



# Armstrong® Engineered Solutions—Armstrong Condensate Pump Trap Packages

From institutional low pressure steam heating to industrial process critical heat transfer, Armstrong's engineered condensate pump trap packages provide the most efficient and cost-effective solution to customers' condensate recovery requirements.

Armstrong Engineered Condensate Pump Trap Packages provide the following benefits:

- Reduce piping layout, detailed engineering and procurement
- Minimize field labor
- Fewer installation errors and safety mishaps
- Shorten overall project lead times
- Single source responsibility
- Lower total cost of ownership for the customer
- Custom packages available—ASME, closed-loop, modified design, etc.



To optimize the return on your condensate investment, consider Armstrong Engineered Pump Trap Package Solutions.

Condensate Recovery Equipment

Pumping Trap Receiver Package Capacities																	
Motive Pressure	Total Lift or Back Pressure	SPT-104RP 1" x 1"		DPT-104RP 1" x 1"		SPT-204RP 1" x 1"		DPT-204RP 1" x 1"		SPT-404RP 1" x 1"		DPT-404RP 1" x 1"		SPT-206RP 1-1/2" x 1-1/2"		DPT-206RP 1-1/2" x 1-1/2"	
		Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive
psig	psig	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
15	5	1,125	2,100	2,250	4,200	1,800	2,100	3,600	4,200	1,900	2,250	3,800	4,500	2,700	3,000	5,400	6,000
25		1,300	2,200	2,600	4,400	2,025	2,300	4,050	4,600	2,500	2,650	5,000	5,300	3,200	3,500	6,400	7,000
50		1,550	2,275	3,100	4,550	2,100	2,500	4,200	5,000	3,100	3,225	6,200	6,450	3,400	3,600	6,800	7,200
75		1,650	2,300	3,300	4,600	2,200	2,700	4,400	5,400	3,400	3,500	6,800	7,000	3,500	3,700	7,000	7,400
100		1,400	2,350	2,800	4,700	2,300	*	4,600	*	3,500	*	7,000	*	3,600	*	7,200	*
125	*	*	*	*	2,400	*	4,800	*	3,600	*	7,200	*	3,700	*	7,400	*	
25	15	650	1,900	1,300	3,800	1,500	2,000	3,000	4,000	2,200	2,525	4,400	5,050	2,400	2,700	4,800	5,200
50		700	2,050	1,400	4,100	2,000	2,250	4,000	4,500	2,600	2,800	5,200	5,600	3,200	3,400	6,400	6,800
75		750	2,100	1,500	4,200	2,100	2,500	4,200	5,000	2,800	2,950	5,600	5,900	3,300	3,500	6,600	7,000
100		800	2,150	1,600	4,300	2,110	*	4,220	*	3,100	*	6,200	*	3,350	*	6,700	*
125		*	*	*	*	2,125	*	4,250	*	3,200	*	6,400	*	3,400	*	6,800	*
35	25	400	1,800	800	3,600	1,500	1,700	3,000	3,400	2,000	2,350	4,000	4,700	2,100	2,300	4,200	4,600
50		450	1,935	900	3,870	1,700	2,000	3,400	4,000	2,400	2,675	4,800	5,350	2,400	2,600	4,800	5,200
75		500	2,050	1,000	4,100	1,900	2,300	3,800	4,600	2,600	2,800	5,200	5,600	2,700	2,900	5,400	5,800
100		550	2,075	1,100	4,150	2,000	*	4,000	*	2,800	*	5,600	*	2,800	*	5,600	*
125		*	*	*	*	2,100	*	4,200	*	2,900	*	5,800	*	2,900	*	5,800	*
50	40	250	1,620	500	3,240	1,400	1,700	2,800	3,400	1,900	2,350	3,800	4,700	1,500	2,000	3,000	4,000
60		265	1,730	530	3,460	1,500	2,000	3,000	4,000	2,200	2,600	4,400	5,200	2,000	2,300	4,000	4,600
75		300	1,850	600	3,700	1,700	2,200	3,400	4,400	2,400	2,675	4,800	5,350	2,300	2,500	4,600	5,000
100		350	1,950	700	3,900	1,800	*	3,600	*	2,500	*	5,000	*	2,400	*	4,800	*
125		*	*	*	*	1,920	*	3,840	*	2,700	*	5,400	*	2,500	*	5,000	*
70	60	*	*	*	*	1,100	2,000	2,200	4,000	1,800	2,400	3,600	4,800	1,150	2,000	2,300	4,000
75		*	*	*	*	1,300	2,300	2,600	4,600	2,000	2,450	4,000	4,900	1,325	2,300	2,650	4,600
100		*	*	*	*	1,600	*	3,200	*	2,300	*	4,600	*	1,900	*	3,800	*
125		*	*	*	*	1,720	*	3,440	*	2,400	*	4,800	*	2,000	*	4,000	*

NOTES: Published capacities are based on the use of external check valves supplied by Armstrong. Fill head measured from drain point to top of pump cap. See figures on page CRE-33. Although motive pressures are shown at high pressure differentials (difference between motive inlet pressure and total lift or back pressure), it is preferable to use a motive pressure of 10 - 15 psig (0.65 - 1.0 bar) above discharge (outlet) pressure. This ensures longevity of economical (brass) check valves and reduces both venting time and temperature differential (on steam). If a higher differential is used, stainless steel check valves are recommended.

\*Consult factory.

Custom packages available upon request—consult factory.

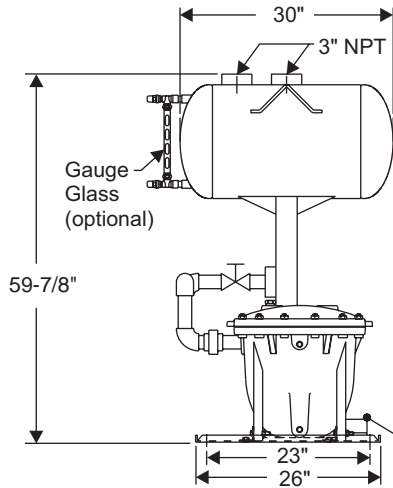
### Metric Conversion Formulas

Convert lb/hr to kg/hr—By dividing by 2.2046 Example: 1,800 lb/hr ÷ 2.2046 = 816 kg/hr

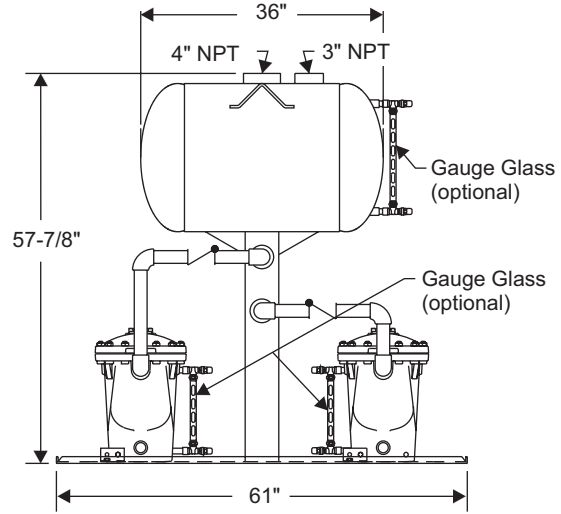
Convert psig to bar—By dividing by 14.5 Example: 15 psi ÷ 14.5 = 1.03 bar

Convert psig to kg/cm<sup>2</sup>—By dividing by 14.22 Example: 15 psi ÷ 14.22 = 1.05 kg/cm<sup>2</sup>

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.



**SPT-200RP**



**DPT-300RP**

Condensate Recovery Equipment

For a fully detailed certified drawing, refer to:

**SPT-200RP/DPT-200RP CDF #1002**  
**SPT-300RP/DPT-300RP CDF #1003**

**SPT-400RP/DPT-400RP CDF #1005**  
**SPT-3500RP/DPT-3500RP CDF #1046**

**Pumping Trap Receiver Package Capacities**

Motive Pressure	Total Lift or Back Pressure	SPT-406RP 1-1/2" x 1-1/2"		DPT-406RP 1-1/2" x 1-1/2"		SPT-408RP 2" x 2"		DPT-408RP 2" x 2"		SPT-3508RP 2" x 2"		DPT-3508RP 2" x 2"		SPT-308RP 2" x 2"		DPT-308RP 2" x 2"	
		Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive
psig	psig	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
15	5	3,100	3,350	6,200	6,700	4,500	4,850	9,000	9,700	6,100	8,100	12,200	16,200	6,900	9,200	13,800	18,400
25		4,600	4,875	9,200	9,750	6,600	7,000	13,200	14,000	8,700	9,300	17,400	18,600	10,200	10,900	20,400	21,800
50		4,900	5,100	9,800	10,200	7,100	7,375	14,200	14,750	8,900	9,675	17,800	19,350	10,600	11,100	21,200	22,200
75		5,200	5,300	10,400	10,600	7,200	7,400	14,400	14,800	9,200	9,800	18,400	19,600	10,750	11,300	21,500	22,600
100		5,400	*	10,800	*	7,300	7,450	14,600	14,900	9,400	*	18,800	*	10,900	*	21,800	*
125	5,500	*	11,000	*	7,400	*	14,800	*	9,900	*	19,800	*	11,600	*	23,200	*	
25	15	3,500	4,025	7,000	8,050	5,400	6,200	10,800	12,400	6,300	8,200	12,600	16,400	7,000	10,100	14,000	20,200
50		4,100	4,425	8,200	8,850	6,300	6,800	12,600	13,600	8,200	10,400	16,400	20,800	9,600	12,200	19,200	24,400
75		4,300	4,550	8,600	9,100	6,500	6,900	13,000	13,800	9,200	11,100	18,400	22,200	10,800	13,100	21,600	26,200
100		4,800	*	9,600	*	6,700	*	13,400	*	9,600	*	19,200	*	11,200	*	22,400	*
125		4,900	*	9,800	*	6,800	*	13,600	*	9,800	*	19,600	*	11,600	*	23,200	*
35	25	2,900	3,425	5,800	6,850	4,200	4,950	8,400	9,900	6,100	7,900	12,200	15,800	7,100	9,200	14,200	18,400
50		4,000	4,500	8,000	9,000	5,800	6,400	11,600	12,800	7,100	9,600	14,200	19,200	8,300	11,200	16,600	22,400
75		4,400	4,730	8,800	9,500	6,000	6,500	12,000	13,000	8,600	10,800	17,200	21,600	10,100	12,700	20,200	25,400
100		4,700	*	9,400	*	6,100	*	12,200	*	8,700	*	17,400	*	10,200	*	20,400	*
125		4,800	*	9,600	*	6,200	*	12,400	*	9,100	*	18,200	*	10,300	*	20,600	*
50	40	3,300	4,050	6,600	8,100	4,350	5,350	8,700	10,700	5,000	6,500	10,000	13,000	5,700	7,600	11,400	15,200
60		3,600	4,250	7,200	8,500	5,100	6,000	10,200	12,000	5,900	7,400	11,800	14,800	6,600	8,800	13,200	17,600
75		4,000	4,475	8,000	8,950	5,700	6,375	11,400	12,750	6,650	8,300	13,300	16,600	7,600	10,100	15,200	20,200
100		4,200	*	8,400	*	6,000	*	12,000	*	7,200	*	14,400	*	8,400	*	16,800	*
125		4,500	*	9,000	*	6,400	*	12,800	*	7,800	*	15,600	*	9,400	*	18,800	*
70	60	3,200	4,300	6,400	8,600	3,800	5,050	7,600	10,100	4,300	6,100	8,600	12,200	4,500	7,000	9,000	14,000
75		3,500	4,650	7,000	9,300	4,100	5,175	8,200	10,350	4,500	6,300	9,000	12,600	4,700	7,100	9,400	14,200
100		3,700	*	7,400	*	4,500	*	9,000	*	5,500	*	11,000	*	6,400	*	12,800	*
125		3,800	*	7,600	*	4,800	*	9,200	*	5,700	*	11,400	*	6,600	*	13,200	*

NOTES: Published capacities are based on the use of external check valves supplied by Armstrong. Fill head measured from drain point to top of pump cap. See figures on page CRE-33. Although motive pressures are shown at high pressure differentials (difference between motive inlet pressure and total lift or back pressure), it is preferable to use a motive pressure of 10 - 15 psig (0.65 - 1.0 bar) above discharge (outlet) pressure. This ensures longevity of economical (brass) check valves and reduces both venting time and temperature differential (on steam). If a higher differential is used, stainless steel check valves are recommended.

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**Metric Conversion Formulas**

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Convert psig to bar—By dividing by 14.5 Example: 15 psi ÷ 14.5 = 1.03 bar

Convert psig to kg/cm<sup>2</sup>—By dividing by 14.22 Example: 15 psi ÷ 14.22 = 1.05 kg/cm<sup>2</sup>

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.



# Engineered Solutions— Armstrong Condensate Pump Trap Packages

Condensate Recovery Equipment

Pumping Trap Receiver Package Capacities													
Motive Pressure	Total Lift or Back Pressure	SPT-412RP 3" x 2"		DPT-412RP 3" x 2"		SPT-3512RP 3" x 2"		DPT-3512RP 3" x 2"		SPT-312RP 3" x 2"		DPT-312RP 3" x 2"	
		Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive	Steam Motive	Air Motive
psig	psig	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
15	5	7,500	8,100	15,000	16,200	8,300	10,300	16,600	20,600	9,000	12,300	18,000	24,600
25		11,000	11,650	22,000	23,320	12,100	12,950	24,200	25,900	13,200	14,200	26,400	28,400
50		11,700	12,150	23,400	24,300	13,400	14,000	26,800	28,000	15,100	15,800	30,200	31,600
75		12,000	12,350	24,000	24,700	13,700	14,300	27,400	28,600	15,300	16,100	30,600	32,200
100		12,100	*	24,200	*	14,000	*	28,000	*	15,500	*	31,000	*
125		12,200	*	24,400	*	14,400	*	28,800	*	16,600	*	33,200	*
25	15	7,200	8,275	14,400	16,550	8,100	9,800	16,200	19,600	9,000	11,200	18,000	22,400
50		10,400	11,250	20,800	22,500	11,600	12,600	23,200	25,200	12,800	13,800	25,600	27,600
75		10,800	11,450	21,600	22,900	12,500	13,300	25,000	26,600	14,200	15,000	28,400	30,000
100		11,000	*	22,000	*	11,000	*	22,000	*	14,300	*	28,600	*
125		11,200	*	22,400	*	11,300	*	22,600	*	15,100	*	30,200	*
35	25	6,900	8,150	13,800	16,300	7,600	9,900	15,200	19,800	8,100	11,500	16,200	23,000
50		9,700	10,850	19,400	21,700	10,000	10,650	20,000	21,300	10,200	12,750	20,400	25,500
75		10,000	10,900	20,000	21,800	11,200	12,200	22,400	24,400	12,500	13,500	25,000	27,000
100		10,200	*	20,400	*	11,450	*	22,900	*	12,700	*	25,400	*
125		10,400	*	20,800	*	11,600	*	23,200	*	13,000	*	26,000	*
50	40	5,800	7,125	11,600	14,250	6,200	8,500	12,400	17,000	6,600	9,800	13,200	19,600
60		6,900	8,150	13,800	16,300	7,700	9,400	15,400	18,800	8,400	10,500	16,800	21,000
75		7,600	8,500	15,200	17,000	8,700	10,600	17,400	21,200	9,800	12,700	19,600	25,400
100		8,100	*	16,200	*	9,100	*	18,200	*	10,100	*	20,200	*
125		8,500	*	17,000	*	9,400	*	18,800	*	10,300	*	20,600	*
70	60	5,000	6,650	10,000	13,300	5,700	8,500	11,400	17,000	5,000	10,200	12,000	20,400
75		5,400	6,900	10,800	13,800	5,900	8,700	11,800	17,400	6,400	10,400	12,800	20,800
100		6,000	*	12,000	*	6,500	*	13,000	*	7,100	*	14,200	*
125		6,400	*	12,800	*	6,900	*	13,800	*	7,400	*	14,800	*

NOTES: Published capacities are based on the use of external check valves supplied by Armstrong. Fill head measured from drain point to top of pump cap. See figures on page CRE-33. Although motive pressures are shown at high pressure differentials (difference between motive inlet pressure and total lift or back pressure), it is preferable to use a motive pressure of 10 - 15 psig (0.65 - 1.0 bar) above discharge (outlet) pressure. This ensures longevity of economical (brass) check valves and reduces both venting time and temperature differential (on steam). If a higher differential is used, stainless steel check valves are recommended.

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### Metric Conversion Formulas

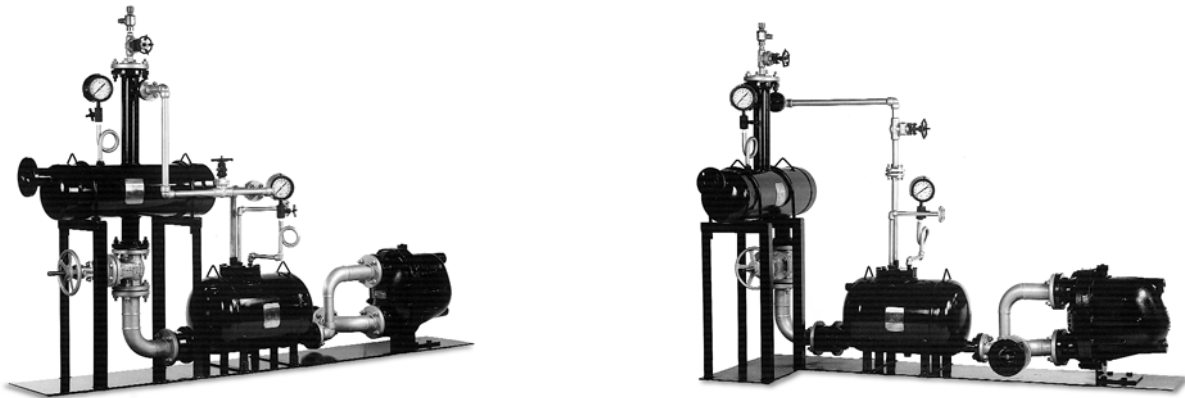
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Convert psig to bar—By dividing by 14.5 Example: 15 psi ÷ 14.5 = 1.03 bar

Convert psig to kg/cm<sup>2</sup>—By dividing by 14.22 Example: 15 psi ÷ 14.22 = 1.05 kg/cm<sup>2</sup>

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## Custom Fabrications



Armstrong can design and fabricate custom packages to fit your application needs.

## ASME Packages



Armstrong can design and fabricate all ASME packages to meet your plant piping requirements.

## Standard

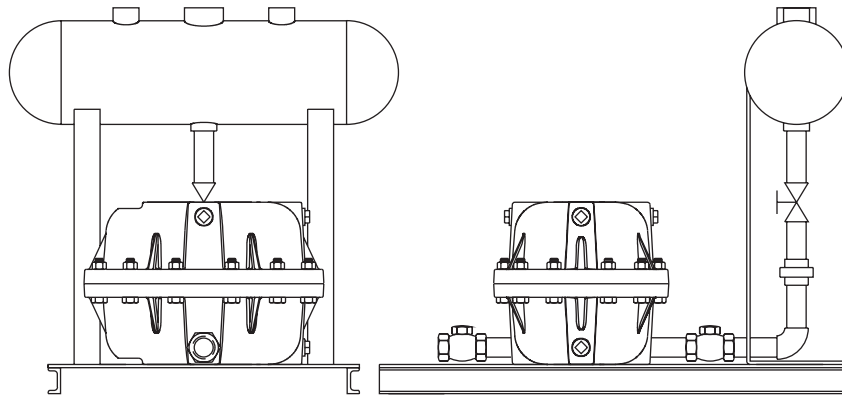


Armstrong's standard simplex, duplex (shown) triplex or quadraplex packages are unparalleled in quality and craftsmanship.

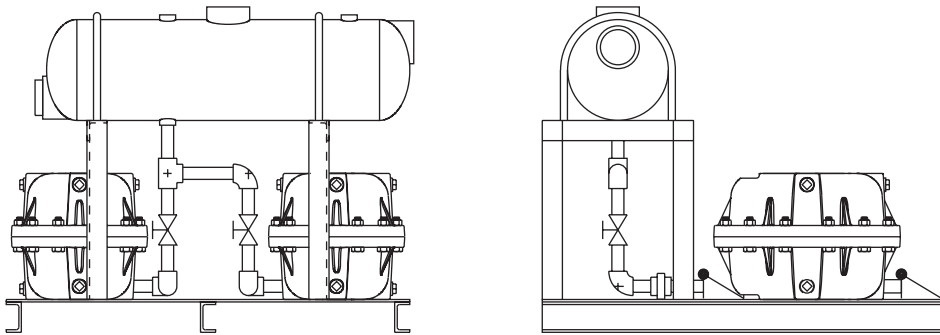
## Low Boy



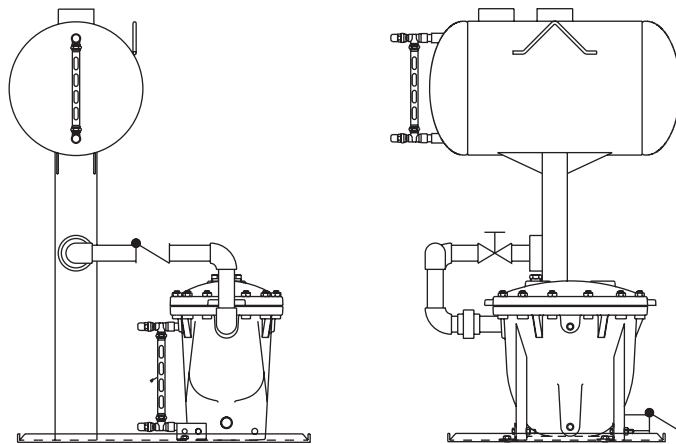
Armstrong's Low Boy packages enable you to utilize mechanical pump technology in limited height applications.



SPT-104RP/SPT-104LBRP

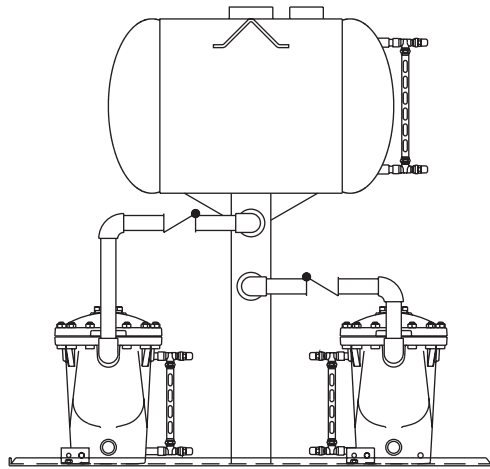


DPT-104RP/DPT-104LBRP

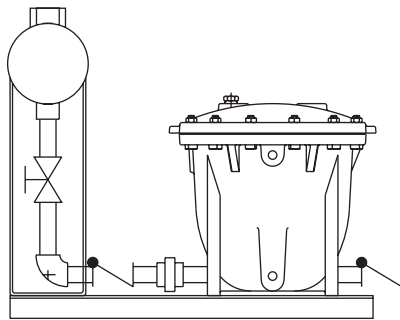
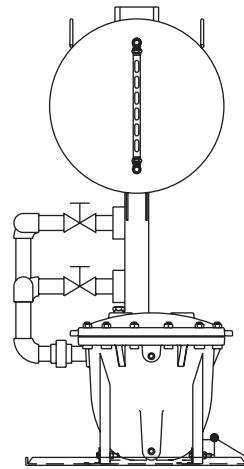


SPT-200RP

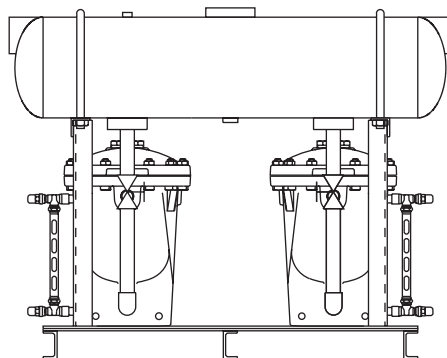
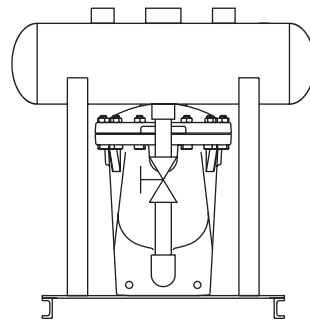
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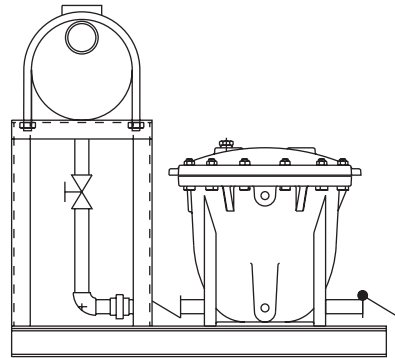
DPT-200RP

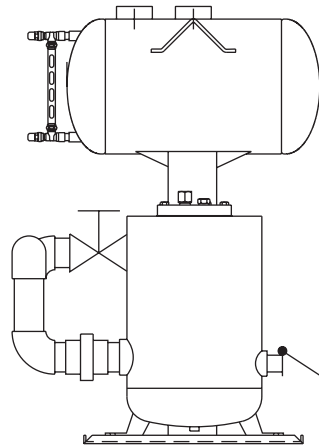
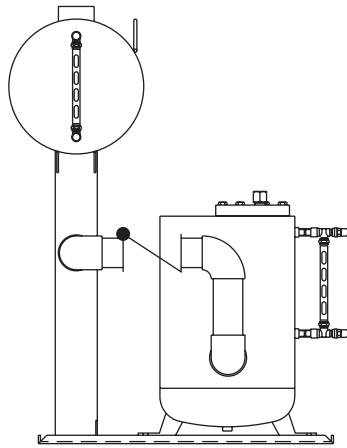


SPT-200BRP

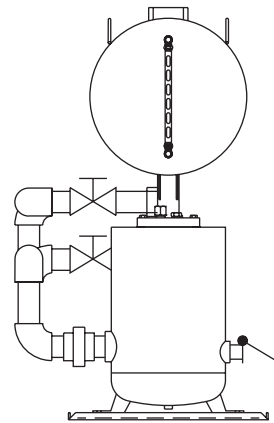
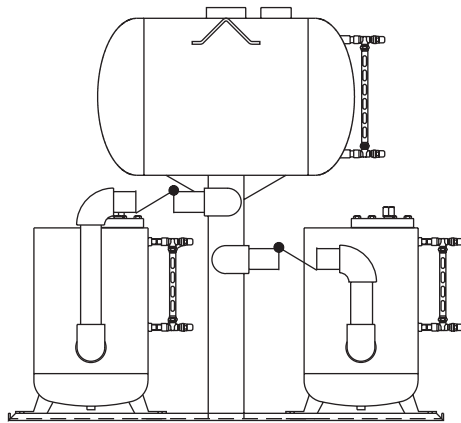


DPT-200BRP

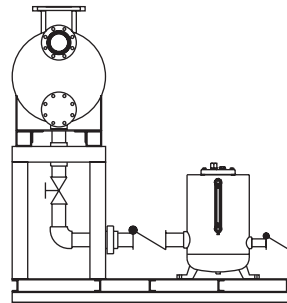
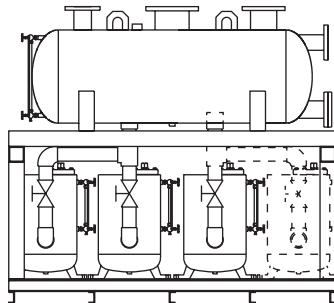




SPT-400RP

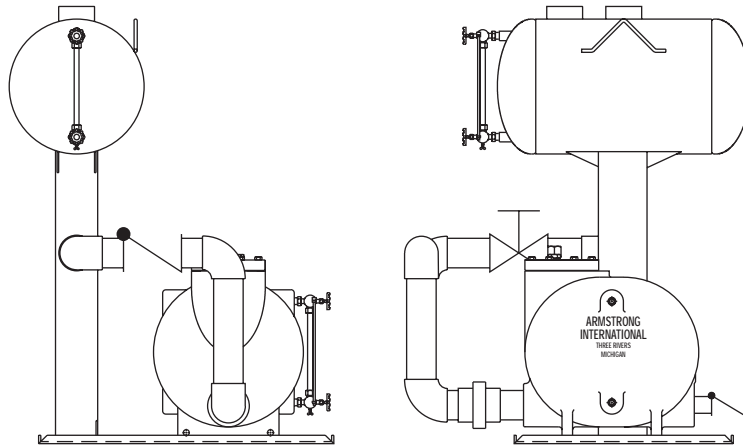


DPT-400RP

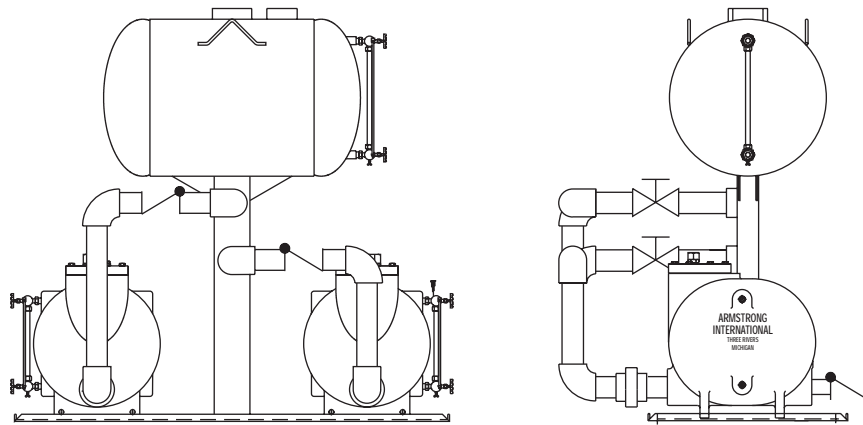


TPT/QPT-400RP

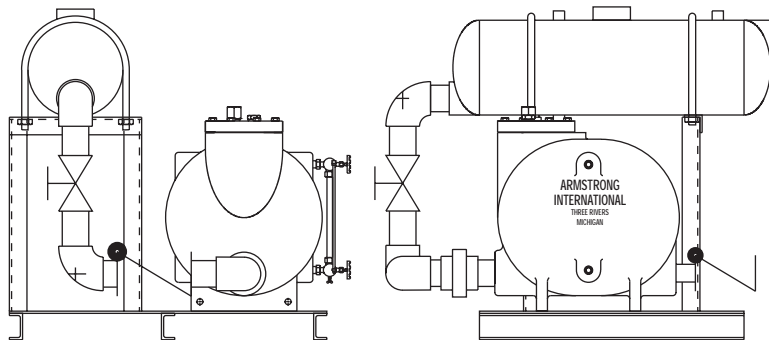
*All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.*



SPT-3500RP

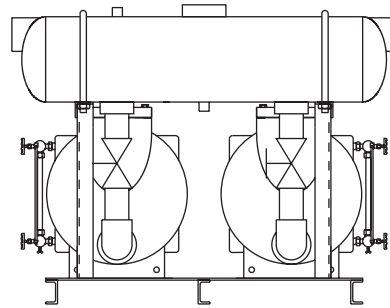
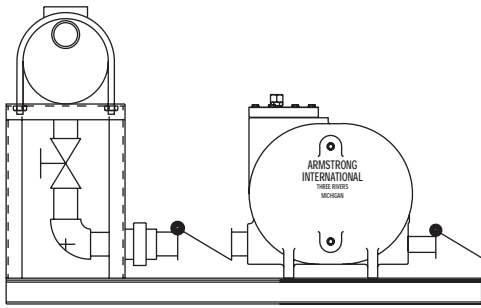


DPT-3500RP

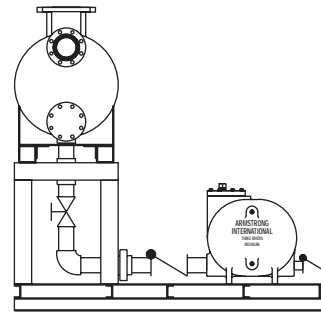
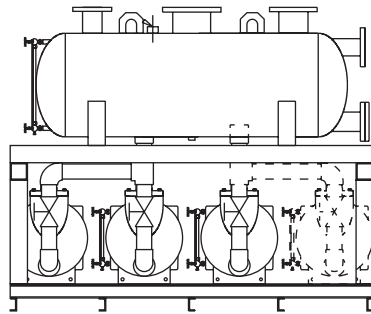


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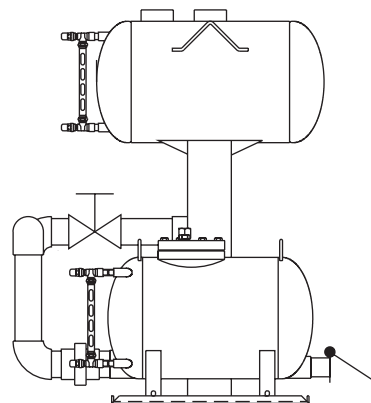
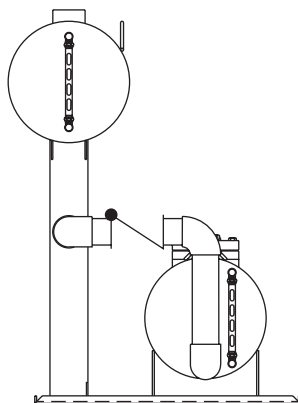




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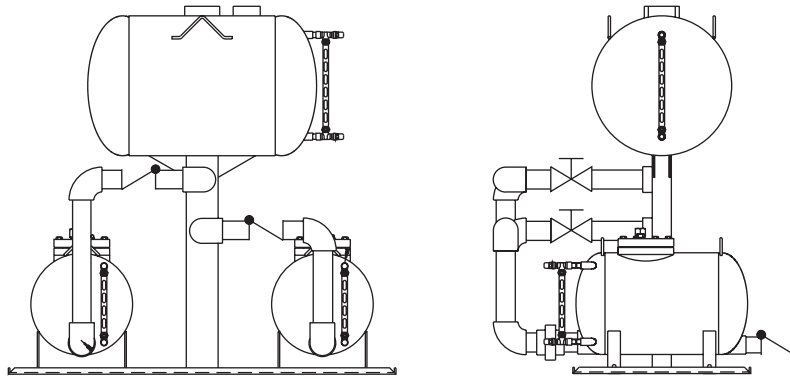


TPT/QPT-3500RP

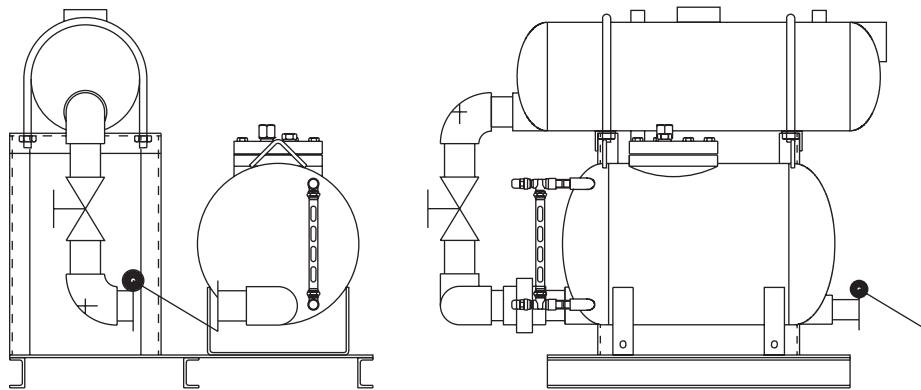


SPT-300RP

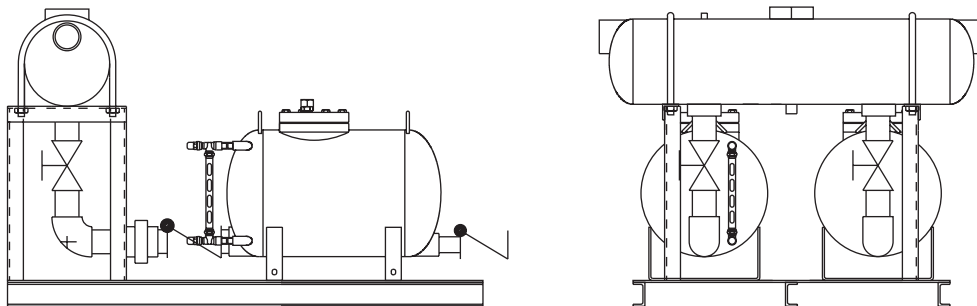
*All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.*



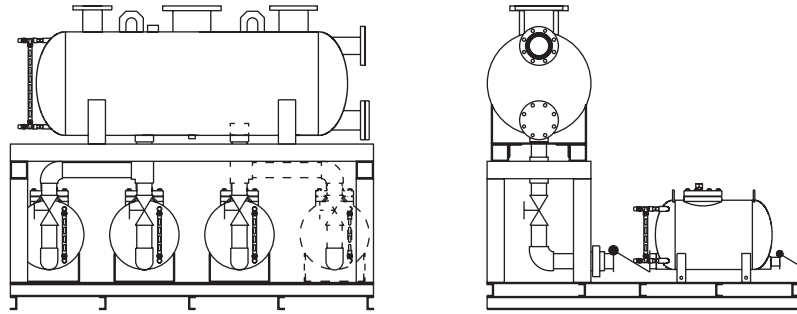
DPT-300RP



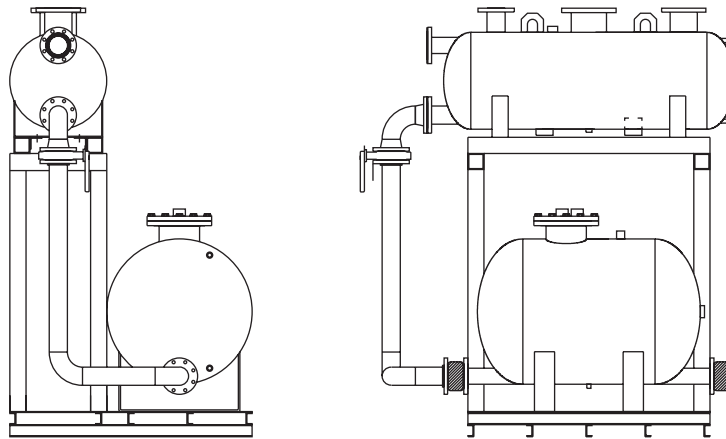
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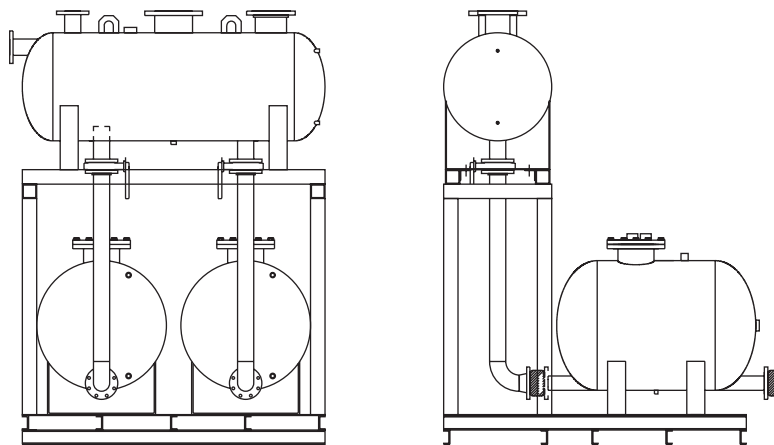
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TPT/QPT-300RP



SPT-516RP



DPT-516RP

*All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.*