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YAF-14S, 14F Ball Float Trap Type Steam Trap

This is a lever float type steam trap that can be used where pressure is high and where a large volume of condensate is generated, such as heat exchangers, room heating and water heating facilities, and air-conditioning and heating facilities.

Features

- Outstanding performance in continuous discharge, regardless of load fluctuations of condensate.
- Built-in automatic Air Vent ensuring no air binding.
- Easy repair and inspections : simply remove the cover for repair and inspections. The float assembly is attached to the cover.



YAF-14S Type



YAF-14F Type

Specifications

Type	YAF-14S		YAF-14F	
Size	15, 20, 25, 32, 40, 50A			
Applicable pressure	0,44, 1,0, 1,4MPa			
Applicable temperature	220°C below			
End connection	KS PT SCREW		KS 10K RF FLANGE	
Materials	Body	GCD450		
	Seat	STS		
	Float, lever	STS		
Hydraulic test pressure	1,5 times of applicable flange rating			

▶ Install a strainer (40 MESH or more) at the front end when installing the valve.

Dimensions

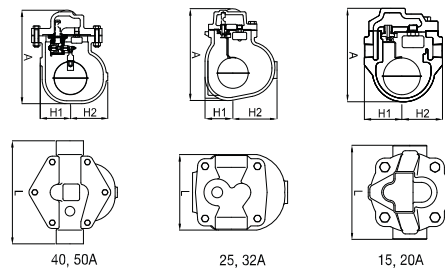
(mm)

Type	L	H1	H2	A	Weight (kg)	
					14S	14F
15(1/2")	122 (170)	61	61	147	3,6	5,2
20(3/4")	122 (170)	61	61	147	3,5	5,2
25(1")	122 (200)	67,5	108	223	7,5	10,1
32(1 1/4")	160(210)	67,5	108	238	8,1	11
40(1 1/2")	270 (270)	80,5	125,5	285	19,5	22
50(2")	300 (300)	90	142	295	25,95	30

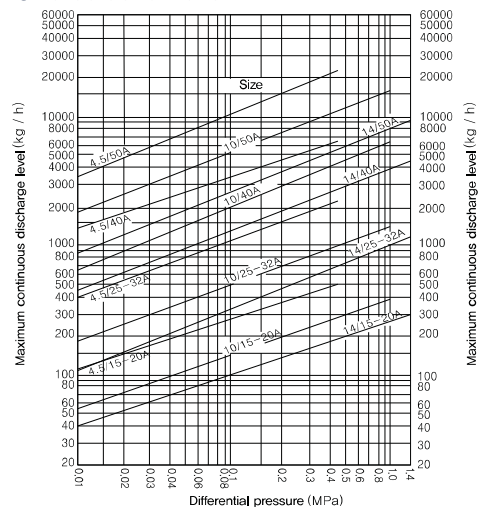
Maximum applicable differential pressure

Type	Differential pressure(MPa)
YAF-14(4,5)	0,44
YAF-14(10)	1,0
YAF-14(14)	1,4

Dimensional drawing



Size selection chart



YBT-4 Type Bucket Trap

As an optimal trap for drain discharge for steam pipelines and headers, it has a simple structure that ensures easy maintenance.

Features

- Simple structure & extremely strong parts : durability and effective operations are guaranteed.
- No air binding : inverted structure of the bucket.
- No need to attach a separate strainer : bucket trap with built-in screen.
- Easy repair : simply remove the cover.



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Specifications

Type		YBT-4
Applicable pressure		1,7MPa below
Applicable temperature		220°C below
End connection		KS PT SCREW
Fluid temperature		GCD450
Materials	Body	STS
	Disc, seat	1.5 times of applicable flange rating
Hydraulic test pressure		1.5 times the applied pressure of the hydraulic flange

► Install a strainer (80 MESH or more) at the front end when installing the valve.

Dimensions

(mm)

Size	L	H1	H2	D	Weight (kg)
15A	127	78	65	½"	2,5
20A	127	78	65	¾"	2,6
25A	127	100	65	1"	3

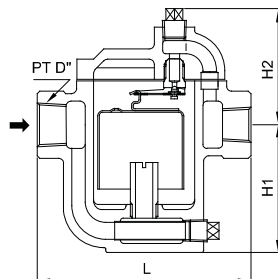
Maximum applicable differential pressure

Size	Differential pressure(MPa)
15A	0,55 / 0,86 / 1,58
20A	
25A	

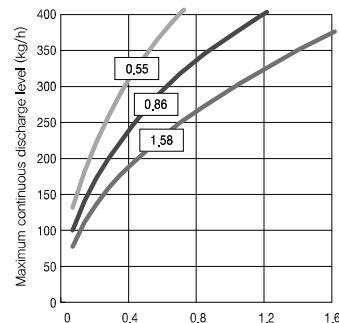
Cautions during installation

- After installing a bypass line and before operating the trap, blow out and remove foreign substances from inside the pipeline.
- The trap should be installed horizontally.
- The location of trap installation in the pipeline should be the lowest point of the facility or the end of the pipeline. If the outlet side is vertically standing, the height of the trap should be within the allowed back pressure range.

Dimensional drawing



Flow curve



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YSP-1, 2 Type Disc Steam Trap(Pipeline)

As a disc type trap, it effectively uses the difference in the thermodynamic characteristics between steam and condensate. It is appropriate for places where there is a high possibility of freezing damages, including where the outlet or a steam main is exposed to the atmosphere.

Features

- Economical Trap (YSP-1 : no need for a separate bypass pipeline & simple handle operation blows foreign substances out and discharges condensed water.)
- No air binding during the start-up & easy repair,
- Easy installation in a pipeline : compact product & either the screwed type or flanged type can be used according to installation conditions,



YSP-1 Type



YSP-2 Type

Specification

Type		YSP-1, YSP-2
Applicable pressure		0.034~1.2MPa
Fluid temperature		220°C below
End connection		KS PT SCREW
Materials	Body	GC200
	Disc, seat	STS
Hydraulic test pressure		1.8MPa

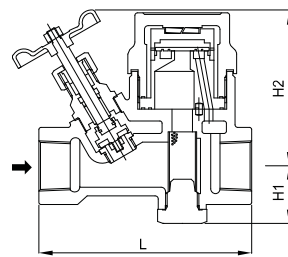
▶ Install a strainer (80 MESH or more) at the front end when installing the valve.

Dimensions

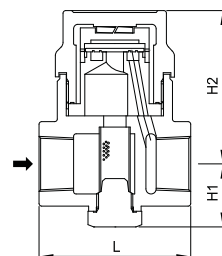
(mm)

Type	Size	L	H1	H2	Weight (kg)
YSP-1 Type	15(½")	120	33	95	2.2
	20(¾")	125	33	95	2.2
	25(1")	135	37	97	2.8
YSP-2 Type	15(½")	80	33	84	1.6
	20(¾")	84	33	84	1.6
	25(1")	88	37	87	2.2

Dimensional drawing

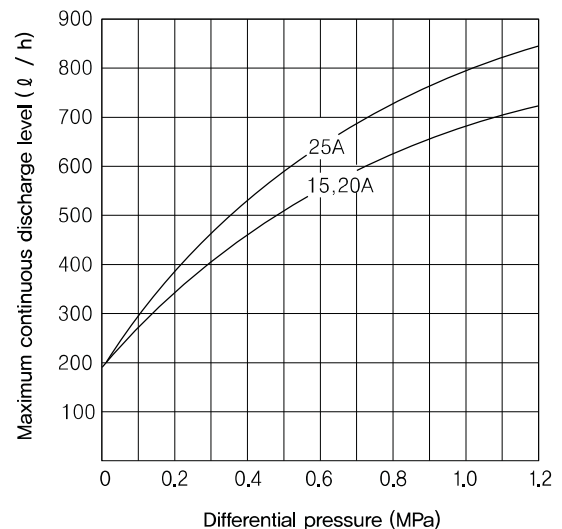


Type YSP-1
(Bypass valve attached)



Type YSP-2

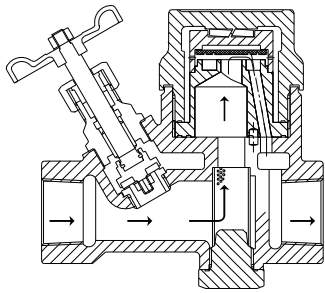
Flow curve



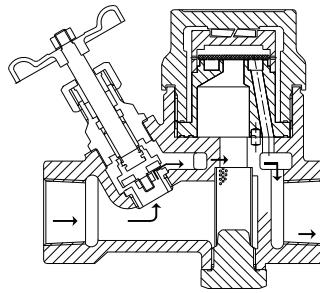
YSP-1 Type Steam Trap with Bypass

© Type YSP-1 Steam Trap with Bypass

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When the bypass valve is closed

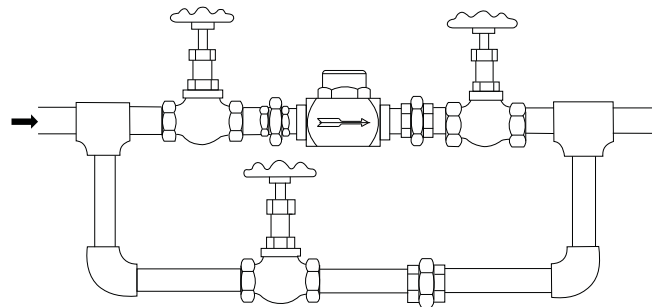


When the bypass valve is open

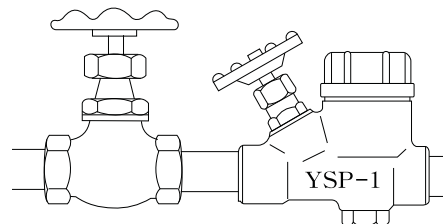
Features

- 2 different functions : (1) Trap—when the bypass valve is closed; (2) Condensed water discharge device—when the bypass valve is open.
- Built-in strainer.
- No need for a bypass pipeline.
- Simple structure : easy operation & repair.

Pipeline installation method



When a bypass steam trap is not attached



When a bypass steam trap is attached

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YSP-5 Type Steam Trap

As a disc type trap, this product guarantees perfect operations and features parts that are all made of highly durable stainless steel. Because it has a built-in bimetal, there is no air binding and no concern of freezing damages.



Features

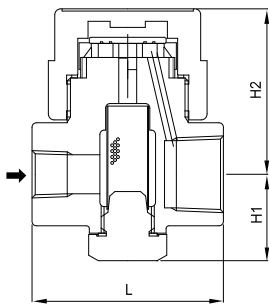
- Built-in bimetal preventing air binding.
- Built-in strainer preventing malfunctioning caused by foreign substances.
- Made of stainless steel : outstanding durability and a high degree of hardness.

Specifications

Type	YSP-5	
Applicable pressure	0,01~0,8, 0,03~1,6MPa	
Fluid temperature	220°C Below	
End connection	KS PT SCREW	
Materials	Body	STS
	Disc, seat	STS
Hydraulic test pressure	1,5 times of applicable flange rating	

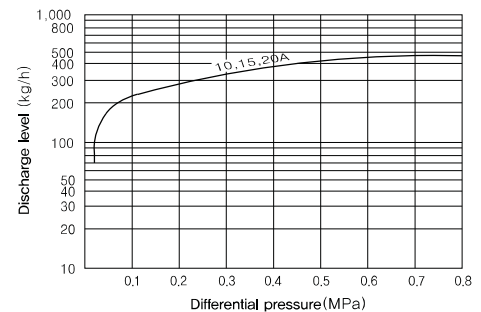
▶ Install a strainer (80 MESH or more) at the front end when installing the valve.

Dimensional drawing

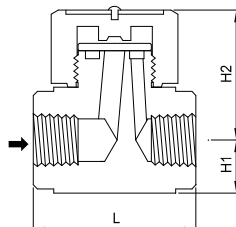


Dimensions

Type	Size	L	H1	H2	Weight (kg)
YSP-5 Type	15(1/2")	65	30	55	1,0
	20(3/4")	65	30	55	1,0
	25(1")	65	30	55	1,2



Dimensional drawing



YSP-6 Type Steam Trap

Features

- Compact & lightweight : easy to install.
- Superb discharge performance & a long life span.
- Made of stainless steel : a high degree of hardness & corrosion-free.

Specifications

Type	YSP-6	
Applicable pressure	0,01~1,6MPa	
Fluid temperature	220°C below	
End connection	KS PT SCREW	
Materials	Body	STS
	Disc, seat	STS
Hydraulic test pressure	2,4MPa	

▶ Install a strainer (80 MESH or more) at the front end when installing the valve.

Dimensions

Size	L	H1	H2	Weight (kg)
8(1/4")	40	13	32	0,23
10(3/8")	40	13	32	0,23

TDK 71 Thermodynamic Steam Trap

TDK 71 Steam Trap internal parts are made of stainless steel and body is made of stainless casting. In every condition the maximum back pressure will not exceed 80% of inlet pressure. If not the trap will not function properly. TDK 71 simply discharges in relation to condensate level. Strainer is easy to clean as it a Y-type located in lower part of body. It can be installed in both horizontally and vertically; however, it is recommended to install in horizontal pipelines.

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Specifications

Type	TDK 71		
Size	15A, 20A, 25A		
Maximum permissible pressure	63 bar		
Maximum operational pressure	42 bar		
Maximum applied temperature	400°C		
Connection	screwed		

► Strainer (over 80 Mesh) installation is required to ahead inlet when installing valve.

Weight

Connections	Screwed		
Size (mm)	15A	20A	25A
Weight (kgs)	0,94	1,1	1,6

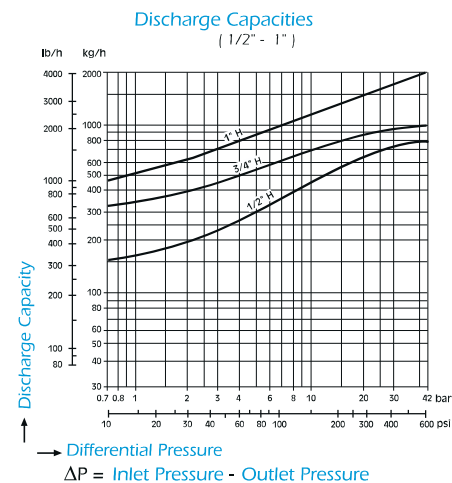
Connections

Screwed	NPT acc. to ANSI B1 20,1 BSP acc. to BS 21
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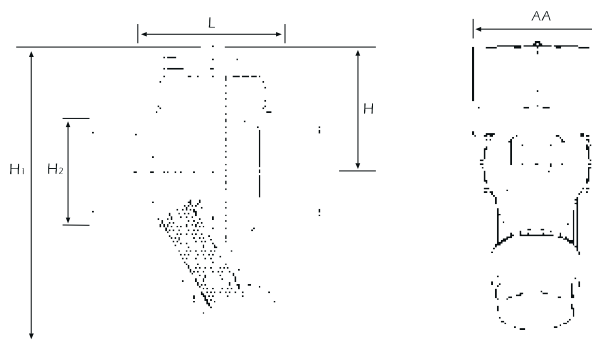
Dimensions

Cap/Size	L	H	H1	H2	AA
15A	78	41	95	33	41
20A	90	43	110	39	41
25A	95	52	124	45	55

Flow curve



Dimensional drawing



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TDK 45 Steam Trap

Like any other steam traps TDK 45 has been produced in accordance to German Regulation of Boiler (TRD) / Pressure Vessel (AD) and DIN standard of design and tests. Opposite pressure will not exceed 80% of front pressure. Internal parts are made of stainless steel and body is made of forged steel. Strainer is easy to clean and maintain as it's a Y-type located in lower part of body.



Specification

Type	TDK 45
Size	15A, 20A, 25A
Maximum permissible pressure	65bar
Maximum operational pressure	40 bar
Maximum applied temperature	400°C
Differential pressure	32bar
Connection	screwed, socket weld

► Strainer (over 80 Mesh) installation is required to ahead inlet when installing valve.

Weight

Connections	Socket weld			Screwed		
Size(mm)	15A	20A	25A	15A	20A	25A
Weight (kgs)	1.8	1.7	1.6	1.9	1.9	1.9

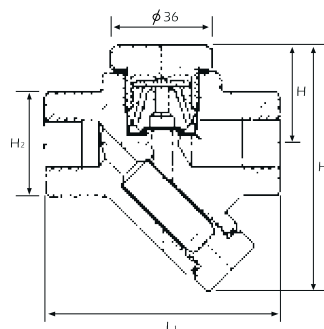
Connections

Screwed	NPT acc. to ANSI B1 20.1, BSP acc. to BS 21
Socket Weld	ANSI B 16.11

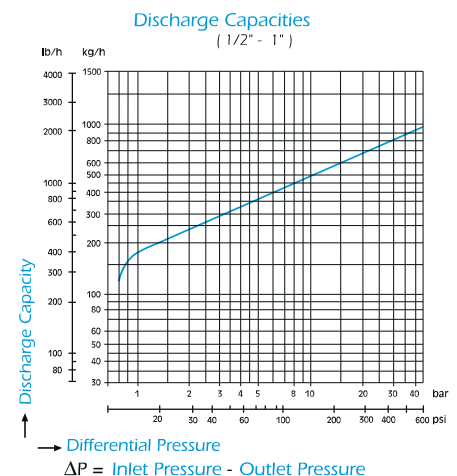
Dimensions

Cap/Size	L	L1	H	H1	H2
15A	150	95	40	100	42
20A	150	95	40	100	42
25A	160	95	40	100	42

Dimensional drawing



Flow curve



TDK PS Steam Trap

TDK PS Steam Trap internal parts are made of stainless steel and body is made of stainless casting. In every condition the maximum back pressure will not exceed 80% of inlet pressure. If not the trap will not function properly. TDK 71 simply discharges in relation to condensate level. All parts have spare parts so its easy to maintain. Strainer is easy to clean and maintain as it's a Y-type located in lower part of body. It can be installed in both horizontally and vertically; however, it is recommended to install in horizontal pipelines.

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Specification

Type	TDK PS		
Size	15A, 20A, 25A		
Maximum permissible pressure	63bar		
Maximum operational pressure	42bar		
Maximum applied temperature	400°C		
Connection	Screwed		

► Install a strainer (80 MESH or more) at the front end when installing the valve.

Weight

Connections	Screwed		
Size (mm)	15A	20A	25A
Weight (kgs)	0,94	1,1	1,6

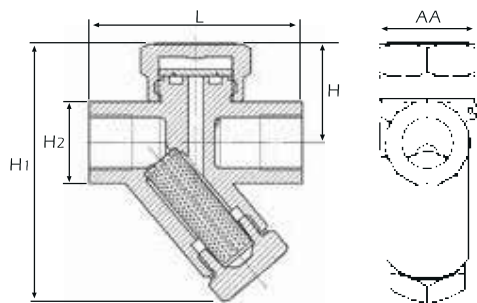
Connections

Screwed	NPT acc. to ANSI B1 20,1, BSP acc. to BS 21
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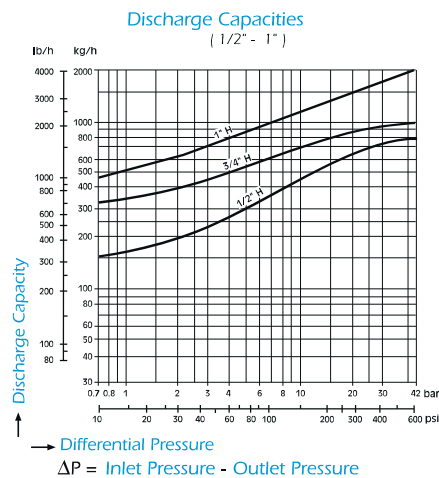
Dimensions

Cap/Size	L	H	H1	H2	AA
15A	78	36,5	94	30	35
20A	90	43	103	36,5	40
25A	95	51	115,5	43	45

Dimensional drawing



Flow curve



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TK 1 Steam Trap

With in-built device to prevent corrosion, TK1 Steam Trap does not get effected by water hammer. It also includes strainer, check valve and auto-discharge functions. It can be installed both vertically and horizontally. It is functional in high pressure and bi-metal temperature adjustment plate can be adjusted with adjusting screw. It can also adjust condensate discharging level and temperature. This steam trap is ideal for superheated steam pipelines.

Specification

Type	TK1
Size	15A, 20A, 25A
Maximum permissible pressure	40bar
Maximum operational pressure	32bar
Maximum applied temperature	250°C
Differential pressure	22bar
Connection	screwed, socket weld

► Install a strainer (80 MESH or higher) at the front end when installing the valve.

Weight

Connections	Socket weld			Screwed		
Size (mm)	15A	20A	25A	15A	20A	25A
Weight (kgs)	2,4	2,4	2,3	2,5	2,5	2,4

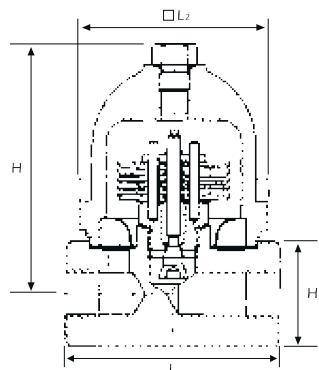
Connections

Screwed	NPT acc, to ANSI B1 20,1, BSP acc, to BS 21
Socket Weld	ANSI B 16,11

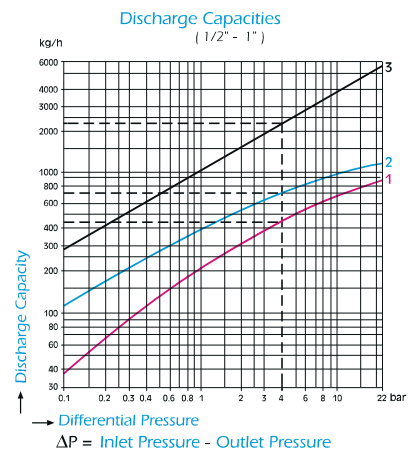
Dimension

Cap/Size	L	L1	L2	H	H1
15A	95	150	82	102	41
20A	95	150	82	102	41
25A	95	150	82	102	41

Dimensional drawing



Flow Curve



TKK 2Y Steam Trap

Like any other steam traps TDK 2Y has been produced in accordance to German Regulation of Boiler (TRD) / Pressure Vessel (AD) and DIN standard of design and tests. Steam trap with membrane capsule adjusting device can resist on corrosion and does not get effected by water hammer. TKK 2Y Steam Trap includes strainer. This type of steam trap can be operational in any locations and includes standard membrane capsule. Specially designed seat interior stainless steel ball can be operated as check valve.

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Specification

Type	TKK 2Y
Size	15A, 20A, 25A
Maximum permissible pressure	40bar
Maximum operational pressure	32bar
Maximum applied temperature	250°C
Differential pressure	22bar
Connection	screwed, socket weld

► Install a strainer (80 MESH or higher) at the front end when installing the valve.

Weight

Connections	Socket weld			Screwed		
Size (mm)	15A	20A	25A	15A	20A	25A
Weight (kgs)	1,8	1,7	1,6	1,9	1,9	1,9

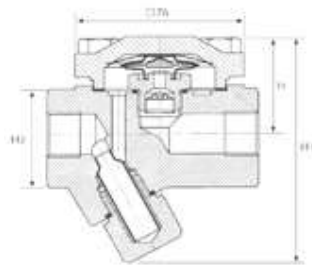
Connections

Screwed	NPT acc. to ANSI B1 20.1, BSP acc. to BS 21
Socket Weld	ANSI B 16.11

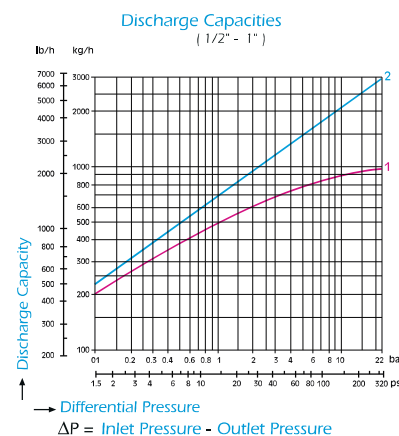
Dimension

Cap/Size	L	L1	H	H1	H2
15A	150	95	45	97	40
20A	150	95	45	97	40
25A	160	95	45	97	40

Dimensional drawing



Flow Curve



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TKK 2N Steam Trap

Like any other steam traps TKK 2N has been produced in accordance to German Regulation of Boiler (TRD) / Pressure Vessel (AD) and DIN standard of design and tests. Steam trap with membrane capsule adjusting device can resist on corrosion and does not get effected by water hammer. TKK 2N Steam Trap includes flat strainer. This type of steam trap will operate in any location and includes standard “S” type membrane capsules.

Specification

Type	TKK 2N
Size	15A, 20A, 25A
Maximum permissible pressure	40bar
Maximum operational pressure	32bar
Maximum applied temperature	250°C
Differential pressure	22bar
Connection	screwed, socket weld

► Strainer (over 80 Mesh) installation is required to ahead inlet when installing valve.

Weight

Connections	Socket weld			Screwed		
Size (mm)	15A	20A	25A	15A	20A	25A
Weight (kgs)	1,6	1,5	1,4	1,7	1,7	1,7

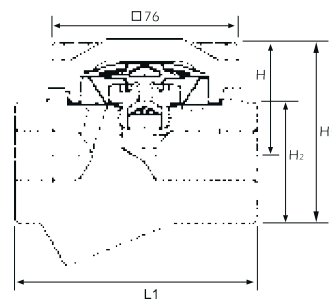
Connections

Screwed	NPT acc. to ANSI B1 20,1, BSP acc. to BS 21
Socket Weld	ANSI B 16,11

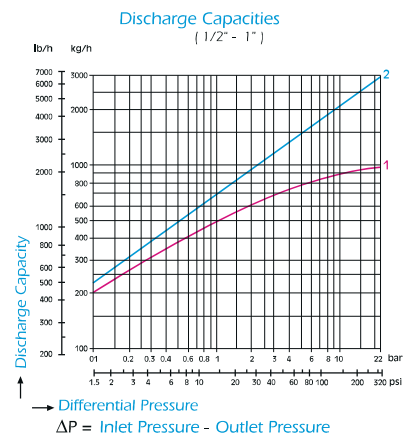
Dimensions

Cap/Size	L	L1	H	H1	H2
15A	150	95	45	67	40
20A	150	95	45	67	40
25A	150	95	45	67	40

Dimensional drawing



Flow Curve



TKK 41 Steam Trap

TKK 41 is ideal for high corrosive environment or where ammonia is discharged, TKK 41 Steam trap has been designed to be suitable for high corrosive environment, Like any other steam traps TKK 41 has been produced in accordance to German Regulation of Boiler (TRD) / Pressure Vessel (AD) and DIN standard of design and tests. Steam trap with membrane capsule adjusting device can resist on corrosion and does not get effected by water hammer. TKK 41 Steam Trap includes flat strainer with body made only by stainless steel with low discharge capacity, TKK41 is impossible to maintain and repair. TKK 41 is suitable for medicine or food industry. Steam trap contains standard membrane capsules.

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Specification

Type	TKK 41		
Size	10A, 15A, 20A		
Maximum permissible pressure	55bar		
Maximum operational pressure	45bar		
Maximum applied temperature	250°C		
Differential pressure	21bar		
Connection	screwed		

► Install a strainer (80 MESH or higher) at the front end when installing the valve.

Weight

Connections	Screwed		
Size (mm)	10A	15A	20A
Weight (kgs)	0,3	0,3	0,3

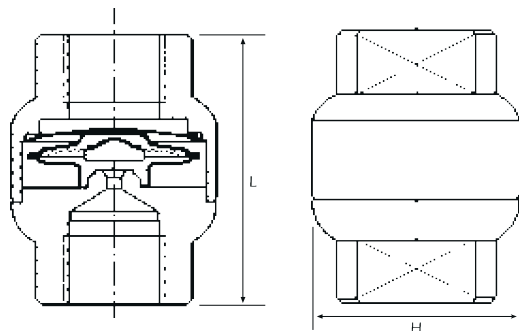
Connections

Screwed	NPT acc. to ANSI B1 20,1, BSP acc. to BS 21
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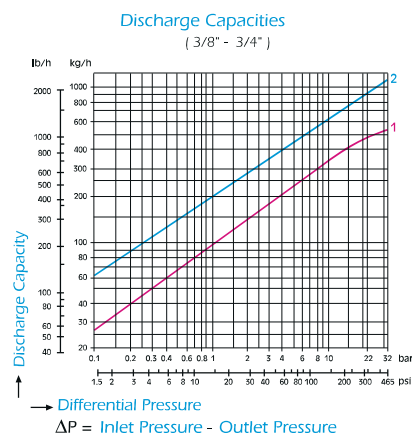
Dimensions

Cap/Size	L	H
10A	55	42
15A	55	42
20A	55	42

Dimensional drawing



Flow Curve



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TKK 3 Steam Trap

TKK 3 is specially designed to fit where there is high condensate discharge level and high water hammer resistance. Like any other steam traps TKK 43 has been produced in accordance to German Regulation of Boiler (TRD) / Pressure Vessel (AD) and DIN standard of design and tests. Steam trap with membrane capsule adjusting device can resist on corrosion and does not get effected by water hammer. The difference between other steam trap and TKK 3 Steam trap is that it contains flat strainer and 3 thermostatic capsules. This type of steam trap operates in any locations and includes standard "S" type membrane capsules.

Specification

Type	TKK3
Size	15A, 20A, 25A
Maximum permissible pressure	40bar
Maximum operational pressure	32bar
Maximum applied temperature	250°C
Differential pressure	22bar
Connection	screwed, socket weld

► Strainer (over 80 Mesh) installation is required to ahead inlet when installing valve.

Weight

Connections	Socket weld			Screwed		
Size (mm)	15A	20A	25A	15A	20A	25A
Weight (kgs)	2,4	2,4	2,3	2,5	2,5	2,4

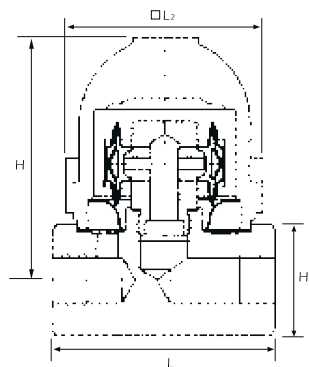
Connections

Screwed	NPT acc. to ANSI B1 20,1, BSP acc. to BS 21
Socket Weld	ANSI B 16,11

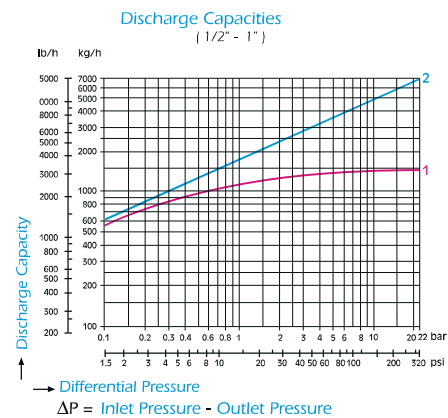
Dimensions

Cap/Size	L	L1	L2	H	H1
15A	95	150	82	93	41
20A	95	150	82	93	41
25A	95	150	82	93	41

Dimensional drawing



Flow Curve



YRS-3 Type Radiator Trap

This is a thermo-wax type radiator trap that is used for heating radiators.

Features

- No concern about freezing damages : no condensate remaining in the trap.
- No steam leakage : discharging condensate only when it is 100°C or below.
- Quickly discharging condensate and air.
- Compact & strong : The product can be used almost permanently. If needed, just replace the element.
- Distance among surfaces and the union nipple part — Same regulations on heating radiator traps KS B 6403 are applied.

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Specification

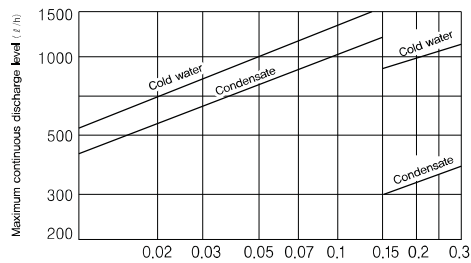
Applicable pressure		0.01~0.15	0.15~0.3MPa
Fluid temperature		100°C below	150°C below
End connection	Inlet	KS PT SCREW (Union nipple)	
	Outlet	KS PT SCREW	
Materials	Body	C3771	
	Disc, seat	STS	
Hydraulic test pressure		1.5 times of applicable flange rating	

Dimensions

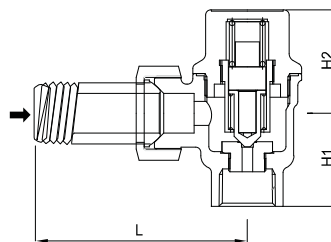
(mm)

Size	L	H1	H2	d	Weight (kg)
15(1/2")	80	35	40	1/2"	0.6
20(3/4")	87	41	40	3/4"	0.6

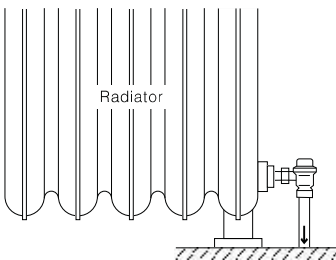
Flow Curve



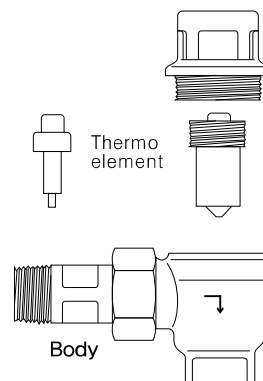
Dimensional drawing



Installatim example



Changing the thermo element



The element can be changed simply by loosening the cap.

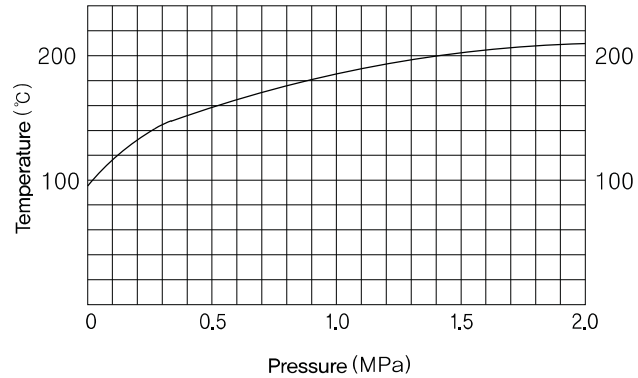
Data / Steam Trap

Steam characteristics and terminologies

- **STEAM CURVE**

Water boils at 100°C when it is heated while placed in an open container. When water inside an airtight container is heated, the pressure rises and the saturation temperature goes up as well. Diagram 1 shows the relationship between pressure and temperature.

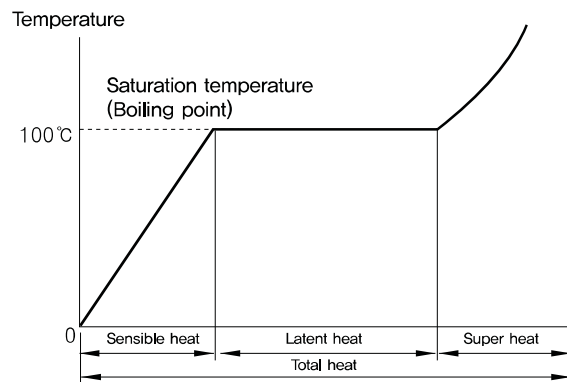
» Diagram 1. Steam curve



HEAT

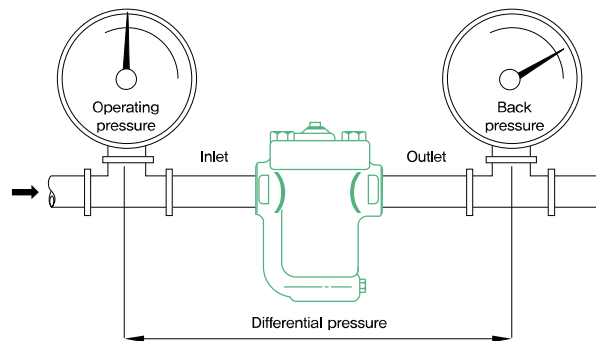
- Sensible heat: Heat required to heat a unit weight of water so that it reaches the saturation temperature, while the pressure remains constant.
- Latent heat: Heat required to convert a unit weight of saturated water in saturation temperature state into saturated steam. (Also referred to as evaporation heat.)
- Super heat: Heat required to convert a unit weight of saturated steam into super heated steam.
- Total heat: Total heat that steam has in a certain state.
- Diagram 2 shows the relationship between temperature and heat.

Diagram 2. Heat curve



Operation-related terminologies

Operating Pressure	Pressure on the inlet side of a trap
Back Pressure	Pressure on the outlet side of a trap
Differential Pressure	Difference between the operating pressure and back pressure
Operating temperature	Temperature on the inlet side of the trap under operating conditions
Maximum Operating Temperature	Temperature Maximum temperature allowed for the inlet side of a trap
Maximum Operating Pressure	Pressure Maximum pressure allowed for the inlet side of a trap



Data / Steam Trap

Types of steam traps

- **Functions of a steam trap**

A steam trap should quickly discharge condensate, air, and CO² gas from a steam system, and should not leak live steam.

- **Types of steam traps**

Category	Type
Mechanical Steam Trap	1. Float Trap 2. Inverted Bucket Trap 3. Open Bucket Trap
Thermostatic Steam Trap	1. Bellows Trap 2. Thermo Wax Trap 3. Bimetallic Trap
Thermodynamic Steam Trap	1. Disc Trap

03

- **Comparison of characteristics among different trap types**

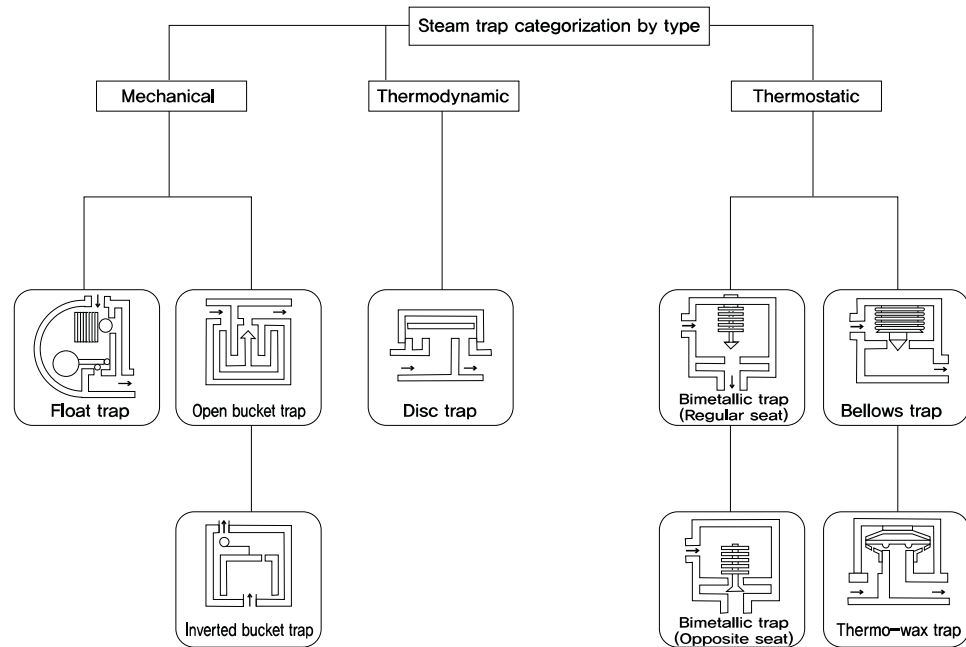
Characteristics		Category	Inverted bucket trap	Float trap	Disc trap	Thermostatic trap
		YBT-2C YBT-400	YAF-14	YSP-1,2 YSP-5, 6	YRS-3	
1	Operation cycle		Intermittent operation	Continuous operation	Intermittent operation	Continuous operation
2	Energy conservation (during operation)		○	○	X	●
3	Abrasion resistance		●	●	○	●
4	Corrosion resistance		●	●	●	●
5	Fluid's impact resistance		○	X	●	●
6	Discharge of air and CO ² at steam temperature		○	X	X	X
7	Air discharge capability at ultra low pressure(0.012MPa)		X	●	X	●
8	Air load handling capability during start-up		○	●	X	●
9	Operation based on back pressure		●	●	X	●
10	Freezing resistance		○	X	●	●
11	Operation performance in terms of small load		○	●	X	●
12	Hindrance by foreign substances		●	●	X	●
13	External size		Large	Large	Small	Small
14	Re-evaporated steam handling capability		○	X	X	●
15	Orifice closing state before operation		Open	Closed	Closed	Open
Legend			● Excellent	○ Good	X Open	

Data / Steam Trap

Steam trap selection

- Selection of a type

Steam traps have different characteristics according to their type. This is why there is a need to first decide on a specific type when selecting a steam trap. A type should be selected based on past experience. For details, review informational materials and consult with the manufacturer.



- Selection of a size

A decision on a size of a steam trap should be made in consideration of the generated condensate amount, differential pressure, back pressure, and safety factor of steam equipment.

- 1) How to calculate the generated condensate amount
 - Materials provided by the steam equipment manufacturer
 - Calculation using a formula

$$W = \frac{Q \cdot \Delta T \cdot C_p}{L}$$

W : Generated condensate amount (kg/h) Cp : Specific heat (kcal/kg°C)
 Q : Heated liquid flow (kg/h) L : L : Heat reduction of steam (kcal/kg)

- 2) Differential pressure : Difference in pressure (back pressure) between the inlet side and outlet side of a trap
- 3) Safety factor : Apply a safety factor to steam equipment by considering the maximum condensate load during initial operation.

>> Safety ratio of various facilities

Steam main	3
Heat exchanger	2
Tracing line	2
Heating facility	3

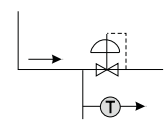
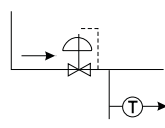
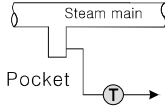
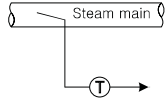
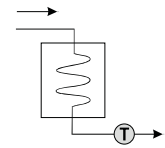
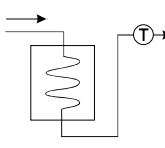
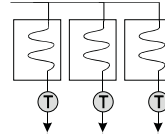
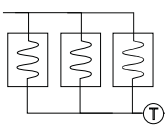
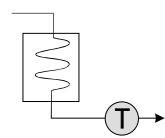
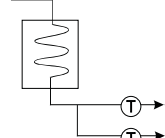
Data / Steam Trap

Cautionary measures for trap installation and examples of installation in a pipeline

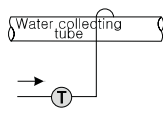
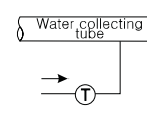
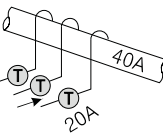
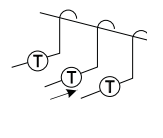
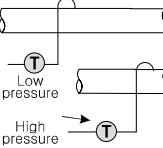
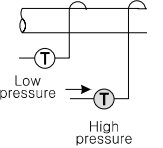
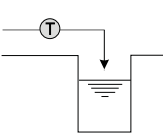
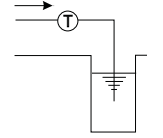
- **Cautions for trap installation**
 - Remove scales, dust, etc, from the pipeline before installing a trap,
 - Install the trap where easy maintenance and inspections can take place,
 - Install the trap near the steam equipment,
 - Have the pipeline inclined so that condensate flows into the trap by force of gravity.

- **Application Diagram (Example)**

>> In case of inlet side

Example of a good case	Example of a bad case	Explanation
		Install the trap on the inlet side to improve the performance of an automatic valve, including a pressure-reducing valve.
		In case of steam main, install the trap in the pipeline after installing a pocket.
		Install the trap at the lowest end of the steam equipment.
		If there is more than one steam equipment, install a trap for each.
		Avoid parallel pipeline installation of steam traps.

>> In case of outlet side

Example of a good case	Example of a bad case	Explanation
		If the outlet side is vertically standing, connect the trap on the upper part of the water collecting tube.
		The pipe size of the condensate collecting tube should be bigger than the sum of the cross sections of the trap pipeline.
		Install separate water collecting tubes for steam usage areas that have a different pressure level (of at least 50%).
		The outlet side of the trap should be at a higher location than the water level of the condensate tank.

Data / Steam Trap

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Troubleshooting

1) Bucket trap (YBT-4)

Troubles	Possible reasons	Measures
Not discharging	The running pressure is higher than the trap's applicable pressure. The orifice is clogged due to foreign substances.	Replace the trap with another one that has an appropriate pressure level. Disassemble and clean.
Small discharge volume	There is insufficient discharge capacity. The operating differential pressure is insufficient due to excessive back pressure.	Replace the trap with another one that has enough capacity. Check the pressure level on the inlet and outlet side of the trap and the piping system.
Steam leakage	There is a foreign substance in between the disc and seat. The disc and seat are worn. The bypass valve is defective.	Disassemble and clean. Change the disc and seat. Check or replace the bypass valve.

2) Float trap (YAF-14S, YAF-14F)

Troubles	Possible reasons	Measures
Not discharging	The float has been damaged. The running pressure is higher than the trap's applicable pressure.	Change the float. Replace the trap with another one that has an appropriate pressure level.
Small discharge volume	The trap does not have enough discharge capacity. The operating differential pressure is insufficient due to excessive back pressure. The strainer on the inlet side of the trap is clogged.	Replace the trap with the one that has enough capacity. Check the pressure level on the inlet and outlet side of the trap and the piping system. Disassemble and clean.
Steam leakage	There is a foreign substance in between the disc and seat. There is a foreign substance in the air vent valve or the valve has been damaged. The bypass valve is defective.	Disassemble and clean the disc and seat. Check or replace the air vent valve.

3) Disc trap (YSP-1, 2, YSP-5, 6)

Troubles	Possible reasons	Measures
Not discharging	The trap's operating differential pressure is insufficient. The back pressure is high because the outlet side is vertically standing. The trap's discharge capacity is insufficient. The strainer on the inlet side is clogged.	Check the pressure on the inlet and outlet side of the trap. Check the piping system. Replace the trap with the one that has enough capacity. Disassemble and clean.
Small discharge volume	There is a foreign substance in between the disc and seat. The disc and seat are worn. The bypass valve is defective.	Disassemble and clean. Disassemble and polish, or replace the disc and seat. Check or replace the bypass valve.
Steam leakage	The back pressure is excessive. The running pressure is lower than the trap's minimum operating pressure.	Check the piping patterns on the outlet side. Replace the trap with a more appropriate one.