

SUBMITTAL SHEET

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



THERMOSTATIC MIXING VALVE

T-45NL

Designed to prevent scalding and thermal shock in domestic or commercial potable water distribution systems.

The temperature-actuated, three-way thermostatic mixing design, permits precise water temperature control to individual or multiple fixtures and gang showers.

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

Positive lock-down setting knob prevents accidental adjustment. Each valve comes with an adjustment tool.

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 120°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.

Certifications/Listings:

Third-party certified.

ANSI/NSF 61: Drinking water system components health effects.

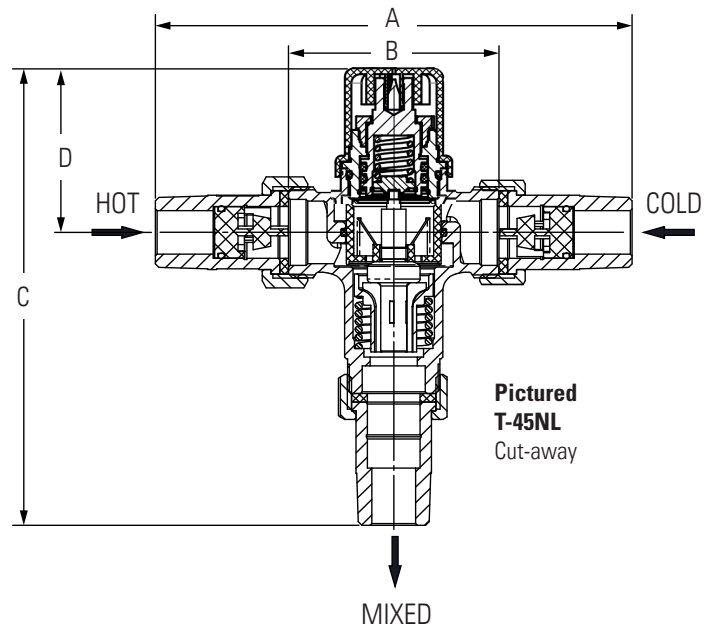
ASSE 1017: Performance Requirements for Temperature Actuated Mixing Valves for Hot Water Distribution Systems.

ASSE 1069: Performance Requirements for Automatic Temperature Control Mixing Valves.

ASSE 1070: Performance Requirements for Water Temperature Limiting Devices.



Pictured T-45NL



Pictured T-45NL Cut-away

DIMENSIONS						
Nominal Size		A	B	C	D	
3/8"	MNPT:	5.24	2.37	MNPT:	5.35	2.06
	Sweat:	4.89		Sweat:	5.17	
	Compression:	5.73		Compression:	5.59	
	Push-to-connect:	5.82		Push-to-connect:	5.65	
	F 1807 PEX barb:	5.47		F 1807 PEX barb:	5.46	
1/2"	MNPT:	5.38	2.37	MNPT:	5.41	2.06
	Sweat:	5.12		Sweat:	5.28	
	Compression:	5.76		Compression:	5.60	
	Press-to-connect:	6.09		Press-to-connect:	5.78	
	Push-to-connect:	5.97		Push-to-connect:	5.72	
F 1807 PEX barb:	5.50		F 1807 PEX barb:	5.48		
3/4"	MNPT:	5.92	2.48	MNPT:	5.68	2.10
	Sweat:	5.57		Sweat:	5.50	
	Compression:	6.26		Compression:	5.84	
	Press-to-connect:	6.58		Press-to-connect:	6.00	
	Push-to-connect:	6.76		Push-to-connect:	6.10	
F 1807 PEX barb:	5.93		F 1807 PEX barb:	5.67		

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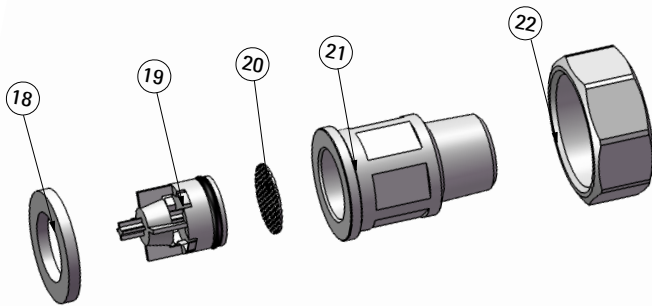
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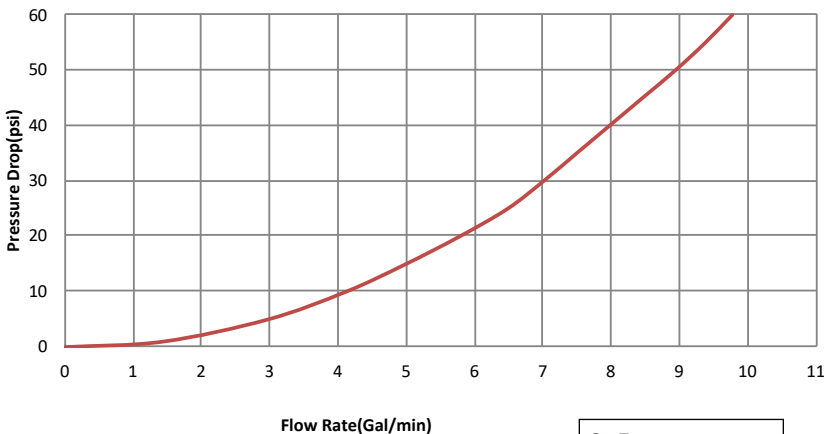
THERMOSTATIC MIXING VALVE
T-45NL

MATERIAL SPECIFICATIONS

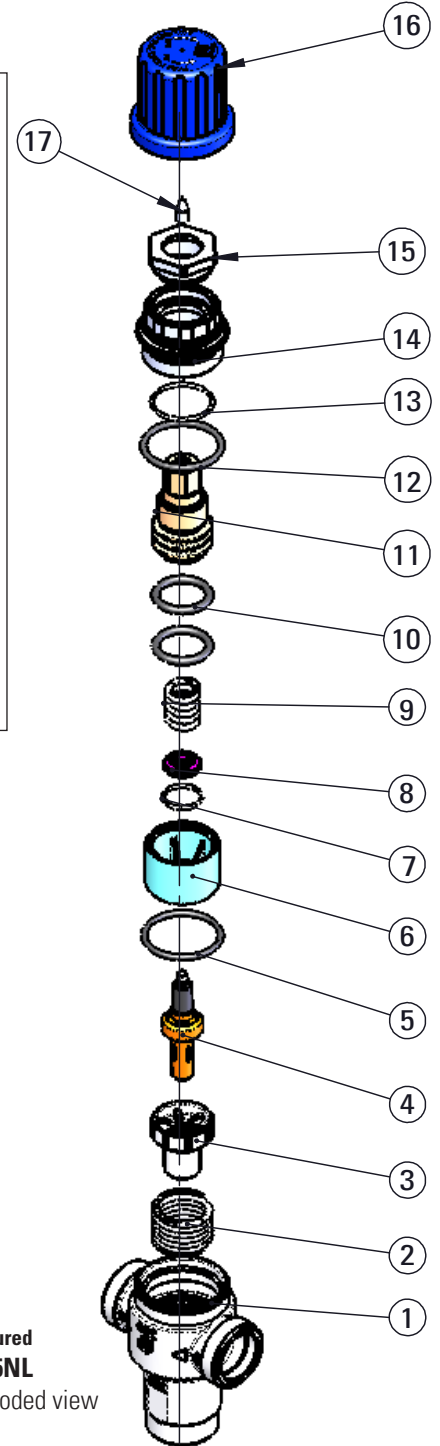
Part	Material	Specification
1 Body	Lead-free forged brass, chrome plated	UNS Alloy C46500
2 Spring	304 stainless steel	AISI Grade 304
3 Flow diverter	Polysulfone (PSU) resin	Commercial grade
4 Thermostatic sensor	Copper-encased paraffin wax	Sensor body: UNS Alloy C11000 Paraffin wax: food grade
5 O-ring	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 Setting knob	ABS resin	Commercial grade
17 Knob retainer pin	ABS-Polycarbonate blend	Commercial grades
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



Pictured T-45NL
End adapter with integral check valve exploded view



Cv Factor: 1.45 gpm



Pictured T-45NL
Exploded view