



Job Name:	
Job Location:	
Engineer:	
Contractor:	
Tag:	
PO#:	
Rep:	
Wholesale Dist:	

### DESCRIPTION

Apollo® 3-piece cast bronze valves are intended for medical gas applications. Featuring copper phos brazed female tube extensions, this valve can be soldered or brazed into the piping system without disassembly. The 3-piece design allows for in-line serviceability. Valves are cleaned and bagged for oxygen service, and available with a locking and non-locking levers and no gauge ports.

### OUTSIDE THE ZONE BOX

NFPA 99 requires the valves to be secured in the open position. For medical gas applications that are Outside-the-Zone-Box, Apollo® offers configurations with locking and non-locking handles.

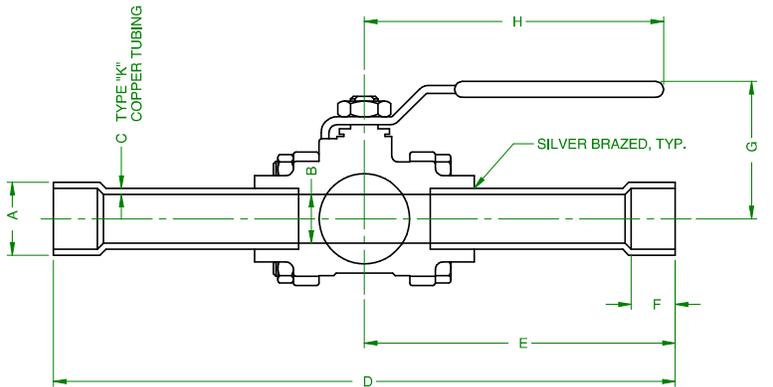
### FEATURES

- Cast Bronze Valve Body & Valve End Caps
- RPTFE Seats and Stuffing Box Ring
- MSS SP-110 - "Ball Valves Threaded, Socket Welding, Solder Joint, Grooved & Flared Ends"
- 600 psig CWP Non-Shock (3" & 4" 400 psig CWP)
- Vacuum Service to 29" Hg
- Full Port in All Sizes
- Blowout-Proof Stem Design

- Adjustable Packing Nut
  - In-Line Repairable
  - Locking Handle Option
  - Cleaned for Oxygen Service per CGA G4.1 & NFPA 99
  - Factory Brazed, Female Extensions for Solder or Brazed Installation Without Disassembly
  - Type K Copper Tubing Brazed into Both End Caps
  - **Made in USA**
- \*Also available with 6" male extensions (SS1420)*

### STANDARD MATERIALS LIST

<b>LEVER AND GRIP</b>	Steel, Zinc Plated w/ Vinyl or Stainless Steel w/ Vinyl
<b>STEM PACKING</b>	RPTFE
<b>STEM BEARING</b>	RPTFE
<b>BALL</b>	Brass B16, Chrome Plated or 316 SS
<b>SEAT (2)</b>	RPTFE
<b>END CAP (2)</b>	Bronze B584-C84400
<b>GLAND</b>	Brass B16
<b>STEM</b>	Brass B16 or 316 SS
<b>LEVER NUT</b>	Steel, Zinc Plated or SS
<b>BODY BOLT</b>	Steel, Zinc Plated or SS
<b>HEX NUT</b>	Steel, Zinc Plated or SS
<b>BODY</b>	Bronze B584-C84400
<b>EXTENSION</b>	Type K Copper Tubing
<b>BRAZING ALLOY</b>	Copper Phos Paste
<b>CAP PLUGS</b>	(not shown)



### DIMENSIONS

STANDARD				OXYGEN CLEANED				SIZE (IN.)	DIMENSIONS (IN.)										WT. (LB.)
TRIM PLATED PART NUMBER	316SS BALL & STEM PART NUMBER	TRIM PLATED PART NUMBER	316SS BALL & STEM PART NUMBER	TRIM PLATED PART NUMBER	316SS BALL & STEM PART NUMBER	TRIM PLATED PART NUMBER	316SS BALL & STEM PART NUMBER		A	B	C	D	E	F	G	LOCKING H	NON LOCKING H		
W/ NON-LOCKING HANDLE		W/ LOCKING HANDLE		W/ NON-LOCKING HANDLE		W/ LOCKING HANDLE													
82-203-C2	82-243-B8	-	-	82-203-K2	82-243-K2	82-203-E0	82-243-E0	1/2"	5/8"	0.62	0.049	14.80	7.40	0.50	2.00	4.87	5.28	1.7	
82-204-C3	82-244-C1	82-204-F0	-	82-204-K2	82-244-K2	82-204-E0	82-244-C9	3/4"	7/8"	0.81	0.065	15.42	7.71	0.75	2.18	4.87	5.28	2.4	
82-205-C2	82-245-C1	82-205-G4	-	82-205-K2	82-245-K2	82-205-E4	82-245-E0	1"	1-1/8"	1.00	0.065	15.84	7.92	0.90	2.62	5.50	6.25	3.5	
82-206-C1	82-246-C1	-	-	82-206-K2	82-246-K2	82-206-C7	82-246-C2	1-1/4"	1-3/8"	1.25	0.065	16.69	8.34	0.96	2.87	5.50	6.25	5.6	
82-207-B8	82-247-C5	82-207-E9	-	82-207-K2	82-247-K2	82-207-C5	82-247-E3	1-1/2"	1-5/8"	1.50	0.072	16.16	8.58	1.09	3.37	8.00	8.92	8.6	
82-208-C1	82-248-C0	82-208-E4	-	82-208-K2	82-248-K2	82-208-C8	82-248-C7	2"	2-1/8"	2.00	0.083	18.12	9.06	1.34	3.70	8.00	8.92	14.3	
-	-	-	-	82-209-K2	82-249-K2	82-209-A8	82-249-A8	2-1/2"	2-5/8"	2.50	0.095	23.50	9.62	1.47	5.14	9.38	10.06	26.8	
-	-	-	-	-	-	-	82A-240-K2	3"	3-1/8"	3.00	0.109	23.87	10.25	1.66	6.77	18.00*	-	42.25	

\*3" valves are equipped with adjustable length locking handles.



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### DESCRIPTION

Apollo® 3-piece cast bronze valves are intended for medical gas applications. Featuring copper phos brazed tube extensions, this valve can be soldered or brazed into the piping system without disassembly. The 3-piece design allows for in-line serviceability. Valves are cleaned and bagged for oxygen service, and available with a locking and non-locking levers and no gauge ports.

### OUTSIDE THE ZONE BOX

NFPA 99 requires the valves to be secured in the open position. For medical gas applications that are Outside-the-Zone-Box, Apollo® offers three standard configurations: "F1" (1 gauge port), "F3" (2 gauge ports) & no gauge ports (w/ locking handles).

### FEATURES

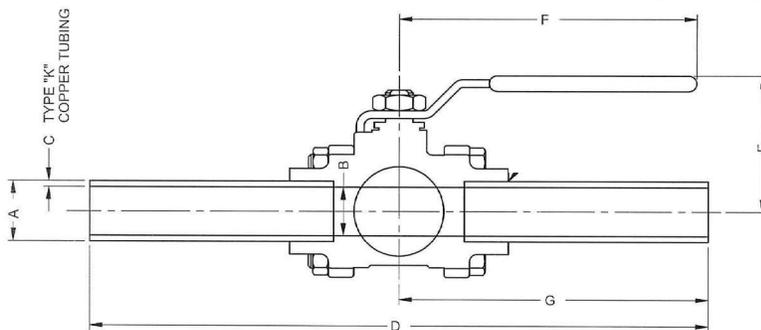
- Cast Bronze Valve Body & Valve End Caps
- RPTFE Seats and Stuffing Box Ring
- MSS SP-110 - "Ball Valves Threaded, Socket Welding, Solder Joint, Grooved & Flared Ends"
- 600 psig CWP Non-Shock (3" & 4" 400 CWP)
- Vacuum Service to 29" Hg
- Full Port in All Sizes
- Blowout-Proof Stem Design

- Adjustable Packing Nut
- In-Line Repairable
- Locking Handle Option
- Cleaned for Oxygen Service per CGA G4.1 & NFPA 99
- Factory Brazed, Male Extensions for Solder or Brazed Installation Without Disassembly
- Type K Copper Tubing Brazed into Both End Caps
- **Made in USA**

*\*Also available with 6" female extensions*

### STANDARD MATERIALS LIST

LEVER AND GRIP	Steel, Zinc Plated w/ Vinyl or Stainless Steel w/ Vinyl
STEM PACKING	RPTFE
STEM BEARING	RPTFE
BALL	Brass B16, Chrome Plated or 316 SS
SEAT (2)	RPTFE
END CAP (2)	Bronze B584-C84400
GLAND	Brass B16
STEM	Brass B16 or 316 SS
LEVER NUT	Steel, Zinc Plated or SS
BODY BOLT	Steel, Zinc Plated or SS
HEX NUT	Steel, Zinc Plated or SS
BODY	Bronze B584-C84400
EXTENSION	Type K Copper Tubing
BRAZING ALLOY	Copper Phos Paste
CAP PLUGS	(not shown)



### DIMENSIONS

STANDARD		OXYGEN CLEANED					SIZE (IN.)	DIMENSIONS (IN.)							WT. (LB.)		
TRIM PLATED PART NUMBER	316SS BALL & STEM PART NUMBER	TRIM PLATED PART NUMBER	316SS BALL & STEM PART NUMBER	316SS BALL, STEM & EXT. TRIM PART NUMBER	TRIM PLATED PART NUMBER	316SS BALL & STEM PART NUMBER		A	B	C	D	E	LOCKING F	NON LOCKING F		G	H
W/ NON-LOCKING HANDLE		W/ NON-LOCKING HANDLE		W/ LOCKING HANDLE													
82-203-B8	82-243-A8	82-203-K1	82-243-K1	82-243-C4	82-203-G3	82-243-G3	1/2"	5/8	0.62	0.049	13.81	2.00	4.87	5.28	6.00	5.50	1.7
82-204-A8	82-244-B3	82-204-K1	82-244-K1	82-244-C6	82-204-G3	82-244-G3	3/4"	7/8	0.81	0.065	13.93	2.18	4.87	5.28	6.00	5.25	2.4
82-205-B7	82-245-B1	82-205-K1	82-245-K1	82-245-E3	82-205-G3	82-245-G3	1"	1-1/8	1.00	0.065	14.04	2.62	5.50	6.25	6.00	5.09	3.4
82-206-B7	82-246-B0	82-206-K1	82-246-K1	82-246-C0	82-206-G3	82-246-G3	1-1/4"	1-3/8	1.25	0.065	14.75	2.89	5.50	6.25	6.00	5.03	5.5
82-207-B2	82-247-B2	82-207-K1	82-247-K1	82-247-C6	82-207-G3	82-247-G3	1-1/2"	1-5/8	1.50	0.072	15.07	3.37	8.00	8.92	6.00	4.91	8.5
82-208-B7	82-248-B2	82-208-K1	82-248-K1	82-248-C4	82-208-G3	82-248-G3	2"	2-1/8	2.00	0.083	15.23	3.70	8.00	8.92	6.00	4.66	14.2
82-209-A2	82-249-A2	82-209-K1	82-249-K1	-	82-209-G3	82-249-G3	2-1/2"	2-5/8	2.50	0.095	23.51	5.14	9.38	10.06	9.60	8.13	26.8
-	82A-240-A2	-	82A-240-K1	-	-	-	3"	3-1/8	3.00	0.109	24.00	6.77	18.00*	-	9.40	7.76	42.24
-	82A-24A-A0	-	82A-24A-K1	-	-	-	4"	4-1/8	4.00	0.134	25.50	8.26	18.00*	-	9.41	7.25	106.0

\*3" & 4" valves come standard with SS ball and stem (not optional) and adjustable length locking handles.



Job Name:	
Job Location:	
Engineer:	
Contractor:	
Tag:	
PO#:	
Rep:	
Wholesale Dist:	

### DESCRIPTION

Apollo® 3-piece cast bronze valve with -F3 trim intended for medical gas applications. Featuring copper phos brazed tube extensions, this valve can be soldered or brazed into the piping system without disassembly. The 3-piece design allows for in-line serviceability. Valves are cleaned and bagged for oxygen service, and feature a locking lever and two tapped and plugged gauge ports.

### OUTSIDE THE ZONE BOX

NFPA 99 requires the valves to be secured in the open position. For medical gas applications that are Outside-the-Zone-Box, Apollo® offers three standard configurations: "F1" (1 gauge port), "F3" (2 gauge ports) & no gauge ports (w/ locking handles).

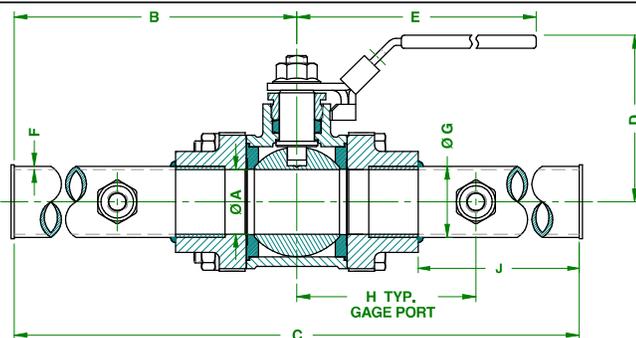
### FEATURES

- Bronze Valve Body & End Caps
- RPTFE Seats and Stem Packing
- MSS SP-110 - "Ball Valves Threaded, Socket Welding, Solder Joint, Grooved & Flared Ends"
- 600 psig CWP Non-Shock (3" & 4" 400 CWP)
- Vacuum Service to 29" Hg
- Full Port in All Sizes
- Blowout-Proof Stem Design
- Adjustable Packing Nut

- In-Line Repairable
- F3 model Features 2 Gauge Ports
- Brass Gauge Port/Plug - 1/8" NPT
- Latch Lock Handle
- Cleaned for Oxygen Service per CGA G4.1 & NFPA 99
- Factory Brazed Male Extensions Allow Solder or Brazed Installation without Disassembly
- Type K Copper Tubing Brazed into Both End Caps
- **Made in USA**

### STANDARD MATERIALS LIST

<b>LEVER AND GRIP</b>	Steel, Zinc Plated w/ Vinyl or Stainless Steel w/ Vinyl
<b>STEM PACKING</b>	RPTFE
<b>STEM BEARING</b>	RPTFE
<b>BALL</b>	Brass B16, Chrome Plated or 316 SS
<b>SEAT (2)</b>	RPTFE
<b>END CAP (2)</b>	Bronze B584-C84400
<b>GLAND</b>	Brass B16
<b>STEM</b>	Brass B16 or 316 SS
<b>LEVER NUT</b>	Steel, Zinc Plated or SS
<b>BODY BOLT</b>	Steel, Zinc Plated or SS
<b>HEX NUT</b>	Steel, Zinc Plated or SS
<b>BODY</b>	Bronze B584-C84400
<b>EXTENSION</b>	Type K Copper Tubing
<b>BRAZING ALLOY</b>	Copper Phos Paste
<b>CAP PLUGS</b>	(not shown)



### DIMENSIONS

OXYGEN CLEANED W/ LOCKING HANDLE		SIZE (IN.)	DIMENSIONS (IN.)										WT. (LB.)
TRIM PLATED PART NUMBER	316SS BALL & STEM PART NUMBER		A	B	C	D	LOCKING		F	G	H	J	
							E						
82-203-F3	82-243-F3	1/2"	0.62	12.27	24.53	2.23	5.31	0.049	0.625	4.25	10.84	1.7	
82-204-F3	82-244-F3	3/4"	0.81	12.25	24.50	2.41	5.31	0.065	0.75	4.24	10.53	2.4	
82-205-F3	82-245-F3	1"	1.00	12.30	24.60	3.01	6.29	0.065	1.25	4.24	10.32	3.4	
82-206-F3	82-246-F3	1-1/4"	1.25	12.23	24.46	3.22	6.29	0.065	1.375	4.23	9.89	5.5	
82-207-F3	82-247-F3	1-1/2"	1.50	12.25	24.50	4.04	8.93	0.072	1.625	4.25	9.63	8.5	
82-208-F3	82-248-F3	2"	2.00	12.25	24.50	4.15	8.93	0.083	2.125	4.25	9.18	14.0	
82-209-F3	82-249-F3	2-1/2"	2.50	11.75	23.50	5.31	10.06	0.095	2.50	6.38	8.13	26.8	
-	82A-240-F3	3"	3.00	11.94	23.87	8.10	18.00*	.0450	3.00	7.75	7.78	42.2	
-	82A-24A-F3	4"	4.00	12.68	25.37	8.88	18.00*	.0700	4.00	8.00	7.25	106.0	

\*3" & 4" valves come standard with SS ball and stem (not optional) and adjustable length locking handles.