



MIDLAND
INDUSTRIES

PRODUCT CATEGORIES

PIPE



| Pipe Size | 1/16 | 1/8 | 1/4 | 3/8 | 1/2 | 3/4 | 1 |
|------------------|---------|--------|--------|--------|--------|--------|---------------------|
| Thread Size | 1/16-27 | 1/8-27 | 1/4-18 | 3/8-18 | 1/2-14 | 3/4-14 | 1-11 ^{1/2} |
| Working Pressure | 1200 | 1200 | 1200 | 1200 | 1200 | 1000 | 1000 |
| Thread OD | 1/4 | 3/8 | 1/2 | 5/8 | 3/4 | 1 | 1-1/4 |

•**Typical Application**

Grease, fuels, LP and Natural gas (available on special order), refrigeration, instrumentation and hydraulic systems.

•**Pressure**

Operating pressure up to 1200 PSI.

•**Vibration**

Fair resistance.

•**Temperature Range**

-65°F to +250°F (-53°C to +121°C).

•**Used With**

Brass, bronze, copper, steel, aluminum and iron pipe.

•**Tolerance**

+/- .02 on all dimensions. Dimension Data can change without notice. Please call us when dimensions are critical.

•**Conformance**

Meets specifications and standards of ASA, ASME and SAE

- Not lead free

• "L" at the end of a Part# means **Light Pattern**

- these fittings are completely interchangeable with full pattern fittings, but have been modified in some way. This modification is usually in the length of the pipe threads. Used in plumbing and light industrial applications.

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•**Assembly Instructions**

- 1- Tighten approximately 2-1/2 turns past hand tight.
- 2- Fittings with Everseal tighten two turns past hand tight. Brittle materials require special cautions.



- see page 409-412 for hydraulic pipe steel fittings.



- see page 295-297 for plastic pipe fittings.



- **Lead Free Fittings**
see pages 158-160



- **For Bronze & Larger Sizes**
see pages 223-231

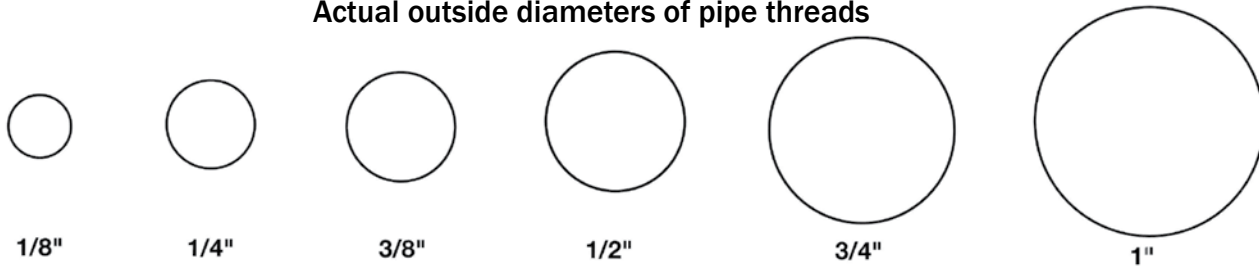


- **For BSPT/ BSPP**
see midlandmetal.com

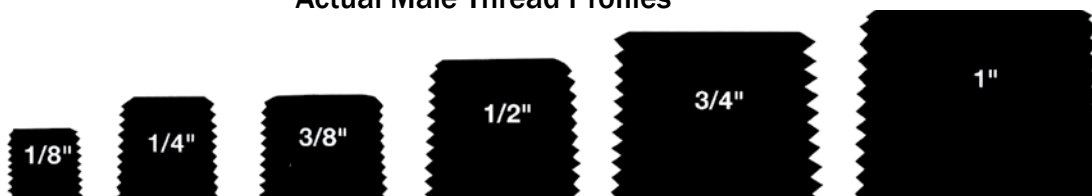


- * For larger sizes, see bronze fittings on pg. 220-227

Actual outside diameters of pipe threads



Actual Male Thread Profiles



HOSE BARB FITTINGS



- **Temperature and Working Pressure Ranges**

From -40°F to + 160°F at 150 PSI maximum.

- **Tolerance**

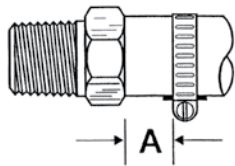
+/- .02 on all dimensions. Dimension Data can change without notice. Please call us when dimensions are critical.

Note: These fittings are intended for use with hose clamp, similar type clamp or a crimped ferrule.

- **Assembly Instructions**

- 1- Cut hose cleanly and squarely to length.
- 2- Slide clamp on hose.
- 3- Lubricate hose. Push hose on fitting until hose bottoms against stop ring or hex.
- 4- Position hose clamp as shown below and secure with a screwdriver or wrench. Maintain "A" dimension noted below for proper clamp positioning.

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- For Lead Free AB1953 Compliant Fittings see pages 160--161

Other Barbs available



See page 292-295 for plastic hose barb fittings



See page 27-28 for stainless steel hose barbs



See page 307 for King Nipples

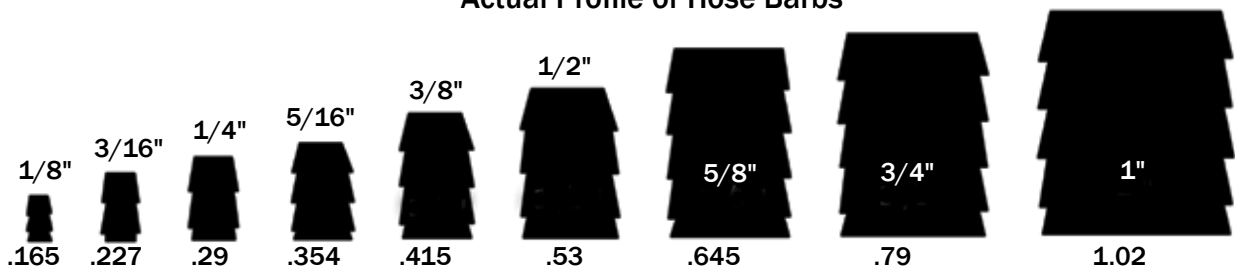


Stainless Steel hose barbs for beverage service available -

See beverage fitting section, pg. 28-29

| Hose Size | A |
|-----------|------|
| 3/16" | 1/4" |
| 1/4" | 1/4" |
| 5/16" | 1/4" |
| 3/8" | 1/8" |
| 1/2" | 1/8" |
| 5/8" | 1/8" |
| 3/4" | 1/8" |

Actual Profile of Hose Barbs



PUSH ON BARB FITTINGS



Typical Application: Low Pressure Air, Fuel, Lube, and Oil Lines

- Pressure determined by tube material and hardness. Midland Parts have been tested to max 150 PSI.

Advantages: Easy assembly. No clamps needed!!

• Assembly Instructions

- 1- Lubricate insert.
- 2- Hold hose at angle as shown & push on and up over first barb.
- 3- Continue to push straight on until hose is seated under protective plastic cap. Keep hands back from hose end area so that hose can expand.

• Disassembling Instructions

- 1- Split hose. Do not cut completely through hose. Sealing edge of barb could be damaged.
- 2- Bend hose and remove with a quick pull.

See lead free section for lead free push-on barb fittings.
Stainless steel available at the end of this section.

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Actual Profile of Push On Barbs



GARDEN HOSE FITTINGS



• Temperature and Working Pressure Ranges

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

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

FGH = Female Garden Hose threads

MGH = Male Garden Hose threads

Male garden hose threads are all 3/4" with an outside diameter of 1.0625 and 11-1/2" threads per inch.



Male Garden Hose Profile



See Plastic section for Plastic Garden Hose Fittings

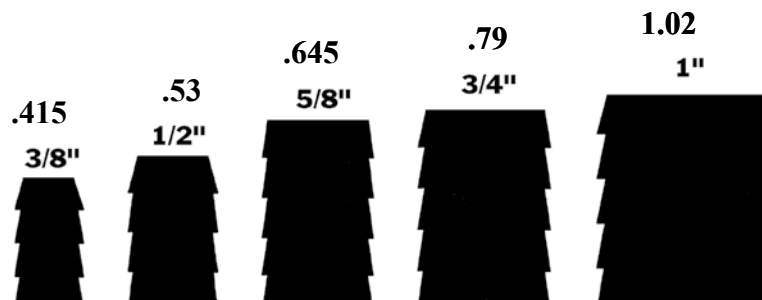


See page 162 for lead free Garden Hose

Washers included are #30150B black rubber washers.

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Actual Profile of Garden Hose Barbs



SAE 45° FLARE



| Tube O.D. | 1/8 | 3/16 | 1/4 | 5/16 | 3/8 | 7/16 | 1/2 | 5/8 | 3/4 |
|---------------|---------|--------|---------|--------|--------|----------|--------|--------|-----------|
| Thread Size-B | 5/16-24 | 3/8-24 | 7/16-20 | 1/2-20 | 5/8-18 | 11/16-16 | 3/4-16 | 7/8-14 | 1-1/16-14 |

•Typical Application

LP and natural gas, flammable liquids, instrumentation, refrigeration, power steering, hydraulic and pneumatic systems.

•Working Pressure Ranges

Temperature and type of tubing used are important factors. However, the following table is a good guide for proper selection. Temperature 73°F with copper tubing:

| PSI | Tube O.D. (in.) | Tube Wall (in.) |
|------|-----------------|-----------------|
| 2800 | 1/8 | .030 |
| 1900 | 3/16 | .030 |
| 1400 | 1/4 | .030 |
| 1200 | 5/16 | .032 |
| 1000 | 3/8 | .032 |
| 750 | 1/2 | .032 |
| 650 | 5/8 | .035 |
| 550 | 3/4 | .035 |
| 450 | 7/8 | .035 |

•Vibration

Good resistance - use long nut when greater vibration resistance is required.

•Temperature Range

-65°F to +250°F (-53°C to +121°C) range at maximum operating pressures.

•Used With

Copper, brass, aluminum and steel hydraulic tubing that can be flared.

•Tolerance

+/- .03 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

•Conformance

Meets specifications and standards of ASA, ASME, SAE and MS (Military standards).

Assembly Instructions

- 1- Cut tubing to desired length. Make sure all burrs are removed and ends are cut square.
- 2- Slide nut on tube. Threaded end "A" of nut must face out.
- 3- Flare end of tube with a 45° flaring tool.
 - a- Measure flare diameter.
 - b- Examine flare for excessive thin out.
- 4- Lubricate threads and assemble to fitting body. Nut should be turned hand tight.
- 5- Tighten assembly with wrench until a solid feeling is encountered. From that point, apply a one-sixth turn.

Note: Do not over-torque as it may damage the fitting or split the tubing at the flare.

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• See Lead Free Flare Fittings page 163-164

Actual O.D. of Flare Fittings



INVERTED FLARE



| Tube O.D. | 1/8 | 3/16 | 1/4 | 5/16 | 3/8 | 7/16 | 1/2 | 5/8 | 3/4 | 7/8 | 1 |
|------------------------------|---------|--------|---------|--------|--------|----------|--------|--------|-----------|-----------|-----------|
| Thread O.D. threads per inch | 5/16-28 | 3/8-24 | 7/16-24 | 1/2-20 | 5/8-18 | 11/16-18 | 3/4-18 | 7/8-18 | 1-1/16-16 | 1-3/16-16 | 1-5/16-16 |

•Typical Application

Hydraulic brake, power steering, fuel lines and transmission cooler lines, LP and natural gas.

•Working Pressure Ranges

Temperature and type of tubing used are important factors. However, the following table is a good guide for proper selection. Temperature 73°F with copper tubing:

| PSI | Tube O.D. (in.) | Tube Wall (in.) |
|------|-----------------|-----------------|
| 2800 | 1/8 | .030 |
| 1900 | 3/16 | .030 |
| 1400 | 1/4 | .030 |
| 1200 | 5/16 | .032 |
| 1000 | 3/8 | .032 |
| 750 | 1/2 | .032 |
| 650 | 5/8 | .035 |
| 550 | 3/4 | .035 |

•Vibration

Excellent resistance.

•Temperature Range

-65°F to +250°F (-53°C to +121°C) range at maximum operating pressures.

•Used With

Copper, brass, aluminum and steel hydraulic tubing that can be flared.

•Advantages

Very low cost and reusable. Seats and threads are internal and protected. Compact, excellent vibration life. Short nut affords very close tube bends. Steel or brass tube nut.

•Tolerance

+/- .03 on all dimensions.

•Conformance

Meets specifications and standards of ASA, ASME, SAE and MS (Military Standards).

•Assembly Instructions

- 1-Cut tubing to desired length. Make sure all burrs are removed and the ends are cut square.
- 2- Slide nut on tube. Threaded end "A" of nut must face out.
- 3- Flare end of tube with a 45° flaring tool.
 - a- Measure flare diameter.
 - b- Examine flare for excessive thin out.
 - c- On thin wall, welded or brazed tubing, use double flare to prevent pinch-off and cracked flares.
- 4- Lubricate threads and assemble to fitting body. Nut should be turned hand tight.
- 5- Tighten assembly with wrench until a solid feeling is encountered. From that point, apply a one-sixth turn.

Note: Do not over-torque as it may damage the fitting or split the tubing at the flare.

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STANDARD METRIC THREADS

| Description Tube Size | Thread O.D. | Crest (Pitch) | Thread Description |
|-----------------------|-------------|---------------|--------------------|
| Japanese 3/16" | 10mm | 1.0mm | M10 x 1.0 |
| European 3/16" | 10mm | 1.0mm | M10 x 1.0 |
| GM 6mm | 12mm | 1.0mm | M12 x 1.0 |
| Fuel 5/16" | 14mm | 1.5mm | M14 x 1.5 |
| Fuel 3/8" | 16mm | 1.5mm | M16 x 1.5 |

Measuring Metric Threads: Measure the O.D. of the threads and the crest to crest distance (pitch) in millimeters between threads.

Actual O.D. of male inverted flare threads

| | | | | | | | |
|----------------------|---------------------|----------------------|---------------------|---------------------|--------------------|--------------------|-----------------------|
| 5/16"-28 2800 PSI | 3/8"-24 1900 PSI | 7/16"-24 1400 PSI | 1/2"-20 1200 PSI | 5/8"-18 1000 PSI | 3/4"-18 750 PSI | 7/8"-18 650 PSI | 1-1/16"-16 550 PSI |
|----------------------|---------------------|----------------------|---------------------|---------------------|--------------------|--------------------|-----------------------|

1/8"

3/16"

1/4"

5/16"

3/8"

1/2"

5/8"

3/4"

COMPRESSION FITTINGS



These are NOT Lead Free

See pages 164-166 for Lead Free products

| | | | | | | | | | | |
|-------------------------|---------|--------|---------|--------|---------|--------|----------|----------|------|----------|
| Tube O.D. | 1/8 | 3/16 | 1/4 | 5/16 | 3/8 | 7/16 | 1/2 | 5/8 | 3/4 | 7/8 |
| Thread Size-B | 5/16-24 | 3/8-24 | 7/16-24 | 1/2-24 | 9/16-24 | 5/8-24 | 11/16-20 | 13/16-18 | 1-18 | 1-1/8-18 |
| Working Pressure | 400 | 400 | 300 | 300 | 200 | 200 | 200 | 150 | 100 | 75 |

• Typical Application

Use with copper, aluminum and thermoplastic tubing. Not recommended for steel tubing. Manufactured for low and medium pressure tubing connection work where excessive vibration or tube movement is not involved. Not recommended for application using gaseous media.

• Pressure

See table above for working pressures at 73°F.

• Vibration

Fair resistance - use long nut when greater vibration resistance is needed.

• Temperature Range

-65°F to +250°F (-53°C to +121°C) range at maximum operating pressures. (Refer to tubing temperature range.)

• Used With

Aluminum, copper, brass and plastic tubing. Plastic tubing requires insert. Not recommended for steel tubing.

• Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

• Conformance

Meets specifications and standards of ASA, ASME and SAE.

• Assembly Instructions

- 1- Cut tubing to desired length.
- 2- Slide nut and then sleeve on tube. Threaded end "A" of nut must face toward fitting.
- 3- Insert tubing into fitting body. Be sure tubing is bottomed on fitting shoulder.
- 4- Lubricate threads and assemble nut to fitting body.
- 5- Tighten nut hand tight. From that point, tighten with a wrench the number of turns indicated in the chart below.

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| Tube Size | Additional Turns from Hand Tight |
|----------------|----------------------------------|
| 1/8" thru 1/4" | 1-1/4" |
| 5/16" | 1-3/4" |
| 3/8" thru 1" | 2-1/4" |

• "L" at the end of a Part# means **Light Pattern** - These fittings are completely interchangeable with full pattern fittings, but have been modified in some way. This modification is usually in the length of the pipe threads. Used in plumbing and light industrial applications.

Actual Profile of Compression Threads



Flareless

Flareless Brass Tube Fittings are Interchangeable with Poly-Flo®, Poly-Tite® and Poly-Line® and Poly-Fit®



Built-in SS
Tube Support

| Tube O.D. | 1/8 | 3/16 | 1/4 | 5/16 | 3/8 | 1/2 |
|---------------|---------|--------|--------|---------|--------|-----------|
| Thread Size-B | 5/16-24 | 3/8-24 | 3/8-24 | 7/16-24 | 1/2-24 | 1 1/16-20 |

•Typical Application

Pneumatic instrumentation circuits, lubricant and cooling lines.

•Working Pressure and Temperature Ranges

Up to 150 PSI from 0°F to + 150°F with thermoplastic tubing. Up to 300 PSI from 0°F to + 175°F with soft metal tubing.

•Maximum allowable metal tube wall thickness for use with Poly-Tite fittings:

1/8", 3/16" O.D. --no limitation,
1/4" O.D.--.035 5/16", 3/8", 1/2" O.D.--.049

•Vibration

Excellent Resistance.

•Temperature Range

Depends on tubing used. -65°F to +250°F (-53°C to +121°C) with brass sleeve, -40°F to +150°F (-40°C to +66°C) with plastic sleeve. (Refer to tubing temperature range.)

•Used With

Aluminum & copper tubing. Hard plastic tubing requires brass sleeve. Not recommended for steel tubing.

•Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

•Advantages

No flaring of tubing required. Easy installation, captive sleeve, pre-assembled for installation and can be reassembled. Nuts rotate around the sleeve during tightening, preventing twisting of tubing.

•Assembly Instructions

- 1- Cut tubing to desired length.
- 2- Slide nut/sleeve assembly on tube. Threaded end "A" of nut must face toward fitting.
- 3- Bottom tubing into fitting.
- 4- Plastic sleeve - Tighten nut hand tight.
Brass Sleeve - Tighten nut hand tight, then an additional 3/4 turn.

* Note: 1/8 and 3/16 sizes have brass sleeves

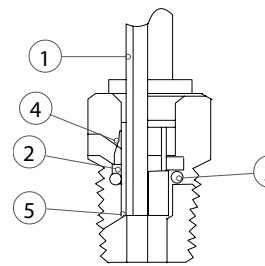
Save 5% by ordering online at
www.midlandmetal.com

BRASS PUSH-IN FITTINGS



ENGINEERING AND DESIGN

- **QUICK CONNECT**, simply push tubing in, no tools. Saves up to 75% of assembly time of standard compression fittings.
- **QUICK DISCONNECT**, hold two fingers on insert and pull tubing out, no tools required.
- **REUSEABLE**, connect and disconnect numerous times.
- **FULL FLOW DESIGN**, provides up to 60% more flow area than conventional fittings with internal tube supports.
- **POSITIVE SEAL**, no leaks. After tubing is inserted, seal is made.
- **VERSATILE**, BunaN "O" rings standard. Other materials of "O" rings available.
- **SECURE TUBE RETENTION**, pulling on tubing only serves to tighten the connection.
- **SELF CONTAINED ASSEMBLY**, no loose parts, brass body and insert.
- **BRASS CONSTRUCTION**, elbows and tees are forged brass.
- **CHOICE** of convenient swivel or economical stationary elbows and tees.
- **STRAIGHT CONNECTORS** have interior hex for Allen key tightening where space is limited...no need to use a wrench.
- **PRE-APPLIED TEFLON®** based pipe sealant on all male pipe threads, saving customer additional labor.
- **METRIC SIZES AVAILABLE**: Metric tube sizes from 2mm through 12mm in both standard NPT and metric pipe sizes are available on a special order basis.
- **WORKING TEMPERATURE**:
-10°F to 200°F (other ranges available on request).
- **PIPE THREAD**: NPTF with Teflon® based sealant pre-applied.



When tubing (1) is inserted into the fitting, it first passes through the gripping teeth (2). Just beyond the gripping teeth is the o-ring (3) which provides the leak proof seal against the OD of the tube. The gripping teeth grab the tube, which expands the insert. Pulling back on the tube only tightens the grip as the insert moves onto the camming surface (4). Pressure through the tube also serves to tighten the grip. The tube bottoms against a positive tube stop (5) in a cavity providing tube support to prevent leakage.

• Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical

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NICKEL PLATED PUSH-IN FITTINGS

with GLOBAL THREAD

• NPTF • BSPP • BSPT • ISO 7 • ISO 228 • G THREAD • J THREAD



- Saves time and money
- No stripped threads
- No stripped parts
- Reduce inventory

- Completely reusable
- Quick installation
- No pitch identification

| Component Parts and Materials | |
|-------------------------------|------------------------------------|
| Body | Brass - Nickel Plated |
| Thrust Ring | Acetalic Resin/ Glass filled Nylon |
| Sleeve | Brass - Nickel Plated |
| Gripper Collet | Stainless Steel |
| Safety Ring | PA66 |
| Lip Seal (1/8 O-Ring Seal) | NBR 70 |
| Thread Seal | NBR 70 |

Max Operating Pressure: Vacuum to 290PSI.

Min Temperature: -4°F

Max Temperature: 176°F

Tubing: Nylon, Polyethylene, Polyurethane.

- For best results use 95 Durometer

Media: Compressed air, water, vacuum

• Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

GLOBAL THREAD

Works With Inch or Metric Threads



“Global Thread” fittings can be assembled with female threads produced to the following standards:

Tapered NPTF

Parallel (BSPP, BSP, ISO 7)

Tapered (BSPT, PT, ISO 7, ISO 228)

Composite Body Push-In Fittings



- For Food Grade,
see page 298-299

Specifications

| | |
|---------------------------|-------------------|
| Fluid admitted | Air |
| Working pressure range | 0-150 PSI (10BAR) |
| Min. Burst pressure | 340PSI (23BAR) |
| Working Temperature range | 0°F ~160°F |

The latest generation of composite material is used in the body construction in addition to brass on threaded components and stainless steel on the tube gripper.

• Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

Materials of Construction:

| | | |
|---|--------------|--|
| 1 | Body | Composite Polyacetal (hemopolymer,copolymer) |
| 2 | Body | Brass |
| 3 | Tube Release | Acetal Resin |
| 4 | Retainer | Brass |
| 5 | Gripper Ring | Stainless Steel |
| 6 | Spacer | Brass |
| 7 | O-Ring | NBR 70 |
| 8 | Threads | Brass w/ white sealant |

D.O.T. PUSH-IN TUBE FITTINGS



Meets D.O.T. FMVSS 571.106 SAE J1131 Air Brake System Requirements

Benefits for Cost Savings & Engineering Project

- **Fast assembly:** No tools required. Simply push tubing in. Saves up to 75% of assembly time compared to standard air compression fittings. No loose parts to handle.
- **Fast disconnect:** Hold the collet collar with two fingers and pull out tube. No tools required.
- **Reusable:** Can be connected and disconnected several times.
- **Reliable sealing:** Using recommended tubing, full sealing is guaranteed.
- **Versatility:** Buna N O'ring standard. Viton and others available per request. Secure tube retention. Pulling on tubing only serves to tighten the connection.
- **Pre-Applied Teflon®** based pipe sealant on all male pipe threads, saving customer additional labor.
- **Full Flow Design,** provides more flow area than conventional fittings with internal tube supports even in the swivels.

DOT Fittings are constructed with an all brass captive eyelet which allows for maximum flow. The brass captive eyelet with extended length is floating and has a machined top end radius for easy installation of tubing. All male threads have a pre-applied Teflon® based pipe sealant to provide for easy assembly and leak proof seal.

• Materials:

Brass
"O" Ring: Buna - Nitrile (90 Durometer)
EP (Ethylene Propylene)

• Working Pressures & Temperature Ranges

Vacuum to 150 PSI
-40°F to 200° F (-40°C to +93°C)

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

Toll Free Phone 1-800-821-5725



www.midlandindustries.com

D.O.T. AIR BRAKE REUSABLE HOSE/ FITTINGS



•Typical Application

Air Brake hose connections.
Meets SAE & DOT specifications
(FMVCS 10 GAL)

•Pressure

Determined by maximum working pressure for hose size.
Up to 125 psi

Temperature: -40°F to + 120° F (-40°C to +48°C)

•Advantages

Can be used for nearly any brake line. Easy to assemble with a good selection of hose end configurations. Brass material offers excellent resistance against corrosion.

• Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

•Assembly Instructions

- 1- Slide nut and sleeve onto hose. Make sure bevel edge of sleeve faces out toward fitting.
- 2- Push hose into fitting until it bottoms.
- 3- Screw nut until contact is made with body hex.

NOTE: When reassembling fitting, body and nut should be inspected. Only reuse if in proper condition. Sleeves should never be reused.

SLEEVE

FERRULE



| Part # | Hose I.D. Size | Approx. Wt. Lbs. | |
|--------|----------------|------------------|------|
| 38-300 | 3/8" | 0.02 | ---- |
| 38-301 | 1/2" | 0.02 | ---- |

#60HC 3380-A 0903610 367 60RB

NUT



| Part # | Hose I.D. Size | Approx. Wt. Lbs. | |
|--------|----------------|------------------|------|
| 38-306 | 3/8" | 0.04 | ---- |
| 38-307 | 1/2" | 0.06 | ---- |

61RB #61HC 369 3380-B 0903624

NUT FOR USE WITH SPRING



| Part # | Hose I.D. Size | Thread | Approx. Wt. Lbs. | |
|--------|----------------|-----------|------------------|------|
| 38-312 | 3/8" | 31/32-20 | 0.04 | ---- |
| 38-313 | 1/2" | 1-3/32-20 | 0.06 | ---- |

COMPOSITE BODY DOT AIRBRAKE FITTINGS

WARNING

- Composite DOT push-to-connect fittings are designed only for use in applications where air is utilized as an operating fluid.
 - Fittings must be used in accordance with manufacturer and industry specifications.
 - They are not intended for use in environments exceeding 145psi or 140 degrees F.
 - The Department of Transportation FMVSS 49CFR571-106 prohibits use of this type of fitting for connections between towed and towing vehicles or between a driveshaft and chassis.
 - Using Composite DOT fittings in a manner inconsistent with manufacturer specifications may result in serious injury or property damage.
 - Under no circumstances shall the supplier be liable to buyer for any consequential or incidental damages of any nature whatsoever arising from nonconformity of goods, defective goods, or delay in shipment or any other breach by seller.
- Please feel free to email warning@compdotfitting.com with any questions or concerns.

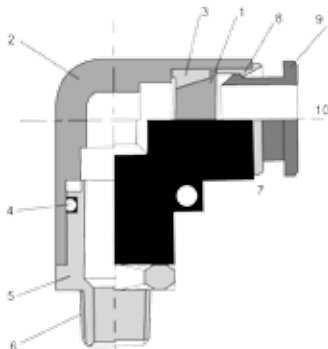


- One touch connection reduces installation time and cost.
- Rugged ultraviolet and vibration resistant composite body.
- Various shapes and configurations to meet vehicle applications and make installations easier.

Specifications for FMVSS (D.O.T.) and SAE Compliant Fittings

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| Operating Fluid | | Air | | | | | |
|--|---|--|---------|---------|--------|--------|--------|
| Max. Operating Pressure | 145psi (1.0MPa) | | | | | | |
| Proof Pressure | Size | 5/32" | 1/4" | 3/8" | 1/2" | 5/8" | 3/4" |
| | At 75°F (24°C) | 1200psi | 1200psi | 1400psi | 950psi | 900psi | 800psi |
| | At 200 °F (93°C) | 450psi (3.1MPa) | | | | | |
| Recommended Fluid and Ambient Temperature* | -40°F to 140°F (-40°C to 60°C) | | | | | | |
| Leak Rate at -40°F (-40°C) | 7 Ncm ³ /min. or less | | | | | | |
| Thread | Thread Portion | ANSI/ASME B1.20.1, 1983 R1992 | | | | | |
| | Nut | JIS B 0208 (Unified fine thread) ISO 263 | | | | | |
| Thread Sealant | Fluorine/ Acrylic | | | | | | |
| Applicable Standards | D.O.T. FMVSS 49 CFR 571.106, SAE J2494-3 | | | | | | |
| Applicable Tubing | Tubing conforming to both SAE J844 and D.O.T. FMVSS 49 CFR 571.106. Material: Nylon12 | | | | | | |
| Tube O.D. | 5/32", 1/4", 3/8", 1/2", 5/8", 3/4" | | | | | | |



| | |
|------------------------|---|
| 1. Chuck | Stainless steel or Brass |
| 2. Body | Polybutylene Terephthalate (PBT), Brass |
| 3/4. Tube seal, O-Ring | Buna-N, Nitrile Rubber |
| 5. Stud | Brass |
| 6. Sealant | Flourine/ Acrylic |
| 7. Guide | Stainless Steel or Polyacetal (Acetal) |
| 8. Stabilization Ring | Stainless Steel |
| 9. Release Button | Polyacetal, POM (Acetal) |
| 10. Tube support | Stainless Steel/ Brass |

D.O.T. AIR BRAKE - NYLON TUBING



| Tube O.D | 1/4 | 3/8 | 1/2 | 5/8 | 3/4 |
|------------------|---------|----------|----------|----------|------|
| Thread Size-B | 7/16-24 | 17/32-24 | 11/16-20 | 13/16-18 | 1-18 |

•Typical Application

Air brake systems except where temperatures exceed +200°F or where battery acid can drip on tubing.

•Pressure

Maximum operating pressure of 150 PSI.

•Vibration

Fair resistance.

•Temperature Range

-40°F to +200°F (-40°C to +93°C).

•Material

Brass

•Used With

NT Nylon Tubing - SAE J844 Type A and B.

•Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical

•Advantages

Easy to assemble (no tube preparation or flaring required.) Built in tube support. Fittings utilize a ribbed sleeve for compression and positive grip. May be used with copper tubing by replacing nut, sleeve and insert with long nut and spherical sleeve. Insert should be removed for copper tubing use.

•Conformance

Meets specifications and standards of SAE and DOT FMVSS 571,106.

•Assembly Instructions

- 1- Cut tubing to desired length.
- 2-Slide nut and then sleeve on tubing. Threaded end of nut "A" must face toward fitting body.
- 3-Insert tubing into the preassembled fitting. Be sure tubing is bottomed in fitting.
- 4- Tighten nut to required torque as indicated on chart.

Disassembling: Remove nut and pull tubing out of fitting body. Insert will remain in tubing.

Reassembly: Push tubing and insert into fitting body until it bottoms. Thread nut onto fitting body and torque as in step 4.

| Tube Size | Additional Number of Turns from Hand-Tight |
|--------------|---|
| 1/4 | 3 |
| 3/8, 1/2 | 4 |
| 5/8, 3/4 | 3-1/2 |

SPECIALTY VALVES AND COCKS



DRAIN COCKS
PAGE 147-148



AIR VALVES
see www.midlandmetal.com



3, 4 AND 6 WAY
PAGE 153-154



NEEDLE
PAGE 150-151



MARINE & ANTI-SIPHON
PAGE 154



PANEL MOUNT BALL VALVES
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TRUCK
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MINI BALL
PAGE 155



SOLID BOTTOM SHUT-OFF
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CHECK
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SPRING BOTTOM SHUT-OFF
PAGE 149

MORE VALVES ON OUR WEBSITE
See our valve section for much, much more!

LEAD FREE



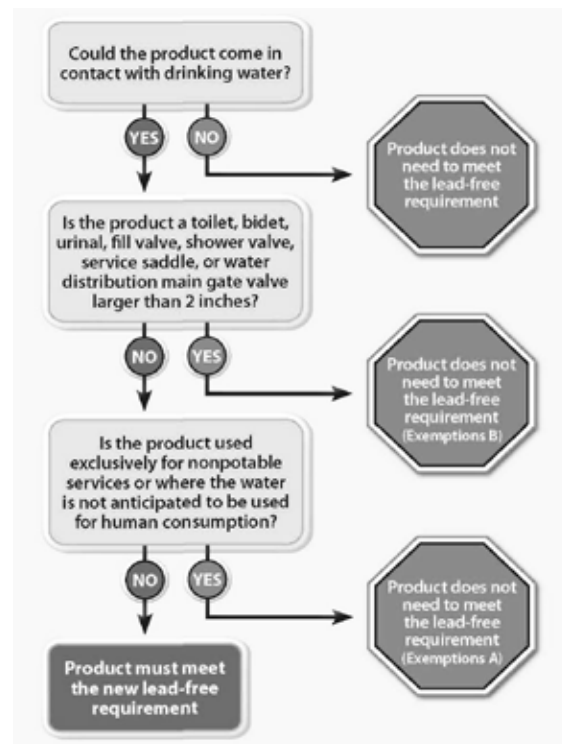
What is the new lead-free requirement?

In 2011, the Reduction of Lead in Drinking Water Act was signed into law. The Act has reduced the lead content allowed in drinking water system and plumbing materials by changing the definition of "lead-free" in Section 1417 of the Safe Drinking Water Act.

The term "lead-free" has been updated from not more than 8% lead content to mean "not more than a weighted average of 0.25% lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings and fixtures."

How do I know which products must meet the new lead-free requirement?

The prohibitions on use and introduction into commerce apply to all pipe, pipe fittings, plumbing fittings, and fixtures (henceforth referred to as "products"), including stocked inventories that have not been installed. This includes coated or uncoated brass or bronze materials. By using the flow-chart below as a guide, you can determine if a product must meet the new lead-free requirement:



Lead-Free Requirement Exemptions

(A) The new requirement does not apply to pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable service such as manufacturing, industrial processing, irrigation, outdoor watering or any other uses where the water is not anticipated to be used for human consumption.

(B) The new requirement does not apply to toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles or water distribution main gate valves 2 inches in diameter or larger.

PRICING FILE AVAILABLE ONLINE

VALVES



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Hi Pressure 2-Way Valves 210

Hi Pressure 3-Way Balves 210

Check valves-5,000# 211

PVC Valves 212-213

**BALL VALVE PRIVATE LABEL PROGRAM**

Midland will put your company name and logo on our ball valve handle for FREE. Simply place a minimum blanket order of 10 cases per size and Midland will stock them under a special part # for your access only. Please allow 90-120 days for delivery on the first shipment only: Then have them delivered as you need them!

NIPPLES & FITTINGS



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Copper Fittings..... 287-293/WEBSITE

If you don't see what you're looking for, visit www.midlandmetal.com

- Many malleable fittings not listed in the catalog, see also page 278
- Aluminum nipples and fittings
- Tank accessories - duplex tank bushings, double tapped bushings and vent caps
- Sch 40 seamless steel nipples
- Many odd sizes of nipples and fittings not listed in catalog



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

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

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

PRICING FILE AVAILABLE ONLINE

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

SEE OUR WEBSITE FOR SCH 80 BRASS NIPPLES - EXTRA HEAVY

STANDARD RED BRASS 85% PIPE WITH THREADED ENDS SPECIFICATIONS:

| Pipe Size in Inches | Dimension in Inches | | |
|---------------------|---------------------|-------|----------------|
| | O.D. | I.D. | Wall Thickness |
| 1/8" | .405 | .281 | .062 |
| 1/4" | .540 | .376 | .082 |
| 3/8" | .675 | .495 | .090 |
| 1/2" | .840 | .626 | .107 |
| 3/4" | 1.050 | .822 | .114 |
| 1" | 1.315 | 1.063 | .126 |
| 1-1/4" | 1.660 | 1.368 | .146 |
| 1-1/2" | 1.900 | 1.600 | .150 |
| 2" | 2.375 | 2.063 | .156 |
| 2-1/2" | 2.875 | 2.501 | .187 |
| 3" | 3.500 | 3.062 | .219 |
| 3-1/2" | 4.000 | 3.500 | .250 |
| 4" | 4.500 | 4.000 | .250 |
| 4-1/2" | 5.000 | 4.500 | .250 |
| 5" | 5.563 | 5.063 | .250 |
| 6" | 6.625 | 6.125 | .250 |

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

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

**LEAD
FREE**



BRONZE FITTINGS



UL842, UL258, UL125,FM

Class 125 (150) For steam, water, gas, oil and air service
Standard specifications

Materials - ASTM B62-93 (85,5,5,5) C83600
Dimensions - ANSI B 16.15
Threads - ANSI B2.1 or BA 21 and Fed. WW-P-460C, MSS-SP-106, ANSI/ASME B1.20.1

PRICING FILE AVAILABLE ONLINE

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

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

LEAD FREE BRASS FITTINGS



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

STAINLESS STEEL NIPPLES

**SCHEDULE 40 WELDED**

Stainless steel pipe nipples are manufactured from stainless steel pipe that conforms to specification ASTM A312/SA312.

All stainless steel nipples conform to specification ASTM A733. Threads conform to the requirements of ANSI B1.20.1.

SEE MIDLANDMETAL.COM FOR SCHEDULE 80 NIPPLES

304

The basic alloy. Type 304 (18-8) is an austenitic steel possessing a minimum of 18% chromium and 8% nickel, combined with a maximum of 0.08% carbon. It is a nonmagnetic steel which cannot be hardened by heat treatment, but instead, must be cold worked to obtain higher tensile strengths.

Because of its ability to withstand the corrosive action of various acids found in fruits, meats, milk, and vegetables, Type 304 is especially suited for all types of dairy equipment piping and valves, the brewing industry, the citrus and fruit juice industry, and in food processing applications. Also used for the dye tanks, pipelines buckets, dippers, etc. that come in contact with the lormic, acetic, and other organic acids used in the dyeing industry.

In the marine environment, because of its slightly higher strength and wear resistance than type 316 it is also used for nuts, bolts, screws, and other fasteners. It is also used for springs, cogs, and other components where both wear and corrosion resistance is needed.

PRICING FILE AVAILABLE ONLINE

Both #304 and #316 nipples are NSF/ANSI 372 and NSF/ANSI 61 compliant.

**SCHEDULE 80 SEAMLESS**

- SEAMLESS FOR UNRESTRICTED FLOW
- USE WITH AIR, WATER, OIL, NATURAL GAS, STEAM
- FITTINGS: USE THREADED CLASS 3000 HIGH-PRESSURE STAINLESS STEEL.
- ASTM A733 • ASTM A312 • ANSI/ ASME B1.20.1
- PSI 3000

316

For severe environments. Of course, there are many industrial processes that require a higher level of resistance to corrosion than Type 304 can offer. For these applications, Type 316 is the answer.

In type 316, the nickel content is increased slightly. What distinguishes Type 316 from Type 304 is the addition of molybdenum up to a maximum of 3%.

Molybdenum increases the corrosion resistance of this chromium-nickel alloy to withstand attack by many industrial chemicals and solvents, and, in particular, inhibits pitting caused by chlorides. As such, molybdenum is one of the single most useful alloying additives in the fight against corrosion.

Type 316 can withstand corrosive attack by sodium and calcium brines, hypochlorite solutions, phosphoric acid; and the sulfite liquors and sulfurous acids used in the paper pulp industry. This alloy, therefore, is specified for industrial equipment that handles the corrosive process chemicals used to produce inks, rayons, photographic chemicals, paper, textiles, bleaches, and rubber. Type 316 is also used extensively for surgical implants within the hostile environment of the body.

Type 316 is the main stainless used in the marine environment, with the exception of fasteners and other items where strength and wear resistance are needed, then Type 304 (18-8) is typically used.



150# 304 & 316 Stainless Steel Fittings

Our high quality standard pattern 150lb rated stainless steel threaded fittings are manufactured to the highest standards. All stainless steel fittings are monitored by our quality control personnel for strict compliance with applicable standards and specifications.

These stainless steel pipe fittings are excellent for uses that involve chemicals or liquids that may be corrosive. Along with fighting corrosion, a stainless steel pipe fitting will prevent contamination making it useful to many professionals.

- Use with air, water, oil, natural gas, steam
- NPT and FNPT threads conform to ASME B1.20.1
- Maximum Pressure: 300 psi @ 72 F; 150 psi @ 366 F for steam
- Maximum Steam Pressure: 150 psi
- Material Conforms to ASTM A-351. Class 150 Pressure Ratings
- Manufacturing facility is ISO 9001:2008
- 304 Stainless Steel is economically priced, chromium-nickel material that offers very good corrosion resistance. 316 Stainless Steel has higher nickel content and contains molybdenum for even better corrosion resistance.

PRICING FILE AVAILABLE ONLINE

HIGH PRESSURE 1000# BARSTOCK

- SEE MIDLANDMETAL.COM



1000#

- Stainless bar stock dimensions conform to MSS SP-114
- NPT threads conform to ASME B1.20.1
- Manufacturing facility is ISO 9001:2008
- Fittings meet applicable chemical & physical properties

HIGH PRESSURE 3000# FORGED

A182 and ANSI/ASME B16.11.

- SEE MIDLANDMETAL.COM



3000#

- Use with air, water, oil, natural gas, steam
- Maximum Pressure:
 - Type 304 SS: 2,570 psi @ 72°F;
 - 1,965 psi @ 350°F for steam
 - Type 316 SS: 3,000 psi @ 72°F
 - 2810 psi @ 350°F for steam
- Pipe Nipples and Pipe: Use threaded Schedule 80 thickwall stainless steel



BLACK AND GALVANIZED STEEL NIPPLES

Product Specifications

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

Technical Specifications

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

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

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

Black: Protected against oxidation with varnish coating.

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

Threading Procedure:

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

SCHEDULE 80 XXS SEAMLESS



- ASTM A106 Grade B Seamless Pipe
- ASTM A 53
- WVN 351
- Standard NPT Tapered Pipe Threads as per ANSI B 1.20.1 Specification

XXS SEAMLESS



MALLEABLE FITTINGS



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

ISO 9002 - CERTIFICATE OF QUALITY - UL/FM LISTED

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

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

SPECIFICATIONS

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

MALLEABLE IRON - ANSI B

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

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

SEE MIDLANDMETAL.COM FOR MORE SIZES AND CONFIGURATIONS

STEEL FITTINGS



- 1010 Carbon Steel, 3/4 taper threads (see hydraulic section for 7/8 taper threads.)
- Finish or coating • Black Dipped in rust resistant
- Galvanized, Zinc Plated (Inside and Out)

300lb MALLEABLE FITTINGS



Max. pressure: 300 psi WOG @ 72°F; 150 psi WOG saturated steam

- Meet ANSI/ ASME B1.20.1 standards
- Black meet ASTM 197 standards

BULL PLUGS AND SWAGES



FLANGES



COPPER FITTINGS



SYMBOL OF JOINT ENDS

- C** Solder joint fitting end made to receive copper tube diameter
- Ftg.** Solder joint fitting end made to copper tube diameter
- F** Internal ANSI Standard Taper Pipe Thread-Female
- M** External ANSI Standard Taper Pipe Thread-Male
Threaded ends ANSI/ ASME B1. Solder ends ASTM B88

- Temp range 32° to 200°F
- Pressure @100° - 1/8-1 : 500 PSI
- 1-1/4-2 : 400 PSI
- 2-1/2 - 3: 300 PSI

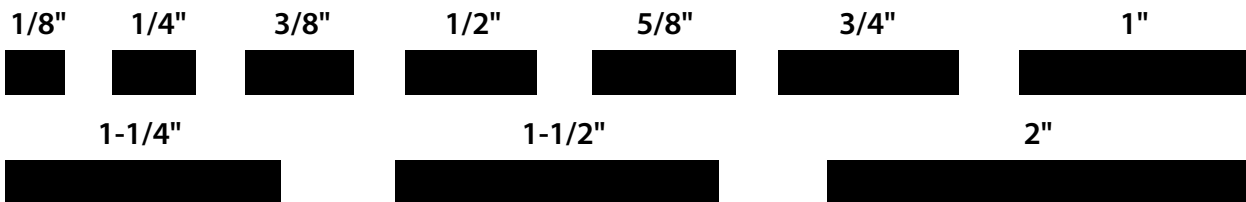
**NSF - 61 CERTIFIED
ALLOY C12200**

PRICING FILE AVAILABLE ONLINE

THE ABOVE CONFORMS TO ASTM B 88 & ASTM B 306, A 306



| Nominal Size | Joint Ends | | | | | | | | | | Metal Thickness T (in) | Inside Diameter O (in) | |
|--------------|-------------------------|------------------------|---------------|-------------|---------------------|------------------------|------------------------|---------------|-------------|---------------------|------------------------|------------------------|-----|
| | Male End | | | | | Female End | | | | | | | |
| | Outside Diameter (A) in | Average Tolerance (mm) | Actual MIN in | O.D. MAX in | Length (Min) H (in) | Inside Diameter F (in) | Average Tolerance (mm) | Actual MIN in | O.D. MAX in | Length (Min) G (in) | | | |
| 1/8 | 2/8 | 0.03 | 2/8 | 2/8 | 3/8 | 2/8 | 0.03 | 2/8 | 2/8 | 3/8 | 0 | 2/8 | |
| 1/4 | 3/8 | | 3/8 | 3/8 | 3/8 | 3/8 | | 3/8 | 3/8 | 3/8 | 3/8 | 0 | 2/8 |
| 3/8 | 4/8 | | 4/8 | 4/8 | 3/8 | 4/8 | | 4/8 | 4/8 | 4/8 | 3/8 | 0 | 3/8 |
| 1/2 | 5/8 | | 5/8 | 5/8 | 4/8 | 5/8 | | 5/8 | 5/8 | 5/8 | 3/8 | 0 | 4/8 |
| 5/8 | 6/8 | | 6/8 | 6/8 | 5/8 | 6/8 | | 6/8 | 6/8 | 6/8 | 5/8 | 0 | 4/8 |
| 3/4 | 7/8 | | 7/8 | 7/8 | 6/8 | 7/8 | | 7/8 | 7/8 | 7/8 | 5/8 | 0 | 5/8 |
| 1 | 1-1/8 | 0.04 | 1-1/8 | 1-1/8 | 7/8 | 1-1/8 | 0.04 | 1-1/8 | 1-1/8 | 7/8 | 0 | 7/8 | |
| 1-1/4 | 1-3/8 | | 1-3/8 | 1-3/8 | 1 | 1-3/8 | | 1-3/8 | 1-3/8 | 1 | 0 | 1-1/8 | |
| 1-1/2 | 1-5/8 | | 1-5/8 | 1-5/8 | 1-1/8 | 1-5/8 | | 1-5/8 | 1-5/8 | 1-1/8 | 0 | 1-3/8 | |
| 2 | 2-1/8 | 0.05 | 2-1/8 | 2-1/8 | 1-3/8 | 2-1/8 | 0.05 | 2-1/8 | 2-1/8 | 1-2/8 | 0 | 1-6/8 | |
| 2-1/2 | 2-5/8 | | 2-5/8 | 2-5/8 | 1-4/8 | 2-5/8 | | 2-5/8 | 2-5/8 | 1-4/8 | 1/8 | 2-1/8 | |
| 3 | 3-1/8 | | 3-1/8 | 2-1/8 | 1-6/8 | 3-1/8 | | 3-1/8 | 3-1/8 | 1-5/8 | 1/8 | 2-5/8 | |
| 4 | 4-1/8 | | 4-1/8 | 4-1/8 | 2-1/8 | 4-1/8 | | 4-1/8 | 4-1/8 | 2-1/8 | 1/8 | 3-4/8 | |



PLASTIC FITTINGS



PIPE FITTINGS



- Nylon
- Polyethylene
- Polypropylene

HOSE BARB FITTINGS



- Nylon
- Polyethylene
- Polypropylene

GARDEN HOSE FITTINGS



- Nylon

NYLON & POLYPROPYLENE COMPRESSION FITTINGS



Machined Schedule 80 PVC nipples comply fully with ASTM D2464,

POLYPROPYLENE PUSH-IN TUBE FITTINGS AND VALVES



- NSF 61 certified for use with drinking (potable) water
- Max Temperature: 140°F
- Max Pressure: Not Rated

SEE MIDLAND BLANKET ORDER PROGRAM FOR PVC FITTINGS

PRICING FILE AVAILABLE ONLINE

SCH 80 PVC NIPPLES



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

SEE MIDLANDMETAL.COM

SCH 40 PVC FITTINGS



- NSF 61 certified for use with drinking (potable) water
 - Max Temperature: 140°F
 - Max Pressure: Not Rated
- Resistant to corrosion, strong and rigid - commonly used in low pressure plumbing applications. ASTM D1784 and D2466.

SEE MIDLANDMETAL.COM

SCH 80 PVC FITTINGS



PVC Material is Type 1 according to the American Society for Testing Materials (ASTM) D-1784. Fittings conform to ASTM D-2464 & ASTM D-2467. Temperature rating is 140°F. PSI is based on water at 73°F. Derate 50% at 110°F and 78% at 140°F. Not recommended for use in compressed air or gas systems.

SEE MIDLANDMETAL.COM

HOSE ACCESSORIES



CAM AND GROOVE



ALUMINIUM



POLYPROPYLENE



STAINLESS STEEL



BRASS

COMBINATION HOSE NIPPLES



FIRE HOSE FITTINGS



UNIVERSAL/ GROUND JOINT COUPLINGS



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

HOSE CLAMPS

PRICING FILE AVAILABLE ONLINE



| | | | |
|--|--|--|---|
| | <p>WORM GEAR PAGE 317-320</p> | | <p>QUICK RELEASE PAGE 321</p> |
| | <p>T-BOLT PAGE 322</p> | | <p>SPRING LOADED T-BOLT PAGE 323</p> |
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| | <p>1 EAR, 2 EAR, GAPLESS PAGE 327-328</p> | | <p>PRE-FORMED PAGE 329-330</p> |
| | <p>TOOLS PAGE 331</p> | | <p>NON-PERFORATED OR LINED BAND PAGE 332</p> |
| | <p>RUBBER LINED PAGE 333</p> | | <p>HOSE FERRULES PAGE 334</p> |

TUBING

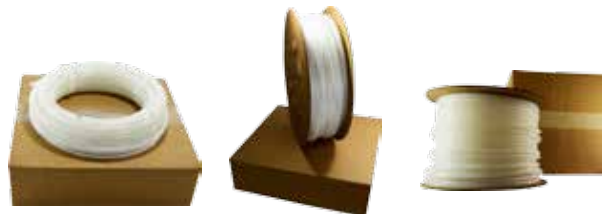


POLYURETHANE



POLYETHYLENE

Sold individually boxed



Natural, Black, Blue, Green, Red, Yellow, Orange

NYLON

Sold individually boxed



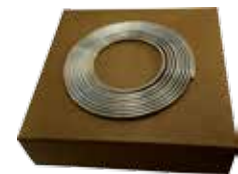
PVC

• Clear

Sold individually boxed

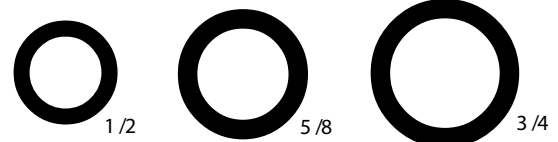


COPPER AND ALUMINUM



TYPE L AND REFRIGERATION

ALUMINUM



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HIGH PRESSURE SPRAYERS



STRAIGHT THROUGH QDS



FITTINGS AND SWIVELS



NOZZLES



SPRAY GUNS AND WANDS



PNEUMATICS



1/4" 3/8" 1/2" 1/4" 1/4" 3/8" 1/4" 1/4" 3/8"
 INDUSTRIAL INTERCHANGE ARO AUTO AUTO LINCOLN STRAIGHT THRU STRAIGHT THRU

QUICK DISCONNECTS



- Universal
- ARO 210
- Lincoln
- Industrial
- Automotive
- ST Series - High Flow

BREATHER VENTS, MUFFLERS



- Mufflers
- Snubbers
- In-line filters
- Breather vents
- Control valves
- Manifolds

PNEUMATIC ACCESSORIES



- Kits NEW
- Tire gauge
- Tank and vent valves
- Blow guns
- Air chucks
- Inflaters

GAUGES



- Liquid filled & Dry
- Lower mount & center mount
- Water test
- Syphons

PRICING FILE AVAILABLE ONLINE

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

TRUCK AND TRAILER



INDUSTRY GRADE NYLON AIR COIL ASSEMBLY - SET

- Each kit contains one Emergency (Red) and one service (Blue) 1/2" O.D. nylon tubing assembly.
- 1/2" -14 NPTF end fitting with heavy gauge spring.
- Assemblies meet SAE J844 and DOT FMVSS 106 requirements.
- Temp rating -40° - +208°

| Part # | Length | Pigtail Length Tractor end | Pigtail Length Trailer end | |
|--------|--------|----------------------------|----------------------------|------|
| 39404 | 12' | 6" | 6" | ---- |
| 39400 | 15' | 12" | 12" | ---- |
| 39402 | 15' | 40" | 12" | ---- |
| 39406 | 20' | 12" | 12" | ---- |



FIFTH WHEEL SLIDER COIL

- Temperatures range -40 to 208°F
- 150 psi max pressure rating
- Meets SAE J844 and DOT FMVSS 106 requirements.
- (2) 1/4" OD fittings assembled

| Part # | Description | Length | Fittings | |
|--------|-----------------------|-----------|--------------|------|
| 39839 | 5th Wheel slider coil | up to 54" | (2) 1/4" MPT | ---- |
| 39838 | 5th Wheel slider coil | up to 72" | (2) 1/4" MPT | ---- |



3-IN-1 AND 4-IN-1 COMBINATION AIRLINE CABLE

- (2) 3/8" ID SAE J1402 rubber service and emergency with blue (service) and red (emergency) gladhand grip handle
- Color-coded grip helps to minimize incorrect tractor/trailer connections have glad handle with Vibraseal
- ABS power line (green) – meets SAE J2222 requirements
- Auxiliary power line (yellow) – fitted with SAESS60 plugs that have an inverted (male) ground pin 4-in-1 only
- SAE J560 Plugs with sleeves for superior corrosion protection and strain relief
- Corrosion resistant all brass fittings 1/2" male NPT w/ Vibraseal
- Tapered grip flexes with airline during tight turns for kink protection
- Temp rating -40 - 208°F

| Part # | Description | |
|--------|------------------------------|------|
| 39825 | Combo 3 in 1 assembly 15 ft. | ---- |
| 39962 | Combo 4 in 1 assembly 15 ft. | ---- |



STEEL ADAPTERS

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HYDRAULIC QUICK DISCONNECTS

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 ISO A Interchange 427
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 Hydraulic Jack Q/D 429

HYDRAULIC VALVES & ACCESSORIES

Flow Control Valve 430
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 Air Breathers 431

PLATING SPECIFICATION

Midland's standard Trivalent, Cr⁺³ plating performs at nearly double the S.A.E. corrosion resistance requirement. The plating meets ASTM B633, Fe/Zn 5. The thickness is 5um-13um. This plating is silver in appearance and has been testing at 96 hours to white rust and 120 hours to red rust.

