



YARWAY 761 SERIES UNIBODY STEAM TRAPS

DATASHEET

In-line repairable thermostatic bellows steam trap designed for durability and ease of maintenance in primarily drip and tracing applications.



761

GENERAL APPLICATION

The Yarway 761 Series steam trap is an excellent choice for light load applications such as drip and tracing in steam. It can also be used in certain light process applications.

The Yarway 761 Series thermostatic bellows steam trap is in the Yarway Unibody Series which is uniquely designed for fast, in-line trap renewal. The working portion of the trap is contained in easily installed stainless steel capsules that thread into the unibody. Changing the capsule only takes a couple minutes and results in a brand new steam trap, while the body, made of chrome moly for excellent erosion and corrosion resistance, remains in-line as a permanent holder.

In addition to fast renewals of like-for-like steam traps, changes in trap technology or capacity are also accomplished by simply replacing the capsule. The Yarway Unibody Series includes three different trap technologies and thirteen different capacity options across these technologies for changing process conditions and minimizing inventory.

TECHNICAL DATA

Technology:	Thermostatic-bellows
Size:	3/8", 1/2", 3/4", 1" (DN 10, 15, 19, 25)
Connections:	NPT, SWE
Materials:	low carbon (0.15% max.) chrome moly body and stainless steel trim

751/761 -5 and -40

Design:	ANSI Class 600
Operating:	1-300 psi (0.07 - 21 bar)
Max Temperature:	750°F (400°C)
Capacity:	Up to 675 lb/hr (306 kg/hr)
Back Pressure:	99%

751/761 -HP

Design:	ANSI Class 600
Operating:	
Pressure:	1-600 psi (0.07 - 41 bar)
Max Temperature:	750°F (400°C)
Capacity:	Up to 900 lb/hr (409 kg/hr)
Back Pressure:	99%

OPTIONS

Universal Connector

- Includes the complete trap assembled to a Universal Connector body.

Universal Connector Quick Change Kit

- Used for upgrading an already installed Universal Connector body to the Yarway 761 Series. Future renewals require only the capsule.
- Does not contain body. Contains an adaptor for the Universal Connector to the Yarway Unibody, a 761 Series capsule, two bolts and gasket.

FEATURES

- Simple, in-line repair using quick change capsule
- Freeze proof
- Open failure mode prevents water hammer in steam distribution mains
- Energy efficient subcooled discharge
- Hardened stainless steel valve body and seat
- Installation in any position
- Withstand superheat
- Operates against 99% back pressure
- Self draining (vertical mount)
- Easy to check
- Multiple subcool options
- Integral strainer option

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SERIES 751/761 THERMOSTATIC TRAPS (BELLOWS)

The series 751/761 is available in two body designs and with three Filled Thermal Elements (FTEs). The series 761 is an in-line body with an integral wye strainer and blowdown valve. The series 751 is an in-line body only. The FTEs to 300 psi are the -5 for drip tracing and light process; the -40 for tracing. The -HP is for applications to 600 psi. The FTEs are available in factory set and assembled renewal kits.

All internals are energy efficient. The -5 and -HP internals are slightly subcooled operating near steam temperature. The -40 internals operate 35°F to 45°F subcooled. The -HP is recommended for optimum service life limited to 450 psig.

Applicable codes and standards

Pressure ratings per ANSI/FCI-69-1

Performance testing per ANSI/ASME PTC-39.1

End connections per ANSI B1.20.1 for threaded ends, per ANSI B16.11 for socket-welding ends.

HOW TO SPECIFY AND ORDER

Typical specification - traps shall be thermostatic rated to 600 psi and actuated by a FTE stainless steel. The body shall be low carbon (0.15 max c) chrome-moly steel with threaded (socket-welding) end connections.

Trap shall be in-line repairable energy efficient thermostatic valve. Specify end connections to be threaded or socket-welded. Trap shall have replaceable capsule.

HOW TO SIZE

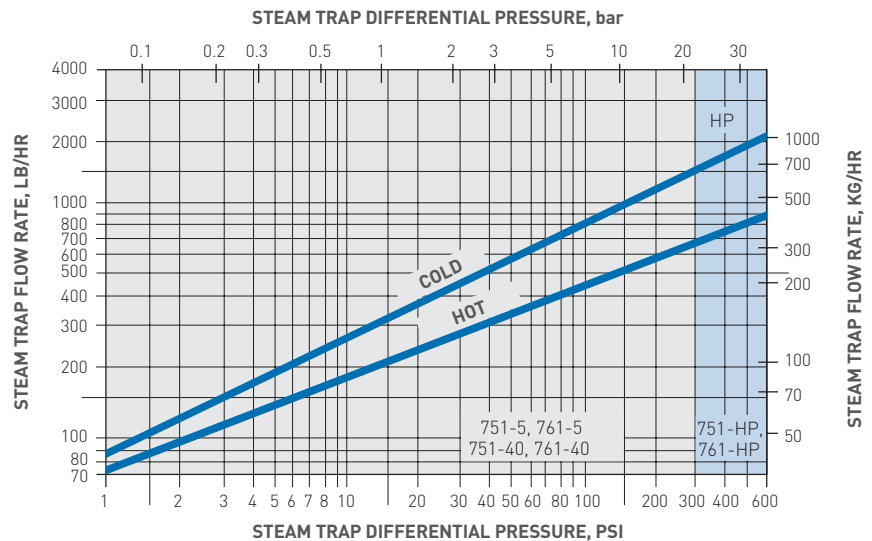
1. Determine maximum temperature and pressure of application and verify with trap.
2. Determine operating conditions - Temperature, Inlet Pressure, Outlet Pressure, and Condensate Load (including factor of safety).
3. Determine the condensate load at the operating differential pressure is below what trap can handle.
4. Verify trap can handle back pressures

ORDERING GUIDE

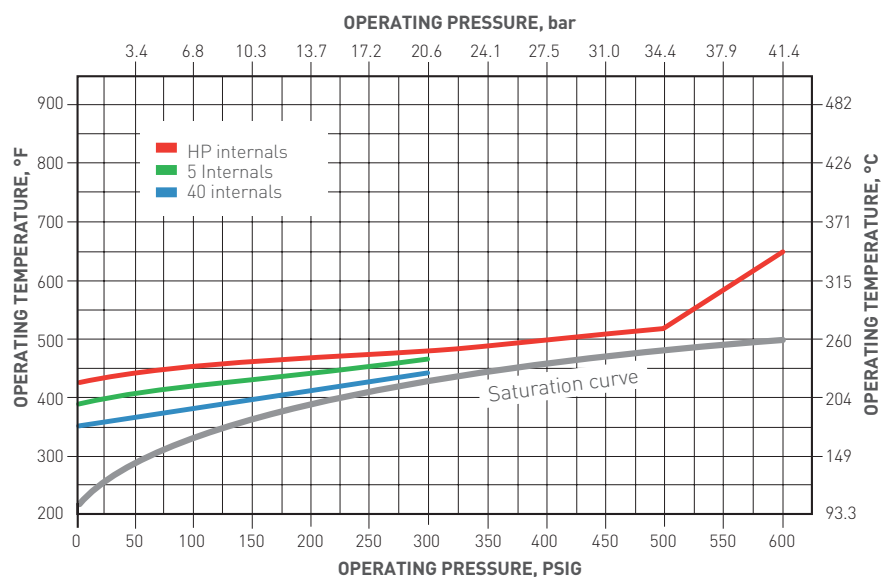
Available Configurations (select one)

- ☐ Type 761 - includes strainer and blowdown valve
- ☐ Type 751 - no strainer or blowdown valve

CAPACITIES (FOR STEAM TRAP SIZING)



FUNCTIONAL SUPERHEAT DESIGN LIMITS



Capsule Type (select one)

- ☐ 5 Internals
- ☐ 40 Internals
- ☐ HP Internals

Body Sizes (select one)

- ☐ NPS 3/8 (DN 10)
- ☐ NPS 1/2 (DN 15)
- ☐ NPS 3/4 (DN 20)
- ☐ NPS 1 (DN 25)

End Connection (select one)

- ☐ NPT
- ☐ SWE
- ☐ Other _____

Options

- ☐ UC version including body (NPS 1/2, 3/4 and 1 only)
- ☐ UC Quick Change Kit (same as above but without body)

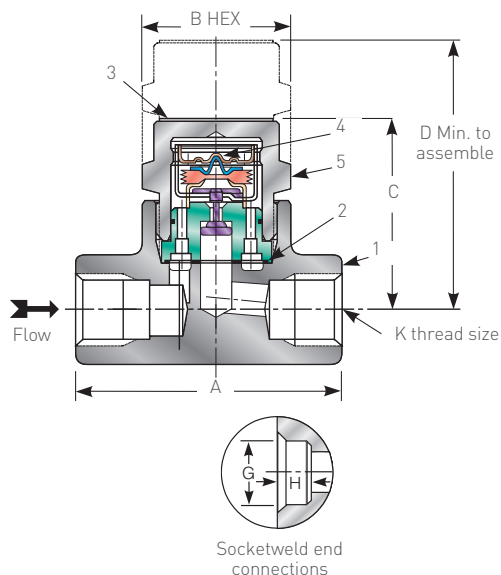
Trap Station Accessories

- ☐ Stop Valve-Inlet
- ☐ Strainer
- ☐ Check Valve
- ☐ Stop Valve-Test
- ☐ Stop Valve-Outlet
- ☐ Stop Valve-Drip Pocket
- ☐ Stop Valve-Bypass
- ☐ Wireless steam trap monitoring

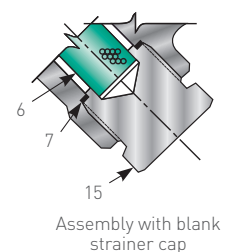
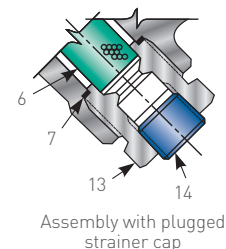
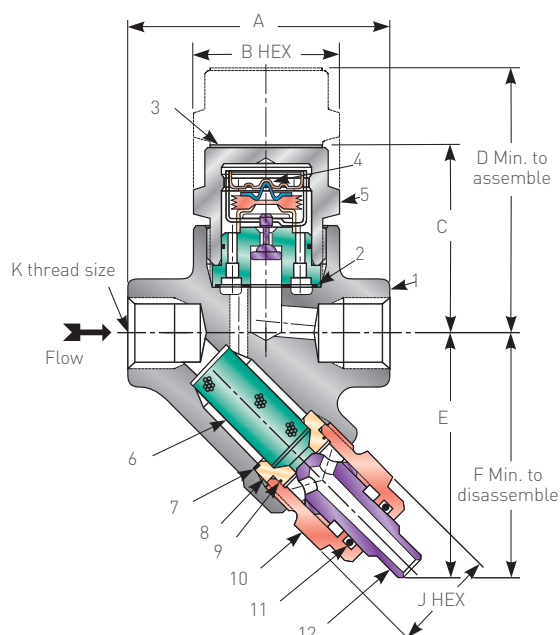
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DATASHEET

TYPE 751



TYPE 761



PARTS AND MATERIALS

Item	Part	Materials
1	Body	ASME SA-182 GR. F11 low carbon, 0.15 max C
2 ^[1]	Seat gasket	Clad non-asbestos
3 ^[1]	Nameplate	Stainless steel
4 ^[1]	FTE cage assembly	Stainless steel
5 ^[1]	Bonnet	Stainless steel
6	Screen	Stainless steel
7 ^[2]	Cap gasket	Monel®
8 ^[2]	Blowdown seat	Stainless steel
9 ^[2]	Retaining ring	Stainless steel
10 ^[2]	Blowdown body	Stainless steel
11 ^[2]	O-ring	Silicone
12 ^[2]	Blowdown valve	Stainless steel
13 ^[3]	Strainer cap	Stainless steel
14 ^[3]	Plug 3/8 NPT	Carbon steel
15 ^[3]	Blank strainer cap	Stainless steel

NOTES

1. Part of factory assembled renewal capsule.
2. Factory assembled blowdown valve renewal kit.
3. Optional strainer caps.

DIMENSIONS AND WEIGHTS

Trap size in. (DN)	Nominal dimensions, in. (mm)										Weight lb. (kg)	
	A	B	C	D	E	F	G	H	J	K	Type 751	Type 761
3/8 [10]	3 5/32 [80]	1 1/2 [38]	2 3/16 [56]	3 [76]	2 7/8 [73]	3 15/16 [100]	3/8 [9.5]	0.695 [17.6]	1 1/16 [27]	3/8 NPT	2 [0.9]	2 3/4 [1.3]
1/2 [15]	3 5/32 [80]	1 1/2 [38]	2 3/16 [56]	3 [76]	2 7/8 [73]	3 15/16 [100]	3/8 [9.5]	0.860 [21.8]	1 1/16 [27]	1/2 NPT	2 [0.9]	2 3/4 [1.3]
3/4 [20]	3 35/64 [90]	1 1/2 [38]	2 1/4 [57]	3 1/16 [78]	3 1/4 [83]	4 15/16 [110]	1/2 [12.7]	1.070 [27.2]	1 3/16 [30]	3/4 NPT	2 1/2 [1.2]	3 1/4 [1.5]
1 [25]	3 15/16 [100]	1 1/2 [38]	2 1/4 [57]	3 1/16 [78]	3 3/8 [86]	4 7/16 [113]	1/2 [12.7]	1.335 [33.9]	1 3/16 [30]	1 NPT	2 3/4 [1.3]	4 [1.8]

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