ANSON®

HYDRAULICS

HYDRAULIC VANE PUMPS

ANSON HYDRAULICS INDUSTRIAL CO., LTD.

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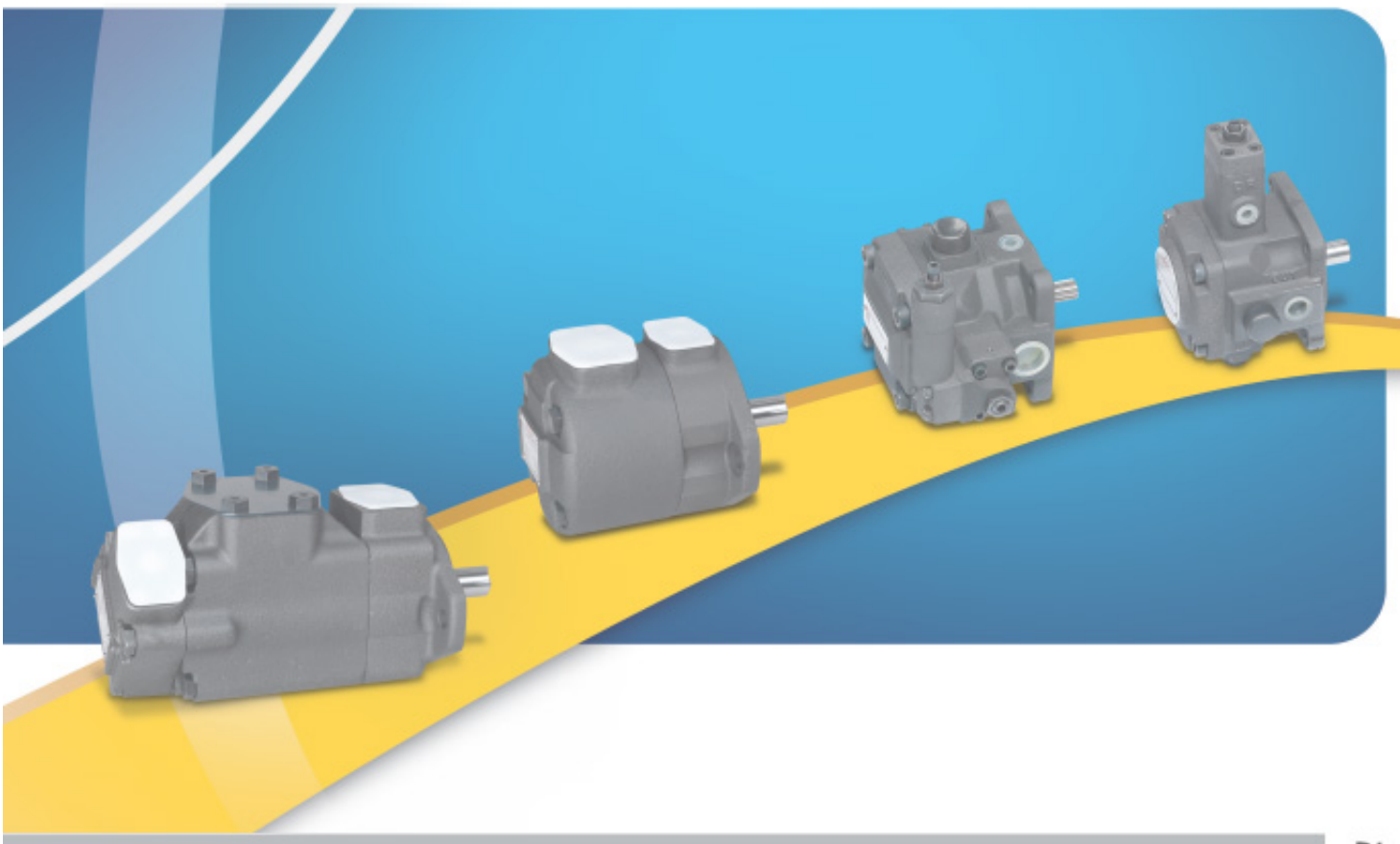
ANSON HYDRAULICS

Intravane Fixed Displacement Vane Pumps



Introduction

"**QUALITY IS LIFE** ", which is a concept of ANSON HYDRAULICS. Due to all of ANSON employees pursue the goal, we are developing high quality, high efficiency, long life and low sound levels intravane pumps. A wide variety of single and double configurations enables you to select the precise pump or combination best suited for your application.

IVP Single fixed displacement vane pumps

IVP Double fixed displacement vane pumps

IVPQ Single fixed displacement vane pumps

IVPQ Double fixed displacement vane pumps

IVPV Single fixed displacement vane pumps

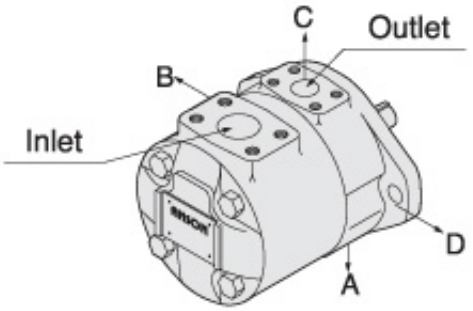
IVPV Double fixed displacement vane pumps

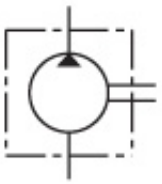
IVP

IVPQ

IVPV

Outlet positions





IVP(Q/V) Model Code - Single Pumps

(F3-)	IVP(Q/V)2	-17	H	A	M	-F	-R	-86			C	-10
								▲ Shaft model				
Prefix, fluid compatibility	Frame size	Geometric displacement •Code	Pressure ★type	Port connections	Port connections modifier	Mounting form	Shaft rotation	Str. key	HD str. key	Splined key	Outlet positions	Design
Omit- Using petroleum base oil & anti-wear hydraulic oil.	**IVP(Q/V)1**	**2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 14**	**Omit-** Standard pressure	**A-** SAE 4 bolt flange	**M-** Metric fixing threads	**F-** Flange mounting	**R-** Right hand for clockwise	**1**	**N/A**	**151**	Viewed from cover end of pump **A-** opposite inlet port **B-** 90°CCW from inlet **C-** inline with inlet **D-** 90°CW from inlet	**10**
F11- Using water glycol fluid.	**IVP(Q/V)2**	**10, 12, 14, 15, 17, 19, 21, 25**						**1**	**86**	**11**		
F3- Using water-in-oil emulsions or phosphate ester fluid.	**IVP(Q/V)3**	**17, 21, 25, 30, 32, 35, 38, 42**	**H-** High pressure		**Omit-** Inch fixing threads	**L-** Foot mounting	**L-** Left hand for counter clockwise	**1**	**86**	**11**		
	IVP(Q/V)4	**30, 35, 38, 42, 50, 60, 67, 75**						**1**	**86**	**11**		

★ IVPQ series no **H** high pressure type.

IVP(Q/V) Single Pumps Max. Continuous Pressures

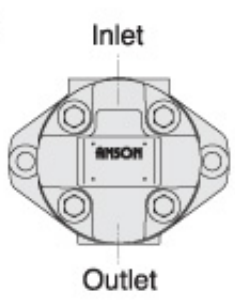
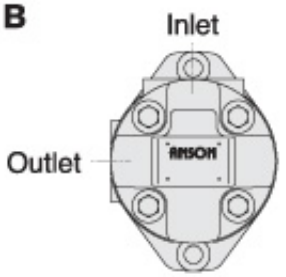
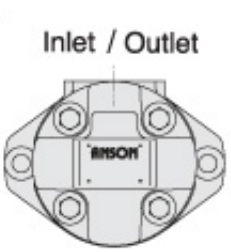
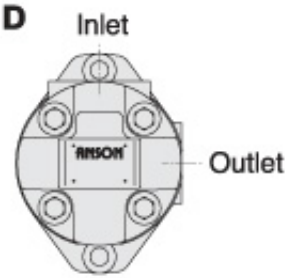
Frame size	Code ●	Geom-etric displ. (cm^3/r)	IVP(Q/V) ◆ Using petroleum base oil & anti-wear hydraulic oil.			F11-IVP(Q/V) Using water glycol fluid		F3-IVP(Q/V) Using water-in-oil emulsions or phos-phate ester fluid.		Min. speed (r/min)
			Stsndard type Max. Pressure (bar)	★H-high pressure type Max. Pressure (bar)	Max. Speed (r/min)	Max. Pressure (bar)	Max. Speed (r/min)	Max. Pressure (bar)	Max. Speed (r/min)	
IVP(Q/V)1	2	7.5	138	138	1800	138	1200	138	1200	600
	3	10.2								
	4	12.8	207	207		172				
	5	16.7								
	6	19.2								
	7	22.9								
	8	26.2								
	10	31.0								
	11	35.0								
	12	37.9	157	157		157				
	14	44.2	138	138		138				
IVP(Q/V)2	10	32.5	172	207	1800	172	1200	138	1200	600
	12	38.3								
	14	43.3								
	15	46.7								
	17	52.5								
	19	59.2								
	21	65.0								
	25	78.6	138	157		157				
IVP(Q/V)3	17	53.3	172	207	1800	172	1200	138	1200	600
	21	66.7								
	25	79.2								
	30	95.0								
	32	100.0								
	35	109.0								
	38	118.0								
	42	134.0	138	157		157				
IVP(Q/V)4	30	96.0	172	207	1800	172	1200	138	1200	600
	35	109.0								
	38	128.0								
	42	134.0								
	50	156.0								
	60	189.0								
	67	210.0	157	172						
	75	236.0	138	157		157				

● Rated capacity in US gpm at 1200 r/min and 6.9 bar(1000psi).

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

★ IVPQ series no **H** high pressure type.

Port Orientation : Viewed from cover end of pump

Opposite Inlet PORT	90°CCW From Inlet	Inline With Inlet	90°CCW From Inlet
A 	**B** 	**C** 	**D** 

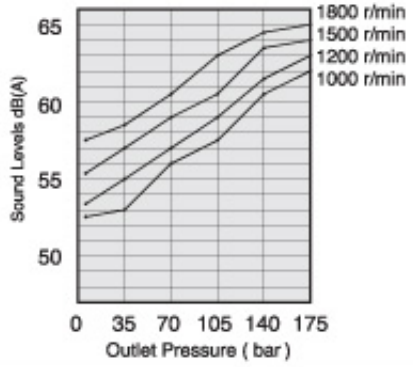
IVP(Q/V) Single Pumps Weight (Net weight)

Frame size	IVP		Frame size	IVPQ		Frame size	IVPV	
	Flange mounting	Foot mounting		Flange mounting	Foot mounting		Flange mounting	Foot mounting
IVP1	18.0 kg	23.4 kg	IVPQ1	24.0 kg	29.4 kg	IVPV1	20.0 kg	25.4 kg
IVP2	26.7 kg	35.4 kg	IVPQ2	32.9 kg	41.6 kg	IVPV2	17.0 kg	22.4 kg
IVP3	36.9 kg	45.6 kg	IVPQ3	49.6 kg	58.3 kg	IVPV3	27.6 kg	36.3 kg
IVP4	68.9 kg	94.8 kg	IVPQ4	79.4 kg	105.3 kg	IVPV4	38.7 kg	47.4 kg

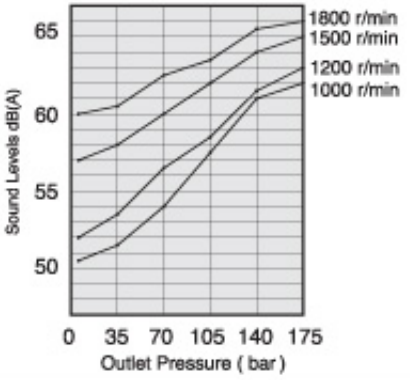
◌ The charts are for reference only. ◌ Flange mounting (Net weight) =Pump+Flange kits ◌ Foot mounting (Net weight) =Pump+Flange kits+Foot

IVP Single Pumps Sound Data

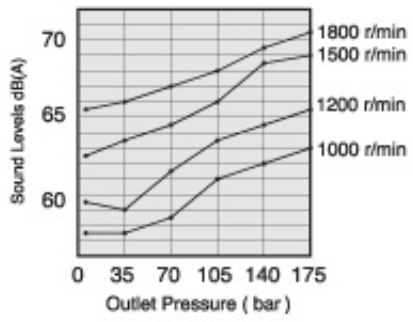
IVP1-11



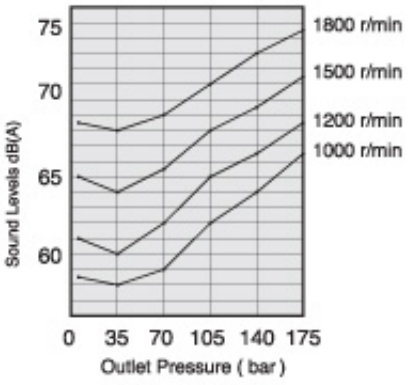
IVP2-21



IVP3-38



IVP4-60



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

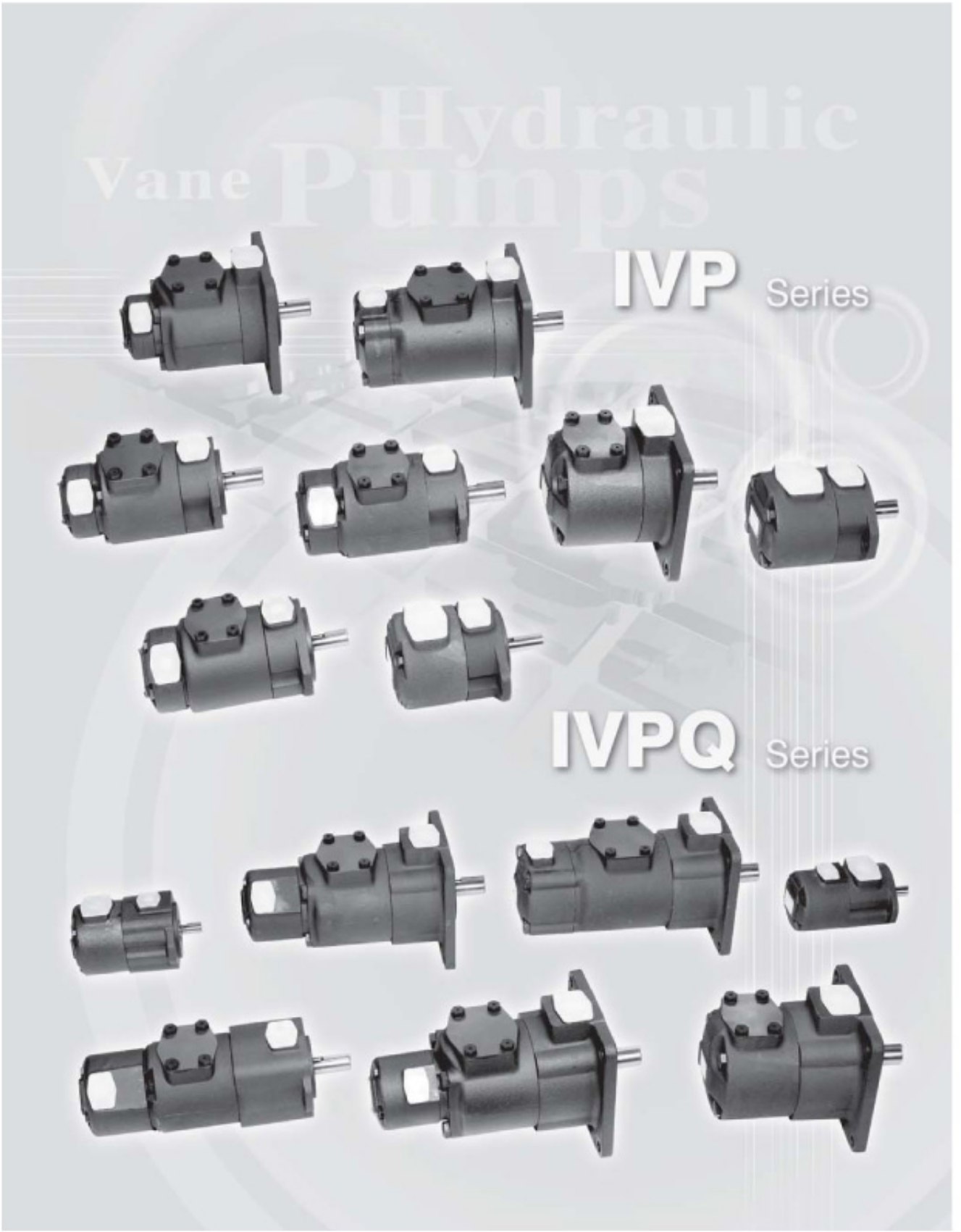
IVP(Q/V) Single Pumps - Performance Characteristics

Frame size	Speed (r/min)	Output flow (L/min)				Input power (kw)			
		6.9bar	69bar	138bar	172bar	6.9bar	69bar	138bar	172bar
IVP(Q/V)1-2	1000	7.5	6.0	4.5		0.2	1.2	2.1	
	1200	9.5	8.5	6.5		0.3	1.5	2.5	
	1500	11.2	9.3	7.5		0.3	1.8	3.2	
	1800	13.5	11.2	9.0		0.4	2.2	3.8	
IVP(Q/V)1-3	1000	10.2	8.8	7.4		0.3	1.5	3.1	
	1200	12.5	11.0	9.5		0.4	1.8	3.7	
	1500	15.3	13.7	12.1		0.5	2.3	4.7	
	1800	18.4	16.9	15.3		0.5	2.7	5.6	
IVP(Q/V)1-4	1000	12.8	12.3	10.8	10.0	0.4	1.8	3.7	4.6
	1200	16.0	15.0	13.5	13.0	0.5	2.2	4.4	5.5
	1500	19.2	17.7	16.2	15.7	0.6	2.7	5.6	6.9
	1800	23.1	21.3	19.5	19.0	0.7	3.2	6.7	8.3
IVP(Q/V)1-5	1000	16.7	15.7	14.7	14.2	0.4	2.8	4.8	6.0
	1200	20.0	19.0	18.0	17.5	0.5	3.2	5.8	7.2
	1500	25.0	24.0	23.0	22.5	0.6	3.9	7.3	9.0
	1800	30.0	29.0	28.0	27.5	0.6	4.2	8.6	10.7
IVP(Q/V)1-6	1000	19.2	18.2	17.0	16.2	0.4	3.0	5.5	6.6
	1200	23.0	22.0	20.5	20.0	0.5	3.5	6.5	7.9
	1500	28.5	27.5	26.0	25.0	0.6	4.3	8.1	9.8
	1800	34.5	33.5	32.0	31.0	0.7	5.2	9.7	11.8
IVP(Q/V)1-7	1000	22.9	21.4	19.9	18.9	0.5	3.4	6.2	7.6
	1200	27.5	26.0	24.5	23.5	0.6	4.0	7.4	9.1
	1500	34.4	32.9	31.4	30.4	0.7	5.0	9.2	11.3
	1800	41.3	39.8	38.3	37.3	0.8	5.9	11.0	13.6
IVP(Q/V)1-8	1000	26.2	24.2	22.7	21.2	0.5	3.9	6.7	8.3
	1200	31.5	29.5	28.0	26.5	0.6	4.5	8.0	10.0
	1500	39.4	37.4	35.9	34.4	0.8	5.5	10.0	12.5
	1800	47.2	45.2	43.7	42.2	0.8	6.6	11.8	14.8
IVP(Q/V)1-10	1000	31	29.2	26.5	24.8	0.6	4.6	8.4	10.4
	1200	37.2	34.7	32.4	30.9	0.7	5.4	10.0	12.5
	1500	46.5	43.1	41.3	39.4	0.9	6.5	12.5	15.6
	1800	55.8	53.2	50.6	48.5	0.9	7.8	14.7	18.5
IVP(Q/V)1-11	1000	35.0	33.0	30.5	29.5	0.7	4.9	9.2	11.4
	1200	42.0	40.0	37.5	36.5	0.8	5.7	11.0	13.7
	1500	52.5	50.5	48.0	47.0	1.0	6.9	13.8	17.1
	1800	63.2	61.0	58.5	57.5	1.0	8.3	16.2	20.3
IVP(Q/V)1-12	1000	37.9	36.4	34.4		0.7	5.6	10.4	
	1200	45.5	44.0	42.0		0.9	6.5	12.5	
	1500	56.9	55.4	53.4		1.1	7.9	15.6	
	1800	68.2	66.7	64.7		1.1	9.4	18.4	
IVP(Q/V)1-14	1000	44.2	42.7	40.7		1.0	6.6	12.2	
	1200	53.0	51.5	49.5		1.1	7.8	14.6	
	1500	66.0	64.0	62.0		1.3	9.6	18.2	
	1800	79.5	77.5	75.5		1.4	11.5	21.7	
IVP(Q/V)2-10	1000	32.5	29.5	26.0	24.5	0.9	4.9	9.3	11.3
	1200	39.0	36.0	32.5	31.0	1.0	5.8	11.1	13.5
	1500	48.8	45.8	42.3	40.8	1.2	7.2	13.8	16.8
	1800	58.5	55.5	52.0	50.5	1.3	8.5	16.5	20.1
IVP(Q/V)2-12	1000	38.3	35.9	33.3	31.8	1.0	5.7	10.9	13.4
	1200	46.0	43.6	41.0	39.5	1.1	6.5	13.0	16.0
	1500	57.5	55.1	52.5	51.0	1.3	8.3	16.1	19.9
	1800	69.0	66.6	64.0	62.5	1.4	9.8	19.3	23.8
IVP(Q/V)2-14	1000	43.3	40.2	36.8	35.8	1.2	6.4	12.2	15.1
	1200	52.0	48.5	45.5	44.5	1.3	7.5	14.5	18.0
	1500	65.0	61.9	58.5	57.5	1.5	9.4	18.0	22.4
	1800	78.0	74.9	71.5	70.5	1.7	11.1	21.5	26.7
IVP(Q/V)2-15	1000	46.7	43.7	40.7	39.2	1.2	6.8	13.0	15.9
	1200	56.0	53.0	50.0	48.5	1.3	8.0	15.5	19.0
	1500	70.0	67.0	64.0	62.5	1.5	9.9	19.3	23.6
	1800	84.0	81.0	78.0	76.5	1.7	11.8	23.0	28.3
IVP(Q/V)2-17	1000	52.5	49.7	46.5	44.5	1.4	7.4	14.3	17.6
	1200	63.0	60.6	57.0	55.0	1.5	9.0	17.0	21.0
	1500	78.8	76.0	72.8	70.8	1.7	10.8	21.1	26.1
	1800	94.5	91.7	88.5	86.5	1.9	12.9	25.1	31.2
IVP(Q/V)2-19	1000	59.2	56.2	53.2	50.2	1.5	8.5	16.0	20.1
	1200	71.0	68.0	65.0	62.0	1.7	10.0	19.0	24.0
	1500	88.7	85.7	82.7	79.7	1.9	12.3	24.1	29.8
	1800	106.5	103.7	100.7	97.7	2.2	14.7	28.2	35.7
IVP(Q/V)2-21	1000	65.0	62.2	59.0	57.0	1.6	9.2	17.6	21.8
	1200	78.0	75.0	72.0	70.0	1.8	11.0	21.0	26.0
	1500	97.5	94.7	91.5	89.5	2.1	13.4	26.1	32.3
	1800	117	114	111	109	2.3	16.0	31.1	38.6

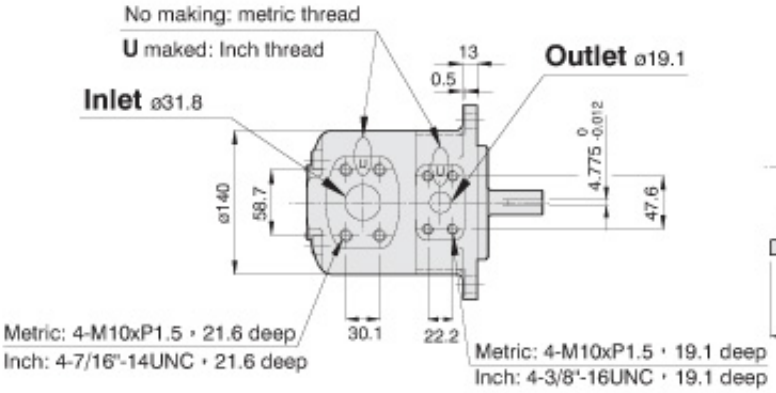
IVP(Q/V) Single Pumps - Performance Characteristics

Frame size	Speed (r/min)	Output flow (L/min)				Input power (kw)			
		6.9bar	69bar	138bar	172bar	6.9bar	69bar	138bar	172bar
IVP(Q/V)2-25	1000	78.8	74.8	71.5		2.0	11.2	21.4	
	1200	94.6	90.3	87.8		2.2	13.4	25.6	
	1500	118.2	113.0	110.0		2.6	16.3	31.8	
	1800	141.0	137.0	134.0		2.8	19.5	32.4	
IVP(Q/V)3-17	1000	53.3	47.3	41.3	38.3	1.4	6.8	12.6	15.5
	1200	64.0	58.0	52.0	49.0	1.5	8.0	15.0	18.5
	1500	80.0	74.0	68.0	65.0	1.7	9.8	18.6	22.9
	1800	96.0	90.0	84.0	81.0	1.9	11.6	22.1	27.4
IVP(Q/V)3-21	1000	66.7	60.7	54.7	51.7	1.6	8.9	16.8	20.6
	1200	80.0	74.0	68.0	65.0	1.8	10.5	20.0	24.5
	1500	100	94.0	88.0	85.0	2.0	12.9	24.8	30.4
	1800	120	114	108.0	105.0	2.3	15.4	30.5	36.4
IVP(Q/V)3-25	1000	79.2	73.5	67.2	64.2	1.8	10.7	20.5	25.1
	1200	95.0	89.0	83.0	80.0	2.0	12.5	24.5	30.0
	1500	119	113	107.0	104.0	2.3	15.7	30.4	37.3
	1800	142	136	130.0	127.0	2.6	18.7	36.4	44.6
IVP(Q/V)3-30	1000	95.0	88.4	81.0	78.0	1.8	12.6	24.7	30.5
	1200	114	107	100	97.0	2.0	15.0	29.5	36.5
	1500	142	136	128	125	2.4	18.6	36.7	45.5
	1800	171	164	157	154	2.7	22.2	44.0	54.5
IVP(Q/V)3-32	1000	100	92.0	85.0	82.0	2.1	13.5	26.0	32.2
	1200	120	112	105	102	2.3	16.0	31.0	38.5
	1500	150	142	135	132	2.7	19.8	38.6	47.9
	1800	180	172	165	162	3.1	23.6	46.1	57.4
IVP(Q/V)3-35	1000	109	103	95.2	92.2	2.2	14.2	27.6	34.3
	1200	131	124	117	114	2.5	17.0	33.0	41.0
	1500	164	157	150	147	2.9	20.9	41.0	51.0
	1800	196	189	182	179	3.3	24.9	50.4	61.1
IVP(Q/V)3-38	1000	118	111	102	99.3	2.7	15.5	29.8	36.9
	1200	142	134	126	123	3.0	18.5	35.5	44.0
	1500	177	170	161	158	3.4	22.7	44.0	54.7
	1800	213	205	197	194	3.9	27.0	52.6	65.4
IVP(Q/V)3-42	1000	134	125	118		2.7	17.7	35.2	
	1200	160	152	144		3.0	21.0	42.0	
	1500	201	193	185		3.5	26.0	52.3	
	1800	241	233	225		4.0	31.0	62.5	
IVP(Q/V)4-30	1000	96.0	87.0	77.0	72.0	1.6	13.4	25.1	30.9
	1200	115	106	96.0	91.0	2.0	15.0	30.0	37.0
	1500	144	135	125	120	2.4	18.6	37.4	46.1
	1800	172.5	163.5	153.5	148.5	2.8	22.3	44.7	55.2
IVP(Q/V)4-35	1000	109	100	90.0	85.0	1.7	14.2	28.4	35.1
	1200	131	122	112	107	2.0	17.0	34.0	42.0
	1500	164	157	145	140	2.4	21.2	42.4	52.4
	1800	196.5	187.5	177.5	172.5	2.9	25.4	50.9	62.9
IVP(Q/V)4-38	1000	128	119	109	104	2.7	16.8	33.5	41.0
	1200	154	145	135	130	3.0	20.0	40.0	49.0
	1500	192.5	183.5	173.5	168.5	3.5	24.8	49.8	61.0
	1800	231	222	212	207	4.0	29.5	59.5	73.0
IVP(Q/V)4-42	1000	134	125	115	110	2.7	17.7	35.2	43.5
	1200	161	152	142	137	3.0	21.0	42.0	52.0
	1500	201	192	182	177	3.5	26.0	52.3	64.7
	1800	241	232	222	217	4.0	31.0	62.5	77.5
IVP(Q/V)4-50	1000	156	147	137	132	3.1	20.2	39.4	49.3
	1200	187	178	168	163	3.5	24.0	47.0	59.0
	1500	234	225	215	210	4.0	29.7	58.5	73.4
	1800	280	271	261	256	4.7	35.4	69.9	87.9
IVP(Q/V)4-60	1000	189	178	166	160	4.0	24.4	46.9	58.6
	1200	227	216	204	198	4.5	29.0	56.0	70.0
	1500	284	273	261	255	5.2	35.8	69.6	87.1
	1800	340	329	317	311	5.9	42.7	83.2	104
IVP(Q/V)4-67	1000	210	199	187		4.5	27.1	52.1	
	1200	252	241	229		5.0	32.2	62.2	
	1500	315	304	292		5.8	39.8	77.4	
	1800	378	366	354		6.6	47.5	92.5	
IVP(Q/V)4-75	1000	236	225	213		5.0	30.5	58.7	
	1200	289	280	269		5.6	36.3	70	
	1500	354	343	331		6.5	44.8	87	
	1800	424	414	401		7.4	53.4	104.0	

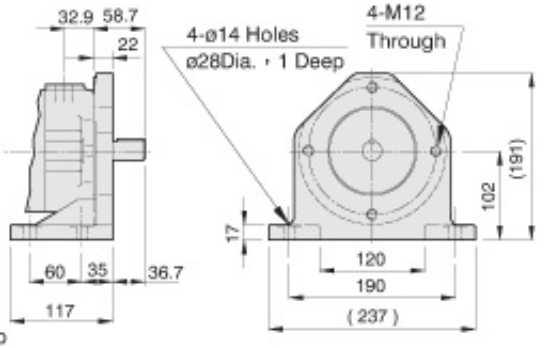
Typical flows at 50˚C, 10W oil at 26sSt, 0 bar inlet at specified speeds.

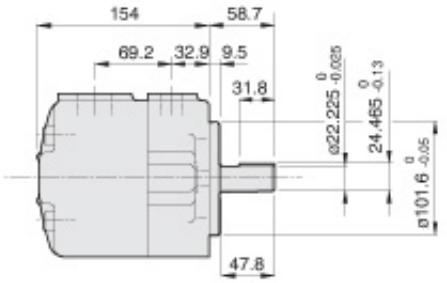

Hydraulic
Vane Pumps
IVP Series
IVPQ Series

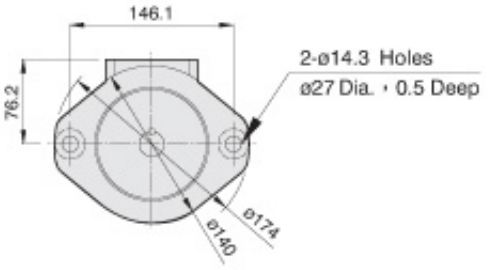
IVP1 Flange Mounting
Shaft Model No.1



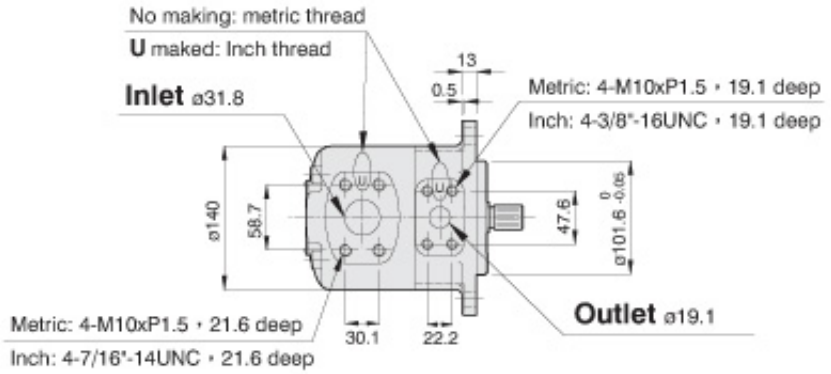
IVP1 Foot Mounting
Shaft Model No.1





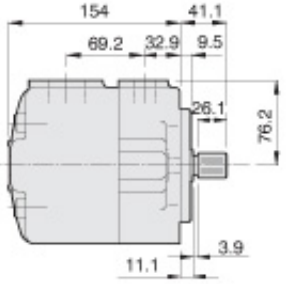


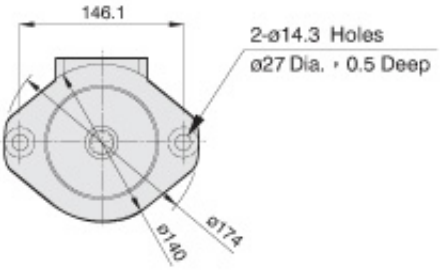
IVP1 Flange Mounting
Shaft Model No.151



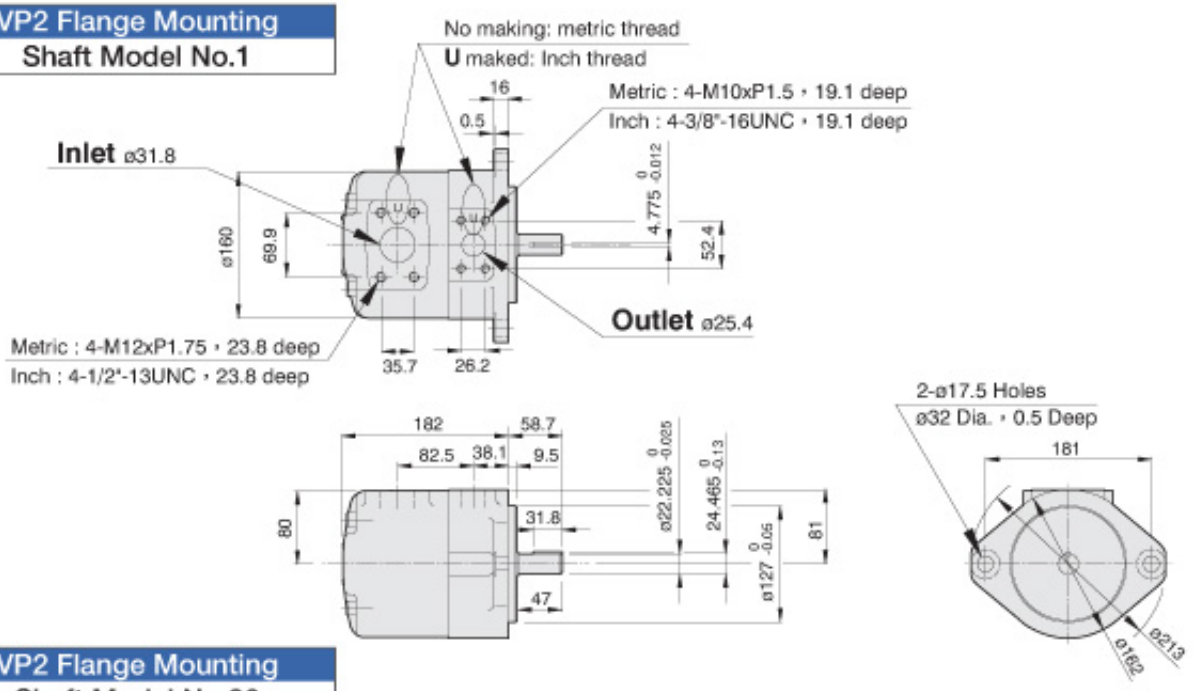
ANSI B92.1 CLASS 5

Module	D.P.16/32
Pressure angle	30°
No. of teeth	**13**
Pitch DIA.	ø20.6375
Major DIA.	ø22.175 $^{+0}_{-0.025}$
Minor DIA.	ø18.63 $^{+0}_{-0.25}$

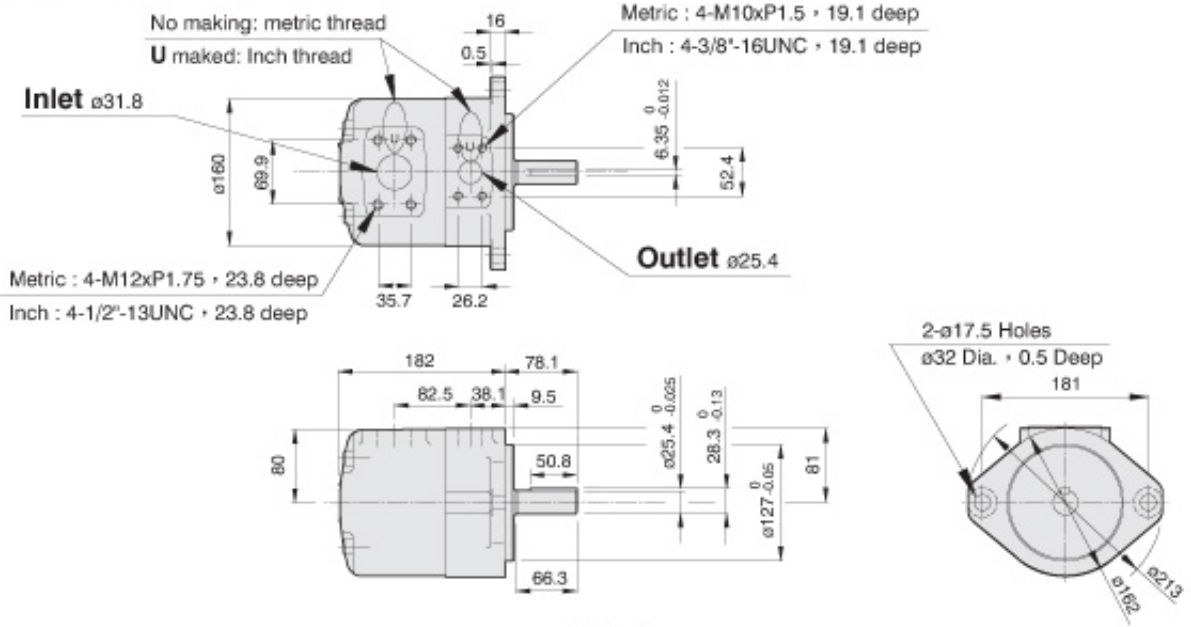




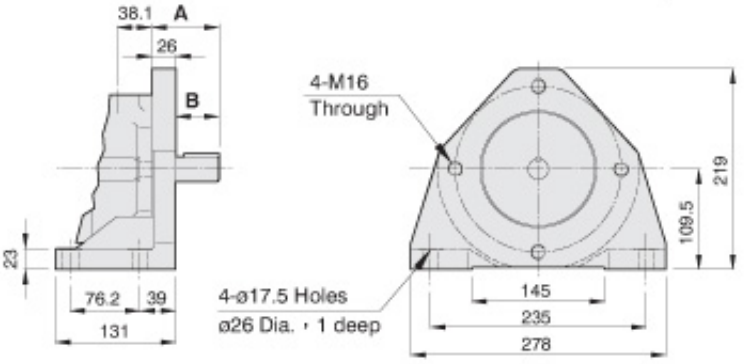
IVP2 Flange Mounting
Shaft Model No.1



IVP2 Flange Mounting
Shaft Model No.86

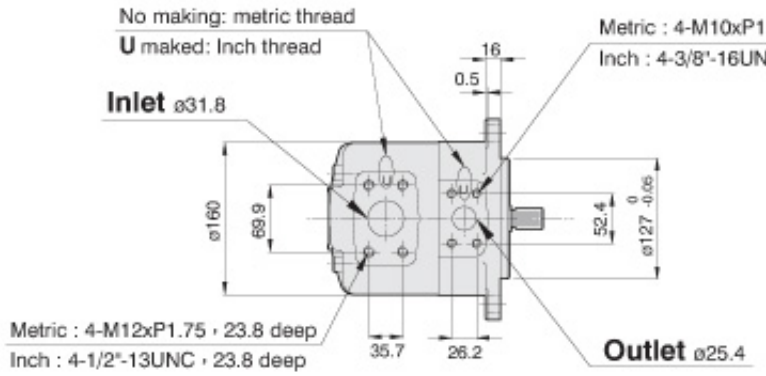


IVP2 Foot Mounting
Shaft Model No.1 / No.86



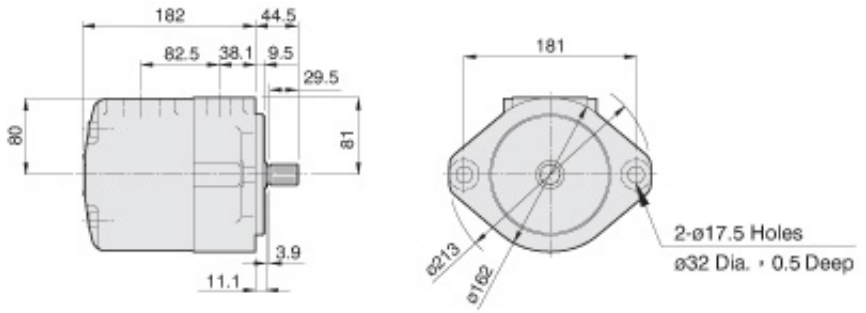
IVP2 DIMENSION		
Shaft model	A	B
No. 1	58.7	32.7
No. 86	78.1	52.1

IVP2 Flange Mounting
Shaft Model No.11

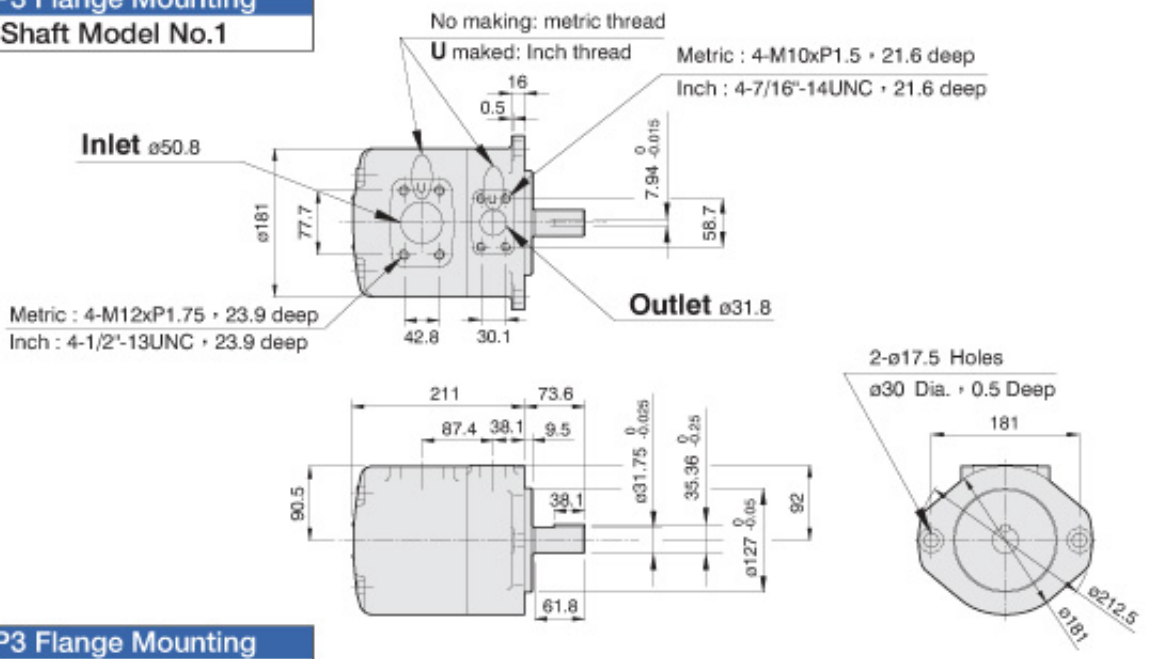


ANSI B92.1 CLASS 5

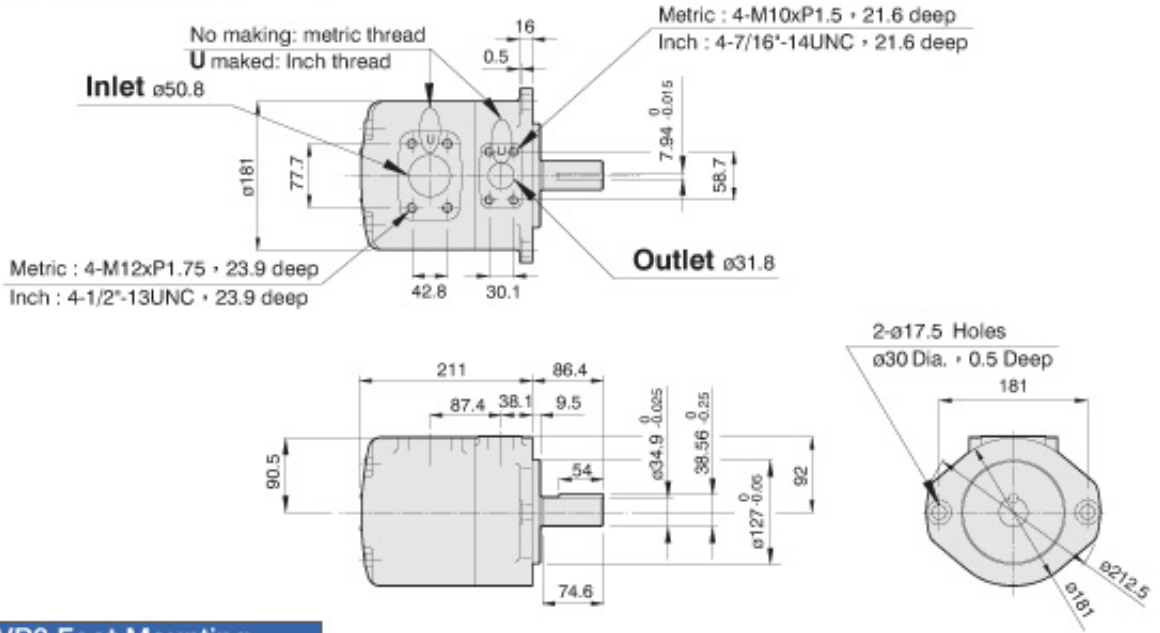
Module	D.P.16/32
Pressure angle	30°
No. of teeth	**13**
Pitch DIA.	ø20.6375
Major DIA.	ø22.175 $^{+0}_{-0.025}$
Minor DIA.	ø18.63 $^{+0}_{-0.25}$



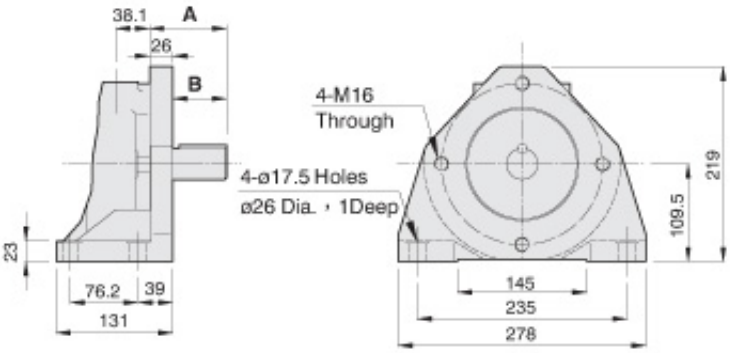
IVP3 Flange Mounting
Shaft Model No.1



IVP3 Flange Mounting
Shaft Model No.86

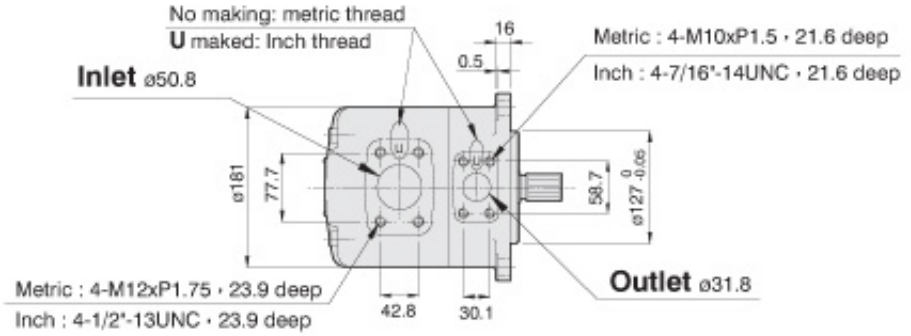


IVP3 Foot Mounting
Shaft Model No.1 / No.86



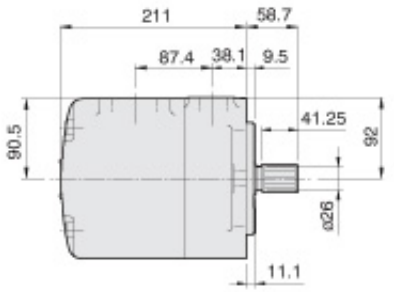
IVP3 DIMENSION		
Shaft model	A	B
No. 1	73.6	47.6
No. 86	86.4	60.4

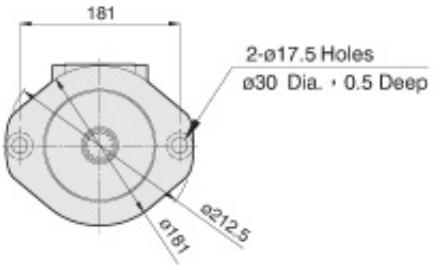
IVP3 Flange Mounting
Shaft Model No.11



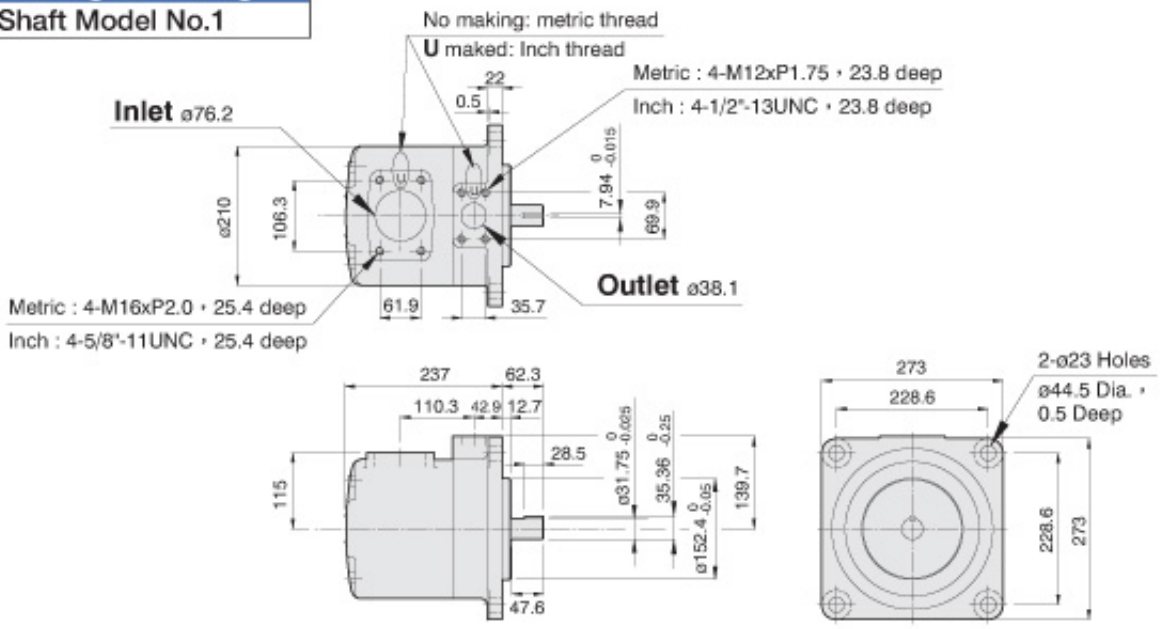
ANSI B92.1 CLASS 5

Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$

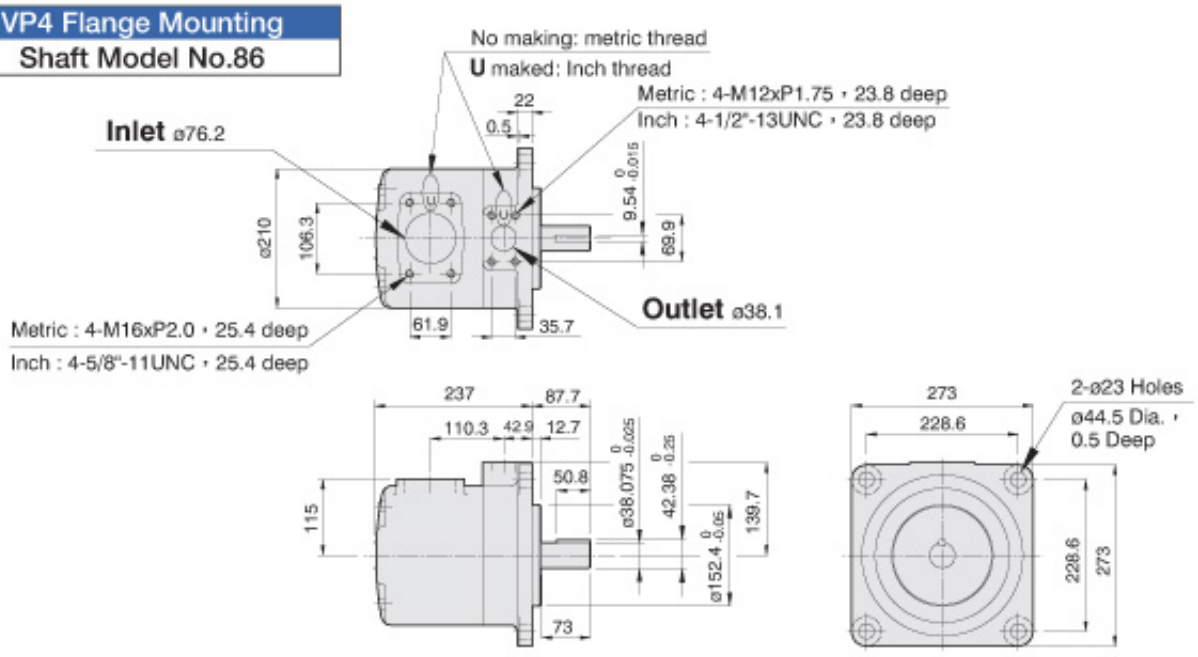




IVP4 Flange Mounting
Shaft Model No.1

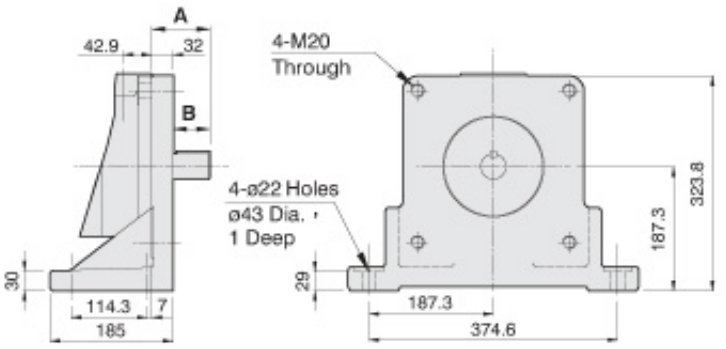


IVP4 Flange Mounting
Shaft Model No.86

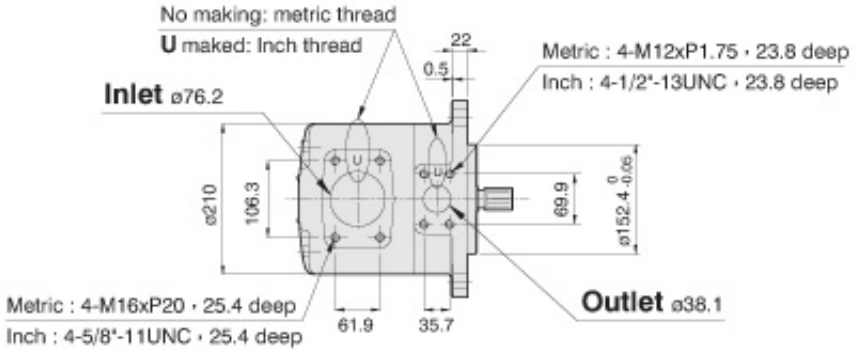


IVP4 Foot Mounting
Shaft Model No.1 / No.86

IVP4 DIMENSION		
Shaft model	A	B
No. 1	62.3	30.3
No. 86	87.7	55.7

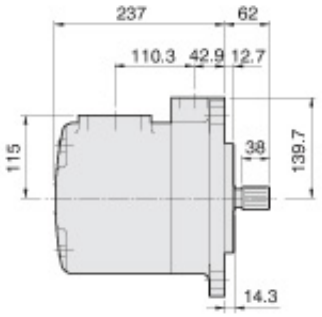


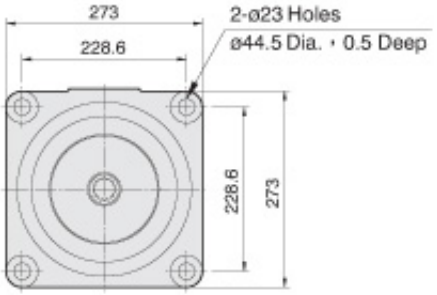
IVP4 Flange Mounting
Shaft Model No.11



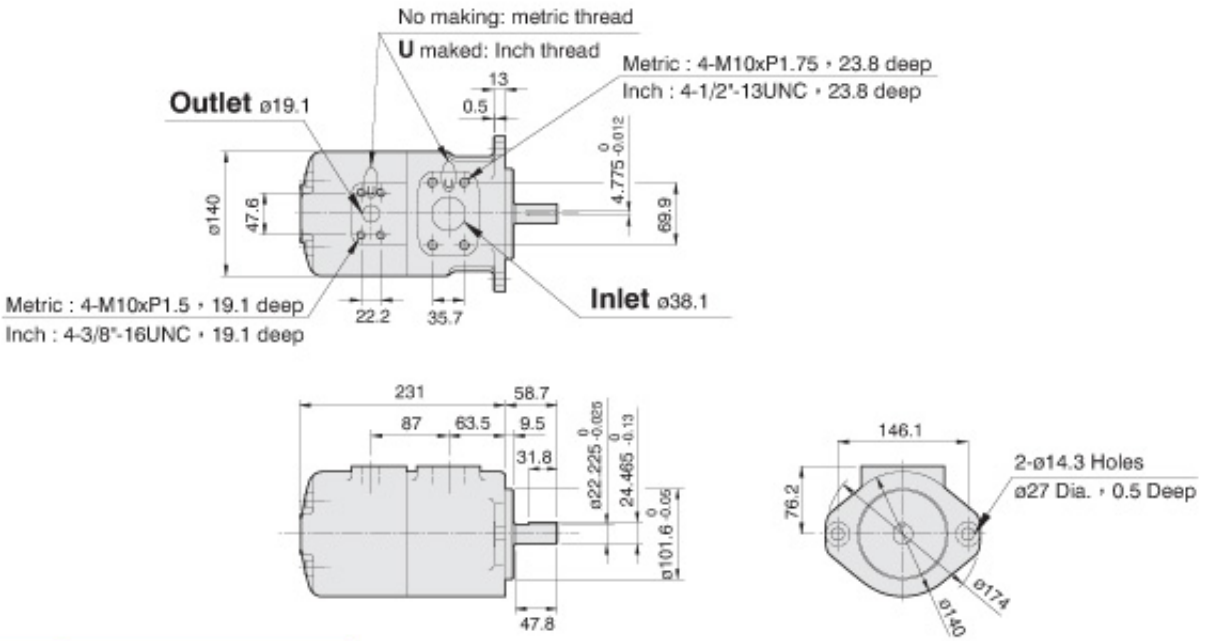
ANSI B92.1 CLASS 5

Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$

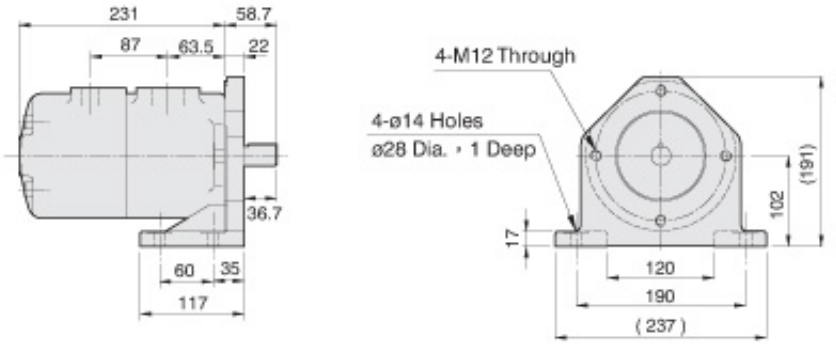




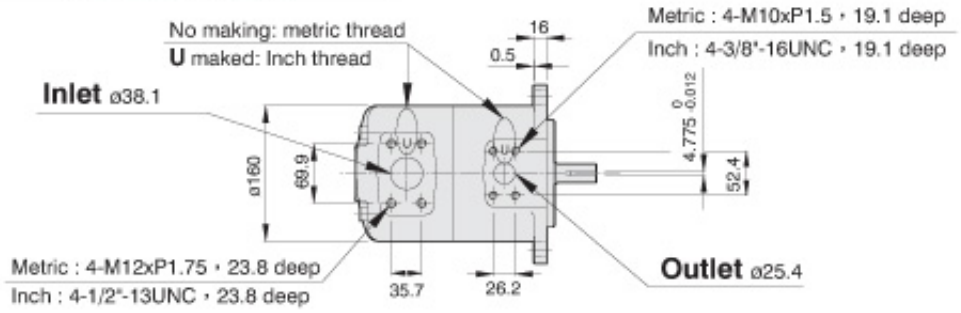
IVPQ1 Flange Mounting
Shaft Model No.1

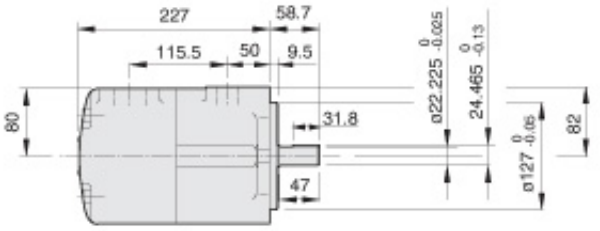


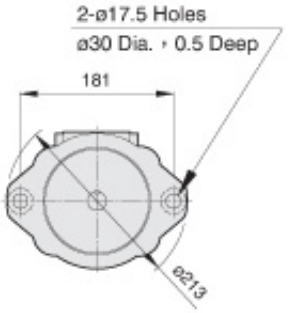
IVPQ1 Foot Mounting
Shaft Model No.1



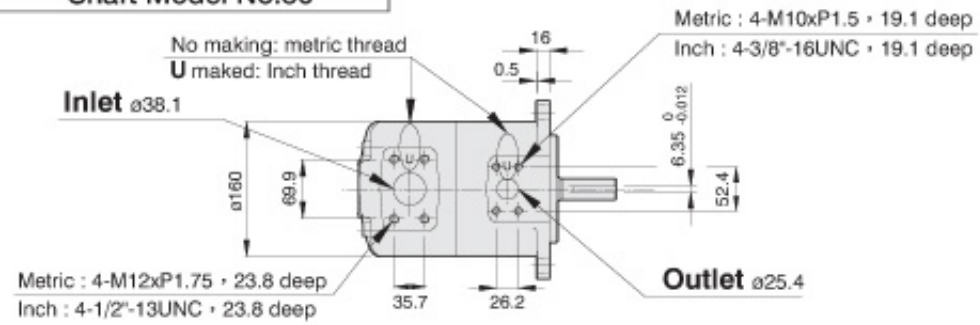
IVPQ2 Flange Mounting
Shaft Model No.1

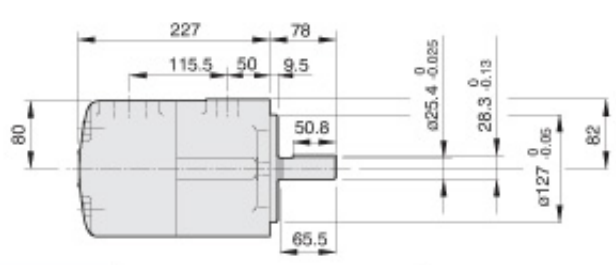


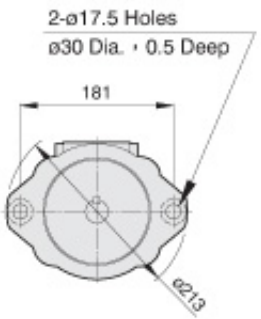




IVPQ2 Flange Mounting
Shaft Model No.86

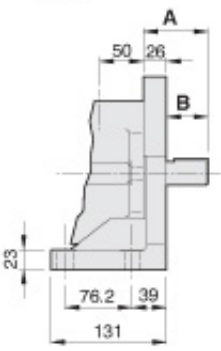


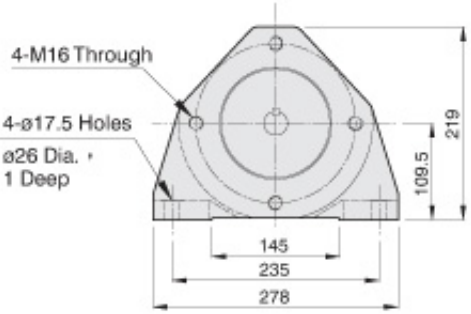




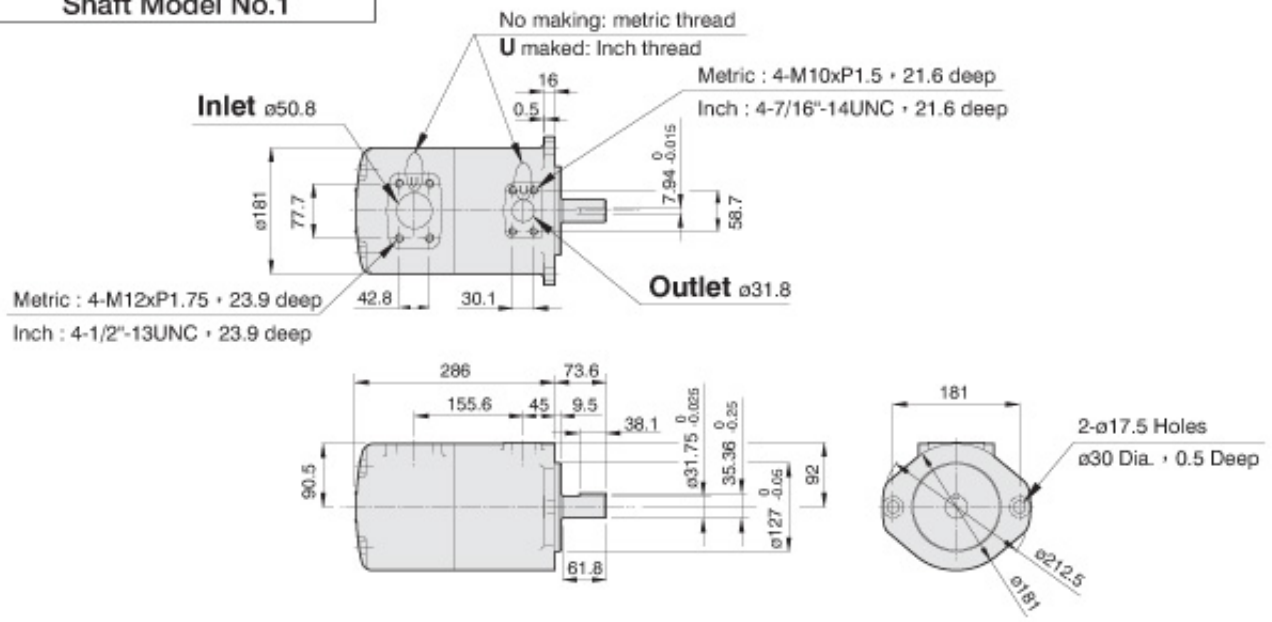
IVPQ2 Foot Mounting
Shaft Model No.1 / No.86

IVPQ2 DIMENSION		
Shaft model	A	B
No. 1	58.7	32.7
No. 86	78.0	52.0

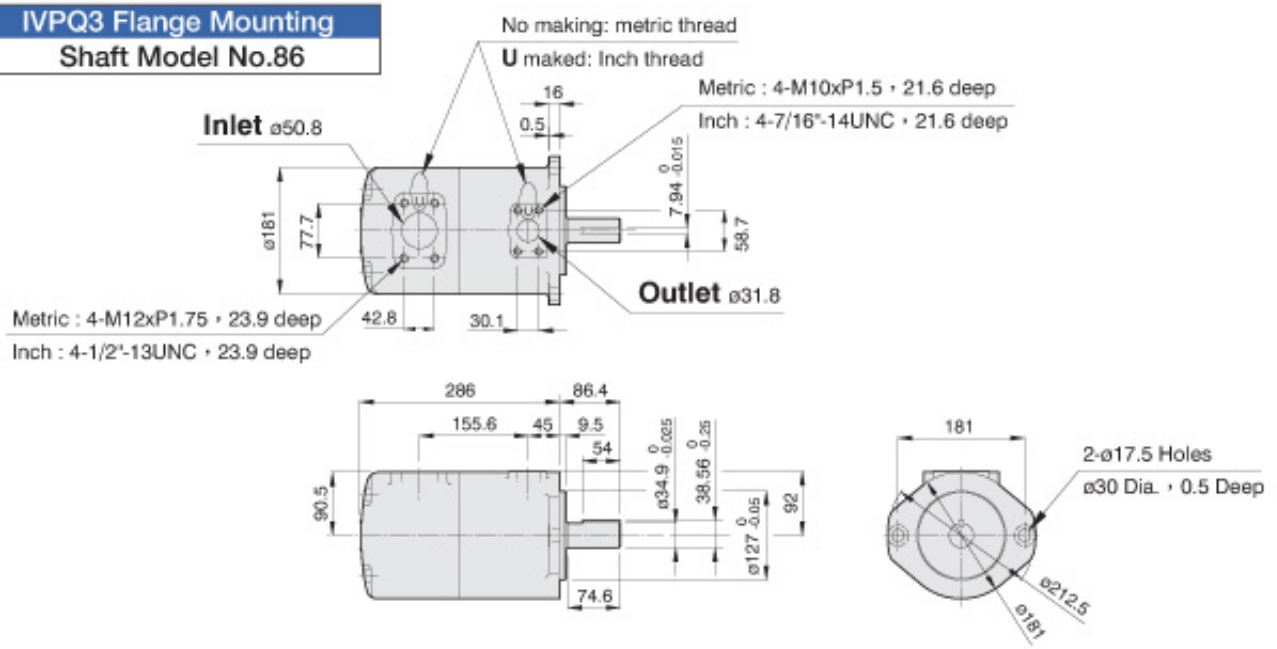




IVPQ3 Flange Mounting
Shaft Model No.1

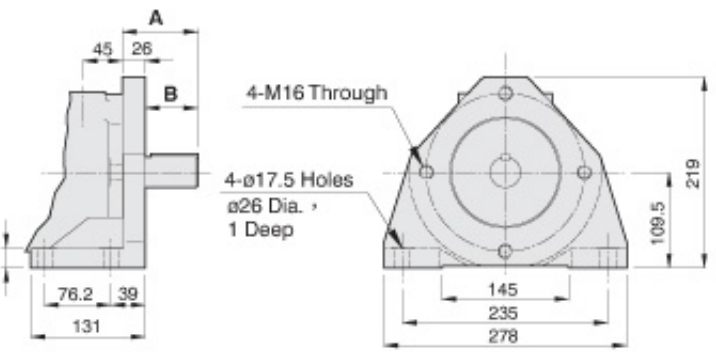


IVPQ3 Flange Mounting
Shaft Model No.86

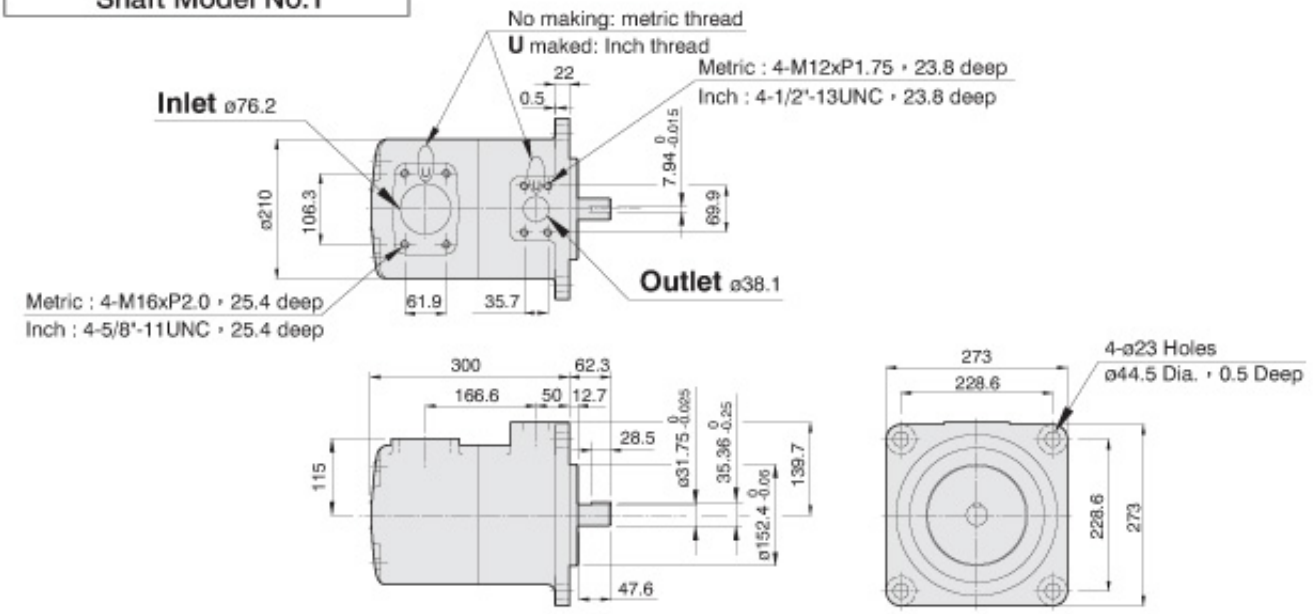


IVPQ3 Foot Mounting
Shaft Model No.1 / No.86

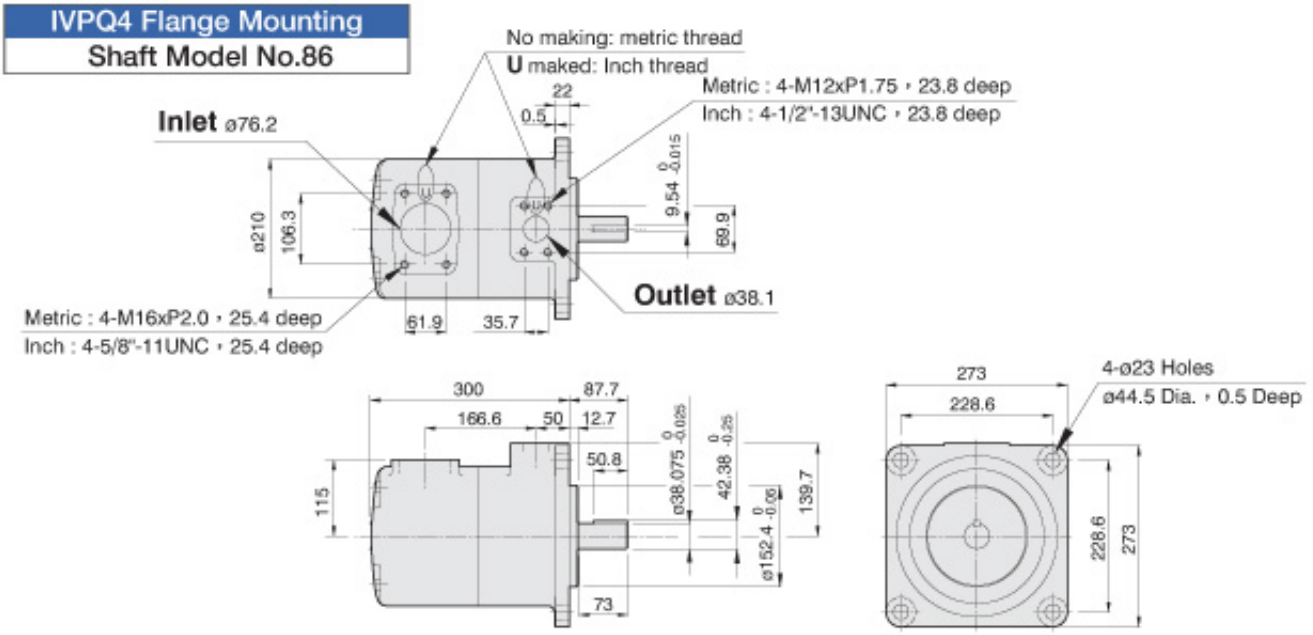
IVPQ3 DIMENSION		
Shaft model	A	B
No. 1	73.6	47.6
No. 86	86.4	60.4



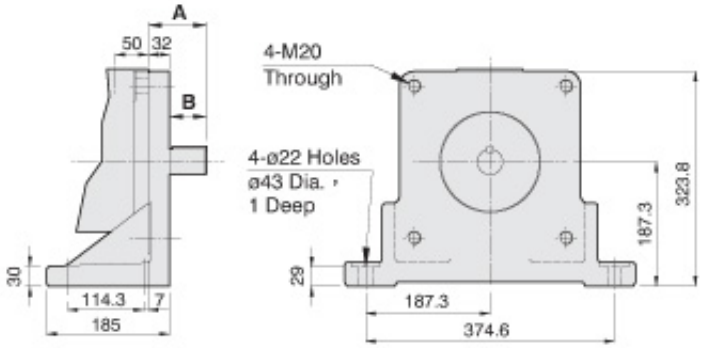
IVPQ4 Flange Mounting
Shaft Model No.1



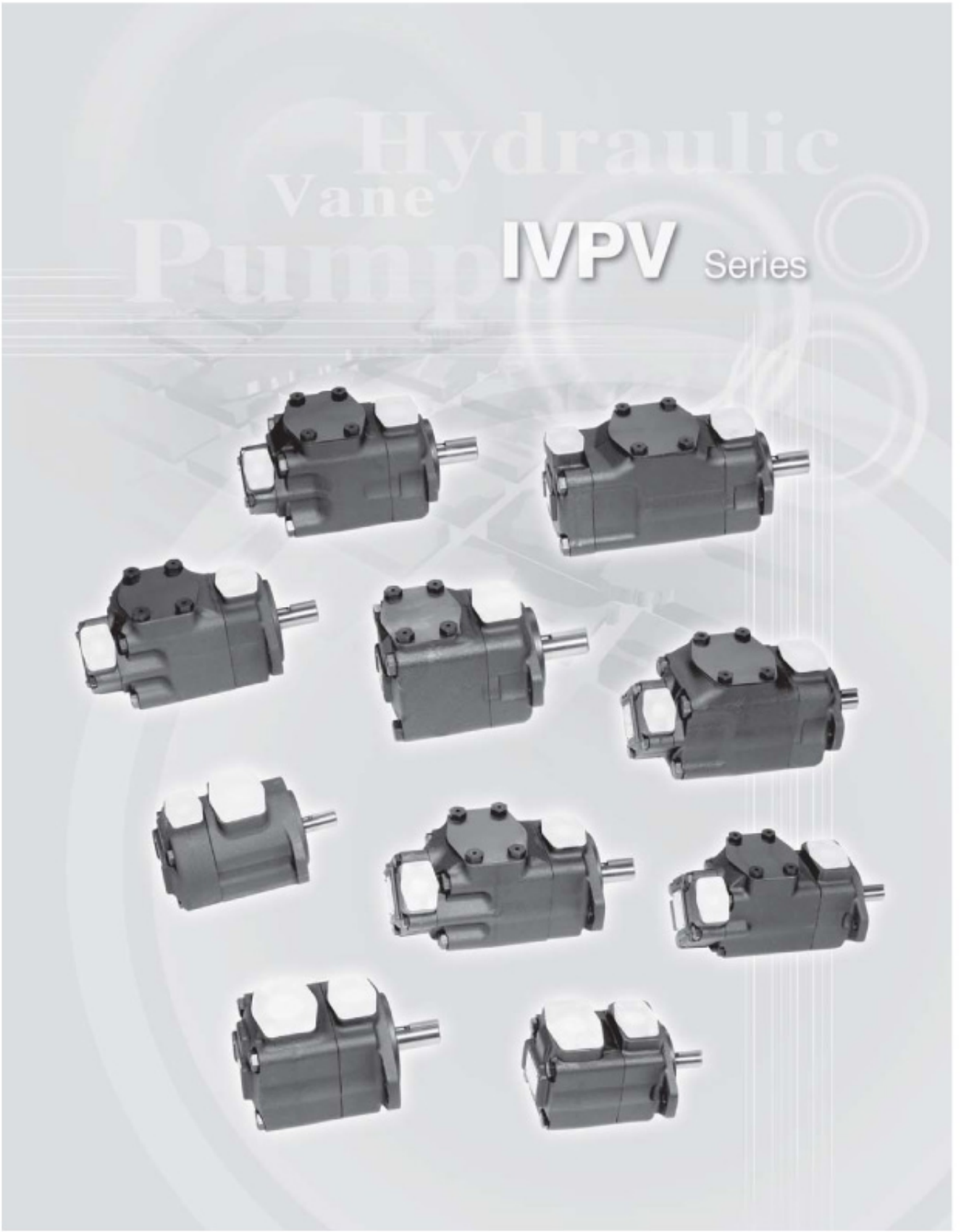
IVPQ4 Flange Mounting
Shaft Model No.86



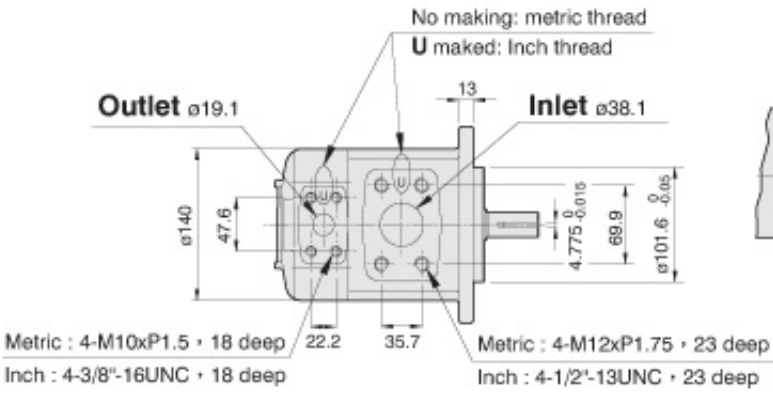
IVPQ4 Foot Mounting
Shaft Model No.1 / No.86



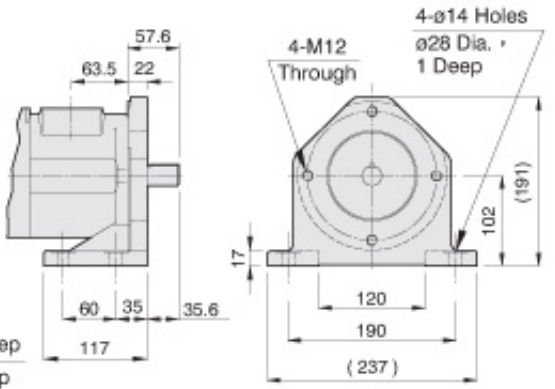
IVPQ4 DIMENSION		
Shaft model	A	B
No. 1	62.3	30.3
No. 86	87.7	55.7

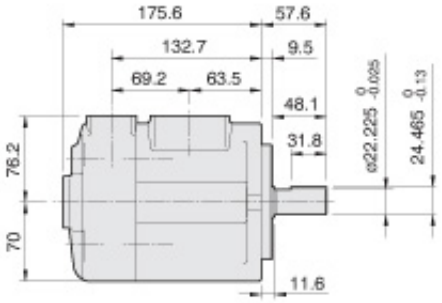

Hydraulic
Vane
Pump
IVPV Series

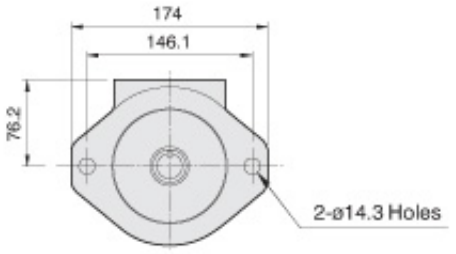
IVPV1 Flange Mounting
Shaft Model No.1



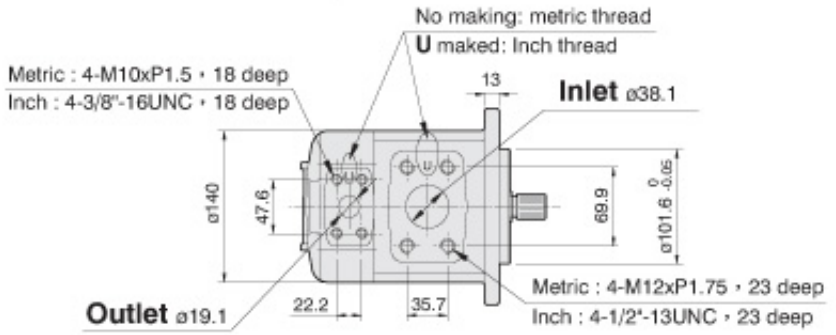
IVPV1 Foot Mounting
Shaft Model No.1





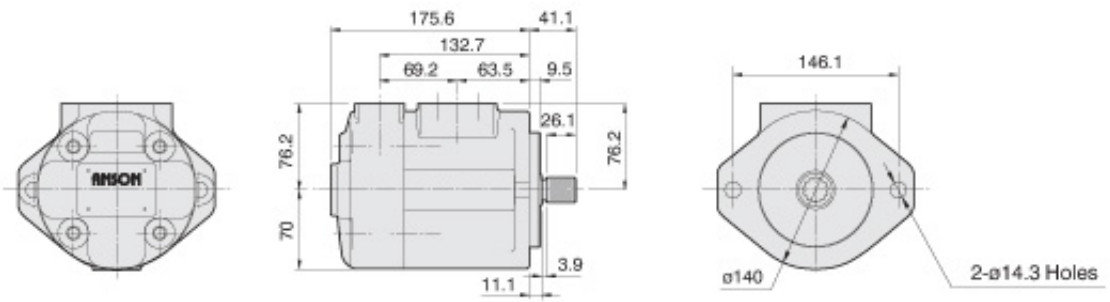


IVPV1 Flange Mounting
Shaft Model No.151

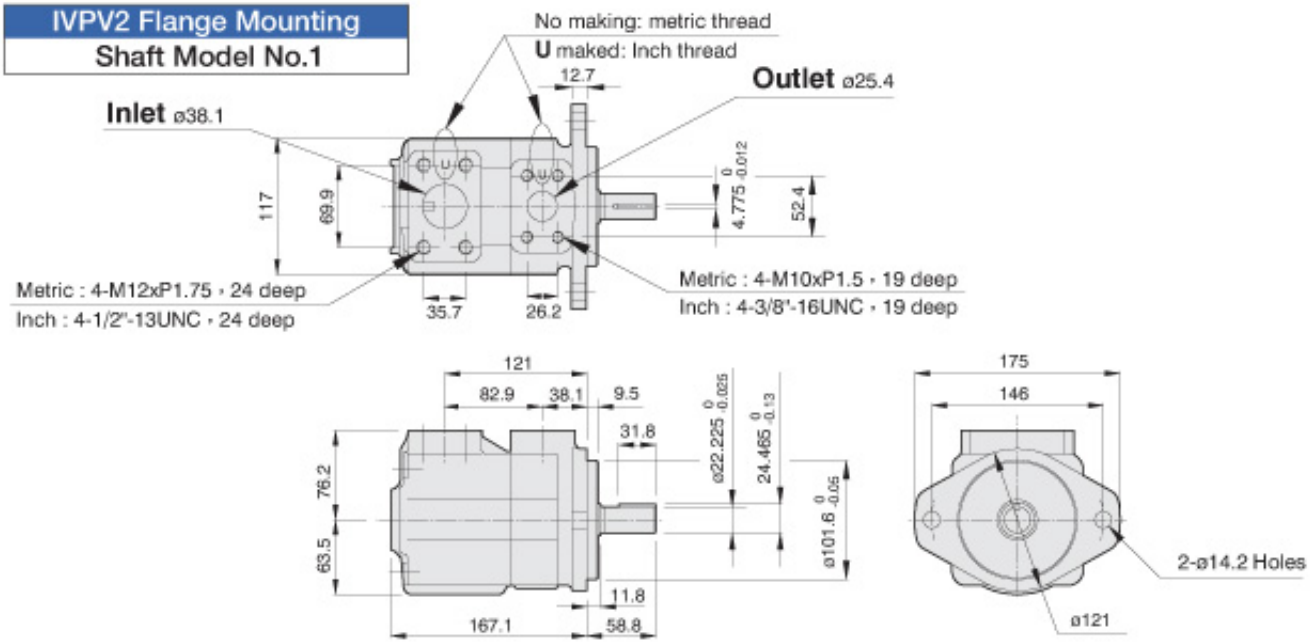


ANSI B92.1 CLASS 5

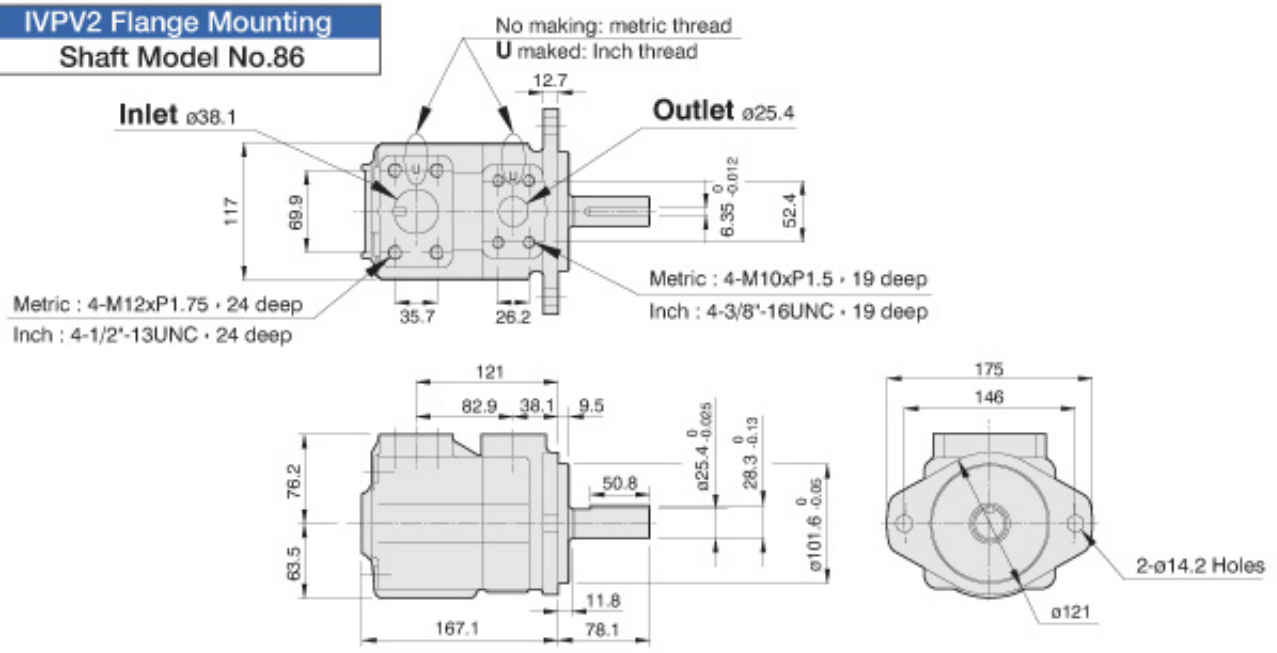
Module	D.P.16/32
Pressure angle	30°
No. of teeth	**13**
Pitch DIA.	ø20.6375
Major DIA.	ø22.175 $^{+0}_{-0.025}$
Minor DIA.	ø18.63 $^{+0}_{-0.25}$



IVPV2 Flange Mounting
Shaft Model No.1

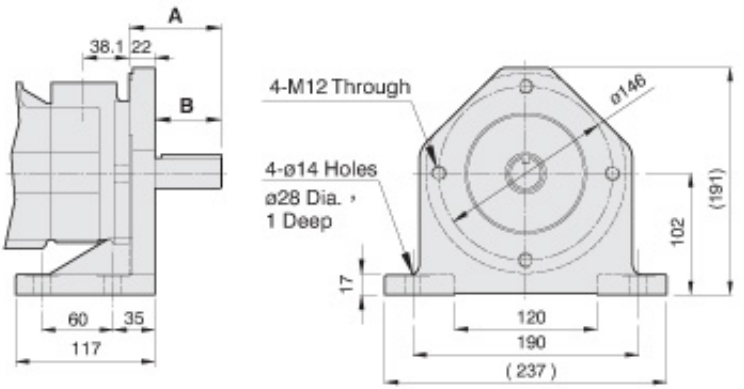


IVPV2 Flange Mounting
Shaft Model No.86

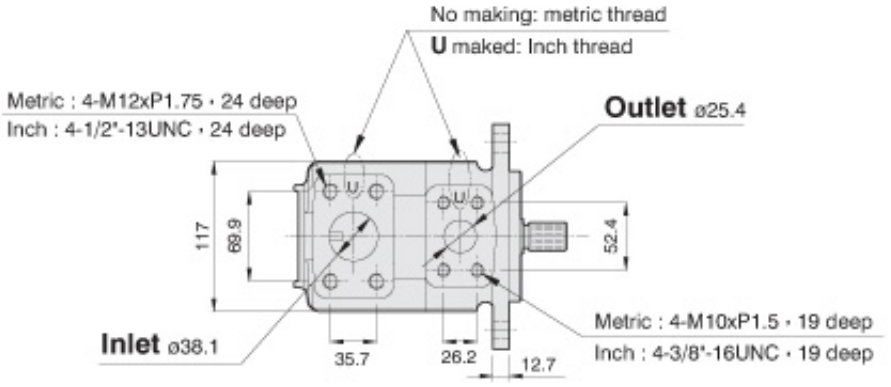


IVPV2 Foot Mounting
Shaft Model No.1 / No.86

IVPV2 DIMENSION		
Shaft model	A	B
No. 1	58.8	36.8
No. 86	78.1	52.1

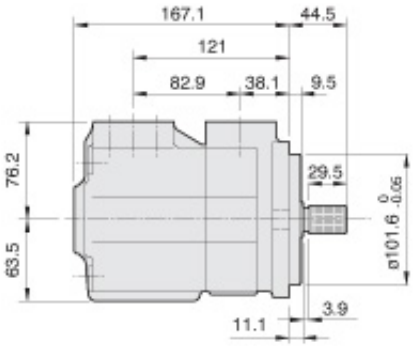


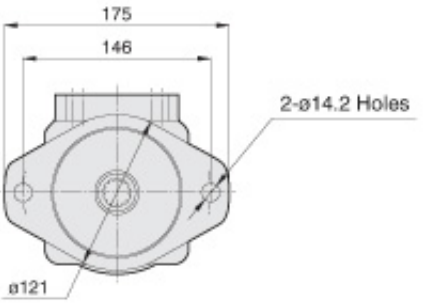
IVPV2 Flange Mounting
Shaft Model No.11



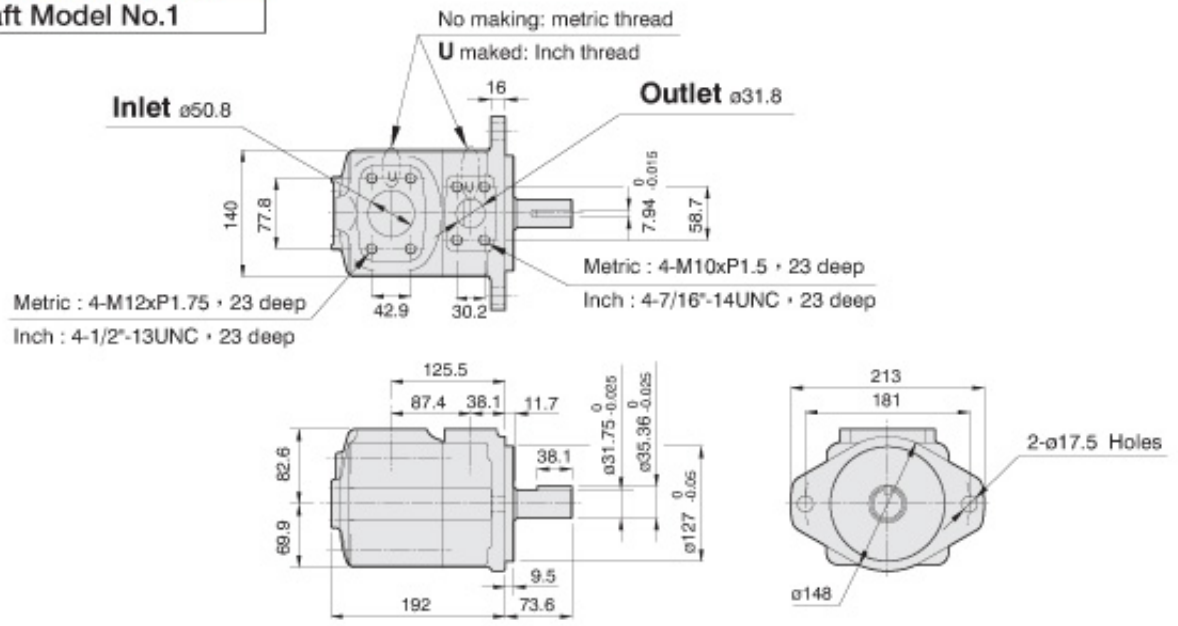
ANSI B92.1 CLASS 5

Module	D.P.16/32
Pressure angle	30°
No. of teeth	**13**
Pitch DIA.	ø20.6375
Major DIA.	$ø22.175^{+0}_{-0.025}$
Minor DIA.	$ø18.63^{+0}_{-0.25}$

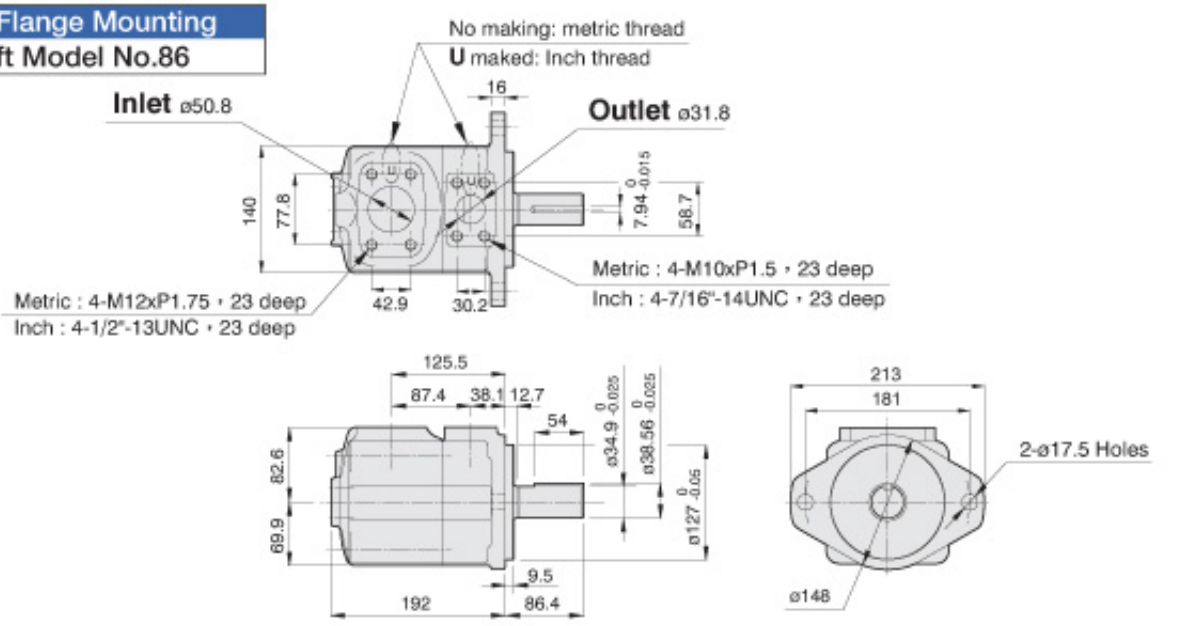




IVPV3 Flange Mounting
Shaft Model No.1

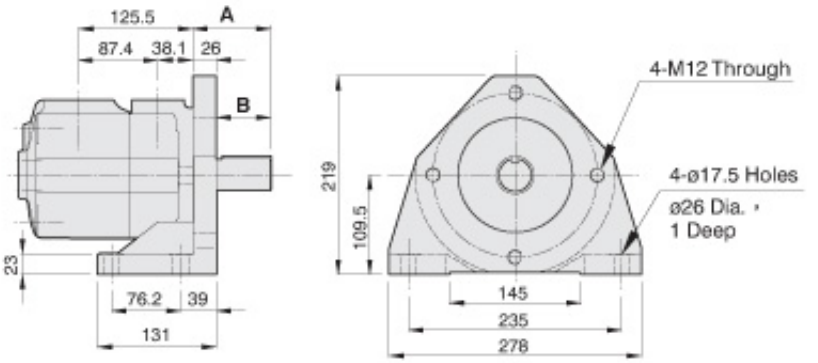


IVPV3 Flange Mounting
Shaft Model No.86

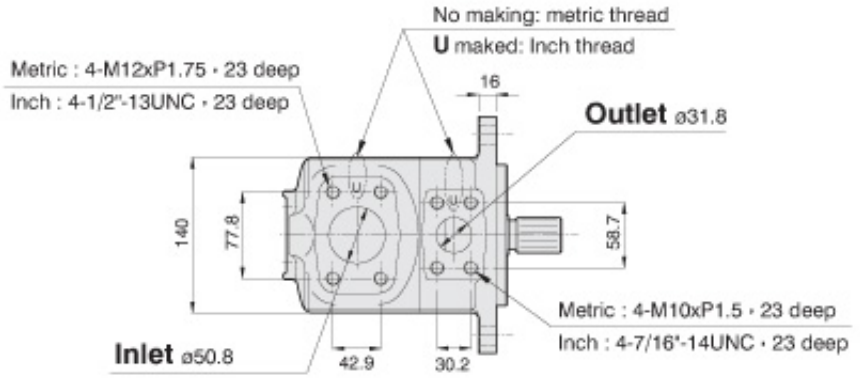


IVPV3 Foot Mounting
Shaft Model No.1 / No.86

IVPV3 DIMENSION		
Shaft model	A	B
No. 1	73.6	47.6
No. 86	86.4	60.4

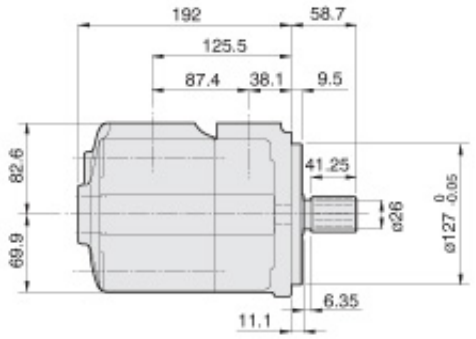


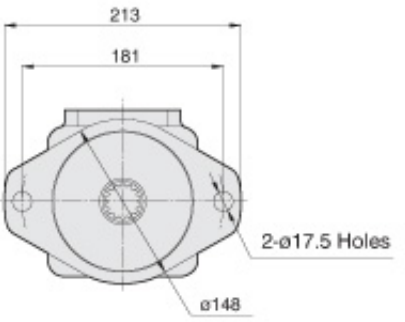
IVPV3 Flange Mounting
Shaft Model No.11



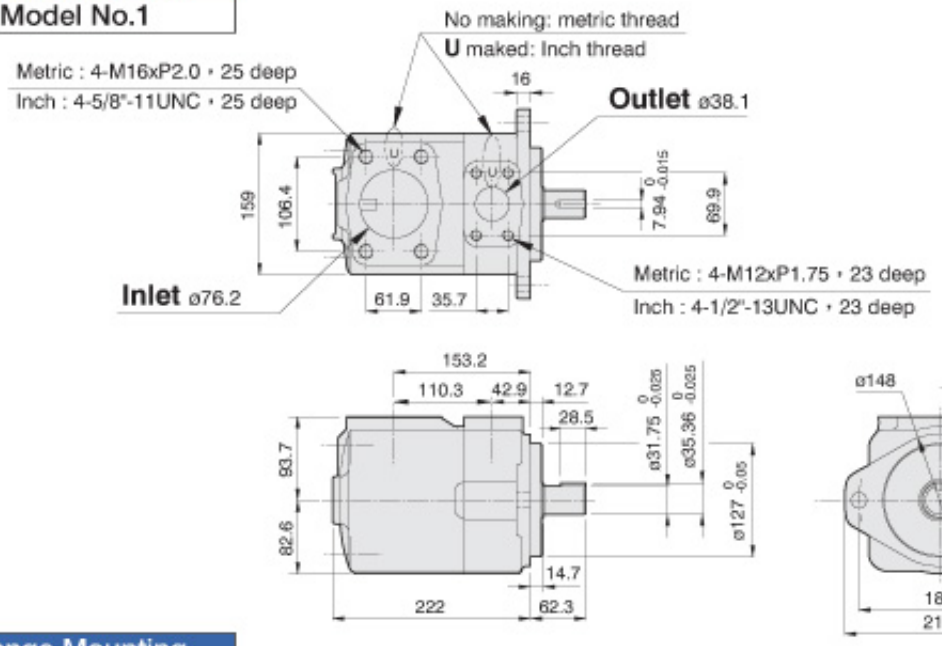
ANSI B92.1 CLASS 5

Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$

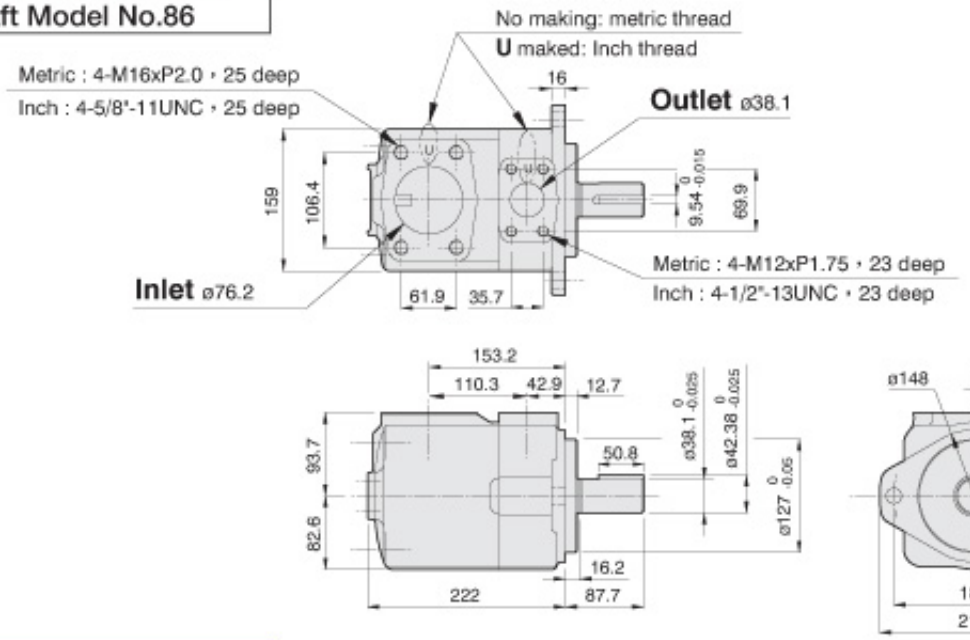




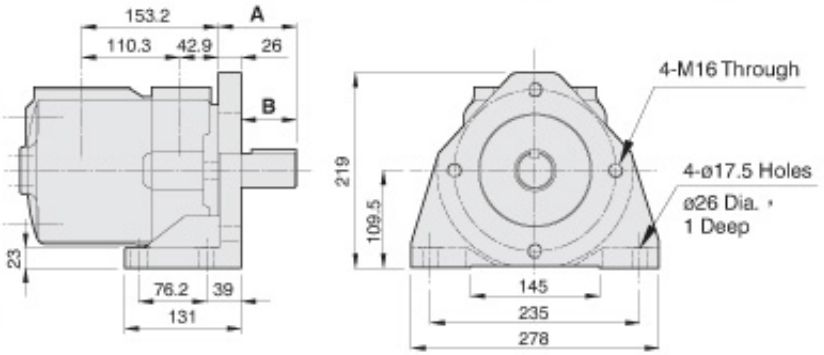
IVPV4 Flange Mounting
Shaft Model No.1



IVPV4 Flange Mounting
Shaft Model No.86

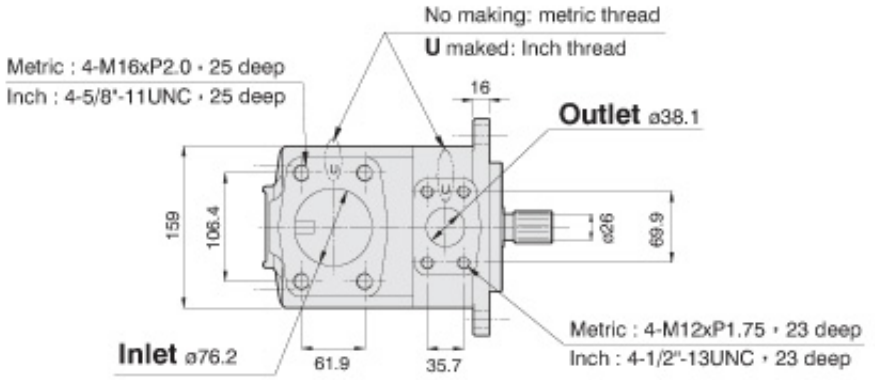


IVPV4 Foot Mounting
Shaft Model No.1 / No.86



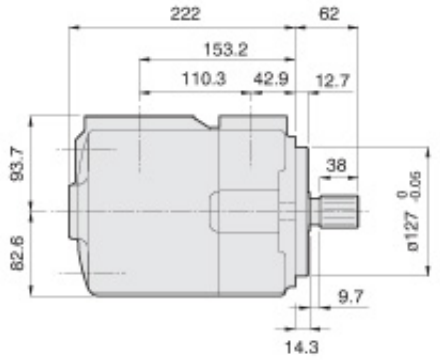
IVPV4 DIMENSION		
Shaft model	A	B
No. 1	62.3	36.3
No. 86	87.7	61.7

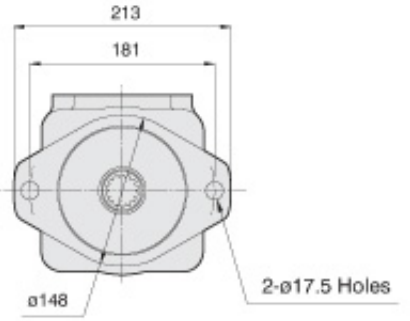
IVPV4 Flange Mounting
Shaft Model No.11



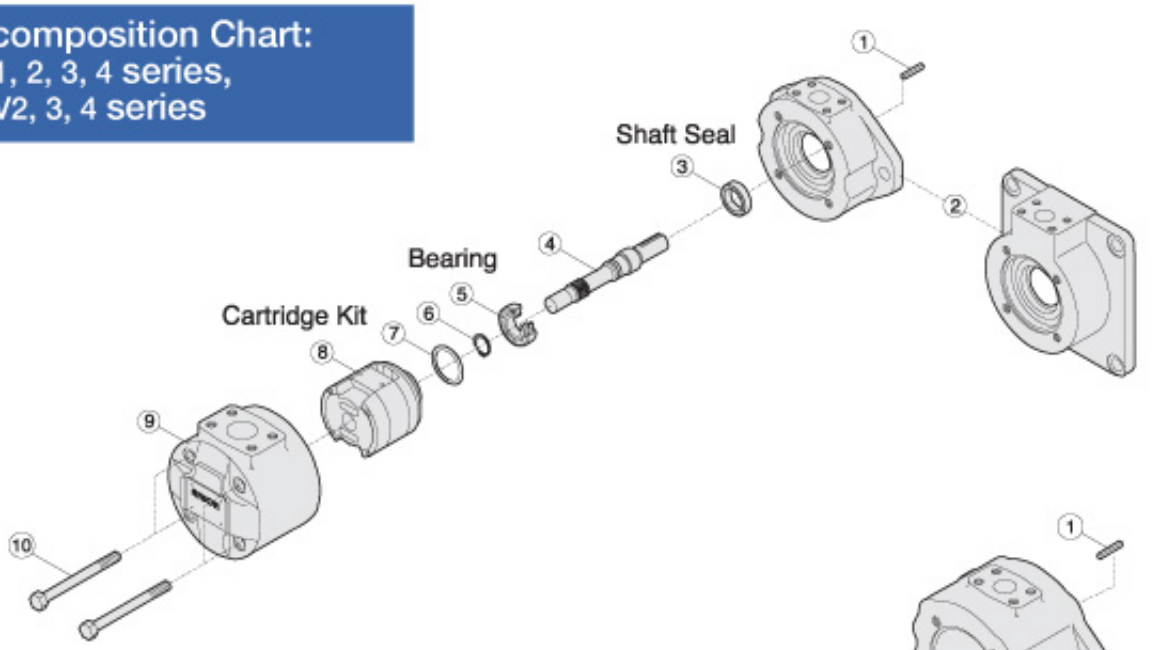
ANSI B92.1 CLASS 5

Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$

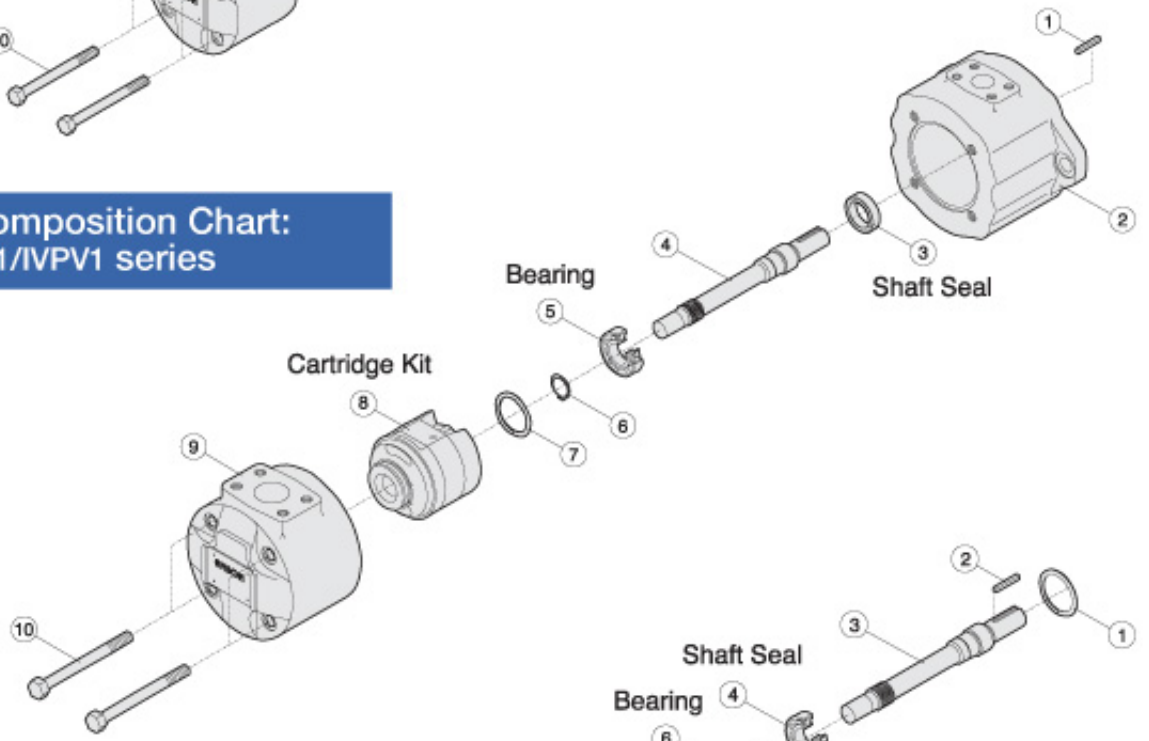




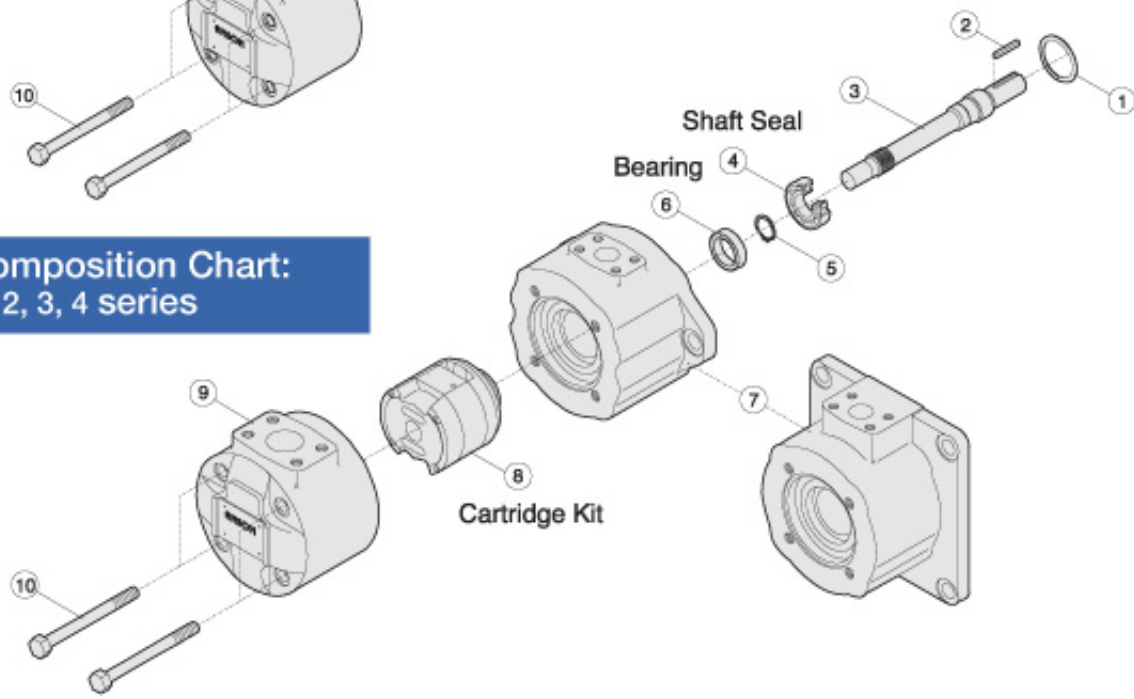
Decomposition Chart:
IVP1, 2, 3, 4 series,
IVPV2, 3, 4 series



Decomposition Chart:
IVPQ1/IVPV1 series



Decomposition Chart:
IVPQ 2, 3, 4 series



IVP(Q/V) Single pumps - Cartridge Kit Model Code

(F3-)	CK-◆IVP(Q/V)2	-17	H	-R	-10
Prefix, fluid compatibility	Cartridge Kit Model	Geometric displacement Cartridge Kit ●Code	Pressure ★type	Rotation	Design
Omit- Using petroleum base oil & anti-wear hydraulic oil. **F11-** Using water glycol fluid. **F3-** Using water-in-oil emulsions or phosphate ester fluid.	**CK-IVP(Q/V)1**	2、3、4、5、6、7、8、10、11、12、14	**Omit-** Standard pressure **H-** High pressure	Viewed from shaft end of pump **R-**Right hand for clockwise **L-**Left hand for count-erclockwise	**10**
	CK-IVP(Q/V)2	10、12、14、15、17、19、21、25			
	CK-IVP(Q/V)3	17、21、25、30、32、35、38、42			
	CK-IVP(Q/V)4	30、35、38、42、50、60、67、75			

● Rated capacity in US gpm at 1200 r/min and 6.9 bar.
◆ Is the model for frame size
★ IVPQ series no **H** high pressure type.

IVP(Q/V) Single Pumps-Cartridge Kit Weight

Cartridge Kit Model	Weight
CK-IVP(Q/V)1	2.5 kg
CK-IVP(Q/V)2	3.8 kg
CK-IVP(Q/V)3	6.5 kg
CK-IVP(Q/V)4	10.2 kg

IVP(Q/V) Single Pumps - Shaft Seal & Bearing

Frame size	Shaft Seal	Bearing
IVP(V)1	TBY 29.36x42.82x7.9	6204
IVP(V)2	TBY 29.36x42.82x7.9	6205
IVP(V)3	TBY 36.5x50.8x7.9	6306
IVP(V)4	TBY 41.28x60.32x9.5	6307
IVPQ1	TBY 29.36x42.82x7.9	6204
IVPQ2	TBY 24.59x44.5x7.9	6205zz
IVPQ3	TBY 29.36x42.82x7.9	6306zz
IVPQ4	TBY 34.93x57.15x7.9	6307zz

IVP

IVPQ

IVPV

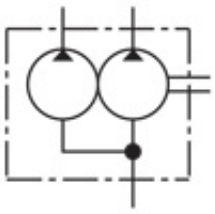
IVP(Q/V) Model Code - Double Pumps

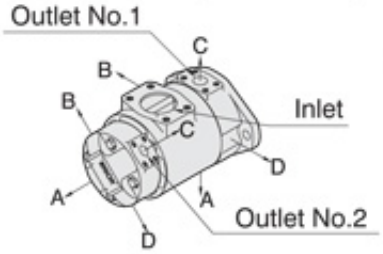
F3-	IVP(Q/V)21	-17	H	-12	H	A	M
Prefix, fluid compatibility	Frame size	Geometric displ. shaft end pump •Code	Pressure type ★	Geometric displ. cover end pump •Code	Pressure type ★	Port connec-tions	Port connections modifier
Omit- Using petroleum base oil & anti-wear hydraulic oil. **F11-** Using water glycol fluid. **F3-** Using water-in-oil emulsions or phosphate ester fluid.	**IVP(Q/V)21**	10、12、14、15、17、19、21、25	**Omit-** Standard pressure **H-** High pressure	2、3、4、5、6、7、8、10、11、12、14	**Omit-** Standard pressure **H-** High pressure	**A-** SAE 4 bolt flange	**M-** Metric (4-bolt flange) **Omit-** Inch (4-bolt flange)
	IVP(Q/V)31	17、21、25、30、32、35、38、42		2、3、4、5、6、7、8、10、11、12、14			
	IVP(Q/V)32	17、21、25、30、32、35、38、42		10、12、14、15、17、19、21、25			
	IVP(Q/V)41	30、35、38、42、50、60、67、75、		2、3、4、5、6、7、8、10、11、12、14			
	IVP(Q/V)42	30、35、38、42、50、60、67、75、		10、12、14、15、17、19、21、25			
	IVP(Q/V)43	30、35、38、42、50、60、67、75、		17、21、25、30、32、35、38、42			

▲ IVPQ series no splined shaft model.

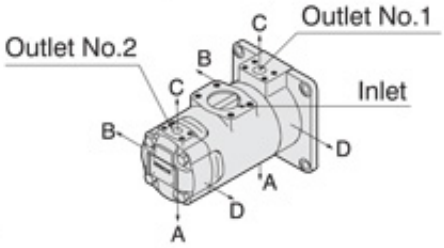
★ IVPQ series no **H** high pressure type.

Outlet positions





All series except IVP(Q)43



IVP(Q)43 Series

	-F	-R	-86			AA	-10
	Mounting form	Shaft rotation	▲Shaft model			Port orientation	Design
			Str. key	HD str. key	Splined key		
	F- Flange mounting **L-** Foot mounting	Viewed from shaft end of pump **R-** Right hand for clockwise **L-** Left hand for counter-clockwise	**1**	**86**	**11**	Viewed from cover end of pump With 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) 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) **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) **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 **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**
			1	**86**	**11**		
			1	**86**	**11**		
			1	**86**	**11**		
			1	**86**	**11**		

- Rated capacity in US gpm at 1200 r/min and 6.9 bar(1000psi).

IVP(Q/V) Double Pumps Max. Continuous Pressures

Frame size	Shaft end pump (No.1 outlet)				Cover end pump (No.2 outlet)				Max. speed (r/min)	Min. speed (r/min)
	Code ●	Geometric displ. (cm^3/r)	Standard type Max. Pressure (bar)	★H-high pressure type Max. Pressure (bar)	Code ●	Geometric displ. (cm^3/r)	Standard type Max. Pressure (bar)	★H-high pressure type Max. Pressure (bar)		
IVP(Q/V)21	10	32.5	◆172 F11=172 F3=138	◆207 F11=172 F3=138	2	7.5	◆138 F11=138 F3=138	◆138 F11=138 F3=138	1800 F11=1200 F3=1200	600
	12	38.3			3	10.2				
	14	43.3			4	12.8	◆207 F11=172 F3=138	◆207 F11=172 F3=138		
	15	46.7			5	16.7				
	17	52.5								
	19	59.2								
	21	65.0								
	25	78.6	138	157						
IVP(Q/V)31	17	53.3	◆172 F11=172 F3=138	◆207 F11=172 F3=138	6	19.2				
	21	66.7								
	25	79.2			7	22.9				
	30	95.0								
	32	100.0			8	26.2				
	35	109.0								
	38	118.0			10	31.0				
	42	134.0	138	157						
IVP(Q/V)41	30	96.0	◆172 F11=172 F3=138	◆207 F11=172 F3=138	11	35.0				
	35	109.0								
	38	128.0			12	37.9	◆157 F11=157 F3=138	◆157 F11=157 F3=138		
	42	134.0								
	50	156.0								
	60	189.0			14	44.2	◆138 F11=138 F3=138	◆138 F11=138 F3=138		
	67	210.0	157	172						
	75	236.0	138	157						
IVP(Q/V)32	17	53.3	◆172 F11=172 F3=138	◆207 F11=172 F3=138	10	32.5	◆172 F11=172 F3=138	◆207 F11=172 F3=138	1800 F11=1200 F3=1200	600
	21	66.7								
	25	79.2			12	38.3				
	30	95.0								
	32	100.0			14	43.3				
	35	109.0								
	38	118.0			15	46.7				
	42	134.0	138	157						
IVP(Q/V)42	30	96.0	◆172 F11=172 F3=138	◆207 F11=172 F3=138	17	52.5				
	35	109.0								
	38	128.0			19	59.2				
	42	134.0								
	50	156.0			21	65.0				
	60	189.0								
	67	210.0	157	172	25	78.6	138	157		
	75	236.0	138	157						
IVP(Q/V)43	30	96.0	◆172 F11=172 F3=138	◆207 F11=172 F3=138	17	53.3	◆172 F11=172 F3=138	◆207 F11=172 F3=138	1800 F11=1200 F3=1200	600
	35	109.0			21	66.7				
	38	128.0			25	79.2				
	42	134.0			30	95.0				
	50	156.0			32	100.0				
	60	189.0			35	109.0				
	67	210.0	157	172	38	118.0				
	75	236.0	138	157	42	134.0	138	157		

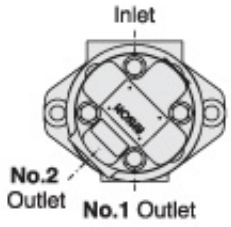
● Rated capacity in US gpm at 1200 r/min and 6.9 bar(1000psi).

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

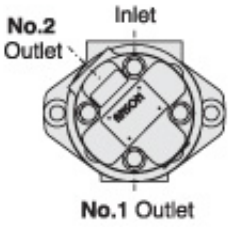
★ IVPQ series no **H** high pressure type.

Port Orientation : Viewed from cover end of pump
(All series except IVPQ43)

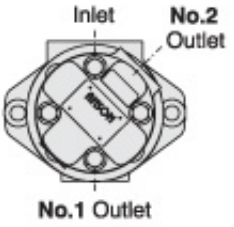
AA
With **No.1** Outlet Opposite Inlet
No.2 Outlet 135 °CCW From Inlet



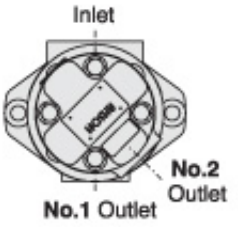
AB
With **No.1** Outlet Opposite Inlet
No.2 Outlet 45 °CCW From Inlet



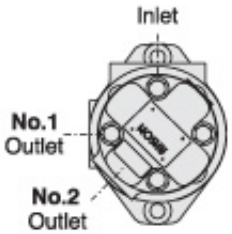
AC
With **No.1** Outlet Opposite Inlet
No.2 Outlet 45 °CW From Inlet



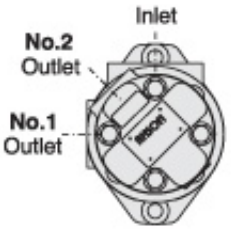
AD
With **No.1** Outlet Opposite Inlet
No.2 Outlet 135 °CW From Inlet



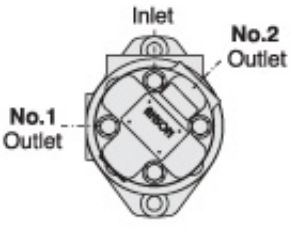
BA
With **No.1** Outlet 90 °CCW From Inlet
No.2 Outlet 135 °CCW From Inlet



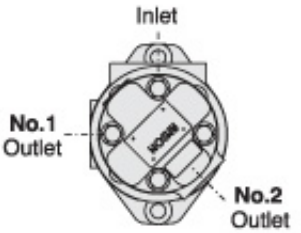
BB
With **No.1** Outlet 90 °CCW From Inlet
No.2 Outlet 45 °CCW From Inlet



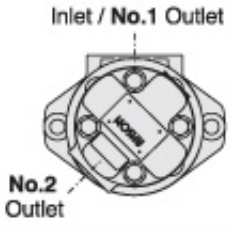
BC
With **No.1** Outlet 90 °CCW From Inlet
No.2 Outlet 45 °CW From Inlet



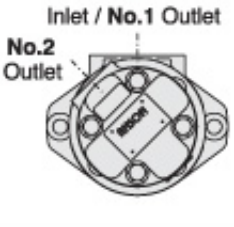
BD
With **No.1** Outlet 90 °CCW From Inlet
No.2 Outlet 135 °CW From Inlet



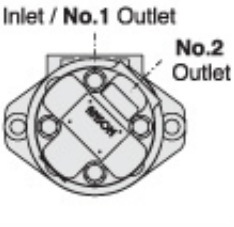
CA
With **No.1** Outlet Inline With Inlet
No.2 Outlet 135 °CCW From Inlet



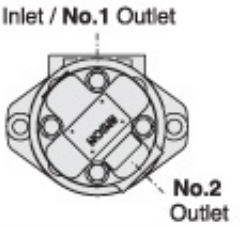
CB
With **No.1** Outlet Inline With Inlet
No.2 Outlet 45 °CCW From Inlet



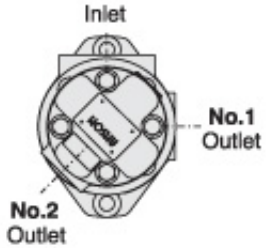
CC
With **No.1** Outlet Inline With Inlet
No.2 Outlet 45 °CW From Inlet



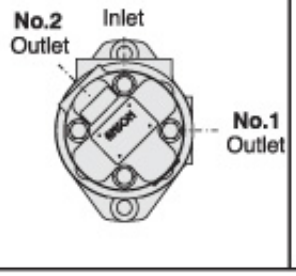
CD
With **No.1** Outlet Inline With Inlet
No.2 Outlet 135 °CW From Inlet



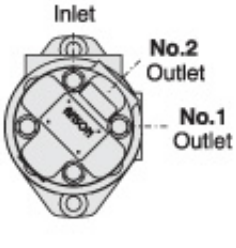
DA
With **No.1** Outlet 90 °CW From Inlet
No.2 Outlet 135 °CCW From Inlet



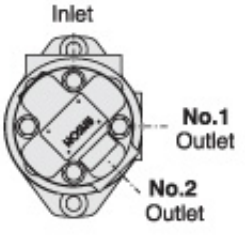
DB
With **No.1** Outlet 90 °CW From Inlet
No.2 Outlet 45 °CCW From Inlet



DC
With **No.1** Outlet 90 °CW From Inlet
No.2 Outlet 45 °CW From Inlet

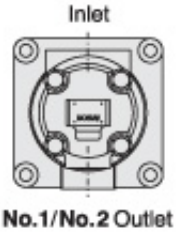


DD
With **No.1** Outlet 90 °CW From Inlet
No.2 Outlet 135 °CW From Inlet

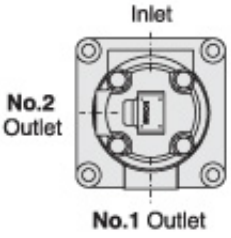


Port Orientation : Viewed from cover end of pump
(IVPQ43 series)

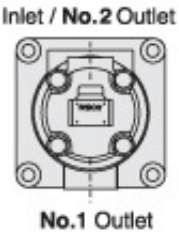
AA
With **No.1** Outlet Opposite Inlet
No.2 Outlet Opposite Inlet



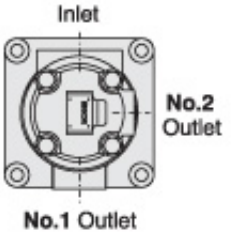
AB
With **No.1** Outlet Opposite Inlet
No.2 Outlet 90 °CCW From Inlet



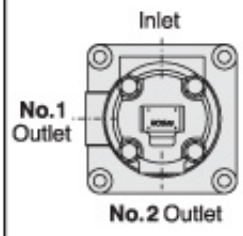
AC
With **No.1** Outlet Opposite Inlet
No.2 Outlet Inline With Inlet



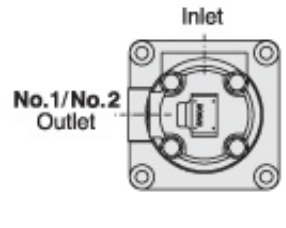
AD
With **No.1** Outlet Opposite Inlet
No.2 Outlet 90 °CW From Inlet



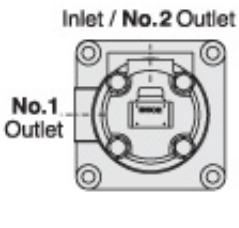
BA
With **No.1** Outlet 90 °CCW From Inlet
No.2 Outlet Opposite Inlet



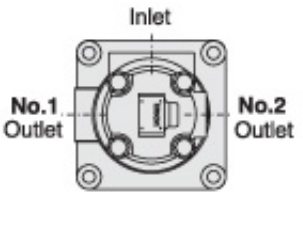
BB
With **No.1** Outlet 90 °CCW From Inlet
No.2 Outlet 90 °CCW From Inlet



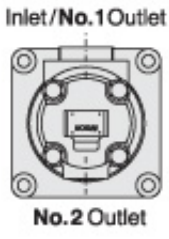
BC
With **No.1** Outlet 90 °CCW From Inlet
No.2 Outlet Inline With Inlet



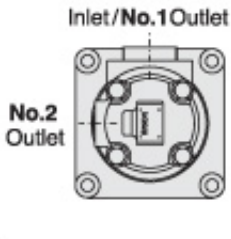
BD
With **No.1** Outlet 90 °CCW From Inlet
No.2 Outlet 90 °CW From Inlet



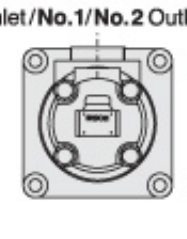
CA
With **No.1** Outlet Inline With Inlet
No.2 Outlet Opposite Inlet



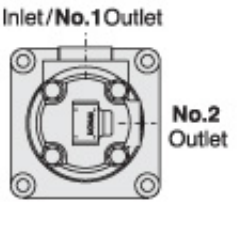
CB
With **No.1** Outlet Inline With Inlet
No.2 Outlet 90 °CCW From Inlet



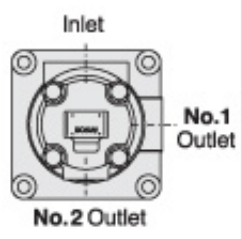
CC
With **No.1** Outlet Inline With Inlet
No.2 Outlet Inline With Inlet



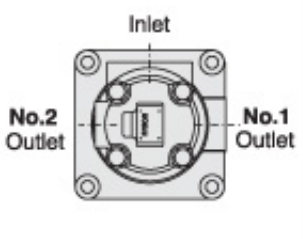
CD
With **No.1** Outlet Inline With Inlet
No.2 Outlet 90 °CW From Inlet



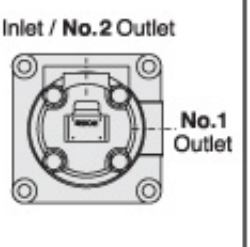
DA
With **No.1** Outlet 90 °CW From Inlet
No.2 Outlet Opposite Inlet



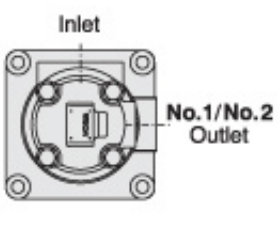
DB
With **No.1** Outlet 90 °CW From Inlet
No.2 Outlet 90 °CCW From Inlet



DC
With **No.1** Outlet 90 °CW From Inlet
No.2 Outlet Inline With Inlet



DD
With **No.1** Outlet 90 °CW From Inlet
No.2 Outlet 90 °CW From Inlet



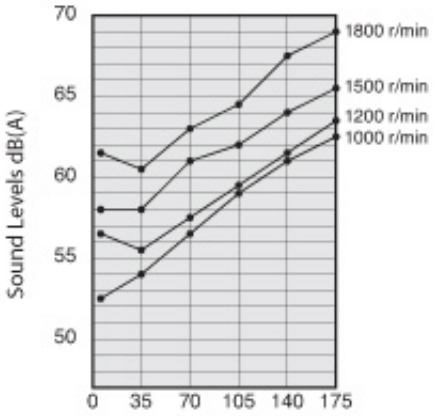
IVP(Q/V) Double Pumps Weight (Net weight)

Frame size	IVP		Frame size	IVPQ		Frame size	IVPV	
	Flange mounting	Foot mounting		Flange mounting	Foot mounting		Flange mounting	Foot mounting
IVP21	36.3 kg	45.0 kg	**IVPQ21**	46.1 kg	54.8 kg	**IVPV21**	25.6 kg	31.0 kg
IVP31	52.4 kg	61.1 kg	**IVPQ31**	62.5 kg	71.2 kg	**IVPV31**	36.7 kg	45.4 kg
IVP32	53.2 kg	61.9 kg	**IVPQ32**	67.8 kg	76.5 kg	**IVPV32**	39.5 kg	48.2 kg
IVP41	76.4 kg	102.3 kg	**IVPQ41**	94.2 kg	120.1 kg	**IVPV41**	51.3 kg	60.0 kg
IVP42	81.6 kg	107.5 kg	**IVPQ42**	101.9 kg	127.8 kg	**IVPV42**	53.8 kg	62.5 kg
IVP43	92.0 kg	117.9 kg	**IVPQ43**	109.9 kg	135.8 kg	**IVPV43**	61.9 kg	70.6 kg

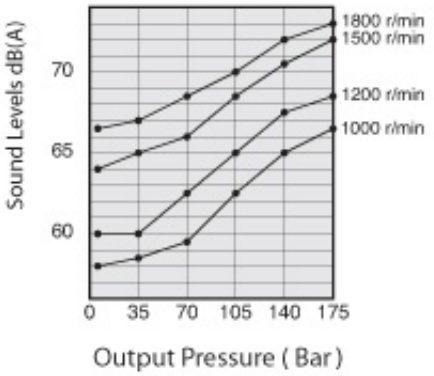
◎ The charts are for reference only. ◎ Flange mounting (Net weight) =Pump+Flange kits ◎ Foot mounting (Net weight) =Pump+Flange kits+Foot

IVP Double Pumps Sound Data

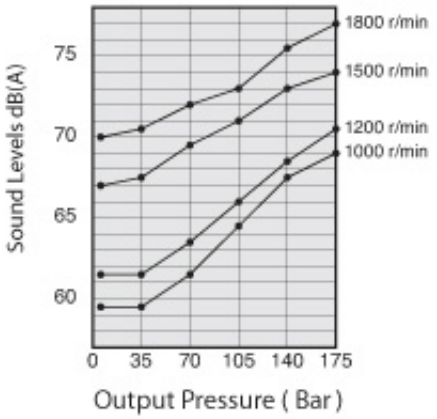
IVP21-17-8



IVP32-35-17

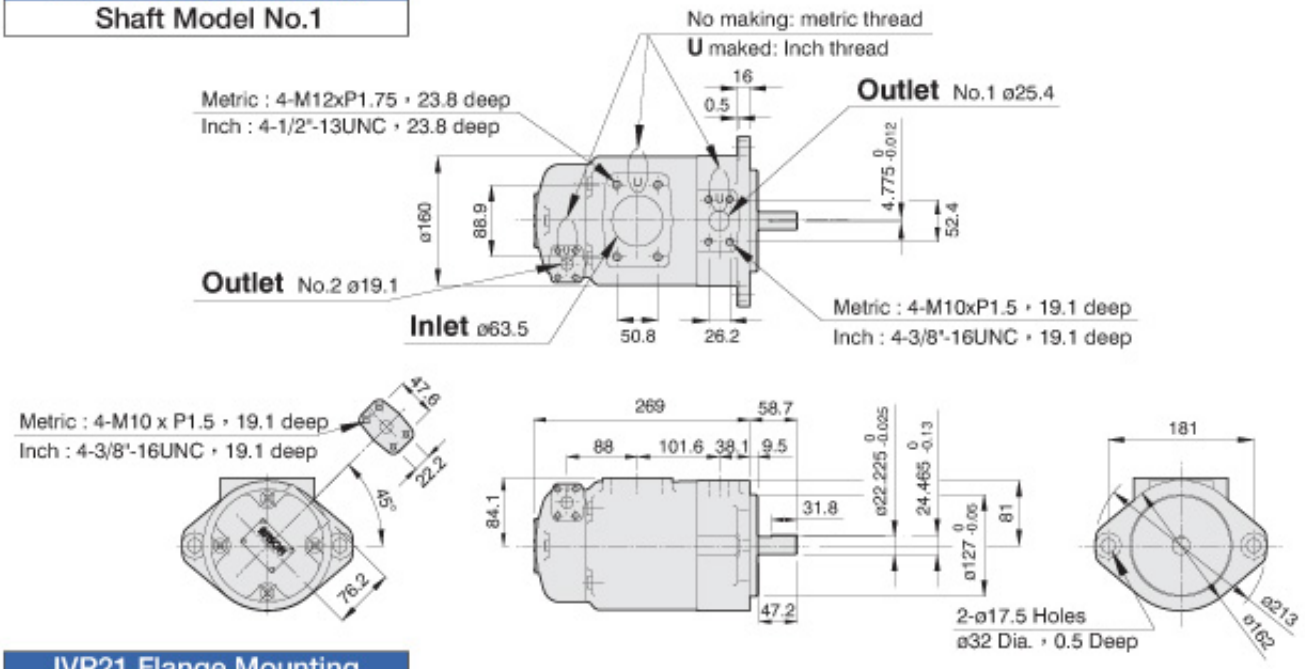


IVP43-50-35

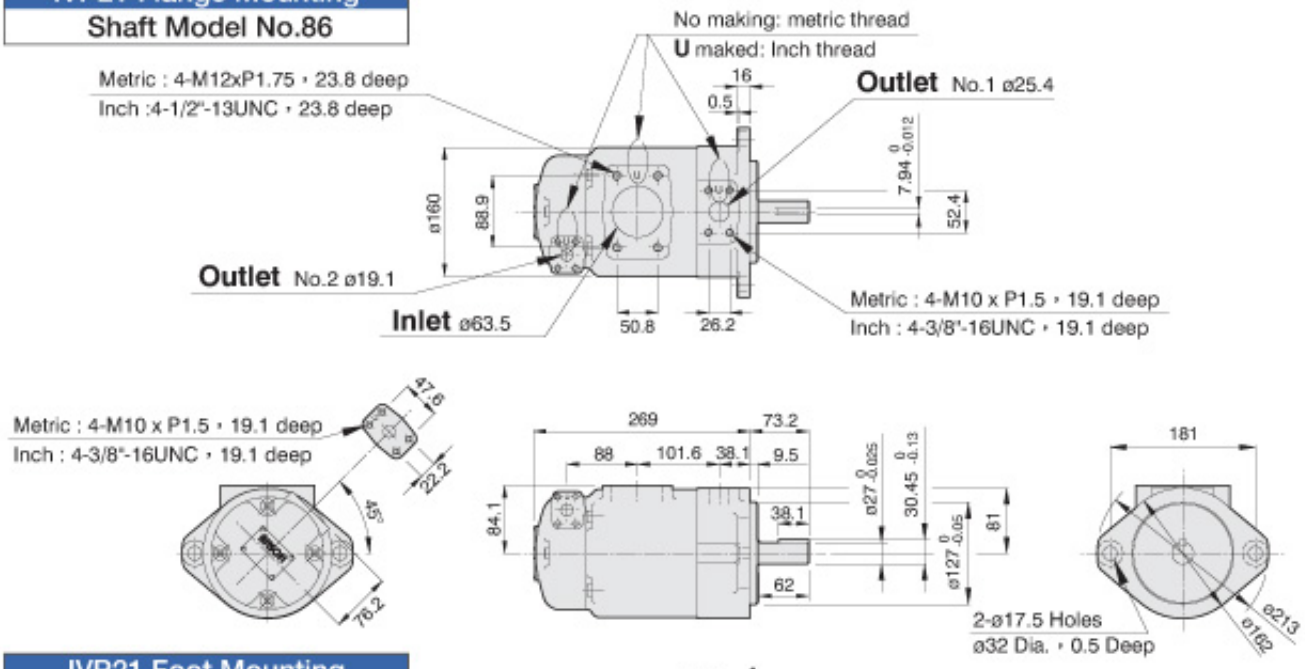


Conditions : ISO VG32, (50℃) ,0 bar inlet, distance : 1m

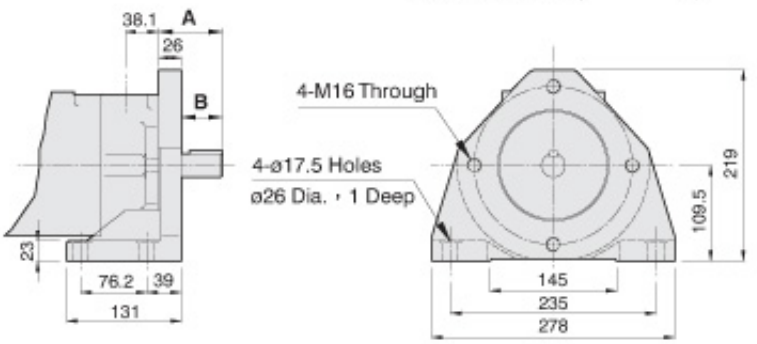
IVP21 Flange Mounting
Shaft Model No.1



IVP21 Flange Mounting
Shaft Model No.86

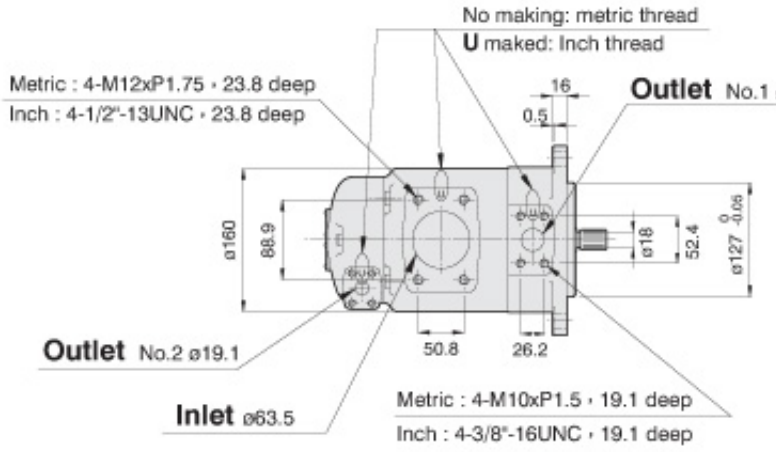


IVP21 Foot Mounting
Shaft Model No.1 / No.86



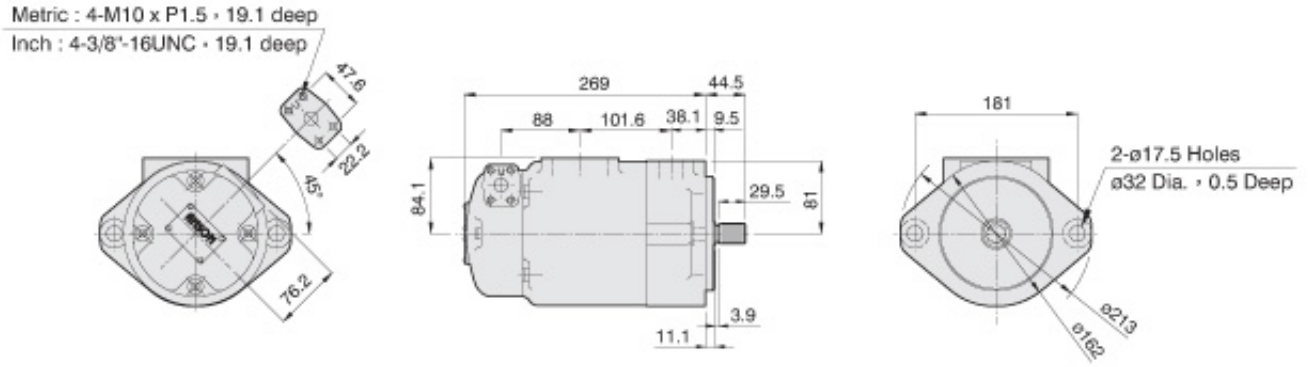
IVP21 DIMENSION		
Shaft model	A	B
No. 1	58.7	32.7
No. 86	73.2	47.2

IVP21 Flange Mounting
Shaft Model No.11



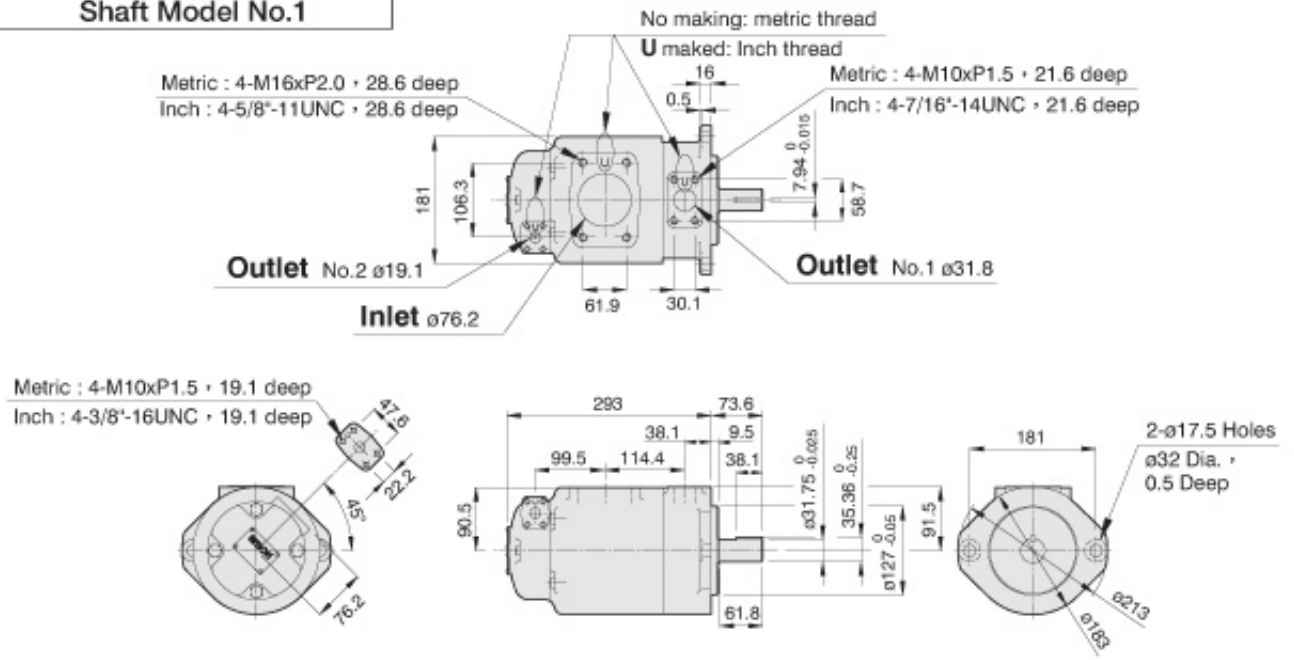
ANSI B92.1 CLASS 5

Module	D.P.16/32
Pressure angle	30°
No. of teeth	**13**
Pitch DIA.	ø20.6375
Major DIA.	ø22.175 $^{+0}_{-0.025}$
Minor DIA.	ø18.63 $^{+0}_{-0.25}$

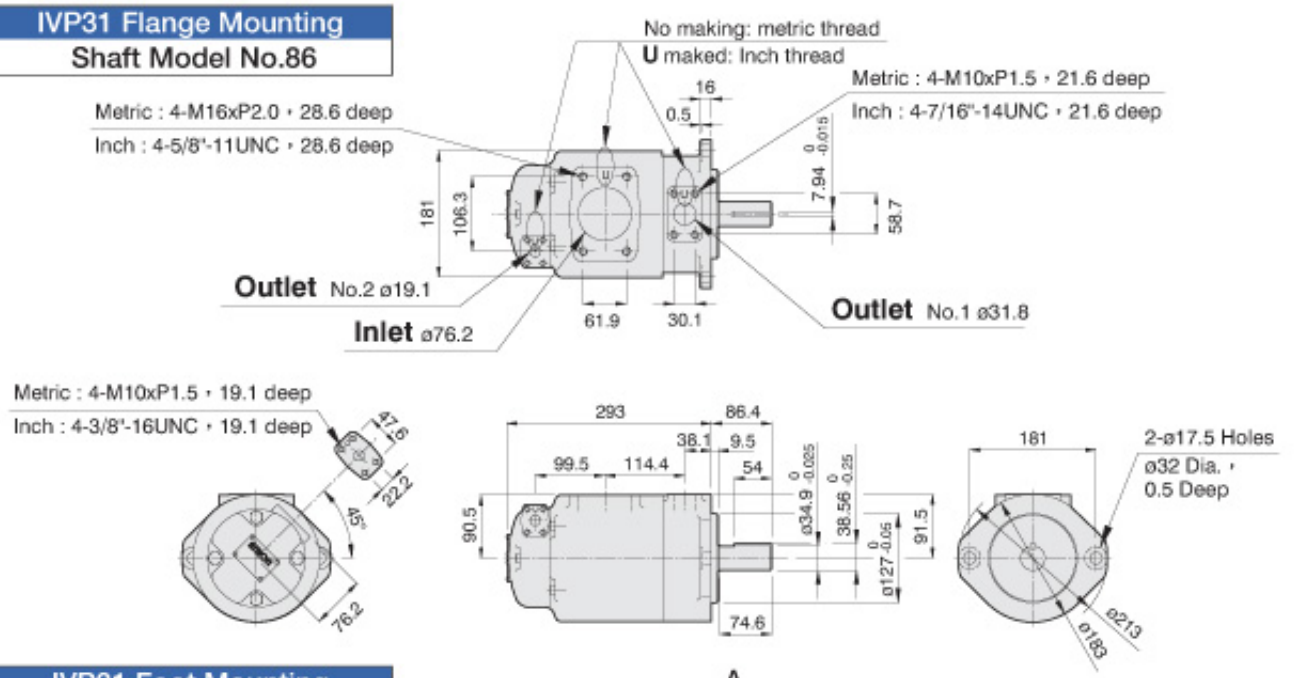


IVP

IVP31 Flange Mounting
Shaft Model No.1

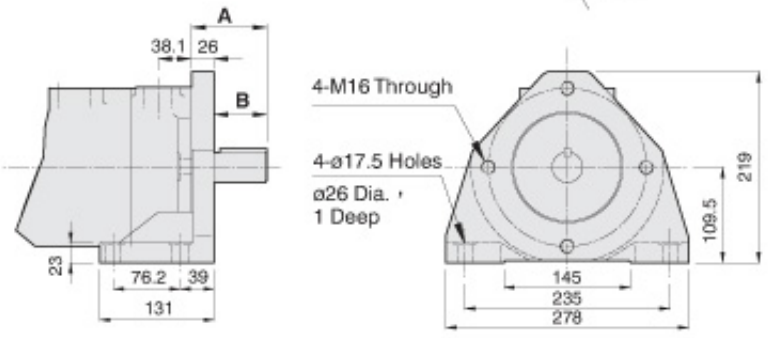


IVP31 Flange Mounting
Shaft Model No.86

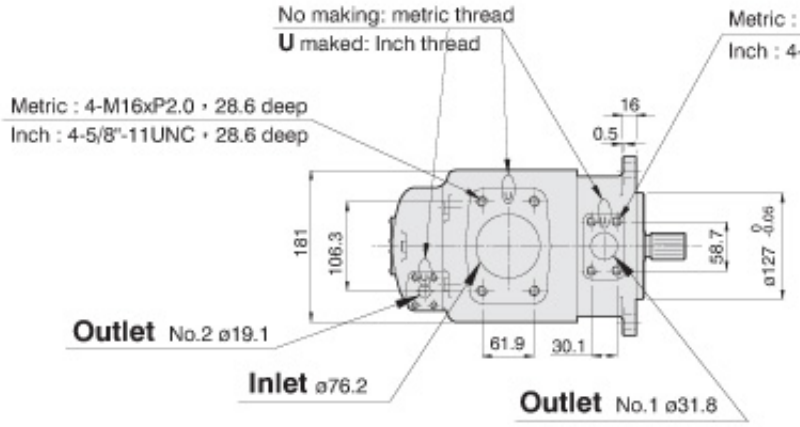


IVP31 Foot Mounting
Shaft Model No.1 / No.86

IVP31 DIMENSION		
Shaft model	A	B
No. 1	73.6	47.6
No. 86	86.4	60.4

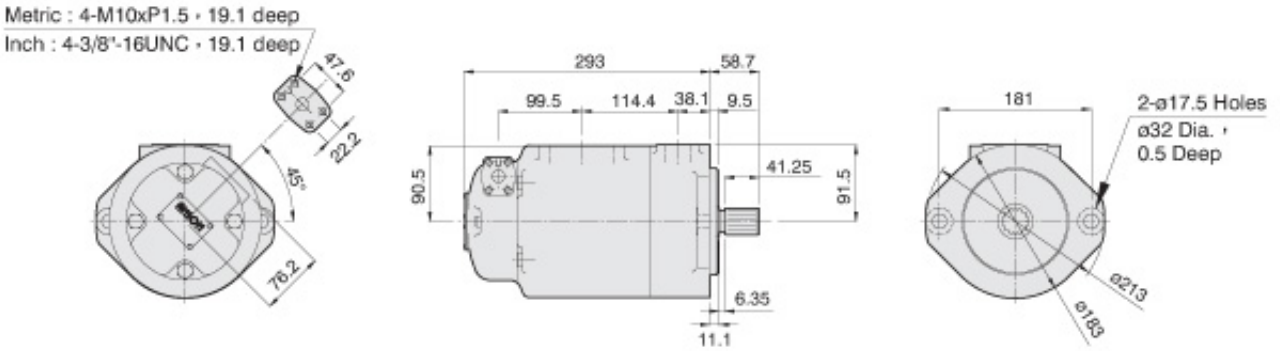


IVP31 Flange Mounting
Shaft Model No.11



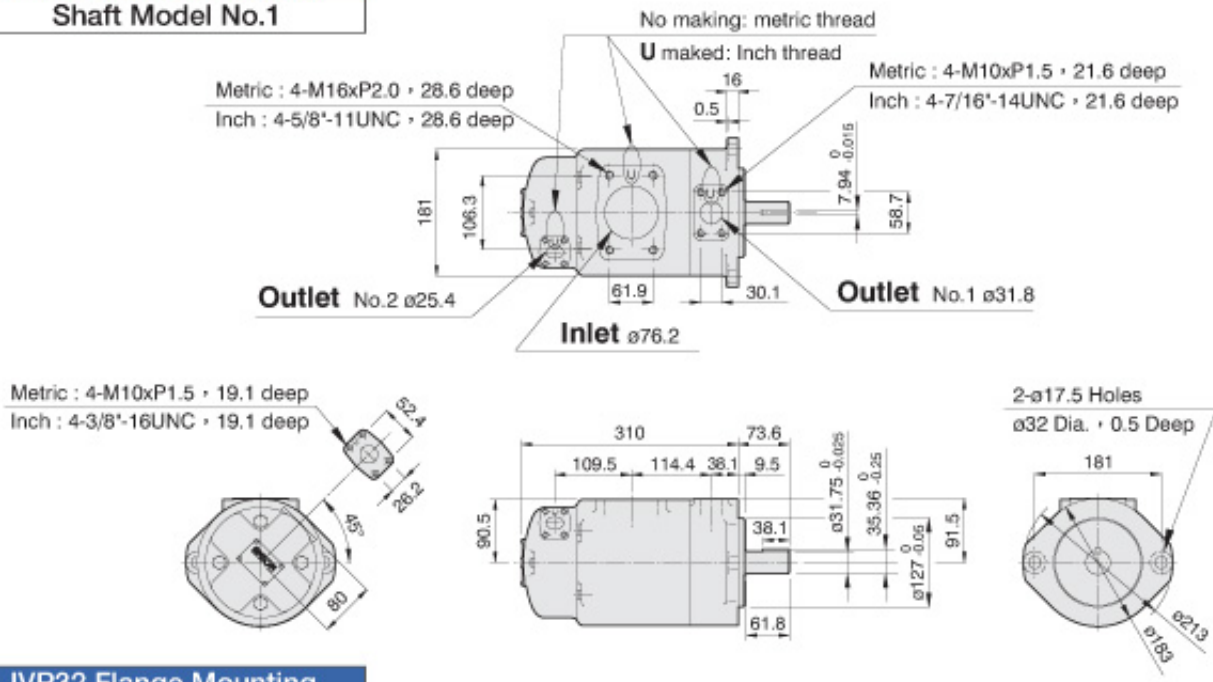
ANSI B92.1 CLASS 5

Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$

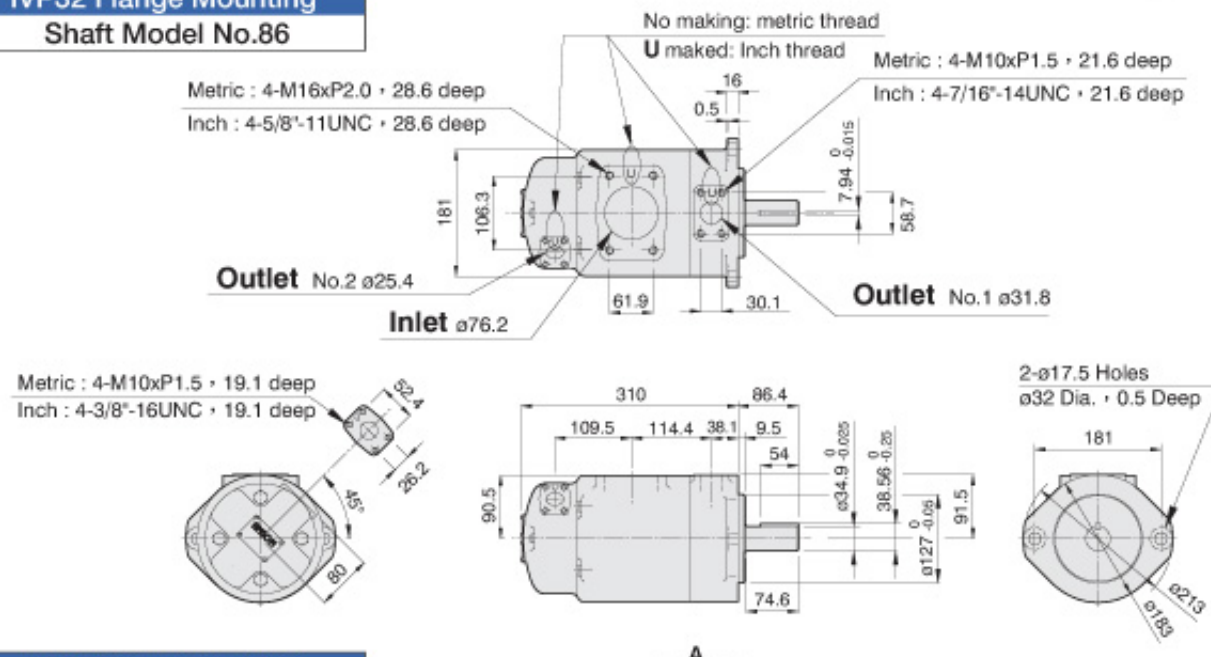


IVP

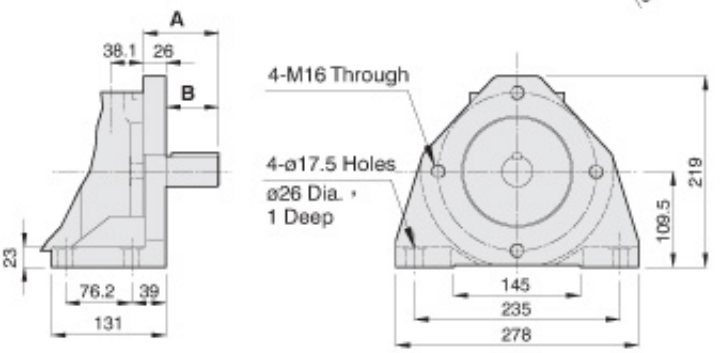
IVP32 Flange Mounting
Shaft Model No.1



IVP32 Flange Mounting
Shaft Model No.86

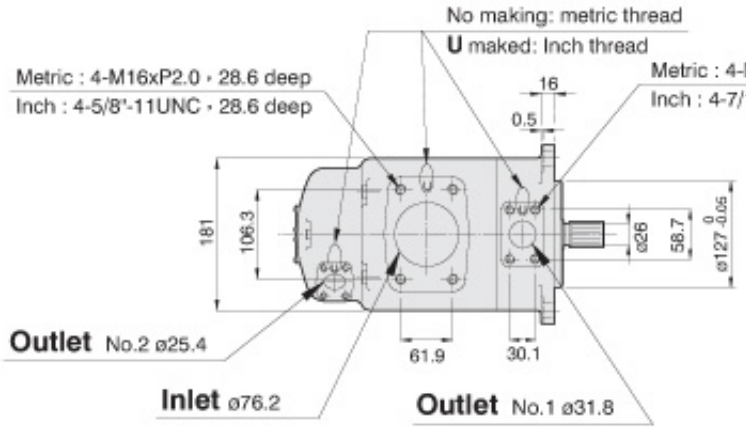


IVP32 Foot Mounting
Shaft Model No.1 / No.86



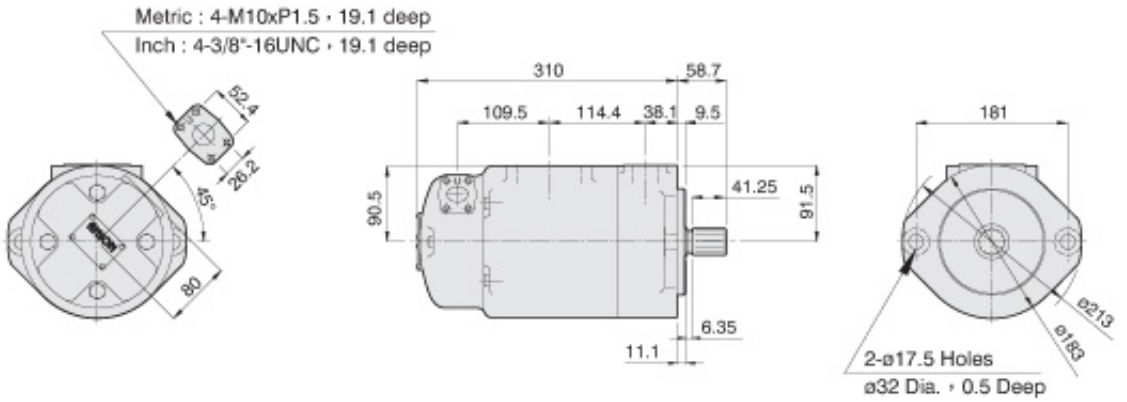
IVP32 DIMENSION		
Shaft model	A	B
No. 1	73.6	47.7
No. 86	86.4	60.4

IVP32 Flange Mounting
Shaft Model No.11

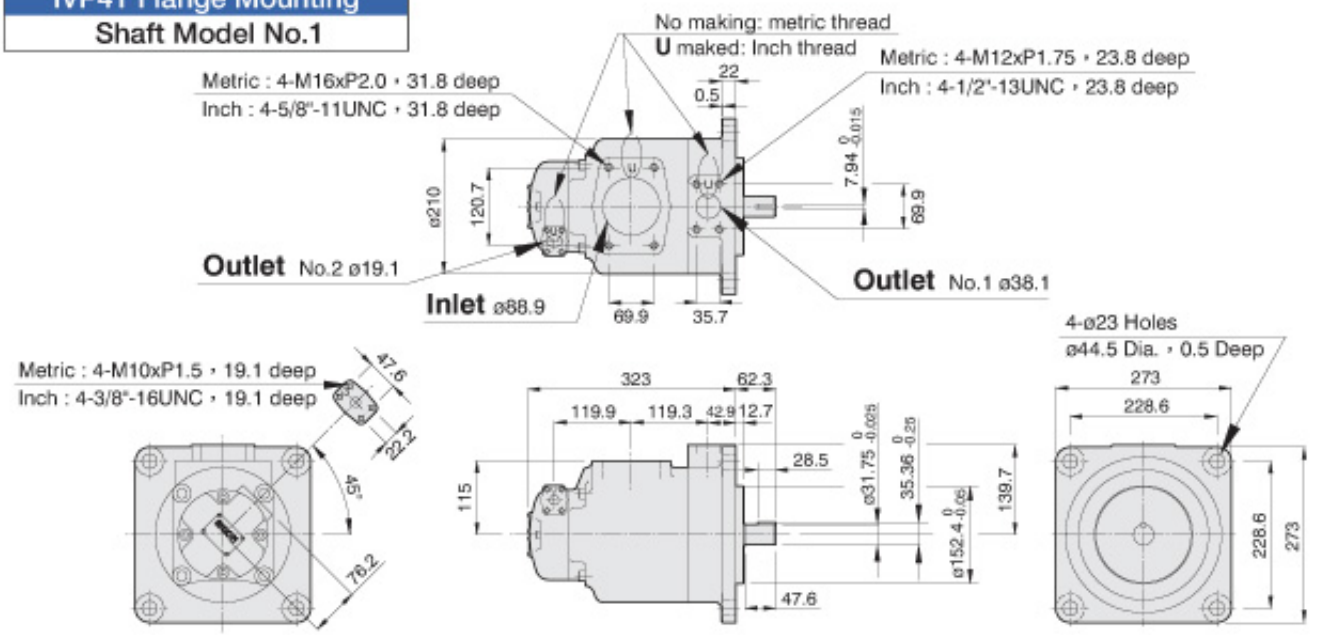


ANSI B92.1 CLASS 5

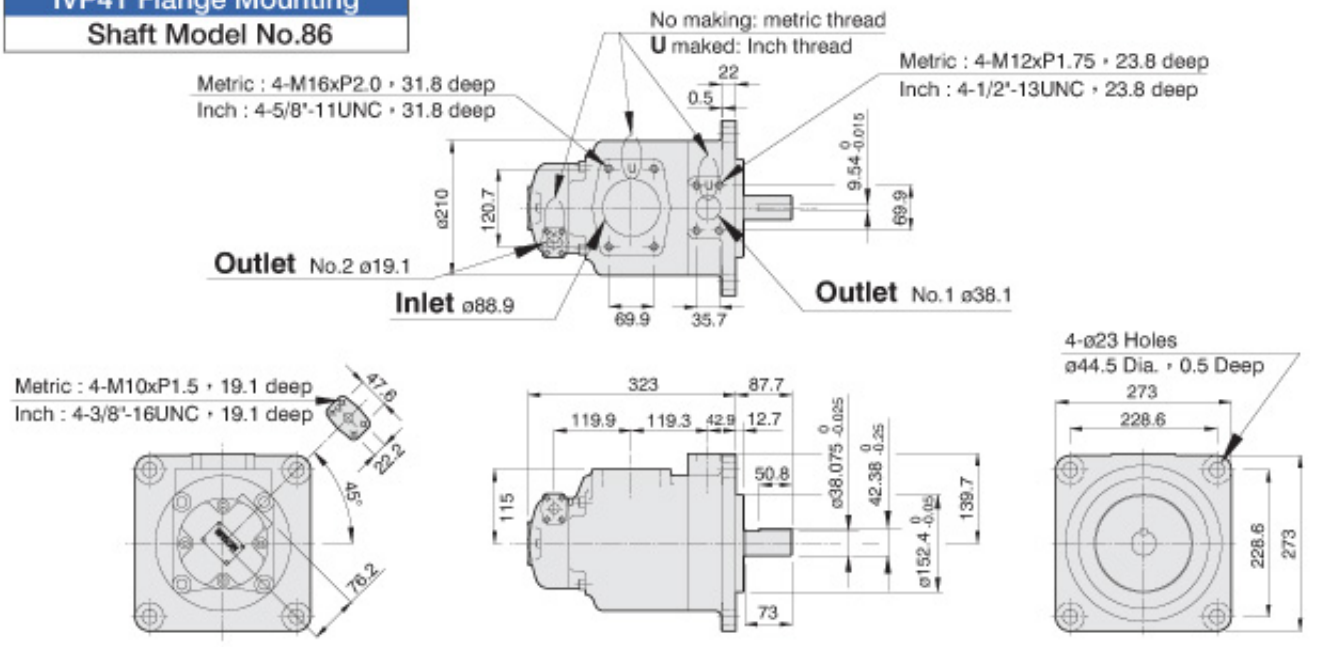
Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$



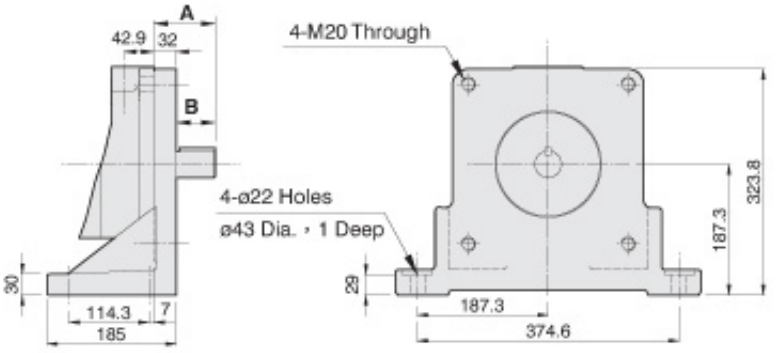
IVP41 Flange Mounting
Shaft Model No.1



IVP41 Flange Mounting
Shaft Model No.86

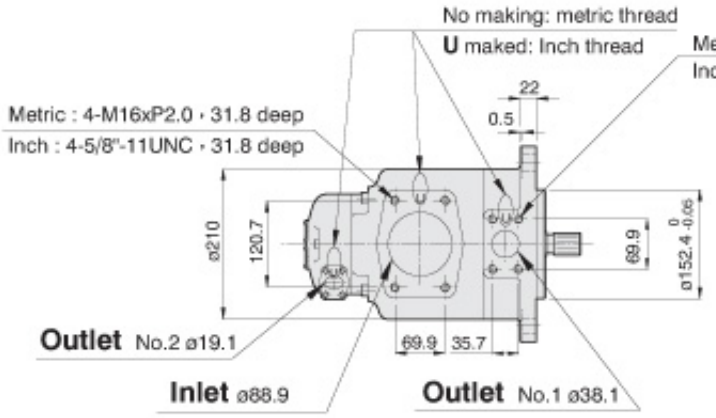


IVP41 Foot Mounting
Shaft Model No.1 / No.86



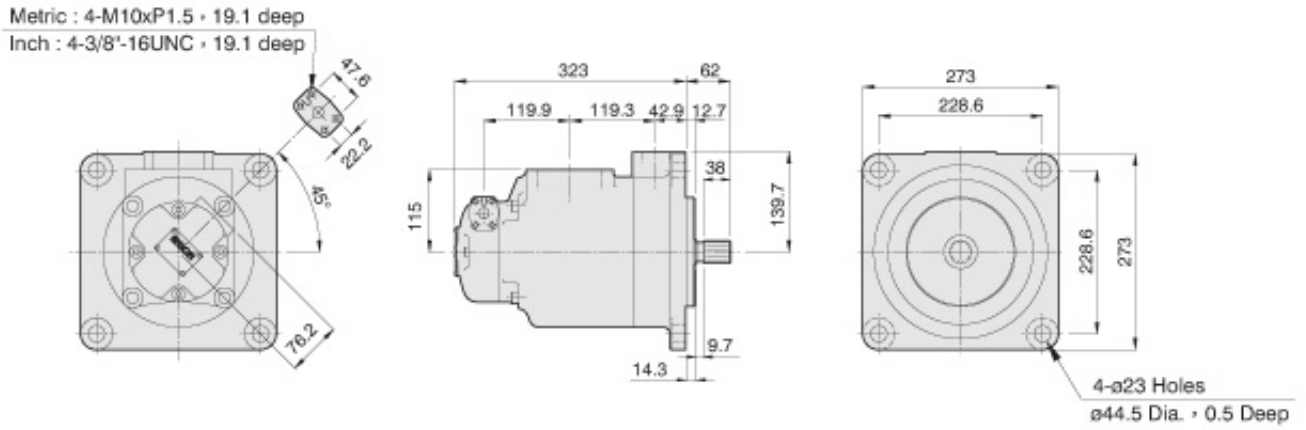
IVP41 DIMENSION		
Shaft model	A	B
No. 1	62.3	30.3
No. 86	87.7	55.7

IVP41 Flange Mounting
Shaft Model No.11

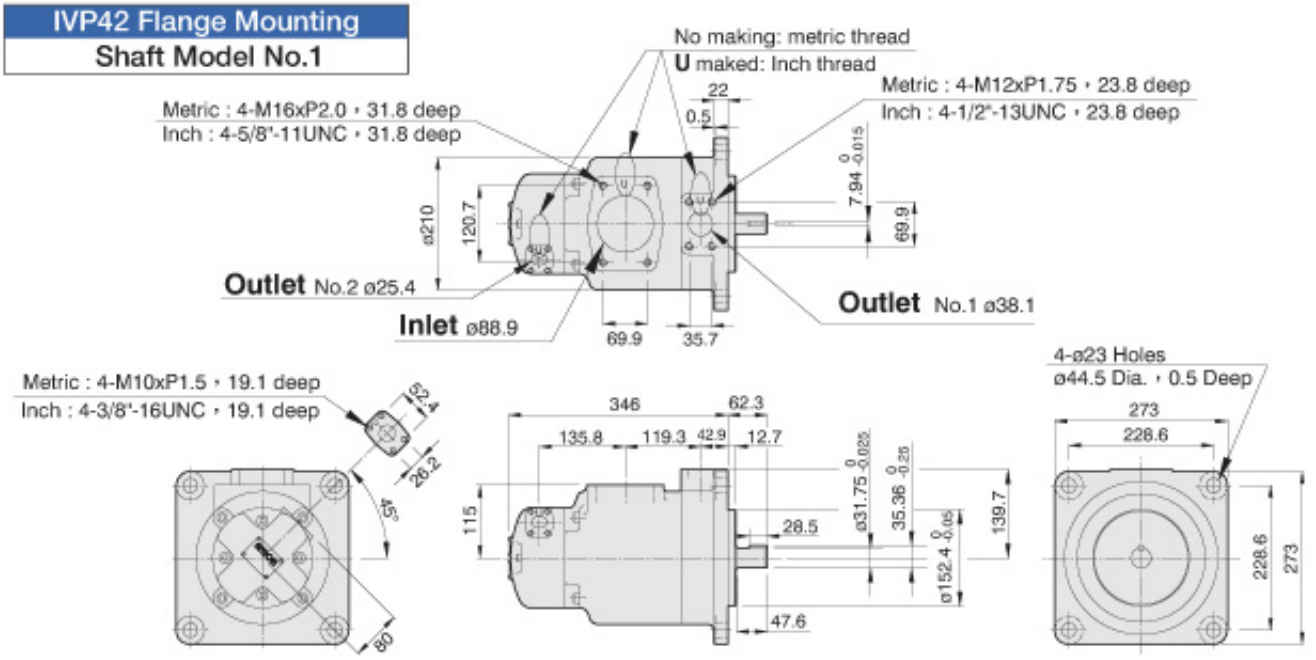


ANSI B92.1 CLASS 5

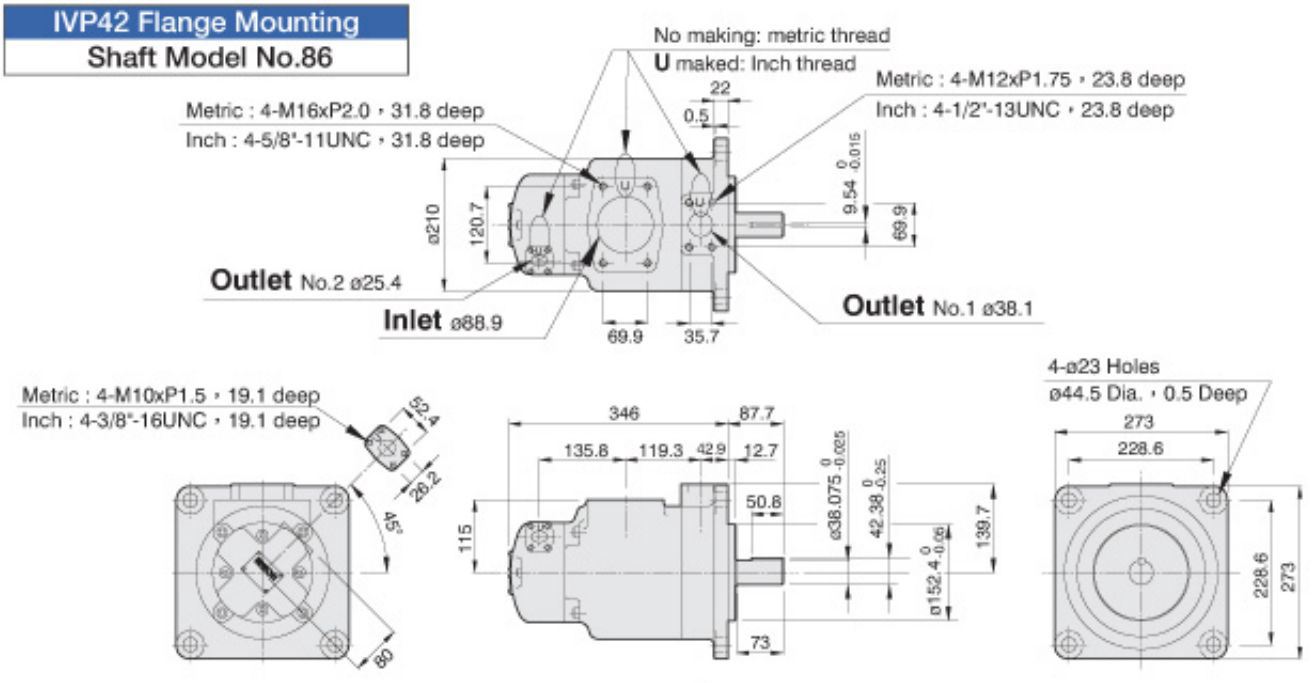
Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$



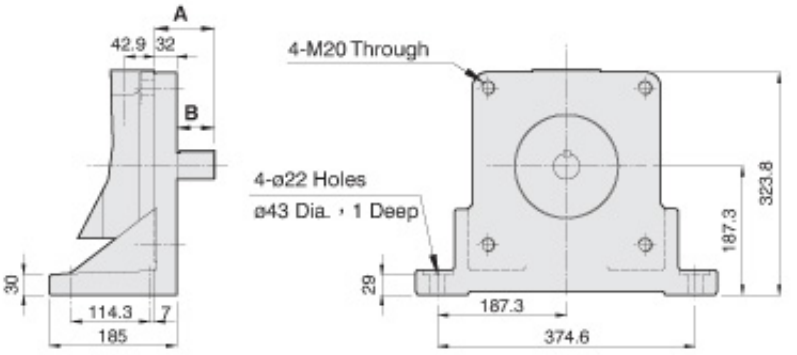
IVP42 Flange Mounting
Shaft Model No.1



IVP42 Flange Mounting
Shaft Model No.86

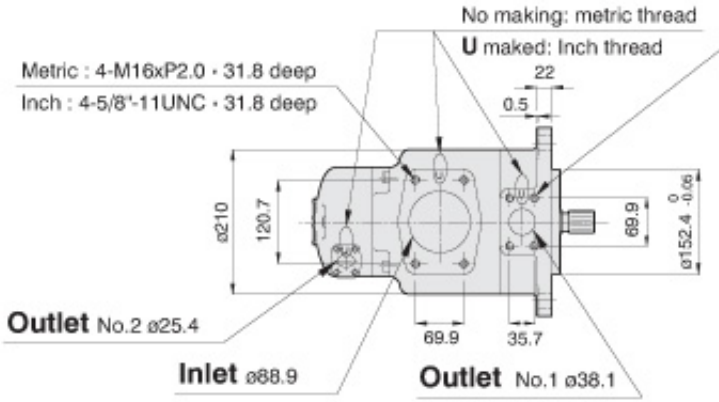


IVP42 Foot Mounting
Shaft Model No.1 / No.86



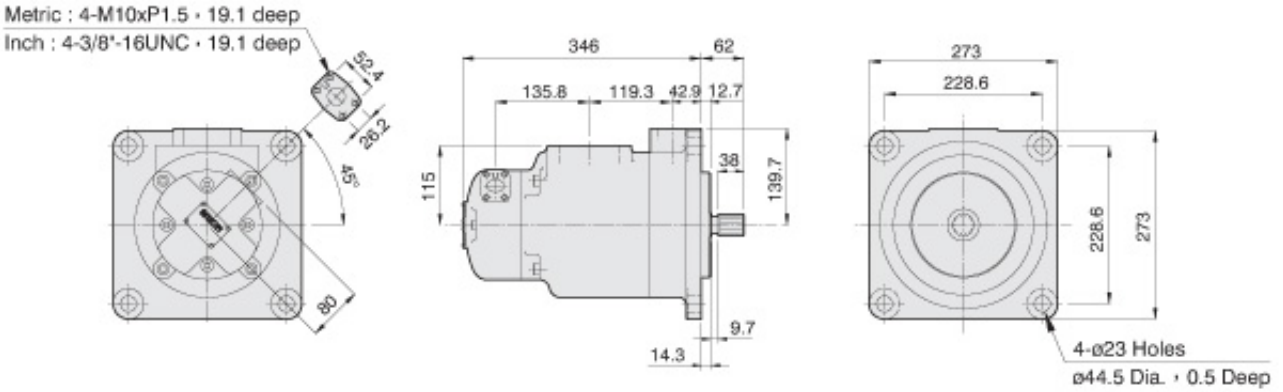
IVP42 DIMENSION		
Shaft model	A	B
No. 1	62.3	30.3
No. 86	87.7	55.7

IVP42 Flange Mounting
Shaft Model No.11



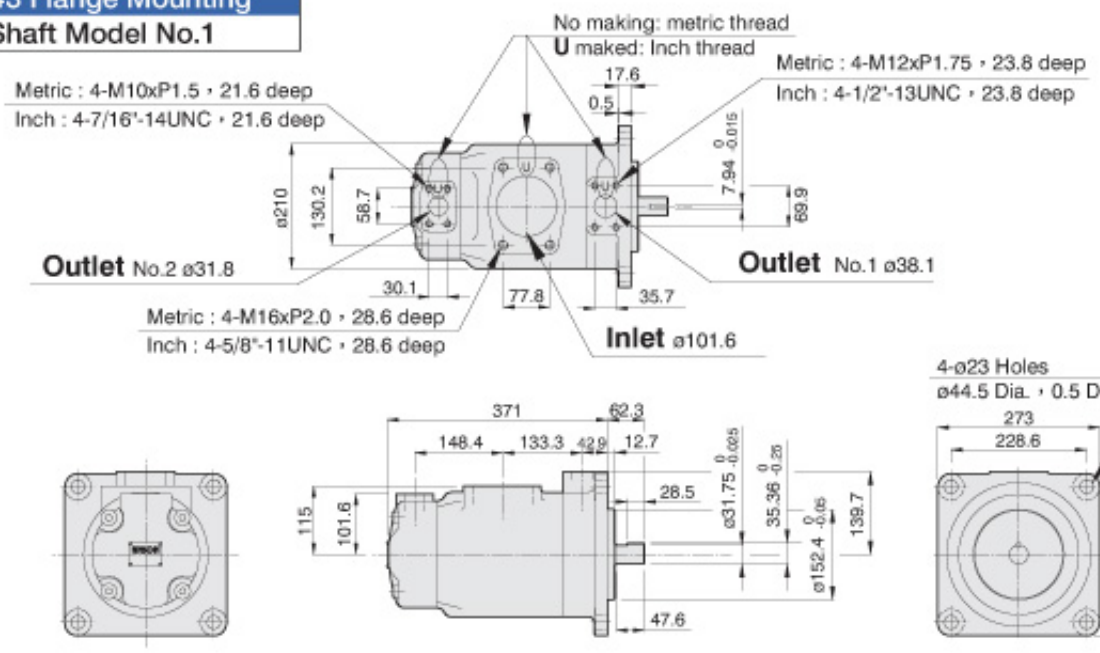
ANSI B92.1 CLASS 5

Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$

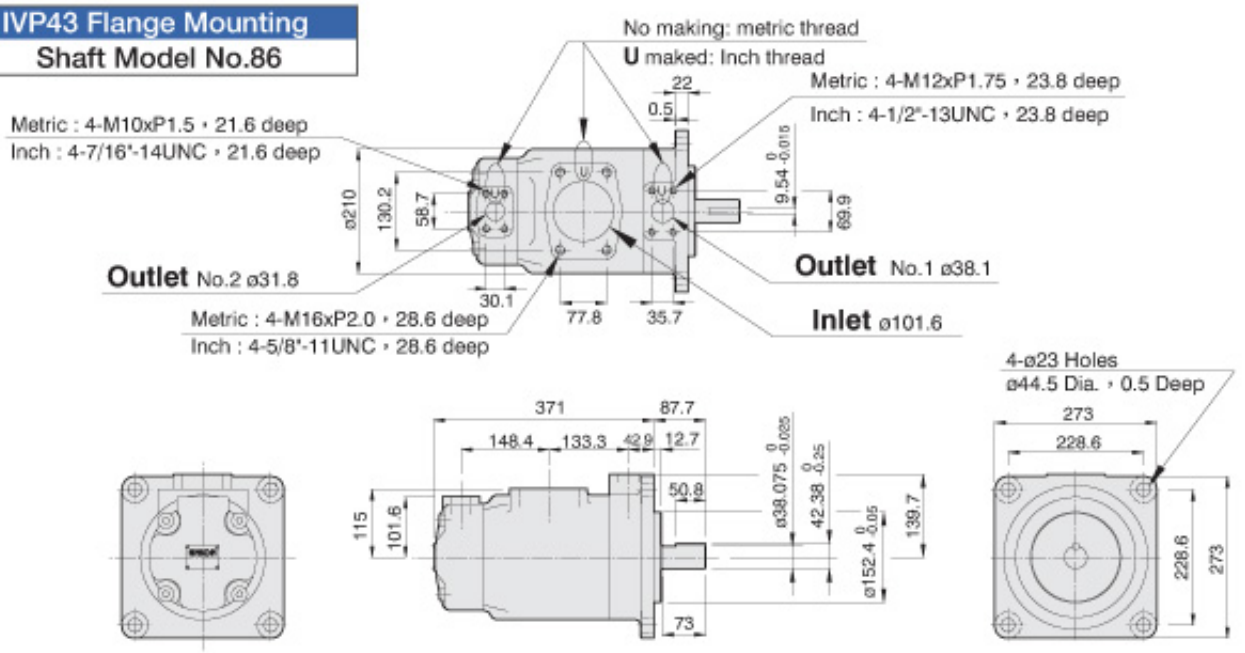


IVP

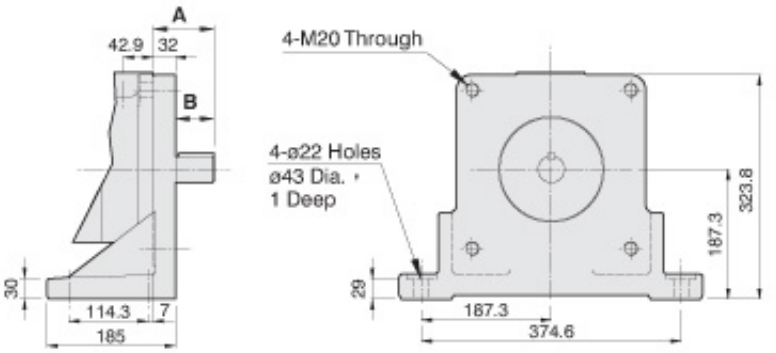
IVP43 Flange Mounting
Shaft Model No.1



IVP43 Flange Mounting
Shaft Model No.86

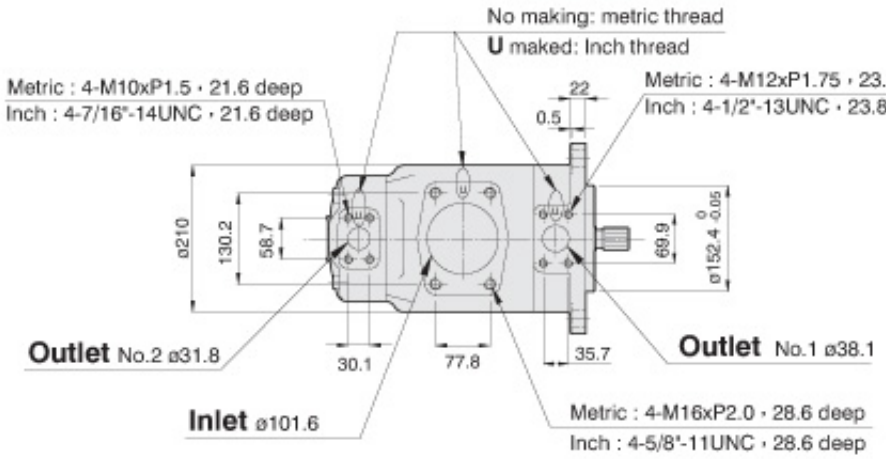


IVP43 Foot Mounting
Shaft Model No.1 / No.86



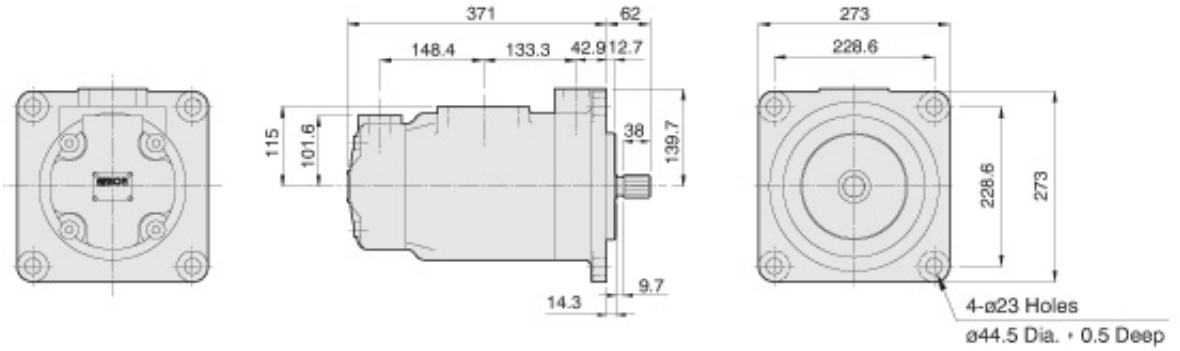
IVP43 DIMENSION		
Shaft model	A	B
No. 1	62.3	30.3
No. 86	87.7	55.7

IVP43 Flange Mounting
Shaft Model No.11

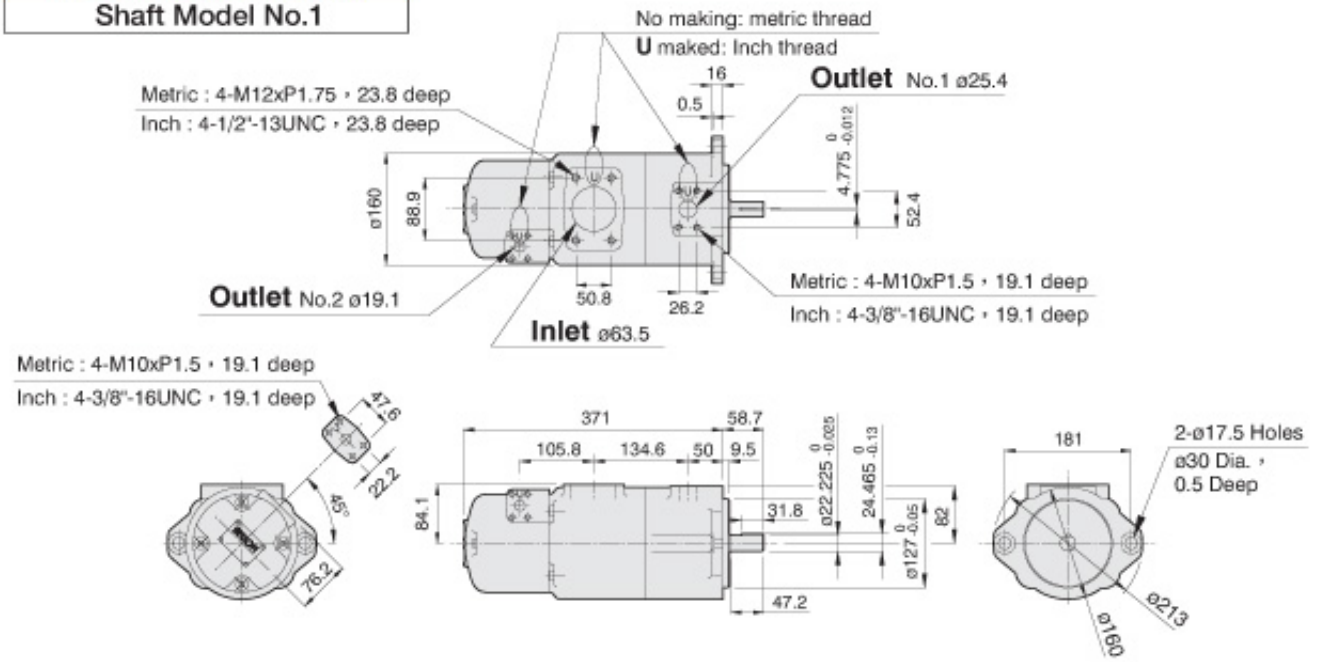


ANSI B92.1 CLASS 5

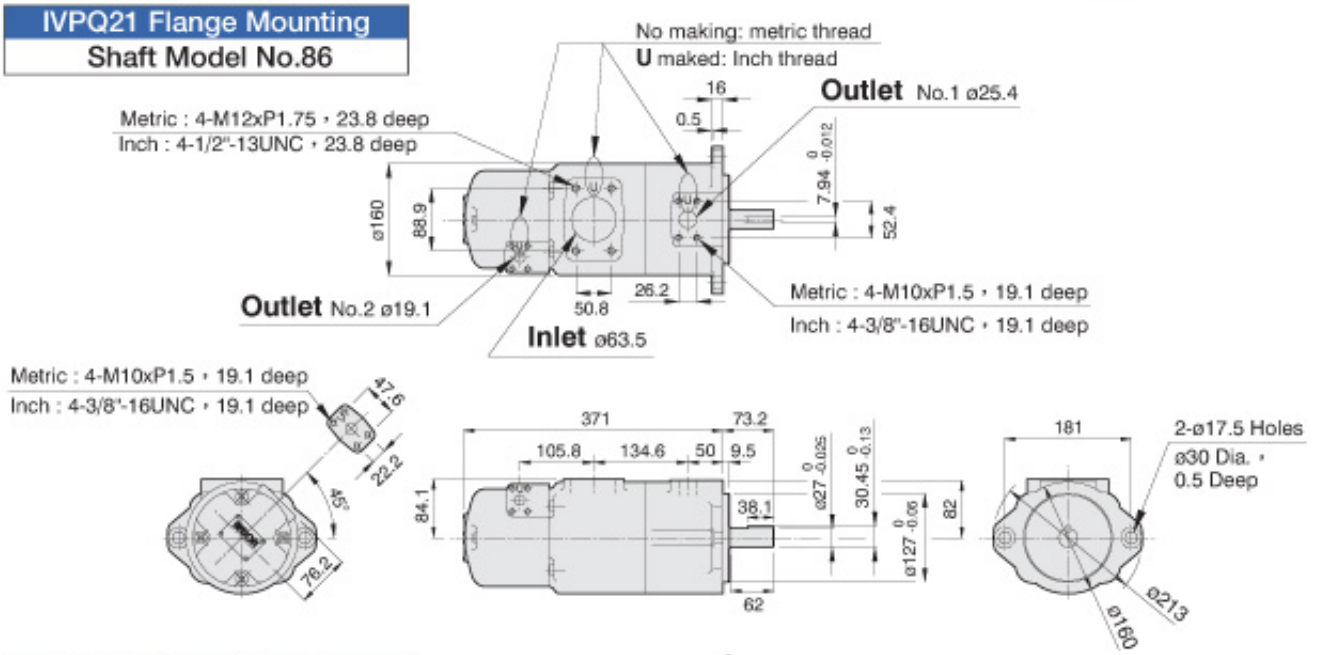
Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$



IVPQ21 Flange Mounting
Shaft Model No.1

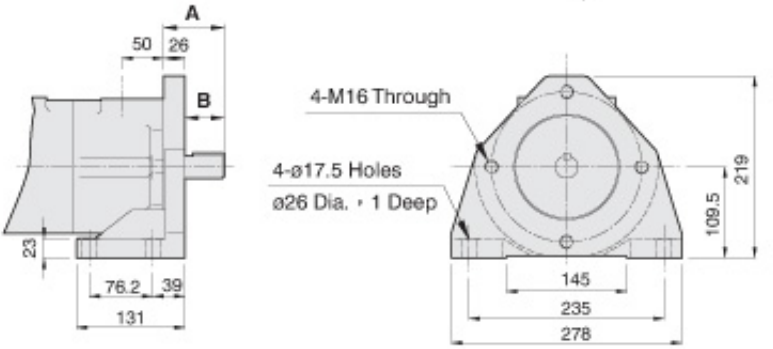


IVPQ21 Flange Mounting
Shaft Model No.86

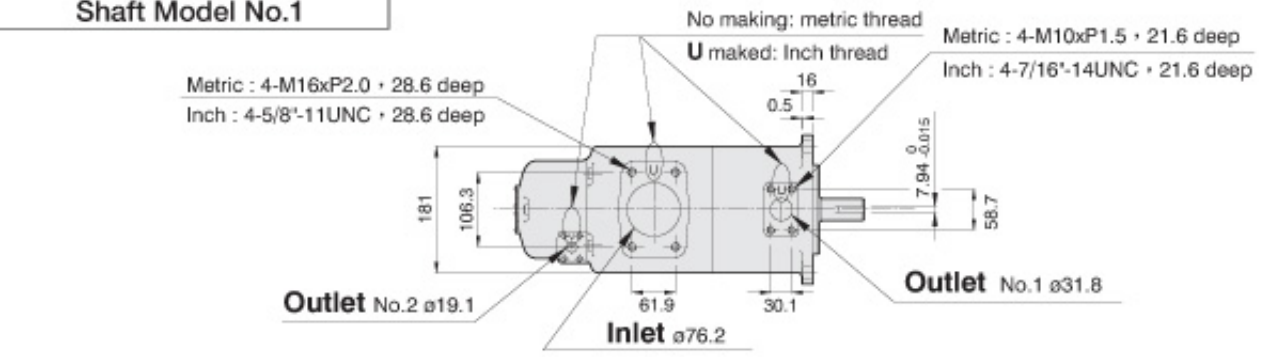


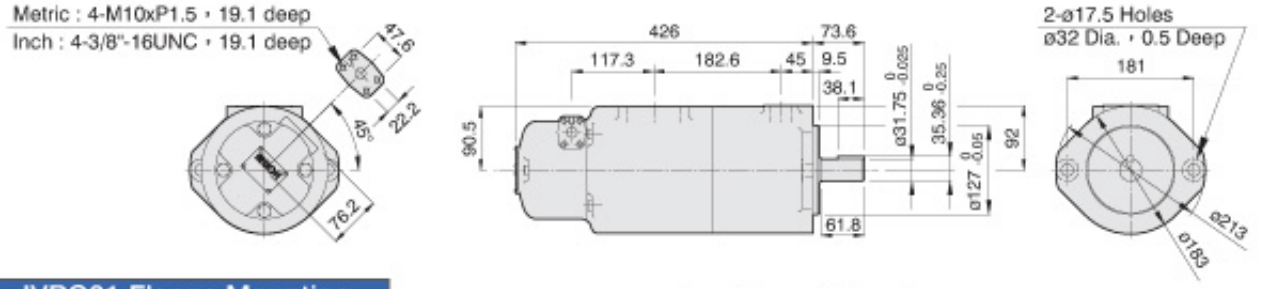
IVPQ21 Foot Mounting
Shaft Model No.1 / No.86

IVPQ21 DIMENSION		
Shaft model	A	B
No. 1	58.7	32.7
No. 86	73.2	47.2

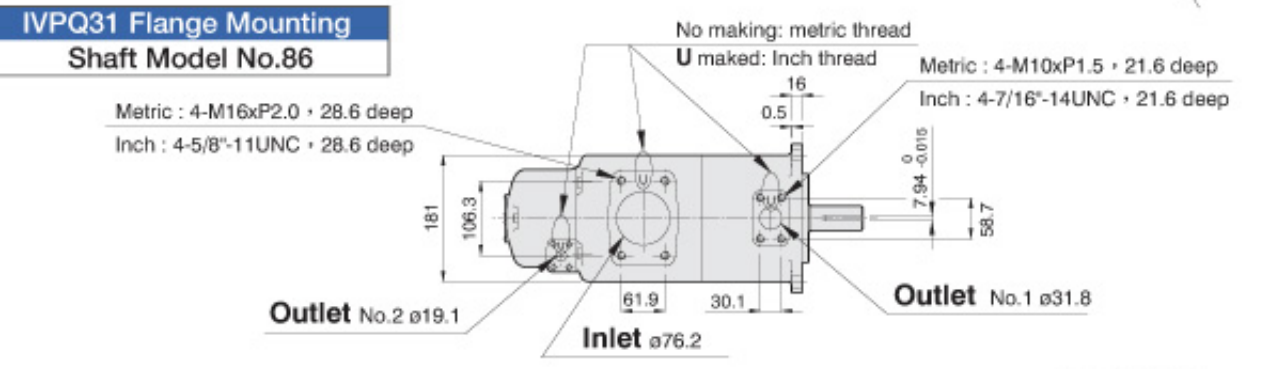


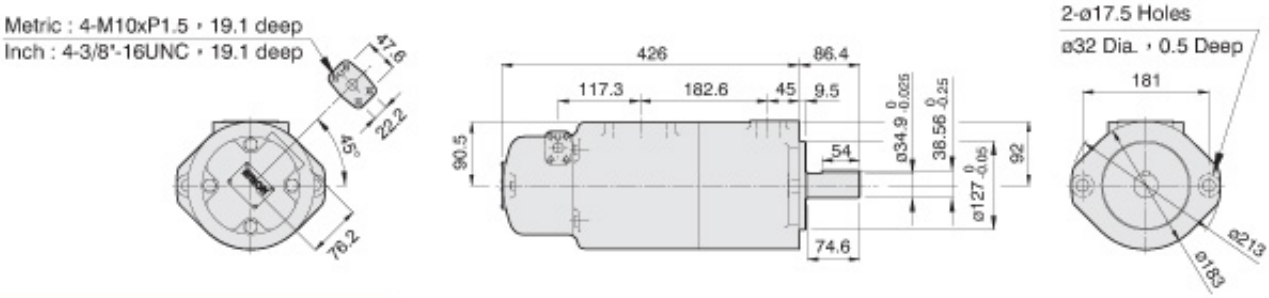
IVPQ31 Flange Mounting
Shaft Model No.1





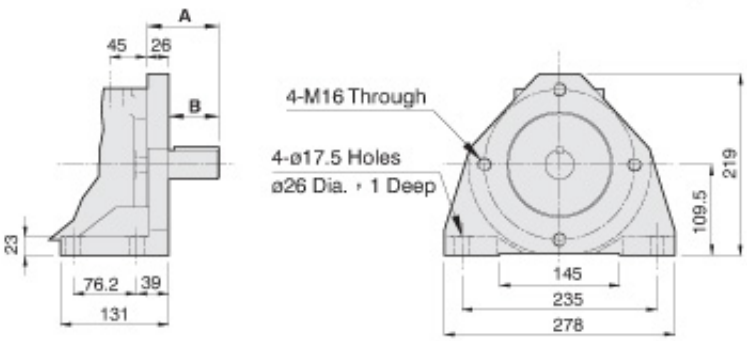
IVPQ31 Flange Mounting
Shaft Model No.86



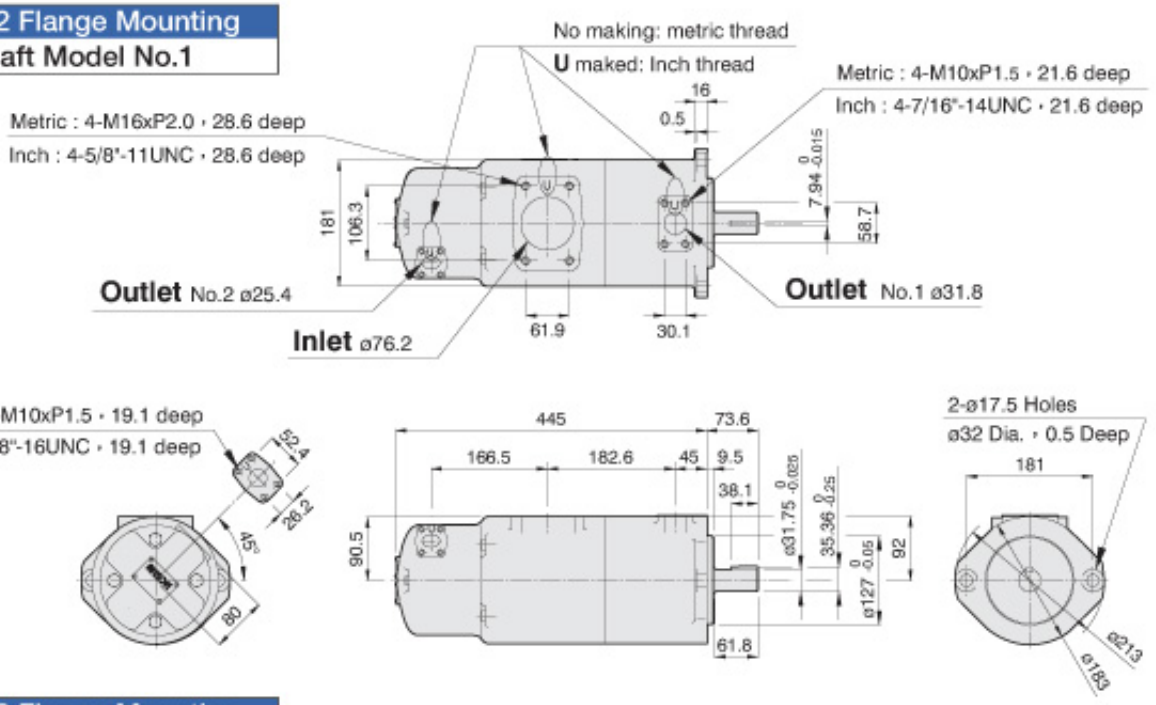


IVPQ31 Foot Mounting
Shaft Model No.1 / No.86

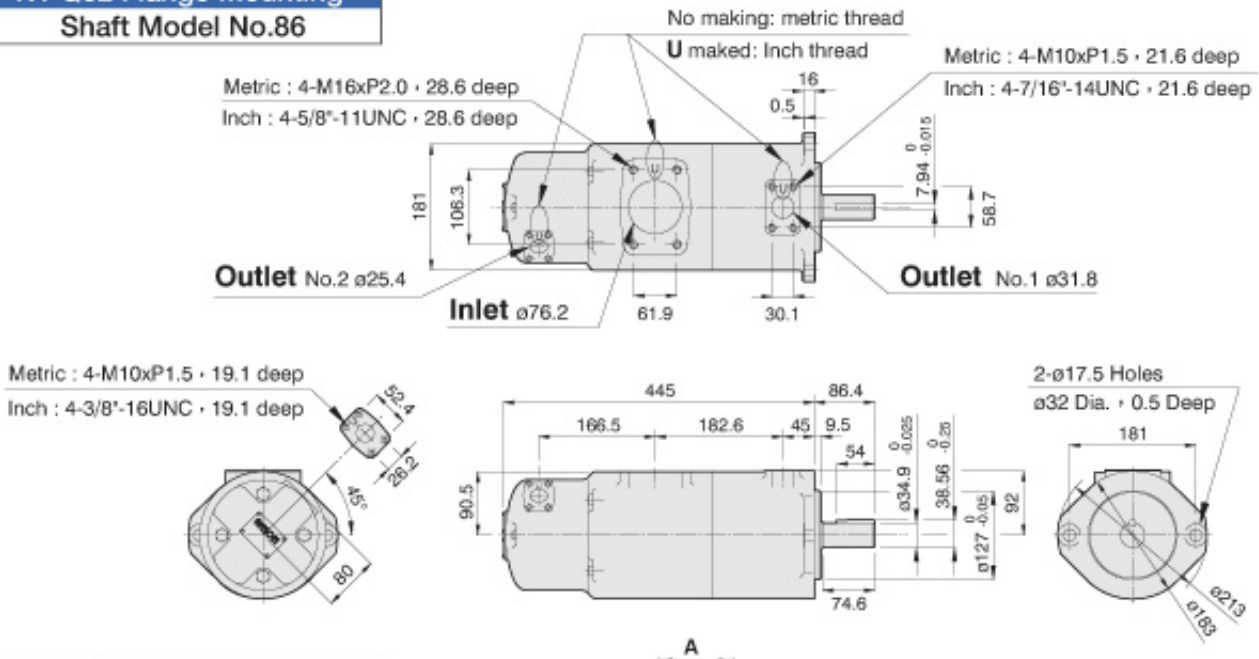
IVPQ31 DIMENSION		
Shaft model	A	B
No. 1	73.6	47.6
No. 86	86.4	60.4



IVPQ32 Flange Mounting
Shaft Model No.1

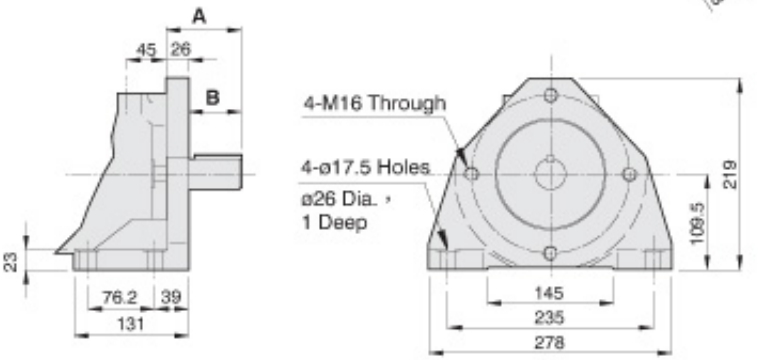


IVPQ32 Flange Mounting
Shaft Model No.86

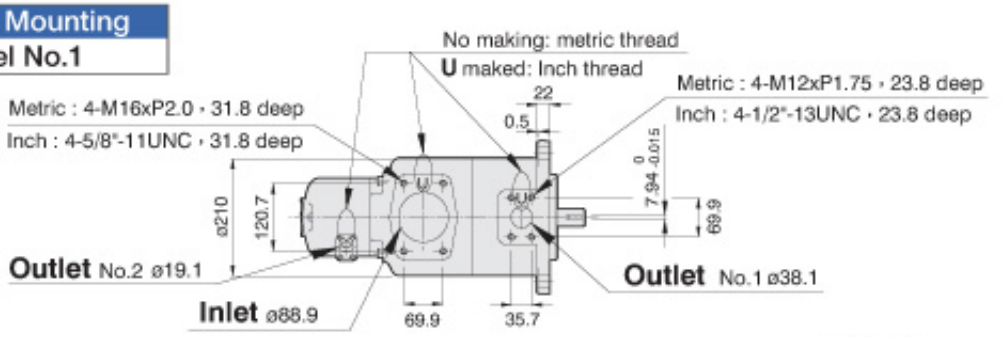


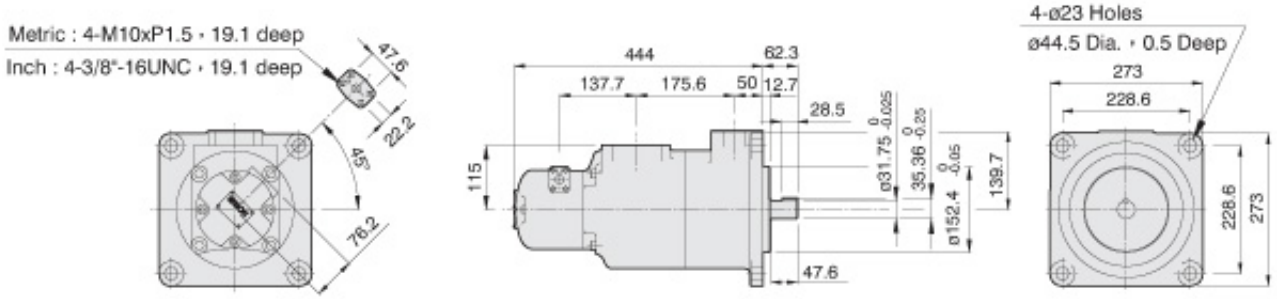
IVPQ32 Foot Mounting
Shaft Model No.1 / No.86

IVPQ32 DIMENSION		
Shaft model	A	B
No. 1	73.6	47.6
No. 86	86.4	60.4

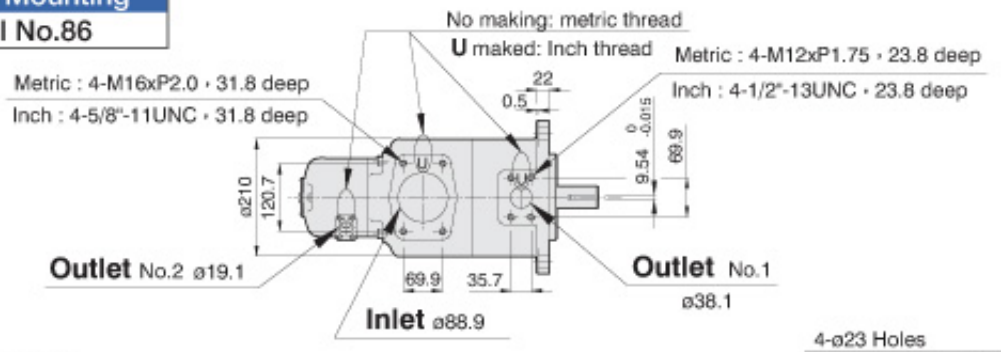


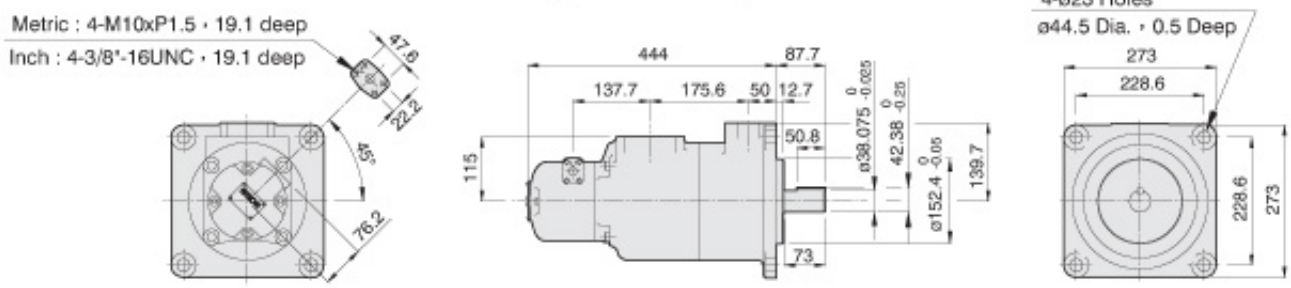
IVPQ41 Flange Mounting
Shaft Model No.1





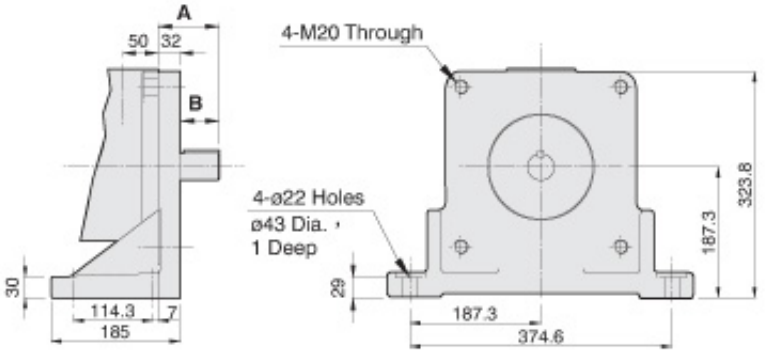
IVPQ41 Flange Mounting
Shaft Model No.86



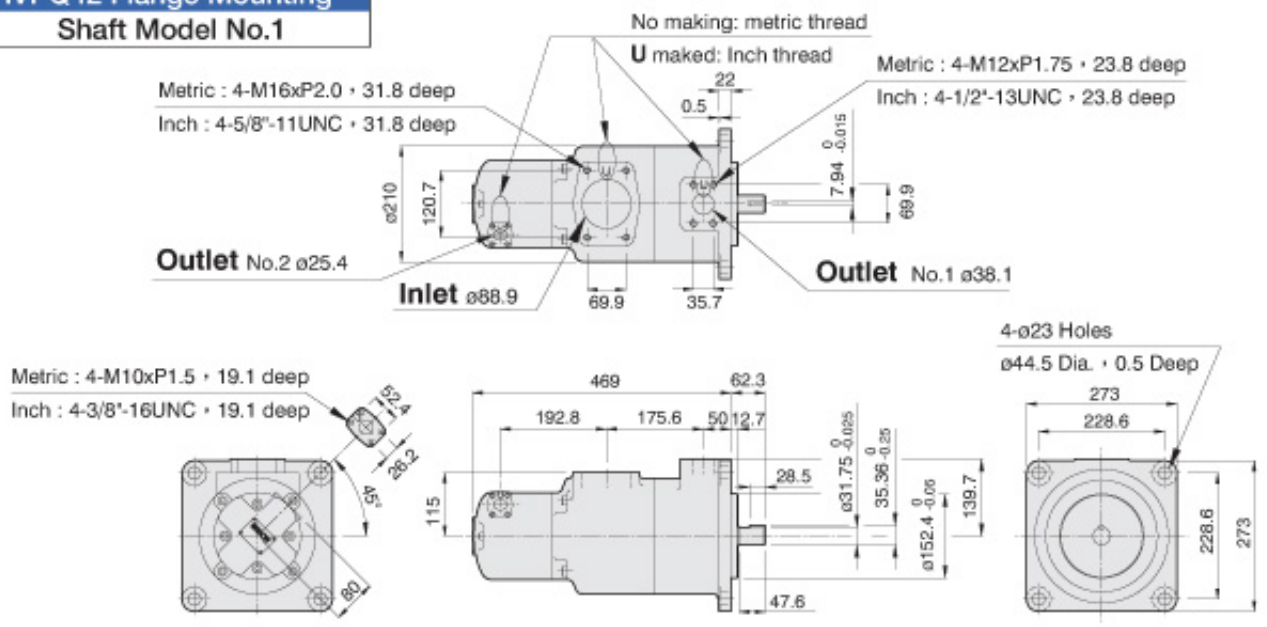


IVPQ41 Foot Mounting
Shaft Model No.1 / No.86

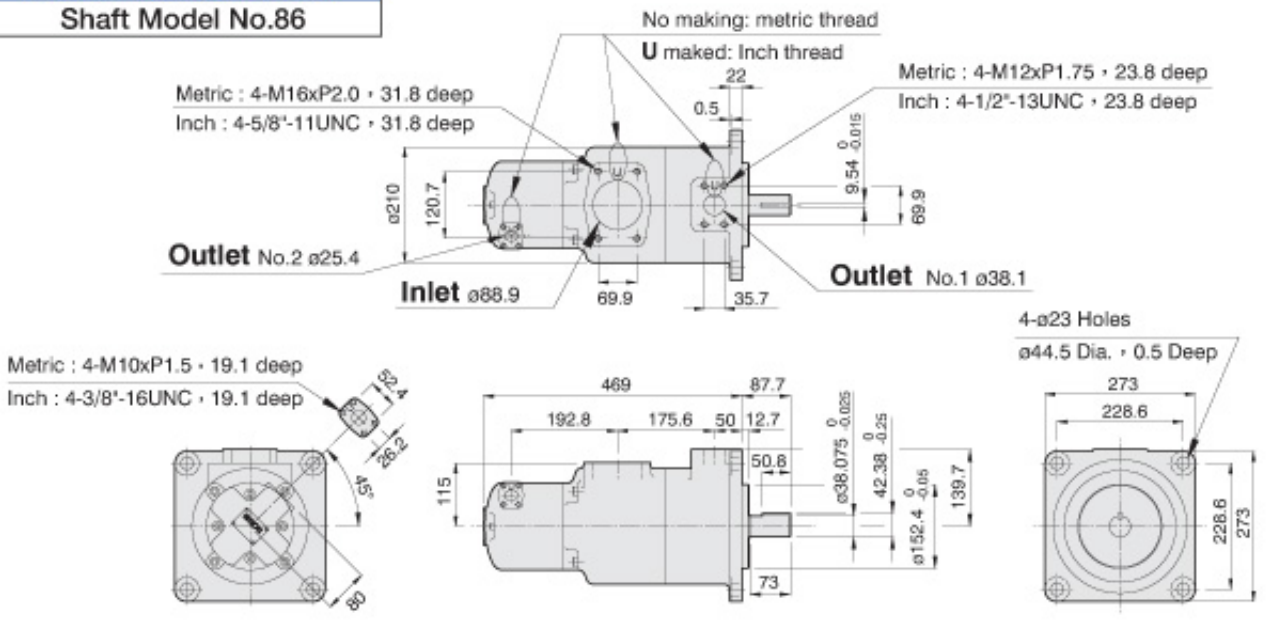
IVPQ41 DIMENSION		
Shaft model	A	B
No. 1	62.3	30.3
No. 86	87.7	55.7



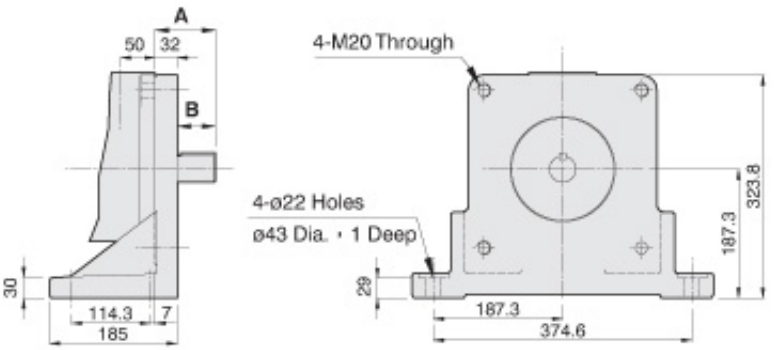
IVPQ42 Flange Mounting
Shaft Model No.1



IVPQ42 Flange Mounting
Shaft Model No.86

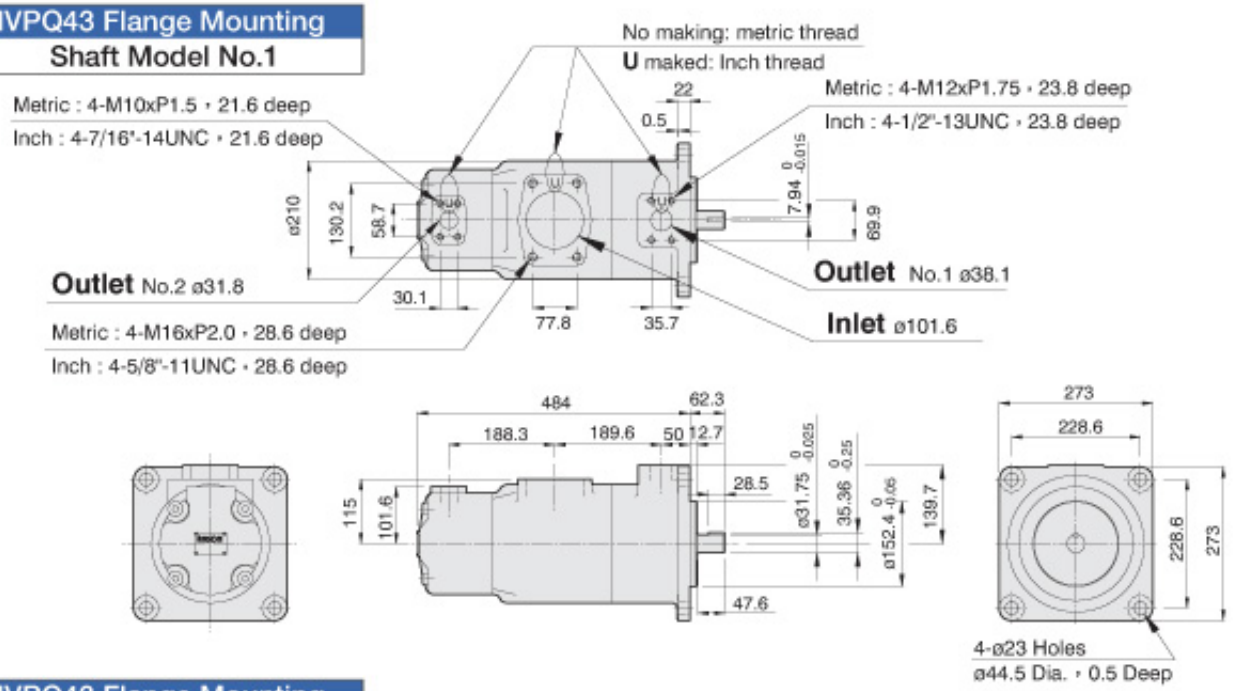


IVPQ42 Foot Mounting
Shaft Model No.1 / No.86

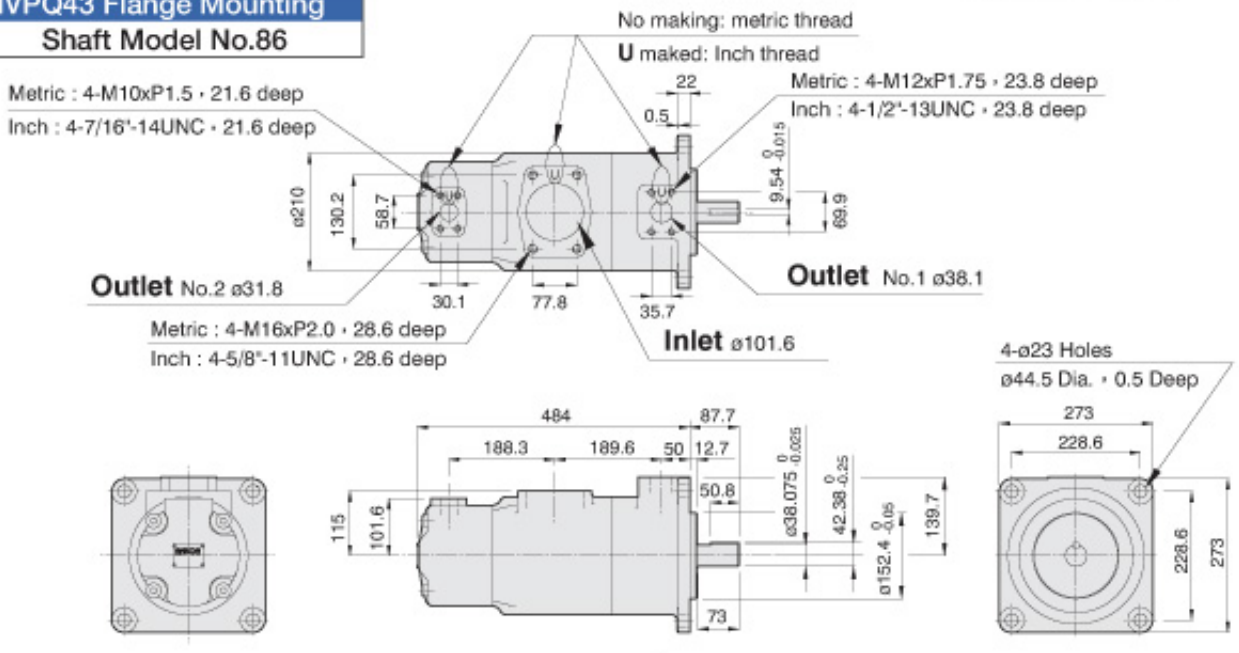


IVPQ42 DIMENSION		
Shaft model	A	B
No. 1	62.3	30.3
No. 86	87.7	55.7

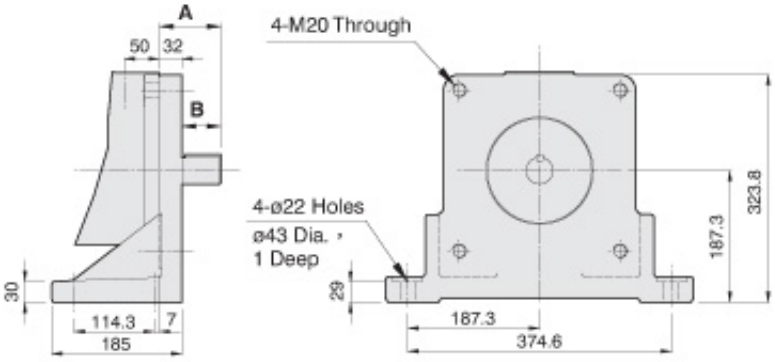
IVPQ43 Flange Mounting
Shaft Model No.1



IVPQ43 Flange Mounting
Shaft Model No.86

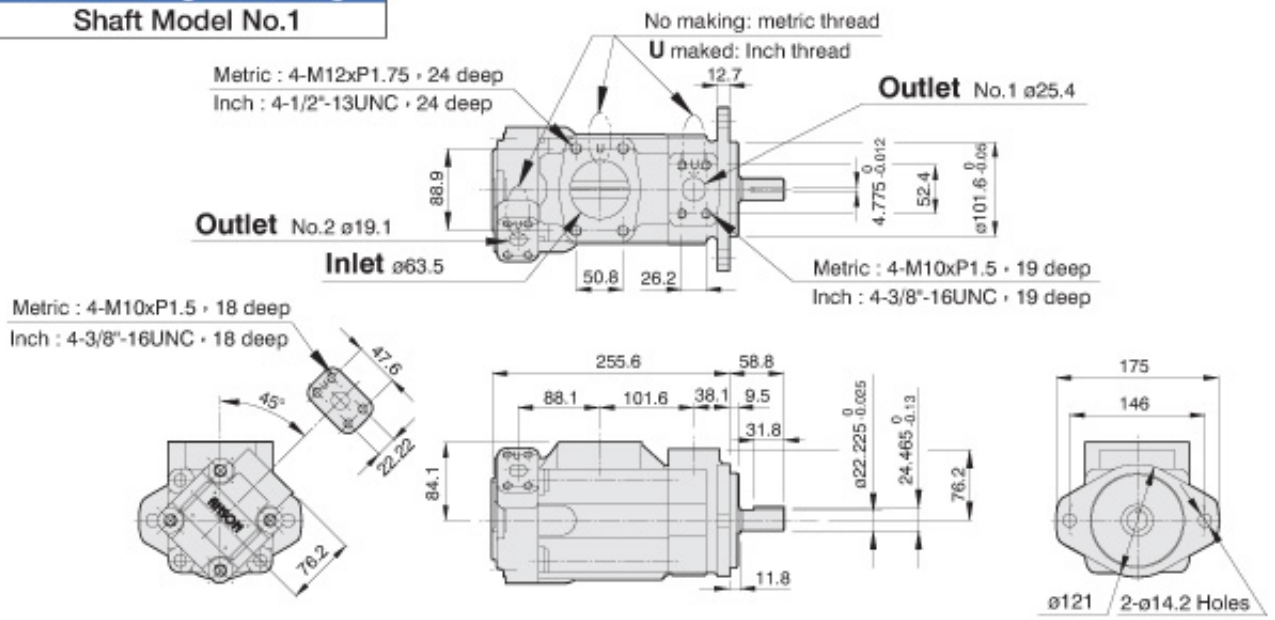


IVPQ43 Foot Mounting
Shaft Model No.1 / No.86

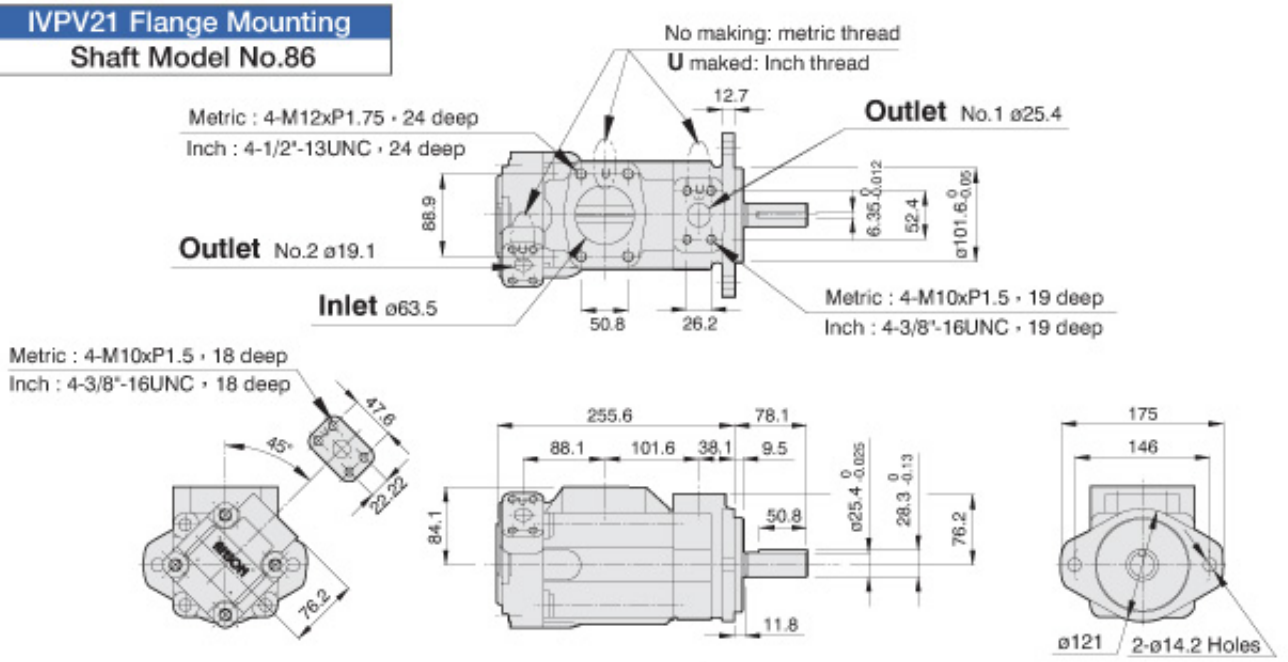


IVPQ43 DIMENSION		
Shaft model	A	B
No. 1	62.3	30.3
No. 86	87.7	55.7

IVPV21 Flange Mounting
Shaft Model No.1

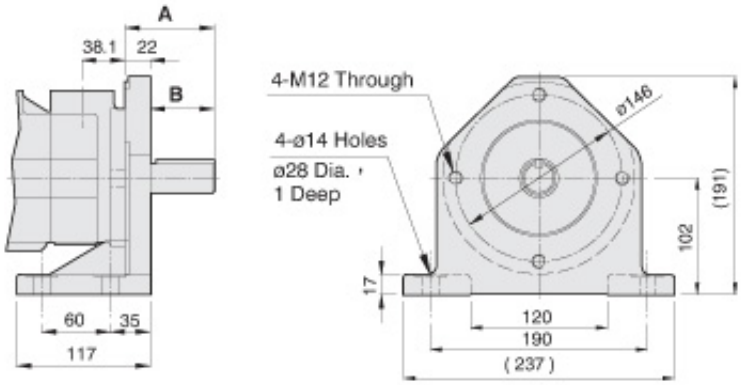


IVPV21 Flange Mounting
Shaft Model No.86

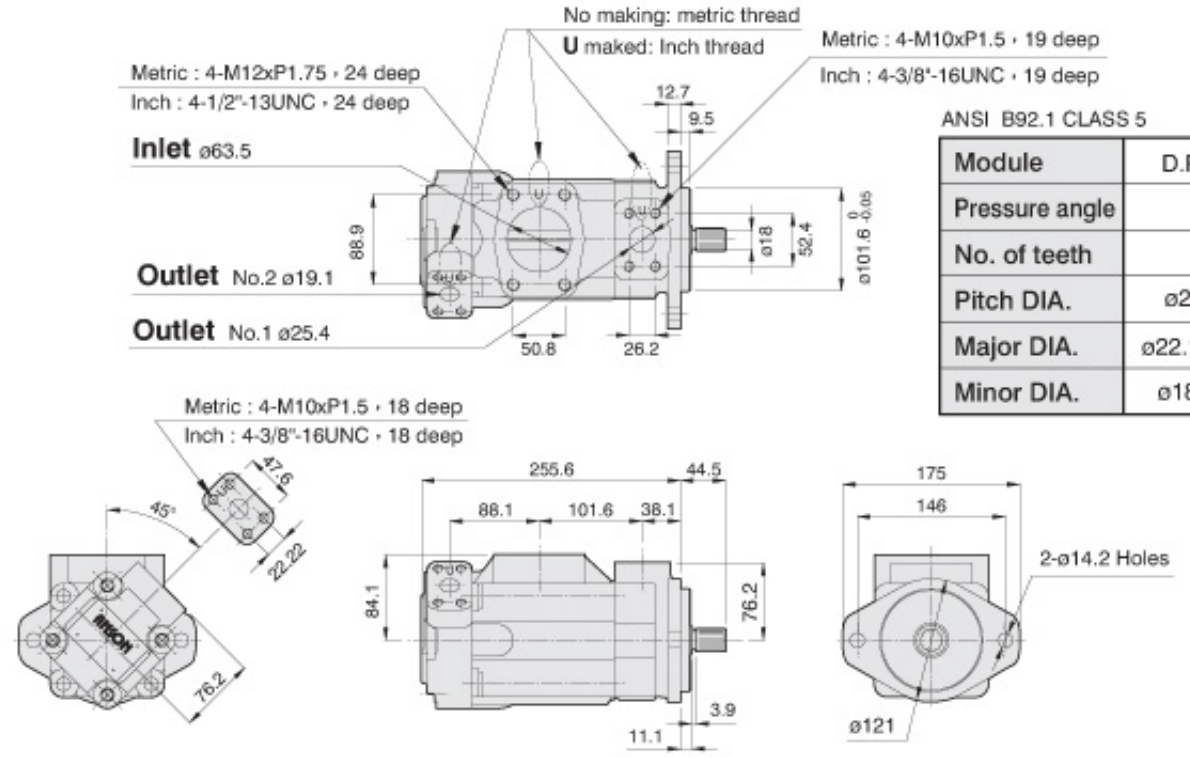


IVPV21 Foot Mounting
Shaft Model No.1 / No.86

IVPV21 DIMENSION		
Shaft model	A	B
No. 1	58.8	36.8
No. 86	78.1	56.1



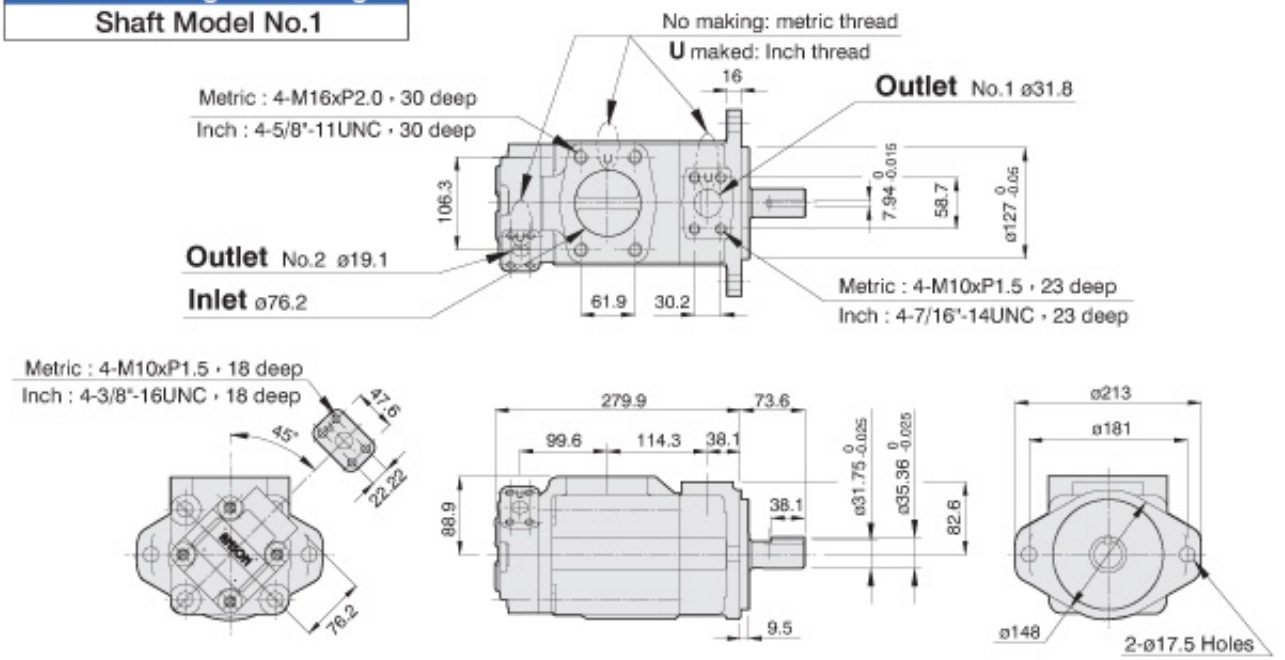
IVPV21 Flange Mounting
Shaft Model No.11



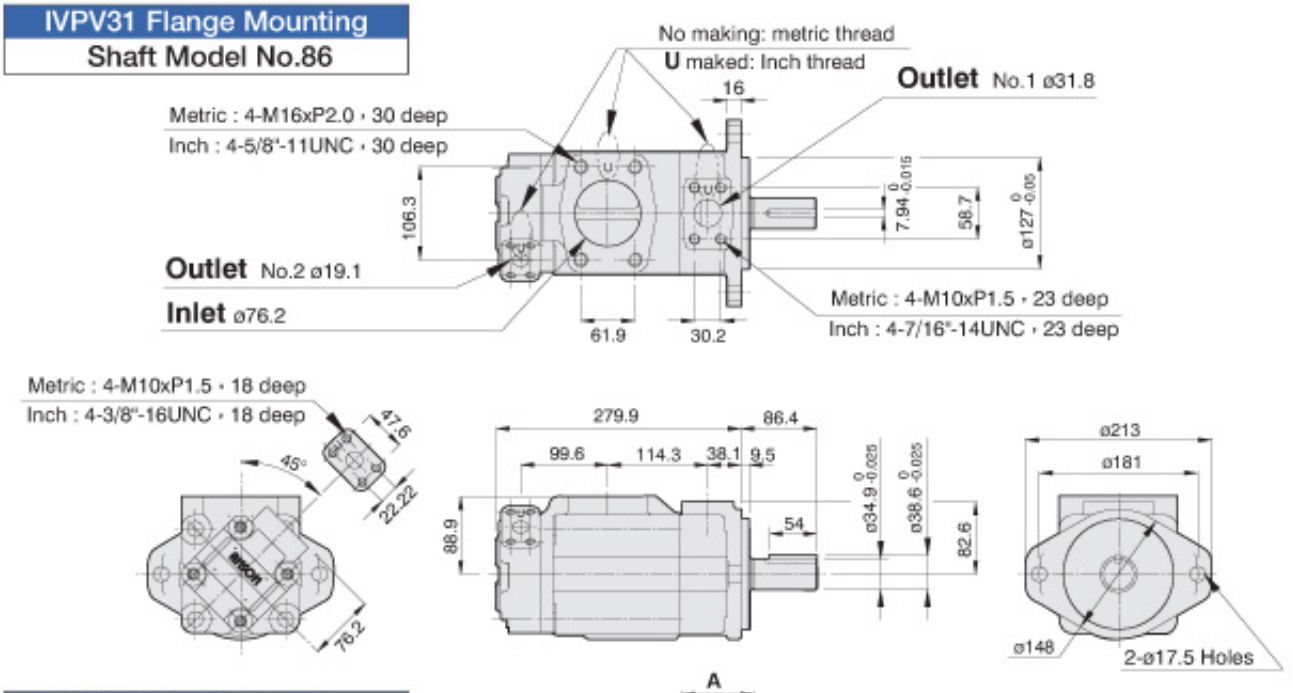
ANSI B92.1 CLASS 5

Module	D.P.16/32
Pressure angle	30°
No. of teeth	**13**
Pitch DIA.	ø20.6375
Major DIA.	ø22.175 $^{+0}_{-0.025}$
Minor DIA.	ø18.63 $^{+0}_{-0.25}$

IVPV31 Flange Mounting
Shaft Model No.1

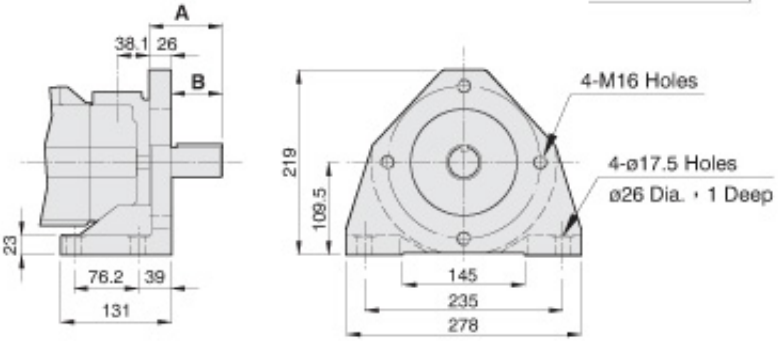


IVPV31 Flange Mounting
Shaft Model No.86

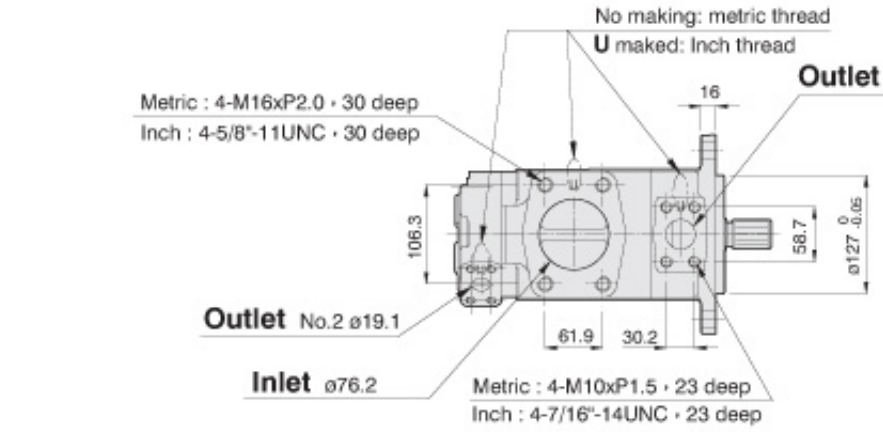


IVPV31 Foot Mounting
Shaft Model No.1 / No.86

IVPV31 DIMENSION		
Shaft model	A	B
No. 1	73.6	47.6
No. 86	86.4	60.4

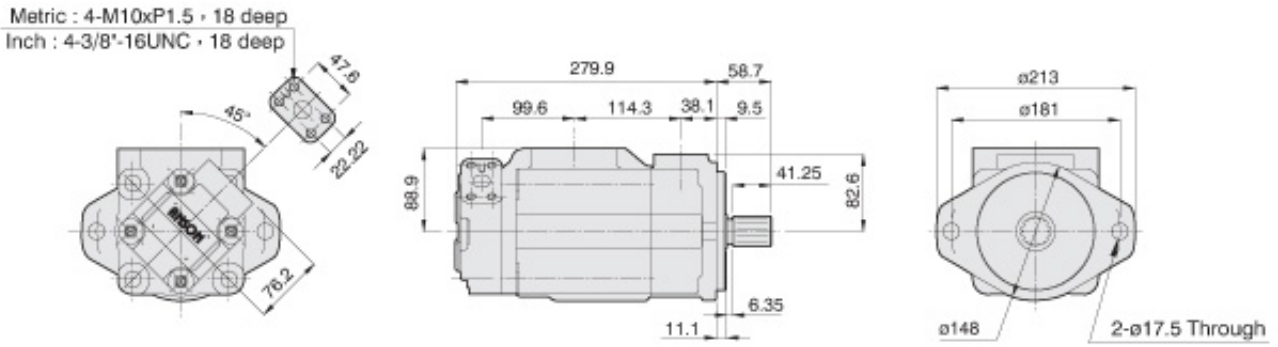


IVPV31 Flange Mounting
Shaft Model No.11

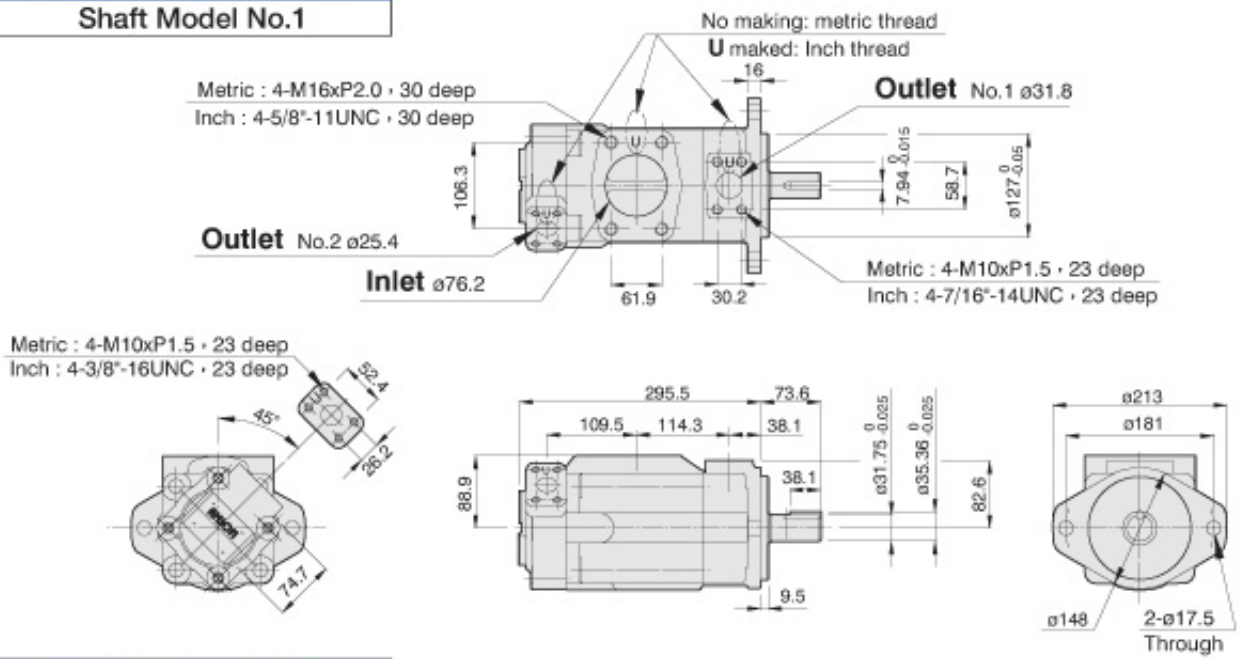


ANSI B92.1 CLASS 5

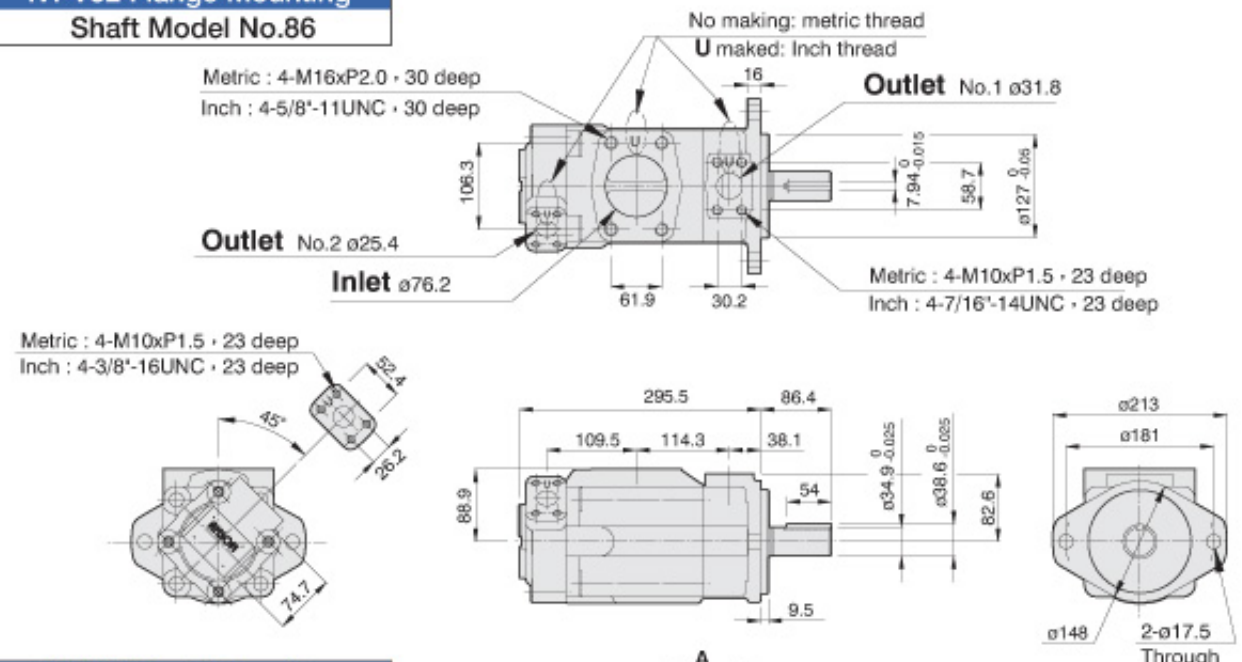
Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$



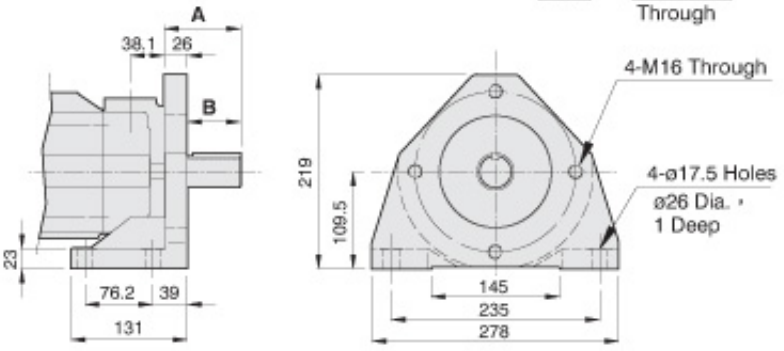
IVPV32 Flange Mounting
Shaft Model No.1



IVPV32 Flange Mounting
Shaft Model No.86

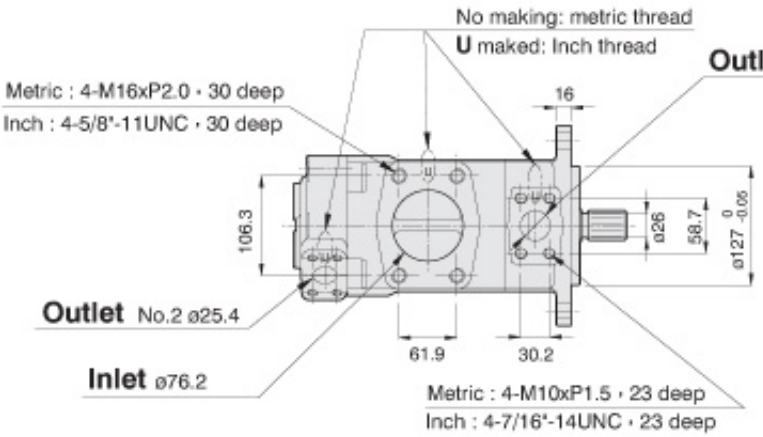


IVPV32 Foot Mounting
Shaft Model No.1 / No.86



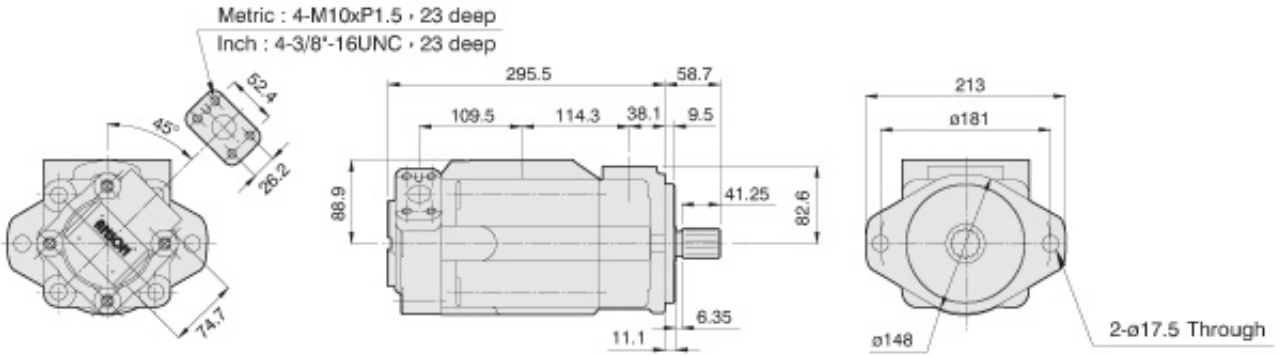
IVPV32 DIMENSION		
Shaft model	A	B
No. 1	73.6	47.6
No. 86	86.4	60.4

IVPV32 Flange Mounting
Shaft Model No.11

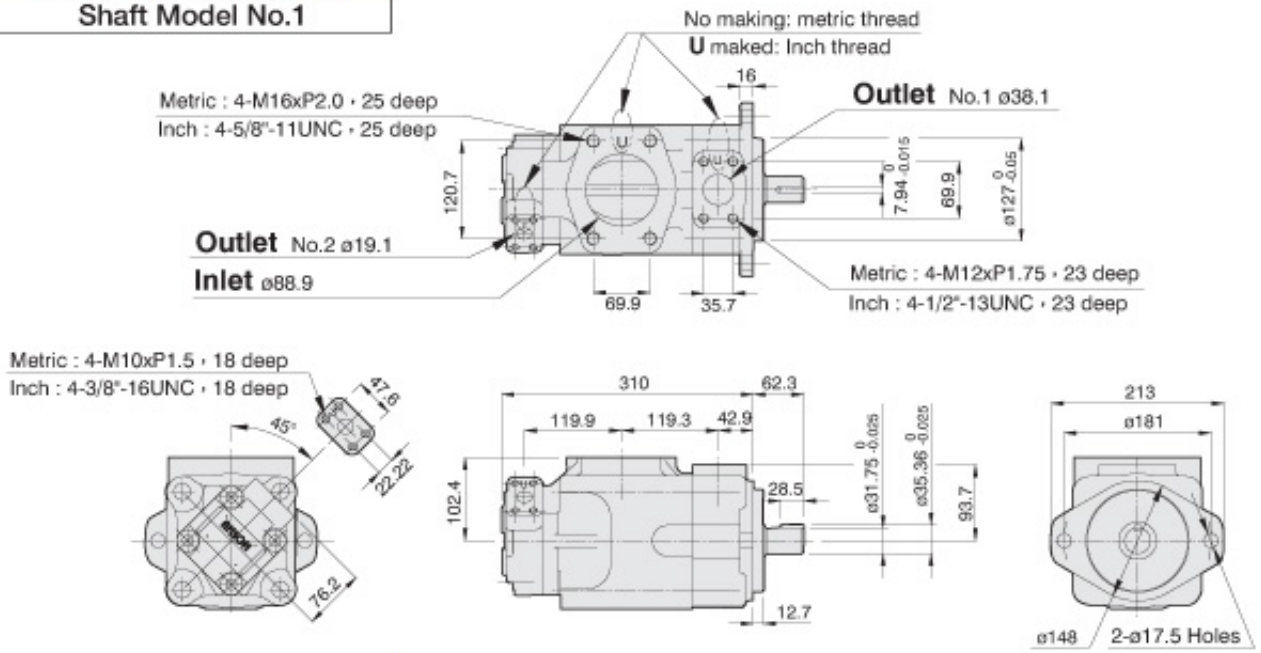


ANSI B92.1 CLASS 5

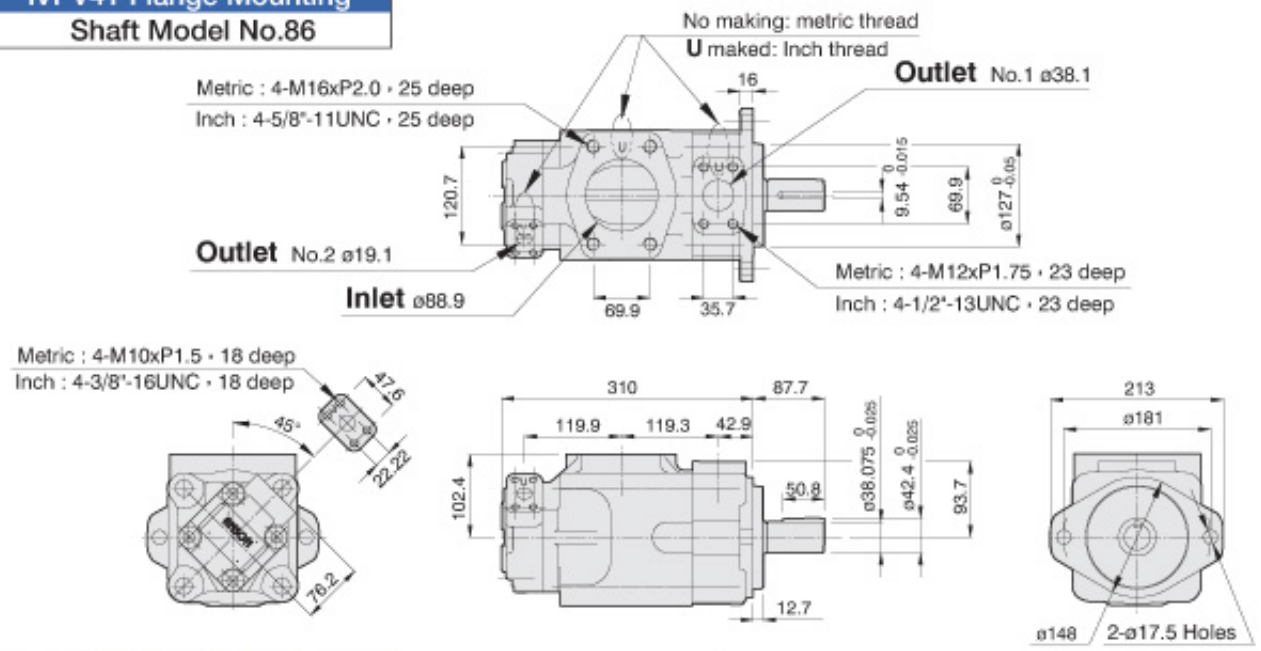
Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$



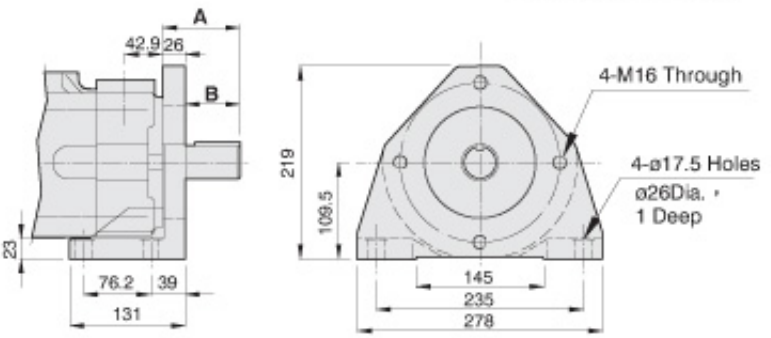
IVPV41 Flange Mounting
Shaft Model No.1



IVPV41 Flange Mounting
Shaft Model No.86

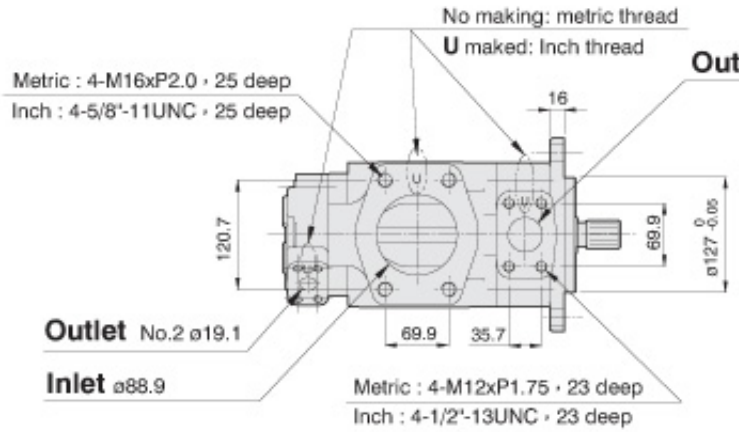


IVPV41 Foot Mounting
Shaft Model No.1 / No.86



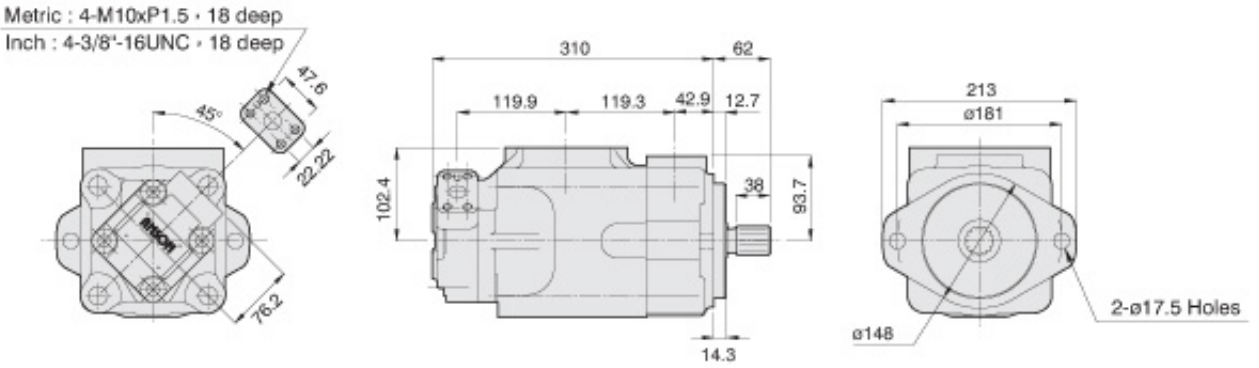
IVPV41 DIMENSION		
Shaft model	A	B
No. 1	62.3	36.3
No. 86	87.7	61.7

IVPV41 Flange Mounting
Shaft Model No.11

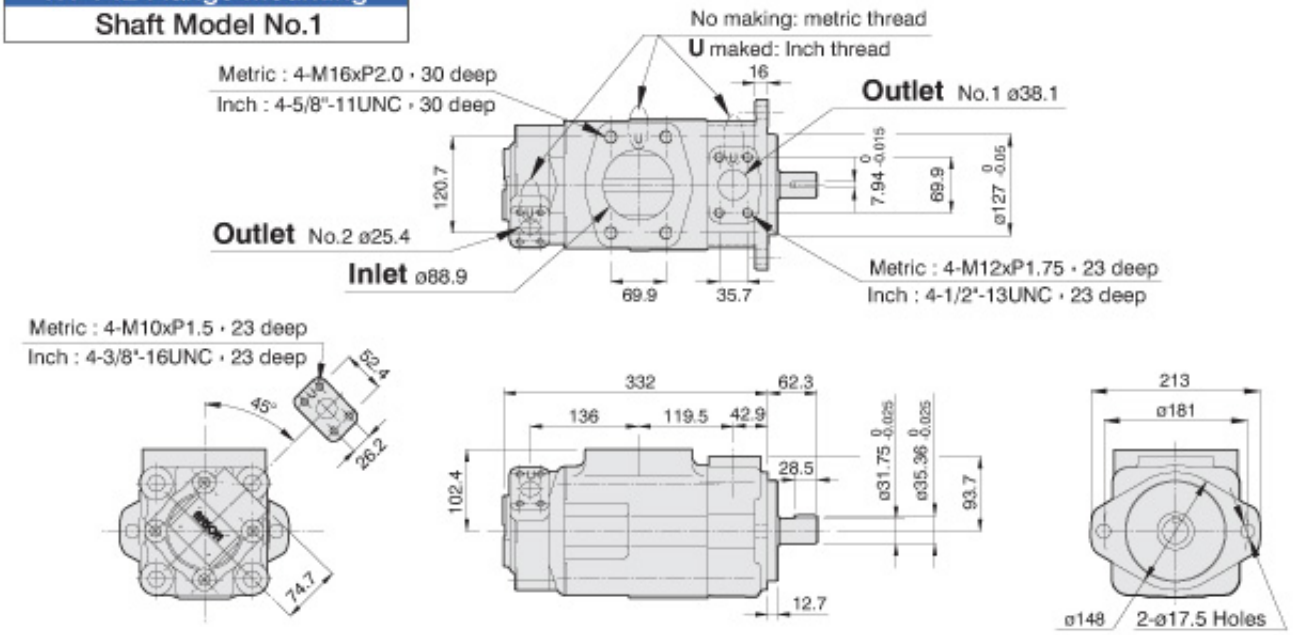


ANSI B92.1 CLASS 5

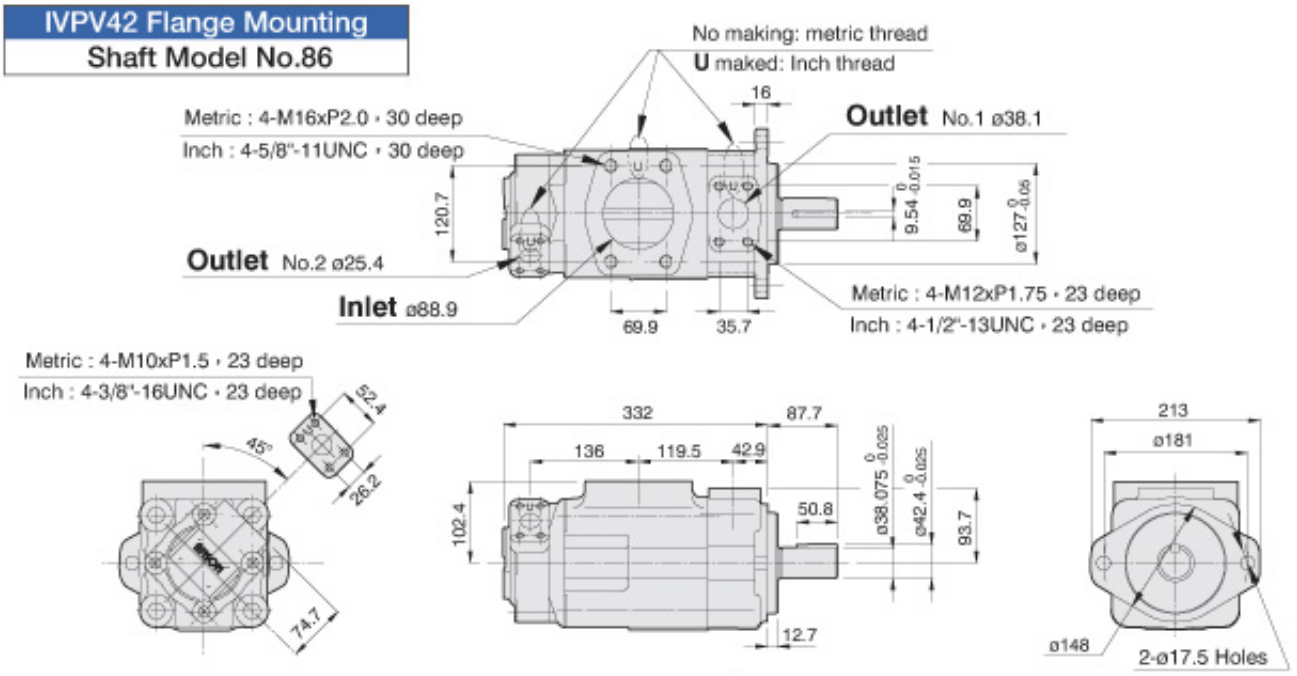
Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	ø26.924 $^{+0}_{-0.25}$



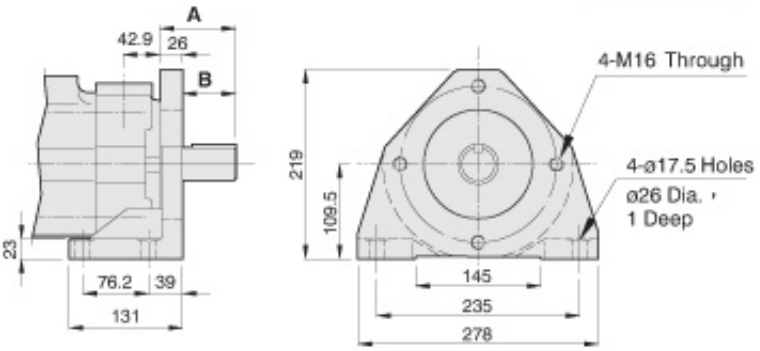
IVPV42 Flange Mounting
Shaft Model No.1



IVPV42 Flange Mounting
Shaft Model No.86

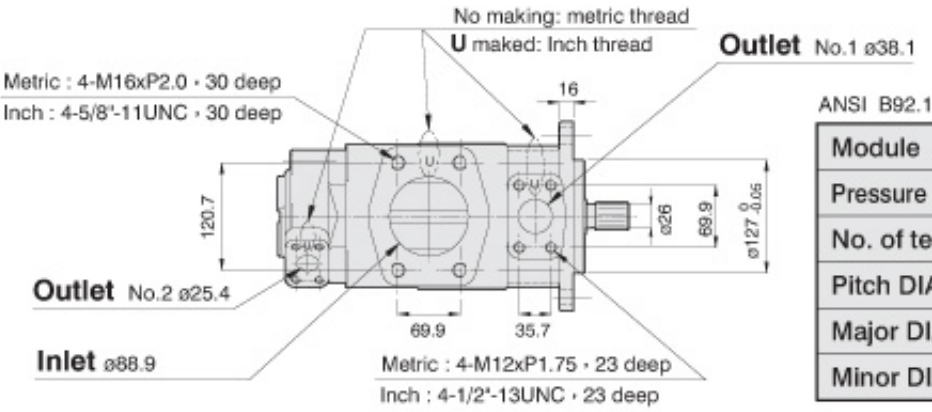


IVPV42 Foot Mounting
Shaft Model No.1 / No.86



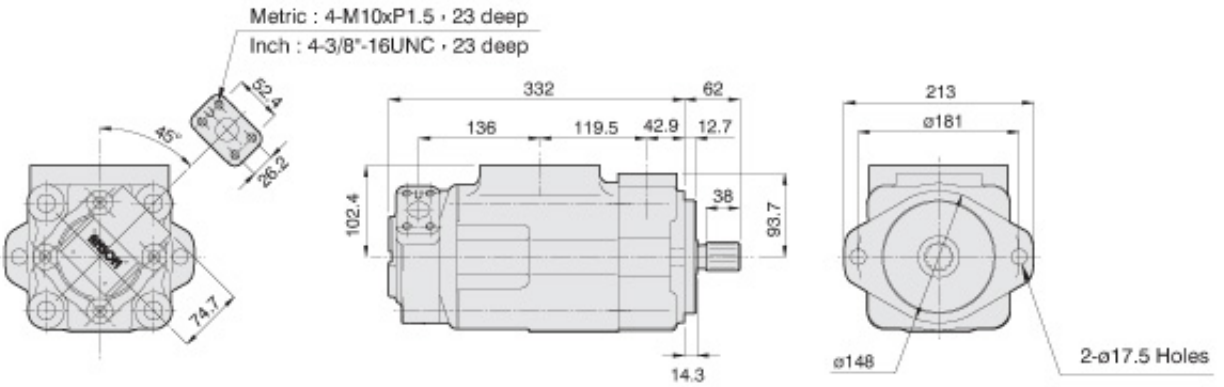
IVPV42 DIMENSION		
Shaft model	A	B
No. 1	62.3	36.3
No. 86	87.7	61.7

IVPV42 Flange Mounting
Shaft Model No.11

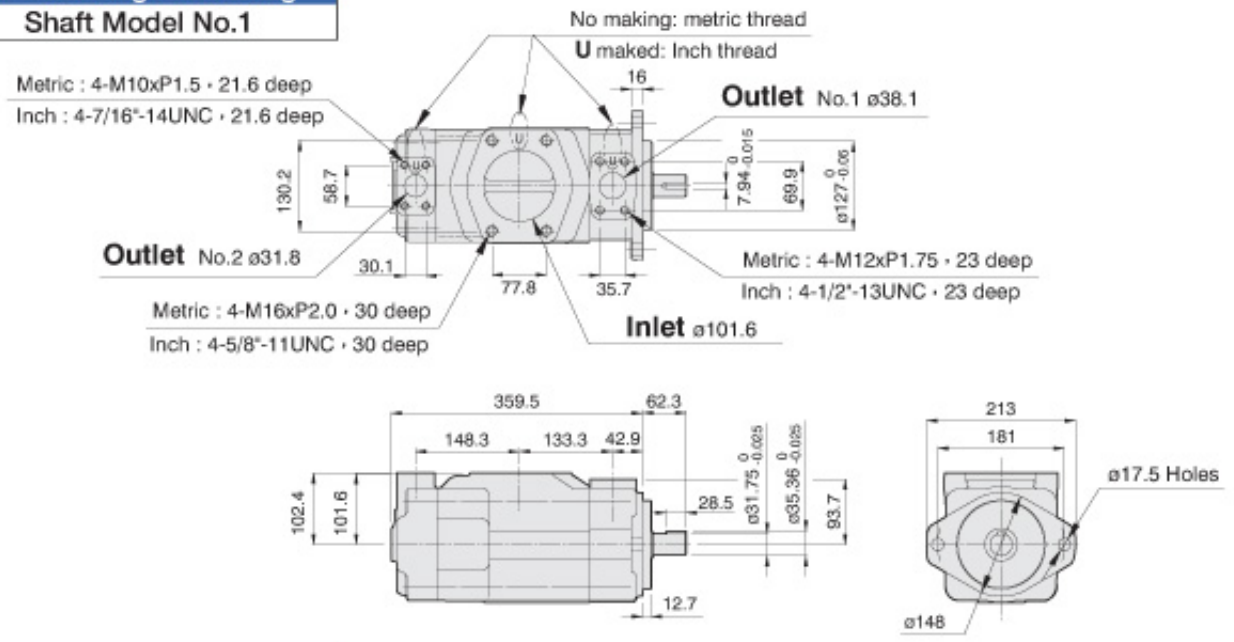


ANSI B92.1 CLASS 5

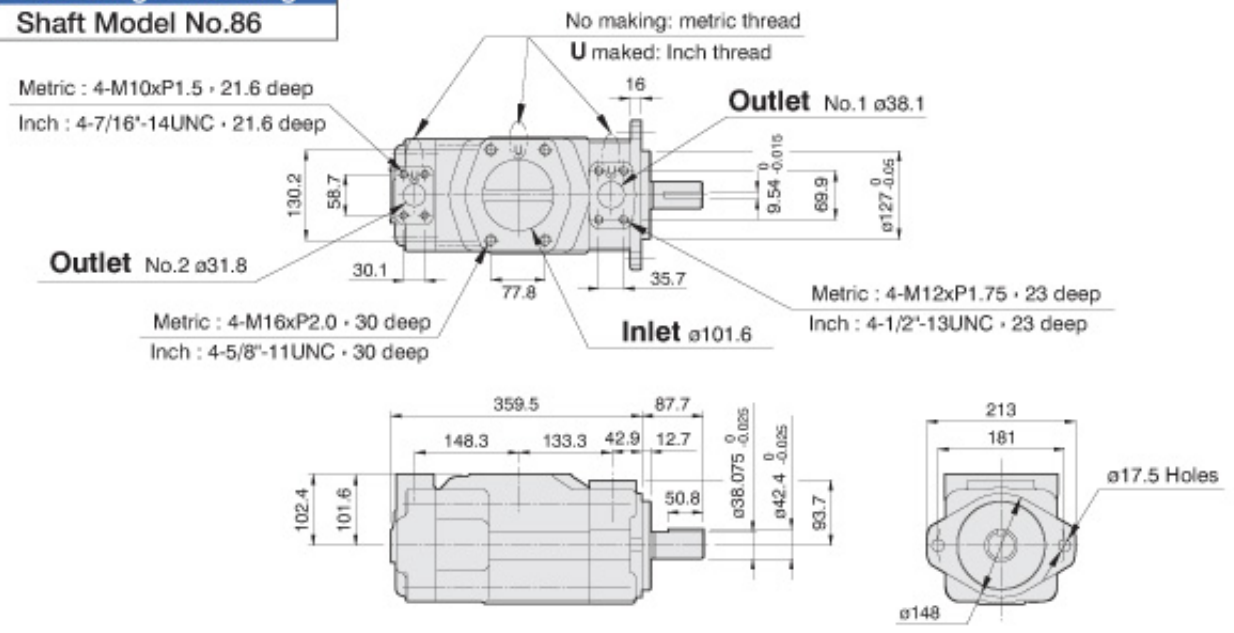
Module	D.P.12/24
Pressure angle	30°
No. of teeth	**14**
Pitch DIA.	ø29.6333
Major DIA.	ø31.75 $^{+0}_{-0.025}$
Minor DIA.	o26.924 $^{+0}_{-0.25}$



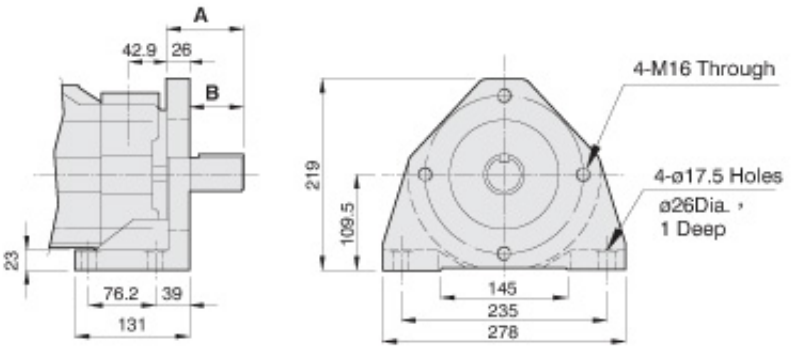
IVPV43 Flange Mounting
Shaft Model No.1



IVPV43 Flange Mounting
Shaft Model No.86

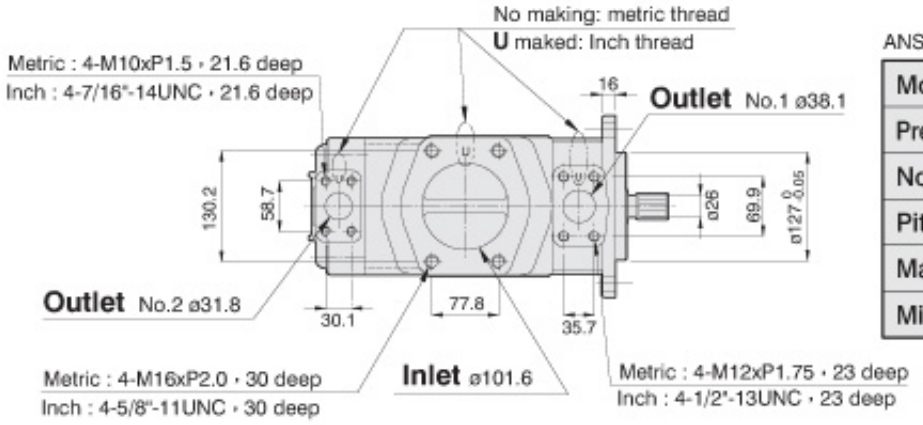


IVPV43 Foot Mounting
Shaft Model No.1 / No.86



IVPV43 DIMENSION		
Shaft model	A	B
No. 1	62.3	36.3
No. 86	87.7	61.7

IVPV43 Flange Mounting
Shaft Model No.11



ANSI B92.1 CLASS 5

Module	D.P.12/24
Pressure angle	30°
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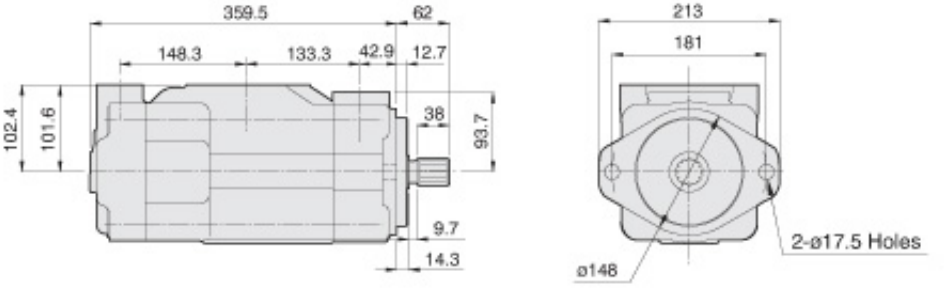
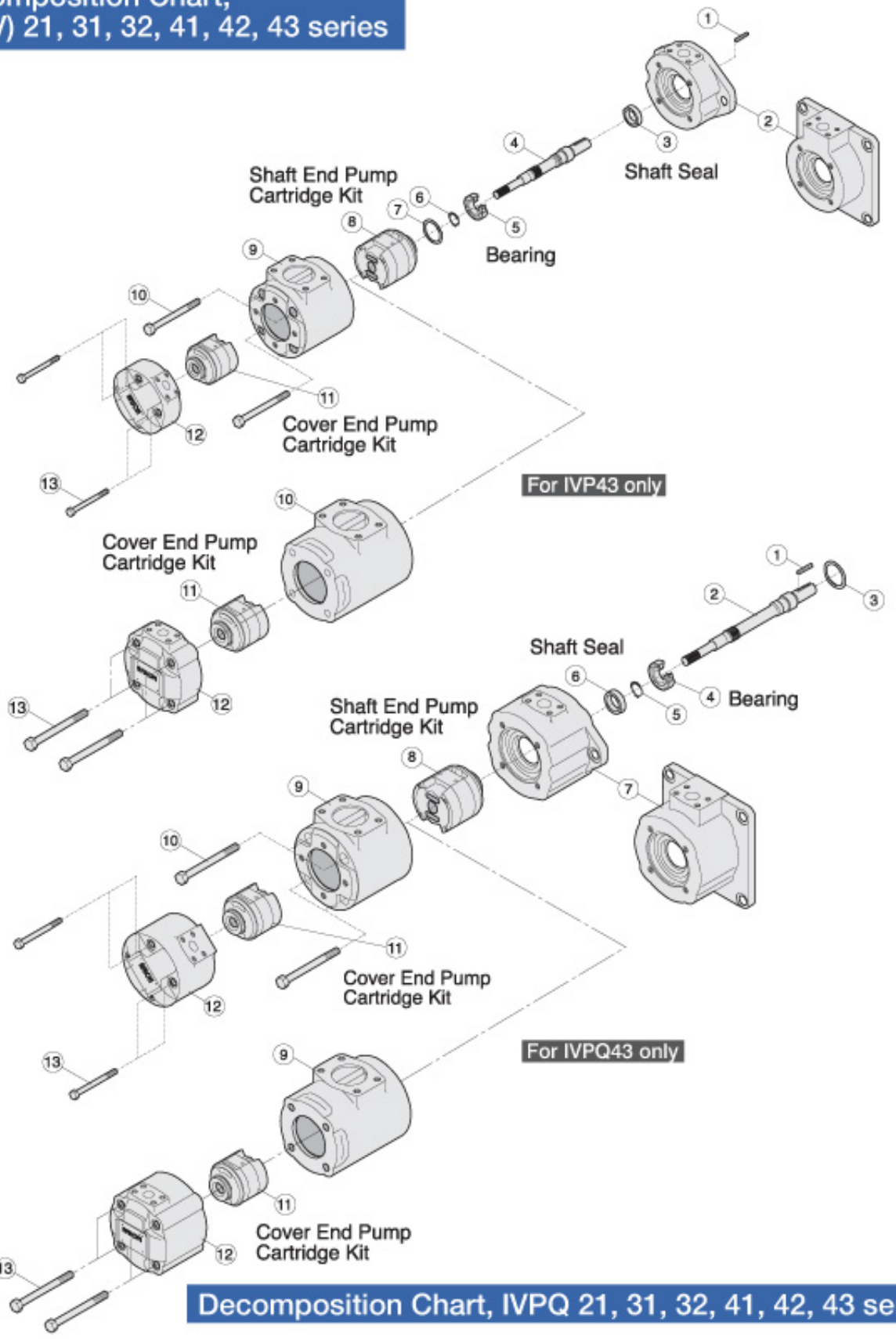


Decomposition Chart, IVP(V) 21, 31, 32, 41, 42, 43 series



Decomposition Chart, IVPQ 21, 31, 32, 41, 42, 43 series

IVP(Q/V) Double pumps - Cartridge Kit Model Code

(F3-)	CK-◆IVP(Q/V)21	-(17)	H	-(12)	H	C	-R	-10
Prefix,fluid compatibility	Cartridge Kit Model	Geometric displ. shaft end pump Cartridge Kit ●Code	Press-ure ★type	Geometric displ. cover end pump Cartridge Kit ●Code	Press-ure ★type	Mounting postition	Rotation	Design
Omit- Using petroleum base oil & anti-wear hydraulic oil. **F11-** Using water glycol fluid. **F3-** Using water-in-oil emulsions or phosphate ester fluid.	**CK-IVP(Q/V)21**	10、12、14 15、17、19 21、25	**Omit-** Stand-ard press-ure **H-** High press-ure	2、3、4、5 6、7、8、10 11、12、14	**Omit-** Stand-ard press-ure **H-** High press-ure	Cover end pump	Viewed from shaft end of pump **R-**Right hand for clockwise **L-**Left hand for count-erclockwise	**10**
	CK-IVP(Q/V)31	17、21、25 30、32、35 38、42		2、3、4、5 6、7、8、10 11、12、14				
	CK-IVP(Q/V)32	17、21、25 30、32、35 38、42		10、12、14 15、17、19 21、25				
	CK-IVP(Q/V)41	30、35、38 42、50、60 67、75		2、3、4、5 6、7、8、10 11、12、14				
	CK-IVP(Q/V)42	30、35、38 42、50、60 67、75		10、12、14 15、17、19 21、25				
	CK-IVP(Q/V)43	30、35、38 42、50、60 67、75		17、21、25 30、32、35 38、42				

● Rated capacity in US gpm at 1200 r/min and 6.9 bar(1000psi).

◆ IVPQ series no splined shaft model.

★ IVPQ series no **H** high pressure type.

For Example:
Ordering cartridge kits of IVP42-35(H)-25(H)AM-F-R-86AA-10,

1.CK-IVP4-35(H)-R-10, ordering code for cartridge kit of shaft end pump.

2.CK-IVP*2-25(H)C-R-10, ordering code for cartridge kit of cover end pump.

IVP(Q/V) Double Pumps-Cartridge Kit Weight

Cartridge Kit Model	Cartridge kit weight of shaft end pump	Cartridge kit weight of cover end pump
CK-IVP(Q/V)21	3.8 kg	2.5 kg
CK-IVP(Q/V)31	6.5 kg	2.5 kg
CK-IVP(Q/V)32	6.5 kg	3.8 kg
CK-IVP(Q/V)41	10.2 kg	2.5 kg
CK-IVP(Q/V)42	10.2 kg	3.8 kg
CK-IVP(Q/V)43	10.2 kg	6.5 kg

IVP(Q) Double pumps - Max. input torque

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

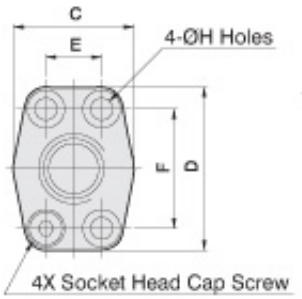
IVP(Q/V) Double Pumps - Performance Characteristics		
Frame size	Performance Characteristics	
	Shaft end pump (No.1 outlet)	Cover end pump (No.2 outlet)
IVP(Q/V)21	Data same as IVP(Q) 2 Series	Data same as IVP(Q) 1 Series
IVP(Q/V)31	Data same as IVP(Q) 3 Series	
IVP(Q/V)41	Data same as IVP(Q) 4 Series	
IVP(Q/V)32	Data same as IVP(Q) 3 Series	Data same as IVP(Q) 2 Series
IVP(Q/V)42	Data same as IVP(Q) 4 Series	
IVP(Q/V)43	Data same as IVP(Q) 4 Series	Data same as IVP(Q) 3 Series

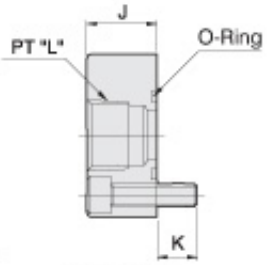
PS: For the performance characteristics of IVP(Q)1-4, please refer to page 5 & 6.

IVP(Q/V) Double Pumps - Shaft Seal & Bearing		
Frame size	Shaft Seal	Bearing
IVP(V)21	TBY 29.36x42.82x7.9	6205
IVP(V)31	TBY 36.5x50.8x7.9	6306
IVP(V)32	TBY 36.5x50.8x7.9	6306
IVP(V)41	TBY 41.28x60.32x9.5	6307
IVP(V)42	TBY 41.28x60.32x9.5	6307
IVP(V)43	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

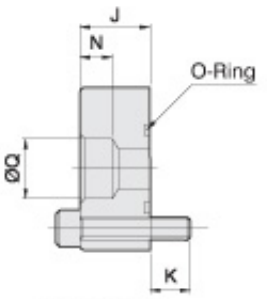
IVP(Q) F5 Series Pipe Flange Kits

■ These flange mounting surface measurements are based upon: SAE 4 Bolt Sprit Flanges.





F5-※-A



F5-※-B

■ Ratings

Model	Piping size	Dimensions (mm)											O-Ring	Socket Head Cap Screw	Max. Operating Pressure (bar)	Mass (Kg)	Tightening Torque	
		C	D	E	F	H	J	K	L	N	Q	T					Recommendation	Tolerance
F5-04-A	1/2	40	54	17.5	38.1	8.8	28	15	1/2	—	—	13	P22	M8x35	268	0.5	35 Nm (3.6 kgf)	±10%
F5-04-B								12	—	11	22.2			M8x40				
F5-06-A	3/4	48	65	22.2	47.6	11	28	17	3/4	—	—	19	G30	M10x35	268	0.7	68.5 Nm (7.0 kgf)	
F5-06-B									—	12	27.7			M10x45				
F5-08-A	1	55	70	26.2	52.4	11	28	17	1	—	—	26	G35	M10x35	268	0.9		
F5-08-B									—	14	34.5			M10x45				
F5-10-A	1 1/4	64	80	30.2	58.7	11	30	18	1 1/4	—	—	32	G40	M10x35	268	1.2		
F5-10-B								20	—	16	43.2			M10x45				
F5-12-A	1 1/2	72	94	35.7	69.9	13.5	30	18	1 1/2	—	—	38	G50	M12x35	214	1.5	118 Nm (12 kgf)	
F5-12-B								20	—	18	49.1			M12x45				
F5-16-A	2	85	102	42.9	77.8	13.5	30	18	2	—	—	51	G65	M12x40	179	1.7		
F5-16-B								20	—	20	61.1			M12x50				
F5-20-A	2 1/2	102	114	50.8	88.9	13.5	38	19	2 1/2	—	—	63	G75	M12x45	179	2.0		
F5-20-B								17	—	22	77.1			M12x55				
F5-24-A	3	116	135	61.9	106.4	17.5	53	17	3	—	—	76	G85	M16x60	35.7	2.7	287 Nm (29.2 kgf)	
F5-24-B							38		—	25	90.0			M16x60				
F5-28-A	3 1/2	134	153	69.9	120.7	17.5	53	17	3 1/2	—	—	88	G100	M16x60	35.7	3.4		
F5-28-B							38		—	28	102.8			M16x60				
F5-32-A	4	150	162	77.8	130.2	17.5	53	17	4	—	—	101	G115	M16x70	35.7	3.7		
F5-32-B							38		—	28	115.5			M16x60				

■ Model No. Disigeation

F — F5 — 06 — A — 10

- 10 — Design Number
- A — Type of Connection
  A : Threaded Connection
  B : For Pipe Socket Welding
- 06 — Flange Size
- F5 — Series No.
- F — Type of Hydraulic Fluids
  F : For Use With Phosphate Ester Fluids