



APT Pump Packages

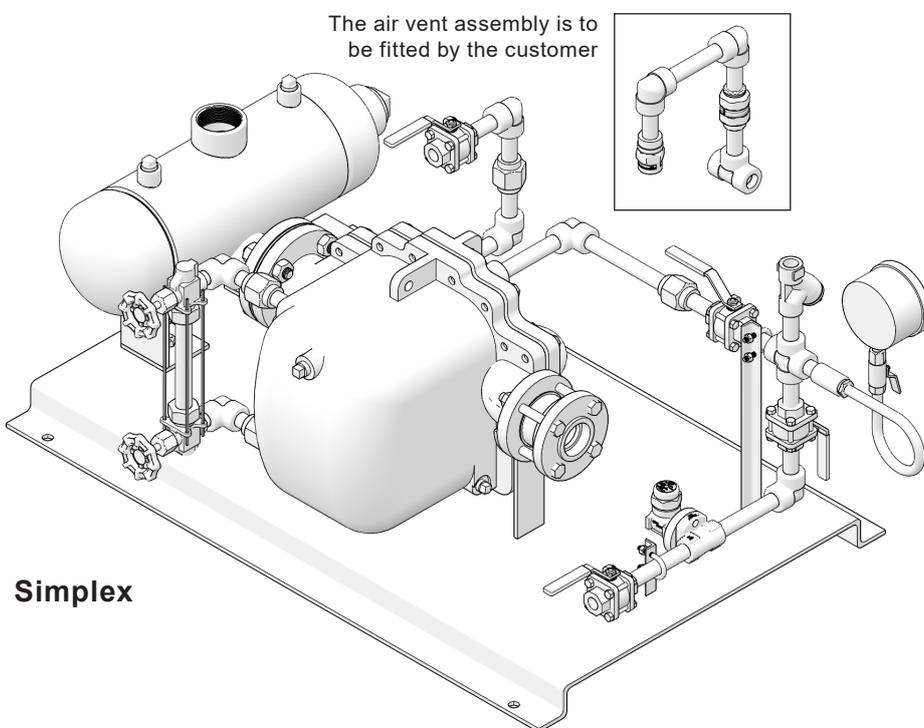
APT10, APT14, APT14HC and APT14SHC Series

Description

The compact low profile modular pump/trap system consists of the versatile APT10, APT14, APT14HC and APT14SHC Automatic Pumping Trap pre-piped and mounted on a steel base.

The simplex or duplex modules include a condensate reservoir sized to accommodate the pump cycles.

The module requires only service field connections for complete installation and fast startup.



Typical applications

The APT pump/trap modules are used where low profile and high capacity condensate removal is required.

The APT Pump Trap has the features of a conventional F&T trap combined with a pressure powered pump all in one unit.

- Air handlers
- Heat exchangers
- Absorption chillers
- Evaporators
- Dryers

A duplex example is shown on page 2

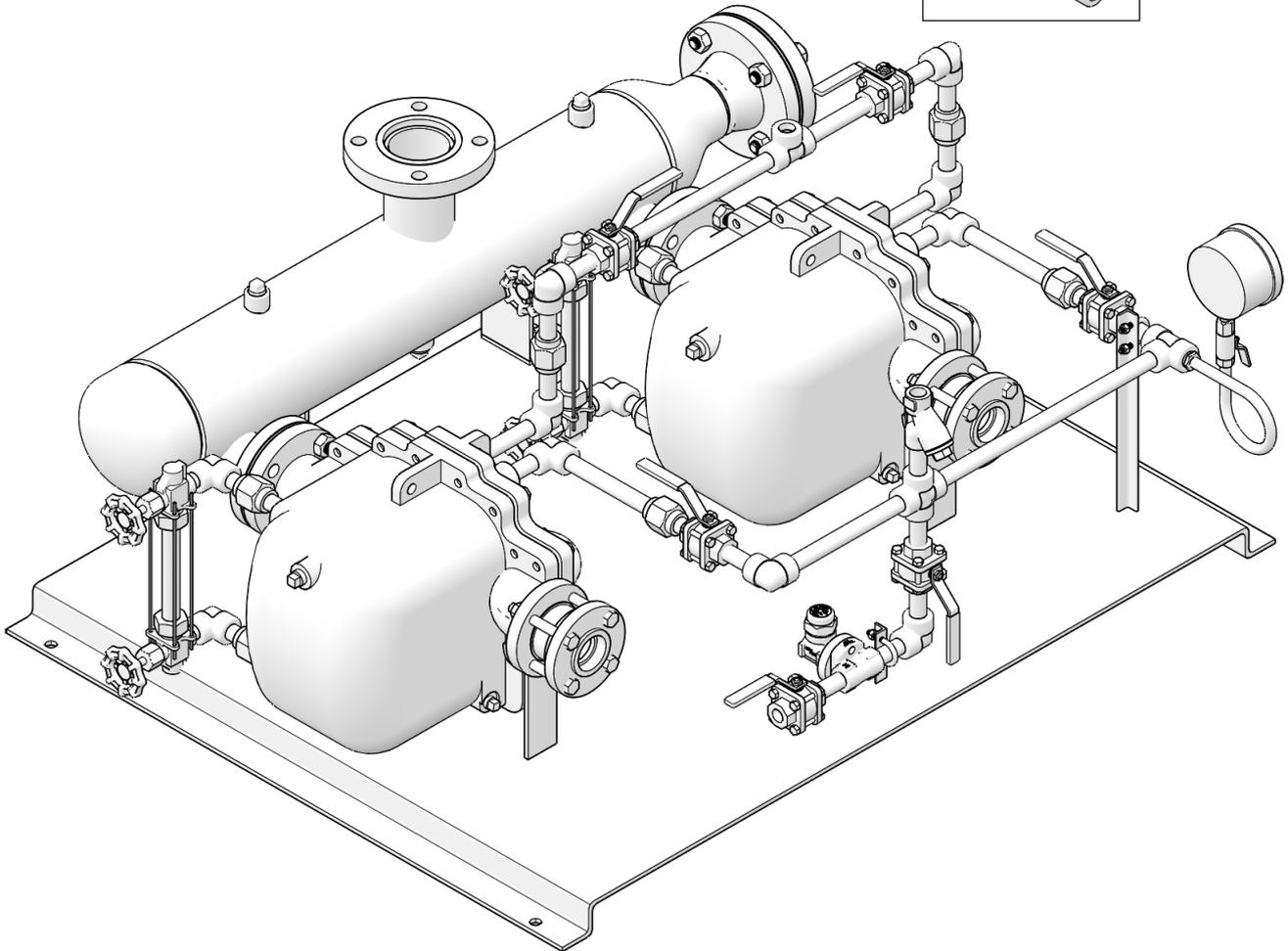
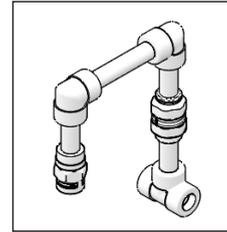
Standard features

- Spirax Sarco non-electric APT10, APT14, APT14HC and APT14SHC Automatic Pump Trap
- Simplex or Duplex units
- Motive steam drip station with Spirax Sarco UTD52L trap, isolation valves and air vent
- Hydrotested and coated with SSI industrial enamel
- Fabricated by ASME Section IX certified welders
- Completely assembled modular pumping system on platform steel base with all connections protected for shipping

Additional options are available

Duplex

The air vent assembly is to be fitted by the customer



Suggested specifications

- Furnish and install where shown on plans, Spirax Sarco Inc. model SPT10 Pressure powered pump/trap system.
- The system shall be a complete pre-piped factory package requiring only service connections for a fully functional system.
- Electricity shall not be required for system operation
- The Pump/Trap shall be constructed of Ductile Iron with an allowable operating pressure of 65 psi g (4.48 bar g).
- The Pump/Trap shall be a unified system with stainless steel mechanism and no external glands or seals. Individual pump and trap systems will not be acceptable
- The package shall be sized to meet (or exceed) the actual required condensate system load.
- The package shall include a structural steel platform skid and painted with 1 coat enamel.
- 3000# fittings with threaded pipe connections included wherever possible.

APT10

Suggested specifications (continued)

APT14

- Furnish and install where shown on plans, Spirax Sarco Inc. model SPT4/DPT4 - Pressure powered pump/trap system.
- The system shall be a complete pre-piped factory package requiring only service connections for a fully functional system.
- Electricity shall not be required for system operation
- The Pump/Trap shall be constructed of Ductile Iron with an allowable working pressure of no less than 200 psi g (13.8 bar g).
- The Pump/Trap shall be a unified system with stainless steel mechanism and no external glands or seals. Individual pump and trap systems will not be acceptable
- The package shall be sized to meet (or exceed) the actual required condensate system load.
- The package shall include a structural steel platform skid and painted with 1 coat enamel.
- 3000# fittings with threaded pipe connections included wherever possible.

APT14HC

- Furnish and install where shown on plans, Spirax Sarco Inc. model SPT4HC/DPT4HC- Pressure powered pump/trap system.
- The system shall be a complete pre-piped factory package requiring only service connections for a fully functional system.
- Electricity shall not be required for system operation
- The Pump/Trap shall be constructed of Ductile Iron with an allowable working pressure of no less than 200 psi g (13.8 bar g).
- The Pump/Trap shall be a unified system with stainless steel mechanism and no external glands or seals. Individual pump and trap systems will not be acceptable
- The package shall be sized to meet (or exceed) the actual required condensate system load.
- The package shall include a structural steel platform skid and painted with 1 coat enamel.
- 3000# fittings with threaded pipe connections included wherever possible.

APT14SHC

- Furnish and install where shown on plans, Spirax Sarco Inc. model SPT4SHC- Pressure powered pump/trap system.
- The system shall be a complete pre-piped factory package requiring only service connections for a fully functional system.
- Electricity shall not be required for system operation
- The Pump/Trap shall be constructed of Ductile Iron with an allowable working pressure of no less than 200 psi g (13.8 bar g).
- The Pump/Trap shall be a unified system with stainless steel mechanism and no external glands or seals. Individual pump and trap systems will not be acceptable
- The package shall be sized to meet (or exceed) the actual required condensate system load.
- The package shall include a structural steel platform skid and painted with 1 coat enamel.
- 3000# fittings with socket weld pipe connections included wherever possible.
- Valves greater than 1" to be carbon steel ANSI 150 flanged. Valves smaller than 1" to be 800# forged steel socket weld.

Typical construction

APT10	Model	SPT10
	PMO – Motive pressure	65 psi g (4.48 bar g)
	Design pressure (PMA)	145 psi g @ 392°F (10 bar g @ 200 °C)
	Design temperature (TMA)	392 °F (200 °C)
	Capacity range *	Trap mode - max 2022 lb/hr (917 kg/hr) Pump mode - max 1420 lb/hr (644 kg/hr)
	Hydrotest pressure	100 psi g (6.89 bar g)
	Construction materials	Receiver vessel - Fabricated steel APT 10-4.5 - See SSI Technical sheets TI-P612-28 Valves - NPT Threaded Carbon Steel Ball Valves Piping: 2" and under Sch 80 >2" Sch 40
	Dimensions and weight	See SSI sales drawings
APT14	Model	SPT4/DPT4
	PMO	200 psi g (13.8 bar g)
	Design pressure (PMA)	232 psi g @ 248 °F (111 bar g @ 120 °C)
	Design temperature (TMA)	482 °F (250 °C)
	Capacity range **	Trap mode - max 8800 lb/hr (3992 kg/hr) Pump mode - max 2420 lb/hr (1098 kg/hr)
	Hydrotest pressure	300 psi g (20.7 bar g)
	Construction materials	Receiver vessel - Fabricated steel APT14 - See SSI Technical sheets TI-P612-02 Valves - NPT Threaded Carbon Steel Ball Valves Piping: 2" and under Sch 80 >2" Sch 40
	Dimensions and weight	See SSI sales drawings
APT14HC	Model	SPT4HC/DPT4HC
	PMO	200 psi g (13.8 bar g)
	Design pressure (PMA)	232 psig @ 248 °F (111 bar g @ 120 °C)
	Design temperature (TMA)	482 °F (250 °C)
	Capacity range **	Trap mode - max 19,800 lb/hr (8981 kg/hr) Pump mode - max 6160 lb/hr (2794 kg/hr)
	Hydrotest pressure	300 psi g (20.7 bar g)
	Construction materials	Receiver vessel - Fabricated steel APT 14HC - See SSI Technical sheets TI-P612-02 Valves - NPT Threaded Carbon Steel Ball Valves Piping: 2" and under Sch 80 >2" Sch 40
	Dimensions and weight	See SSI sales drawings

Typical construction (continued)

Model	SPT4SHC
PMO	200 psi g (13.8 bar g)
Design pressure (PMA)	232 psi g @ 248 °F (111 bar g @ 120 °C)
Design temperature (TMA)	482 °F (250 °C)
Capacity range **	Trap mode - max 19,800 lb/hr (8981 kg/hr) Pump mode - max 6160 lb/hr (2794 kg/hr)
Hydrotest pressure	300 psi g (20.7 bar g)
Construction materials	Receiver vessel - Fabricated steel APT 14HC - See SSI Technical sheets TI-P612-02 Valves - ANSI 150 Carbon steel gate valves, 800# forged steel gate valves Piping: 2" and under Sch 80 >2" Sch 40
Dimensions and weight	See SSI sales drawings

*Based on 39" installation head, 65 psi g (29.5 bar g) motive steam, 21 psi g (9.53 bar g) back pressure.

**Based on 39" installation head, 73 psi g (33.1 bar g) motive steam, 15 psi g (6.80 bar g) back pressure.

Capacity

For sizing data, see APT Selection and capacity chart TI-S27-02-US.