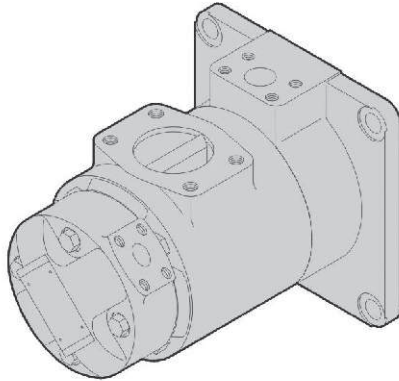
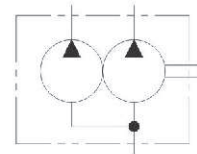
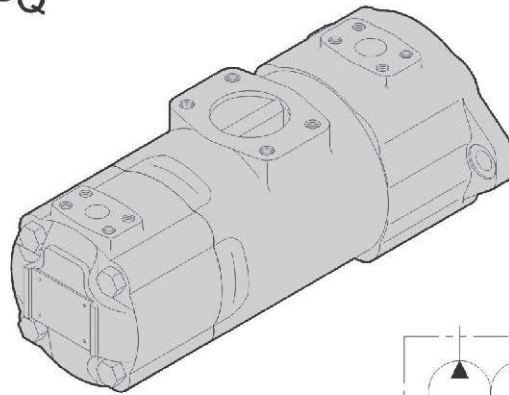


IVP



IVPQ

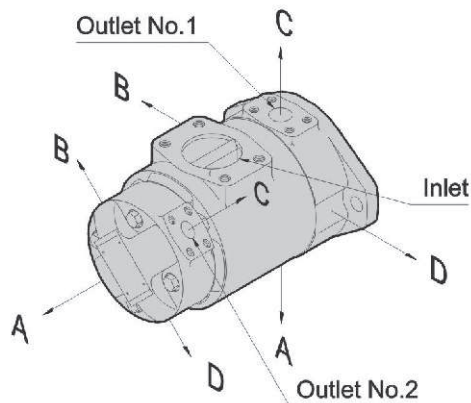


IVP(Q) Ordering Code - Double Pumps

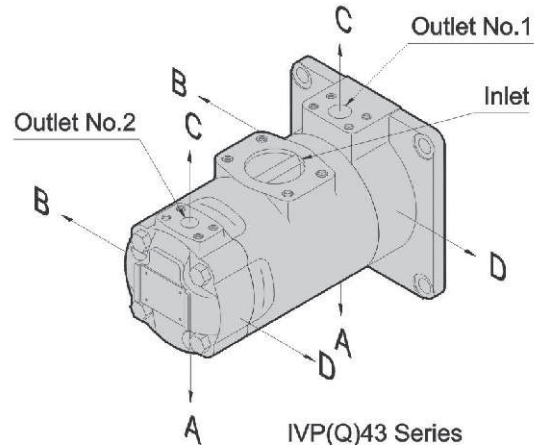
(-3)	IVP(Q)21	-17	-12	-F	-R
Prefix, fluid compatibility	Frame size	Geometric displacement shaft end pump • Code	Geometric displacement cover end pump • Code	Mounting form	Rotation
Omit- Using antiwear oil or phosphate ester fluid.	IVP(Q)21	10 , 12 , 14 , 15 , 17 , 19 , 21 , 25	2 , 3 , 4 , 5 , 6 , 7 , 8 , 10 , 11 , 12 , 14	F- Flange mounting.	Viewed from shaft end of pump.
F11- Using water glycol fluid.	IVP(Q)31	17 , 21 , 25 , 30 , 32 , 35 , 38 , 42	2 , 3 , 4 , 5 , 6 , 7 , 8 , 10 , 11 , 12 , 14	L- Foot mounting.	R- Right hand for clockwise.
F3- Using water-in-oil emulsions.	IVP(Q)32	17 , 21 , 25 , 30 , 32 , 35 , 38 , 42	10 , 12 , 14 , 15 , 17 , 19 , 21 , 25		L- Left hand for counter-clockwise.
	IVP(Q)41	30 , 35 , 38 , 42 , 50 , 60 , 67 , 75	2 , 3 , 4 , 5 , 6 , 7 , 8 , 10 , 11 , 12 , 14		
	IVP(Q)42	30 , 35 , 38 , 42 , 50 , 60 , 67 , 75	10 , 12 , 14 , 15 , 17 , 19 , 21 , 25		
	IVP(Q)43	30 , 35 , 38 , 42 , 50 , 60 , 67 , 75	17 , 21 , 25 , 30 , 32 , 35 , 38 , 42		

• Rated capacity in USgpm at 1200rpm and 6.9bar.

Port Orientation



All series except IVP(Q)43



IVP(Q)43 Series

-AA	-10
Port orientation	Design No.
Viewed from cover end of pump	
With No.1 outlet opposite inlet	10
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.)	10
AD - No.2 outlet 135° CW from inlet.(No.2 outlet 90° CW from inlet.)	
With 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.)	10
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.)	
With No.1 outlet inline with inlet	
CA - No.2 outlet 135° CCW from inlet.(No.2 outlet opposite inlet.)	10
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.)	
With No.1 outlet 90° CW from inlet	10
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.)	10
Note: () the port orientation of IVP(Q)43.	



IVP Double Pumps Max. Continuous Pressures

MODEL	Shaft end pump (No.1 outlet)			Cover end pump (No.2 outlet)			Max. speed rpm	Min. speed rpm	
	●Code	Geometric displacement cm ³ /r	Max. pressure bar	●Code	Geometric displacement cm ³ /r	Max. pressure bar			
IVP(Q)21	10	32.5	▲172 F3=69 F11=157	2	7.5	▲138 F3=69 F11=138	1800 F3=1200 F11=1500	600	
	12	38.3		3	10.2	▲172,F3=69 F11=138			
	14	43.3		4	12.8				
	15	46.7		5	16.7				▲207 F3=69 F11=157
	17	52.5		6	19.2				
	19	59.2		7	22.9				
	21	65.0		8	26.2				
25	78.6	10	31.0						
IVP(Q)31	17	53.3	▲172 F3=69 F11=157	6	19.2	▲157,F3=69 F11=138			
	21	66.7		7	22.9				
	25	79.2		8	26.2				
	30	95.0		10	31.0				
	32	100		11	35.0				
	35	109		12	37.9				
	38	118		14	44.2				
IVP(Q)41	42	134	▲172 F3=69 F11=157	10	31.0	▲138,F3=69 F11=138			
	30	96.0		11	35.0	▲172 F3=69 F11=157			
	35	109		12	37.9				
	38	128		14	44.2				
	42	134		▲172 F3=69 F11=157					
	50	156							
	60	189							
67	210								
IVP(Q)32	75	236	▲172 F3=69 F11=157	10	32.5	▲172 F3=69 F11=157			
	17	53.3		12	38.3				
	21	66.7		14	43.3				
	25	79.2		15	46.7				
	30	95.0		▲172 F3=69 F11=157					
	32	100							
	35	109							
38	118								
IVP(Q)42	42	134	▲172 F3=69 F11=157	17	52.5	1800 F3=1200 F11=1500			
	30	96.0		19	59.5				
	35	109		21	65.0				
	38	128		25	78.6				
	42	134		▲172 F3=69 F11=157					
	50	156							
	60	189							
67	210								
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	1800 F3=1200 F11=1500			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
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	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
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	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53.3	▲172 F3=69 F11=157			
	30	96.0		21	66.7				
	35	109		25	79.2				
	38	128		30	95.0				
	42	134		32	100				
	50	156		35	109				
	60	189		38	118				
67	210	42	134						
IVP(Q)43	75	236	▲172 F3=69 F11=157	17	53				

● Rated capacity in USgpm at 1200rpm and 6.9bar.

▲ A transient (peak) pressure 10% over the max. continuous pressure rating for 0.5 seconds or less duration its allowed.

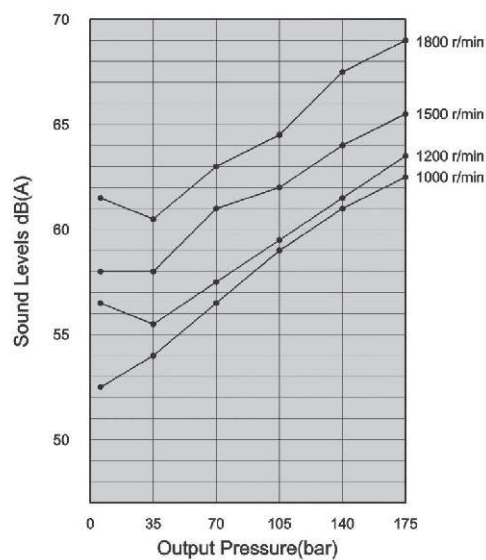
IVP Double Pumps Weight

kg(lb)

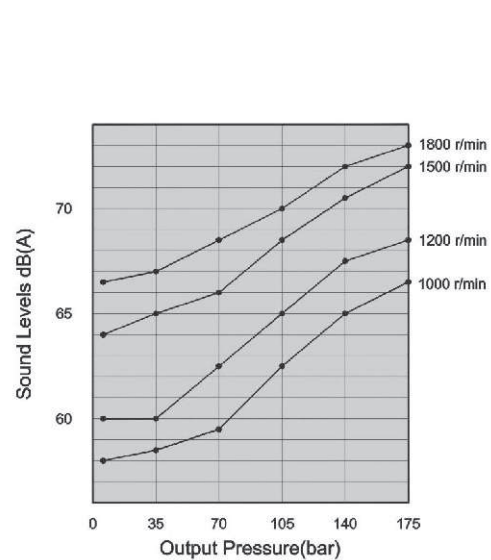
MODEL	IVP		IVP(Q)	
	Flange mounting	Foot mounting	Flange mounting	Foot mounting
IVP(Q)21	31.5(69.38)	41(90.31)	41(90.31)	50.5(111.23)
IVP(Q)31	46(101.32)	55.5(122.25)	56(123.35)	65.5(144.27)
IVP(Q)32	48(105.73)	57.5(126.65)	62(136.56)	71.5(157.49)
IVP(Q)41	74(163.0)	99(218.06)	83(182.82)	108(237.89)
IVP(Q)42	80(176.21)	105(231.28)	88(193.83)	113(248.9)
IVP(Q)43	88.5(194.93)	113(248.9)	99(218.06)	123(270.93)

IVP Double Pumps Sound Data

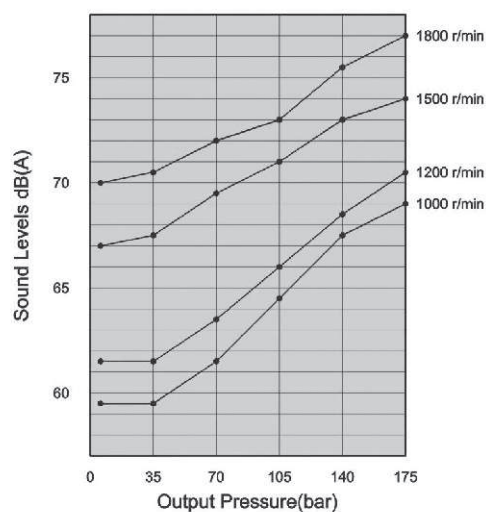
IVP21-17-8



IVP32-35-17

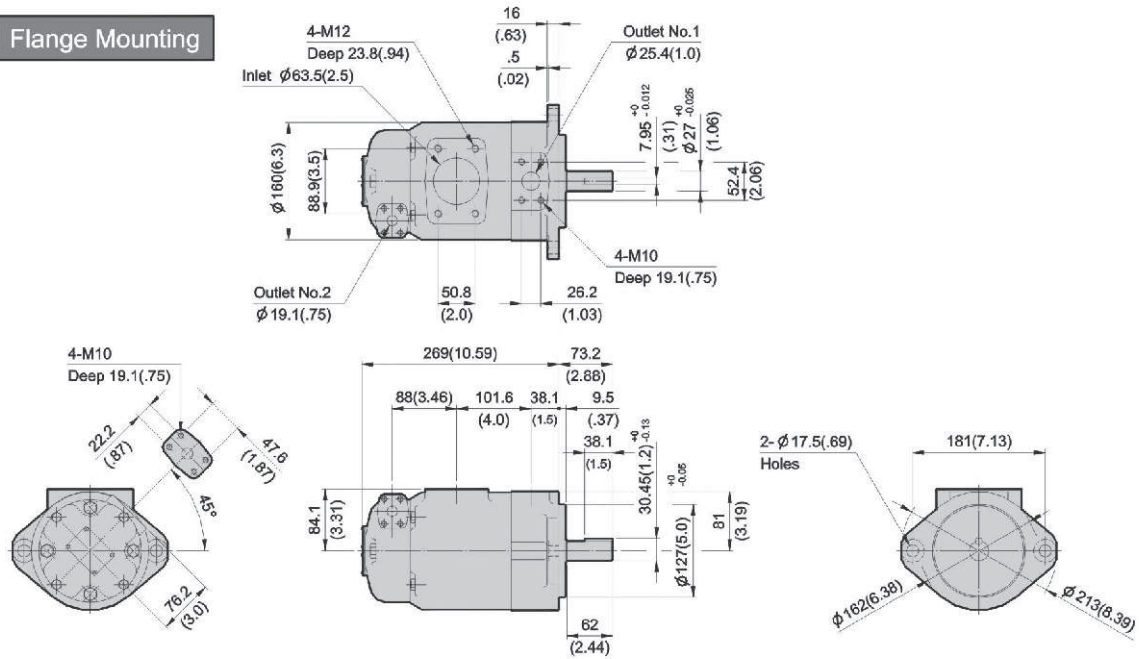


IVP43-50-35

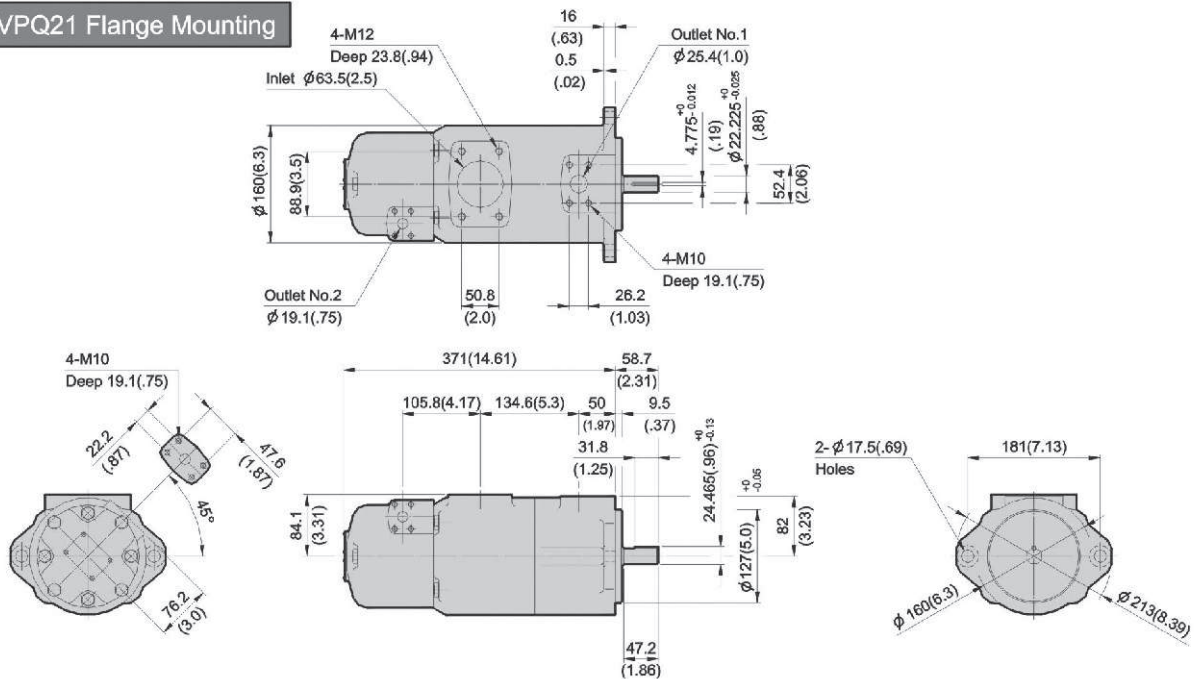


Conditions: ISO VG32, (50°C), 0 bar inlet, distance: 1m

IVP21 Flange Mounting

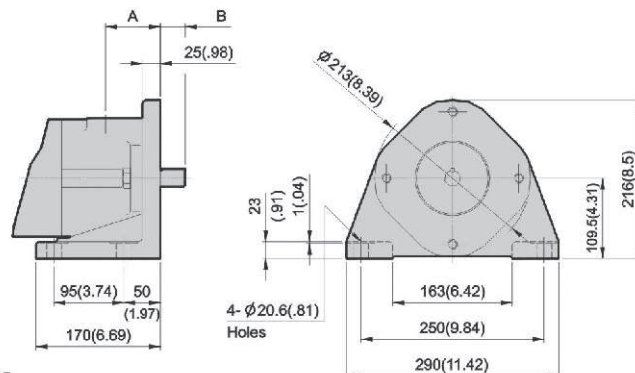


IVPQ21 Flange Mounting



IVP(Q)21 Foot Mounting

MODEL	DIMENSION	
	A	B
IVP21	63(2.48)	48(1.89)
IVPQ21	75(2.95)	34(1.34)



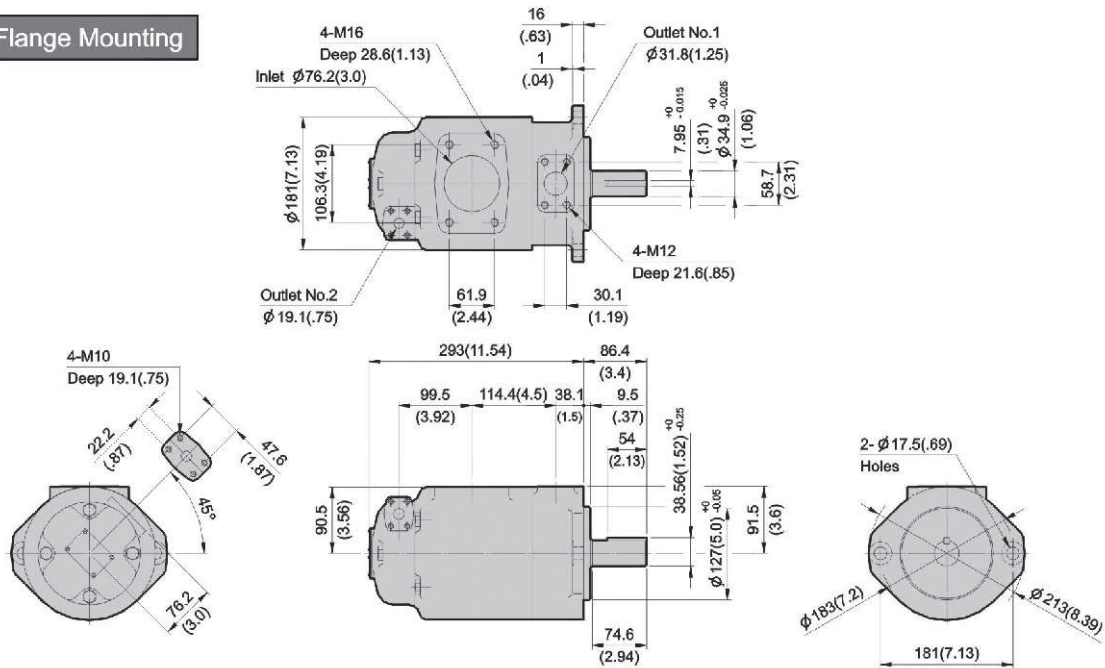
For other dimensions, refer to "Flange Mounting" type

DIMENSIONS

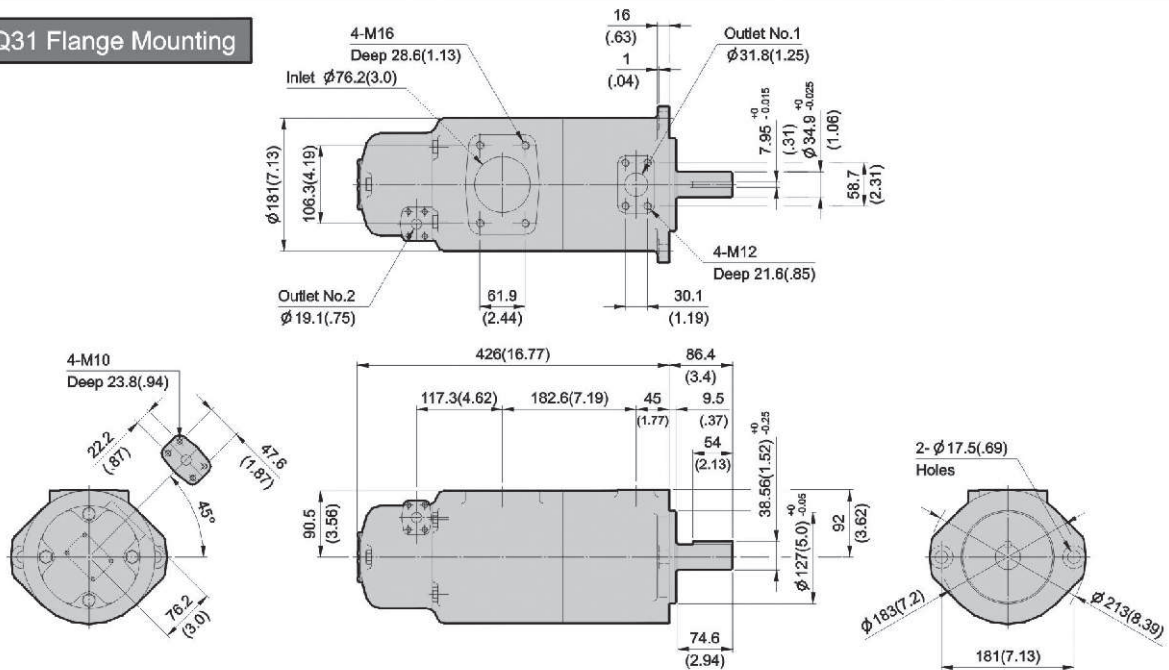
MILLIMETERS(INCHES)

A3

IVP31 Flange Mounting

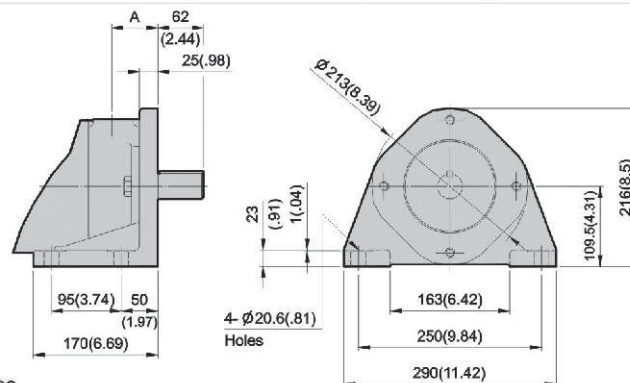


IVPQ31 Flange Mounting



IVP(Q)31 Foot Mounting

MODEL	DIMENSION
	A
IVP31	63(2.48)
IVPQ31	70(2.76)



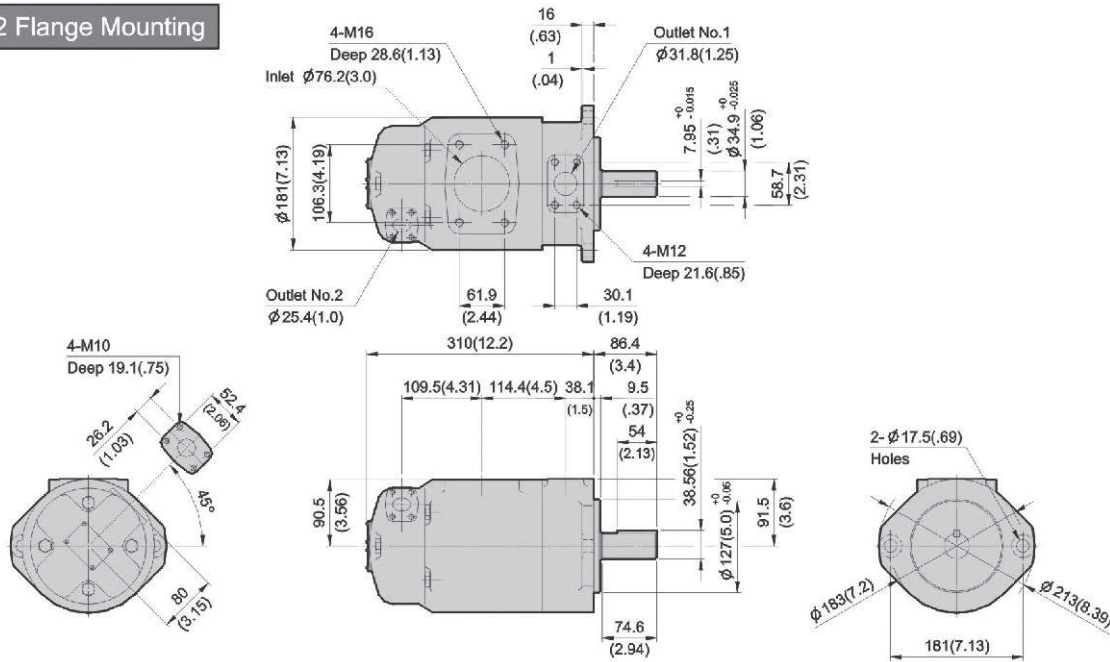
For other dimensions, refer to "Flange Mounting" type

DIMENSIONS

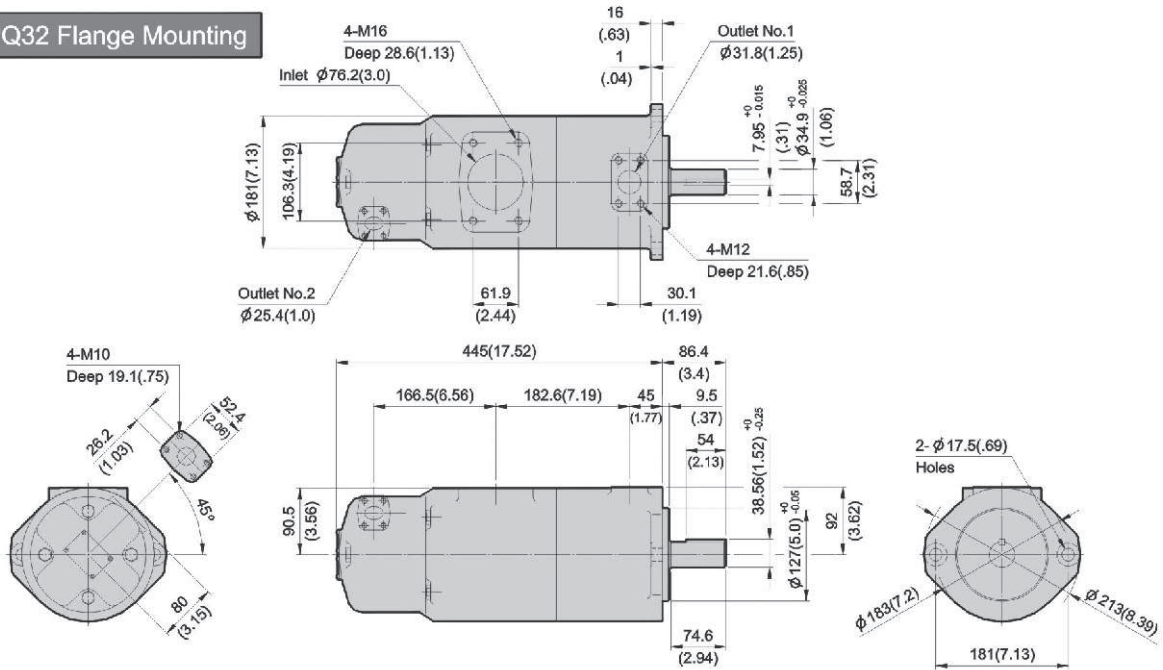
MILLIMETERS(INCHES)

A3

IVP32 Flange Mounting

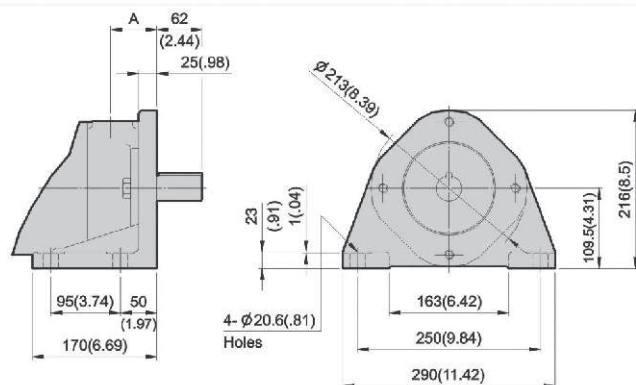


IVPQ32 Flange Mounting



IVP(Q)32 Foot Mounting

MODEL	DIMENSION
	A
IVP32	63(2.48)
IVPQ32	70(2.76)



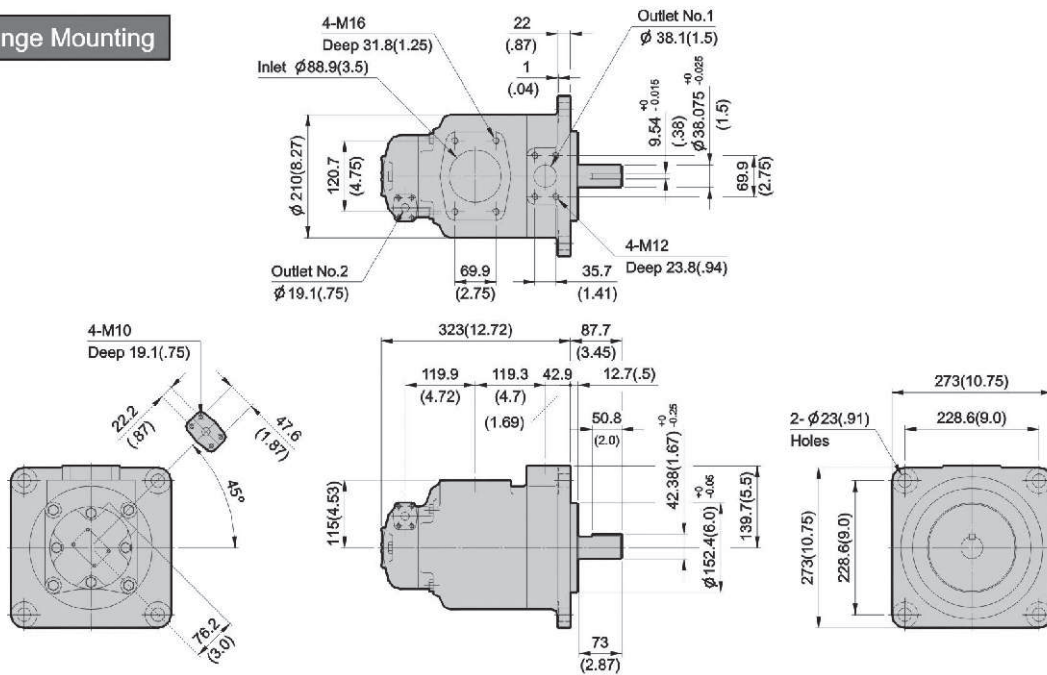
For other dimensions, refer to "Flange Mounting" type

DIMENSIONS

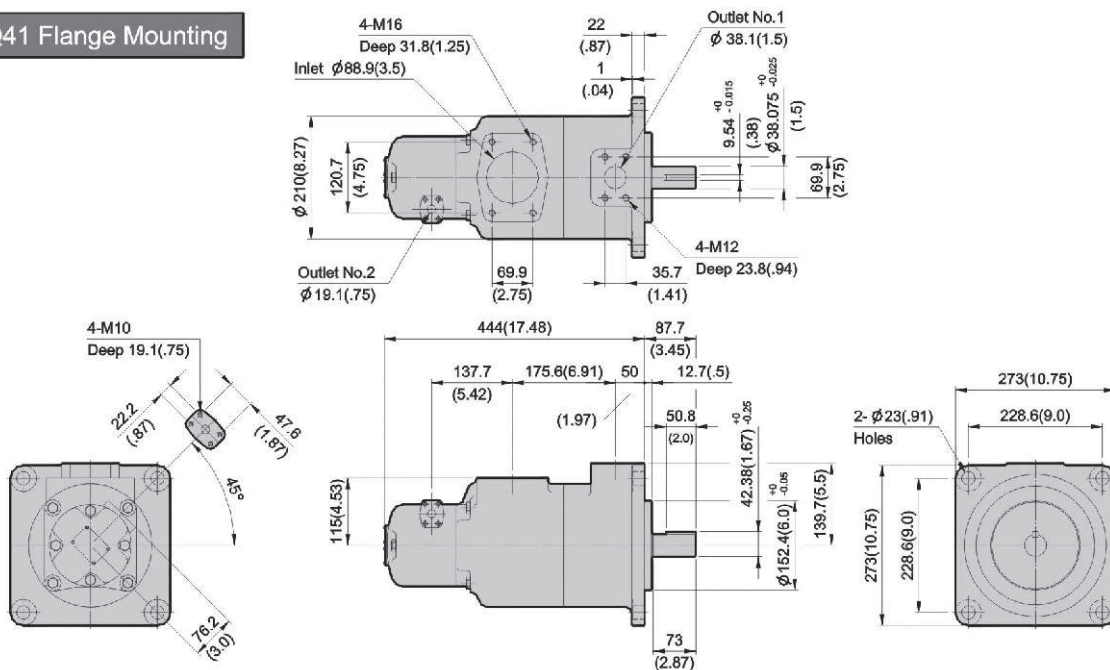
MILLIMETERS(INCHES)

A3

IVP41 Flange Mounting

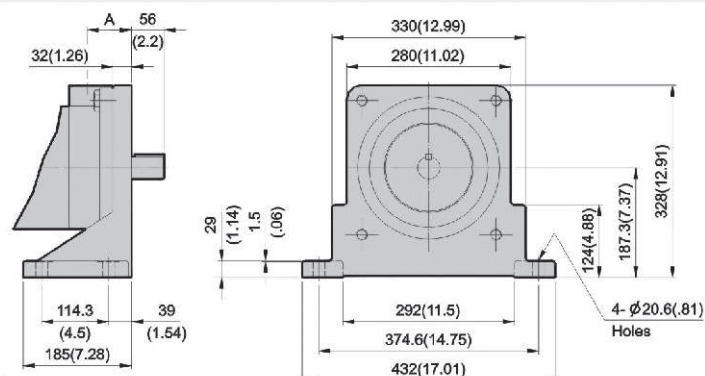


IVPQ41 Flange Mounting



IVP(Q)41 Foot Mounting

MODEL	DIMENSION
	A
IVP41	75(2.95)
IVPQ41	82(3.23)



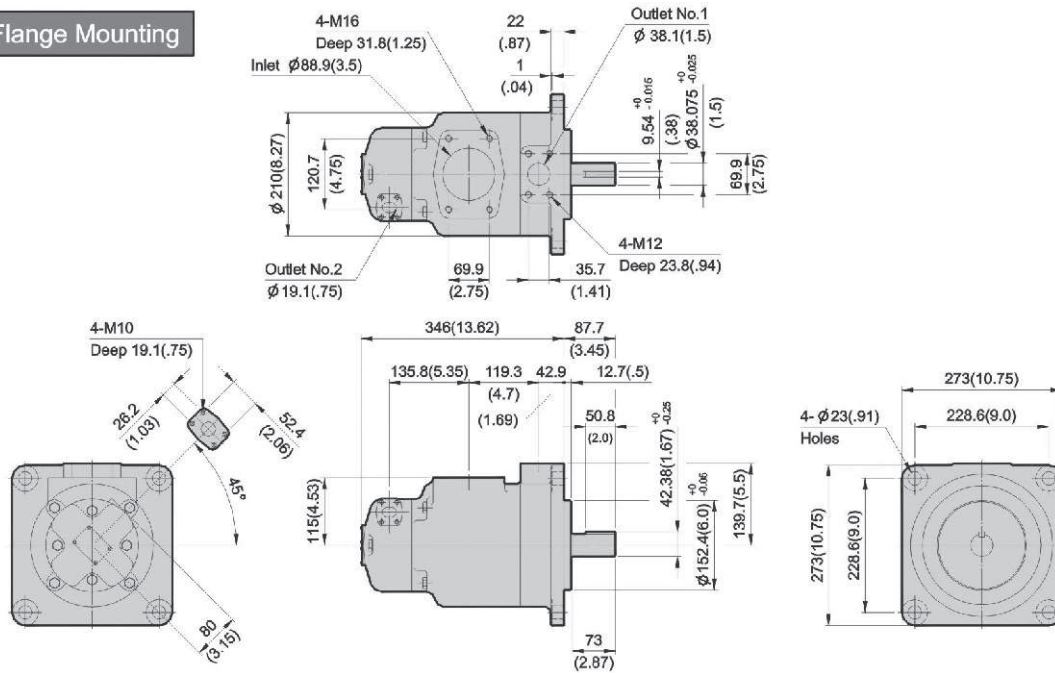
For other dimensions, refer to "Flange Mounting" type

DIMENSIONS

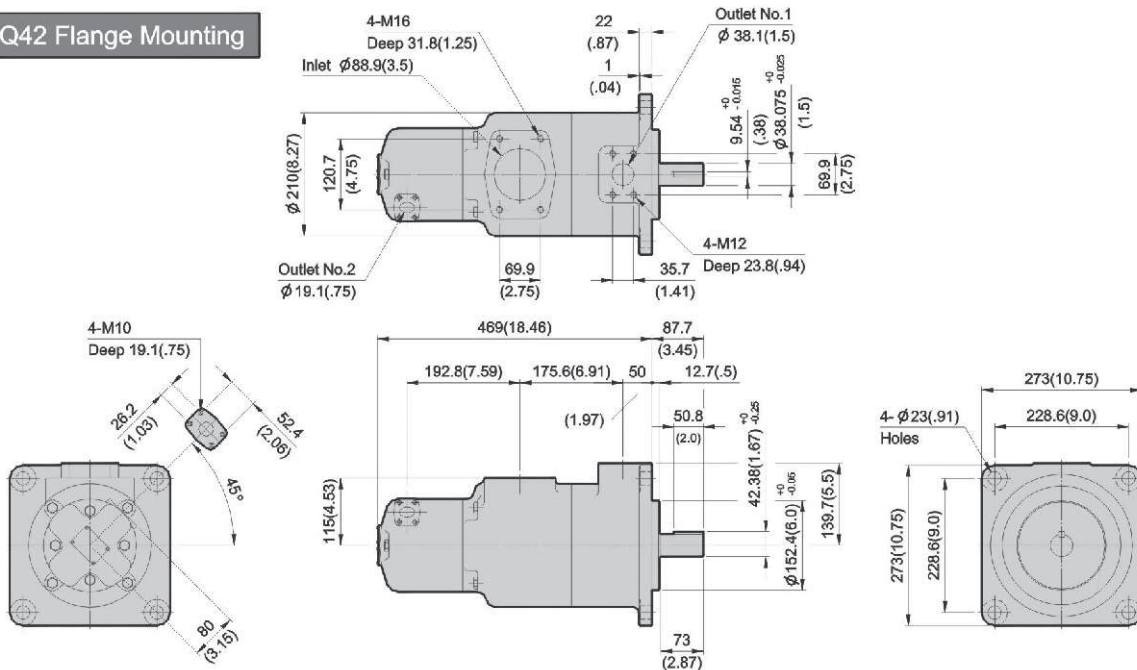
MILLIMETERS(INCHES)

A3

IVP42 Flange Mounting

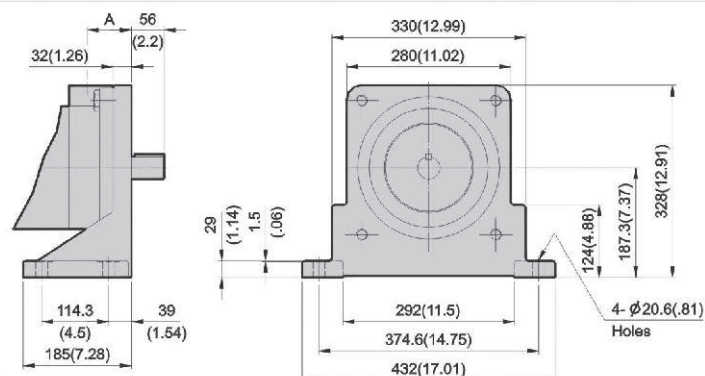


IVPQ42 Flange Mounting



IVP(Q)42 Foot Mounting

MODEL	DIMENSION
	A
IVP42	75(2.95)
IVPQ42	82(3.23)



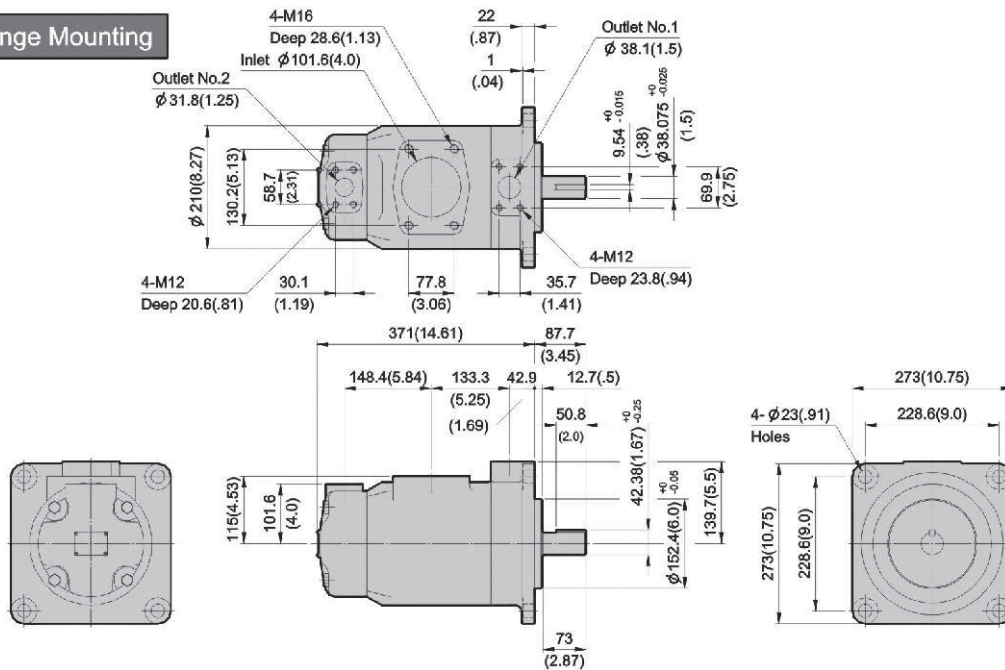
For other dimensions, refer to "Flange Mounting" type

DIMENSIONS

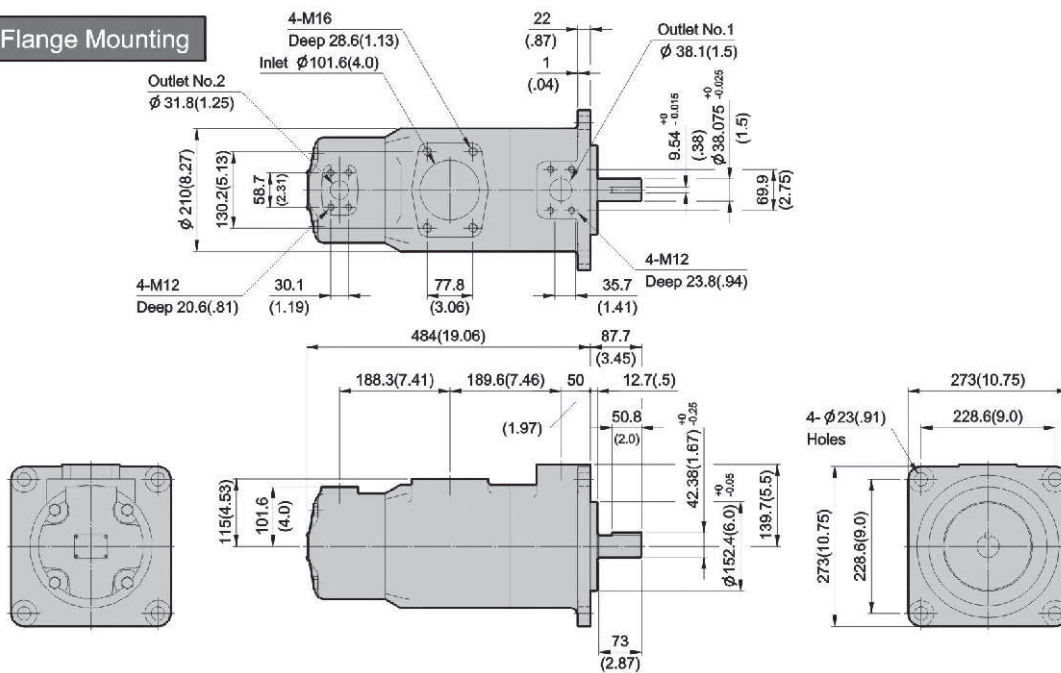
MILLIMETERS(INCHES)

A3

IVP43 Flange Mounting

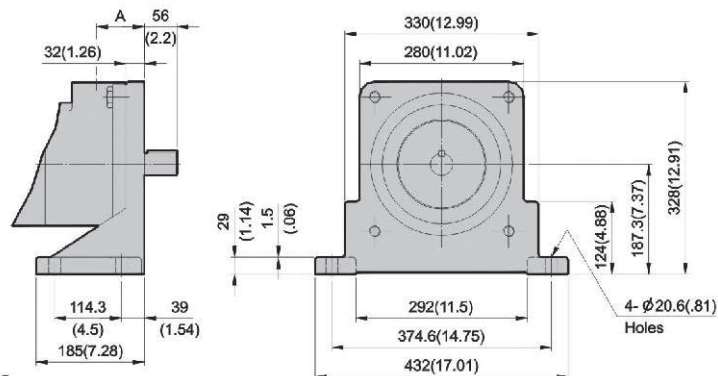


IVPQ43 Flange Mounting



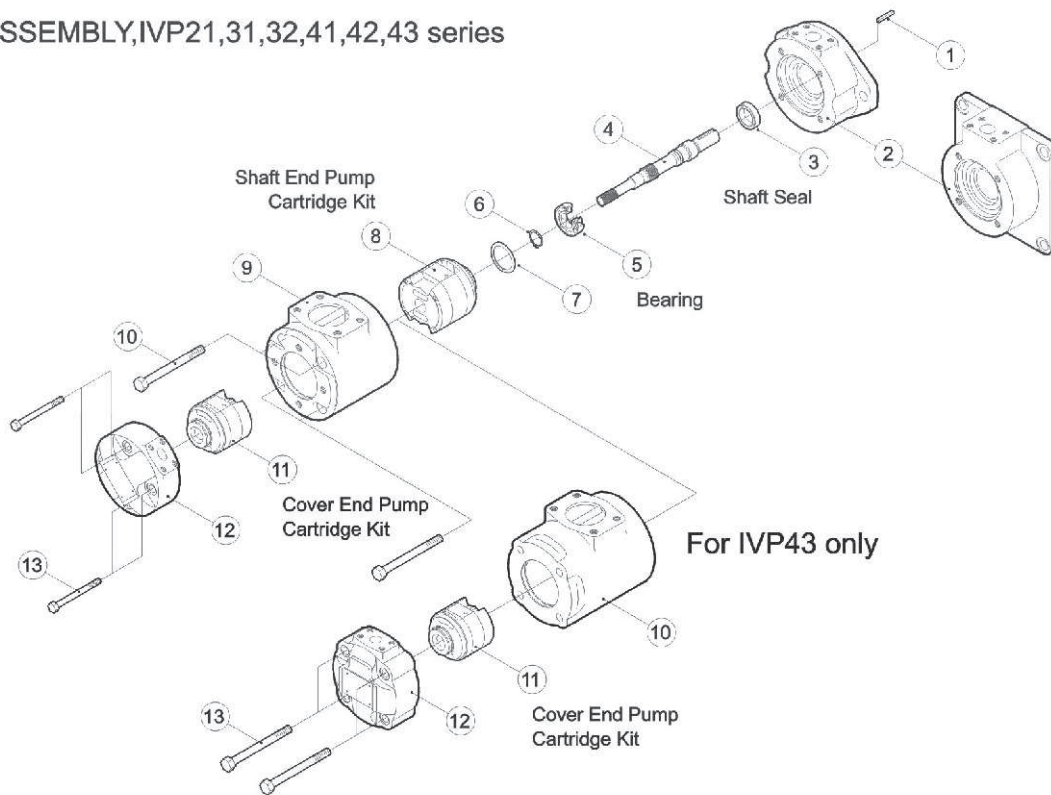
IVP(Q)43 Foot Mounting

MODEL	DIMENSION
	A
IVP43	75(2.95)
IVPQ43	82(3.23)

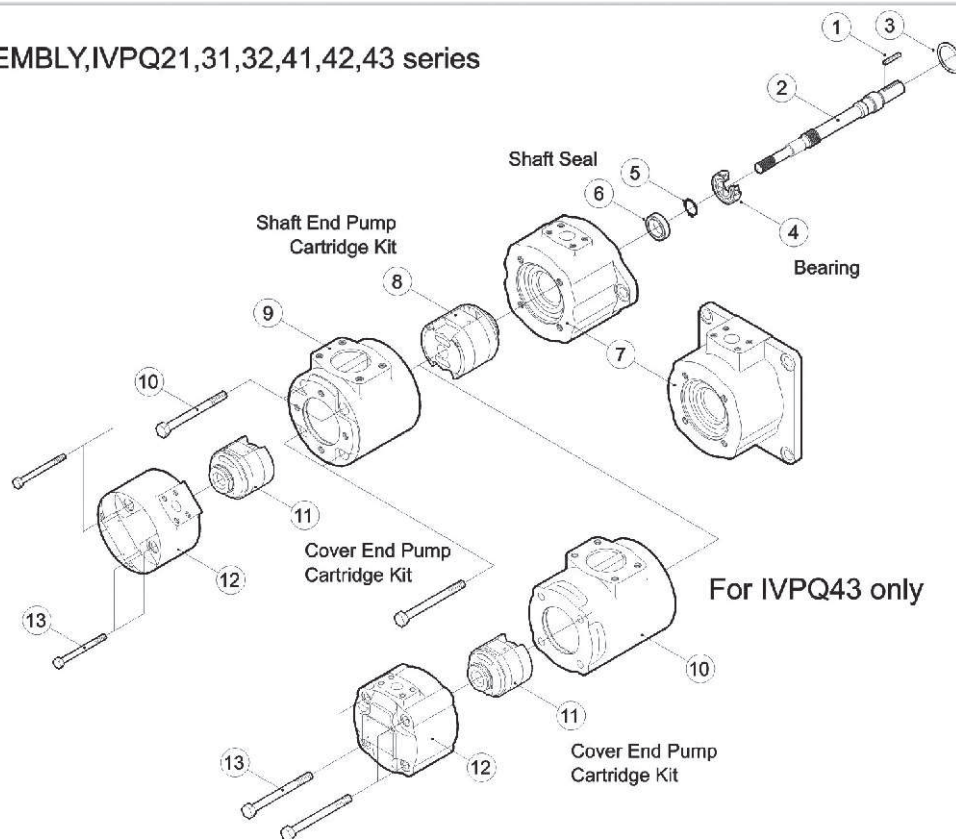


For other dimensions, refer to "Flange Mounting" type

ASSEMBLY, IVP21,31,32,41,42,43 series



ASSEMBLY, IVPQ21,31,32,41,42,43 series



IVP(Q) Double Pumps - Cartridge Kit Ordering Code

(F3-)	CK- ♦ IVP(Q)21	-(17)S	-(12)C	-R	-10
Prefix, fluid compatibility	Cartridge Kit Model	Geometric displacement shaft end pump Cartridge Kit • Code	Geometric displacement cover end pump Cartridge Kit • Code	Rotation	Design No.
Omit- Using antiwear oil or phosphate ester fluid. F11- Using water glycol fluid. F3- Using water-in-oil emulsions.	CK-IVP(Q)21	10 , 12 , 14 , 15 , 17 , 19 , 21 , 25	2 , 3 , 4 , 5 , 6 , 7 , 8 , 10 , 11 , 12 , 14	Viewed from shaft end of pump. R- Right hand for clockwise. L- Left hand for counter-clockwise.	10
	CK-IVP(Q)31	17 , 21 , 25 , 30 , 32 , 35 , 38 , 42	2 , 3 , 4 , 5 , 6 , 7 , 8 , 10 , 11 , 12 , 14		10
	CK-IVP(Q)32	17 , 21 , 25 , 30 , 32 , 35 , 38 , 42	10 , 12 , 14 , 15 , 17 , 19 , 21 , 25		10
	CK-IVP(Q)41	30 , 35 , 38 , 42 , 50 , 60 , 67 , 75	2 , 3 , 4 , 5 , 6 , 7 , 8 , 10 , 11 , 12 , 14		10
	CK-IVP(Q)42	30 , 35 , 38 , 42 , 50 , 60 , 67 , 75	10 , 12 , 14 , 15 , 17 , 19 , 21 , 25		10
	CK-IVP(Q)43	30 , 35 , 38 , 42 , 50 , 60 , 67 , 75	17 , 21 , 25 , 30 , 32 , 35 , 38 , 42		10

• Rated capacity in USgpm at 1200rpm and 6.9bar.

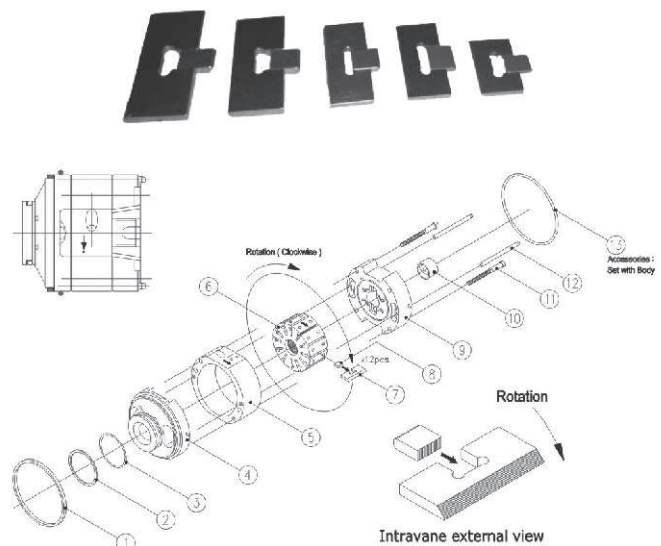
♦ Is the model for frame size.

Example: 1.CK-IVP21-10S-R-10, Ordering code for shaft end pump cartridge kit.

2.CK-IVP21-10C-R-10, Ordering code for cover end pump cartridge kit.

IVP(Q) Double Pumps - Max. input torque

MODEL	Max. input torque Nm(kgf-m)
IVP(Q)21	320(32)
IVP(Q)31	610(61)
IVP(Q)32	610(61)
IVP(Q)41	820(82)
IVP(Q)42	820(82)
IVP(Q)43	820(82)



IVP(Q) Double Pumps - Performance Characteristics

MODEL	Performance Characteristics	
	Shaft end pump (No.1 outlet)	Cover end pump (No.2 outlet)
IVP(Q)21	Data same as IVP(Q)2 Series	Data same as IVP(Q)1 Series
IVP(Q)31	Data same as IVP(Q)3 Series	
IVP(Q)41	Data same as IVP(Q)4 Series	
IVP(Q)32	Data same as IVP(Q)3 Series	Data same as IVP(Q)2 Series
IVP(Q)42	Data same as IVP(Q)4 Series	
IVP(Q)43	Data same as IVP(Q)4 Series	Data same as IVP(Q)3 Series

PS:For the performance characteristics of IVP(Q) 1-4 ,please refer to page 6&7.

IVP(Q) Double Pumps - Shaft Seal & Bearing

MODEL	Shaft seal	Bearing
IVP21	TBY 29.36X42.82X7.9	6205
IVP31	TBY 36.5X50.8X7.9	6306
IVP32	TBY 36.5X50.8X7.9	6306
IVP41	TBY 41.28X60.32X9.5	6307
IVP42	TBY 41.28X60.32X9.5	6307
IVP43	TBY 41.28X60.32X9.5	6307
IVPQ21	TBY 24.59X44.5X7.9	6205zz
IVPQ31	TBY 29.36X42.82X7.9	6306zz
IVPQ32	TBY 29.36X42.82X7.9	6306zz
IVPQ41	TBY 34.93X57.15X7.9	6307zz
IVPQ42	TBY 34.93X57.15X7.9	6307zz
IVPQ43	TBY 34.93X57.15X7.9	6307zz

IVP(Q) Operating Data

Hydraulic Fluids

Use antiwear industrial hydraulic oils or automotive crankcase oils having letter designations SC,SD,DE or SF with viscosity grades of 32 to 68 cSt at 40 °C(140 °F) Preferred viscosity at rated speed and pressures:Minimum 13 cSt (70 SUS) Maximum 54 cSt(70 SUS) Minimum 49 ° C(120 ° F) Maximum 65 ° C(120 ° F).

Cold Stares

When operating SAE 10W oil in the 860 to 54 cSt(400 to 251 SUS) range,the speed and pressure should be limited to 50% or less of their respective rated values until the system has warmed up.Extreme caution must be used when starting units when fluid viscosity's are greater than 860 cSt(4000 SUS).Care should be exercised to warm up the entire system,including remote cylinders and motors.

High Temperatures

Viscosities must not be less than the respective minimum values for each series of pumps.Temperatures should not exceed 99 °C(210 °F) because the expectancy of cartridge kite and elastomers will decrease.

Water-in-oil Emulsions

Water-in-oil emulsions may be used.However,they require careful selection and monitoring of the fluid.For assistance contact your HYKING representative.Soluble oil-in-water solutions are not recommended.

Synthetic Fire Resistant Fluids

Phosphate esters and their blends with operating viscosity of the petroleum oil described above may be used.These fluids are generally compatible with fluorocarbon and silicone elastomers.Add F3 prefix to the model code for special seals.

Filtration Requirements

For satisfactory service life of components,use full flow filtration to provide fluid cleanliness conforming to ISO code 18/15 or better.

Drive Data

Pumps are assembled for CW or CCW rotation.Right hand or clockwise rotation and left hand or counterclockwise rotation is viewed from the shaft end.

Inlet and outlet ports remain the same regardless of the direction of shaft rotation.Assembly change of internal parts is necessary,when change of shaft rotation is required.

Pump Drive

Direct coaxial drive is recommended.If drives imposing radial and/or axial shaft loads are considered,please consult your HYKING representative.

Air Bleed

At the time of first-starting,if the pump does not immediately prime,air should be bled from the pump delivery line.This may be accomplished by loosening a connection in the delivery line close to the pump until oil flows -indicating the pump has primed.An air bleed valve is available for this purpose.

Caution:No Case Drain

The pump is drained internally into its inlet.System pressure at the pump inlet connection may not exceed 1.4bar(20PSI).

Caution:Low Outlet Pressure

Do not run a pump with the outlet pressure lower than the inlet pressure.This causes operating noise and vane instability.

Start-up(Commissioning) Procedure

- Make sure the reservoir and circuit are clean and free of dirt/debris prior to filling with hydraulic fluid.
- Fill the reservoir with filtered oil and fill to a level sufficient enough to prevent vortexing at suction connection to pump inlet.It is goodpractice to clean up the system by flushing and filtering using an external slave pump.
- Before starting the pump,fill with fluid trough one of the ports.This is particularly important if the pump is above the fluid level of the reservoir.
- When initially starting the pump,bleed all trapped air from the system.This can be accomplished by loosening the pump outlet fittings or connections before starting the pump or by using an air bleed valve.All inlet connections must be tight to prevent air leaks.
- Once the pump is stated it should prime within a few seconds.If the pump dose not prime,check to make sure that there are no restrictions between the reservoir and the inlet to pump,and that there are no air leaks in the inlet line and connections.Also check to make sure that trapped air can escape at the pump outlet.
- After the pump primed,tighten the loose outlet connections,then operate for five to ten minutes unloaded to remove all trapped air from the circuit.
- If reservoir has a sight gage,make sure the fluid is clear-not milky.
- Add fluid to the reservoir to bring it up to the proper fill level.