



Job or Customer :	
Location :	
Engineer :	
<input checked="" type="checkbox"/> Complies with Spec <input checked="" type="checkbox"/> Alternate	Notes :
Contractor :	
Tamas Rep :	
Submitted By :	Date :
Approved By :	Date :
P.O. Number :	Date :

Description

The Tamas Zone Manifold System provides a thermostatic mixing valve (optional), System pump and a manifold for the distribution of mixed water for each of the zones.

Nominal Panel Output

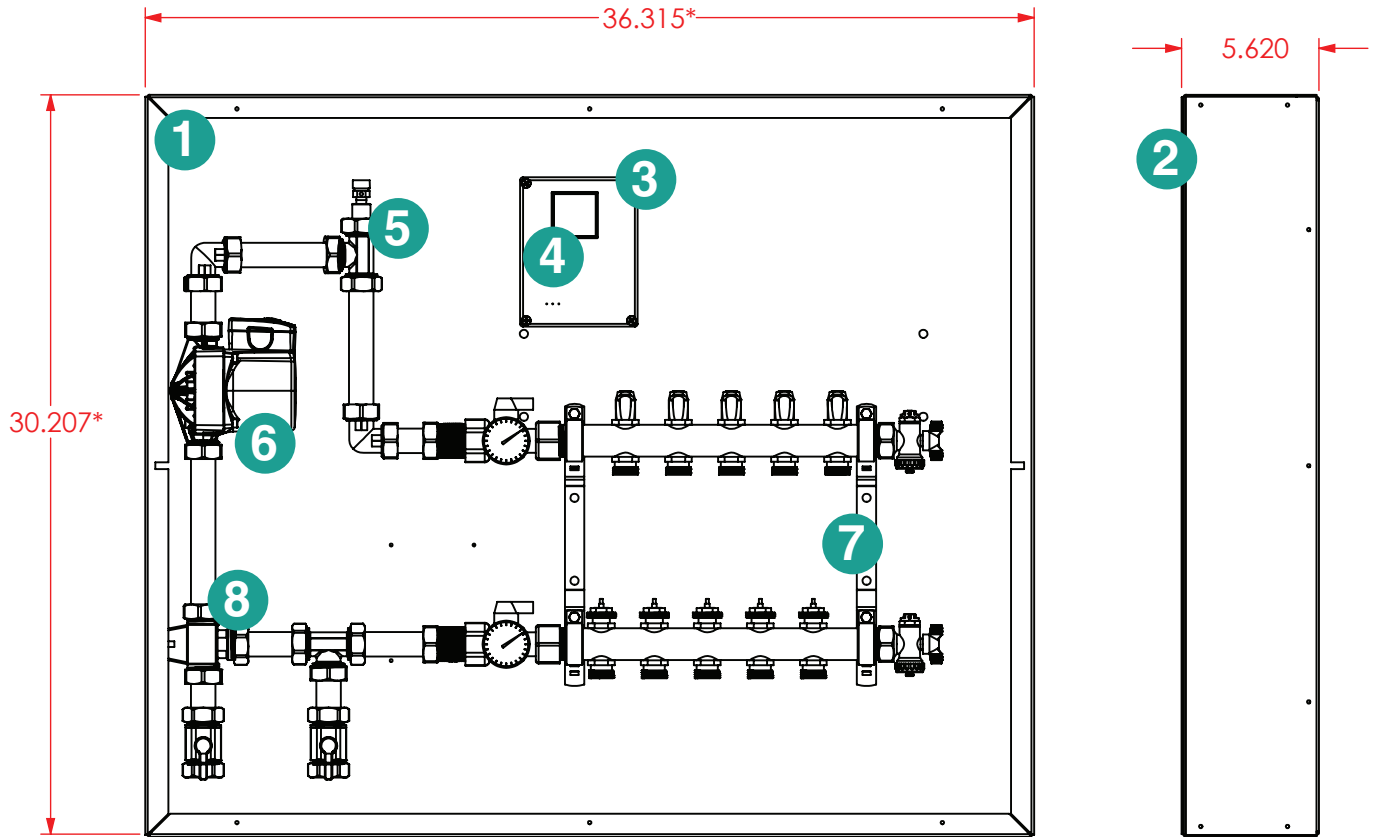
Qty	Model #	Mixing Device	Manifold	Qty	Model #	Mixing Device	Manifold
	T-LO-ZM-2L	3/4" TMV	2 Zones		T-LO-ZM-7L	1" TMV	7 Zones
	T-LO-ZM-3L	3/4" TMV	3 Zones		T-LO-ZM-8L	1" TMV	8 Zones
	T-LO-ZM-4L	3/4" TMV	4 Zones		T-LO-ZM-9L	1" TMV	9 Zones
	T-LO-ZM-5L	1" TMV	5 Zones		T-LO-ZM-10L	1" TMV	10 Zones
	T-LO-ZM-6L	1" TMV	6 Zones		T-LO-ZM-11L	1" TMV	11 Zones

Technical Data

Material:	
Backpan.....	Galvanized Steel
Lockable Enclosure.....	Galvanized Steel
Piping.....	Stainless Steel
Mixing Device.....	Thermostatic Mixing Valve
Max Ambient Temperature.....	120°F (49°C)
Max Water Temperature.....	200°F (93°C)
Power Supply.....	110V (AC) Max Current 6amp

Standards/Listings

- CSA C22.2 No. 14-95
- UL 598A
- ETL No. 3032227

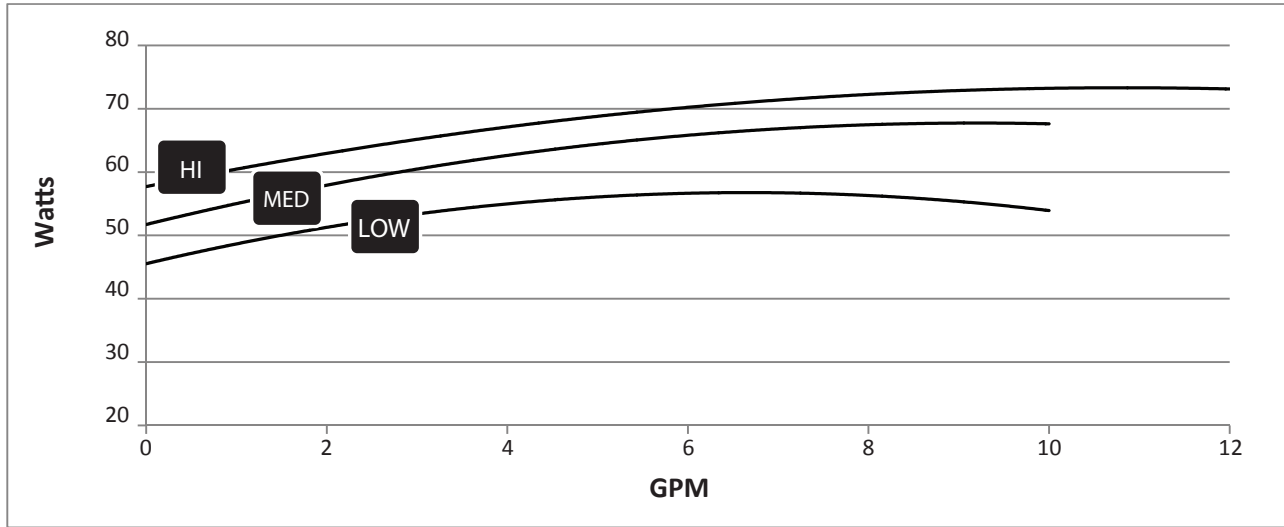
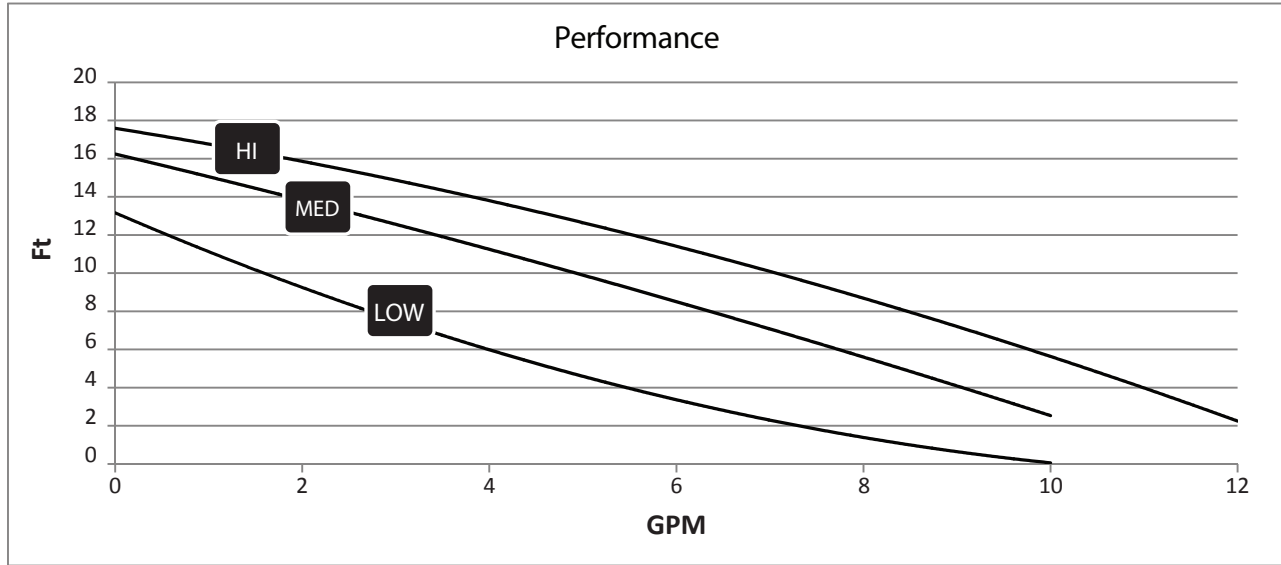


*Panels over 5 Zones will require a 47" x 30" Enclosure

Part List

1	<i>Galvanized Back Plate</i>	5	<i>Air Eliminator</i>
2	<i>Galvanized Mild Steel Cover (Paintable)</i>	6	<i>System Pump UPS 15-58</i>
3	<i>Tamas Control Box</i>	7	<i>Engineered Composite Heating Manifold</i>
4	<i>Temperature Gauge</i>	8	<i>Thermostatic Mixing Valve</i>

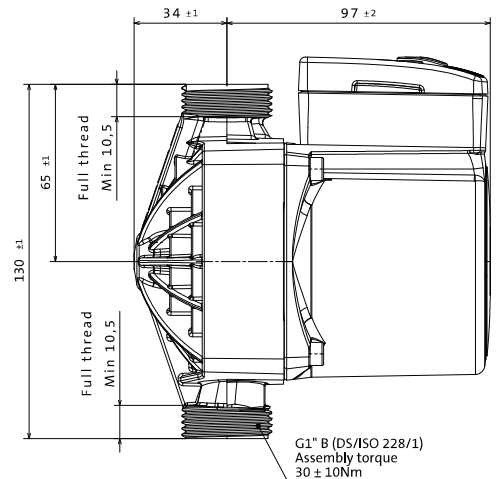
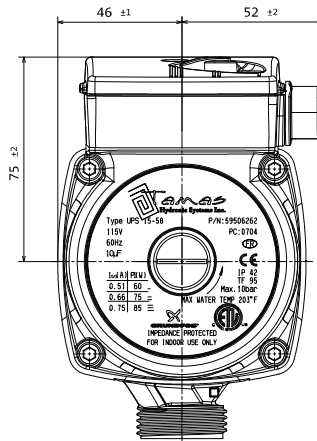
UPS 15-58 3 Speed Pump



- 230° F Max fluid temp (closed system)
- 150° F Max fluid temp (open system)
- 36° F Min fluid temp
- 10 Bar Max system pressure

Approvals

- ETL
- NSF Std 61
- Annex G



Description

The Engineered Composite Heating Manifold Assemblies feature isolation valves and balancing valves with flow meters, and come fully assembled, ready for installation in hydronic radiant heating and cooling systems. The manifolds are available in 2 through 11 Zones, the body ends feature R32 unions and the loop outlets have R20 male threads. Use only propylene glycol in radiant systems with EP Heating Manifolds; never use ethylene glycol.

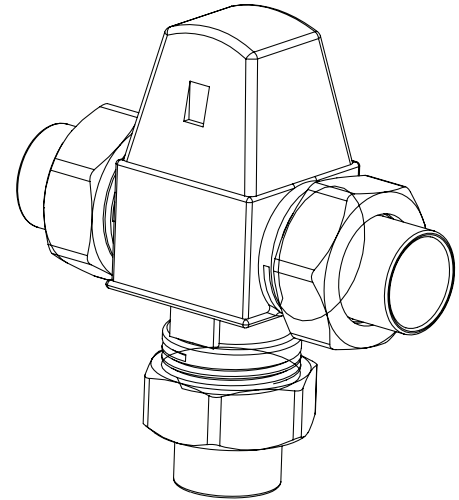
Technical Data

Manifold, Connecting Piece, Elbow, End Part:	PA66-GF30								
Bracket, Locking Screw:	PA66-GF15								
Valve Insert (all plastic parts), Hand Wheels:	POM								
Adjusting Screen:	ABS								
Glass Flow Meter	PA12								
Metal Inserts:	Brass C38500								
Axel:	Stainless Steel								
Max. Test Pressure (24 h, ≤ 86°F) tested with water:	145 psi (10 bar)								
Max. Test Pressure (24 h, ≤ 70°F) tested with air:	100 psi (7 bar)								
Max. Water Flow per Manifold:	0.97 l/s 15.4 gpm								
Cv Value Inlet/Outlet Valves:	1.4								
Spring:	Stainless Steel								
O-ring:	EPDM								
Flat Gasket:	IT-C								
Adaptable Actuators:	EP Heating Manifold, two-wire Actuator (A3030522); Thermal Actuator, four-wire (A3010522) with EP Heating Manifold Actuator Adaptor (A2671300)								
Maximum Operating Temperature and Pressure:	<table border="0"> <tr> <td>6 bar at 60°C</td> <td>5 bar at 70°C</td> </tr> <tr> <td>87 psi at 140°F</td> <td>72 psi at 158°F</td> </tr> <tr> <td>4 bar at 80°C</td> <td>3 bar at 90°C</td> </tr> <tr> <td>58 psi at 176°F</td> <td>44 psi at 194°F</td> </tr> </table>	6 bar at 60°C	5 bar at 70°C	87 psi at 140°F	72 psi at 158°F	4 bar at 80°C	3 bar at 90°C	58 psi at 176°F	44 psi at 194°F
6 bar at 60°C	5 bar at 70°C								
87 psi at 140°F	72 psi at 158°F								
4 bar at 80°C	3 bar at 90°C								
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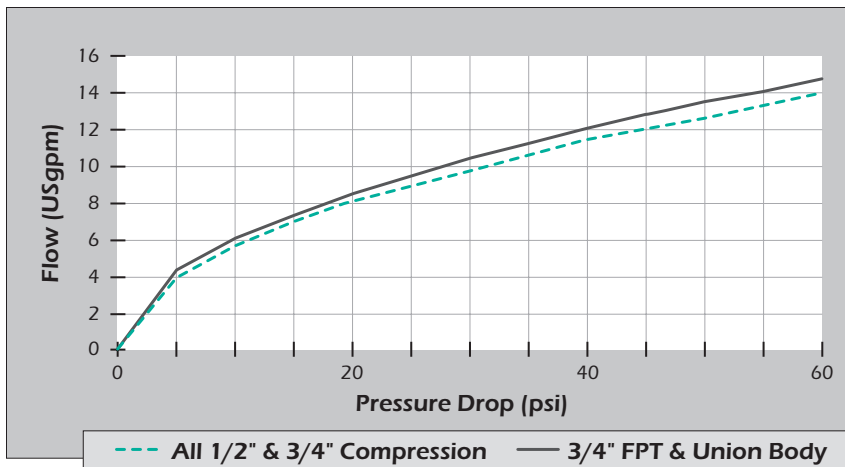
Thermostatic mixing valve (ASSE-1017 listed*)

- Anti-scald function.
- Snap-on cover for protection and to prevent unauthorized adjustment or tampering.
- Cover label for recording settings including recorded outlet temperature and date installed.
- Available temperature ranges:
 - 70°F – 110°F (20°C - 45°C)* - 85°F – 120°F (29°C - 49°C)*
 - 95°F – 140°F (35°C - 60°C)* - 85°F – 160°F (30°C - 70°C)* (¾" only)
- Available connections:
 - Threaded body (FPT). - Union solder.
 - Union solder w/ 1 check valve. - Union solder c/w 2 check valves.
 - Union CPVC. - Compression (¾" only).
- Maximum working pressure: 150 psi (10 bar)**.
- Maximum system differential pressure between hot and cold: 44 psi (3 bar).
- Maximum system differential pressure: 72 psi (5 bar).
- Maximum hot water inlet temperature: 194°F (90°C).
- Minimum required flow***: 0.5 US gpm.



The thermostatic mixing valve will provide a mixed water temperature according to the table below. The outlet temperatures stated are approximate, based on given hot water supply temperature and a cold water supply of 50°F (10°C). For other cold water temperatures correct the outlet temperature by 1°F for every 10°F (or 1°C for every 10°C) deviation from 50°F (10°C), up or down.

Hot Water Temperature	70°F – 110°F						85°F – 120°F						95°F – 140°F					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
120°F	67	74	81	87	94	109	80	90	97	102	107	115	95	106	115	124	131	136
140°F	68	75	82	90	97	113	81	91	99	104	109	117	97	108	117	126	133	140
160°F	69	76	84	92	100	118	82	93	100	106	112	118	99	109	118	127	135	145
180°F	70	77	86	95	102	122	82	95	102	108	114	120	100	111	120	129	136	149



* Only ranges 85-120°F and 95-140°F are listed to ASSE-1017 standard
 **Max. working pressure for CPVC: 80 psi (5.5 bar)
 ***For Correct temperature control