

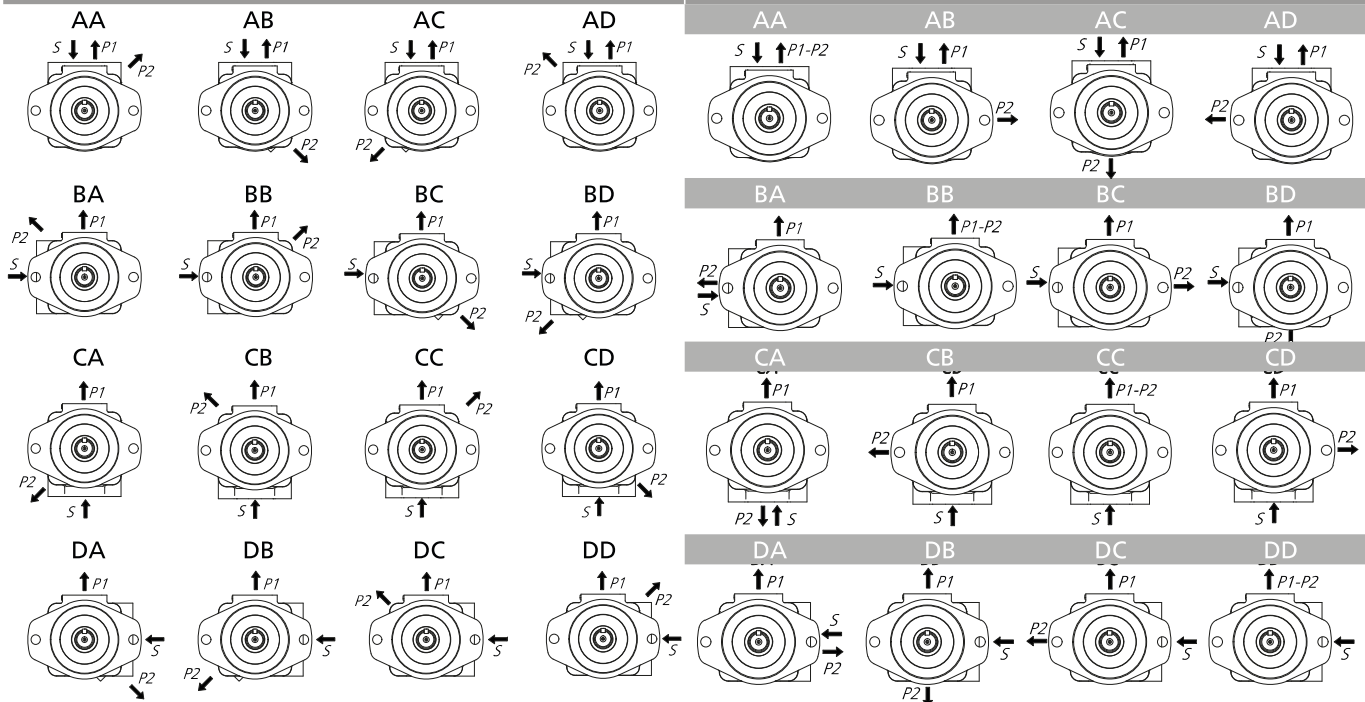
## ORDERING CODE

	F3	VS	43	21	8	D	86	A	A
<b>F3</b> - Special seals for fire-resistant fluids. Omit if not required									
<b>VC</b> = 12 Vane pump Medium pressure application									
<b>VS</b> = 12 Vane pump Except the cover end cartridge of the VS*3 pump, industrial uses (very quiet), UNC threads.									
<b>VQ</b> = 10 Vanes & bronze plates Mobile use, UNC threads									
<b>PUMP MODEL</b> 2010,2020,43,63,64,73,74, 76									
<b>PUMP FLOW AT SHAFT SIDE</b> US Gallons per minute @1200 rpm and 7 Bar (See flow chart)									
<b>PUMP FLOW AT COVER SIDE</b> US Gallons per minute @1200 rpm and 7 Bar (See flow chart)									
<b>REAR FLANGE POSITION</b> A: 45° Clockwise B: 135° Clockwise C: 135° Counterclockwise D: 45° Counterclockwise Viewed from shaft end of pump									
<b>PORTING COMBINATION</b> A: Outlet in line with inlet. B: 90° Clockwise from inlet. C: 180° From inlet. D: 90° Counterclockwise from inlet. Viewed from shaft end of pump									
<b>SHAFT TYPE</b> 1 - Parallel keyed 11 - Splined 86 - Heavy duty parallel keyed									
<b>ROTATION</b> D = Clockwise rotation. Y = Counterclockwise Viewed from shaft end of pump									

### PORTING COMBINATION

2010 / 2020 / 43 / 63 / 64 / 73 / 74

SIZE 76 ONLY



## CHARACTERISTICS

TYPE	SHAFT END							COVER END							WEIGHT KG					
	FLOW			SPEED (rpm)	PRESSURE (bar)			NOMI- NAL POWER	FLOW			SPEED (rpm)	PRESSURE (bar)			NOMI- NAL POWER				
	L @ 1000RPM	GAL. @ 1200RPM	Reducc. (1)		MAX	CONT	INTERMIT		(2)	L @ 1000RPM	GAL. @ 1200RPM		Reducc. (1)	MAX			CONT	INTERMIT	(2)	
MODEL																				
VC2010	16	5	2	3400	155	180	3,2	3	1	0,8	3000	155	180	0,7	13.6					
	20	6	2,84				3,9							4		0,9	0,7			
	23	7	4	3000			4,4	7	2	0,9				1,4						
	27	8	4,2	2800			5,1	10	3	1,2				2,1						
	30	9	4,5	2500			5,6	13	4	1,6				2,7						
	34	10	4,8	2400			6,1	16	5	1,7				3,2						
	36	11					6,5	20	6	1,8				3,7						
	39	12	5,4				7,5	23	7	1,9				4,2						
VC2020	16	5	2	3400	155	180	3,2	16	5	2	2800	155	180	3,2	15.9					
	20	6	2,84				3,9							20		6	2,8	3,9		
	23	7	4	3000			4,4	23	7	4				4,4						
	27	8	4,2	2800			5,1	27	8	4,2				5,1						
	30	9	4,5	2500			5,6	30	9	4,5				5,6						
	34	10	4,8	2400			6,1	34	10	4,8				6,1						
	36	11					6,5	36	11	4,8				6,5						
	39	12	5,4				7,5	39	12	5,4				7,5						
VQ43 VS43	32	10	4,5	2500	175	210	8,1	42	13	6	2500	175	210	1,9	21					
	40	12	5,7				1800							11,6		27	8	2,8	6,6	
	45	14		(VS)			13,8	29	9	3,5				6,9						
	55	17	5,8	1500			15,2	36	11	4,3				7,3						
	60	19					16,8	39	12	4,3				7,4						
	67	21	6				20,3	46	14					7,6						
	80	25	6,2				16,8	8	2	0,9				1,9						
	86	21	8,6				20,3	18	5	2,1				4						
VQ63 VS63	81	25	9	2500	175	210	24,3	27	8	2,8	2500	175	210	6,6	31					
	97	30	10				1800							27,3		29	9	3,5	6,9	
	112	35	11,4	(VS)			29,3	36	11					7,3						
	121	38					33,3	39	12	4,3				7,4						
	142	45	13,1				46	14		7,6										
	66	21	8,6				16,8	32	10	4,5				6,9						
	81	25	9				20,3	40	12	5,7				10,4						
	97	30	10				24,3	45	14					11,6						
VQ64 VS64	112	35	11,4	1800	175	210	27,3	55	17	5,8	1800	175	210	13,8	33					
	121	38					(VS)							29,3		60	19	5,8	15,2	
	142	45	13,1				33,3	67	21	6				16,8						
	66	21	8,6				80	25	6,2	1500				125		150	20,3			
	81	25	9																	1,9
	97	30	10																	4
	112	35	11,4																	6,6
	121	38																		6,9
VQ73 VS73	138	42	15	2200	155	175	32,3	8	2	0,9	1800	175	210	1,9	46					
	148	45	15,7				36,3							18		5	2,1	4		
	162	50	14,3	1800			37,9	27	8	2,8				6,6						
	180	57	17,9	(VS)			43,2	29	9	3,5				6,9						
	193	60	18,6				46,1	36	11					7,3						
	214	67	22				51,2	39	12	4,3				7,4						
	240	75	26				57,4	46	14					7,6						
	138	42	15				32,3	32	10	4,5				6,9						
VQ74 VS74	148	45	15,7	2200	155	175	36,3	40	12	5,7	1800	175	210	10,4	45					
	162	50	14,3				37,9							45		14		11,6		
	180	57	17,9	1800			43,2	55	17	5,8				13,8						
	193	60	18,6	(VS)			46,1	60	19					15,2						
	214	67	22				51,2	67	21	6				16,8						
	240	75	26				57,4	80	25	6,2				20,3						
	138	42	15				32,3	66	21	8,6				16,8						
	148	45	15,7				36,3	81	25	9				20,3						
VQ76 VS76	162	50	14,3	2200	155	175	37,9	97	30	10	1800	175	210	24,3	55					
	180	57	17,9				43,2							112		35	11,4	27,4		
	193	60	18,6	(VS)			46,1	121	38					29,3						
	214	67	22				51,2	142	45	13,1										
	240	75	26				57,4													

(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.

## VS-74 / VQ-74 DIMENSIONS

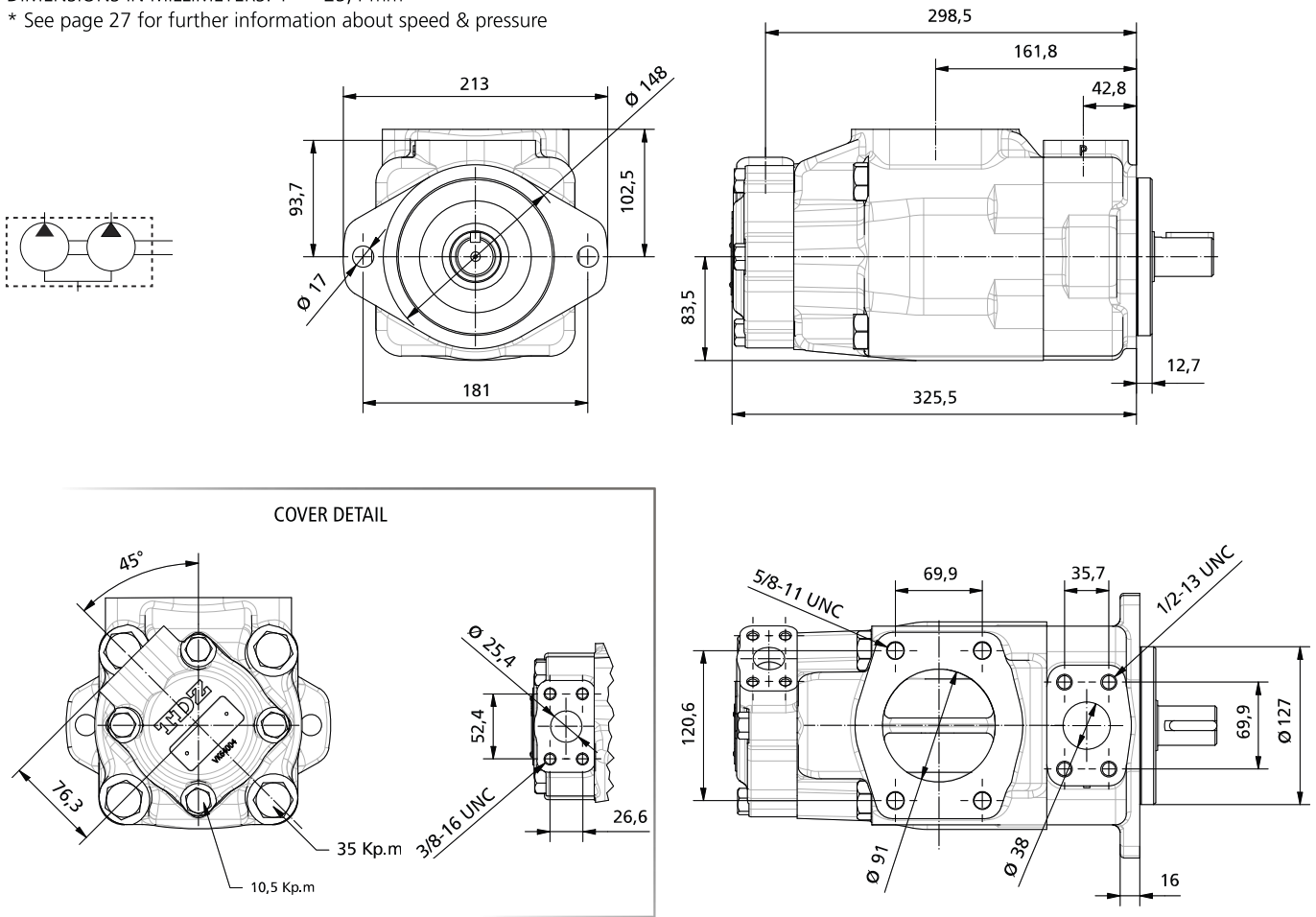
DATA SHEET

SHAFT END FLOW								SPEED(rpm)		PRESSURE (bar)		CONNECTION	
Lts/min.at 1000 rpm	138	148	162	180	193	214	240	Mín.	Máx.*	Contin.*	Intermit.*	Inlet	Outlet
Gal/min.at1200 rpm	42	45	50	57	60	67	75	600	2200	155	175	Ø3.5"	Ø1.5"

COVER END FLOW								SPEED(rpm)		PRESSURE (bar)		CONNECTION	
Lts/min.at 1000 rpm	32	40	45	55	60	67	80	Mín.	Máx.*	Contin.*	Intermit.*	Inlet	Outlet
Gal/min.at1200 rpm	10	12	14	17	19	21	25	600	2500	175	210	Ø3.5"	Ø1"

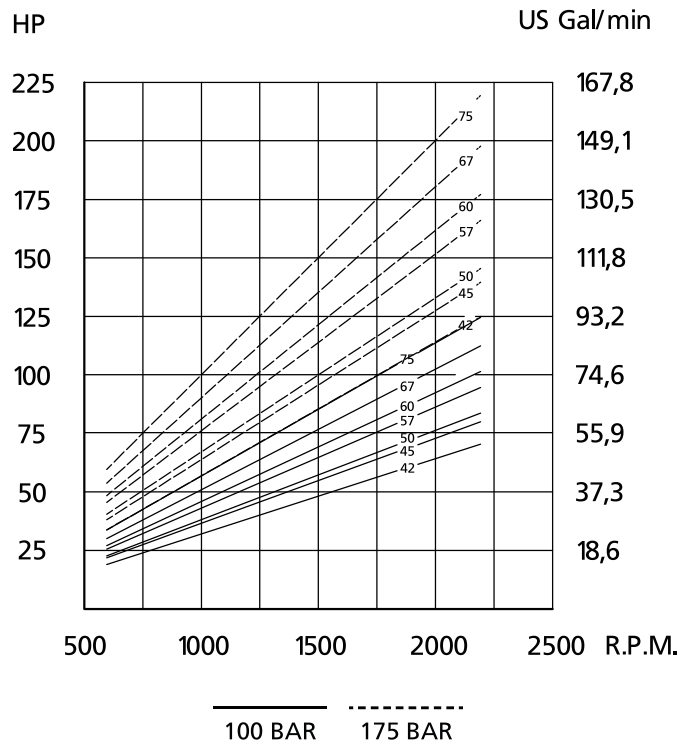
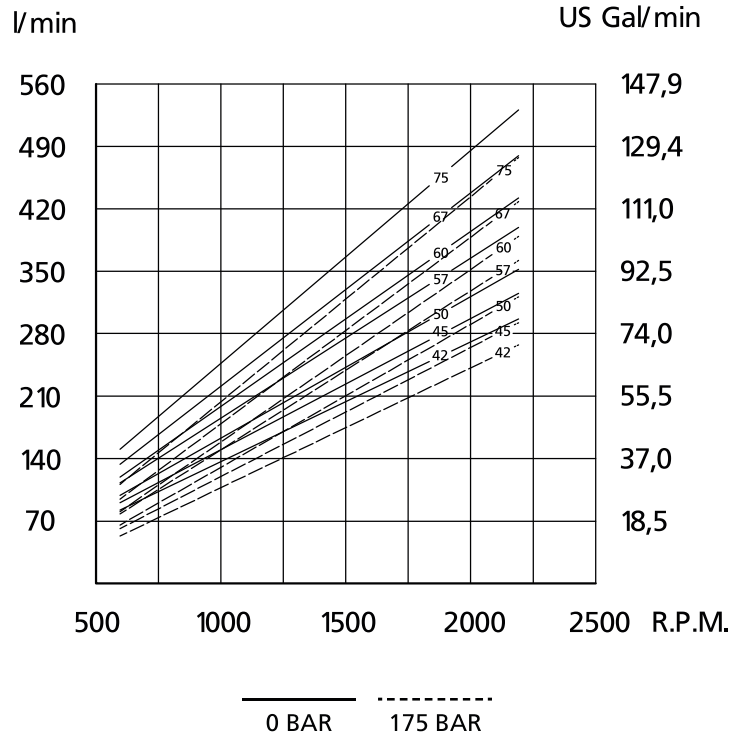
DIMENSIONS IN MILLIMETERS. 1" = 25,4 mm  
 \* See page 27 for further information about speed & pressure



ADDITIONAL SHAFT CODES: SEE ON PAGES 114-118

**VS-45 / VQ-45**

**FLOW AND INPUT POWER DIAGRAMS**



**VS-25 / VQ-25**

**FLOW AND INPUT POWER DIAGRAMS**

