

## V\* THRU DRIVE SINGLE VANE PUMPS ORDERING CODE

DATA SHEET

F3	VS	7T	C	60	D	86	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:**

**VS = 12 vane pump**, industrial use (very quiet), UNC threads

**VQ = 10 vanes and bronze plates pump**, mobile use, UNC threads

**3 - Pump model:** 4T, 6T and 7T.

**4 - Rear pump mounting:** With SAE mounting flange, 2-bolts.

**A:** SAE-A mounting flange

**B:** SAE-B mounting flange

**C:** SAE-C mounting flange

**5 - Flow:** In US Gallons per minute at 1200 rpm and 7 bar.

**6 - 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).

**7 - Shaft type:**

1: Parallel keyed

11: Splined

86: Heavy duty parallel keyed

**8 - Outlet position, (viewed from shaft):**

A: 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 (Counterclockwise from inlet)

**9- Rear flange positions, (viewed from the flange):**

SAE A flanges

A: 45° on the right (Clockwise)

B: 45° on the left (Counterclockwise)

SAE-B and SAE-C flanges:

A: In line with in-front flange

B: 90° rotated



## THRU DRIVE SINGLE VANE PUMPS CHARACTERISTICS

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	
VS4T VQ4T	32	10	4,5	600	2500 1800 (VS)	175	210	6,9 10,4 11,6 13,8 14,6 16,8 20,3	Ø64	Ø25,4	19,5
	40	12	5,7								
	45	14	5,7								
	55	17	5,8								
	60	19	5,8								
	67	21	6								
80	25	6,2	1500	125	150						
VS6T VQ6T	66	21	8,6	600	2400 1800 (VS)	175	210	16,8 20,3 24,3 27,4 29,3 33,3	Ø76	Ø31,8	29,5
	81	25	9								
	97	30	10								
	112	35	11,4								
	121	38	11,4								
	142	45	13,1								
VS7T VQ7T	138	42	15	600	2200 1800 (VS)	155	175	32,3 36,3 37,9 43,2 46,1 51,2 57,4	Ø89	Ø38,1	38
	148	45	15,7								
	162	50	14,3								
	180	57	17,9								
	193	60	18,6								
	214	67	22								
	214	67	22								
	240	75	26								

(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.

$$\text{Approx. output flow (Ltrs./min.)} = \text{Theoretical flow} \times \frac{\text{R.P.M}}{1000} - \text{Reduction} \frac{\text{Pressure (bar)}}{100}$$

(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:

$$\text{Real input power} = \text{Input power} \times \frac{\text{R.P.M}}{1000} \times \frac{\text{Pressure (bar)}}{100}$$

### REAR PUMP MOUNTING

The mounted pump to the V\*\*T\* should have the shaft shown below:

Model	Mounted pump shaft			
	DP splined	Teeth	Press angle	Flange
V**TA	16/32	9	30°	SAE-A
V**TB	16/32	13	30°	SAE-B
V**TC	12/24	14	30°	SAE-C

### TRANSMISSIBLE MAXIMUM TORQUE

The torque of the V\*\*T plus the torque of the rear pump, in pressure, shall be equal to or less than the below torques:

V*4T		V*6T		V*7T	
Shaft	Max. Torque Nm	Shaft	Max. Torque Nm	Shaft	Max. Torque Nm
1	313	1	392	1	588
11	313	11	568	11	803
86	392	86	588	86	803

### MAXIMUM TORQUE OF THE MOUNTED REAR PUMP

The torque of the mounted pump to the V\*\*T rear pump, in pressure, shall be equal to or less than the indicated torques on next page.

**REAR FLANGE MOUNTING OF THE V\*\*T\*  
THRU DRIVE PUMP DIMENSIONS**

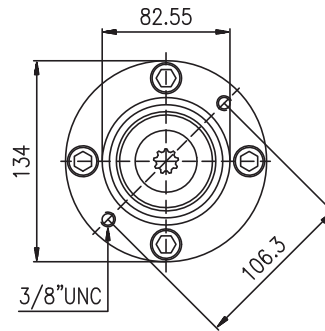
**DATA SHEET**

DIMENSIONS IN MILLIMETERS 1" = 25.4 mm

Rear Flange (connection)	Max Torque Nm
A	130
B	315
C	440 (V*6TC) 700 (V*7TC)

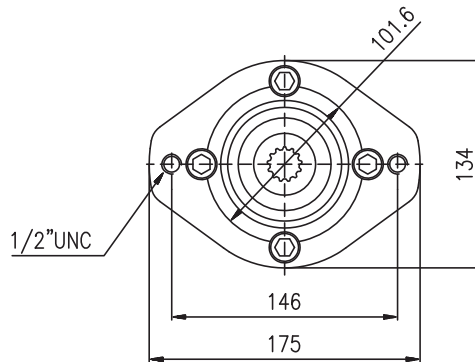
**V\*4TA, V\*6TA & V\*7TA**

Torque for screw 65 Nm.



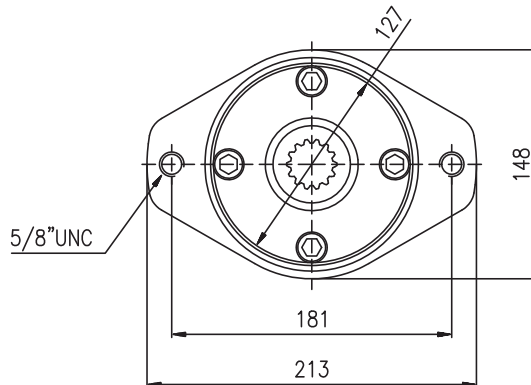
**V\*4TB, V\*6TB & V\*7TB**

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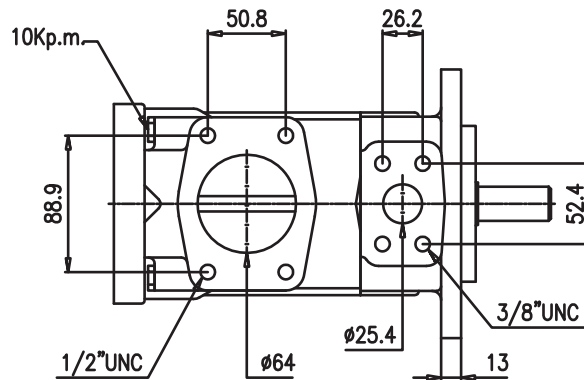
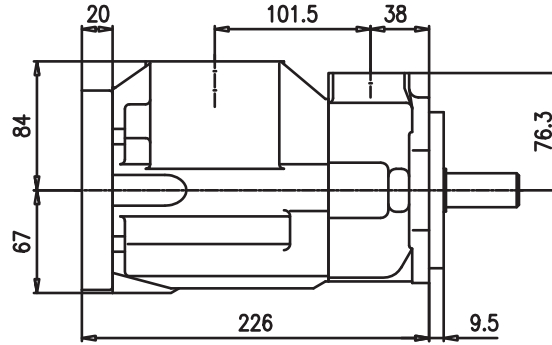
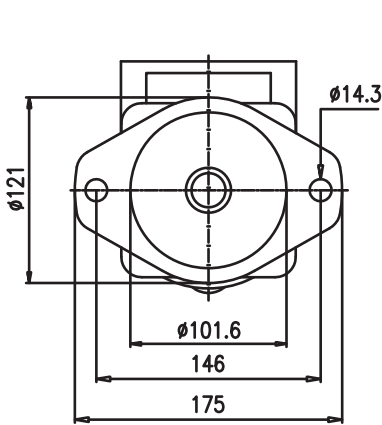
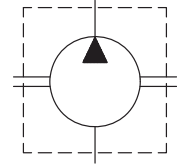
**V\*6TC & V\*7TC**

Torque for screw 65 Nm.

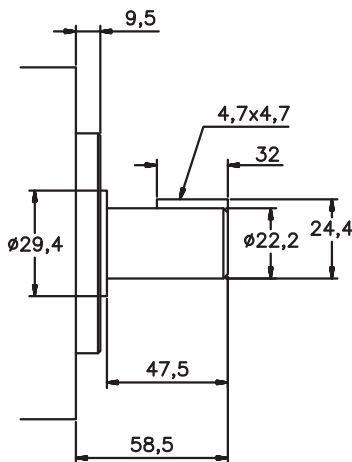


**THRU DRIVE PUMPS VS4T & VQ4T**

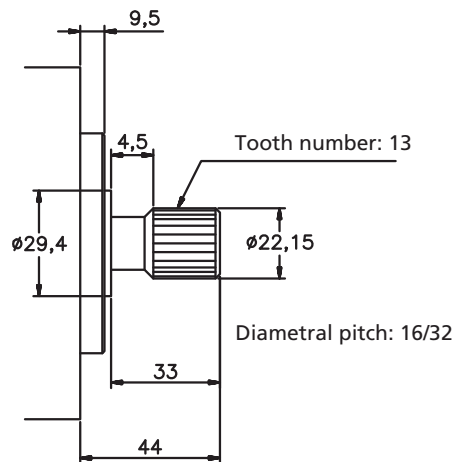
DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



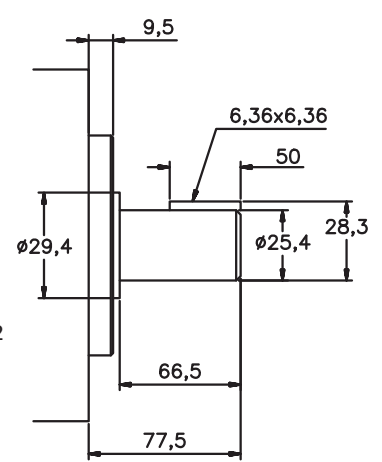
**N°1 Shaft**



**N°11 Shaft**



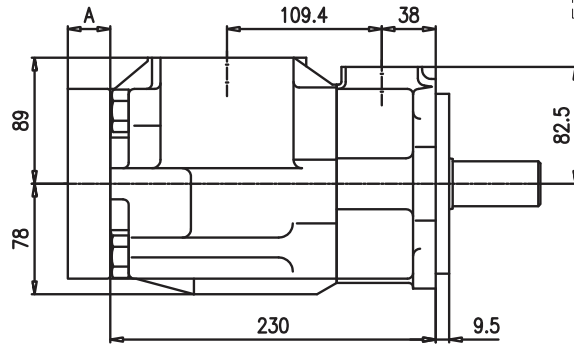
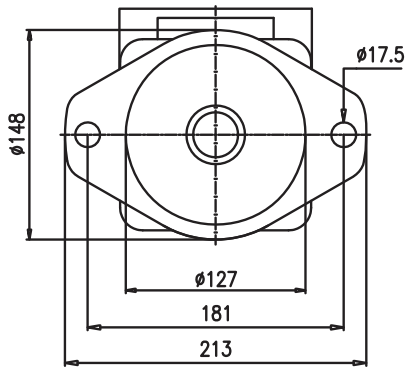
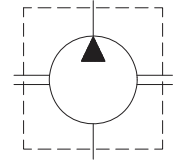
**N°86 Shaft**



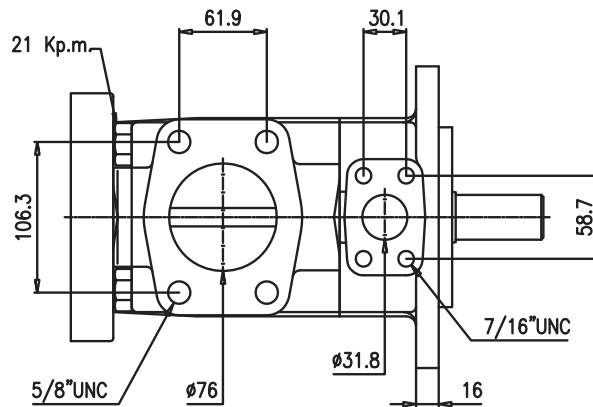
Enquire about other types of shafts

**THRU DRIVE PUMPS VS6T & VQ6T**

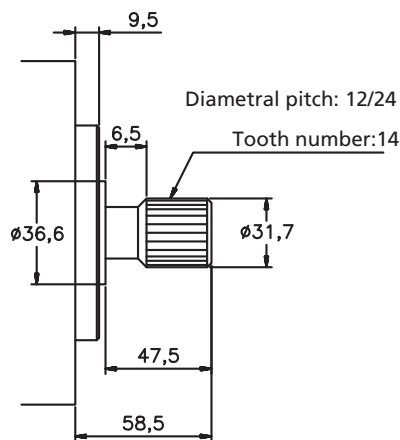
DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



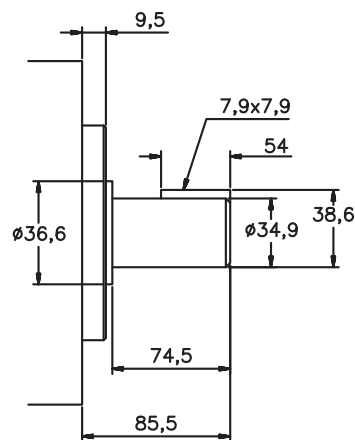
Model	A
V*6TA	20
V*6TB	30
V*6TC	38



**N°11 Shaft**



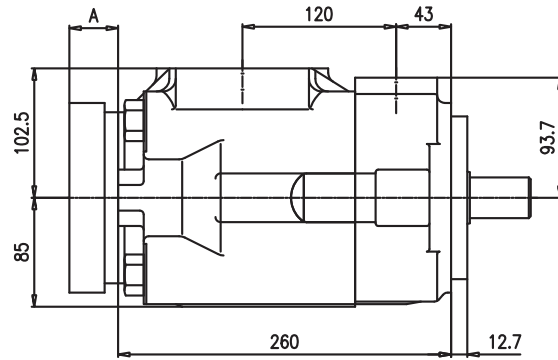
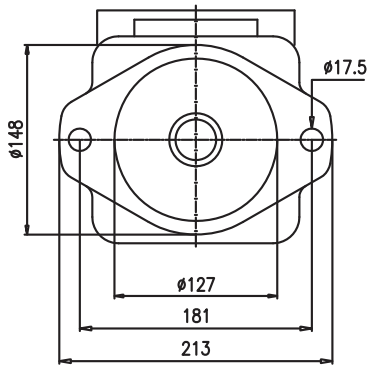
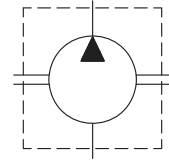
**N°86 Shaft**



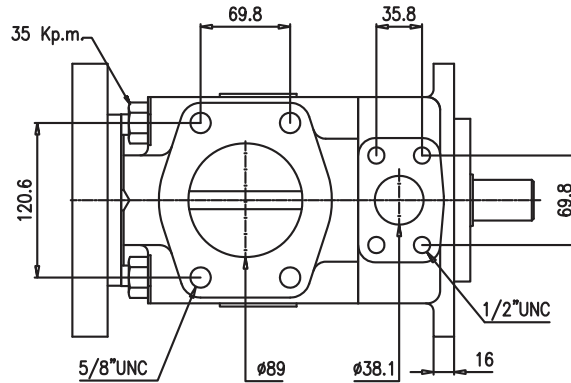
Enquire about other types of shafts

**THRU DRIVE PUMPS VS7T & VQ7T**

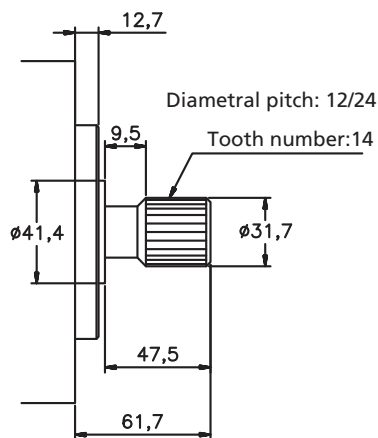
DIMENSIONS IN MILLIMETERS 1" = 25.4 mm



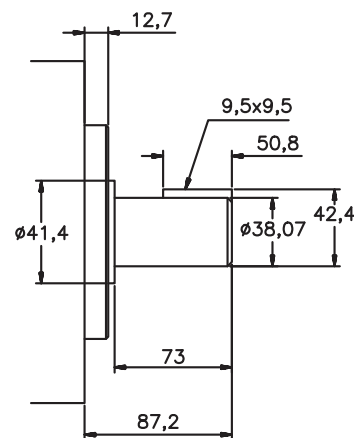
Model	A
V*7TA	20
V*7TB	30
V*7TC	38



**N°11 Shaft**



**N°86 Shaft**



Enquire about other types of shafts