G-TEAM
Červený mlýn
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Type	Abbrevation	Name	Labelling
Cooler with a build-in edge	PRCH	Jet cooler	PRCH x-xxx-xxxxx-xx/PN

Type Number Diagram

PRCH x - x x x - x x x x x - x x / PN

Stage of Coolling
1 – one stage
2 – two stage

DN of Steam Piping

Sieve
S – With a Sieve
B – Without a Sieve

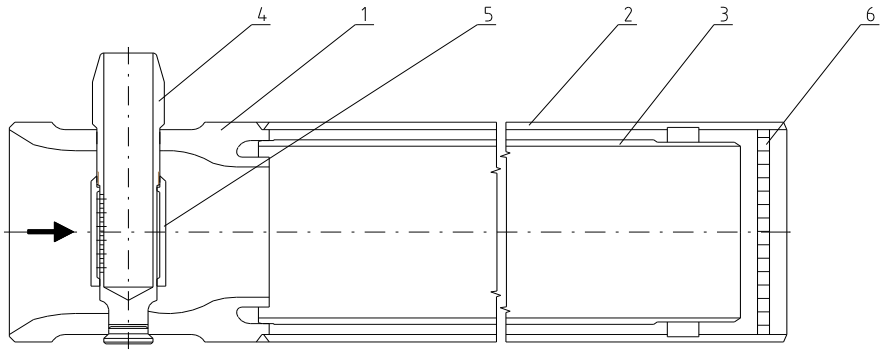
Model of a Cooler Body
1 - forging
2 - pipe
3- body with water inlet

Model
1 – With a Shielding
2 – Without a Shielding
3 – Body with an Injection Pipe
(without jacket pipe and shielding)

Material of a Cooler Body[1)]

Material of a Jacket Pipe

[1)] In case „Model of a Cooler Body“–code 2, material of pipe is stated in place of body material.



1 – Cooler Body
2 – Jacket Pipe
3 – Shielding
4 – Water Inlet
5 – Protective Pipe
6 - Sieve

Fig.3

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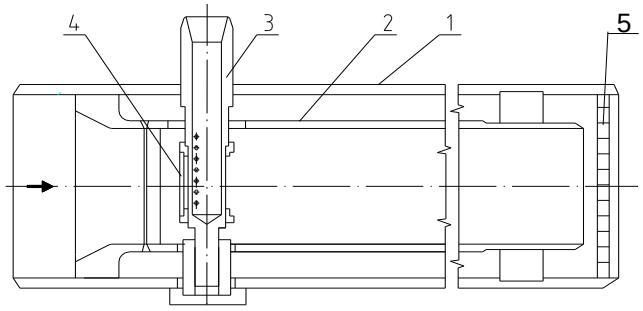


1 – Cooler Body (Jacket Pipe)
2 – Shielding
3 – Water Inlet
4 – Protective Pipe
5 - Sieve

Fig.2

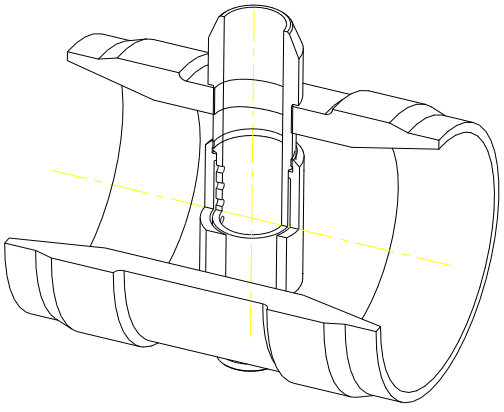
Description:

This cooler is designed for cooling of steam after a pressure reducing valve or in such applications where the loss in pressure is not important. The cooler consists of an inner structure (if we need to obtain higher rate of steam in a piping for perfect atomising of cooling water) which can form a protective shielding for some applications (Fig.2,3). In some cases, a cooler body (represented in a fig. by a jacket pipe) can also be of a forging with a water inlet and on the forging a jacket pipe is welded (Fig.2).

Furthermore, it is possible to create a so-called shortened version (model-3) – the body with water inlet is executed without a slip conduit and shielding, an eventual diffuser is executed in the cooler body (Fig. 1).

Supply and injection of water is carried out through an annulus formed by two pipes. Cooling water comes to the annulus through the certain number of openings in an inside pipe. The injected water is decomposed on a trailing edge of a respective water inlet where the water is primed to a steam flow. An outside pipe is a part of water injection so that the injected water is correctly atomised.

Fig.1



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Labelling of used materials

Material Quality (acc. to ČSN)	Equivalent acc. to DIN	Labelling	Material Quality (acc. to ČSN)	Equivalent acc. to DIN	Labelling	Material Quality (acc. to ČSN)	Equivalent acc. to DIN	Labelling
11 416.1	P265GH	16	15 020.1, .5	15 Mo 3 16 Mo 3	50	17 134.3	X20CrMoV121	14
11 523.1	St 52-3	13	15 121.5	13 CrMo 44 13 CrMo 45	51	17 248.4	X6 CrNiTi 810	28
12 021.1	St 35.8	21	15 128.5, .9	14 MoV 63	58	17 348.4	X6 CrNiMoTi 17-12-2	38
12 022.1	St 45.8	22	15 313.5	10 CrMo 910 11 CrMo 910	53			

Material Quality (acc. to ČSN)	Equivalent acc. to ASTM	Labelling	Material Quality (acc. to ČSN)	Equivalent acc. to ASTM	Labelling	Material Quality (acc. to ČSN)	Equivalent acc. to ASTM	Labelling
11 416.1	A 662	16	15 020.1, .5	A 204-74	50	17 134.3	-	14
11 523.1	A 572	13	15 121.5	A 335 A 213	51	17 248.4	A 240	28
12 021.1	A 106	21	15 128.5, .9	A 405-76	58	17 348.4	A 276	38
12 022.1	A 106-85	22	15 313.5	A 335-75 A 336-75	53			

NOTE: A range of operating temperatures and pressures for materials are specified in the following standard:
ČSN 13 0010 - Nominal pressures and working overpressures.

This standard is valid only for materials acc. to ČSN.
The labelling is valid only for materials acc. to ČSN.