

VQ Series vane Pumps

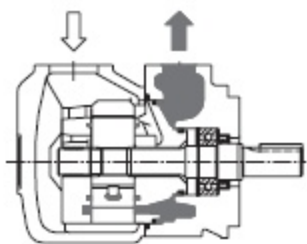
Product Introduction

The high-pressure and high-performance Intra-vane pumps for Mobile Equipment.

Features:

1. To adopt balanced hydraulic for the struction of Intra-vane and ten-Vane design,higher pressure,top to 21MPa.
2. To adopt floating structure for side plate,it will do a compensation for end-face clearance by automatic,so that even the pump under high pressure it can maintain a high volumetric efficiency.
3. The side plate is made of dual-metal material,it improved the seizure resistance,and so that the life of pump will be longer

VQ Series-single pumps



Hydraulic Sign



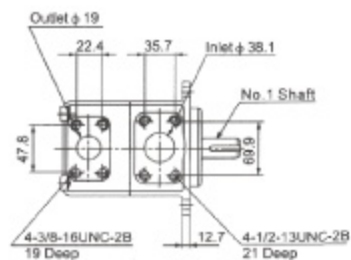
(F3-)	25VQ	19	A	(F)	-1	A	30	R		
Note	Series	▲Flow code	Port connectors	Installation type	shaft type	Outlet Positions	Design number	Rotation		
No-marking Petroleum series oil emulsification fluid water glycol-fluid F3: phosphate ester fluid	20VQ	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	A-SAE 4-bolt flange	No-marking Flange Mounting F-Foot Mounting	1-Str key 151-Spline	(Viewed from cover end of pump) A- Opposite inlet port B-90° CCW from inlet C- inline with inlet D-90° CW from inlet	30	(Views from shaft end of pump) R-right hand for clockwise L-left hand for counter-clockwise		
	25VQ	10, 12, 14, 15, 17, 19, 21, 25			1- Str key 86-HD str key 11-Spline		20			
	35VQ	21, 25, 30, 32, 35, 38, 45								
	45VQ	42, 45, 50, 57, 60, 66, 75								

USgpm Flow (USgpm) at 1200r/min and 0.69MPa

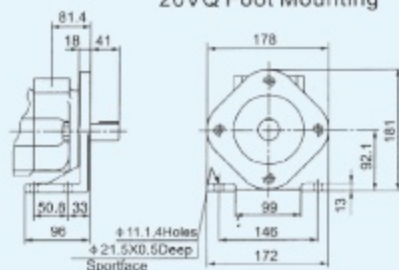
Specifications

Series	Flow code (USgpm)	Grometric displacement mL/r (in ³ /r)	Max. operating pressure (Mpa)	Max.speed (r/min)	Min.speed (r/min)
20VQ	2	7(0.43)	21	2700	600
	3	10(0.61)			
	4	13(0.79)			
	5	16.5(1.01)			
	6	19(1.16)			
	7	22(1.40)			
	8	27(1.67)			
	9	30(1.85)			
	10	31.5(1.92)			
	11	35(2.14)			
	12	40(2.44)	16		
	14	45(2.78)	14		
25VQ	10	32(1.95)	21	2700	600
	12	38(2.32)		2500	
	14	43.5(2.65)			
	15	47(2.89)			
	17	54(3.30)			
	19	60(3.66)			
	21	67(4.13)			
	25	79.2(4.83)			
35VQ	21	67(4.13)	21	2500	600
	25	81(4.94)			
	30	95(5.80)			
	32	101(6.16)			
	35	109(6.65)			
	38	119(7.26)		2400	
	45	143(8.72)	14		
45VQ	42	134(8.17)	17.5	2400	600
	45	143(8.72)		2200	
	50	159(9.70)			
	57	181(11.05)			
	60	189(11.53)			
	66	210(12.81)			
	75	237(14.46)	14		

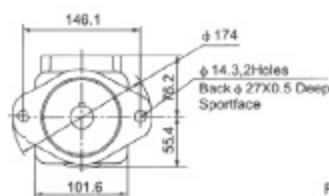
20VQ Flange Mounting



20VQ Foot Mounting

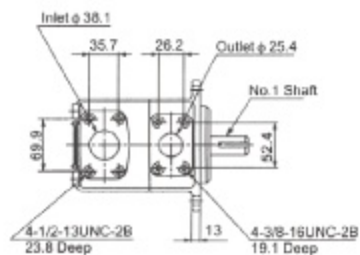


For other dimensions, refer to "Flange Mounting" type.

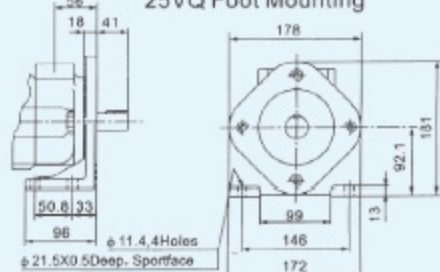


For other shaft dimensions, refer to page 68

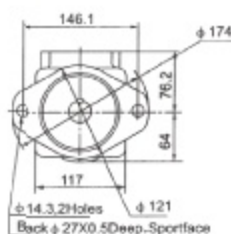
25VQ Flange Mounting



25VQ Foot Mounting

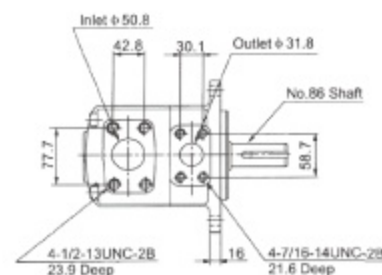


For other dimensions, refer to "Flange Mounting" type.

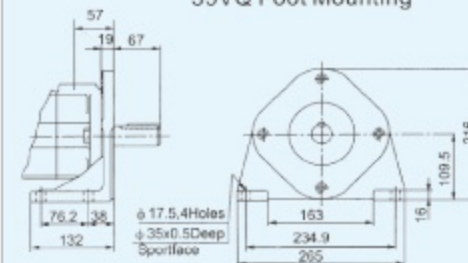


For other shaft dimensions, refer to page 68

35VQ Flange Mounting



35VQ Foot Mounting

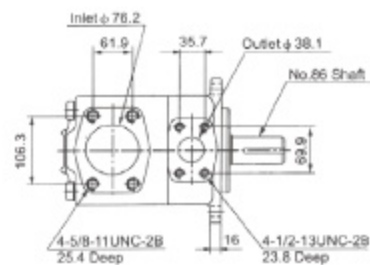


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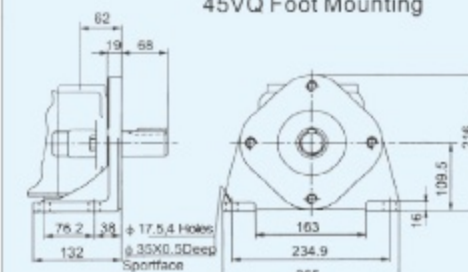


For other shaft dimensions, refer to page 68

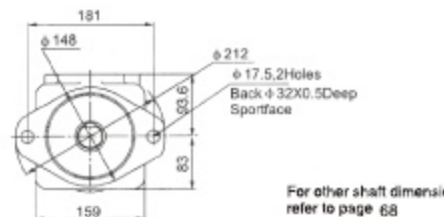
45VQ Flange Mounting



45VQ Foot Mounting

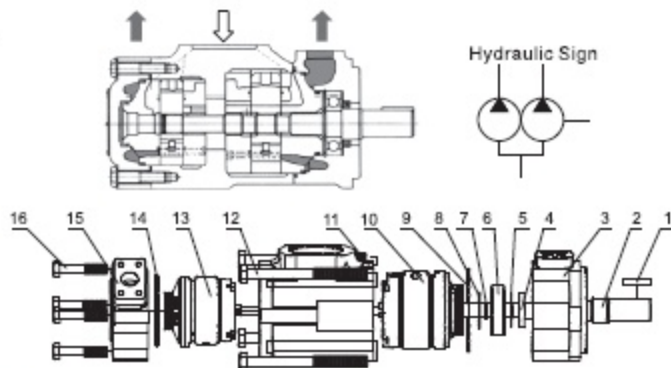


For other dimensions, refer to "Flange Mounting" type.



For other shaft dimensions, refer to page 68

VQ Series double Pumps



NO.	Part	Qty	NO.	Part	Qty	NO.	Part	Qty
1	Straight Key	1	7	Oil Clip For Shaft	1	13	Rear Cartridge	1
2	Shaft	1	8	Pile Type Retainer	1	14	O Ring	1
3	Front Cover	1	9	O Ring	1	15	Rear Cartridge	1
4	Shaft Seal	1	10	Front Cartridge	1	16	Hexagon Headed Bolt	4
5	Gasket	1	11	Body	1			
6	Ball Bearing	1	12	Hexagon Headed Bolt	4			

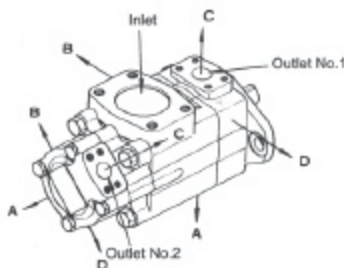
Model Designation

(F3-)	3525VQ	38	A	17	(F)	-1	AB	20	R
Note	Series	▲Flow-shaft end Pump	Port connectors	▲Flow-cover end Pump	Installation type	shaft type	Outlet Positions	Design number	Rotation
No-marking Petroleum series oil emulsification fluid water glycol-fluid F3, phosphate ester fluid	2520VQ	10, 12, 14, 15, 17, 19, 21, 25	A-SAE 4-bolt flange	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	No-marking Flange Mounting F-Foot Mounting	1-Str key 86-HD str key 11-Spline	See below	20	(Views from shaft end of pump) R-right hand for clockwise L-left hand for counter- clockwise
	3520VQ	21, 25, 30, 32, 35, 38, 45		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14					
	3525VQ	21, 25, 30, 32, 35, 38, 45		10, 12, 14, 15, 17, 19, 21, 25					
	4520VQ	42, 45, 50, 57, 60, 66, 75		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14					
	4525VQ	42, 45, 50, 57, 60, 66, 75		10, 12, 14, 15, 17, 19, 21, 25					
	4535VQ	42, 45, 50, 57, 60, 66, 75		21, 25, 30, 32, 35, 38, 45					

USgpm: Flow (USgpm) at 1200r/min and 0.69MPa

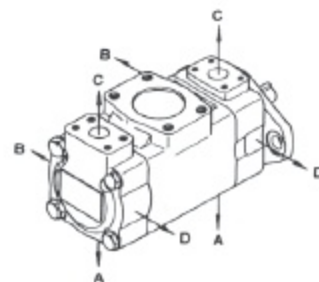
Outlet Positions(Viewed from cover end of pump)

Outlet positions	All series except 4535VQ	4535VQ
NO.1 outlet opposite inlet	AA NO.2 outlet 135° CCW from inlet	NO.2 outlet opposite inlet
	AB NO.2 outlet 45° CCW from inlet	NO.2 outlet 90° CCW from inlet
	AC NO.2 outlet 45° CW from inlet	NO.2 outlet inline with inlet
	AD NO.2 outlet 135° CW from inlet	NO.2 outlet 90° CW from inlet
NO.1 outlet 90° CCW from inlet	BA NO.2 outlet 135° CCW from inlet	NO.2 outlet opposite inlet
	BB NO.2 outlet 45° CCW from inlet	NO.2 outlet 90° CCW from inlet
	BC NO.2 outlet 45° CW from inlet	NO.2 outlet inline with inlet
	BD NO.2 outlet 135° CW from inlet	NO.2 outlet 90° CW from inlet



Outlet Positions(Viewed from cover end of pump)

positions	All series except 4535VQ	4535VQ
NO.1 outlet inline with inlet	CA NO.2 outlet 135° CCW from inlet	NO.2 outlet opposite inlet
	CB NO.2 outlet 45° CCW from inlet	NO.2 outlet 90° CCW from inlet
	CC NO.2 outlet 45° CW from inlet	NO.2 outlet inline with inlet
	CD NO.2 outlet 135° CW from inlet	NO.2 outlet 90° CW from inlet
NO.1 outlet 90° CW from inlet	DA NO.2 outlet 135° CCW from inlet	NO.2 outlet opposite inlet
	DB NO.2 outlet 45° CCW from inlet	NO.2 outlet 90° CCW from inlet
	DC NO.2 outlet 45° CW from inlet	NO.2 outlet inline with inlet
	DD NO.2 outlet 135° CW from inlet	NO.2 outlet 90° CW from inlet

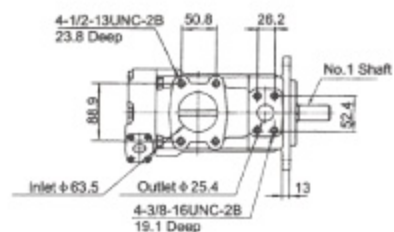


Product Weight

Product name	Series	Weight Kg	Product name	Series	Weight Kg	Product name	Series	Weight Kg
Cartridge	20V, 20VQ, SQP1	3.0	Single pump	20V, 20VQ	13.0	Single pump	SQP1	16.7
	25V, 25VQ, SQP2	4.0		25V, 25VQ	15.0		SQP2	28.0
	35V, 35VQ, SQP3	7.0		35V, 35VQ	24.0		SQP3	38.0
	45V, 45VQ, SQP4	11.0		45V, 45VQ	37.0		SQP4	65.0
	T6C, T6CC	4.1		T6C	15.7		PV2R1	9.0
	T6D	8.3		T6D	24.0		PV2R2	17.0
	T6E	12.8		T6E	43.0		PV2R3	33.0

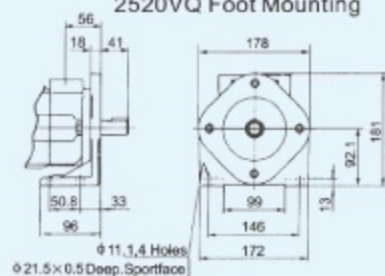
Product name	Series	Weight Kg	Product name	Series	Weight Kg	Product name	Series	Weight Kg
Double pumps	2520V, 2520VQ	23.0	Double pumps	SQP21	34.0	Double pumps	T6CC	26.0
	3520V, 3520VQ	33.0		SQP31	48.0		T6DC	36.6
	3525V, 3525VQ	35.0		SQP32	50.0		T6EC	55.0
	4520V, 4520VQ	46.0		SQP41	80.0		T6ED	66.0
	4525V, 4525VQ	48.0		SQP42	85.0		PV2R21	23.0
	4535V, 4535VQ	58.0		SQP43	95.0		PV2R31	41.0
							PV2R32	45.0

2520VQ Flange Mounting

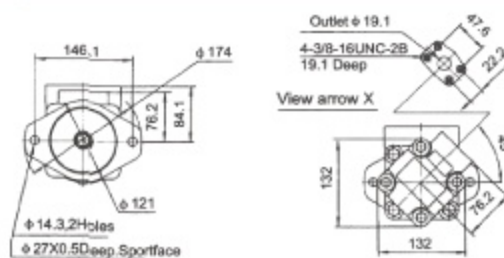


For other shaft dimensions, refer to page 68

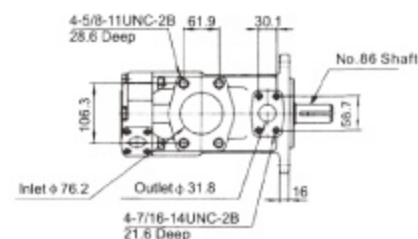
2520VQ Foot Mounting



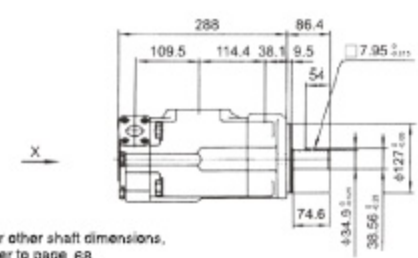
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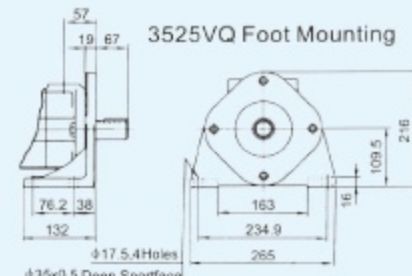
3525VQ Flange Mounting



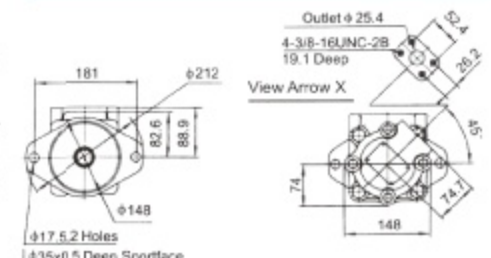
For other shaft dimensions, refer to page 68



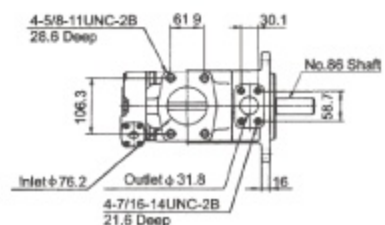
3525VQ Foot Mounting



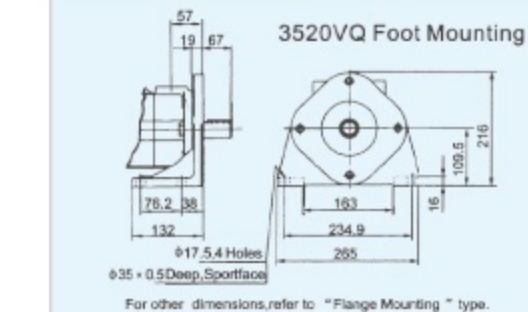
For other dimensions, refer to "Flange Mounting" type.



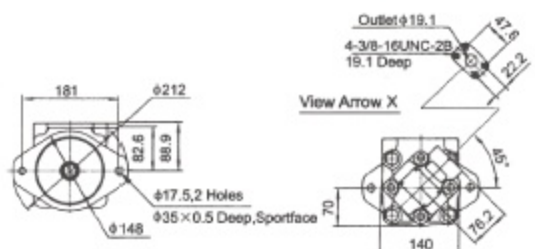
3520VQ Flange Mounting



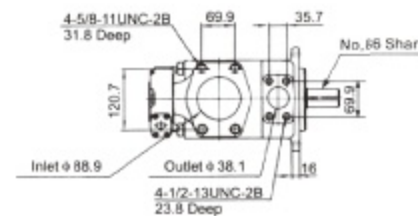
For other shaft dimensions, refer to page 68



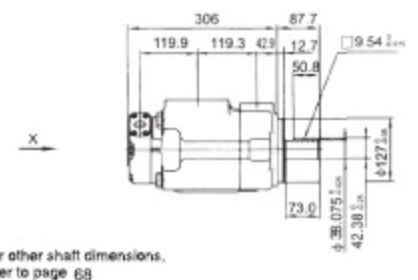
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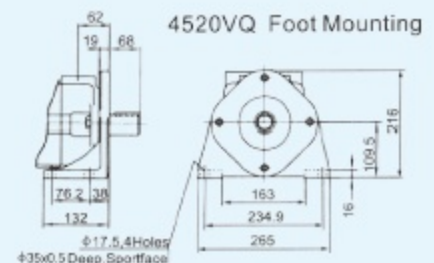
4520VQ Flange Mounting



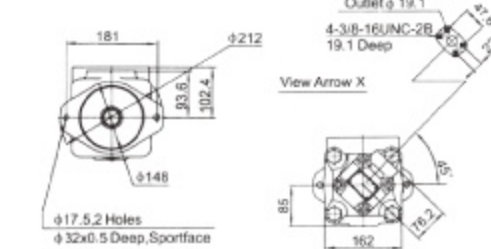
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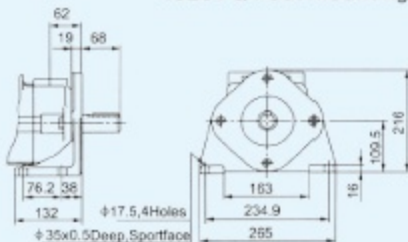
4520VQ Foot Mounting



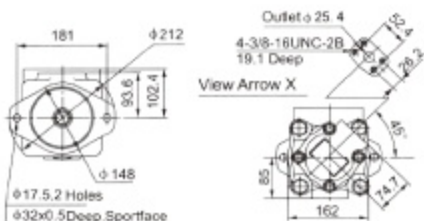
For other dimensions, refer to "Flange Mounting" type.



4525VQ Foot Mounting

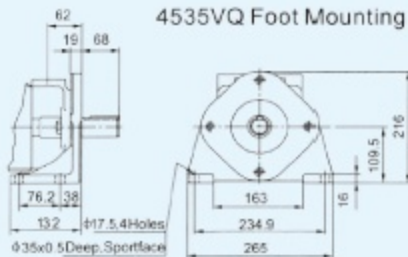


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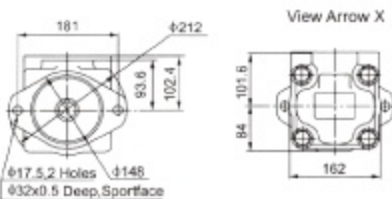


For other shaft dimensions,
refer to page 68

4535VQ Foot Mounting



For other dimensions, refer to "Flange Mounting" type.



For other shaft dimensions,
refer to page 68