	136.0 (8.30)	260 (3770)	235 (3400)	2500	E12	41.0 (2.50)	280 (4060)	240 (3500)	2700	
					E14	45.0 (2.74)				
					E15	50.0 (3.05)				

Variable Speed Double Vane Pump

HT7DB/HT7DBS Series

Ordering Code : Double Pump

HT7DBS - E14 - E03 - 1 R 00 - A - 00 - ..

1	2	3	4	5	6	7	8	9
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1. Model :

Industrial - HT7DB ISO 2 bolts 3019-2 mounting flange 125 A2 HW
 - HT7DBS SAE C 2 bolts mounting flange J744

2. Displacement P1

Volumetric displacement cm³/rec (in³/rev)

E14 - 47.6 (2.90)
 E17 - 58.2 (3.55)
 E20 - 66.0 (4.03)
 E22 - 70.0 (4.27)
 E24 - 79.5 (4.85)
 E28 - 89.7 (5.47)
 E31 - 98.3 (6.00)
 E35 - 111.0 (6.77)
 E38 - 120.3 (7.34)
 E42 - 136.0 (8.30)

3. Displacement P2

Volumetric displacement cm³/rec (in³/rev)

E03 - 9.8 (0.60)
 E04 - 12.8 (0.78)
 E05 - 15.9 (0.97)
 E06 - 19.8 (1.20)
 E07 - 22.5 (1.37)
 E08 - 24.9 (1.51)
 E09 - 28.0 (1.70)
 E10 - 31.8 (1.92)
 E11 - 35.0 (2.14)
 E12 - 41.0 (2.47)
 E14 - 45.0 (2.70)
 E15 - 50.0 (3.01)

4. Type of shaft

HT7DB
 5 - ISO 3019-2-G32M Keyed Shaft

HT7DBS
 1 - SAE C Keyed Shaft
 3 - SAE C Splined Shaft

5. Direction of rotation (Viewed from shaft end)

R - Turn right
 L - Turn left

6. Porting combination (see page Porting Diagrams)

00 - Standard

7. Design letter

8. Port Connection (4 bolts SAE flange J518C)

00 - UNC Port Connection (Except HT7DB)
 M0 - Metric Port Connection

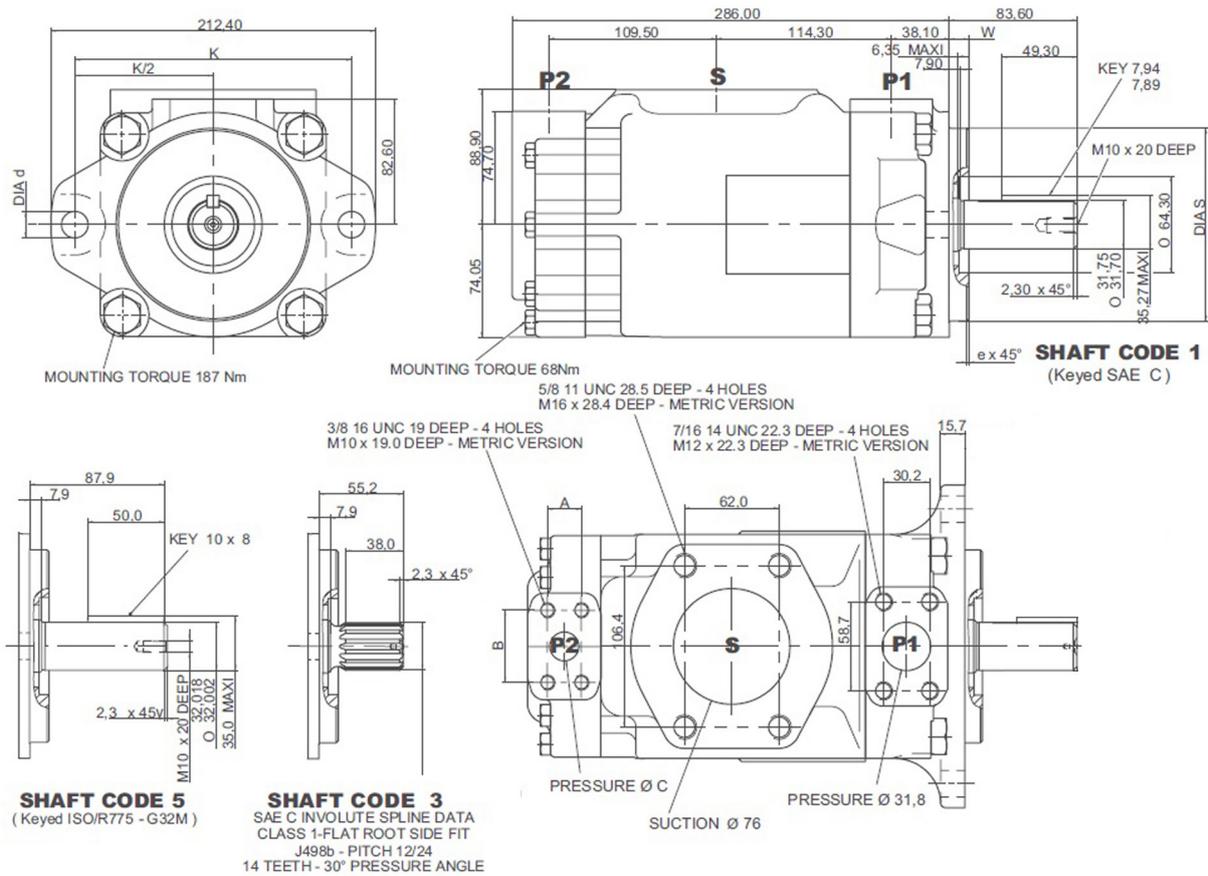
9. Modifications

Omit - Standard
 718 - Surface grinding the flange face for the manifold.

Variable Speed Double Vane Pump HT7DB/HT7DBS Series

Installation Dimension mm (inch)

HT7DB, HT7DBS



Alternate mounting flange						
Model	ØS		ex 45°	W	K	ØD
	MAX.	MIN.				
HT7DB	125.00	124.937	2.0	9.5	180.0	18.0
HT7DBS	127.00	126.950	1.3	12.7	181.0	17.5

Alternate connect. variables		
	00 & M0	01 & M1
A	26.20	22.20
B	52.35	47.60
C	25.0	19.0

Variable Speed Double Vane Pump

HT7DB/HT7DBS Series

Performance Characteristics

HT7DB, HT7DBS

OPERATING CHARACTERISTICS - TYPICAL [115 SUS]

Pressure port	Series	Volumetric Displacement	Flow Q {GPM} & n = 1800 RPM			Input power P {HP} & n = 1800 RPM		
			p = 0 PSI	p = 2000 PSI	p = 3500 PSI	p = 0 PSI	p = 2000 PSI	p = 3500 PSI
P1	E14	2.90 in ³ /rev	22.64	20.46	18.82	4.02	29.31	49.34
	E17	3.55 in ³ /rev	27.68	25.50	23.86	4.31	35.20	59.64
	E20	4.00 in ³ /rev	31.39	29.21	27.57	4.53	39.52	67.21
	E22	4.29 in ³ /rev	33.43	31.69	30.32	4.19	42.37	72.57
	E24	4.80 in ³ /rev	37.82	35.63	33.99	4.91	47.02	80.32
	E28	5.50 in ³ /rev	42.66	40.48	38.84	5.19	52.68	90.23
	E31	6.00 in ³ /rev	46.75	44.57	42.93	5.43	57.45	98.58
	E35	6.80 in ³ /rev	52.79	50.61	48.97	5.78	64.50	110.91
	E38	7.30 in ³ /rev	57.21	55.03	53.39	6.04	69.66	119.94
	E42	8.30 in ³ /rev	64.68	62.50	60.86	6.47	78.37	135.19
P2	E03	0.59 in ³ /rev	3.88	3.43	2.85	0.80	5.36	11.52
	E04	0.78 in ³ /rev	5.07	4.62	4.04	0.80	6.70	14.74
	E05	0.97 in ³ /rev	6.31	5.86	5.28	0.93	8.17	18.09
	E06	1.20 in ³ /rev	7.84	7.39	6.81	0.93	10.05	22.25
	E07	1.37 in ³ /rev	8.90	8.45	7.89	1.07	11.39	25.20
	E08	1.51 in ³ /rev	9.88	9.43	8.84	1.07	12.46	27.74
	E09	1.70 in ³ /rev	11.09	10.56	10.06	1.20	13.94	31.09
	E10	1.94 in ³ /rev	12.60	12.15	11.57	1.20	15.68	35.12
	E11	2.13 in ³ /rev	13.86	13.41	12.91 ²⁾	1.34	17.15	36.19 ²⁾
	E12	2.50 in ³ /rev	16.24	15.79	15.29 ²⁾	1.47	19.97	42.22 ²⁾
	E14	2.74 in ³ /rev	17.83	17.38	16.88 ²⁾	1.60	21.84	46.24 ²⁾
	E15	3.05 in ³ /rev	19.81	19.36	18.91 ³⁾	1.74	24.26	47.85 ³⁾

1) 050 = 3000 PSI max. int. 2) 011 - 012 - 014 = 4350 PSI max. int. 3) 015 = 4000 PSI max. int.
 - Not to use because internal leakage greater than 50% theoretical flow.
 - Port connection can be furnished with metric threads.

Variable Speed Double Vane Pump HT7DD/HT7DDS Series

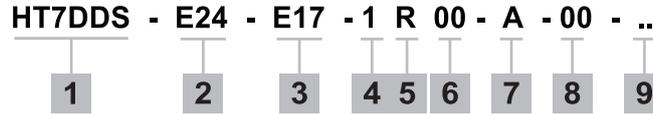
Specification

HT7DD, HT7DDS for Double pump

Shaft End Pump				Cover End Pump				Max. speed rpm	Weight kg (lb)
Size	Displacement cm ³ /r 1(in ³ /r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Size	Displacement cm ³ /r 1(in ³ /r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)		
E14	47.6 (2.90)	300 (4350)	250 (3600)	E14	47.6 (2.90)	300 (4350)	250 (3600)	3000	56.0 (123.5)
E17	58.2 (3.55)			E17	58.2 (3.55)				
E20	66.0 (4.03)			E20	66.0 (4.03)				
E22	70.0 (4.27)			E22	70.0 (4.27)				
E24	79.5 (4.85)			E24	79.5 (4.85)				
E28	89.7 (5.47)			E28	89.7 (5.47)				
E31	98.3 (6.00)	280 (4060)	235 (3400)	E31	98.3 (6.00)	280 (4060)	2800		
E35	111.0 (6.77)			E35	111.0 (6.77)				
E38	120.3 (7.34)	260 (3770)	235 (3400)	E38	120.3 (7.34)	260 (3770)	235 (3400)	2500	
E42	136.0 (8.30)			E42	136.0 (8.30)				

Variable Speed Double Vane Pump HT7DD/HT7DDS Series

Ordering Code : Double Pump



- | | |
|---|--|
| <p>1. Model :
 Industrial - HT7DD ISO 6 bolts 3019-2 mounting flange 125-A2-HW or 125 B4 HW
 - HT7DDS SAE C 6 bolts mounting flange J744</p> <p>2. Displacement P1
 Volumetric displacement cm³/rec (in³/rev)
 E03 - 9.8 (0.60)
 E04 - 12.8 (0.78)
 E05 - 15.9 (0.97)
 E06 - 19.8 (1.20)
 E07 - 22.5 (1.37)
 E08 - 24.9 (1.51)
 E09 - 28.0 (1.70)
 E10 - 31.8 (1.92)
 E11 - 35.0 (2.14)
 E12 - 41.0 (2.47)
 E14 - 45.0 (2.70)
 E15 - 50.0 (3.01)</p> <p>3. Displacement P2
 Volumetric displacement cm³/rec (in³/rev)
 E03 - 9.8 (0.60)
 E04 - 12.8 (0.78)
 E05 - 15.9 (0.97)
 E06 - 19.8 (1.20)
 E07 - 22.5 (1.37)
 E08 - 24.9 (1.51)
 E09 - 28.0 (1.70)
 E10 - 31.8 (1.92)
 E11 - 35.0 (2.14)
 E12 - 41.0 (2.47)
 E14 - 45.0 (2.70)
 E15 - 50.0 (3.01)</p> <p>4. Type of shaft
 HT7DD
 5 - ISO 3019-2-G32M Keyed Shaft

 HT7DDS
 1 - SAE C Keyed Shaft
 2 - SAE CC Keyed Shaft
 3 - SAE C Splined Shaft
 4 - SAE BB Splined Shaft</p> | <p>5. Direction of rotation (Viewed from shaft end)
 R - Turn right
 L - Turn left</p> <p>6. Porting combination (see page Porting Diagrams)
 00 - Standard</p> <p>7. Design letter</p> <p>8. Port Connection (4 bolts SAE flange J518C)
 00 - UNC Port Connection (Except HT7DD)
 M0 - Metric Port Connection</p> <p>9. Modifications
 Omit - Standard
 718 - Surface grinding the flange face for the manifold.</p> |
|---|--|

Variable Speed Double Vane Pump HT7DD/HT7DDS Series

Performance Characteristics

HT7DD, HT7DDS

OPERATING CHARACTERISTICS - TYPICAL [115 SUS]

Pressure port	Series	Volumetric Displacement	Flow Q {GPM} & n = 1800 RPM			Input power P {HP} & n = 1800 RPM		
			p = 0 PSI	p = 2000 PSI	p = 3500 PSI	p = 0 PSI	p = 2000 PSI	p = 3500 PSI
P1	E14	2.90 in ³ /rev	22.64	20.46	18.82	4.02	29.31	49.34
	E17	3.55 in ³ /rev	27.68	25.50	23.86	4.31	35.20	59.64
	E20	4.00 in ³ /rev	31.39	29.21	27.57	4.53	39.52	67.21
	E22	4.29 in ³ /rev	33.43	31.69	30.32	4.19	42.37	72.57
	E24	4.80 in ³ /rev	37.82	35.63	33.99	4.91	47.02	80.32
	E28	5.50 in ³ /rev	42.66	40.48	38.84	5.19	52.68	90.23
	E31	6.00 in ³ /rev	46.75	44.57	42.93	5.43	57.45	98.58
	E35	6.80 in ³ /rev	52.79	50.61	48.97	5.78	64.50	110.91
	E38	7.30 in ³ /rev	57.21	55.03	53.39	6.04	69.66	119.94
	E42	8.30 in ³ /rev	64.68	62.50	60.86	6.47	78.37	135.19
P2	E14	2.90 in ³ /rev	22.64	20.46	18.82	4.02	29.31	49.34
	E17	3.55 in ³ /rev	27.68	25.50	23.86	4.31	35.20	59.64
	E20	4.00 in ³ /rev	31.39	29.21	27.57	4.53	39.52	67.21
	E22	4.29 in ³ /rev	33.43	31.69	30.32	4.19	42.37	72.57
	E24	4.80 in ³ /rev	37.82	35.63	33.99	4.91	47.02	80.32
	E28	5.50 in ³ /rev	42.66	40.48	38.84	5.19	52.68	90.23
	E31	6.00 in ³ /rev	46.75	44.57	42.93	5.43	57.45	98.58
	E35	6.80 in ³ /rev	52.79	50.61	48.97	5.78	64.50	110.91
	E38	7.30 in ³ /rev	57.21	55.03	53.39	6.04	69.66	119.94
	E42	8.30 in ³ /rev	64.68	62.50	60.86	6.47	78.37	135.19

- Not to use because internal leakage greater than 50% theoretical flow.

- Port connection can be furnished with metric threads.

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