HOF
HYDRAULIC SOLUTIONS

Hydraulic Triple Vane Pump
HT6 HT67 & HT7 Series

Catalogue 2025

www.hofhydraulic.com

Bureau Veritas Certification

FLO-TECH ENGINEERING CO., LTD.

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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**

UKAS MANAGEMENT SYSTEMS 0008

Signed on behalf of BVCH SAS UK Branch

Certification Body Address: 5th Floor, 66 Prescot 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

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 of 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

HOF
HYDRAULIC SOLUTIONS

High Pressure Triple Vane Pump HT67DBB Series

Specification

HT67DBB for Triple pump

Shaft End Pump				Middle Pump				Cover End Pump				Min. speed	Max. speed	Weight
Size	Displacement cm³/r 1(in³/r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Size	Displacement cm³/r 1(in³/r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Size	Displacement cm³/r 1(in³/r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
014	47.6 (2.90)	300 (4350)	250 (3600)	002	5.8 (0.35)	300 (4350)	275 (4000)	002	5.8 (0.35)	300 (4350)	275 (4000)	600	2500	62.0 (136.7)
017	58.2 (3.55)			003	9.8 (0.59)			003	9.8 (0.59)					
020	66.0 (4.00)			004	12.8 (0.78)			004	12.8 (0.78)					
022	70.0 (4.27)			005	15.9 (0.97)			005	15.9 (0.97)					
024	79.5 (4.80)			006	19.8 (1.20)			006	19.8 (1.20)					
028	87.7 (5.50)			007	22.5 (1.37)			007	22.5 (1.37)					
031	98.3 (6.00)			008	24.9 (1.51)			008	24.9 (1.51)					
035	111.0 (6.80)	280 (4060)		009	26.0 (1.70)			009	26.0 (1.70)					
038	120.3 (7.30)			010	31.8 (1.94)			010	31.8 (1.94)					
042	136.0 (8.30)	260 (3770)	235 (3400)	011	35.0 (2.13)			011	35.0 (2.13)					
045	145.7 (8.90)	240 (3500)	206 (3000)	012	41.0 (2.50)			012	41.0 (2.50)					
050	158.0 (9.64)	206 (3000)	160 (2300)	014	45.0 (2.74)			014	45.0 (2.74)					
				015	50.0 (3.05)	280 (4060)	240 (3500)	015	50.0 (3.05)	280 (4060)	240 (3500)			

High Pressure Triple Vane Pump
HT67DBB Series

Ordering Code

HT67DBB - 038 - 014 - 003 - 1 R 00 - A - 01 - ..

1 2 3 4 5 6 7 8 9 10

1. Model :
   Industrial - HT67DBB
   SAE C 2 bolts mounting flange J744

2. Displacement P1
   Volumetric displacement cm³/rec (in³/rev)
   7D
   014 - 47.6 (2.90)
   017 - 58.2 (3.55)
   020 - 66.0 (4.03)
   022 - 70.0 (4.27)
   024 - 79.5 (4.85)
   028 - 89.7 (5.47)
   031 - 98.3 (6.00)
   035 - 111.0 (6.77)
   038 - 120.3 (7.34)
   042 - 136.0 (8.30)
   045 - 145.7 (8.89)
   050 - 158.0 (9.64)

3. Displacement P2
   Volumetric displacement cm³/rec (in³/rev)
   7B
   002 - 5.8 (0.35)
   003 - 9.8 (0.60)
   004 - 12.8 (0.78)
   005 - 15.9 (0.97)
   006 - 19.8 (1.20)
   007 - 22.5 (1.37)
   008 - 24.9 (1.51)
   009 - 28.0 (1.70)
   010 - 31.8 (1.92)
   011 - 35.0 (2.14)
   012 - 41.0 (2.47)
   014 - 45.0 (2.70)
   015 - 50.0 (3.01)

4. Displacement P3
   Volumetric displacement cm³/rec (in³/rev)
   7B
   002 - 5.8 (0.35)
   003 - 9.8 (0.60)
   004 - 12.8 (0.78)
   005 - 15.9 (0.97)
   006 - 19.8 (1.20)
   007 - 22.5 (1.37)
   008 - 24.9 (1.51)
   009 - 28.0 (1.70)
   010 - 31.8 (1.92)
   011 - 35.0 (2.14)
   012 - 41.0 (2.47)
   014 - 45.0 (2.70)
   015 - 50.0 (3.01)

5. Type of shaft
   1 - non SAE Keyed Shaft
   2 - SAE CC Keyed Shaft
   3 - SAE C Splined Shaft
   4 - SAE CC Splined Shaft

6. Direction of rotation (view on shaft end)
   R - Turn right
   L - Turn left

7. Porting combination (see page Porting Diagrams)
   00 - standard

8. Design letter

9. Port Connection (4 bolts SAE flange J518C)
   00 - UNC Port Connection
   M0 - Metric Port Connection
   (HT67DBB for port connection 01, M1 only)

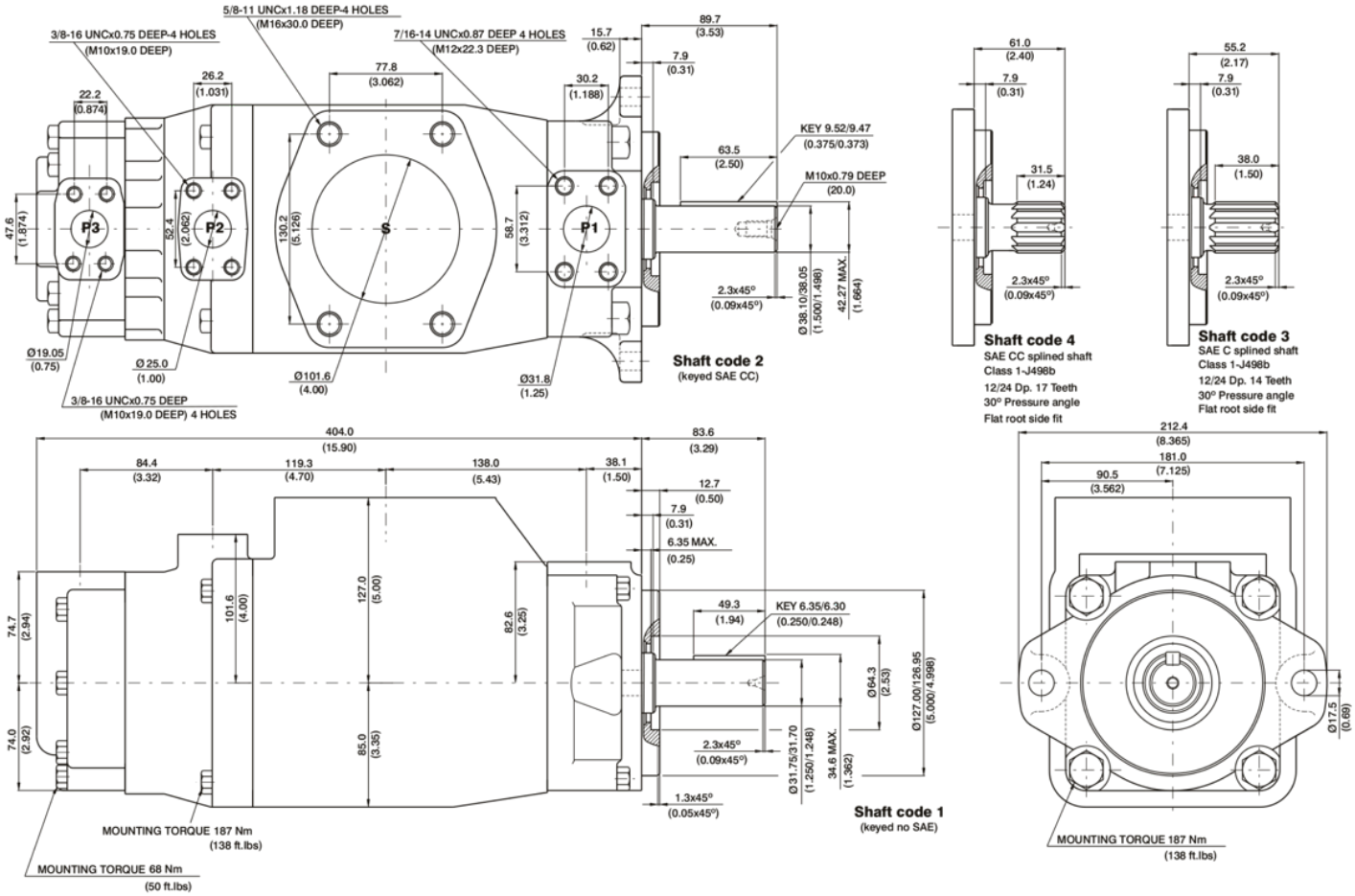
Code		4 bolt SAE flanges			
UNC	Metric	P1	P2	P3	S
00	M0	1¼"	1"	1"	4"
01	M1	1¼"	1"	3/4"	4"

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

High Pressure Triple Vane Pump HT67DBB Series

Installation Dimension mm (inch)

HT67DBB



Shaft torque limits [ml/rev x bar (in3/rev x psi)	
Shaft	**Vp x p max. (P1+P2+P3)**
1	43240 (38299)
2	66500 (58902)
3	61200 (54027)
4	66500 (58902)

High Pressure Triple Vane Pump HT67DBB Series

Performance Characteristics

HT67DBB

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	014	2.90 in³/rev	22.64	20.46	18.82	4.02	29.31	49.34
	017	3.55 in³/rev	27.68	25.50	23.86	4.31	35.20	59.64
	020	4.00 in³/rev	31.39	29.21	27.57	4.53	39.52	67.21
	022	4.29 in³/rev	33.43	31.69	30.32	4.19	42.37	72.57
	024	4.80 in³/rev	37.82	35.63	33.99	4.91	47.02	80.32
	028	5.50 in³/rev	42.66	40.48	38.84	5.19	52.68	90.23
	031	6.00 in³/rev	46.75	44.57	42.93	5.43	57.45	98.58
	035	6.80 in³/rev	52.79	50.61	48.97	5.78	64.50	110.91
	038	7.30 in³/rev	57.21	55.03	53.39	6.04	69.66	119.94
	042	8.30 in³/rev	64.68	62.50	60.86	6.47	78.37	135.19
	045	8.90 in³/rev	69.29	67.11	65.47	6.74	83.74	144.61
	050	9.64 in³/rev	75.14	72.96	71.78[1)]	7.08	90.58	134.54[1)]
P2 & P3	002	0.35 in³/rev	2.29	1.84	1.26	0.67	3.48	7.23
	003	0.59 in³/rev	3.88	3.43	2.85	0.80	5.36	11.52
	004	0.78 in³/rev	5.07	4.62	4.04	0.80	6.70	14.74
	005	0.97 in³/rev	6.31	5.86	5.28	0.93	8.17	18.09
	006	1.20 in³/rev	7.84	7.39	6.81	0.93	10.05	22.25
	007	1.37 in³/rev	8.90	8.45	7.89	1.07	11.39	25.20
	008	1.51 in³/rev	9.88	9.43	8.84	1.07	12.46	27.74
	009	1.70 in³/rev	11.09	10.56	10.06	1.20	13.94	31.09
	010	1.94 in³/rev	12.60	12.15	11.57	1.20	15.68	35.12
	011	2.13 in³/rev	13.86	13.41	12.91[2)]	1.34	17.15	36.19[2)]
	012	2.50 in³/rev	16.24	15.79	15.29[2)]	1.47	19.97	42.22[2)]
	014	2.74 in³/rev	17.83	17.38	16.88[2)]	1.60	21.84	46.24[2)]
	015	3.05 in³/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.

High Pressure Triple Vane Pump HT67DCB Series

Specification

HT67DCB for Triple pump

Shaft End Pump				Middle Pump				Cover End Pump				Min. speed	Max. speed	Weight
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)	Size	Displacement cm^3/r $1(in^3/r)$	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
014	47.6 (2.90)	300 (4350)	250 (3600)	003	10.8 (0.66)	275 (4000)	240 (3500)	002	5.8 (0.35)	300 (4350)	275 (4000)	600	2500	62.0 (136.7)
017	58.2 (3.55)			005	17.2 (1.05)			003	9.8 (0.59)					
020	66.0 (4.00)			006	21.3 (1.30)			004	12.8 (0.78)					
022	70.0 (4.27)			008	26.4 (1.61)			005	15.9 (0.97)					
024	79.5 (4.80)			010	34.1 (2.08)			006	19.8 (1.20)					
028	87.7 (5.50)			012	37.1 (2.26)			007	22.5 (1.37)					
031	98.3 (6.00)			014	46.0 (2.81)			008	24.9 (1.51)					
035	111.0 (6.80)	280 (4060)		017	58.3 (3.56)			009	26.0 (1.70)					
038	120.3 (7.30)			020	63.8 (3.89)			010	31.8 (1.94)					
042	136.0 (8.30)	260 (3770)	235 (3400)	022	70.3 (4.29)			011	35.0 (2.13)					
045	145.7 (8.90)	240 (3500)	206 (3000)	025	79.3 (4.84)			012	41.0 (2.50)					
050	158.0 (9.64)	206 (3000)	160 (2300)	028	88.8 (5.42)	206 (3000)	160 (2300)	014	45.0 (2.74)					
				031	100.0 (6.10)			015	50.0 (3.05)	280 (4060)	240 (3500)			

High Pressure Triple Vane Pump
HT67DCB Series

HT67DCB for Triple pump

Ordering Code

HT67DCB	-	038	-	014	-	003	-	1	R	00	-	A	-	01	-	..
1		2		3		4		5	6	7		8		9		10

1. Model :
   Industrial - HT67DCB
   SAE C 2 bolts mounting flange J744

2. Displacement P1
   Volumetric displacement cm³/rec (in³/rev)
   7D
   014 - 47.6 (2.90)
   017 - 58.2 (3.55)
   020 - 66.0 (4.03)
   022 - 70.0 (4.27)
   024 - 79.5 (4.85)
   028 - 89.7 (5.47)
   031 - 98.3 (6.00)
   035 - 111.0 (6.77)
   038 - 120.3 (7.34)
   042 - 136.0 (8.30)
   045 - 145.7 (8.89)
   050 - 158.0 (9.64)

3. Displacement P2
   Volumetric displacement cm³/rec (in³/rev)
   6C
   003 - 10.8 (0.66)
   005 - 17.2 (1.05)
   006 - 21.3 (1.30)
   008 - 26.4 (1.61)
   010 - 34.1 (2.08)
   012 - 37.1 (2.26)
   014 - 46.0 (2.81)
   017 - 58.3 (3.56)
   020 - 63.8 (3.89)
   022 - 70.3 (4.29)
   025 - 79.3 (4.84)
   028 - 88.8 (5.42)
   031 - 100.0 (6.10)

4. Displacement P3
   Volumetric displacement cm³/rec (in³/rev)
   7B
   002 - 5.8 (0.35)
   003 - 9.8 (0.60)
   004 - 12.8 (0.78)
   005 - 15.9 (0.97)
   006 - 19.8 (1.20)
   007 - 22.5 (1.37)
   008 - 24.9 (1.51)
   009 - 28.0 (1.70)
   010 - 31.8 (1.92)
   011 - 35.0 (2.14)
   012 - 41.0 (2.47)
   014 - 45.0 (2.70)
   015 - 50.0 (3.01)

5. Type of shaft
   1 - non SAE Keyed Shaft
   2 - SAE CC Keyed Shaft
   3 - SAE C Splined Shaft
   4 - SAE CC Splined Shaft

6. Direction of rotation (view on shaft end)
   R - Turn right
   L - Turn left

7. Porting combination (see page Porting Diagrams)
   00 - standard

8. Design letter

9. Port Connection (4 bolts SAE flange J518C)
   00 - UNC Port Connection
   M0 - Metric Port Connection
   (HT67DCB for port connection 01, M1 only)

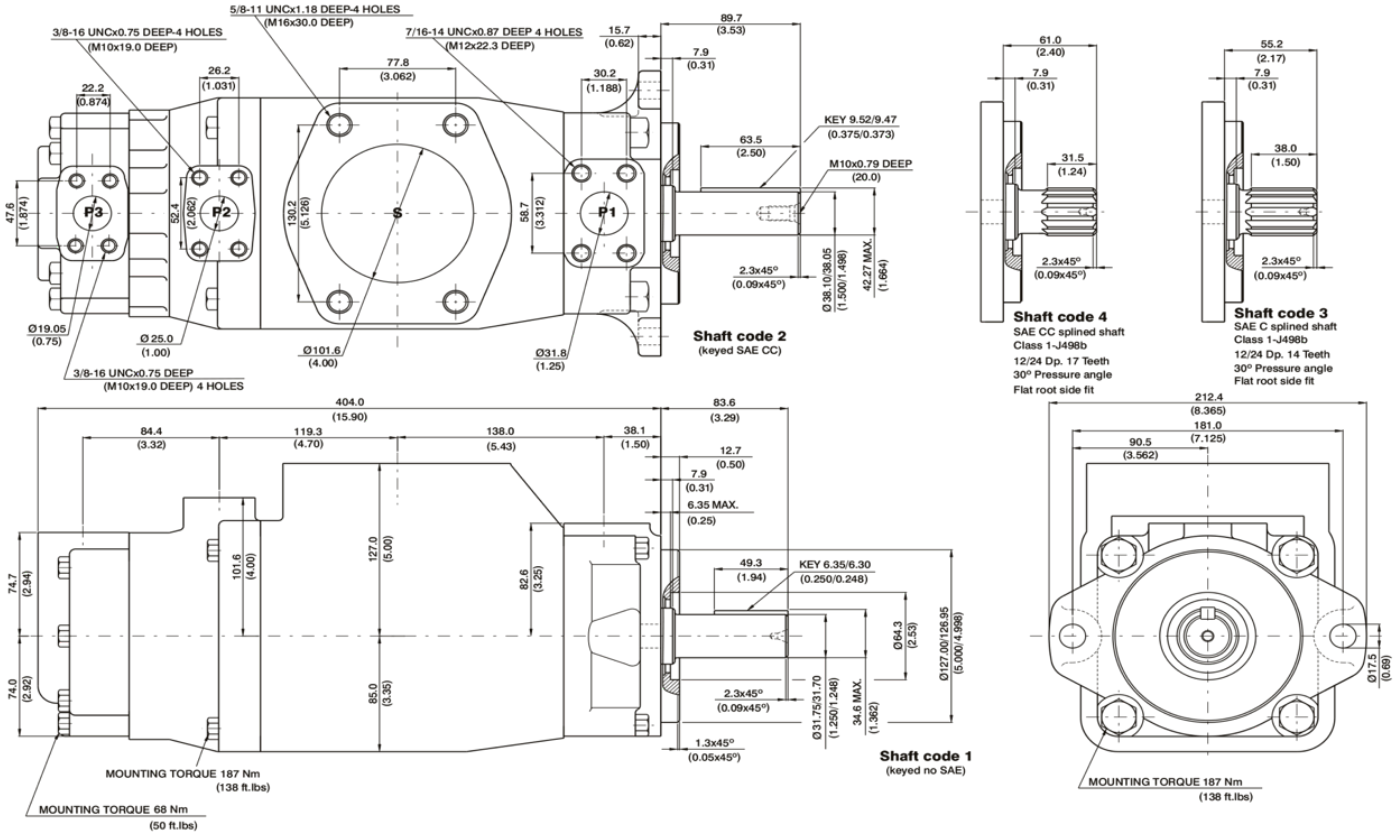
Code		4 bolt SAE flanges			
UNC	Metric	P1	P2	P3	S
00	M0	1¼"	1"	1"	4"
01	M1	1¼"	1"	3/4"	4"

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

High Pressure Triple Vane Pump HT67DCB Series

Installation Dimension mm (inch)

HT67DCB



Shaft torque limits [ml/rev x bar (in3/rev x psi)	
Shaft	**Vp x p max. (P1+P2+P3)**
1	43240 (38299)
2	66500 (58902)
3	61200 (54207)
4	66500 (58902)

High Pressure Triple Vane Pump HT67DCB Series

Performance Characteristics

HT67DCB

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	014	2.90 in^3/rev	22.64	20.46	18.82	4.02	29.31	49.34
	017	3.55 in^3/rev	27.68	25.50	23.86	4.31	35.20	59.64
	020	4.00 in^3/rev	31.39	29.21	27.57	4.53	39.52	67.21
	022	4.29 in^3/rev	33.43	31.69	30.32	4.19	42.37	72.57
	024	4.80 in^3/rev	37.82	35.63	33.99	4.91	47.02	80.32
	028	5.50 in^3/rev	42.66	40.48	38.84	5.19	52.68	90.23
	031	6.00 in^3/rev	46.75	44.57	42.93	5.43	57.45	98.58
	035	6.80 in^3/rev	52.79	50.61	48.97	5.78	64.50	110.91
	038	7.30 in^3/rev	57.21	55.03	53.39	6.04	69.66	119.94
	042	8.30 in^3/rev	64.68	62.50	60.86	6.47	78.37	135.19
	045	8.90 in^3/rev	69.29	67.11	65.47	6.74	83.74	144.61
	050	9.64 in^3/rev	75.14	72.96	71.78[1)]	7.08	90.58	134.54[1)]
P2	003	0.66 in^3/rev	5.14	3.61	-	2.11	8.45	-
	005	1.05 in^3/rev	8.18	6.65	5.56	2.29	12.00	19.59
	006	1.30 in^3/rev	10.13	8.60	7.51	2.40	14.28	23.57
	008	1.61 in^3/rev	12.55	11.02	9.93	2.54	17.11	28.53
	010	2.08 in^3/rev	16.22	14.69	13.60	2.76	21.38	36.00
	012	2.26 in^3/rev	17.64	16.11	15.02	2.84	23.05	38.92
	014	2.81 in^3/rev	21.88	20.35	19.26	3.09	27.99	47.56
	017	3.56 in^3/rev	27.73	26.20	25.11	3.43	34.81	59.51
	020	3.89 in^3/rev	30.34	28.81	27.42	3.58	37.86	64.85
	022	4.29 in^3/rev	33.43	31.90	30.81	3.76	41.47	71.16
	025	4.84 in^3/rev	37.71	36.18	35.09	4.01	46.46	79.90
	028	5.42 in^3/rev	42.23	40.70	39.94[1)]	4.27	51.74	76.73[1)]
	031 [using]	6.10 in^3/rev	47.56	46.03	45.27[1)]	4.58	57.95	86.06[1)]

High Pressure Triple Vane Pump
HT67DCB Series

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
P3	002	0.35 in^3/rev	2.29	1.84	1.26	0.67	3.48	7.23
	003	0.59 in^3/rev	3.88	3.43	2.85	0.80	5.36	11.52
	004	0.78 in^3/rev	5.07	4.62	4.04	0.80	6.70	14.74
	005	0.97 in^3/rev	6.31	5.86	5.28	0.93	8.17	18.09
	006	1.20 in^3/rev	7.84	7.39	6.81	0.93	10.05	22.25
	007	1.37 in^3/rev	8.90	8.45	7.89	1.07	11.39	25.20
	008	1.51 in^3/rev	9.88	9.43	8.84	1.07	12.46	27.74
	009	1.70 in^3/rev	11.09	10.56	10.06	1.20	13.94	31.09
	010	1.94 in^3/rev	12.60	12.15	11.57	1.20	15.68	35.12
	011	2.13 in^3/rev	13.86	13.41	12.91[2)]	1.34	17.15	36.19[2)]
	012	2.50 in^3/rev	16.24	15.79	15.29[2)]	1.47	19.97	42.22[2)]
	014	2.74 in^3/rev	17.83	17.38	16.88[2)]	1.60	21.84	46.24[2)]
	015	3.05 in^3/rev	19.81	19.36	18.91[3)]	1.74	24.26	47.85[3)]

1) 028 - 031 - 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.

High Pressure Triple Vane Pump HT6DCCM Series

Specification

HT6DCCM for Triple pump

Shaft End Pump				Middle Pump				Cover End Pump				Min. speed	Max. speed	Weight
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)	Size	Displacement cm^3/r $1(in^3/r)$	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
014	47.6 (2.90)	240 (3500)	206 (3000)	003	10.8 (0.66)	275 (4000)	240 (3500)	003	10.8 (0.66)	275 (4000)	240 (3500)	400	2500	62.0 (136.7)
017	58.2 (3.55)			005	17.2 (1.05)			005	17.2 (1.05)					
020	66.0 (4.03)			006	21.3 (1.30)			006	21.3 (1.30)					
024	79.5 (4.85)			008	26.4 (1.61)			008	26.4 (1.61)					
028	89.7 (5.47)			010	34.1 (2.08)			010	34.1 (2.08)					
031	98.3 (6.00)			012	37.1 (2.26)			012	37.1 (2.26)					
035	111.0 (6.77)			014	46.0 (2.81)			014	46.0 (2.81)					
038	120.3 (7.34)			017	58.3 (3.56)			017	58.3 (3.56)					
042	136.0 (8.30)			020	63.8 (3.89)			020	63.8 (3.89)					
045	145.7 (8.89)			022	70.3 (4.29)			022	70.3 (4.29)					
050	158.0 (9.64)	206 (3000)	160 (2300)	025	79.3 (4.84)			025	79.3 (4.84)					
061	193.3 (11.8)			028	88.8 (5.42)	206 (3000)	160 (2300)	028	88.8 (5.42)	206 (3000)	160 (2300)			
				031	100.0 (6.10)			031	100.0 (6.10)					

High Pressure Triple Vane Pump
HT6DCCM Series

Ordering Code

HT6DCCM - 038 - 014 - 003 - 1 R 00 - A - 00 - ..

1 2 3 4 5 6 7 8 9 10

1. Model :
   Mobile 1 Shaft seals(M) - HT6DCCM SAE C 2 bolts mounting flange J744

2. Displacement P1
   Volumetric displacement cm³/rec (in³/rev)
   - 014 - 47.6 (2.90)
   - 017 - 58.2 (3.55)
   - 020 - 66.0 (4.03)
   - 024 - 79.5 (4.85)
   - 028 - 89.7 (5.47)
   - 031 - 98.3 (6.00)
   - 035 - 111.0 (6.77)
   - 038 - 120.3 (7.34)
   - 042 - 136.0 (8.30)
   - 045 - 145.7 (8.89)
   - 050 - 158.0 (9.64)
   - 061 - 193.3 (11.80)

3. Displacement P2
   Volumetric displacement cm³/rec (in³/rev)
   - 003 - 10.8 (0.66)
   - 005 - 17.2 (1.05)
   - 006 - 21.3 (1.30)
   - 008 - 26.4 (1.61)
   - 010 - 34.1 (2.08)
   - 012 - 37.1 (2.26)
   - 014 - 46.0 (2.81)
   - 017 - 58.3 (3.56)
   - 020 - 63.8 (3.89)
   - 022 - 70.3 (4.29)
   - 025 - 79.3 (4.84)
   - 028 - 88.8 (5.42)
   - 031 - 100.0 (6.10)

4. Displacement P3
   Volumetric displacement cm³/rec (in³/rev)
   - 003 - 10.8 (0.66)
   - 005 - 17.2 (1.05)
   - 006 - 21.3 (1.30)
   - 008 - 26.4 (1.61)
   - 010 - 34.1 (2.08)
   - 012 - 37.1 (2.26)
   - 014 - 46.0 (2.81)
   - 017 - 58.3 (3.56)
   - 020 - 63.8 (3.89)
   - 022 - 70.3 (4.29)
   - 025 - 79.3 (4.84)
   - 028 - 88.8 (5.42)
   - 031 - 100.0 (6.10)

5. Type of Shaft
   - 1 - non SAE Keyed Shaft
   - 2 - SAE CC Keyed Shaft
   - 3 - SAE C Splined Shaft
   - 4 - SAE CC Splined Shaft
   - 6 - non SAE Splined Shaft

6. Direction of rotation (view on shaft end)
   - R - Turn right
   - L - Turn left

7. Porting combination (see page Porting Diagrams)
   - 00 - standard

8. Design letter

9. Port Connection
   - 00 - UNC Port Connection
   - M0 - Metric Port Connection

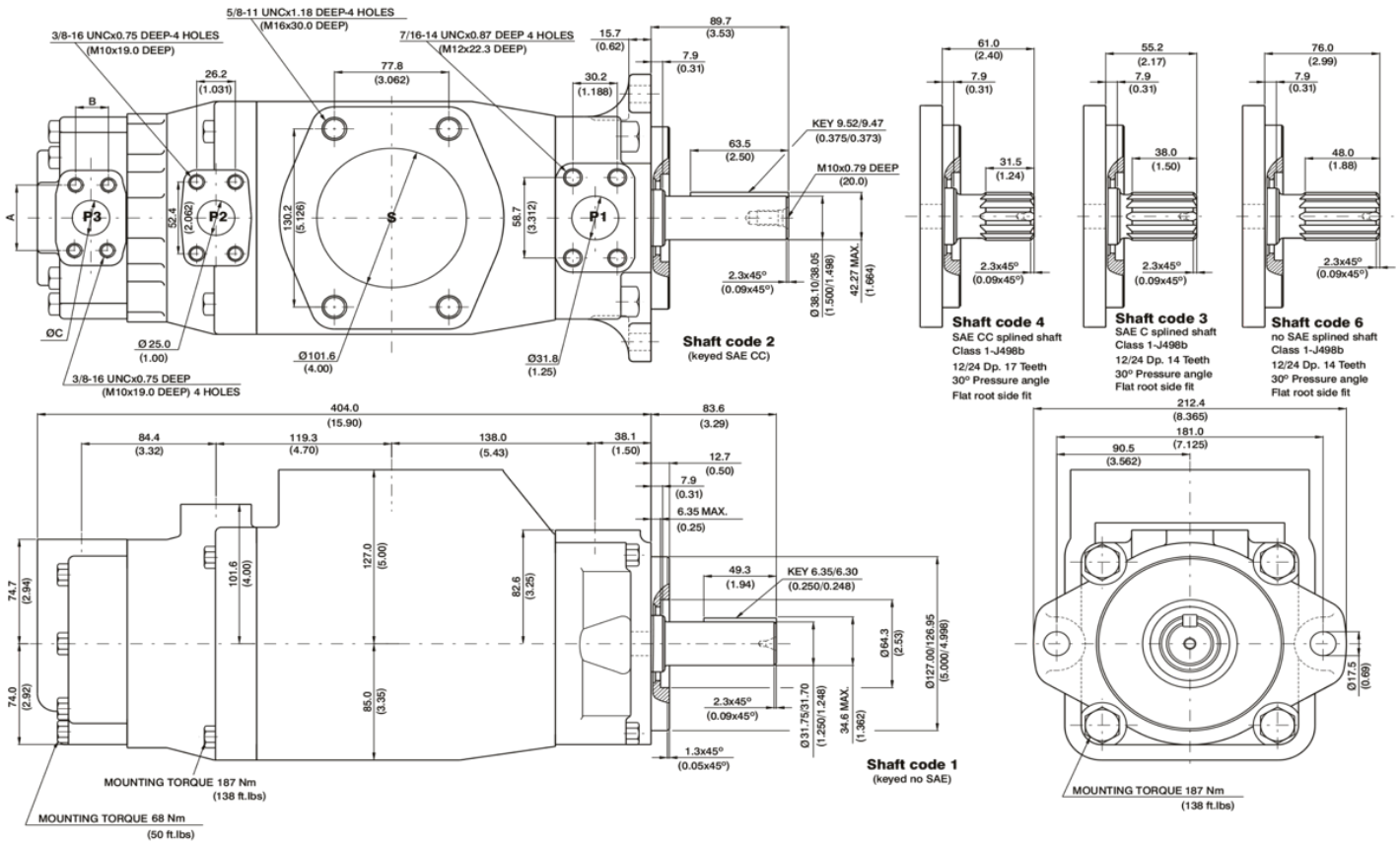
Code		4 bolt SAE flanges			
UNC	Metric	P1	P2	P3	S
00	M0	1¼"	1"	1"	4"
01	M1	1¼"	1"	3/4"	4"

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

High Pressure Triple Vane Pump HT6DCCM Series

Installation Dimension mm (inch)

HT6DCCM



Shaft torque limits [ml/rev x bar (in3/rev x psi)	
Shaft	**Vp x p max. (P1+P2+P3)**
1	43240 (38299)
2	66500 (58902)
3	61200 (54027)
4	66500 (58902)
6	61205 (54207)

Alternate part				
Port	**Code**	**A**	**B**	**C**
P3	00 & M0	52.4 (2.06)	26.2 (1.03)	25.4 (1.00)
	01 & M1	47.6 (1.874)	22.2 (0.874)	19.0 (0.75)

High Pressure Triple Vane Pump HT6DCCM Series

Performance Characteristics

HT6DCCM

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	014	2.90 in³/rev	22.64	20.46	18.82	4.02	29.31	49.34
	017	3.55 in³/rev	27.68	25.50	23.86	4.31	35.20	59.64
	020	4.00 in³/rev	31.39	29.21	27.57	4.53	39.52	67.21
	024	4.80 in³/rev	37.82	35.63	33.99	4.91	47.02	80.32
	028	5.50 in³/rev	42.66	40.48	38.84	5.19	52.68	90.23
	031	6.00 in³/rev	46.75	44.57	42.93	5.43	57.45	98.58
	035	6.80 in³/rev	52.79	50.61	48.97	5.78	64.50	110.91
	038	7.30 in³/rev	57.21	55.03	53.39	6.04	69.66	119.94
	042[2)]	8.30 in³/rev	64.68	62.50	60.86	6.47	78.37	135.19
	045[2)]	8.90 in³/rev	69.29	67.11	65.47	6.74	83.74	144.61
	050[2)]	9.64 in³/rev	75.14	72.96	71.78[1)]	7.08	90.58	134.54[1)]
	061[2)]	11.8 in³/rev	90.98	84.55	80.87[1)]	8.30	109.61	183.48[1)]
P2 & P3	003	0.66 in³/rev	5.14	3.61	-	2.11	8.45	-
	005	1.05 in³/rev	8.18	6.65	5.56	2.29	12.00	19.59
	006	1.30 in³/rev	10.13	8.60	7.51	2.40	14.28	23.57
	008	1.61 in³/rev	12.55	11.02	9.93	2.54	17.11	28.53
	010	2.08 in³/rev	16.22	14.69	13.60	2.76	21.38	36.00
	012	2.26 in³/rev	17.64	16.11	15.02	2.84	23.05	38.92
	014	2.81 in³/rev	21.88	20.35	19.26	3.09	27.99	47.56
	017	3.56 in³/rev	27.73	26.20	25.11	3.43	34.81	59.51
	020	3.89 in³/rev	30.34	28.81	27.42	3.58	37.86	64.85
	022	4.29 in³/rev	33.43	31.90	30.81	3.76	41.47	71.16
	025	4.84 in³/rev	37.71	36.18	35.09	4.01	46.46	79.90
	028	5.42 in³/rev	42.23	40.70	39.94[1)]	4.27	51.74	76.73[1)]
	031	6.10 in³/rev	47.56	46.03	45.27[1)]	4.58	57.95	86.06[1)]

1) 028 - 031 - 050 - 061 = 3000 PSI max. int.
2) 042 - 045 - 050 - 061 = 2200 R.P.M. max
- Not to use because internal leakage greater than 50% theoretical flow.
- Port connection can be furnished with metric threads.

High Pressure Triple Vane Pump HT67DCCS Series

Specification

HT67DCCS for Triple pump

Shaft End Pump				Middle Pump				Cover End Pump				Min. speed	Max. speed	Weight
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)	Size	Displacement cm^3/r $1(in^3/r)$	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
014	47.6 (2.90)	300 (4350)	250 (3600)	003	10.8 (0.66)	275 (4000)	240 (3500)	003	10.8 (0.66)	275 (4000)	240 (3500)	600	2500	62.0 (136.7)
017	58.2 (3.55)			005	17.2 (1.05)			005	17.2 (1.05)					
020	66.0 (4.00)			006	21.3 (1.30)			006	21.3 (1.30)					
022	70.0 (4.27)			008	26.4 (1.61)			008	26.4 (1.61)					
024	79.5 (4.80)			010	34.1 (2.08)			010	34.1 (2.08)					
028	87.7 (5.50)			012	37.1 (2.26)			012	37.1 (2.26)					
031	98.3 (6.00)			014	46.0 (2.81)			014	46.0 (2.81)					
035	111.0 (6.80)	280 (4060)		017	58.3 (3.56)			017	58.3 (3.56)					
038	120.3 (7.30)			020	63.8 (3.89)			020	63.8 (3.89)					
042	136.0 (8.30)	260 (3770)	235 (3400)	022	70.3 (4.29)			022	70.3 (4.29)					
045	145.7 (8.90)	240 (3500)	206 (3000)	025	79.3 (4.84)			025	79.3 (4.84)					
050	158.0 (9.64)	206 (3000)	160 (2300)	028	88.8 (5.42)	206 (3000)	160 (2300)	028	88.8 (5.42)	206 (3000)	160 (2300)			
				031	100.0 (6.10)			031	100.0 (6.10)					

High Pressure Triple Vane Pump
HT67DCCS Series

Ordering Code

HT67DCCS - 038 - 014 - 003 - 1 R 00 - A - 00 - ..

1 2 3 4 5 6 7 8 9 10

1. Model :
   Industrial - HT67DCCS SAE C 2 bolts mounting flange J744

2. Displacement P1
   Volumetric displacement cm³/rec (in³/rev)
   7D
   014 - 47.6 (2.90)
   017 - 58.2 (3.55)
   020 - 66.0 (4.03)
   022 - 70.0 (4.27)
   024 - 79.5 (4.85)
   028 - 89.7 (5.47)
   031 - 98.3 (6.00)
   035 - 111.0 (6.77)
   038 - 120.3 (7.34)
   042 - 136.0 (8.30)
   045 - 145.7 (8.89)
   050 - 158.0 (9.64)

3. Displacement P2
   Volumetric displacement cm³/rec (in³/rev)
   6C
   003 - 10.8 (0.66)
   005 - 17.2 (1.05)
   006 - 21.3 (1.30)
   008 - 26.4 (1.61)
   010 - 34.1 (2.08)
   012 - 37.1 (2.26)
   014 - 46.0 (2.81)
   017 - 58.3 (3.56)
   020 - 63.8 (3.89)
   022 - 70.3 (4.29)
   025 - 79.3 (4.84)
   028 - 88.8 (5.42)
   031 - 100.0 (6.10)

4. Displacement P3
   Volumetric displacement cm³/rec (in³/rev)
   6C
   003 - 10.8 (0.66)
   005 - 17.2 (1.05)
   006 - 21.3 (1.30)
   008 - 26.4 (1.61)
   010 - 34.1 (2.08)
   012 - 37.1 (2.26)
   014 - 46.0 (2.81)
   017 - 58.3 (3.56)
   020 - 63.8 (3.89)
   022 - 70.3 (4.29)
   025 - 79.3 (4.84)
   028 - 88.8 (5.42)
   031 - 100.0 (6.10)

5. Type of shaft
   1 - non SAE Keyed Shaft
   2 - SAE CC Keyed Shaft
   3 - SAE C Splined Shaft
   4 - SAE CC Splined Shaft

6. Direction of rotation (view on shaft end)
   R - Turn right
   L - Turn left

7. Porting combination (see page Porting Diagrams)
   00 - standard

8. Design letter

9. Port Connection (4 bolts SAE flange J518C)
   00 - UNC Port Connection
   M0 - Metric Port Connection

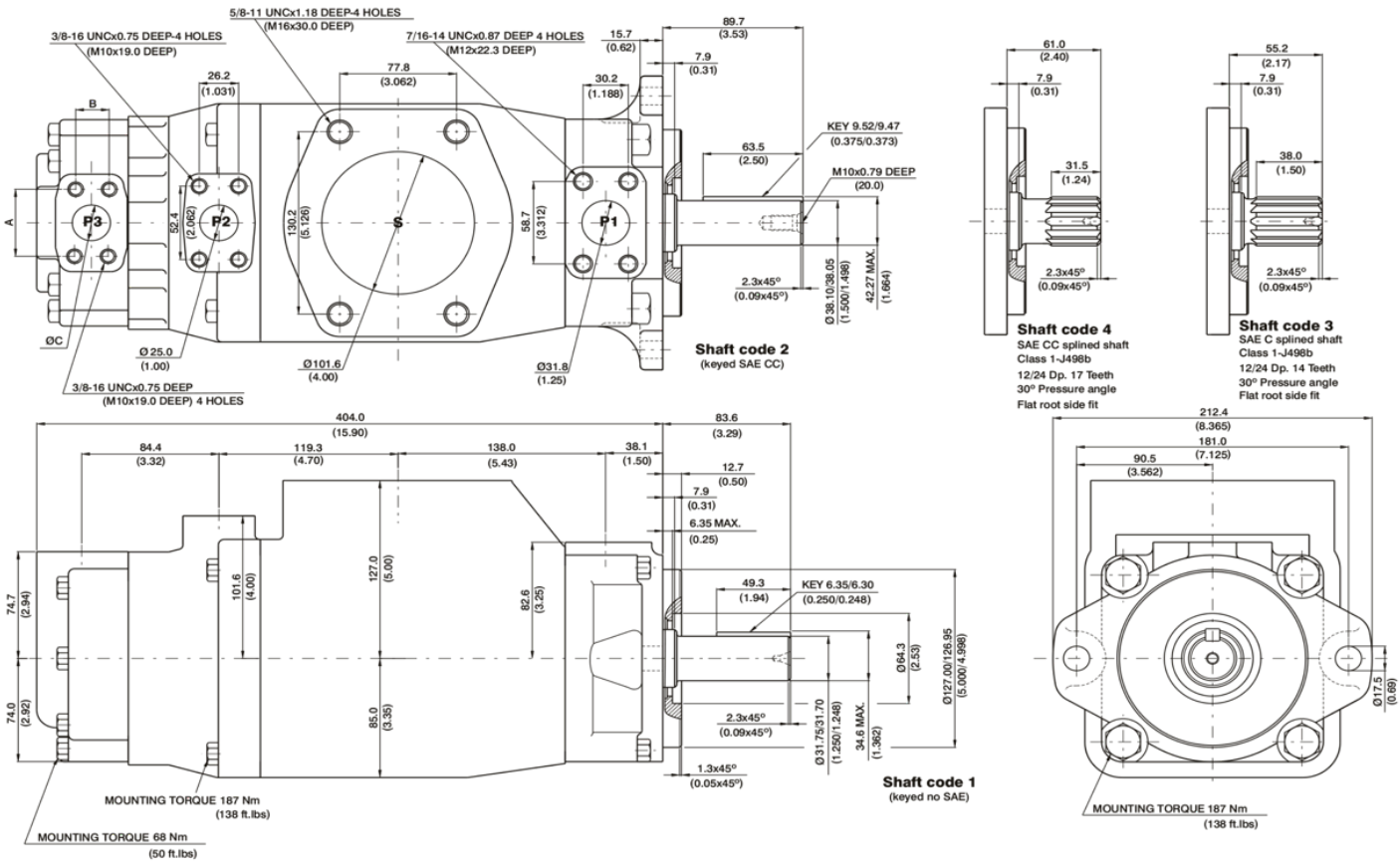
Code		4 bolt SAE flanges			
UNC	Metric	P1	P2	P3	S
00	M0	1¼"	1"	1"	4"
01	M1	1¼"	1"	3/4"	4"

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

High Pressure Triple Vane Pump HT67DCCS Series

Installation Dimension mm (inch)

HT67DCCS



Shaft torque limits [ml/rev x bar (in3/rev x psi)	
Shaft	Vp x p max. (P1+P2+P3)
1	43240 (38299)
2	66500 (58902)
3	61200 (54027)
4	66500 (58902)

Alternate part				
Port	Code	A	B	C
P3	00 & M0	52.4 (2.06)	26.2 (1.03)	25.4 (1.00)
	01 & M1	47.6 (1.874)	22.2 (0.874)	19.0 (0.75)

High Pressure Triple Vane Pump HT67DCCS Series

Performance Characteristics

HT67DCCS

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	014	2.90 in³/rev	22.64	20.46	18.82	4.02	29.31	49.34
	017	3.55 in³/rev	27.68	25.50	23.86	4.31	35.20	59.64
	020	4.00 in³/rev	31.39	29.21	27.57	4.53	39.52	67.21
	022	4.29 in³/rev	33.43	31.69	30.32	4.19	42.37	72.57
	024	4.80 in³/rev	37.82	35.63	33.99	4.91	47.02	80.32
	028	5.50 in³/rev	42.66	40.48	38.84	5.19	52.68	90.23
	031	6.00 in³/rev	46.75	44.57	42.93	5.43	57.45	98.58
	035	6.80 in³/rev	52.79	50.61	48.97	5.78	64.50	110.91
	038	7.30 in³/rev	57.21	55.03	53.39	6.04	69.66	119.94
	042	8.30 in³/rev	64.68	62.50	60.86	6.47	78.37	135.19
	045	8.90 in³/rev	69.29	67.11	65.47	6.74	83.74	144.61
	050	9.64 in³/rev	75.14	72.96	71.78[1)]	7.08	90.58	134.54[1)]
P2 & P3	003	0.66 in³/rev	5.14	3.61	-	2.11	8.45	-
	005	1.05 in³/rev	8.18	6.65	5.56	2.29	12.00	19.59
	006	1.30 in³/rev	10.13	8.60	7.51	2.40	14.28	23.57
	008	1.61 in³/rev	12.55	11.02	9.93	2.54	17.11	28.53
	010	2.08 in³/rev	16.22	14.69	13.60	2.76	21.38	36.00
	012	2.26 in³/rev	17.64	16.11	15.02	2.84	23.05	38.92
	014	2.81 in³/rev	21.88	20.35	19.26	3.09	27.99	47.56
	017	3.56 in³/rev	27.73	26.20	25.11	3.43	34.81	59.51
	020	3.89 in³/rev	30.34	28.81	27.42	3.58	37.86	64.85
	022	4.29 in³/rev	33.43	31.90	30.81	3.76	41.47	71.16
	025	4.84 in³/rev	37.71	36.18	35.09	4.01	46.46	79.90
	028	5.42 in³/rev	42.23	40.70	39.94[1)]	4.27	51.74	76.73[1)]
	031 using	6.10 in³/rev	47.56	46.03	45.27[1)]	4.58	57.95	86.06[1)]

1) 028 - 031 - 050 = 3000 PSI max. int.
- Not to use because internal leakage greater than 50% theoretical flow.
- Port connection can be furnished with metric threads.

High Pressure Triple Vane Pump HT7DDB/HT7DDBS Series

Specification

HT7DDB, HT7DDBS for Triple pump

Shaft End Pump				Middle Pump				Cover End Pump				Min. speed	Max. speed	Weight
Size	Displacement cm³/r 1(in³/r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Size	Displacement cm³/r 1(in³/r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	Size	Displacement cm³/r 1(in³/r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
014	47.6 (2.90)	300 (4350)	250 (3600)	014	47.6 (2.90)	300 (4350)	250 (3600)	002	5.8 (0.35)	300 (4350)	275 (4000)	600	2500	66.0 (145.5)
017	58.2 (3.55)			017	58.2 (3.55)			003	9.8 (0.59)					
020	66.0 (4.00)			020	66.0 (4.00)			004	12.8 (0.78)					
022	70.0 (4.27)			022	70.0 (4.27)			005	15.9 (0.97)					
024	79.5 (4.80)			024	79.5 (4.80)			006	19.8 (1.20)					
028	87.7 (5.50)			028	87.7 (5.50)			007	22.5 (1.37)					
031	98.3 (6.00)			031	98.3 (6.00)			008	24.9 (1.51)					
035	111.0 (6.80)	280 (4060)		035	111.0 (6.80)	280 (4060)		009	26.0 (1.70)					
038	120.3 (7.30)			038	120.3 (7.30)			010	31.8 (1.94)					
042	136.0 (8.30)	260 (3770)	235 (3400)	042	136.0 (8.30)	260 (3770)	235 (3400)	011	35.0 (2.13)					
045	145.7 (8.90)	240 (3500)	206 (3000)	045	145.7 (8.90)	240 (3500)	206 (3000)	012	41.0 (2.50)					
050	158.0 (9.64)	206 (3000)	160 (2300)	050	158.0 (9.64)	206 (3000)	160 (2300)	014	45.0 (2.74)					
								015	50.0 (3.05)	280 (4060)	240 (3500)			

High Pressure Triple Vane Pump HT7DDB/HT7DDBS Series

Ordering Code

HT7DDBS	-	050	-	024	-	012	-	1	R	00	-	A	-	00	-	..
1		2		3		4		5	6	7		8		9		10

1. Model :
   Industrial - HT7DDB
   ISO 6 bolts 3019-2 mounting flange
   125-A2-HW or 125 B4 HW

   - HT7DDBS SAE C 6 bolts mounting flange
   J744

2. Displacement P1
   Volumetric displacement cm³/rec (in³/rev)
   - 014 - 47.6 (2.90)
   - 017 - 58.2 (3.55)
   - 020 - 66.0 (4.03)
   - 022 - 70.0 (4.27)
   - 024 - 79.5 (4.85)
   - 028 - 89.7 (5.47)
   - 031 - 98.3 (6.00)
   - 035 - 111.0 (6.77)
   - 038 - 120.3 (7.34)
   - 042 - 136.0 (8.30)
   - 045 - 145.7 (8.89)
   - 050 - 158.0 (9.64)

3. Displacement P2
   Volumetric displacement cm³/rec (in³/rev)
   - 014 - 47.6 (2.90)
   - 017 - 58.2 (3.55)
   - 020 - 66.0 (4.03)
   - 022 - 70.0 (4.27)
   - 024 - 79.5 (4.85)
   - 028 - 89.7 (5.47)
   - 031 - 98.3 (6.00)
   - 035 - 111.0 (6.77)
   - 038 - 120.3 (7.34)
   - 042 - 136.0 (8.30)
   - 045 - 145.7 (8.89)
   - 050 - 158.0 (9.64)

4. Displacement P3
   Volumetric displacement cm³/rec (in³/rev)
   - 002 - 5.8 (0.35)
   - 003 - 9.8 (0.60)
   - 004 - 12.8 (0.78)
   - 005 - 15.9 (0.97)
   - 006 - 19.8 (1.20)
   - 007 - 22.5 (1.37)
   - 008 - 24.9 (1.51)
   - 009 - 28.0 (1.70)
   - 010 - 31.8 (1.92)
   - 011 - 35.0 (2.14)
   - 012 - 41.0 (2.47)
   - 014 - 45.0 (2.70)
   - 015 - 50.0 (3.01)

5. Type of shaft
   HT7DDB, HT7DDBS
   - 5 - ISO 3019-2-G32M Keyed Shaft

   HT7DDBS
   - 1 - SAE C Keyed Shaft
   - 2 - SAE CC Keyed Shaft
   - 3 - SAE C Splined Shaft
   - 4 - SAE CC Splined Shaft

6. Direction of rotation (view on shaft end)
   - R - Turn right
   - L - Turn left

7. Porting combination (see page Porting Diagrams)
   - 00 - standard

8. Design letter

9. Port Connection (4 bolts SAE flange J518C)
   - 00 - UNC Port Connection (Except HT7DDB)
   - M0 - Metric Port Connection

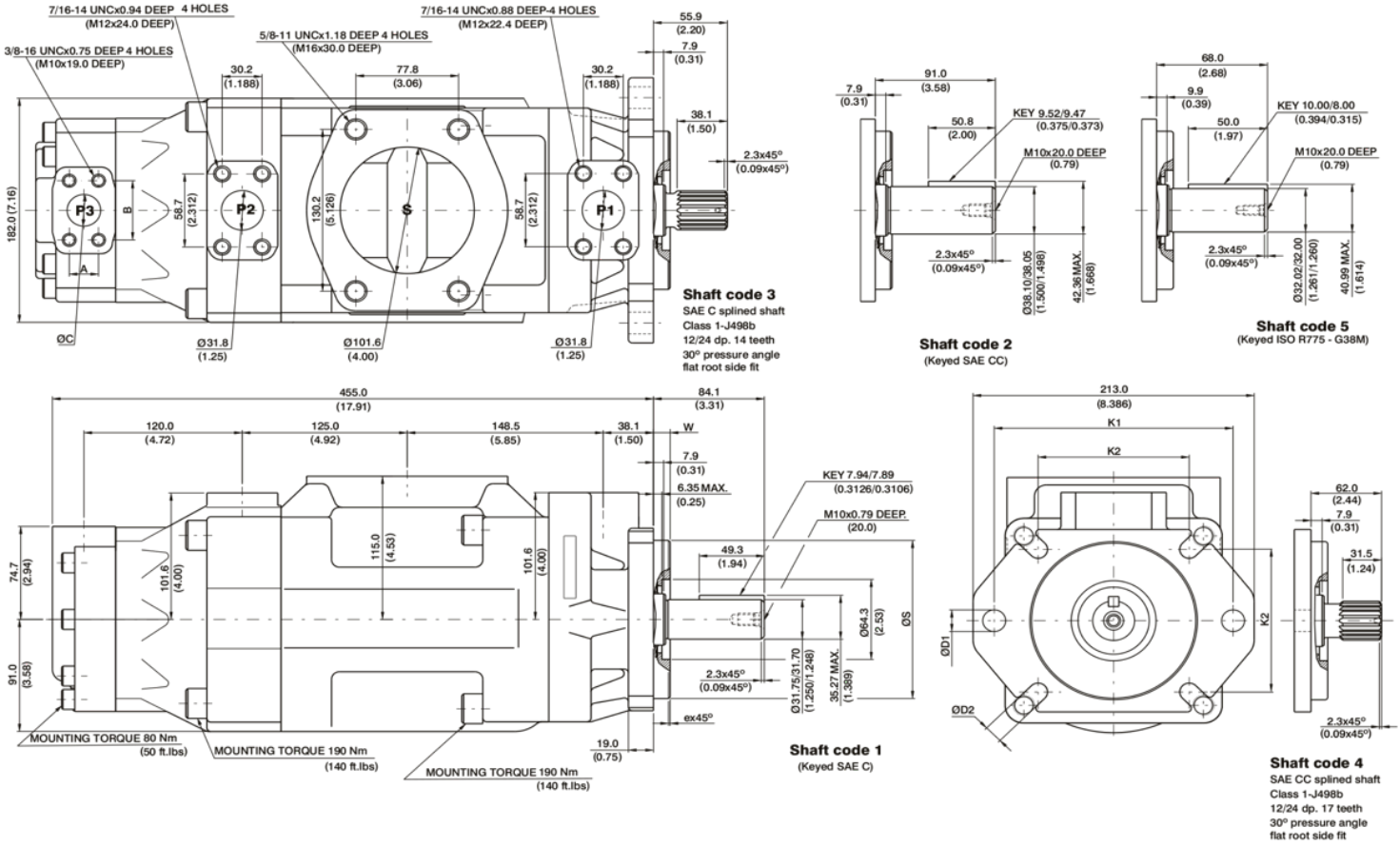
Code		4 bolt SAE flanges			
UNC	Metric	P1	P2	P3	S
00	M0	1¼"	1¼"	1"	4"
01	M1	1¼"	1¼"	3/4"	4"

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

High Pressure Triple Vane Pump HT7DDB/HT7DDBS Series

Installation Dimension mm (inch)

HT7DDB, HT7DDBS



Shaft torque limits [ml/rev x bar (in3/rev x psi)	
Shaft	**Vp x p max. (P1+P2+P3)**
1	43240 (38299)
2	72378 (64044)
3	61200 (54207)
4	66567 (58902)
5	53153 (47033)

Alternate connect.variables			
Code	**A**	**B**	**C**
00 & M0	26.2 (1.03)	52.4 (2.06)	25.4 (1.00)
01 & M1	22.2 (0.874)	47.6 (1.874)	19.5 (0.75)

Alternate mounting flange								
Model	**ØS**		**ex 45°**	**W**	**K1**	**ØD1**	**K2**	**ØD2**
	MAX.	**MIN.**						
HT7DDB	124.99 (4.921)	124.94 (4.919)	2.0 (0.079)	9.49 (0.374)	180.0 (7.087)	18.0 (0.709)	113.1 (4.454)	13.9 (0.551)
HT7DDBS	127.00 (5.00)	126.94 (4.998)	1.5 (0.059)	12.7 (0.50)	181.0 (7.126)	17.5 (0.689)	114.5 (4.508)	14.3 (0.563)

High Pressure Triple Vane Pump HT7DDB/HT7DDBS Series

Performance Characteristics

HT7DDB, HT7DDBS

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 & P2	014	2.90 in³/rev	22.64	20.46	18.82	4.02	29.31	49.34
	017	3.55 in³/rev	27.68	25.50	23.86	4.31	35.20	59.64
	020	4.00 in³/rev	31.39	29.21	27.57	4.53	39.52	67.21
	022	4.29 in³/rev	33.43	31.69	30.32	4.19	42.37	72.57
	024	4.80 in³/rev	37.82	35.63	33.99	4.91	47.02	80.32
	028	5.50 in³/rev	42.66	40.48	38.84	5.19	52.68	90.23
	031	6.00 in³/rev	46.75	44.57	42.93	5.43	57.45	98.58
	035	6.80 in³/rev	52.79	50.61	48.97	5.78	64.50	110.91
	038	7.30 in³/rev	57.21	55.03	53.39	6.04	69.66	119.94
	042	8.30 in³/rev	64.68	62.50	60.86	6.47	78.37	135.19
	045	8.90 in³/rev	69.29	67.11	65.47	6.74	83.74	144.61
	050	9.64 in³/rev	75.14	72.96	71.78[1)]	7.08	90.58	134.54[1)]
P3	002	0.35 in³/rev	2.29	1.84	1.26	0.67	3.48	7.23
	003	0.59 in³/rev	3.88	3.43	2.85	0.80	5.36	11.52
	004	0.78 in³/rev	5.07	4.62	4.04	0.80	6.70	14.74
	005	0.97 in³/rev	6.31	5.86	5.28	0.93	8.17	18.09
	006	1.20 in³/rev	7.84	7.39	6.81	0.93	10.05	22.25
	007	1.37 in³/rev	8.90	8.45	7.89	1.07	11.39	25.20
	008	1.51 in³/rev	9.88	9.43	8.84	1.07	12.46	27.74
	009	1.70 in³/rev	11.09	10.56	10.06	1.20	13.94	31.09
	010	1.94 in³/rev	12.60	12.15	11.57	1.20	15.68	35.12
	011	2.13 in³/rev	13.86	13.41	12.91[2)]	1.34	17.15	36.19[2)]
	012	2.50 in³/rev	16.24	15.79	15.29[2)]	1.47	19.97	42.22[2)]
	014	2.74 in³/rev	17.83	17.38	16.88[2)]	1.60	21.84	46.24[2)]
	015	3.05 in³/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.

High Pressure Triple Vane Pump HT67DDCS Series

Specification

HT67DDCS for Triple pump

Shaft End Pump				Middle Pump				Cover End Pump				Min. speed	Max. speed	Weight
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)	Size	Displacement cm^3/r 1(in^3/r)	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
014	47.6 (2.90)	300 (4350)	250 (3600)	014	47.6 (2.90)	300 (4350)	250 (3600)	003	10.8 (0.66)	275 (4000)	240 (3500)	600	2500	66.0 (145.5)
017	58.2 (3.55)			017	58.2 (3.55)			005	17.2 (1.05)					
020	66.0 (4.00)			020	66.0 (4.00)			006	21.3 (1.30)					
022	70.0 (4.27)			022	70.0 (4.27)			008	26.4 (1.61)					
024	79.5 (4.80)			024	79.5 (4.80)			010	34.1 (2.08)					
028	87.7 (5.50)			028	87.7 (5.50)			012	37.1 (2.26)					
031	98.3 (6.00)			031	98.3 (6.00)			014	46.0 (2.81)					
035	111.0 (6.80)	280 (4060)		035	111.0 (6.80)	280 (4060)		017	58.3 (3.56)					
038	120.3 (7.30)			038	120.3 (7.30)			020	63.8 (3.89)					
042	136.0 (8.30)	260 (3770)	235 (3400)	042	136.0 (8.30)	260 (3770)	235 (3400)	022	70.3 (4.29)					
045	145.7 (8.90)	240 (3500)	206 (3000)	045	145.7 (8.90)	240 (3500)	206 (3000)	025	79.3 (4.84)					
050	158.0 (9.64)	206 (3000)	160 (2300)	050	158.0 (9.64)	206 (3000)	160 (2300)	028	88.8 (5.42)					
								031	100.0 (6.10)	206 (3000)	160 (3200)			

High Pressure Triple Vane Pump
HT67DDCS Series

Ordering Code

HT67DDCS - 050 - 024 - 012 - 1 R 00 - A - 00 - ..

1 2 3 4 5 6 7 8 9 10

1. Model :
   Industrial - HT67DDCS SAE C 6 bolts mounting flange J744

2. Displacement P1
   Volumetric displacement cm³/rec (in³/rev)
   - 014 - 47.6 (2.90)
   - 017 - 58.2 (3.55)
   - 020 - 66.0 (4.03)
   - 022 - 70.0 (4.27)
   - 024 - 79.5 (4.85)
   - 028 - 89.7 (5.47)
   - 031 - 98.3 (6.00)
   - 035 - 111.0 (6.77)
   - 038 - 120.3 (7.34)
   - 042 - 136.0 (8.30)
   - 045 - 145.7 (8.89)
   - 050 - 158.0 (9.64)

3. Displacement P2
   Volumetric displacement cm³/rec (in³/rev)
   - 014 - 47.6 (2.90)
   - 017 - 58.2 (3.55)
   - 020 - 66.0 (4.03)
   - 022 - 70.0 (4.27)
   - 024 - 79.5 (4.85)
   - 028 - 89.7 (5.47)
   - 031 - 98.3 (6.00)
   - 035 - 111.0 (6.77)
   - 038 - 120.3 (7.34)
   - 042 - 136.0 (8.30)
   - 045 - 145.7 (8.89)
   - 050 - 158.0 (9.64)

4. Displacement P3
   Volumetric displacement cm³/rec (in³/rev)
   - 003 - 10.8 (0.66)
   - 005 - 17.2 (1.05)
   - 006 - 21.3 (1.30)
   - 008 - 26.4 (1.61)
   - 010 - 34.1 (2.08)
   - 012 - 37.1 (2.26)
   - 014 - 46.0 (2.81)
   - 017 - 58.3 (3.56)
   - 020 - 63.8 (3.89)
   - 022 - 70.3 (4.29)
   - 025 - 79.3 (4.84)
   - 028 - 88.8 (5.42)
   - 031 - 100.0 (6.10)

5. Type of shaft
   - 1 - SAE C Keyed Shaft
   - 2 - SAE CC Keyed Shaft
   - 3 - SAE C Splined Shaft
   - 4 - SAE CC Splined Shaft
   - 5 - non SAE Keyed Shaft

6. Direction of rotation (view on shaft end)
   - R - Turn right
   - L - Turn left

7. Porting combination (see page Porting Diagrams)
   - 00 - standard

8. Design letter

9. Port Connection (4 bolts SAE flange J518C)
   - 00 - UNC Port Connection
   - M0 - Metric Port Connection

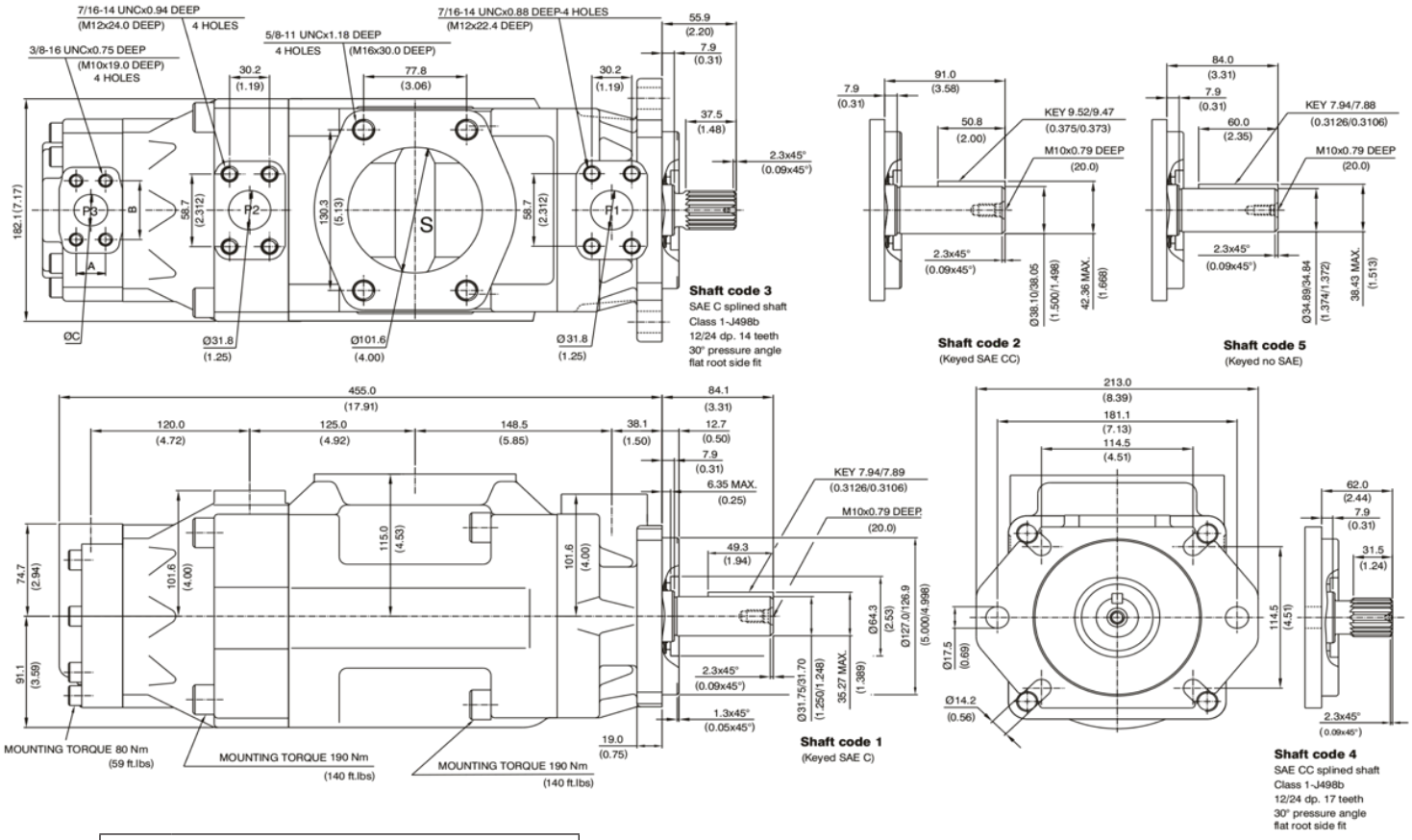
Code		4 bolt SAE flanges			
UNC	Metric	P1	P2	P3	S
00	M0	1¼"	1¼"	1"	4"
01	M1	1¼"	1¼"	3/4"	4"

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

High Pressure Triple Vane Pump HT67DDCS Series

Installation Dimension mm (inch)

HT67DDCS



Shaft torque limits [ml/rev x bar (in3/rev x psi)	
Shaft	**Vp x p max. (P1+P2+P3)**
1	43240 (38299)
2	72378 (64044)
3	61200 (54207)
4	66567 (58902)
5	55649 (49247)

Alternate connect.variables			
Code	**A**	**B**	**C**
00 & M0	26.2 (1.03)	52.4 (2.06)	25.4 (1.00)
01 & M1	22.2 (0.874)	47.6 (1.874)	19.5 (0.75)

High Pressure Triple Vane Pump HT67DDCS Series

Performance Characteristics

HT67DDCS

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 & P2	014	2.90 in^3/rev	22.64	20.46	18.82	4.02	29.31	49.34
	017	3.55 in^3/rev	27.68	25.50	23.86	4.31	35.20	59.64
	020	4.00 in^3/rev	31.39	29.21	27.57	4.53	39.52	67.21
	022	4.29 in^3/rev	33.43	31.69	30.32	4.19	42.37	72.57
	024	4.80 in^3/rev	37.82	35.63	33.99	4.91	47.02	80.32
	028	5.50 in^3/rev	42.66	40.48	38.84	5.19	52.68	90.23
	031	6.00 in^3/rev	46.75	44.57	42.93	5.43	57.45	98.58
	035	6.80 in^3/rev	52.79	50.61	48.97	5.78	64.50	110.91
	038	7.30 in^3/rev	57.21	55.03	53.39	6.04	69.66	119.94
	042	8.30 in^3/rev	64.68	62.50	60.86	6.47	78.37	135.19
	045	8.90 in^3/rev	69.29	67.11	65.47	6.74	83.74	144.61
	050	9.64 in^3/rev	75.14	72.96	71.78[1)]	7.08	90.58	134.54[1)]
P3	003	0.66 in^3/rev	5.14	3.61	-	2.11	8.45	-
	005	1.05 in^3/rev	8.18	6.65	5.56	2.29	12.00	19.59
	006	1.30 in^3/rev	10.13	8.60	7.51	2.40	14.28	23.57
	008	1.61 in^3/rev	12.55	11.02	9.93	2.54	17.11	28.53
	010	2.08 in^3/rev	16.22	14.69	13.60	2.76	21.38	36.00
	012	2.26 in^3/rev	17.64	16.11	15.02	2.84	23.05	38.92
	014	2.81 in^3/rev	21.88	20.35	19.26	3.09	27.99	47.56
	017	3.56 in^3/rev	27.73	26.20	25.11	3.43	34.81	59.51
	020	3.89 in^3/rev	30.34	28.81	27.42	3.58	37.86	64.85
	022	4.29 in^3/rev	33.43	31.90	30.81	3.76	41.47	71.16
	025	4.84 in^3/rev	37.71	36.18	35.09	4.01	46.46	79.90
	028	5.42 in^3/rev	42.23	40.70	39.94[1)]	4.27	51.74	76.73[1)]
	031 using	6.10 in^3/rev	47.56	46.03	45.27[1)]	4.58	57.95	86.06[1)]

1) 028 - 031 - 050 = 3000 PSI max. int.
- Not to use because internal leakage greater than 50% theoretical flow.
- Port connection can be furnished with metric threads.

High Pressure Triple Vane Pump HT7EDB/ HT7EDBS Series

Specification

HT7EDB, HT7EDBS for Triple pump

Shaft End Pump				Middle Pump				Cover End Pump				Min. speed	Max. speed	Weight
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)	Size	Displacement cm^3/r $1(in^3/r)$	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
042	132.3 (8.07)	240 (3500)	206 (3000)	014	47.6 (2.90)	300 (4350)	250 (3600)	002	5.8 (0.35)	300 (4350)	275 (4000)	600	2200	102.0 (224.9)
045	142.4 (8.70)			017	58.2 (3.55)			003	9.8 (0.59)					
050	158.5 (9.67)			020	66.0 (4.00)			004	12.8 (0.78)					
052	164.8 (10.00)			022	70.0 (4.27)			005	15.9 (0.97)					
054	173.8 (10.60)			024	79.5 (4.80)			006	19.8 (1.20)					
057	180.7 (11.02)			028	87.7 (5.50)			007	22.5 (1.37)					
062	196.7 (12.00)			031	98.3 (6.00)			008	24.9 (1.51)					
066	213.3 (13.00)			035	111.0 (6.80)	280 (4060)		009	26.0 (1.70)					
072	227.1 (13.86)			038	120.3 (7.30)			010	31.8 (1.94)					
085	269.8 (16.40)	90 (1300)	75 (1100)	042	136.0 (8.30)	260 (3770)	235 (3400)	011	35.0 (2.13)					
				045	145.7 (8.90)	240 (3500)	206 (3000)	012	41.0 (2.50)					
				050	158.0 (9.64)	206 (3000)	160 (2300)	014	45.0 (2.74)					
								015	50.0 (3.05)	280 (4060)	240 (3500)			

High Pressure Triple Vane Pump
HT7EDB/ HT7EDBS Series

Ordering Code

HT7EDBS - 062 - 035 - 017 - 1 R 00 - A - 00 - ..

1 2 3 4 5 6 7 8 9 10

1. Model :
   Industrial - HT7EDB
   ISO 4 bolts 3019-2 mounting flange
   250 B4 HW

   - HT7EDBS
   SAE E 4 bolts mounting flange J744

2. Displacement P1
   Volumetric displacement cm³/rec (in³/rev)
   042 - 132.3 (8.07)
   045 - 142.4 (8.70)
   050 - 158.5 (9.67)
   052 - 164.8 (10.00)
   054 - 173.8 (10.60)
   057 - 180.7 (11.02)
   062 - 196.7 (12.00)
   066 - 213.3 (13.00)
   072 - 227.1 (13.86)
   085 - 269.8 (16.40)

3. Displacement P2
   Volumetric displacement cm³/rec (in³/rev)
   014 - 47.6 (2.90)
   017 - 58.2 (3.55)
   020 - 66.0 (4.03)
   024 - 79.5 (4.85)
   028 - 89.7 (5.47)
   031 - 98.3 (6.00)
   035 - 111.0 (6.77)
   038 - 120.3 (7.34)
   042 - 136.0 (8.30)
   045 - 145.7 (8.89)
   050 - 158.0 (9.64)

4. Displacement P3
   Volumetric displacement cm³/rec (in³/rev)
   002 - 5.8 (0.35)
   003 - 9.8 (0.60)
   004 - 12.8 (0.78)
   005 - 15.9 (0.97)
   006 - 19.8 (1.20)
   007 - 22.5 (1.37)
   008 - 24.9 (1.51)
   009 - 28.0 (1.70)
   010 - 31.8 (1.92)
   011 - 35.0 (2.14)
   012 - 41.0 (2.47)
   014 - 45.0 (2.70)
   015 - 50.0 (3.01)

5. Type of Shaft
   HT7EDB
   1 - ISO 3019-2-G45N Keyed Shaft

   HT7EDBS
   2 - SAE D&E Keyed Shaft
   3 - SAE D&E Splined Shaft

6. Direction of rotation (view on shaft end)
   R - Turn right
   L - Turn left

7. Porting combination (see page Porting Diagrams)
   00 - standard

8. Design letter

9. Port Connection (4 bolts SAE flange J518C)
   00 - UNC Port Connection (Except HT7EDB)
   M0 - Metric Port Connection

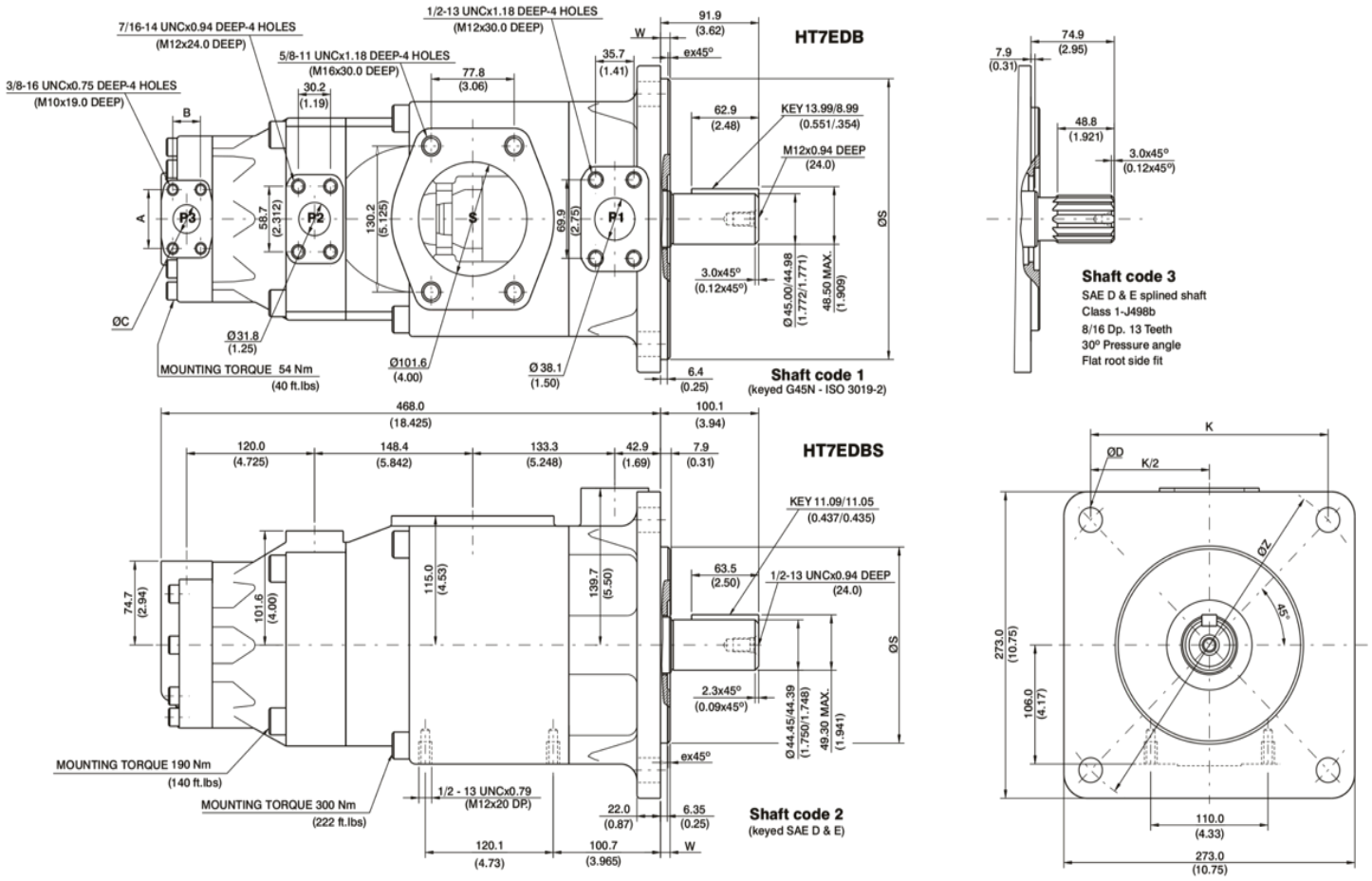
Code		4 bolt SAE flanges			
UNC	Metric	P1	P2	P3	S
00	M0	1½"	1¼"	1"	4"
01	M1	1½"	1¼"	3/4"	4"

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

High Pressure Triple Vane Pump HT7EDB/ HT7EDBS Series

Installation Dimension mm (inch)

HT7EDB, HT7EDBS



Shaft torque limits [ml/rev x bar (in3/rev x psi)	
Shaft	Vp x p max. (P1+P2+P3)
1	114715 (101506)
2	118458 (104818)
3	126928 (112312)

Alternate connect. variables			
Code	A	B	C
00 & M0	52.4 (2.06)	26.2 (1.03)	25.4 (1.00)
01 & M1	47.6 (1.874)	22.2 (0.874)	19.0 (0.75)

Alternate mounting flange							
Model	ØS		ex 45°	W	K1	ØZ	ØD
	MAX.	MIN.					
HT7EDB	250.0 (9.842)	249.94 (9.840)	2.0 (0.079)	8.99 (0.354)	-	315.0 (12.401)	21.99 (0.866)
HT7EDBS	165.10 (6.50)	165.05 (6.498)	2.0 (0.079)	8.99 (0.354)	224.5 (8.838)	-	20.59 (0.811)

High Pressure Triple Vane Pump HT7EDB/ HT7EDBS Series

Performance Characteristics

HT7EDB, HT7EDBS

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	042	8.07 in³/rev	62.92	60.37	58.52	8.09	78.44	133.80
	045	8.70 in³/rev	67.72	65.17	63.32	8.37	84.04	143.60
	050	9.67 in³/rev	75.38	72.83	70.98	8.82	92.97	159.24
	052	10.00 in³/rev	78.37	75.82	73.97	8.99	96.47	165.36
	054	10.43 in³/rev	81.27	78.72	76.87	9.17	99.75	177.46
	057	11.18 in³/rev	87.12	84.57	82.72	9.51	106.57	189.84
	062	12.00 in³/rev	93.54	90.99	89.14	9.88	114.17	196.34
	066	13.00 in³/rev	101.44	98.89	97.04	10.34	123.38	212.46
	072	13.86 in³/rev	108.00	105.45	103.60	10.72	131.04	225.86
	085	16.40 in³/rev	127.79	126.13[1)]	-	11.88	101.66[1)]	-
P2	014	2.90 in³/rev	22.64	20.46	18.82	4.02	29.31	49.34
	017	3.55 in³/rev	27.68	25.50	23.86	4.31	35.20	59.64
	020	4.00 in³/rev	31.39	29.21	27.57	4.53	39.52	67.21
	024	4.80 in³/rev	37.82	35.63	33.99	4.91	47.02	80.32
	028	5.50 in³/rev	42.66	40.48	38.84	5.19	52.68	90.23
	031	6.00 in³/rev	46.75	44.57	42.93	5.43	57.45	98.58
	035	6.80 in³/rev	52.79	50.61	48.97	5.78	64.50	110.91
	038	7.30 in³/rev	57.21	55.03	53.39	6.04	69.66	119.94
	042	8.30 in³/rev	64.68	62.50	60.86	6.47	78.37	135.19
	045	8.90 in³/rev	69.29	67.11	65.47	6.74	83.74	144.61
	050	9.64 in³/rev	75.14	72.96	71.78[1)]	7.08	90.58	134.54[2)]
P3	002	0.35 in³/rev	2.29	1.84	1.26	0.67	3.48	7.23
	003	0.59 in³/rev	3.88	3.43	2.85	0.80	5.36	11.52
	004	0.78 in³/rev	5.07	4.62	4.04	0.80	6.70	14.74
	005	0.97 in³/rev	6.31	5.86	5.28	0.93	8.17	18.09
	006	1.20 in³/rev	7.84	7.39	6.81	0.93	10.05	22.25
	007	1.37 in³/rev	8.90	8.45	7.89	1.07	11.39	25.20
	008	1.51 in³/rev	9.88	9.43	8.84	1.07	12.46	27.74
	009	1.70 in³/rev	11.09	10.56	10.06	1.20	13.94	31.09
	010	1.94 in³/rev	12.60	12.15	11.57	1.20	15.68	35.12
	011	2.13 in³/rev	13.86	13.41	12.91[3)]	1.34	17.15	36.19[3)]
	012	2.50 in³/rev	16.24	15.79	15.29[3)]	1.47	19.97	42.22[3)]
	014	2.74 in³/rev	17.83	17.38	16.88[3)]	1.60	21.84	46.24[3)]
	015	3.05 in³/rev	19.81	19.36	18.91[4)]	1.74	24.26	47.85[4)]

1) 085 = 1300 PSI max. int. 2) 050 = 3000 PSI max. int 3) 011 - 012 - 014 = 4350 PSI max. int 4) 015 = 4000 PSI max. int
- Not to use because internal leakage greater than 50% theoretical flow. - Port connection can be furnished with metric threads.

High Pressure Triple Vane Pump HT6EDCM Series

Specification

HT6EDCM for Triple pump

Shaft End Pump				Middle Pump				Cover End Pump				Min. speed	Max. speed	Weight
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)	Size	Displacement cm^3/r $1(in^3/r)$	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
042	132.3 (8.07)	240 (3500)	206 (3000)	014	47.6 (2.90)	240 (3500)	206 (3000)	003	10.8 (0.66)	275 (4000)	240 (3500)	400	2200	102.0 (224.9)
045	142.4 (8.70)			017	58.2 (3.55)			005	17.2 (1.05)					
050	158.5 (9.67)			020	66.0 (4.00)			006	21.3 (1.30)					
052	164.8 (10.00)			024	79.5 (4.80)			008	26.4 (1.61)					
057	180.7 (11.02)			028	87.7 (5.50)			010	34.1 (2.08)					
062	196.7 (12.00)			031	98.3 (6.00)			012	37.1 (2.26)					
066	213.3 (13.00)			035	111.0 (6.80)			014	46.0 (2.81)					
072	227.1 (13.86)			038	120.3 (7.30)			017	58.3 (3.56)					
				042	136.0 (8.30)			020	63.8 (3.89)					
				045	145.7 (8.90)			022	70.3 (4.29)					
				050	158.0 (9.64)	206 (3000)	160 (2300)	025	79.3 (4.84)					
				061	193.3 (11.8)			028	88.8 (5.42)					
								031	100.0 (6.10)	206 (3000)	160 (3200)			

High Pressure Triple Vane Pump
HT6EDCM Series

Ordering Code

HT6EDCM - 062 - 035 - 017 - 1 R 00 - A - M0 - ..

1 2 3 4 5 6 7 8 9 10

1. Model :
   Mobile 1 Shaft seals (M) - HT6EDCM
   ISO 4 bolts 3019-2 mounting flange
   250 B4 HW

2. Displacement P1
   Volumetric displacement cm³/rec (in³/rev)
   - 042 - 132.3 (8.07)
   - 045 - 142.4 (8.70)
   - 050 - 158.5 (9.67)
   - 052 - 164.8 (10.00)
   - 062 - 196.7 (12.00)
   - 066 - 213.3 (13.00)
   - 072 - 227.1 (13.86)

3. Displacement P2
   Volumetric displacement cm³/rec (in³/rev)
   - 014 - 47.6 (2.90)
   - 017 - 58.2 (3.55)
   - 020 - 66.0 (4.03)
   - 024 - 79.5 (4.85)
   - 028 - 89.7 (5.47)
   - 031 - 98.3 (6.00)
   - 035 - 111.0 (6.77)
   - 038 - 120.3 (7.34)
   - 042 - 136.0 (8.30)
   - 045 - 145.7 (8.89)
   - 050 - 158.0 (9.64)
   - 061 - 193.3 (11.80)

4. Displacement P3
   Volumetric displacement cm³/rec (in³/rev)
   - 003 - 10.8 (0.66)
   - 005 - 17.2 (1.05)
   - 006 - 21.3 (1.30)
   - 008 - 26.4 (1.61)
   - 010 - 34.1 (2.08)
   - 012 - 37.1 (2.26)
   - 014 - 46.0 (2.81)
   - 017 - 58.3 (3.56)
   - 020 - 63.8 (3.89)
   - 022 - 70.3 (4.29)
   - 025 - 79.3 (4.84)
   - 028 - 88.8 (5.42)
   - 031 - 100.0 (6.10)

5. Type of Shaft
   - 1 - ISO 3019-2-G45N Keyed Shaft
   - 3 - SAE D&E Splined Shaft

6. Direction of rotation (view on shaft end)
   - R - Turn right
   - L - Turn left

7. Porting combination (see page Porting Diagrams)
   - 00 - standard

8. Design letter

9. Port Connection (4 bolts SAE flange J518C)
   - 00 - UNC Port Connection
   - M0 - Metric Port Connection
   (HT6EDCM for port connection M0, M1 only)

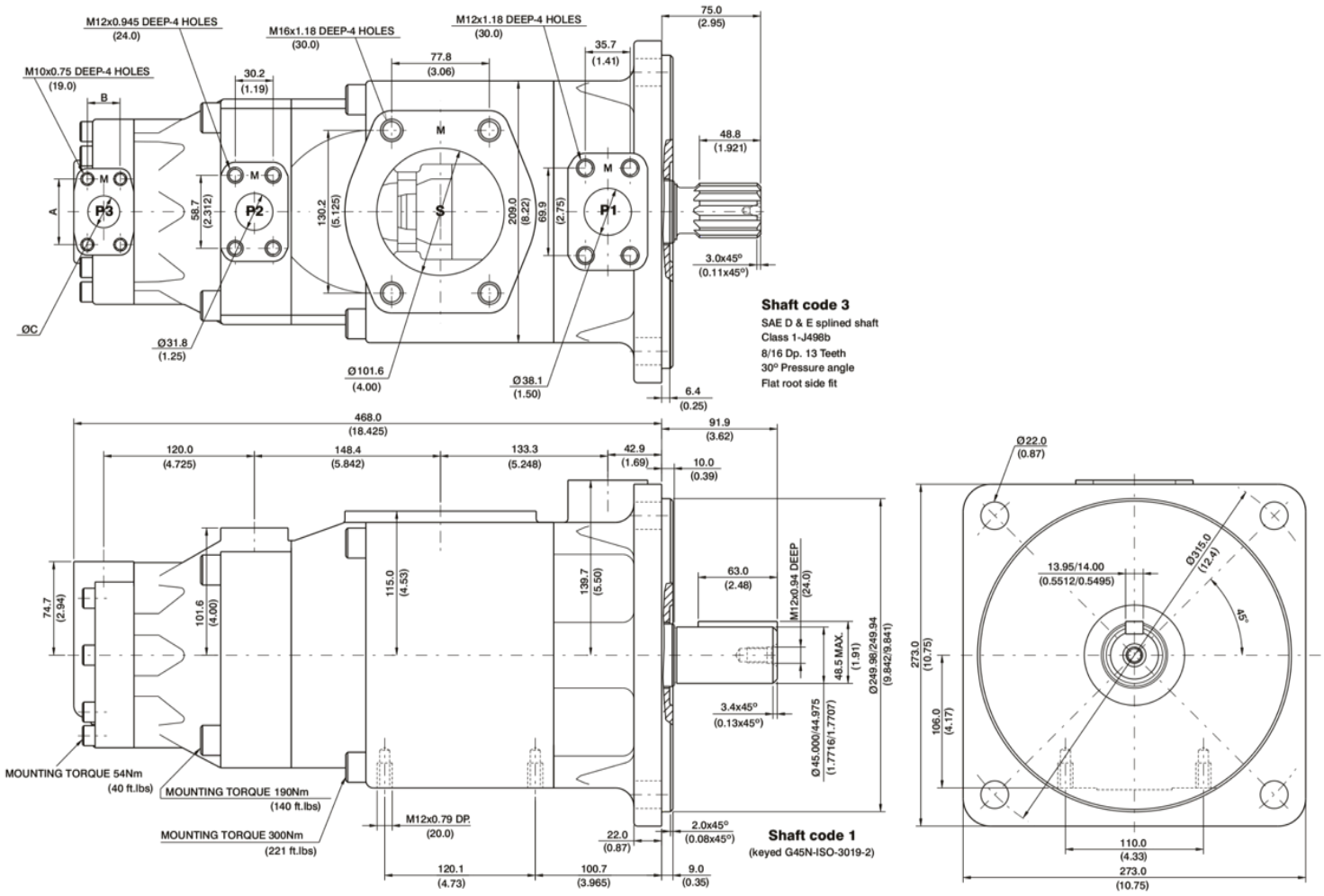
Code		4 bolt SAE flanges			
UNC	Metric	P1	P2	P3	S
00	M0	1½"	1¼"	1"	4"
01	M1	1½"	1¼"	3/4"	4"

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

High Pressure Triple Vane Pump
HT6EDCM Series

Installation Dimension mm (inch)

HT6EDCM



Shaft torque limits [ml/rev x bar (in3/rev x psi)	
Shaft	Vp x p max. (P1+P2+P3)
1	114715 (101506)
3	126928 (112312)

Alternate connect. variables			
Code	A	B	C
00 & M0	52.4 (2.063)	26.1 (1.031)	25.4 (1.00)
01 & M1	47.5 (1.874)	22.1 (0.874)	18.9 (0.748)

High Pressure Triple Vane Pump
HT6EDCM Series

Performance Characteristics

HT6EDCM

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	042	8.07 in³/rev	62.92	60.37	58.52	8.09	78.44	133.80
	045	8.70 in³/rev	67.72	65.17	63.32	8.37	84.04	143.60
	050	9.67 in³/rev	75.38	72.83	70.98	8.82	92.97	159.24
	052	10.00 in³/rev	78.37	75.82	73.97	8.99	96.47	165.36
	062	12.00 in³/rev	93.54	90.99	89.14	9.88	114.17	196.34
	066	13.00 in³/rev	101.44	98.89	97.04	10.34	123.38	212.46
	072	13.86 in³/rev	108.00	105.45	103.60	10.72	131.04	225.86
P2	014	2.90 in³/rev	22.64	20.46	18.82	4.02	29.31	49.34
	017	3.55 in³/rev	27.68	25.50	23.86	4.31	35.20	59.64
	020	4.00 in³/rev	31.39	29.21	27.57	4.53	39.52	67.21
	024	4.80 in³/rev	37.82	35.63	33.99	4.91	47.02	80.32
	028	5.50 in³/rev	42.66	40.48	38.84	5.19	52.68	90.23
	031	6.00 in³/rev	46.75	44.57	42.93	5.43	57.45	98.58
	035	6.80 in³/rev	52.79	50.61	48.97	5.78	64.50	110.91
	038	7.30 in³/rev	57.21	55.03	53.39	6.04	69.66	119.94
	042	8.30 in³/rev	64.68	62.50	60.86	6.47	78.37	135.19
	045	8.90 in³/rev	69.29	67.11	65.47	6.74	83.74	144.61
	050	9.64 in³/rev	75.14	72.96	71.78[1)]	7.08	90.58	134.54[1)]
	061	11.8 in³/rev	90.98	84.55	80.87[1)]	8.30	109.61	183.48[1)]
P3	003	0.66 in³/rev	5.14	3.61	-	2.11	8.45	-
	005	1.05 in³/rev	8.18	6.65	5.56	2.29	12.00	19.59
	006	1.30 in³/rev	10.13	8.60	7.51	2.40	14.28	23.57
	008	1.61 in³/rev	12.55	11.02	9.93	2.54	17.11	28.53
	010	2.08 in³/rev	16.22	14.69	13.60	2.76	21.38	36.00
	012	2.26 in³/rev	17.64	16.11	15.02	2.84	23.05	38.92
	014	2.81 in³/rev	21.88	20.35	19.26	3.09	27.99	47.56
	017	3.56 in³/rev	27.73	26.20	25.11	3.43	34.81	59.51
	020	3.89 in³/rev	30.34	28.81	27.42	3.58	37.86	64.85
	022	4.29 in³/rev	33.43	31.90	30.81	3.76	41.47	71.16
	025	4.84 in³/rev	37.71	36.18	35.09	4.01	46.46	79.90
	028	5.42 in³/rev	42.23	40.70	39.94[2)]	4.27	51.74	76.73[2)]
	031	6.10 in³/rev	47.56	46.03	45.27[2)]	4.58	57.95	86.06[2)]

1) 050 - 061= 3000 PSI max. int
2) 028 - 031 = 3000 PSI max. int
- Not to use because internal leakage greater than 50% theoretical flow.
- Port connection can be furnished with metric threads.

High Pressure Triple Vane Pump HT67EDC/ HT67EDCS Series

Specification

HT67EDC, HT67EDCS for Triple pump

Shaft End Pump				Middle Pump				Cover End Pump				Min. speed	Max. speed	Weight
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)	Size	Displacement cm^3/r $1(in^3/r)$	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
042	132.3 (8.07)	240 (3500)	206 (3000)	014	47.6 (2.90)	300 (4350)	250 (3600)	003	10.8 (0.66)	275 (4000)	240 (3500)	600	2200	102.0 (224.9)
045	142.4 (8.70)			017	58.2 (3.55)			005	17.2 (1.05)					
050	158.5 (9.67)			020	66.0 (4.00)			006	21.3 (1.30)					
052	164.8 (10.00)			022	70.0 (4.27)			008	26.4 (1.61)					
054	173.8 (10.60)			024	79.5 (4.80)			010	34.1 (2.08)					
057	180.7 (11.02)			028	87.7 (5.50)			012	37.1 (2.26)					
062	196.7 (12.00)			031	98.3 (6.00)			014	46.0 (2.81)					
066	213.3 (13.00)			035	111.0 (6.80)	280 (4060)		017	58.3 (3.56)					
072	227.1 (13.86)			038	120.3 (7.30)			020	63.8 (3.89)					
085	269.8 (16.40)	90 (1300)	75 (1100)	042	136.0 (8.30)	260 (3770)	235 (3400)	022	70.3 (4.29)					
				045	145.7 (8.90)	240 (3500)	206 (3000)	025	79.3 (4.84)					
				050	158.0 (9.64)	206 (3000)	160 (2300)	028	88.8 (5.42)					
								031	100.0 (6.10)	206 (3000)	160 (3200)			

High Pressure Triple Vane Pump HT67EDC/ HT67EDCS Series

Ordering Code

HT67EDCS - 062 - 035 - 017 - 2 R 00 - A - 00 - ..

1 2 3 4 5 6 7 8 9 10

1. Model :
   Industrial - HT67EDC
   ISO 4 bolts 3019-2 mounting flange
   250 B4 HW

   - HT67EDCS
   SAE E 4 bolts mounting flange J744

2. Displacement P1
   Volumetric displacement cm³/rec (in³/rev)
   - 042 - 132.3 (8.07)
   - 045 - 142.4 (8.70)
   - 050 - 158.5 (9.67)
   - 052 - 164.8 (10.00)
   - 054 - 173.8 (10.60)
   - 057 - 180.7 (11.02)
   - 062 - 196.7 (12.00)
   - 066 - 213.3 (13.00)
   - 072 - 227.1 (13.86)
   - 085 - 269.8 (16.40)

3. Displacement P2
   Volumetric displacement cm³/rec (in³/rev)
   - 014 - 47.6 (2.90)
   - 017 - 58.2 (3.55)
   - 020 - 66.0 (4.03)
   - 022 - 70.0 (4.27)
   - 024 - 79.5 (4.85)
   - 028 - 89.7 (5.47)
   - 031 - 98.3 (6.00)
   - 035 - 111.0 (6.77)
   - 038 - 120.3 (7.34)
   - 042 - 136.0 (8.30)
   - 045 - 145.7 (8.89)
   - 050 - 158.0 (9.64)

4. Displacement P3
   Volumetric displacement cm³/rec (in³/rev)
   - 003 - 10.8 (0.66)
   - 005 - 17.2 (1.05)
   - 006 - 21.3 (1.30)
   - 008 - 26.4 (1.61)
   - 010 - 34.1 (2.08)
   - 012 - 37.1 (2.26)
   - 014 - 46.0 (2.81)
   - 017 - 58.3 (3.56)
   - 020 - 63.8 (3.89)
   - 022 - 70.3 (4.29)
   - 025 - 79.3 (4.84)
   - 028 - 88.8 (5.42)
   - 031 - 100.0 (6.10)

5. Type of Shaft
   HT67EDC
   - 1 - ISO 3019-2-G45N Keyed Shaft

   HT67EDCS
   - 2 - SAE D&E Keyed Shaft
   - 3 - SAE D&E Splined Shaft

6. Direction of rotation (view on shaft end)
   - R - Turn right
   - L - Turn left

7. Porting combination (see page Porting Diagrams)
   - 00 - standard

8. Design letter

9. Port Connection (4 bolts SAE flange J518C)
   - 00 - UNC Port Connection (Except HT67EDC)
   - M0 - Metric Port Connection

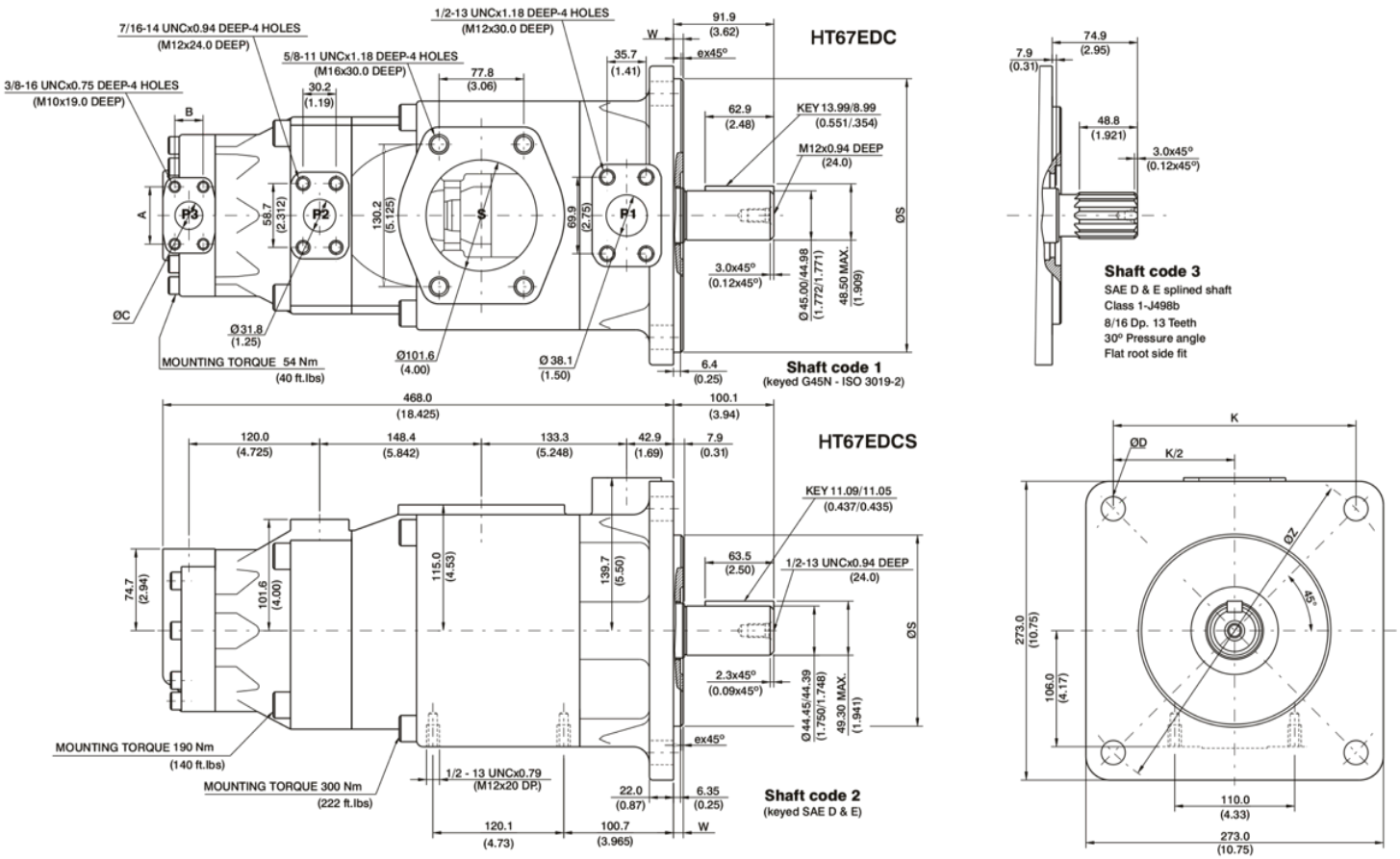
Code		4 bolt SAE flanges			
UNC	Metric	P1	P2	P3	S
00	M0	1½"	1¼"	1"	4"
01	M1	1½"	1¼"	3/4"	4"

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

High Pressure Triple Vane Pump HT67EDC/ HT67EDCS Series

Installation Dimension mm (inch)

HT67EDC, HT67EDCS



Shaft torque limits [ml/rev x bar (in3/rev x psi)	
Shaft	Vp x p max. (P1+P2+P3)
1	114715 (101506)
2	118458 (104818)
3	126928 (112312)

Alternate connect. variables			
Code	A	B	C
00 & M0	52.4 (2.063)	26.1 (1.031)	25.4 (1.00)
01 & M1	47.5 (1.874)	22.1 (0.874)	18.9 (0.748)

Alternate mounting flange							
Model	ØS		ex 45°	W	K1	ØZ	ØD
	MAX.	MIN.					
HT67EDC	250.0 (9.842)	249.94 (9.840)	2.0 (0.079)	8.99 (0.354)	-	315.0 (12.401)	21.99 (0.866)
HT67EDCS	165.10 (6.50)	165.05 (6.498)	2.0 (0.079)	8.99 (0.354)	224.5 (8.838)	-	20.59 (0.811)

High Pressure Triple Vane Pump HT67EDC/ HT67EDCS Series

Performance Characteristics

HT67EDC, HT67EDCS

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	042	8.07 in³/rev	62.92	60.37	58.52	8.09	78.44	133.80
	045	8.70 in³/rev	67.72	65.17	63.32	8.37	84.04	143.60
	050	9.67 in³/rev	75.38	72.83	70.98	8.82	92.97	159.24
	052	10.00 in³/rev	78.37	75.82	73.97	8.99	96.47	165.36
	054	10.43 in³/rev	81.27	78.72	76.87	9.17	99.75	177.46
	057	11.18 in³/rev	87.12	84.57	82.72	9.51	106.57	189.84
	062	12.00 in³/rev	93.54	90.99	89.14	9.88	114.17	196.34
	066	13.00 in³/rev	101.44	98.89	97.04	10.34	123.38	212.46
	072	13.86 in³/rev	108.00	105.45	103.60	10.72	131.04	225.86
	085	16.40 in³/rev	127.79	126.13[1)]	-	11.88	101.66[1)]	-
P2	014	2.90 in³/rev	22.64	20.46	18.82	4.02	29.31	49.34
	017	3.55 in³/rev	27.68	25.50	23.86	4.31	35.20	59.64
	020	4.00 in³/rev	31.39	29.21	27.57	4.53	39.52	67.21
	024	4.80 in³/rev	37.82	35.63	33.99	4.91	47.02	80.32
	028	5.50 in³/rev	42.66	40.48	38.84	5.19	52.68	90.23
	031	6.00 in³/rev	46.75	44.57	42.93	5.43	57.45	98.58
	035	6.80 in³/rev	52.79	50.61	48.97	5.78	64.50	110.91
	038	7.30 in³/rev	57.21	55.03	53.39	6.04	69.66	119.94
	042	8.30 in³/rev	64.68	62.50	60.86	6.47	78.37	135.19
	045	8.90 in³/rev	69.29	67.11	65.47	6.74	83.74	144.61
	050	9.64 in³/rev	75.14	72.96	71.78[2)]	7.08	90.58	134.54[2)]
P3	003	0.66 in³/rev	5.14	3.61	-	2.11	8.45	-
	005	1.05 in³/rev	8.18	6.65	5.56	2.29	12.00	19.59
	006	1.30 in³/rev	10.13	8.60	7.51	2.40	14.28	23.57
	008	1.61 in³/rev	12.55	11.02	9.93	2.54	17.11	28.53
	010	2.08 in³/rev	16.22	14.69	13.60	2.76	21.38	36.00
	012	2.26 in³/rev	17.64	16.11	15.02	2.84	23.05	38.92
	014	2.81 in³/rev	21.88	20.35	19.26	3.09	27.99	47.56
	017	3.56 in³/rev	27.73	26.20	25.11	3.43	34.81	59.51
	020	3.89 in³/rev	30.34	28.81	27.42	3.58	37.86	64.85
	022	4.29 in³/rev	33.43	31.90	30.81	3.76	41.47	71.16
	025	4.84 in³/rev	37.71	36.18	35.09	4.01	46.46	79.90
	028	5.42 in³/rev	42.23	40.70	39.94[3)]	4.27	51.74	76.73[3)]
	031	6.10 in³/rev	47.56	46.03	45.27[3)]	4.58	57.95	86.06[3)]

1) 085 = 1300 PSI max. int. 2) 050 = 3000 PSI max. int. 3) 028 - 031 = 3000 PSI max. int.
- Not to use because internal leakage greater than 50% theoretical flow. - Port connection can be furnished with metric threads.

High Pressure Triple Vane Pump HT7EEC/ HT7EECS Series

Specification

HT7EEC, HT7EECS for Triple pump

Shaft End Pump				Middle Pump				Cover End Pump				Min. speed	Max. speed	Weight
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)	Size	Displacement cm^3/r $1(in^3/r)$	Max. Intermittent Pressure bar (psi)	Max. Continuous Pressure bar (psi)	rpm	rpm	kg (lb)
042	132.3 (8.07)	240 (3500)	206 (3000)	042	132.3 (8.07)	240 (3500)	206 (3000)	003	10.8 (0.66)	275 (4000)	240 (3500)	600	2200	114.8 (253.1)
045	142.4 (8.70)			045	142.4 (8.70)			005	17.2 (1.05)					
050	158.5 (9.67)			050	158.5 (9.67)			006	21.3 (1.30)					
052	164.8 (10.00)			052	164.8 (10.00)			008	26.4 (1.61)					
054	173.8 (10.60)			054	173.8 (10.60)			010	34.1 (2.08)					
057	180.7 (11.02)			057	180.7 (11.02)			012	37.1 (2.26)					
062	196.7 (12.00)			062	196.7 (12.00)			014	46.0 (2.81)					
066	213.3 (13.00)			066	213.3 (13.00)			017	58.3 (3.56)					
072	227.1 (13.86)			072	227.1 (13.86)			020	63.8 (3.89)					
085	269.8 (16.40)	90 (1300)	75 (1100)	085	269.8 (16.40)	90 (1300)	75 (1100)	022	70.3 (4.29)					
								025	79.3 (4.84)					
								028	88.8 (5.42)					
								031	100.0 (6.10)	206 (3000)	160 (3200)			

High Pressure Triple Vane Pump
HT7EEC/ HT7EECS Series

Ordering Code

HT7EECS - 062 - 052 - 017 - 1 R 00 - A - 00 - ..

1 2 3 4 5 6 7 8 9 10

1. Model :
   Industrial - HT7EEC
   ISO 4 bolts 3019-2 mounting flange
   250 B4 HW

   - HT7EECS
   SAE E 4 bolts mounting flange J744

2. Displacement P1
   Volumetric displacement cm³/rec (in³/rev)
   042 - 132.3 (8.07)
   045 - 142.4 (8.70)
   050 - 158.5 (9.67)
   052 - 164.8 (10.00)
   054 - 173.8 (10.60)
   057 - 180.7 (11.02)
   062 - 196.7 (12.00)
   066 - 213.3 (13.00)
   072 - 227.1 (13.86)
   085 - 269.8 (16.40)

3. Displacement P2
   Volumetric displacement cm³/rec (in³/rev)
   042 - 132.3 (8.07)
   045 - 142.4 (8.70)
   050 - 158.5 (9.67)
   052 - 164.8 (10.00)
   054 - 173.8 (10.60)
   057 - 180.7 (11.02)
   062 - 196.7 (12.00)
   066 - 213.3 (13.00)
   072 - 227.1 (13.86)
   085 - 269.8 (16.40)

4. Displacement P3
   Volumetric displacement cm³/rec (in³/rev)
   003 - 10.8 (0.66)
   005 - 17.2 (1.05)
   006 - 21.3 (1.30)
   008 - 26.4 (1.61)
   010 - 34.1 (2.08)
   012 - 37.1 (2.26)
   014 - 46.0 (2.81)
   017 - 58.3 (3.56)
   020 - 63.8 (3.89)
   022 - 70.3 (4.29)
   025 - 79.3 (4.84)
   028 - 88.8 (5.42)
   031 - 100.0 (6.10)

5. Type of Shaft
   HT7EEC, HT7EECS
   2 - ISO 3019-2-G45N Keyed Shaft

   HT7EECS
   4 - SAE D&E Splined Shaft

6. Direction of rotation (view on shaft end)
   R - Turn right
   L - Turn left

7. Porting combination (see page Porting Diagrams)
   00 - standard

8. Design letter

9. Port Connection (4 bolts SAE flange J518C)
   00 - UNC Port Connection (Except HT7EEC)
   M0 - Metric Port Connection

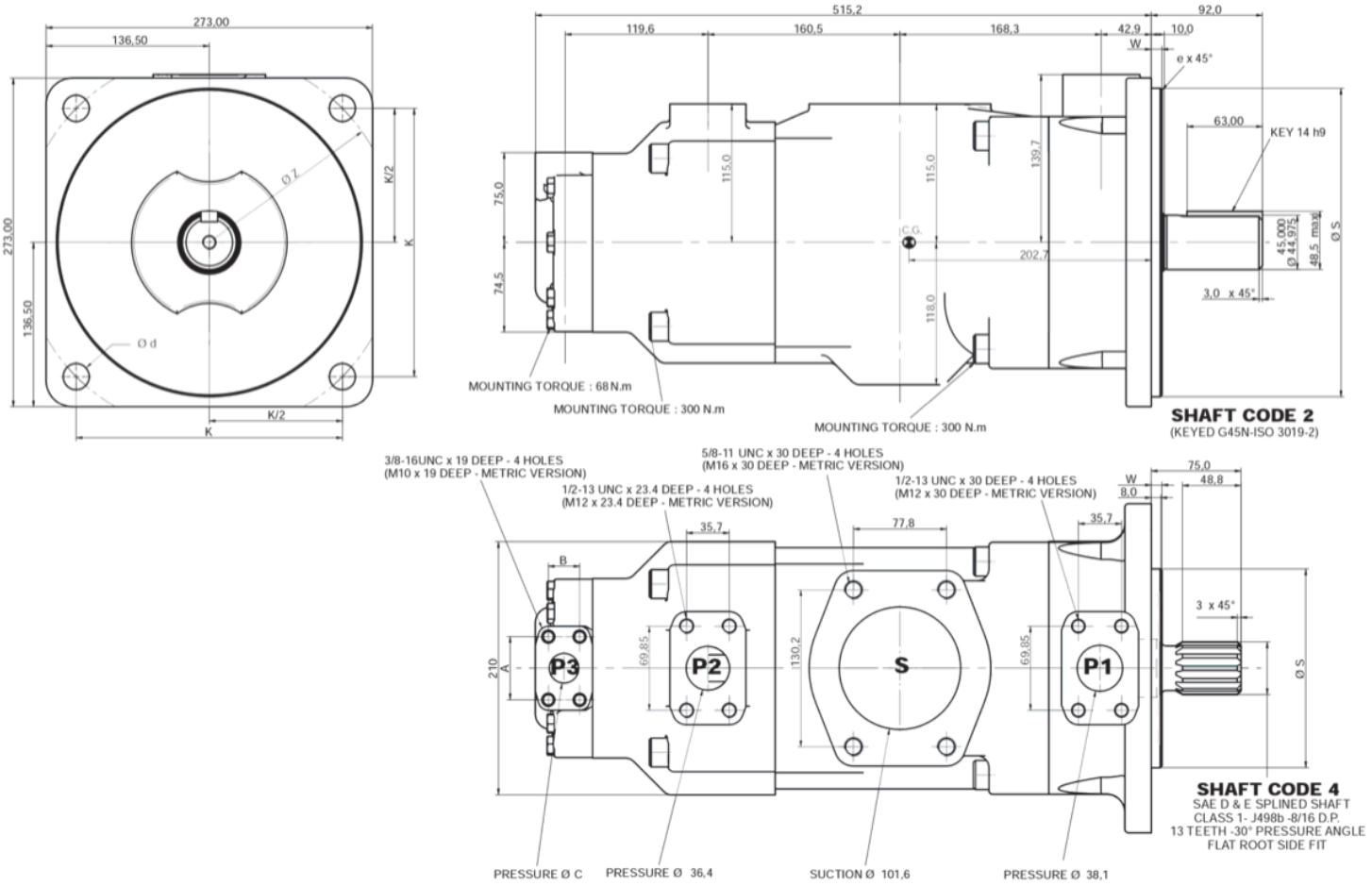
Code		4 bolt SAE flanges			
UNC	Metric	P1	P2	P3	S
00	M0	1½"	1½"	1"	4"
01	M1	1½"	1½"	3/4"	4"

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

High Pressure Triple Vane Pump HT7EEC/ HT7EECS Series

Installation Dimension mm (inch)

HT7EEC, HT7EECS



Shaft torque limits [ml/rev x bar (in3/rev x psi)	
Shaft	Vp x p max. (P1+P2+P3)
2	118340
4	126800

Alternate connect. variables			
Code	A	B	C
00 & M0	52.4	26.2	25.4
01 & M1	47.6	22.2	19.0

Alternate mounting flange							
Model	ØS		ex 45°	W	K1	ØZ	ØD
	MAX.	MIN.					
HT7EEC	250.0 (9.842)	249.94 (9.840)	2.0	9.0	-	315	22.0
HT7EECS	165.10 (6.50)	165.05 (6.498)	2.0	9.0	224.5	-	20.8

High Pressure Triple Vane Pump HT7EEC/ HT7EECS Series

Performance Characteristics

HT7EEC, HT7EECS

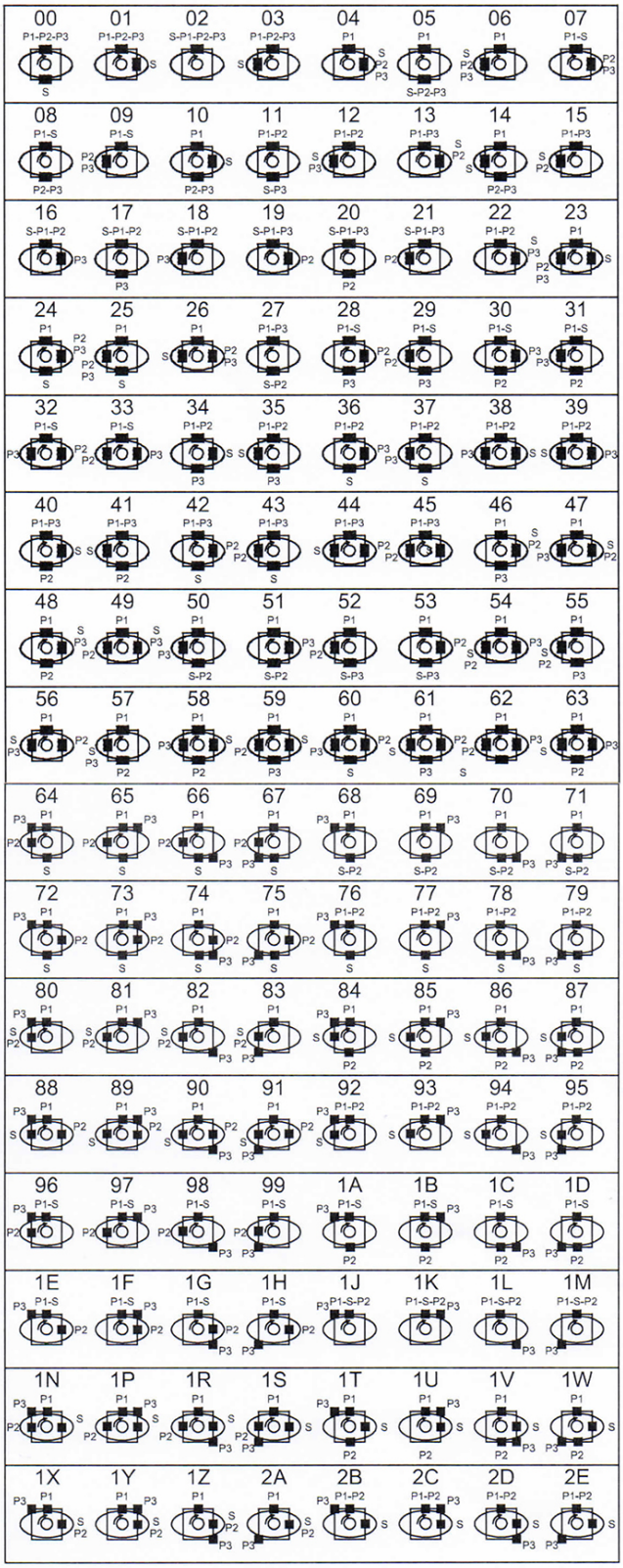
OPERATING CHARACTERISTICS - TYPICAL [115 SUS]

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 & P2	042	8.07 in³/rev	62.92	60.37	58.52	8.09	78.44	133.80
	045	8.70 in³/rev	67.72	65.17	63.32	8.37	84.04	143.60
	050	9.67 in³/rev	75.38	72.83	70.98	8.82	92.97	159.24
	052	10.00 in³/rev	78.37	75.82	73.97	8.99	96.47	165.36
	054	10.43 in³/rev	81.27	78.72	76.87	9.17	99.75	177.46
	057	11.18 in³/rev	87.12	84.57	82.72	9.51	106.57	189.84
	062	12.00 in³/rev	93.54	90.99	89.14	9.88	114.17	196.34
	066	13.00 in³/rev	101.44	98.89	97.04	10.34	123.38	212.46
	072	13.86 in³/rev	108.00	105.45	103.60	10.72	131.04	225.86
	085	16.40 in³/rev	127.79	126.13[1)]	-	11.88	101.66[1)]	-
P3	003	0.66 in³/rev	5.14	3.61	-	2.11	8.45	-
	005	1.05 in³/rev	8.18	6.65	5.56	2.29	12.00	19.59
	006	1.30 in³/rev	10.13	8.60	7.51	2.40	14.28	23.57
	008	1.61 in³/rev	12.55	11.02	9.93	2.54	17.11	28.53
	010	2.08 in³/rev	16.22	14.69	13.60	2.76	21.38	36.00
	012	2.26 in³/rev	17.64	16.11	15.02	2.84	23.05	38.92
	014	2.81 in³/rev	21.88	20.35	19.26	3.09	27.99	47.56
	017	3.56 in³/rev	27.73	26.20	25.11	3.43	34.81	59.51
	020	3.89 in³/rev	30.34	28.81	27.42	3.58	37.86	64.85
	022	4.29 in³/rev	33.43	31.90	30.81	3.76	41.47	71.16
	025	4.84 in³/rev	37.71	36.18	35.09	4.01	46.46	79.90
	028	5.42 in³/rev	42.23	40.70	39.94[2)]	4.27	51.74	76.73[2)]
	031	6.10 in³/rev	47.56	46.03	45.27[2)]	4.58	57.95	86.06[2)]

1) 085 = 1300 PSI max. int. 2) 028 - 031 = 3000 PSI max. int.
- Not to use because internal leakage greater than 50% theoretical flow.
- Port connection can be furnished with metric threads.

High Pressure Triple Vane Pump HT6/HT67/HT7 Series - Porting Diagram

Porting Diagrams



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