

FEATURES AND BENEFITS:

> SINGLE SPRING COMPRESSION **MECHANISM**

FIVE MILLION CYCLES STANDARD

> INCONEL X SPRING AND STAINLESS STEEL **INTERNALS**

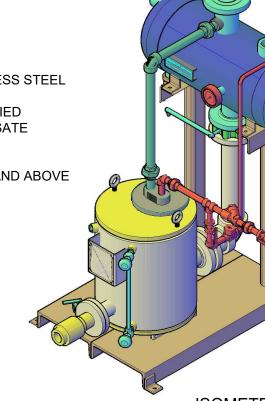
>ASME CODE SECTION VIII CERTIFIED

>COMPLETE PACKAGED CONDENSATE SYSTEM

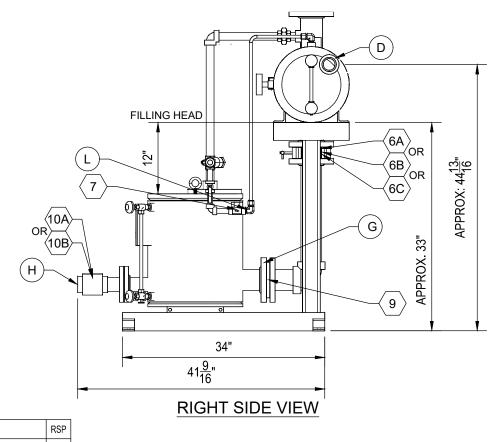
>NO SEALS OR CONTROL PANELS

> PUMPS CONDENSATE AT 212°F AND ABOVE

STANDARD



ISOMETRIC



STEAM MOTIVE PRESSURE CONDENSATE BACK PRESSURE CONDENSATE BACK PRESSURE CHART PUMP CAPACITY BELOW MATERIALS OF CONSTRUCTION TANK SHELL STAND CARBON STEEL PIPING CARBON STEEL PIPING CARBON STEEL PIPING CARBON STEEL 1 THERMAFLO CONDENSATE TANK, 12X33 OAL, 15 GALLON, HEAVY SHELL CONDENSATE PUMP, STAINLESS STEEL INTERNAL MECHANISM 1 5" BIMETAL THERMOMETER W/SS WELL 1 1" THERMAFLO BODEL 24-350 SIGHT LEVEL GAUGE 5 1 14.5" THERMAFLO MODEL 24-350 SIGHT LEVEL GAUGE 6 1 1-1/2" THERMAFLO MODEL 24-350 SIGHT LEVEL GAUGE 6 1 1-1/2" THERMAFLO STOO BALL VALVE, FULL PORT 6 1 2" THERMAFLO 3700 BALL VALVE, FULL PORT 6 1 1/2" MODEL MDT-421 STAINLESS STEEL THERMODYNAMIC STEAM TRAP 8 3 1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 9 1 3" WAFER INLET CHECK VALVE, FULL PORT 9 1 1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10 1 1-1/2" CAST IRON STRAINER		COND. TANK ATMOSPHERIC - NOT RATED				
CONDENSATE BACK PRESSURE PUMP CAPACITY BELOW MATERIALS OF CONSTRUCTION TANK SHELL STAND CARBON STEEL STAND PIPING CARBON STEEL BILL OF MATERIALS BILL OF MATERIALS THERMAFLO CONDENSATE TANK, 12X33 OAL, 15 GALLON, HEAVY SHELL THERMAFLO ENGINEERING MODEL POP-LP ASME CODE PRESSURE OPERATED CONDENSATE PUMP, STAINLESS STEEL INTERNAL MECHANISM 1 1" THERMAFLO 3700 BALL VALVE 5 1 14.5" THERMAFLO MODEL 24-350 SIGHT LEVEL GAUGE 5A 1 8.5" THERMAFLO MODEL 24-350 SIGHT LEVEL GAUGE 6A 1 1-1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 6B 1 2" THERMAFLO 3700 BALL VALVE, FULL PORT 6C 1 3" ISOLATION BUTTERFLY VALVE VALVE, LUG BODY, STAINLESS STEEL DISK 7 1 1/2" MODEL MDT-421 STAINLESS STEEL THERMODYNAMIC STEAM TRAP 8 3 1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 9 1 3" WAFER INLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10A 1 1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM						
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MATERIALS OF CONSTRUCTION TANK SHELL STAND CARBON STEEL PIPING CARBON STEEL PIPING CARBON STEEL BILL OF MATERIALS BILL OF MATERIALS TEM QTY DESCRIPTION 1 THERMAFLO CONDENSATE TANK, 12X33 OAL, 15 GALLON, HEAVY SHELL THERMAFLO ENGINEERING MODEL POP-LP ASME CODE PRESSURE OPERATED CONDENSATE PUMP, STAINLESS STEEL INTERNAL MECHANISM 3 1 5" BIMETAL THERMOMETER W/SS WELL 4 1 1" THERMAFLO 3700 BALL VALVE 5 1 14.5" THERMAFLO MODEL 24-350 SIGHT LEVEL GAUGE 5A 1 8.5" THERMAFLO MODEL 24-350 GLASS SIGHT LEVEL GAUGE 6A 1 1-1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 6B 1 2" THERMAFLO 3700 BALL VALVE, FULL PORT 6C 1 3" ISOLATION BUTTERFLY VALVE VALVE, LUG BODY, STAINLESS STEEL DISK 7 1 1/2" MODEL MDT-421 STAINLESS STEEL THERMODYNAMIC STEAM TRAP 8 3 1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 9 1 3" WAFER INLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10A 1 1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10B 1 2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM	CONDENSATE BACK PRESSURE			CHART		
TANK SHELL STAND CARBON STEEL STAND PIPING CARBON STEEL PIPING CARBON STEEL BILL of MATERIALS BILL of MATERIALS THERMAFLO CONDENSATE TANK, 12X33 OAL, 15 GALLON, HEAVY SHELL THERMAFLO ENGINEERING MODEL POP-LP ASME CODE PRESSURE OPERATED CONDENSATE PUMP, STAINLESS STEEL INTERNAL MECHANISM 1 1 5" BIMETAL THERMOMETER W/SS WELL 4 1 1" THERMAFLO 3700 BALL VALVE 5 1 14.5" THERMAFLO MODEL 24-350 SIGHT LEVEL GAUGE 5A 1 8.5" THERMAFLO MODEL 24-350 GLASS SIGHT LEVEL GAUGE 6A 1 1-1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 6B 1 2" THERMAFLO 3700 BALL VALVE, FULL PORT 6C 1 3" ISOLATION BUTTERFLY VALVE VALVE, LUG BODY, STAINLESS STEEL DISK 7 1 1/2" MODEL MDT-421 STAINLESS STEEL THERMODYNAMIC STEAM TRAP 8 3 1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 9 1 3" WAFER INLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10A 1 1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM			PUMP CAPACITY	BELOW		
STAND CARBON STEEL PIPING CARBON STEEL BILL of MATERIALS		MATERIALS of CONSTRUCTION				
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BILL of MATERIALS			STAND	CARBON STEEL		
THEM QTY DESCRIPTION 1		PIPING CARBON STEEL				
1 THERMAFLO CONDENSATE TANK, 12X33 OAL, 15 GALLON, HEAVY SHELL THERMAFLO ENGINEERING MODEL POP-LP ASME CODE PRESSURE OPERATED CONDENSATE PUMP, STAINLESS STEEL INTERNAL MECHANISM 1 5" BIMETAL THERMOMETER W/SS WELL 1 1" THERMAFLO 3700 BALL VALVE 1 14.5" THERMAFLO MODEL 24-350 SIGHT LEVEL GAUGE 5A 1 8.5" THERMAFLO MODEL 24-350 GLASS SIGHT LEVEL GAUGE 6A 1 1-1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 6B 1 2" THERMAFLO 3700 BALL VALVE, FULL PORT 6C 1 3" ISOLATION BUTTERFLY VALVE VALVE, LUG BODY, STAINLESS STEEL DISK 7 1 1/2" MODEL MDT-421 STAINLESS STEEL THERMODYNAMIC STEAM TRAP 8 3 1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 9 1 3" WAFER INLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10A 1 1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM	BILL of MATERIALS					
THERMAFLO ENGINEERING MODEL POP-LP ASME CODE PRESSURE OPERATED CONDENSATE PUMP, STAINLESS STEEL INTERNAL MECHANISM	ITEM	QTY	TY DESCRIPTION			
1	1	1	THERMAFLO CONDENSATE TANK, 12X33 OAL, 15 GALLON, HEAVY SHELL			
CONDENSATE PUMP, STAINLESS STEEL INTERNAL MECHANISM	2	1	THERMAFLO ENGINEERING MODEL POP-LP ASME CODE PRESSURE OPERATED			
4 1 1" THERMAFLO 3700 BAIL VALVE 5 1 14.5" THERMAFLO MODEL 24-350 SIGHT LEVEL GAUGE 5A 1 8.5" THERMAFLO MODEL 24-350 GLASS SIGHT LEVEL GAUGE 6A 1 1-1/2" THERMAFLO 3700 BAIL VALVE, FULL PORT 6B 1 2" THERMAFLO 3700 BAIL VALVE, FULL PORT 6C 1 3" ISOLATION BUTTERFLY VALVE VALVE, LUG BODY, STAINLESS STEEL DISK 7 1 1/2" MODEL MDT-421 STAINLESS STEEL THERMODYNAMIC STEAM TRAP 8 3 1/2" THERMAFLO 3700 BAIL VALVE, FULL PORT 9 1 3" WAFER INLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10A 1 1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10B 1 2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM			CONDENSATE PUMP, STAINLESS STEEL INTERNAL MECHANISM			
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1	4	1	1" THERMAFLO 3700 BALL VALVE			
1-1/2" THERMAFLO 3700 BALL VALVE, FULL PORT	5	1	14.5" THERMAFLO MODEL 24-350 SIGHT LEVEL GAUGE			
1 2" THERMAFLO 3700 BALL VALVE, FULL PORT	5A	1	8.5" THERMAFLO MODEL 24-350 GLASS SIGHT LEVEL GAUGE			
6C 1 3" ISOLATION BUTTERFLY VALVE VALVE, LUG BODY, STAINLESS STEEL DISK 7 1 1/2" MODEL MDT-421 STAINLESS STEEL THERMODYNAMIC STEAM TRAP 8 3 1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 9 1 3" WAFER INLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10A 1 1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10B 1 2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM	6A	1	1-1/2" THERMAFLO 3700 BALL VALVE, FULL PORT			
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8 3 1/2" THERMAFLO 3700 BALL VALVE, FULL PORT 9 1 3" WAFER INLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10A 1 1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10B 1 2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM	6C	1	3" ISOLATION BUTTERFLY VALVE VALVE, LUG BODY, STAINLESS STEEL DISK			
9 1 3" WAFER INLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10A 1 1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10B 1 2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM	7	1	1/2" MODEL MDT-421 STAINLESS STEEL THERMODYNAMIC STEAM TRAP			
10A 1 1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM 10B 1 2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM	8	3	1/2" THERMAFLO 3700 BALL VALVE, FULL PORT			
10B 1 2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM	9	1	3" WAFER INLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM			
	10A	1	1-1/2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM			
11 1 1/2" CAST IRON STRAINER	10B	1	1 2" SPRING OUTLET CHECK VALVE, STAINLESS STEEL BODY AND TRIM			
	11	11 1 1/2" CAST IRON STRAINER				

DESIGN DATA

NOZZLES and CONNECTIONS					
ITEM	SIZE (In)	TYPE & RATING	SERVICE		
Α	2	NPT	CONDENSATE INLET		
В	1-1/2 OR 2 OR 3	NPT OR 150# FLG	TANK OUTLET TO PUMP		
С	3	150# FLG	VENT		
D	2	NPT	OVERFLOW		
Е	1	NPT	DRAIN		
F	3/4	NPT	LEVEL/SIGHT GAUGE		
G	3	150# FLG	PUMP INLET		
Н	1-1/2 OR 2	NPT	PUMP OUTLET		
J	1/2	NPT	PUMP MOTIVE		
K	1	NPT	PUMP EXHAUST		
L	1/2	NPT	TRAP OUTLET		

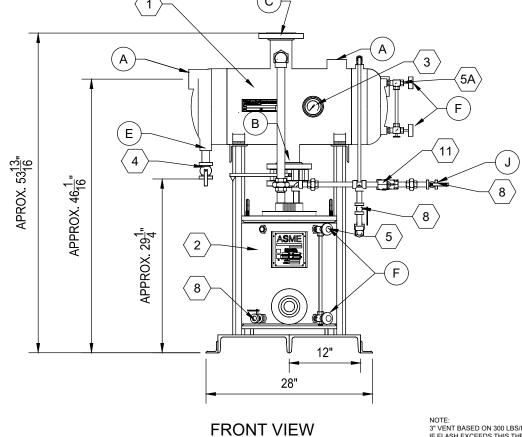
CAPACITIES STEAM MOTIVE CONDENSATE LBS/HR

STANDARD SIMPLEX-POP-LP

STEAM MOTIVE	TOTAL BACK	1.5" x 1.5"	2" x 2"	3" x 2"	
PRESSURE	PRESSURE	DRY WT-189	DRY WT-190	DRY WT-191	
		FLOODED WT 307 FLOODED W			
PSIG	PSIG	12" FILL HEAD	12" FILL HEAD	12" FILL HEAD	
10	5	2,060	4,360	5,400	
10	2	3,020	7,590	8,000	
25	15	3,128	5,650	6,290	
25	10	4,089	7,320	8,330	
25	5	4,200	8,710	9,000	
50	40	2,070	3,850	4,587	
50	25	4,090	7,650	8,990	
50	10	5,164	8,920	9,760	
75	60	2,126	4,090	4,490	
75	40	4,109	6,660	7,830	
75	15	5,670	9,550	9,947	
100	80	3,160	4,640	5,160	
100	60	4,200	6,290	6,880	
100	40	5,031	7,760	8,680	
100	25	5,414	9,820	10,110	
125	115	2,220	3,680	4,160	
125	10	3,669	4,710	5,240	
125	80	4,510	6,230	6,770	
125	60	5,324	7,580	8,190	
125	40	5,534	8,720	9,090	
125	25	5,826	9,329	10,261	
150	100	3,234	4,600	5,490	
150	80	4,253	5,690	6,980	
150	60	5,590	6,970	8,370	
150	40	6,257	8,180	9,390	
150	25	9,460	10,095	10,830	
				inco 1006	

Manufacturers Of Steam Fired Specialty Equipment 2880 Fair Avenue, Newberry, SC 29108 (704) 940-1228 www.thermafloengineering.com

DESCRIPTION: STANDARD PRE-PIPED MOTIVE & EXHAUST						
POP-LP-SIMPLEX POWER PRESSURE PUMP CONDENSATE RETURN SYSTEM						TEM
CUSTOMER:			JOB#	QTY.	DATE:	
TIS			-	0	10-9-18	
SCALE:	DRAWN:	PO#	PLAN#	FILE:	REV.#	PAGE:
NTS	SAH	-	-	POP-LP-S-X	1	1



PLAN VIEW

3" VENT BASED ON 300 LBS/HR MAX FLASH
IF FLASH EXCEEDS THIS THE CAPACITY WILL DECREASE 1 07-06-20 REV CHART TO MATCH CUTSHEET

NOTE: 150# ASME CONDENSATE RECEIVER AVAILABLE THIS DRAWING AND INFORMATION THEREON ARE THE PROPERTY OF: THERMAFLO INCORPORATED AND SHALL NOT BE USED OR DISCLOSED, EXCEPT IN ACCORDANCE WITH PRIOR WRITTEN APPROVAL. THIS DRAWING AND BILL OF MATERIAL REPRESENTS THE ENTIRE CONTENT OF THERMAFLO'S SCOPE OF SUPPLY. THERMAFLO MAKES NO OTHER REPRESENTATION OF ADDITIONAL ITEMS, VALVES, OR EQUIPMENT OTHER THAN WHAT IS LISTED AND SHOWN HERE. THERMAFLO INCORPORATED RESERVES THE RIGHT TO MAKE DESIGN CHANGES AS NEEDED.