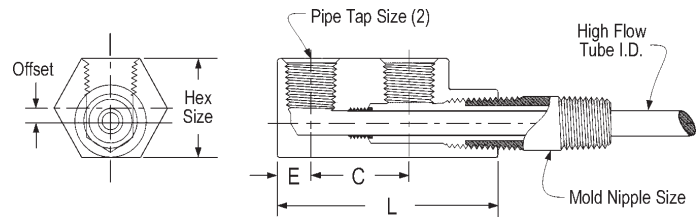
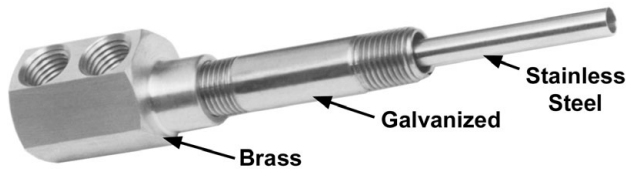


# High Flow Cascades

## High Flow Cascade Assemblies



### FEATURES:

- 35-65% Higher Flow Rates than Standard Nipple Type Cascades
- Offset Design Provides More Sealing Threads Without Pipe Interference
- Assemblies Include Brass Head, 12" High Flow Stainless Tube, and 2" Long Galvanized Pipe Nipple

PART NO.	MOLD NIPPLE SIZE (NPT)	PIPE TAP SIZE (NPT)	HIGH FLOW TUBE O.D. (12" Long)	HEX SIZE	OFF SET	"E"	"C"	"L"	PRICE EACH
HF16N	1/16"	1/16"	1/8"	5/8"	3/32"	1/4"	1/2"	1 1/4"	\$11.45
HF186N	1/8"	1/8"	3/16"	3/4"	3/32"	5/16"	11/16"	1 5/8"	\$11.70
HF181N	1/8"	1/8"	3/16"	3/4"	3/32"	5/16"	1"	1 15/16"	\$11.95
HF146N-4	1/4"	1/4"	1/4"	1"	5/32"	11/32"	11/16"	1 7/8"	\$12.60
HF141N-4	1/4"	1/4"	1/4"	1"	5/32"	11/32"	1"	2 3/16"	\$12.80
HF381N-4	3/8"	1/4"	3/8"	1 1/8"	1/8"	11/32"	1"	2 1/4"	\$13.25

## High Flow Brass Cascade Heads Only

### FEATURES:

- High Flow Cascade Heads are Available in Special Pipe Tap & Tube Combinations
- All Dimensions Same as Above for Corresponding Part Number



PART NO.	USE WITH HIGH FLOW TUBE NO.	PRICE EACH
HF16H	HF125T-	\$5.85
HF186H	HF187T-	\$6.25
HF181H	HF187T-	\$6.45
HF146H-4	HF250T-	\$6.75
HF141H-4	HF250T-	\$6.95
HF381H-4	HF375T-	\$7.15

## High Flow Stainless Steel Tubes

**Increase flow up to 300%**



### FEATURES:

- All *Stainless Steel* Construction for Optimal Performance, Durability and Strength
- Special Thin Wall Stainless Tube for Maximum Flow and Quicker Cycles
- Cut to Exact Lengths at No Extra Charge

PART NO.	TUBE O.D.	TUBE I.D.	THREAD SIZE	THREAD LENGTH	OVERALL LENGTH			
					12"	18"	24"	36"
HF093T- *	.093"	.077"	5-44	1/8"	\$5.25	\$5.95	\$6.65	\$7.35
HF125T- *	.125"	.109"	10-32	3/16"	\$4.60	\$5.30	\$6.00	\$6.70
HF187T- *	.187"	.167"	1/4-28	1/4"	\$4.80	\$5.50	\$6.20	\$6.90
HF250T- *	.250"	.230"	5/16-24	5/16"	\$5.05	\$5.80	\$6.45	\$7.15
HF312T- *	.312"	.285"	3/8-24	3/8"	\$5.45	\$6.15	\$6.85	\$7.55
HF375T- *	.375"	.345"	7/16-20	7/16"	\$5.75	\$6.45	\$7.10	\$7.85
HF437T- *	.437"	.407"	1/2-20	1/2"	\$7.00	\$8.00	\$8.40	\$9.10

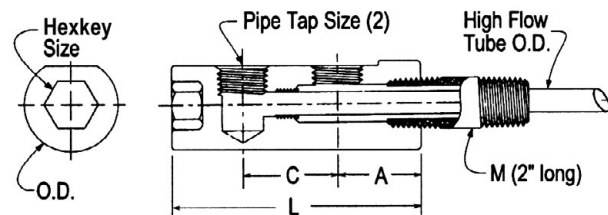
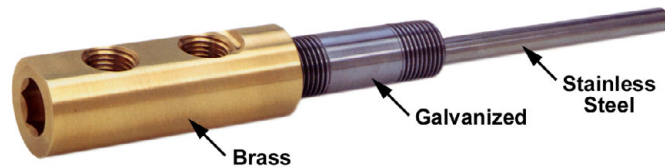
\*Insert 2-digit length desired: 12, 18, 24 or 36. Custom tubes are available in any thread or length required. For NPT, see Piston Tubes on page 256.

# Hexkey Cascades

## Hexkey Cascade Assemblies

### FEATURES:

- Hexkey Cascades are Round and Install With an Allen Wrench
- May Be Installed with Minimal Clearance or Very Close Together 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

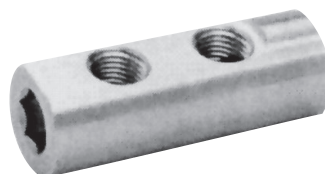


PART NO.	MOLD NIPPLE SIZE "M" (NPT)	PIPE TAP SIZE (NPT)	HIGH FLOW TUBE O.D. (12" Long)	"L"	"C"	"A"	HEX KEY SIZE	NOMINAL CLEARANCE DRILL	ACTUAL O.D.	PRICE EACH
E16N	1/16	1/16	1/8"	1.625"	9/16"	1/2"	5/16"	5/8"	.610"	\$15.55
E16N-2	1/8	1/16	3/16"	1.687"	9/16"	9/16"	3/8"	3/4"	.735"	\$14.95
E186N	1/8	1/8	3/16"	1.875"	11/16"	9/16"	3/8"	7/8"	.860"	\$13.95
E181N	1/8	1/8	3/16"	2.187"	1"	9/16"	3/8"	7/8"	.860"	\$14.20
E146N	1/4	1/8	1/4"	2.187"	11/16"	13/16"	1/2"	1"	.985"	\$15.20
E146N-4	1/4	1/4	1/4"	2.312"	11/16"	7/8"	1/2"	1"	.985"	\$15.20
E141N	1/4	1/8	1/4"	2.500"	1"	13/16"	1/2"	1"	.985"	\$15.45
E141N-4	1/4	1/4	1/4"	2.625"	1"	7/8"	1/2"	1"	.985"	\$15.45
E381N-4	3/8	1/4	5/16"	2.625"	1"	7/8"	1/2"	1"	.985"	\$16.15
E121N-4	1/2	1/4	3/8"	2.812"	1"	1"	1/2"	1 1/4"	1.235"	\$21.05

## Hexkey Brass Cascade Heads Only

### FEATURES:

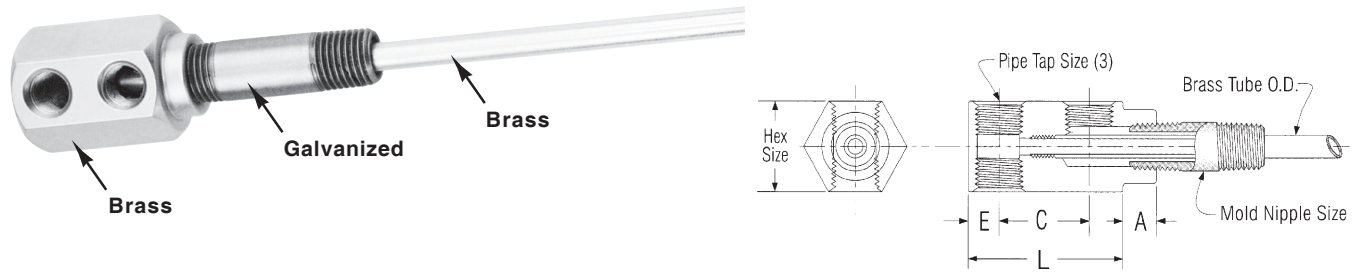
- Hexkey Cascade Heads use High Flow Stainless Tubes Shown on Previous Page
- Dimensions for These Heads are Shown Above for Corresponding Part Number



PART NO.	USE WITH HIGH FLOW TUBE NO.	PRICE EACH
E16H	HF125T-	\$9.30
E16H-2	HF187T-	\$9.30
E186H	HF187T-	\$8.35
E181H	HF187T-	\$8.60
E146H	HF250T-	\$9.30
E146H-4	HF250T-	\$9.30
E141H	HF250T-	\$9.55
E141H-4	HF250T-	\$9.55
E381H-4	HF312T-	\$10.05
E121H-4	HF375T-	\$14.45

# Nipple Type Cascades

## Nipple Type Cascade Assemblies



### FEATURES:

- Solid Brass Heads are Precision Machined for Accurate Assembly
- Cascade Assemblies are Available in Special Pipe Tap and Tube Combinations
- Assemblies Include Brass Head, 12" Brass Tube, 2" Long Galvanized Pipe Nipple, and Brass Pipe Plug

PART NO.	MOLD NIPPLE SIZE (NPT)	PIPE TAP SIZE (NPT)	BRASS TUBE O.D.	HEX SIZE	"E"	"C"	"A"	"L"	PRICE EACH
16N	1/8	1/16	3/16"	3/4"	7/32"	1/2"	9/32"	15/16"	\$10.00
186N	1/8	1/8	3/16"	7/8"	21/64"	11/16"	9/32"	1 <sup>11</sup> / <sub>32</sub> "	\$9.45
181N	1/8	1/8	3/16"	7/8"	21/64"	1"	9/32"	1 <sup>21</sup> / <sub>32</sub> "	\$9.65
146N	1/4	1/8	1/4"	1"	21/64"	11/16"	7/32"	1 <sup>11</sup> / <sub>32</sub> "	\$10.20
146N-4	1/4	1/4	1/4"	1"	21/64"	11/16"	7/32"	1 <sup>11</sup> / <sub>32</sub> "	\$10.20
141N	1/4	1/8	1/4"	1"	21/64"	1"	7/16"	1 <sup>21</sup> / <sub>32</sub> "	\$10.40
141N-4	1/4	1/4	1/4"	1"	21/64"	1"	7/16"	1 <sup>21</sup> / <sub>32</sub> "	\$10.40
381N	3/8	1/8	5/16"	1"	11/32"	1"	13/32"	1 <sup>11</sup> / <sub>16</sub> "	\$11.10
381N-4	3/8	1/4	5/16"	1"	11/32"	1"	13/32"	1 <sup>11</sup> / <sub>16</sub> "	\$11.10
121N-4	1/2	1/4	7/16"	1 <sup>1</sup> / <sub>4</sub> "	13/32"	1"	9/16"	1 <sup>13</sup> / <sub>16</sub> "	\$18.85
341N-4	3/4	3/8	5/8"	1 <sup>1</sup> / <sub>2</sub> "	1/2"	1 <sup>1</sup> / <sub>4</sub> "	3/4"	2 <sup>1</sup> / <sub>4</sub> "	\$26.95

## Cascade Heads Only

### Solid Brass

### FEATURES:

- All Holes are Threaded
- Complete with Brass Pipe Plug
- Available with Special Pipe Tap Sizes, Tube Thread Sizes and Hole Locations
- All Dimensions Same as Above for Corresponding Part Number



PART NO.	USE TUBE NO.	PRICE EACH
16H	187T-	\$5.95
186H	187T-	\$5.40
181H	187T-	\$5.55
146H	250T-	\$5.80
146H-4	250T-	\$5.80
141H	250T-	\$6.00
141H-4	250T-	\$6.00
381H	312T-	\$6.30
381H-4	312T-	\$6.30
121H-4	437T-	\$12.65
341H-4	625T-	\$16.85

## Brass Tubes



### Durable Half Hard Brass

### FEATURES:

- Custom Tubes are Available Threaded on One or Both Ends
- Half-hard Temper for Reliable Performance
- Bulk Tube Available

PART NO.	TUBE O.D.	TUBE I.D.	STANDARD THREAD	THREAD LENGTH	OVERALL LENGTH			
					12"	18"	24"	36"
125T-	.125"	.062"	5-44	3/16"	\$3.05	\$3.60	\$4.15	\$4.85
187T-	.187"	.123"	10-32	3/16"	\$3.20	\$3.75	\$4.35	\$5.10
250T-	.250"	.170"	1/4-28	1/4"	\$3.55	\$4.30	\$5.00	\$6.00
312T-	.312"	.210"	5/16-24	5/16"	\$3.95	\$4.95	\$5.55	\$6.65
375T-	.375"	.273"	3/8-24	3/8"	\$4.70	\$5.65	\$6.35	\$7.85
437T-	.437"	.307"	7/16-20	7/16"	\$5.50	\$7.10	\$8.75	\$11.15
625T-	.625"	.495"	5/8-18	5/8"	\$9.35	\$11.15	\$12.95	\$16.25

To order, specify Part No. and Overall Length; Example: 250T-18

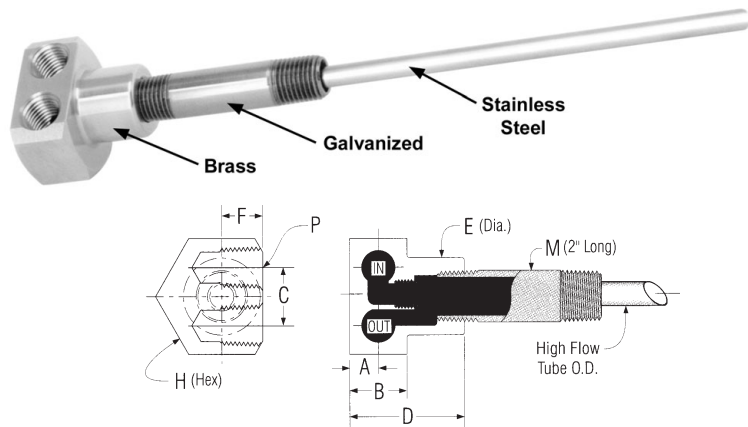
# Compact Cascade Assemblies

## Compact Cascade Assemblies

### Stainless Steel Tube with Solid Brass Head

#### FEATURES:

- Provide Maximum Cooling Rates with Improved Design and High Flow Tubes
- In/Out Connections are Positioned Sideways for Mounting in Tight Spaces or Thin Mold Plates
- Assemblies Include Brass Head, 12" High Flow Stainless Tube and 2" Long Galvanized Pipe Nipple



PART NO.	MOLD NIPPLE "M" (NPT)	PIPE TAP "P" (NPT)	TUBE O.D. (12" Long)	HEX SIZE "H"	"A"	"B"	"C"	"D"	"E"	"F"	PRICE EACH
ET1816	1/8	1/16	3/16"	15/16"	7/32"	7/16"	1/2"	1"	5/8"	.330"	\$16.50
ET1418	1/4	1/8	1/4"	1 1/4"	5/16"	5/8"	11/16"	1 1/4"	3/4"	.410"	\$16.50
ET1414	1/4	1/4	1/4"	1 1/2"	3/8"	3/4"	3/4"	1 1/2"	7/8"	.540"	\$19.70
ET3814	3/8	1/4	5/16"	1 1/2"	3/8"	3/4"	3/4"	1 1/2"	1"	.540"	\$20.10

## Compact Cascade Heads Only

### Solid Brass

#### FEATURES:

- All Dimensions Same as Above for Corresponding Part Number



PART NO.	MOLD NIPPLE (NPT)	IN/OUT PIPE (NPT)	USE HIGH FLOW TUBE NO.	PRICE EACH
ET1816H	1/8	1/16	HF187T-	\$10.50
ET1418H	1/4	1/8	HF250T-	\$10.50
ET1414H	1/4	1/4	HF250T-	\$11.55
ET3814H	3/8	1/4	HF312T-	\$12.50

## High Flow Stainless Steel Tubes

**Increase flow up to 300%**



#### FEATURES:

- All Stainless Steel Construction for Optimal Performance, Durability, and Strength
- Special Thin Wall Stainless Tube for Maximum Flow and Quicker Cycles
- Cut to Exact Lengths at No Extra Charge

PART NO.	TUBE O.D.	TUBE I.D.	THREAD SIZE	THREAD LENGTH	OVERALL LENGTH			
					12"	18"	24"	36"
HF093T-*	.093"	.077"	5-44	1/8"	\$5.25	\$5.95	\$6.65	\$7.35
HF125T-*	.125"	.109"	10-32	3/16"	\$4.60	\$5.30	\$6.00	\$6.70
HF187T-*	.187"	.167"	1/4-28	1/4"	\$4.80	\$5.50	\$6.20	\$6.90
HF250T-*	.250"	.230"	5/16-24	5/16"	\$5.05	\$5.80	\$6.45	\$7.15
HF312T-*	.312"	.285"	3/8-24	3/8"	\$5.45	\$6.15	\$6.85	\$7.55
HF375T-*	.375"	.345"	7/16-20	7/16"	\$5.75	\$6.45	\$7.10	\$7.85
HF437T-*	.437"	.407"	1/2-20	1/2"	\$7.00	\$8.00	\$8.40	\$9.10

\*Insert 2-digit length desired: 12, 18, 24 or 36. Custom tubes are available in any thread or length required. For NPT, see Piston Tubes on page 256.