



Bezares Group

SINGLE VANE PUMPS

BH*, V* and DT6/7
single vane pumps

BH* SINGLE VANE PUMP ORDERING CODE

F3	BHQ	4	67	D	1	A	00
1	2	3	4	5	6	7	8

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

2- Pump Type:

BHP = 10 vane pump, industrial and mobile use, BSP, NPT & SAE threads. Only BHP1 and BHP2

BHS = 12 vane pump, industrial use (very quiet), metric threads.

BHQ = 10 vane pump and bronze plates, mobile use, metric threads.

3- Pump model: 1 and 2 in BHP types; 4, 6 and 7 in BHS and BHQ types.

4- Flow: BHP, BHS and BHQ in Litres per minute at 1000 rpm and 7 Bar.

5- D = Right - hand direction of rotation (Clockwise).

Y = Left - hand direction of rotation. (Counterclockwise).

(To check the direction of rotation view from the shaft end).

6- Shaft type: See on each pump model.

7- Outlet position, (viewed from shaft):

A: Outlet in line with inlet.

B: 90° on the right from inlet (Clockwise from inlet).

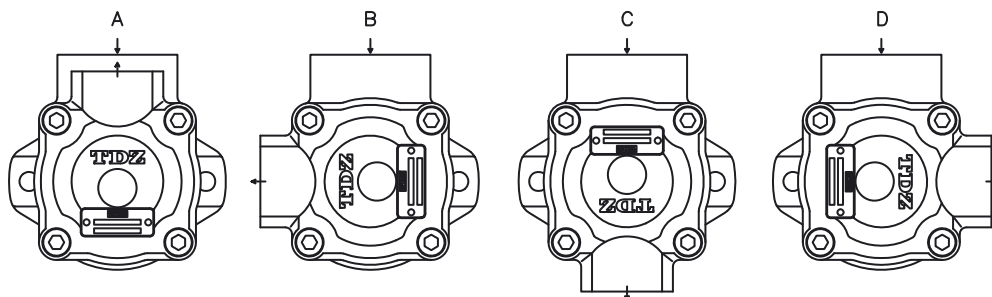
C: 180° from inlet.

D: 90° on the left from inlet (90° counter clock wise from inlet).

8- Special characteristics

Omit if not required

Example: 02: BSP
03: UNF
04: NPT



BH* SINGLE VANE PUMP CHARACTERISTICS

TDZ DESIGN VANE PUMPS

TYPE	FLOW			SPEED (rpm)		PRESSURE (Bar)		Nominal Power (2)	CONNECTION		WEIGHT (Kgs.)
	Ltrs.at 1000 rpm	Gal. At 1200 rpm	Reduction (1)	Mín.	Máx.	Contin.	Intermit.		Inlet	Outlet	
BHP1	2	0,6	0,18	600	2500	150	175	0,5	(4)	(4)	1
	3	0,9	0,18					0,7			
	4,5	1,2	0,36					1			
	5,5	1,7	0,36					1,4			
	6,5	2	0,36					1,6			
BHP2	7	2,2	0,7	600	2500	150	175	1,8	(4)	(4)	3,6
	8	2,5	1,1					2			
	10	3,2	1,1					2,5			
	12	3,8	1,1					3			
	15	4,7	1,1					3,7			
BHS4 BHQ4	26	8	4,5	600	2500 1800 (BHS)	175	210	6,9	Ø38	Ø26	14,5
	40	12	5,7					10,4			
	45	14	5,7					11,6			
	55	17	5,8					13,8			
	60	19	5,8					14,6			
	67	21	6					16,8			
	80	24	6,2					20,3			
	88*	27*	6,5		1500	125	150	22,4			
BHS6 BHQ6	66	21	8,6	600	2400 1800 (BHS)	175	210	16,8	Ø60	Ø32	26,3
	81	25	9					20,3			
	97	30	10					24,3			
	112	35	11,4					27,4			
	121	38	11,4					29,3			
	142	45	13,1		1500	125	150	33,3			
BHS7 BHQ7	138	42	15	600	2200 1800 (BHS)	155	175	32,3	Ø75	Ø38	38,3
	148	47	15,7					36,3			
	162	50	14,3					37,9			
	180	57	17,9					43,2			
	193	60	18,6					46,1			
	214	67	22					51,2			
	240	75	26					57,4			

*27 gallons (88 lts.) cartridge not mounted in BHQ4 vane pump model.

(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.

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

(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:

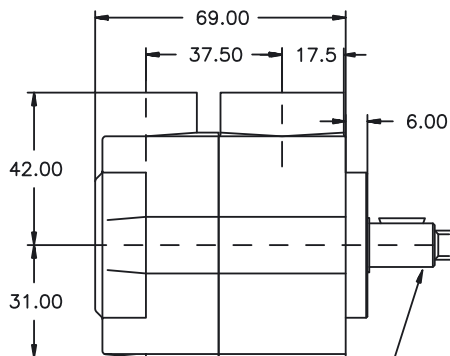
$$\text{Real input power} = \text{Input power} \times \frac{\text{R.P.M}}{1000} \times \frac{\text{Pressure (Bar)}}{1000}$$

(3) See options on dimension pages.

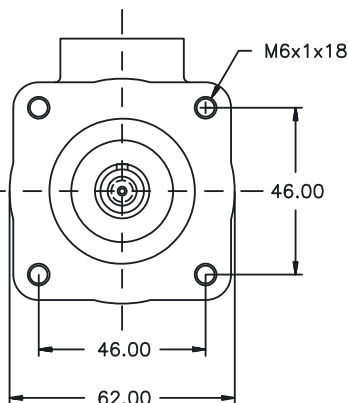
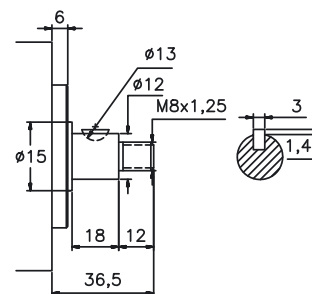
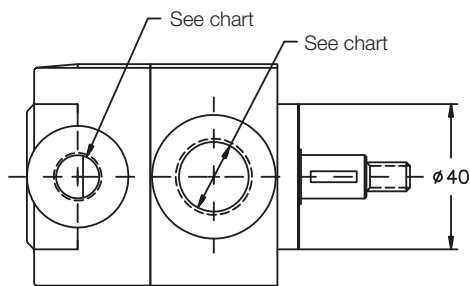
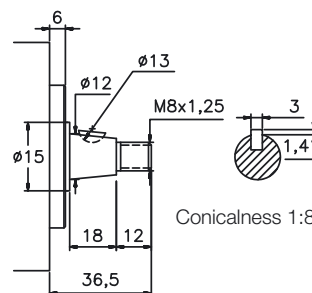
SINGLE VANE PUMP TYPE BHP-1

FLOW						SPEED (rpm)		PRES (BAR)		CONNECTION		WEIGHT (Kgs.)
Lts at 1000 rpm	2	3	4,5	5,5	6,5	Mín.	Máx.	Contin.	Intermit.	Inlet	Outlet	
Gal at 1200 rpm	0,6	0,9	1,2	1,7	2	600	2500	175	210	Ø38	Ø26	1

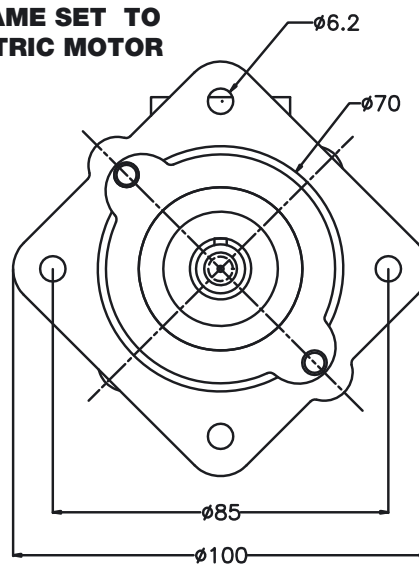
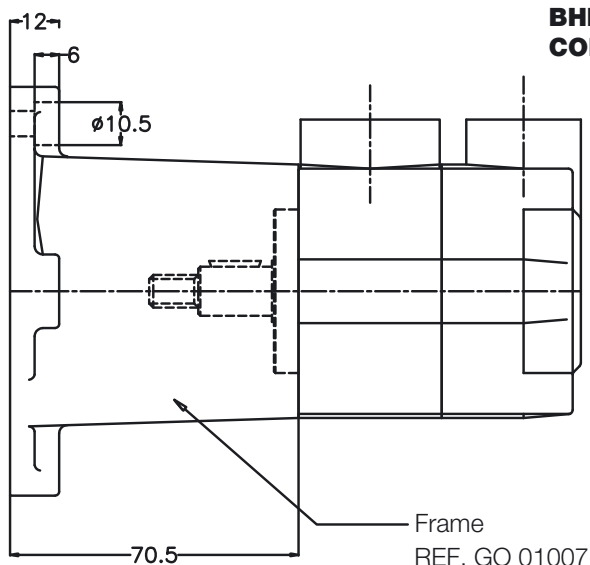
DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



See shaft types and measures


Nº1 Shaft

Nº2 Shaft


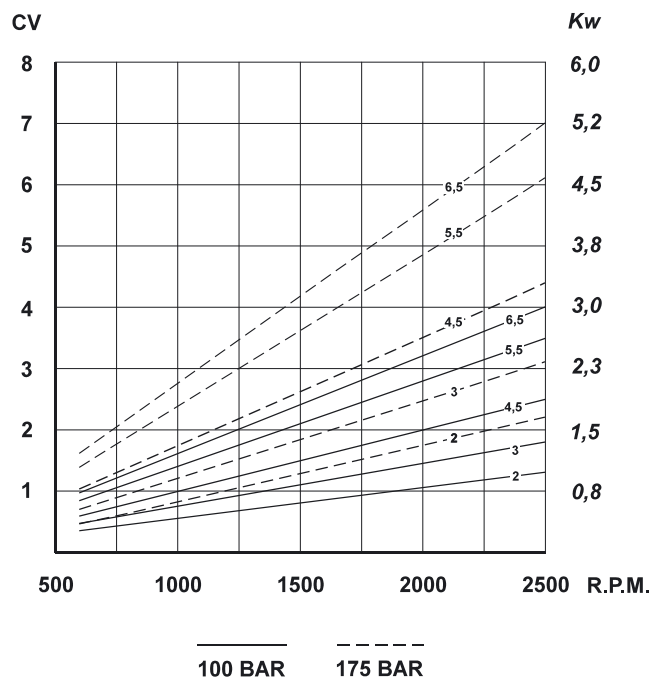
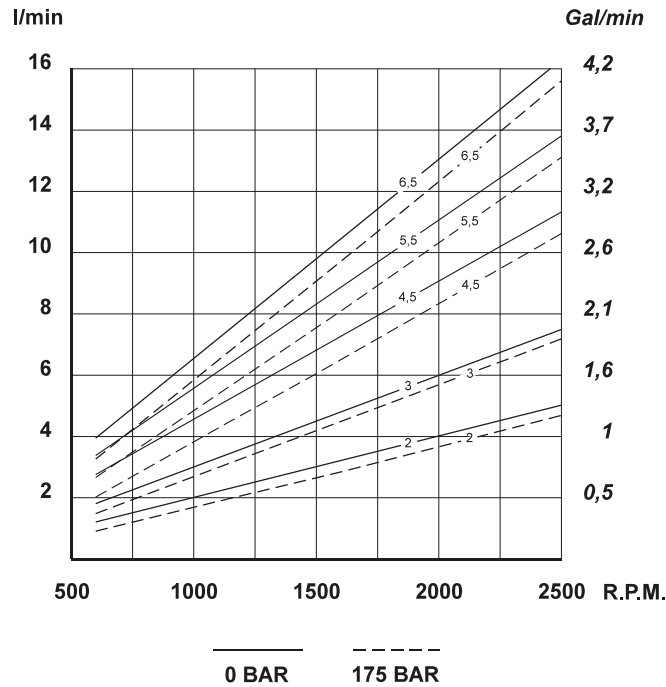
Num.	Inlet	Outlet
01	1/2" BSP	1/4" BSP
02	3/8" BSP	1/4" BSP

BHP1 PUMP AND FRAME SET TO CONNECT TO ELECTRIC MOTOR


SINGLE VANE PUMP TYPE BHP-1



FLOW AND INPUT POWER DIAGRAMS

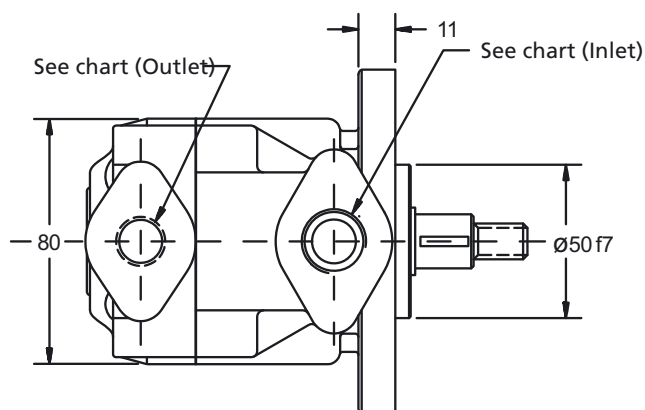
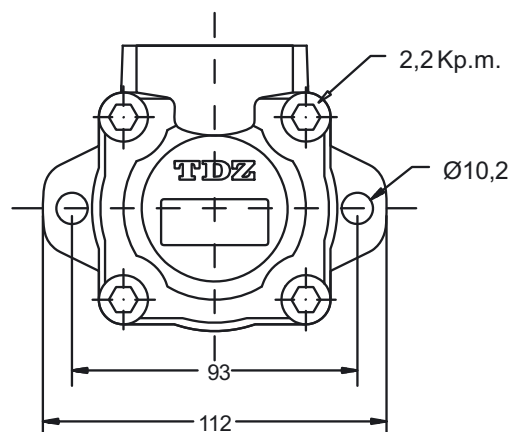
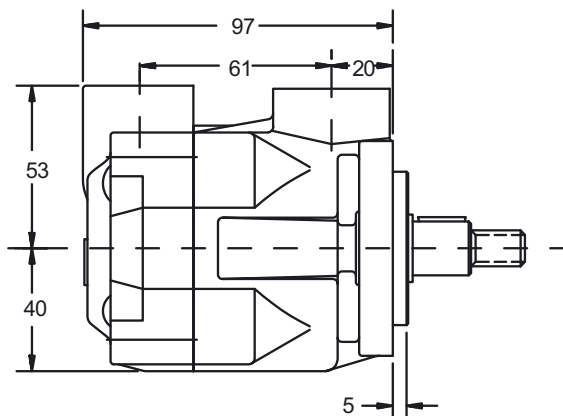


SINGLE VANE PUMP TYPE BHP-2

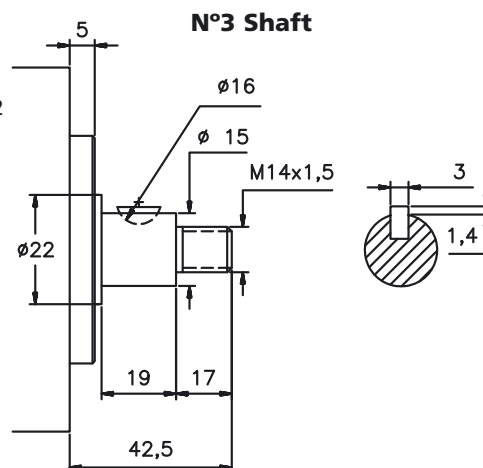
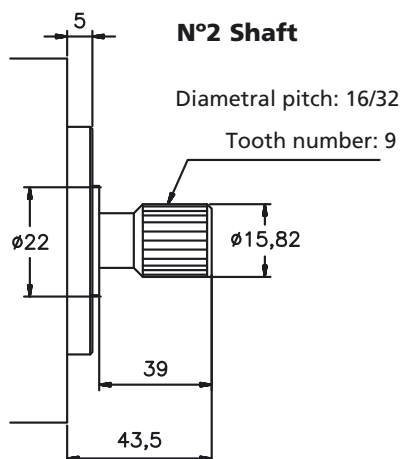
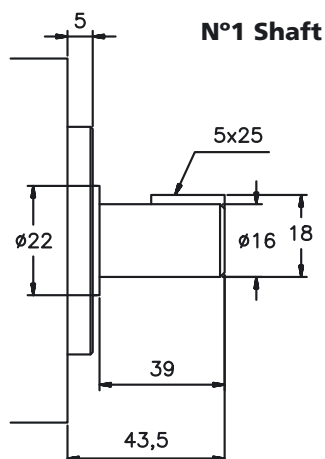
FLOW						SPEED (rpm)		PRES (BAR)		CONNECTION		WEIGHT (Kgs.)
Lts at 1000 rpm	7	8	10	12	15	Mín.	Máx.	Contin	Intermit.	Inlet	Outlet	
Gal at 1200 rpm	2,2	2,5	3,2	3,8	4,7	600	2500*	150	175	3/4" BSP	1/2" BSP	

* For further details see general chart

DIMENSIONS IN MILLIMETERS 1" = 25.4 mm

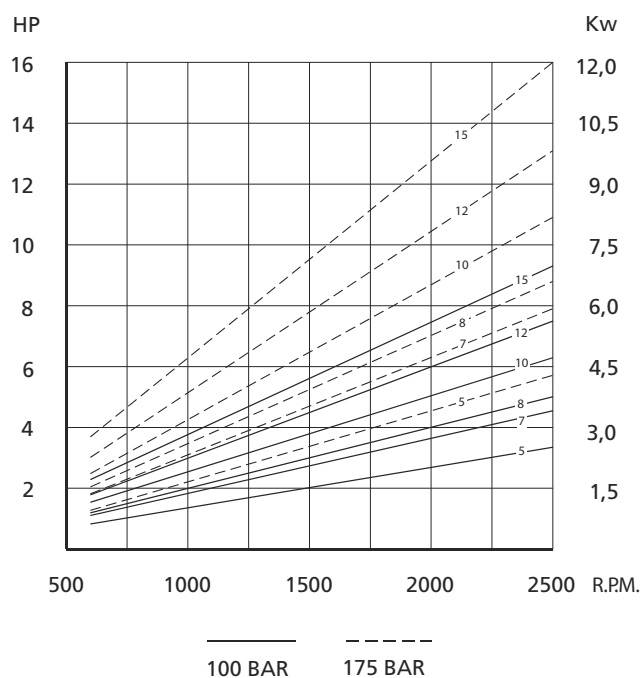
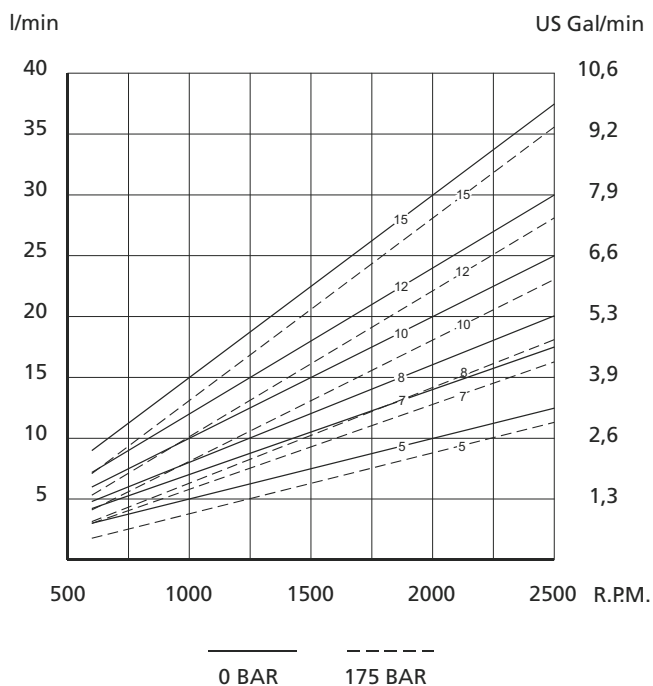
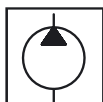


Num.	Inlet	Outlet
02	3/4" BSP	1/2" BSP



SINGLE VANE PUMP TYPE BHP-2

FLOW AND INPUT POWER DIAGRAMS

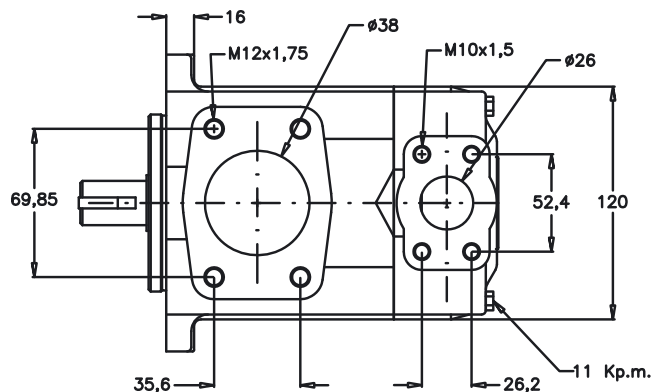
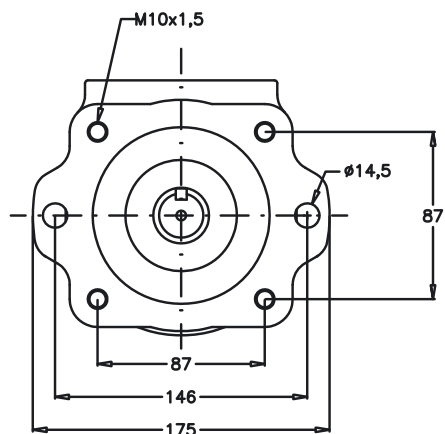
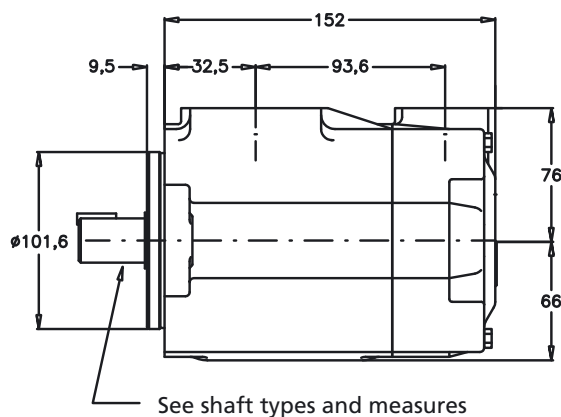


SINGLE VANE PUMP TYPE BHS-4 & BHQ-4

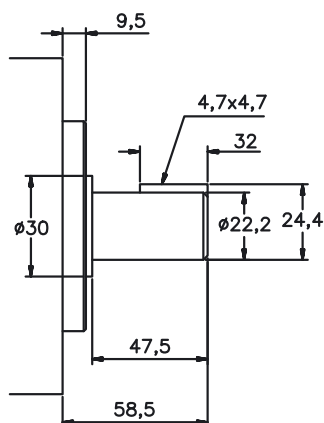
FLOW										SPEED (rpm)		PRES (BAR)		CONNECTION		WEIGHT (Kgs.)
Lts at 1000 rpm	26	39	44	54	60	66	80*	85*		Min.	Máx.	Contin.	Intermit.	Inlet	Outlet	
Gal at 1200 rpm	8	12	14	17	19	21	24*	27*		600	2500*	175	210*	Ø38	Ø26	14,5

* For further details see general chart

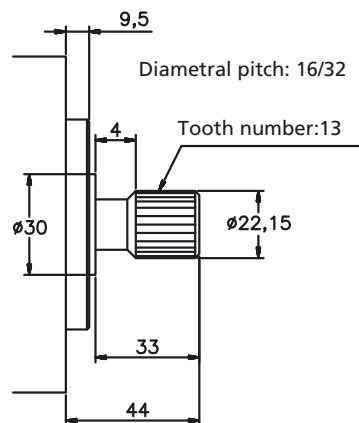
DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



N°1 Shaft



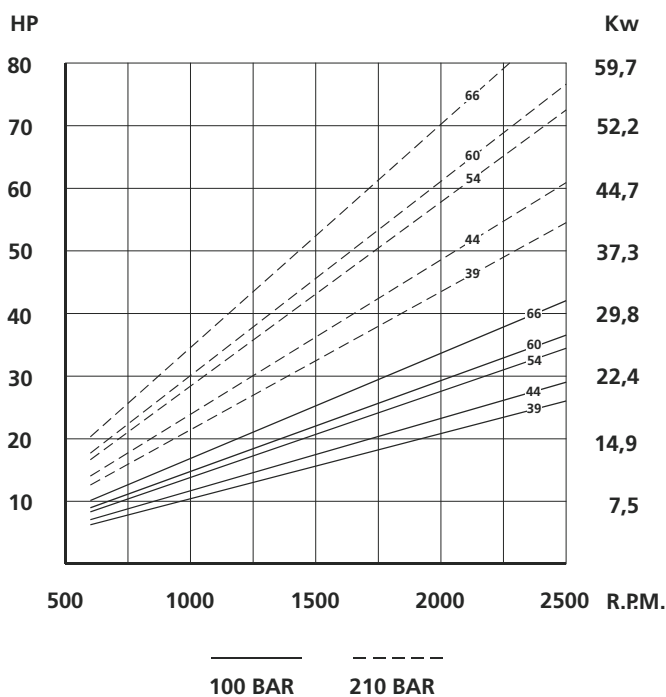
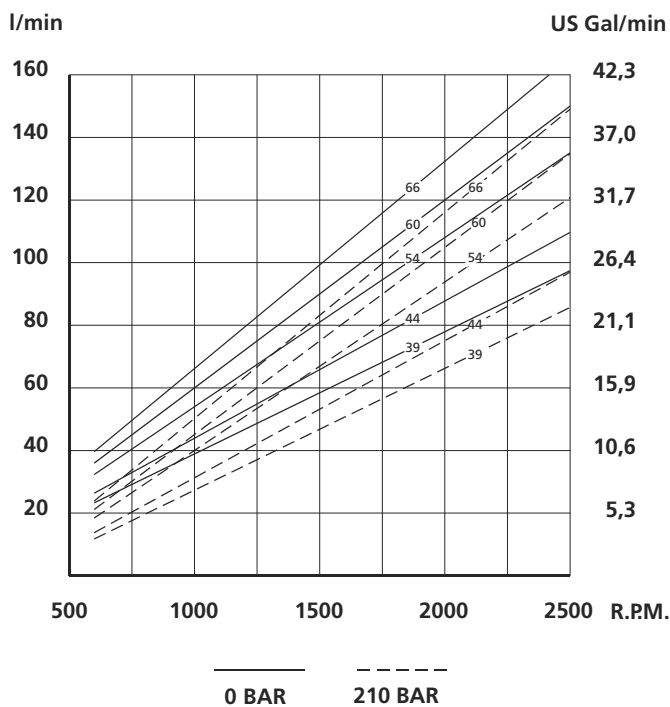
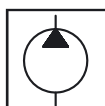
N°2 Shaft



Enquire about other types of shafts

SINGLE VANE PUMP TYPE BHS-4 & BHQ-4

FLOW AND INPUT POWER DIAGRAMS

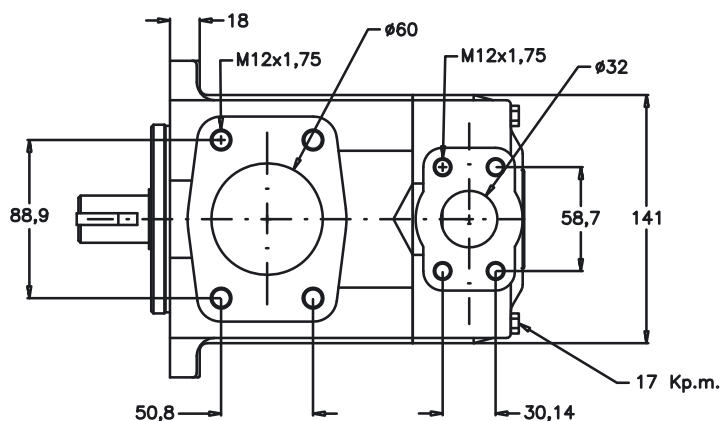
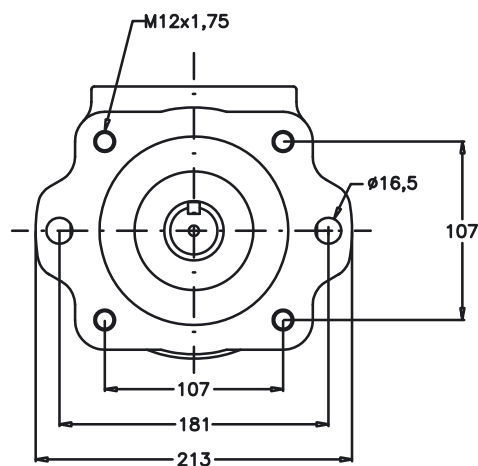
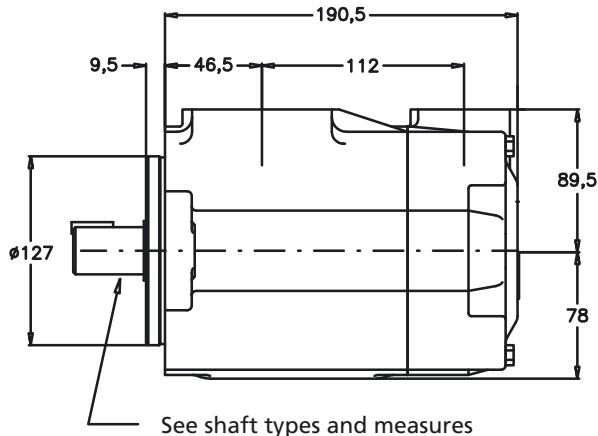


SINGLE VANE PUMP TYPE BHS-6 & BHQ-6

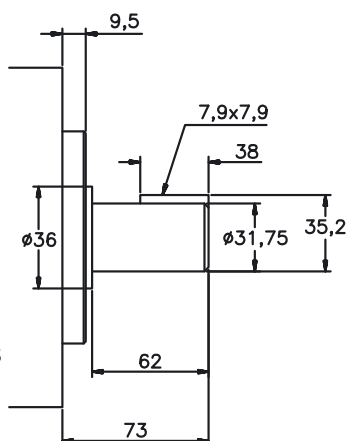
FLOW							SPEED (rpm)		PRES (BAR)		CONNECTION		WEIGHT (Kgs.)
Lts at 1000 rpm	66	81	97	112	121	142*	Mín.	Máx.	Contin	Intermit.	Inlet	Outlet	
Gal at 1200 rpm	21	25	30	35	38	45*	600	2400*	175	210*	Ø60	Ø32	26,3

* For further details see general chart

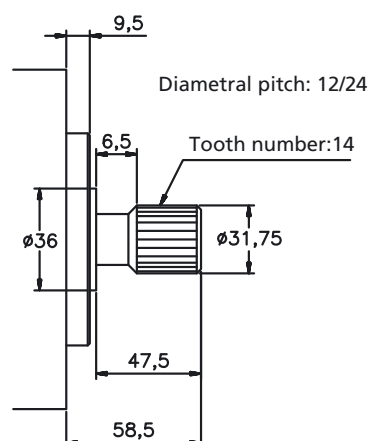
DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



Nº1 Shaft



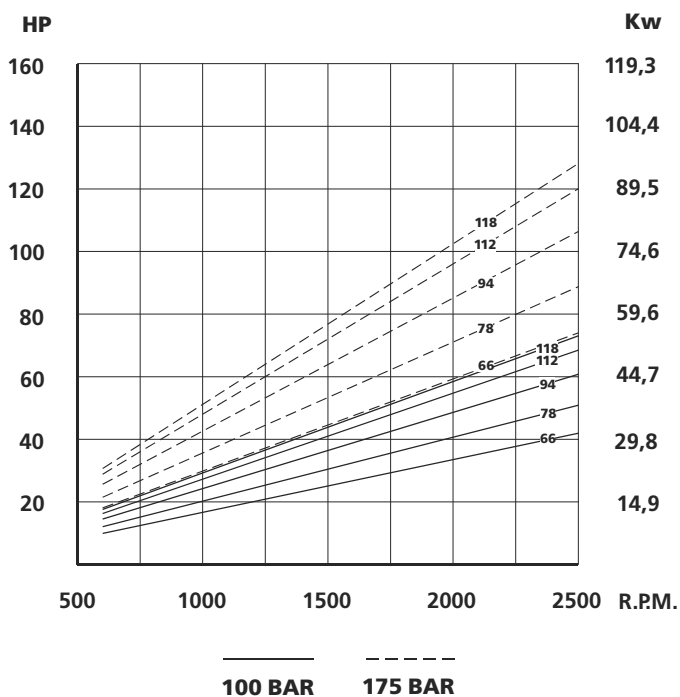
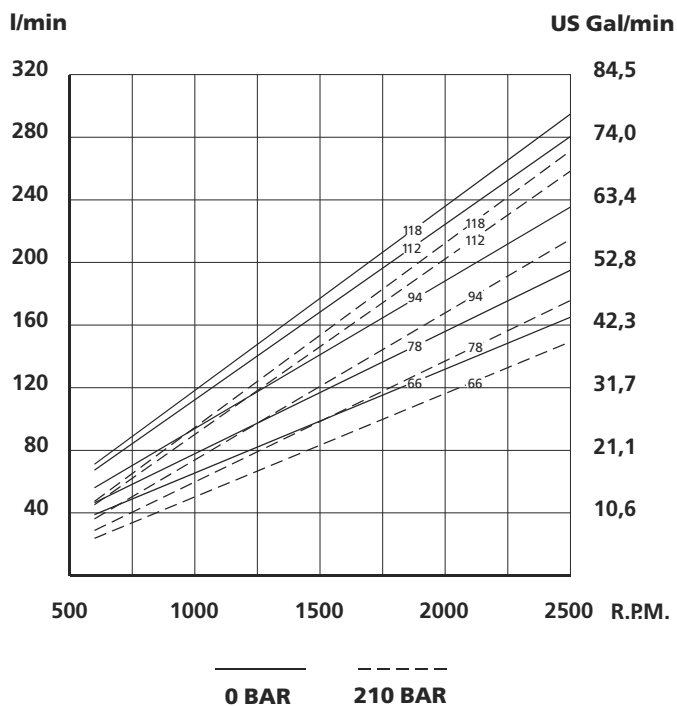
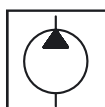
Nº2 Shaft



Enquire about other types of shafts

SINGLE VANE PUMP TYPE BHS-6 & BHQ-6

FLOW AND INPUT POWER DIAGRAMS

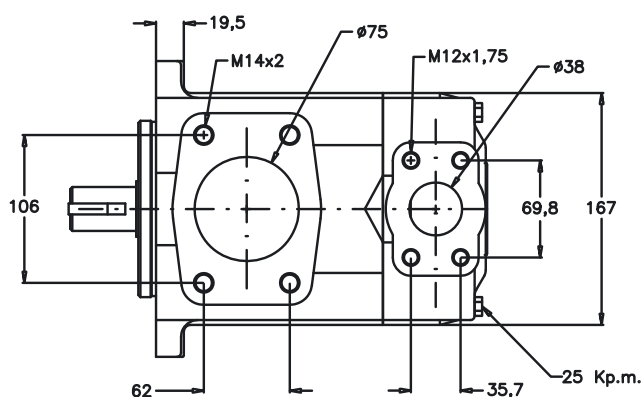
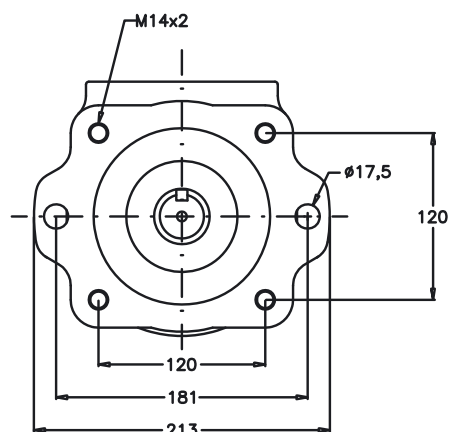
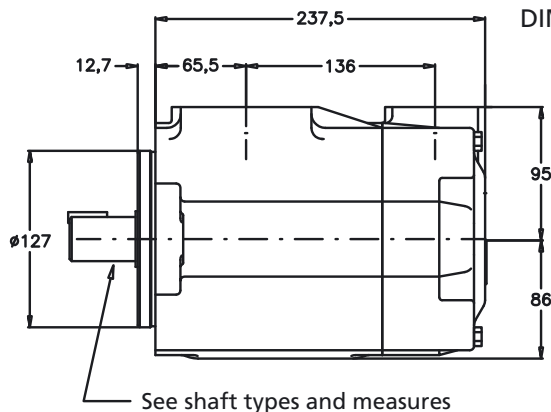
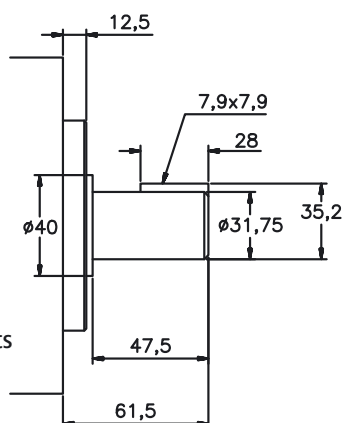
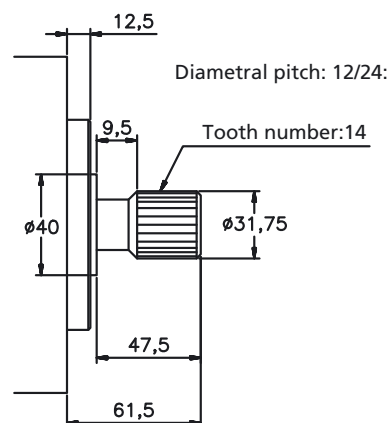


SINGLE VANE PUMP TYPE BHS-7 & BHQ-7

FLOW								SPEED (rpm)		PRES (BAR)		CONNECTION		WEIGHT (Kgs.)	
								Mín.	Máx.	Contin	Intermit.	Inlet	Outlet		
Lts at 1000 rpm								138	148	162	180	193	214	240	
Gal at 1200 rpm								42	47	50	57	60	67	75	
								600	2200*	155	175	Ø75	Ø38	38,3	

* For further details see general chart

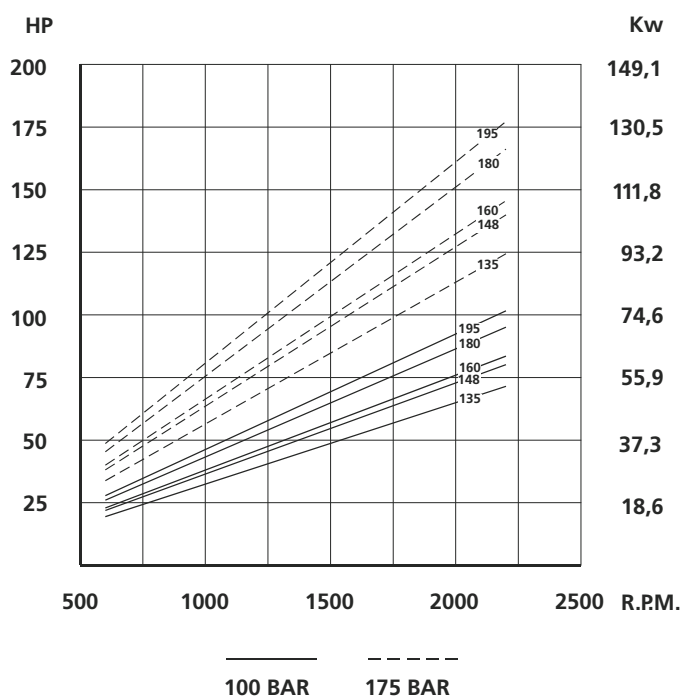
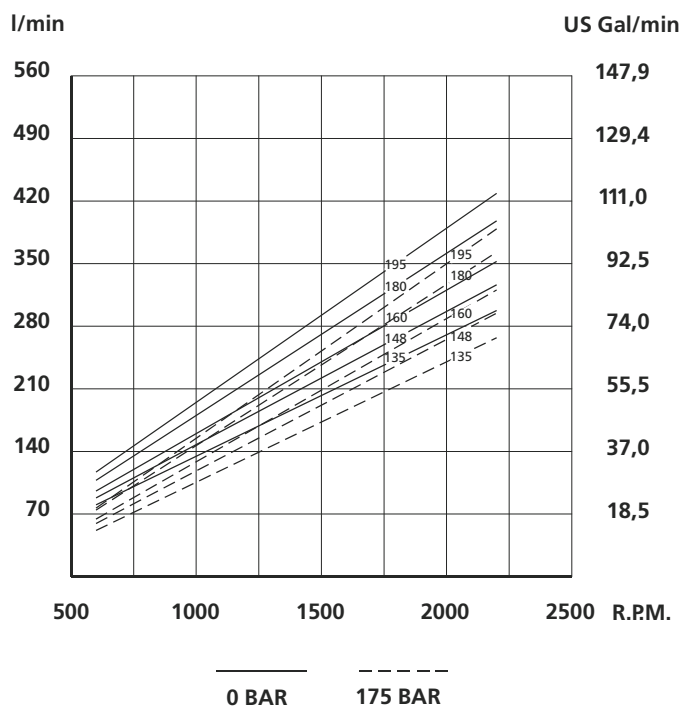
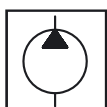
DIMENSIONS IN MILLIMETERS 1" = 25.4 mm


Nº1 Shaft

Nº2 Shaft


Enquire about other types of shafts

SINGLE VANE PUMP TYPE BHS-7 & BHQ-7

FLOW AND INPUT POWER DIAGRAMS



V* SINGLE VANE PUMP ORDERING CODE

F3	VS	25	21	D	1	A	00
1	2	3	4	5	6	7	8

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

2 - Pump Type:

VC = 12 vane pump (only VC10 and VC20), mobile and industrial use.

VK = 10 vane pump (only VK20), industrial use, UNC threads.

VS = 12 vane pump (VS25, VS35, VS45), industrial use (very quiet), UNC threads.

VQ = 10 vane pump and bronze plates (VQ20, VQ25, VQ35, VQ45), mobile use, UNC threads.

3 - Pump model: VC10, VC20; VK20, VQ20; VS25, VQ25; VS35, VQ35; VS45, VQ45.

4 - Flow: VC, VS and VQ in US Gallons per minute at 1200 rpm and 7 Bar.

5 - D = Right-hand rotation (Clockwise).

Y = Left-hand rotation (Counterclockwise).

(Viewed from shaft end).

6 - Shaft type: See on each pump model.

7 - Outlet position, (viewed from shaft end):

A: Outlet in line with inlet.

B: 90° on the right from inlet (Clockwise from inlet).

C: 180° from inlet.

D: 90° on the left from inlet (90° counterclockwise from inlet).

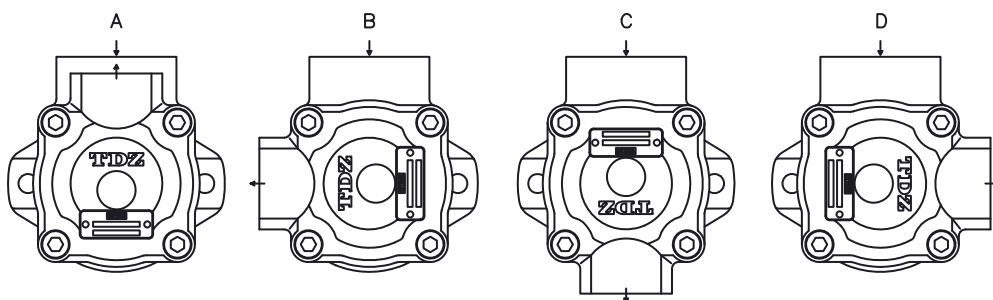
8- Special characteristic (Only for VC10 / VC20 pumps)

Omit if not required

Example: 02 : BSP

03 : UNF

04 : NPT



SINGLE VANE PUMP CHARACTERISTICS

VICKERS DESIGN VANE PUMPS

TYPE	FLOW			SPEED (rpm)		PRESSURE (Bar)		Nominal Power (2)	CONNECTION		WEIGHT (Kgs.)
	Lts.at 1000 rpm	Gal.at 1200 rpm	Reduction (1)	Min.	Máx.	Contin.	Intermit		Inlet	Outlet	
VC10	3	1	0,8	600	4800	155	180	0,7	(3)	(3)	4,5
	6	2	0,9		4500			1,4			
	9	3	1,2		4000			2,1			
	13	4	1,6		3400			2,7			
	16	5	1,7		3200			3,2			
	19	6	1,8		3000			3,7			
	22	7	1,9		2800	140		4,2			
VC20	19	6	2,8	600	3400	155	180	3,9	(3)	(3)	7,3
	22	7	4,2		3000			4,4			
	26	8	4,5		2800			5,1			
	29	9	4,8		2800			5,6			
	36	11	4,8		2500			6,5			
	39	12	5,4		2400			7,5			
	42	13	6,0		2400	140		8,1			
VK20 VQ20	8	2	0,9	600	2600	175	210	1,9	Ø1½"	Ø3/4"	12
	18	5	2,1					4			
	27	8	2,8					6,6			
	29	9	3,5					6,9			
	36	11	4,3					7,3			
	39	12	4,3					7,4			
	46	14	5,3					7,6			
VS25 VQ25	32	10	5,1	600	2500 1800 (VS)	175	210	8,6	Ø1½"	Ø1"	15
	40	12	5,7					10,4			
	45	14	5,7					11,6			
	55	17	5,8					13,8			
	60	19	5,8					14,6			
	67	21	6					16,8			
	80	24	6,2		1500	125	150	20,3			
	88*	27	6,5					21,1			
VS35 VQ35	66	21	8,6	600	2400 1800 (VS)	175	210	16,8	Ø2"	Ø1¼"	23
	81	25	9					20,3			
	97	30	10					24,3			
	112	35	11,4					27,4			
	121	38	11,4					29,3			
	142	45	13,1		1500	125	150	33,3			
VS45 VQ45	138	42	15	600	2200 1800 (VS)	155	175	32,3	Ø3"	Ø1½"	35,5
	148	47	15,7					36,3			
	162	50	14,3					37,9			
	180	57	17,9					43,2			
	193	60	18,6					46,1			
	214	67	22					51,2			
	240	75	26					57,4			

*27 gallons (88 lts.) cartridge not mounted in VQ25 vane pump model.

(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.

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

(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:

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

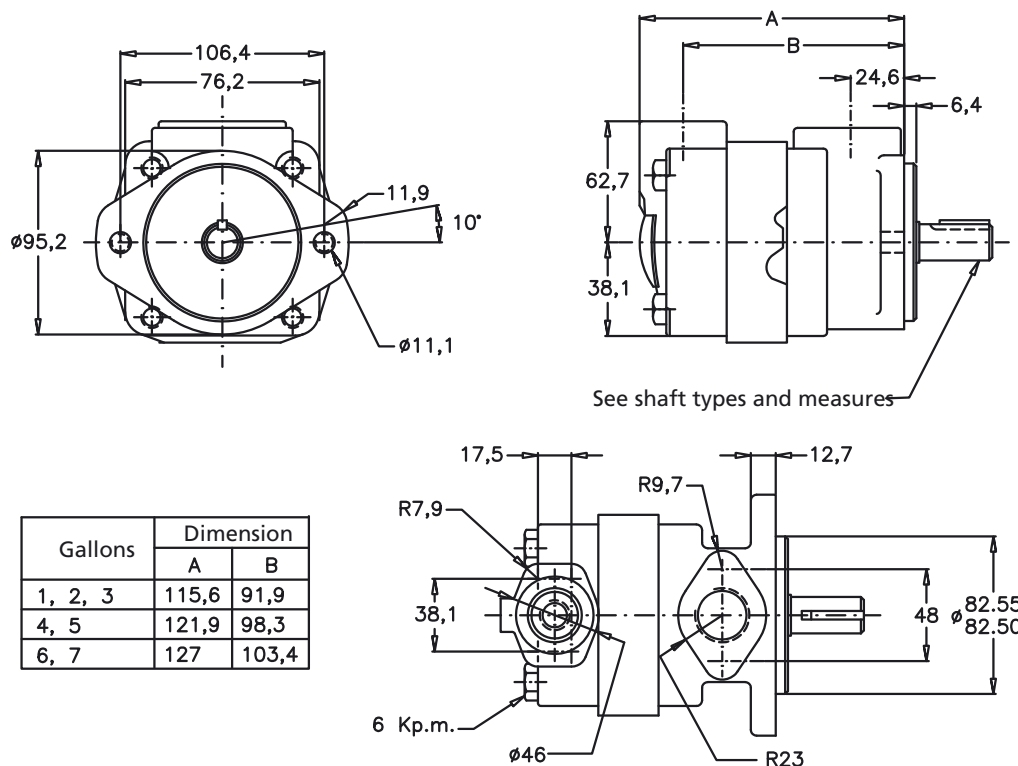
(3) See options on dimension pages.

SINGLE VANE PUMP TYPE VC-10

DIMENSIONS IN MILLIMETERS. 1" = 25,4 mm

FLOW			SPEED (rpm)		PRESSURE (Ba r)		Nominal Power (2)	CONNECTION		WEIGHT (Kgs.)
Lts.at 1000 rpm	Gal.at 1200 rpm	Reduction (1)	Mín.	Máx.	Contin.	Intermit.		Inlet	Outlet	
3	1	0,8	600	4800	155	180	0,7	1" NPT 1" BSP	1/2" NPT 1/2" BSP	4,5
6	2	0,9		4500			1,4			
9	3	1,2		4000			2,1			
13	4	1,6		3400			2,7			
16	5	1,7		3200			3,2			
19	6	1,8		3000			3,7			
22	7	1,9		2800	140		4,2			

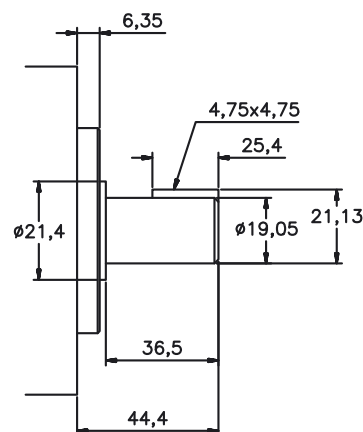
(1) & (2) see page 27.



Num.	Inlet	Outlet
02	1" BSP	1/2 BSP
03	1"5/16-12 UNF	3/4"-16 UNF
04	1" NPT	1/2" NPT

Contact TDZ or your nearest distributor for other shaft types

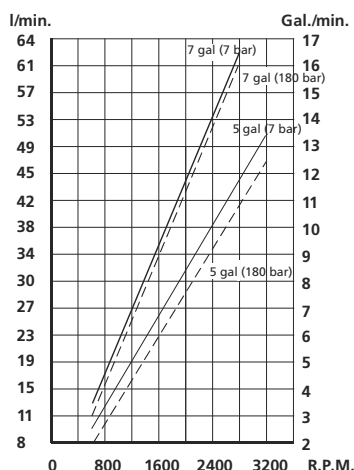
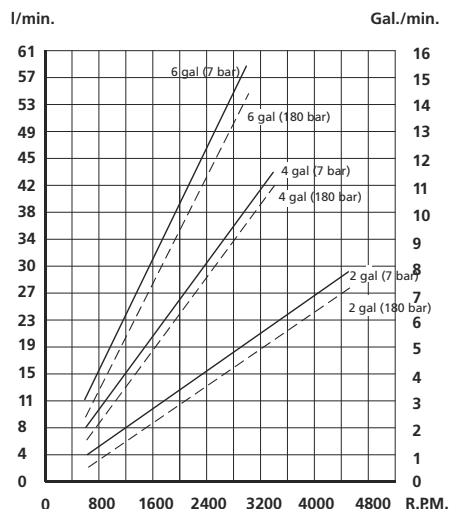
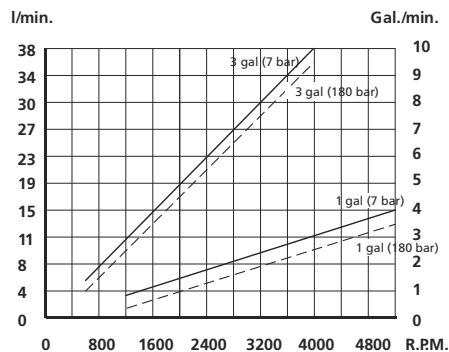
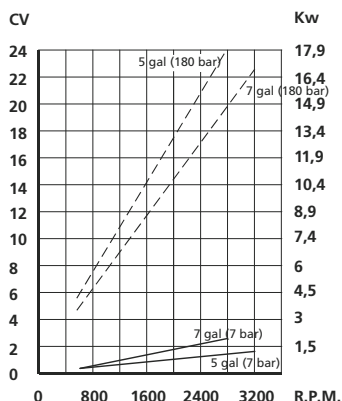
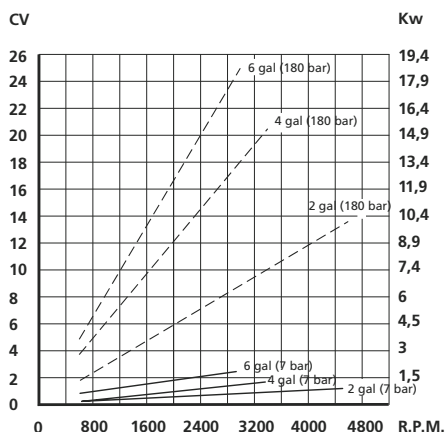
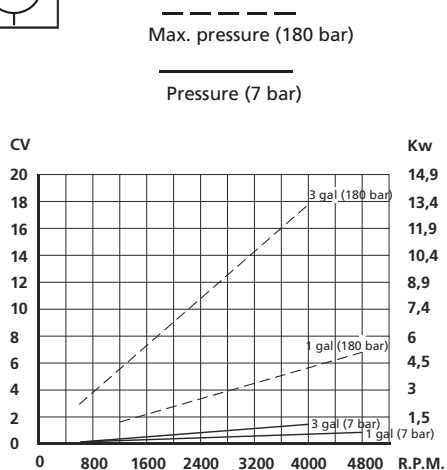
N°1 Shaft



SINGLE VANE PUMP TYPE VC-10



FLOW AND INPUT POWER DIAGRAMS

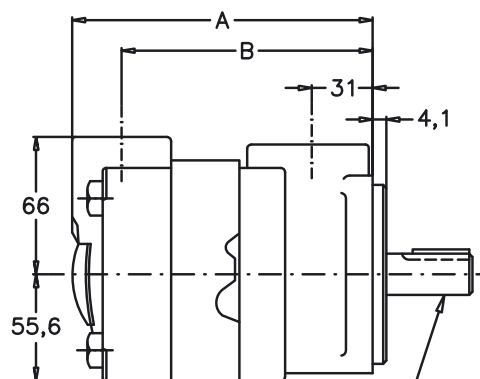
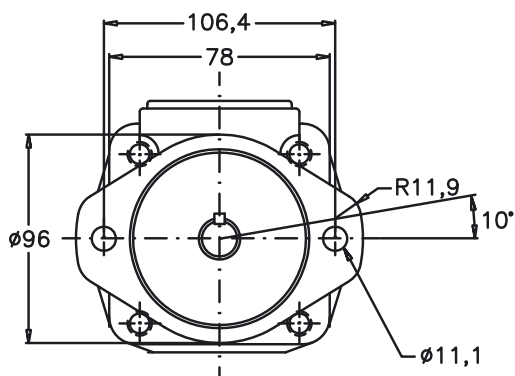


SINGLE VANE PUMP TYPE VC-20

DIMENSIONS IN MILLIMETERS. 1" = 25,4 mm

FLOW			SPEED (rpm)		PRES (BAR)		Nominal Power (2)	CONNECTIO N		WEIGHT (Kgs.)
Lts.at 1000 rpm	Gal.at 1200 rpm	Reduction (1)	Min.	Max.	Contin.	Intermit		Inlet	Outlet	
19	6	2,8	600	3400	155	180	3,9	1 1/4" NPT 1 1/4" BSP	3/4" NPT 3/4" BSP	7,3
22	7	4,2		3000			4,4			
26	8	4,5		2800			5,1			
29	9	4,8		2800			5,6			
36	11	4,8		2500			6,5			
39	12	5,4		2400			7,5			
42	13	6,0		2400	140		8,1			

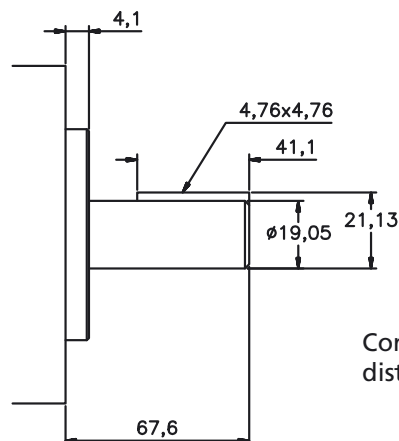
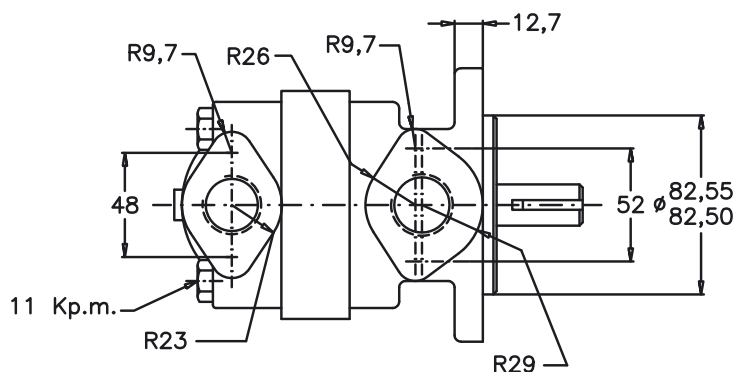
(2) & (3) see page 27.



See shaft types and measures

Galon	Dimension	
	A	B
6	125,2	102,1
7, 8, 9	131,6	108,4
11	136,7	113,5
12, 13	140,2	117,1

Num.	Inlet	Outlet
02	1" 1/4 BSP	3/4" BSP
03	1" 5/8-12 UNF	1" 1/16 UNF
04	1" 1/4 NPT	3/4" NPT



N°1 Shaft

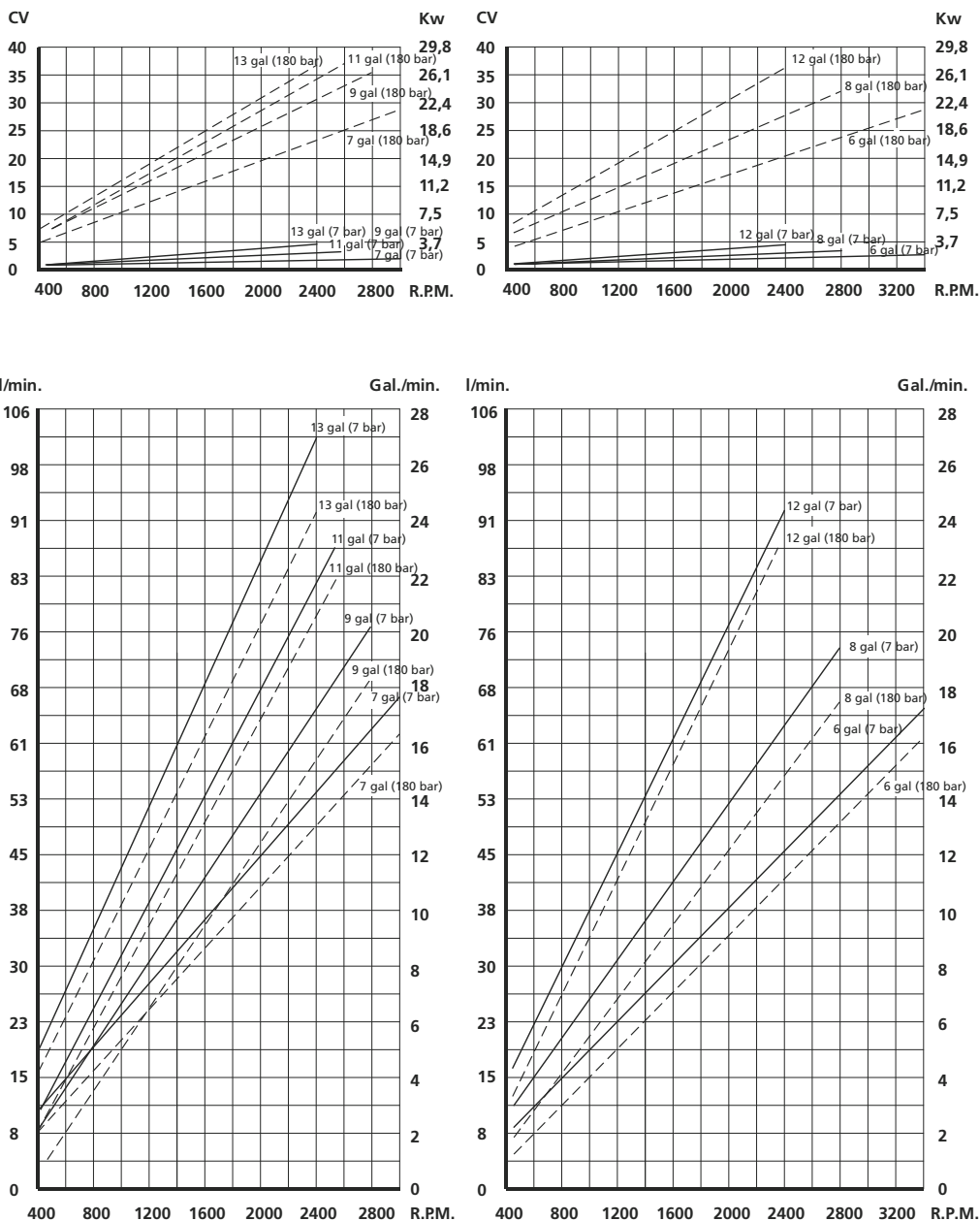
Contact TDZ or your nearest distributor for other shaft types

SINGLE VANE PUMP TYPE VC-20



FLOW AND INPUT POWER DIAGRAMS

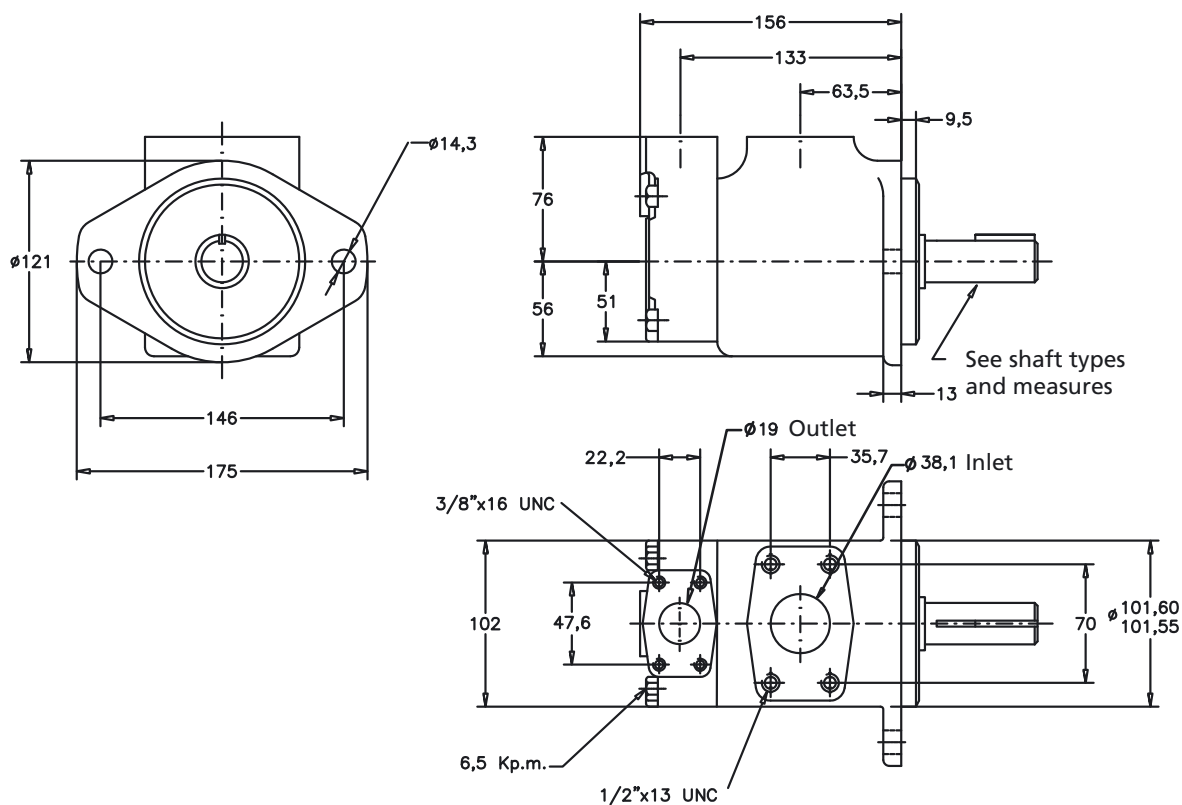
Max. pressure (180 bar) Min. Pressure (7 bar)



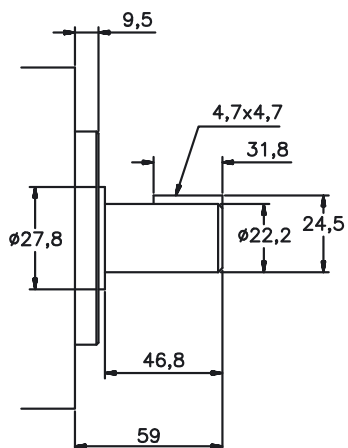
SINGLE VANE PUMP TYPE VK-20 Y VQ-20

DIMENSIONS IN MILLIMETERS. 1" = 25,4 mm

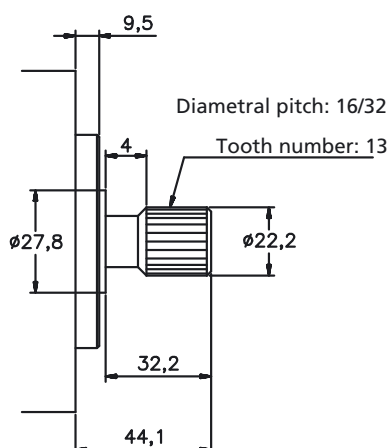
FLOW								SPEED (rpm)		PRES (BAR)		CONNECTION		WEIGHT (Kgs.)
Lts.at 1000 rpm 8 18 27 29 36 39 46 Gal.at 1200 rpm 2 5 8 9 11 12 14								Min.	Max.	Contin.	Intermit.	Inlet	Outlet	
								600	2500	175	210	Ø 1 1/2"	Ø 3/4"	



N°1 Shaft



N°151 Shaft

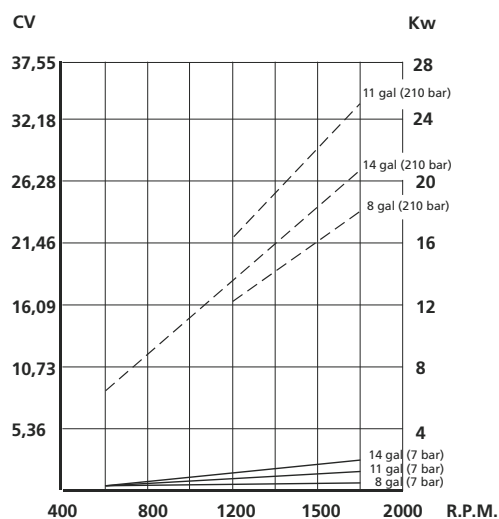
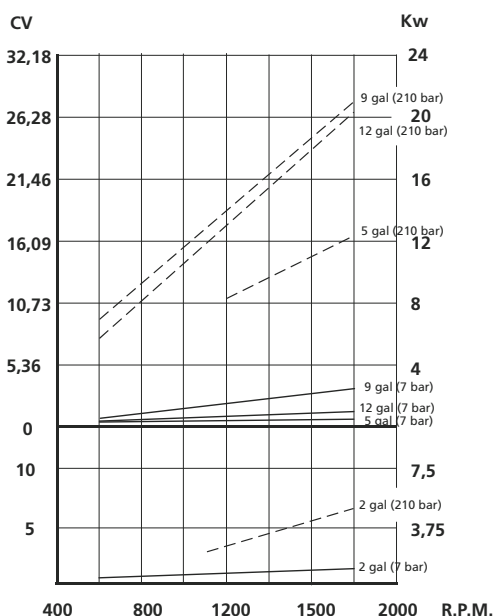
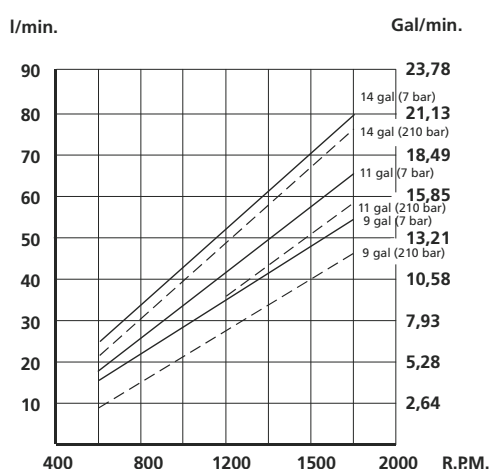
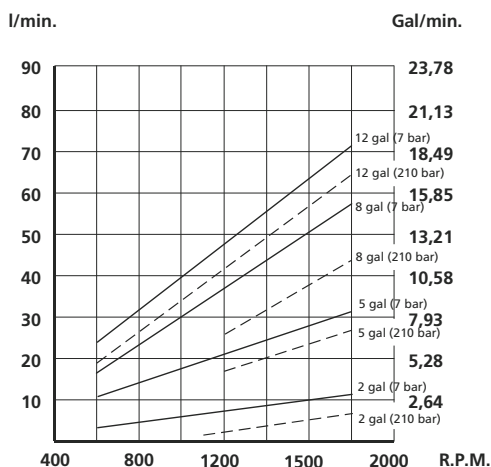


SINGLE VANE PUMP TYPE VK-20 Y VQ-20



FLOW AND INPUT POWER DIAGRAMS

----- Max. pressure (210 bar) _____ Min. Pressure (7 bar)

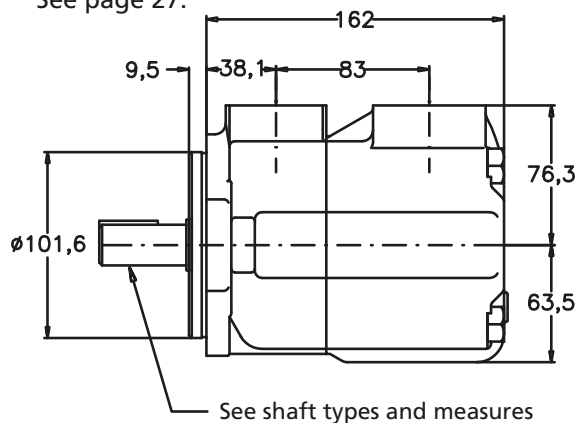


SINGLE VANE PUMP TYPE VS-25 & VQ-25

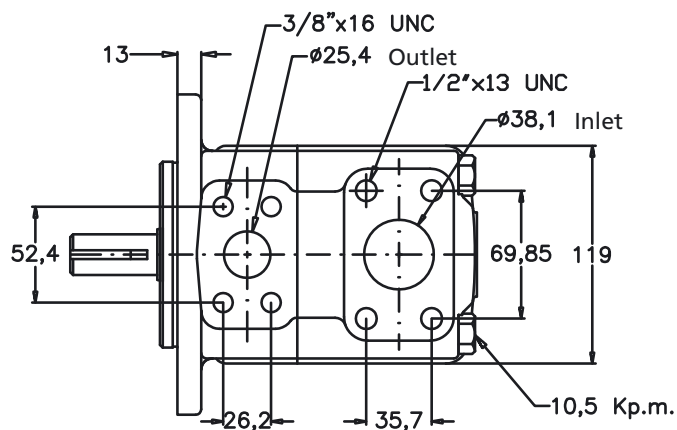
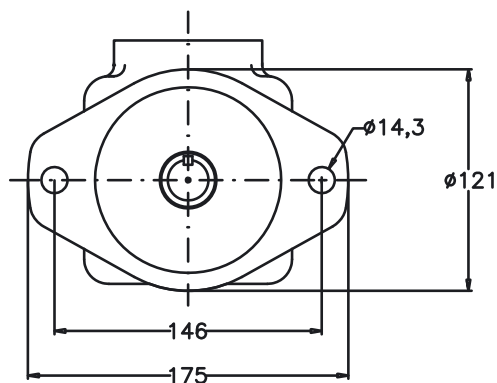
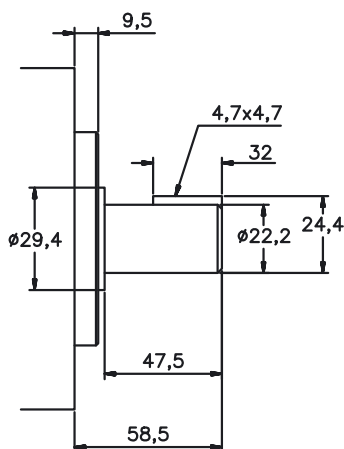
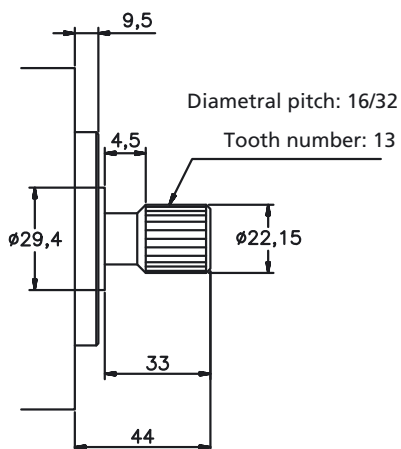
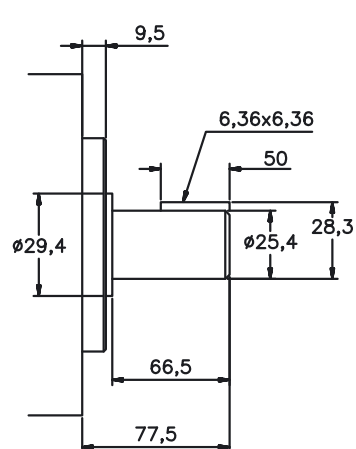
DIMENSIONS IN MILLIMETERS. 1" = 25,4 mm

FLOW									SPEED(rpm)		PRES (BAR)		CONNECTION		WEIGHT
Lts.at 1000 rpm	32	40	45	55	60	67	80*	88*	Min.	Max.	Contin.	Intermit.	Inlet	Outlet	(Kgs.)
Gal.at 1200 rpm	10	12	14	17	19	21	24*	27*	600	2500*	175	210*	Ø1" 1/2	Ø1"	15

*See page 27.



DIMENSIONS IN MILLIMETERS 1" = 25.4 mm

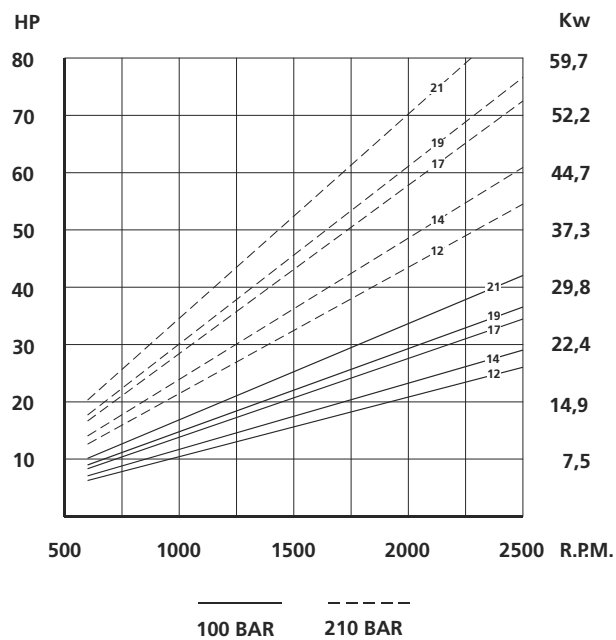
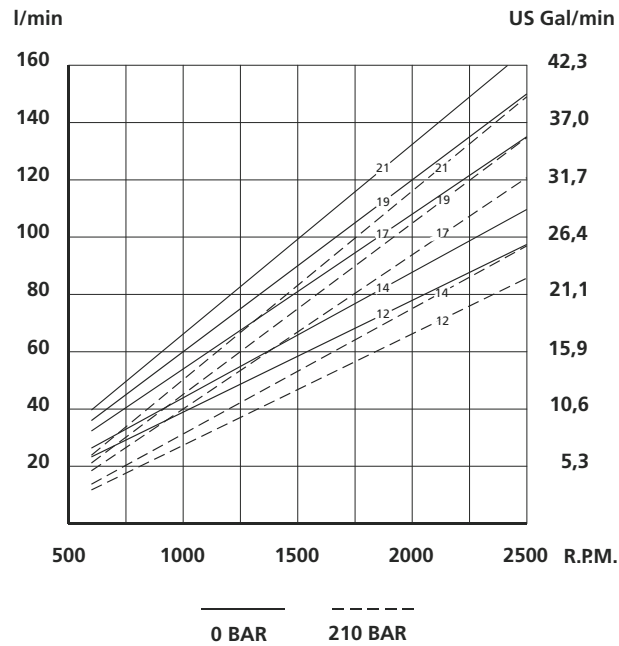

N°1 Shaft

N°11 Shaft

N°86 Shaft


Enquire about other types of shafts

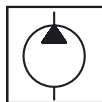
SINGLE VANE PUMP TYPE VS-25 & VQ-25



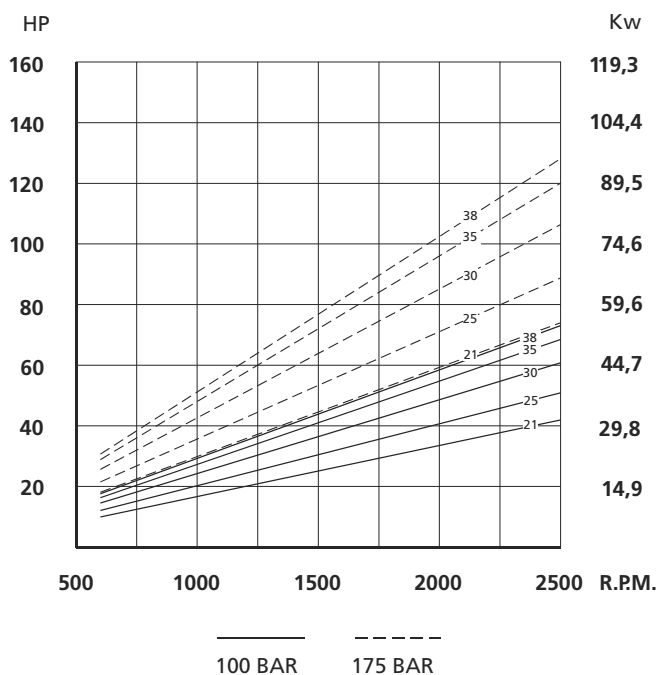
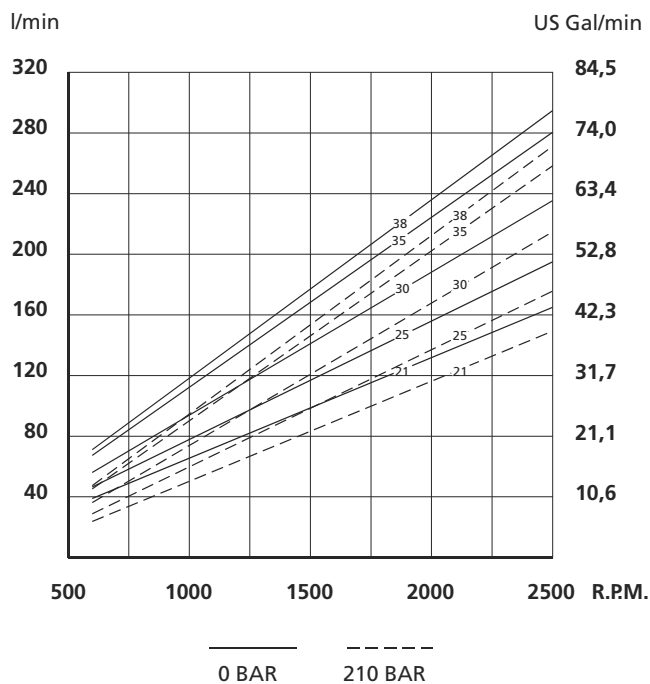
FLOW AND INPUT POWER DIAGRAMS



SINGLE VANE PUMP TYPE VS-35 & VQ-35



FLOW AND INPUT POWER DIAGRAMS



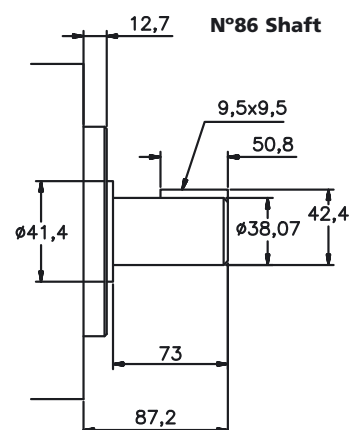
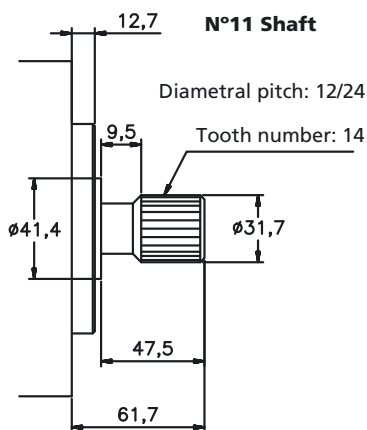
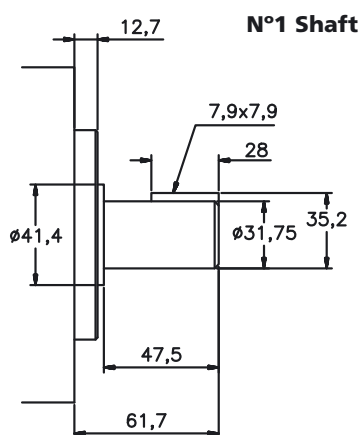
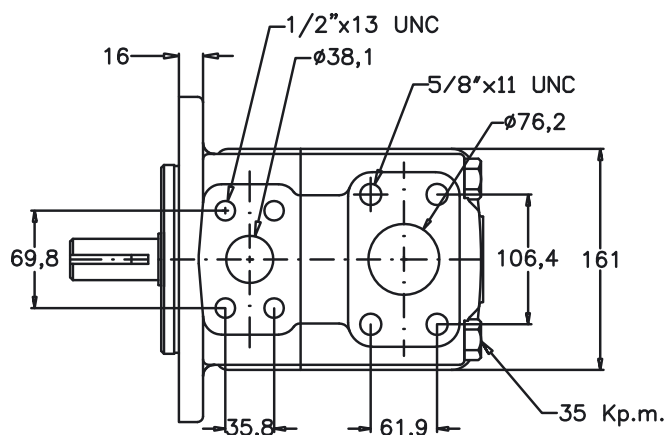
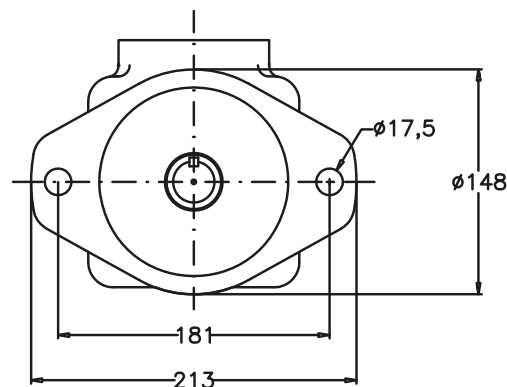
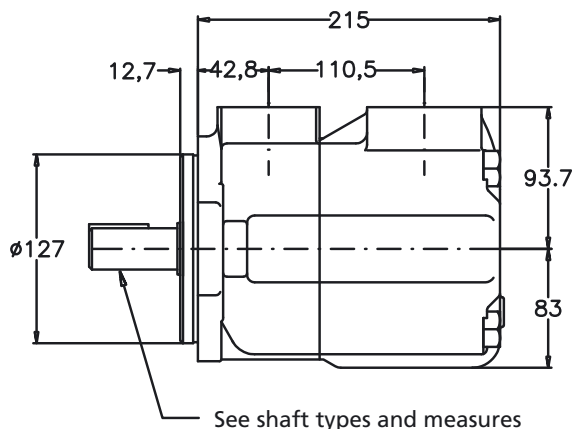
SINGLE VANE PUMP TYPE VS-45 & VQ-45

DIMENSIONS IN MILLIMETERS. 1" = 25,4 mm

FLOW								SPEED (rpm)		PRES (BAR)		CONNECTION		WEIGHT (Kgs.)
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"	Ø1" 1/2	35,5

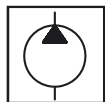
* For further details see general chart

DIMENSIONS IN MILLIMETERS 1" = 25.4 mm

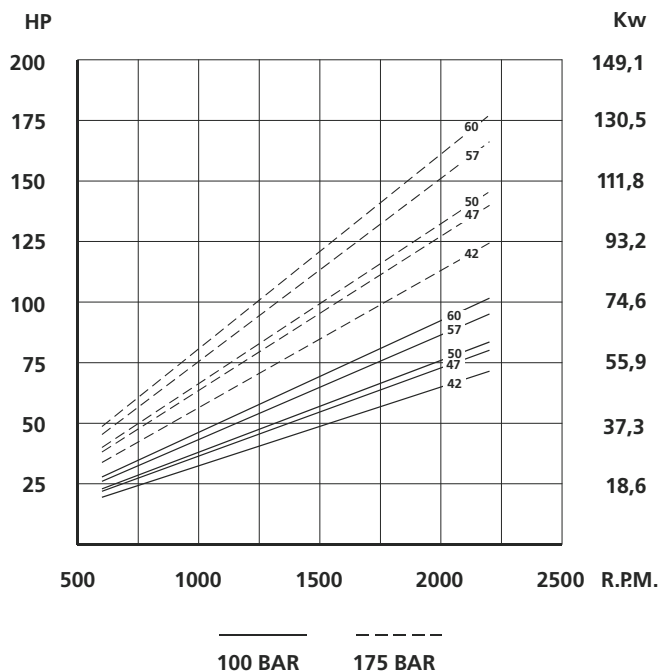
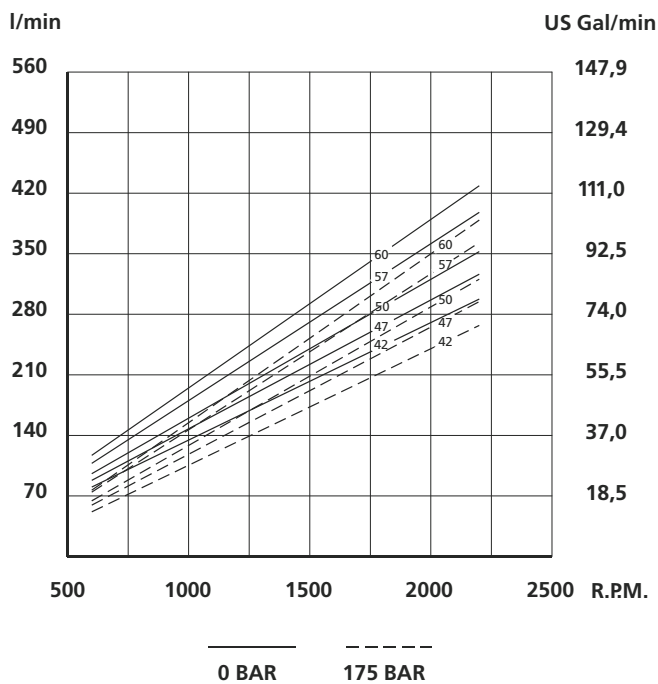


Enquire about other types of shafts

SINGLE VANE PUMP TYPE VS-45 & VQ-45

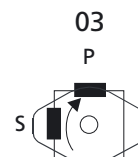
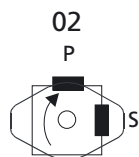
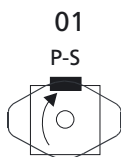
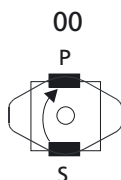


FLOW AND INPUT POWER DIAGRAMS



DT6/7 SINGLE VANE PUMPS ORDERING CODE

DT*	- C -	**	- B -	17	- 1 -	R	- 00 -	B	- 1 -	*
										P & S ports mounting variables
										Seal Class 1: NBR 2: VITON
										Design letter
										Ports combination (see below)
										Direction of rotation R: clockwise L: counterclockwise
										Type of Shaft(see particular pump model)
										Flow(see particular pump model)
										Bidirectional
										No code: 1 shaft seal P: 2 shaft seals Y: Metric threads
										Size (B, C, D, E)
										DT6 (High pressure - up to 275 bar) DT7 (Very high pressure - up to 320 bar)



DT6/7 SINGLE VANE PUMPS - GENERAL CHARACTERISTICS

SINGLE PUMPS

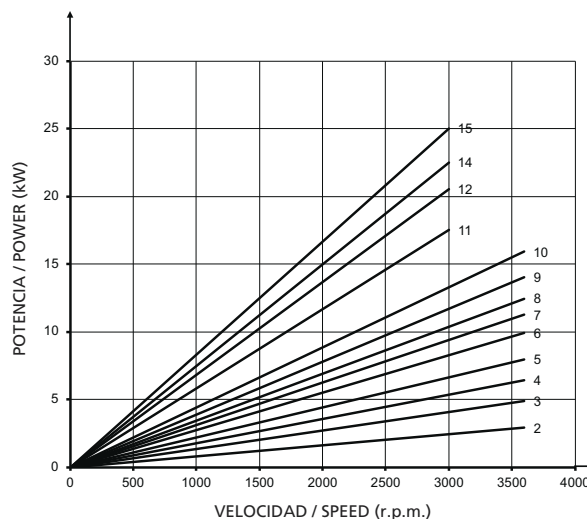
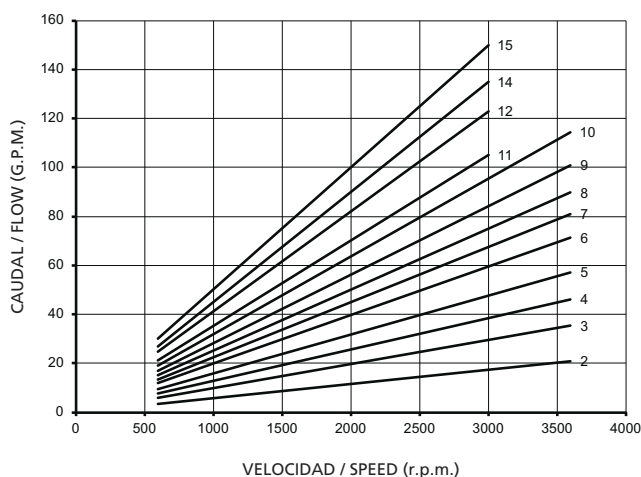
Pump Model	Cartridge Model	Theoretical displacement (cm ³ /rev)	Maximum Pressure int./cont. (bar)	Max.speed (rpm)	Min. speed (rpm)	Weight (Kg)	Front flange Standard SAE j744c ISO 3019-4	SAE 4 holes flange	
								Suction S	Pressure P
DT7BS	002	5.8	320/290	3600	500 200 ⁽¹⁾	23	SAE B	1 ½"	¾" 1"
	003	9.8							
	004	12.8							
	005	15.9							
	006	19.8							
	007	22.5							
	008	24.9							
	009	28							
	010	31.8							
	011	35	300/275	3000					
	012	41							
	014	45							
	015	50	280/240						
DT6C	003	10.8	275/240	2800	500	15	SAE B	1 ½"	1"
	005	17.2							
	006	21.3							
	008	26.4							
	010	34.1							
	012	37.1							
	014	46.0							
	017	58.3							
	020	63.8							
	022	70.3							
	025	79.3							
	028	88.8	210/160	2500					
	031	100							
	DT6CP Pump model only mount B14 to B31 cartridges								
DT6D	014	47.6	240/210	2500	500	24	SAE C	2"	1 ¼"
	020	66.0							
	024	79.5							
	028	89.7							
	031	98.3							
	035	111.0							
	038	120.3							
	042	136.0							
	045	145.7							
	050	158.0							
		061	190.5	120/80					
DT6E	042	132.3	240/210	2200	44	SAE C	3"	1 ½"	
	045	142.4							
	050	158.5							
	052	164.8							
	062	196.7							
	066	213.3							
	072	227.1							
	085	269.8							90/75

⁽¹⁾ Lower speed can be achieved depending of pressure, temperature, oil viscosity. Consult our technical department

DT7BS OPERATING CHARACTERISTICS

FLOW															SPEED (rpm)		PRESSURE (bar)		WEIGHT
Lts/min.at 1000 rpm	6	10	13	16	20	22	25	28	32	35	41	45	50	Mín.	Máx.	Intermit.	Contin.	(Kgs.)	
Gal/min.at 1200 rpm	2	3	4	5	6	7	8	9	10	11	12	14	15	500	3600*	320	290*	23	

* See page 41 for further information about speed & pressure.



Theoretical Flow (0 Bar)

To calculate the real flow at a given operating pressure, subtract the internal leakage value for this pressure (see diagram below) from the theoretical flow. (See diagram above).

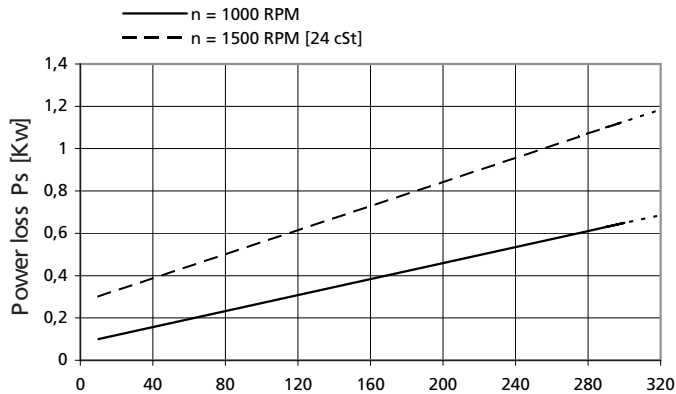
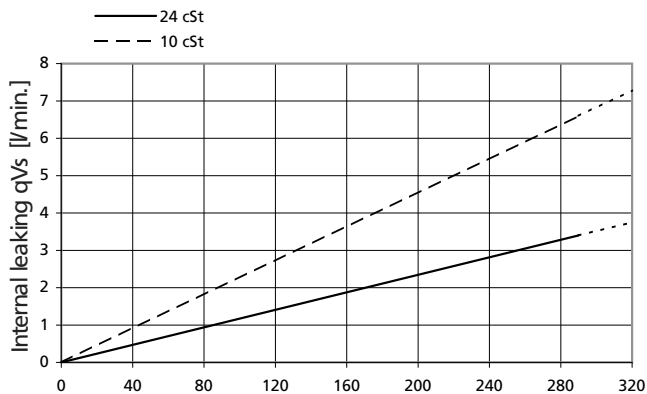
Theoretical Input Power at 300 Bar

To calculate the theoretical input power at other pressures and speeds, use the formula:

$$P(Kw) = \frac{Q(L/min.) \times P(Bar)}{600}$$

Where Q is the theoretical flow (upper left diagram) and P the operating pressure.

To calculate the real input power, add to the theoretical power the hydromechanical power losses (see diagram below).



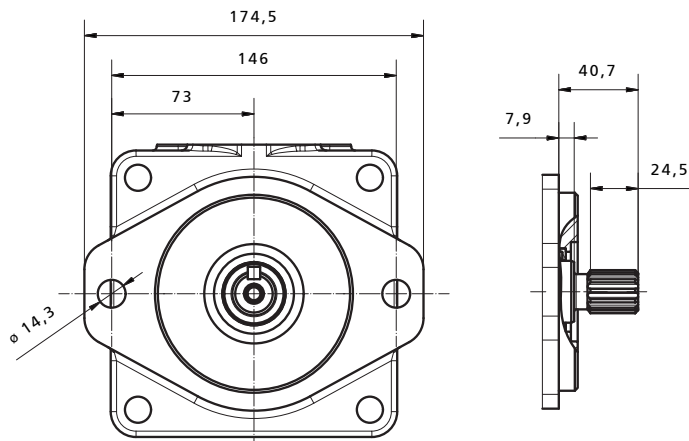
Pressure p [bar]

Pressure p [bar]

Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50 % of theoretical flow

DIMENSIONS - SINGLE VANE PUMPS DT7BS

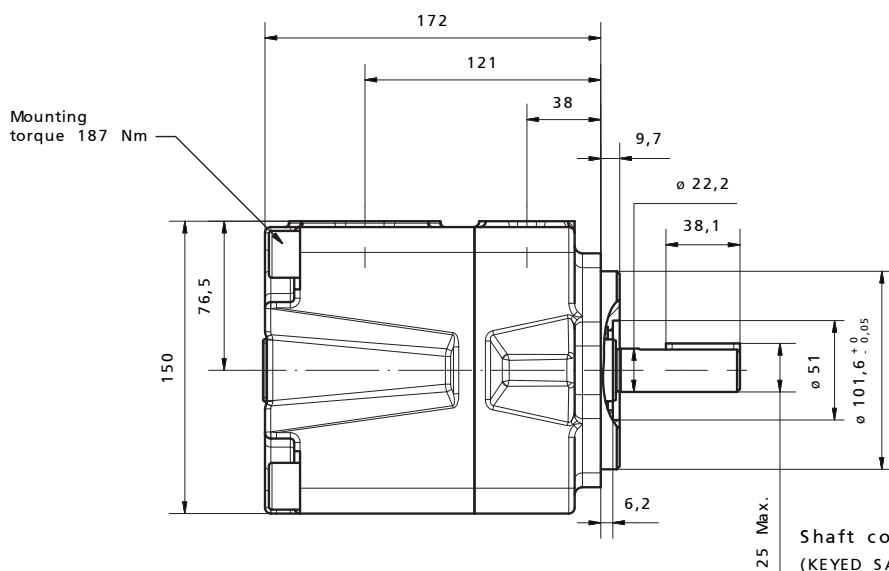
DIMENSIONS IN MILLIMETERS. 1" = 25,4 mm



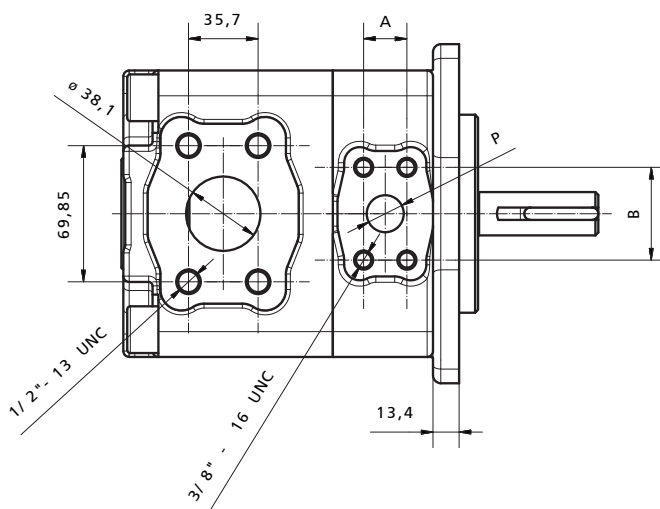
Shaft code 3
 SAE B Splined shaft 1- J498b
 16/ 32 d.p. - 13 teeth
 30° Pressure angle

Mounting W/connection variables
 4 bolts SAE flange (J518C)

UNC DT7BS		
	00	01
P	1"	3/4"
S	1 1/2"	



Shaft code 1
 (KEYED SAE B)



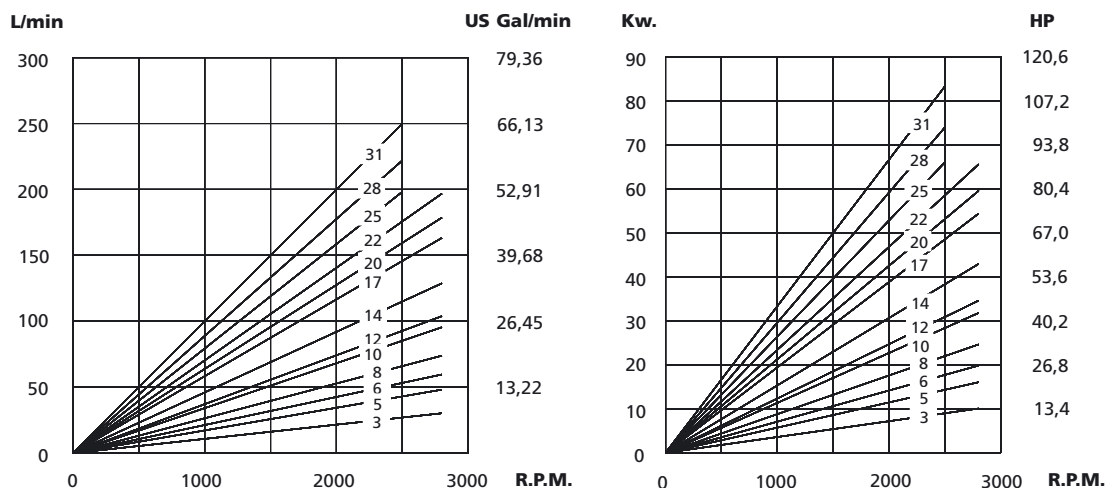
CODE	00	01
P	25,4	19,1
A	26,2	22,2
B	52,4	47,6

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

DT6C OPERATING CHARACTERISTICS

FLOW														SPEED (rpm)		PRESSURE (bar)		WEIGHT (Kgs.)
Lts/min.at 1000 rpm	11	17	21	26	34	37	46	58	64	70	79	89	100	Min.	Máx.	Intermit.	Contin.	
Gal/min.at 1200 rpm	3	5	6	8	10	12	14	17	20	22	25	28	31	500	2800*	275	240*	15

* See page 41 for further information about speed & pressure.



Theoretical Flow (0 Bar)

To calculate the real flow at a given operating pressure, subtract the internal leakage value for this pressure (see diagram below) from the theoretical flow. (See diagram above).

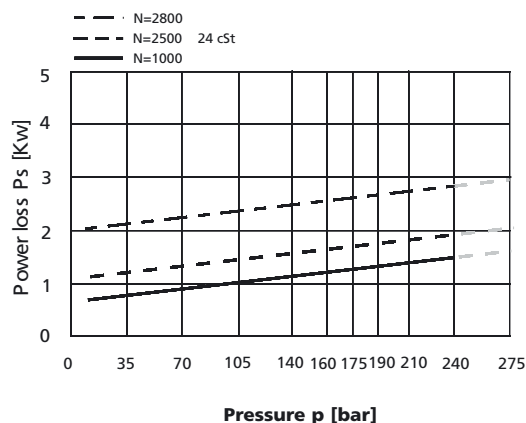
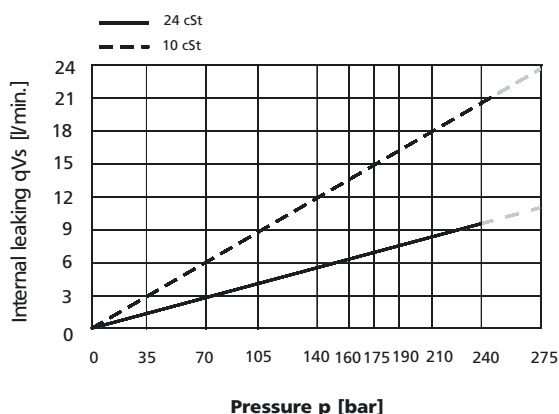
Theoretical Input Power at 200 Bar

To calculate the theoretical input power at other pressures and speeds, use the formula:

$$P(Kw) = \frac{Q(L/min.) \times P(Bar)}{600}$$

Where Q is the theoretical flow (upper left diagram) and P the operating pressure.

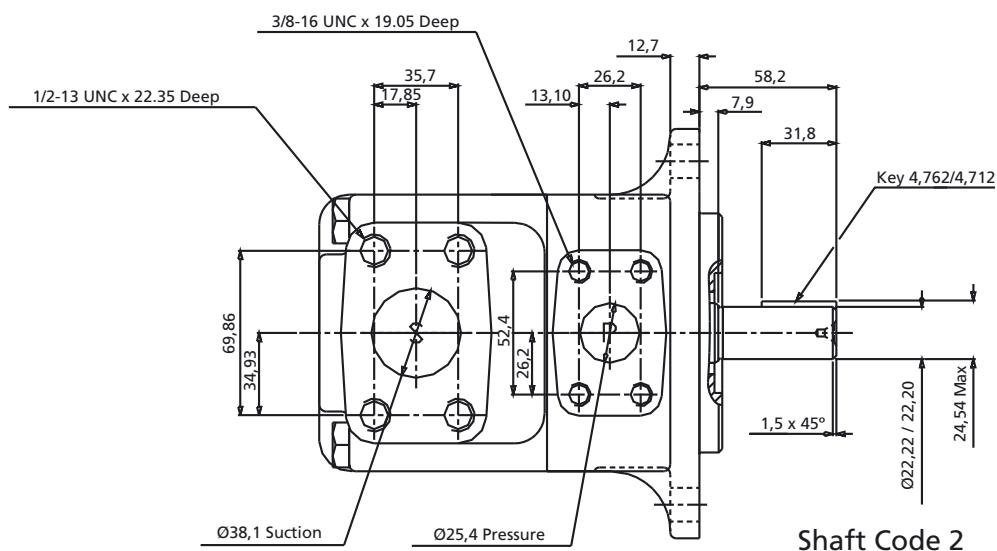
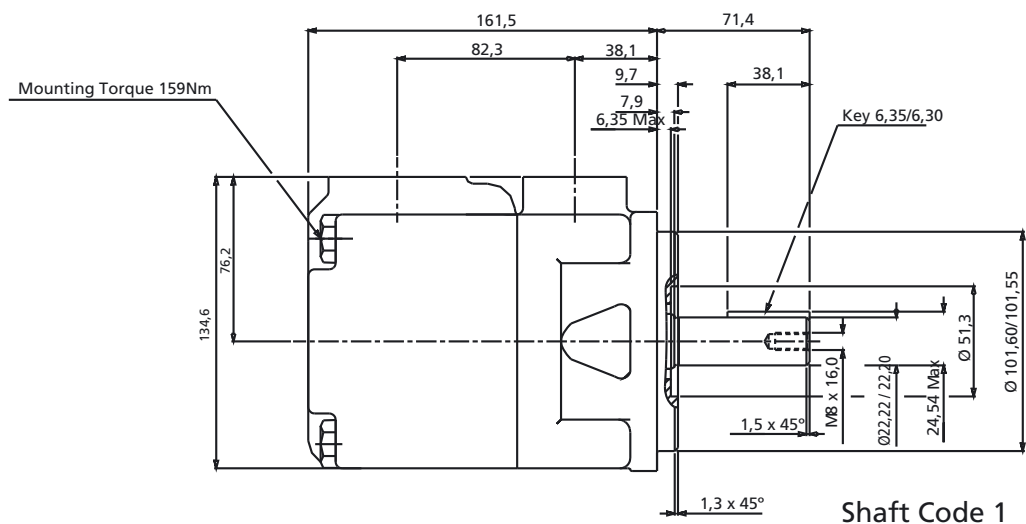
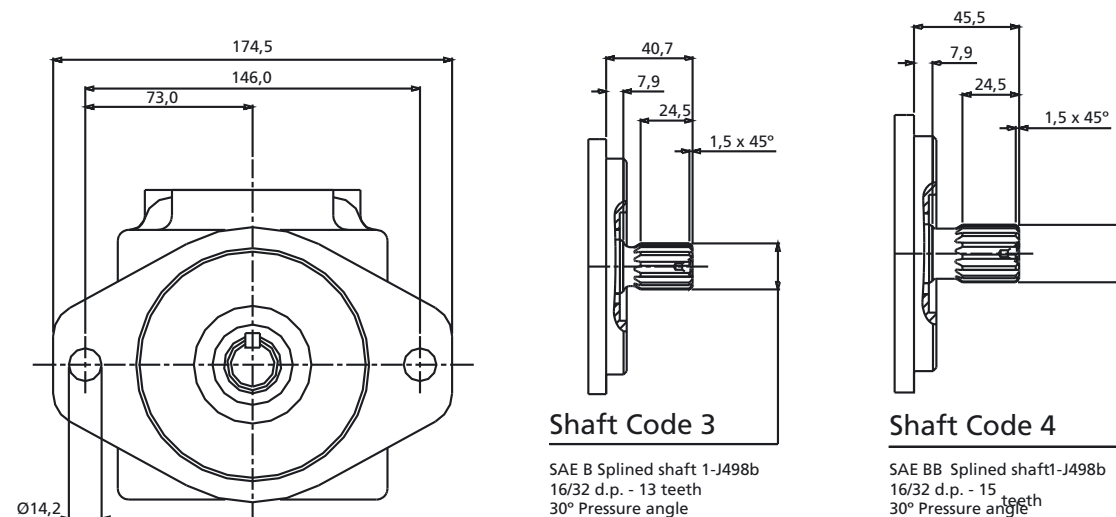
To calculate the real input power, add to the theoretical power the hydromechanical power losses (see diagram below).



Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50 % of theoretical flow

DIMENSIONS - SINGLE VANE PUMPS DT6C

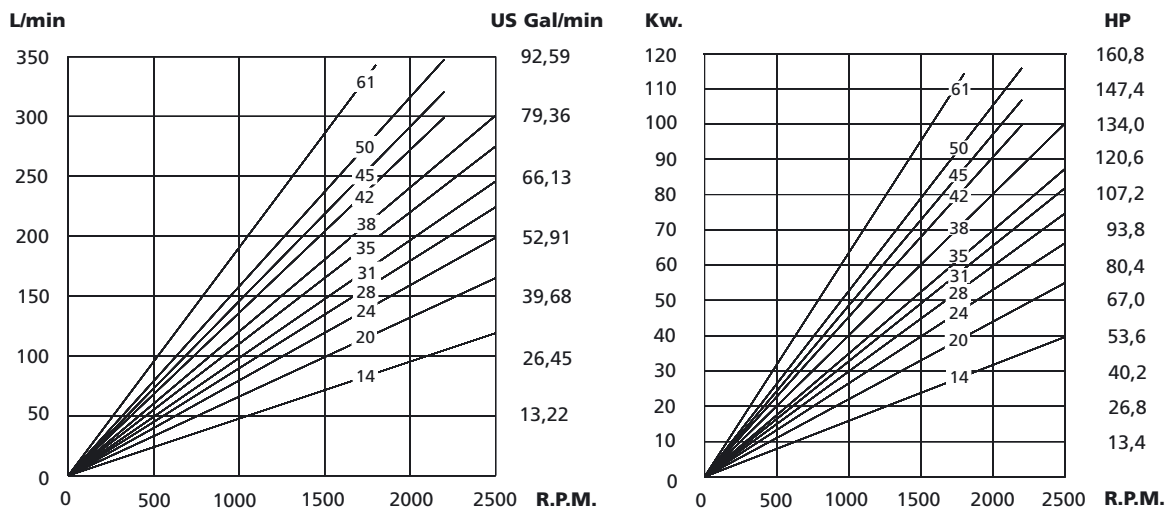
DIMENSIONS IN MILLIMETERS. 1" = 25,4 mm



DT6D OPERATING CHARACTERISTICS

FLOW													SPEED (rpm)		PRESSURE (bar)		WEIGHT							
													Min.	Máx.	Intermit.	Contin.	(Kgs.)							
Lts/min.at 1000 rpm													48	66	80	90	98	111	120	136	146	158	191	
Gal/min.at 1200 rpm													14	20	24	28	31	35	38	42	45	50	61	
													500	2500*	240	210	24							

* See page 41 for further information about speed & pressure.



Theoretical Flow (0 Bar)

To calculate the real flow at a given operating pressure, subtract the internal leakage value for this pressure (see diagram below) from the theoretical flow. (See diagram above).

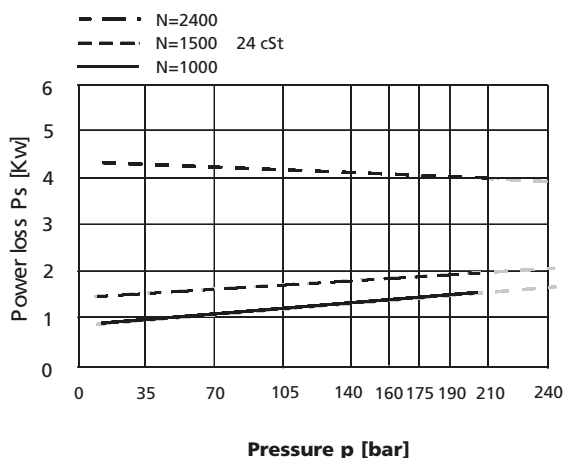
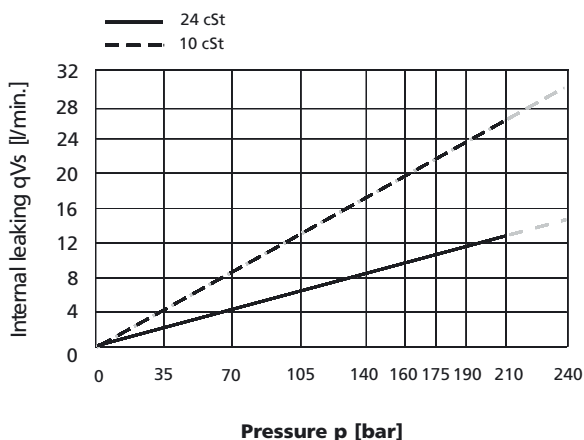
Theoretical Input Power at 200 Bar

To calculate the theoretical input power at other pressures and speeds, use the formula:

$$P(Kw) = \frac{Q(L/min.) \times P(Bar)}{600}$$

Where Q is the theoretical flow (upper left diagram) and P the operating pressure.

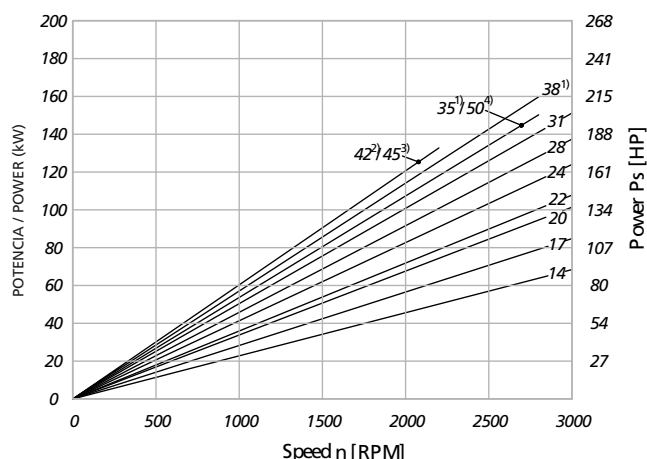
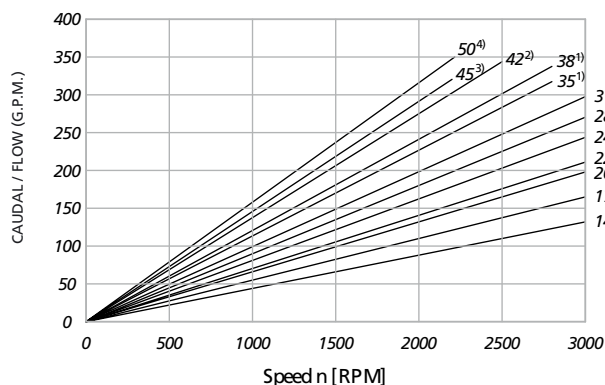
To calculate the real input power, add to the theoretical power the hydromechanical power losses (see diagram below).



DT7D OPERATING CHARACTERISTICS

FLOW														SPEED (rpm)		PRESSURE (bar)		WEIGHT (kgs)
Lts/min.at 1000 rpm	44	55	66	70	81	90	99	113	121	138	146	158	Min.	Max.	Intermit.	Contin.		
Gal/min.at 1200 rpm	14	17	20	22	24	28	31	35	38	42	45	50	600	3000*	300*	250	29	

* See page 41 for further information about speed & pressure.



Theoretical Flow (0 Bar)

To calculate the real flow at a given operating pressure, subtract the internal leakage value for this pressure (see diagram below) from the theoretical flow. (See diagram above).

- ¹B35 - B38 = 280 bar max. int. / 2800 rpm max.
- ²B42 = 260 bar max. int. / 2500 rpm max.
- ³O45 = 240 bar max. int. / 2200 rpm max.
- ⁴O50 = 210 bar max. int. / 2200 rpm max.

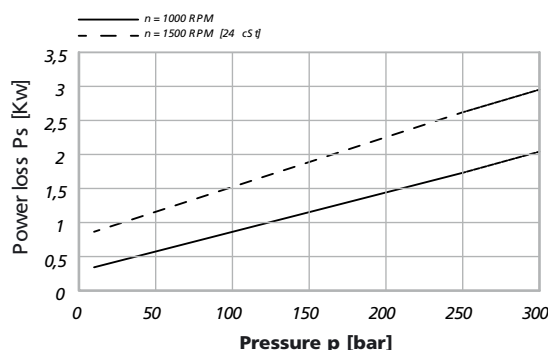
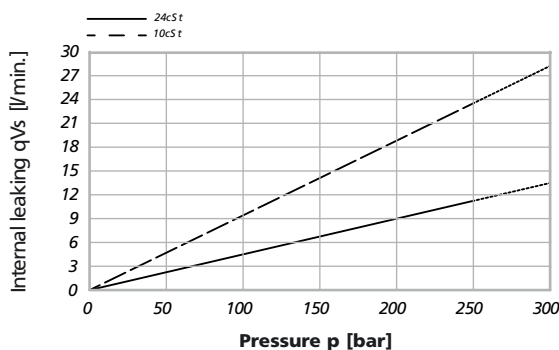
Theoretical Input Power at 300 Bar

To calculate the theoretical input power at other pressures and speeds, use the formula:

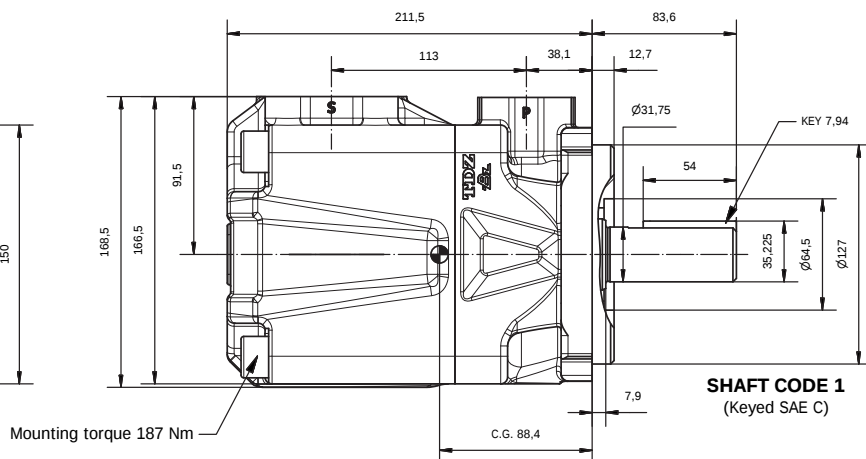
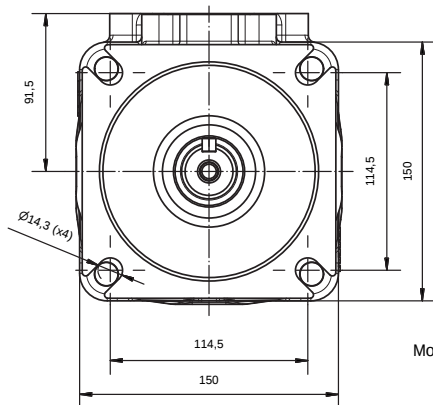
$$P(Kw) = \frac{Q(L/min.) \times P(Bar)}{600}$$

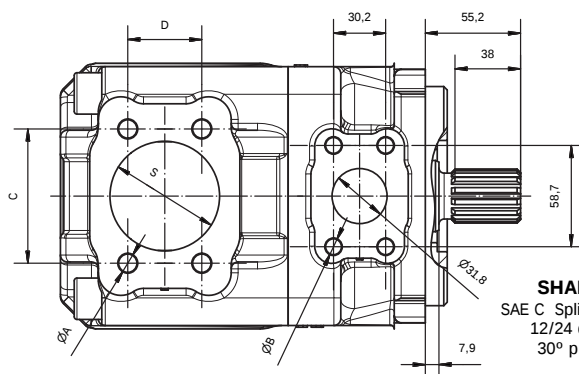
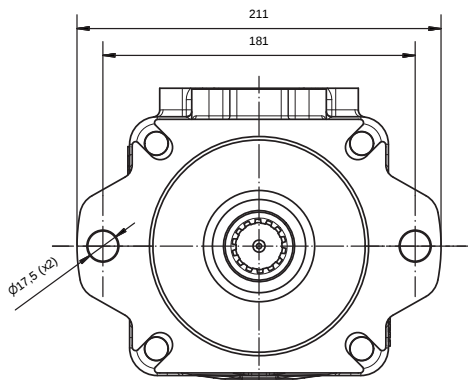
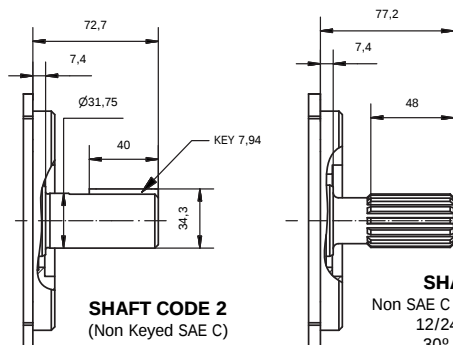
Where Q is the theoretical flow (upper left diagram) and P the operating pressure.

To calculate the real input power, add to the theoretical power the hydromechanical power losses (see diagram below).



Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50 % of theoretical flow

DIMENSIONS - SINGLE VANE PUMPS DT7D
DT7DSW

SHAFT CODE 1
(Keyed SAE C)

DT7DS

SHAFT CODE 3
SAE C Splined shaft 1-J498b
12/24 d.p. - 14 teeth
30° pressure angle

SHAFT CODE 2
(Non Keyed SAE C)

SHAFT CODE 4
Non SAE C Splined shaft 1-J498b
12/24 d.p. - 14 teeth
30° pressure angle

Model	T7DS			T7DSW		
Code	00	M0	Y0 ¹⁾	00	M0	Y0 ¹⁾
Ø A	1/2" - 13 UNC	M12	M12	1/2" - 13 UNC	M12	M12
Ø B	7/16" - 14 UNC	M12	M10	7/16" - 14 UNC	M12	M10
C	77,8			88,9		
D	42,9			50,8		
S	50,8			63,5		

¹⁾ 250 bar max. int.

Shaft torque limits [ml/rev. x bar]	
Shaft	Vi x p max.
1	43240
2	34590
3	61200
4	61200

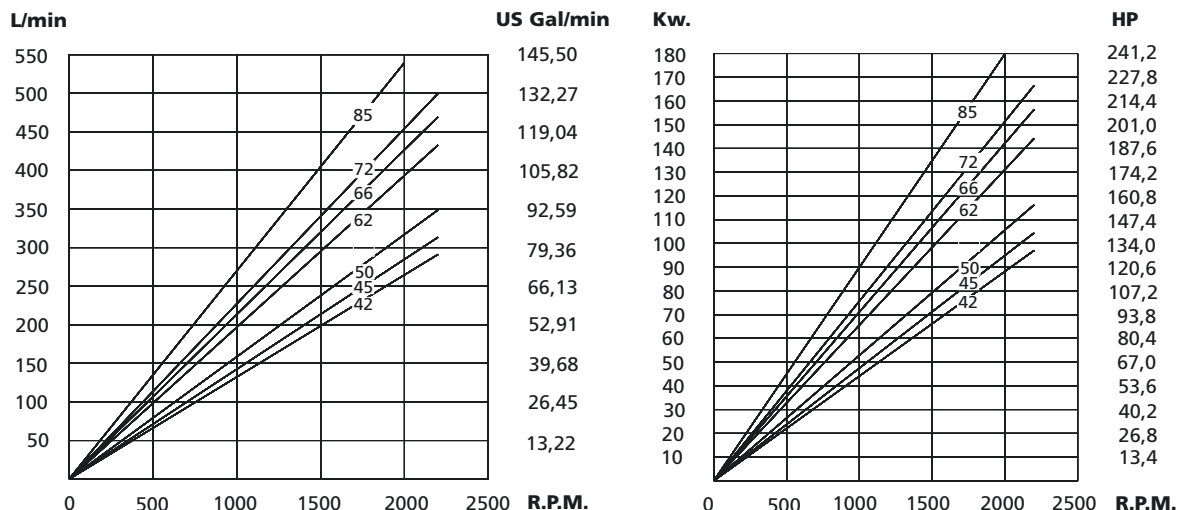
	Metric thread		UNC thread
T7DSW	M0	Y0 ¹⁾	00
T7DS	M0	Y0 ¹⁾	00

¹⁾ 250 bar max. int.

DT6E OPERATING CHARACTERISTICS

FLOW								SPEED (rpm)		PRESSURE (bar)		WEIGHT
Lts/min.at 1000 rpm	132	142	156	197	213	227	270	Min.	Máx.	Intermit.	Contin.	(Kgs.)
Gal/min.at 1200 rpm	42	45	50	62	66	72	85	500	2200*	240	210	44

* See page 41 for further information about speed & pressure.



Theoretical Flow (0 Bar)

To calculate the real flow at a given operating pressure, subtract the internal leakage value for this pressure (see diagram below) from the theoretical flow. (See diagram above).

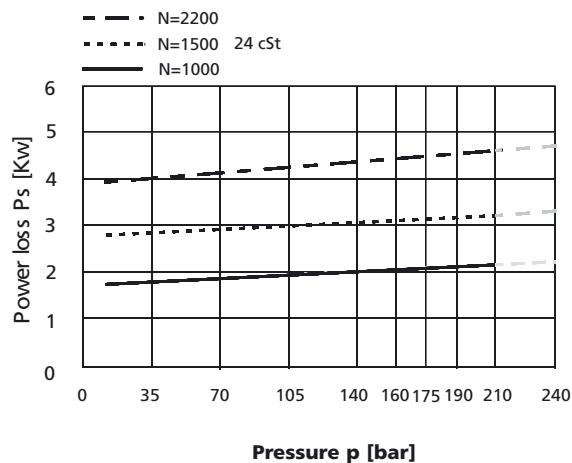
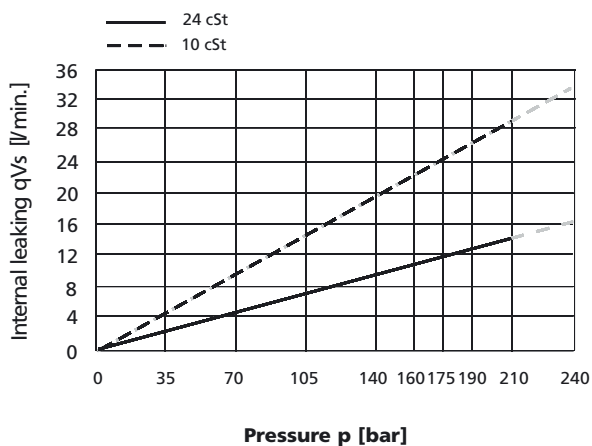
Theoretical Input Power at 200 Bar

To calculate the theoretical input power at other pressures and speeds, use the formula:

$$P(Kw) = \frac{Q(L/min.) \times P(Bar)}{600}$$

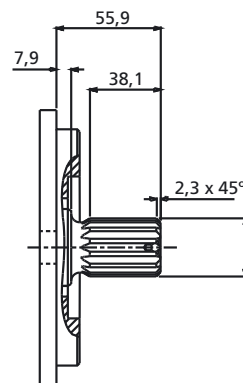
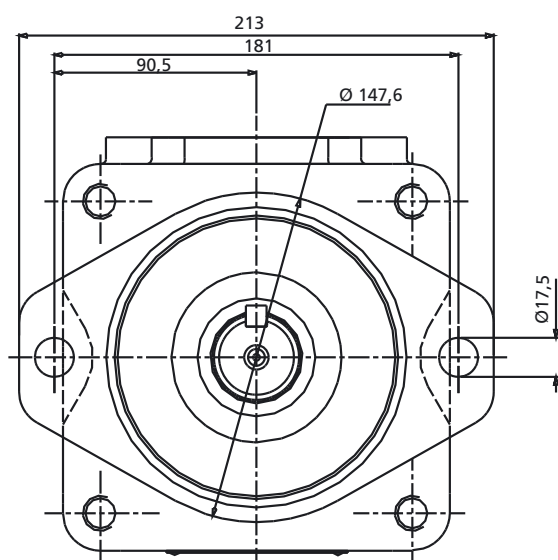
Where Q is the theoretical flow (upper left diagram) and P the operating pressure.

To calculate the real input power, add to the theoretical power the hydromechanical power losses (see diagram below).



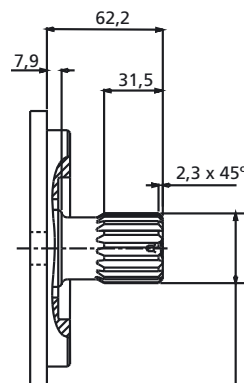
DIMENSIONS - SINGLE VANE PUMPS DT6E

DIMENSIONS IN MILLIMETERS. 1" = 25,4 mm



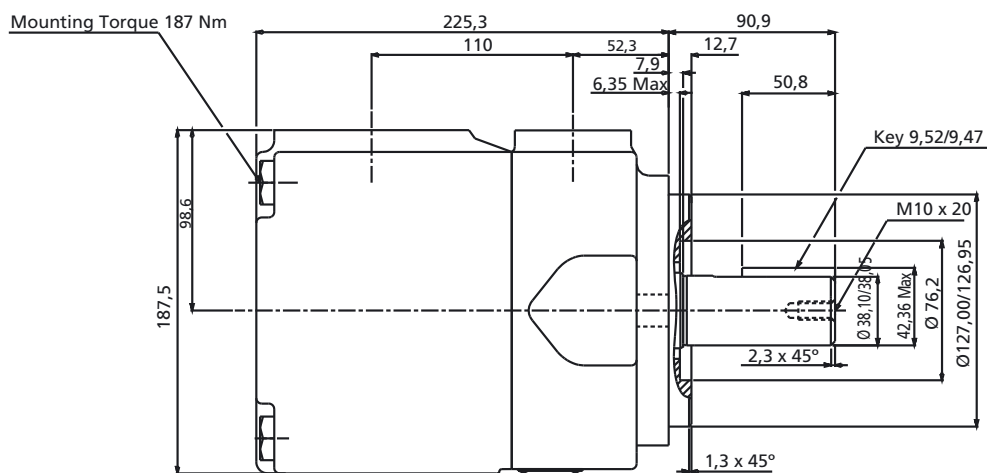
Shaft Code 3

SAE C Splined shaft 1-J498b
12/24 d.p. - 14 Teeth
30° Pressure angle



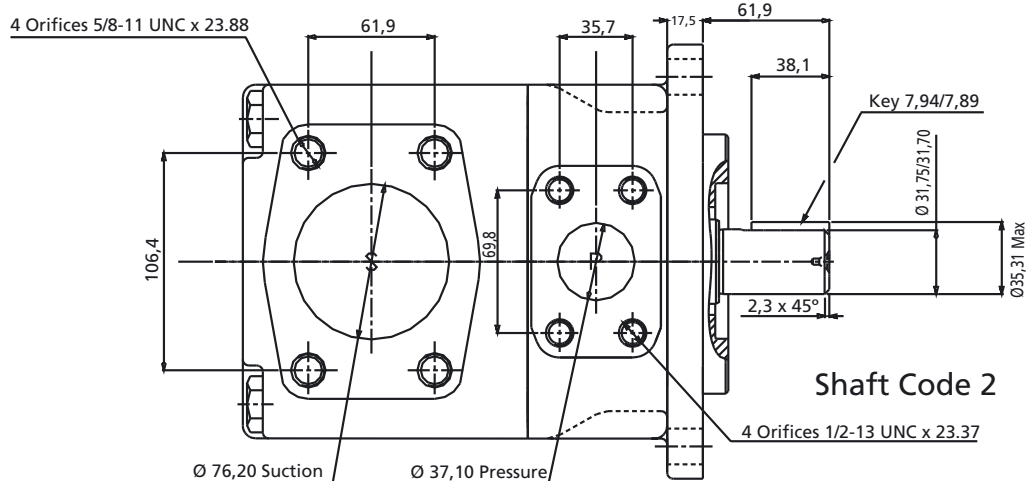
Shaft Code 4

SAE C-C Splined shaft
1-J498b 12/24 d.p. -
17 Teeth
30° Pressure angle



Shaft Code 1

SAE C-C



Shaft Code 2

4 Orifices 1/2-13 UNC x 23.37