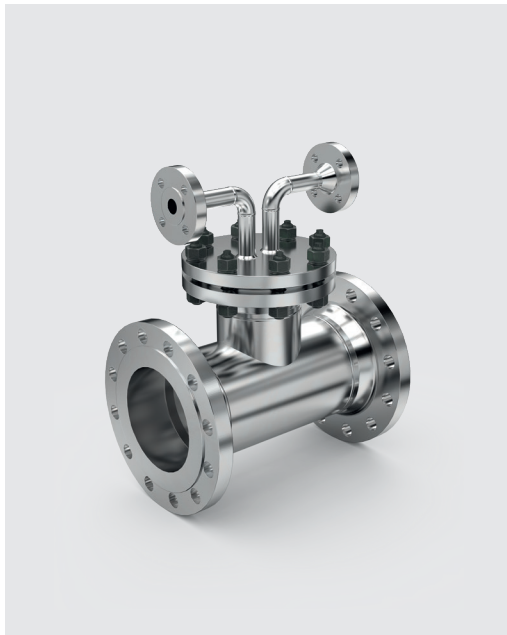


Type DKT

Steam-atomising desuperheater



> Type DKT, front view



> Type DKT, front view

Product features

- Suitable for difficult operating conditions, high quality temperature control and avoidance of temperature shocks (valve and piping)
- Allows cooling operation when all other systems typically fail
- For optimum temperature control close to saturation with a control ratio of up to 100:1
- Ultimate cooler for low-speed steam cooling applications, large bandwidth and small distance/separation to saturation
- The additional cooling water and atomizing steam control valve must be considered in the planning

Applications

For low speed, highly adjustable desuperheater applications and low saturation separation.

Type DKT

Steam-atomising desuperheater

Technical data

Nominal diameter	DN 150–800 / NPS 6–32
Pressure class	PN 25–250 / Class 150–1500
Temperature (max.)	650 °C / 1200 °F
Housing material	1.0460 / A105 1.5415 1.7335 / A182F12Cl.2 1.7383 / A182F22Cl.3 1.4903 / A182F91
Housing type	Forged
Media	Superheated steam, gas
Flanges	EN 1092-1, ASME B16.5, ISO 7005, JIS, JPI, welding ends on request
Number of stages (max.)	4 (water side)
Number of controlled stages (max.)	4 (water side)
Operating range (max.)	1:100 (water)
Other	Type DKT requires an injection pressure control valve AK or AV

Type DKT

Steam-atomising desuperheater

Function

Desuperheating (cooling) the steam can simply be achieved by injecting water into the steam flow.

When injected, the water is evaporated by means of the desuperheater nozzles. Thereby the water absorbs heat and consequently the temperature of steam is reduced. The desuperheater is designed so that a very fine atomisation (mist) is achieved even when injecting very small amounts of atomising steam. This both minimizes the distance required for cooling and homogenizing the steam and guarantees reliable cooling until close to the saturation point.

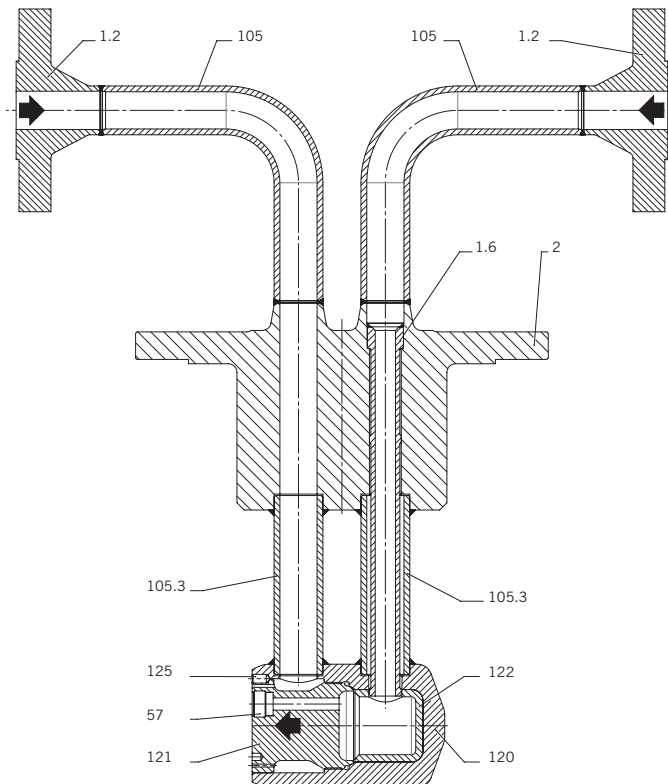
The good homogenisation and rapid evaporation means that no additional protective pipes are required in the steam line.

Cooling medium is introduced into the nozzle head via an injection valve. In the nozzle chamber inside the nozzle head the medium is accelerated and rotated by a swirl insert, so that a spray mist develops when it exits into the steam line. The atomising steam is introduced into the steam line through holes arranged around the nozzle. This atomises the water droplets to a very fine mist that evaporates very rapidly.

Type DKT

Steam-atomising desuperheater

Sectional drawing



Parts list

Pos.	Item	Material
1.2	Flange	*
1.6	Protection pipe	*
2	Cap	*
57	Spray nozzle	1.4301/1.4313
105	Pipe	*
105.3	Pipe	*
120	Housing	*
121	Insert	**
122	Bushing	*
125	Threaded pin	A4

* See table "Technical data"

Parts list as an example of the standard configuration

** Depending on customer requirements

Dimensions: on request