

S100 Series Fire Pump Dimensional Drawings With Victualic® Intake Fitting

Basic Pump Dimensions (Without Transmission)		
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	4 in. ANSI Flanged Adapter Dimensions	5
	Manifold Dimensions	6

S101 Series Fire Pump Dimensional Drawings With Crosspipe Intake Fitting

Basic Pump Dimensions (Without Transmission)			
Feature		See Page	
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	Intake Crosspipe	Available Intake Fittings	43
		Available Tank to Pump Fittings	44
Optional Discharge Arrangements	Blank (5 in. ANSI Flange)	45	
	Manifold with 4 in. End Flanges	6	

Pump and Transmission - See Page 2

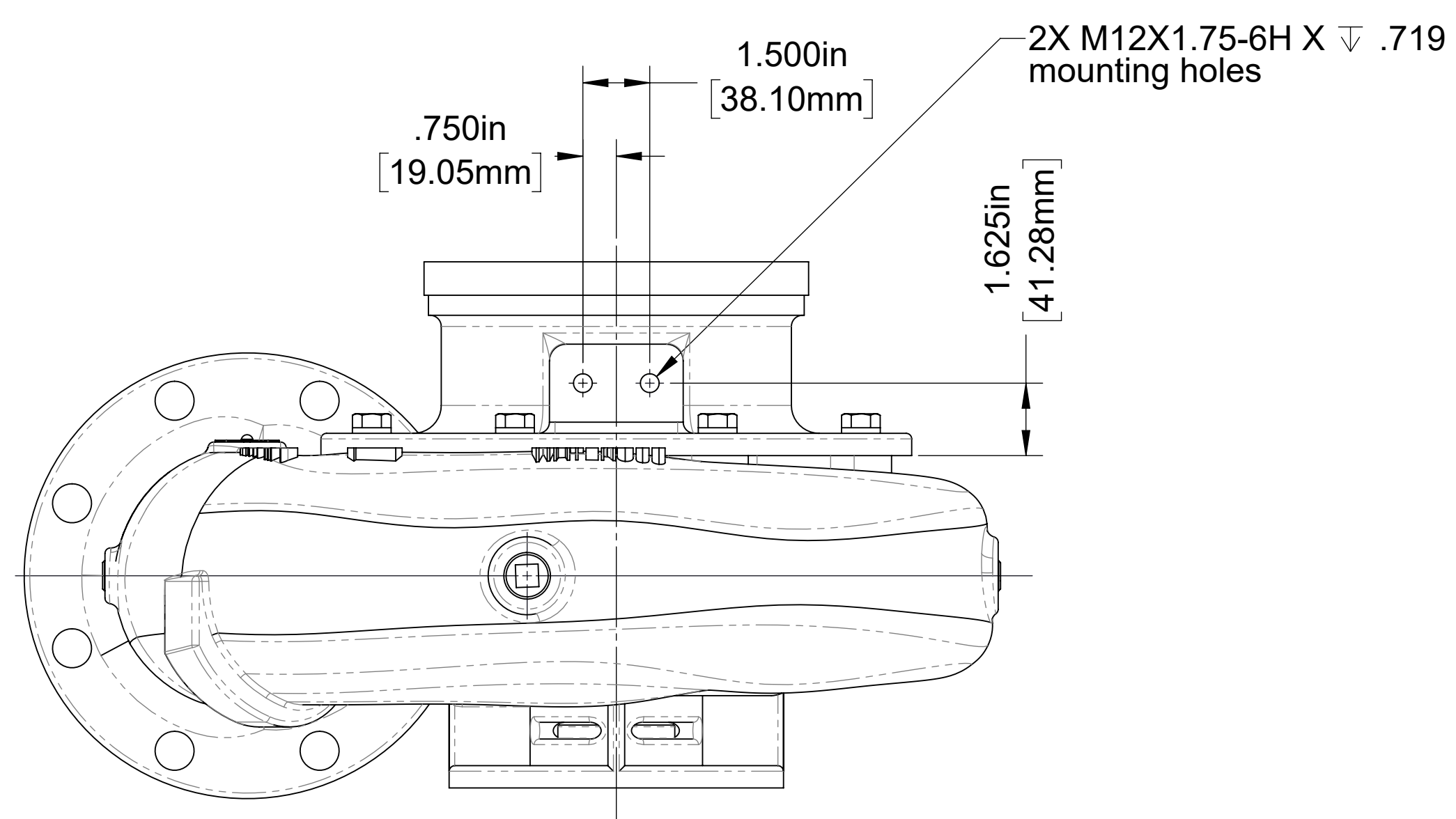
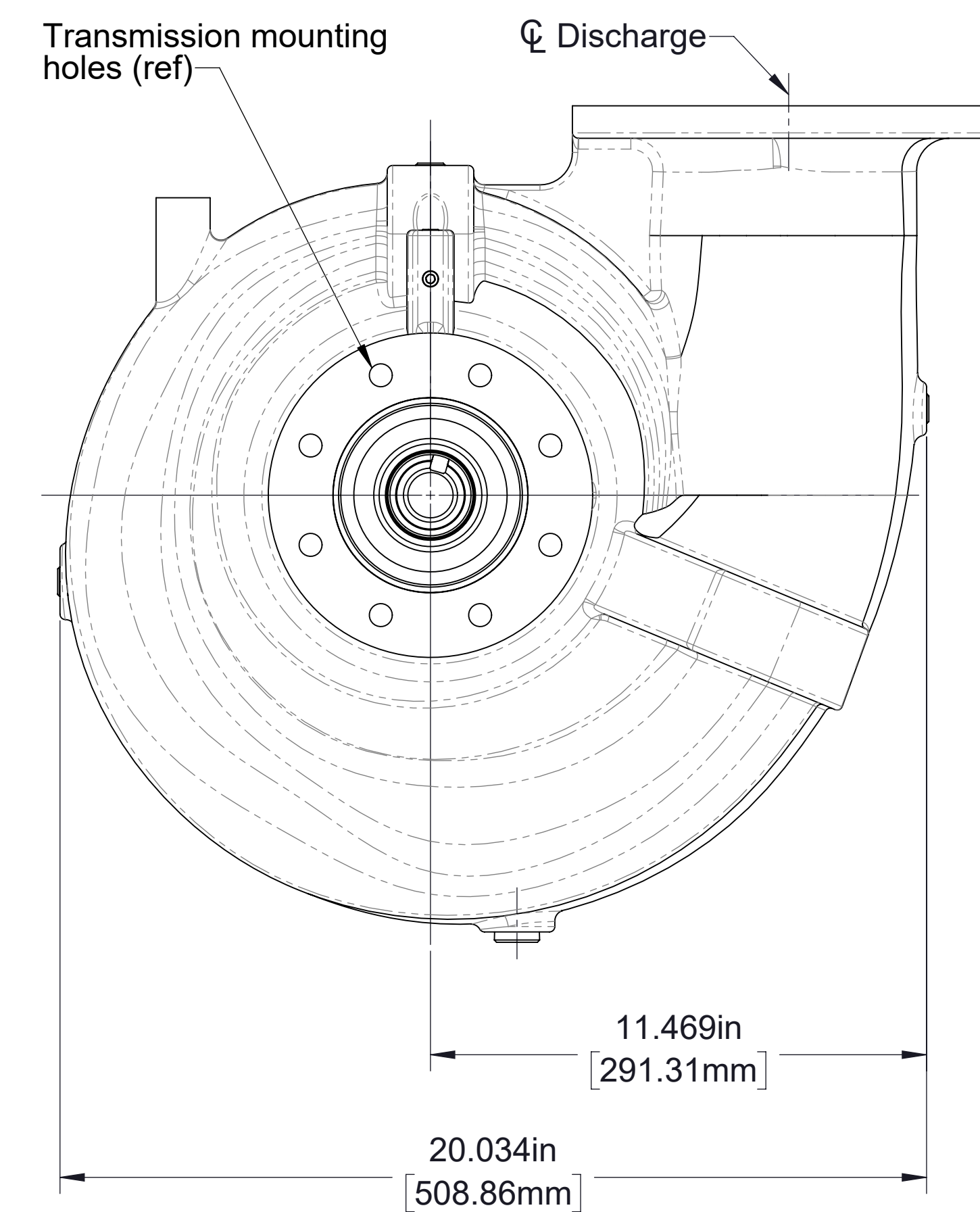
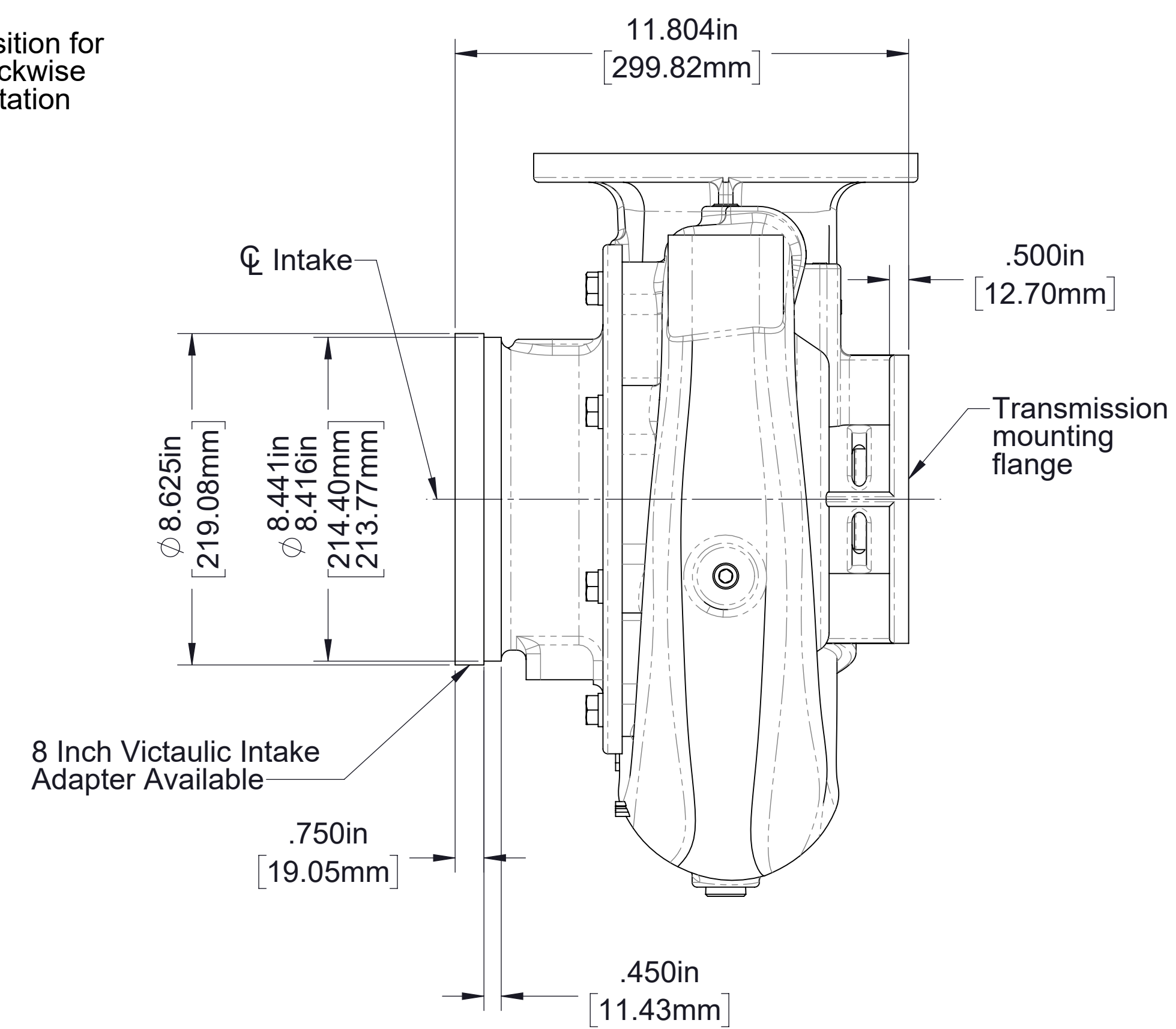
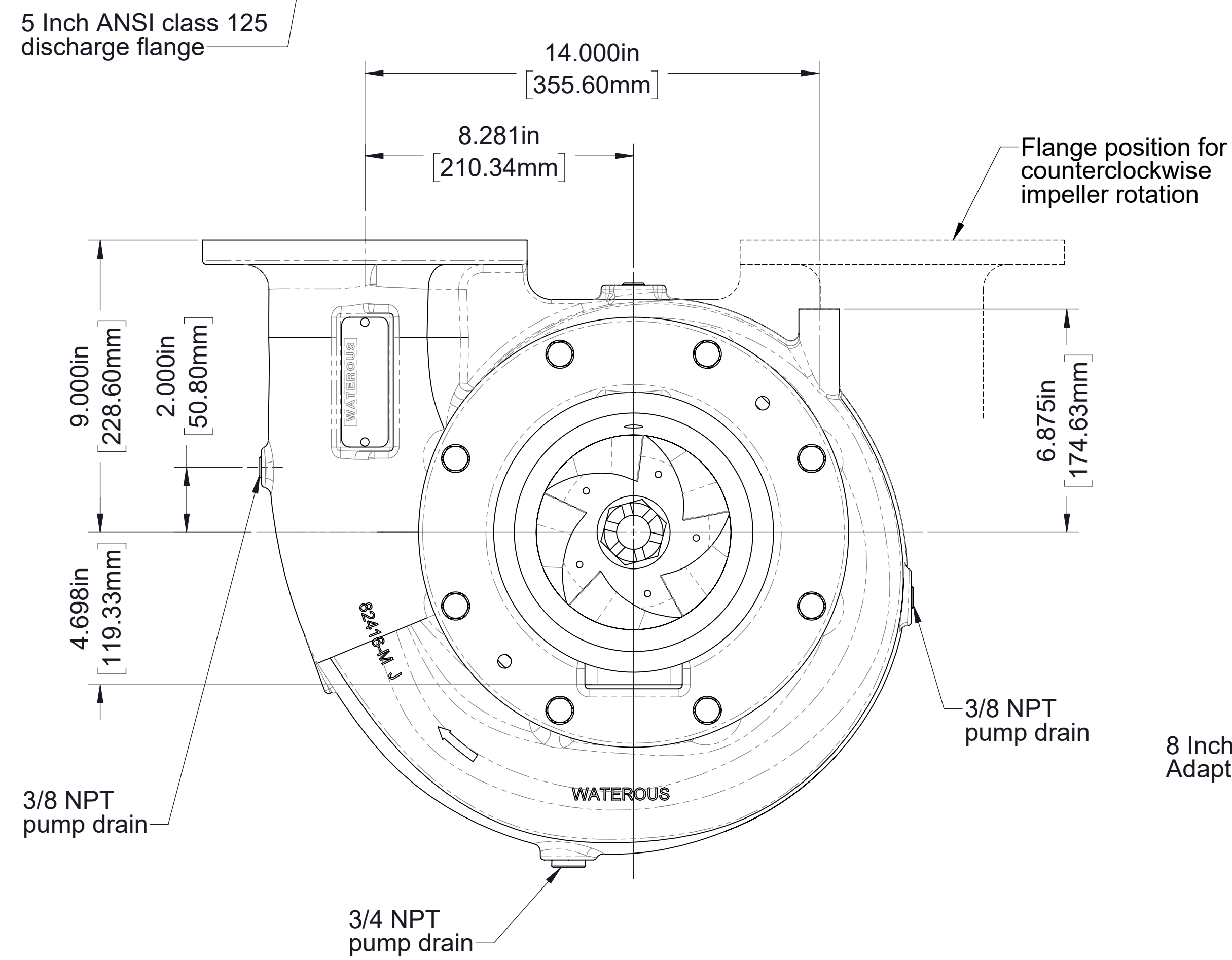
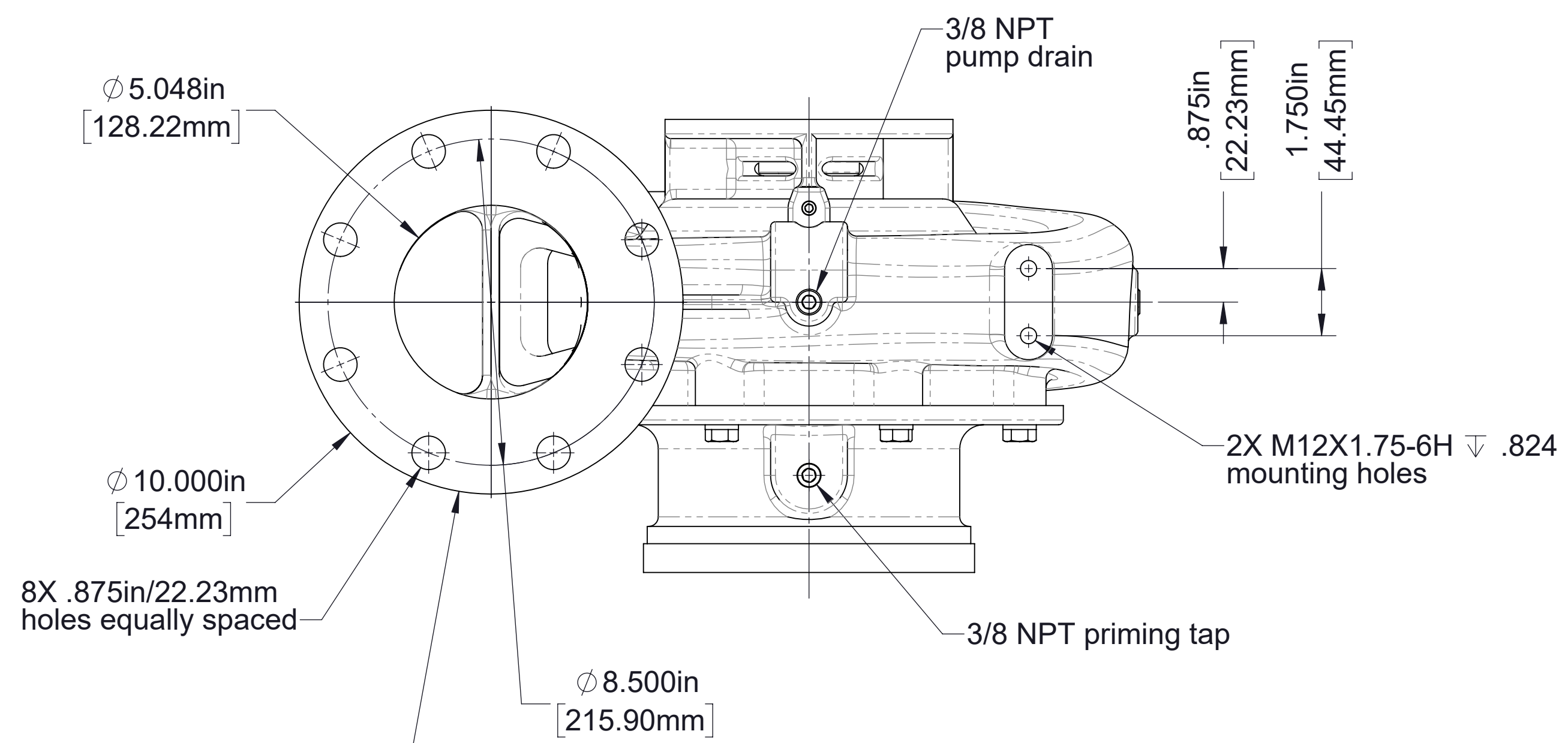
S100 Series Fire Pump Dimensional Drawings With Victualic® Intake Fitting

Pump and Transmission											
Drive				Impeller Rotation (2)	Pump Model	See Page					
Type	Driveline Type	Input Rotation (1)	Pump Body Mounting on Transmission			Hydraulic Pump Mounting Provision		Available Pump Discharge Positions and Ordering Info	Optional Discharge Fitting Mounting on Pump		4 in. ANSI Flanged Adapter
						No	Yes		Perpendicular to Intake	Parallel to Intake	
C22 Series Split Shaft Chain Drive Transmission	Input and Output Shaft	CW	Front (Input Shaft Side)	CW	S101C22C S101C22D S101C22E S101C22F	7	8	9	29	35	5
			Rear (Output Shaft Side)	CCW	S101C22C S101C22D S101C22E S101C22F	10	11	12	30	36	
	Input Shaft Only	CW	Front (Input Shaft Side)	CW	S101C22C S101C22D S101C22E S101C22F	13	14	15	29	35	
			Rear (Opposite Input Shaft Side)	CCW	S101C22C S101C22D S101C22E S101C22F	16	17	18	30	36	
Direct Drive Connection from P.T.O.	1410 Series End Yoke	CW	Opposite Input Shaft	CCW	S100D	19	N/A	20	31	37	
		CCW	Opposite Input Shaft	CW	S100D	21	N/A	22	32	38	
PA Series PTO Driven, Chain Driven Transmission	Input Shaft Only	CW	Input Shaft Side	CW	S100PA	23	N/A	24	33	39	
QC Series PTO Driven, Chain Drive Transmission (Direct Engine Mount)	Input Shaft Only	CW	Rear (Output Shaft Side) Vertical Transmission	CW	S100QC	25	N/A	26	34	40	
			Rear (Output Shaft Side) Inverted Transmission Case	CW		27	N/A	28	See Note 3		

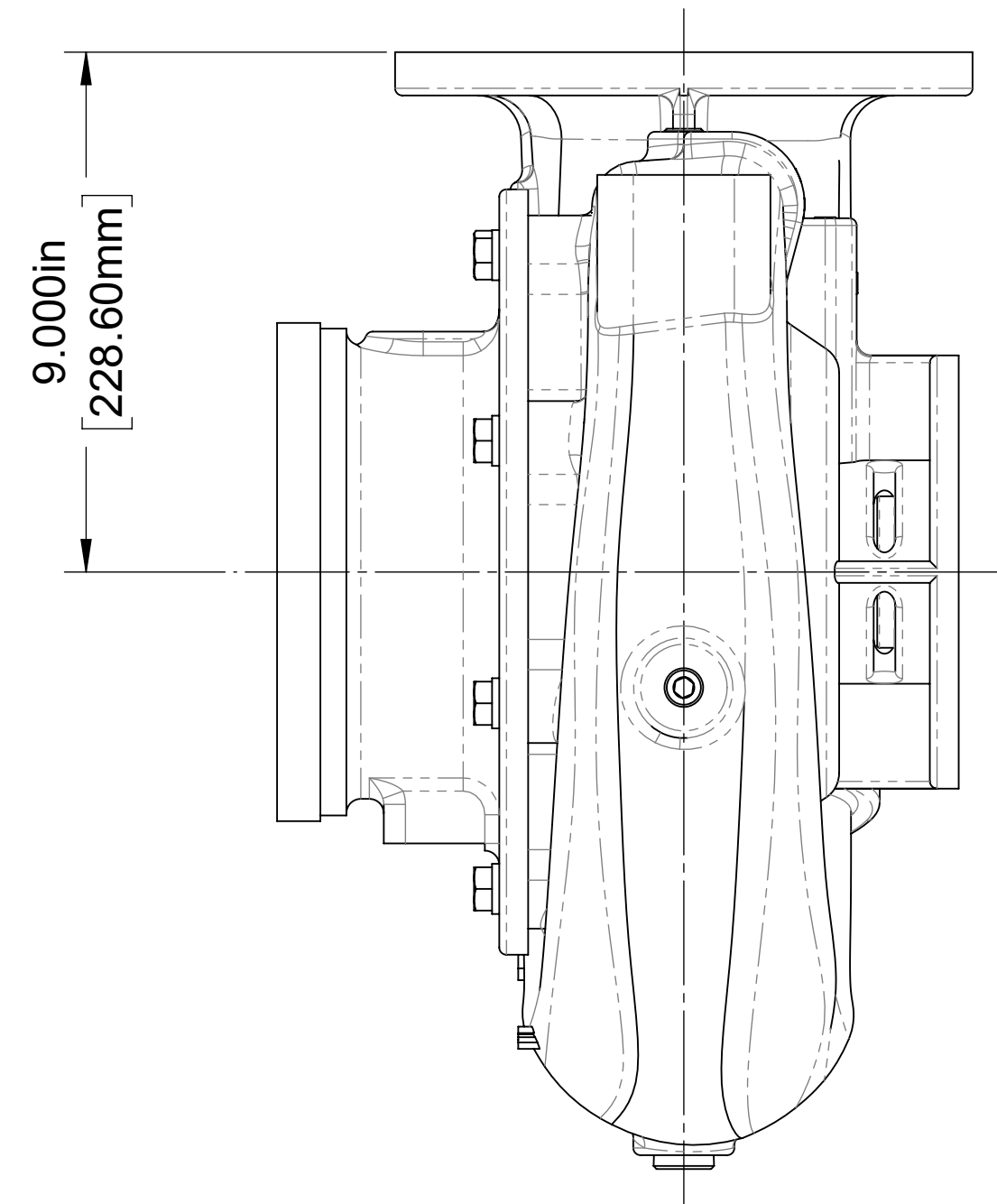
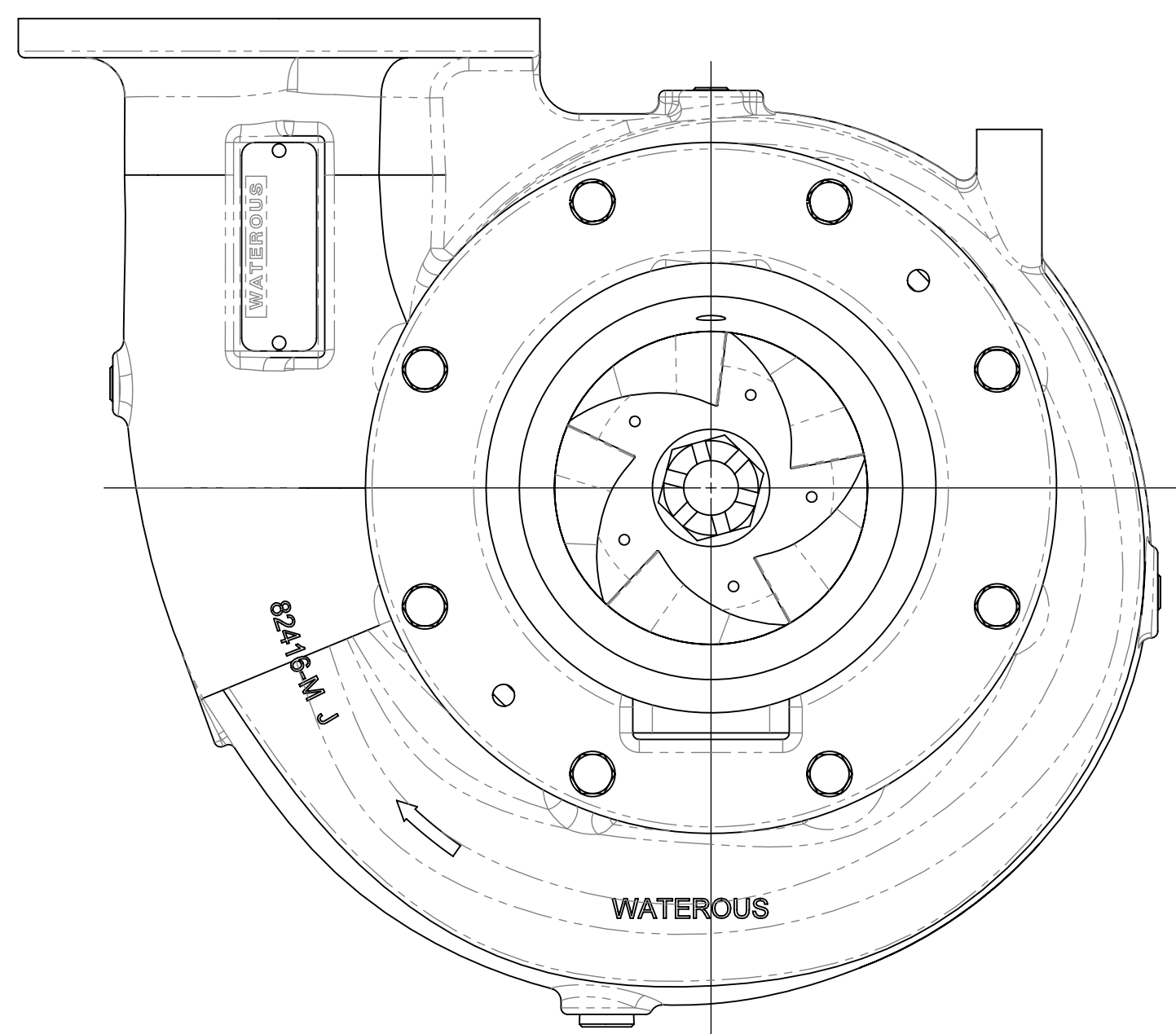
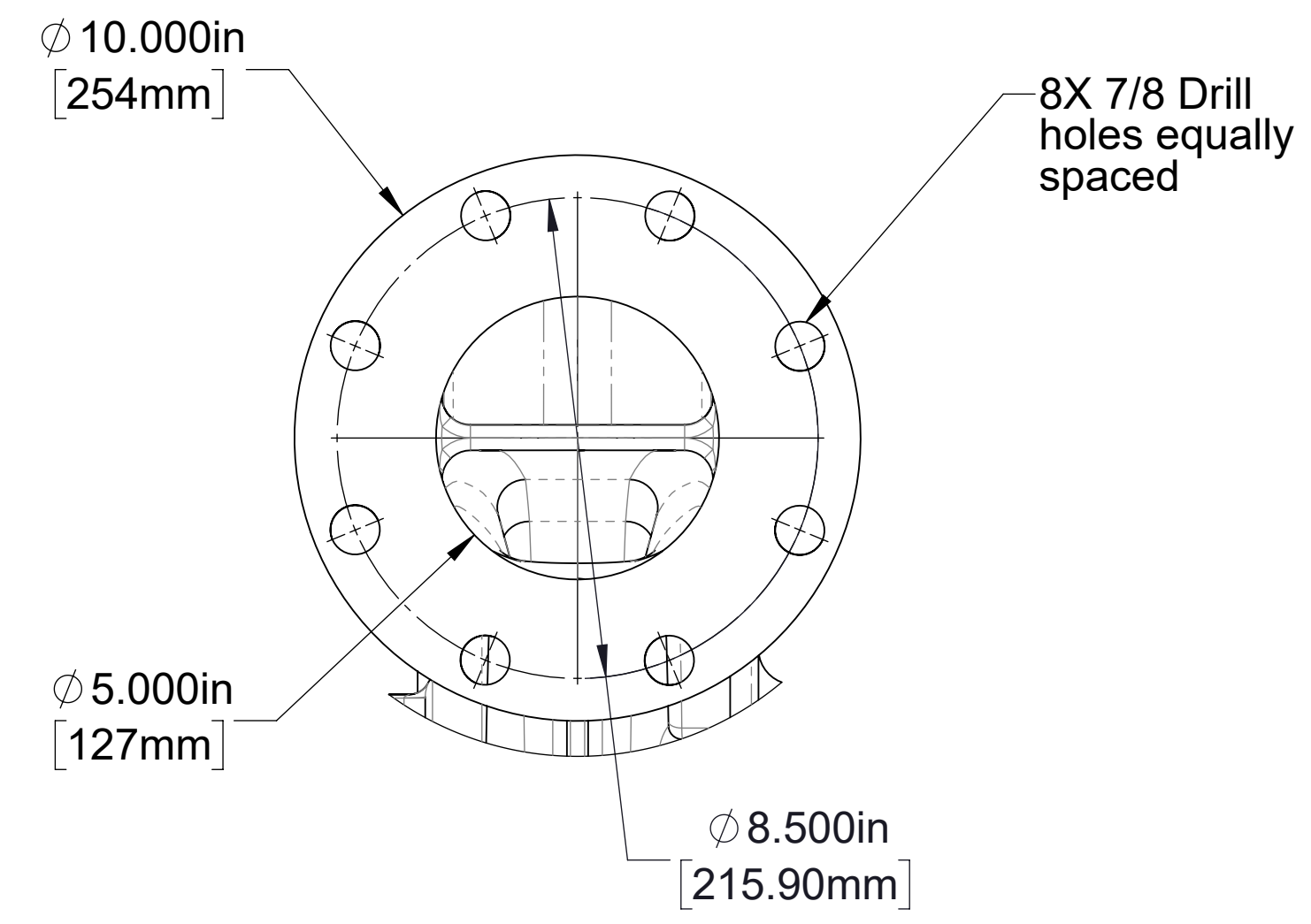
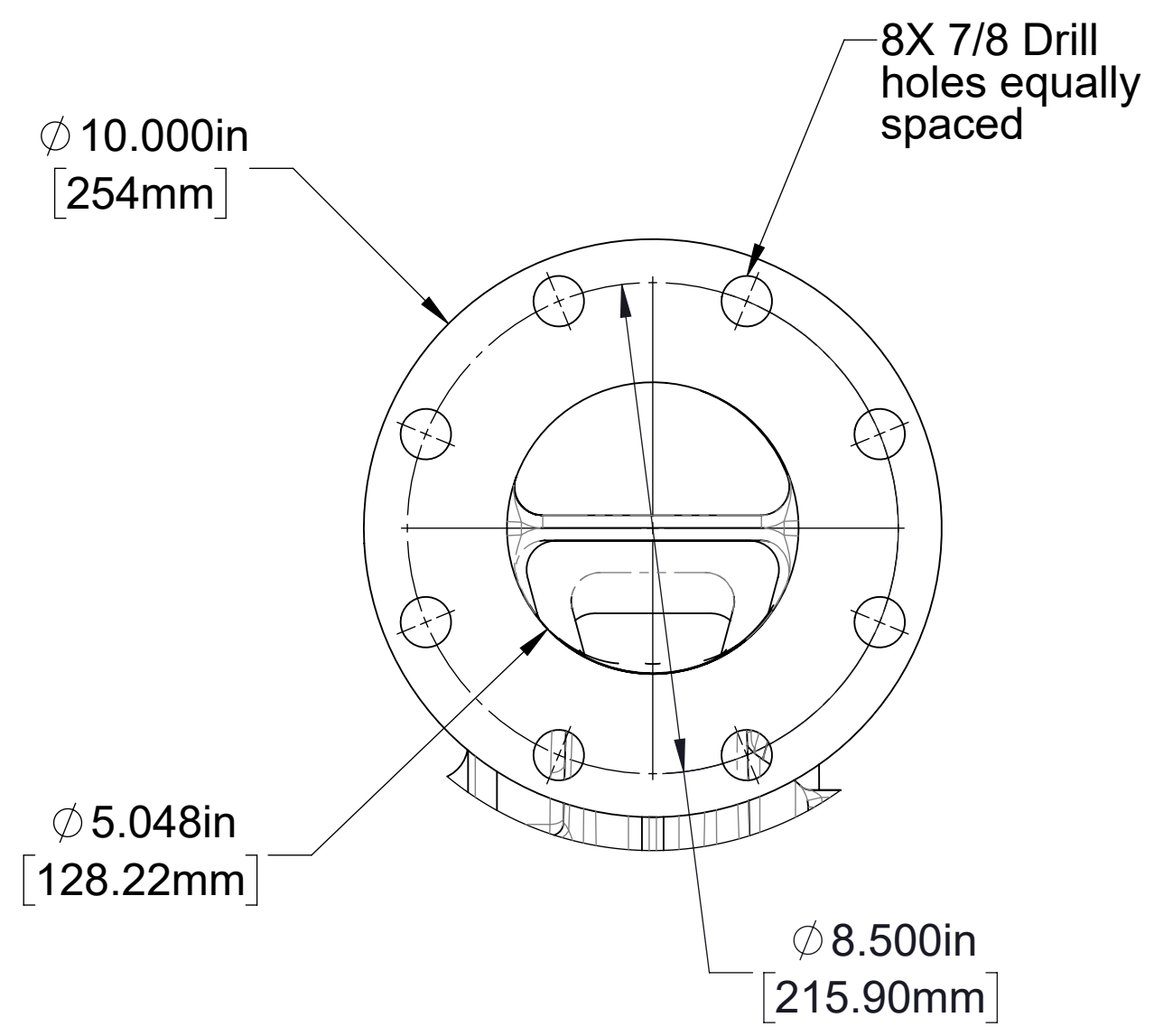
S101 Series Fire Pump Dimensional Drawings With Crosspipe Intake Fitting

Pump and Transmission									
Drive				Impeller Rotation (2)	Pump Model	See Page			
Type	Pump Body Mounting on Transmission	Input rotation (1)	Driveline Type			Hydraulic Pump Mounting Provision		Available Pump Discharge Positions and Ordering Info	Optional Discharge Manifold Mounting on Pump (Perpendicular to Intake Only)
						No	Yes		
C22 Series Split Shaft Chain Drive Transmission	Front (Input Shaft Side)	CW	Input and Output Shaft	CW	S101C22C S101C22D S101C22E S101C22F	46, 50	47, 50	51	52
			Input Shaft Only	CW	S101C22C S101C22D S101C22E S101C22F	48, 50	49, 50		

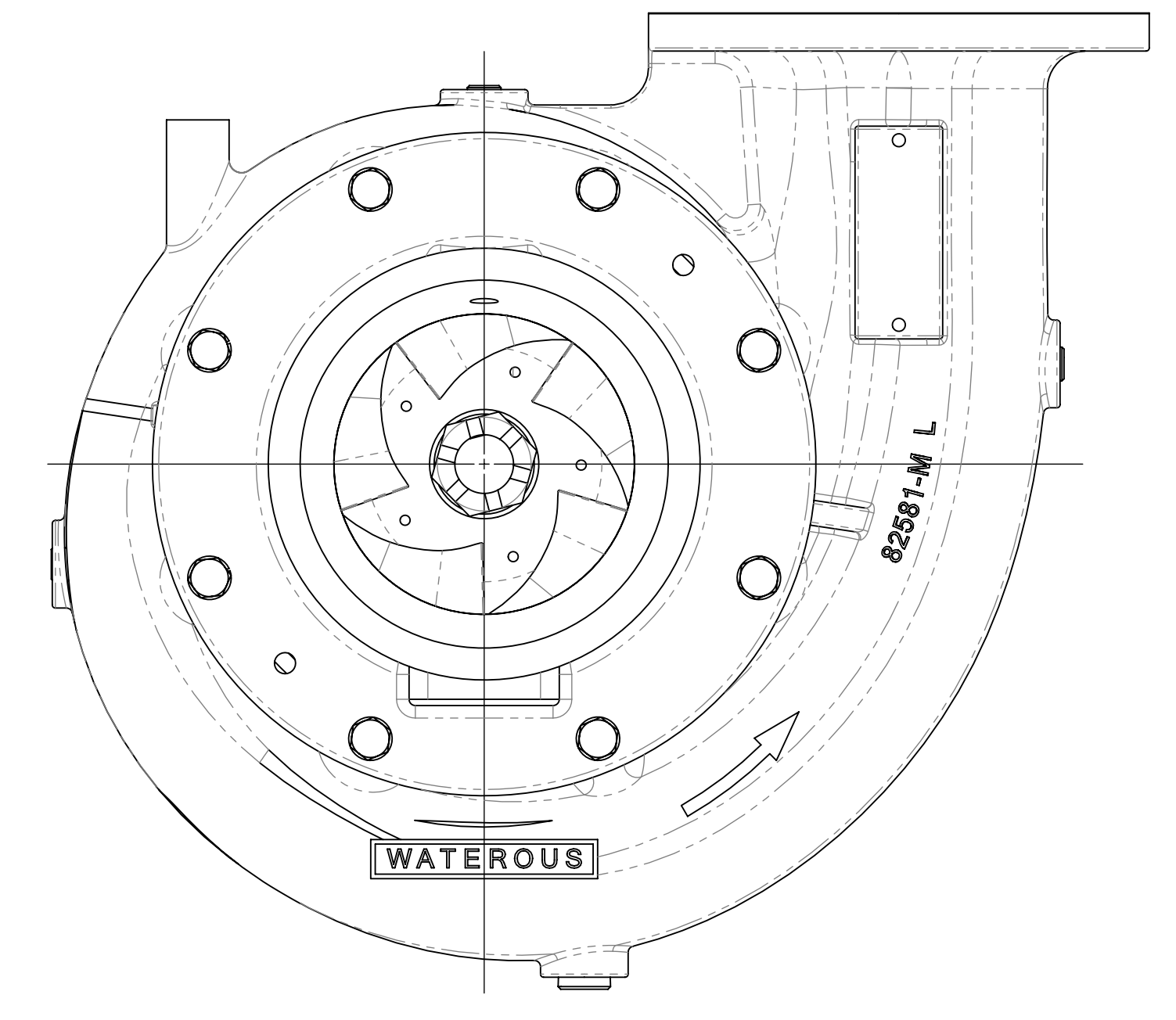
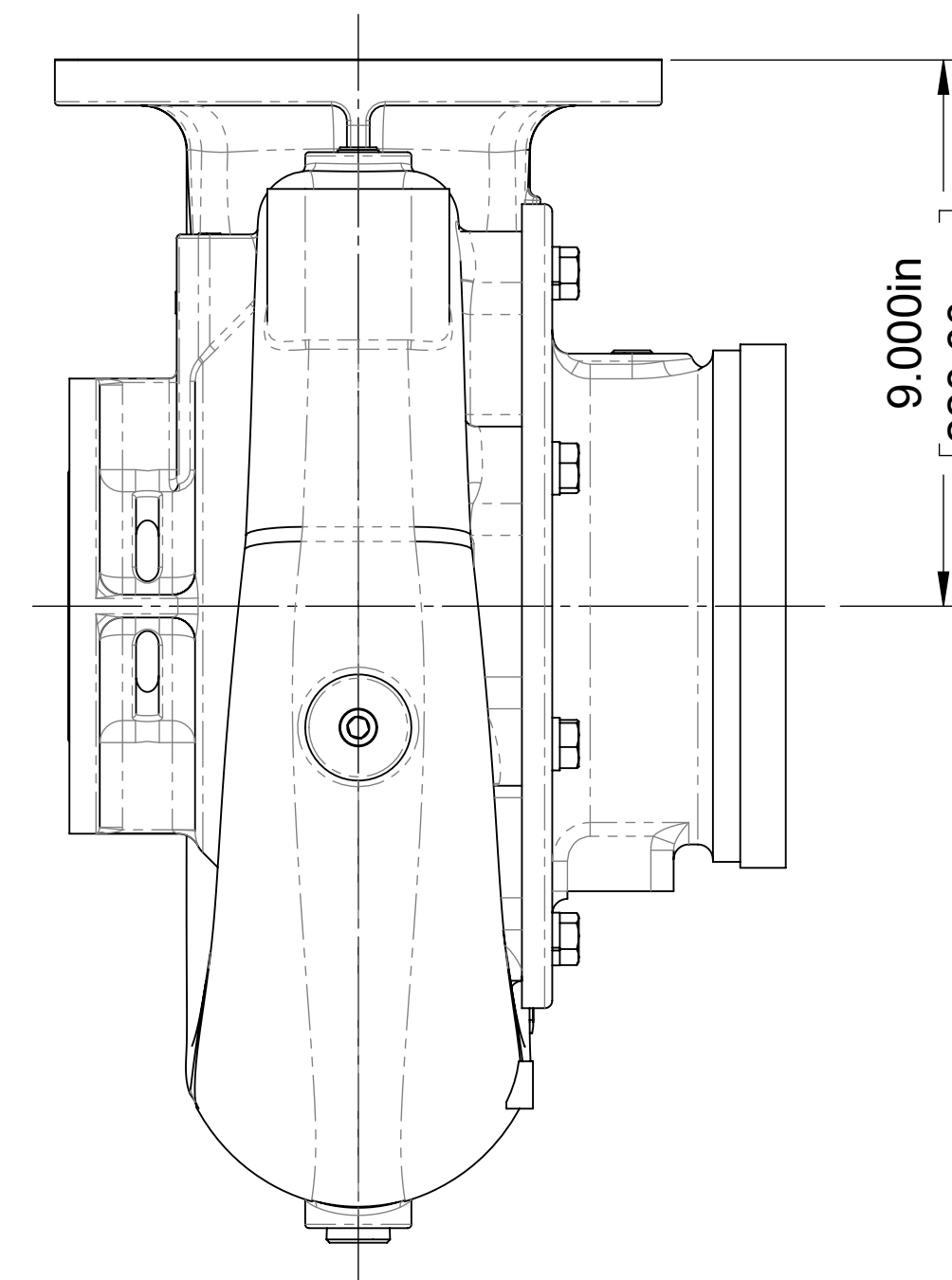
- Notes:
1. Input rotation is viewed looking directly at the transmission input shaft or direct drive end yoke.
 2. Impeller rotation is viewed looking directly at the intake fitting (impeller eye).
 3. Discharge manifold only available with direct engine mounted QC when case is vertical. Inverted case interferes with manifold.



S100 Body and Intake Dimensions
 Clockwise impeller rotation shown

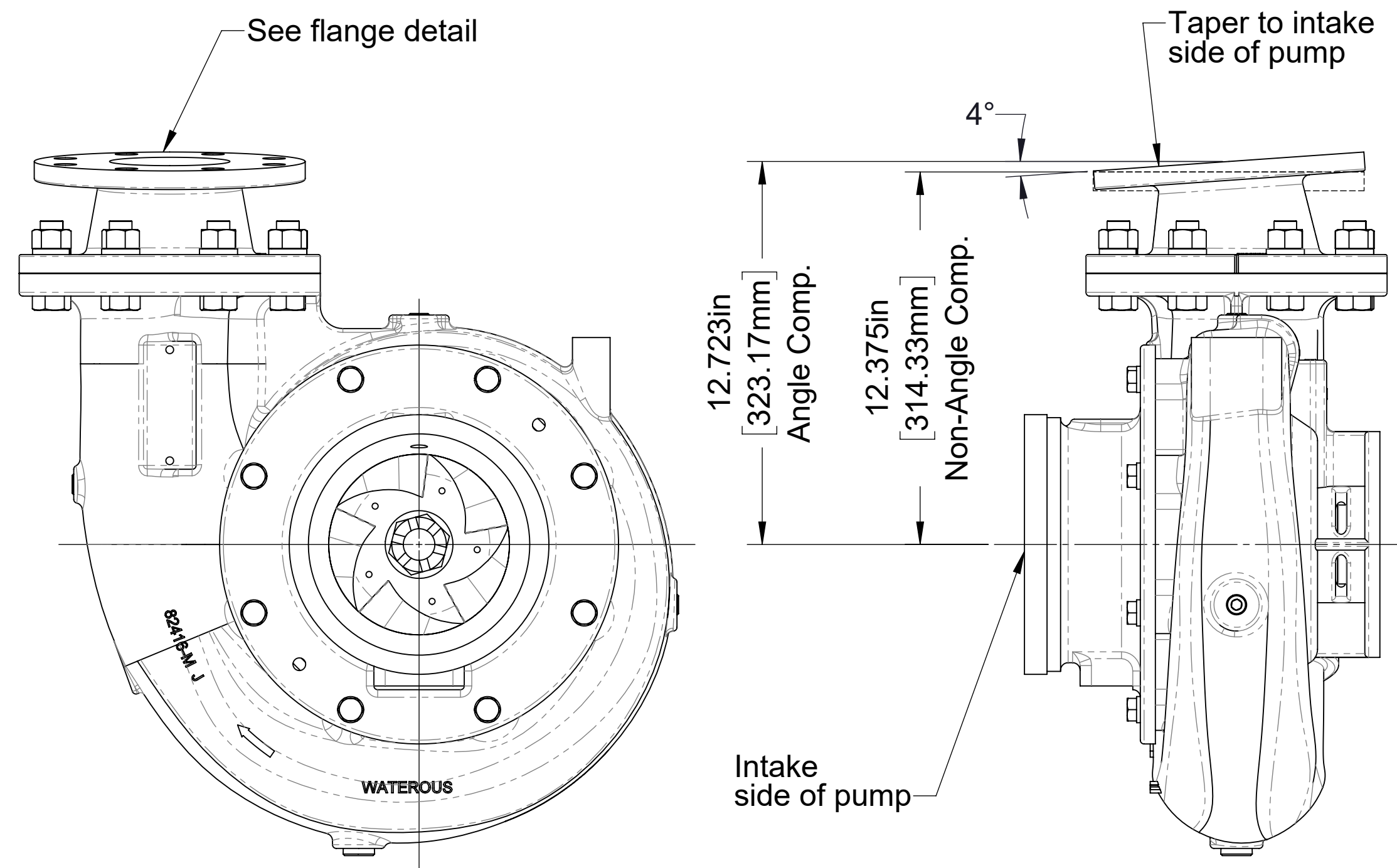


CW Impeller Rotation

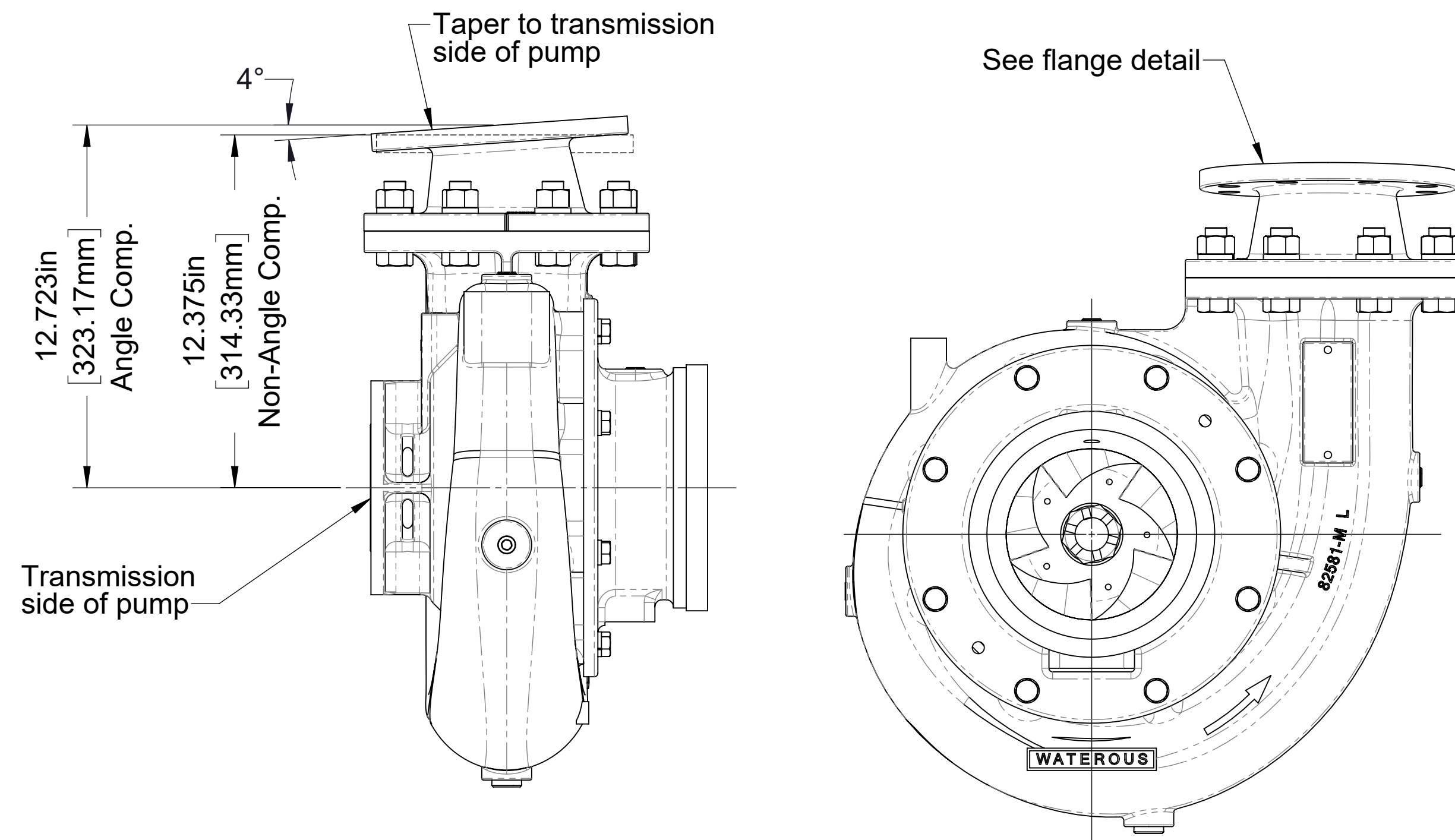


CCW Impeller Rotation

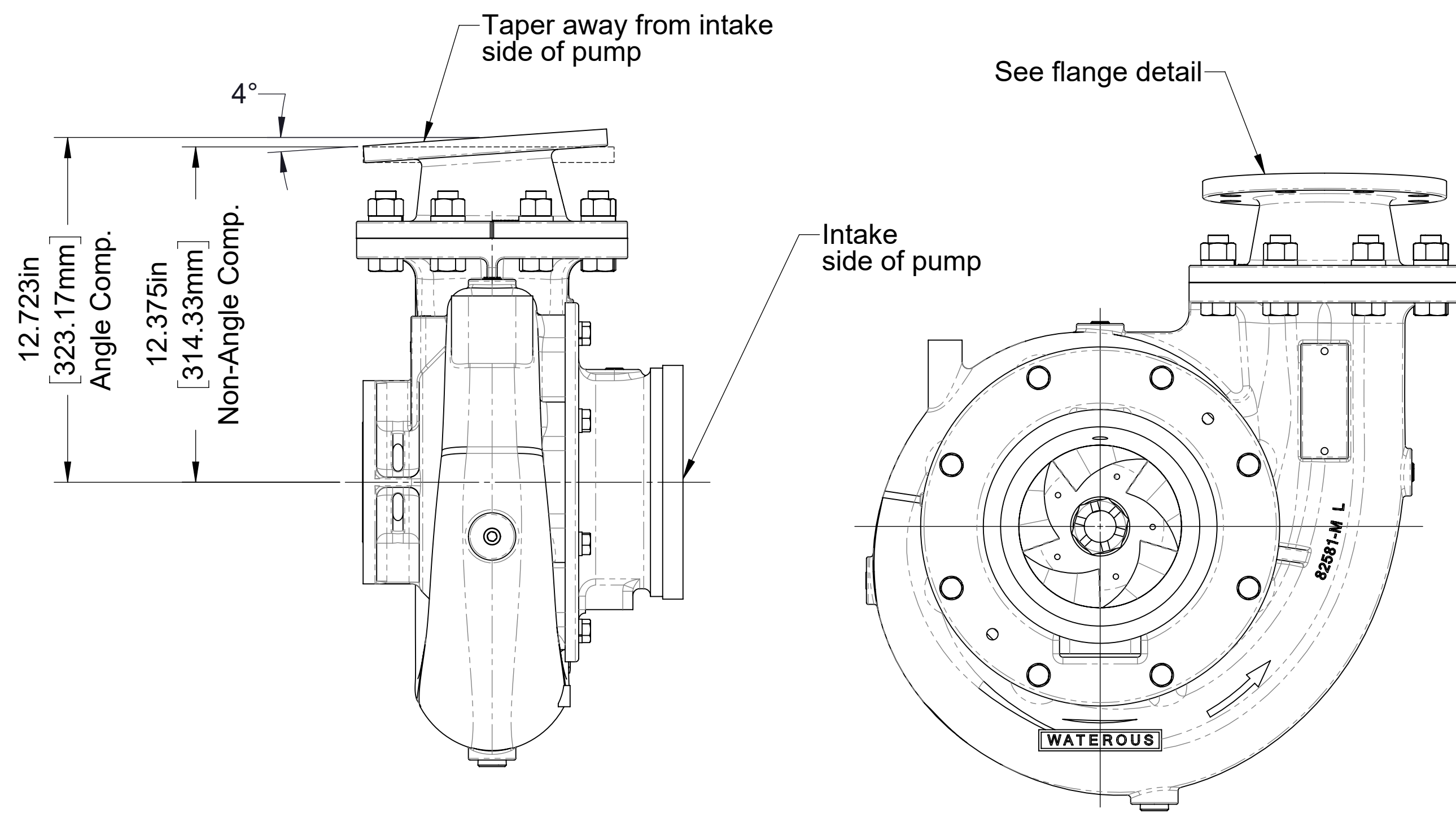
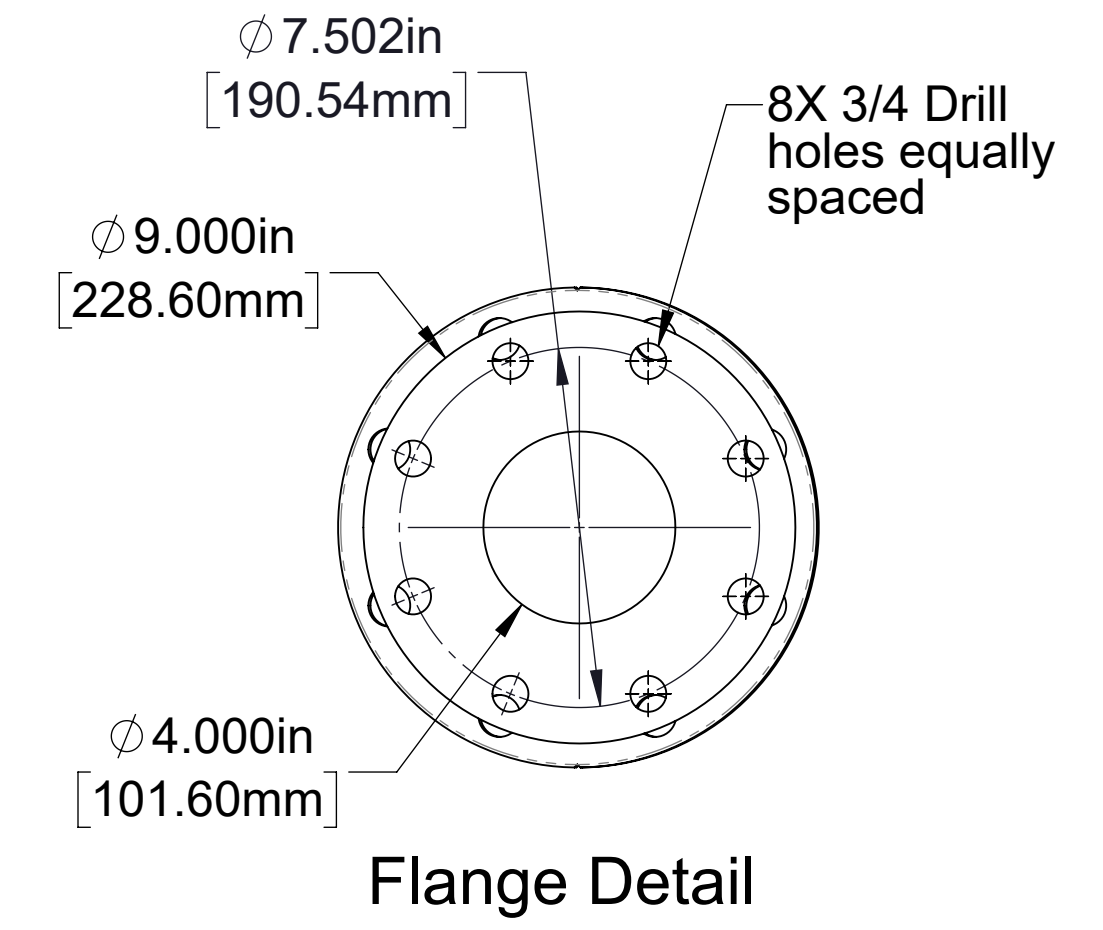
S100 Optional Blank Discharge (5 in. ANSI flange)



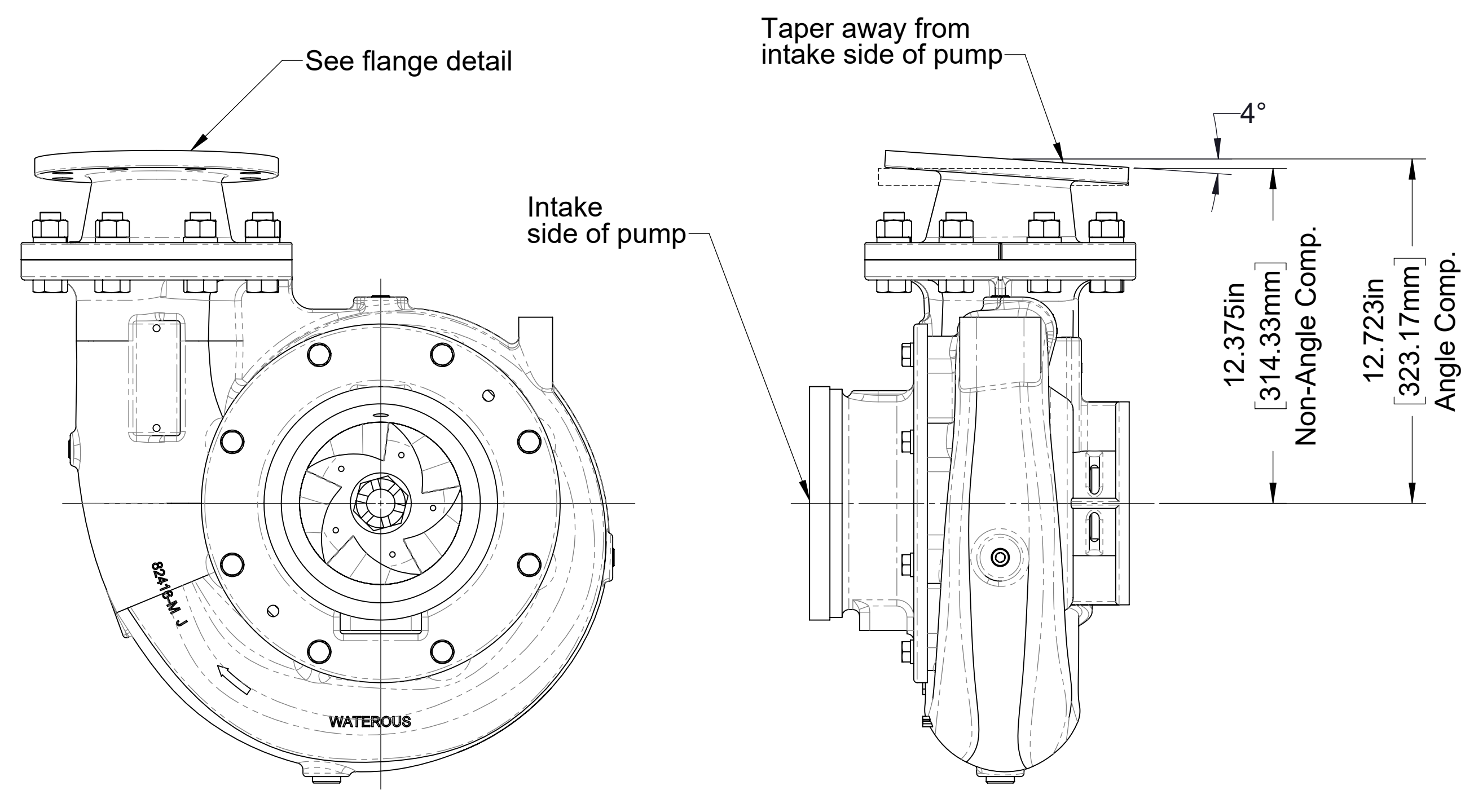
Models S100C22, S100PA
 Pump mounted on front
 (input shaft side) of transmission



Models S100C22, S100QC
 Pump mounted on rear
 (output shaft side) of transmission

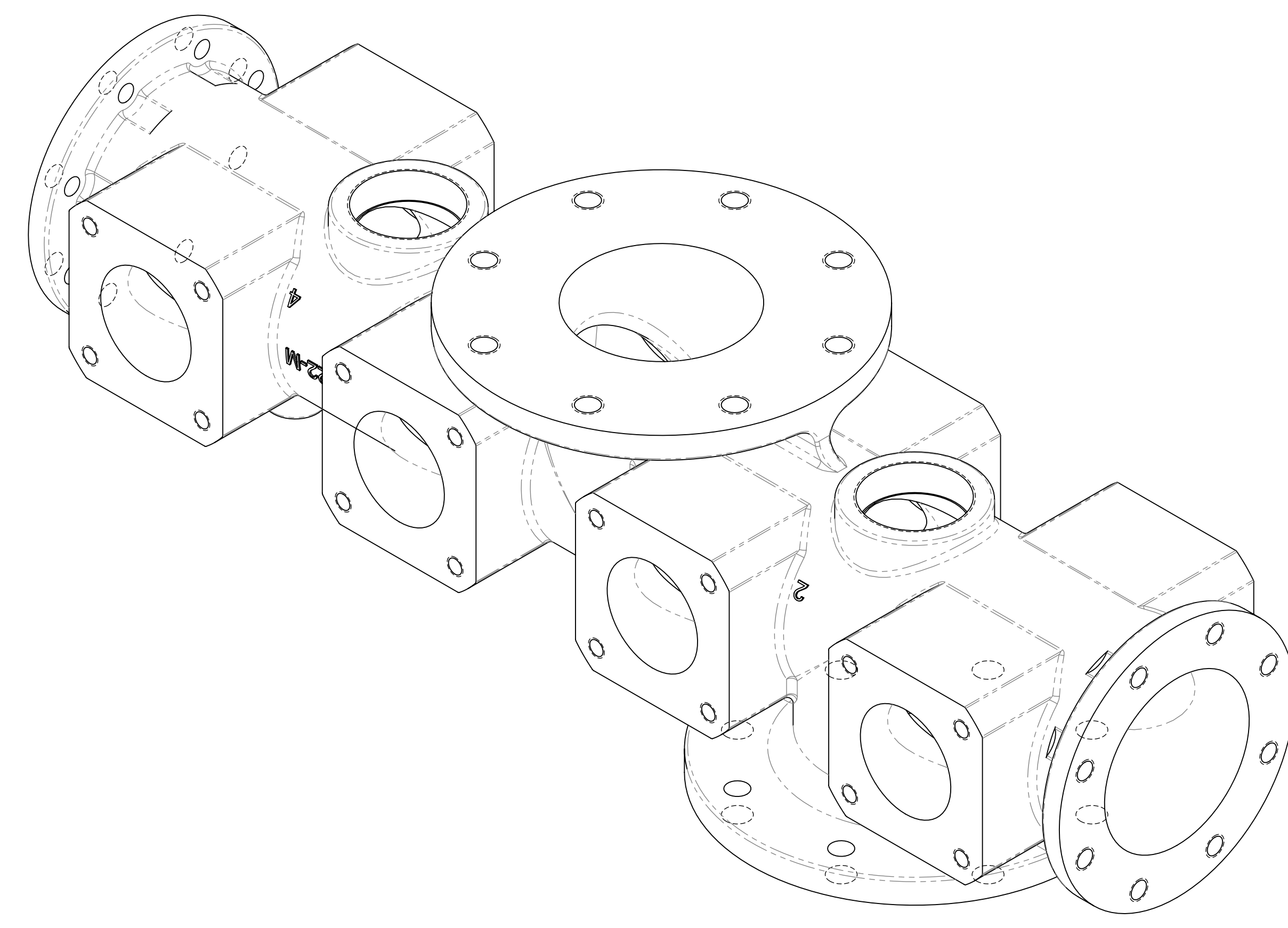
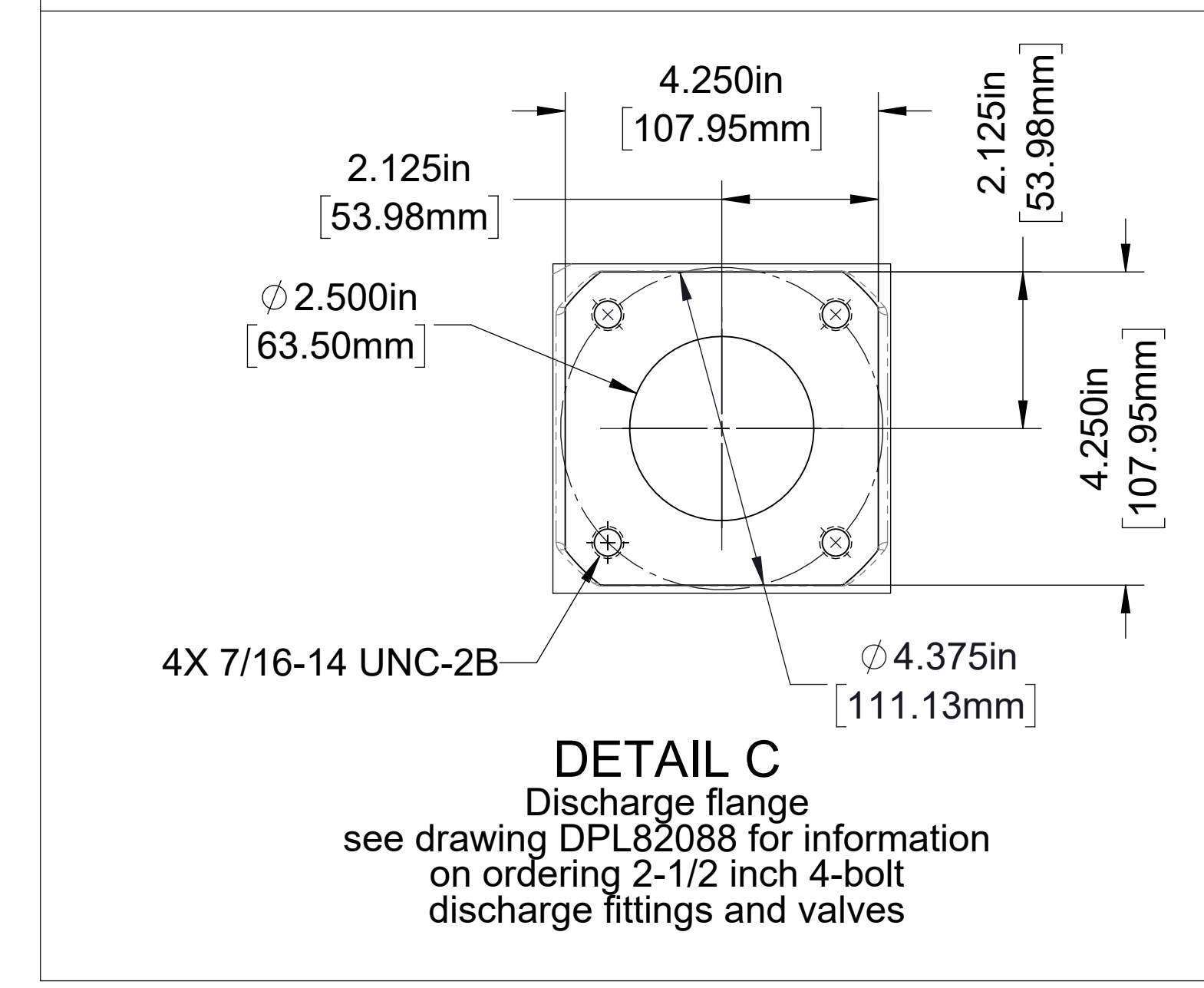
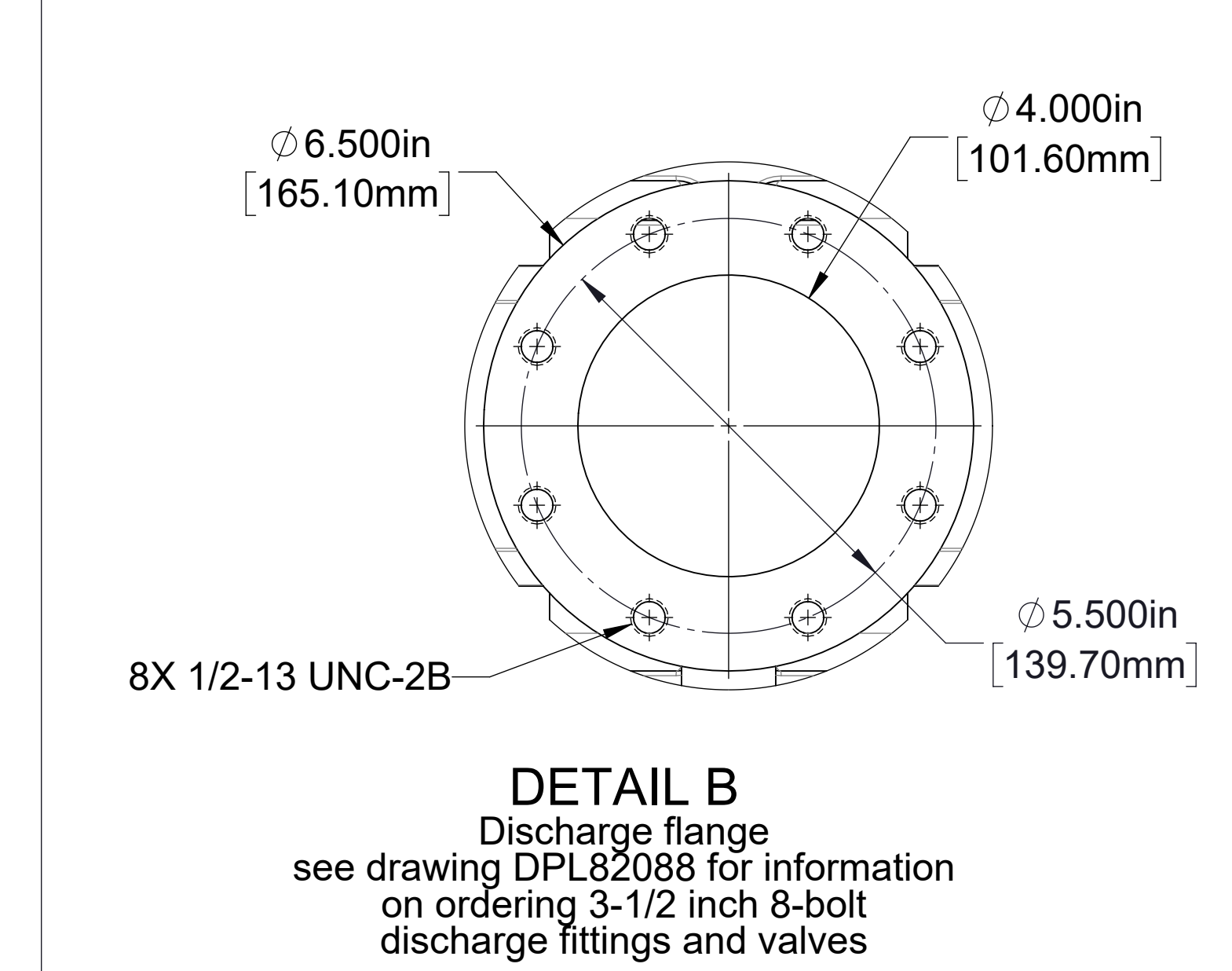
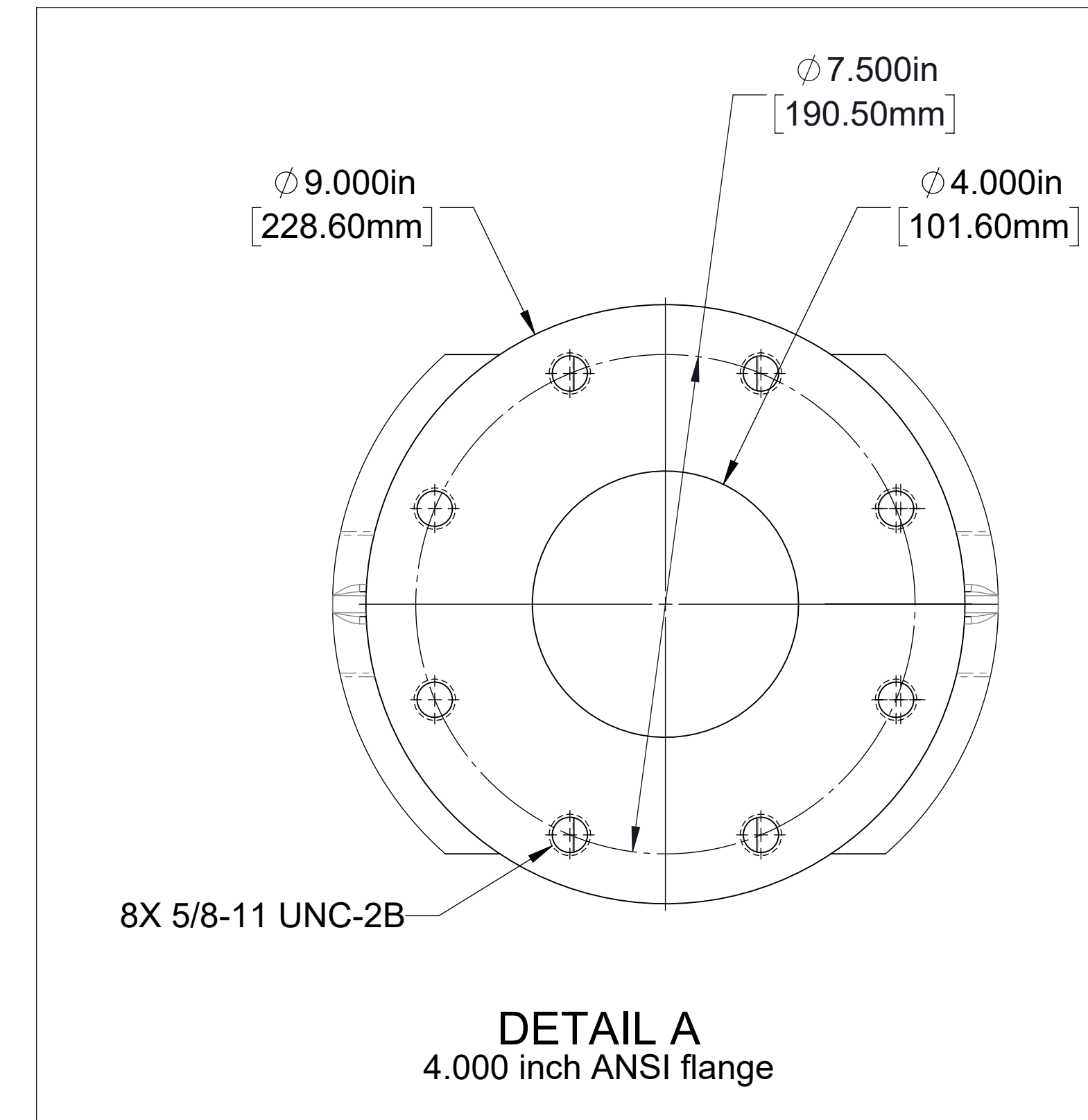
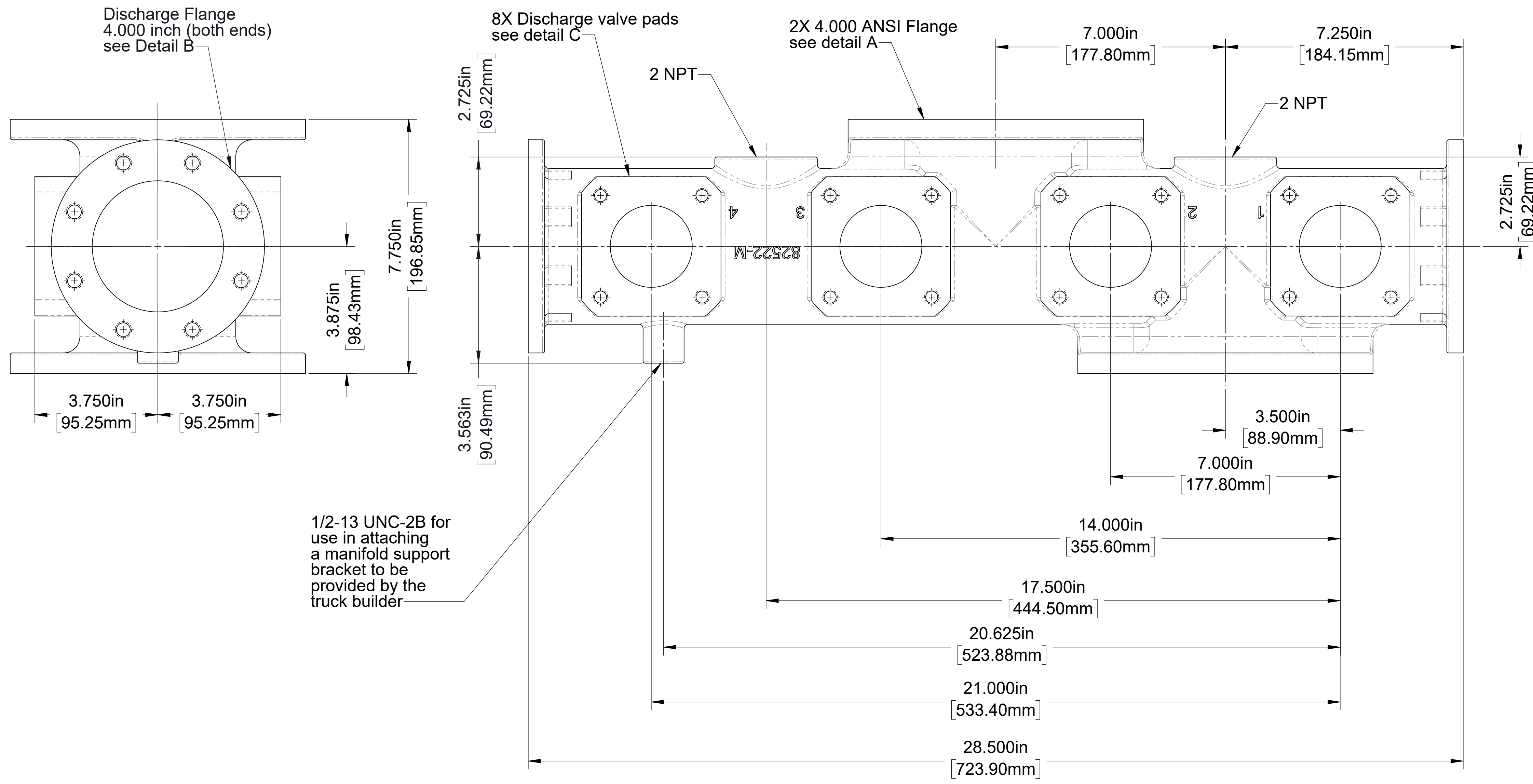


CW Input
 Model S100D



CCW Input
 Model S100D

Optional 4 in. ANSI Discharge Adapter
 Available with or without 4° angle compensation

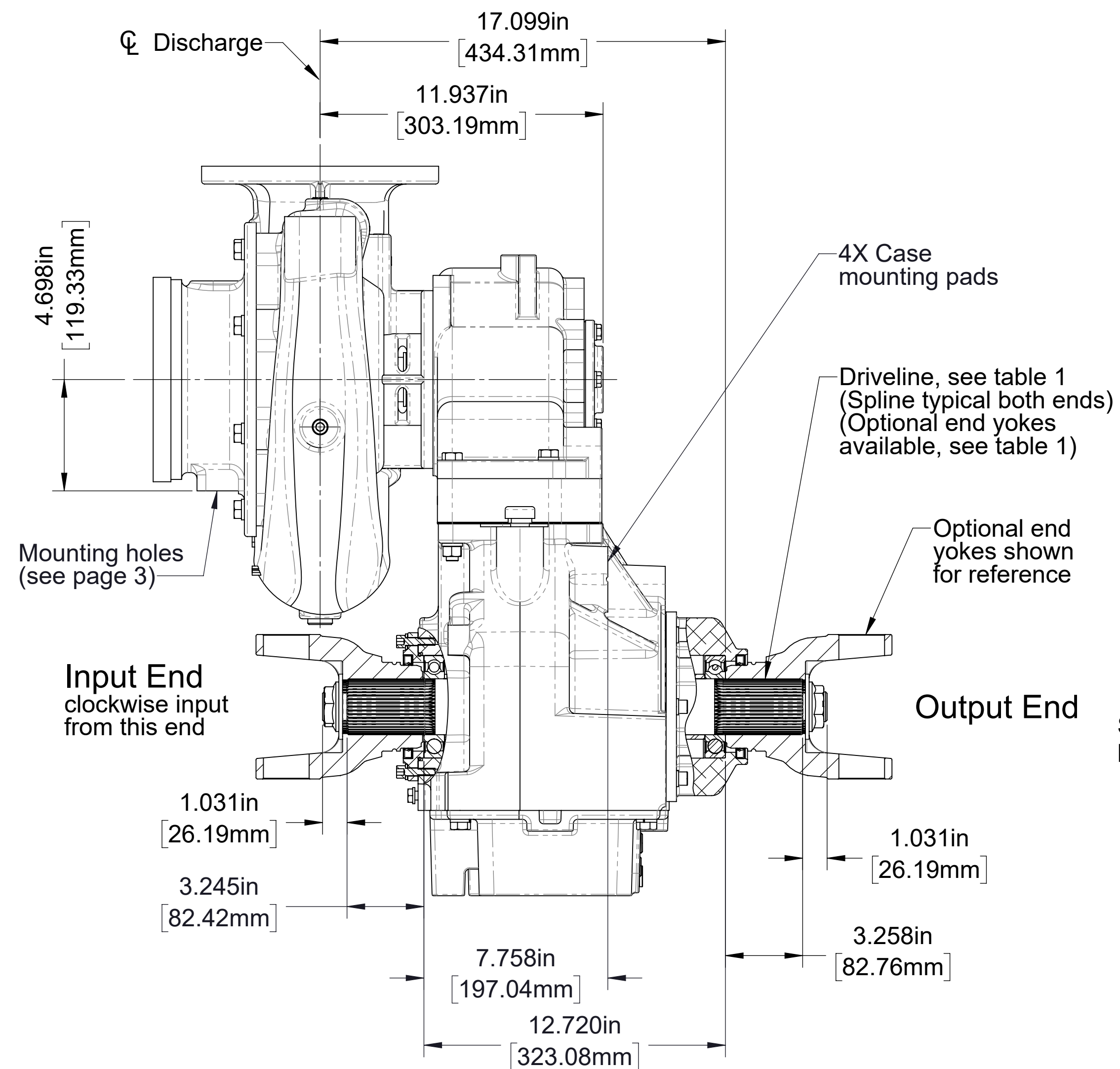


Note:
1. Pump mounted relief valve is not available with this manifold.

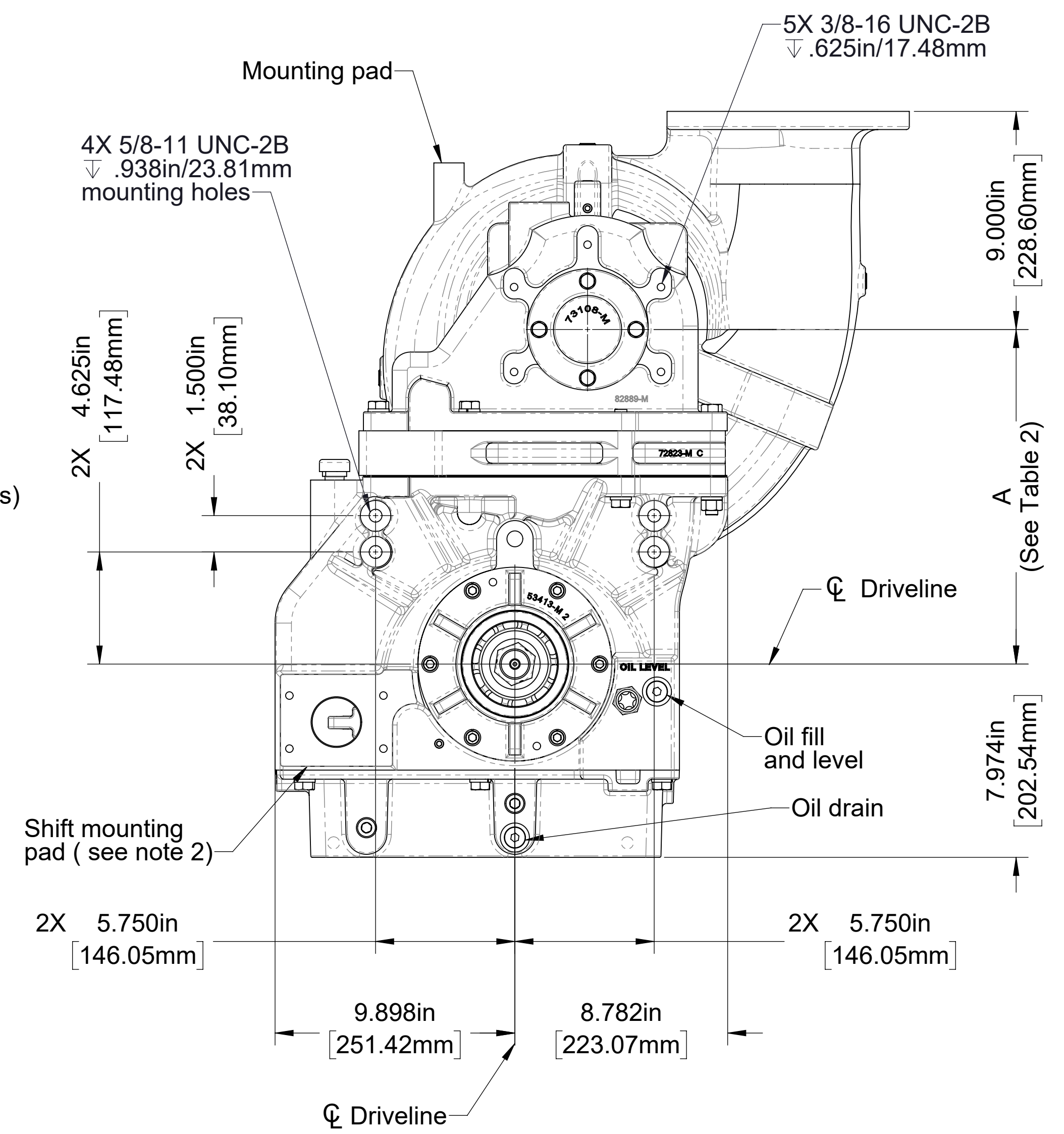
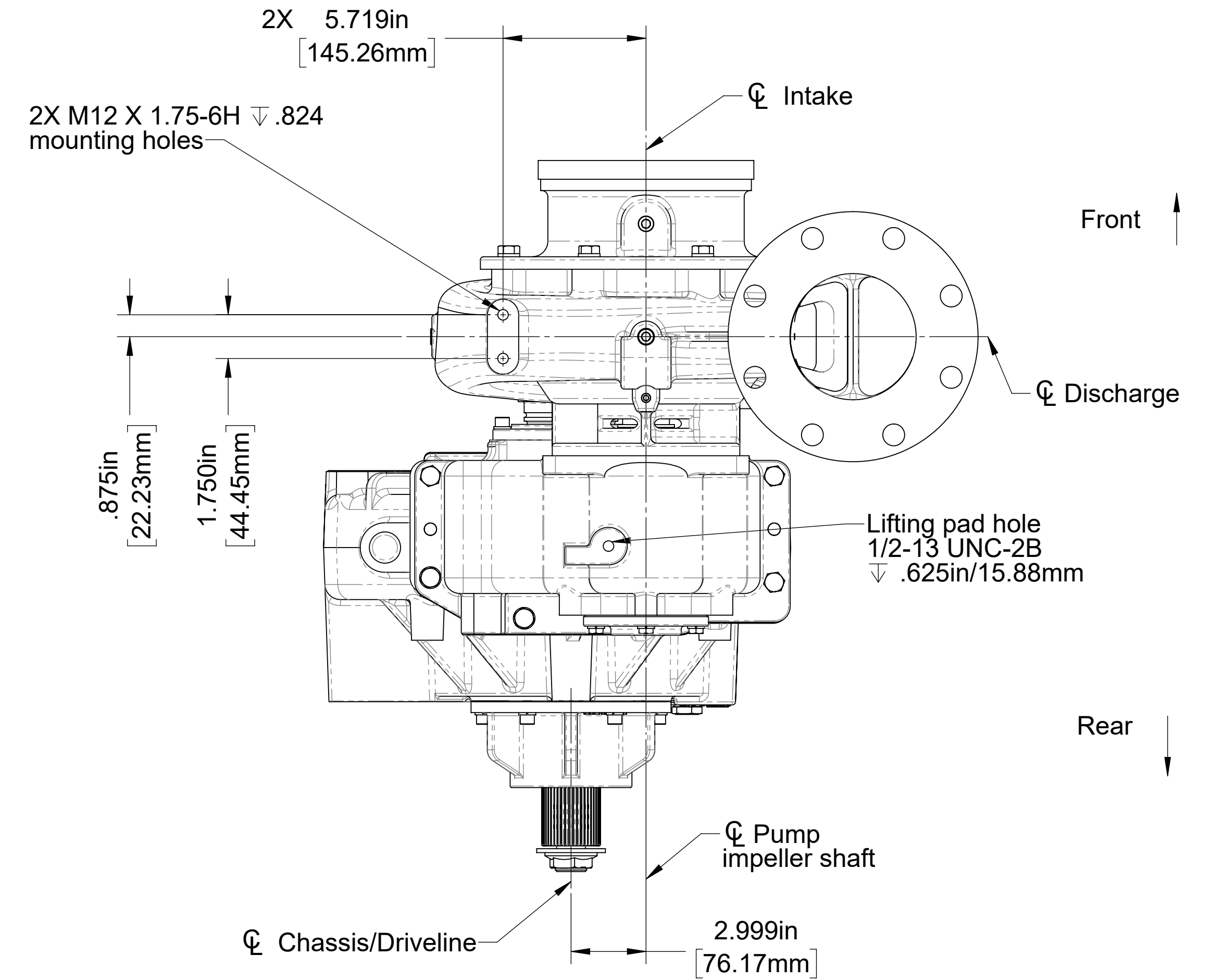
Driveline		Option End Yokes and Companion Flanges available from Waterous				Pump Models	
Type	Size	Spline	Spicer Series	Yoke	Companion Flange		
				Part Number	Cross and Bearing Kit		
Extra Heavy Duty	2.35 Inch	2.350-46T Involute	1480/1610	--	--	V 3719	S100C22C, S100C22D, S100C22E, S100C22F
			1650/1710	--	--	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	--	

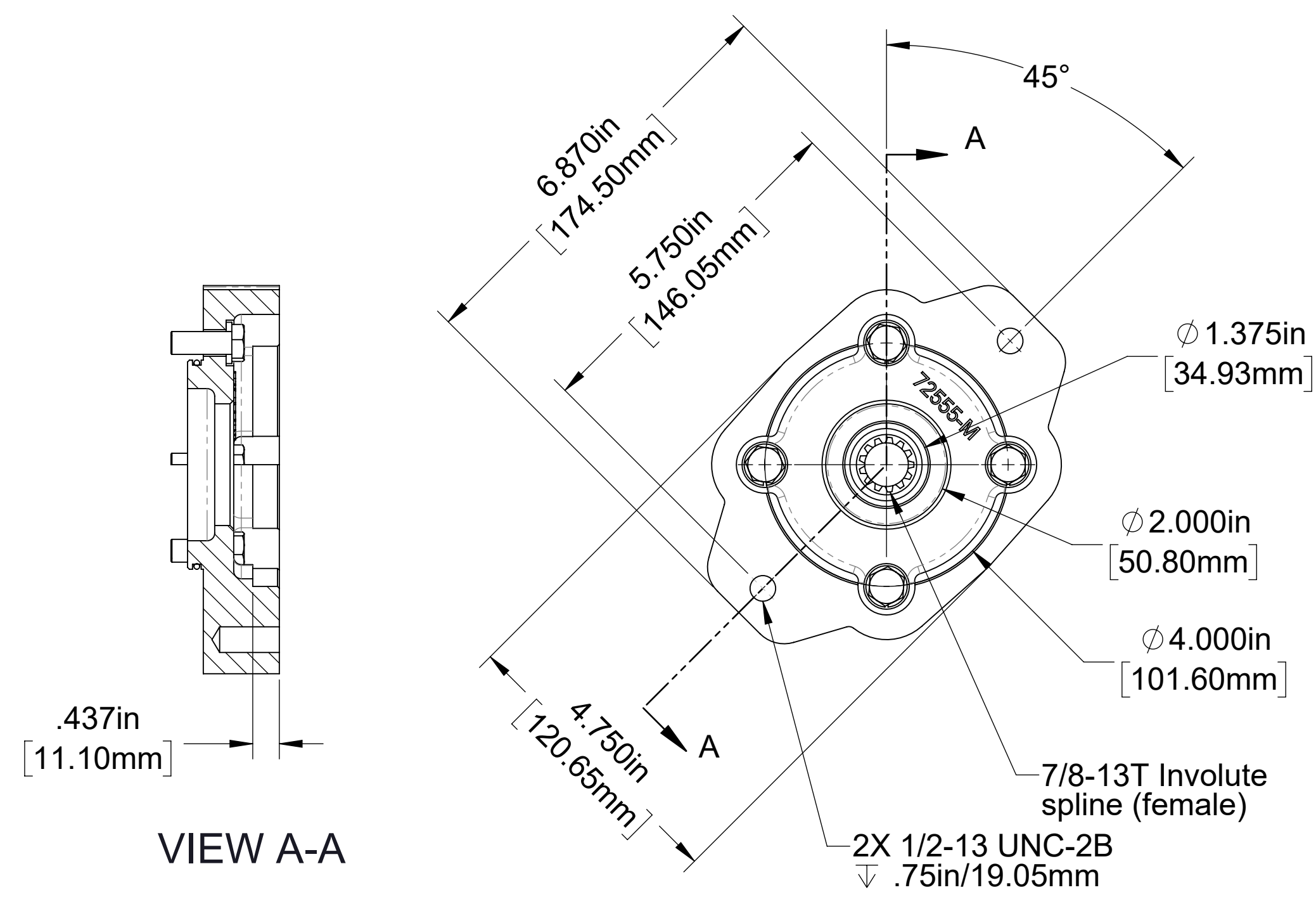
Drive to Driven Ratio	Dimension A			
	C22C	C22D	C22E	C22F
1.27	14.312in 363.52mm	14.825in 376.56mm	16.861in 428.27mm	18.892in 479.86mm
1.41	13.899in 353.03mm	14.931in 379.25mm	16.971in 431.06mm	19.002in 482.65mm
1.48	13.878in 352.50mm	14.907in 378.64mm	16.951in 430.56mm	18.981in 482.65mm
1.58	13.756in 349.40mm	14.788in 375.62mm	16.830in 427.48mm	18.861in 479.07mm
1.69	13.839in 351.51mm	14.876in 377.85mm	16.923in 429.84mm	18.961in 481.61in
1.79	14.045in 356.74mm	15.072in 382.83mm	17.127in 435.03mm	19.168in 486.87mm
1.88	13.690in 347.73mm	14.717in 373.81mm	16.773in 426.03mm	18.809in 477.75mm
1.97	13.870in 352.30mm	14.912in 378.76mm	16.970in 431.04mm	19.012in 482.90mm
2.03	13.984in 355.19mm	15.028in 381.71mm	17.086in 433.98mm	19.132in 485.95mm
2.27	13.811in 350.80mm	14.856in 377.34mm	16.920in 429.77mm	18.971in 481.86mm
2.46	14.042in 356.67mm	15.087in 383.21mm	17.154in 435.71mm	19.205in 487.81mm
2.68	13.746in 394.15mm	14.793in 375.74mm	16.865in 428.37mm	18.923in 480.64mm

Notes:
1. See table 2 for available ratios.
2. See drawing DPL82086 for shift unit details.



Model S100C22
Input and output shaft
Pump mounted on front (input shaft side) of transmission
Clockwise input, model S100C22C, 2.27 ratio shown, blank discharge, up discharge position shown

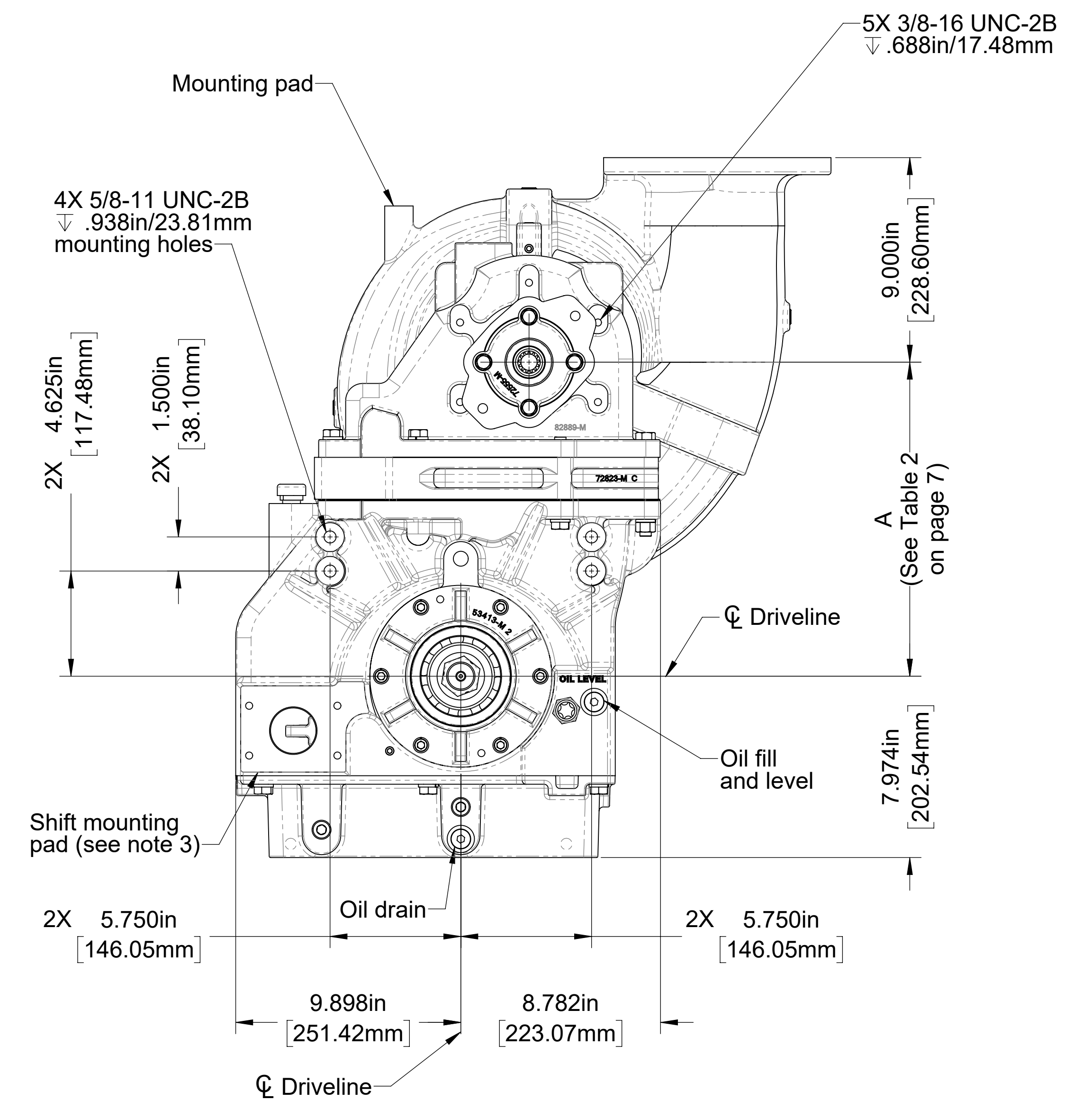
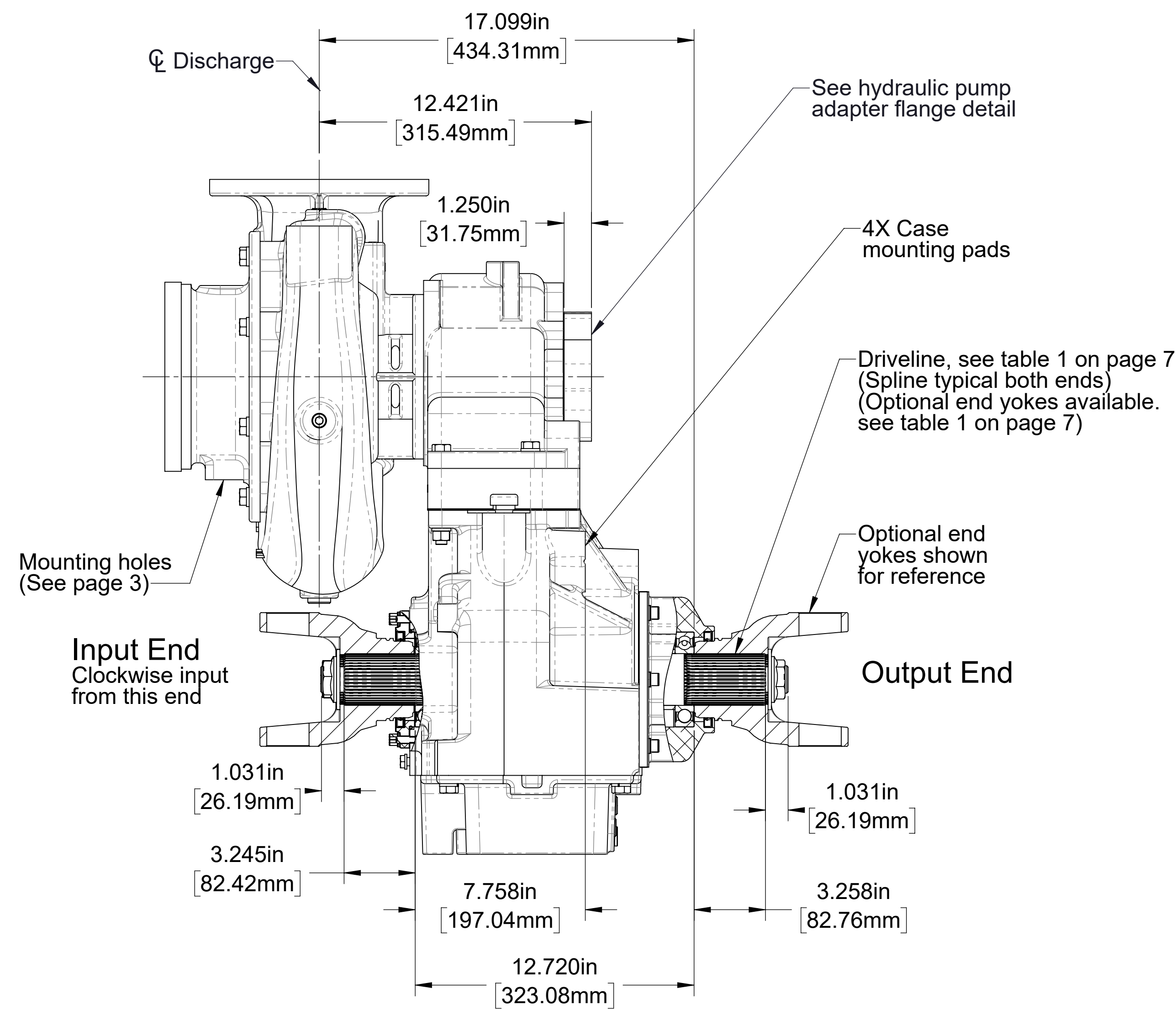
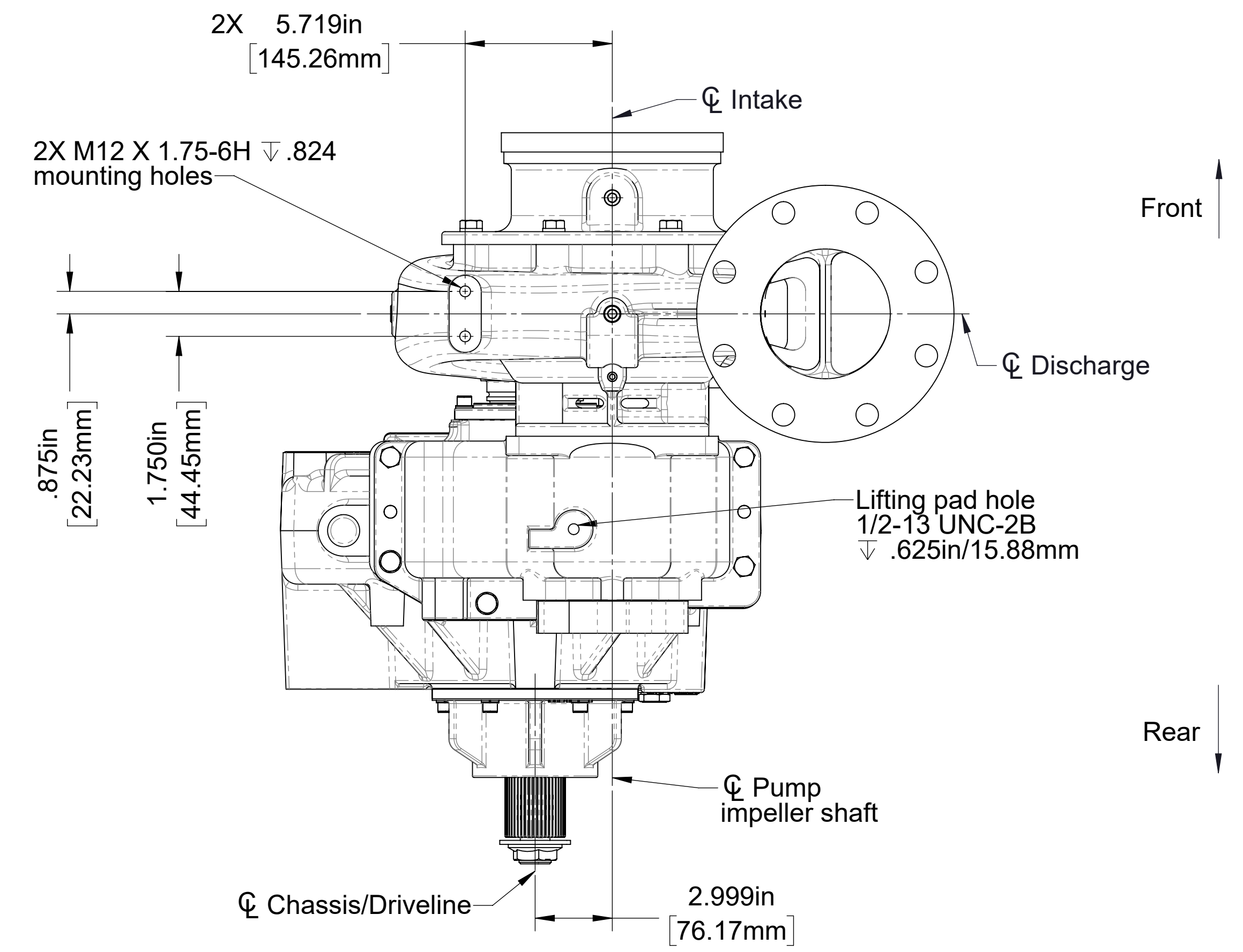




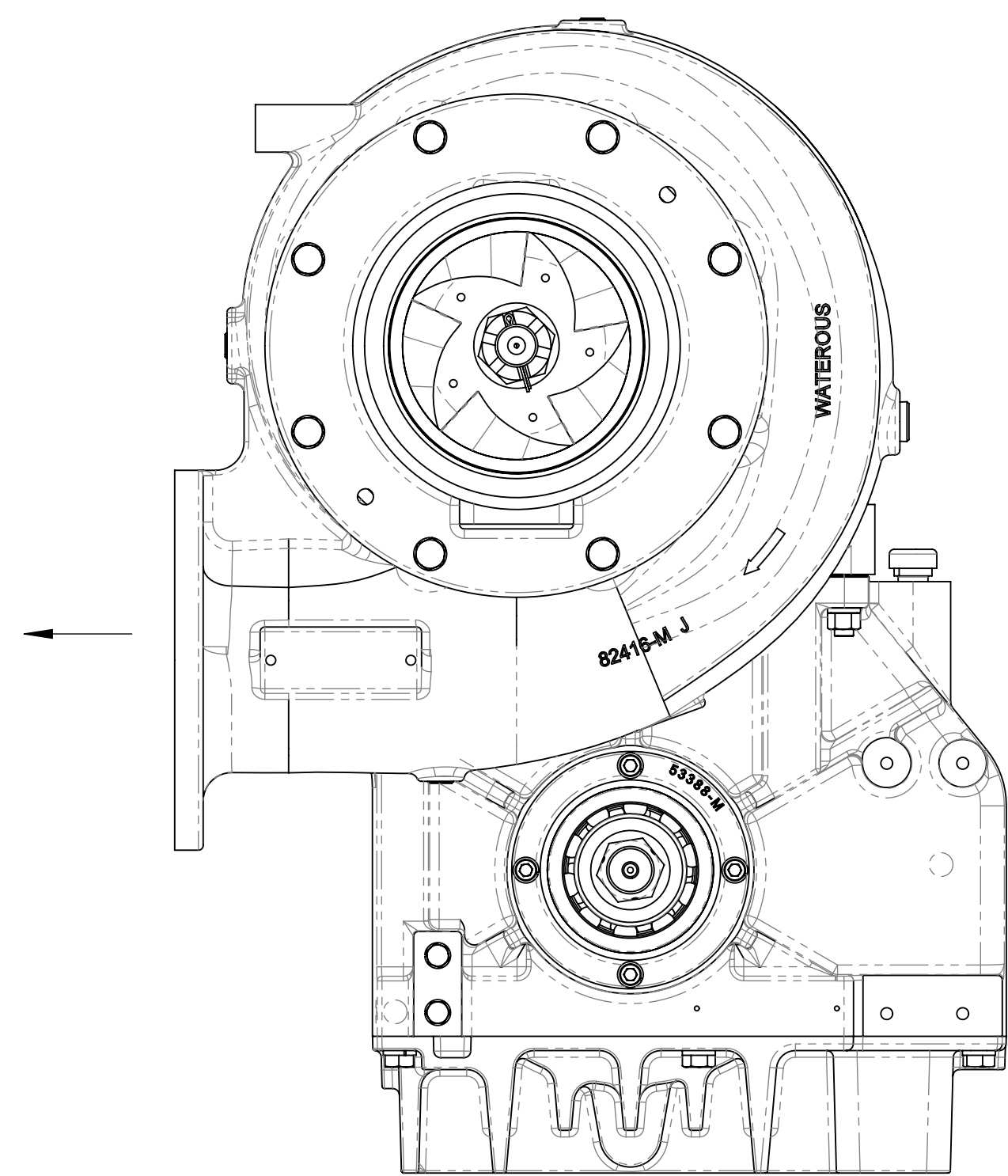
VIEW A-A

Hydraulic Pump Adapter Flange Detail
 Used for SAE J744 class B 2-bolt
 Hydraulic pump with male
 7/8-13T 16/32 pitch involute spline

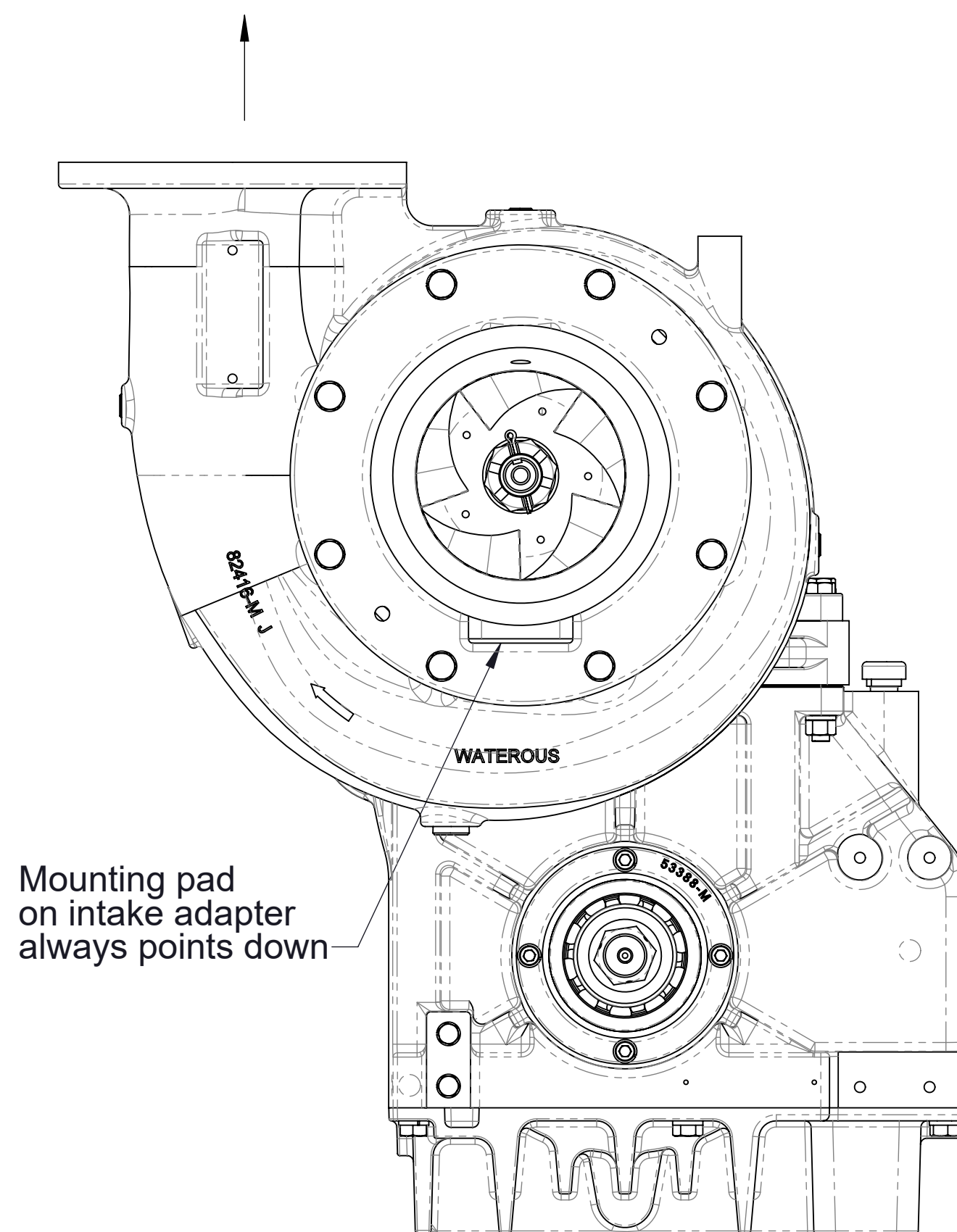
- Notes:
 1. See table 2 on page 7 for available ratios.
 2. See drawing DPL82086 for shift unit details.



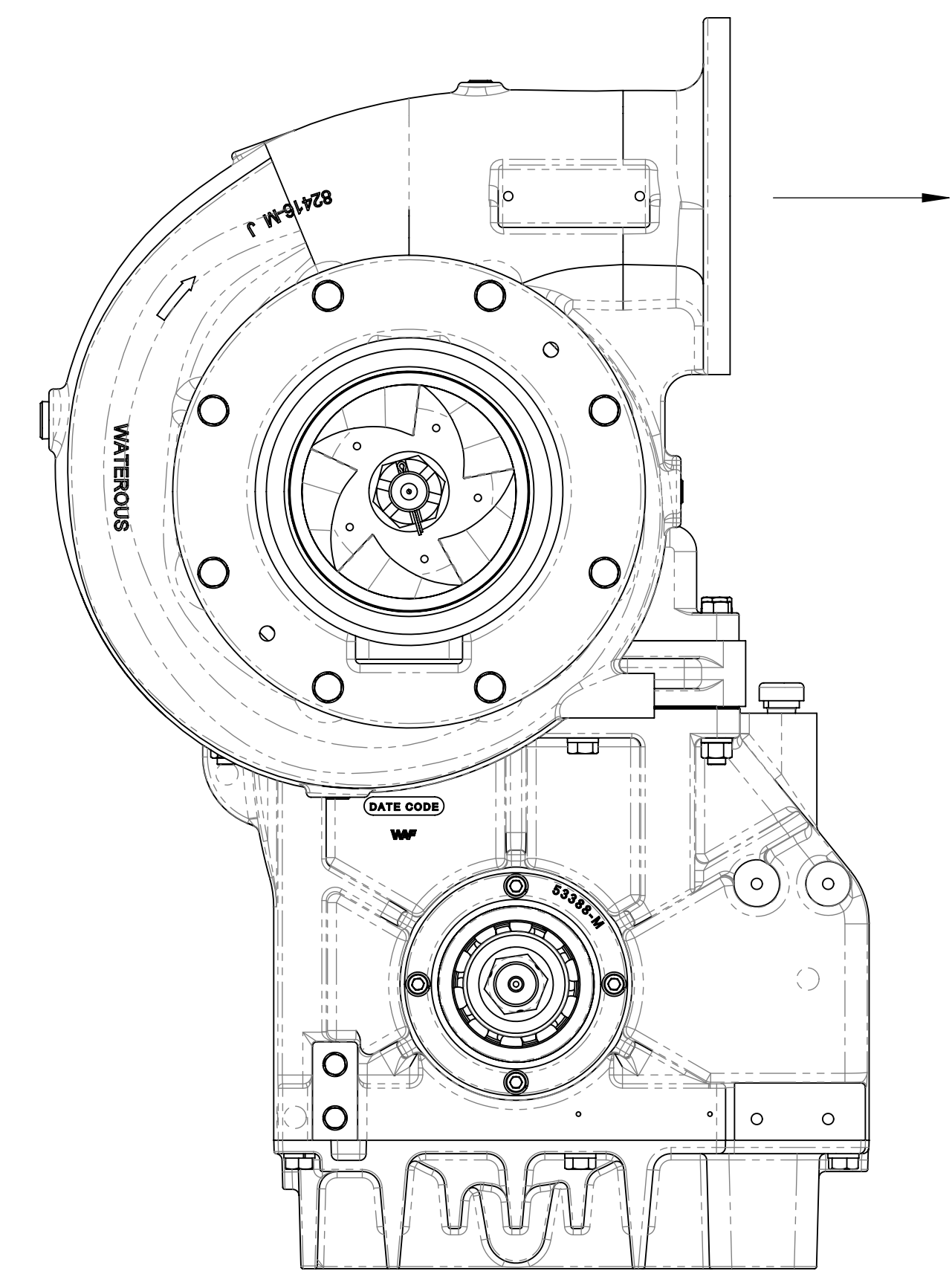
Model S100C22
 Input and output shaft
 Pump mounted on front (input shaft side) of transmission
 Hydraulic pump mounting provision on rear (output shaft side) of transmission
 Clockwise input. model S100C22, 2.27 ratio shown, blank discharge, up discharge position shown



Left
(Optional discharge manifold not available)



Up



Right
(Optional discharge manifold not available)

Available discharge positions by pump model:

S100C22C	S100C22D	S100C22E	S100C22F
Up (2) Right	Left (3) Up Right	Left Up Right	Left Up Right

Notes:

1. Positions are defined as viewed looking at transmission input shaft.
2. Up discharge position not available for S100C22C pumps with 1810 series end yokes.
3. Left discharge position not available for S100C22D pumps with 1810 series end yokes.

Discharge Positions

Ordering Information

When Ordering furnish the following informaton:

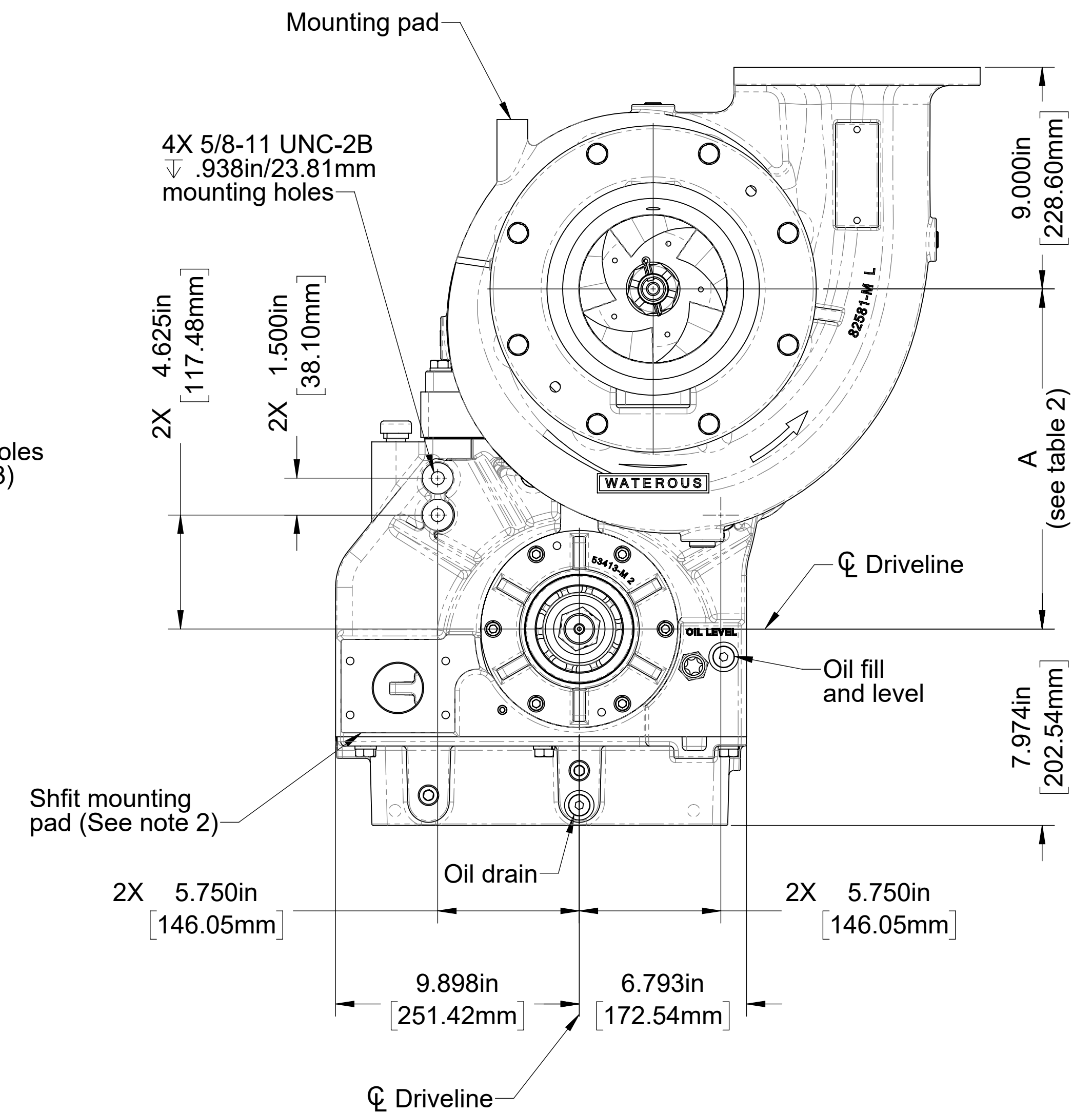
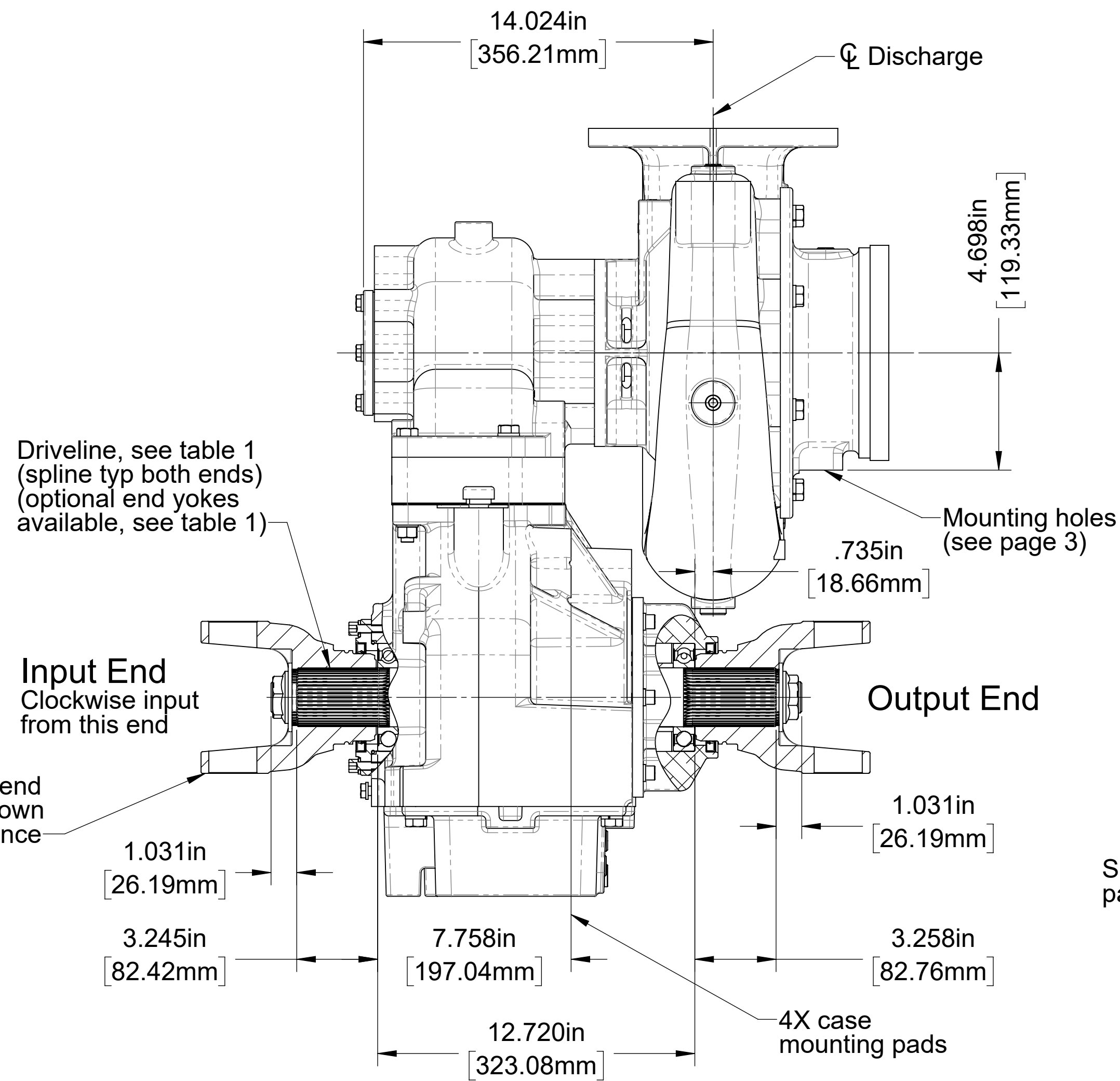
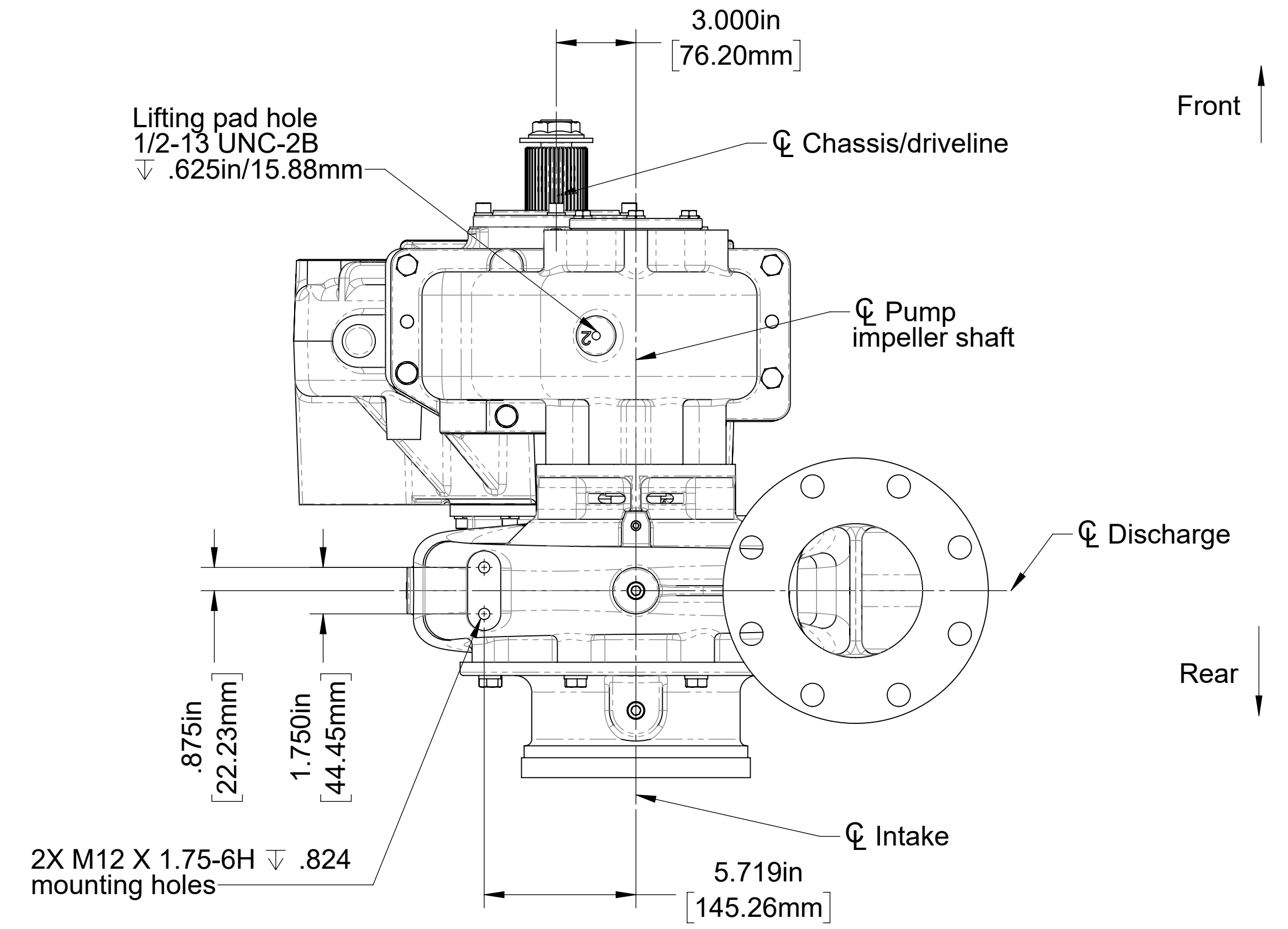
1. Pump model: (see page 7).
2. Drive to driven ratio: (see page 7).
3. Pump mounting front of transmission.
4. Discharge position: left, up or right.
5. Hydraulic adapter (see page 8).
6. Optional discharge fitting: (see pages 4 through 6).

Pump mounted on front (input shaft side) of transmission
model S100C22 ordering information

Driveline			Optional End Yokes and Companion Flanges available from Waterous				Pump Models
Type	Size	Spline	Spicer Series	Yoke		Companion Flange	
				Part Number	Cross and Bearing Kit		
Extra Heavy Duty	2.35 Inch	2.350-46T Involute	1480/1610	--	--	V 3719	S100C22C, S100C22D, S100C22E, S100C22F
			1650/1710	--	--	V 3619	
			1710	V 2837	V 2839	--	
			1810	V 2838	V 2840	--	
			SPL140	V 3388	V 3389	--	

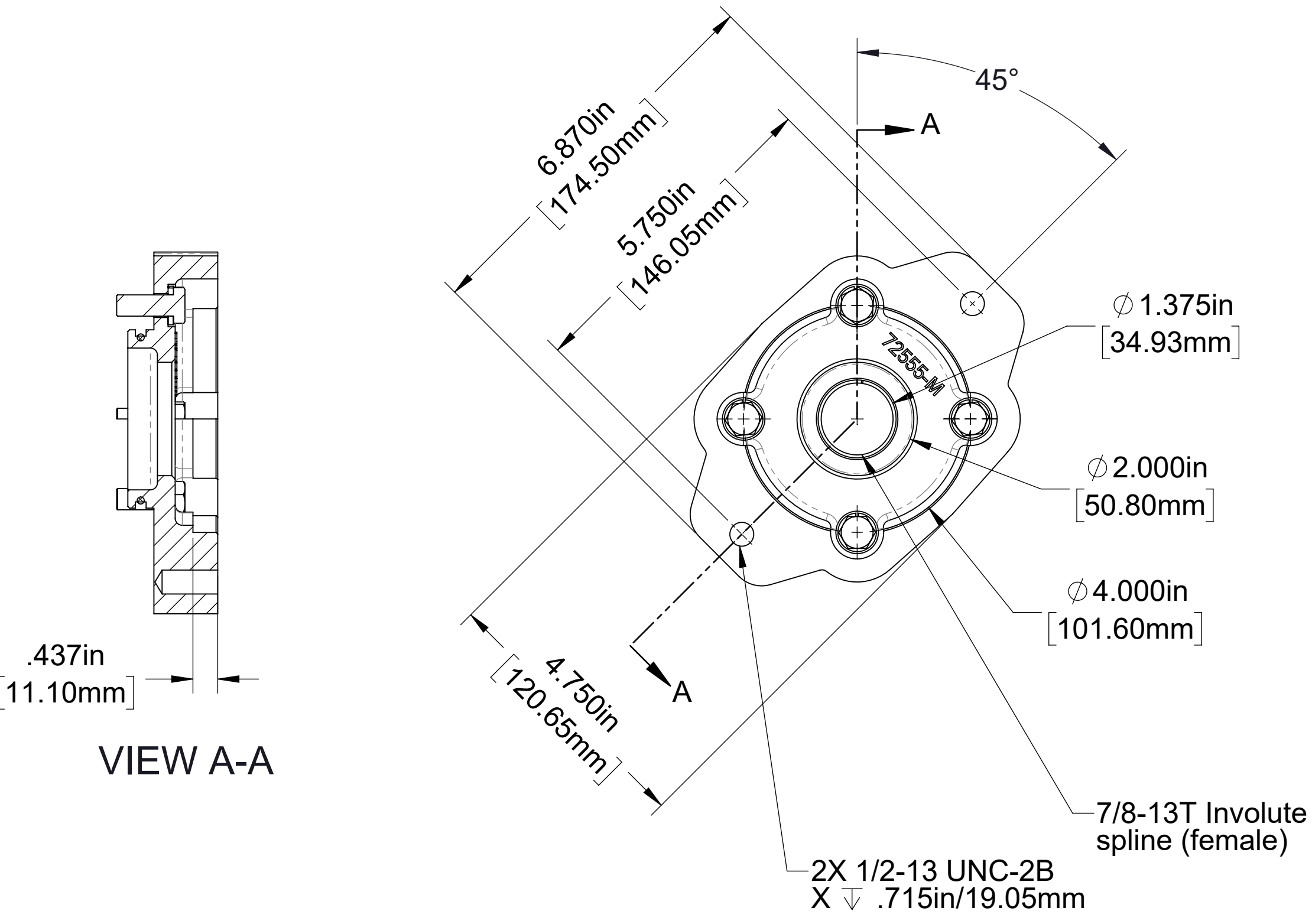
Drive to Driven Ratio	Dimension A			
	C22C	C22D	C22E	C22F
1.27	14.312in 363.52mm	14.825in 376.56mm	16.861in 428.27mm	18.892in 479.86mm
1.41	13.899in 353.03mm	14.931in 379.25mm	16.971in 431.06mm	19.002in 482.65mm
1.48	13.878in 352.50mm	14.907in 378.64mm	16.951in 430.56mm	18.981in 482.12mm
1.58	13.756in 349.40mm	14.788in 375.62mm	16.830in 427.48mm	18.861in 479.07mm
1.69	13.839in 351.51mm	14.876in 377.85mm	16.923in 429.84mm	18.961in 481.61mm
1.79	14.045in 356.74mm	15.072in 382.83mm	17.127in 435.03mm	19.168in 486.87mm
1.88	13.690in 347.73mm	14.717in 373.81mm	16.773in 426.03mm	18.809in 477.75mm
1.97	13.870in 352.30mm	14.912in 378.76mm	16.970in 431.04mm	19.012in 482.90mm
2.03	13.984in 355.19mm	15.028in 381.71mm	17.086in 433.98mm	19.132in 485.95mm
2.27	13.811in 350.80mm	14.856in 377.34mm	16.920in 429.77mm	18.971in 481.81mm
2.46	14.042in 356.67mm	15.087in 383.21mm	17.154in 435.71mm	19.205in 487.81mm
2.68	13.746in 349.15mm	14.793in 375.74mm	16.865in 428.37mm	18.923in 480.64mm

Notes:
 1. See table 2 for available ratios.
 2. See drawing DPL82086 for shift unit details.



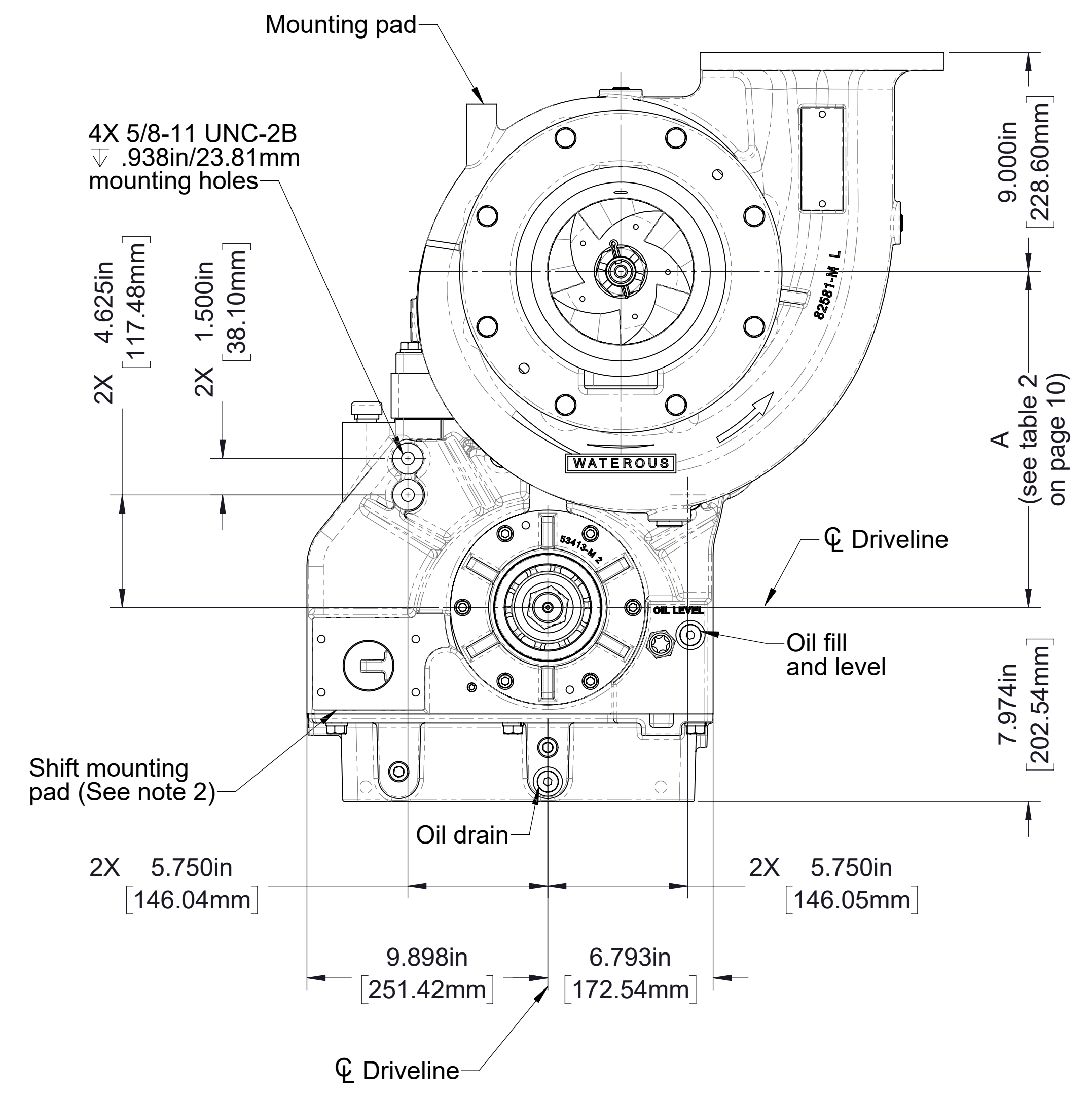
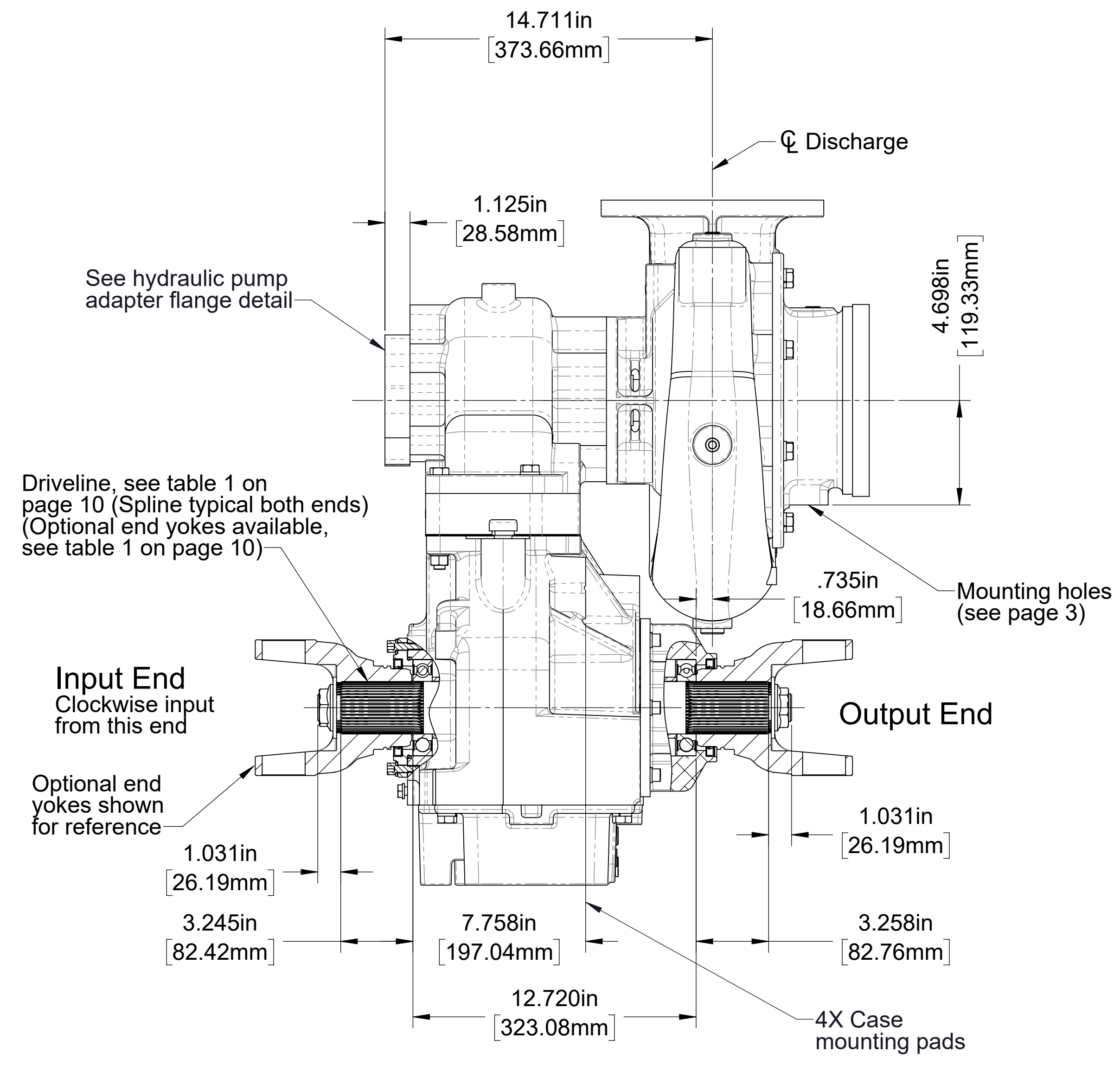
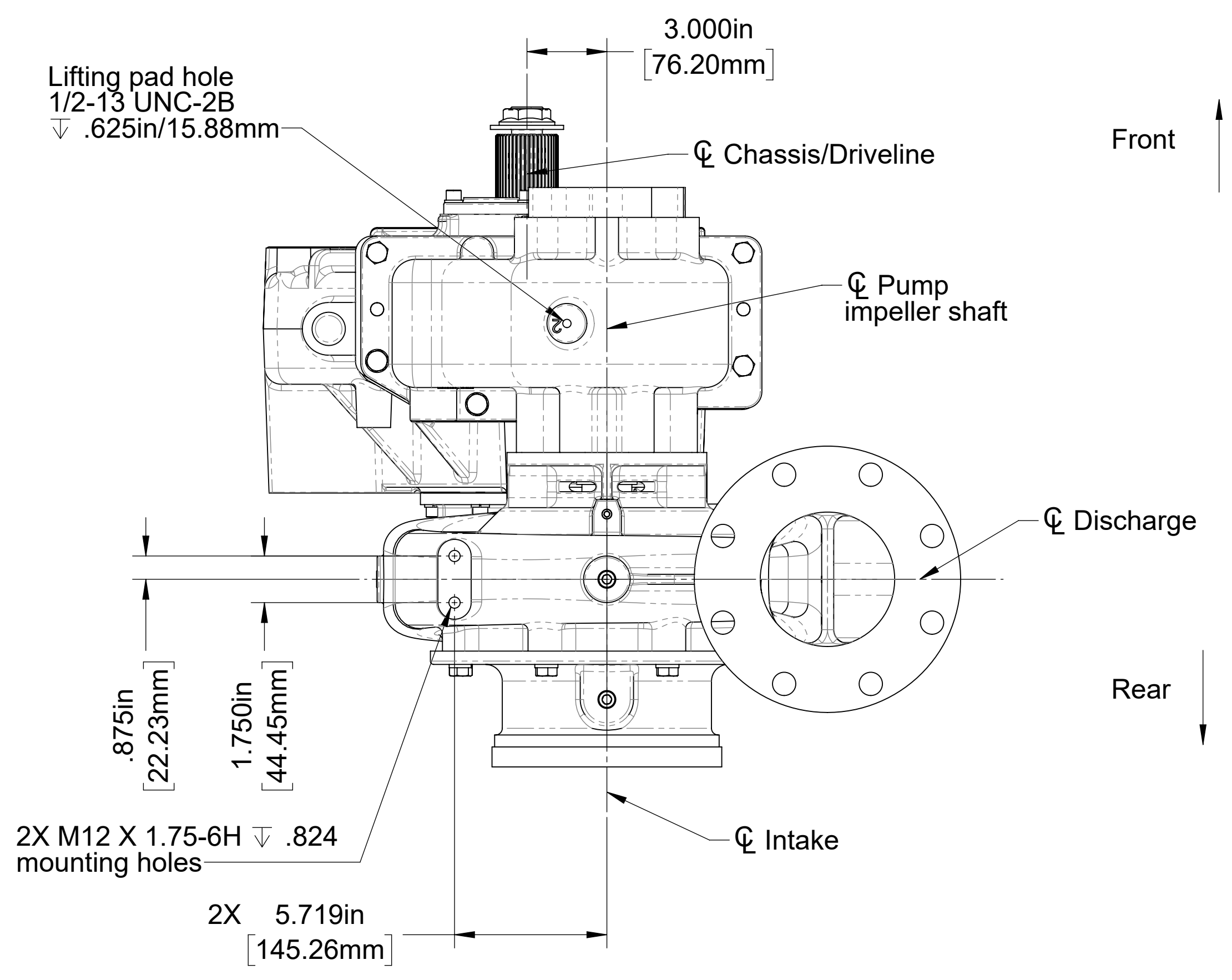
Model S100C22

Input and output
 Pump mounted on rear (output shaft side) of transmission
 Clockwise input, model S100C22C, 2.27 ratio shown
 blank discharge, up discharge position shown

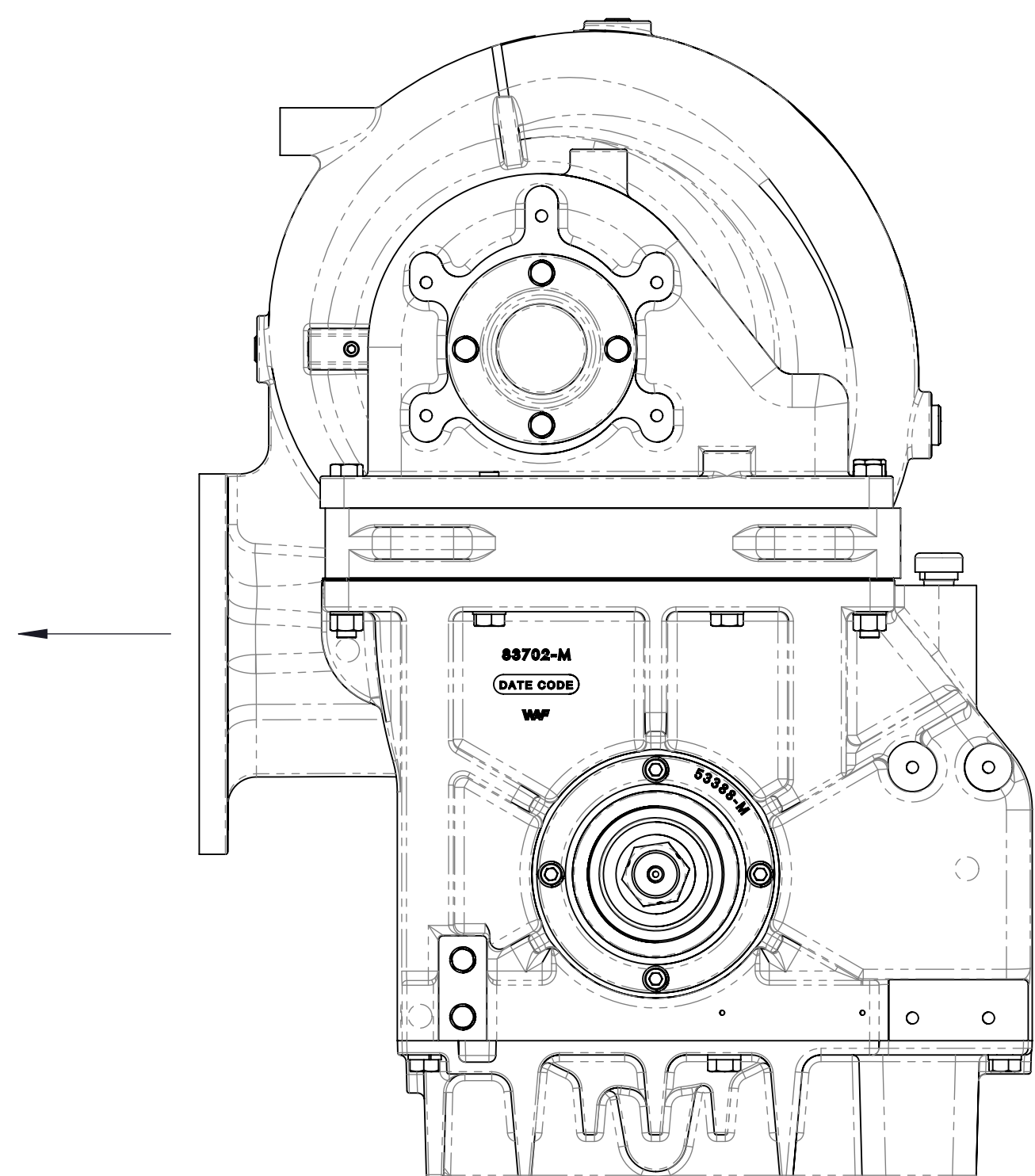


Hydraulic Pump Adapter Flange Detail
 Used for SAE J744 class B 2-bolt
 Hydraulic pump with male
 7/8-13T 16/32 pitch involute spline

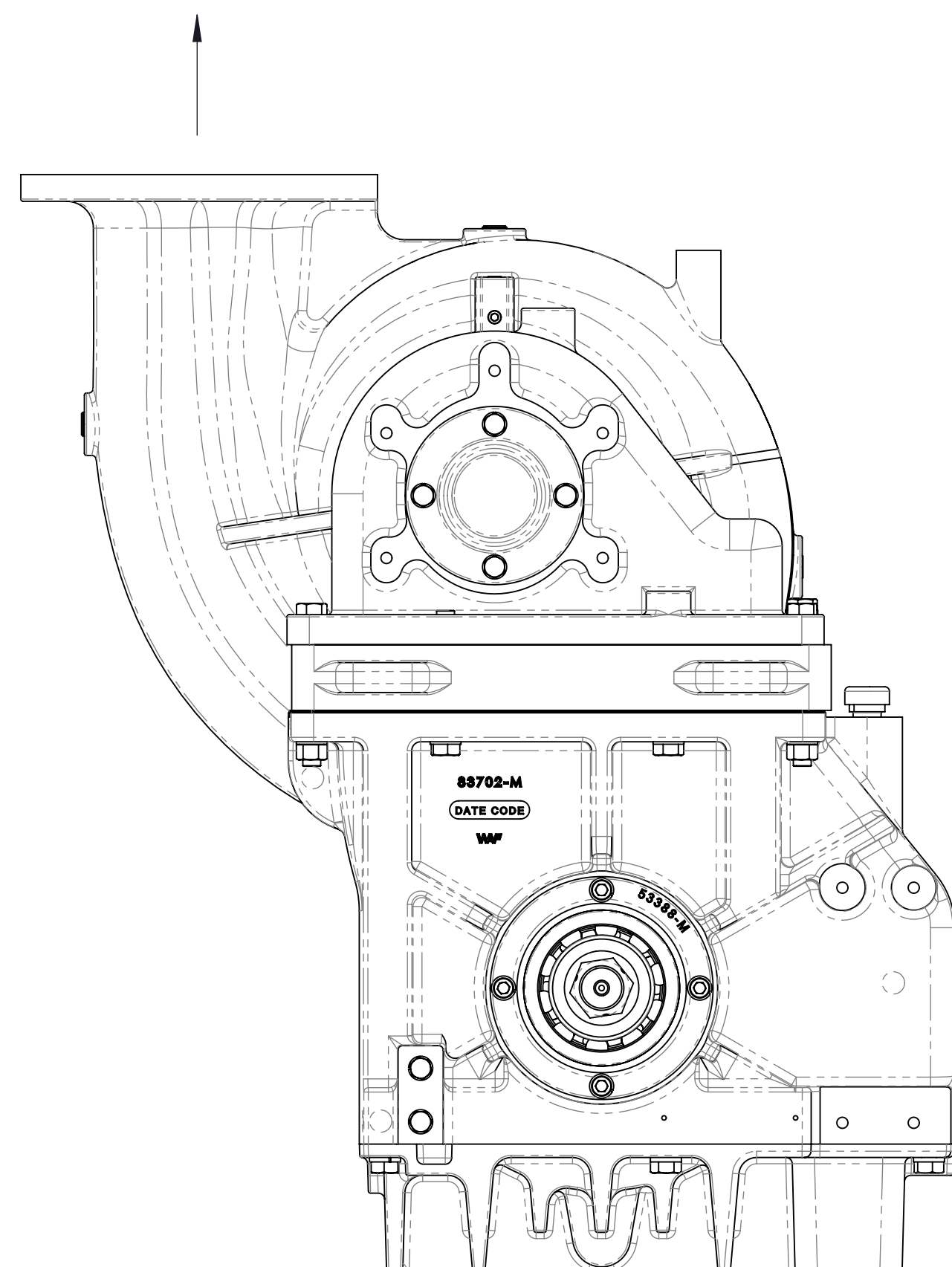
Notes:
 1. See table 2 on page 7 for available ratios.
 2. See drawing DPL82086 for unit details.



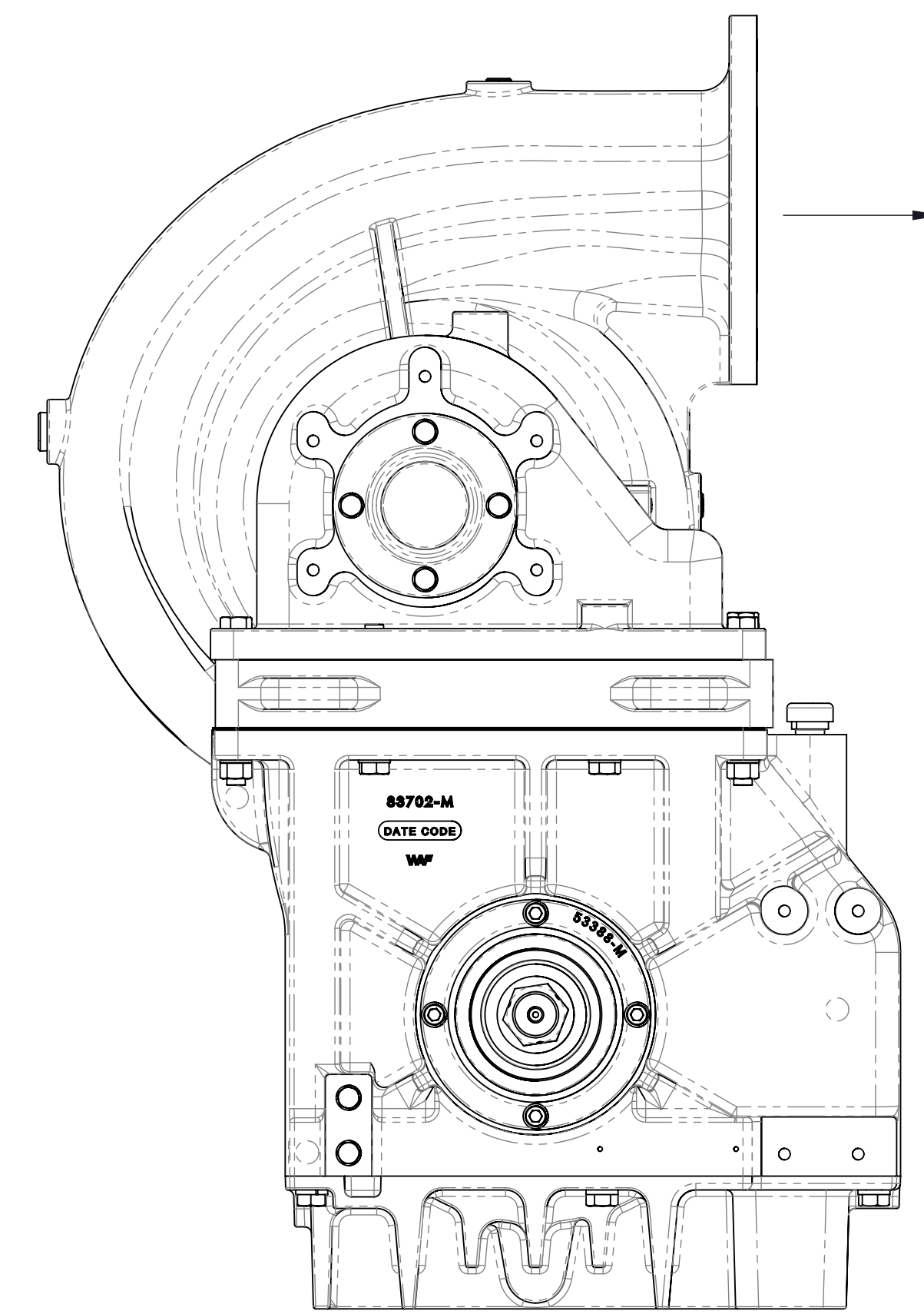
Model S100C22
 Input and output shaft
 Pump mounted on rear (output shaft side) of transmission
 Hydraulic pump mounting provision on front (input shaft side) of transmission
 Clockwise input, model S100C22C, 2.27 ratio shown
 blank discharge, up discharge position shown



Left
(Optional discharge manifold not available)



Up



Right
(Optional discharge manifold not available)

Available discharge positions by pump model:

S100C22C	S100C22D	S100C22E	S100C22F
Up (2) Right	Left (3) Up Right	Left Up Right	Left Up Right

Notes:

1. Positions are defined as viewed looking at transmission input shaft.
2. Up discharge position not available for S100C22C pumps with 1810 series end yokes.
3. Left discharge position not available for S100C22D pumps with 1810 series end yokes.

Discharge Positions

Ordering Information

When Ordering furnish the following informaton:

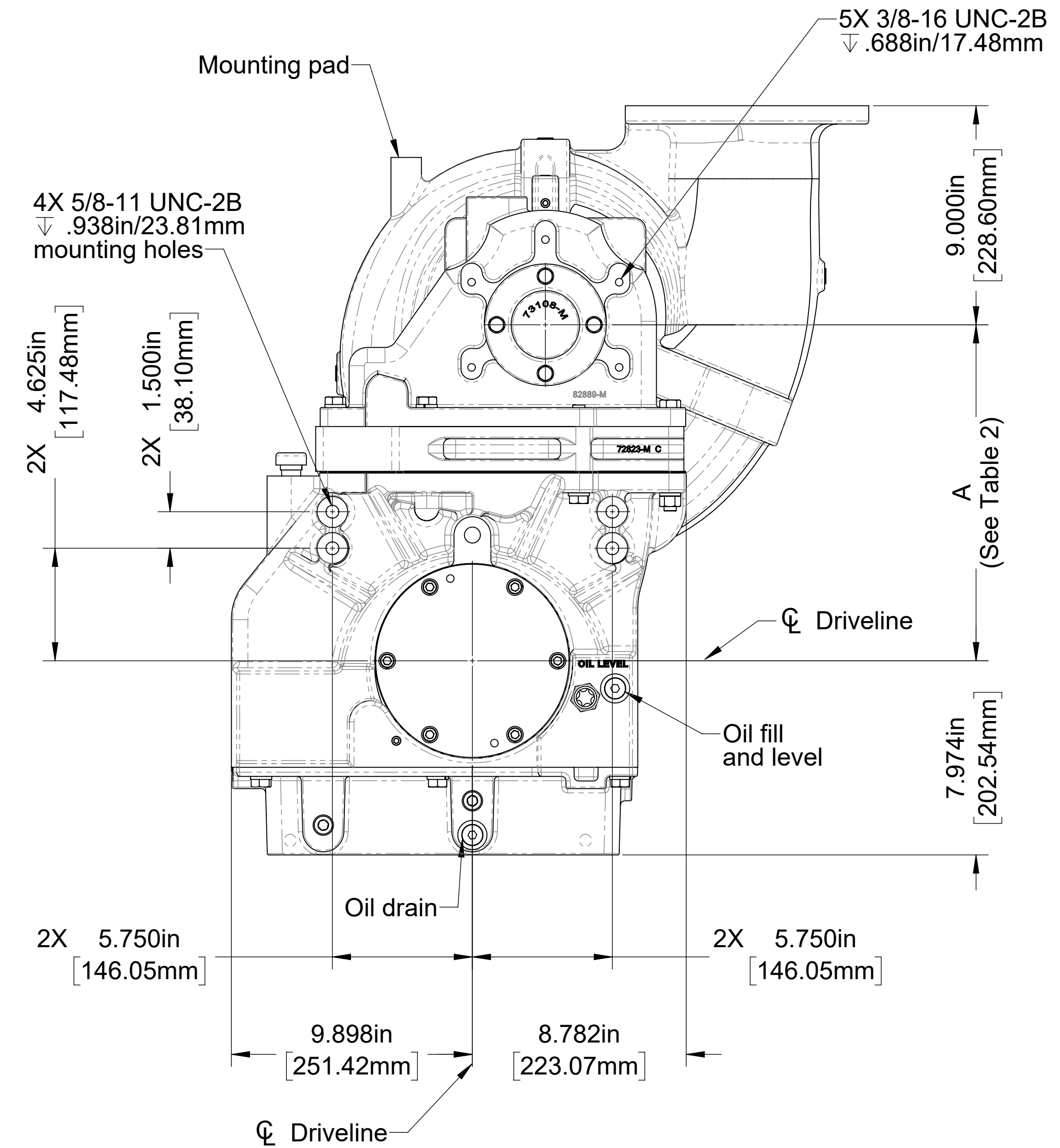
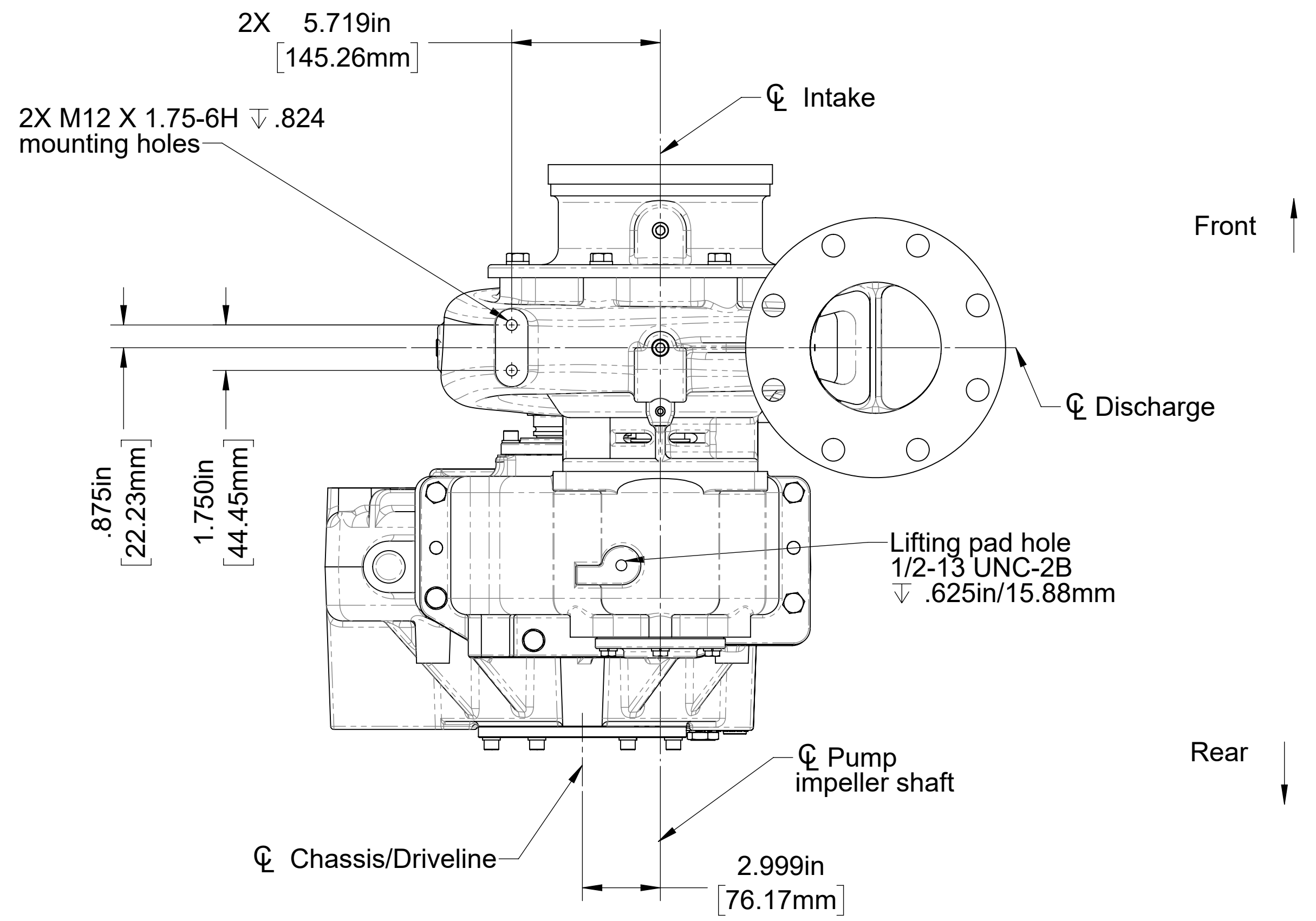
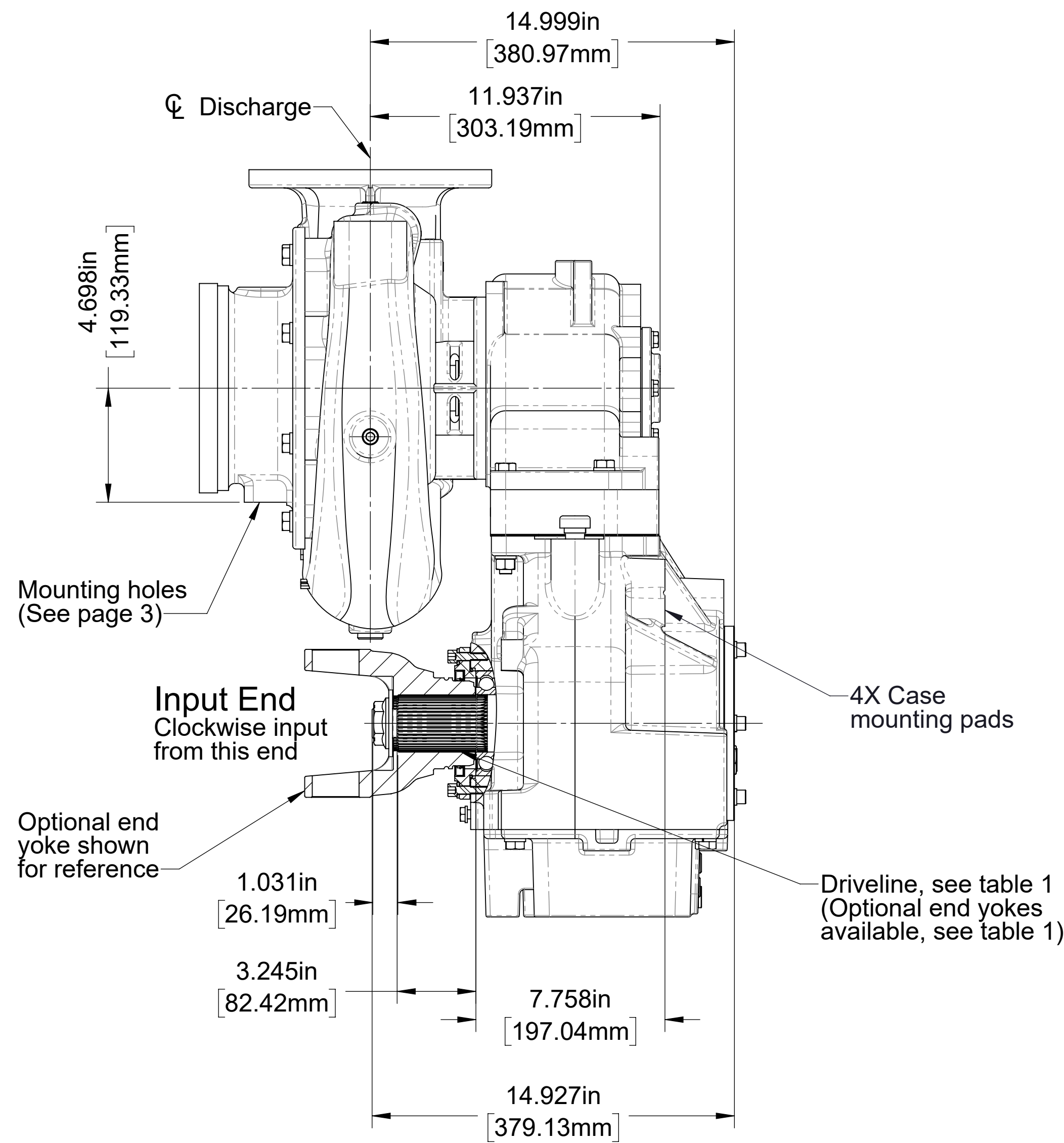
1. Pump model: (see page 10).
2. Drive to driven ratio: (see page 10).
3. Pump mounting rear of transmission.
4. Discharge position: left, up or right.
5. Hydraulic adapter (see page 11).
6. Optional discharge fitting: (see pages 4 through 6).

Pump mounted on rear (output shaft side) of transmission
model S100C22 ordering information.

Driveline			Option End Yokes and Companion Flanges available from Waterous			Pump Models	
Type	Size	Spline	Spicer Series	Yoke	Companion Flange		
			Part Number	Cross and Bearing Kit			
Extra Heavy Duty	2.35 Inch	2.350-46T Involute	1480/1610	--	--	V 3719	S100C22C, S100C22D, S100C22E, S100C22F
			1650/1710	--	--	V 3619	
			1710	V 2837	V 2839	--	
			1810	V 2838	V 2840	--	
			SPL140	V 3388	V 3389	--	

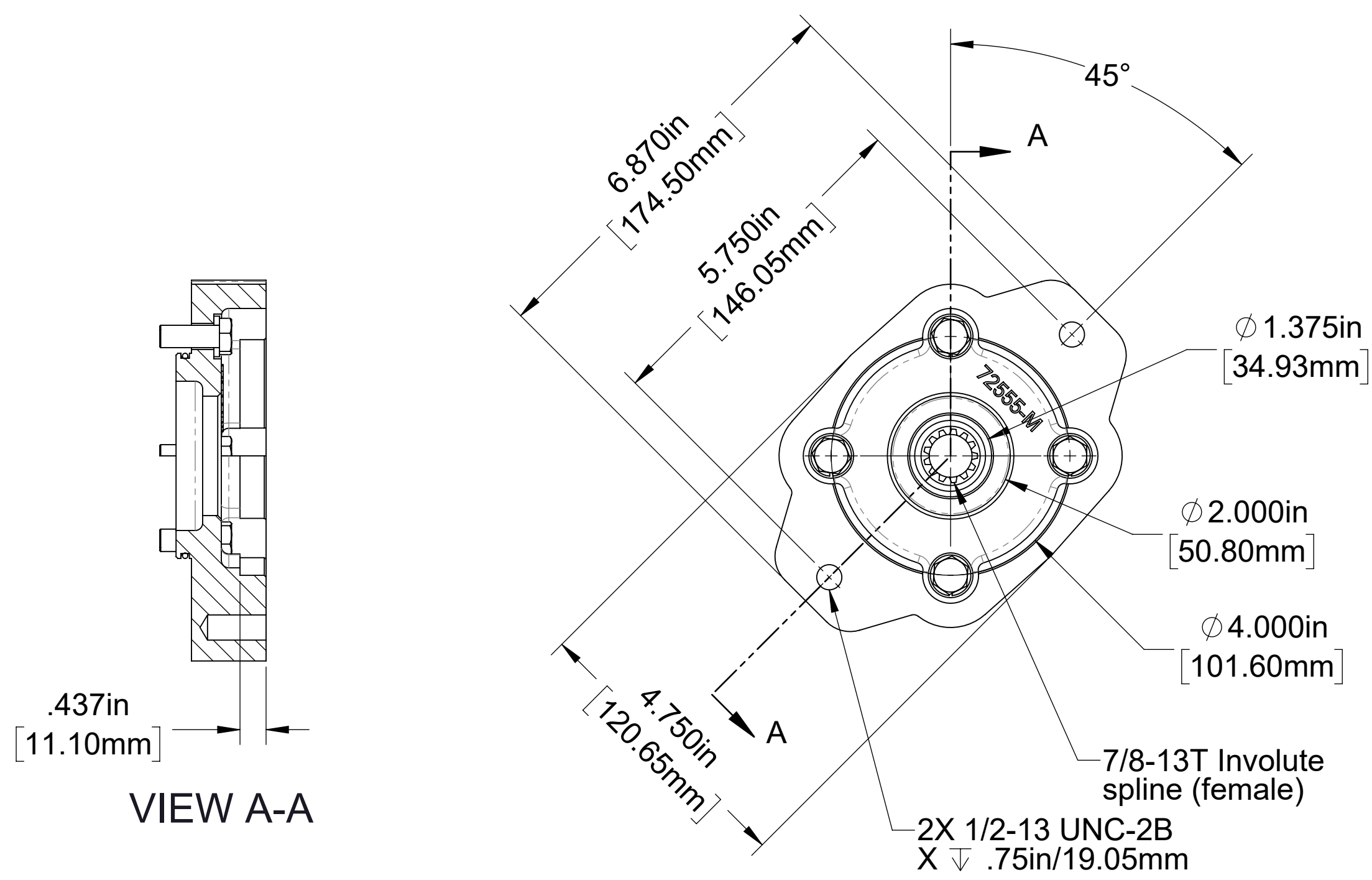
Drive to Driven Ratio	Dimension A			
	C22C	C22D	C22E	C22F
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1.97	13.870in 352.30mm	14.912in 378.76mm	16.970in 431.04mm	19.012in 482.90mm
2.03	13.984in 355.19mm	15.028in 381.71mm	17.086in 433.98mm	19.132in 482.95mm
2.27	13.811in 350.80mm	14.856in 377.34mm	16.920in 429.77mm	18.971in 481.86mm
2.46	14.042in 356.67mm	15.087in 383.21mm	17.154in 435.71mm	19.205in 487.81mm
2.68	13.746in 349.15mm	14.793in 375.74mm	16.685in 428.37mm	18.923in 480.64mm

Notes:
1. See table 2 for available ratios.



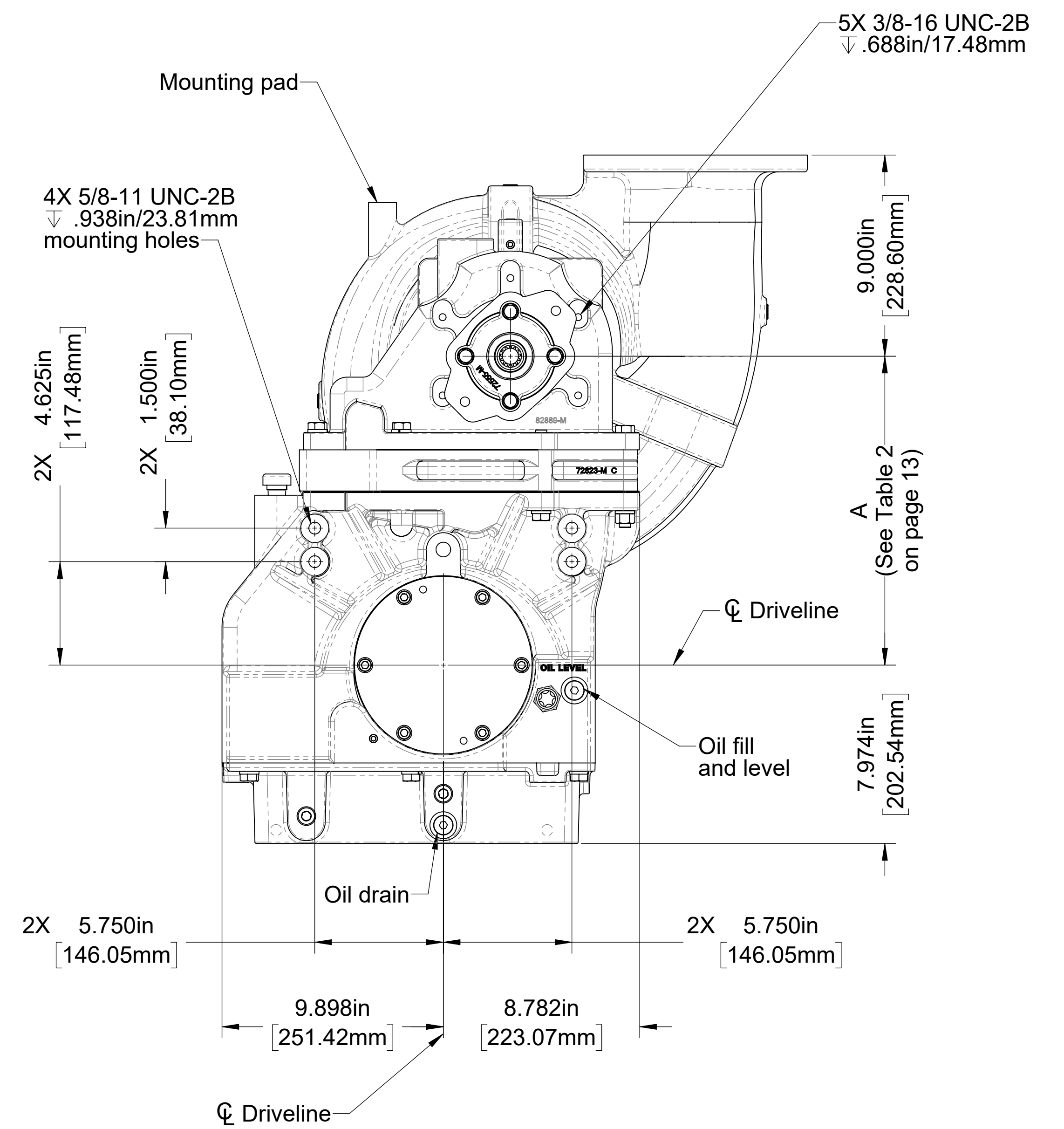
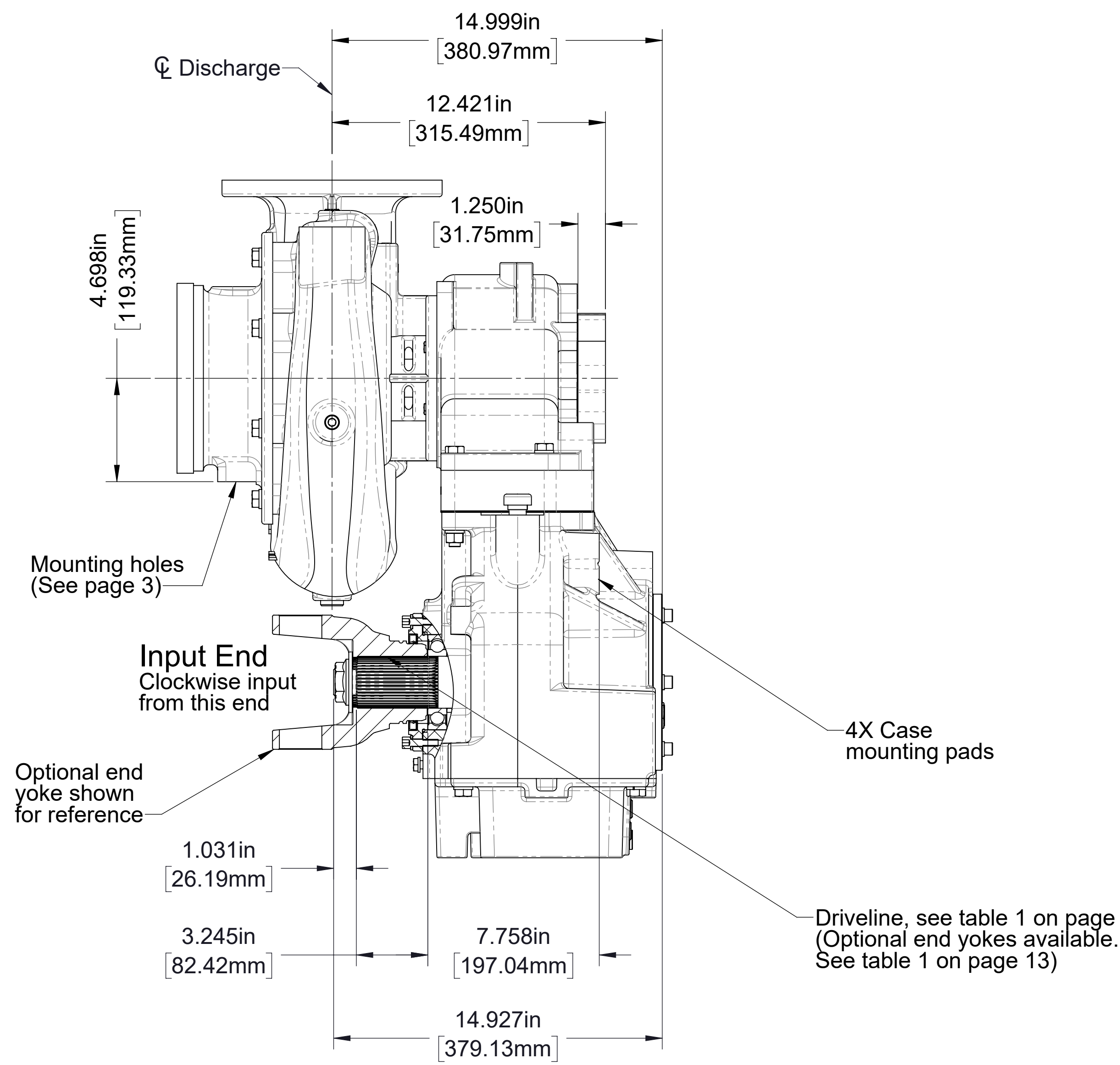
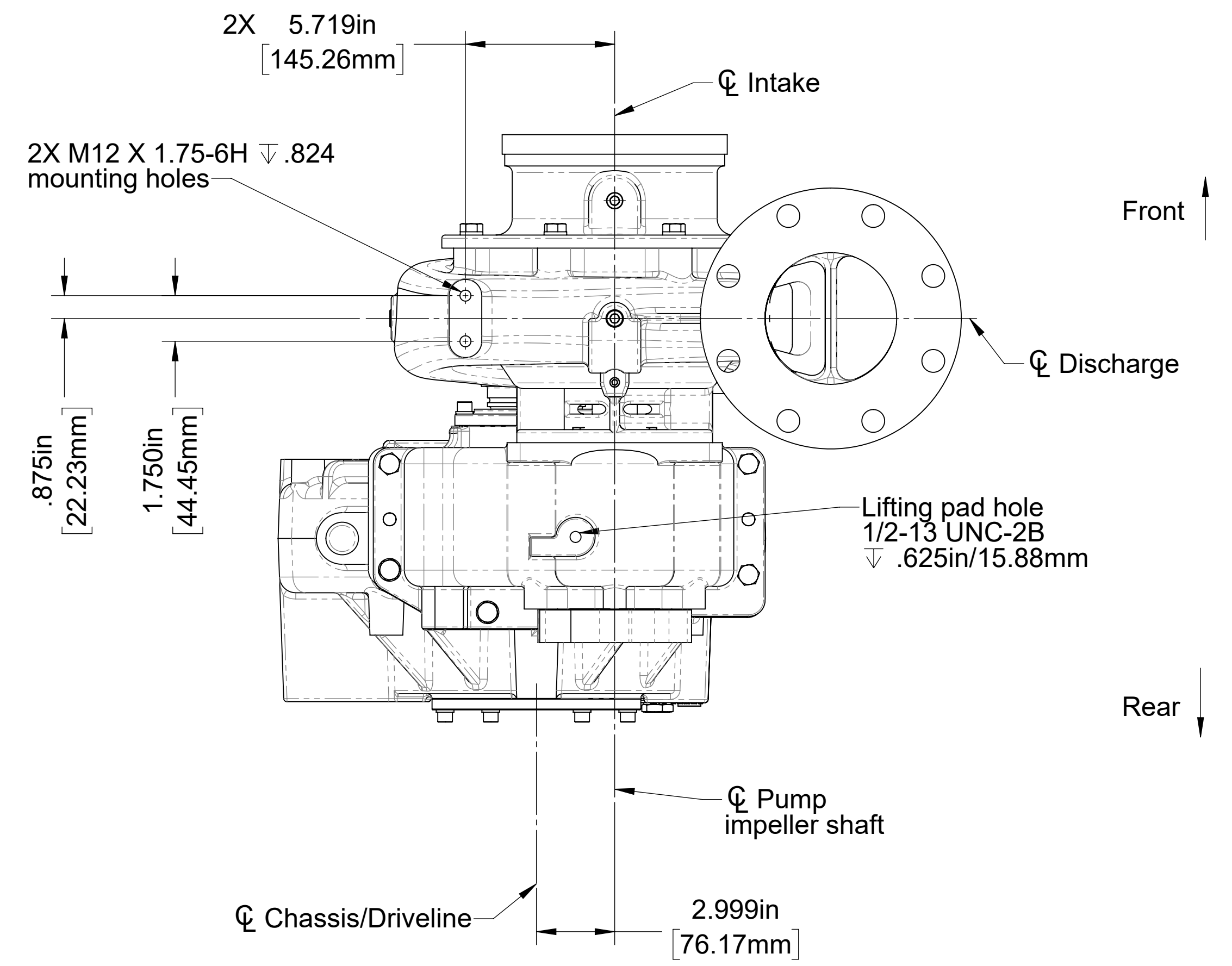
Model S100C22
Input shaft only

Pump mounted on front (input shaft side) of transmission
Clockwise input, model S100C22C, 2.27 ratio shown, blank discharge, up discharge position shown

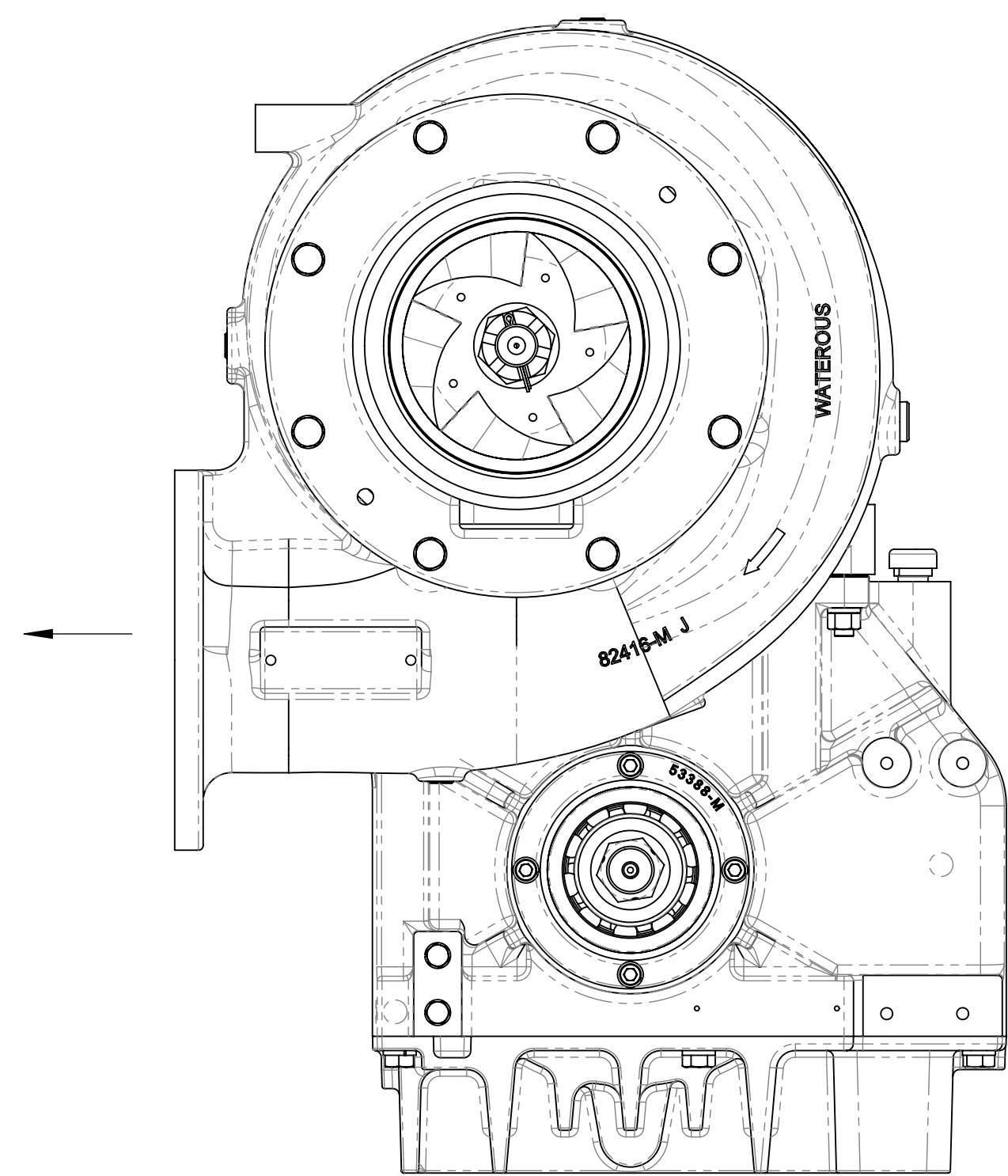


Hydraulic Pump Adapter Flange Detail
 Used for SAE J744 class B 2-bolt
 Hydraulic pump with male
 7/8-13T 16/32 pitch involute spline

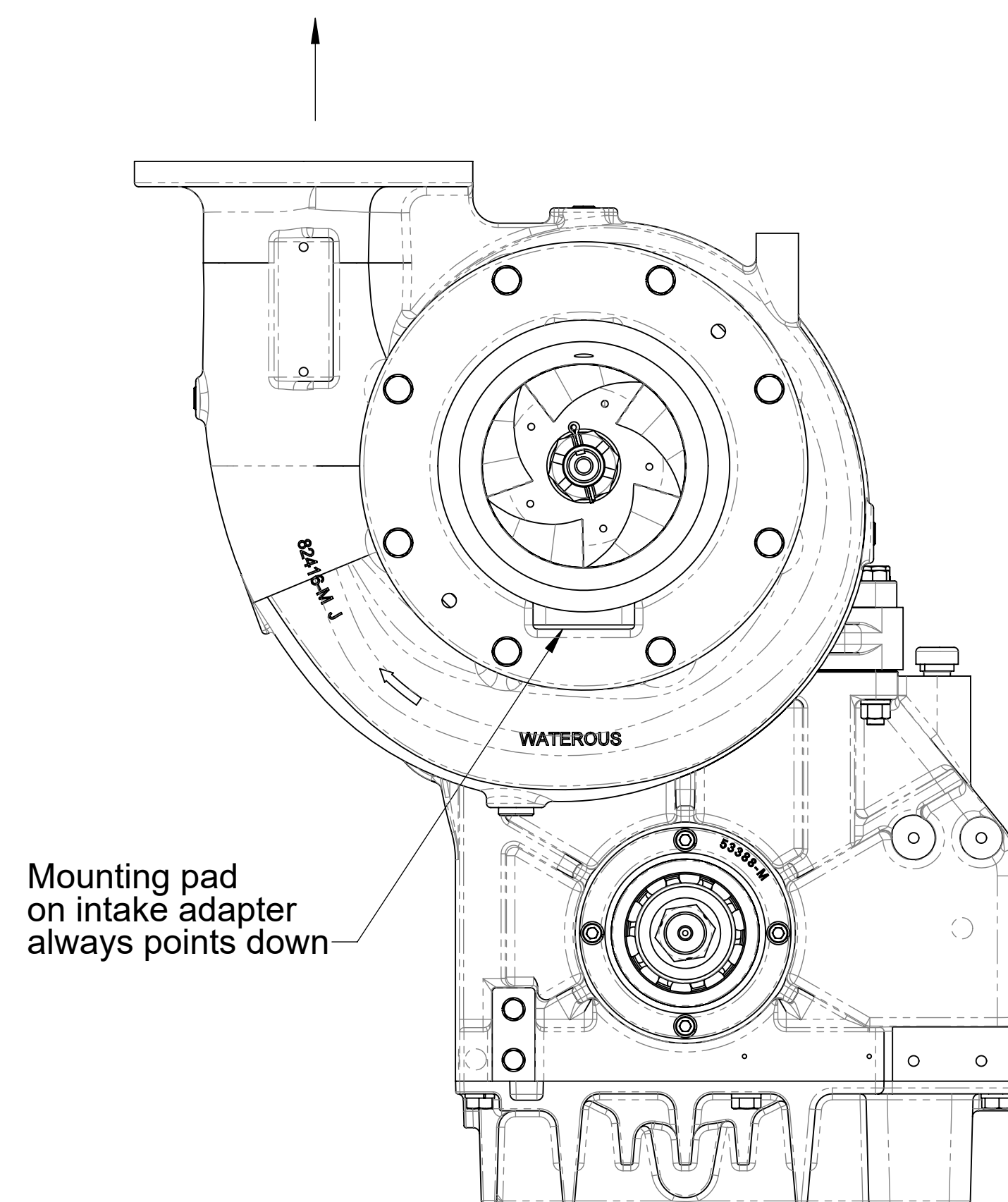
Notes:
 1. See table 2 on page 13 for available ratios.



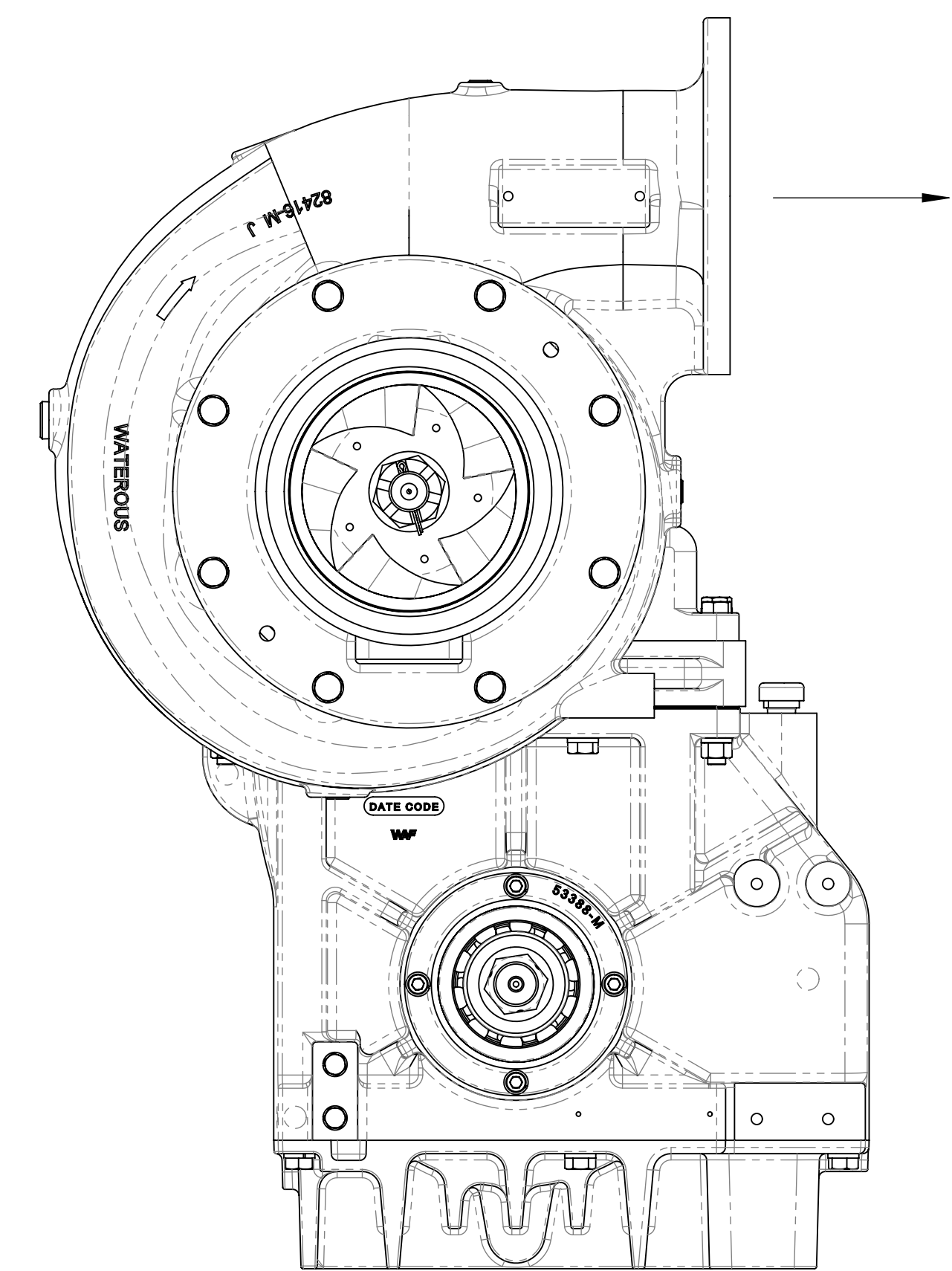
Model S100C22
 Input shaft only, pump mounted on front (input shaft side) of transmission
 Hydraulic pump mounting provision on rear (output shaft side) of transmission
 Clockwise input, model S100C22C, 2.27 ratio shown, blank discharge, up discharge position shown



Left
(Optional discharge manifold not available)



Up



Right
(Optional discharge manifold not available)

Available discharge positions by pump model:

S100C22C	S100C22D	S100C22E	S100C22F
Up (2) Right	Left (3) Up Right	Left Up Right	Left Up Right

Notes:

1. Positions are defined as viewed looking at transmission input shaft.
2. Up discharge position not available for S100C22C pumps with 1810 series end yokes.
3. Left discharge position not available for S100C22D pumps with 1810 series end yokes.

Discharge Positions

Ordering Information

When Ordering furnish the following informaton:

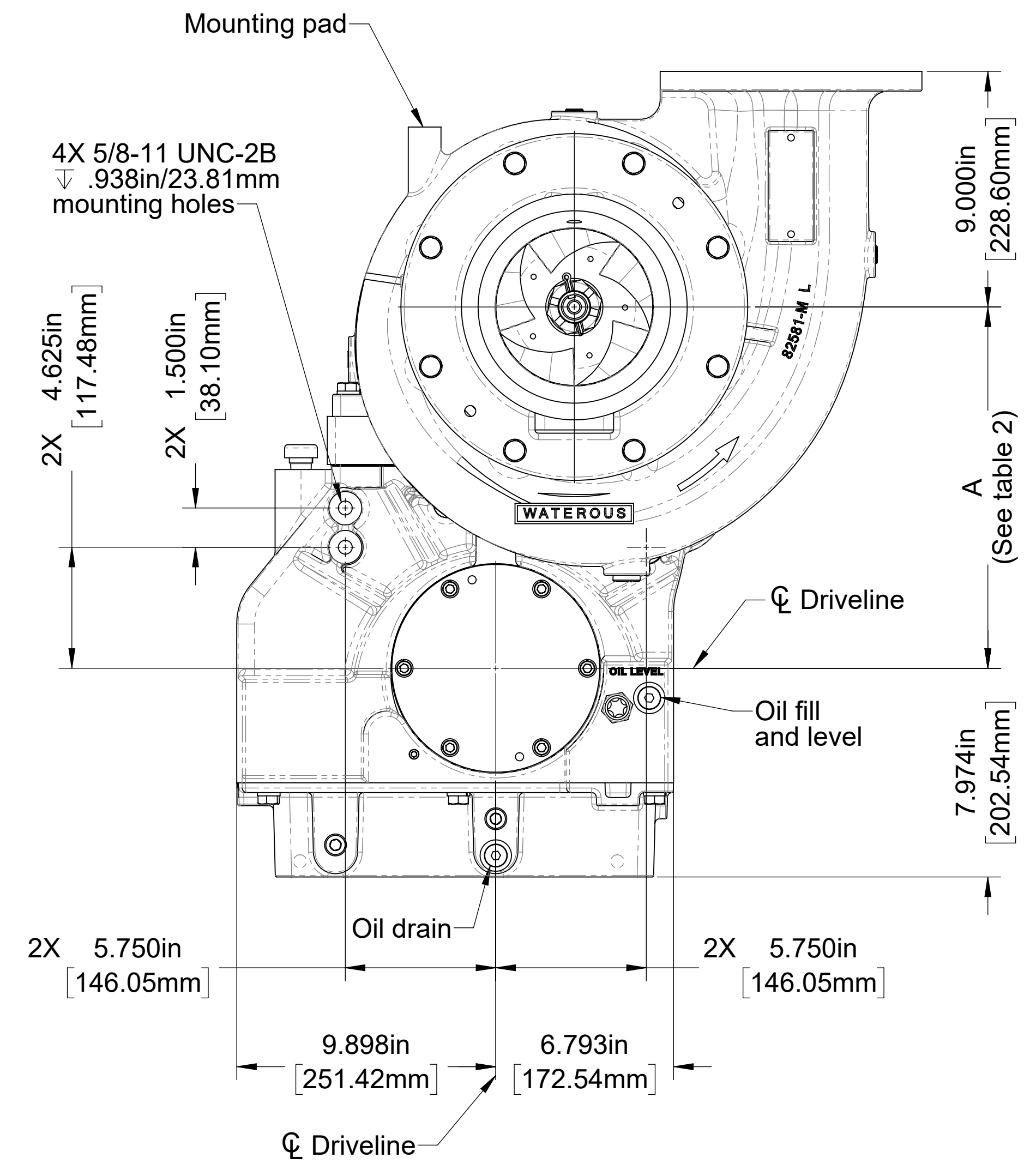
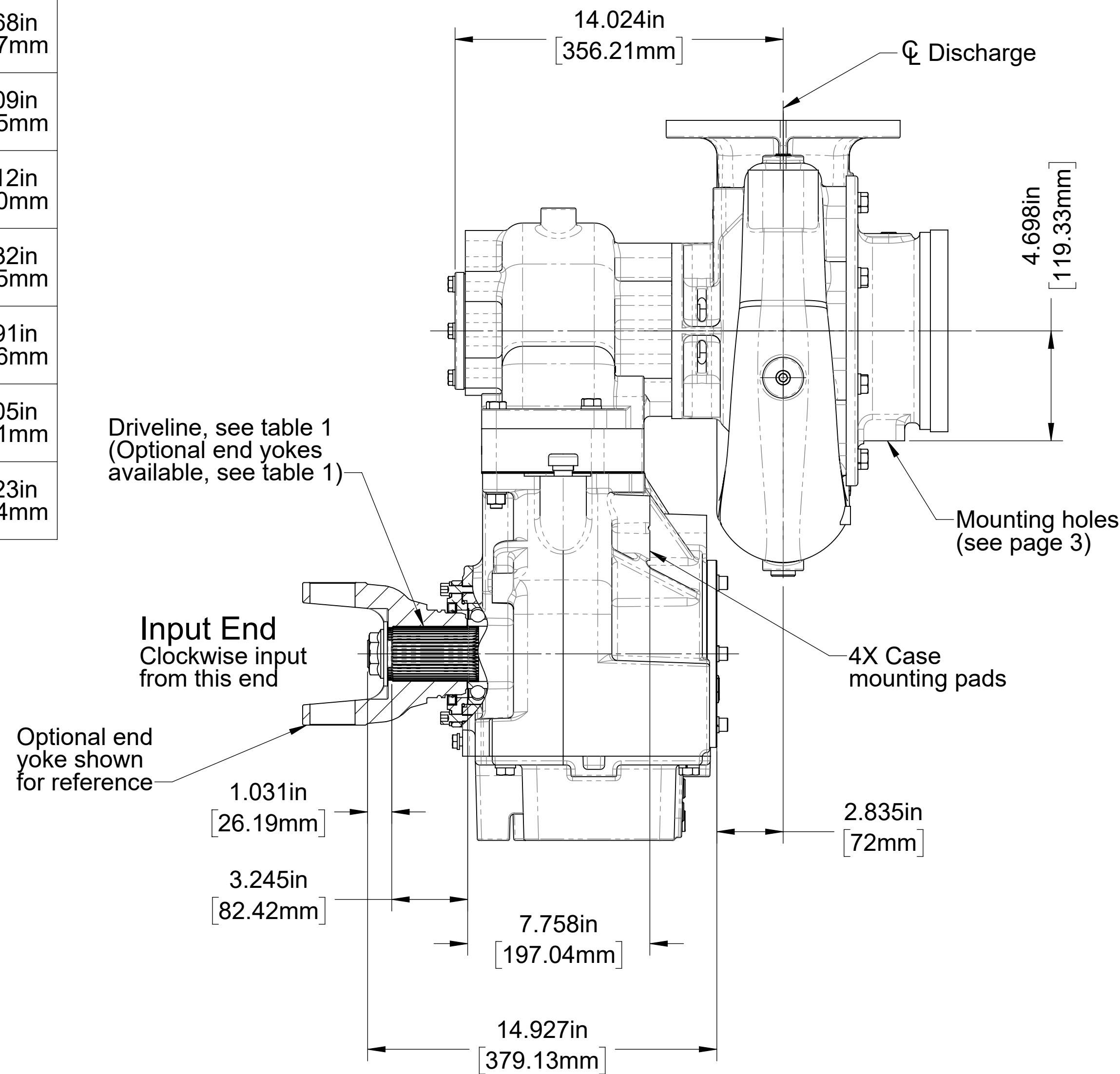
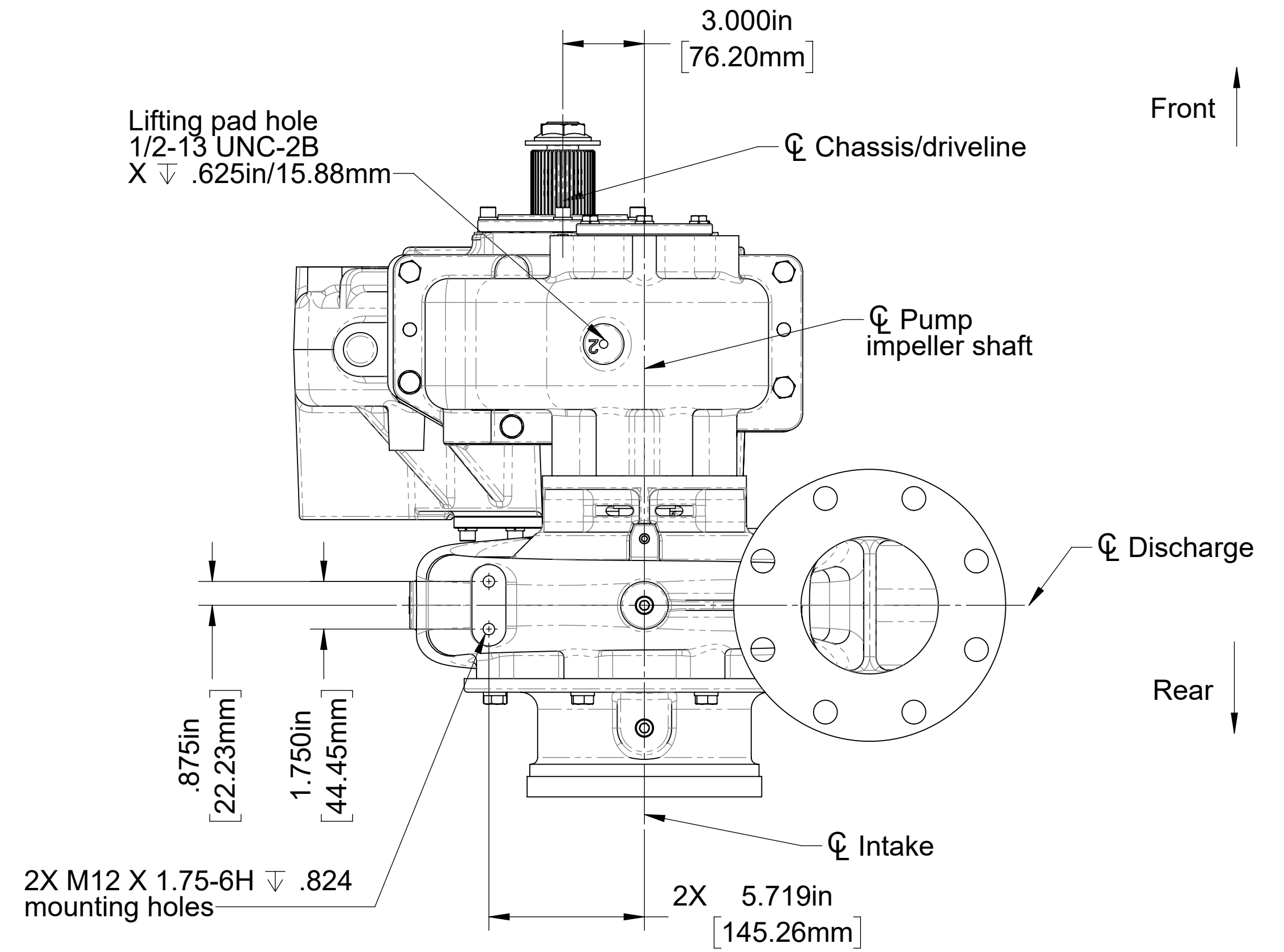
1. Pump model: (see page 13).
2. Drive to driven ratio: (see page 13).
3. Pump mounting front of transmission.
4. Discharge position: left, up or right.
5. Hydraulic adapter (see page 14).
6. Optional discharge fitting: (see pages 4 through 6).

Pump mounted on front (input shaft side) of transmission
model S100C22 ordering information

Driveline			Optional End Yokes and Companion Flanges available from Waterous				Pump Models
Type	Size	Spline	Spicer Series	Part Number	Cross and Bearing Kit	Companion Flange	
Extra Heavy Duty	2.35 Inch	2.350-46T Involute	1480/1610	--	--	V 3719	S100C22B, S100C22C, S100C22D, S100C22E, S100C22F
			1650/1710	--	--	V 3619	
			1710	V 2837	V 2839	--	
			1810	V 2838	V 2840	--	
			SPL140	V 3388	V 3389	--	

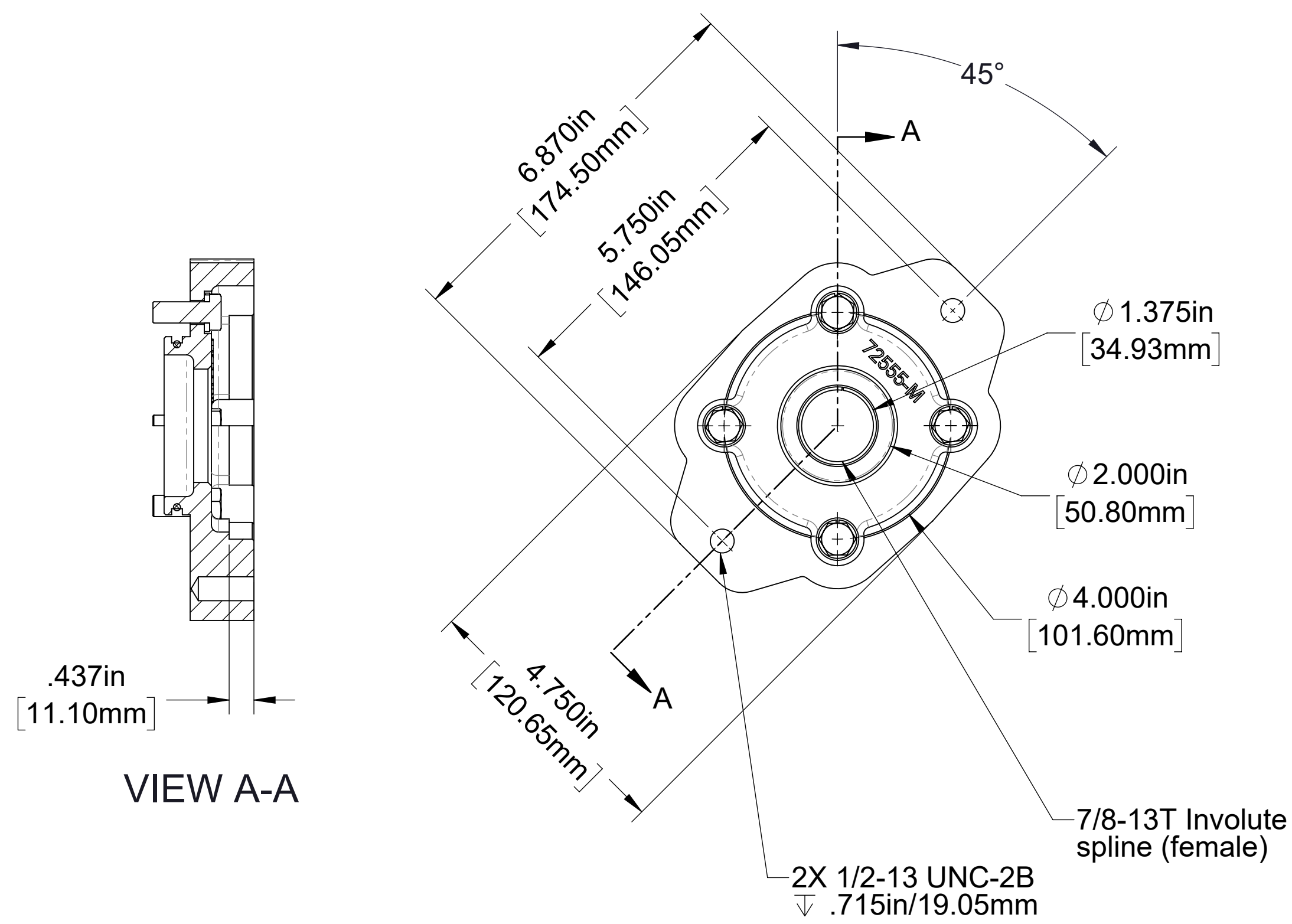
Drive to Driven Ratio	Dimension A				
	C22B	C22C	C22D	C22E	C22F
1.27 (2)	N/A	N/A	N/A	N/A	N/A
1.41	11.840in 300.74mm	13.899in 353.03mm	14.931in 379.25mm	16.971in 431.06mm	19.002in 482.65mm
1.48	12.326in 313.08mm	13.878in 352.50mm	14.907in 378.64mm	16.951in 430.56mm	16.981in 479.07mm
1.58	12.205in 310.01mm	13.756in 349.40mm	14.788in 375.62mm	16.830in 427.48mm	18.861in 479.07mm
1.69	12.290in 312.17mm	13.839in 35.151mm	14.876in 377.85mm	16.923in 429.84mm	18.961in 481.61mm
1.79	11.958in 303.73mm	14.045in 356.74mm	15.072in 382.83mm	17.127in 435.03mm	19.168in 486.87mm
1.88	12.129in 308.08mm	13.690in 347.73mm	14.717in 373.81mm	16.773in 426.03mm	18.809in 477.75mm
1.97	12.306in 312.57mm	13.870in 352.30mm	14.912in 378.76mm	16.970in 431.04mm	19.012in 482.90mm
2.03	11.896in 302.16mm	13.984in 355.19mm	15.028in 381.71mm	17.086in 433.98mm	19.132in 485.95mm
2.27	12.240in 310.90mm	13.811in 350.80mm	14.856in 377.34mm	16.920in 429.77mm	18.791in 481.86mm
2.46	11.941in 303.30mm	14.042in 356.67mm	15.087in 383.21mm	17.154in 435.71mm	19.205in 487.81mm
2.68	12.169in 309.09mm	13.746in 349.15mm	14.793in 375.74mm	16.865in 428.37mm	18.923in 480.64mm

Notes:
 1. See table 2 for available ratios.
 2. Not available because of interference between the chain and shift collar.



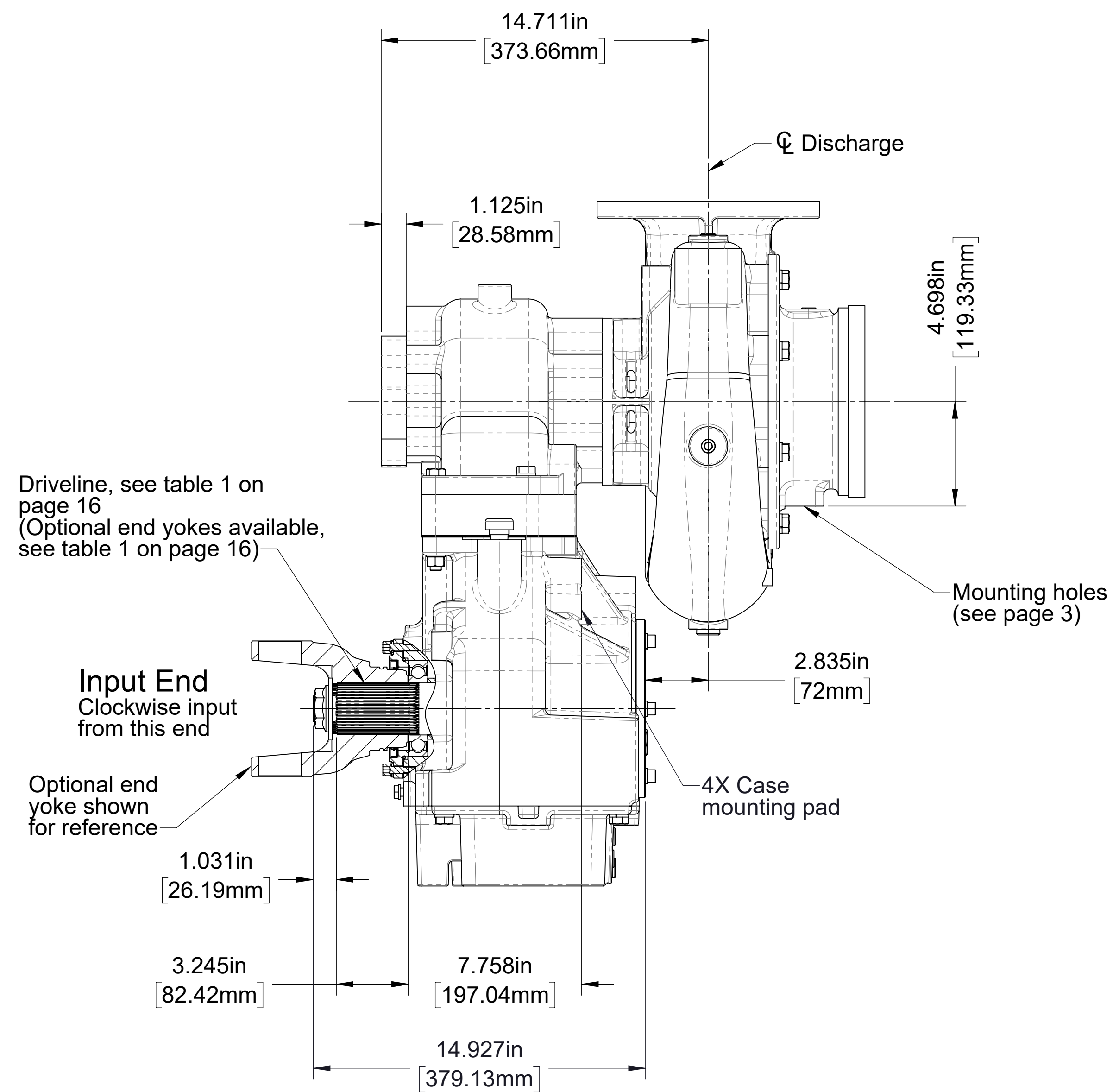
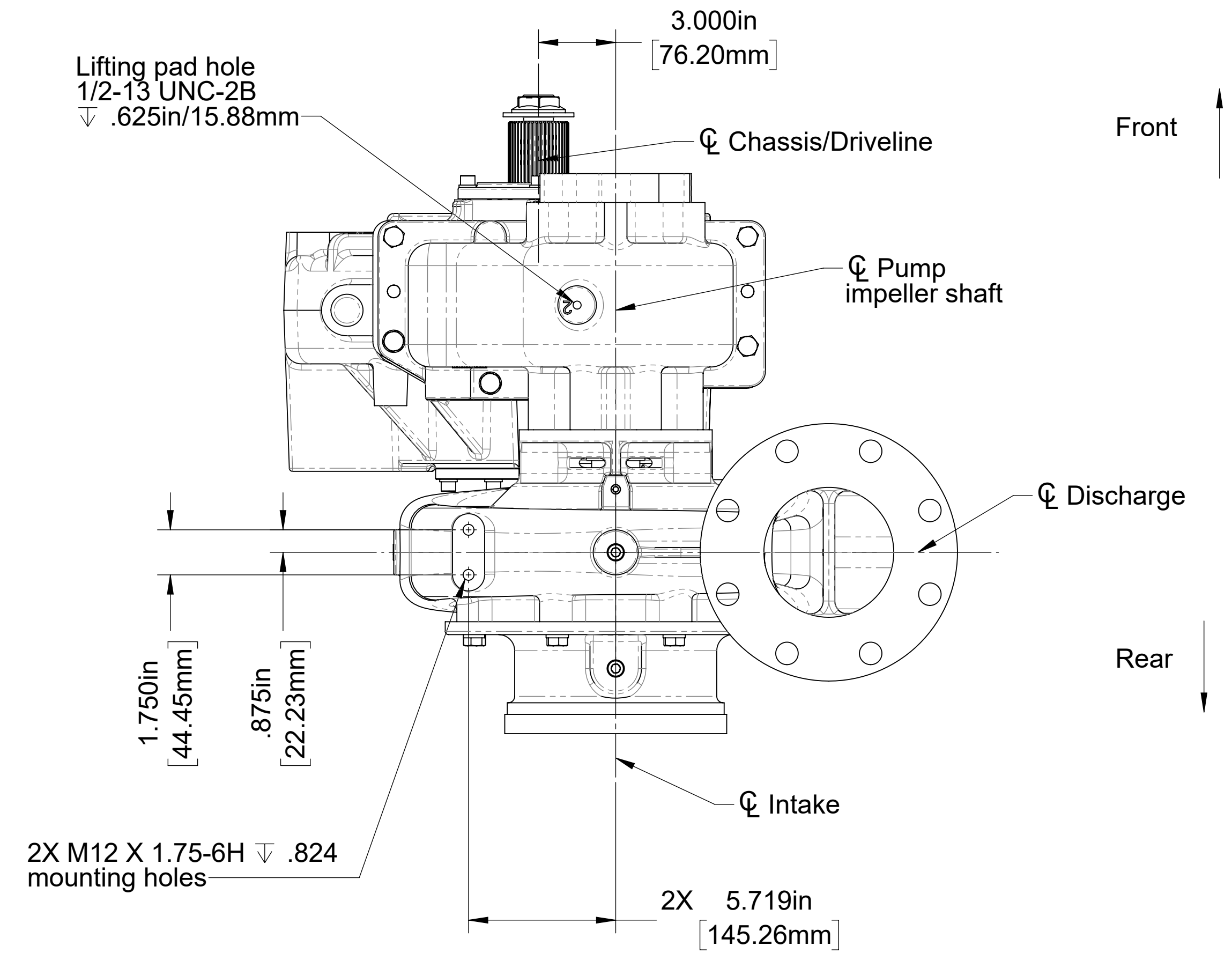
Model S100C22

Input shaft only, pump mounted on rear (output shaft side) of transmission
 Clockwise input, model S100C22E, 2.27 ratio shown
 blank discharge, up discharge position shown



Hydraulic Pump Adapter Flange Detail
 Used for SAE J744 class B 2-bolt
 Hydraulic pump with male
 7/8-13T 16/32 pitch involute spline

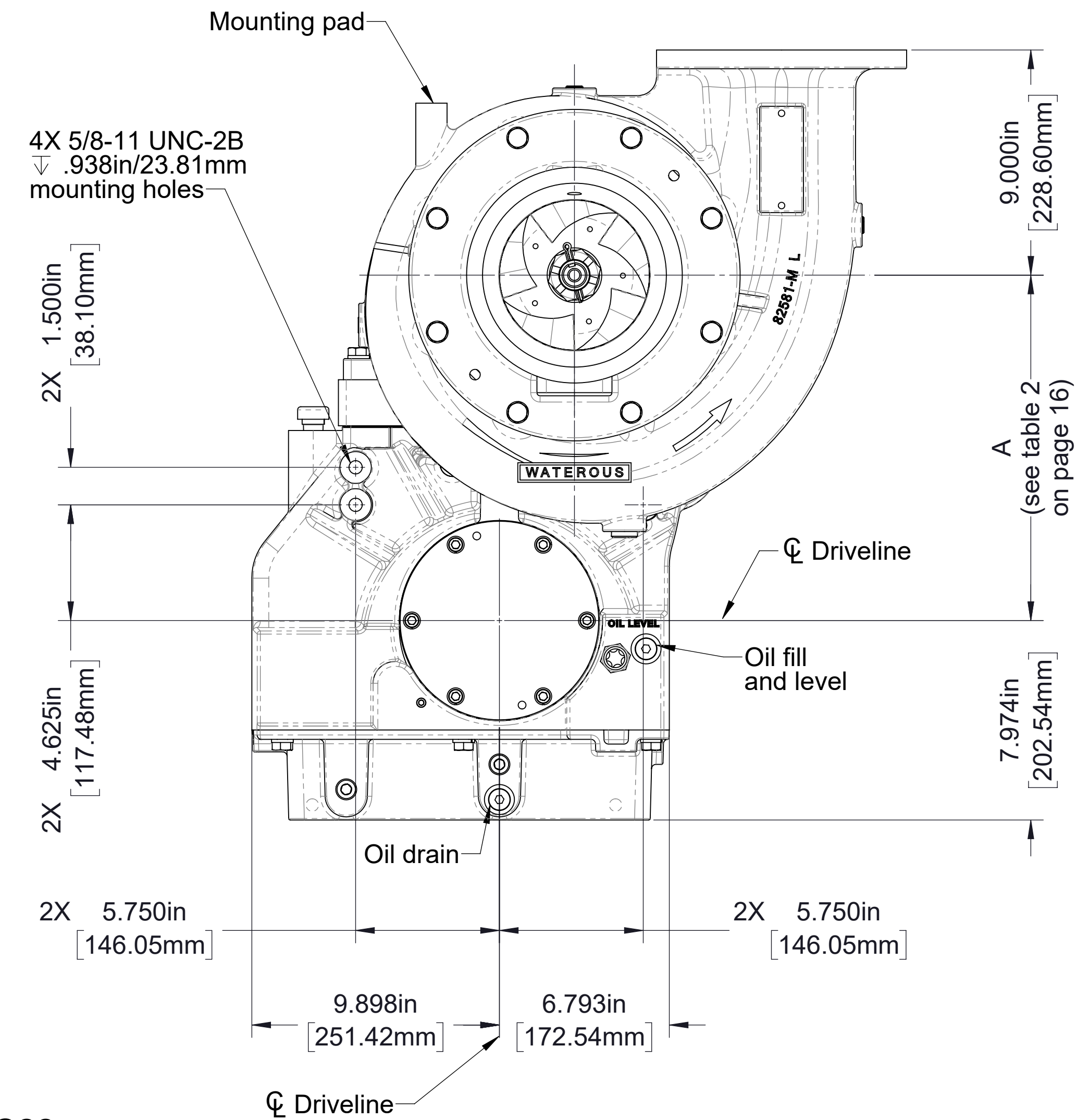
Notes:
 1. See table 2 on page for available ratios.



Driveline, see table 1 on page 16
 (Optional end yokes available, see table 1 on page 16)

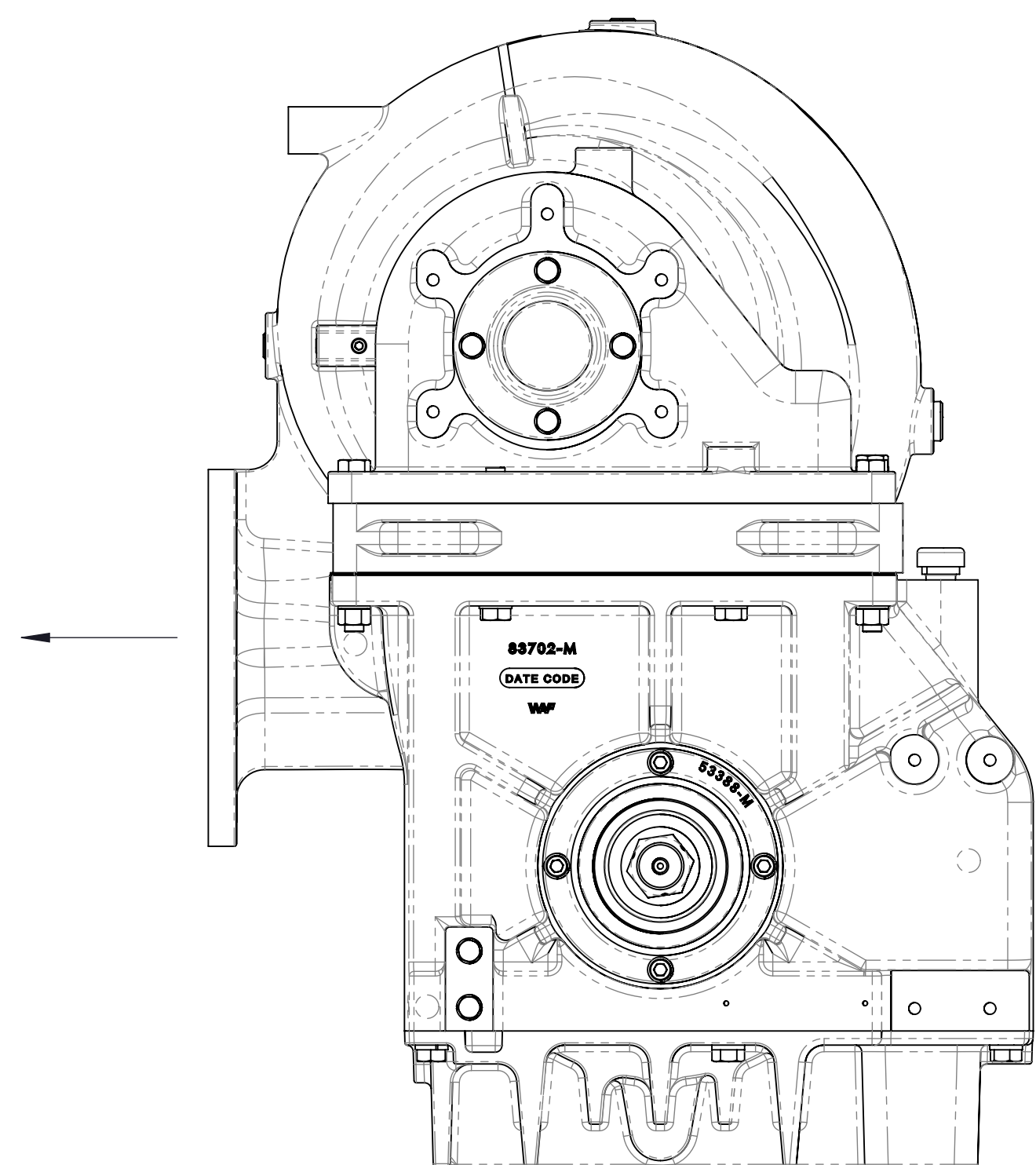
Input End
 Clockwise input from this end

Optional end yoke shown for reference

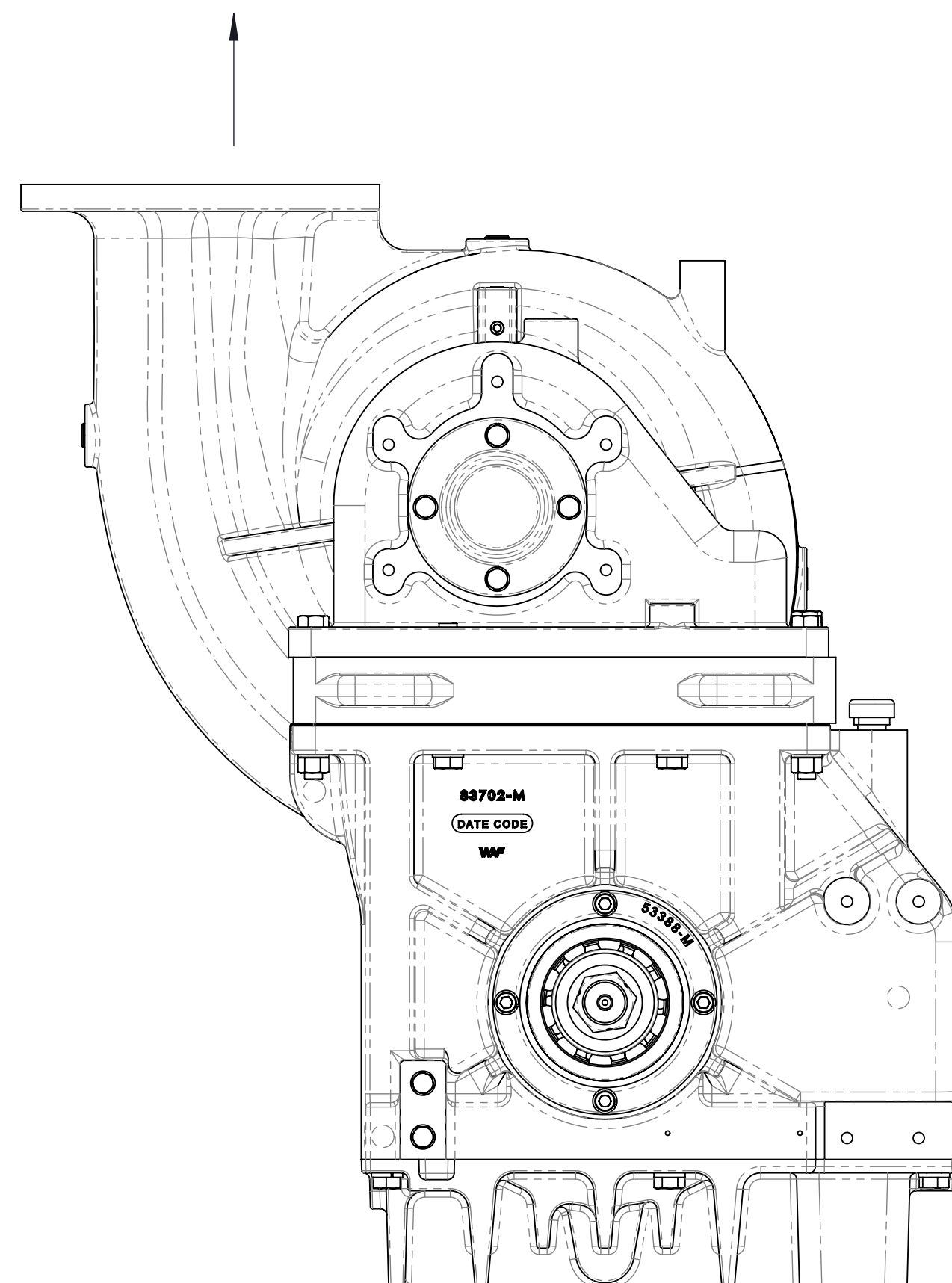


Model S100C22

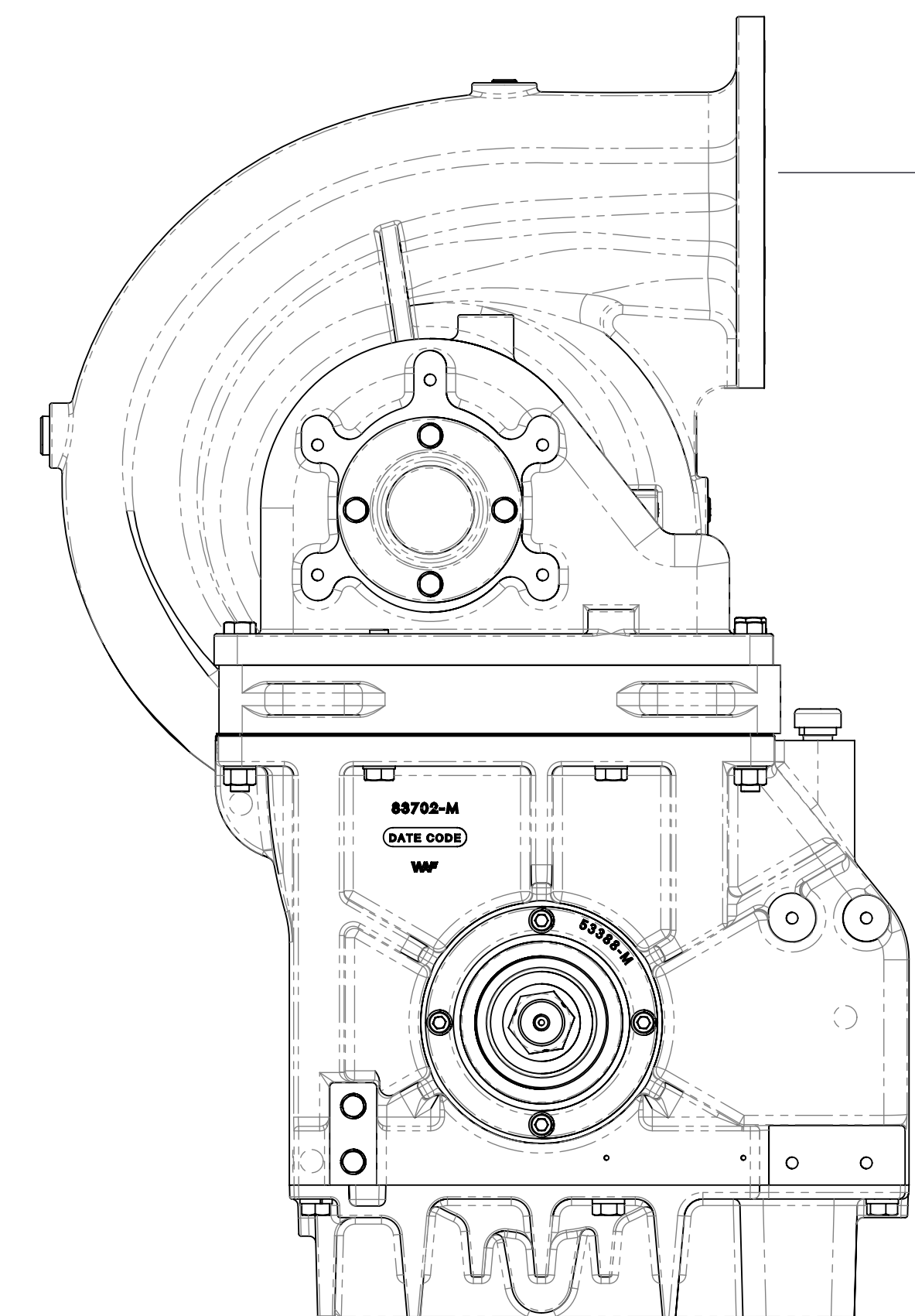
Input shaft only
 Pump mounted on rear (output shaft side) of transmission
 Hydraulic pump mounting provision on front (input shaft side) of transmission
 Clockwise input, model S100C22E, 2.27 ratio shown
 blank discharge, up discharge position



Left
(Optional discharge manifold not available)



Up



Right
(Optional discharge manifold not available)

Available discharge positions by pump model:

S100C22C	S100C22D	S100C22E	S100C22F
Up	Left	Left	Left
Right	Up	Up	Up
	Right	Right	Right

Notes:

- Positions are defined as viewed looking at transmission input shaft.

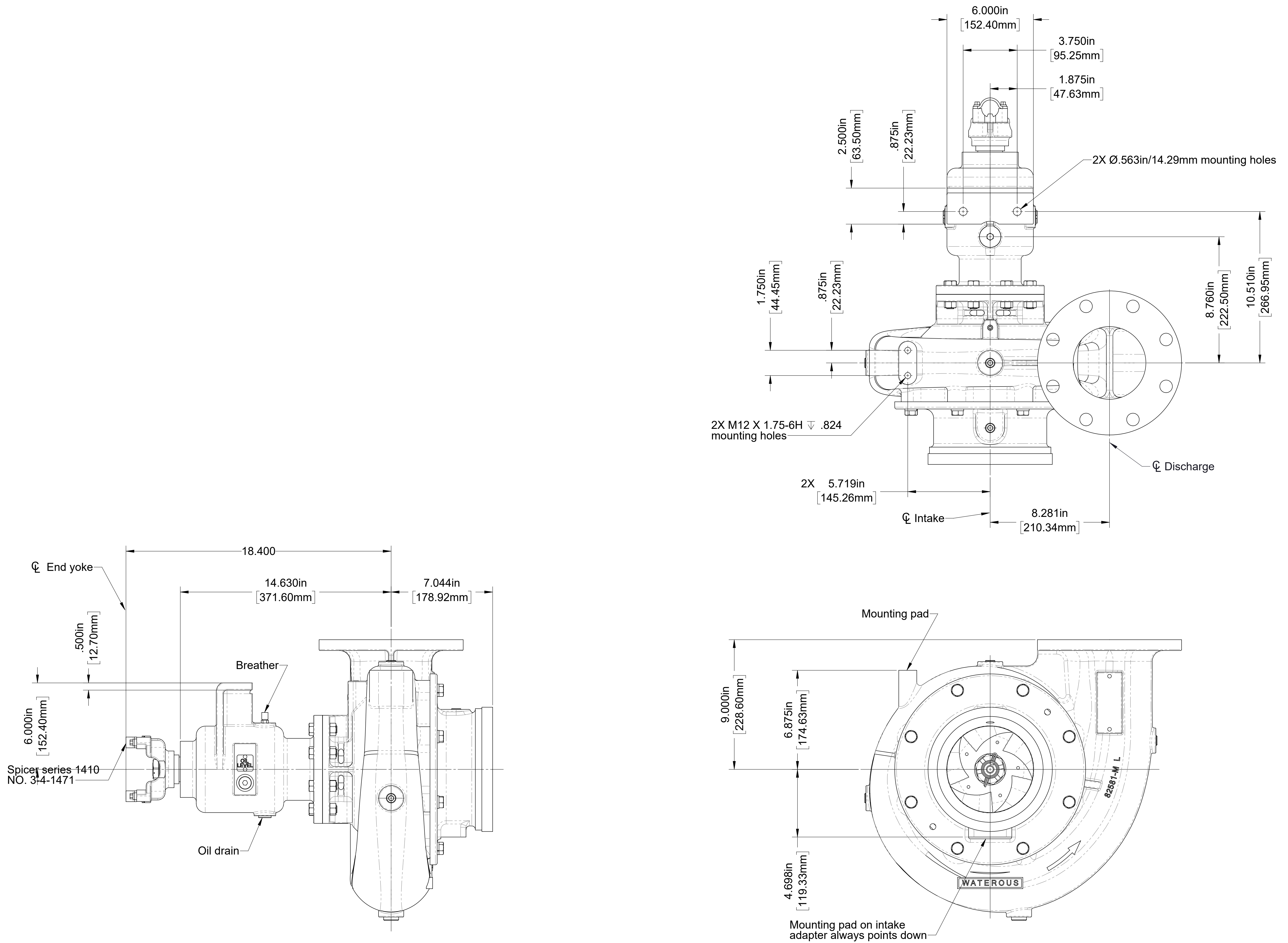
Discharge Positions

Ordering Information

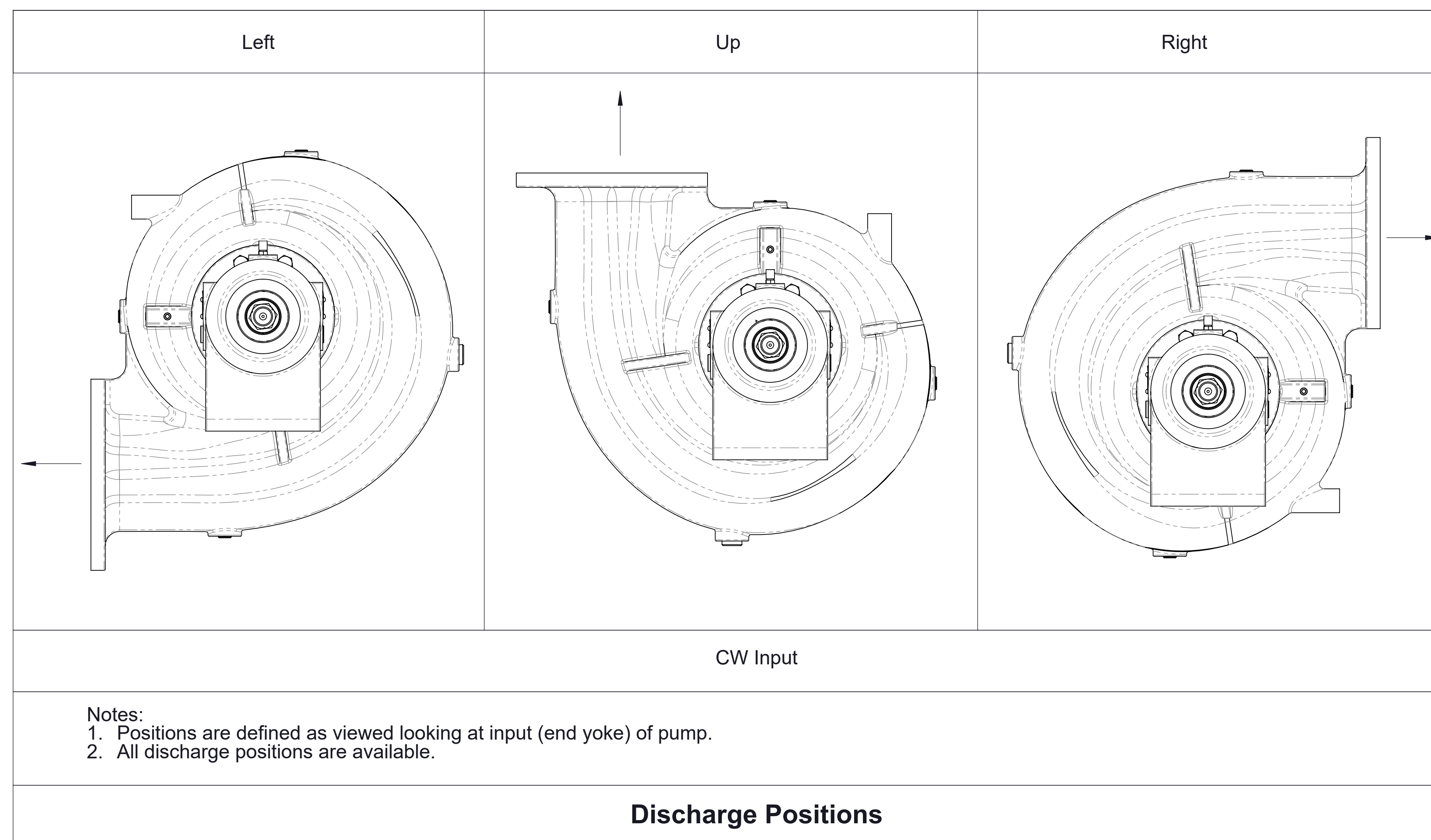
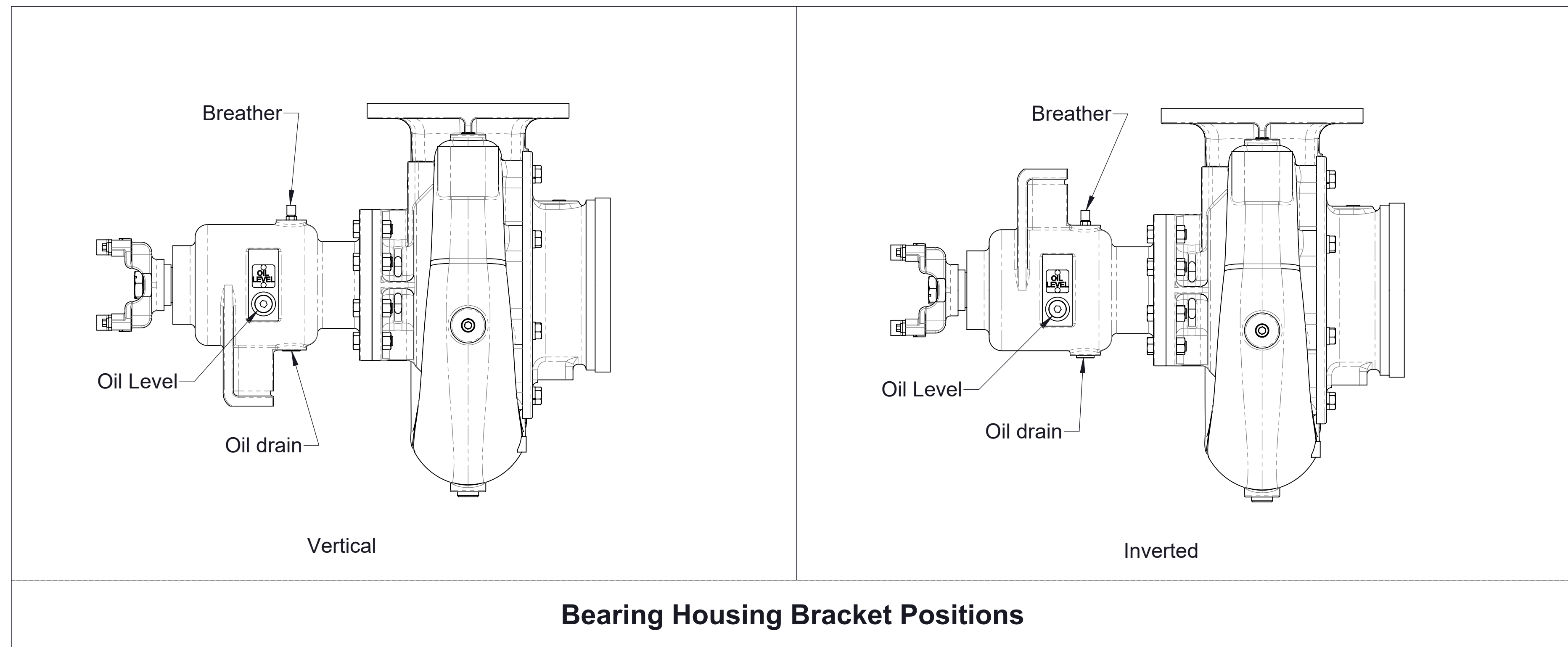
When Ordering furnish the following informaton:

- Pump model: (see page 16).
- Drive to driven ratio: (see page 16).
- Pump mounting front of transmission.
- Discharge position: left, up or right.
- Hydraulic adapter (see page 17).
- Optional discharge fitting: (see pages 4 through 6).

Pump mounted on rear (output shaft side) of transmission
model S100C22 ordering information



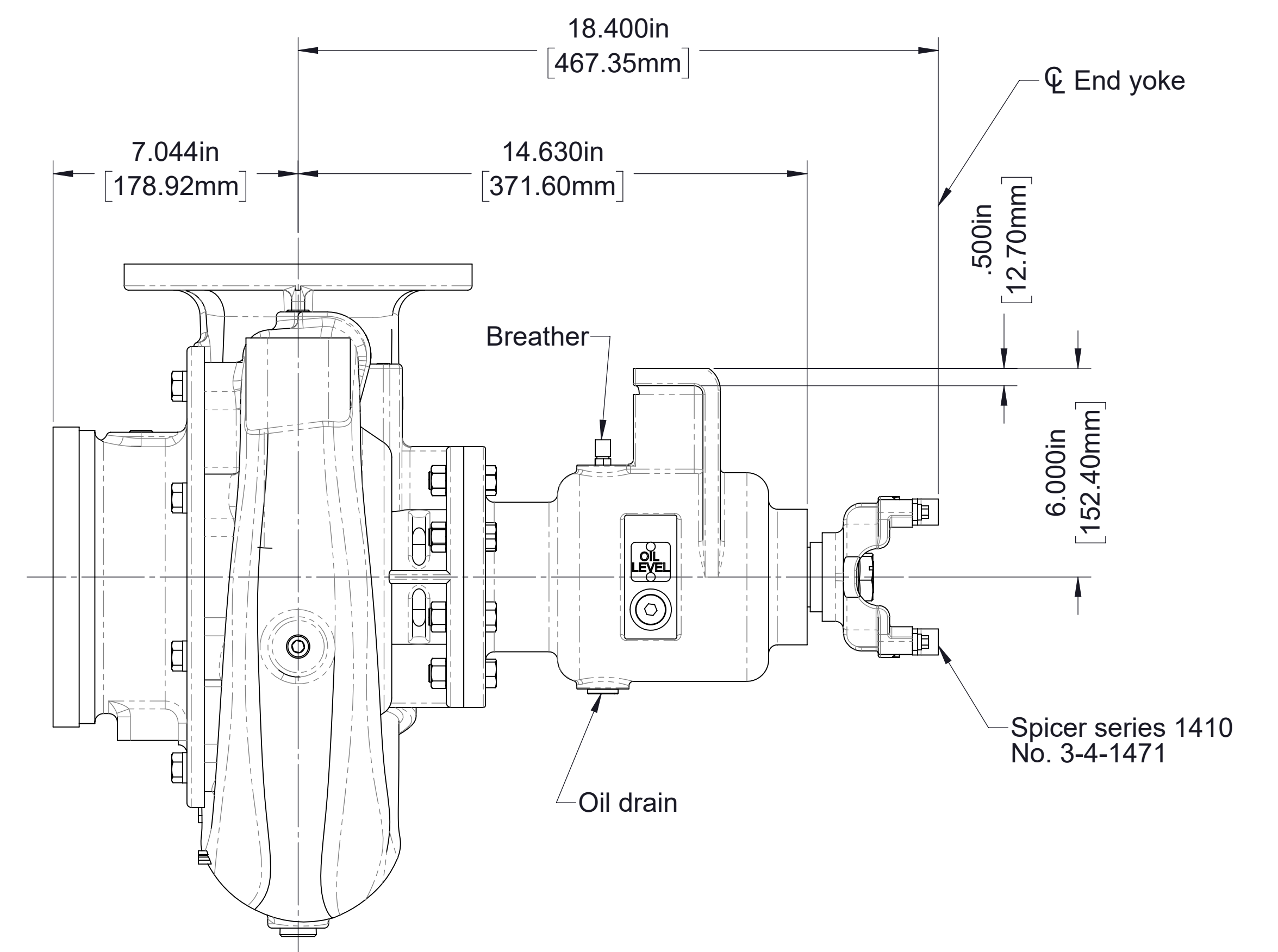
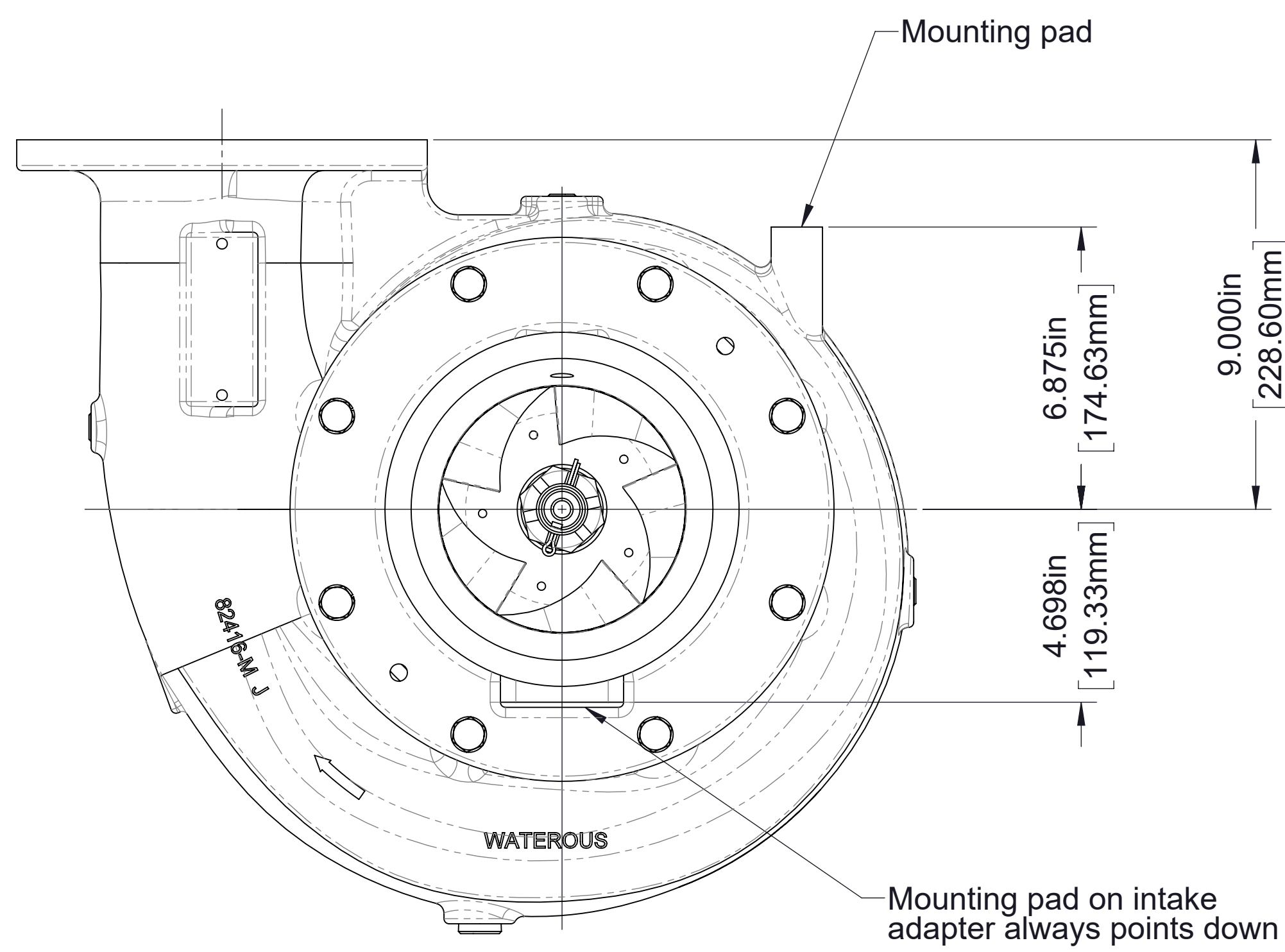
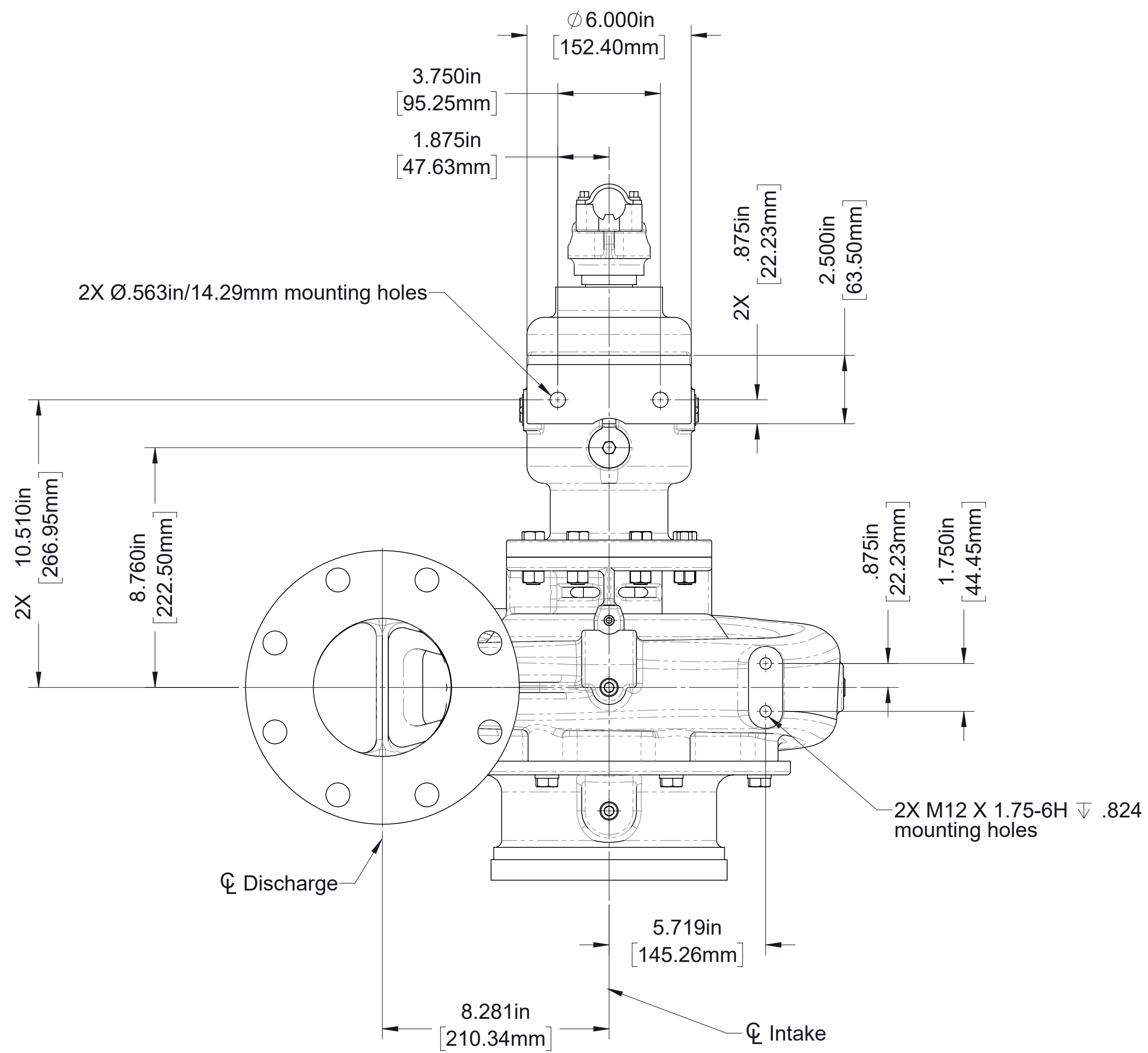
Model S100D
 CW Input
 Blank discharge, up discharge position shown
 inverted bearing housing bracket position shown



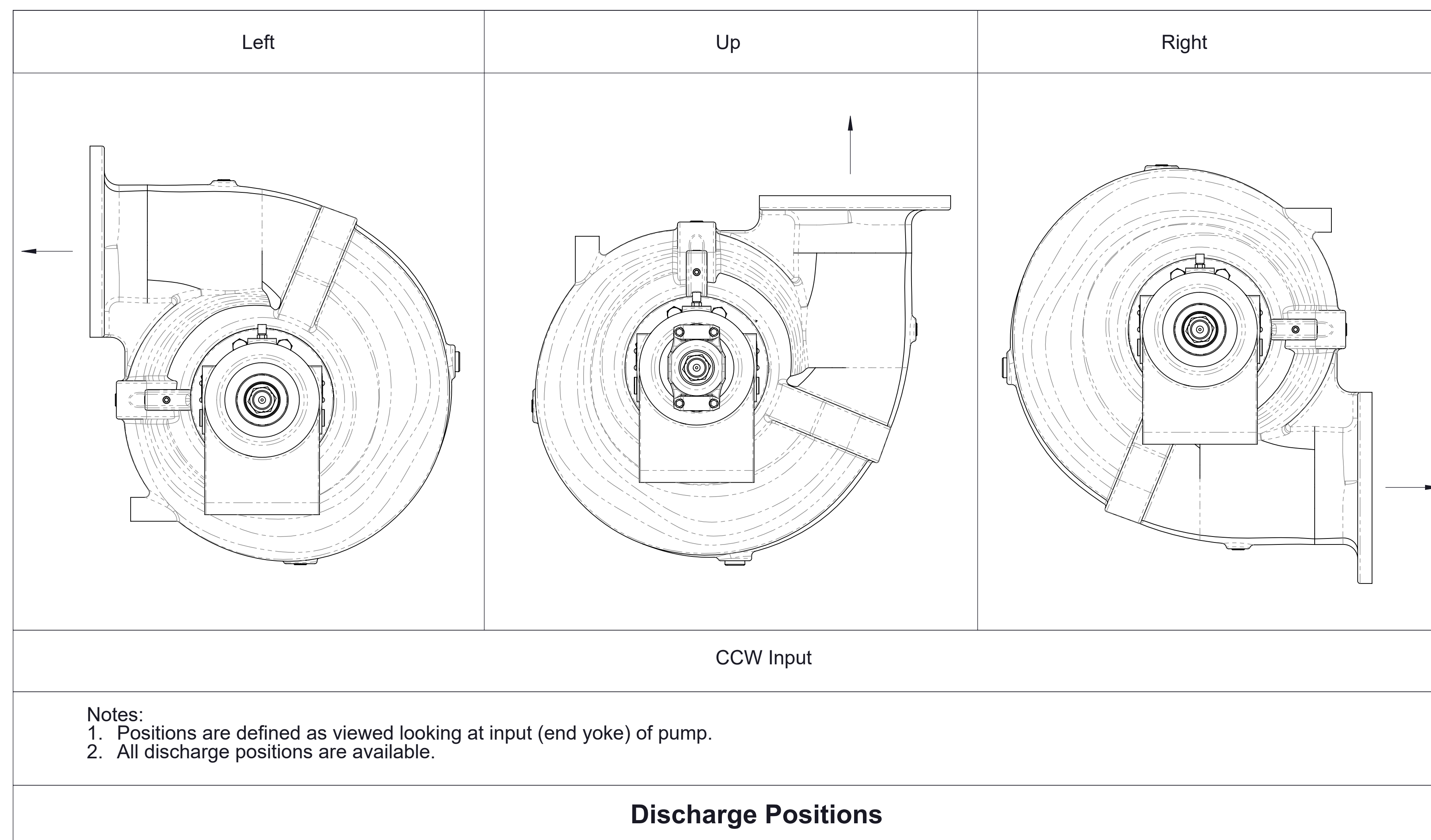
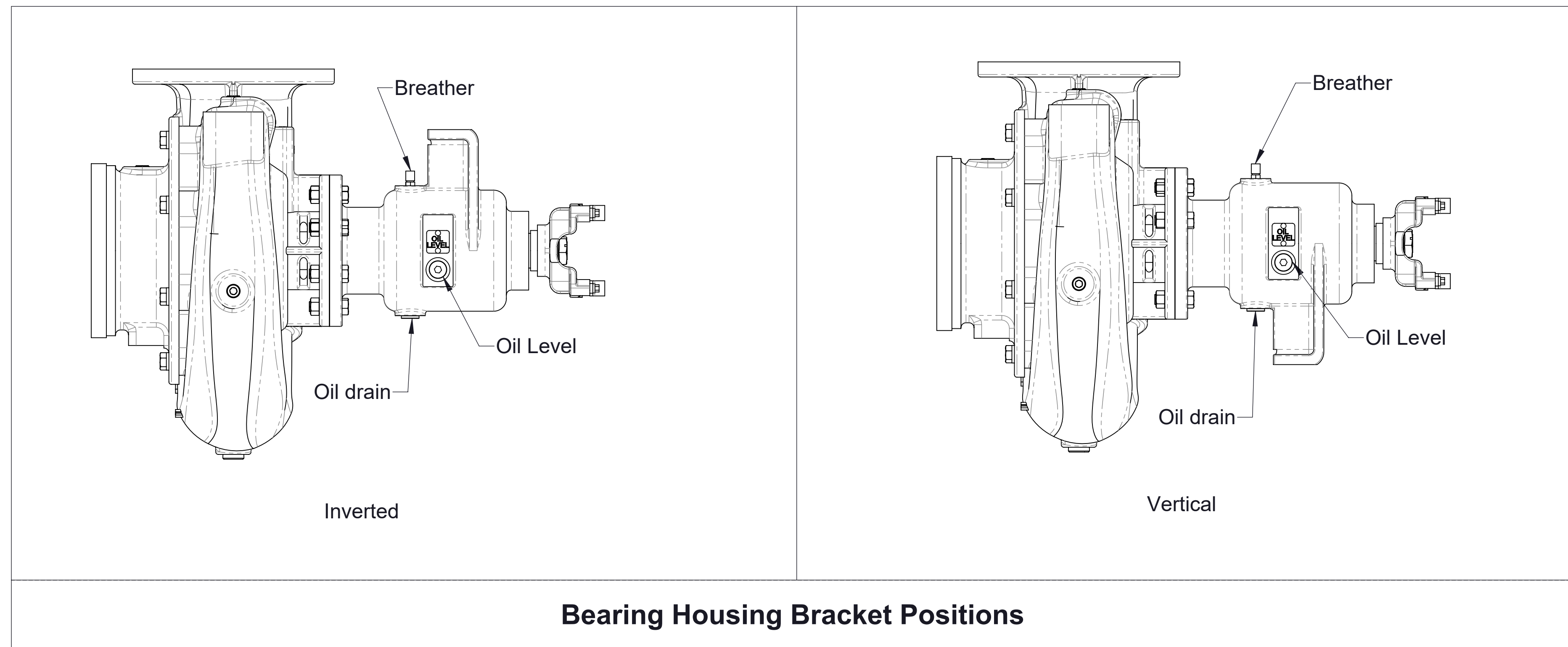
Ordering Information

- When ordering furnish the following information:
1. Pump model: S100D.
 2. Input rotation: Clockwise
 3. Bearing housing bracket position: vertical or inverted.
 4. Discharge position: left, up or right.
 5. Optional discharge fitting: (see pages 4 through 6).

CW Input
Model S100D ordering information



Model S100D
 CCW input
 Blank discharge, up discharge position shown
 inverted bearing housing bracket position shown

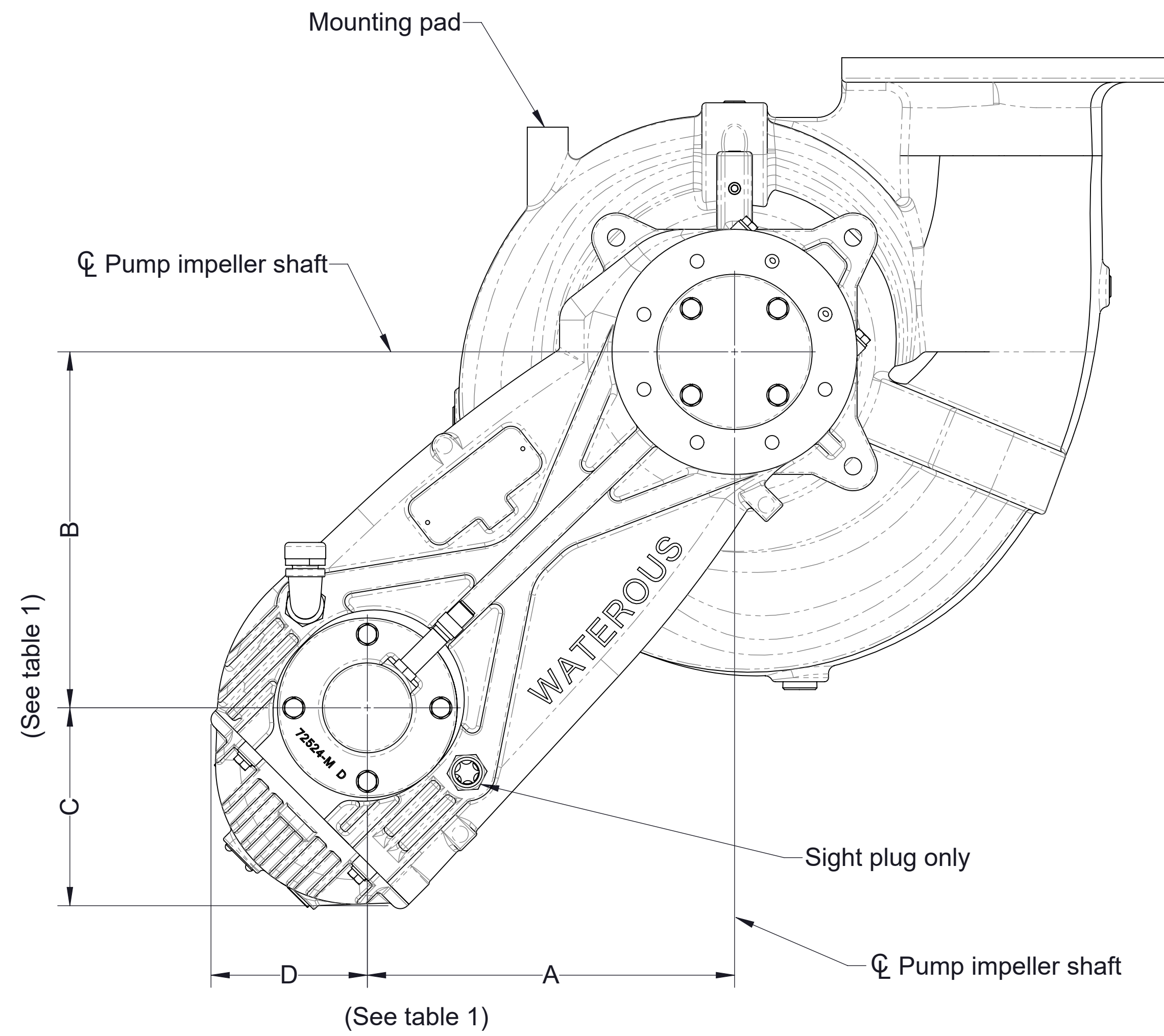
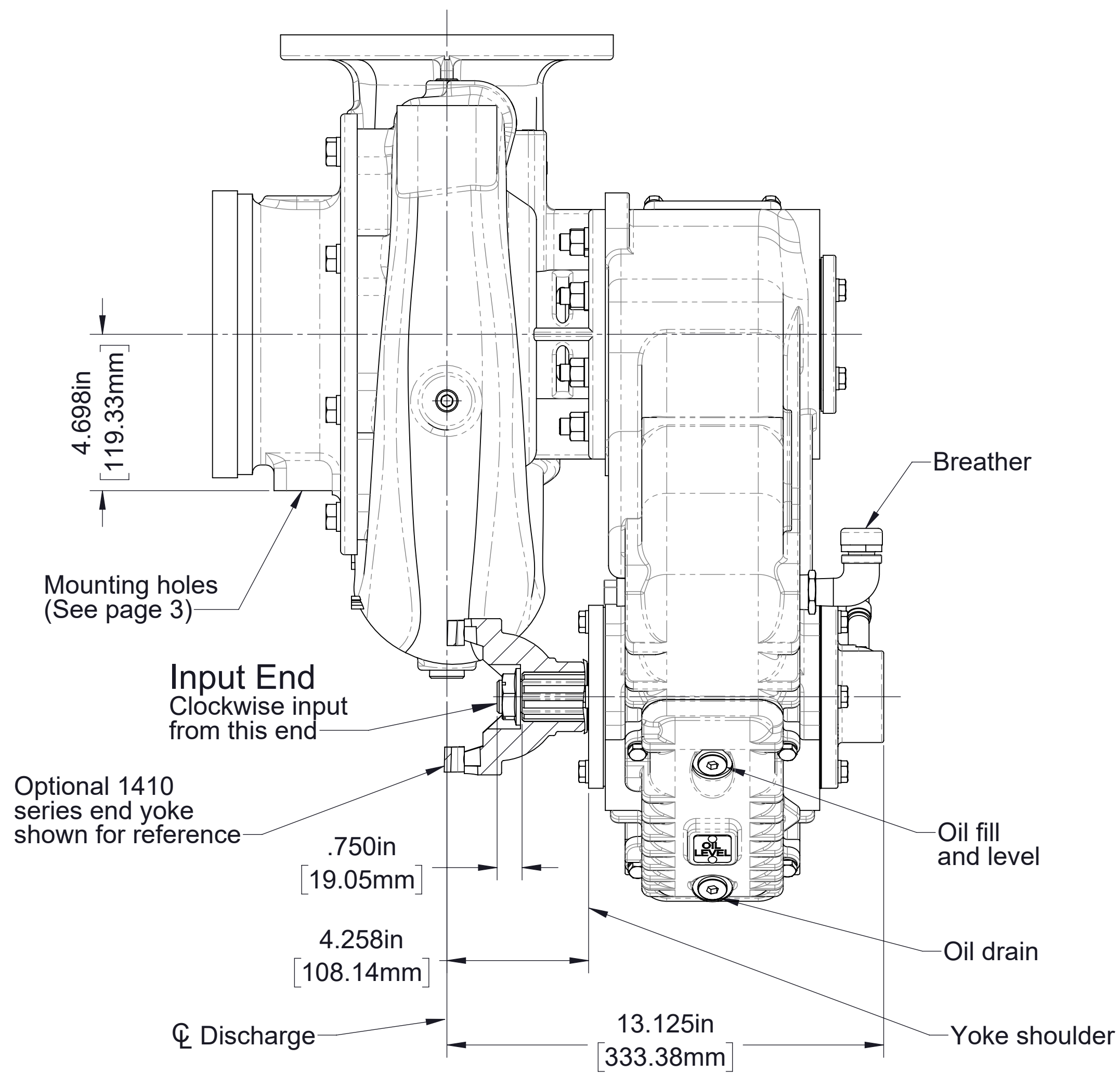
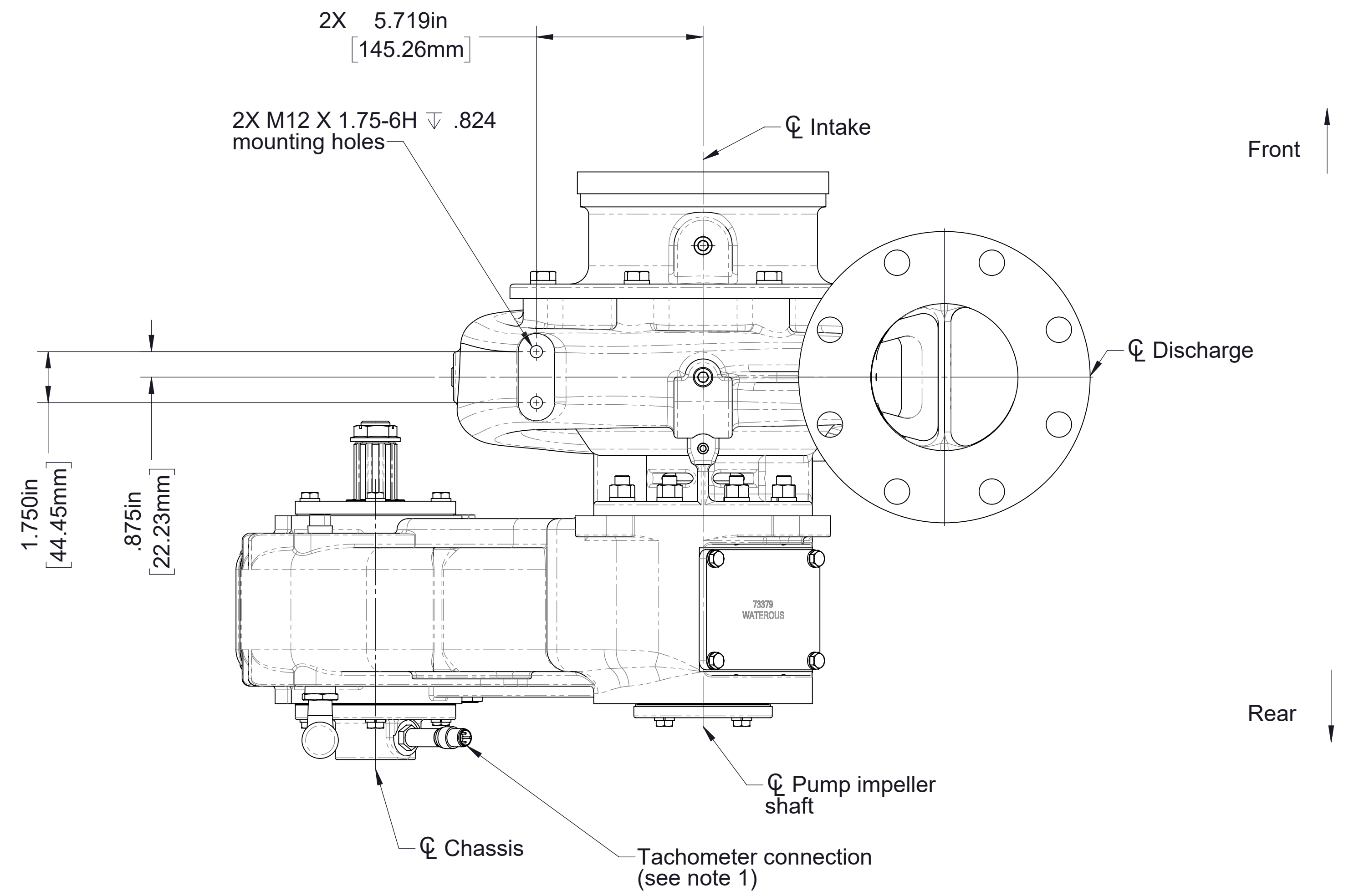


Ordering Information

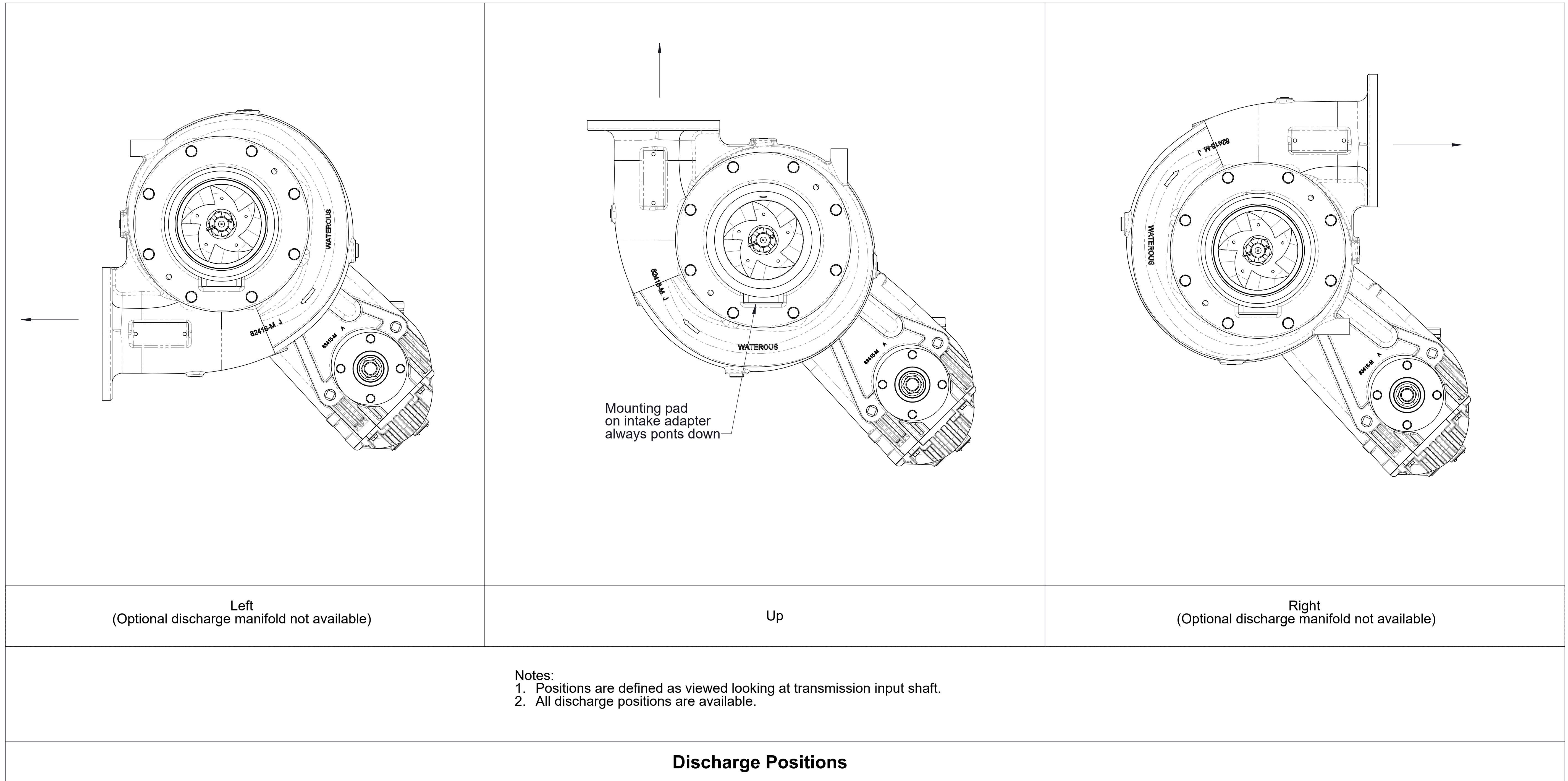
- When ordering furnish the following information:
1. Pump model: S100D.
 2. Input rotation: Counterclockwise
 3. Bearing housing bracket position: vertical or inverted.
 4. Discharge position: left, up or right.
 5. Optional discharge fitting: (see pages 4 through 6).

Table 1 - Available as follows							
Driveline		Ratio	Dimension A	Dimension B	Dimension C	Dimension D	Model
Size	Spline						
1-1/2 Inch	1-1/2-10 SAE	1.70	11.288in 286.71mm	10.973in 277.94mm	6.111in 155.22mm	4.737in 120.32mm	S100PA
		1.90	11.269in 286.24mm	10.924in 277.47mm	6.130in 155.70mm	4.755in 120.79mm	
		2.10	11.39in 289.46mm	10.894in 276.70mm	6.160in 156.46mm	4.786in 121.56mm	

Notes:
1. See drawing DPL82080 for additional details of P series transmission.



Model S100PA
Input shaft only
Pump mounted on front (input shaft side) of transmission
Clockwise input, model S100PA 2.10 ratio shown, blank discharge, up discharge position shown



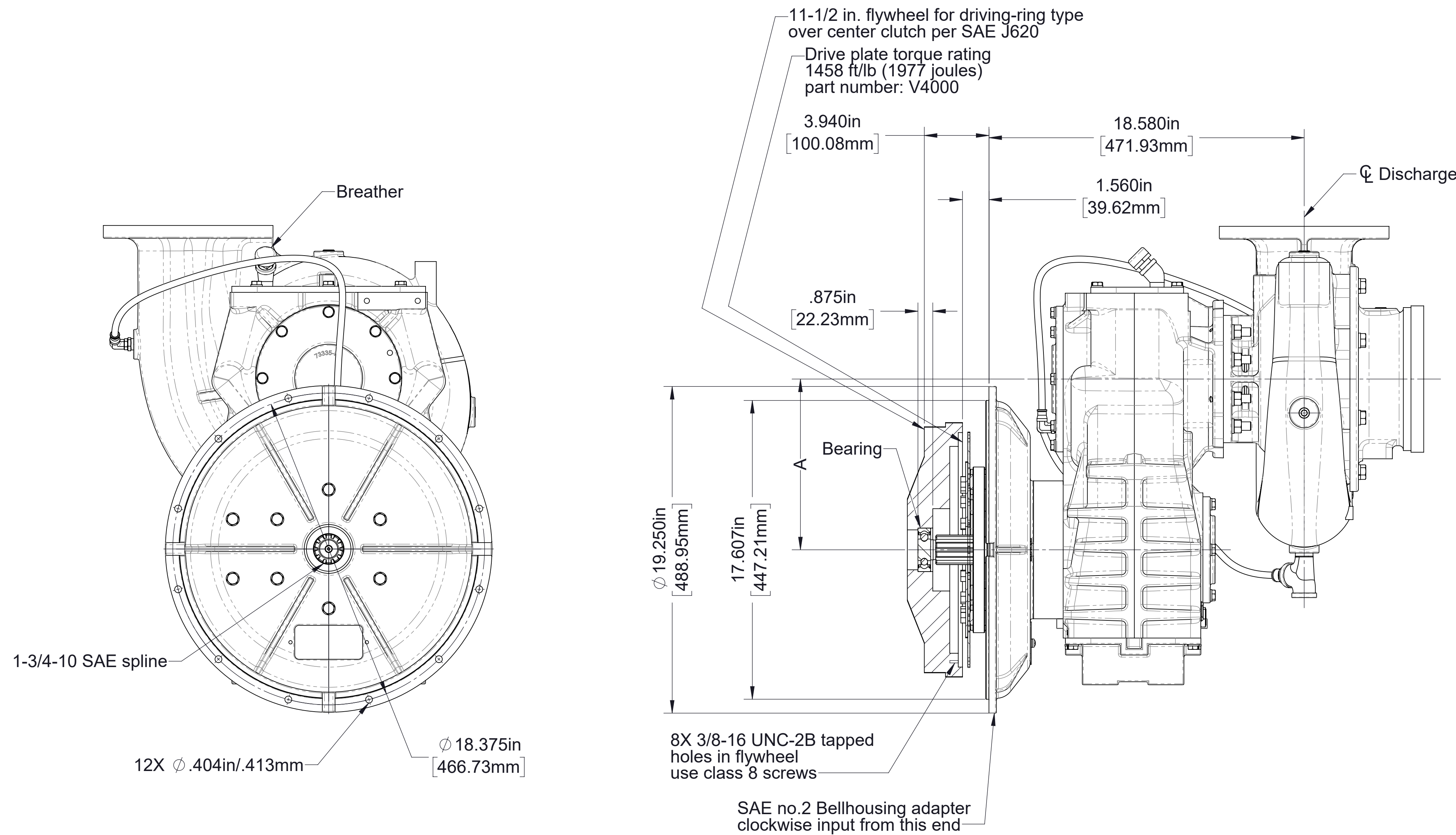
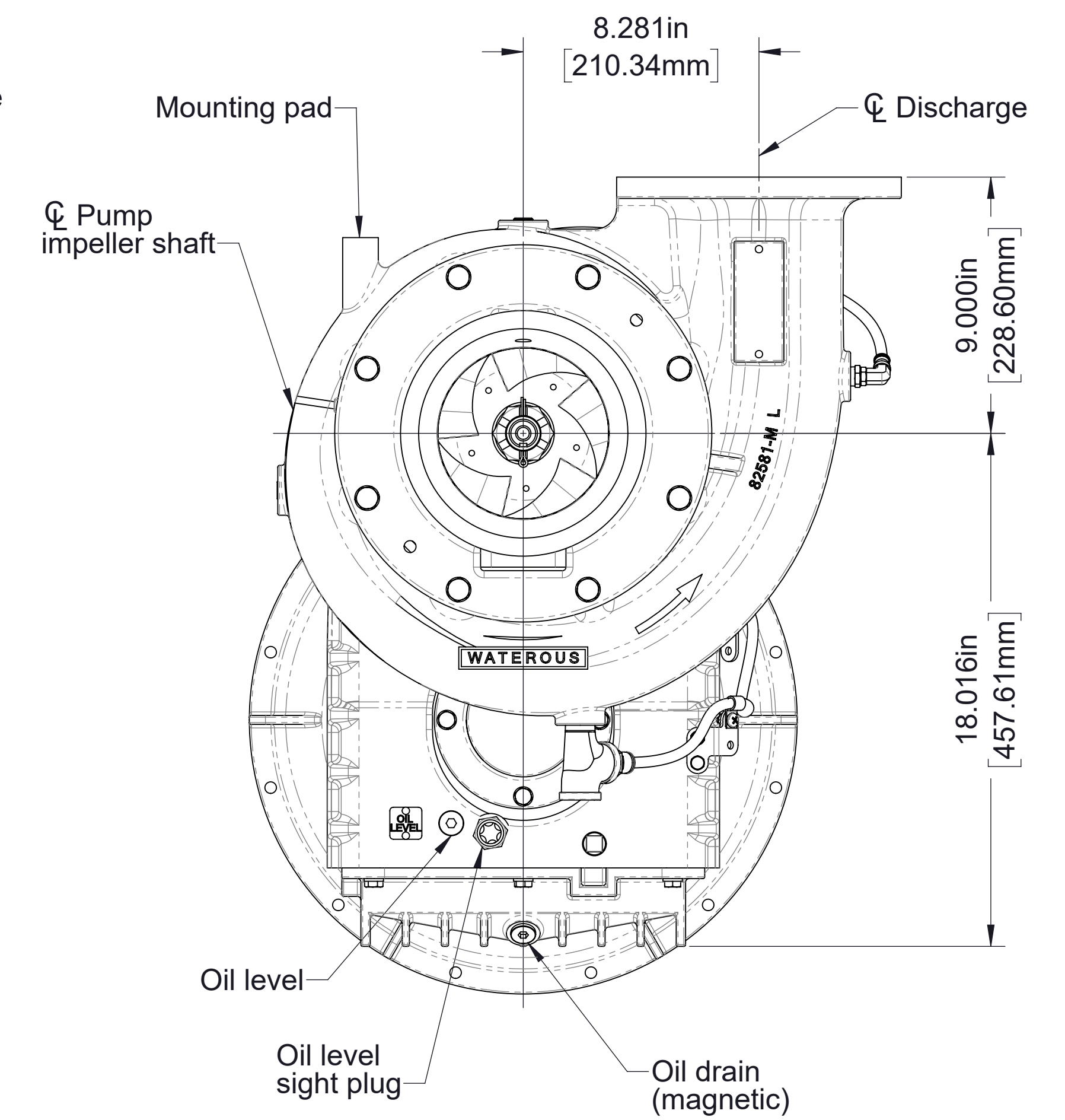
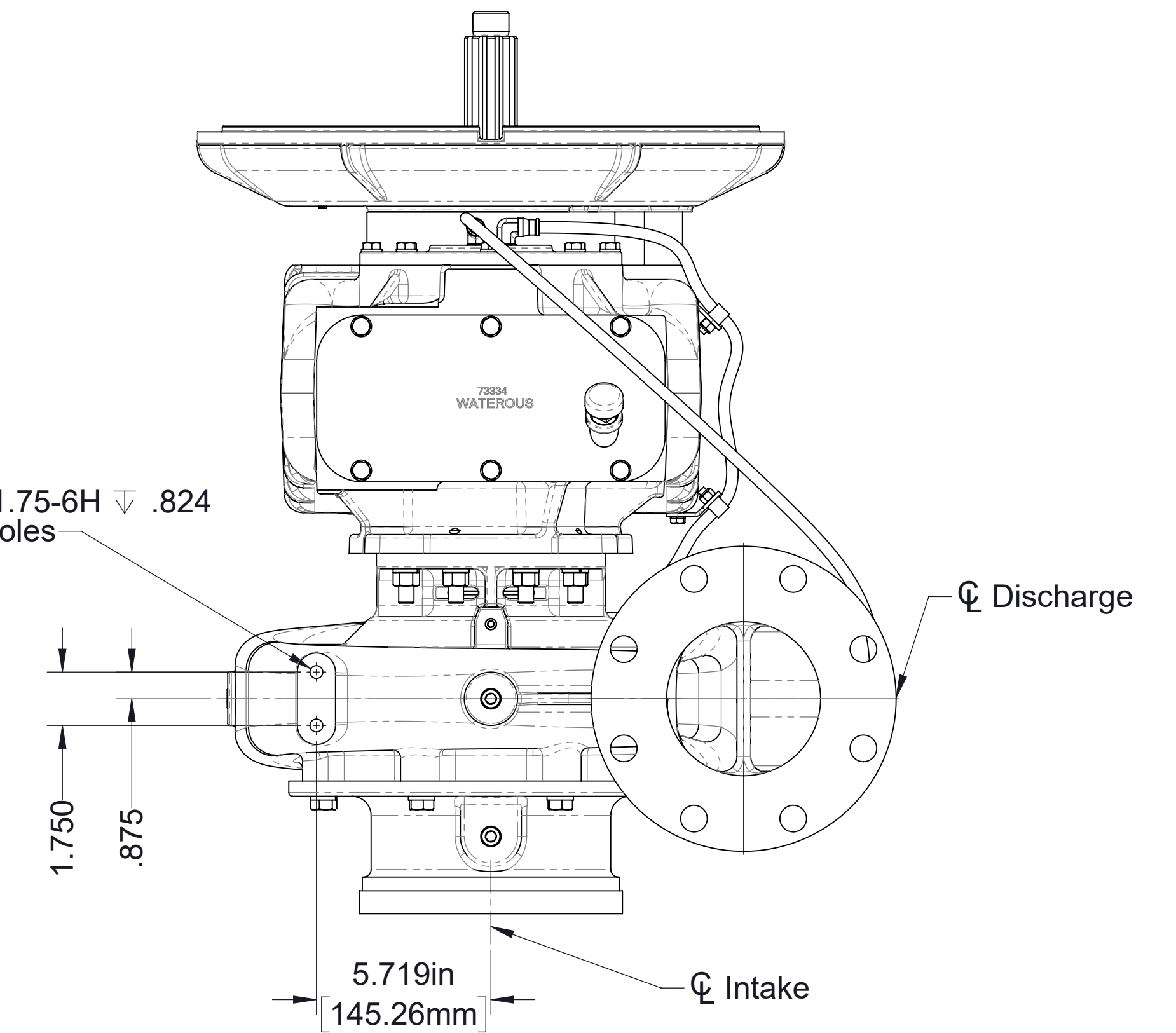
Ordering Information

When Ordering furnish the following informaton:

1. Pump model: S100PA
2. Drive to driven ratio: (see page 23).
3. Pump mounting: front (input shaft side) of transmission.
4. Discharge position: left, up or right.
5. Optional discharge fitting: (see pages 4 through 6).

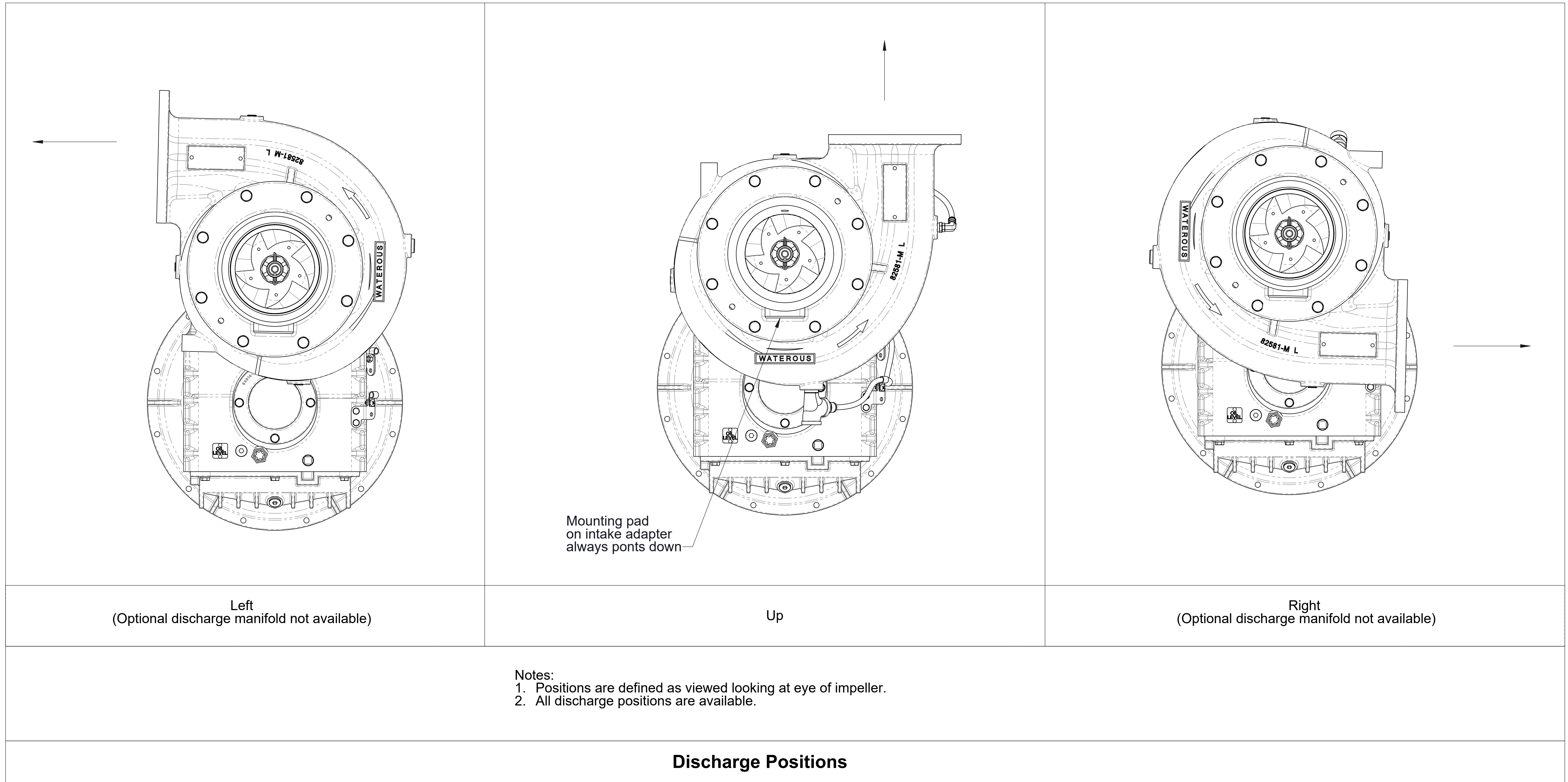
Pump mounted on front (input shaft side) of transmission
model S100PA ordering information.

Driveline		Table 1		
Size	Spline	Ratio	Dimension A	Model
1-3/4 Inch	1-3/4-10 SAE	1.83	10.063in 255.60mm	S100QC
		2.10	10.553in 268.05mm	



Model S100QC

Input shaft only
 Direct engine mounted, vertical case
 Pump mounted on rear (output shaft side) of transmission
 Clockwise input, model S100QC, 1.83 ratio shown, blank discharge, up discharge position shown



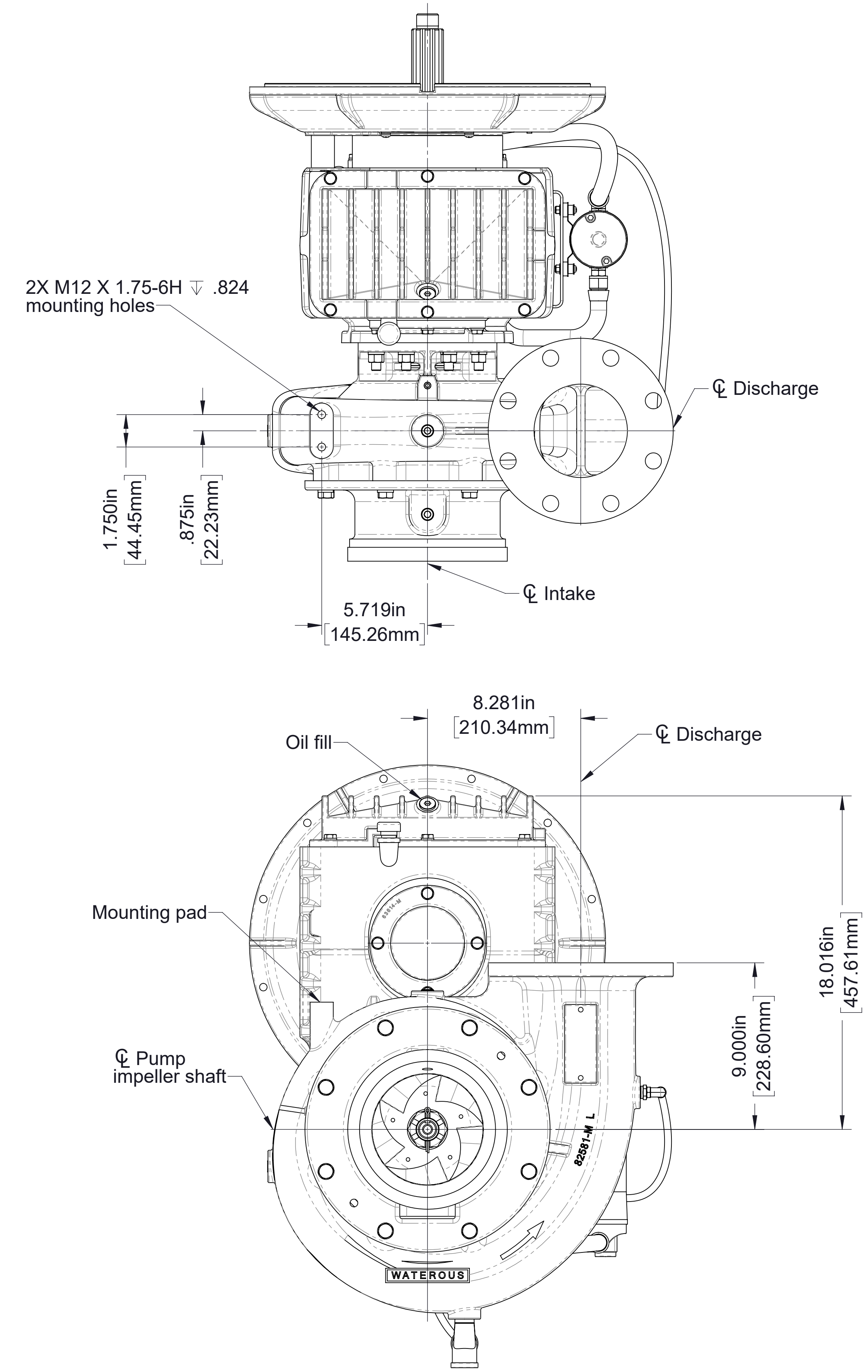
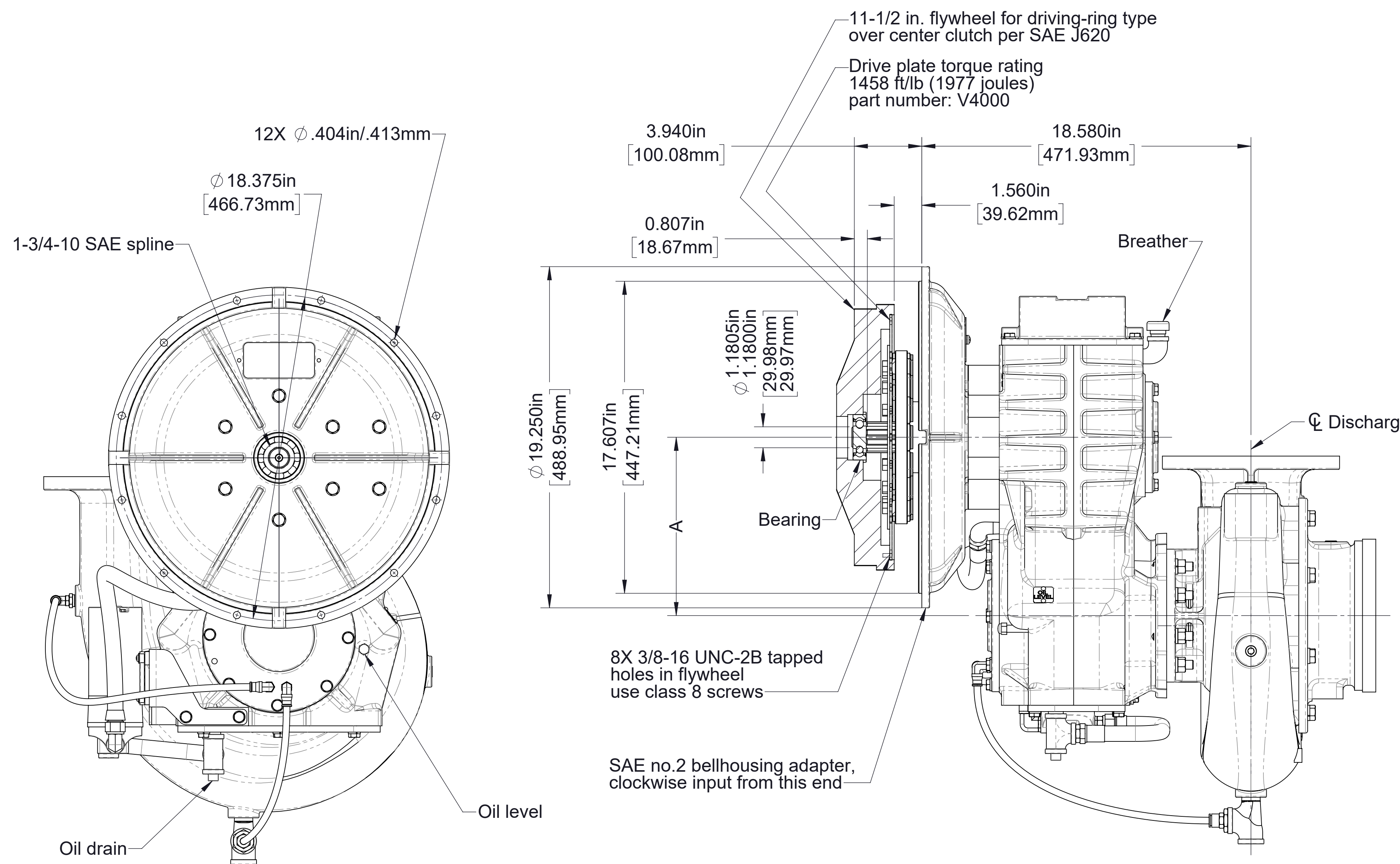
Ordering Information

When Ordering furnish the following information:

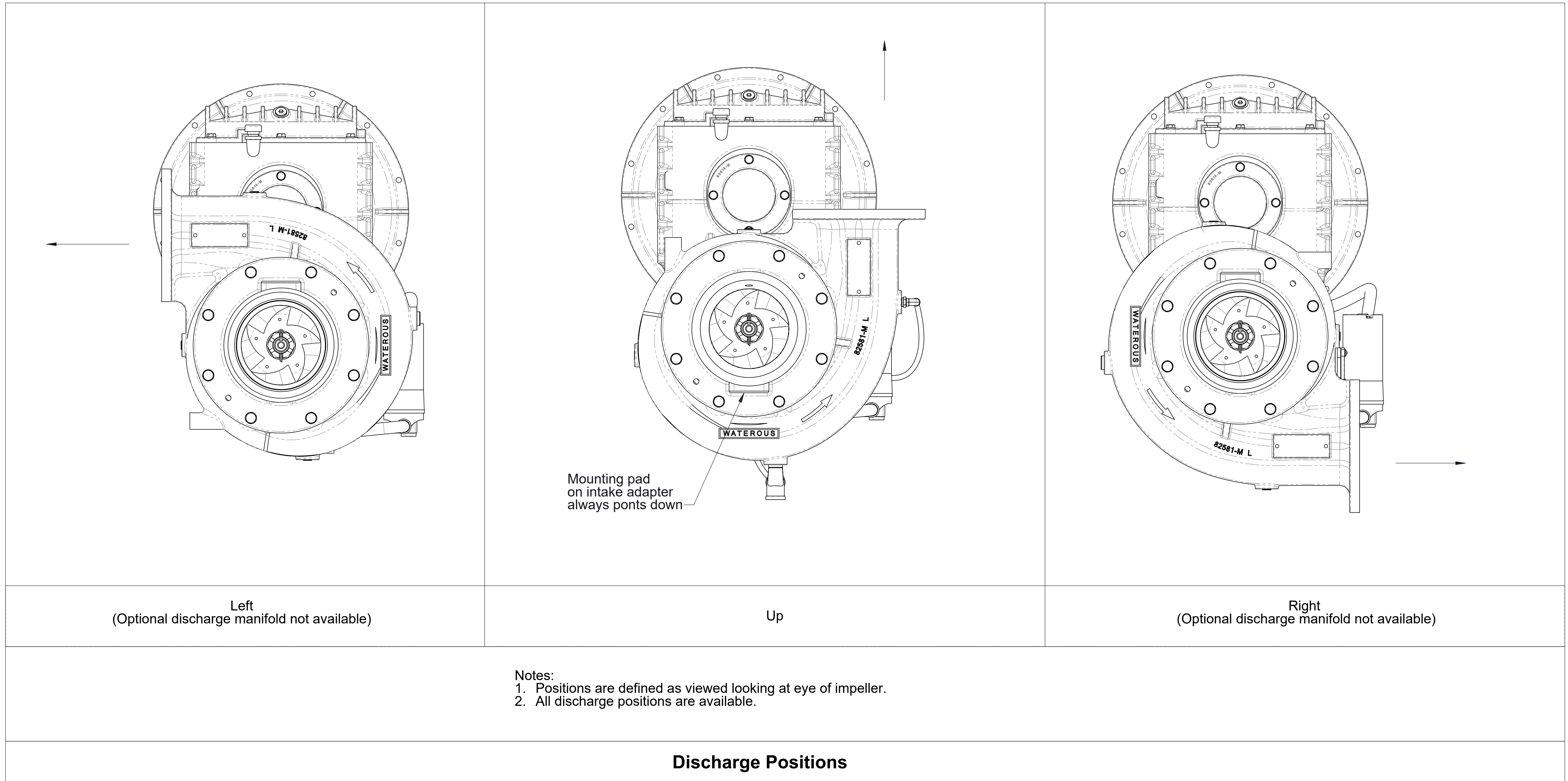
1. Pump model: S100QC.
2. Drive to driven ratio: (see page 25).
3. Pump mounting: rear (output shaft side) of transmission.
4. Discharge position: left, up or right.
5. Optional discharge fitting: (see pages 4 through 6).

Direct engine mounted, vertical case
Pump mounted on rear (output shaft side) of transmission
Model S100QC ordering information

Driveline		Table 1		
Size	Spline	Ratio	Dimension A	Model
1-3/4 Inch	1-3/4-10 SAE	1.83	10.063in 255.60mm	S100QC
		2.10	10.553in 268.05mm	



Model S100QC
 Input shaft only
 Direct engine mounted, inverted case
 pump mounted on rear (output shaft side) of transmission
 Clockwise input, model S100QC, 1.83 ratio shown, blank discharge, up discharge position shown

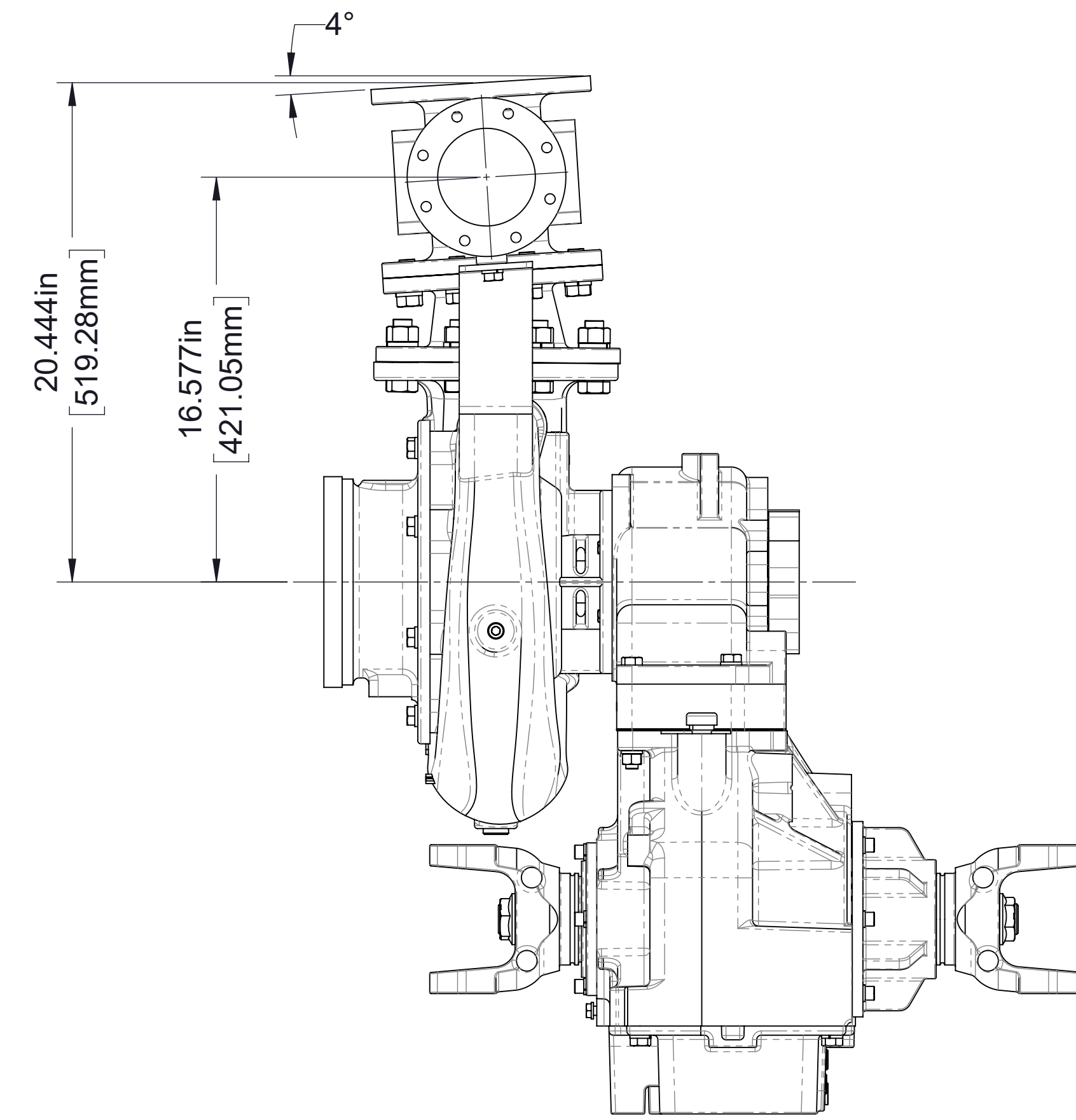
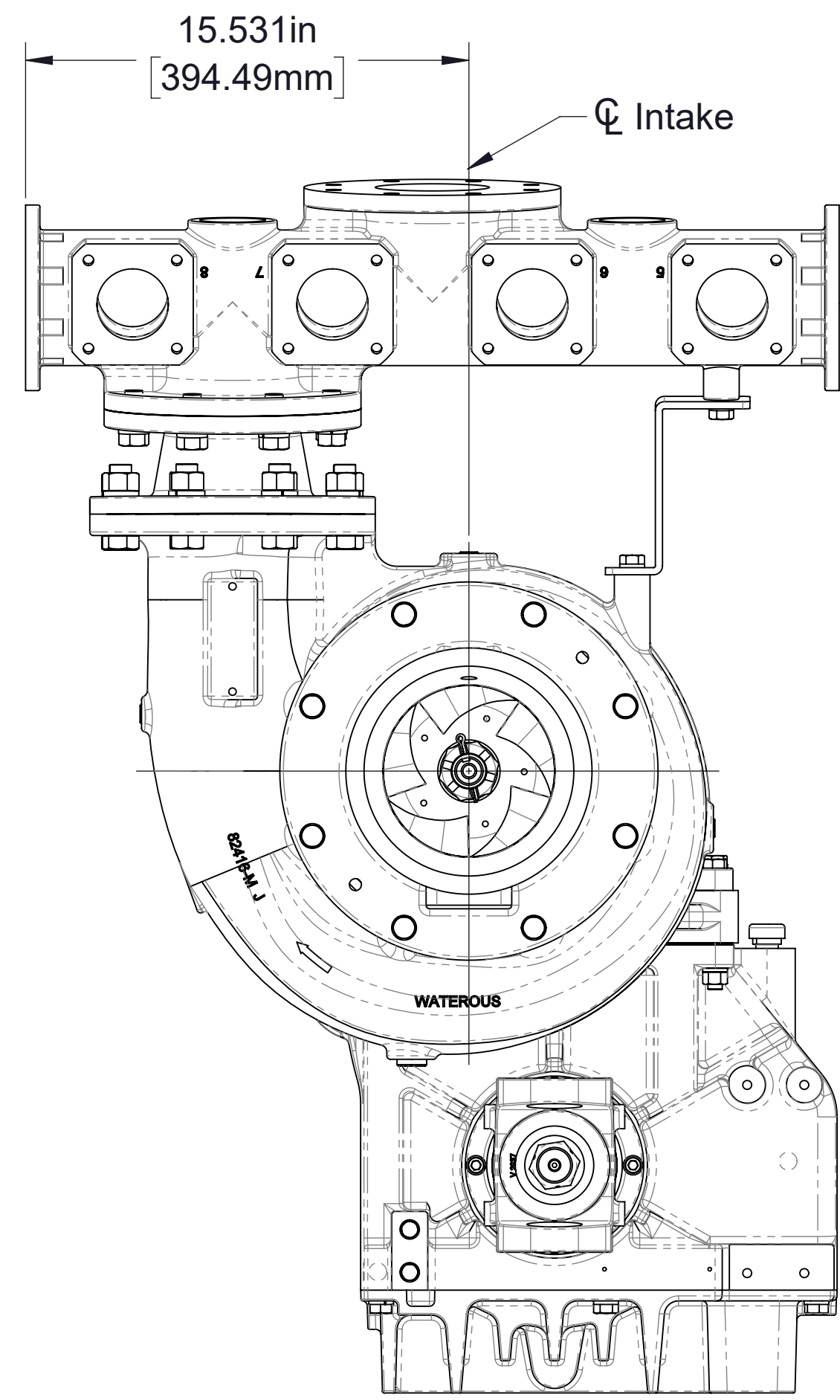


Ordering Information

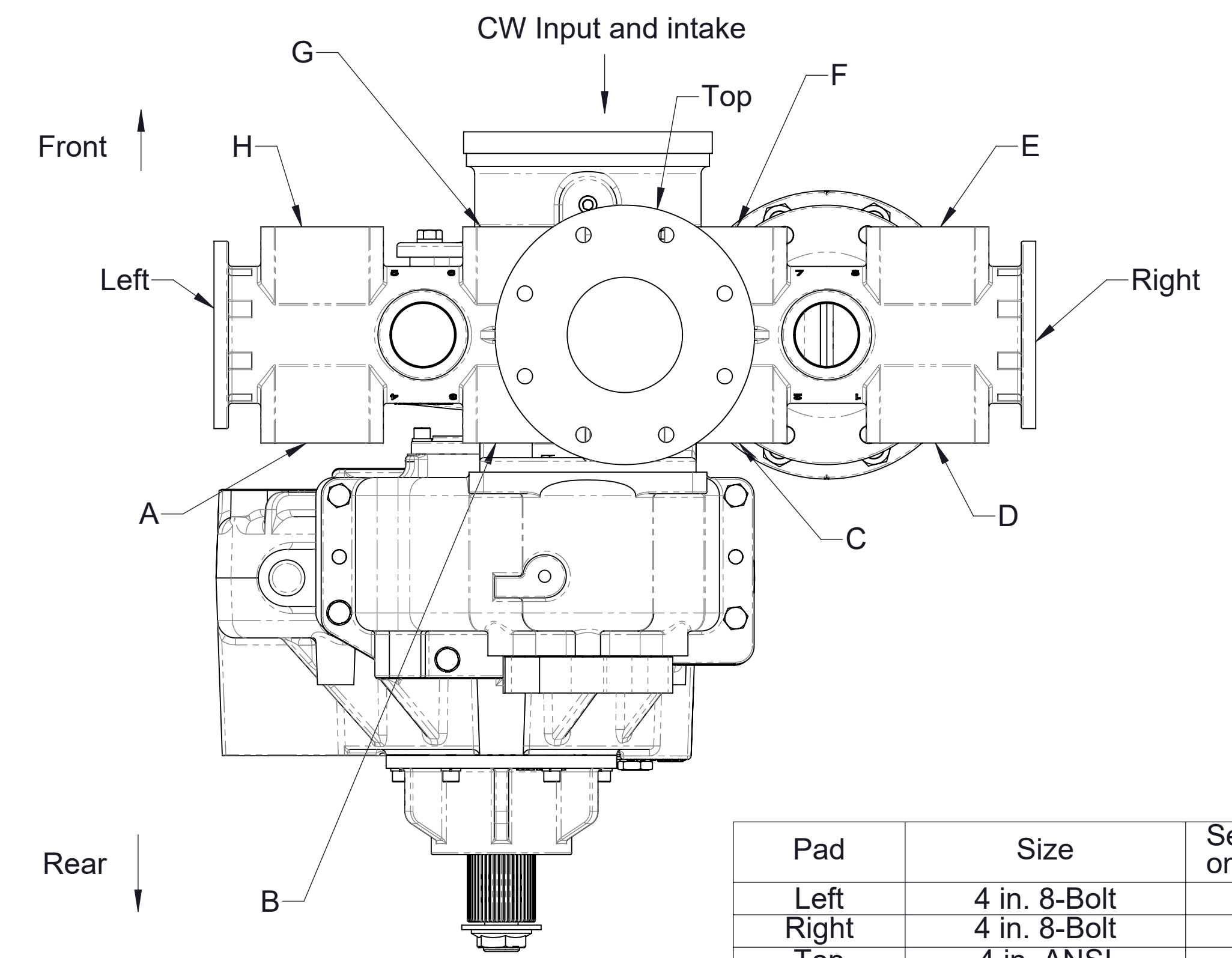
When Ordering furnish the following information:

1. Pump model: S100QC.
2. Drive to driven ratio: (see page 27).
3. Pump mounting: rear (output shaft side) of transmission.
4. Discharge position: left, up or right.
5. Optional discharge fitting: (see pages 4 through 6).

Direct engine mounted, inverted case
Pump mounted on rear (output shaft side) of transmission
Model S100QC ordering information

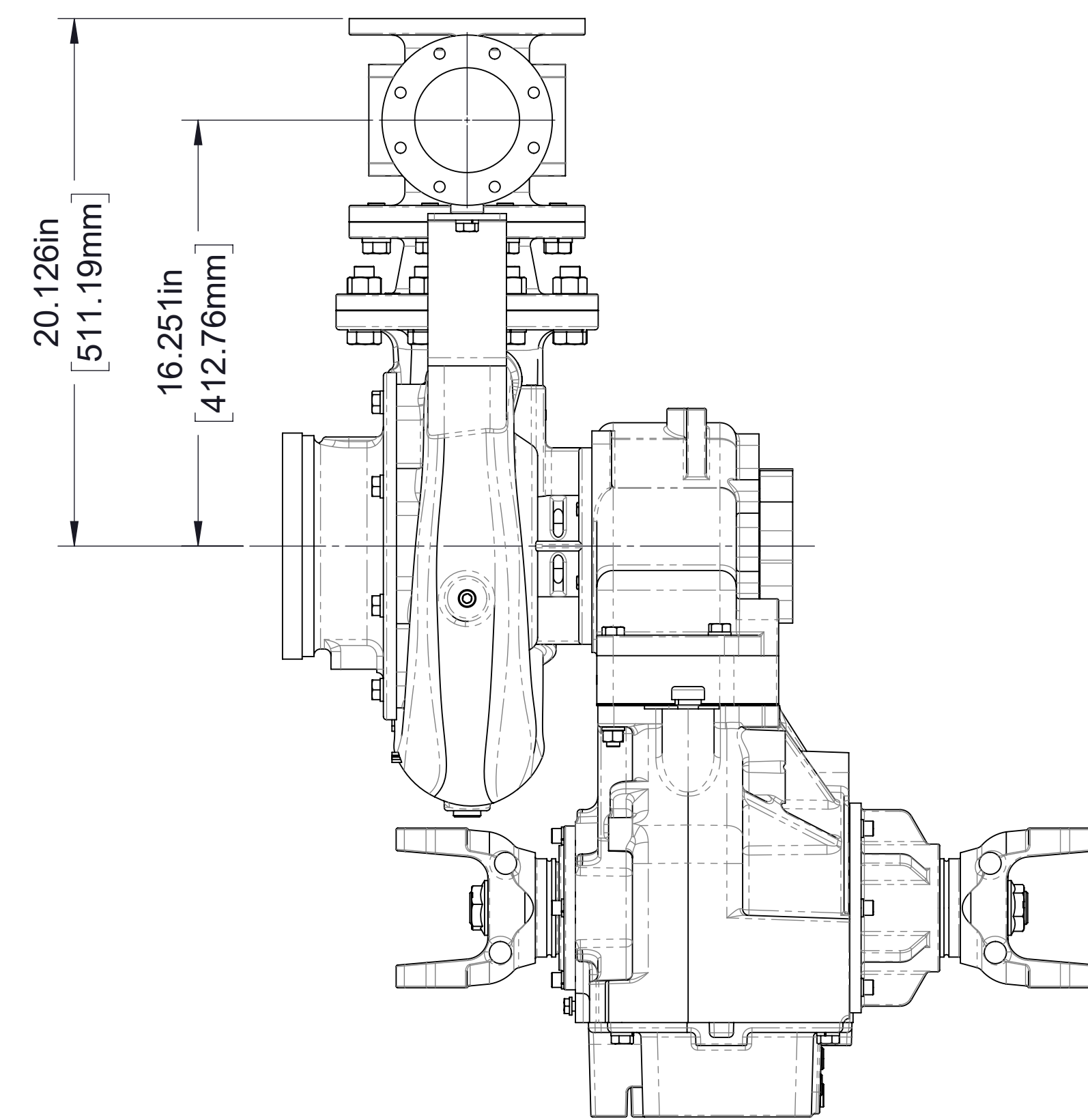
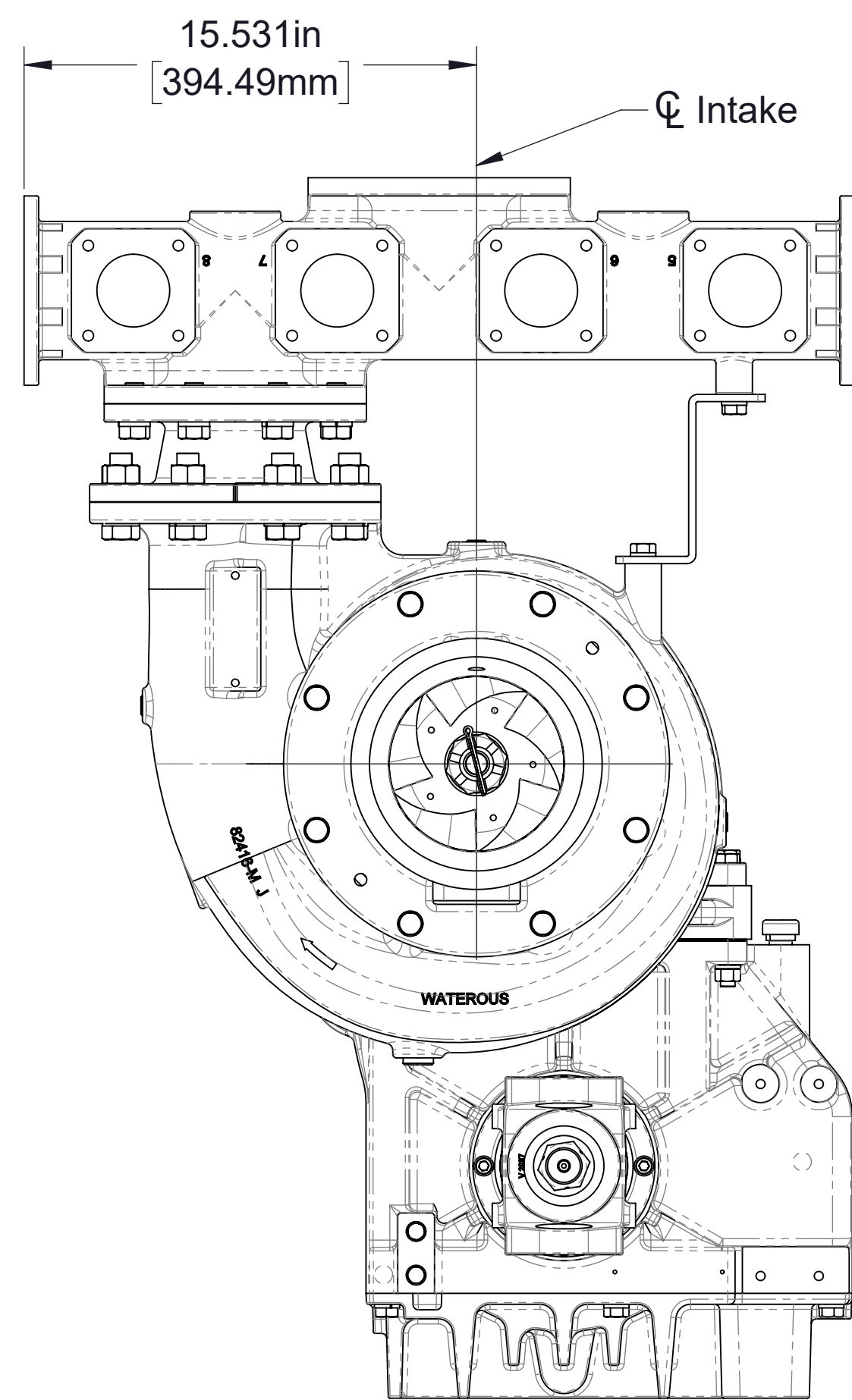


Angle Compensated



Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

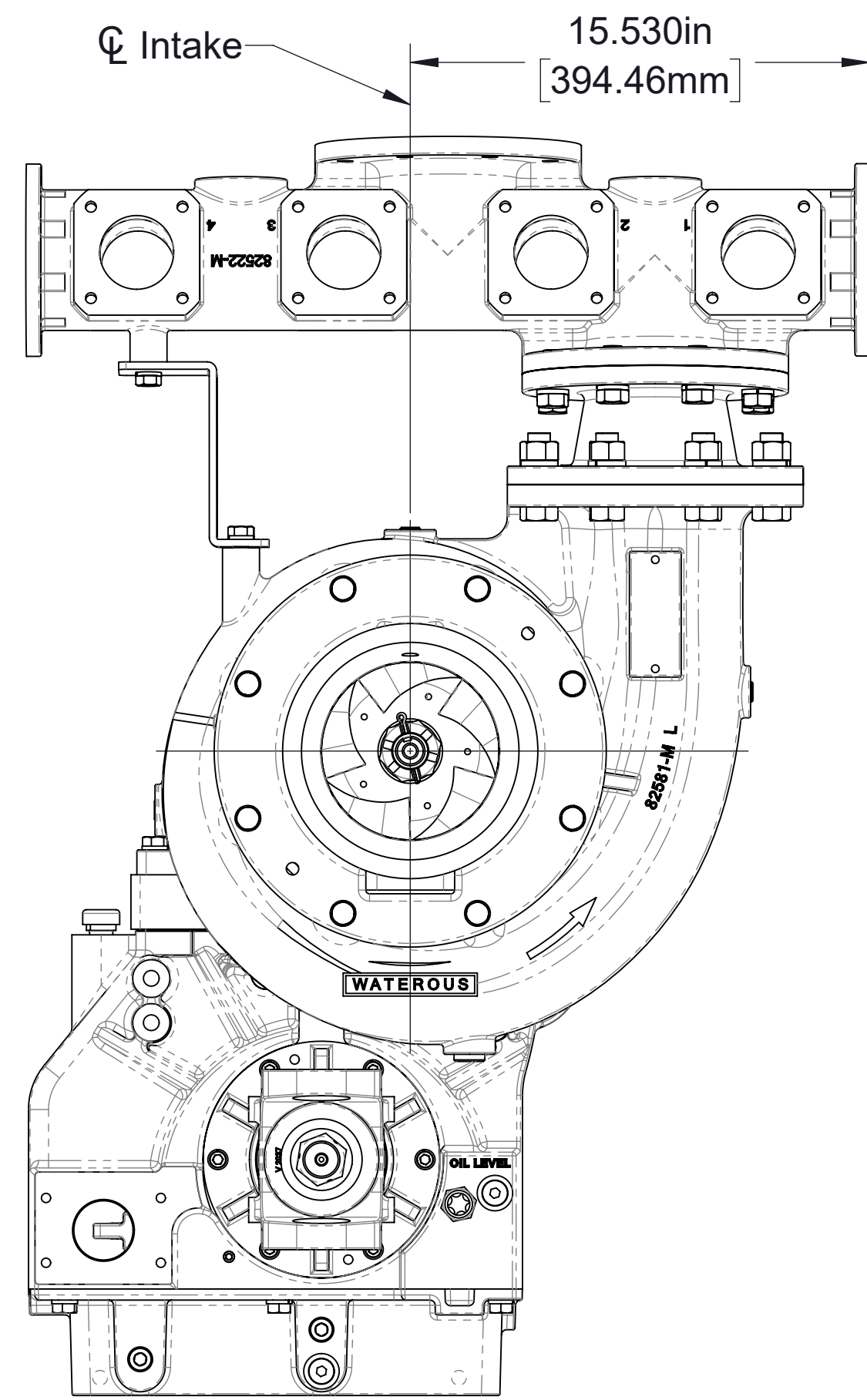
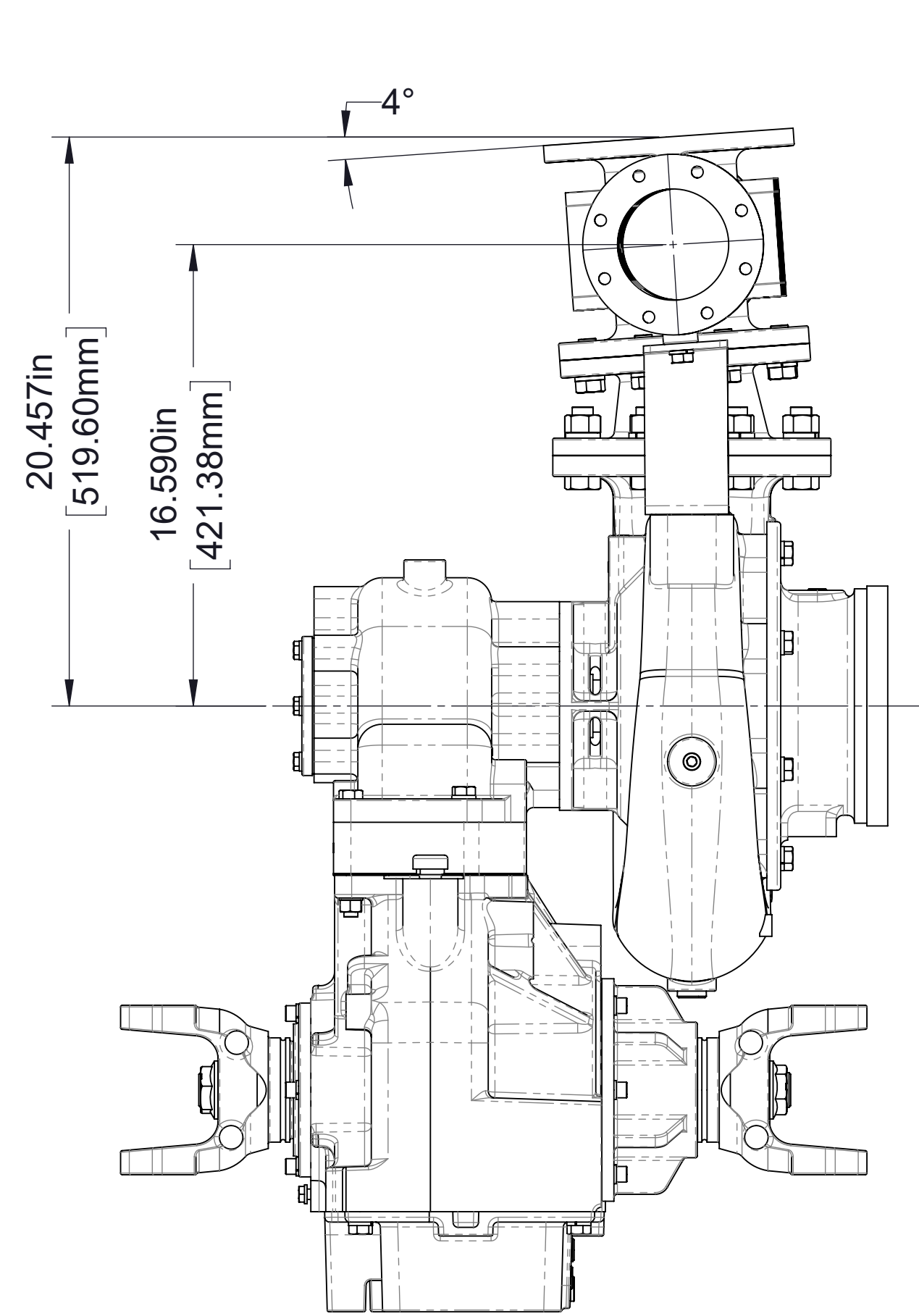
Manifold Pads



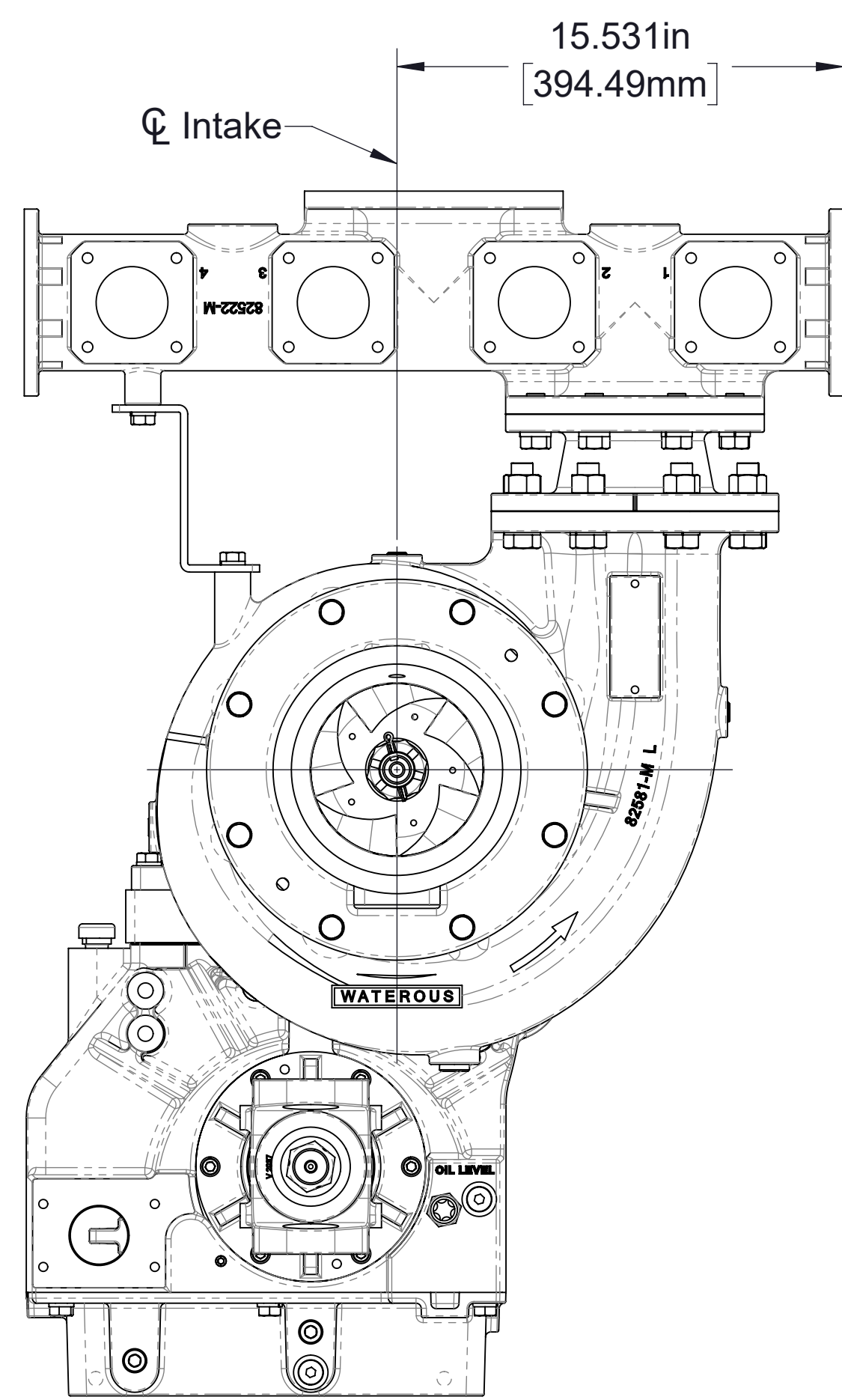
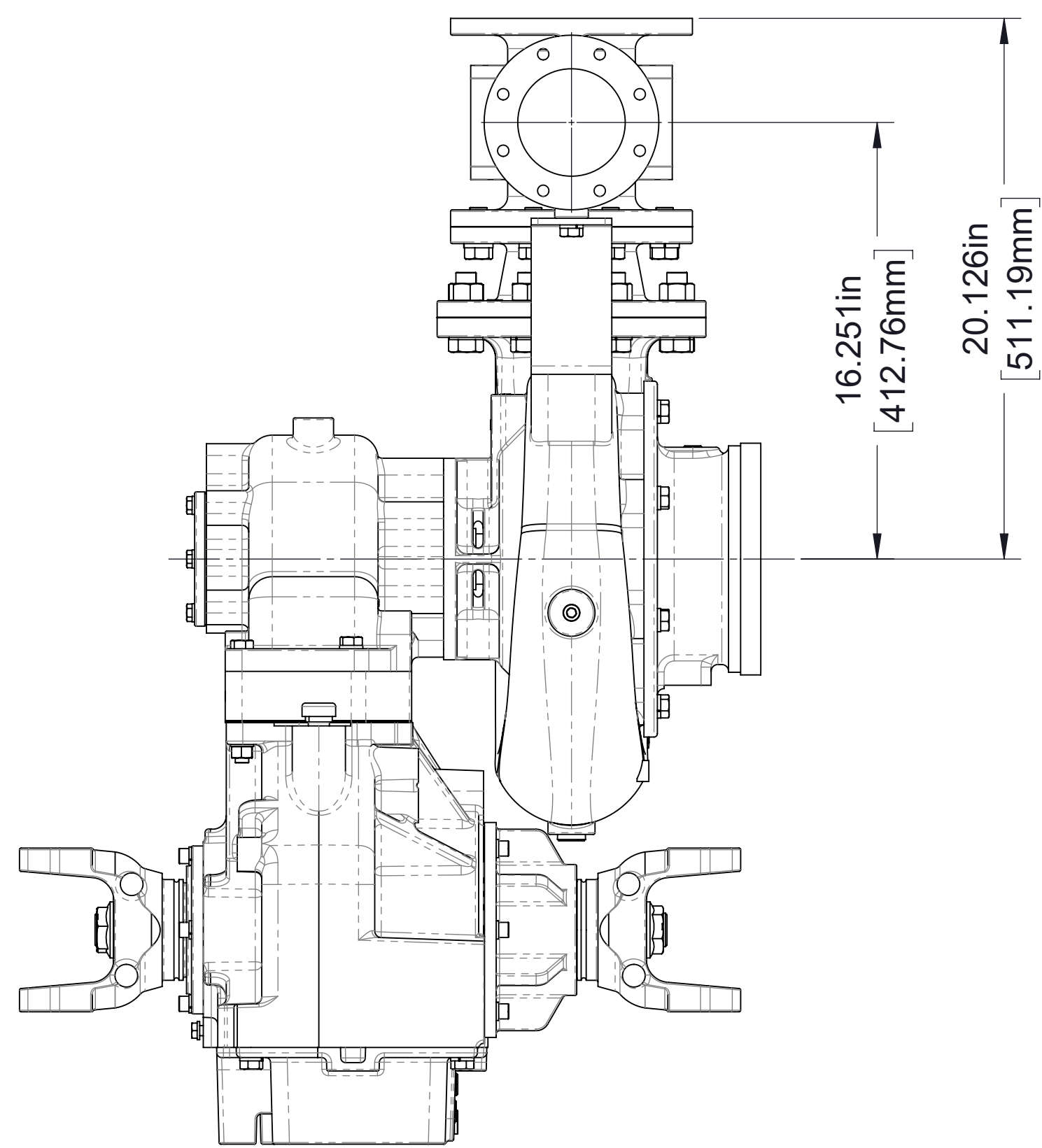
Non-Angle Compensated

Manifold Mounted Perpendicular to Intake Model S100C22

Pump mounted on front (input shaft side) of transmission
 Note: see page 6 for manifold dimensions not shown

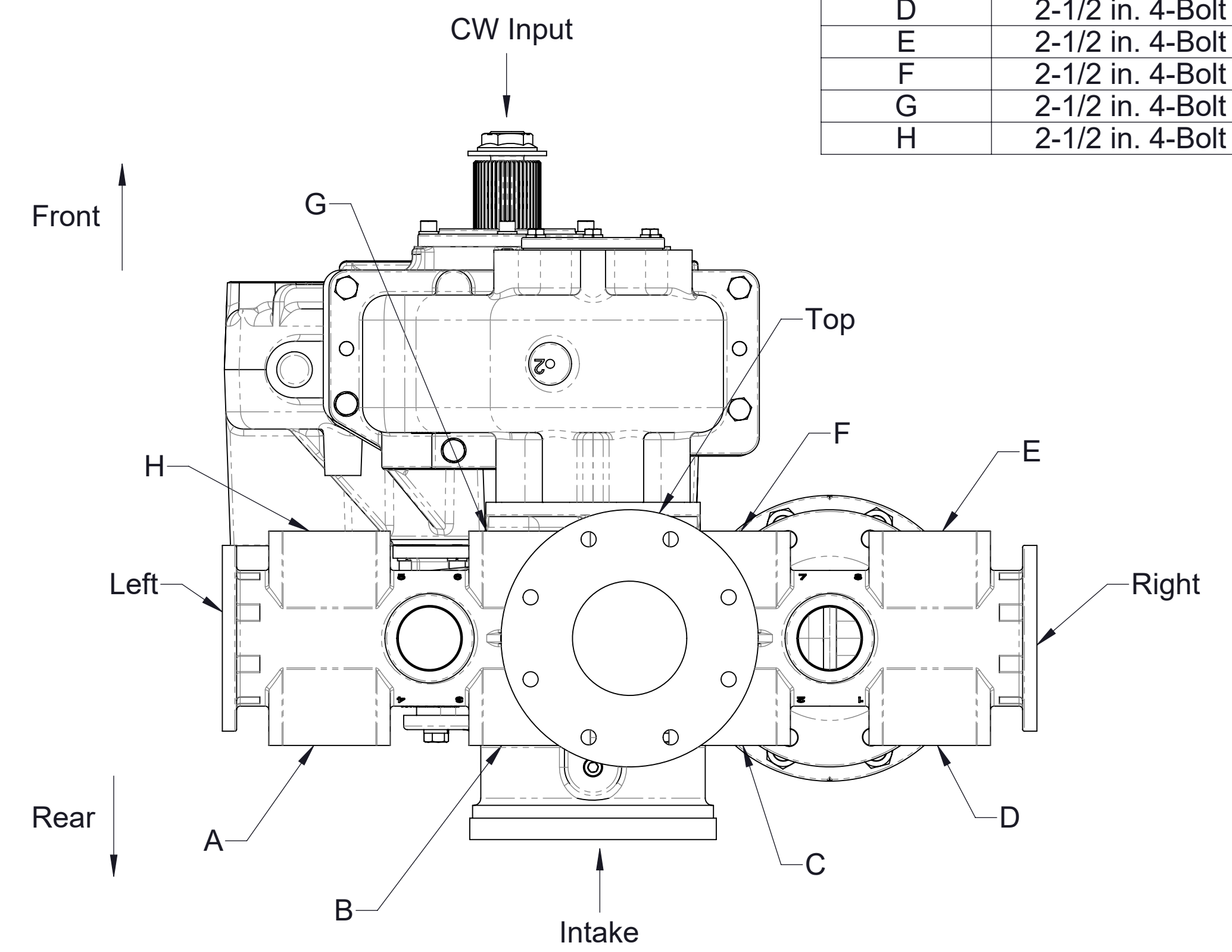


Angle Compensated



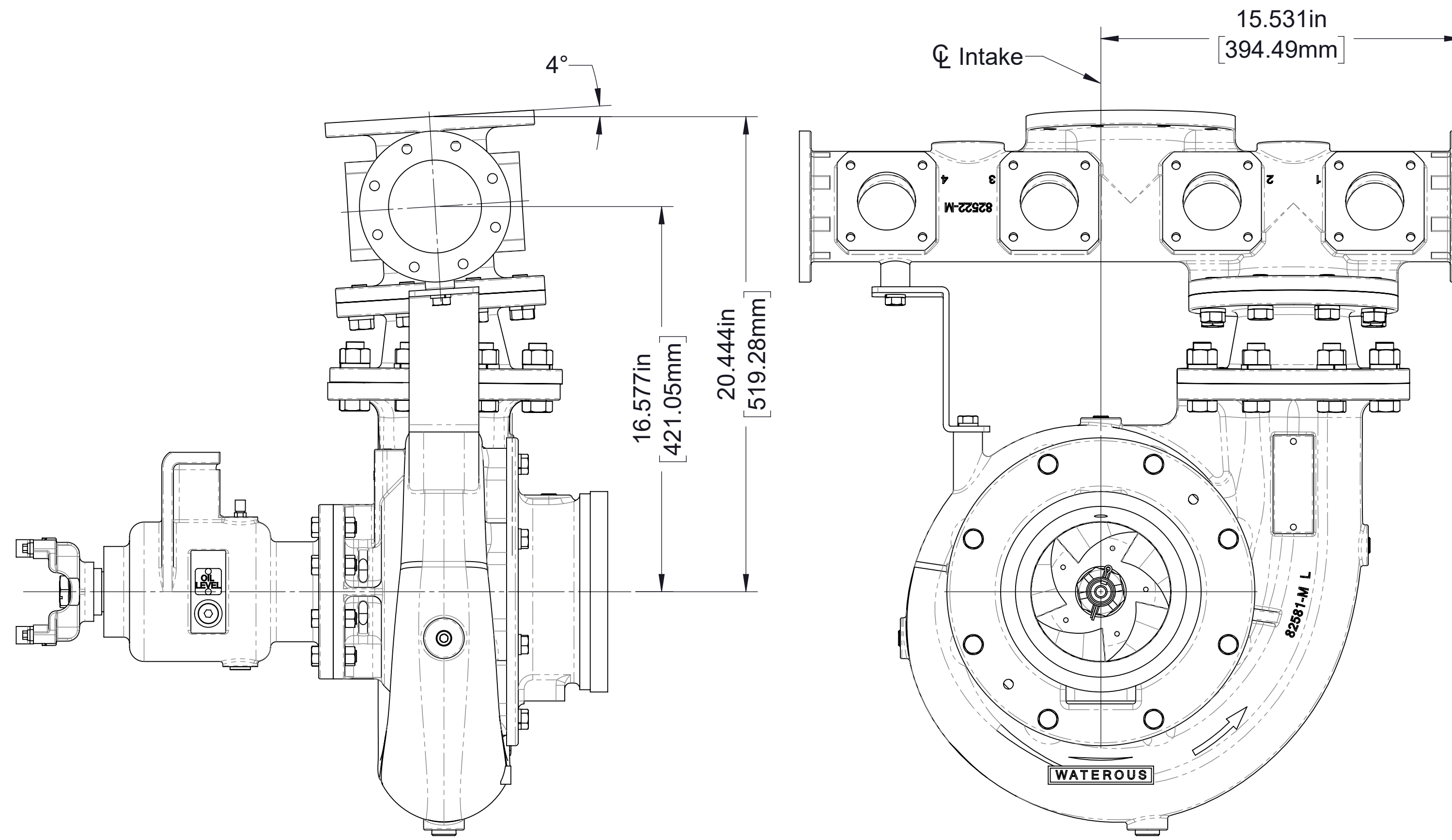
Non-Angle Compensated

Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

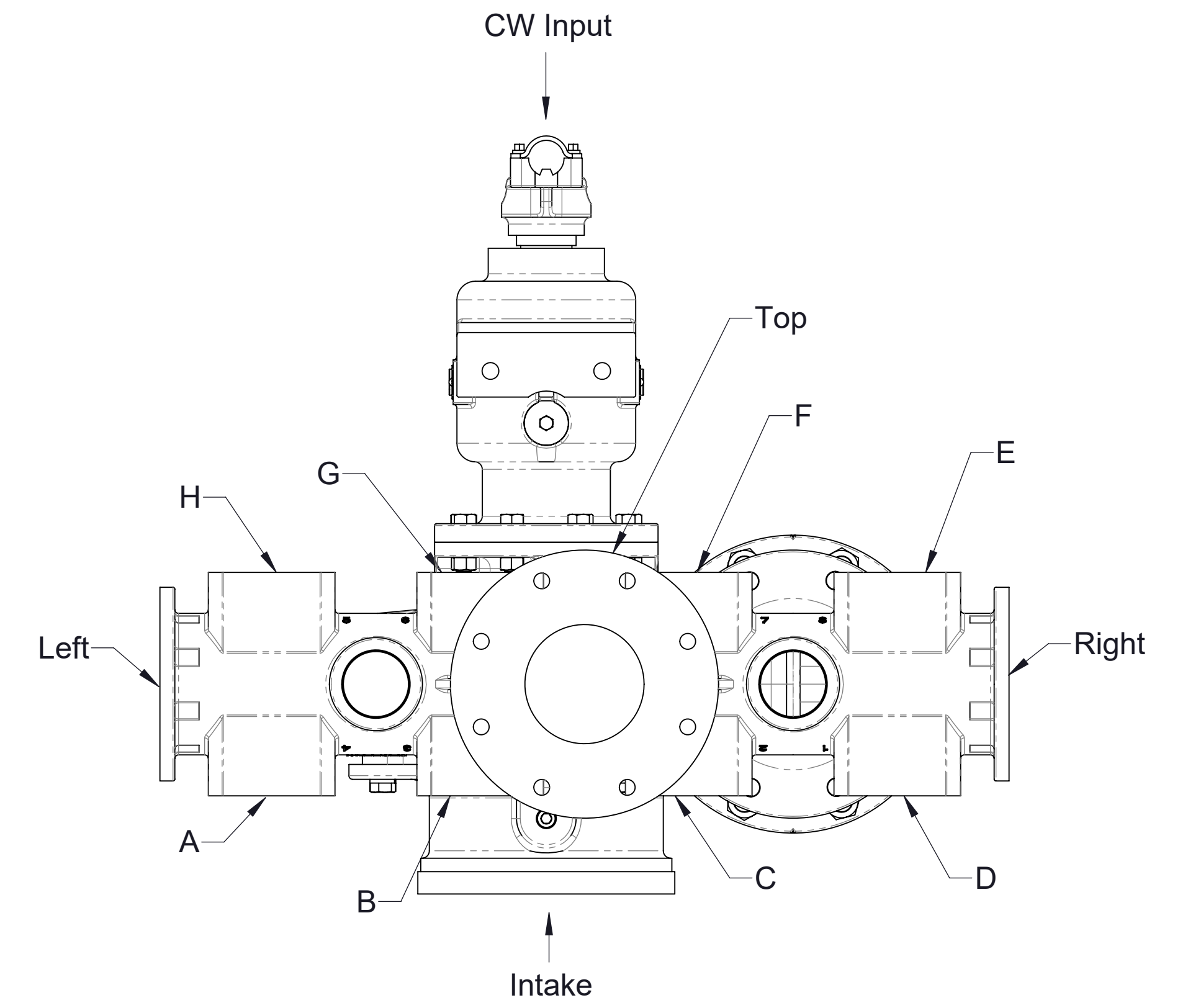


Manifold Pads

Manifold Mounted Perpendicular to Intake Model S100C22
 Pump mounted on rear (ouput shaft side) of transmission
 Note: see page 6 for manifold dimensions not shown



Angle Compensated

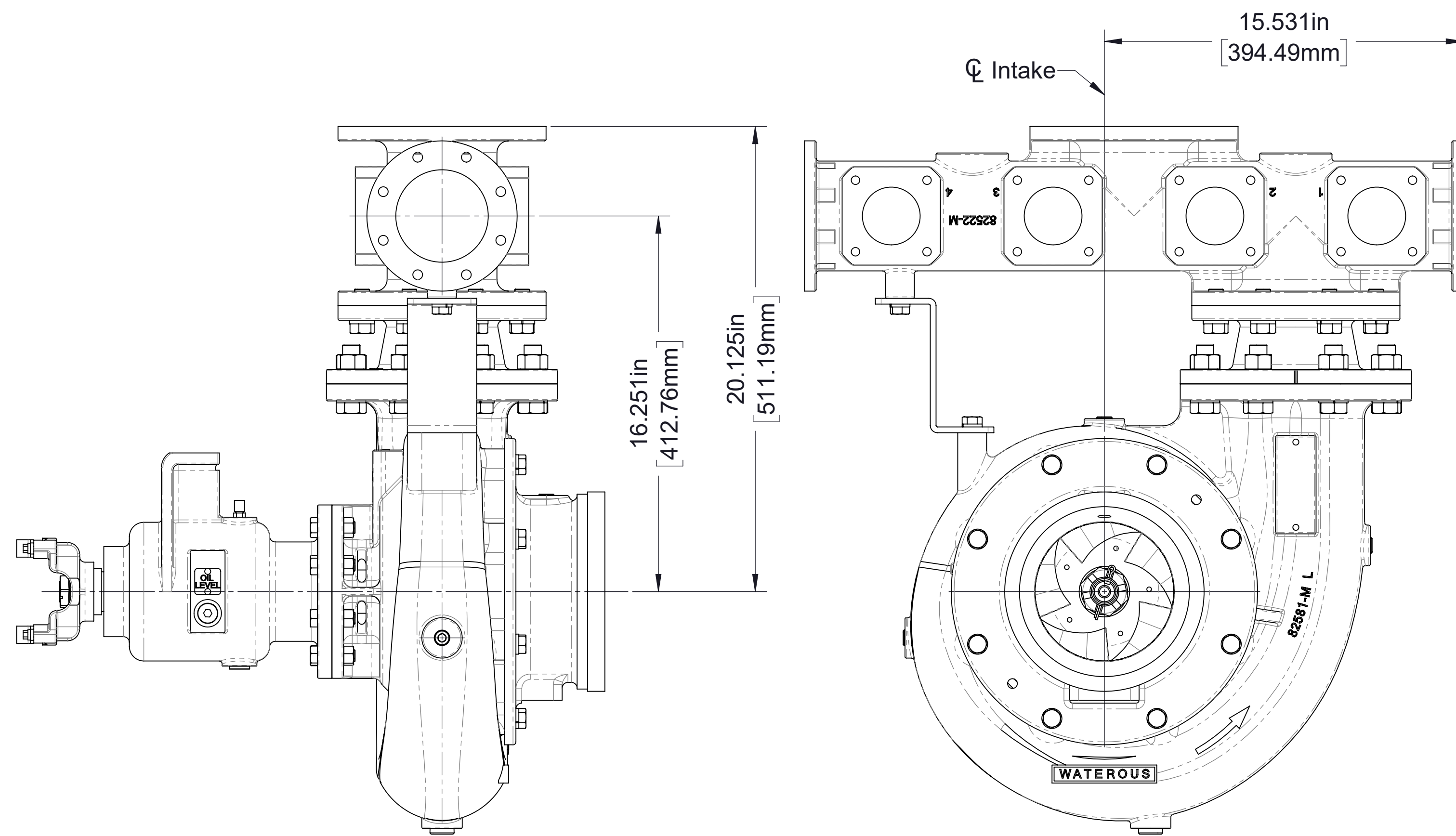


Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

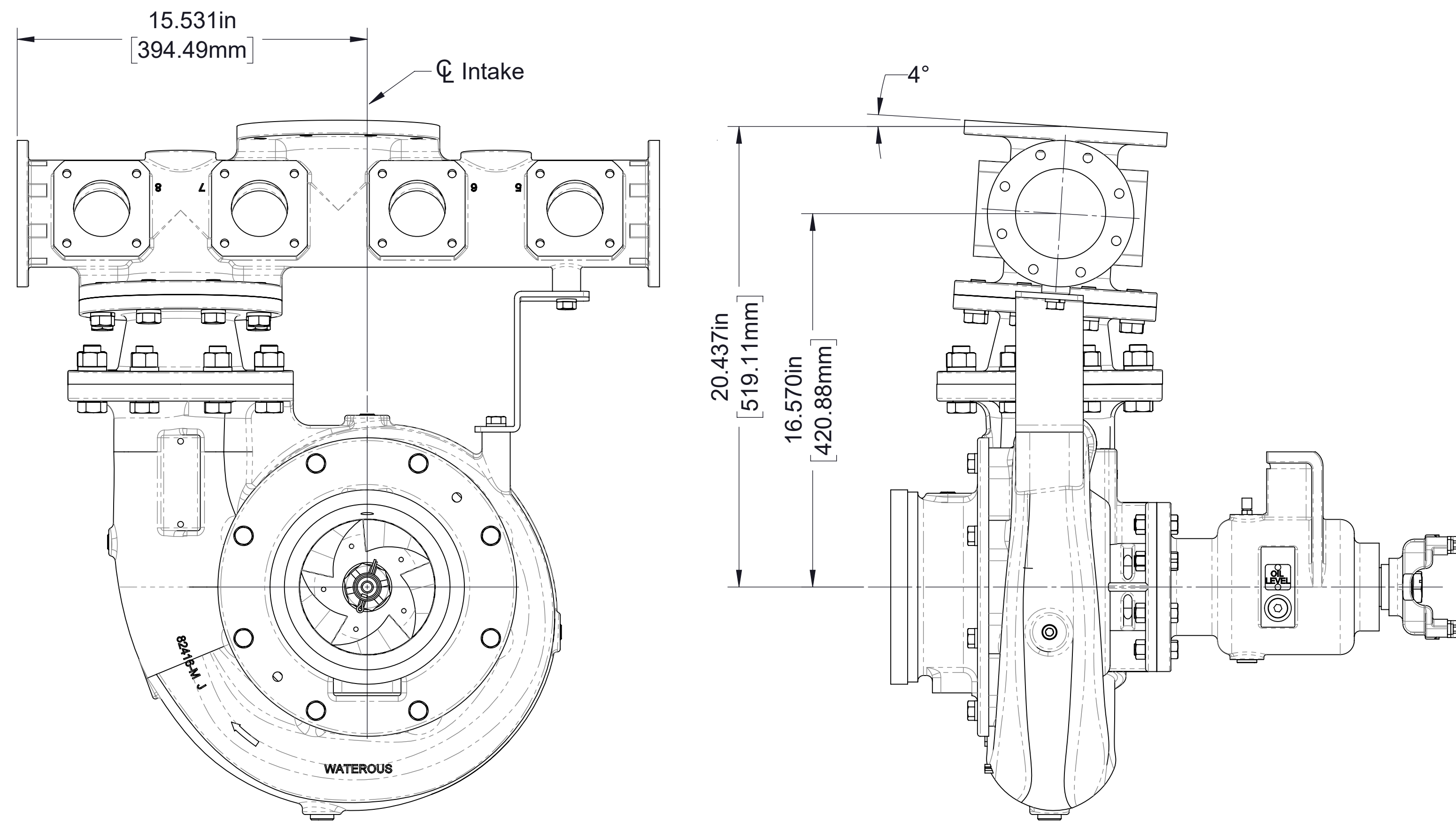
Manifold Pads

Manifold Mounted Perpendicular to Intake Model S100C22

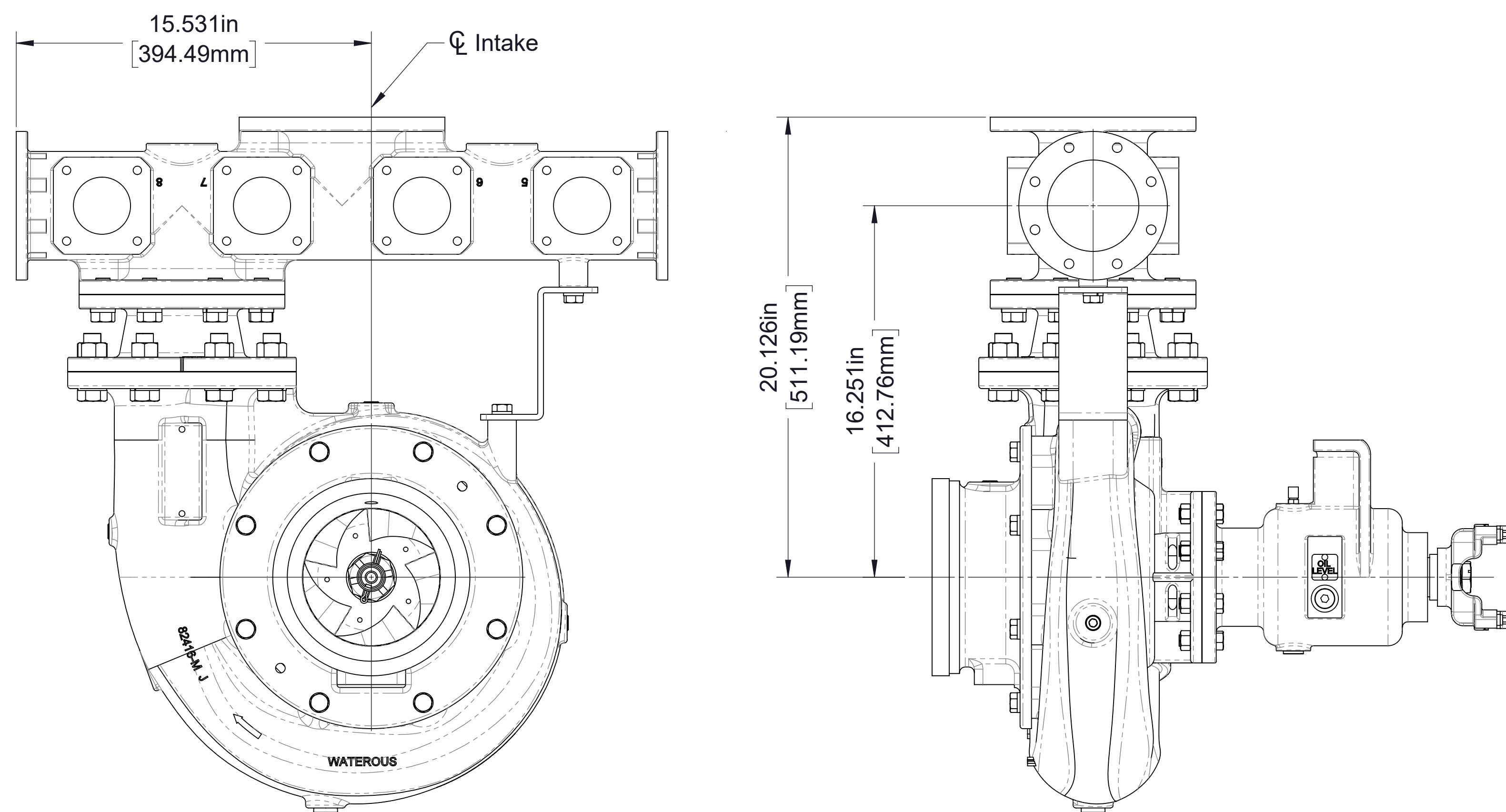
CW Input
Note: See page 6 for manifold dimensions not shown



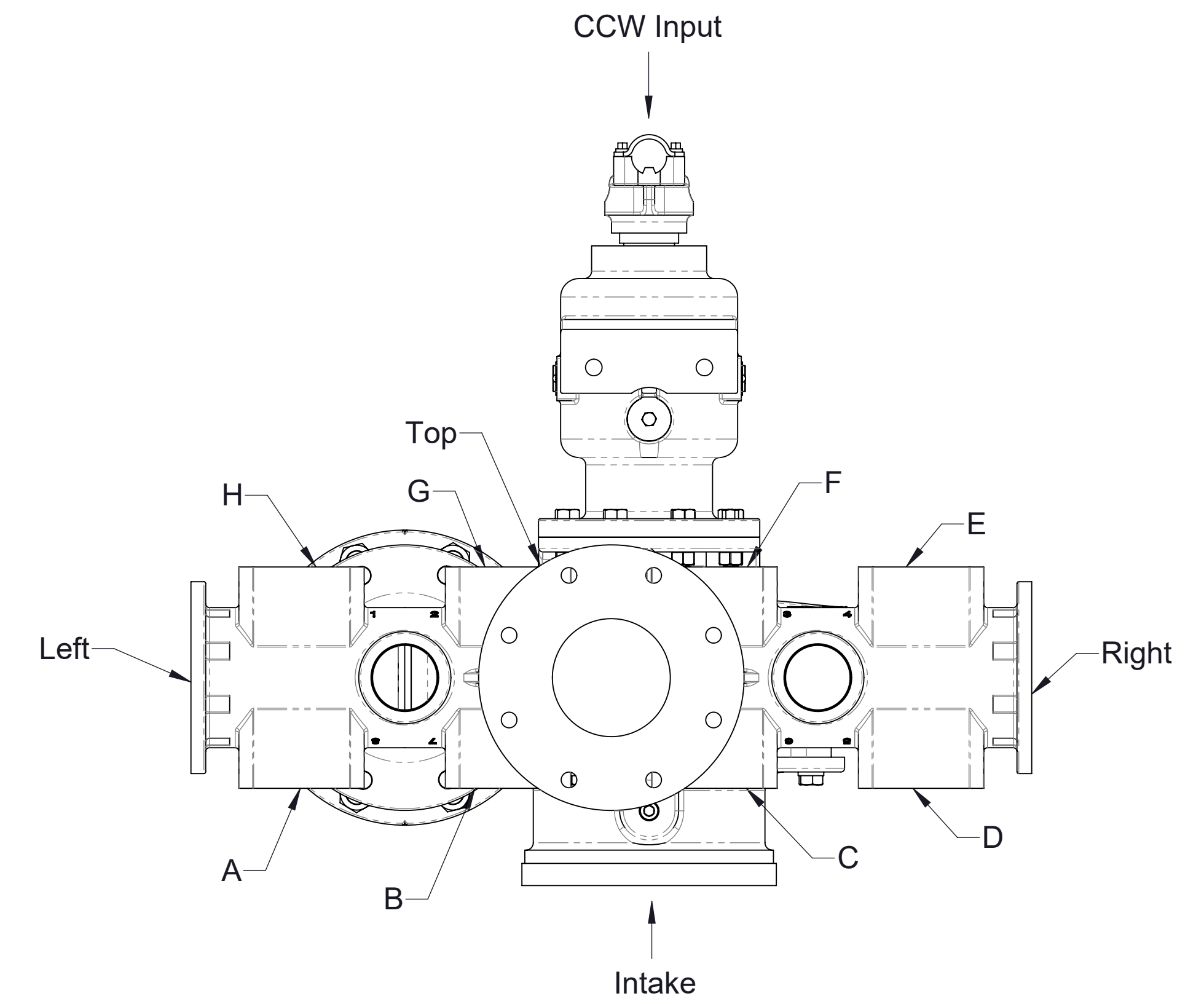
Non-Angle Compensated



Angle Compensated



Non-Angle Compensated

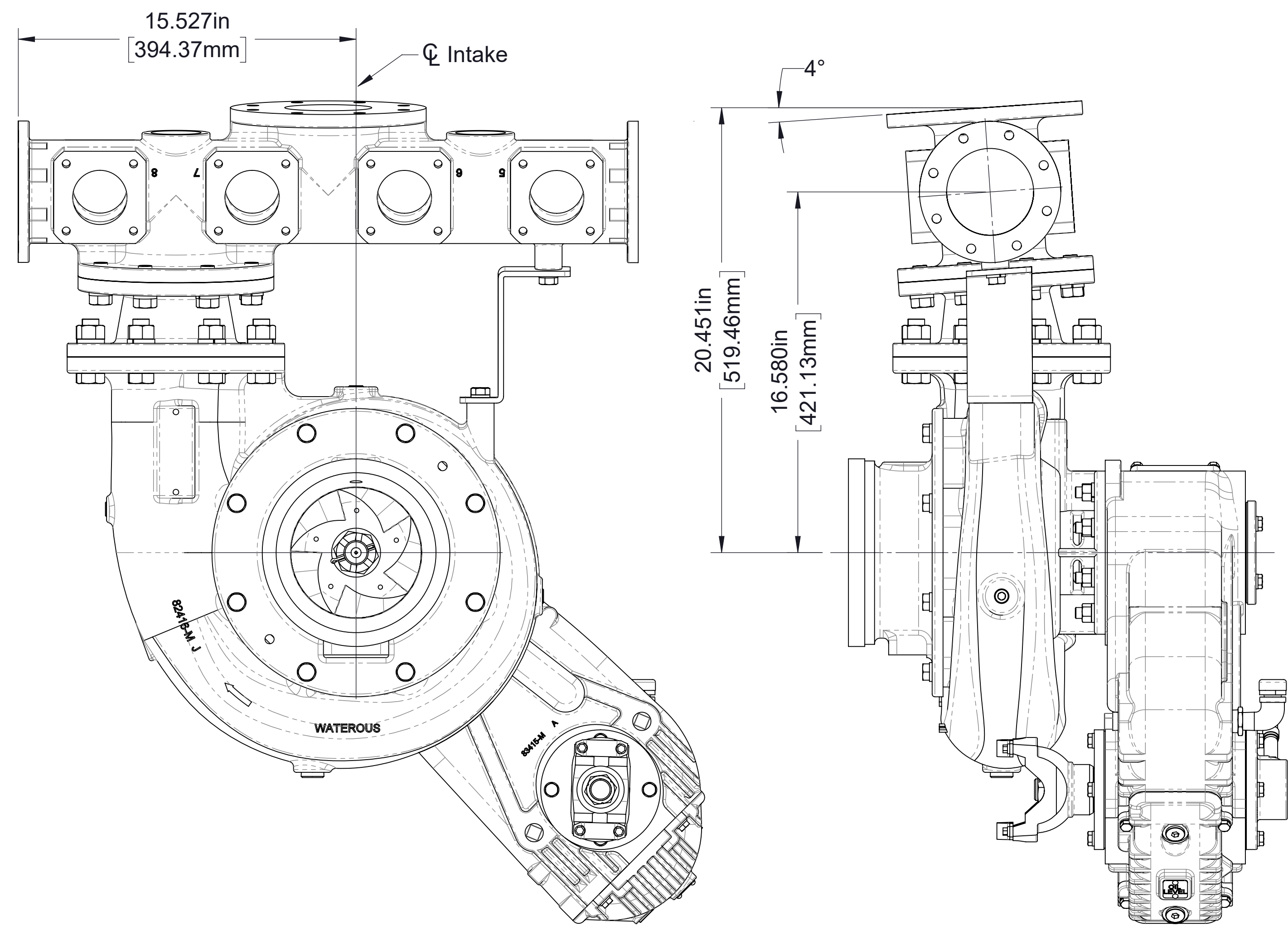


Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

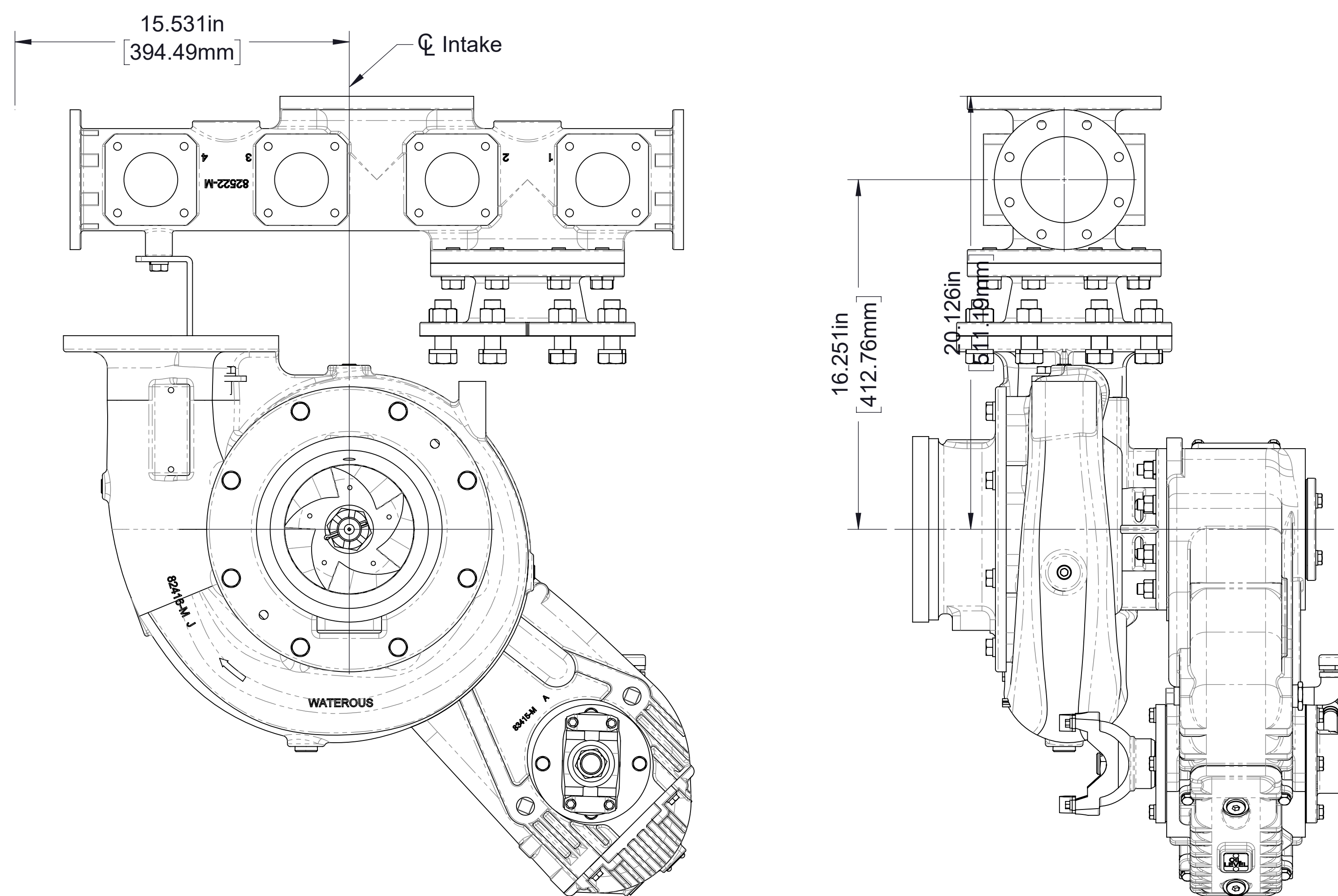
Manifold Pads

Manifold Mounted Perpendicular to Intake Model S100D

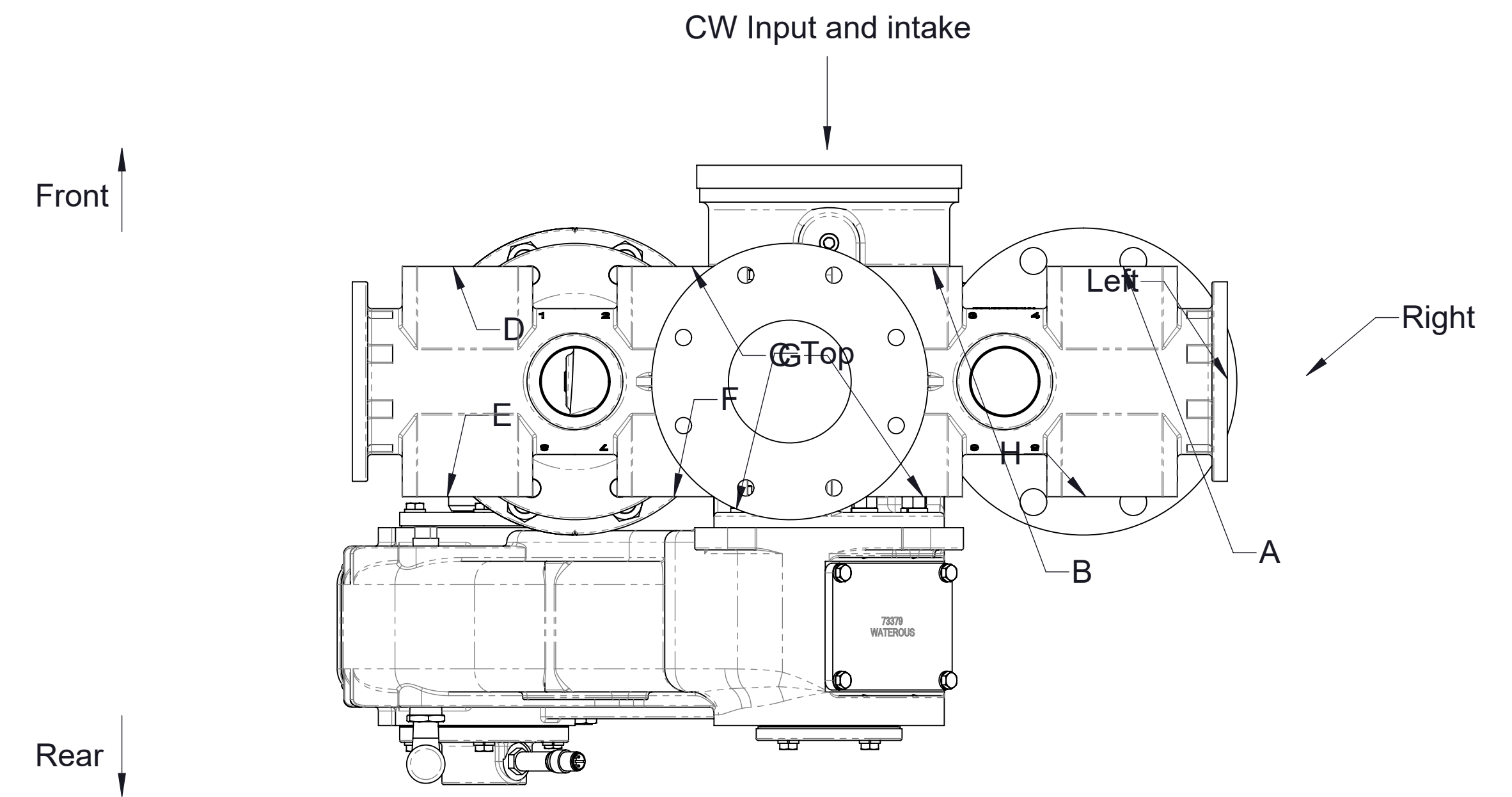
CCW Input
 Note: See page 6 for manifold dimensions not shown



Angle Compensated



Non-Angle Compensated

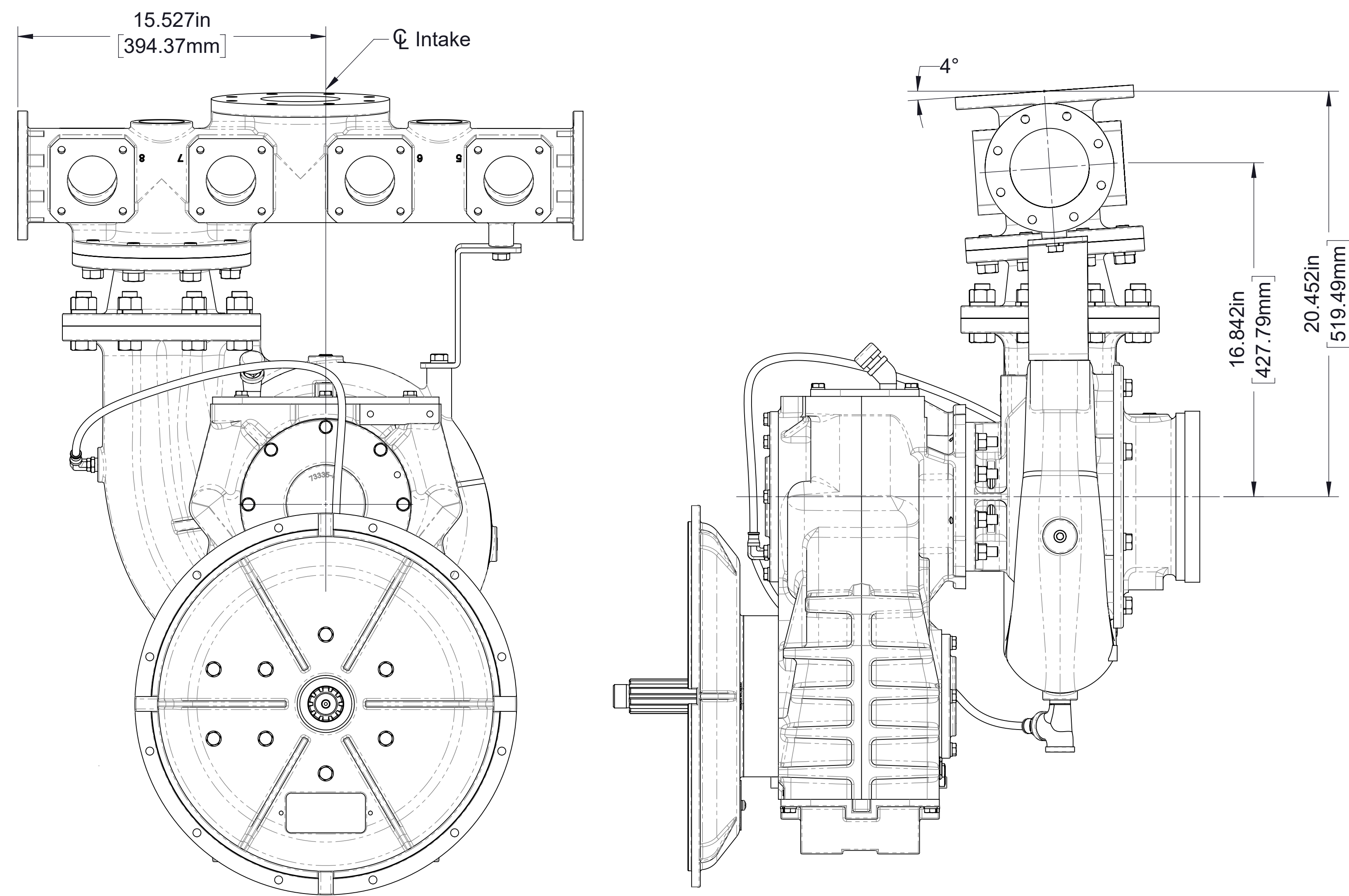


Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

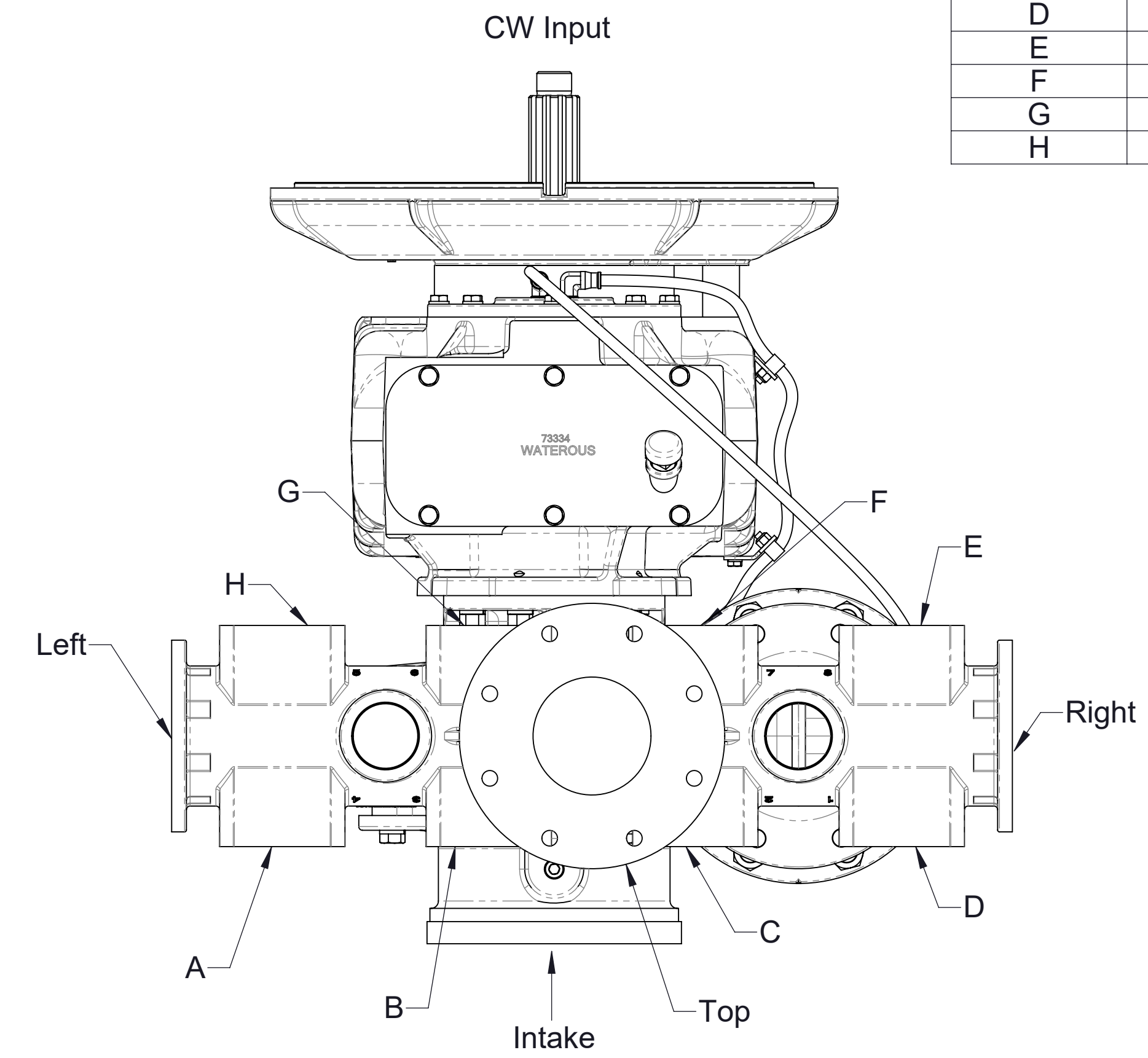
Manifold Pads

Manifold Mounted Perpendicular to Intake Model S100PA

Pump mounted on front (input shaft side) of transmission
 Note: See page 6 for manifold dimensions not shown



Angle Compensated

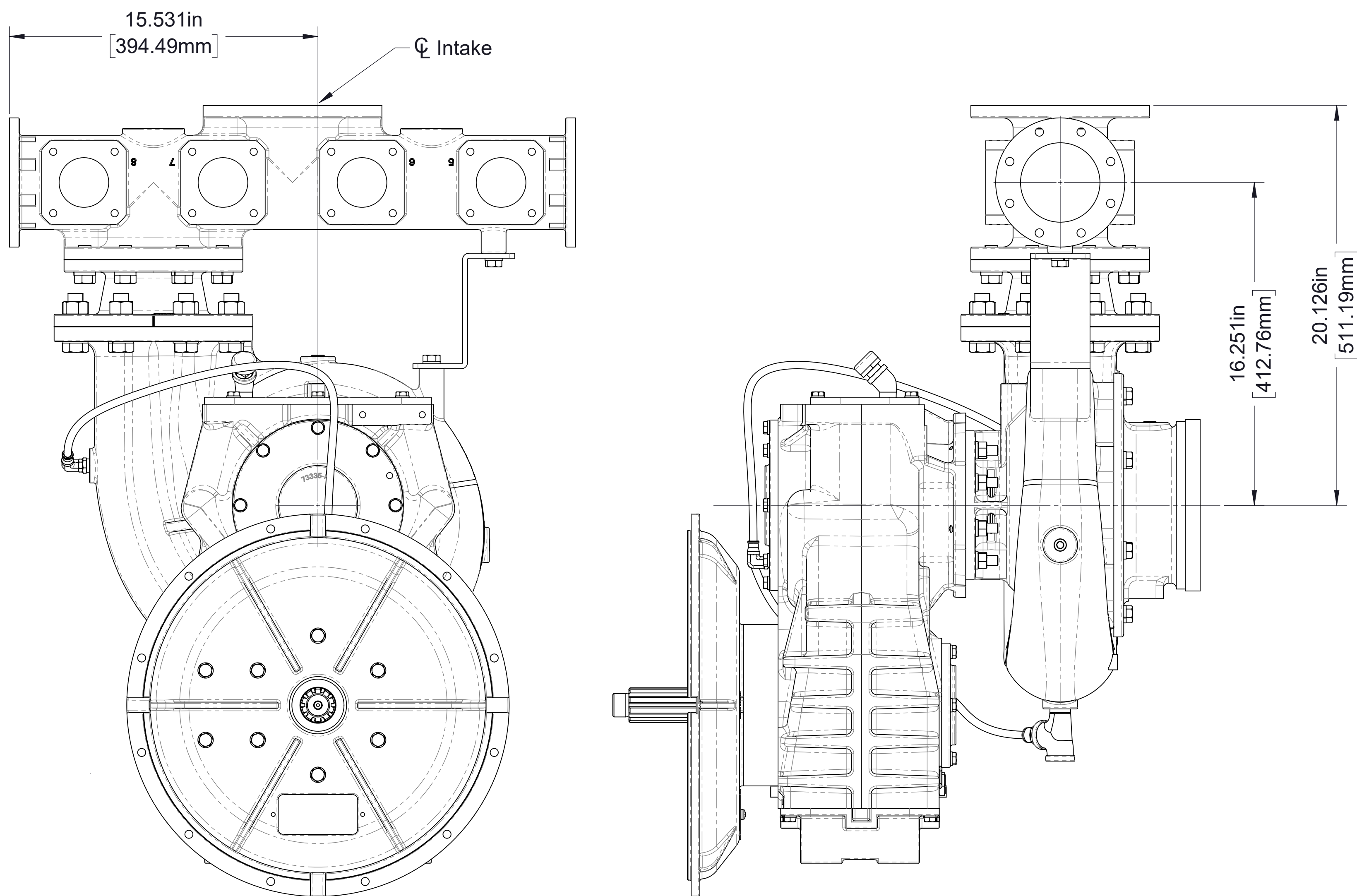


Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

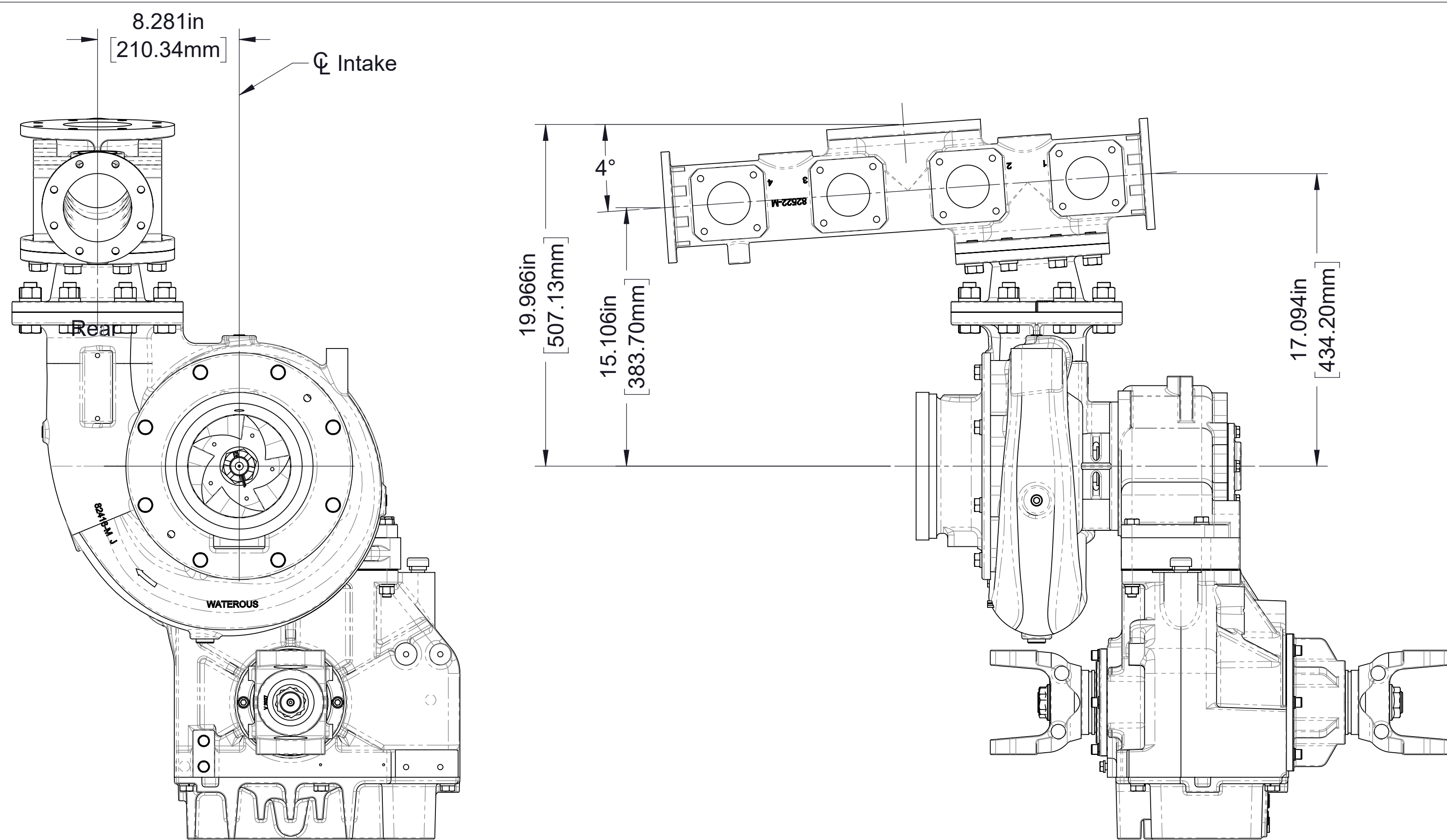
Manifold Pads

Manifold Mounted Perpendicular to Intake Model S100QC

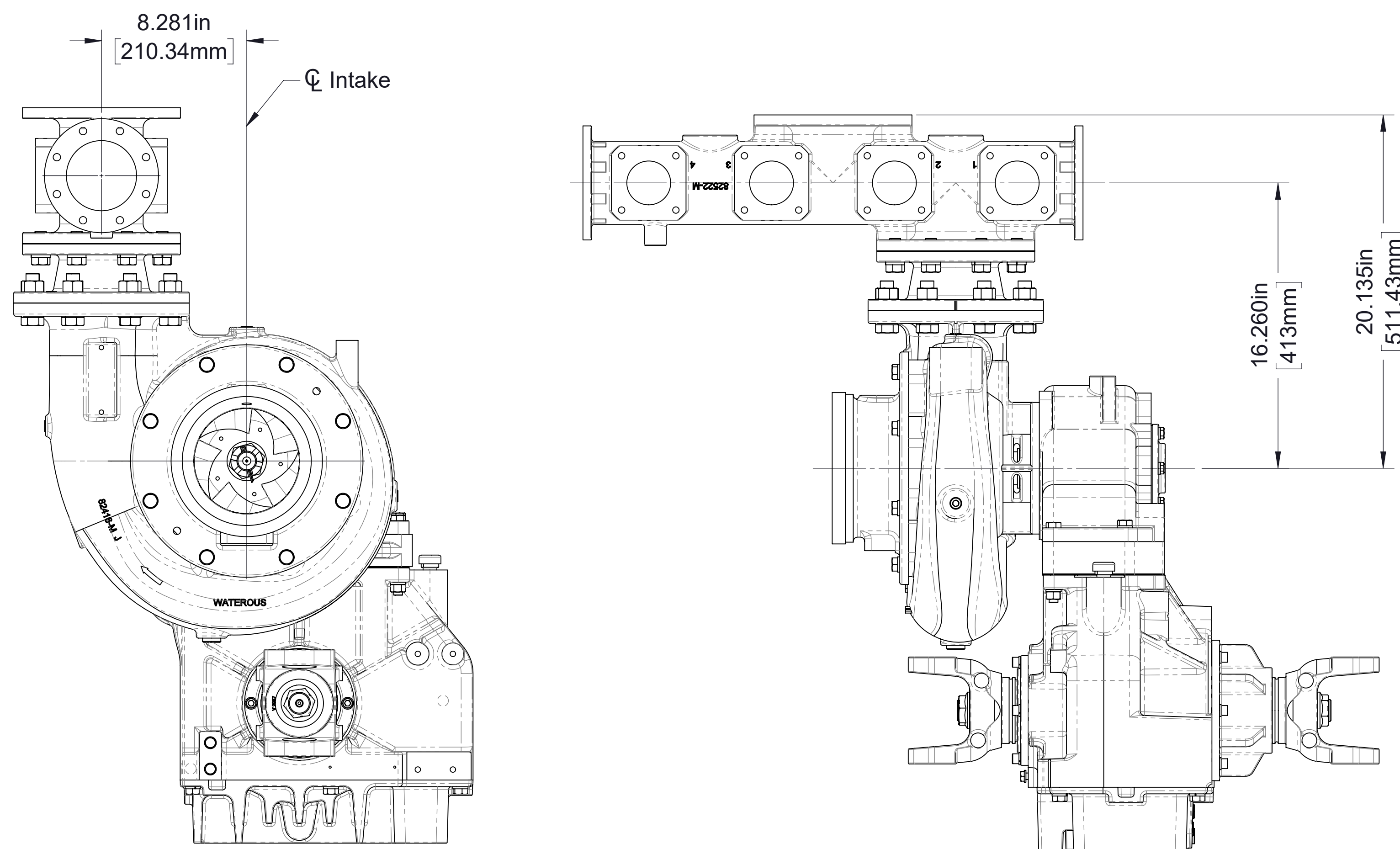
Direct engine mounted, verticle case
 Pump mounted on rear (output shaft side) of transmission
 Note: See page 6 for manifold dimensions not shown



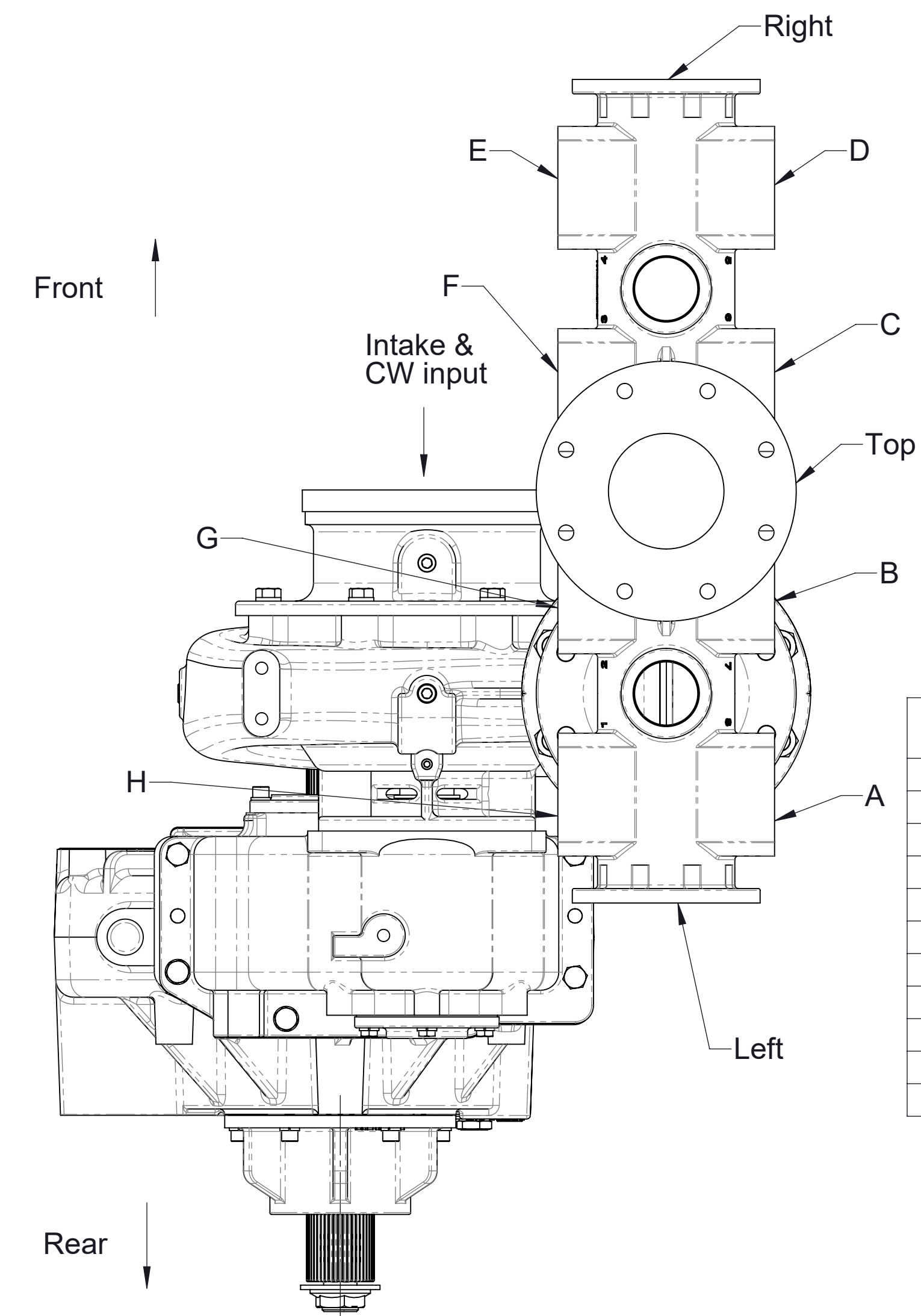
Non-Angle Compensated



Angle Compensated



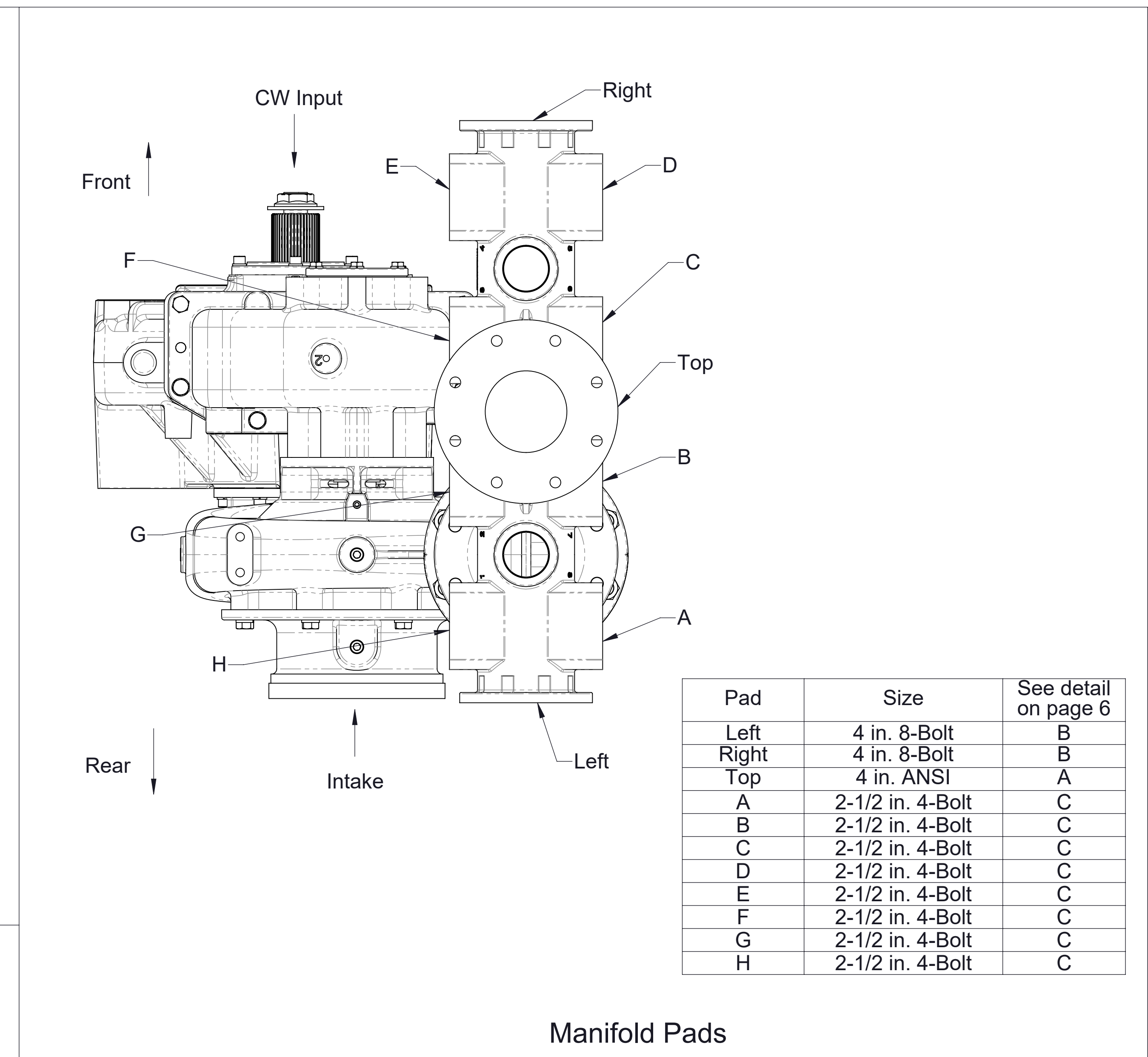
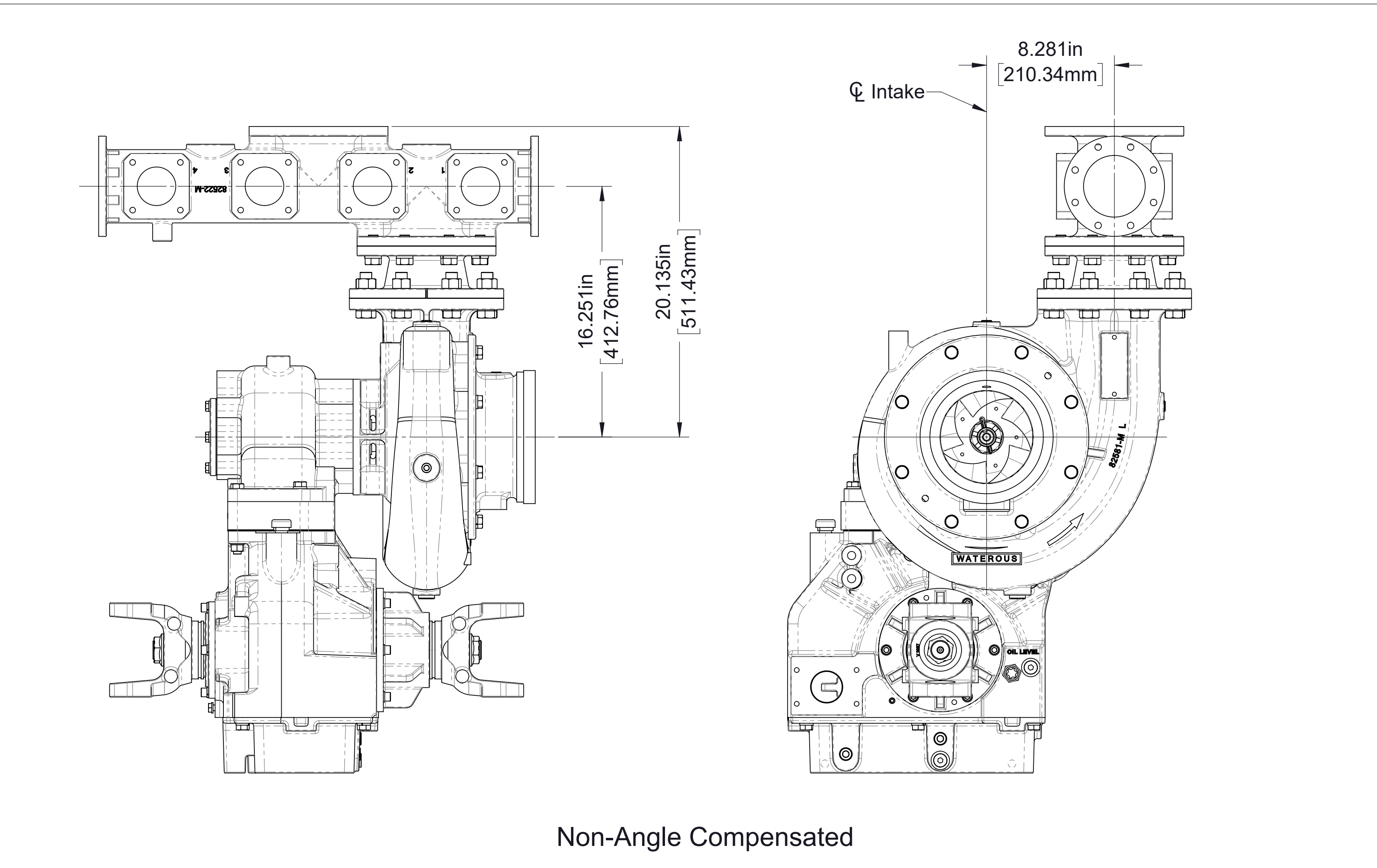
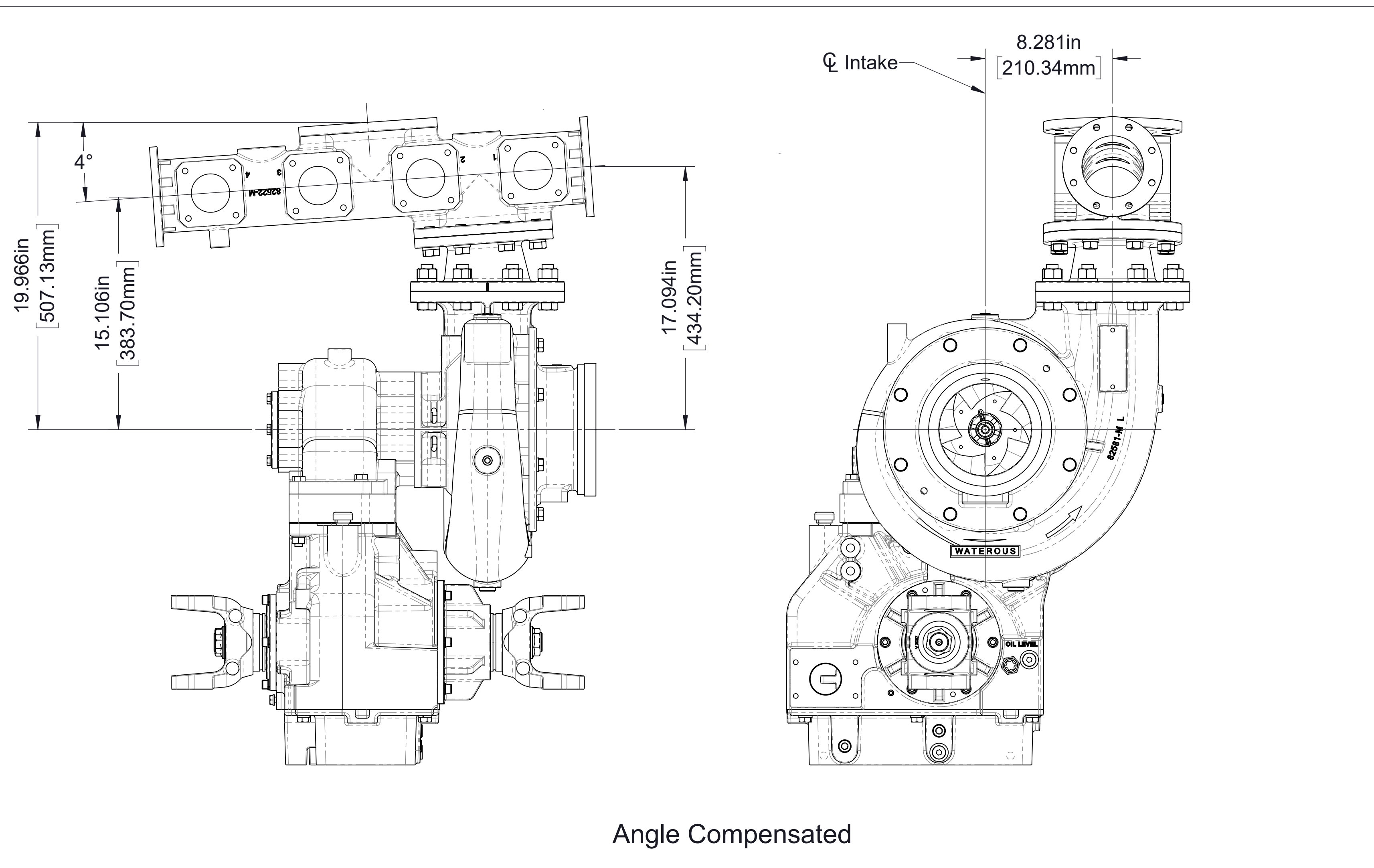
Non-Angle Compensated



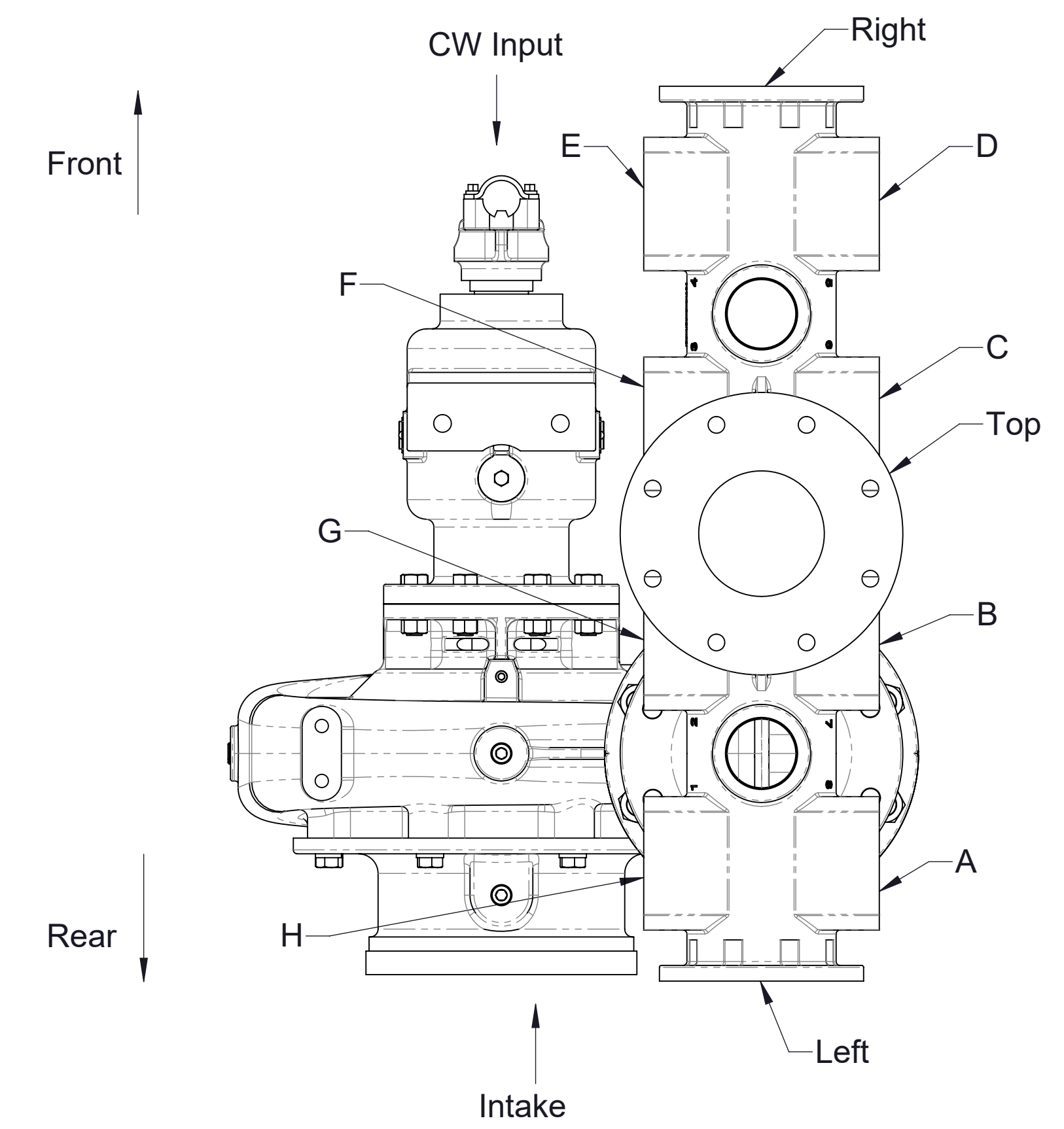
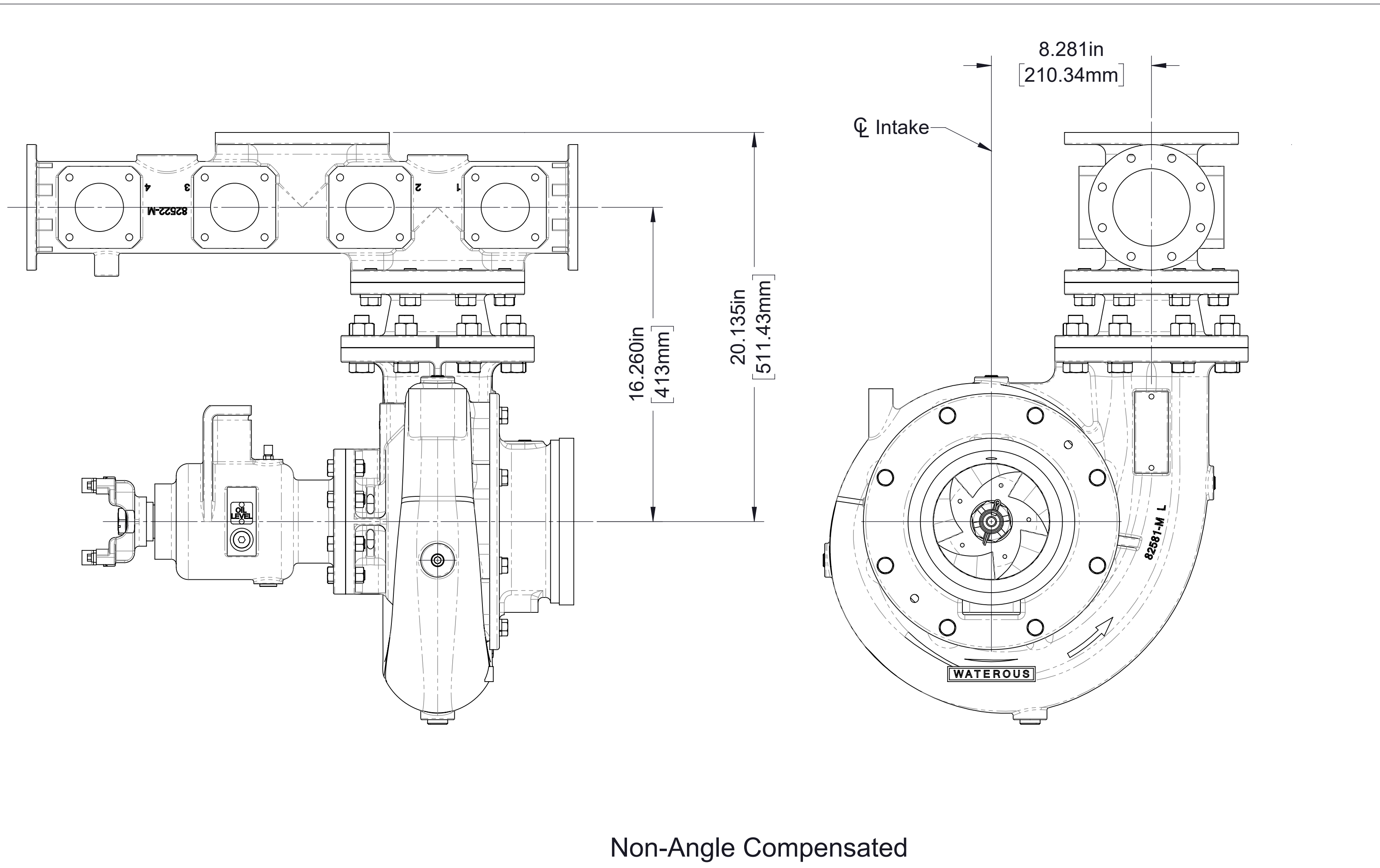
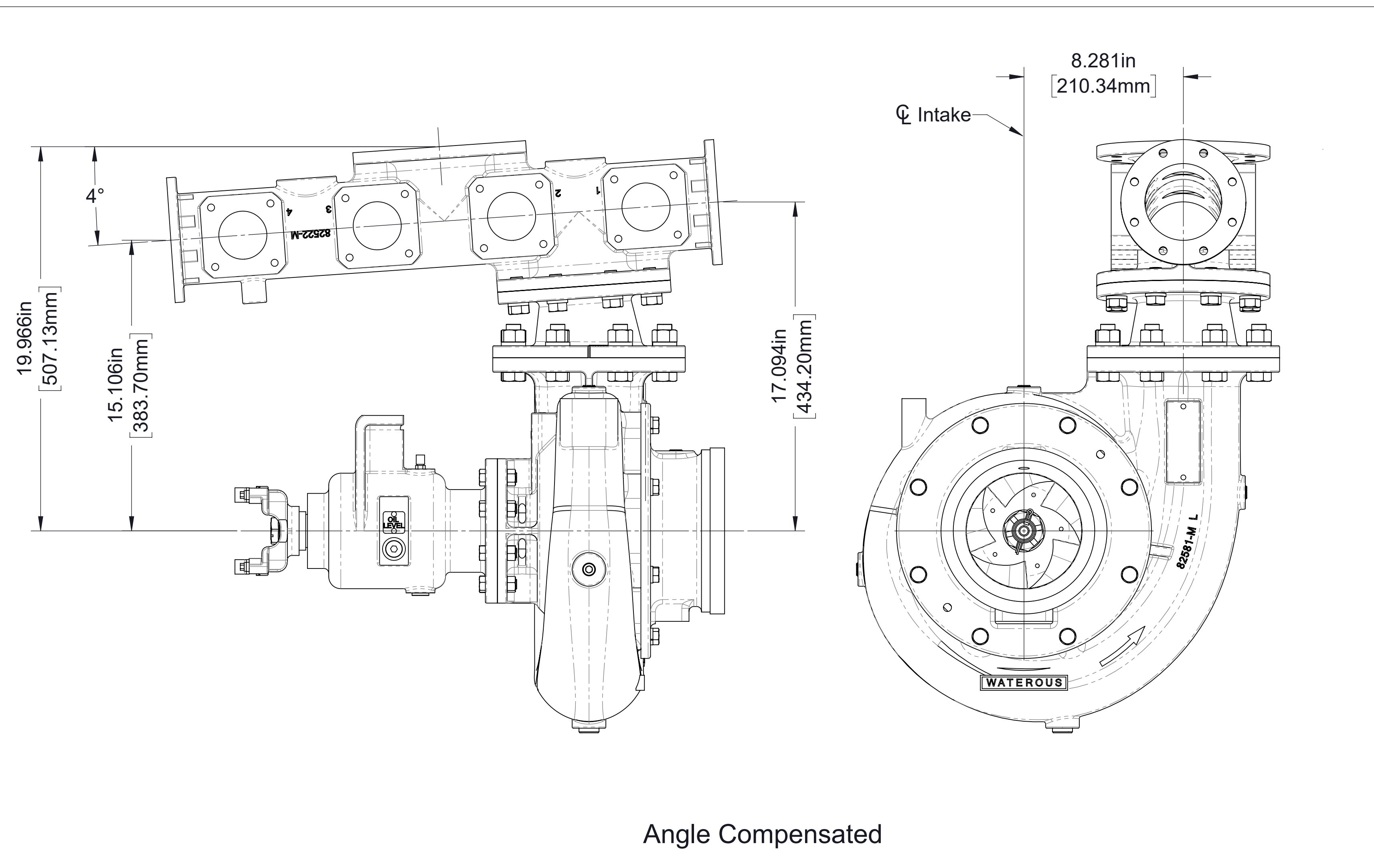
Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

Manifold Pads

Manifold Mounted Parallel to Intake Model S100C22
 Pump mounted on front (input shaft side) of transmission
 Note: see page 6 for manifold dimensions not shown



Manifold Mounted Parallel to Intake Model S100C22
 Pump mounted on rear (ouput shaft side) of transmission
 Note: See page 6 for manifold dimensions not shown

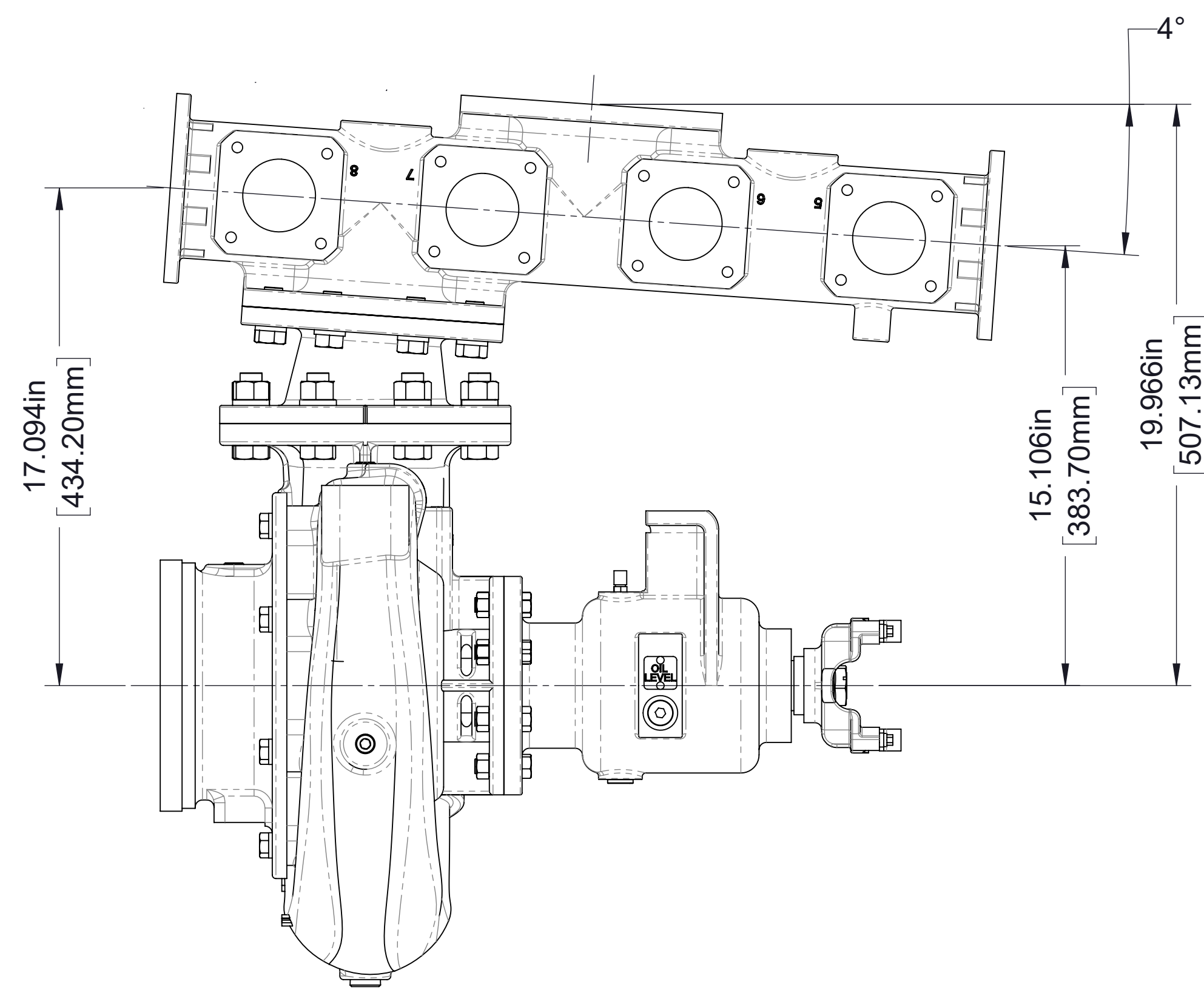
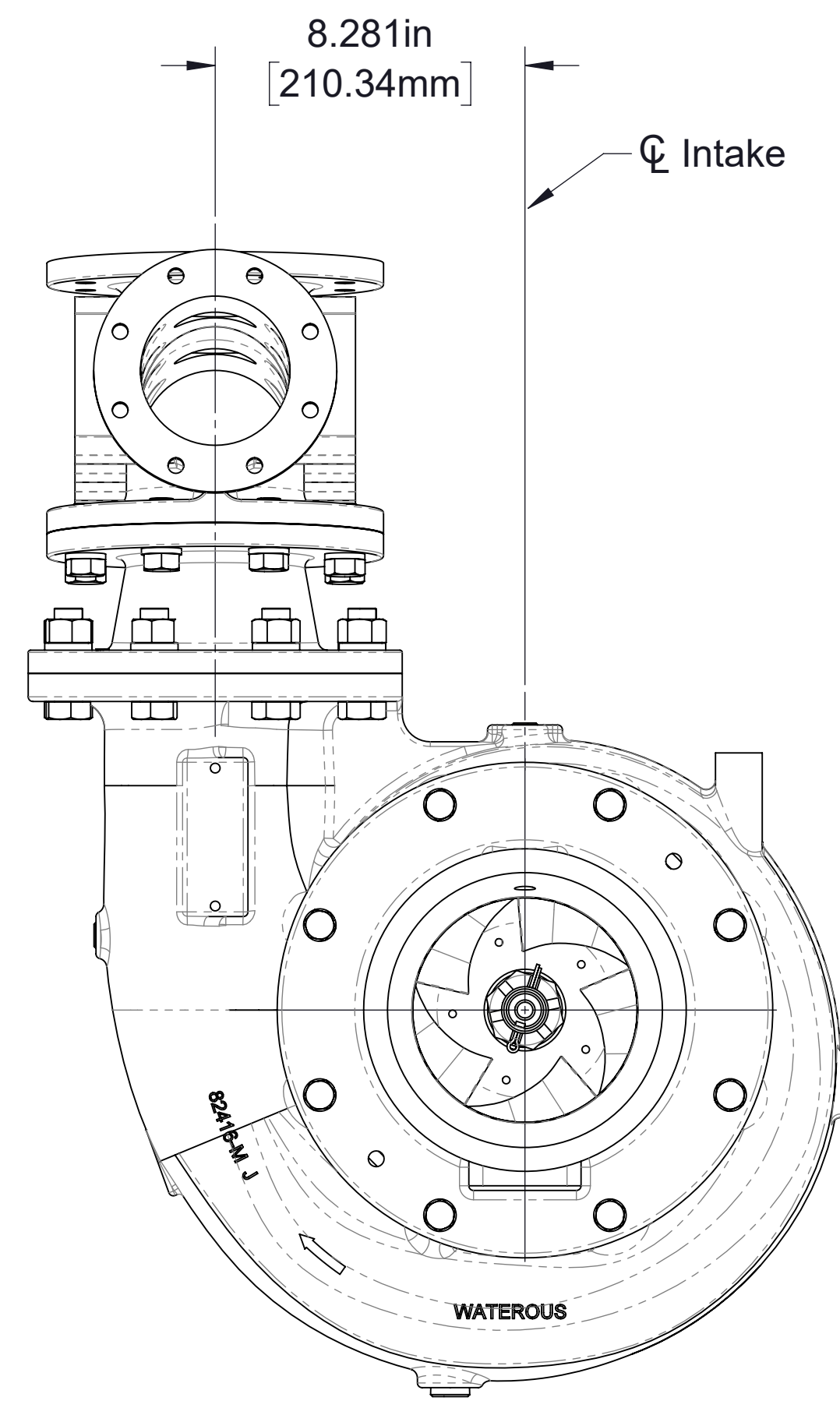


Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

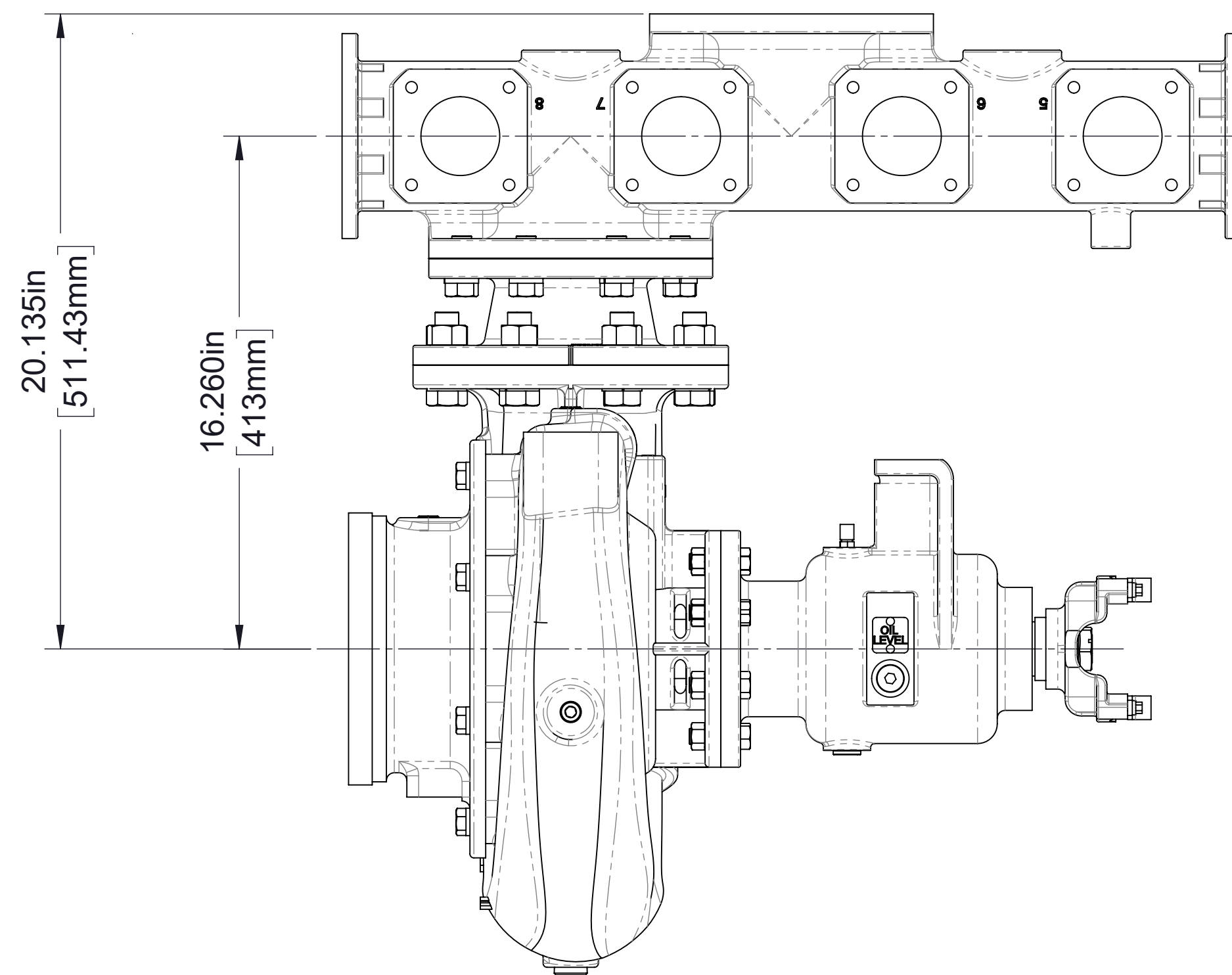
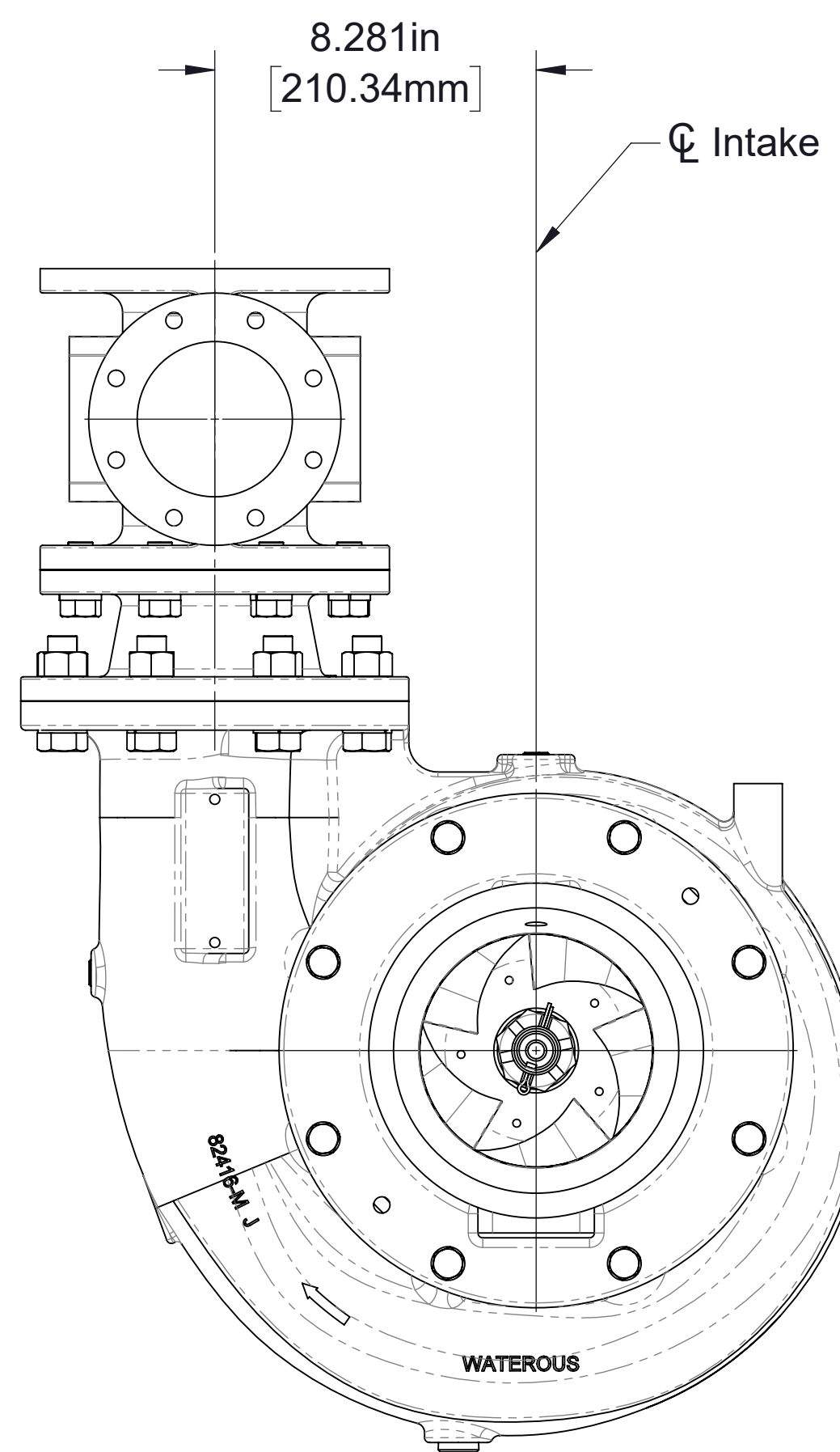
Manifold Pads

Manifold Mounted Parallel to Intake Model S100D

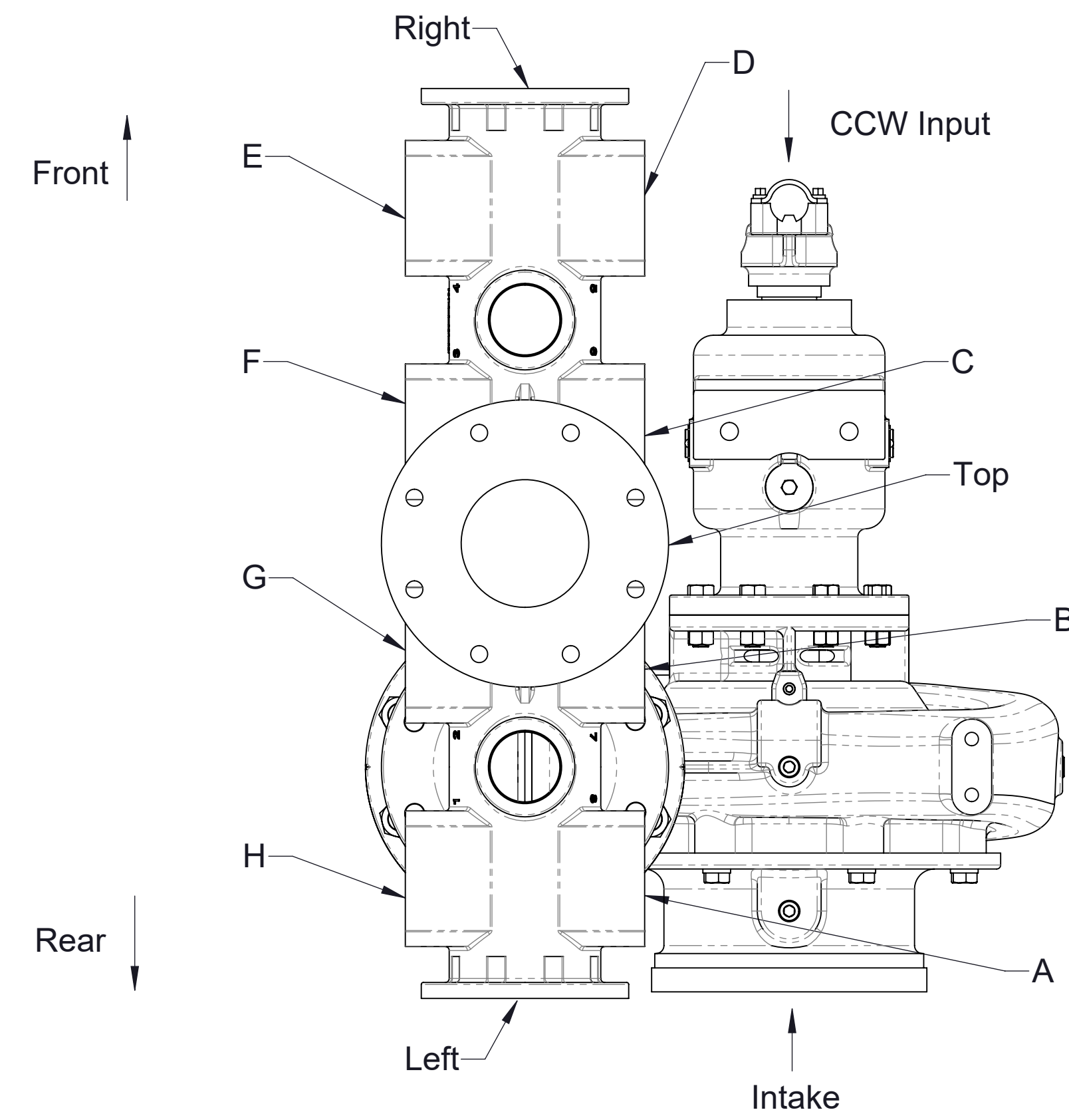
CW Input
Note: See page 6 for manifold dimensions not shown



Angle Compensated



Non-Angle Compensated



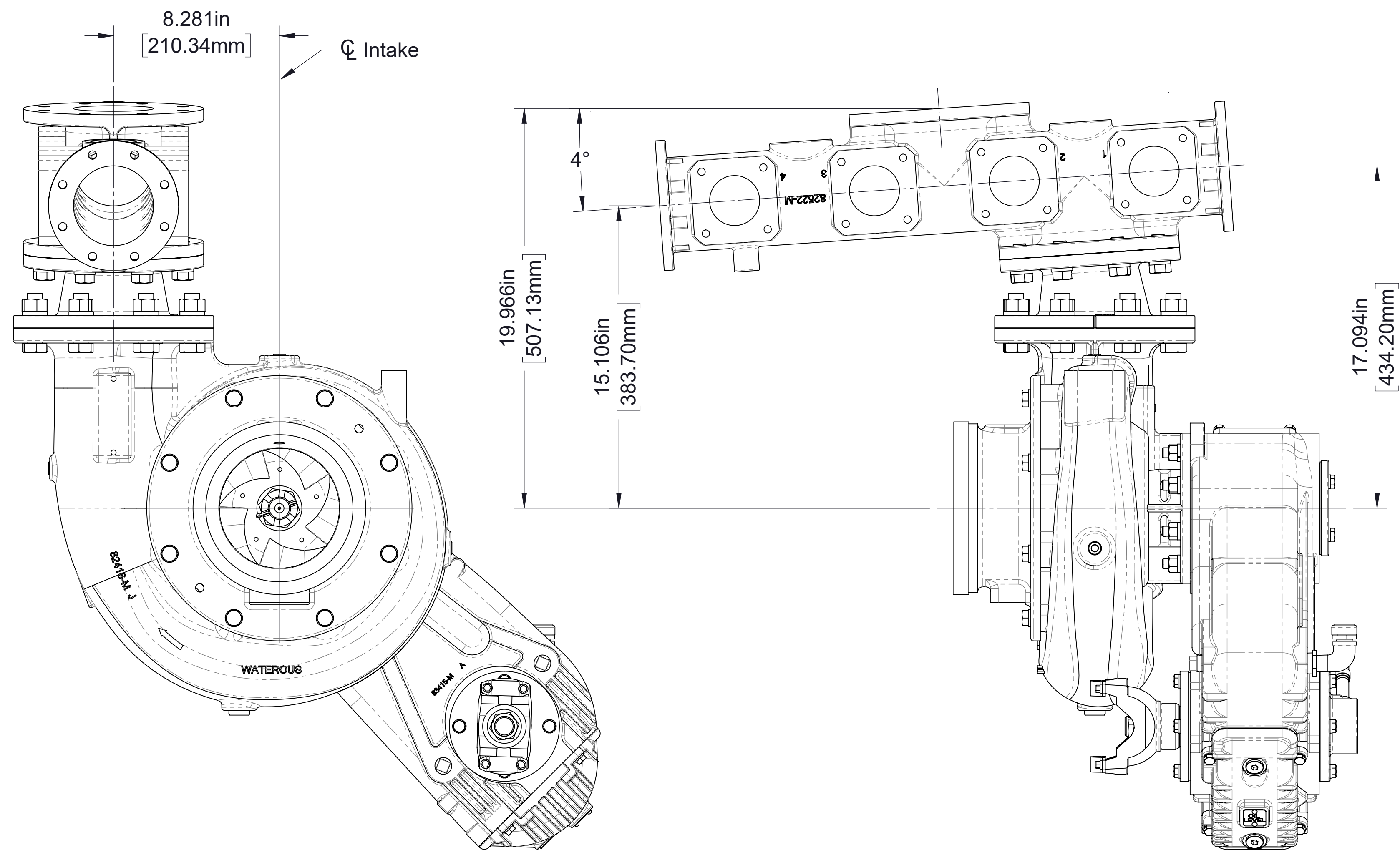
Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

Manifold Pads

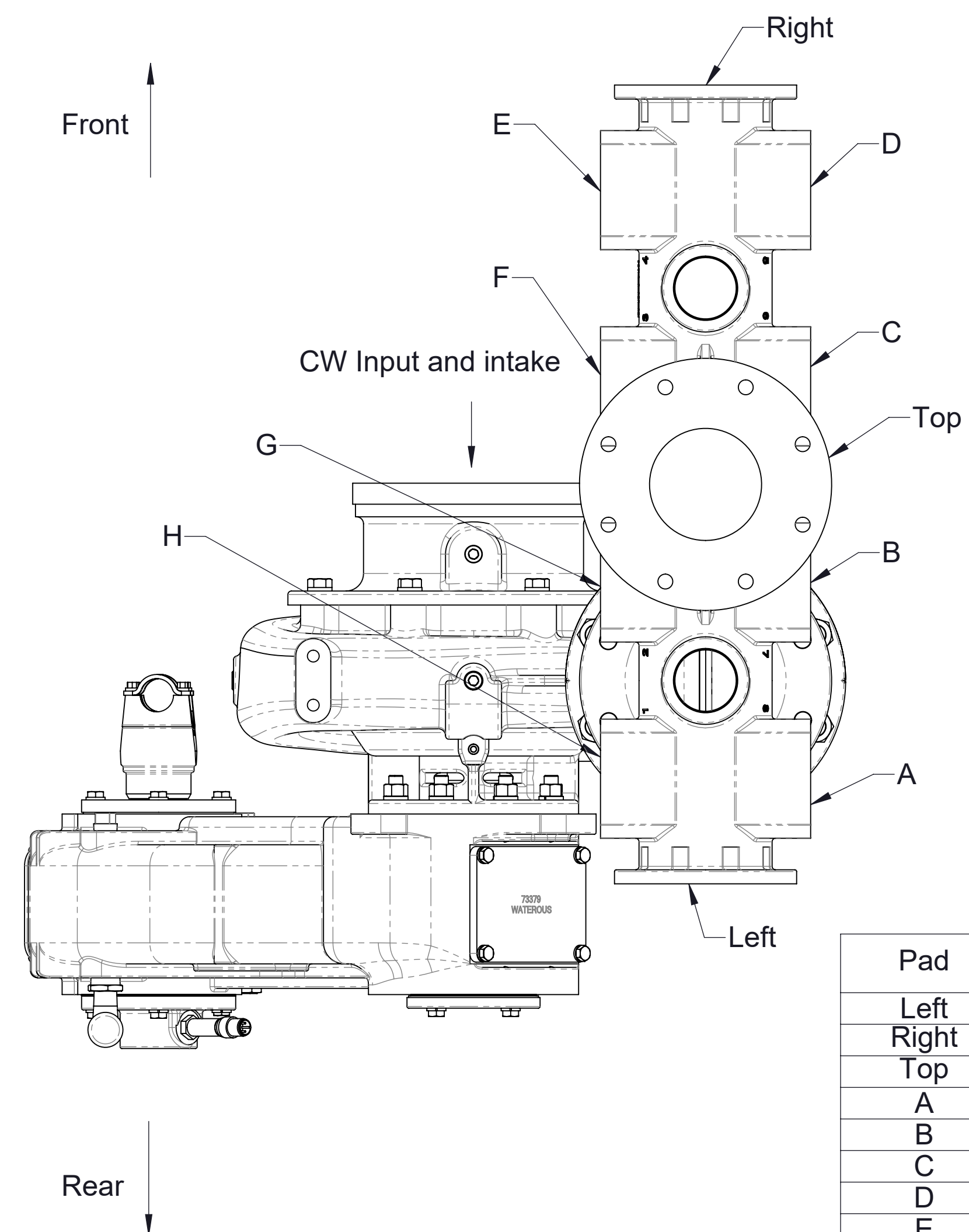
Manifold Mounted Parallel to Intake Model S100D

CCW Input

Note: see page 6 for manifold dimensions not shown



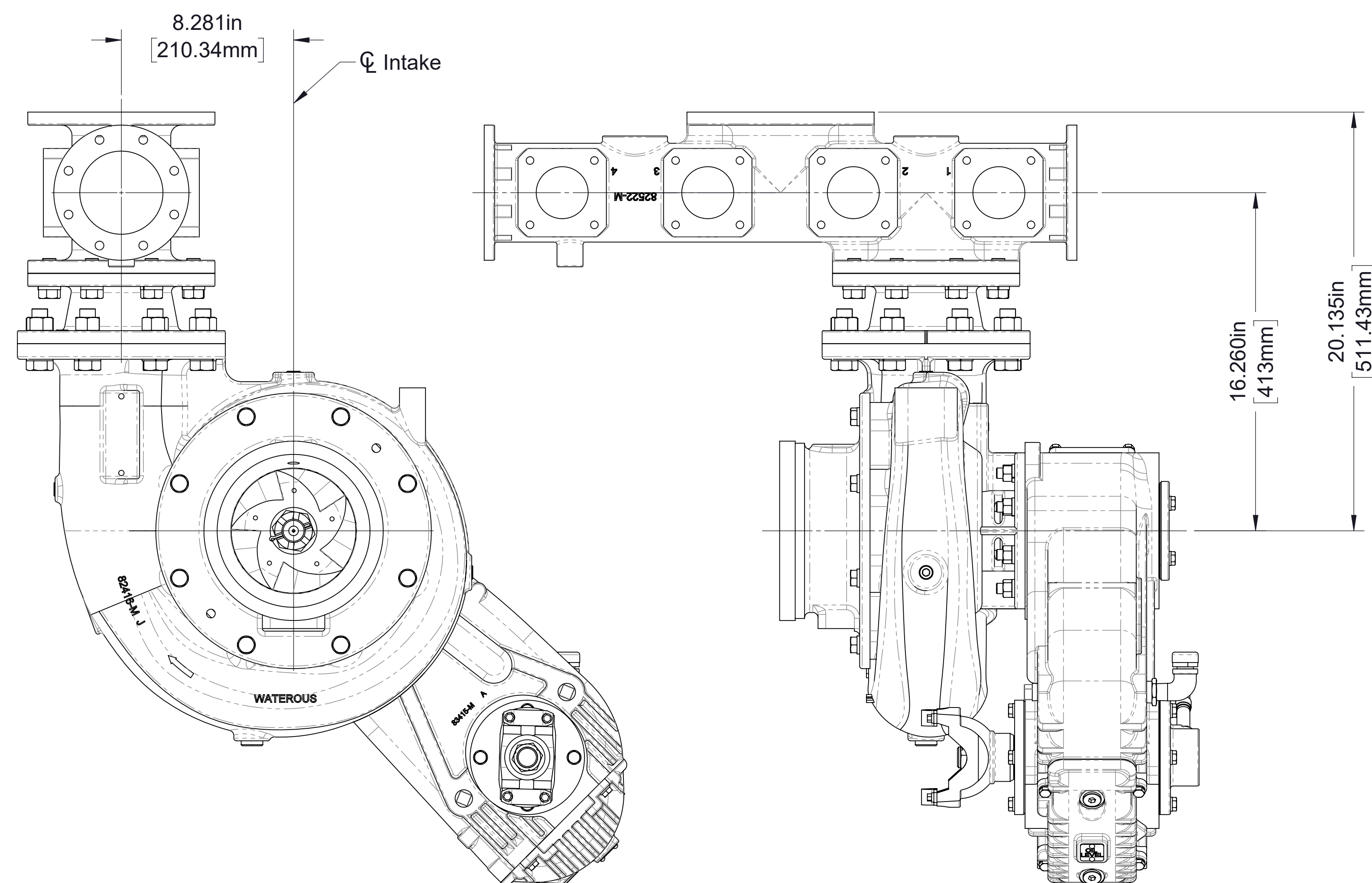
Angle Compensated



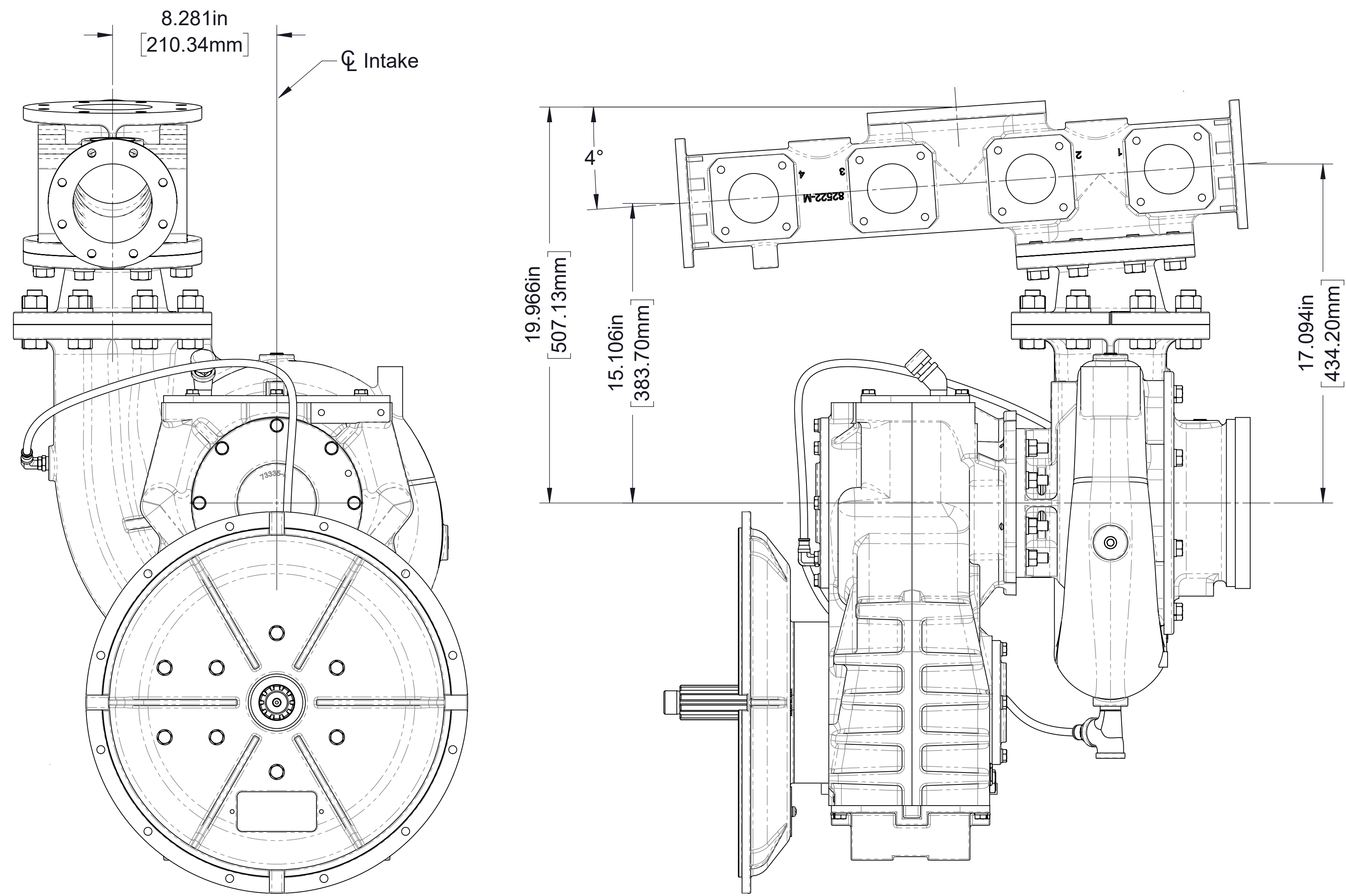
Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

Manifold Pads

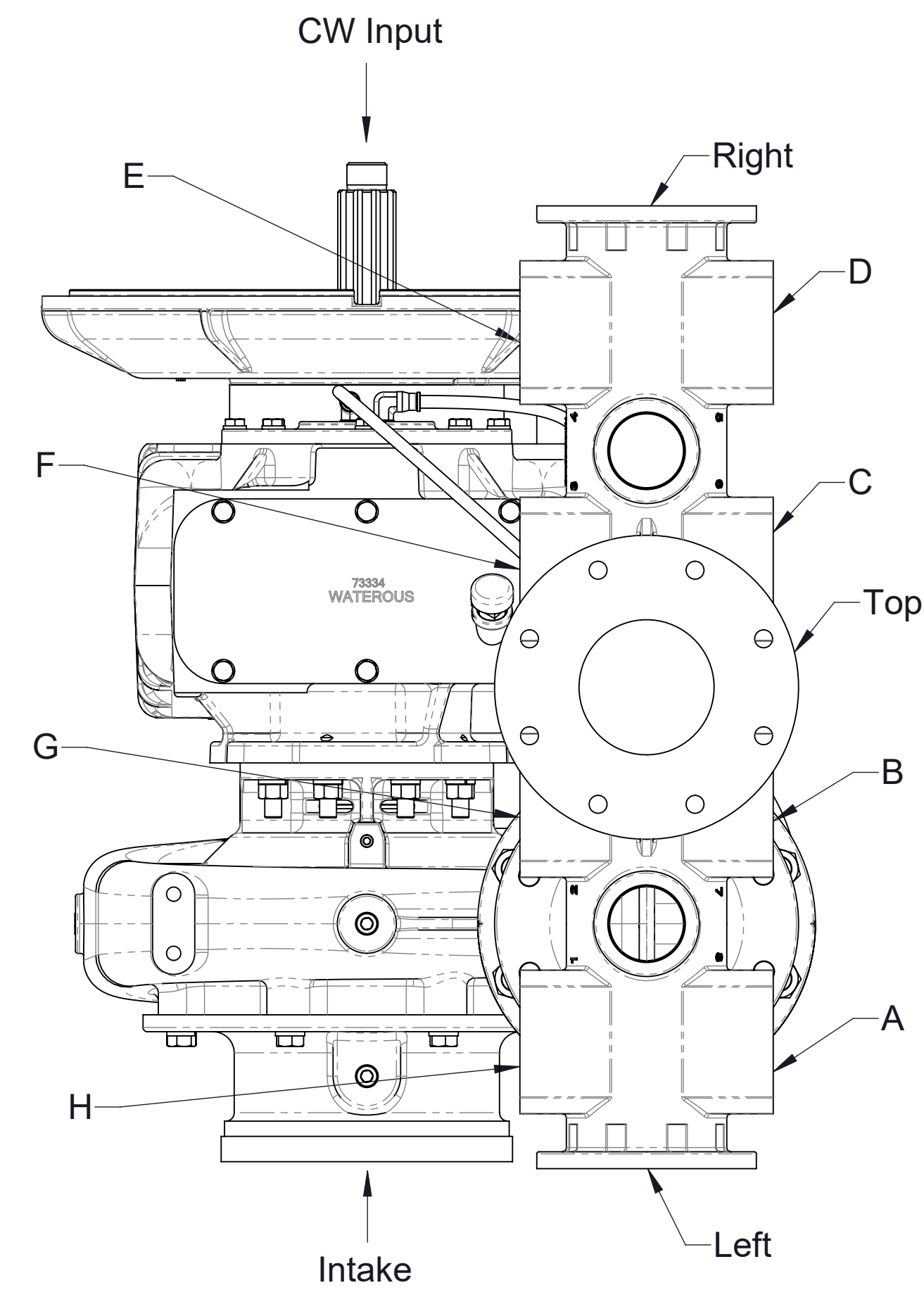
Manifold Mounted Parallel to Intake Model S100PA
 Pump mounted on front (input shaft side) of transmission
 Note: See page 6 for manifold dimensions not shown



Non-Angle Compensated



Angle Compensated

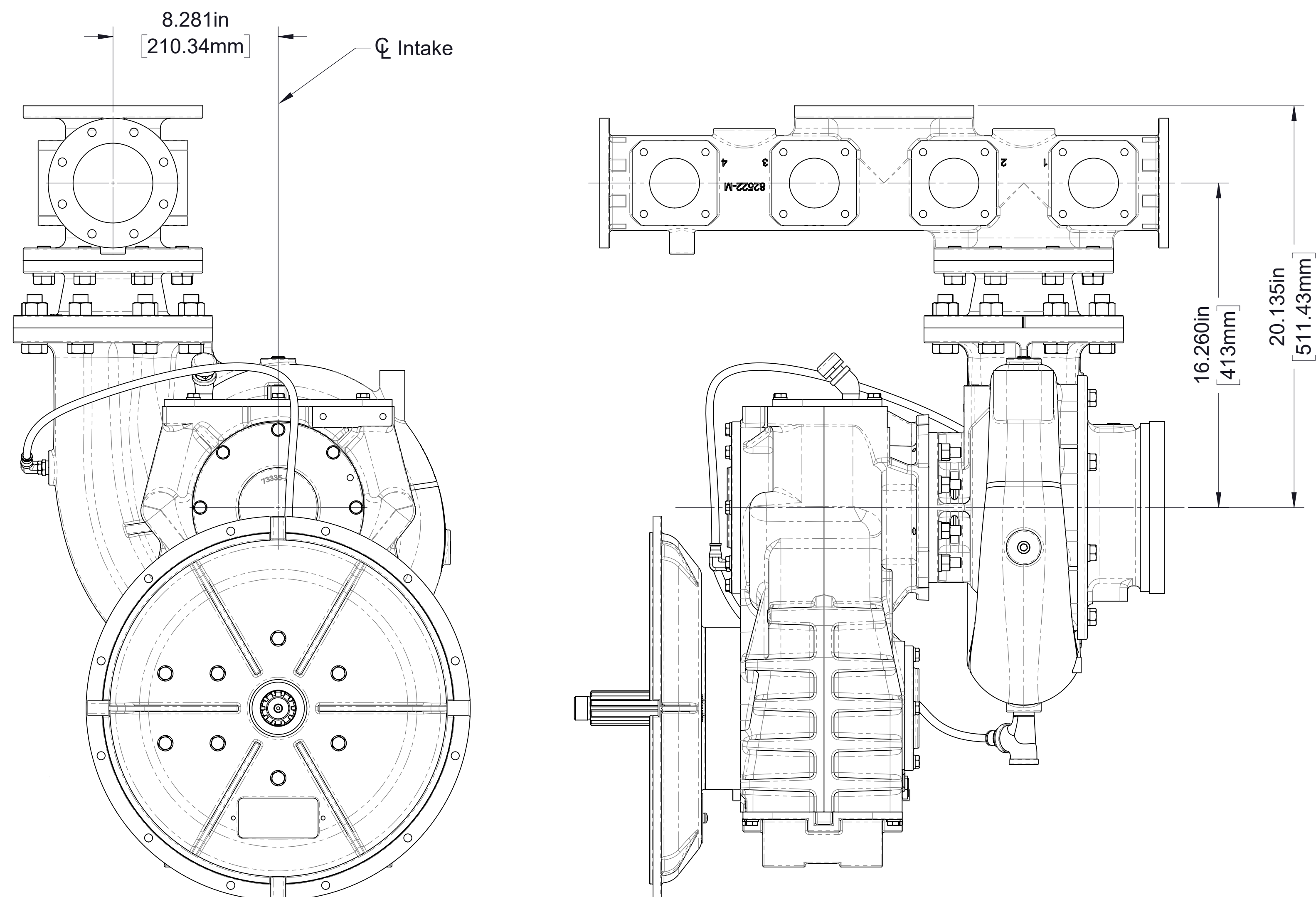


Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

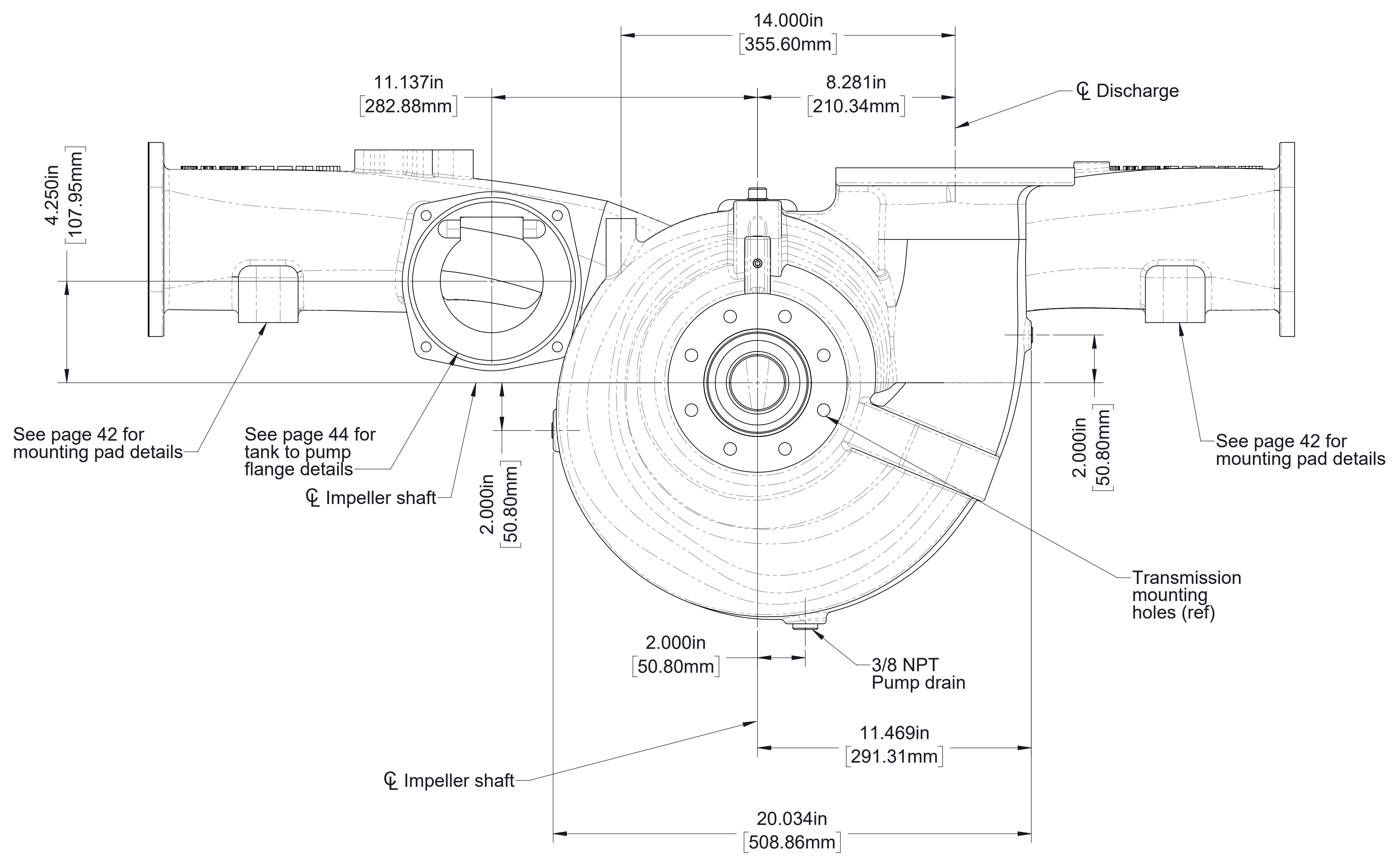
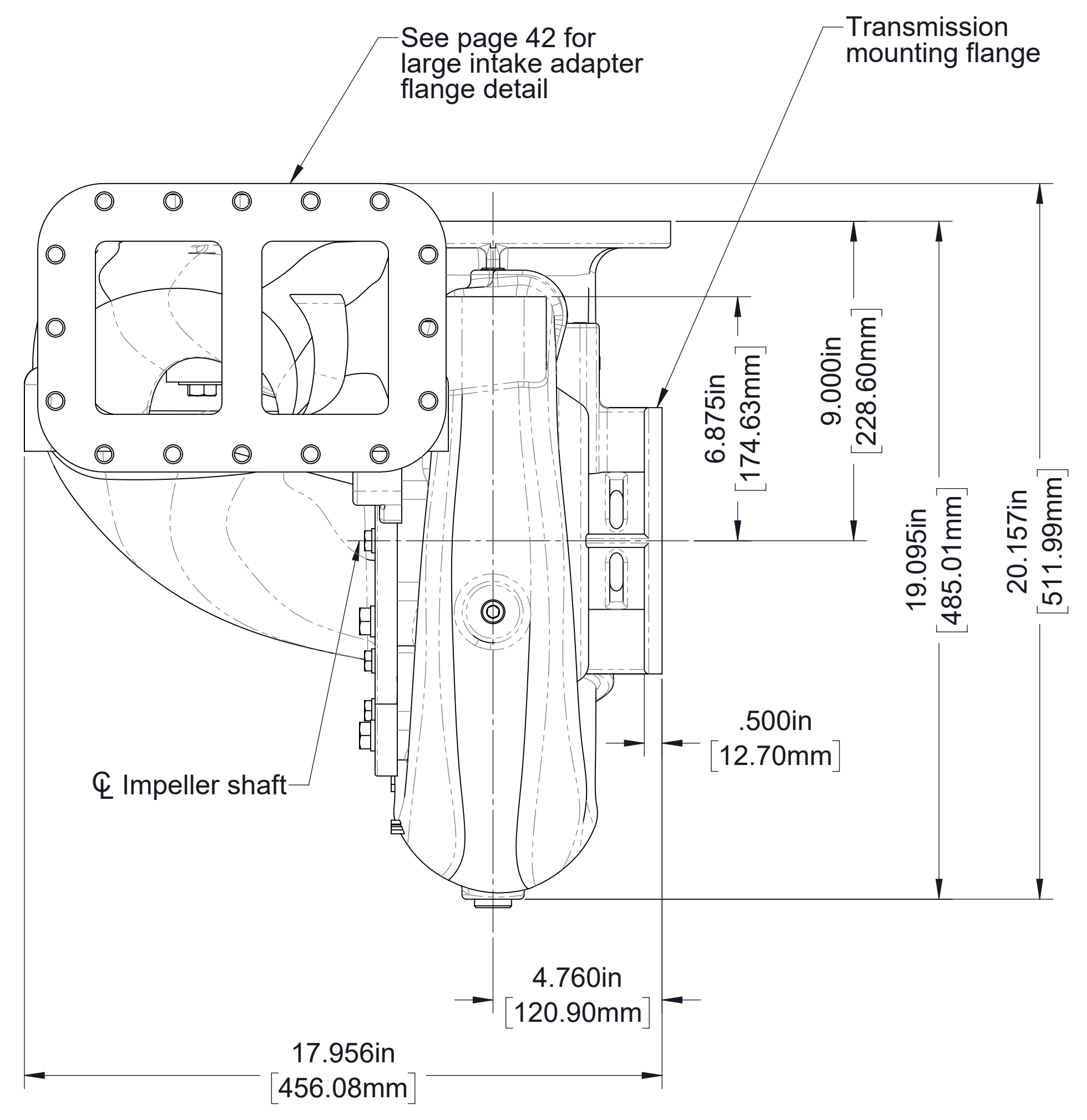
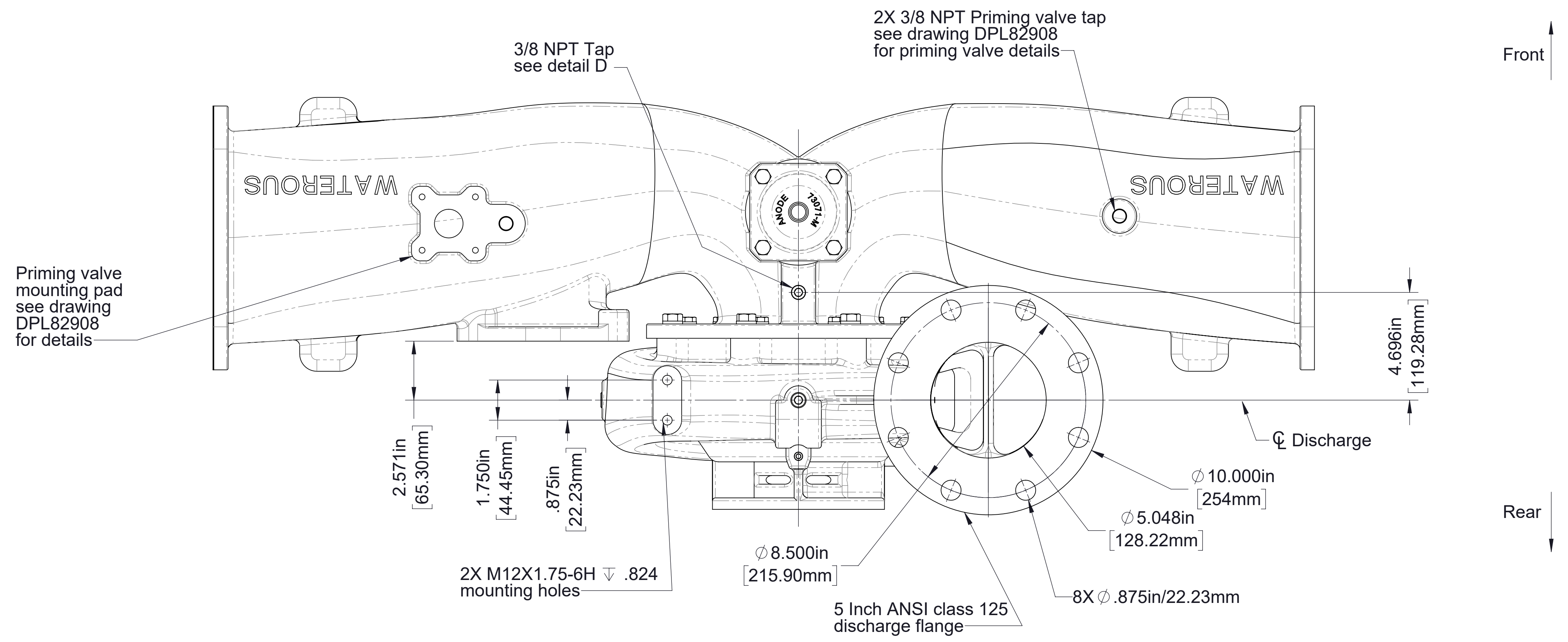
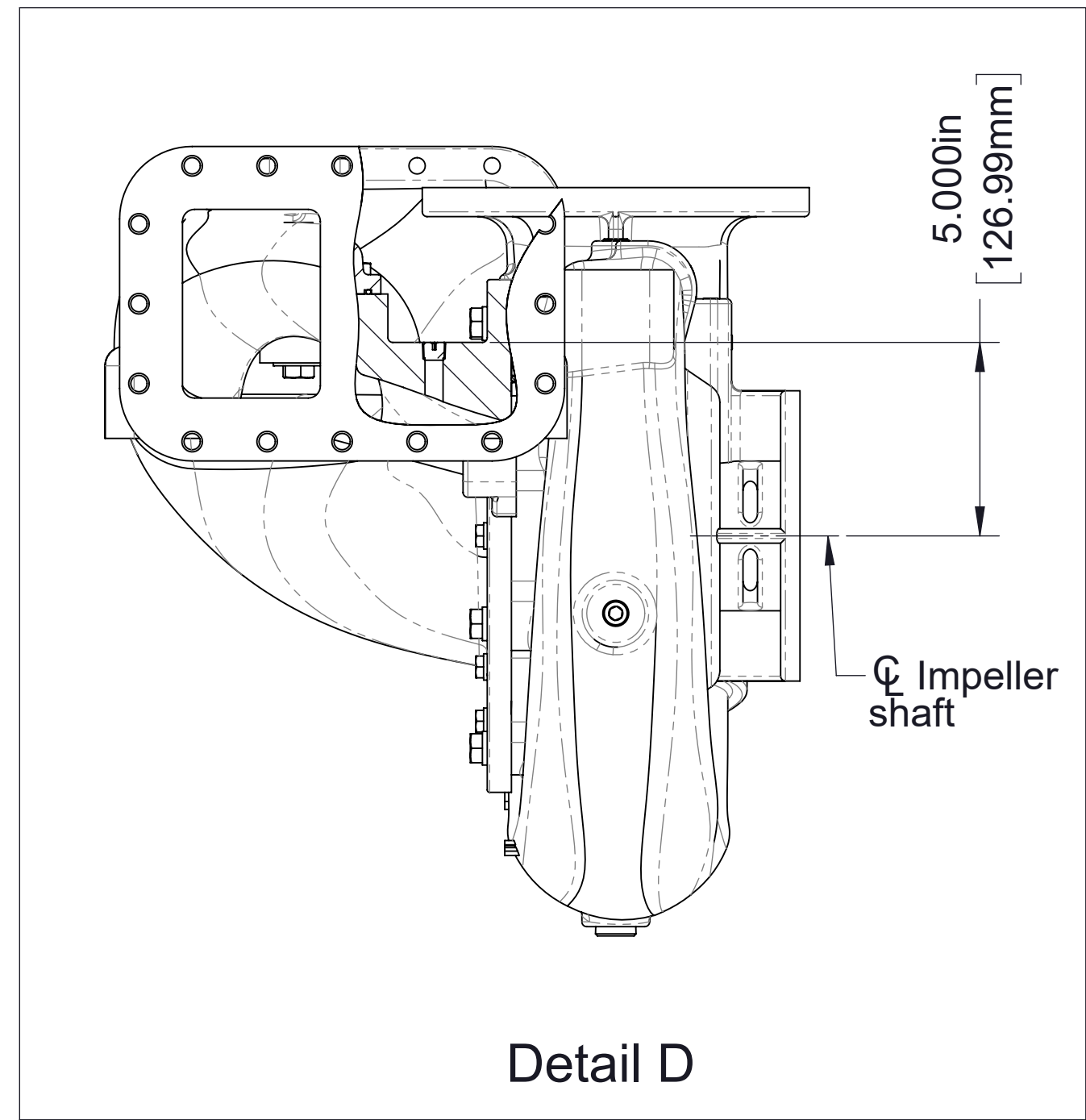
Manifold Pads

Manifold Mounted Parallel to Intake Model S100QC

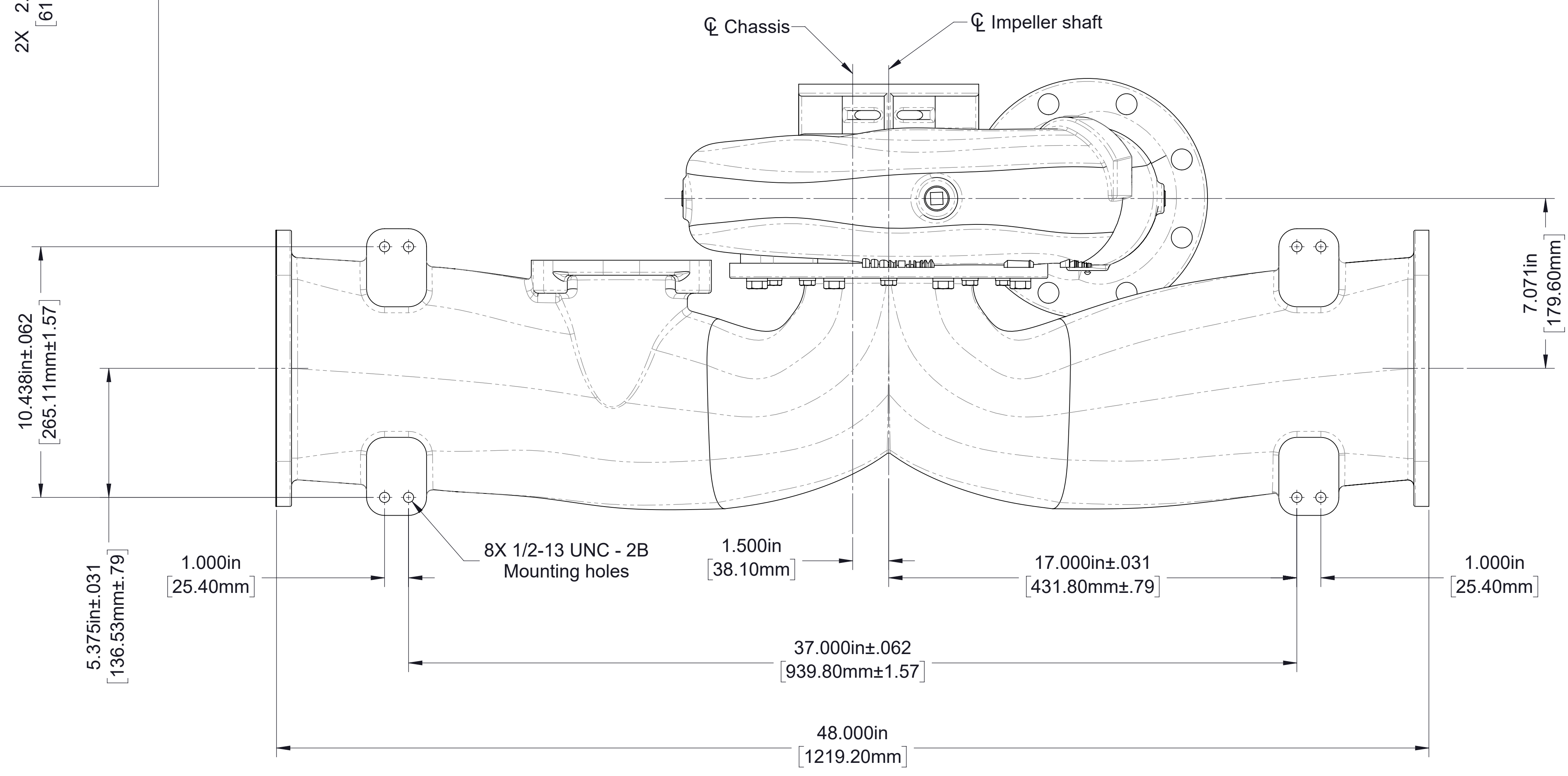
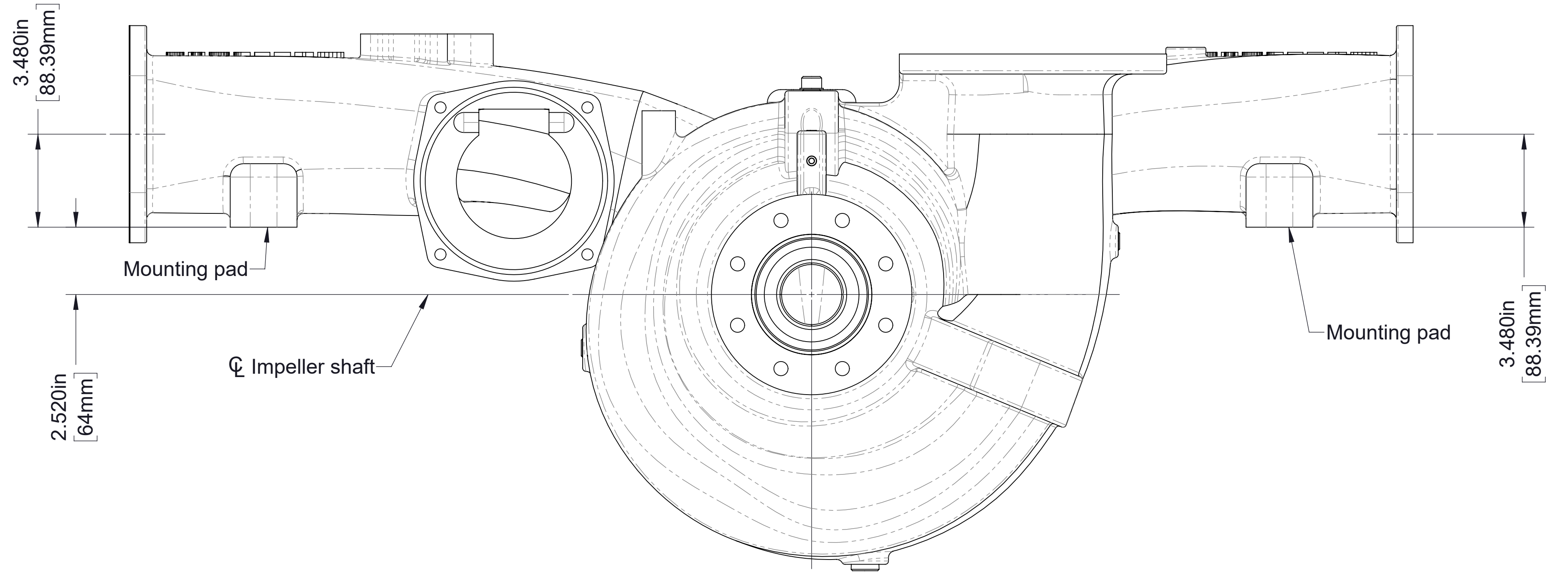
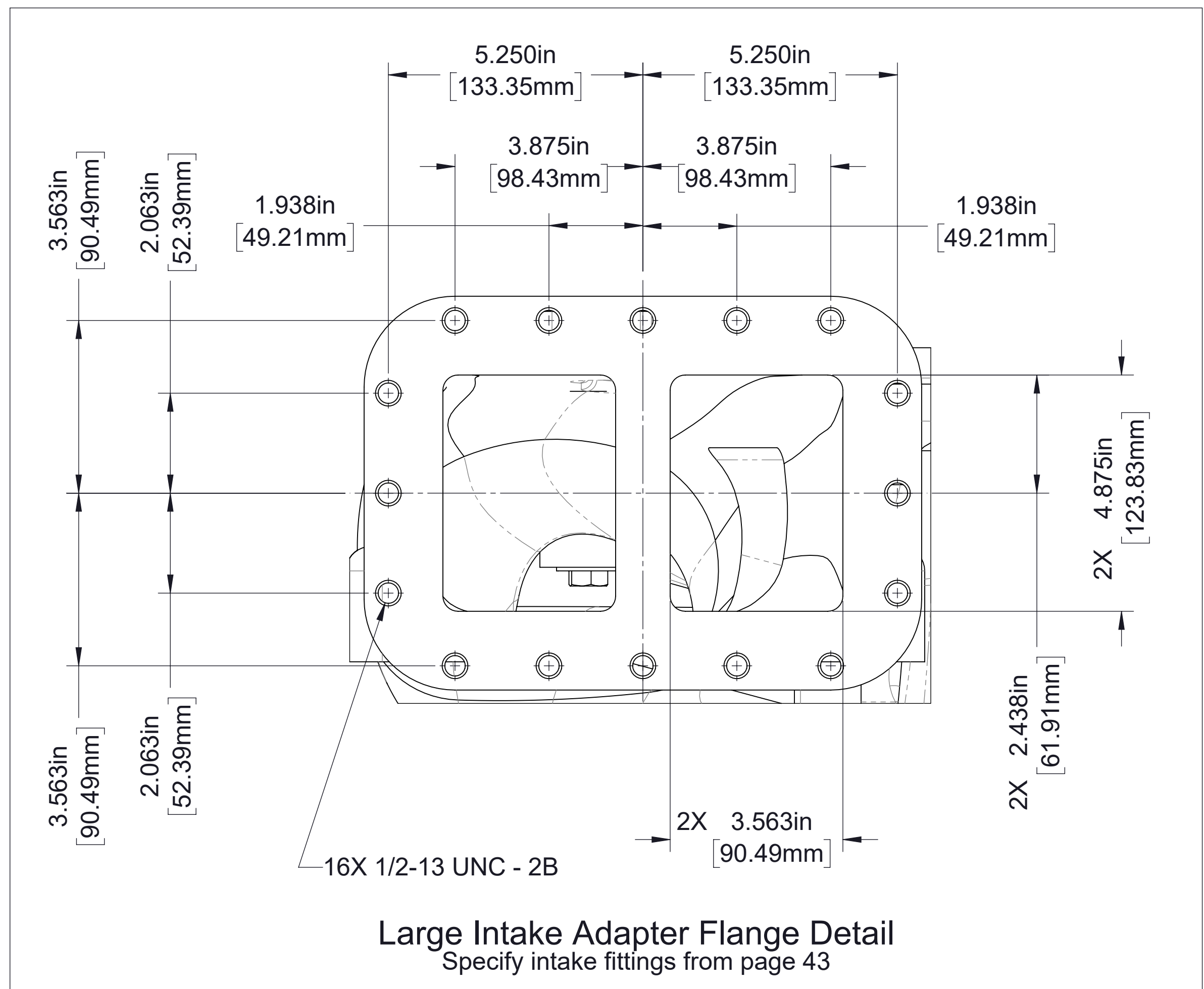
Direct engine mounted, verticle case
 Pump mounted on rear (output shaft side) of transmission
 Note: See page 6 for manifold dimensions not shown

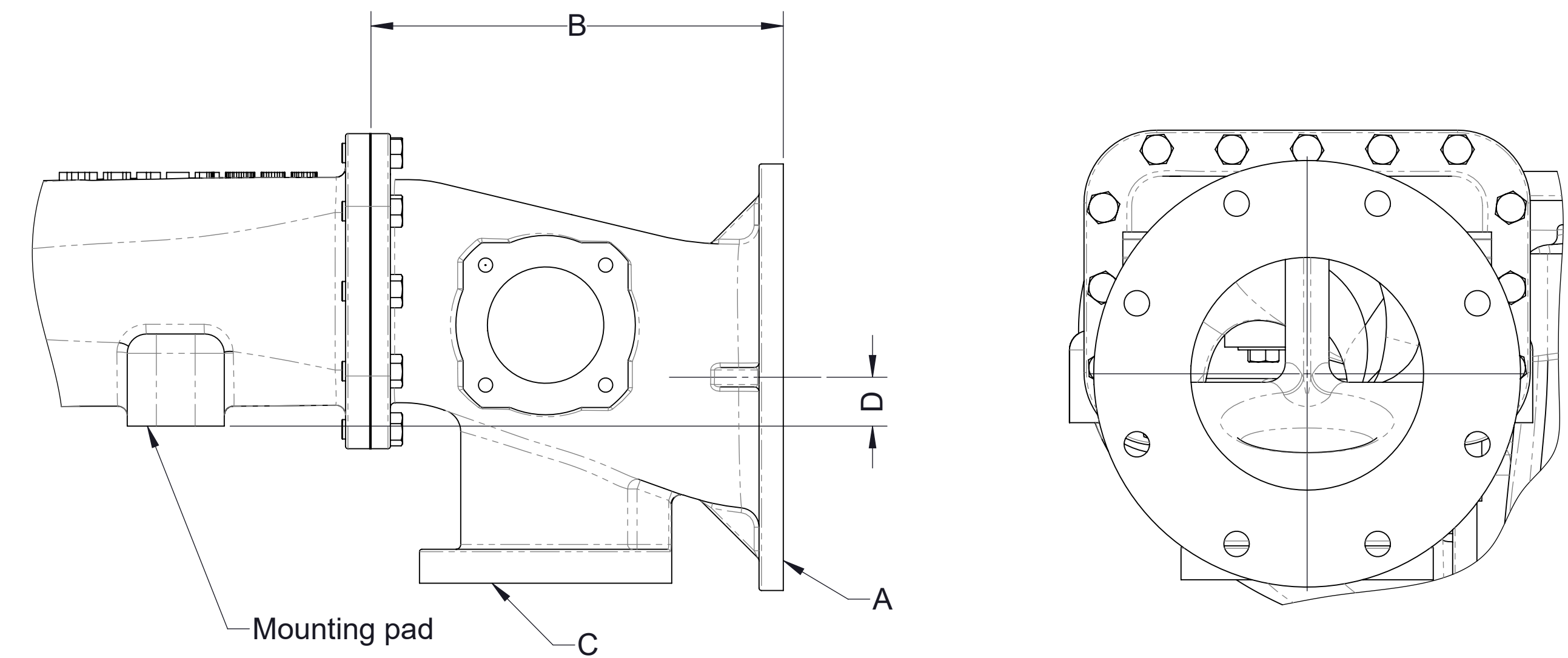
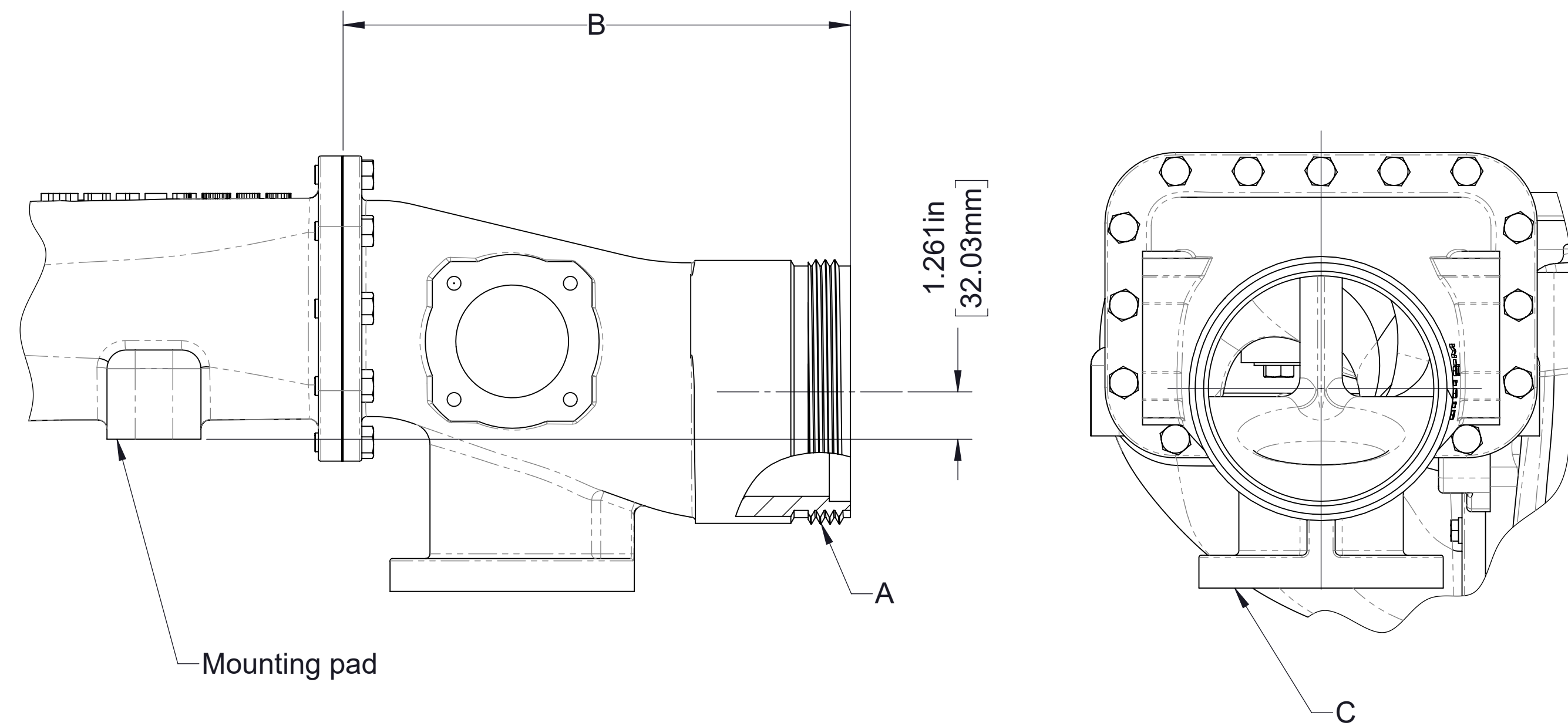
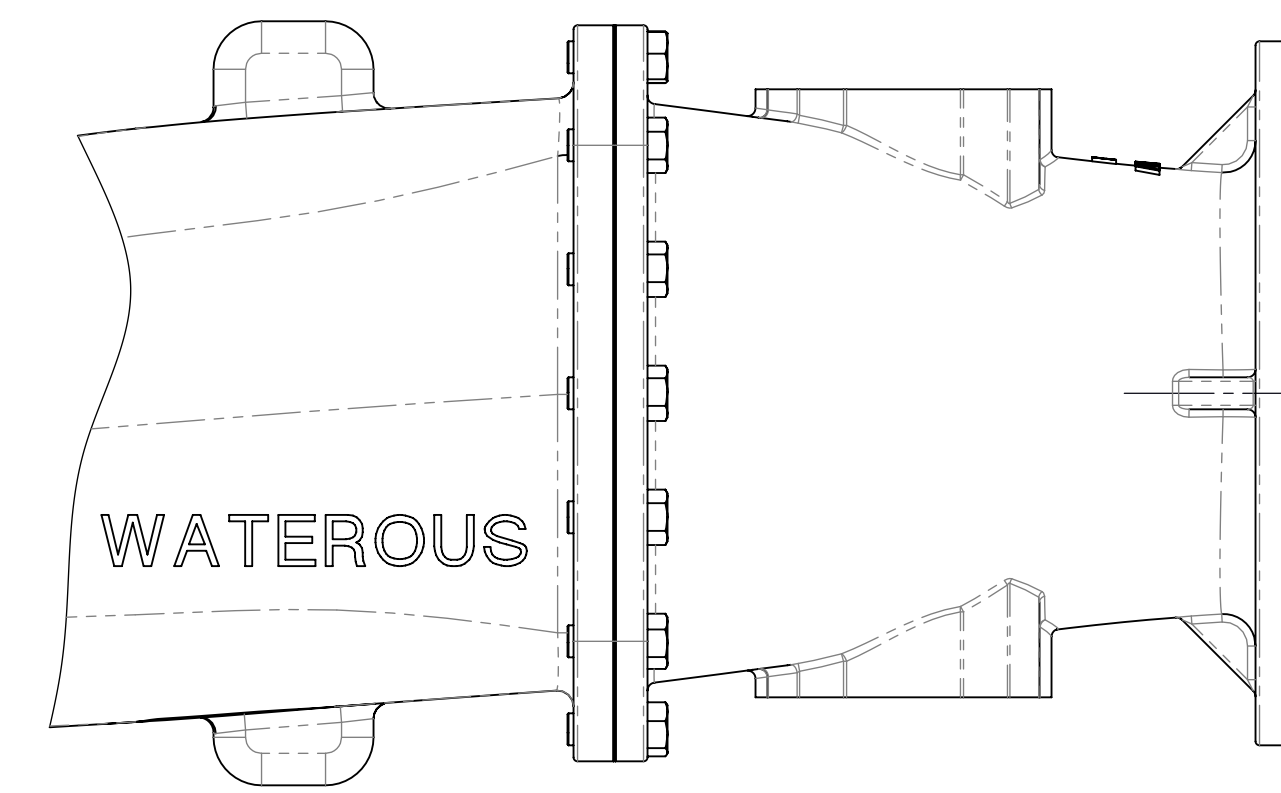
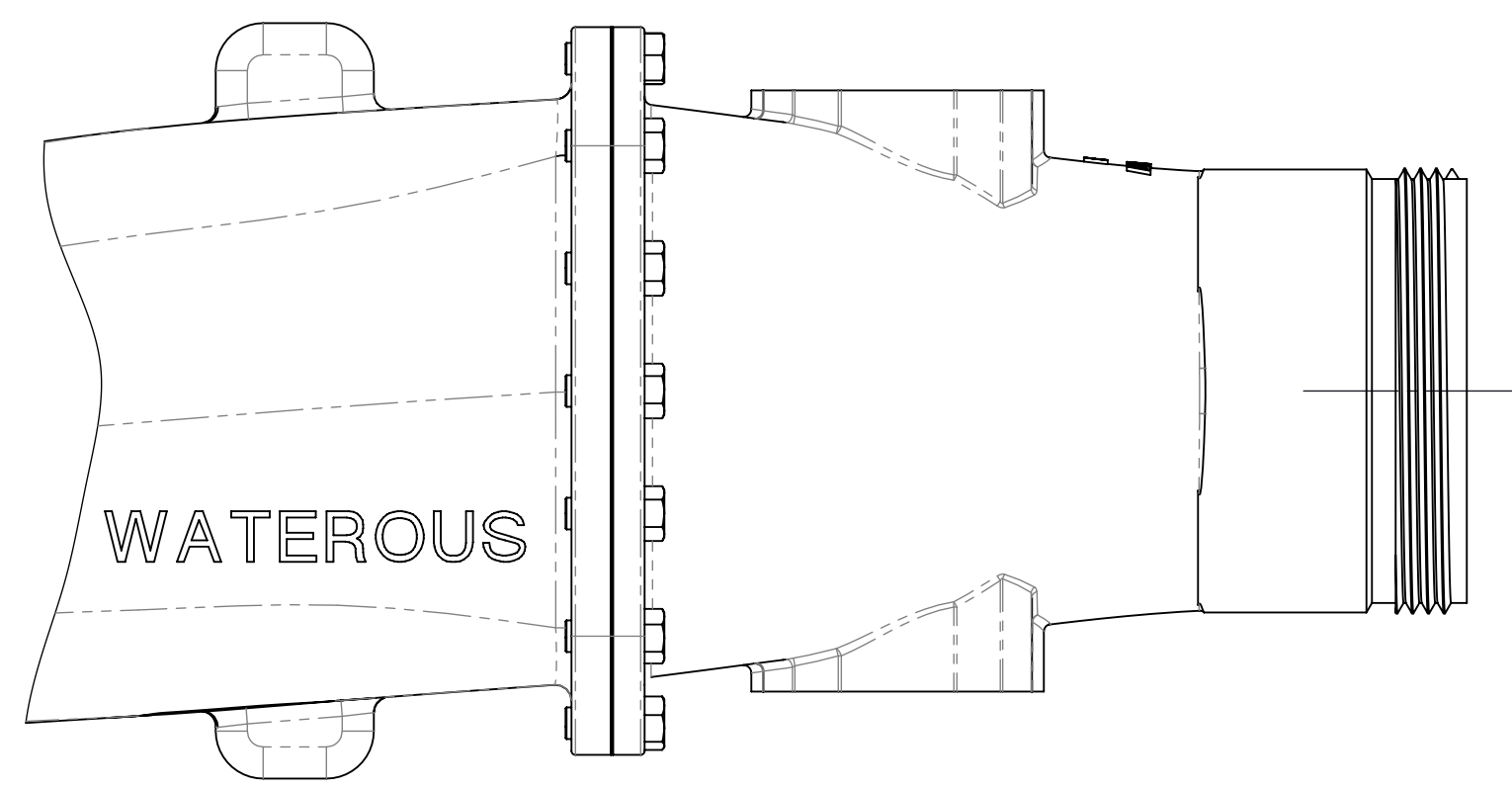


Non-Angle Compensated



S101 Pump Body and Crosspipe Dimensions





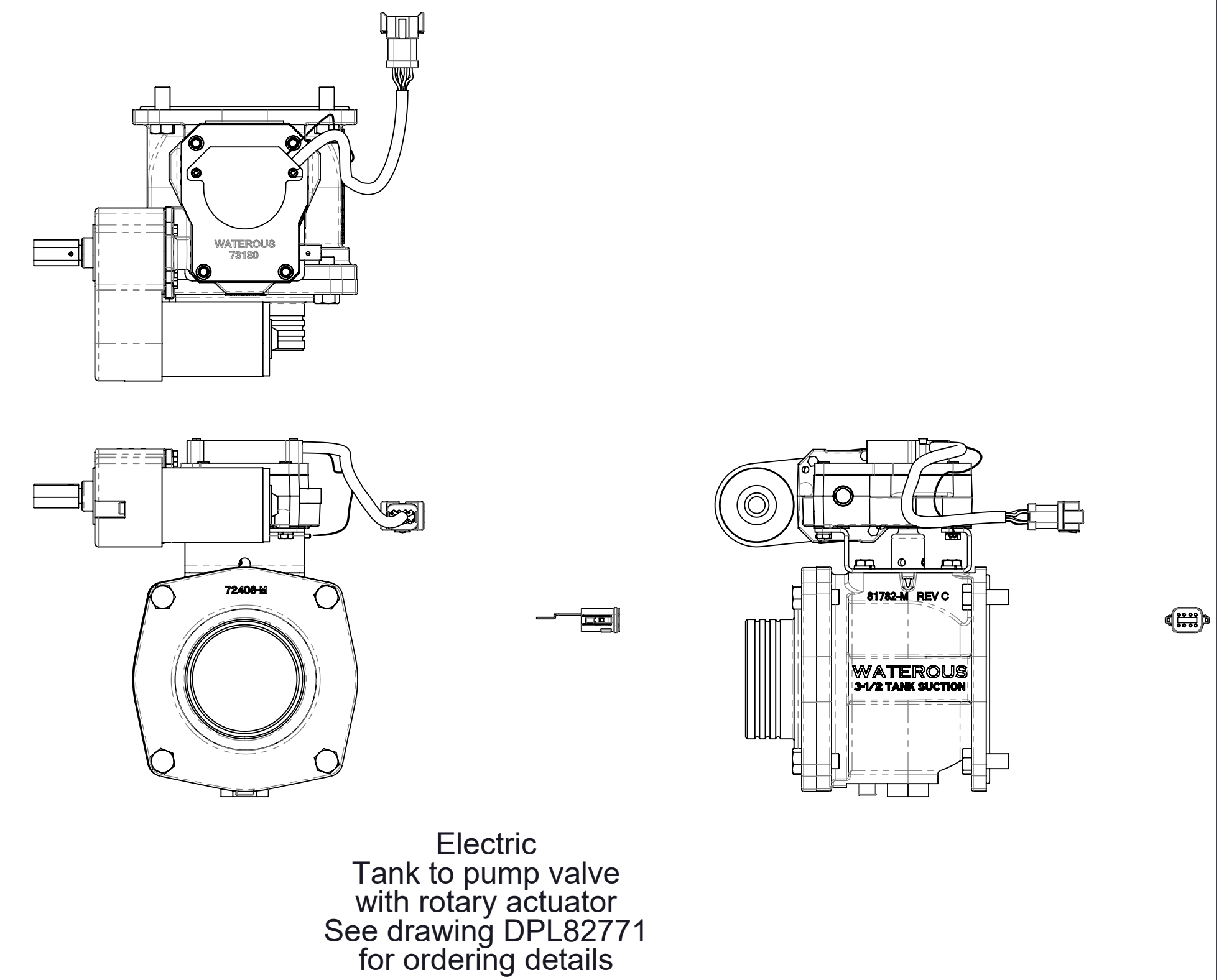
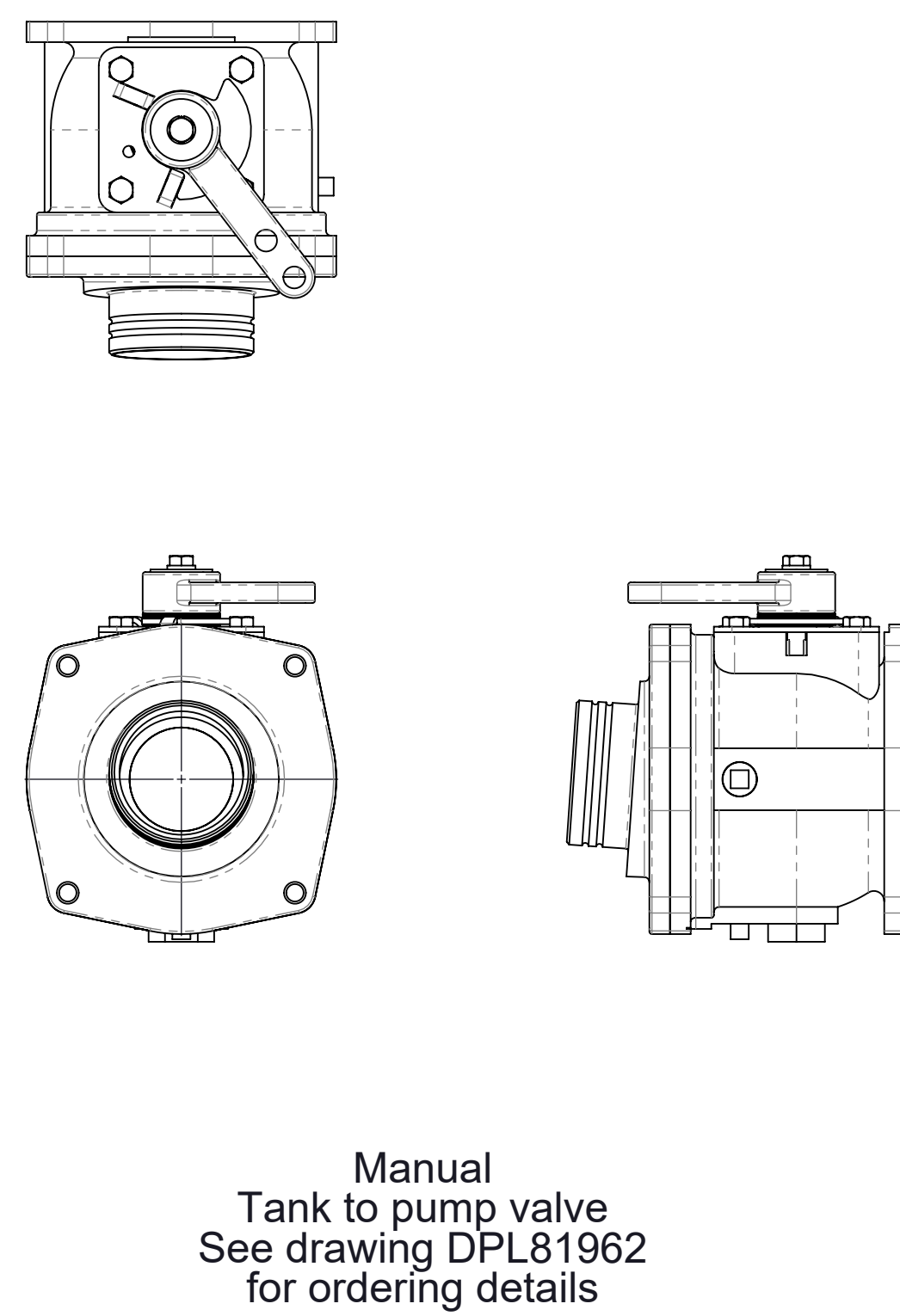
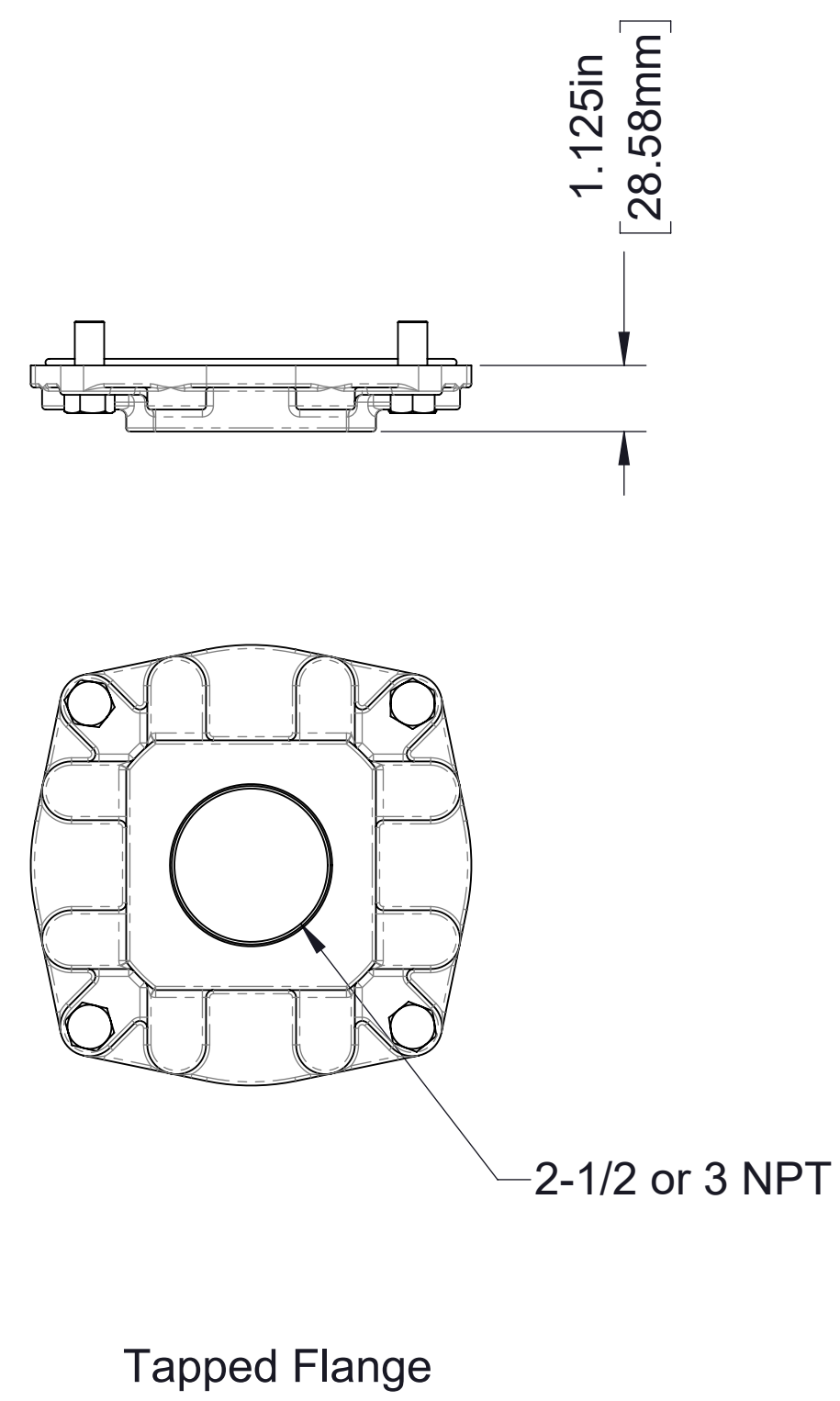
Type	End Size "A"	Length "B"	Bottom Flange "C"	Relief Valve	Part Number
Threaded	6 in. NH	10.500in 266.70mm	3-1/2 in. 8 Bolt	No	81929
			No	Yes	82164
			5 in. ANSI	Yes	82167
		13.500in 342.90mm	3-1/2 in. 8 Bolt	No	81916
			No	Yes	82173
			5 in. ANSI	Yes	82174
		15.000in 381.00mm	3-1/2 in. 8 Bolt	No	81915
			No	Yes	82163
			5 in. ANSI	Yes	82166

Type	End Size "A"	Length "B"	Bottom Flange "C"	"D"	Relief Valve	Part Number
Flanged	6 in. ANSI	6.750in 171.45mm	2-1/2in. 4 Bolt	1.980in 50.29mm	No	82289
			No		Yes	82301
			5 in. ANSI	Yes	82302	
		10.625in 269.88mm	3-1/2 IN. 8 Bolt	1.261in 32.03mm	No	82011
			No		Yes	82165
			5 in. ANSI	Yes	82168	

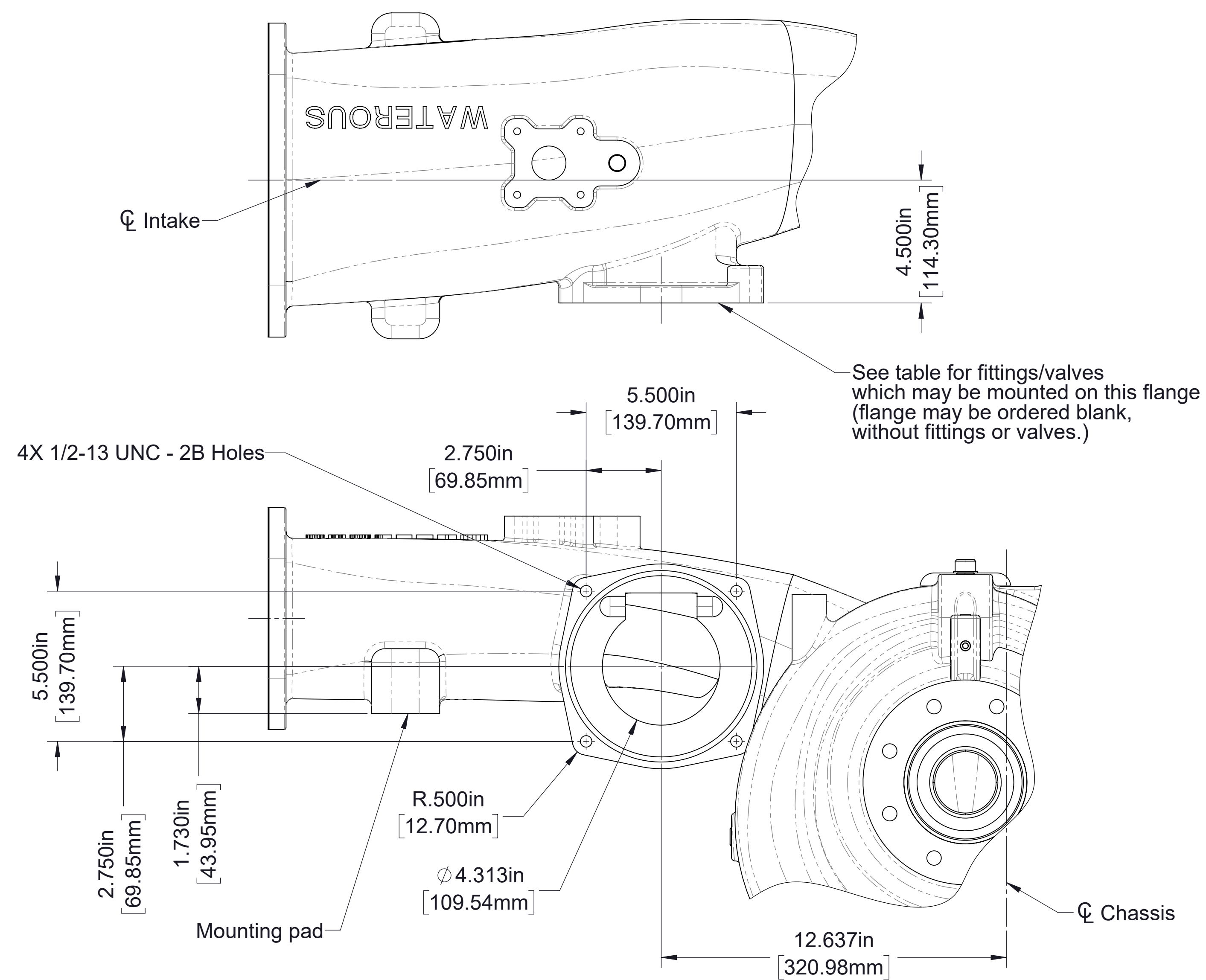
Threaded Intake Fitting
Part 81916 shown

Flanged Intake Fitting
Part 82011 shown

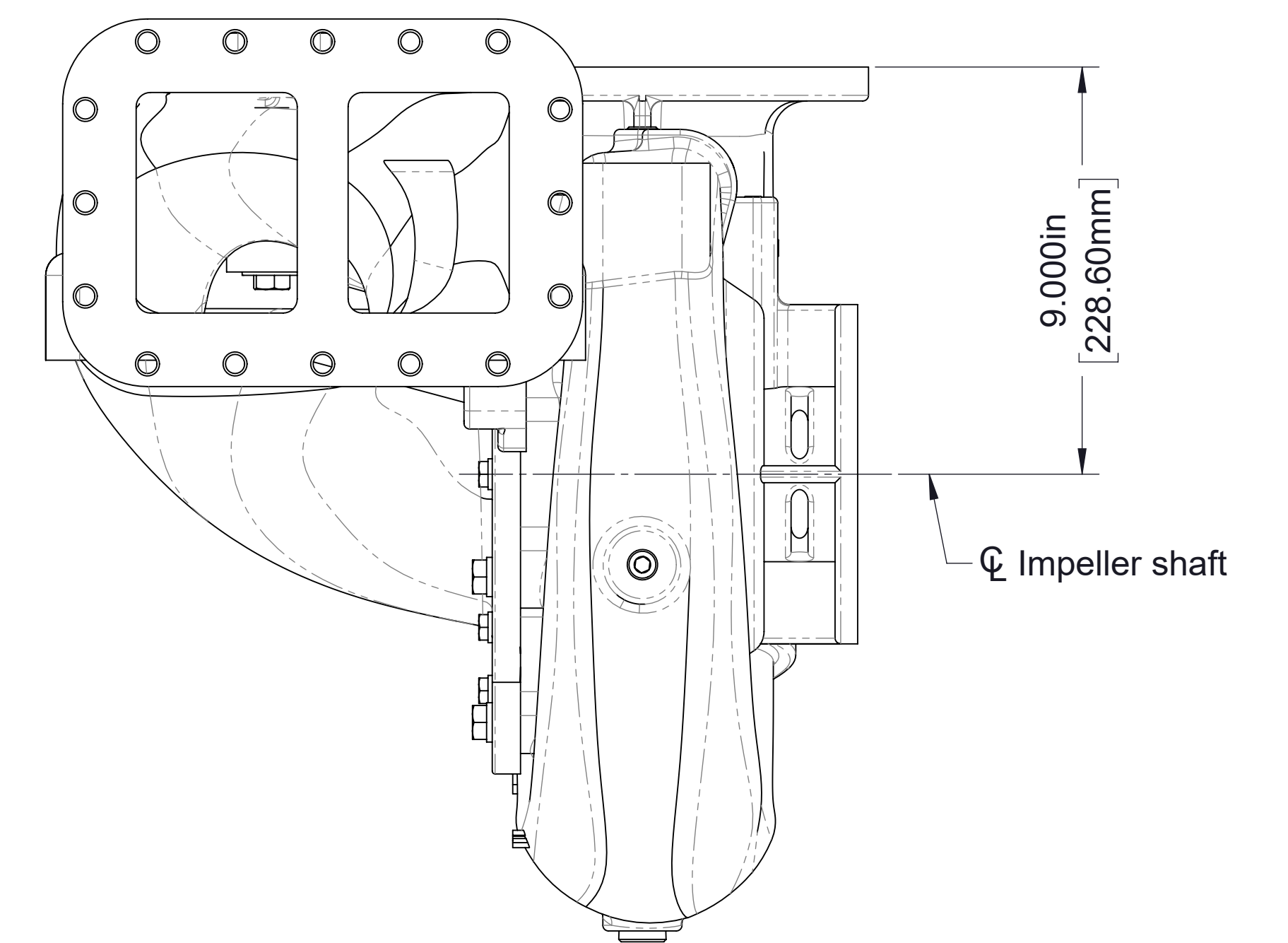
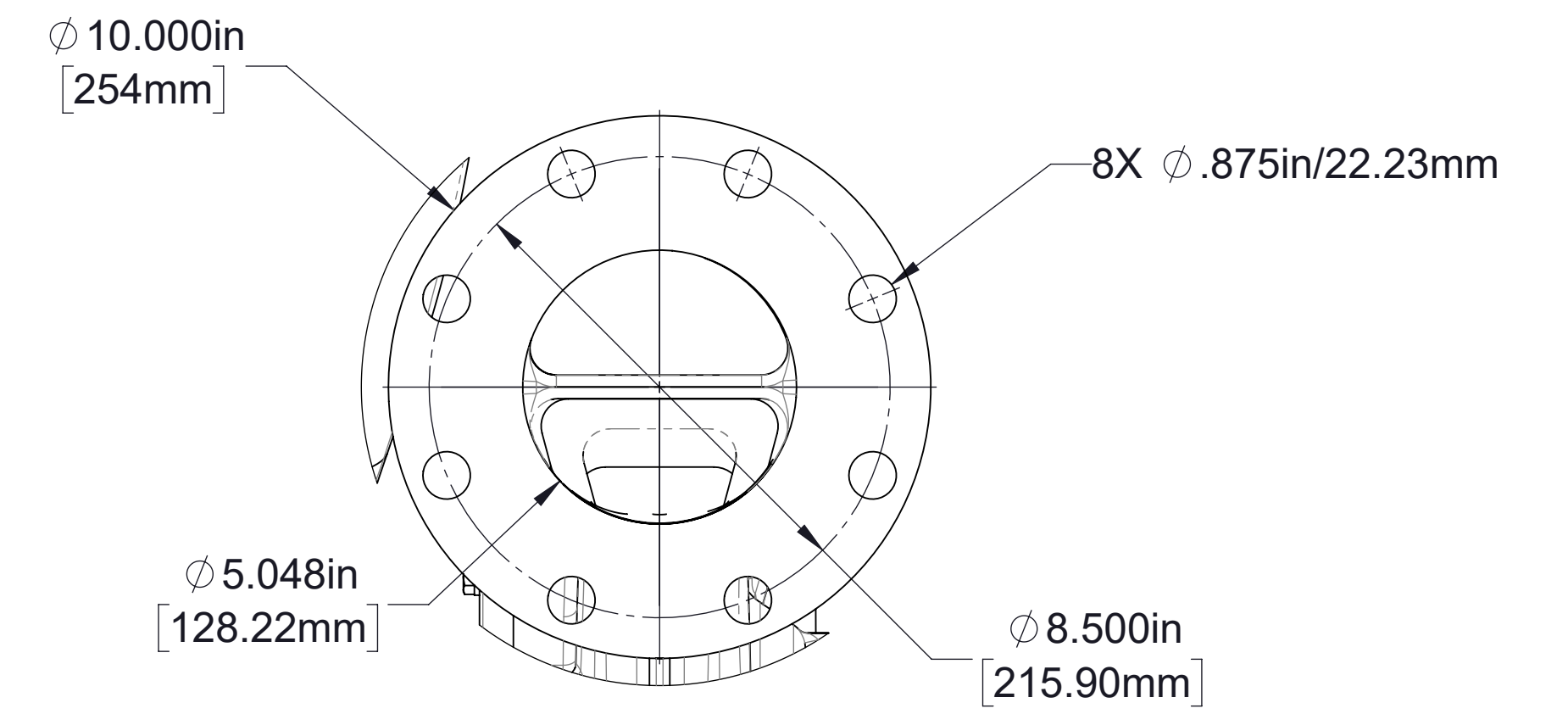
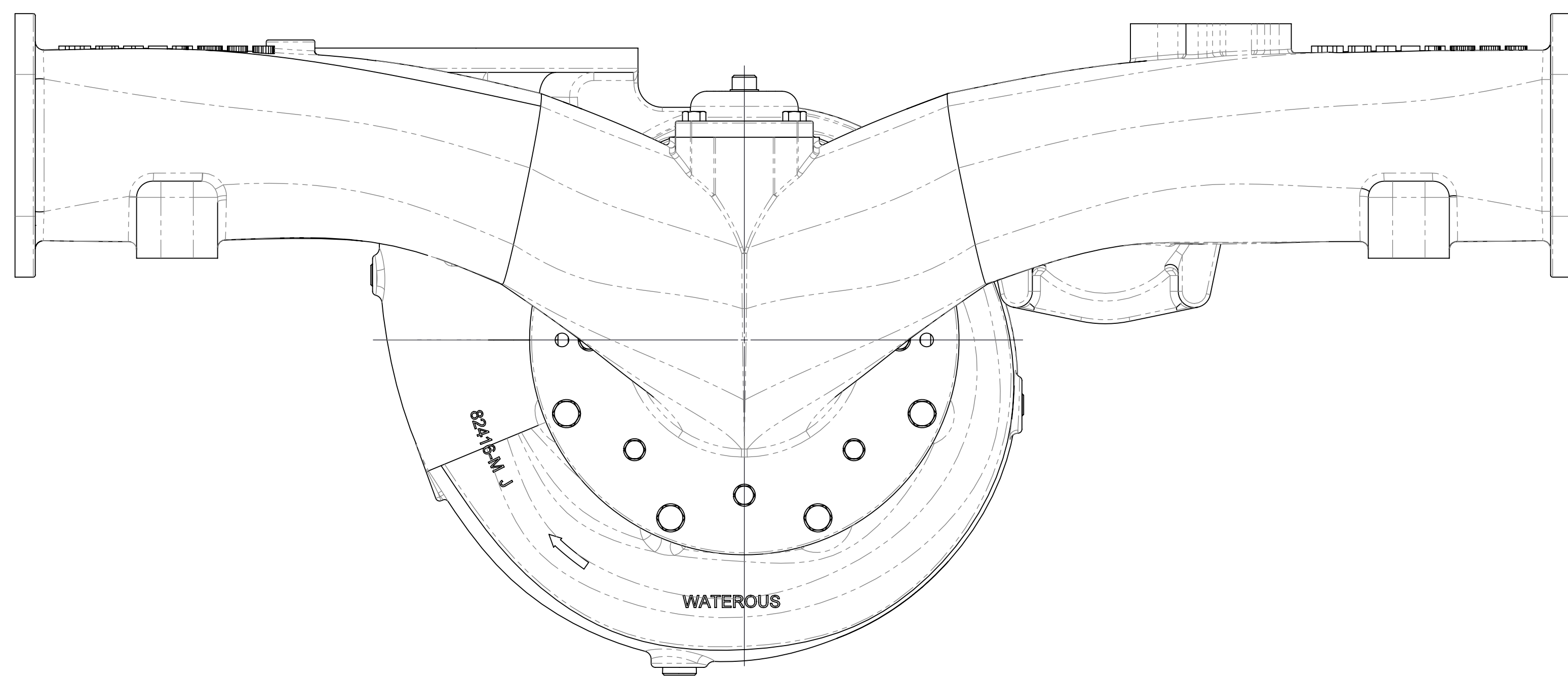
Note:
1. Refer to dimensional DPL81867 for additional intake fitting dimensions and pad details.



Tank to Pump Flange Fittings/Valves



Tank to Pump Flange
Use of o-ring W37108-4
(Available with or without check valve)

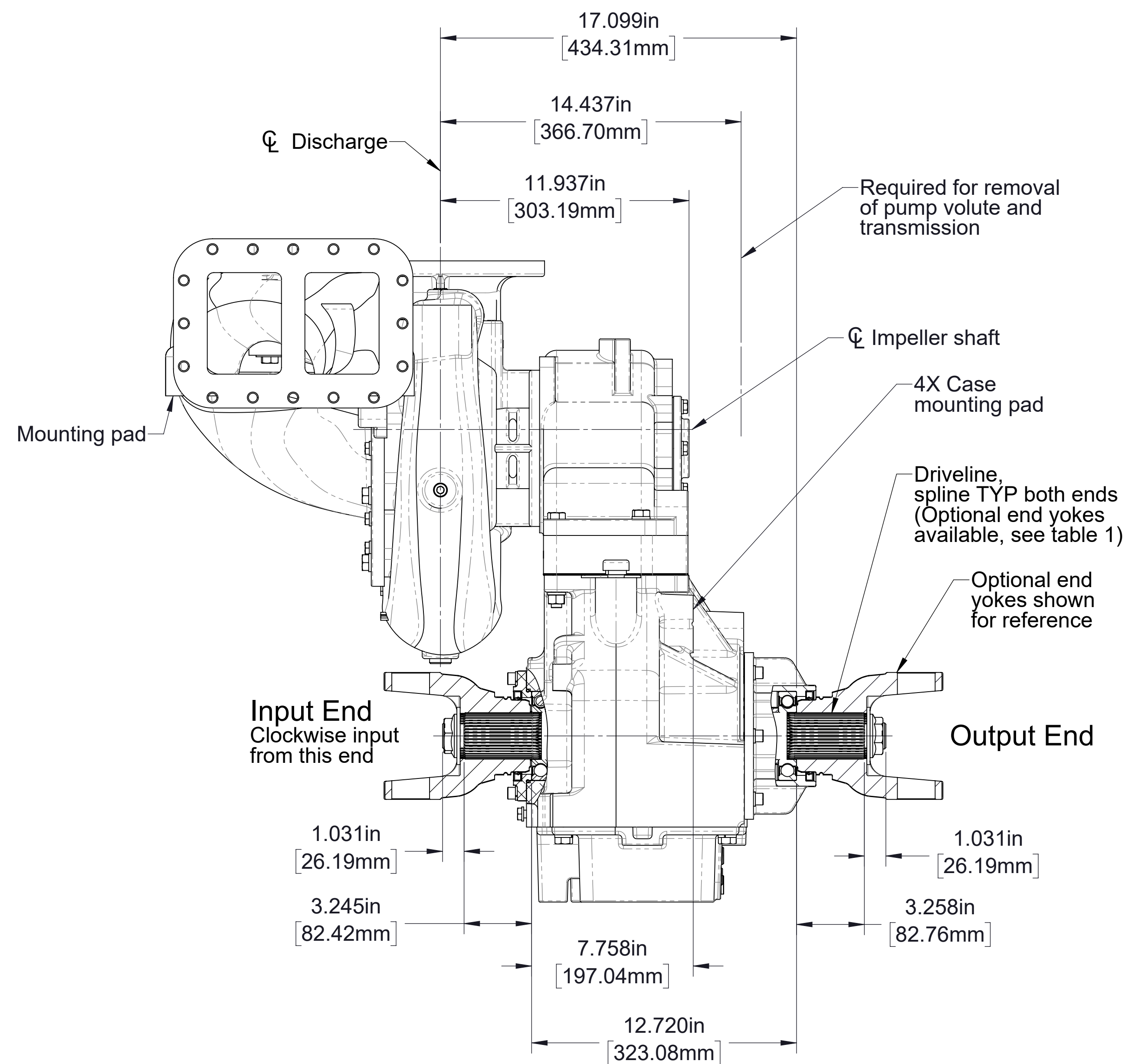


S101 Optional Blank Discharge (5 in. ANSI Flange)

Table 1 - Available Driveline / Models							
Driveline			Option End Yokes and Companion Flanges available from Waterous			Pump Models	
Type	Size	Spline	Spicer Series	Yoke	Companion Flange		
Extra Heavy Duty	2.35 Inch	2.350-46T Involute	1480/1610	--	--	V 3719	S101C22C, S101C22D, S101C22E, S101C22F
			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	--	

Notes:

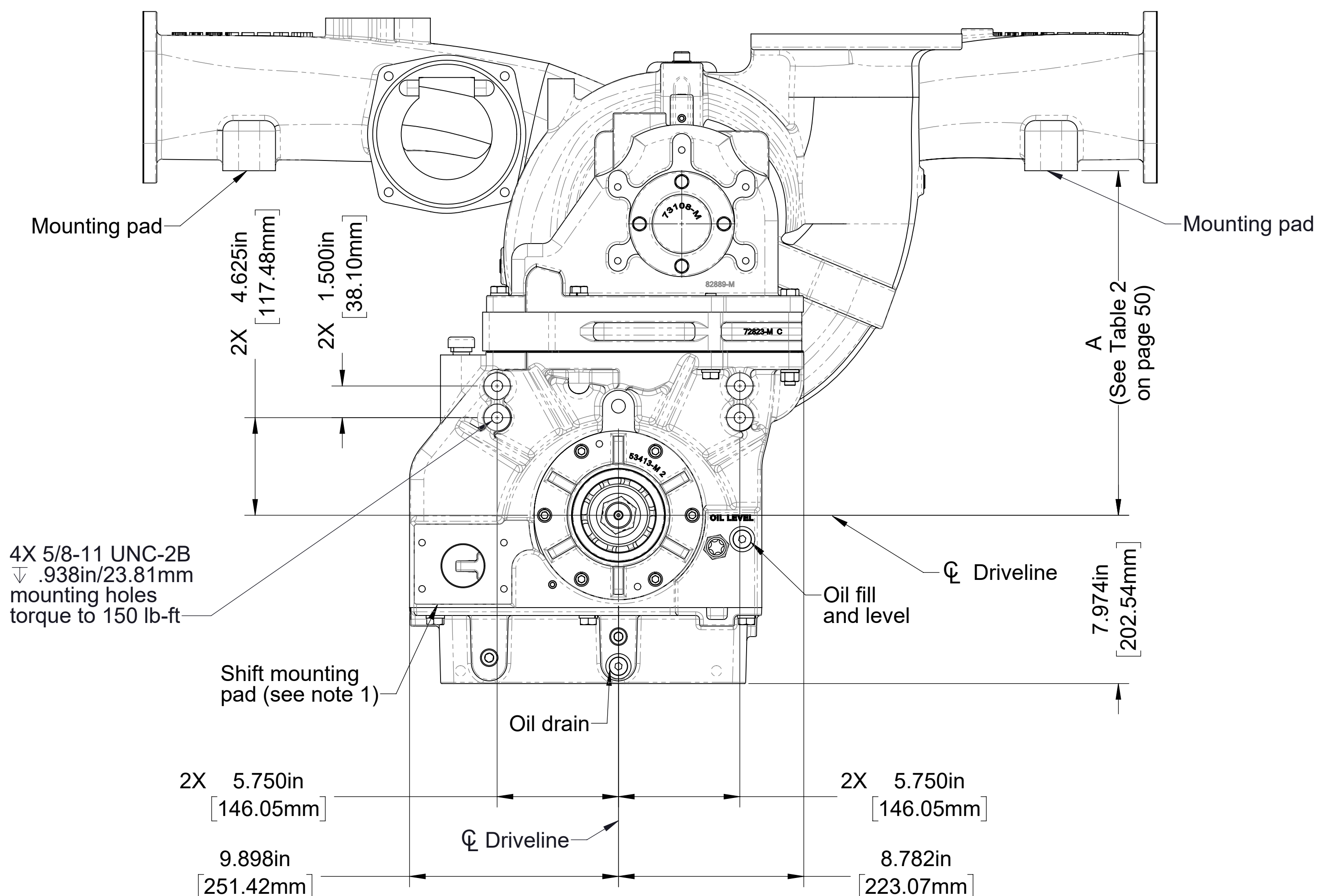
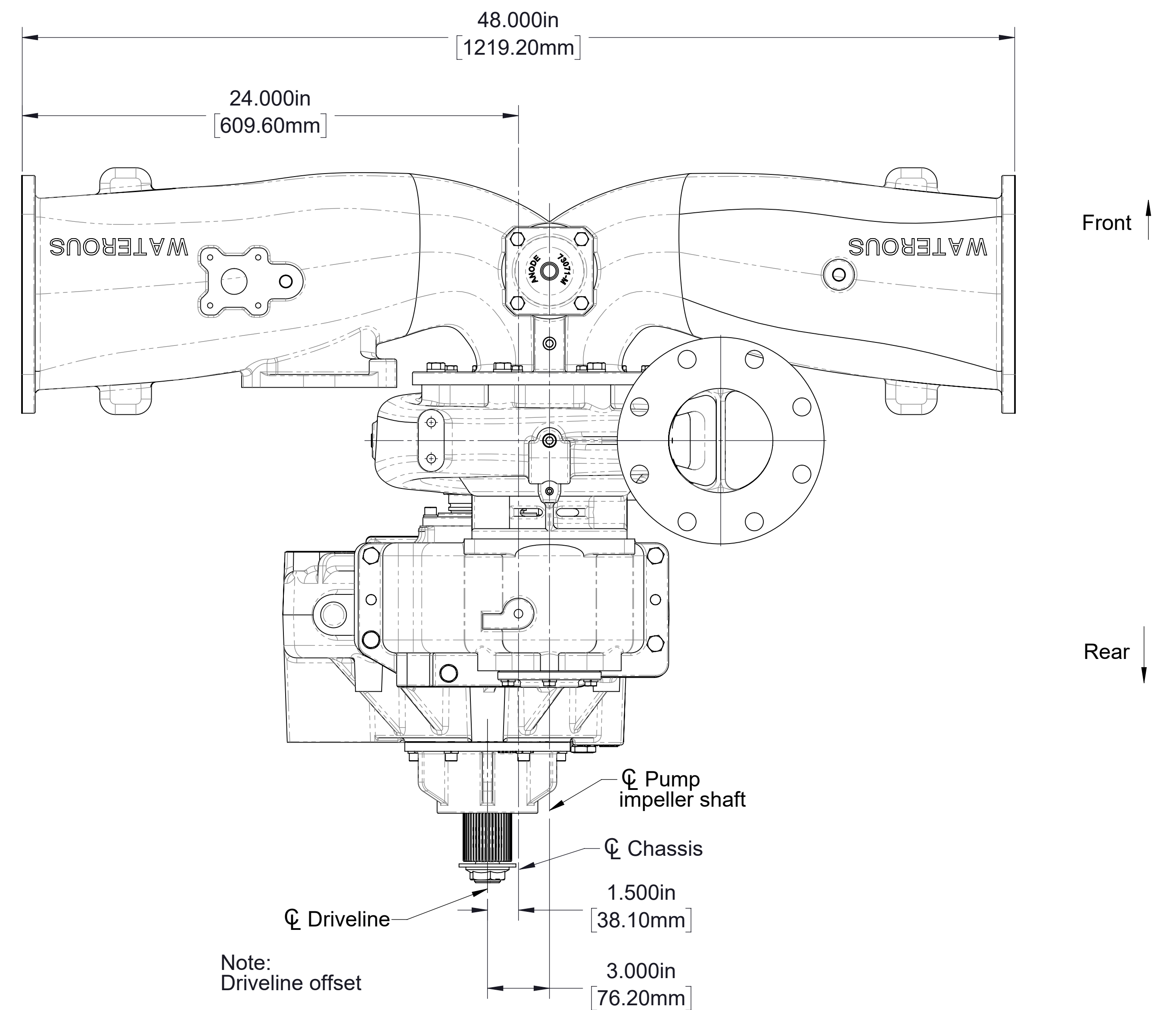
1. See drawing DPL82086 for shift unit details.
2. 1810 Series end yoke not available on model S101C22C.

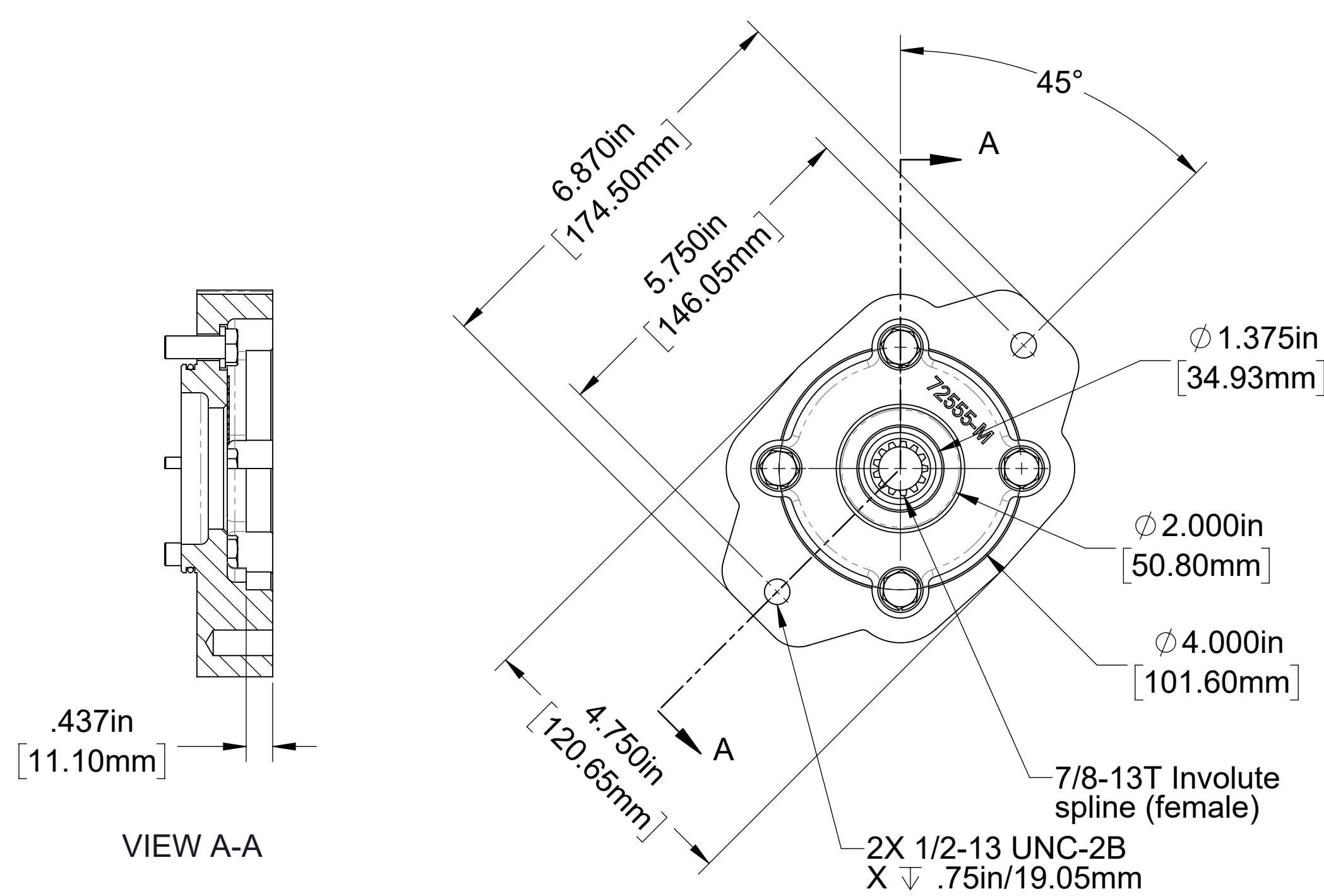


Model S101C22

Input and output shaft

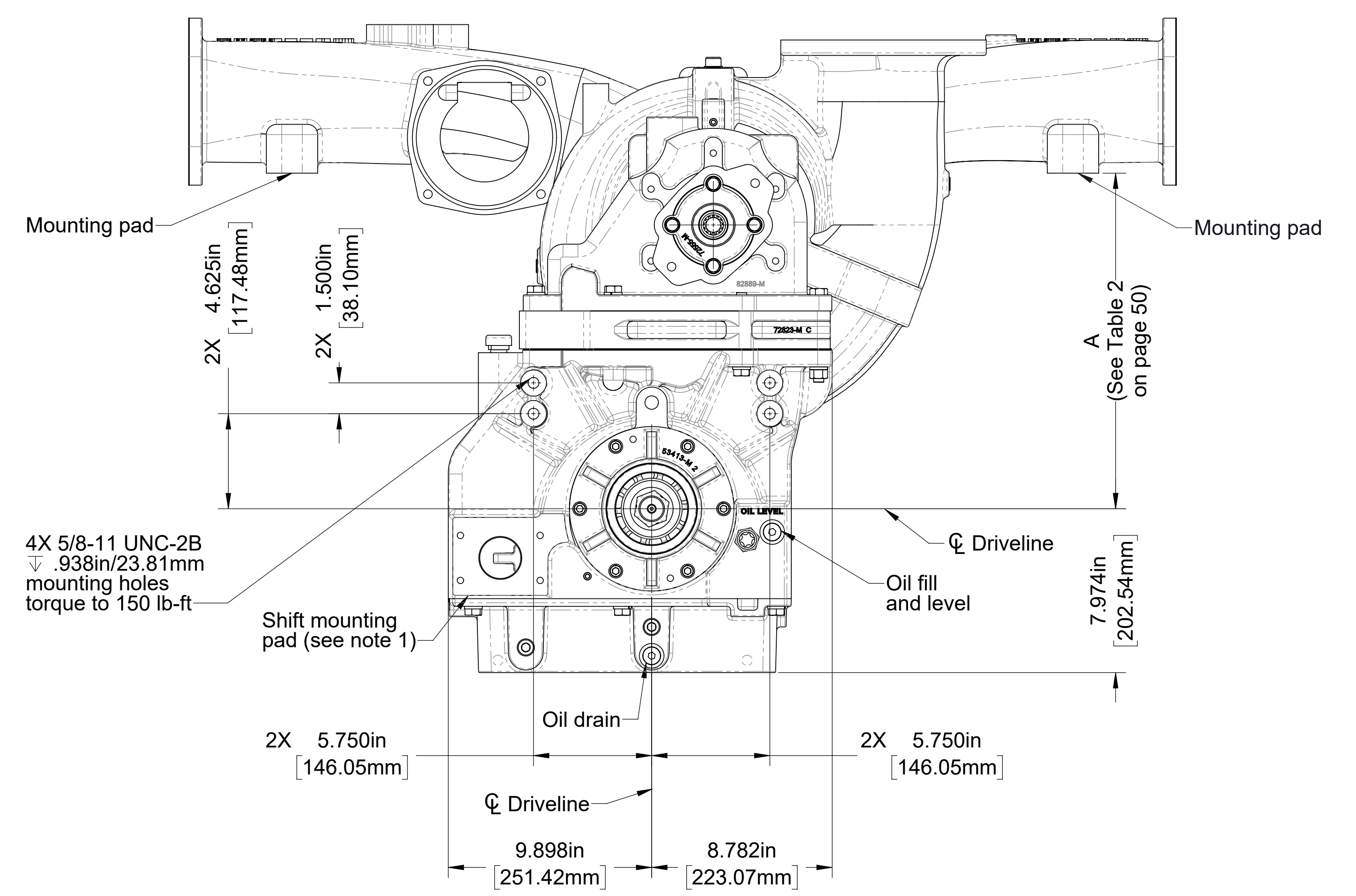
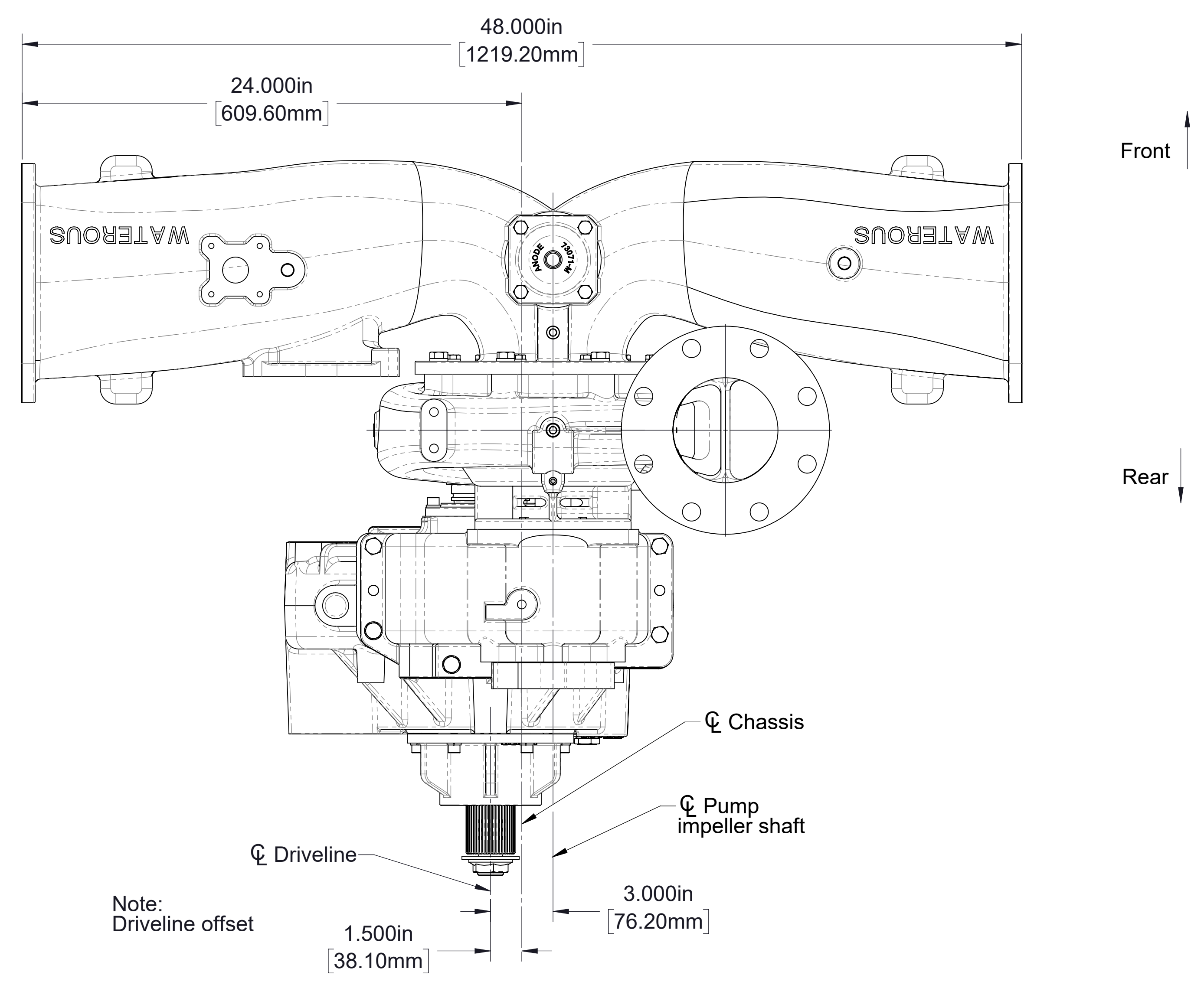
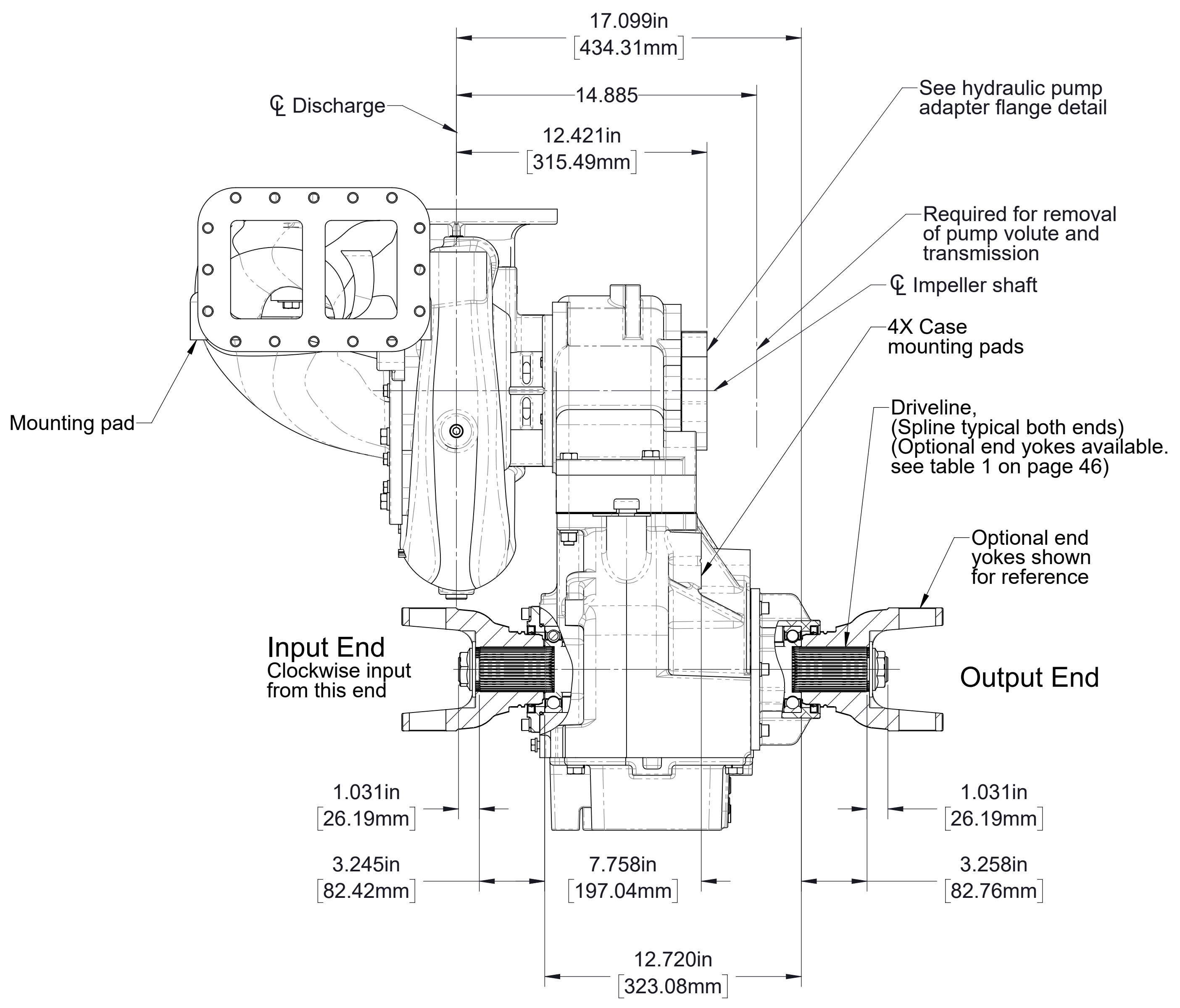
Model S101C22C, 2.27 ratio shown, blank discharge





Hydraulic Pump Adapter Flange Detail
 Used for SAE J744 class B 2-bolt
 Hydraulic pump with male
 7/8-13T 16/32 pitch involute spline

Note:
 1. See drawing DPL82086 for shift unit details.

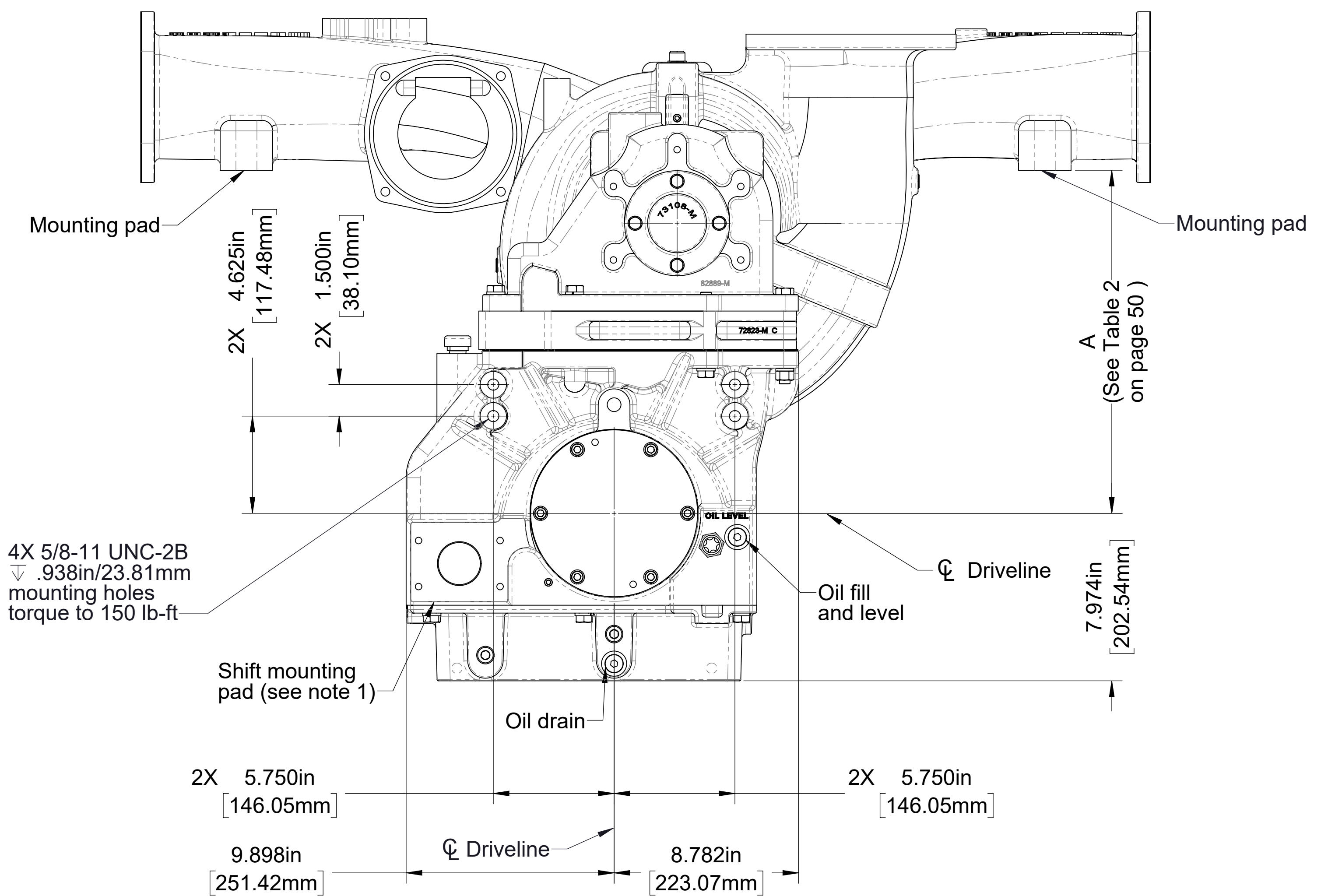
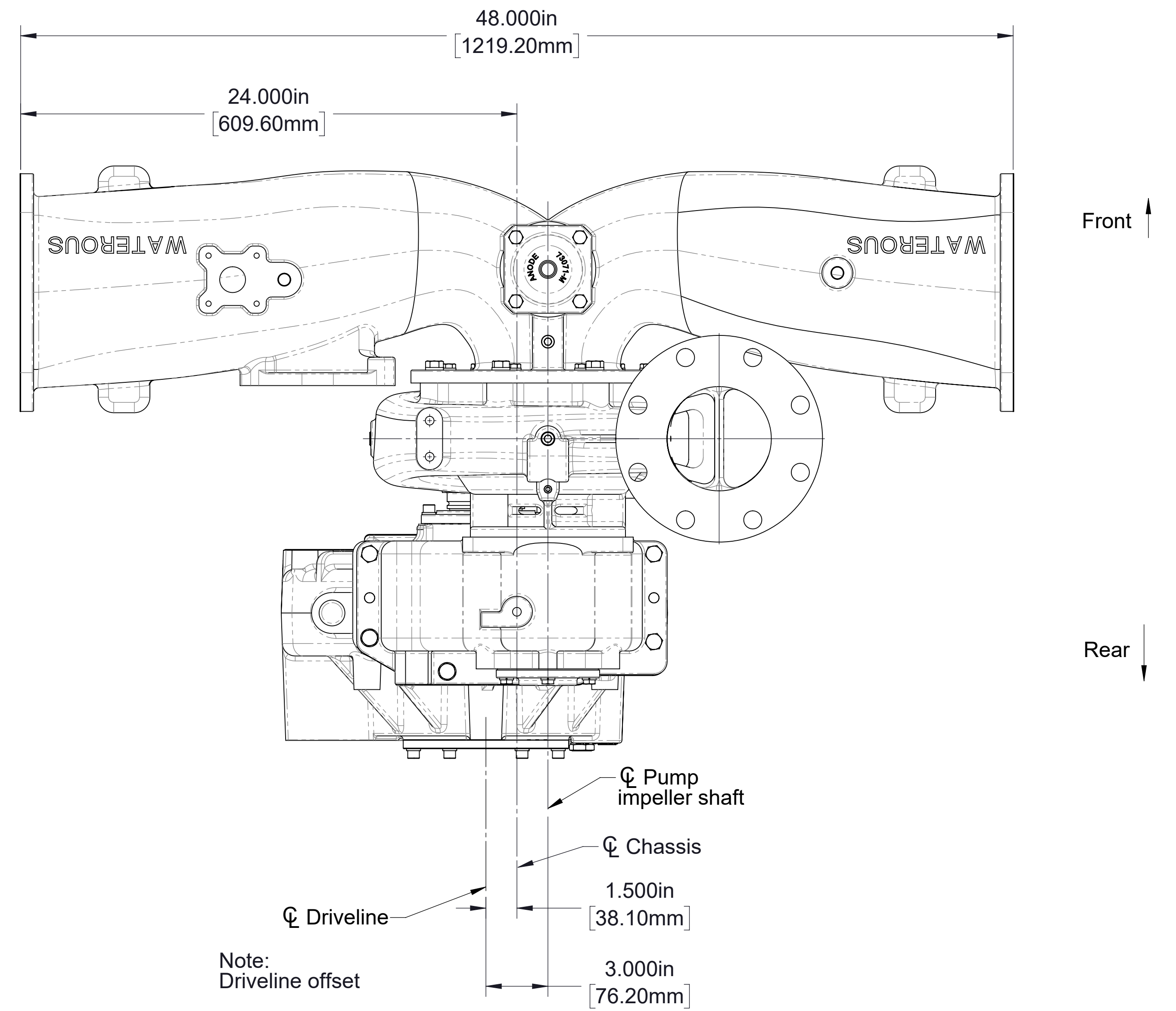
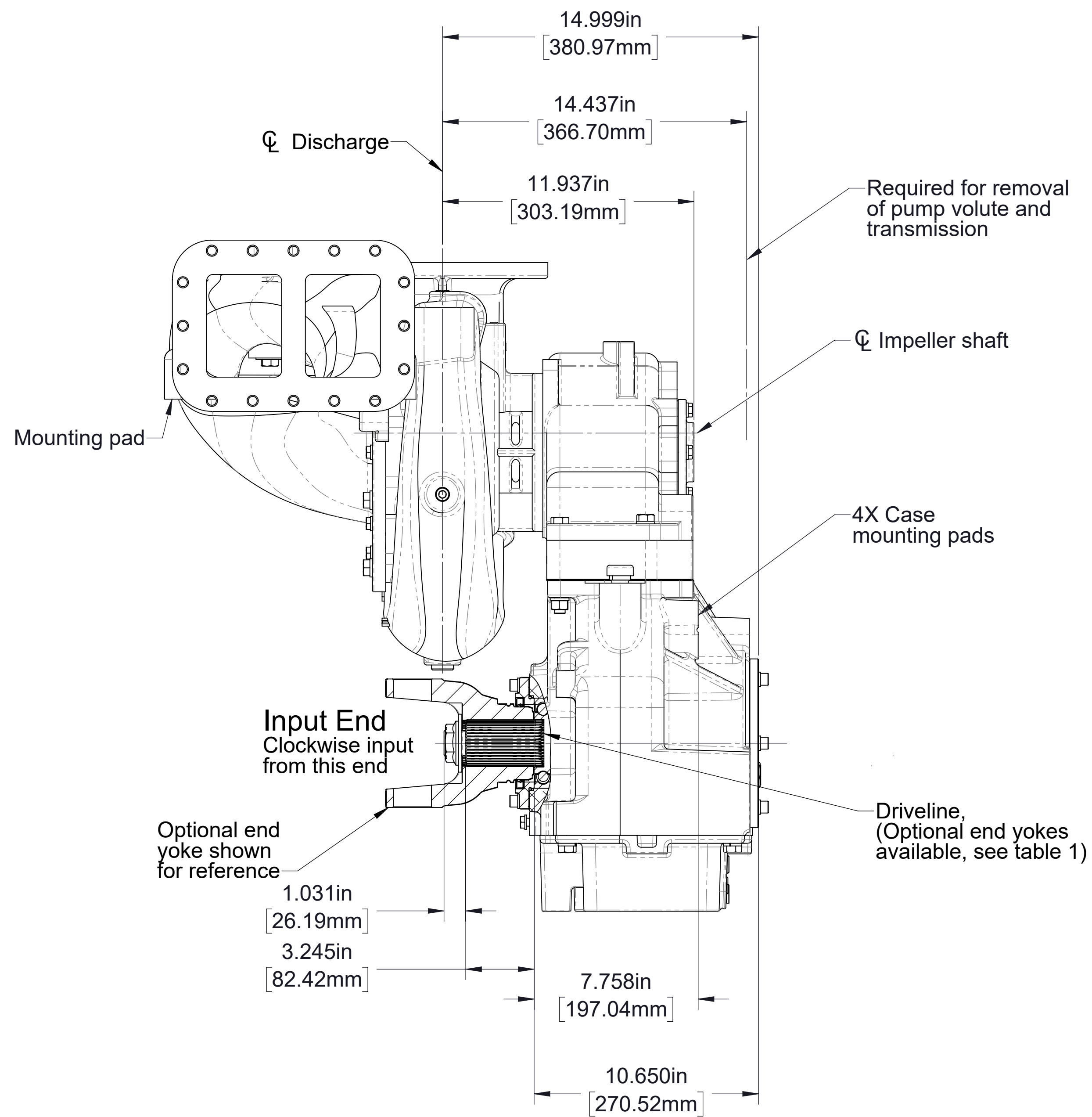


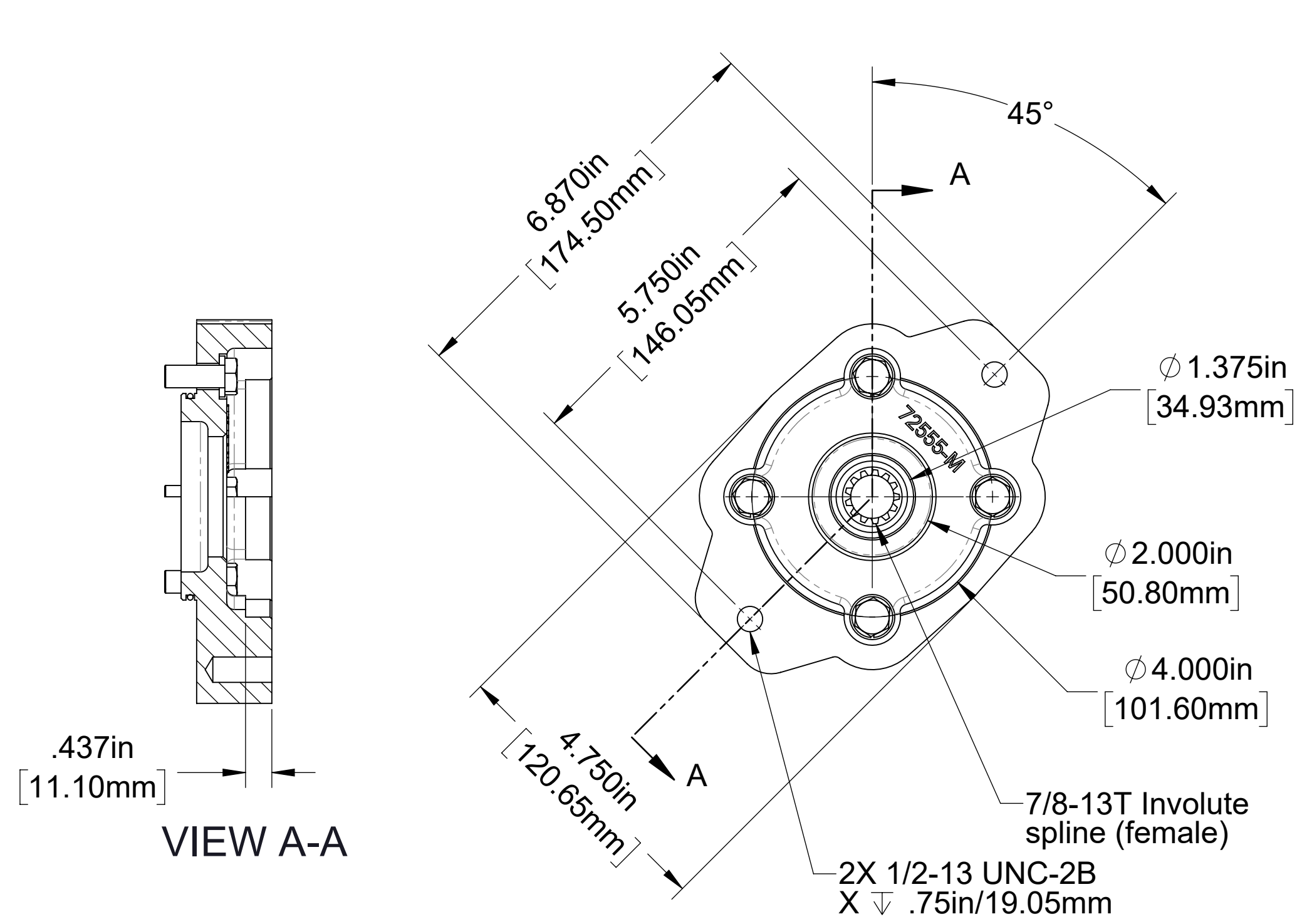
Model S101C22
 Input and output shaft
 Hydraulic pump mounting provision on rear (output shaft side) of transmission
 Model S100C22C, 2.27 ratio shown, blank discharge.

Table 1 - Available Driveline / Models							
Driveline			Option End Yokes and Companion Flanges available from Waterous			Pump Models	
Type	Size	Spline	Spicer Series	Yoke	Companion Flange		
Extra Heavy Duty	2.35 Inch	2.350-46T Involute	1480/1610	--	--	V 3719	S101C22C, S101C22D, S101C22E, S101C22F
			1650/1710	--	--	V 3619	
			1710	V 2837	V 2839	--	
			1810 (2)	V 2838	V 2840	--	
			SPL140	V 3388	V 3389	--	

Notes:

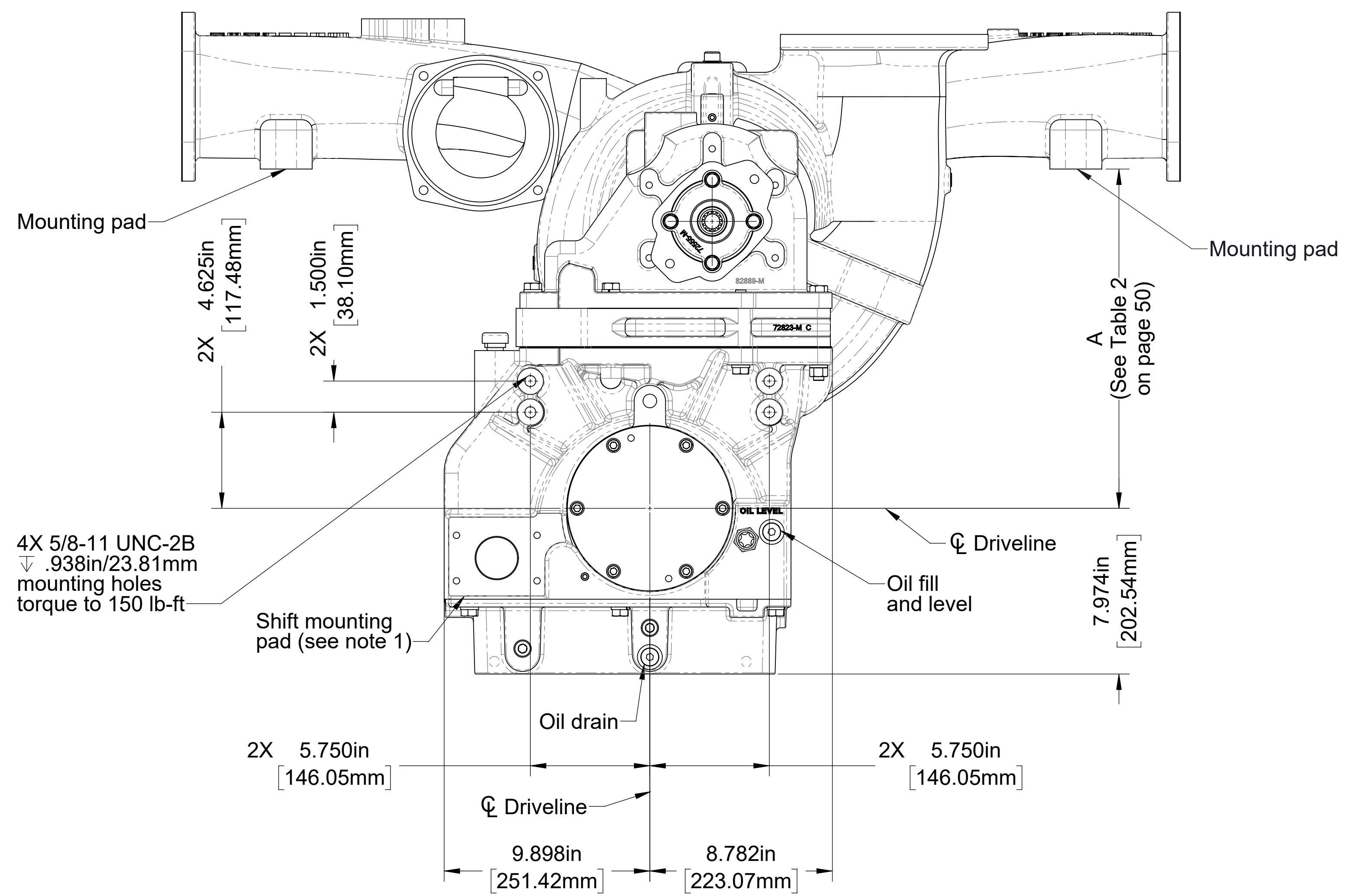
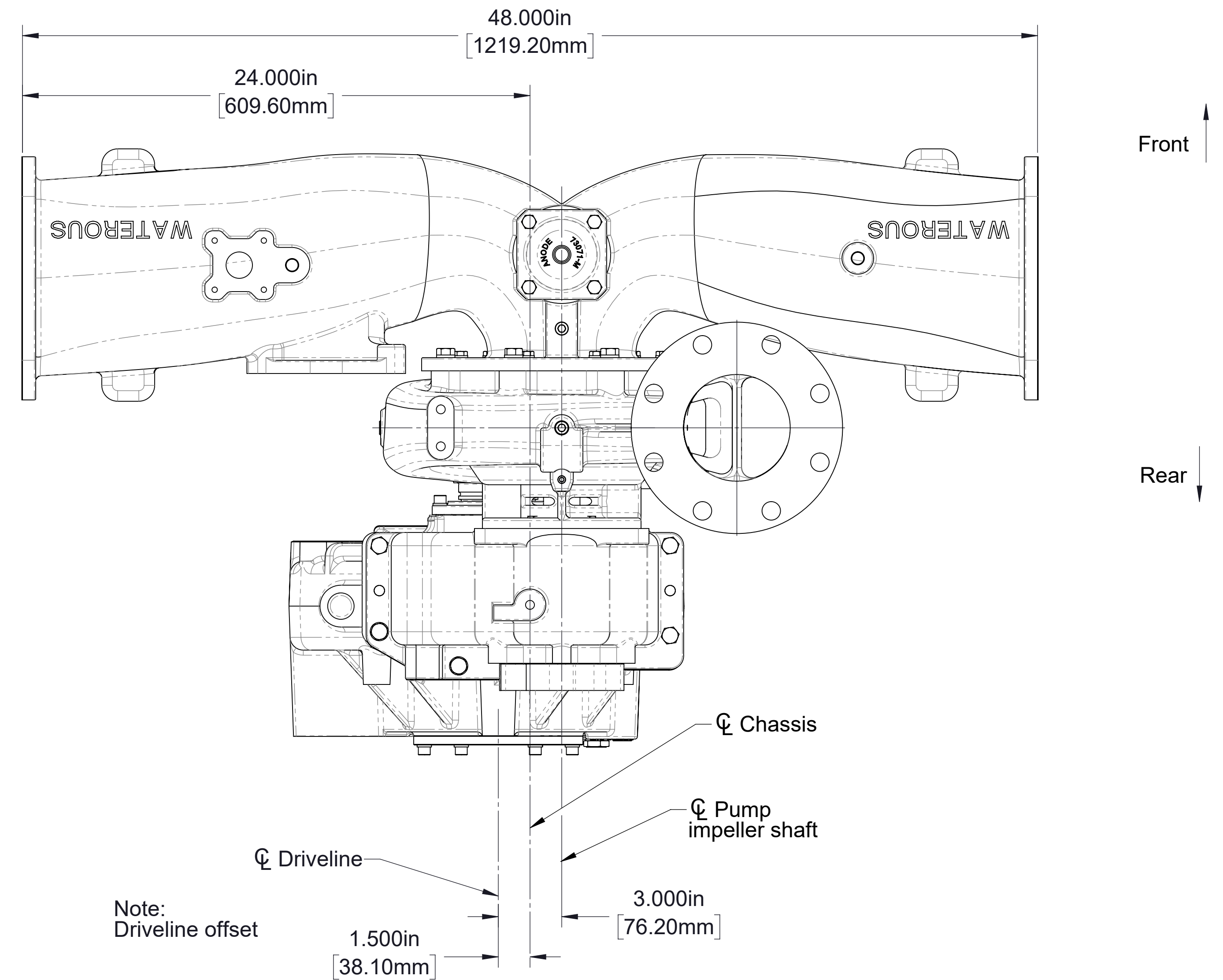
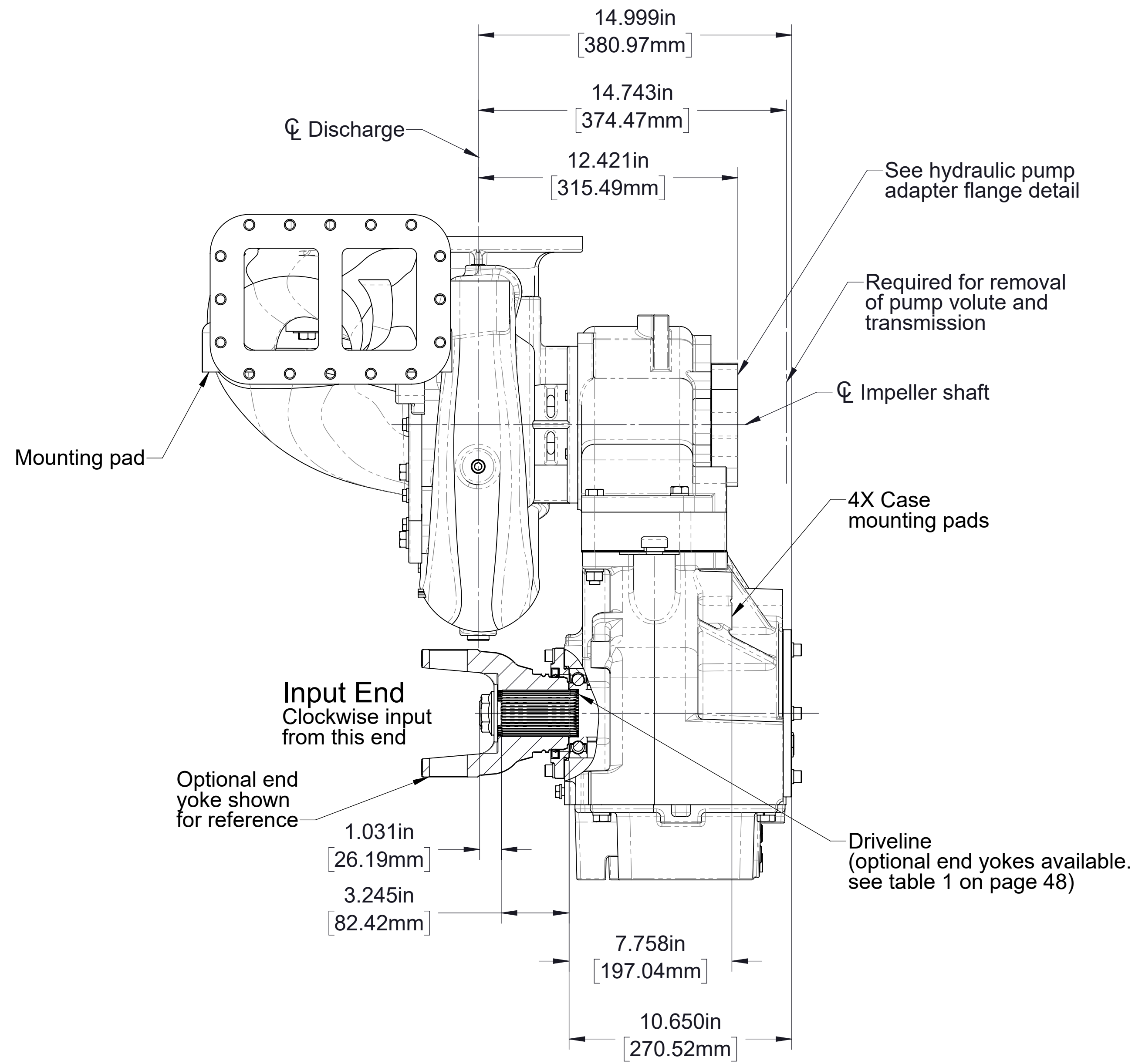
1. See drawing DPL82086 for shift unit details.
2. 1810 Series end yoke not available on model S101C22C.



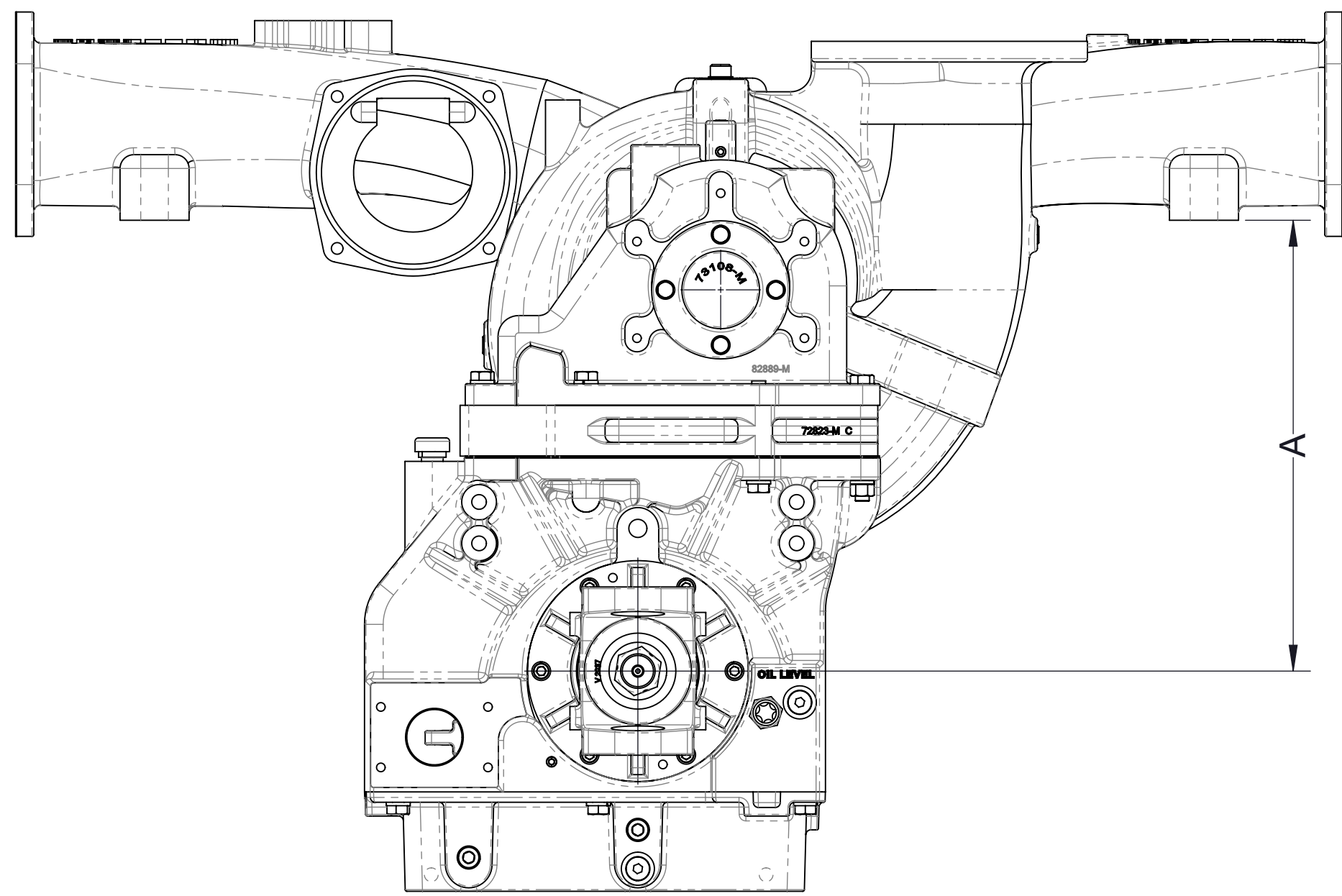


Hydraulic Pump Adapter Flange Detail
 Used for SAE J744 class B 2-bolt
 Hydraulic pump with male
 7/8-13T 16/32 pitch involute spline

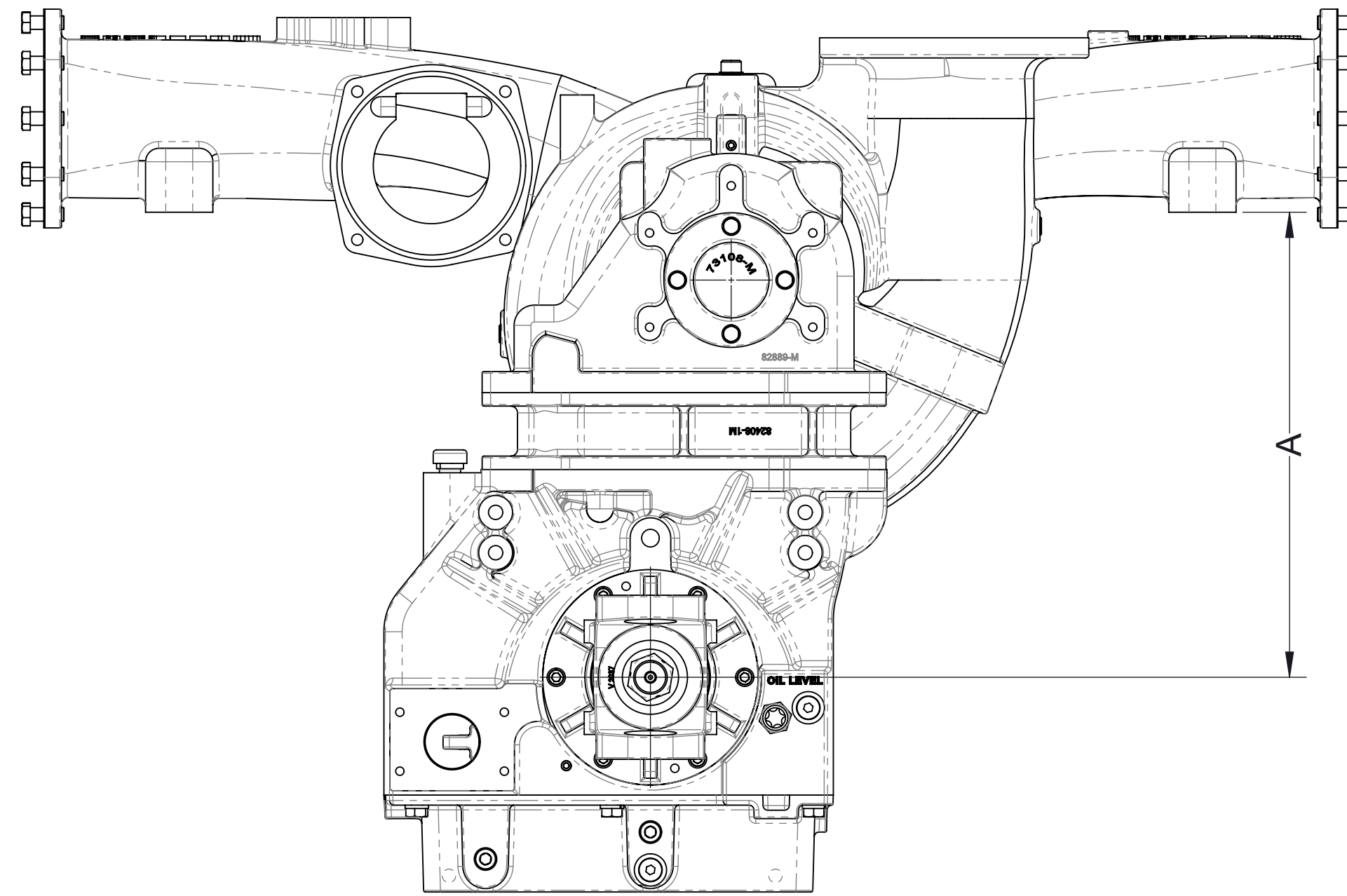
Note:
 1. See drawing DPL82086 for shift unit details.



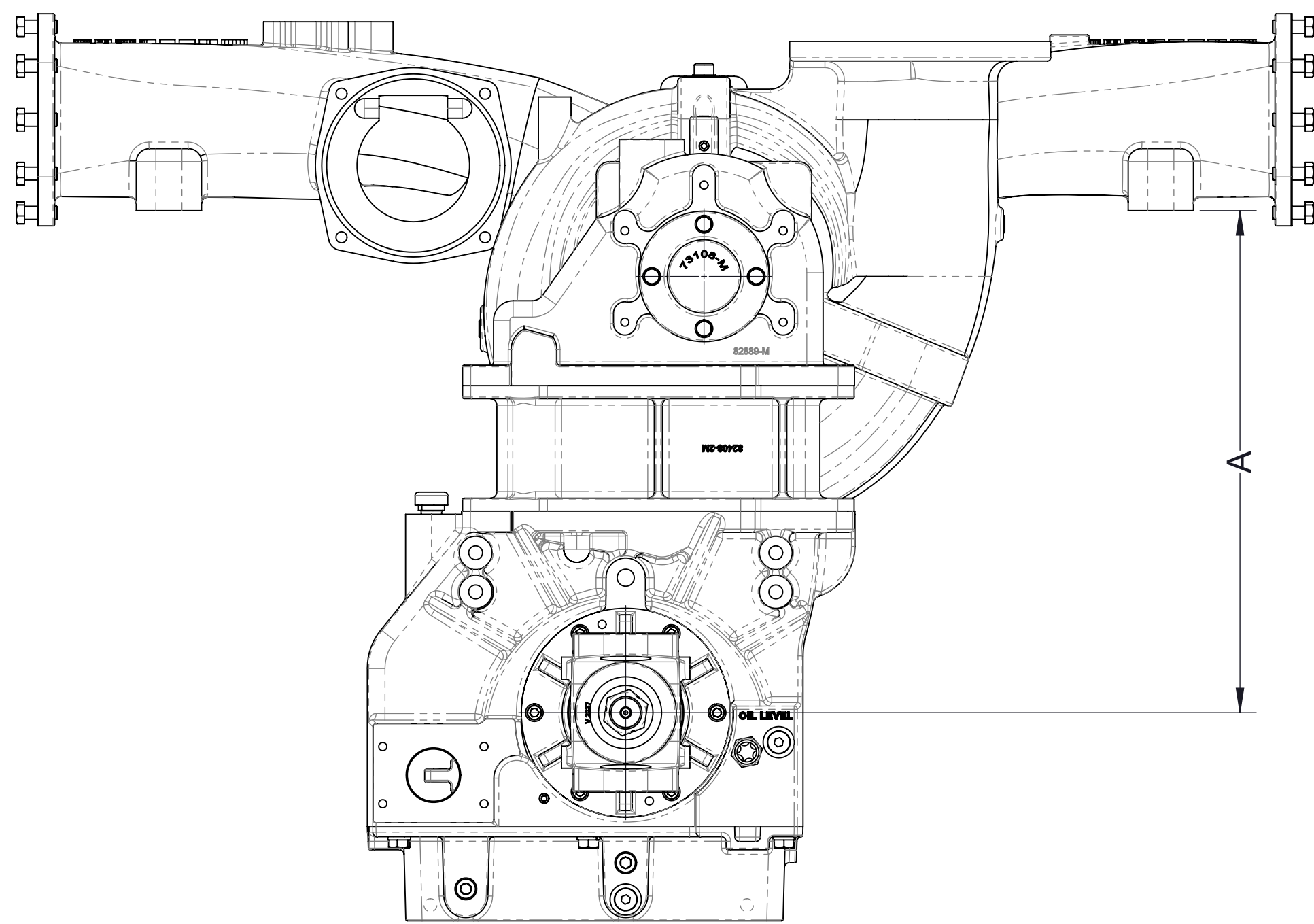
Model S101C22
 Input shaft only
 Hydraulic pump mounting provision on rear (output shaft side) of transmission
 Model S101C22C, 2.27 ratio shown, blank discharge, up discharge position shown



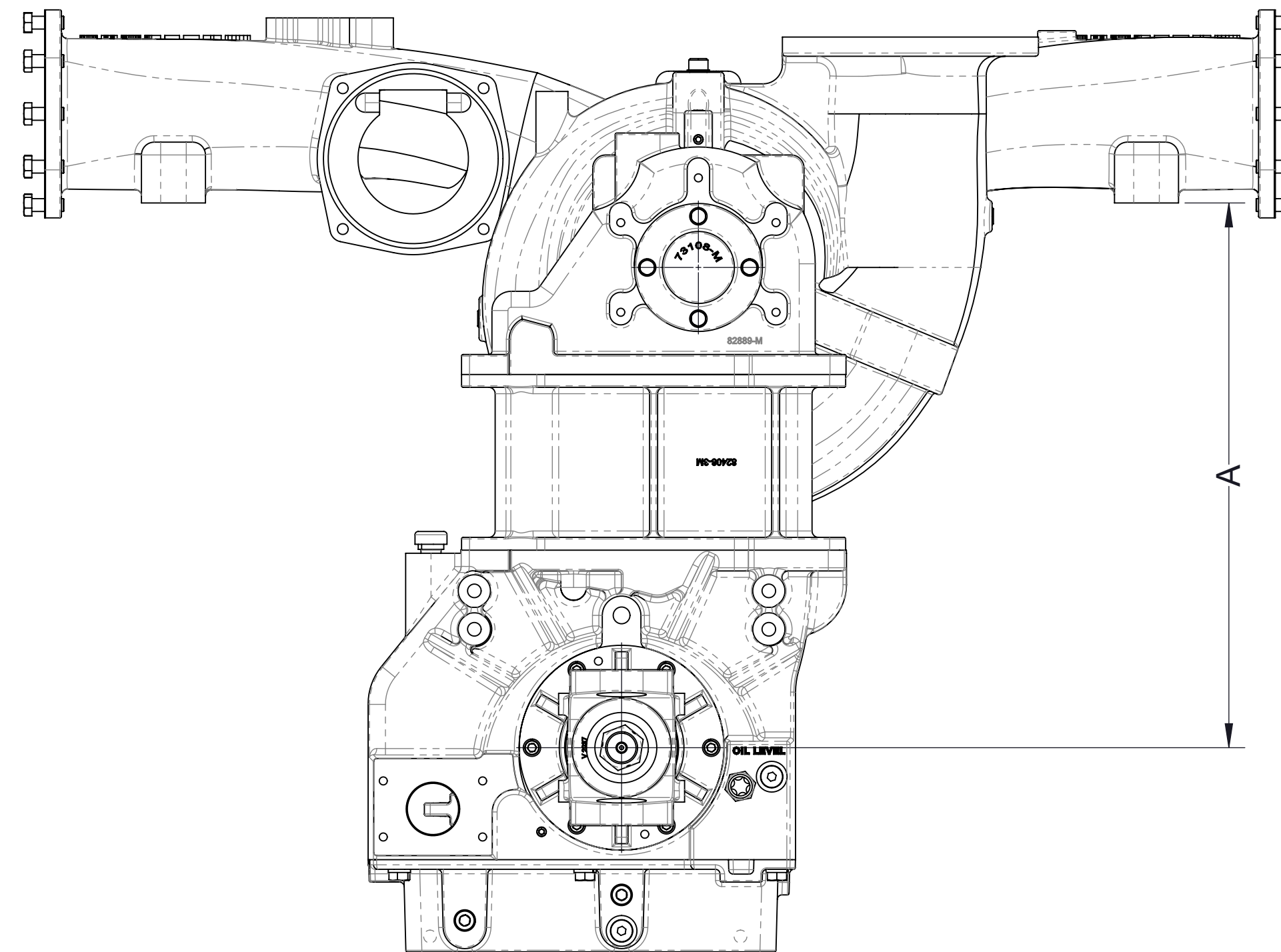
S101C22C Model
(2.27 ratio shown)



S101C22D Model
(2.27 ratio shown)

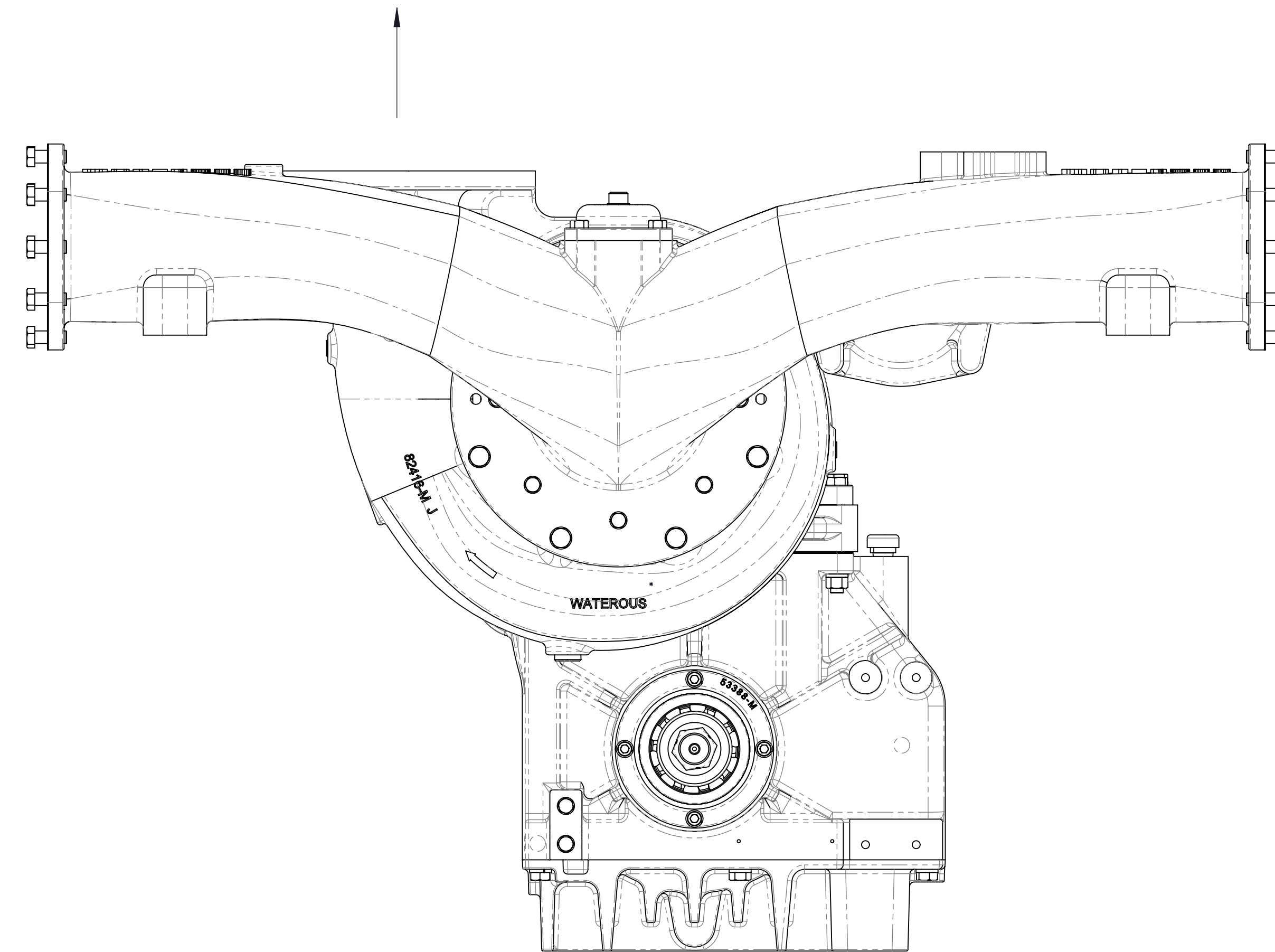


S101C22E Model
(2.27 ratio shown)



S101C22F Model
(2.27 ratio shown)

Table 2 - Available Ratios				
Drive to Driven Ratio	Dimension A			
	S101C22C	S101C22D	S101C22E	S101C22F
1.27	16.832in 427.52mm	17.345in 440.56mm	19.381in 492.27mm	21.412in 543.86mm
1.41	16.419in 417.03mm	17.451in 443.25mm	19.491in 494.06mm	21.522in 546.65mm
1.48	16.398in 416.50mm	17.427in 442.64mm	19.471in 494.56mm	21.501in 546.12mm
1.58	16.276in 413.40mm	17.308in 439.62mm	19.350in 491.48mm	21.381in 543.07mm
1.69	16.359in 415.51mm	17.396in 441.85mm	19.443in 493.84mm	21.481in 545.61mm
1.79	16.565in 420.74mm	17.592in 446.83mm	19.647in 499.03mm	21.688in 550.87mm
1.88	16.210in 411.73mm	17.237in 437.81mm	19.293in 490.03mm	21.329in 541.75mm
1.97	16.390in 416.30mm	17.432in 442.76mm	19.490in 493.77mm	21.532in 546.90mm
2.03	16.504in 419.19mm	17.548in 445.71mm	19.606in 497.98mm	21.652in 549.95mm
2.27	16.331in 414.80mm	17.376in 441.34mm	19.440in 493.77mm	21.491in 545.86mm
2.46	16.562in 420.67mm	17.607in 447.21mm	19.674in 499.71mm	21.725in 551.81mm
2.68	16.266in 413.16mm	17.313in 439.75mm	19.385in 492.38mm	21.443in 544.65mm



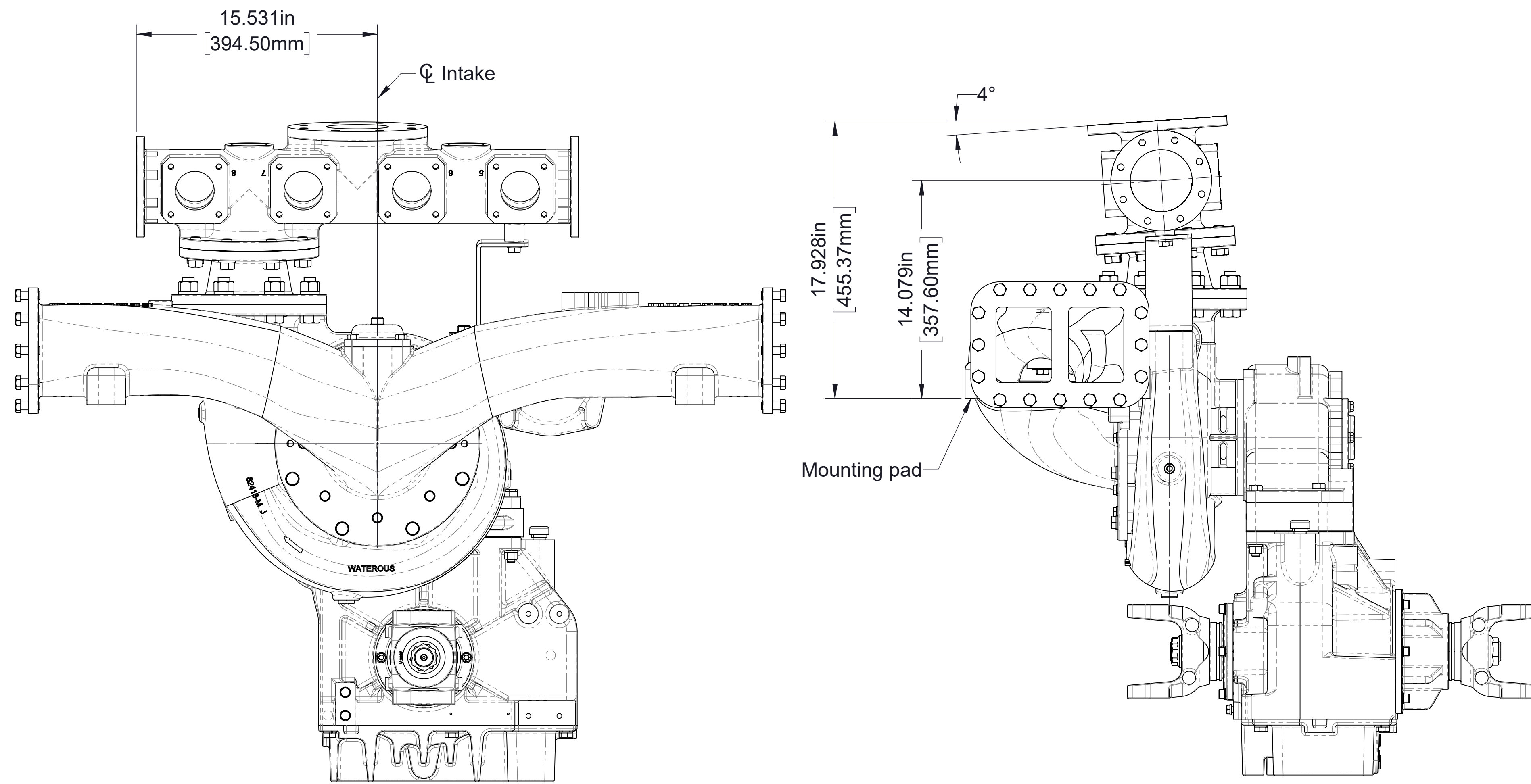
Pump discharge is only available in the up position.
Position as viewed looking at transmission input shaft.

Discharge Position

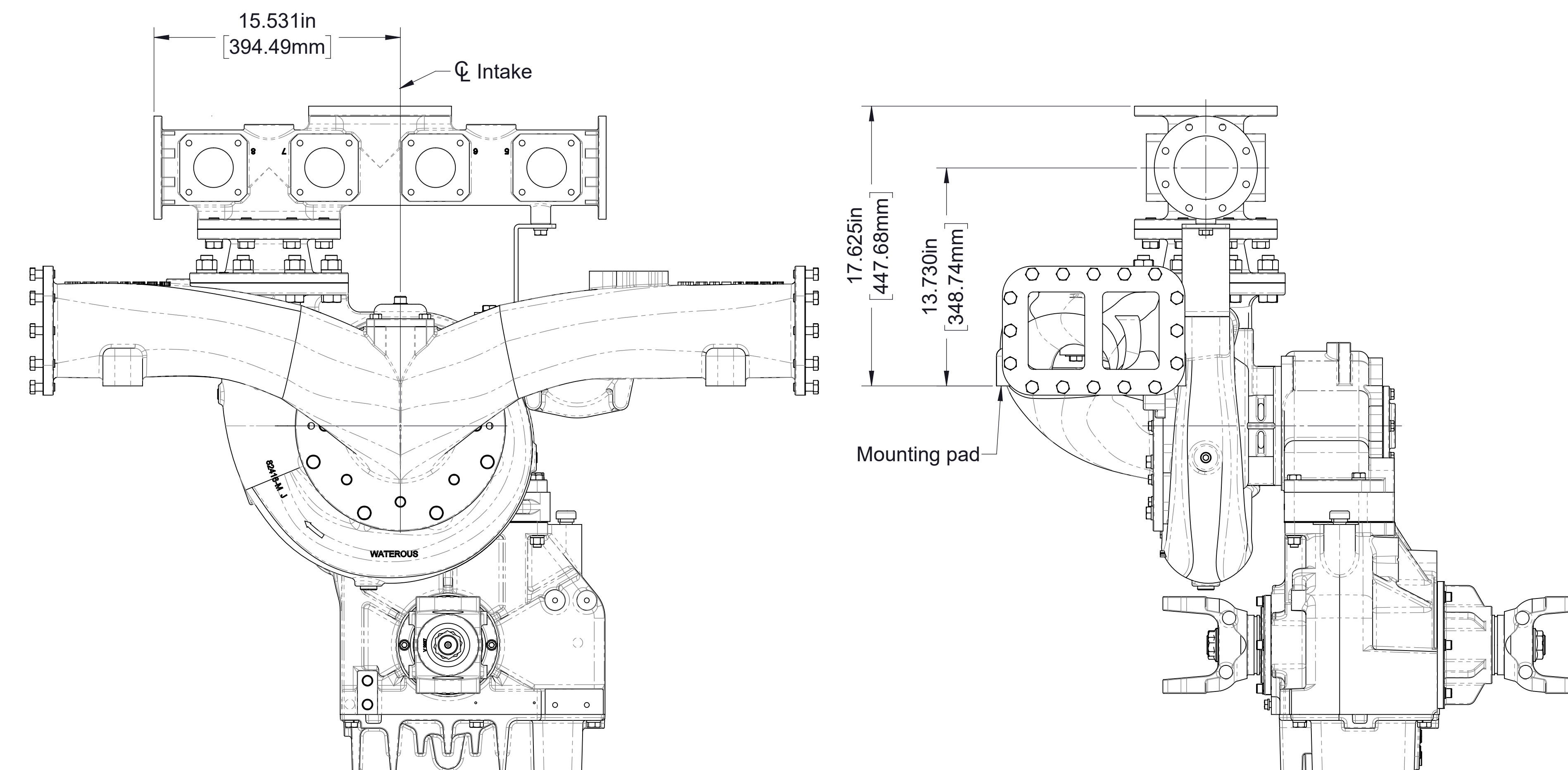
Ordering Information

When ordering furnish the following information:

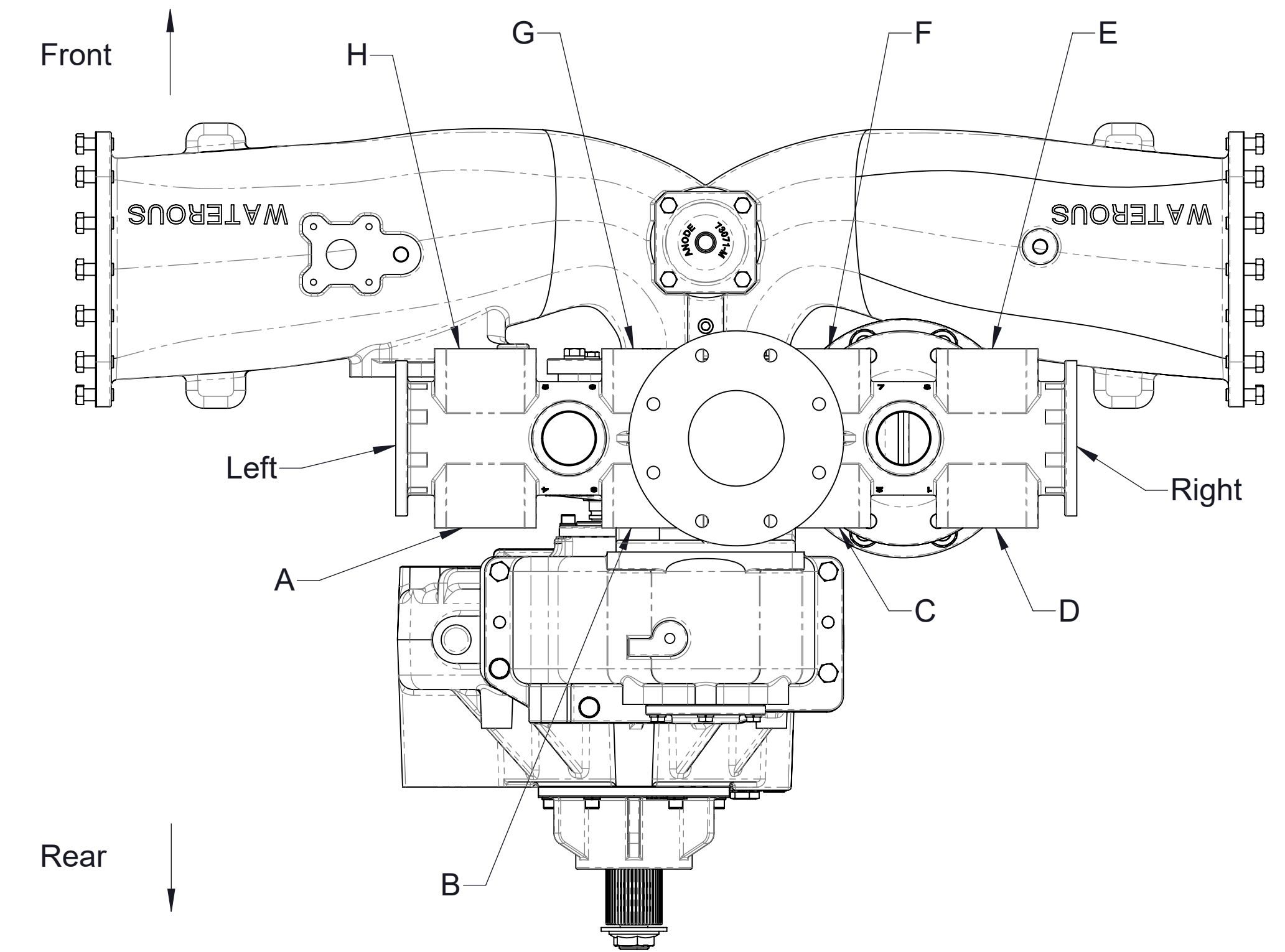
1. Pump model: (see pages 46-49).
2. Drive to driven ratio: (see page 50).
3. Hydraulic adapter (see pages 47 or 49).
4. Optional discharge fitting: (see pages 6 or 45 and 52).



Angle Compensated



Non-Angle Compensated



Pad	Size	See detail on page 6
Left	4 in. 8-Bolt	B
Right	4 in. 8-Bolt	B
Top	4 in. ANSI	A
A	2-1/2 in. 4-Bolt	C
B	2-1/2 in. 4-Bolt	C
C	2-1/2 in. 4-Bolt	C
D	2-1/2 in. 4-Bolt	C
E	2-1/2 in. 4-Bolt	C
F	2-1/2 in. 4-Bolt	C
G	2-1/2 in. 4-Bolt	C
H	2-1/2 in. 4-Bolt	C

Manifold Pads

Manifold Mounted Perpendicular to Intake Model S101C22
 Note: See page 6 for manifold dimensions not shown