

SUBMITTAL SHEET

JOB NAME		ITEM TAG
JOB LOCATION		PART NUMBER
CONTRACTOR	DATE	
ENGINEER APPROVAL	DATE	



THERMOSTATIC MIXING VALVE
T-46NL



Pictured T-46NL

Designed to regulate supply water temperature within a radiant heating system or potable domestic water distribution system.

The temperature-actuated three-way thermostatic mixing design, permits precise water temperature control to the hydronic heating loop or hot water distribution system.

Durable poly-resin piston is self-lubricating and dramatically reduces corrosion and scale accumulation, resulting in a longer service life.

The stem cap cannot be rotated. It is fastened to the stem and cannot be used as a tool to adjust the temperature settings, thereby preventing unauthorized adjustment.

Available in Nominal sizes 3/8", 1/2" and 3/4" in male NPT, copper tubing compression, tubing press-fit (VUS pattern), tubing push-fit Insta-Loc II™, PEX barb (F1807 barb) and tubing sweat.*

*Copper sweat connections do not include the integral check valves.

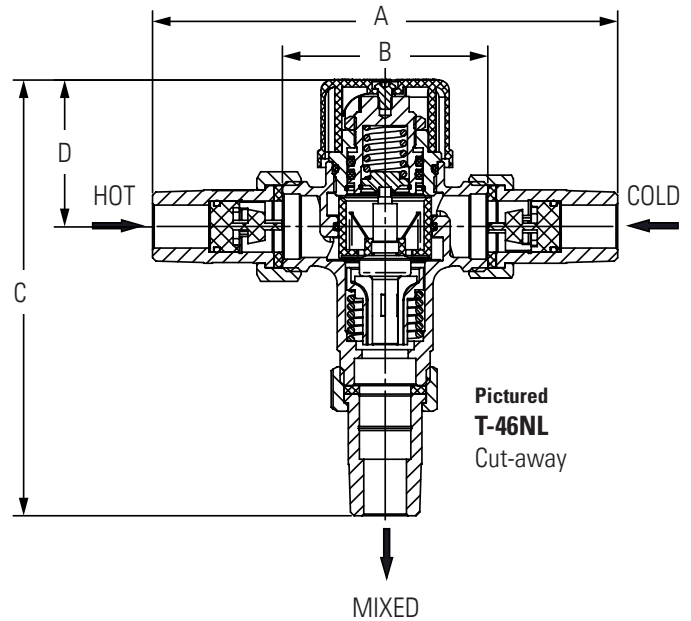
Working Pressure, Non Shock (PSI)

Cold working pressure (CWP): 145 psi
Saturated steam (WSP): Not suitable for steam service

Minimum flow rate: 0.5 gpm* @ 0.8 psi
Maximum flow rate: 15 gpm* @ 125 psi
Temperature adjustment range: 86°F to 130°F
Cold water supply temperature range: 41°F to 68°F
Hot water supply temperature range: 132.8°F to 149°F
Accuracy of mixed water temperature: +/- 3.8°F
Minimum temperature differential between hot supply and MIX outlet: 21.6°F
Supply pressure:
Static: 145 psi
Dynamic: 72.5 psi
Maximum allowable imbalance: 2:1 ratio

**Should not be used for valve selection or system sizing.
The Cv valve listed on this product submittal sheet should be used for valve selection.*

Note: See IOM sheet for complete installation, operation and adjustment procedures.



Pictured T-46NL Cut-away

DIMENSIONS					
Nominal Size		A	B	C	D
3/8"	MNPT:	5.24	2.37	MNPT:	1.69
	Sweat:	4.89		Sweat:	4.79
	Compression:	5.73		Compression:	5.22
	Push-to-connect:	5.82		Push-to-connect:	5.26
	F 1807 PEX barb:	5.47		F 1807 PEX barb:	5.09
1/2"	MNPT:	5.38	2.37	MNPT:	1.69
	Sweat:	5.12		Sweat:	4.90
	Compression:	5.76		Compression:	5.23
	Press-to-connect:	6.09		Press-to-connect:	5.40
	Push-to-connect:	5.97		Push-to-connect:	5.33
F 1807 PEX barb:	5.50		F 1807 PEX barb:	5.10	
3/4"	MNPT:	5.92	2.48	MNPT:	1.69
	Sweat:	5.57		Sweat:	5.15
	Compression:	6.26		Compression:	5.51
	Press-to-connect:	6.58		Press-to-connect:	5.66
	Push-to-connect:	6.76		Push-to-connect:	5.76
F 1807 PEX barb:	5.93		F 1807 PEX barb:	5.35	

Certifications/Listings:

Third-party certified.
ANSI/NSF 61: Drinking water system components health effects.
ASSE 1017: Performance Requirements for Temperature Actuated Mixing Valves for Hot Water Distribution Systems.

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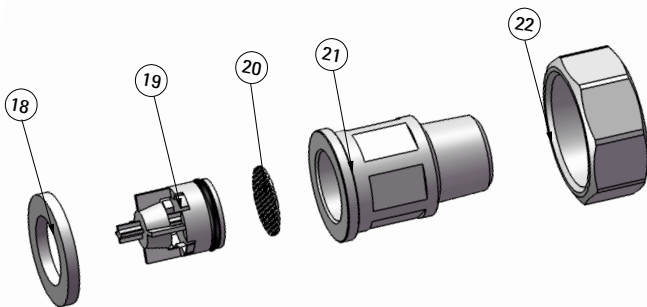
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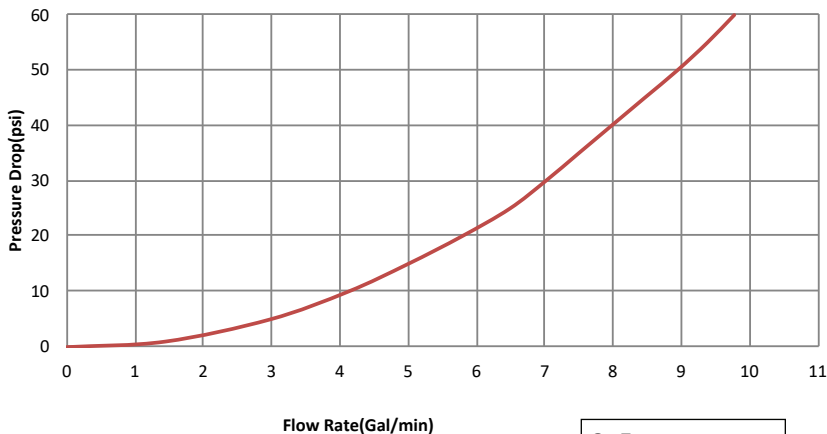
THERMOSTATIC MIXING VALVE
T-46NL

MATERIAL SPECIFICATIONS

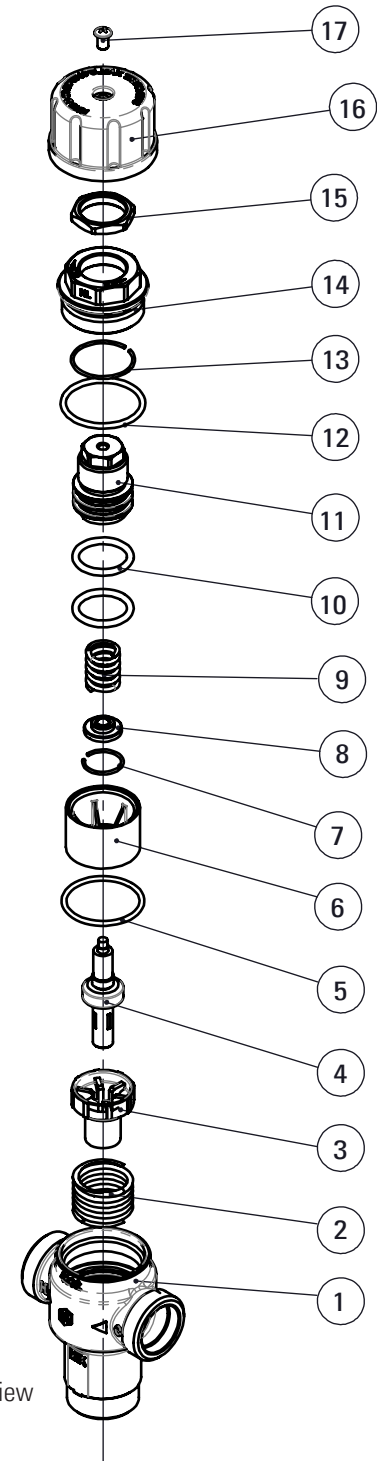
Part	Material	Specification
1 Body	Lead-free forged brass, chrome plated	UNS Alloy C46500
2 Spring	304 stainless steel	AISI Grade 304
3 Flow diverter	Polysulfone (PSU) resin	Commercial grade
4 Thermostatic sensor	Copper-encased paraffin wax	Sensor body: UNS Alloy C11000 Paraffin wax: food grade
5 O-ring	EPDM elastomer	Commercial grade
6 Closure piston	Polysulfone (PSU) resin	Commercial grade
7 Retainer circlip	304 stainless steel	AISI Grade 304
8 Stem spring base	Lead-free forged brass	UNS Alloy C46500
9 Stem spring	304 stainless steel	AISI Grade 304
10 Stem O-ring (2)	EPDM elastomer	Commercial grade
11 Stem	Lead-free forged brass	UNS Alloy C46500
12 Bonnet O-ring	EPDM elastomer	Commercial grade
13 Stem retainer circlip	304 stainless steel	AISI Grade 304
14 Bonnet	Lead-free forged DZR brass	UNS Alloy C35330 EN designation CW602N
15 Locknut	Forged brass	GB designation HPb58-3
16 Stem cap	ABS resin	Commercial grade
17 Cap retainer screw	201 stainless steel	AISI Grade 201
18 End adapter gasket	EPDM elastomer	Commercial grade
19 End adapter check module	Body and piston: Polyacetal resin Spring: 304 stainless steel Seat: EPDM	Spring: AISI Grade 304 All other components: Commercial grade
20 End adapter check strainer screen	304 stainless steel	AISI Grade 304
21 End adapter body	Lead-free forged brass, chrome plated	UNS Alloy C46500
22 End adapter union nut	Forged brass, chrome plated	UNS Alloy C37700



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End adapter with integral check valve exploded view



Cv Factor: 1.45 gpm



Pictured T-46NL
Exploded view