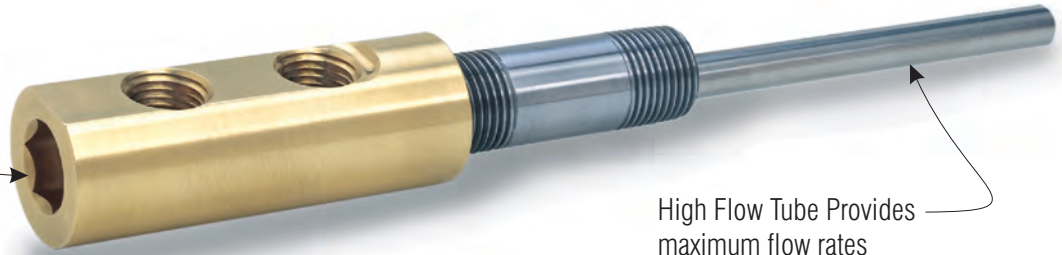


# HexKey Cascade Assemblies

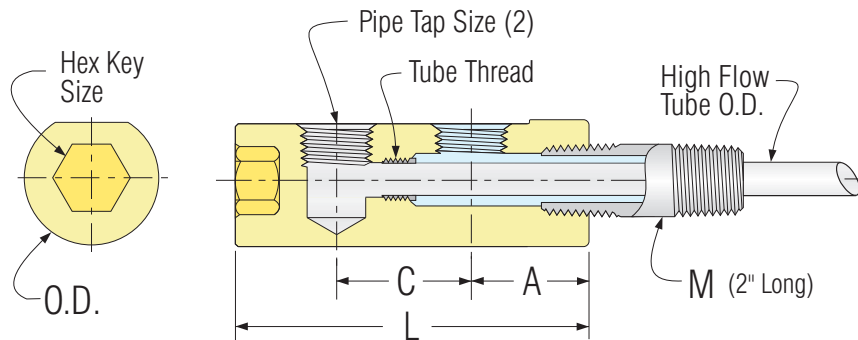
Heavy duty hex socket provides positive, easy installation and removal.



High Flow Tube Provides maximum flow rates

**HexKey** Cascades are round, and install with an Allen wrench. They may be installed with minimal clearance where space is limited.

- High flow design provides maximum cooling rates.
- Easy to install and remove.
- Assemblies include brass head, 12" High Flow Stainless tube, and 2" long galvanized pipe nipple.



Catalog Number	Mold Nipple (NPT) M	Pipe Tap Size (NPT)	Tube Thread Size	High Flow Tube Included	L	C	A	Hex Key Size	Nominal Clearance Drill	Actual O.D.	Stock Item
E16N	1/16	1/16	10-32	HF125T-12	1.625	9/16	1/2	5/16	5/8	.610	•
E16N-2	1/8	1/16	1/4-28	HF187T-12	1.687	9/16	9/16	3/8	3/4	.735	•
E186N	1/8	1/8			1.875	1 1/16	9/16	3/8	7/8	.860	•
E181N	1/8	1/8	5/16-24	HF250T-12	2.187	1	9/16	3/8	7/8	.860	•
E146N	1/4	1/8			2.187	1 1/16	1 3/16	1/2	1	.985	•
E146N-4	1/4	1/4			2.312	1 1/16	7/8	1/2	1	.985	•
E141N	1/4	1/8			2.500	1	1 3/16	1/2	1	.985	•
E141N-4	1/4	1/4	3/8-24	HF312T-12	2.625	1	7/8	1/2	1	.985	•
E381N-4	3/8	1/4			2.625	1	7/8	1/2	1	.985	•
E121N-4	1/2	1/4	7/16-20	HF375T-12	2.812	1	1	1/2	1 1/4	1.235	•

See tube specifications on page 7.

# HexKey Cascade Heads Only

- Dimensions for these heads are shown above for corresponding catalog number.
- **HexKey** Cascade Heads use High Flow Stainless Tubes shown on page 7.
- Order Adjustable Brass Hex Nipples, or other pipe nipples on page 19.



Catalog Number	Tube Thread Size	Use High Flow Tube	Stock Item
E16H	10-32	HF125T-	•
E16H-2			•
E186H			•
E181H	1/4-28	HF187T-	•
E146H			•
E146H-4	5/16-24	HF250T-	•
E141H			•
E141H-4			•
E381H-4	3/8-24	HF312T-	•
E121H-4	7/16-20	HF375T-	•

Order tubes for these heads on page 7.

# High Flow Stainless Tubes



*Increase Flow  
up to 300% !!*

- All stainless construction for high strength and durability.
- Cut to exact lengths at no charge.
- We stock over 150 sizes of thin wall stainless tube.
- We build stepped tube assemblies and custom threaded tubes to your print.

Catalog Number	Thread Size	Thread Length	Tube O.D.	Tube I.D.	Overall Length "L"			
					12"	18"	24"	36"
HF093T- JHF093T-	5-44 10-32	1/8 3/16	.090	.076	•	•	•	•
HF125T- JHF125T-	10-32 1/4-28	3/16 1/4	.125	.109	•	•	•	•
HF187T- JHF187T-	1/4-28 5/16-24	1/4 5/16	.187	.167	•	•	•	•
HF250T- JHF250T-	5/16-24 3/8-24	5/16 3/8	.250	.230	•	•	•	•
HF312T- JHF312T-	3/8-24 7/16-20	3/8 7/16	.312	.288	•	•	•	•
HF375T- JHF375T-	7/16-20 1/2-20	7/16 1/2	.365	.340	•	•	•	•
HF437T-	1/2-20	1/2	.427	.397	•	•	•	•

STOCK ITEM

To order, specify Catalog Number and Overall Length. Example: HF250T-18

# Standard Brass Tubes



- Tubes 18" and longer have both ends threaded
- Half-hard temper for reliable performance.
- Also available in Stainless Steel.
- Bulk tube available.

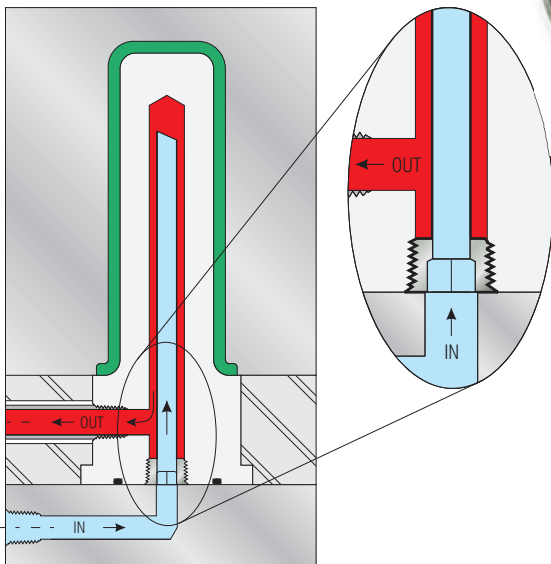
Catalog Number	Tube O.D.	Tube I.D.	Thread Size	Thread Length	Overall Length "L"			
					12"	18"	24"	36"
125T-	.125	.061	5-44	3/16	•	•	•	•
187T-	.187	.123	10-32	3/16	•	•	•	•
250T-	.250	.170	1/4-28	1/4	•	•	•	•
312T-	.312	.210	5/16-24	5/16	•	•	•	•
375T-	.375	.273	3/8-24	3/8	•	•	•	•
437T-	.437	.307	7/16-20	7/16	•	•	•	•
625T-	.625	.495	5/8-18	5/8	•	•	•	•

STOCK ITEM

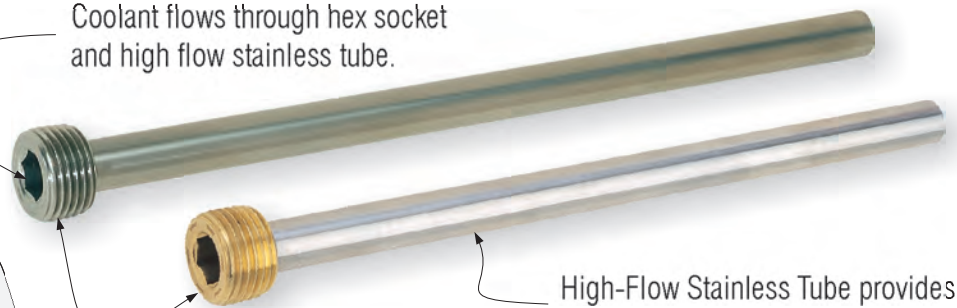
To order, specify Catalog Number and Overall Length. Example: 250T-18

# Piston Tubes

- All stainless steel construction provides high strength and reliable performance.
- Flow thru pipe plug available in custom sizes and materials.



Coolant flows through hex socket and high flow stainless tube.



High-Flow Stainless Tube provides maximum cooling rates.

Available all stainless steel, or stainless tube with brass pipe plug.

Catalog Number (Stain. Plug)	Catalog Number (Brass Plug)	Pipe Size (NPT)	Tube O.D.	Tube I.D.	Overall Length "L"			
					12"	24"	36"	48"
PT16-	PT16B-	1/16	.125	.109	•	•	•	•
PT18-	PT18B-	1/8	.187	.167	•	•	•	•
PT14-	PT14B-	1/4	.250	.230	•	•	•	•
PT38-	PT38B-	3/8	.365	.340	•	•	•	•
PT12-	PT12B-	1/2	.365	.340	•	•	•	•
PT34-	PT34B-	3/4	.427	.397	•	•	•	•

STOCK ITEM

To order, specify Catalog Number and Overall Length. Example: PT14-24

# Pipe Plugs

- Finest quality - Made In USA.
- Std qty. 100 pcs. on sizes 1/16 - 3/8. No additional charge for partial boxes.
- Standard plugs are flush type (7/8 taper). Oversize (3/4 taper) also available from stock.




Catalog Number	Pipe Plug Material	Thread Size (NPT)										Stock Item
		1/16	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
Plug Height H →		.250	.250	.406	.406	.531	.531	.656	.656	.656	.656	
BF-	Brass	•	•	•	•	•	•	•	•	•	•	
SF-	Alloy Steel	•	•	•	•	•	•	•	•	•	•	
SSF-	Stainless	•	•	•	•	•	•	•	•	•	•	

To order, specify Catalog Number and pipe size. Example: BF-1/4

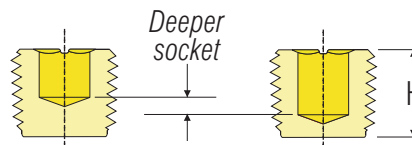
# Heavy Duty Pipe Plugs

With Patented  Technology....

- Standard brass flush seal plugs with  forming technology for maximum wrenching torque.
- Extra deep socket can't "round out" when plugs are installed or removed.
- Order in any quantity



Extra deep socket is stronger, and will not strip out.



Catalog Number	Pipe Plug Material	Thread Size (NPT)						
		1/16	1/8	1/4	3/8	1/2	3/4	
XTBF-	Brass	•	•	•	•	•	•	

To order, specify Catalog Number and pipe size. Example: XTBF-1/4

Pipe Size	Plug Ht. H
1/16	.296
1/8	.312
1/4	.421
3/8	.484
1/2	.625
3/4	.625

# BSP Pipe Plugs

- Fits BSPT and BSPP threaded holes.
- Features extra deep socket for strength.
- Order in any quantity

BSP Identification Ring



Catalog Number	Material	Thread Size (BSPT)						
		1/8 -28	1/4 -19	3/8 -19	1/2 -14	3/4 -14	1 -11	
MP-	Brass	•	•	•	•	•	•	

To order, specify Catalog Number and pipe size. Example: MP-1/4

Pipe Size	H (mm)
1/16	8
1/8	8
1/4	10
3/8	10
1/2	12
3/4	14
1	17

# Threadless Diverting Plugs

- Withstand pressures to 72 psi.
- Buna O-ring will seal rough or corroded holes.
- Available in sizes to fit standard or oversize cooling channels



Catalog Number	Drill Size	Nominal Pipe Size	Hex Size	Overall Length	Stock Item
BTP-10	11/32	1/8	5/64	.50	•
BTP-10-OS	23/64				•
BTP-20	7/16	1/4	1/8	.56	•
BTP-20-OS	29/64				•
BTP-40	9/16	3/8	1/8	.62	•
BTP-40-OS	37/64				•
BTP-60	11/16	1/2	1/8	.62	•
BTP-60-OS	45/64				•