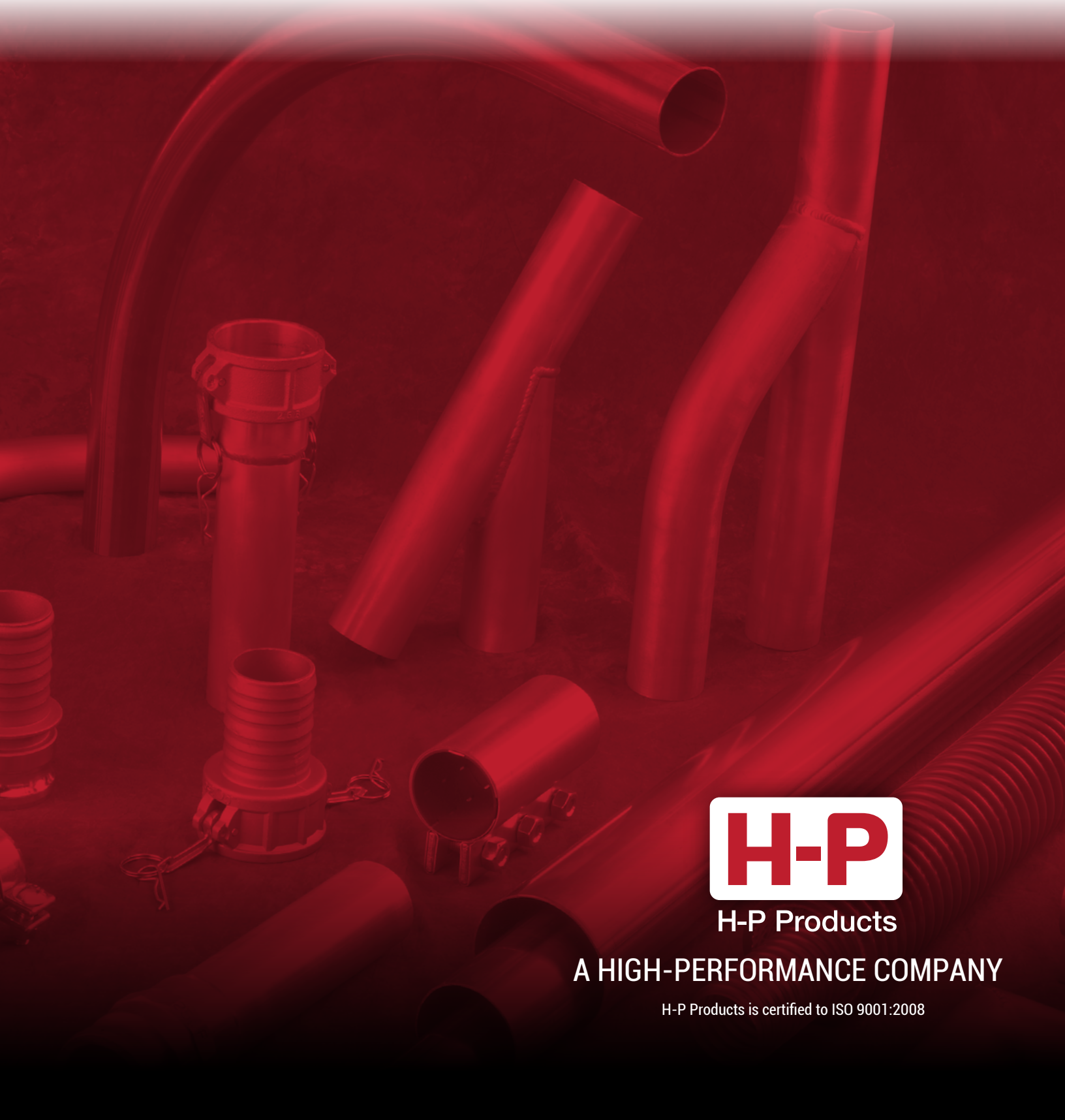


# PNEUMATIC CONVEYING COMPONENTS

TUBING, PIPE, BENDS, COUPLINGS & FITTINGS



H-P Products

A HIGH-PERFORMANCE COMPANY

H-P Products is certified to ISO 9001:2008

# WELCOME TO H-P PRODUCTS!



H-P Products specializes in supplying pneumatic conveying components for a variety of material handling applications.

H-P's commitment to superior customer service is strengthened by new product developments such as the Instalok Coupling and improved ordering and fulfillment systems. Our commitment to continual improvement has established H-P as a leader in the pneumatic conveying industry.

Our mission is simple: provide superior products and deliver customer service that consistently yields on-time delivery allowing our customers to be successful and more competitive in their markets.

We're looking forward to your next order!

Sincerely,  
The Customer Service Team at H-P

H-P Products is an ISO 9001:2008 certified supplier of tube and pipe components for pneumatic conveying systems.

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### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## PRODUCTS

### TUBE & PIPE

Our tubing ranges from 1-1/2" through 10" OD in 11, 12, 14 and 16 gauge wall thickness. We also have the capability of supplying tube up to 14" OD.

Standard pipe is available in schedule 5, 10, 40, and 80 wall thickness, and ranges from 1" through 8" NPS.

Both tube and pipe are available in Carbon, Stainless Steel, Aluminum, and Galvanized Steel. Standard lengths are 20' but we can cut to your specifications.

### BENDS & BENDING CAPABILITIES

Our inventories include a wide range of parts: **Short Radius** (1-1/2 times OD / NPS), **Standard Radius** (2-1/2 times OD / NPS) and **Long Radius Bends** (up through 60" center line). Available in **Carbon, Stainless Steel and Aluminum**.

Zinc-Coated (Galvanized) bends are available upon request.

### FITTINGS

We offer a wide variety of laterals, wyes, tees, adapters, and flanges for connecting both pipe and tube. Available in Carbon, Stainless Steel, and Aluminum.

### METHODS OF JOINING

The INSTALOK™ Coupling, developed for the plastics industry, is available in 1-1/2" through 4" OD for tube and 2" through 3-1/2" NPS for pipe. This coupling reduces installation time and provides superior grip strength and end pull.

The Compression Coupling is available in 1-1/2" through 14" OD and 1-1/4" through 12" NPS in pipe. The G-90 Galvanized Exterior Coating provides superior corrosion resistance.

We also offer a wide variety of gaskets, eliminators, super grips, cam and groove components.

### ACCESSORIES

H-P Products offers an extensive selection of the accessories you need to complete your system. We carry everything from you need from vacuum wands, sight glasses and blast gates to hose and installation components.

## NEED SOMETHING SPECIAL?

Our sales engineers will assist you in working out a cost-effective solution...Simply give us a call!

## SPECIAL SERVICES

### SPECIAL REQUESTS & CATALOG PART VARIATIONS

If our standard catalog items don't meet your needs, please contact us at 1-800-860-TUBE(8823) for assistance with making alterations of standard parts, or to fabricate a custom part to your exact specification. We have extensive custom tube fabrication services available to help you meet your required specifications.

### DIRECTIONAL SHOT PEENING

Transported resin pellets tend to degrade when contact is made with internal tube or pipe surfaces. The velocity of the pellets result in friction and heat, which can cause them to smear within tubing and elbows. When these smeared pellets are dislodged from the interior of tube or pipe they can easily clog material lines and hoppers. The result is potential lost production time.

Directional shot peening produces a dimpling effect that has been found to reduce the formation of fines, fluff, and streamers within pneumatic conveying systems. The directional surface finish has the added benefit of hardening the tube or pipe, extending its life over non-treated surfaces. Shot peening has been reported to result in one third the fines or angel hair typical in non-treated systems.

### PORCELAIN LINING

Porcelain lining is used due to its resistance to corrosive attack, atmospheric pollution, extreme weather conditions, and abrasion. In these extreme environments, standard steel tube, pipe, and elbows can have a limited service life.

Porcelain enamel is a glassy compound that is adhered to the inside diameter of tube or pipe. This compound is applied as a liquid slurry to the interior of carbon or stainless steel. When baked, the result is a glassy interior surface that is rated at 6 to 7 on the Moh's scale of hardness; diamonds are the hardest at a rating of 10. The surface will easily resist scratching from a steel blade.

Porcelain lining is available in single or double coat, and the thickness of the coating is checked before shipment. Single coating is .004-.007" thick, and double coating is .008-.012" thick. Tube or pipe up to 10' in length can be porcelain lined.

### SPIRAL GROOVING

Streamers, angel hair or snakeskins are formed as transferred plastic resins melt and smear along the walls of transfer tubing. With time, the melted plastic accumulates and forms large ribbons or streamers that flake off in the moving pellet stream. This can cause down time when these ribbons collect to block lines and equipment.

Spiral grooving the tube or pipe ID creates turbulence in the conveying air stream, which minimizes the frequency of impact and reduces pellet smearing. Spiral grooving can be applied to stainless steel and aluminum tubing with a minimum 2" OD and 14GA (.083") wall thickness. The resulting groove depth varies from .015-.020" deep. The finish is cut into the surface of stainless steel, and rolled into aluminum.

Straight length tubing up to 20' can be processed, and bends can be processed after grooving. Mandrel bending after the grooves have been applied may reduce the consistency of the grooves.

### CERAMIC COATING

In extreme industrial environments where abrasive materials are pneumatically conveyed, unprotected elbows can wear out in just a few weeks.

Ceramic coating is composed of a proprietary matrix of high alumina ceramic beads and fillers. This matrix is then covered in a fiberglass wrap that adds structure and additional wear resistance. Once the original substrate wears through, the ceramic coating adds additional service life. Coating can be added to all materials offered and in almost any part configuration.

## DELIVERY & PRICING

Fast fulfillment is available by freight or delivery service on a wide selection of in-stock products. We'll also make a diligent effort to meet emergency requirements for non-stock items.

All prices are FOB factory, Louisville, Ohio

Terms: Net 30 days

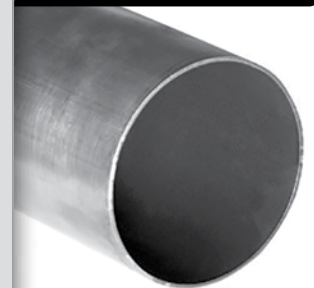
Prices are in U.S. dollars

Prices and specifications are subject to change without notice, and without obligation. All material is invoiced at the price in effect at time of shipment. All prices and discounts are based on one shipment to one destination. Please see current price list for pricing.

### SHOT PEENING



### PORCELAIN LINING



### SPIRAL GROOVING



### CERAMIC COATING



## TERMINOLOGY

CLR = Center Line Radius  
ERW = Electric Resistance Welded  
FNPT = Female National Pipe Thread  
ID = Inside Diameter  
MNPT = Male National Pipe Thread  
NPS = Nominal Pipe Size  
OD = Outside Diameter  
SCH = Schedule

# TUBE DIMENSIONS & BENDING

All reference dimensions are nominal

## TUBING

Our standard catalog tube sizes range from 1-1/2" through 10" OD in Carbon, Stainless Steel, and Aluminum. Please ask about our additional bending & fabricating capabilities in tubing sizes up through 14"OD.

Zinc-Coated (Galvanized) tubing and bends are available as a special order.

## TUBE DIMENSIONS

WALL THICKNESS	INCHES
16 Gauge	.065
14 Gauge	.083
12 Gauge	.109
11 Gauge	.120

## TUBE BENDING CAPABILITIES

OD (IN.)	CENTER LINE RADIUS (IN.)	GAUGE
1-1/2	1-3/4, 2-1/2, 3, 4, 6, 7-1/2, 9, 12, 15, 18, 24, 30, 36	11, 14, 16, 18
1-5/8	2-1/8, 2-1/2	16
1-3/4	2-1/2, 3, 4, 4-1/2, 6, 8, 9, 12, 15, 24, 30, 36	11, 14, 16
2	2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8, 9, 10, 12, 15, 18, 24, 30, 36, 48	11, 14, 16
2-1/8	2-7/8, 3-1/2, 5, 12, 20, 24, 36	11, 16
2-1/4	2-1/2, 3, 4, 5-1/2, 8, 9, 12, 15, 18, 24, 30, 36, 42	11, 14, 16, 18
2-3/8	2-3/8, 3, 6, 8, 12, 18, 24, 30, 36, 48	16, 18
2-1/2	2-1/2, 3, 3-1/4, 3-3/4, 4, 5, 6, 9, 12, 15, 18, 24, 30, 36, 48	11, 14, 16
2-3/4	2-3/4, 3-7/8, 15, 24, 30	11, 14, 16, 18
2-7/8	3-3/4, 9, 10, 12, 24, 30, 36, 48, 60	11, 14, 16
3	3, 4, 4-1/2, 6, 7-1/2, 9, 12, 15, 18, 24, 30, 36, 38, 48, 60	11, 14, 16, 18
3-1/2	3-1/2, 4, 4-1/2, 5, 6, 7-1/2, 8, 8-3/4, 12, 13, 15, 18, 24, 30, 36, 48, 60	11, 14, 16, 18
4	4, 6, 8, 9, 10, 12, 18, 24, 30, 36, 48, 60	11, 14, 16, 18
4-1/2	6, 9, 12, 16, 20, 24, 30, 36, 48, 60	11, 14, 16
5	5, 5-1/2, 7-1/2, 12-1/2, 18, 24, 30, 36, 48, 60	11, 14, 16
6	7, 9, 15, 24, 30, 36, 48, 60	11, 14, 16
8	12, 20, 32, 48	11, 14
10	20, 32, 48	11, 12

## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

PLEASE CONTACT H-P REGARDING SPECIAL MATERIALS, GAUGE & RADII



# PIPE DIMENSIONS & BENDING

## PIPE

We offer standard pipe sizes from 1" to 8" NPS in Aluminum, Carbon and Stainless Steel.

## PIPE DIMENSIONS

NPS (INCHES)	OD (INCHES)	SCH 5	SCH 10	SCH 40	SCH 80
1"	1.315	.065	.109	.133	.179
1-1/4"	1.660	.065	.109	.140	.191
1-1/2"	1.900	.065	.109	.145	.200
2"	2.375	.065	.109	.154	.218
2-1/2"	2.875	.083	.120	.203	.276
3"	3.500	.083	.120	.216	.300
3-1/2"	4.000	.083	.120	.226	.318
4"	4.500	.083	.120	.237	.337
5"	5.563	.109	.134	.258	.375
6"	6.625	.109	.134	.280	.432
8"	8.625	.109	.148	.322	.500

## PIPE BENDING CAPABILITIES

NPS (INCHES)	OD (INCHES)	CENTER LINE RADIUS (INCHES)	SCHEDULE (INCHES)				
			5	10	40	80	OTHER
1-1/2	1.900	6, 9, 12, 18, 36	-	-	.145	.200	-
2	2.375	2-3/8, 3, 6, 8, 12, 18, 24, 30, 36, 48	.065	.109	.154	.218	-
2-1/2	2.875	3-3/4, 9, 10, 12, 24, 30, 36, 48, 60	.083	.120	.203	.276	-
3	3.500	4, 4-1/2, 5, 6, 7-1/2, 8, 8-3/4, 12, 13, 15, 18, 24, 30, 36, 48, 60	.083	.120	.216	.300	.188
3-1/2	4.000	4, 6, 8, 9, 10, 12, 18, 24, 30, 36, 48, 60	.083	.120	-	.300	-
4	4.500	6, 9, 12, 16, 20, 24, 30, 36, 48, 60	.083	.120	.237	.337	.188
5	5.563	24, 30, 36, 48, 60	-	.134	.258	.375	-
6	6.625	24	-	.134	.280	-	.188, .250
8	8.625	32	-	.148	.322	-	.188, .250

## TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

Order by Product ID Number

## ALUMINUM

OD (IN.)	GAUGE	PRODUCT ID
1-1/2"	16	16ST150A
1-1/2"	14	14ST150A
1-1/2"	11	11ST150A
1-3/4"	16	16ST175A
1-3/4"	14	14ST175A
1-3/4"	11	11ST175A
2"	16	16ST200A
2"	14	14ST200A
2"	11	11ST200A
2-1/8"	16	16ST212A
2-1/8"	11	11ST212A
2-1/4"	16	16ST225A
2-1/4"	14	14ST225A
2-1/4"	11	11ST225A
2-1/2"	16	16ST250A
2-1/2"	14	14ST250A
2-1/2"	11	11ST250A
3"	16	16ST300A
3"	14	14ST300A
3"	11	11ST300A
3-1/2"	16	16ST350A
3-1/2"	14	14ST350A
3-1/2"	11	11ST350A
4"	16	16ST400A
4"	14	14ST400A
4"	11	11ST400A
4-1/2"	14	14ST450A
4-1/2"	11	11ST450A
5"	14	14ST500A
5"	11	11ST500A
6"	14	14ST600A
6"	11	11ST600A
8"	14	14ST800A
8"	11	11ST800A
10"	12	12ST1000A

### Tube Specifications

- 1-1/2" through 10" OD. Up to 14" special order!
- Wall Thickness: 16, 14, 12 & 11 Gauge
- Standard length is 20' But we will cut to your specifications!

### Material type

- A = Aluminum
- C = Carbon
- S = Stainless
- Z = Galvanized

## CARBON STEEL

OD (IN.)	GAUGE	PRODUCT ID
1-1/2"	16	16WT150C
1-1/2"	14	14WT150C
1-1/2"	11	11WT150C
1-3/4"	16	16WT175C
1-3/4"	14	14WT175C
1-3/4"	11	11WT175C
2"	16	16WT200C
2"	14	14WT200C
2"	11	11WT200C
2-1/8"	16	16WT212C
2-1/8"	11	11WT212C
2-1/4"	16	16WT225C
2-1/4"	11	11WT225C
2-1/2"	16	16WT250C
2-1/2"	14	14WT250C
2-1/2"	11	11WT250C
3"	16	16WT300C
3"	14	14WT300C
3"	11	11WT300C
3-1/2"	16	16WT350C
3-1/2"	14	14WT350C
3-1/2"	11	11WT350C
4"	16	16WT400C
4"	14	14WT400C
4"	11	11WT400C
4-1/2"	14	14WT450C
4-1/2"	11	11WT450C
5"	14	14WT500C
5"	11	11WT500C
6"	14	14WT600C
6"	11	11WT600C
8"	14	14WT800C
8"	11	11WT800C
10"	12	12WT1000C

### NPS TO OD CONVERSION

- 3" NPS Sch 5 = 3-1/2" OD 14 Gauge
- 3" NPS Sch 10 = 3-1/2" OD 11 Gauge
- 3-1/2" NPS Sch 5 = 4" OD 14 Gauge
- 3-1/2" NPS Sch 10 = 4" OD 11 Gauge
- 4" NPS Sch 5 = 4-1/2" OD 14 Gauge
- 4" NPS Sch 10 = 4-1/2" OD 11 Gauge

### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

Order by Product ID Number

**STAINLESS STEEL**

OD (IN.)	GAUGE	PRODUCT ID
1-1/2"	16	16WT150S
1-1/2"	14	14WT150S
1-1/2"	11	11WT150S
1-3/4"	16	16WT175S
1-3/4"	14	14WT175S
1-3/4"	11	11WT175S
2"	16	16WT200S
2"	14	14WT200S
2"	11	11WT200S
2-1/8"	16	16WT212S
2-1/8"	11	11WT212S
2-1/4"	16	16WT225S
2-1/4"	14	14WT225S
2-1/4"	11	11WT225S
2-1/2"	16	16WT250S
2-1/2"	14	14WT250S
2-1/2"	11	11WT250S
3"	16	16WT300S
3"	14	14WT300S
3"	11	11WT300S
3-1/2"	16	16WT350S
3-1/2"	14	5WP300S
3-1/2"	11	10WP300S
4"	16	16WT400S
4"	14	5WP350S
4"	11	10WP350S
4-1/2"	14	5WP400S
4-1/2"	11	10WP400S
5"	14	14WT500S
5"	11	11WT500S
6"	14	14WT600S
6"	11	11WT600S
8"	14	14WT800S
8"	11	11WT800S
10"	12	12WT1000S

**ZINC COATED (GALVANIZED)**

OD (IN.)	GAUGE	PRODUCT ID
1-1/2"	16	16WT150Z
1-1/2"	11	11WT150Z
2"	16	16WT200Z
2-1/8"	16	16WT212Z
2-1/8"	11	11WT212Z
2-1/2"	16	16WT250Z
2-1/2"	11	11WT250Z
3"	16	16WT300Z
3"	11	11WT300Z
3-1/2"	16	16WT350Z
3-1/2"	11	11WT350Z
4"	16	16WT400Z
4"	11	11WT400Z
5"	14	14WT500Z
5"	11	11WT500Z
6"	14	14WT600Z
6"	11	11WT600Z
8"	14	14WT800Z
8"	11	11WT800Z
10"	12	12WT1000Z

**Tube Specifications**

• 1-1/2" through 10" OD.  
Up to 14" special order!

• Wall Thickness:  
16, 14, 12 & 11 Gauge

• Standard length is 20' But we  
will cut to your specifications!

**Material type**

A = Aluminum

C = Carbon

S = Stainless

Z = Galvanized

**TERMINOLOGY**

CLR = Center Line Radius  
ERW = Electric Resistance  
Welded  
FNPT = Female National  
Pipe Thread  
ID = Inside Diameter  
MNPT = Male National  
Pipe Thread  
NPS = Nominal Pipe Size  
OD = Outside Diameter  
SCH = Schedule

# TUBE BENDS

All reference dimensions are nominal

## 1-1/2" OD

**To determine your part number when ordering:**

Use **GAUGE**

plus **PRODUCT ID**

plus **MATERIAL TYPE**

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A

### Tube Specifications

- 1-1/2" through 10" OD.  
Up to 14" special order!
- Wall Thickness:  
16, 14, 12 & 11 Gauge
- Standard length is 20' But we  
will cut to your specifications!

### Material type

A = Aluminum  
C = Carbon  
S = Stainless  
Z = Galvanized

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
1-1/2"	16A, 16S, 14A, 14S, 11A, 11S	2.5"	90	150252
1-1/2"	16A, 16S, 14A, 14S, 11A, 11S	2.5"	60	150256
1-1/2"	16A, 16S, 14A, 14S, 11A, 11S	2.5"	45	150251
1-1/2"	16A, 16S, 14A, 14S, 11A, 11S	2.5"	30	150253
1-1/2"	16A, 16S, 14A, 14S, 11A, 11S	6"	90	150062
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	60	150066
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	45	150061
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	30	150063
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	90	150092
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	60	150096
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	45	150091
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	30	150093
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	90	150122
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	60	150126
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	45	150121
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	30	150123
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	90	150182
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	60	150186
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	45	150181
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	30	150183
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	90	150242
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	60	150246
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	45	150241
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	30	150243
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	90	150302
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	60	150306
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	45	150301
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	30	150303
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	90	150362
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	60	150366
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	45	150361
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	30	150363

• Nominal standard tangent is two times OD, 6" minimum.

### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

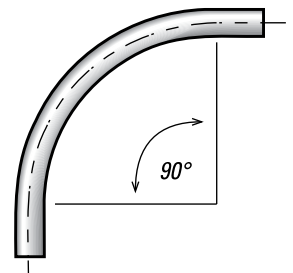
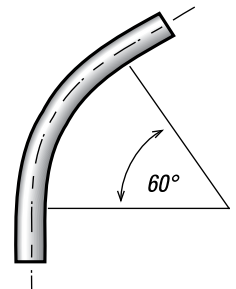
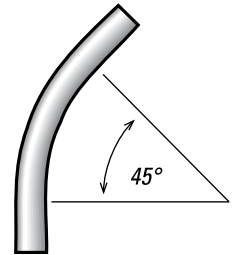
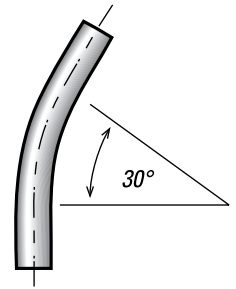
Catalog Part Variations Available Upon Request



## 1-3/4" OD

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
1-3/4"	16A, 16S, 14A, 14S, 11A, 11S	2.5"	90	175252
1-3/4"	16A, 16S, 14A, 14S, 11A, 11S	2.5"	60	175256
1-3/4"	16A, 16S, 14A, 14S, 11A, 11S	2.5"	45	175251
1-3/4"	16A, 16S, 14A, 14S, 11A, 11S	2.5"	30	175253
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	90	175092
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	60	175096
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	45	175091
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	30	175093
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	90	175122
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	60	175126
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	45	175121
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	30	175123
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	90	175182
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	60	175186
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	45	175181
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	30	175183
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	90	175242
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	60	175246
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	45	175241
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	30	175243
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	90	175302
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	60	175306
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	45	175301
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	30	175303
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	90	175362
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	60	175366
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	45	175361
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	30	175363

• Nominal standard tangent is two times OD, 6" minimum.



## TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

# TUBE BENDS

All reference dimensions are nominal

## 2" OD

**To determine your part number when ordering:**

Use **GAUGE**

plus **PRODUCT ID**

plus **MATERIAL TYPE**

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A

### Tube Specifications

- 1-1/2" through 10" OD.  
Up to 14" special order!
- Wall Thickness:  
16, 14, 12 & 11 Gauge
- Standard length is 20' But we  
will cut to your specifications!

### Material type

A = Aluminum  
C = Carbon  
S = Stainless  
Z = Galvanized

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
2"	16A, 16S, 14A, 14S, 11A, 11S	3"	90	200032
2"	16A, 16S, 14A, 14S, 11A, 11S	3"	60	200036
2"	16A, 16S, 14A, 14S, 11A, 11S	3"	45	200031
2"	16A, 16S, 14A, 14S, 11A, 11S	3"	30	200033
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	90	200062
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	60	200066
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	45	200061
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	30	200063
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	90	200092
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	60	200096
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	45	200091
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	30	200093
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	90	200122
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	60	200126
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	45	200121
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	30	200123
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	90	200182
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	60	200186
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	45	200181
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	30	200183
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	90	200242
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	60	200246
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	45	200241
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	30	200243
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	90	200302
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	60	200306
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	45	200301
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	30	200303
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	90	200362
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	60	200366
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	45	200361
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	30	200363

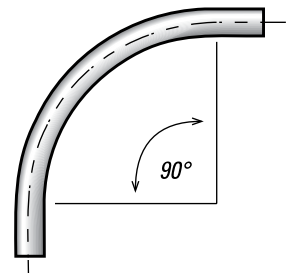
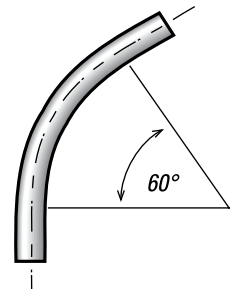
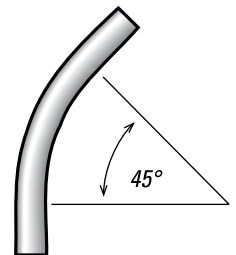
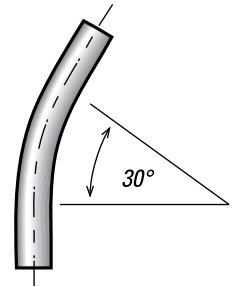
### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

Catalog Part Variations Available Upon Request

## 2-1/4" OD

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
2.25"	16A, 16S, 14A, 14S, 11A, 11S	4"	90	225042
2.25"	16A, 16S, 14A, 14S, 11A, 11S	4"	60	225046
2.25"	16A, 16S, 14A, 14S, 11A, 11S	4"	45	225041
2.25"	16A, 16S, 14A, 14S, 11A, 11S	4"	30	225043
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	90	225092
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	60	225096
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	45	225091
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	30	225093
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	90	225122
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	60	225126
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	45	225121
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	30	225123
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	90	225182
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	60	225186
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	45	225181
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	30	225183
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	90	225242
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	60	225246
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	45	225241
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	30	225243
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	90	225302
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	60	225306
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	45	225301
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	30	225303
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	90	225362
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	60	225366
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	45	225361
2.25"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	30	225363



## TERMINOLOGY

CLR = Center Line Radius  
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 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

# TUBE BENDS

All reference dimensions are nominal

## 2-1/2" OD

**To determine your part number when ordering:**

Use **GAUGE**

plus **PRODUCT ID**

plus **MATERIAL TYPE**

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A

### Tube Specifications

- 1-1/2" through 10" OD.  
Up to 14" special order!
- Wall Thickness:  
16, 14, 12 & 11 Gauge
- Standard length is 20' But we will cut to your specifications!

### Material type

A = Aluminum  
C = Carbon  
S = Stainless  
Z = Galvanized

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
2.5"	16A, 16S, 14A, 14S, 11A, 11S	4"	90	250042
2.5"	16A, 16S, 14A, 14S, 11A, 11S	4"	60	250046
2.5"	16A, 16S, 14A, 14S, 11A, 11S	4"	45	250041
2.5"	16A, 16S, 14A, 14S, 11A, 11S	4"	30	250043
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	90	250062
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	60	250066
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	45	250061
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	6"	30	250063
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	90	250092
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	60	250096
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	45	250091
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	30	250093
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	90	250122
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	60	250126
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	45	250121
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	30	250123
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	90	250182
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	60	250186
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	45	250181
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	30	250183
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	90	250242
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	60	250246
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	45	250241
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	30	250243
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	90	250302
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	60	250306
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	45	250301
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	30	250303
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	90	250362
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	60	250366
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	45	250361
2.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	30	250363

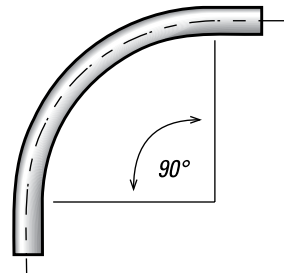
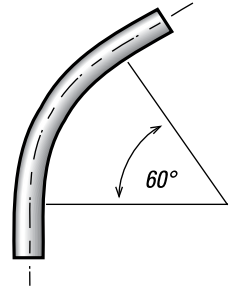
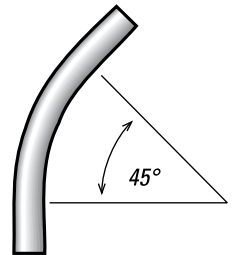
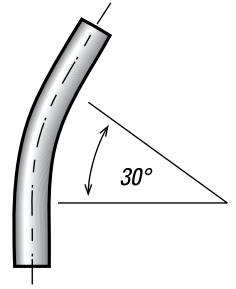
### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

Catalog Part Variations Available Upon Request

## 3" OD

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
3.0"	16A, 16S, 14A, 14S, 11A, 11S	4.5"	90	300452
3.0"	16A, 16S, 14A, 14S, 11A, 11S	4.5"	60	300456
3.0"	16A, 16S, 14A, 14S, 11A, 11S	4.5"	45	300451
3.0"	16A, 16S, 14A, 14S, 11A, 11S	4.5"	30	300453
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	7.5"	90	300752
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	7.5"	60	300756
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	7.5"	45	300751
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	7.5"	30	300753
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	90	300092
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	60	300096
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	45	300091
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	30	300093
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	90	300122
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	60	300126
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	45	300121
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	30	300123
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	90	300182
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	60	300186
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	45	300181
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	30	300183
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	90	300242
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	60	300246
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	45	300241
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	30	300243
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	90	300302
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	60	300306
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	45	300301
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	30	300303
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	90	300362
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	60	300366
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	45	300361
3.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	30	300363



## TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule



# TUBE BENDS

All reference dimensions are nominal

## 3-1/2" OD

**To determine your part number when ordering:**

Use **GAUGE**

plus **PRODUCT ID**

plus **MATERIAL TYPE**

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A

### Tube Specifications

- 1-1/2" through 10" OD.  
Up to 14" special order!
- Wall Thickness:  
16, 14, 12 & 11 Gauge
- Standard length is 20' But we will cut to your specifications!

### Material type

A = Aluminum  
C = Carbon  
S = Stainless  
Z = Galvanized

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
3.5"	16A, 16S, 14A, 14S, 11A, 11S	5"	90	350052
3.5"	16A, 16S, 14A, 14S, 11A, 11S	5"	60	350056
3.5"	16A, 16S, 14A, 14S, 11A, 11S	5"	45	350051
3.5"	16A, 16S, 14A, 14S, 11A, 11S	5"	30	350053
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	90	350092
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	60	350096
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	45	350091
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	30	350093
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	90	350122
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	60	350126
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	45	350121
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	30	350123
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	90	350182
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	60	350186
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	45	350181
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	30	350183
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	90	350242
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	60	350246
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	45	350241
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	30	350243
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	90	350302
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	60	350306
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	45	350301
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	30	350303
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	90	350362
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	60	350366
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	45	350361
3.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	30	350363

• Nominal standard tangent is two times OD, 6" minimum.

### SPECIAL SERVICES

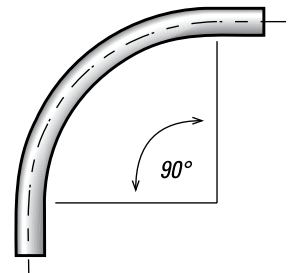
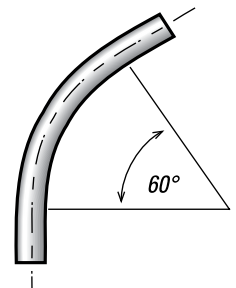
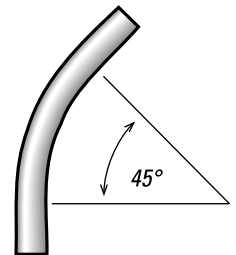
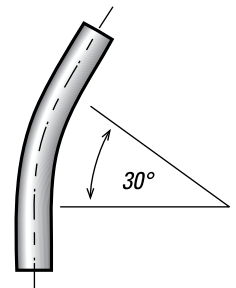
- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

Catalog Part Variations Available Upon Request

## 4" OD

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
4.0"	16A, 16S, 14A, 14S, 11A, 11S	6"	90	400062
4.0"	16A, 16S, 14A, 14S, 11A, 11S	6"	60	400066
4.0"	16A, 16S, 14A, 14S, 11A, 11S	6"	45	400061
4.0"	16A, 16S, 14A, 14S, 11A, 11S	6"	30	400063
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	90	400092
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	60	400096
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	45	400091
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	30	400093
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	90	400122
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	60	400126
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	45	400121
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	30	400123
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	90	400182
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	60	400186
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	45	400181
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	30	400183
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	90	400242
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	60	400246
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	45	400241
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	30	400243
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	90	400302
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	60	400306
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	45	400301
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	30	400303
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	90	400362
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	60	400366
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	45	400361
4.0"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	30	400363

• Nominal standard tangent is two times OD, 6" minimum.



## TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

# TUBE BENDS

All reference dimensions are nominal

## 4-1/2" OD

**To determine your part number when ordering:**

Use **GAUGE**

plus **PRODUCT ID**

plus **MATERIAL TYPE**

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A

### Tube Specifications

- 1-1/2" through 10" OD.  
Up to 14" special order!
- Wall Thickness:  
16, 14, 12 & 11 Gauge
- Standard length is 20' But we will cut to your specifications!

### Material type

A = Aluminum  
C = Carbon  
S = Stainless  
Z = Galvanized

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	90	450092
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	60	450096
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	45	450091
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	9"	30	450093
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	90	450122
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	60	450126
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	45	450121
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	12"	30	450123
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	90	450182
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	60	450186
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	45	450181
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	30	450183
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	90	450242
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	60	450246
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	45	450241
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	24"	30	450243
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	90	450302
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	60	450306
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	45	450301
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30"	30	450303
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	90	450362
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	60	450366
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	45	450361
4.5"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	36"	30	450363

• Nominal standard tangent is two times OD, 6" minimum.

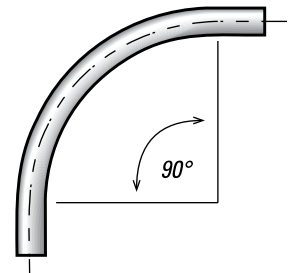
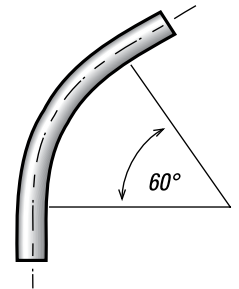
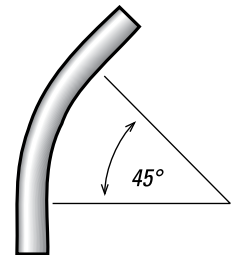
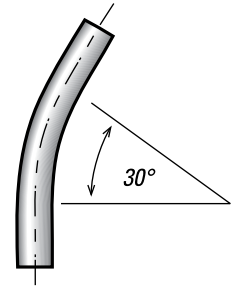
### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## 5" OD

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
5.0"	14A, 14C, 14S, 11A, 11C, 11S	7.5"	90	500752
5.0"	14A, 14C, 14S, 11A, 11C, 11S	7.5"	60	500756
5.0"	14A, 14C, 14S, 11A, 11C, 11S	7.5"	45	500751
5.0"	14A, 14C, 14S, 11A, 11C, 11S	7.5"	30	500753
5.0"	14A, 14C, 14S, 11A, 11C, 11S	12.5"	90	500122
5.0"	14A, 14C, 14S, 11A, 11C, 11S	12.5"	60	500126
5.0"	14A, 14C, 14S, 11A, 11C, 11S	12.5"	45	500121
5.0"	14A, 14C, 14S, 11A, 11C, 11S	12.5"	30	500123
5.0"	14A, 14C, 14S, 11A, 11C, 11S	18"	90	500182
5.0"	14A, 14C, 14S, 11A, 11C, 11S	18"	60	500186
5.0"	14A, 14C, 14S, 11A, 11C, 11S	18"	45	500181
5.0"	14A, 14C, 14S, 11A, 11C, 11S	18"	30	500183
5.0"	14A, 14C, 14S, 11A, 11C, 11S	24"	90	500242
5.0"	14A, 14C, 14S, 11A, 11C, 11S	24"	60	500246
5.0"	14A, 14C, 14S, 11A, 11C, 11S	24"	45	500241
5.0"	14A, 14C, 14S, 11A, 11C, 11S	24"	30	500243
5.0"	14A, 14C, 14S, 11A, 11C, 11S	30"	90	500302
5.0"	14A, 14C, 14S, 11A, 11C, 11S	30"	60	500306
5.0"	14A, 14C, 14S, 11A, 11C, 11S	30"	45	500301
5.0"	14A, 14C, 14S, 11A, 11C, 11S	30"	30	500303
5.0"	14A, 14C, 14S, 11A, 11C, 11S	36"	90	500362
5.0"	14A, 14C, 14S, 11A, 11C, 11S	36"	60	500366
5.0"	14A, 14C, 14S, 11A, 11C, 11S	36"	45	500361
5.0"	14A, 14C, 14S, 11A, 11C, 11S	36"	30	500363

• Nominal standard tangent is two times OD, 6" minimum.



## TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

# TUBE BENDS

All reference dimensions are nominal

## 6" OD

**To determine your part number when ordering:**

Use **GAUGE**

plus **PRODUCT ID**

plus **MATERIAL TYPE**

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A

### Tube Specifications

- 1-1/2" through 10" OD.  
Up to 14" special order!
- Wall Thickness:  
16, 14, 12 & 11 Gauge
- Standard length is 20' But we will cut to your specifications!

### Material type

A = Aluminum  
C = Carbon  
S = Stainless  
Z = Galvanized

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
6.0"	14A, 14C, 14S, 11A, 11C, 11S	9"	90	600092
6.0"	14A, 14C, 14S, 11A, 11C, 11S	9"	60	600096
6.0"	14A, 14C, 14S, 11A, 11C, 11S	9"	45	600091
6.0"	14A, 14C, 14S, 11A, 11C, 11S	9"	30	600093
6.0"	14A, 14C, 14S, 11A, 11C, 11S	15"	90	600152
6.0"	14A, 14C, 14S, 11A, 11C, 11S	15"	60	600156
6.0"	14A, 14C, 14S, 11A, 11C, 11S	15"	45	600151
6.0"	14A, 14C, 14S, 11A, 11C, 11S	15"	30	600153
6.0"	14A, 14C, 14S, 11A, 11C, 11S	24"	90	600242
6.0"	14A, 14C, 14S, 11A, 11C, 11S	24"	60	600246
6.0"	14A, 14C, 14S, 11A, 11C, 11S	24"	45	600241
6.0"	14A, 14C, 14S, 11A, 11C, 11S	24"	30	600243
6.0"	14A, 14C, 14S, 11A, 11C, 11S	30"	90	600302
6.0"	14A, 14C, 14S, 11A, 11C, 11S	30"	60	600306
6.0"	14A, 14C, 14S, 11A, 11C, 11S	30"	45	600301
6.0"	14A, 14C, 14S, 11A, 11C, 11S	30"	30	600303
6.0"	14A, 14C, 14S, 11A, 11C, 11S	36"	90	600362
6.0"	14A, 14C, 14S, 11A, 11C, 11S	36"	60	600366
6.0"	14A, 14C, 14S, 11A, 11C, 11S	36"	45	600361
6.0"	14A, 14C, 14S, 11A, 11C, 11S	36"	30	600363
6.0"	14A, 14C, 14S, 11A, 11C, 11S	48"	90	600482
6.0"	14A, 14C, 14S, 11A, 11C, 11S	48"	60	600486
6.0"	14A, 14C, 14S, 11A, 11C, 11S	48"	45	600481
6.0"	14A, 14C, 14S, 11A, 11C, 11S	48"	30	600483

• Nominal standard tangent is two times OD, 6" minimum.

### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

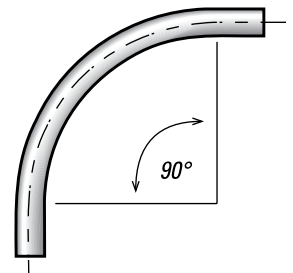
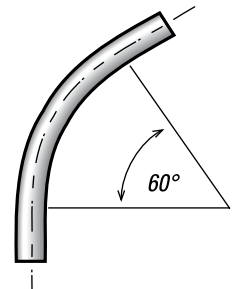
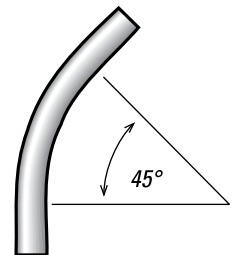
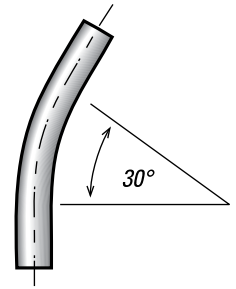
Catalog Part Variations Available Upon Request



## 8" OD

OD	GAUGE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
8.0"	14A, 14C, 14S, 11A, 11C, 11S	12"	90	800122
8.0"	14A, 14C, 14S, 11A, 11C, 11S	12"	60	800126
8.0"	14A, 14C, 14S, 11A, 11C, 11S	12"	45	800121
8.0"	14A, 14C, 14S, 11A, 11C, 11S	12"	30	800123
8.0"	14A, 14C, 14S, 11A, 11C, 11S	20"	90	800202
8.0"	14A, 14C, 14S, 11A, 11C, 11S	20"	60	800206
8.0"	14A, 14C, 14S, 11A, 11C, 11S	20"	45	800201
8.0"	14A, 14C, 14S, 11A, 11C, 11S	20"	30	800203
8.0"	14A, 14C, 14S, 11A, 11C, 11S	32"	90	800322
8.0"	14A, 14C, 14S, 11A, 11C, 11S	32"	60	800326
8.0"	14A, 14C, 14S, 11A, 11C, 11S	32"	45	800321
8.0"	14A, 14C, 14S, 11A, 11C, 11S	32"	30	800323
8.0"	14A, 14C, 14S, 11A, 11C, 11S	48"	90	800482
8.0"	14A, 14C, 14S, 11A, 11C, 11S	48"	60	800486
8.0"	14A, 14C, 14S, 11A, 11C, 11S	48"	45	800481
8.0"	14A, 14C, 14S, 11A, 11C, 11S	48"	30	800483

• Nominal standard tangent is two times OD, 6" minimum.



## TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

# TUBE FITTINGS

All reference dimensions are nominal

**To determine your part number when ordering:**

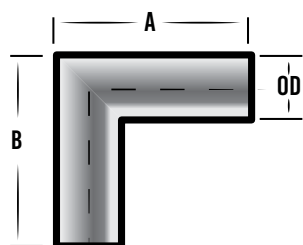
Use **GAUGE**

plus **PRODUCT ID**

plus **MATERIAL TYPE**

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A



## Mitered Elbow Specifications

- 1-1/2" through 8" OD
- Wall Thickness: 16, 14 & 11 Gauge
- Aluminum, Carbon & Stainless

## MITERED ELBOWS

OD	GAUGE (WALL THICKNESS) & MATERIAL	A/B	PRODUCT ID
1-1/2"	16A,16C,16S,11A,11C,11S	6"	MIT150
2"	16A,16C,16S,11A,11C,11S	6"	MIT200
2-1/2"	16A,16C,16S,11A,11C,11S	6"	MIT250
3"	16A,16C,16S,11A,11C,11S	6"	MIT300
3-1/2"	16A,16C,16S,11A,11C,11S	7"	MIT350
4"	16A,16C,16S,11A,11C,11S	8"	MIT400
5"	14A,14C,14S,11A,11C,11S	10"	MIT500
6"	14A,14C,14S,11A,11C,11S	12"	MIT600
8"	14A,14C,14S,11A,11C,11S	16"	MIT800

## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## TUBE LATERALS

OD	GAUGE (WALL THICKNESS) & MATERIAL	DEGREE	A	B	PRODUCT ID
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	16"	LAT1503
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	16"	LAT1501
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	16"	LAT1753
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	16"	LAT1751
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	16"	LAT2003
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	16"	LAT2001
2-1/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	16"	LAT2253
2-1/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	16"	LAT2251
2-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	16"	LAT2503
2-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	16"	LAT2501
3"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	10"	20"	LAT3003
3"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	16"	LAT3001
3-1/2"	14A, 14C, 14S, 11A, 11C, 11S	30	10"	20"	LAT3503
3-1/2"	14A, 14C, 14S, 11A, 11C, 11S	45	8"	16"	LAT3501
4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	12"	24"	LAT4003
4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	10"	20"	LAT4001
4-1/2"	14A, 14C, 14S, 11A, 11C, 11S	30	12"	24"	LAT4503
4-1/2"	14A, 14C, 14S, 11A, 11C, 11S	45	10"	20"	LAT4501
5"	14A, 14C, 14S, 11A, 11C, 11S	30	15"	30"	LAT5003
5"	14A, 14C, 14S, 11A, 11C, 11S	45	12"	24"	LAT5001
6"	14A, 14C, 14S, 11A, 11C, 11S	30	18"	36"	LAT6003
6"	14A, 14C, 14S, 11A, 11C, 11S	45	15"	30"	LAT6001

**To determine your part number when ordering:**

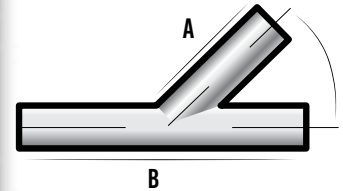
Use GAUGE

plus PRODUCT ID

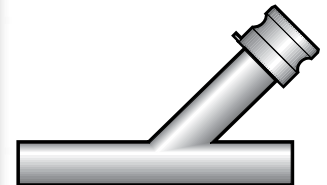
plus MATERIAL TYPE

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A

**Lateral Specifications**

- 1-1/2" through 6" OD  
Up to 14' special order!
- Wall Thickness: 16, 14 & 11 Gauge
- Aluminum, Carbon & Stainless



**Also available with  
Cam & Groove  
adapter/coupler  
welded to branch...Call!**

**TERMINOLOGY**

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

# TUBE FITTINGS

All reference dimensions are nominal

**To determine your part number when ordering:**

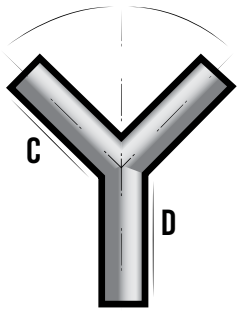
Use **GAUGE**

plus **PRODUCT ID**

plus **MATERIAL TYPE**

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A



## Tube Wye Specifications

- 1-1/2" through 6" OD
- Wall Thickness: 16, 14 & 11 Gauge
- Aluminum, Carbon & Stainless

## TUBE WYES

OD	GAUGE (WALL THICKNESS) & MATERIAL	DEGREE	C	D	PRODUCT ID
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	8"	WYE1503
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	8"	WYE1501
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	8"	WYE1753
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	8"	WYE1751
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	8"	WYE2003
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	8"	WYE2001
2-1/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	8"	WYE2253
2-1/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	8"	WYE2251
2-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	8"	WYE2503
2-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	8"	WYE2501
3"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	8"	WYE3003
3"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	8"	WYE3001
3-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	8"	WYE3503
3-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	8"	WYE3501
4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	30	8"	8"	WYE4003
4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	45	8"	8"	WYE4001
4-1/2"	14A, 14C, 14S, 11A, 11C, 11S	30	10"	10"	WYE4503
4-1/2"	14A, 14C, 14S, 11A, 11C, 11S	45	10"	10"	WYE4501
5"	14A, 14C, 14S, 11A, 11C, 11S	30	11"	11"	WYE5003
5"	14A, 14C, 14S, 11A, 11C, 11S	45	11"	11"	WYE5001
6"	14A, 14C, 14S, 11A, 11C, 11S	30	12"	12"	WYE6003
6"	14A, 14C, 14S, 11A, 11C, 11S	45	12"	12"	WYE6001

## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

Catalog Part Variations Available Upon Request

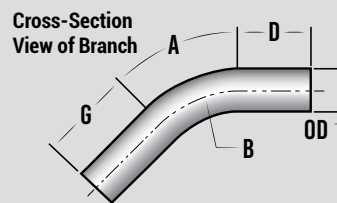
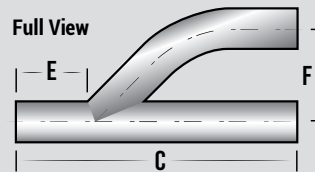
**Give us a call if you can't find exactly what you need!**

## PARALLEL WYES

OD	GAUGE (WALL THICKNESS) & MATERIAL	DEGREE	PRODUCT ID
1-1/2"	16A, 16S	45	PWYE1501
1-3/4"	16A, 16S	45	PWYE1751
2"	16A, 16S	45	PWYE2001
2-1/4"	16A, 16S	45	PWYE2251
2-1/2"	16A, 16S	45	PWYE2501
3"	16A, 16S	45	PWYE3001
4"	16A, 16S	45	PWYE4001
5"	14A, 14S	45	PWYE5001
6"	14A, 14S	45	PWYE6001

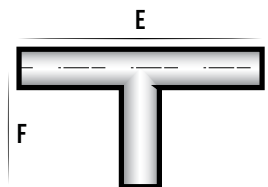
## BRANCH DIMENSIONS

OD	A	B	C	D	E	F	G
1.5	45	4	19.94	6	6	6	6.81
2	45	5	20.5	6	6	6	6.44
2.5	45	6	21	6	6	6	6
3	45	7.5	21.75	6	6	6	5.38
4	45	10	29	8	8	8	7.19
5	45	12.5	36.19	10	10	10	8.94
6	45	15	39.44	10	10	12	10.75



## TUBE TEES

OD	GAUGE (WALL THICKNESS) & MATERIAL	E	F	PRODUCT ID
1-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	16"	8"	TEE150
1-3/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	16"	8"	TEE175
2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	16"	8"	TEE200
2-1/4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	16"	8"	TEE225
2-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	16"	8"	TEE250
3"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	16"	8"	TEE300
3-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	16"	8"	TEE350
4"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	16"	8"	TEE400
4-1/2"	16A, 16C, 16S, 14A, 14C, 14S, 11A, 11C, 11S	18"	9"	TEE450
5"	14A, 14C, 14S, 11A, 11C, 11S	18"	9"	TEE500
6"	14A, 14C, 14S, 11A, 11C, 11S	20"	10"	TEE600



## Tee Specifications

- 1-1/2" through 6" OD
- Wall Thickness: 16, 14 & 11 Gauge
- Aluminum, Carbon & Stainless

## TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance Welded  
 FNPT = Female National Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

## To determine your part number when ordering:

Use GAUGE  
 plus PRODUCT ID  
 plus MATERIAL TYPE

GAUGE    PRODUCT ID    MATERIAL TYPE  
 16 — 150252 — A

## Parallel Wye Specifications

- 1-1/2" through 6" OD
- Wall Thickness: 14 & 16 Gauge
- Aluminum, Carbon & Stainless
- 30 Degree available upon request!

Typically used in single line pneumatic conveying systems to allow drops to multiple stations.



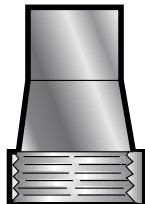
# TUBE FITTINGS

All reference dimensions are nominal

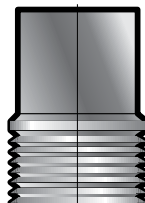
## Adapter Specifications

- 1-1/2" through 8" OD
- Wall Thickness: 16 & 14 Gauge
- Aluminum, Carbon & Stainless

for joining tube to pipe



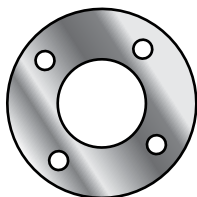
Female



Male

## Plate Flange Specifications

- 2" through 12" OD sizes available
- Slip-on, flat face style
- 1/2" thick, 150 lb. drilling
- All bolt pattern dimensions meet ANSI Standards
- Aluminum, Carbon & Stainless



## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## FEMALE ADAPTERS

OD	FNPT	LENGTH	GAUGE	PRODUCT ID	MATERIAL
1-1/2"	1-1/2"	6"	16	FA-151	A, C, S
2"	2"	6"	16	FA-201	A, C, S
2-1/2"	2-1/2"	6"	16	FA-251	A, C, S
3"	3"	6"	16	FA-301	A, C, S
3-1/2"	3-1/2"	6"	16	FA-351	A, C, S
4"	4"	6-1/2"	16	FA-401	A, C, S
5"	5"	6-3/4"	14	FA-501	A, C, S
6"	6"	7"	14	FA-601	A, C, S
8"	8"	9-1/2"	14	FA-801	A, C, S

## MALE ADAPTERS

OD	MNPT	LENGTH	GAUGE	PRODUCT ID	MATERIAL
1-1/2"	1-1/2"	6"	16	MA-152	A, C, S
2"	2"	6"	16	MA-202	A, C, S
2-1/2"	2-1/2"	6"	16	MA-252	A, C, S
3"	3"	6"	16	MA-302	A, C, S
3-1/2"	3-1/2"	6"	16	MA-352	A, C, S
4"	4"	6"	16	MA-402	A, C, S
5"	5"	6-1/2"	14	MA-502	A, C, S
6"	6"	7"	14	MA-602	A, C, S
8"	8"	8-1/2"	14	MA-802	A, C, S

## PLATE FLANGES

OD	PRODUCT	ID MATERIAL
2"	PFT200	A, C, S
2-1/8"	PFT212	A, C, S
2-1/2"	PFT250	A, C, S
3"	PFT300	A, C, S
4"	PFT400	A, C, S
5"	PFT500	A, C, S
6"	PFT600	A, C, S
8"	PFT800	A, C, S
10"	PFT1000	A, C, S
12"	PFT1200	A, C, S

Catalog Part Variations Available Upon Request

Give us a call if you can't find exactly what you need!

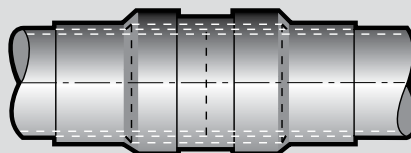
## SLIP COUPLINGS

FOR TUBE OD	LENGTH	GAUGE	PRODUCT ID	MATERIAL
1-1/2"	3"	16	SC-153	A, C, S
2"	3"	16	SC-203	A, C, S
2-1/2"	3-1/2"	16	SC-253	A, C, S
3"	3"	16	SC-303	A, C, S
3-1/2"	4-1/2"	16	SC-353	A, C, S
4"	5"	16	SC-403	A, C, S
5"	6"	14	SC-503	A, C, S
6"	7"	14	SC-603	A, C, S
8"	8"	14	SC-803	A, C, S
10"	10"	12	SC-1003	A, C, S
12"	12"	12	SC-1203	A, C, S

Used for joining the two straight ends of fittings or tubing. The slip coupling is a solid sleeve that fits the OD of the joint which can then be glued, brazed, welded or covered by shrink sleeves.

## SHRINK SLEEVES

FOR TUBE OD SIZE	PRODUCT ID
1-1/2"	SS-150
2" to 2-1/8"	SS-212
2-1/2" to 3"	SS-300
3-1/2" to 4"	SS-400
5"	SS-500
6"	SS-600
8"	SS-800
10"	SS-1000
12"	SS-1200
14"	SS-1400



A heat shrinkable polyolefin band that literally shrinks and encircles the connection giving it mechanical strength and a positive seal. It can be used in conjunction with a slip coupling or when using expanded fittings. Gluing, brazing and welding operations are eliminated.

For use in systems under 15 PSIG.

## LONG-TANGENT REDUCER COUPLINGS

SIZE	GAUGE	A (OD)	E (OD)	C	D/K	PRODUCT ID
1-1/2" x 2"	16	2"	1-1/2"	6-15/16"	3"	RCLT-15X20-3AS
1-1/2" x 2-1/4"	16	2-1/4"	1-1/2"	7-3/8"	3"	RCLT-15X225-3AS
1-1/2" x 2-1/2"	16	2-1/2"	1-1/2"	7-7/8"	3"	RCLT-15X25-3AS
1-1/2" x 3"	16	3"	1-1/2"	8-13/16"	3"	RCLT-15X30-3AS
1-3/4" x 2"	16	2"	1-3/4"	6-7/16"	3"	RCLT-175X20-3AS
1-3/4" x 2-1/2"	16	2-1/2"	1-3/4"	7-3/8"	3"	RCLT-175X25-3AS
2" x 2-1/4"	16	2-1/4"	2"	6-7/16"	3"	RCLT-20X225-3AS
2" x 2-1/2"	16	2-1/2"	2"	6-15/16"	3"	RCLT-20X25-3AS
2" x 3"	16	3"	2"	7-7/8"	3"	RCLT-20X30-3AS
2-1/4" x 2-1/2"	16	2-1/2"	2-1/4"	6-7/16"	3"	RCLT-225X25-3AS
2-1/2" x 3"	16	3"	2-1/2"	7-1/2"	3"	RCLT-25X30-3AS
2-1/2" x 4"	16	4"	2-1/2"	14-1/4"	4"	RCLT-25X40-4AS*

\* Welded construction

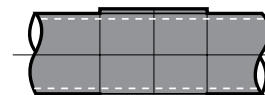
## To determine your part number when ordering:

Use GAUGE

plus PRODUCT ID

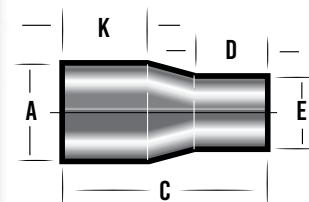
plus MATERIAL TYPE

GAUGE	PRODUCT ID	MATERIAL TYPE
16	150252	A



## Slip Coupling Specifications

- 1-1/2" through 6" OD
- Wall Thickness: 14 & 16 Gauge
- Aluminum, Carbon & Stainless



## Reducer Coupling Specifications

- 1-1/2" through 4" OD
- Wall Thickness: 16 Gauge
- Aluminum

Offer longer tangent lengths so connection is possible with INSTALOK or compression couplings

## TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance Welded  
 FNPT = Female National Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

## Pipe Specifications

- 1" through 8" NPS
- Wall Thickness: Schedule 5, 10, 40, 80
- Standard length is 20' or 21' But we will cut to your specs!
- Aluminum, Carbon & Stainless

## ALUMINUM

NPS	SCHEDULE	PRODUCT ID
2"	5	16ST237A
2"	10	10SP200A
2"	40	40SP200A
2-1/2"	10	10SP250A
2-1/2"	40	40SP250A
3"	10	11ST350A
3"	40	40SP300A
3-1/2"	5	14ST400A
3-1/2"	10	11ST400A
3-1/2"	40	40SP350A
4"	10	11ST450A
4"	40	40SP400A
5"	10	10SP500A
5"	40	40SP500A
6"	10	10SP600A
6"	40	40SP600A
8"	10	10SP800A
8"	40	40SP800A

## CARBON STEEL

NPS	SCHEDULE	PRODUCT ID
1"	40	40WP100C
1"	80	80WP100C
1-1/4"	40	40WP125C
1-1/4"	80	80WP125C
1-1/2"	40	40WP150C
2"	5	5WP200C
2"	10	10WP200C
2"	40	40WP200C
2"	80	80WP200C
2-1/2"	5	5WP250C
2-1/2"	10	10WP250C
2-1/2"	40	40WP250C
2-1/2"	80	80WP250C
3"	5	14WT350C
3"	10	11WT350C
3"	40	40WP300C
3"	80	80WP300C
3-1/2"	5	14WT400C
3-1/2"	10	11WT400C
3-1/2"	40	40WP350C
3-1/2"	80	80WP350C
4"	5	14WT450C
4"	10	11WT450C
4"	40	40WP400C
4"	80	80WP400C
5"	10	10WP500C
5"	40	40WP500C
5"	80	80WP500C
6"	10	10WP600C
6"	40	40WP600C
6"	80	80WP600C
8"	10	10WP800C
8"	40	40WP800C
8"	80	80WP800C

## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## NPS TO OD CONVERSION

3" NPS Sch 5 = 3-1/2" OD 14 Gauge  
 3" NPS Sch 10 = 3-1/2" OD 11 Gauge  
 3-1/2" NPS Sch 5 = 4" OD 14 Gauge  
 3-1/2" NPS Sch 10 = 4" OD 11 Gauge  
 4" NPS Sch 5 = 4-1/2" OD 14 Gauge  
 4" NPS Sch 10 = 4-1/2" OD 11 Gauge

## STAINLESS STEEL

NPS	SCHEDULE	PRODUCT ID
1"	10	10WP100S
1"	40	40WP100S
1"	80	80WP100S
1-1/4"	40	40WP125S
1-1/4"	80	80WP125S
1-1/2"	10	10WP150S
1-1/2"	40	40WP150S
1-1/2"	80	80WP150S
2"	5	16WT237S
2"	10	10WP200S
2"	40	40WP200S
2"	80	80WP200S
2-1/2"	5	5WP250S
2-1/2"	10	10WP250S
2-1/2"	40	40WP250S
3"	5	5WP300S
3"	10	10WP300S
3"	40	40WP300S
3"	80	80WP300S
3-1/2"	5	5WP350S
3-1/2"	10	10WP350S
3-1/2"	40	40WP350S
4"	5	5WP400S
4"	10	10WP400S
4"	40	40WP400S
4"	80	80WP400S
5"	5	5WP500S
5"	10	10WP500S
5"	40	40WP500S
6"	10	10WP600S
6"	40	40WP600S
8"	10	10WP800S
8"	40	40WP800S

**Pipe Specifications**

- 1" through 8" NPS
- Wall Thickness:  
Schedule 5, 10, 40, 80
- Standard length is 20' or 21'  
*But we will cut to your specs!*
- Aluminum, Carbon & Stainless

**TERMINOLOGY**

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

# PIPE BENDS

All reference dimensions are nominal

## To determine your part number when ordering:

Use GAUGE

plus PRODUCT ID

plus MATERIAL TYPE

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A

## Pipe Bend Specifications

- 2" through 6" NPS
- Radius Options:
  - Short Radius (1-1/2" times NPS)
  - Standard Radius (2-1/2" times NPS)
  - Long Radius Bends (up through 60" CLR)
- Wall Thickness:
  - Schedule 5, 10 & 40 (Sch. 80 available)
- Aluminum, Carbon & Stainless

## 2" NPS

NPS	SCHEDULE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	12	90	200122
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	12	60	200126
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	12	45	200121
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	12	30	200123
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	18	90	200182
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	18	60	200186
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	18	45	200181
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	18	30	200183
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	90	200242
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	60	200246
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	45	200241
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	30	200243
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	90	200302
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	60	200306
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	45	200301
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	30	200303
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	90	200362
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	60	200366
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	45	200361
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	30	200363

• Nominal standard tangent is two times NPS, 6" minimum.

## 2-1/2" NPS

NPS	SCHEDULE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	90	250242
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	60	250246
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	45	250241
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	30	250243
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	90	250302
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	60	250306
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	45	250301
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	30	250303
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	90	250362
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	60	250366
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	45	250361
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	30	250363

• Nominal standard tangent is two times NPS, 6" minimum.

## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

Catalog Part Variations Available Upon Request



## 3" NPS

NPS	SCHEDULE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
3"	40P A, 40P C, 40P S	24	90	300242
3"	40P A, 40P C, 40P S	24	60	300246
3"	40P A, 40P C, 40P S	24	45	300241
3"	40P A, 40P C, 40P S	24	30	300243
3"	40P A, 40P C, 40P S	30	90	300302
3"	40P A, 40P C, 40P S	30	60	300306
3"	40P A, 40P C, 40P S	30	45	300301
3"	40P A, 40P C, 40P S	30	30	300303
3"	40P A, 40P C, 40P S	36	90	300362
3"	40P A, 40P C, 40P S	36	60	300366
3"	40P A, 40P C, 40P S	36	45	300361
3"	40P A, 40P C, 40P S	36	30	300363

• Nominal standard tangent is two times NPS, 6" minimum.

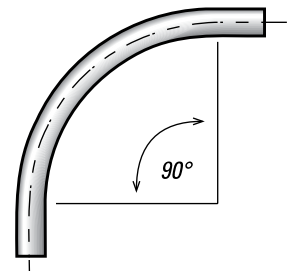
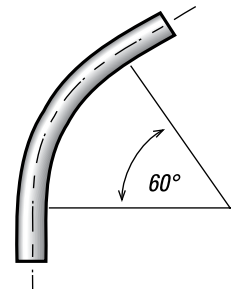
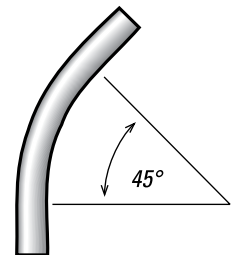
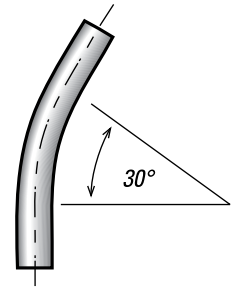
## 3-1/2" NPS

NPS	SCHEDULE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
3.5"	40P A, 40P C, 40P S	24	90	350242
3.5"	40P A, 40P C, 40P S	24	60	350246
3.5"	40P A, 40P C, 40P S	24	45	350241
3.5"	40P A, 40P C, 40P S	24	30	350243
3.5"	40P A, 40P C, 40P S	30	90	350302
3.5"	40P A, 40P C, 40P S	30	60	350306
3.5"	40P A, 40P C, 40P S	30	45	350301
3.5"	40P A, 40P C, 40P S	30	30	350303
3.5"	40P A, 40P C, 40P S	36	90	350362
3.5"	40P A, 40P C, 40P S	36	60	350366
3.5"	40P A, 40P C, 40P S	36	45	350361
3.5"	40P A, 40P C, 40P S	36	30	350363

• Nominal standard tangent is two times NPS, 6" minimum.

## NPS TO OD CONVERSION

3" NPS Sch 5 = 3-1/2" OD 14 Gauge  
 3" NPS Sch 10 = 3-1/2" OD 11 Gauge  
 3-1/2" NPS Sch 5 = 4" OD 14 Gauge  
 3-1/2" NPS Sch 10 = 4" OD 11 Gauge  
 4" NPS Sch 5 = 4-1/2" OD 14 Gauge  
 4" NPS Sch 10 = 4-1/2" OD 11 Gauge



## TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

# PIPE BENDS

All reference dimensions are nominal

**To determine your part number when ordering:**

Use **GAUGE**

plus **PRODUCT ID**

plus **MATERIAL TYPE**

GAUGE    PRODUCT ID    MATERIAL TYPE

16 — 150252 — A

## Pipe Bend Specifications

- 2" through 6" NPS
- Radius Options:
  - Short Radius (1-1/2" times NPS)
  - Standard Radius (2-1/2" times NPS)
  - Long Radius Bends (up through 60" CLR)
- Wall Thickness:
  - Schedule 5, 10 & 40 (Sch. 80 available)
- Aluminum, Carbon & Stainless

## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## 4" NPS

NPS	SCHEDULE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
4"	40P A, 40P C, 40P S	24	90	400242
4"	40P A, 40P C, 40P S	24	60	400246
4"	40P A, 40P C, 40P S	24	45	400241
4"	40P A, 40P C, 40P S	24	30	400243
4"	40P A, 40P C, 40P S	30	90	400302
4"	40P A, 40P C, 40P S	30	60	400306
4"	40P A, 40P C, 40P S	30	45	400301
4"	40P A, 40P C, 40P S	30	30	400303
4"	40P A, 40P C, 40P S	36	90	400362
4"	40P A, 40P C, 40P S	36	60	400366
4"	40P A, 40P C, 40P S	36	45	400361
4"	40P A, 40P C, 40P S	36	30	400363

• Nominal standard tangent is two times NPS, 6" minimum.

## 5" NPS

NPS	SCHEDULE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	90	500242
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	60	500246
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	45	500241
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	30	500243
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	90	500302
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	60	500306
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	45	500301
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	30	500303
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	90	500362
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	60	500366
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	45	500361
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	36	30	500363
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	48	90	500482
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	48	60	500486
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	48	45	500481
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	48	30	500483

• Nominal standard tangent is two times NPS, 6" minimum.

Catalog Part Variations Available Upon Request

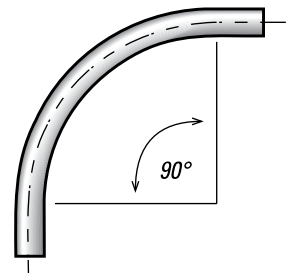
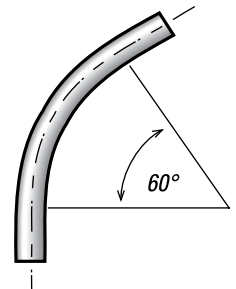
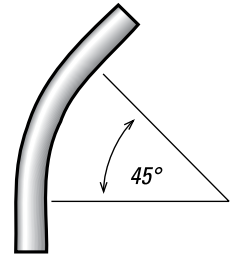
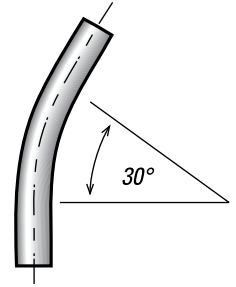
## 6" NPS

NPS	SCHEDULE (WALL THICKNESS) & MATERIAL	CLR	DEGREE	PRODUCT ID
6"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	90	600242
6"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	60	600246
6"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	45	600241
6"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24	30	600243

• Nominal standard tangent is two times NPS, 6" minimum.

## NPS TO OD CONVERSION

3" NPS Sch 5 = 3-1/2" OD 14 Gauge  
 3" NPS Sch 10 = 3-1/2" OD 11 Gauge  
 3-1/2" NPS Sch 5 = 4" OD 14 Gauge  
 3-1/2" NPS Sch 10 = 4" OD 11 Gauge  
 4" NPS Sch 5 = 4-1/2" OD 14 Gauge  
 4" NPS Sch 10 = 4-1/2" OD 11 Gauge



## TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

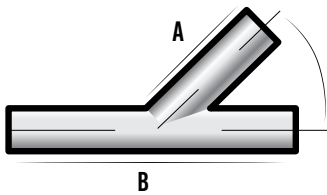
# PIPE FITTINGS

All reference dimensions are nominal

**To determine your part number when ordering:**

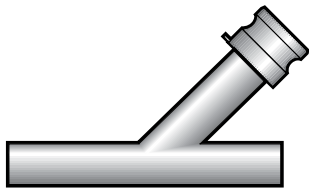
Use **SCHEDULE**  
plus **PRODUCT ID**  
plus **MATERIAL TYPE**

SCHEDULE    PRODUCT ID    MATERIAL TYPE  
**5P    —    150252    —    A**



## Lateral Specifications

- 2 through 8" NPS
- Wall Thickness: Schedule 5, 10 & 40 (Sch. 80 available)
- Aluminum, Carbon & Stainless



**Also available with  
Cam & Groove  
adapter/coupler  
welded to branch...Call!**

## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## PIPE LATERALS

NPS	SCHEDULE (WALL THICKNESS) & MATERIAL	DEGREE	A	B	PRODUCT ID
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	8"	16"	LAT2003
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	45	8"	16"	LAT2001
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	8"	16"	LAT2503
2.5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	45	8"	16"	LAT2501
3"	40P A, 40P C, 40P S	30	10"	20"	LAT3003
3"	40P A, 40P C, 40P S	45	8"	16"	LAT3001
3.5"	40P A, 40P C, 40P S	30	10"	20"	LAT3503
3.5"	40P A, 40P C, 40P S	45	8"	16"	LAT3501
4"	40P A, 40P C, 40P S	30	12"	24"	LAT4003
4"	40P A, 40P C, 40P S	45	10"	20"	LAT4001
5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	15"	30"	LAT5003
5"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	45	12"	24"	LAT5001
6"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	18"	36"	LAT6003
6"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	45	15"	30"	LAT6001

Catalog Part Variations Available Upon Request

**Give us a call if you can't find exactly what you need!**

## PIPE WYES

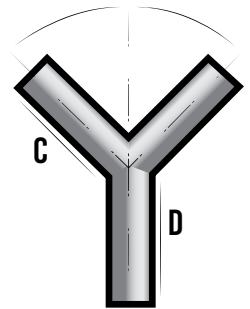
NPS	SCHEDULE (WALL THICKNESS) & MATERIAL	DEGREE	C	D	PRODUCT ID
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	8"	8"	WYE2003
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	45	8"	8"	WYE2001
2-1/2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	8"	8"	WYE2503
2-1/2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	45	8"	8"	WYE2501
3"	40P A, 40P C, 40P S	30	8"	8"	WYE3003
3"	40P A, 40P C, 40P S	45	8"	8"	WYE3001
4"	40P A, 40P C, 40P S	30	8"	8"	WYE4003
4"	40P A, 40P C, 40P S	45	8"	8"	WYE4001
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	11"	11"	WYE5003
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	45	11"	11"	WYE5001
6"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	12"	12"	WYE6003
6"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	45	12"	12"	WYE6001
8"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	30	14"	14"	WYE8003
8"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	45	14"	14"	WYE8001

**To determine your part number when ordering:**

Use **SCHEDULE**  
plus **PRODUCT ID**  
plus **MATERIAL TYPE**

SCHEDULE      PRODUCT ID      MATERIAL TYPE

5P — WYE2003 — A

**Pipe Wye Specifications**

- 2 through 8" NPS
- Wall Thickness:  
Schedule 5, 10 & 40  
(Sch. 80 available)
- Aluminum, Carbon & Stainless

**TERMINOLOGY**

CLR = Center Line Radius  
ERW = Electric Resistance  
Welded  
FNPT = Female National  
Pipe Thread  
ID = Inside Diameter  
MNPT = Male National  
Pipe Thread  
NPS = Nominal Pipe Size  
OD = Outside Diameter  
SCH = Schedule

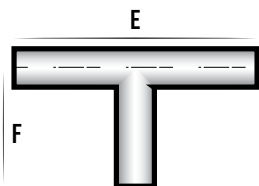
# PIPE FITTINGS

All reference dimensions are nominal

**To determine your part number when ordering:**

Use **SCHEDULE**  
plus **PRODUCT ID**  
plus **MATERIAL TYPE**

SCHEDULE    PRODUCT ID    MATERIAL TYPE  
5P    —    150252    —    A

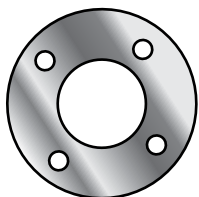


## Tee Specifications

- 2 through 8" NPS
- Wall Thickness:  
Schedule 5, 10 & 40  
(Sch. 80 available)
- Aluminum, Carbon & Stainless

## Plate Flange Specifications

- 2" through 8" NPS sizes
- Slip-on, flat face style
- 1/2" thick, 150 lb. drilling
- All bolt pattern dimensions meet ANSI Standards
- Aluminum, Carbon & Stainless



## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## PIPE TEES

NPS	SCHEDULE (WALL THICKNESS) & MATERIAL	E	F	PRODUCT ID
2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	16"	8"	TEE200
2-1/2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	16"	8"	TEE250
3"	40P A, 40P C, 40P S	16"	8"	TEE300
3-1/2"	5P A, 5P C, 5P S, 10P A, 10P C, 10P S, 40P A, 40P C, 40P S	16"	8"	TEE350
4"	40P A, 40P C, 40P S	16"	8"	TEE400
5"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	18"	9"	TEE500
6"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	20"	10"	TEE600
8"	10P A, 10P C, 10P S, 40P A, 40P C, 40P S	24"	12"	TEE800

## PLATE FLANGES

NPS P	PRODUCT ID	MATERIAL
2"	PFP200	A, C, S
3"	PFP300	A, C, S
4"	PFP400	A, C, S
5"	PFP500	A, C, S
6"	PFP600	A, C, S
8"	PFP800	A, C, S

Catalog Part Variations Available Upon Request

**Give us a call if you can't find exactly what you need!**

## H-P INSTALOK

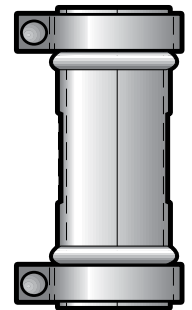
OD	NPS	O-RING	LENGTH	PRODUCT ID
1-1/2"		Black	4"	CP15042B-16Z
1-1/2"		White	4"	CP15042W-16Z
1-1/2"		Black	6"	CP15062B-16Z
1-1/2"		White	6"	CP15062W-16Z
1-3/4"		Black	4"	CP17542B-16Z
1-3/4"		White	4"	CP17542W-16Z
1-3/4"		Black	6"	CP17562B-16Z
1-3/4"		White	6"	CP17562W-16Z
2"		Black	4"	CP20042B-16Z
2"		White	4"	CP20042W-16Z
2"		Black	6"	CP20062B-16Z
2"		White	6"	CP20062W-16Z
2-1/8"		Black	4"	CP21242B-16Z
2-1/8"		White	4"	CP21242W-16Z
2-1/8"		Black	6"	CP21262B-16Z
2-1/8"		White	6"	CP21262W-16Z
2-1/4"		Black	4"	CP22542B-16Z
2-1/4"		White	4"	CP22542W-16Z
2-1/4"		Black	6"	CP22562B-16Z
2-1/4"		White	6"	CP22562W-16Z
2-3/8"	2"	Black	4"	CP237542B-16Z
2-3/8"	2"	White	4"	CP237542W-16Z
2-3/8"	2"	Black	6"	CP237562B-16Z
2-3/8"	2"	White	6"	CP237562W-16Z
2-3/8"	2"	Black	8"	CP237582B-16Z
2-3/8"	2"	White	8"	CP237582W-16Z
2-1/2"		Black	4"	CP25042B-16Z
2-1/2"		White	4"	CP25042W-16Z
2-1/2"		Black	6"	CP25062B-16Z
2-1/2"		White	6"	CP25062W-16Z
2-1/2"		Black	8"	CP25082B-16Z
2-1/2"		White	8"	CP25082W-16Z
2-7/8"	2-1/2"	Black	4"	CP287542B-16Z
2-7/8"	2-1/2"	White	4"	CP287542W-16Z
2-7/8"	2-1/2"	Black	6"	CP287562B-16Z
2-7/8"	2-1/2"	White	6"	CP287562W-16Z
2-7/8"	2-1/2"	Black	8"	CP287582B-16Z
2-7/8"	2-1/2"	White	8"	CP287582W-16Z

Order by  
Product ID  
Number  
Only

**INSTALOK™****Specifications**

- 1-1/2" OD to 4" OD
- 20% Lower cost than traditional couplings
- 30% Quicker installation
- Couplings have a unique clamping design that offers unparalleled strength and grip
- Made with Grade 5 stress relieved bolts to ensure durability
- Standard O-ring is black nitrile
- Galvanized Steel Construction

**We also offer replacement O-rings, nuts, bolts and clamps**

**TERMINOLOGY**

CLR = Center Line Radius  
 ERW = Electric Resistance Welded  
 FNPT = Female National Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

# METHODS OF JOINING

All reference dimensions are nominal

## H-P INSTALOK

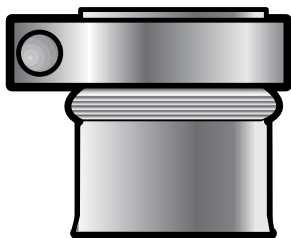
### INSTALOK™

#### Dust Cap

#### Specifications

- 1-1/2" OD to 4" OD
- Utilizes the same unique clamping design as the INSTALOK Coupling
- Great for sealing exposed/unused material handling lines
- Non-permanent and completely reusable

**We also offer replacement O-rings, nuts, and bolts**



OD	NPS	O-RING	LENGTH	PRODUCT ID
3"		Black	4"	CP30042B-16Z
3"		White	4"	CP30042W-16Z
3"		Black	6"	CP30062B-16Z
3"		White	6"	CP30062W-16Z
3"		Black	8"	CP30082B-16Z
3"		White	8"	CP30082W-16Z
3-1/2"	3"	Black	4"	CP35042B-16Z
3-1/2"	3"	White	4"	CP35042W-16Z
3-1/2"	3"	Black	6"	CP35062B-16Z
3-1/2"	3"	White	6"	CP35062W-16Z
3-1/2"	3"	Black	8"	CP35082B-16Z
3-1/2"	3"	White	8"	CP35082W-16Z
4"	3-1/2"	Black	4"	CP40042B-16Z
4"	3-1/2"	White	4"	CP40042W-16Z
4"	3-1/2"	Black	6"	CP40062B-16Z
4"	3-1/2"	White	6"	CP40062W-16Z
4"	3-1/2"	Black	8"	CP40082B-16Z
4"	3-1/2"	White	8"	CP40082W-16Z

Order by  
Product ID  
Number  
Only

## H-P INSTALOK DUST CAPS

OD	NPS	O-RING	LENGTH	PRODUCT ID
1-1/2"		Black	3"	DC-150-B
1-3/4"		Black	3"	DC-175-B
2"		Black	3"	DC-200-B
2-1/4"		Black	3"	DC-225-B
2-1/2"		Black	3"	DC-250-B
3"		Black	3"	DC-300-B
3-1/2"	3"	Black	3"	DC-350-B
4"	3-1/2"	Black	3"	DC-400-B

Order by  
Product ID  
Number  
Only

### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

Catalog Part Variations Available Upon Request



## COMPRESSION COUPLINGS

SIZE	ID	NPS SIZE	METRIC	PRODUCT ID	BOLTS	GASKET	PROTECTOR	LENGTH
1-1/2"	1.500		38.1	1500	2	B	10	4
	1.500		38.1	1500	2	B	11	4
	1.500		38.1	1500	2	W	10	4
	1.500		38.1	1500	2	W	11	4
	1.500		38.1	1500	3	B	10	6
	1.500		38.1	1500	3	B	11	6
	1.500		38.1	1500	3	W	10	6
	1.500		38.1	1500	3	W	11	6
1-3/4"	1.750		44.45	1750	2	B	10	4
	1.750		44.45	1750	2	B	11	4
	1.750		44.45	1750	2	W	10	4
	1.750		44.45	1750	2	W	11	4
	1.750		44.45	1750	3	B	10	6
	1.750		44.45	1750	3	B	11	6
	1.750		44.45	1750	3	W	10	6
	1.750		44.45	1750	3	W	11	6
1-29/32"	1.900	1-1/2"	48.26	1900	2	B	10	4
	1.900	1-1/2"	48.26	1900	2	B	11	4
	1.900	1-1/2"	48.26	1900	2	W	10	4
	1.900	1-1/2"	48.26	1900	2	W	11	4
	1.900	1-1/2"	48.26	1900	3	B	10	6
	1.900	1-1/2"	48.26	1900	3	B	11	6
	1.900	1-1/2"	48.26	1900	3	W	10	6
	1.900	1-1/2"	48.26	1900	3	W	11	6
2"	2.000		50.8	2000	2	B	10	4
	2.000		50.8	2000	2	B	11	4
	2.000		50.8	2000	2	W	10	4
	2.000		50.8	2000	2	W	11	4
	2.000		50.8	2000	3	B	10	6
	2.000		50.8	2000	3	B	11	6
	2.000		50.8	2000	3	W	10	6
	2.000		50.8	2000	3	W	11	6
2-1/8"	2.125		53.975	2125	2	B	10	4
	2.125		53.975	2125	2	B	11	4
	2.125		53.975	2125	2	W	10	4
	2.125		53.975	2125	2	W	11	4
	2.125		53.975	2125	3	B	10	6
	2.125		53.975	2125	3	B	11	6
	2.125		53.975	2125	3	W	10	6
	2.125		53.975	2125	3	W	11	6
	2.125		53.975	2125	3	W	11	6
	2.125		53.975	2125	3	R	10	6
	2.125		53.975	2125	3	R	11	6
	2.125		53.975	2125	3	R	11	6
2-1/4"	2.250		57.15	2250	3	B	10	6
	2.250		57.15	2250	3	B	11	6
	2.250		57.15	2250	3	W	10	6
	2.250		57.15	2250	3	W	11	6

**To determine your part number when ordering:**

Use **PRODUCT ID**  
plus **BOLTS**  
plus **GASKET**  
plus **PROTECTOR**

PRODUCT ID   BOLTS   GASKET   PROTECTOR

1500 — 2 — B — 10

**WE ALSO CARRY...**

- Replacement Gaskets
- Gasket Protection
- Static Strips
- Nuts & Bolts

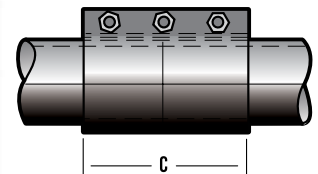
Please call for pricing

**Compression couplings are available with and without gasket protectors.**

**In the protector column:**

11 = with gasket protector

10 = no gasket protector



**COMPRESSION COUPLING**

Additional sizes available upon request

**TERMINOLOGY**

CLR = Center Line Radius  
ERW = Electric Resistance Welded  
FNPT = Female National Pipe Thread  
ID = Inside Diameter  
MNPT = Male National Pipe Thread  
NPS = Nominal Pipe Size  
OD = Outside Diameter  
SCH = Schedule

## COMPRESSION COUPLINGS

### Coupling Specifications

- 1-1/2" through 14" OD for tube
- 1-1/2" through 8" NPS for pipe
- Heavy 16 gauge outer shell on all couplings over 3-1/4" in diameter provides added strength and dimensional stability.
- G90 galvanized exterior coating provides superior corrosion resistance.
- Reinforcement bars are zinc plated steel to provide additional strength and stability.
- Grade 5 stress relieved bolts ensure durability.
- Industry compatible, precision die cut black neoprene gasket ensures a tight seal.
- Stainless steel strip guards against static electricity build-up.

*Stainless steel compression couplings available upon request.*

*Stainless steel gasket protectors are also available.*

#### Other gaskets:

White Nitrile  
Red Rubber  
Silicone  
EPDM  
Viton

**Call for information!**

SIZE	ID	NPS SIZE	METRIC	PRODUCT ID	BOLTS	GASKET	PROTECTOR	LENGTH
2-3/8"	2.375	2"	60.325	2375	3	B	10	6
	2.375	2"	60.325	2375	3	B	11	6
	2.375	2"	60.325	2375	3	W	10	6
	2.375	2"	60.325	2375	3	W	11	6
	2.375	2"	60.325	2375	4	B	10	8
	2.375	2"	60.325	2375	4	B	11	8
2-1/2"	2.375	2"	60.325	2375	4	W	10	8
	2.375	2"	60.325	2375	4	W	11	8
	2.500		63.5	2500	2	B	10	4
	2.500		63.5	2500	2	B	11	4
	2.500		63.5	2500	2	W	10	4
	2.500		63.5	2500	2	W	11	4
2-1/2"	2.500		63.5	2500	3	B	10	6
	2.500		63.5	2500	3	B	11	6
	2.500		63.5	2500	3	R	10	6
	2.500		63.5	2500	3	R	11	6
	2.500		63.5	2500	3	W	10	6
	2.500		63.5	2500	3	W	11	6
2-7/8"	2.500		63.5	2500	4	B	10	8
	2.500		63.5	2500	4	B	11	8
	2.500		63.5	2500	4	W	10	8
	2.500		63.5	2500	4	W	11	8
	2.875	2.5"	73.025	2875	3	B	10	6
	2.875	2.5"	73.025	2875	3	B	11	6
2-7/8"	2.875	2.5"	73.025	2875	3	W	10	6
	2.875	2.5"	73.025	2875	3	W	11	6
	3.000		76.2	3000	2	B	10	4
	3.000		76.2	3000	2	B	11	4
	3.000		76.2	3000	2	W	10	4
	3.000		76.2	3000	2	W	11	4
3"	3.000		76.2	3000	3	B	10	6
	3.000		76.2	3000	3	B	11	6
	3.000		76.2	3000	3	W	10	6
	3.000		76.2	3000	3	W	11	6
	3.000		76.2	3000	3	R	10	6
	3.000		76.2	3000	3	R	11	6
3"	3.000		76.2	3000	4	B	10	8
	3.000		76.2	3000	4	B	11	8
	3.000		76.2	3000	4	W	10	8
	3.000		76.2	3000	4	W	11	8
	3.500	3	88.9	3500	3	B	10	6
	3.500	3	88.9	3500	3	B	11	6
3-1/2"	3.500	3	88.9	3500	3	W	10	6
	3.500	3	88.9	3500	3	W	11	6
	3.500	3	88.9	3500	4	B	10	8

### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## COMPRESSION COUPLINGS

SIZE	ID	NPS SIZE	METRIC	PRODUCT ID	BOLTS	GASKET	PROTECTOR	LENGTH
3-1/2"	3.500	3	88.9	3500	4	B	11	8
	3.500	3	88.9	3500	4	W	10	8
	3.500	3	88.9	3500	4	W	11	8
4"	4.000	3.5	101.6	4000	2	B	10	4
	4.000	3.5	101.6	4000	2	B	11	4
	4.000	3.5	101.6	4000	2	W	10	4
	4.000	3.5	101.6	4000	2	W	11	4
	4.000	3.5	101.6	4000	3	B	10	6
	4.000	3.5	101.6	4000	3	B	11	6
	4.000	3.5	101.6	4000	3	R	10	6
	4.000	3.5	101.6	4000	3	R	11	6
	4.000	3.5	101.6	4000	3	W	10	6
	4.000	3.5	101.6	4000	3	W	11	6
	4.000	3.5	101.6	4000	4	B	10	8
	4.000	3.5	101.6	4000	4	B	11	8
	4.000	3.5	101.6	4000	4	W	10	8
	4.000	3.5	101.6	4000	4	W	11	8
	4.000	3.5	101.6	4000	4	W	11	8
4-1/2"	4.500	4	114.3	4500	2	B	10	4
	4.500	4	114.3	4500	2	B	11	4
	4.500	4	114.3	4500	2	W	10	4
	4.500	4	114.3	4500	2	W	11	4
	4.500	4	114.3	4500	3	B	10	6
	4.500	4	114.3	4500	3	B	11	6
	4.500	4	114.3	4500	3	W	10	6
	4.500	4	114.3	4500	3	W	11	6
	4.500	4	114.3	4500	4	B	10	8
	4.500	4	114.3	4500	4	B	11	8
	4.500	4	114.3	4500	4	W	10	8
	4.500	4	114.3	4500	4	W	11	8
5"	5.000		127	5000	2	B	10	4
	5.000		127	5000	2	B	11	4
	5.000		127	5000	2	W	10	4
	5.000		127	5000	2	W	11	4
	5.000		127	5000	3	B	10	6
	5.000		127	5000	3	B	11	6
	5.000		127	5000	3	R	10	6
	5.000		127	5000	3	R	11	6
	5.000		127	5000	3	W	10	6
	5.000		127	5000	3	W	11	6
	5.000		127	5000	4	B	10	8
	5.000		127	5000	4	B	11	8
	5.000		127	5000	4	W	10	8
	5.000		127	5000	4	W	11	8
	5.000		127	5000	4	W	11	8
5-9/16"	5.563	5	141.3	5563	3	B	10	6
	5.563	5	141.3	5563	3	B	11	6
	5.563	5	141.3	5563	3	W	10	6
	5.563	5	141.3	5563	3	W	11	6

**To determine your part number when ordering:**

Use **PRODUCT ID**  
plus **BOLTS**  
plus **GASKET**  
plus **PROTECTOR**

PRODUCT ID    BOLTS    GASKET    PROTECTOR

1500 — 2 — B — 10

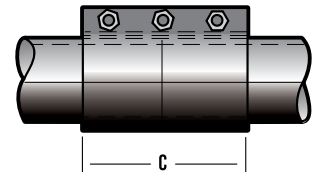
**WE ALSO CARRY...**

- Replacement Gaskets
- Gasket Protection
- Static Strips
- Nuts & Bolts

Please call for pricing

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**In the protector column:**  
11 = with gasket protector  
10 = no gasket protector



**COMPRESSION COUPLING**  
Additional sizes available upon request

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FNPT = Female National Pipe Thread  
ID = Inside Diameter  
MNPT = Male National Pipe Thread  
NPS = Nominal Pipe Size  
OD = Outside Diameter  
SCH = Schedule

## COMPRESSION COUPLINGS

### Coupling Specifications

- 1-1/2" through 14" OD for tube
- 1-1/2" through 8" NPS for pipe
- Heavy 16 gauge outer shell on all couplings over 3-1/4" in diameter provides added strength and dimensional stability.
- G90 galvanized exterior coating provides superior corrosion resistance.
- Reinforcement bars are zinc plated steel to provide additional strength and stability.
- Grade 5 stress relieved bolts ensure durability.
- Industry compatible, precision die cut black neoprene gasket ensures a tight seal.
- Stainless steel strip guards against static electricity build-up.

*Stainless steel compression couplings available upon request.*

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#### Other gaskets:

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Red Rubber  
Silicone  
EPDM  
Viton

**Call for information!**

### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

SIZE	ID	NPS SIZE	METRIC	PRODUCT ID	BOLTS	GASKET	PROTECTOR	LENGTH
5-9/16"	5.563	5	141.3	5563	4	B	10	8
	5.563	5	141.3	5563	4	B	11	8
	5.563	5	141.3	5563	4	W	10	8
	5.563	5	141.3	5563	4	W	11	8
6"	6.000		152.4	6000	2	B	10	4
	6.000		152.4	6000	2	B	11	4
	6.000		152.4	6000	2	W	10	4
	6.000		152.4	6000	2	W	11	4
	6.000		152.4	6000	3	B	10	6
	6.000		152.4	6000	3	B	11	6
	6.000		152.4	6000	3	R	10	6
	6.000		152.4	6000	3	R	11	6
	6.000		152.4	6000	3	W	10	6
	6.000		152.4	6000	3	W	11	6
	6.000		152.4	6000	4	B	10	8
	6.000		152.4	6000	4	B	11	8
	6.000		152.4	6000	4	R	10	8
	6.000		152.4	6000	4	R	11	8
	6.000		152.4	6000	4	W	10	8
	6.000		152.4	6000	4	W	11	8
6-5/8"	6.625	6	168.3	6625	3	B	10	6
	6.625	6	168.3	6625	3	B	11	6
	6.625	6	168.3	6625	3	W	10	6
	6.625	6	168.3	6625	3	W	11	6
	6.625	6	168.3	6625	4	B	10	8
	6.625	6	168.3	6625	4	B	11	8
	6.625	6	168.3	6625	4	W	10	8
	6.625	6	168.3	6625	4	W	11	8
7"	7.000		177.8	7000	3	B	10	8
	7.000		177.8	7000	3	B	11	8
	7.000		177.8	7000	3	W	10	8
	7.000		177.8	7000	3	W	11	8
	7.000		177.8	7000	4	B	10	10
	7.000		177.8	7000	4	B	11	10
	7.000		177.8	7000	4	W	10	10
	7.000		177.8	7000	4	W	11	10
8"	8.000		203.2	8000	2	B	10	6
	8.000		203.2	8000	2	B	11	6

## COMPRESSION COUPLINGS

SIZE	ID	NPS SIZE	METRIC	PRODUCT ID	BOLTS	GASKET	PROTECTOR	LENGTH
8"	8.000		203.2	8000	2	W	10	6
	8.000		203.2	8000	2	W	11	6
	8.000		203.2	8000	3	B	10	8
	8.000		203.2	8000	3	B	11	8
	8.000		203.2	8000	3	R	10	8
	8.000		203.2	8000	3	R	11	8
	8.000		203.2	8000	3	W	10	8
	8.000		203.2	8000	3	W	11	8
	8.000		203.2	8000	4	B	10	10
	8.000		203.2	8000	4	B	11	10
	8.000		203.2	8000	4	R	10	10
	8.000		203.2	8000	4	R	11	10
	8.000		203.2	8000	4	W	10	10
	8.000		203.2	8000	4	W	11	10
	8.000		203.2	8000	5	B	10	12
	8.000		203.2	8000	5	B	11	12
8-5/8"	8.625	8	219.1	8625	3	B	10	8
	8.625	8	219.1	8625	3	W	10	8
	8.625	8	219.1	8625	4	B	10	10
	8.625	8	219.1	8625	4	W	10	10
9"	9.000		228.6	9000	3	B	10	8
10"	10.000		254.0	10000	3	B	10	8
	10.000		254.0	10000	3	B	11	8
	10.000		254.0	10000	3	R	10	8
	10.000		254.0	10000	3	R	11	8
	10.000		254.0	10000	3	W	10	8
	10.000		254.0	10000	3	W	11	8
	10.000		254.0	10000	4	B	10	10
	10.000		254.0	10000	4	B	11	10
	10.000		254.0	10000	4	R	10	10
	10.000		254.0	10000	4	R	11	10
	10.000		254.0	10000	4	W	10	10
	10.000		254.0	10000	4	W	11	10
	10.000		254.0	10000	5	B	10	12
12"	12.000		304.8	12000	3	B	10	8
	12.000		304.8	12000	3	B	11	8
	12.000		304.8	12000	3	W	10	8
	12.000		304.8	12000	4	B	10	10
	12.000		304.8	12000	4	B	11	10
	12.000		304.8	12000	4	W	10	10
	12.000		304.8	12000	4	W	11	10
	12.000		304.8	12000	5	B	10	12
	12.000		304.8	12000	5	B	11	12

**To determine your part number when ordering:**

Use **PRODUCT ID**  
plus **BOLTS**  
plus **GASKET**  
plus **PROTECTOR**

PRODUCT ID   BOLTS   GASKET   PROTECTOR

1500 — 2 — B — 10

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- Replacement Gaskets
- Gasket Protection
- Static Strips
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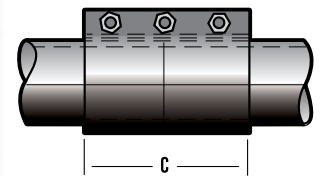
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**COMPRESSION COUPLING**

Additional sizes available upon request

**TERMINOLOGY**

CLR = Center Line Radius  
ERW = Electric Resistance Welded  
FNPT = Female National Pipe Thread  
ID = Inside Diameter  
MNPT = Male National Pipe Thread  
NPS = Nominal Pipe Size  
OD = Outside Diameter  
SCH = Schedule

## COMPRESSION COUPLINGS

### Coupling Specifications

- 1-1/2" through 14" OD for tube
- 1-1/2" through 8" NPS for pipe
- Heavy 16 gauge outer shell on all couplings over 3-1/4" in diameter provides added strength and dimensional stability.
- G90 galvanized exterior coating provides superior corrosion resistance.
- Reinforcement bars are zinc plated steel to provide additional strength and stability.
- Grade 5 stress relieved bolts ensure durability.
- Industry compatible, precision die cut black neoprene gasket ensures a tight seal.
- Stainless steel strip guards against static electricity build-up.

*Stainless steel compression couplings available upon request.*

*Stainless steel gasket protectors are also available.*

#### Other gaskets:

White Nitrile  
Red Rubber  
Silicone  
EPDM  
Viton

**Call for information!**

SIZE	ID	NPS SIZE	METRIC	PRODUCT ID	BOLTS	GASKET	PROTECTOR	LENGTH
14"	14.000		355.6	14000	4	B	10	10
	14.000		355.6	14000	4	B	11	10
	14.000		355.6	14000	4	W	10	10
	14.000		355.6	14000	4	W	11	10
	14.000		355.6	14000	5	B	10	12

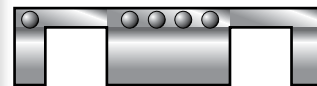
### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## ELIMINATORS

Order by  
Product ID Number Only

OD	NPS	LENGTH	BOLTS	GASKET	PRODUCT ID
2"		18"	3	Black Gasket	20003B10EL
2"		18"	3	White Gasket	20003W10EL
2-3/8"	2"	18"	3	Pipe Black Gasket	23753B10EL
2-3/8"	2"	18"	3	Pipe White Gasket	23753W10EL
2-1/2"		18"	3	Black Gasket	25003B10EL
2-1/2"		18"	3	White Gasket	25003W10EL
2-7/8"	2-1/2"	18"	3	Pipe Black Gasket	28753B10EL
2-7/8"	2-1/2"	18"	3	Pipe White Gasket	28753W10EL
3"		18"	3	Black Gasket	30003B10EL
3"		18"	3	White Gasket	30003W10EL
3"		20"	4	Black Gasket	30004B10EL
3"		20"	4	White Gasket	30004W10EL
3-1/2"	3"	18"	3	Tube/Pipe Black Gasket	35003B10EL
3-1/2"	3"	18"	3	Tube/Pipe White Gasket	35003W10EL
3-1/2"	3"	20"	4	Tube/Pipe Black Gasket	35004B10EL
3-1/2"	3"	20"	4	Tube/Pipe White Gasket	35004W10EL
4"	3-1/2"	18"	3	Black Gasket	40003B10EL
4"	3-1/2"	18"	3	White Gasket	40003W10EL
4"	3-1/2"	20"	4	Black Gasket	40004B10EL
4"	3-1/2"	20"	4	White Gasket	40004W10EL
4-1/2"	4"	18"	3	Pipe Black Gasket	45003B10EL
4-1/2"	4"	18"	3	Pipe White Gasket	45003W10EL
4-1/2"	4"	20"	4	Pipe Black Gasket	45004B10EL
4-1/2"	4"	20"	4	Pipe White Gasket	45004W10EL
5"		18"	3 5"	Black Gasket	50003B10EL
5"		18"	3 5"	White Gasket	50003W10EL
5"		20"	4 5"	White Gasket	50004W10EL
5-9/16"	5"	18"	3 5"	Pipe Black Gasket	55633B10EL
5-9/16"	5"	18"	3 5"	Pipe White Gasket	55633W10EL
5-9/16"	5"	20"	4 5"	Pipe Black Gasket	55634B10EL
5-9/16"	5"	20"	4 5"	Pipe White Gasket	55634W10EL
6"		18"	3	Black Gasket	60003B10EL
6"		18"	3	White Gasket	60003W10EL
6"		20"	4	Black Gasket	60004B10EL
6"		20"	4	White Gasket	60004W10EL
6-5/8"	6"	18"	3	Pipe Black Gasket	66253B10EL
6-5/8"	6"	18"	3	Pipe White Gasket	66253W10EL
6-5/8"	6"	20"	4	Pipe Black Gasket	66254B10EL
6-5/8"	6"	20"	4	Pipe White Gasket	66254W10EL
8"		18"	3	Black Gasket	80003B10EL
8"		18"	3	White Gasket	80003W10EL
8"		20"	4	Black Gasket	80004B10EL
8"		20"	4	White Gasket	80004W10EL
8-5/8"	8"	18"	3	Pipe Black Gasket	86253B10EL



Length: 18" 3-Bolt 20" 4-Bolt

**Eliminator****Specifications**

The Eliminator, with its extra holding power, is ideal for higher pressure systems. Bands at either end of the Eliminator provide metal to metal "gripping" to eliminate end pull.

- 2" to 12" OD for Tube
- 2" to 12" NPS for Pipe
- Standard gasket is black neoprene

Kits are available to convert existing couplings into eliminators (see next section)

**Other gaskets:**

White Nitrile  
Red Rubber  
Silicone  
EPDM  
Viton

Call for information!

**TERMINOLOGY**

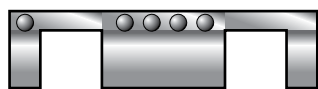
CLR = Center Line Radius  
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FNPT = Female National Pipe Thread  
ID = Inside Diameter  
MNPT = Male National Pipe Thread  
NPS = Nominal Pipe Size  
OD = Outside Diameter  
SCH = Schedule

# METHODS OF JOINING

All reference dimensions are nominal

## ELIMINATORS

Order by  
Product ID Number Only



Length: 18" 3-Bolt 20" 4-Bolt

### Eliminator

#### Specifications

The Eliminator, with its extra holding power, is ideal for higher pressure systems. Bands at either end of the Eliminator provide metal to metal "gripping" to eliminate end pull.

- 2" to 12" OD for Tube
- 2" to 12" NPS for Pipe
- Standard gasket is black neoprene

Kits are available to convert existing couplings into eliminators (see next section)

#### Other gaskets:

- White Nitrile
- Red Rubber
- Silicone
- EPDM
- Viton

Call for information!

OD	NPS	LENGTH	BOLTS	GASKET	PRODUCT ID
8-5/8"	8"	18"	3	Pipe White Gasket	86253W10EL
8-5/8"	8"	20"	4	Pipe Black Gasket	86254B10EL
8-5/8"	8"	20"	4	Pipe White Gasket	86254W10EL
10"		18"	3	Black Gasket	100003B10EL
10"		18"	3	White Gasket	100003W10EL
10"		20"	4	Black Gasket	100004B10EL
10"		20"	4	White Gasket	100004W10EL
10-3/4"	10"	18"	3	Pipe Black Gasket	107503B10EL
10-3/4"	10"	18"	3	Pipe White Gasket	107503W10EL
10-3/4"	10"	20"	4	Pipe Black Gasket	107504B10EL
10-3/4"	10"	20"	4	Pipe White Gasket	107504W10EL
12"		18"	3	Black Gasket	120003B10EL
12"		18"	3	White Gasket	120003W10EL
12"		20"	4	White Gasket	120004W10EL
12"		20"	4	Black Gasket	120004B10EL
12-3/4"	12"	18"	3	Pipe Black Gasket	127503B10EL
12-3/4"	12"	18"	3	Pipe White Gasket	127503W10EL
12-3/4"	12"	20"	4	Pipe Black Gasket	127504B10EL
12-3/4"	12"	20"	4	Pipe White Gasket	127504W10EL

### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

Catalog Part Variations Available Upon Request



## ELIMINATOR KITS

OD	NPS	LENGTH	BOLTS	PRODUCT ID
2"		18"	3	20003ELK
2-3/8"	2"	18"	3	23753ELK
2-1/2"		18"	3	25003ELK
2-7/8"	2-1/2"	18"	3	28753ELK
3"		18"	3	30003ELK
3"		20"	4	30004ELK
3-1/2"	3"	18"	3	35003ELK
3-1/2"	3"	20"	4	35004ELK
4"	3-1/2"	18"	3	40003ELK
4"	3-1/2"	20"	4	40004ELK
4-1/2"	4"	18"	3	45003ELK
4-1/2"	4"	20"	4	45004ELK
5"		18"	3	50003ELK
5"		20"	4	50004ELK
5-9/16"	5"	18"	3	55633ELK
5-9/16"	5"	20"	4	55634ELK
6"		18"	3	60003ELK
6"		20"	4	60004ELK
6-5/8"	6"	18"	3	66253ELK
6-5/8"	6"	20"	4	66254ELK
8"		18"	3	80003ELK
8"		20"	4	80004ELK
8-5/8"	8"	18"	3	86253ELK
8-5/8"	8"	20"	4	86254ELK
10"		18"	3	100003ELK
10"		20"	4	100004ELK
10-3/4"	10"	18"	3	107503ELK
10-3/4"	10"	20"	4	107504ELK
12"		18"	3	120003ELK
12"		20"	4	120004ELK
12-3/4"	12"	18"	3	127503ELK
12-3/4"	12"	20"	4	127504ELK

Order by  
Product ID Number Only

**Eliminator Kit****Specifications**

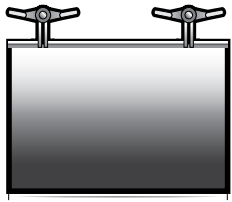
Eliminator Kits are used to convert existing compression couplings into eliminators. This conversion, when complete, gives you the same benefits as our Standard Eliminators.

Call for information!

**TERMINOLOGY**

CLR = Center Line Radius  
 ERW = Electric Resistance Welded  
 FNPT = Female National Pipe Thread  
 ID = Inside Diameter  
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 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

## SUPER GRIPS



4" lengths are single handle  
9-1/2" lengths are 2 handle

Order by  
Product ID  
Number  
Only

### Super Grip Specifications

The Super Grip was devised as a quick coupler for dry bulk transport tank tubing. This unique coupling slides onto the tubing or wraps around it and is tightened by hand in seconds, and it provides better support than rubber hose and band clamps. Our exclusive failsafe clamping action keeps its hold despite expansion, contraction and vibration. And because it's made of 100% Stainless Steel, it will not corrode due to harsh weather or road conditions.

- 100% Stainless steel with stainless steel grounding strip standard
- FDA approved gum rubber gasket comes standard
- 1-1/2" Through 12" OD for tube
- 1-1/4" Through 12" NPS for pipe

Call for information!

OD	NPS	LENGTH	DESCRIPTION	PRODUCT ID
1-1/2"		4"	1-Clamp	SG-15001
1-21/32"	1-1/4"	4"	Pipe 1-Clamp	SG-16601
1-3/4"		4"	1-Clamp	SG-17501
1-29/32"	1-1/2"	4"	Pipe 1-Clamp	SG-19001
2"		4"	1-Clamp	SG-20001
2-1/8"		4"	1-Clamp	SG-21251
2-1/4"		4"	1-Clamp	SG-22501
2-3/8"	2"	4"	Pipe 1-Clamp	SG-23751
2-1/2"		4"	1-Clamp	SG-25001
2-3/4"		4"	1-Clamp	SG-27501
2-7/8"	2-1/2"	4"	Pipe 1-Clamp	SG-28751
3"		4"	1-Clamp	SG-30001
3-1/4"		4"	1-Clamp	SG-32501
3-1/2"	3"	4"	Tube/Pipe 1-Clamp	SG-35001
3-3/4"		4"	1-Clamp	SG-37501
4"	3-1/2"	4"	Tube/Pipe 1-Clamp	SG-40001
4"	3-1/2"	9-1/2"	Tube/Pipe 2-Clamp	SG-40002
4-1/4"		4"	1-Clamp	SG-42501
4-1/2"	4"	4"	Tube/Pipe 1-Clamp	SG-45001
4-1/2"	4"	9-1/2"	Tube/Pipe 2-Clamp	SG-45002
5"		4"	1-Clamp	SG-50001
5"		9-1/2"	2-Clamp	SG-50002
5-9/16"	5"	4"	Pipe 1-Clamp	SG-55631
6"		4"	1-Clamp	SG-60001
6"		9-1/2"	2-Clamp	SG-60002
6-1/4"		4"	1-Clamp	SG-62501
6-5/8"	6"	4"	Pipe 1-Clamp	SG-66251
6-5/8"	6"	9-1/2"	Pipe 2-Clamp	SG-66252
8"		4"	1-Clamp	SG-80001
8"		9-1/2"	2-Clamp	SG-80002
8-5/8"	8"	4"	Pipe 1-Clamp	SG-86251
8-5/8"	8"	9-1/2"	Pipe 2-Clamp	SG-86252
9"		4"	1-Clamp	SG-90001
10"		4"	1-Clamp	SG-100001
10"		9-1/2"	2-Clamp	SG-100002
10-3/4"	10"	4"	Pipe 1-Clamp	SG-107501
10-3/4"	10"	9-1/2"	Pipe 2-Clamp	SG-107502
12"		4"	1-Clamp	SG-120001
12"		9-1/2"	2-Clamp	SG-120002
12-3/4"	12"	4"	Pipe 1-Clamp	SG-127501
12-3/4"	12"	9-1/2"	Pipe 2-Clamp	SG-127502

### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

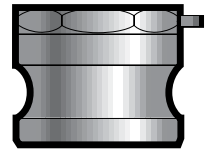
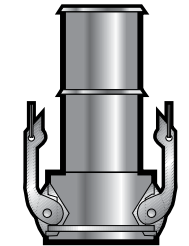
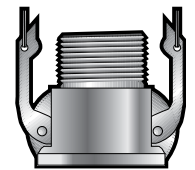
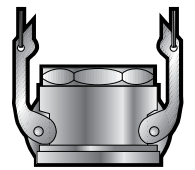
Order by Product ID Number

**STANDARD PART A***Adapter X Female NPT Thread*

OD	MATERIAL	WEIGHT	PRODUCT ID
1-1/2"	Aluminum	0.25	A150FAL
1-1/2"	Stainless Steel	0.81	A150FSS
2"	Aluminum	0.37	A200FAL
2"	Stainless Steel	1.06	A200FSS
2-1/2"	Aluminum	0.56	A250FAL
2-1/2"	Stainless Steel	1.56	A250FSS
3"	Aluminum	0.75	A300FAL
3"	Stainless Steel	2.0	A300FSS
4"	Aluminum	1.56	A400FAL
4"	Stainless Steel	4.12	A400FSS
5"	Aluminum	1.81	A500FAL
6"	Aluminum	2.44	A600FAL

**STANDARD PART C***Coupler X Hose Shank*

OD	MATERIAL	WEIGHT	PRODUCT ID
1-1/2"	Aluminum	0.78	C150FAL
1-1/2"	Stainless Steel	1.84	C150FSS
2"	Aluminum	1.16	C200FAL
2"	Stainless Steel	2.31	C200FSS
2-1/2"	Aluminum	1.56	C250FAL
2-1/2"	Stainless Steel	3.12	C250FSS
3"	Aluminum	2	C300FAL
3"	Stainless Steel	4.87	C300FSS
4"	Aluminum	3.37	C400FAL
4"	Stainless Steel	8.25	C400FSS
5"	Aluminum	4.19	C500FAL
6"	Aluminum	6.06	C600FAL

**Part A - Adapter X  
Female NPT Thread****Part C - Coupler X  
Hose Shank****Part B - Coupler X  
Male NPT Thread****Part D - Coupler X  
Female NPT Thread****STANDARD PART B***Coupler X Male NPT Thread*

OD	MATERIAL	WEIGHT	PRODUCT ID
1-1/2"	Aluminum	0.75	B150FAL
1-1/2"	Stainless Steel	1.56	B150FSS
2"	Aluminum	0.94	B200FAL
2"	Stainless Steel	2.06	B200FSS
2-1/2"	Aluminum	1.25	B250FAL
2-1/2"	Stainless Steel	2.94	B250FSS
3"	Aluminum	1.75	B300FAL
3"	Stainless Steel	4	B300FSS
4"	Aluminum	2.5	B400FAL
4"	Stainless Steel	6.5	B400FSS
5"	Aluminum	3.75	B500FAL
6"	Aluminum	5.37	B600FAL

**STANDARD PART D***Coupler X Female NPT Thread*

OD	MATERIAL	WEIGHT	PRODUCT ID
1-1/2"	Aluminum	0.84	D150FAL
1-1/2"	Stainless Steel	1.81	D150FSS
2"	Aluminum	1	D200FAL
2"	Stainless Steel	2.37	D200FSS
2-1/2"	Aluminum	1.41	D250FAL
2-1/2"	Stainless Steel	3.16	D250FSS
3"	Aluminum	1.78	D300FAL
3"	Stainless Steel	4.09	D300FSS
4"	Aluminum	2.81	D400FAL
4"	Stainless Steel	7	D400FSS
5"	Aluminum	4.37	D500FAL
6"	Aluminum	6	D600FAL

**Adapter & Coupler  
Specifications**

- 1-1/2" through 6"
- Aluminum & Stainless
- 8" available upon request

Security chains available  
Other sizes and materials available.

Call for information!

**TERMINOLOGY**

CLR = Center Line Radius  
ERW = Electric Resistance  
Welded  
FNPT = Female National  
Pipe Thread  
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MNPT = Male National  
Pipe Thread  
NPS = Nominal Pipe Size  
OD = Outside Diameter  
SCH = Schedule

# METHODS OF JOINING

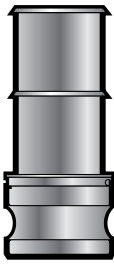
All reference dimensions are nominal

Order by Product ID Number

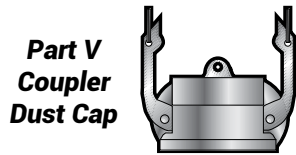
## Adapter & Coupler Specifications

- 1-1/2" through 6"
- Aluminum & Stainless
- 8" available upon request

Security chains available  
Other sizes and materials available.  
**Call for information!**



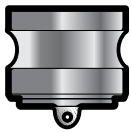
**Part E**  
**Adapter X**  
**Hose Shank**



**Part V**  
**Coupler**  
**Dust Cap**



**Part F - Adapter X**  
**Male NPT Thread**



**Part W - Coupler X**  
**Adapter Dust Plug**

## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## STANDARD PART E

Adapter X Hose Shank

OD	MATERIAL	WEIGHT	PRODUCT ID
1-1/2"	Aluminum	0.37	E150FAL
1-1/2"	Stainless Steel	1.65	E150FSS
2"	Aluminum	0.84	E200FAL
2"	Stainless Steel	2.75	E200FSS
2-1/2"	Aluminum	0.91	E250FAL
2-1/2"	Stainless Steel	3.5	E250FSS
3"	Aluminum	1.47	E300FAL
3"	Stainless Steel	4.06	E300FSS
4"	Aluminum	2.5	E400FAL
4"	Stainless Steel	7.81	E400FSS
5"	Aluminum	2.69	E500FAL
6"	Aluminum	4.56	E600FAL

## STANDARD PART V

Coupler Dust Cap

OD	MATERIAL	WEIGHT	PRODUCT ID
1-1/2"	Aluminum	0.81	V150FAL
1-1/2"	Stainless Steel	1.5	V150FSS
2"	Aluminum	0.94	V200FAL
2"	Stainless Steel	2.06	V200FSS
2-1/2"	Aluminum	1.19	V250FAL
2-1/2"	Stainless Steel	2.84	V250FSS
3"	Aluminum	1.78	V300FAL
3"	Stainless Steel	3.75	V300FSS
4"	Aluminum	2.5	V400FAL
4"	Stainless Steel	5.31	V400FSS
5"	Aluminum	3.19	V500FAL
6"	Aluminum	5.19	V600FAL

## STANDARD PART F

Adapter X Male NPT Thread

OD	MATERIAL	WEIGHT	PRODUCT ID
1-1/2"	Aluminum	0.5	F150FAL
1-1/2"	Stainless Steel	1.28	F150FSS
2"	Aluminum	0.53	F200FAL
2"	Stainless Steel	1.75	F200FSS
2-1/2"	Aluminum	0.81	F250FAL
2-1/2"	Stainless Steel	3.25	F250FSS
3"	Aluminum	1.37	F300FAL
3"	Stainless Steel	4.5	F300FSS
4"	Aluminum	2.28	F400FAL
4"	Stainless Steel	7	F400FSS
5"	Aluminum	2.72	F500FAL
6"	Aluminum	4.31	F600FAL

## STANDARD PART W

Adapter Dust Plug

OD	MATERIAL	WEIGHT	PRODUCT ID
1-1/2"	Aluminum	0.22	W150FAL
1-1/2"	Stainless Steel	1	W150FSS
2"	Aluminum	0.34	W200FAL
2"	Stainless Steel	1.44	W200FSS
2-1/2"	Aluminum	0.44	W250FAL
2-1/2"	Stainless Steel	2	W250FSS
3"	Aluminum	0.87	W300FAL
3"	Stainless Steel	2.62	W300FSS
4"	Aluminum	1.37	W400FAL
4"	Stainless Steel	5.25	W400FSS
5"	Aluminum	1.5	W500FAL
6"	Aluminum	2.31	W600FAL

### WHY BUY OUR CAM & GROOVE PARTS?

- Pressure tested with published ratings
- Will handle full vacuum applications

**All sizes, except 5" & 8" comply with MIL Spec A-A-59326**

Compliance to this specification allows industry interchangeability

**PLEASE CALL FOR PRICING & INFORMATION!**

Order by Product ID Number

**PART BC - COMPRESSION  
NUT QUICK COUPLERS***Coupler X Tubing Fitting*

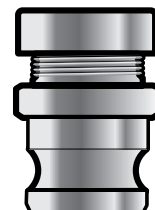
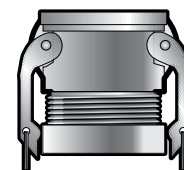
OD	MATERIAL	PRODUCT ID
1-1/2"	Aluminum	BC150AL
2"	Aluminum	BC200AL
2-1/2"	Aluminum	BC250AL
3"	Aluminum	BC300AL

**PART FC - COMPRESSION  
NUT QUICK ADAPTERS***Adapter X Tubing Fitting*

OD	MATERIAL	PRODUCT ID
1-1/2"	Aluminum	FC150AL
2"	Aluminum	FC200AL
2-1/2"	Aluminum	FC250AL
3"	Aluminum	FC300AL

**Compression Nut  
Quick Adapters &  
Couplers**

- Designed for quick assembly, with a compression nut, to 1-1/2 to 3" tubing.
- Aluminum with Buna Gasket

**Part FC Adapter****Part BC Coupler****SECURITY CHAINS***Brass Chain With Hooks or Rings  
For Standard Cam & Groove*

Length	Weight	Type	Product ID
6"	0.25	Hook	BRCHAIN6H
6"	0.25	Ring	BRCHAIN6R
12"	0.5	Hook	BRCHAIN12H
12"	0.5	Ring	BRCHAIN12R

**TERMINOLOGY**

CLR = Center Line Radius  
 ERW = Electric Resistance  
 Welded  
 FNPT = Female National  
 Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National  
 Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

# METHODS OF JOINING

All reference dimensions are nominal

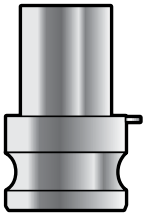
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## Specifications

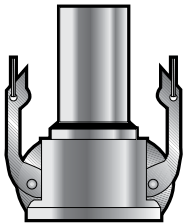
Our Quick Adapter (AWS) and Coupler (DWS) are welded to a short length of tube or pipe for easy installation or dismantling.

- 2" through 6" OD, 16, 14, 11 Gauge Stubs
- 2" through 6" NPS, Schedule 10, 40 Stubs (SCH 5 available)
- Aluminum

Security chains available



Part AWS Adapter



Part DWS Coupler

## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## TUBE QUICK ADAPTERS

OD	GAUGE	PRODUCT ID
2"	16	AWS200AL-16A
2"	14	AWS200AL-14A
2"	11	AWS200AL-11A
2-1/2"	16	AWS250AL-16A
2-1/2"	14	AWS250AL-14A
2-1/2"	11	AWS250AL-11A
3"	16	AWS300AL-16A
3"	14	AWS300AL-14A
3"	11	AWS300AL-11A
4"	16	AWS400AL-16A
4"	14	AWS400AL-14A
4"	11	AWS400AL-11A
5"	14	AWS500AL-14A
5"	11	AWS500AL-11A
6"	14	AWS600AL-14A
6"	11	AWS600AL-11A

## TUBE QUICK COUPLERS

OD	GAUGE	PRODUCT ID
2"	16	DWS200AL-16A
2"	14	DWS200AL-14A
2"	11	DWS200AL-11A
2-1/2"	16	DWS250AL-16A
2-1/2"	14	DWS250AL-14A
2-1/2"	11	DWS250AL-11A
3"	16	DWS300AL-16A
3"	14	DWS300AL-14A
3"	11	DWS300AL-11A
4"	16	DWS400AL-16A
4"	14	DWS400AL-14A
4"	11	DWS400AL-11A
5"	14	DWS500AL-14A
5"	11	DWS500AL-11A
6"	14	DWS600AL-14A
6"	11	DWS600AL-11A

## PIPE QUICK ADAPTERS

OD	SCHEDULE	PRODUCT ID
2"	10	AWSP200AL-10A
2"	40	AWSP200AL-40A
3"	10	AWSP300AL-10A
3"	40	AWSP300AL-40A
4"	10	AWSP400AL-10A
4"	40	AWSP400AL-40A
5"	10	AWSP500AL-10A
5"	40	AWSP500AL-40A
6"	10	AWSP600AL-10A
6"	40	AWSP600AL-40A

## PIPE QUICK COUPLERS

OD	SCHEDULE	PRODUCT ID
2"	10	DWSP200AL-10A
2"	40	DWSP200AL-40A
3"	10	DWSP300AL-10A
3"	40	DWSP300AL-40A
4"	10	DWSP400AL-10A
4"	40	DWSP400AL-40A
5"	10	DWSP500AL-10A
5"	40	DWSP500AL-40A
6"	10	DWSP600AL-10A
6"	40	DWSP600AL-40A

Catalog Part Variations Available Upon Request

Order by Product ID Number

**PREMIUM VACUUM GAYLORD WANDS***Without Cam and Groove Coupling*

OD	GAUGE	LENGTH	MATERIAL	PRODUCT ID
1-1/2"	11	51"	Aluminum	11VW150A
1-1/2"	14	51"	Stainless	14VW150S
2"	11	51"	Aluminum	11VW200A
2"	14	51"	Stainless	14VW200S
2-1/2"	11	51"	Aluminum	11VW250A
2-1/2"	14	51"	Stainless	14VW250S
3"	11	51"	Aluminum	11VW300A
3"	14	51"	Stainless	14VW300S
4"	11	51"	Aluminum	11VW400A
4"	14	51"	Stainless	14VW400S

*With Cam and Groove Coupling*

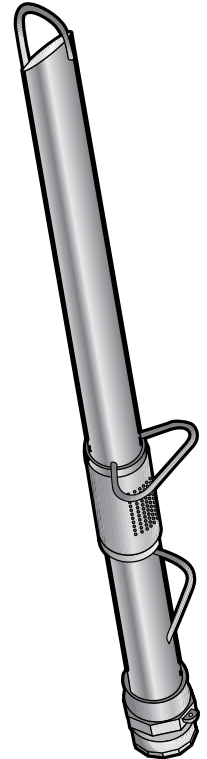
OD	GAUGE	LENGTH	MATERIAL	PRODUCT ID
1-1/2"	11	57	Aluminum	11VW150A - CG
1-1/2"	14	57	Stainless	14VW150S - CG
2"	11	57	Aluminum	11VW200A - CG
2"	14	57	Stainless	14VW200S - CG
2-1/2"	11	57	Aluminum	11VW250A - CG
2-1/2"	14	57	Stainless	14VW250S - CG
3"	11	57	Aluminum	11VW300A - CG
3"	14	57	Stainless	14VW300S - CG
4"	11	57	Aluminum	11VW400A - CG
4"	14	57	Stainless	14VW400S - CG

**BASIC VACUUM GAYLORD WANDS**

OD	GAUGE	LENGTH	MATERIAL	PRODUCT ID
1-1/2"	11	50"	Aluminum	11VWB150A
2"	11	50"	Aluminum	11VWB200A
2-1/2"	11	50"	Aluminum	11VWB250A
3"	11	50"	Aluminum	11VWB300A

**ACCESSORIES****Wand Specifications**

- Adjustable air relief is constructed of durable PVC
- Premium wands come with handles and end protectors
- Sizes range from 1-1/2" OD to 4" OD
- Available in Aluminum and Stainless Steel

**TERMINOLOGY**

CLR = Center Line Radius  
 ERW = Electric Resistance Welded  
 FNPT = Female National Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

Order by Product ID Number

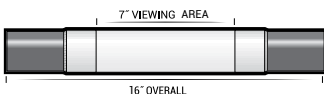
## \*TUBE SIGHT GLASSES

OD	GAUGE	TUBE ENDS	PRODUCT ID
1-1/2"	16	Alumium	150016ALUSG
2"	16	Alumium	200016ALUSG
2"	11	Alumium	200011ALUSG
2-1/4"	16	Alumium	225016ALUSG
2-1/2"	16	Alumium	250016ALUSG
2-1/2"	11	Alumium	250011ALUSG
3"	16	Alumium	300016ALUSG
3"	11	Alumium	300011ALUSG
3-1/2"	16	Alumium	350016ALUSG
3-1/2"	11	Alumium	350011ALUSG
4"	16	Alumium	400016ALUSG
4"	11	Alumium	400011ALUSG
4-1/2"	16	Alumium	450016ALUSG
4-1/2"	11	Alumium	450011ALUSG
5"	14	Alumium	500014ALUSG
5"	11	Alumium	500011ALUSG
6"	11	Alumium	600011ALUSG

\*NOT RECOMMENDED FOR APPLICATIONS OVER 180° (F)

## \*PIPE SIGHT GLASSES

OD	GAUGE	TUBE ENDS	PRODUCT ID
2"	40	Aluminum	200040APUSG
2"	40	Carbon	200040CSUSG
2-1/2"	40	Aluminum	250040APUSG
2-1/2"	40	Carbon	250040CSUSG
3"	40	Aluminum	300040APUSG
3"	40	Carbon	300040CSUSG
3-1/2"	40	Aluminum	350040APUSG
3-1/2"	40	Carbon	350040CSUSG
4"	40	Aluminum	400040APUSG
4"	40	Carbon	400040CSUSG
5"	40	Aluminum	500040APUSG
5"	40	Carbon	500040CSUSG
6"	40	Aluminum	600040APUSG
6"	40	Carbon	600040CSUSG



### Sight Glasses

The Acrylic Sight Glass (ASG) allows you to see at a glance the material flowing through your conveying system. It's precision made by aligning the acrylic with the tube or pipe to insure smooth material flow with no turbulence. A stainless steel ground strip is included to eliminate static build up. The ASG is easy to install in new or existing lines by using two Couplings.

- Tube or pipe ends are made of carbon steel or aluminum. Stainless or Galvanized are available upon request.
- Wall Thickness:  
Tube - 16, 14 & 11 Gauge  
Pipe - Schedule 5, 10, 40 & 80
- Overall Length is 16"
- 7" Viewing Area

**Special sight glasses are available upon request**

### SPECIAL SERVICES

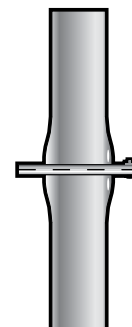
- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations



Order by Product ID Number

**\*BLAST GATE ASSEMBLIES**

OD	STUB GAUGE	STUB LENGTH	WEIGHT	PRODUCT ID
2"	16	6"	0.99	BG162000ZA
2-1/8"	16	6"	1.02	BG162125ZA
2-1/2"	16	6"	1.05	BG162500ZA
3"	16	6"	1.5	BG163000ZA
3-1/2"	16	6"	1.91	BG163500ZA
4"	16	6"	2.49	BG164000ZA
4-1/2"	16	6"	2.58	BG164500ZA
5"	14	7"	3.55	BG145000ZA
6"	14	7"	4.4	BG146000ZA
8"	14	8"	6.62	BG148000ZA

**\*NOT AIR-TIGHT****Blast Gate Specifications**

Blast Gate consists of an aluminum, full gate, casting with a zinc-coated (galvanized) slide and aluminum stubs (straight ends).

- Available in 2" - 8" Tube OD Sizes

**TERMINOLOGY**

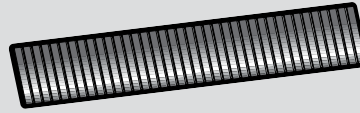
CLR = Center Line Radius  
 ERW = Electric Resistance Welded  
 FNPT = Female National Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

## METAL FLEXIBLE HOSE

Please call with specifications and we'll be happy to quote!

*Here is the information we will need to accurately quote metal flex hose:*

- Size (ID)
- Temperature required
- Application
- Material conveyed
- Pressure
- End treatments
- Direction of material flow



### Specifications

- 1-1/2" - 14" ID sizes are made from stainless or galvanized steel
- Variety of material thicknesses are available
- Unlined (rough bore) or lined (smooth bore)
- Packing options include cotton, stainless steel wire, apyrous, elastomeric (gas tight) and silicone
- We offer a wide selection of end fittings, including Cam & Groove, Flanges, Tube Stubs and Pipe Nipples
- Raw coils available in multiples of 25'; shorter lengths available as custom assemblies

### SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

Order by Product ID Number

### Standard Duty PVC CLEAR FOOD GRADE HOSE

ID	STD LENGTH (FT)	WEIGHT PER FOOT (LBS/FT)	TOTAL WEIGHT (LBS)	PRODUCT ID
1-1/2"	100	0.32	32	EHC150-100
1-1/2"	25	0.32	8	EHC150-25
2"	100	0.50	50	EHC200-100
2"	125	0.50	12.5	EHC200-25
2-1/2"	100	0.73	73	EHC250-100
2-1/2"	25	0.73	18.25	EHC250-25
3"	100	1.04	104	EHC300-100
3"	25	1.04	26	EHC300-25
4"	100	1.65	165	EHC400-100
4"	10	1.65	16.5	EHC400-10

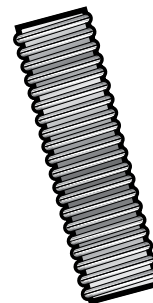
### Standard Duty PVC CLEAR FOOD GRADE HOSE

With Static Wire

ID	STD LENGTH (FT)	WEIGHT PER FOOT (LBS/FT)	TOTAL WEIGHT (LBS)	PRODUCT ID
1-1/2"	100	0.31	31	EHCE150-100
1-1/2"	25	0.31	7.75	EHCE150-25
2"	100	0.60	60	EHCE200-100
2"	25	0.60	15	EHCE200-25
2-1/2"	100	0.73	73	EHCE250-100
2-1/2"	25	0.73	18.25	EHCE250-25
3"	100	1.02	102	EHCE300-100
3"	25	1.02	25.5	EHCE300-25
4"	100	1.77	177	EHCE400-100
4"	10	1.77	17.7	EHCE400-10

#### PVC Specifications

- Counter clockwise spiral
- Service temp. Range: -4°F to 150°F



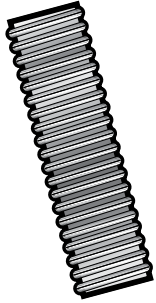
#### TERMINOLOGY

CLR = Center Line Radius  
 ERW = Electric Resistance Welded  
 FNPT = Female National Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

Order by Product ID Number

## PVC Specifications

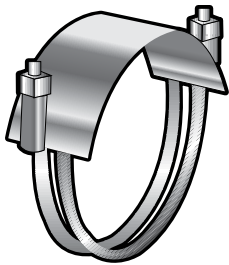
- Counter clockwise spiral
- Service temp. Range:  
-4°F to 150° F



## Clamp Specifications

- 1-1/2" Through 8"
- Zinc-coated (galvanized)
- For use on counterclockwise spiral, PVC hose

Note: two clamps are recommended for each end on 5" ID hose and larger



## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

## Heavy Duty PVC CLEAR FOOD GRADE HOSE

ID	STD LENGTH (FT)	WEIGHT PER FOOT (LBS/FT)	TOTAL WEIGHT (LBS)	PRODUCT ID
1-1/2"	50	0.35	17.5	WT150-50
1-1/2"	100	0.35	35.0	WT150-100
2"	50	0.56	28.0	WT200-50
2"	100	0.56	56.0	WT200-100
2-1/2"	50	0.77	38.5	WT250-50
2-1/2"	100	0.77	77.0	WT250-100
3"	50	1.1	55.0	WT300-50
3"	100	1.1	110.0	WT300-100
3-1/2"	50	1.4	70.0	WT350-50
3-1/2"	100	1.4	140.0	WT350-100
4"	50	1.8	90.0	WT400-50
4"	100	1.8	180.0	WT400-100
5"	20	2.36	47.2	WT500-20
5"	100	2.36	236.0	WT500-100
6"	20	3.54	70.8	WT600-20
6"	50	3.54	177.0	WT600-50
6"	100	3.54	354.0	WT600-100
8"	20	5.1	102.0	WT800-20

## Heavy Duty PVC CLEAR FOOD GRADE HOSE

With Static Wire

ID	STD LENGTH (FT)	WEIGHT PER FOOT (LBS/FT)	TOTAL WEIGHT (LBS)	PRODUCT ID
1-1/2"	50	0.43	25.8	WE150-50
2"	50	0.58	34.8	WE200-50
2-1/2"	50	0.88	52.8	WE250-50
3"	50	1.25	75	WE300-50
4"	50	1.93	115.8	WE400-50
5"	20	2.4	48	WE500-20
5"	60	2.4	144	WE500-60
6"	20	3.7	74	WE600-20
6"	60	3.7	222	WE600-60

## DOUBLE BOLT CLAMPS

Counter clockwise spiral for use on PVC hose

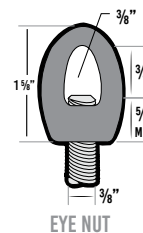
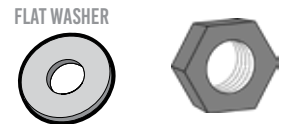
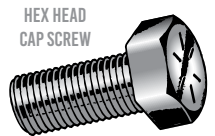
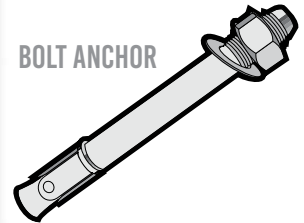
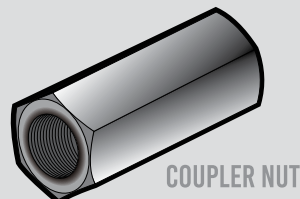
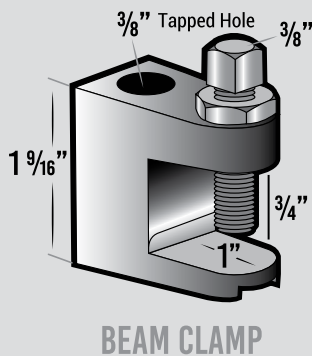
FITS HOSE ID	WEIGHT	PRODUCT ID
1-1/2"	0.18	SDBC150
2"	0.36	SDBC200
2-1/2"	0.48	SDBC250
3"	0.66	SDBC300
4"	1.02	SDBC400
5"	1.76	SDBC500
6"	2.00	SDBC600
8"	2.76	SDBC800

Catalog Part Variations Available Upon Request

Order by Product ID Number

H-P Products gives you everything you need to get your system up and running, all in one complete installation package. If you're searching for a particular installation component, we'll be glad to help you find whatever you're looking for. Our "one-stop-shopping" will help you lower your inventory costs and spend less time looking for parts. And, when it's time for installation, you'll have all the components you need on-the-spot.

DESCRIPTION	SIZE	MATERIAL	PKGD	PRODUCT ID
<b>Anchor, Hilti®</b>	3/8" x 1-9/16" (Length)	Zinc	50 pc.	ANC-0380
<b>Bolt Anchor,</b> Includes Washer and Hex Nut	3/8" x 3-3/4" (Overall Length) 1-1/8" Thread Length	Zinc	100 pc.	ANC-0381
<i>Features: Comprehensive performance testing in concrete, lightweight concrete, and grout-filled block base materials. Can be installed in a bottomless hole. Anchor size is same as hole size for easy installation. Hilti® Kwik Bolt II Stud Anchor System.</i>				
<b>Hex Head Cap Screw</b> "More Length When You Need It"	3/8" x 1-1/4" (Length)	Zinc	50 pc.	HCS-0381
<b>Hex Nut</b>	3/8"	Zinc	50 pc.	HXN-0380
<b>Flat Washer</b>	3/8"	Zinc	50 pc.	FW-0380
<b>Split Lock Washer</b>	3/8"	Zinc	50 pc.	LKW-0380
<b>Threaded Rod</b>	3/8" x 6' (Length)	Zinc	each	ATR-100
<b>Eye Nut,</b> Maximum Allowable Load is 610 lbs. "Works Great With our Tube Hangers"	3/8" Tapped Hole	Malleable Iron - Plain.	each	EN-0380
<b>Coupler Nut</b>	3/8" x 1-3/4" (Length)	Zinc	each	CN-0380
<b>Beam Clamp</b> with Zinc Set Screw and Lock Nut. Maximum Allowable Load, in top or bottom position, is 550 lbs.	3/8" Tapped Hole	Malleable Iron - Galv.	each	BC-037T
<b>Beam Clamp</b> with Set Screw and Lock Nut. Maximum Allowable Load, in top position, is 500 lbs.; in bottom position, 250 lbs. "The Cost-Effective Solution When You Don't Need Our Heavy-Duty Beam Clamp (BC-037T)"	3/8" Tapped Hole	Malleable Iron - Plain	each	BC-100



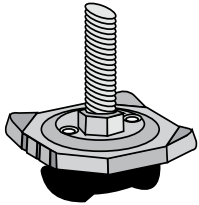
#### TERMINOLOGY

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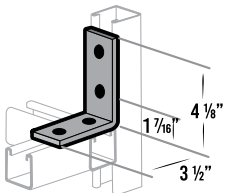
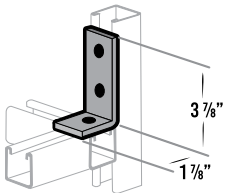
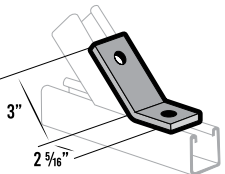
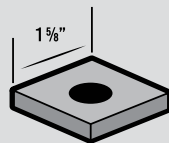
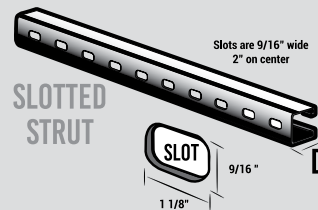
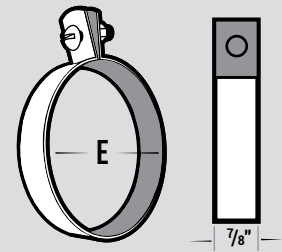
Order by Product ID Number



CHANNEL NUT



SADDLE NUT ASSEMBLY

90° STRUT BRACKET  
2 HOLES X 2 HOLES90° STRUT BRACKET  
2 HOLES X 1 HOLES45° STRUT BRACKET  
1 HOLES X 1 HOLESSQUARE WASHER  
PLATESLOTTED  
STRUT

STANDARD TUBE HANGER

## SPECIAL SERVICES

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

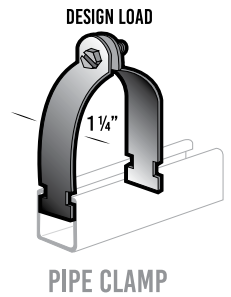
DESCRIPTION	SIZE	MATERIAL	PKGD	PRODUCT ID
Channel Nut, without spring	3/8"	Zinc	each	CHN-0380
<b>Saddlenut Assembly</b> "Replaces Square Washer Plate and a Channel Nut Combination"		Zinc	25	SN-0380
Slotted Strut, 14 Gauge	13/16"(D) x 1-5/8", 10' Length	Zinc	each	UN-100
Slotted Strut, 14 Gauge "An Economical Alternative When You Don't Require Our Heavy-Duty Strut (UN-202)"	1-5/8"(D) x 1-5/8", 10' Length	Zinc	each	UN-201
Slotted Strut, 12 Gauge	1-5/8"(D) x 1-5/8", 10' Length	Zinc	each	UN-202
90° Strut Bracket	2 x 2, 9/16" Holes	Zinc	each	BRKT-0900
90° Strut Bracket	2 x 1, 9/16" Holes	Zinc	each	BRKT-0901
45° Strut Bracket	9/16" Holes	Zinc	each	BRKT-0450
Square Washer Plate	7/16" Hole for 3/8" Bolt Size	Zinc	100 pc.	SQW-0380
Tube Hanger, includes Bolt and Nut	For 1-1/2" OD Tube	Zinc	each	TH-150
Tube Hanger, includes Bolt and Nut	For 2" OD Tube	Zinc	each	TH-200
Tube Hanger, includes Bolt and Nut	For 2-1/8" and 2-1/4" OD Tube	Zinc	each	TH-212
Tube Hanger, includes Bolt and Nut	For 2-1/2" OD Tube	Zinc	each	TH-250
Tube Hanger, includes Bolt and Nut	For 3" OD Tube	Zinc	each	TH-300
Tube Hanger, includes Bolt and Nut	For 3-1/2" OD Tube	Zinc	each	TH-350
Tube Hanger, includes Bolt and Nut	For 4" OD Tube	Zinc	each	TH-400
Tube Hanger, includes Bolt and Nut	For 4-1/2" OD Tube	Zinc	each	TH-450
Tube Hanger, includes Bolt and Nut	For 5" OD Tube	Zinc	each	TH-500
Tube Hanger, includes Bolt and Nut	For 6" OD Tube	Zinc	each	TH-600
Tube Hanger, includes Bolt and Nut	For 8" OD Tube	Zinc	each	TH-800
Tube Hanger, includes Bolt and Nut	For 10" OD Tube	Zinc	each	TH-1000
Tube Hanger, includes Bolt and Nut	For 12" OD Tube	Zinc	each	TH-1200
Tube Hanger, includes Bolt and Nut	For 14" OD Tube	Zinc	each	TH-1400

Catalog Part Variations Available Upon Request

Give us a call if you can't find exactly what you need!

Order by Product ID Number

DESCRIPTION	SIZE	MATERIAL	PKGD	PRODUCT ID
<b>Pipe Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 800 lbs.	For 1-1/2" Pipe Size	Zinc	4 pc.	PCL-150
<b>Pipe Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 800 lbs.	For 2" Pipe Size	Zinc	4 pc.	PCL-200
<b>Pipe Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 800 lbs.	For 2-1/2" Pipe Size	Zinc	4 pc.	PCL-250
<b>Pipe Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 800 lbs.	For 3" Pipe Size	Zinc	4 pc.	TCL-350*
<b>Pipe Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 1000 lbs.	For 3-1/2" Pipe Size	Zinc	4 pc.	TCL-400*
<b>Pipe Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 1000 lbs.	For 4" Pipe Size	Zinc	4 pc.	TCL-450*
<b>Pipe Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 1000 lbs.	For 5" Pipe Size	Zinc	4 pc.	PCL-500
<b>Pipe Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 1000 lbs.	For 6" Pipe Size	Zinc	4 pc.	PCL-600
<b>Pipe Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 1000 lbs.	For 8" Pipe Size	Zinc	4 pc.	PCL-800
* Tube Clamp also fits this pipe size.				
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 600 lbs.	For 1-1/2" OD Tube	Zinc	4 pc.	TCL-150
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 800 lbs.	For 2" OD Tube	Zinc	4 pc.	TCL-200
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 800 lbs.	For 2-1/8" OD Tube	Zinc	4 pc.	TCL-212
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 800 lbs.	For 2-1/4" OD Tube	Zinc	4 pc.	TCL-225
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 800 lbs.	For 2-1/2" OD Tube	Zinc	4 pc.	TCL-250
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 800 lbs.	For 3" OD Tube	Zinc	4 pc.	TCL-300
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 800 lbs.	For 3-1/2" OD Tube	Zinc	4 pc.	TCL-350
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 1000 lbs.	For 4" OD Tube	Zinc	4 pc.	TCL-400
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 1000 lbs.	For 4-1/2" OD Tube	Zinc	4 pc.	TCL-450
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 1000 lbs.	For 5" OD Tube	Zinc	4 pc.	TCL-500
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 1000 lbs.	For 6" OD Tube	Zinc	4 pc.	TCL-600
<b>Tube Clamp</b> , includes Slotted Hex Head Screw and Nut, Design Load 1000 lbs.	For 8" OD Tube	Zinc	2 pc.	TCL-800**
** 2 piece package				

**NOTE:**

Tube Clamps are now available in 50 packs! To order, simply add 50 to the end of the Part Number!

**TERMINOLOGY**

CLR = Center Line Radius  
 ERW = Electric Resistance Welded  
 FNPT = Female National Pipe Thread  
 ID = Inside Diameter  
 MNPT = Male National Pipe Thread  
 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

Order by Product ID Number

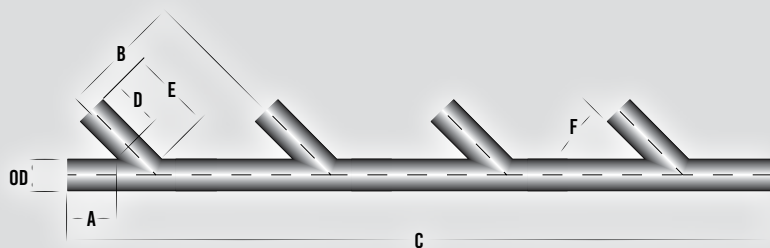
DESCRIPTION	SIZE	MATERIAL	PKGD	PRODUCT ID
<b>Metal Sealant</b> An aluminum-colored, medium viscosity, synthetic rubber sealant with excellent adhesion to many metal, glass, wood and other surfaces.  Features: Adheres to metal, wood and glass. Seals metal to glass in windows and doors. Resists weather, water, oil and gasoline. Solids wt. approx. 46%, Flash Point (closed cup) 0° F, heavy liquid consistency, aluminum color (dry), brush or flow application. Drying time is 24 hours (1/8" dia. bead), service temp. range of -30° to 200° F. 3M Scotch-Seal™ 2084 Metal Sealant repackaged by H-P Products.	Quart Can	-	each	2084-QT

**SPECIAL SERVICES**

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations



## A Few Frequently Requested Specials



### Manifolds

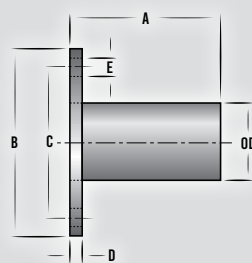
OD	A	B	C	D	E	F
2.00	6.00	8.00	50.25	6.00	8.00	45.00
2.50	6.00	10.00	60.00	5.50	8.00	45.00
3.00	6.00	12.00	69.25	5.00	8.00	45.00
4.00	6.00	16.00	87.50	6.00	10.00	45.00

Typically used for multiple pick up points in vacuum conveying applications

### Flanged Stub

OD	A	B	C	D	E
1.5	6	5	3.875	0.5	0.625
2	6	6	4.75	0.5	0.75
2.5	6	7	5.5	0.5	0.75
3	6	7.5	6	0.5	0.75
3.5	6	7.5	6	0.5	0.75
4	6	9	7.5	0.5	0.75
5	6	10	8.5	0.5	0.875
6	6	11	9.5	0.5	0.875
8	6	13.5	11.75	0.5	0.875

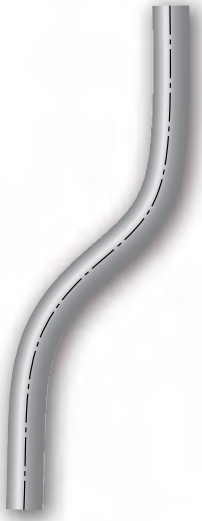
For connecting tube to flanged connections. Use our compression coupling to connect tube ends.



### TERMINOLOGY

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 NPS = Nominal Pipe Size  
 OD = Outside Diameter  
 SCH = Schedule

## *A Few Frequently Requested Specials*



**Offset Bend**

### **OFFSET BENDS**

#### **WHAT WE NEED TO KNOW...**

When calling for a quote please let us know the following:

- OD (outer diameter)
- Wall Thickness
- Material
- Center to Center dimension
- Overall length

**We are here to help...Just Call!**

#### **SPECIAL SERVICES**

- Shot Peening
- Spiral Grooving
- Porcelain Lining
- Ceramic Coating
- Part Variations

*Catalog Part Variations Available Upon Request*

## NOTES

[illegible]



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Fax: 330.875.7155

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