



DOUBLE VANE PUMPS

VQ, VS and DT6 Double vane pumps

(See single pumps for displacement & power diagrams)

Pages 35, 37 and 39 for VQ & VS

Pages 42,44 and 46 for DT6

V* DOUBLE VANE PUMPS ORDERING CODE

F3	VS	43	21	8	D	1	A	A
1	2	3	4	5	6	7	8	9

1 - "F3" means special seals for fire-resistant fluids. Omit if not required

2 - Pump Type:

VC = 12 vane pump, medium pressure application.

VS = 12 vane pump, (except the cover end cartridge of the VS*3 pump), industrial uses (very quiet), UNC threads.

VQ = 10 vane pump, bronze plates, mobile uses, UNC threads.

3 - Model of pump: 2010, 2020, 43, 63, 64, 73, 74 and 76.

4 - Pump flow at shaft side: All models in US gallons per minute at 1200 rpm and 7 Bar.
(See flow chart).

5 - Pump flow at cover side: All models in gallons per minute at 1200 rpm and 7 Bar.
(See flow chart).

6 - D = Right-hand rotation (Clockwise)

Y = Left-hand rotation (Counterclockwise).
(Viewed from the shaft end).

7 - Shaft type:

1: Parallel keyed

11: Splined

86: Heavy duty parallel keyed

8 - Shaft end outlet position, (viewed from shaft):

A: Outlet in line with inlet

B: 90° clockwise from inlet

C: 180° from inlet

D: 90° counterclockwise from inlet (Viewed from shaft)

9- Cover end outlet position, (viewed from shaft):

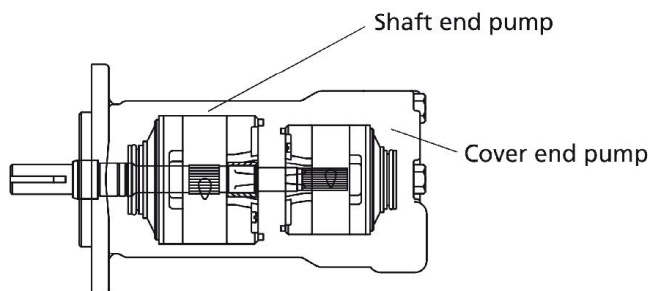
A: 45° clockwise from inlet

B: 135° clockwise from inlet

C: 135° counterclockwise from inlet

D: 45° counterclockwise from inlet

(Viewed from shaft)



V* DOUBLE VANE PUMP CHARACTERISTICS

TYPE	SHAFT END						COVER END						WEIGHT (Kgs.)								
	FLOW			MAX. rpm	PRESSURE (Bar)		Nominal Power (2)	FLOW			MAX rpm	PRESSURE (Bar)		Nominal Power (2)							
	Lts.at 1000rpm	Gal. At 1200 rpm	Reducc. (1)		Contin.	Interm.		Lts.a 1000 rpm	Gal. a 1200 rpm	Reducc. (1)		Contin.			Interm.						
VC2010	16	5	2	3400	155	180	3,2				3000	155	180	0,7 1,4 2,1 2,7 3,2 3,7 4,2							
	20	6	2,8	3,9			3	1	0,8												
	23	7	4	4,4			7	2	0,9												
	27	8	4,2	5,1			10	3	1,2												
	30	9	4,5	5,6			13	4	1,6												
	34	10	4,8	6,1			16	5	1,7												
	36	11	4,8	6,5			20	6	1,8												
	39	12	5,4	7,5			23	7	1,9												
42	13	6,0	2400	140	8,1				2400	140											
VC2020	16	5	2	3400	155	180	3,2	16	5	2	3400	155	180	3,2 3,9 4,4 5,1 5,6 6,1 6,5 7,5 8,1							
	20	6	2,8	3,9			20	6	2,8												
	23	7	4	4,4			23	7	4												
	27	8	4,2	5,1			27	8	4,2	3000											
	30	9	4,5	5,6			30	9	4,5	2800											
	34	10	4,8	6,1			34	10	4,8												
	36	11	4,8	6,5			36	11	4,8	2500											
	39	12	5,4	7,5			39	12	5,4	2400											
42	13	6,0	2400	140	8,1	42	13	6,0		140											
VS43 VQ43	26	8	4,5	2500	175	210	6,9	8	2	0,9	2500	175	210	1,9 4 6,6 6,9 7,3 7,4 7,6							
	40	12	5,7	10,4			18	5	2,1												
	45	14	5,7	11,6			27	8	2,8												
	55	17	5,8	13,8			29	9	3,5												
	60	19	5,8	15,2			36	11	4,3												
	67	21	6	16,8			39	12	4,3												
	80	24	6,2	20,3			46	14	4,3												
	88*	27	6,5	22,4																	
	VS63 VQ63	66	21	8,6			2400	175	210	16,8					8	2	0,9	2500	175	210	1,9 4 6,6 6,9 7,3 7,4 7,6
		81	25	9			20,3			18					5	2,1					
97		30	10	24,3	27	8	2,8														
112		35	11,4	27,4	29	9	3,5														
121		38	11,4	29,3	36	11	4,3														
142		45	13,1	33,3	39	12	4,3														
					46	14	4,3														
VS64 VQ64	66	21	8,6	2400	175	210	16,8	26	8	4,5	2500 1800 (VS)	175	210	6,9 10,4 11,6 13,8 15,2 16,8 20,3 22,4							
	81	25	9	20,3			40	12	5,7												
	97	30	10	24,3			45	14	5,7												
	112	35	11,4	27,4			55	17	5,8												
	121	38	11,4	29,3			60	19	5,8												
	142	45	13,1	33,3			67	21	6												
							80	24	6,2												
							88*	27	6,5												
VS73 VQ73	138	42	15	2200	155	175	32,3	8	2	0,9	2500 1800 (VS)	175	210	1,9 4 6,6 6,9 7,3 7,4 7,6							
	148	47	15,7	36,3			18	5	2,1												
	162	50	14,3	37,9			27	8	2,8												
	180	57	17,9	43,2			29	9	3,5												
	193	60	18,6	46,1			36	11	4,3												
	214	67	22	51,2			39	12	4,3												
	240	75	26	57,4			46	14	4,3												
VS74 VQ74	138	42	15	2200	155	175	32,3	26	8	4,5	2500 1800 (VS)	175	210	6,9 10,4 11,6 13,8 15,2 16,8 20,3 22,4							
	148	47	15,7	36,3			40	12	5,7												
	162	50	14,3	37,9			45	14	5,7												
	180	57	17,9	43,2			55	17	5,8												
	193	60	18,6	46,1			60	19	5,8												
	214	67	22	51,2			67	21	6												
	240	75	26	57,4			80	24	6,2												
							88*	27	6,5												
VS76 VQ76	138	42	15	2200	155	175	32,3	66	21	8,6	2400 1800 (VS)	175	210	16,8 20,3 24,3 27,4 29,3 33,3							
	148	47	15,7	36,3			81	25	9												
	162	50	14,3	37,9			97	30	10												
	180	57	17,9	43,2			112	35	11,4												
	193	60	18,6	46,1			121	38	11,4												
	214	67	22	51,2			142	45	13,1												
	240	75	26	57,4																	

* 27 gallons (88lts.) cartridge not mounted in VQ 42, VQ 43, VQ 64, VQ 74 vane pump model.
(1), (2) & (3) Please turn to next page

(1) Delivery flow reduction in Ltrs./min. at 100 Bar. 22 cST of oil viscosity at operating temperature. To calculate the approximate delivery flow at a given pressure and speed, use the following formula with flow reduction and theoretical flow values shown in the chart. Flow reduction values are independent of shaft speed.

$$\text{Approx. output flow (Ltrs./min.)} = \frac{\text{Theoretical flow} \times \text{R.P.M}}{1000} - \text{Reduction} \times \frac{\text{Pressure (Bar)}}{1000}$$

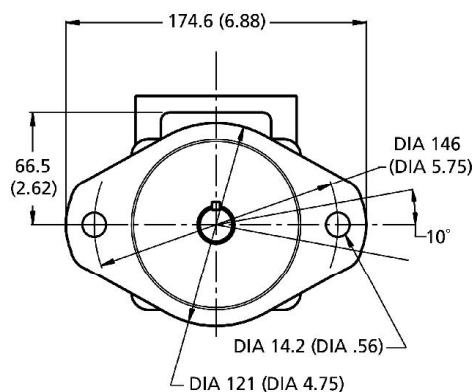
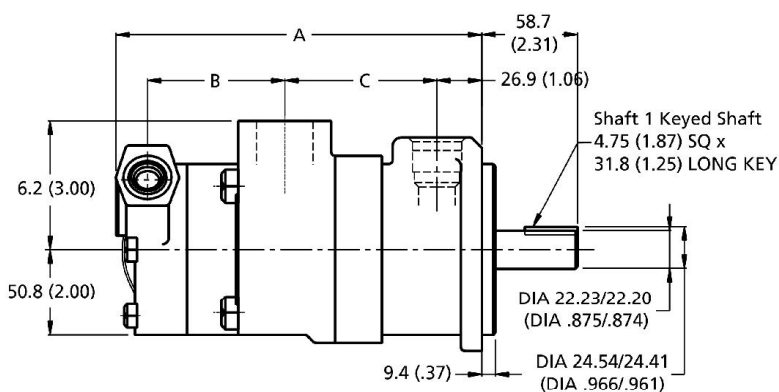
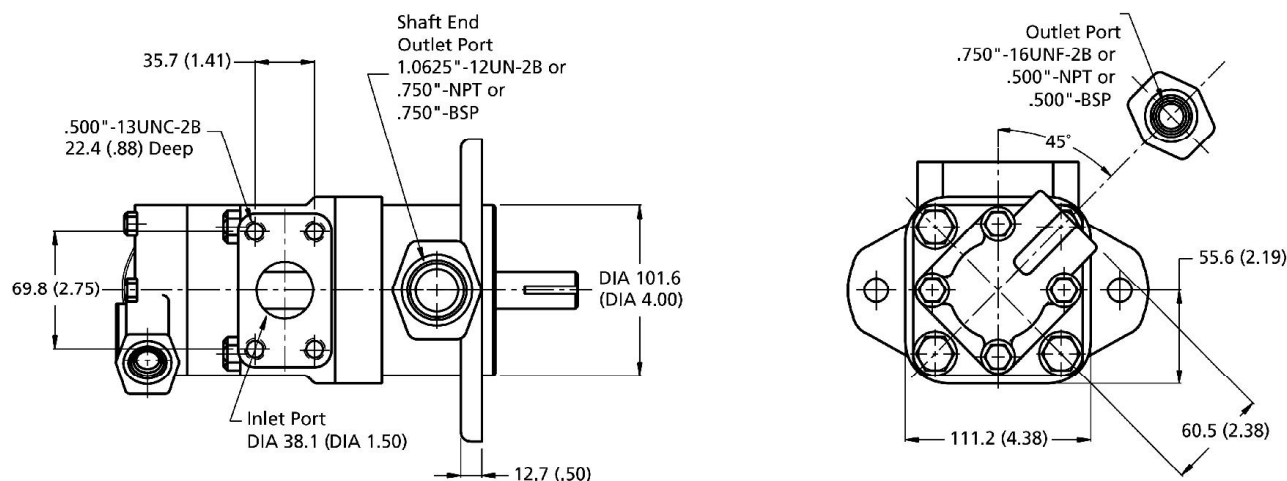
(2) Nominal Power in H.P. at 100 Bar and 1000 RPM (to convert into Kw multiply by 0.735).

To obtain the real input power at different pressure and revolutions, use the formula as follows:

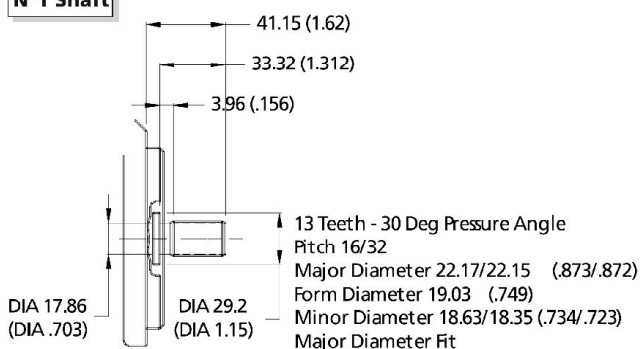
$$\text{Real input power} = \text{Input power} \times \frac{\text{R.P.M}}{1000} \times \frac{\text{Pressure (Bar)}}{1000}$$

(3) See options on dimension pages.

DOUBLE VANE PUMPS VC2010



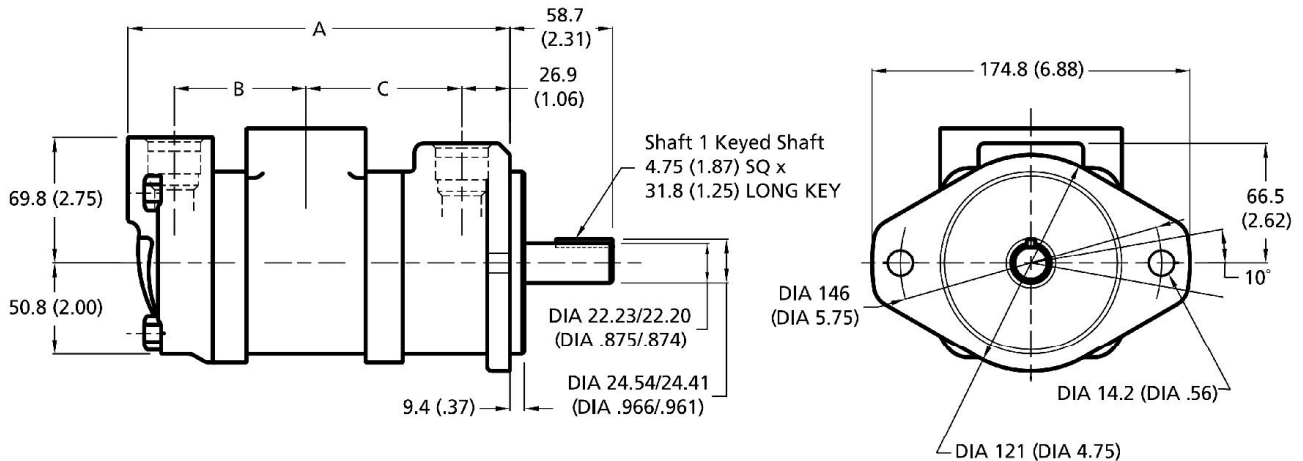
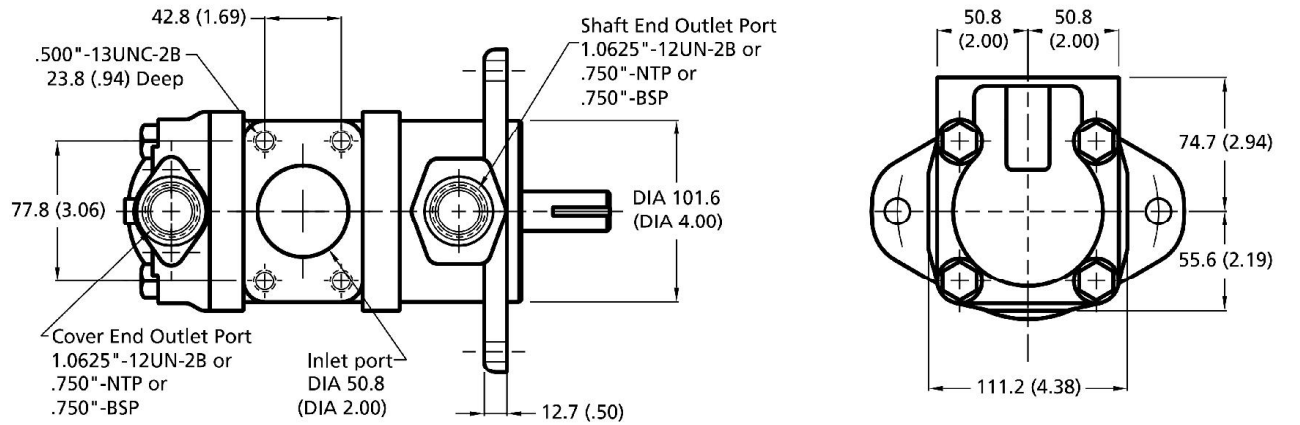
Nº1 Shaft



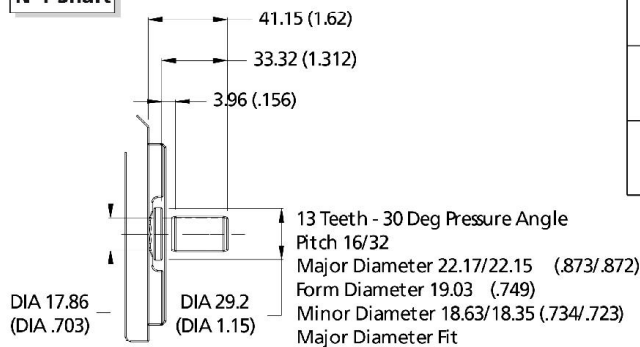
Shaft 11 Splined Shaft

Delivery @ 1200 rpm & 7 bar (100 psi)		Dimension		
Shaft End	Cover End	A	B	C
7, 8, 9	1, 2, 3	213.1 (8.39)	75.9 (2.99)	86.4 (3.40)
7, 8, 9	4, 5	219.5 (8.64)	82.3 (3.24)	86.4 (3.40)
7, 8, 9	6, 7	224.5 (8.84)	87.4 (3.44)	86.4 (3.40)
10, 11	1, 2, 3	218.2 (8.59)	75.9 (2.99)	91.2 (3.59)
10, 11	4, 5	224.5 (8.84)	82.3 (3.24)	91.2 (3.59)
10, 11	6, 7	229.6 (9.04)	87.4 (3.44)	91.2 (3.59)
12, 13	1, 2, 3	221.7 (8.73)	75.9 (2.99)	94.7 (3.73)
12, 13	4, 5	227.8 (8.97)	82.3 (3.24)	94.7 (3.73)
12, 13	6, 7	232.9 (9.17)	87.4 (3.44)	94.7 (3.73)

DOUBLE VANE PUMPS VC2020



N°1 Shaft



Shaft 11 Splined Shaft

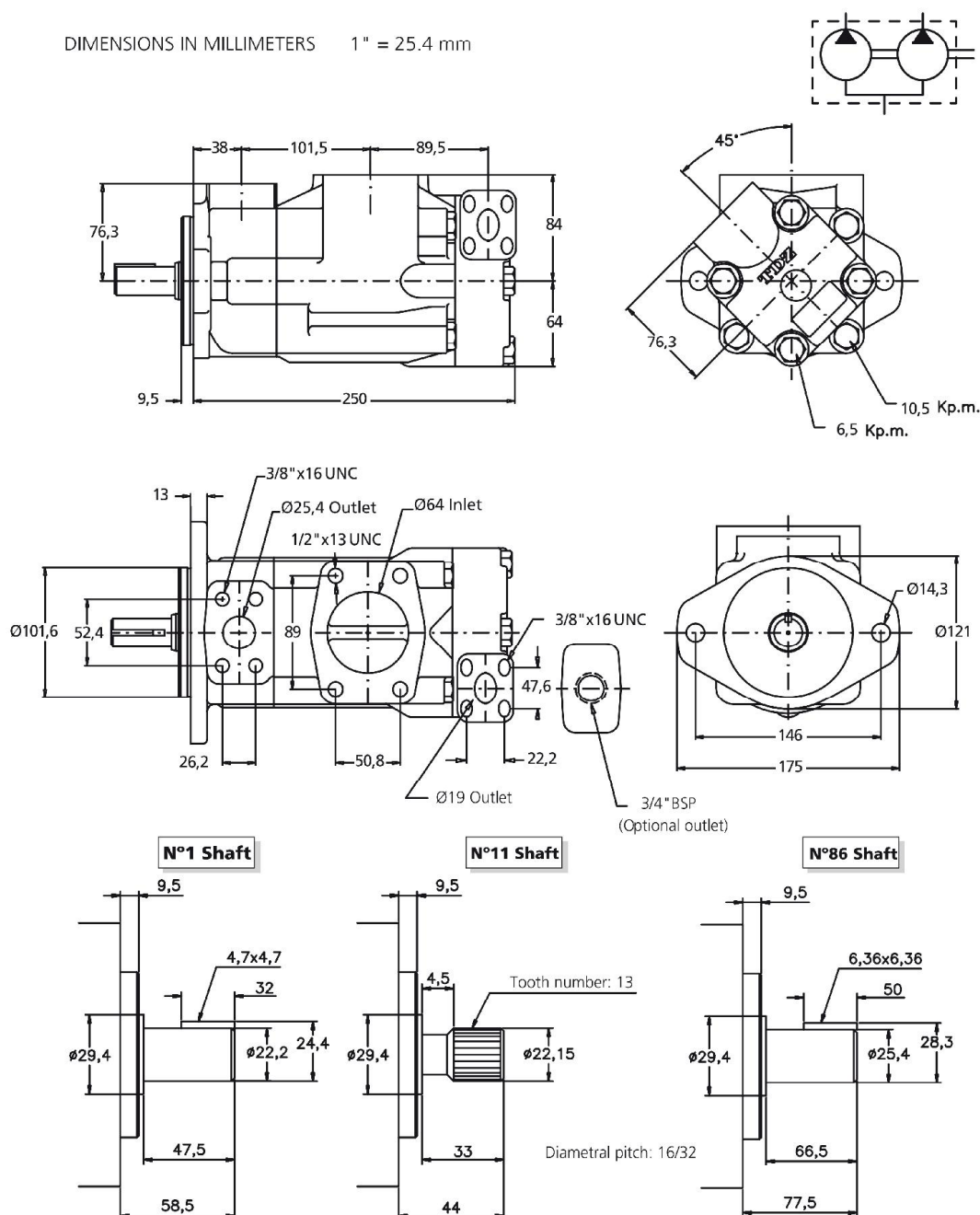
Delivery @ 1200 rpm & 7 bar (100 psi)		Dimension		
Shaft End	Cover End	A	B	C
7, 8, 9	5, 6	213.6 (8.41)	73.7 (2.90)	87.1 (3.43)
7, 8, 9	7, 8, 9	220.0 (8.66)	80.0 (3.15)	87.1 (3.43)
10, 11	5, 6	218.7 (8.61)	73.7 (2.90)	92.2 (3.63)
10, 11	7, 8, 9	225.0 (8.86)	80.0 (3.15)	92.2 (3.63)
10, 11	10, 11	229.9 (9.05)	85.1 (3.35)	92.2 (3.63)
12, 13	5, 6	222.3 (8.75)	73.7 (2.90)	95.5 (3.76)
12, 13	7, 8, 9	228.3 (8.99)	80.0 (3.15)	95.5 (3.76)
12, 13	11	233.4 (9.19)	85.1 (3.35)	95.5 (3.76)

DOUBLE VANE PUMPS VS-43 Y VQ-43

SHAFT END FLOW									SPEED(rpm)		PRES (BAR)		CONNECTION	
Lts.at 1000 rpm	26	40	45	55	60	67	80*	88*	Min.	Max.	Contin.	Intermit.	Inlet	Outlet
Gal.at 1200 rpm	8	12	14	17	19	21	24*	27*	600	2500*	175	210*	Ø2.5"	Ø1"

COVER END FLOW								SPEED (rpm)		PRES (BAR)		CONNECTION	
Lts.at 1000 rpm	8	18	27	29	36	39	46	Min.	Max.	Contin.	Intermit.	Inlet	Outlet
Gal.at 1200 rpm	2	5	8	9	11	12	14	600	2500	175	210	Ø2.5"	Ø 3/4"

DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



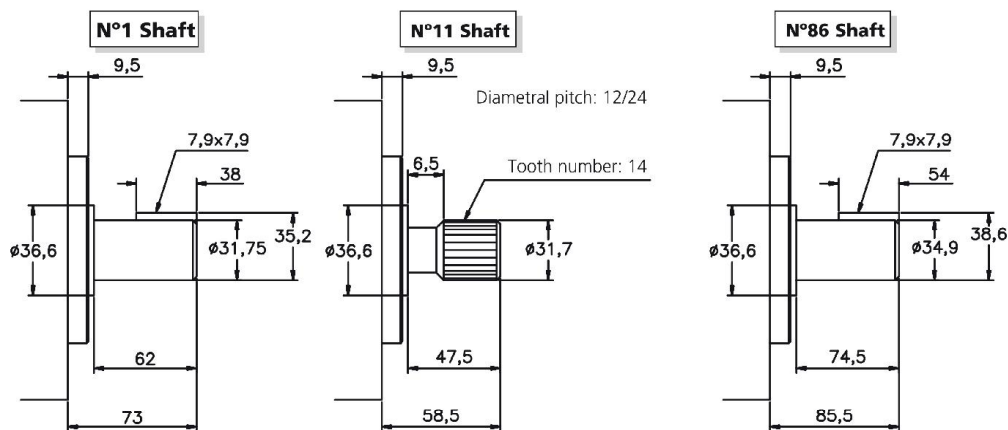
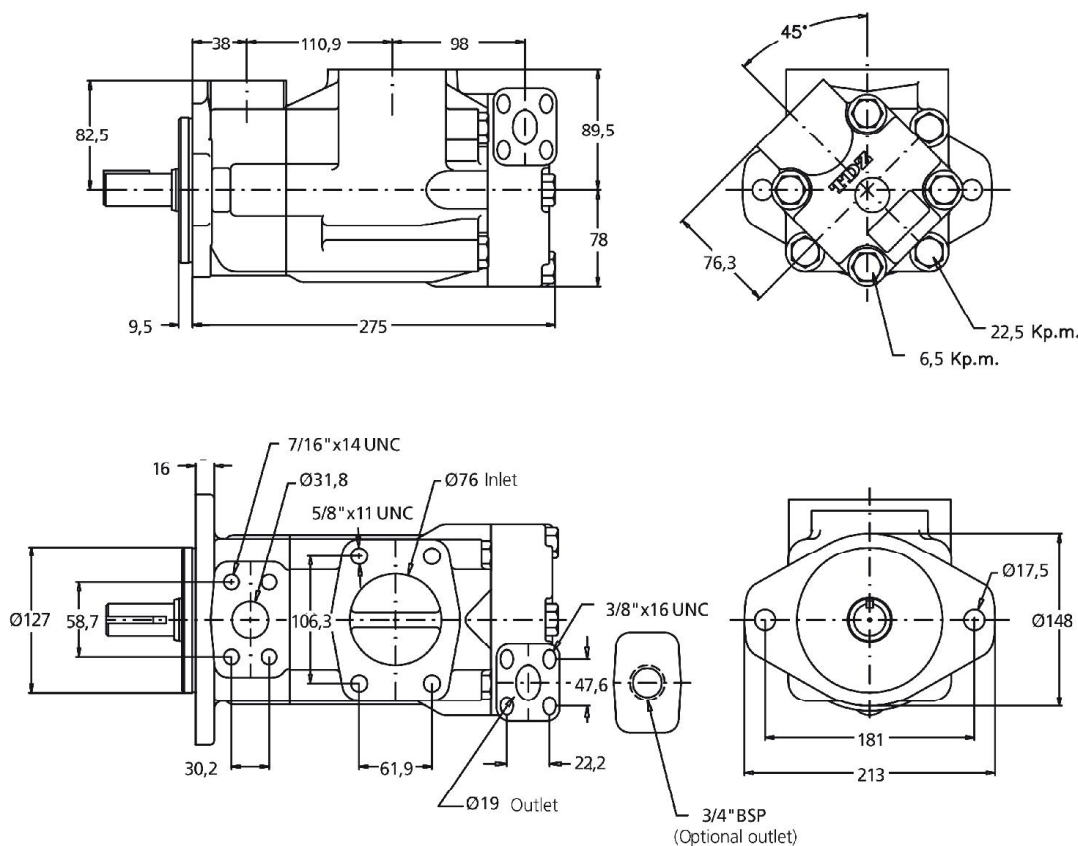
Different shafts are available

DOUBLE VANE PUMPS VS-63 Y VQ-63

SHAFT END FLOW							SPEED (rpm)		PRES (BAR)		CONNECTION	
Lts.at 1000 rpm	66	81	97	112	121	142*	Min.	Max.	Contin.	Intermit.	Inlet	Outlet
Gal.at 1200 rpm	21	25	30	35	38	45*	600	2400*	175	210*	Ø3"	Ø1.25"

COVER END FLOW							SPEED (rpm)		PRES (BAR)		CONNECTION	
Lts.at 1000 rpm	8	18	27	29	36	39	Min.	Max.	Contin.	Intermit.	Inlet	Outlet
Gal.at 1200 rpm	2	5	8	9	11	12	600	2500	175	210	Ø3"	Ø 3/4"

DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



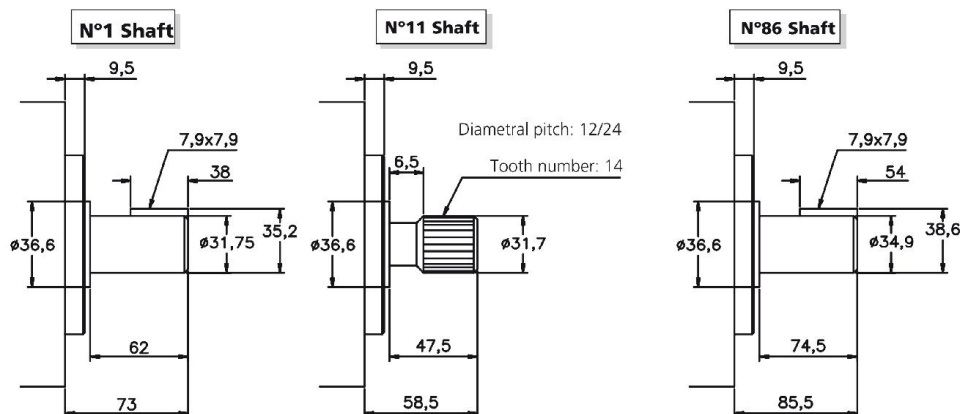
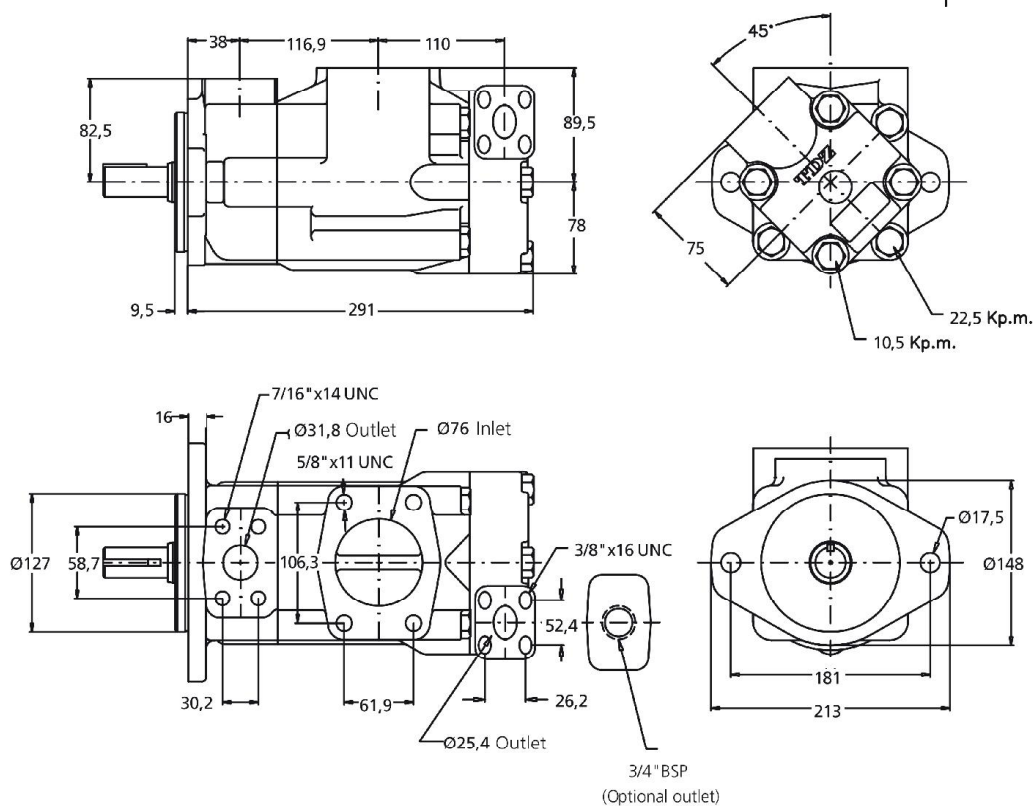
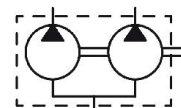
Enquire about other types of shafts

DOUBLE VANE PUMPS VS-64 Y VQ-64

SHAFT END FLOW							SPEED (rpm)		PRES (BAR)		CONNECTION	
Lts.at 1000 rpm	66	81	97	112	121	142*	Min.	Max.	Contin.	Intermit.	Inlet	Outlet
Gal.at 1200 rpm	21	25	30	35	38	45*	600	2400*	175	210*	Ø3"	Ø1.25"

COVER END FLOW									SPEED(rpm)		PRES (BAR)		CONNECTION	
Lts.at 1000 rpm	26	40	45	55	60	67	80*	88*	Min.	Max.	Contin.	Intermit.	Inlet	Outlet
Gal.at 1200 rpm	8	12	14	17	19	21	24*	27*	600	2500*	175	210*	Ø3"	Ø1"

DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



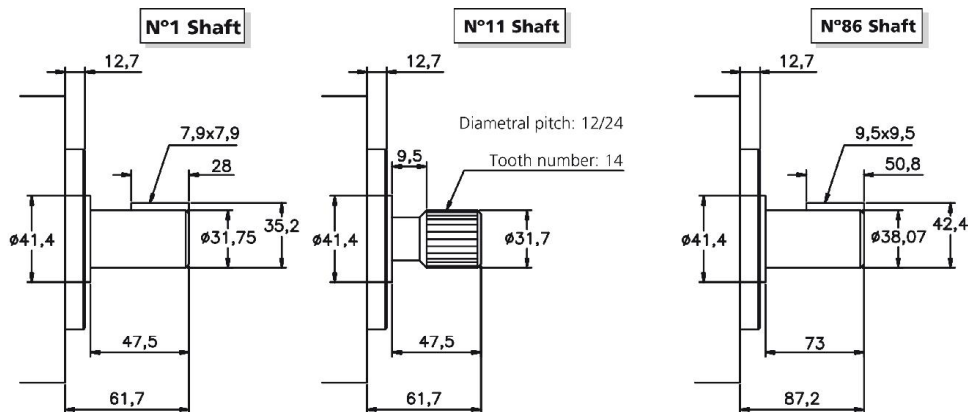
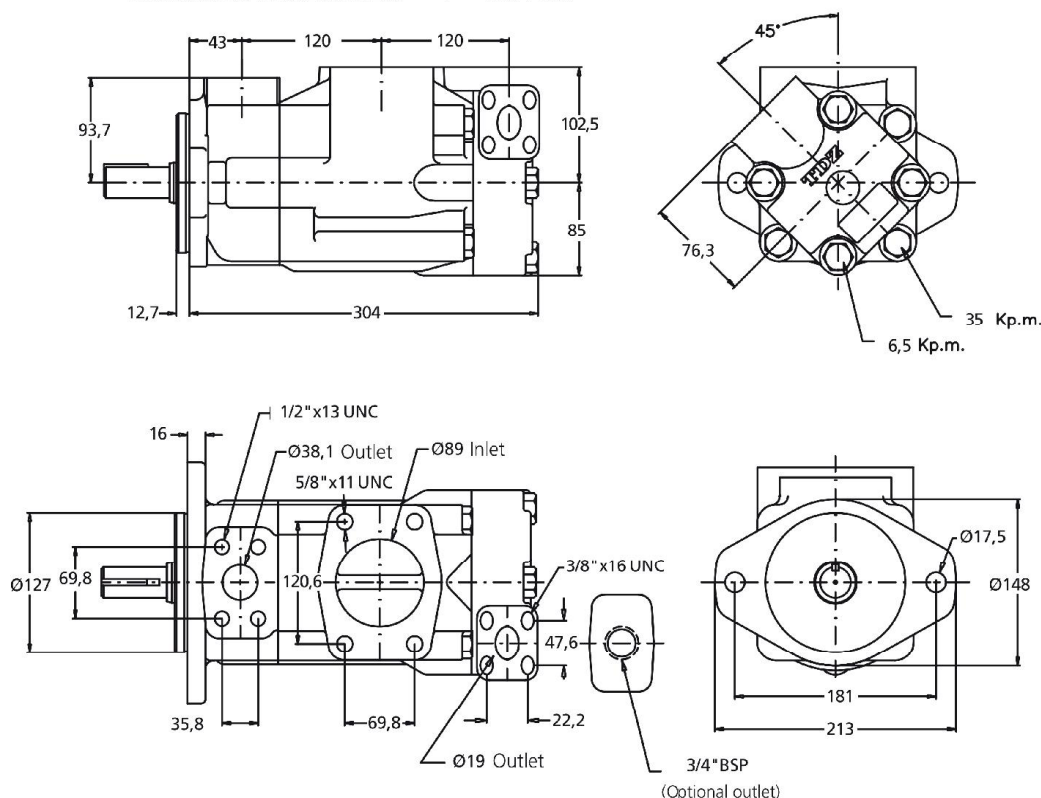
Enquire about other types of shafts

DOUBLE VANE PUMPS VS-73 Y VQ-73

SHAFT END FLOW								SPEED(rpm)		PRES(BAR)		CONNECTION	
Lts.a 1000 rpm	138	148	162	180	193	214	240	Mín.	Máx.	Contin.	Intermit.	Inlet	Outlet
Gal. a 1200 rpm	42	47	50	57	60	67	75	600	2200*	155	175	Ø3.5"	Ø1.5"

COVER END FLOW								SPEED (rpm)		PRES (BAR)		CONNECTION	
Lts.at 1000 rpm	8	18	27	29	36	39	46	Min.	Max.	Contin.	Intermit.	Inlet	Outlet
Gal.at 1200 rpm	2	5	8	9	11	12	14	600	2500	175	210	Ø3.5"	Ø 3/4"

DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



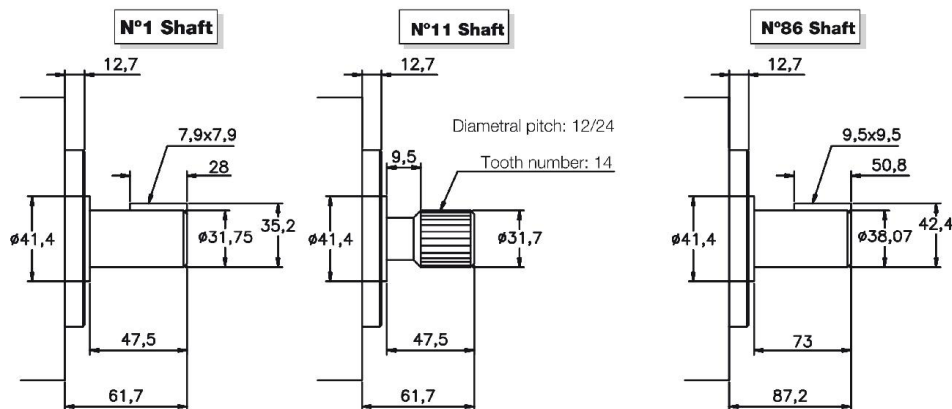
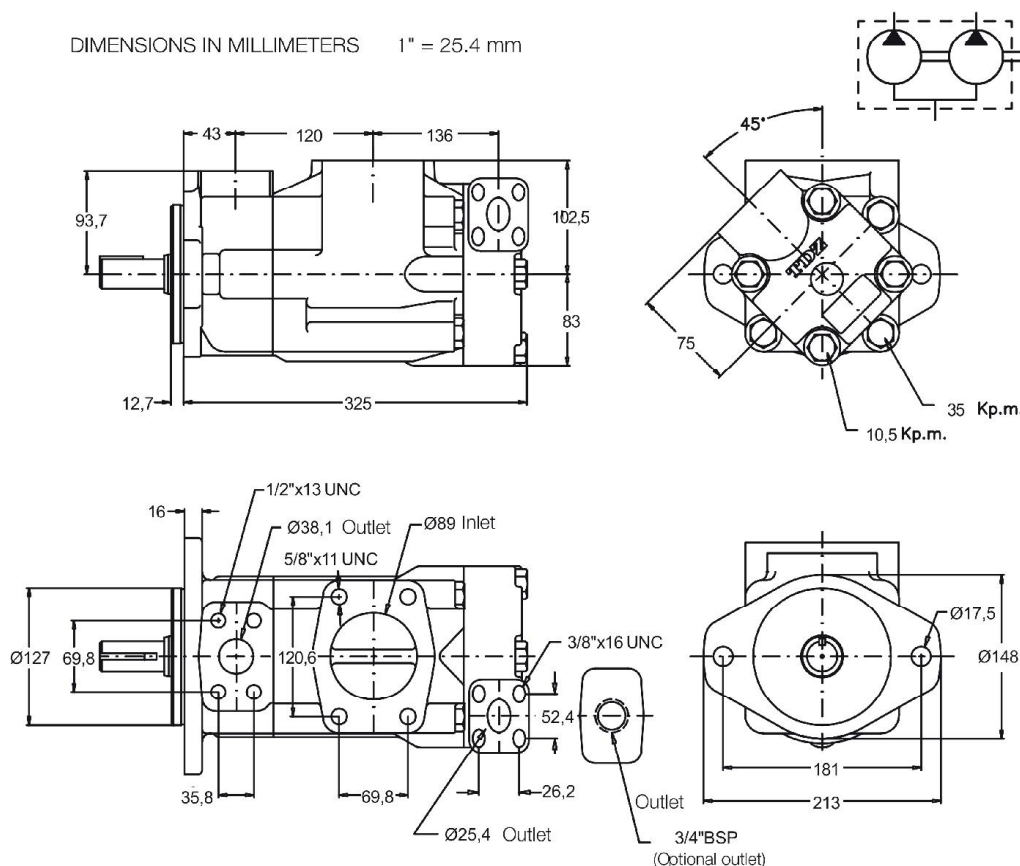
Enquire about other types of shafts

DOUBLE VANE PUMPS VS-74 Y VQ-74

SHAFT END FLOW								SPEED (rpm)		PRES (BAR)		CONNECTION	
Lts.a 1000 rpm	138	148	162	180	193	214	240	Min.	Máx.	Contin.	Intermit.	Inlet	Outlet
Gal. a 1200 rpm	42	47	50	57	60	67	75	600	2200*	155	175	Ø3.5"	Ø1.5"

COVER END FLOW									SPEED(rpm)		PRES (BAR)		CONNECTION	
Lts.at 1000 rpm	26	40	45	55	60	67	80*	88*	Min.	Max.	Contin.	Intermit.	Inlet	Outlet
Gal.at 1200 rpm	8	12	14	17	19	21	24*	27*	600	2500*	175	210*	Ø3.5"	Ø1"

DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



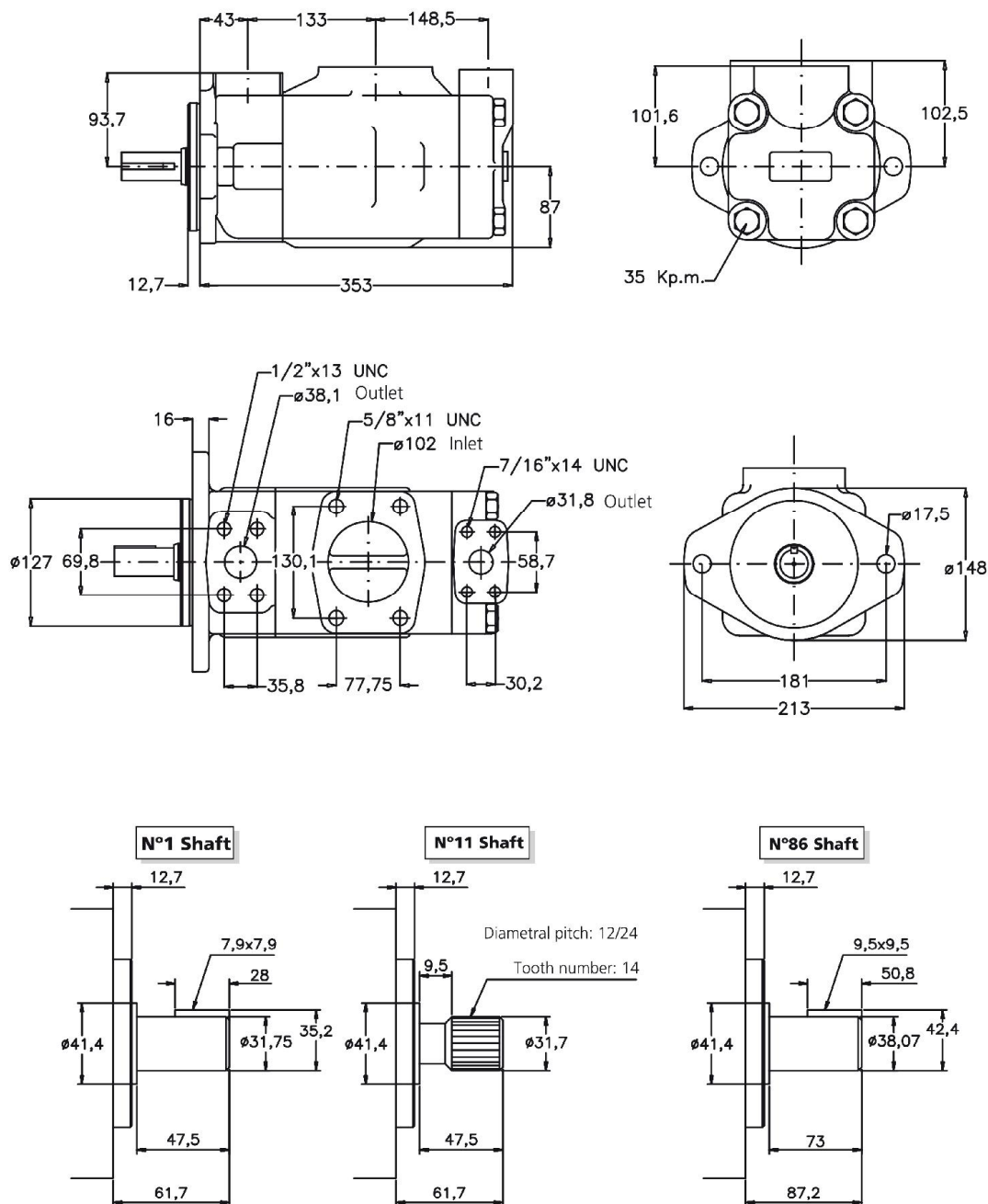
Enquire about other types of shafts

DOUBLE VANE PUMPS VS-76 Y VQ-76

SHAFT END FLOW								SPEED (rpm)		PRES (BAR)		CONNECTION	
Lts.a 1000 rpm	138	148	162	180	193	214	240	Min.	Máx.	Contin.	Intermit.	Inlet	Outlet
Gal. a 1200 rpm	42	47	50	57	60	67	75	600	2200*	155	175	Ø4"	Ø1.5"

COVER END FLOW								SPEED (rpm)		PRES (BAR)		CONNECTION	
Lts.at 1000 rpm	66	81	97	112	121	142*		Min.	Max.	Contin.	Intermit.	Inlet	Outlet
Gal.at 1200 rpm	21	25	30	35	38	45*		600	2400*	175	210*	Ø4"	Ø1.25"

DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



Enquire about other types of shafts