

Dixon® Diesel and Gasoline Nozzles Accessories

Single Plane Hose Swivels

**Materials:**

- body: aluminum
- brass hex nut prevents galling in the nozzle
- seals: F-7036 Viton™
- retainer: nylon cord



Size	Part #
¾" x ¾"	<b>DAWS34</b>
1" x 1"	<b>DAWS10</b>

Multi-Plane Hose Swivels

**Features:**

- brass male end will not gall in nozzle castings
- dual O-rings seal with all fuels
- sleeve gives smooth seal surface - no leaks
- internal nylon retainer cord secures firmly but allows free rotation



**Materials:**

- body: machined aluminum casting
- male end: machined brass bar stock
- sleeve: machined brass bar stock

Size	Part #
¾" male NPT x ¾" female NPT	<b>DAC3434</b>
1" male NPT x ¾" female NPT	<b>DAC1034</b>

Breakaways

**Features:**

- unique ball valves seal both ends when separated
- design provides consistent and reliable performance
- lightweight
- easy to repair
- ¾" Underwriter's Listed



**Materials:**

- body: aluminum
- break rings (2): brass
- seals: F-7036 Viton™

Size	Separation Force (Lbs)	Part #
¾"	325	<b>DAB34</b>
1"	325	<b>DAB1</b>

Breakaways

**Applications:**

- Provides breakaway protection for high capacity fueling operations such as truck and bus terminals, mining, off-road fueling and fuel oil delivery.

**Materials:**

- body: nickel plated aluminum
- brass break rings: 4 total in 1¼" and 1½"; 6 total in 2"
- seals: F-7036 Viton™
- check valve - PTFE ball seals both ends when separated



Size	Separation Force in Lbs.	Part #
1¼"	600	<b>DAB14</b>
1½"	600	<b>DAB15</b>
2"	800	<b>DAB2</b>

## FuelMaster™ Diesel Nozzles


**Application:**

- truck stops and terminal operations (not designed for use with gravity flow tanks, small 12 volt or AC utility pumps, farm or consumer pumps) 

**Features:**

- high flow capacity
- Micro-touch valve provides smooth operation and exceptional flow control
- Roto-matic latch pin provides positive auto shut-off
- pure PTFE packing eliminates stem leaks
- easy to change 'locknut style' spout assembly
- green scuff guard

**Optional Features:**

- Underwriters Listed versions 
- UL listed for use with Gas 10% Ethanol blend and diesel
- super tough nylon trigger hold-open clip
- 'no pressure, no flow' (NPNF) safety valve prevents the trigger from being held open if pressure is not present

**Materials:**

- body and spout: aluminum
- body caps: zinc
- seals: FKM
- poppet disk: FKM
- stem packing: PTFE
- hand-guard and trigger hold open clip: super tough nylon
- trigger: steel
- snap-on cover: plastic
- scuff guard: vinyl

**Features:**


- with trigger hold-open clip
- non Underwriters Listed nozzle

NPT Inlet	Spout Outlet	Approximate Flow Rate at 20 PSI (GPM)	Part #
1"	1-3/16"	35	<b>DFN100HF</b>
	1-3/16"	45	<b>DFN100SF</b>




DFN100HF

**Features:**

- with trigger hold-open clip
- with 'no pressure, no flow' safety valve
- Underwriters Listed nozzle 

NPT Inlet	Spout Outlet	Approximate Flow Rate at 20 PSI (GPM)	Part #
1"	1-3/16"	35	<b>DFN100HF-NPNF</b>
	1-3/16"	45	<b>DFN100SF-NPNF</b>

**Features:**

- without trigger hold-open clip
- Underwriters Listed nozzle 

NPT Inlet	Spout Outlet	Approximate Flow Rate at 20 PSI (GPM)	Part #
1"	1-3/16"	35	<b>DFN100HF-NC</b>
	1-3/16"	45	<b>DFN100SF-NC</b>



DFN100SF

## Big Mouth™ Diesel Nozzles

### Application:


- truck stops (not designed for use with gravity flow tanks, small 12 volt or AC utility pumps, farm or consumer pumps)



### Features:

- lightweight but strong
- Micro-touch valve provides smooth operation and exceptional flow control
- Roto-matic latch pin provides positive auto shut-off
- pure PTFE packing eliminates stem leaks
- super tough nylon hand guard
- snap-on handle cover makes changing scuff guards easy
- yellow scuff guard

### Optional Features:

- Underwriters Listed versions 
- UL listed for use with gas 10% Ethanol blend and diesel
- super tough nylon trigger hold-open clip
- 'no pressure, no flow' (NPNF) safety valve prevents the trigger from being held open if pressure is not present

### Materials:


- body and spout: aluminum
- body caps: zinc
- seals: FKM / nitrile
- poppet disk: FKM
- stem packing: PTFE
- trigger: steel
- snap-on cover: plastic
- scuff guard: vinyl

### Features:

- with trigger hold-open clip
- non Underwriters Listed nozzle


NPT Inlet	Spout Outlet	Approximate Flow Rate at 20 PSI (GPM)	Part #
1"	1 1/8"	27	<b>DFN100</b>

### Features:

- with trigger hold-open clip with 'no pressure, no flow' safety valve
- Underwriters Listed nozzle 

NPT Inlet	Spout Outlet	Approximate Flow Rate at 20 PSI (GPM)	Part #
1"	1 1/8"	27	<b>DFN100-NPNF</b>

### Features:

- without trigger hold-open clip
- Underwriters Listed nozzle 

NPT Inlet	Spout Outlet	Approximate Flow Rate at 20 PSI (GPM)	Part #
1"	1 1/8"	27	<b>DFN100-NC</b>



DFN100



DFN100-NC

Farm and Consumer Nozzles

**Application:**


- small 12 volt or AC utility pumps, farm or consumer pumps (not designed for use with gravity flow tanks)



**Features:**

- Micro-touch valve provides smooth operation and exceptional flow control
- pure PTFE stem packing eliminates leaks
- heavy duty, strong, secure hook makes it easy to hang the nozzle on the pump
- Roto-matic latch pin provides positive auto shut-off
- Smartguard snap-on scuff guard

**Optional Features:**

- Underwriters Listed versions 
- super tough nylon trigger hold-open clip
- 'no pressure, no flow' (NPNF) safety valve prevents the trigger from being held open if pressure is not present

**Materials:**

- body and spout: aluminum
- body caps: zinc or nylon
- seals: FKM
- poppet disk: FKM
- stem packing: PTFE
- hand-guard and trigger hold open clip: super tough nylon
- trigger: steel
- snap-on cover: plastic
- scuff guard: vinyl

**Features:**

- with trigger hold-open clip
- non Underwriters Listed nozzle




1" diesel nozzle

NPT Inlet	Spout Outlet	Approximate Flow Rate at 20 PSI (GPM)	Scuff Guard Color	Service	Part #
3/4"	13/16"	18	black	gasoline	<b>DN7UOBF</b>
	15/16"	23	green	diesel	<b>DN7LOBF</b>
1"	1-1/8"	27	yellow	diesel	<b>DFN100F<sup>1</sup></b>

<sup>1</sup> Hand-guard and rear back clip: super tough nylon

**Features:**


- with trigger hold-open clip
- with 'no pressure, no flow' safety valve
- Underwriters Listed nozzle 



3/4" gasoline nozzle

NPT Inlet	Spout Outlet	Approximate Flow Rate at 20 PSI (GPM)	Scuff Guard Color	Service	Part #
3/4"	13/16"	18	black	gasoline	<b>DN7UOBF-NPNF</b>
	15/16"	23	green	diesel	<b>DN7LOBF-NPNF</b>
1"	1-1/8"	27	yellow	diesel	<b>DFN100F-NPNF</b>

**Features:**

- without trigger hold-open clip
- Underwriters Listed nozzle 



3/4" diesel nozzle

NPT Inlet	Spout Outlet	Approximate Flow Rate at 20 PSI (GPM)	Scuff Guard Color	Service	Part #
3/4"	13/16"	18	black	gasoline	<b>DN7UOBF-NC</b>
	15/16"	23	green	diesel	<b>DN7LOBF-NC</b>
1"	1-1/8"	27	yellow	diesel	<b>DFN100F-NC</b>

**Fuel Nozzle Part Number Cross Reference**

Dixon™	M. Carder	OPW	Emco	Husky	Catlow
DN7UOBF	N7UOBF	1AF-40FS	A2501F	XSF-33704	NENLF
DN7LOBF	N7LOBF	11APF-40FS	A2501LF	---	NELF

### DEF Automatic Shutoff Nozzle

**Application:**

- designed for diesel exhaust fluid applications

**Feature:**

- maximum operating pressure: **50 PSI**

**Materials:**

- aluminum body double coated inside and out with PTFE baked on at **500°F (260°C)**
- spout: stainless steel
- wetted parts: stainless, acetal, PTFE
- seal: FKM-A



BSPB Inlet	Spout Outlet	Approximate Flow Rate at 20 PSI (GPM)	Part #
3/4"	13/16"	<b>18</b>	<b>DEFN075</b>

### High Flow Fueler 100™ Nozzles

**Application:**

- for fueling trucks, buses, off-road equipment and fuel oil delivery
- *These nozzles are not to be used with gravity flow tanks.*



**Features:**

- machined grooves in the spout are designed to hold nozzle more securely in the fill pipe
- high flow, heavy duty automatic nozzle



NPT Inlet	Spout Outlet	Approximate Flow Rate at 30 PSI (GPM)	Part #
1 1/4"	1 3/8"	<b>75</b>	<b>DNOG5-NL<sup>1</sup></b>
1 1/4"	1 3/8"	<b>75</b>	<b>DNOG5</b>
1 1/2"	1 3/8"	<b>75</b>	<b>DNOG6</b>

<sup>1</sup> is a 1 1/4" nozzle without the locking handle





### Industrial Fog Nozzles

**Features:**

- maximum operating pressure: **175 PSI** (water only) at **70°F (21°C)**
- delivers 30° - 60° - 90° fog pattern - shut-off - straight stream - fog
- UL listed and Factory Mutual approved for class A and B fires (except noted <sup>1 2</sup>)
- new UL and FM approvals are pending due to change in standard UL401 products are to be reapproved, data subject to change in coming months supplied with bumper



Size	Thread	90° Spray GPM @ 100 PSI	Wide Open GPM @ 100 PSI	Brass Part #
3/4"	GHT	---	---	<b>BFN75GHT</b> <sup>1</sup>
3/4"	NPSH	---	---	<b>BFN75</b>
1"	NPSH	32	---	<b>BFN100</b>
1 1/2"	NPSH	---	100	<b>BFN150</b>
2"	NPSH	108	---	<b>BFN200</b> <sup>1 2</sup>
1"	NST (NH)	32	---	<b>BFN100NST</b>
1 1/2"	NST (NH)	---	100	<b>BFN150NST</b>
2 1/2"	NST (NH)	205	---	<b>BFN250NST</b> <sup>1 2</sup>

<sup>1</sup> not UL Listed

<sup>2</sup> not Factory Mutual approved

• replacement washers can be found on page 741



### Heavy Duty Industrial Fog Nozzles

**Features:**

- maximum operating pressure: **175 PSI** (water only) at **70°F (21°C)**
- delivers 30° - 60° - 90° fog pattern - shut-off - straight stream - fog
- New UL and FM approvals are pending due to change in standard UL 401
- Products are to be reapproved, data subject to change in coming months
- UL listed and Factory Mutual approved
- supplied with bumper



Size	Thread	90° Spray GPM @ 100 PSI	Brass Part #
1"	NPSH	---	<b>HFN100</b>
1 1/2"	NPSH	<b>88 (+/-12)</b>	<b>HFN150</b>
1"	NST (NH)	---	<b>HFN100NST</b>
1 1/2"	NST (NH)	<b>88 (+/-12)</b>	<b>HFN150NST</b>
1 1/2"	NYFD	---	<b>HFN150NYFD</b>

• replacement washers can be found on page 741



### High Pressure Industrial Fog Nozzles

**Features:**

- working pressure: **25 to 300 PSI** (water only) at **70°F (21°C)**
- combination straight stream and fog - shut-off - straight stream - fog
- Factory Mutual approved
- large one-piece rubber bumper with molded teeth
- knurled base



Size	Thread	90° Spray GPM @ 100 PSI	Brass Part #
1 1/2"	NPSH	<b>117</b>	<b>HPFN150</b>
	NST (NH)	<b>117</b>	<b>HPFN150NST</b>

• replacement washers can be found on page 741

Electrical Fire All-Fog Nozzles



Features:

- maximum operating pressure: **100 PSI** (water only) at **70°F (21°C)**
- delivers 30° - 60° - 90° fog pattern - shutoff to 30° fog, adjustable to 90° fog
- New UL and FM approvals are pending due to change in standard UL 401
- Products are to be reapproved, data subject to change in coming months
- UL listed and Factory Mutual approved for class C fires
- supplied with bumper
- Use of this nozzle is not likely to prove hazardous when nozzle is held in excess of 10 feet from electrical apparatus and circuits not involving more than 250,000 volts. ⚠



Size	Thread	Wide Open GPM @ 100 PSI	Brass Part #
1½"	NST (NH)	96	<b>BFNE150NST</b>
	NPSH	96	<b>BFNE150</b>

- for fog nozzle flow rates please see next page
- replacement washers can be found on page 741

Fog Nozzles

Features:

- shutoff - straight stream - fog
- maximum operating pressure: **100 PSI** (water only) at **70°F (21°C)**
- brass stem

Size	Thread	90° Spray GPM @ 100 PSI	Polycarbonate <sup>1</sup> Part #	Polycarbonate <sup>2</sup> Part #
¾"	GHT	<b>8.0</b>	<b>FNB75GHT</b> <sup>3,4</sup>	---
¾"	NPS	<b>30.9</b>	<b>FNB75S</b> <sup>4</sup>	---
1"	NPS	<b>11.4</b>	<b>FNB100S</b> <sup>4</sup>	<b>FN100S</b>
1"	NPS	<b>30.9</b>	<b>HGB100S</b>	---
1½"	NPS	<b>83.6</b>	<b>FNB150S</b>	<b>FN150S</b>
1"	NST (NH)	<b>11.4</b>	<b>FNB100NST</b>	<b>FN100NST</b>
1"	NST (NH)	<b>30.9</b>	<b>HGB100NST</b>	---
1½"	NST (NH)	<b>83.6</b>	<b>FNB150NST</b>	<b>FN150NST</b>



with bumper



without bumper

- <sup>1</sup> with bumper
- <sup>2</sup> without bumper
- <sup>3</sup> standard flow
- <sup>4</sup> 120° spray GPM @100 PSI
- replacement washers can be found on page 856

Fog Nozzle Flow Rate Chart

Part Number	Inlet Pressure		Straight Stream		30°		60°		90°	
	PSI	kPa	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM
<b>BFN100</b>	<b>50</b>	(345)	18	(68)	21	(79)	24	(91)	27	(102)
	<b>75</b>	(517)	22	(83)	25	(95)	28	(106)	32	(121)
	<b>100</b>	(690)	24	(91)	28	(106)	32	(121)	36	(136)
<b>BFN250</b>	<b>50</b>	(345)	90	(341)	120	(454)	130	(492)	145	(549)
	<b>75</b>	(517)	100	(379)	140	(530)	150	(568)	180	(681)
	<b>100</b>	(690)	110	(416)	165	(625)	180	(681)	205	(776)
<b>HFN100</b>	<b>100</b>	(690)	25	(95)	---	---	---	---	---	---
<b>HFN150</b>	<b>100</b>	(690)	---	---	---	---	---	---	86	(326)
<b>HPFN150</b>	<b>275</b>	(1040)	---	---	---	---	---	---	130	(492)

- fire fog nozzles are listed above and on previous pages







## Factory Mutual Approved Fog Nozzles

**Features:**

- brass stem with locking nut
- shutoff-straight-stream-fog
- wings on sleeve for ease of adjustment
- maximum operating pressure: **100 PSI** (water only) at **70°F (21°C)**
- Factory Mutual approved



with bumper



without bumper

Size	Thread	90° Spray GPM @ 100 PSI	Polycarbonate <sup>1</sup> Part #	Polycarbonate <sup>2</sup> Global Part #
3/4"	GHT	<b>30.9</b>	<b>SL075GHT<sup>3</sup></b>	---
3/4"	NPSH	<b>30.9</b>	<b>SL075<sup>3</sup></b>	---
1"	NPSH	<b>30.9</b>	<b>SL100<sup>3</sup></b>	<b>PFNB100S</b>
1 1/2"	NPSH	<b>75.0</b>	<b>SL150</b>	<b>PFNB150S</b>
1"	NST (NH)	<b>30.9</b>	<b>SL100NST</b>	---
1 1/2"	NST (NH)	<b>75.0</b>	<b>SL150NST</b>	<b>PFNB150NST</b>

- <sup>1</sup> with bumper
- <sup>2</sup> without bumper
- <sup>3</sup> 120° spray on 3/4" and 1"

## Polycarbonate Electrical Fire All-Fog Nozzles

**Features:**

- opens and closes in a 30° fog pattern up to 120°- no straight stream
- maximum operating pressure: **100 PSI** (water only) at **70°F (21°C)**
- brass stem



Size	Thread	75° Spray GPM @ 100 PSI	Polycarbonate Part #
1 1/2"	NPS	<b>92</b>	<b>FNBE150S</b>
	NST (NH)	<b>92</b>	<b>FNBE150NST</b>

## Gaskets for Fog Nozzles



Size	Thread	ID	OD	Thickness	Buna-N Part #
1"	NPSH	0.937"	1.234"	0.125"	<b>FNG100S</b>
1"	NPSH	1.000"	1.375"	0.125"	<b>HGG100S</b>
1 1/2"	NPSH	1.500"	1.827"	0.125"	<b>FNG150S</b>
1"	NST (NH)	0.937"	1.281"	0.125"	<b>FNG100NST</b>
1"	NST (NH)	1.000"	1.375"	0.125"	<b>HGG100NST</b>
1 1/2"	NST (NH)	1.510"	1.906"	0.125"	<b>FNG150NST</b>

- dimensions are nominal



Plain Hose Nozzles

Features:

- finish: satin
- maximum operating pressure: **100 PSI** (water only) at **70°F (21°C)**

Size	Thread	Overall Length	Orifice	Replacement Gasket	Brass	
					Previous Part #	Part #
¾"	GHT	6"	1/4"	<b>KRW5</b>	500SN6	<b>BN6</b>
¾"	NPSH	6"	1/4"	<b>KRW5</b>	---	<b>BN7</b>
1"	NPSH	8"	5/16"	<b>KRW10</b>	---	<b>BN10</b>
1¼"	NPSH	10"	3/8"	<b>KRW15</b>	---	<b>BN12</b>
1½"	NPSH	10"	1/2"	<b>KRW20</b>	---	<b>BN15</b>
2"	NPSH	12"	9/16"	<b>SW200</b>	---	<b>BN20</b>
2½"	NPSH	12"	1"	<b>KRW35</b>	---	<b>BN25</b>
1"	NST (NH)	8"	5/16"	<b>SW100F</b>	---	<b>BN10F</b>
1½"	NST (NH)	10"	1/2"	<b>SW150</b>	---	<b>BN15F</b>
2½"	NST (NH)	12"	1"	<b>SW250</b>	---	<b>BN25F</b>
1½"	NYFD	10"	1/2"	<b>SW150</b>	---	<b>BN15NYFD</b>
2½"	NYFD	12"	1"	<b>SW250</b>	---	<b>BN25NYFD</b>



Industrial Washdown Nozzles

Features:

- maximum operating pressure: **100 PSI** (water only) at **70°F (21°C)**
- delivers 30° - 60° - 90° fog pattern
- shut off - straight stream - fog
- supplied with bumper

Size	Thread	90° Spray GPM @ 100 PSI	Brass Part #
1½"	NPSH	88 (+/-12)	<b>WDN150</b>
	NST (NH)	88 (+/-12)	<b>WDN150NST</b>



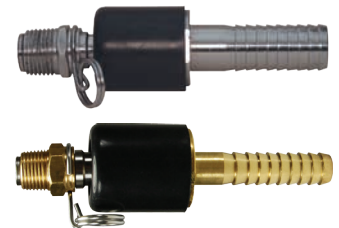
Swivel Connectors for Washdown Spray Guns

Ball Type Swivel x Hose Shank

Features:

- swivel connector for stainless spray nozzles
- 360° ball type swivel adapter helps prevent hose kinking

NPT	Hose ID	Brass Part #	300 Stainless Steel Part #
½"	½"	---	<b>SSA44</b>
	5/8"	---	<b>SSA54</b>
	¾"	---	<b>SSA64</b>
¾"	½"	<b>BSA34</b>	---

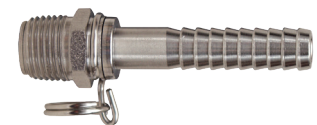


Straight Swivel x Hose Shank

Features:

- swivel body
- gasket: EPDM

NPT	Hose ID	Brass Part #	Stainless Steel Part #
½"	½"	<b>BNS44</b>	<b>BNS44SS</b>
	¾"	<b>BNS64</b>	<b>BNS64SS</b>



Straight Swivel x GHT Thread

NPT	Female GHT	Brass Part #
½"	¾"	<b>BMAS974</b>




## Hot Water Washdown Spray Nozzles

**Application:**

- for low pressure cleaning, tank and drum cleaning and chemical manufacturing

**Features:**

- designed for operator comfort
- variable spray pattern from conical spray to solid stream
- hose connects at base of gun for easy maneuvering
- ½" female NPT inlet
- rubber coated handle protects hands from water temperatures to **150°F (66°C)**
- **12.5 GPM** flow capacity at **150 PSI**
- *Do not use with steam lines.* 



Cover Color	Brass Part #	Aluminum Part #
black	<b>BWSG</b>	<b>AWSG</b>
white	<b>BWSG-W</b>	<b>AWSG-W</b>



## Lite Washdown Spray Nozzles

**Application:**

- for use where reduced size and / or flow rate is preferred

**Features:**

- more compact and lighter than standard nozzle
- special formulated rubber cover for durability and easy replacement
- ¾" female NPT inlet
- **9.0 GPM** flow capacity at **100 PSI**
- pressure rating: **150 PSI**
- temperature rating **200°F (93°C)**



LWSG-W




LWSG-B

Cover Color	Brass Part #
blue	<b>LWSG-B</b>
white	<b>LWSG-W</b>

## Mini Spray Nozzle

## Features:

- ½" female NPT inlet
- not for use with steam 
- designed as an industrial lightweight nozzle with heavyweight performance
- durable dark blue cover protects user from hot surfaces produced by high temperature wash down applications
- reduces hand fatigue and provides smooth lever action
- variable spray patterns from fan spray to solid stream
- drip-free automatic shutoff feature
- pressure rating **150 PSI at 200°F (93°C)**
- flow: **9.6 GPM at 100 PSIG**



Stainless Steel

Part #

**DM150SDB**

## Spray Nozzle

## Features:

- ½" female NPT inlet
- designed to prevent accidental spray
- durable dark blue cover prevents front-mounted lever from being accidentally activated if nozzle is dropped
- reduces hand fatigue and provides smooth lever action
- trigger locking mechanism provides safe and secure method of keeping the nozzle open during any spray pattern
- variable spray patterns from fan spray to solid stream
- drip-free automatic shut-off feature
- can be used with **D150S-WAND**
- rated to **150 PSI at 200°F (93°C)**
- **9.6 GPM** flow capacity at **100 PSIG**




Stainless Steel

Part #

**D150SDB**

## Washdown Wand

## Features:

- designed to provide user with a means of reaching desired washdown locations previously deemed unreachable by extending the nozzle by 3'
- adjustable spray tip can be changed from fan to solid spray by twisting the tip until the desired flow pattern is achieved
- quick disconnect feature allows user to quickly connect wand to the nozzles above
- designed to only fit the D150SDB nozzle
- minimum pressure is **75 PSI**
- wand is not for use with steam 

300 Series Stainless Steel

Part #

**D150S-WAND**

## Temperature Indicating Spray Nozzle



**Features:**

- easy to read dial thermometer at rear of the nozzle provides accurate and continual monitoring of water temperature
- plastic sight window
- gauge assembly is recessed into the rubber cover for complete protection
- alerts the operator to shut-down the steam valve upon cold water failure, preventing scalding and steam burn injuries ensuring operator safety
- ensures a more accurate discharge water temperature reading
- recommended for water temperatures to **200°F (93°C)**
- maximum operating pressure: **150 PSI**
- **12.5 GPM** flow capacity
- ½" female NPT inlet
- black cover

---

*Bronze*

Part #

---

**BWSG-TI**

## Stainless Steel Industrial Grade Spray Nozzle



**Application:**

- recommended for use in corrosive applications where bronze and aluminum nozzles are not suitable

**Features:**

- heavy duty 300 series stainless steel body and barrel
- variable spray pattern adjusts from a soft spray to a solid stream
- Replaceable rubber cover is specially formulated to resist a wide range of oils and chemicals and protect surrounding equipment.
- maximum operating pressure: **150 PSI**
- maximum flow: **12.5 GPM at 150 PSI**
- ½" female NPT inlet
- maximum temperature: **200°F (93°C)**

---

*300 Stainless Steel*

Part #

---

**300SSSG**

## Brass Industrial Grade Front Lever Spray Nozzle



**Features:**

- provides effortless one hand operation; by actuating the operating lever the valve is opened/closed and the jet power is regulated from spray to concentrated jet
- adjusting screw on back of gun allows you to fix the desired form of jet, fixing clamp for the operating lever allows lockable position for service
- maximum operating pressure: **350 PSI**
- suitable for hot water up to **122°F (50°C)**
- flow: **6.6 GPM at 72 PSI**
- ½" female NPT inlet
- durable blue rubber cover

---

*Brass*

Part #

---

**DWG050**

## Thermal-Gard™ Elevated Temperature Spray Nozzle

**Features:**

- Thermal-Gard™ elevated temperature spray nozzle protects the operator from extreme hot water temperatures that exceed the comfort zone of standard hot water nozzles.
- Assembly includes required special rigid, stainless steel adapter, (3/8" male NPT x 1/2" female NPT).
- Thermal insulating sleeve reduces overall heat during elevated temperature conditions.
- Stainless steel lever handle is coated for additional thermal protection and operator comfort.
- Lightweight aluminum alloy body reduces overall weight
- Aluminum alloy body is electroless nickel plated for additional corrosion protection
- Recommended for water temperatures above **140°F (60°C)** to a maximum temperature of **200°F (93°C)**
- **12.5 GPM** flow capacity
- working pressure: **150 PSI**
- 3/8" female NPT inlet
- black cover



Aluminum

Part #

**AWSG-TG**

## Spray Valve and Hose Assembly

### Valves

**Features:**

- even spray valve mist provides proper moisture on paper roll ends
- helps eliminate wrinkles and folder delivery problems, increasing pressroom production and reducing waste
- a slight flex of the hose in any direction (360°) activates the spray
- quick action with no protruding levers, thumb depressors, triggers or other devices utilized
- positive water seal when hose is released causes the internal valve to close and immediately shut off spray
- sealed mechanism with no packing gland



83304



83306H

Female NPT Size	Description	Part #
1/4"	valve only	<b>83304</b>
3/8"		<b>83306</b>
1/4"	valve with hook	<b>83304H</b>
3/8"		<b>83306H</b>

### Hose Assembly

Male NPT Inlet	Description	Part #
3/8"	5' hose	<b>8320605</b>

- additional hose lengths are available - contact Dixon®



## Washdown Nozzles

### Sweeper Nozzle



Thread Size	Discharge	Length	Brass	
			Previous Part #	Part #
3/4" GHT	3/16"	2"	500SN2	<b>PSN76</b>

### Flexible Water Nozzle



**Feature:**

- bends for water flow, shuts off when released

Thread Size	Part #
3/4" GHT	<b>8005</b>

### Brass / Rubber Power Flow Water Nozzle



**Features:**

- all metal body and handle
- curved design to fit the contour of your hand
- overmold for comfortable handling
- built in flow control to regulate the amount of water flow
- locking feature to make extended watering easy
- large easy-turn dial

Thread Size	Part #
3/4" GHT	<b>PNB75GHT</b>

### Insulated Water Nozzles



**Features:**

- clip locks to any spray pattern
- industrial strength nylon handle
- rubber handle guard
- GHT thread on head
- heavy duty brass valve and adjusting nut
- for use with hot water up to **140°F (60°C)**

Thread Size	Chrome Plated Zinc Part #
3/4" GHT	<b>SN75</b>

### Pistol-Grip Water Nozzle



**Features:**

- clip locks to any spray pattern
- easy squeeze on/off lever
- brass valve and adjusting nut
- stainless steel spring with lifetime packing
- rubber handle guard

Thread Size	Zinc Metallized Part #
3/4" GHT	<b>CSN75</b>

### Twist Nozzles



**Feature:**

- maximum operating pressure **150 PSI** (water only)

Thread Size	Length	Extruded Brass	
		Previous Part #	Part #
3/4" GHT	4"	---	<b>BTN75</b>
	4"	---	<b>500AN4<sup>1</sup></b>
	6 3/4"	500-AN7	<b>500AN7<sup>1</sup></b>

<sup>1</sup> imported

### Adjust-A-Power Nozzle

**Features:**

- ideal for patio, auto and boat, driveway and garden
- produces 50% more power than twist nozzles
- does not require a washer
- leave nozzle in the open position when not in use
- brass construction with stainless steel bearings
- maximum operating pressure: **100 PSI** (water only) at ambient temperature **70°F (21°C)**



Thread Size	Brass Part #
3/4" GHT	<b>AAPN75GHT</b>

### Constant Flow Nozzle Displays

**Features:**

- shatterproof and UV resistant polycarbonate withstands tough environmental conditions
- seals used for true water shut off
- easy twist spray pattern adjustment
- sold in case quantity only (25 per case), with display



Thread	45° Spray GPM @ 100 PSI	Color	Global Part #
3/4" GHT	25.1	green	<b>FNB75GHT-GD</b>
	25.1	clear	<b>CNB75GHT-GD</b>

### Constant Flow Nozzles with Bumper

**Feature:**

- can be used as a replacement nozzle in the display case **FNB75GHT-GD**



Thread	45° Spray GPM @ 100 PSI	Color	Plastic Part #
3/4" GHT	8.0	green	<b>GNB75GHT</b> (domestic)
	25.1	clear	<b>CNB75GHT</b> (global)



## Water-Steam Washdown Station

**Application:**

- fail-safe mixing station safely blends steam and cold water for hot water on demand, should cold water fail, the steam is instantly shut-off



station is not supplied with hose and nozzle

**Features:**

- globe style control valves
- dial thermometer
- in-line check valves
- 3/4" inlet and outlet
- stainless steel hose rack
- mounting plate and hardware for wall mounting
- maximum operating pressure: **150 PSI**
- maximum temperature: **200°F (93°C)**

Bronze  
Part #

**SWDS**

### Pressure Requirements

Steam Pressure		Water Pressure	
Minimum <b>80 PSI</b>	Maximum <b>90 PSI</b>	Minimum <b>50 PSI</b>	Maximum <b>80 PSI</b>

## Hot and Cold Water Mixing Station



station is not supplied with hose and nozzle

**Features:**

- globe style control valves
- in-line check valves
- 3/4" inlet and outlet
- stainless steel hose rack
- mounting plate and hardware for wall mounting
- maximum operating pressure: **150 PSI**
- maximum temperature: **200°F (93°C)**

Bronze  
Part #

**WDS1**

## Rack for Mixing Station



**Features:**

- stainless steel lag screws
- solid brass mounting crowns
- supplied with mounting hardware
- rack fits SWDS and WDS1 mixing stations
- holds 50' of 3/4" heavy duty industrial grade hose

Stainless Steel  
Part #

**WDSR**

Spray Guns  
Anti-Fatigue Spray Gun

Features:

- 3/8" female inlet
- 1/4" female outlet
- temperatures to: **300°F (149°C)**
- anti-fatigue pressure compensating design

Maximum PSI	GPM	Part #
<b>5075</b>	<b>12.0</b>	<b>HPSG</b>
<b>5000</b>	<b>10.6</b>	<b>HPSGW<sup>1</sup></b>

<sup>1</sup> W = weeping, for the car wash industry, allows a small stream of water / leak



Pressure Spray Gun

Features:

- 3/8" female inlet
- 1/4" female outlet
- working pressure: **4500 PSI**
- maximum temperature: **320°F (160°C)**

GPM	Part #
<b>8</b>	<b>HPSGL</b>



Heavy Duty Anti-Fatigue Spray Gun

Features:

- 3/8" female inlet
- 1/4" female outlet
- working pressure: **5000 PSI**
- maximum temperature: **300°F (149°C)**
- heavy duty anti-fatigue design
- stainless inner tube
- Zytel® housing

GPM	Part #
<b>8</b>	<b>HPSGHD</b>



Pressure Spray Gun with Extension

Features:

- 3/8" female inlet
- 22 mm x 14 mm female outlet
- working pressure: **3700 PSI**
- maximum temperature: **140°F (60°C)**
- extension length: 19"

GPM	Part #
<b>8</b>	<b>AL9</b>



Pressure Spray Gun Kit with Hose, Nozzle & Lance

Features:

- gun: 22 mm male inlet, 22 mm x 14 mm female outlet end, working pressure **2500 PSI**
- lance: 18" with vari-spray nozzle 1.25 mm with 22 mm male inlet
- hose: 25', 1/4" ID with 22 mm x 14 mm female ends
- nozzle: 4.0 variable nozzle 0° to 80°

Part #
<b>BIT-KIT</b>



## Spray Lances and Extensions for Pressure Gun

### Spray Lance

**Features:**

- for use with **AL9** spray gun **only** on page 865
- maximum operating pressure: **4000 PSI**
- maximum temperature: **300°F (149°C)**



Length	Description	Zinc Part #
24"	22 mm x 14 mm male inlet x 1/4" male outlet	<b>AL248</b>

### Dual Spray Lances

**Features:**

- for use with **HPSG, HPSGC, HPSGHD** and **HPSGW**
- for soap and water
- maximum temperature: **300°F (149°C)**
- **10.5 GPM**
- requires 1 high pressure nozzle and 1 soap nozzle on page 869
- Allows quick adjustment from high to low pressure with a twist of the handle; low pressure setting allows for use of soap.



AL333



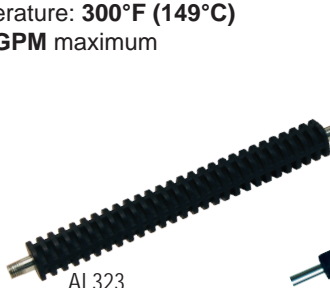
AL344

Length	Description	Maximum Operating PSI	Part #
40"	zinc, 1/4" male inlet 2 each 1/4" female outlets	<b>3,650</b>	<b>AL333</b>
	stainless steel, 1/4" male inlet, 2 each 1/4" female outlets	<b>4,000</b>	<b>AL344</b>

### Molded Grip Extensions

**Features:**

- for use with **HPSG, HPSGC, HPSGHD** and **HPSGW**
- maximum operating pressure: **5000 PSI**
- temperature: **300°F (149°C)**
- **10.5 GPM** maximum



AL323



AL324



AL325 & AL326

Length	Description	Zinc Part #
24"	1/4" male inlet x 1/4" male outlet	<b>AL323XX</b>
36"	1/4" male inlet x 1/4" male outlet, 4" space from the end	<b>AL324XX</b>
48"	1/4" male inlet x 1/4" male outlet, 2 grips	<b>AL325XX</b>
59"	1/4" male inlet x 1/4" male outlet, 2 grips	<b>AL326XX</b>

### Vented Grip Lances

**Features:**

- for use with **HPSG, HPSGC, HPSGHD** and **HPSGW**
- for hot water
- maximum operating pressure: **5000 PSI**
- maximum temperature: **300°F (149°C)**
- **10.5 GPM** maximum



AL361



AL362

Length	Description	Zinc Part #
36"	1/4" male inlet x 1/4" female outlet, straight	<b>AL361</b>
48"	1/4" male inlet x 1/4" female outlet, bent	<b>AL362</b>

## Telescoping Lance and Belt for Pressure Gun

**Features:**

- 3/8" female (pipe thread) inlet
- 1/4" female (quick connect) outlet
- maximum operating pressure: **4000 PSI**
- 1/4" steel braided hose
- **7 GPM**
- length is in three sections
- maximum temperature: **300°F (149°C)**

Length	Aluminum Part #
6' - 18'	<b>ARTEL18A</b>



### Telescoping Lance Belt

**Feature:**

- adjusts to fit a 33" to 58" waist

Nylon Part #
<b>ARTEL-BELT</b>



## Swiveling Quick Couplings

**Features:**

- working pressure: **3650 PSI**
- **7.8 GPM**
- maximum temperature: **300°F (149°C)**

### 1/4" swiveling quick couplings

Description	Part #
1/4" female x 22 mm x 1.5 mm swivel	<b>AL450</b> <sup>1</sup>
<sup>1</sup> for use with <b>AL456</b> only	



Description	Part #
1/4" male x 22 mm x 1.5 mm swivel	<b>AL451</b> <sup>2</sup>
<sup>2</sup> for use with <b>AL464</b> only	



### 3/8" swiveling quick couplings

Description	Part #
3/8" female x 22 mm x 1.5 mm swivel	<b>AL453</b> <sup>1</sup>
<sup>1</sup> for use with <b>AL456</b> only	



Description	Part #
3/8" female x female swivel	<b>AL462</b> <sup>2</sup>
<sup>2</sup> for use with <b>AL464</b> only	



## Pressure Washing

### Fixed Plugs

**Features:**

- working pressure: **3650 PSI**
- **7.8 GPM**
- maximum temperature: **300°F (149°C)**



#### 1/4" fixed quick coupling plugs

Description	Part #
1/4" female x 22 mm x 1.5 mm male	<b>AL454</b> <sup>1</sup>

<sup>1</sup> for use with **AL453** and **AL9**



Description	Part #
1/4" male x 22 mm x 1.5 mm male	<b>AL455F</b> <sup>2</sup>

<sup>2</sup> for use with **AL462** only

#### 3/8" fixed quick coupling plugs



Description	Part #
3/8" female x 22 mm x 1.5 mm male	<b>AL456</b> <sup>1</sup>

<sup>1</sup> for use with **AL453** and **AL9**



Description	Nickel Plated Brass Part #
3/8" female x male plug	<b>AL464</b> <sup>2</sup>

<sup>2</sup> for use with **AL462** only

### Injector Nozzles

**Features:**

- designed to inject cleaning solutions into high pressure discharge lines
- 3/8" male inlet and outlet
- maximum working pressure: **4000 PSI**



AL477

Description	Orifice	Flow (GPM)	Part #
adjustable, green	1.8 mm	2 - 3	<b>AL472</b>
adjustable, red	2.1 mm	3 - 4	<b>AL477</b>
adjustable, blue	2.3 mm	4 - 5.5	<b>AL478</b>

### Line Strainer

**Features:**

- working pressure: **100 PSI**
- 1/2" female inlet, 1/2" male outlet
- .60 mesh cuffed filter
- 2 additional 1/4" side ports
- **8 GPM** maximum



Aluminum  
Part #  
**AR3000-A2**

### High Pressure Spray Soap Nozzles

Description	Brass Part #
¼" male inlet, 40° spray angle, size #40	<b>NZ4040S</b>
¼" male inlet, 80° spray angle, size #40	<b>NZ8040S</b>



### High Pressure Spray Nozzles

Description	Steel Part #
¼" male NPT inlet, 15° spray angle, size 4	<b>NZ1504</b>
¼" male NPT inlet, 25° spray angle, size 4	<b>NZ2504</b>
¼" male NPT inlet, 40° spray angle, size 4	<b>NZ4004</b>



### Quick Connect Soap Nozzle

- use with ¼" couplers on page 498

Description	Brass Part #
¼" straight through plug inlet, 65° spray angle, size #40	<b>NZ6540QCS</b>



### Quick Connect Spray Nozzles

- use with ¼" couplers on page 498

Description	Part #
¼" straight through plug inlet, 0° spray angle, size #4, red	<b>MSP400</b>
¼" straight through plug inlet, 15° spray angle, size #4, yellow	<b>MSP415</b>
¼" straight through plug inlet, 25° spray angle, size #4, green	<b>MSP425</b>
¼" straight through plug inlet, 40° spray angle, size #4, white	<b>MSP440</b>



### Multi-Pack Quick Connect Nozzles

Description	Nozzles Included	Part #
¼", 65° spray angle, size #40	NZ6540QCS	<b>MSP4PAK</b>
¼", 15° spray angle, size #4, yellow	MSP415	
¼", 25° spray angle, size #4, green	MSP425	
¼", 40° spray angle, size #4, white	MSP440	



### Multi-Pack High Pressure Spray Nozzles

- ¼" quick connect nozzle multi-packs include: 0° red, 15° yellow, 25° green, 40° white and 50° black soap nozzles
- ¼" MEG nozzle multi-packs include: 0°, 15°, 25°, 40° and 65° soap nozzles

Nozzle Size	GPM @ PSI									Part #
	800	1000	1500	2000	2500	3000	3500	4000	5000	
3.0	1.34	1.50	1.84	2.12	2.37	2.60	2.81	3.00	3.35	<b>NZMQC5P-030</b>
3.5	1.57	1.75	2.14	2.47	2.77	3.03	3.27	3.50	3.91	<b>NZMQC5P-035</b>
4.0	1.79	2.00	2.45	2.83	3.16	3.46	3.74	4.00	4.47	<b>NZMQC5P-040</b>
4.5	2.01	2.25	2.76	3.18	3.56	3.90	4.21	4.50	5.03	<b>NZMQC5P-045</b>
5.0	2.24	2.50	3.06	3.54	3.95	4.33	4.68	5.00	5.59	<b>NZMQC5P-050</b>
5.5	2.46	2.75	3.37	3.89	4.35	4.76	5.14	5.50	6.15	<b>NZMQC5P-055</b>
6.5	2.91	3.25	3.98	4.60	5.14	5.63	6.08	6.50	7.27	<b>NZMQC5P-065</b>
8.0	3.58	4.00	4.90	5.66	6.32	6.93	7.48	8.00	8.94	<b>NZMQC5P-080</b>

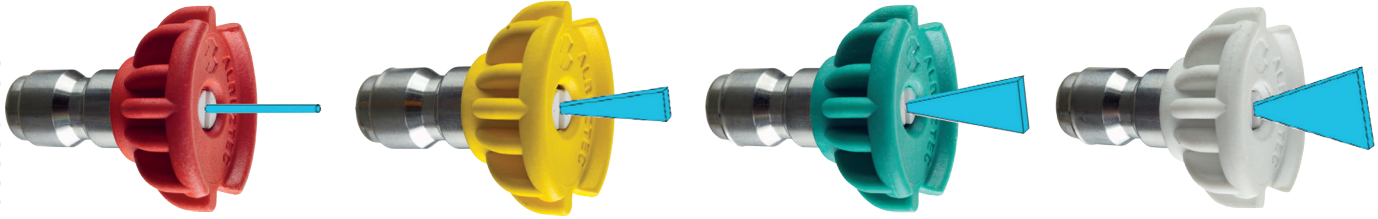


Nozzle Size	GPM @ PSI									Part #
	800	1000	1500	2000	2500	3000	3500	4000	5000	
3.5	1.57	1.75	2.14	2.47	2.77	3.03	3.27	3.50	3.91	<b>NZMMEG5P-035</b>
4.0	1.79	2.00	2.45	2.83	3.16	3.46	3.74	4.00	4.47	<b>NZMMEG5P-040</b>
4.5	2.01	2.25	2.76	3.18	3.56	3.90	4.21	4.50	5.03	<b>NZMMEG5P-045</b>
5.0	2.24	2.50	3.06	3.54	3.95	4.33	4.68	5.00	5.59	<b>NZMMEG5P-050</b>
5.5	2.46	2.75	3.37	3.89	4.35	4.76	5.14	5.50	6.15	<b>NZMMEG5P-055</b>





Spray Nozzle Selection Guidelines



**0° Blasting Nozzle**

- Removing caked on mud from heavy construction, farm or lawn equipment.
- Cleaning tar, glue or stubborn stains from concrete
- Cleaning overhead areas
- Removing rust from steel and oxidation from aluminum

**15° Stripping Nozzle**

- Removing paint from wood, masonry or metal
- Removing grease or dirt from equipment
- Removing heavy mildew stains
- Removing marine growth from boats and marine equipment
- Removing rust from steel and oxidation from aluminum

**25° Cleaning Nozzle**

- General cleaning of dirt, mud and grime
- Cleaning roofs, gutters and downspouts
- Removing light mildew stains
- Removing algae and bacteria build-up from pools
- Rinsing surfaces in preparation for painting

**40° Washing Nozzle**

- Light cleaning and washing
- Washing and rinsing of automobiles and boats
- Cleaning roofs, windows, patios and driveways



Caution: The spray force from these nozzles can cause injuries if pointed directly at yourself or others. Before observing directly always disconnect from spray wand. Make sure spray nozzle is properly locked in place with its quick coupler, if the collar is not in the locking position, the nozzle will become a dangerous projectile. The O-ring from your quick coupler socket will also be blown out of place.

Nozzle Spray Chart

Nozzle Orifice Size	E a i l o n s P e r M i n u t e	1000 PSI	1200 PSI	1250 PSI	1300 PSI	1500 PSI	1800 PSI	2000 PSI	2100 PSI	2200 PSI	2300 PSI	2400 PSI	2500 PSI	3000 PSI	3200 PSI	3500 PSI	4000 PSI	5000 PSI
		3.0	1.50	1.64	1.68	1.71	1.84	2.01	2.12	2.17	2.22	2.27	2.32	2.37	2.60	2.68	2.81	3.00
3.5	1.75	1.92	1.96	2.00	2.14	2.35	2.47	2.54	2.60	2.65	2.71	2.77	3.03	3.13	3.27	3.50	3.91	
4.0	2.00	2.19	2.24	2.28	2.45	2.68	2.83	2.90	2.97	3.03	3.10	3.16	3.46	3.58	3.74	4.00	4.47	
4.5	2.25	2.46	2.52	2.57	2.76	3.02	3.18	3.26	3.34	3.41	3.49	3.56	3.90	4.02	4.21	4.50	5.03	
5.0	2.50	2.74	2.80	2.85	3.06	3.35	3.54	3.62	3.71	3.79	3.87	3.95	4.33	4.47	4.68	5.00	5.59	
5.5	2.75	3.01	3.07	3.14	3.37	3.69	3.89	3.99	4.08	4.17	4.26	4.35	4.76	4.92	5.14	5.50	6.15	
6.5	3.25	3.56	3.63	3.71	3.98	4.36	4.60	4.71	4.82	4.93	5.03	5.14	5.63	5.81	6.08	6.50	7.27	
8.0	4.00	4.38	4.47	4.56	4.90	5.37	5.66	5.80	5.93	6.07	6.20	6.32	6.93	7.16	7.48	8.00	8.94	





Turbo Nozzles

Features:

- 15° spray angle
- maximum temperature: **195°F (91°C)**
- ceramic orifice

Nozzle Size	Description	Orifice	Maximum Working PSI	Part #
4.0	¼" female inlet, dk. green	1.30 mm	<b>3,625</b>	<b>AL-TPR25-30</b>
5.5 - 6.0	¼" female inlet, purple	1.50 mm	<b>3,625</b>	<b>AL-TPR25-50</b>
7.0 - 7.5	¼" female inlet, grey	1.70 mm	<b>3,625</b>	<b>AL-TPR25-70</b>
4.0	¼" female inlet, dk. green	1.30 mm	<b>5,075</b>	<b>AL-TPR35-30</b>
5.5	¼" female inlet, purple	1.50 mm	<b>5,075</b>	<b>AL-TPR35-50</b>
6.5	¼" female inlet, grey	1.70 mm	<b>5,075</b>	<b>AL-TPR35-70</b>



Nozzle Holders

Feature:

- maximum temperature: **300°F (149°C)**

Description	Flow (GPM)	Working PSI	Part #
adjustable hi/low nozzle holder with nozzle protector, ¼" female inlet and outlet	<b>7.8</b>	<b>3,650</b>	<b>AL414</b>
change over nozzle, ¼" female inlet, 2 each ¼" female outlets	<b>8</b>	<b>2,900</b>	<b>AL416</b>



AL414



AL416

Inlet Filter for Turbo Nozzles

Features:

- ¼" female inlet, ¼" male outlet
- maximum temperature: **212°F (100°C)**
- 100 mesh filter

Description	Flow (GPM)	Working PSI	Part #
stainless steel, inlet water filter	<b>8</b>	<b>5,000</b>	<b>AR3500</b>



Balance Release Valve

Features:

- working PSI: **4,000 PSI**
- maximum temperature: **195°F (90.6°)**
- GPM: **6.6**
- inlet/outlet: ⅜" female NPT
- bypass: ⅜" female NPT

Brass
Part #
<b>AL702</b>



Water Broom

Features:

- working PSI: **4,000 PSI**
- ¼" quick connect plug

Description	Length	Stainless Steel Part #
4 nozzle broom	16"	<b>AR-BROOM16</b>



### Unloader Valves



**Features:**

- automatically relieves pressure from the pump at shut-off
- maximum temperature: **190°F (88°C)**
- inlet: 2 each, 3/8" female NPT
- outlet: 3/8" female NPT
- bypass: 2 each, 3/8" female NPT

Description	Maximum Flow (GPM)	Working PSI	Part #
yellow spring	8	<b>2,320</b>	<b>AL605</b>
blue spring	8	<b>3,650</b>	<b>AL606</b>
black spring	8	<b>4,500</b>	<b>AL607</b>



**Features:**

- maximum temperature: **190°F (88°C)**
- inlet: 3/8" female
- outlet: 3/8" male
- bypass: 3/8" female

Description	Flow (GPM)	Working PSI	Part #
VR-35 unloader valve	9	<b>5,100</b>	<b>AR20831</b>

### Thermal Relief Valve



**Features:**

- operating PSI: **200 PSI**
- maximum temperature: **140°F (60°C)**
- inlet: 1/2" male

<i>Brass</i>
Part #
<b>TPP140</b>

### Safety Release Valve



**Features:**

- pressure range: **1,000 to 4,000 PSI**
- maximum temperature: **200°F (93°C)**
- inlet: 3/8" male
- GPM: **6**

Part #
<b>AR5000-1</b>

<b>Mill Hose</b> .....	<b>874 to 877</b>	<b>PTFE Hose</b> .....	<b>893, 896</b>
Synthetic single jacket.....	874 to 876	Nominal .....	893
Synthetic double jacket.....	877	Fittings .....	894
		Tool and dies.....	894, 895
<b>Washdown Hose</b> .....	<b>878 to 880</b>	Smooth bore fitting.....	895
Nitrile .....	878 to 879, 880	True ID.....	896
Hot water .....	880	Fittings .....	896, 897
Pressure washer braided.....	880	Crimp collars .....	897
Hand crank hose reel .....	880		
		<b>Hose Protection</b> .....	<b>898 to 900</b>
<b>Racks &amp; Reels</b> .....	<b>881 to 882</b>	Spiral hose and cable protection .....	898
Reelcraft® 5000 series spring driven.....	881	Fiberglass sleeving.....	899
Reelcraft® 7000 series .....	881	Kevlar® protective sleeves .....	899
Reelcraft® 80000 series .....	882	Nylon protective sleeves - MSHA accepted.....	899
Adjustable hose bumper stops .....	882	Spring Guard .....	900
Reelcraft® 30,000 manual driven .....	882	Continuous Spring Guard.....	900
Hand crank .....	882	GSM ball joint armored hose assemblies.....	900
<b>Garden Hose &amp; Washdown</b> .....	<b>883 to 885</b>		
Contractors EPDM water hose .....	883		
Rubber vinyl garden hose.....	883		
Premium EPDM hose.....	883		
Flexogen® hose.....	883		
Perfect water hose.....	884		
Premium Flexzilla® garden hose .....	884		
Top Level PVC hose .....	884		
Hot Water rubber reinforced hose .....	884		
Marine, Camper, Patio & Pool hose .....	885		
Country Club® RT hose .....	885		
<b>Flexible Tubing</b> .....	<b>886 to 889</b>		
PVC .....	886		
PVC braided .....	887		
D.O.T. air brake .....	887		
Polyurethane .....	888		
Polyethylene.....	888		
Nylon .....	888		
Legris nylon .....	889		
Polyurethane - 95 durometer.....	889		
Fluoropolymer FEP 140.....	889		
<b>Air Hose</b> .....	<b>890 to 891</b>		
Coil-Chief self-storing .....	890		
Polyurethane self-storing.....	891		
Polyurethane .....	891		
<b>Tubing &amp; Hose Cutters</b> .....	<b>892</b>		

Fire hoses are located on pages 732 to 739

## Synthetic Single Jacket Mill Hose

**Application:**

- used in open end water discharge applications only, not intended for fire fighting service

**Features:**

- outer construction: single jacket, all polyester
- tube construction: black, PVC rubber
- rated pressure: **250 PSI** at ambient temperature **70°F (21°C)**
- working pressure: **112 PSI** at ambient temperature **70°F (21°C)**
- Consult Dixon® for pricing and availability on 75' lengths and other threads and configurations.

**Uncoupled**

Size	Bowl	Length	Part #
1"	1-1/4"	50'	<i>M10-50UC</i>
	1-1/4"	100'	<i>M10-100UC</i>
	1-1/4"	300'	<i>M10-300UC</i>
1½"	1-11/16"	25'	<i>M15-25UC</i>
	1-11/16"	50'	<i>M15-50UC</i>
	1-11/16"	100'	<i>M15-100UC</i>
2"	2-3/8"	25'	<i>M20-25UC</i>
	2-3/8"	50'	<i>M20-50UC</i>
	2-3/8"	100'	<i>M20-100UC</i>
2½"	2-11/16"	25'	<i>M25-25UC</i>
	2-11/16"	50'	<i>M25-50UC</i>
	2-11/16"	100'	<i>M25-100UC</i>
3"	3-3/8"	25'	<i>M30-25UC</i>
	3-3/8"	50'	<i>M30-50UC</i>
	3-3/8"	100'	<i>M30-100UC</i>
4"	4-3/8"	25'	<i>M40-25UC</i>
	4-3/8"	50'	<i>M40-50UC</i>
	4-3/8"	100'	<i>M40-100UC</i>
6"	6-3/8"	25'	<i>M60-25UC</i>
	6-3/8"	50'	<i>M60-50UC</i>

## Synthetic Single Jacket Mill Hose

**Application:**

- used in open end water discharge applications only, not intended for fire fighting service

**Features:**

- outer construction: single jacket, all polyester
- tube construction: black, PVC rubber
- rated pressure: **250 PSI** at ambient temperature **70°F (21°C)**
- working pressure: **125 PSI** at ambient temperature **70°F (21°C)**
- Consult Dixon® for pricing and availability on 75' lengths and other threads and configurations.

---

**Coupled with NPSH female and male expansion ring couplings**

Size	Length	Part #
1½"	50'	<i>M15-50RAS</i>
	100'	<i>M15100RAS</i>
2"	50'	<i>M20-50RAS</i>
	100'	<i>M20100RAS</i>
2½"	50'	<i>M25-50RAS</i>
	100'	<i>M25100RAS</i>




---

**Coupled with NST (NH) female and male expansion ring couplings**

Size	Length	Part #
1½"	50'	<i>M15-50RAF</i>
	100'	<i>M15100RAF</i>
2½"	25'	<i>M25-25RAF</i>
	50'	<i>M25-50RAF</i>
	100'	<i>M25100RAF</i>




---

**Coupled with MNPT x MNPT male expansion ring couplings**

Size	Length	Part #
1½"	50'	<i>M15-50RAT</i>
	100'	<i>M15100RAT</i>
2"	50'	<i>M20-50RAT</i>
	100'	<i>M20100RAT</i>



## Synthetic Single Jacket Mill Hose

**Application:**

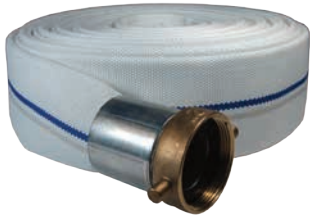
- used in open end water discharge applications only, not intended for fire fighting service



**Features:**

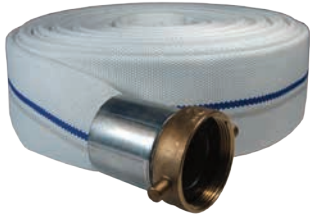
- outer construction: single jacket, all polyester
- tube construction: black, PVC rubber
- Consult Dixon® for pricing and availability of additional lengths and other configurations.

**Coupled with NPSH female and male King™ short shank couplings, crimp sleeve, aluminum shank with brass pin lug swivel nut**



Size	Length	Working Pressure PSI at 70°F (21°C)	Part #
1½"	25'	75	M15-25KAS
	50'	75	M15-50KAS
2"	25'	75	M20-25KAS
	50'	75	M20-50KAS
2½"	25'	50	M25-25KAS
	50'	50	M25-50KAS
3"	25'	50	M30-25KAS
	50'	50	M30-50KAS

**Coupled with NST (NH) female and male King™ short shank couplings, crimp sleeve, aluminum shank with brass pin lug swivel nut**



Size	Length	Working Pressure PSI at 70°F (21°C)	Part #
1½"	25'	75	M15-25KAF
	50'	75	M15-50KAF
2½"	25'	50	M25-25KAF
	50'	50	M25-50KAF

**Coupled with female and male (C & E) global aluminum cam and groove, crimp sleeve**




Size	Length	Working Pressure PSI at 70°F (21°C)	Part #
1½"	25'	112	M15-25GAX
	50'	112	M15-50GAX
2"	25'	112	M20-25GAX
	50'	112	M20-50GAX
2½"	25'	112	M25-25GAX
	50'	112	M25-50GAX
3"	25'	112	M30-25GAX
	50'	112	M30-50GAX
4"	25'	112	M40-25GAX
	50'	112	M40-50GAX

## Synthetic Double Jacket Mill Hose

**Application:**

- ideal for open end discharge applications, not intended for fire fighting service 

**Features:**

- outer construction: double jacket, all polyester
- tube construction: black, PVC rubber
- rated pressure: **250 PSI at 70°F (21°C)**
- working pressure: **200 PSI at 70°F (21°C)**
- double jacket hoses are *not* recommended for use with field reattachable couplings 
- Consult Dixon® for pricing and availability of additional lengths and other configurations.

Hose & Tubing

**Uncoupled**

Size	Bowl	Length	Part #
1½"	1-13/16"	50'	<i>DM15-50UC</i>
	1-13/16"	100'	<i>DM15-100UC</i>
2"	2-5/16"	50'	<i>DM20-50UC</i>
	2-5/16"	100'	<i>DM20-100UC</i>
2½"	2-7/8"	50'	<i>DM25-50UC</i>
	2-7/8"	100'	<i>DM25-100UC</i>



**Coupled with female and male NST (NH) thread, rocker lug, aluminum expansion ring couplings**

Size	Bowl	Length	Part #
1½"	1-13/16"	50'	<i>DM15-50RAF</i>
	1-13/16"	100'	<i>DM15100RAF</i>
2½"	2-7/8"	50'	<i>DM25-50RAF</i>
	2-7/8"	100'	<i>DM25100RAF</i>



**Coupled with female and male NPSH thread, rocker lug, aluminum expansion ring couplings**

Size	Bowl	Length	Part #
1½"	1-13/16"	50'	<i>DM15-50RAS</i>
	1-13/16"	100'	<i>DM15100RAS</i>
2"	2-5/16"	50'	<i>DM20-50RAS</i>
	2-5/16"	100'	<i>DM20100RAS</i>
2½"	2-7/8"	50'	<i>DM25-50RAS</i>
	2-7/8"	100'	<i>DM25100RAS</i>



**Coupled with female and male NPT thread, rocker lug, aluminum expansion ring couplings**

Size	Bowl	Length	Part #
1½"	1-13/16"	50'	<i>DM15-50RAT</i>
	1-13/16"	100'	<i>DM15100RAT</i>
2"	2-5/16"	50'	<i>DM20-50RAT</i>
	2-5/16"	100'	<i>DM20100RAT</i>
2½"	2-7/8"	50'	<i>DM25-50RAT</i>



**Coupled with female and male (C & E) global aluminum cam and groove, crimp sleeve**

Size	Bowl	Length	Part #
1½"	1-13/16"	50'	<i>DM15-50GAX</i>
	1-13/16"	100'	<i>DM15100GAX</i>
2"	2-5/16"	50'	<i>DM20-50GAX</i>
	2-5/16"	100'	<i>DM20100GAX</i>

**NEW**





## Nitrile Washdown Hose

**Application:**

- ideal for industrial, agricultural and construction washdown and discharge applications, not for firefighting

**Features:**

- resistant to weather and abrasion
- working pressure: **200 PSI**

**Coupled with NPSH female and male expansion ring couplings**

Size	Length	Part #
1½"	50'	<i>WDH15BK50RAS</i>
	100'	<i>WDH15BK100RAS</i>
2"	50'	<i>WDH20BK50RAS</i>
	100'	<i>WDH20BK100RAS</i>
2½"	50'	<i>WDH25BK50RAS</i>
	100'	<i>WDH25BK100RAS</i>

**Coupled with NST female and male expansion ring couplings**

Size	Length	Part #
1½"	50'	<i>WDH15BK50RAF</i>
	100'	<i>WDH15BK100RAF</i>
2½"	25'	<i>WDH25BK25RAF</i>
	50'	<i>WDH25BK50RAF</i>
	100'	<i>WDH25BK100RAF</i>

**Coupled with MNPT x MNPT male expansion ring couplings**

Size	Length	Part #
1½"	50'	<i>WDH15BK50RAT</i>
	100'	<i>WDH15BK100RAT</i>
2"	50'	<i>WDH20BK50RAT</i>
	100'	<i>WDH20BK100RAT</i>

## Nitrile Washdown Hose

**Application:**

- ideal for industrial, agricultural, chemical and construction washdown and discharge applications, not for firefighting

**Feature:**

- resistant to weather and abrasion

**Coupled with NPSH female and male King™ short shank couplings, crimp sleeve, aluminum shank with brass pin lug swivel nut**

Size	Length	Part #
1½"	25'	<i>WDH15BK25KAS</i>
	50'	<i>WDH15BK50KAS</i>
2"	25'	<i>WDH20BK25KAS</i>
	50'	<i>WDH20BK50KAS</i>
2½"	25'	<i>WDH25BK25KAS</i>
	50'	<i>WDH25BK50KAS</i>
3"	25'	<i>WDH30BK25KAS</i>
	50'	<i>WDH30BK50KAS</i>



**Coupled with NST (NH) female and male King™ short shank couplings, crimp sleeve, aluminum shank with brass pin lug swivel nut**

Size	Length	Part #
1½"	25'	<i>WDH15BK25KAF</i>
	50'	<i>WDH15BK50KAF</i>
2½"	25'	<i>WDH25BK25KAF</i>
	50'	<i>WDH25BK50KAF</i>




**Coupled with female and male (C & E) global aluminum cam and groove, crimp sleeve**

Size	Length	Part #
1½"	25'	<i>WDH15BK25GAX</i>
	50'	<i>WDH15BK50GAX</i>
2"	25'	<i>WDH20BK25GAX</i>
	50'	<i>WDH20BK50GAX</i>
2½"	25'	<i>WDH25BK25GAX</i>
	50'	<i>WDH25BK50GAX</i>
3"	25'	<i>WDH30BK25GAX</i>
	50'	<i>WDH30BK50GAX</i>
4"	25'	<i>WDH40BK25GAX</i>
	50'	<i>WDH40BK50GAX</i>



Nitrile Washdown Hose

Application:

- ideal for industrial, agricultural and construction washdown and discharge applications, not for firefighting 

Feature:

- resistant to weather and abrasion

Uncoupled



Size	Color	Bowl	Length	Working Pressure	Part #
1"	black	1¼"	50'	200 PSI	<i>WDH10BK50UC</i>
	black	1¼"	100'		<i>WDH10BK100UC</i>
	yellow	1¼"	100'		<i>WDH10Y100UC</i>
	blue	1¼"	100'		<i>WDH10BL100UC</i>
1½"	black	1-13/16"	50'		<i>WDH15BK50UC</i>
	black	1-13/16"	100'		<i>WDH15BK100UC</i>
2"	black	2-5/16"	50'		<i>WDH20BK50UC</i>
	black	2-5/16"	100'		<i>WDH20BK100UC</i>
2½"	black	2-13/16"	50'		<i>WDH25BK50UC</i>
	black	2-13/16"	100'		<i>WDH25BK100UC</i>
3"	black	3⅜"	50'	150 PSI	<i>WDH30BK50UC</i>
	black	3⅜"	100'		<i>WDH30BK100UC</i>
4"	black	4⅜"	50'		<i>WDH40BK50UC</i>
	black	4⅜"	100'		<i>WDH40BK100UC</i>
6"	black	6⅜"	50'		<i>WDH60BK50UC</i>
	black	6⅜"	100'		<i>WDH60BK100UC</i>

Hot Water Washdown Hose

Features:

- smooth extruded Chlorobutyl tube
- white, wrapped Hypalon cover (.075" thick) with braided textile reinforcement
- furnished with internal stainless steel spring guards at both ends
- ¾" male on one end and ½" male on the other
- working pressure: **250 PSI**
- maximum temperature: **200°F (93°C)**



Hose ID x Length	Part #
¾" x 25'	<i>SWDSHOSE25</i>
¾" x 50'	<i>SWDSHOSE50</i>

Pressure Washer Braided Hose

Feature:

- maximum temperature: **250°F (121°C)**



ID	Male Swivel Inlet	Male Swivel Outlet	Pressure Rating (PSI)	Length	Rubber Part #
¾"	¾"	¾"	<b>4,000</b>	50'	<i>AR503830SSP</i>

## Reelcraft® 5000 Series Spring Driven Hose Reels

**Features:**

- reel inlet  $\frac{3}{8}$ " NPTF
- all steel construction
- full shaft and swivel
- supplied standard with PVC hose
- maximum temperature: **150°F (66°C)**
- Compressed air hose should not be converted to oxygen service; they are often contaminated with an oil coating, which can react explosively when oxygen is introduced.

**with hose**

Hose ID	Hose Length	Service	Working Pressure PSI	Part #
$\frac{1}{4}$ "	50'	air / water	<b>300</b>	<b>5450LP</b>
$\frac{3}{8}$ "	35'	air / water	<b>300</b>	<b>5635LP</b>
	50'	air / water	<b>300</b>	<b>5650LP</b>

**without hose**

Hose Capacity	Service	Working Pressure PSI	Part #
50' of $\frac{1}{4}$ " or 35' of $\frac{3}{8}$ "	air / water	<b>500</b>	<b>5600LP</b>
50' of $\frac{3}{8}$ "	air / water	<b>500</b>	<b>5605LP</b>

## Reelcraft® 7000 Series Spring Driven Hose Reels

**Features:**

- all steel construction
- LP Low Pressure reels:
  - maximum temperature **150°F (66°C)**
  - reel inlet  $\frac{1}{2}$ " NPTF
  - PVC hose is standard
- MP Medium Pressure reels:
  - maximum temperature **210°F (99°C)**
  - reel inlet  $\frac{1}{2}$ " NPTF
  - SAE 100 R1T 1-wire braid hose available
- HP High Pressure reels:
  - maximum temperature **210°F (99°C)**
  - reel inlet  $\frac{1}{4}$ " NPTF
  - SAE 100 R2T 2-wire braid hose available

**with hose**

Hose ID	Hose Length	Service	Working Pressure PSI	Part #
$\frac{3}{8}$ "	70'	air / water	<b>300</b>	<b>7670LP</b>
$\frac{1}{2}$ "	50'	air / water	<b>300</b>	<b>7850LP</b>

**without hose**

Hose Capacity	Service	Working Pressure PSI	Part #
70' of $\frac{3}{8}$ " , 50' of $\frac{1}{2}$ "	air / water	<b>500</b>	<b>7800LP</b>
50' of $\frac{3}{8}$ " or 50' of $\frac{1}{2}$ "	oil	<b>3000</b>	<b>7800MP</b>
50' of $\frac{1}{4}$ " or 50' of $\frac{3}{8}$ "	grease	<b>5000</b>	<b>7600HP</b>



Reelcraft® 80000 Series Spring Driven Hose Reels

Hose & Tubing



see below for bumper stops, consult Dixon® for uses other than stated services

Features:

- reel inlet 3/4" NPTF
- five-in-one heat treated aluminum casting incorporates main shaft, ratchet, spring arbor and inlet/outlet plumbing in one-piece casting
- furnished standard with PVC hose
- maximum temperature is **150°F (66°C)** with hose
- maximum temperature is **210°F (99°C)** without hose

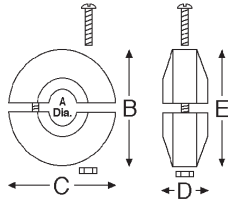
with hose

Hose ID	Hose Length	Service	Working Pressure PSI	Part #
1/2"	75'	air / water	<b>300</b>	<b>82075LP</b>
	100'	air / water	<b>300</b>	<b>82100LP</b>
3/4"	50'	air / water	<b>250</b>	<b>83050LP</b>

without hose

Hose Capacity	Service	PSI	Part #
50' of 3/4" or 100' of 1/2"	air / water	<b>500</b>	<b>83000LP</b>

Adjustable Hose Bumper Stops



Hose ID	Hose OD		Dimensions		Reel Series Used On	Part #
	From:	To:	B,C,E	D		
1/4"	.438"	.625"	2 1/2"	1 1/4"	5000	<b>1-HR1004A</b>
3/8"	.625"	.749"	2 1/2"	1 1/4"	5000	<b>1-HR1004</b>
3/8"	.625"	.749"	3"	1 1/4"	7000	<b>1-HR1004-3</b>
1/2" or 3/8" 2-wire	.750"	1.050"	3"	1 1/4"	7000	<b>2-HR1004-3</b>
3/4"	1.060"	1.300"	3"	1 1/4"	7000	<b>3-HR1004-3</b>
1/2"	.750"	1.050"	3 1/2"	2 7/8"	9000	<b>2-HR1005</b>
3/4"	1.060"	1.380"	3 1/2"	2 7/8"	9000	<b>3-HR1005</b>
1"	1.390"	1.550"	3 1/2"	2 7/8"	9000	<b>4-HR1005</b>

- not included on hose reels ordered without hose, must order separately

Reelcraft® 30,000 Manual Driven Hose Reels



Features:

- reel frame, spool and drum are fabricated from heavy gauge steel
- all bolted construction - no welds
- manual driven standard
- motor drive available
- 1/2" inlet

without hose

Hose ID	Hose Capacity	Spool Width	Working Pressure PSI	Part #
3/4"	100'	12"	1000	<b>C33112L</b>
1/2"	200'	12"	3000	<b>C32112M</b>

Hand Crank Hose Reel



Features:

- working PSI: **3,000 PSI**
- maximum temperature: **160°F (71°C)**
- 3/8" outlet, 3/8" inlet
- includes jumper hose, mounting bracket and crank handle
- holds 100' of 3/8" pressure hose

Steel  
Part #

**AR-REEL100**



Contractors EPDM Water Hose

Features:

- heavy duty, crush proof solid brass couplings with wrench grips
- spiral synthetic cord reinforcement
- black cover
- working pressure: **150 PSI**
- temperature range: **-20°F to 180°F (-29°C to 82°C)**

Size	EPDM Part #	Optional Qty
¾" x 50'	<b>CWH50</b>	3



Hose & Tubing

Rubber Vinyl Garden Hose

Features:

- extra tough, five-ply construction
- exclusive, soft textured, abrasion-resistant green cover
- dual reinforced, heavy-duty, flexibility, kink resistance
- combines durability of rubber, easy handling of vinyl
- SEAL-TITE® leakproof coupling
- working pressure: **400 PSI**
- temperature range: **0°F to 140°F (-18°C to 60°C)**

Size	Rubber Vinyl Part #	Optional Qty
⅝" x 25'	<b>SGH25</b>	5
⅝" x 50'	<b>SGH50</b>	5
⅝" x 75'	<b>SGH75</b>	3
⅝" x 100'	<b>SGH100</b>	3



Premium EPDM Hose

Features:

- professional grade reinforcement provides maximum strength
- heavy-duty flexibility
- ultimate kink resistance
- SEAL-TITE® leakproof coupling
- lead-free drinking water safe
- 40% lighter than standard rubber hose
- black cover
- working pressure: **400 PSI**
- temperature range: **-40°F to 165°F (-40°C to 74°C)**

Size	EPDM Part #	Optional Qty
⅝" x 50'	<b>PGH50</b>	4
⅝" x 100'	<b>PGH100</b>	4



Flexogen® Hose

Features:

- heavy-duty, crush resistant, full-flow brass couplings with a built-in washer for tight sealing
- coils and handles easily in all weather
- lightweight patented 8-ply construction
- maximum kink resistance
- flow guard plus protective collar resists kinks at faucet
- polished surface resists abrasions, stains and mildew
- grey cover

Size	Flexogen® Part #
⅝" x 25'	<b>FGH25</b>
⅝" x 50'	<b>FGH50</b>



Perfect Water Hose

Hose & Tubing



Features

- for residential and industrial use
- lightweight, easy handling
- heavy duty male and female garden hose fittings
- blue cover
- polypropylene double helix construction with TPE cover
- flexible and kink-free
- working pressure: **100 PSI at 70°F (21°C)**
- burst pressure: **300 PSI at 70°F (21°C)**
- temperature range: **-20°F to 158°F (-29°C to 70°C)**

Size	Part #
5/8" x 25'	<b>PWH25</b>
5/8" x 50'	<b>PWH50</b>
5/8" x 100'	<b>PWH100</b>

Premium Flexzilla® Garden Hose

Features:

- temperature range: **-40°F to 150°F (-40°C to 66°C)**
- anodized aircraft aluminum fittings 3/4" - 1 1/2" GHT fittings on both ends of hose
- kink resistant under pressure
- no memory - lays flat, coils easily
- abrasion resistant
- rugged bend restrictors
- lightweight
- lime green cover



Size	Hybrid Polymer Part #
5/8" x 50'	<b>KRH50</b>
5/8" x 75'	<b>KRH75</b>
5/8" x 100'	<b>KRH100</b>

Top Level PVC Hose

Features:

- heavy-duty 3/4" brass couplings
- kink resistant
- green cover
- working pressure: **100 PSI**
- temperature range: **15°F to 150°F (-9°C to 66°C)**



Size	PVC Part #
5/8" x 50'	<b>GGH50</b>
5/8" x 75'	<b>GGH75</b>

Hot Water Rubber Reinforced Hose

Features:

- industrial style reinforcing for flexibility, high burst strength
- extra heavy-duty, crush-proof, machined brass couplings
- maximum wear, abrasion-resistant red cover
- lead-free drinking water safe
- 40% lighter than standard rubber hose
- withstands extensive hot water up to **-40°F to 165°F (-40°C to 74°F)**
- working pressure: **400 PSI**



Size	Rubber Part #	Optional Qty
5/8" x 50'	<b>HWH50</b>	4
3/4" x 50'	<b>HWH50-75</b>	4

N

N



Marine, Camper, Patio & Pool Hose

**Features:**

- lightweight to handle, easy to store
- USFDA - approved tube materials for food contact use
- nickel plated couplings
- lead-free drinking water safe
- white cover
- working pressure: **300 PSI** at ambient temperature **70°F (21°C)**



Hose & Tubing

Size	Part #	Optional Qty
5/8" x 50'	<b>MCH50</b>	5

Country Club® RT Hose

**Features:**

- for golf courses, parks, nurseries
- premium PVC for high strength, flexibility
- lightweight, easy handling
- industrial knit reinforcing for kink resistance
- heavy duty 1" NPSH brass couplings
- green cover
- working pressure: **150 PSI** at ambient temperature **70°F (21°C)**
- burst pressure: **450 PSI**



Size	PVC Part #	Optional Qty
1" x 50'	<b>CCH50</b>	2

## PVC Tubing

**Application:**

- for use with standard shank fittings in low pressure liquid and pneumatic applications

**domestic****Features:**

- for non-critical hospital use such as suction and draining
- made from non-toxic ingredients conforming to FDA and 3A standards
- shipped in individually boxed bundles, *sold only in lengths shown below*
- maximum temperature: **175°F (79°C)**



Size		Working Pressure PSI @ 72°F (22°C)	Length	Clear PVC Part #
OD	ID			
5/16"	3/16"	55	100'	CL0305
3/8"	1/4"	55	100'	CL0406
1/2"	1/4"	70	100'	CL0408
7/16"	5/16"	50	100'	CL0507
1/2"	3/8"	40	100'	CL0608
5/8"	3/8"	65	100'	CL0610
5/8"	1/2"	30	100'	CL0810
3/4"	1/2"	45	100'	CL0812
7/8"	5/8"	40	100'	CL1014
1"	3/4"	35	100'	CL1216
1-1/4"	1"	28	100'	CL1620
1-3/4"	1-1/4"	45	50'	CL2028-50
2"	1-1/2"	40	50'	CL2432-50

**imported****Features:**

- temperature range: **14°F to 149°F (-10°C to 65°C)**
- shipped in bundles wrapped with PVC film, *sold only in lengths shown below*



Size		Working Pressure PSI @ 72°F (22°C)	Length	Clear PVC Part #
OD	ID			
3/8"	1/4"	50	100'	ICL0406
1/2"	3/8"	35	100'	ICL0608
5/8"	1/2"	35	100'	ICL0810
3/4"	1/2"	50	100'	ICL0812
1"	3/4"	35	100'	ICL1216
1 1/4"	1"	30	100'	ICL1620
2"	1 1/2"	15	50'	ICL2432

## PVC Braided Tubing

## Application:

- for use with standard shank fittings in low pressure liquid and pneumatic applications

## domestic

## Features:

- high grade tensile strength polyester yarn reinforcement
- temperature range: **27°F to 150°F (-3°C to 66°C)**
- shipped in coils, *sold only in lengths shown below*

Size		Working Pressure PSI @ 72°F (22°C)	Length	Clear PVC Part #
OD	ID			
.394	3/16"	<b>315</b>	300'	<b>BR0306</b>
.435	1/4"	<b>315</b>	300'	<b>BR0446</b>
.625	3/8"	<b>265</b>	300'	<b>BR0609</b>
.728	1/2"	<b>215</b>	300'	<b>BR0812</b>
.906	5/8"	<b>200</b>	300'	<b>BR1014</b>
1.024	3/4"	<b>150</b>	300'	<b>BR1218</b>
1.732	1-1/4"	<b>110</b>	100'	<b>BR2027</b>
1.950	1-1/2"	<b>90</b>	100'	<b>BR2431</b>



## imported

## Features:

- for various machine tools and the transportation of chemicals
- temperature range: **14°F to 149°F (-10°C to 65°C)**
- shipped in bundles wrapped with PVC film, *sold only in lengths shown below*

Size		Working Pressure PSI @ 72°F (22°C)	Length	Clear PVC Part #
OD	ID			
1/2"	1/4"	<b>142</b>	300'	<b>IBR0446</b>
5/8"	3/8"	<b>114</b>	300'	<b>IBR0609</b>
3/4"	1/2"	<b>100</b>	300'	<b>IBR0812</b>
1-1/16"	3/4"	<b>71</b>	300'	<b>IBR1218</b>
1-5/16"	1"	<b>71</b>	200'	<b>IBR1621</b>



## D.O.T. Air Brake Tubing Rolls

## Features:

- meets Department of Transportation FMVSS-106 nylon material conforming to SAE J844
- working pressure: **150 PSI**
- temperature range: **-40°F to 200°F (-40°C to 93°C)**
- tubing cutters sold on page 892

Tube Size	Tubing Color	Length	Nylon Part #
3/16"	black	100'	<b>J844-03-BL-100</b>
1/4"	black	100'	<b>J844-04-BL-100</b>
	blue	100'	<b>J844-04-B-100</b>
	red	100'	<b>J844-04-R-100</b>
3/8"	black	100'	<b>J844-06-BL-100</b>
	blue	100'	<b>J844-06-B-100</b>
	red	100'	<b>J844-06-R-100</b>
1/2"	black	100'	<b>J844-08-BL-100</b>
5/8"	black	100'	<b>J844-10-BL-100</b>
3/4"	black	100'	<b>J844-12-BL-100</b>



### Polyurethane Tubing

**Features:**

- naturally transparent
- temperature range: **-40°F to 165°F (-40°C to 74°C)**
- for use with the push-in fittings sold on pages 342-350
- excellent memory, flexibility and resistance to kinking
- good resistance to fuels and oils
- low gas and vapor permeability
- high compressive strength
- low compressive set and extractability levels
- outstanding abrasion resistance



Size		Wall	Working Pressure	Length	Polyurethane Part #
OD	ID	Thickness	PSI @ 75°F (24°C)		
1/8"	.062"	.0295"	<b>255</b>	250'	<b>04063</b>
5/32"	.094"	.0315"	<b>210</b>	100'	<b>05094</b>
1/4"	.160"	.0450"	<b>175</b>	100'	<b>08160</b>
3/8"	.245"	.0650"	<b>170</b>	100'	<b>12250</b>
1/2"	.320"	.0900"	<b>175</b>	50'	<b>16320</b>

### Polyethylene Tubing

**Features:**

- designed for FDA applications, complies with 21CFR 177.1520 (c) food contact
- temperature range: **-50°F to 140°F (-46° to 60°C)**
- for use with the push-in fittings sold on pages 342-350
- flexible, lightweight, low-density polyethylene (LLDPE) tubing
- for use with plastic or metal inserts with outer sleeve; ferrule or clamps
- formulated to resist stress cracking



Size		Wall	Working Pressure	Length	Tubing Color	Polyethylene Part #
OD	ID	Thickness	PSI @ 75°F (24°C)			
1/4"	.125"	.062"	<b>350</b>	100'	natural	<b>0804</b>
1/4"	.170"	.040"	<b>150</b>	100'	natural	<b>0817</b>
1/4"	.170"	.040"	<b>150</b>	100'	blue	<b>0817BL100</b>
3/8"	.250"	.062"	<b>150</b>	100'	natural	<b>1208</b>
1/2"	.375"	.062"	<b>125</b>	100'	natural	<b>1612</b>

Size		Wall	Working Pressure	Length	Tubing Color	Polyethylene Part #
OD	ID	Thickness	PSI @ 75°F (24°C)			
1/4"	.170"	.040"	<b>150</b>	500'	blue	<b>0817BL</b>
1/4"	.170"	.040"	<b>150</b>	500'	black	<b>0817BR</b>
1/4"	.170"	.040"	<b>150</b>	500'	natural	<b>0817CR</b>
3/8"	.250"	.062"	<b>150</b>	500'	black	<b>1208BR</b>
3/8"	.250"	.062"	<b>150</b>	500'	natural	<b>1208CR</b>

### Nylon Tubing

**Features:**

- naturally transparent
- temperature range: **-40°F to 180°F (-40°C to 82°C)**
- for use with the push-in fittings sold on pages 342-350
- recommended for applications requiring low density, lightweight toughness, flexibility and chemical resistance
- packaged in plastic bags



Size		Wall	Working Pressure	Length	Nylon Part #
OD	ID	Thickness	PSI @ 75°F (24°C)		
1/8"	.093"	.016"	<b>270</b>	100'	<b>04093</b>
5/32"	.106"	.025"	<b>350</b>	100'	<b>05106</b>
3/16"	.138"	.025"	<b>260</b>	100'	<b>06138</b>
1/4"	.170"	.040"	<b>330</b>	100'	<b>08170</b>
1/4"	.180"	.035"	<b>290</b>	100'	<b>08180</b>
3/8"	.275"	.050"	<b>250</b>	100'	<b>12275</b>
1/2"	.375"	.062"	<b>240</b>	100'	<b>16375</b>

Tubing cutters sold on page 892

## Legris Nylon Tubing

**Application:**

- ideal for many industrial applications

**Features:**

- chemical, humidity and abrasive resistant
- semi rigid
- temperature range: **-65°F to 200°F (-54°C to 93°C)**



Size		Wall	Working Pressure	Length	Natural Nylon	Black Nylon	Blue Nylon
OD	ID	Thickness	PSI @ 75°F (24°C)		Part #	Part #	Part #
1/8"	.093"	.016"	250	50'	1091P5300	1091P5301	1091P5304
5/32"	.106"	.025"	300	50'	1091P0400	1091P0401	1091P0404
3/16"	.138"	.025"	250	50'	1091P5500	1091P5501	---
1/4"	.170"	.040"	300	50'	1091P5600	1091P5601	1091P5604
5/16"	.233"	.040"	250	50'	1091P0800	1091P0801	1091P0804
3/8"	.275"	.050"	250	50'	1091P6000	1091P6001	1091P6004
1/2"	.375"	.062"	250	50'	1091P6200	1091P6201	1091P6204

Size		Wall	Working Pressure	Length	Natural Nylon	Black Nylon	Blue Nylon
OD	ID	Thickness	PSI @ 75°F (24°C)		Part #	Part #	Part #
1/8"	.093"	.016"	250	100'	1094P5300	1094P5301	1094P5304
5/32"	.106"	.025"	300	100'	1094P0400	1094P0401	1094P0404
3/16"	.138"	.025"	250	100'	1094P5500	1094P5501	---
1/4"	.170"	.040"	300	100'	1094P5600	1094P5601	1094P5604
5/16"	.233"	.040"	250	100'	1094P0800	1094P0801	1094P0804
3/8"	.275"	.050"	250	100'	1094P6000	1094P6001	1094P6004
1/2"	.375"	.062"	250	100'	1094P6200	1094P6201	1094P6204

## Polyurethane - 95 Durometer Tubing

**Application:**

- good for applications where space is tight; for applications where tubing will be exposed, black tubing is recommended

**Features:**

- high flexibility and a small bend radius
- temperature range: **-40°F to 165°F (-40°C to 74°C)**



Size		Wall	Working Pressure	Length	Clear Polyurethane	Black Polyurethane	Blue Polyurethane
OD	ID	Thickness	PSI @ 75°F (24°C)		Part #	Part #	Part #
1/8"	.062"	.031"	233	50'	1091U53R00	1091U5301	1091U5304
5/32"	.093"	.031"	176	50'	1091U04R00	1091U0401	1091U0404
1/4"	.160"	.045"	148	50'	1091U56R00	1091U5601	1091U5604
5/16"	.216"	.049"	148	50'	1091U08R00	1091U0801	1091U0804
3/8"	.250"	.066"	147	50'	1091U60R00	1091U6001	1091U6004
1/2"	.320"	.090"	140	50'	1091U62R00	1091U6201	1091U6204

Size		Wall	Working Pressure	Length	Clear Polyurethane	Black Polyurethane	Blue Polyurethane
OD	ID	Thickness	PSI @ 75°F (24°C)		Part #	Part #	Part #
1/8"	.062"	.031"	233	100'	1094U53R00	1094U5301	1094U5304
5/32"	.093"	.031"	176	100'	1094U04R00	1094U0401	1094U0404
1/4"	.160"	.045"	148	100'	1094U56R00	1094U5601	1094U5604
5/16"	.216"	.049"	148	100'	1094U08R00	1094U0801	1094U0804
3/8"	.250"	.066"	147	100'	1094U60R00	1094U6001	1094U6004
1/2"	.320"	.090"	140	100'	1094U62R00	1094U6201	1094U6204

## Fluoropolymer FEP 140 Tubing

**Features:**

- FDA compliant materials
- provides excellent resistance to aggressive and corrosive agents and high temperatures
- maximum temperature: **300°F (149°C)**

Size		Wall	Working Pressure	Length	Clear Fluoropolymer
OD	ID	Thickness	PSI @ 72°F (22°C)		Part #
1/8"	.062"	.031"	500	25'	1092T5300
1/4"	.170"	.031"	165	25'	1092T5600
3/8"	.300"	.062"	249	25'	1092T6000
1/2"	.420"	.062"	165	25'	1092T6200



Coil-Chief Self-Storing Air Hose

Hose & Tubing



**hose - fittings included**

**Feature:**

- supplied with swivel on one end

Hose ID	Length	Male NPT	Working Pressure @ 70°F (21°C)	Nylon Part #
1/4"	12'	1/4"	185	CC1412
	25'	1/4"	185	CC1425
	50'	1/4"	185	CC1450
3/8"	25'	3/8"	165	CC3825
	50'	3/8"	165	CC3850
1/2"	25'	1/2"	170	CC1225
	50'	1/2"	170	CC1250

**bulk hose - no fittings**

- need assembly kits below for ends



Hose ID	Length	Nylon Part #
1/4"	100'	CC14100B
3/8"	100'	CC38100B
1/2"	100'	CC12100B

**Assembly Kits**

- kit includes: fittings, nut, insert, ferrule and spring guard



RK110 assembly kit

Size	Fitting Type	Part #
1/4"	rigid male	RK090
1/4"	swivel male	RK092
3/8"	rigid male	RK110
3/8"	swivel male	RK112
1/2"	rigid male	RK118
1/2"	swivel male	RK119



**Polyurethane Self-Storing Air Hose  
(fittings included)**

**Features:**

- extremely flexible - resists kinking
- impervious to abrasions, heat and oil
- superior elasticity and coil memory
- both ends swivel

Hose ID	Length	Male NPT	Working Pressure (PSI)	Polyurethane Part #
1/4"	10'	1/4"	145	PU1410
	15'	1/4"	145	PU1415
	25'	1/4"	145	PU1425
3/8"	15'	3/8"	135	PU3815
	20'	3/8"	135	PU3820
	25'	3/8"	135	PU3825
	50'	3/8"	135	PU3850
1/2"	15'	1/2"	155	PU1215



Hose & Tubing

**Repair Kits**

Size	Tubing Size		Type	Brass Part #
	ID	OD		
1/4"	1/4"	3/8"	swivel male	PSM0404
	3/8"	9/16"	swivel male	PSM0604



**Polyurethane Air Hose  
(fittings included)**

**Features:**

- durable and lightweight
- nylon-reinforced braid allows for higher working pressure
- excellent flexibility
- oil resistant
- durometer: Shore A 85
- temperature range: -40°F to 155°F (-40°C to 68°C)
- working pressure: 210 PSI at 70°F (21°C)

Hose ID	Length	Male NPT	Polyurethane Part #
1/4"	50'	1/4"	450-4S
3/8"	50'	1/4"	650-4S
	50'	3/8"	650-6S





PVC Tubing and Hose Cutters

Hose & Tubing



**Features:**

- rugged construction cuts up to 3/4" tubing or hose
- corrosion resistant hardened steel blade ensures straight, crisp cuts for optimum fit

---

Part #

---

**TC97**  
**TC97RB**

**Features:**

- cuts low pressure fabric reinforced hose up to 1" OD
- reversible blade




---

Part #

---

**HC90**  
**HC90RB** (replacement blade)

**Features:**

- cuts hose and tubing up to 1 7/8" OD
- tough fiberglass reinforced handle
- stainless steel blade




---

Part #

---

**LHC95**  
**LHC95RB** (replacement blade)

## Nominal

**Application:**

- suitable for conveying chemicals, foods, pharmaceuticals, oils, gas, fuels and steam

**Features:**

- nominal standard smooth bore PTFE hose meets SAE100R14
- size range: dash-3 to dash-20
- temperature range: **-100°F to 450°F (-73°C to 232°C)**
- 304 stainless braided
- extruded or heat shrink coverings are available upon request
- boxed coils (bulk, per ft. lengths and full reels available from Maryland and Texas call Dixon® at 888.226.4673)
- for use with PTFE fittings on the following page

**Nominal Smooth Bore PTFE Hose  
(fittings not included)**



Nominal Size	Average ID	Length in Feet	Dash Size	Working Pressure	Burst Pressure	White, non-conductive Part #	Black, conductive Part #
3/16"	.125"	100'	dash-3	<b>3000 PSI</b>	12000	---	<b>BSB-03-100</b>
1/4"	.187"	100'	dash-4	<b>3000 PSI</b>	12000	<b>WSB-04-100</b>	<b>BSB-04-100</b>
5/16"	.250"	100'	dash-5	<b>3000 PSI</b>	12000	<b>WSB-05-100</b>	<b>BSB-05-100</b>
3/8"	.312"	100'	dash-6	<b>2500 PSI</b>	10000	<b>WSB-06-100</b>	<b>BSB-06-100</b>
3/8T"	.375"	100'	dash-6T	<b>2250 PSI</b>	9000	<b>WSB-06T-100</b>	<b>BSB-06T-100</b>
1/2"	.405"	100'	dash-8	<b>2000 PSI</b>	8000	<b>WSB-08-100</b>	<b>BSB-08-100</b>
5/8"	.500"	100'	dash-10	<b>1750 PSI</b>	7000	<b>WSB-10-100</b>	<b>BSB-10-100</b>
3/4"	.625"	100'	dash-12	<b>1500 PSI</b>	6000	<b>WSB-12-100</b>	<b>BSB-12-100</b>
3/4T"	.750"	50'	dash-12T	<b>1100 PSI</b>	4400	<b>WSB-12T-50</b>	<b>BSB-12T-50</b>
1"	.875"	50'	dash-16	<b>1000 PSI</b>	4000	<b>WSB-16-50</b>	<b>BSB-16-50</b>

**Nominal Smooth Bore PTFE Hose Per Foot Length  
(fittings not included)**

Nominal Size	Average ID	Dash Size	White, non-conductive Part #	Black, conductive Part #
3/16"	.125"	dash-3	<b>WSB-03</b>	<b>BSB-03</b>
1/4"	.187"	dash-4	<b>WSB-04</b>	<b>BSB-04</b>
5/16"	.250"	dash-5	<b>WSB-05</b>	<b>BSB-05</b>
3/8"	.312"	dash-6	<b>WSB-06</b>	<b>BSB-06</b>
3/8T"	.375"	dash-6T	<b>WSB-06T</b>	<b>BSB-06T</b>
1/2"	.405"	dash-8	<b>WSB-08</b>	<b>BSB-08</b>
5/8"	.500"	dash-10	<b>WSB-10</b>	<b>BSB-10</b>
3/4"	.625"	dash-12	<b>WSB-12</b>	<b>BSB-12</b>
3/4T"	.750"	dash-12T	<b>WSB-12T</b>	<b>BSB-12T</b>
1"	.875"	dash-16	<b>WSB-16</b>	<b>BSB-16</b>
1T"	1.000"	dash-16T	<b>WSB-16T</b>	<b>BSB-16T</b>
1-1/4"	1.125"	dash-20Z	<b>WSB-20Z<sup>1</sup></b>	<b>BSB-20Z<sup>1</sup></b>

<sup>1</sup> double braided

- per feet lengths are available from Maryland and Texas only, call Dixon® at 888.226.4673

Nominal Fittings

Crimp Collars for all nominal fittings are included

- for use with PTFE hoses on the previous pages

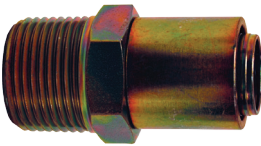
Hose & Tubing



Female JIC Swivels

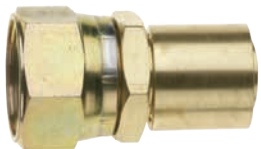
Hose Size	Thread Size	Carbon Steel Part #	304 Stainless Steel Part #	Brass Part #
dash 4	¼"	<i>FJC-04-04</i>	<i>FJS-04-04</i>	<i>FJB-04-04</i>
dash 5	5/16"	<i>FJC-05-05</i>	<i>FJS-05-05</i>	<i>FJB-05-05</i>
dash 6	¾"	<i>FJC-06-06</i>	<i>FJS-06-06</i>	<i>FJB-06-06</i>
dash 8	½"	<i>FJC-08-08</i>	<i>FJS-08-08</i>	<i>FJB-08-08</i>
dash 10	⅝"	<i>FJC-10-10</i>	<i>FJS-10-10</i>	<i>FJB-10-10</i>
dash 12	¾"	<i>FJC-12-12</i>	<i>FJS-12-12</i>	<i>FJB-12-12</i>
dash 16	1"	<i>FJC-16-16</i>	<i>FJS-16-16</i>	<i>FJB-16-16</i>
dash 20Z	1¼"	<i>FJC-20Z-20</i>	<i>FJS-20Z-20</i>	<i>FJB-20Z-20</i>

Rigid Male Pipe Fittings



Hose Size	Thread Size	Carbon Steel Part #	304 Stainless Steel Part #	Brass Part #
dash 4	⅛"	<i>MPC-04-02</i>	<i>MPS-04-02</i>	<i>MPB-04-02</i>
dash 4	¼"	<i>MPC-04-04</i>	<i>MPS-04-04</i>	<i>MPB-04-04</i>
dash 5	¼"	<i>MPC-05-04</i>	<i>MPS-05-04</i>	<i>MPB-05-04</i>
dash 6	¼"	<i>MPC-06-04</i>	<i>MPS-06-04</i>	<i>MPB-06-04</i>
dash 6	⅜"	<i>MPC-06-06</i>	<i>MPS-06-06</i>	<i>MPB-06-06</i>
dash 8	⅜"	<i>MPC-08-06</i>	<i>MPS-08-06</i>	<i>MPB-08-06</i>
dash 8	½"	<i>MPC-08-08</i>	<i>MPS-08-08</i>	<i>MPB-08-08</i>
dash 10	½"	<i>MPC-10-08</i>	<i>MPS-10-08</i>	<i>MPB-10-08</i>
dash 12	¾"	<i>MPC-12-12</i>	<i>MPS-12-12</i>	<i>MPB-12-12</i>
dash 16	1"	<i>MPC-16-16</i>	<i>MPS-16-16</i>	<i>MPB-16-16</i>
dash 20Z	1¼"	<i>MPC-20Z-20</i>	<i>MPS-20Z-20</i>	<i>MPB-20Z-20</i>

Female SAE Swivels



Hose Size	Thread Size	Carbon Steel Part #	Brass Part #
dash 6	⅜"	<i>SAEC-06-06</i>	<i>SAEB-06-06</i>
dash 12	¾"	<i>SAEC-12-12</i>	<i>SAEB-12-12</i>

Nominal PTFE Hose Insertion Tool and Dies

Feature:

- takes the hassle out of installing crimp collars onto braided PTFE Hose; with a few simple steps even challenging braid can be easily and safely inserted into the crimp collar



Size	Description	Part #
---	tool / die holder	<i>ITDH</i>
dash 4	die	<i>ITD-04</i>
dash 5	die	<i>ITD-05</i>
dash 6	die	<i>ITD-06</i>
dash 8	die	<i>ITD-08</i>
dash 10	die	<i>ITD-10</i>
dash 12	die	<i>ITD-12</i>
dash 16	die	<i>ITD-16</i>

## Nominal PTFE Hose Insertion Tool and Dies

**Feature:**

- takes the hassle out of installing crimp collars onto braided PTFE Hose; with a few simple steps even challenging braid can be easily and safely inserted into the crimp collar

Description	Size	Part #
tool / die holder	---	<b>ITDH</b>
die	dash 4	<b>ITD-04</b>
die	dash 5	<b>ITD-05</b>
die	dash 6	<b>ITD-06</b>
die	dash 8	<b>ITD-08</b>
die	dash 10	<b>ITD-10</b>
die	dash 12	<b>ITD-12</b>
die	dash 16	<b>ITD-16</b>



## Nominal Smooth Bore PTFE Hose Fittings

Crimp Collars for all nominal fittings are included

- for use with PTFE hoses on pages 893 - 896

## Tube End Stubs

Hose Size	Tube Size	304 Stainless Steel Part #
dash 4	¼"	<b>TES-04-04</b>
dash 6	⅜"	<b>TES-06-06</b>
dash 8	½"	<b>TES-08-08</b>
dash 12	¾"	<b>TES-12-12</b>
dash 16	1"	<b>TES-16-16</b>



## 45° FJIC Fittings

Hose Size	Thread Size	304 Stainless Steel Part #	Carbon Steel Part #
dash 3	3/16"	<b>FJS45-03-03</b>	<b>FJC45-03-03</b>
dash 4	¼"	<b>FJS45-04-04</b>	<b>FJC45-04-04</b>
dash 5	5/16"	<b>FJS45-05-05</b>	<b>FJC45-05-05</b>
dash 6	⅜"	<b>FJS45-06-06</b>	<b>FJC45-06-06</b>
dash 8	½"	<b>FJS45-08-08</b>	<b>FJC45-08-08</b>
dash 10	⅝"	<b>FJS45-10-10</b>	<b>FJC45-10-10</b>
dash 12	¾"	<b>FJS45-12-12</b>	<b>FJC45-12-12</b>
dash 16	1"	<b>FJS45-16-16</b>	<b>FJC45-16-16</b>
dash 20Z	1¼"	<b>FJS45-20Z-20</b>	<b>FJC45-20Z-20</b>



## 90° FJIC Fittings

Hose Size	Thread Size	304 Stainless Steel Part #	Carbon Steel Part #
dash 3	3/16"	<b>FJS90-03-03</b>	<b>FJC90-03-03</b>
dash 4	¼"	<b>FJS90-04-04</b>	<b>FJC90-04-04</b>
dash 5	5/16"	<b>FJS90-05-05</b>	<b>FJC90-05-05</b>
dash 6	⅜"	<b>FJS90-06-06</b>	<b>FJC90-06-06</b>
dash 8	½"	<b>FJS90-08-08</b>	<b>FJC90-08-08</b>
dash 10	⅝"	<b>FJS90-10-10</b>	<b>FJC90-10-10</b>
dash 12	¾"	<b>FJS90-12-12</b>	<b>FJC90-12-12</b>
dash 16	1"	<b>FJS90-16-16</b>	<b>FJC90-16-16</b>
dash 20Z	1¼"	<b>FJS90-20Z-20</b>	<b>FJC90-20Z-20</b>

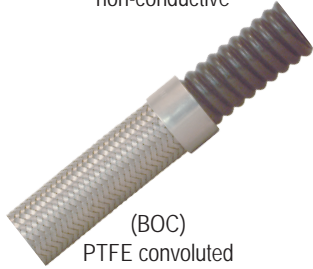


True ID Hose

Hose & Tubing



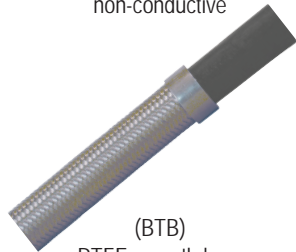
(WOC)  
PTFE convoluted  
non-conductive



(BOC)  
PTFE convoluted  
conductive



(WTB)  
PTFE smooth bore  
non-conductive



(BTB)  
PTFE smooth bore  
conductive

**Application:**

- suitable for conveying acids, chemicals, foods and pharmaceuticals

**Features:**

- size range: ¼" to 2"
- temperature range: -100°F to 450°F (-73°C to 232°C)
- boxed coils (bulk, per ft. lengths and full reels available from Maryland and Texas, call Dixon® at 888.226.4673)
- 304 stainless braided
- other braids including synthetic, extruded and heat shrink coverings are available upon request
- for use with PTFE fittings on pages 894 - 895

**True ID Open Pitch Convoluted Hose**  
(fittings not included)

Size	Working Pressure PSI	Burst Pressure PSI	White, non-conductive Part #	Black, conductive Part #
¼"	1740	6960	WOC-T04	BOC-T04
⅜"	1850	7400	WOC-T06	BOC-T06
½"	1500	6000	WOC-T08	BOC-T08
¾"	1300	5200	WOC-T12	BOC-T12
1"	1000	4000	WOC-T16	BOC-T16
1¼"	900	3600	WOC-T20	BOC-T20
1½"	700	2800	WOC-T24	BOC-T24
2"	500	2000	WOC-T32	BOC-T32

**Heavy Wall True ID Smooth Bore Hose**  
(fittings not included)

Size	Working Pressure PSI	Burst Pressure PSI	White, non-conductive Part #	Black, conductive Part #
¼"	3000	12000	WTB-T04	BTB-T04
⅜"	2250	9000	WTB-T06	BTB-T06
½"	1500	6000	WTB-T08	BTB-T08
¾"	1100	4400	WTB-T12	BTB-T12
1"	900	3600	WTB-T16	BTB-T16
1"	1650	6600	WTB-T16Z	BTB-T16Z
1¼"	1000	4000	WTB-T20Z	BTB-T20Z
1½"	1100	4000	WTB-T24Z	BTB-T24Z

True ID Fittings

Crimp collars for all True ID fittings are sold separately

**Female JIC Swivels**



Size	Carbon Steel Part #	316 Stainless Steel Part #
¼"	FJC-T04	FJR-T04
⅜"	FJC-T06	FJR-T06
½"	FJC-T08	FJR-T08
¾"	FJC-T12	FJR-T12
1"	FJC-T16	FJR-T16
1¼"	FJC-T20	FJR-T20
1½"	FJC-T24	FJR-T24
2"	FJC-T32	FJR-T32

**Rigid Male Pipe Fittings**



Size	Carbon Steel Part #	316 Stainless Steel Part #
¼"	MPC-T04	MPR-T04
⅜"	MPC-T06	MPR-T06
½"	MPC-T08	MPR-T08
¾"	MPC-T12	MPR-T12
1"	MPC-T16	MPR-T16
1¼"	MPC-T20	MPR-T20
1½"	MPC-T24	MPR-T24
2"	MPC-T32	MPR-T32

## True ID Fittings

## PTFE Hose Fittings

- for use with PTFE hoses on pages 893 - 896

## Sanitary Tri-Clamps

Hose Size	Clamp Size	316 Stainless Steel Part #
1/2"	1"	<b>TCR-T08-16</b>
1/2"	1 1/2"	<b>TCR-T08-24</b>
3/4"	1 1/2"	<b>TCR-T12-24</b>
1"	1"	<b>TCR-T16-16</b>
1"	1 1/2"	<b>TCR-T16-24</b>
1 1/2"	1 1/2"	<b>TCR-T24-24</b>
2"	2"	<b>TCR-T32-32</b>



## Mini Sanitary Tri-Clamps

Size	316 Stainless Steel Part #
1/2"	<b>TCMR-T08</b>
3/4"	<b>TCMR-T12</b>



- contact Dixon® at 888.226.4673 for GSM and PTFE hose assemblies

## Flange Retainers

## Feature:

- for use with lap joint flanges, see pages 688 - 689

Size	316 Stainless Steel Part #	316 Stainless Steel PTFE Encapsulated Part #
1/2"	<b>FRR-T08</b>	---
3/4"	<b>FRR-T12</b>	<b>FRRE-T12</b>
1"	<b>FRR-T16</b>	<b>FRRE-T16</b>
1 1/4"	<b>FRR-T20</b>	<b>FRRE-T20</b>
1 1/2"	<b>FRR-T24</b>	<b>FRRE-T24</b>
2"	<b>FRR-T32</b>	<b>FRRE-T32</b>

Crimp Collars  
Convuluted Crimp Collar

## Features:

- for open pitch convuluted PTFE hose only
- new design for ease of installation and improved appearance of finished crimp

Size	Carbon Steel Part #	304 Stainless Steel Part #
1/4"	<b>CSC-T04-1</b>	<b>SSC-T04-1</b>
3/8"	<b>CSC-T06-1</b>	<b>SSC-T06-1</b>
1/2"	<b>CSC-T08-1</b>	<b>SSC-T08-1</b>
3/4"	<b>CSC-T12-1</b>	<b>SSC-T12-1</b>
1"	<b>CSC-T16-1</b>	<b>SSC-T16-1</b>
1 1/4"	<b>CSC-T20-1</b>	<b>SSC-T20-1</b>
1 1/2"	<b>CSC-T24-1</b>	<b>SSC-T24-1</b>
2"	<b>CSC-T32-1</b>	<b>SSC-T32-1</b>



## Features:

- for True ID smooth bore PTFE hose only
- new design for ease of installation and improved appearance of finished crimp

Size	Carbon Steel Part #	304 Stainless Steel Part #
1/4"	<b>CSC-T04-2</b>	<b>SSC-T04-2</b>
3/8"	<b>CSC-T06-2</b>	<b>SSC-T06-2</b>
1/2"	<b>CSC-T08-2</b>	<b>SSC-T08-2</b>
3/4"	<b>CSC-T12-2</b>	<b>SSC-T12-2</b>
1"	<b>CSC-T16-2</b>	<b>SSC-T16-2</b>
1 1/4"	<b>CSC-T20-2</b>	<b>SSC-T20-2</b>
1 1/2"	<b>CSC-T24-2</b>	<b>SSC-T24-2</b>



Contact Dixon® at 888.226.4673 for assembly instructions and crimp recommendations.



## Spiral Hose and Cable Protection

**Application:**

- used in mining, quarrying, forestry, offshore industries and most hydraulic hose applications

**Features:**

- crush and high abrasion resistance
- chemical and UV ray resistant
- self-lubricating to reduce hose wear
- easy to install on-site
- smooth radius on all edges
- can be used on single or multiple hose bundles
- spiral guard ID is equal to the guard at rest
- sold in coil lengths only



**Flame Retardant Product**

**Features:**

- approved by MSHA #1C-264/0
- tested to: AS 2600, AS1180.10B, AS 1180.13A
- flame retardant, self extinguishing, anti static
- temperature range: **-148°F to 262°F (-100°C to 128°C)**
- color: black

Nominal ID	Coil Length	OD Range (inches)	Part #
0.45"	66'	.47" to .86"	<i>FRSGX16</i>
0.55"	66'	.62" to 1.06"	<i>FRSGX20</i>
0.80"	66'	.86" to 1.37"	<i>FRSGX25</i>
1.00"	66'	1.06" to 1.69"	<i>FRSGX32</i>
1.26"	66'	1.30" to 2.17"	<i>FRSGX40</i>
1.50"	66'	1.65" to 2.52"	<i>FRSGX50</i>
2.00"	66'	2.05" to 2.95"	<i>FRSGX63</i>
2.40"	66'	2.56" to 3.80"	<i>FRSGX75</i>
2.83"	66'	3.15" to 4.30"	<i>FRSGX90</i>
3.43"	33'	3.80" to 4.90"	<i>FRSGX110</i>

**Standard Product**

**Features:**

- not flame retardant
- temperature range: **-40°F to 248°F (-40°C to 120°C)**



Nominal ID	Coil Length	OD Range (inches)	Part #
0.45"	66'	.47" to .86"	<i>NFSGX16</i>
0.55"	66'	.62" to 1.06"	<i>NFSGX20</i>
0.80"	66'	.86" to 1.37"	<i>NFSGX25</i>
1.00"	66'	1.06" to 1.69"	<i>NFSGX32</i>
1.26"	66'	1.30" to 2.17"	<i>NFSGX40</i>
1.50"	66'	1.65" to 2.52"	<i>NFSGX50</i>
2.00"	66'	2.05" to 2.95"	<i>NFSGX63</i>
2.40"	66'	2.56" to 3.80"	<i>NFSGX75</i>
2.83"	66'	3.15" to 4.30"	<i>NFSGX90</i>
3.43"	33'	3.80" to 4.90"	<i>NFSGX110</i>
4.48"	40'	4.50" to 5.50"	<i>NFSGX125</i>
5.07"	27'	<b>NEW</b> 4.80" to 6.00"	<i>NFSGX140</i>
5.87"	20'	5.70" to 7.00"	<i>NFSGX160</i>

## Fiberglass Sleeving

**Features:**

- thermal insulation protection in applications with service temperatures up to **1000°F (538°C)**
- supplied in a continuous length of 100'
- 1/16" wall thickness
- braided from texturized E-glass filament yarns, untreated tubing is flexible and expands to cover changing diameters
- Made in USA

Nominal ID	Fiberglass Part #
1/4"	LW04200
3/8"	LW06200
1/2"	LW08200
5/8"	LW10200
3/4"	LW12200
7/8"	LW14200
1"	LW16200
1 1/4"	LW20200
1 1/2"	LW24200
2"	LW32200
2 1/2"	LW40200
3"	LW48200
3 1/2"	LW56200
4"	LW64200



Hose & Tubing

## Kevlar® Protective Sleeves

**Features:**

- braided cut-resistant 100% genuine Kevlar® fiber sleeve provides excellent flexibility
- provides protection for hydraulic hoses full lines, wires, cables and many other systems
- working temperature: continuous **320°F (160°C)**, short term **570°F (300°C)**
- 3000 denier ballistic grade Kevlar®; nonirritating fiber
- Made in USA

Sleeve ID	100' spool Part #
1/2" (13 mm)	KS08200
3/4" (19 mm)	KS12200
1" (25 mm)	KS16200
1 1/4" (32 mm)	KS20200
1 1/2" (38 mm)	KS24200
1 3/4" (44 mm)	KS28200
2" (51 mm)	KS32200
2 1/2" (64 mm)	KS40200
3" (76 mm)	KS48200
3 1/2" (89 mm)	KS56200
4" (102 mm)	KS64200

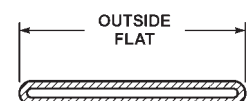
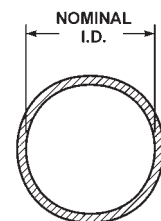


## Nylon Protective Sleeves - MSHA Accepted

**Features:**

- woven tubular sleeving, for use as a protective covering on hydraulic and industrial hose
- tight weave of seamless tubular sleeving helps dispense the flow of fluid in a ruptured hose
- MSHA accepted, withstands temperatures up to **275°F (135°C)**, passes flammability tests
- not continuous rolls/has splices

Nominal ID	Outside Flat	100' rolls Part #	300' rolls Part #
0.90"	1.50"	DHS90-100	DHS90-300
1.00"	1.66"	DHS100-100	DHS100-300
1.13"	1.88"	DHS106-100	DHS106-300
1.25"	2.13"	DHS122-100	DHS122-300
1.46"	2.25"	DHS138-100	DHS138-300
1.42"	2.50"	DHS142-100	DHS142-300
1.58"	2.75"	DHS159-1-100	DHS159-1-300
1.78"	2.88"	DHS175-100	DHS175-300
1.91"	3.00"	DHS181-100	DHS181-300
2.18"	3.63"	DHS219-100	DHS219-300
2.38"	3.88"	DHS238-100	DHS238-300
2.65"	4.25"	DHS263-100	DHS263-300
2.86"	4.75"	DHS288-100	DHS288-300
3.65"	5.88"	DHS366-100	DHS366-300



### Spring Guard

**Features:**

- protects hose against the effects of flexing at its most vulnerable point - immediately behind the coupling
- optional end tang allows end guard to be secured under a clamp or ferrule
- wire fits most hose OD's from ½" to 3¼", contact Dixon® for custom sizes or lengths

Hose & Tubing



**with tang**

Guard ID	Wire Gauge	Overall Length	Tang Length	Approx. # of Coils/Ft.	Galvanized Steel Part #	304 Stainless Steel Part #
¾"	0.175	12"	1"	33	<b>SEGC1-0.75-12</b>	<b>SEGS1-0.75-12</b>
1"	0.175	12"	1"	33	<b>SEGC1-1.00-12</b>	<b>SEGS1-1.00-12</b>
1¼"	0.175	14"	2"	39	<b>SEGC1-1.25-14</b>	<b>SEGS1-1.25-14</b>
1½"	0.175	14"	2"	39	<b>SEGC1-1.50-14</b>	<b>SEGS1-1.50-14</b>
1¾"	0.175	16"	2"	44	<b>SEGC1-1.75-16</b>	<b>SEGS1-1.75-16</b>
2"	0.280	16"	2"	44	<b>SEGC1-2.00-16</b>	<b>SEGS1-2.00-16</b>
2½"	0.280	18"	2"	50	<b>SEGC1-2.50-18</b>	<b>SEGS1-2.50-18</b>
3"	0.280	18"	2"	50	<b>SEGC1-3.00-18</b>	<b>SEGS1-3.00-18</b>

**without tang**

Guard ID	Wire Gauge	Overall Length	Tang Length	Approx. # of Coils/Ft.	Galvanized Steel Part #	304 Stainless Steel Part #
¾"	0.175	12"	1"	33	<b>SEGC0-0.75-12</b>	<b>SEGS0-0.75-12</b>
1"	0.175	12"	1"	33	<b>SEGC0-1.00-12</b>	<b>SEGS0-1.00-12</b>
1¼"	0.175	14"	2"	39	<b>SEGC0-1.25-14</b>	<b>SEGS0-1.25-14</b>
1½"	0.175	14"	2"	39	<b>SEGC0-1.50-14</b>	<b>SEGS0-1.50-14</b>
1¾"	0.175	16"	2"	44	<b>SEGC0-1.75-16</b>	<b>SEGS0-1.75-16</b>
2"	0.280	16"	2"	44	<b>SEGC0-2.00-16</b>	<b>SEGS0-2.00-16</b>
2½"	0.280	18"	2"	50	<b>SEGC0-2.50-18</b>	<b>SEGS0-2.50-18</b>
3"	0.280	18"	2"	50	<b>SEGC0-3.00-18</b>	<b>SEGS0-3.00-18</b>



### Continuous Spring Guard

**Features:**

- protects hose from external abrasion and helps resist over flexing
- fits tight to hose reducing the potential for snagging
- contact Dixon® at 888.226.4673 for custom lengths or sizes



Guard ID	Wire Gauge	Overall Length	Approx. # of Coils/Ft.	Galvanized Steel Part #	304 Stainless Steel Part #
¾"	0.175"	25'	33'	<b>CWG-C-0.75-25</b>	<b>CWG-S-0.75-25</b>
1"	0.175"	25'	33'	<b>CWG-C-1.00-25</b>	<b>CWG-S-1.00-25</b>
1¼"	0.175"	25'	33'	<b>CWG-C-1.25-25</b>	<b>CWG-S-1.25-25</b>
1½"	0.175"	25'	33'	<b>CWG-C-1.50-25</b>	<b>CWG-S-1.50-25</b>
1¾"	0.175"	25'	33'	<b>CWG-C-1.75-25</b>	<b>CWG-S-1.75-25</b>
2"	0.280"	25'	33'	<b>CWG-C-2.00-25</b>	<b>CWG-S-2.00-25</b>
2½"	0.280"	25'	33'	<b>CWG-C-2.50-25</b>	<b>CWG-S-2.50-25</b>
3"	0.280"	25'	33'	<b>CWG-C-3.00-25</b>	<b>CWG-S-3.00-25</b>



### GSM Ball-Joint Armored Hose Assemblies

inner hoses are specially industrial rubber, hydraulic, corrugated stainless steel or PTFE

multiple layers of 1000°F fiberglass insulation provide extreme heat resistance

no interlocking parts to restrict bending

ball-joint armor protects against extreme heat, molten splash, abrasion and kinking



**Application:**

- includes but not limited to: water cooling hose, oxygen supply hose, hydraulic hose, natural gas hose, black liquor hose, steam hose

**Sizes:**

- ¼" through 16" bore
- lengths to 120'

**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

**Features:**

- extremely flexible armor protects from heat, slag splash and harsh environments
- heat resistant insulation to 1000°F
- temperature rating depends on specific applications, consult Dixon®
- a variety of end connections are available, contact Dixon® at 888.226.4673

## Thread Tape & Sealant..... 902 to 903

PTFE tape .....	902
American made (purple) .....	902
Industrial (white).....	902
Stainless steel (gray) .....	902
Industrial heavy duty (pink).....	902
For LP gas (yellow) .....	902
Thread sealant paste.....	903
Joint sealant gasket material.....	903
Leak detector.....	903

## Coupling Inserters ..... 904

Coupling inserter for large hose .....	904
Coupling inserter for 5 ton ram.....	904

## Testing Equipment ..... 905 to 907

Hand hydrotest pump .....	905
Hydrostatic test pumps.....	905
Hydrostatic test pump accessories.....	906
Sprinkler system gauges (UM-393).....	907
Line test gauges .....	907
Three way gauge valve .....	907
PITOT gauge .....	907
Sprinkler line tester.....	907

## Accessories ..... 908 to 911

Dixon® coupling lubricant .....	908
WD-40 smart straw .....	908
Spill kits .....	908
Dixon® soft hose mallet.....	909
Dixon® hose knife .....	909
Diameter tape .....	909
Screw pitch gauge .....	909
Bottle opener.....	910
Safety tag .....	910
Safety tape .....	910
Stretch straps .....	911
Pick head fire axe .....	911

## Grease Whip Fittings ..... 912 to 913

Grease whip hose assemblies.....	912
Grease whip hose fittings.....	912
Grease whip fittings - Zerk.....	913


## Oxy-Acetylene Fittings ..... 914

Oxy-acetylene hose couplings.....	914
Oxy-acetylene connecting spuds.....	914
Oxy-acetylene adapters.....	914
Oxy-acetylene ferrules.....	914



### American Made PTFE Tape (Purple)

**Features:**

- thickness: 3.5 mil (0.0035 mm)
- temperature range: **-450°F to 500°F (-268°C to 260°C)**
- superior quality
- not for use in oxygen applications 



Size	Length	Part #
1/2"	520"	<b>TTPM50-520</b>
	700"	<b>TTPM50-700</b>
	1429"	<b>TTPM50-1429</b>
3/4"	520"	<b>TTPM75-520</b>
	700"	<b>TTPM75-700</b>
	1429"	<b>TTPM75-1429</b>
1"	520"	<b>TTPM100-520</b>
	700"	<b>TTPM100-700</b>
	1429"	<b>TTPM100-1429</b>

### Industrial PTFE Tape (White)

**Features:**

- thickness: 3.5 mil (0.0035 mm)
- temperature range: **-212°F to 500°F (-136°C to 260°C)**



Size	Length	Part #	Optional Qty
1/2"	260"	<b>TTA50</b>	550
	520"	<b>TTB50</b>	500
	1296"	<b>TTC50</b>	250
3/4"	260"	<b>TTA75</b>	350
	520"	<b>TTB75</b>	350
1"	520"	<b>TTB100</b>	250

### Stainless Steel PTFE Tape (Gray)

**Features:**

- thickness: 4 mil
- temperature range: **-450°F to 550°F (-268°C to 288°C)**
- useful on stainless steel threaded joints or connections
- PTFE with nickel added, nickel acts like a ball bearing
- made in the US



Size	Length	Part #	Optional Qty
1/2"	260"	<b>TTA50SS</b>	10

### Industrial Heavy Duty PTFE Tape (Pink)

**Features:**

- thickness: 4 mil
- temperature range: **-400°F to 500°F (-240°C to 260°C)**



Size	Length	Part #	Optional Qty
1/2"	540"	<b>TTBP50</b>	500

### PTFE Tape for LP Gas (Yellow)

**Features:**

- thickness: 4 mil
- maximum temperature: **500°F (260°C)**
- Underwriters Listed 



Size	Length	Part #	Optional Qty
1/2"	260"	<b>TTA50LP</b>	500





Thread Sealant Paste

Features:

- temperature range: **-300°F to 500°F (-184°C to 260°C)**
- do not use with oxygen

Size	Part #	Optional Qty
¼ pint	<b>LCTS14</b>	24
½ pint	<b>LCTS1</b>	24
1 pint	<b>LCTS2</b>	12
1 quart	<b>LCTS3</b>	12



Joint Sealant Gasket Material

Features:

- GORE-TEX® interchangeable
- Form-In-Place expanded PTFE gasket material with adhesive backing
- manufactured from 100% virgin PTFE
- unaffected by all common chemicals (pH from 0-14)
- unlimited shelf life
- resilient with low cold flow
- requires less force than standard gasket materials
- pressure range: **vacuum to 3000 PSI**
- temperature range: **-450°F to 600°F (-268°C to 316°C)**
- made in the USA
- FDA compliant #21CFR177.1550
- larger spools are available, consult Dixon® for price and availability

Size	Length	Part #
¼"	20'	<b>LCJS4-20</b>
¼"	50'	<b>LCJS4-50</b>
⅜"	25'	<b>LCJS6-25</b>
½"	15'	<b>LCJS8-15</b>
¾"	15'	<b>LCJS12-15</b>



Leak Detector

Features:

- detects leaks by forming bubbles which remain for up to ten minutes
- will not cause corrosion or deterioration
- color: fluorescent yellow
- non-toxic, non-freezing
- temperature range: **-7°F to 180°F (-20°C to 82°C)**
- meets Federal specification MIL-L-25567-C

Size	Part #	Case Qty
8 oz.	<b>LCLD</b>	24





Coupling Inserter for Large Hose

Features:

- inserts 4", 5", 6", 8", 10" and 12" couplings
- includes CI96AH pump (shown below)
- portable
- coupling inserter pusher plates (not shown) must be purchased separately



Part #	
<b>CI9</b>	
Hose ID	Part #
4" - 5"	<b>45CI9PUSH</b>
6" - 8"	<b>68CI9PUSH</b>
10" - 12"	<b>1012CI9PUSH</b>

Coupling Inserters



CI96

Application:

- for insertion of hose shanks into hose with a 2¾" to 7¼" OD



CI96AH

Description	Part #
inserter with <b>10,000 PSI</b> hand pump and 5 ton ram	<b>CI96</b>
inserter with <b>10,000 PSI</b> air/hydraulic pump and 5 ton ram	<b>CI96AH</b>
small jaws for 1" to 3" OD hose	<b>CI9311SML</b>

## Hand Hydrotest Pump

**Application:**

- designed for use in testing pipe lines, pressure tanks and pressure vessels

**Features:**

- uses check valves which are more efficient and longer lasting than poppet systems
- cylinder displacement: 1.37 cu. in.
- **0 -1000 PSI** pressure gauge, 10' high pressure hose and quick disconnect coupler included
- piston: 7/8" with 2" stroke
- stainless steel piston
- working pressure: **1000 PSI at 70°F (21°C)**

NPT Inlet	NPT Outlet	Aluminum
1/2"	1/2"	Part #
		<b>HHTP</b>



## Hydrostatic Test Pumps

### Electric Test Pump

**Features:**

- 110 volt Portable Hydrostatic Electric Pump - Model (ETP)
- 3000 PSI maximum test pressure
- 1.3 GPM fill rate (at 60 PSI inlet water pressure)
- Quick connect garden hose coupler for water supply line available
- 1/2" x 25' intermediate hose with brass Straight-Thru Quick Coupler x NPSM swivel connection
- 1/2" brass Straight-Thru plug on pressure outlet
- 0 – 3000 PSI back mount liquid filled pressure gauge

Part #
<b>ETP</b>



### Pneumatic Test Pump

**Features:**

- 5.5 GPM fill rate
- test pressure: **0 to 1500 PSI**
- stainless interior
- air gauge for quick, easy adjustment of maximum test pressure
- high pressure test gauge
- filter/regulator for clean, dry air to ensure long life of unit
- on - off valve for air input
- 15' of hose included
- easy to use: portable hand cart mount or stationary wall mount available
- use of coalescing filter and water filter recommended for prolonged pump life

Hand Cart Mount	Wall Mount
Part #	Part #
<b>PTP</b>	<b>PTP-WM</b>

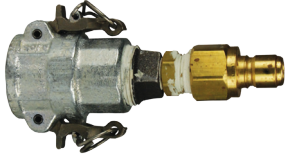


Hydrostatic Test Pump Accessories

Features:

- cost effective, pre-assembled caps or plugs allow quick set up for testing hoses
- caps and plugs equipped with 1/2" brass straight-through plug for quick attachment to the intermediate hose on the test pump (Pneumatic Test Pump) and bleed-off valve

Maintenance & Repair



Cam & Groove Test Caps for Male Adapters

Size	Iron / Steel Part #
1"	<b>ID100TC</b>
1½"	<b>ID150TC</b>
2"	<b>ID200TC</b>
3"	<b>ID300TC</b>
4"	<b>ID400TC</b>



Cam & Groove Test Plugs for Female Couplers

Size	Iron / Steel Part #
1"	<b>IA100TP</b>
1½"	<b>IA150TP</b>
2"	<b>IA200TP</b>
3"	<b>IA300TP</b>
4"	<b>IA400TP</b>



Female NPT Test Caps

Size	Iron / Steel Part #
1"	<b>NPT100TC</b>
1½"	<b>NPT150TC</b>
2"	<b>NPT200TC</b>
3"	<b>NPT300TC</b>
4"	<b>NPT400TC</b>



Male NPT Test Plugs

Size	Iron / Steel Part #
1"	<b>100TP</b>
1½"	<b>150TP</b>
2"	<b>200TP</b>
3"	<b>300TP</b>
4"	<b>400TP</b>



Bleed-off Valve

Part #
<b>IBV50BOV</b>



M16-03A

FRL Attachment Accessories

Description	Part #
3/8" Wilkerson modular coalescing filter (automatic drain)	<b>M16-03A</b>
3/8" Wilkerson modular coalescing filter (manual drain)	<b>M16-03M</b>
modular sleeve needed to connect M16-03A or M16-03M	<b>GPA-95-292</b>

### Sprinkler System Gauge (UL-393)



**Features:**

- specifically designed for the fire sprinkler industry
- Bourdon tube pressure gauges with black polycarbonate case
- snap-in clear polycarbonate window, 4" face
- white aluminum dial with stop pin, black and red markings
- black aluminum non-adjustable pointer
- ¼" NPT lower mount
- ASME B40.1 Grade B (+ 3/2/3% accuracy)
- U/L Listed (U/L-393) and Factory Mutual Approved for fire sprinkler service
- temperature range: **-40°F to 140°F (-40°C to 60°C)**



Maintenance & Repair

Type	Part #
water (0-300 PSI)	<b>SWG300-4</b>

### Line Test Gauges

**Features:**

- rocker lug swivel
- used for testing static or flowing pressures in hoses or nozzles
- supplied with **0-300 PSI** glycerine filled 3½" diameter gauge
- freeze proof to **-40°F (-40°C)**
- other sizes and threads are also available, contact Dixon®



NST (NH) Thread	Hardcoated Aluminum Part #
1½"	<b>ALTG150F</b>
2½"	<b>ALTG250F</b>

### Three Way Gauge Valve

**Features:**

- permits checking or replacing a gauge without shutting down the whole line
- disc: rubber



NPT Thread	Working Pressure (PSI)	Brass Part #
¼"	<b>175</b>	<b>TWGV25</b>

### PITOT Gauge

**Features:**

- liquid filled gauge 0-160 PSI is standard, other pressures available, contact Dixon®
- supplied with handle grip, case and fire stream/friction loss data



Part #
<b>PG8083</b>

### Sprinkler Line Tester



**Feature:**

- installs on the last sprinkler head on system branch lines and controls water flow for flushing or testing the system



Inlet	Outlet	Brass Part #
1" female NPT	1" male NPSH	<b>SLT10050</b>

## Dixon® Coupling Lubricant

**Application:**

- for use in assembly operations involving natural or synthetic rubber or plastic, also an excellent lubricant when rubber or plastic needs to be cut, machined, pressed, turned, trimmed or ground


**Features:**

- biodegradable lubricant for coupling shanks, O-rings, hoses, sleeves, rubber washers and grommets
- once coupling lubricant dries, slipping action goes away

Size	Part #
1 liter	<b>DCL20</b>
4 liters	<b>DCL80</b>

## WD-40 Smart Straw

**Features:**

- permanently attached straw
- flip up for a precision spray; flip down for regular spray action
- sold in case quantities only
- should not be used as a lubricant for coupling shanks 

Size	Part #	Case Qty
11 oz.	<b>WD40</b>	12

## Spill Kits



oil spill kit



universal spill kit

**Features:**

- easily stored behind a seat or in a storage compartment allowing drivers to act quickly when responding to a spill
- poly-zip bag and bucket kits feature:
  - 10 pads (15" x 19")
  - 3 socks (3" x 4')
  - 2 disposal bags with ties
  - 1 pair nitrile gloves

Description	Part #
oil only, in 6½ gallon pail	<b>DSK5-O</b>
universal, in 6½ gallon pail	<b>DSK5-U</b>
oil only, in clear poly bag with zipper	<b>DSKB-O</b>
universal, in clear poly bag with zipper	<b>DSKB-U</b>



## Dixon® Soft Hose Mallet

**Features:**

- soft mallet for pounding metal objects without damaging them
- head material is firmly attached to strong shaft-handle and will not crack
- length: 23"
- weight: 10 lbs.



Maintenance  
& Repair

Part #

**DCM1**

## Dixon® Hose Knife

**Features:**

- for fast cutting of rubber hose and belting
- guard protects hand while cutting



Part #

**DRK15**

## Diameter Tape

**Features:**

- 6' tape for quickly finding the outside diameter of any cylindrical object
- converts circumference to OD at the measured point
- ABS case



Part #

**DDT1**

## Screw Pitch Gauge

**Features:**

- used to determine threads per inch
- 30 leaves



*Stainless Steel*

Part #

**TPG**





Bottle Opener



Brass  
Part #

**CAMOPENER**

Safety Tag

**Features:**

- Dixon® strongly recommends the use of a safety tag or warning label on all hose assemblies.
- sold in quantities of 100 only



Length	Width	Part #
5"	2 <sup>3</sup> / <sub>8</sub> "	<b>DWL100</b>



**WARNING!!**

- worn-out hose fittings should be replaced
- loose clamps on hose can be dangerous
- bolt type clamps should be retensioned regularly
- for extra safety, retaining devices such as clips, chains or cables must be used

Safety Tape

**Features:**

- Dixon® strongly recommends the use of a safety tag or warning label on all hose assemblies.
- length of tape - 55 yards, approximately 255 warnings



Length	Part #
1 <sup>1</sup> / <sub>2</sub> "	<b>DSTW</b>



**WARNING!!**

- worn-out hose fittings should be replaced
- loose clamps on hose can be dangerous
- bolt type clamps should be retensioned regularly
- for extra safety, retaining devices such as clips, chains or cables must be used



## Stretch Straps

**Features:**

- durable tie down straps
- made of EPDM
- length does not include S-hooks
- S-hooks are steel

Length	Part #
10"	<b>SSE10</b>
15"	<b>SSE15</b>
21"	<b>SSE21</b>
31"	<b>SSE31</b>
41"	<b>SSE41</b>



**WARNING!!**

Failure to comply with this warning may result in serious damage and/or personal injury.  
Maximum end to end safe stretch = 150% of length

- do not exceed maximum safe stretch
- inspect before each use, do not use if strap is cut, cracked or abraded
- inspect hooks for damage and/or wear. Replace if needed.
- protect strap from sharp edges or heat.
- wear eye protection during use
- do not use this product as the primary tie down
- refer to federal or state regulations for proper tie down methods



Maintenance & Repair

## Pick Head Fire Axe

**Features:**

- red trim
- 36" hickory handle
- listed in the minimum requirements approval guides for outfitting hose houses and hose cabinets by insurance underwriters

Description	Part #
6 lb. axe	<b>PHFA6</b>
axe brackets	<b>PHFA-B-A</b>



### Grease Whip Hose Assemblies

**Features:**

- for use with hand grease guns only
- one piece crimp couplings
- 1/8"-27 male NPT thread, solid base
- US manufactured 3/16" ID hose - exceeds SAE 100R1-AT
- add "S" to order strain relief spring option
- working pressure: **3000 PSI**



Assembly Length	Brass	
	Previous Part #	Part #
8"	GWH-0800	<b>GWH0800</b>
12"	GWH-1200	<b>GWH1200</b>
	---	<b>GWH1200R<sup>1</sup></b>
18"	GWH-1800	<b>GWH1800</b>
	---	<b>GWH1800R<sup>1</sup></b>
24"	GWH-2400	<b>GWH2400</b>
36"	GWH-3600	<b>GWH3600</b>
48"	GWH-4800	<b>GWH4800</b>
60"	GWH-6000	<b>GWH6000</b>

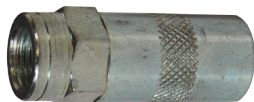
<sup>1</sup> retail packaging

### Grease Whip Hose Fittings

**Features:**

- **001-0055**, **001-0260** and **001-0860** are designed to be crimped to 3/16" ID hose
- **GWH-C** and **GWHC-FF** mate with Zerk fittings on the coupler side

#### Grease Hose Couplers



Description	Zinc Plated Steel		Optional Qty
	Previous Part #	Part	
1/8"-27 female NPT thread, grease hose coupler with ball check - valved shutoff	GWH-C	<b>GWHC</b>	25
1/8"-27 female NPT thread, full flow grease hose coupler	---	<b>GWHC-FF</b>	25

Add 'R' suffix to part number for retail pack option

#### Male NPT Thread - Chamfered Base



Description	Brass		Optional Qty
	Previous Part #	Part #	
1/8"-27 male NPT thread, drilled and chamfered base	001-0055	<b>0010055C</b>	100

#### Male NPT thread - Solid Base



Description	Brass		Optional Qty
	Previous Part #	Part #	
1/8"-27 male NPT thread, solid base	001-0260	<b>0010260C</b>	100

#### Female NPT Thread



Description	Brass		Optional Qty
	Previous Part #	Part #	
1/8"-27 female NPT thread	001-0860	<b>0010860C</b>	100



Grease Whip Fittings - Zerk

Straight

Thread	Description	Overall Length	Thread Length	Hex	Zinc Plated Steel Part #	Pkg Qty
1/8"-27 NPT	straight	.660"	.260"	.430	<b>GWHZ000</b>	100
1/4"-28 tapered SAE-LT	straight	.530"	.200"	.312	<b>GWHZ400</b>	100



Maintenance & Repair

45°

Thread	Description	Overall Length	Thread Length	Hex	Zinc Plated Steel Part #	Pkg Qty
1/8"-27 NPT	45°	.860"	.280"	.430	<b>GWHZ045</b>	100
1/4"-28 tapered SAE-LT	45°	.800"	.200"	.375	<b>GWHZ445</b>	100



90°

Thread	Description	Overall Length	Thread Length	Hex	Zinc Plated Steel Part #	Pkg Qty
1/8"-27 NPT	90°	.830"	.310"	.430	<b>GWHZ090</b>	100
1/4"-28 tapered SAE-LT	90°	1.20"	.200"	.375	<b>GWHZ490</b>	100



Grease Whip Fittings - Zerk Retail Packaged

All items sold in retail packets of 10: Order 1 for 1 retail pack of 10 pieces.

Straight

Thread	Description	Overall Length	Thread Length	Hex	Zinc Plated Steel Part #
1/8"-27 NPT	straight	.660"	.260"	.430	<b>GWHZ000R</b>
1/4"-28 tapered SAE-LT	straight	.530"	.200"	.312	<b>GWHZ400R</b>



45°

Thread	Description	Overall Length	Thread Length	Hex	Zinc Plated Steel Part #
1/8"-27 NPT	45°	.860"	.280"	.430	<b>GWHZ045R</b>
1/4"-28 tapered SAE-LT	45°	.800"	.200"	.375	<b>GWHZ445R</b>



90°

Thread	Description	Overall Length	Thread Length	Hex	Zinc Plated Steel Part #
1/8"-27 NPT	90°	.830"	.310"	.430	<b>GWHZ090R</b>
1/4"-28 tapered SAE-LT	90°	1.20"	.200"	.375	<b>GWHZ490R</b>



Oxy-Acetylene Hose Couplings

Acetylene Couplings

left-hand thread for acetylene line x hose shank



Hose Size	Left UNF Thread	Hex	Previous Part #	Brass	
				Part #	
3/16"	3/8"-24	7/16"	OA69		1540306K
	9/16"-18	11/16"	OA70		1540309K
1/4"	9/16"-18	11/16"	OA71		1540409K
5/16"	9/16"-18	11/16"	OA72		1540509K
3/8"	9/16"-18	11/16"	OA73		1540609K

Oxygen Couplings

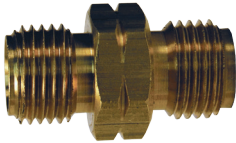
right-hand thread for oxygen line x hose shank



Hose Size	Right UNF Thread	Hex	Previous Part #	Brass	
				Part #	
3/16"	3/8"-24	7/16"	OA59		1520306K
	9/16"-18	11/16"	OA60		1520309K
1/4"	9/16"-18	11/16"	OA61		1520409K
5/16"	9/16"-18	11/16"	OA62		1520509K
3/8"	9/16"-18	11/16"	OA63		1520609K

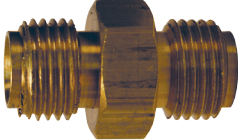
Oxy-Acetylene Connecting Spuds

Left-hand Thread x Left-hand Thread



Left UNF Thread	Hex	Previous Part #	Brass	
			Part #	
9/16"-18	11/16"	OA52		1580909C

Right-hand Thread x Right-hand Thread



Right UNF Thread	Hex	Previous Part #	Brass	
			Part #	
9/16"-18	11/16"	OA50		1560909C

Oxy-Acetylene Adapters

Left-hand Thread x NPTF



Left UNF Thread	NPTF Thread	Hex	Previous Part #	Brass	
				Part #	
9/16"-18	1/4"	5/8"	158-0904		1580904C
	3/8"	11/16"	158-0906		1580906C

Right-hand Thread x NPTF



Right UNF Thread	NPTF Thread	Hex	Previous Part #	Brass	
				Part #	
9/16"-18	1/4"	5/8"	156-0904		1560904C
	3/8"	11/16"	156-0906		1560906C

Oxy-Acetylene Ferrules

- sold in package quantities only



Inside Dimensions	Overall Length	Metal Gauge	Standard Ind. Part #	Brass Part #	Qty
.458" x 0.890"	15/32"	.019"	9116	<b>BFO448</b>	25
.474" x 0.943"	15/32"	.019"	9979	<b>BFO474</b>	25
.535" x 1.071"	3/4"	.024"	9940P	<b>BFO535</b>	25
.593" x 1.109"	3/4"	.024"	9593	<b>BFO593</b>	25
.700" x 1.325"	.719"	.025"	8337	<b>BFO700</b>	25

Proposition 65 Information.....	916	Water .....	936 to 937
Hose & Coupling Safety.....	916	Water constants and formulas.....	936
General Safety Information ..	916, 917	Water discharge table.....	936
Safety Is Everyone's Job ...	917 to 919	Conversion table - feet of water to inches of mercury .....	937
Be Safe .....	917	Feet head of water to PSI.....	937
S.T.A.M.P.E.D. ....	917	Thread Information .....	938 to 943
Force chart .....	918	Pipe threads .....	938
Safety products and recommendations in the DPL.....	918	NPT vs. BSP (British Standard Pipe) .....	938
MSHA regulations.....	918	Identifying threads .....	939
OSHA regulations.....	919	Thread types.....	940
Value Add Programs .....	920	Thread chart for hydraulic fittings .....	941
Solutions on Site vans by Dixon® .....	920	Fittings size chart.....	941
Best practices safety assessment .....	920	Thread dimensions.....	942
Hose coupling workshop .....	920	Normal engagement length of NPT thread in inches.....	942
Material Selection .....	921 to 926	Threads sealing tips .....	943
Selecting materials .....	921	Flange Dimensions .....	944 to 945
Corrosion resistance ratings.....	921 to 926	Flange bolt tightening sequence.....	944
Fraction to Decimal Chart .....	927	Flange diagrams.....	944
Conversion Constants/Formulas ..	928	ANSI flange dimensions .....	945
Measures of pressure.....	928	Pipe Dimensions .....	946
Length conversions constants.....	928	Dimensions of seamless and welded steel pipe 9 ASA-B36.10 and B36.19 .....	946
Weight conversion constants.....	928	Cross reference from NPS to DN specification .....	946
Circumference of a circle.....	928	Valve Selection Guides ....	947 to 948
Right cylinder.....	928	Valve selection guide.....	947
Temperature .....	929 to 931	3-way ball valve flow options .....	948
Temperature conversions.....	929		
Steam temperature and pressure conversion guide.....	930		
Pressure - temperature ratings.....	931		
Air .....	932 to 935		
Air velocity in a pipe.....	932		
Air volume discharged from pipe .....	932		
Boyle's law.....	932		
Air supply requirements.....	932		
CFM vs. PSI for nozzles .....	933		
Air receiver capacities .....	933		
Air hose friction.....	934		
Max. rec. air flow (SCFM) through ANSI metal pipe.....	935		
Suggested pipe size for compressed air flow at 100 PSI ...	935		



## Proposition 65 Information

### WARNING

As a company that may sell or distribute Dixon® couplings, adapters, valves and connectors made of brass to California consumers or to other persons or entities that may sell such items to California consumers, Dixon® is obligated to notify you of the following:

- Such products may not be sold to California consumers unless it either contains less than 300 ppm of lead when analyzed pursuant to the EPA test method 3050B or equivalent or is sold or distributed with a clear, reasonable and conspicuous warning.
- So long as it is prominently displayed on the product or the packaging of the product, the following warning complies: "WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm. Do not use in connection with drinking water. Wash hands after handling."
- As to internet sales only, if the product is not labeled with the required warning, there must be a warning message by a clearly marked hyperlink on the product display page or otherwise prominently displayed to the purchaser before the purchaser completes the purchase of the product.

There are significant penalties associated with failure to comply with these requirements. Should you need further explanation or assistance in complying with notice, please do not hesitate to contact Dixon® at sales@dixonvalve.com.

**⚠ WARNING** Failure to use these procedures can result in serious injury or death, and destruction of property and equipment.

## Hose and Hose Coupling Safety

**"The very properties that make compressed gases useful in almost every area of modern life can also make them dangerous when mishandled. Years of experience with compressed gases have led to practices and equipment which, if employed, result in complete safety."**<sup>1</sup>

Dixon® hose couplings have been carefully engineered to meet specific requirements. If hose or couplings are not used in correct applications or are incorrectly applied, accidents and downtime can result. It is up to the end user to inform the distributor of the application and pressures involved when ordering hose assemblies and it is up to the distributor to supply the right hose and coupling for that application. When in doubt, Dixon® is here to help you with a proper coupling recommendation.

**1. Air hose couplings** - This form of energy can be one of the most dangerous because it is used in so many applications and, when mishandled, can have more serious results than fluids. Air, as a gas, is compressible (fluids press only against hose or vessel walls and lose little volume under pressure). When pressurized air releases suddenly, it does so with explosive force and can cause rapid hose whip, which can do serious physical harm to personnel or damage to nearby objects. This is why the selection of proper hose and couplings for air lines is so important, along with their proper installation and maintenance. Never take for granted that a coupling is installed properly or a clamp fully tightened on an air hose - check it regularly and use safety devices (see paragraph 4).

**2. Steam and gas** - The same rules apply for steam and gas, but, because these are inherently more hazardous materials, personnel tend to treat hose and couplings on these lines with more respect and care. Checking clamp tightness is very important with steam hose, where it is not unusual for clamps to loosen in service, in which case they must be retightened! Safety devices should also be used (see paragraph 4).

**3. Fluid hose couplings** - Again, nothing should be taken for granted - in particular, check clamps for tightness each time the lines are used - especially when petroleum products or other hazardous liquids are involved. Large diameter hose, when suspended, can also be quite dangerous if it drops unexpectedly due to a coupling "pull-out" or sudden disconnection. A heavy fitting or clamp, plus the weight of the hose itself falling from any significant height, can cause injuries or damage. Be sure to use safety devices (see paragraph 4).

**4. All hose assemblies** - All hose assemblies should be treated with respect as potential hazards. Worn-out fittings should be replaced. Retaining devices such as clips, cables or chains should be used. Clamps should be checked regularly. Under no circumstances should any coupling be disconnected while under pressure, unless the coupling is specifically designed to do so. Disconnecting couplings under pressure could result in serious injury or death, and destruction of property and equipment.

<sup>1</sup> "Handbook of Compressed Gases"

## General Safety Information

### Pressure Ratings

Pressure ratings for couplings, as stated in this catalog, are based upon ambient temperature **70°F (21°C)** applications with true hose ID, new Dixon® supplied couplings, new Dixon® supplied clamps, new quality hose, and proper installation by a qualified assembler using Dixon® procedures and equipment. In addition, temperature can affect coupling retention. For temperatures other than ambient (**70°F**), contact the hose manufacturer or call Dixon® at 800.355.1991.

### Product Selection

Many of the products in this catalog are used in hose assemblies in a variety of applications. The safety of any hose assembly rests on the proper selection, installation, testing and use of each product. The safe use of any product in this catalog is dependent upon the correct selection of the hose, fittings and method of attachment. To ensure such a proper selection, the user must inform the distributor of the application and pressure involved when ordering hose assemblies. The use of S.T.A.M.P.E.D. (Size, Temperature, Application, Media, Pressure, Ends, Dixon®) will help in the proper selection of hose assembly components (see page 917). The selection of couplings and clamping devices is the responsibility of the purchaser or user, based upon the hose manufacturer's recommendations. If the purchaser or user is uncertain about the use or application of a product, Dixon™ stands ready to provide information, including test results (if available), coupling and clamping recommendations and other data to help resolve those matters.

continued on the next page

## General Safety Information, continued

### Installation

To achieve a safe and reliable assembly, proper installation procedures must be followed. Each component of the assembly has a part in determining these procedures. The purchaser or user must follow proper procedures. If the purchaser or user has any questions regarding installation, please contact Dixon®.

### Testing

Dixon® recommends that all hose assemblies be tested in accordance with the hose manufacturer's recommendations.

### Re-testing and Inspection

Dixon® recommends inspection and re-testing of hose assemblies on a regular and consistent basis in accordance with the hose manufacturer's recommendations. The application determines the regularity of the inspection and re-testing schedule. Any worn-out fittings, damaged hoses or missing safety devices should be replaced immediately. Bolt-style clamps must be checked and retightened on a regular and consistent basis.

All hose assemblies should be viewed as potential hazards. This document is designed to inform and educate anyone who manufactures, specifies, supplies, purchases, assembles, uses, maintains or tests any hose assembly or its component parts. The proper selection and maintenance of hose, couplings, attachment devices and accessories is imperative.

It is the end user's responsibility to identify to the distributor the application and any special conditions that the hose assembly must meet. It is the distributor's responsibility to supply the proper assembly for the intended application. Accidents and down time may occur if hose assemblies are not properly selected for the specific application.

The performance and safety of the assembly is affected by the quality of the individual components. The use of the acronym S.T.A.M.P.E.D. (Size, Temperature, Application, Media, Pressure, Ends, Dixon®) will help in the proper selection of the hose assembly components (see below). If anyone is uncertain about the use or application of a product, Dixon® can provide test results, coupling and clamping recommendations and other data to help resolve those matters. Call 800.355.1991 with any questions.

## Be Safe

Hose assemblies must be inspected prior to each use. Worn out fittings, attachment devices, hose and accessory items must be replaced. Retaining devices (safety devices) such as clips, cables or chains must be used. Clamps must be checked regularly to the specified torque found in the Dixon® literature. Under no circumstance should any coupling be disconnected while under pressure unless the coupling is specifically designed to do so. Disconnecting couplings under pressure could result in serious injury or death, and destruction to property and equipment.

For all hose assemblies in use:

- Beware** - Hose assemblies when used improperly or in the wrong application can be dangerous. The maximum working pressure shown on the hose is not an indication of the working pressure of the assembly. Based on the hose, fittings and attachment method used, all assemblies should be permanently marked with the designed working pressure and the intended media. The assembly working pressure should be permanently displayed. Hose assemblies must be used for the intended service only. Never alter manufactured product or substitute component parts.
- Eliminate** - hazardous conditions by inspecting, maintaining and testing hose assemblies. Dixon® recommends that all hose assemblies be tested in accordance with the hose manufacturer's specifications. The application determines the regularity of the re-testing schedule.
- Secure** - and inspect hose, fittings, clamping devices and safety accessories before each use. Never take for granted that the coupling or attachment devices are properly installed.
- Always** - inspect and re-tighten the bolts of any bolt style clamping device to the manufacturer's torque specifications.
- Fittings** - hose and clamping devices that are worn out or damaged must be removed from service.
- Educate** - your employees about the proper use, care and potential hazards of hose assemblies. Take advantage of Dixon's free Hose Assembly Safety Program and the follow up Training Seminar to aid you in setting up your own inspection program. Any questions on applications, use or assembly call 800.355.1991.

## S.T.A.M.P.E.D.

When fabricating and specifying hose assemblies ask the following questions:

- Size:** What is the ID (Inside Diameter) of the hose? What is the OD (Outside Diameter) of both ends of the hose? What is the overall length of the assembly required?
- Temperature:** What is the temperature range of the media (product) that is flowing through the hose assembly? What is the temperature range of the environment that surrounds the outside of the hose assembly?
- Application:** How is the hose assembly actually being used? Is it a pressure application? Is it a vacuum (suction) application? Is it a gravity flow application? Are there any special requirements that the hose assembly is expected to perform? Is the hose being used in a horizontal or vertical position? Are there any pulsations or vibrations acting on the hose assembly?
- Media:** What is the media/material that is flowing through the hose assembly? Being specific is critical. Check for: Abrasive materials, chemical compatibility, etc.
- Pressure:** What is the maximum pressure including surges (or, maximum vacuum) that this hose assembly will be subjected to? Always rate the maximum working pressure of your hose assembly by the lowest rated component in the system.
- Ends:** What couplings have been requested by the user? Are they the proper fittings for the application and hose selected?
- Dixon®:** Dixon® recommends that, based on the hose, fittings and attachment method used, all assemblies be permanently marked with the designed working pressure and intended media. Do not use other manufacturer's fittings or ferrules with Dixon® products due to the differences in dimensions and tolerances. We also recommend that all hose assemblies be tested frequently. *Be Safe:* Any questions on application, use or assembly call 800.355.1991.

### Force Chart

- For hose ID's from 1¼" to 12" the force in pounds is greater than the PSI.
- Force is the dynamic power which is exported longitudinally through a hose, towards the ends. To arrive at the number of pounds of force exerted, you merely multiply the area of the ID times the working pressure being used.
- Area of a circle: r<sup>2</sup> (PI [3.1416] times radius squared)
- Force = Area x Pressure

#### Force (In Pounds)

Safety & Technical	Hose ID	25 PSI	50 PSI	75 PSI	100 PSI	150 PSI	200 PSI	250 PSI	300 PSI	500 PSI	1000 PSI
	¼"	1	2	4	5	7	10	12	15	25	49
⅜"	3	6	8	11	17	22	28	33	55	110	
½"	5	10	15	20	29	39	49	59	98	196	
¾"	11	22	33	44	66	88	110	133	221	442	
1"	20	39	59	79	118	157	196	236	393	785	
1¼"	31	61	92	123	184	245	307	368	614	1227	
1½"	44	88	133	177	265	353	442	530	884	1767	
2"	79	157	236	314	471	628	785	942	1571	3142	
2½"	123	245	368	491	736	982	1227	1473	2454	4909	
3"	177	353	530	707	1060	1414	1767	2121	3534	7069	
4"	314	628	942	1257	1885	2513	3142	3770	6283	12566	
5"	491	982	1473	1964	2945	3927	4909	5891	9818	19635	
6"	707	1414	2121	2827	4241	5655	7069	8482	14137	28274	
8"	1257	2513	3770	5027	7540	10053	12566	15080	25133	50266	
10"	1964	3927	5891	7854	11781	15708	19635	23562	39270	78540	
12"	2827	5655	8482	11310	16965	22620	28274	33929	56549	113098	

## Safety Products and Recommendations in the Dixon® Price List

### Safety is everyone's concern!

Dixon® provides many safety products designed to protect personnel and property. Recommendations and safety warnings are also included for your review.

Hose and coupling safety .....	page 916
S.T.A.M.P.E.D. ....	page 917
EZ Boss-Lock™ handles.....	page 166
Cam and groove safety clips.....	page 171
Air King™ - not to be used for steam statement .....	page 283
King™ cable safety cables .....	page 362
Safety shut-off valves, OSHA REG. 1926.302 .....	page 556
30 PSI safety blow guns.....	page 371
Safety vented ball valves.....	page 534
Safety tags and safety tape.....	page 910
The importance of whip hose statement .....	page 282

## MSHA (Mine Safety and Health Administration) Regulations

### 30 CFR Sections 56.13021 and 57.13021

Except where automatic shut-off valves are used, safety chains or other suitable locking devices shall be used at connections to machines of high-pressure hose line of ¾" inside diameter or larger, and between high-pressure hose lines of ¾" inside diameter or larger, where a connection failure would create a hazard.

### 30 CFR Section 75.1730

(e) Safety chains, suitable locking devices, or automatic cut-off valves shall be used at connections to machines of high-pressure hose lines of ¾" inside diameter or larger, and between high-pressure hose lines of ¾" inside diameter or larger, where a connection failure would create a hazard. For purposes of this paragraph, high-pressure means pressure of 100 PSI or more.

### 30 CFR Section 77.412

(d) Safety chains or suitable locking devices shall be used at connections to machines of high-pressure hose line of 1" inside diameter or larger, and between high-pressure hose line of 1" inside diameter or larger, where a connection failure would create a hazard.

The regulations may be viewed in full on the Mine Safety and Health Administration website, [msha.gov](http://msha.gov), please check the website for updates.

## OSHA Regulations

### Standards - 29 CFR, 1910.242 (partial):

(b) Compressed air used for cleaning - Compressed air shall not be used for cleaning purposes except where reduced to less than 30 PSI and then only with effective chip guarding and personal protective equipment.

### Standards - 29 CFR, 1915.131 (partial):

(e) Before use, pneumatic tools shall be secured to the extension hose or whip by some positive means to prevent the tool from becoming accidentally disconnected from the whip.

### Standards - 29 CFR, 1926.302 (partial):

- (b)(1) Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected.
- (b)(2) Safety clips or retainers shall be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.
- (b)(3) All pneumatically driven nailers, staplers and other similar equipment provided with automatic fastener feed, which operate at more than 100 PSI pressure at the tool shall have a safety device on the muzzle to prevent the tool from ejecting fasteners, unless the muzzle is in contact with the work surface.
- (b)(4) Compressed air shall not be used for cleaning purposes except where reduced to 30 PSI and then only with effective chip guarding and personal protective equipment which meets the requirements of Subpart E of this part. The 30 PSI requirement does not apply for concrete form, mill scale and similar cleaning purposes.
- (b)(5) The manufacturer's safe operating pressure for hoses, pipes, valves, filters and other fittings shall not be exceeded.
- (b)(6) The use of hoses for hoisting or lowering tools shall not be permitted.
- (b)(7) All hoses exceeding ½" inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.

### Standards - 29 CFR, 1926.306:

#### (a) General requirements

(a)(1) Application. This section applies to compressed air receivers, and other equipment used in providing and utilizing compressed air for performing operations such as cleaning, drilling, hoisting, and chipping. On the other hand, however, this section does not deal with the special problems created by using compressed air to convey materials nor the problems created when men work in compressed air as in tunnels and caissons. This section is not intended to apply to compressed air machinery and equipment used on transportation vehicles such as steam railroad cars, electric railway cars, and automotive equipment.

#### (a)(2) New and existing equipment.

(a)(2)(i) All new air receivers installed after the effective date of these regulations shall be constructed in accordance with the 1968 edition of the A.S.M.E. Boiler and Pressure Vessel Code Section VIII.

(a)(2)(ii) All safety valves used shall be constructed, installed and maintained in accordance with the A.S.M.E. Boiler and Pressure Vessel Code, Section VIII Edition 1968.

#### (b) Installation and equipment requirements

(b)(1) Installation. Air receivers shall be so installed that all drains, handholes, and manholes therein are easily accessible. Under no circumstances shall an air receiver be buried underground or located in an inaccessible place.

(b)(2) Drains and traps. A drain pipe and valve shall be installed at the lowest point of every air receiver to provide for the removal of accumulated oil and water. Adequate automatic traps may be installed in addition to drain valves. The drain valve on the air receiver shall be opened and the receiver completely drained frequently and at such intervals as to prevent the accumulation of excessive amounts of liquid in the receiver.

#### (b)(3) Gauges and valves.

(b)(3)(i) Every air receiver shall be equipped with an indicating pressure gauge (so located as to be readily visible) and with one or more spring-loaded safety valves. The total relieving capacity of such safety valves shall be such as to prevent pressure in the receiver from exceeding the maximum allowable working pressure of the receiver by more than 10 percent.

(b)(3)(ii) No valve of any type shall be placed between the air receiver and its safety valve or valves.

### Standards - 29 CFR, 1926.603 (partial):

(a)(9) Steam hose leading to a steam hammer or jet pipe shall be securely attached to the hammer with an adequate length of at least ¼" diameter chain or cable to prevent whipping in the event the joint at the hammer is broken. Air hammer hoses shall be provided with the same protection as required for steam lines.

(a)(10) Safety chains, or equivalent means, shall be provided for each hose connection to prevent the line from thrashing around in case the coupling becomes disconnected.

*The regulations may be viewed in full on the OSHA website, [osha.gov](http://osha.gov), please check the website for updates.*



## Solutions on Site Vans by Dixon®

Safety &  
Technical

Our Solutions on Site (SOS) vans are outfitted with product samples, videos, literature and products representative of what Dixon® provides to specific markets. Call 800.355.1991 for additional information.

### Best Practices Safety Assessment

Dixon®, in partnership with your industrial hose supplier, is pleased to offer a hose and coupling safety survey of your plant, at no cost to you, to assist in your efforts to make your facility as safe, efficient and productive as possible.

Today, plant safety is an enormous, ongoing endeavor in which it is impossible to be an expert in every field.

The use of damaged or misapplied hose couplings and related items occurs. To the untrained eye, these hazards may continue to exist until an accident happens, threatening not only plant machinery, but also the well-being of plant personnel.

Our program includes a visual inspection of hose assemblies and related accessories in your plant by trained technicians. A professionally written report containing our observations and recommendations for corrective action is subsequently provided to augment your own ongoing safety program. If desired, photographs of the areas of concern can be supplied with the report. As a follow-up, the program offers an educational hands-on seminar directly relating to the safety concerns in your facility.

Plant safety is coming under increasing scrutiny by various regulatory agencies. Let Dixon® trained personnel assist you in establishing and maintaining safety compliance in your plant.

The safety survey report is completely confidential and will only be shown to authorized plant personnel. For more information, please contact Dixon® at 800.355.1991.

### Hose Coupling Workshop

In an effort to provide our customers with information regarding the proper and safe methods of assembling hose and couplings, Dixon® offers Hose Coupling Workshops suitable for a company's sales force and shop personnel.

Classes consist of lectures and/or hands-on demonstrations of coupling selection, hose preparation, coupling installation, assembly testing and maintenance procedures. Morning, afternoon and all day classes are available. For more information, please visit [dixonvalve.com/hcw](http://dixonvalve.com/hcw) or call 800.355.1991.

We encourage you to share this information with anyone who may be affected by the selection, installation, maintenance or use of any hose assembly. Always use quality products to **Be Safe**.

## Selecting Materials

This information is intended to help make general comparisons between different available materials.

Material	Features and Benefits
Stainless Steel	A corrosion-resistant material that provides high strength at high temperatures, helps prevent contamination of product being transported, maintains cleanliness, and retains a lustrous appearance. Harder than brass. <i>Type 304</i> is a low-carbon chromium-nickel stainless steel. <i>Type 316</i> is similar to type 304, but has a high nickel content as well as a molybdenum for stronger resistance to heat and corrosion. Often used for water, oil, gas, and steam in low- to high-pressure applications.
Brass	Has good corrosion resistance and is less expensive than stainless steel. Is softer and easier to thread than stainless steel and forms tight seals. It can be used interchangeably with copper where heavier walls are required. Found in plumbing and heating application. Also good with oil, natural gas, and air. Resists corrosion from salt water as well as fresh water polluted with waste from mineral acids and peaty soils. Use in low- to high-pressure applications.
Steel	Used in noncorrosive environments. This carbon- and iron-based metal is hard and strong. It is an economical alternative to stainless steel and brass in high-pressure applications. For use with water, oil, gas, and steam in low- to high-pressure applications where corrosion is not a problem.

Safety & Technical

Product application is based not only on material selection but on design of product for intended use. Please contact Dixon® for selection of the proper fitting for your application.



## Corrosion Resistance of Coupling Material

### **⚠ WARNING**

The data on the following pages has been compiled from generally available sources and should not be relied upon without consulting and following the specific recommendations of the manufacturer regarding particular coupling materials.

### Ratings

Metal
1 = Excellent 2 = Good 3 = Fair X = Not Recommended - = Contact Dixon®

Non-Metal
A = Acceptable X = Not Recommended - = Contact Dixon®

Gasket/Seal Material
T = PTFE V = FKM E = EPDM, EPR N = Neoprene B = Buna N

1. Ratings given are based at **70°F (21°C)**. Chemical compatibility varies greatly with temperature. For applications at temperatures other than **70°F (21°C)**, contact Dixon® for recommendations at 800.355.1991.
2. Gasket / seal materials are not necessarily listed in order of preference.
3. Chemical resistance of a material does not necessarily indicate the suitability of a fitting in a given application due to variables such as improper clamp and coupling application, special hose construction, gasket material, etc.



Special caution should be taken when handling hazardous materials.



Material Selection

Safety & Technical

AGENT	Aluminum	Brass	Bronze	Hastelloy, C-276	Malleable Iron Carbon Steel	Monel	Stainless Steel, 304	Stainless Steel, 316	Nylon	Polypropylene	Seal Material
Acetate Solvents (Crude)	1	X	X	1	2	2	1	1	A	X	T
Acetate Solvents (Pure)	1	1	1	1	X	1	1	1	A	X	T
Acetic Acid (80%)	3	X	X	1	X	1	1	1	X	X	TEVNB
Acetic Acid (50%)	2	X	X	1	X	2	2	1	X	X	TEVNB
Acetic Acid (20%)	2	X	X	1	X	2	2	1	X	X	TEVNB
Acetic Acid (10%)	2	X	2	1	X	2	1	1	X	X	TEVNB
Acetic Anhydride	2	X	2	1	2	2	2	2	X	X	TNB
Acetone	1	2	2	1	2	1	1	1	A	X	TE
Acetylene	1	X	X	2	2	2	1	1	X	X	TEVNB
Alcohols											
Amyl Alcohol	2	2	2	2	2	1	2	2	A	A	TEVNB
Benzyl Alcohol	2	2	2	2	2	1	1	1	X	A	TVB
Butyl Alcohol	1	2	1	2	2	1	1	1	A	A	TEVN
Diacetone Alcohol	1	1	2	1	2	1	2	2	X	A	TE
Ethyl Alcohol	1	2	2	1	2	2	2	2	X	A	TEVNB
Hexyl Alcohol	-	-	-	1	-	-	-	-	A	-	-
Isobutyl Alcohol	-	-	-	-	-	-	-	-	A	-	-
Isopropyl Alcohol	2	2	2	2	2	2	2	2	A	A	TEVNB
Methyl Alcohol (Methanol)	2	2	2	1	2	2	2	2	A	A	TENB
Octyl Alcohol	-	-	-	-	-	-	-	-	A	-	-
Propyl Alcohol	2	2	2	1	2	2	1	1	X	A	TEVNB
Aluminum											
Aluminum Chloride (Aqu.)	X	X	X	1	X	X	X	X	A	A	TEVNB
Aluminum Fluoride (Sat.)	2	-	-	-	X	2	X	2	X	A	TEVNB
Aluminum Nitrate (Sat.)	3	X	-	-	X	-	2	2	A	A	TEVNB
Aluminum Potassium Sulfate (Alum)	2	2	2	2	X	2	X	2	X	A	TEVNB
Aluminum Sulfate (Sat.)	X	X	2	2	X	2	-	2	A	A	TEVNB
Ammonia											
Ammonia Anhydrous	1	X	X	2	1	1	2	1	A	X	TENB
Ammonia Gas	X	X	X	1	1	X	1	1	A	X	TENB
Ammonia Nitrate	-	-	-	-	-	-	-	-	X	-	-
Ammonium											
Ammonium Bifluoride	-	X	-	2	X	2	-	-	X	A	TEVB
Ammonium Carbonate (Sat.)	2	X	X	2	2	2	2	2	A	A	TEVNB
Ammonium Casenate	-	-	-	-	-	-	-	-	A	-	-
Ammonium Chloride (Sat.)	X	X	2	2	X	2	X	X	A	A	TEVNB
Ammonium Hydroxide (Sat.)	2	X	X	2	1	X	2	2	A	A	TEVNB
Ammonium Nitrate	2	X	X	-	X	X	-	-	A	A	TENB
Ammonium Phosphate (10-40%)	X	X	X	-	X	2	1	2	A	A	TEVNB
Ammonium Sulfate (10-40%)	X	X	3	2	X	2	X	2	A	A	TEVNB
Aniline	-	X	2	2	X	2	1	1	X	X	TV
Arsenic Acid	X	X	2	2	X	X	2	2	X	A	TEVNB
Asphalt	-	-	-	-	2	-	-	2	X	X	TV
Barium											
Barium Carbonate (Sat.)	X	2	2	2	2	2	2	2	A	A	TEVNB
Barium Chloride (Sat.)	-	2	2	1	-	2	X	-	A	A	TEVNB
Barium Hydroxide (Sat.)	X	2	X	2	2	1	2	2	A	A	TEVNB
Barium Sulfate	2	2	2	-	X	2	2	2	A	A	TEVNB
Barium Sulfide	X	X	X	-	2	X	2	2	A	A	TEVNB
Beer	1	2	2	1	2	1	1	1	A	A	TEVNB
Benzaldehyde	2	2	2	2	X	2	2	2	X	X	TE
Benzene, Benzol	1	2	2	2	2	2	2	2	A	X	TV
Benzine	-	-	-	-	-	-	-	-	A	X	-
Benzoic Acid	2	2	2	-	X	2	2	2	X	X	TVN
Black Liquor	X	X	X	X	-	2	2	2	X	A	TEVNB
Bleach (12.5% Active Chlorine)	X	-	-	1	X	-	-	X	X	A	TEVN
Borax	X	2	2	1	2	1	1	1	X	A	TEVNB
Boric Acid	1	X	2	1	X	2	-	-	X	A	TEVNB
Brine Acid	-	2	2	1	-	-	-	-	X	A	TEVNB
Bromic acid	X	X	X	-	-	X	-	-	X	A	TEVN
Bromine Liquid	2	-	-	-	-	-	X	X	X	X	TV
Butadiene, Butylene	2	2	2	2	2	1	2	2	X	X	TVNB
Butane	2	2	2	2	1	1	2	2	X	X	TV
Butyl Acetate	1	2	2	2	2	2	2	2	A	X	T
Butyric Acid	2	2	X	1	X	2	2	2	A	A	TV

Ratings given are based at 70°F (21°C).

Material Selection

P

AGENT	Aluminum	Brass	Bronze	Hastelloy, C-276	Malleable Iron Carbon Steel	Monel	Stainless Steel, 304	Stainless Steel, 316	Nylon	Polypropylene	Seal Material
Calcium											
Calcium Bisulfate	X	-	X	-	X	X	X	2	X	A	T
Calcium Bisulfide	-	-	-	-	-	2	-	2	A	A	TVB
Calcium Bisulfite	X	X	2	2	X	X	-	2	X	A	TVNB
Calcium Bromide	X	2	2	-	X	2	1	X	X	X	T
Calcium Carbonate	X	2	2	2	2	2	1	2	A	A	TEVB
Calcium Chloride (Sat.)	-	2	-	1	2	2	-	-	A	A	TEVNB
Calcium Hydroxide (Sat.)	X	2	X	-	2	2	2	2	A	A	TEVNB
Calcium Hypochlorite (Sat.)	X	X	X	-	X	X	X	2	X	A	TEV
Carbon											
Carbon Bisulfide	1	X	2	2	2	X	2	2	A	X	TV
Carbon Dioxide (Dry)	1	1	2	1	2	1	2	2	A	A	TENB
Carbon Dioxide (Wet)	1	X	-	2	3	-	2	2	X	A	TENB
Carbon Disulfide	1	X	2	2	2	X	2	2	A	X	TV
Carbon Monoxide	1	1	1	1	2	1	1	1	A	A	TEVNB
Carbon Tetrachloride	X	-	1	1	2	1	1	-	A	X	TV
Carbonic Acid	1	2	2	1	2	3	2	2	X	A	TEVNB
Castor Oil	2	2	2	1	2	1	2	2	X	A	TEVNB
Caustic Potash	X	-	-	1	X	-	-	2	A	A	TEVNB
Caustic Soda (see Sodium Hydroxide)											
Cellosolves	2	2	2	2	2	2	2	2	X	A	TE
Chlorine (Liquid)	-	-	-	1	2	2	-	3	X	X	TV
Chloroform	-	-	-	2	X	1	-	-	X	X	TV
Chlorosulfonic Acid	-	X	X	1	2	2	X	X	X	X	T
Clorox (Bleach, 5.5% CL)	X	-	-	-	X	-	-	2	X	-	TEVB
Chromic Acid (50%)	2	X	X	2	X	X	3	-	X	X	TVNB
Citric Acid	3	X	X	1	X	2	-	-	X	A	TEVNB
Coke Oven Gas	2	3	3	-	2	2	2	2	X	X	TEVN
Copper											
Copper Chloride	X	X	X	2	X	X	X	X	A	A	TEVNB
Copper Cyanide	X	X	X	1	-	X	2	2	X	-	TEVNB
Copper Sulfate	X	X	X	1	X	X	-	2	A	A	TEVNB
Crylic Acid (Conc.)	2	2	X	-	2	3	2	2	X	X	TEV
Cyclohexane	2	2	2	2	2	1	2	2	A	X	TVB
Detergents	2	2	2	1	2	-	1	2	A	A	TEVNB
Dextrose	2	-	-	2	-	2	-	-	A	A	TEVNB
Diesel Fuels	1	1	1	2	2	-	1	1	A	X	TVB
Diethylamine	2	-	X	-	X	1	2	2	X	A	TN
Disodium Phosphate	-	-	-	-	1	-	-	1	A	A	TEV
Ethers	2	2	2	2	2	2	1	1	A	X	TB
Ethyl											
Ethyl Acetate	-	-	2	2	2	2	2	2	A	X	T
Ethyl Chloride	-	-	2	2	2	2	-	1	A	X	TEVB
Ethylene											
Ethylene Chloride	-	-	-	-	2	2	-	-	A	X	TV
Ethylene Dichloride	-	2	X	2	2	1	2	2	A	X	TV
Ethylene Glycol	1	2	2	1	2	2	2	2	A	X	TEVNB
Ethylene Oxide	X	X	X	1	3	2	2	2	X	X	T
Fatty Acids	1	3	3	1	X	2	-	1	A	A	TVNB
Ferric											
Ferric Chloride	X	X	2	2	X	X	X	X	X	A	TEVNB
Ferric Hydroxide	-	-	-	1	-	2	1	1	A	-	TEVNB
Ferric Nitrate (10-50%)	X	X	X	-	X	X	2	2	X	A	TEVNB
Ferric Sulfate	X	X	X	-	X	2	-	-	X	A	TEVNB
Ferrous											
Ferrous Chloride (Sat.)	X	X	2	2	-	X	X	X	X	A	TEVNB
Ferrous Sulfate	2	2	2	2	X	2	2	-	X	A	TEVNB
Fluoboric Acid	X	-	-	1	1	2	-	-	X	A	TEVNB
Formaldehyde (50%)	-	2	2	2	X	2	1	1	X	A	TEN
Formic Acid (Anhyd.)	1	X	2	1	X	2	-	-	X	A	TEVN
Freon											
Freon 11	2	2	2	-	X	1	2	2	X	X	TVNB
Freon 12	2	2	2	1	X	2	2	2	X	X	TVNB
Freon 22	2	2	2	2	X	2	2	2	X	X	TN
Fruit Juices	2	2	3	1	X	1	2	2	A	A	TVNB
Fuel Oil	2	2	2	2	2	2	2	2	A	X	TVNB
Furfural	2	2	2	2	2	2	2	2	A	X	TEN

Technical  
Safety &

P

Material Selection

Safety & Technical

AGENT	Aluminum	Brass	Bronze	Hastelloy, C-276	Malleable Iron Carbon Steel	Monel	Stainless Steel, 304	Stainless Steel, 316	Nylon	Polypropylene	Seal Material
Gasoline											
Refined Gasoline	2	2	2	2	2	2	2	2	A	X	TVNB
Sour Gasoline	X	2	2	2	2	X	2	2	A	X	TVNB
Gelatin	2	2	2	-	X	2	2	2	A	A	TEVNB
Glucose	2	2	2	-	2	2	2	2	A	A	TEVNB
Glue	2	2	2	1	2	2	-	2	-	A	TEVNB
Glycerine	1	1	2	1	2	1	1	1	A	A	TEVNB
Glycols	2	2	2	-	2	2	2	2	A	A	TEVNB
Green Liquor	-	-	-	-	2	-	-	-	-	A	TEVNB
Heptane	2	2	2	1	2	2	2	2	A	X	TVNB
Hexane	2	2	2	1	2	2	1	1	A	X	TVNB
Hydrobromic Acid (50%)	X	X	X	2	X	X	X	X	X	A	TEV
Hydrobromic Acid (20%)	X	X	X	1	X	X	X	X	X	A	TEV
Hydrochloric Acid (20%)	X	X	X	1	X	3	X	X	X	A	TEVNB
Hydrochloric Acid (38%)	X	X	X	1	X	X	X	X	X	A	TEVN
Hydrocyanic Acid	2	X	X	2	2	2	2	2	X	A	TEVN
Hydrofluosilicic Acid (10-50%)	X	2	X	2	X	2	X	2	X	-	TEVNB
Hydrogen											
Hydrogen Peroxide (50%)	-	X	X	2	X	2	-	-	X	A	TEV
Hydrogen Sulfide (Aq.)	-	-	-	2	-	2	X	2	X	A	TE
Hydrogen Chloride (Dry Gas)	X	2	-	1	2	1	-	-	X	A	TEVN
Hydrogen Gas	1	1	1	1	-	1	1	1	X	A	TEVNB
Hypochlorous Acid	X	X	X	2	X	X	X	X	X	X	TEV
Iodine	1	X	X	-	X	1	X	X	X	A	TEV
Isopropyl Ether	-	2	2	-	-	2	1	2	A	X	T
Jet Fuel (JP4, JP5)	2	1	2	1	2	2	2	2	X	X	TV
Kerosene	2	2	2	2	2	2	2	2	X	X	TVNB
Ketones	2	2	2	1	2	2	2	2	A	X	T
Lactic Acid (25%)	3	2	2	1	X	X	-	-	A	A	TEVN
Lactic Acid (80%)	2	2	X	2	X	-	-	-	A	A	TEVN
Lard Oil	2	-	2	1	3	2	2	2	A	A	TVB
Lead											
Lead Acetate	X	X	X	2	X	2	2	2	X	A	TENB
Lead Chloride	X	-	-	2	-	-	2	2	X	-	TVNB
Lead Sulfate	X	-	-	2	X	2	2	2	X	-	TEVNB
Lime Sulphur	X	X	X	-	X	2	2	2	X	A	TEVN
Linoleic Acid	2	X	3	2	X	2	2	2	X	A	TVB
Linseed Oil	2	2	2	2	2	2	2	2	A	A	TVNB
Lubricants (Oil)	2	1	-	-	2	2	2	2	A	X	TVNB
Magnesium											
Magnesium Carbonate	2	-	-	-	-	2	2	2	X	A	TEVNB
Magnesium Chloride	X	X	2	1	-	-	-	-	X	A	TEVNB
Magnesium Hydroxide	2	2	2	1	2	2	1	1	X	A	TEVNB
Magnesium Nitrate	2	2	2	1	2	2	2	2	X	A	TEVNB
Magnesium Oxide	-	-	-	-	-	-	-	-	X	-	-
Magnesium Sulfate	2	-	2	-	-	1	2	2	X	A	TEVNB
Maleic Acid	-	2	3	2	X	-	-	2	X	A	TEV
Mercuric											
Mercuric Chloride	X	X	X	-	X	X	X	-	X	A	TEVB
Mercuric Cyanide	X	X	X	2	X	2	2	2	X	A	TEVB
Mercury	X	X	X	1	2	-	1	1	A	A	TEVNB
Methane	1	1	2	1	2	1	1	1	A	X	TEVNB
Methanol	2	2	2	1	2	2	2	2	A	A	TENB
Methyl											
Methyl Bromide	X	-	-	-	2	-	2	2	X	X	TV
Methyl Ethyl Ketone	2	2	2	2	2	2	2	2	A	X	TE
Methyl Isobutyl Ketone	2	2	2	2	2	2	2	2	A	X	T
Methyl Methacrylate	2	-	-	-	X	-	2	2	X	A	T
Methylene Chloride	-	2	2	X	2	-	-	-	A	X	T
Milk	1	X	X	1	2	X	1	1	A	A	TEVNB
Mineral Oil	2	1	-	-	2	1	1	2	A	A	TVNB
Muriatic Acid	X	-	-	1	-	X	X	X	X	A	TV
Napthalene	2	2	2	2	2	2	1	1	A	A	TV
Naptha	2	2	2	2	2	2	2	2	A	X	TVB

Ratings given are based at 70°F (21°C).

Material Selection

P

AGENT	Aluminum	Brass	Bronze	Hastelloy, C-276	Malleable Iron Carbon Steel	Monel	Stainless Steel, 304	Stainless Steel, 316	Nylon	Polypropylene	Seal Material
Nickel											
Nickel Chloride	X	X	X	-	X	2	-	-	X	A	TEVNB
Nickel Sulfate	X	X	-	2	-	-	2	2	X	A	TEVNB
Nitric											
Nitric Acid (100%)	1	X	X	2	X	X	2	-	X	X	TV
Nitric Acid (50%)	X	X	X	1	X	X	2	-	X	X	TV
Nitric Acid (30%)	X	X	X	1	X	X	1	-	X	X	TV
Nitrobenzene	1	2	2	-	2	2	2	2	A	A	T
Oils											
Castor Oil	2	2	2	1	2	1	2	2	A	A	TEVNB
Coconut Oil	2	-	2	-	3	2	2	2	A	A	TVB
Corn Oil	2	2	2	-	2	2	-	2	A	A	TVNB
Cotton Seed Oil	2	2	2	-	2	1	2	2	A	A	TVNB
Fuel Oil	2	2	2	2	2	2	2	2	A	X	TVNB
Linseed Oil	2	2	2	2	2	2	2	2	A	A	TVNB
Mineral Oil	2	1	-	-	2	1	1	2	A	A	TVNB
Silicon Oil	2	1	2	-	2	-	2	2	A	A	TEVB
Vegetable Oil	2	2	2	1	2	1	1	1	A	X	TVNB
Oleic Acid	2	3	2	2	2	1	-	1	A	X	TB
Oleum	2	X	X	-	2	X	2	2	X	X	TV
Oxalic Acid (Sat.)	2	-	2	2	X	2	X	X	X	A	TEV
Oxygen	2	2	2	-	2	2	2	2	X	X	TEVNB
Palmitic Acid (Sat.)	2	3	2	-	3	2	2	2	X	A	TVB
Paraffin	2	2	2	2	2	2	2	2	A	A	TVNB
Perchloroethylene	2	2	2	2	2	1	-	-	X	X	TV
Petrolatum	2	-	2	-	3	2	2	2	A	-	TVNB
Phenol (Carbolic Acid)	1	1	X	1	2	1	-	1	X	X	TV
Phosphoric Acid											
Phosphoric Acid (25-50%)	X	X	2	1	X	X	-	-	X	A	TEVN
Phosphoric Acid (50-85%)	X	X	X	1	X	3	-	-	X	A	TEV
Photographic Solutions	-	-	-	-	X	1	1	1	X	X	TVNB
Phthalic Anhydride	-	2	2	1	2	1	1	1	X	X	TEV
Picric Acid	1	X	X	2	X	X	2	2	X	-	TEVNB
Plating Solutions											
Brass Plating Solution	-	-	-	1	-	-	-	2	X	A	TEVNB
Cadmium Plating Solution	-	-	-	1	-	-	-	2	X	A	TEVNB
Chrome 40% Plating Solution	X	2	2	1	X	X	2	2	X	A	TEVN
Copper (Cyanide) Plating Solution	-	-	-	1	-	-	-	-	X	A	TEVNB
Gold Plating Solution	-	-	-	1	-	-	-	1	X	A	TEVNB
Iron Plating Solution	-	-	-	-	-	-	-	-	X	A	TEVB
Lead Plating Solution	-	-	-	-	-	-	1	1	X	A	TEVNB
Nickel Plating Solution	-	-	-	1	-	-	1	1	X	A	TEVNB
Silver Plating Solution	-	-	-	1	-	-	1	1	X	A	TEVNB
Tin Plating Solution	-	-	-	1	-	-	-	3	X	A	TEVNB
Zinc Plating Solution	-	-	-	1	-	-	-	-	X	A	TEVNB
Potassium											
Potassium Acetate	X	X	X	-	2	-	-	-	A	A	TEVB
Potassium Bicarbonate (30%)	X	2	-	2	2	2	1	1	A	A	TEVNB
Potassium Carbonate (50%)	X	2	X	2	2	2	1	1	A	A	TEVNB
Potassium Chlorate (30%)	2	X	X	-	2	2	2	1	X	A	TEVNB
Potassium Chloride (30%)	X	X	2	-	2	1	-	-	A	A	TEVNB
Potassium Chromate (30%)	2	2	2	2	-	2	2	2	X	A	TEVB
Potassium Cyanide Solution (30%)	X	X	X	2	2	2	2	2	X	A	TEVNB
Potassium Dichromate (30%)	1	2	2	2	2	2	1	1	X	A	TEVB
Potassium Hydroxide (90%)	X	X	X	2	-	2	X	-	X	A	TENB
Potassium Nitrate (80%)	1	2	2	2	2	2	2	2	X	A	TEVNB
Potassium Permanganate (20%)	2	2	2	1	2	2	2	2	X	A	TEVN
Potassium Sulfate (10%)	1	2	2	1	2	1	1	1	A	A	TEVNB
Propane	1	1	1	2	2	1	2	2	X	X	TVB
Propylene Glycol	2	2	2	2	2	2	2	2	A	A	TVNB
Propylene Oxide (90%)	-	-	-	-	-	-	1	1	X	X	TE
Pyridine	2	2	2	-	2	2	2	2	A	X	T
Pyrogalllic Acid	2	2	2	2	2	2	2	2	X	X	TVNB
Silver Nitrate	X	X	X	-	X	X	2	1	X	A	TEVNB
Soap Solutions	2	2	2	1	2	2	2	2	A	A	TEVNB

Technical Safety &

P

Ratings given are based at 70°F (21°C).

Material Selection

Safety & Technical

AGENT	Aluminum	Brass	Bronze	Hastelloy, C-276	Malleable Iron Carbon Steel	Monel	Stainless Steel, 304	Stainless Steel, 316	Nylon	Polypropylene	Seal Material
Sodium											
Sodium Acetate	1	2	2	-	X	2	2	2	A	A	TEN
Sodium Bicarbonate (20%)	2	2	2	1	3	1	1	1	A	A	TEVNB
Sodium Bisulfate	X	-	2	2	2	-	-	-	A	A	TEVNB
Sodium Bisulfite	X	2	X	2	X	-	-	-	A	A	TEVNB
Sodium Borate	2	2	2	2	3	2	2	2	A	A	TEVNB
Sodium Perborate (10%)	2	X	2	2	2	2	2	2	X	A	TEVNB
Sodium Carbonate	X	2	-	2	2	1	-	2	A	A	TEVNB
Sodium Chlorate (50%)	2	2	2	1	X	1	2	2	X	A	TEVNB
Sodium Cyanide	X	X	X	2	2	X	-	-	A	A	TEVNB
Sodium Dichromate	2	X	X	1	2	-	2	2	X	A	TE
Sodium Hydroxide (70%)	X	X	X	1	3	1	2	2	X	A	TENB
Sodium Hydroxide (50%)	X	X	3	1	3	1	1	-	X	A	TENB
Sodium Hydroxide (30%)	X	2	3	2	2	1	1	1	X	A	TENB
Sodium Chloride (30%)	X	2	2	2	2	1	-	-	X	A	TEVNB
Sodium Hypochlorite	X	X	X	-	X	X	-	-	X	A	TEV
Sodium Metaphosphate	X	X	2	-	X	2	2	2	X	X	TEVNB
Sodium Nitrate (40%)	1	2	-	-	2	2	1	1	A	A	TENB
Sodium Perborate (10%)	2	X	2	2	2	2	2	2	X	A	TEVNB
Sodium Peroxide (10%)	2	X	X	2	2	2	2	2	X	A	TEVNB
Sodium Silicate	1	2	2	2	2	2	2	2	A	A	TEVNB
Sodium Sulfate	-	2	2	2	2	-	-	1	A	A	TEVNB
Sodium Sulfide (50%)	X	X	X	2	2	2	-	2	X	A	TEVNB
Sodium Thiosulphate	2	X	X	2	X	2	2	2	A	A	TEVNB
Stannic Chloride	X	X	X	-	X	X	X	X	X	A	TEVNB
Stannous Chloride	X	X	X	2	X	-	X	-	X	X	TEVNB
Steam	-	-	-	-	-	-	-	-	X	-	-
Stearic Acid	2	3	2	1	3	3	2	1	A	A	TVNB
Stoddard's Solvent	2	2	2	1	2	2	2	2	X	A	TVB
Sugar Liquors (Cane)	1	2	1	-	2	2	2	2	A	A	TEVNB
Sugar Liquors (Beet)	1	2	1	-	2	1	1	1	A	A	TEVNB
Sulfate Liquors	2	X	X	2	3	2	-	2	X	A	TVNB
Sulfite Liquors	X	X	-	1	X	X	2	2	X	X	TVNB
Sulfur Chloride	X	-	X	2	X	X	-	-	X	X	TV
Sulfur Dioxide (Dry)	2	2	2	2	1	2	-	2	X	A	TE
Sulfur Trioxide	2	2	X	2	2	2	-	2	X	X	TEV
Sulfuric Acid (TO 10%)	X	2	X	1	X	X	X	X	X	A	TEVNB
Sulfuric Acid (100%)	X	X	X	1	2	X	-	-	X	X	TV
Sulfurous Acid	2	2	X	-	X	X	X	-	X	A	TV
Tannic Acid	X	-	X	-	X	2	2	2	X	A	TEVNB
Tanning Liquors	1	-	2	1	-	-	1	1	X	A	TVNB
Tartaric Acid	-	-	2	2	-	-	1	1	A	A	TVNB
Titanium Tetrachloride	X	X	X	2	2	2	-	2	X	X	TV
Toluene	1	1	1	1	1	1	1	1	A	X	TVB
Tetrahydrofuran	X	-	2	1	1	-	1	2	A	X	T
Tomato Juice	2	-	3	2	3	2	2	2	X	A	TEVNB
Trichloroethylene	1	-	2	1	2	-	-	-	A	X	TV
Triethanolamine	2	X	2	2	2	2	2	2	A	X	TEVN
Triethylamine	-	-	-	-	-	2	2	2	A	X	TVB
Trisodium Phosphate (10%)	X	2	-	1	2	2	1	1	A	A	TVNB
Turpentine	2	X	2	2	2	1	1	1	X	X	TVB
Urea (50%)	2	-	2	-	2	2	2	2	A	A	TEVNB
Urine	-	-	-	-	2	-	1	1	X	A	TEVNB
Vinegar	X	X	2	2	2	2	2	2	X	A	TEVN
Water Acid (Mine)	X	X	X	1	X	-	-	-	X	A	TEVNB
Water (Distilled)	X	2	2	1	X	X	2	2	A	A	TEVNB
Water (Sea)	2	2	2	1	X	2	2	2	A	A	TEVNB
Whiskey	X	2	2	1	2	2	1	1	X	A	TEVNB
White Liquor (Pulp)	2	-	X	2	X	X	2	2	X	A	TEVNB
Wine	X	2	2	1	X	2	1	1	X	A	TEVNB
Xylene	2	2	2	1	2	2	2	2	A	X	TV
Zinc											
Zinc Chloride	X	X	X	2	X	-	X	2	A	A	TEVNB
Zinc Nitrate	-	-	-	-	-	-	2	2	X	A	TEVNB
Zinc Sulfate (50%)	X	2	2	2	X	2	1	1	X	A	TEVNB

Ratings given are based at 70°F (21°C).





## Measures of Pressure

1 Pound Per Square Inch = 144 Pounds Per Square Foot = 0.068 Atmosphere = 2.042 Inches of Mercury at 62°F = 27.7 Inches of Water at 62°F = 2.31 Feet of Water at 62°F.

1 Atmosphere = 30 Inches of Mercury at 62°F = 14.7 Pounds Per Square Inch = 2116.3 Pounds Per Square Foot = 33.95 Feet of Water at 62°F.

1 Foot of Water at 62°F = 62.355 Pounds Per Square Foot = 0.433 Pounds Per Square Inch.

1 Inch of Mercury at 62°F = 1.132 Feet of Water = 13.58 Inches of Water = 0.491 Pounds Per Square Inch.

Column of Water 12 Inches High, 1 Inch in Diameter = .341 Pounds

If temperature is kept constant, the volume of a given mass of gas is inversely proportional to the pressure which is exerted upon it.

## Length Conversion Constants

Millimeters x .039370 = Inches

Meters x 39.370 = Inches

Meters x 3.2808 = Feet

Meters x 1.09361 = Yards

Kilometers x 3,280.8 = Feet

Kilometers x .62137 = Statute Mile

Kilometers x .53959 = Nautical Miles

Inches x 25.4001 = Millimeters

Inches x .0254 = Meters

Feet x .30480 = Meters

Yards x .91440 = Meters

Feet x .0003048 = Kilometers

Statute Miles x 1.60935 = Kilometers

Nautical Miles x 1.85325 = Kilometers

## Weight Conversion Constants

Grams x .03527 = Ounces (Avd.)

Grams x .033818 = Fluid Ounces (Water)

Kilograms x 35.27 = Ounces (Avd.)

Kilograms x 2.20462 = Pounds (Avd.)

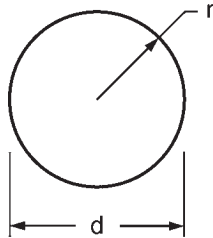
Ounces (Avd.) x 28.35 = Grams

Fluid Ounces (Water) x 29.57 = Grams

Ounces (Avd.) x .02835 = Kilograms

Pounds (Avd.) x .45359 = Kilograms

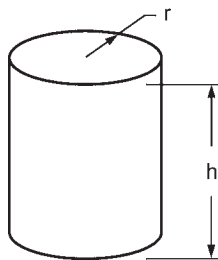
## Circumference of a Circle



$$\text{Circumference} = 2\pi r = \pi d = 3.14159 d$$

$$\text{Area} = \pi r^2 = \pi \frac{d^2}{4} = .78539d^2$$

## Right Cylinder



r = radius

h = length

$$\text{Volume} = \pi r^2 h$$

$$\text{Surface Area} = 2\pi r (r + h)$$

If end planes are parallel but not at 90° to h, the same formulas apply, but a slice at 90° through the cylinder must be used to determine r.

### Temperature Conversions

Look up reading in middle column (shaded). If in degrees Centigrade, read Fahrenheit equivalent in right-hand column; if in degrees Fahrenheit, read Centigrade equivalent in left-hand column.

°C	°F	°C	°F
-73	-100	-148	
-68	-90	-130	
-62	-80	-112	
-57	-70	-94	
-51	-60	-76	
-46	-50	-58	
-40	-40	-40	
-34	-30	-22	
-29	-20	-4	
-23	-10	14	
-17.8	0	32	
-17.2	1	33.8	
-16.7	2	35.6	
-16.1	3	37.4	
-15.6	4	39.2	
-15.0	5	41.0	
-14.4	6	42.8	
-13.9	7	44.6	
-13.3	8	46.4	
-12.8	9	48.2	
-12.2	10	50.0	
-11.7	11	51.8	
-11.1	12	53.6	
-10.6	13	55.4	
-10.0	14	57.2	
-9.4	15	59.0	
-8.9	16	60.8	
-8.3	17	62.6	
-7.8	18	64.4	
-7.2	19	66.2	
-6.7	20	68.0	
-6.1	21	69.8	
-5.6	22	71.6	
-5.0	23	73.4	
-4.4	24	75.2	
-3.9	25	77.0	
-3.3	26	78.8	
-2.8	27	80.6	
-2.2	28	82.4	
-1.7	29	84.2	
-1.1	30	86.0	
-.6	31	87.8	
0	32	89.6	
.6	33	91.4	
1.1	34	93.2	
1.7	35	95.0	
2.2	36	96.8	
2.8	37	98.6	
3.3	38	100.4	
3.9	39	102.2	
4.4	40	104.0	

°C	°F	°C	°F
5.0	41	105.8	
5.6	42	107.6	
6.1	43	109.4	
6.7	44	111.2	
7.2	45	113.0	
7.8	46	114.8	
8.3	47	116.6	
8.9	48	118.4	
9.4	49	120.2	
10.0	50	122.0	
10.6	51	123.8	
11.1	52	125.6	
11.7	53	127.4	
12.2	54	129.2	
12.8	55	131.0	
13.3	56	132.8	
13.9	57	134.6	
14.4	58	136.4	
15.0	59	138.2	
15.6	60	140.0	
16.1	61	141.8	
16.7	62	143.6	
17.2	63	145.4	
17.8	64	147.2	
18.3	65	149.0	
18.9	66	150.8	
19.4	67	152.6	
20.0	68	154.4	
20.6	69	156.2	
21.1	70	158.0	
21.7	71	159.8	
22.2	72	161.6	
22.8	73	163.4	
23.3	74	165.2	
23.9	75	167.0	
24.4	76	168.8	
25.0	77	170.6	
25.6	78	172.4	
26.1	79	174.2	
26.7	80	176.0	
27.2	81	177.8	
27.8	82	179.6	
28.3	83	181.4	
28.9	84	183.2	
29.4	85	185.0	
30.0	86	186.8	
30.6	87	188.6	
31.1	88	190.4	
31.7	89	192.2	
32.2	90	194.0	
32.8	91	195.8	

°C	°F	°C	°F
33.3	92	197.6	
33.9	93	199.4	
34.4	94	201.2	
35.0	95	203.0	
35.6	96	204.8	
36.1	97	206.6	
36.7	98	208.4	
37.2	99	210.2	
37.8	100	212.0	
43	110	230	
49	120	248	
54	130	266	
60	140	284	
66	150	302	
71	160	320	
77	170	338	
82	180	356	
88	190	374	
93	200	392	
99	210	410	
100	212	413.6	
104	220	428	
110	230	446	
116	240	464	
121	250	482	
127	260	500	
132	270	518	
138	280	536	
143	290	554	
149	300	572	
154	310	590	
160	320	608	
166	320	626	
170	338	640	
171	340	644	
177	350	662	
182	360	680	
186	366	691	
188	370	698	
193	380	716	
198	388	730	
199	390	734	
204	400	752	
208	406	763	
210	410	770	
216	420	788	
221	430	806	
227	440	824	
232	450	842	

Steam Temperature and Pressure Conversion Guide

Temperature - Pressure Equivalents of Saturated Steam Gauge Pressure at Sea Level

• Degrees Celsius = 5/9 (Degrees F - 32)

Safety & Technical

Temperature		Lbs. per Sq. Inch	Temperature		Lbs. per Sq. Inch	Temperature		Lbs. per Sq. Inch
°F	°C		°F	°C		°F	°C	
212	100.0	0.0	286	141.1	39.4	336	168.9	97.1
214	101.1	0.6	287	141.7	40.3	337	169.4	98.7
216	102.2	1.2	288	142.2	41.1	338	170.0	100.2
218	103.3	1.8	289	142.8	42.0	339	170.6	101.8
220	104.4	2.5	290	143.3	42.9	340	171.1	103.3
222	105.6	3.2	291	143.9	43.8	341	171.7	105.0
224	106.7	3.9	292	144.4	44.7	342	172.2	106.5
226	107.8	4.6	293	145.0	45.6	343	172.8	108.2
228	108.9	5.3	294	145.6	46.5	344	173.3	109.8
230	110.0	6.1	295	146.1	47.5	345	173.9	111.5
232	111.1	6.9	296	146.7	48.4	346	174.4	113.1
234	112.2	7.7	297	147.2	49.4	347	175.0	114.8
236	113.3	8.5	298	147.8	50.3	348	175.6	116.5
238	114.4	9.4	299	148.3	51.3	349	176.1	118.2
240	115.6	10.3	300	148.9	52.3	350	176.7	119.9
242	116.7	11.2	301	149.4	53.4	352	177.8	123.5
244	117.8	12.1	302	150.0	54.4	354	178.9	127.1
246	118.9	13.1	303	150.6	55.4	356	180.0	130.8
248	120.0	14.1	304	151.1	56.4	358	181.1	134.5
250	121.1	15.1	305	151.7	57.5	360	182.2	138.3
252	122.2	16.2	306	152.2	58.6	362	183.3	142.3
254	123.3	17.3	307	152.8	59.7	364	184.4	146.2
256	124.4	18.4	308	153.3	60.7	366	185.6	150.3
258	125.6	19.6	309	153.9	61.9	368	186.7	154.4
260	126.7	20.7	310	154.4	63.0	370	187.8	158.7
261	127.2	21.4	311	155.0	64.2	372	188.9	163.0
262	127.8	22.0	312	155.6	65.3	374	190.0	167.4
263	128.3	22.6	313	156.1	66.5	376	191.1	171.9
264	128.9	23.2	314	156.7	67.6	378	192.2	176.4
265	129.4	23.9	315	157.2	68.8	380	193.3	181.1
266	130.0	24.5	316	157.8	70.0	382	194.4	185.8
267	130.6	25.2	317	158.3	71.3	384	195.6	190.6
268	131.1	25.8	318	158.9	72.5	386	196.7	195.6
269	131.7	26.5	319	159.4	73.7	388	197.8	200.6
270	132.2	27.2	320	160.0	75.0	390	198.9	205.7
271	132.8	27.9	321	160.6	76.3	392	200.0	210.9
272	133.3	28.6	322	161.1	77.5	394	201.1	216.2
273	133.9	29.3	323	161.7	78.8	396	202.2	221.5
274	134.4	30.0	324	162.2	80.1	398	203.3	227.0
275	135.0	30.8	325	162.8	81.5	400	204.4	232.6
276	135.6	31.5	326	163.3	82.8	402	205.5	238.0
277	136.1	32.3	327	163.9	84.2	404	206.7	244.0
278	136.7	33.0	328	164.4	85.6	406	207.8	250.0
279	137.2	33.8	329	165.0	87.0	408	208.9	256.0
280	137.8	34.5	330	165.6	88.4	410	210.0	262.0
281	138.3	35.3	331	166.1	89.8	412	211.1	268.0
282	138.9	36.1	332	166.7	91.2	414	212.2	275.0
283	139.4	36.9	333	167.2	92.7	416	213.3	281.0
284	140.0	37.7	334	167.8	94.1	418	214.4	288.0
285	140.6	38.6	335	168.3	95.6	420	215.6	294.0

Pressure Conversions

100 PSI = 6.9 Bars  
 250 PSI = 17.25 Bars  
 600 PSI = 41.4 Bars

5 Bars = 72.5 PSI  
 10 Bars = 145 PSI  
 25 Bars = 362.5 PSI

Pressure - Temperature Ratings

- Ratings apply to all products covered by ANSI B16.5 valves conforming to the requirements of this standard must, in other respects, merit these ratings.
- All ratings are maximum allowable non-shock pressures (PSIG) at the tabulated temperatures (degree Fahrenheit). Temperatures are those on the inside of the pressure retaining structure.
- The use of these ratings requires gaskets conforming to the requirements of ANSI B16.5. The user is responsible for selecting gaskets of dimensions and materials to withstand the required bolt loading without injurious crushing, and suitable for the service conditions in all other respects.

Safety &  
Technical

Pressure Class	150	300
Test Pressure	425	1100
Service Temperature	Working Pressure	
-20 to 100	275	720
150	255	710
200	240	700
250	225	690
300	210	680
350	195	675
400	180	665
450	165	650
500	150	625
550	140	590
600	130	555
650	120	515
700	110	470
750	100	425

### Air Velocity in a Pipe

Using the equation and typical values of V, D and L explained to the right approximate values of P are computed as follows:

Safety & Technical

Velocity Ft / Sec	Pipe Diameter in Inches, 10' long				
	1	2	4	6	10
1	.0004	.0002	.0001	.00007	.00004
2	.0016	.0008	.0004	.00030	.00016
5	.0100	.0050	.0025	.00170	.0010
10	.0400	.0200	.0100	.00670	.0040
15	.0900	.0450	.0225	.01500	.0090
20	.1600	.0800	.0400	.02700	.0160
25	.2500	.1250	.0625	.04170	.0250
30	.3600	.1800	.0900	.06000	.0360

$$V = \sqrt{\frac{25,000 DP}{L}}$$

V = air velocity in feet per second  
 D = pipe inside diameter in inches  
 L = length of pipe in feet  
 P = pressure loss due to air friction in ounces/square inch

### Air Volume Discharged from Pipe

CFM = air volume in cubic feet per minute

V = air velocity in feet per second as determined in the equation at the top of this page

$$CFM = 60VA$$

A = cross section area of pipe in square feet

### Boyle's Law

If temperature is kept constant, the volume of a given mass of gas is inversely proportional to the pressure which is exerted upon it.

$$\frac{\text{Initial Pressure}}{\text{Final Pressure}} = \frac{\text{Final Volume}}{\text{Initial Volume}}$$

### Air Supply Requirements (operating pressure: 90 PSI)

Tool	Class	Typical Air Consumption (CFM)	Hose Size (inches)		
			0 - 10 ft.	10 - 50 ft.	50 - 200 ft.
Paving breakers	25 lb.	45	1/2"	1/2"	3/4"
	35 lb.	50	1/2"	3/4"	3/4"
	60 lb.	65	1/2"	3/4"	1"
	80 lb.	80	3/4"	3/4"	1"
Clay diggers		45	1/2"	1/2"	3/4"
Hand drills	8 lb.	20	3/8"	3/8"	1/2"
	15 lb.	32	3/8"	1/2"	1/2"
Rock (sinker) drills	45 lb.	105	3/4"	3/4"	1"
	55 lb.	130	3/4"	1"	1"
Tampers	5" butt	20	3/8"	1/2"	1/2"
	6" butt	30	1/2"	1/2"	3/4"
Sump pump	3 HP	100	3/4"	3/4"	1"
Sludge pump	Ejector	90	1"	1"	1"
Vibrators	2-1/2"	60	1"	1"	1"
	3"	60	1"	1"	1"
Chipping hammers		25	3/8"	1/2"	1/2"
Impact wrenches	3/8" sq. dr.	10	5/16"	3/8"	3/8"
	1/2"	15	5/16"	3/8"	1/2"
	3/4"	25	3/8"	1/2"	1/2"
	1"	50	1/2"	3/4"	3/4"
Drills	1/4" - 1/2"	22	3/8"	3/8"	1/2"
Grinders	die / burr	20	3/8"	3/8"	1/2"
	small angle	20	3/8"	3/8"	1/2"
	3 HP vertical	75	1/2"	3/4"	1"

## CFM vs PSI for Nozzles

- PSI = pounds/square inch
- CFM = cubic feet/minute

Gauge PSI	CFM Free Air Flow @ Nozzle Diameter (inches)							
	1/64	1/32	3/64	1/16	3/32	1/8	3/16	1/4
1	.03"	.11"	.2"	.4"	1.0"	1.7"	3.9"	6.8"
5	.06"	.24"	.5"	1.0"	2.2"	3.9"	8.7"	15.4"
10	.08"	.34"	.8"	1.4"	3.1"	5.4"	12.3"	21.8"
15	.10"	.42"	.9"	1.6"	3.7"	6.6"	15.0"	26.7"
20	.12"	.48"	1.1"	1.9"	4.2"	7.7"	17.1"	30.8"
25	.13"	.54"	1.2"	2.2"	4.7"	8.6"	19.4"	34.5"
30	.16"	.63"	1.4"	2.5"	5.6"	10.0"	22.5"	40.0"
40	.19"	.77"	1.7"	3.1"	6.8"	12.3"	27.5"	49.1"
50	.22"	.91"	2.0"	3.6"	8.2"	14.5"	32.8"	58.2"
60	.26"	1.05"	2.3"	4.2"	9.4"	16.8"	37.5"	67.0"
70	.29"	1.19"	2.7"	4.8"	10.7"	19.0"	43.0"	76.0"
80	.33"	1.33"	3.0"	5.3"	11.9"	21.2"	47.5"	85.0"
90	.36"	1.47"	3.3"	5.9"	13.1"	23.5"	52.5"	94.0"
100	.40"	1.61"	3.7"	6.4"	14.5"	25.8"	58.3"	103.0"
110	.43"	1.76"	3.9"	7.0"	15.7"	28.0"	63.0"	112.0"
120	.47"	1.90"	4.3"	7.6"	17.0"	30.2"	68.0"	121.0"
130	.50"	2.04"	4.6"	8.1"	18.2"	32.4"	73.0"	130.0"
140	.54"	2.17"	4.9"	8.7"	19.5"	34.5"	78.0"	138.0"
150	.57"	2.33"	5.2"	9.2"	20.7"	36.7"	83.0"	147.0"
175	.66"	2.65"	5.9"	10.6"	23.8"	42.1"	95.0"	169.0"
200	.76"	3.07"	6.9"	12.2"	27.5"	48.7"	110.0"	195.0"

Safety &  
Technical

## Air Receiver Capacities

Tank Size (inches)	Tank Size (gallons)	Gauge Pressure on Tank (PSI)			
		0	100	150	200
Cubic Feet Tank Capacity					
12 x 24	10	1.3	11	15	19
14 x 36	20	2.7	21	30	39
16 x 36	30	4.0	31	45	59
20 x 48	60	8.0	62	90	117
20 x 63	80	10.7	83	120	156
24 x 68	120	16.0	125	180	234
30 x 84	240	32.0	250	360	467

If your tank is not listed in the table to the left, use the following formula to calculate the tank size (gallons) and then estimate the cubic feet tank capacity at a given pressure from the table above.

$$\text{Tank Gallons} = \frac{\text{Tank Height} \times (\text{Tank Radius})^2}{73.53}$$

Height and Radius are in inches



## Air Hose Friction

- PSI = pressure in pounds/square inch
- CFM = air flow in cubic feet/minute

Safety &  
Technical

Hose Size (inches)	CFM thru 50' Hose	Gauge Pressure - Pounds/sq inch			
		50	70	90	110
PSI Loss Over 50' Hose Length					
½"	20	1.8	1.0	.8	.6
	30	5.0	3.4	2.4	2.0
	40	10.1	7.0	5.4	4.3
	50	18.1	12.4	9.5	7.6
	60	+	20.0	14.8	12.0
	70	+	28.4	22.0	17.6
	80	+	+	30.5	24.6
	90	+	+	41.0	33.3
	10	+	+	+	44.5
	110	+	+	+	+
¾"	20	.04	.2	.2	.1
	30	.08	.5	.4	.3
	40	1.5	.9	.7	.5
	50	2.4	1.5	1.1	.9
	60	3.5	2.3	1.6	1.3
	70	4.4	3.2	2.3	1.8
	80	6.5	4.2	3.1	2.4
	90	8.5	5.5	4.0	3.1
	100	11.4	7.0	5.0	3.9
	110	14.2	8.8	6.2	4.9
	120	+	11.0	7.5	5.9
	130	+	+	9.0	7.1
	1"	20	.1	0	0
30		.2	.1	.1	.1
40		.3	.2	.2	.2
50		.5	.4	.3	.2
60		.8	.5	.4	.3
70		1.1	.7	.6	.4
80		1.5	1.0	.7	.6
90		2.0	1.3	.9	.7
100		2.6	1.6	1.2	.9
110		3.5	2.0	1.4	1.1
120		4.8	2.5	1.7	1.3
130		7.0	3.1	2.0	1.5

+ pressure loss is too great and therefore the combination of hose size, CFM, and gauge pressure is not recommended. Gauge pressures the indicated air pressure in pounds/square inch, at the source (i.e. the air compressor receiver tank)

## Maximum Recommended Air Flow (SCFM) Through ANSI Standard Weight Schedule 40 Metal Pipe

- Flow values in the table below are based on a pressure drop of 10% of the applied pressure per 100 feet of pipe for 1/8", 1/4", 3/8", and 1/2" pipe sizes; and a pressure drop of 5% of the applied pressure per 100 feet of pipe for 3/4", 1", 1 1/4", 2", 2 1/2", 3" pipe sizes. The table gives recommended flows for pipe sizes at listed pressures and should be used to determine appropriate piping for air systems.

Applied Pressure PSI	Nominal Standard Pipe Size										
	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
<b>5</b>	0.5	1.2	2.7	4.9	6.6	13	27	40	80	135	240
<b>10</b>	0.8	1.7	3.9	7.7	11.0	21	44	64	125	200	370
<b>20</b>	1.3	3.0	6.6	13.0	18.5	35	75	110	215	350	600
<b>40</b>	2.5	5.5	12.0	23.0	34.0	62	135	200	385	640	1100
<b>60</b>	3.5	8.0	18.0	34.0	50.0	93	195	290	560	900	1600
<b>80</b>	4.7	10.5	23.0	44.0	65.0	120	255	380	720	1200	2100
<b>100</b>	5.8	13.0	29.0	54.0	80.0	150	315	470	900	1450	2600
<b>150</b>	8.6	20.0	41.0	80.0	115.0	220	460	680	1350	2200	3900
<b>200</b>	11.5	26.0	58.0	108.0	155.0	290	620	910	1750	2800	5000
<b>250</b>	14.5	33.0	73.0	135.0	200.0	370	770	1150	2200	3500	6100

**Safety &  
Technical**

### Suggested Pipe Size for Compressed Air Flow at 100 PSI Length of Run, Feet

SCFM Air Flow	25	50	75	100	150	200	300	500	1000	Compressor HP
4	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	1
12	1/2	1/2	1/2	3/4	3/4	1/2	3/4	1	1	3
20	3/4	3/4	3/4	3/4	1	3/4	1	1 1/4	1 1/4	5
30	3/4	3/4	1	1	1	1	1 1/4	1 1/4	1 1/4	7 1/2
40	3/4	1	1	1	1 1/4	1	1 1/4	1 1/2	1 1/2	10
60	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	2	15
80	1	1 1/4	1 1/4	1 1/4	1 1/2	1 1/4	1 1/2	2	2	20
100	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2 1/2	25
120	1 1/4	1 1/2	1 1/2	1 1/2	2	1 1/2	2	2 1/2	2 1/2	30
160	1 1/4	1 1/2	1 1/2	2	2	1 1/2	2 1/2	2 1/2	3	40
200	1 1/2	2	2	2	2	2	2 1/2	3	3	50
240	1 1/2	2	2	2	2 1/2	2	2 1/2	3	3	60
300	2	2	2	2 1/2	2 1/2	2	3	3	3 1/2	75
400	2	2 1/2	2 1/2	2 1/2	3	2 1/2	3	3 1/2	4	100
500	2	2 1/2	2 1/2	3	3	2 1/2	3 1/2	3 1/2	4	125

On a compressed air distribution system, pressure losses greater than 3% are considered excessive, and a well-designed system having a steady rate of air flow is usually designed for not more than a 1% loss or 1 PSI for a 100 PSI system. The pipe size depends not only on the volume of air flow but how far it must be carried. To hold the distribution loss to 1 PSI, pipes of larger diameter must be used on longer runs to carry the same flow that can be handled by smaller pipes on shorter runs.

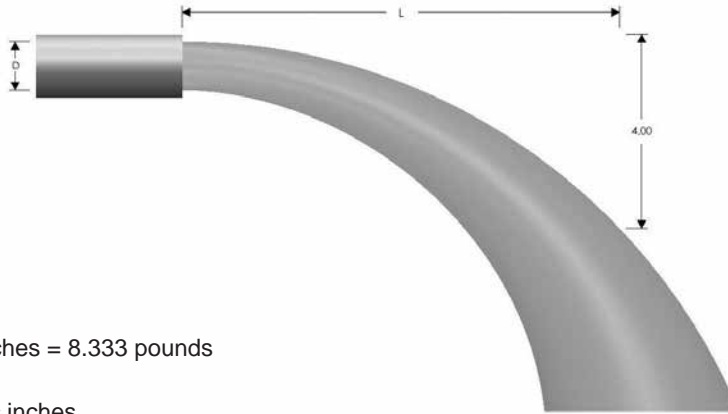
Figures in the body of the chart above are pipe sizes recommended on a 100 PSI system to carry air with less than 1 PSI loss. When measuring lengths of runs, add 5' of length for each pipe fitting. If carrying 120 PSI pressure these sizes will carry slightly more air than shown, or pressure loss will be slightly less than 1 PSI. If carrying 80 PSI pressure these pipes will carry slightly less air at 1 PSI pressure loss than shown in the chart.

The left column of the chart shows the volume of air to be carried. It is difficult to estimate the air flow volume to be carried in each leg of the distribution system. This varies with the application. On some applications, like in a large plant with many legs in the distribution system serving dozens of air-operated machines, the air usage may be at a fairly steady rate. Other applications, usually on small systems, may have to carry a high surge of air if several machines happen to be operated at the same time. Then there may be a period with almost no flow.

To make a realistic estimate of air flow volume, the far right column of the chart showing compressor HP may be used. On steady pumping, a compressor will produce a minimum of 4 SCFM air flow for each 1 HP of capacity. This is a conservative figure, as most compressors will produce 5 or 6 SCFM.

For example, a 25 HP compressor will produce at least 100 SCFM of air as shown in the far left column on the same line as 25 HP.

## Water Constants and Formulas



Safety & Technical

1 gallon water = 231 cubic inches = 8.333 pounds

1 pound of water = 27.7 cubic inches

1 cubic foot water = 7.5 gallons = 62.5 pounds (salt water weighs approximately 64.3 pounds per cubic foot)

Pounds per square inch at bottom of a column of water = height of column in feet x .434

1 miner's inch = 9 to 12 gallons per minute

Horsepower to raise water

If pumping liquid other than water, multiply the gallons per minute below by the liquids specific gravity

$$\text{Horsepower} = \frac{\text{gallons per minute} \times \text{total head in feet}}{3960}$$

Gallons per minute through a pipe

$$\text{GPM} = .0408 \times \text{pipe diameter inches}^2 \times \text{feet/minute water velocity}$$

Weight of water in a pipe

$$\text{Pounds water} = \text{pipe length feet} \times \text{pipe diameter inches}^2 \times .34$$

L Distance (inches)	Gallons per Minute Discharge for a Given Nominal Pipe Diameter D (inches)				
	5	6	8	10	12
5	163	---	---	---	---
6	195	285	---	---	---
7	228	334	580	---	---
8	260	380	665	1060	---
9	293	430	750	1190	1660
10	326	476	830	1330	1850
11	360	525	915	1460	2020
12	390	570	1000	1600	2220
13	425	620	1080	1730	2400
14	456	670	1160	1860	2590
15	490	710	1250	2000	2780
16	520	760	1330	2120	2960
17	550	810	1410	2260	3140
18	590	860	1500	2390	3330
19	620	910	1580	2520	3500
20	650	950	1660	2660	3700
21	685	1000	1750	2800	3890
22	720	1050	1830	2920	4060
23	750	1100	1910	3060	4250
24	---	1140	2000	3200	4440

## Water Discharge Table

This table is intended for general reference and general applicability only, and should not be relied upon as the sole or precise source of information available with respect to the subject covered. The user should also refer to and follow manufacturer's specific instructions and recommendations with regard to such information, where they exist.

### Flow of water through 100 foot lengths of hose, Straight - Smooth Bore - US gallons per minute

PSI at Hose Inlet	Nominal Hose ID Diameters - Inches							
	1"	1¼"	1½"	2"	2½"	3"	4"	6"
20	26	47	76	161	290	468	997	2895
30	32	58	94	200	360	582	1240	3603
40	38	68	110	234	421	680	1449	4209
50	43	77	124	264	475	767	1635	4748
60	47	85	137	291	524	846	1804	5239
75	53	95	154	329	591	955	2035	5910
100	62	112	180	384	690	1115	2377	6904
125	70	126	203	433	779	1258	2681	7788
150	77	139	224	478	859	1388	2958	8593
200	90	162	262	558	1004	1621	3455	10038

Figures are to be used as a guide since the hose inside diameter tolerance, the type of fittings used, and orifice restriction all influence the actual discharge. Thus, variations plus or minus from the table may be obtained in actual service.

## Conversion Table - Feet of Water to Inches of Mercury

Feet of Water	1	2	4	6	8	10	12	14	16	20	22	24	26	28	30	32	34
Inches of Mercury	0.9	1.8	3.5	5.3	7.1	8.8	10.6	12.4	14.1	17.7	19.4	21.2	23.0	24.8	26.5	28.3	30.0

## Feet Head of Water to PSI

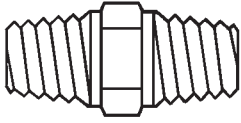
- One foot of water at 62°F = 0.433 PSI, to find the PSI for any feet head not given in the table, multiply the feet head by 0.433.

Feet Head	Pounds per Square Inch
1	0.43
2	0.87
3	1.30
4	1.73
5	2.17
6	2.60
7	3.03
8	3.46
9	3.90
10	4.33
15	6.50
20	8.66
25	10.83
30	12.99
40	17.32
50	21.65
60	25.99
70	30.32
80	34.65
90	38.98
100	43.31
110	47.64
120	51.97
130	56.30
140	60.63
150	64.96
160	69.29
170	73.63
180	77.96
200	86.62
250	108.27
300	129.93
350	151.58
400	173.24
500	216.55
600	259.85
700	303.16
800	346.47
900	389.78
1000	433.00

## Pipe Threads

Pipe threads are either tapered or straight (parallel). The two styles may or may not be compatible. Refer to thread information chart on page 939.

Safety & Technical

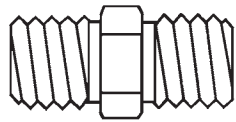


tapered threads

### Tapered threads

Tapered threads are the most common type of thread available. As the name implies, they have a slight taper. When mated together and tightened, the threads compress and may form a seal. Usually a thread sealant is required. The mating threads both hold the fitting in place and seal the connection. The most widely used pipe threads in North America are NPT (National Pipe Taper). Some confusion may result from the use of NPT, FPT, and MPT in describing threads. Both FPT and MPT are NPT threads, with FPT meaning female threads (internal) and MPT meaning male threads (external).

NPTF (Dryseal) threads are modified NPT threads, which are less likely to leak without a sealant. For a leak-free seal, we recommend using a sealant compound or PTFE tape. You can use NPTF threads with NPT threads, but you'll lose some of the leak-free characteristics.



straight threads

### Straight threads

Straight (parallel) threads are used for mechanical joining. They serve one purpose - to hold a fitting in place. As a result, an O-ring (elastomer), hard metal seal or a soft seat seal is required. Straight pipe threads include NPSM (National Pipe Straight Mechanical), and NPSH (National Pipe Straight Hose). Sizing and pitches may differ from the NPT threads

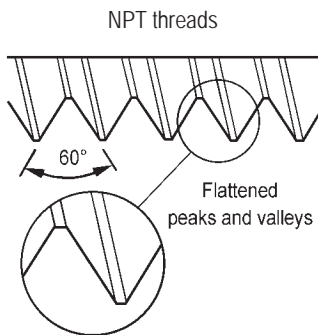
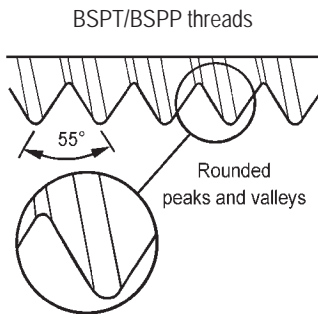
Less common straight threads are GHT (Garden Hose) and NST (fire hose coupling).

## NPT vs. BSP (British Standard Pipe)

BSP threads are common in many countries outside the United States. BSP consists of two types of threads - BSPT (British Standard Pipe Taper) and BSPP (British Standard Pipe Parallel).

BSPT threads have a slight taper similar to NPT. BSPP threads are straight (parallel) threads and have the same thread angle, shape and threads per inch (pitch) as BSPT threads. *BSPT and BSPP threads should not be substituted for NPT threads.*

NPT and BSPT/BSPP threads have different angles, shape, and (in most cases) threads per inch (pitch). The thread angle is 60° for NPT threads; 55° for BSPT/BSPP threads. NPT threads are flattened at the peaks and valleys, while BSPT/BSPP threads are rounded.



Nominal Pipe Size	Threads per inch	
	NPT	BSPT / BSPP
1/16"	27	---
1/8"	27	28
1/4"	18	19
3/8"	18	19
1/2"	14	14
3/4"	14	14
1"	11½	11
1-1/4"	11½	11
1-1/2"	11½	11
2"	11½	11
2-1/2"	8	11
3"	8	11
3-1/2"	8	11
4"	8	11
5"	8	11
6"	8	11
8"	8	11

## Identifying Threads

*It is important to identify the threads required before ordering couplings.*

Identifying threads can sometimes be the most difficult and frustrating part of coupling selection. However, without the right combination of threads, you may not provide a functional or safe connection.

The diameters, threads per inch (TPI) and thread pitch, etc. are necessary to completely identify a thread. Ring, plug and GO/NOGO gauges are required to accurately gauge or identify threads. In the field, in the absence of these gauges, thread leaf gauges can be used to identify the Threads Per Inch (TPI) and the thread pitch. On threads you have determined to be straight threads, a caliper can be used to measure the Outside Diameter of the male (ODM) or the Inside Diameter of the female (IDF). A caliper can also be used to take measurements of tapered thread diameters. However, these are more difficult to define because of the taper. Fortunately, there are few tapered threads to deal with and these can usually be identified from the nominal ODM and the TPI.

However, identifying the thread may not fully identify what is needed in a mating fitting. The application is the primary *limiting factor on the thread type used*. Dixon® offers products with a wide variety of threads used with hose, pipe and hydraulics.

When attempting to choose a fitting, it is always advisable to first identify the thread to which it must connect. This may entail checking with a fitting or equipment manufacturer.

*The fire hose thread specifications for some local municipal fire equipment and hydrants may vary according to local specifications. These can generally be most easily identified by contacting the local fire department responsible for the hydrant.* The most common thread used on fire equipment is National Standard Thread (NST), also known as National Hose thread (NH).

### When it is not possible to identify the thread:

1. Determine the number of threads per inch by measuring the distance from peak of thread to peak of thread across the largest number of whole threads. Then divide the number of threads by the measurement (this will provide the TPI).

2. Check to see if the thread is straight or tapered.

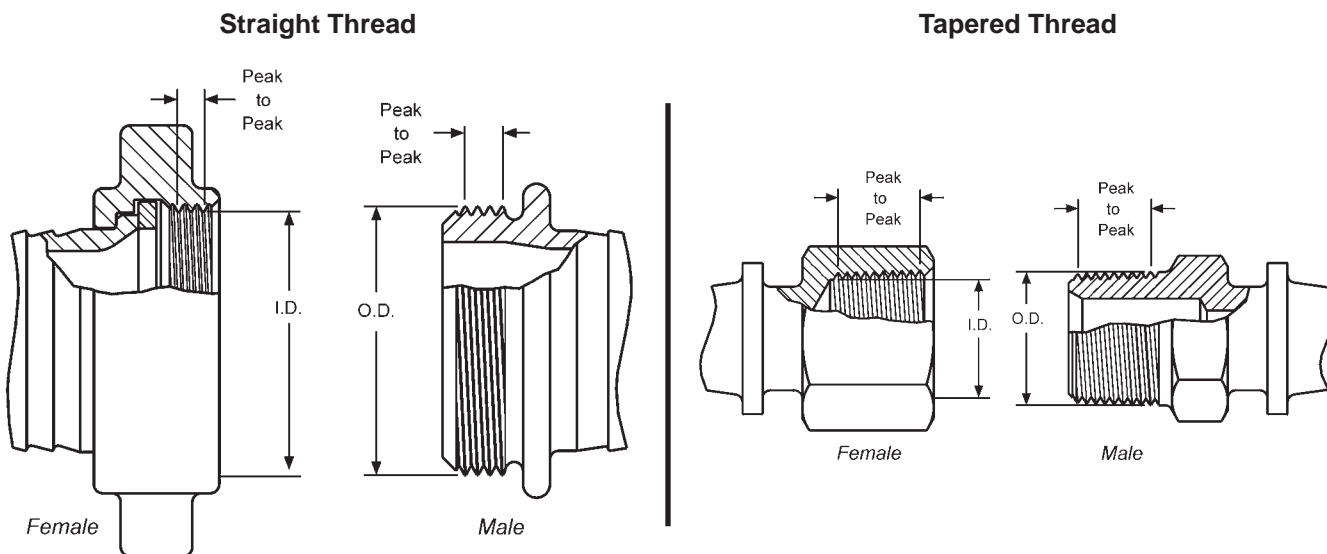
#### a) Straight Threads

Measure the Outside Diameter of the Male (ODM) or the Inside Diameter of the Female (IDF), from peak of thread to peak of thread.

#### b) Tapered Threads

Measure the Outside Diameter of the Male (ODM) at the large end and the small end, or the Inside Diameter of the Female (IDF) at the large end and the small end, from peak of thread to peak of thread. Then measure the Outside Diameter (OD) of the unthreaded pipe.

Once the application and these two pieces of information have been determined, the thread can generally be determined. When in doubt, call Dixon® at 800.355.1991.





Abbreviation	System Name	Compatibility	Seal Method
<b>BSPP</b>	British Standard Pipe Parallel	male BSPP with female BSPP	washer
		female BSPP with male BSPP	washer
		female BSPP with male BSPT	washer
<b>BSPTTr</b>	British Standard Pipe Taper	male BSPTTr with female BSPTTr	thread
		male BSPTTr with female BSPP	washer
		female BSPTTr with male BSPTTr	thread
		<i>female BSPTTr not compatible with male BSPP</i>	
<b>CHT</b>	American Standard Fire Hose Thread (1" National Hose Thread is <b>C</b> hemical <b>H</b> ose <b>T</b> hread, also known as <b>B</b> ooster <b>H</b> ose <b>T</b> hread)	1" male NH (NST) with 1" female NH (NST)	washer
		1" female NH (NST) with 1" male NH (NST)	washer
		1" thread is used on both ¾" hose & 1" hose	not compatible
<b>GHT</b>	Garden Hose Thread	male GHT with female GHT	washer
		female GHT with male GHT	washer
		thread is same for all size hose	not compatible
<b>IPS</b>	Iron Pipe Straight Thread	generic name for Straight Pipe Thread <i>see NPSH for compatibility</i>	washer
<b>IPT</b>	Iron Pipe Thread	generic name for All Pipe Thread	more information required
<b>JIC</b>	Joint Industrial Committee	used with other mating JIC threads	mechanical
<b>NH or NST</b>	American Standard Fire Hose Coupling Thread ( <b>N</b> ational <b>H</b> ose thread also known as <b>N</b> ational <b>S</b> tandard <b>T</b> hread)	male NH (NST) with female NH (NST)	washer
		female NH (NST) with male NH (NST) thread pitch and diameters of fire threads may vary according to local and municipal regulations <i>not compatible with other systems</i>	washer
<b>NPT</b>	American Standard Taper Pipe Thread ( <b>N</b> ational <b>P</b> ipe <b>T</b> apered)	male NPT with female NPT	thread
		male NPT with female NPTF	thread
		male NPT with female NPSM	washer
		male NPT with female NPSH	washer
		female NPT with male NPT	thread
		female NPT with male NPTF <i>female NPT not compatible with male NPSM or male NPSH</i>	thread
<b>NPTF</b>	American Standard Taper Pipe Fuel Dryseal Thread ( <b>N</b> ational <b>P</b> ipe <b>T</b> apered <b>D</b> ryseal)	male NPTF with female NPTF	thread
		male NPTF with female NPT	thread
		male NPTF with female NPSM	washer
		male NPTF with female NPSH	washer
		female NPTF with male NPTF	thread
		female NPTF with male NPT	thread
		female NPTF with male NPSM or NPSH <i>NPTF with NPTF threads do not require sealant for the initial use, after that, sealant is required</i>	not compatible
<b>NPSH</b>	American Standard Straight Pipe for Hose Couplings ( <b>N</b> ational <b>P</b> ipe <b>S</b> traight <b>H</b> ose)	male NPSH with female NPSH	washer
		female NPSH with male NPSH	washer
		female NPSH with male NPT	washer
		female NPSH with male NPTF	washer
		female NPSH with male NPSM	washer
<b>NPSM</b>	American Standard Straight Mechanical Joints ( <b>N</b> ational <b>P</b> ipe <b>S</b> traight <b>M</b> echanical)	male NPSM with female NPSM	Seal can be either mechanical or washer. Mating fittings must be of same type.
		male NPSM with female NPSH	
		female NPSM with male NPSM	
		female NPSM with male NPT	
		female NPSM with male NPTF	
<b>SIPT</b>	Straight Iron Pipe Thread	generic name for Straight Pipe Thread	washer
<b>TIPT</b>	Tapered Iron Pipe Thread	generic name for Tapered Pipe Thread	thread
<b>NYFD</b>	NYFD Fire Department	straight thread used in New York City	washer
<b>Chicago</b>	Chicago Fire Department	straight thread used in Chicago	washer

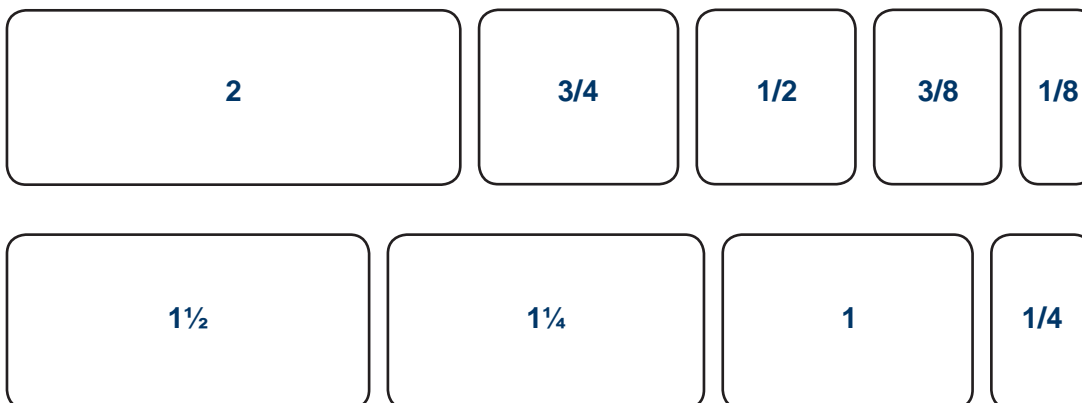
Thread Chart for Hydraulic Fittings

Dash Size	2	4	6	8	10	12	16	20	24	32	40	48
JIC 37 degree Flare Thread	5/16-24	7/16-20	9/16-18	3/4-16	7/8-14	1 1/16-12	1 5/16-12	1 5/8-12	1 7/8-12	2 1/2-12	---	---
SAE O-ring Thread	---	7/16-20	9/16-18	3/4-16	7/8-14	1 1/16-12	1 5/16-12	1 5/8-12	1 7/8-12	2 1/2-12	---	---
NPTF Pipe Thread	1/8-27	1/4-18	3/8-18	1/2-14	---	3/4-14	1-11 1/2	1 1/4-11 1/2	1 1/2-11 1/2	2-11 1/2	---	---
NPSM Swivel Thread	---	1/4-18	3/8-18	1/2-14	---	3/4-14	1-11 1/2	1 1/4-11 1/2	1 1/2-11 1/2	2-11 1/2	---	---
Flat Face Thread	---	9/16-18	11/16-16	13/16-16	1-14	1 3/16-12	1 7/16-12	---	---	---	---	---
Code 61 Flange Head OD	---	---	---	1.19	---	1.50	1.75	2.00	2.38	2.81	3.31	4.0
Code 62 Flange Head OD	---	---	---	1.25	---	1.62	1.88	2.12	2.50	3.12	---	---
British Thread BSPP/BSPT	---	1/4-19	3/8-19	1/2-14	---	3/4-14	1-11	---	---	---	---	---

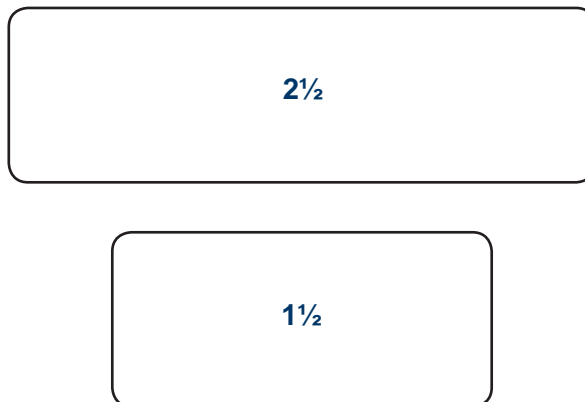
Safety & Technical

Fittings Size Chart

Male NPT Thread Sizes



Male NST Thread Sizes



Thread Dimensions

Nominal Dimensions of Standard Threads

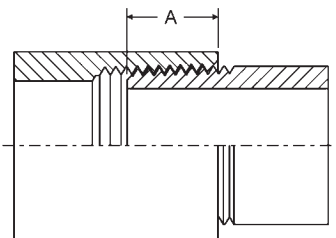
Safety & Technical

- ODM = Outside Diameter of the male
- IDF = Inside Diameter of the female
- TPI = Threads Per Inch
- GHT (3/4") -- 1.0625 ODM, 11-1/2 TPI
- Female NPT (Tapered Pipe) thread is not available on hose swivel nuts

Size	Pipe OD	Tapered Threads		Straight Threads											
		NPT	BSPT <sub>r</sub>	NPSH			NPSM			NST (NH)			BSPP		
		TPI	TPI	TPI	ODM (max)	IDF (min)	TPI	ODM (max)	IDF (min)	TPI	ODM (max)	IDF (min)	TPI	ODM (max)	IDF (min)
1/8"	.405	27.0	28				27.0	0.397	0.358					0.383	0.337
1/4"	.540	18.0	19				18.0	0.526	0.468					0.516	0.450
3/8"	.675	18.0	19				18.0	0.662	0.603					0.656	0.588
1/2"	.840	14.0	14	14.0	0.8248	0.7395	14.0	0.823	0.747					0.825	0.733
3/4"	1.050	14.0	14	14.0	1.0353	0.9500	14.0	1.034	0.958					1.041	0.950
1"	1.315	11.5	11	11.5	1.2951	1.1921	11.5	1.293	1.201	8.0	1.375	1.2246	11	1.309	1.193
1 1/4"	1.660	11.5	11	11.5	1.6399	1.5369	11.5	1.638	1.546				11	1.650	1.534
1 1/2"	1.900	11.5	11	11.5	1.8788	1.7758	11.5	1.877	1.785	9.0	1.990	1.8577	11	1.882	1.766
2"	2.375	11.5	11	11.5	2.3528	2.2498	11.5	2.351	2.259				11	2.347	2.231
2 1/2"	2.875	8.0	11	8.0	2.8434	2.6930	8.0	2.841	2.708	7.5	3.068	2.9104	11	2.960	2.844
3"	3.500	8.0	11				8.0	3.467	3.334	6.0	3.623	3.5306	11	3.460	3.344
4"	4.500	8.0	11				8.0	4.466	4.333	4.0	5.010	4.7111	11	4.450	4.334
4 1/2"										4.0	5.760	5.4611			
5"	5.563	8.0	11				8.0	5.528	5.395	4.0	6.260	5.9602	11	5.450	5.359
6"	6.625	8.0	11				8.0	6.585	6.452	4.0	7.025	6.7252	11	6.450	6.359
8"	8.625	8.0													
10"	10.750	8.0													
12"	12.750	8.0													

Normal Engagement Length of NPT Thread in Inches (A)

- Dimensions given do not allow for variations in tapping or threading.



Thread Size	Dimension A
1/8"	1/4"
1/4"	3/8"
3/8"	3/8"
1/2"	1/2"
3/4"	9/16"
1"	11/16"
1-1/4"	11/16"
1-1/2"	11/16"
2"	3/4"
2-1/2"	15/16"
3"	1"
4"	1-1/8"
5"	1-1/4"
6"	1-5/16"
8"	1-7/16"
10"	1-5/8"
12"	1-3/4"

## Thread Sealing Tips

**Thread Sealing Tips**

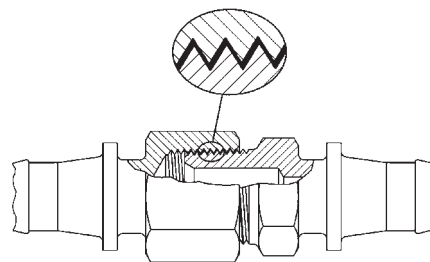
Sealing NPT threads can be an exasperating experience if certain techniques are not followed. The following tips will help alleviate many common problems in thread sealing:

1. Always use some type of sealant (tape or paste) and apply sealant to male thread only. If using a hydraulic sealant, allow sufficient curing time before system is pressurized.
2. When using tape sealant, wrap the threads in a clockwise motion starting at the first thread and, as layers are applied, work towards the imperfect (vanishing) thread. If the system that the connection being made to cannot tolerate foreign matter (i.e. air systems), leave the first thread exposed and apply the tape sealant as outlined above.
3. When using paste sealant, apply to threads with a brush, using the brush to work the sealant into the threads. Apply enough sealant to fill in all the threads all the way around.
4. When connecting one stainless steel part to another stainless steel part that will require future disassembly, use a thread sealant that is designed for stainless steel (see page 787). This stainless steel thread sealant is also useful when connecting aluminum to aluminum that needs to be disconnected in the future. These two materials gall easily, and if the correct sealant is not used, it can be next to impossible to disassemble.
5. When connecting parts made of dissimilar metals (i.e. steel and aluminum), standard tape or paste sealant performs satisfactory.
6. For sizes 2" and below, tape or paste performs satisfactory. When using thread tape, four wraps (covering all necessary threads) is usually sufficient.
7. For sizes 2½" and above, thread paste is recommended. If thread tape is used, eight wraps (covering all necessary threads) is usually sufficient. Apply more wraps if necessary.
8. For stubborn to seal threads, apply a normal coating of thread paste followed by a normal layer of thread tape.
9. For extremely stubborn to seal threads, apply a normal coating of thread paste followed by a single layer of gauze bandage followed by a normal layer of thread tape.

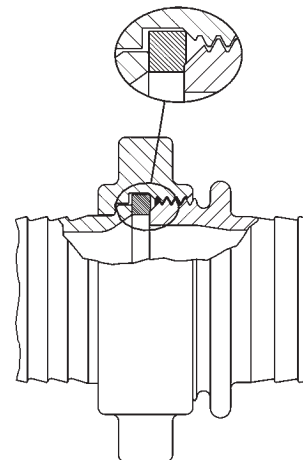
**Caution!**

When this procedure is done, the connection becomes permanent. Extreme measures will be necessary to disconnect these components. *All other measures to seal the threads should be explored prior to use of this technique.*

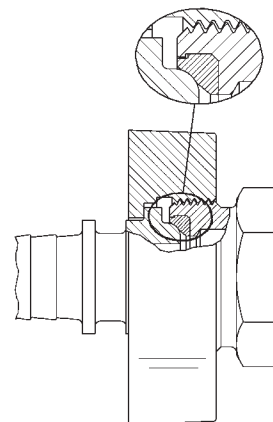
10. Over-tightening threads can be just as detrimental as insufficient tightening. For sizes 2" and below, hand tighten the components and, with a wrench, tighten 3 full turns. For sizes 2½" and above, hand tighten the components and, with a wrench, tighten 2 full turns.

**Thread Seal Type**

- A seal is obtained by applying a sealant to the male thread before engaging.
- The sealant is used to prevent spiral leakage.
- Thread tape or paste is the preferred sealant in this type of application.
- Please refer to page 902 for thread tape options.

**Washer Seal Type**

- A seal is obtained when the male thread is tightened down onto the washer of the female assembly.
- The washer should be inspected regularly and replaced as needed to prevent leakage.
- Please refer to pages 72 and 40 for replacement washers.

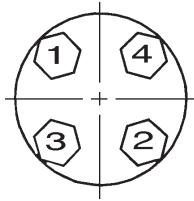
**Mechanical Seal Type**

- A seal is obtained through metal to metal contact or metal to seal contact, i.e. JIC couplings (page 511) have a metal to metal seal. Boss™ Ground Joint couplings (pages 67-69) have a metal to seal contact (shown above).
- The couplings should be retightened as needed to prevent leakage.

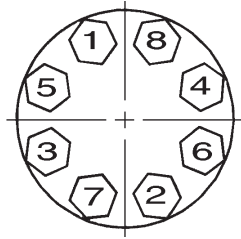
Flange Bolt Tightening Sequence

(Use appropriate gaskets and bolts)

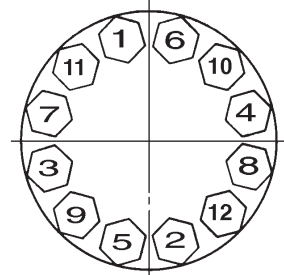
Safety & Technical



4 Bolt



8 Bolt

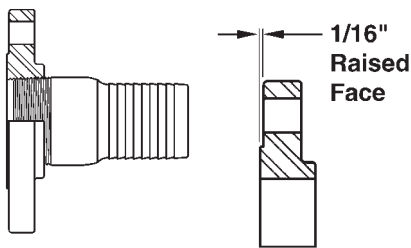


12 Bolt

See page 945 for drilling dimensions

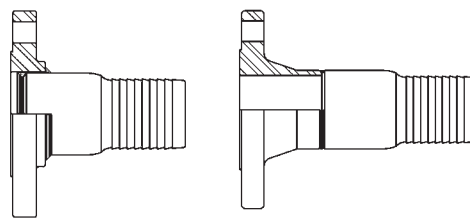
Flange Diagrams

Threaded Applications



Threaded Flange with raised face

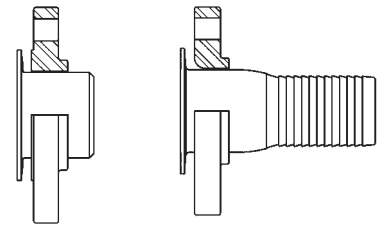
Welded Applications



Slip-On Flange with raised face

Weld Neck Flange with raised face

Floating Applications  
(flange free to swivel)



Slip-On Flange with raised face

Lap-Joint Flange

Dimensions of 150 LB. ASA Steel Flanges

Nominal Pipe Size	Flange OD	Thickness <sup>1</sup>	OD of Raised Face	Diameter of Bolt Circle	Number of Bolts	Diameter of Bolt Holes	Diameter of Bolts
1"	4-1/4"	9/16"	2"	3-1/8"	4	5/8"	1/2"
1-1/4"	4.62"	5/8"	2-1/2"	3-1/2"	4	5/8"	1/2"
1-1/2"	5"	11/16"	2-7/8"	3-7/8"	4	5/8"	1/2"
2"	6"	3/4"	3-5/8"	4-3/4"	4	3/4"	5/8"
2-1/2"	7"	7/8"	4-1/8"	5-1/2"	4	3/4"	5/8"
3"	7-1/2"	15/16"	5"	6"	4	3/4"	5/8"
4"	9"	15/16"	6-3/16"	7-1/2"	8	3/4"	5/8"
5"	10"	15/16"	7-5/16"	8-1/2"	8	7/8"	3/4"
6"	11"	1"	8-1/2"	9-1/2"	8	7/8"	3/4"
8"	13-1/2"	1-1/8"	10-5/8"	11-3/4"	8	7/8"	3/4"
10"	16"	1-3/16"	12-3/4"	14-1/4"	12	1"	7/8"
12"	19"	1 1/4"	15"	17"	12	1"	7/8"

<sup>1</sup> 1/16" raised face is included in the thickness

Dimensions of Tank Truck Flanges (TTMA Drilling)

Nominal Pipe Size	Flange OD	Thickness <sup>1</sup>	Diameter of Bolt Circle	Number of Bolts	Diameter of Bolt Holes	Diameter of Bolts
3"	5-5/8"	3/8"	4-7/8"	8	7/16"	3/8"
4"	6-5/8"	3/8"	5-7/8"	8	7/16"	3/8"
6"	8-7/8"	3/8"	8-1/8"	12	7/16"	3/8"

<sup>1</sup> listed thickness is for aluminum flanges

ANSI Flange Dimensions

150 lb. Standard

Nominal Pipe Size	Outside Diameter Flange	Flange Thickness	Drill Template		
			Number Holes	Diameter Bolts	Bolt Circle
1/2"	3-1/2"	7/16"	4	1/2"	2-3/8"
3/4"	3-7/8"	1/2"	4	1/2"	2-3/4"
1"	4-1/4"	9/16"	4	1/2"	3-1/8"
1-1/4"	4-5/8"	5/8"	4	1/2"	3-1/2"
1-1/2"	5"	11/16"	4	1/2"	3-7/8"
2"	6"	3/4"	4	5/8"	4-3/4"
2-1/2"	7"	7/8"	4	5/8"	5-1/2"
3"	7-1/2"	15/16"	4	5/8"	6"
3-1/2"	8-1/2"	15/16"	8	5/8"	7"
4"	9"	15/16"	8	5/8"	7-1/2"
5"	10"	15/16"	8	3/4"	8-1/2"
6"	11"	1"	8	3/4"	9-1/2"
8"	13-1/2"	1-1/8"	8	3/4"	11-3/4"
10"	16"	1-3/16"	12	3/4"	14-1/4"
12"	19"	1-1/4"	12	3/4"	17"

300 lb. Standard

Nominal Pipe Size	Outside Diameter Flange	Flange Thickness	Drill Template		
			Number Holes	Diameter Bolts	Bolt Circle
1/2"	3-3/4"	9/16"	4	1/2"	2-5/8"
3/4"	4-5/8"	5/8"	4	5/8"	3-1/4"
1"	4-7/8"	11/16"	4	5/8"	3-1/2"
1-1/4"	5-1/4"	3/4"	4	5/8"	3-7/8"
1-1/2"	6-1/8"	13/16"	4	3/4"	4-1/2"
2"	6-1/2"	7/8"	8	5/8"	5"
2-1/2"	7-1/2"	1"	8	3/4"	5-7/8"
3"	8-1/4"	1-1/8"	8	3/4"	6-5/8"
3-1/2"	9"	1-3/16"	8	3/4"	7-1/4"
4"	10"	1-1/4"	8	3/4"	7-7/8"
5"	11"	1-3/8"	8	3/4"	9-1/4"
6"	12-1/2"	1-7/16"	12	3/4"	10-5/8"
8"	15"	1-5/8"	12	7/8"	13"
10"	17-1/2"	1-7/8"	16	1"	15-1/4"
12"	20-1/2"	2"	16	1-1/8"	17-3/4"

600 lb. Standard

Nominal Pipe Size	Outside Diameter Flange	Flange Thickness	Drill Template		
			Number Holes	Diameter Bolts	Bolt Circle
1/2"	3-3/4"	9/16"	4	5/8"	2-5/8"
3/4"	4-5/8"	5/8"	4	3/4"	3-1/4"
1"	4-7/8"	11/16"	4	3/4"	3-1/2"
1-1/4"	5-1/4"	13/16"	4	3/4"	3-7/8"
1-1/2"	6-1/8"	7/8"	4	7/8"	4-1/2"
2"	6-1/2"	1"	8	3/4"	5"
2-1/2"	7-1/2"	1-1/8"	8	7/8"	5-7/8"
3"	8-1/4"	1-1/4"	8	7/8"	6-5/8"
3-1/2"	9"	1-3/8"	8	1"	7-1/4"
4"	10-7/5"	1-1/2"	8	1"	8-1/2"
5"	13"	1-3/4"	8	1-1/8"	10-1/2"
6"	14"	1-7/8"	12	1-1/8"	11-1/2"
8"	16-1/2"	2-3/16"	12	1-1/4"	13-3/4"
10"	20"	2-1/2"	16	1-3/8"	17"
12"	22"	2-5/8"	20	1-3/8"	19-1/4"

900 lb. Standard

Nominal Pipe Size	Outside Diameter Flange	Flange Thickness	Drill Template		
			Number Holes	Diameter Bolts	Bolt Circle
1/2"	4-3/4"	7/8"	4	7/8"	3-1/4"
3/4"	5-1/8"	1"	4	7/8"	3-1/2"
1"	5-7/8"	1-1/8"	4	1"	4"
1-1/4"	6-1/4"	1-1/8"	4	1"	4-3/8"
1-1/2"	7"	1-1/4"	4	1-1/8"	4-7/8"
2"	8-1/2"	1-1/2"	8	1"	6-1/2"
2-1/2"	9-5/8"	1-5/8"	8	1-1/8"	7-1/2"
3"	9-1/2"	1-1/2"	8	1"	7-1/2"
3-1/2"	11-1/2"	1-3/4"	8	1-1/4"	9-1/4"
4"	13-3/4"	2"	8	1-3/8"	11"
6"	15"	2-3/16"	12	1-1/4"	12-1/2"
8"	18-1/2"	2-1/2"	12	1-1/2"	15-1/2"
10"	21-1/2"	2-3/4"	16	1-1/2"	18-1/2"
12"	24"	3-1/8"	20	1-1/2"	21"

Safety & Technical



Dimensions of Seamless and Welded Steel Pipe  
ASA-B36.10 and B36.19

Safety &  
Technical

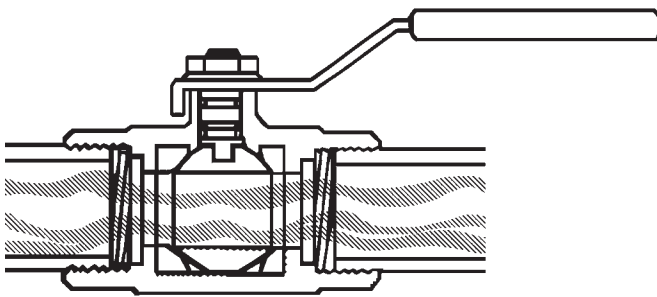
Nominal Pipe Size	OD (inches)	Pipe Schedule Wall Thickness												
		10	20	30	Stand.	40	60	Extra Strong	80	100	120	140	160	XXX Strong
1/8"	0.405	0.049	---	---	0.068	0.068	---	0.095	0.095	---	---	---	---	---
1/4"	0.540	0.065	---	---	0.088	0.088	---	0.119	0.119	---	---	---	---	---
3/8"	0.675	0.065	---	---	0.091	0.091	---	0.126	0.126	---	---	---	---	---
1/2"	0.840	0.083	---	---	0.109	0.109	---	0.147	0.147	---	---	---	0.188	0.294
3/4"	1.050	0.083	---	---	0.113	0.113	---	0.154	0.154	---	---	---	0.219	0.308
1"	1.315	0.109	---	---	0.133	0.133	---	0.179	0.179	---	---	---	0.250	0.358
1 1/4"	1.660	0.109	---	---	0.140	0.140	---	0.191	0.191	---	---	---	0.250	0.382
1 1/2"	1.900	0.109	---	---	0.145	0.145	---	0.200	0.200	---	---	---	0.281	0.400
2"	2.375	0.109	---	---	0.154	0.154	---	0.218	0.218	---	---	---	0.344	0.436
2 1/2"	2.875	0.120	---	---	0.203	0.203	---	0.276	0.276	---	---	---	0.375	0.552
3"	3.500	0.120	---	---	0.216	0.216	---	0.300	0.300	---	---	---	0.438	0.600
3 1/2"	4.000	0.120	---	---	0.226	0.226	---	0.318	0.318	---	---	---	---	---
4"	4.500	0.120	---	---	0.237	0.237	---	0.337	0.337	---	0.438	---	0.531	0.674
5"	5.563	0.134	---	---	0.258	0.258	---	0.375	0.375	---	0.500	---	0.625	0.750
6"	6.625	0.134	---	---	0.280	0.280	---	0.432	0.432	---	0.562	---	0.719	0.864
8"	8.625	0.148	0.250	0.277	0.322	0.322	0.406	0.500	0.500	0.594	0.719	0.812	0.906	0.873
10"	10.750	0.165	0.250	0.307	0.365	0.365	0.500	0.500	0.594	0.719	0.844	1.000	1.125	1.000
12"	12.750	0.180	0.250	0.330	0.375	0.406	0.562	0.500	0.688	0.844	1.000	1.125	1.312	1.000

**Definitive Cross-Reference from NPS to DN Specification Sizes**

Nominal Pipe Size	DN	OD (inches)	Pipe Schedule Wall Thickness													
			5S	5	10S	10	20	30	40S	40	60	80S	80	100	120	160
1/8"	6	0.405	---	0.035	---	0.049	---	0.057	---	0.068	---	---	0.095	---	---	---
1/4"	8	0.540	---	0.049	---	0.065	---	0.073	---	0.088	---	---	0.119	---	---	---
1/2"	15	0.840	---	0.065	---	0.083	---	0.095	---	0.109	---	---	0.147	---	0.170	0.188
3/4"	20	1.050	---	0.065	---	0.083	---	0.095	---	0.113	---	---	0.154	---	0.170	0.219
1"	25	1.315	---	0.065	---	0.109	---	0.114	---	0.133	---	---	0.179	---	0.200	0.250
1 1/4"	32	1.660	---	0.065	---	0.109	---	0.117	---	0.140	---	---	0.191	---	0.215	0.250
1 1/2"	40	1.900	---	0.065	---	0.109	---	0.125	---	0.145	---	---	0.200	---	0.225	0.281
2"	50	2.375	---	0.065	---	0.109	---	---	---	0.154	---	---	0.218	---	0.250	0.344
2 1/2"	65	2.875	---	0.083	---	0.120	---	---	---	0.203	---	---	0.276	---	0.300	0.375
3"	80	3.500	---	0.083	---	0.120	---	---	---	0.216	---	---	0.330	---	0.350	0.438
4"	100	4.500	---	0.083	---	0.120	---	---	---	0.237	0.281	---	0.377	---	0.437	0.531
5"	125	5.563	---	0.109	---	0.134	---	---	---	0.258	---	---	0.375	---	0.500	0.625
6"	150	6.625	---	0.109	---	0.134	---	---	---	0.280	---	---	0.432	---	0.562	0.719
8"	200	8.625	---	0.109	---	0.148	0.250	0.277	---	0.322	0.406	---	0.500	0.593	0.718	0.906
10"	250	10.750	0.134	0.134	0.165	0.165	0.250	0.307	0.365	0.365	0.500	0.500	0.593	0.718	0.843	---
12"	300	12.750	0.156	0.165	0.180	0.180	0.250	0.330	0.375	0.406	0.500	0.500	0.687	0.843	1.000	---

## Valve Selection Guide

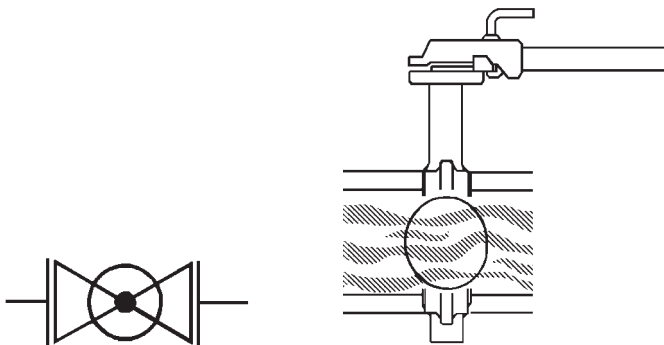
## Ball Valve



- can be used for on and off service or throttling
- when positive shut-off is necessary
- where a low valve profile is necessary
- only 90° rotation from open to fully closed (quick opening)
- Handle position is a quick indication of whether valve is open or closed.
- full port ball valves do not resist flow

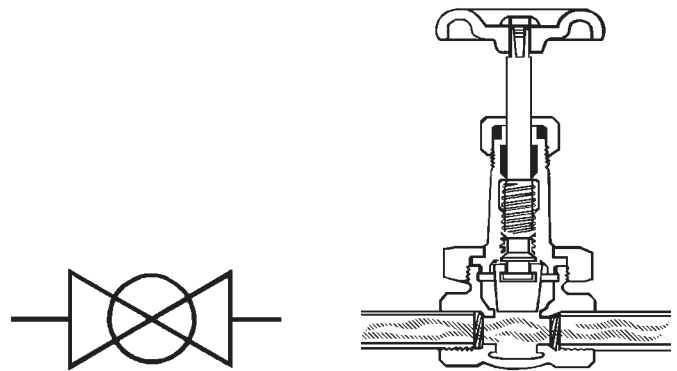
Safety &  
Technical

## Butterfly Valve



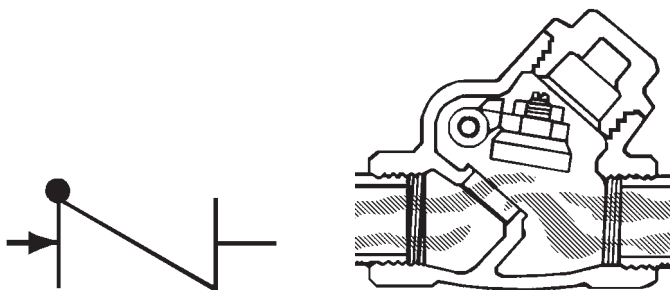
- where positive shut-off is necessary
- primarily for fully open or fully closed applications
- may be used for throttling
- only 90° rotation from open to fully closed
- lightweight
- easy to install
- less costly than an iron body gate valve

## Gate Valve



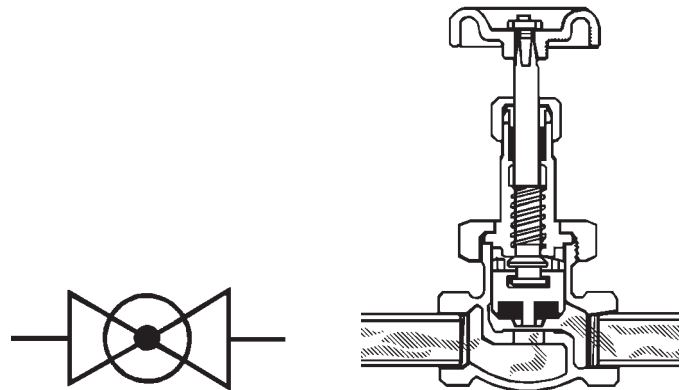
- for fully open or fully closed service - not for throttling
- for minimum line pressure drop
- for minimum fluid entrapment in the line
- for relatively infrequent operation

## Check Valve



- To control the direction of flow and for quick, automatic reactions to flow change. Swing check valves are used when a minimum resistance to flow is required.
- Swing check valves are recommended for use in conjunction with gate valves. They should not be used in a rapid recycling system such as reciprocating pumps or air compressor service where they could cause chatter and damaging vibration.

## Globe Valve



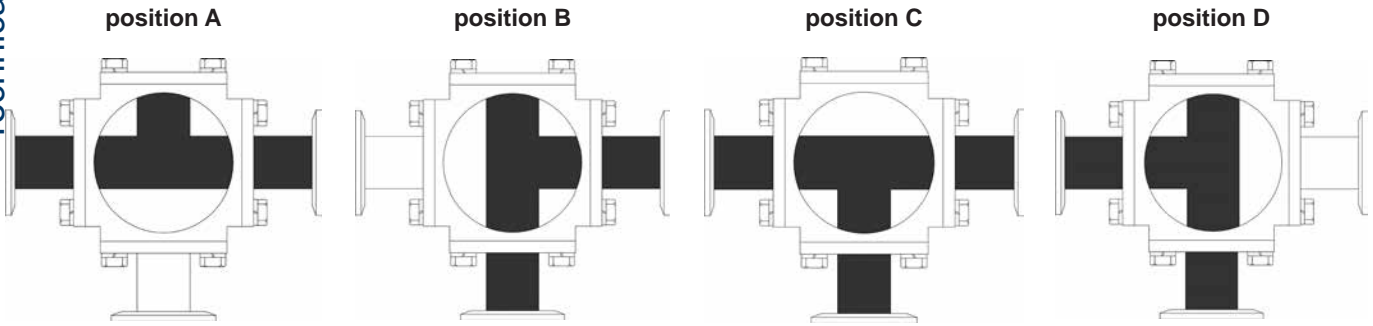
- for regulation (throttling) of flow
- for frequent operation; short stem travel reduces operator's time
- where some line resistance is acceptable

3-Way Ball Valve Flow Options

'T' Pattern, Side Entry

Top view

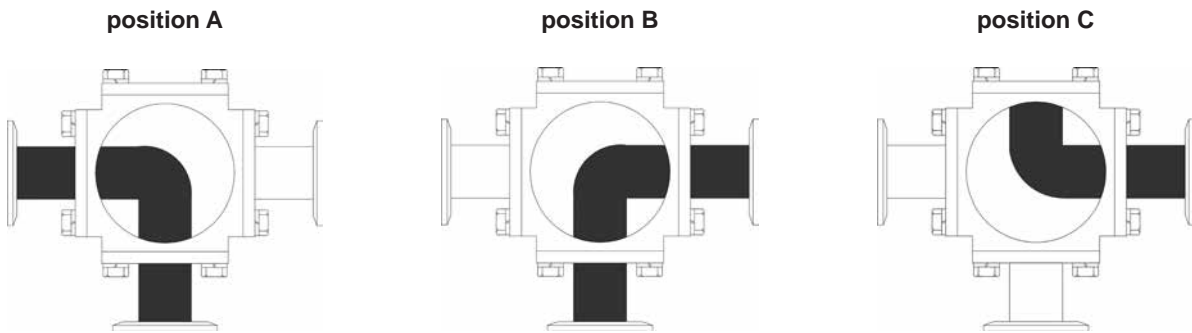
Safety & Technical



Number	Rotation	Flow Plan Options
1	90°	A, B
2	90°	B, C
3	90°	C, D
4	90°	A, D
5	180°	A, B, C
6	180°	B, C, D
7	180°	A, C, D
8	180°	A, B, D

'L' Pattern, Side Entry

Top view



Number	Rotation	Flow Plan Options
1	90°	A, B
2	180°	A, B, C

	Page #		Page #
<b>A</b>		<i>Air (cont.)</i>	
Abrasion resistant inserts	131, 134, 172	Gauges, process	437
Adapters		Hose, polyurethane	891
Aviation	16	Hose reel, manual	882
Ball seat	663	Hose reel, retractable	881, 882
Bayonet style dry disconnect	9	Hose, self-storing	890, 891
Boss™	70	Hose, spring driven	881
Boss™ LPS		Receiver manifold, ASME	365
Flanged	82, 83	with King™ Safety Whipsock	364
Flanged, 45° elbow	82	with Watts filter	366
Flanged, short	82	Tool lubricant	367
Flanged, straight	82	Air Chief	
Flanged to male NPT, 125#	83	ARO	308, 309
Flanged to weld, 150#	83	Automotive	306, 307
Cam and groove	7, 33, 41, 109, 128, 129, 131, 142-145, 150, 152-156, 160-162, 174, 178, 180, 181, 183, 184, 186	Ball swivel connectors	
Drum thread	562	with Air Chief plugs	301
Dry disconnect	7, 8, 12	Blow guns	371
Mann tek	12, 14, 16	Industrial	300-303
Dry gas	14	Lincoln	310
Fill pipe	46	Quick disconnect	300, 301, 303
GHT	239-241	Stainless steel	300, 301, 303
Gravity drop	29	Air King™	366
Hydraulic		Clamps	288
BSPP (British thread)	523	Compressor Y	367
Code 61 / Code 62	524-526	Ferrules	287, 288
Flat face	506, 507	Global	285, 286, 288
JIC	509-516	Lanyards	289
NPTF	506, 508, 509, 511-514, 518-522	Safety clip	289
ORB	506, 508-510	Safety pin	289
Inserts	131, 172	Washers	289
LIQUIfit™	727	with ferrules	287
LP gas	704, 705	with gauge port	287
Oxy-acetylene	914	Air line	
Pump	659	Shut-off valves	403, 559, 560
Reducing	697	Swivels	447
Side seal	44	Air tool lubricants	367
Steam service	13	ANSI split flange adapter	697
Tank car	58	Anti-freeze lubricant	367
Tank transport	41	API	
Tank truck	35, 36, 43	Certified couplings	97
Male adapter	42	Coupler	28
Tuff-Lite™	250, 673	Dust cap	29
Vapor recovery	33, 46	FloTech™	32
Weld end metal hose fittings	517	Rack cords	31
with grounding tab	30	Valves	28
Adjustable hose bumper stops	882	ARO-speed quick disconnects	308, 309
Aero-seal®	264, 265	ASME air receiver manifold	364-366
Agricultural		Automatic	
Bauer quick connects	257-261	Drain	400
Air		Safety couplers	305
Blow guns	371-375	Automotive quick disconnects	306, 307, 316, 317
Check valves	559, 560	Aviation, dry couplings	15, 16
Couplings	286, 290, 291, 293-299	Axe	911
		Axial restraint pipe couplings	686
		<b>B</b>	
		Back flow preventer	245
		Ball	
		Cone check valves	558
		Mini	
		Valves	537
		Swivel connector	
		with Air Chief plugs	301
		Swivels	447
		Valves	
		3-piece	
		FNPT	541
		Socket weld	541
		3-way	
		L flow	538
		T flow	538
		150# flanged	545
		Bronze	532-534
		with NPT tap for drain	534
		Band clamp	
		Band and buckle	270
		Set screw	270
		Tools	272
		F series	267
		K series	268
		Smooth ID	269
		Tools	271
		Tote	270
		Barbed push-on fittings	306, 307
		Bayonet style dry disconnects	9
		Bell reducers	654, 655, 697
		Bent stem swivels	329
		Blow guns	
		Air Chief	371
		Extended nozzle	372
		Extensions	373, 374
		High volume	374, 375
		Non-safety	372, 373
		Pistol grip	372
		Premium	371
		Safety	371, 374
		Safety air booster	371
		Tips	372, 373
		Typhoon	375
		Bolted fittings	678
		Gaskets	678
		Boss-Lock™	
		Cam and groove	108, 135-137, 140, 141, 147, 148, 154, 163-165, 171-173
		EZ Boss-Lock™	108, 133, 137, 141, 148
		Boss™	
		Adapters	70
		Clamps	75, 76
		Double spuds	69, 77
		Female spuds	68, 77
		Fittings with ferrules	69

	Page #		Page #		Page #
<b>Boss™ (cont.)</b>		<b>Brass (cont.)</b>		<b>Cam and Groove (cont.)</b>	
Ground joint air hammer couplings ...	77	Male hose x male hose x female pipe	239	Caps	
Ground joint seal couplings .....	110			Lockable .....	147
Hose menders .....	74	Pipe cap - NPT .....	671	Clips and lanyards .....	289
Knurled nut .....	68	Pipe nipples .....	661	Couplers .... 6, 33, 34, 36, 108, 109, 126,	
Male spuds .....	69, 77	Reducer bushings - NPT .....	659	128, 129, 132-141, 151, 154, 160, 163,	
Male stems .....	73, 74	Reducer couplers - NPT .....	655	164, 175-177, 180-185, 188	
Spud x hose shank .....	74	Long shank fittings .....	202	150# flange .....	160
Stems		LP gas hose couplings and adapters ....	704	Coupler x 150# flange .....	160
Ground joint .....	67			Coupler x adapter wye .....	164
Ground joint air hammer .....	77	Male swivel inserts .....	211	Coupler x tube with 45° cut .....	163
Washer seal .....	71	Nickel plated push-in fittings .... 348-352,		Coupler x adapter .....	152
Washers .....	72	354		with Port .....	152, 153
Wing nut caps .....	70	Nylon/nickel-plated push-in fittings .....		Crimped fittings .....	109, 111-115
Wing nuts .....	68, 77	350-353		Crimp sleeves .....	111, 112
<b>Boss™ LPS</b>		Push-in fittings .....	342-345	Disk strainers .....	171
Adapters .....	82, 83	Push-on fittings .....	223-230	Dry disconnect .....	6, 7
45° elbow .....	82	Reusable fittings .....	231-233	Dust caps .. 127, 129, 146-148, 179, 187	
Short .....	82	Sash chains with pull rings .....	171	Locking handles for Dixon® cam &	
Straight .....	82	Short shank fittings .....	198, 199	groove dust caps .....	165
Caps .....	81	Swivels .....	211, 213, 216, 217, 223,	Dust plugs .....	128, 129, 149, 179, 187
Complete assembly .....	78	225-229, 232, 234, 235, 241, 247		Elbows	
Female fittings .....	78	Tees . 331, 334, 335, 339, 344, 345, 349,		45° adapter x coupler .....	157
Ferrules .....	79	352, 359, 360, 668, 670		45° coupler x coupler .....	157
Hammer union caps and plugs .....	81	Threaded bell reducers .....	654, 655	90° adapter x coupler .....	157
Hammer union elbows .....	83	Threaded unions .....	657	90° coupler x coupler .....	157
Male fittings .....	79	Water regulators .....	378, 415	90° type A adapter x female NPT ....	
One-piece flange adapters .....	82, 83	Break-away coupling		157	
One-piece hammer union nuts .....	80	Industrial .....	18	90° type B coupler x male NPT . 158	
O-rings .....	79	Marine .....	17	90° type D coupler x female NPT ....	
Plugs .....	81	Breather vents .....	448	158	
Suction service fittings .....	79	Bulkhead fittings .....	677	90° type E adapter x hose shank ....	
Two-piece hammer union nuts .....	80	Bull plugs .....	680	159	
Vent-lock™ cam and groove .....	128	Butterfly valves .....	39	90° type F adapter x male NPT . 159	
<b>Brass</b>				EZ Boss-Lock™ 128-130, 133, 136-138,	
Ball valves .....	535, 536			141, 148, 151, 153, 160, 161, 166	
Barbed hose fittings .. 211-217, 223-229,				EZLink™ armless .....	126, 127
248, 306, 307				Flanged .....	160, 181
<b>Boss™</b>		<b>C</b>		ANSI .....	182
Clamps .....	75, 76	Cable junction box .....	65	Flanged couplers and adapters .. 35, 36,	
Male stems .....	73	Cables		56	
Combination nipples .....	190, 191	King™ .....	362, 364	Gaskets .....	37, 59, 167-171
Connectors .....	330, 332, 335, 336, 342,	Spillguard™ armored .....	64	Global .....	109, 174-182
348, 350, 358-360		Cam and groove		Handles	
Crimper tools .....	220-222	150# flange .....	160	Boss-Lock™ .....	165
Dies .....	219, 221, 222	Abrasion resistant inserts 131, 134, 172		Dixon® .....	165
Dual lock .....	297-299	Actuator style .....	8	EZ Boss-Lock™ handles .....	166
Elbows .... 330, 333, 337, 338, 343, 344,		Adapters .....	33, 35, 36, 43,	Global .....	182
349, 351, 353, 358, 360		44, 58, 109, 110, 128, 129, 131, 142, 143,		Paddle .....	166
Ferrules .....	218, 233	145, 150, 154, 160, 174, 178, 180, 181,		Vent-lock™ .....	130
Garden hose fittings .. 234-237, 239-242		183, 184		Inlets .....	42
Gauges .....	437, 443	150# ANSI flange .....	160	In-Line sight glasses .....	163
Hex plugs .....	672	Adapter x 150# flange .....	160	Jump size . 152, 153, 155, 156, 180, 181	
Jack chains with S-hooks .....	172	Adapter x female NPSM .....	164	King Crimp™ system .....	123
<b>Lead free fittings</b>		ANSI .....	182	Working pressures .....	123
Adapters - NPT .....	655, 659	Boss-Lock™ .... 133, 135, 136, 140, 147,		Locking caps .....	147
Female hex couplings - NPT .... 657		153, 154, 163-165, 172, 173		Notched fittings . 135, 136, 138, 143, 144	
		Boss™ LPS .....	128	Phono finish .....	137, 142

	Page #		Page #		Page #
<b>Cam and Groove (cont.)</b>		<b>Clamp fittings (cont.)</b>		<b>Compression fittings (cont.)</b>	
Pull ring .....	171	cross hole wing nut .....	566	Connectors .....	711, 712
Rail car unloading assemblies .....	58	eye bolt .....	566	Elbows .....	713, 714
Reducing		hex wing nut .....	566	Inserts .....	715
Adapter x female NPT .....	155	mini cross hole wing nut .....	566	Nuts .....	716
Adapter x hose shank .....	156	rivet pin .....	566	Plug .....	715
Adapter x male NPT .....	156	serrated wing nut .....	566	Reducers .....	712
Coupler x female NPT .....	156	stainless steel hex nut .....	566	Sleeves .....	715, 716
Coupler x hose shank .....	155	Clamps .....	527-530	Tank fittings .....	713
Coupler x male NPT .....	155	Accessories .....	270, 271	Tees .....	714, 715
Reducing cplrs. & adps. ....	180	Aero-Seal® .....	264, 265	Compressor Y valve .....	367
Specialty items .....	35	Air King™ .....	288	Conical mufflers/filters .....	448
Spool adapters .....	154, 180	Band .....	267, 268	Connectors	
Swaged .....	138, 143	Band & buckles system .....	270, 272	Instrumentation .....	707
Tank car fittings .....	56-59	Bolted .....	276-280, 527	Connectors, push-in .....	330-335, 342-349, 352, 354
TTMA slip on x socket flange .....	35	Boss™ .....	75, 76	Constant torque clamps .....	266
Vapor recovery couplers .....	33, 34	Center punch .....	267, 269	Contractor pressure gauges .....	439
Velcro straps .....	172	Constant torque .....	266	Couplers	
Vent-Lock™ .....	128-130	Double bolt .....	279, 527	API .....	28
Weld fittings		HTM hi torque .....	266	Bayonet style dry disconnect .....	9
Butt .....	161, 162	Hydraulic .....	528	Cam and groove .....	126, 128, 132-141, 151-156, 160-162, 175
Socket .....	161, 162	Kits .....	275	Abrasion resistant inserts .....	134
Witches hat strainers .....	171	Painted iron .....	695	Cam and groove actuator style .....	8
Caps		Gaskets .....	695	Dry disconnect .....	6
ADS outalarm .....	65	Pinch-on .....	273, 274	Mann tek .....	11-18
Aluminum .....	40, 41	Racks .....	275	Garden hose .....	243
ANSI with tapped outlet .....	699	Roll over type .....	269	Legris .....	305
API, dust .....	29	Service kit .....	274	Parker E-z-mate .....	304
Blank end .....	699	Single bolt .....	280	Tank truck .....	36, 43
Boss™ wing nut .....	70	Smooth ID .....	269	Female coupler .....	42
Dust .....	9, 12, 16, 45	Spiral .....	281	NPT .....	42
Fill pipe .....	48	Stepless ear .....	274	Vapor recovery .....	33, 34
Flat face .....	507	T-bolt .....	276-278	with grounding tab .....	30
Gravity drop adapters .....	30	Tools .....	271, 272, 274	Coupling	
Hammer union .....	81	Wave seal .....	265	Inserter .....	904
Instrumentation .....	710	Worm gear		Lubricant .....	908
Lok-on .....	230	Aero-Seal® .....	264, 265	Couplings	
LP gas .....	706	Constant torque .....	266	Agri-Lock style .....	253-256
N-series .....	295	Dixon® .....	263	Air King™ universal .....	283-289
Nylon .....	676	HTM hi torque .....	266	A-series .....	326, 327
Pipe .....	671, 676	Make-a-clamp kits .....	275	Bauer style .....	257-261
Tank transport .....	40, 41	Marine grade .....	264	Bayonet style dry disconnect .....	9
Vacuum relief .....	47	Miniature .....	263	Boss™ .....	67-77
Vapor .....	47	Quick release .....	275	BR-series .....	325
Vent .....	48	Racks .....	275	Cam and groove .....	6-8, 33, 34, 36, 108, 109, 126, 128, 129, 132-137, 139, 140, 141, 151, 152, 175-177, 180, 182
Carded FRL's .....	406	Claw type fittings .....	283-287	CJ-series .....	320
Check valves		Combination nipples .....	115-117, 190-192	DF-series .....	311-315
800 PSI stainless steel .....	559	Bauer style .....	258	Dix-Lock™ quick acting .....	293-296
Ball cone .....	558	Global .....	192	Dry quick disconnects .....	6-18
In-line .....	356, 357	Jump size .....	192	D-series .....	312, 313, 315
Spring loaded .....	559, 560	Sleeves .....	196	Dual Lock quick-acting .....	297-299
Swing .....	560	Combination units		Equipment .....	85, 99
Uni-directional .....	357	Series 1 .....	408, 421	F-series .....	312-315
Chicago type fittings .....	283-288, 362, 365	Watts .....	432	Global Air King™ quick-acting .....	284, 286
Clamp fittings		Wilkerson .....	380, 395-399		
Accessories for clamps		Composite mini ball valves .....	355		
bolt, hex head .....	566	Compound gauges .....	440		
bronze and brass hex nuts .....	566	Compression fittings .....	711-716		





<i>Equipment (cont.)</i>	Page #	<i>Filters/Regulators (cont.)</i>	Page #	<i>Fire fittings, hose &amp; acc. (cont.)</i>	Page #
Coupling inserter .....	904	Watts .....	429, 430	FSA .....	793
Crimpers .....	220-222	Wilkerson .....	378, 379, 391, 392	Hydrant .....	797
Cutters .....	892	Filters		MSA .....	795
for push-on fittings .....	230	Accessories .....	401-405, 422, 423, 434	Rigid female .....	793
Hand hydrotest pump .....	905	Airline .....	381, 382, 408-410	SFSA .....	794
Hydrostatic test pump .....	905	Carded .....	406	SSA .....	797
Test pumps .....	905	Disposable in-line nipple .....	369	SSA30 .....	797
Exhaust muffler		Hydraulic		Suction	
Wilkerson .....	399	In-line .....	528	Female, rocker lug .....	766
External crimp ferrules .....	113, 114	In-line, air/oil .....	368	Male, rocker lug .....	780
External drain cocks .....	554	Lubricator .....	369	Swivels	
Externally swaged fittings .....	87-92	Mini in-line .....	369, 370	Female to male, long handle ..	781
External swage ferrules .....	91, 92	Oil removal .....	410	Female to male, pin lug .....	779
EZ Boss-Lock™ .....	108, 128-130, 133, 136-138, 141, 148, 151, 160, 166	Series 1 .....	406-411, 415, 416	Female to male, rocker lug ..	779, 781
EZLink™ armless		Watts .....	428-430	Male, pin lug .....	779
Bottle opener .....	127, 910	B11 .....	429, 430	Axe .....	820
Couplers .....	126	F602 .....	428	Back flow preventer .....	839
Dust caps .....	127	Wilkerson ...	377-379, 381-385, 391, 392	British instantaneous fittings ...	818, 819
Replacement gaskets .....	127	Finger type clamps .....	75, 76	Cam and groove x NST .....	786
Replacement kits .....	127	Fire fittings, hose & accessories		Type A .....	786
Safety clip .....	127	Adapters .....	186	Type B .....	786
<b>F</b>		Double male		Type D .....	786
Faucets .....	561	Pin lug .....	784	Type F .....	786
Compression bibb .....	561	Rocker lug .....	784	Caps	
Ferrule crimping tools .....	219-222	Rocker lug, style N36 .....	785	Breakable .....	790
Ferrules		Hazmat		Aluminum .....	790
Air King™ .....	287	Pin lug .....	773	Polycarbonate .....	790
API certified .....	98	Hex		Hydrant .....	789
Brass .....	218, 233	Double female .....	766	Pin lug .....	787
Dies .....	219, 221, 222	Double male .....	784	Rocker lug .....	787, 788
Crimped, sanitary .....	106	Double male, NYFD threads ..	783	Test .....	787, 788
Externally swaged ...	143, 144, 194, 195	Hydrant		With cable .....	788
External swage .....	91, 92	Cam & groove .....	785	Specialty .....	790
Global Air King™ .....	288	Pin lug .....	771, 773	Cap test gauges .....	791
Instrumentation .....	710	Rocker lug .....	774	Domestic, pin lug .....	790
Internally expanded .....	94	Long handle		Hydrant .....	790
King Crimp™ .....	113, 114	Style N37 .....	770	Plugs with cable, rocker lug ...	791
Heavy duty .....	118	Style N54L .....	781	Storz .....	798
Short frac .....	79, 117	Style N56 .....	772	Test .....	787, 788
Notched .....	143, 144, 194, 195	Open snoot .....	767	Universal hose .....	789
Oxy-acetylene .....	914	Pin lug		With cable .....	788
Petroleum .....	98	Cam and groove .....	785	Long handle .....	788
Sanitary (IX) style .....	103	NY threads .....	773	With chain .....	789
Scovill style .....	96	Swivel .....	767	Pressurizable cap .....	789
Fill pipe		Rocker lug ...	766-770, 772, 777, 778, 780, 781, 785	Connections	
Adapter caps .....	48	Storz .....	794	International shore .....	819
Adapters .....	46	Style N35 .....	770	Residential sprinkler .....	816
Filter/regulators		Style N36 .....	785	Roof .....	805-807
Accessories .....	422-427, 433, 434	Style N37 .....	777, 778	Siamese	
Carded .....	406	Style N53 .....	769	Double clapper .....	809
Mini's .....	378, 379	Style N54 .....	781	Single clapper .....	808
Series 1 .....	415, 416	Swivel .....	767	Tripler clapper .....	810
		Single male outlet .....	775	Single hydrant .....	816
		Storz		Single inlet .....	816
				Sleeve for sidewalk .....	807
				Couplings	

<i>Fire fittings, hose &amp; acc. (cont.)</i>	Page #	<i>Fire fittings, hose &amp; acc. (cont.)</i>	Page #	<i>Fire fittings, hose &amp; acc. (cont.)</i>	Page #
Booster, hose type .....	743	Fire Pro™ .....	757	Street cleaning .....	755
Expansion ring .....	740, 741, 743	Nozzle .....	757	Water fog .....	756
Forestry, forged .....	743	Omega™ .....	757	Play pipes .....	755
Gaskets		Nipples		Tips .....	755
Forestry .....	743	Hex, double male .....	782	Plugs	
Elbows		Hex, female to male .....	774-776	Adjust-A-Plug .....	791
Angle and suction .....	803	Hex, female to male, NY threads .....	776	FDC .....	791
Continuous swivel .....	803			Pin lug .....	792
Storz		Nozzles		Domestic .....	792
30° elbow .....	797	Adjust-A-Power .....	765	Rocker lug .....	792
Long handle, SFSA30 .....	796	Break apart attack .....	761	Pressure restricting device .....	837
Rocker lug, SFSA30 .....	796	Constant flow .....	765	Pump test headers .....	804
Expansion ring & gasket guide .....	742	Displays .....	765	Racks	
Fire jacket		Fog .....	753	Hose .....	748
For hose .....	751	Constant flow .....	759, 760	Hump .....	748
Tape .....	751	Econo .....	760	Covers .....	748
Non adhesive .....	751	Electrical fire .....	752, 758	Pin	
Flange		Flow rate chart .....	753	Covers .....	749
Storz		FM approved .....	758	Hose assembly .....	749
NCS-CSF .....	796	Forestry .....	763	Nipples .....	749
Forestry		Forestry, global .....	762	Semi-automatic .....	749
Expansion ring couplings .....	743	Gaskets .....	758, 759	Wall bracket .....	749
Hose clamp and spanner .....	801	Industrial .....	752	Reels .....	745
Nozzles .....	762, 763	Industrial, heavy duty .....	752	Continuous flow .....	747
Valves .....	830	Industrial, high pressure .....	752	Accessories .....	747
Wrench .....	801	Refinery, blue .....	759	Covers .....	747
Hose		TriFlow .....	760	Global continuous flow .....	746
300# single jacket .....	732	U.S. Coast Guard approved .....	756	Cover .....	746
500# rack		Forestry		Replacement inlet swivel joint .....	746
Non UL labeled .....	736	Twin tip, straight stream .....	764	Style V swing type .....	744
UL labeled .....	735	Gallonge		Covers .....	744
500# single jacket .....	733, 734	Adjustable Tri-Flo .....	762	Swing type .....	745
Color impregnated .....	734	Dual .....	762	Covers .....	745
UL labeled .....	733	Single .....	762	Heavy duty, high capacity .....	745
800# double jacket .....	734	Garden hose .....	760	Pipe brackets .....	745
Color impregnated .....	734	Master stream .....	757	Siamese assemblies	
Cabinet .....	750	Monitor .....	757	Double clapper concealed type .....	815
Double jacket, potable water .....	735	Penetrator .....	764	Two way sidewalk .....	815
Forestry		Pistol grip adapters .....	761	Siamese body .....	811
Forestry mop up .....	737	Plain hose .....	754, 755	Snoots	
Forestry mop up, hose kit .....	737	Rack .....	753	Clapper type, pin lug .....	814
Non weeping .....	737	Global .....	753	Spring check type, pin lug .....	813
Nitrile covered		Shut-off		Sprinkler line tester .....	820
500# .....	736	Ball .....	754, 761	Storz .....	798, 799, 802
Heavy duty .....	738	Ball, forestry grade .....	763	Accessories .....	798
Non-collapsible		Ball, pistol grips .....	763, 764	Adapters .....	794, 797
Chemical booster .....	739	Ball, tips .....	763	Caps .....	798
Fire and utility .....	739	Ball, with nozzle .....	764	Elbows .....	796, 797
Single jacket mine, MSHA approved .....	735	Dual gallonge .....	762	Flanges .....	796
		Single gallonge .....	762	Gaskets .....	798
Hydrant		Street cleaning .....	755	Hydrant wrench .....	799
Adapters .....	186	Tips .....	754	Locking device .....	798
Hydrant body .....	812	Twist .....	754	Mounting plates (bracket) .....	798
Identification plates		U.S. Coast Guard Approved AFFF .....	756	Rigid female .....	793
Round .....	817	Washdown		Rigid male .....	795
Manifolds .....	804			Valves .....	841, 842
Monitor				Wrenches .....	802

<i>Fire fittings, hose &amp; acc. (cont.)</i>	Page #	<i>Fire fittings, hose &amp; acc. (cont.)</i>	Page #	<i>Flareless bite fittings (cont.)</i>	Page #
Suction		Folding pocket	799	Unions	721
Elbows	803	Forestry	801	Flat face fittings	506, 507
Short shank, long handle	803	Grip-All	800	Flomax connectors	
Swivels	831	Hole type	799	¾" series	26
Adapter		Long handle suction	801	Diesel fueling system	19, 20
Female to male, pin lug	779	Storz, pin lug	802	Fuel vent	19-21
Double female	768	Universal	799	Gravity fill receiver	21
Pin lug	768	Storz	799, 802	High flow 1" series	26
Rocker lug	768	Universal	799	R series	24, 25, 27
Elbows	803	Fire hose		Service box	21
Replacement and accessories	792	Axe	911	Standard	22, 23, 27
Storz		Gaskets	856	FloTech™	
Style N35, rocker lug	770	Nozzles	854-857	Rack monitor testers	32
Style N53, rocker lug	769	Spanner wrenches	200	Flow Control	
Style N57, long handle	770	Flame retardant hose protection	898	Series F valves	550
Valves		Flanged		Series MV metering valves	550
Angle	834, 838	Adapters	82, 83, 697	Series N valves	551
500#	822	45° elbow	82	Series PF valves	551
Cast	821, 823	Short	82	Flow control valves	
Forged	824	Straight	82	Legris	355, 356
Ball	832	Cam and groove	160, 181	Foot valves	208
Butterfly	842	ANSI	182	Frac fittings	
Chicago pattern	839	Combination nipple	116, 116	Caps	81
Drain	840	Dry aviation	16	Complete assembly	78
Drip, ball	833	Dry disconnect	7	Female	78
Gate		Dry quick disconnect	11, 12	Ferrules	79
Hydrant	828	External swage fixed	89	Flange adapters	
Hydrant, global	828	Quick-connect, fittings	253-261	45° elbow	82
Hydrant, single	827, 828	Safety break-away	17, 18	Short	82
Large diameter	829	Swivels	49-55	Straight	82
Wedge disc	825, 826	Tank truck	35-38	Male	79
Globe	833, 835	Tee	35	O-rings	79
Pressure reducing	836, 837	Weld adapters	83	Plugs	81
Relief	841	Flanges	697	Union nuts	
Sprinkler hose	840	ANSI flat face	689	One-piece	80
Wye	830-832	Floating	116, 193	FRL's	
Wall hydrants		Gaskets	37, 689	Series 1	406
Exposed 2-way	816	Hydraulic		FRL's (Filters, Regulators, Lubricators)	
Wall plates		Pipe socket weld	525	Accessories	401-405, 422-427, 433, 434
For concealed 3-way bodies	814	Lap joint	688	Carded	406, 407
For double clapper	814	NPT	688	Combination units	380, 395-398, 408, 421, 432
Washers		Slip-on	35, 688	Displays	405, 406
Swivel	741	Weld neck	689	Filter/Regulator	378, 379, 429
Tail	741	Flare fittings	717-719	Filters	366, 368-370, 383, 385, 406-411, 428, 429
Wharf hydrants	830	37°	510-516, 522, 523	Lubricators	368, 369, 406, 408, 417-420, 431
Wrenches		Connectors	717	Regulators	370, 406, 407, 412-416, 429, 430
Adjustable		Elbows	718, 719	Series 1	370, 406-427
Double head	800	Nuts	719	Watts	428-434
Hydrant	799, 800	Tees	719	Lubricators	431
Pigtail	800	Unions	718	Wilkerson	377-405
Hydrant	801	Flareless bite fittings	720	Fuel nozzles	19, 20
5 hole	800	Adapters	720, 721	Fuel receivers	19, 20
Adjustable	799, 800	Elbows	721, 722		
Double head adjustable	800	Ferrules	722		
Pigtail adjustable	800	JIC	720		
Storz	799	Nuts	722		
Spanner	799, 801, 802	Tees	722		

	Page #		Page #		Page #
<b>G</b>		<b>Gauges (cont.)</b>		<b>H</b>	
Garden hose		Liquid filled		Hammer unions	681-683
Adapters	239-241	ABS case	441	Caps	81
Back flow preventer	245	Brass	443	One-piece nut	80
Compression bibb faucets	243	Stainless steel	441, 442	Plugs	81
Country Club® RT	885	Panel builder	439	Two-piece nut	80
Coupler	243, 244	PITOT	907	Handles, cam and groove	130, 165, 166, 175, 179, 182
Flexogen®	883	Process	437	Hex bushings	658
Flexzilla®	884	Sprinkler system	907	Hex manifolds	367
Gooseneck	245	Steam siphons	444	Hex nipples	197
Hex nut with knurl	242	Three way	907	Holedall™	
Hot water rubber reinforced	884	Tire inflator chuck	376	Couplings	90, 92, 95, 97
Lok-on hose fittings	226	Tire pressure		DIN external crimp stem	106
Caps	230	Dual foot	376	Dubl-Grip® re-attachable	100
Manifold	245	Heavy duty	376	Expander machine	99
Marine, camper, patio & pool	885	Passenger car	376	Female end	90
Menders	236, 239, 252	Professional	376	Ferrules	91, 92, 94, 96, 98, 103, 106
Perfect water	884	Vacuum	440	Flanged assemblies	89
Plugs	243	Welding	443	Nipples	88, 89
Premium rubber	883	Wilkerson regulator	402	Permanent pump	99
Quick connectors	243	Gravity drop adapters	29	Sanitary crimp style	104, 105
Radiator bibb	245	Dust caps	30	Sanitary (IX) style	101, 103
Round nut with knurl	242	Grease whip	912, 913	Stems	
Rubber vinyl	883	Hose assemblies	912	External swage	88-90
Shank fittings	234-237	Hose fittings	912	Internal expansion	93, 94
Spray hose fittings	238	Zerk	913	Swaging machines	85
Top level PVC	884	Retail packaged	913	Washers	99
Tuff-Lite™	250, 251	Grip-L couplings	686	Hookie - hook hose lifter	683
Valves	244, 245	Grooved fittings	695, 698	Horizontal swing check valves	560
Washers	242	Accessories	701	Hose	
Zinc fittings	239	Clamps	695	Air	890, 891
<b>Gas</b>		Gaskets	695	Air, self-storing	890, 891
Dry couplings	14	End caps	699	Coil-chief	890
Regulators	414	Gaskets	700	Assembly kits	890
<b>Gaskets</b>	677, 697	Lightweight	692	Bulk hose	890
Agri-Lock style	256	Mechanical tees	696	Braided rubber	880
Bauer style	261	Quick release	690	Bumper stops	882
Cam and groove	127, 167-171	Rigid	694	Contractors	883
Foot valve	208	Series 45	698	Crimper	221, 222
Holedall™	99	Series 90	698	Cutters	892
Railroad tank car	59	Series AN	699	Diameter tape	909
Sand blast	290	Series BE	699	Fittings, barbed	211-214, 216, 217, 223-229, 247, 248, 251, 294, 295, 298, 301-304, 306-309, 312, 314-319, 322-327, 329
Shank couplings	205	Series EC	699	Flexogen®	883
Tank truck		Series FA	697	Flexzilla®	884
Transport	40	Series RA	697	Garden	883-885
TTMA	37	Series SF	697	Hot water reinforced	884
<b>Gauges</b>	907	Series T	696, 698	Hot water washdown	880
Compound	440	Standard	691	Knife	909
Contractor pressure	439	Grooved nipples	699	Mallet	909
Digital	444	Grooved stem style ext. crimp ferrule		Menders	74, 209, 210, 236, 249, 252
Dry		113-114		Mill	874-877
ABS standard	435	Grooved valves	699	Synthetic double jacket	877
Brass standard	437	Groove lube	701		
Flutter Guard™	438	Ground joint			
Stainless steel	436	Fittings	77, 110		
Line test	907				











	Page #		Page #		Page #
<i>Quick Disconnects (cont.)</i>		<i>Reducers (cont.)</i>		<i>Sanitary (cont.)</i>	
AG-series .....	461, 462	Combination nipples .....	192	Pipe fittings .....	601
CM-series .....	502-505	Hex bushings .....	658, 659	Polished .....	608
CVV-series .....	496, 497	Instrumentation .....	708	Unpolished .....	611
EA-series .....	501	Tuff-Lite™ .....	247	Bevel seat fittings .....	589-593
E-series .....	498-500	Reels		BioPharm fittings .....	625-630
H-BOP-series .....	457	Hand crank .....	882	Breakaway coupling	
H-series .....	450-456	Reelcraft® hose .....	881, 882	Bevel seat .....	592
HS-series .....	458	Reelcraft® static discharge .....	45	Breakaway coupling - clamp .....	577
HTE-series .....	477	Regulators		Butterfly valves	
HT-series .....	473	Accessories .....	402-405, 424, 434	Replacement seats .....	636
HTZ-series .....	478	Carded .....	406	Caps .....	569
K-series .....	459, 460	Dial air .....	386	BioPharm .....	630
PD-series .....	482	Gas .....	414	Clamp fittings .....	569
ST-series .....	479-481	High flow .....	389, 390	End .....	591, 600, 617
TR-series .....	472, 474-476	High pressure .....	387, 388	European fittings .....	585
T-series .....	494, 495	Manifold .....	414	I-line .....	596
VEP-BOP-series .....	486	Mini general purpose .....	370	Q-line .....	596
VEP-series .....	483-485	Mini water .....	378, 414	Thermometer .....	569
V-series .....	463-471	Series 1 .....	406, 407, 412-416	Unpolished .....	611
WS-BOP-series .....	493	Water .....	415	Clamp accessories .....	566
W-series .....	487-489	Watts .....	429, 430	Clamp fittings .....	567-576
WS-series .....	490-492	Wilkerson .....	377-379, 386-391	Clamps .....	564-566, 594
Pneumatic		Replacement handles		Accessories .....	566
Air Chief		Cam and groove .....	182	Nuts .....	566
ARO .....	308, 309	<b>S</b>		Bolted .....	565
Automotive .....	306, 307	SAE fittings .....	229, 263, 266, 275, 506, 508-510, 527, 544, 894	Dairy .....	566
Industrial .....	300-303	Safety		Double pin .....	564
Lincoln .....	310	Blow gun .....	371, 372	Pipe fittings .....	599
A-series .....	326, 327	Break-away couplings .....	17, 18	Single pin heavy duty .....	564
BR-series .....	325	Cables .....	362, 364	Single pin squeeze .....	564
CJ-series .....	320	Shackles .....	364	T-bolt .....	565
DF-series .....	311-315	Check valves .....	556	Three segment .....	565
J-series .....	316, 317	Clips and lanyards .....	172, 182, 289	Toggle .....	565
Legris .....	305	Information .....	916-919	Crimp style .....	105
L-series .....	322	Legris industrial coupler .....	305	Crosses	
M-series .....	318, 319	Locking pin .....	292	Clamp .....	575
NK-series .....	324	Pop-off valves .....	557	Polished fittings .....	609
N-series .....	293-296	Tape and tag .....	910	Elbows .....	572, 573, 610
Parker E-z-mate .....	304	Vented ball valves .....	534	45° clamp .....	573
P-series .....	297-299	Vent-Lock™ .....	128-130	90° clamp .....	572, 573
SHD-series .....	321, 322	Whipsocks .....	364	BioPharm .....	625, 626
U-series .....	323	Shackles .....	364	Plain bevel seat	
Quick release couplings .....	690	Sand blast couplings .....	290	.....	592
<b>R</b>		Sanitary		Polished .....	604-606
Rack cords .....	31	Adapters		Threaded bevel seat	
Rack monitor .....	32	Bevel seat .....	591	.....	592
Racks		Brewery hose .....	570	Unpolished .....	610, 611
Worm gear clamp .....	275	Brewery hose barb .....	570	European fittings .....	585-588
Radiator bibb .....	245	Clamp .....	569, 571, 572	DIN fittings .....	585
Railcar unloading assemblies .....	36, 38, 56-59	Clamp fittings .....	569, 571, 572	Caps .....	585
Railroad tank car		Female NPT .....	572	Gaskets .....	588
Fittings .....	56, 57	Hose .....	569, 570	Nuts .....	585
Gaskets .....	59			Welding .....	585
Reducers				RJT BS: 4825 fittings .....	587
Cam and groove .....	152-156				

<i>Sanitary (cont.)</i>	Page #	<i>Sanitary (cont.)</i>	Page #	<i>Sanitary (cont.)</i>	Page #
Caps .....	587	.....	592	Pneumatically actuated, 3-piece ..	646
Gaskets .....	588	Unpolished .....	613	.....	646
Nuts .....	587	Sight glass .....	617, 618	Butterfly .....	633-636
Welding .....	587	Compact .....	618	Clamp end .....	633-636
Wrenches .....	586, 587	Replacement glass .....	618	Repair kits .....	634, 635
SMS fittings .....	586	In-line .....	617	Wafer, pneumatically actuated	650
Caps .....	586	Replacement glass .....	617	Spring check .....	637
Gaskets .....	588	Seal kit .....	617	Tank vent .....	640, 641
Nuts .....	586	Sight glass end caps .....	617	Weld fittings .....	584, 595, 596, 599-601, 604-614, 625-630
Welding .....	586	Spray balls		Boss-Lock™ coupler .....	584
Ferrules .....	567, 568, 590, 596	Rotating .....	616	Cam and groove adapter .....	584
BioPharm .....	630	Stationary .....	616	Wrenches .....	589
I-line .....	595	Strainers .....	621, 622	Single sided	589
Pipe fittings .....	599, 600	Filters .....	622	.....	589
Q-line .....	596	In-line .....	621	Spanner .....	587
Quick weld .....	577	Mesh over screens .....	622	Two sided	589
Recessless		Side-entry .....	621	.....	589
.....	590, 591	Side-outlet reverse .....	621	Sanitary crimp fittings	
Reducing		Stub ends, type A .....	613	Ferrule, 304 stainless .....	106
.....	568	Swivels		Sanitary (IX) fittings	
Roll-on		Straight swivel clamp .....	619	Ferrule, flow chief .....	103
.....	568	Straight weld connection .....	619	Hex nuts .....	102
Weld		Tees		Plugs .....	101
.....	567, 568, 590, 591	BioPharm .....	626, 627	Stems	
Flanges .....	615, 624	Clamp .....	574	Bevel seat .....	102
Gaskets		Clamp reducing .....	574	Clamp end .....	101
Bevel seat .....	593	Short outlet clamp .....	574	Male NPT .....	102
Clamp .....	578-583	Unpolished .....	612	Tube weld end .....	101
I-line .....	597, 598	Weld .....	607	Screw pitch gauge .....	909
Pipe fitting .....	603	Transition fittings .....	584	Sealant .....	903
Q-line .....	598	Cam and groove adapter .....	584	Joint .....	903
Gauges, pressure .....	620	Cam and groove coupler .....	584	Thread .....	903
I-line fittings .....	595-598	Tube hangers .....	623, 624	Security chains .....	171
Miscellaneous configurations		Nuts .....	624	Self-storing air hose .....	890, 891
Laterals .....	609, 614	Sleeves .....	623	Series 1 FRL's .....	370, 406-427
.....	576	Unpolished fittings .....	610-615	Set screw buckles .....	270
Return bends .....	576, 609, 614	Valves		Shackles .....	364
Wyes .....	576, 609, 614	3A sample .....	642	Sharkbite® push to connect fittings	723, 724
Nuts		Accessories, actuated .....	652	Connectors .....	723
.....	589	Limit switches .....	652	Couplings .....	723, 724
Pipe fittings .....	599-603	Positioners .....	652	Disconnect clips .....	724
Pipe hangers .....	602	Solenoids .....	652	Elbows .....	724
Sleeves .....	602	Air blow check valves, repair kits		End stops .....	724
Sleeves, pipe hanger .....	602	639		Tees .....	724
Polished fittings .....	604-609	Ball		Short shanks ...	198, 199, 201, 210, 247, 250
Protection covers		Check .....	638	Shut-off	
Clamp end .....	576	Electrically actuated .....	643-645	Valves .....	403, 559
Weld end .....	610	Electrically actuated, 2-piece	643	Sight flow indicators .....	37, 38, 60
Q-line fittings .....	594, 596, 598	Electrically actuated, 3-piece	643	Flanged acrylic sight flow indicators	38
Reducers		Electrically actuated, 3-way	645	Repair kits .....	38
BioPharm .....	628, 629	Encapsulated .....	631	TTMA pattern .....	38
Concentric .....	575	Flow options / patterns .....	651	Sight glasses	
Eccentric .....	575	Multi-port .....	651	Replacement glass .....	618
Plain bevel seat		Non-encapsulated .....	632	Single bolt clamps .....	280
.....	592	Pneumatically actuated	646-649	Skimmers .....	207
Polished fittings, weld		Pneumatically actuated, 2-piece	646		
Threaded bevel seat		.....	646		

	Page #		Page #		Page #
Sleeves ....	111, 112, 117, 196, 339, 341, 715	<b>Stems (cont.)</b>		Tank transport equipment	
Spanner wrenches .....	200	Washer seal .....	71	Pipe caps .....	40
Speed control mufflers .....	448	Strainers .....	206-208	Reducers .....	40
Spill kits .....	908	Disk .....	171	Reducing cap .....	40
Spiral		Polypropylene .....	206	Tank truck	
Hose and cable protection .....	898	Round hole .....	206, 207	API	
Hose clamps .....	281	Square hole .....	206	Coupler .....	28
Spool adapters & couplers		T line .....	703	Valve .....	28
Cam and groove .....	180	Witches hat .....	171	Breakaways .....	849
Spray hose		with spring loaded check valves .....	560	Coupler x round flange .....	36
Couplings .....	204, 238	Y Line .....	703	Diesel nozzles .....	850
Spring Guard .....	900	Straps		Drop elbows .....	42-44
Spring return handle ball valves ....	533, 541	King Cable™ .....	363	Elbows .....	42-44
Sprinkler		Straub pipe couplings .....	686, 687	Flanged tee .....	35
Line tester .....	907	Stretch strap .....	911	Gaskets .....	37
System gauge .....	907	Suction hose couplings .....	198, 199	Nozzle accessories, fuel .....	849
Spuds		Boss™ LPS .....	79	Nozzles .....	845-847, 850-853
Boss™		Super King™ shank couplings .....	200	Swivels .....	50, 53
Double .....	69, 72, 77	Surelock™ quick acting couplings .	291, 292	Split flange .....	55
Female .....	67, 68, 71, 77	Swaged fittings .....	69, 87-92	Split flange components .....	55
Hose shank .....	74	Swage nipples .....	679	Bearing pack .....	55
Male .....	69, 72, 77	Swaging machines .....	85	Nose piece .....	55
Squeeze Lok™ hose assembly tool ....	230	Swivel connectors		Seal kits .....	55
Stainless steel		Ball .....	857	Vapor recovery .....	33, 34
Boss™		Straight .....	857	Tank truck equipment	
Clamps .....	75, 76	Swivels .....	506, 507, 509, 894	Intermodal tank transport .....	41
Ground joint .....	67, 77, 110	37° .....	512, 513	Tank transport .....	40
Male stem .....	73, 74	Air King™ .....	287	TTMA flange extensions .....	36
Dry disconnect .....	11	Air tool .....	447	Tape .....	902, 910
Dry quick disconnect .....	6, 7, 12	Angled .....	329	Diameter .....	909
Ferrules .....	92	Angled industrial plugs .....	301	PTFE tape .....	902
Gate valves .....	547	Ball, with Air Chief plugs .....	301	Safety .....	910
Gauges .....	436, 439, 441, 442	Ball, with hose barb .....	447	T-Bolt clamps .....	276-278
GHT adapters .....	239-241	Bent stem .....	329	Tees .....	510
Inserts .....	340	Connectors for spray gun .....	857	Air brake .....	339
Menders .....	209	Diesel fuel .....	21	Bull head .....	669
Notched shank cam and groove ....	135, 136, 143, 144	Dubl-grip reattachables .....	100	Compression .....	714, 715
Push-in .....	346, 347	Hose .....	848, 849	Female reducing .....	669
Strainers .....	206	Hose barb .....	211, 213, 216, 217, 223, 225-229, 232	Female threaded .....	668
Swaged fittings .....	138, 143	In-line .....	447	Flare .....	719
Thermometers .....	445	JIC .....	896	Hydraulic .....	507, 514
Steam		Joints .....	49, 50	Flat face .....	507
Gauge siphon .....	444	Loading arm .....	53	NPTF .....	521
Hose couplings .....	13	Multi-plane hose .....	849	ORB fittings .....	508-510
Valve, 250 Lb. ....	534	Push-in fittings .....	330, 331, 344, 345	Instrumentation .....	709
Stems		Push-on fittings .....	447	LIQUIfit™ .....	726-728
Bent swivel .....	329	Single plane hose .....	849	Mechanical .....	696
External swage .....	88-90, 195	<b>T</b>		Push-in ....	331, 334, 335, 344, 347, 349, 353, 354, 359, 360
Ground joint .....	67	Tag, hose assembly .....	910	Sched. 80 polypropylene .....	675
Ground joint air hammer .....	77	Tank car		Sharkbite® .....	724
Holedall™ DIN external crimp .....	106	Fittings, railroad .....	36, 38, 56-59	Side outlet .....	669
Internal expansion .....	93, 94	Gaskets .....	59	Splicers .....	215
King™ combination ..	190-192, 195, 196	Wrenches .....	59	Street service .....	669
LP Boss™ .....	74			Threaded side outlet .....	669
Reusable brass .....	232, 233			Tuff-Lite™ .....	249
Sanitary style .....	101, 102, 105			Test plugs and caps .....	906







**W**

Wafer ball valves .....	542
Washdown	
Nozzles	
Hot water .....	858
Industrial .....	857
Mini spray .....	859
Spray .....	859
Spray valves .....	861
Hose assembly .....	861
Station .....	864
Hot and cold water mixing .....	864
Rack for mixing .....	864
Water-steam .....	864
Swivel connectors .....	857
Washers	
Air King™ .....	289
Boss™ .....	72
Cam and groove .....	168-170
Garden hose .....	242
Holedall™ petroleum .....	99
Suction and shank fittings .....	205
Water regulators .....	378, 414
Watts FRL's .....	366, 428-434
WaveSeal clamps .....	265
WD-40 .....	908
Welding	
Cam and groove .....	161, 162
Gauges .....	443
Nipples .....	684
Whipsocks .....	364
Shackles .....	364
Wilkerson FRL's .....	377-405
Witches hat strainers .....	171
Worm gear clamp rack .....	275
Worm gear clamps .....	263-266, 275
Marine grade .....	264
Wrenches	
Pin lug .....	59, 200
Spanner .....	200, 705
Wrench grips .....	685

**Y**

Y, compressor .....	367
Y, connectors .....	335, 360
Y, dual valve .....	537
Y, garden hose coupler .....	244
Y, garden hose valve .....	244
Y, GHT .....	244
Y line strainers .....	703
Y, unions .....	335

**Z**

Zerk fittings .....	913
---------------------	-----

Part Number Index

In the following index, a (\*) is used to represent a variable. Therefore, to find AD075EZ or AD400EZ, look for: AD\*\*\*EZ

Page #	Page #	Page #	Page #
	•HBF•-S ..... 450	•STBF• ..... 479	•WSBF• ..... 490
	•HBF•-SS ..... 450	•STBF•• ..... 479	•WSBF•-SS ..... 490
	•H-BRKIT ..... 456	•STBF••-SS ..... 479	•WSDP-A ..... 492
	•HDP-A ..... 454	•STBF•-SS ..... 479	•WSF• ..... 490
	•HDP-H•DC ..... 454	•ST-BMK ..... 481	•WSF•-BOP ..... 493
	•HF• ..... 450	•STDP-A ..... 481	•WSF•-SS ..... 490
	•HF•-B ..... 450	•STF• ..... 479	•WSF•-SS-BOP ..... 493
	•HF•-BOP ..... 457	•STF•• ..... 479	•WSFH• ..... 491
	•HF•-S ..... 450	•STF••-SS ..... 479	•WSFP• ..... 491
	•HF•-SS ..... 450	•STF•-SS ..... 479	•WSOF• ..... 490
	•HF•-SS-BOP ..... 457	•STOF• ..... 479	•WS-RKIT ..... 492
	•HOF• ..... 450	•STOF•• ..... 479	•WS-SKIT ..... 492
	•H-RKIT ..... 456	•ST-SKIT ..... 481	
	•HSBF•-B ..... 458	•TDP ..... 495	••CVVBF•• ..... 496
	•HSBF•-S ..... 458	•TM• ..... 494	••CVVDP ..... 497
	•HSF•-B ..... 458	•TRBF• ..... 472	••CVVF•• ..... 496
	•HSF•-S ..... 458	•TRF• ..... 472	••EF••-B ..... 498
	•H-SKIT ..... 455	•TR-SKIT ..... 472	••EF••-S ..... 498
	•H-SRKIT ..... 456	•VBF•-B-E ..... 466	••EM••-B ..... 498
	•H-SSRKIT ..... 456	•VBF•-E ..... 466	••E-SKIT ..... 500
	•HTBF• ..... 473	•VBF•-SS-E ..... 466	••HBF•• ..... 452
	•HTBF•• ..... 473	•V-BRKIT ..... 471	••HBF••-B ..... 452
	•HTBF••-SS ..... 473	•VDP-A ..... 469	••HBF••-S ..... 452
	•HTBF•-SS ..... 473	•VDP-V•DC ..... 469	••HBF••-SS ..... 452
	•HTDP ..... 475	•VEPBF• ..... 483	••H-BRKIT ..... 456
	•HTF• ..... 473	•VEPDP-A ..... 484	••HDP-A ..... 454
	•HTF•• ..... 473	•VEPF• ..... 483	••HF•• ..... 452
	•HTF••-SS ..... 473	•VEPF•-BOP ..... 486	••HF••-B ..... 452
	•HTF•-SS ..... 473	•VEPFH• ..... 485	••HF••-S ..... 452
	•HTJB• ..... 475	•VEFPF• ..... 485	••HF••-SS ..... 452
	•HTM• ..... 473	•VEPOF• ..... 483	••HOF•• ..... 452
	•HTOF• ..... 473	•VF•-B-E ..... 466	••H-RKIT ..... 456
	•HTOF•• ..... 473	•VF•-E ..... 466	••H-SKIT ..... 455
	•HTOM• ..... 473	•VF•-SS-E ..... 466	••H-SRKIT ..... 456
	•HTRB• ..... 475	•VJM• ..... 464	••H-SSRKIT ..... 456
	•KBF• ..... 459	•VM• ..... 464	••HTBF•• ..... 473
	•KBF•-SS ..... 459	•VM•-B ..... 464	••HTF•• ..... 473
	•KDP-K•DC ..... 460, 469	•VM•-B-E ..... 467	••HTOF•• ..... 473
	•KF• ..... 459	•VM•-E ..... 467	••KBF•• ..... 459
	•KF•-SS ..... 459	•VM•-SS ..... 464	••KF• ..... 459
	•KOF• ..... 459	•VM•-SS-E ..... 467	••K-SKIT ..... 460
	•K-SKIT ..... 460	•V-RKIT ..... 471	••STBF•• ..... 479
	•PDF• ..... 482	•V-SKIT ..... 470	••STF•• ..... 479
	•PDM• ..... 482	•V-SSRKIT ..... 471	••STOF•• ..... 479
	•SFBP ..... 55	•WBF•-B ..... 487	••VBF••-B-E ..... 466
	•SFNPCS ..... 55	•WBF•-B-HN ..... 487	••VBF••-E ..... 466
	•SFNPSS ..... 55	•WDP ..... 488	••VBF••-SS-E ..... 466
	•SFSK-BAYLAST ..... 55	•WF•-B ..... 487	••VDP-A ..... 469
	•SFSK-TESS ..... 55	•WF•-B-HN ..... 487	••VEPBF•• ..... 483
	•SFSK-VI ..... 55	•W-RKIT-V2 ..... 489	••VEPDP-A ..... 484
•AGBF• ..... 461			
•AGBF•-PV ..... 461			
•AGDP ..... 462			
•AGF• ..... 461			
•AGF•-PS ..... 461			
•AGF•-PV ..... 461			
•AGF•-PV-PS ..... 461			
•AGOF• ..... 461			
•AGOF•-PS ..... 461			
•AGOF•-PV ..... 461			
•AGOF•-PV-PS ..... 461			
•CM4B•-B ..... 504			
•CM4B•-B-E ..... 504			
•CM4S•-B ..... 504			
•CM4S•-B-E ..... 504			
•CM9B•-B ..... 505			
•CM9B•-B-E ..... 505			
•CM9S•-B ..... 505			
•CM9S•-B-E ..... 505			
•CMB•-B ..... 503			
•CMB•-B-E ..... 503			
•CMF•-B ..... 503			
•CMF•-B-E ..... 503			
•CMPC-B ..... 505			
•CMS•-B ..... 503			
•CMS•-B-E ..... 503			
•CM-SKIT ..... 505			
•CVVBF• ..... 496			
•CVVDP ..... 497			
•CVVF• ..... 496			
•CVVFM•••• ..... 496			
•CVVOF• ..... 496			
•EAF• ..... 501			
•EBF•-B ..... 498			
•EF•-B ..... 498			
•EF•-S ..... 498			
•EM•-B ..... 498			
•EM•-S ..... 498			
•ES•-B ..... 498			
•E-SKIT ..... 500			
•HBF• ..... 450			
•HBF•-B ..... 450			



Part Number Index

Index Part Number

Page #	Page #	Page #	Page #
139...C ..... 216	13WN• ..... 566	14WLI-R... ..... 595	150DWSP•• ..... 161
13BNH ..... 566	13WNV ..... 566	14WLMP-G... ..... 567	150-E-•• ..... 109, 142
13CB-•• ..... 566	14003-•• ..... 471	14WLMP-R... ..... 567	150-E-ALH ..... 142
13H-G... ..... 589	1404-•• ..... 519	14WMP-G•• ..... 567	150-E-HA ..... 150
13H-G...RJT ..... 587	1404-••• ..... 519	14WMP-G... ..... 567	150ENOSSS ..... 144
13HS-•• ..... 623	1404-••• ..... 519	14WMP-G...• ..... 567	150-F-•• ..... 145
13HS-••• ..... 623	1404-•••• ..... 519	14WMP-R•• ..... 567	150F-•• ..... 718
13IB ..... 566	1405-•• ..... 519	14WMP-R... ..... 567	150F-90AL ..... 159
13IB6 ..... 566	1405-••• ..... 519	14WMP-R...• ..... 567	150-F-ALH ..... 145
13ILB-•• ..... 594	1405-•••• ..... 519	14WMV-R... ..... 599	150-F-HA ..... 150
13ILB-•••• ..... 594	14-19-G... ..... 591	14WMX-R... ..... 599	150-G-•• ..... 168, 169
13ILH-•• ..... 594	142-••• ..... 216	14WQ-G... ..... 596	150-G-••• ..... 168, 170
13ILH-•••• ..... 594	1420...C ..... 216	15-0904C ..... 914	150GPCTF ..... 40
13LW ..... 566	143-••• ..... 216	15-0909C ..... 848	150GTF•• ..... 169
13MHHM-•• ..... 564	1430...K ..... 216	1500SK ..... 520	150GTFACC ..... 170
13MHHM-••• ..... 564	1430407KLF ..... 216	1501-•• ..... 520	150GTHK ..... 168
13MHHM-•••• ..... 564	144-••• ..... 217	1501-••• ..... 520	150TP ..... 906
13MHHM-••••SN ..... 564	144-•••K ..... 217	1501-•••• ..... 520	1510-B-•• ..... 155
13MHHM-••••SN ..... 564	144F-• ..... 719	1501-•••• ..... 520	1510-C-•• ..... 155
13MHHM-•••SN ..... 564	145-••• ..... 217	1502-•• ..... 520	1510-D-•• ..... 156
13MHHM-3P-•• ..... 565	145-•••K ..... 217	1502-•••• ..... 520	1510DAAL ..... 152
13MHHM-3P-••• ..... 565	149F-•• ..... 718	1503-•• ..... 520	1510-DA-SS ..... 152
13MHHM-3P-•••• ..... 565	149F-••• ..... 718	1503-•••• ..... 520	1510-E-•• ..... 156
13MHHM-DP-•• ..... 564	149F-•••• ..... 718	15030FXF-••00000 ..... 50	1520-AA-•• ..... 154
13MHHM-DP-••• ..... 564	14A-G... ..... 590	150-A-•• ..... 131	1520-DA-•• ..... 152
13MHHM-DP-•••• ..... 564	14A-R-••DIN ..... 585	150A-90•• ..... 157	1520-F-•• ..... 156
13MHHM-Q-•• ..... 564	14A-R-••RJT ..... 587	150-AA-•• ..... 154	1540-••K ..... 914
13MHHM-Q-••• ..... 564	14A-R-••SMS ..... 586	150-A-ALH ..... 131	156..... ..... 76
13MHHM-Q-•••• ..... 564	14MPHR-G... ..... 570	150-A-HA ..... 150	156-••• ..... 914
13MHHV-•• ..... 599	14MPHR-G-•••• ..... 570	150-AL-•• ..... 160	1565U ..... 848
13MHLA-•• ..... 565	14MPHR-G-••••• ..... 570	150AWBPST•• ..... 162	158-••• ..... 914
13MHLA100-150 ..... 565	14MPHRL-•• ..... 570	150AWSP•• ..... 162	159F-•• ..... 719
13MHP-•• ..... 565	14MPHR-R-•• ..... 570	150-B-•• ..... 132	15A-G... ..... 591
13MHPV-•• ..... 599	14MPHR-R-••• ..... 570	150B-90•• ..... 158	15A-R-••DIN ..... 585
13MO-•• ..... 565	14MPHR-R-•••• ..... 570	150-B-ALH ..... 132	15A-R-••RJT ..... 587
13MO-••• ..... 565	14MPHR-R-••••• ..... 570	150-C-•• ..... 108, 134	15A-R-••SMS ..... 586
13MO100-150 ..... 565	14MPHT-R-•• ..... 569	150C-90•• ..... 158	15B15-••RAF ..... 739
13NHN-G-•• ..... 624	14MPHT-R-••• ..... 569	150-C-ALH ..... 134	15B15-••RAS ..... 739
13NHN-G-•••• ..... 624	14MPW-R-•• ..... 568	150CNOSSS ..... 135	15B15-••RBF ..... 739
13PS-•• ..... 623	14MPW-R-••• ..... 568	150-D-•• ..... 139	15B15-100RAF ..... 739
13PS-••• ..... 623	14PRF-G... ..... 590	150D-90•• ..... 158	15B15-100RAS ..... 739
13PV-•• ..... 602	14QMP-G... ..... 577	150DA-90•• ..... 157	15B15-100RBF ..... 739
13RBN-G-••RJT ..... 587	14R-G... ..... 590	150-D-ALH ..... 139	15R-G... ..... 591
13R-G-••DIN ..... 585	14RMP-G... ..... 568	150-DC-•• ..... 146	15WI-G... ..... 595
13R-G-••SMS ..... 586	14RMP-R... ..... 568	150-DC-ALH ..... 146	15WI-R... ..... 595
13RP ..... 566	14VB-R... ..... 613	150DC-L-•• ..... 147	15WLI-G... ..... 595
13RP6 ..... 566	14WHRL-R... ..... 608	150-DD-•• ..... 154	15WLI-R... ..... 595
13SLN ..... 566	14WI-G... ..... 595	150-DL-•• ..... 160	16-••• ..... 450, 454
13SN ..... 566	14WI-R... ..... 595	150-DP-•• ..... 149	16-•••A ..... 454
13WGC-•• ..... 566	14WLI-G... ..... 595	150-DP-ALH ..... 149	1610-10 ..... 751
13WGC100-150 ..... 566		150DWPST•• ..... 161	163-••00C ..... 672

	Page #		Page #		Page #		Page #
1630-00CLF	672	171C-....	715	1-HR1004	882	200E-90..	159
164C-..	714	172...C	663	1-HR1004-3	882	200-E-ALH	142
164C-...-...	714	172C-....	714	1-HR1004A	882	200-E-HA	150
165-....	661	174-....	660	1WAYBV...	542	200ENOSSS	144
165...C	661	1740...C	660	1WAYBV...SW	542	200-F-..	145
165...CLF	661	176-....	663	1WAYBV...VIC	542	200F90AL	159
165C-..	714	1760...C	663			200F-90SS	159
166-....	660	1765A	220	2.....	280	200-F-ALH	145
166...C	660	176C-0402	715	2•	280	200-F-HA	150
166...CLF	660	177-....	215	2••	273	200-G-..	168, 169
166FSV-..	718	177...C	215	2•••	273	200-G-...•	168, 170
169-....	665	177...SS	215	2••••	255, 264	200GPC••	40
1690...C	665	177...SS	215	2•••••	423-425	200GTF••	169
169C-....	713	177C-0402	714	2•••R	273	200GTFACC	170
16A-G••	591	178...C	210, 236	2••R	273	200GTHK	168
16AI-14I••	596	178...SS	210	200...C	218	200-HRP-..	165
16AI-14I••R	596	1780•0•CLF	210	2000L	47	200-HSCRIP-SI	165
16AI-15I••	596	179-....	215	200-A-..	131	200-LH-..	165
16AI-15I••R	596	179...C	215	200A-90••	157	200-PC-..	40
16AMP-G•••	569	179...SS	215	200-AA-..	154	200PRSC••	171
16AMP-G••••	569	179...SS	215	200-A-ALH	131	200-PV-9	47
16AMP-G•••••	569	1790...CLF	215	200-A-HA	150	200-TCA-..	58
16AMP-R•••	569	1790604BARB	215	200-AL-..	160	200TP	906
16AMP-R••••	569	179C-....	713	200-AL-SSANSI	160	200YDAAAL	164
16AMP-R•••••	569	18-...•	461, 462	200AWBPST••	162	2010-DA-..	152
16AMP-R••••••	569	18-...•••	425, 427	200AWSP••	162	2015-A-..	155
16AMP-R•••DIN	585	18•57	434	200-B-..	132	2015-B-..	155
16AMP-R••SMS	586	180...F	233	200B-90••	158	2015-B-ALNST	183, 786
16AMV-G•••	600	180...FSS	233	200-B-ALH	132	2015-C-..	155
16AMV-R•••	600	182...S	233	200-C-..	108, 134	2015-D-..	156
16AQ-G•••	596	182...SS	233	200C-90••	158	2015-DA-..	152
16-DBHU-16	708	183...K	231	200-C-ALH	134	2015-E-..	156
16-DCAP	710	183...KSS	231	200CNOSSS	135	2015-F-..	156
16-DELU-16	709	184...A	232	200-D-..	139	2025-DA-..	152
16-DFC-..	707	18-458-00017	835	200D-90••	158	2025-D-ALNST	183, 786
16-DFE-16	708	185-....	232	200DA-45••	157	2025-F-ALNST	183, 786
16-DFPLUG	710	185...K	232	200DA-90••	157	2030-A-..	155
16-DMC-..	707	187.....	76	200-D-ALH	139	2030-AA-..	154
16-DME-..	708	187-....	232	200DBAL	755	2030-B-..	155
16-DTTM-..	709	187...K	232	200-DC-..	146	2030-DA-..	152
16-DTTT-..	709	188-..	527	200-DC-ALH	146	2030-DD-..	154
16-DU	708	189.....	750, 800	200DC-L••	147	2030-F-..	156
16SFO	526	189DH	800	200-DD-..	154	2040-AA-..	154
16SFXO	526	19-...•	462	200DD-45••	157	2040-DA-..	152
16STDP-A	481	1910-12	751	200DD-90••	157	206.....	76
16STF16-SS	479	1BRBF•-B-7	325	200-DL-..	160	207BH•	677
16ST-SKIT	481	1BRF•-B-7	325	200-DP-..	149	207BH••	677
17-...•	451, 454	1BRGM•-B-7	325	200-DP-ALH	149	20SFO	526
17-...A	454	1BRM•-B-7	325	200DWBPST••	161	20SFXO	526
17-016-107	422	1BRS••-B-7	325	200DWSP••	161	211-....C	672
170C-....	713	1HDP	454, 469	200-E-..	109, 142	212.....	76

Part Number Index

Index  
Part Number

Page #	Page #	Page #	Page #
213••00CLF ..... 671	2501•••• ..... 513	280••••CBC ..... 225	2-DTMT-2 ..... 709
2143SEALBU ..... 29	2501•••• ..... 513	282•••• ..... 226	2-DTTM-2 ..... 709
219•••• ..... 672	2503•••• ..... 514	282••••C ..... 226	2-DU ..... 708
219••00C ..... 672	2503•••• ..... 514	282••••CBC ..... 226	2FB•-B ..... 315
21MP-G•• ..... 571	2503•••• ..... 514	284•••• ..... 227	2FBF•-B ..... 312
21MP-G•••• ..... 571	250-A•• ..... 131	286•••• ..... 227	2FF•-B ..... 312
21MP-G••••• ..... 571	250-B•• ..... 132	287•••• ..... 228	2FF•-S ..... 312
21MP-R•• ..... 571	250-C•• ..... 134	287••••C ..... 228	2FF2 ..... 312
21MP-R••• ..... 571	250-D•• ..... 139	287••••CBC ..... 228	2FM•-B ..... 313
21MP-R•••• ..... 571	250-DC•• ..... 146	287••••SS ..... 228	2FM2 ..... 313
21MP-R••••• ..... 571	250-DP•• ..... 149	287••••SS ..... 228	2FS•-B ..... 314
2210-14 ..... 751	250-E•• ..... 142	2870407CLF ..... 228	2FS•-S ..... 314
2211CBB•••••4 ..... 628	250-F•• ..... 145	288•••• ..... 228	2FS2.5-B ..... 314
2211CBB•••••F1 ..... 628	250-G•• ..... 168, 169	288••••C ..... 228	2-HR1004-3 ..... 882
2211EBB•••••F1 ..... 629	250-G••• ..... 168, 170	288••••CBC ..... 228	2-HR1005 ..... 882
2211EBB•••••F4 ..... 629	250GTF•• ..... 169	288••••SS ..... 228	2J••-B ..... 317
2221CBB•••••F1 ..... 628	250GTHK ..... 168	289•••• ..... 228	2JB•-B ..... 317
2221CBB•••••F4 ..... 628	2510-16 ..... 751	289••••C ..... 228	2JF•-B ..... 317
2221EBB•••••F1 ..... 629	2520-DA•• ..... 152	289••••SAE ..... 228	2JS•-B ..... 317
2221EBB•••••F4 ..... 629	2530-AA•• ..... 154	2890••••SAE ..... 228	2L•2-B ..... 322
225 ..... 76	2530-DA•• ..... 152	290•••• ..... 229	2MF•-B ..... 318
228•••• ..... 670	2540-AA•• ..... 154	290••••C ..... 229	2MF•-PL ..... 318
228••••C ..... 670	25H••• ..... 589	2909••••CBC ..... 229	2MM•-B ..... 319
22MP-G•• ..... 572	25H••••• ..... 589	292••••C ..... 229	2MM•-PL ..... 319
22MP-G•••• ..... 572	2601•••• ..... 514	292••••CBC ..... 229	2MS•-B ..... 319
22MP-G••••• ..... 572	2601••••• ..... 514	292-0•• ..... 229	2MS•-PL ..... 319
22MP-R•• ..... 572	2601•••••• ..... 514	294•••• ..... 229	2MS2.5-PL ..... 319
22MP-R••• ..... 572	2603•• ..... 514	294••••C ..... 229	2NKS2 ..... 324
22MP-R•••• ..... 572	2603••• ..... 514	294••••CBC ..... 229	2SHD•• ..... 321
22MP-R••••• ..... 572	268B•••• ..... 212	294••••SS ..... 229	2SHDS• ..... 322
230FXF••00000 ..... 50	269C•••• ..... 713	296••••C ..... 225	2U••-B ..... 323
233 ..... 750, 799	2700LN•• ..... 515	296••••CBC ..... 225	2WAYBV•• ..... 543
234-80•• ..... 846	2700LN••• ..... 515	296••••SS ..... 225	2WAYBV•••SW ..... 543
2404••• ..... 511	2701LN•• ..... 516	2CJBF•-B ..... 320	2WAYBV••VIC3 ..... 543
2404•••• ..... 511	2701LN••• ..... 516	2CJBM•-B ..... 320	2WCA••••F• ..... 815
2404••••• ..... 511	270AT ..... 230	2CJF•-B ..... 320	2WCA••••F-SP• ..... 815
2405••• ..... 511	271•••• ..... 223	2CJF2-B ..... 374	2WSA••••F ..... 815
2405•••• ..... 511	271••••C ..... 223	2CJM•-B ..... 320	2WSA••••F•• ..... 815
2405••••• ..... 511	272••••C ..... 223	2CM4S2.5-B-E ..... 504	3 ..... 280
2405•••••• ..... 511	272••••SS ..... 223	2CM9S2.5-B ..... 505	3•• ..... 273
2405••••••• ..... 511	272••••W ..... 230	2CM9S2.5-B-E ..... 505	3••• ..... 258, 259, 273
2405•••••••• ..... 511	2720••CLF ..... 223	2CMS2.5-B ..... 503	3•••• ..... 258, 259, 264
24PFX••• ..... 103	273•••• ..... 224	2CMS2.5-B-E ..... 503	3••••• ..... 422, 424, 425
24SFO ..... 526	273••••C ..... 224	2D••-B ..... 312, 313, 315	3•••R ..... 273
24SFXO ..... 526	274••••C ..... 224	2D••-S ..... 312, 313	3••R ..... 273
250 ..... 76	274••••CBC ..... 224	2DB••-B ..... 312	30••• ..... 494
2500HB0000 ..... 99	275 ..... 76	2DB•-B ..... 315	30•••DP ..... 495
2500L ..... 47	278••••C ..... 225	2-DFC•• ..... 707	30••RDSSAP ..... 41
2500SFV ..... 48	2789••••CBC ..... 225	2-DMC•• ..... 707	300••• ..... 526
2501••• ..... 513	280•••• ..... 225	2DS•-B ..... 314	300•••• ..... 526
2501•••• ..... 513	280••••C ..... 225	2DS•-S ..... 314	



	Page #		Page #		Page #		Page #
300-...	526	300EL90..	664	3020-DA..	152	3140....	353, 354, 360
3000....	354	300EL90..	664	3020DAT..SS	153	3140....DOT	335
3002....	445	300ENOSSS	144	3020-E..	156	31440-225AL	29
300300MAE	44	300-F..	145	3020-F..	156	3148....	352
3004....	445	300F-90SS	159	3020-RD..	40	3148....DOT	335
3004030MAE	44	300-F-ALH	145	3025-A-ALNST	183, 786	31665660DOT	334
3006....	445	300-F-HA	150	3025-B-ALNST	183, 786	3175....	350, 354, 358
3009....	351, 445	300FT..	668	3025-C..	155	31825600DOT	334
300-A..	131	300FT...	668	3025-DA..	152	31835600DOT	335
300A-90..	157	300-G..	168, 169	3025-D-ALNST	183, 786	3199....	360
300-AA..	154	300-G....	168, 170	3025-E..	156	3210-20	751
300-A-ALH	131	300GPC..	40	3025-F-ALNST	183, 786	322-....	668
300-A-HA	150	300GTF..	169	30-300F	494	322....C	668
300-AL..	160	300GTFACC	170	304....C	665	322....CLF	668
300-AL-SSANSI	160	300GTHK	168	3040..CLF	665	324-....	670
300-ALT..	36	300GTHKBF	169	3040-A..	155	324....C	670
300ASSSAP	41	300GTTFBL	37	3040-AA..	154	3240606CLF	670
300AWBPST..	162	300GTTFCB	37	3040ALTAL	36	326-....	670
300AWSP..	162	300GTTFK	37	3040-B..	155	326....C	670
300-B..	132	300GTTFTK	37	3040-C..	155	3260404CLF	670
300B-90..	158	300H-PADBR	166	3040-DA..	152	32P-LJ15	89
300-B-ALH	132	300H-PADSS	166	3040-DD..	154	32P-SO15	89
300BR....	654	300-HRP..	165	3040DLTAL	36	32PFX..	103
300-C..	108, 134	300-HSCRPSI	165	3040-F..	156	32SFO	526
300C-90..	158	300-LH..	165	306.....	76	32SFXO	526
300-C-ALH	134	300-MAE	44	306....	667	330FXF..00000	50
300CNOSSS	135	300MICAP..	671	3060-DA..	152	33155614	354
300-D..	139	300MICAP...	671	31..	367	340-....	526
300-D-ALPH	45	300MIU..	657	31-...	494	35..	328
300D-90..	158	300MIU...	657	31-...DC	495	35-....	243
300DA-45..	157	300-PC..	40	3101....	359	35-...-10	561
300DA-90..	157	300PC..AP	41	3102....	353, 360, 445	35..WF	328
300-D-ALH	139	300PRSC..	171	3102....DOT	333	35..WF2	328
300DAT..SS	152	300RHC..	656	3103....	352	350.....	76
300DBAL	755	300RHC...	656	3103....DOT	335	3533..	163
300-DC..	146	300-SFC..	40	3104....	353, 354, 360, 445	3534..	163
300-DC-ALH	146	300SSSG	860	3104....DOT	334	3543..	163
300DC-L..	147	300-TCA..	58	3106....	353, 354, 359	3544..	163
300-DD..	154	300-TFA	46	3106....DOT	333	3601....	348
300DD-45..	157	300-TFG	44	3108....	352, 359	3602....	349
300DD-90..	157	300TP	906	3108....DOT	334	3604....	349
300-DL..	160	3010-RC-SS	40	3109....	351, 354, 358	3606....	348
300-DLT-AL	36	3014....	350	3109....DOT	333	3615....	348
300-DP..	149	3015-DA..	152	3113....	351	3675....	348
300-DP-ALH	149	3015-F..	156	3114....	358	370....C	662
300DWBPST..	161	302....C	664	3114....DOT	332	3700..CLF	662
300DWSP..	161	302....CLF	664	3115....DOT	332	3701212C	365
300-E..	109, 142	3020-A..	155	3116....	353, 359	3710..C	657
300E-90..	159	3020-B..	155	3116....DOT	333	3710..CLF	657
300-E-ALH	142	3020-C..	155	3126....	353, 360	373....C	659
300-E-HA	150	3020-D..	156	3129....	351	373....CLF	659

Part Number Index

Page #	Page #	Page #	Page #
375.....76	3U•-B .....323	400DWPST•• .....161	4055-3 .....751
375••••C .....659	4.....280	400DWSP•• .....161	4060-A•• .....155
375••••CLF .....659	4•• .....273, 279	400DWX5TC .....57	4060-AA•• .....154
377••••C .....655	4••• .....275	400-E•• .....109, 142	4060-DA•• .....152
377••••CLF .....655	4•••• .....422-427	400E-90•• .....159	4060-DD•• .....154
379••••C .....662	4••••• .....423-426	400-E-ALH .....142	40A-45TCAL .....58
38025600.....347	4•••••R .....422, 423, 425	400-F•• .....145	40BS-H•• .....593
3804•••• .....347	4•••••RF .....422	400-F-ALH .....145	40BS-O•• .....593
3805•••• .....346	4•••••RL .....425	400-G•• .....168, 169	40BS-S•• .....593
3806•••• .....346	4••R .....273	400-G••• .....168, 170	40IE••• .....597
3810-24 .....751	40••REV90 .....811	400GAGFI .....164	40IH••• .....597
3816•••• .....346	400•-ALGT .....30	400-G-BUSS .....56	40IT••• .....597
3889•••• .....347	40022ALTAL .....36	400GPCTF .....40	40IV••• .....598
390-••• .....526	40022DLTAL .....36	400GTF•• .....169	40MP-E••• .....578
390-•••• .....526	400-A•• .....131	400GTHK .....168	40MP-EZ••• .....583
391137.....845	400-A••INSERT .....131	400GTHKBF .....169	40MPF-E••• .....581
3CJBF•-B .....320	400A-90•• .....157	400GTTFBL .....37	40MPF-E•••• .....581
3CJBM•-B .....320	400-AA•• .....154	400GTTFCB .....37	40MPF-SFY•• .....581
3CJF•-B .....320	400-A-ALH .....131	400GTTFK .....37	40MPF-SFY•••• .....581
3CJM•-B .....320	400-AA-MI .....154	400GTTFTK .....37	40MPF-U••• .....580
3D••-B .....312, 313, 315	400-AL•• .....160	400-LH•• .....165	40MPF-U•••• .....580
3D••-S .....312, 313	400-ALT•• .....36	400-PC•• .....40	40MPF-UW••• .....580
3DB••-B .....312, 313	400-AS-AL .....164	400-TCA•• .....58	40MPF-XW••• .....581
3DS•-B .....314	400AWBPST•• .....162	400-TLT-AL .....35	40MPF-XW•••• .....581
3DS•-S .....314	400AWSP•• .....162	400TP .....906	40MP-G••• .....580
3FB• .....315	400-B•• .....132	401.....76	40MP-G•••• .....580
3FBF3 .....312	400-B-ALH .....132	401-01 .....444	40MP-GR••• .....582
3FBM3 .....313	400-C•• .....108, 134	401-01S .....444	40MP-GRE••• .....582
3FF• .....312	400-C••INSERT .....134	4020-DA•• .....152	40MP-SFY••• .....579
3FF3-S .....312	400C-90•• .....158	4025-DA•• .....152	40MP-SFYZ••• .....583
3FM• .....313	400-C-ALH .....134	4030-A•• .....155	40MPS-U••• .....582
3FS3-S .....314	400-CVR-AL .....33	4030-B•• .....155	40MP-U••• .....578
3-HR1004-3 .....882	400-D•• .....139	4030-C•• .....155	40MP-U•••DIN .....588
3-HR1005 .....882	400-D•-ALPH .....45	4030-CVR-AL .....33	40MP-U•••RJT .....588
3J•• .....317	400D-90•• .....158	4030-D•• .....156	40MP-U•••SMS .....588
3JB• .....317	400DA-45•• .....157	4030-DA•• .....152	40MP-UW••• .....578
3JF• .....317	400DA-90•• .....157	4030-DAVR-AL .....33	40MP-UZ••• .....583
3JS• .....317	400-D-ALH .....139	4030-DVR-AL .....34	40MPV-G••• .....603
3MF3-PL .....318	400-DC•• .....146	4030-E•• .....156	40MPV-U••• .....603
3MM•-PL .....319	400-DC-ALH .....146	4030-F•• .....156	40MP-XC••• .....579
3MS3-PL .....319	400DC-L•• .....147	4030-MAE .....44	40MP-XW••• .....579
3NBM4 .....294	400-DD•• .....154	4030-RD•• .....40	40PFX••• .....103
3NCS4 .....294	400DD-45•• .....157	40321TF .....37	40QH••• .....598
3NM4 .....294	400DD-90•• .....157	40322TF .....37	40QT••• .....598
3N-SKIT .....295	400DDVR-AL .....33	40323BL .....37	40SFO .....526
3S•-15U-GFB•SS .....620	400-DL•• .....160	40323TF .....37	41440-225AL .....29
3S•-2U-GFB•SS .....620	400-DLT-AL .....36	40364BL .....37	41450-DCAL .....29
3TF3 .....494	400-DP•• .....149	40364TF .....37	4-1460-AL .....37
3TM3-PV .....494	400-DP-ALH .....149	4050-AA•• .....154	418.....76
3TM3-SS .....494	400-DVR-AL .....34	4050-DA•• .....152	41FL• .....719
3TM3-SS-PV .....494		4050-DD•• .....154	41FS• .....719

	Page #		Page #		Page #		Page #
4215-..	426	48PFX-...	103	4NS-B-WF	296	500-DP-..	149
42777-000	439	48SFO	526	4NS-S	294	500DWBSTAL	161
42F-.	718	4D-B	312, 313	4NS-SS	294	500DWSP-.	161
42MP-E-.	578	4D-S	312	4NS-WF	296	500-E-.	142
42MP-G-.	580	4DB-B	312	4N-SKIT	295	500-F-.	145
42MP-GRE-.	582	4-DBHU-4	708	4P-.	90	500-G-.	168
42MP-SFY-.	579	4-DCAP	710	4PF-.	297	500GH4VBK	245
42MP-U-.	578	4-DELU-4	709	4PF-FS	298	500GHV	244
42MP-UW-.	578	4-DFC-.	707	4PF6-B	297	500GHY	244
42MP-XC-.	579	4-DFE-2	708	4PF6-S	297	500GTCABF	59
42MP-XW-.	579	4-DFPLUG	710	4PM-FS	298	500GTCABU	59
430FXF-00000	50	4-DMC-.	707	4PS-.	298	500GTCATF	59
430TFTFLAL-....	53	4-DME-.	708	4PS-B	298	500GTCATV	59
430TFXFAL-....	53	4-DRATT-2	708	4PS-FS	298	500GTCAVI	59
4315-..	426	4DS-B	314	4PS-WF	299	500GTCAVITHK	59
4316-50	426	4DS-S	314	4PS6-9	298	500GTFWB	169
4328-50	426	4-DTMT-4	709	4PS6-S	298	500QCF	243
43HTFTFLAL-....	53	4-DTTF-4	709	4PSG	38	500QCFSS	243
43HTFXFAL-....	53	4-DTTM-4	709	4RKOBV	53	500QCFV	243
440TFXFAL-....	53	4-DTTT-4	709	4RKOVIVI	53	500QCFVOR	243
44-251-00006	830	4-DU	708	4SHD-.	321	500QCFVSG	243
44HTFXFAL-....	53	4-DU-2	708	4SHDS-.	322	500QCK	243
450-.	76	4EA-SKIT	501	5-.	280	500QCKSS	243
4500-5	29	4FAMT	83	5-.	273, 279	500QCKV	243
4500RK	29	4FAMTL	83	5-....	272	500QCM	243
4500RK-V	29	4FB-.	315	5-....	424	500QCMSS	243
450-4S	891	4FBF4	312	5-....	422-425, 427	500QCSG	243
450TFXFAL-....	53	4FBM4	313	5-...LP	881	500YC	244
4510-28	751	4FF-.	312	5-...R	273	501-...C	241
452-..	368	4FF4-S	312	500-....	445	502-...CLF	241
4530-.	29	4FM-.	313	5000-.	519	50212-..C	241
4530SG	29	4FS-.	314	5000-..	519	50212-..SS	241
4540-.	29	4FS4-S	314	5000-..	519	5030-DA-..	152
4540DC	30	4HF4-HV	453	5000-...-	519	50312-..C	241
4540DC-1200	30	4-HR1005	882	5000-...-	519	504-....	241
4540F	29	4K-.-DP	460	5000-24	29	5040-C-..	155
4540SG	29	4KDP	460	5000-24L	29	5040-D-..	156
4540SG-RK-.	29	4N4N	295	5000-25	29	5040-DA-..	152
45CIPUSH	904	4NBF-.	293	500-A-..	131	5040-E-..	156
45HTFXFAL-....	53	4NBF-B	293	500-AA-..	154	50412-..C	241
46-003-00001	792	4NBM-.	294	500AN-.	754, 862	50412-..SS	241
46-011-00418	792	4NBM-B	294	500-AN7	754, 862	5060-AA-..	154
46-030-00025	830, 835, 837	4NF-.	293	500AWBPST-.	162	5060-DA-..	152
46F-..	717	4NF-B	293	500AWSP-.	162	5061212C	241
46F-...-	717	4NF-SS	293	500-B-..	132	5061212CLF	241
4895-....	357	4NM-.	294	500BFP	245	507-....	240
48F-..	717	4NM-B	294	500-C-..	134	50712-..C	240
48F-...-	717	4NM-SS	294	500-D-..	139	5071208SS	240
48F-...-	717	4NM6-S	294	500DA-90-.	157	5071212CLF	240
48P-LJ15	89	4NS-.	294	500-DC-..	146	50812-..C	239
48P-SO15	89	4NS-B	294	500-DD-..	154	50812-..SS	239

Part Number Index

Index Part Number

Page #	Page #	Page #	Page #
5081208CLF ..... 239	5406-... .. 518	6.. ..... 279, 343, 344	60C-.. ..... 715
509-.... ..... 240	5406-... .. 518	6... ..... 343, 344	60NAB. .... 339
509-12C ..... 240	5406C- . ..... 522	6.... ..... 673, 675, 677, 703	60NAB.. .... 339
5091212CLF ..... 239	5406C-.. ..... 522	6... .. ..... 423	60PT-.. ..... 716
5091212SS ..... 240	5500- . ..... 519	6.... .. ..... 427	60RB-.. ..... 341
50-A-.. ..... 131	5500-.. ..... 519	600-... .. ..... 526	61-... .. ..... 558
50-B-.. ..... 132	5502- . ..... 520	6000-.. ..... 42	61C-.. ..... 716
50-C-.. ..... 134	5502-.. ..... 520	6000-..C ..... 43	61CL-.. ..... 716
50-D-.. ..... 139	5504- . ..... 520	6000ASAL ..... 44	61NAB. .... 340
50-DC-.. ..... 146	5504-.. ..... 520	6000-SSA ..... 44	61NAB.. .... 340
50-DP-.. ..... 149	56-... .. ..... 459, 460	600-A-.. ..... 131	61RB-.. ..... 341
50-E-.. ..... 142	5600- . ..... 521	600-AA-.. ..... 154	61RBSG-.. ..... 340
50-F-.. ..... 145	5600-.. ..... 521	600-A-ALH ..... 131	6200..... 42
50-G-.. ..... 168, 169	5601- . ..... 521	600-AL-.. ..... 160	6200- . ..... 42
50-G-TF-VI ..... 169	5601-.. ..... 521	600-ALT-AL ..... 36	6200-.. ..... 42
50-HP-SP ..... 165	5602- . ..... 521	600AWBPST.. ..... 162	62C-.. ..... 712
5110-32 ..... 751	5602-.. ..... 521	600AWSP.. ..... 162	62C-.... ..... 712
5111A ..... 220	5604- . ..... 521	600-B-.. ..... 132	62CBH-.. ..... 712
5131212C ..... 242	5604-.. ..... 521	600-B-ALH ..... 132	62NAB. .... 337
5141212C ..... 239	5605- . ..... 521	600-C-.. ..... 108, 134	62NAB.. .... 337
5141212CLF ..... 239	5605-.. ..... 521	600C-90.. ..... 158	62NABH. .... 337
5141212SS ..... 239	56RBSG-.. ..... 340	600-C-ALH ..... 134	62NBH. .... 337
520-.... ..... 445	57-... .. ..... 459, 460	600-D-.. ..... 139	62NBH.. ..... 337
5200-SFI ..... 37	572-.... ..... 226	600D-90.. ..... 158	62NFBH. .... 337
5200-SFI-3 ..... 37	572-...C ..... 226	600DA-45.. ..... 157	62NFBH.. ..... 337
5200-SFI-3-RK1 ..... 38	574-.... ..... 226	600DA-90.. ..... 157	6302-...WP2 ..... 726
5200-SFI-3V-RK1 ..... 38	574-...C ..... 226	600-D-ALH ..... 139	6304-...WP2 ..... 726
5200-SFI-RK1 ..... 38	575-.... ..... 226	600-DC-.. ..... 146	63046056WP2 ..... 726
5200-SFIV-RK1 ..... 38	575-...K ..... 226	600-DC-ALH ..... 146	6306-...WP2 ..... 726
5201-SFI ..... 37	578-...C ..... 236	600DC-L.. ..... 147	6315-...WP2 ..... 725
5201-SFI-RK1 ..... 38	585-12C ..... 235	600-DD-.. ..... 154	6316-...WP2 ..... 726
5204..... 28	586-12C ..... 235	600DD-45.. ..... 157	6322-...WP2 ..... 728
5204LNG ..... 28	587-...K ..... 235	600DD-90.. ..... 157	6325-...WP2 ..... 725
5204LSNG ..... 28	588-12C ..... 235	600-DL-.. ..... 160	6326-...WP2 ..... 727
5204LSNGP ..... 28	589-...K ..... 235	600-DLT-AL ..... 36	6340-...WP2 ..... 726
5204NG ..... 28	59-... .. ..... 703	600-DP-.. ..... 149	6351-...WP2 ..... 727
5205-RK4 ..... 29	59-1616C ..... 202	600-DP-ALH ..... 149	6366-...WP2 ..... 728
5300..... 28	590-...C ..... 234	600DWPSTAL ..... 161	6382-...WP2 ..... 728
5300B ..... 28	590-12CLF ..... 234	600DWSP.. ..... 161	6388-...WP2 ..... 728
5300BC ..... 28	591-...C ..... 234	600-E-.. ..... 109, 142	639C-04 ..... 715
5300G ..... 28	591-12CLF ..... 234	600-E-ALH ..... 142	63NAB. .... 340
5354K21 ..... 28	591-12SS ..... 234	600-F-.. ..... 145	63PT-.... ..... 715
5400..... 28	5911-1-W ..... 242	600-F-ALH ..... 145	640-... .. ..... 526
5400B ..... 28	5911212F ..... 242	600-G-.. ..... 168, 169	6400..... 43
5400G ..... 28	5911212N ..... 242	600GTFVI ..... 169	6401-.. .. ..... 508
5404- . ..... 518	592-...K ..... 234	600-HRP-.. ..... 165	6401-... .. ..... 508
5404-.. ..... 518	5921212KLF ..... 234	6030-DA-.. ..... 152	6401-... .. ..... 508
5404-.. .. ..... 518	595-...K ..... 237	6040-A-.. ..... 155	6403- . ..... 508
5404-... .. ..... 518	5951616K ..... 202	6040-D-.. ..... 156	6403-.. ..... 508
5404-... .. ..... 518	6..... 280	6040-DA-.. ..... 152	6405-.. .. ..... 509
5406-.. .. ..... 518		6050-DA-.. ..... 152	6405-... .. ..... 509

	Page #		Page #		Page #		Page #
6405-...	509	66NBH86	337	70-X	343	7770-...	356
6408HHP-	510	67RBSG-	341	70-X	343	7775-...	356
6408HHP-	510	68-X	342	700013-...	368	78-...	487, 488
6410-...	508	68-X	342	7065-...	355	78-...	487
6410-...	508	68-X	342	70NAB-	337	7800MP	881
6410-...	508	68-X	342	70NAB-	337	79-...	488
6410-40	751	6803-	510	71-X	345	79-...	488
64NAB-	339	6803-	510	71-X	345	7910-...	355
64NAB-	339	682C-...	713	71-X	345	7982-...	355
64P-LJ15	89	688-	527	71NAB-...VS	339	7994-...	357
64P-SO15	89	68C-...	711	71NAB-...VS	339	7996-...	357
64PFX-...	103	68CIPUSH	904	71S-X	345	79NAB-...VS	338
6500	42	68NAB-...VS	336	71S-X	345	79NAB-...VS	338
6500-	512	68NAB-...VS	336	71S-X	345		
6500-	512	68NAB-...VS	336	71S-X	345		
6500-...	512	68RB-...B	341	72-X	344	8	280
6500-...	512	68RBSG-...	341	72-X	344	8-	279, 343
6500A	42	69-X	343	72-X	344	8-	245, 343, 862
6501-...	513	69-X	343	72NAB-...VS	339	8-	861
6501-...	513	69-X	343	72NAB-...VS	339	8-H	861
6501-...	513	690-...	526	72S-X	345	8-LP	882
6502-	513	6901-...	509	72S-X	345	800-A-	131
6502-	513	6901-...	509	750	76	800-AL-	160
6503-...WP2	727	6901-...	509	7550-A-	131	800-AL-	160
650-4S	891	6901-...	509	7550-E-	142	800-AWSPAL	162
6505-...	512	69NAB-...VS	338	7550-F-	145	800-B-	132
6505-...	512	69NAB-...VS	338	75-A-	131	800-C-	134
6505-...	512	69NAB-...VS	338	75AWBPSTSS	162	800-D-	139
6505-...WP2	725	69S-X	344	75AWSPSS	162	800-DC-	146
6506-...	512	69S-X	344	75-B-	132	800-DL-	160
6506-...	512	69S-X	344	75-C-	134	800-DP-	149
6506-...	512	6D-B	312	75-D-	139	800-DWSPAL	161
650-6S	891	6-DBHU-6	708	75-DC-	146	800-E-	142
6508-...WP2	727	6-DCAP	710	75-DP-	149	800-F-	145
6509-...WP2	727	6-DELU-6	709	75DWBPSTSS	161	800-G-	168
6530A	42	6-DFC-	707	75DWSPSS	161	800-HNP-BR	165
6530C	42	6-DFE-4	708	75-E-	142	801-A-	131
6579-...WP2	725	6-DFPLUG	710	75-F-	145	801AWBPSTAL	162
65NAB-	338	6-DMC-	707	75-G-	168, 169	801AWSPAL	162
65NAB-	338	6-DME-	708	75-G-	168, 170	801-DP-	149
66-X	342	6-DRATT-	708	75GTFAcc	170	801-E-	142
66-X	342	6DS-B	314	75-G-TF-VI	169	801-F-	145
66-X	342	6-DTMT-4	709	75-HP-SP	165	8060-DA-	152
6600-	514	6-DTTT-6	709	75TH2R-...SS	446	80B-100HAF	739
6600-	514	6-DU	708	7600HP	881	80B-100HCF	739
6602-	514	6-DU-4	708	7610-48	751	80B-50HAF	739
6602-	514			7660-...	356	80B-50HCF	739
66C-...	712	7	280	7665-...	356	8320605	861
66NAB-	336	7-	279	77-...	488	850	76
66NAB-	336	7-LP	881	77-...	488	850-	100
						851-	368
						855	221
						855231	299

Part Number Index

Page #	Page #	Page #	Page #
855A ..... 221	90IRC4025G ..... 806	A5...UC ..... 733	ADS400 ..... 164
856- ..... 221	90IRC4025GF ..... 806	A5...50RAF ..... 750	ADS4GR ..... 64
856... ..... 221	90ISCS4025F ..... 808	A5...U...CBF ..... 733	ADV150F ..... 840
860..... 222	90PPA... ..... 188	A510100... ..... 733	AFC...F-TGWP ..... 791
861... ..... 222	90PPC... ..... 188	A510-50... ..... 733	AFN... ..... 760
875-4 ..... 846	90PPD... ..... 188	A515100... ..... 733	AFN...NST ..... 760
875-5 ..... 846	90PPF... ..... 188	A515-25... ..... 733	AG... ..... 689
8-DBHU-8 ..... 708	90SCS4025F ..... 808	A515-50... ..... 733	AG-BF... ..... 462
8-DCAP ..... 710	90TCS...F ..... 810	A515-75... ..... 733	AG-BF-PV ..... 462
8-DELU-8 ..... 709	90TCS...F... ..... 810	A515OR50RAF ..... 734	AG-DC ..... 462
8-DFC- ..... 707	915... ..... 528	A515OR50RAS ..... 734	AG-F... ..... 462
8-DFE-8 ..... 708	94...U... ..... 305	A515R50RAF ..... 734	AG-F-PV ..... 462
8-DFPLUG ..... 710	968..... 76	A515Y50RAF ..... 734	AG-OF... ..... 462
8-DMC- ..... 707	96P-LJ15 ..... 89	A525100... ..... 733	AG-OF-PV ..... 462
8-DME-8 ..... 708	96P-SO15 ..... 89	A525-25... ..... 733	AH... ..... 147
8-DRATT-12 ..... 708	A... ..... 288	A525-50... ..... 733	AH...EZ ..... 148
8-DTMT- ..... 709	A... ..... 288	A525-75... ..... 733	AHA...ADP ..... 785
8-DTTM- ..... 709	A...00F...DA ..... 63	A7... ..... 699	AHA...BSP...T ..... 659
8-DTTT-8 ..... 709	A...VC...MG ..... 730	A7... ..... 699	AHDBF75 ..... 561
8-DU ..... 708	A100C...A ..... 61	A800OG... ..... 64	AHGV250 ..... 828
8SFO ..... 526	A100CA1050 ..... 65	A800OGJ... ..... 64	AHGV250F ..... 828
8SF XO ..... 526	A100CA1050V ..... 65	AAPN75GHT ..... 765, 863	AHGV250F-H ..... 828
8STBF8-V2 ..... 479	A100CBLMTR ..... 65	AB... ..... 283	AHGV250F-I ..... 828
8STDP-A-V2 ..... 481	A100D... ..... 65	AB... ..... 283, 284	AHW ..... 799
8STF10-V2 ..... 479	A100LT ..... 65	AB... ..... 133	AHWPT ..... 800
8STF8-V2 ..... 479	A100MTR ..... 65	AB...EZ ..... 133	AK3526-300FL ..... 757
8ST-SKIT-V2 ..... 481	A100SG-POLY ..... 65	ABC... ..... 236	AK4450NST ..... 757
8WF8-HN ..... 487	A100TT... ..... 65	ABC250 ..... 790	AKSP1 ..... 289
9... ..... 279	A200CA3P... ..... 64	ABH...F ..... 743	AKSP25 ..... 289
900..... 846	A200CA5P... ..... 64	ABN100... ..... 761	AL... ..... 866-868, 871, 872
900... ..... 846	A200PC...A ..... 63	ABN150... ..... 761	AL...XX ..... 866
900...34 ..... 846	A200PCSS...A ..... 63	AC... ..... 135	AL455F ..... 868
9000-48S ..... 375	A200PCSSDP...A ..... 63	AC...EZ ..... 137	AL9 ..... 865
900SK ..... 846	A200PHC...A ..... 63	AC1 ..... 289	ALC...EZ ..... 128
900TK ..... 846	A200SA ..... 65	AC200TUBE ..... 163	Alpha Numeric.....
900W... ..... 846	A200SVA ..... 65	AC7 ..... 172	ALTG...F ..... 907
9076M ..... 368	A210...120 ..... 62	ACB304 ..... 261	AL-TPR... ..... 871
90CDMHCB... ..... 812	A210...24 ..... 62	ACL... ..... 173	AM... ..... 283, 365
90CREV... ..... 811	A210-120 ..... 62	ACL8 ..... 289	AM... ..... 283, 284
90DCS...F ..... 809	A210-120TC ..... 65	ACPSO150 ..... 761	AM...WF ..... 287
90DCS...F... ..... 809	A210-24 ..... 62	ACPSO150F ..... 761	AM-SWIV ..... 287
90DCS...NYFD ..... 809	A210CR... ..... 65	AD... ..... 140	AM11WF ..... 287
90DCS4025F- ..... 809	A210PZH-24 ..... 65	AD...EZ ..... 141	AM11WF-1 ..... 287
90DCS4030NYFDSP ..... 809	A3...UC ..... 732	AD400ALEZMTC ..... 57	AM7T ..... 287
90FR3C... ..... 807	A3...UC ..... 732	AD90400... ..... 158	AMF... ..... 366
90FR3C...F ..... 807	A315100... ..... 732	ADA... ..... 153	ANH... ..... 290
90FRC... ..... 806	A315-50... ..... 732	ADA...EZ ..... 153	ANH... ..... 290
90FRC...F ..... 806	A325100... ..... 732	ADD... ..... 154	ANSI... ..... 697
90IRC... ..... 806	A325-50... ..... 732	ADD... ..... 154	ANT... ..... 763
90IRC...F ..... 806	A5...UC ..... 733	ADPW ..... 561	ANT...F ..... 763
		ADS...GR ..... 64	APN... ..... 684



	Page #		Page #		Page #		Page #
APRD...F	837	AV250NYFD-I	823	B23BMP-R...	569	B2WCL-G...P	604
AQ62DOT•	330	AV251NYC	824	B24HS-G••	623	B2WCL-G...U	610
AQ64DOT•	331	AV251NYFD	824	B24HS-G...	623	B2WCL-R...P	604
AQ68DOT•X•	330	AV5-250F	822	B24PS-G••	623	B2WCL-R...U	610
AQ69DOT•X•	330	AV5-250NYFD	822	B24PS-G...	623	B2WCL-R••P	604
AQ69DOTS•X•	330	AVAPR...F	838	B24PV-G...	602	B2WCL-R••U	610
AQ71DOTS•X•	331	AVAPR...F-I	838	B24RG-G••	624	B2WK-G...P	605
AQ72DOTS•X•	331	AVAPRF...	838	B24RG-G...	624	B2WK-G...U	611
AR20831	872	AVAPRF...-I	838	B24RPH-G••	624	B2WK-R...P	605
AR3000-A2	868	AVF...•	821, 824	B24RPH-G...	624	B2WK-R...U	611
AR3500	871	AVF...-I	823	B24RV-G...	602	B2WK-R••U	611
AR5000-1	872	AVF5-250	822	B25-G.....	624	B2WUL-R...P	609
AR503830SSP	880	AVG250F	822	B25-G.....	624	B2WUL-R...U	614
AR-BROOM16	871	AVG250G	822	B25-G.....	624	B2WUMP-R...	576
AREP400AS	817	AVGF250	822	B28-•AG	392	B3114MP-G.....	575
AR-REEL100	882	AVN...-200	699	B28-•AGMB	392	B3114MP-R.....	575
ARSMSA...F	780	AWR14	289	B28-•MG	392	B3114MP-R.....	575
ARTEL18A	867	AWR4	289	B28-•MGMB	392	B3115F-G.....	592
ARTEL-BELT	867	AWS6	289	B28AMP-R...	576	B31TP-G.....	592
ASB••	290	AWSG	858	B28BMP-R...	576	B31W-G.....P	608
ASB...	290	AWSG-TG	861	B28WA-R...P	609	B31W-G.....U	613
ASBDV••	833	AWSG-W	858	B28WA-R...U	614	B31WMP-G.....	568
ASC...	290			B28W-R...P	609	B31WMP-R.....	568
ASHV1015F	840	B•	68, 71, 75	B28W-R...U	614	B31W-R.....P	608
ASP-•BV	448	B••	68, 71, 75, 76	B2CM-G...	604	B31W-R.....U	613
ASP310-40	369	B••SC	70, 365	B2CMP-G...	572	B31W-R.....P	608
AST•	190	B07-•AG	407	B2CMP-R••	572	B31W-R.....U	613
AST••	190	B07-•MG	407	B2CMP-R...	572	B31W-R...•P	608
ASTB••	191	B07-202•GC	407	B2CM-R...	604	B31W-R...•U	613
ASTB...	191	B08-02AG	379	B2E-G...	592	B3214MP-G.....	575
ATC40ASSAPI	58	B08-02AGMB	379	B2F-G...	592	B3214MP-R.....	575
ATC40ASSDDA	58	B11-•WJC	429	B2FMP-14-G...	573	B32W-G.....P	608
ATCA40	56	B11-•WJCR	429	B2FP-G...	604	B32W-G.....U	613
ATCF40	56	B16-•••S	458	B2KM-G...	605	B32W-R...••P	608
ATCF40-90	56	B16-••S	458	B2KMP-G...	573	B32W-R...••U	613
ATCG40-90	56	B16-•63	450	B2KMP-R••	573	B32W-R...••P	608
ATCGF40	56	B16W-G...	611	B2KMP-R...	573	B32W-R...••U	613
ATCS40	56	B17-•••S	458	B2KM-R...	605	B3401-•••	523
ATCT••	57	B17-••S	458	B2KS-G...P	605	B3401-••••	523
ATN100X7	53	B17-•63	451	B2KS-G...U	610	B3455-•••	523
ATS...H	329	B18-•AG	391	B2KS-R...P	605	B3455-••••	523
ATS7838F	329	B18-•AGMB	391	B2KS-R...U	610	B3800-•••	523
ATS7838M	329	B18-•MG	391	B2KS-R••P	605	B3800-••••	523
ATTFST40CS	116	B18-•MGMB	391	B2KS-R••U	610	B3801-•••	523
AV...	821, 824	B19MPX-R...	601	B2S-G...P	604	B3801-••••	523
AV...•	821	B19WB-G...	611	B2S-G...U	610	B38SL-G...	615
AV...-I	823	B19WV-R...	601	B2S-R...P	604	B38SL-R...	615
AV...-RBR	821, 824	B19WX-R...	601	B2S-R...U	610	B38W-R...	615
AV...S	821	B22WB-G...	611	B2S-R••P	604	B45AB-R...	639
AV...-W	835	B23BMP-G...	569	B2S-R••U	610	B45AB-R100150	639
AV...-WR	824	B23BMP-R...	569	B2SXL-•R...	606	B45BC-R...	639

Part Number Index

Page #	Page #	Page #	Page #
B45BC-R100150 ..... 639	B74G-MG-MB ..... 416	BBV-DTW ..... 538	BFNE150NST ..... 752, 855
B45BY-R... ..... 638	B7MP-G... ..... 574	BBV-DW ..... 537	BFO... ..... 914
B45BY-RK... ..... 638	B7MP-R... ..... 574	BBV-DWV ..... 537	BFP200 ..... 839
B45BY-SK... ..... 638	B7MP-R... ..... 574	BBV-FP ..... 532	BFS... ..... 213
B45BY-SKV... ..... 638	B7RMP-G..... ..... 574	BBV-LV ..... 534	BFS... ..... 213
B45BY-TB... ..... 638	B7RMP-R..... ..... 574	BBV-SR ..... 533	BFVL... ..... 549
B45CC-R... ..... 639	B7RMP-R..... ..... 574	BBV-ST ..... 534	BFVL...E ..... 549
B45CC-R100150 ..... 639	B7RWWW-G.....P ..... 607	BBV-TW ..... 538	BFVW... ..... 549
B5101E-CC-A ..... 633	B7RWWW-G.....U ..... 612	BBV-VT ..... 534	BFW... ..... 218
B5101E-CC-B ..... 633	B7RWWW-R.....P ..... 607	BBV-DTW ..... 538	BFW... ..... 218
B5101E-CC-C ..... 634	B7RWWW-R.....U ..... 612	BBV-LV ..... 534	BGB... ..... 67, 68
B5101-RKE... ..... 634	B7W-G...P ..... 607	BBV-SR ..... 533	BGB... ..... 67, 68
B5101-RKS... ..... 634	B7W-G...U ..... 612	BBV-ST ..... 534	BGE... ..... 373
B5101-RKV... ..... 634	B7W-R...P ..... 607	BBV-TW ..... 538	BGE6 ..... 373
B5101S-CC-A ..... 633	B7W-R...U ..... 612	BBV-VT ..... 534	BGF... ..... 67
B5101S-CC-B ..... 633	B7W-R...P ..... 607	BBV100 ..... 532	BGH... ..... 235
B5101S-CC-C ..... 634	B7W-R...U ..... 612	BBV75FP ..... 532	BGHF... ..... 235
B5101V-CC-A ..... 633	B7WWW-G...P ..... 607	BC... ..... 234	BGHM... ..... 235
B5101V-CC-B ..... 633	B7WWW-G...U ..... 612	BC... ..... 135	BGV... ..... 547
B5101V-CC-C ..... 634	B7WWW-R...P ..... 607	BC-EZ ..... 137	BGV... ..... 547
B5102E-A ..... 635	B7WWW-R...U ..... 612	BC61... ..... 9	BH... ..... 147
B5102-RKE... ..... 635	B9MP-G... ..... 575	BC62... ..... 9	BH-EZ ..... 148
B5102-RKS... ..... 635	B9MP-R... ..... 575	BCC... ..... 576	BH6 ..... 165
B5102-RKV... ..... 635	B9WWW-G...P ..... 609	BCF... ..... 234	BHSC152 ..... 165
B5102S-A ..... 635	B9WWW-R...P ..... 609	BCM... ..... 234	BHSC175 ..... 165
B5102V-A ..... 635	BA... ..... 239	BCN... ..... 662	BHSC34 ..... 165
B5107-RKE800 ..... 634	BA... ..... 240, 241	BCN... ..... 662	BHT... ..... 669
B5115-RKS... ..... 636	BA-F-F ..... 657	BCP... ..... 9	BIA250... ..... 818
B5115S-BB-C ..... 636	BA31... ..... 9	BCV... ..... 558	BIB250... ..... 818
B5115S-CC-C ..... 636	BA32... ..... 9	BCW... ..... 610	BIC150 ..... 819
B5416MP-A... ..... 617	BA61... ..... 9	BD ..... 75	BID250... ..... 818
B5416MP-A100150 ..... 617	BA62... ..... 9	BD... ..... 140	BIDC250 ..... 819
B54BMP-GL... ..... 618	BA776 ..... 239	BD-EZ ..... 141	BIDP250 ..... 819
B54BMP-LX... ..... 618	BA97... ..... 241	BDS... ..... 523	BIE150 ..... 819
B54BMPLX-R... ..... 618	BAC... ..... 9	BEC... ..... 699	BIF250... ..... 818
B54BMP-R... ..... 617	BAS97... ..... 241	BF... ..... 212	BIT-KIT ..... 865
B54BMP-R...X ..... 617	BB... ..... 75	BF... ..... 212, 218	BL... ..... 845
B54BMP-SK... ..... 617	BB... ..... 68	BF... ..... 218	BL-NS ..... 845
B54BMPS-R... ..... 618	BB... ..... 133	BF-SS ..... 212	BLCA152CS ..... 172
B54BMP-VK... ..... 618	BB-EZ ..... 133	BF30-... ..... 622	BL-RK... ..... 845
B54G-P... ..... 617	BB3-0-AG ..... 378	BF302-... ..... 622	BL-RK... ..... 845
B6-1 ..... 71	BB3-0-AGMB ..... 378	BFC... ..... 550	BL-RK... ..... 845
B72G-AG ..... 415	BB3-0-MG ..... 378	BFC... ..... 550	BLS... ..... 202
B72G-AG-MB ..... 415	BB3-0-MGMB ..... 378	BFL... ..... 218	BLS... ..... 202, 237
B72G-MG ..... 415	BBFVW... ..... 549	BFM...B ..... 218	BLS-NST ..... 203
B72G-MG-MB ..... 415	BBFVW...E ..... 549	BFMW... ..... 218	BLS-NST ..... 203
B73G-AG ..... 416	BBLV... ..... 365, 533	BFN... ..... 752, 854	BLS8-8 ..... 202
B73G-AG-MB ..... 416	BBLV... ..... 533	BFN-NST ..... 750, 752, 854	BLT... ..... 701
B73G-MG ..... 416	BBU... ..... 75	BFN75 ..... 752, 854	BM... ..... 210
B73G-MG-MB ..... 416	BBU... ..... 75	BFN75GHT ..... 752, 854	BM... ..... 210
B74G-AG-MB ..... 416	BBV... ..... 532	BFNE150 ..... 752, 855	BM... ..... 210

Index Part Number

	Page #		Page #		Page #		Page #
BMA...	241	BS..N	199	BWSG	858	CB	68
BMAS...	857	BS61-...	9	BWSG-TI	860	CB6-AG	391
BMS	73	BS62-...	9	BWSG-W	858	CB6-AGMB	391
BMS..	73	BS8-8	201	BZ4051	46	CB6-MG	391
BMV..	533	BS818	234	BZ4051S	46	CB6-MGMB	391
BMV100	533	BSA..	857			CBB...	198
BN	754, 857	BSB..	290	C..	691	CBC..	236
BN..	211, 754, 857	BSB-..	893	C...	691	CBSR...	105
BN...	211, 551	BSB...	290	C...BU	691	CC	71
BN....	551	BSB-...-	893	C..BU	691	CC....	890
BN...RU..	231	BSB-...-	893	C03-0A	380	CC....B	890
BN...RU..SS	231	BSB-..T	893	C03-0AMB	380	CCF...	288
BN..BSPT	212	BSB-..T-...	893	C03-0M	380	CCH50	885
BN..F	754, 857	BSB-20Z	893	C03-0MMB	380	CD	75
BN..NYFD	754, 857	BSC...	290	C08-02A	380	CDMHCB....	812
BN..RU..	231	BSCCQ-R...	621	C11-..A	432	CF...-CS	113, 114
BN..RU..SS	231	BSCCQ3-R...	621	C11-..M	432	CF...-SS	113, 114
BNH..	290	BSCCQ4-R...	621	C119-..A	432	CF...-CS	113, 114
BNH...	290	BSCCS-R...	621	C119-..AMB	432	CF...-SS	113, 114
BNS..	857	BSM..	663	C119-..M	432	CF400-..CSHD	118
BNS..SS	857	BSO150-H	754	C119-..MMB	432	CF400-..CSHD	118
BNT...F	754	BSO150NST	754	C16-..A	395	CFB...S	759
BOC-T..	896	BSO150S	754	C16-..AMB	395	CFB...NST	759
BP...-	680	BSS61-...	9	C16-..M	395	CFB...S	759
BP...-T...	680	BSS62-...	9	C16-..MMB	395	CFB75GHT	759
BPF..	224	BST	190	C18-..A	396	CFFR150	760
BPF...	224, 551	BST..	190	C18-..AMB	396	CFFR150NST	760
BPFS..	225	BSVD-HC...B...	642	C18-..M	396	CFG...NST	759
BPM	225	BSVS-HC...B...	642	C18-..MMB	396	CFG...S	759
BPM..	225	BTB-T..	896	C2	272	CFR..	747
BPN..	223	BTB-T..Z	896	C26-..A	396	CFR47-1-...	747
BPN...	223	BTN75	754, 862	C26-..AMB	396	CFR47-150-...	747
BR...	654, 887	BU	75	C26-..M	396	CFR47-C	747
BR...B	655	BU..	75, 76	C26-..MMB	396	CFS800-..CS	79, 117
BR...FS	655	BV2	554	C28-..A	397	CG...	270
BR...G	654	BV2CV...CC-A	631	C28-..AMB	397	CGN...NST	756
BR...SS	655	BV2GG...CC-A	632	C28-..M	397	CGSN...F	756
BR1BF-B-E-7	325	BV2IC...VW-A	542	C28-..MMB	397	CGSN...S	756
BR1F-B-E-7	325	BV2IGN...11-A	541	C31-..A	397	CH-B-	172
BR1GM-B-E-7	325	BV2IGN...33-A	541	C31-..AMB	397	CH-B-..	172
BR1M-B-E-7	325	BVDSO...	762	C31-..M	397	CH-C-..	172
BR1S...B-E-7	325	BVDSO...NST	762	C31-..MMB	397	CH-SS-	172
BRN150	753	BVFS..	560	C31-08FRAME	399	CH-SS-..	172
BRN150NST	753	BVSO...	762	C33112	882	CI9	904
BRN150NST-I	753	BVSO...NST	762	CAB...	198	CI9311SML	904
BRN150S-I	753	BVSO150-125	762	CAB...N	199	CI96	904
BS..	76	BVSO150NST-125	762	CAL..	173	CI96AH	904
BS...	199, 201	BVTSO150	762	CAMOPENER	127, 910	CILR...	105
BS-...-	622	BVTSO150-200	762	CAP...F-C	788	CILR...0CS	104
BS-...-...	622	BVTSO150NST	762	CAP...F-C-LH	788	CJ-BF-B	320
BS-...-...	622	BVTSO150NST-200	762	CAP...S-C	788	CJ-BM-B	320

Part Number Index

Part Number Index

Page #	Page #	Page #	Page #
CJ•BM•-LG ..... 320	CSN75 ..... 862	D2B2-B ..... 315	DC•• ..... 302, 309, 310
CJ•F•-B ..... 320	CSS••••CS ..... 196	D2C•••• ..... 8	DC••• ..... 307
CJ•M•-B ..... 320	CSS••••CS ..... 196	D2F•-B ..... 311	DC•••• ..... 302, 303, 309
CJ•M•-LG ..... 320	CSSR•••-3A ..... 105	D2S•-B ..... 312	DC••••L ..... 302, 309
CJ2BF•-LG ..... 320	CSSR•••CS ..... 104	D34•• ..... 366	DC••••LSE ..... 304
CJ2F•-LG ..... 320	CSSR250 ..... 105	D-4HF4-S-FNS ..... 453	DC••••SE ..... 304
CJ2M2-B ..... 374	CSSTF••F•T• ..... 813	D-4HF4-S-FSB ..... 453	DC••L ..... 307
CJ3BF• ..... 320	CSSTM25F30T• ..... 813	D-4HF4-SS-FNS ..... 453	DC••S ..... 312, 313
CJ3BM• ..... 320	CT••L ..... 266	D-4HF4-SS-FSB ..... 453	DC••SE ..... 304
CJ3F• ..... 320	CTER••• ..... 105	D605 ..... 373	DC•SE ..... 304
CJ3M• ..... 320	CV••• ..... 559	D75AL ..... 562	DC1045S ..... 314
CL•••• ..... 886	CVS•• ..... 172	D8••Y100RAF ..... 734	DC2••S ..... 314
CL••••• ..... 886	CVV••BF•• ..... 496	D8••Y50RAF ..... 734	DC9S ..... 313
CM•F• ..... 502	CVV••DC ..... 497	D815100••• ..... 734	DCB•• ..... 312, 313
CM•F•-B ..... 502	CVV••F•• ..... 496	D815-25•• ..... 734	DCB••• ..... 313
CM•M•-B ..... 502	CVV•BF• ..... 496	D815-50•• ..... 734	DCB•••• ..... 312-314
CM•M•-B-L• ..... 502	CVV•DC ..... 497	D815Y100RAS ..... 734	DCL•• ..... 908
CM•M•-B-L•• ..... 502	CVV•F• ..... 496	D815Y50RAS ..... 734	DCM1 ..... 909
CM3M2-B-L11.5 ..... 502	CVV•FM•••• ..... 496	D817Y50RAF ..... 734	DCP• ..... 306
CMF•• ..... 448	CVV•OF• ..... 496	D825100••• ..... 734	DCP•• ..... 300, 308, 310, 320
CN ..... 22	CWG-C-••••• ..... 900	D825-25•• ..... 734	DCP••• ..... 306, 311, 316
CN••• ..... 662	CWG-S-••••• ..... 900	D825-50•• ..... 734	DCP•••• ..... 300, 301, 308, 312, 318
CN•••B ..... 661	CWH50 ..... 883	D8325Y50RAF ..... 734	DCP••••L ..... 301, 308, 315
CN•••G ..... 662	D•• ..... 365, 554, 562	DAA•••AL ..... 16	DCP•••L ..... 306
CN•••SS ..... 662	D••• ..... 376	DAA•••ALFL ..... 16	DCP••S ..... 311
CNB75GHT ..... 765, 863	D•••• ..... 740	DAB• ..... 849	DCP••SWIV ..... 301
CNB75GHT-GD ..... 765, 863	D•••••F ..... 740	DAB•• ..... 849	DCP2023B ..... 311
CN-P ..... 22	D•••R ..... 447	DAC•••• ..... 849	DCP20B ..... 311
CN-PLUG ..... 22	D••S ..... 447	DAC•••AL ..... 15	DCP210•B ..... 311
CPV••F ..... 839	D••U ..... 447	DAC•••ALBSP ..... 15	DCP214•• ..... 312
CR ..... 275	D••SC ..... 562	DADC250 ..... 16	DCS• ..... 313
CR-C ..... 22	D•B• ..... 315	DADP250 ..... 15	DCS•• ..... 312, 313
CR-CAP ..... 22	D•BF• ..... 311	DATL•• ..... 367	DCS••• ..... 314
CR-S ..... 22	D•BM• ..... 311	DATL••W ..... 367	DCS••••F ..... 809
CRWC ..... 275	D•F• ..... 311	DAWS•• ..... 849	DCS••••F•• ..... 809
CS•• ..... 270	D•M• ..... 311	DB• ..... 72	DCS4025F•- ..... 809
CS••••AL ..... 111, 112	D•M•-B ..... 311	DB•• ..... 72	DCS4030NYFD ..... 809
CS••••CS ..... 111, 112	D150SDB ..... 859	DBA•••• ..... 7	DD ..... 75
CS••••SS ..... 111, 112	D150S-WAND ..... 859	DBAF•••• ..... 7	DDA••••105 ..... 12
CS••••AL ..... 111, 112	D18-04M ..... 398	DBAF••••• ..... 7	DDA••••105FL ..... 12
CS••••CS ..... 111, 112, 196	D18-04MMB ..... 398	DBAV73-2030 ..... 8	DDA••AL ..... 12
CS••••SS ..... 111, 112	D2•• ..... 315	DBC•••• ..... 6	DDA••AL••TTMA ..... 12
CSB•• ..... 199	D201 ..... 373	DBC••••-GL ..... 6	DDA••ALFL ..... 12
CSC-T••-1 ..... 897	D201RT ..... 372	DBCL••• ..... 6	DDA••BR ..... 12
CSC-T••-2 ..... 897	D204-30 ..... 371	DBGV•• ..... 547	DDA••BRFL ..... 12
CSCTF25F30T• ..... 814	D204-30P ..... 371	DBGV••• ..... 547	DDA••SS ..... 12
CSCTM25F30T• ..... 814	D204-30SB ..... 371	DBS•••• ..... 6	DDA••SSFL ..... 12
CSES150F ..... 803	D204-30SB ..... 371	DBV-BL••• ..... 695	DDC••••105 ..... 11
CSES150T ..... 803	D263 ..... 740	DBV-BN•• ..... 695	DDC••AL ..... 11
CSES2015F ..... 803	D263F ..... 740	DBV-WB•• ..... 695	DDC••BR ..... 11
CSM•• ..... 199	D28••MMB ..... 398	DC• ..... 302, 307	

	Page #		Page #		Page #		Page #
DDC...SS	11	D-H4F4-S	453	DMR...F...S	784	E74...A-MB	421
DDC...SSFL	11	D-H4F4-SS	453	DMR...F...T	784	E74...M	421
DDC400AL164TTMA	11	D-H4F4-SV-8	453	DMR...S...T	784	E74...M-MB	421
DDDC...	12	DHS...	899	DMXL...	209	EA...F...	501
DDDC300105	12	DHS159-1...	899	DN...	710	EC...	699
DDDP...	11	DHS90...	899	DN...	710	EK602...	433
DDDP300105	11	DIN-SMS-60/90SP	586	DN7...OBF	852	EK602VB	433
DDSA...SS	13	DIN-SMS90/155SP	586	DN7U...BF-NC	852	EL...	259
DDSC...SS	13	DKC1	301	DN7U...BF-NPNF	852	EL...	255, 259
DDT1	909	DL...	279, 527	DNOG...	853	EL...H...M	214
DEFN075	853	DL...	279	DNOG5-NL	853	EL...F...F	664
DF16...	801	DL...	265	DP2-01...	402	EL...H...M	214
DFC...	710	DLB12	77	DPW	561	EL...H...MSS	214
DFC...	710	DLS...	265	DRC...	710	EL45...	667
DFG...	376	DM...	209	DRC...	710	EL45...	667
DFN...	851	DM...	209	DRK15	909	EL90...	664
DFN100...-NC	850	DM...	209	DRP-85-059	401	EL90...	664
DFN100...-NPNF	850	DM...RAF	877	DSB...	207	EL90...B	664
DFN100...F	850	DM...RAS	877	DSBV...	539	EL90...FS	664
DFN100F-NC	852	DM...RAT	877	DSBV...	539	EL90...G	664
DFN100F-NPNF	852	DM...UC	877	DSCV...	560	EL90...SS	664
DFN100-NC	851	DM...RAF	877	DSCV...	560	EL90...FS	664
DFN100-NPNF	851	DM...RAS	877	DSK...	908	EL90...G	664
DFP...	768	DM...RAT	877	DST...	207	EL90...SS	664
DFP...F	768	DM...UC	877	DSTW	910	ENBG1	372
DFP...F-D	768	DM...100GAX	877	DTW...	741	ENBL	22
DFP...F...S	768	DM...50GAX	877	DWG050	860	ENBL-P	22, 26
DFP...NYFD...NYFD	768	DM150SDB	859	DWL100	910	ENBL-P...	26
DFR...	768	DMH...	782	DX...	747	ENBL-PLUG	22
DFR...F	768	DMH...-D	784	DXHDR25HC	745	ER...	741
DFVS...	208	DMH...-F	782	DXHDR25PB	745	ER...	741
DG...	444	DMH...-F-D	784	DXHDC25HC	745	ERJ	22
DG...	444	DMH...-NYFD	783	E...F...	499	ERJ-C	22
DG...	444	DMH...F...F	782	E...F...-B	499	ERS	22
DGA...SS	14	DMH...F...F-D	784	E...F...-S	499	ERS-C	22, 26
DGA...SS...	14	DMH...F...S	782	E...F...-S	499	ERS-C...	26
DGA...SSFL	14	DMH...F...S-D	784	E...M...	499	ERS-CAP	22
DGC...SS	14	DMH...NYFD...NYFD	783	E...M...-B	499	ETP	905
DGDC...	14	DMH...S...S	782	E...BF...-B	499	EZL...0-B...	126
DGDP...	14	DMH...T...S	782	E...F...	499	EZL...0-C...	126
DGH7	243	DMH...T...T	782	E...F...-B	499	EZL...0-D...	126
DGH7C	243	DMH20DR20	562	E...F...-S	499	EZL...0-DC...	127
DGH7CSS	243	DMH25F25NYFD	783	E...M...	499	EZL...0-G...	127
DGH7CV	243	DMOCA...225F	816	E...M...-B	499	EZL...00RPLKIT	127
DGH7P	243	DMP...	784	E...M...-S	499	EZLCL400	127
DGH7PSS	243	DMP...F	784	E...S...	500	F...	267, 271
DGH7SS	243	DMP...F...S	784	E...S...-B	500	F...	267, 271
DGH7V	243	DMP...F...T	784	E73...-MB	421	F...	267, 271
DGHW7	243	DMP...S...T	784	E73...-A	421	F...	91
DGLBV...	548	DMR...	784	E73...-M	421	F...	91
DGLBV...	548	DMR...F	784	E74...-A	421	F...	91

Part Number Index

Index Part Number

Page #	Page #	Page #	Page #
F••E-SKIT ..... 500	F602••WJR ..... 428	FFC••• ..... 552	FLC2501-•••• ..... 721
F••G-•••• ..... 106	F72G-A ..... 408	FFH••••F ..... 766	FLC2603-•• ..... 722
F••H-SKIT ..... 455	F72G-A-MB ..... 408	FFH••••NYFD ..... 766	FLG•••E ..... 697
F••V-SKIT ..... 470	F72G-M ..... 408	FFH••F••F ..... 766	FM••• ..... 684
F-E-SKIT ..... 500	F72G-M-MB ..... 408	FFH••T••S ..... 766	FM•••• ..... 684, 775
F-H-SKIT ..... 455	F73G-A ..... 409	FFH15NYFD15NYFD ..... 766	FM••••F ..... 775, 776
F-V-SKIT ..... 470	F73G-A-MB ..... 409	FFN••• ..... 763	FM••••F-D ..... 774
F03-0-A ..... 377	F73G-M ..... 409	FFN•••NST ..... 763	FM••••NYC ..... 776
F03-0-AMB ..... 377	F73G-M-MB ..... 409	FFN75GHT ..... 763	FM••••NYFD ..... 776
F03-0-M ..... 377	F74C-A-MB ..... 410	FFS••• ..... 552	FM••••T ..... 775, 776
F03-0-MMB ..... 377	F74G-A ..... 409	FGH•• ..... 883	FM••F••F ..... 775, 776
F07-•••A ..... 407	F74G-A-MB ..... 409	FHCS150 ..... 801	FM••F••F-D ..... 774
F07-•••M ..... 407	F74G-M ..... 409	FHHR•• ..... 748	FM••F••NYC ..... 776
F07-200-C ..... 406	F74G-M-MB ..... 409	FHHR-C ..... 748	FM••F••NYFD ..... 776
F08-0-M ..... 377	F74H-A-MB ..... 410	FHHR-C• ..... 748	FM••F••S ..... 775, 776
F08-0-MMB ..... 377	F74V-A-MB ..... 411	FHPR150 ..... 749	FM••F••S-D ..... 774
F08-02A ..... 377	FA•• ..... 697	FHPR150••CBF ..... 749	FM••F••T ..... 775, 776
F08-02AMB ..... 377	FAB••• ..... 198	FHPR150-100CBF ..... 749	FM••F••T-D ..... 774
F16-••A ..... 381	FAB•••N ..... 199	FHPR2515 ..... 749	FM••NYFD••F ..... 776
F16-••AMB ..... 381	FAPRAV250F ..... 837	FHR-C ..... 744	FM••NYFD••T ..... 776
F16-••M ..... 381	FAPRAVF250 ..... 837	FHR-C1 ..... 744	FM••S•• ..... 775
F16-••MMB ..... 381	FAPRAVG250• ..... 837	FHR-V• ..... 744	FM••S••F ..... 775, 776
F17-•••A ..... 410	FAPRV•250 ..... 837	FJB-•••• ..... 894	FM••S••F-D ..... 774
F17-•••M ..... 410	FBB••• ..... 198	FJB-20Z-20 ..... 894	FM••S••T ..... 776
F18-••A ..... 381	FBSO100• ..... 763	FJC-•••• ..... 894	FM••S••T-D ..... 774
F18-••AMB ..... 381	FBSO100•-PG ..... 763	FJC-20Z-20 ..... 894	FM25NYC25F ..... 776
F18-••M ..... 381	FBSO150• ..... 763	FJC45-•••• ..... 895	FM25NYC25T ..... 776
F18-••MMB ..... 381	FBSO150•-PG ..... 763	FJC45-20Z-20 ..... 895	FMB••• ..... 684
F18-C00• ..... 410	FBV•• ..... 535	FJC90-•••• ..... 895	FMB•••• ..... 684
F23-04M ..... 399	FBV••• ..... 535	FJC90-20Z-20 ..... 895	FMBTFLY••F••F ..... 842
F26-••A ..... 381	FBV•••SE ..... 536	FJC-T•• ..... 896	FMBV••F••F ..... 832
F26-••AMB ..... 381	FBV••SE ..... 536	FJR-T•• ..... 896	FMBV••S••S ..... 832
F26-••M ..... 381	FBVG•• ..... 536	FJS-•••• ..... 894	FMF••• ..... 517
F26-••MMB ..... 381	FBVG••• ..... 536	FJS-20Z-20 ..... 894	FMF•••• ..... 517
F28-••A ..... 382	FBVL•• ..... 535	FJS45-•••• ..... 895	FMF••••-45 ..... 517
F28-••AMB ..... 382	FBVL••• ..... 535	FJS45-20Z-20 ..... 895	FMF••••-90 ..... 517
F28-••M ..... 382	FC••• ..... 787	FJS90-•••• ..... 895	FMF••••-45 ..... 517
F28-••MMB ..... 382	FC•••• ..... 257, 259	FJS90-20Z-20 ..... 895	FMF••••-90 ..... 517
F30-••A ..... 382	FC••••• ..... 253, 259	FL•••• ..... 91	FMGR••F••F ..... 841
F30-••AMB ..... 382	FC•••••ST•• ..... 253	FL••••• ..... 91	FMI••••• ..... 260
F30-••M ..... 382	FC•••••ST•• ..... 258	FLBV•••CS ..... 545	FMI•••••• ..... 260
F30-••MMB ..... 382	FC•••F ..... 787	FLC0318-•• ..... 722	FMI••••••• ..... 260
F35-0-AMB ..... 382	FC•••F-• ..... 787	FLC0319-•• ..... 722	FMR••• ..... 684
F35-0-MMB ..... 382	FC•••F-D ..... 790	FLC2402-•••• ..... 720	FMR•••• ..... 684
F-4EA-SKIT ..... 501	FCB48 ..... 750	FLC2403-•• ..... 721	FMR••••• ..... 260
F-4N-SKIT ..... 295	FCM•••• ..... 257	FLC2404-•• ..... 720	FMR•••••• ..... 260
F602-••4A ..... 428	FCSB••• ..... 199	FLC2404-•••• ..... 720	FMR••••••• ..... 260
F602-••8A ..... 428	FCSM••• ..... 199	FLC2405-•• ..... 721	FMS••• ..... 684
F602-••BJ ..... 428	FD47-C2 ..... 746	FLC2405-•••• ..... 721	FMS•••• ..... 684
F602-••BJR ..... 428	FD47IR-150-100 ..... 746	FLC2500-•• ..... 722	FN•••NST ..... 753, 855
F602-••WJ ..... 428	FFB••• ..... 552	FLC2501-•• ..... 721	FN•••S ..... 753, 855



	Page #		Page #		Page #		Page #
FN600	19	FRS-C	19	FT••B	668	G•••DD••	180
FN600B	19	FRSGX••	898	FT••FS	668	G•••DP••	179
FN600BL	19	FRSGX110	898	FT••G	668	G•••E	700
FN600BL-NI	20	FRT••••	669	FT••SS	668	G•••E••	178
FN600B-PLUG	19	FRX	20	FT590•G	32	G•••E••CR	110
FN600S	21	FRX-C	20	FT590•GT	32	G•••F••	178
FNB•••NST	753, 855	FRXCAP	20	FT6••	31	G•••F-ALNST	183, 786
FNB•••S	753, 855	FS•	267	FT6••••	31	G•••HRP	182
FNB75GHT	753, 855	FS••	267	FT600	31	G•••HRPSI	182
FNB75GHT-GD	765, 863	FS•••	267	FT600•	31	G•••HRPSS	182
FNB75S	753, 855	FS2403•	506	FT600S-4	31	G•••N	695, 700
FNBE150NST	758, 856	FS2403••	506	FT600SC	31	G•••T	695, 700
FNBE150S	758, 856	FS2404•••	506	FT620•	31	G•••V	700
FNG•••NST	758, 856	FS2404••••	506	FTH100	751	G•••VB	695
FNG•••S	758, 856	FS2408•	507	FVFA••	208	G•••A••	174
FNPSO150•••	764	FS2408••	507	FVL••	208	G•••B••	175
FNS	21	FS2501•••	507	FVS••	208	G•••C••	176
FNS2	21	FS2501••••	507	FVSP••	208	G•••D••	177
FNSID	21	FS2603•	507	FWV••F••F	830	G•••DC••	179
FO•	267	FS2603••	507	FWV••S••S	830	G•••DP••	179
FO••	267	FS304C•	507	FX1500	20	G•••E••	178
FO•••	267	FS304C••	507	FX1500P	20	G•••F••	178
FOS•	267	FS6400•••	506	FX1500PLUG	20	G•••HRP	182
FOS••	267	FS6400••••	506	FX1500S	20	G•••HRPSI	182
FOS•••	267	FS6500•••	506	FX1500SP	20	G••00-AL-AL	182
FP•••	792	FS6500••••	506			G••00-DL-AL	182
FP••••	261	FS6602•	507	G•••••HRPSS	182	G10	59
FP•••••	255, 261	FS6602••	507	G•••••00	703	G3050	45
FP•••F	792	FS6801•••	506	G•••••A••	181	G400•LT-AL	181
FP•••F••	792	FS6801••••	506	G•••••AA••	180	G5•••	95
FP•••F-D	792	FSA••••F	793	G•••••C••	181	G75HRPSS	182
FP475S	757	FSA••••S	793	G•••••DA••	180	G9	59
FP500•	757	FSA••••T	793	G•••••E	700	GAM•	285
FR3C••••	807	FSB	21	G•••••E••	181	GAM••	285, 286
FR3C6025F	807	FSCV••	559	G•••••T	700	GAS••••NO	143, 194
FRA	19	FSCV•••	559	G•••••V	700	GAS••••NOS	144, 195
FRA-C	19	FSGLBV••	548	G•••••A••	174	GAS••••TO	92
FRA-NI-C	20	FSGLBV•••	548	G•••••AA••	180	GAW	800
FRC4025	805	FSGR•••F	841	G•••••A-ALNST	183, 786	GB•	67, 68
FRC4025F	805	FSGV••	547	G•••••B••	175	GB••	67, 68, 110
FRC6025	805	FSGV•••	547	G•••••B••••	175	GB6-1	67
FRC6025F	805	FSGV••••F	829	G•••••B-ALNST	183, 786	GBA••	77
FR-CAP	19	FST••	193	G•••••BL	695	GBB••	77
FRP-95•••	370, 401, 402	FST•••	193	G•••••C••	176	GBR••	437
FRP-96•••	401	FST••CS	116	G•••••C••••	176	GBR•••	437
FRRE-T••	897	FSW•	801	G•••••C••CR	109	GBR••••	437
FR-RS	19	FT••	668	G•••••D••	177	GBRW••	443
FR-RS-C	19	FT•••	668	G•••••D••••	177	GBRW•••	443
FR-RS-R	19	FT•••FS	668	G•••••D-ALNST	183, 786	GBRW••••	443
FRR-T••	897	FT•••G	668	G•••••DC••	179	GBRW30R	443
FRS	19	FT•••SS	668	G•••••DC••••	179	GC•	67

Part Number Index

Index Part Number

Page #	Page #	Page #	Page #
GC... 435, 440	GM• 69	H•F•-SS 452	HA0900• 683
GDB• 69	GM•• 69, 365	H•BF• 451	HA2515F 750
GDB•• 69	GMAS• 70	H•BF•-B 451	HA25NYC76 773
GDF• 77	GMAS•• 70	H•BF•-S 451	HA25NYFD15NYFD 773
GDF•• 77	GNB75GHT 765, 863	H•BF•-SS 451	HAB••EZ 151
GDL• 77	GPA-95••• 403-405	H•DC-A 454	HAC••EZ 151
GDL•• 77	GPA-95-292 906	H•F• 451	HAD••EZ 151
GF• 67	GPA-96••• 404, 405	H•F•-B 451	HB•• 246
GF•• 67	GPA-97••• 405	H•F•-BOP 457	HB••• 365, 658
GF••• 67	GROOVLUB32 701	H•F•-S 451	HB•••B 658
GF•••P• 69	GRP-95••• 401-403, 405	H•F•-SS 451	HB•••FS 658
GF••P• 69	GRP-96••• 401-403, 405	H•F•-SS-BOP 457	HB•••G 365, 658
GF26-1 67	GS••••-4 435	H•M• 451	HB•••SS 658
GFAS• 70	GS•••-4 435	H•M•-S 451	HB•F•M 659
GFAS•• 70	GS••-4 435	H•OF• 451	HBC••S 269
GFN150 762	GSAFETYCLIP 182	H1DC 454, 482	HBC•S 269
GFN150NST 762	GSS•• 436	H4F4-HV 453	HC30143 750
GFR• 21	GSS••• 436	H5•• 95	HC90 892
GFR•• 21	GSS•••• 436	H5•••-BU 95	HC90RB 892
GFR1• 21	GSS••••• 436	H5•••NST 95	HD1• 528
GFR1•• 21	GSS•••••-4 436	H5••R100UC 736	HDBF75 561
GH•••• 74	GSS•••••-4 436	H5••R50UC 736	HDPE•• 702
GHC7 242	GSS•••-4 436	H515R100•• 736	HDPE•••BU 702
GHGN 245	GSS•••-4 436	H515R50•• 736	HDSSF75 561
GHN75 760	GSTC• 192	H52••-A 95, 97	HFN•• 752, 854
GHN75-B 760	GSTC•• 192	H52••-A-BU 95, 97	HFN•••NST 752, 854
GHV 244	GW DGV250F 825	H52••-L-A 97	HFN150NYFD 752, 854
GHY 244	GWH•••• 912	H52••-L-A-BU 97	HFN•P• 26
GHYV 244	GWH••••• 912	H525R100•• 736	HFR•C• 26
GIBFV•• 699	GWH1•00R 912	H525R50•• 736	HGB•••NST 753, 855
GJ•• 77	GWHC 912	H610Y50•• 738	HGB100S 753, 855
GL•• 365, 435, 440	GWHC-C 912	H615Y50•• 738	HGC FB•••NST 759
GL•••FG 438	GWHC-FF 912	H625Y50•• 738	HGC FB150S 759
GLBR•• 443	GWHZ•• 913	HA•••• 771	HGG100NST 758, 856
GLBR••• 443	GWHZ•••R 913	HA••••ADP 785	HGG100S 758, 856
GLBR•••• 443	H•• 690	HA•••••D 773	HGV250 827
GLBR•••••-4 443	H••• 100, 690	HA•••••F 771	HGV250F 827
GLBR•••-4 443	H••••-BU 99	HA•••••F-D 773	HGV250F-D 827
GLBR••-4 443	H••••BU 690	HA•••••T 771	HGV250-H 827
GLBR100004 443	H•••Y50SZ 738	HA•••••T-D 773	HGV-HDWHL 828
GLBRC•• 443	H•••Y50UC 738	HA••NYFD••F 773	HGV-KNOB 828
GLBRC••• 443	H••BF•• 452	HA••NYFD••S 773	HGVW250F 828
GLBRC•••• 443	H••BF••-B 452	HA••NYFD76 773	HGVW250-W 828
GLP•• 441	H••BF••-S 452	HA••S•• 771	HHA•••• 773
GLS•• 441	H••BF••-SS 452	HA••S••F 771	HHCI 230
GLSC•• 441	H••BU 690	HA••S••S 771	HHD••P 530
GLSS•• 442	H••DC-A 454	HA••S••T 771	HHD••T 530
GLSS••• 442	H••F•• 452	HA••T••F 771	HHP•M 672
GLSS•••• 442	H••F••-B 452	HA••T••S 771	HHTP 905
GLSSC•• 442	H••F••-S 452	HA023• 106	HN 23
		HA024• 106	HN•••SS 662

	Page #		Page #		Page #		Page #
HN•SS	662	HSTBC••••	277	HUC20•00BC	81	IXAN••	102
HN•M•M	662	HT•BF••	474	HUF•••••CS	78	IXF•••	94
HNBGH••	235	HT•F••	474	HUF206200MT	83	IXFDPLG•••	101
HNBGHF••	235	HT•OF••	474	HUF206400FLG	82	IXFS••	102
HN-P	23	HT•BF•	474	HUF206400FLG-45	82	IXFS32-3A	102
HN-PLUG	23	HT•BF••	474	HUF206400FLG-ST	82	IXH••	93
HP•	266	HT•BF••-SS	474	HUFALL•••CS	78	IXM••	93
HPBV••	544	HT•BF••-SS	474	HUFALL•00FLG	82	IXMS••	102
HPBV•••	544	HT•DC	475	HUM•••••CS	79	IXPE32-3A	101
HPBV••SAE	544	HT•F•	474	HUM206•00FLG	82	IXSE••	101
HPBV••-3WAY	544	HT•F••	474	HUM206400FLG	82	IXSE••-3A	101
HPBV••SAE	544	HT•F••-SS	474	HUM206400FLG-45	82	IXV••	94
HPBV••SS	544	HT•F••-SS	474	HUM206400FLG-ST	82		
HPFN150	752, 854	HT•JB•	475	HUMF•••••CS	78	J••	279, 527
HPFN150NST	752, 854	HT•M•	474	HUMF206400••	83	J•••	171
HPSG	865	HT•OF•	474	HUP207400	81	J•B•	317
HPSGHD	865	HT•OF••	474	HUP207400DC	81	J•F•	316
HPSGL	865	HT•OM•	474	HUPALL•00	81	J•M•	316
HPSGW	865	HT•RB•	475	HUS500RN	79, 80	J•S•	316
HR	23	HTBC•••	277	HUSF500SW	79	J2F2-B	316
HR1610	748	HTBG	374	HUSM500SW-1	79	J2M2-B	316
HR1610••	748	HTBG•	374	HVF••••-25	804	J47	77
HR-C	23	HTBG••	374	HVG0•••-25	804	J844•••-100	887
HRC•••	528	HTBG••EXT	374	HWH50	884	J844••-BL-100	887
HR-CAP	23	HTBG•EXT	374	HWH50-75	884	JS••	269
HS•	263	HTBG-CT	374	HY•	528	JX••	279
HS••	263	HTE•BF•	477	HY••	528		
HS•••	263	HTE•BF••	477			K•	268
HS•••AL	848	HTE•F•	477	IA•••TP	906	K••	268
HS•••SS	848	HTE•F••	477	IB•••	133	K•••	268
HS•BF•	458	HTE•OF•	477	IBFVW•••	549	K••BF••	459
HS•BF•-B	458	HTE•OF••	477	IBFVW•••E	549	K••F••	459
HS•BF•-S	458	HTM•••	266	IBR••••	887	K•BF•	459
HS•F•	458	HTSW	799	IBV••	544	K•BF•-SS	459
HS•F•-B	458	HTW••P	529	IBV•••	544	K•F•	459
HS•F•-S	458	HTW••T	529	IBV50BOV	906	K•F•-SS	459
HSCE•••	637	HU•••••N	80	IC•••	135	K•OF•	459
HSC-RKE•••	637	HU•••••RN	80	ICL••••	886	K4•-DC	460
HSC-RKV•••	637	HU100•••	681	ID•••	140	K4DC	460
HSCV•••	637	HU100•••BW	681	ID•••TC	906	KB••	68
HSR••	745	HU1002•••	682	IH•••	147	KHN•••	197
HSR••••	745	HU1002•••BW	682	IH6	165	KLW•	205
HSRC••	744, 745	HU1502•••	683	IHC•••F	790	KLW••	205
HSRC••••	745	HU1502•••BW	683	IHSC152	165	KM••	210
HSS•	263	HU200•••	681	IHSC34	165	KM•••	210
HSS••	263	HU200•••BW	681	IRC4025	805	KNW•	205
HSS•••	263	HU206•••	681	IRC4025F	805	KNW••	205
HST••	190	HU400•••	682	IRC4025GF	805	KRH••	884
HST••P	529	HU602•••	682	IRCS4025F	808	KRH•••	884
HST••T	529	HU602•••BW	682	ITD••	894, 895	KRN•••	197
HSTBC•••	277	HUC20•00	81	ITDH	894, 895	KRN••••	197

Part Number Index

Index Part Number

Page #	Page #	Page #	Page #
KRW• ..... 205, 754, 857	L606-••4B ..... 431	LW••200 ..... 899	MC••••ST•• ..... 254
KRW•• ..... 205, 754, 857	L606-••B ..... 431	LWSG-• ..... 858	MC•••ST•• ..... 258
KRW•••• ..... 205	L606-••W ..... 431	M• ..... 74	MCH50 ..... 885
KS• ..... 268	L72M-• ..... 417	M•• ..... 74	MCM•••• ..... 257
KS•• ..... 268	L72M-•MB ..... 417	M•••• ..... 256	MCM••••XL ..... 260
KS••• ..... 268	L73M-• ..... 417	M••••RAF ..... 875	MCS•• ..... 199
KSS•• ..... 364	L73M-•MB ..... 417	M••••RAS ..... 875	MD••••T ..... 740
KSV10-••• ..... 557	L74C-• ..... 420	M••••RAT ..... 875	ME•• ..... 704, 705
KSW•• ..... 364	L74C-•MB ..... 420	M••••UC ..... 874	ME•••• ..... 706
KVW•• ..... 205	L74M-• ..... 418	M••••GAX ..... 876	ME••••• ..... 704
L•• ..... 692	L74M-•MB ..... 418	M••••KAF ..... 876	ME•••••• ..... 705
L••• ..... 692, 698	L74M-•MBPX ..... 419	M••••KAS ..... 876	ME•••F-• ..... 706
L•••• ..... 698	LCJS-•• ..... 903	M••••RAF ..... 875	ME•••FS-• ..... 706
L••••A-AL ..... 128	LCJS12-15 ..... 903	M••••RAS ..... 875	ME•••S ..... 704, 705
L••••A-SS ..... 128	LCLD ..... 903	M••••RAT ..... 875	ME•••S-• ..... 706
L••••BU ..... 692	LCTS• ..... 903	M••••UC ..... 874	ME•••S•• ..... 704
L••••C-SS ..... 128	LCTS14 ..... 903	M•200 ..... 369	ME109-NH3-1 ..... 706
L••••DC-SS ..... 129	LDC2 ..... 554	M•F• ..... 318	ME3162-32B ..... 705
L••••DP-SS ..... 129	LDCF2 ..... 554	M•M• ..... 318	ME3162-32S ..... 705
L••••E-SS ..... 129	LDCM2 ..... 554	M•S• ..... 318	ME502-12/8 ..... 704
L••••HSCRPI-SI ..... 130	LFV•• ..... 536	M16-••A ..... 383	MEP120B ..... 705
L••BU ..... 692	LFV••• ..... 536	M16-••M ..... 383	MEW• ..... 705
L0•BL ..... 695	LHC95 ..... 892	M16-03A ..... 906	MFB•• ..... 552
L03-0•A ..... 379	LHC95RB ..... 892	M16-03M ..... 906	MFC•• ..... 552, 553
L03-0•AMB ..... 379	LHFS400F ..... 803	M18-••A ..... 383	MFC•••• ..... 552
L07-•••A ..... 408	LHFS4045F ..... 803	M18-••M ..... 383	MFS•• ..... 552, 553
L07-200AC ..... 406	LHW ..... 801	M2•2-B ..... 318	MFS•••• ..... 552
L08-02A ..... 379	LJ••• ..... 688	M26-••A ..... 383	MGC• ..... 264
L14AM7-G•• ..... 567	LJ•••• ..... 688	M26-••M ..... 383	MGC•• ..... 264
L14AM7-G••• ..... 567	LJR•• ..... 688	M28-••A ..... 384	MGC••• ..... 264
L14AM7-G•••• ..... 567	LLBV2515F ..... 831	M28-••M ..... 384	MH• ..... 263
L14AM7-R•• ..... 567	LM••* ..... 92	M2B2 ..... 319	MH•• ..... 263
L14AM7-R••• ..... 567	LM••••* ..... 92	M30-••A ..... 384	MIC•• ..... 670
L14AM7-R•••• ..... 567	LOCKINGDEVICE ..... 798	M35-0•AMB ..... 385	MIC••• ..... 670
L14AM7V-R••• ..... 600	LOCKINGDEVICE6 ..... 798	M5834F ..... 239	MICAP•• ..... 671
L14AM7X-R••• ..... 600	LP•• ..... 74	M5834HM ..... 239	MICAP••• ..... 671
L16-••A ..... 392	LP•••• ..... 74	M5834M ..... 239	MICAP••G ..... 671
L16-••AMB ..... 392	LR•••• ..... 261	M7400-••• ..... 522	MIRU7550 ..... 657
L17-•••A ..... 418	LR••••• ..... 261	M7400-•••• ..... 522	MIU•• ..... 657
L17-•••D ..... 420	LR7 ..... 173	M7455-••• ..... 522	MIU••• ..... 657
L17-800APX ..... 419	LRHEZ•• ..... 130	M7455-•••• ..... 522	ML•00M ..... 369
L18-••A ..... 393	LRHEZ34 ..... 130	MA•• ..... 198	MLS•• ..... 202
L18-••AMB ..... 393	LRP-95-••• ..... 403	MA•••N ..... 199	MOC••F-• ..... 775
L2•2 ..... 322	LRP-96-••• ..... 403	MAH• ..... 263	MOC250NYC-P ..... 775
L26-••A ..... 393	LS•• ..... 275	MAH•• ..... 263	MOC250NYFD-P ..... 775
L26-••AMB ..... 393	LS••• ..... 275	MB•• ..... 198	MOC3025F-• ..... 775
L28-••A ..... 394	LSS•• ..... 275	MBV•• ..... 537	MOCA250F ..... 816
L28-••AMB ..... 394	LSS••• ..... 275	MC•• ..... 553	MP•••• ..... 260
L30-••A ..... 394	LV•N6D ..... 400	MC•••• ..... 257, 258	MP••••• ..... 256, 260
L30-••AMB ..... 394	LV•NAD ..... 400	MC••••• ..... 254, 257, 258	MPB-•••• ..... 894

	Page #		Page #		Page #		Page #
MPB-20Z-20	894	N37••F••F	777, 778	N56••F••F	772	P-4EA-SKIT	501
MPC•••••	894	N37••F••G	777, 778	NAPRAV••F••	834	P4F•	297
MPC-20Z-20	894	N37••F••S	777, 778	NAPRAVF•••••	834	P4F•-B	297
MPC-T••	896	N37••F••T	777, 778	NAPRAVGFT•••••	836	P4F6-9	297
MPR-T••	896	N37••G••F	777	NAPRAVGT•••••	836	P4F6-S	297
MPS•••••	894	N37••G••S	777	NAPRVF•••••	835	P4M•	298
MPS-20Z-20	894	N37••G••T	777	NAPRVFT•••••	836	P4M•-B	298
MRCH••	656	N37••S••F	777	NAPRVGT•••••	835, 836	P4M6-9	298
MRCH•••	656	N37••S••G	777	NCS-CSF-STZ•••	796	P4M6-S	298
MS•	73	N37••S••S	777, 778	NCS-CSF-STZ•••C	796	P8A-860•	421
MS••	73	N37••S••T	777, 778	NF307Y50GHT	737	PAP250	791
MS•••	553	N37••T••F	777, 778	NF307Y50GHT-KIT	737	PBC250	790
MS•••••T	740	N37••T••S	778	NF610Y100•••	737	PBLSS••	439
MS••X•	73	N37••T••T	778	NF610Y50•••	737	PBLSS•••	439
MS••X••	73	N3CS4	295	NF615100RAQT	737	PBLSS•••••	439
MS•X•	73	N4BF•	293	NF615-50RAQT	737	PCDVCHSS36	12
MS•X••	73	N4BF•-B	293	NF615Y100•••	737	PD•F•	482
MSA•••••F	795	N4BM•-B	294	NF615Y50•••	737	PD•M•	482
MSA•••••S	795	N4BM•-LS	294	NFSGX••	898	PD•OM•	482
MSA•••••T	795	N4DC	295	NFSGX1••	898	PEDF200	561
MSBC••SS	17	N4DC-B	295	NG••	689	PEDF75	561
MSBC••SSFL	17	N4F•	293	NK2S2	324	PF•	297
MSBC••SSMNPT	17	N4F•-B	293	NORG74DISPLAY	406	PF••	297
MSP•••	869	N4F•-B-LS	293	NPT•••TC	906	PF12SS	297
MSP4PAK	869	N4F6-S	293	NV•F	555	PFB••	297
MSP-95•••	401	N4M•-B	294	NV4M	555	PFB8	297
MT•••	446	N4M•-B-LS	294	NW••	689	PFC250F	789
MT•••••	696	N4M•-LS	294	NW•••	689	PFC250U	789
MT••••••	696	N4M6-S	294	NZ•••••	869	PFCW•••	789
MT•••••••	696	N4M6-S-LS	294	NZ•••••S	869	PFCW•••F	789
MTP-95•••	401	N4S•	295	NZ6540QCS	869	PFCW•••F-Y	789
		N4S•-B	295	NZMMEG5P•••	869	PFL••	297
		N4S•-B-LS	295	NZMQC5P•••	869	PFL••FS	298
N••	193	N4S•-B-LS-WF	296	O•••BU	79, 81, 82	PFL12SS	297
N•••	193	N4S•-B-WF	296	O246BU	38	PFL8	297
N•••NO	194	N4S•-LS	295	O249BU	38	PFN4005•	764
N••CS	116	N4S•-LS-WF	296	OA••	914	PFNB•••S	758, 856
N•BM•	294	N4S•-S	295	OCTOE32	684	PFNB150NST	758, 856
N•F•-SS	293	N4S•-S-LS	295	OCTOES32	684	PG700	372
N•M•	294	N4S•-WF	296	OCTS••	685	PG8083	907
N•M•-SS	294	N53••F••F	769	P••	219	PGA•••NST	761
N•S•-SS	295	N53••F••T	769	P••E-SKIT	500	PGA150NPSH	761
N35••F••F	770	N53••S••S	769	P••H-SKIT	455	PGH100	883
N35••S••F	770	N53••S••T	769	P••V-SKIT	470	PGH50	883
N35••S••S	770	N54••-25F25F	803	P•E-SKIT	500	PGS••	437
N36••F••F	785	N54••F••F	781	P•H-SKIT	455	PGS•••••	437
N36••F••T	785	N54••F••T	781	P•V-SKIT	470	PHFA6	750, 820, 911
N36••S••F	785	N54••S••S	781	P1A•••A	408	PHFA-B-A	820, 911
N36••S••S	785	N54••S••T	781	P1A•••M	408	PHL•	298
N36••S••T	785	N54L••F••F	781				
N36••T••F	785	N54L••F••T	781				
N36••T••T	785						

Part Number Index

Index Part Number

Page #	Page #	Page #	Page #
PHL••FS ..... 298	PPCM•• ..... 250	PW6••B50••• ..... 735	R16••RG ..... 387
PHL••WF ..... 299	PPD•• ..... 185	PWH•• ..... 884	R16••RH ..... 387
PHL•FS ..... 298	PPD••• ..... 185	PWH••• ..... 884	R16••RHG ..... 387
PHL•WF ..... 299	PPDV75 ..... 840	PYLS•••• ..... 703	R17•••R ..... 413
PHL1• ..... 298	PPE•• ..... 186	PYLS••••• ..... 703	R17•••RG ..... 413
PHL12SS ..... 298	PPE••• ..... 186	Q•CAP ..... 295	R18••R ..... 387
PHLB1• ..... 298	PPF•• ..... 186	QB• ..... 295	R18••RG ..... 387
PHW ..... 800	PPF••• ..... 186	QB•• ..... 294, 295	R18-C05R ..... 413
PL••• ..... 368	PPH•• ..... 187	QB••WF ..... 296	R18-C05RG ..... 413
PL•••L ..... 368	PPH••• ..... 187	QB•WF ..... 296	R200SS ..... 171
PL400LWF ..... 369	PPLSS•• ..... 248	QB10• ..... 293	R21••R ..... 386
PL400WF ..... 369	PPM• ..... 249	QB8• ..... 293	R21••RG ..... 386
PLUG•••F-C ..... 791	PPN•• ..... 246	QBM• ..... 295	R26••R ..... 388
PLUG•••S-C ..... 791	PPN••• ..... 246	QM• ..... 295	R26••RG ..... 388
PM• ..... 298	PPP•• ..... 187	QM•• ..... 294, 295	R26••RH ..... 388
PM•• ..... 298	PPP••• ..... 187	QM••WF ..... 296	R26••RHG ..... 388
PM12SS ..... 298	PPSO150• ..... 764	QM•WF ..... 296	R28••R ..... 389
PMB1• ..... 298	PRC ..... 749	QM10• ..... 293	R28••RG ..... 389
PMB8 ..... 298	PRN••F ..... 749	QM8• ..... 293	R30••R ..... 389
PML• ..... 297	PRWB ..... 749	QMCAP ..... 295	R30••RG ..... 389
PML••FS ..... 298	PS•• ..... 433, 434	QSS•• ..... 294	R30••RH ..... 389
PML•FS ..... 298	PS-12HF12-B ..... 458	QSS103 ..... 293	R30••RHG ..... 389
PML12 ..... 297	PS403 ..... 401	QSS23 ..... 294	R364••C ..... 429
PML12SS ..... 297	PS417B ..... 405	QSS4 ..... 295	R364••CG ..... 429
PN••• ..... 684	PS-H12F12-B ..... 458	QSS83 ..... 293	R374-02C ..... 429
PN•••• ..... 684	PSM•••• ..... 891	QTF••••-F ..... 743	R374-02CG ..... 429
PN15 ..... 755	PSN76 ..... 862	QTF75GHT-F ..... 743	R40••RH ..... 390
PN15F ..... 755	PSNP•••NYFD ..... 792	QTM••••-F ..... 743	R40••RHG ..... 390
PNB75GHT ..... 862	PSNP250••• ..... 792	QTM75GHT-F ..... 743	R40-0•R ..... 390
PNS••• ..... 684	PSNP250S ..... 792	QTX150-F ..... 743	R40-0•RG ..... 390
PNS•••• ..... 684	PSW ..... 799	R•• ..... 219, 694	R43•••RG ..... 415
POLYHA•••• ..... 774	PSW• ..... 799	R••• ..... 694	R46•••R ..... 370
POLYHA15S15F ..... 774	PT•• ..... 446	R••BU ..... 694	R46•••RG ..... 370
POLYHA2515F ..... 774	PTH•••AG ..... 408	R••P• ..... 90	R504•••• ..... 241
POLYHA2520T ..... 774	PTLS10040 ..... 703	R••P•LJR15 ..... 89	R515100••• ..... 736
PP•VEU•-MG ..... 730	PTLS7540 ..... 703	R••P•SOR15 ..... 89	R515100•••/F ..... 736
PP•VFC•-MG ..... 729	PTP ..... 905	R03-0•R ..... 377	R515100CBF ..... 736
PP•VFE•-MG ..... 729	PTTF150• ..... 764	R03-0•RG ..... 377	R515100CBF/F ..... 736
PP•VMC•-MG ..... 729	PU••• ..... 891	R07•••R ..... 407	R515-50••• ..... 736
PP•VME•-MG ..... 729	PV•• ..... 545	R07•••RG ..... 407	R515-50•••/F ..... 736
PP•VTEU•-MG ..... 730	PVFP•• ..... 545	R07-200RGC ..... 406	R515-50CBF ..... 736
PP•VUC•-MG ..... 730	PVFP••• ..... 545	R08-02RG ..... 378	R515-50CBF/F ..... 736
PP250F ..... 791	PVFPN•• ..... 546	R11•••RG ..... 413	R515U100•••/F ..... 735
PP250NYFD ..... 791	PVFPS200 ..... 546	R11••C ..... 430	R515U100CBF ..... 735
PPA•• ..... 184	PVFPSA200 ..... 546	R11••CG ..... 430	R515U100CBF/F ..... 735
PPA••• ..... 184, 250	PV-HDWHL ..... 841	R119••C ..... 430	R515U50••• ..... 735
PPB•• ..... 184	PV-KNOB ..... 841	R119••CG ..... 430	R515U50•••/F ..... 735
PPB••• ..... 184	PVN200 ..... 546	R16••R ..... 387	R515U50CBF ..... 735
PPC•• ..... 185	PW••F••F ..... 832		R515U50CBF/F ..... 735
PPC••• ..... 185	PW••S••S ..... 832		R72G•-R ..... 412
PPCF•• ..... 250	PW6••B100••• ..... 735		R72G•-RG ..... 412



	Page #		Page #		Page #		Page #
R72M•R	414	RDA••••EZ	153	RHA••S•F	772	RNB150S	759
R72M•RG	414	RDA90••EZ	157	RHA••S•T	772	RNW•••40	689
R73G•R	412	RDD••••EZ	154	RHA••T•F	772	RNW••40	689
R73G•RG	412	RDD•••EZ	154	RHC••	656	RPA-95•••	402, 405
R74G•R	413	RDL•••EZ	160	RHC•••	656	RPA-96•••	402
R74G•RG	413	RDM•	209	RHC••B	656	RPN••	223
R83-200R	414	RDM••	209	RHC••FS	656	RRHS••	206
R91-221RG	414	RDWBPST••EZ	162	RHC••G	656	RRP-95•••	402, 403
RA••	239	RDWSP••EZ	161	RHC••SS	656	RRP-95-590	405
RA•••	240	RE••••••	143	RHC••B	656	RRP-96•••	402, 403
RA•F•M	659	RE••BT	584	RHC••FS	656	RS15•••	740
RA79•	240	RE••NO	143	RHC••G	656	RS15••F	740
RAGG•••	697	RE••PF	142	RHC••SS	656	RSDM••	200
RAGG••••	697	RE••SE	584	RHEZ152	166	RSE••••F	803
RAM•	283	REL••••	665	RHEZ175	166	RSE••••F-C	803
RAM••	283	R-EN	24	RHEZ34	166	RSF••F	767
RAM•WF	287	R-EN-P	24	RHEZ6	166	RSF••F•T	767
RAM7T	287	R-EN-PLUG	24	R-HN	25	RSFSA••F	766
RAS••	241	REP••AS	817	RHN•••SS	662	RSFSA••F•T	766
RB•	71, 75	REP••AS••	817	R-HN-P	25	RSHR••	200
RB••	68, 71, 75	REP••HY	817	R-HN-PLUG	25	RSK••	200
RB••BL	133	REP••SP	817	R-HR	25	RSM••F	779
RB••EZ	133	REP••SP••	817	R-HR-C	25	RSM••S	779
RB12SC	70	REP250PT	817	R-HR-CAP	25	RSM••F•T	779
RB3-0•R	378	REP400AS/SP	817	RHS•	206	RSMSA••F	780
RB3-0•RG	378	R-ER	24	RHS••	206	RSMSA250F-Z	780
RBU•	75	R-ER-C	24	RHS•••	206	RSS••	207
RBU••	75	R-ER-CAP	24	RHSC152	165	RST•	190
RC••BL	135	RES••	201	RHSC175	165	RST••	190
RC••BLNO	135, 136	RES•••	201	RHSC34	165	RST•••	192
RC••BT	584	RFC••	787	RIC150F	816	RST••NOS	195
RC••CEZ	136	RFC••F	787	RJT•••SP	587	RST••A	191
RC••EZ	137	RFP••F	792	RK••	890	RST••CS	115
RC••EZ••	138	RFST••	193	RK••••	434	RST••PF	195
RC••EZCR	108, 137	RFST•••	193	RKB605WB	434	RSTB•	191
RC••EZNO	137, 138	RFST••CS	116	RKHN••	211	RSTB••	191
RC••EZPF	137	RG••••	261	RKR••Y	434	RSTB••CS	115
RC••SE	584	RG•••••	256, 261	RL••V	693	RSTV••	191
RC•F•F	655	RGB•	67, 68	RLC••EZ	128	RSTV••CS	115
R-CN	24	RGB••	67, 68	RLD200EZ	129	RTCA••	56
R-CN-P	24	RGF••	67	RLH••EZ	129	RTCT••	57
R-CN-PLUG	24	RGF••P•	69	RLP••	74	R-TN	25
R-CR	24	RGFAS11	70	RM•	210	R-TN-P	25
R-CR-C	24	RGFAS6	70	RMA••	241	R-TN-PLUG	25
R-CR-CAP	24	RGMAS6	70	RMS•	73	R-TR	25
RD••BL	140	RH••BL	147	RMS••	73	R-TR-C	25
RD••EZ	141	RH••EZ	148	RN••	193, 211	R-TR-CAP	25
RD••EZHD	141	RHA••••	772	RN•••	193, 211	RTW150	741
RD15••	740	RHA••••F	772	RN••NO	194	RWDGV250F	826
RD15193F	740	RHA••••T	772	RN••CS	116	RWDGV3025F	826
RDA••••BL	153	RHA••S••	772	RNB150NST	759	RWF••	71

Part Number Index

Page #	Page #	Page #	Page #
	SCVJ• ..... 556	SFSA•••F-LH ..... 794	SM••S ..... 779
S•• ..... 198	SCVL• ..... 556	SFSA•••S ..... 794	SM••F••T ..... 779
S••• ..... 198, 199	SCVL•• ..... 556	SFSA30••••F ..... 796	SM••F••T-D ..... 779
S••••• ..... 740	SCVM• ..... 556	SFSA30••••F-LH ..... 796	SM••S••F ..... 779
S•••••F ..... 740	SCVM•• ..... 556	SG••• ..... 270	SM515W50••• ..... 735
S•••X••X120CS ..... 117	SCVR• ..... 556	SGH•• ..... 883	SMB1525 ..... 798
S•••X••X090CS ..... 117	SCVS• ..... 365, 556	SGH••• ..... 883	SMB450 ..... 798
S•••X••X120CS ..... 117	SCVS•• ..... 556	SGP••• ..... 798	SMV••• ..... 550
S••N ..... 199	SD•• ..... 200	SGS•••-NL ..... 798	SN••• ..... 551
S6175 ..... 831	SD•200 ..... 171	SGV••• ..... 829	SN••••• ..... 551
S6175S ..... 831	SD•300 ..... 171	SGV•••F ..... 833	SN75 ..... 862
S7100 ..... 831	SD•400 ..... 171	SGV30••• ..... 829	SO••• ..... 688
S7100-15 ..... 831	SDMP•• ..... 200	SGVF••• ..... 833	SO••••• ..... 688
S7100-15S ..... 831	SE•F•M ..... 665	SHA5045F ..... 797	SOE•• ..... 669
S7337S ..... 831	SE45•• ..... 667	SHD•S• ..... 322	SOE••• ..... 669
SA15Y57 ..... 434	SE45••• ..... 365, 667	SHD2•• ..... 321	SOR••• ..... 688
SA161X57 ..... 434	SE45•••G ..... 667	SHD4•• ..... 321	SOT•• ..... 669
SA200•W57 ..... 434	SE45••G ..... 667	SHP•• ..... 672	SOT••• ..... 669
SA4050AL ..... 48	SE90•• ..... 666	SHP••• ..... 672	SP•• ..... 261
SAEB••••• ..... 894	SE90••• ..... 666	SHP•••B ..... 672	SP••• ..... 256, 261
SAEC••••• ..... 894	SE90••B ..... 666	SHP•••FS ..... 672	SPF••• ..... 551
SAHW ..... 799	SE90••FS ..... 666	SHP•••G ..... 672	SRH360•••-G••• ..... 616
SAP• ..... 192	SE90••G ..... 666	SHP•••SS ..... 672	SRH360•••-R••• ..... 616
SAP•• ..... 192	SE90••SS ..... 666	SHP••FS ..... 672	SS••• ..... 204, 238, 270
SAR10Y57 ..... 434	SEGC0••••• ..... 900	SHP••G ..... 672	SS••••• ..... 807
SB•• ..... 198	SEGC1••••• ..... 900	SHP••SS ..... 672	SS16•63 ..... 450
SB••• ..... 198	SEGS0••••• ..... 900	SHS•• ..... 206	SS2404••• ..... 511
SB••N ..... 199	SEGS1••••• ..... 900	SHS••• ..... 206	SS2404••••• ..... 511
SBC••AL ..... 18	SF•••F ..... 767	SIC250F ..... 816	SS2405••• ..... 511
SBC••ALFL ..... 18	SF•••F• ..... 767	SIC250F• ..... 816	SS2405••••• ..... 511
SBC••ALMNPT ..... 18	SF•••F-D ..... 767	SJSS••BB-20 ..... 619	SS2501••• ..... 513
SBC••ALTMA ..... 18	SF•••NYFD ..... 767	SJSS••CC ..... 619	SS2501••••• ..... 513
SBC••SS ..... 18	SF•••S ..... 767	SJSS••CC-20 ..... 619	SS337 ..... 71
SBC••SSFL ..... 18	SF••F••T ..... 767	SK•• ..... 200	SSA•• ..... 857
SBC••SSMNPT ..... 18	SF••F••T-D ..... 767	SK1098 ..... 274	SSA•••• ..... 797
SBC-E300CC13 ..... 577	SF•20FGXFGCS00 ..... 55	SL•• ..... 292	SSBV•• ..... 539
SBC-E300TP13 ..... 592	SF•20FGXFGCS10 ..... 55	SL••• ..... 758, 856	SSBV••• ..... 539
SBCS ..... 290	SF•20WXWCS00 ..... 55	SL•••CR ..... 291	SSBV•••SR ..... 541
SBDV•• ..... 833	SF•20WXWCS10 ..... 55	SL•••F ..... 291	SSBV•••TW ..... 538
SBG ..... 290	SF1471••• ..... 60	SL•••H ..... 291	SSBV••SR ..... 541
SC•• ..... 281	SF1631••• ..... 60	SL•••M ..... 291	SSBV••TW ..... 538
SC•••• ..... 281	SFBTFLY••••F ..... 842	SL075GHT ..... 758, 856	SSC•• ..... 234
SC•••ABS ..... 798	SFC••• ..... 550	SL150NST ..... 758, 856	SSCAP•• ..... 671
SC•••-NL ..... 798	SFC•••• ..... 550	SLP1 ..... 292	SSCF•• ..... 234
SCCW•• ..... 281	SFJCT••CS ..... 115	SLR• ..... 292	SSCF7•• ..... 234
SCCW•••• ..... 281	SFJM••• ..... 517	SLS••• ..... 202	SSC-T••-1 ..... 897
SCM•• ..... 448	SFJM•••• ..... 517	SLS4 ..... 68	SSC-T••-2 ..... 897
SCS4025F ..... 808	SFJM••••-45 ..... 517	SLT10050 ..... 820, 907	SSCVIL••• ..... 559
SCV•• ..... 558	SFJM••••-90 ..... 517	SM•••F ..... 779	SSE•• ..... 911
SCVH• ..... 556	SFJM••••-90 ..... 517	SM•••F-D ..... 779	SSGV•• ..... 547
SCVH•• ..... 556	SFSA•••F ..... 794	SM•••NYFD ..... 779	SSGV••• ..... 547

Index Part Number

	Page #		Page #		Page #		Page #
SSLBV••	540	STC••CS	115, 117	SWMF-RK•	845	TCR-T••••	897
SSLBV•••	540	STC-180•-R••	616	SWMF-RK••	845, 848	TCS••••F	810
SSLBV•••SP	540	STC-360-R••	616	SW-S400	802	TCS••••F••	810
SSLBV••SP	540	STC-RK••	616	SZW2	802	TCT••	57
SSPM•	225	STFC•	498	SZW2-NL	802	TES••••	895
SST••	669	STFC••	498	T••	688, 698	TETF4AL	36
SST•••	669	STFC•SS	498	T•••	688, 698	TETF4ALFP50	36
SST10	372	STFP•	499	T••••	688, 698	TETFG4AL	36
ST•	190	STFP••	499	T•DC	495	TF••	247
ST••	190	STFP•B	499	T•F•	494	TF••WF•-80	90
ST•••	190	STFP•SS	499	T•W7	242	TFK	354
ST••BF••	480	STMC•	498	T16AMP-•••••PL	630	TFN150•••	760
ST••F••	480	STMC••	498	T16AMP-•••••PM	630	TFN150NST•••	760
ST••OF••	480	STMC•SS	498	T16AMP•••PL	630	TFS••	247
ST••PF	195	STMP•	499	T16AMP•••PM	630	TFV••	554
ST••SKIT	481	STMP••	499	T16W•••PL	630	TFV2HB	554
ST•BF•	480	STMP•B	499	T16W•••PM	630	TG••	88
ST•BF••	480	STMP•SS	499	T2CM•••PL	625	TG•••	88
ST•BF••SS	480	STR2••••	686	T2CM•••PM	625	TG••••	89
ST•BF••SS	480	STR3••••	687	T2CMP•••PL	625	TG•••••	89
ST•BF••V2	480	STR6648	687	T2CMP•••PM	625	TGL••	88
ST•DC-A	481	STV••	191	T2KM•••PL	626	TGL•••	88
ST•F•	480	STV•••	191	T2KM•••PM	626	TGL••••	89
ST•F••	480	STV••CS	115, 117	T2KMP•••PL	626	TGR••	88
ST•F••SS	480	STW••	741	T2KMP•••PM	626	THB••	673
ST•F••V2	480	SUBV••	546	T2KS•••PL	625	THN••	246
ST•F••SS	480	SUBV•••	546	T2KS•••PM	625	TL14AM7•••PL	567, 630
ST•F••V2	480	SUBVN100	546	T2S•••PL	625	TL14AM7•••PM	630
ST•OF•	480	SV••	447, 557	T2S•••PM	625	TLFS••	248
ST•OF••	480	SV•••	365, 557	T3F3-SS	494	TLS••	248
ST•SKIT	481	SV•••HD	557	T600-60F	689	TLSS••	248
ST16DC-A	481	SV•••SS	557	T7MP•••PL	627	TLT••	251
ST16F16-SS	480	SV•••HD	557	T7MP•••PM	627	TM•	249
ST204B	270	SV••SS	557	T7RWWW•••••PL	626	TM••	88, 249
ST205G	270	SW••	200, 802	T7RWWW•••••PM	626	TM•••	88
ST206R	270	SW•••	200, 741, 750, 754, 785, 857	T7WWM•••PL	627	TM••••	89
ST8DC-A-V2	481	SW•••••••	679	T7WWM•••PM	627	TM•••••	89
STB•	191	SW•••F	741, 754, 857	T7WWM•••••PL	627	TML••	88
STB••	191	SW153	802	T7WWM•••••PM	627	TML•••	88
STB•••	191	SW1530	802	T7WWW•••PL	626	TML••••	89
STB••CS	115	SW250	792	T7WWW•••PM	626	TMR••	88
STBC•••	276	SW300F	792	TA•••	251, 673	TMR••••	88, 89
STBC••••	276	SWB-2	802	TA•••F	251	TN	23
STBC••••L	278	SWB-S•	802	TBC•••	276	TN••	246
STBC•••L	278	SWCV••	560	TC97	892	TN•••	246
STC•	190	SWCV•••	560	TC97RB	892	TN••••	246
STC••	190	SWDS	864	TCF•	676	TN•••X•	661
STC•••	190	SWDSHOSE••	880	TCF••	247, 250	TN•••X•SS	661
STC••••	192	SWG300-4	907	TCM••	250	TN-P	23
STC•••••	192	SWMF•••	848	TCMR-T••	897	TN-PLUG	23
STC••A	191			TCN••	674	TP••	88

Part Number Index

Page #	Page #	Page #	Page #				
TP...	88	TUN...FS	657	V•F•B-E	468	VR4050PL	47
TP...	89	TUN...SS	657	V•F•E	468	VR4086	46
TP...	89	TUN•F	657	V•F•SS	465	VR4086-BY	46
TPF••	252	TUN0•G	657	V•F•SS-E	468	VR6200	43
TPG	909	TVPC200-300	641	V•JM•	464	VR6200NP	43
TPL••	88	TVS7-30	242	V•M•	464	VRC3000AL	33
TPL...	88	TVSEC-G...	640	V•M•B	464	VRHK	34
TPM•	252	TWGV25	907	V•M•B-E	467	VRHK-C	34
TPN••	252	TYP2501-••	375	V•M•E	467	VT	21
TPP140	872			V•M•SS	464	VT7	21
TPR••	88	U...	723, 724	V•M•SS-E	467	VT9	21
TPR••••	89	UHGV250F	827	V•OF•	465	VTT	21
TPS•	676	UHGV250F-D	827	V•RKIT	471	VTX	21
TPS••	676	UHGV250-W	827	V•SSRKIT	471	VTX-9	21
TPX•	676	UPP250F	750, 755	V2DC	469	W•	72
TPX••	676	UPP250F-SPEC	755	VEP••BF••	484	W••	72
TR	23	UPPT	755	VEP••DC-A	484	W•••••U	524
TR•••	688	UPPT•••	755	VEP••F••	484	W••BF••B	488
TR•BF•	472	USBG	290	VEP••F••BOP	486	W••BMF	488
TR•F•	472	USW	799	VEP••FH••	485	W••DC	488
TR-C	23			VEP••FP••	485	W••F••B	488
TR-CAP	23	V•BF••	465	VEP••OF••	484	W••RKIT-V2	489
TSA••	673	V•BF••B	465	VEP•BF•	484	W•BF•B	488
TSE••	675	V•BF••B-E	468	VEP•DC-A	484	W•BMF	488
TSS••	206	V•BF••E	468	VEP•F•	484	W•DC	488
TSSS•••	249	V•BF••SS	465	VEP•F•BOP	486	W•F•B	488
TSST•••	249	V•BF••SS-E	468	VEP•FH•	485	W•RKIT-V2	489
TT•50	902	V•DC-A	469	VEP•FP•	485	W104-••	524
TT•75	902	V•F••	465	VEP•OF•	484	W104-••••	524
TT•ASG	38	V•F••B	465	VHC•••	454, 463, 469	W106-••	524
TT•ASG-ETH	38	V•F••B-E	468	VHC••••	463	W106-••••	524
TT•ASGOE	38	V•F••E	468	VHC••B	463	W4-••••U	525
TT4ASG-ETH	38	V•F••SS	465	VHC••NV	466	W4-••U	525
TT4ASG-ETHOE	38	V•F••SS-E	468	VHC••SS	463	W43-••••U	524
TTA50LP	902	V•JM••	464	VHCN•••	460, 469	W44-••••U	524
TTA50SS	902	V•M••	464	VHN•••	465, 469	W44-••••U	524
TTB100	902	V•M••B	464	VHN••••	465	W45-••	524
TTBP50	902	V•M••E	467	VHN••B	465	W45-••••	524
TTC•	676	V•M••SS	464	VHN••NV	468	W46-••••U	524
TTF•AL•EMT	35	V•M••SS-E	467	VHN••SS	465	W46-••••U	524
TTF•AL•MT	35	V•OF••	465	VN••••200	699	W46-••••U	524
TTF400SP	35	V•BF•	465	VNR••••200	699	W48-••••U	524
TTF4AL•FT	35	V•BF•B	465	VR••••CS-AL	34	W48-••••U	524
TTFS4AL-FP50	36	V•BF•B-E	468	VR••••CS-AL45	34	W49-••	524
TTFS4SS	38	V•BF•E	468	VR4030CS-AL	33	W49-••••	524
TTFST•CS	116	V•BF•SS	465	VR4030CS-SH	34	W59-••••U	525
TTFST•CS-THK	116	V•BF•SS-E	468	VR4040CS-4MNPT	34	W59-••••U	525
TTPM•••••	902	V•BRKIT	471	VR4040CS-AL	33	W60-••	525
TTPM••••••	902	V•DC-A	469	VR4040CS-ALS45	34	W60-••••	525
TTPM•••••••	902	V•F•	465	VR4040CS-RK•	33, 34	W61-••	525
TTPM••••••••	902	V•F•B	465	VR4050AL	47	W61-••••	525

Index  
Part Number

	Page #		Page #		Page #
WA•	362	WS•DC-A	492		
WA2B	362	WS•F•	490		
WA2SS	362	WS•F•-BOP	493		
WA4FL12X••••	83	WS•F•-SS	490		
WA4FL12X•••••	83	WS•F•-SS-BOP	493		
WB•	362	WS•FH•	491		
WB1C	362	WS•OF•	490		
WB1SS	362	WS•BF•	490		
WBC	72	WS•BF•-SS	490		
WBN•••	363	WS•DC-A	492		
WD•01ALVB	39, 548	WS•F•	490		
WD•04ALVB	39, 548	WS•F•-BOP	493		
WD40	908	WS•F•-SS	490		
WDGV•••F	825, 826	WS•F•-SS-BOP	493		
WDGV250NYFD	825	WS•FH•	491		
WDGV3025F	826	WS•FP•	491		
WDH•BK••GAX	879	WS•OF•	490		
WDH•BK••KAF	879	WSB••	893		
WDH•BK••KAS	879	WSB••••	893		
WDH•BK••RAF	878	WSB•••••	893		
WDH•BK100RAF	878	WSB••T	893		
WDH•BK100RAS	878	WSB••T•••	893		
WDH•BK100RAT	878	WSB-20Z	893		
WDH•BK100UC	880	WSR•	362		
WDH•BK50RAS	878	WSR•SS	362		
WDH•BK50RAT	878	WSR1•	362		
WDH•BK50UC	880	WSS•	265		
WDN150	857	WTB-T•	896		
WDN150NST	857	WTB-T•Z	896		
WDS1	864	X02-04	400		
WDSR	864	X02-04MB	400		
WF•	71	X03-02	386		
WF••	71	X03-02MB	386		
WF•••	71	X27	280		
WF26-1	71	XLS••A0120P	652		
WH300•	171	XPO•4F	652		
WH400•	171	XSO-4•••-0A	652		
WHYD••••F	830	Y•••	703		
WILK26DISPLAY	405	Y10075	367		
WM•	72				
WM••	72				
WN••	685				
WN•••	689				
WN1000	689				
WOC-T•	896				
WP2H••••	814				
WP2H•••••	814				
WP2H-ASSP•	814				
WP3H••••	814				
WS•BF•	490				
WS•BF•-SS	490				

## Limited Warranty

DIXON VALVE AND COUPLING COMPANY (herein called "Dixon") warrants the products described herein, and manufactured by Dixon to be free from defects in material and workmanship for a period of one (1) year from date of shipment by Dixon under normal use and service. Its sole obligation under this warranty being limited to repairing or replacing, as hereinafter provided, at its option any product found to Dixon's satisfaction to be defective upon examination by it, provided that such product shall be returned for inspection to Dixon's factory within three (3) months after discovery of the defect. The repair or replacement of defective products will be made without charge for parts or labor. This warranty shall not apply to: (a) parts or products not manufactured by Dixon, the warranty of such items being limited to the actual warranty extended to Dixon by its supplier; (b) any product that has been subject to abuse, negligence, accident, or misapplication; (c) any product altered or repaired by others than Dixon; and (d) to normal maintenance services and the replacement of service items (such as washers, gaskets and lubricants) made in connection with such services. To the extent permitted by law, this limited warranty shall extend only to the buyer and any other person reasonably expected to use or consume the goods who is injured in person by any breach of the warranty. No action may be brought against Dixon for an alleged breach of warranty unless such action is instituted within one (1) year from the date the cause of action accrues. This limited warranty shall be construed and enforced to the fullest extent allowable by applicable law.

Other than the obligation of Dixon set forth herein, Dixon disclaims all warranties, express or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose, and any other obligation or liability. The foregoing constitutes Dixon's sole obligation with respect to damages, whether direct, incidental or consequential, resulting from the use or performance of the product.

Some products and sizes may be discontinued when stock is depleted, or may require a minimum quantity for ordering.

---

## Limits of Liability

This catalog is intended as a product offering. It is not intended to be a user or technical manual. Information in this catalog is subject to change without notice. All users and distributors of products sold through this catalog should contact Dixon® with questions of use, compatibilities, coupling procedures and life of product. Our full-time engineering and test staff are always available to recommend uses and to assist distributors and users with any questions.



---

## Safety



Safety logos, which appear throughout our catalog, are used as a reminder that the user should carefully review for the appropriateness of the product for the media, application and environment in which it will be used.

NOTE: Because of the health hazards associated with contamination and lead content in drinking water systems, Dixon® couplings, unless otherwise specifically approved, are not recommended for potable water service and should not be used in applications where drinking water will contact the wetted surfaces of the coupling.

Warning: Dixon® products may contain chemicals known to the State of California to cause cancer, birth defects, or other reproduction harm.



---

## Trademarks

Delrin® and Zytel® are registered trademarks of E.I. duPont Nemours and Company.

Kalrez® is a registered trademark of DuPont Dow Elastomers.

All other trademarks appearing in the Dixon® Illustrated Price List are the property of their respective owners.

---

## Copyright

Copyright © 2018 by Dixon Valve and Coupling

All rights reserved. This book is copyrighted material. Use, reproduction or copying of it by anyone other than Dixon® is strictly forbidden without its express written consent.

NOTE: Reasonable care has been taken in preparing this catalog. Dixon Valve & Coupling Company reserves the right to make corrections.





Dixon®  
 ph 877.963.4966  
 fx 800.283.4966  
 dixonvalve.com

United States

**Albany, NY**  
 ph 518.725.0998  
 178A Corporate Drive  
 Gloversville, NY 12078  
 nysales@dixonvalve.com

**Atlanta, GA**  
 ph 770.486.9619  
 101 T.D.K. Boulevard  
 Suite A  
 Peachtree City, GA 30269  
 gasales@dixonvalve.com

**Dallas, NC**  
 ph 704.376.5755  
 2925 Chief Court  
 Dallas, NC 28034  
 ncsales@dixonvalve.com

**Chestertown, MD**  
 ph 800.355.1991  
 800 High Street  
 Chestertown, MD 21620  
 sales@dixonvalve.com

**Chicago, IL**  
 ph 630.323.4442  
 1011 N. Hilltop Drive  
 Itasca, IL 60143  
 chsales@dixonvalve.com

**Cleveland, OH**  
 ph 330.425.3000  
 1900 Enterprise Parkway  
 Twinsburg, OH 44087  
 ohsales@dixonvalve.com

**Houston, TX**  
 ph 713.678.4291  
 6525 Homestead Road  
 Houston, TX 77028  
 txsales@dixonvalve.com

**Kansas City, MO**  
 ph 816.221.0064  
 1244 Saline Street  
 N. Kansas City, MO 64116  
 kcsales@dixonvalve.com

**Los Angeles, CA**  
 ph 909.605.6400  
 8840 Flower Road  
 Suites 150/160  
 Rancho Cucamonga, CA 91730  
 casales@dixonvalve.com

**Portland, OR**  
 ph 503.289.0400  
 2642 North Marine Drive  
 Portland, OR 97217  
 plsales@dixonvalve.com

**Salt Lake City, UT**  
 ph 801.972.1180  
 McGillis Ind. Pk. Suite A  
 1972 South 4370 West  
 Salt Lake City, UT 84104  
 utsales@dixonvalve.com

**Tampa, FL**  
 ph 813.247.3500  
 5120 Adamo Drive  
 Suite E  
 Tampa, FL 33619  
 fsales@dixonvalve.com

Dixon Divisions

**Dixon Bayco**  
 ph 800.355.1991  
 800 High Street  
 Chestertown, MD 21620  
 fx 410.778.4702 • 800.283.4966

**Dixon Brass**  
 ph 800.323.4440  
 40 Chestnut Ave.  
 Westmont, IL 60559  
 fx 800.628.7259

**Dixon Eagle**  
 ph 800.314.9246  
 33 Plan Way, Bldg 5  
 Warwick, RI 02886  
 fx 401.732.2201

**Dixon Fire**  
 ph 877.712.6179  
 800 High Street  
 Chestertown, MD 21620  
 fx 410.778.9525

**Dixon Quick Coupling**  
 ph 704.334.9175  
 2925 Chief Court  
 Dallas, NC 28034  
 fx 704.334.9002

**Dixon Sanitary**  
 ph 800.789.1718  
 N25 W23040 Paul Road  
 Pewaukee, WI 53072  
 fx 800.789.4046

**Dixon Specialty Products**  
 ph 888.226.4673  
 225 Talbot Blvd  
 Chestertown, MD 21620  
 fx 410.778.1958

International

**Wingfield SA,  
 Australia**  
 ph 61.8.8202.6000  
 fx 61.8.8202.6099

**Edmonton, Alberta,  
 Canada**  
 ph 780.469.5444  
 fx 780.463.9205

**Innisfil, Ontario,  
 Canada**  
 ph 705.436.1125  
 fx 705.436.6251

**Montreal, Quebec,  
 Canada**  
 ph 514.422.9292  
 fx 514.422.0166

**Preston, England**  
 ph 44.1772.323529  
 fx 44.1772.314664

**Paris, France**  
 ph 33.171.841016  
 fx 33.171.841019

**Troisdorf-Spich,  
 Germany**  
 ph 49.2241.84406.0  
 fx 49.2241.8440679

**Monterrey, Mexico**  
 ph 52.81.8354.5649  
 fx 52.81.8354.8197

**St. Petersburg,  
 Russia**  
 ph 7.812.677.5447  
 fx 7.812.956.4782

**Singapore**  
 ph 65 6232 5272  
 fx 65 6232 5270

**Sharjah,  
 United Arab Emirates**  
 ph 971.657.41488  
 fx 971.657.41484



The Right Connection®



DPL417  
 INDEX

A

Engineered Fluid  
 Transfer Couplings  
 pages 4 - 65

B

Hose  
 Coupling Systems  
 pages 66 - 118

C

Cam & Groove  
 pages 119 - 188

D

Industrial Hose  
 Fittings  
 pages 189 - 261

E

Clamps  
 pages 262 - 281

F

Pneumatic  
 Fittings  
 pages 282 - 360

G

Pneumatic  
 Accessories  
 pages 361 - 448

H

Hydraulic Fittings  
 pages 449 - 530

I

Valves  
 pages 531 - 562

J

Sanitary Fittings  
 pages 563 - 652

K

Pipe, Welding &  
 Tube Fittings  
 pages 653 - 730

L

Fire Fittings &  
 Accessories  
 pages 731 - 843

M

Nozzles, Spray Guns  
 & Accessories  
 pages 844 - 872

N

Hose & Tubing  
 pages 873 - 900

O

Maintenance and  
 Repair  
 pages 901 - 914

P

Safety & Technical  
 pages 915 - 948

Q

Index  
 pages 949 - 992

Uncommon Excellence • Uncommon Excellence • Unc