

Type	Abbreviation	Name	Labelling
Cooling by Atomising Steam	CHP	Desuperheater with Atomising Steam	CHP xxx-xx-xx-xx

Type Number Diagram

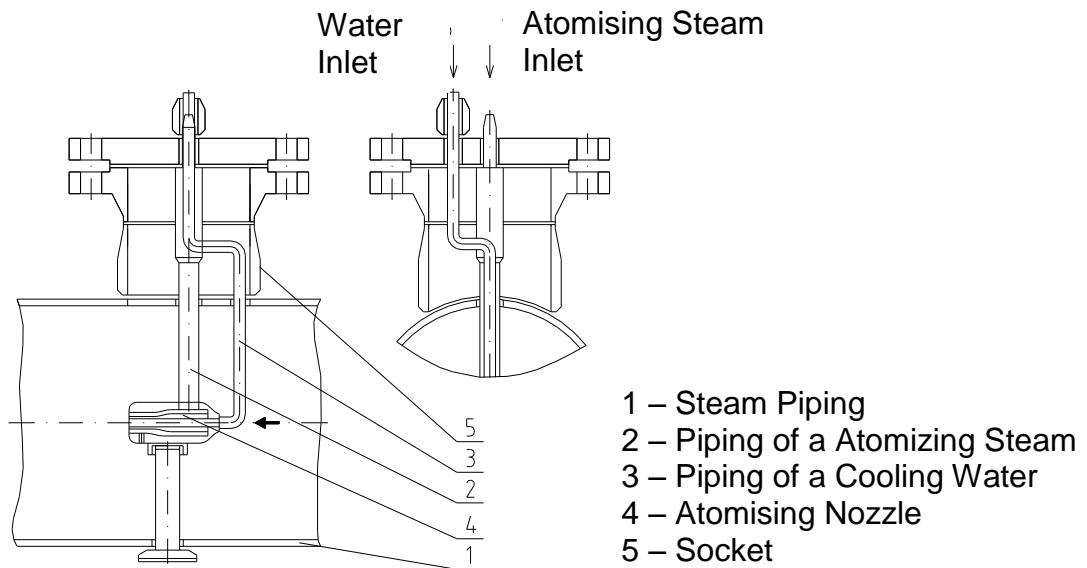
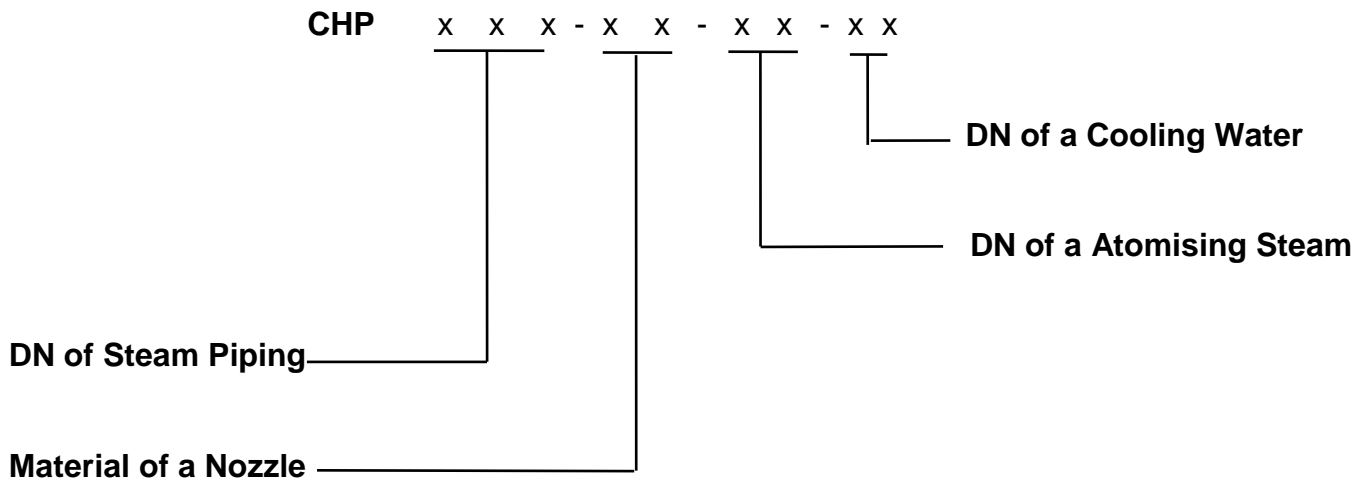


Fig. 1



Description:

It is an adapted Laval nozzle where injected water is atomised by kinetic energy of the working steam expanding in the nozzle. A regulating range is very large and depends, above all, on a regulating ratio of a cooling water front-end control valve and amount of working steam. A steam control valve is also necessary. It is interconnected to a control injection valve.

A cooling water pressure can only be a little bit higher than a cooled steam pressure. In comparison to a cooled steam pressure, a atomising steam pressure is supposed to be above critical.

Description of a cooling process: As soon as the control injection valve is opened, the working steam is continuously supplied. Small amounts of cooling water for better atomising of cooling water rather than larger amounts since a large amount of atomising (working) steam is available for smaller amounts of water.

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.
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