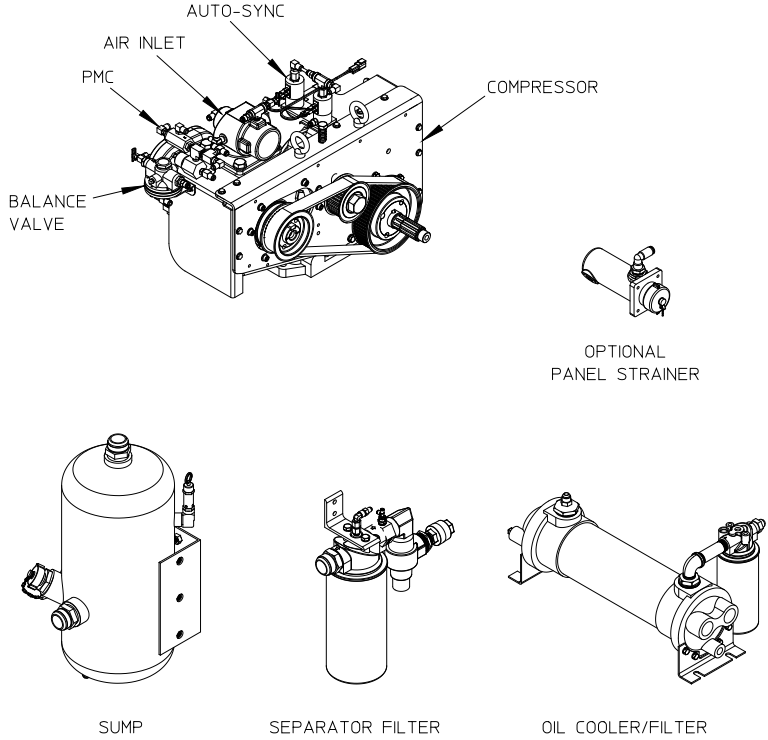


# Model 150-ESD CAF System As used with TC20 Series PTO's



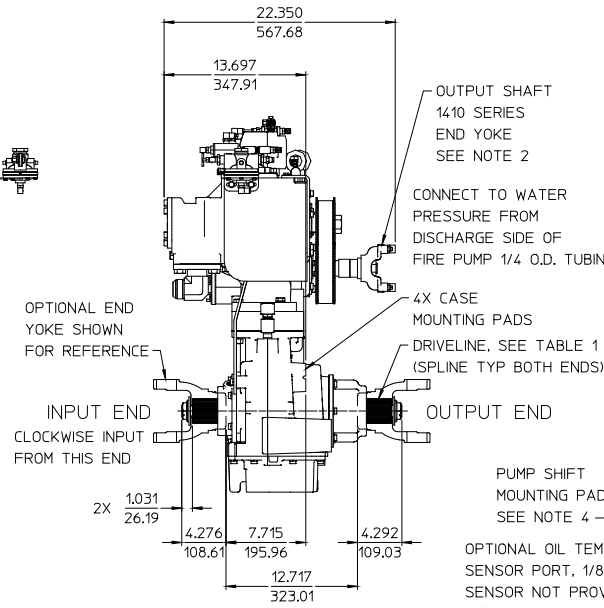
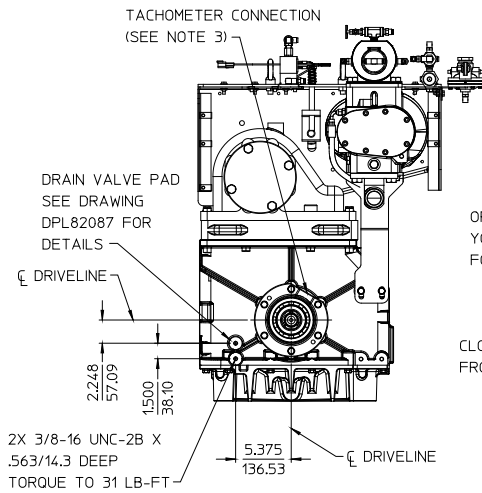
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TABLE 1 - AVAILABLE DRIVELINES / MODELS							
DRIVELINE			OPTIONAL END YOKE AND COMPANION FLANGES AVAILABLE FROM WATEROUS, SEE DETAIL D ON PAGE 5				PTO MODELS
TYPE	SIZE	SPLINE	YOKE		CROSS AND BEARING KIT	COMPANION FLANGE	
			SPICER SERIES	PART NUMBER		SPICER SERIES	PART NUMBER
EXTRA HEAVY DUTY	2.35 INCH	2.35-46T INVOLUTE	1710	V 2837	V 2839	1480/1610	V 3719
			1810	V 2838	V 2840	1710/1810	V 3619
			SPL140	V 3388	V 3389		

NOTES:

- SEE TABLE 2 ON PAGE 4 FOR AVAILABLE RATIOS.
- MAXIMUM DRIVE SHAFT LENGTH: 45 INCHES  
MAXIMUM U-JOINT ANGLE: 3°
- SEE DRAWING DPL83000 FOR ADDITIONAL DETAILS OF TC20 SERIES PTO.
- SEE DPL82086 FOR SHIFT DETAILS.

ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
(INCH / MILLIMETER)



INPUT AND OUTPUT SHAFT DRIVELINE

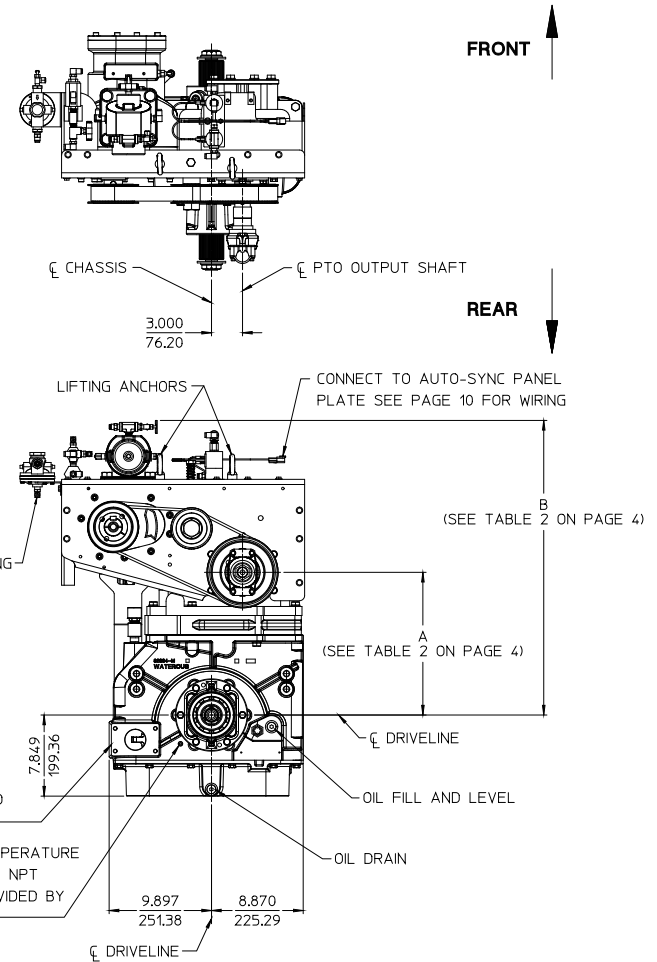
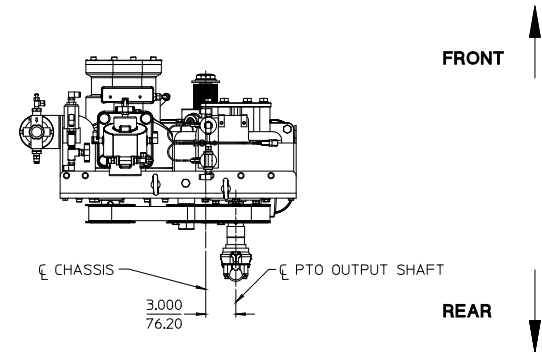
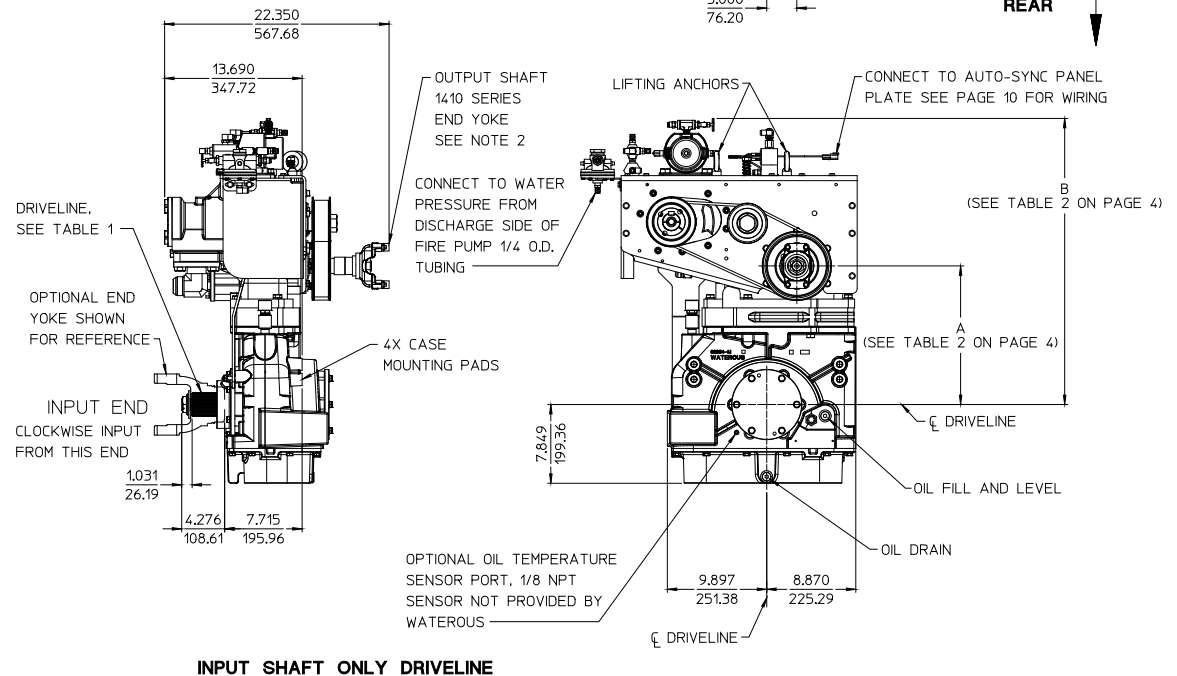
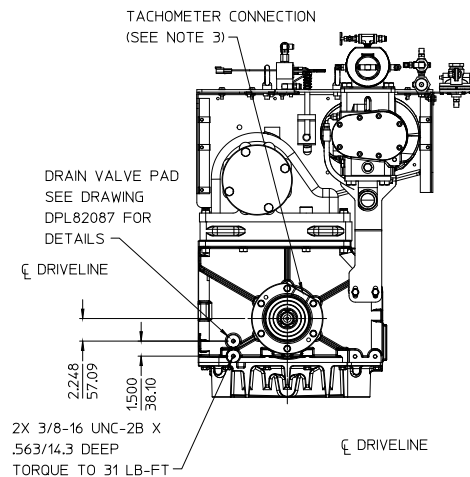


TABLE 1 - AVAILABLE DRIVELINES / MODELS								
DRIVELINE			OPTIONAL END YOKES AND COMPANION FLANGES AVAILABLE FROM WATEROUS. SEE DETAIL D ON PAGE 5					PTO MODELS TC20B, TC20C, TC20D, TC20E, TC20F
TYPE	SIZE	SPLINE	YOKE		CROSS AND BEARING KIT	COMPANION FLANGE		
			SPICER SERIES	PART NUMBER		SPICER SERIES	PART NUMBER	
EXTRA HEAVY DUTY	2.35 INCH	2.35-46T INVOLUTE	1710	V 2837	V 2839	1480/1610	V 3719	
			1810	V 2838	V 2840			
			SPL140	V 3388	V 3389	1710/1810	V 3619	

NOTES:

- SEE TABLE 2 ON PAGE 4 FOR AVAILABLE RATIOS.
- MAXIMUM DRIVE SHAFT LENGTH: 45 INCHES  
MAXIMUM U-JOINT ANGLE: 3°
- SEE DRAWING DPL83000 FOR ADDITIONAL DETAILS OF TC20 PTO.

ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
( INCH / MILLIMETER )



INPUT SHAFT ONLY DRIVELINE

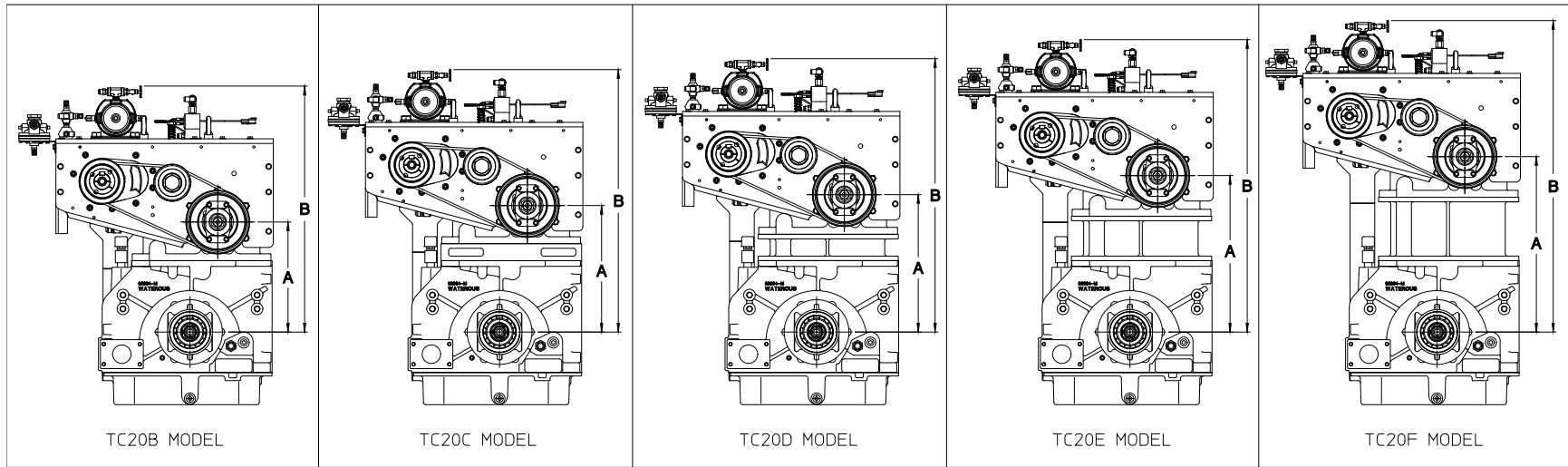


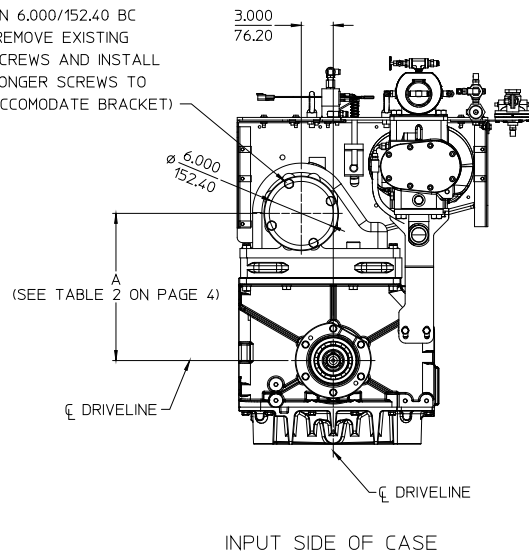
TABLE 2 - AVAILABLE RATIOS

DRIVE TO DRIVEN RATIO	TC20B		TC20C		TC20D		TC20E		TC20F	
	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B	DIMENSION A	DIMENSION B
1.14	11.875/301.63	25.576/649.63	13.929/353.80	28.630/727.20	14.959/379.96	29.660/753.36	16.995/431.67	31.696/805.08	19.027/483.29	33.728/856.69
1.27	12.250/311.15	26.951/684.56	14.312/363.52	29.013/736.93	14.825/376.56	29.526/749.96	16.861/428.27	31.562/801.67	18.892/479.86	33.593/853.26
1.41	11.840/300.74	26.541/674.14	13.899/353.03	28.600/726.44	14.931/379.25	29.632/752.65	16.971/431.06	31.672/804.47	19.002/482.65	33.703/856.06
1.48	12.326/313.08	27.027/686.49	13.878/352.50	28.579/725.91	14.907/378.64	29.608/752.04	16.951/430.56	31.652/803.96	18.981/482.12	33.682/855.52
1.58	12.205/310.01	26.906/683.41	13.756/349.40	28.457/722.81	14.788/375.62	29.489/749.02	16.830/427.48	31.531/800.89	18.861/479.07	33.562/852.47
1.69	12.290/312.17	26.991/685.57	13.839/351.51	28.540/724.92	14.876/377.85	29.577/751.26	16.923/429.84	31.624/803.25	18.961/481.61	33.662/855.01
1.79	11.958/303.73	26.659/677.14	14.045/356.74	28.746/730.15	15.072/382.83	29.773/756.23	17.127/435.03	31.828/808.43	19.168/486.87	33.869/860.27
1.88	12.129/308.08	26.830/681.48	13.690/347.73	28.391/721.13	14.717/373.81	29.418/747.22	16.773/426.03	31.474/799.44	18.809/477.75	33.510/851.15
1.97	12.306/312.57	27.007/685.98	13.870/352.30	28.571/725.70	14.912/378.76	29.613/752.17	16.970/431.04	31.671/804.44	19.012/482.90	33.713/856.31
2.03	11.896/302.16	26.597/675.56	13.984/355.19	28.685/728.60	15.028/381.71	29.729/755.12	17.086/433.98	31.787/807.39	19.132/485.95	33.833/859.36
2.27	12.240/310.90	26.941/684.30	13.811/350.80	28.512/724.20	14.856/377.34	29.557/750.75	16.920/429.77	31.621/803.17	18.971/481.86	33.672/855.27
2.46	11.941/303.30	26.642/676.71	14.042/356.67	28.743/730.07	15.087/383.21	29.788/756.62	17.154/435.71	31.855/809.12	19.205/487.81	33.906/861.21
2.68	12.169/309.09	26.870/682.50	13.746/349.15	28.447/722.55	14.793/375.74	29.494/749.15	16.865/428.37	31.566/801.78	18.923/480.64	33.624/854.05

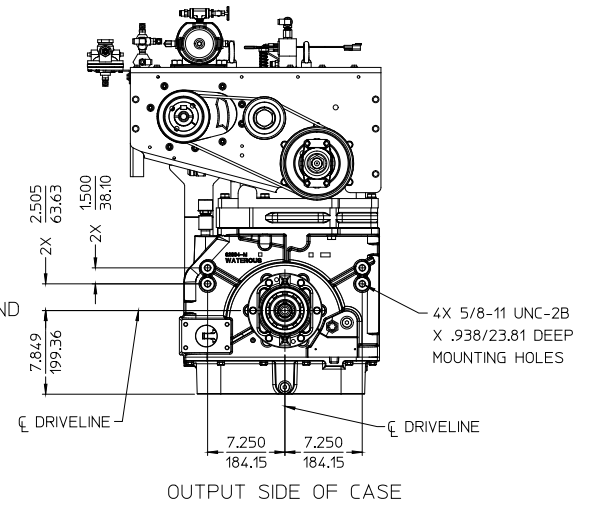
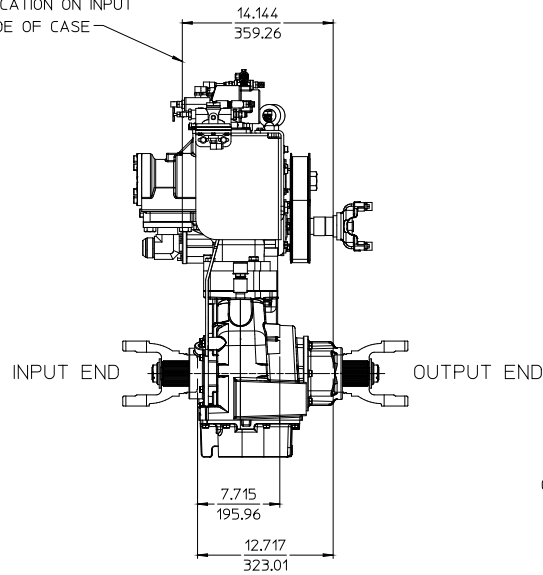
ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
 ( INCH )  
 ( MILLIMETER )

AVAILABLE RATIO AND DROP DIMENSIONS

4X 1/2-13 UNC-2B X  
 1.187/30.16 DEEP  
 MOUNTING HOLES  
 ON 6.000/152.40 BC  
 (REMOVE EXISTING  
 SCREWS AND INSTALL  
 LONGER SCREWS TO  
 ACCOMODATE BRACKET)

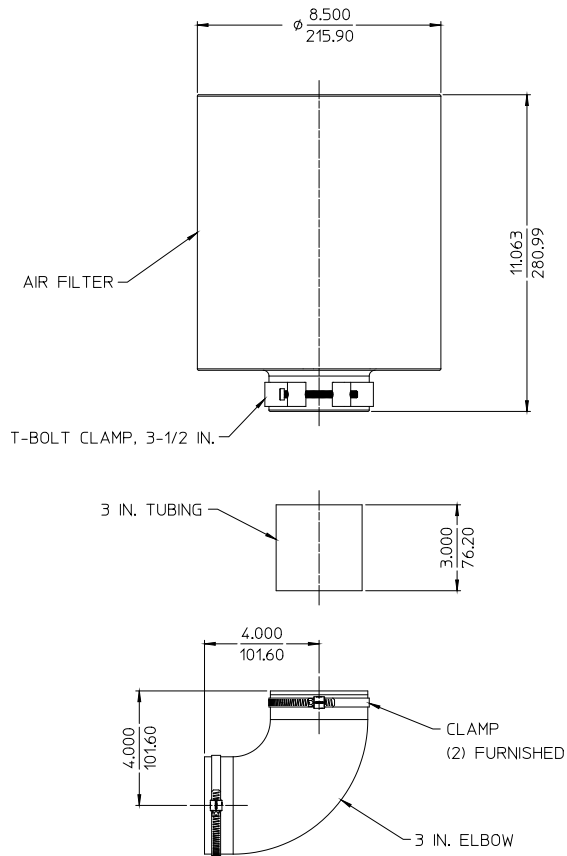


BRACKET MOUNTING  
 LOCATION ON INPUT  
 SIDE OF CASE



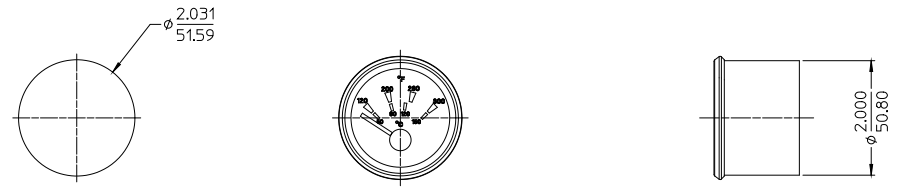
**MOUNTING BRACKET ATTACHMENT LOCATIONS**  
 BRACKETS NOT FURNISHED BY WATEROUS

ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
 (INCH  
 MILLIMETER)

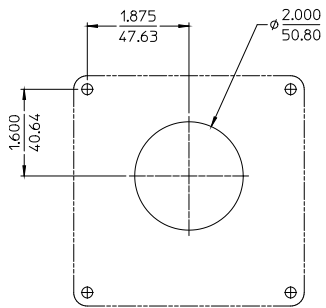


**AIR FILTER**

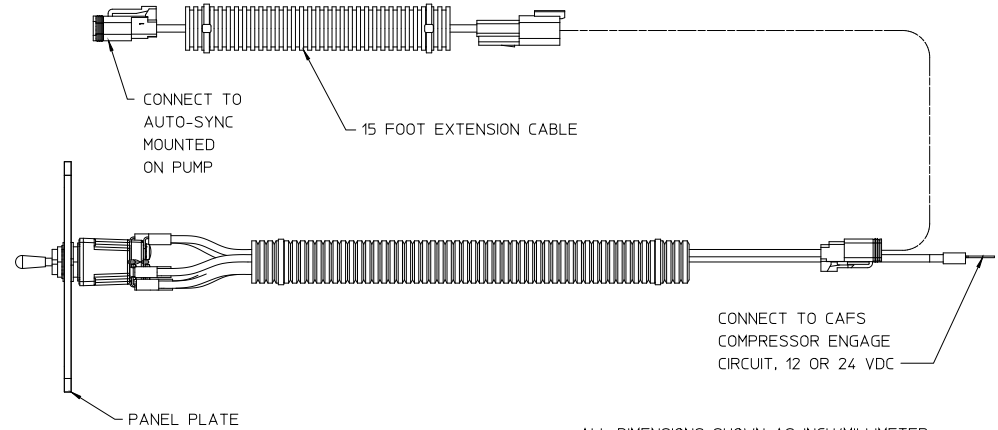
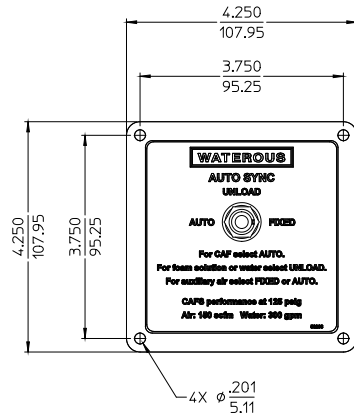
ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
( $\frac{\text{INCH}}{\text{MILLIMETER}}$ )



**OIL TEMPERATURE GAUGE**  
(WIRING TO SUMP TEMPERATURE SENDER NOT  
FURNISHED BY WATEROUS. SEE PAGE 20)

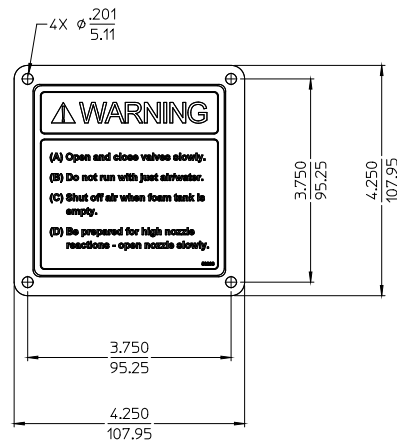


PANEL CUT-OUT

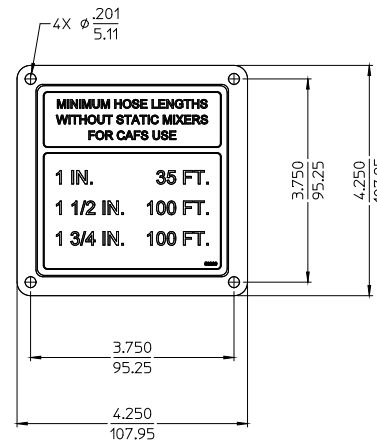


AUTO-SYNC

ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
(INCH / MILLIMETER)

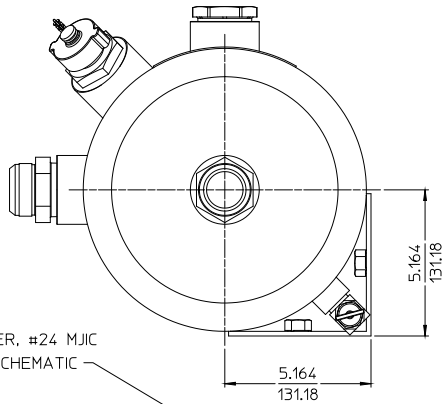


CAFS WARNING



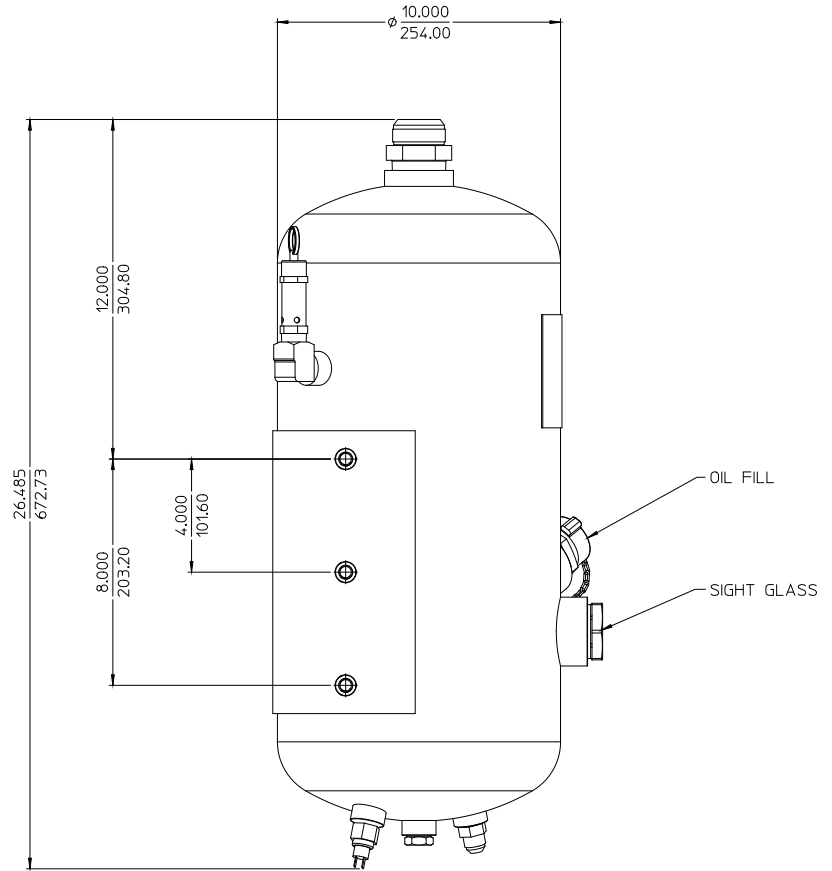
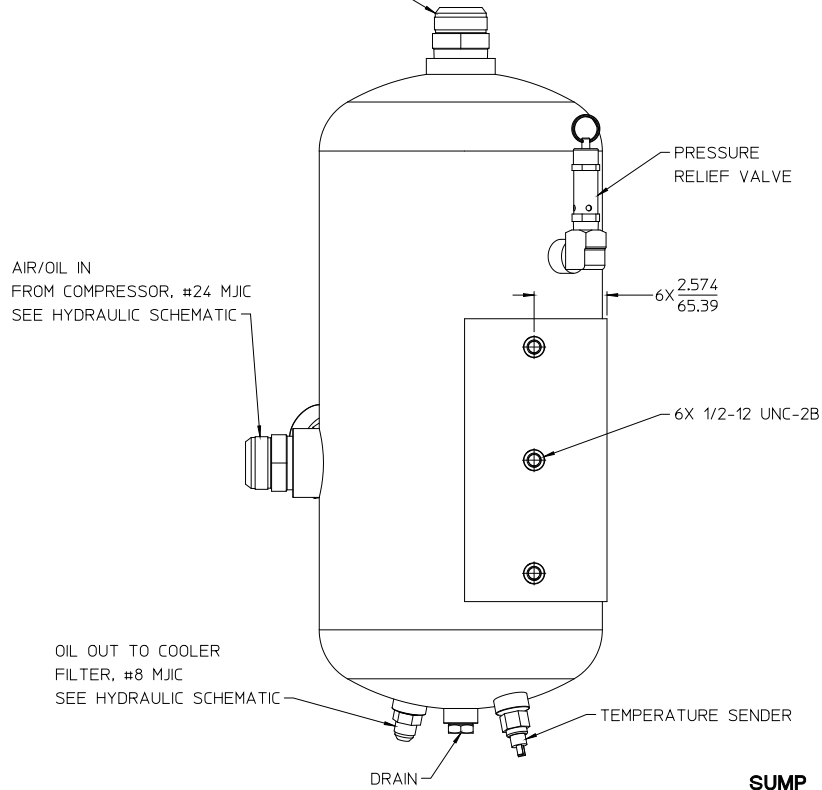
HOSE LENGTH

PANEL PLATES



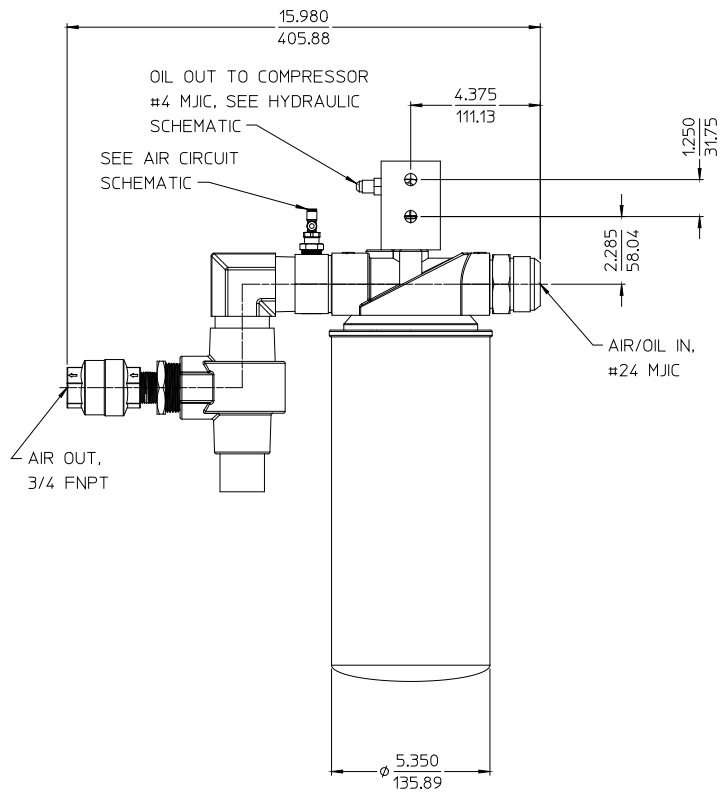
AIR OUT TO  
SEPARATOR FILTER, #24 MJIC  
SEE HYDRAULIC SCHEMATIC

ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
( $\frac{\text{INCH}}{\text{MILLIMETER}}$ )



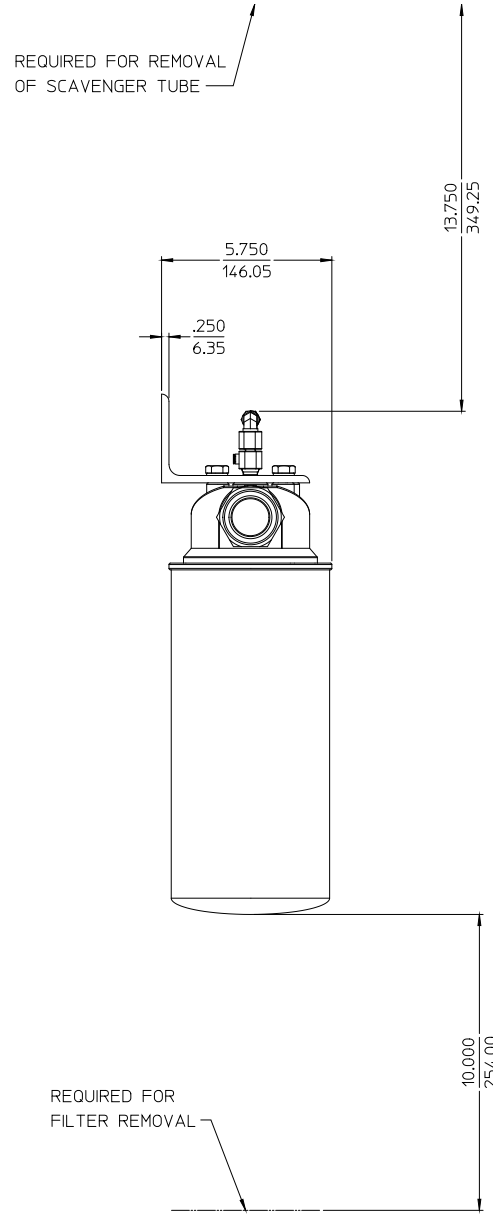
**SUMP (OIL RESERVOIR)**

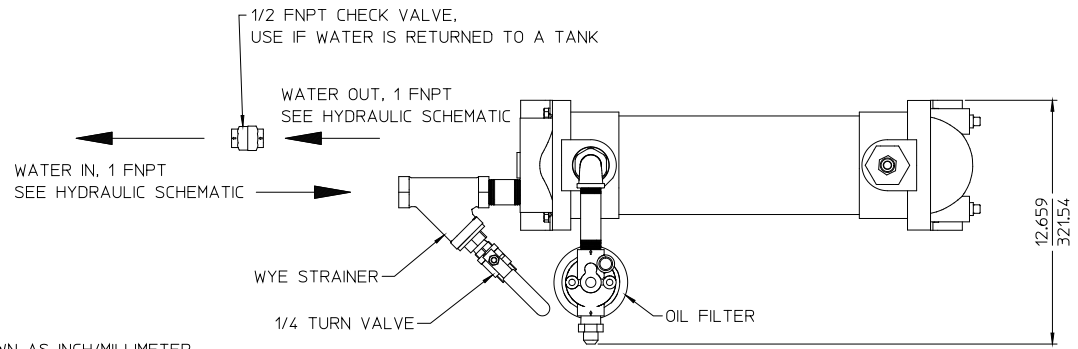




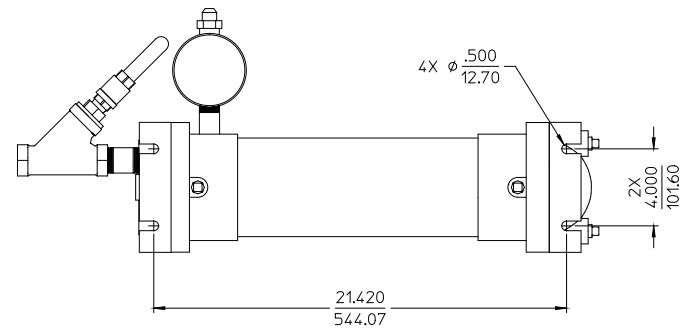
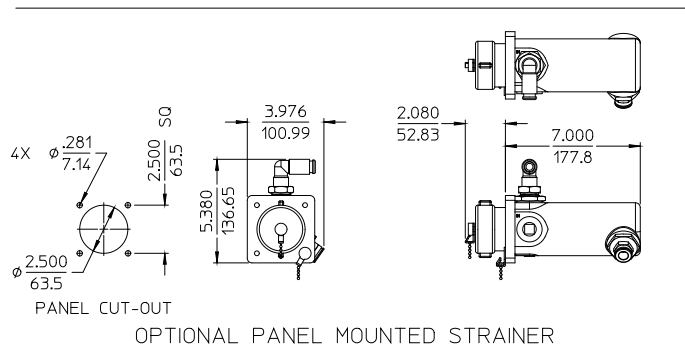
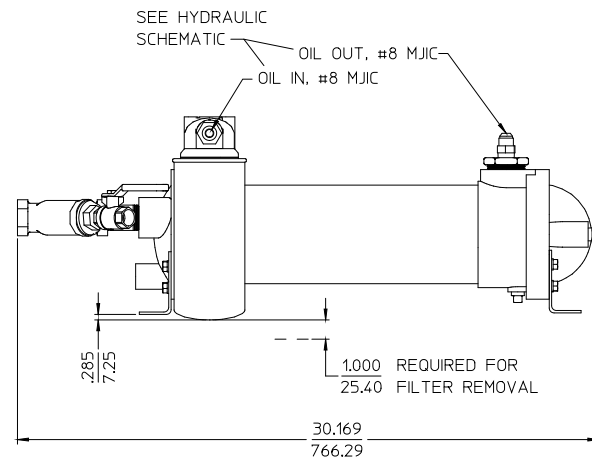
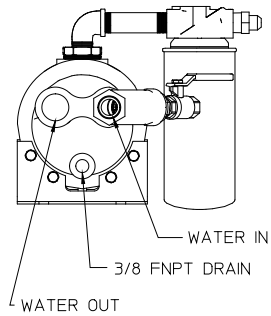
ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
 (INCH  
 MILLIMETER)

**SEPARATOR FILTER**

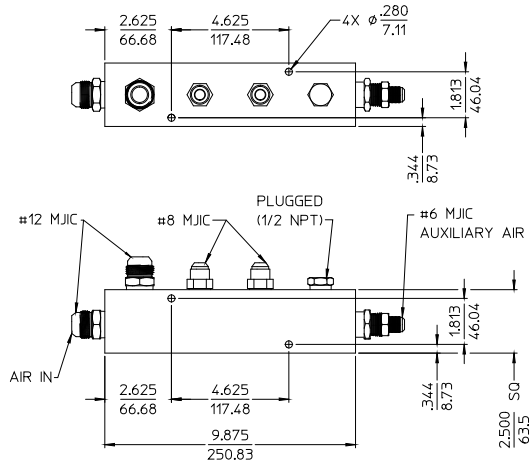




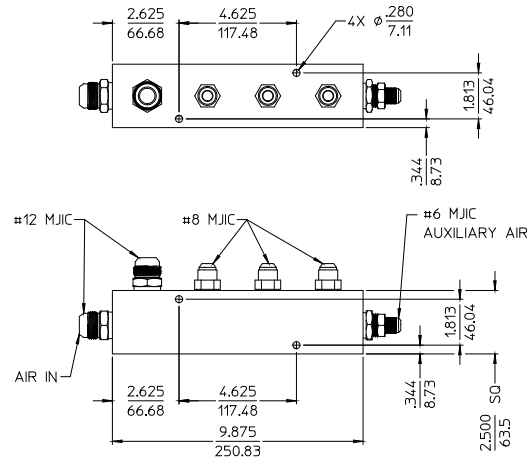
ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
INCH  
(MILLIMETER)



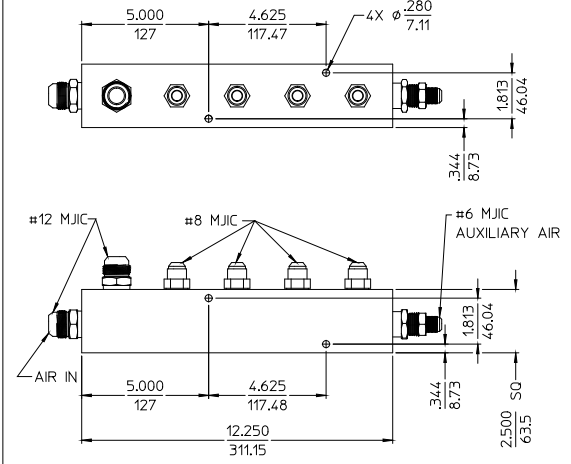
OIL COOLER



3 PORT MANIFOLD  
ORDER PART NO. 83360-1A

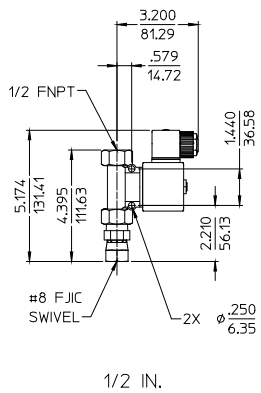


4 PORT MANIFOLD  
ORDER PART NO. 83360-1B

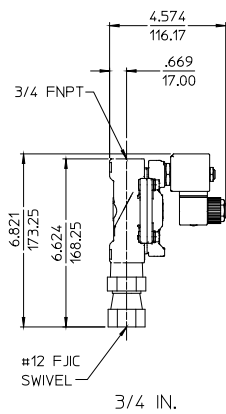


5 PORT MANIFOLD  
ORDER PART NO. 83360-1C

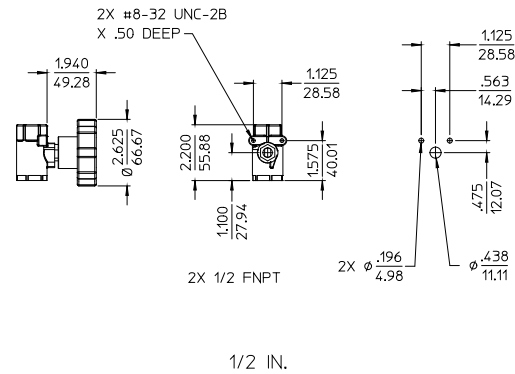
OPTIONAL AIR DISTRIBUTION MANIFOLD



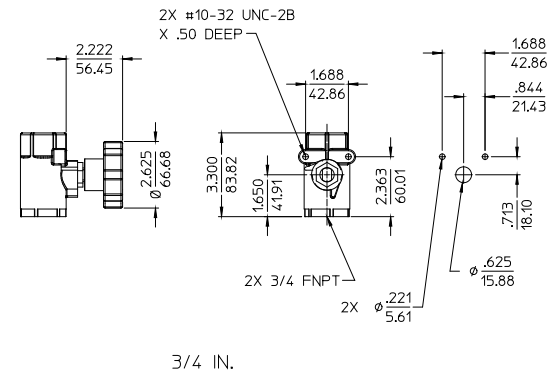
1/2 IN.  
ELECTRIC



3/4 IN.  
ELECTRIC



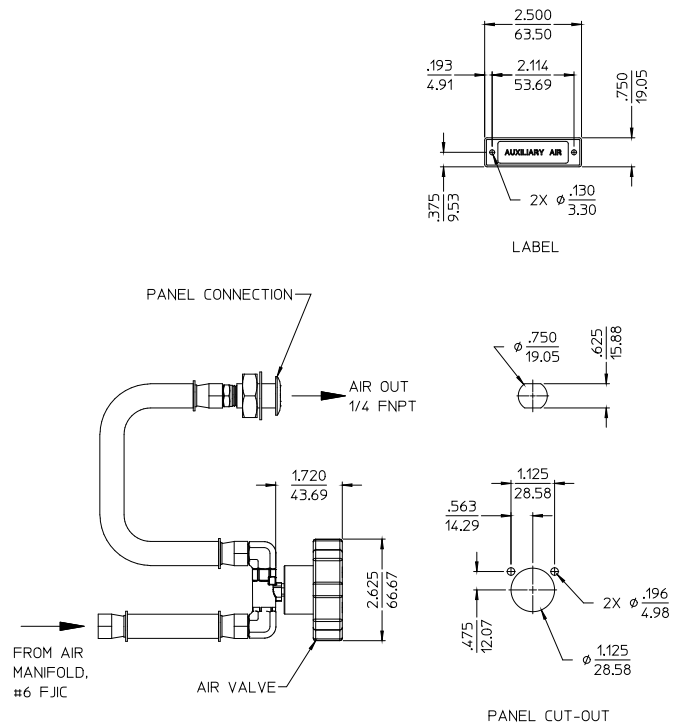
1/2 IN.  
MANUAL



3/4 IN.  
MANUAL

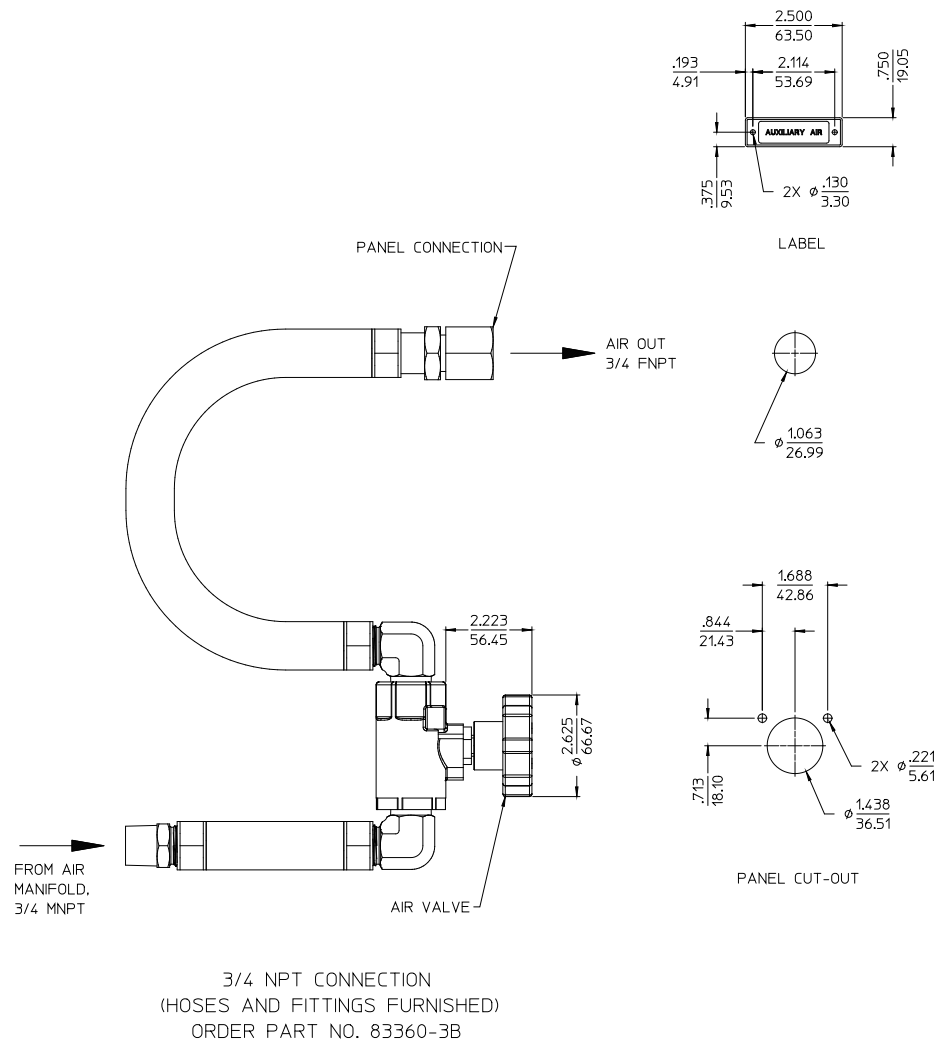
OPTIONAL AIR VALVES

ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
(INCH / MILLIMETER)



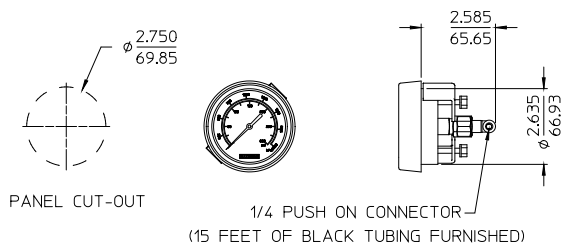
1/4 FNPT CONNECTION  
(HOSES AND FITTINGS FURNISHED)  
ORDER PART NO. 83360-3A

ALL DIMENSIONS SHOWN AS INCH/MILLIMETER  
(  
INCH  
MILLIMETER)

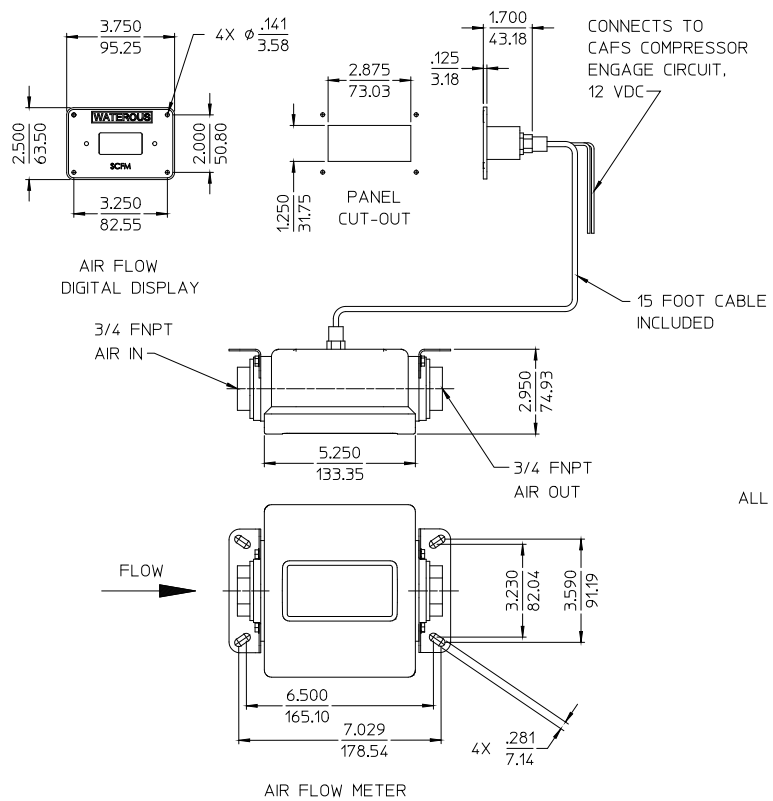


3/4 NPT CONNECTION  
(HOSES AND FITTINGS FURNISHED)  
ORDER PART NO. 83360-3B

OPTIONAL AUXILIARY AIR CONNECTION



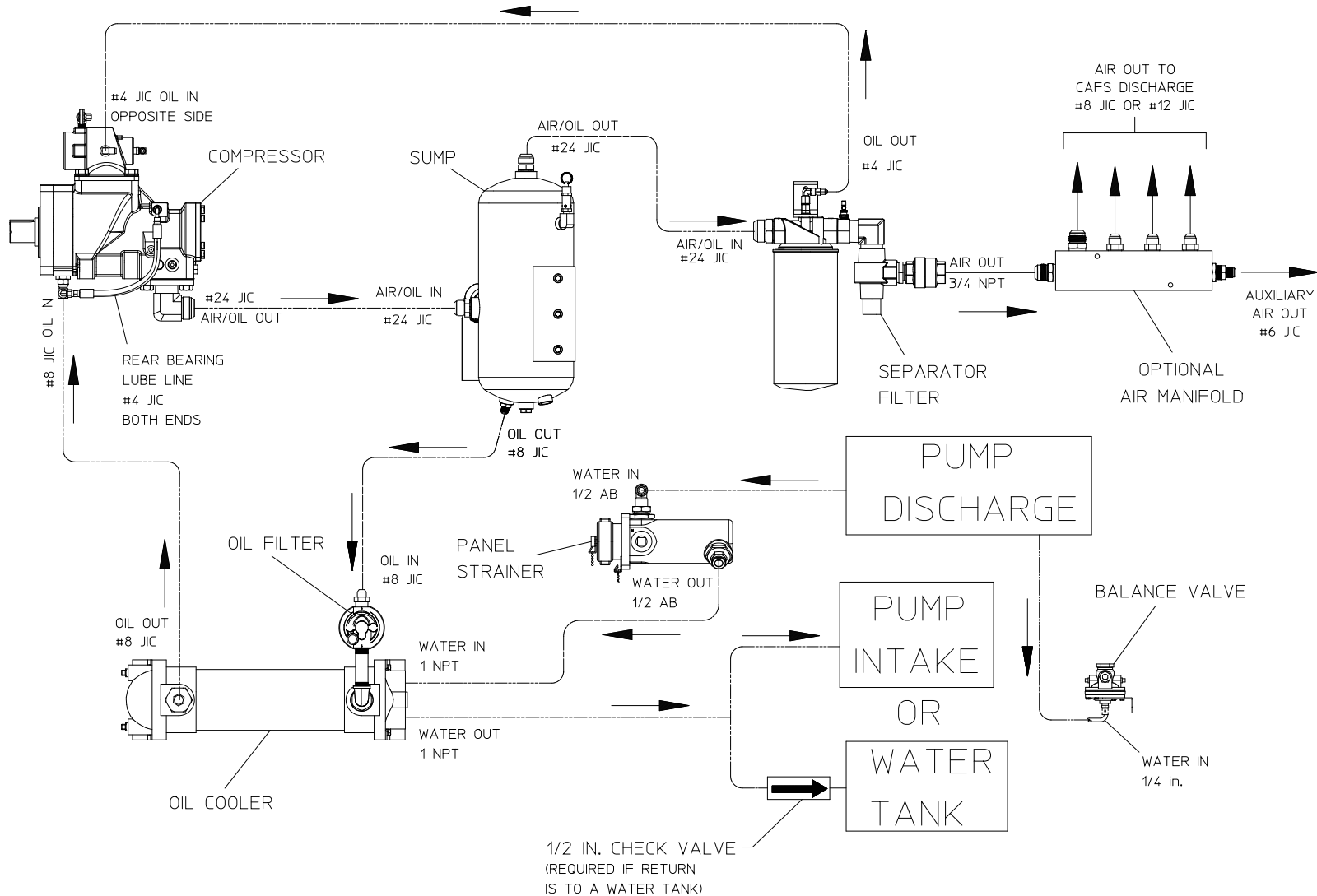
OPTIONAL AIR PRESSURE GAUGE  
 SINGLE Mpa SCALE ORDER PART NO. 83417-1A  
 DUAL PSI/Kpa SCALE ORDER PART NO. 83417-1B



OPTIONAL DIGITAL AIR FLOW METER  
 ORDER PART NO. Q-0390024, 12 VOLT

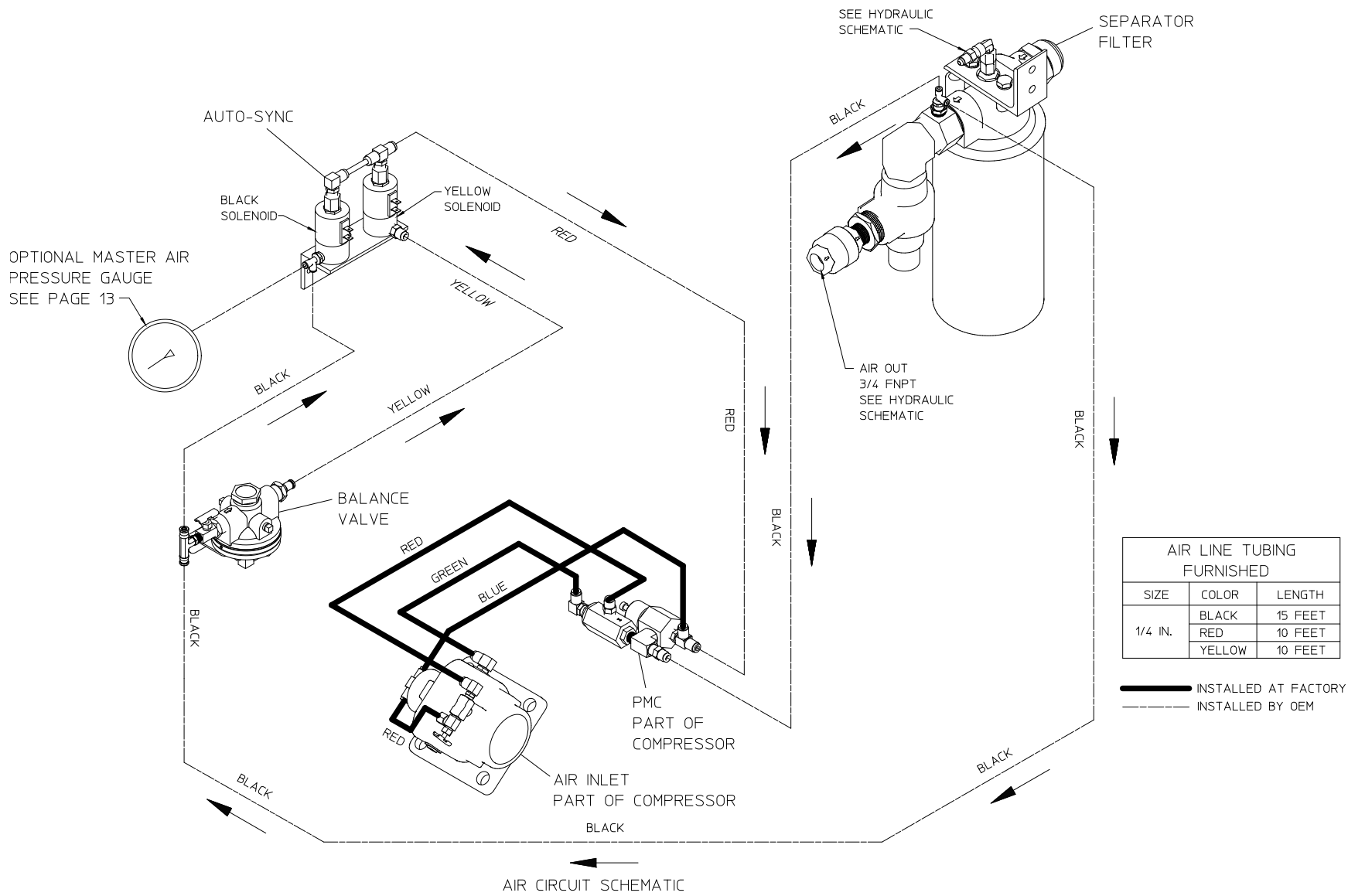
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 MILLIMETER)



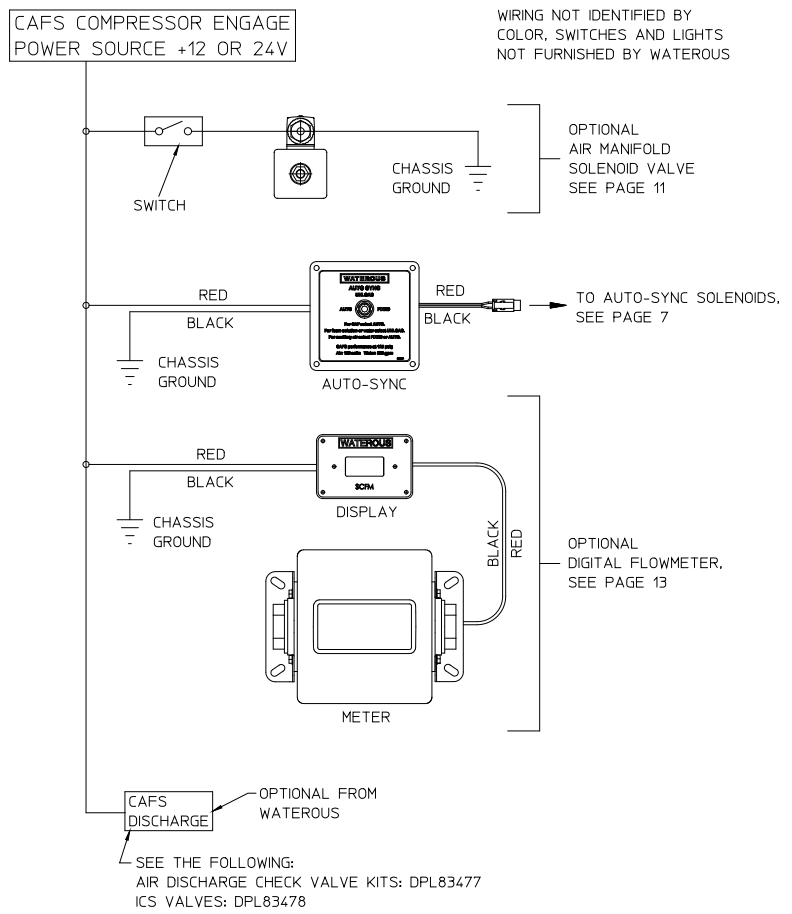
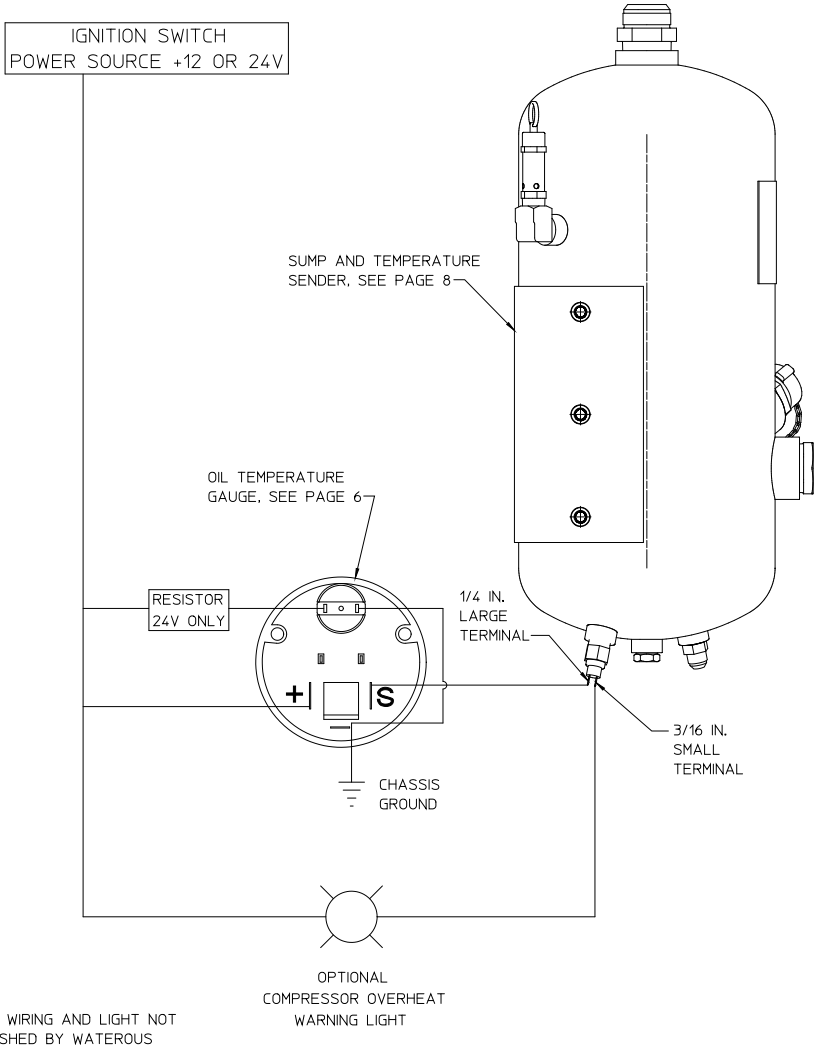


**HYDRAULIC SCHEMATIC**

PANEL STRAINER







NOTE: ALL WIRE 16 GAGE UNLESS NOTED OTHERWISE.

ELECTRICAL SCHEMATIC