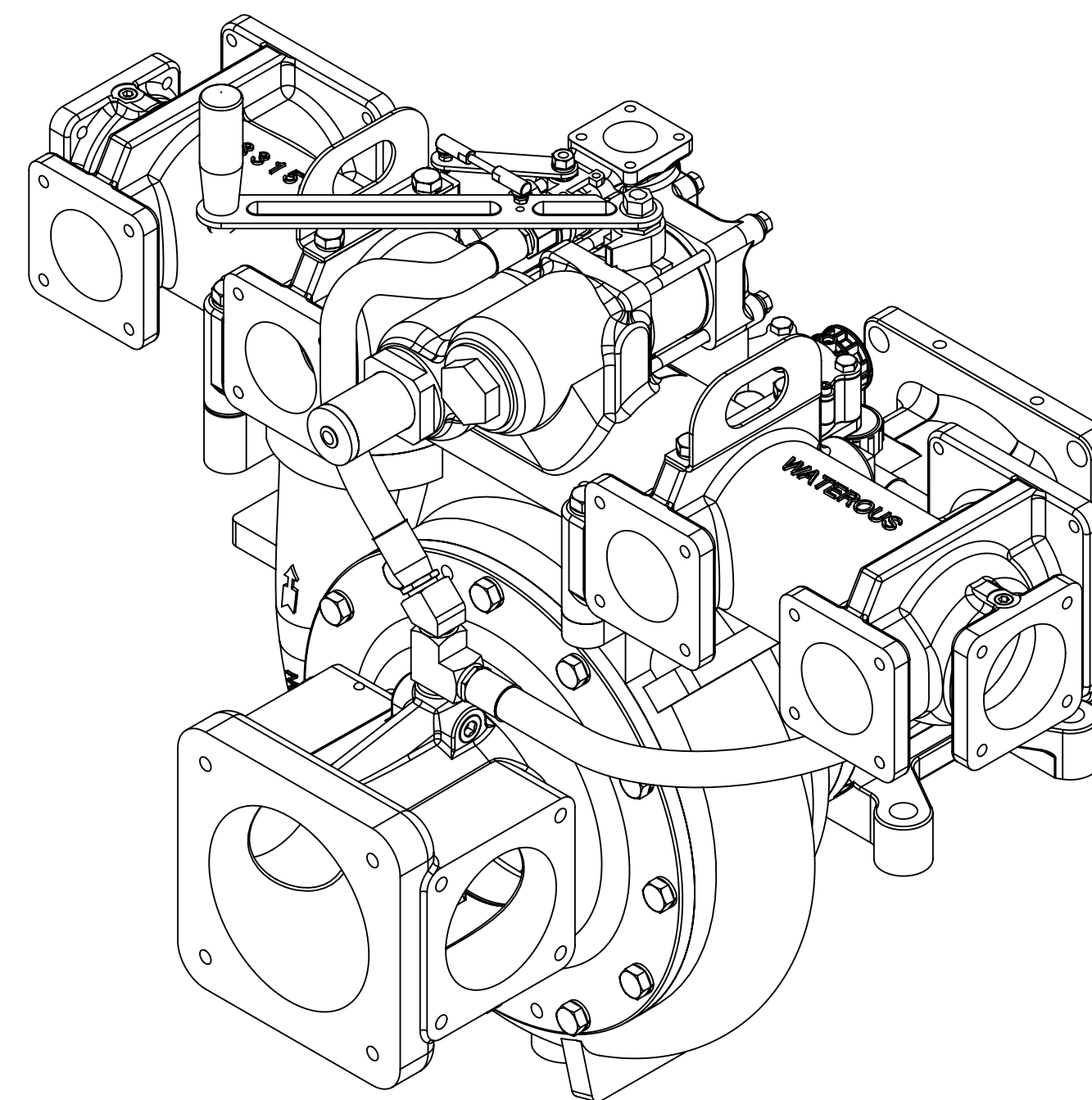


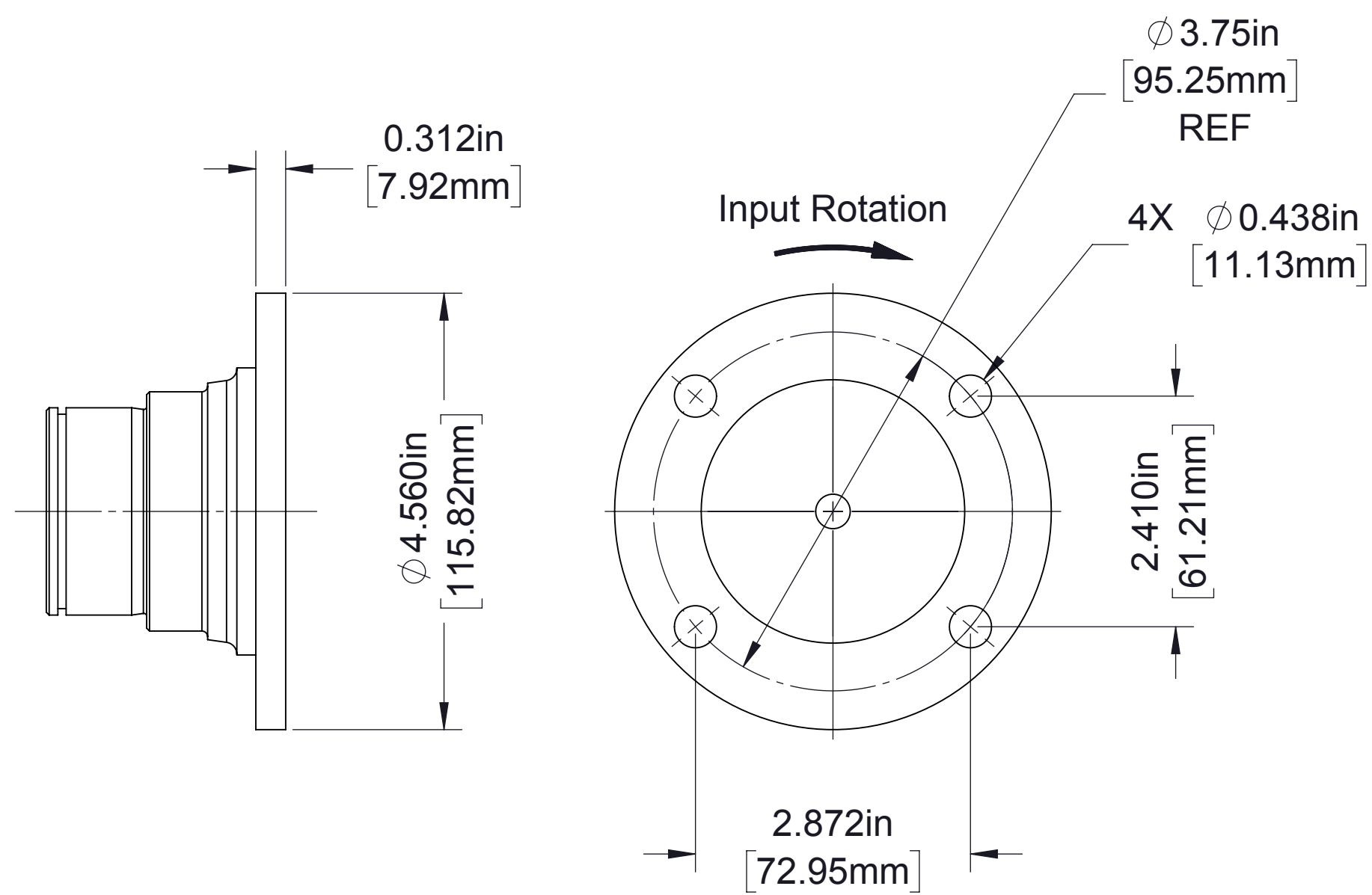
## HLU Series Pump Dimensional Drawings

Pump Model	Drive			Impeller Rotation (2)	See Page							
	Type	Input Shaft	Input Rotation (1)		Pump and Transmission		Available			Optional		
					Pump	Transmission Mounting Positions	Intake Connection	Discharge Manifold	Auxiliary Fittings	Remotely Mounted RTP Foam System	External High Pressure Relief Valve	Gauges
HLUD	Direct Drive	1410 Series Companion Flange (1-3/8-10 SAE Spline)	CW	CCW	2	--	7	8	9	See DPL83197	10	10
			CCW	CW	3							
HLUK	Heavy Duty K Series Transmissions	1-3/8-10 SAE Spline	CW	CW	4	6						
			CCW	CCW	5	6						

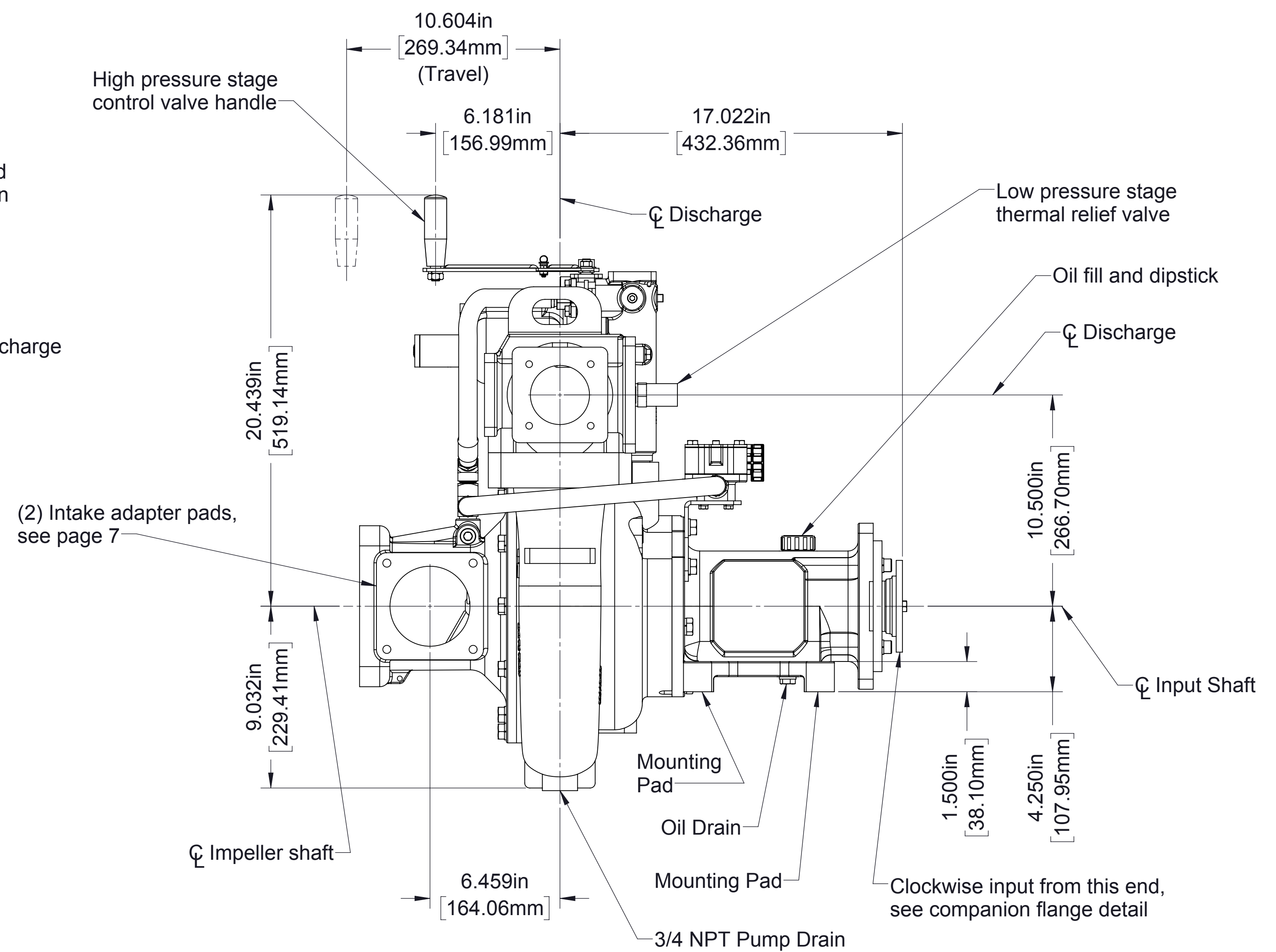
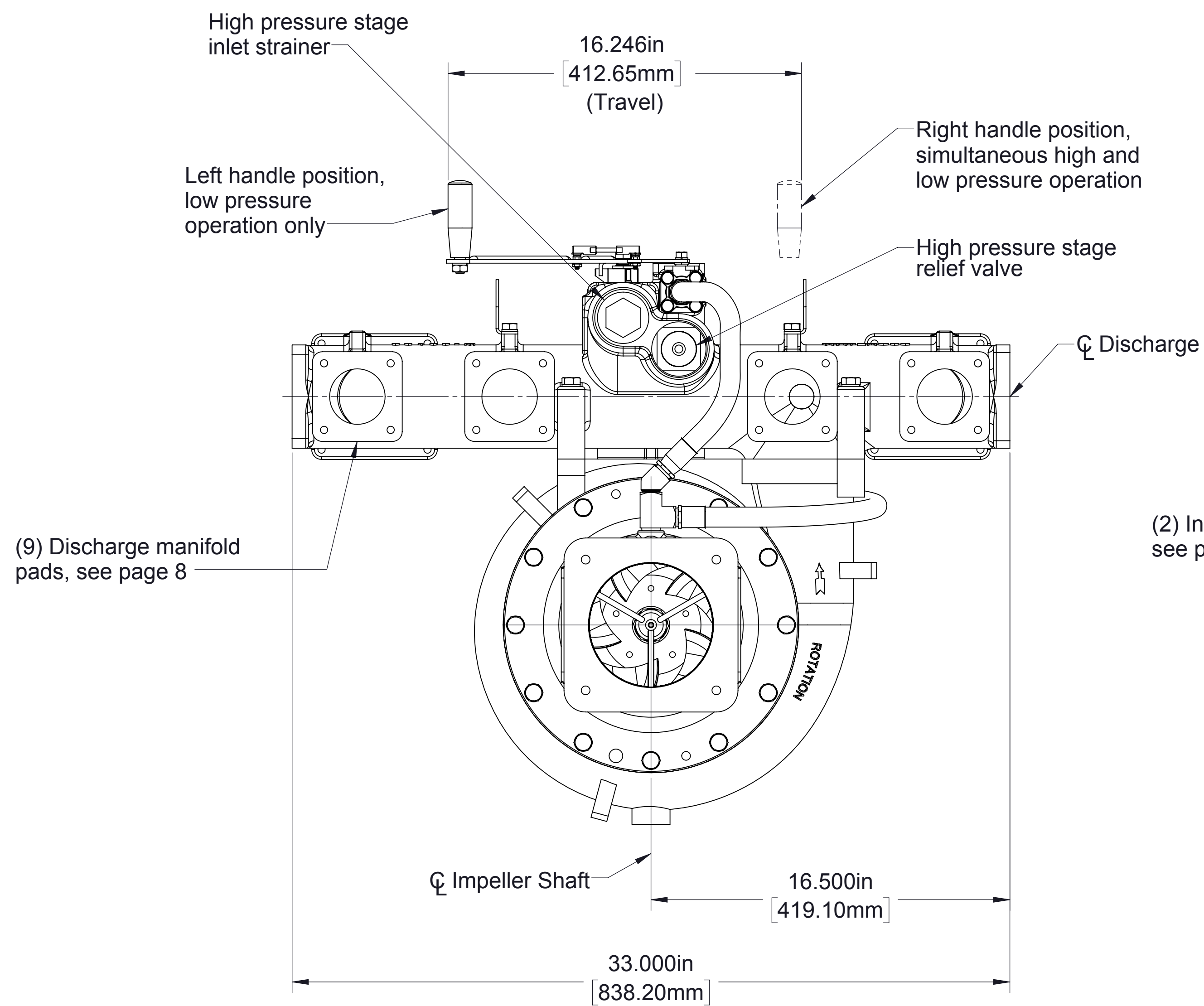
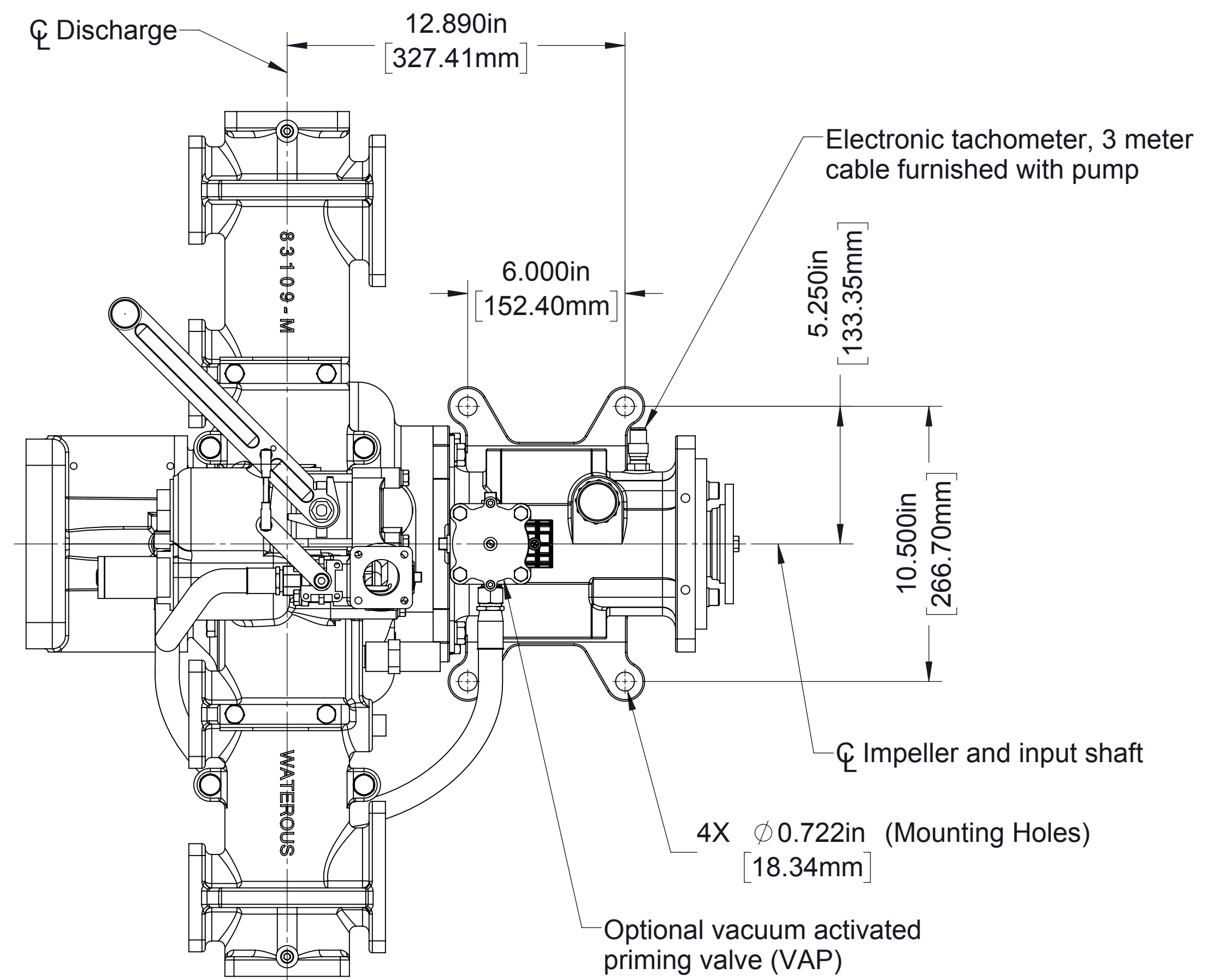
**Notes:**

1. Drive input rotation defined as viewed looking directly at direct drive or transmission input shaft.
2. Impeller rotation defined as viewed looking directly into impeller eye from intake end of pump.



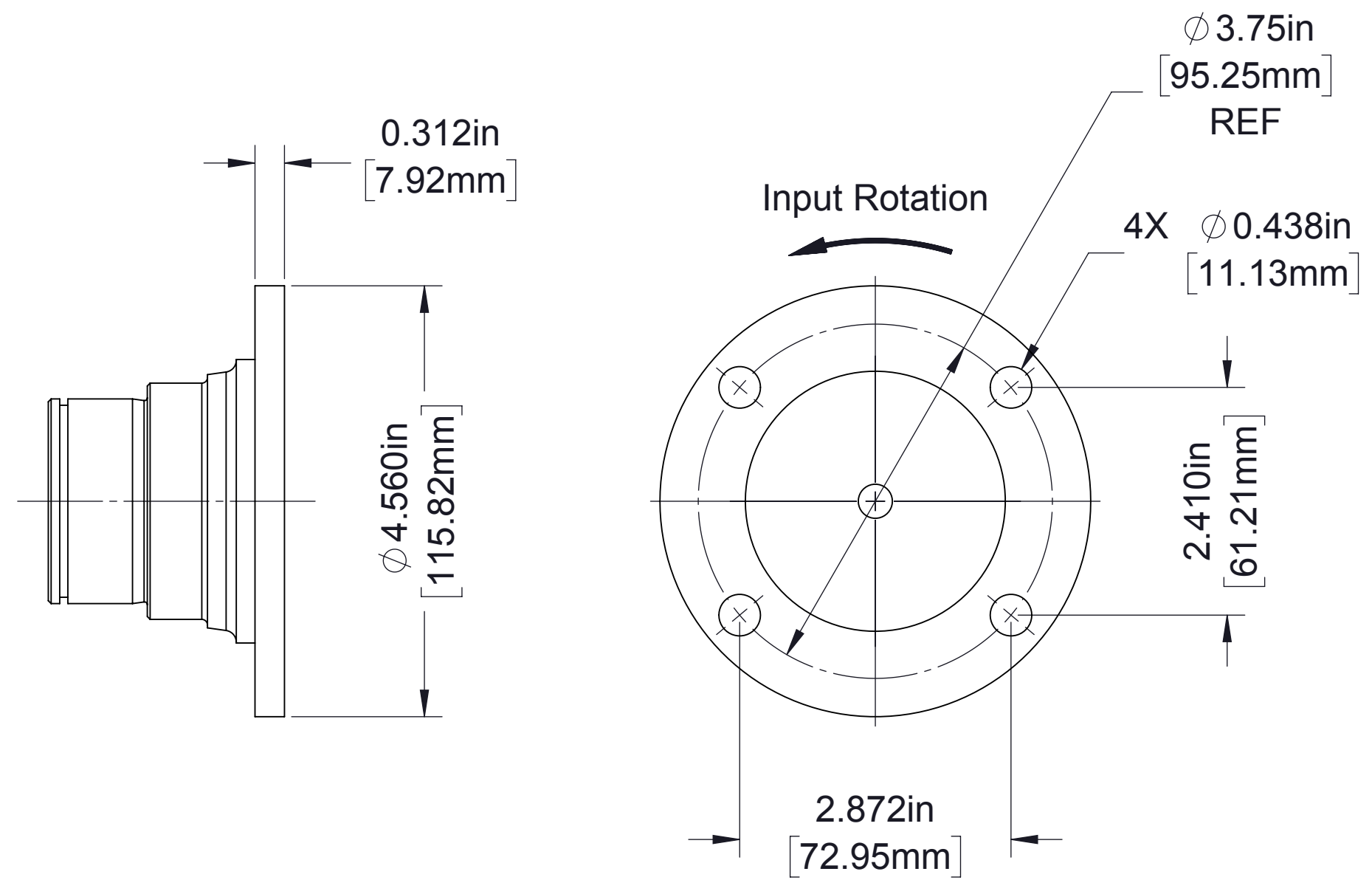


1410 Series Companion Flange Detail

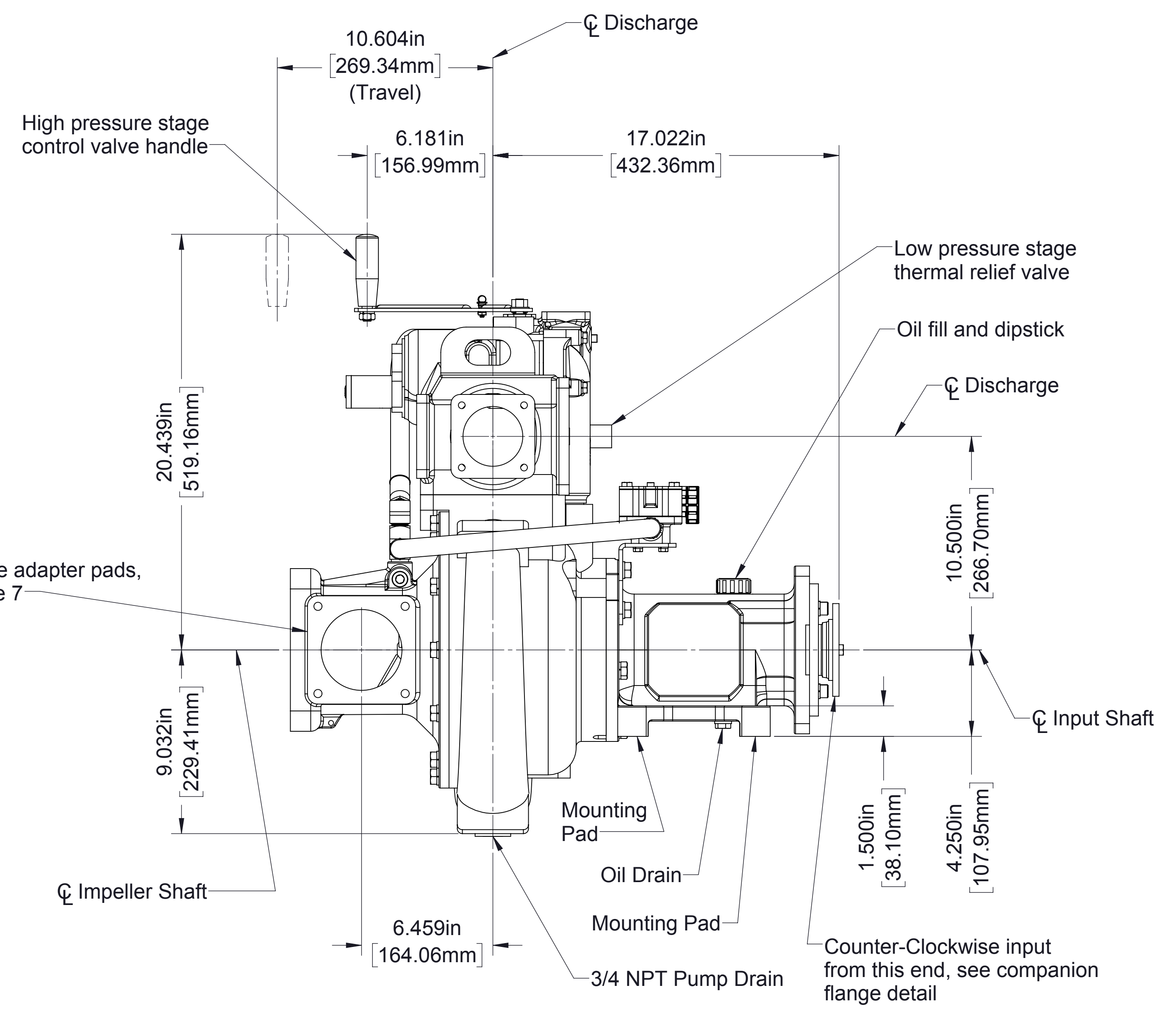
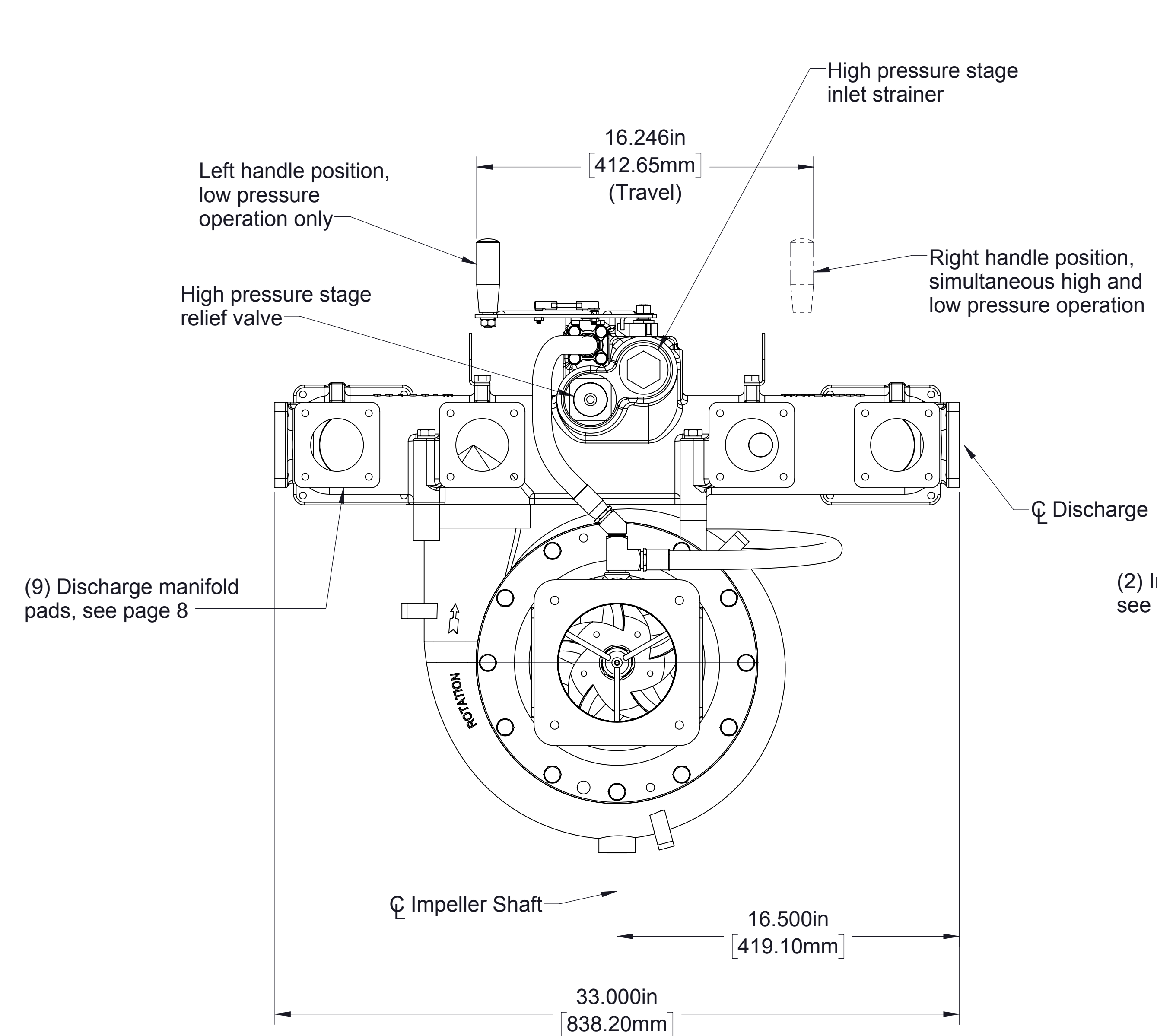
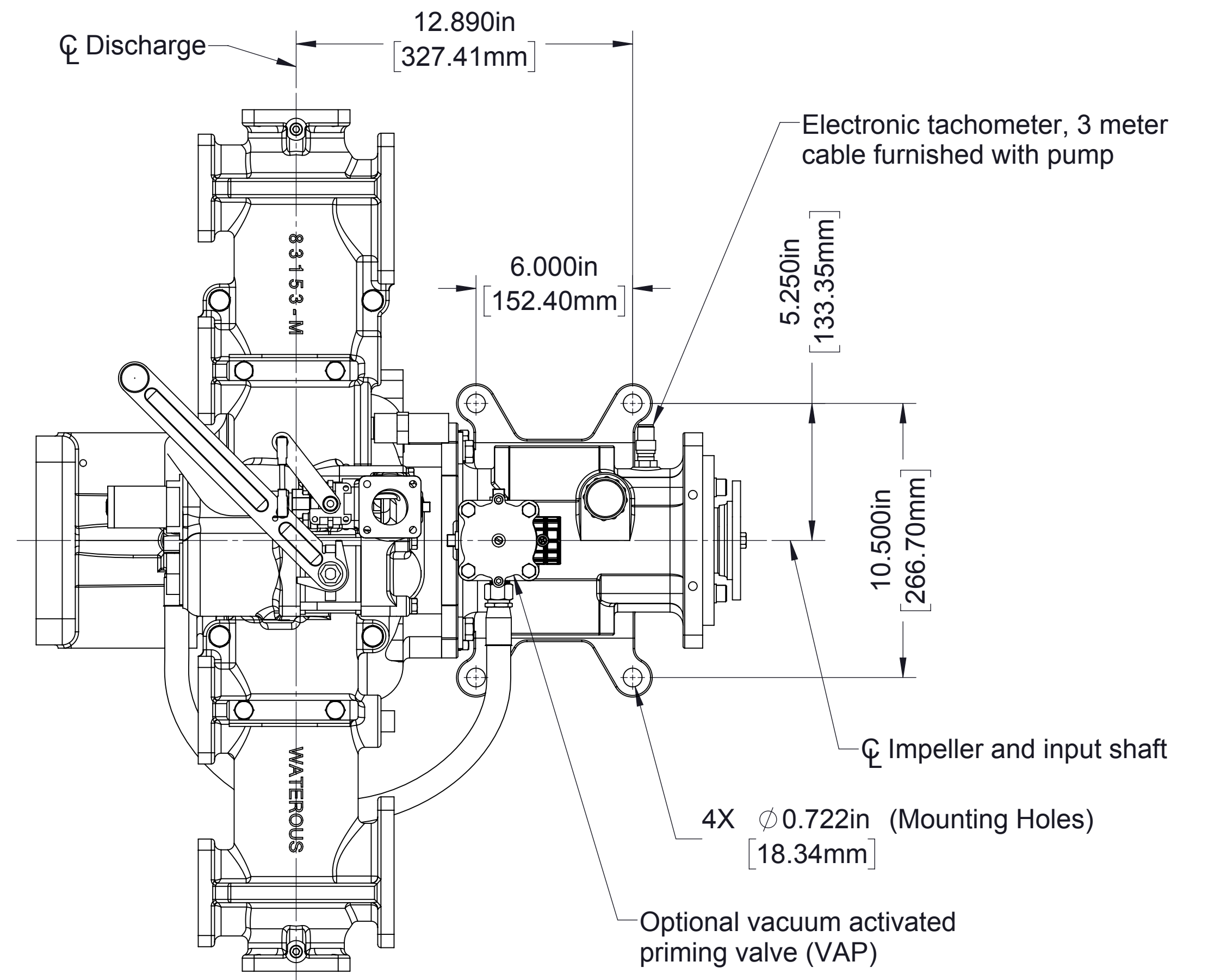


**HLUD Pump  
Clockwise Input Rotation**

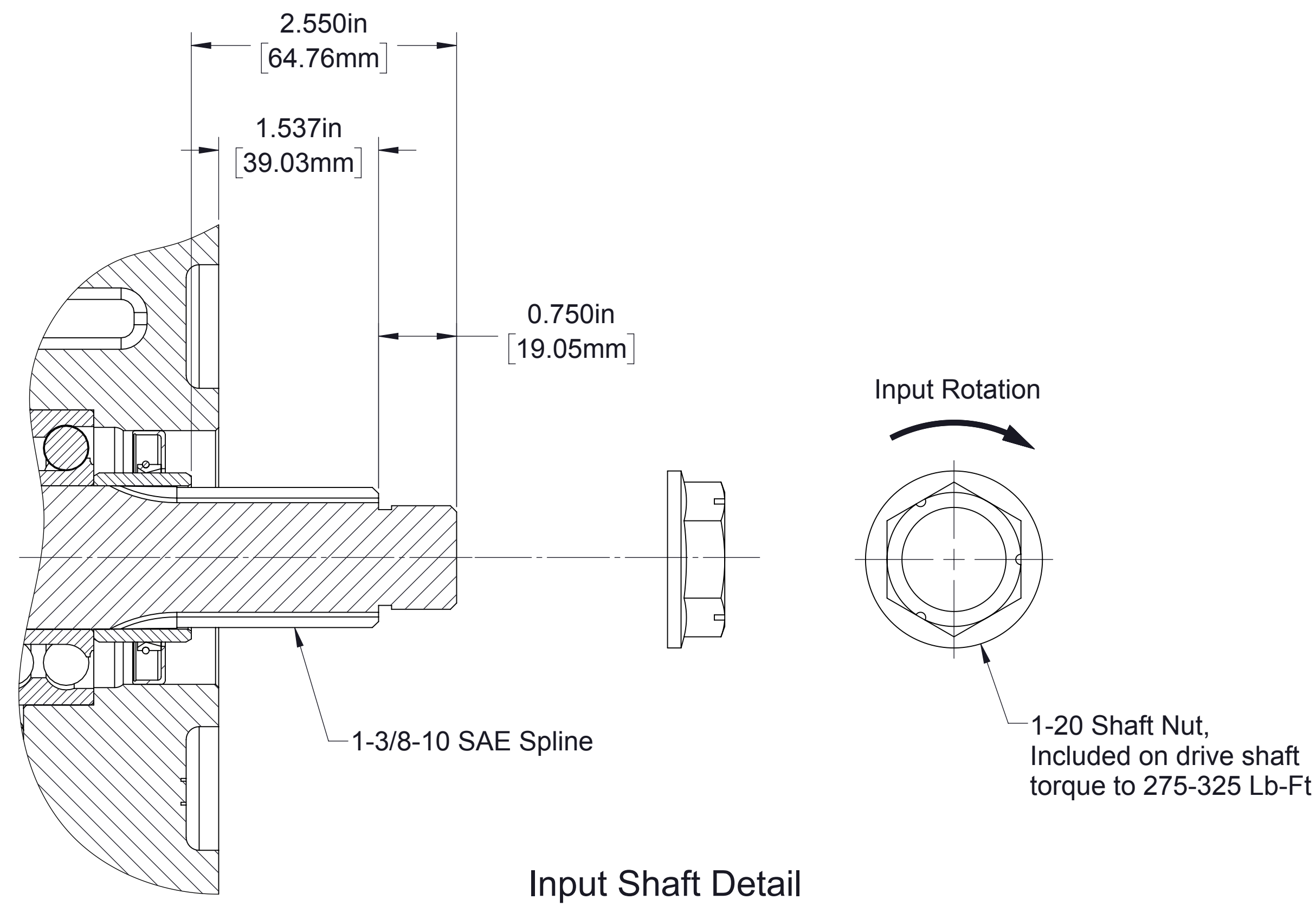




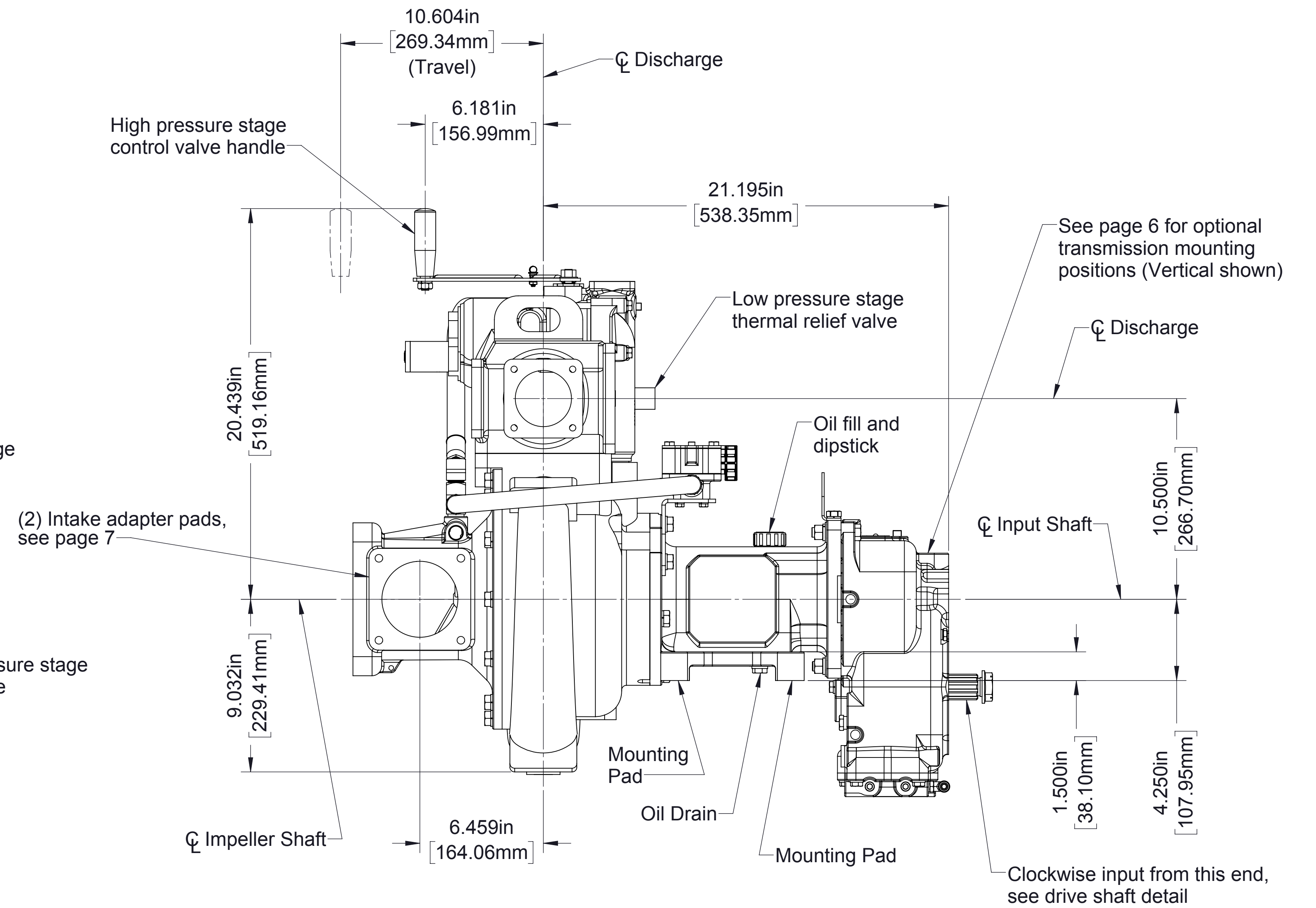
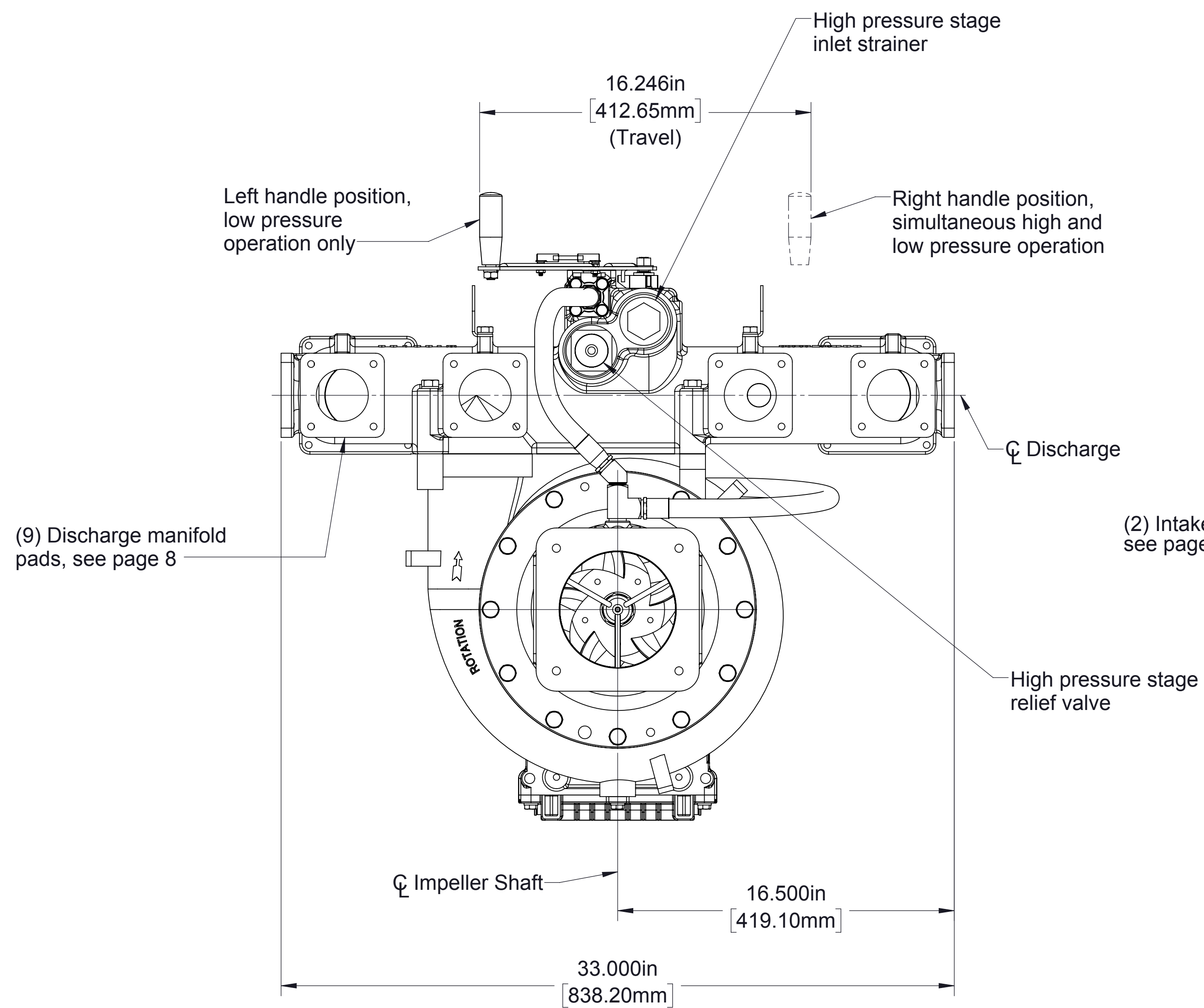
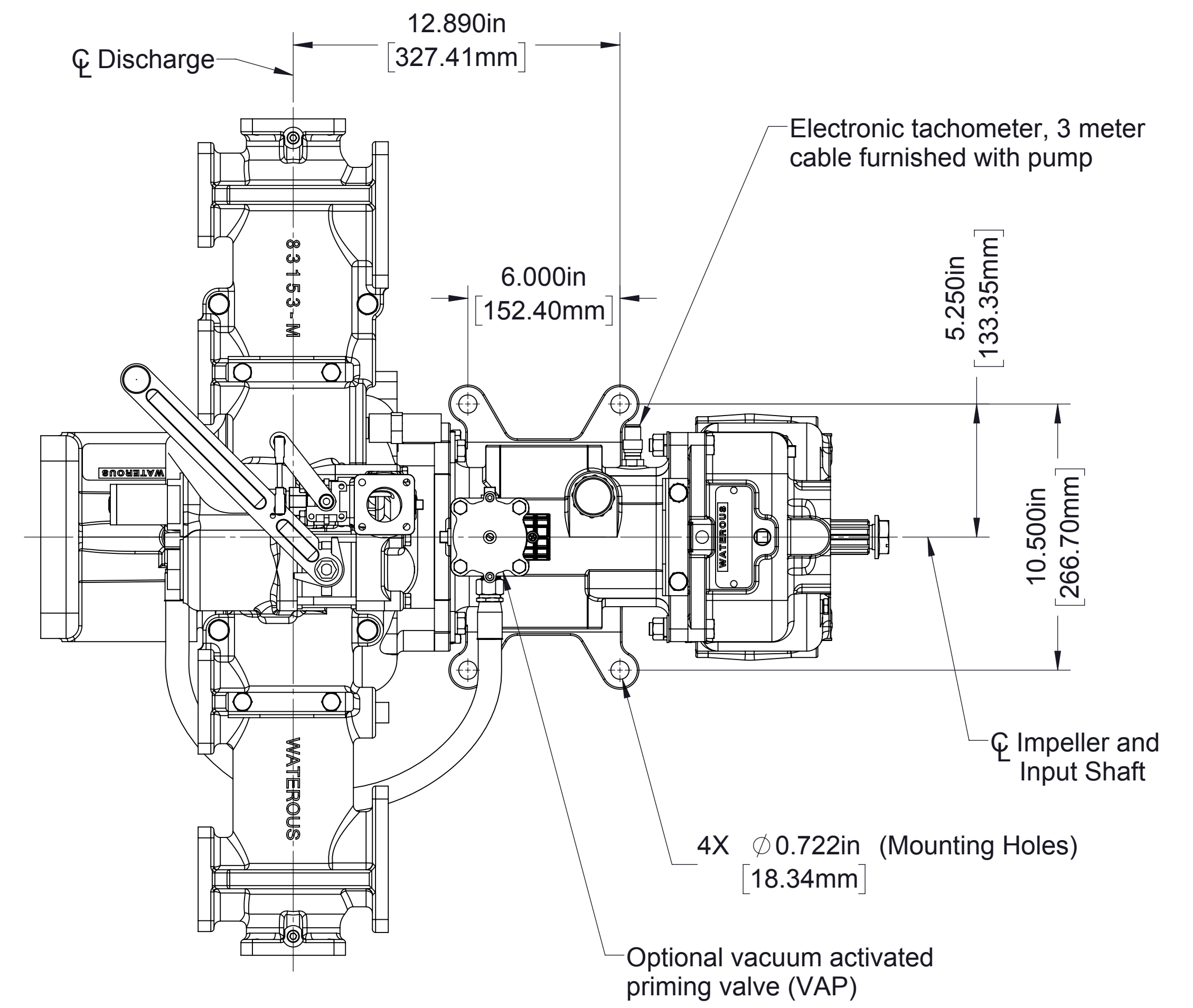
1410 Series Companion Flange Detail



**HLUD Pump  
Counter-Clockwise Input Rotation**

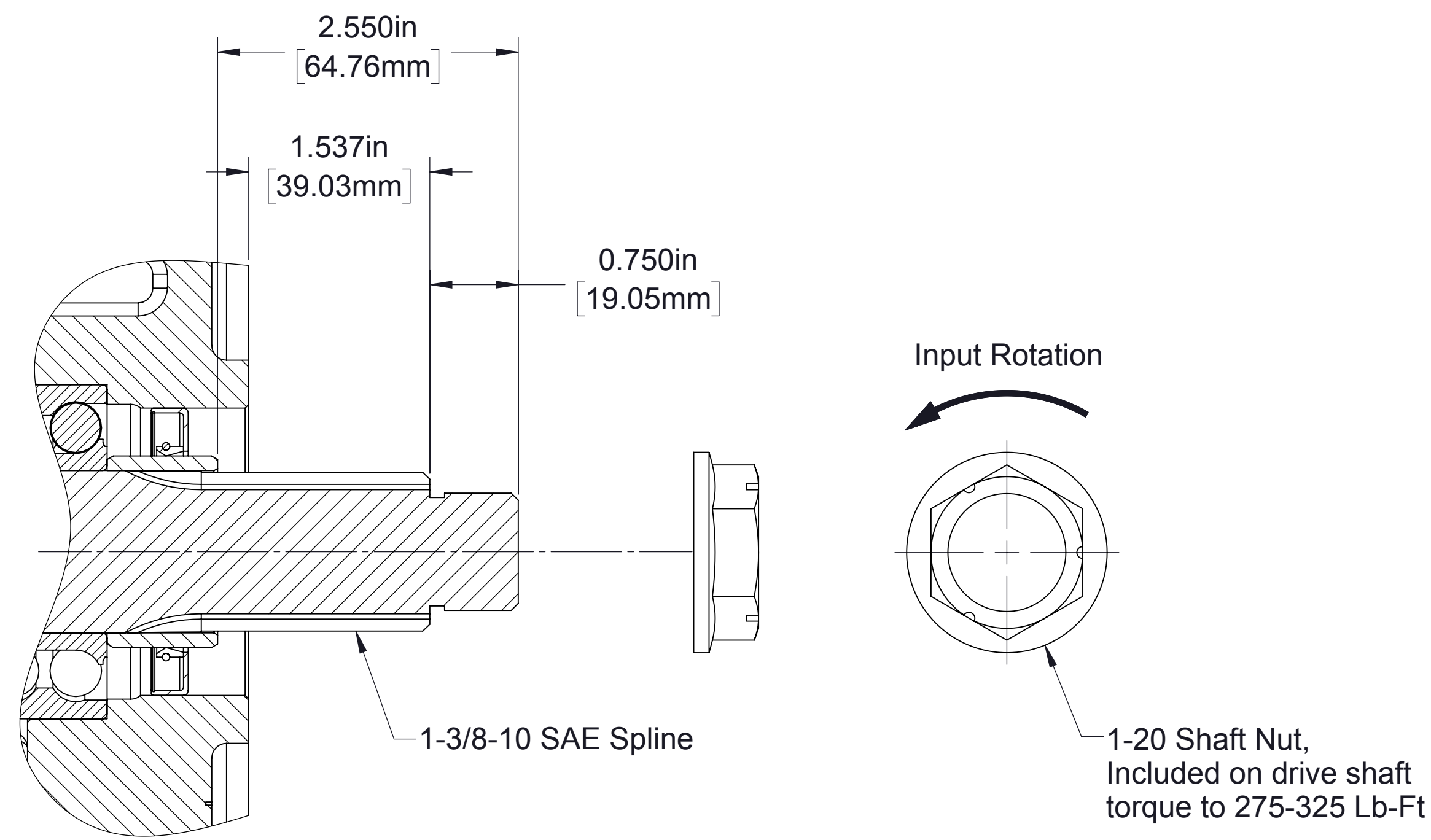


Input Shaft Detail

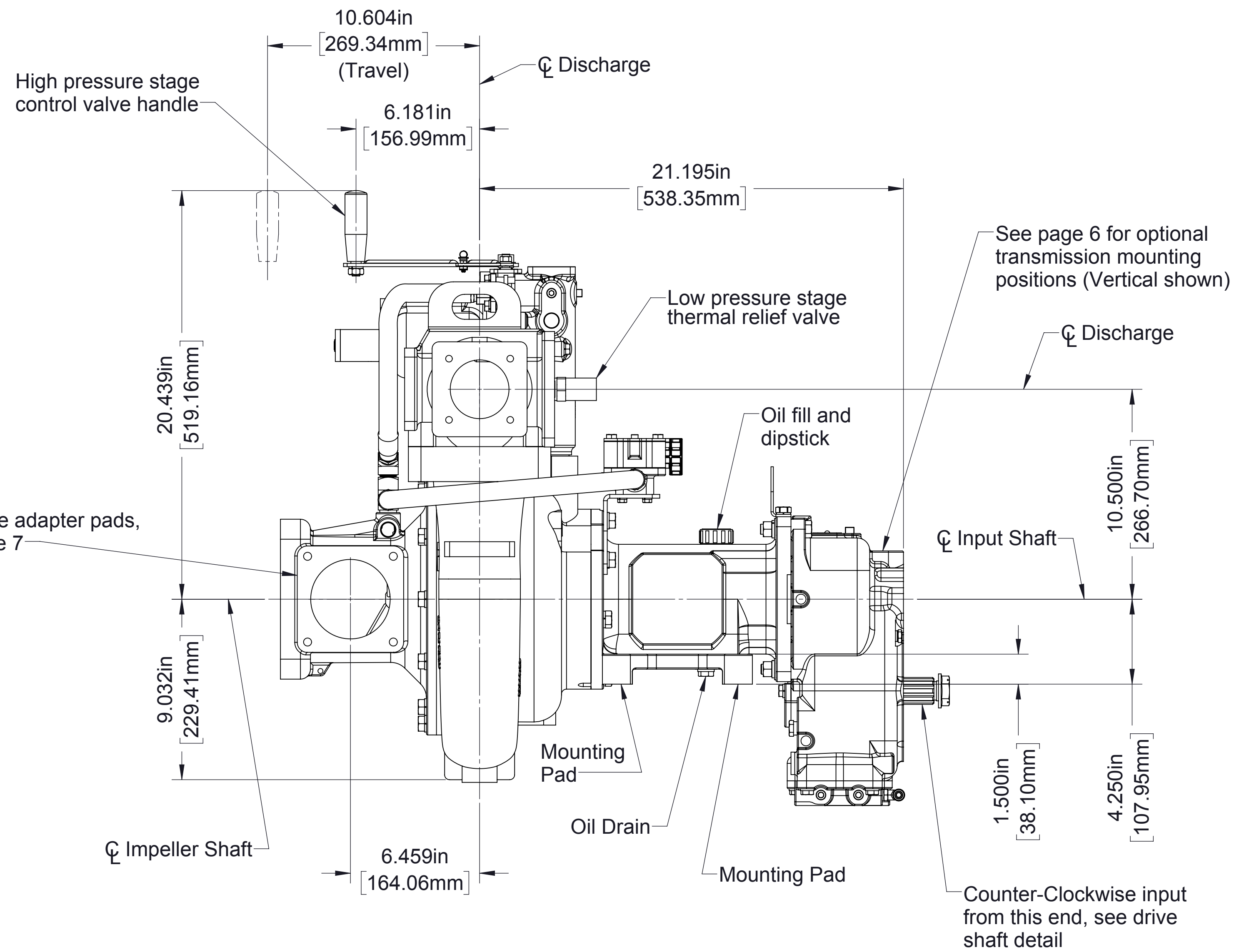
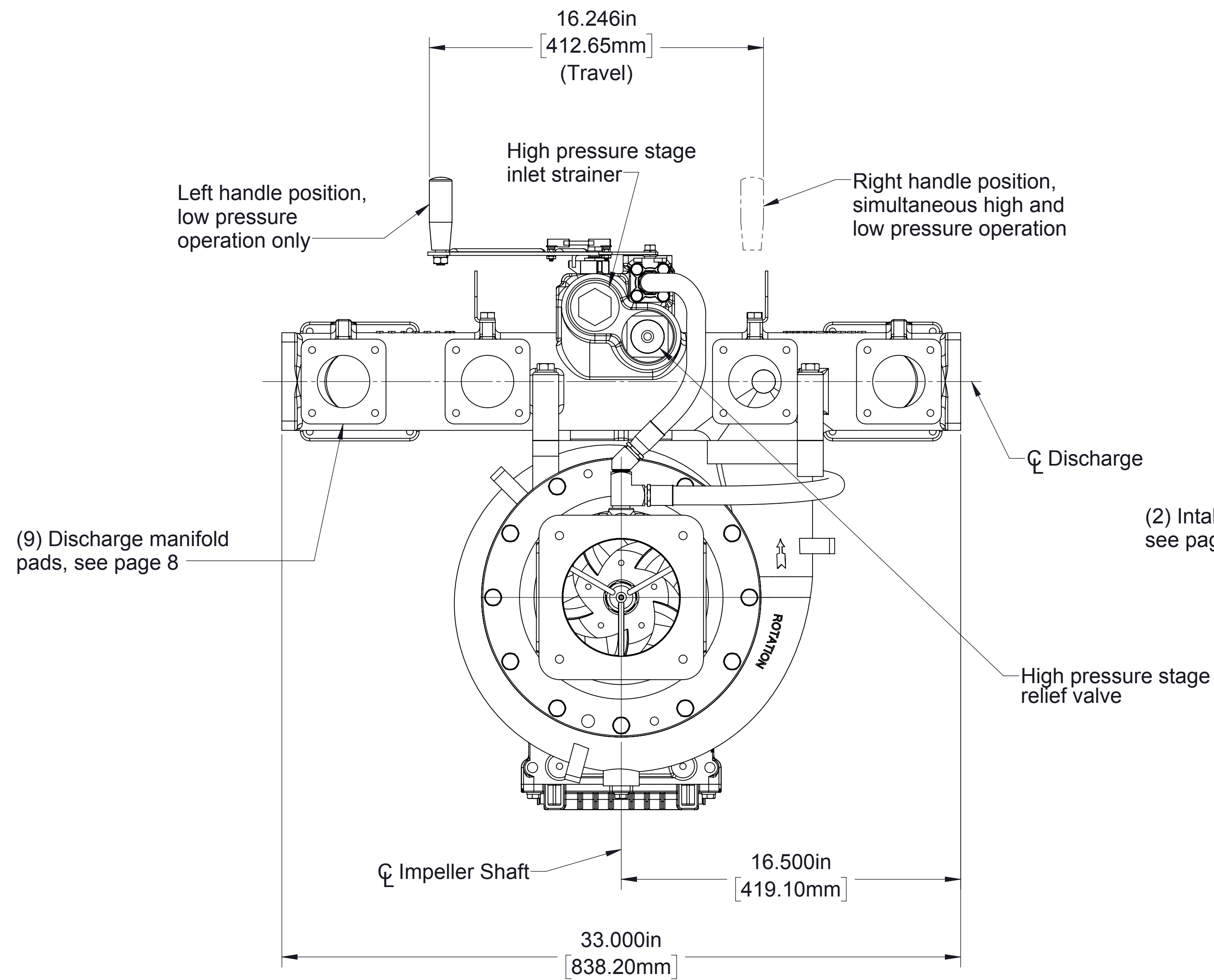
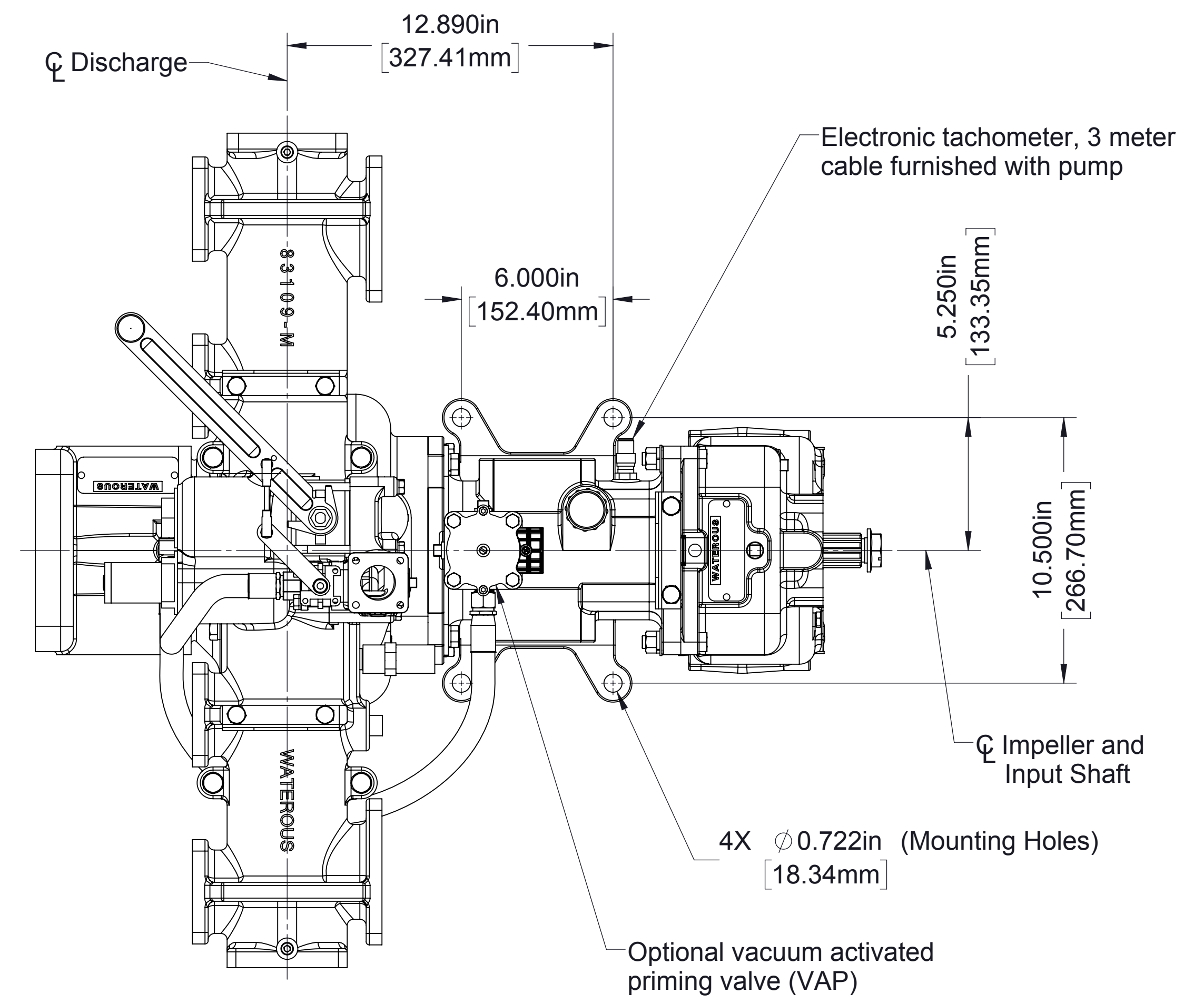


**HLUK Pump  
Clockwise Input Rotation**

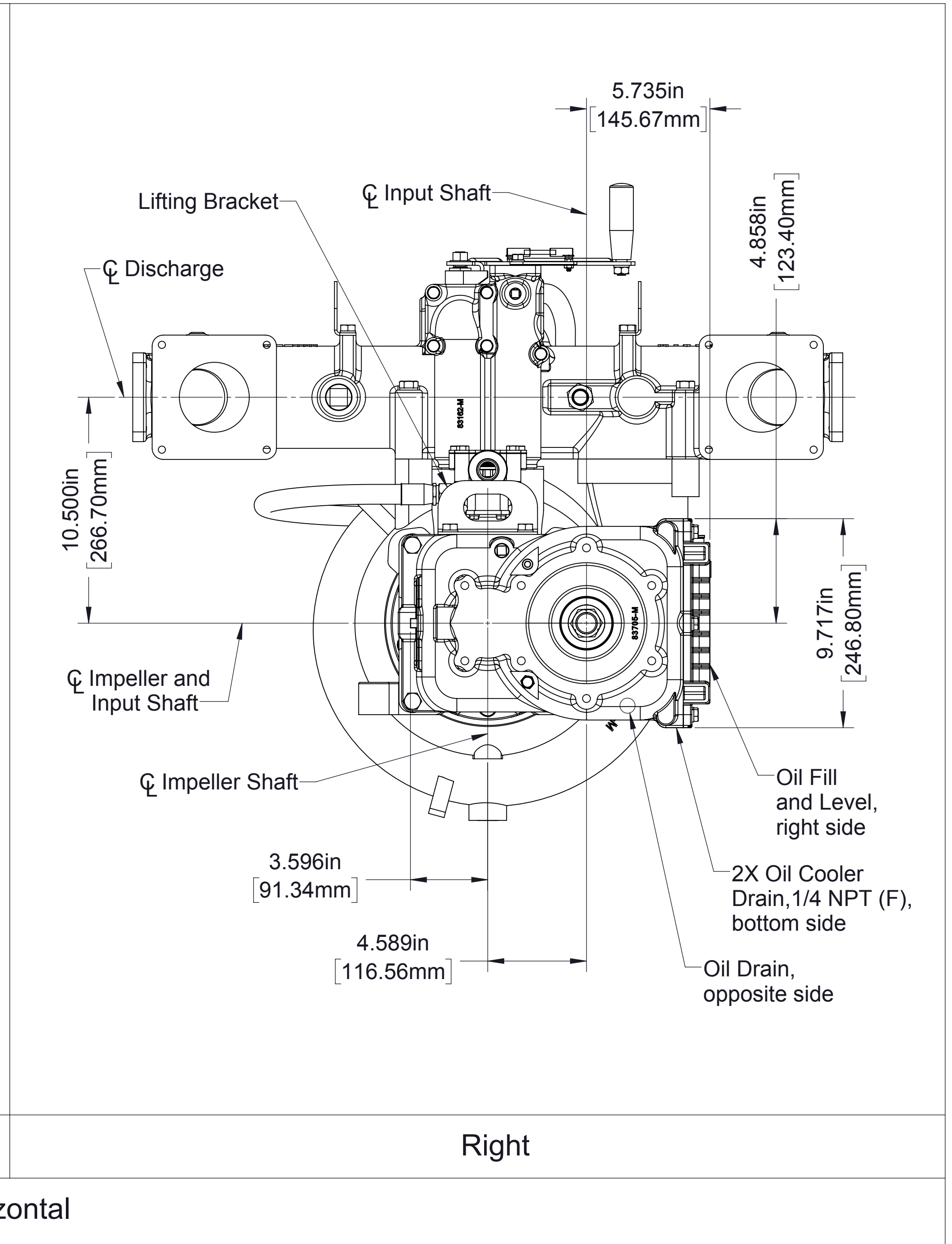
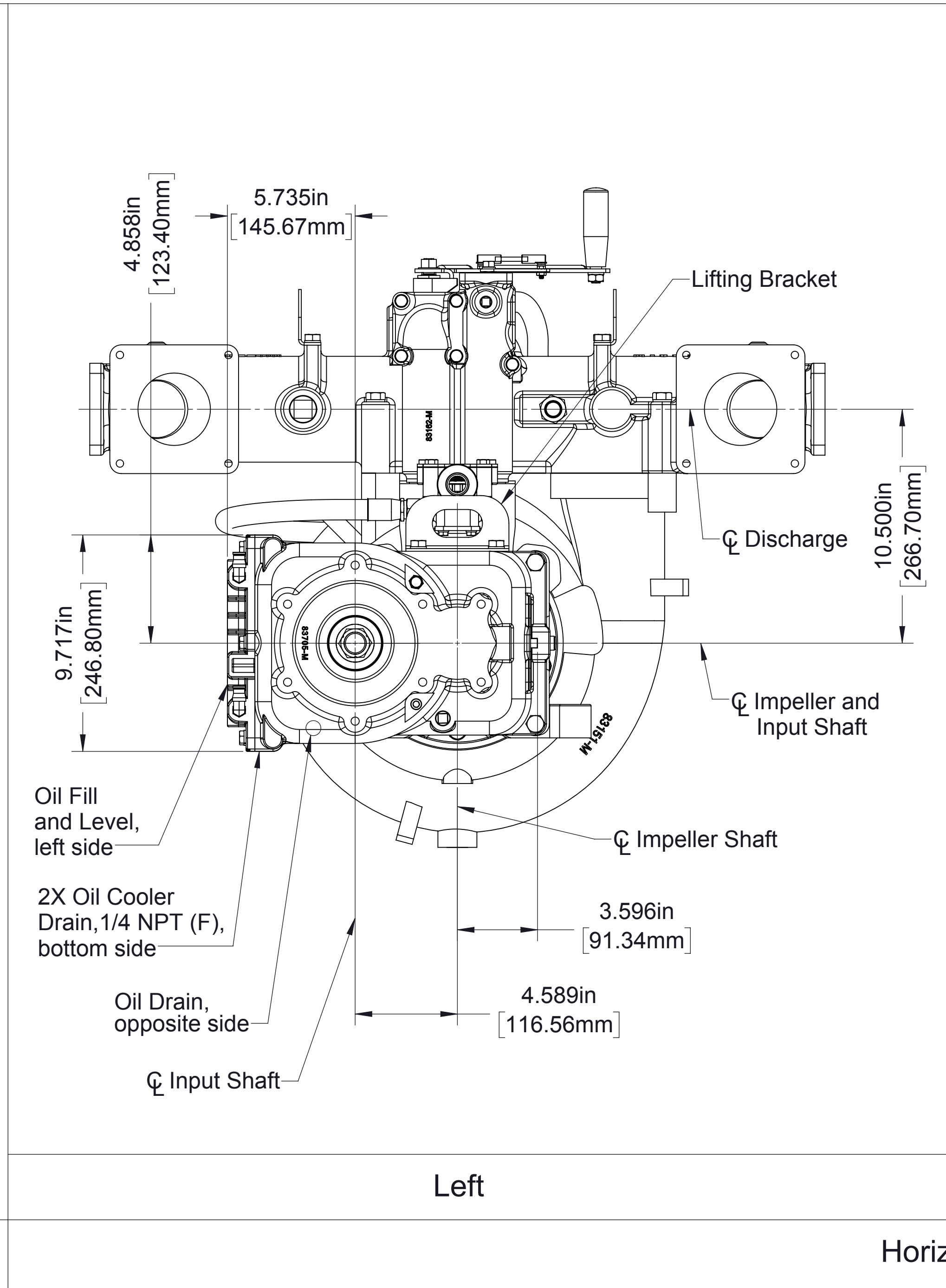
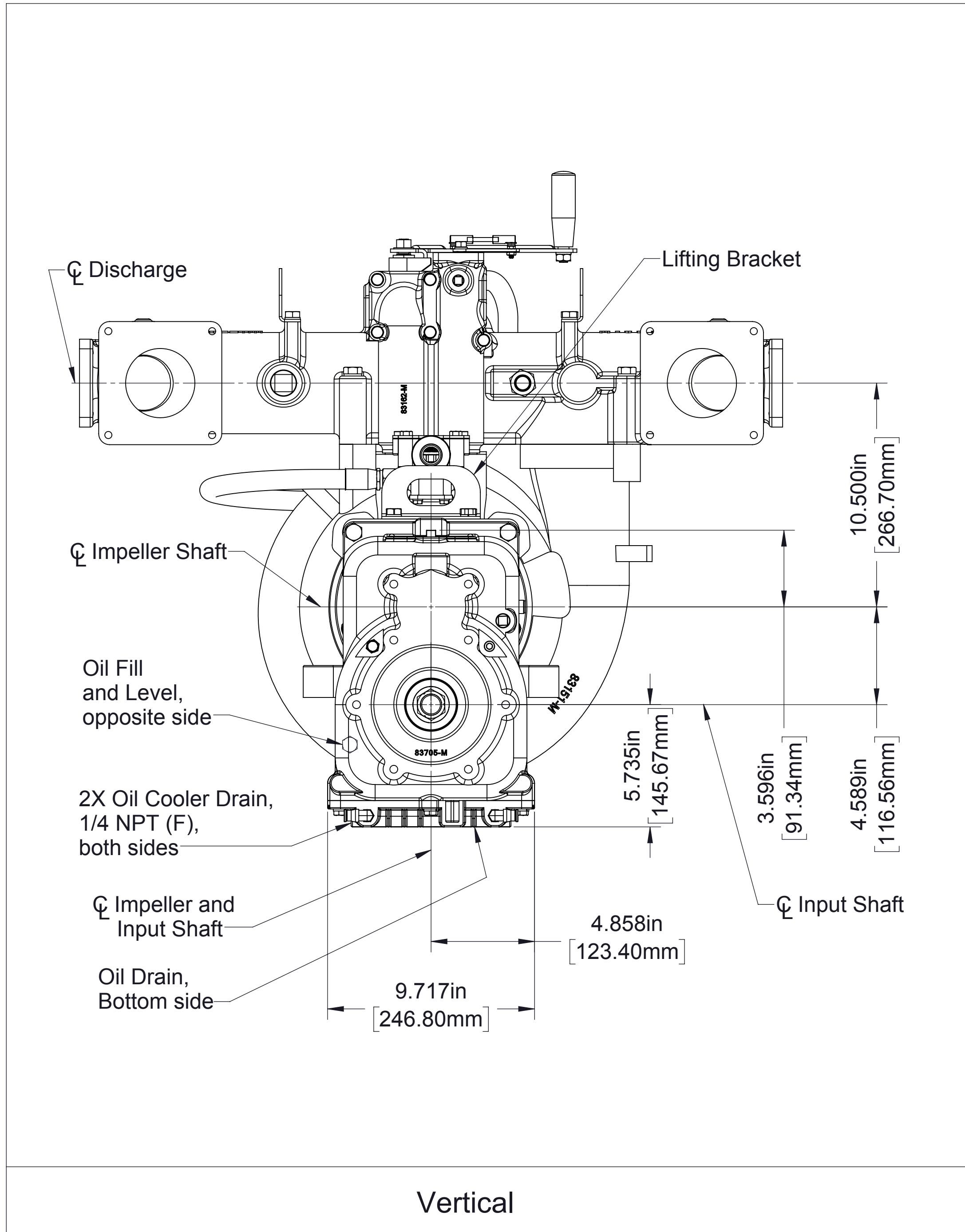




Input Shaft Detail

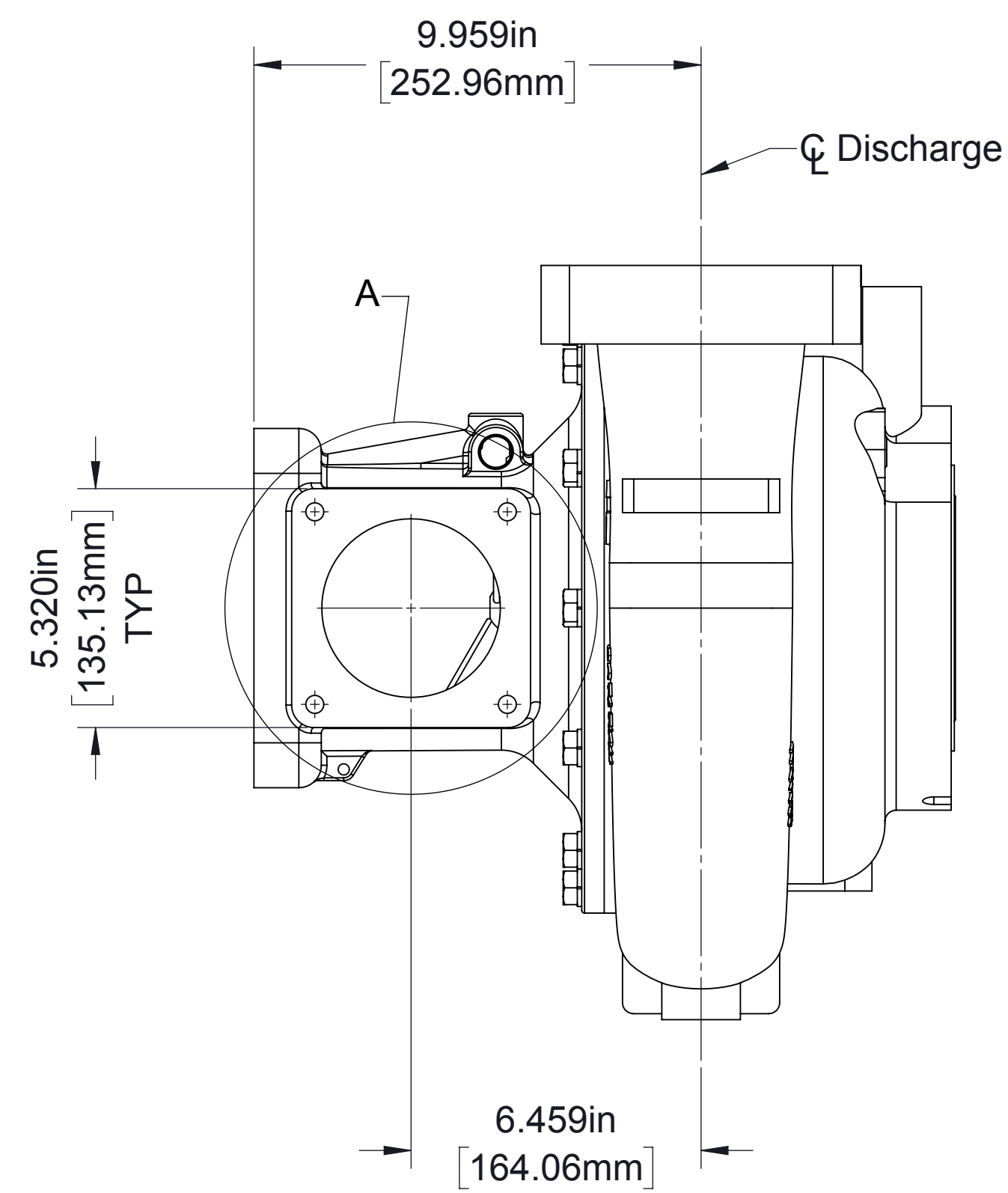
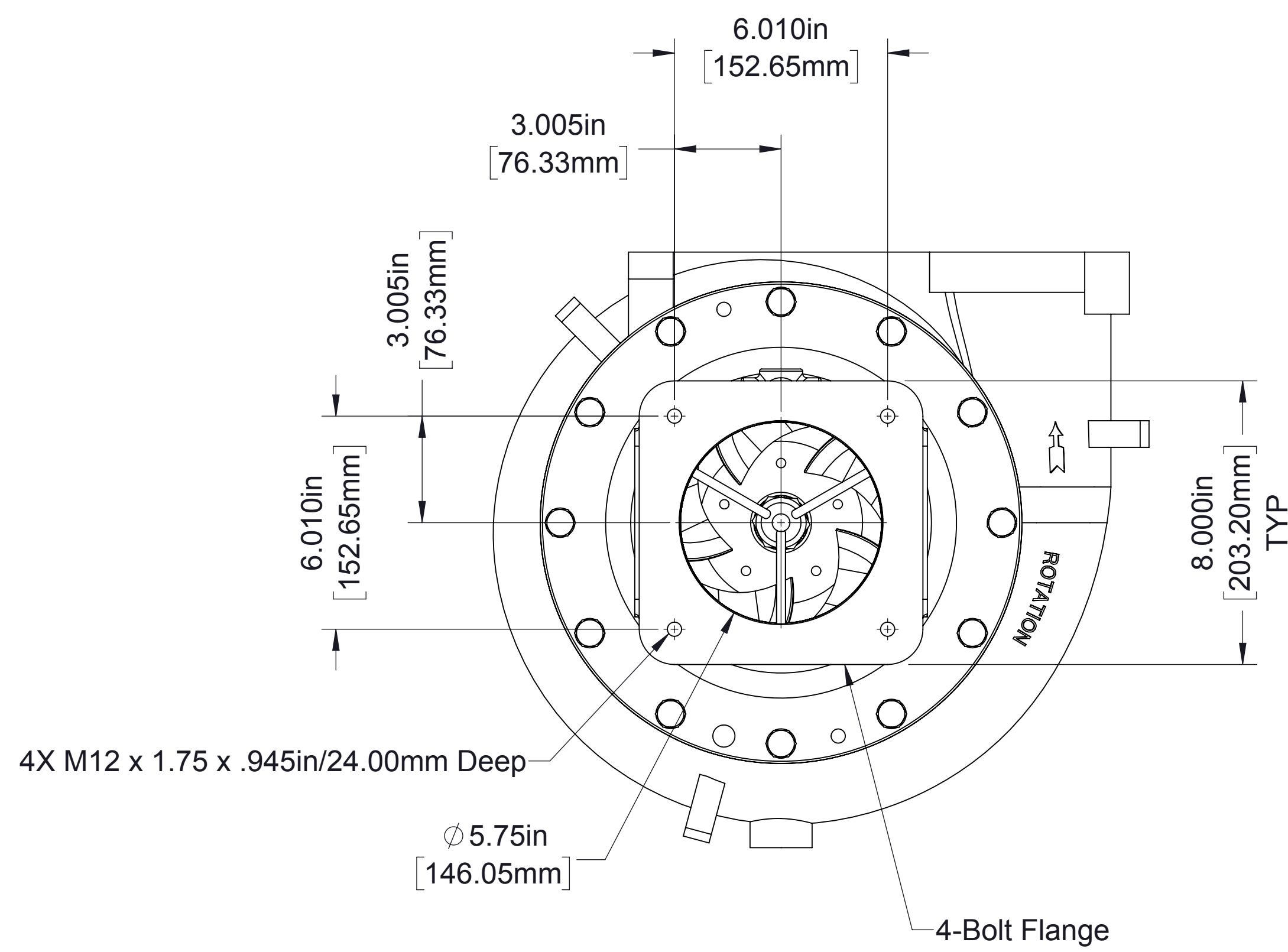
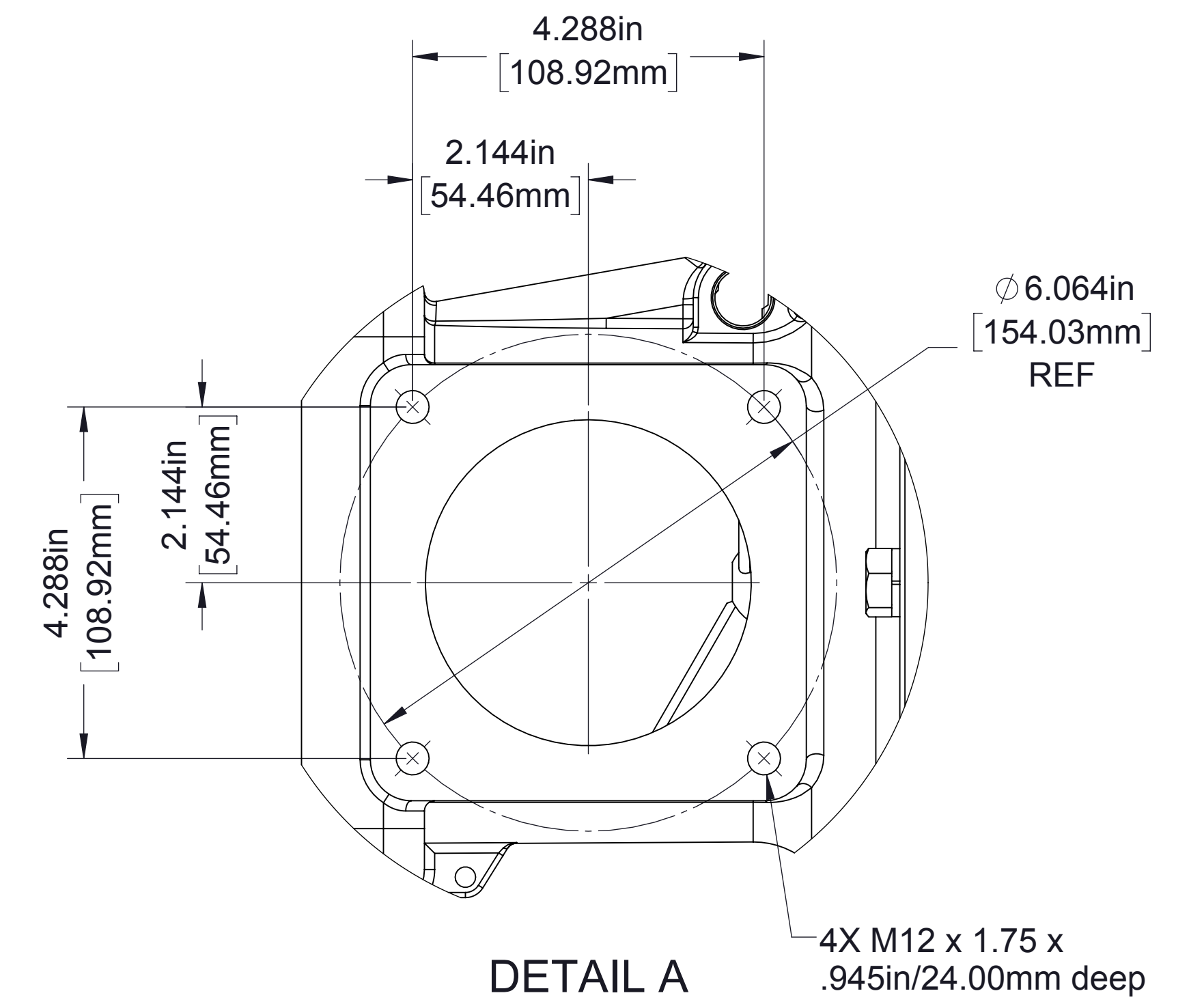
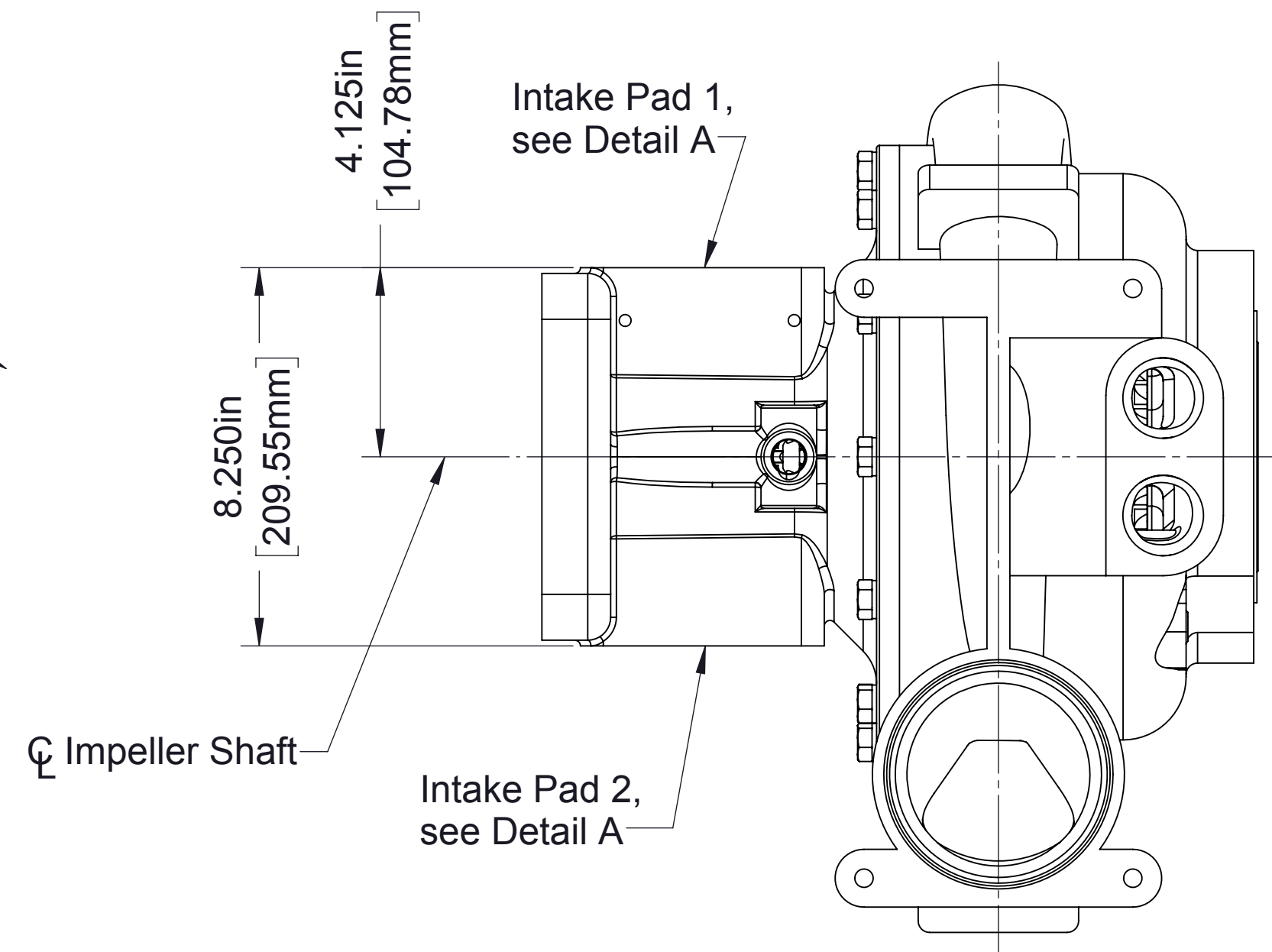
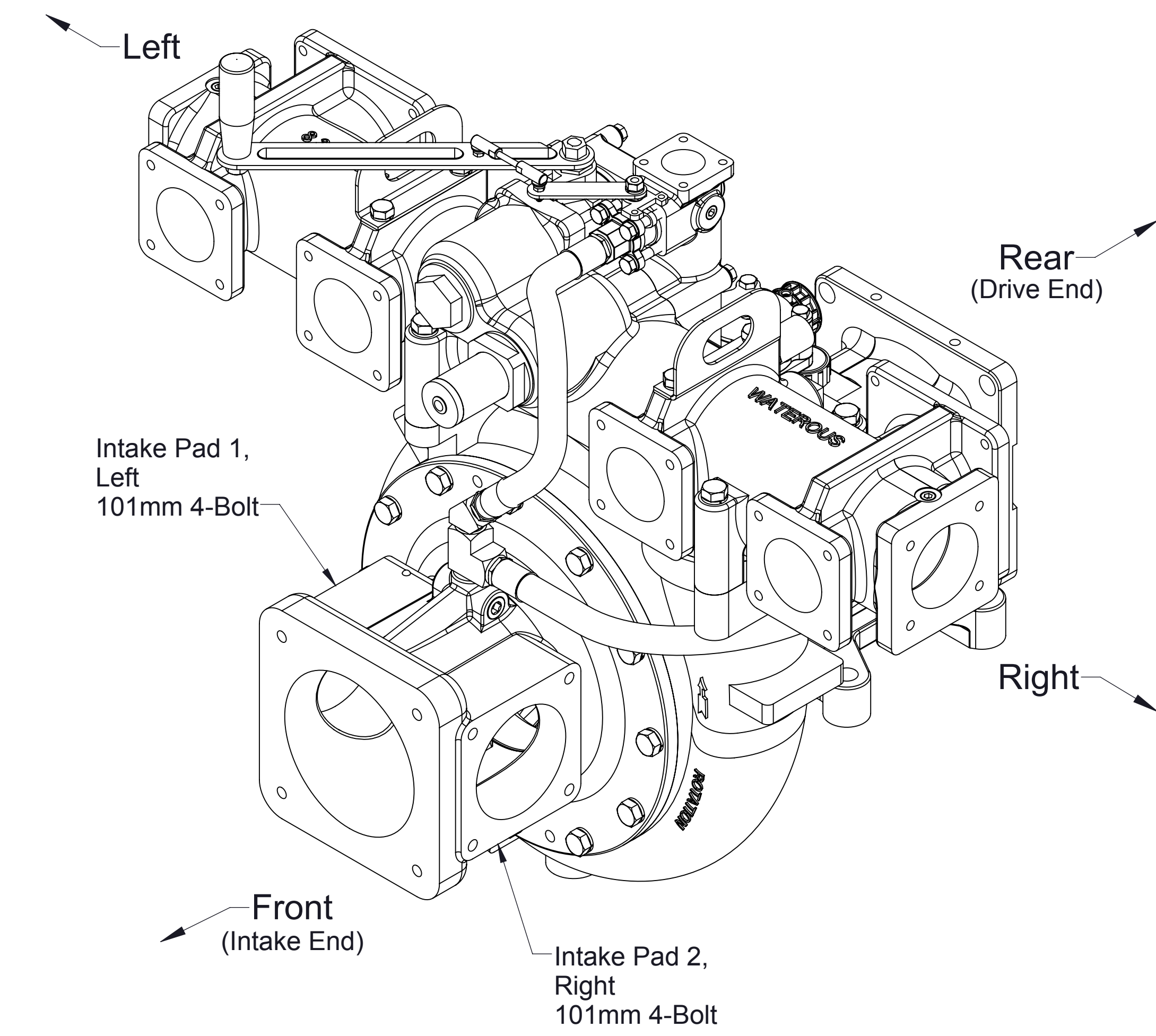


**HLUK Pump  
Counter-Clockwise Input Rotation**



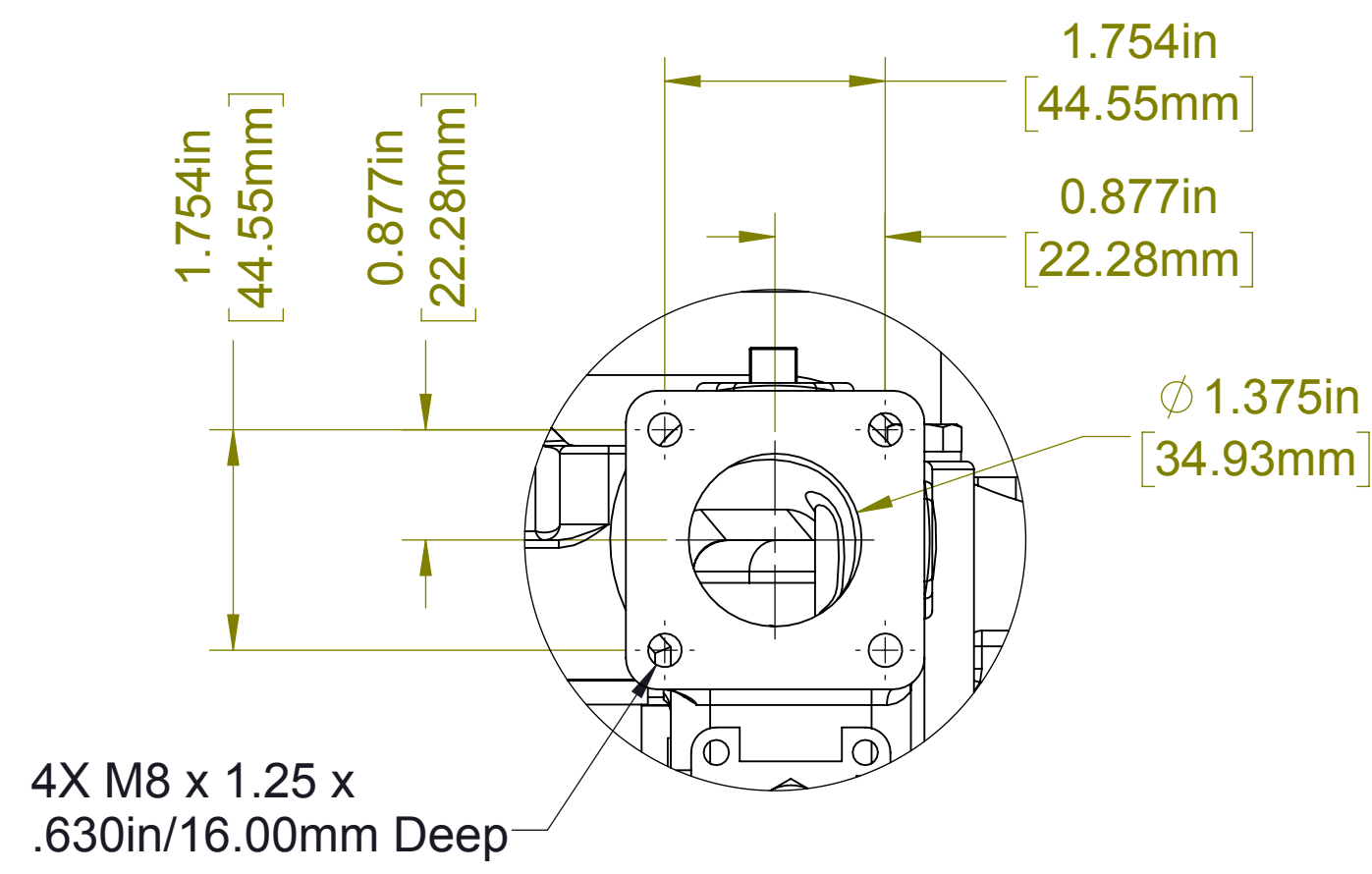
**HLUK Pump  
Transmission Mounting Positions**  
(Defined as viewed from drive end of pump)





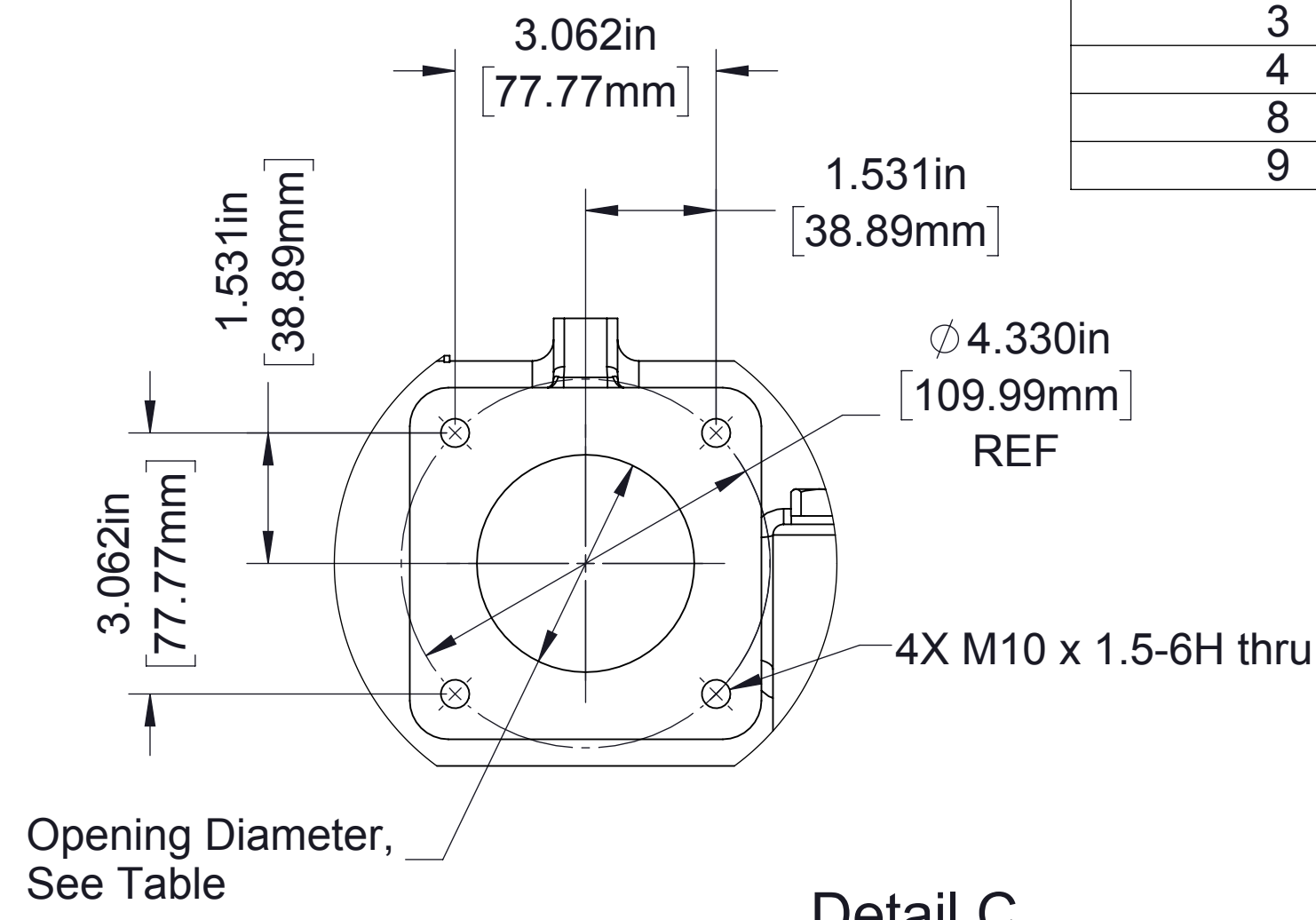
**Intake Connection**



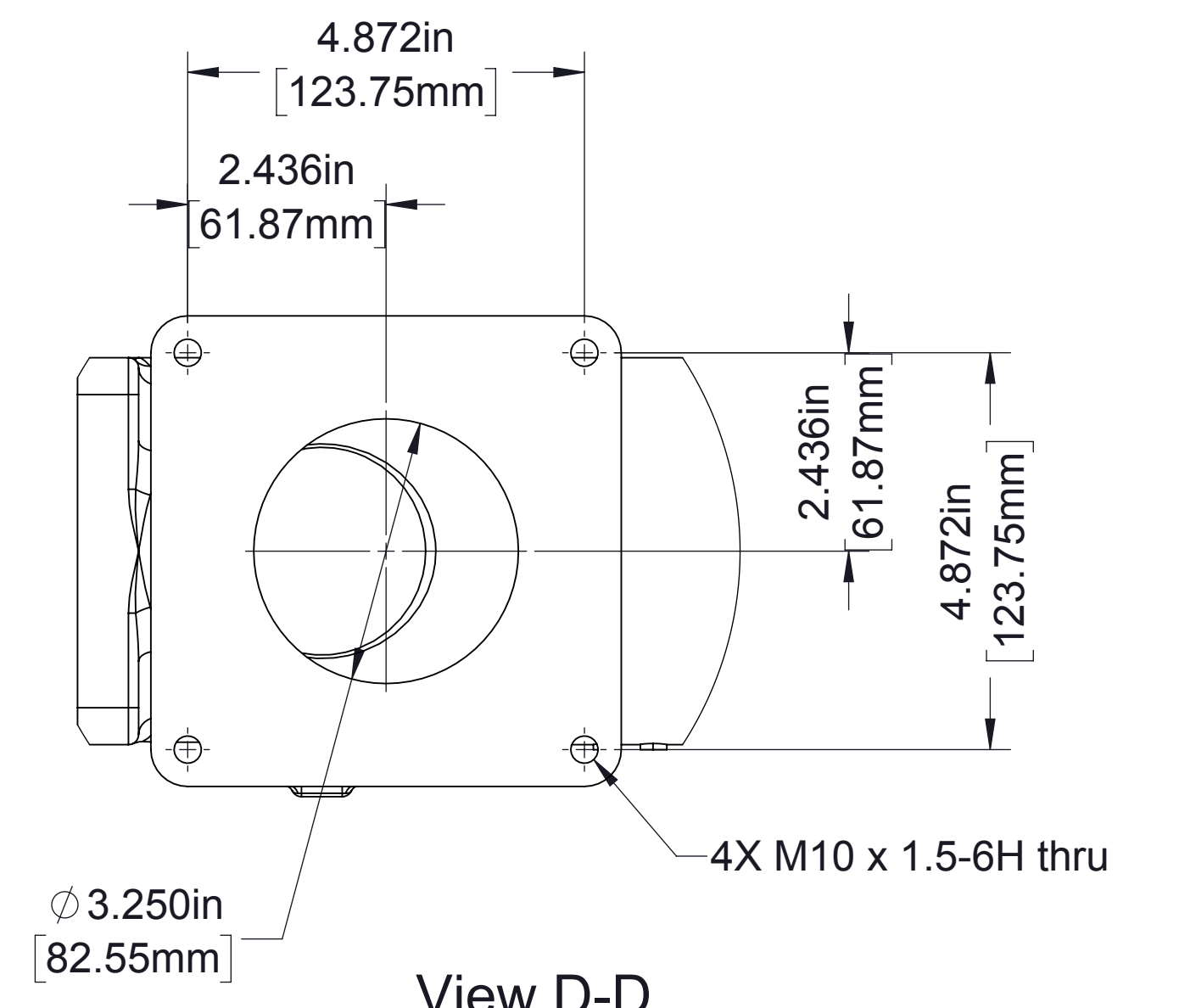


**Detail B**  
35 mm 4-Bolt  
See page 9 for auxiliary fittings  
which may be mounted on this pad

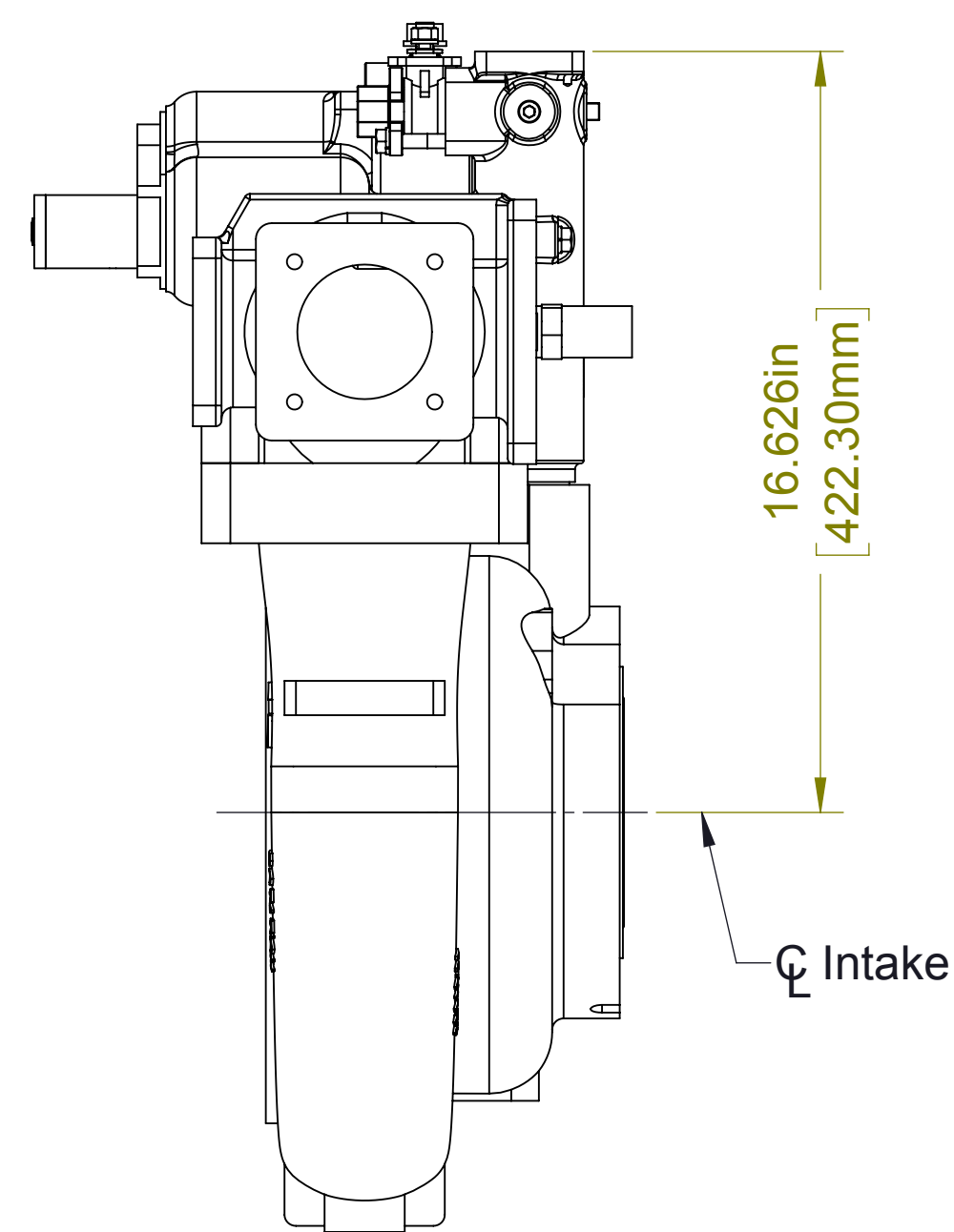
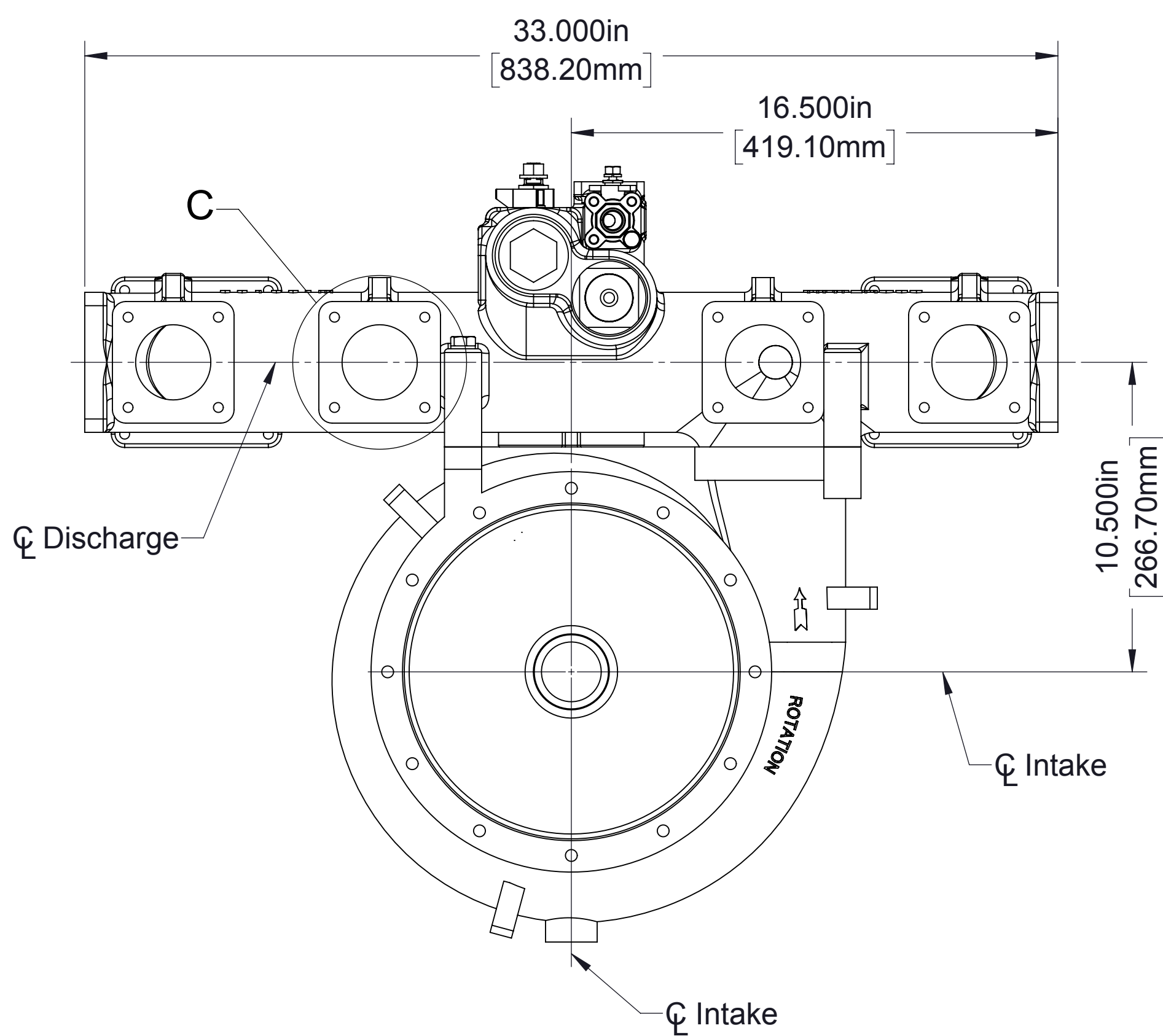
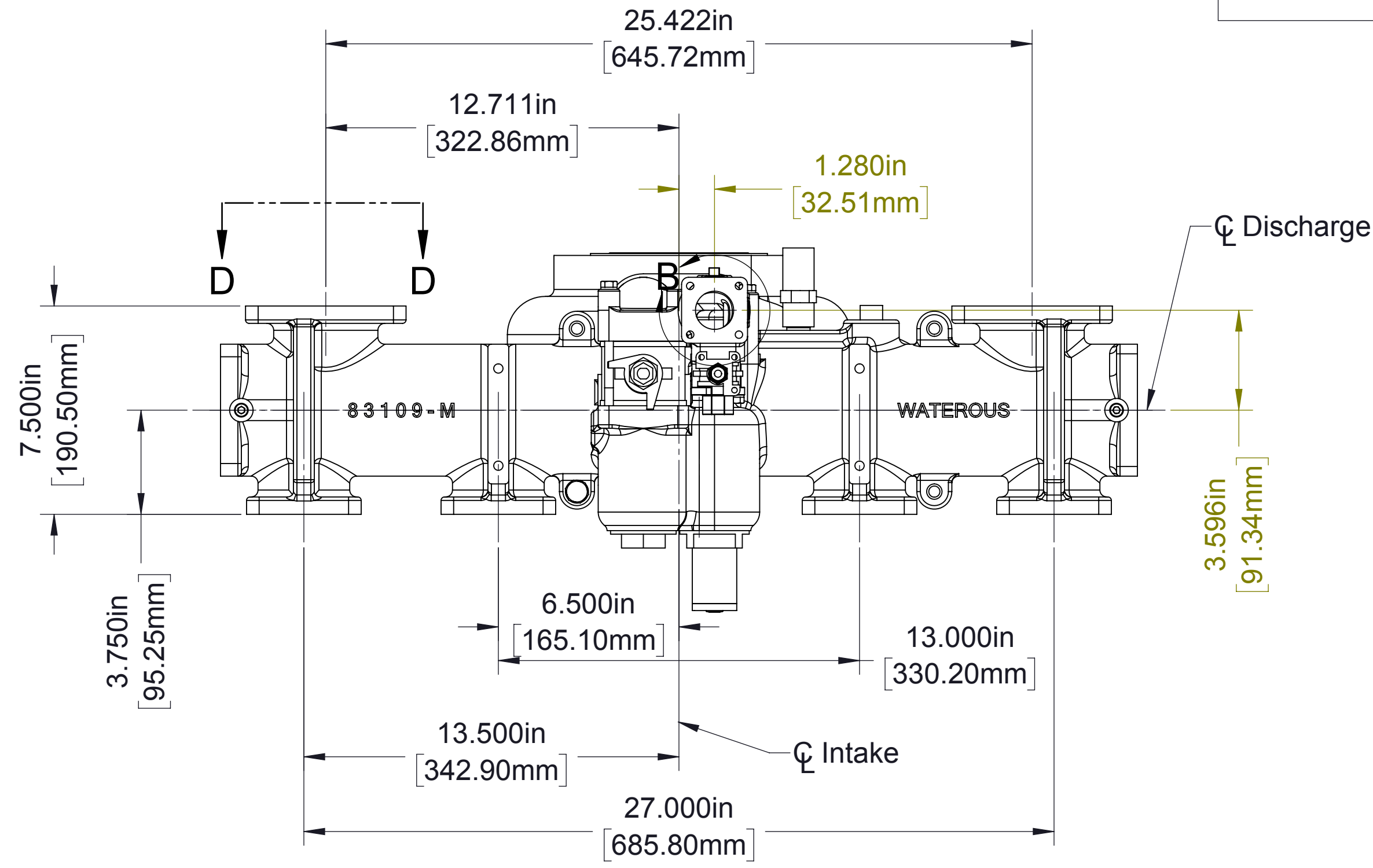
Pad	Opening Diameter
1	2.940in/74.68mm
2	
3	
4	2.550in/64.77mm
8	
9	



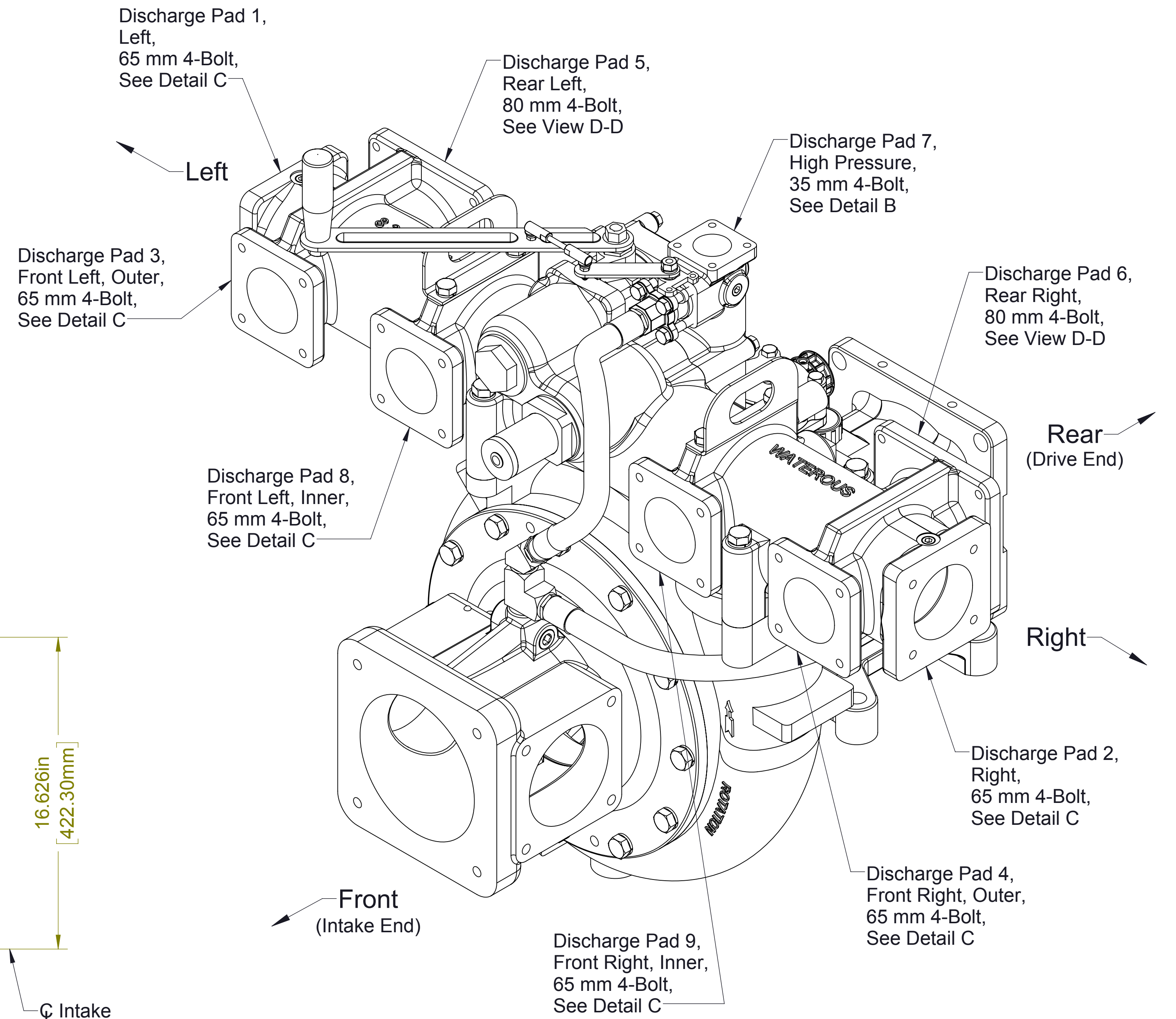
**Detail C**  
65 mm 4-Bolt  
See page 9 for auxiliary fittings  
which may be mounted on this pad



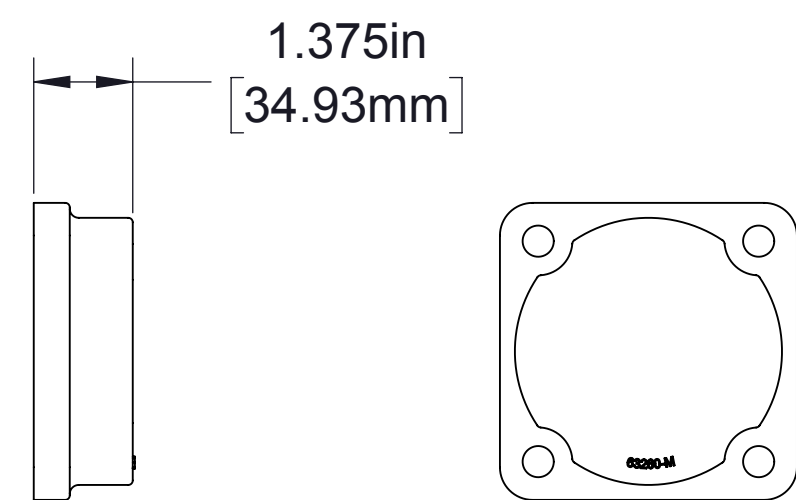
**View D-D**  
80 mm 4-Bolt  
See page 9 for auxiliary fittings  
which may be mounted on this pad



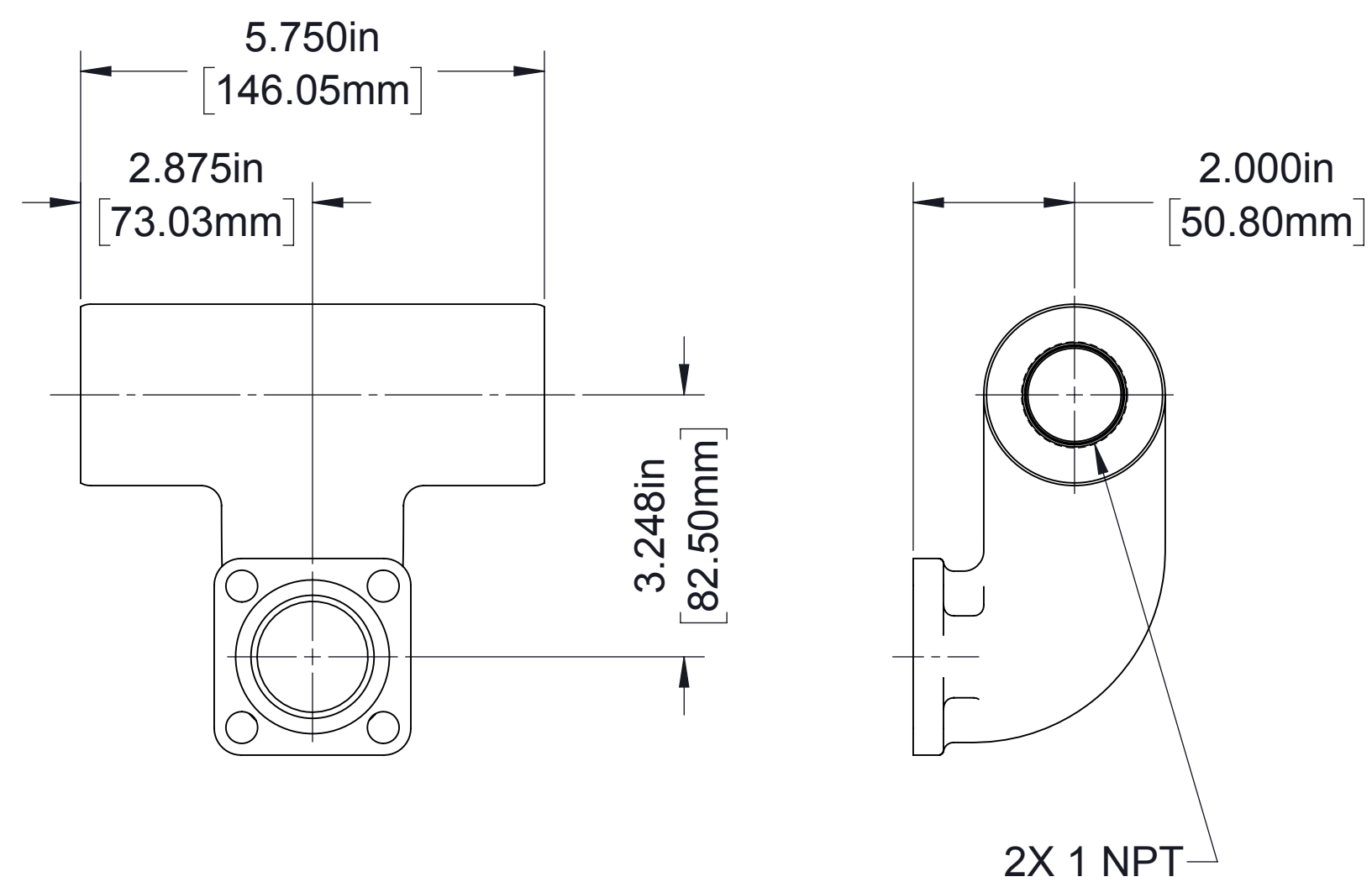
**Discharge Manifold**



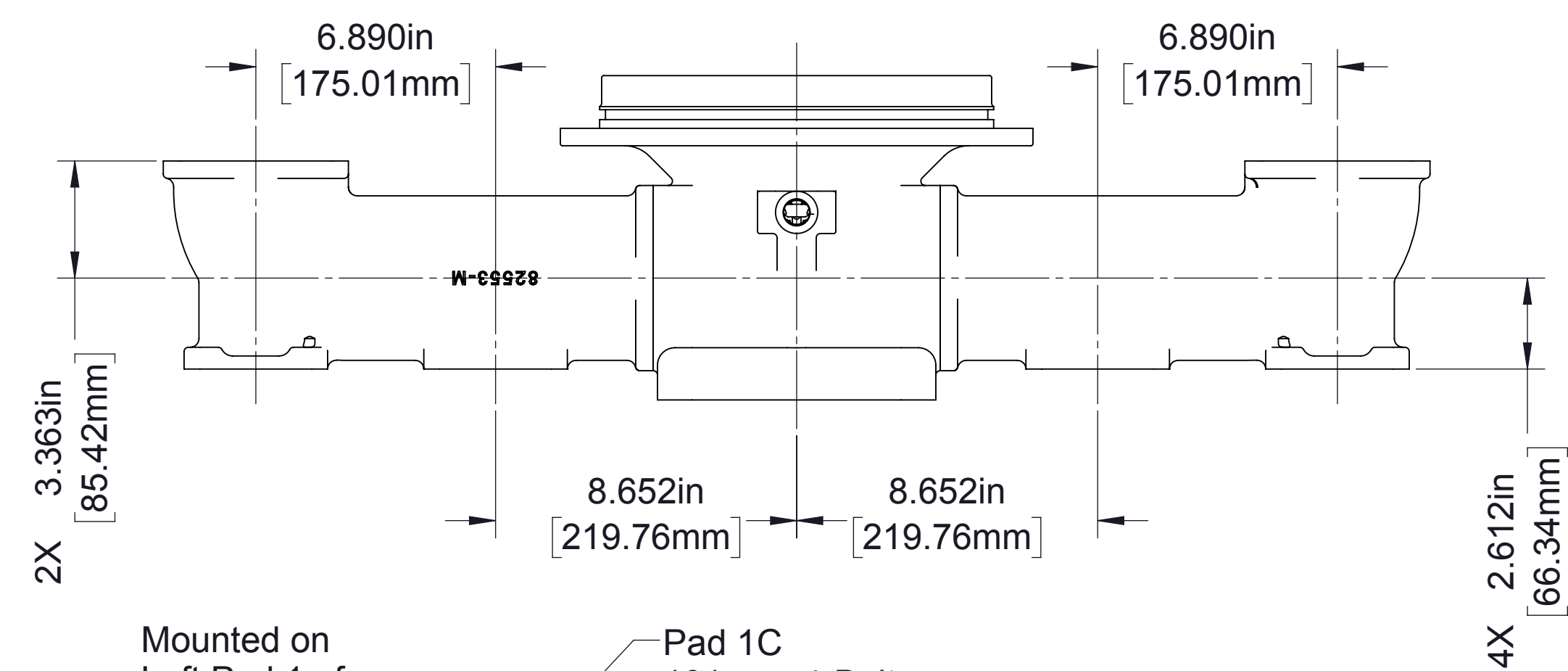




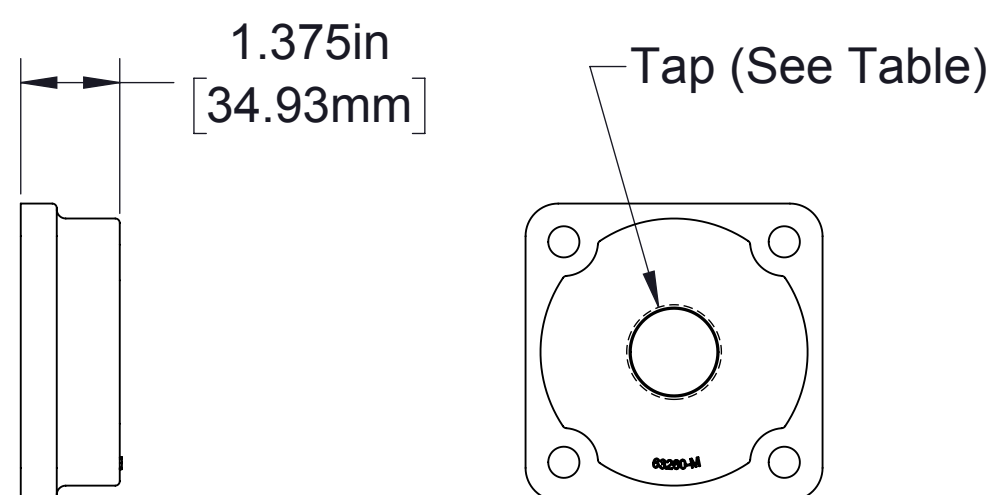
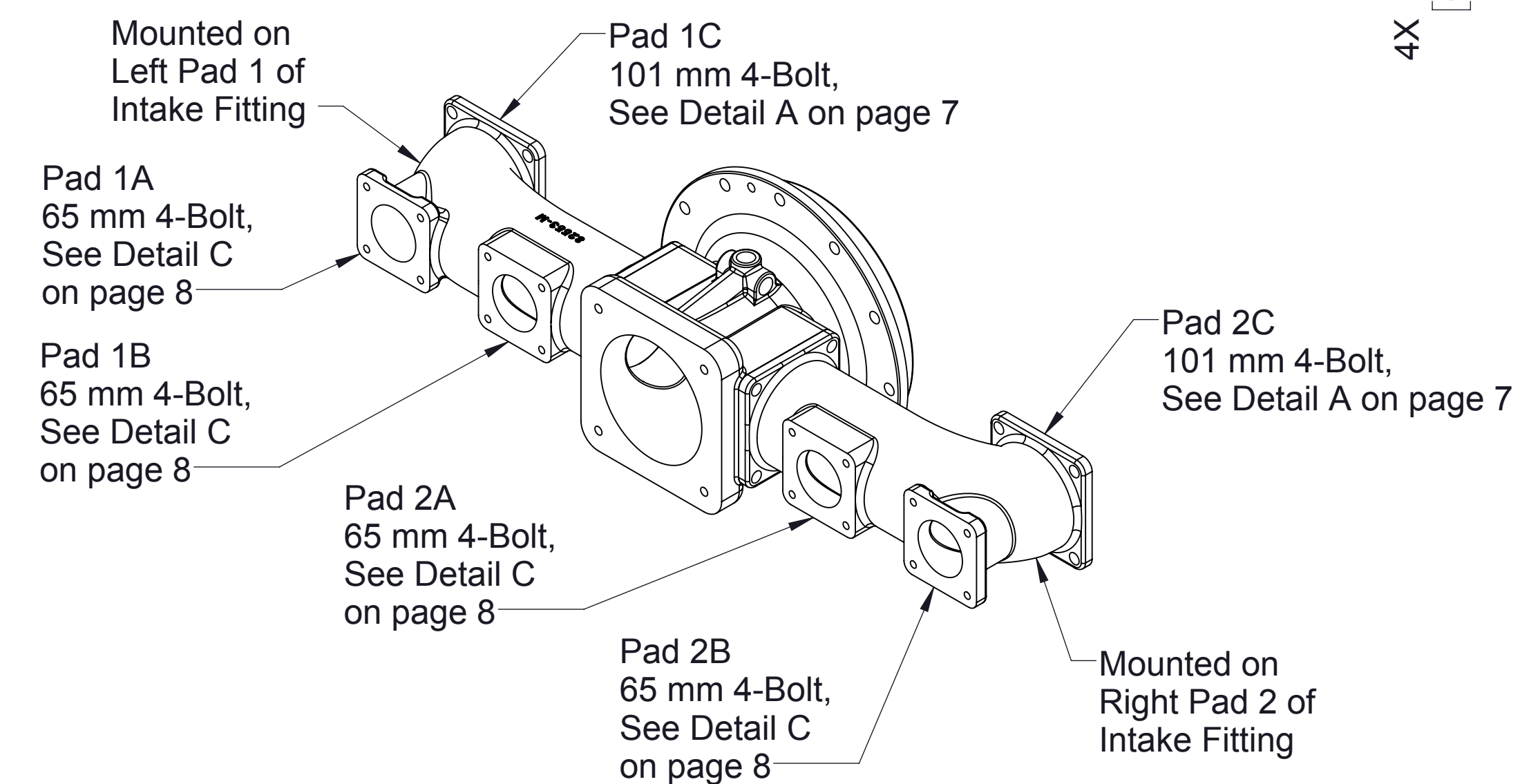
Blind Flange



Manifold



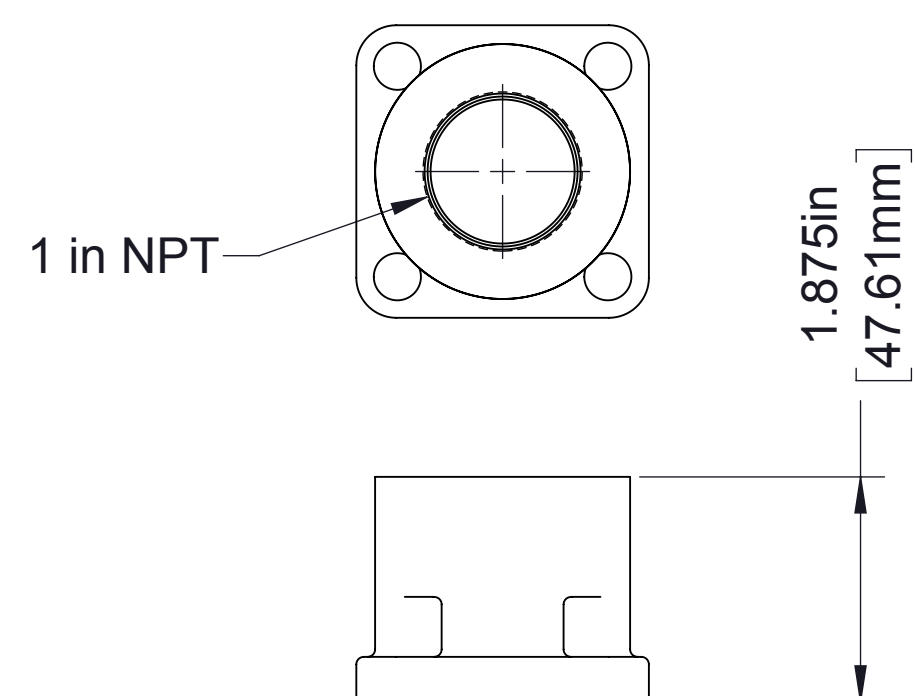
Optional Intake Manifold



Tap Options
1 in NPT
1-1/2 in NPT
2 in NPT
2-1/2 in NPT

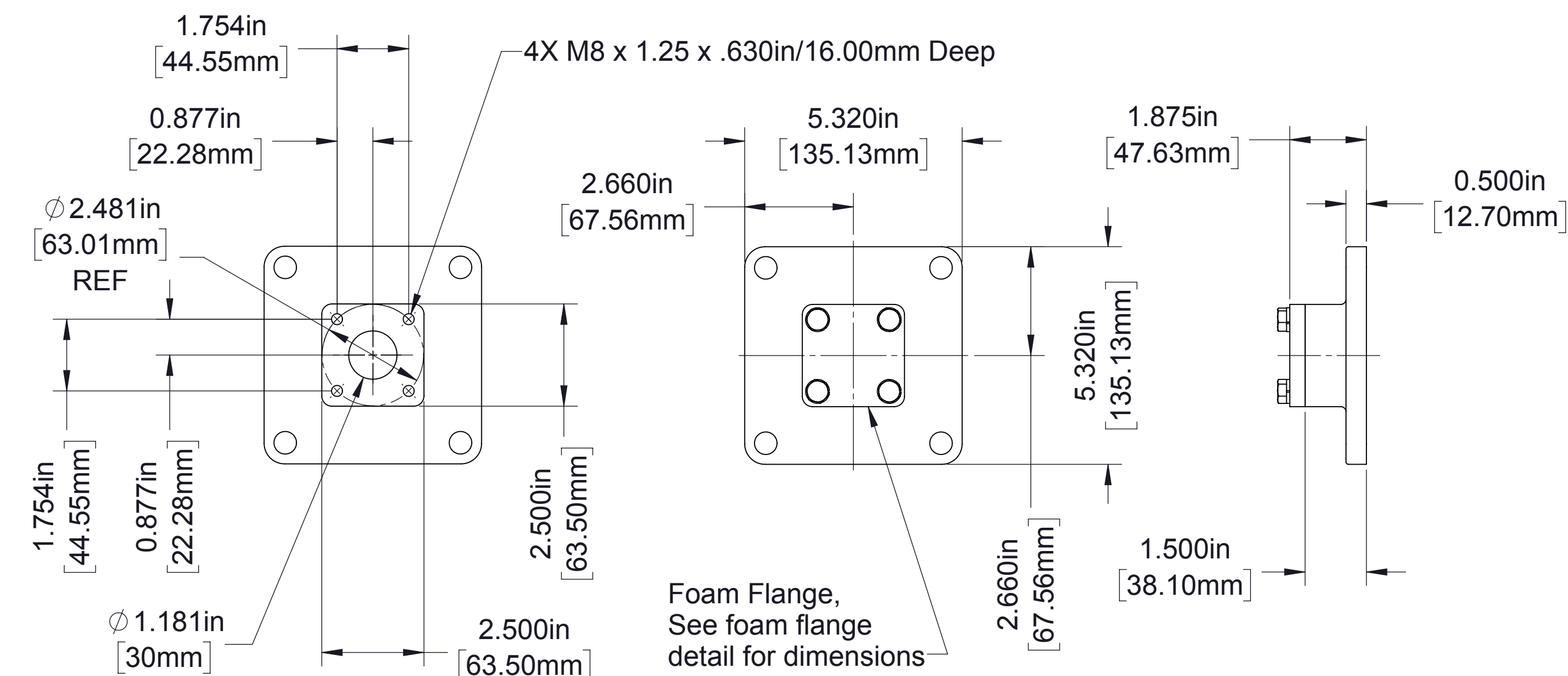
Tapped Flanges

65 mm 4-Bolt Fittings



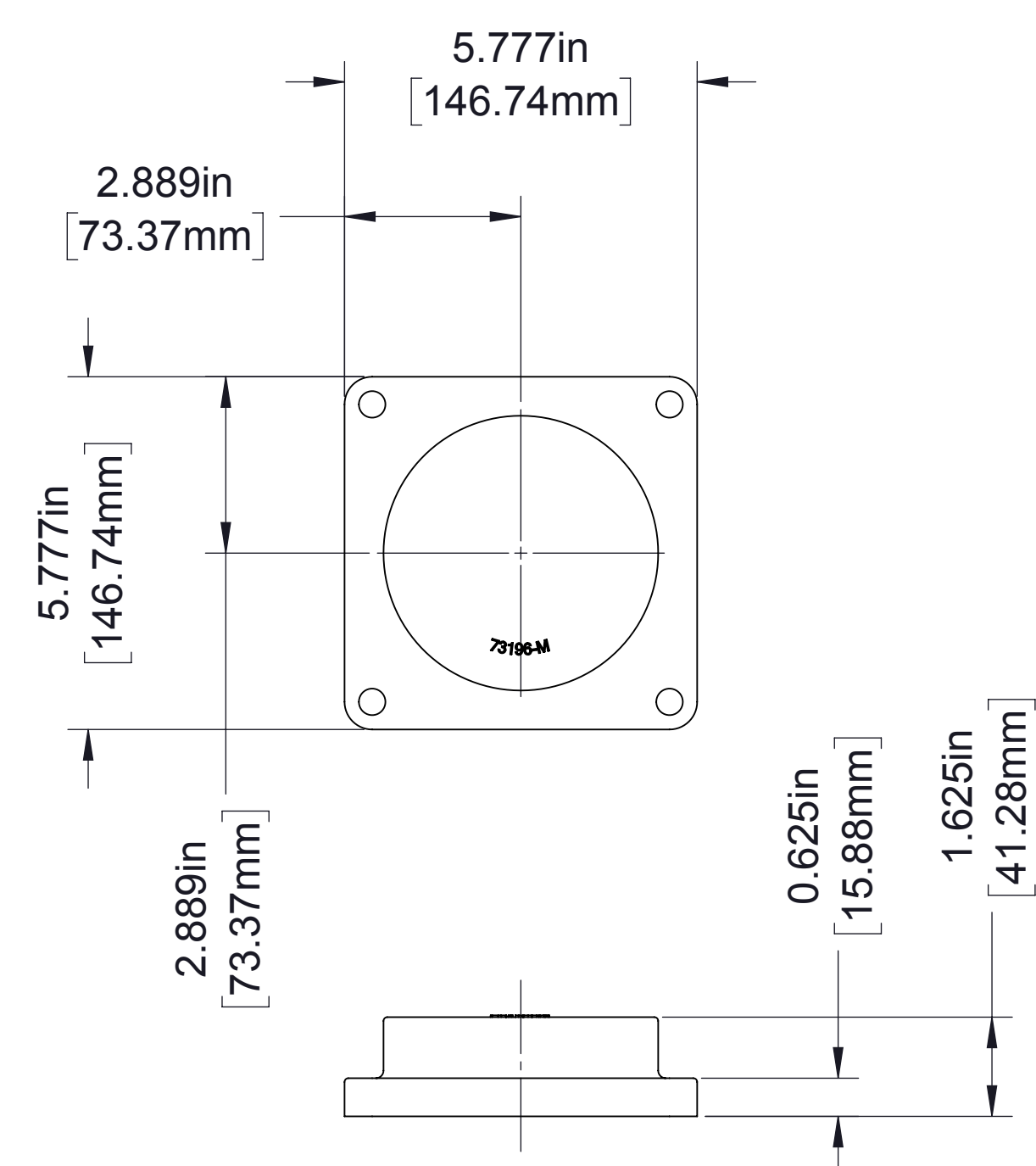
Tapped Flange

35 mm 4-Bolt Fittings



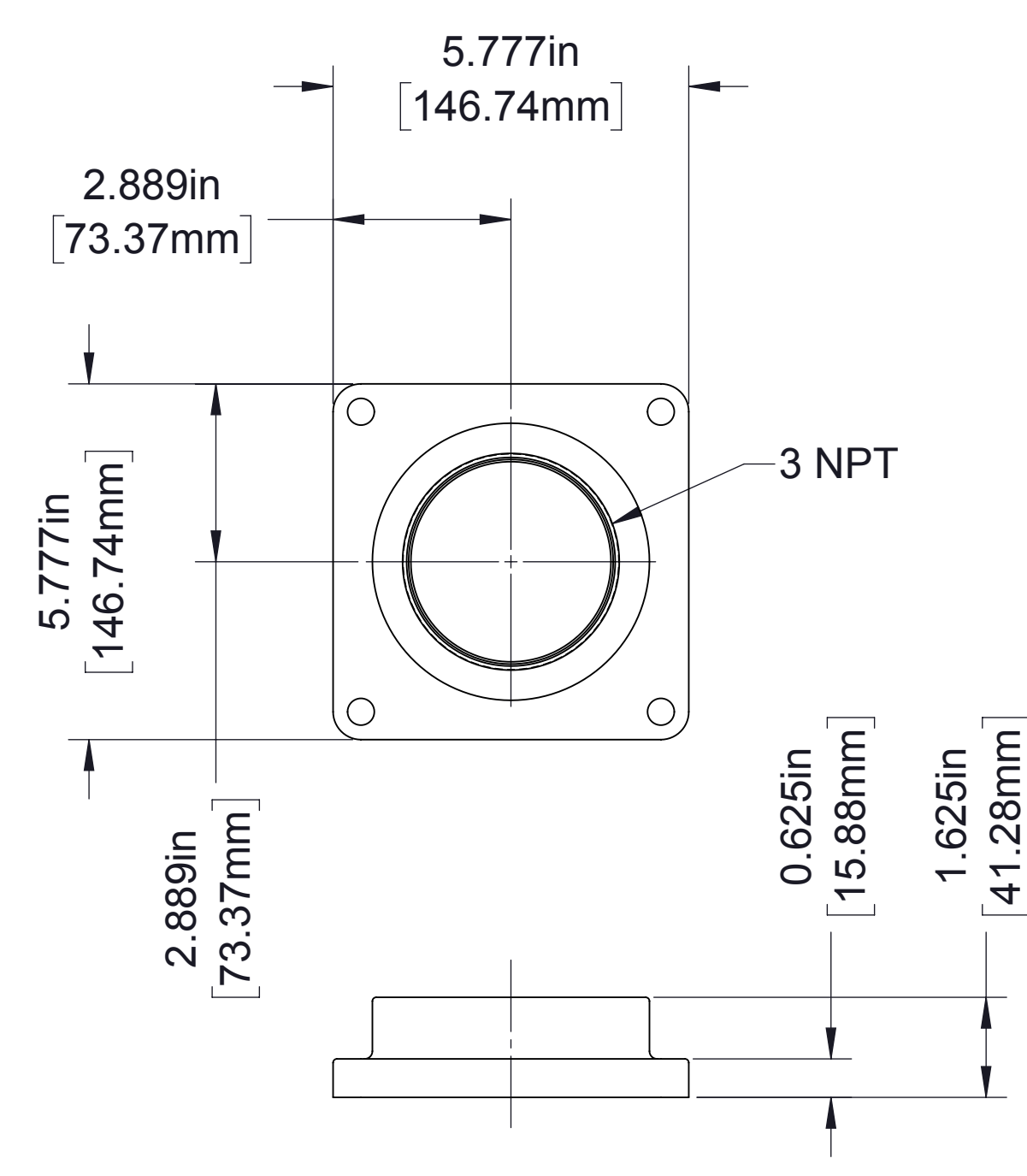
Foam Flange

Foam Flange with Blind Foam Pad



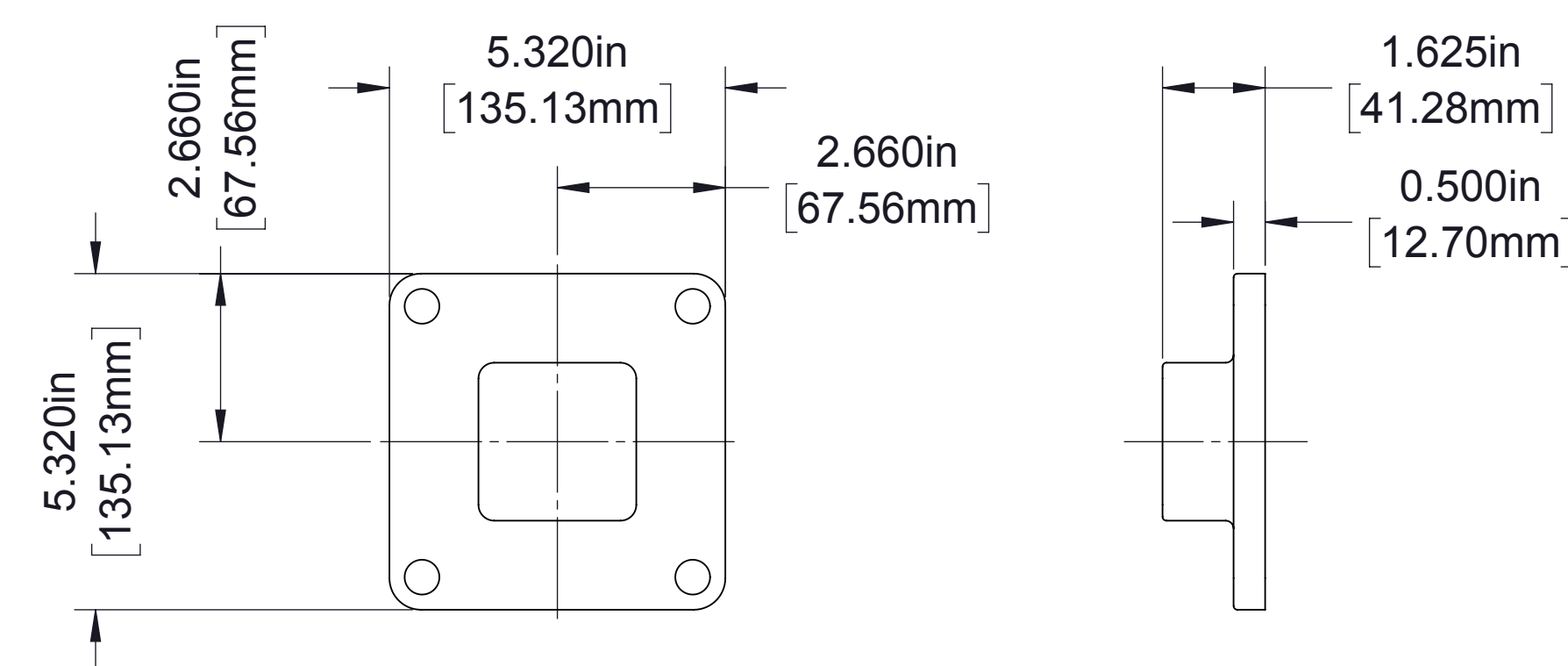
Blind Flange

80 mm 4-Bolt Fittings



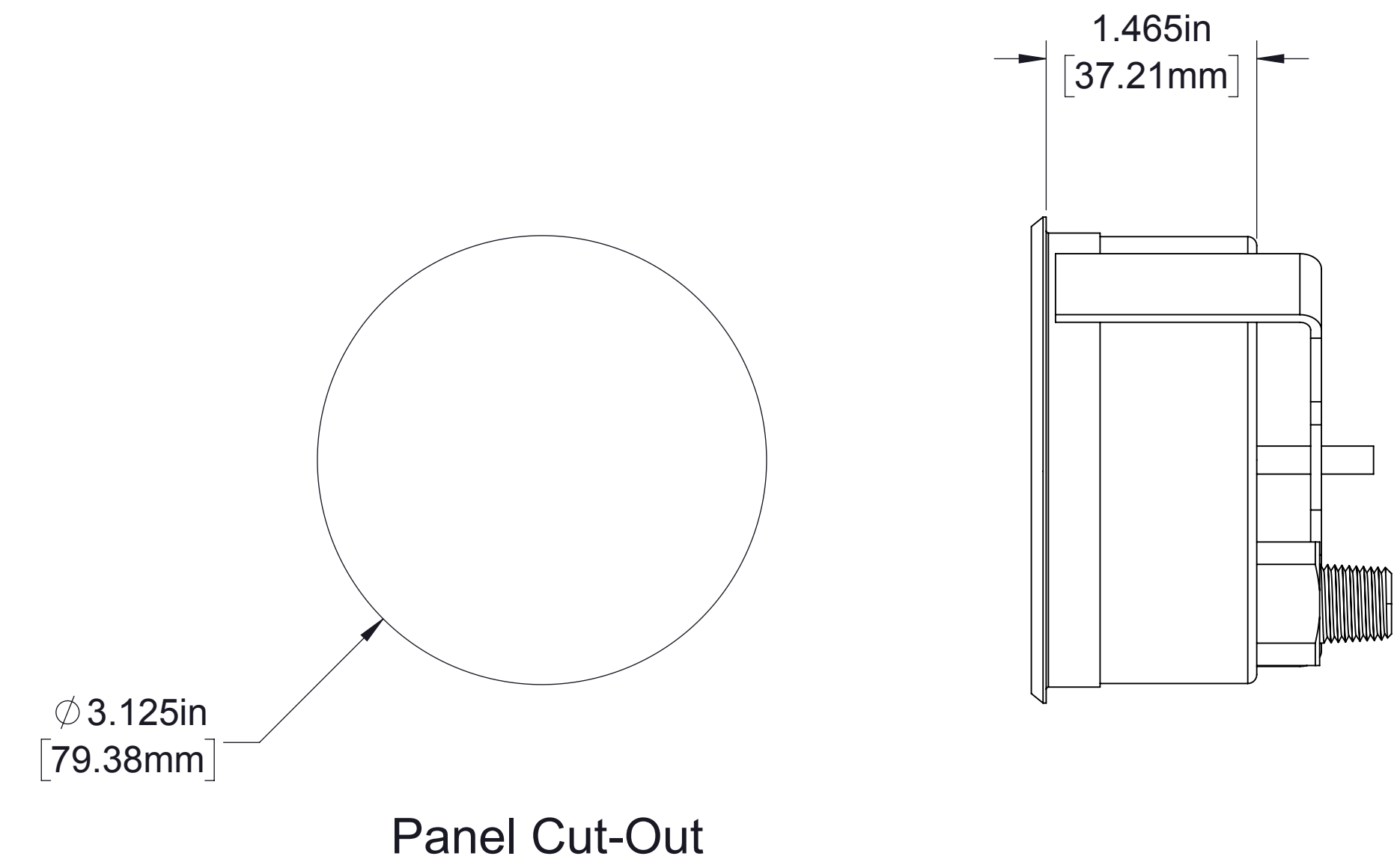
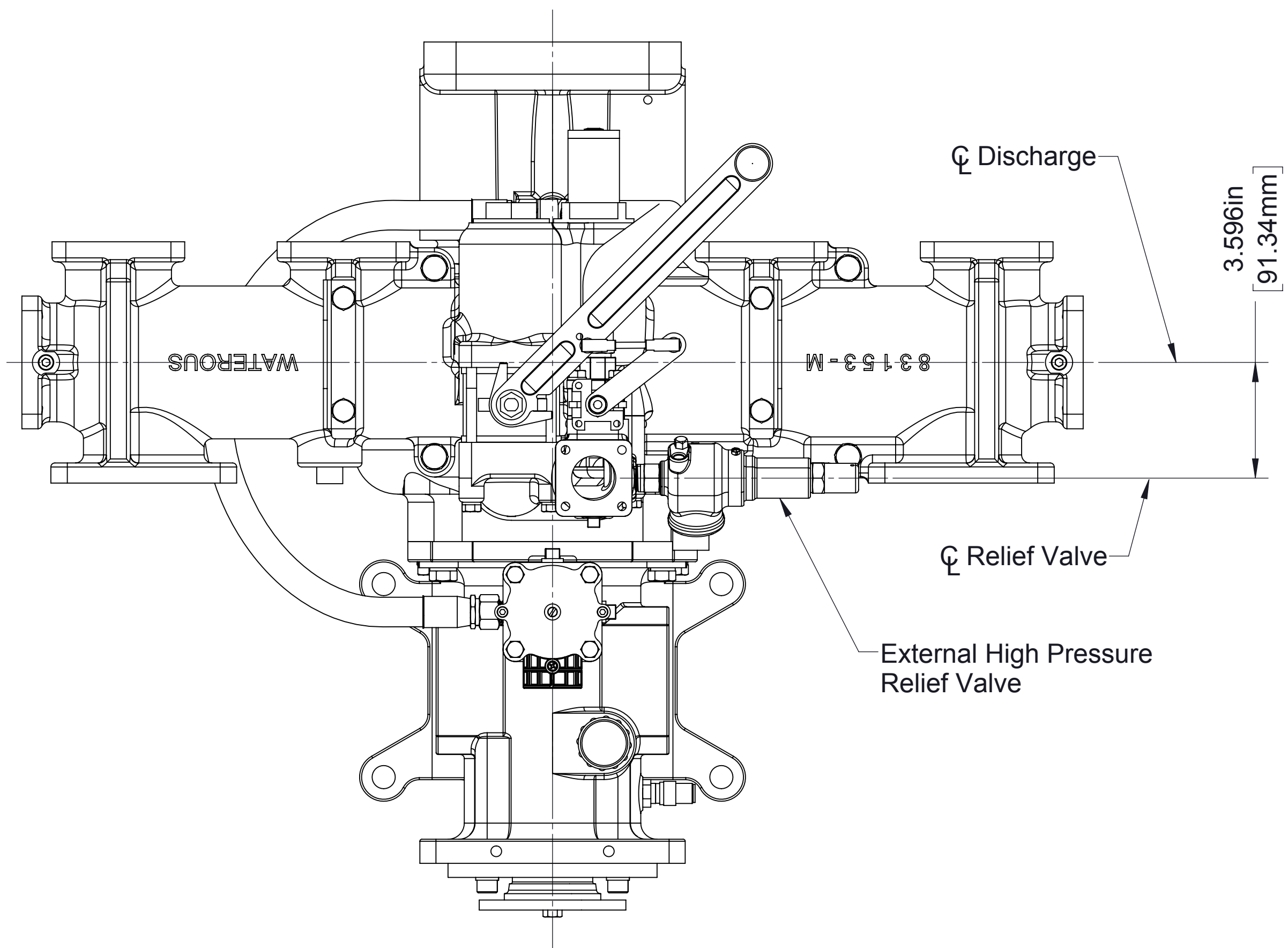
Tapped Flange

Auxiliary Fittings



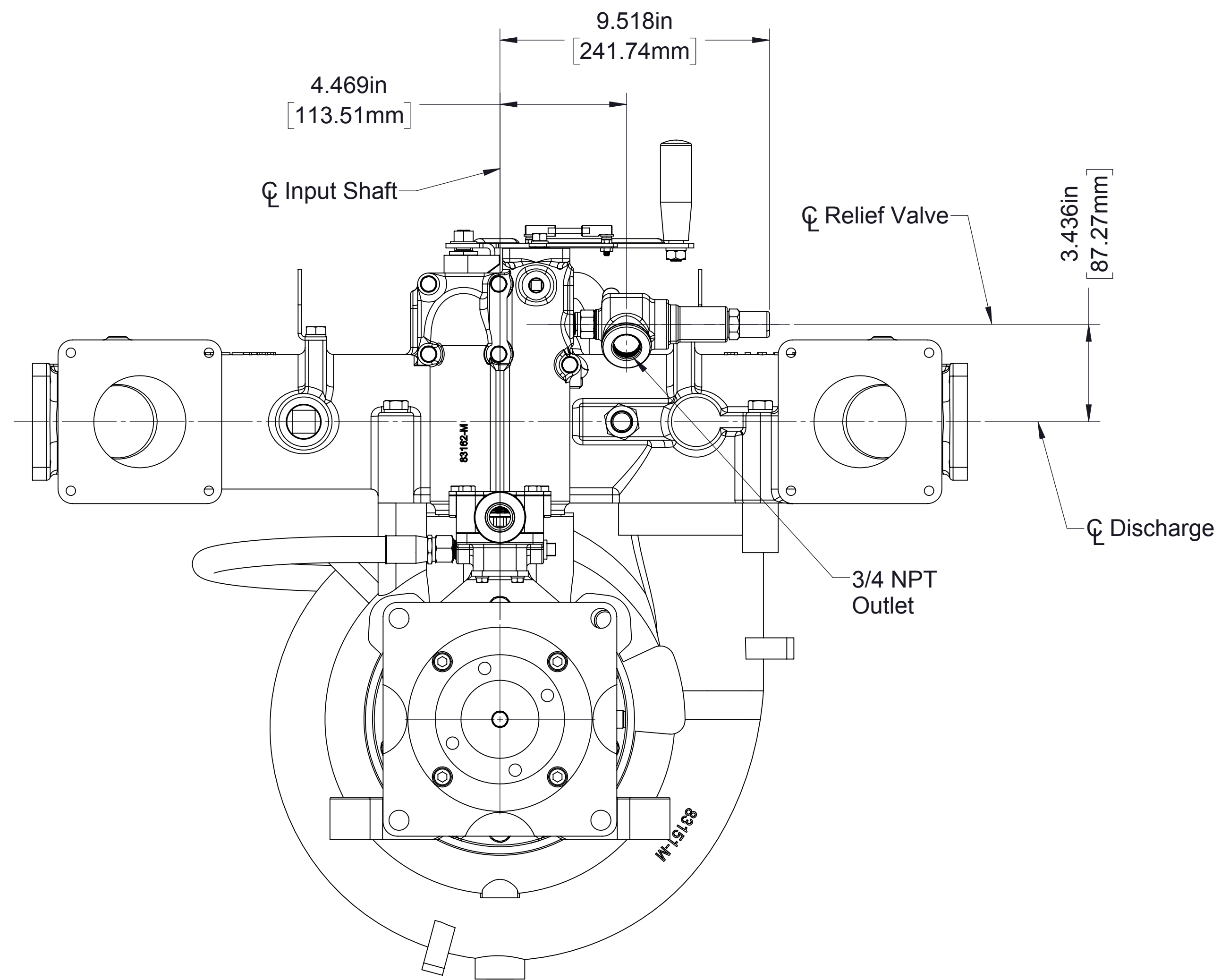
Blind Flange

101 mm 4-Bolt Fittings



Type	Range	Part Number
Compound	-30 to 400 psi	V4228
Pressure	0 to 400 psi	V4229
	0 to 1500 psi	V4230

**Optional Gauges**



**External High Pressure Relief Valve**

HLUD Pump with Counter-Clockwise  
Input Rotation Shown