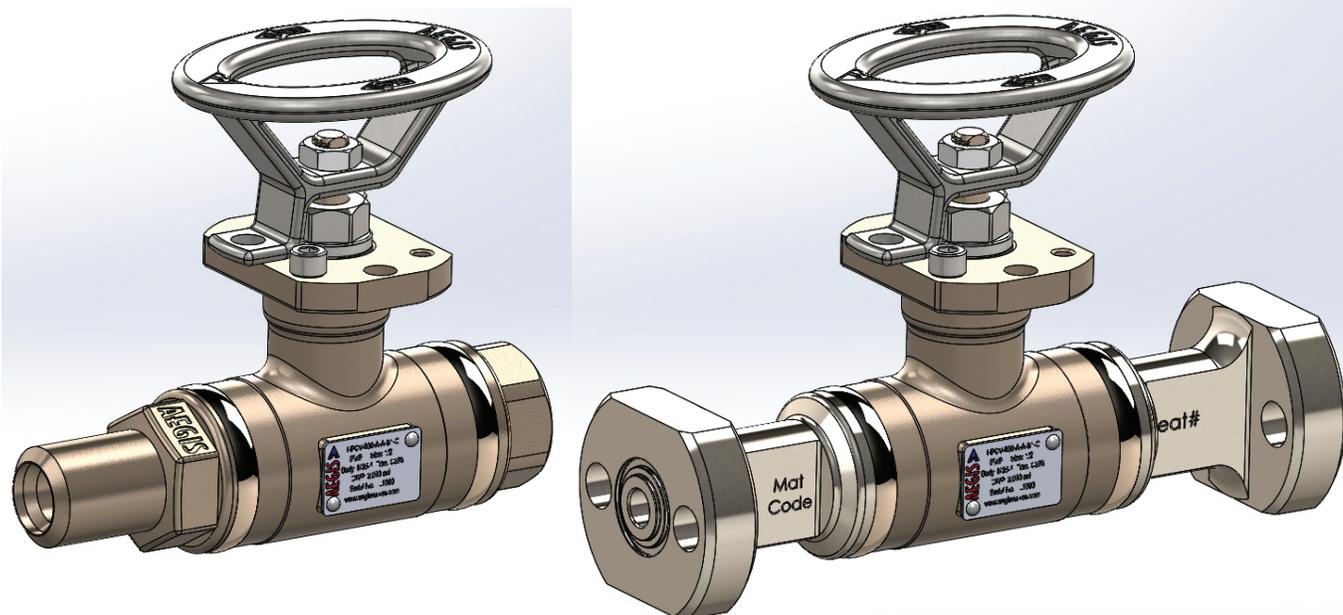


# AEGIS®

## HPCV 900 Series



## Hazardous and Lethal Service Instrument Ball Valve

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HPCV 900 Valve	Standard Features	Optional Features
Application	Reliable Isolation & Control of Extremely Corrosive Liquids and Gas	
Conforming Standards	ASME B16.34, API 598	
Size	1/2"	
Body	ASTM A494 M35-1	A352 LCC, A216 WCB, A494 CW12MW, A351 CF3M, A351 CF8M
Ball/Stem	Hastelloy C276	Monel 400, 316 SS
External Coating	Epoxy Paint for Carbon Steel Bodies	
ANSI Class Rating	900#	
Process Sealing	Gas Tested Bubble Tight per API 598	
Stem Sealing	Dynamically Loaded Chevron PTFE Packing	Dynamically Loaded Graphoil Packing
Temperature Rating	-50 to 400 Deg F	-150 Deg F
Control Characteristics	Equal Percentage	
Flow Direction	Bi-Directional	Uni-Directional with Vented Ball
Cleaning	Standard Cleaned	Chlorine Cleaned

## QUALITY ASSURANCE

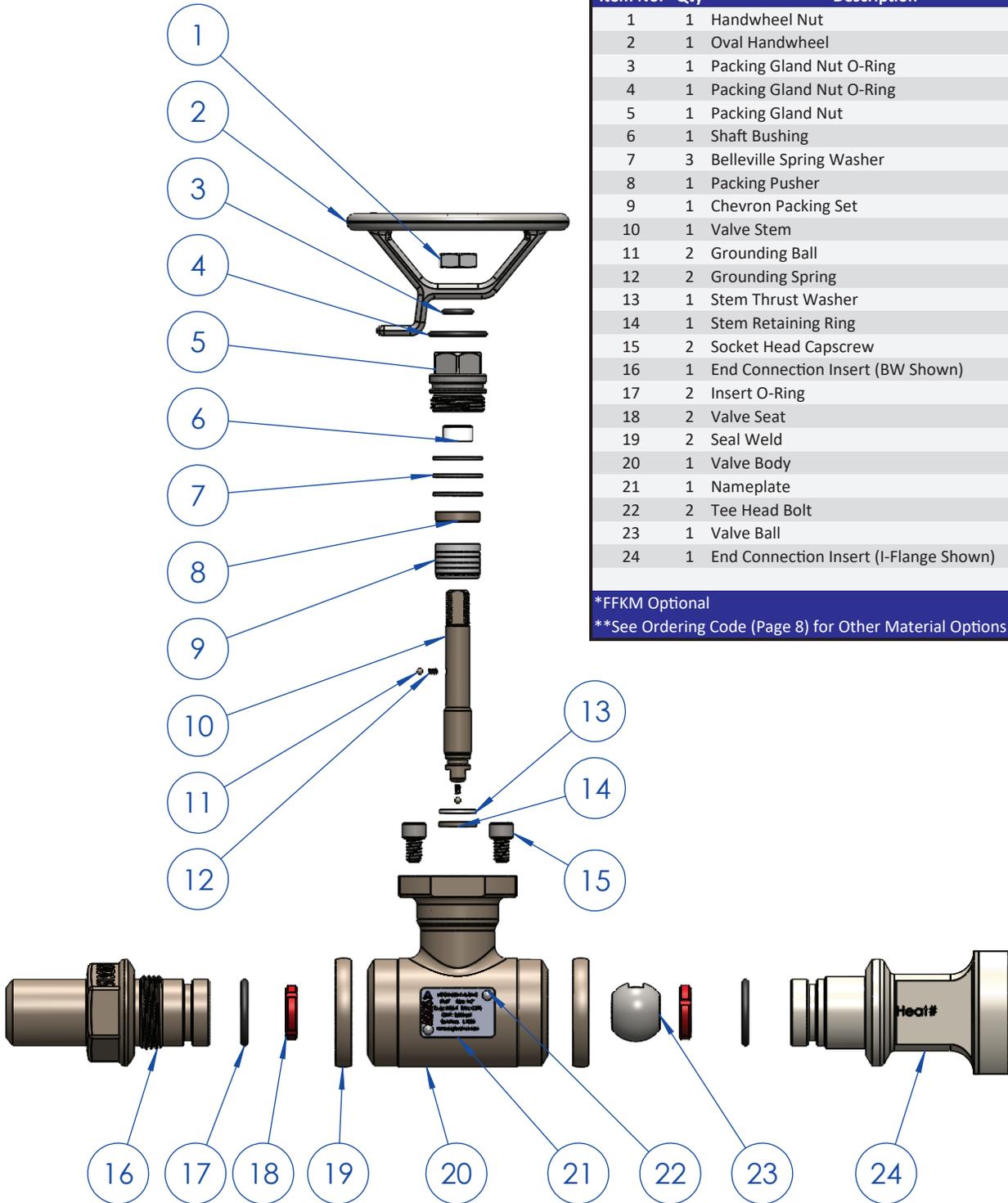
- Aegis' HPCV 900 valves are manufactured in an ISO 9001:2015 certified facility which assures on time deliveries and defect free products
- Mill/Test Certificates are available for each valve allowing total traceability of components
- Documentation of testing procedures and results are available for every valve
- Individual Serial Numbers/Material Identification tags are fastened to every valve allowing 100% reliable traceability

## APPLICATIONS

Aegis' HPCV 900 valves are often used in conjunction with Aegis' Instrument Bleed Rings (IBR Series), and are routinely specified for hazardous services such as:

- Ammonia
- Chlorine
- Nitric Acid
- Ethylene Oxide
- Anhydrous HCL
- Chlorine TriFluoride
- Fluorine
- Sulfur Chloride
- Anhydrous HF
- Chlorinated Solvents
- Isocyanates
- Phosgene
- Bromine
- Ethylene Dichloride
- Metal Alkyls
- Vinyl Chloride Monomer





Item No.	Qty	Description	Typical Material
1	1	Handwheel Nut	Stainless Steel - Nyloc
2	1	Oval Handwheel	Stainless Steel
3	1	Packing Gland Nut O-Ring	Viton (FKM)*
4	1	Packing Gland Nut O-Ring	Viton (FKM)*
5	1	Packing Gland Nut	Monel 400**
6	1	Shaft Bushing	Technopolymer
7	3	Belleville Spring Washer	302 Stainless Steel
8	1	Packing Pusher	Monel 400**
9	1	Chevron Packing Set	Virgin PTFE**
10	1	Valve Stem	Hastelloy C276**
11	2	Grounding Ball	Hastelloy C276
12	2	Grounding Spring	Hastelloy C276
13	1	Stem Thrust Washer	Virgin PTFE
14	1	Stem Retaining Ring	Hastelloy C276**
15	2	Socket Head Capscrew	Stainless Steel
16	1	End Connection Insert (BW Shown)	Monel 400**
17	2	Insert O-Ring	Viton (FKM)*
18	2	Valve Seat	Paraflon®**
19	2	Seal Weld	ERNiCu-7**
20	1	Valve Body	Monel 400**
21	1	Nameplate	Stainless Steel
22	2	Tee Head Bolt	Stainless Steel
23	1	Valve Ball	Hastelloy C276**
24	1	End Connection Insert (I-Flange Shown)	Monel 400**

\*FKM Optional  
 \*\*See Ordering Code (Page 8) for Other Material Options

### 1 Oval Handwheel

Minimizes the chance of accidentally getting bumped open or closed, lockable in closed position

### 2 Dynamically Loaded Stem Seal

Live loaded chevron packing

### 3 Fugitive Emissions Bonnet

ISO 15848-1 Performance Class ISO FE AM-C01-SSA0-t (-46°C, RT)-CL300

### 4 ISO 5211

F05 Mount Pattern

### 5 High Integrity CNC Welded Connection

Certified GTAW welding process performed with CNC welding equipment

### 6 Symmetrical Valve Body

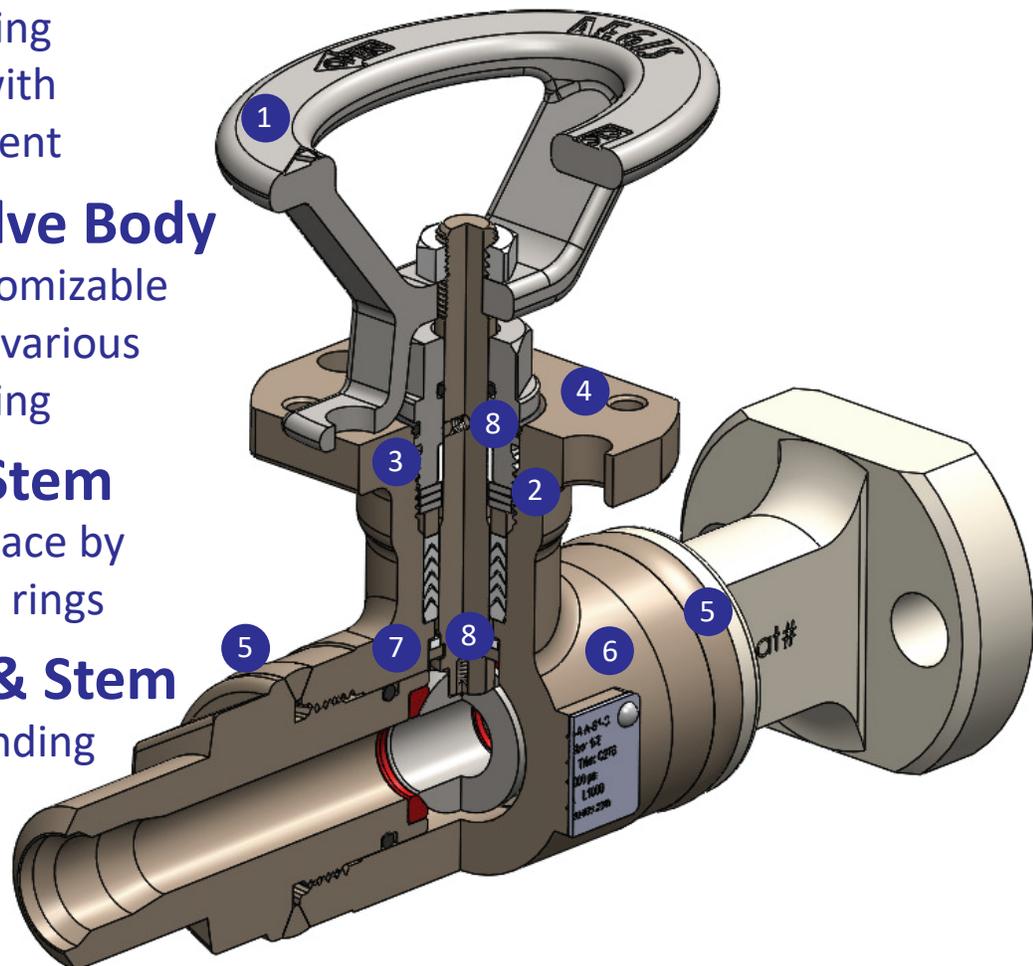
Accommodates customizable end connections for various instruments and piping

### 7 Blowout Proof Stem

Stem is secured in place by heavy duty retaining rings

### 8 Grounded Ball & Stem

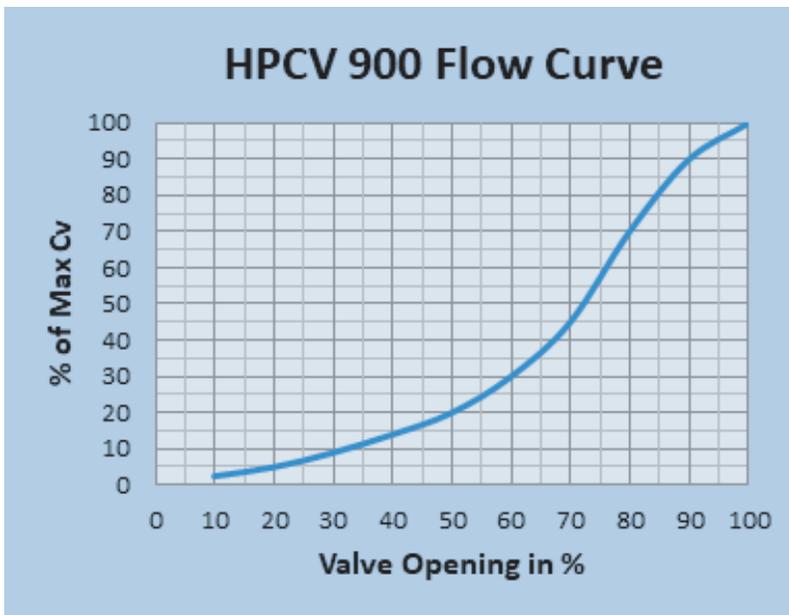
Spring Loaded grounding mechanism



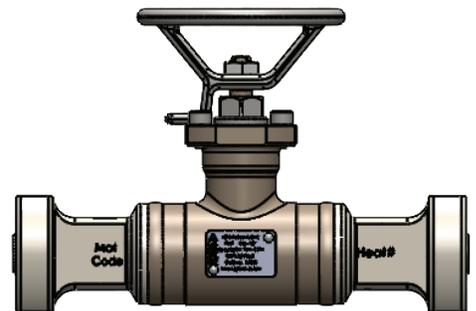
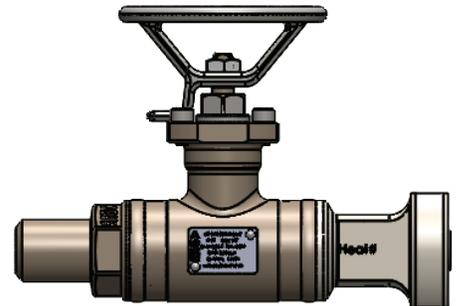
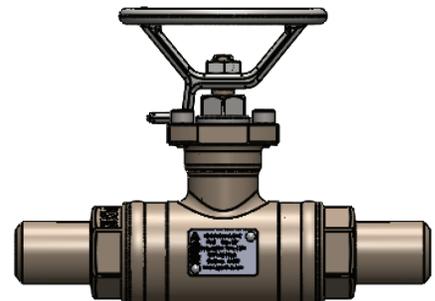
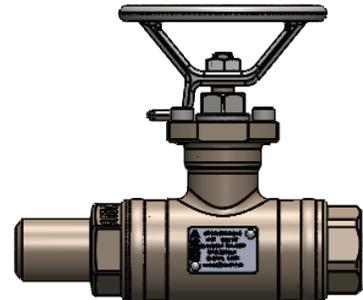
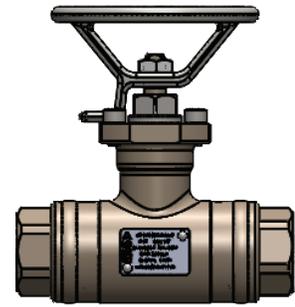
## Common Configurations - Cv Values

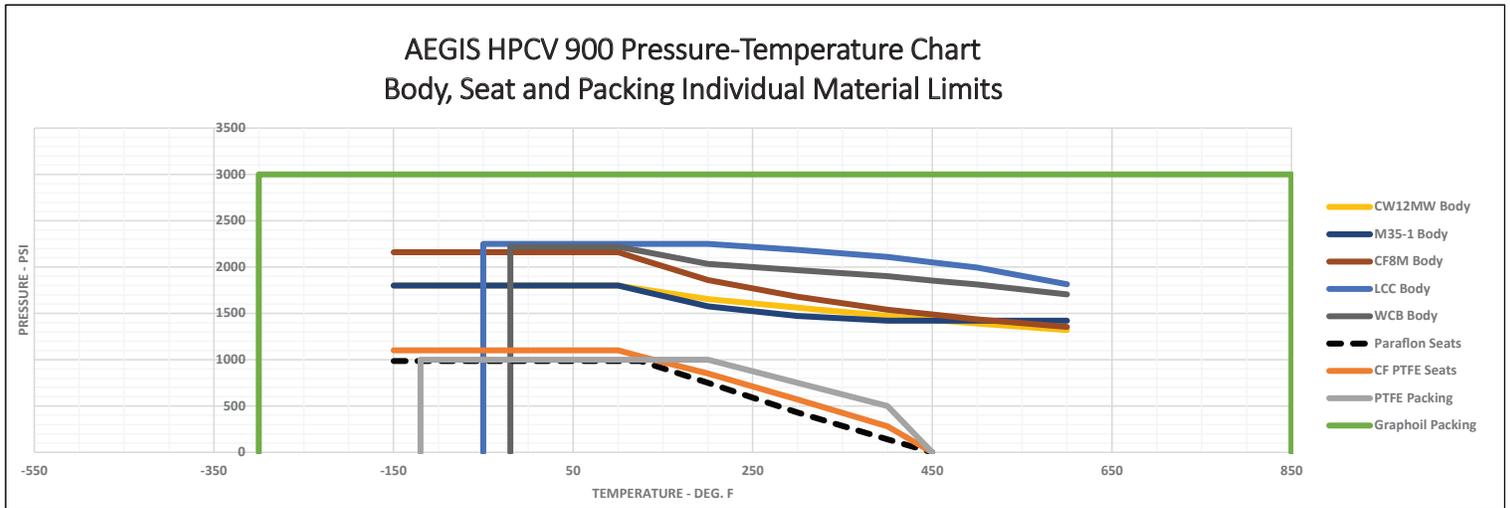
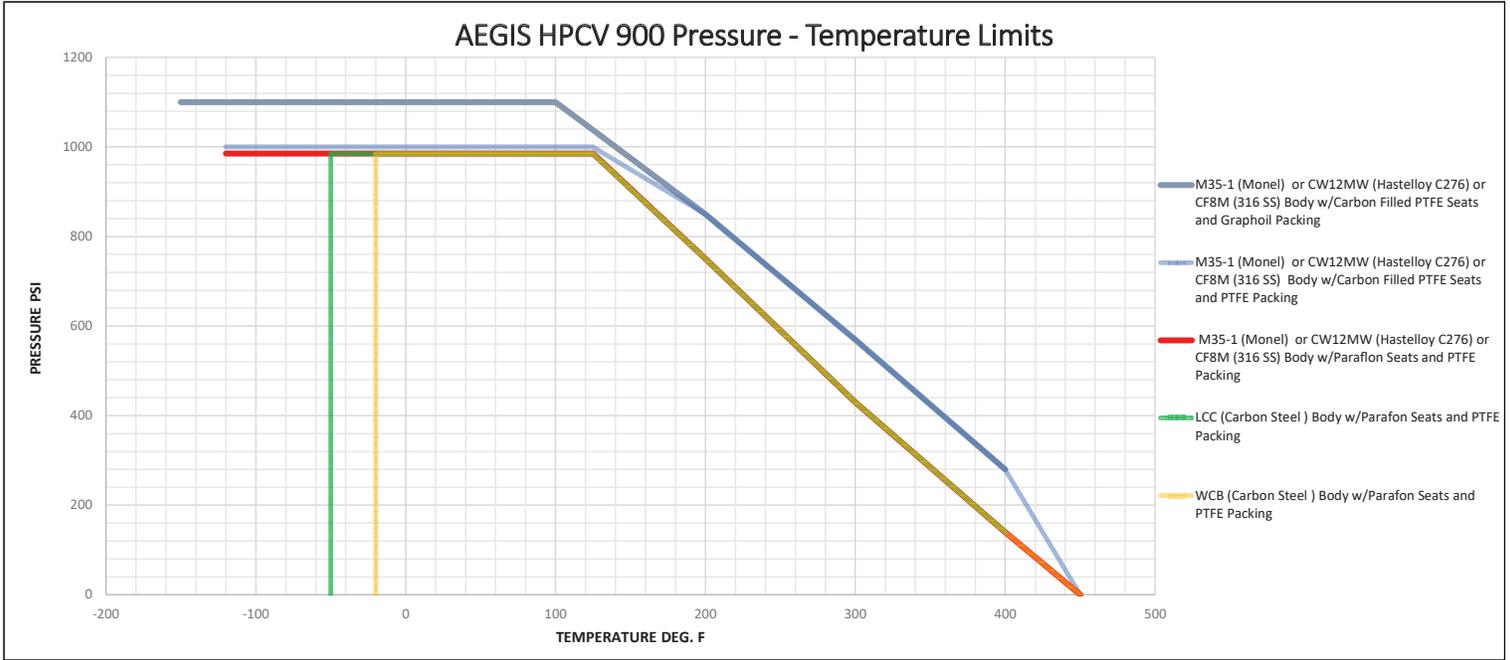
End Piece Configuration Type	Cv
1/2" Female NPT x 1/2" Female NPT	7
3/4" Butt Weld x 1/2" Female NPT	8
3/4" Butt Weld x 3/4" Butt Weld	8.5
3/4" Butt Weld x I-Flange	3.5
I-Flange Male x I-Flange Male	2.5

Note: Due to the different end piece internal diameters and characteristics, the Cv value varies for each configuration.



Valve Break Torque	Stem Mast - Hastelloy C276
100 in-lbs	150 in-lbs

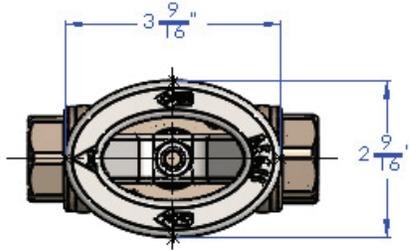




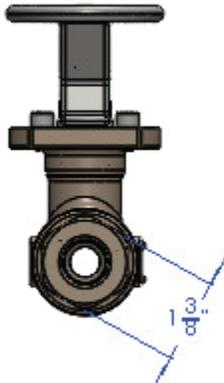
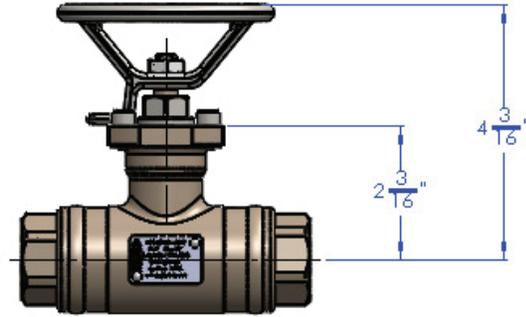
Note: When combining component materials for a specific valve, the pressure temperature rating of the valve is the lowest pressure and temperature limit of all components.

For example, if an LCC Body, with PTFE Packing and Parafon Seats is chosen, the valve has a low temperature limit of -50 Deg F at 985 psi, and a high temperature limit of 400 Deg F at 100 psi.

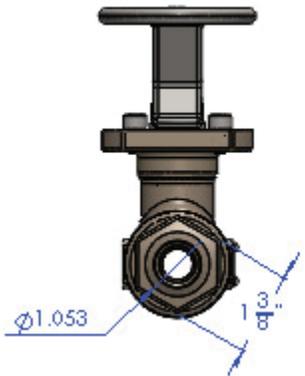
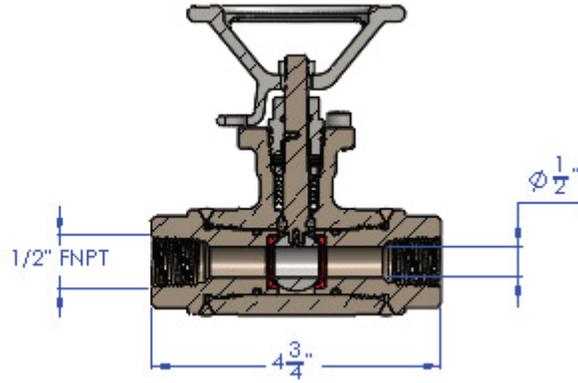
## Common Dimensions to All Configurations



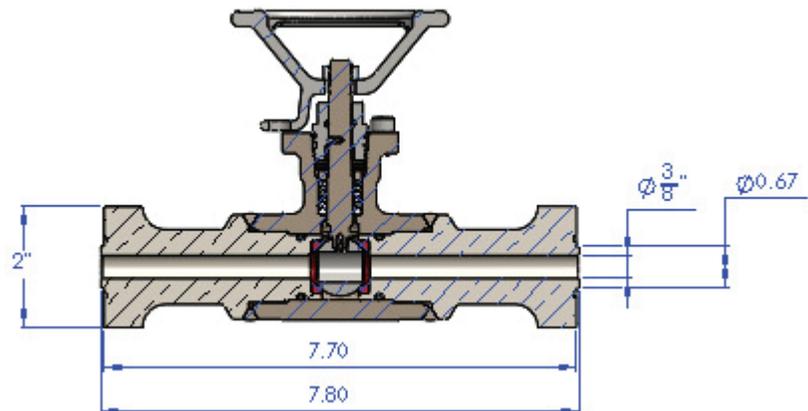
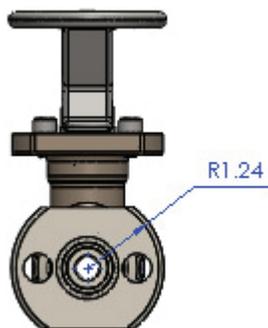
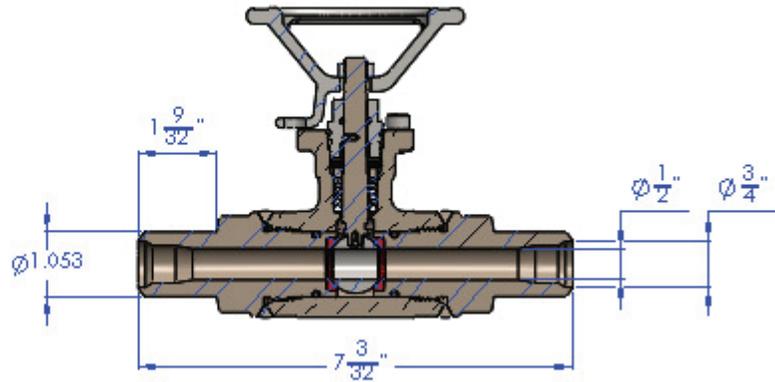
1/2" FNPT x 1/2" FNPT



3/4" Butt Weld x 3/4" Butt Weld



I-Flange Male x I-Flange Male



**NOTE: All Dimensions are Reference Only**



End Connection 1	
IM	I-Flange Male*
IF	I-Flange Female*
BW	Butt Weld
SW	Socket Weld Male
SWF	Socket Weld Female
FT	Female NPT
MT	Male NPT
F1	ANSI 150# Flanged
F3	ANSI 300# Flanged
TF	Tube Fitting
BWE	Butt Weld Extended
MTE	Male NPT Extended
SWX	Socket Weld-Female Ext.
SWE	Socket Weld Male-Ext.

Size 1	
01	Standard
03	3/8"
05	1/2"
07	3/4"
10	1"
15	1-1/2"
20	2"
30	3"
40	4"
60	6"

End Connection 2	
IM	I-Flange Male*
IF	I-Flange Female*
BW	Butt Weld
SW	Socket Weld Male
SWF	Socket Weld Female
FT	Female NPT
MT	Male NPT
F1	ANSI 150# Flanged
F3	ANSI 300# Flanged
TF	Tube Fitting
BWE	Butt Weld Extended
MTE	Male NPT Extended
SWX	Socket Weld-Female Ext.
SWE	Socket Weld Male-Ext.

Size 1	
01	Standard
03	3/8"
05	1/2"
07	3/4"
10	1"
15	1-1/2"
20	2"
30	3"
40	4"
60	6"

Body	
A	316SS
B	M400
D	C276
I	Low Temp. CS**
J	Carbon Steel**

Ball/Stem	
A	316SS
B	M400
D	C276

Seats x Packing	
S1	Paraflon x PTFE
S2	Paraflon x Graphoil
S3	23% Carbon Filled PTFE x PTFE
S4	23% Carbon Filled PTFE x Graphoil

Cleaning	
S	Standard
Cl	Chlorine

Options	
VB	Vented Ball

\* I-Flange Male and Female have a standard size (01)

\*\* For Carbon Steel Bodies, Standard Ball and Stem is 316SS

## ORDERING CODE EXAMPLE

*I-Flange Male x I-Flange Male Connection with Monel 400 Body, Monel 400 Ball and Stem, Paraflon® Seats and PTFE Packing, Chlorine Cleaned*

**IM-01-IM-01-B-B-S1-CL**

**Note: Use Aegis® Part Number Generator to Determine Correct Ordering Code, End Connections May Be Swapped.**

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