

HIGH PRESSURE

1DX Series

1DX SERIES HYDRAULIC GEAR PUMP

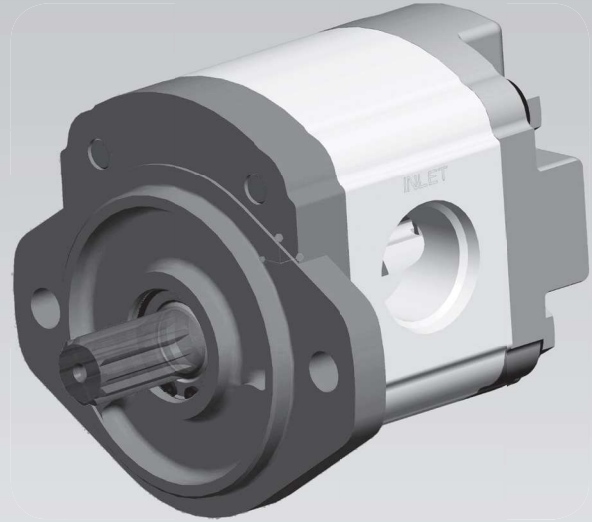
The HIGH PRESSURE 1DX SERIES of Dynamatic gear pumps, have been designed to specifically meet the demanding needs of modern high performance hydraulic systems. The 1DX series has optimized twelve teeth gears. They offer high-pressure rating, combined with low pressure-ripples and low-noise characteristics. The extensive range of displacements available provides close matching for a wide variety of applications.

The Salient features of the 1DX Series of pumps are detailed below.

- Twelve teeth gear design.
- Low pressure ripple / system noise.
- Feasibility of common inlet ports, for multiple unit configuration.
- Rear (cover) mounted ports available.
- Available in Single, Double & Triple Tandem pump configuration.

Pump Sizes: The 1DX Series of Pumps are available in sizes ranging from 4.5 to 28 cc per rev.

High Pressure: The 1DX Series of pumps have capability to withstand a maximum continuous operating pressure of 250 bar, to meet exacting requirements.

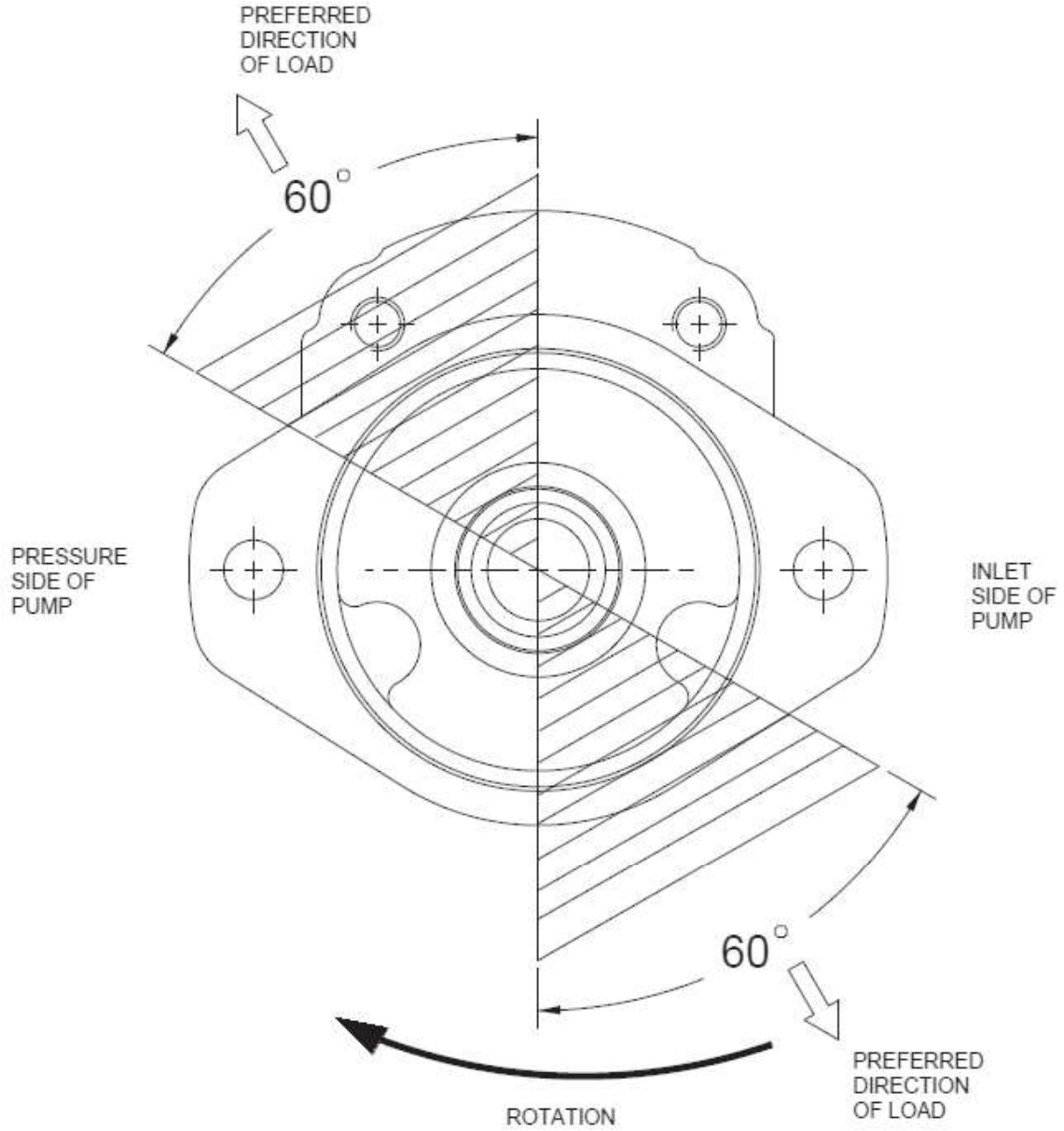


Quality: The use of statistical process control techniques during all phases of manufacturing, ensures the use of high quality and accurate components. All pumps in the 1DX series, are performance tested to achieve total quality.

Options: The 1DX Series includes various shaft types viz. parallel, taper and spline and also various types of mounting flanges, which provide optimum flexibility in connecting to the power source of the equipment.

1DX - PUMP SERIES

PREFERRED DIRECTION OF EXTERNAL LOADING ON THE PUMP SHAFT



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED

1DX - PUMP SERIES

PERFORMANCE DATA

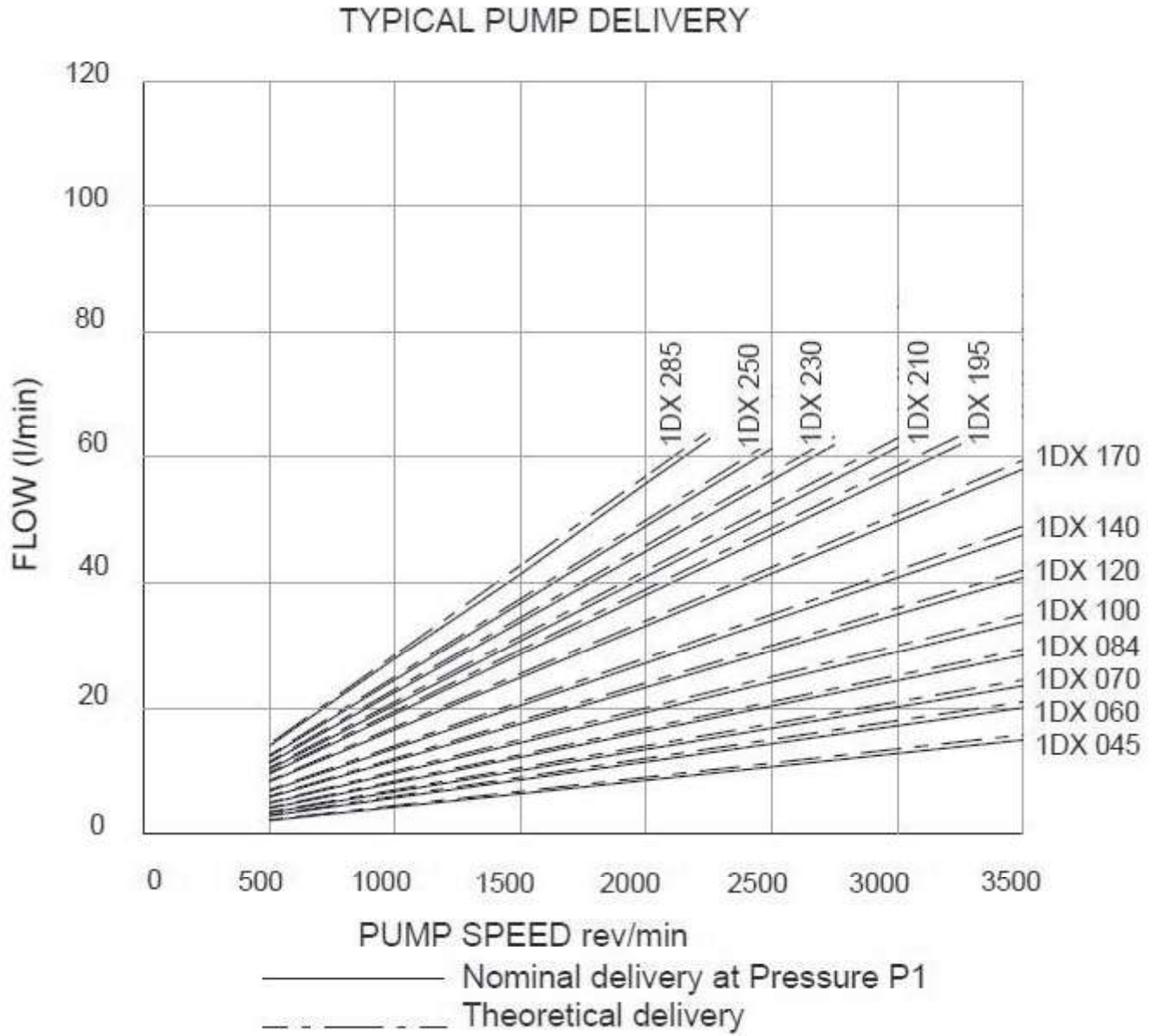
Pump Type	Theoretical Displacement	Maximum Continuous Pressure P1 *		Speed at P1 rpm		Typical Delivery at 1500 rpm at P1 **	
	cc/rev	bar	psi	Min	Max	Max (lpm)	Min (lpm)
1DX045	4.5	250	3625	700	3500	6.8	5.8
1DX060	6	250	3625	700	3500	9	8.2
1DX070	7	250	3625	700	3500	10.5	9.6
1DX085	8.5	250	3625	700	3500	12.8	11.8
1DX100	10	250	3625	700	3500	15	14.0
1DX120	12	250	3625	700	3500	18	16.9
1DX140	14	250	3625	700	3500	21	19.9
1DX170	17	250	3625	700	3500	25.5	24.3
1DX195	19.5	250	3625	700	3250	29.3	27.9
1DX210	21	250	3625	700	3000	31.5	30.2
1DX230	23	230	3336	700	2750	34.5	33.1
1DX250	25	210	3045	700	2750	37.5	35.9
1DX285	28.5	190	2755	700	2250	42.8	40.9

* Pressure quoted is relief valve maximum pressure

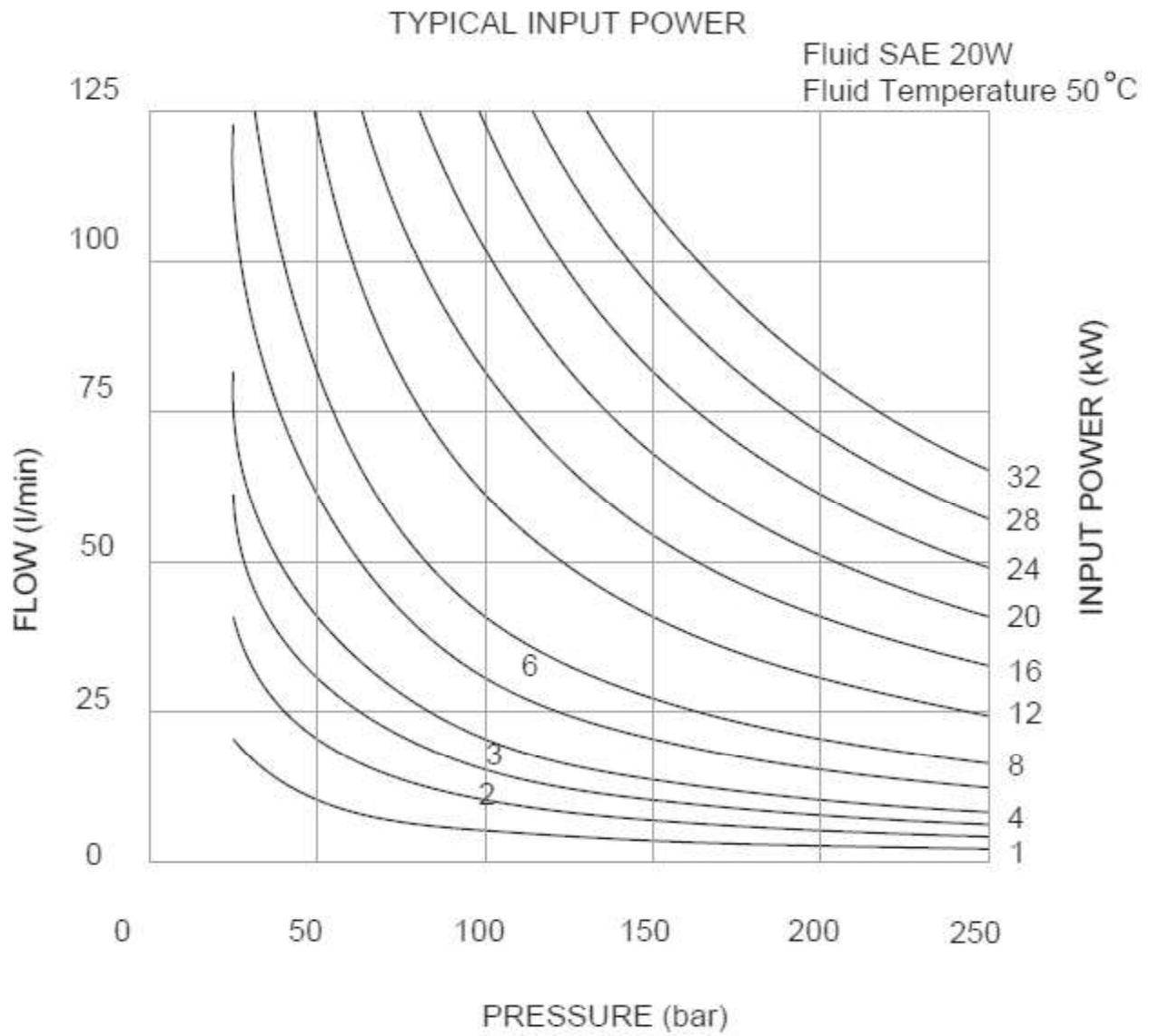
** Typical delivery at maximum continuous pressure while using with SAE VG 68 grade oil at 50°C temperature.

1DX - PUMP SERIES

1DX PUMP PERFORMANCE GRAPH

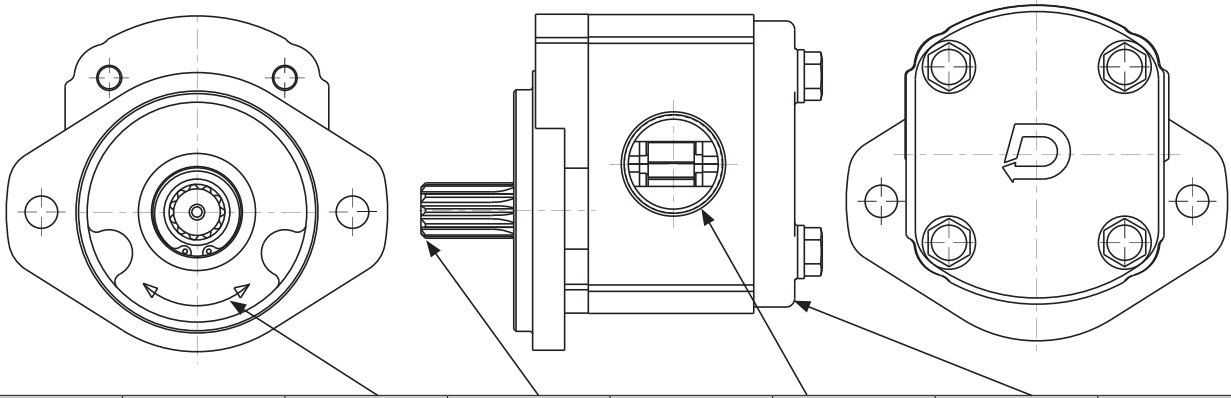


1DX - PUMP SERIES



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1DX PUMP CODIFICATION

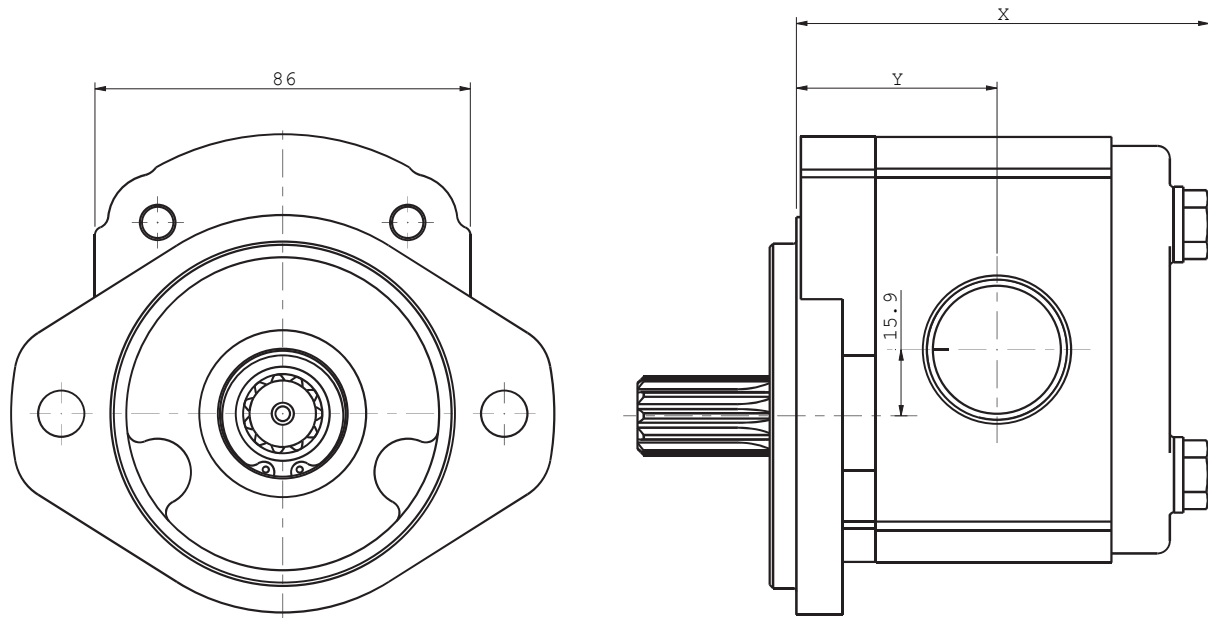


FRAME	FIOW	ROTATION	SHAFT	FLANGE	BOOY PORT	COVER	SHAFT SEAL
1DX	---	---	---	---	---	---	---

FIOW		ROTATION		SHAFT CODE		FLANGE		BODY COOE		COVER		SEAL	
DISPLACEMENT CC/Rev	PUMP MODEL	A	ANTI CLOCKWISE	P	SAE PARALLEL	S	SAE 2 BOLTS	J	THREADED J PORT	B	STANDARD	N	NITRILE
4.5	045	C	CLOCKWISE	L	L SHAFT	K	K-TYPE	T	THREADED T PORT			V	VITON
6.0	060			K	K-TYPE			F	FLANGE TYPE PORT			G	2-NITRILE
7.0	070			T	TAPER SHAFT							W	2-VITON
8.4	084			S	SAE, 9T SPLINED								
10.0	100			H	SAE, 10T SPLINED								
12.0	120			G	SAE, 11T SPLINED								
14.0	140												
17.0	170												
19.5	195												
21.0	210												
23.0	230												
25.0	250												
28.5	285												

1DX - PUMP SERIES

1DX PUMP INSTALLATION DIMENSIONS

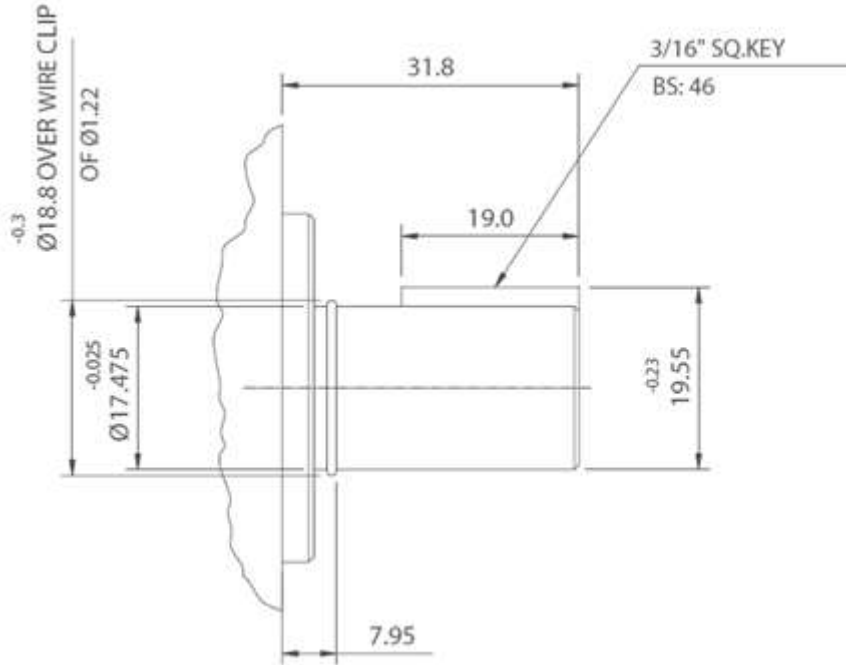


PUMP TYPE	Dim. 'Y'	Dim. 'X'
1DX045	43.0	90
1DX060	44.1	92.2
1DX070	44.9	93.8
1DX084	46.0	96.0
1DX100	47.3	98.6
1DX120	48.9	101.8
1DX140	50.5	105
1DX170	58.3	120.6
1DX195	60.2	124.4
1DX210	61.4	126.8
1DX230	63.0	130
1DX250	64.6	133.2
1DX285	67.3	138.6

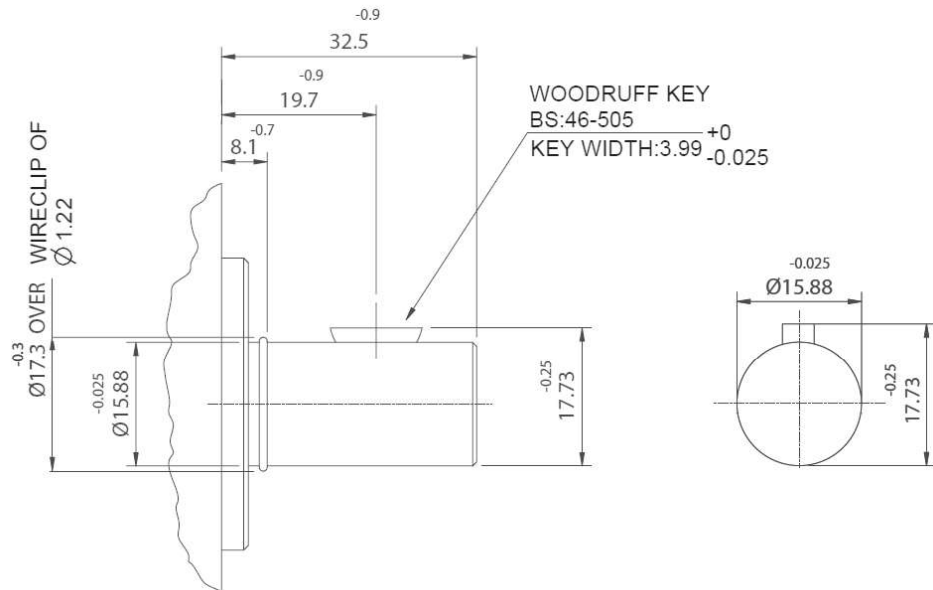
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1DX - PUMP SERIES

SHAFT CODE SHAFT CODE - P



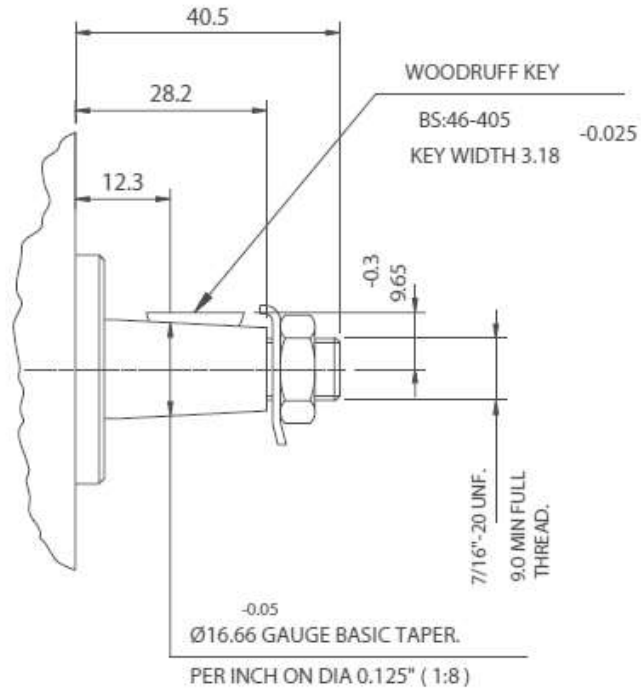
SHAFT CODE - L



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1DX - PUMP SERIES

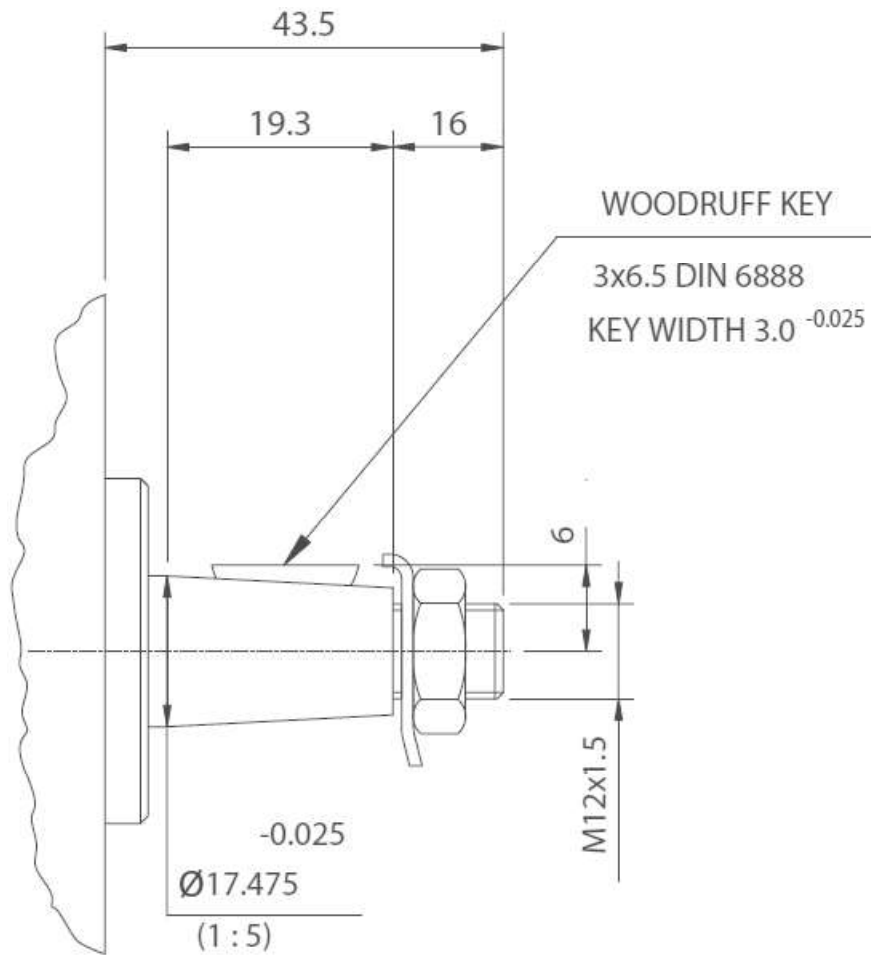
SHAFT CODE - T



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1DX - PUMP SERIES

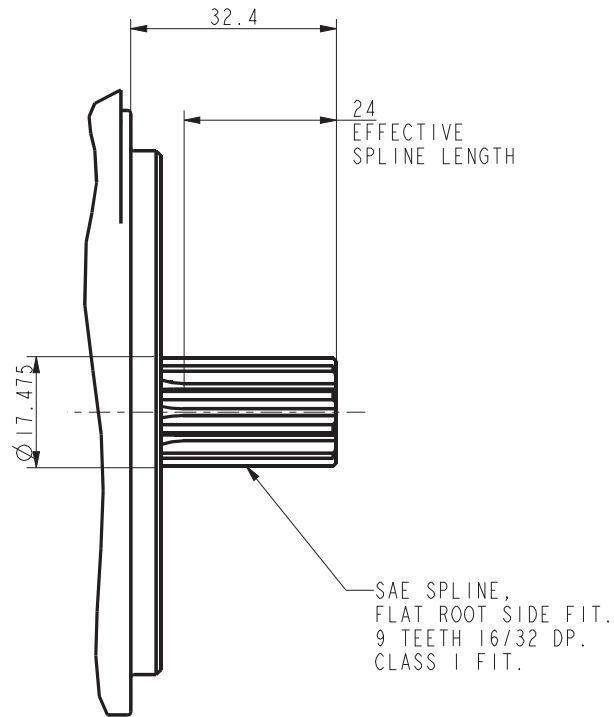
SHAFT CODE - K



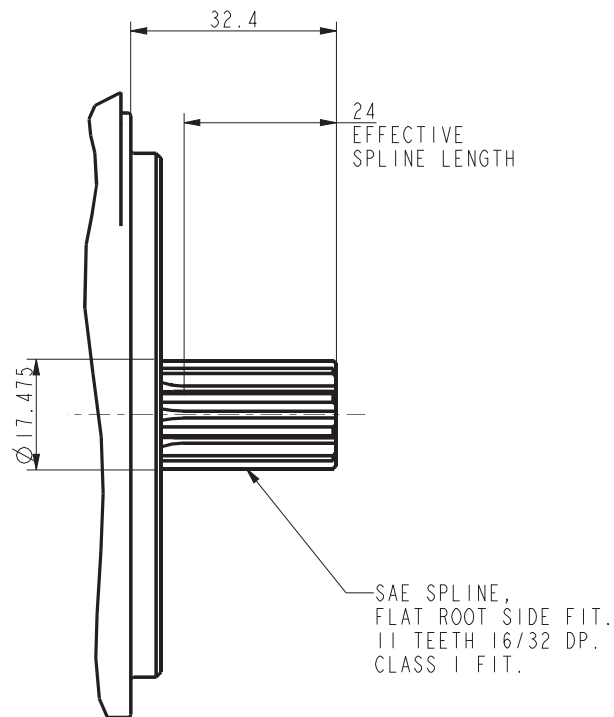
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1DX - PUMP SERIES

SHAFT CODE - S



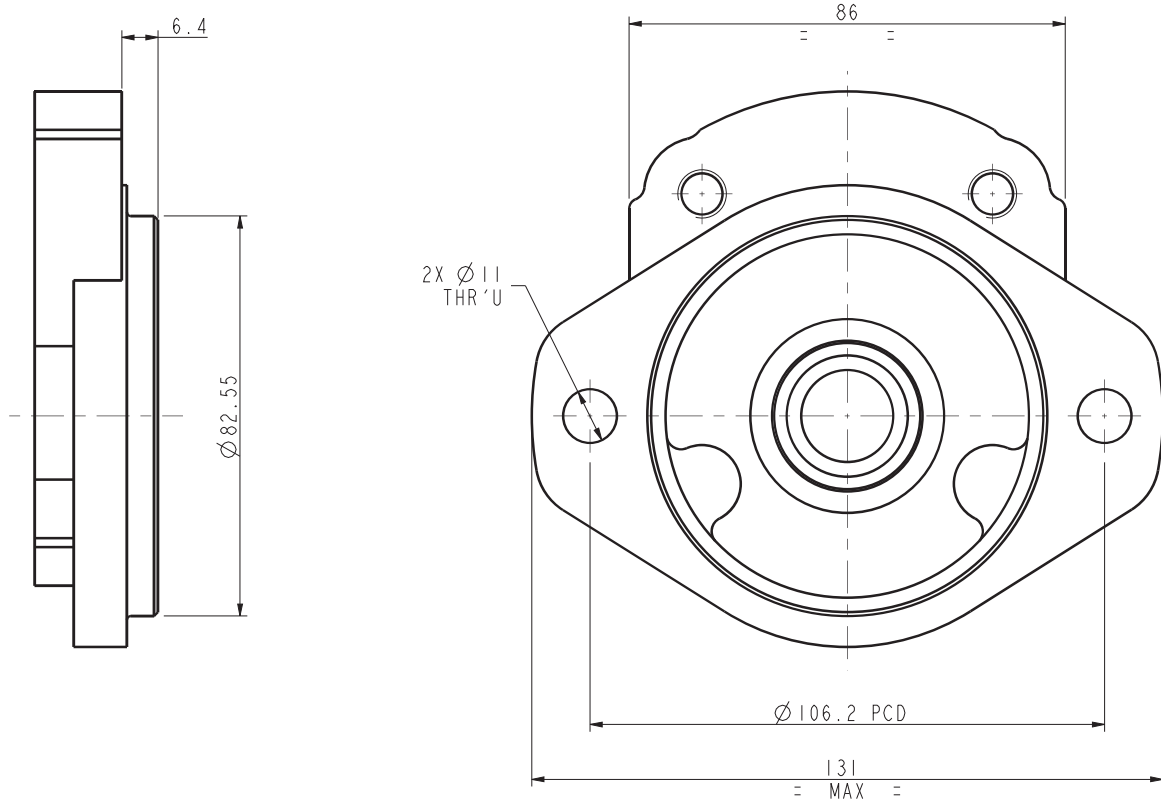
SHAFT CODE - G



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1DX - PUMP SERIES

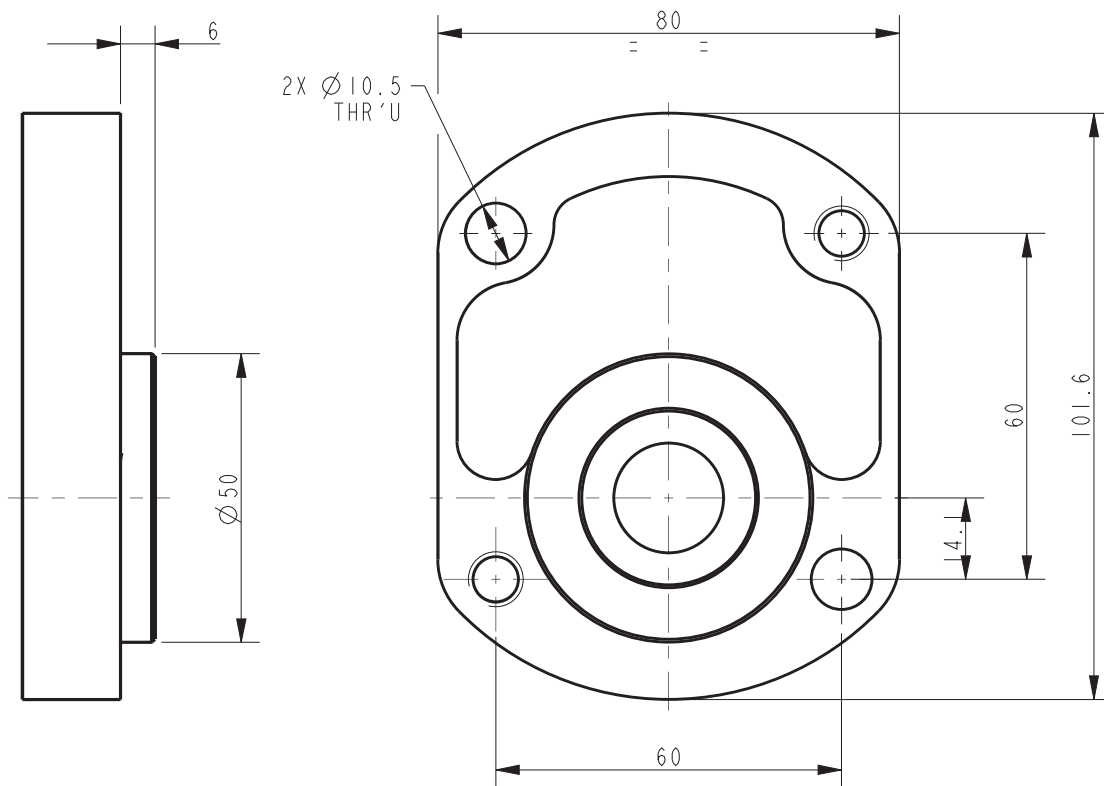
MOUNTING FLANGE CODE - S SAE 2 BOLTS



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1DX - PUMP SERIES

MOUNTING FLANGE CODE - K (FOR ANTI CLOCKWISE DIRECTION)*



*FOR CLOCKWISE DIRECTION, THE POSITION OF THROUGH HOLES & TAPPED HOLES ARE TO BE INTERCHANGED

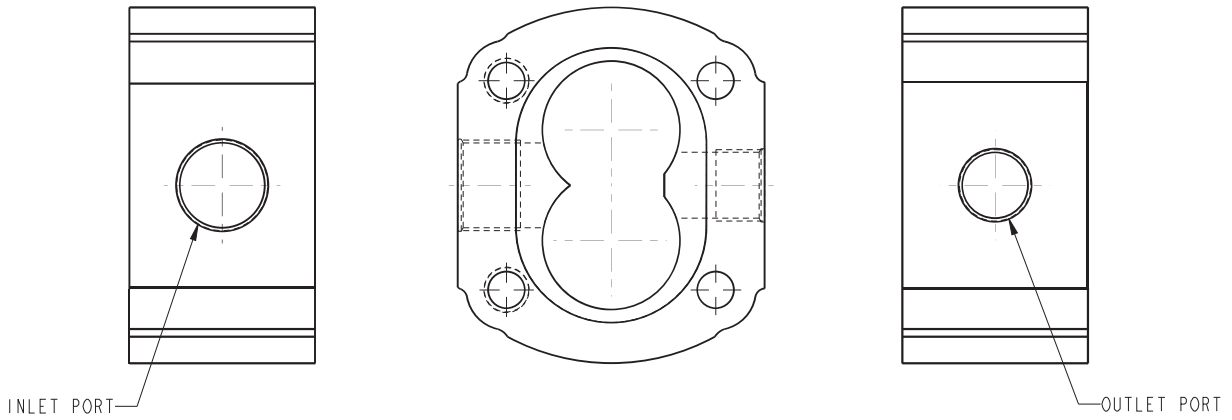
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1DX - PUMP SERIES

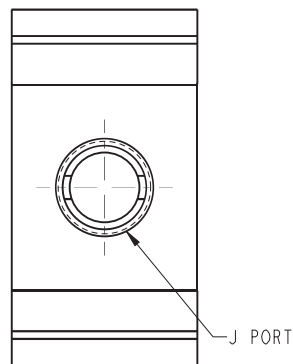
Available Body Port Details for different flows:

SL.NO	PUMP CAPACITY	PORT TYPES	
		CODE-T	CODE-J
1	1DX045 TO 1DX100		
	INLET	1/2"-BSP	1-1/16"-12 UN
	OUTLET	1/2"-BSP	7/8"-14 UNF
2	1DX120 TO 1DX285		
	INLET	3/4"-BSP	1-5/16"-12 UN
	OUTLET	3/4"-BSP	1-1/16"-12 UN

BODY PORT CODE - T

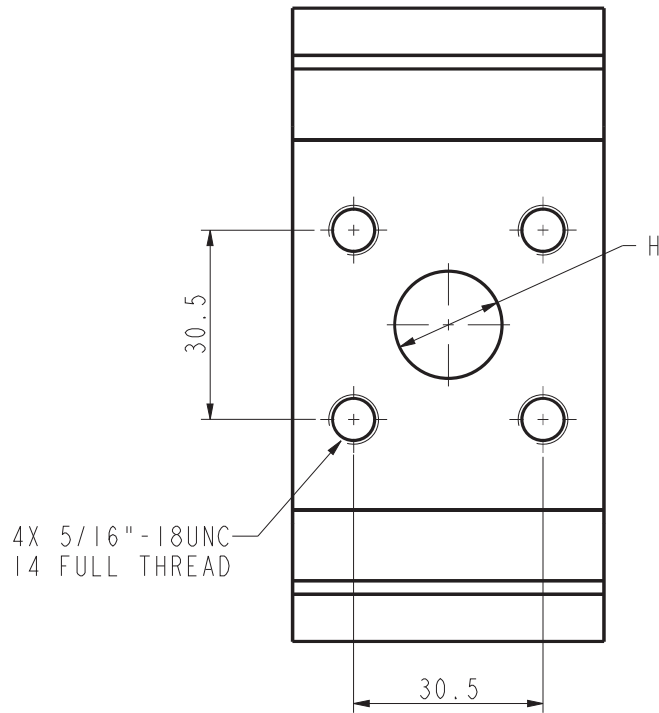


BODY PORT CODE - J



1DX - PUMP SERIES

BODY PORT CODE - F



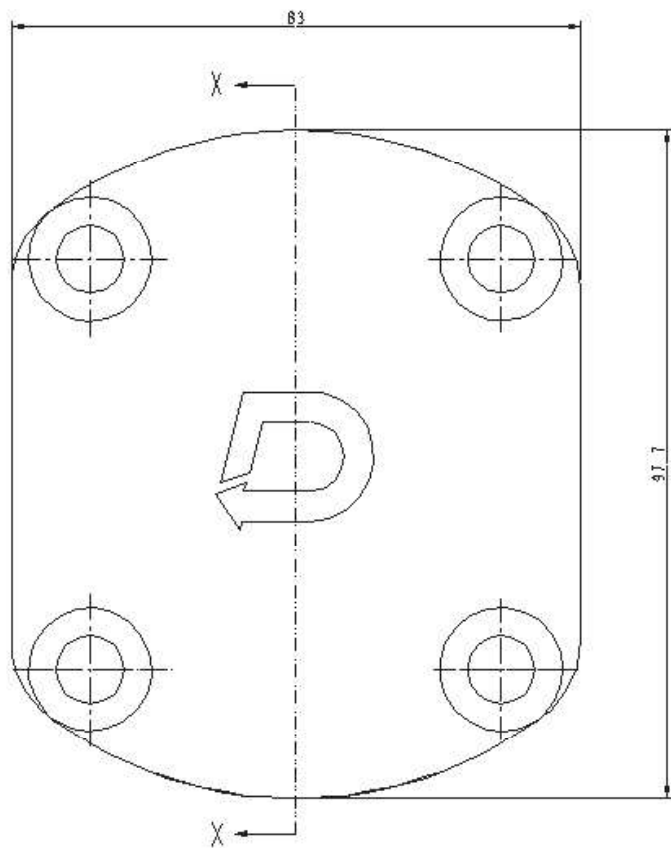
SL. NO.	PUMP CAPACITY	DIA:H ^{+0.1}
1	FOR 1DX045 TO 1DX100	17.3
2	FOR 1DX120 TO 1DX285	20.3

*INLET & OUTLET PORTS ARE IDENTICAL

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1DX - PUMP SERIES

END COVER PLATE CODE - B



SECTION X-X

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