

CONDENSATE RETURN UNITS

SUBMITTAL DATA



Series CRU

APPLICATION

Applications include commercial, industrial, and other installations requiring efficient collection and automatic return of condensate for HVAC or process applications.

DESIGN FEATURES

- Minimizes installation cost
- Professionally engineered components
- Compact design minimizes floor space
- Single source responsibility
- Factory assembled and tested

PROJECT INFORMATION

Project Name:		Model No. Ordered:
Customer:		GPM:
Engineer:		Pressure:
Reference:	Penn Pump Project Number:	Motor HP:
Receiver:	Gallons: _____	<input type="checkbox"/> Stainless Steel <input type="checkbox"/> Steel <input type="checkbox"/> Cast Iron
Date:	PO Number:	Voltage:

SPECIFY WITH CONFIDENCE, SPECIFY PENN PUMP SYSTEMS

CONDENSATE RETURN UNIT

SERIES CRU

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Furnish and install a packaged condensate return unit series CRU as manufactured by **Penn Pump & Equipment Company, Inc.**, of Hatfield, PA (215-997-6100). The packaged and tested system shall provide the capacity and be the model number as scheduled on the drawings.

- A. The pump(s) shall be cast iron bronze fitted, close coupled low NPSH centrifugal type with a minimum of 175 psi case working pressure, equipped with a bronze shaft sleeve, and a 250F mechanical seal with seal face flushing line.
- B. The package shall include a condensate receiver tank properly sized for the pump application with mechanical alternating float switch, gauge glass and thermometer.
- C. Provide a NEMA 1 Control mounted and wired to contain:
 - Single point power connection
 - Main disconnect switch with cover interlock
 - Control circuit transformer 115volt
 - Individual motor circuit protectors
 - ATL Magnetic starters with overload protection
 - HOA selector switches
 - Pump running pilot lights
 - Pump alternation
 - Wiring Diagrams
- E. The packaged pumping system shall be factory assembled and tested. It shall be cleaned and painted with a high grade enamel prior to shipment. The service of a factory trained representative shall be made available on the project site for startup and instructing operating personnel.

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FEATURES

- Centrifugal Pump: Cast Iron, Bronze Fitted, low NPSH. Offers a wide range of capacities. Inherent design provides for ease of servicing.
- Motors: Heavy Duty, close-coupled pump motors with stainless steel shaft, 3450 RPM for greater efficiency and economical operation.
- Float Switch: Two-Pole, drip proof case, stainless steel float and float rod, double-break silver-to-silver contacts. Float travel adjustments are easy, visible, and accessible.
- Receiver: Heavy Duty Stainless Steel, Steel, or Cast Iron with low return inlet connection.

SPECIAL OPTIONS

- Control Panel with Main Disconnect Switch
- Mechanical and Electrical Alternators
- Gauge Glass Assembly
- Dial Thermometer
- Discharge Pressure Gauges
- Isolation Valves
- Inlet Strainer
- Special motor constructions, such as totally enclosed and explosion-proof, are available.
- Larger pumping capacities and higher discharge pressures available.
- Custom Sizes Available



CONTROL PANEL

Single Point Power Connection, Main Disconnect Switch, Motor Circuit Protectors, Magnetic Starters, HOA Selector Switches, Control Circuit Transformer, Pilot Lights, Removable Mounting Plate and Terminal Strip in a Single NEMA 1 Enclosure, mounted and wired. Other options available.

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CONDENSATE RETURN UNIT

STEEL OR STAINLESS STEEL RECEIVERS

SUBMITTAL DATA

CAPACITY STEAM LBS/HR SQ. FT. E.D.R.	PUMP CAP. G.P.M.	DISCHARGE PRESSURE P.S.I.	MOTOR H.P.	PUMP DISCHARGE SIZE IN.	REC. CAP. GAL.	UNIT MODEL NO.		SHIPPING WT. LBS.	
						SIMPLEX	DUPLEX	SIMPLEX	DUPLEX
500 2,000	3	20	1/3	3/4	15	S-320	D-320	125	185
		30	1/2	1-1/2		S-330	D-330	180	250
		40	1	1-1/2		S-340	D-340	190	270
		50	2	1-1/2		S-350	D-350	195	275
1,000 4,000	6	20	1/3	3/4	15	S-620	D-620	125	185
		30	1/2	1-1/2		S-630	D-630	180	250
		40	1	1-1/2		S-640	D-640	190	270
		50	2	1-1/2		S-650	D-650	195	275
1,500 6,000	9	20	1/3	3/4	15	S-920	D-920	125	185
		30	1/2	1-1/2		S-930	D-930	180	250
		40	1	1-1/2		S-940	D-940	190	270
		50	2	1-1/2		S-950	D-950	195	275
2,000 8,000	12	20	1/3	3/4	8	S-1220-8	--	90	--
		20	1/3	3/4	15	S-1220	D-1220	125	185
		30	1/2	1-1/2		S-1230	D-1230	180	250
		40	1	1-1/2		S-1240	D-1240	190	270
		50	2	1-1/2		S-1250	D-1250	195	275
2,500 10,000	15	20	1/2	3/4	15	S-1520	D-1520	190	240
		30	3/4	1-1/2		S-1530	D-1530	185	255
		40	1	1-1/2		S-1540	D-1540	190	270
		50	2	1-1/2		S-1550	D-1550	195	275
3,750 15,000	23	20	1/2	3/4	30	S-2320	D-2320	190	240
		30	1	1-1/2		S-2330	D-2330	230	300
		40	1-1/2	1-1/2		S-2340	D-2340	240	310
		50	2	1-1/2		S-2350	D-2350	245	320
5,000 20,000	30	20	3/4	3/4	30	S-3020	D-3020	200	250
		30	1	1-1/2		S-3030	D-3030	230	300
		40	1-1/2	1-1/2		S-3040	D-3040	240	310
		50	3	1-1/2		S-3050	D-3050	255	330
6,250 25,000	38	20	3/4	1-1/2	45	S-3820	D-3820	285	350
		30	1	1-1/2		S-3830	D-3830	285	350
		40	1-1/2	1-1/2		S-3840	D-3840	290	355
		50	3	1-1/2		S-3850	D-3850	305	385
7,500 30,000	45	20	1	1-1/2	45	S-4520	D-4520	285	355
		30	1-1/2	1-1/2		S-4530	D-4530	290	355
		40	2	1-1/2		S-4540	D-4540	295	360
		50	3	1-1/2		S-4550	D-4550	305	385
10,000 40,000	60	20	1-1/2	1-1/2	60	S-6020	D-6020	335	405
		30	2	1-1/2		S-6030	D-6030	340	410
		40	2	1-1/2		S-6040	D-6040	340	410
		50	5	1-1/2		S-6050	D-6050	370	500
12,500 50,000	75	20	2	1-1/2	95	S-7520	D-7520	385	460
		30	3	1-1/2		S-7530	D-7530	395	470
		40	3	1-1/2		S-7540	D-7540	395	470
		50	5	1-1/2		S-7550	D-7550	430	560

Larger pumps and receivers available upon request.

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CONDENSATE RETURN UNIT

CAST IRON RECEIVERS

SUBMITTAL DATA

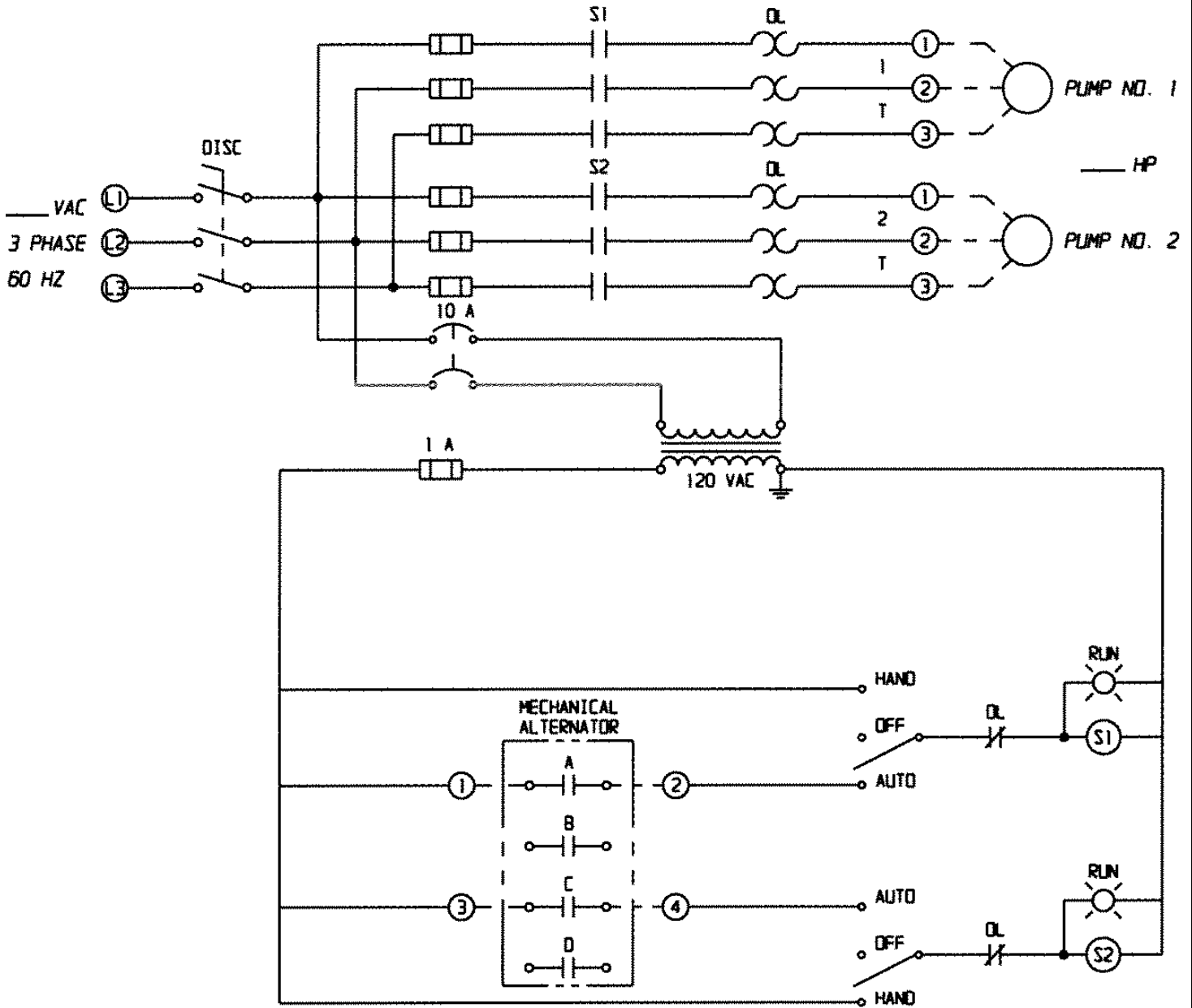
CAPACITY STEAM LBS/HR SQ. FT. E.D.R.	PUMP CAP. G.P.M.	DISCHARGE PRESSURE P.S.I.	MOTOR H.P.	PUMP DISCHARGE SIZE IN.	REC. CAP. GAL.	UNIT MODEL NO.		SHIPPING WT. LBS.	
						SIMPLEX	DUPLEX	SIMPLEX	DUPLEX
500 2,000	3	20	1/3	3/4	6	S-320		150	
		30	1/2	1-1/2		S-330		165	
		40	1	1-1/2		S-340		170	
		50	2	1-1/2		S-350		175	
1,000 4,000	6	20	1/3	3/4	6	S-620		150	
		30	1/2	1-1/2		S-630		165	
		40	1	1-1/2		S-640		170	
		50	2	1-1/2		S-650		175	
1,500 6,000	9	20	1/3	3/4	15	S-920	D-920	260	295
		30	1/2	1-1/2		S-930	D-930	295	360
		40	1	1-1/2		S-940	D-940	295	360
		50	2	1-1/2		S-950	D-950	315	395
2,000 8,000	12	20	1/3	3/4	15	S-1220	D-1220	260	295
		30	1/2	1-1/2		S-1230	D-1230	295	360
		40	1	1-1/2		S-1240	D-1240	295	360
		50	2	1-1/2		S-1250	D-1250	315	395
2,500 10,000	15	20	1/2	3/4	15	S-1520	D-1520	260	295
		30	3/4	1-1/2		S-1530	D-1530	300	365
		40	1	1-1/2		S-1540	D-1540	295	360
		50	2	1-1/2		S-1550	D-1550	315	395
3,750 15,000	23	20	1/2	3/4	24	S-2320	D-2320	300	335
		30	1	1-1/2		S-2330	D-2330	305	380
		40	1-1/2	1-1/2		S-2340	D-2340	310	390
		50	2	1-1/2		S-2350	D-2350	330	415
5,000 20,000	30	20	3/4	3/4	36	S-3020	D-3020	410	445
		30	1	1-1/2		S-3030	D-3030	355	430
		40	1-1/2	1-1/2		S-3040	D-3040	360	440
		50	3	1-1/2		S-3050	D-3050	370	460
6,250 25,000	38	20	3/4	1-1/2	36	S-3820	D-3820	350	420
		30	1	1-1/2		S-3830	D-3830	355	430
		40	1-1/2	1-1/2		S-3840	D-3840	360	440
		50	3	1-1/2		S-3850	D-3850	370	460
7,500 30,000	45	20	1	1-1/2	36	S-4520	D-4520	355	430
		30	1-1/2	1-1/2		S-4530	D-4530	360	440
		40	2	1-1/2		S-4540	D-4540	365	450
		50	3	1-1/2		S-4550	D-4550	370	460
10,000 40,000	60	20	1-1/2	1-1/2	50	S-6020	D-6020	420	500
		30	2	1-1/2		S-6030	D-6030	425	510
		40	2	1-1/2		S-6040	D-6040	425	510
		50	5	1-1/2		S-6050	D-6050	445	535
12,500 50,000	75	20	2	1-1/2	50	S-7520	D-7520	425	510
		30	3	1-1/2		S-7530	D-7530	435	525
		40	3	1-1/2		S-7540	D-7540	435	525
		50	5	1-1/2		S-7550	D-7550	445	535

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TYPICAL WIRING DIAGRAM: THREE PHASE



Approximate full load amperage

		Horsepower							
		1/3	1/2	3/4	1	1 1/2	2	3	5
Voltage	200	2.2	2.3	3.0	3.7	4.6	6.2	7.0	15.4
	230	1.9	2.0	2.6	3.2	4.2	5.4	7.8	13.3
	460	.95	1.0	1.3	1.6	2.1	2.7	3.9	6.7

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