

Type 7142 Flash Vessel

Systems and modules

Application

For safe separation of flash steam from superheated condensate

Function

In plants producing superheated condensate or hot water, a very high proportion of flash steam is generated after the pressure of the condensate/water is reduced (gas phase). The **Type 7142 Flash Vessel** is used to safely separate the resulting gas/water mixture.

The continuous separation of the gas/water mixture can also be performed at high pressure. The flash steam that is generated during this process is fed into a steam network or used in a heat exchanger (depending on the steam network design).

Depending on the requirements, the condensate is either collected in a **Type 7141 Condensate Vessel** or recovered in a **Type 7140 Condensate Recovery System** for further use.

Special features

- Safe separation of the gas/water mixture even when a high proportion of flash steam is generated
- No entrainment of water or foam at the flash steam outlet
- Designs to meet high pressure and temperature requirements also available
- Compact design
- Low maintenance
- Rugged design

Versions

Type 7142 Flash Vessel

Integrated connections:

- Flanges PN 16 to 63
- Material: stainless steel or non-alloy steel
- Vessel designed as a pressureless or pressurized tank
- Optionally with monitoring of the filling level
- Optionally with manhole
- Optionally with constant pressure control of the flash steam and condensate (see Type 7150 Process Control System)

Version with additional features

- **Type 7150 Process Control System** ▶T 3984
Pressure control system (designed for pressure relief) to feed the flash steam into a steam network. Condensate discharge using a steam trap (Fig. 2) or liquid level control system (Fig. 3)
- **Type 7141 Condensate Vessel**, ▶T 3986 and **Type 7111 Pump Assembly**, ▶T 3973
for condensate feedback.
- **Type 7140 Condensate Recovery System**, ▶T 3982
for condensate feedback.



Fig. 1: Type 7142 Flash Vessel

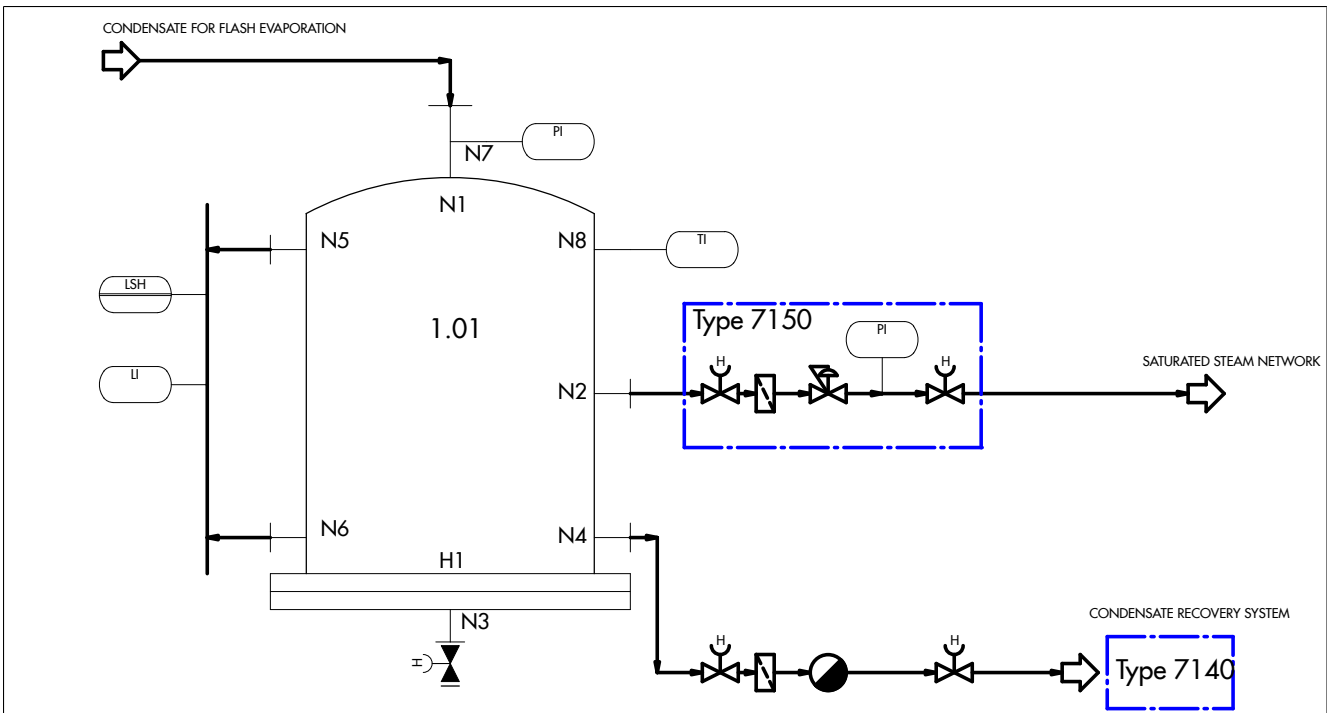


Fig. 2: Flash vessel with feeding of flash steam into a steam network and condensate drainage

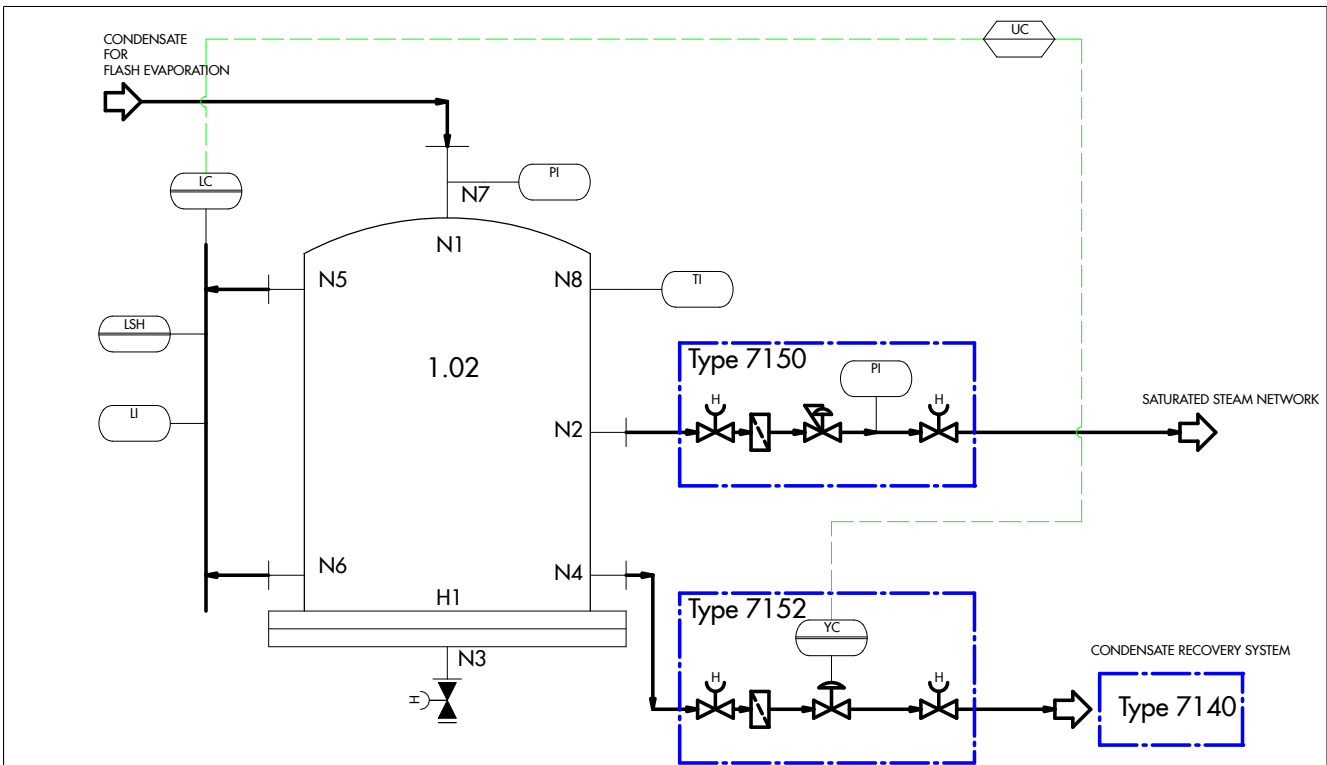


Fig. 3: Flash vessel with feeding of flash steam into a steam network and condensate drainage based on filling level monitoring



RFQ Form for Type 7142 Flash Vessel

Customer data				
Company				
Address				
Name				
Phone number				
E-mail				
Send your inquiry to your regional SAMSON contact or e-mail it to ► systems-de@samsongroup.com				
Operating data				
Constant condensate mass flow rate	M1 =			kg/h
Intermittent condensate mass flow rate	M2 =			kg/h
Condensate data before pressure letdown (to calculate the percentage of flash steam)	Pressure =			bar (g)
	Temperature =			°C
Tank pressure (flash steam pressure for reuse)	P ₂			bar (g)
Version				
Material	P235GH	1.4541		1.4571
Condensate connections	N1	Top		DN/PN
	N2	Top	Side	DN/PN
Manhole	No	Yes	DN	
Liquid level measurement	Magnetic level indicator with level switches Magnetic level indicator with 4 to 20 mA signal			
Control of flash steam/condensate to a constant pressure	No	Yes	Pres- sure	bar (g) Pressure in vessel (identical to flash pressure feed-in pressure)
	Type 7150 functioning to relieve the pressure at the flash steam outlet			
	Type 7152 at condensate outlet			
	Steam trap at condensate outlet			
Type 7140 Condensate Recovery System	No	Yes		Fill in Data Sheet ► T 3982
Type 7141 Condensate Vessel	No	Yes		Fill in Data Sheet ► T 3986
	With Type 7111 Pump Assembly			Fill in Data Sheet ► T 3973
Notes				