HCi

Hydronic Components Inc.



Balancing Solutions Technical Specifications

LIT-HCI-TS 103018

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GPM Ordering Guide	



Pressure Regulating Cartridge • Axial Control Valve • Presetting Ring • 360 WOG



91 Series

Features

- 5-58 PSID operating range
- +/- 5% accuracy up to 15 PSID
- Two pressure / temperature (PT) test ports
- Location tag
- ANSI class IV leakage rate
- 100% leak tested
- Control Valve Stroke: 2.7mm
- Rangeability: 50-100

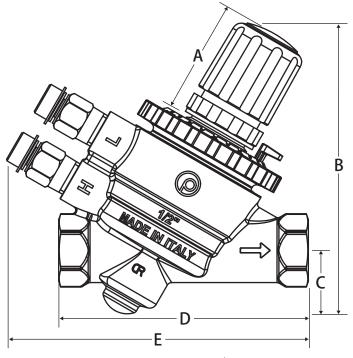
Pressure and Temperature Rating

- 360 WOG
- 15 250°F

Accepted Actuator Manufacturers

- Spartan PD
- Siemens
- Honeywell
- Johnson Controls
- Neptronics

Smart Part Number Ordering Guide T91-AFF-0.66 0.66 Valve Size Body Type Tailpiece Max Flow Rate FNPT (GPM) A 1/2" **FNPT** 3/4" 0.66 2.64 3.43 4.40 6.60



DIRECTION OF FLOW

Material Specifications

Part	Material
Body	Brass - CW602N
Regulating Cartridge	High Resistance Polymer, EPDM, 303 Stainless Steel
Control Valve	Brass - CW614N, 18/8 Stainless Steel
Presetting Ring	High Resistance Polymer
O-rings	EPDM

Dimensions

Size	Α	В	С	D	E
1/2"	1.85	4.53	0.98	3.90	4.72
3/4"	1.85	4.53	0.98	4.25	4.72





Pressure Regulating Cartridge • Axial Control Valve • Presetting Ring • Double Union • 360 WOG



93 Series

Features

- 5-58 PSID operating range
- +/- 5% accuracy up to 15 PSID
- Two pressure / temperature (PT) test ports
- Location tag
- ANSI class IV leakage rate
- 100% leak tested
- Control Valve Stroke: 6.0mm
- Rangeability: 100-150

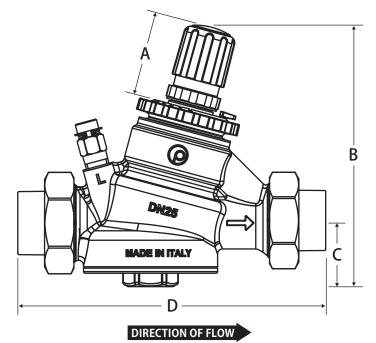
Pressure and Temperature Rating

- 360 WOG
- 15 250°F

Accepted Actuator Manufacturers

- Spartan PD
- Siemens
- Honeywell
- Johnson Controls
- Neptronics

Smart Part Number Ordering Guide T93-BFC-9.68 9.68 T93 Max Flow Rate Valve Size **Body Type Body Type** (GPM) B 3/4" F FNPT F FNPT 9.68 C 1" M MNPT M MNPT C SWT C SWT 11.9 13.2



Material Specifications

Part	Material
Body	Brass - CW602N
Regulating Cartridge	Brass - CW614N, EPDM, 303 Stainless Steel
Control Valve	Brass - CW614N, 18/8 Stainless Steel
Presetting Ring	High Resistance Polymer
O-rings	EPDM

Dimensions

Size	Α	В	C	D
3/4"	1.85	5.98	1.50	5.28
1"	1.85	5.98	1.50	5.28



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

LIT-HCI-TS 103018



Pressure Regulating Cartridge • Rotary Control Valve • Manual Shutoff • Double Union • 230 WOG



85 Series

Features

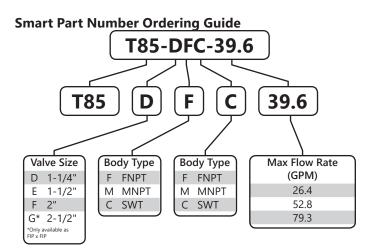
- 5-58 PSID operating range
- +/- 5% accuracy up to 15 PSID
- Two pressure / temperature (PT) test ports
- Location tag
- ANSI class IV leakage rate
- 100% leak tested
- Control Valve Stroke: 90°
- Rangeability: >100

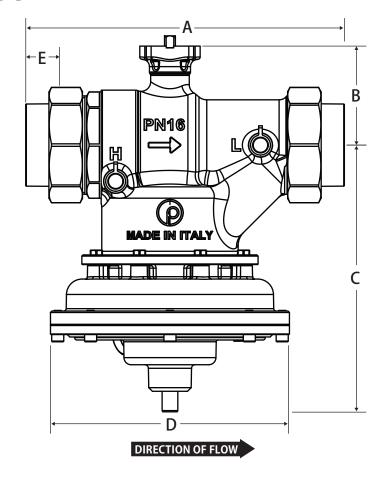
Pressure and Temperature Rating

- 230 WOG
- 15 250°F

Accepted Actuator Manufacturers

- HC
- Johnson Controls





Material Specifications

Part	Material
Body	Ductile Iron
Regulating Device	High Resistance Polymer, EPDM, 303 Stainless Steel
Control Valve	Brass - CW614N, 18/8 Stainless Steel
Stem	Brass - CW602N
O-rings	EPDM
Manual Shut-Off	Brass - CW614N

Dimensions					
Size	Α	В	С	D	E
1 1/2"	10.12	3.23	8.70	7.80	0.93
2"	10.39	3.23	8.70	7.80	1.10





Pressure Regulating Cartridge • Multi-Turn Control Valve • Flange Connection • 230 WOG



94F Series

Features

- 5-58 PSID operating range
- +/- 5% accuracy up to 15 PSID
- Two pressure / temperature (PT) test ports
- Location tag
- ANSI class IV leakage rate
- 100% leak tested
- Control Valve Stroke: 15-22mm
- Rangeability: >100
- Flange: ANSI B16.1, Class 125
- Face to Face: ISA-75.08.01-2002, Class 125

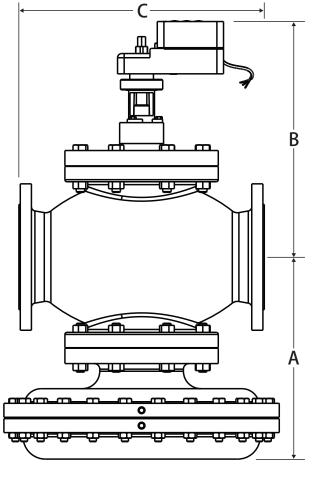
Pressure and Temperature Rating

- 230 WOG
- 15 250°F

Accepted Actuator Manufacturers

HCi

Smart Part Number Ordering Guide T94FA-HFF-88 T94FA 88 Valve Size **Body Type Body Type** MaxFlow Rate (GPM) F* 2" F Flange F Flange G 2-1/2" 88.1 H 3" 132 1 4" 176 242 J 6" 660



DIRECTION OF FLOW

Material Specifications

Part	Material
Body	Ductile Iron
Regulating Device	Brass - CW602N, EPDM, 303 Stainless Steel
Control Valve	Brass - CW602N, 18/8 Stainless Steel
O-rings	EPDM

-	•					
D	im	e	ns	IO	n	ς

Size	Α	В	c
2"	8.62	10.51	10.00
2 1/2"	9.21	11.10	10.87
3"	9.41	11.42	11.73
4"	11.22	12.17	13.86
6"	13.78	14.92	17.76



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LIT-HCI-TS 103018



Fixed Orifice • Isolation Ball Valve • Memory Stop • Union • 400 WOG



Terminator B

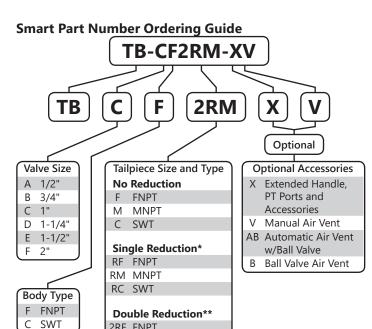
Features

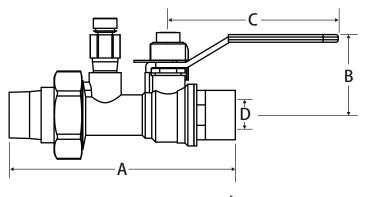
- · Patented removable venturi
- +/- 2% Accuracy
- Two pressure / temperature (PT) test ports
- Location tag
- Additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- Blow out proof stem
- 100% leak tested
- Made in Italy
- Leakproof stem Lifetime warranty
- See end of catalog for pressure drop charts

Pressure and Temperature Rating

2RF FNPT 2RM MNPT 2RC SWT

- 400 WOG
- 300°F Max





DIRECTION OF FLOW

Material Specifications

Part	Material
Body	Brass - CW617N
End Connection	Brass - CW617N
Ball	Chrome Plated Brass - CW617N
Seat (2)	Virgin PTFE
Stem	Brass - CW614N
Packing	Virgin PTFE
Stem O-ring (2)	Viton®
Packing Gland	Brass - CW614N
Handle	Steel - Geomet® Plated
Handle Nut	Steel - Geomet® Plated
Metering Plate	Aluminum
Memory Stop	Brass - CW617N
Memory Stop Screw	Steel - Geomet® Plated
Union O-ring	Viton®
Tail Piece	Brass - CW617N
Union Nut	Brass - CW617N
Venturi	Brass - CW614N
Venturi O-ring	Viton®

Dimensions

Size	A *	В	C	D
1/2"	4.56	1.57	2.95	0.59
3/4"	4.88	1.57	2.95	0.59
1"	5.65	1.93	3.74	0.79
1-1/4"	7.00	2.44	4.72	0.98
1-1/2"	7.81	2.64	4.72	1.26
2"	9.19	3.29	5.91	1.58

*Length is for a SWT x MNPT valve, additional dimensions available upon request





Fixed Orifice • Isolation Ball Valve • Memory Stop • Union • 400 WOG • with Stainless Steel Trim



Terminator B SS

B D D

DIRECTION OF FLOW

Features

- Patented removable venturi
- +/- 2% Accuracy
- Two pressure / temperature (PT) test ports
- Location tag
- Additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- · Blow out proof stem
- 100% leak tested
- Made in Italy
- · Leakproof stem Lifetime warranty
- See end of catalog for pressure drop charts

Pressure and Temperature Rating

- 400 WOG
- 300°F Max

Material Specifications Material

Part	Material
Body	Brass - CW617N
End Connection	Brass - CW617N
Ball	316 Stainless Steel
Seat (2)	Virgin PTFE
Stem	316 Stainless Steel
Packing	Virgin PTFE
Stem O-ring (2)	Viton®
Packing Gland	Brass - CW614N
Handle	Steel - Geomet® Plated
Handle Nut	Steel - Geomet® Plated
Metering Plate	Aluminum
Memory Stop	Brass - CW617N
Memory Stop Screw	Steel - Geomet® Plated
Union O-ring	Viton®
Tail Piece	Brass - CW617N
Union Nut	Brass - CW617N
Venturi	Brass - CW614N
Venturi O-rina	Viton®

Smart Part Number Ordering Guide	
TBSS-BCRM-ABX)
TBSS B C RM A	BX

Va	lve Size	1
Α	1/2"	
В	3/4"	
C	1"	
D	1-1/4"	
Ε	1-1/2"	
F	2"	
		_

Body Type F FNPT C SWT

_			
Tail	piece Size and Type		
No	Reduction		
F	FNPT		
М	MNPT		
C	SWT		
Single Reduction*			
RF	FNPT		
RM	MNPT		
RC	SWT		
Double Reduction**			
2RF	FNPT		
2RM	MNPT		

2RC SWT

0	ptional Accessories
X	Extended Handle, PT Ports and Accessories
٧	Manual Air Vent

(Optional)

Accessories
V Manual Air Vent
AB Automatic Air Vent
w/Ball Valve
B Ball Valve Air Vent

Dimensions				
Size	A *	В	C	D
1/2"	4.56	1.57	2.95	0.59
3/4"	4.88	1.57	2.95	0.59
1"	5.65	1.93	3.74	0.79
1-1/4"	7.00	2.44	4.72	0.98
1-1/2"	7.81	2 64	472	1 26

*Length is for a SWT x MNPT valve, additional dimensions available upon request

9.19



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LIT-HCI-TS 10301



Fixed Orifice • Isolation Ball Valve • Integrated Memory Stop • Union • Press Body Connection • 250 WOG



Terminator B Press

B B

DIRECTION OF FLOW

Features

- · Patented removable venturi
- +/- 2% Accuracy
- Two pressure / temperature (PT) test ports
- Location tag
- Additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- · Blow out proof stem
- 100% leak tested
- Made in Italy
- · Leakproof stem Lifetime warranty
- See end of catalog for pressure drop charts

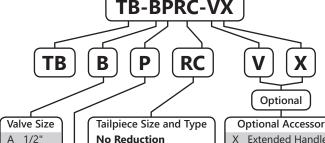
Pressure and Temperature Rating

- 250 WOG
- 300°F Max

Material Specifications

	•
Part	Material
Body	Brass - CW617N
End Connection	Brass - CW617N
Press O-ring	EPDM
Ball	Chrome Plated Brass - CW617N
Seat (2)	Virgin PTFE
Stem	Brass - CW614N
Packing	Virgin PTFE
Stem O-ring (2)	Viton®
Packing Gland	Brass - CW614N
Handle	Steel - Geomet® Plated
Handle Nut	Steel - Geomet® Plated
Metering Plate	Aluminum
Memory Stop	Brass - CW617N
Memory Stop Screw	Steel - Geomet® Plated
Union O-ring	Viton®
Tail Piece	Brass - CW617N
Union Nut	Brass - CW617N
Venturi	Brass - CW614N
Venturi O-rina	Viton®

Smart	Part	Number	Ord	lering	Gu	ıide	
				D D E		7/7/	



Valve Size	Tailpiece Size and Type
A 1/2"	No Reduction
B 3/4"	F FNPT
C 1"	M MNPT
D 1-1/4"	C SWT
E 1-1/2"	Single Reduction*
F 2"	RF FNPT
	RM MNPT
	RC SWT
Body Type P Press	Double Reduction**
P Press	2RF FNPT
	2RM MNPT

2RC SWT
*Only available on 3/4" - 2" valves
**Only available on 1" - 2" valves

0	ptional Accessories
Χ	PT Ports and
	Accessories
V	Manual Air Vent
AR	Automatic Air Vent

w/Ball Valve B Ball Valve Air Vent

			-	
Size	A *	В	C	D
1/2"	5.17	1.57	2.95	0.59
3/4"	5.35	1.57	2.95	0.59
1"	<u>**</u>	1.93	3.74	0.79
1-1/4"	<u>_**</u>	2.44	4.72	0.98
1-1/2"	_ **	2.64	4.72	1.26
2"	**	3.29	5.91	1.58

Dimensions

*Length is for a Press x MNPT valve, additional dimensions available upon request **1" - 2" is FNPT body with MNPT x Press adapter





Fixed Orifice • Isolation Butterfly Valve • Lug x Flange Connection • Class 150



Terminator B Lug x Flange

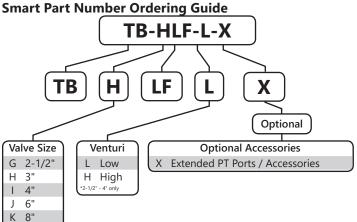
Features

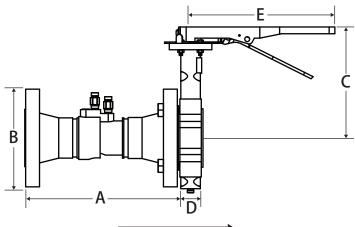
- +/- 1% Accuracy
- Two pressure / temperature (PT) test ports
- · Location tag
- · Additional accessory tap
- Ten-position lockable lever handle
- Class 150 Flange
- · 100% leak tested
- 5 straight pipe diameters are required upstream of balance valve
- 2-1/2 straight pipe diameters are required downstream of balance valve
- See end of catalog for pressure drop charts

Pressure and Temperature Rating

- 200 WOG
- 225°F Max

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DIRECTION OF FLOW

Material Specifications

Part	Material	
Venturi Body	Carbon Steel - ASTM-A126	
Flange (2)	Carbon Steel - ASTM-A126	
Butterfly Valve	(See Butterfly Valve Spec Sheet)	

Dimensions

Size	Α	В	С	D	E
2-1/2"	10.75	7.00	7.6	1.76	10.64
3"	11.13	7.50	8.15	1.78	10.64
4"	12.25	9.00	8.39	2.05	10.64
6"	14.75	11.00	9.13	2.2	10.64
8"	16.75	13.50	10.16	2.39	14.18
10"	20.37	16.00	11.85	2.58	19.7
12"	21.5	19.00	13.11	3.03	19.7



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L 10" M 12"



Fixed Orifice • Globe Valve • Memory Stop • 360 WOG

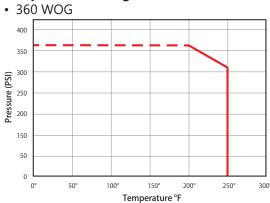


Terminator G

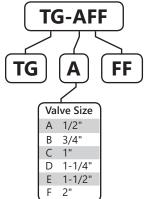
Features

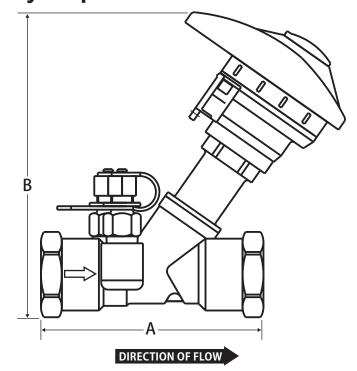
- Integral metering orifice plate
- · Characterized equal percent throttling disc
- ±5% flow measurement accuracy
- · Microset hand wheel
- Memory stop handle setting
- Pressure and temperature ports
- NPT threads
- Dezincification resistant
- Conforms to BS 7350
- See end of catalog for pressure drop charts

Temperature Rating



Smart Part Number Ordering Guide





Material Specifications

	•
Part	Material
Body	Bronze - C83600
Bonnet (1/2" - 1-1/4") (1-1/2" - 2")	Brass - C35330 Bronze - C83600
Stem	Brass - C35330
Disc (1/2" - 3/4") (1" - 2")	Brass - C35330 Brass + PTFE - C35330
Orifice Insert	Brass - C35330
Hand Wheel	Plastic

Dimensions					
Size	Α	В	Cv	GPM	
1/2"	3.43	4.45	1.99	1 - 4	
3/4"	3.78	4.49	3.43	2 - 10	
1"	3.94	5.31	5.49	4 - 20	
1-1/4"	4.49	5.35	11.85	8 - 35	
1-1/2"	4.92	5.94	19.46	12 - 50	
2"	5.75	5.98	31.51	20 - 100	





Fixed Orifice • Globe Valve • Flanged • 230 WOG



Terminator G

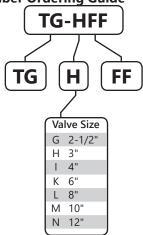
Features

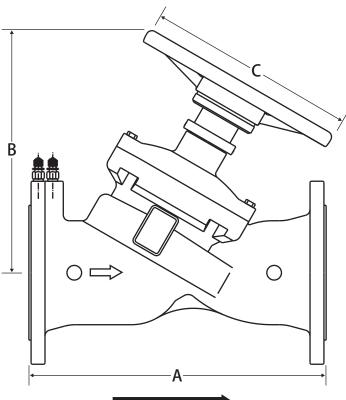
- Integral metering orifice plate
- Memory stop handle setting
- ±5% flow measurement accuracy
- ANSI Class 150
- Pressure and temperature ports
- Face to face: DIN 3202-1/F1
- EN-558-1 Series 1
- Flange: ANSI B16.5
- Conforms to BS 7350
- See end of catalog for pressure drop charts

Temperature Rating

- 15-250°F
- 230 WOG

Smart Part Number Ordering Guide





DIRECTION OF FLOW

Material Specifications

Part	Material
Body	Ductile Iron - ASTM A536
Bonnet	Ductile Iron - ASTM A536
Stem	410 Stainless Steel
Disc	EPDM Coated Ductile Iron - ASTM A536
Gland (2-1/2" - 6") (8" - 12")	Brass - C37700 Ductile Iron - ASTM A536
Stem Nut	Brass - C37700
Hand Wheel	Ductile Iron - ASTM A536
Test Valve	Brass - C35330
Orifice Insert	Brass - C37700
Packing	Graphite

		Dime	nsions		
Size	Α	В	С	Cv	GPM
2-1/2"	11.42	10.43	7.87	120.22	45 - 210
3"	12.20	10.63	7.87	134.10	50 - 240
4"	13.78	12.20	9.45	246.23	100 - 450
6"	18.90	13.39	11.42	550.26	200 - 1100
8"	23.62	21.14	13.78	887.81	350 - 1500
10"	28.74	22.44	16.54	1332.87	500 - 2500
12"	33.46	27.17	16.54	2014.91	800 - 3500



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בוו-חכו-וט וטטטומ



Variable Orifice • Globe Valve • Threaded & Solder Connections • Memory Stop • 300 WOG



Terminator GV

Features

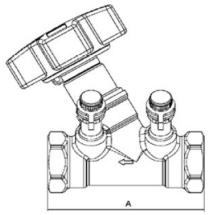
- "Y" pattern globe style design
- Dezincification resistant brass
- Positive shut-off
- Offset pressure/temperature ports
- Multi-turn, 360° handwheel with vernier scale and digital readouts
- Built-in memory stop
- · Precise flow measurement and flow balancing

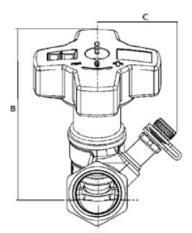
Pressure / Temperature Rating

- 300 PSI
- -4°F to 250°F



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Material Specifications

Part	Material
Body, Bonnet	Brass - C35330
Gasket	EPDM
Seat Seal	EPDM
Hand Wheel	Plastic

Dimensions

Part Number	Size	Α	В	c	Minimum Flow	Nominal Flow	Maximum Flow
		T	hreade	ed Cor	nection		
TGV-AFF	1/2"	3.39	3.74	1.57	0.14	0.50-3.08	12.10
TGV-BFF	3/4"	3.54	3.74	1.65	0.26	3.80-5.50	17.40
TGV-CFF	1"	4.02	3.78	1.73	0.37	5.50-9.50	30.00
TGV-DFF	1-1/4"	4.72	3.78	1.85	0.60	9.50-14	44.60
TGV-EFF	1-1/2"	5.20	4.25	1.93	0.91	14-20	66.40
TGV-FFF	2"	6.46	4.37	2.09	1.52	20-33	107.20
			Sweat	Conn	ection		
TGV-ACC	1/2"	3.39	3.74	1.57	0.14	0.50-3.08	12.10
TGV-BCC	3/4"	3.54	3.74	1.65	0.26	3.80-5.50	17.40
TGV-CCC	1"	4.02	3.78	1.73	0.37	5.50-9.50	30.00
TGV-DCC	1-1/4"	4.72	3.78	1.85	0.60	9.50-14	44.60
TGV-ECC	1-1/2"	5.20	4.25	1.93	0.91	14-20	66.40
TGV-FCC	2"	6.46	4.37	2.09	1.52	20-33	107.20



Variable Orifice • Globe Valve • Memory Stop • 230 WOG



Terminator GV

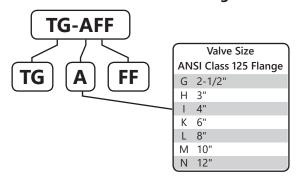


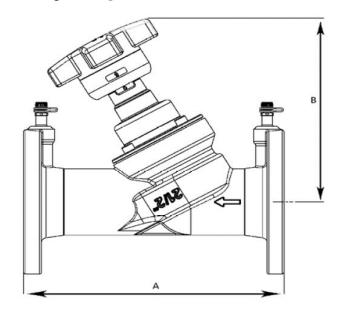
- Accurate and precise flow measurement and balancing
- · Positive shut-off
- "Y" pattern globe style design
- Multi-turn, 360° handwheel with vernier scale and digital readout
- Built in memory stop
- Offset pressure/temperature ports

Pressure / Temperature Rating

- 230 WOG
- 14°F -248°F

Smart Part Number Ordering Guide





Material Specifications

Part	Material
Body	Cast Iron
End Connections	ANSI 125 Flanged
Gaskets	EPDM
Seat Seal	PTFE
Handwheel	Polyamide Plastic

Dimensions

	Part Number	Size	Α	В	Minimum Flow	Nominal Flow	Maximum Flow
Ī	TGV-GFF	2-1/2"	11.42	8.94	2.13	33-100	318.30
	TGV-HFF	3"	12.20	9.5	4.19	100-117	374.50
	TGV-IFF	4"	13.78	10.20	6.09	117-200	646.80
	TGV-KFF	6"	18.90	12.05	13.70	320-440	1447.00
	TGV-LFF	8"	23.60	13.50	30.00	450-750	2415
	TGV-MFF	10"	28.70	16.00	47.00	750-1300	4050
	TGV-NFF	12"	33.50	19.00	43.00	1300-1600	5115



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בוו-חכו-וט וטסטוס

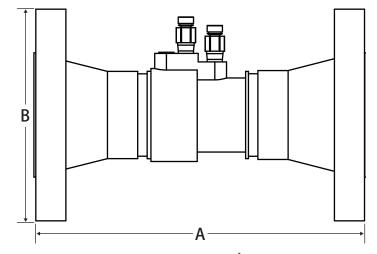
Metering Station



Fixed Orifice • Flange Connection • Class 150



Terminator MS Flange x Flange



DIRECTION OF FLOW

Features

- +/- 1% Accuracy
- Two pressure / temperature (PT) test ports
- · Location tag
- Additional accessory tap
- Class 150 Flange
- · 100% leak tested
- 5 straight pipe diameters are required upstream of metering station
- 2-1/2 straight pipe diameters are required downstream of metering station
- See end of catalog for pressure drop chart

Pressure and Temperature Rating

- 200 WOG
- 225°F Max

Material Specifications

Part	Material
Venturi Body	Carbon Steel - ASTM 126
Flange (2)	Carbon Steel - ASTM 126

Dimensions		
Α	В	
 10.9	7.0	_
11.3	7.5	
12.5	9.0	
15.0	11.0	
16.9	13.5	
20.6	16.0	

19.0



Size

2-1/2

3"

4"

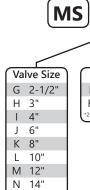
6" 8" 10"

12"

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

26.3

Smart Part Number Ordering Guide MS-GFF-H-XAB



	FF /	Optional Optional
Venturi	\bigcap	Optional Accessories
L Low	Х	Extended PT Ports / Accessories
H High	V	Manual Air Vent
*2-1/2" - 4" only	AB	Automatic Air Vent w/Ball Valve
	В	Ball Valve Air Vent



Automatic Flow Limiter • Isolation Ball Valve • Union • 600 WOG



Terminator A

D

DIRECTION OF FLOW

Features

- +/- 5% Accuracy
- Two pressure / temperature (PT) test ports
- Location tag
- Two additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- Blow out proof stem
- 100% leak tested
- See end of catalog for GPM ordering guide

Pressure and Temperature Rating

- 600 WOG
- 325°F Max

Smart Part Number Ordering Guide TA-CFM-L-VX 2.0

		77
Valve Size	Tail	piece Size and Type
A 1/2"	No	Reduction
B 3/4"	F	FNPT
C 1"	М	MNPT
D 1-1/4"	С	SWT
E 1-1/2"		
F 2"	Sin	gle Reduction*
	RF	FNPT
	RM	MNPT
Body Type	RC	SWT
F FNPT	Dou	uble Reduction**
C SWT	2RF	FNPT
	2RM	MNPT
	2RC	SWT

	Optional Accessories
Χ	Extended Handle, PT
	Ports and Accessories
V	Manual Air Vent
AB	Automatic Air Vent w/Ball Valve
	,
В	Ball Valve Air Vent

Optional

Material Specifications

	······································
Part	Material
Body	Brass -CW617N
End Connection	Brass -CW617N
Ball	Chrome Plated Brass -CW617N
Seat (2)	PTFE
Stem	Brass -CW614N
Packing	PTFE
Stem O-ring (2)	Viton®
Packing Gland	Brass -CW617N
Handle	Steel - Zinc Plated
Handle Nut	Brass -CW614N
Service Cap	Brass -CW617N
Service Cap O-ring	Viton®
Union Gasket	EPDM
Tail Piece	Brass -CW617N
Union Nut	Brass -CW617N
Balancing Cartridge	Stainless steel, EPDM
Cartridge Retaining Spring	Stainless Steel

Retaining spring	Stairness Steel

Dimensions						
Size	A *	В	С	D	E	F
1/2"	5.54	1.70	3.40	1.60	0.50	0.25
3/4"	6.38	1.80	3.40	2.40	0.50	0.25
1"	6.81	1.80	3.40	2.40	0.50	0.25
1-1/4"	8.88	2.50	4.40	3.50	0.75	0.25
1-1/2"	9.13	2.50	4.40	3.50	0.75	0.25
2"	11.38	3.50	5.50	4.50	0.75	0.50

^{*}Length is for a SWT x MNPT valve, additional dimensions available upon request



Automatic Balancing Valve



Automatic Flow Limiter • Isolation Ball Valve • Union • 600 WOG • with Stainless Steel Trim



Terminator A SS

Features

- 2-50 PSID operating range
- +/- 5% Accuracy
- Two pressure / temperature (PT) test ports
- Location tag
- Two additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- Blow out proof stem
- 100% leak tested
- · See end of catalog for GPM ordering guide

Pressure and Temperature Rating

RM MNPT RC SWT

2RF FNPT

2RM MNPT 2RC SWT

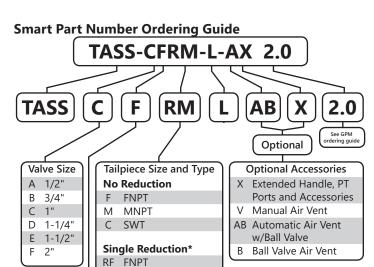
Double Reduction**

- 600 WOG
- 325°F Max

Body Type

F FNPT

SWT



E (
F	D

DIRECTION OF FLOW

Material Specifications

	•
Part	Material
Body	Brass - CW617N
End Connection	Brass -CW617N
Ball	316 Stainless Steel
Seat (2)	PTFE
Stem	316 Stainless Steel
Packing	PTFE
Stem O-ring (2)	Viton®
Packing Gland	Brass -CW614N
Handle	Steel - Zinc Plated
Handle Nut	Brass -CW614N
Service Cap	Brass -CW617N
Service Cap O-ring	Viton®
Union Gasket	EPDM
Tail Piece	Brass - CW617N
Union Nut	Brass - CW617N
Balancing Cartridge	Brass, Stainless steel, EPDM
Cartridge Retaining Spring	Stainless Steel

Dimensions

Size	A *	В	c	D	E	F
1/2"	5.54	1.70	3.40	1.60	0.50	0.25
3/4"	6.38	1.80	3.40	2.40	0.50	0.25
1"	6.81	1.80	3.40	2.40	0.50	0.25
1-1/4"	8.88	2.50	4.40	3.50	0.75	0.25
1-1/2"	9.13	2.50	4.40	3.50	0.75	0.25
2"	11.38	3.50	5.50	4.50	0.75	0.25

*Length is for a SWT x MNPT valve, additional dimensions available upon request





Automatic Flow Limiter • Isolation Ball Valve • Union • Press Body Connection • 250 WOG



Terminator A Press

Features

- 2-50 PSID operating range
- +/- 5% Accuracy
- Two pressure / temperature (PT) test ports
- Location tag
- Two additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal

Optional

Optional Accessories

X Extended Handle,

AB Automatic Air Vent

B Ball Valve Air Vent

PT Ports and

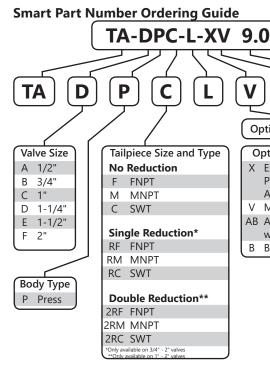
Accessories
V Manual Air Vent

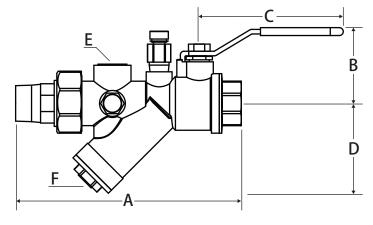
w/Ball Valve

- Blow out proof stem
- 100% leak tested
- See end of catalog for GPM ordering guide

Pressure and Temperature Rating

- 250 WOG
- 325°F Max





DIRECTION OF FLOW

Material Specifications

Part	Material
Body	Brass -CW617N
End Connection	Brass -CW617N
Press O-ring	EPDM
Ball	Chrome Plated Brass - CW617N
Seat (2)	PTFE
Stem	Brass -CW617N
Packing	PTFE
Stem O-ring (2)	Viton [®]
Packing Gland	Brass -CW614N
Handle	Steel - Zinc Plated
Handle Nut	Brass -CW614N
Service Cap	Brass -CW614N
Service Cap O-ring	Viton®
Union Gasket	EPDM
Tail Piece	Brass -CW617N
Union Nut	Brass -CW617N
Balancing Cartridge	Brass, Stainless steel, EPDM
Cartridge Retaining Spring	Stainless Steel

-			•	
Dι	me	nsı	ions	•

Size	A *	В	С	D	E	F
1/2"	5.92	1.70	3.40	1.60	0.50	0.25
3/4"	6.94	1.80	3.40	2.40	0.50	0.25
1"	_**	1.80	3.40	2.40	0.50	0.25
1-1/4"	_**	2.50	4.40	3.50	0.75	0.25
1-1/2"	_**	2.50	4.40	3.50	0.75	0.25
2"	_**	3.50	5.50	4.50	0.75	0.50

*Length is for a Press x MNPT valve, additional dimensions available upon request **1" - 2" is FNPT body with MNPT x Press adapter



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

LIT-HCI-TS 103018

Automatic Balancing Valve



Automatic Flow Limiter • Wafer Connection • 400 WOG



Terminator A Wafer x Wafer

Features

- 2-50 PSID operating range
- +/- 5% Accuracy
- Two pressure / temperature (PT) test ports
- Location tag
- Two additional accessory tap

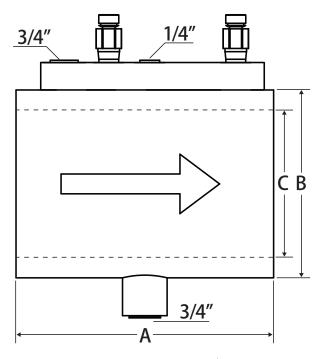
Pressure and Temperature Rating

- 2-1/2" 6": 426 WOG
- 8" 12": 400 WOG
- 350°F Max

Smart Part Number Ordering Guide TA-HW-L-QV Optional **Optional Accessories** Valve Size See GPM X Extended PT Port Accessories G 2-1/2" Range H 3" V Manual Air Vent I 4" AB Automatic Air Vent w/Ball Valve J 6" B Ball Valve Air Vent K 8" Blowdown / Drain



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Material Specifications

DIRECTION OF FLOW

Part	Material
Body (2-1/2" - 6")	Cast Iron
Body (8" - 12")	Carbon Steel
Balancing Cartridge	Brass, Stainless steel, EPDM
Cartridge C-Clip Retainer	Carbon Steel

Dimensions

Size	Α	В	С
2-1/2"	6.26	4.875	2.56
3"	6.26	5.875	3.34
4"	6.26	6.875	4.86
6"	6.26	8.750	7.10
8"	6.26	11.00	9.26

GPM Range

	_	
Size	Flow Rate	Low or High
2-1/2"	10 - 60	L
2-1/2"	61 - 126	Н
3"	18 - 126	L
3"	127 - 300	Н
4"	18 - 150	L
4"	151 - 326	Н
6"	62 - 260	L
6"	261 - 526	Н
8"	180 - 463	L
8"	464 - 926	Н

Automatic Balancing Valve



Automatic Flow Limiter • Isolation Ball Valve • Union • 600 WOG





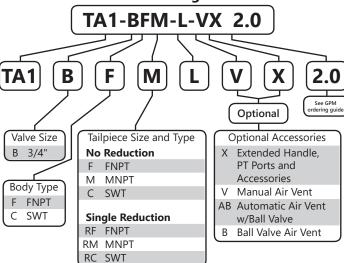
Features

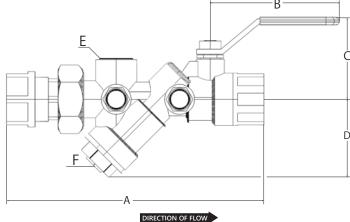
- +/- 5% Accuracy
- Two pressure / temperature (PT) test ports
- Location tag
- Two additional accessory taps
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- Blow out proof stem
- 100% leak tested

Pressure and Temperature Rating

- 600 WOG
- 325°F Max

Smart Part Number Ordering Guide





Material Specifications

waterial Specifications							
Part			Materia	I			
Body			Brass - C	85700			
End Con	nection		Brass -C	W617N			
Ball			Chrome Plated Brass - CW617N				
Seat (2)			PTFE				
Stem			Brass -C	W617N			
Packing			PTFE				
Stem O-	ring (2)		Viton®				
Packing	Gland		Brass -C	W617N			
Handle			Steel - Z	inc Plate	d		
Handle I	Nut		Brass -C	W617N			
Service	Сар		Brass -C	W617N			
Service	Cap O-ring		Viton®				
Union G	asket		EPDM				
Tail Piec	e		Brass - C	37700			
Union N	ut		Brass - C	37700			
Balancin	g Cartridge		Stainless	steel, El	PDM		
Cartridg	e Retaining	Spring	Stainless	Steel			Ę.
J	J						HQ-
			Dimen	sions			TS 1
Size	Flow Range	A *	В	С	D	E	.IТ-НСІ-ТЅ 103 <mark>€</mark> 18

Size	Flow Range	A *	В	С	D	E	0 56 718
3/4"	Low Flow	6.28	3.08	2.00	1.86	0.50	0.25
3/4"	High Flow	6.28	3.08	2.00	1.86	0.50	0.25
*Lenath is	for a SWT x MNP1	valve addi	tional dimer	nsions availa	hle unon re	nuest	

ength is for a SWT x MNPT valve, additional dimensions available upon request.

GPM Ordering Guide

Size	Cartridge		GPM F			PSI				
3/4" Low	C1-L	0.33	0.50	0.75	1.00	1.50	2.00	2.50	3.00	2-32
3/4" Low	C1-H	4.00	5.50	-	-	-	-	-	-	5-60

Pressure range varies, see PSI column





Integrated Isolation Ball Valve and Strainer • Union • 400 WOG



Terminator S

B

DIRECTION OF FLOW

Features

- · Integrated back flush
- Pressure / temperature (PT) test ports
- Two additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- · Blow out proof stem
- 100% leak tested
- · Made in Italy
- · Leakproof stem Lifetime warranty

Pressure and Temperature Rating

- 400 WOG
- 250°F Max

Smart Part Number Ordering Guide TS-BFF-QQX Optional Valve Size Tailpiece Size and Type **Optional Accessories** A 1/2" **No Reduction** X Extended Handle B 3/4" F FNPT Accessories V Manual Air Vent C SWT AB Automatic Air Vent D 1-1/4" w/Ball Valve E 1-1/2" Ball Valve Air Vent 2" Q Drain QQ Drain and Blowdown

Body Type

FNPT

Material Specifications

Part	Material
Body	Brass - CW602N
End Connection	Brass - CW602N
Ball	Chrome Plated Brass - CW602N
Seat (2)	Virgin PTFE
Stem	Brass - CW602N
Packing	Virgin PTFE
Stem O-ring (2)	Viton®
Packing Gland	Brass - CW614N
Handle	Steel - Geomet® Plated
Handle Nut	Steel - Geomet® Plated
Filter Basket	304 Stainless Steel
C-Clip Retainer	304 Stainless Steel
Body Insert	Brass - CW602N
Auxiliary Seat	Virgin PTFE
Cap	Brass - CW602N
O-ring	Viton®
Back Flush Plug	Brass - CW614N
Back Flush O-ring	Viton®
Back Flush Cap	Brass - CW614N
Union	(See Terminator U Spec Sheet)

	I	Dimensions	;	
Size	A *	В	C	Cv
1/2"	5.70	2.40	4.75	13.02
3/4"	5.70	2.40	4.75	13.02
1"	6.50	2.60	4.75	16.28
1-1/4"	7.38	3.23	5.88	24.20
1-1/2"	7.68	3.50	5.88	39.63
2"	9.44	3.15	8.13	74.85

^{*}Length is for a FNPT x FNPT valve, additional dimensions available upon request



^{*}Does not have back flush feature



Integrated Isolation Ball Valve and Strainer • 400 WOG



Terminator S Junior

B

DIRECTION OF FLOW

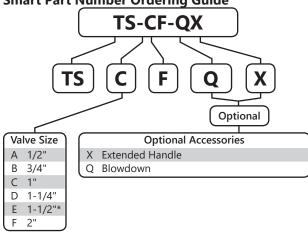
Features

- Integrated backflush
- Additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- Blow out proof stem
- 100% leak tested
- · Made in Italy
- · Leakproof stem Lifetime warranty

Pressure and Temperature Rating

- 400 WOG
- 250°F Max

Smart Part Number Ordering Guide



^{*}Does not have back flush feature



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Material Specifications

Part	Material
Body	Brass - CW602N
End Connection	Brass - CW602N
Ball	Chrome Plated Brass - CW602N
Seat (2)	Virgin PTFE
Stem	Brass - CW602N
Packing	Virgin PTFE
Stem O-ring (2)	Viton®
Packing Gland	Brass - CW614N
Handle	Steel - Geomet® Plated
Handle Nut	Steel - Geomet® Plated
Filter Basket	304 Stainless Steel
C-Clip Retainer	304 Stainless Steel
Body Insert	Brass - CW602N
Auxiliary Seat	Virgin PTFE
Cap	Brass - CW602N
O-ring	Viton®
Back Flush Plug	Brass - CW614N
Back Flush O-ring	Viton®
Back Flush Cap	Brass - CW614N

-							
Di	m	e	n	SI	O	n	S

	_			
Size	Α	В	С	Cv
1/2"	3.48	2.40	4.75	13.02
3/4"	3.48	2.40	4.75	13.02
1"	4.19	2.60	4.75	16.28
1-1/4"	4.84	3.23	5.88	24.20
1-1/2"	5.00	3.50	5.88	39.63
2"	6.61	3.15	8.13	74.85

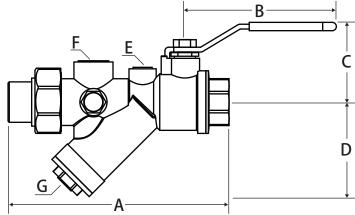
T-HCI-TS 103018



Y-Strainer • Isolation Ball Valve • 20 Mesh Strainer with Union and PT Port • 600 WOG







DIRECTION OF FLOW

Features

- Three additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- Blow out proof stem
- 100% leak tested

Pressure and Temperature Rating

- 600 WOG
- 325°F Max

TY-CF2RM-QX TY-CF2RM-QX Optional Valve Size A 1/2" Valve Size No Reduction Valve Size No Reduction Valve Size No Reduction Optional Accessorie X Extended Handle,

F	2"		S
$oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$		ا ا	R
			R۱
Rod	ly Type	١ .	R
Вои	ly Type		
F	FNPT		D
C	SWT)	2R
_			2D

B 3/4" C 1" D 1-1/4" E 1-1/2"

p			
No	Reduction		
F	FNPT		
М	MNPT		
С	SWT		
Sing	gle Reduction*		
RF	FNPT		
RM	MNPT		
RC	SWT		
Dοι	ıble Reduction**		
2RF	FNPT		
2RM	MNPT		
2RC	SWT		
	uilable on 3/4" - 2" valves vailable on 1" - 2" valves		

Optional Accessories X Extended Handle, PT Ports, and Accessories V Manual Air Vent AB Automatic Air Vent w/Ball Valve	_	
PT Ports, and Accessories V Manual Air Vent AB Automatic Air Vent w/Ball Valve	0	ptional Accessories
Accessories V Manual Air Vent AB Automatic Air Vent w/Ball Valve	Χ	
V Manual Air Vent AB Automatic Air Vent w/Ball Valve		'
AB Automatic Air Vent w/Ball Valve		Accessories
w/Ball Valve	V	Manual Air Vent
,	ΑB	Automatic Air Vent
		w/Ball Valve
B Ball Valve Air Vent	В	Ball Valve Air Vent
Q Blowdown / Drain	Q	Blowdown / Drain

Material Specifications

Part	Material				
Body	Brass -CW617N				
End Connection	Brass -CW617N				
Ball	Chrome Plated Brass - CW617N				
Seat (2)	PTFE				
Stem	Brass -CW617N				
Packing	PTFE				
Stem O-ring (2)	Viton®				
Packing Gland	Brass -CW617N				
Handle	Steel - Zinc Plated				
Handle Nut	Brass -CW617N				
Service Cap	Brass -CW617N				
Service Cap O-ring	Viton®				
Strainer	304 Stainless Steel				
Union Gasket	EPDM				
Tail Piece	Brass -CW617N				
Union Nut	Brass -CW617N				

Dimensions

Size	A *	В	С	D	E	F	G	Cv
1/2"	5.03	3.40	1.70	1.60	0.25	0.50	0.25	5.50
3/4"	5.88	3.40	1.80	2.40	0.25	0.50	0.25	9.00
1"	6.25	3.40	1.80	2.40	0.25	0.50	0.25	9.00
1-1/4"	7.88	4.40	2.50	3.50	0.25	0.75	0.25	28.00
1-1/2"	8.00	4.40	2.50	3.50	0.25	0.75	0.25	28.00
2"	10.31	5.50	3.50	4.50	0.25	0.75	0.50	32.00

^{*}Length is for a SWT x FNPT valve, additional dimensions available upon request





Y-Strainer • Isolation Ball Valve • Union • 600 WOG • with Stainless Steel Trim



Terminator Y SS

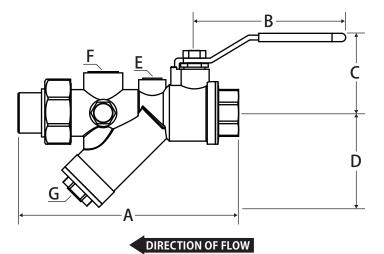
Features

- Three additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- · Blow out proof stem
- 100% leak tested

Pressure and Temperature Rating

• 600 WOG

• 325°F Max **Smart Part Number Ordering Guide** TYSS-CF2RM-QX 2RM Optional **Optional Accessories** Valve Size Tailpiece Size and Type **No Reduction** X Extended Handle, A 1/2" 3/4" F FNPT PT Ports, and Accessories C M MNPT V Manual Air Vent 1-1/4" SWT D 1-1/2" AB Automatic Air Vent Ε Single Reduction* w/Ball Valve F 2" RF FNPT B Ball Valve Air Vent RM MNPT Q Blowdown / Drain RC SWT **Body Type** FNPT **Double Reduction**** SWT 2RF FNPT 2RM MNPT



Material Specifications

waterial Specifications					
Part	Material				
Body	Brass - CW617N				
End Connection	Brass -CW617N				
Ball	316 Stainless Steel				
Seat (2)	PTFE				
Stem	316 Stainless Steel				
Packing	PTFE				
Stem O-ring (2)	Viton®				
Packing Gland	Brass -CW617N				
Handle	Steel - Zinc Plated				
Handle Nut	Brass -CW617N				
Service Cap	Brass -CW617N				
Service Cap O-ring	Viton®				
Strainer	304 Stainless Steel				
Union Gasket	EPDM				
Tail Piece	Brass - CW617N				
Union Nut	Brass - CW617N				

			Dii	mensio	ons			
Size	A *	В	С	D	E	F	G	Cv
1/2"	5.03	3.40	1.70	1.60	0.25	0.50	0.25	5.50
3/4"	5.88	3.40	1.80	2.40	0.25	0.50	0.25	9.00
1"	6.25	3.40	1.80	2.40	0.25	0.50	0.25	9.00
1-1/4"	7.88	4.40	2.50	3.50	0.25	0.75	0.25	28.00
1-1/2"	8.00	4.40	2.50	3.50	0.25	0.75	0.25	28.00
2"	10.31	5.50	3.50	4.50	0.25	0.75	0.25	32.00

^{*}Length is for a SWT x FNPT valve, additional dimensions available upon request

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

LIT-HCI-TS 10301

2RC SWT



Y-Strainer • Isolation Ball Valve • Union • Press Body Connection • 250 WOG



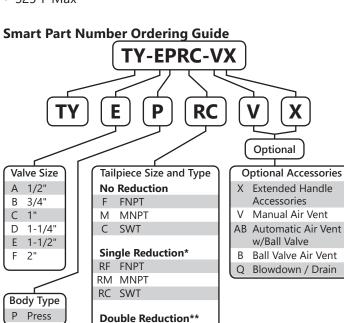
Terminator Y Press

Features

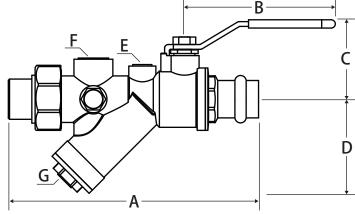
- Three additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- Blow out proof stem
- 100% leak tested

Pressure and Temperature Rating

- 250 WOG
- 325°F Max



2RF FNPT
2RM MNPT
2RC SWT
*Only available on 3/4" - 2" valves
**Only available on 3/4" - 2" valves



DIRECTION OF FLOW

Material Specifications

Part	Material				
Body	Brass -CW617N				
End Connection	Brass -CW617N				
Press O-ring	EPDM				
Ball	Chrome Plated Brass - CW617N				
Seat (2)	PTFE				
Stem	Brass -CW617N				
Packing	PTFE				
Stem O-ring (2)	Viton®				
Packing Gland	Brass -CW617N				
Handle	Steel - Zinc Plated				
Handle Nut	Brass -CW617N				
Service Cap	Brass -CW617N				
Service Cap O-ring	Viton®				
Strainer	304 Stainless Steel				
Union Gasket	EPDM				
Tail Piece	Brass -CW617N				
Union Nut	Brass -CW617N				

Dimensions

Size	A *	В	C	D	E	F	G	Cv
1/2"	5.42	3.40	1.70	1.60	0.25	0.50	0.25	5.50
3/4"	6.50	3.40	1.80	2.40	0.25	0.50	0.25	9.00
1"	_**	3.40	1.80	2.40	0.25	0.50	0.25	9.00
1-1/4"	_**	4.40	2.50	3.50	0.25	0.75	0.25	28.00
1-1/2"	-**	4.40	2.50	3.50	0.25	0.75	0.25	28.00
2"	_**	5.50	3.50	4.50	0.25	0.75	0.25	32.00
	_							

*Length is for a Press x FNPT valve, additional dimensions available upon request **1" - 2" is FNPT body with MNPT x Press adapter





Y-Strainer • Isolation Butterfly Valve • Lug x Flange Connection • Class 125



Terminator S

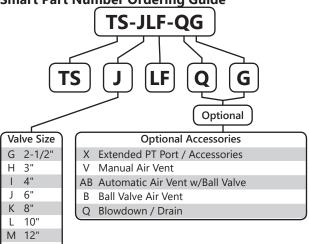
Features

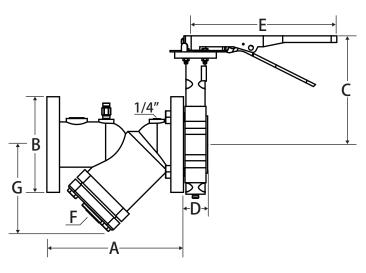
- Pressure / temperature (PT) test port
- Three additional accessory tap
- Ten-position lockable lever handle
- Class 150 Flange
- 100% leak tested
- Standard Screens:
 - 2" 4": 1/16" perforations
 - ∘ 6" 8": 1/8" perforations
 - 10" 12": 3/16" perforations

Pressure and Temperature Rating

- 200 WOG
- 150°F Max

Smart Part Number Ordering Guide





DIRECTION OF FLOW

Material Specifications

Part	Material
Body	Ductile Iron
Service Cover	Ductile Iron
Bolt (4)	Carbon Steel - A307
Gasket	Non-Asbestos
Strainer	304 Stainless Steel
Butterfly Valve	(See Butterfly Valve Spec Sheet)

Dimensions

						F	
Size	Α	В	C	D	E	(NPT)	G
2-1/2"	10.00	7.00	7.60	1.76	10.64	1.00	6.50
3"	10.13	7.50	8.15	1.78	10.64	1.00	7.00
4"	12.13	9.00	8.39	2.05	10.64	1.50	8.25
6"	18.50	11.00	9.13	2.20	10.64	2.00	13.50
8"	21.63	13.50	10.16	2.39	14.18	2.00	15.50
10"	26.00	16.00	11.85	2.58	19.70	2.00	18.50
12"	29.88	19.00	13.11	3.03	19.70	2.00	21.75



Y-Strainer



Y-Strainer • Flange Connection • Class 125



Terminator Y

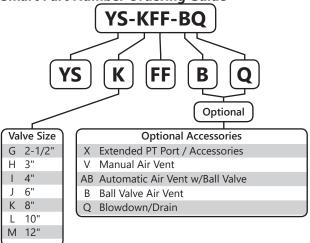
Features

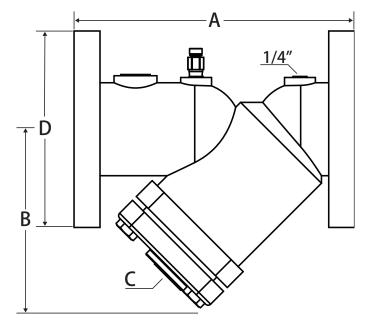
- Three additional accessory taps
- Class 125 Flange
- 100% leak tested
- Standard Screens:
 - ∘ 2" 4": 1/16" perforations
 - ∘ 6" 8": 1/8" perforations
 - 10" 12": 3/16" perforations

Pressure and Temperature Rating

- 200 WOG
- 150°F Max

Smart Part Number Ordering Guide





DIRECTION OF FLOW

Material Specifications

Part	Material			
Body	Ductile Iron			
Service Cover	Ductile Iron			
Bolt (4)	Carbon Steel - A307			
Gasket	Non-Asbestos			
Strainer	304 Stainless Steel			

Dimensions

	_			
Size	Α	В	C (NPT)	D
2-1/2"	10.00	6.50	1.00	7.00
3"	10.13	7.00	1.00	7.50
4"	12.13	8.25	1.50	9.00
6"	18.50	13.50	2.00	11.00
8"	21.63	15.50	2.00	13.50
10"	26.00	18.50	2.00	16.00
12"	29.88	21.75	2.00	19.00



Combination Ball Valve

HCi

Isolation Ball Valve • Union • 600 WOG



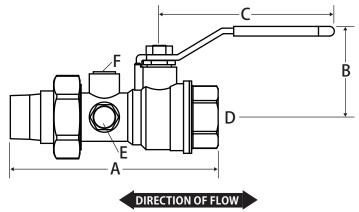
Terminator N

Features

- Pressure / temperature (PT) test ports
- Additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- · Blow out proof stem
- 100% leak tested
- Made in Italy
- Leakproof steam Lifetime warranty

Pressure and Temperature Rating

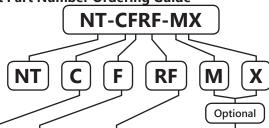
- 1/2" 3/4" 600 WOG
- 1" 2" 500 WOG
- 300°F Max



Material Specifications

	-
Part	Material
Body	Brass - CW617N
End Connection	Brass - CW617N
Ball	Chrome Plated Brass - CW617N
Seat (2)	Virgin PTFE
Stem	Brass - CW614N
Packing	Virgin PTFE
Stem O-ring (2)	Viton®
Packing Gland	Brass - CW614N
Handle	Steel - Geomet® Plated
Handle Nut	Steel - Geomet® Plated
Union O-ring	Viton [®]
Tail Piece	Brass - CW617N
Union Nut	Brass - CW617N

Smart Part Number Ordering Guide



Va	lve Size
Α	1/2"
В	3/4"
С	1"
D	1-1/4"
Ε	1-1/2"
F	2"
$\overline{}$	

Body Type F FNPT C SWT

f	
Tailpiece Size and Type	
No Reduction	

F FNPT M MNPT C SWT

Single Reduction*

RF FNPT RM MNPT RC SWT

Double Reduction**

2RF FNPT 2RM MNPT 2RC SWT

*Only available on 3/4" - 2" valves **Only available on 1" - 2" valves

Optional Accessories

- X Extended Handle, PT Port, and Accessories
- V Manual Air Vent
- AB Automatic Air Vent w/Ball Valve
- B Ball Valve Air Vent
- M Memory Stop
- Q Blowdown / Drain

Dimensions

Size	A *	В	C	D	E	F	Cv
1/2"	4.68	1.53	2.95	0.59	0.25	0.25	16.82
3/4"	4.73	1.93	3.74	0.79	0.25	0.25	34.80
1"	5.44	2.40	4.72	1.00	0.25	0.25	52.20
1-1/4"	6.45	2.59	4.72	1.25	0.37	0.25	112.52
1-1/2"	7.10	3.22	5.90	1.57	0.37	0.25	174.00
2"	7.68	3.50	5.90	2.00	0.37	0.25	255.20

*Length is for a FNPT x MNPT valve, additional dimensions available upon request



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

LIT-HCI-TS 103018

Combination Ball Valve



Isolation Ball Valve • Union • Press Body Connection • 250 WOG



Terminator N Press

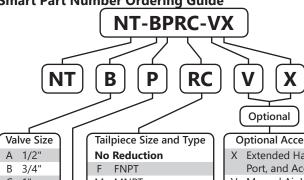
Features

- Pressure / temperature (PT) test ports
- Additional accessory tap
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- · Blow out proof stem
- 100% leak tested
- · Leakproof stem Lifetime warranty

Pressure and Temperature Rating

- 250 WOG
- 300°F Max

Smart Part Number Ordering Guide



va	ive size
Α	1/2"
В	3/4"
С	1"
D	1-1/4"
Ε	1-1/2"
F	2"
$oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$	

Body Type Press

M MNPT C SWT Single Reduction* RF FNPT RM MNPT

Double Reduction** 2RF FNPT 2RM MNPT

RC SWT

2RC SWT

Optional Accessories

- X Extended Handle, PT Port, and Accessories
- Manual Air Vent
- AB Automatic Air Vent w/Ball Valve
- Ball Valve Air Vent
- Memory Stop
- Blowdown / Drain

Material Specifications

DIRECTION OF FLOW

	material opermeations
Part	Material
Body	Brass - CW617N
End Connection	Brass - CW617N
Press O-ring	EPDM
Ball	Chrome Plated Brass - CW617N
Seat (2)	Virgin PTFE
Stem	Brass - CW614N
Packing	Virgin PTFE
Stem O-ring (2)	Viton®
Packing Gland	Brass - CW614N
Handle	Steel - Geomet® Plated
Handle Nut	Steel - Geomet® Plated
Union O-ring	Viton®
Tail Piece	Brass - CW617N
Union Nut	Brass - CW617N

Dimensions

Size	A *	В	С	D	E	Cv
1/2"	5.29	1.53	2.95	0.59	0.25	20.25
3/4"	5.38	1.93	3.74	0.79	0.25	41.83
1"	_**	2.40	4.72	1.00	0.25	78.38
1-1/4"	_**	2.59	4.72	1.25	0.37	132.10
1-1/2"	_**	3.22	5.90	1.57	0.37	206.96
2"	_**	3.50	5.90	2.00	0.37	346.00

*Length is for a Press x FNPT valve, additional dimensions available upon request **1" - 2" is FNPT body with MNPT x Press adapter



600 WOG



Terminator U

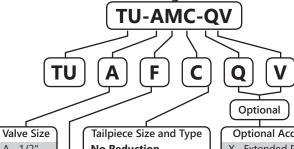
Features

- Pressure / temperature (PT) test ports
- Additional accessory taps
- 100% leak tested

Pressure and Temperature Rating

- 600 WOG
- 250°F Max

Smart Part Number Ordering Guide



Va	lve Size
Α	1/2"
В	3/4"
С	1"
D	1-1/4"
Е	1-1/2"
F	2"
(J

Body Type SWT

Tail	piece Size and Typ
No	Reduction
F	FNPT
М	MNPT
C	SWT
Sin	gle Reduction*
RF	FNPT
RM	MNPT
RC	SWT
Do.	uble Reduction**
	IDIE REGULTION""

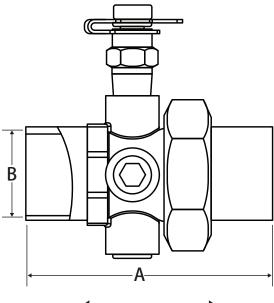
Tail	piece Size and Type
No	Reduction
F	FNPT
М	MNPT
C	SWT
Sin	gle Reduction*
	FNPT
RM	MNPT

2RF FNPT 2RM MNPT 2RC SWT

	_	
Opti	onal)	
Optional Accessories		
V = .	DT D+ /	

Accessories

- Manual Air Vent AB Automatic Air Vent
- w/Ball Valve
- B Ball Valve Air Vent
- Q Blowdown / Drain



DIRECTION OF FLOW

Material Specifications

Part	Material
Body	Brass - CW617N
O-ring	EPDM
Tail Piece	Brass - CW617N
Union Nut	Brass - CW617N

Dimensions

Size	Α	В
1/2"	2.30	0.63
3/4"	3.10	0.88
1"	3.28	1.13
1-1/4"	3.99	1.38
1-1/2"	3.86	1.63
2"	4.65	2.13

Note: Dimensions for a SWT x SWT valve, additional dimensions available upon request



 $\textbf{WARNING:} \ \textbf{This product can expose you to chemicals including lead, which is known}$ to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

LIT-HCI-TS

Flexible Hose



Braided Stainless Steel Hose • EPDM Core • Union



Features

- ASTM E84 Fire rated meets 25/50
- Union Connection
 - ∘ 1/2" 1" gasket-less cone connection
 - 1-1/4" 2" flat connection with BA-U fiber gasket
- 100% leak tested

Temperature Rating

-5°F to 230°F

Smart Part Number Ordering Guide HC-CMM-12 Valve Size Union End Length Connection A 1/2" 12" M MNPT B 3/4" 18" 1" C SWT 24" D 1-1/4" 36" E 1-1/2'



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Material Specifications

Part	Material
Hose Braiding	304 Stainless Steel
Crimping Ferrules	304 Stainless Steel
Core	EPDM
End Connection (2)	Brass - CW614N
Union Nut	Nickle Plated Brass - CW614N
Tail Piece	Brass - CW614N
Gasket*	BA-U Fiber

*Gasket only used on 1 1/4" - 2" hoses

			Cv			
Length	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
12"	3.3	11.0	20.9	N/A	N/A	N/A
18"	3.2	10.7	20.3	37.9	64.4	N/A
24"	3.1	9.9	19.5	36.9	61.0	110.7
36"	3.0	9.3	18.2	34.7	55.0	100.8

Max. Operating & Burst Pressure Rating

Size	Operating (PSI)	Burst (PSI)
1/2"	375	1500
3/4"	300	1200
1"	225	900
1-1/4"	200	800
1-1/2"	175	600
2"	150	500

Installation Notes

- ON INSTALLATION: Avoid absolutely any tension due to stretching, twisting or torsion during the course of tightening the connectors.
 - Install and tighten the fixed male connector
 - Install and tighten the union adapter
 - Install and tighten the swivel nut
- Use two spanners in order to screw in the union: One to hold the hexagon of the adapter. The other to tighten the nut at the same time.

IMPORTANT - Do not re-screw the fixed connector or adaptor after tightening of the swivel nut; this will cause torsion on the flexible hose, with a risk of rapid deterioration. On removal, take the same precautions. Not applicable for gas applications. Before installing refer to the installation & operation instructions for complete details.

Drain and Blowdown Valve

HCi

Isolation Ball Valve • 600 WOG



Features

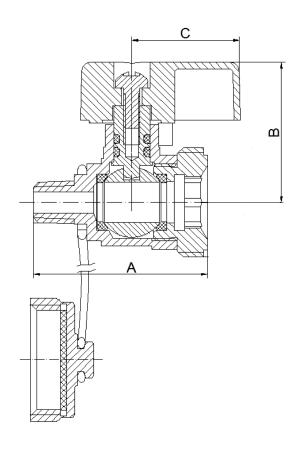
- 3/4" garden hose drain connection
- Includes drain cap and retainer
- 100% leak tested

Pressure and Temperature Rating

- 600 WOG
- 300°F Max



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Material Specifications

Part	Material
Body	Brass - CW617N
Retaining Ring	Brass - CW617N
Ball	Chrome Plated Brass - C3604DB
Seat (2)	PTFE
Stem	Brass - CW617N
Stem Sealing	EPDM
Handle	Painted Aluminum
Screw	Steel - Nickel Plated
Сар	Brass - CW617N
Retaining Strap	Plastic
Washer Ring	EPDM

3/4" GH

Dimensions
Outlet A B

LIT-HCI-TS 103018

Inlet

1/4" MNPT

Part #

Manual Air Vent



Coin Operated • 150 WOG

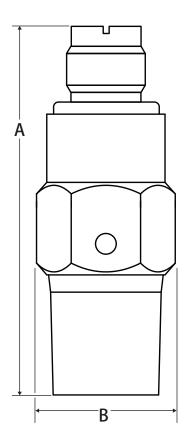


Features

• 100% leak tested

Pressure and Temperature Rating

- 125 WOG
- 250°F Max



Material Specifications

Part	Material
Body	Brass - C36000
Plug Screw	Brass - C36000

Dimensions

Part #	Size	Α	В
TV-A2	1/4" MNPT	1.63	0.58
TVX-A2-N	1/4" MNPT	2.75	0.58



Automatic Air Vent



Hygroscopic Discs • 125 WOG

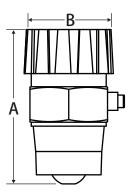


Features

- Manual Override
- 100% leak tested

Pressure and Temperature Rating

- 125 WOG
- 230°F Max



Material Specifications

Part	Material
Body	Nickle Plated Brass - C36000
Disc Bearing Cover	Nickle Plated Brass - C36000
Disc Holder	Nickle Plated Brass - C36000
Hygroscopic Discs	Cellulose Fiber
O-Ring	Neoprene
Check Valve	304 Stainless Steel
Сар	ABS

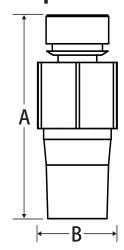
Dimensions

Part #	Size	Α	В
AAV-A1	1/4" MNPT	1.26	0.70

Pressure / Temperature Test Port Dual Nordel Core • 1000 WOG • with PT Port Cap Retainer







Pressure and Temperature Rating

- 1000 WOG
- 350°F Max



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Material Specifications

Part	Material	
Body	Brass	
Core	Nordel	
Cap	Brass	
Flat Washer	Buna-N	

	•			
-1)	ım	en	SI	ons
		C	311	9113

Part #	Size	Port Length	Α	В
SP-B	1/4"	1-1/2"	1.55	.56
SP-BXL	1/4"	3"	3.03	.56





Material Specifications

Part	Material
Metering Plate	Aluminum
Memory Stop	Brass - CW617N
Memory Stop Screw	Steel - Geomet® Plated

Dimensions

Part #	Size	Fits
MS-A	1/2"	NT, T-100 Series
MS-B	3/4"	NT, T-100 Series
MS-C	1" - 1-1/4"	NT, T-100 Series
MS-D	1-1/2" - 2"	NT, T-100 Series



Handle Extension

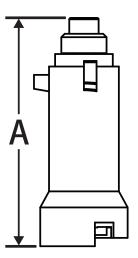


Compatible with Memory Stop



Features

• Allows for easy insulation



Material Specifications

Part	Material
Body	Brass - CW617N
Inner Rod	Brass - CW614N
Spacer	Steel
Screw	Steel - Geomet® Plated

Dimensions

	Part #	FILS						
	Part#	ТВ	NT	T100	TS	- A		
	TX-A-MS	1/2" - 3/4"	1/2"	1/2"		2.0		
	TX-B-MS	1"	3/4"	3/4"		2.0		
	TX-C-MS	1-1/4" - 1-1/2"	1" - 1-1/4"	1" - 1-1/4"	1/2" - 1"	2.0		
	TX-D-MS	2"	1-1/2", 2"	1-1/2", 2"	1-1/4" - 1-1/2"	2.0		
	TX-E*	-	-	-	2"	2.0		

^{*} Does not accommodate memory stop



WARNING: This product can expose you to chemicals including phthalates, which is known to the State of California to cause cancer, and phthalates, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Differential Metering Kit



Differential Pressure In. of WC



Part # Dimensions Part # DP IN. (WC) Range MK-50 0" - 50" Differential Pressure In. of WC

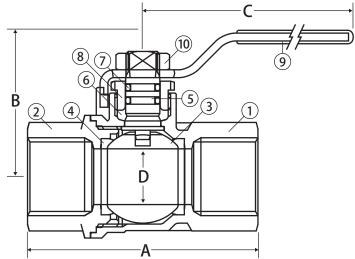
0" - 100"

MK-100



2 Piece • Full Port • Threaded Connections • 600 WOG





Features

- · Blow-out proof stem
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- 100% leak tested
- 100% Made in Italy
- Leakproof stem Lifetime Warranty
- 29 in-HG vacuum rating

Approvals LISTED S. FM

- UL Listed (1/4" 2")
 - VQGU Trim & drain
 - MHKZ Manual valves
 - YQNZ Compressed gas shut-off valves
 - YRBX Flammable liquid shut-off valves
 - YRPV Gas shut-off valves
 - YSDT LP gas shut-off valves
 - SFJQ Valves, refrigerant

· CSA Certified

- ANSI Z21.15 (.5 PSIG) (1/4" 3")
- ASME B16.33 (125 PSIG) (1/2" 2")
- ASME B16.38 (125PSIG) (2-1/2" 4")
- CGA 3.16 (125 PSI) (1/4" 4")
- CGA 9.2 (1/4" 3")
- ∘ Delta C (3/8" 3/4")
- FM Approval (1/4" 2")
- MSS SP-110
- ANSI B1.20.1

Valve Seat Rating 1/4" - 3/4" 600 WOG, 1-2" 500 WOG, 2-1/2" - 4" 400 WOG - 150 WSP 1/4" - 3/4" 500 2-1/2" - 4 300 150 WSP 200 100 Temperature °F

Material Specifications

No.	Part	Material
1	Body	Brass - CW617N
2	End Connection	Brass - CW617N
3	Ball	T.E.A. Coated Brass - CW617N
4	Seat (2)	Hostaflon® TFM 1600
5	Stem	Brass - CW614N
6	Packing	Hostaflon® TFM 1600
7	Stem O-ring (2)	Viton®
8	Packing Gland	Brass - CW614N
9	Handle	Steel - Geomet® Plated
10	Handle Nut	Steel - Geomet® Plated

Dimensions

Part No.	Size	Α	В	С	D	Cv
H100-701	1/4"	1.86	1.41	2.95	0.39	7.66
H100-702	3/8"	1.86	1.41	2.95	0.39	7.77
H100-703	1/2"	2.45	1.53	2.95	0.59	16.82
H100-704	3/4"	2.71	1.95	3.74	0.79	34.80
H100-705	1"	3.30	2.40	4.75	0.97	52.20
H100-706	1-1/4"	3.80	2.59	4.75	1.23	112.52
H100-707	1-1/2"	4.16	3.22	6.00	1.49	174.00
H100-708	2"	5.00	3.40	6.00	1.99	255.20
H100-709	2 1/2"	6.06	4.60	8.00	2.46	350.32
H100-710	3"	7.08	4.90	8.00	2.99	563.76
H100-711	4"	8.57	5.90	9.88	4.00	879.28



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



2 Piece • Full Port • Solder Connection • 600 WOG



H100S

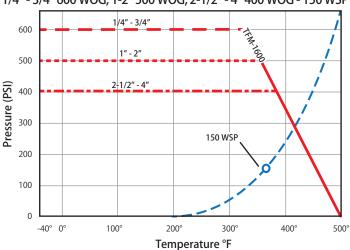
Features

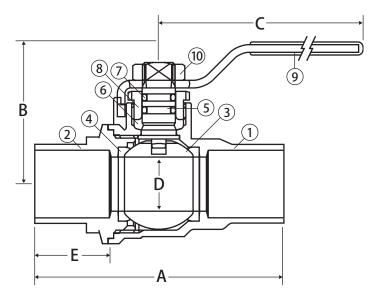
- Blow-out proof stem
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- 100% leak tested
- 100% Made in Italy
- Leakproof stem Lifetime Warranty
- 29 in-Hg vacuum rating

Approvals USTED OFM

- UL Listed (1/2" 2")
 - VQGU Trim & drain
- FM Approval (1/2" 2")
- MSS SP-110
- ASME/ANSI B16.18

Valve Seat Rating 1/4" - 3/4" 600 WOG, 1-2" 500 WOG, 2-1/2" - 4" 400 WOG - 150 WSP





Material Specifications

No.	Part	Material
1	Body	Brass - CW617N
2	End Connection	Brass - CW617N
3	Ball	T.E.A. Coated Brass - CW617N
4	Seat (2)	Hostaflon® TFM 1600
5	Stem	Brass - CW614N
6	Packing	Hostaflon® TFM 1600
7	Stem O-ring (2)	Viton®
8	Packing Gland	Brass - CW614N
9	Handle	Steel - Geomet® Plated
10	Handle Nut	Steel - Geomet® Plated

Dimensions

Part No.	Size	Α	В	C	D	E	Cv
H100-813	1/2"	2.48	1.56	2.95	0.59	0.51	16.82
H100-814	3/4"	3.26	2.05	3.74	0.79	0.76	34.80
H100-815	1"	3.94	2.55	4.75	0.97	0.92	52.20
H100-816	1-1/4"	4.50	2.66	4.75	1.23	0.98	112.52
H100-817	1-1/2"	5.07	3.31	6.00	1.49	1.10	174.00
H100-818	2"	6.22	3.60	6.00	1.99	1.34	255.20
H100-819	2 1/2"	7.28	4.74	8.00	2.46	1.45	350.32
H100-820	3"	8.48	5.05	8.00	2.99	1.63	563.76



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

LIT-HCI-TS 103018



2 Piece • Full Port • Threaded Connection • 600 WOG • with **Stainless Steel Ball and Stem**





В

Features

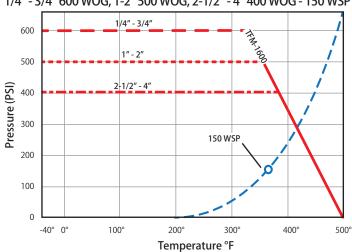
- Blow-out proof stem
- T.E.A. Ternary Eco Alloy® coated body, which prevents dezincification and galvanic corrosion
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- 100% leak tested
- 100% Made in Italy
- Leakproof stem Lifetime Warranty
- 29 in-Hg vacuum rating

Approvals Approva

- CSA Certified
 - ASME B16.33 (125 PSIG) (1/2" 2")
 - CGA 3.16 (125 PSIG) (1/4" 2")
- FM Approval (1/4" 2")
- ANSI B1.20.1
- MSS SP-110

Valve Seat Rating

1/4" - 3/4" 600 WOG, 1-2" 500 WOG, 2-1/2" - 4" 400 WOG - 150 WSP



Material Specifications

	No.	Part	Material
	1	Body	T.E.A. Coated Brass - CW617N
	2	End Connection	T.E.A. Coated Brass - CW617N
	3	Ball	316 Stainless Steel
	4	Seat (2)	Hostaflon® TFM 1600
	5	Stem	316 Stainless Steel
	6	Packing	Hostaflon® TFM 1600
	7	Stem O-ring (2)	Viton®
	8	Packing Gland	Nickel Plated Brass - CW614N
	9	Handle	Steel - Geomet® Plated
	10	Handle Nut	Steel - Geomet® Plated

Dimensions

Part No.	Size	Α	В	С	D	Cv
H100-501	1/4"	1.86	1.41	2.95	0.39	7.66
H100-502	3/8"	1.86	1.41	2.95	0.39	7.77
H100-503	1/2"	2.45	1.53	2.95	0.59	16.82
H100-504	3/4"	2.71	1.95	3.74	0.79	34.80
H100-505	1"	3.30	2.40	4.75	0.97	52.20
H100-506	1-1/4"	3.80	2.59	4.75	1.23	112.52
H100-507	1-1/2"	4.16	3.22	6.00	1.49	174.00
H100-508	2"	5.00	3.40	6.00	1.99	255.20
H100-509	2 1/2"	6.06	4.60	8.00	2.46	350.32
H100-510	3"	7.08	4.90	8.00	2.99	563.76



2 Piece • Full Port • Press Connection • 250 WOG



H100P

Features

- Blow-out proof stem
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- Corrosion resistant brass
- 100% leak tested
- 100% Made in Italy
- Leakproof stem Lifetime Warranty

Approvals

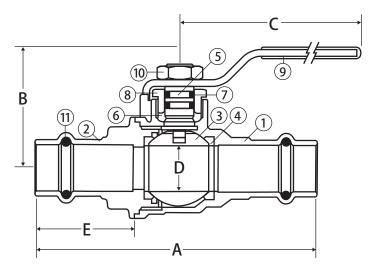
• Conforms to IAPMO PS 117

Pressure/Temperature Rating

- 250 WOG
- Max. 250°F



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Material Specifications

No	٠.	Part	Material
1	l	Body	Brass - CW602N
2	2	End Connection	Brass - CW602N
3	3	Ball	T.E.A. Coated Brass - CW617N
4	1	Seat (2)	Hostaflon® TFM 1600
5	5	Stem	Brass - CW602N
6	5	Packing	Hostaflon® TFM 1600
7	7	Stem O-ring (2)	Viton®
8	3	Packing Gland	Brass - CW602N
ç)	Handle	Steel - Geomet® Plated
1	0	Handle Nut	Steel - Geomet® Plated
1	1	O-ring (2)	EPDM

Dimensions

Part No.	Size	Α	В	c	D	E	Cv
H100-203	1/2"	3.54	1.53	2.95	0.59	1.24	16.82
H100-204	3/4"	3.84	1.95	3.74	0.79	1.28	34.80
H100-205	1"	4.31	2.40	4.75	0.97	1.38	52.20
H100-206	1-1/4"	4.80	2.59	4.75	1.23	1.30	112.52
H100-207	1-1/2"	5.61	3.22	6.00	1.49	1.50	174.00
H100-208	2"	7.16	3.40	6.00	1.99	2.01	255.20

.IT-HCI-TS 10301



2 Piece • Full Port • Male x Female Threaded Connection • 600 WOG



CRN# 0C16887.5469870YTN

H100MF

Features

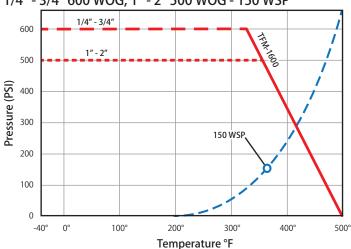
- Blow-out proof stem
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- · 100% leak tested
- 100% Made in Italy
- Leakproof stem Lifetime Warranty
- 29 in-Hg vacuum rating

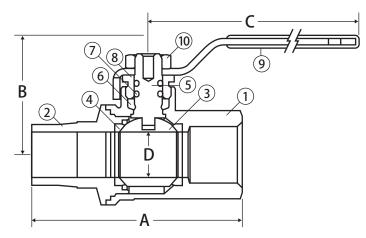
Approvals .

- CSA Certified (1/4" 1")
 - ASME B16.33 (125 PSIG)
 - CGA 3.16 (125 PSIG)
- MSS SP-110
- ANSI B1.20.1

Valve Seat Rating

1/4" - 3/4" 600 WOG, 1" - 2" 500 WOG - 150 WSP





Material Specifications

	material operineations					
No.	Part	Material				
1	Body	Brass - CW617N				
2	End Connection	Brass - CW617N				
3	Ball	Chrome Plated Brass - CW617N				
4	Seat (2)	Hostaflon® TFM 1600				
5	Stem	Brass - CW614N				
6	Packing	Hostaflon® TFM 1600				
7	Stem O-ring (2)	Viton®				
8	Packing Gland	Brass - CW614N				
9	Handle	Steel - Geomet® Plated				
10	Handle Nut	Steel - Geomet® Plated				

Dimensions

Part No.	Size	Α	В	С	D	Cv
H100-601	1/4"	2.29	1.41	2.95	0.39	7.66
H100-602	3/8"	2.26	1.41	2.95	0.39	7.77
H100-603	1/2"	2.75	1.53	2.95	0.59	16.82
H100-604	3/4"	3.10	1.95	3.74	0.79	34.80
H100-605	1"	3.68	2.40	4.75	0.97	52.20



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



2 Piece • Full Port • Male x Solder Connection • 600 WOG



H100MS

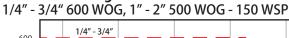
Features

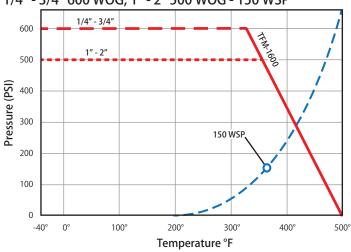
- · Blow-out proof stem
- Triple sealing stem with 2 Viton® o-rings and Teflon® seal
- 100% leak tested
- 100% Made in Italy
- Leakproof stem Lifetime Warranty
- 29 in-Hg vacuum rating

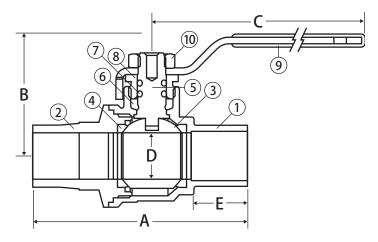
Approvals

- MSS SP-110
- ANSI B1.20.1
- ASME/ANSI B16.18

Valve Seat Rating







Material Specifications

No.	Part	Material
1	Body	Brass - CW617N
2	End Connection	Brass - CW617N
3	Ball	Chrome Plated Brass - CW617N
4	Seat (2)	Hostaflon® TFM 1600
5	Stem	Brass - CW614N
6	Packing	Hostaflon® TFM 1600
7	Stem O-ring (2)	Viton®
8	Packing Gland	Brass - CW614N
9	Handle	Steel - Geomet® Plated
10	Handle Nut	Steel - Geomet® Plated

Dimensions

Part No.	Size	Α	В	C	D	E	Cv
H100-613	1/2"	2.76	1.53	2.95	0.59	0.51	16.82
H100-614	3/4"	3.37	1.95	3.74	0.79	0.76	34.80
H100-615	1"	4.02	2.40	4.75	0.97	0.92	52.20



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Butterfly Valve



Lug Style • EPDM Seats • Epoxy-Coated Ductile Iron Body



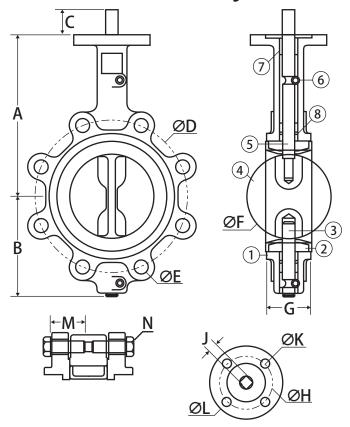
Terminator BFV

Features

- Designed for commercial and industrial applications up to 200 PSI
- Easily accepts actuator with ISO 5211 mounting flange
- · Seat to flange seal eliminates the need for flange gaskets
- Series 600 Lug bodies are bidirectional for dead end service
- · Epoxy coated finish
- Ideal for mounting pneumatic/electrical actuators
- Square stem for direct mount
- Wetted surfaces contain less than .25% lead content

Approvals

- API 609
- MSS SP-67



Seat Temperature Ranges

	EPDM
Temperature range (°F)	-30 to 250
Inline service (psi)	200
Dead end service w/down stream flange (psi)	200
Dead end service w/o down stream flange (psi)	100

Material Specifications

No.	Part	Materials
1	Body	Ductile Iron - Epoxy Coated
2	Seat	EPDM
3	Lower Shaft	410 Stainless Steel
4	Disc	CF8M Stainless Steel
5	Upper Shaft	410 Stainless Steel
6	Locating Pin (2)	Carbon Steel
7	Bushing (3)	PTFE
8	O-ring (2)	EPDM

D	ime	nsi	on	s
_				-

Part No.	Size	Α	В	С	D	E	F	G	н	J	K	L	M	N	Weight
BF-GLL	2-1/2"	6.89	3.5	1.26	5.5	4 : 5/8"	2.54	1.76	1.97	0.35	04:00.3	3.03	1.5	5/8-11UNC	9.26
BF-HLL	3"	7.13	3.74	1.26	6	4 : 5/8"	3.1	1.78	1.97	0.35	04:00.3	3.03	1.5	5/8-11UNC	10.36
BF-ILL	4"	7.87	4.49	1.26	7.5	8 : 5/8"	4.09	2.05	2.76	0.43	04:00.3	3.54	1.75	5/8-11UNC	19.84
BF-JLL	6"	8.9	5.47	1.26	9.51	8:3/4"	6.13	2.2	2.76	0.55	04:00.3	3.54	2	3/4-10UNC	31.31
BF-KLL	8"	10.24	6.89	1.61	11.75	8:3/4"	7.97	2.39	4.02	0.67	04:00.5	4.92	2	3/4-10UNC	40.12
BF-LLL	10"	11.5	7.99	1.61	14.25	12 : 7/8"	9.86	2.58	4.02	0.87	04:00.5	4.92	2.25	7/8-9UNC	59.08
BF-MLL	12"	13.27	9.53	1.61	17.01	12 : 7/8"	11.87	3.03	4.02	0.87	04:00.5	5.51	2.5	7/8-9UNC	88.18

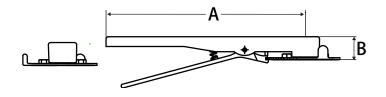
HCi Hydronic Components Inc

Ten-position Lockable Lever Handle



Terminator BFV Lever Handle

Comes standard with terminator BFV



Dimensions								
Part No.	Size	Α	В	С				
BLH2-3	2-1/2" - 3"	2.00	1.26	10.64				
BLH4	4"	2.00	1.26	10.64				
BLH5-6	5" - 6"	2.00	1.26	10.64				
BLH8	8"	4.30	1.77	14.18				
BLH10	10"	5.84	1.77	19.7				
BLH12	12"	5.8	1.77	19.7				



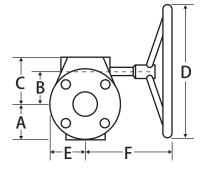
WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

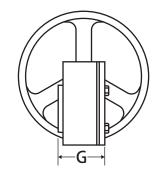
Butterfly Valve Handle

Butterfly Gear Operator



Terminator BFV Gear Operator





Dimensions											
Part No.	Size	Α	В	С	D	E	F	G			
2-14"											
BGO2-3	2-1/2" -3"	2.05	1.77	2.92	5.91	2.05	6.00	2.96			
BGO4	4"	2.05	1.77	2.92	5.91	2.05	6.00	2.96			
BGO5-6	5" - 6"	2.05	1.77	2.92	5.91	2.05	6.00	2.96			
BGO8	8"	2.96	2.47	3.98	11.82	2.96	9.85	3.39			
BGO10	10"	2.96	2.47	3.98	11.82	2.96	9.85	3.39			
BGO12-14	12"-14"	3.19	3.15	4.65	11.82	3.19	8.94	3.27			



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Lead Free Brass Inline Check Valve



Threaded Connection • 300 WOG • Class 150



T-521G



- Forged Lead Free Brass Body
- Bubble tight Teflon seal
- Wetted surfaces contain less than .25% lead content

Approvals Stead Free

- Lead Free Compliant
- ANSI B1.20.1

Pressure/Temperature Rating

- 300WOG
- Max. 250°F

Install 5 pipe diameter minimum downstream from pump discharge or changes in direction to avoid flow turbulence. Flow straighteners may be required in extreme cases.

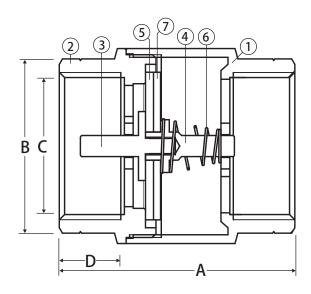
Note: On pump discharge, the preferred check valves are: inline, spring assisted, center-guided, lift checks.

Jomar Check Valves may be installed in both horizontal and vertical lines with upward flow or in an intermediate position. They will operate satisfactory in a declining plane (no more than 15°).

Warning: Do Not Use For Reciprocating Air Compressor Service



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Material Specifications

No.	Part	Materials
1	Body	Lead Free Brass
2	Tailpiece	Lead Free Brass
3	Disc Holder 1	Lead Free Brass
4	Disc Holder 2	Lead Free Brass
5	Disc	PTFE
6	Spring	304 Stainless Steel

Dimensions									
Part No.	Size	Α	В	С	D				
105-603G	1/2"	1.28	1.91	0.50	0.49				
105-604G	3/4"	1.54	2.06	0.75	0.59				
105-605G	1″	1.77	2.30	1.00	0.59				
105-606G	1-1/4"	2.17	2.64	1.25	0.73				
105-607G	1-1/2"	2.34	2.74	1.50	0.71				

3.31

2.00

0.83

3.15

105-608G



2 Piece • Full Port • Threaded Connection • Mini Valves • 600 WOG

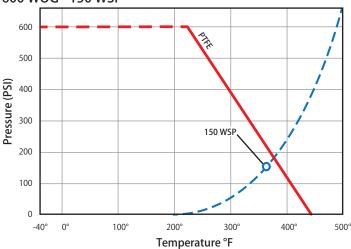


T-83C

Features

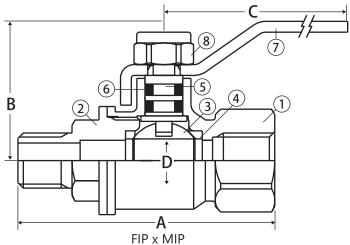
- · Large raised wrench flats
- 2 Buna-N o-rings
- 100% leak tested

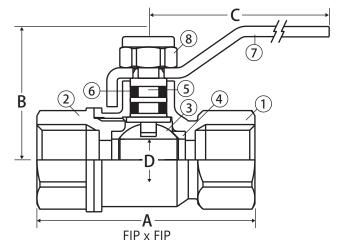
Valve Seat Rating 600 WOG - 150 WSP





WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, and lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





Material Specifications

No.	Part	Materials
1	Body	Brass - C37700
2	End Connection	Brass - C37700
3	Ball	Chrome Plated Brass - C37700
4	Seat (2)	PTFE
5	Stem	Brass - C37700
6	Stem O-ring (2)	Buna-N
7	Handle*	Steel - Chrome Plated or Aluminum
8	Handle Nut / Screw*	Steel - Chrome Plated

^{*}Material depends on handle selection

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- 1)	П	m	Δ	n	CI	10	n	C

Part No.	Size	Α	В	С	D
H100-398	1/4" FIP x 1/8" MIP	1.93	1.07	1.77	0.28
H100-399	1/4" FIP x 1/4" MIP	2.01	1.07	1.77	0.28
H100-400	1/4" FIP x 1/4" FIP	1.65	1.07	1.77	0.28

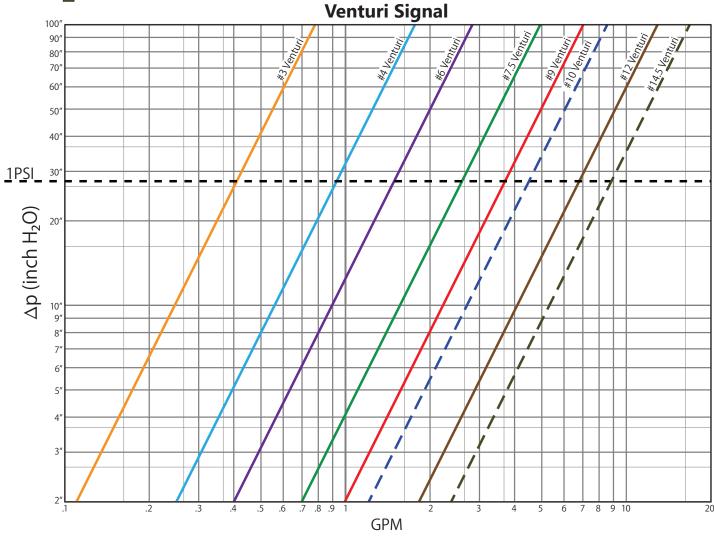
LIT-HCI-TS 10301

Pressure Drop Chart Terminator B (1/2" - 1")



CV of Valves 1/2" & 3/4" w/ #3 Venturi: **0.44** 1/2" & 3/4" w/ #4 Venturi: **1.30** 1/2" & 3/4" w/ #6 Venturi: **2.65** 1/2" & 3/4" w/ #7.5 Venturi: **3.61** 1/2" & 3/4" w/ #9 Venturi: **7.05** 1/2" & 3/4" w/ #12 Venturi: **11.40** 1" w/ #10 Venturi: **7.05** 1" w/ #14.5 Venturi: **17.6**



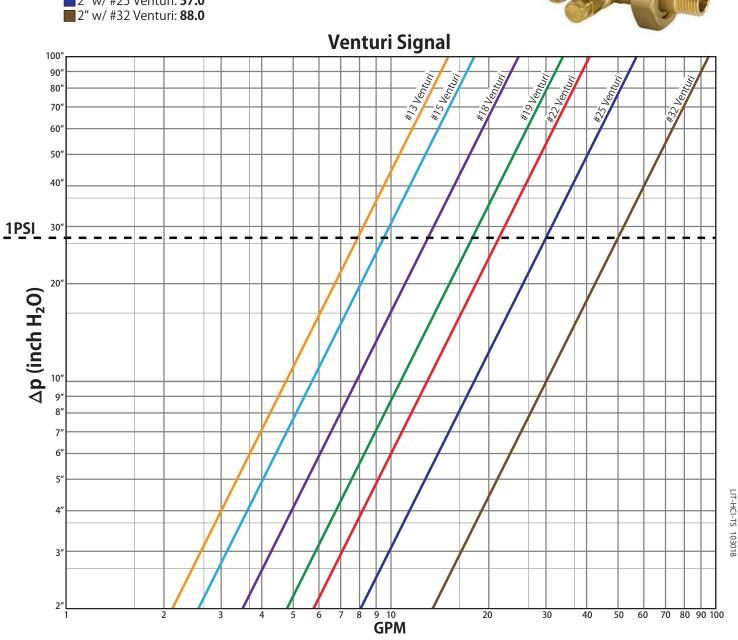


Pressure Drop Chart Terminator B (1-1/4" - 2")



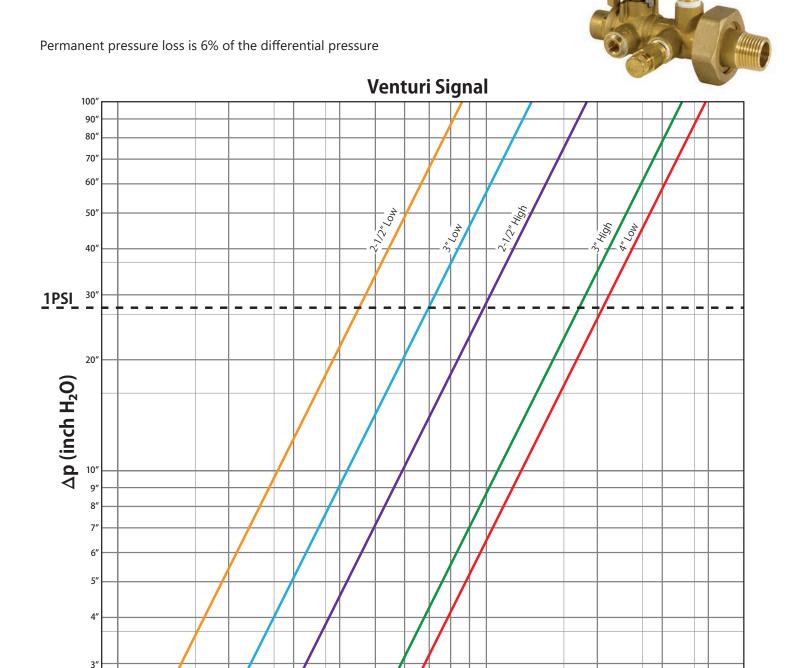
CV of Valves 1-1/4" w/ #13 Venturi: **15.0** 1-1/4" w/ #19 Venturi: **34.0** 1-1/2" w/ #15 Venturi: **20.9** 1-1/2" w/ #22 Venturi: **57.0** 2" w/ #18 Venturi: **30.8** 2" w/ #25 Venturi: **57.0**





Pressure Drop Chart Terminator B & MS (2-1/2" - 4")



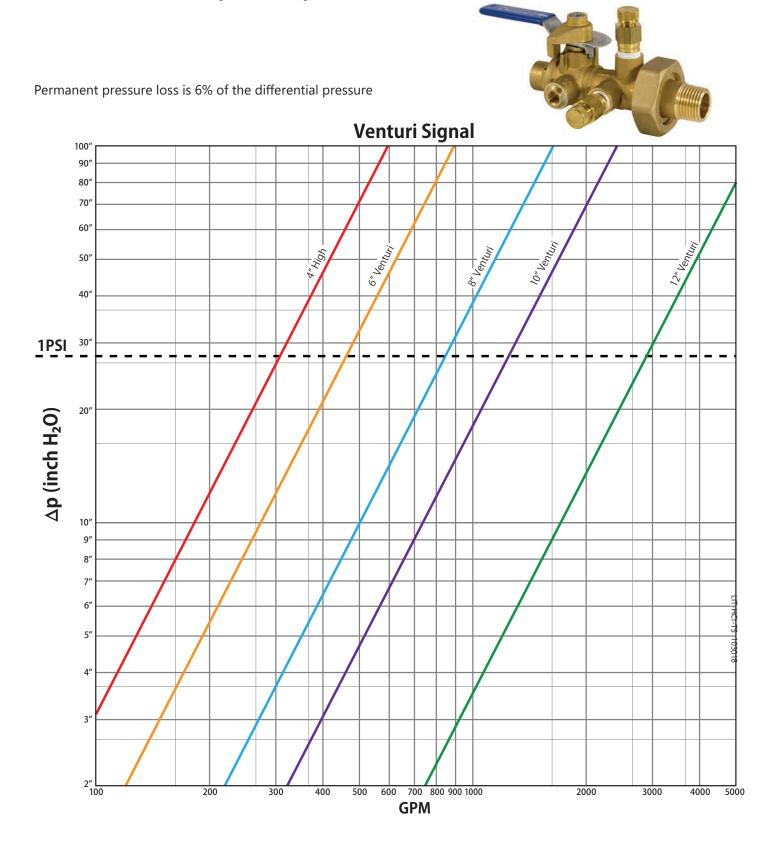


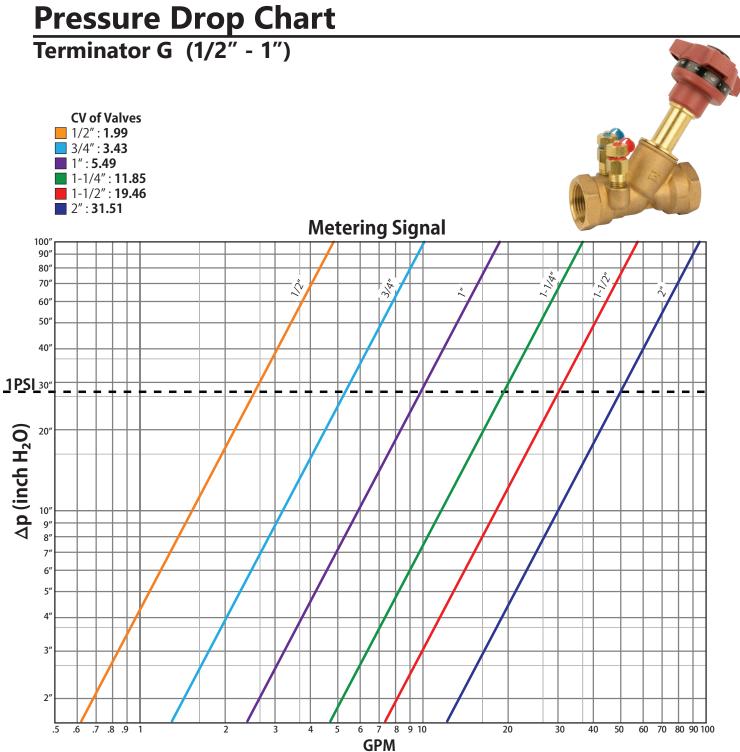
80 90 100

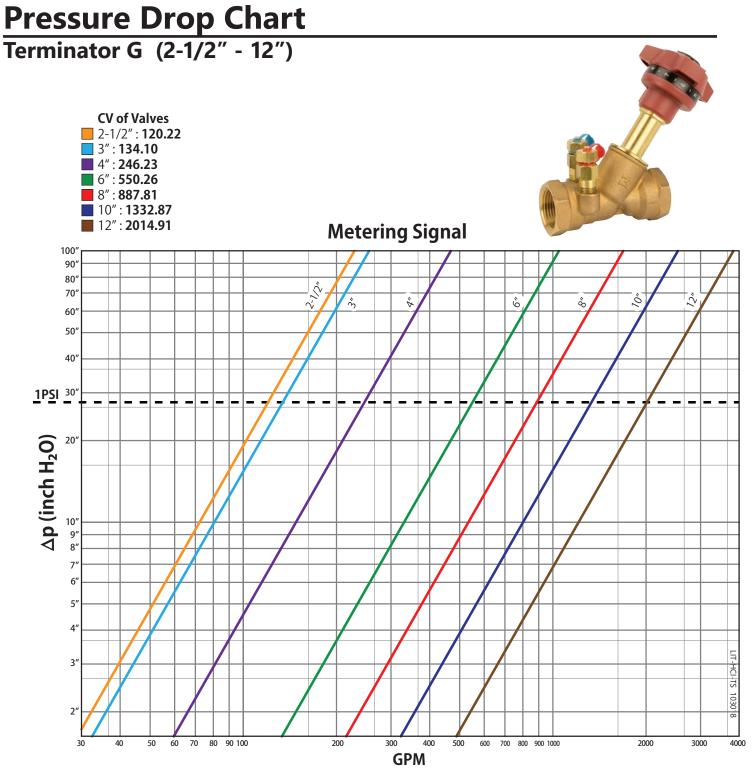
GPM

Pressure Drop Chart Terminator B & MS (6" - 12")







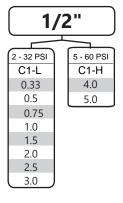


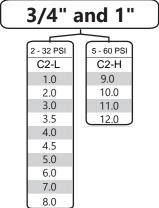
GPM Ordering Guide

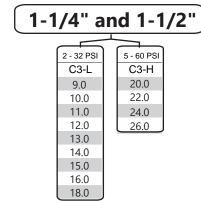


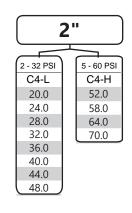
Select a size and GPM, this will determine the cartridge type











HCi

Hydronic Components Inc.



7243 Miller Drive • Warren, MI 48092 phone: (586) 268-1640 • fax: (586) 979-8318 www.hciterminator.com