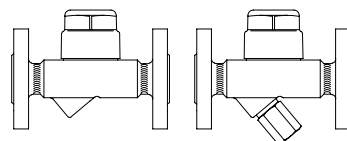


Thermodynamic steam trap for low temperature application

Thermodynamic steam trap

PN40

- with flanges (Fig. 640/641....1)
- with screwed sockets (Fig. 640/641....2)
- with socket weld ends (Fig. 640/641....3)
- with butt weld ends (Fig. 640/641....4)



cold toughened steel

Fig. 640/641 (Y)

Page 2

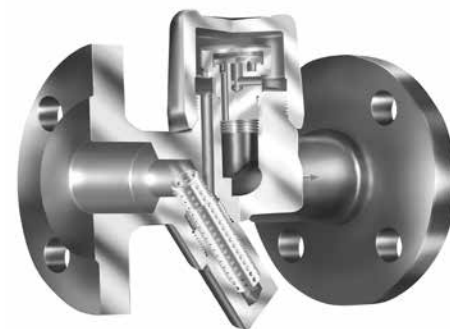


Fig. 641....1

Features:

- For discharging of slight to highly sub-cooled condensate
- Intermittent mode of operation
- Robust and resistant to water-hammer
- Integrated non return protection
- Constructions:
 - With inside strainer - Fig. 640
 - With outside strainer - Fig. 641 (Y)
- Optimized design for quick installation
- Gasket-free sealing of the screwed cap
- Installation in any position
- Heat chamber minimizes the impact of weather conditions on the trap's performance
- Replaceable controller-unit

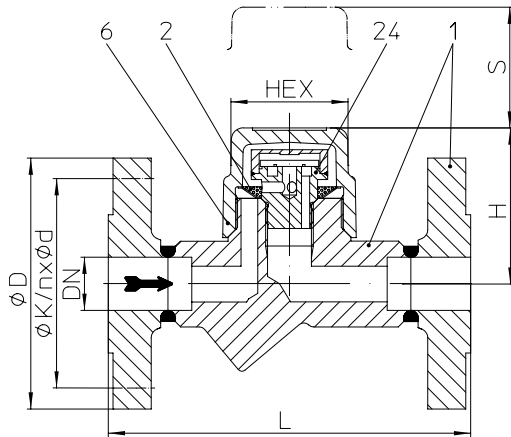
Thermodynamic steam trap (cold toughened steel)


Fig. 640....1 with flanges

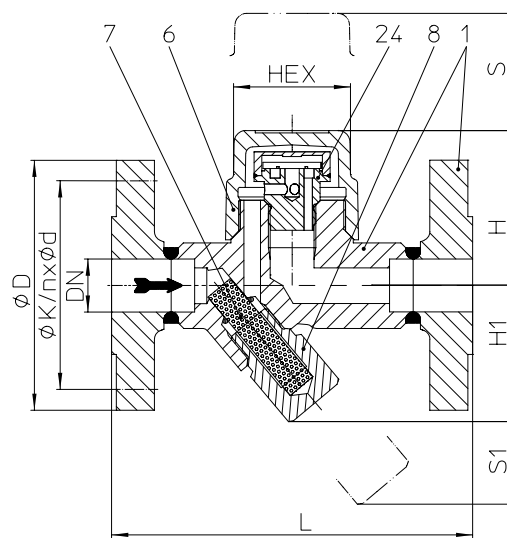


Fig. 641....1 with flanges

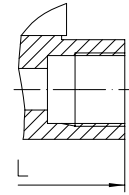
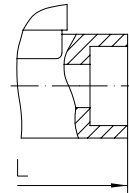
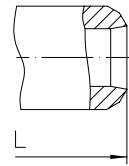

 Fig. 640/641....2
with screwed sockets

 Fig. 640/641....3
with socket weld ends

 Fig. 640/641....4
with butt weld ends

Figure	Nominal pressure	Material	Nominal diam. / NPS	Operating pressure PS	Inlet temperature TS	Allow. differential pressure ΔPMX	perm. pressure ratio / min. operating pressure
85.640 85.641 (Y)	PN40	1.0571	15 - 25 / 1/2" - 1"	32 barg	365 °C	32 bar	zul. Druckverhältnis: Gegendruck / Vordruck ≤ 0,8 barg min. Betriebsdruck: 0,7 barg
				28 barg	400 °C		

For ANSI versions refer to data sheet CONA®TD-ANSI

Design pressure PMA						
Figure		Temperature (°C)				
		-50 ¹⁾ to 250	300	350	400	
85.640 85.641 (Y)	(barg)	40	37,3	33,7	28	

¹⁾ Notch impact test below -50°C on request.

Types of connection	Other types of connection on request.
- Flanges1 _____ acc. to DIN EN 1092-1 - Screwed sockets2 _____ Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1 - Socket weld ends3 _____ acc. to DIN EN 12760 - Butt weld ends4 _____ Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5 (Note restriction on operating pressure / inlet temperature depending to design!)	
Features	
- Thermodynamic steam trap with replaceable controller-unit and cap with heat chamber wich minimize the effects from the weather conditions to the function of the trap such as low ambient temperatures, rain, wind, etc. - Intermittent mode of operation - Heat chamber minimizes the impact of weather conditions on the trap's performance - Robust and resistant to water-hammer - Integrated non return protection - With inside strainer - BR640 / With outside strainer - BR641 (Y) - Installation in any position - Optimized design for quick installation - Maintenance simplified due to screwed cap without sealing	
Options	
Outside strainer with blow down valve (Pos. 46)	

Types of connection	Flanges			Screwed sockets Socket weld ends			Butt weld ends		
DN	15	20	25	15	20	25	15	20	25
NPS	1/2"	3/4"	1"	1/2"	3/4"	1"	1/2"	3/4"	1"

Face-to-face acc. to data sheet resp. customer request										
L	(mm)	150	150	160	95	95	95	250	250	250

Dimensions										Standard-flange dimensions refer to page 5.
H	(mm)	65	65	65	65	65	74	65	65	65
H1	(mm)	62	62	62	62	62	55	62	62	62
S	(mm)	40	40	40	40	40	40	40	40	40
S1	(mm)	24	24	24	24	24	13	24	24	24
HEX	(mm)	50	50	50	50	50	50	50	50	50

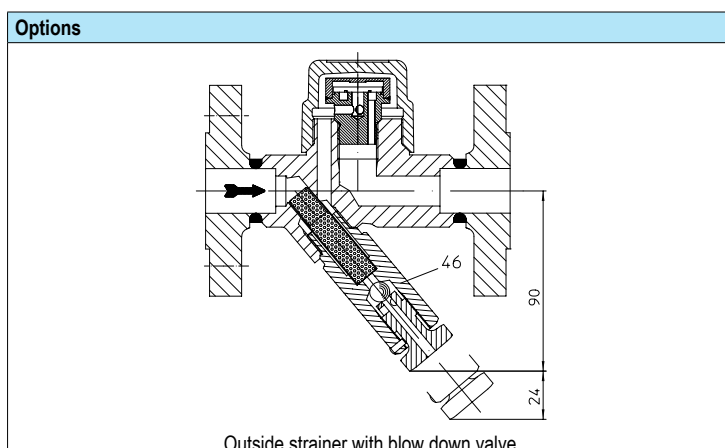
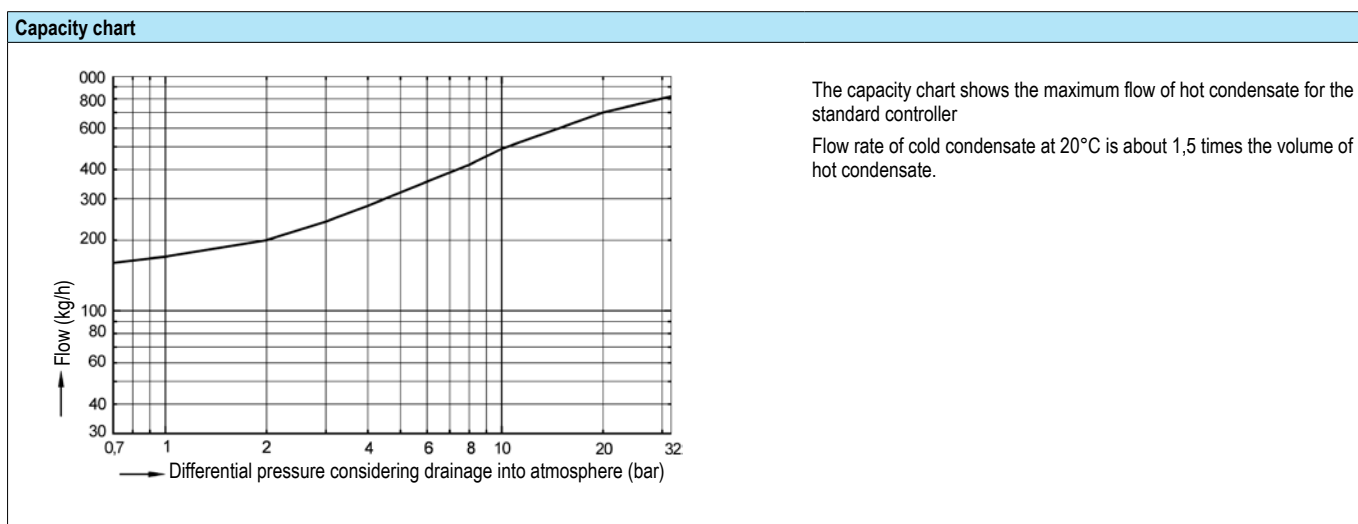
Weights											
Fig. 640 / 641	(app.)	(kg)	2.7	3.3	3.7	1.4	1.3	1.8	1.8	1.9	2

Parts			
Pos.	Sp.p.	Description	Fig. 85.640 / 85.641
1		Body	P355QH1, 1.0571
2	x	Strainer	X5CrNi18-10, 1.4301
6		Cap	P355QH1, 1.0571
7	x	Strainer	X5CrNi18-10, 1.4301
8	x	Strainer plug	X6CrNiTi18-10, 1.4541
24	x	Controller, cpl.	X39CrMo17-1+QT, 1.4122+QT
46	x	Blow down valve, cpl.	X6CrNiTi18-10, 1.4541
L Spare parts			

Information / restriction of technical rules need to be observed!

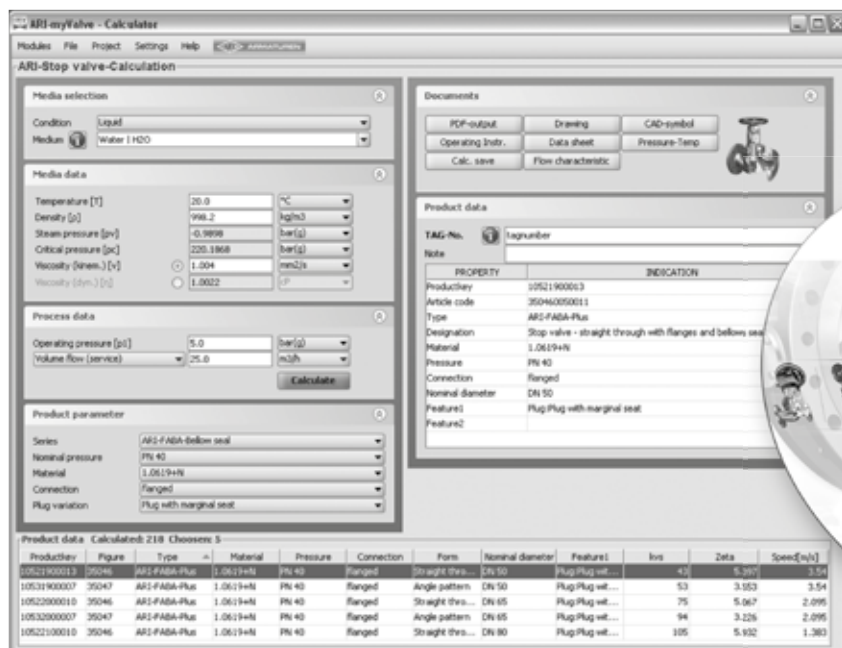
Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

Operating and installation instructions can be downloaded at www.ari-armaturen.com.



myValve® - Your Valve Sizing-Program.

myValve is a powerful software tool that not only helps you size your system components; it also gives you instant access to all other data about the selected product, such as order information, spare parts drawings, operating instructions, data sheets, etc., whenever you need it.




myValve - Valve Sizing-Program

Contents:

Module ARI-Steam trap CONA-Calculation

- Sizing (calculation of steam trap systems with given flow capacity or heat capacity)
- Calculation of nominal diameter acc. to given pressure, condensate quantity, condensate sub-cooling and speed

Media:

- Steam (saturated and superheated)
- Compressed air

Special Features

- Project administration of the calculation and product data incl. spare part drawings concerning to project and tag number
- Direct output or calculation and product data in PDF format
- Product data could be taken for a direct order
- SI- and ANSI-units with direct conversion to another databank
- Settings with over pressure or absolute pressure
- All ARI products are integrated in one databank
- Direct access concerning to the product on data sheets, operating instructions, pressure-temperature-diagram and spare part drawings
- Operation in company networks possible (no complex installations on individually PC's necessary)
- Extensive catalogue extending over several product groups

System Requirements:

Windows operating systems, Linux, etc.

Informations about pipe welding
Welding groove acc. to DIN 2559

The material used for ARI valves with butt weld ends are: 1.0571 P355QH1 acc. to DIN N 10222-4

Note:

Note restriction on operating pressure / inlet temperature depending to design!

Due to our experience, we recommend to apply an electric welding process.

Because of the different material compositions and wall thickness of the steam traps and the pipe gas welding shall not be applied. Quenching cracks and coarse grain structure may develop.

Steam traps with socket-weld ends shall only be welded by arc welding (welding process 111 acc. to DIN EN 24063).

If during the time of warranty others than the manufacturer or by the manufacturer authorized persons are interfering in the product and/or the setting, the right of claim for warranty will lapse!

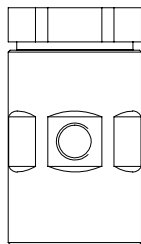
Standard-flange dimensions acc. to DIN EN 1092-1

DN			15	20	25
NPS			1/2"	3/4"	1"
PN40	ØD	(mm)	95	105	115
	ØK	(mm)	65	75	85
	n x Ød	(mm)	4 x 14	4 x 14	4 x 14

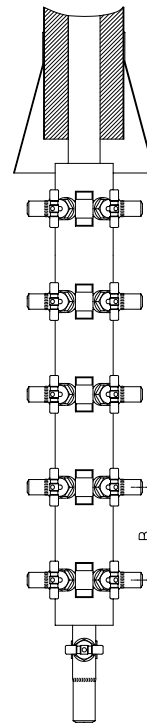
Selection criteria:		Example for order data:
• Steam pressure • Back pressure • Quantity of condensate • Nominal diameter / pressure	• Type of connection • Material • Place of service or kind of steam consumer	Thermodynamic steam trap CONA® TD, Fig. 640, PN 40, DN 15, 1.0571, with flanges , Face-to-face dimension 150 mm



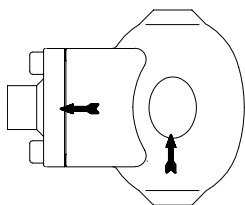
Multifunction tester
Sonaphone



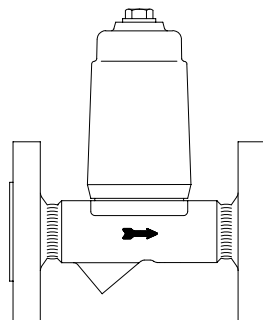
Vacuum breaker
Fig. 655



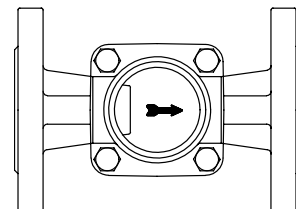
Condensate collection (B = 160), steam distribution (B = 120)
CODI®S with gland packing Fig. 671/672;
CODI®B with bellows seal, maintenance-free Fig. 675/676



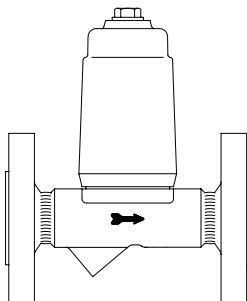
Automatic air vent for liquid systems
Fig. 656



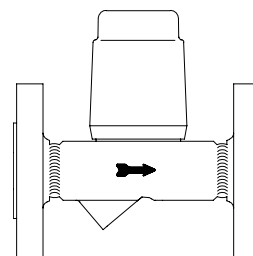
Condensate discharge temperature limiter
Fig. 645/647



Flow indicator
Fig. 660/661



Return temperature limiter
Fig. 650



Liquid drainer
Fig. 665

(Further informations about the accessories can be found in the appropriate data sheets.)