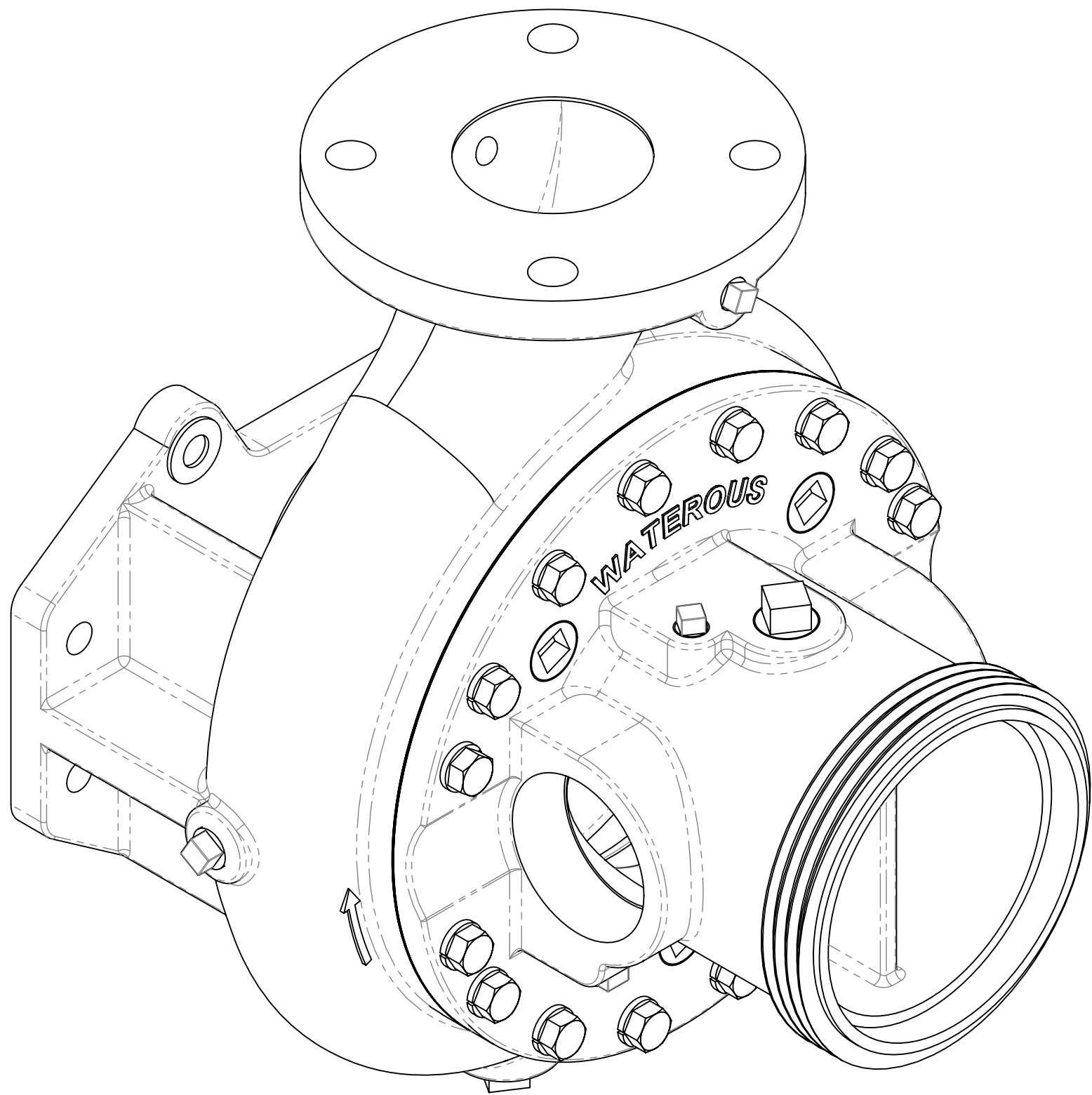
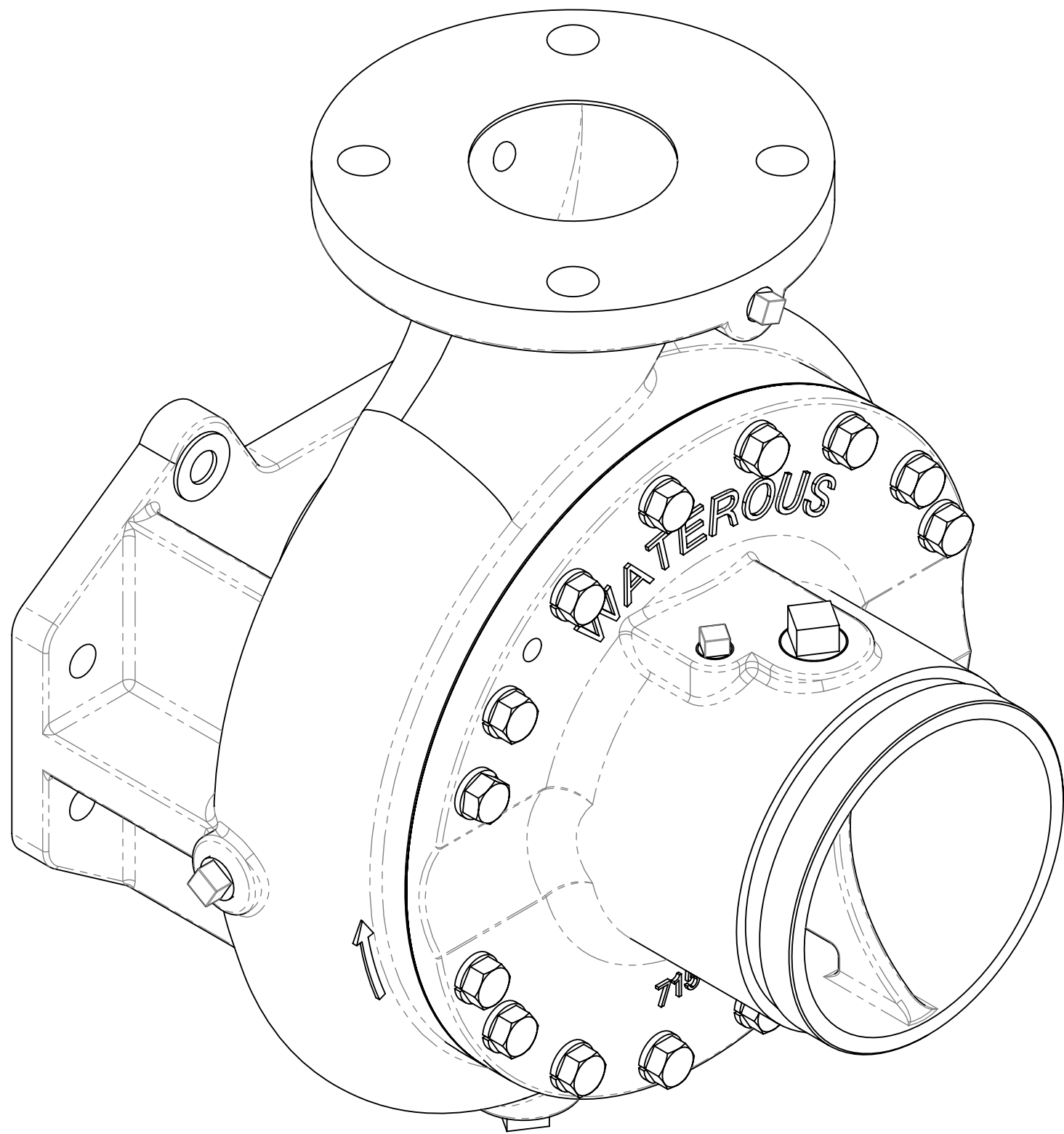


CG Series Fire Pump Dimensional Drawings
Pump Models: CGV & CGVR

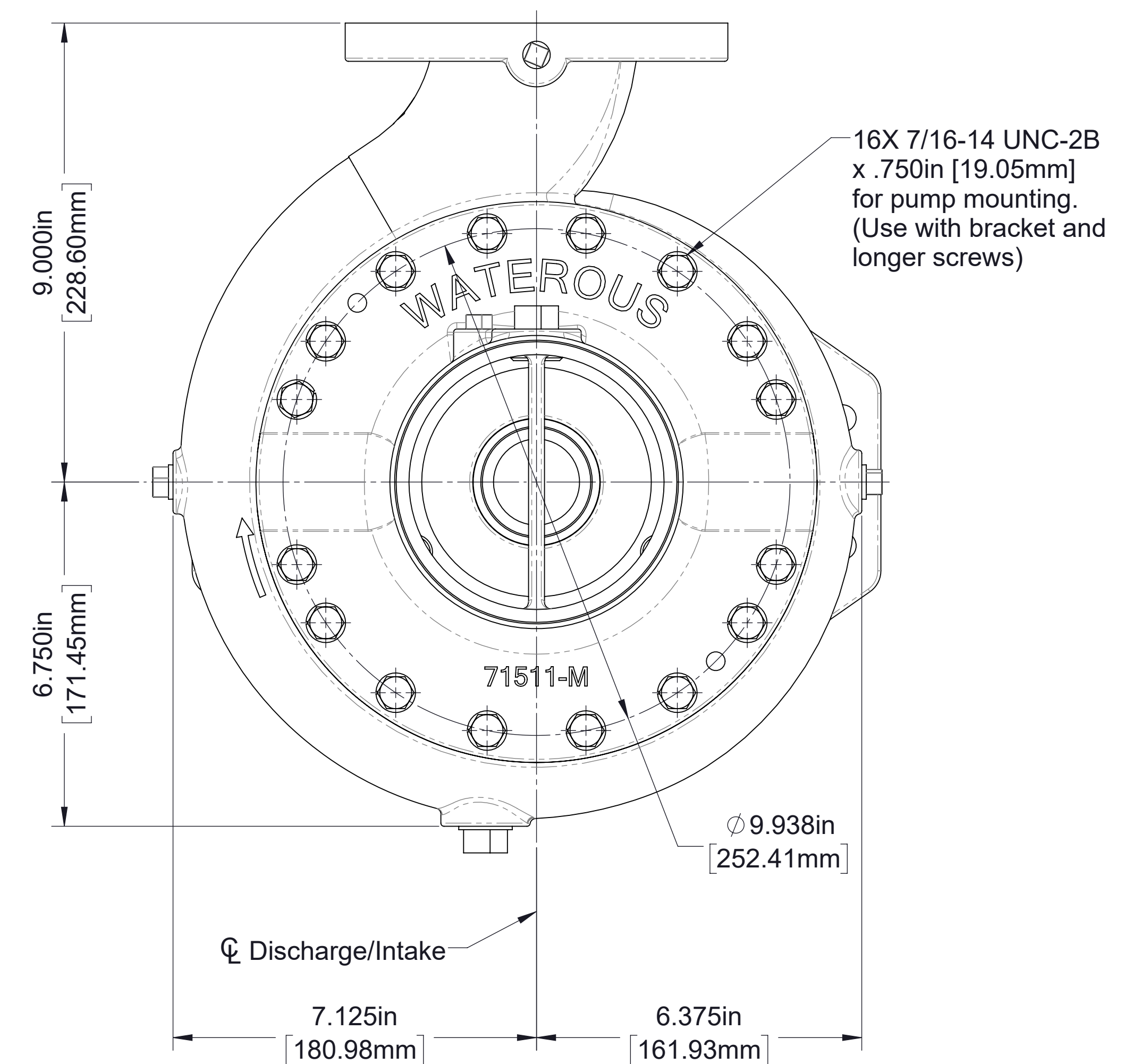
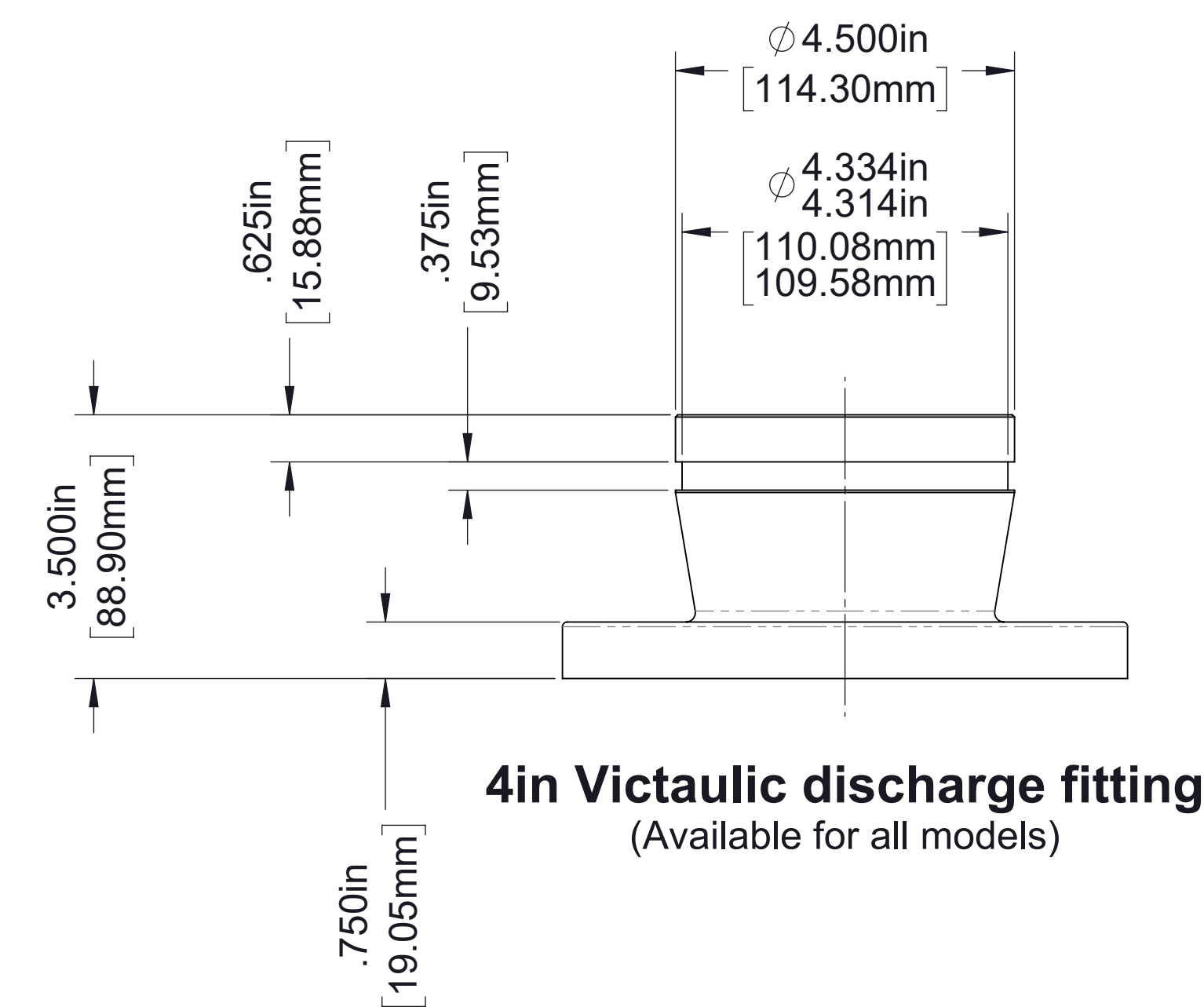
Feature	See Page	
	CGV	CGVR
Basic Pump Body Dimensions without Transmission	3	4
Optional 4 in. Victaulic Discharge Fitting		
Pump with Transmission	See Table on Page 2	



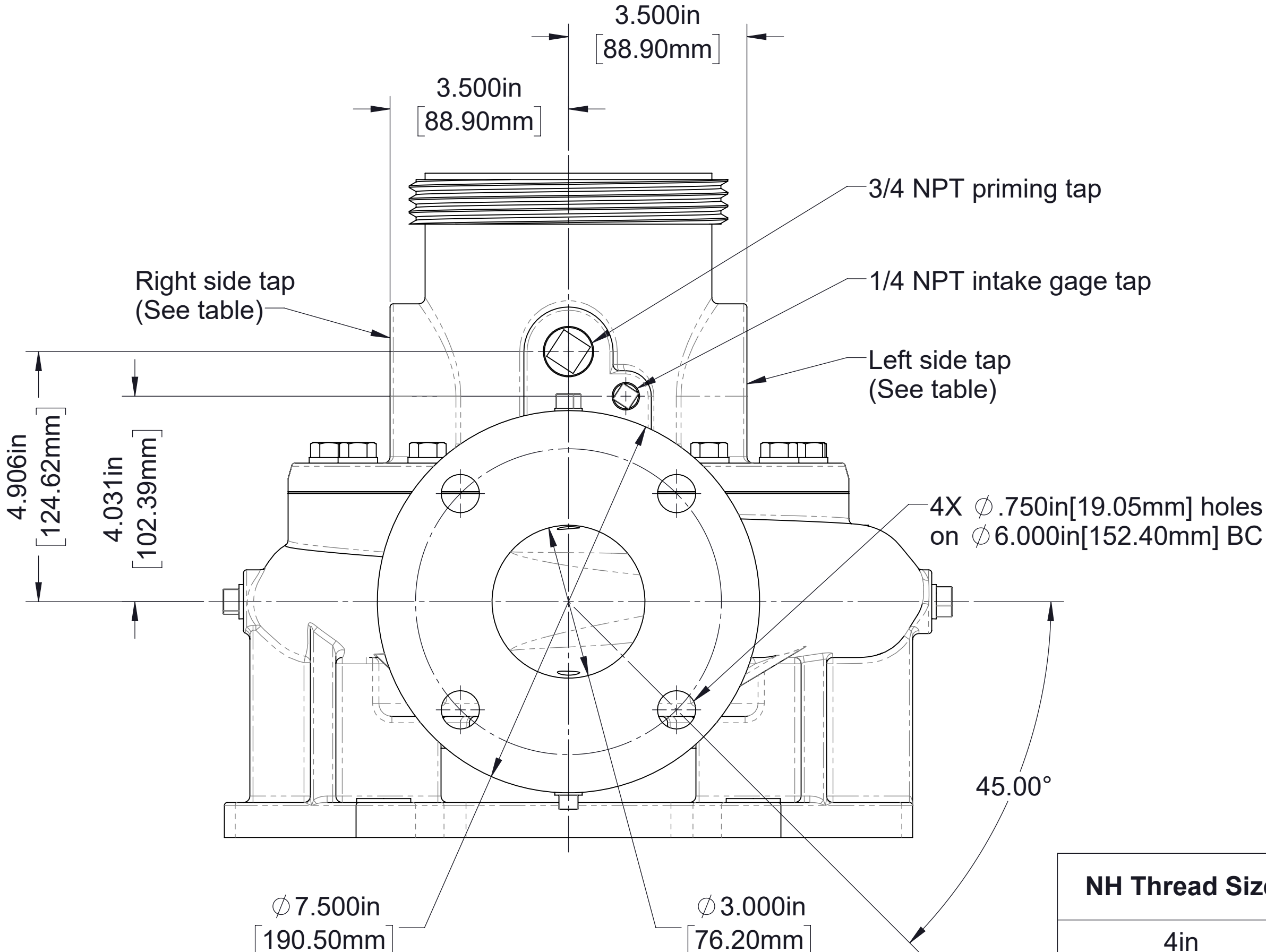
Note: Pump must be installed in accordance with Waterous Installation Instructions.

Transmission				Pump			See Page		
Type	Driveline	Pump Mounting on Transmission	Input Rotation (1)	Impeller Rotation (2)	Pump and Transmission Model		Pump and Transmission		
					CGV	CGVR	Dimensions	Available	
								Pump Discharge Positions	Transmission Mounting Positions
C20 Series Chain Drive, Split Shaft	Input and Output Shaft	Front (Input Shaft Side)	CW	CW	CGVC20B CGVC20C CGVC20D CGVC20E CGVC20F	N/A	5, 7	11	13
	Input Shaft Only	Front (Input Shaft Side)	CW	CW			6, 7	11	13
K Series Two Gear, PTO Driven	Input Shaft Only	Opposite Input Shaft	CW	CW	CGVK	CGVRK	8	11	12
			CCW	CCW	CGVK	CGVRK	8	11	12
T Series Two Gear, Direct Engine Mount	Input Shaft Only	Opposite Input Shaft	CW	CW	CGVT	CGVRT	9	11	12
			CCW	CCW	CGVT	CGVRT	9	11	12
P Series Chain Drive, PTO Driven	Input Shaft Only	Input Shaft Side	CW	CW	CGVPA	N/A	10	11	13

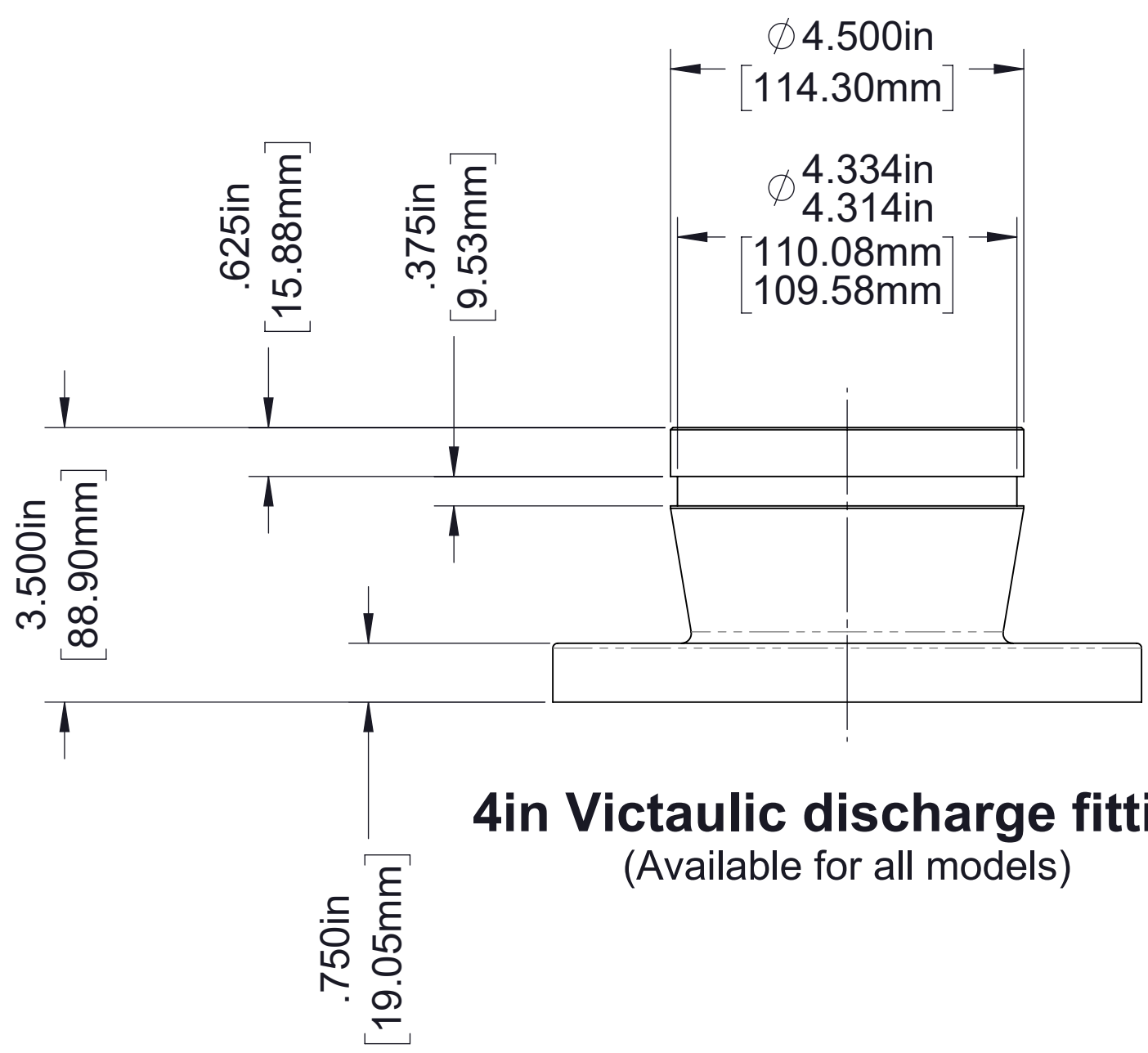
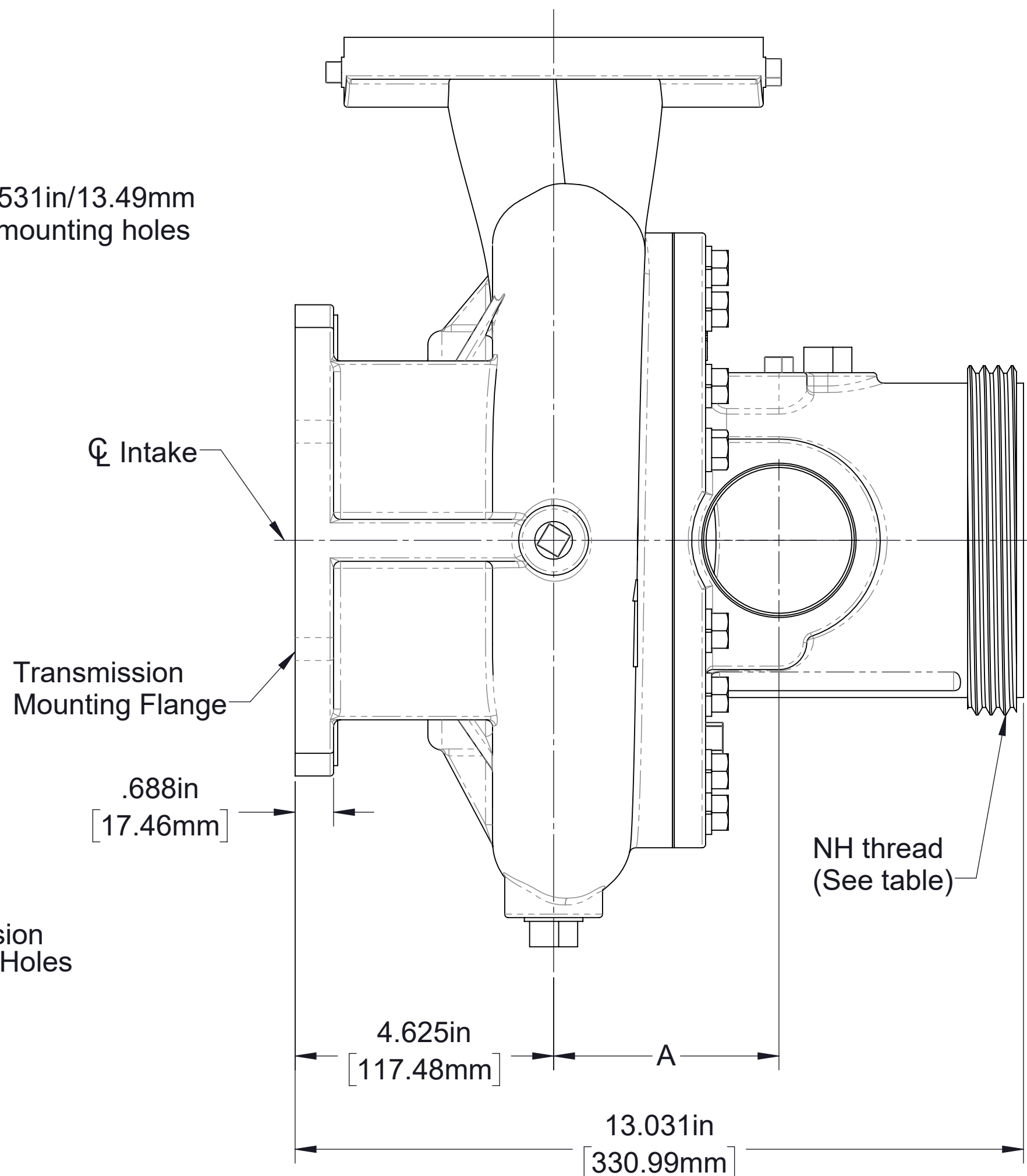
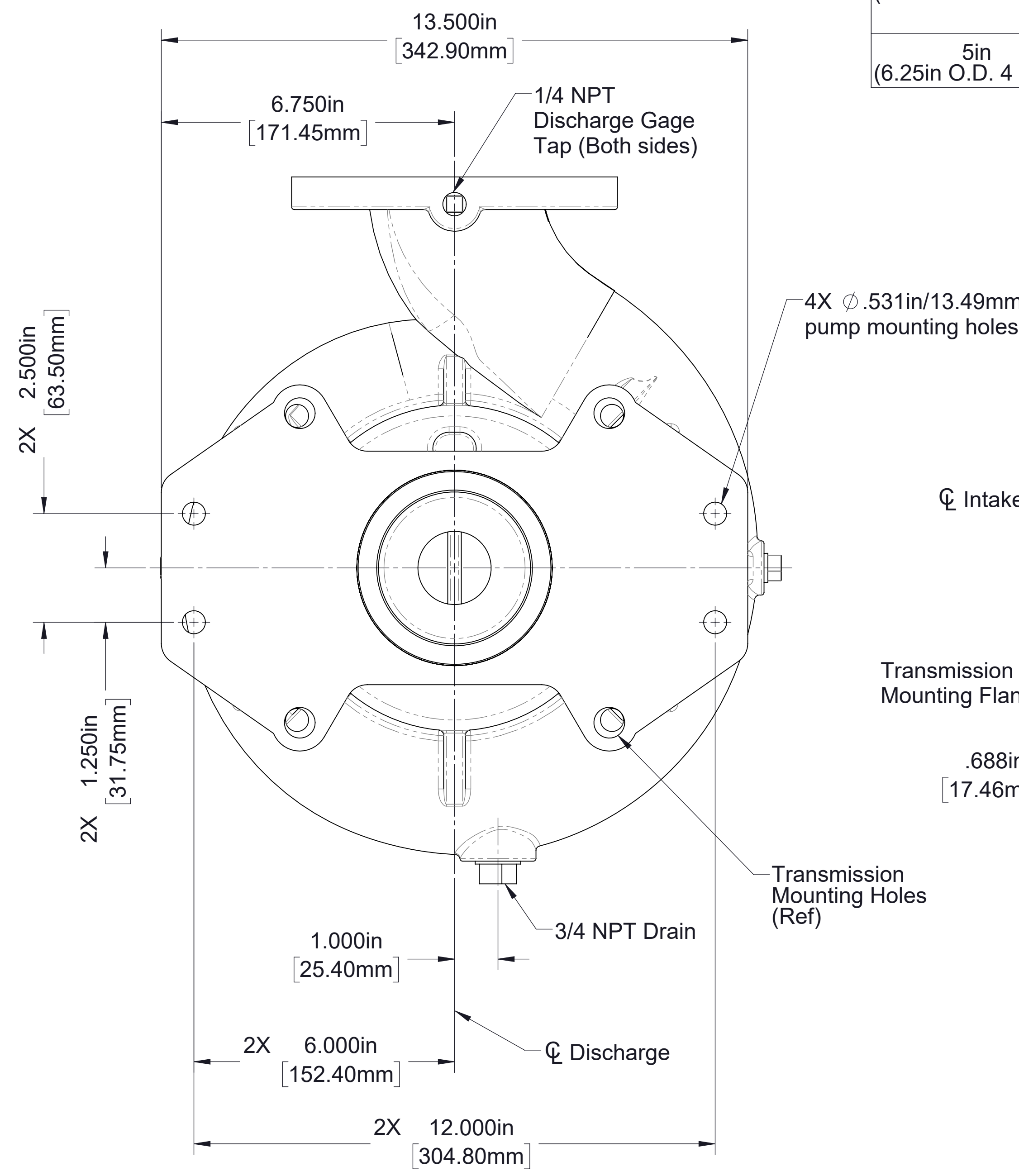
Notes:
1. Input rotation is viewed looing directly at the transmission input shaft.
2. Impeller rotation is viewed looking directly at the intake fitting (impeller eye)



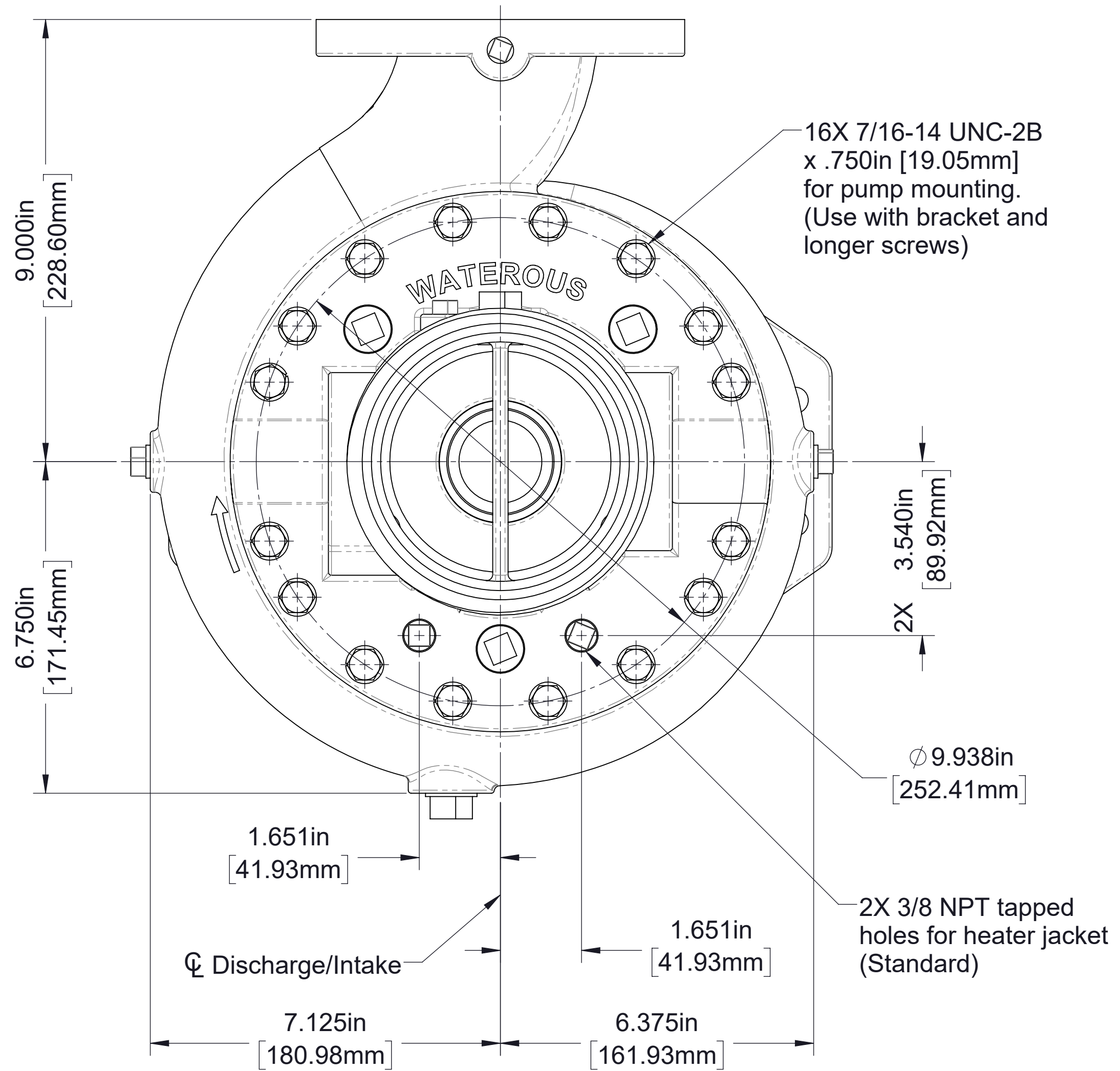
DPL82056
Page 3 of 13



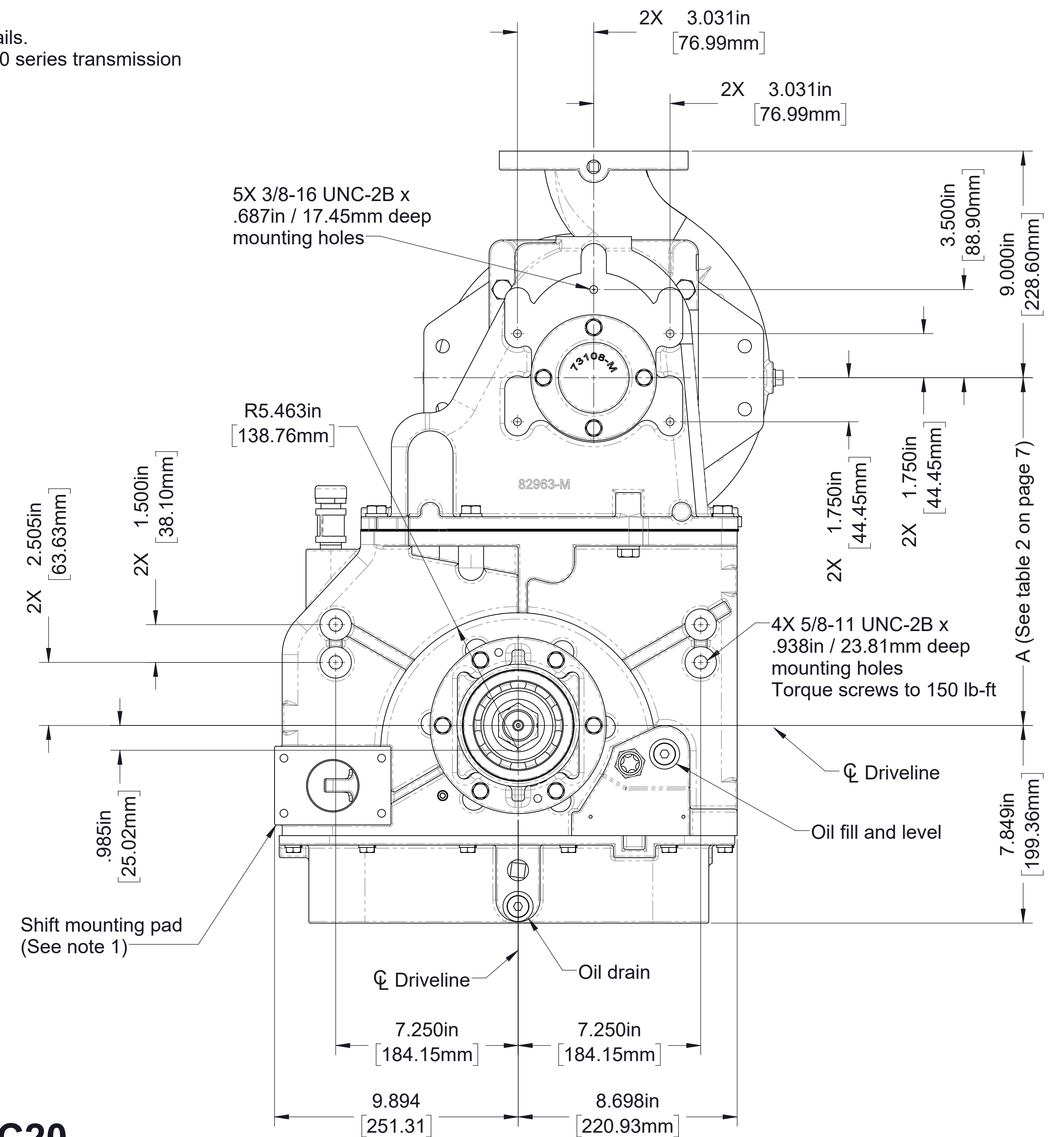
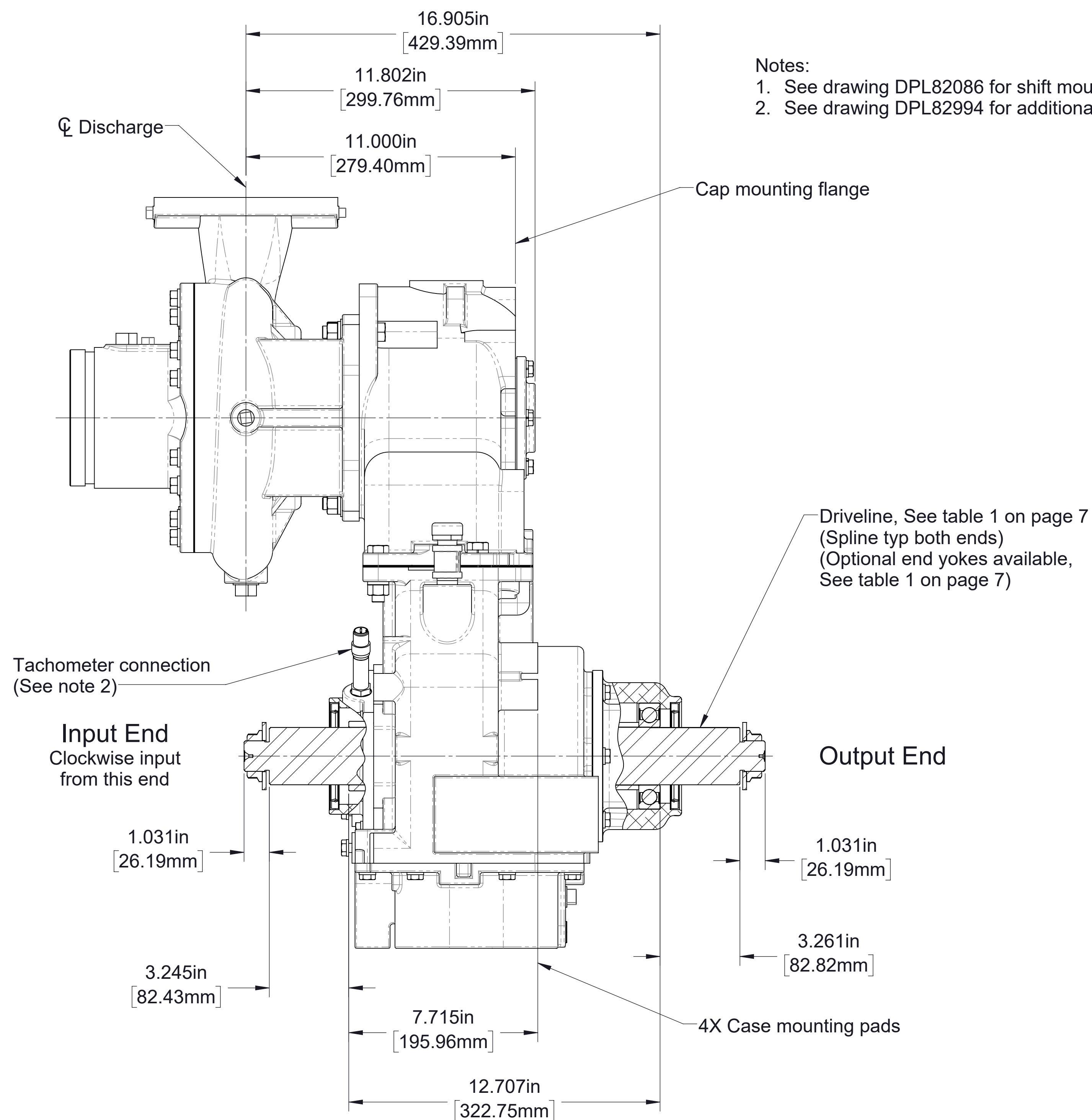
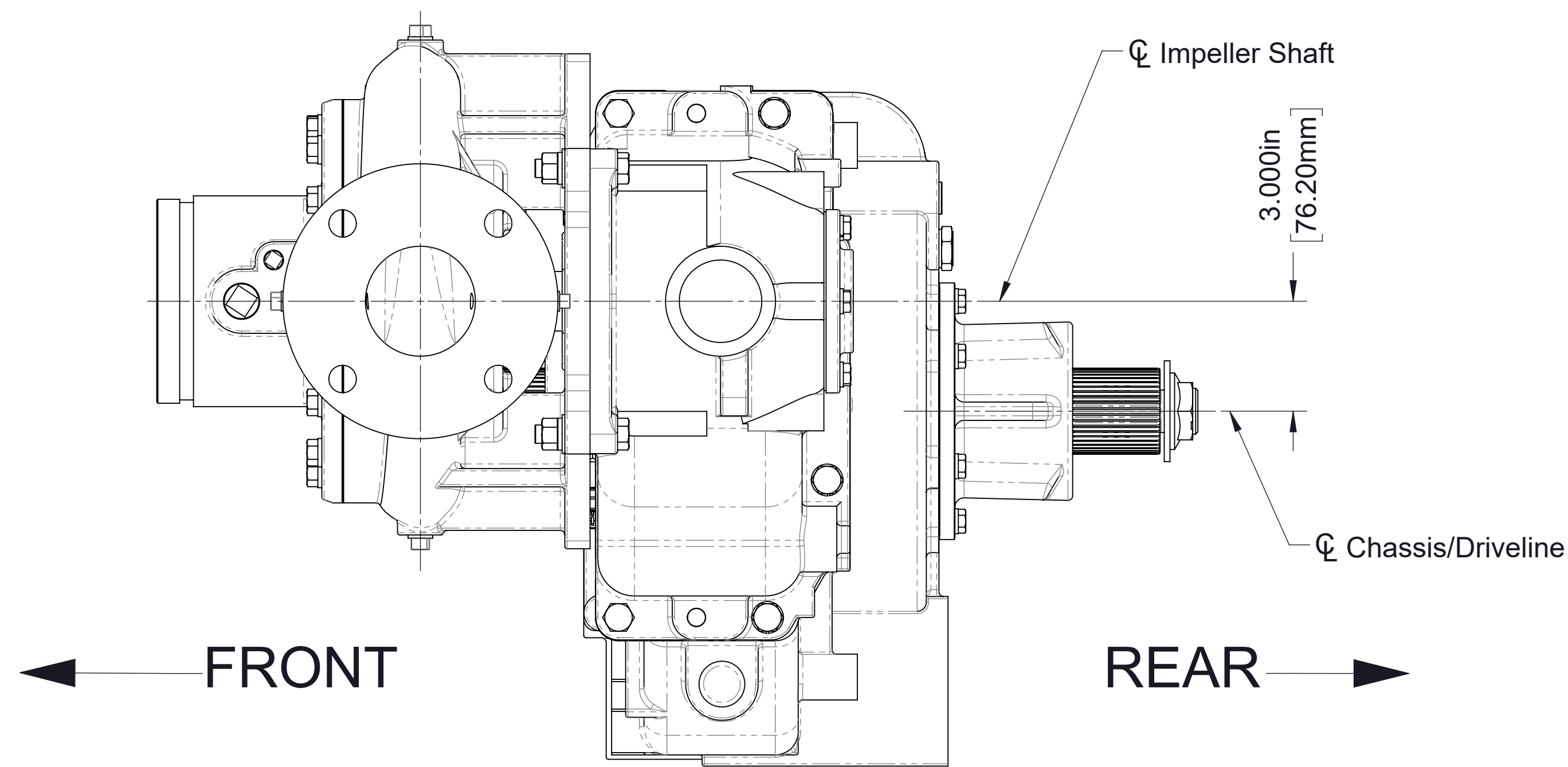
NH Thread Size	Side Taps		Dim A
	Left Side	Right Side	
4in (5in O.D. 4 T.P.I.)	2-1/2 NPT	2-1/2 NPT	4.000in (101.60mm)
4-1/2in (5.75in O.D. 4 T.P.I.)	2-1/2 NPT	2-1/2 NPT	4.375in (111.13mm)
	3 NPT	3 NPT	4.375in (111.13mm)
5in (6.25in O.D. 4 T.P.I.)	2-1/2 NPT	2-1/2 NPT	4.000in (101.60mm)



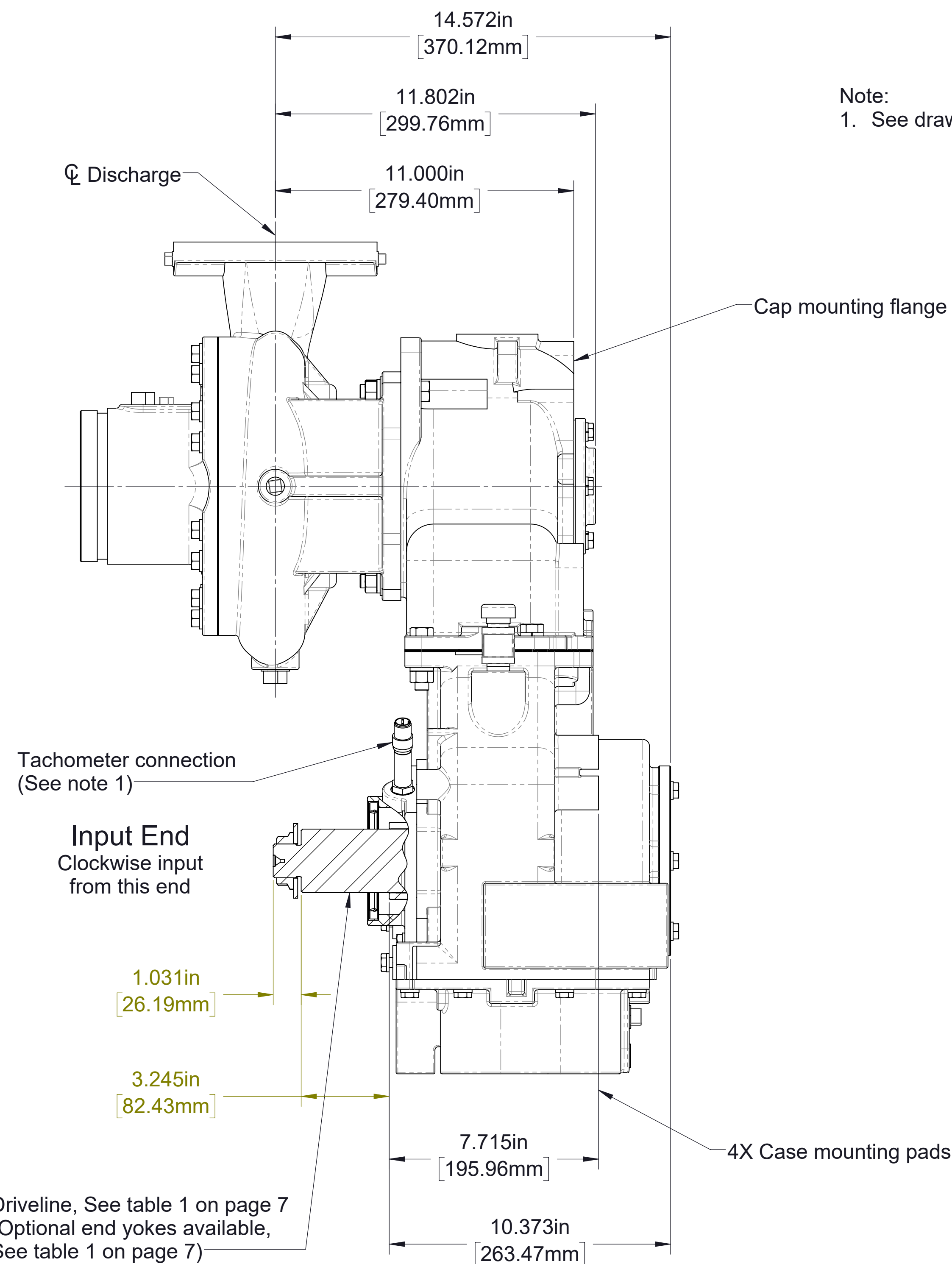
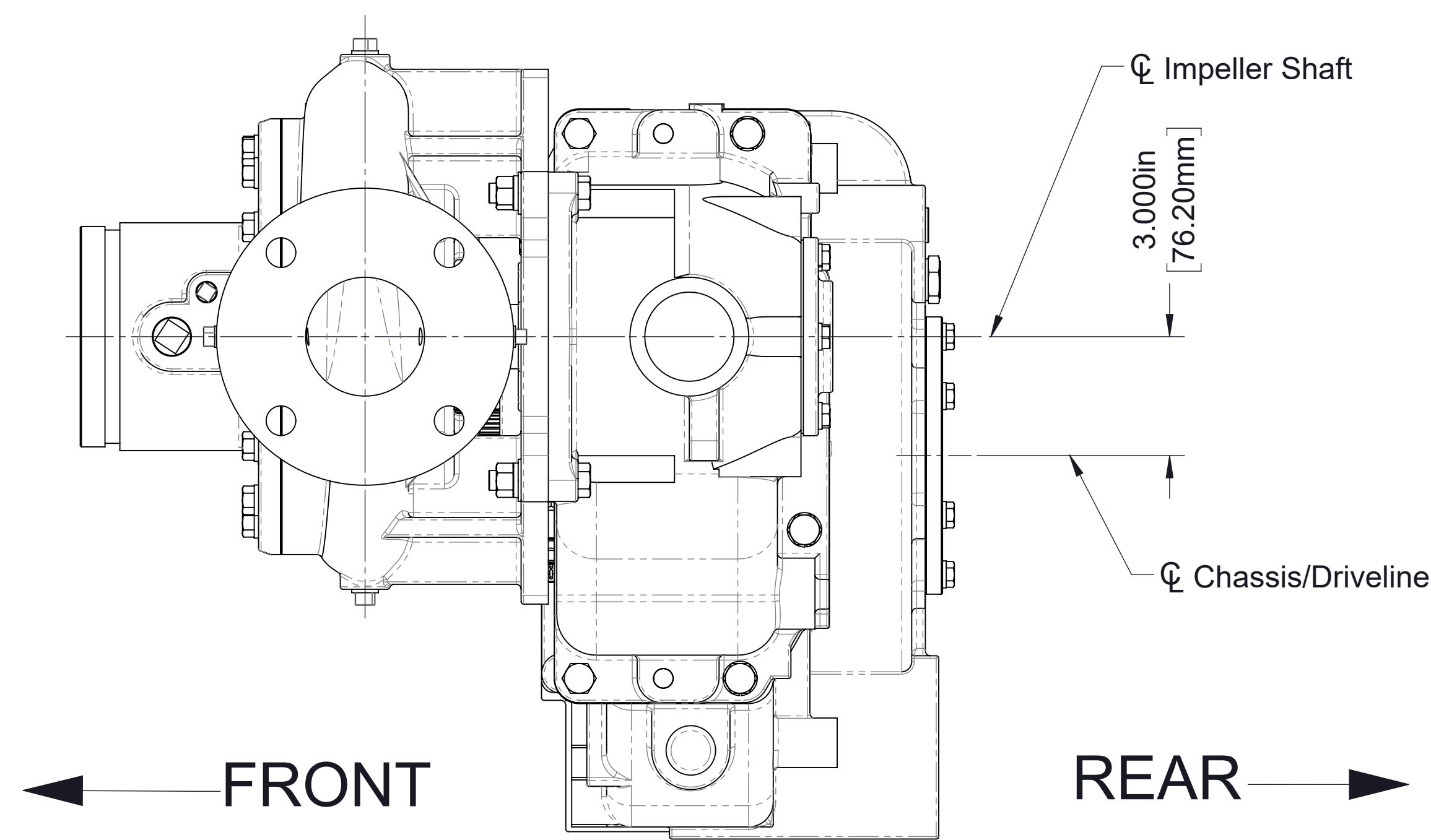
4in Victaulic discharge fitting
(Available for all models)



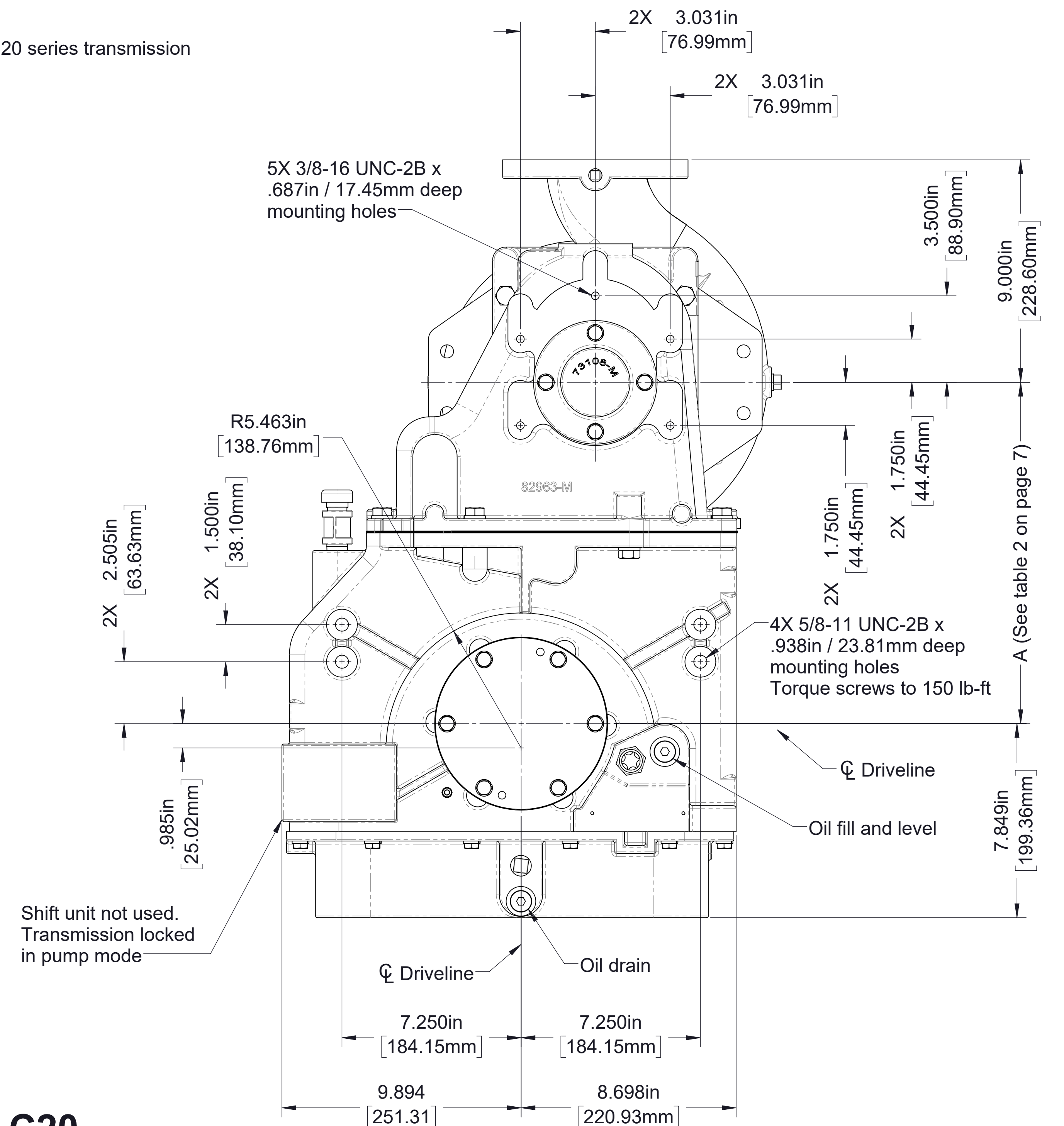
CGVR Body Dimensions
CW Impeller Rotation Shown



Model CGV with C20
Input and Output Shaft
Pump mounted on front (Input shaft side) of transmission
Clockwise input, model CGVC20C, 2.27 ratio, blank discharge shown



Note:
1. See drawing DPL82994 for additional details of C20 series transmission

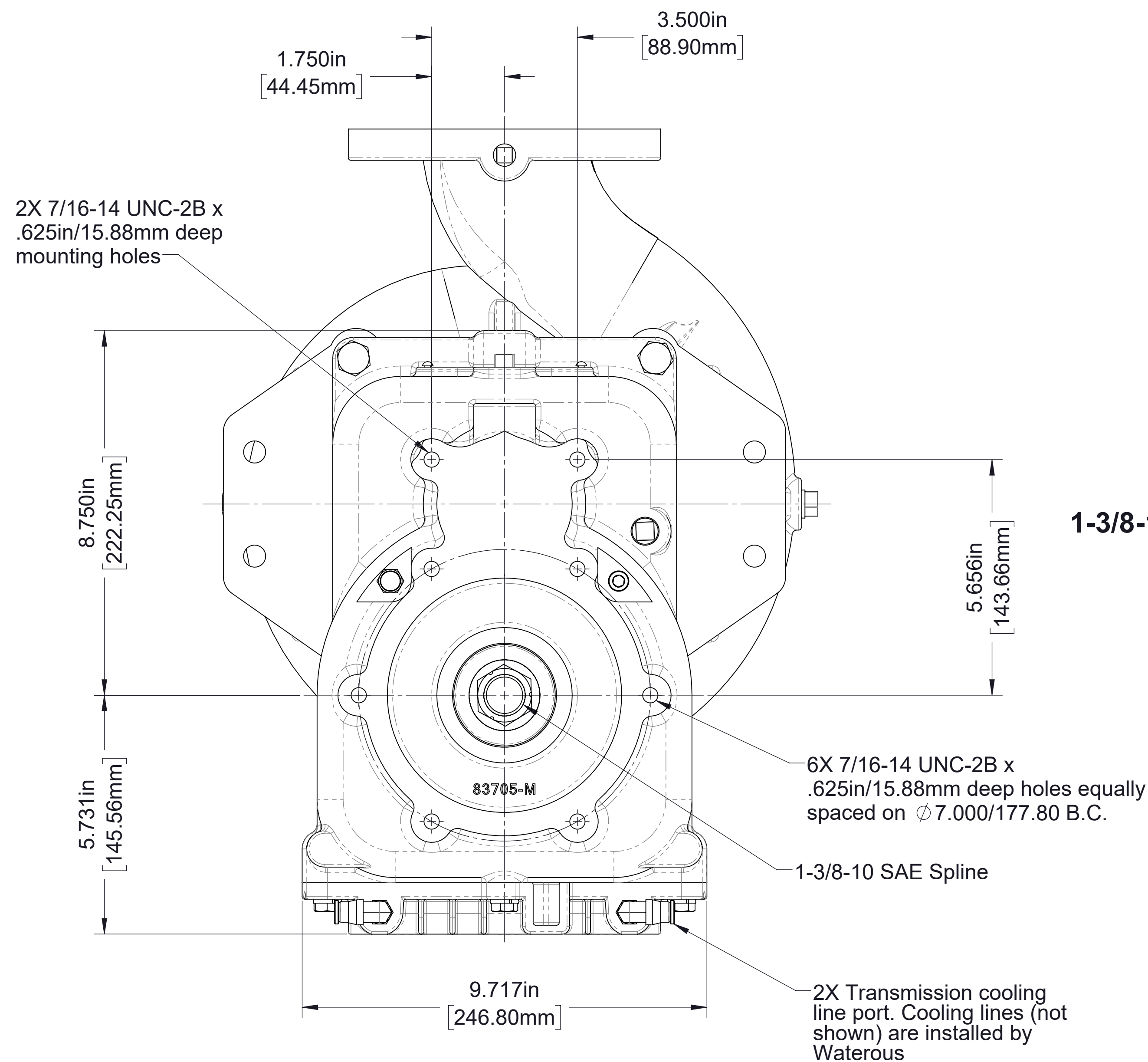


Model CGV with C20
Input Shaft Only
Pump mounted on front (Input shaft side) of transmission
Clockwise input, model CGVC20C, 2.27 ratio, blank discharge shown

Table 1 - Available Driveline/Models						
Driveline			Optional End Yokes Available from Waterous			Companion Flange
Type	Size	Spline	Yoke		Cross and Bearing Kit	
			Spicer Series	Part No.		
Extra Heavy Duty	2.35 Inch	2.35-46T Involute	1480/1610	--	--	V 3719
			1650/1710	--	--	V 3619
			1710 BP	V 2837	V 2839	--
			1810 BP	V 2838	V 2840	--
			1710 HR	V 4101	--	--
			1810 HR	V 4102	--	--
			SPL140	V 3388	V 3389	--

Table 2 - Available Ratios					
Dimension A					
Drive to Driven Ratio	All dimensions shown as inch/millemeter				
	C20B	C20C	C20D	C20E	C20F
1.27	12.250/311.15	14.312/363.52	14.825/376.56	16.861/428.27	18.892/479.86
1.41	11.840/300.74	13.899/353.03	14.931/379.25	16.971/431.06	19.002/482.65
1.48	12.326/313.08	13.878/352.50	14.907/378.64	16.951/430.56	18.981/482.12
1.58	12.205/310.01	13.756/349.40	14.788/375.62	16.830/427.48	18.861/479.07
1.69	12.290/312.17	13.839/351.51	14.876/377.85	16.923/429.84	18.961/481.61
1.79	11.958/303.73	14.045/356.74	15.072/382.83	17.127/435.03	19.168/486.87
1.88	12.129/308.08	13.690/347.73	14.717/373.81	16.773/426.03	18.809/477.75
1.97	12.306/312.57	13.870/352.30	14.912/378.76	16.970/431.04	19.012/482.90
2.03	11.896/302.16	13.984/355.19	15.028/381.71	17.086/433.98	19.132/485.95
2.27	12.240/310.90	13.811/350.80	14.856/377.34	16.920/429.77	18.971/481.86
2.46	11.941/303.30	14.042/356.67	15.087/383.21	17.154/435.71	19.205/487.81
2.68	12.169/309.09	13.746/349.15	14.793/375.74	16.865/428.37	18.923/480.64

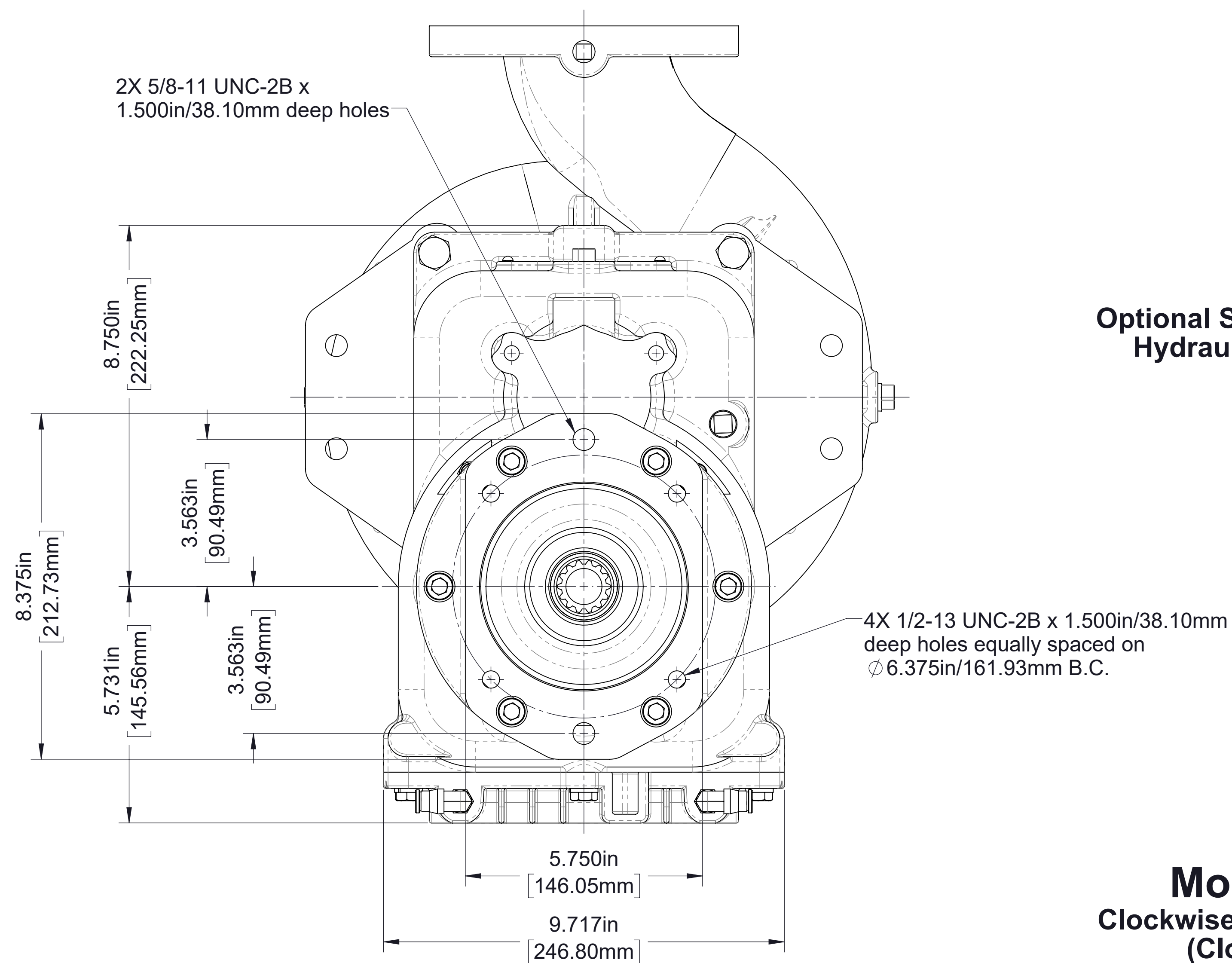
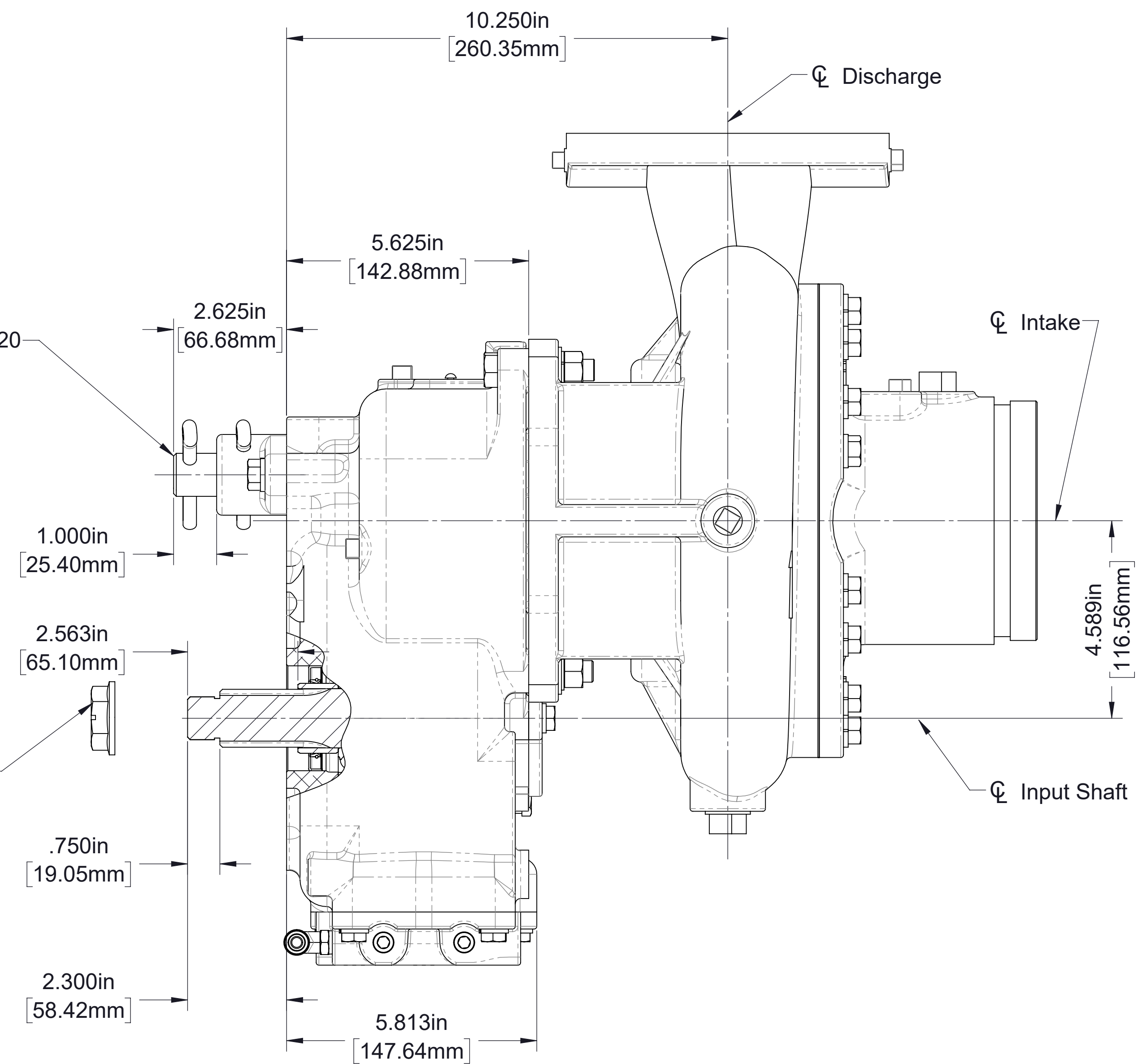
C20 Data Tables



1-3/8-10 SAE Splined Input

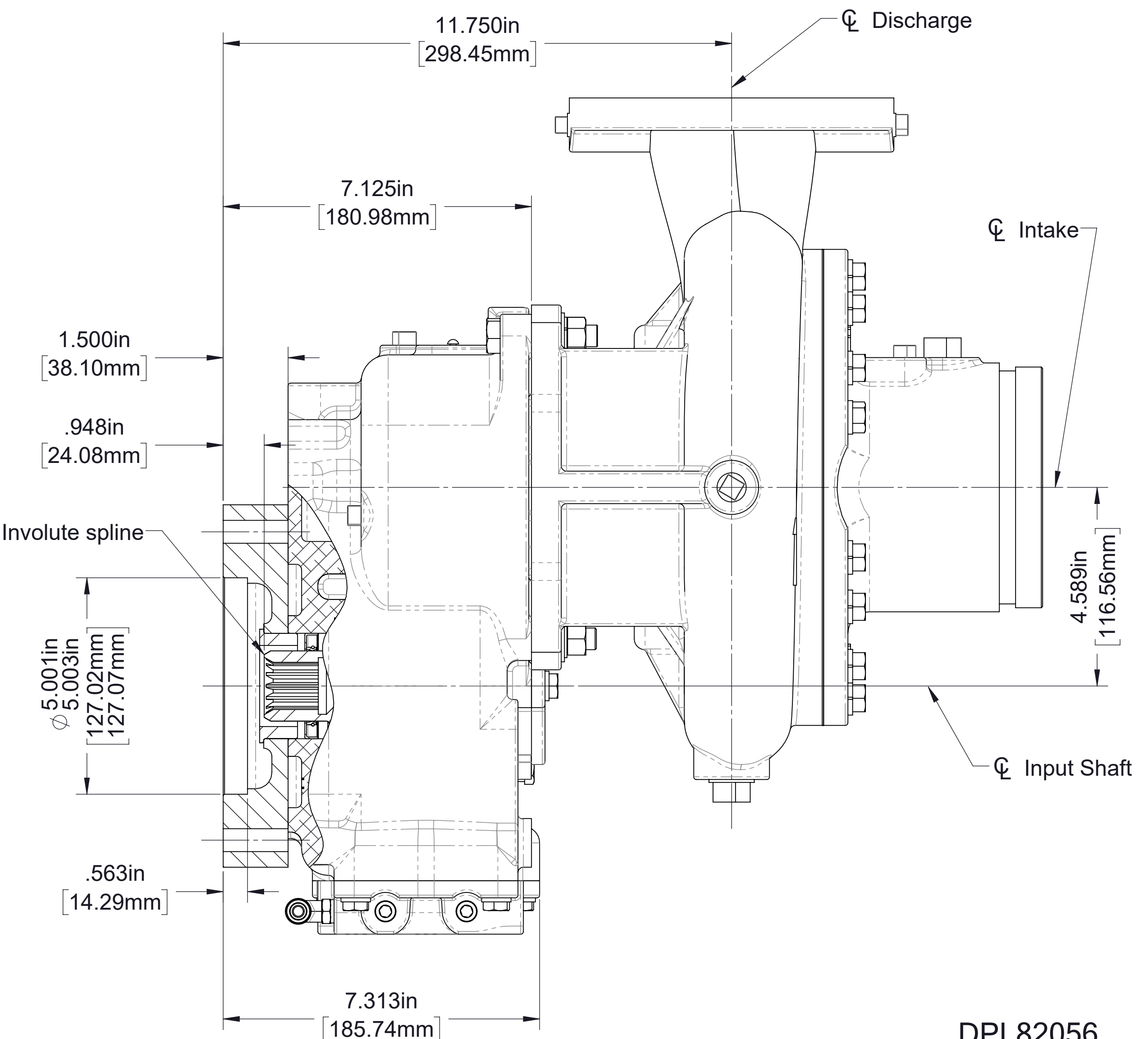
Optional $\varnothing$ 1.000in/25.4mm suspension pin. Order kit K520

1-20 Shaft Nut, Included on drive shaft. Torque to 275-325 Lb-Ft



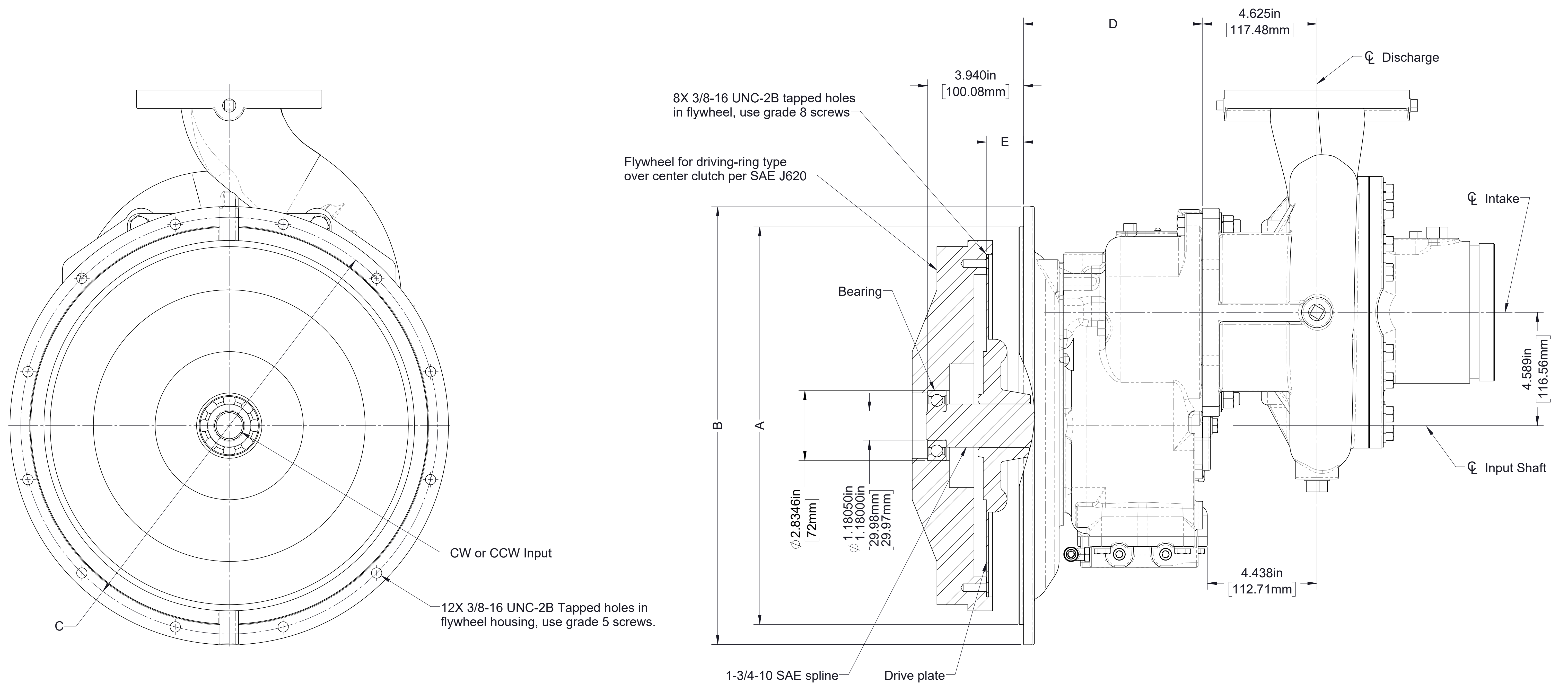
Optional SAE Class "C" 2 or 4 Bolt Hydraulic Pump Flange Input

1-1/4-14 Involute spline



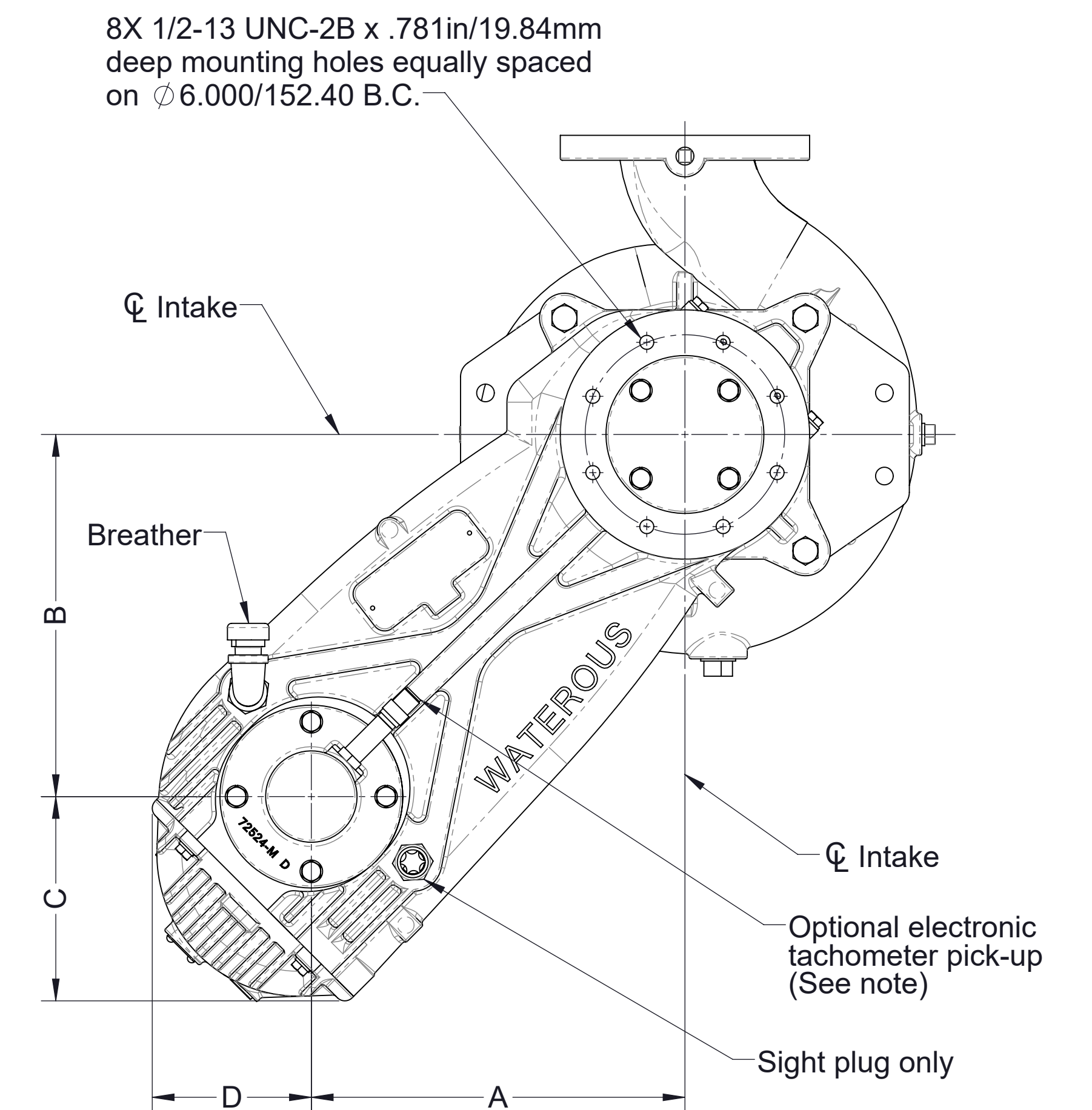
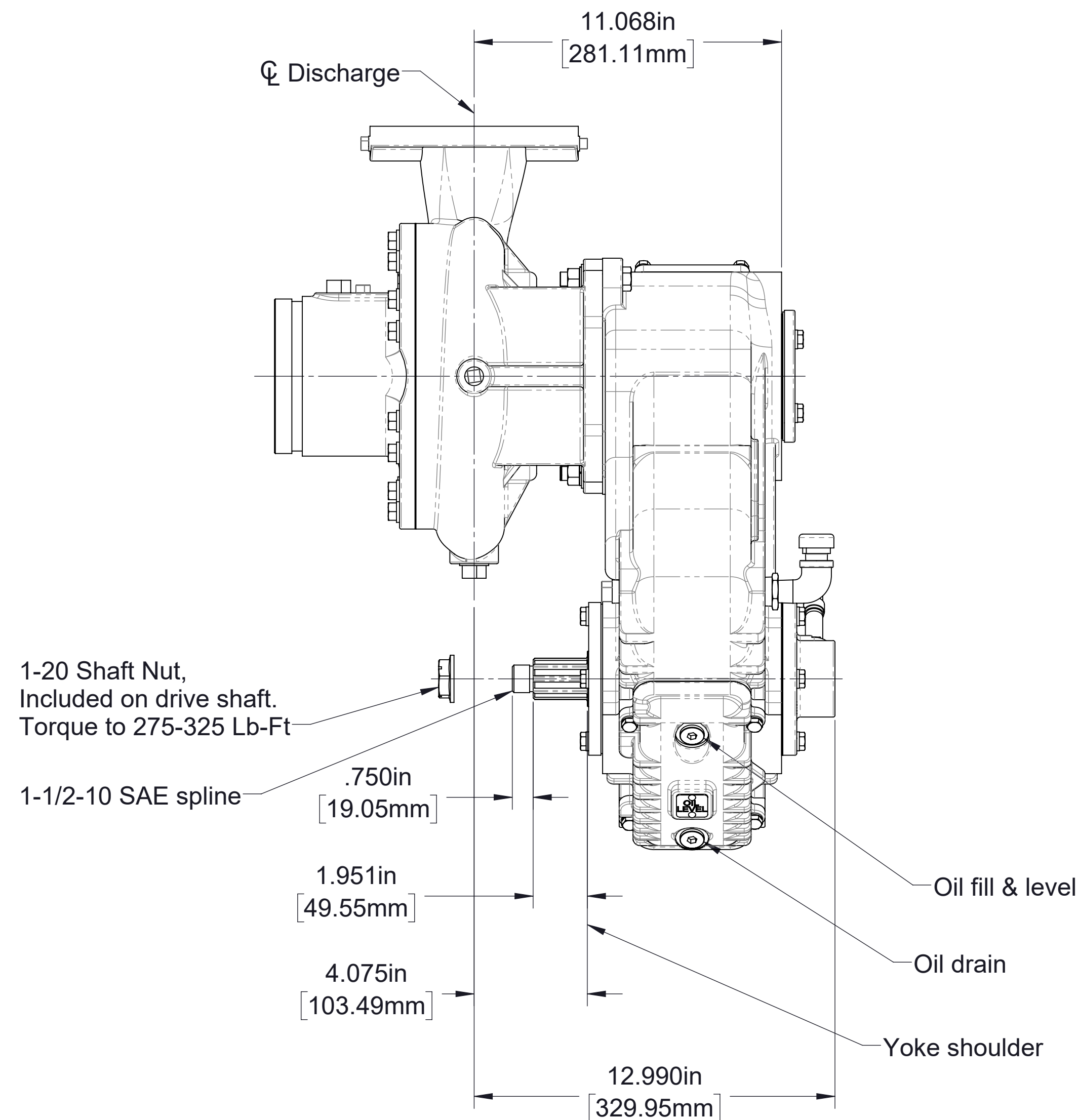
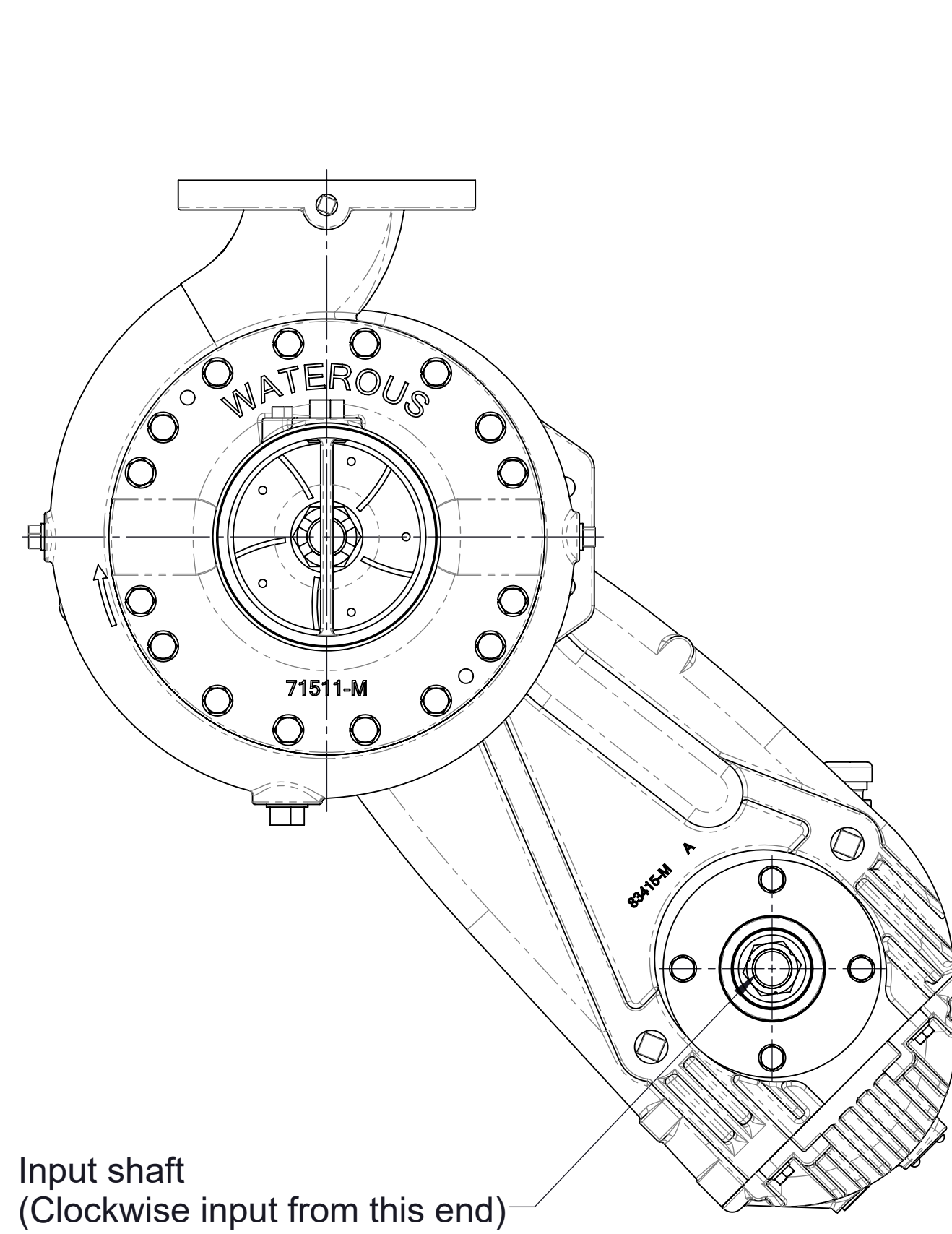
Model CGV with K Clockwise or Counterclockwise input (Clockwise input shown)

(CGVK in vertical mounting position shown, See page 12 for mounting positions)



SAE Bellhousing - J617				D	SAE Flywheel - J620		Drive Plate	
Size	A	B	C		Clutch No.	E	Part No.	Torque Rating
2	17.625in 447.68mm	19.250in 488.95mm	18.375in 466.73mm	8.250in 209.55mm	10	2.12in 53.85mm	V 2462	850 ft-lb 1153 Joules
3	16.125in 409.58mm	17.750in 450.85mm	16.875in 428.63mm	7.250in 184.15mm				
4	14.250in 361.95mm	15.875in 403.23mm	15.000in 381.00mm					
2	17.625in 447.68mm	19.250in 488.95mm	18.375in 466.73mm	8.250in 209.55mm	11-1/2	1.56in 39.62mm	V 2463	
3	16.125in 409.58mm	17.750in 450.85mm	16.875in 428.63mm	7.250in 184.15mm				

Model CGV with T
Clockwise or Counterclockwise input
(Clockwise input shown)
(CGVT in vertical mounting position shown, See page 12 for mounting positions)

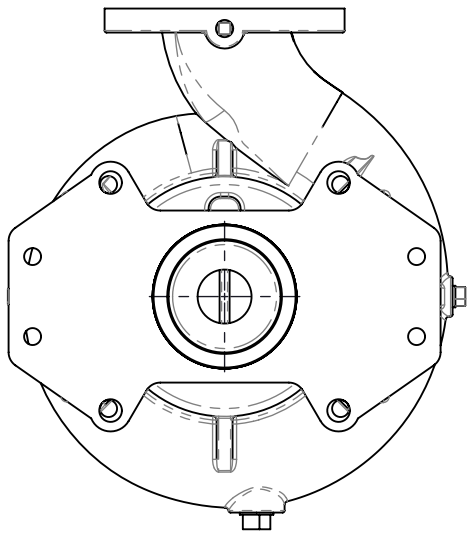
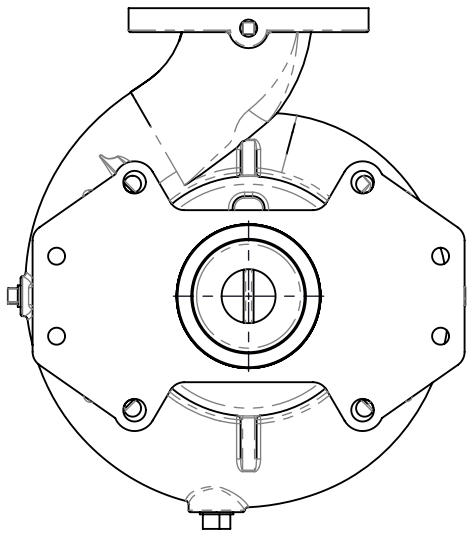


Drive Line		Ratio	Dim A	Dim B	Dim C	Dim D
Size	Spline					
1-1/2 in	1-1/2-10 SAE	1.70	11.288in 286.71mm	10.943in 277.94mm	6.111in 155.22mm	4.737in 120.32mm
		1.90	11.269in 286.24mm	10.924in 277.47mm	6.130in 155.70mm	4.755in 120.79mm
		2.10	11.239in 285.46mm	10.894in 276.70mm	6.160in 156.46mm	4.786in 121.56mm

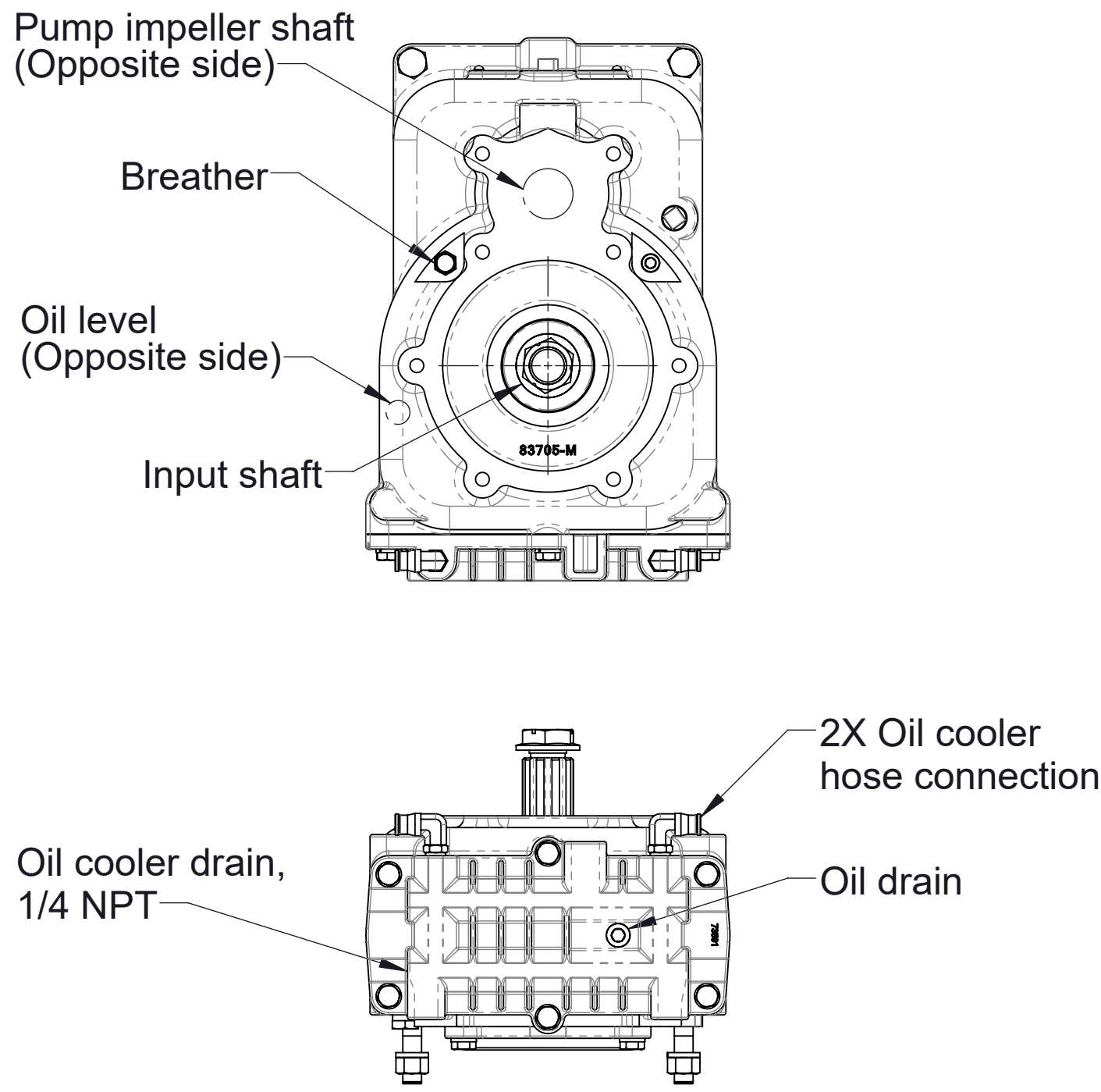
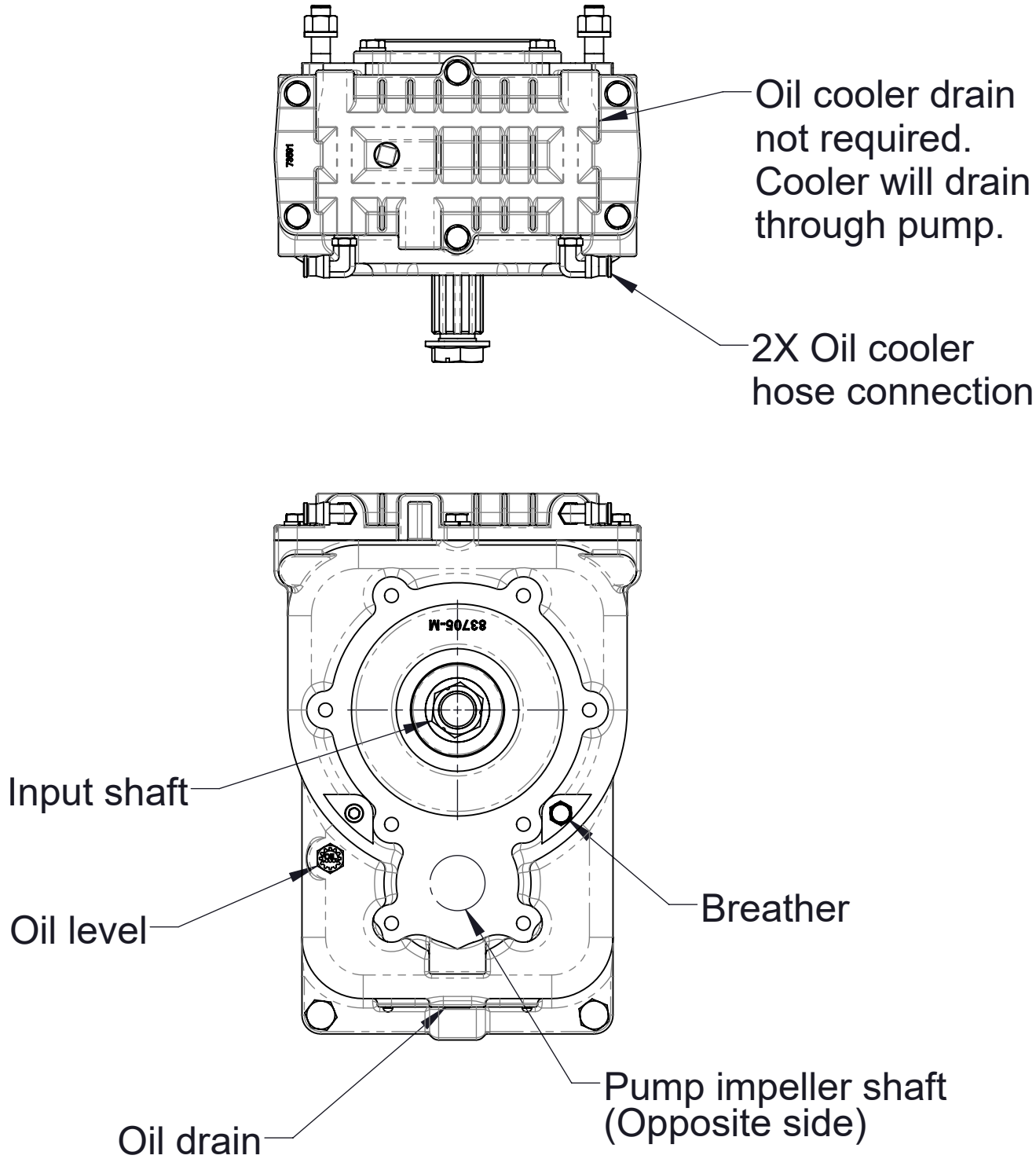
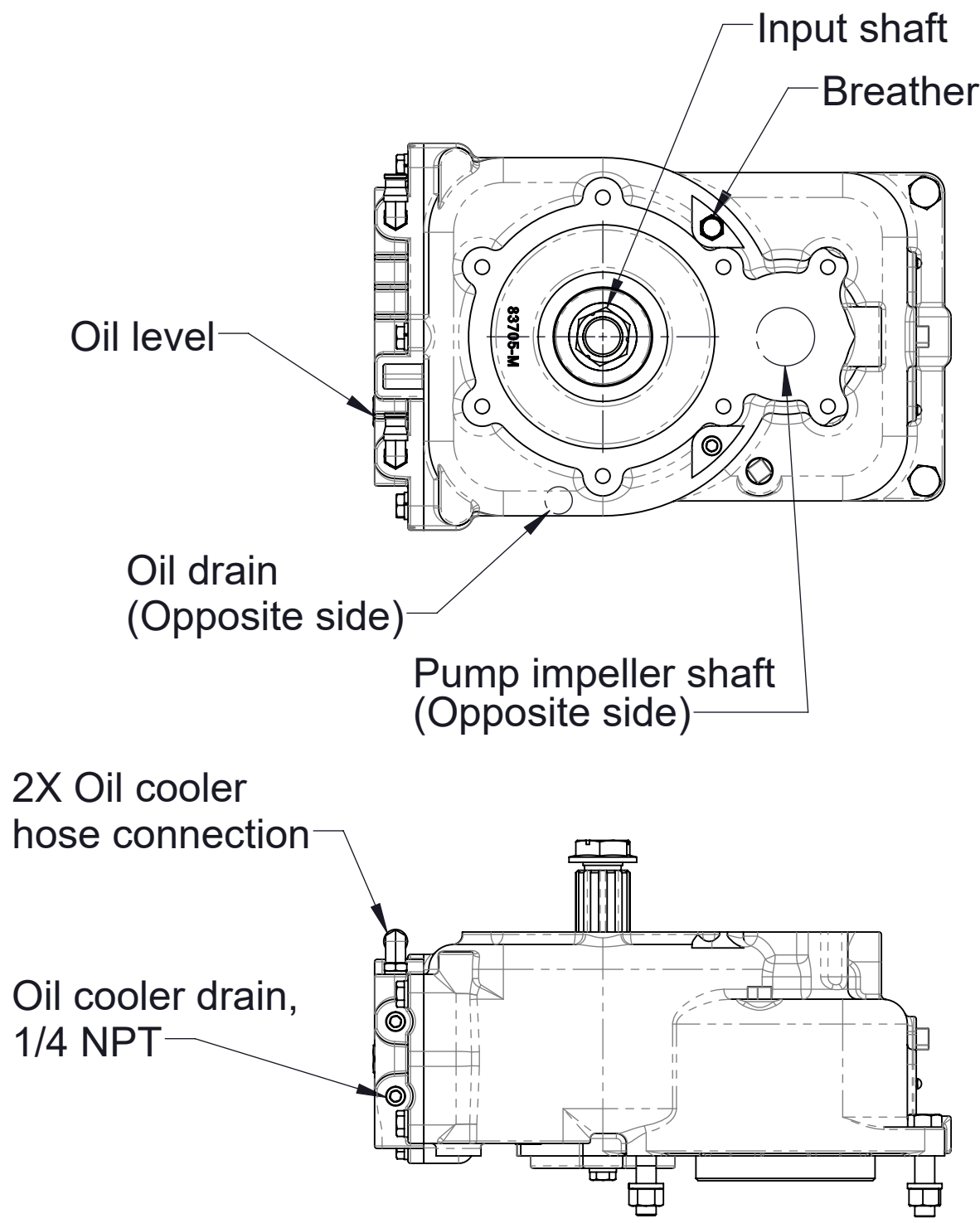
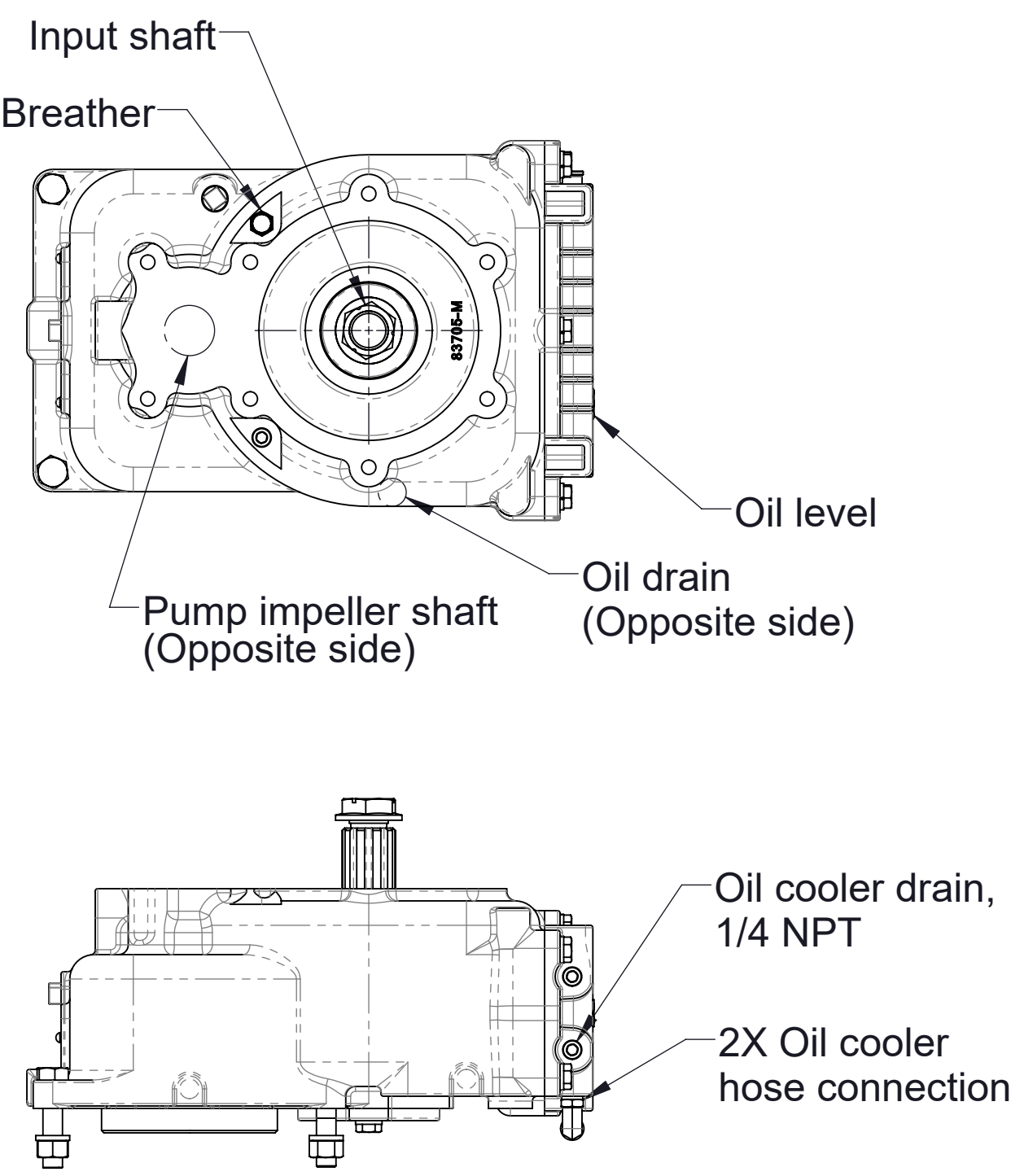
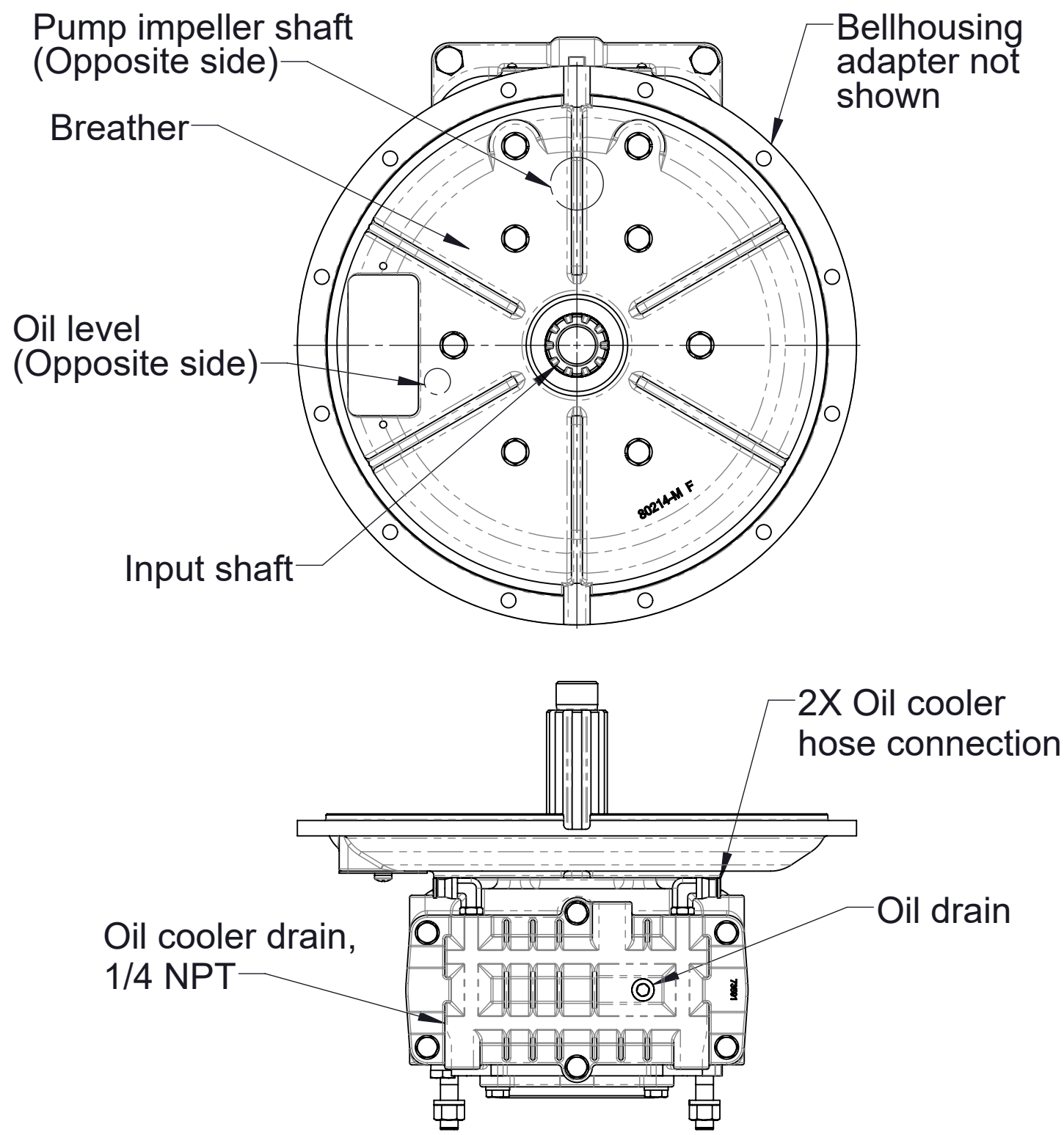
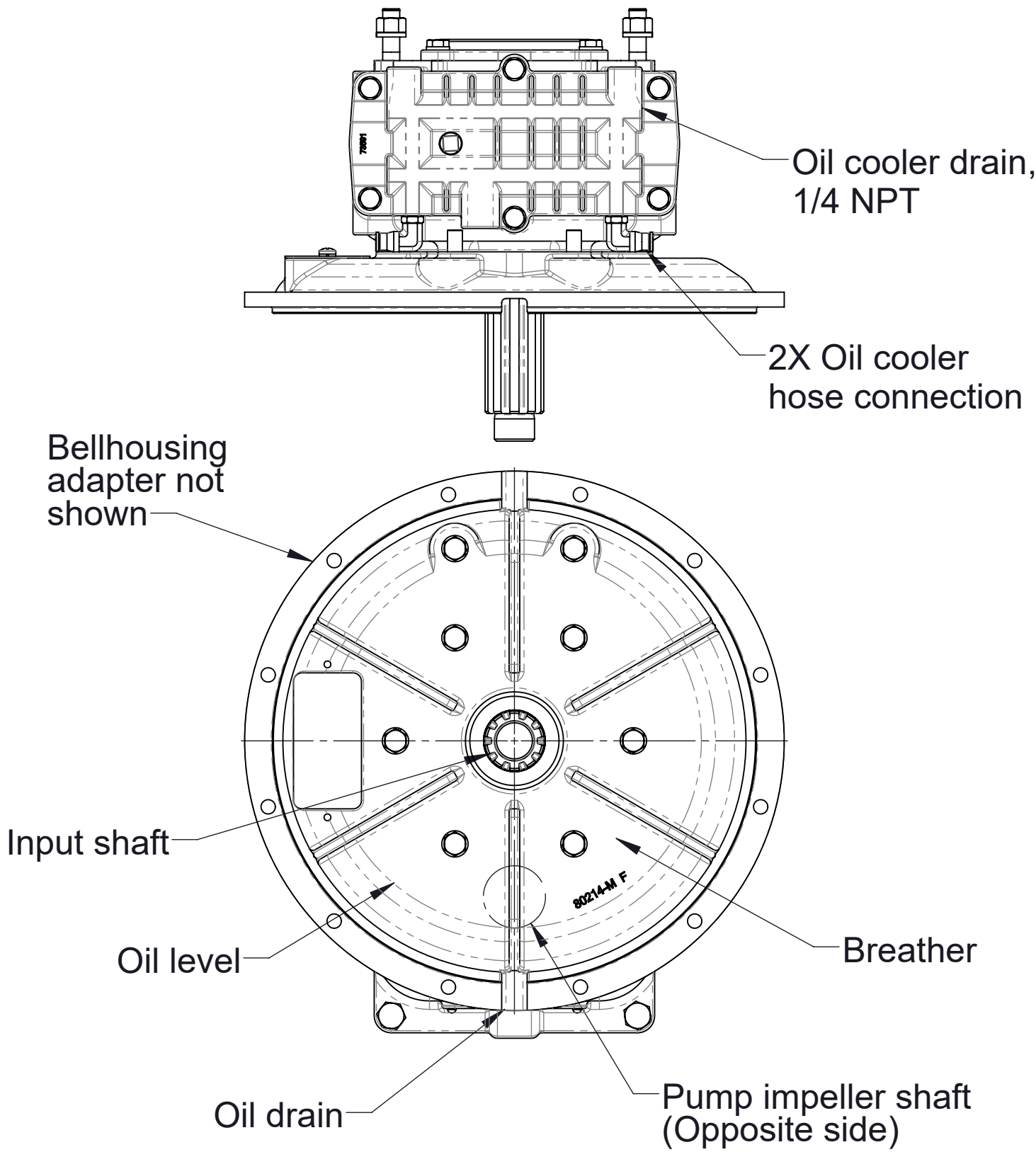
Model CGV with PA

Clockwise input
CGVPA shown

Note: See drawing DPL82080 for additional details of PA transmission

Discharge Position		Available with:			
		Transmission Series			
		C20	K	PA	T
		Pump mounted on input shaft side		Vertical (Right)	
Up Clockwise (CW) Input Rotation		Yes	Yes	Yes	Yes
Up Counterclockwise (CCW) Input Rotation		N/A	Yes	N/A	Yes
Discharge cannot be rotated independently of the transmission					

Available pump discharge positions as viewed from transmission end of pump

	Vertical	Inverted	Left	Right
K				
T			Not Available	Not Available

