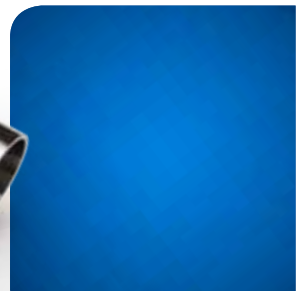


COMPONENTS • MANUFACTURING  
**ONE** Trusted SOURCE  
ASSEMBLY • TESTING

Valex



Process  
Cooling Water



PCW  
Ball Valves



Process Cooling  
Water (PCW)  
Ball Valves



## PCW Applications

- Process Cooling Water (PCW), City Water, Potable Water

## Product Description

- Size Range: NPS 1/2 to NPS 6
- Temperature Range: -20°F to 350°F (-29°C to 177°C)
- Pressure Rating:

NPS 1/2 – NPS 1-1/2:	1000 PSIG	(69 BARG)
NPS 2:	800 PSIG	(55 BARG)
NPS 3:	600 PSIG	(41 BARG)
NPS 4 – NPS 5:	500 PSIG	(34 BARG)
NPS 6:	300 PSIG	(21 BARG)
- Oil free stainless steel construction
- Available in various integrated tee valve assemblies

## Features & Benefits

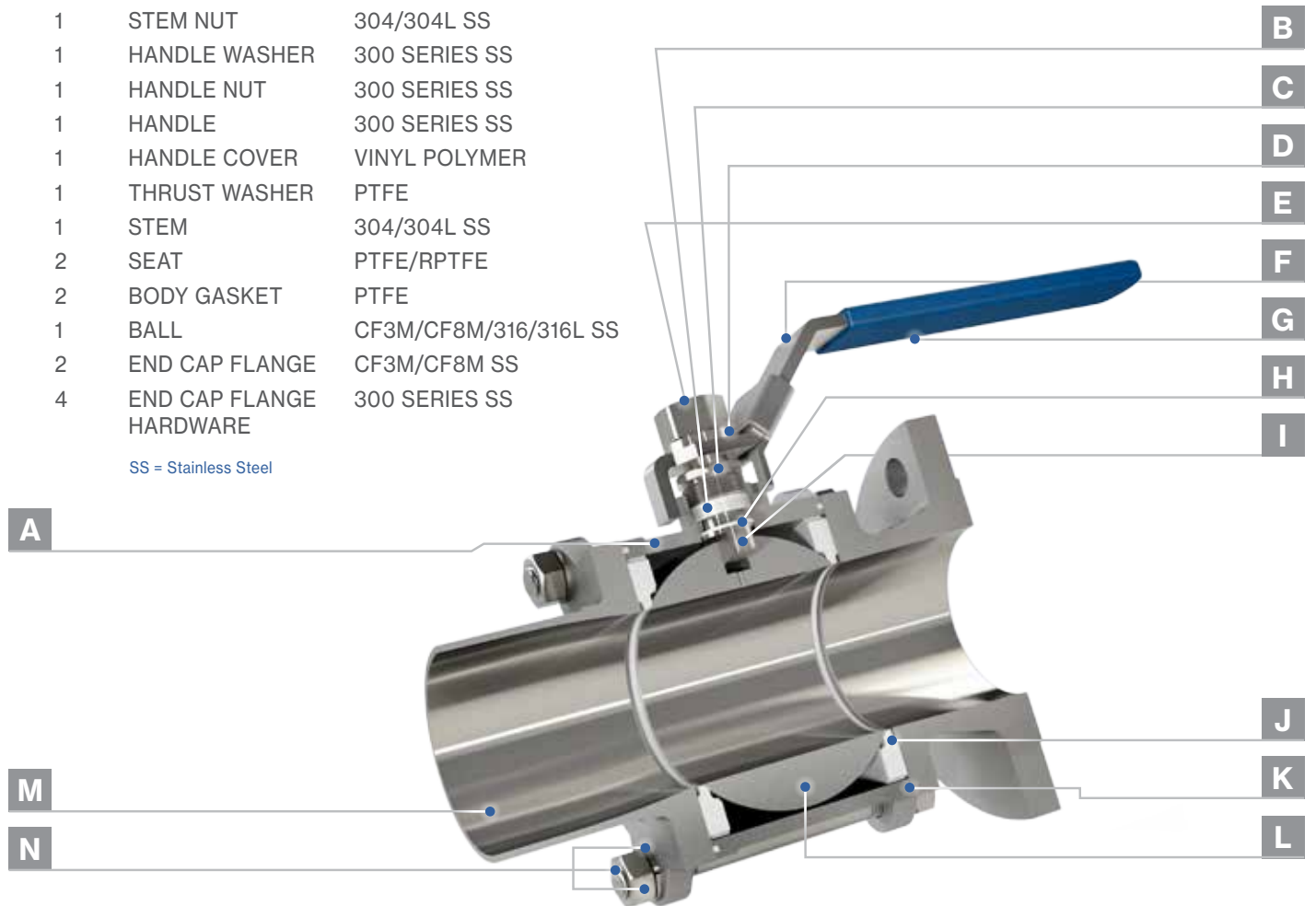
- High flow full-port design
- High cycle-life performance
- Floating ball for positive shut-off
- 3-Piece construction for ease of maintenance
- Locking handle for lock-out/tag-out applications
- 100% Leak tested and inspected
- Each valve includes a Certificate-of-Compliance to Valex specification SP-9236

# Materials of Construction

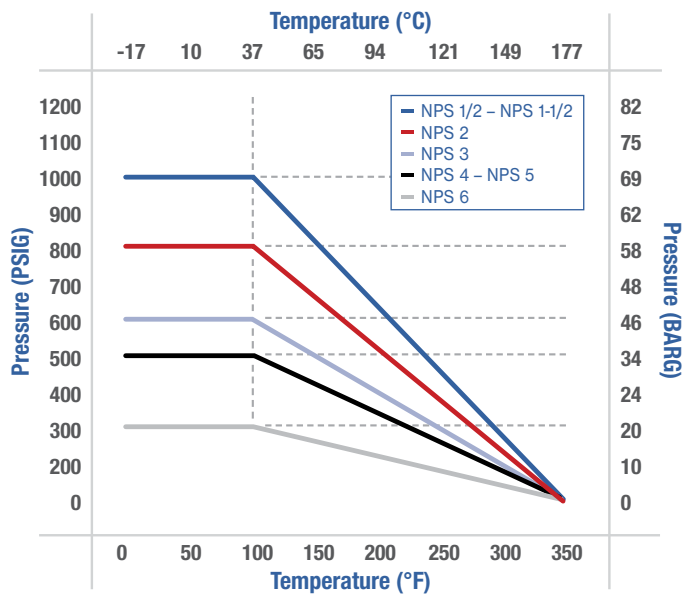
# PCW Ball Valve

Item	Qty	Part	Material
A	1	BODY	CF8M SS
B	1	STEM PACKING	PTFE
C	1	STEM NUT	304/304L SS
D	1	HANDLE WASHER	300 SERIES SS
E	1	HANDLE NUT	300 SERIES SS
F	1	HANDLE	300 SERIES SS
G	1	HANDLE COVER	VINYL POLYMER
H	1	THRUST WASHER	PTFE
I	1	STEM	304/304L SS
J	2	SEAT	PTFE/RPTFE
K	2	BODY GASKET	PTFE
L	1	BALL	CF3M/CF8M/316/316L SS
M	2	END CAP FLANGE	CF3M/CF8M SS
N	4	END CAP FLANGE HARDWARE	300 SERIES SS

SS = Stainless Steel



## Pressure Temperature Rating



## Flow Coefficient

Valve Size	Ball Orifice	Cv <sup>1</sup>
NPS 1/2	0.591"	37.0
NPS 3/4	0.787"	68.5
NPS 1	0.984"	110
NPS 1-1/4	1.260"	186
NPS 1-1/2	1.496"	269
NPS 2	1.969"	481
NPS 2-1/2	2.559"	839
NPS 3	3.150"	1,301
NPS 4	3.937"	2,085
NPS 5	4.921"	3,338
NPS 6	5.906"	4,902

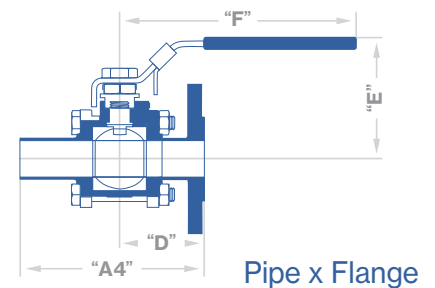
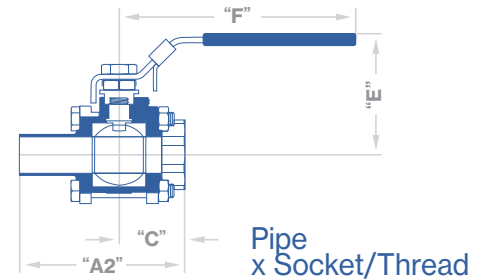
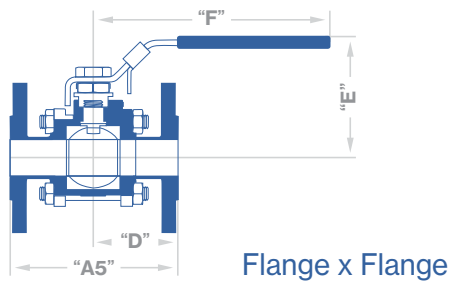
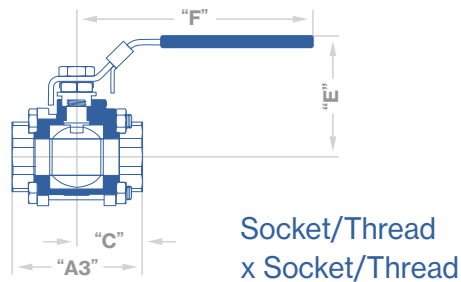
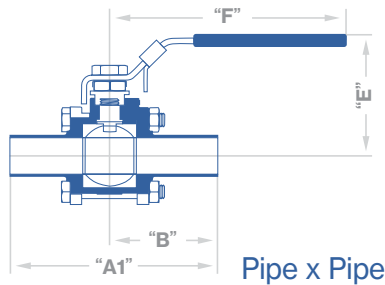
1. Flow coefficient data calculated using methods described in Crane Technical Paper TP-410.

## Dimensions

### Custom Spools & Manifold Assemblies

Valex can build specialty PCW valve assemblies that reduce field welds and installation time.

From integrated tee valve sub-assemblies, all the way to 24 foot long PCW manifolds, Valex is your one trusted source for all of your PCW needs. Contact your local Valex representative for more details.



### Dimensions in Millimeters\*

Size	"A1"	"A2"	"A3"	"A4"	"A5"	"B"	"C"	"D"	"E"	"F"
NPS 1/2	135.4	105.2	75			67.7	37.5		59	105
NPS 3/4	135	107.5	80	126	117	67.5	40	58.5	65	133
NPS 1	152	121	90	139.5	127	76	45	63.5	74	159
NPS 1-1/4	157	133.5	110			78.5	55		78	159
NPS 1-1/2	190	155	120	194	198	95	60	99	91	198
NPS 2	208	172	140	218.5	229	104	70	114.5	99	198
NPS 2-1/2	254	219.5	185			127	92.5		137	260
NPS 3	280	242.5	205	263.7	247.4	140	102.5	123.7	149	260
NPS 4	306	273	240			153	120		186	288
NPS 5	320					160			198	325-650
NPS 6	376.4					188.2			N/A	Gear Operator

\* Dimensions are approximate, subject to change, and may vary from valve to valve. Please check the Valex website for latest dimensions.



# Standard Configurations

Straight Valve



Single  
Horizontal Cross



Double  
Horizontal Cross



Double  
Single Sided



Double  
Vertical Tee



Double  
Horizontal Tee



## Benefit From World Leadership

We are your trusted source for high-purity ball valves, PCW ball valves, instrumentation ball valves, headers, manifolds, pipe, tube, fittings and more. For more information, please visit our website or contact your Vallex representative. Benefit from world leadership, and benefit from Vallex quality.





## Ordering Information

P – S H C 7 7 L L 7 2 F X – B

### P

#### Valve Series

P = Process Cooling Water (PCW)

### S | H | C

#### Assembly Pattern

STR = Straight  
 DHC = Double Horizontal Cross  
 SHC = Single Horizontal Cross  
 DSS = Double Single Sided  
 DVT = Double Vertical Tee  
 DHT = Double Horizontal Tee

### 7 | 7

#### Main Line Size

##### NPS Pipe

70 = DN 15 Pipe (NPS 1/2)  
 71 = DN 20 Pipe (NPS 3/4)  
 72 = DN 25 Pipe (NPS 1)  
 73 = DN 32 Pipe (NPS 1-1/4)  
 74 = DN 40 Pipe (NPS 1-1/2)  
 75 = DN 50 Pipe (NPS 2)  
 76 = DN 65 Pipe (NPS 2-1/2)  
 77 = DN 80 Pipe (NPS 3)  
 78 = DN 90 Pipe (NPS 3-1/2)  
 79 = DN 100 Pipe (NPS 4)  
 80 = DN 125 Pipe (NPS 5)  
 81 = DN 150 Pipe (NPS 6)  
 82 = DN 200 Pipe (NPS 8)

##### ASTM Tube

08 = 1/2"  
 12 = 3/4"  
 16 = 1"  
 24 = 1-1/2"  
 32 = 2"  
 40 = 2-1/2"  
 48 = 3"  
 64 = 4"  
 96 = 6"

### L | L

#### Main Line End Connection

LL = NPS Sch 10 Pipe w/ Square Ends, Inlet & Outlet  
 MM = Tube Butt weld Inlet & Outlet  
 CC = Compression Fitting Inlet & Outlet  
 FF = Class 150 Flange Inlet & Outlet  
 SS = NPS Pipe Socket Weld Inlet & Outlet  
 TT = NPS Female Pipe Thread Inlet & Outlet  
 LF = NPS Sch 10 Pipe Inlet w/ Square End, Class 150 Flange Outlet  
 LT = NPS Sch 10 Pipe Inlet w/ Square End, NPT Female Pipe Thread Outlet  
 LS = NPS Sch 10 Pipe Inlet w/ Square End, NPT Pipe Socket Weld Outlet  
 MF = Tube Butt weld Inlet, Class 150 Flange Outlet  
 MT = Tube Butt weld Inlet, NPT Female Pipe Thread Outlet  
 MS = Tube Butt weld Inlet, NPT Pipe Socket Weld Outlet  
 MC = Tube Butt weld Inlet, Compression Fitting Outlet

### 7 | 2

#### Branch Valve Size

##### NPS Pipe

XX = No Branch Valve(s)  
 70 = DN 15 Pipe (NPS 1/2)  
 71 = DN 20 Pipe (NPS 3/4)  
 72 = DN 25 Pipe (NPS 1)  
 73 = DN 32 Pipe (NPS 1-1/4)  
 74 = DN 40 Pipe (NPS 1-1/2)  
 75 = DN 50 Pipe (NPS 2)  
 76 = DN 65 Pipe (NPS 2-1/2)  
 77 = DN 80 Pipe (NPS 3)  
 78 = DN 90 Pipe (NPS 3-1/2)  
 79 = DN 100 Pipe (NPS 4)  
 80 = DN 125 Pipe (NPS 5)  
 81 = DN 150 Pipe (NPS 6)

##### ASTM Tube

08 = 1/2"  
 12 = 3/4"  
 16 = 1"  
 24 = 1-1/2"  
 32 = 2"  
 40 = 2-1/2"  
 48 = 3"  
 64 = 4"  
 96 = 6"

### F | X

#### Connection On Branch Valve(s)

XX = No Branch Valve  
 LX = NPS Sch 10 Pipe, Square End  
 MX = Tube Butt weld  
 FX = Class 150 Flange  
 TX = NPT Female Pipe Thread  
 SX = NPT Pipe Socket Weld  
 PX = Capped Compression Fitting

### B

#### Handle Sleeve Color

0 = N/A  
 B = Blue

Not all possible part number combinations are available. Please contact Valex for availability.



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Neither ozone-depleting nor mercury-bearing compounds are used during Valex processing or testing of any product.