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# HOSE ACCESSORIES



## CAM AND GROOVE



**ALUMINIUM**



**POLYPROPLYENE**



**STAINLESS STEEL**



**BRASS**

## COMBINATION HOSE NIPPLES



**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# ALUMINUM CAM AND GROOVE

WATERWORKS//IRRIGATION

## CAM AND GROOVE

**MALE ADAPTER X FEMALE NPT  
TYPE A**



CGA  
6191X

PART#	SIZE	
CGA-050-A1	1/2"	----
CGA-075-A1	3/4"	----
CGA-100-A1	1"	----
CGA-125-A1	1-1/4"	----
CGA-150-A1	1-1/2"	----
*CGA-200-A1	2"	----
CGA-250-A1	2-1/2"	----
*CGA-300-A1	3"	----
*CGA-400-A1	4"	----
CGA-500-A1	5"	----
CGA-600-A1	6"	----
CGA-800-A1	8"	----
CGA-1000-A	10"	----

**FEMALE COUPLER X MALE NPT  
TYPE B**



CGB  
6192X

PART#	SIZE	
CGB-050-A1	1/2"	----
CGB-075-A1	3/4"	----
CGB-100-A1	1"	----
CGB-125-A1	1-1/4"	----
CGB-150-A1	1-1/2"	----
CGB-200-A1	2"	----
CGB-250-A1	2-1/2"	----
CGB-300-A1	3"	----
*CGB-400-A1	4"	----
CGB-500-A1	5"	----
CGB-600-A1	6"	----
CGB-800-A1	8"	----
CGB-1000-A	10"	----

**FEMALE COUPLER X HOSE SHANK  
TYPE C**



CGC  
6193X

PART#	SIZE	
CGC-050-A1	1/2"	----
CGC-075-A1	3/4"	----
CGC-100-A1	1"	----
CGC-125-A1	1-1/4"	----
CGC-150-A1	1-1/2"	----
*CGC-200-A1	2"	----
CGC-250-A1	2-1/2"	----
*CGC-300-A1	3"	----
*CGC-400-A1	4"	----
CGC-500-A1	5"	----
CGC-600-A1	6"	----
CGC-800-A1	8"	----
CGC-1000-A	10"	----

**FEMALE COUPLER X FEMALE NPT  
TYPE D**



CGD  
6194X

PART#	SIZE	
CGD-050-A1	1/2"	----
CGD-075-A1	3/4"	----
CGD-100-A1	1"	----
CGD-125-A1	1-1/4"	----
CGD-150-A1	1-1/2"	----
*CGD-200-A1	2"	----
CGD-250-A1	2-1/2"	----
*CGD-300-A1	3"	----
*CGD-400-A1	4"	----
CGD-500-A1	5"	----
CGD-600-A1	6"	----
CGD-800-A1	8"	----
CGD-1000-A	10"	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# ALUMINUM CAM AND GROOVE

WATERWORKS//IRRIGATION

## MALE ADAPTER X HOSE SHANK

### TYPE E



CGE  
61-95X

PART#	SIZE	
CGE-050-A1	1/2"	----
CGE-075-A1	3/4"	----
CGE-100-A1	1"	----
CGE-125-A1	1-1/4"	----
CGE-150-A1	1-1/2"	----
*CGE-200-A1	2"	----
CGE-250-A1	2-1/2"	----
*CGE-300-A1	3"	----
*CGE-400-A1	4"	----
CGE-500-A1	5"	----
CGE-600-A1	6"	----
CGE-800-A1	8"	----
CGE-1000-A	10"	----

## MALE ADAPTER X MALE NPT

### TYPE F



CGF  
61-96X

PART#	SIZE	
CGF-050-A1	1/2"	----
CGF-075-A1	3/4"	----
CGF-100-A1	1"	----
CGF-125-A1	1-1/4"	----
CGF-150-A1	1-1/2"	----
*CGF-200-A1	2"	----
CGF-250-A1	2-1/2"	----
CGF-300-A1	3"	----
*CGF-400-A1	4"	----
CGF-500-A1	5"	----
CGF-600-A1	6"	----
CGF-800-A1	8"	----
CGF-1000-A	10"	----

## DUST CAP

### TYPE DC



CDC  
61-97X

PART#	SIZE	
CDC-050-A1	1/2"	----
CDC-075-A1	3/4"	----
CDC-100-A1	1"	----
CDC-125-A1	1-1/4"	----
CDC-150-A1	1-1/2"	----
*CDC-200-A1	2"	----
CDC-250-A1	2-1/2"	----
*CDC-300-A1	3"	----
*CDC-400-A1	4"	----
CDC-500-A1	5"	----
CDC-600-A1	6"	----
CDC-800-A1	8"	----
CDC-1000-A	10"	----

## DUST PLUG

### TYPE DP



CDP  
61-98X

PART#	SIZE	
CDP-050-A1	1/2"	----
CDP-075-A1	3/4"	----
CDP-100-A1	1"	----
CDP-125-A1	1-1/4"	----
CDP-150-A1	1-1/2"	----
CDP-200-A1	2"	----
CDP-250-A1	2-1/2"	----
CDP-300-A1	3"	----
CDP-400-A1	4"	----
CDP-500-A1	5"	----
CDP-600-A1	6"	----
CDP-800-A1	8"	----
CDP-1000-A	10"	----

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WATERWORKS//IRRIGATION

# ALUMINUM CAM AND GROOVE

WATERWORKS//IRRIGATION

## ALUMINUM (AL) SPOOL & PART A

SEE PAGES 332 FOR JUMP SIZES IN ALUMINUM

### MALE ADAPTER X MALE ADAPTER ALUMINUM SPOOL ADAPTER



SA-XXX-A  
61910

PART#	SIZE	PART#	
SA-100-A	1"	61872	----
SA-150-A	1-1/2"	*61873	----
SA-200-A	2"	*61874	----
SA-2030-A	2" x 3"	*61875	----
SA-250-A	2-1/2"	61876	----
SA-300-A	3"	*61877	----
SA-3040-A	3" x 4"	*61878	----
SA-400-A	4"	*61879	----

### REDUCER ADAPTER FEMALE NPT ALUMINUM



CGA-XXX-A

### MALE ADAPTER X FEMALE PIPE

PART#	SIZE	PART#	
CGA-1520-A	1-1/2" x 2"		----
CGA-2015-A	2" x 1-1/2"		----
CGA-2030-A	2" x 3"	*61-851	----
CGA-3040-A	3" x 4"	*61-853	----
CGA-4030-A	4" x 3"	*61-854	----
*CGA-6040-A	6" x 4"		----

### ALUMINUM SWIVEL



PART#	SIZE	
CGASV-300-A	3"	----
CGASV-400-A	4"	----

### REDUCER COUPLER M NPT PART B



CGB-XXX-A

### FEMALE COUPLER X MALE PIPE

PART#	SIZE	PART#	
CGB-3020-A	3" x 2"	61859	----
CGB-3040-A	3" x 4"	*61860	----
CGB-4030-A	4" x 3"	*61861	----

### ALUMINUM 90° PART C



PART#	SIZE	
CGC-1590-A	1-1/2"	----
CGC-2090-A	2"	----

### REDUCER COUPLER SHANK PART C



CGC

PART#	SIZE	
CGC-2015-A	2" x 1-1/2"	----
CGC-3020-A	3" x 2"	----
CGC-3025-A	3" x 2-1/2"	----
CGC-4030-A	4" x 3"	----

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# ALUMINUM CAM AND GROOVE

WATERWORKS//IRRIGATION

## REDUCER COUPLER ADAPTER PART D

DA-XXX-A



### FEMALE COUPLER X MALE ADAPTER

PART#	SIZE	PART#	
DA-1510-A	1-1/2" x 1"	619001	----
DA-1520-A	1-1/2" x 2"	*619002	----
DA-2015-A	2" x 1-1/2"	*619003	----
DA-2030-A	2" x 3"	*619004	----
DA-2040-A	2" x 4"	619005	----
DA-3015-A	3" x 1-1/2"	619006	----
DA-3020-A	3" x 2"	*619007	----
DA-3040-A	3" x 4"	*619008	----
DA-4020-A	4" x 2"	*619009	----
DA-4030-A	4" x 3"	*619010	----
DA-4060-A	4" x 6"	*619011	----
DA-6040-A	6" x 4"	*619012	----

## REDUCER COUPLER FEMALE NPT PART D

CGD



### FEMALE COUPLER X FEMALE PIPE

PART#	SIZE	PART#	
CGD-1510-A	1-1/2" x 1"	61865	----
CGD-2015-A	2" x 1-1/2"	61866	----
CGD-3020-A	3" x 2"	61867	----
CGD-4030-A	4" x 3"	61868	----

## SPOOL COUPLER PART D

DD



### FEMALE COUPLER X FEMALE COUPLER

PART#	SIZE	PART#	
*DD-1515-A	1-1/2" x 1-1/2"	*619440	----
*DD-2020-A	2" x 2"	*619450	----
*DD-2030-A	2" x 3"		----
*DD-3030-A	3" x 3"	*619470	----
*DD-3040-A	3" x 4"		----
*DD-4040-A	4" x 4"	*619480	----

## SWIVEL PART D



### FEMALE COUPLER X FEMALE PIPE

CGDSV

PART#	SIZE	
*CGDSV-300-A	3"	----
*CGDSV-400-A	4"	----

## REDUCER ADAPTER MALE NPT PART F



CGF

### MALE ADAPTER X MIP

PART#	SIZE		
CGF-1520-A	1-1/2" x 2"		----
*CGF-2030-A	2" x 3"		----
*CGF-3020-A	3" x 2"	61870	----
*CGF-3040-A	3" x 4"	61871	----
CGF-4030-A	4" x 3"		----
CGF-4060-A	4" x 6"		----

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WATERWORKS//IRRIGATION

# POLY CAM AND GROOVE

WATERWORKS//IRRIGATION

## POLYPROPYLENE (PP)

### MALE ADAPTER X FEMALE NPT TYPE A



35-91X

PART#	SIZE	
CGA-050-PP	1/2"	----
CGA-075-PP	3/4"	----
CGA-100-PP	1"	----
CGA-125-PP	1-1/4"	----
CGA-150-PP	1-1/2"	----
*CGA-200-PP	2"	----
CGA-300-PP	3"	----
CGA-400-PP	4"	----

### FEMALE COUPLER X MALE NPT TYPE B



CGB  
35-92X

PART#	SIZE	
CGB-050-PP	1/2"	----
CGB-075-PP	3/4"	----
CGB-100-PP	1"	----
CGB-125-PP	1-1/4"	----
CGB-150-PP	1-1/2"	----
*CGB-200-PP	2"	----
*CGB-300-PP	3"	----
CGB-400-PP	4"	----

### FEMALE COUPLER X HOSE SHANK TYPE C



CGC  
35-93X

PART#	SIZE	
CGC-050-PP	1/2"	----
CGC-075-PP	3/4"	----
CGC-100-PP	1"	----
CGC-125-PP	1-1/4"	----
CGC-150-PP	1-1/2"	----
*CGC-200-PP	2"	----
*CGC-300-PP	3"	----
CGC-400-PP	4"	----

### FEMALE COUPLER X FEMALE NPT TYPE D



35-94X

PART#	SIZE	
CGD-050-PP	1/2"	----
CGD-075-PP	3/4"	----
CGD-100-PP	1"	----
CGD-125-PP	1-1/4"	----
CGD-150-PP	1-1/2"	----
*CGD-200-PP	2"	----
CGD-300-PP	3"	----
CGD-400-PP	4"	----

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# POLYPROPYLENE CAM AND GROOVE

WATERWORKS//IRRIGATION

## MALE ADAPTER X HOSE SHANK TYPE E



35-95X

PART#	SIZE	
CGE-050-PP	1/2"	----
CGE-075-PP	3/4"	----
CGE-100-PP	1"	----
CGE-125-PP	1-1/4"	----
CGE-150-PP	1-1/2"	----
*CGE-200-PP	2"	----
*CGE-300-PP	3"	----
CGE-400-PP	4"	----

## MALE ADAPTER X MALE NPT TYPE F



35-96X

PART#	SIZE	
CGF-050-PP	1/2"	----
CGF-075-PP	3/4"	----
CGF-100-PP	1"	----
CGF-125-PP	1-1/4"	----
CGF-150-PP	1-1/2"	----
*CGF-200-PP	2"	----
*CGF-300-PP	3"	----
CGF-400-PP	4"	----

## DUST CAP TYPE DC



CDC  
35-97X

PART#	SIZE	
CDC-050-PP	1/2"	----
CDC-075-PP	3/4"	----
CDC-100-PP	1"	----
CDC-125-PP	1-1/4"	----
CDC-150-PP	1-1/2"	----
*CDC-200-PP	2"	----
*CDC-300-PP	3"	----
CDC-400-PP	4"	----

## DUST PLUG TYPE DP



CDP  
35-98X

PART#	SIZE	
CDP-050-PP	1/2"	----
CDP-075-PP	3/4"	----
CDP-100-PP	1"	----
CDP-125-PP	1-1/4"	----
CDP-150-PP	1-1/2"	----
CDP-200-PP	2"	----
CDP-300-PP	3"	----
CDP-400-PP	4"	----

**WARNING:** This product contains hazardous chemicals. In the event of a spill, avoid contact with skin, eyes, nose, mouth, and clothing. Wash thoroughly with soap and water. If you experience any symptoms, seek medical attention immediately. For more information, visit [www.willbros.com](http://www.willbros.com).



# STAINLESS STEEL CAM AND GROOVE #316

WATERWORKS//IRRIGATION

## MALE ADAPTER X FEMALE NPT TYPE A



CGA  
6391X

PART#	SIZE	
CGA-050-SS1	1/2"	----
*CGA-075-SS1	3/4"	----
*CGA-100-SS1	1"	----
*CGA-125-SS1	1-1/4"	----
*CGA-150-SS1	1-1/2"	----
*CGA-200-SS1	2"	----
*CGA-250-SS1	2-1/2"	----
*CGA-300-SS1	3"	----
*CGA-400-SS1	4"	----
*CGA-500-SS1	5"	----
CGA-600-SS1	6"	----
CGA-800-SS1	8"	----

## FEMALE COUPLER X MALE NPT TYPE B



CGB  
6392X

PART#	SIZE	
CGB-050-SS1	1/2"	----
*CGB-075-SS1	3/4"	----
*CGB-100-SS1	1"	----
CGB-125-SS1	1-1/4"	----
*CGB-150-SS1	1-1/2"	----
*CGB-200-SS1	2"	----
CGB-250-SS1	2-1/2"	----
*CGB-300-SS1	3"	----
*CGB-400-SS1	4"	----
CGB-500-SS1	5"	----
CGB-600-SS1	6"	----
CGB-800-SS1	8"	----

## FEMALE COUPLER X HOSE SHANK TYPE C



CGC  
6393X

PART#	SIZE	
CGC-050-SS1	1/2"	----
*CGC-075-SS1	3/4"	----
*CGC-100-SS1	1"	----
*CGC-125-SS1	1-1/4"	----
*CGC-150-SS1	1-1/2"	----
*CGC-200-SS1	2"	----
CGC-250-SS1	2-1/2"	----
*CGC-300-SS1	3"	----
*CGC-400-SS1	4"	----
CGC-500-SS1	5"	----
*CGC-600-SS1	6"	----
CGC-800-SS1	8"	----

## FEMALE COUPLER X FEMALE NPT TYPE D



CGD  
6394X

PART#	SIZE	
*CGD-050-SS1	1/2"	----
*CGD-075-SS1	3/4"	----
*CGD-100-SS1	1"	----
*CGD-125-SS1	1-1/4"	----
*CGD-150-SS1	1-1/2"	----
*CGD-200-SS1	2"	----
*CGD-250-SS1	2-1/2"	----
*CGD-300-SS1	3"	----
*CGD-400-SS1	4"	----
*CGD-500-SS1	5"	----
CGD-600-SS1	6"	----

8" AVAILABLE ONLINE

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# STAINLESS STEEL CAM AND GROOVE #316

WATERWORKS//IRRIGATION

## MALE ADAPTER X HOSE SHANK TYPE E



SA  
6395X

PART#	SIZE	
CGE-050-SS1	1/2"	----
*CGE-075-SS1	3/4"	----
*CGE-100-SS1	1"	----
*CGE-125-SS1	1-1/4"	----
*CGE-150-SS1	1-1/2"	----
*CGE-200-SS1	2"	----
*CGE-250-SS1	2-1/2"	----
*CGE-300-SS1	3"	----
*CGE-400-SS1	4"	----
*CGE-500-SS1	5"	----
*CGE-600-SS1	6"	----
CGE-800-SS1	8"	----

## MALE ADAPTER X MALE NPT TYPE F



CGF  
6396X

PART#	SIZE	
CGF-050-SS1	1/2"	----
*CGF-075-SS1	3/4"	----
*CGF-100-SS1	1"	----
CGF-125-SS1	1-1/4"	----
*CGF-150-SS1	1-1/2"	----
*CGF-200-SS1	2"	----
CGF-250-SS1	2-1/2"	----
*CGF-300-SS1	3"	----
*CGF-400-SS1	4"	----
CGF-500-SS1	5"	----
*CGF-600-SS1	6"	----
CGF-800-SS1	8"	----

## DUST CAP TYPE DC



6397X

PART#	SIZE	
CDC-050-SS1	1/2"	----
*CDC-075-SS1	3/4"	----
*CDC-100-SS1	1"	----
CDC-125-SS1	1-1/4"	----
*CDC-150-SS1	1-1/2"	----
*CDC-200-SS1	2"	----
CDC-250-SS1	2-1/2"	----
*CDC-300-SS1	3"	----
*CDC-400-SS1	4"	----
CDC-500-SS1	5"	----
CDC-600-SS1	6"	----
CDC-800-SS1	8"	----

## DUST PLUG TYPE DP



6398X

PART#	SIZE	
*CDP-050-SS1	1/2"	----
*CDP-075-SS1	3/4"	----
*CDP-100-SS1	1"	----
CDP-125-SS1	1-1/4"	----
*CDP-150-SS1	1-1/2"	----
*CDP-200-SS1	2"	----
CDP-250-SS1	2-1/2"	----
*CDP-300-SS1	3"	----
*CDP-400-SS1	4"	----
CDP-600-SS1	6"	----
CDP-800-SS1	8"	----

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WATERWORKS//IRRIGATION

# STAINLESS STEEL CAM AND GROOVE #316

WATERWORKS//IRRIGATION

## PART A SPOOL ADAPTER STAINLESS

MALE ADAPTER



MALE ADAPTER

PART#	SIZE	PART#	
SA-100-SS	1"	63850	----
SA-150-SS	1-1/2"	63851	----
SA-1520-SS	1-1/2" x 2"	63852	----
SA-200-SS	2"	63853	----
SA-2030-SS	2" x 3"	63854	----
SA-300-SS	3"	63855	----
SA-3040-SS	3" x 4"	63856	----
SA-400-SS	4"	63857	----

## PART D STAINLESS 90° ELBOW

FEMALE NPT



PART#	SIZE	
*CGD-2090-SS	2"	----

## PART D SPOOL COUPLER STAINLESS 316

FEMALE COUPLER



FEMALE COUPLER

PART#	SIZE	PART#	
*DD-1515-SS	1-1/2" x 1-1/2"	639440	----
*DD-2020-SS	2" x 2"	639450	----
*DD-2030-SS	2" x 3"		----
*DD-3030-SS	3" x 3"	639470	----
*DD-3040-SS	3" x 4"		----
*DD-4040-SS	4" x 4"	639480	----

## PART D REDUCER COUPLER ADAPTER STAINLESS 316

MALE ADAPTER



FEMALE COUPLER

PART#	SIZE	PART#	
*DA-2030-SS	2" x 3"		----
*DA-3020-SS	3" x 2"	639002	----
*DA-3040-SS	3" x 4"		----
*DA-4030-SS	4" x 3"	639003	----
*DA-6040-SS	6" x 4"	639004	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# BRASS CAM AND GROOVE

WATERWORKS//IRRIGATION

## BRASS

MALE ADAPTER X FEMALE NPT  
TYPE A



4491X

PART#	SIZE	
CGA-050-B1	1/2"	----
*CGA-075-B1	3/4"	----
*CGA-100-B1	1"	----
CGA-125-B1	1-1/4"	----
CGA-150-B1	1-1/2"	----
*CGA-200-B1	2"	----
CGA-250-B1	2-1/2"	----
*CGA-300-B1	3"	----
*CGA-400-B1	4"	----
CGA-500-B1	5"	----
*CGA-600-B1	6"	----

FEMALE COUPLER X HOSE SHANK  
TYPE C



4493X

PART#	SIZE	
CGC-050-B1	1/2"	----
*CGC-075-B1	3/4"	----
*CGC-100-B1	1"	----
CGC-125-B1	1-1/4"	----
CGC-150-B1	1-1/2"	----
*CGC-200-B1	2"	----
CGC-250-B1	2-1/2"	----
*CGC-300-B1	3"	----
*CGC-400-B1	4"	----
CGC-500-B1	5"	----
*CGC-600-B1	6"	----

FEMALE COUPLER X MALE NPT  
TYPE B



4492X

PART#	SIZE	
CGB-050-B1	1/2"	----
*CGB-075-B1	3/4"	----
*CGB-100-B1	1"	----
CGB-125-B1	1-1/4"	----
*CGB-150-B1	1-1/2"	----
*CGB-200-B1	2"	----
CGB-250-B1	2-1/2"	----
*CGB-300-B1	3"	----
*CGB-400-B1	4"	----
CGB-500-B1	5"	----
CGB-600-B1	6"	----

FEMALE COUPLER X FEMALE NPT  
TYPE D



4494X

PART#	SIZE	
CGD-050-B1	1/2"	----
*CGD-075-B1	3/4"	----
*CGD-100-B1	1"	----
*CGD-125-B1	1-1/4"	----
CGD-150-B1	1-1/2"	----
*CGD-200-B1	2"	----
CGD-250-B1	2-1/2"	----
*CGD-300-B1	3"	----
*CGD-400-B1	4"	----
CGD-500-B1	5"	----
*CGD-600-B1	6"	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

WATERWORKS//IRRIGATION

# BRASS CAM AND GROOVE

WATERWORKS//IRRIGATION

## MALE ADAPTER X HOSE SHANK TYPE E



4495X

PART#	SIZE	
CGE-050-B1	1/2"	----
*CGE-075-B1	3/4"	----
*CGE-100-B1	1"	----
*CGE-125-B1	1-1/4"	----
*CGE-150-B1	1-1/2"	----
*CGE-200-B1	2"	----
CGE-250-B1	2-1/2"	----
*CGE-300-B1	3"	----
*CGE-400-B1	4"	----
CGE-500-B1	5"	----
*CGE-600-B1	6"	----

## MALE ADAPTER X MALE NPT TYPE F



4496X

PART#	SIZE	
CGF-050-B1	1/2"	----
*CGF-075-B1	3/4"	----
*CGF-100-B1	1"	----
*CGF-125-B1	1-1/4"	----
*CGF-150-B1	1-1/2"	----
*CGF-200-B1	2"	----
CGF-250-B1	2-1/2"	----
*CGF-300-B1	3"	----
*CGF-400-B1	4"	----
CGF-500-B1	5"	----
CGF-600-B1	6"	----

## DUST CAP TYPE DC



4497X

PART#	SIZE	
CDC-050-B1	1/2"	----
*CDC-075-B1	3/4"	----
*CDC-100-B1	1"	----
CDC-125-B1	1-1/4"	----
CDC-150-B1	1-1/2"	----
*CDC-200-B1	2"	----
CDC-250-B1	2-1/2"	----
*CDC-300-B1	3"	----
*CDC-400-B1	4"	----
CDC-500-B1	5"	----
CDC-600-B1	6"	----

## DUST PLUG TYPE DP



4498X

PART#	SIZE	
CDP-050-B1	1/2"	----
*CDP-075-B1	3/4"	----
*CDP-100-B1	1"	----
CDP-125-B1	1-1/4"	----
CDP-150-B1	1-1/2"	----
*CDP-200-B1	2"	----
CDP-250-B1	2-1/2"	----
*CDP-300-B1	3"	----
*CDP-400-B1	4"	----
CDP-500-B1	5"	----
CDP-600-B1	6"	----

Brass Stool Adapter and Brass Type DA available online at [www.midlandindustries.com](http://www.midlandindustries.com)

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# HANDLES, RINGS AND PINS

WATERWORKS//IRRIGATION

## QUICKKLOK HANDLE FOR ALUMINUM, BRASS & SS



PART#	SIZE	
HSK2-200-SS	1-1/2"	----
HSK2-300-SS	3"	----
HSK5-200-SS	1-1/2-1	----
HSK5-300-SS	3-4	----

## QUICKKLOK HANDLE FOR SS AND ALUMINUM



PART#	SIZE	
HSK5-200-SS	1-1/2-2"	----
HSK5-300-SS	3-4"	----

## INVESTMENT CAST STAINLESS STEEL HANDLE, RING & PIN



PART#	SIZE	
61447	3/4"	----
61448	1"	----
61449	1-1/4" - 2-1/2"	----
61452	3" & 4"	----
61454	6"	----

## FORGED BRASS HANDLE - RING & PIN STEEL



PART#	SIZE	
61455	3/4"	----
61450	1"	----
61451	1-1/4" - 2-1/2"	----
61453	3" & 4"	----
61457	6"	----

## SAFETY CLIP



PART #	SIZE	
66-015	1-1/4" - 2-1/2"	----

## HANDLE + PIN + RING BRASS

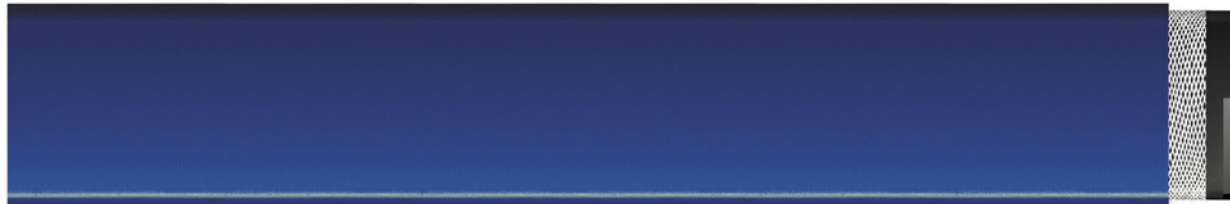
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WATERWORKS//IRRIGATION

# WATER SUCTION & DISCHARGE HOSE

WATERWORKS//IRRIGATION

## BLUE LAYFLAT



APPLICATION: A LIGHT DUTY LAYFLAT HOSE FOR PORTABLE PUMP AND IRRIGATION USE.  
 COVER: Blue PVC impregnation. REINFORCEMENT: Woven high tensile synthetic yarns. TUBE: Blue PVC impregnation.  
 TEMPERATURE: -10C to +55C (15F to +130F)

PART #	NOM. ID"	NOM. OD"	PSI	STD PACK	WEIGHT#	
BLAY-100	1	1.11	150	300	0.13	----
BLAY-125	1-1/4	1.37	130	300	0.15	----
BLAY-150	1-1/2	1.63	70	300	0.15	----
*BLAY-200	2	2.13	65	300	0.20	----
BLAY-250	2-1/2	2.63	65	300	0.27	----
*BLAY-300	3	3.13	60	300	0.33	----
*BLAY-400	4	4.14	60	300	0.46	----
*BLAY-600	6	6.15	35	300	0.78	----

Standard Length: Multiples of 50' up to 300' maximum  
 Product Info: Please specify length required when ordering, i.e. 50', 100'  
 Safety Info: Reduce pressures by 50% at maximum working temperature  
 Recommended Couplings: Cam and groove or short shank

## BLUE LAYFLAT ASSEMBLY



PART #	ASSEMBLY DESCRIPTION	WEIGHT#	
BLAY-150-CASS	1-1/2" X 50' BLUE LAYFLAT +C/E CAMLOCK	7.00	----
BLAY-200-CASS	2" X 50' BLUE LAYFLAT +C/E CAMLOCK	12.20	----
*BLAY-300-CASS	3" X 50' BLUE LAYFLAT +C/E CAMLOCK	20.63	----
*BLAY-400-CASS	4" X 50' BLUE LAYFLAT +C/E CAMLOCK	29.49	----
BLAY-600-CASS	6" X 50' BLUE LAYFLAT +C/E CAMLOCK	51.08	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# WATER SUCTION & DISCHARGE HOSE

WATERWORKS//IRRIGATION

## BROWN LAYFLAT - HEAVY DUTY



APPLICATION: Heavy duty layflat hose for portable pump and irrigation use.

COVER: Brown PVC impregnation.

REINFORCEMENT: Woven high tensile synthetic yarns.

TUBE: Brown heavy PVC impregnation.

TEMPERATURE: -10C to +60C (15F to +140F)

PART #	NOM. ID"	NOM.OD"	PSI	STD PACK	WEIGHT#	
BRLAYHD-200	2	2.15	150	300'	0.26	----
BRLAYHD-300	3	3.19	150	300'	0.52	----
BRLAYHD-400	4	4.27	135	300'	0.74	----
BRLAYHD-600	6	6.26	115	300'	1.21	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

WATERWORKS//IRRIGATION

# WATER SUCTION & DISCHARGE HOSE

WATERWORKS//IRRIGATION

## DURAFLEX - RUBBER LAYFLAT



APPLICATION:SPECIFICALLY MANUFACTURED TO COMPETE WITH OROFLEX IMITATION HOSE. THIS IS A LIGHTWEIGHT HIGH PRESSURE, EXTREMELY STRONG HOSE FOR GENERAL WATER DISCHARGE SERVICE. IDEAL FOR RENTAL SERVICE WHERE LONG LIFE AND competitive pricing is paramount. Its compact characteristics make this an ideal hose for use with portable pumps. Especially suited for pumping oily contaminated water. COVER:Black abrasion, weather and oil resistant nitrile rubber. REINFORCEMENT:Circular woven synthetic yarns. TUBE:Black abrasion and oil resistant nitrile rubber. TEMPERATURE:-20C to +80C(0F to +180F)

PART #	NOM. ID"	NOM. OD"	PSI	STD PACK	WEIGHT#	
DURFL-200	2	2.18	200	200	0.31	----
*DURFL-300	3	3.22	175	200	0.59	----
*DURFL-400	4	4.24	150	200	0.65	----
*DURFL-600	6	6.26	150	200	1.10	----

Standard Length: 50'/100'

Product Info: 200 Lengths Will Be Shipped Unless Otherwise Specified On Duraflex

Recommended Couplings: Cam and groove, combination nipples or short shank. All coupling recommendations are to be used as guidelines and are derived from past user preference. In some cases the preferred coupling is of a lesser pressure rating then the hose. Never exceed the working pressure of the lowest rated component in the assembly.

## DURAFLEX - RUBBER LAYFLAT ASSEMBLY



PART #	ASSEMBLY DESCRIPTION	WEIGHT#	
DURFL-200-CASSP	2"x50' DURAFLEX + C/E CAMLOCK	14.20	----
DURFL-300-CASSP	3"x50' DURAFLEX + C/E CAMLOCK	21.63	----
DURFL-400-CASSP	4"x50' DURAFLEX + C/E CAMLOCK	28.99	----
DURFL-600-CASSP	6"x50' DURAFLEX + C/E CAMLOCK	51.67	----

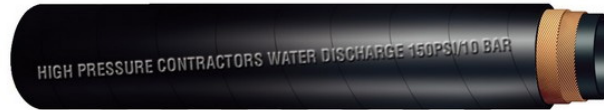
**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# WATER SUCTION & DISCHARGE HOSE

WATERWORKS//IRRIGATION

## HIGH PRESSURE CONTRACTORS WATER DISCHARGE



**APPLICATION:**For use on construction sites and general water service. High pressure allows pumping against greater vertical heads

**COVER:**Black abrasion and weather resistant synthetic rubber, with embossed brand and pressure.

**REINFORCEMENT:**Multiple layers of synthetic yarn.

**TUBE:**Black synthetic rubber compounded for water service.

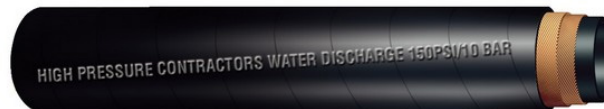
**TEMPERATURE:**-35C to +80C(-30F to +180F)

PART #	NOM. ID"	NOM. OD"	PSI	STD PACK	WEIGHT#	
HPCWB-150	1-1/2	1.77	150	100'	0.49	----
HPCWB-200	2	2.28	150	100'	0.48	----
HPCWB-300	3	3.35	150	100'	1.08	----
HPCWB-400	4	4.37	150	100'	1.38	----
HPCWB-600	6	6.46	150	100'	2.62	----

Standard Length: 50'/100'

Recommended Couplings: Cam and groove, combination nipples or short shank. Crimplok cam and groove, Crimplok nipple. All coupling recommendations are to be used as guidelines and are derived from past user preference. In some cases the preferred coupling is of a lesser pressure rating than the hose. Never exceed the working pressure of the lowest rated component in the assembly.

## HIGH PRESSURE WATER DISCHARGE 250



**APPLICATION:**For use on construction sites and general water service. High pressure allows pumping against greater vertical heads

**COVER:**Black abrasion and weather resistant synthetic rubber, with embossed brand and pressure.

**REINFORCEMENT:**Multiple layers of synthetic yarn.

**TUBE:**Black synthetic rubber compounded for water service.

**TEMPERATURE:**-35C to +80C(-30F to +180F)

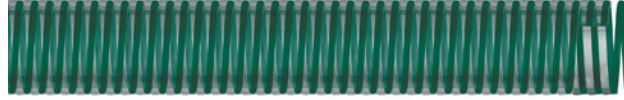
PART #	NOM. ID"	NOM. OD"	PSI	STD PACK	WEIGHT#	
HPCWB200-150	1-1/2			100'		----
HPCWB250-200	2	2.40	250	100'	1.15	----
HPCWB250-300	3	3.46	250	100'	1.60	----
HPCWB200-400	4	4.48	200	100'	2.15	----

Standard Length: 100'

Recommended Couplings: Cam and groove, combination nipples or short shank. Crimplok cam and groove, Crimplok combination nipple. All coupling recommendations are to be used as guidelines and are derived from past user preference. In some cases the preferred coupling is of a lesser pressure rating than the hose. Never exceed the working pressure of the lowest rated component in the assembly.

**WATER SUCTION & DISCHARGE HOSE**

WATERWORKS//IRRIGATION

**SATURN GREEN PVC WATER S&D**

**APPLICATION:**An economical, flexible hose for construction pumps, septic tank & marine pump-out service. Resistant to some chemicals, mild acids & alkalis. Consult us for recommendations.

**COVER:**Clear abrasion and weather resistant PVC.

**REINFORCEMENT:**Green PVC helix.

**TUBE:**Smooth clear PVC.

**TEMPERATURE:**-20C to +65C(-5F to +150F)

PART #	NOM. ID"	NOM. OD"	VACUUM	PSI	BEND RADIUS"	STD PACK	WEIGHT#	
SATG-075	3/4	0.95	29	90	2.00	100	0.16	----
*SATG-100	1	1.24	29	85	3.00	100	0.26	----
*SATG-125	1-1/4	1.54	29	80	4.00	100	0.34	----
*SATG-150	1-1/2	1.81	29	70	6.00	100	0.44	----
*SATG-200	2	2.29	29	65	5.00	100	0.57	----
SATG-250	2-1/2	2.85	29	60	6.00	100	0.87	----
*SATG-300	3	3.43	29	60	12.00	100	1.21	----
SATG-400	4	4.45	29	50	10.00	100	1.78	----

Standard Length: 100'

Safety Info: Reduce pressures by 50% at maximum working temperature

Recommended Couplings: Cam and groove, combination nipple or short shank. Crimplok cam and groove, Crimplok nipple. All coupling recommendations are to be used as guidelines and are derived from past user preference. In some cases the preferred coupling is of a lesser pressure rating than the hose. Never exceed the working pressure of the lowest rated component in the assembly.

**SATURN OLIVE GREEN PVC WATER S&D**

**APPLICATION:**AN ECONOMICAL, FLEXIBLE HOSE FOR CONSTRUCTION PUMPS, SEPTIC TANK & MARINE PUMP-OUT SERVICE. RESISTANT TO SOME CHEMICALS, MILD ACIDS & ALKALIS. CONSULT US FOR RECOMMENDATIONS.

**COVER:**Green abrasion and weather resistant PVC.

**REINFORCEMENT:**Green PVC helix

**TUBE:**Smooth green PVC

**TEMPERATURE:**-20C to +65C(-5F to +150F)

PART #	NOM. ID"	NOM. OD"	VACUUM	BEND RADIUS"	STD PACK	WEIGHT#	
*SATO-200	2	2.34	29	5.00	100	0.66	----
*SATO-300	3	3.46	29	12.00	100	1.24	----
SATO-400	4	4.49	29	10.00	100	1.85	----

Standard Length: 100'

Safety Info: Suction and Pressure ratings are based on a temperature of 20C (68F), reduce by 50% at maximum working temperature

Recommended Couplings: Cam and groove, combination nipple or short shank. Crimplok cam and groove, Crimplok nipple. All coupling recommendations are to be used as guidelines and are derived from past user preference. In some cases the preferred coupling is of a lesser pressure rating than the hose. Never exceed the working pressure of the lowest rated component in the assembly.

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# WATER SUCTION & DISCHARGE HOSE

WATERWORKS//IRRIGATION

## SATURN PVC WATER S&D



**APPLICATION:**An economical, flexible hose for construction pumps, septic tank & marine pump-out service. Resistant to some chemicals, mild acids & alkalis. Consult us for recommendations. Specially formulated compounds and a slightly corrugated cover allow for increased flexibility at low temperatures.

**COVER:**Clear abrasion and weather resistant extra soft PVC.

**REINFORCEMENT:**Blue PVC helix. SAT-XXX-BLK - Black helix

**TUBE:**Smooth clear extra soft PVC.

**TEMPERATURE:**-40C to +65C(-40F to +150F)

PART #	NOM. ID"	NOM. OD"	VACUUM	PSI	BEND RADIUS"	STD PACK	WEIGHT#	
SAT-200	2	2.35	26	35	5.00	100'	0.49	----
SAT-300	3	3.42	24	30	7.50	100'	0.81	----
SAT-400	4	4.50	22	25	10.00	100'	1.52	----
SAT-600	6	6.58	22	21	15.00	100'	2.72	----

Standard Length: 100'

**Safety Info:** Suction and Pressure ratings are based on a temperature of 20C (68F), reduce by 50% at maximum working temperature  
**Recommended Couplings:** Cam and groove, combination nipple or short shank. Crimplok cam and groove, Crimplok nipple. All coupling recommendations are to be used as guidelines and are derived from past user preference. In some cases the preferred coupling is of a lesser pressure rating than the hose. Never exceed the working pressure of the lowest rated component in the assembly.

## SATURN WHITE PVC WATER SUCTION AND DISCHARGE HOSE



**APPLICATION:**An economical, flexible hose for construction pumps, septic tank & marine pump-out service. Resistant to some chemicals, mild acids & alkalis. Consult us for recommendations.

**COVER:**Clear abrasion and weather resistant PVC.

**REINFORCEMENT:**White PVC helix.

**TUBE:**Smooth clear PVC.

**TEMPERATURE:**-20C to +65C(-5F to +150F)

PART #	NOM. ID"	NOM. OD"	VACUUM	PSI	BEND RADIUS"	STD PACK	WEIGHT#	
SATW-100	1	1.18	29	85	3.00	100'	0.19	----
SATW-125	1-1/4	1.47	29	80	3.00	100'	0.29	----
SATW-150	1-1/2	1.72	29	70	4.00	100'	0.35	----
SATW-200	2	2.29	29	65	5.00	100'	0.57	----
SATW-300	3	3.35	29	55	8.00	100'	1.03	----
SATW-400	4	4.45	29	50	10.00	100'	1.78	----
SATW-600	6	6.56	29	40	24.00	100'	3.70	----

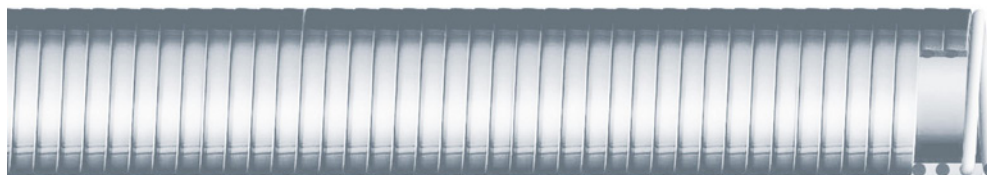
Standard Length: 100'

**Safety Info:** Suction and Pressure ratings are based on a temperature of 20C (68F), reduce by 50% at maximum working temperature  
**Recommended Couplings:** Cam and groove, combination nipple or short shank. Crimplok cam and groove, Crimplok nipple. All coupling recommendations are to be used as guidelines and are derived from past user preference. In some cases the preferred coupling is of a lesser pressure rating than the hose. Never exceed the working pressure of the lowest rated component in the assembly.

# WATER SUCTION & DISCHARGE HOSE

WATERWORKS//IRRIGATION

## SUPERFLEX PVC SUCTION



**APPLICATION:**Specially designed for use in the installation of pool, spa and hot tubs. Can also be used in a variety of water transfer applications where flexible lines are needed to replace rigid piping.

**COVER:**Soft white PVC

**REINFORCEMENT:**White PVC helix

**TUBE:**Smooth white PVC

**TEMPERATURE:**-20C to +65C(-5F to +150F)

PART #	NOM. ID"	NOM. OD"	VACUUM	PSI	BEND RADIUS"	STD PACK	WEIGHT#	
SUPER-200	2	2.39	29	70	7.00	100'	0.75	----

Standard Length: 100'

**Product Info:** Our warranty does not cover damage caused by rodents or any insect. Not for underground use in areas infested by termites.

**Safety Info:** Suction and Pressure ratings are based on a temperature of 20C (68F), reduce by 50% at maximum working temperature

**Recommended Couplings:** SCH40

## RUBBER WATER S&D



**APPLICATION:**A heavy duty wire reinforced rubber suction hose for construction, quarries and general use.

**COVER:**Black smooth abrasion and weather resistant synthetic rubber. **REINFORCEMENT:**High tensile wire helix embedded between layers of textile cords. **TUBE:**Smooth black synthetic rubber.

**TEMPERATURE:**-30C to +80C(-22F to +180F)

PART #	NOM. ID"	NOM. OD"	VACUUM	PSI	BEND RADIUS"	STD PACK	WEIGHT#	
WSB-125	1-1/4	1.65	29	150	4.00	100	0.77	----
*WSB-150	1-1/2	1.93	29	150	4.00	100	1.00	----
*WSB-200	2	2.48	29	150	5.00	100	1.37	----
*WSB-300	3	3.50	29	150	10.00	100	2.23	----
*WSB-400	4	4.64	29	150	14.00	100	3.73	----
*WSB-600	6	6.66	29	150	30.00	100	5.99	----

Standard Length: 3/4" to 4" - 50'/100' -- 5" and 6" - 20'/100' -- 8" - 20'/60' -- 10" - 40' -- 12" - 20'

**Recommended Couplings:** Cam and groove, combination nipple or short shank. Crimplok cam and groove, Crimplok nipple. Cam and groove,

combination nipple. Crimplok cam and groove, Crimplok combination nipple. All coupling recommendations are to be used as guidelines and are

derived from past user preference. In some cases the preferred coupling is of a lesser pressure rating than the hose. Never exceed the working

pressure of the lowest rated component in the assembly.

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# BUCHANAN FIRE HOSE

WATERWORKS//IRRIGATION

## SINGLE JACKET INDUSTRIAL MILL



APPLICATION:General industrial service where approved fire hose is not required.

COVER:All polyester circular woven jacket with good abrasion resistance.

TUBE:Smooth synthetic rubber.

TEMPERATURE:-35C to +80C(-30F to +180F)

PART #	DESCRIPTION	NOM. OD"	TEST PSI	SERVICE PSI	
SJM-150	1-1/2" Single Jacket Mill	1-1/2	250	125	
SJM-200	2" Single Jacket Mill	2	250	125	
SJM-250	2-1/2" Single Jacket Mill	2-1/2	250	125	
SJM-300	3" Single Jacket Mill	3	250	125	

## SINGLE JACKET RUBBER LINED 500 PSI



APPLICATION:An approved hose for light duty fire protection.

COVER:All polyester circular woven jacket with good abrasion resistance.

TUBE:Smooth synthetic rubber.

TEMPERATURE:-35C to +80C(-30F to +180F)

PART #	DESCRIPTION	NOM. OD"	TEST PSI	SERVICE PSI	
SJ5-150	1-1/2" S.J. 500 PSI	1-1/2	500	250	
SJ5-200	2" S.J. 500 PSI	2	500	250	
SJ5-250	2-1/2" S.J. 500 PSI	2-1/2	500	250	
SJ5-300	3" S.J. 500 PSI	3	500	250	

## SINGLE JACKET RUBBER LINED 500 PSI HYPALON



APPLICATION:An approved hose for light duty fire protection. temperature range -35C to+ 80C (-30F to +180F).

COVER:All polyester circular woven jacket with good abrasion resistance.

TUBE:Smooth synthetic rubber.

TEMPERATURE:-35C to +80C(-30F to +180F)

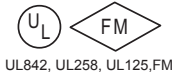
PART #	DESCRIPTION	NOM. OD"	TEST PSI	SERVICE PSI	
SJ5H-150	1-1/2"S.J.500 PSI HYPALON	1-1/2	500	250	
SJ5H-200	2" S.J.500 PSI HYPALON	2	500	250	

# FORGED BRASS BALL VALVE

WATERWORKS//IRRIGATION

## FORGED BRASS BALL VALVE

• BRASS • 600WOG • FULL PORT



ISO 9002 Manufacturer  
FEATURES

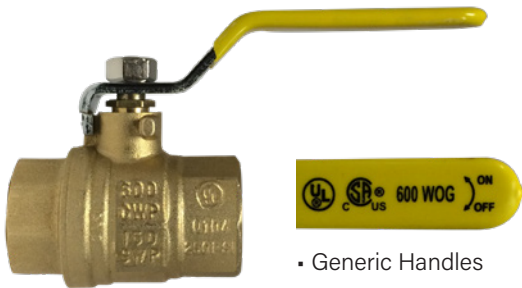
Made in China

1/4"-2" 600 PSI non-shock cold water, gas,  
oil - 150 PSI saturated steam

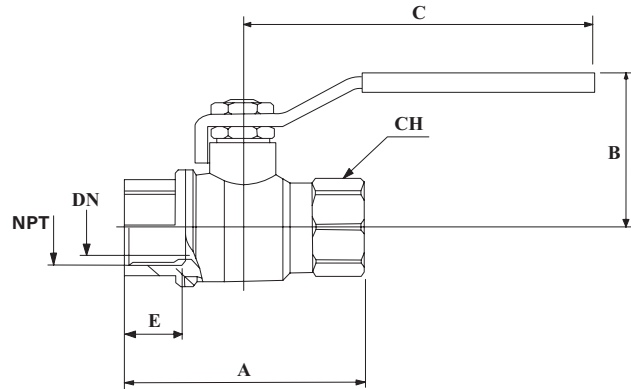
2-1/2"- 4" 400 PSI non-shock cold water,  
gas, oil

- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated for 1/4"-2" at 600psi (42 bars) and 2-1/2"-4" at 400 psi WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin PTFE stem packing seal, thrust washer and seats
- Yellow vinyl insulator on heavy duty plated carbon steel handles
- Fast 1/4 turn open or close operation
- Not Lead Free
- Good for gasoline and diesel
- Low operating torque

- Adjustable stem packing gland
- Maximum operating temperature: 302°F (150° C)
- Minimum operating temperature: -22°F (-30°C)
- Each valve individually tested
- Forged Brass - for more strength
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem
- Deeper threads - for better connections



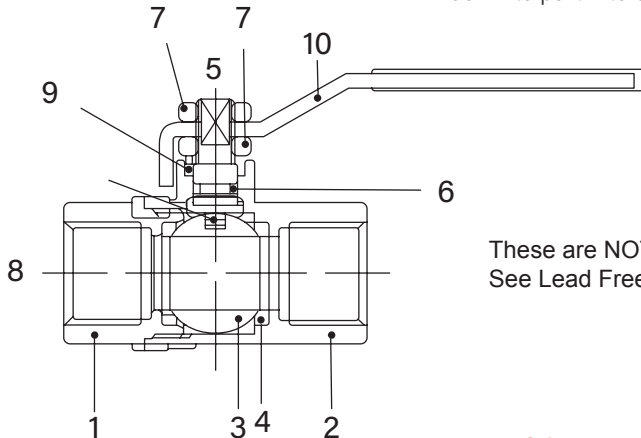
• Generic Handles



PART#	DIMENSION INCHES							WEIGHT	BOX/CASE	LIST PRICE
	SIZE	NPT	DN	A	B	C	E			
940171	1/4"	0.39	1.75	1.92	3.54	0.46	0.78	0.34	70/140	---
940172	3/8"	0.41	1.75	1.92	3.54	0.46	0.78	0.30	70/140	---
940173	1/2"	0.58	2.05	2.08	3.54	0.52	0.98	0.44	50/100	---
940174	3/4"	0.75	2.36	2.30	3.78	0.56	1.20	0.67	30/60	---
940175	1"	0.94	2.75	2.68	4.52	0.66	1.50	1.05	20/40	---
940176	1-1/4"	1.26	3.30	3.14	4.52	0.70	1.82	1.50	12/24	---
940177	1-1/2"	1.57	3.66	3.61	5.51	0.72	2.09	2.30	9/18	---
940178	2"	1.97	4.18	3.68	5.51	0.74	2.62	3.38	6/12	---
940179*	2-1/2"	2.52	5.38	4.76	8.66	1.01	3.36	7.61	3/6	---
940180*	3"	2.95	6.04	5.08	8.66	1.11	3.86	11.10	2/4	---
940181*	4"	3.89	7.38	5.86	9.00	1.22	4.89	12.12	1/2	---

\* 400 PSI

\* Add 'H' to part # to order handles \*



These are NOT Lead Free  
See Lead Free SWT Valves

POS	COMPONENTS	MATERIALS	N
1	Body	Forged Brass	1
2	End Connection	Forged Brass	1
3	Ball	CP Brass	1
4	Ball Seat	P.T.F.E.	2
5	Stem	Brass	1
6	Gland	Brass	1
7	Nut	Steel	1
8	Spring Inseat	Steel	1
9	Stem Seal	P.T.F.E.	1
10	Handle	Steel	1

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





# LOW PRESSURE LF BRASS VALVES

WATERWORKS//IRRIGATION



## BRASS HOSE BIBB NO KINK VALVES HEAVY DUTY



NO	PARTS	MATERIALS	QTY	WATER CONTACT
1	Bolt	Hot Rolled	1	N
2	Handle	Zinc	1	N
3	Packing Nut	Brass Rod	1	N
4	Packing	Teflon Polyflon	1	Y
5	Bonnet	Brass Rod	1	Y
6	Packing	Nylon	1	Y
7	Stem	Brass Rod	1	Y
8	Seat Packing	Rubber (NBR)	1	Y
9	Screw	Forged Brass	1	Y
10	Body	Cast Brass	1	Y

PART#	NOMINAL SIZE	D	H	L	MIP	LIST
942110LF	1/2" MIP & 1/2" Sweat x 3/4" MHT	2.12	1.97	2.87	1/2"-14NPT	
942111LF	3/4" MIP x 3/4" MHT	2.12	1.97	2.97	3/4"-14NPT	

## BRASS HOSE BIBB NO KINK VALVES HEAVY DUTY



NO	PARTS	MATERIALS	QTY	WATER CONTACT
1	Bolt	Hot Rolled	1	N
2	Handle	Zinc	1	N
3	Packing Nut	Brass Rod	1	N
4	Packing	Teflon Polyflon	1	Y
5	Bonnet	Brass Rod	1	Y
6	Packing	Nylon	1	Y
7	Stem	Brass Rod	1	Y
8	Seat Packing	Rubber (NBR)	1	Y
9	Screw	Forged Brass	1	Y
10	Body	Cast Brass	1	Y

PART#	NOMINAL SIZE	D	H	L	MIP	LIST
942112LF	1/2" FIP x 3/4" MHT	2.12	1.97	2.87	1/2"-14NPT	
942113LF	3/4" FIP x 3/4" MHT	2.12	1.97	2.97	3/4"-14NPT	

## BRASS HOSE BIBB NO KINK VALVES HEAVY DUTY



NO	PARTS	MATERIALS	QTY	WATER CONTACT
1	Bolt	Hot Rolled	1	N
2	Handle	Zinc	1	N
3	Packing Nut	Brass Rod	1	N
4	Packing	Teflon Polyflon	1	Y
5	Bonnet	Brass Rod	1	Y
6	Packing	Nylon	1	Y
7	Stem	Brass Rod	1	Y
8	Seat Packing	Rubber (NBR)	1	Y
9	Screw	Forged Brass	1	Y
10	Body	Cast Brass	1	Y

PART#	NOMINAL SIZE	D	H	L	LIST
942123LF	3/4" FTG & 1/2" SWEAT x 3/4" MHT	2.12	1.97	2.87	

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WATERWORKS//IRRIGATION

**BRASS GATE VALVE**  
WATERWORKS//IRRIGATION

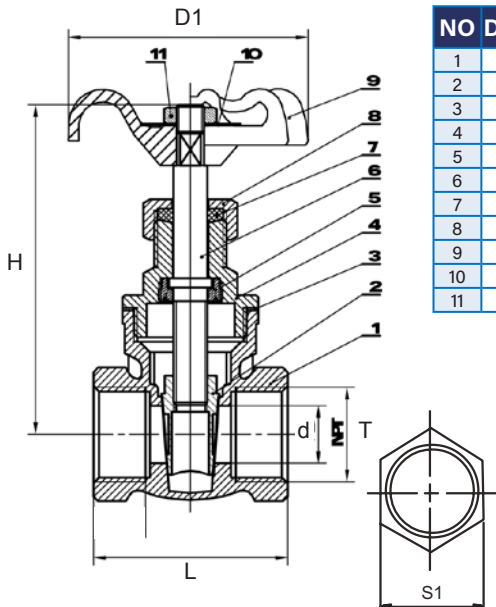
**BRASS GATE VALVE**  
• BRASS • 200WOG • FULL PORT

- 200 WOG (cold water, oil, gas).
- Full-port design for a better water flow.
- Screw-in Bonnet - Non-Rising Stem - Solid Wedge
- NPT Threaded ends to ANSI B1.20.1
- Cast iron handle.
- Each valve individually air tested under water.
- Good for diesel fuel.
- Made in Indonesia
- Not lead free
- Temp. 32°-320°F



**BRASS GATE VALVES IPS**

PART#	SIZE	L	H	D1	D	T	S1	WEIGHT	BOX/CASE	LIST PRICE
940130	1/4	1.64	2.91	2.09	0.44	1/4-18 NPT	.85	0.60	10/120	---
940131	3/8	1.71	2.91	2.09	0.48	3/8-18 NPT	.85	0.59	10/120	---
940132	1/2	1.71	2.91	2.09	0.50	1/2-14 NPT	1.03	0.75	10/120	---
940133	3/4	1.71	3.06	2.13	0.74	3/4-14 NPT	1.26	0.83	10/80	---
940134	1	2.13	3.60	2.48	0.97	1-11.5 NPT	1.51	1.24	5/60	---
940135	1-1/4	2.24	4.50	2.66	1.22	1-1/4-11.5 NPT	1.89	1.69	5/40	---
940136	1-1/2	2.44	5.08	3.15	1.45	1-1/2-11.5 NPT	2.17	2.17	5/30	---
940137	2	2.70	5.94	3.52	1.85	2-11.5 NPT	2.60	3.30	2/12	---
940138	2-1/2	3.70	7.87	3.98	2.48	2-1/2-8 NPT	3.27	6.26	1/10	---
940139	3	4.02	8.82	4.37	2.80	3-8 NPT	3.86	8.26	1/4	---
940140	4	4.53	9.88	4.74	3.60	4-8 NPT	4.88	13.09	1/4	---



NO	DESCRIPTION	MATERIAL
1	Body	C85700
2	Disk	C85700
3	Seat	PTFE
4	Cap	C85700
5	Packing	C85700
6	Stem	C85700
7	Rubber Seat	NBR
8	Packing Nut	C85700
9	Handle	Cast Iron
10	Nameplate	AL
11	Stem Nut	SAE 1010R

**Crown handle**  
1/2-1/4



**X handle**  
1/2-1/4



Add "C" to part# for Crown handle, "X" for X handle.

Also Available SS Gate Valve



See Lead Free for lead free Gate Valves.

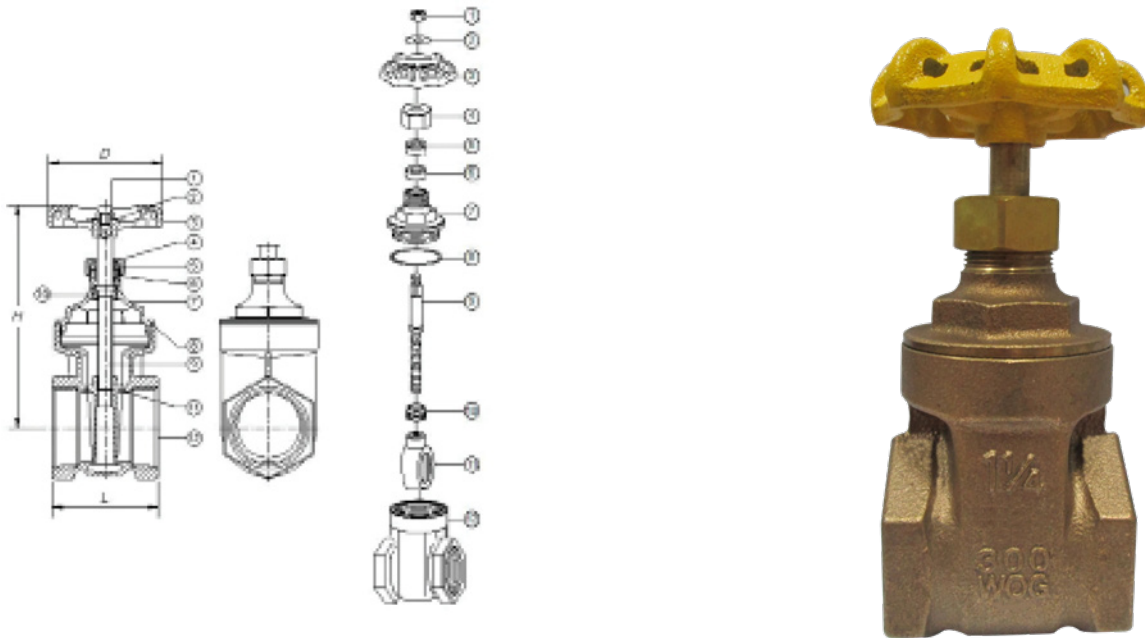


**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# BRONZE GATE VALVE

WATERWORKS//IRRIGATION

## BRONZE IPS GATE VALVE



BRONZE GATE VALVE

NUMBER	PART	MATERIALS	NOTE
1	NUT	HOT ROLLED (SAE 1010R)	
2	NAME PLATE	ALUMINUM	
3	HANDLE	CAST IRON (JIS Z22202)	
4	PACKING NUT	BRASS ROD (C37700)	
5	GLAND RING	BRASS ROD (C37700)	Size 1-1/4" ~ 4"
6	PACKING	GRAPHITE (LK 33 NAFG)	
7	BONNET	CAST BRONZE (C83600)	
8	PACKING	FIBRE	Size 2" ~ 4"
9	STEM	BRASS ROD (C37700)	Size 1/4" ~ 2"
		CAST BRONZE (C83600)	Size 2-1/2" ~ 4"
10	LOCKNUT	BRASS ROD (C37700)	
11	DISC	CAST BRONZE (C83600)	
12	BODY	CAST BRONZE (C83600)	

PART#	SIZE	DIMENSION (MM)		
		D	H	L
939132	1/2" FIP	53	74	43.5
939133	3/4" FIP	54	84	46
939134	1" FIP	63	99	54
939135	1-1/4" FIP	69	117	57
939136	1-1/2" FIP	80	129	62
939137	2" FIP	89.5	152	68.5
939138	2-1/2" FIP	101	200	94
939139	3" FIP	111	224	102
939140	4" FIP	127	251	115

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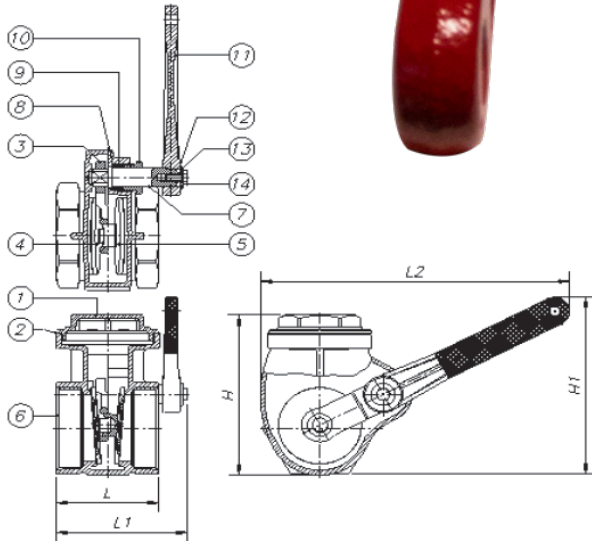
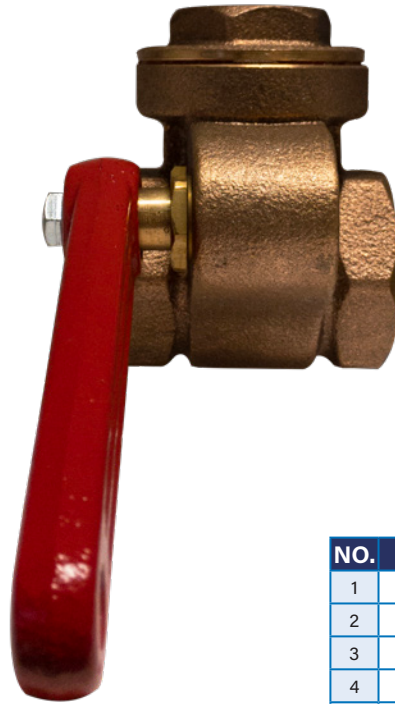
WATERWORKS//IRRIGATION

# QUICK OPENING GATE VALVE

WATERWORKS//IRRIGATION

## GATE VALVE QUICK OPENING

**FEATURES: BRONZE MATERIAL, THREADED ENDS, 200 WOG**



### MATERIAL SPECIFICATION

NO.	PART	BRONZE
1	BONNET	BRASS ( C85700 )
2	PACKING	FIBRE
3	ARM	BRASS ( C85700 )
4	DISC MALE	BRASS ( C85700 )
5	DISC FEMALE	BRASS ( C85700 )
6	BODY	BRASS ( C85700 )
7	STEM	BRASS ( C37700 )
8	WASHER	BRASS ( C37700 )
9	PACKING	Polytetrafluoroethylene POLYFLON( PTFE M-392 )
10	PACKING NUT	BRASS ( C37700 )
11	HANDLE	CAST IRON ( JIS ZZ2202 ) RUBBER COATING BRASS ( C85700 )
12	NAME PLATE	ALUMINIUM ( A1100 )
13	WASHER	HOT ROLLED ( SAE 1010R )
14	HANDLE BOLT	HOT ROLLED ( SAE 1010R )

PART #	SIZE	L	L1	L2	H	H1	BOX	CASE	LIST PRICE
941133	1/2"	45.6	60.6	119	56.8	52.8	10	50	---
941134	3/4"	51	62	126.3	68	87.5	10	50	---
941135	1"	58.3	72.3	155	78.7	90.2	10	30	---
941136	1-1/4"	30.1	78	180.2	89.5	104	5	25	---
941137	1-1/2"	66.7	85.3	196.6	99.2	131	6	18	---
941138	2"	76.4	90.3	250.6	119.3	143.7	2	10	---
941140	3"	101	129.2	305.6	172.2	191.3	2	6	---
941141	4"	114.5	150.7	378.2	213.5	248.6	1	2	---

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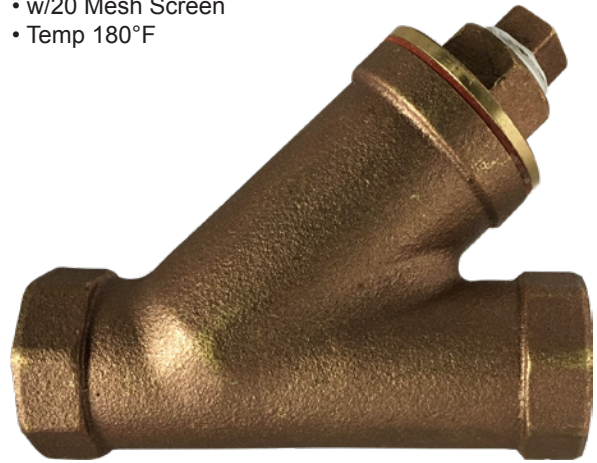
# Y-PATTERN STRAINER

WATERWORKS//IRRIGATION

## CLASS 150 BRASS Y-PATTERN STRAINER

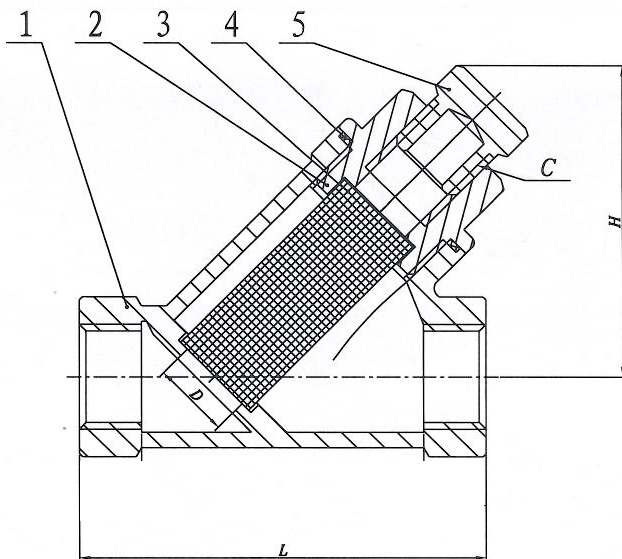
- Forged Brass body, size 1/4"-3".
- Pressure rating: 250 WOG (water, oil, gas)/PN25  
125 WSP (Saturated Steam)
- NPT Threaded ends to ANSI B1.20.1
- Protects regulators, pumps, meters and other controls from damage due to sediment scale, metal chips or other foreign materials.
- Screwed cap is threaded & gasketed.
- Tapped drain plug opening in cap.
- 304 stainless steel screen #20 mesh.
- Self cleaning.
- Self cleaning can be accomplished by opening the valve or plug connected to the blow-off outlet.
- Made in Indonesia
- NOT LEAD FREE

- w/20 Mesh Screen
- Temp 180°F



PART#	SIZE	L	H	C (PLUG)	WEIGHT	BOX/CASE	LIST PRICE
940521	1/4"	2.57	1.95	NPT 3/8	.53	10/100	---
940522	3/8"	3.23	2.44	NPT 3/8	.71	12/48	---
940523	1/2"	3.23	2.44	NPT 3/8	.66	12/48	---
940524	3/4"	3.94	2.78	NPT 3/8	1.10	8/32	---
940525	1"	4.53	3.19	NPT 1/2	1.71	8/32	---
940526	1-1/4"	5.33	3.66	NPT 1/2	2.49	6/24	---
940527	1-1/2"	6.20	3.82	NPT 1/2	3.24	2/16	---
940528	2"	7.44	4.65	NPT 1/2	5.39	2/8	---
940530	3"	9.4	5.67	NPT 3/4	13.49	1/4	---

Add 'S' to part # for replacement screens



See Lead Free for 1/2" Lead Free



See SS Y Strainer

NO	NAME	MATERIAL
1	BODY	C85700
2	BONNET	C85700
3	STRAINER	304 S.S.
4	SPRING SEAL	PTFE
5	END CAP	C85700

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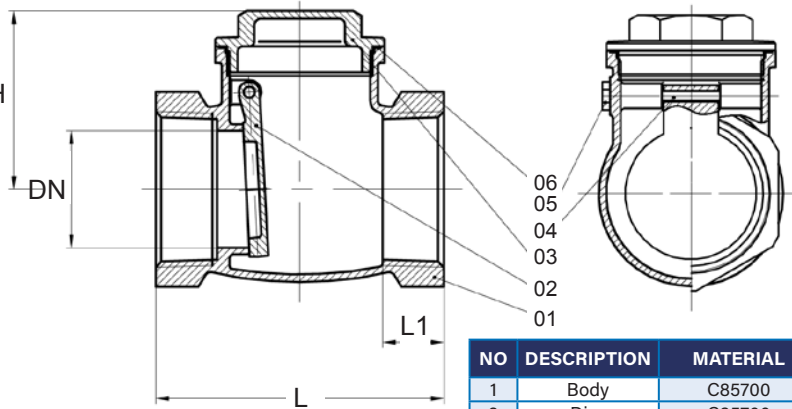
WATERWORKS//IRRIGATION

# BRASS SWING CHECK VALVES

WATERWORKS//IRRIGATION

## BRASS SWING CHECK VALVES

- Working pressure non-shock: 200 psi W.O.G. (cold water, oil, gas) 125 psi WSP (saturated steam)
- Swing type disc.
- Screwed Cap.
- Hard Seat.
- 90° Straight Pattern.
- Used to prevent reverse flow in commercial and industrial applications. H
- Threaded ends to ANSI B1.20.1
- Integral seat.
- Temp range -5° - 150F°
- NOT LEAD FREE
- Cracking pressure 3-5 psi
- Made in Indonesia



NO	DESCRIPTION	MATERIAL
1	Body	C85700
2	Disc	C85700
3	Cap	C85700
4	Brass Bar	C85700
5	Screw	C85700
6	Gasket	Fibre H

## CAST BRASS SWING CHECK VALVES IPS SCREWED ENDS

PART #	SIZE	L	H	L1	DN	WEIGHT	BOX/CASE	LIST PRICE
940352	1/2	2.09	1.42	0.531	0.512	.41	10/100	---
940353	3/4	2.36	1.56	0.579	0.728	.56	10/80	---
940354	1	2.62	1.77	0.748	0.925	.80	8/40	---
940355	1-1/4	3.19	2.07	0.748	1.201	1.36	5/40	---
940356	1-1/2	3.54	2.16	0.846	1.417	1.56	5/20	---
940357	2	4.21	2.74	0.886	1.772	2.61	2/16	---
940358	2-1/2	5.14	3.09	1.063	2.224	4.55	1/8	---
940359	3	5.77	3.80	1.102	2.579	6.53	1/6	---
940360	4	6.84	4.25	1.102	3.602	10.18	1/4	---



See Lead Free Brass Swing Check Valves



See SS Swing Check Valves

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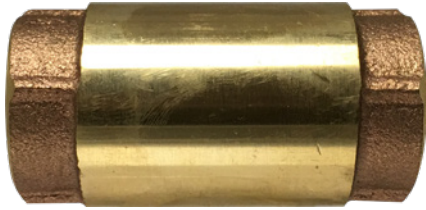
# BRASS CHECK VALVES

WATERWORKS//IRRIGATION

## BRASS CHECK VALVES

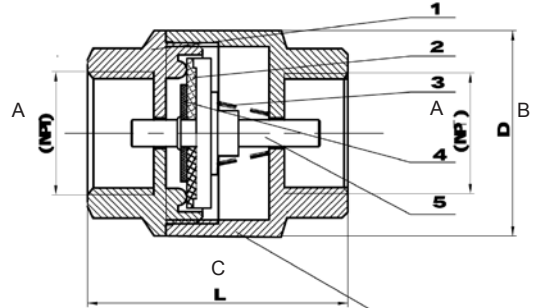
S.S. SPRING LOADED BRONZE POPPET - For positive sealing & self-cleaning. Insures against leakage.

- Inline Lift Type - Resilient Discs - Spring Actuated - Threaded.
- Pressure rating: 200 WOG (water, oil, gas) / 125 WSP (Saturated Steam)
- Spring in stainless steel AISI 304. • Resilient washer hold/ disc in brass. • Forged Brass Body for 1/2"-2"
- Corrosion resistant material. • Can be used vertically or horizontally. • Opens & Closes with flow of media.
- No cracking pressure. • NOT LEAD FREE • Made in Indonesia



1/4 Made in Taiwan

**Temp Range**  
-10°C - 110°C  
14°F - 248°F



BRASS CHECK VALVE (INCHES)								
PART#	SIZE	ENTERS PIPE SIZE	A NPT	B	C	WEIGHT	BOX/CASE	LIST PRICE
944428	1/4"	-	1/4"	1.00	2.29	.24	24/192	---
944429	3/8"	-	3/8"	1.00	2.07	.23	10/100	---
944430	1/2"	1-1/4"	1/2"	1.26	2.40	.42	10/100	---
944431	3/4"	1-1/4"	3/4"	1.45	2.74	.53	10/80	---
944432	1"	2"	1"	1.77	3.23	.85	6/48	---
944433	1-1/4"	2-1/2"	1-1/4"	2.13	3.62	1.18	4/40	---
944434	1-1/2"	3"	1-1/2"	2.29	4.04	1.40	5/30	---
944435	2"	3-1/2"	2"	2.48	5.04	2.70	5/20	---



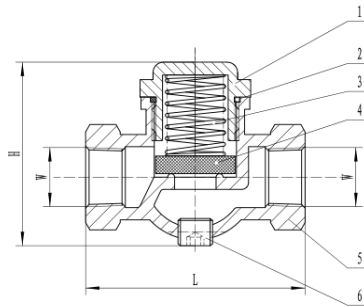
• See Lead Free Brass Check Valves



• See SS Check Valves

## IN LINE CHECK VALVES VERTICAL OR HORIZONTAL

- Working Pressure: 250 PSI • Temperature Range: -40° to 450°F (-40° to 230°C)
- Cracking Pressure: 3 PSI • Made in China • Not lead free
- Applications: Air Compressor Discharge Lines, may also used on water or oil lines
- Construction: Cast Bronze Body, Corrosion Resistant Stainless Steel Spring to Ensure Long Life, 15% Glass Filled • Polytetrafluoroethylene Poppet, C360 Machined Brass Cap, 1/8 NPT Unloader Port is Standard • Repairable



PART#	PART NAME	MATERIAL
6	Plug	Brass
5	Body	Bronze
4	Gasket	PTPF
3	Spring	S.Steel
2	O-ring	HNBR
1	Cap	Brass

PART #	SIZE	W	L	H	WTG	BOX/CASE	LIST PRICE
947142	3/8"	3/8	2.50	2.18	0.62	10/50	---
947143	1/2"	1/2	2.50	2.13	0.54	10/50	---
947144	3/4"	3/4	2.88	2.64	1.17	8/40	---
947145	1"	1	3.61	3.30	1.98	2/20	---

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WATERWORKS//IRRIGATION

# BRASS IN-LINE CHECK VALVES

WATERWORKS//IRRIGATION

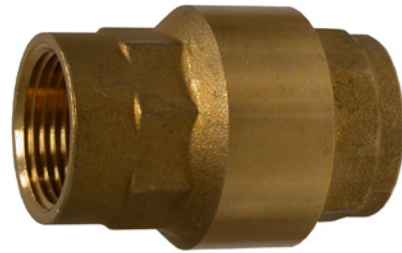
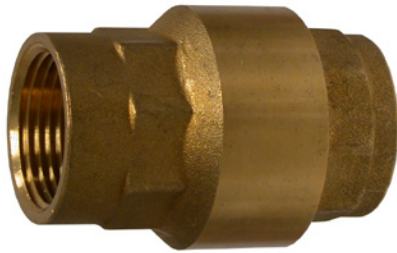
## BRASS IN-LINE CHECK VALVES

Y-PATTERN STRAINER

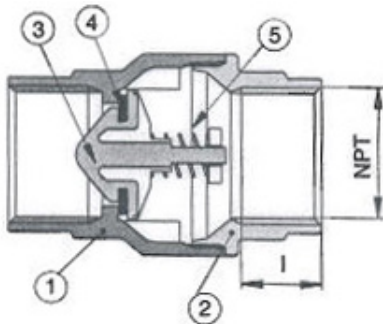
High Capacity, Size 1/4"-2" 400 WOG, 2 1/2"-4" 175 WOG

- Soft Seat for Bubble Tight Shutoff, Spring Loaded for Fast Seating Action.
  - Compact design.
  - Low Cracking Pressure 1/2 psi.
  - Flow Profile Designed to Minimize Head Loss.
  - Perfect Seating both at High and Low Pressure, Wide Temperature Range: +10° to 210°F.
  - Polyetherimide Disc to ensure the Best Resistance For Corrosion and Abrasion.
  - Patented Disc Guide to Prevent Any Side Loading.
  - Connection: FNPT x FNPT.
  - Made in Italy • Not lead free
- NBR for water, oils and general purpose.  
 With Fluoroelastomer® Seal for fuels and hydrocarbons. Max working TEMPERATURE 325°F/125 psi steam

Add V to part# for Fluoroelastomer



BRASS IN-LINE CHECK								
PART#	LIST PRICE	SIZE	I	PSI	LBS	CASE	FLUOR PART#	LIST PRICE
944401	---	1/4"	0.39	400	0.22	144		
944402	---	3/8"	0.40	400	0.18	144	944402V	---
944403	---	1/2"	0.60	400	0.32	144	944403V	---
944404	---	3/4"	0.65	400	0.49	90	944404V	---
944405	---	1"	0.66	400	0.71	90	944405V	---
944406	---	1-1/4"	0.68	400	1.13	30	944406V	---
944407	---	1-1/2"	0.68	400	1.53	30	944407V	---
944408	---	2"	0.69	400	2.28	12	944408V	---
944409	---	2-1/2"	0.93	175	4.83	4	944409V	---
944410	---	3"	1.01	175	6.70	4	944410V	---
944411	---	4"	1.09	175	12.43	2	944411V	---



NO	PART	MATERIAL	PCS
1	Body	Brass	1
2	End Connection	Brass	1
3	Disc	Polyetherimide	1
4	Seat	100002 Nbr	1
		100003 Fluoroelastomer	1
5	Spring	Stainless Steel	1

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# LOW PRESSURE LF BRASS VALVES

WATERWORKS//IRRIGATION

## LF BRASS BOILER DRAIN



PART#	NOMINAL SIZE	D	H	L	FIP
942164LF	1/2" FIP x 3/4" MHT	2.08	3.35	1.46	1/2"-14NPT
942165LF	3/4" FIP x 3/4" MHT	2.08	3.35	1.46	3/4"-14NPT

NO	PARTS	MATERIALS	QTY	WATER CONTACT
1	Bolt	Hot Rolled	1	N
2	Name Plate	Aluminium	1	N
3	Handle	Zinc	1	N
4	Packing Nut	Brass Rod	1	N
5	Packing	Teflon Polyflon	1	Y
6	Bonnet	Brass Rod	1	Y
7	Packing	Nylon	1	Y
8	Stem	Brass Rod	1	Y
9	Seat Packing	Rubber (NBR)	1	Y
10	Screw	Forged Brass	1	Y
11	Body	Cast Brass	1	Y

## LF BOILER DRAIN



PART#	NOMINAL SIZE	D	H	L	MIP
942162LF	1/2" MIP & 1/2" SWEAT X 3/4" MHT	2.08	3.50	1.46	1/2"-14NPT
942163LF	3/4" MIP x 3/4" MHT	2.08	3.58	1.46	3/4"-14NPT

NO	PARTS	MATERIALS	QTY	WATER CONTACT
1	Nut	Hot Rolled	1	N
2	Name Plate	Aluminium	1	N
3	Handle	Cast Iron	1	N
4	Packing Nut	Brass Rod	1	N
5	Packing	Rubber (NBR)	1	Y
6	Bonnet	Cast Brass	1	Y
7	Stem	Cast Brass	1	Y
8	Seat Packing	Rubber (NBR)	1	Y
9	Screw	Forged Brass	1	Y
10	Body	Cast Brass	1	Y

## LF BRASS BOILER DRAIN SPOUT- ANGLE



PART#	NOMINAL SIZE	D	H	L	MIP
942134LF	1/2" MIP & 1/2" Sweat x 3/4" MHT	2.12	2.16	1.14	1/2"-14NPT
942135LF	3/4" MIP x 3/4" MHT	2.12	2.16	1.14	3/4"-14NPT

NO	PARTS	MATERIALS	QTY	WATER CONTACT
1	Nut	Hot Rolled	1	N
2	Name Plate	Aluminium	1	N
3	Handle	Cast Iron	1	N
4	Packing Nut	Brass Rod	1	N
5	Packing	Rubber (NBR)	1	Y
6	Bonnet	Cast Brass	1	Y
7	Stem	Cast Brass	1	Y
8	Seat Packing	Rubber (NBR)	1	Y
9	Screw	Forged Brass	1	Y
10	Body	Cast Brass	1	Y

## LF BRASS BOILER DRAIN SPOUT- ANGLE



PART#	NOMINAL SIZE	D	H	L	FIP
942132LF	1/2" FIP X 3/4" MHT	2.12	2.16	1.14	1/2"-14NPT
942133LF	3/4" FIPT X 3/4" MHT	2.12	2.16	1.14	3/4"-14NPT

NO	PARTS	MATERIALS	QTY	WATER CONTACT
1	Bolt	Hot Rolled	1	N
2	Name Plate	Aluminium	1	N
3	Handle	Zinc	1	N
4	Packing Nut	Brass Rod	1	N
5	Packing	Teflon Polyflon	1	Y
6	Bonnet	Brass Rod	1	Y
7	Packing	Nylon	1	Y
8	Stem	Brass Rod	1	Y
9	Seat Packing	Rubber (NBR)	1	Y
10	Screw	Forged Brass	1	Y
11	Body	Cast Brass	1	Y

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WATERWORKS//IRRIGATION

# LOW PRESSURE LF BRASS VALVES

WATERWORKS//IRRIGATION

## LF SILLCOCK VALVE WITH PEX CONNECTIONS



NO	PARTS	MATERIALS	QTY	WATER CONTACT
1	Nut	Hot Rolled	1	N
2	Name Plate	Aluminium	1	N
3	Handle	Cast Iron	1	N
4	Packing Nut	Brass Rod	1	N
5	Packing	Rubber (NBR)	1	Y
6	Bonnet	Cast Brass	1	Y
7	Stem	Cast Brass	1	Y
8	Seat Packing	Rubber (NBR)	1	Y
9	Screw	Forged Brass	1	Y
10	Body	Cast Brass	1	Y

PART#	NOMINAL SIZE	B	C	D	H	L
942142LF	1/2" PEX F1807 x 3/4" MHT	2.58	0.22	2.09	2.40	2.34
942143LF	3/4" PEX F1807 x 3/4" MHT	2.58	0.22	2.09	2.40	2.40

## LF SILLCOCK VALVE WITH PEX CONNECTIONS (COLD EXPANSION)



NO	PARTS	MATERIALS	QTY	WATER CONTACT
1	Nut	Hot Rolled	1	N
2	Name Plate	Aluminium	1	N
3	Handle	Cast Iron	1	N
4	Packing Nut	Brass Rod	1	N
5	Packing	Rubber (NBR)	1	Y
6	Bonnet	Cast Brass	1	Y
7	Stem	Cast Brass	1	Y
8	Seat Packing	Rubber (NBR)	1	Y
9	Screw	Forged Brass	1	Y
10	Body	Cast Brass	1	Y

PART#	NOMINAL SIZE	B	C	D	H	L
942144LF	1/2" PEX F1960 x 3/4" MHT	2.58	0.22	2.08	2.40	2.34
942145LF	3/4" PEX F1960 x 3/4" MHT	2.58	0.22	2.08	2.40	2.40

## VACUUM BREAKER



- Male hose and female hose threads can be broken off for permanent attachment
- Set screw
- Vandal proof
- Rough brass construction
- Prevents back-siphonage on hoses to prevent potable water from getting contaminated
- Certified under ASSE Std. 1011
- UPC
- CSA

PART #	SIZE	LIST PRICE
947055LF	3/4" x 3/4"	---

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# GARDEN HOSE FITTINGS



• **Temperature and Working Pressure Ranges**

From +35°F to +100°F at 75 PSI maximum or the recommended working pressure of the garden hose. (Not to exceed 150 PSI.)

**Note:** All female connector ends should have a rubber washer inserted prior to usage.

**FGH** = Female Garden Hose threads  
**MGH** = Male Garden Hose threads  
Male garden hose threads are all 3/4" with an outside diameter of 1.0625 and 11-1/2" threads per inch.



Male Garden Hose Profile



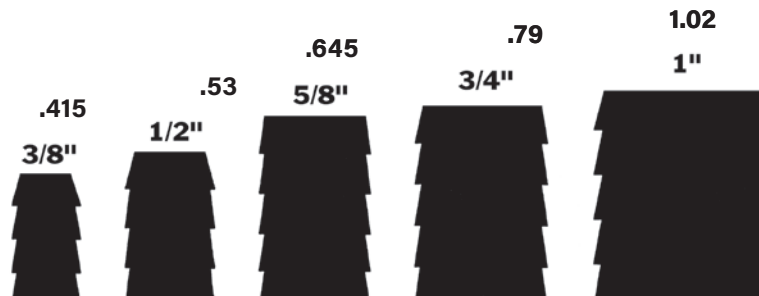
See Plastic section for Plastic Garden Hose Fittings



Lead free Garden Hose

Washers included are #30150B black rubber washers.

Actual Profile of Garden Hose Barbs



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# MISCELLANEOUS VALVES

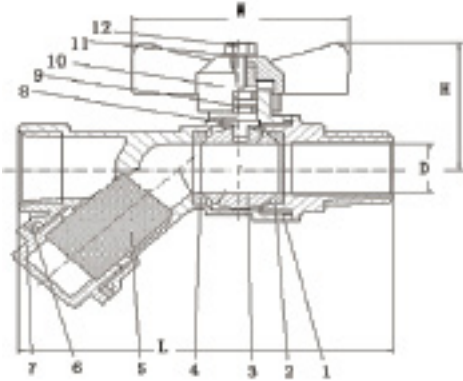
WATERWORKS//IRRIGATION

## BRASS BALL VALVE WITH STRAINER

All-in-One design for economical ,compact and convenient .With stamped stainless Steel Screen . 600PSI WOG Forged brass body,Crome plated ball ,PTFE ball seats and cap seal , and rubber o-ring stem seals. Not lead free



PART #	PART NAME	MATERIAL
1	Body	Brass
2	Caps	Brass
3	Ball	Brass,Cr.Plated
4	Seat	PTFE
5	Filter	SS
6	Gasket	PTFE
7	Caps	Brass
8	Stem	Brass
9	O-Ring	Fluoroelastomer
10	Handle	Zinc
11	Spring Washer	S.S
12	Nut	Steel



PART #	SIZE	L	D	W	H	WTG	BOX/CASE	LIST PRICE
947133	1/2"x1/2"(MxF)	3.77"	0.59"	2.00"	1.50"	0.60	8/64	---
947134	3/4"x3/4"(MxF)	4.32"	0.75"	2.40"	1.85"	1.00	8/64	---

## RADIATOR AIR VALVE

COIN SLOT OR LOSSE KEY



PART #	SIZE	LIST PRICE
943284	1/8" MIP	---
943287	Key only	---

## ANGLE SILLCOCKS

3/4" HOSE THREAD OUTLET

- Notched flange for convenient installation.
- Heavy brass construction.
- Cast Iron handle.
- Not lead free



## FEMALE IPS

PART #	SIZE	BOX	LIST PRICE
942142	1/2	12	---

## HOSE BIBBS

3/4" HOSE THREAD OUTLET



## IPS

PART #	SIZE	WTG	BOX/CASE	LIST PRICE
942170	1/2 (1/2"C)	0.33	10/100	---
942171	3/4	0.35	10/100	---

## BENT NOSE GARDEN VALVES

- Heavy brass construction
- Cast iron handle
- Stuffing box
- Neoprene seal disc

PART #	SIZE	BOX	CASE	LIST PRICE
942100	1/2"	12	72	---
942101	3/4"	12	72	---
942102	1"	12	72	---



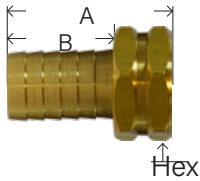
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# LEAD FREE GARDEN HOSE

WATERWORKS//IRRIGATION

## BARSTOCK BRASS GARDEN HOSE COUPLINGS

### FEMALE SWIVEL ONLY

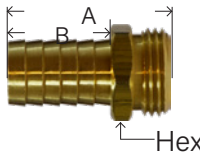


LF29FGH

PART #	HOSE BARB X FGH	LIST
707046-0812	1/2" x 3/4"	---
707046-1012	5/8" x 3/4"	---
707046-1212	3/4" x 3/4"	---

• WASHER INCLUDED

### MALE END ONLY



LF29MGH

PART #	HOSE BARB X MGH	LIST
707048-0812	1/2" x 3/4"	---
707048-1012	5/8" x 3/4"	---
707048-1212	3/4" x 3/4"	---

### GARDEN HOSE COUPLING



• WASHER INCLUDED

PART #	HOSE BARB SIZE	LIST
707042-08	1/2"	---
707042-10	5/8"	---
707042-12	3/4"	---

### SWIVEL - FGH X FGH



LFS3

PART #	FGH X FGH	LIST
707403-12	3/4" x 3/4"	---
707402-12	no swivel	---

• WASHER INCLUDED

### SWIVEL - FGH X FEMALE PIPE



LFS1  
LFS2

PART #	FGH X FGH	LIST
707401-1208	3/4" x 1/2"	---
707401-1212	3/4" x 3/4"	---

• WASHER INCLUDED

### RIGID - FGH X FEMALE PIPE



• WASHER INCLUDED

PART #	FGH X FGH	LIST
707411-1202	3/4" x 1/8"	---
707482-1208	3/4" x 1/2"	---
707482-1212	3/4" x 3/4"	---

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WATERWORKS//IRRIGATION

# LEAD FREE GARDEN HOSE

WATERWORKS//IRRIGATION

## SWIVEL - FGH X MALE PIPE

• WASHER INCLUDED



PART #	FGH X MALE NPTF	LIST
707420-1204	3/4" x 1/4"	---
707420-1206	3/4" x 3/8"	---
707420-1208	3/4" x 1/2"	---

## RIGID - FGH X MALE PIPE

• WASHER INCLUDED



PART #	FGH X FEMALE NPTF	LIST
707484-1208	3/4" x 1/2" (1/2" SWT)	---
707484-121208	3/4" x 3/4" (1/2" FIP)	---

## RIGID - MGH X MGH



LF85GHT

PART #	MGH X MGH	LIST
707486-121208	3/4" x 3/4" (1/2" FIP)	---
707486-1212	3/4" x 3/4"	---

## RIGID - MGH X FEMALE PIPE



LF110GH-124

PART #	MGH X FEMALE NPTF	LIST
707480-1204	3/4" x 1/4"	---
707480-1206	3/4" x 3/8"	---
707480-1208	3/4" x 1/2"	---
707480-1212	3/4" x 3/4"	---

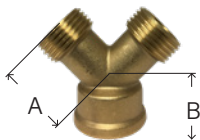
## RIGID - MGH X MALE PIPE



LF68GH1216

PART #	MGH X MALE NPTF	LIST
707478-1206	3/4" x 3/8"	---
707478-1208	3/4" x 1/2"	---
707478-120808	3/4" x 1/2" (1/2" SWT)	---
707478-121208	3/4" x 3/4" x 1/2"	---

## CAST BRASS HOSE - "Y" CONNECTOR



LFHY12

PART #	FGH X MGH(2)	LIST
707461-12	3/4"	---

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# LEAD FREE GARDEN HOSE

WATERWORKS//IRRIGATION

## GARDEN HOSE CAP



LFHC-12W

PART #	SIZE	LIST
707404-12	3/4" Die Cast	---

## GARDEN HOSE NUT



707407-12



707406-12

PART #	SIZE	LIST
707407-12	Knurled	---
707406-12	Hex Nut	---

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WATERWORKS//IRRIGATION

## LEAD FREE COMPRESSION

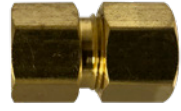
WATERWORKS//IRRIGATION

### FEMALE ADAPTER (GASKET) FEMALE COMPRESSION X COMPRESSION



PART #	SIZE	LIST
730097-0604	3/8" x 1/4"	---
700097-0806	1/2" x 3/8"	---

### FEMALE ADAPTER (GASKET) FEMALE FLARE X COMPRESSION



PART #	SIZE	LIST
734822-0606	9/16-24 x 3/8	---

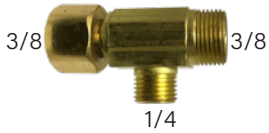
### FEMALE ADAPTER (GASKET) FE GARDEN HOSE X COMPRESSION



PART #	SIZE	LIST
737422-1204	3/4" x 1/4"	---
737422-1206	3/4" x 3/8"	----

LF124GH  
LF125GH

### LEAD FREE ADD-A-TEE COMP X COMP X SWIVEL FE COMPRESSION



1/4

PART #	M & F COMP X MALE COMP	LIST
700073-060604	3/8 x 1/4	---
700073-060606	3/8 x 3/8	---



3/8

- For adding a water line
- Ice makers, Coffee makers and instant hot water systems

•NSF Approved

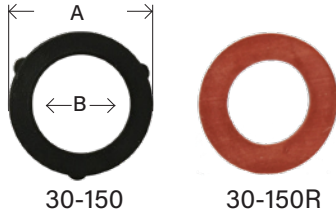
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# GARDEN HOSE

WATERWORKS//IRRIGATION

## GARDEN HOSE WASHERS

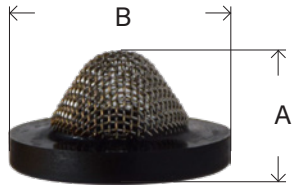


PART #	SIZE	A	B	THICK-NESS	APPROX. WT. LBS.	
30150	black*	0.98	0.68	0.13	0.01	----
30150R	red	1.00	0.68	0.13	0.01	----
30151	1"	1.27	0.86	0.16	0.01	----

GHW 901GH

\* plasticized rubber

## GARDEN HOSE FILTER WASHER



▪ 300 Series Stainless Steel Screen

PART #	SIZE	A	B	APPROX. WT. LBS.	
30180	30 Mesh	0.52	1.00	0.02	----
30180F	60 Mesh	0.52	1.00	0.02	----

LA662

## GARDEN HOSE CAP

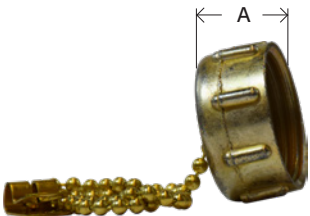


PART #	SIZE	A	APPROX. WT. LBS.	
30103	3/4" Die Cast	0.58	0.04	----
30103B	3/4" Barstock	0.60	0.048	----

513 96GH GHN5 HC1 LA215 21518 200-W

▪ Garden hose washers sold seperately

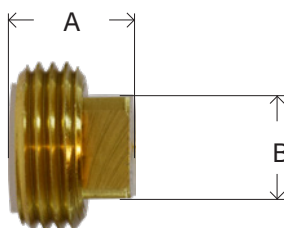
## GARDEN HOSE CAP WITH CHAIN



PART #	SIZE	A	APPROX. WT. LBS.	
30142	3/4" w/ 12" Chain	0.58	0.06	----

\* Zinc die cast

## GARDEN HOSE PLUG



PART #	SIZE	A	B	APPROX. WT. LBS.	
30026	3/4"	0.69	0.61	0.12	----

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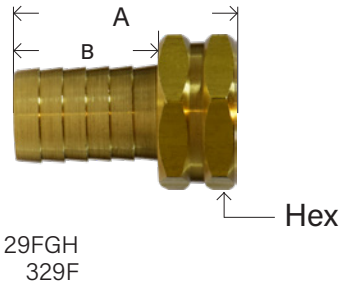
# GARDEN HOSE

WATERWORKS//IRRIGATION

## BARSTOCK BRASS GARDEN HOSE COUPLINGS

### FEMALE SWIVEL ONLY

**-WASHER INCLUDED**



BRASS

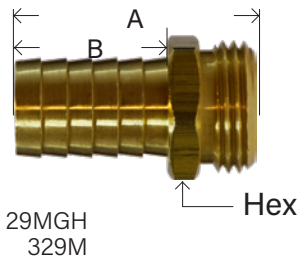
PART #	HOSE BARB X FGH	A	B	HEX	APPROX. WT. LBS.	
30031	3/8" x 3/4"	1.82	1.19	1.18	0.11	----
30032	1/2" x 3/4"	1.82	1.19	1.18	0.12	----
30033	5/8" x 3/4"	1.82	1.19	1.18	0.13	----
30034	3/4" x 3/4"	1.82	1.19	1.18	0.15	----
30044	1" x 3/4"	2.10	1.19	1.18	0.18	----
30035	1" x 1"	2.28	1.47	1.50	0.18	----



STAINLESS STEEL 316

30032SS	1/2" x 3/4"	1.82	1.19	1.18	0.12	----
30033SS	5/8" x 3/4"	1.82	1.19	1.18	0.13	----
30034SS	3/4" x 3/4"	1.82	1.19	1.18	0.15	----

### MALE END ONLY



BRASS

PART #	HOSE BARB X MGH	A	B	HEX	APPROX. WT. LBS.	
30039	3/8" x 3/4"	1.88	1.19	1.06	0.12	----
30040	1/2" x 3/4"	1.88	1.19	1.06	0.12	----
30041	5/8" x 3/4"	1.88	1.19	1.06	0.12	----
30042	3/4" x 3/4"	1.88	1.19	1.06	0.13	----
30045	1" x 3/4"	1.94	1.19	1.06	0.21	----
30043	1" x 1"	2.34	1.47	1.37	0.26	----



STAINLESS STEEL 316

30040SS	1/2" x 3/4"	1.88	1.19	1.06	0.12	----
30041SS	5/8" x 3/4"	1.88	1.19	1.06	0.12	----
30042SS	3/4" x 3/4"	1.88	1.19	1.06	0.13	----

### GARDEN HOSE COUPLING

**-WASHER INCLUDED**



BRASS

PART #	HOSE BARB	
30025	3/8"	----
30027	1/2"	----
30028	5/8"	----
30029	3/4"	----
30046	1"(3/4" threads)	----
30030	1"	----



STAINLESS STEEL 316

30027SS	1/2"	----
30028SS	5/8"	----
30029SS	3/4"	----

Dimension data can change without notice. Please see our website when dimensions are critical.

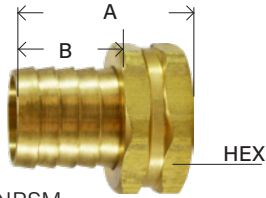
**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# NPSM GARDEN HOSE

WATERWORKS//IRRIGATION

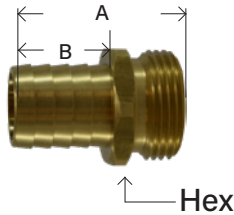
## NPSM FEMALE SHORT SHANK



329NPSM

PART #	HOSE ID	NPSM THREAD	A	B	HEX	
30545	1/2	3/4"	1.45	0.88	1.18	----
30546	5/8	3/4"	1.47	0.88	1.18	----
30547	3/4	3/4"	1.47	0.88	1.18	----
30548	1	1"	1.50	1.00	1.50	----

## NPSM MALE SHORT SHANK



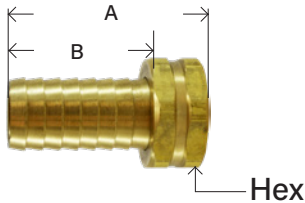
PART #	HOSE ID	NPSM THREAD	A	B	HEX	
30550	1/2	3/4"	1.56	0.88	1.06	----
30551	5/8	3/4"	1.56	0.88	1.06	----
30552	3/4	3/4"	1.56	0.88	1.06	----
30553	1	1"	1.77	0.98	1.30	----

## NPSM SHORT SHANK SETS



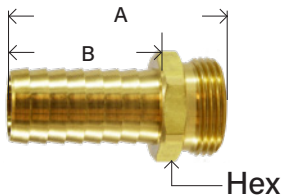
PART #	SIZE	
30540	1/2"	----
30541	5/8"	----
30542	3/4"	----
30543	1"	----

## NPSM FEMALE LONG SHANK



PART #	HOSE ID	NPSM THREAD	A	B	HEX	
30565	1/2	1/2"	2.09	1.50	0.94	----
30566	5/8	3/4"	2.09	1.50	1.18	----
30567	3/4	3/4"	2.09	1.50	1.18	----
30568	1	1"	2.12	1.53	1.50	----

## NPSM MALE LONG SHANK



PART #	HOSE ID	NPSM THREAD	A	B	HEX	
30570	1/2	1/2"	2.18	1.50	0.87	----
30571	5/8	3/4"	2.18	1.50	1.06	----
30572	3/4	3/4"	2.18	1.50	1.06	----
30573	1	1"	2.32	1.53	1.30	----

## NPSM LONG SHANK SETS



PART #	SIZE	
30560	1/2"	----
30561	5/8"	----
30562	3/4"	----
30563	1"	----

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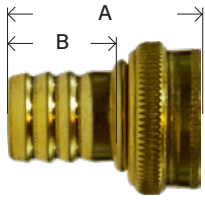
# GARDEN HOSE VALVES/ FITTINGS

WATERWORKS//IRRIGATION

## WROUGHT BRASS

### WROUGHT BRASS - FEMALE END ONLY

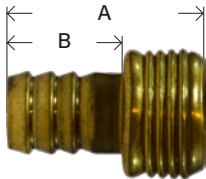
**-WASHER INCLUDED**



PART #	HOSE BARB X FGH	A	B	APPROX. WT. LBS.	
30526	5/8" x 3/4"	1.58	0.91	0.05	----
30527	3/4" x 3/4"	1.50	0.84	0.06	----

85L

### WROUGHT BRASS COUPLINGS - MALE END ONLY



PART #	HOSE BARB X MGH	A	B	APPROX. WT. LBS.	
30530	1/2" x 3/4"	1.50	0.88	0.02	----

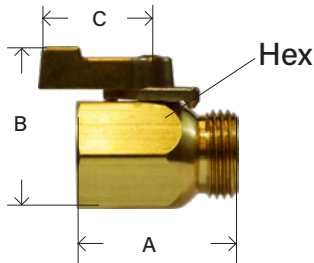
85M

## GARDEN HOSE VALVES

### ONE WAY BRASS BALL VALVE - FGH X MGH

• 500 PSI • 180°F

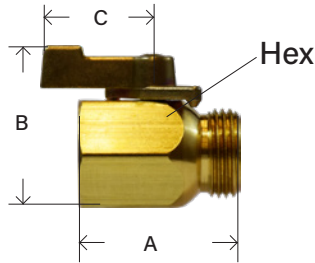
**- WASHER INCLUDED**



PART #	FGH X MGH	A	B	C	HEX	APPROX. WT. LBS.	
30161	3/4" x 3/4"	1.87	1.89	1.31	1.06	0.42	----

### ONE WAY BRASS BALL VALVE - FEMALE PIPE X MGH

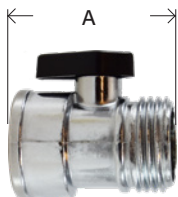
• 500 PSI • 180°F



PART #	FEMALE NPTF X MGH	A	B	C	HEX	APPROX. WT. LBS.	
30162	3/4" x 3/4"	1.55	1.89	1.31	1.06	0.42	----

### ZINC ALLOY HOSE SHUT-OFF W/ ONE LEVER

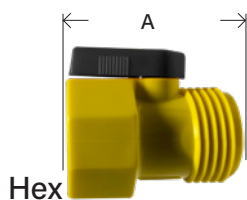
**- WASHER INCLUDED**



PART #	FGH X MGH	A	APPROX. WT. LBS.	
30631	3/4" x 3/4"	1.67	0.08	----

### PLASTIC GARDEN HOSE VALVE - CYCOLAC BODY & BALL

**- WASHER INCLUDED**



PART #	FGH X MGH	A	HEX	APPROX. WT. LBS.	
30163	3/4" x 3/4"	1.75	1.25	0.04	----

LA450C

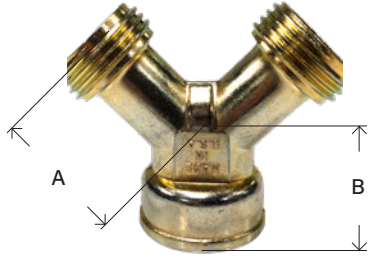
**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# GARDEN HOSE VALVES

WATERWORKS//IRRIGATION

## ZINC ALLOY HOSE - "Y" CONNECTOR

• WASHER INCLUDED

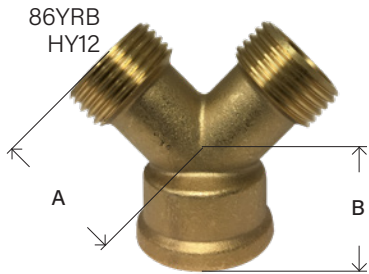


PART #	SIZE FGH X MGH(2)	A	B	APPROX. WT. LBS.	
30141	3/4"	1.70	0.57	1.5	

86Y 21A

## CAST BRASS HOSE - "Y" CONNECTOR

• WASHER INCLUDED

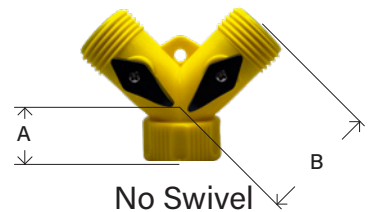


PART #	SIZE FGH X MGH(2)	A	B	APPROX. WT. LBS.	
30140	3/4"	1.40	0.67	0.22	----

86Y 21A

## PLASTIC, NON-CORROSIVE, 2-WAY HOSE SHUT-OFF "Y"

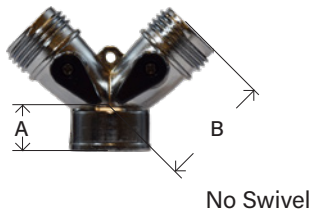
• WASHER INCLUDED



PART #	SIZE FGH X MGH(2)	A	B	APPROX. WT. LBS.	
30160	3/4"	0.74	1.87	0.08	----

## "Y" SHAPE ZINC ALLOY CONNECTOR W/ TWO LEVERS

• WASHER INCLUDED



PART #	SIZE FGH X MGH(2)	A	B	APPROX. WT. LBS.	
30626	3/4"	0.60	1.66	0.10	----

## "Y" SHAPE BRASS CONNECTOR W/ 2-WAY SHUT OFF

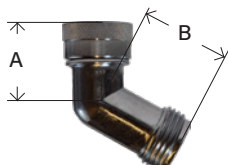
• WASHER INCLUDED



• Brass Levers

PART #	SIZE	DESCRIPTION FGH SWIVEL X MGH(2)	APPROX. WT. LBS.	
30627	3/4"	3/4 Double Y valve, swivel inlet	0.56	----

## ZINC ALLOY SWIVEL HOSE CONNECTOR



PART #	SIZE FGH X MGH	A	B	APPROX. WT. LBS.	
30629	3/4"	1.31	1.50	0.08	----

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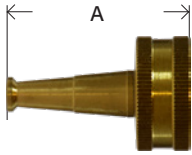


# GARDEN HOSE NOZZLES

WATERWORKS//IRRIGATION

## 2-1/2" BRASS NOZZLE

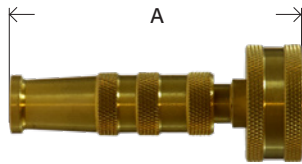
**· WASHER INCLUDED**



PART #	SIZE	A	APPROX. WT. LBS.	
30637	3/4"	2.50	0.14	----

## 3" CROSSED PATTERN BRASS NOZZLE

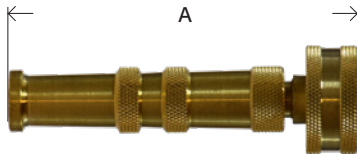
**· WASHER INCLUDED**



PART #	SIZE	A	APPROX. WT. LBS.	
30640	3/4"	2.89	0.25	----

## 4" CROSSED PATTERN BRASS NOZZLE

**· WASHER INCLUDED**



PART #	SIZE	A	APPROX. WT. LBS.	
30638	3/4"	3.80	0.50	----



**· WASHER INCLUDED**

Adjustable Spray

5-1/2

Part #	Size	Zinc Alloy spray nozzle with insulated handle soft grip and front thread protector	
30600	5-1/2"		----



**· WASHER INCLUDED**

Lead Free

4-1/4

Part #	Size	Zinc Alloy spray nozzle	
30620	4-1/4"		----

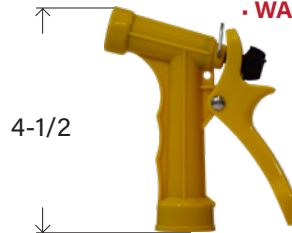


**· WASHER INCLUDED**

Lead Free Adjustable Spray

5-1/4

Part #	Size	Zinc Alloy spray nozzle with easily adjustable brass head and plastic grip	
30609	5-1/4"		----



**· WASHER INCLUDED**

4-1/2

Part #	Size	Plastic spray nozzle	
30630	4-1/2"		----

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# FIRE HOSE FITTINGS

## HYDRANT ADAPTERS - BRASS



PART #	DESCRIPTION	
444011	1-1/2" NST x 3/4" GHT	----
444000	2-1/2" NST x 3/4" GHT	----
444001	2-1/2" NST x 3/4" NPT	----
444002	2-1/2" NST x 1" NPT	----
444005	2-1/2" NST x 1-1/2" NPT	----
444007	2-1/2" NST x 2" NPSH	----
444008	2-1/2" NST x 2" NPT	----
444006	2-1/2" NST x 1-1/2" NST	----

## FEMALE TO MALE HEX ADAPTER - BRASS



PART #	DESCRIPTION	
444021	1-1/2" NST x 1-1/2" NPSH	----
444023	1-1/2" NPT x 1-1/2" NPSH	----
444020	1-1/2" NST x 1-1/2" NPT	----
444318	2 NPT x 2-1/2" NST	----

## CAP - BRASS



PART #	DESCRIPTION	
444062	2-1/2" NST	----
444313	4-1/2" NST	----
444320	2-1/2" NST PLUG	----
444060	1-1/2" NST	----

## DOUBLE MALE HEX NIPPLE - BRASS



PART #	DESCRIPTION	
444042	1-1/2" NPT x 1-1/2" NPSH	----
444040	1-1/2" NPT x 1-1/2" NST	----
444048	2" NPT x 2-1/2" NST	----
444095	2-1/2" NST x 1-1/2" NST	----
444045	2-1/2" NPT x 2-1/2" NST	----
444049	3" NPT x 2-1/2" NST	----

## MALE SWIVEL ADAPTER - BRASS W/ LUGS



PART #	DESCRIPTION FEMALE X MALE	
444111	2-1/2" NST x 2" NPT	----
444112	2-1/2" NST x 2-1/2" NPT	----
444113	2-1/2" NST x 3" NPT	----

## BRASS NOZZLE



PART #	SIZE	
HN-075-B	3/4"	----
*HN-100-B	1"	----
HN-125-B	1-1/4"	----
HN-150-B	1-1/2"	----
HN-200-B	2"	----
HN-250-B	2-1/2"	----

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## BRONZE FITTINGS

WATERWORKS//IRRIGATION

# BRONZE FITTINGS



UL842, UL258, UL125,FM

### CLASS 125 (150) FOR STEAM, WATER, GAS, OIL AND AIR SERVICE

Standard specifications

Materials - ASTM B62-93 (85,5,5,5) C83600

Dimensions - ANSI B 16.15

Threads - ANSI B2.1 or BA 21 and Fed. WW-P-460C, MSS-SP-106, ANSI/ASME B1.20.1

PRICING FILE AVAILABLE ONLINE

- UL/ FM Approved
- ISO 9001:2000
- Not Lead Free
- RoHS Compliant

Bronze threaded fittings are manufactured from smooth-cored castings, designed to provide full flow with minimum restriction. All threads are accurately machined and gauged to ensure a perfect fit with the pipe. All fittings are individually tested under water to ensure quality. Bronze provides a tighter seal and is easier to install than other metals. Can be used for water, plumbing, heating, pneumatic and marine applications, able to resist the harmful effects of corrosion when coming into contact with salt water or fresh water polluted with mineral acids or peaty soils.

## LEAD FREE BRASS FITTINGS

LEAD  
FREE



- Approved to ANSI/NSF 61-4 California AB 1953
- Meets Federal State Drinking Water Act, Lead Free Requirement
- Brass fittings conform to AWWA C800
- Brass castings conform to ASTM B584, UNS Alloy C8933
- Brass fittings dimensions conform to ASME B16.15
- NPT threads on all fittings conform to ASME B1.20.1
- Brass unions conform to specification A-A-59617
- Manufacturing facilities are ISO 9001:2008

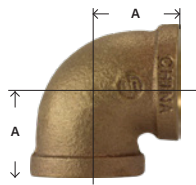
PRICING FILE AVAILABLE ONLINE

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# BRONZE/ LEAD FREE BRONZE

WATERWORKS//IRRIGATION



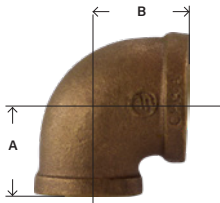
100RB

738100



## 90° ELBOWS

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	APPROX. WT. LBS.	PART #	
44100	----	0.08	50/600	1/8"	0.55	0.06	44-100LF	----
44101	----	0.12	35/420	1/4"	0.72	0.10	44-101LF	----
44102	----	0.17	90/360	3/8"	0.83	0.15	44-102LF	----
44103	----	0.24	50/200	1/2"	1.03	0.25	44-103LF	----
44104	----	0.34	35/105	3/4"	1.19	0.41	44-104LF	----
44105	----	0.61	20/60	1"	1.43	0.69	44-105LF	----
44106	----	0.95	20/40	1-1/4"	1.71	1.02	44-106LF	----
44107	----	1.30	15/30	1-1/2"	1.87	1.36	44-107LF	----
44108	----	2.07	8/16	2"	2.14	2.14	44-108LF	----
44109	----	3.80	1/12	2-1/2"	2.74	3.79	44-109LF	----
44110	----	4.76	1/4	3"	3.10	5.21	44-110LF	----
44112	----	9.71	1/2	4"	3.80	8.59	44-112LF	----



100RRB

738105



## 90° REDUCING ELBOWS

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	B	APPROX. WT. LBS.	PART #	
44120				1/4 x 1/8				44120LF	----
				3/8 x 1/8				44121LF	----
44122	----			3/8 x 1/4				44122LF	----
44123	----	0.44	60/240	1/2 x 1/4	0.93	0.90	0.19	44123LF	----
44124	----	0.58	60/240	1/2 x 3/8	0.93	0.90	0.22	44124LF	----
44125	----	0.80	40/160	3/4 x 1/4	1.08	1.11	0.31	44125LF	----
				3/4 x 3/8				44126LF	----
44127	----			3/4 x 1/2				44127LF	----
				1 x 1/4				44128LF	----
				1 x 3/8				44129LF	----
				1 x 1/2				44130LF	----
44131	----	1.07	50/100	1 x 3/4	1.30	1.31	0.56	44131LF	----
				1 1/4 x 1/2				44132LF	----
				1 1/4 x 3/4				44133LF	----
44134	----	0.80	25/50	1 1/4 x 1	1.52	1.60	0.81	44134LF	----
				1 1/2 x 1/2				44135LF	----
				1 1/2 x 3/4				44136LF	----
44137	----	1.07	10/40	1 1/2 x 1	1.56	1.72	1.02	44137LF	----
				1 1/2 x 1 1/4				44138LF	----
44140	----			2 x 1				44140LF	----
				2 x 1 1/4				44141LF	----
				2 x 1 1/2				44142LF	----
				2 1/2 x 2				44146LF	----
				3 x 2				44150LF	----

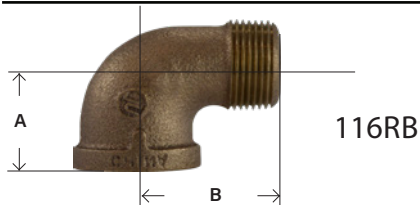
• Other sizes available online

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WATERWORKS//IRRIGATION

# BRONZE/ LEAD FREE BRONZE

WATERWORKS//IRRIGATION

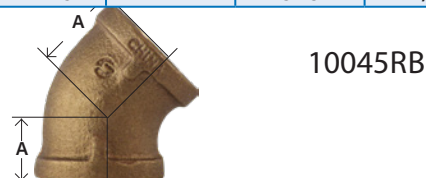


738116



## 90° STREET ELLS

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	B	APPROX. WT. LBS.	PART #	
44160	----	0.07	60/720	1/8"	0.55	0.92	0.06	44160LF	----
44161	----	0.11	35/420	1/4"	0.72	1.11	0.11	44161LF	----
44162	----	0.18	60/240	3/8"	0.83	1.24	0.16	44162LF	----
44163	----	0.24	60/180	1/2"	1.03	1.51	0.24	44163LF	----
44164	----	0.37	35/105	3/4"	1.19	1.66	0.38	44164LF	----
44165	----	0.67	45/90	1"	1.43	1.98	0.66	44165LF	----
44166	----	1.00	25/50	1-1/4"	1.71	2.26	0.99	44166LF	----
44167	----	1.37	9/27	1-1/2"	1.87	2.46	1.15	44167LF	----
44168	----	1.93	8/16	2"	2.14	2.98	2.07	44168LF	----
44169	----	4.05	5/10	2-1/2"	2.74	3.92	3.79	44169LF	----
44170	----	6.16	1/8	3"	3.10	4.45	6.38	44170LF	----

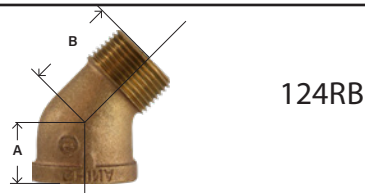


738107



## 45° ELBOWS

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	APPROX. WT. LBS.	PART #	
44180	----	0.08	50/600	1/8"	0.43	0.05	44180LF	----
44181	----	0.13	30/360	1/4"	0.55	0.09	44181LF	----
44182	----	0.17	75/300	3/8"	0.63	0.14	44182LF	----
44183	----	0.21	50/200	1/2"	0.79	0.19	44183LF	----
44184	----	0.32	40/120	3/4"	0.91	0.36	44184LF	----
44185	----	0.52	20/60	1"	1.07	0.59	44185LF	----
44186	----	0.86	20/40	1-1/4"	1.23	0.87	44186LF	----
44187	----	1.10	10/30	1-1/2"	1.31	1.13	44187LF	----
44188	----	1.71	12/24	2"	1.47	1.65	44188LF	----
44189	----	3.24	1/12	2-1/2"	1.95	2.69	44189LF	----
44190	----	4.12	1/10	3"	2.17	3.68	44190LF	----
				4"	2.60	7.49	44191LF	----



738124



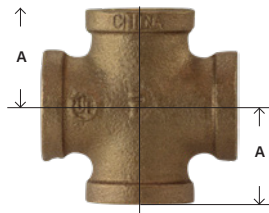
## 45° STREET ELBOWS

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	B	APPROX. WT. LBS.	PART #	
44200	----	0.06	70/840	1/8"	0.26	0.43	0.06		
44201	----	0.11	100/400	1/4"	0.35	0.56	0.09	44201LF	----
44202	----	0.13	100/400	3/8"	0.37	0.63	0.12	44202LF	----
44203	----	0.18	75/225	1/2"	0.45	0.79	0.22	44203LF	----
44204	----	0.28	40/120	3/4"	0.52	0.91	0.31	44204LF	----
44205	----	0.52	25/75	1"	0.60	1.07	0.52	44205LF	----
44206	----	0.77	10/40	1-1/4"	0.67	1.23	0.72	44206LF	----
44207	----	0.97	10/30	1-1/2"	0.70	1.31	1.05	44207LF	----
44208	----	2.04	12/24	2"	0.76	1.47	2.04	44208LF	----

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# BRONZE/ LEAD FREE BRONZE

WATERWORKS//IRRIGATION



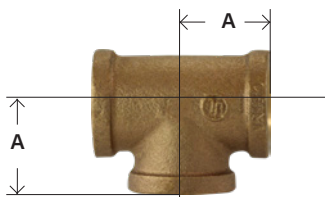
102RB

738102



## CROSSES

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	APPROX. WT. LBS.	PART #	
44391	----	0.20	60/240	1/4"	0.72	0.15	44391LF	----
44392	----	0.15	50/150	3/8"	0.83	0.25	44392LF	----
44393	----	0.45	30/90	1/2"	1.03	0.38	44393LF	----
44394	----	0.76	20/60	3/4"	1.19	0.59	44394LF	----
44395	----	1.04	15/30	1"	1.19	0.94	44395LF	----
44396	----	1.63	10/20	1-1/4"	1.71	1.43	44396LF	----
44397	----	2.10	8/16	1-1/2"	1.87	1.89	44397LF	----
44398	----	3.28	5/10	2"	2.14	2.95	44398LF	----



101RB



## TEES

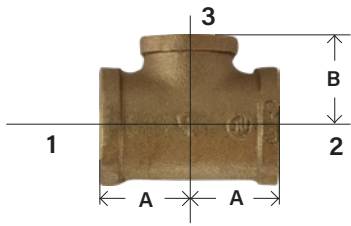
PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	APPROX. WT. LBS.	PART #	
44250	----	0.11	120/480	1/8"	0.55	0.09	44250LF	----
44251	----	0.17	75/300	1/4"	0.72	0.13	44251LF	----
44252	----	0.25	45/180	3/8"	0.83	0.21	44252LF	----
44253	----	0.31	40/120	1/2"	1.03	0.35	44253LF	----
44254	----	0.50	35/70	3/4"	1.19	0.55	44254LF	----
44255	----	0.85	20/40	1"	1.43	0.92	44255LF	----
44256	----	1.29	14/28	1-1/4"	1.71	1.34	44256LF	----
44257	----	1.68	12/24	1-1/2"	1.87	1.82	44257LF	----
44258	----	2.70	8/16	2"	2.14	2.80	44258LF	----
44259	----	5.14	1/6	2-1/2"	2.74	4.70	44259LF	----
44260	----	7.59	1/6	3"	3.10	6.69	44260LF	----
				4"	3.18	11.92	44261LF	----

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WATERWORKS//IRRIGATION

# BRONZE/ LEAD FREE BRONZE

WATERWORKS//IRRIGATION



101RRB

738106



## REDUCING TEES REDUCING ON THE BRANCH

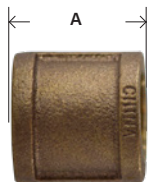
PART #		APPROX. WT. LBS.	BOX/ CASE	SIZE 1 X 2 X 3	A	B	APPROX. WT. LBS.	PART #	
				1/4 x 1/4 x 1/8				44270LF	----
				3/8 x 3/8 x 1/4				44273LF	----
44276	----	0.24	40/160	1/2 x 1/2 x 1/4	0.87	0.87	0.28	44276LF	----
				1/2 x 1/2 x 3/8				44279LF	----
44280	----	0.46	40/160	1/2 x 1/2 x 3/4	2.42	1.155	0.48	44280LF	----
44287	----			3/4 x 1/2 x 1/2				44287LF	----
				3/4 x 1/2 x 3/4				44288LF	----
44282	----	0.43	25/100	3/4 x 3/4 x 1/4	1.05	1.08	0.38	44282LF	----
44283	----	0.45	25/100	3/4 x 3/4 x 3/8	1.00	1.00	0.46	44283LF	----
44286	----	0.53	20/80	3/4 x 3/4 x 1/2	1.08	1.11	0.40	44286LF	----
				1 x 1/2 x 1/2				44292LF	----
				1 x 1/2 x 3/4				44293LF	----
44296	----			1 x 3/4 x 3/4				44296LF	----
				1 x 1 x 1/4				44268LF	----
				1 x 1 x 3/8				44290LF	----
44291	----	0.60	15/60	1 x 1 x 1/2	1.20	1.24	0.73	44291LF	----
44298	----	0.80	12/48	1 x 1 x 3/4	1.30	1.31	0.71	44298LF	----
				1 1/4 x 1/2 x 1 x 1 1/4				44314LF	----
44301	----	0.85	20/40	1 1/4 x 1 1/4 x 1/2	1.34	1.53	1.18	44301LF	----
44303	----	0.90	20/40	1 1/4 x 1 1/4 x 3/4	1.30	1.31	1.08	44303LF	----
44306	----	1.21	20/40	1 1/4 x 1 1/4 x 1	1.58	1.67	1.23	44306LF	----
				1 1/2 x 1 1/2 x 1/2				44315LF	----
				1 1/2 x 1 1/2 x 3/4				44316LF	----
				1 1/2 x 1 1/2 x 1				44318LF	----
				1 1/2 x 1 1/2 x 1 1/4				44322LF	----
				2 x 2 x 1/2				44327LF	----
				2 x 2 x 3/4				44328LF	----
				2 x 2 x 1			1.88	44330LF	----
				2 x 2 x 1 1/4			2.03	44334LF	----
				2 x 2 x 1 1/2				44336LF	----
				2 1/2 x 2 1/2 x 2				44344LF	----
				3 x 3 x 2				44351LF	----

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WATERWORKS//IRRIGATION

# BRONZE/ LEAD FREE BRONZE

WATERWORKS//IRRIGATION



103RB

738103



## COUPLINGS

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	APPROX. WT. LBS.	PART #	
44410	----	0.12	70/840	1/8"	0.80	0.06	44410LF	----
44411	----	0.11	40/480	1/4"	0.80	0.09	44411LF	----
44412	----	0.15	40/480	3/8"	1.05	0.13	44412LF	----
44413	----	0.18	60/240	1/2"	1.29	0.21	44413LF	----
44414	----	0.28	50/150	3/4"	1.43	0.32	44414LF	----
44415	----	0.45	25/100	1"	1.68	0.53	44415LF	----
44416	----	0.63	16/64	1-1/4"	1.86	0.73	44416LF	----
44417	----	0.82	18/36	1-1/2"	1.92	0.97	44417LF	----
44418	----	1.38	12/24	2"	2.20	1.51	44418LF	----
44419	----	2.63	1	2-1/2"	2.88	2.20	44419LF	----
44420	----	3.80	1	3"	3.18	3.63	44420LF	----
				4"			44421LF	----



119RB

738119



## REDUCING COUPLINGS

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	APPROX. WT. LBS.	PART #	
44430	----	0.08	70/840	1/4" x 1/8"	0.88	0.08	44430LF	----
44431	----	0.11	35/420	3/8" x 1/8"	0.92	0.10	44431LF	----
44432	----	0.13	30/360	3/8" x 1/4"	0.92	0.11	44432LF	----
44433	----	0.16	75/300	1/2" x 1/8"	1.17	0.14		
44434	----	0.16	75/300	1/2" x 1/4"	1.17	0.16	44434LF	----
44435	----	0.18	60/240	1/2" x 3/8"	1.17	0.17	44435LF	----
44436	----	0.23	45/180	3/4" x 1/4"	1.35	0.20	44436LF	----
44437	----	0.24	45/180	3/4" x 3/8"	1.35	0.23	44437LF	----
44438	----	0.23	60/180	3/4" x 1/2"	1.35	0.26	44438LF	----
44440	----	0.40	30/120	1" x 3/8"	1.56	0.40		
44441	----	0.33	30/120	1" x 1/2"	1.56	0.38	44441LF	----
44442	----	0.44	25/100	1" x 3/4"	1.56	0.43	44442LF	----
44444	----	0.62	25/75	1-1/4" x 1/2"	1.77	0.60	44444LF	----
44445	----	0.64	25/75	1-1/4" x 3/4"	1.77	0.57	44445LF	----
44446	----	0.54	15/60	1-1/4" x 1"	1.77	0.65	44446LF	----
44447	----	0.80	20/60	1-1/2" x 1/2"	1.80	0.77	44447LF	----
44448	----	0.83	15/60	1-1/2" x 3/4"	1.80	0.74	44448LF	----
44449	----	0.68	25/50	1-1/2" x 1"	1.80	0.83	44449LF	----
44450	----	0.99	12/48	1-1/2" x 1-1/4"	1.80	0.87	44450LF	----
44458	----	1.28	12/36	2" x 1/2"	2.03	1.07		
44451	----	0.97	12/36	2" x 3/4"	2.03	1.25	44451LF	----
44452	----	1.40	12/36	2" x 1"	2.03	1.19	44452LF	----
44453	----	1.09	9/27	2" x 1-1/4"	2.03	1.22	44453LF	----
44454	----	3.60	9/27	2" x 1-1/2"	2.03	1.28	44454LF	----
44461	----	1.26	1	2-1/2" x 1-1/2"	3.15	1.94		
44462	----	2.29	1	2-1/2" x 2"	3.15	2.37	44462LF	----
44456	----	2.49	1	3" x 2"	3.69	2.46		
44463	----	3.92	1	3" x 2-1/2"	3.69	3.82		

# BRONZE/ LEAD FREE BRONZE

WATERWORKS//IRRIGATION



108RB

738108



CAPS

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	APPROX. WT. LBS.	PART #	
44470	----	0.04	80/160	1/8"	0.53	0.03	44470LF	----
44471	----	0.06	80/960	1/4"	0.58	0.06	44471LF	----
44472	----	0.10	60/720	3/8"	0.66	0.09	44472LF	----
44473	----	0.13	75/300	1/2"	0.75	0.13	44473LF	----
44474	----	0.19	40/160	3/4"	0.87	0.21	44474LF	----
44475	----	0.30	25/100	1"	1.03	0.35	44475LF	----
44476	----	0.51	20/80	1-1/4"	1.10	0.52	44476LF	----
44477	----	0.66	18/54	1-1/2"	1.12	0.65	44477LF	----
44478	----	1.00	12/36	2"	1.35	1.14	44478LF	----
44479	----			2-1/2"	1.69	1.83	44479LF	----
44480	----	2.74	1	3"	1.83	2.64	44480LF	----
				4"	2.09	4.21	44481LF	----



104RB

738104



UNIONS

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	APPROX. WT. LBS.	PART #	
44600	----	0.17	40/160	1/8"	1.18	0.13	44600LF	----
44601	----	0.25	40/160	1/4"	1.26	0.27	44601LF	----
44602	----	0.37	40/160	3/8"	1.50	0.39	44602LF	----
44603	----	0.52	50/100	1/2"	1.57	0.44	44603LF	----
44604	----	0.78	35/70	3/4"	1.89	0.59	44604LF	----
44605	----	1.18	20/40	1"	2.13	0.90	44605LF	----
44606	----	1.64	15/30	1-1/4"	2.36	1.33	44606LF	----
44607	----	2.08	10/20	1-1/2"	2.68	1.80	44607LF	----
44608	----	3.24	6/12	2"	2.99	2.66	44608LF	----
44609	----	5.31	4/8	2-1/2"	3.35	4.80	44609LF	----
44610	----	6.94	4/8	3"	3.74	6.49	44610LF	----
				4"	3.86	9.56	44611LF	----



• Straight Thread

111RB

738111



HEX LOCKNUTS

PART #	BOX/CASE	SIZE	A	THICKNESS	APPROX. WT. LBS.		
44700	180/720	1/8"	0.50	0.19	0.01	44700LF	----
44701	90/540	1/4"	0.66	0.25	0.03	44701LF	----
44702	90/540	3/8"	0.77	0.28	0.04	44702LF	----
44703	90/360	1/2"	0.97	0.31	0.09	44703LF	----
44704	90/360	3/4"	1.23	0.34	0.10	44704LF	----
44705	50/150	1"	1.50	0.38	0.17	44705LF	----
44706	45/180	1-1/4"	1.86	0.42	0.22	44706LF	----
44707	45/135	1-1/2"	2.12	0.47	0.29	44707LF	----
44708	25/75	2"	2.63	0.53	0.45	44708LF	----

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# BRONZE/ LEAD FREE BRONZE

WATERWORKS//IRRIGATION



Hex

110RB



\* INSIDE HEX

738110



## HEX BUSHINGS

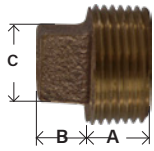
PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	HEX	APPROX. WT. LBS.	PART #	
44500	----	0.02	120/1440	1/4" x 1/8"	0.58	0.66	0.03	44500LF	----
44501	----	0.06	75/900	3/8" x 1/8"	0.64	0.72	0.06	44501LF	----
44502	----	0.04	75/900	3/8" x 1/4"	0.64	0.75	0.04	44502LF	----
44503	----	0.10	150/600	1/2" x 1/8"	0.75	0.92	0.09	44503LF	----
44504	----	0.09	150/600	1/2" x 1/4"	0.75	0.93	0.10	44504LF	----
44505	----	0.08	150/600	1/2" x 3/8"	0.75	0.92	0.08	44505LF	----
44506	----	0.17	75/300	3/4" x 1/8"	0.87	1.15	0.17	44506LF	----
44507	----	0.15	75/300	3/4" x 1/4"	0.85	1.14	0.18	44507LF	----
44508	----	0.14	75/300	3/4" x 3/8"	0.85	1.14	0.17	44508LF	----
44509	----	0.14	75/300	3/4" x 1/2"	0.85	1.15	0.14	44509LF	----
44557	----	0.24	50/200	1" x 1/8"	1.05	1.43			
44510*	----	0.23	50/200	1" x 1/4"	1.05	1.43	0.28	44510LF*	----
44511*	----	0.22	50/200	1" x 3/8"	1.05	1.50	0.26	44511LF	----
44512	----	0.25	50/200	1" x 1/2"	1.00	1.40	0.30	44512LF	----
44513	----	0.21	50/200	1" x 3/4"	1.00	1.43	0.21	44513LF	----
44514	----	0.34	30/120	1-1/4" x 1/4"	1.22	1.10	0.34	44514LF	----
44515	----	0.35	30/120	1-1/4" x 3/8"	1.19	1.84	0.29	44515LF	----
44516*	----	0.34	30/120	1-1/4" x 1/2"	1.14	1.33	0.39	44516LF*	----
44517	----	0.40	30/120	1-1/4" x 3/4"	1.08	1.75	0.43	44517LF	----
44518	----	0.33	30/120	1-1/4" x 1"	1.08	1.76	0.42	44518LF	----
44519*	----	0.47	25/75	1-1/2" x 1/4"	1.09	2.12	0.29	44519LF	----
44520*	----	0.45	25/75	1-1/2" x 3/8"	1.35	2.16	0.44	44520LF	----
44521*	----	0.44	25/75	1-1/2" x 1/2"	1.20	2.10	0.51	44521LF*	----
44522*	----	0.48	25/75	1-1/2" x 3/4"	1.20	2.12	0.54	44522LF*	----
44523	----	0.53	25/75	1-1/2" x 1"	1.14	2.08	0.57	44523LF	----
44524	----	0.45	25/75	1-1/2" x 1-1/4"	1.14	2.12	0.46	44524LF	----
44527*	----	0.67	20/60	2" x 1/2"	1.27	1.32	1.10	44527LF	----
44528*	----	0.74	20/60	2" x 3/4"	1.27	1.62	0.77	44528LF	----
44529*	----	0.76	20/60	2" x 1"	1.29	1.95	0.77	44529LF*	----
44530	----	0.86	20/60	2" x 1-1/4"	1.22	2.47	0.88	44530LF	----
44531	----	0.83	20/60	2" x 1-1/2"	1.22	2.50	0.71	44531LF	----
44532	----	1.16	15/30	2-1/2" x 1"	1.53	1.94	1.19	44532LF	----
			15/30	2-1/2" x 1-1/4"		1.50	1.24	44533LF	----
44534	----	1.36	15/30	2-1/2" x 1-1/2"	1.50	2.38	1.15	44534LF	----
44535	----	1.13	15/30	2-1/2" x 2"	1.43	2.97	1.12	44535LF	----
44537	----	1.82	12/24	3" x 1-1/2"	1.61	2.68	2.44	44537LF	----
44538	----	2.33	12/24	3" x 2"	1.61	3.70	1.82	44538LF	----
44539	----	2.19	12/24	3" x 2-1/2"	1.53	3.70	2.11	44539LF	----
44541	----	3.51	5/10	4" x 2"	1.81	4.62	3.86	44541LF	----
			5/10	4" x 2-1/2"	1.81	4.62	3.48	44542LF	----
44543	----	4.22	12/24	4" x 3"	2.01	4.62	3.56	44543LF	----

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WATERWORKS//IRRIGATION

# BRONZE/ LEAD FREE BRONZE

WATERWORKS//IRRIGATION



109RB

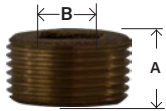
738109



## CORED SQUARE HEAD PLUGS

PART #		APPROX. WT. LBS.	BOX/CASE	SIZE	A	B	C	APPROX. WT. LBS.	PART #	
44650*	----	0.02	300/3600	1/8"	0.27	0.24	0.28	0.02	44650LF	----
44651*	----	0.04	150/1800	1/4"	0.41	0.28	0.37	0.04	44651LF	----
44652*	----	0.06	100/1200	3/8"	0.41	0.31	0.43	0.06	44652LF	----
44653	----	0.10	50/600	1/2"	0.54	0.38	0.56	0.10	44653LF	----
44654	----	0.13	30/360	3/4"	0.55	0.44	0.62	0.13	44654LF	----
44655	----	0.25	20/240	1"	0.69	0.50	0.81	0.22	44655LF	----
44656	----	0.39	40/120	1-1/4"	0.71	0.56	0.93	0.32	44656LF	----
44657	----	0.57	30/90	1-1/2"	0.73	0.62	1.12	0.47	44657LF	----
44658	----	0.77	20/60	2"	0.76	0.68	1.31	0.68	44658LF	----
44659	----	1.25	16/32	2-1/2"	1.07	0.74	1.50	1.26	44659LF	----
44660	----	2.02	16/32	3"	1.13	0.80	1.68	1.49	44660LF	----
44662	----	3.20	6/12	4"	1.22	0.92	2.25	3.20	44662LF	----

\* solid



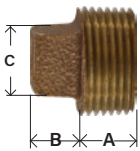
109ALRB

## SQUARE DRIVE BRONZE COUNTERSUNK PLUGS

738115

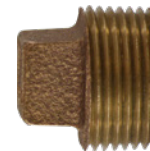


PART #	A	SOCKET SIZE	SIZE	BOX/CASE	APPROX. WT. LBS.	SIZE	
			1/8"			44630LF	----
			1/4"			44631LF	----
			3/8"			44632LF	----
44633	0.57	0.43	1/2"	120/1440	0.06	44633LF	----
44634	0.58	0.47	3/4"	70/840	0.11	44634LF	----
44635	0.75	0.59	1"	20/240	0.22	44635LF	----
44636	0.74	0.72	1-1/4"	40/120	0.33	44636LF	----
44637	0.79	0.72	1-1/2"	30/90	0.50	44637LF	----
44638	0.80	0.85	2"	20/60	0.88	44638LF	----
44639	1.08	1.25	2-1/2"	1/1	1.56	44639LF	----
44640	1.13	1.38	3"	1/1	2.47	44640LF	----
44641	1.22	2.12	4"	1/1	3.21	44641LF	----



109SRB

738114



## SOLID SQUARE HEAD PLUGS

PART #		A	B	C	SIZE	BOX/CASE	APPROX. WT. LBS.	PART #	
44670	----	0.27	0.24	0.28	1/8"	400/4800	0.02	44670LF	----
44671	----	0.41	0.28	0.37	1/4"	150/1800	0.04	44671LF	----
44672	----	0.41	0.31	0.43	3/8"	120/1440	0.06	44672LF	----
44673	----	0.54	0.38	0.56	1/2"	50/600	0.12	44673LF	----
44674	----	0.55	0.44	0.62	3/4"	35/420	0.18	44674LF	----
44675	----	0.69	0.50	0.81	1"	20/240	0.36	44675LF	----
44676	----	0.71	0.56	0.93	1-1/4"	30/120	0.63	44676LF	----
44677	----	0.73	0.62	1.12	1-1/2"	30/90	0.84	44677LF	----
44678	----	0.76	0.68	1.31	2"	10/60	1.27	44678LF	----
					2-1/2"			44679LF	----
					3"			44680LF	----
					4"			44681LF	----

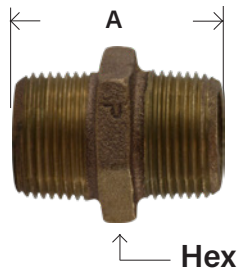
**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# BRONZE/ LEAD FREE BRONZE

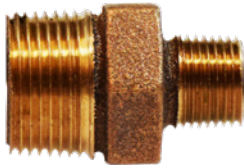
WATERWORKS//IRRIGATION

## HEX NIPPLES



PART #	SIZE	A	HEX	BOX/CASE	APPROX. WT. LBS.	
44720	1/8"	1.25	0.50	400/4800	0.05	----
44721	1/4"	1.25	0.61	150/1800	0.06	----
44722	3/8"	1.55	0.68	120/1440	0.11	----
44723	1/2"	1.65	1.03	240/480	0.18	----
44724	3/4"	1.77	1.21	80/320	0.24	----
44725	1"	2.06	1.46	50/150	0.36	----
44726	1-1/4"	2.12	1.81	50/100	0.47	----
44727	1-1/2"	2.25	2.07	35/70	0.76	----
44728	2"	2.50	2.41	20/40	1.50	----
44729	2-1/2"	2.80	3.10	1	2.10	----
44730M	3"	3.58	3.88	4/8	2.53	----

## REDUCING HEX NIPPLES



PART #	SIZE	BOX/CASE	APPROX. WT. LBS.	
44740	1/4" x 1/8"	1/1	0.06	----
44742	1/2" x 3/8"	1/1	0.16	----
44750	1-1/2" x 1"	1/1	0.64	----
44753	1-1/2" x 1-1/4"	1/1	0.68	----

## FLANGE THREADED COMPANION LEAD-FREE



PART #	SIZE	STD. PACK.	WT. PER 100	
44790LF	1/2" x 3-1/2"	1	95	----
44791LF	3/4" x 3-7/8"	1	124	----
44792LF	1" x 4-1/4"	1	168	----
44793LF	1-1/4" x 4-5/8"	1	224	----
44794LF	1-1/2" x 5"	1	251	----
44795LF	2" x 6"	1	454	----
44796LF	2-1/2" x 7"	1	673	----
44797LF	3" x 7-1/2"	1	864	----
44798LF	4" x 9"	1	1227	----
44799LF	5" x 10"	1	1495	----
44800LF	6" x 11"	1	1801	----

## FLANGE SWEAT COMPANION LEAD FREE



PART #	SIZE	STD. PACK.	WT. PER 100	
44827LF	1-1/2" x 5"	1	176	----
44828LF	2" x 6"	1	291	----
44829LF	2-1/2" x 7"	1	405	----
44830LF	3" x 7-1/2"	1	520	----
44831LF	4" x 9"	1	798	----

## FLANGE FLOOR LEAD FREE



PART #	SIZE	STD. PACK.	WT. PER 100	
44780LF	1/2"	1	35	----
44781LF	3/4"	1	44	----
44782LF	1"	1	59	----
44783LF	1-1/4"	1	87	----
44784LF	1-1/2"	1	105	----
44785LF	2"	1	150	----

# BRASS NIPPLES

**LEAD FREE**



We hereby certify that to the best of our knowledge and belief the CDA 230 alloy seamless Red Brass Pipe from which our nipples are produced meet the requirements of ASTM Specifications B43 and is free of mercury contamination. The chemical analysis is 85% copper, 15% Zinc and conforms to federal Specifications WWN-351. Our brass nipples meet ANSI/ASTM B687-96 and MS51846 for standard brass nipples, and MS51872 for extra heavy brass nipples.

Threads: Nipples are threaded with American Standard taper pipe threads (NPT) in accordance with screw-thread standard for Federal Services Handbook H-58. ANSI B1.20.1

This product is certified by NSF to NSF/ANSI 61 for use in drinking water supplies of pH 6.5 and above.

**PRICING FILE AVAILABLE ONLINE**

- ASTM B43
- ANSI B1.20.1, WW-N-351
- ANSI/ ASTM B687-96
- NSF-61 Approved
- MS51846 STD Brass Nipples
- RoHS compliant

SEE OUR WEBSITE FOR SCH 80 BRASS NIPPLES - EXTRA HEAVY

**STANDARD RED BRASS 85% PIPE WITH THREADED ENDS SPECIFICATIONS:**

PIPE SIZE IN INCHES	DIMENSION IN INCHES		
	O.D.	I.D.	WALL THICKNESS
1/8"	.405	.281	.062
1/4"	.540	.376	.082
3/8"	.675	.495	.090
1/2"	.840	.626	.107
3/4"	1.050	.822	.114
1"	1.315	1.063	.126
1-1/4"	1.660	1.368	.146
1-1/2"	1.900	1.600	.150
2"	2.375	2.063	.156
2-1/2"	2.875	2.501	.187
3"	3.500	3.062	.219
3-1/2"	4.000	3.500	.250
4"	4.500	4.000	.250
4-1/2"	5.000	4.500	.250
5"	5.563	5.063	.250
6"	6.625	6.125	.250

STANDARD SIZE (INCHES)	ALLOWABLE PRESSURE POUNDS PER SQUARE INCH			
	@ 100° F	@ 200° F	@ 300° F	@ 400° F
1/8"	370	370	320	140
1/4"	870	870	760	330
3/8"	890	890	780	340
1/2"	900	900	790	340
3/4"	810	810	710	310
1"	630	630	560	240
1-1/4"	690	690	610	260
1-1/2"	630	630	560	240
2"	540	540	480	210
2-1/2"	450	450	390	170
3"	510	510	450	190
3-1/2"	570	570	500	220
4"	510	510	440	190
5"	410	410	360	160
6"	340	340	300	130

No-Lead 125LB seamless Threaded Red Brass Nipples - 2200

**LEAD FREE**

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



**SCH 40 SEAMLESS**  
WATERWORKS//IRRIGATION

113RB



1/8" - 27



**1/8" DIAMETER SCH 40 SEAMLESS**

PART #	SIZE	BOX/CASE	APPROX. WT. LBS.	
40001	Close ( 3/4" )	25/400	0.02	----
40002	x 1-1/2"	25/400	0.03	----
40003	x 2"	25/400	0.04	----
40004	x 2-1/2"	25/400	0.05	----
40005	x 3"	25/400	0.06	----
40006	x 3-1/2"	25/400	0.07	----
40007	x 4"	25/400	0.08	----
40008	x 4-1/2"	25/400	0.10	----
40009	x 5"	25/400	0.11	----
40010	x 5-1/2"	25/400	0.12	----
40011	x 6"	25/400	0.13	----
40012	x 7"	25/400	0.15	----
40013	x 8"	25/400	0.17	----
40014	x 9"	25/400	0.19	----
40015	x 10"	25/400	0.21	----
40017	x 12"	25/400	0.25	----
40018	x 14"	1/1	0.29	----
40019	x 16"	1/1	0.34	----



1/4"-18

**1/4" DIAMETER SCH 40 SEAMLESS**

PART #	SIZE	BOX/CASE	APPROX. WT. LBS.	
40020	Close ( 7/8" )	25/400	0.03	----
40021	x 1-1/2"	25/400	0.05	----
40022	x 2"	25/400	0.07	----
40023	x 2-1/2"	25/400	0.09	----
40024	x 3"	25/400	0.11	----
40025	x 3-1/2"	25/400	0.13	----
40026	x 4"	25/400	0.14	----
40027	x 4-1/2"	25/400	0.16	----
40028	x 5"	25/400	0.18	----
40029	x 5-1/2"	25/400	0.20	----
40030	x 6"	25/400	0.22	----
40031	x 7"	25/200	0.25	----
40032	x 8"	25/200	0.29	----
40033	x 9"	25/200	0.33	----
40034	x 10"	25/200	0.36	----
40035	x 11"	25/200	0.40	----
40036	x 12"	25/200	0.43	----

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WATERWORKS//IRRIGATION

**SCH 40 SEAMLESS**  
WATERWORKS//IRRIGATION



**LEAD FREE**

**3/8"-18**

**3/8" DIAMETER SCH 40 SEAMLESS**

PART #	SIZE	BOX/CASE	APPROX. WT. LBS.	
40040	Close ( 1" )	25/400	0.05	----
40041	x 1-1/2"	25/400	0.08	----
40042	x 2"	25/400	0.10	----
40043	x 2-1/2"	25/400	0.13	----
40044	x 3"	25/400	0.16	----
40045	x 3-1/2"	25/400	0.18	----
40046	x 4"	25/400	0.21	----
40047	x 4-1/2"	25/300	0.23	----
40048	x 5"	25/300	0.26	----
40049	x 5-1/2"	25/300	0.29	----
40050	x 6"	25/300	0.31	----
40051	x 7"	25/200	0.36	----
40052	x 8"	25/150	0.42	----
40053	x 9"	25/150	0.47	----
40054	x 10"	25/100	0.52	----
40055	x 11"	25/100	0.57	----
113RB 40056	x 12"	25/100	0.62	----



**LEAD FREE**

**1/2" - 14**

**1/2" DIAMETER SCH 40 SEAMLESS**

PART #	SIZE	BOX/CASE	APPROX. WT. LBS.	
40060	Close ( 1-1/8" )	25/400	0.09	----
40061	x 1-1/2"	25/400	0.12	----
40062	x 2"	25/400	0.16	----
40063	x 2-1/2"	25/300	0.20	----
40064	x 3"	25/300	0.23	----
40065	x 3-1/2"	25/300	0.27	----
40066	x 4"	25/200	0.31	----
40067	x 4-1/2"	25/200	0.35	----
40068	x 5"	25/200	0.39	----
40069	x 5-1/2"	25/200	0.43	----
40070	x 6"	25/200	0.47	----
40071	x 7"	25/100	0.55	----
40072	x 8"	25/100	0.62	----
40073	x 9"	25/100	0.70	----
40074	x 10"	25/75	0.78	----
40075	x 11"	25/75	0.86	----
40076	x 12"	25/75	0.94	----

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**SCH 40 SEAMLESS**  
WATERWORKS//IRRIGATION

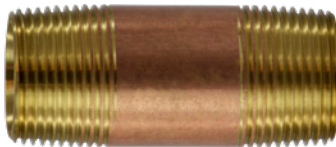


3/4" - 14

**3/4" DIAMETER SCH 40 SEAMLESS**

PART #	LENGTH	BOX/CASE	APPROX. WT. LBS.	
40080	Close (1- 3/8" )	25/400	0.15	----
40081	x 1-1/2"	25/400	0.16	----
40082	x 2"	25/300	0.21	----
40083	x 2-1/2"	25/300	0.27	----
40084	x 3"	25/200	0.32	----
40085	x 3-1/2"	25/200	0.37	----
40086	x 4"	25/150	0.43	----
40087	x 4-1/2"	25/150	0.48	----
40088	x 5"	25/100	0.53	----
40089	x 5-1/2"	25/100	0.59	----
40090	x 6"	25/100	0.64	----
40091	x 7"	25/75	0.75	----
40092	x 8"	25/75	0.85	----
40093	x 9"	25/75	0.96	----
40094	x 10"	25/50	1.06	----
40095	x 11"	25/50	1.17	----
40096	x 12"	25/50	1.28	----
40097	x 18"	1/1	1.92	----
40098	x 24"	1/1	2.56	----
40099	x 36"	1/1	3.84	----

113RB



1" - 11 1/2

**1" DIAMETER SCH 40 SEAMLESS**

PART #	LENGTH	BOX/CASE	APPROX. WT. LBS.	
40100	Close ( 1-1/2" )	25/200	0.23	----
40101	x 2"	25/200	0.30	----
40102	x 2-1/2"	25/150	0.38	----
40103	x 3"	25/150	0.45	----
40104	x 3-1/2"	25/100	0.53	----
40105	x 4"	25/100	0.60	----
40106	x 4-1/2"	25/100	0.68	----
40107	x 5"	25/75	0.75	----
40108	x 5-1/2"	25/75	0.83	----
40109	x 6"	25/50	0.94	----
40110	x 7"	25/50	1.05	----
40111	x 8"	25/50	1.20	----
40112	x 9"	25/50	1.35	----
40113	x 10"	25/50	1.50	----
40114	x 11"	25/50	1.65	----
40115	x 12"	20/40	1.80	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



**SCH 40 SEAMLESS**  
WATERWORKS//IRRIGATION



1 1/4" - 11 1/2"

**1-1/4" DIAMETER SCH 40 SEAMLESS**

PART #	LENGTH	BOX/CASE	APPROX. WT. LBS.	
40120	Close ( 1-5/8" )	25/100	0.36	----
40121	x 2"	25/100	0.44	----
40122	x 2-1/2"	25/100	0.56	----
40123	x 3"	25/100	0.67	----
40124	x 3-1/2"	25/100	0.78	----
40125	x 4"	25/50	0.89	----
40126	x 4-1/2"	25/50	1.00	----
40127	x 5"	25/50	1.11	----
40128	x 5-1/2"	25/50	1.22	----
40129	x 6"	25/50	1.33	----
40130	x 7"	25/50	1.56	----
40131	x 8"	25/50	1.78	----
40132	x 9"	25/50	2.00	----
40133	x 10"	25/50	2.22	----
40134	x 11"	25/50	2.45	----
40135	x 12"	25/50	2.67	----
40136	x 18"	1/1	4.00	----

113RB



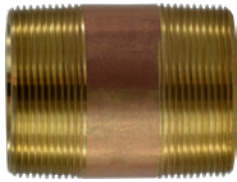
1-1/2" - 11 1/2"

**1-1/2" DIAMETER SCH 40 SEAMLESS**

PART #	LENGTH	BOX/CASE	APPROX. WT. LBS.	
40140	Close ( 1-3/4" )	25/100	0.46	----
40141	x 2"	25/100	0.53	----
40142	x 2-1/2"	25/50	0.66	----
40143	x 3"	25/50	0.79	----
40144	x 3-1/2"	25/50	0.93	----
40145	x 4"	25/50	1.06	----
40146	x 4-1/2"	25/50	1.19	----
40147	x 5"	20/40	1.32	----
40148	x 5-1/2"	20/40	1.46	----
40149	x 6"	20/40	1.59	----
40150	x 7"	20/40	1.85	----
40151	x 8"	20/40	2.12	----
40152	x 9"	20/40	2.38	----
40153	x 10"	20/40	2.65	----
40154	x 11"	1/40	2.91	----
40155	x 12"	1/15	3.18	----
40156	x 18"	1/1	4.77	----

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**SCH 40 SEAMLESS**  
WATERWORKS//IRRIGATION



**LEAD  
FREE**

2" - 11 1/2

**2" DIAMETER SCH 40 SEAMLESS**

PART #	LENGTH	BOX/CASE	APPROX. WT. LBS.	
40160	Close ( 2" )	25/50	0.69	----
40161	x 2-1/2"	25/50	0.86	----
40162	x 3"	25/50	1.03	----
40163	x 3-1/2"	25/50	1.20	----
40164	x 4"	1/25	1.37	----
40165	x 4-1/2"	1/25	1.54	----
40166	x 5"	1/25	1.72	----
40167	x 5-1/2"	1/25	1.89	----
40168	x 6"	1/25	2.06	----
40169	x 7"	1/20	2.40	----
40170	x 8"	1/18	2.74	----
40171	x 9"	1/18	3.09	----
40172	x 10"	1/18	3.43	----
40173	x 11"	1/18	3.77	----
40174	x 12"	1/14	4.12	----
40175	x 18"	1/1	6.18	----
40176	x 24"	1/1	8.24	----
40178	x 36"	1/1	12.36	----
40179	x 48"	1/1	16.48	----

113RB



**LEAD  
FREE**

2 1/2" - 8

**2-1/2" DIAMETER SCH 40 SEAMLESS**

PART #	LENGTH	BOX/CASE	APPROX. WT. LBS.	
40180	Close ( 2-1/2" )	1/36	1.26	----
40181	x 3"	1/36	1.51	----
40182	x 3-1/2"	1/30	1.76	----
40183	x 4"	1/30	2.02	----
40184	x 4-1/2"	1/30	2.27	----
40185	x 5"	1/20	2.52	----
40186	x 5-1/2"	1/20	2.77	----
40187	x 6"	1/20	3.03	----

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WATERWORKS//IRRIGATION

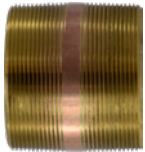
**SCH 40 SEAMLESS**  
WATERWORKS//IRRIGATION



**3" DIAMETER SCH 40 SEAMLESS**

PART #	LENGTH	BOX/CASE	APPROX. WT. LBS.	
40200	Close ( 2-5/8" )	1/24	1.89	----
40201	x 3"	1/20	2.16	----
40202	x 3-1/2"	1/18	2.52	----
40203	x 4"	1/18	2.88	----
40204	x 4-1/2"	1/18	3.24	----
40205	x 5"	1/18	3.60	----
40206	x 5-1/2"	1/18	3.96	----
40207	x 6"	1/12	4.32	----
40209	x 8"	1/1	5.76	----
40213	x 12"	1/1		

113RB



**4" DIAMETER SCH 40 SEAMLESS**

PART #	SIZE	BOX/CASE	APPROX. WT. LBS.	
40220	Close ( 2-7/8 )	1/20	2.40	----
40221	x 3"	1/10	2.72	----
40222	x 3-1/2"	1/10	3.18	----
40223	x 4"	1/10	3.71	----
40224	x 4-1/2"	1/5	4.24	----
40225	x 5"	1/5	4.77	----
40226	x 5-1/2"	1/5	5.30	----
40234	x 6"	1/5	6.36	----



**6" DIAMETER SCH 40 SEAMLESS**

PART #	SIZE	BOX/CASE	APPROX. WT. LBS.	
40254	Close	1/1	4.94	----
40256	x 4"	1/1	6.54	----
40259	x 4-1/2"	1/1	7.12	----
40260	x 5"	1/1	7.91	----
40261	x 6"	1/1	9.49	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# MALLEABLE FITTINGS

WATERWORKS//IRRIGATION

## MALLEABLE FITTINGS



- Saturated steam pressure 150 PSI @ 350°F
- Max pressure 300 PSI @ 150°F
- Temp range -20°F to 350°F

### ISO 9002 - CERTIFICATE OF QUALITY - UL/FM LISTED

Our quality fittings are made with care and attention to detail. With better molds we can reduce parting lines and rough edges resulting in better fluid flow. By using a low temperature galvanizing process the coating is more durable which means a longer lasting fitting. All Fittings are 100% Pressure Tested to 300# Class.

*(Every fitting is subjected to an underwater fitness test to ensure the highest quality)*

MALLEABLE IRON - ANSI B 16.3				
F°	Class	Sizes	Sizes	Sizes
	150 PSIG	1/4-1 300#	1 1/4-2 300#	2 1/4-3 300#
-200-150	300	2000	1500	1000
200	265	1785	1350	910
250	225	1575	1200	825
300	185	1360	1050	735
366*	150	1150	900	650

\*Permissible for service temperature up to 366°F, reflecting the temperature of saturated steam at 150 psig.

### SPECIFICATIONS

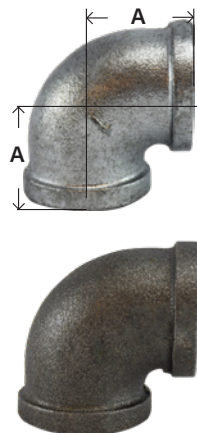
- MATERIAL: ASTM A 197 - Cuppla Malleable Iron, ASTM A 153 - Hot dipped galvanizing • Coating ASTM A164 LS
- DIMENSIONS: ANSI B 16.3 - Malleable Iron threaded fittings, ANSI B 16.14 - Ferrous Pipe Plugs, Bushings etc..., ANSI B 16.39 - Malleable Iron threaded pipe unions.
- THREADS: ANSI B 2.1 or BS 21 ASME B1.20.1 • RoHS Compliant • Tapered Threads
- Pressure - Saturated steam 150 PSI @350°F: Max pressure 300 PSI - 150°F
- Temperature range -20 - 350°F

SEE [MIDLANDINDUSTRIES.COM](http://MIDLANDINDUSTRIES.COM) FOR MORE SIZES AND CONFIGURATIONS

# BLACK AND GALVANIZED IRON #150

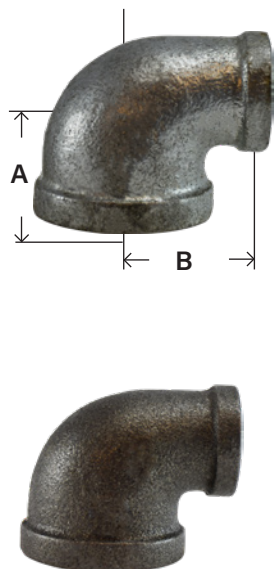
WATERWORKS//IRRIGATION

## ELBOWS 90°



PART # GALVANIZED		SIZE	A	BOX/ CASE	APPROX. WT. LBS.	PART # BLACK	
64100	----	1/8"	0.69	50/600	0.07	65100	----
64101	----	1/4"	0.81	35/420	0.10	65101	----
64102	----	3/8"	0.95	90/360	0.16	65102	----
64103	----	1/2"	1.12	50/200	0.23	65103	----
64104	----	3/4"	1.31	35/105	0.35	65104	----
64105	----	1"	1.50	20/60	0.57	65105	----
64106	----	1-1/4"	1.75	20/40	0.86	65106	----
64107	----	1-1/2"	1.94	15/30	1.31	65107	----
64108	----	2"	2.25	8/16	1.79	65108	----
64109	----	2-1/2"	2.70	6/12	3.35	65109	----
64110	----	3"	3.08	4/8	5	65110	----
64112	----	4"	3.79	1/2	9.02	65112	----
64114	----	6"	5.13	1/1	23.68	65114	----
		8"			41.1	65115	----

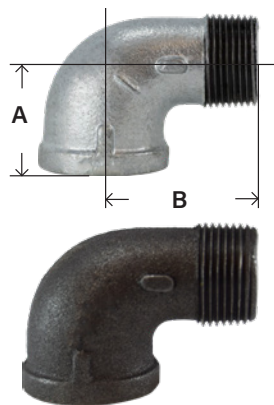
## REDUCING ELBOWS 90°



PART # GALVANIZED		SIZE	A	B	BOX/ CASE	AP-PROX. WT. LBS.	PART # BLACK	
64122	----	3/8" x 1/4"	0.88	0.90	90/360	0.16	65122	----
64123	----	1/2" x 1/4"	0.97	0.98	60/240	0.21	65123	----
64124	----	1/2" x 3/8"	1.04	1.03	60/240	0.24	65124	----
64126	----	3/4" x 3/8"	1.12	1.13	40/160	0.31	65126	----
64127	----	3/4" x 1/2"	1.20	1.22	40/160	0.44	65127	----
64130	----	1" x 1/2"	1.26	1.40	25/100	0.52	65130	----
64131	----	1" x 3/4"	1.37	1.45	50/100	0.58	65131	----
64133	----	1-1/4" x 3/4"	1.45	1.62	15/120	0.79	65133	----
64134	----	1-1/4" x 1"	1.58	1.67	10/40	0.80	65134	----
64136	----	1-1/2" x 3/4"	1.52	1.75	10/40	0.88	65136	----
64137	----	1-1/2" x 1"	1.65	1.80	10/40	1.07	65137	----
64138	----	1-1/2" x 1-1/4"	1.82	1.88	15/30	1.12	65138	----
64140	----	2" x 1"	1.73	2.02	14/28	1.41	65140	----
64141	----	2" x 1-1/4"	1.90	2.10	10/20	1.53	65141	----
64142	----	2" x 1-1/2"	2.02	2.16	10/20	1.65	65142	----
64145	----	2-1/2" x 1-1/2"	2.16	2.51	6/12	2.97	65145	----
64146	----	2-1/2" x 2"	2.39	2.60	6/12	3.18	65146	----
64148	----	3" x 1-1/2"	2.28	2.83	6/18	4.54	65148	----
		3" x 2-1/2"	2.83	2.99	4/8	4.39	65-151	----
		3" x 2"	2.52	3.60	4/8	4.22	65-150	----

SEE [MIDLANDINDUSTRIES.COM](http://MIDLANDINDUSTRIES.COM) FOR SIDE OUTLET ELBOWS

## 90° STREET ELBOWS



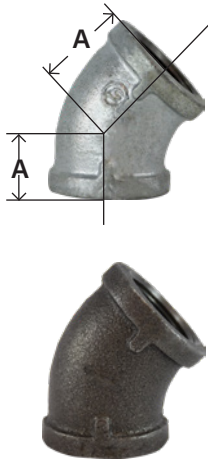
PART # GALVANIZED		SIZE	A	B	BOX/ CASE	APPROX. WT. LBS.	PART # BLACK	
64160	----	1/8"	0.69	1.00	60/720	.06	65160	----
64161	----	1/4"	0.80	1.17	35/420	.10	65161	----
64162	----	3/8"	0.95	1.48	40/240	.15	65162	----
64163	----	1/2"	1.10	1.59	60/180	.22	65163	----
64164	----	3/4"	1.28	1.85	35/105	.39	65164	----
64165	----	1"	1.47	2.10	35/105	.60	65165	----
64166	----	1-1/4"	1.75	2.57	25/50	.95	65166	----
64167	----	1-1/2"	1.90	2.63	9/27	1.37	65167	----
64168	----	2"	2.21	3.19	8/16	2.25	65168	----
64169	----	2-1/2"	2.65	3.78	5/10	3.32	65169	----
64170	----	3"	3.02	4.42	4/8	5.27	65170	----
64171	----	4"	3.72	5.57	2/4	8.94	65171	----

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# BLACK AND GALVANIZED IRON #150

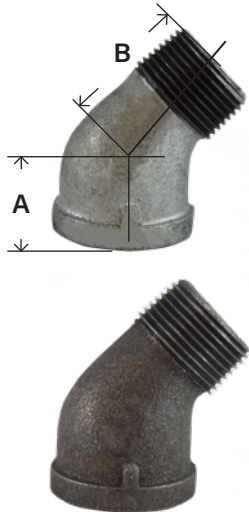
WATERWORKS//IRRIGATION

## ELBOWS 45°



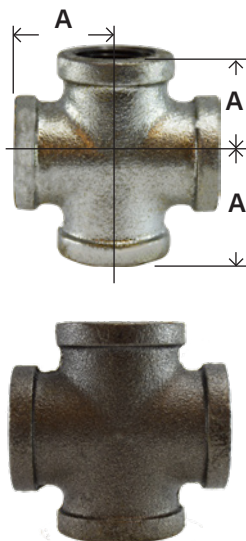
PART # GALVANIZED		SIZE	A	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
64180	----	1/8"	0.63	50/600	.07	65180	----
64181	----	1/4"	0.73	30/360	.10	65181	----
64182	----	3/8"	0.80	75/300	.14	65182	----
64183	----	1/2"	0.88	50/200	.21	65183	----
64184	----	3/4"	0.98	40/120	.33	65184	----
64185	----	1"	1.12	20/60	.50	65185	----
64186	----	1-1/4"	1.29	20/40	.74	65186	----
64187	----	1-1/2"	1.43	10/30	1.01	65187	----
64188	----	2"	1.68	12/24	1.53	65188	----
64189	----	2-1/2"	1.95	9/18	2.78	65189	----
64190	----	3"	2.17	1/10	4.49	65190	----
64191	----	4"	2.61	2/4	7.44	65191	----
64192	----	6"	3.46	1/1	18.63	65192	----
		8"			26.40	65194	----

## 45° STREET ELBOWS



PART # GALVANIZED		SIZE	A	B	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
64200	----	1/8"	0.63	0.83	70/840	.05	65200	----
64201	----	1/4"	0.73	0.94	40/480	.09	65201	----
64202	----	3/8"	0.80	1.03	100/400	.14	65202	----
64203	----	1/2"	0.86	1.30	75/225	.19	65203	----
64204	----	3/4"	0.96	1.48	40/120	.28	65204	----
64205	----	1"	1.10	1.69	25/75	.48	65205	----
64206	----	1-1/4"	1.26	1.87	10/40	.71	65206	----
64207	----	1-1/2"	1.40	2.05	10/30	1.02	65207	----
64208	----	2"	1.65	2.38	12/24	1.68	65208	----
64209	----	2-1/2"	1.95	2.72	6/12	2.69	65209	----
64210	----	3"	2.17	3.16	3/6	4.61	65210	----
64211	----	4"	2.61	3.90	2/4	7.74	65211	----

## CROSSES



PART # GALVANIZED		SIZE	A	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
64390	----	1/8"	0.65	50/600	.14	65390	----
64391	----	1/4"	0.80	60/240	.17	65391	----
64392	----	3/8"	0.95	50/150	.26	65392	----
64393	----	1/2"	1.12	30/90	.42	65393	----
64394	----	3/4"	1.31	20/60	.64	65394	----
64395	----	1"	1.50	15/30	.98	65395	----
64396	----	1-1/4"	1.75	10/20	1.45	65396	----
64397	----	1-1/2"	1.94	8/16	1.90	65397	----
64398	----	2"	2.25	5/10	2.96	65398	----
64399	----	2-1/2"	2.71	4/8	5.49	65399	----
64400	----	3"	3.06	2/4	7.71	65400	----
		4"		1/1	14.77	65401	----

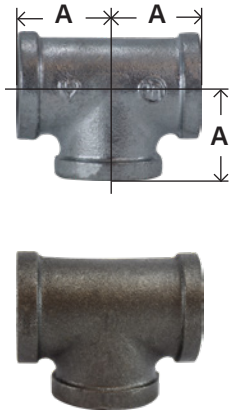
**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

WATERWORKS//IRRIGATION

# BLACK AND GALVANIZED IRON #150

WATERWORKS//IRRIGATION

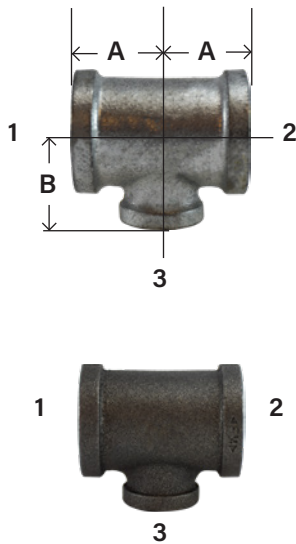
## TEES



PART # GALVANIZED		SIZE	A	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
64250	----	1/8"	0.69	120/480	.11	65250	----
64251	----	1/4"	0.81	75/300	.15	65251	----
64252	----	3/8"	0.95	45/180	.22	65252	----
64253	----	1/2"	1.12	40/120	.36	65253	----
64254	----	3/4"	1.31	35/70	.48	65254	----
64255	----	1"	1.50	20/40	.83	65255	----
64256	----	1-1/4"	1.75	14/28	1.29	65256	----
64257	----	1-1/2"	1.94	12/24	1.66	65257	----
64258	----	2"	2.26	8/16	2.50	65258	----
64259	----	2-1/2"	2.70	4/8	4.45	65259	----
64260	----	3"	3.08	1/6	6.72	65260	----
64261	----	4"	3.79	1/2	11.31	65261	----
64262	----	6"	5.13	1/1	30.75	65262	----
		8"			37.85	65264	----

## REDUCING TEES

(SAME SIZE ON RUN, REDUCING ON BRANCH)



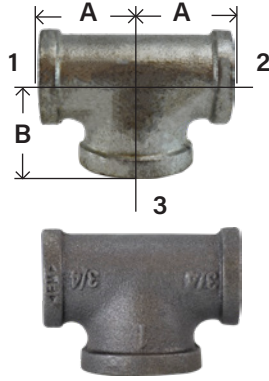
PART # GALVANIZED		SIZE (1&2) X 3	A	B	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
64273	----	3/8" x 1/4"	0.81	0.90	25/300	.18	65273	----
64276	----	1/2" x 1/4"	0.97	0.98	40/160	.24	65276	----
64279	----	1/2" x 3/8"	1.04	1.03	40/160	.35	65279	----
64282	----	3/4" x 1/4"	1.05	1.08	25/100	.43	65282	----
64283	----	3/4" x 3/8"	1.12	1.13	25/100	.39	65283	----
64286	----	3/4" x 1/2"	1.20	1.18	20/80	.49	65286	----
64268	----	1" x 1/4"	1.11	1.22	20/80	.51	65268	----
64269	----	1" x 3/8"	1.18	1.27	15/60	.55	65269	----
64291	----	1" x 1/2"	1.26	1.40	15/60	.63	65291	----
64298	----	1" x 3/4"	1.37	1.45	12/48	.71	65298	----
64301	----	1-1/4" x 1/2"	1.34	1.45	20/40	.91	65301	----
64303	----	1-1/4" x 3/4"	1.45	1.62	20/40	.99	65303	----
64306	----	1-1/4" x 1"	1.58	1.66	20/40	1.07	65306	----
64721	----	1-1/2" x 1/2"				1.12	65721	----
64316	----	1-1/2" x 3/4"	1.41	1.75	15/30	1.23	65316	----
64318	----	1-1/2" x 1"	1.65	1.88	10/30	1.33	65318	----
64322	----	1-1/2" x 1-1/4"	1.65	1.88	12/24	1.52	65322	----
64327	----	2" x 1/2"	1.49	1.88	10/20	1.64	65327	----
64328	----	2" x 3/4"	1.60	1.97	10/20	1.71	65328	----
64330	----	2" x 1"	1.73	2.02	10/20	1.88	65330	----
64334	----	2" x 1-1/4"	1.86	2.06	8/16	2.03	65334	----
64336	----	2" x 1-1/2"	1.98	2.12	8/16	2.22	65336	----
		2-1/2" x 1"				2.85	65342	----
64343	----	2-1/2" x 1-1/2"	2.16	2.51	5/10	2.97	65343	----
64729	----	3" x 1"	2.00	2.00	3/6	4.15		
		3" x 1-1/2"				5.19	65359	----
64351	----	3" x 2"	2.52	2.89	3/6	5.35	65351	----

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# BLACK AND GALVANIZED IRON #150

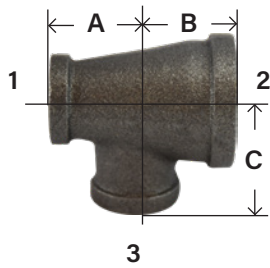
WATERWORKS//IRRIGATION

## BULLHEAD TEES



PART # GALVANIZED		SIZE (1&2) X 3	A	B	BOX/ CASE	APPROX. WT. LBS.	PART # BLACK	
64280	----	1/2" x 3/4"	1.22	1.20	30/120	.4	65280	----
64733	----	1/2" x 1"	1.36	1.26	25/100	.50	65733	----
64289	----	3/4" x 1"	1.45	1.37	20/120	.60	65289	----
64299	----	1" x 1-1/4"	1.67	1.58	15/30	.96	65299	----
64300	----	1" x 1-1/2"	1.80	1.65	9/36	1.11	65300	----
64317	----	1-1/4" x 1-1/2"	1.88	1.82	12/24	1.07	65317	----

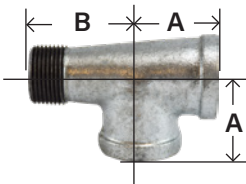
## REDUCING TEES REDUCING ON RUN



PART # BLACK	SIZE 1 X 2 X 3	A	B	C	BOX/CASE	APPROX. WT. LBS.	
65287	3/4" x 1/2" x 1/2"	1.18	1.18	1.20	25/100	0.39	----
65288	3/4" x 1/2" x 3/4"	1.28	1.20	1.28	20/80	0.49	----
65292	1" x 1/2" x 1/2"	1.31	1.22	1.31	20/80	0.51	----
65293	1" x 1/2" x 3/4"	1.22	1.37	1.45	20/80	0.53	----
65294	1" x 1/2" x 1"	1.40	1.50	1.50	15/60	0.54	----
65295	1" x 3/4" x 1/2"	1.20	1.26	1.40	20/80	0.58	----
65296	1" x 3/4" x 3/4"	1.34	1.28	1.42	15/60	0.63	----
65297	1" x 3/4" x 1"	1.45	1.50	1.50	15/60	0.62	----
65347	1-1/4" x 3/4" x 3/4"	1.31	1.45	1.64	10/40	0.66	----
65305	1-1/4" x 3/4" x 1-1/4"	1.62	1.75	1.75	10/40	1.14	----
65309	1-1/4" x 1" x 1"	1.55	1.47	1.63	20/40	1.00	----
65346	1-1/4" x 3/4" x 1/2"	1.31	1.45	1.64	20/40	1.05	----
65349	1-1/4" x 1" x 1/2"	1.26	1.34	1.53	20/40	1.10	----
65350	1-1/4" x 1" x 3/4"						----
65310	1-1/4" x 1" x 1-1/4"	1.30	1.36	1.44	15/30	1.21	----
65372	1-1/2" x 1" x 1"	1.50	1.65	1.78	15/30	1.28	----
65375	1-1/2" x 1-1/4" x 3/4"	1.43	1.52	1.25	15/30	1.30	----
65377	1-1/2" x 1-1/4" x 1-1/4"	1.75	1.82	1.88	15/30	1.35	----
65267	2" x 3/4" x 2"						----
65312	2" x 1-1/2" x 1-1/4"	1.82	1.90	2.10	10/30	1.21	----
65313	2" x 1-1/2" x 1-1/2"	1.94	2.02	2.16	10/30	1.79	----

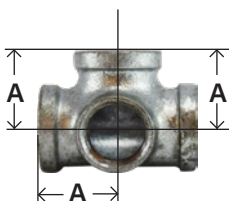
• SEE [MIDLANDINDUSTRIES.COM](http://MIDLANDINDUSTRIES.COM) FOR GALVANIZED REDUCING TEE & MORE BLACK SIZES

## MALLEABLE SERVICE TEE (STREET TEE)



PART # GALVANIZED		SIZE	A	B	BOX/ CASE	APPROX. WT. LBS.	PART # BLACK	
64363	----	1/2"	1.12	1.62	40/12	0.31	65363	----
64364	----	3/4"	1.31	1.89	25/75	0.49	65364	----

## SIDE OUTLET TEES

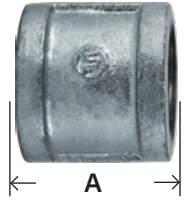


PART # GALVANIZED		SIZE	A	BOX/ CASE	APPROX. WT. LBS.	PART # BLACK	
64383	----	1/2"	1.12	25/100	.39	65383	----
64384	----	3/4"	1.31	15/60	.58	65384	----
64385	----	1"	1.50	20/40	.88	65385	----
64386	----	1-1/4"	1.75	12/24	1.32	65386	----
		1-1/2"	1.97	1/1	1.56	65387	----
		2"	2.29	1/1	1.81	65388	----

# BLACK AND GALVANIZED IRON #150

WATERWORKS//IRRIGATION

## COUPLINGS



PART # GALVANIZED		SIZE	A	BOX/ CASE	APPROX. WT. LBS.	PART # BLACK	
64410	----	1/8"	0.96	70/840	.07	65410	----
64411	----	1/4"	1.06	40/480	.09	65411	----
64412	----	3/8"	1.16	40/480	.13	65412	----
64413	----	1/2"	1.34	60/240	.19	65413	----
64414	----	3/4"	1.52	50/150	.28	65414	----
64415	----	1"	1.67	25/100	.45	65415	----
64416	----	1-1/4"	1.93	16/64	.66	65416	----
64417	----	1-1/2"	2.15	18/36	.84	65417	----
64418	----	2"	2.54	12/24	1.39	65418	----
64419	----	2-1/2"	2.88	8/16	2.42	65419	----
64420	----	3"	3.18	1/12	3.49	65420	----
64421	----	4"	3.69	3/6	5.81	65421	----
64422	----	6"	4.23	1/2	28.62	65422	----

## REDUCING COUPLINGS



PART # GALVANIZED		SIZE	A	BOX/ CASE	APPROX. WT. LBS.	PART # BLACK	
64430	----	1/4" x 1/8"	1.00	50/600	.07	65430	----
64431	----	3/8" x 1/8"	1.13	35/420	.09	65431	----
64432	----	3/8" x 1/4"	1.13	30/360	.11	65432	----
64433	----	1/2" x 1/8"	1.25	75/300	.13	65433	----
64434	----	1/2" x 1/4"	1.25	75/300	.11	65434	----
64435	----	1/2" x 3/8"	1.25	60/240	.15	65435	----
64439	----	3/4" x 1/8"	1.44	60/240	.18	65439	----
64436	----	3/4" x 1/4"	1.44	45/18	.19	65436	----
64437	----	3/4" x 3/8"	1.44	45/18	.21	65437	----
64438	----	3/4" x 1/2"	1.44	60/180	.25	65438	----
64459	----	1" x 1/4"	1.69	45/135	.34	65459	----
64440	----	1" x 3/8"	1.69	30/120	.35	65440	----
64441	----	1" x 1/2"	1.69	30/120	.36	65441	----
64442	----	1" x 3/4"	1.69	25/100	.39	65442	----
64460	----	1-1/4" x 3/8"	2.06	25/75	.55	65460	----
64444	----	1-1/4" x 1/2"	2.06	25/75	.53	65444	----
64445	----	1-1/4" x 3/4"	2.06	25/75	.57	65445	----
64446	----	1-1/4" x 1"	2.06	15/60	.61	65446	----
64443	----	1-1/2" x 3/8"	2.31	20/60	.71	65443	----
64447	----	1-1/2" x 1/2"	2.31	20/60	.69	65447	----
64448	----	1-1/2" x 3/4"	2.31	15/60	.71	65448	----
64449	----	1-1/2" x 1"	2.31	25/50	.78	65449	----
64450	----	1-1/2" x 1-1/4"	2.31	12/48	.87	65450	----
64458	----	2" x 1/2"	2.81	12/36	1.14	65458	----
64451	----	2" x 3/4"	2.81	12/36	1.14	65451	----
64452	----	2" x 1"	2.81	12/36	1.21	65452	----
64453	----	2" x 1-1/4"	2.81	9/27	1.19	65453	----
64454	----	2" x 1-1/2"	2.81	9/27	1.38	65454	----
64461	----	2-1/2" x 1-1/2"	3.25	20/40	2.07	65461	----
64462	----	2-1/2" x 2"	3.25	7/14	2.23	65462	----
64486	----	3" x 1-1/2"	3.69	6/12	3.23	65486	----
64456	----	3" x 2"	3.69	6/12	3.30	65456	----
64463	----	3" x 2-1/2"	3.69	5/10	3.55	65463	----
64464	----	4" x 2"	4.38	3/6	5.55	65464	----
64465	----	4" x 2-1/2"	4.38	3/6	5.90	65465	----
64457	----	4" x 3"	4.38	3/6	6.05	65457	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# BLACK AND GALVANIZED IRON #150

WATERWORKS//IRRIGATION

## HEX BUSHING



\* INSIDE HEX

PART # GALVANIZED		SIZE M X F	A	HEX	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
64500	----	*1/4" x 1/8"	0.79	0.67	1/25	.03	65500	----
64501	----	*3/8" x 1/8"	0.79	0.75	1/25	.06	65501	----
64502	----	*3/8" x 1/4"	0.79	0.75	1/25	.05	65502	----
64503	----	1/2" x 1/8"	0.84	1.03	150/600	.09	65503	----
64504	----	1/2" x 1/4"				.08	65504	----
64505	----	1/2" x 3/8"	0.75	1.03	150/600	.07	65505	----
64506	----	3/4" x 1/8"	0.85	1.15	75/300	.14	65506	----
64507	----	3/4" x 1/4"	0.85	1.15	75/300	.13	65507	----
64508	----	3/4" x 3/8"	0.85	1.15	75/300	.12	65508	----
64509	----	3/4" x 1/2"	0.93	1.15	75/300	.10	65509	----
64510*	----	1" x 1/4"	1.13	1.12	50/200	.20	65510*	----
64511*	----	1" x 3/8"	1.13	1.12	50/200	.18	65511*	----
64512	----	1" x 1/2"	1.10	1.42	50/200	.21	65512	----
64513	----	1" x 3/4"	1.10	1.42	50/200	.17	65513	----
64514*	----	1-1/4" x 1/4"	1.24	1.12	30/120	.29	65514*	----
64515*	----	1-1/4" x 3/8"	1.24	1.12	30/120	.29	65515*	----
64516*	----	1-1/4" x 1/2"	1.24	1.24	30/120	.31	65516*	----
64517	----	1-1/4" x 3/4"	1.08	1.76	30/120	.35	65517	----
64518	----	1-1/4" x 1"	1.08	1.76	30/120	.29	65518	----
64519*	----	1-1/2" x 1/4"	1.30	1.12	25/75	.40	65519*	----
64520*	----	1-1/2" x 3/8"	1.30	1.12	25/75	.38	65520*	----
64521*	----	1-1/2" x 1/2"	1.30	1.34	25/75	.38	65521*	----
64522*	----	1-1/2" x 3/4"	1.30	1.44	25/75	.40	65522*	----
64523	----	1-1/2" x 1"	1.23	2.00	25/75	.45	65523	----
64524	----	1-1/2" x 1-1/4"	1.23	2.00	25/75	.34	65524	----
64526	----	2" x 1/4"	1.29	1.12	20/60	.57	65526	----
64525*	----	2" x 3/8"	1.28	1.12	20/60	.57	65525*	----
64527*	----	2" x 1/2"	1.39	1.34	20/60	.57	65527*	----
64528*	----	2" x 3/4"	1.39	1.63	20/60	.63	65528*	----
64529*	----	2" x 1"	1.39	1.77	20/60	.66	65529*	----
64530	----	2" x 1-1/4"	1.50	2.48	20/60	.74	65530	----
64531	----	2" x 1-1/2"	1.50	2.48	20/60	.61	65531	----
64546*	----	2-1/2" x 1/2"	1.51	1.34	15/30	.97	65546*	----
64547*	----	2-1/2" x 3/4"	1.51	1.63	15/30	.91	65547*	----
64532*	----	2-1/2" x 1"	1.51	1.95	15/30	.97	65532*	----
64533*	----	2-1/2" x 1-1/4"	1.51	2.39	15/30	1.03	65533*	----
64534	----	2-1/2" x 1-1/2"	1.51	2.98	15/30	1.16	65534	----
64535	----	2-1/2" x 2"	1.54	2.98	15/30	1.01	65535	----
64550	----	3" x 1"	1.61	1.95	12/24	1.41	65550	----
64549*	----	3" x 1-1/4"	1.61	2.39	12/24	1.42	65549*	----
64537*	----	3" x 1-1/2"	1.61	2.68	12/24	1.51	65537*	----
64538	----	3" x 2"	1.61	3.86	12/24	1.71	65538	----
64539	----	3" x 2-1/2"	1.61	3.86	12/24	1.68	65539	----
		3-1/2" x 3"	1.86	4.20	5/10	2.17	65555	----
64551	----	4" x 3/4"	2.15	4.90	5/10	3.88	65551	----
64553*	----	4" x 1"	2.00	4.75	5/10	3.79	65553*	----
64552	----	4" x 1-1/4"	1.82	2.39	5/10	2.39	65552	----
64540	----	4" x 1-1/2"	1.82	2.68	5/10	2.39	65540	----
64541*	----	4" x 2"	1.82	3.31	5/10	2.52	65541*	----
64542*	----	4" x 2-1/2"	2.06	3.87	5/10	2.87	65542*	----
64543	----	4" x 3"	2.17	4.96	5/10	2.95	65543	----
		5" x 4"	2.16	5.34	2/4	6.80	65544	----
64545*	----	6" x 4"	2.33	5.79	2/4	7.11	65545*	----

NOTE: ADD DT TO THE PART# FOR A DOUBLE-TAPPED BUSHING

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# BLACK AND GALVANIZED IRON #150

WATERWORKS//IRRIGATION

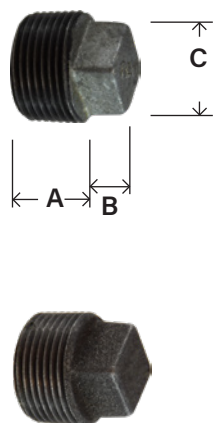
## UNIONS

• Brass Seat



PART # GALVANIZED		SIZE	A	BOX/ CASE	APPROX. WT. LBS.	PART # BLACK	
64600	----	1/8"	1.26	60/240	.17	65600	----
64601	----	1/4"	1.44	20/240	.25	65601	----
64602	----	3/8"	1.61	40/160	.37	65602	----
64603	----	1/2"	1.72	50/100	.52	65603	----
64604	----	3/4"	1.94	35/70	.78	65604	----
64605	----	1"	2.06	20/40	1.18	65605	----
64606	----	1-1/4"	2.26	15/30	1.64	65606	----
64607	----	1-1/2"	2.41	10/20	2.08	65607	----
64608	----	2"	2.75	6/12	3.24	65608	----
64609	----	2-1/2"	3.22	4/8	5.31	65609	----
64610	----	3"	3.50	4/8	6.94	65610	----
64611	----	4"	3.85	2/4	12.02	65611	----

## SQUARE HEAD PLUGS Cored



PART # GALVANIZED		SIZE	A	B	C	BOX/ CASE	APPROX. WT. LBS.	PART # BLACK	
		*1/8"	0.41	0.23	0.30	1/25	.02	65650	----
64651	----	*1/4"	0.48	0.28	0.38	1/25	.03	65651	----
64652	----	*3/8"	0.53	0.31	0.43	1/25	.04	65652	----
64653	----	1/2"	0.58	0.38	0.56	50/600	.08	65653	----
64654	----	3/4"	0.65	0.44	0.63	30/360	.13	65654	----
64655	----	1"	0.75	0.50	0.82	20/240	.22	65655	----
64656	----	1-1/4"	0.82	0.56	0.94	40/120	.33	65656	----
64657	----	1-1/2"	0.85	0.62	1.13	30/90	.41	65657	----
64658	----	2"	0.91	0.68	1.31	20/60	.68	65658	----
64659	----	2-1/2"	1.26	0.74	1.50	16/64	.89	65659	----
64660	----	3"	1.16	0.80	1.69	16/32	1.68	65660	----
64661	----	4"	1.22	1.00	2.28	6/12	3.02	65661	----
		6"	1.85	1.13	5.97	5/10	11.41	65662	----
		8"				1/1		65664	----

## CAPS



PART # GALVANIZED		SIZE	A	BOX/ CASE	APPROX. WT. LBS.	PART # BLACK	
64470	----	1/8"	0.55	1/25	.03	65470	----
64471	----	1/4"	0.62	80/960	.07	65471	----
64472	----	3/8"	0.74	60/720	.08	65472	----
64473	----	1/2"	0.87	75/300	.13	65473	----
64474	----	3/4"	0.97	40/160	.18	65474	----
64475	----	1"	1.16	25/100	.30	65475	----
64476	----	1-1/4"	1.28	20/80	.47	65476	----
64477	----	1-1/2"	1.33	18/54	.66	65477	----
64478	----	2"	1.45	12/36	.99	65478	----
64479	----	2-1/2"	1.70	20/40	1.58	65479	----
64480	----	3"	1.80	12/24	2.51	65480	----
64481	----	4"	2.08	6/12	4.09	65481	----
64482	----	6"	2.55	2/4	5.18	65482	----

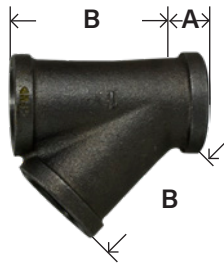
**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# BLACK AND GALVANIZED IRON #150

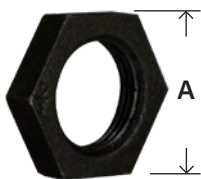
WATERWORKS//IRRIGATION

## LATERAL Ys



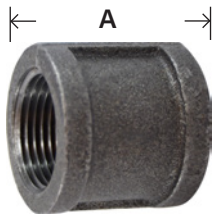
PART #	SIZE	A	B	CASE	WEIGHT	
65963	1/2	2.32	1.71	120	.35	----
65964	3/4	2.77	2.05	60	.58	----
65965	1	3.28	2.42	40	.97	----
65966	1-1/4	3.94	2.92	24	1.44	----
65967	1-1/2	4.38	3.28	16	1.93	----
65968	2	5.41	3.98	8	3.12	----
65969	2-1/2	6.25	4.73	4	5.61	----
65970	3	7.26	5.55	2	8.36	----
65971	4	8.98	6.97	2	14.88	----

## LOCKNUTS



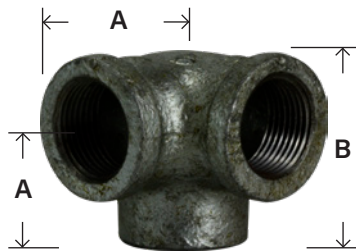
PART # GALV		SIZE	A HEX	THICKNESS	BOX/ CASE	WEIGHT	PART # BLACK	
64703	----	1/2		0.31	150/600	0.08	65703	----
64704	----	3/4		0.34	90/360	0.13	65704	----
64705	----	1		0.38	60/240	0.19	65705	----
64706	----	1-1/4		0.42	45/180	0.27	65706	----
64707	----	1-1/2		0.47	45/135	0.47	65707	----
64708	----	2		0.53	25/75	0.56	65708	----

## RIGHT & LEFT COUPLINGS



PART # GALV		SIZE	A	CASE	WEIGHT	PART # BLACK	
64573	----	1/2	1.34	240	0.19	65573	----
64574	----	3/4	1.52	150	0.28	65574	----
64575	----	1	1.67	100	0.45	65575	----
64576	----	1-1/4	1.93	64	0.66	65576	----
64577	----	1-1/2	2.15	36	0.84	65577	----
64578	----	2	2.53	24	1.39	65578	----

## SIDE OUTLET ELBOW



PART # GALV		SIZE	A	B	CASE	PART # BLACK	
64583	----	1/2	1.10		135	65583	----
64584	----	3/4	1.30		80	65584	----
64585	----	1	1.50		40	65585	----
64586	----	1-1/4	1.77		30	65586	----
64587	----	1-1/2	1.97		24	65587	----
64588	----	2	2.29		10	65588	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

WATERWORKS//IRRIGATION

**BLACK AND GALVANIZED SCH 40**

WATERWORKS//IRRIGATION

**BLACK AND GALVANIZED STEEL NIPPLES****Product Specifications**

Welded steel pipe nipples both galvanized and black in diameters ranging from 1/8" up to 4" in lengths from close to 12" and cut-pipe up to 120". -200°-150° Temp Rating.

**Technical Specifications**

**Standards:** Product complies with ASTM A-53, A-733 and ANSI B1.20.1 for threading, dimensions and pipe specifications.

**Pipe:** Complies with ASTM A-53 mill tested schedule 40 and 80 for both Welded & Seamless Meets ANSI B36.1. All pipe is hydrostatic tested. For pressure ratings, see the knowledge bank on our website.

**Galvanized:** Zinc coating applied by hot dipped. Galvanized complying with ASTM A-123, NSF approved, RoHS compliant.

**Black:** Protected against oxidation with varnish coating.

**Cutting Procedure:** All pipe is roller cut. A visual inspection of seams, excessive galvanizing, mid-welds, poor galvanizing, bends, roundness, under and over weight of the pipe is made at the time it is cut. This is done for every length of pipe. Pipe lengths are cut to a tolerance of + or - 1/16" of the actual length.

**Threading Procedure:**

All pipe is chaser thread cut to American Standard Tapered Pipe Thread standards. This is 3/4" taper per foot. Pipe is visually inspected for roundness of threads and other visual faults as it is removed from the threading machine.

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

PRICING FILE AVAILABLE ONLINE

# BLACK AND GALVANIZED SCH 40

WATERWORKS//IRRIGATION

1/8" - 27

Wall Thickness 0.068 - GradeB - Test Pressure  
700 PSI - Thread Length 0.39



**1/8" DIAMETER  
SCH 40 WELDED**



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56001	----	X Close (3/4")	50/600	0.02	57001	----
56002	----	x 1-1/2"	50/600	0.03	57002	----
56003	----	x 2"	50/500	0.04	57003	----
56004	----	x 2-1/2"	100/400	0.06	57004	----
56005	----	x 3	50/300	0.07	57005	----
56006	----	x 3-1/2"	50/300	0.08	57006	----
56007	----	x 4"	50/300	0.09	57007	----
56008	----	x 4-1/2"	50/300	0.10	57008	----
56009	----	x 5"	50/300	0.11	57009	----
56010	----	x 5-1/2"	50/300	0.12	57010	----
56011	----	x 6"	50/300	0.13	57011	----
56012	----	x 7"	50/300	0.15	57012	----
56013	----	x 8"	50/300	0.18	57013	----
56014	----	x 9"	50/300	0.21	57014	----
56015	----	x 10"	50/300	0.25	57015	----
56017	----	x 12"	50/300	0.29	57017	----

1/4"-18

Wall Thickness 0.068 - GradeB - Test Pressure  
700 PSI - Thread Length 0.39



**1/4" DIAMETER  
SCH 40 WELDED**



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56020	----	X Close (7/8")	50/600	0.04	57020	----
56021	----	x 1-1/2"	125/500	0.06	57021	----
56022	----	x 2"	125/500	0.06	57022	----
56023	----	x 2-1/2"	100/400	0.08	57023	----
56024	----	x 3	50/300	0.10	57024	----
56025	----	x 3-1/2"	50/300	0.12	57025	----
56026	----	x 4"	50/300	0.14	57026	----
56027	----	x 4-1/2"	50/300	0.17	57027	----
56028	----	x 5"	50/300	0.19	57028	----
56029	----	x 5-1/2"	50/300	0.21	57029	----
56030	----	x 6"	50/300	0.23	57030	----
56031	----	x 7"	50/100	0.27	57031	----
56032	----	x 8"	50/100	0.31	57032	----
56033	----	x 9"	50/100	0.35	57033	----
56034	----	x 10"	50/100	0.40	57034	----
56035	----	x 11"	50/100	0.44	57035	----
56036	----	x 12"	50/100	0.48	57036	----
56038	----	x 18"	50/100	0.54		

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

WATERWORKS//IRRIGATION

# BLACK AND GALVANIZED SCH 40

WATERWORKS//IRRIGATION



**3/8" DIAMETER  
SCH 40 WELDED**  
Wall Thickness 0.091 - Grade B  
- Test Pressure 700 PSI - Thread  
Length 0.6



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56040	----	X Close (1")	50/600	0.05	57040	----
56041	----	x 1-1/2"	125/500	0.07	57041	----
56042	----	x 2"	125/500	0.08	57042	----
56043	----	x 2-1/2"	100/400	0.11	57043	----
56044	----	x 3"	50/300	0.13	57044	----
56045	----	x 3-1/2"	50/300	0.16	57045	----
56046	----	x 4"	50/300	0.19	57046	----
56047	----	x 4-1/2"	50/200	0.21	57047	----
56048	----	x 5"	50/150	0.24	57048	----
56049	----	x 5-1/2"	50/150	0.27	57049	----
56050	----	x 6"	50/100	0.29	57050	----
56051	----	x 7"	50/100	0.35	57051	----
56052	----	x 8"	50/100	0.40	57052	----
56053	----	x 9"	50/100	0.45	57053	----
56054	----	x 10"	50/100	0.51	57054	----
56055	----	x 11"	50/100	0.56	57055	----
56056	----	x 12"	50/100	0.62	57056	----
56430	----	x 18"	5/10	0.71	57430	----
		x 24"	1/1	1.02	57431	----



**1/2" DIAMETER  
SCH 40 WELDED**  
Wall Thickness 0.109 -  
Grade B - Test Pressure 700  
PSI - Thread Length 0.78



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56060	----	X Close (1-1/8")	50/600	0.08	57060	----
56061	----	x 1-1/2"	125/500	0.08	57061	----
56062	----	x 2"	125/500	0.12	57062	----
56063	----	x 2-1/2"	100/400	0.15	57063	----
56064	----	x 3"	50/300	0.19	57064	----
56065	----	x 3-1/2"	50/300	0.23	57065	----
56066	----	x 4"	50/300	0.27	57066	----
56067	----	x 4-1/2"	50/200	0.30	57067	----
56068	----	x 5"	50/150	0.34	57068	----
56069	----	x 5-1/2"	50/150	0.38	57069	----
56070	----	x 6"	50/100	0.42	57070	----
56071	----	x 7"	50/100	0.49	57071	----
56072	----	x 8"	50/100	0.57	57072	----
56073	----	x 9"	50/100	0.65	57073	----
56074	----	x 10"	50/100	0.72	57074	----
56075	----	x 11"	50/100	0.80	57075	----
56076	----	x 12"	40/80	0.87	57076	----
56240	----	x 18"	1/3	1.29	57240	----
56241	----	x 24"	1/3	1.74	57241	----
56242	----	x 30"	1/3	2.16	57242	----
56243	----	x 36"	1/3	2.61	57243	----
56244	----	x 42"	1/3	3.03	57244	----
56245	----	x 48"	1/3	3.48	57245	----
56246	----	x 60"	1/3	4.35	57246	----
56247	----	x 72"	1/3	5.22	57247	----

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# BLACK AND GALVANIZED SCH 40

WATERWORKS//IRRIGATION

## 3/4" DIAMETER SCH 40 WELDED



Wall Thickness 0.113 -  
Grade B - Test Pressure  
700 PSI - Thread Length  
0.79



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56080	----	X Close (1-3/8")	50/300	0.13	57080	----
56081	----	x 1-1/2"	125/250	0.10	57081	----
56082	----	x 2"	125/250	0.15	57082	----
56083	----	x 2-1/2"	50/250	0.20	57083	----
56084	----	x 3"	50/200	0.24	57084	----
56085	----	x 3-1/2"	50/150	0.29	57085	----
56086	----	x 4"	50/150	0.34	57086	----
56087	----	x 4-1/2"	50/150	0.39	57087	----
56088	----	x 5"	50/150	0.43	57088	----
56089	----	x 5-1/2"	60/120	0.48	57089	----
56090	----	x 6"	50/100	0.53	57090	----
56091	----	x 7"	50/100	0.63	57091	----
56092	----	x 8"	50/100	0.72	57092	----
56093	----	x 9"	40/80	0.82	57093	----
56094	----	x 10"	40/80	0.91	57094	----
56095	----	x 11"	30/60	1.01	57095	----
56096	----	x 12"	30/60	1.10	57096	----
56250	----	x 18"	1/3	1.63	57250	----
56251	----	x 24"	1/3	2.20	57251	----
56252	----	x 30"	1/3	2.73	57252	----
56253	----	x 36"	1/3	3.30	57253	----
56254	----	x 42"	1/3	3.83	57254	----
56255	----	x 48"	1/3	4.40	57255	----
56256	----	x 60"	1/3	5.50	57256	----
56257	----	x 72"	1/3	6.60	57257	----

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WATERWORKS//IRRIGATION

# BLACK AND GALVANIZED SCH 40

WATERWORKS//IRRIGATION



## 1" DIAMETER SCH 40 WELDED

Wall Thickness 0.133 - Grade  
B - Test Pressure 700 PSI -  
Thread Length 0.98



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56100	----	X Close (1-1/2")	50/200	0.16	57100	----
56101	----	x 2"	50/150	0.23	57101	----
56102	----	x 2-1/2"	50/150	0.29	57102	----
56103	----	x 3"	50/100	0.36	57103	----
56104	----	x 3-1/2"	50/100	0.43	57104	----
56105	----	x 4"	50/100	0.50	57105	----
56106	----	x 4-1/2"	50/100	0.56	57106	----
56107	----	x 5"	50/100	0.63	57107	----
56108	----	x 5-1/2"	50/100	0.70	57108	----
56109	----	x 6"	40/80	0.77	57109	----
56110	----	x 7"	25/50	0.90	57110	----
56111	----	x 8"	25/50	1.03	57111	----
56112	----	x 9"	15/30	1.17	57112	----
56113	----	x 10"	15/30	1.30	57113	----
56114	----	x 11"	15/30	1.44	57114	----
56115	----	x 12"	15/30	1.57	57115	----
56260	----	x 18"	1/3	2.34	57260	----
56261	----	x 24"	1/3	3.14	57261	----
56262	----	x 30"	1/3	3.91	57262	----
56263	----	x 36"	1/3	4.71	57263	----
56264	----	x 42"	1/3	5.48	57264	----
56265	----	x 48"	1/3	6.28	57265	----
56266	----	x 60"	1/3	7.85	57266	----
56267	----	x 72"	1/3	9.42	57267	----

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WATERWORKS//IRRIGATION

# BLACK AND GALVANIZED SCH 40

WATERWORKS//IRRIGATION



## 1-1/4" DIAMETER SCH 40 WELDED

Wall Thickness 0.14 - Grade  
B - Test Pressure 1300 PSI -  
Thread Length 1.01



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56120	----	X Close (1-5/8")	50/100	0.25	57120	----
56121	----	x 2"	50/100	0.32	57121	----
56122	----	x 2-1/2"	50/100	0.41	57122	----
56123	----	x 3"	50/100	0.50	57123	----
56124	----	x 3-1/2"	30/60	0.60	57124	----
56125	----	x 4"	30/60	0.69	57125	----
56126	----	x 4-1/2"	30/60	0.78	57126	----
56127	----	x 5"	25/50	0.87	57127	----
56128	----	x 5-1/2"	25/50	0.96	57128	----
56129	----	x 6"	25/50	1.06	57129	----
56130	----	x 7"	15/30	1.24	57130	----
56131	----	x 8"	15/30	1.42	57131	----
56132	----	x 9"	15/30	1.61	57132	----
56133	----	x 10"	15/30	1.79	57133	----
56134	----	x 11"	10/20	1.97	57134	----
56135	----	x 12"	10/20	2.16	57135	----
56270	----	x 18"	1/3	3.22	57270	----
56271	----	x 24"	1/3	4.32	57271	----
56272	----	x 30"	1/3	3.22	57272	----
56273	----	x 36"	1/3	6.48	57273	----
56275	----	x 48"			57275	----



## 1-1/2" DIAMETER SCH 40 WELDED

Wall Thickness 0.145 - Grade  
B - Test Pressure 1300 PSI -  
Thread Length 1.03



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56140	----	X Close (1-3/4")	50/100	0.31	57140	----
56141	----	x 2"	40/80	0.37	57141	----
56142	----	x 2-1/2"	40/80	0.47	57142	----
56143	----	x 3"	40/80	0.58	57143	----
56144	----	x 3-1/2"	25/50	0.68	57144	----
56145	----	x 4"	25/50	0.78	57145	----
56146	----	x 4-1/2"	25/50	0.89	57146	----
56147	----	x 5"	25/50	1.10	57147	----
56148	----	x 5-1/2"	20/40	1.10	57148	----
56149	----	x 6"	15/30	1.20	57149	----
56150	----	x 7"	15/30	1.41	57150	----
56151	----	x 8"	15/30	1.62	57151	----
56152	----	x 9"	15/30	1.83	57152	----
56153	----	x 10"	1/20	2.04	57153	----
56154	----	x 11"	1/20	2.25	57154	----
56155	----	x 12"	1/20	2.46	57155	----
56280	----	x 18"	1/3	3.66	57280	----
56281	----	x 24"	1/3	4.92	57281	----
56282	----	x 30"	1/3	6.12	57282	----
56283	----	x 36"	1/3	7.38	57283	----
56285	----	x 48"	1/3	9.84	57285	----
		x 60"			57286	----

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# BLACK AND GALVANIZED SCH 40

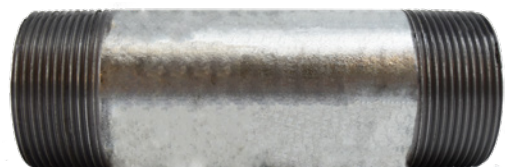
WATERWORKS//IRRIGATION



**2" DIAMETER  
SCH 40 WELDED**  
Wall Thickness 0.154 - Grade  
B - Test Pressure 2500 PSI -  
Thread Length 1.06



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56160	----	X Close (2")	40/80	0.55	57160	----
56161	----	x 2-1/2"	25/50	0.70	57161	----
56162	----	x 3"	25/50	0.86	57162	----
56163	----	x 3-1/2"	1/30	1.01	57163	----
56164	----	x 4"	1/30	1.16	57164	----
56165	----	x 4-1/2"	1/25	1.31	57165	----
56166	----	x 5"	1/30	1.47	57166	----
56167	----	x 5-1/2"	1/30	1.62	57167	----
56168	----	x 6"	1/20	1.77	57168	----
56169	----	x 7"	1/20	2.08	57169	----
56170	----	x 8"	1/20	2.39	57170	----
56171	----	x 9"	1/10	2.70	57171	----
56172	----	x 10"	1/10	3.00	57172	----
56173	----	x 11"	1/10	3.31	57173	----
56174	----	x 12"	1/10	3.62	57174	----
56290	----	x 18"	1/3	5.39	57290	----
56291	----	x 24"	1/3	5.26	57291	----
56292	----	x 30"	1/3	7.03	57292	----
56293	----	x 36"	1/3	10.86	57293	----
56294	----	x 42"	1/3	12.63	57294	----
56295	----	x 48"	1/3	14.48	57295	----
56296	----	x 60"	1/3	18.10	57296	----
56297	----	x 72"	1/3	18.10	57297	----



**2-1/2" DIAMETER  
SCH 40 WELDED**  
Wall Thickness 0.203 - Grade  
B - Test Pressure 2500 PSI -  
Thread Length 1.57



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56180	----	X Close (2-1/2")	1/20	1.09	57180	----
56181	----	x 3"	1/20	1.33	57181	----
56182	----	x 3-1/2"	1/20	1.57	57182	----
56183	----	x 4"	1/20	1.82	57183	----
56184	----	x 4-1/2"	1/20	2.06	57184	----
56185	----	x 5"	1/20	2.30	57185	----
56186	----	x 5-1/2"	1/10	2.54	57186	----
56187	----	x 6"	1/10	2.78	57187	----
56188	----	x 7"	1/10	3.27	57188	----
56189	----	x 8"	1/10	3.75	57189	----
56190	----	x 9"	1/10	4.24	57190	----
56191	----	x 10"	1/8	4.72	57191	----
56192	----	x 11"	1/8	5.21	57192	----
56193	----	x 12"	1/8	5.69	57193	----

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# BLACK AND GALVANIZED SCH 40

WATERWORKS//IRRIGATION



## 3" DIAMETER SCH 40 WELDED

Wall Thickness 0.216 - Grade  
B - Test Pressure 2500 PSI -  
Thread Length 1.64



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56200	----	X Close (2-5/8")	1/20	1.52	57200	----
56201	----	x 3"	1/20	1.76	57201	----
56202	----	x 3-1/2"	1/10	2.08	57202	----
56203	----	x 4"	1/10	2.39	57203	----
56204	----	x 4-1/2"	1/10	2.71	57204	----
56205	----	x 5"	1/10	3.03	57205	----
56206	----	x 5-1/2"	1/10	3.35	57206	----
56207	----	x 6"	1/10	3.66	57207	----
56208	----	x 7"	1/8	4.30	57208	----
56209	----	x 8"	1/8	4.93	57209	----
56210	----	x 9"	1/8	5.57	57210	----
56211	----	x 10"	1/5	6.20	57211	----
56212	----	x 11"	1/5	7.20	57212	----
56213	----	x 12"	1/5	7.47	57213	----
		x 24"	1	14.94	57311	----



## 4" DIAMETER SCH 40 WELDED

Wall Thickness 0.237 - Grade  
B - Test Pressure 2210 PSI -  
Thread Length 1.74



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56220	----	X Close (2-7/8")	1/10	2.00	57220	----
56221	----	3-1/2"	1/8	2.21		
56223	----	x 4"	1/8	3.41	57223	----
56224	----	x 4-1/2"	1/6	3.86	57224	----
56225	----	x 5"	1/6	4.31	57225	----
56226	----	x 5-1/2"	1/6	4.76	57226	----
56227	----	x 6"	1/6	5.21	57227	----
56330	----	x 7"	1/5	6.48	57330	----
56229	----	x 8"	1/5	7.01	57229	----
56331	----	x 9"	1/5	7.54	57331	----
56332	----	x 10"	1/5	8.14	57332	----
56228	----	x 12"	1/4	8.54	57228	----

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WATERWORKS//IRRIGATION

# NIPPLES AND ASSORTMENTS

WATERWORKS//IRRIGATION



## 6" DIAMETER SCH 40 WELDED

Wall Thickness 0.154 - Grade  
B - Test Pressure 2500 PSI -  
Thread Length 1.06



PART # GALV		LENGTH	BOX/CASE	APPROX. WT. LBS.	PART # BLACK	
56300	----	X Close (3-1/8")	1/1	3.80	57300	----
		x 4"	1/1	5.30	57304	----
		x 6"	1/1	8.30	57301	----
		x 8"	1/1	11.30	57305	----
		x 10"			57306	----
		x 12"	1/1	17.20	57308	----



## 8" DIAMETER SCH 40 WELDED

Wall Thickness 0.154 - Grade  
B - Test Pressure 2500 PSI -  
Thread Length 1.06

PART #	LENGTH	BOX/CASE	APPROX. WT. LBS.	
57320	X Close (3-1/8")	1/1	5.80	----
57322	x 6"	1/1	6.50	----
57324	x 8"	1/1	11.30	----
57326	x 10"	1/1	19.00	----
57328	x 12"	1/1	28.55	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# LEAD FREE BALL VALVES

WATERWORKS//IRRIGATION

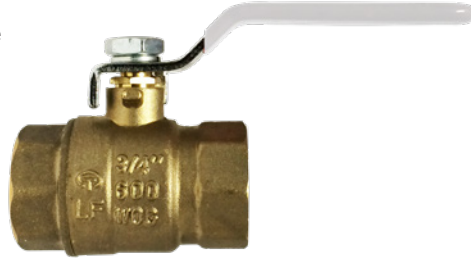


## LEAD FREE BALL VALVE



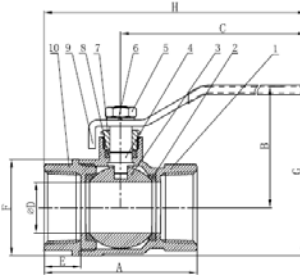
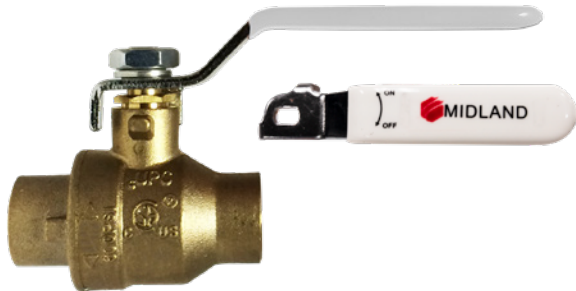
IAMPO IGC 157 - 2004b

Lead Free Brass Ball Valve NPT,Female\*Female  
 Lead Free and dezincification resistant (DZR) material  
 IAPMO listed to NSF/ANSI-61, NSF/ANSI-372 ,IGC-157  
 CSA listed to NSF/ANSI-61, NSF/ANSI-372 ,IGC-157  
 Vacuum Services 29.92 inches Hg  
 600 psi (WOG) 150 psi (WSP) Service  
 Thread conform ANSI B1.20.1  
 Temperature Range : -40° F to 365° F  
 Construction:Forging Brass Body  
 PTFE Ball Seats  
 Blow Out Proof Brass Stem  
 Stainless Steel Ball  
 Steel Handle w/Vinyl Grip  
 Made in China



### FIP X FIP LEAD FREE BALL VALVE

PART #	SIZE	DN	A	B	C	E	F	G	H	WEIGHT	BOX/CASE	LIST PRICE
941151LF	1/4"	0.394	1.73	1.69	3.35	0.453	0.945	2.154	4.331	0.32	10/120	---
941152LF	3/8"	0.394	1.73	1.69	3.35	0.473	0.945	2.154	4.331	0.32	10/120	---
941153LF	1/2"	0.524	1.89	1.73	3.35	0.472	1.083	2.276	4.291	0.36	10/100	---
941154LF	3/4"	0.748	2.28	1.89	3.35	0.563	1.378	2.579	4.488	0.57	10/80	---
941155LF	1"	0.984	2.80	2.14	4.29	0.650	1.772	3.031	5.689	0.94	8/48	---
941156LF	1-1/4"	1.240	3.15	2.32	4.29	0.669	2.165	3.398	5.866	1.30	4/36	---
941157LF	1-1/2"	1.476	3.44	2.66	5.53	0.701	2.50	3.909	7.343	1.92	2/24	---
941158LF	2"	1.949	4.06	3.01	5.53	0.708	3.244	4.638	7.638	3.12	2/12	---
941159LF	2-1/2"	2.52	5.53	4.25	7.76					7.42	2/12	---
941160LF	3"	2.89	6.14	4.58	8.19					11.01	1/6	---
941161LF	4"	3.84	7.79	5.49	9.25					12.10	1/2	---



NO	ITEM	QTY	MATERIAL
1	Body	1	Lead Free Brass
2	Seat	2	PTFE
3	Ball	1	Stainless Steel
4	Stem	1	Brass
5	Handle Nut	1	Plated Steel
6	Lock Washer	1	Plated Steel
7	Packing Nut	1	Brass
8	Packing	1	PTFE
9	Handle	1	Plated Steel
10	Cap	1	Lead Free Brass

### SWT X SWT LEAD FREE BALL VALVE

PART #	SIZE	DN	A	B	C	E	G	H	WEIGHT	WTG	BOX/CASE	LIST PRICE
941163LF	1/2"	0.524	1.945	1.73	3.35	0.504	1.083	2.276	4.319	0.38	10/100	---
941164LF	3/4"	0.748	2.654	1.89	3.35	0.748	1.378	2.579	4.665	0.65	10/80	---
941165LF	1"	0.984	3.315	2.14	4.29	0.909	1.772	3.031	5.949	0.93	8/48	---
941166LF	1-1/4"	1.240	3.741	2.32	4.29	0.968	2.165	3.398	6.165	1.35	4/36	---
941167LF	1-1/2"	1.476	4.252	2.66	5.63	1.091	2.50	3.909	7.756	1.88	2/24	---
941168LF	2"	1.949	5.38	3.01	5.63	1.343	3.244	4.638	8.268	3.62	2/12	---
941169LF	2 1/2"	2.52	5.53	4.25	7.76							
941170LF	3"	2.89	6.14	4.58	8.19							
941171LF	4"	3.84	7.79	5.49	9.25							

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

WATERWORKS//IRRIGATION

# LEAD FREE GATE/ CHECK/ Y VALVES

WATERWORKS//IRRIGATION

## BRASS GATE VALVE IPS

- 200 WOG (Cold water, oil, gas)
- 125 WSP (Saturated Steam)
- Brass Forged body/bonList- stronger than sand castings.
- Superior quality and finish.
- Each valve individually tested.
- Threaded ends to ANSI B1.20.1, Solder ends to ANSI B16.18
- Non rising stem.
- Cast iron handle.
- NSF Approved



PART#	SIZE	
940130LF	1/4	----
940131LF	3/8	----
940132LF	1/2	----
940133LF	3/4	----
940134LF	1	----
940135LF	1-1/4	----
940136LF	1-1/2	----
940137LF	2	----

## BRASS GATE VALVE C X C



PART#	SIZE	
940142LF	1/2"	----
940143LF	3/4"	----
940144LF	1"	----
940145LF	1-1/4"	----
940146LF	1-1/2"	----
940147LF	2"	----

## BRASS CHECK VALVE

NO	PART	MATERIAL
1	Cap	C37700
2	Gasket	NBR
3	Spring	Stainless Steel
4	Positioning Seat	BRASS
5	Screw	BRASS
6	Body	C37700

- NSF Approved
- ANSI 61-4



## LEAD-FREE

PART #	SIZE	
944430LF	1/2	----
944431LF	3/4	----
944432LF	1	----
944433LF	1-1/4	----
944434LF	1-1/2	----
944435LF	2	----

## CAST BRASS SWING CHECK VALVE IPS SCREWED ENDS

- Working pressure non-shock: 200 psi W.O.G. (cold water, oil, gas) 125 psi WSP (saturated steam)
- Swing type disc.
- Screwed Cap.
- Hard Seat.
- 900 Straight Pattern.
- Used to prevent reverse flow in commercial and industrial applications.
- Threaded ends to ANSI B1.20.1. Solder ends ANSI 61-8
- Integral seat.
- NSF Approved



PART #	SIZE	
940352LF	1/2"	----
940353LF	3/4"	----
940354LF	1"	----
940355LF	1-1/4"	----
940356LF	1-1/2"	----
940357LF	2"	----

## C X C SWING CHECK VALVE



PART #	SIZE	
940362LF	1/2	----
940363LF	3/4	----
940364LF	1	----
940365LF	1-1/4	----
940366LF	1-1/2	----
940367LF	2	----

## CLASS 150 BRASS Y-PATTERN STRAINER



## LEAD-FREE

PART#	SIZE	
940523LF	1/2"	----

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# PVC VALVES

WATERWORKS//IRRIGATION

- Quarter turn WHITE PVC BALL VALVES
- Solvent ends comply with ASTM D2466
- Designed for use in residential, commercial & industrial system as well as waste water, chemical, agricultural applications, marine, food processing, swimming pools.
- Corrosion resistant
- EPDM seal
- EPDM O-ring
- Fits both Sch. 40 & 80 pipe
- Rated for 150 PSI at 73°F
- FULL PORT
- Threaded ends comply with ANSI B1.20.1



MOLDED IN PLACE - WHITE PIPE THREADS

PART#	SIZE	CASE	LIST PRICE
940284	1/2"	100	---
940285	3/4"	100	---
940286	1"	100	---
940287	1-1/4"	100	---
940288	1-1/2"	48	---
940289	2"	24	---
940291	3"	12	---
940292	4"	6	---



WHITE SOCKET - SLIP X SLIP

PART #	SIZE	CASE	LIST PRICE
940294	1/2"	100	---
940295	3/4"	100	---
940296	1"	100	---
940297	1-1/4"	100	---
940298	1-1/2"	48	---
940299	2"	24	---
940300	2-1/2"	12	---
940301	3"	12	---
940302	4"	6	---

# GREY PVC BALL VALVES

## FEATURES

- Sizes range from 1/2" to 4"
- Excellent flow characteristics
- Leak-tight shut-off
- EPPM O-Ring
- SCH 80
- Test pressure: 225 psi @ 73°F
- Working Pressure: 150 psi @ 73°F



FIP X FIP THREADED BALL VALVE

PART #	SIZE	CASE	LIST PRICE
899000	1/2"	100	---
899001	3/4"	100	---
899002	1"	100	---
899003	1-1/4"	100	---
899004	1-1/2"	48	---
899005	2"	24	---
899006	2-1/2"		---
899007	3"		---
899008	4"		---



SLIP X SLIP BALL VALVE

PART #	SIZE	CASE	LIST PRICE
899050	1/2"	100	---
899051	3/4"	100	---
899052	1"	100	---
899053	1-1/4"	100	---
899054	1-1/2"	48	---
899055	2"	24	---



CPVC SLIP X SLIP BALL VALVE

PART #	SIZE	LIST PRICE
940281	1/2"	---
940282	3/4"	---

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WATERWORKS//IRRIGATION

# SCHEDULE 80 PVC NIPPLES

Machined Schedule 80 PVC nipples comply fully with ASTM D2464, threads conform to ASTM F1498, and the pipe is extruded from PVC 1120-1220 meeting ASTM D1784 and meets ASTM D1785, products standard 21-70



- Dark Grey
- NSF-61 Cert.

**1/2" DIAMETER**      420 PSI

PART #	LENGTH	LIST PRICE
55060	X Close (1-1/8")	---
55061	1-1/2"	---
55062	2"	---
55063	2-1/2"	---
55064	3"	---
55065	3-1/2"	---
55066	4"	---
55067	4-1/2"	---
55068	5"	---
55069	5-1/2"	---
55070	6"	---
55072	8"	---
55074	10"	---
55075	11"	---
55076	12"	---
	18"	---
55241	24"	---

**1" DIAMETER**      315 PSI

PART #	LENGTH	LIST PRICE
55100	X Close (1-1/2")	---
55101	2"	---
55102	2-1/2"	---
55103	3"	---
55104	3-1/2"	---
55105	4"	---
55106	4-1/2"	---
55107	5"	---
55108	5-1/2"	---
55109	6"	---
55111	8"	---
55115	12"	---
55116	18"	---
55117	36"	---

**3/4" DIAMETER**      340 PSI

PART #	LENGTH	LIST PRICE
55080	x Close (1-3/8")	---
55081	1-1/2"	---
55082	2"	---
55083	2-1/2"	---
55084	3"	---
55085	3-1/2"	---
55086	4"	---
55087	4-1/2"	---
55088	5"	---
55089	5-1/2"	---
55090	6"	---
55092	8"	---
55093	10"	---
55096	12"	---
55097	18"	---
55098	24"	---

**1-1/4" DIAMETER**      210 PSI

PART #	LENGTH	LIST PRICE
55120	X Close (1-5/8")	---
55121	2"	---
55122	2-1/2"	---
55123	3"	---
55124	3-1/2"	---
55125	4"	---
55126	4-1/2"	---
55127	5"	---
55128	5-1/2"	---
55129	6"	---
55132	12"	---

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# PLASTIC PIPE

WATERWORKS//IRRIGATION

## 1-1/2" DIAMETER 234 PSI

PART #	LENGTH	LIST PRICE
55140	X Close (1-5/8")	---
55141	2"	---
55142	2-1/2"	---
55143	3"	---
55144	3-1/2"	---
55145	4"	---
55146	4-1/2"	---
55147	5"	---
55148	5-1/2"	---
55149	6"	---
55150	8"	---
55151	12"	---

## 2" DIAMETER 200 PSI

PART #	LENGTH	LIST PRICE
55160	X Close (2")	---
55161	2-1/2"	---
55162	3"	---
55163	3-1/2"	---
55164	4"	---
55165	4-1/2"	---
55166	5"	---
55167	5-1/2"	---
55168	6"	---
55170	8"	---
55174	12"	---
55179	60"	---

## 3" DIAMETER

PART #	LENGTH	BOX QTY	LIST PRICE
55200	x Close	25	---
55201	3"	20	---
55203	4"	30	---
55205	5"	20	---
55207	6"	20	---
55209	8"	10	---
55211	10"	10	---
55213	12"	10	---

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WATERWORKS//IRRIGATION

# PVC

WATERWORKS//IRRIGATION

## SLIP SCHEDULE 80 PVC UNION



PART #	SIZE	LIST PRICE
897005	1/2"	
897007	3/4"	
897010	1"	
897012	1-1/4"	
897015	1-1/2"	
897020	2"	
897025	2-1/2"	
897030	3"	
897040	4"	

## FIP SCHEDULE 40 PVC UNION



PART #	SIZE	LIST PRICE
55591	1/2"	
55592	3/4"	
55593	1"	
55594	1-1/4"	
55595	1-1/2"	
55596	2"	
55597	3"	
55598	4"	
55599	2-1/2"	

## FIP SCHEDULE 80 PVC UNION



PART #	SIZE	LIST PRICE
898005	1/2"	
898007	3/4"	
898010	1"	
898012	1-1/4"	
898015	1-1/2"	
898020	2"	
898025	2-1/2"	
898030	3"	
898040	4"	

## PVC COMPRESSION COUPLING



PART #	SIZE	LIST PRICE
55303	1/2"	
55304	3/4"	
55305	1"	
55306	1-1/4"	
55307	1-1/2"	
55308	2"	
55309	2-1/2"	
55310	3"	
55311	4"	
55312	6"	

## SLIP SCHEDULE 40 PVC UNION



PART #	SIZE	LIST PRICE
55491	1/2"	
55492	3/4"	
55493	1"	
55494	1-1/4"	
55495	1-1/2"	
55496	2"	
55497	3"	
55498	4"	
55499	2-1/2"	

## PVC EXPANDABLE REPAIR COUPLING



PART #	SIZE	LIST PRICE
55330	1/2"	
55331	3/4"	
55332	1"	
55333	1-1/4"	
55334	1-1/2"	
55335	2"	
55336	2-1/2"	
55337	3"	
55338	4"	

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# DUCTILE IRON VALVES AND ACCESSORIES

WAFER STYLE - LEVER OPERATED



NICKLE PLATED DUCTILE IRON DISC & SS DISC

WAFER STYLE GEAR OPERATED



NICKLE PLATED DUCTILE IRON DISC & SS DISC

BUTTERFLY ACCESSORIES



WAFER STYLE DOUBLE DOOR CHECK VALVE



AWWA C508 OUTSIDE LEVER



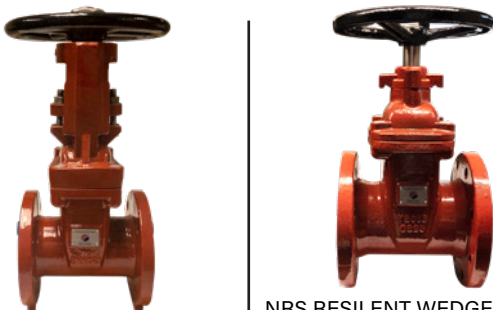
AND WEIGHT CHECK VALVES

UL/FM FLANGED SWING CHECK VALVE



SWING CHECK FLANGED

AWWA C515-15 GATE VALVES



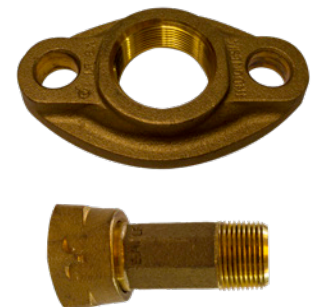
FLANGED OS & Y RESILIENT WEDGE GATE VALVE

NRS RESILIENT WEDGE GATE VALVES, FLANGED, MECHANICAL JOINT & FLANGE BY MECHANICAL JOINT

DUCTILE IRON THREADED FLAT FACED COMPANAION FLANGES



LF WATER METER FLANGES, FLANGE KITS AND LF METER COUPLINGS



# BUTTERFLY VALVES - WAFER

WATERWORKS//IRRIGATION

## LEVER - WAFER

Small in size and light in weight, easy to install. It can be mounted wherever needed, quick 90° on-off operation. Disc has two-way bearing, perfect seal without leakage under the pressure test. Flow curve tending to straight-line. Strong wash and brush resistance and can fit to bad working condition. Center plate structure, small torque of open and close. Disc & stem are fastened by pin, more stable.



**STANDARD:**

- 1.DESIGN CODE :AP1609 Class A
- 2.FACE TO FACE : AP1609
- 3.END STANDARD:ANSI B16.5 125LB/150LB
- 4.INSPECTION & TEST:API 598

TOP FLANGE DIMENSIONS	
SIZE	4-Φd2
1.5"-3"	4-0.276
4"-6"	4-0.39
8"-14"	4-0.47

PART#	DUCTILE IRON DISC/ BUNA SEAT/ LEVER	CASE	WEIGHT	
9650L2	2"	200	7.3	----
9650L2.5	2-1/2"	190	8.4	----
9650L3	3"	180	9.8	----
9650L4	4"	150	12.1	----
9650L5	5"	110	16.5	----
9650L6	6"	90	16.9	----
9650L8	8"	50	30.3	----
9650L10	10"	35	44.5	----
9650L12	12"	24	51.6	----

## SS DISC/ EPDM SEAT/ LEVER

PART#	SIZE	
9650L2SE	2"	----
9650L3SE	3"	----
9650L4SE	4"	----
9650L5SE	5"	----
9650L6SE	6"	----
9650L8SE	8"	----
9650L10SE	10"	----
9650L12SE	12"	----

## GEAR - WAFER



**STANDARD:**

- 1.DESIGN CODE :AP1609 Class A
- 2.FACE TO FACE : AP1609
- 3.END STANDARD:ANSI B16.5 125LB/150LB
- 4.INSPECTION & TEST:API 598



TOP FLANGE DIMENSIONS				
SIZE	ISO5211	ΦK	ΦE	4-ΦD2
1.5"-3"	F05	2.56	1.97	4-0.276
4"-6"	F07	3.54	2.76	4-0.39
8"-14"	F10	4.92	4.02	4-0.47

PART#	WAFER/ DUCTILE IRON DISC/ BUNA SEAT/ GEAR	CASE	WEIGHT	
9650G2	2"	200	7.3	----
9650G2.5	2-1/2"	190	8.4	----
9650G3	3"	180	9.8	----
9650G4	4"	150	12.1	----
9650G6	6"	90	16.9	----
9650G8	8"	50	30.3	----
9650G10	10"	35	44.5	----
9650G12	12"	24	51.6	----

## WAFER/ SS DISC/ EPDM SEAT/ GEAR

PART#	SIZE	
9650G2SE	2"	----
9650G2.5SE	2-1/2"	----
9650G3SE	3"	----
9650G4SE	4"	----
9650G6SE	6"	----
9650G8SE	8"	----
9650G10SE	10"	----
9650G12SE	12"	----

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# BUTTERFLY VALVES - LUG

WATERWORKS//IRRIGATION

## LEVER - LUG

Small in size and light in weight, easy to install, can be mounted wherever needed. Lug type butterfly valve can be used at the end of the pipeline. Lug type butterfly valve has threaded metal inserts installed in the valve's bolt holes. Inserts are threaded on both ends, which allows this lug style valve to be installed into a system using two sets of bolts and no nuts for each hole. Valve is installed between two flanges using a separate set of bolts for each side of the flange. This setup permits either side of the piping system to be disconnected without disturbing the other side.



PART#	DUCTILE IRON DISC/ BUNA SEAT/ LEVER	CASE	WEIGHT	
9660L2	2"	200	7.3	----
9660L2.5	2-1/2"	190	8.4	----
9660L3	3"	180	9.8	----
9660L4	4"	150	12.1	----
9660L5	5"	110	16.5	----
9660L6	6"	90	16.9	----
9660L8	8"	50	30.3	----
9660L10	10"	35	44.5	----
9660L12	12"	24	51.6	----

## SS DISC/ EPDM SEAT/ LEVER

PART#	SIZE	
9660L2SE	2"	----
9660L3SE	3"	----
9660L4SE	4"	----
9660L5SE	5"	----
9660L6SE	6"	----
9660L8SE	8"	----
9660L10SE	10"	----
9660L12SE	12"	----



## GEAR - LUG

PART#	DUCTILE IRON DISC/ BUNA SEAT/ GEAR	CASE	WEIGHT	
9660G2	2"	200	7.3	----
9660G2.5	2-1/2"	190	8.4	----
9660G3	3"	180	9.8	----
9660G4	4"	150	12.1	----
9660G6	6"	90	16.9	----
9660G8	8"	50	30.3	----
9660G10	10"	35	44.5	----
9660G12	12"	24	51.6	----

## SS DISC/ EPDM SEAT/ GEAR

PART#	SIZE	
9660G2SE	2"	----
9660G2.5SE	2-1/2"	----
9660G3SE	3"	----
9660G4SE	4"	----
9660G6SE	6"	----
9660G8SE	8"	----
9660G10SE	10"	----
9660G12SE	12"	----

# BUTTERFLY ACCESSORIES

WATERWORKS//IRRIGATION

## STEM EXTENSIONS



- FOR BOLTS AND NUTS
- BLACK COLOR

PART#	FOR VALVE SIZES ""	LENGTH	
9650EX2324	2-3	24 LONG	----
9650EX2336	2-3	36 LONG	----
9650EX2348	2-3	48 LONG	----
9650EX2360	2-3	60 LONG	----
9650EX2372	2-3	72 LONG	----
9650EX4624	4-6	24 LONG	----
9650EX4636	4-6	36 LONG	----
9650EX4648	4-6	48 LONG	----
9650EX4660	4-6	60 LONG	----
9650EX4672	4-6	72 LONG	----
9650EX1224	8-12	24 LONG	----
9650EX1236	8-12	36 LONG	----
9650EX1248	8-12	48 LONG	----
9650EX1260	8-12	60 LONG	----
9650EX1272	8-12	72 LONG	----

## LEVER REPLACEMENT



PART#	REPLACEMENT LEVER HANDLE FOR	
9650L23	2-3 9650BFV	----
9650L46	4-6 9650 BFV	----
9650L812	8-10 9650 B	----
9650L120	12 9650 BFV	----

## GEAR WHEEL HANDLE



PART#	REPLACEMENT WHEEL HANDLE FOR	
9650WH23	2-3" 9650 BFV	----
9650WH46	4-6" 9650 BFV	----
9650WH812	8-12" BFV	----

## ROLL PIN



PART#	REPLACEMENT ROLL PIN FOR	
9650RP23	2-3 9650 BFV	----
9650RP46	4-6 9650 BFV	----
9650RP12	8-12 9650 BFV	----

## INDEX PLATE



PART#	REPLACEMENT INDEX PLATE	
9650IP23	2-3" 9650BFV	----
9650IP46	4-6" 9650BFV	----
9650IP812	8-12" 9650 B	----

## GEAR REPLACEMENT



PART#	REPLACEMENT GEAR OPERATOR	
9650G23	2-3 9650 BFV	----
9650G46	4-6 9650 BFV	----
9650G812	8-10 9650BFV	----
9650G120	12 - 9650BFV	----

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# GATE VALVES

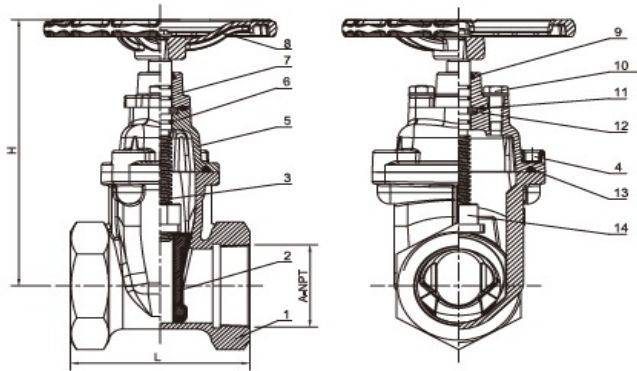
WATERWORKS//IRRIGATION

## IPS X IPS GATE VALVE



MIDLAND	DESCRIPTION
9640TH2	2 DI, IPS X IPS Gate Valve, NRS with EPDM Wedge
9640TH25	2 1/2 DI, IPS X IPS Gate Valve, NRS with EPDM Wedge
9640TH3	3 DI, IPS X IPS Gate Valve, NRS with EPDM Wedge
9640TH4	4 DI, IPS X IPS Gate Valve, NRS with EPDM Wedge
9640TH6	6 DI, IPS X IPS Gate Valve, NRS with EPDM Wedge

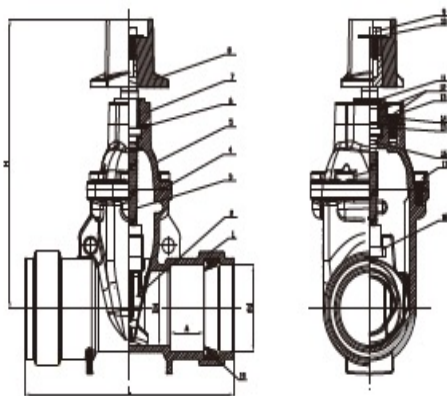
SIZE		DIMENSIONS(MM)	
inch	mm	L	H
2"	50	127	210
2.5"	65	140	232
3"	80	150	281
4"	100	190	316
5"	125	210	367



## RT X RT GATE VALVE (PUSH-ON)



MIDLAND	DESCRIPTION
9640RT2	2 DI, RT X RT Gate Valve, NRS W/ OP Nut
9640RT25	2 1/2 DI, RT X RT Gate Valve, NRS W/ OP Nut
9640RT3	3 DI, RT X RT Gate Valve, NRS W/ OP Nut
9640RT4	4 DI, RT X RT Gate Valve, NRS W/ OP Nut
9640RT6	6 DI, RT X RT Gate Valve, NRS W/ OP Nut
9640RT8	8 DI, RT X RT Gate Valve, NRS W/ OP Nut



SIZE		PIPE O.D.	DIMENSIONS(MM)			
inch	mm	Average O.D. In.(mm)	L	H	A	d
2"	50	2.375(50.32)	260	278	50	62
2.5"	65	2.575(73.02)	273	300	53	75
3"	80	3.500(88.90)	305	321	57	90.5
4"	100	4.500(114.30)	350	375	57	117.5
6"	150	5.525(168.26)	428	455	95	172.5
8"	200	5.625(219.06)	470	565	110	222

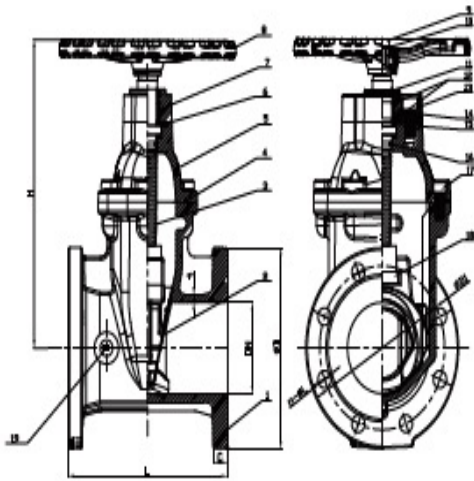
**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

WATERWORKS//IRRIGATION

# GATE VALVES

WATERWORKS//IRRIGATION

## FL X FL GATE VALVE



MIDLAND	DESCRIPTION
9640FL2	2 DI, FL X FL Gate Valve, NRS W/ OP Nut and H/W
9640FL25	2 1/2 DI, FL X FL Gate Valve, NRS W/ OP Nut and H/W
9640FL3	3 DI, FL X FL Gate Valve, NRS W/ OP Nut and H/W
9640FL4	4 DI, FL X FL Gate Valve, NRS W/ OP Nut and H/W
9640FL6	6 DI, FL X FL Gate Valve, NRS W/ OP Nut and H/W
9640FL8	8 DI, FL X FL Gate Valve, NRS W/ OP Nut and H/W

SIZE		DIMENSIONS(MM)					
inch	mm	L	H	D	D1	C	n-φL
2	50	176	254	152	120.7	15	4-φ19.1
2.5	65	190	275	178	139.7	17.5	4-φ19.1
3	80	203	301	191	152.4	19.1	4-φ19.1
4	100	229	355	229	190.5	19.1	8-φ19.1
5	125	254	393	254	215.9	19.1	8-φ22.2
6	150	267	448	279	241.3	19.1	8-φ22.2
8	200	292	548	343	290.5	22.2	8-φ22.2
10	250	330	626	405	362	23.5	12-φ25.4
12	300	356	722	463	431.5	25.4	12-φ25.4

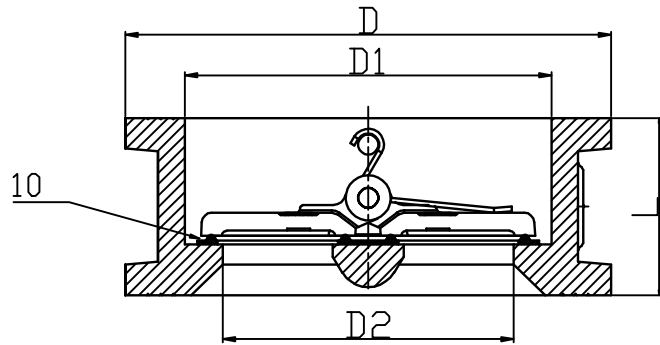
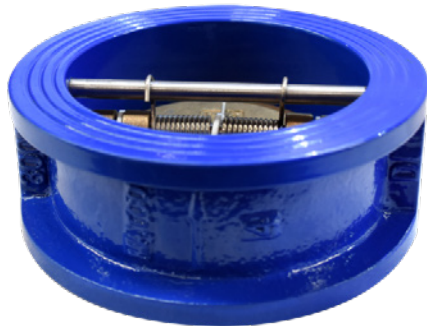


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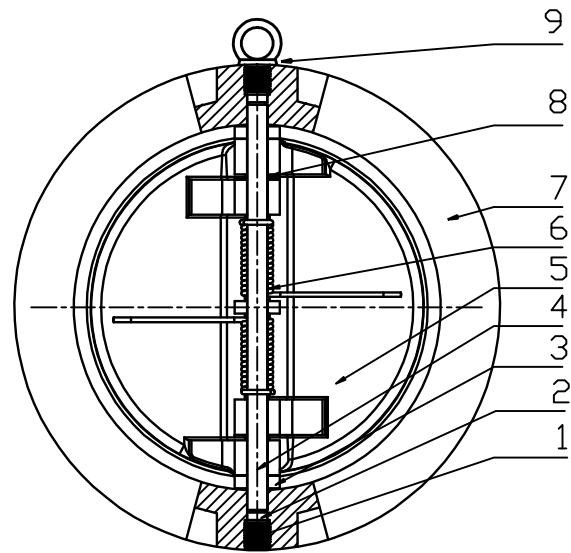
# DUCTILE IRON CHECK VALVES

WATERWORKS//IRRIGATION

## DOUBLE DOOR WAFER CHECK VALVE



PART	PART	MATERIAL
1	Countersunk Hex Head Screws	Carbon Steel ASTM A325
2	Stal Ring	EPDM
3	Gasket	PTFE
4	Shaft	Stainless Steel SS420
5	Disc	Aluminum Brance C954
6	Spring	Stainless Steel SS304
7	Body	Ductile Iron ASTM 65-45-12
8	Gasket	PTFE
9	Rings	Carbon steel ASTM A325
10	Seat	EPDM



MAIN DIMENSIONS					
DN		DIMENSIONS (MM)			
inch	mm	L	D	D1	D2
2	50	54	102	64	46
2 1/2'	65	54	121	78	60
3	80	57	134	94	70
4	100	64	162	117	84
5	125	70	192	145	115
6	150	76	218	170	134
8	200	95	273	224	184
10	250	108	335	265	220
12	300	143	407	310	260
14	350	184	442	360	302
16	400	191	511	410	350

PART#	SIZE	CASE	WEIGHT	
963002	2	50	4	----
963025	2-1/2	40	5	----
963003	3	20	8	----
963004	4	20	13	----
963005	5	20	16	----
963006	6	10	20	----
963008	8	10	38	----
963010	10	10	38	----
963012	12	5	92	----
963014	14	4	121	----
963016	16	4	165	----

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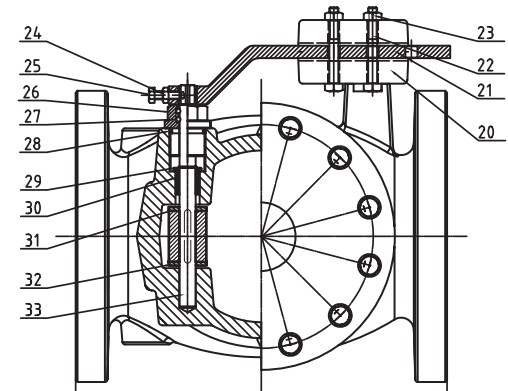
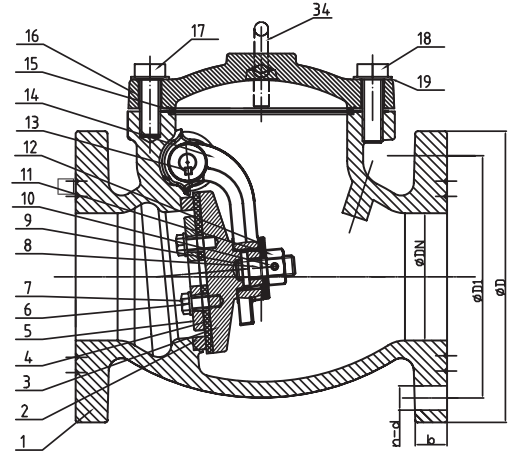
WATERWORKS//IRRIGATION

# DUCTILE IRON CHECK VALVES

WATERWORKS//IRRIGATION

## CHECK VALVE W/OUTSIDE L/W

### AWWA C508 CHECK VALVE W/OUTSIDE L/W



PART	PART	MATERIAL
1	Valve Body	Ductile iron 65-45-12
2	Seat	ASTM B62 C83600
3	Disc	Ductile iron 65-45-12
4	Disc Seat Ring	NBR
5	Retainer Washer	Ductile iron 65-45-12
6	Washer	AISI 304
7	Bolt	AISI 304
8	Stud	ASTM B62 C83600
9	Roll Pin	AISI 304
10	Roll Pin	AISI 304
11	Nut	ASTM B62 C83600
12	Washer	ASTM B62 C83600
13	Flat Key	AISI 304
14	Clapper Arm	Ductile iron 65-45-12
15	O-Ring	NBR
16	Bonnet	Ductile iron 65-45-12
17	Bolt	AISI 316
18	Bolt	AISI 316
19	Washer	AISI 316
20	Weight	Ductite iron,65-45-12
21	Arm	Cast steel WCB
22	Bolt	AISI 316
23	Nut	AISI 316
24	Nut	AISI 316
25	Bolt	AISI 316
26	Seat Nut	ASTM B62 C83600
27	O-Ring	NBR
28	Gasket	PTFE
29	Circlip	Carbon steel
30	Shaft sleeve gland	ASTM B62 CB3600
31	Washer	ASTM B62 CB3600
32	Washer	ASTM B62 CB3600
33	Hinge Pin	AISI 420
34	Eye bolt	Carbon steel

MAIN DIMENSIONS (MM)							
INCH	DN	L	D	D1	B	N-D	H
3"	80	241	200	152.5	19	4-19.1	173
4"	100	292	229	190.5	24	8-19.1	175.5
6"	150	356	285	241.5	25.5	8-22.2	237.5
8"	200	495	343	298.5	28.5	8-22.2	272.5
10"	250	622	406	362	30.5	12-25.4	326
12"	300	698	483	432	32	12-25.4	358



## UL/FM FLANGED SWING CHECK VALVE

PART#	SIZE	CASE	WEIGHT	
96203LW	3	16	57	----
96204LW	4	12	84	----
96206LW	6	6	156	----
96208LW	8	4	294	----
962010LW	10	2	466	----
962012LW	12	2	627	----

PART#	SIZE	CASE	WEIGHT	
96203UL	3	36	50	----
96204UL	4	36	77	----
96206UL	6	14	140	----
96208UL	8	4	266	----
962010UL	10	1	398	----
962012UL	12	1	533	----

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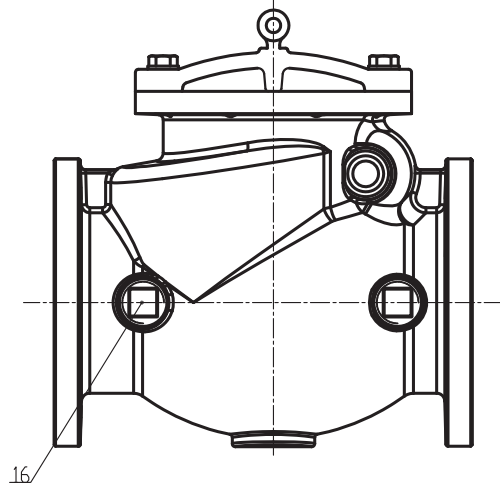
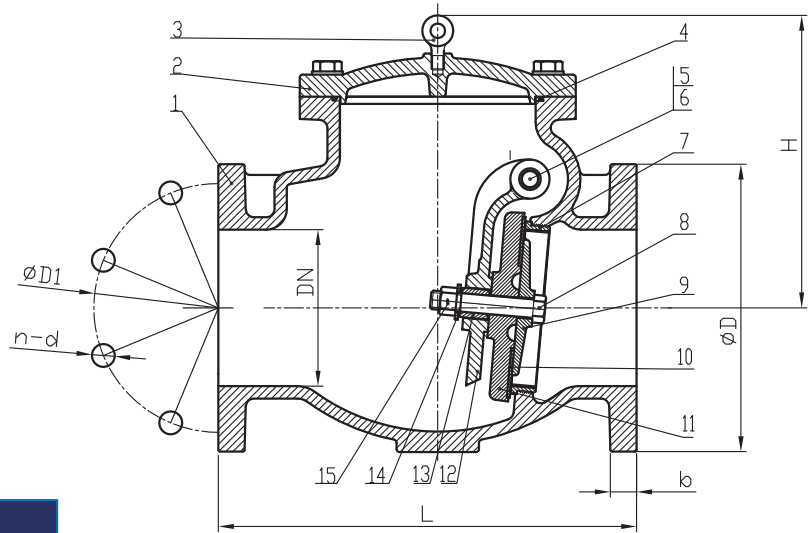
WATERWORKS//IRRIGATION



# DUCTILE IRON CHECK VALVES

WATERWORKS//IRRIGATION

## AWWA C508 SWING CHECK VALVE FLANGED



PART	PART	MATERIAL
1	Valve Body	Ductile Iron 65-45-12
2	Bonnet	Ductile Iron 65-45-12
3	Sling Ring	Carbon Steel Zinc Plated
4	O Ring	NBR
5	Hinge Pin	Stainless Steel 304
6	Hinge bushing	Brass ASTM B36
7	Seat Ring	Bronze ASTM B62
8	Disc Seat Bolts	Stainless Steel 304
9	Retainer Washer	Bronze ASTM B62
10	Disc Seat Ring	EPDM
11	Disc	Ductile Iron 65-45-12
12	Ctapper Arm	Ductile Iron 65-45-12
13	Stud Bushing	Bronze ASTM B36
14	O Ring	NBR
15	Nuts	Stainless Steel 304
16	Plug	Tin bronze

MAIN DIMENSIONS								
DN		PSI	DIMENSIONS (MM)					
INCH	MM		L	D	D1	B	N-D	H
3"	80	300	278	191	152.5	19	4-19.1	160
4"	100	300	330	229	190.5	24	8-19.1	218
6"	150	300	406	279	241.5	25.5	8-22.2	290
8"	200	300	495	343	298.5	28.5	8-22.2	330
10"	250	300	622	406	362	30.5	12-25.4	350
12"	300	300	660	483	432	32	12-25.4	376

PART#	SIZE	CASE	WEIGHT	
962003	3	16	57	----
962004	4	12	84	----
962006	6	6	156	----
962008	8	4	294	----
962010	10	2	466	----
962012	12	2	627	----

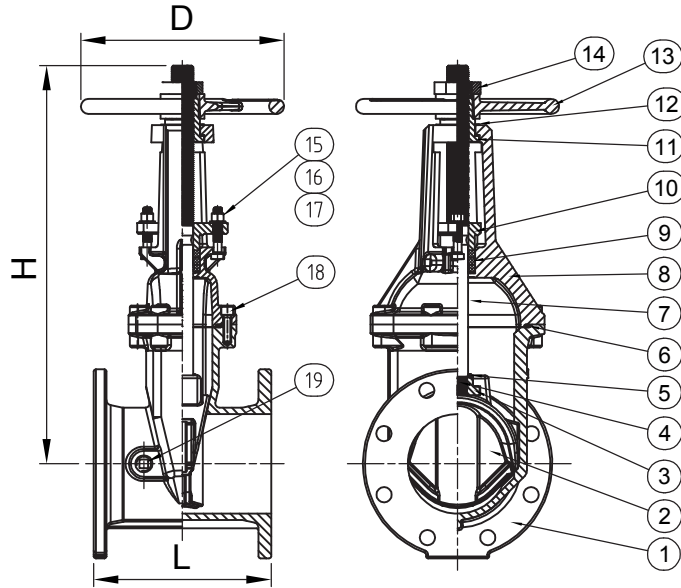
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WATERWORKS//IRRIGATION

# DUCTILE IRON GATE VALVES

WATERWORKS//IRRIGATION

## OS&Y RESILIENT SEATED GATE VALVE FLANGE ENDS, 300PSI



PART#	SIZE	CASE	WEIGHT	
9610F25	2-1/2"	25	46.2	----
9610F3	3"	16	62.7	----
9610F4	4"	16	74.8	----
9610F6	6"	9	103.9	----
9610F8	8"	6	190.9	----
9610F10	10"	2	291.8	----
9610F12	12"	2	409.8	----

ITEM	DESCRIPTION	MATERIAL	ASTM SPEC.
1	Body	Ductile Iron	A536 65-45-12
2	Wedge	Ductile Iron, EPDM Encapsulated	A536 65-45-12
3	Wedge Nut	Stainless Steel	A276 Type 304SS
4	Pin	Stainless Steel	A276 Type 420SS
5	O-Ring	Rubber	D2000 NBR
6	Gasket	Rubber	D2000 NBR
7	Stem	Stainless Steel	A276 Type 304SS
8	Bonnet	Ductile Iron	A536 65-45-12
9	Packing	Graphite	
10	Gland	Ductile Iron	A536 65-45-12
11	Yoke Nut	Bronze	B148 C95200
12	Washer	Brass	
13	Handwheel	Ductile Iron	A536 65-45-12
14	Handwheel Nut	Ductile Iron	A536 65-45-12
15	Bolts	Stainless Steel	A276 Type 304SS
16	Nuts	Stainless Steel	A276 Type 316SS
17	Washers	Stainless Steel	A276 Type 304SS
18	Bonnet Bolts	Carbon Steel Zinc Plated	A307 Grade B
19	Plug	Malleable Iron	

### NO TAP

PART#	SIZE	CASE	WEIGHT	
9610NYCF25	2-1/2"	25	46.2	----
9610NYCF3	3"	32	62.7	----
9610NYCF4	4"	64	74.8	----
9610NYCF6	6"	54	103.9	----
9610NYCF8	8"	36	190.9	----
9610NYCF10	10"	12	291.8	----
9610NYCF12	12"	12	409.8	----

MAIN DIMENSIONS							
SIZE	2.5"	3"	4"	6"	8"	10"	12"
L	7-1/2"	8"	9"	10-1/2"	11-1/2"	13"	14"
H (Open)	16-5/8"	18-7/8"	21-5/8"	29-1/8"	36-5/8"	44-1/2"	52"
H (Close)	13-3/4"	15-3/4"	17-3/4"	23-1/4"	28-3/4"	34-3/4"	40-1/6"
D	7-1/4"	10"	10"	12"	14"	17-1/2"	17-1/2"

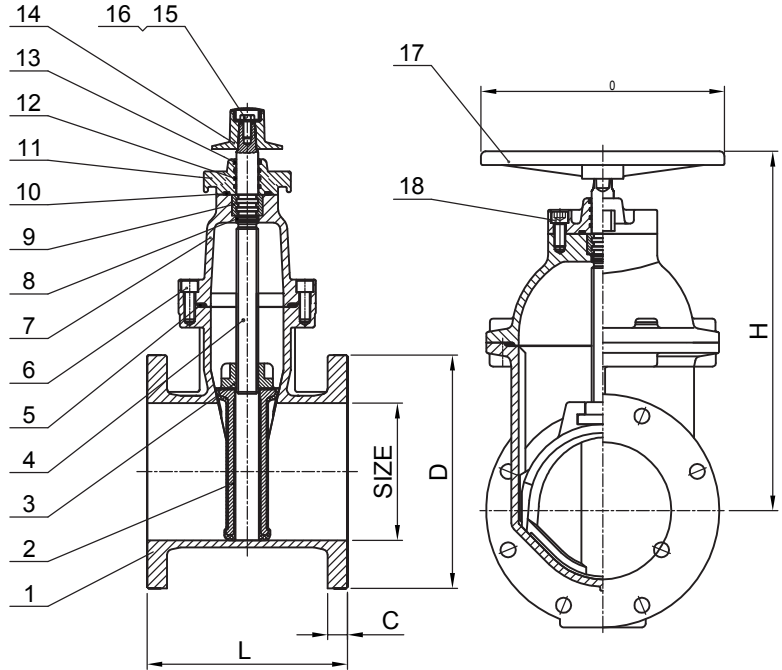
COMPLIES WITH NEW YORK AND CHICAGO REQUIREMENTS.

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# DUCTILE IRON GATE VALVES

WATERWORKS//IRRIGATION

## NRS RESILIENT SEATED GATE VALVE FLANGE ENDS, 300PSI



PART#	SIZE	CASE	WEIGHT	
9600FL25	2-1/2"	25	37.6	----
9600FL3	3"	16	54.2	----
9600FL4	4"	16	65.5	----
9600FL6	6"	9	107.5	----
9600FL8	8"	6	181.9	----
9600FL10	10"	2	297.4	----
9600FL12	12"	2	431.4	----

ITEM	DESCRIPT.	MATERIAL	ASTM SPEC.
1	Body	Ductile Iron	A536 65-45-12
2	Wedge	Ductile Iron, EPDM Encapsulated	A536 65-45-12
3	Wedge Nut	Bronze	B148 C95200
4	Stem	Stainless Steel	A276 Type 304SS
5	Gasket	Rubber	D2000 NBR
6	Bolts	Stainless Steel	A276 Type 304SS
7	Bonnet	Ductile Iron	A536 65-45-12
8	O-Ring	Rubber	D2000 NBR
9	Thrust Collar	Bronze	B148 C95200
10	O-Ring	Rubber	D2000 NBR
11	Gland	Ductile Iron	A536 65-45-12
12	O-Ring	Rubber	D2000 NBR
13	Dust Ring	Rubber	D2000 NBR
14	Operating Nut (Optional)	Ductile Iron	A536 65-45-12
15	Bolts	Stainless Steel	A276 Type 304SS
16	Washers	Stainless Steel	A276 Type 304SS
17	Handwheel (Optional)	Ductile Iron	A536 65-45-12
18	Bolts	Stainless Steel	A276 Type 304SS

MAIN DIMENSIONS							
SIZE	2.5"	3"	4"	6"	8"	10"	12"
L	7-1/2"	8.0"	9.0"	10-1/2"	11-1/2"	13.0"	14.0"
H	10.0"	11.0"	11.8"	16.4"	20.7"	24.5"	28.0"
D	7.0"	10.0"	10.0"	12.0"	14.0"	16.0"	16.0"

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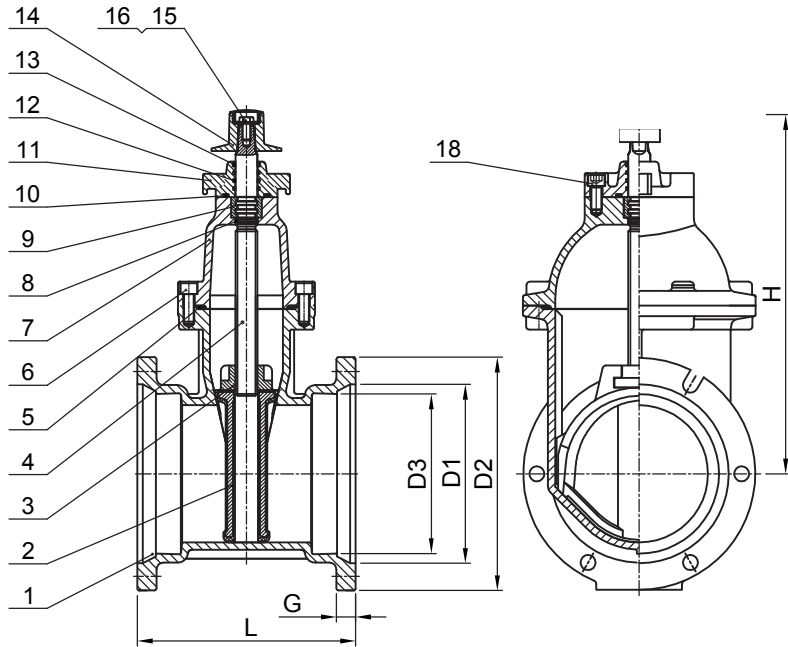
WATERWORKS//IRRIGATION

# DUCTILE IRON GATE VALVES

WATERWORKS//IRRIGATION

## AWWA C515-15 NRS RESILIENT SEATED GATE VALVE

MJ × MJ ENDS, 300PSI



PART#	SIZE	WEIGHT	CASE	
9600MJ3	3"	54.2	16	----
9600MJ4	4"	65.5	16	----
9600MJ6	6"	107.5	9	----
9600MJ8	8"	181.9	6	----
9600MJ10	10"	297.4	2	----
9600MJ12	12"	431.4	2	----

\*STANDARD CONFIG IS OP NUT ONLY

ITEM	DESCRIP.	MATERIAL	ASTM SPEC.
1	Body	Ductile Iron	A536 65-45-12
2	Wedge	Ductile Iron, EPDM Encapsulated	A536 65-45-12
3	Wedge Nut	Bronze	B148 C95200
4	Stem	Stainless Steel	A276 Type 304SS
5	Gasket	Rubber	D2000 NBR
6	Bolts	Stainless Steel	A276 Type 304SS
7	Bonnet	Ductile Iron	A536 65-45-12
8	O-Ring	Rubber	D2000 NBR
9	Thrust Collar	Bronze	B148 C95200
10	O-Ring	Rubber	D2000 NBR
11	Gland	Ductile Iron	A536 65-45-12
12	O-Ring	Rubber	D2000 NBR
13	Dust Ring	Rubber	D2000 NBR
14	Operating Nut (Optional)	Ductile Iron	A536 65-45-12
15	Bolts	Stainless Steel	A276 Type 304SS
16	Washers	Stainless Steel	A276 Type 304SS
17	Handwheel (Optional)	Ductile Iron	A536 65-45-12
18	Bolts	Stainless Steel	A276 Type 304SS

MAIN DIMENSIONS						
SIZE	3"	4"	6"	8"	10"	12"
L	11.5"	12.5"	14.8"	15.0"	13.0"	14.0"
H	16.4"	20.7"	24.5"	28.0"	24.5"	28.0"
D	12.0"	14.0"	16.0"	16.0"	16.0"	16.0"

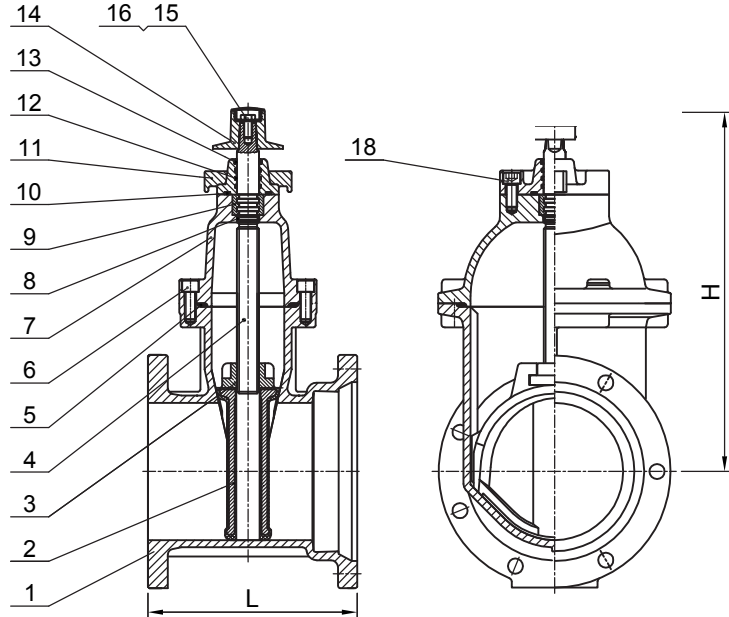
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# POST INDICATOR VALVES

WATERWORKS//IRRIGATION

## NRS RESILIENT SEATED GATE VALVE

FL × MJ ENDS, 300PSI



PART#	SIZE	WEIGHT	CASE	
9600FJ3	3"	54.3	16	----
9600FJ4	4"	65.5	16	----
9600FJ6	6"	107.5	9	----
9600FJ8	8"	181.9	6	----
9600FJ10	10"	297.4	2	----
9600FJ12	12"	431.4	2	----

\*STANDARD CONFIG IS OP NUT ONLY

ITEM	DESCRIPTION	MATERIAL	ASTM SPEC.
1	Body	Ductile Iron	A536 65-45-12
2	Wedge	Ductile Iron, EPDM Encapsulated	A536 65-45-12
3	Wedge Nut	Bronze	B148 C95200
4	Stem	Stainless Steel	A276 Type 304SS
5	Gasket	Rubber	D2000 NBR
6	Bolts	Stainless Steel	A276 Type 304SS
7	Bonnet	Ductile Iron	A536 65-45-12
8	O-Ring	Rubber	D2000 NBR
9	Thrust Collar	Bronze	B148 C95200
10	O-Ring	Rubber	D2000 NBR
11	Gland	Ductile Iron	A536 65-45-12
12	O-Ring	Rubber	D2000 NBR
13	Dust Ring	Rubber	D2000 NBR
14	Operating Nut (Optional)	Ductile Iron	A536 65-45-12
15	Bolts	Stainless Steel	A276 Type 304SS
16	Washers	Stainless Steel	A276 Type 304SS
17	Handwheel (Optional)	Ductile Iron	A536 65-45-12
18	Bolts	Stainless Steel	A276 Type 304SS

MAIN DIMENSIONS								
SIZE	3"	4"	6"	8"	10"	12"	10"	12"
L	8.8"	9.5"	11.0"	12.0"	14.0"	14.5"	13"	14"
H	11.0"	11.8"	16.4"	20.7"	24.5"	28.0"	44-1/2"	52"
D	10.0"	10.0"	12.0"	14.0"	16.0"	16.0"	34-3/4"	40-1/6"

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WATERWORKS//IRRIGATION

# POST INDICATOR VALVES

WATERWORKS//IRRIGATION

## Material Specifications

PART	MATERIAL	ASTM SPECIFICATION
Body	Ductile Iron	A536 Grade 65-45-12
Wedge	EPDM Fully Encapsulated Ductile Iron	
Wedge Nut	Bronze	B148 C95200
Bonnet	Ductile Iron	A536 Grade 65-45-12
Stem	Stainless Steel	A276 Type 304
Gland	Ductile Iron	A536 Grade 65-45-12
Thrust Collar	Bronze	B148 C95200
Operating Nut	Ductile Iron	A536 Grade 65-45-12
Post Flange	Ductile Iron	A536 Grade 65-45-12
Fasteners	Carbon Steel	A307 Grade B
Body/Bonnet Gasket	EPDM	D2000



## Specifications

- Meet or exceed the requirements of AWWA C515 Standard.
- Handwheel or 2" Square Operating Nut
- Full Waterway
- Rubber Fully Encapsulated Ductile Iron Wedge.
- Triple O-Ring Stem Seal
- Face to Face Dimension comply with ASME B16.10 and EN558
- Flange and Drilling comply with ASTM B16.1 Class 125
- UL/ULC 262 Listed, FM 1120/1130 Approved and GOST Certified
- ANSI/NSF 61 & 372 Certified.
- Rated Working Pressure: 300 psi for 4" to 12"

## Options

- Without Post Flange
- Other Flange Types available upon request

## Corrosion Protection

- Fusion Bonded Epoxy Coated Interior and Exterior to AWWA C550 Standard

## Notes

- 4" to 12" valves are UL/ULC listed

PART #	9600FL4PIV	9600FL6PIV	9600FL8PIV	9600FL10PIV	9600FL12PIV
SIZE	4	6	8	10	12
L	229/9	267/10.5	292/11.5	330/13	356/14
H	350/13.75	465/18.3	559/22	635/25	724/28.5
D	305/12	305/12	305/12	305/12	305/12

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# POST INDICATOR VALVES

WATERWORKS//IRRIGATION

## Material Specifications

PART	MATERIAL	ASTM SPECIFICATION
Body	Ductile Iron	A536 Grade 65-45-12
Wedge	EPDM Fully Encapsulated Ductile Iron	
Wedge Nut	Bronze	B148 C95200
Bonnet	Ductile Iron	A536 Grade 65-45-12
Stem	Stainless Steel	A276 Type 304
Gland	Ductile Iron	A536 Grade 65-45-12
Thrust Collar	Bronze	B148 C95200
Operating Nut	Ductile Iron	A536 Grade 65-45-12
Post Flange	Ductile Iron	A536 Grade 65-45-12
Fasteners	Carbon Steel	A307 Grade B
Body/Bonnet Gasket	EPDM	D2000



## Specifications

- Meet or exceed the requirements of AWWA C515 Standard.
- 2" Square Operating Nut
- Full Waterway
- Rubber Fully Encapsulated Ductile Iron Wedge.
- Triple O-Ring Stem Seal
- Flange and Drilling comply with ASTM B16.1 Class 125
- Mechanical Joint Outlet complies with ANSI/AWWA C153/A21.53.
- UL/ULC 262 Listed, FM 1120/1130 Approved
- Certificated to ANSI/NSF 61 & 372.
- Rated Working Pressure:  
300 psi for 4" to 12"

## Corrosion Protection

- Fusion Bonded Epoxy Coated Interior and Exterior to AWWA C550 Standard

## Options

- Without Post Flange
- Other Flange Types available upon request

PART #	9600MJ4PIV	9600MJ6PIV	9600MJ8PIV	9600MJ10PIV	9600MJ12PIV
SIZE	4	6	8	10	12
L	254mm/10.0in	292mm/11.5in	318mm/12.5in	375mm/14.75in	378mm/14.9in
H	350mm/13.75in	465mm/18.3in	559mm/22.0in	635mm/25.0in	724mm/28.5in
D	305mm/12.0in	305mm/12.0in	305mm/12.0in	305mm/12.0in	305mm/12.0in

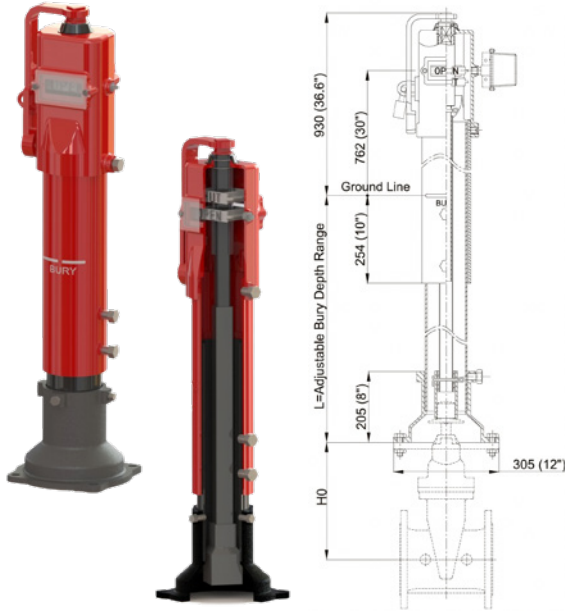
**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

WATERWORKS//IRRIGATION

# VERTICAL POST INDICATORS

WATERWORKS//IRRIGATION

## VERTICAL POST INDICATORS



### Material Specifications

PART	MATERIAL	ASTM SPECIFICATION
Post Head	Gray Cast Iron	A126 Class B
Operating Wrench	Ductile Iron	A536 Grade 65-45-12
Retaining Ring	Stainless Steel	A276 Type 304
Weather Cap	Polyethylene	Commercial
Threaded Sleeve	Stainless Steel	A276 Type 304
Pipe Plug	Malleable Iron	A47 Grade 22010
Target Plate	Aluminum Alloy	ASTM B26
Screw	Carbon Steel	A105
Target Plate	Aluminum Alloy	ASTM B26
Windows	Plexiglass	Commercial
Gasket	Rubber	D2000 NBR
Upper Barrel	Carbon Steel	A53 Type S Grade B
Lower Barrel	Carbon Steel	A53 Type S Grade B
Upper Rod	Carbon Steel	A53 Type S Grade B
Lower Rod	Carbon Steel	A53 Type S Grade B
Base Flange	Cast Iron	A126 Class B
Locking Bolts	Carbon Steel	A307 Grade B
Locking Nuts	Carbon Steel	A 105
Cotter Pin	Stainless Steel	A276 Type 304

### Specifications

Meet or Exceed the Requirements of NFPA 24 Standard. Indicates the State of the Valve OPEN or SHUT Position. Target Nut to allow 13 to 45 Turns. "L" Shaped Wrench Handle fitting with a Secure Padlock (provided by user). Protected Windows. Telescoping Operating Rod. Easily Adjustable Indicator OPEN and SHUT Targets. UL/ULC 789 Listed and FM1110 Approved. GOST Certification.

### Corrosion Protection

Spray Painted Interior and Exterior to AWWA C550 Standard. Stand Barrel: Black Bitumen Coated.

### Options

Fusion Bonded Coating Interior and Exterior. Tapped Supervisory Tamper Switch. Stainless Steel Fasteners: A2-70 or A4-70.

### Dimension Data for Vertical Indicator Post (mm/inch)

SIZE	4	6	8	10	12	14
TURNS TO OPEN	13	20	26	33	39	45
H0	252/ 9.92	355/ 13.97	444/ 17.48	535/ 21.06	617/ 24.29	727/ 28.62

L = Adjustable Bury Depth Range

L	A	B
MIN	459/18.25	915/36
MAX	1003/39.5	1537/60.5

PART #	SIZE	LIST
9600IPA412	Fits 4"-12"	

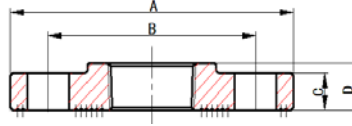
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# BLACK AND GALVANIZED COMPANION FLANGES

WATERWORKS//IRRIGATION

## DUCTILE IRON THREADED COMPANION FLANGES



\*DIMENSIONS, FACED AND DRILLED IN ACCORDANCE WITH ASME B16.42/AWWA C110

\*COATING: AVAILABLE IN BLACK ELECTROPHORETIC COATING AND HOT DIP GALVANIZED

\*HOT-DIPPED GALVANIZED CONFORM TO ASTM A153; COMPANION FLANGE THREADS CONFORM TO ASME B1.20.1

\*APPLICATION: WATERWORKS, PUMP, IRRIGATION

### BLACK

PART # (BLACK)	DESCRIPTION (THREADED)	SIZE (INCH)	A (INCH)	B (INCH)	C (INCH)	D (INCH)	BOLT HOLE SIZE	NO. OF HOLES	UNIT WEIGHT (KG)	
108062	1 150	1"	4.25	3.12	0.44	0.75	φ0.625	4	0.8347	----
108063	1 1/4 150	1-1/4"	4.62	3.5	0.5	0.81	φ0.625	4	1.0797	----
108064	1 1/2 150	1-1/2"	5	3.88	0.56	0.88	φ0.625	4	1.3217	----
108065	2 150	2"	6	4.75	0.62	1	φ0.75	4	2.1457	----
108066	2 1/2 150	2-1/2"	7	5.5	0.69	1.12	φ0.75	4	3.4182	----
108067	3 150	3"	7.5	6	0.75	1.19	φ0.75	4	3.9051	----
108069	4 150	4"	9	7.5	0.94	1.31	φ0.75	8	5.5254	----
108071	6 150	6"	11	9.5	1	1.56	φ0.875	8	7.5328	----
108072	8 150	8"	13.5	11.75	1.12	1.75	φ0.875	8	13.0201	----
108073	10 150	10"	16	14.25	1.19	1.94	φ1	12	22.854	----
108074	12 150	12"	19	17	1.25	2.19	φ1	12	26.5451	----

### GALVANIZED

108025	2 150	2"	6	4.75	0.62	1	φ0.75	4	2.1457	----
108026	2 1/2 150	2-1/2"	7	5.5	0.69	1.12	φ0.75	4	3.4182	----
108027	3 150	3"	7.5	6	0.75	1.19	φ0.75	4	3.9051	----
108028	4 150	4"	9	7.5	0.94	1.31	φ0.75	8	5.5254	----
108029	6 150	6"	11	9.5	1	1.56	φ0.875	8	7.5328	----

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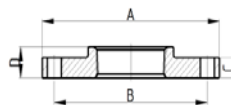
WATERWORKS//IRRIGATION

# BLACK AND GALV. DUCTILE IRON REDUCING COMPANION FLANGES

WATERWORKS//IRRIGATION

## THREADED COMPANION FLANGE CLASS 125 PATTERN (BLACK & GALVANIZED)

- \* DIMENSIONS, FACED AND DRILLED IN ACCORDANCE WITH ASME B16.42/AWWA C110
- \* COATING: AVAILABLE IN BLACK ELECTROPHORETIC COATING AND HOT DIP GALVANIZED
- \* HOT-DIPPED GALVANIZED CONFORM TO ASTM A153; COMPANION FLANGE THREADS CONFORM TO ASME B1.20.1
- \* APPLICATION: WATERWORKS, PUMP, IRRIGATION
- \* 150PSI



### BLACK

PART #	DESCRIPTION (DI FLANGE)	A (INCH)	B (INCH)	C (INCH)	D (INCH)	BOLT HOLE SIZE	NO. OF HOLES	UNIT WEIGHT (KG)	
108075	3" x 2"	7.50	6.00	0.75	1.19	φ0.75	4	4.3827	----
108076	3" x 2-1/2"	7.50	6.00	0.75	1.19	φ0.75	4	4.2013	----
108077	4" x 1-1/2"	9.00	7.50	0.94	1.31	φ0.75	8	6.8352	----
108088	4" x 2"	9.00	7.50	0.94	1.31	φ0.75	8	6.4168	----
108089	4" x 2-1/2"	9.00	7.50	0.94	1.31	φ0.75	8	6.3343	----
108090	4" x 3"	9.00	7.50	0.94	1.31	φ0.75	8	6.081	----
108091	5" x 4"	10.00	8.50	0.94	1.44	φ0.875	8	6.8761	----
108094	6" x 2"	11.00	9.50	1.00	1.56	φ0.875	8	10.6349	----
108095	6" x 3"	11.00	9.50	1.00	1.56	φ0.875	8	10.1831	----
108092	6" x 4"	11.00	9.50	1.00	1.56	φ0.875	8	9.4563	----
108096	8" x 4"	13.50	11.75	1.12	1.75	φ0.875	8	17.1296	----
108097	8" x 6"	13.50	11.75	1.12	1.75	φ0.875	8	15.2184	----
108098	8" x 2"	16.00	14.25	1.19	1.94	φ1	12	26.54	----
108099									
108100									
108101									

### GALVANIZED

108031	2-1/2" x 2"	6.00	4.75	0.75	1.19	φ0.75	4	3.623	
108032	3" x 2"	7.50	6.00	0.75	1.19	φ0.75	4	4.3827	
108033	3" x 2-1/2"	7.50	6.00	0.75	1.19	φ0.75	4	4.2013	----
108034	4" x 2"	9.00	7.50	0.94	1.31	φ0.75	8	6.4168	
108035	4" x 2-1/2"	9.00	7.50	0.94	1.31	φ0.75	8	6.3343	----
108036	4" x 3"	9.00	7.50	0.94	1.31	φ0.75	8	6.081	----
108038	6" x 2"	11.00	9.50	1.00	1.56	φ0.875	8	10.6349	----
108039	6" x 2-1/2"	11.00	9.50	1.00	1.56	φ0.875	8	10.5386	----
108037	6" x 4"	11.00	9.50	1.00	1.56	φ0.875	8	9.4563	----
108040	8" x 4"	13.50	11.75	1.12	1.75	φ0.875	8	17.1296	----
108041	8" x 6"	13.50	11.75	1.12	1.75	φ0.875	8	15.2184	


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# WATER METER FLANGES

WATERWORKS//IRRIGATION

## LEAD FREE OVAL WATER METER FLANGE OVAL



PART#	SIZE	CASE	
970207	1-1/2"	32	----
970208	2"	48	----

## LEAD FREE OVAL WATER METER KIT

W/ BOLT & NUT STAINLESS STEEL



NO	PART	MATERIALS	QTY	WATER CONTACT
1	BOLT	SS 304	4	N
2	FLANGE	BRASS LEAD FREE	2	Y
3	PACKING	RUBBER	2	Y
4	NUT	SS 304	4	N

PART#	SIZE	CASE	
970227	1-1/2"	32	----
970228	2"	48	----

## LEAD FREE OVAL METER FLANGE KIT

W/ BOLT & NUT STAINLESS STEEL (NO LEAD)



NO	PART	MATERIALS	QTY	WATER CONTACT
1	BOLT	SS 304	2	N
2	FLANGE	BRASS LEAD FREE	1	Y
3	PACKING	RUBBER	1	Y
4	NUT	SS 304	2	N

PART#	SIZE	CASE	
970217	1-1/2"	12	----
970218	2"	10	----

## LEAD FREE BRASS METER COUPLING



PART#	SIZE	CASE	
970253	1/2"	100	----
970254	3/4"	100	----
970255	1"	80	----
970257	1-1/2"	24	----
970258	2"	24	----

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WATERWORKS//IRRIGATION

# IRON BODY CLEANOUT PLUGS

WATERWORKS//IRRIGATION

## CAST BRASS SQUARE HEAD CLEANOUT PLUG



• Southern Code

PART #	SIZE	BOX/CASE	LIST PRICE
970300	1-1/2"	100/200	---
970301	2"	100/200	---
970302	2-1/2"	50/200	---
970303	3"	20/160	---
970304	3-1/2"	20/120	---
970305	4"	10/80	---
970330	5"	10/60	---
970331	6"	10/40	---
970332	8"	5/20	---
970333	10"	1/1	---



## CAST BRASS COUNTERSUNK HEAD CLEANOUT PLUG

• Southern Code

PART #	SIZE	BOX/CASE	LIST PRICE
970306	1-1/2"	100/200	---
970307	2"	100/200	---
970308	2-1/2"	100/200	---
970309	3"	50/200	---
970310	3-1/2"	20/160	---
970311	4"	20/120	---
970312	5"	10/60	---
970313	6"	10/40	---
970314	8"	5/20	---

## CAST BRASS COUNTERSUNK CLEANOUT W 1/4-20 TAP

PART #	SIZE	BOX/CASE	LIST PRICE
970700	1-1/2"	1/1	---
970701	2"	1/1	---
970702	2-1/2"	1/1	---
970703	3"	1/1	---
970704	3-1/2"	1/1	---
970705	4"	1/1	---
970706	5"	1/1	---
970707	6"	1/1	---

## IBC IRON BODY CLEANOUT PLUG



PART #	SIZE	LIST PRICE
970803CS	4x3 Iron Body Cleanout W/CNTRSunk Plug	
970804CS	4x3-1/2 Iron Body Cleanout W/CNTRSunk Plug	
970806CS	6x5 Iron Body Cleanout W/CNTRSunk Plug	

## IBC IRON BODY CLEANOUT PLUG



PART #	SIZE	LIST PRICE
970803RH	4x3 Iron Body Cleanout W/RH Brass Plug	
970804RH	4x3-1/2 Iron Body Cleanout W/RH Brass Plug	
970806RH	6x5 Iron Body Cleanout W/RH Brass Plug	

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# 300 & 600 WORM GEAR CLAMPS

WATERWORKS//IRRIGATION

## WORM GEAR CLAMPS

### MINIATURE CLAMPS - 5/16" BAND



Stainless Steel band with Carbon Steel Housing and Screw

#### 300 Series

- 1/4" Hex Slotted Carbon Steel Screw
- 5/16" Wide 301 Stainless Steel Band
- Carbon Steel Housing

**Applications:** For marine, agricultural, industrial and automotive uses. Corrosion resistance varies with stainless components.

Mechanically interlocked, 3 piece construction for service sealing pressure without spot welding.

5/16" band, 1/4" screw

PART #	DIA. RANGE		BOX/CASE	
	MIN.	MAX.		
3000004	7/32"	5/8"	200/2400	----
3000005	7/16"	11/16"	200/2400	----
3000006	5/16"	7/8"	200/2400	----
3000008	7/16"	1"	200/1200	----
3000010	1/2"	1-1/16"	200/1200	----
3000012	9/16"	1-1/4"	200/1200	----
3000016	11/16"	1-1/2"	200/1200	----
3000020	7/8"	1-3/4"	200/1200	----

Stainless Steel band with Carbon Steel Housing and Screw

### 1/2" BAND CLAMPS



1/2" band, 5/16" screw

#### 600 Series

- 5/16" Hex Slotted Carbon Steel Screw
- 1/2" Wide 201 Stainless Steel Band
- Carbon Steel Housing

**Applications:** A general purpose clamp for automobiles, plumbing, home and garden general clamping applications, with anti-corrosive properties varying with the number of components made from stainless steel.

- No PSI Rating
- 50lb/ Inch Torque Rating Die Set Function

PART #	#	DIA. RANGE		BAG/CASE	
		MIN.	MAX.		
600006	6	3/8"	7/8"	100/600	----
600008	8	7/16"	1"	100/600	----
600010	10	9/16"	1-1/16"	100/600	----
600012	12	9/16"	1-1/4"	100/600	----
600016	16	11/16"	1-1/2"	100/600	----
600020	20	3/4"	1-3/4"	100/300	----
600024	24	1-1/16"	2"	100/300	----
600028	28	1-5/16"	2-1/4"	100/300	----
600032	32	1-9/16"	2-1/2"	100/300	----
600036	36	1-13/16"	2-3/4"	50/200	----
600040	40	2-1/16"	3"	50/200	----
600044	44	2-5/16"	3-1/4"	50/200	----
600048	48	2-9/16"	3-1/2"	50/200	----
600052	52	2-13/16"	3-3/4"	25/100	----
600056	56	3-1/16"	4"	25/100	----
600060	60	3-5/16"	4-1/4"	25/100	----
600064	64	2-1/2"	4-1/2"	25/100	----
600072	72	3"	5"	25/100	----
600080	80	3-1/2"	5-1/2"	10/100	----
600088	88	4"	6"	10/100	----
600096	96	4-1/2"	6-1/2"	10/100	----
600104	104	5"	7"	10/100	----

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WATERWORKS//IRRIGATION

# 325 & 611 WORM GEAR CLAMPS

WATERWORKS//IRRIGATION

## MINIATURE CLAMPS - 5/16" BAND



### 325 Series

- 1/4" Hex Slotted Carbon Steel Screw
- 5/16" Wide 301 Stainless Steel Band
- 301 Stainless Steel Housing

**Applications:** For agricultural, industrial and automotive uses. Corrosion resistance varies with stainless components.

Mechanically interlocked, 3 piece construction for service sealing pressure without spot welding.

Stainless Steel band and housing with Carbon Steel Screw

5/16" band, 1/4" screw

PART #	DIA. RANGE		BOX/CASE	
	MIN.	MAX.		
325004	7/32"	5/8"	200/2400	----
325005	7/16"	11/16"	200/2400	----
325006	5/16"	7/8"	200/2400	----
325008	7/16"	1"	200/1200	----
325010	1/2"	1-1/16"	200/1200	----
325012	9/16"	1-1/4"	200/1200	----
325016	11/16"	1-1/2"	200/1200	----
325020	7/8"	1-3/4"	200/1200	----

Stainless Steel band and housing with Carbon Steel Screw

1/2" band, 5/16" screw

## 1/2" BAND CLAMPS



### 611 Series

- 5/16" Hex Slotted Carbon Steel Screw
- 1/2" Wide 201 Stainless Steel Band
- 301 Stainless Steel Housing

**Applications:** The perfect clamp for automobiles, plumbing, home and garden general clamping applications, with anti-corrosive properties varying with the number of components made from stainless steel.

- No PSI Rating
- 50lb/ Inch Torque Rating Die Set Function

PART #	#	DIA. RANGE		BAG/CASE	
		MIN.	MAX.		
611006	6	3/8"	7/8"	100/600	----
611008	8	7/16"	1"	100/600	----
611010	10	9/16"	1-1/16"	100/600	----
611012	12	9/16"	1-1/4"	100/600	----
611016	16	11/16"	1-1/2"	100/600	----
611020	20	3/4"	1-3/4"	100/300	----
611024	24	1-1/16"	2"	100/300	----
611028	28	1-5/16"	2-1/4"	100/300	----
611032	32	1-9/16"	2-1/2"	100/300	----
611036	36	1-13/16"	2-3/4"	50/200	----
611040	40	2-1/16"	3"	50/200	----
611044	44	2-5/16"	3-1/4"	50/200	----
611048	48	2-9/16"	3-1/2"	50/200	----
611052	52	2-13/16"	3-3/4"	25/100	----
611056	56	3-1/16"	4"	25/100	----
611060	60	3-5/16"	4-1/4"	25/100	----
611064	64	2-1/2"	4-1/2"	25/100	----
611072	72	3"	5"	25/100	----
611080	80	3-1/2"	5-1/2"	10/100	----
611088	88	4"	6"	10/100	----
611096	96	4-1/2"	6-1/2"	10/100	----
611104	104	5"	7"	10/100	----
611116	116	5-3/4"	7-3/4"	100/100	----
611128	128	6-1/2"	8-1/2"	100/100	----
611152	152	2"	10"	100/100	----
611164	164	1-3/4"	10-3/4"	100/100	----
611176	176	9-1/4"	11-1/4"	100/100	----
611188	188	2-1/16"	12-1/4"	100/100	----
611200	200	11"	13"	100/100	----
611212	212	11-3/4"	13-3/4"	100/100	----
611224	224	12-1/2"	14-1/2"	100/100	----
611248	248	10-3/4"	16"	100/100	----
611270	270	15-3/8"	17-3/8"	100/100	----
611312	312	18"	20"	100/100	----
611332	332	19-1/8"	21-1/4"	100/100	----
611390	390	22-7/8"	24-7/8"	100/100	----

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# 350 & 620 WORM GEAR CLAMPS

WATERWORKS//IRRIGATION

## MINIATURE CLAMPS - 5/16" BAND



### 350 Series

- 1/4" Hex Slotted 410 Stainless Steel Screw
- 5/16" Wide 301 Stainless Steel Band
- 301 stainless Steel Housing
- 6mm thick

All Stainless Steel  
5/16" band, 1/4" screw

PART #	DIA. RANGE		BOX/CASE	
	MIN.	MAX.		
350004	7/32"	5/8"	200/2400	----
350005	7/16"	11/16"	200/2400	----
350006	5/16"	7/8"	200/2400	----
350008	7/16"	1"	200/1200	----
350010	1/2"	1-1/16"	200/1200	----
350012	9/16"	1-1/4"	200/1200	----
350016	11/16"	1-1/2"	200/1200	----
350020	7/8"	1-3/4"	200/1200	----

**Applications:** For agricultural, industrial and automotive uses. Corrosion resistance varies with stainless components.

Mechanically interlocked, 3 piece construction for service sealing pressure without spot welding.

## 1/2" WIDE BAND CLAMPS (12.70MM)



### 620 Series

- 5/16" Hex Slotted 305 Stainless Steel Screw
- 1/2" Wide 301 Stainless Steel Band
- 301 Stainless Steel Housing
- 60mm Thickness
- Use for underground and other high corrosive applications.
- For a sure grip application.
- Especially suited to industrial applications

All Stainless Steel  
1/2" band, 5/16" screw

PART #	#	DIA. RANGE		BOX/CASE	
		MIN.	MAX.		
620006	6	3/8"	7/8"	100/600	----
620008	8	7/16"	1"	100/600	----
620010	10	9/16"	1-1/16"	100/600	----
620012	12	9/16"	1-1/4"	100/600	----
620016	16	11/16"	1-1/2"	100/600	----
620020	20	3/4"	1-3/4"	100/300	----
620024	24	1-1/16"	2"	100/300	----
620028	28	1-5/16"	2-1/4"	100/300	----
620032	32	1-9/16"	2-1/2"	100/300	----
620036	36	1-13/16"	2-3/4"	50/200	----
620040	40	2-1/16"	3"	50/200	----
620044	44	2-5/16"	3-1/4"	50/200	----
620048	48	2-9/16"	3-1/2"	50/200	----
620052	52	2-13/16"	3-3/4"	25/100	----
620056	56	3-1/16"	4"	25/100	----
620060	60	3-5/16"	4-1/4"	25/100	----
620064	64	2-1/2"	4-1/2"	25/100	----
620072	72	3"	5"	25/100	----
620080	80	3-1/2"	5-1/2"	10/100	----
620088	88	4"	6"	10/100	----
620096	96	4-1/2"	6-1/2"	10/100	----
620104	104	5"	7"	10/100	----
620116	116	5-3/4"	7-3/4"	100/100	----
620128	128	6-1/2"	8-1/2"	100/100	----
620152	152	2"	10"	100/100	----
620164	164	1-3/4"	10-3/4"	100/100	----
620176	176	9-1/4"	11-1/4"	100/100	----
620188	188	9.9"	12-1/4"	100/100	----
620200	200	11"	13"	100/100	----
620212	212	11-3/4"	13-3/4"	100/100	----
620224	224	12-1/2"	14-1/2"	100/100	----
620248	248	10-3/4"	16"	100/100	----
620270	270	15-3/8"	17-3/8"	100/100	----
620312	312	18"	20"	100/100	----
620332	332	19-1/8"	21-1/4"	100/100	----
620390	390	22-7/8"	24-7/8"	100/100	----

**WARNING:** This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

WATERWORKS//IRRIGATION

# #316 MARINE WORM GEAR CLAMPS

WATERWORKS//IRRIGATION

## MINIATURE CLAMPS - 5/16" BAND

All #316 SS for Marine Environments

5/16" band, 1/4" screw



PART #	DIA. RANGE		BOX/CASE	
	MIN.	MAX.		
350004SS	7/32"	5/8"	200/2400	----
350005SS	7/16"	11/16"	200/2400	----
350006SS	5/16"	7/8"	200/2400	----
350008SS	7/16"	1"	200/1200	----
350010SS	1/2"	1-1/16"	200/1200	----
350012SS	9/16"	1-1/4"	200/1200	----
350016SS	11/16"	1-1/2"	200/1200	----
350020SS	7/8"	1-3/4"	200/1200	----

350SS Series

- 1/4" Hex Slotted 316 Stainless Steel Screw
- 316 Stainless Steel Band
- 8mm wide
- 60 mm thick
- 316 stainless Steel Housing

**Applications:** For marine, agricultural, industrial and automotive uses. Corrosion resistance varies with stainless components.

Mechanically interlocked, 3 piece construction for service sealing pressure without spot welding.

## 1/2" WIDE BAND CLAMPS (12.70MM)



All #316 SS for Marine Environments

1/2" band, 5/16" screw

ALL 316SS PART #	#	DIA. RANGE		BOX/CASE	
		MIN.	MAX.		
620006SS	6	3/8"	7/8"	100/600	----
620008SS	8	7/16"	1"	100/600	----
620010SS	10	9/16"	1-1/16"	100/600	----
620012SS	12	9/16"	1-1/4"	100/600	----
620016SS	16	11/16"	1-1/2"	100/600	----
620020SS	20	3/4"	1-3/4"	100/300	----
620024SS	24	1-1/16"	2"	100/300	----
620028SS	28	1-5/16"	2-1/4"	100/300	----
620032SS	32	1-9/16"	2-1/2"	100/300	----
620036SS	36	1-13/16"	2-3/4"	50/200	----
620040SS	40	2-1/16"	3"	50/200	----
620044SS	44	2-5/16"	3-1/4"	50/200	----
620048SS	48	2-9/16"	3-1/2"	50/200	----
620052SS	52	2-13/16"	3-3/4"	25/100	----
620056SS	56	3-1/16"	4"	25/100	----
620060SS	60	3-5/16"	4-1/4"	25/100	----
620064SS	64	2-1/2"	4-1/2"	25/100	----
620072SS	72	3"	5"	25/100	----

620SS Series

- 5/16" Hex Slotted 316 Stainless Steel Screw
- 1/2" Wide 316 Stainless Steel Band
- 316 Stainless Steel Housing
- 60mm Thickness
- Use for marine, underground and other high corrosive applications.

WARNING: This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



**Standard Terms and Conditions of Sale**

Any order by a person ("Buyer") for goods (an "Order"), if accepted, is accepted subject to these Midland Industries Standard Terms and Conditions of Sale ("T&Cs"), which are incorporated into any acceptance, acknowledgement, invoice and other document issued by Midland Industries ("Seller") in response to such Order (each a "Response"), and any reference thereto shall include these T&Cs. No waiver, alteration, or modification of these T&Cs shall be valid unless expressly agreed to in writing by Seller. The T&Cs constitute the entire agreement between the parties and any different, additional or conflicting terms or conditions set forth in Buyer's purchase order or any other document issued by Buyer are expressly objected to by Seller and the terms hereof, including those contained in the applicable Response, shall exclusively govern the purchase and sale of the goods covered by the Response unless there is another manually signed agreement between the parties, which shall control to the extent there is a conflict between the terms of such agreement and these T&Cs.

**Payment Terms.** Payment terms are 2%-10days/net 30 on approved accounts in good standing and shall be paid in United States dollars. The 2% discount terms is for purchased goods only-there is no discount off of freight. Any additional discounts taken will be charged back to the account, and is due by the customer. The allowed discount amount is stated on each invoice. Shipment may be held if account is past due. Buyer agrees that any overdue amounts shall be subject to a late payment charge on the overdue balance of 1.5% per month or such lesser amount as is the maximum rate of interest allowed by law. Buyer shall pay any and all reasonable costs, including attorneys' fees, incurred by Seller while collecting any delinquent balance. Debit memos are not accepted unless approved.

**Price.** The Seller list or quoted price is subject to change without notice. The goods are invoiced at prices in effect on date of shipment. Prices do not include taxes, if any, based upon or measured by the sales price, which taxes will be added to the prices where applicable. Any taxes which Seller may be required to pay or collect, upon or with respect to the sale, purchase, delivery, storage, processing, use, or transportation of the goods purchased hereunder, shall be for Buyer's account, and shall be paid promptly by Buyer to Seller upon demand.

**Delivery Terms.** All goods are sold FOB our shipping USA locations. Title and risk of loss passes to the buyer upon delivery to the carrier. Freight is prepaid via the carrier of our choice on orders totaling \$1,500 or more to any destination in the USA. Backorders for items from prepaid orders that are marked in our price list as "stock" items will be shipped prepaid along with upcoming prepaid orders when possible. Non-stocked or special-ordered items will be shipped when available. Buyer is responsible for costs associated with shipment upon acceptance if so assigned based on freight classification (*i.e.*, "prepaid" or FOB)

**Title/Security.** Unless a conditional sale is noted in this Agreement, title to the goods covered by this Agreement shall pass to Buyer upon delivery to carrier. Buyer hereby grants Seller and Seller hereby reserves a purchase money security interest in and to the goods sold to Buyer together with all proceeds thereof to secure Buyer's performance and payment. Buyer agrees upon Seller's request to do all acts and execute all documents reasonably necessary to assist Seller's perfection and maintenance of any such security title and right of possession, including, but not limited to, executing and filing documents with the appropriate governmental agency.

**Orders.** (A) Domestic (USA) Sales. Buyer shall submit a purchase order ("Purchase Order") for the goods which shall, at minimum, include: (a) part number of the goods ordered; (b) quantity; (c) price of the goods; (d) requested delivery date; and (e) shipping instructions and shipping address, including a statement that the goods will be shipped in accordance with these T&Cs. All Purchase Orders are subject to acceptance by Seller. Buyer shall be responsible for all additional costs resulting from errors made in connection with telephone, online, or hand written Purchase Orders accepted by Seller and any errors related to such a Purchase Order must be disputed within 1 hour from Seller's receipt of the Purchase Order. Confirming Purchase Orders are not accepted by Seller. If such a confirming Purchase Order is sent to Seller, it may be treated as an original open Order and duplicated. Seller will not be responsible for expenses or inconveniences incurred thereby. If Buyer's Order is in the form of a blanket Purchase Order, Buyer agrees that each release shall be treated as a separate sales transaction hereunder, that all releases shall be non-cancelable and, unless agreed in writing by Seller, all releases under such blanket Purchase Order shall be accepted by Buyer within 12 months of Seller's Order acknowledgement. If the aggregate purchase price of goods pursuant to a Purchase Order is under \$50, or such other amount that is agreed to from time to time by the parties, then the cost of such goods shall be rounded up to that minimum order value.

**Order Cancellation/Amendment.** Orders cannot be canceled or amended except with Seller's consent. Cancellation charges may be applied at Seller's discretion. Seller may, in its sole discretion and without liability, alter the specifications for any goods.

**Acceptance.** Buyer shall conduct any incoming inspection tests on the goods within 5 days of delivery. In the event of any shortage, damage or discrepancy in or to a shipment of goods or pricing discrepancies, Buyer shall promptly give notice, but in no event later than within 15 days of delivery thereof to Seller and shall furnish such written evidence or other documentation as Seller reasonably may deem appropriate. If such evidence indicates, in Seller's reasonable judgment, that such shortage, damage or discrepancy existed at the time of delivery of the goods to the carrier, Seller shall promptly deliver additional or substitute goods to Buyer; provided, however, that Seller may, in its sole discretion, require Buyer to return all damaged goods prior to delivery of substitute goods. If Buyer shall fail to timely give Seller such written notice, the goods shall be deemed to conform to the warranty and Buyer shall be deemed to have accepted the goods and shall pay for the goods in accordance herewith.

**Termination.** Seller shall have the right to cancel for default hereunder all or any part of Buyer's order. This right of cancellation is in addition to and not in lieu of any other remedies which Seller may have in law or equity.

**Returns.** Returns without the proper paperwork will not be accepted. Once the return paperwork has been received by the buyer, that return goods authorization will expire in 30 days. No goods shall be returned to Seller without Seller's prior written authorization to Buyer to make such returns and must be returned within 30 days of such authorization at Buyer's cost. If Buyer returns goods in the manner required under the previous sentence, and if the returned goods are (a) in new, unused, unopened and undamaged condition; and (b) not more than 12 months after the original invoice date; the returned goods will, subject to the applicable handling charge, be accepted by Seller for return. Used or discontinued goods or parts or goods specially manufactured will not be accepted for credit unless specifically agreed to by Seller in its sole discretion. Buyer's sole remedy for returns of goods shall be a credit for the purchase price less any handling charges. Normal returned goods are subject to a 10% restocking fee. Some returns, such as inventory returns, are subject to a 25% restocking fee, unless otherwise approved by Midland. Returns found to be free of material and workmanship defects will be held for 20 days and if Buyer does not provide Seller repair or return instructions, the Seller will scrap the goods.

**Buyer's Specifications.** Buyer shall be solely responsible for ensuring that all specifications, drawings, information, advice, recommendations or requests provided to Seller by Buyer or any of its agents are accurate and suitable. Seller's examination or consideration of any such specifications, drawings, information, advice, recommendations or requests shall not result in any liability on the part of Seller.

## GENERAL INFORMATION

**Seller Warranty.** Seller warrants that goods sold hereunder are warranted to be free from defects in material and workmanship for a period of one year from the date of invoice when used according to the manufacturer's recommended usage and in an ordinary manner. Seller's liability for breach of this warranty is limited to the repair of or replacement in kind or credit, at Seller's option, of any items proved defective, in Seller's reasonable discretion, provided the allegedly defective goods are returned to Seller prepaid. All costs and expense related to shipping of any replacement parts or goods shall be paid by Seller if there is a breach of this warranty but Buyer shall pay for all installation costs. Buyer must provide prompt written notice to Seller of any breach of this warranty to obtain its benefits. THE WARRANTY EXPRESSED ABOVE IS IN LIEU OF AND EXCLUSIVE OF ALL OTHER WARRANTIES. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, EXCEPT AS STATED HEREIN. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE SPECIFICALLY DISCLAIMED. SELLER'S LIABILITY FOR BREACH OF WARRANTY IS AS HEREIN STATED AND IS THE EXCLUSIVE REMEDY AND IN NO EVENT SHALL SELLER BE LIABLE OR RESPONSIBLE FOR INCIDENTAL, SPECIAL, INDIRECT, PUNITIVE, OR CONSEQUENTIAL DAMAGES OR LOST PROFITS, OR EVEN IF THE POSSIBILITY OF SUCH INCIDENTAL, SPECIAL, INDIRECT, PUNITIVE OR CONSEQUENTIAL DAMAGES, OR LOST PROFITS HAS BEEN MADE KNOWN TO SELLER. THE WARRANTY SET FORTH ABOVE IS SOLELY FOR THE BENEFIT OF BUYER. **All claims hereunder shall be made by Buyer and not by Buyer's customers.** It shall not be deemed a "defect," and Seller will not be liable under the warranty in this Section 11, if the goods have been exposed to any: (1) maintenance, repair, or other use that is improper for the good's ordinary use or otherwise not in compliance with Seller's instruction; (2) goods alteration, modification or repair by anyone other than Seller or authorized by Seller; (3) damage after shipment to Buyer; (4) improper voltage or wiring; or (5) use of parts that are not 100% compatible with the goods.

**Buyer Warranty.** Buyer shall provide a no defect in materials or workmanship warranty with respect to each product sold to an end customer for a period not less than the then remaining warranty period related to such product and afforded to Buyer pursuant to Section (Seller Warranty) above. Except with respect to the remedies provided by Seller to Buyer under Section (Seller Warranty), any other warranties or representations, or remedies for breach thereof, which Buyer may provide to its end customers shall be the sole responsibility of Buyer, and Seller shall not be bound thereby. Unless Buyer receives Seller's prior written consent, Buyer will not sell Seller's products to end-users or intermediaries that sell to end-users that will use or sell the products in a nuclear or in-aircraft application or for any other application that Seller may notify Buyer of in writing.

**Damages Amount Limitation.** Other than as set forth in Section (Buyer Indemnification) and any breaches of Section (Confidentiality) hereof, Seller's cumulative liability for damages to Buyer for any cause whatsoever, and regardless of the form of action, whether in contract or in tort, including, but not limited to, negligence, shall be limited to the total contract price of the goods sold hereunder, plus or minus, as applicable, the amounts of all unpaid accounts payable and receivable between the parties, if any.

**Damages Limitation.** In no event shall Seller's liability of any kind include any special, indirect, incidental or consequential loss or damage or lost profits, even if Seller shall have been advised of the possibility of such potential loss or damage.

**Sole Remedy.** The sole and exclusive remedy for breach of any non-warranty obligation of Seller and the sole remedy for Seller's liability of any kind (including liability for negligence) with respect to the goods and services provided to Buyer shall be to use all commercially reasonable efforts to promptly cure such breach. Buyer must commence any suit for a cause of action arising hereunder within one year from the date in which the facts that gave rise to the cause of action first occurred.

**Buyer Indemnification.** Buyer shall hold harmless, indemnify and defend (at Seller's request) Seller for any and all damages, liabilities, costs and expenses (including any costs of litigation, including but not limited to, attorneys' fees and any other costs and expenses), fines, or losses in connection with any threatened or actual claims, actions, demands, investigations, or suits, including, but not limited to, claims or suits by third parties, arising out of any of the following: (a) Buyer's negligent or willful acts, or those of its employees and/or agents, (b) such goods being repaired or altered by persons other than Seller (unless expressly authorized in writing by Seller), (c) in the event that Buyer modifies, or combines with any non-Seller goods, any of the goods purchased from Seller, and such modification or combination results in the actual or alleged infringement of any intellectual property rights of any third party, (d) from goods produced by Seller according to Buyer's specifications, (e) any violations of export control laws by Buyer, or (f) Buyer's breach of any provision in these T&Cs.

**Confidentiality.** "Confidential Information" means any of Seller's business information, specifications and all related writings, drawings, designs and similar works or any other information which is disclosed by Seller and labeled or marked as confidential, proprietary or its equivalent, or oral or visual information that is designated confidential, proprietary or its equivalent at the time of its disclosure. All Confidential Information shall be the exclusive property of Seller, and Seller retains all its right, title and interest. Buyer agrees to use Confidential Information for the exclusive purpose of performance under the Purchase Order and not to disclose or provide any Confidential Information to any third party and to take all necessary measures to prevent any such disclosure by its employees, agents, contractors or consultants. Upon request of Seller or completion of the Order, Buyer shall return all Confidential Information to Seller and provide certification of such return.

**Tooling.** Charges made for tools, dies, gauges, jigs, fixtures or equipment made or acquired by Seller in connection with the work do not convey title to or any proprietary interest in such tools. All such tools will remain the exclusive property of Seller.

**Force Majeure.** Seller shall not be liable for any failure to perform this agreement when such failure is due to circumstances beyond its control. Circumstances beyond the control of Seller shall be deemed to include, but shall not be limited to, acts of God, governmental action, accidents, labor trouble, and inability to obtain materials, equipment or transportation.

**Waiver.** No oral statements, recommendations or assistance given by a representative and/or distributor of Seller to Buyer or its representatives in connection with the use of the goods shall constitute a waiver by Seller of any of the provisions hereof, or affect Seller's liability herein.

**Arbitration.** Except for any action where the sole relief sought is an injunction, any controversy or claim arising out of or relating to these T&Cs, or the making, performance or interpretation thereof, including without limitation alleged fraudulent inducement thereof, shall be settled by binding arbitration in the city of Seller's choosing in the state of Seller's business address as shown on the Response, by one arbitrator in accordance with the Commercial Arbitration Rules of the American Arbitration Association. Judgment upon any arbitration award may be entered in any court having jurisdiction thereof.

**Representation of Buyer.** Buyer is duly organized, validly existing and in good standing under the laws of the state of its formation and has full corporate power and authority to own, operate or lease the properties and assets now owned, operated or leased by it and to carry on its business as currently conducted. Buyer is duly licensed or qualified to do business and is in good standing in each jurisdiction in which such licensing or qualification is necessary. The execution and delivery by Buyer of this Agreement, the performance by Buyer of its obligations hereunder and thereunder and the consummation by Buyer of the transactions contemplated

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## GENERAL INFORMATION

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hereby have been duly authorized by all requisite corporate action on the part of Buyer, and this Agreement constitutes a legal, valid and binding obligation of Buyer enforceable against Buyer in accordance with its terms.

**Risk of Loss.** Commencing at the time of delivery, Buyer shall bear all risk of loss, damage, destruction, theft and condemnation to or of the Equipment from any cause whatsoever.

**Events of Default.** Each of the following events is an "Event of Default" under this Agreement: (a) if Buyer fails to pay when due any installment of the purchase price or any other amount under this Agreement; (b) if Buyer defaults in the observance or performance of any other term, covenant or condition of Buyer under this Agreement and Buyer shall fail to remedy such default within ten days after notice by Seller to Buyer of such default; (c) if Buyer's interest or any portion thereof in this Agreement devolve on or pass to any person, whether by operation of law or otherwise; (d) if Buyer: (i) does not, or is unable to, or admits in writing its inability to, pay its debts as they become due; (ii) commences or institutes any case, proceeding or other action seeking relief on its behalf as debtor, or to adjudicate it a bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, winding up, liquidation, dissolution, composition or other relief with respect to it or its debts under any existing or future law of any jurisdiction, domestic or foreign, relating to bankruptcy, insolvency, reorganization or relief of debtors; (iii) commences or institutes any case, proceeding or other action seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or any substantial part of its property; or (iv) makes a general assignment for the benefit of creditors; (e) if a receiver, trustee, custodian or other similar official is appointed for any substantial part of the assets of Buyer which appointment is not vacated or stayed within 30 days; (f) if Buyer sells, transfers or disposes of all or substantially all of its assets, or merges or consolidates with any other entity; or (g) a breach of any representation or warranty of Buyer.

**Headings.** The headings in this Agreement are for reference only and shall not affect the interpretation of this Agreement.

**Entire Agreement.** This Agreement, including any exhibits and schedules, constitutes the sole and entire agreement of the parties to this Agreement with respect to the subject matter contained herein and therein, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter.

**Amendment and Modification.** No amendment to this Agreement is effective unless it is in writing and signed by each party to this Agreement.

**Cumulative Remedies.** All rights and remedies provided in this Agreement are cumulative and not exclusive, and the exercise by either party of any right or remedy does not preclude the exercise of any other rights or remedies that may now or subsequently be available at law, in equity, by statute, in any other agreement between the parties or otherwise.

**Assignment.** Buyer may not assign any of its rights under this Agreement without the prior written consent of Seller and provided that such assignment shall not relieve Buyer of its obligations under this Agreement, and Buyer shall remain primarily liable under this Agreement. Any purported assignment in violation of this Section is null and void.

**Successors and Assigns.** This Agreement is binding on and inures to the benefit of the parties to this Agreement and their respective successors and permitted assigns.

**No Third-party Beneficiaries.** This Agreement benefits solely the parties to this Agreement and their respective successors and permitted assigns and nothing in this Agreement, express or implied, confers on any third party any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

**Waiver of Jury Trial.** Each party acknowledges and agrees that any controversy that may arise under this Agreement, including any exhibits attached to this Agreement, is likely to involve complicated and difficult issues and, therefore, each such party irrevocably and unconditionally waives any right it may have to a trial by jury in respect of any legal action arising out of or relating to this Agreement, including any exhibits attached to this Agreement, or the transactions contemplated hereby.

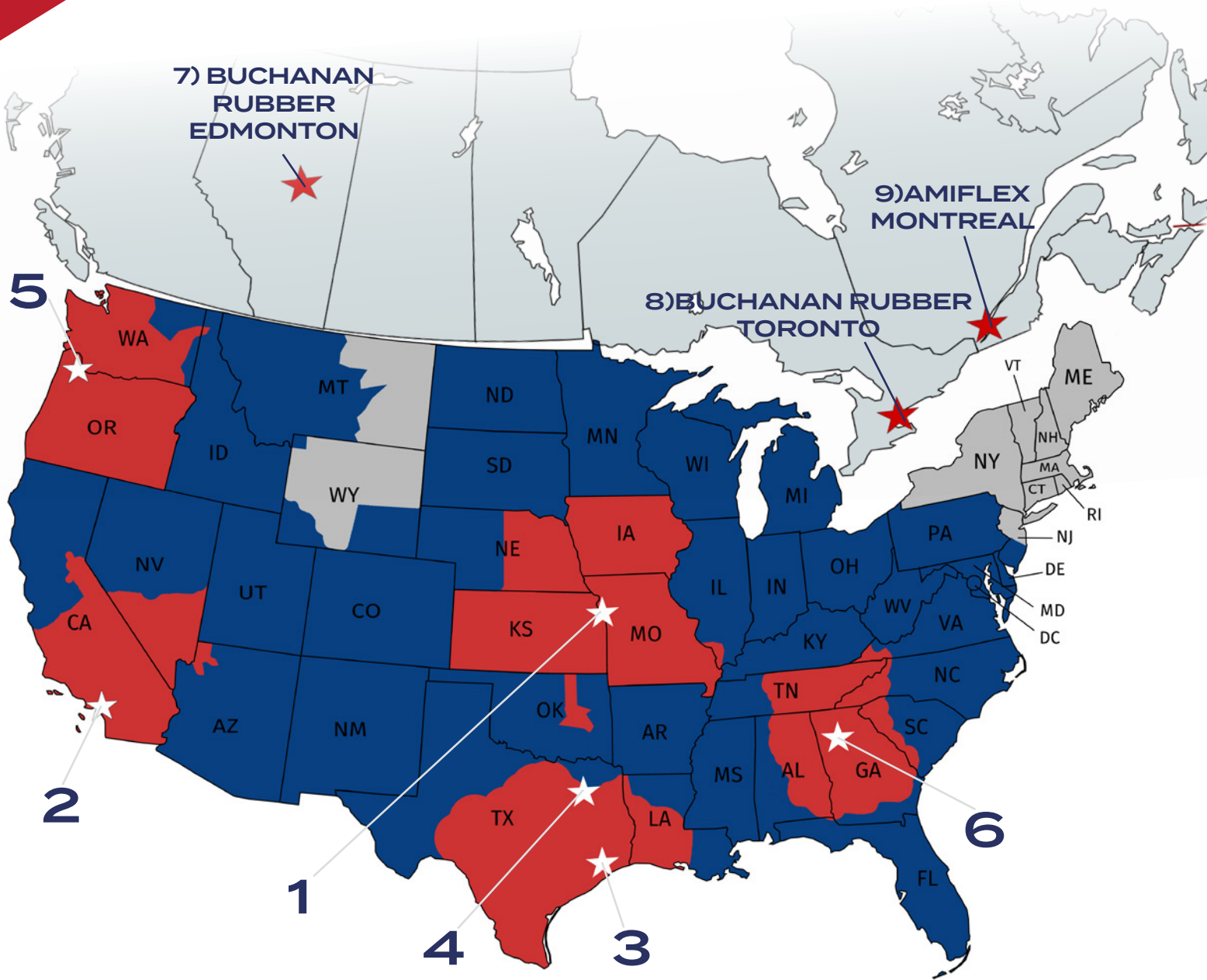
**Drafting.** No provision of this Agreement shall be interpreted for or against any party hereto on the basis that such party was the draftsman of such provision, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

**Counterparts.** This Agreement may be executed in counterparts, each of which is deemed an original, but all of which together is deemed to be one and the same agreement. A signed copy of this Agreement delivered by facsimile, e-mail or other means of electronic transmission is deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

**Miscellaneous.** All provisions set forth herein regarding warranty, confidential information, indemnification, liability and limits thereon, and any other provisions that survive by their terms will survive any termination or expiration of any Response delivered in connection herewith pursuant to the terms of such sections. In the event that any provision of these terms is held to be illegal, invalid or unenforceable under any present or future law, rule or regulation, such provision shall be deemed stricken from these T&Cs, but such illegality, invalidity or unenforceability shall not invalidate any of the other provisions of these T&Cs. Buyer represents and covenants that it has, and will continue to, comply with all laws and regulations related to the goods sold hereunder, including, but not limited to, export control laws. This sale transaction shall be governed, construed and enforced solely by the laws of the State of Seller's business address as shown on the Response. The United Nations Convention on the International Sale of Goods shall not be applicable to these T & C. The relationship of Buyer and Seller is that of independent contractors.

**California Customers.** Midland Industries does not guarantee that all products meet California environmental laws of Proposition 65. It is the sole responsibility and liability of the Midland distributor to order products for use in California that comply with California laws.

# MIDLAND INDUSTRIES DISTRIBUTION



## UPS GROUND TIME IN TRANSIT

- NEXT DAY DELIVERY
- 3 DAY DELIVERY
- 2 DAY DELIVERY

\*2 Day Delivery is determined by warehouse location and inventory at specified location.

\* For detailed UPS Ground time in transit maps please visit [www.UPS.com/maps](http://www.UPS.com/maps)

# DISTRIBUTION LOCATIONS

## **1) MIDWEST DISTRIBUTION**

*Full Stocking Location*

3145 Oak Street  
Kansas Ciy, MO 64111

## **2) WEST COAST DISTRIBUTION**

*Full Stocking Location*

659 E Ball Rd  
Anahiem, CA 92805

## **3) TEXAS DISTRIBUTION**

*Full Stocking Location*

5731 Harvey Wilson Dr  
Houston, TX 77020

## **4) TEXAS DISTRIBUTION**

*Full Stocking Location*

600 E. Centre Park  
DeSoto, TX 75115

## **5) PACIFIC NORTH WEST DISTRIBUTION**

*Full Stocking Location*

14015 NE Airport Way  
Portland, OR 97230

## **6) EAST COAST DISTRIBUTION**

*Full Stocking Location*

4221 Cantrell Rd NW  
Acworth, GA 30101

## **MIDLAND INDUSTRIES CUSTOMER SERVICE**

Phone: 800-821-5725 || Fax: 800-877-5391 || Email: [Sales@MidlandIndustries.com](mailto:Sales@MidlandIndustries.com)

You can easily check stock and availability for products at these locations online using Account Manager. All accounting will be handled in Kansas City.

## **CANADIAN DISTRIBUTION**

### **7) BUCHANAN RUBBER-EDMONTON**

9547-12 Ave SW,  
Edmonton, AB T6X-0C3  
Phone: 1-888-775-4673  
Fax: 1-888-990-4673  
[Sales@BuchananRubber.com](mailto:Sales@BuchananRubber.com)

### **8) BUCHANAN RUBBER-TORONTO**

50 Fasken Drive  
(units 11-21),  
Etobicoke, ON M9W-1K5  
Phone: 1-888-775-4673  
Fax: 1-888-990-4673  
[Sales@BuchananRubber.com](mailto:Sales@BuchananRubber.com)

### **9) AMIFLEX-MONTREAL**

9555 Henri Bourassa Ouest,  
Montreal, QC H4S-1S7  
Phone: 1-888-775-4673  
Fax: 1-888-990-4673  
[Sales@BuchananRubber.com](mailto:Sales@BuchananRubber.com)

Canadian operations serviced through our Edmonton, Toronto & Montreal distribution centers. For more information call customer service at 1-800-775-HOSE (4673)



# MIDLAND INDUSTRIES

THE BUILT TO SERVE ADVANTAGE

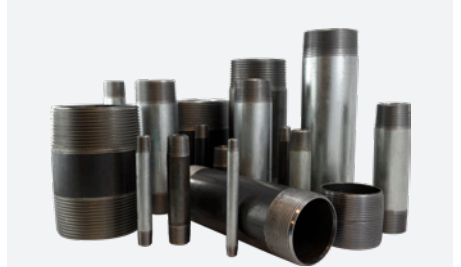
..... WE OFFER ALL THE RESOURCES FOR YOUR WATERWORKS & IRRIGATION NEEDS .....



**MALLEABLE FITTINGS & NIPPLES**



**LEAD FREE BRASS FITTINGS & BRASS NIPPLES**



**BLACK AND GALVANIZED STEEL NIPPLES**



**HOSE ACCESSORIES**



**GATE, GLOBE & CHECK VALVES**



**BALL VALVES**



**CLAMPS**



**PVC PRODUCTS**



**DI THREADED Y STRAINERS**



**GARDEN HOSE FITTINGS**

## SCHEDULE A SALES MEETING WITH MIDLAND INDUSTRIES!



### VIEW OUR MULTIPLE LOCATIONS

**MIDWEST DISTRIBUTION**  
Full Stocking Location  
3145 Oak Street Kansas Ciy, MO 64111

**TEXAS DISTRIBUTION**  
Full Stocking Location  
5731 Harvey Wilson Dr Houston, TX 77020

**EAST COAST DISTRIBUTION**  
Full Stocking Location  
4221 Cantrell Rd NW Acworth, GA 30101

**WEST COAST DISTRIBUTION**  
Full Stocking Location  
659 E Ball Rd. Anahiem, CA 92805

**TEXAS DISTRIBUTION**  
Full Stocking Location  
600 E. Centre Park DeSoto, TX 75115

**PACIFIC NW DISTRIBUTION**  
Full Stocking Location  
14015 NE Airport Way Portland, OR 97230

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