

# Crimp



## King Crimp King Combination Nipples



### Applications:

- a premium fitting suitable for water, chemical and other liquid transfer

### Features:

- recommended for low-pressure discharge and suction service.
- working pressure varies with size consult the factory for recommendations.
- available in combinations including male NPT, beveled and grooved

### Materials:

- plated carbon steel or 316 stainless steel

### Sizes:

- available in 1" - 6"

## Crimp Sleeves



### Application:

- When used in conjunction with Dixon crimp fittings, sleeves create a tight seal for numerous hose applications, including those for various chemicals and temperatures.

### Features:

- wall thickness varies from .062" to .120"
- sleeve length varies from 2½" to 5½"; custom lengths available
- working pressures listed below are for 70°F and are for Dixon's King Crimp cam and groove only, for applications or temperatures other than 70°F contact Dixon at 800.355.1991 for recommendations:

- 1" - \*
- 1½" - 250 PSI
- 2" - 250 PSI
- 3" - 125 PSI
- 4" - 110 PSI
- 6" - \*

\* consult factory for pressure rating

### Materials:

- stainless steel, carbon steel and aluminum

### Sizes:

- 1" - 6"; custom sizes through 12" available

## Crimp Ferrules



### Application:

- When used in conjunction with Dixon crimp fittings, ferrules create a tight seal for numerous hose applications, including those for various chemicals and temperatures.

### Features:

- wall thickness varies from .062" to .120"
- ferrule length varies from 2-13/16" to 5-7/8"
- working pressures listed below are for 70°F and are for Dixon's King Crimp cam and groove only, for applications or temperatures other than 70°F contact Dixon at 800.355.1991 for recommendations:

- 1" - \*
- 1½" - 250 PSI
- 2" - 250 PSI
- 3" - 150 PSI
- 4" - 150 PSI
- 6" - \*
- 8" - \*

\* consult factory for pressure rating

### Materials:

- stainless steel and carbon steel

### Sizes:

- 1" - 8"

Note: King Crimp couplers and adapters can be found on page 3.

## Fire Jacket for Hose



### Application:

- Used to protect hose assemblies, tubing, piping, wiring and cables from high temperatures or molten splash, also helps maintain line temperatures and reduces environmental over-heating and over-cooling.

### Features:

- completely non-asbestos
- sleeving slides easily over hose and expands to go over fittings
- resistant to hydraulic fluids and lubricating oil
- color is iron oxide red
- temperature range: **-65°F to 500°F** (-54°C to 260°C)

### Materials:

- compounded silicone rubber coating over fiberglass

### Sizes:

- 50' lengths
- nominal hose ID ranges from ¼" to 4"



## GSM Armored Hose



### Applications:

- Coke Battery:** pusher, quench car; **Blast Furnace:** tuyere, bosch, tap-hole drill, mud gun; **BOF:** oxygen and water cooled lance; **EAF:** shell, roof water, oxygen supply, oxy burner, natural gas, carbon lime, slag door, tilt, roof and electrode lift cylinders, EBT; ladle car, argon stir; **Caster:** mold, oscillator, segment water, hydraulic, grease, tundish, ladle slide gate; **Rolling:** reheat furnace, roll stand water, pinch roll cylinder, peel bar, walking beam, coil car and more

### Features:

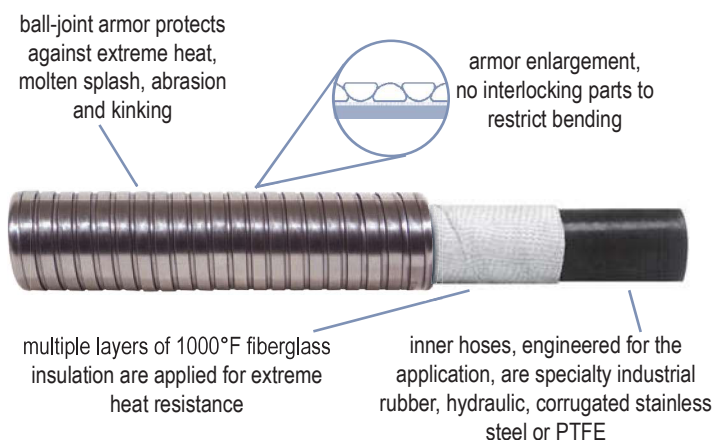
- extremely flexible armor protects from heat, slag splash and harsh environments in mill applications for water, gases, hydraulic fluids, grease and abrasives
- heat resistant insulation to 1000°F
- temperature rating depends on specific applications, consult the factory
- a variety of end connections are available

### Materials:

- armor: galvanized steel or stainless steel
- wide selection of inner hoses specific to the demands of the application are industrial, hydraulic, stainless steel or PTFE

### Sizes:

- ¼" through 12" bore
- lengths to 120'



# Dix-Lock / N Series



## Dix-Lock N-Series Quick Acting Couplings



male x female NPT



female x hose shank



male x male NPT



female x female NPT

### Application:

- a full flow connection for air, water and nitrogen systems

### Features:

- interchanges with Bowes 51000, National Series B and Macdonald Quick Action
- dual-guide sleeve tabs ensure smooth action
- convenient Push-Twist and Click connection
- operating temperature range is -40° to +250°F
- rated to 500 PSI steel and stainless steel, 300 PSI brass at ambient temperature (70°F)

### Materials:

- trivalent chrome plated steel, brass or 303 stainless steel

### Sizes:

- 1", 3/8", 1/2" and 3/4" end connections



Dix-Lock couplings with ferrules are also available, see the Dixon Price List or visit [dixonvalve.com](http://dixonvalve.com) for details.

# Dual-Lock / P Series



## Dual-Lock P Series Quick Acting Couplings



locking sleeve x male pipe thread



locking sleeve x female pipe thread



locking sleeve x hose barb



nipple x female thread

### Application:

- full flow couplings for in-plant use on air, water and nitrogen systems up to 300 PSI as well as pneumatic impact tools

### Features:

- interchanges with National Series A type and Thor PHC series couplings
- spring loaded interlocking engagement
- PM and PF series must be used with mating locking sleeve fittings
- operating temperature range is -40° to +175°F
- 300 PSI working pressure at ambient temperature (70°F)

### Materials:

- trivalent chrome plated steel, brass and 303 stainless steel

### Sizes:

- 3/8", 1/2", 3/4" and 1" end connections



Dual-Lock couplings with ferrules are also available, see the Dixon Price List or visit [dixonvalve.com](http://dixonvalve.com) for details.

# Quick Disconnects



## Hydraulic Quick Disconnects

### Application:

- V Series:** oil rigs, some construction, military, general fluid transfer, in-plant industrial hydraulic
- H Series:** general hydraulic transfer, in-plant industrial hydraulic, construction and hand tools, snow plows and other mobile equipment, food processing, carpet cleaning equipment, steel mills
- K Series:** oil rigs, construction, military, general fluid transfer, snow plows, dump-bed trailers, steel mills

### Features:

#### V Series:

- V Series interchanges with Snap-tite H Series

#### H Series:

- interchangeable with Parker-Hannifin 60 series
- features poppet style shut-off valves in both the coupler and the plug
- meets dimensional requirements of ISO 7241-1 Series B

#### K Series:

- permits fast connection and disconnection of gas or fluid lines with minimal loss of media from either end
- Interchangeable with the Aeroquip 5600, Parker 6600, and ISO 7241 Series A interchange

### Materials:

- steel, brass, 303 stainless steel and 316 stainless steel depending on series
- seal: standard seal material is Buna-N, additional materials available upon request

### Sizes:

- V series - 1/4" to 2"; H series - 1/8" - 2 1/2"; K series - 1/4" to 2"



V Series



H Series



K Series



## Pneumatic Quick Disconnects

### DF Series / Air Chief Industrial Interchange Quick-Connects



### Application:

- used to quickly connect and disconnect air hose and pneumatic tools in compressed air services

### Features:

- interchanges with MIL-C-4109F/A-A-59439
- temperature range: -40°F to 250°F
- rated to 300 PSI
- couplers shut-off when disconnected
- for pneumatic service only*

### Materials:

- steel, brass and 303 stainless steel

### Sizes:

- 1/4" to 3/4"



male pipe thread coupler



male pipe thread plug

### M Series / Air Chief ARO Speed Quick-Connects

### Application:

- used to quickly connect and disconnect air hose and pneumatic tools in compressed air services

### Features:

- interchanges with the ARO 210 and 310 designs
- temperature range: -40°F to 250°F
- rated 300 PSI at ambient temperature (70°F)
- couplers shut-off when disconnected
- for pneumatic service only*

### Materials:

- steel and brass

### Sizes:

- 1/4" and 3/8"



male pipe thread coupler



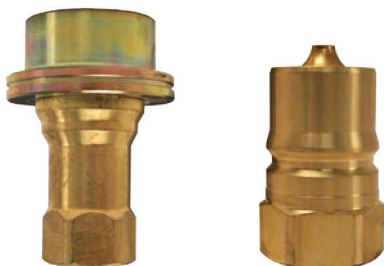
female pipe thread plug



# Quick Disconnects



## Steam Quick Disconnects



### Application:

- specially configured ISO B couplings for saturated steam service

### Features:

- large diameter steel steam sleeves, available in sizes up to 1", are hardened to resist deformation and maximize service life
- steel nipples hardened to resist brinelling
- EPDM steam grade seals standard

### Materials:

- steel, brass and 303 stainless steel

### Sizes:

- ¼" to 1½"



Do Not Disconnect Under Pressure!!

# Hydrant Adapters



cam & groove adapter



reducer with pin lugs



adapter with rocker lugs



reducer with rocker lugs

### Application:

- used in the suction and discharge of water during various segments of the steel making process

### Features:

- some models available in pin and rocker lug
- pin lugs allow for an easy connection using a standard spanner and hydrant wrench

### Materials:

- brass, stainless steel, forged aluminum, polycarbonate, cast brass and hardcoated aluminum

### Sizes:

- ¾" to 3"

# Flanges



## 150# ASA Forged Flanges



lap-joint



NPT threaded



lap-joint



NPT threaded



slip-on



slip-on

### Application:

- used in conjunction with pipe and welding fittings conveying water for cooling as well as oxygen and gas injection

### Features:

- lap-joint models have no raised face; commonly called a Van Stone or floating flange
- slip-on and NPT threaded models have a raised face
- number of holes may vary with size

### Materials:

- carbon steel and 316 stainless steel

### Sizes:

- 1" to 12"

slip-on

# Slide Gate Couplings



## Features:

- a secure coupling that resists surge flow damage commonly caused by steel mill slide gates
- easy to install
- nitrile seals are standard, providing a temperature range of -40° to +250°F
- interchangeable with ISO7241 Series B
- hardened steel nipple provides heavy duty performance and resists brinelling

## Material:

- steel

## Size:

- ½"



# Boss Couplings



## Application:

- when connected to a hose via a Boss clamp it creates a reliable transfer of air and water coolant for furnaces and castors, also used in the transfer of steam

## Features:

- achieves a pressure tight mechanical seal
- can be applied to many types of rubber, synthetic, plastic, metallic or semi-metallic hose
- used for air, water, fluid petroleum, chemicals and liquid petroleum gas up to 1" ID
- two halves are connected or disconnected by rotating the wing nut onto the spud

## Materials:

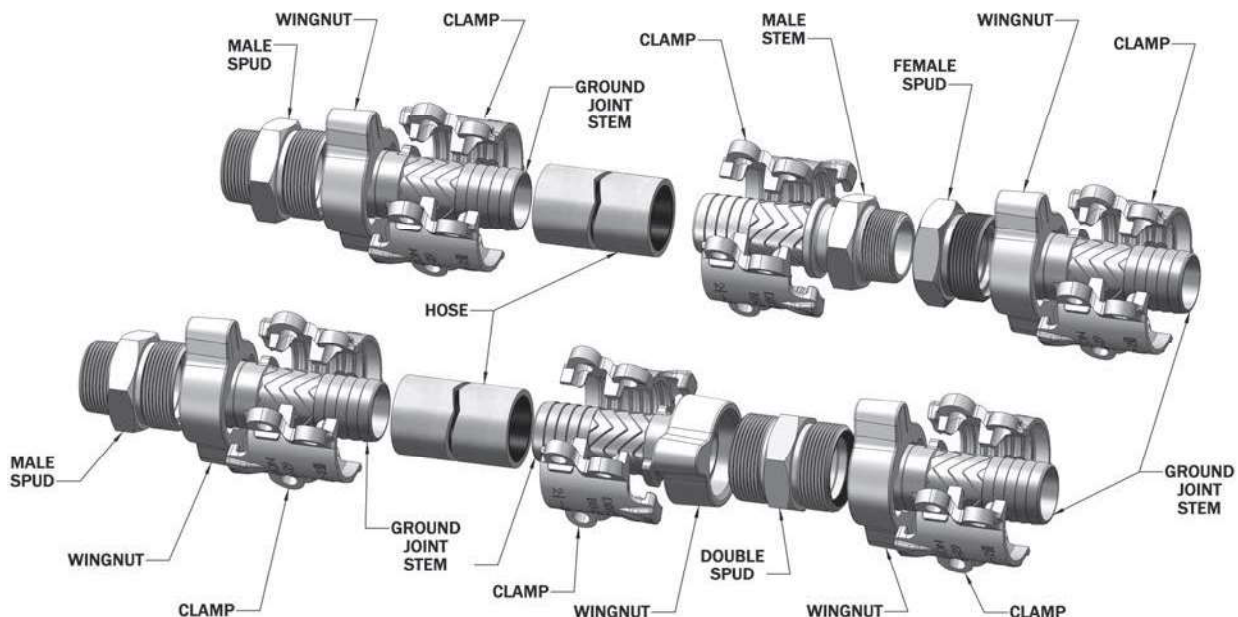
- stem: ¼" - 1" plated steel, 1¼" - 4" plated iron, 6" tubular steel
- spud: ¼" - 1" plated steel, 1¼" - 6" plated iron
- wing nut: ¼" - 1" plated steel, 1¼" - 6" plated iron
- ground joint seal: copper or polymer seats
- washer seal: Klingersil® C-4401

## Sizes:

- ¼" to 6"



Boss complete assembly



Worn-out hose couplings can be dangerous. They should be checked regularly and replaced when necessary. Each coupling user should review applications and add safety devices where indicated.



# Clamps



## Boss Clamps



2 gripping fingers, 4 bolt configuration

### Application:

- used with other Boss fittings, creates a secure interlocking connection ideal for elevated pressure applications such as air and steam

### Features:

- easy to seal
- available in 4 bolt and 2 bolt (smaller sizes)
- available in 2 gripping fingers and 4 gripping fingers

### Materials:

- plated iron, stainless steel and brass

### Sizes:

- 1/4" to 6"



- The bolts used in the Boss interlocking clamps are not standard bolts. These bolts can be re torqued, but it is **not** recommended that the bolts or clamps be reused, as they are designed for a single bend only.
- Torque values for clamps are based on dry bolts. The use of lubricant on bolts will adversely effect clamp performance. *Do not lubricate nuts and bolts.*

## Band Clamps



T-bolt



Wormgear



Aero-Seal®



Pre-formed

- See the Dixon Price List or visit [dixonvalve.com](http://dixonvalve.com) for more information.

# Gauges



Sprinkler System Gauge



Flutterguard™ Dry Gauge



ABS Standard Dry Gauge



Liquid-Filled Stainless Steel Gauge



General Purpose Digital Gauge

# Swivel Joints



## Application:

- Used wherever a leak-proof swivel connection is needed in pipelines or in combination with hoses to eliminate hose twisting. Typical uses are on BOF lance hoses, arc furnace roof supply hoses or roll stand water in the hot strip mill.

## Features:

### V-Ring Style:

- available in pressure ratings up to 1,000 PSI
- spring-loaded triple V-ring sealing system ensures a leak-proof seal at either high or low pressure and extends seal life
- 3" - 8" carbon steel swivels are manufactured from carbon steel with laser hardened dual raceways for greater load bearing capacity and longer life.

### O-Ring Style:

- available in pressure ratings up to 1,000 PSI
- O-ring pressure seal ensures a leak-proof seal and smoother rotation at lower torques than multiple designs.
- spring-loaded PTFE pressure seals are available through 3"
- Carbon steel and stainless steel O-ring type swivels provide strength and corrosion resistance when needed for lower torque applications.

## Materials:

- carbon steel, stainless steel, aluminum, brass and malleable iron

## Sizes:

- 1" to 8", depending on model and configuration



## Options Available:

- any combination of end configurations
- alternative seal materials: Viton®, PTFE, Ethylene Propylene and FDA Buna
- alternative ball bearing materials: 440 stainless steel and 316 stainless steel
- alternative grease materials: FDA approved/food grade and silicone
- drain holes or counter balance lugs
- swivels for oxygen service, steam service and submerged service can be specifically designed for unique applications (special order)
- 100% full penetration welding and oxygen cleaning available upon request

## Use with Hose:

The use of swivel joints to compensate for twist in hose (i.e. Style 20 or Style 60) should be carefully reviewed, since the hose must be sufficiently stiff to generate the torque needed to actuate the swivel before it kinks.

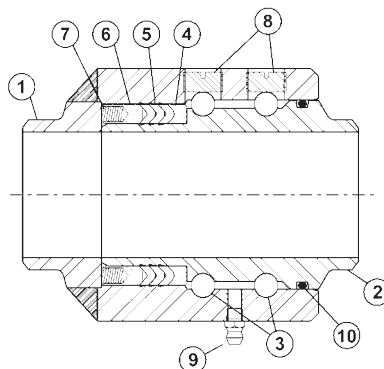
In many installations, the twist is caused by lateral movement that can be eliminated by the use of a swivel joint that addresses the lateral movement (i.e. Style 40 or Style 30).

Where this is not possible, the use of hose swivels may be a solution. Hose swivels are generally non-ball bearing designs that require less torque to initiate rotation; however, hose swivels are not designed for load bearing service.

Some hoses are unable to generate even the low torque required for a hose swivel, many metal hoses fall into this group. Other hoses are stiff enough to turn almost any swivel, many armored hoses fall into this group.

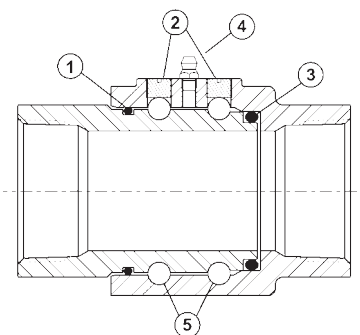
## V-Ring Parts Identification List

- body
- sleeve
- ball bearings
- seal retainer
- V-ring pressure seal
- spring retainer
- spring
- ball retainer screw
- grease fitting
- O-ring dust seal



## O-Ring Parts Identification List

- O-ring dust seal
- ball retainer screw
- V-ring pressure seal
- grease fitting
- ball bearings







## Actuated Valves

### Pneumatically Actuated



3 piece ball valve

#### Application:

- used in the automated control of oil, gas and other liquids through pipe lines

#### Features:

- operating temperature range: -40°F to 200°F
- 80 PSI plant air required for actuator
- visual position indication
- available in 2-piece, 3-piece, double acting and 3 way configurations

#### Actuator Materials:

- body: hard anodized aluminum
- O-rings: Buna-N

#### Valve Materials:

- body and ball: CF8M
- blow-out proof stem: stainless steel
- seats: 15% glass reinforced RTFE

#### Sizes:

- 2", 3", 4" and 6"

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### Electrically Actuated



3 piece ball valve

#### Application:

- used in the automated control of oil, gas and other liquids through pipe lines

#### Features:

- working temperature: -41°F to 140°F
- extended duty cycle induction motor
- visual position indication
- manual override standard: ½" - 1½"
- space heater is standard
- NEMA 4/4X waterproof and dust proof
- available in 2-piece, 3-piece, double acting, and 3 way configurations

#### Actuator Materials:

- housing: lightweight powder coated aluminum alloy
- gear train: high alloy steel

#### Valve Materials:

- body and ball: CF8M
- seat: 15% glass reinforced RTFE
- blow-out proof stem: stainless steel

#### Sizes:

- 2", 3", 4" and 6"

## Ball Valves



### Domestic Full Port Brass Ball Valves

**Application:**

- for control of air, water, oil and gas in pipe lines

**Features:**

- blow-out proof stem design
- rated to 600 PSI WOG; 150 PSI saturated steam
- vacuum service to 29 inches Hg
- full port design

**Materials:**

- ball: machined solid chrome-plated
- castings: bronze
- seats and seals: multi-fill PTFE

**Sizes:**

- ¼" - 4"



### 250 Lb. Steam Ball Valves

**Application:**

- for control of air, water, oil, gas and steam in pipe lines

**Features:**

- blow-out proof stem design
- rated to 600 PSIG; 250 PSI saturated steam
- vacuum service to 29 inches Hg
- maximum temperature rating 406°F
- standard port design

**Materials:**

- threaded valve: bronze
- ball and stem: 316 stainless steel
- stem packing: high-temperature MTFE
- seats and box ring: multi-filled RPTFE

**Sizes:**

- ½" - 2"



## Also Available



Hose Menders



Tube Fittings



Pipe Fittings



Push-On Fittings



Instrumentation Fittings



Rail Car Fittings