



## **SPM® Flow Control Product Book**

Version 1.1

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## Reference Guide

### Flow Control Products

#### Treating iron is produced for the following services:

- ✕ Standard service
- ✕ H<sub>2</sub>S / sour gas service
- ✕ Low temperature service

#### Operating Temperature Ranges

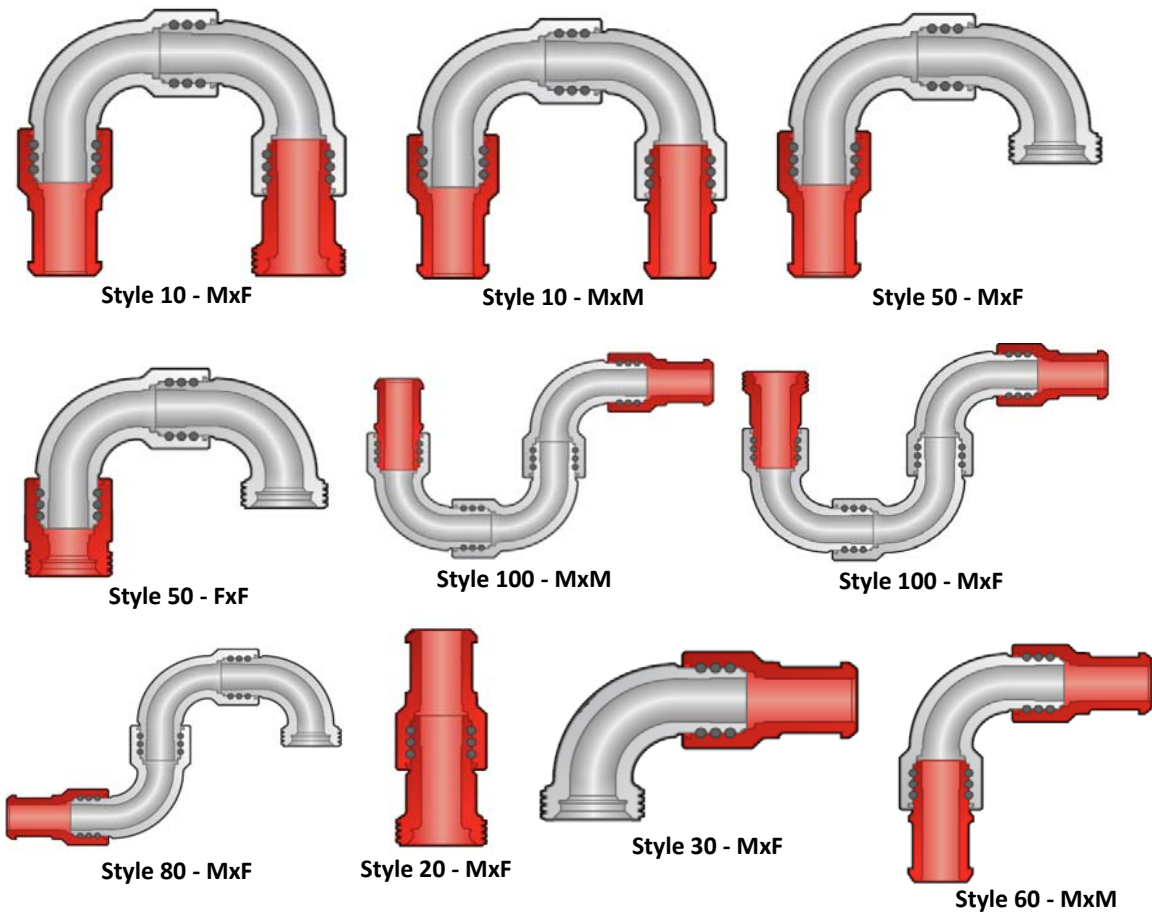
- ✕ Standard Temp: 0°C - 110°C
- ✕ Low Temp: -30°C - 110°C

**Maximum Recommended Flow Rate:** 42 feet/second

#### General Notes:

- ✕ Weir SPM recommends that you designate specific strings of iron for the following applications, and that the designated iron remain in that service application throughout the product's life.
- ✕ Every string of iron should be pressurized to its maximum planned working pressure prior to each use.
- ✕ Pressure seal line pipe threads are not recommended for pulsating service above 10,000 psi or where side loading or erosion is suspected. (integral or non-pressure seal threads are recommended.)
- ✕ Personnel must not be around pressure vessel products while pressure is present or being applied.
- ✕ Each string, as well as each component, must have regular intervals of maintenance and inspection for safe, proper performance.
- ✕ Never tighten or hammer wing unions when flow line is under pressure.
- ✕ Welding, brazing or heating on high pressure components is prohibited.
- ✕ General maintenance will extend the life of flow control products.
  - ✕ Grease plug valves and swivel joints after every job.
  - ✕ Replace seals to help prevent leaks and washouts of seal faces.
  - ✕ Clean all seal areas thoroughly.
  - ✕ Flush all products with water after each job.

## Swivel Joints



### 2" 1502 Swivel Joints (Standard Service)

| <u>Style</u> | <u>Connection Type</u> | <u>End Type</u>     | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--------------|------------------------|---------------------|--------------------|---------------------|--------------------|
| 10           | Hammer Union           | MxF                 | Low Temp           | Standard            | 2A17135            |
| 10           | Hammer Union           | MxF                 | Low Temp           | Standard (Viton)    | 2A17135V           |
| 10           | Hammer Union           | MxM                 | Low Temp           | Standard            | 2A17205            |
| 10           | Safety Iron            |                     | Low Temp           | Standard            | 2A17893            |
| 20           | Hammer Union           | MxF                 | Low Temp           | Standard            | 2A17271            |
| 30           | Hammer Union           | MxF                 | Low Temp           | Standard            | 2A17297            |
| 30           | Hammer Union           | MxF                 | Low Temp           | Standard (Viton)    | 2A17297V           |
| 50           | Hammer Union           | MxF                 | Low Temp           | Standard            | 2A17139            |
| 50           | Hammer Union           | MxF                 | Low Temp           | Standard (Viton)    | 2A17139V           |
| 50           | Hammer Union           | FxF                 | Low Temp           | Standard            | 2A17213            |
| 50           | Hammer Union           | 3" 1502M x 2" 1502F | Low Temp           | Standard            | 2A17327            |
| 60           | Hammer Union           | MxM                 | Low Temp           | Standard            | 2A17293            |
| 60           | Hammer Union           | MxF                 | Low Temp           | Standard            | 2A17494            |
| 80           | Hammer Union           | MxF                 | Low Temp           | Standard            | 2A17289            |
| 100          | Hammer Union           | MxM                 | Low Temp           | Standard            | 2A17274            |
| 100          | Hammer Union           | MxF                 | Low Temp           | Standard            | 2A17272            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 2" 1502 Swivel Joints (H2S Service)

\*NSCWP 10,000 psi

| <u>Style</u> | <u>Connection Type</u> | <u>End Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--------------|------------------------|-----------------|--------------------|---------------------|--------------------|
| 10           | Hammer Union           | MxF             | Low Temp           | H2S                 | 2A17171            |
| 10           | Hammer Union           | MxM             | Low Temp           | H2S                 | 2A17277            |
| 20           | Hammer Union           | MxF             | Low Temp           | H2S                 | 2A17282            |
| 30           | Hammer Union           | MxF             | Low Temp           | H2S                 | 2A17298            |
| 50           | Hammer Union           | MxF             | Low Temp           | H2S                 | 2A17170            |
| 50           | Hammer Union           | FxF             | Low Temp           | H2S                 | 2A17279            |
| 100          | Hammer Union           | MxF             | Low Temp           | H2S                 | 2A17285            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 3" 1502 Swivel Joints (Standard Service)

| <u>Style</u> | <u>Connection Type</u> | <u>End Type</u>      | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--------------|------------------------|----------------------|--------------------|---------------------|--------------------|
| 10           | Hammer Union           | MxF                  | Low Temp           | Standard            | 2A17920            |
| 10           | Hammer Union           | MxM                  | Low Temp           | Standard            | 2A28766            |
| 10           | Safety Iron            | SI x SI              | Low Temp           | Standard            | 2A17945            |
| 20           | Hammer Union           | MxF                  | Low Temp           | Standard            | 2A17671            |
| 20           | Safety Iron            | SI x SI              | Low Temp           | Standard            | 2A29299            |
| 30           | Hammer Union           | MxF                  | Low Temp           | Standard            | 2A17947            |
| 50           | Hammer Union           | MxF                  | Low Temp           | Standard            | 2A17922            |
| 50           | Hammer Union           | FxF                  | Low Temp           | Standard            | 2A17280            |
| 50           | Mix                    | 3" 1502F x 3" 15K SI | Low Temp           | Standard            | 2A17943            |
| 50           | Mix                    | 3" 1502F x 4" 15K SI | Low Temp           | Standard            | 2A17949            |
| 60           | Hammer Union           | MxM                  | Low Temp           | Standard            | 2A17953            |
| 60           | Hammer Union           | MxF                  | Low Temp           | Standard            | 2A17970            |
| 60           | Safety Iron            | SI x SI              | Low Temp           | Standard            | 2A17939            |
| 80           | Hammer Union           | MxF                  | Low Temp           | Standard            | 2A17934            |
| 100          | Hammer Union           | MxM                  | Low Temp           | Standard            | 2A17937            |
| 100          | Hammer Union           | MxF                  | Low Temp           | Standard            | 2A17955            |
| 100          | Safety Iron            | SI x SI              | Low Temp           | Standard            | 2A17979            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 3" 1502 Swivel Joints (H2S Service)

\*NSCWP 10,000 psi

| <u>Style</u> | <u>Connection Type</u> | <u>End Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--------------|------------------------|-----------------|--------------------|---------------------|--------------------|
| 10           | Hammer Union           | MxF             | Low Temp           | H2S                 | 2A17276            |
| 10           | Hammer Union           | MxM             | Low Temp           | H2S                 | 2A17278            |
| 50           | Hammer Union           | MxF             | Low Temp           | H2S                 | 2A17281            |
| 100          | Hammer Union           | MxF             | Low Temp           | H2S                 | 2A17286            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 4" 1002 Swivel Joints (Standard Service)

| <u>Style</u> | <u>Connection Type</u> | <u>End Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--------------|------------------------|-----------------|--------------------|---------------------|--------------------|
| 10           | Hammer Union           | MxF             | Low Temp           | Standard            | 2A17925            |
| 10           | Hammer Union           | MxM             | Low Temp           | Standard            | 2A17929            |
| 10           | Safety Iron            | SI x SI         | Low Temp           | Standard            | 2A29809            |
| 50           | Hammer Union           | MxF             | Low Temp           | Standard            | 2A17926            |

\*Note: Other parts or configurations may be available. Contact SPM.

#### 4" 1502 Swivel Joints (Standard Service)

| <u>Style</u> | <u>Connection Type</u> | <u>End Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--------------|------------------------|-----------------|--------------------|---------------------|--------------------|
| 10           | Hammer Union           | MxF             | Low Temp           | Standard            | 2A17765            |
| 10           | Hammer Union           | MxM             | Low Temp           | Standard            | 2A17737            |
| 10           | Safety Iron            | SI x SI         | Low Temp           | Standard            | 2A17894            |
| 50           | Hammer Union           | MxF             | Low Temp           | Standard            | 2A17567            |

\*Note: Other parts or configurations may be available. Contact SPM.

#### 2" 1502 Swivel Kits

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 4L17126            |
| Parts Kit       | Standard (Viton)    | 4L17126V           |
| Parts Kit       | H2S                 | 4L17193            |
| Ball Kit        | Standard            | 4L17131            |
| Ball Kit        | H2S                 | 4L17196            |
| Ball Plug Kit   | Standard            | 4L17136            |
| Ball Plug Kit   | H2S                 | 4L17195            |
| Seal Kit        | Standard            | 4L17130            |
| Seal Kit        | H2S                 | 4L17194            |

\*Note: Other parts or configurations may be available. Contact SPM.

#### 3" 1502 Swivel Kits

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 4L17660            |
| Parts Kit       | Standard (Viton)    | 2A33664            |
| Parts Kit       | H2S                 | 4L17305            |
| Ball Kit        | Standard            | 4L17303            |
| Ball Kit        | H2S                 | 4L17308            |
| Ball Plug Kit   | Standard            | 4L17136            |
| Seal Kit        | Standard            | 4L17265            |
| Seal Kit        | H2S                 | 4L17307            |

\*Note: Other parts or configurations may be available. Contact SPM.

#### 4" 602 Swivel Kits

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 4L17267            |
| Seal Kit        | Standard            | 4L17268            |
| Ball Plug Kit   | Standard            | 4L17269            |

\*Note: Other parts or configurations may be available. Contact SPM.

#### 4" 1002 Swivel Kits

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 4L17721            |

\*Note: Other parts or configurations may be available. Contact SPM.

#### 4" 1502 Swivel Kits

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 4L17785            |

\*Note: Other parts or configurations may be available. Contact SPM.

#### Kit Definitions:

Parts Kit: elastomers, swivel balls, ball plugs, plug retainer rings, grease port screw

Ball Kit: swivel balls

Ball Plug Kit: ball plugs, plug retainer rings

Seal Kit: elastomers

## Hose Loops

### 2" 1502 Hose Loops (Standard Service)

| <u>Length</u> | <u>Style</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------|--------------|------------------------|--------------------|---------------------|--------------------|
| 8' 7"         | C&C          | Hammer Union           | Low Temp           | Standard            | 2A17581            |
| 9' 6"         | C&C          | Hammer Union           | Low Temp           | Standard            | 2A17229            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 2" 1502 Hose Loops (H2S Service)

*\*NSCWP 10,000 psi*

| <u>Length</u> | <u>Style</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------|--------------|------------------------|--------------------|---------------------|--------------------|
| 9' 6"         | C&C          | Hammer Union           | Low Temp           | H2S                 | 2A17230            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

## Check Valves

### 2" 1502 SD Clapper Check Valves (Standard Service)

| <u>Connection Type</u> | <u>Outlet/Branch Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------------------------|--------------------|---------------------|--------------------|
| FxM (Standard Flow)    | Hammer Union                       | Low Temp           | Standard            | 2A29018            |
| MxF (Reverse Flow)     | Hammer Union                       | Low Temp           | Standard            | 2A29024            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 2" 1502 SD Clapper Check Valves (H2S Service)

*\*NSCWP 10,000 psi*

| <u>Connection Type</u> | <u>Outlet/Branch Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------------------------|--------------------|---------------------|--------------------|
| FxM (Standard Flow)    | Hammer Union                       | Low Temp           | H2S                 | 2A29022            |
| MxF (Reverse Flow)     | Hammer Union                       | Low Temp           | H2S                 | 2A29026            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 3" 1502 SD Clapper Check Valves (Standard Service)

| <u>Connection Type</u> | <u>Outlet/Branch Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------------------------|--------------------|---------------------|--------------------|
| FxM (Standard Flow)    | Hammer Union                       | Low Temp           | Standard            | 2A28563            |
| MxF (Reverse Flow)     | Hammer Union                       | Low Temp           | Standard            | 2A28931            |
| Safety Iron            | Safety Iron                        | Low Temp           | Standard            | 2A28756            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 4" 1002 SD Clapper Check Valves (Standard Service)

| <u>Connection Type</u> | <u>Outlet/Branch Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------------------------|--------------------|---------------------|--------------------|
| FxM (Standard Flow)    | Hammer Union                       | Low Temp           | Standard            | 2A28744            |
| MxF (Reverse Flow)     | Hammer Union                       | Low Temp           | Standard            | 2A28949            |
| Safety Iron            | Safety Iron                        | Low Temp           | Standard            | 2A28955            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 4" 1502 SD Clapper Check Valves (Standard Service)

| <u>Connection Type</u> | <u>Outlet/Branch Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------------------------|--------------------|---------------------|--------------------|
| FxM (Standard Flow)    | Hammer Union                       | Low Temp           | Standard            | 2A28742            |
| MxF (Reverse Flow)     | Hammer Union                       | Low Temp           | Standard            | 2A28945            |
| Safety Iron            | Safety Iron                        | Low Temp           | Standard            | 2A28959            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 2" 1502 SD Clapper Check Valve Kits

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 2A29092            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 3" 1502 SD Clapper Check Valve Kits

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 2A29477            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 4" 1002 & 4" 1502 SD Clapper Check Valve Kits

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 2A29478            |

*\*Note: Other parts or configurations may be available. Contact SPM.*



## Top Load Check Valve (Non-SD Valve) Kits

| <u>Kit Type</u>   | <u>Size</u>       | <u>Part Number</u> |
|-------------------|-------------------|--------------------|
| Parts Kit         | 2" 1502           | 2A26301            |
| Parts Kit (Viton) | 2" 1502           | 2A26461            |
| Parts Kit         | 3" 1502           | 2A29480            |
| Parts Kit (Viton) | 3" 1502           | 2A29481            |
| Parts Kit         | 4" 1002 & 4" 1502 | 2A29482            |

\*Note: Other parts or configurations may be available. Contact SPM.

## Cast-Style Clapper Check Valve Kits

| <u>Kit Type</u>   | <u>Size</u>   | <u>Part Number</u> |
|-------------------|---------------|--------------------|
| Parts Kit         | 2" 1502       | 4L16449            |
| Parts Kit         | 3" 1502       | 4L20821            |
| Parts Kit (Viton) | 3" 1502       | 4L16451V           |
| Parts Kit         | 4" 1002 / 602 | 4L21128            |
| Parts Kit (Viton) | 4" 1002 / 602 | 4L16454            |

\*Note: Other parts or configurations may be available. Contact SPM.

## Kit Definitions:

Parts Kit: clapper, pins, hanger, seal, backup ring

## 2" 1502 Dart Check Valves (C-Type - Standard Service)

| <u>Flow Configuration</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------------------|------------------------|--------------------|---------------------|--------------------|
| FxM (Standard Flow)       | Hammer Union           | Low Temp           | Standard            | 1A19662C           |
| MxF (Reverse Flow)        | Hammer Union           | Low Temp           | Standard            | 1A19660C           |

\*Note: Other parts or configurations may be available. Contact SPM.

## 2" 1502 Dart Check Valves (C-Type - Standard Service - Metal to Metal Seal)

| <u>Flow Configuration</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------------------|------------------------|--------------------|---------------------|--------------------|
| FxM (Standard Flow)       | Hammer Union           | Low Temp           | Standard            | 1A23085CLT         |
| MxF (Reverse Flow)        | Hammer Union           | Low Temp           | Standard            | 1A24137C           |

\*Note: Other parts or configurations may be available. Contact SPM.

## 2" 1502 Dart Check Valves (C-Type - H2S Service)

\*NSCWP 10,000 psi

| <u>Flow Configuration</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------------------|------------------------|--------------------|---------------------|--------------------|
| FxM (Standard Flow)       | Hammer Union           | Low Temp           | H2S                 | 1A19467C           |
| MxF (Reverse Flow)        | Hammer Union           | Low Temp           | H2S                 | 1A19485C           |

\*Note: Other parts or configurations may be available. Contact SPM.

## 3" 1502 Dart Check Valves (C-Type - Standard Service)

| <u>Flow Configuration</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------------------|------------------------|--------------------|---------------------|--------------------|
| FxM (Standard Flow)       | Hammer Union           | Low Temp           | Standard            | 1A19843C           |
| MxF (Reverse Flow)        | Hammer Union           | Low Temp           | Standard            | 1A19845C           |
| Safety Iron               | Safety Iron            | Low Temp           | Standard            | 2A27904            |

\*Note: Other parts or configurations may be available. Contact SPM.

## 3" 1502 Dart Check Valves (C-Type - H2S Service)

\*NSCWP 10,000 psi

| <u>Flow Configuration</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------------------|------------------------|--------------------|---------------------|--------------------|
| FxM (Standard Flow)       | Hammer Union           | Low Temp           | H2S                 | 1A19826C           |

\*Note: Other parts or configurations may be available. Contact SPM.

### 2" 1502 Dart Check Valve Kits

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 4L20823C           |
| Parts Kit       | Standard (Viton)    | 4L20823CV          |
| Parts Kit       | H2S                 | 4L20824C           |
| Dart Kit        | Standard            | 4L19959            |
| Dart Kit        | H2S                 | 4L18824            |
| Seal Kit        | Standard            | 4L20828C           |
| Seal Kit        | H2S                 | 4L20829C           |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 3" 1502 Dart Check Valve Kits

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 4L20825C           |
| Parts Kit       | H2S                 | 4L20826C           |
| Dart Kit        | Standard            | 4L18821            |
| Dart Kit        | H2S                 | 4L18818            |
| Seal Kit        | Standard            | 4L20830C           |
| Seal Kit        | H2S                 | 4L20831C           |

*\*Note: Other parts or configurations may be available. Contact SPM.*

#### **Kit Definitions:**

Parts Kit: dart, seals, nut, spring, stop, screw, key

Dart Kit: dart, seals, spring, nut

Seal Kit: seals

## Plug Valves

### 1" x 2" Plug Valves - Standard Service

| <u>Connection Type</u> | <u>Actuation</u> | <u>Temperature</u> | <u>Service Type</u>          | <u>Part Number</u> |
|------------------------|------------------|--------------------|------------------------------|--------------------|
| Hammer Union           | Manual           | Low Temp           | Standard                     | 1A14483            |
| Hammer Union           | Manual           | Low Temp           | Standard (Acid)              | 1A25038            |
| Hammer Union           | Manual           | Low Temp           | Standard (Viton)             | 1A14483V           |
| Hammer Union           | Manual           | Low Temp           | Standard (Torture)           | 1A19748            |
| Hammer Union           | Hydraulic        | Low Temp           | Standard                     | 1A14483HB          |
| Hammer Union           | Air              | Low Temp           | Standard                     | 1A14483A           |
| Hammer Union           | Air              | Low Temp           | Standard (Viton)             | 1A14483AV          |
| Hammer Union           | No Actuator      | Low Temp           | Standard                     | 1A20391            |
| Hammer Union           | No Actuator      | Low Temp           | Standard (Side Grease Ports) | 1A25037            |
| Safety Iron            | Manual           | Low Temp           | Standard                     | 2A27975            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 1" x 2" Plug Valves - H2S Service

\*NSCWP 10,000 psi

| <u>Connection Type</u> | <u>Actuation</u> | <u>Temperature</u> | <u>Service Type</u>     | <u>Part Number</u> |
|------------------------|------------------|--------------------|-------------------------|--------------------|
| Hammer Union           | Manual           | Low Temp           | H2S                     | 1A19777            |
| Hammer Union           | Hydraulic        | Low Temp           | H2S                     | 1A19777HB          |
| Hammer Union           | No Actuator      | Low Temp           | H2S (Side Grease Ports) | 1A25043            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 2" 1502 Plug Valves - Standard Service

| <u>Connection Type</u> | <u>Actuation</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------|--------------------|---------------------|--------------------|
| Hammer Union           | Manual           | Low Temp           | Standard            | 1A14487            |
| Hammer Union           | Manual           | Low Temp           | Standard (Acid)     | 1A20211            |
| Hammer Union           | Manual           | Low Temp           | Standard (Viton)    | 2A26277            |
| Hammer Union           | Hydraulic        | Low Temp           | Standard            | 1A14487HB          |
| Hammer Union           | Air              | Low Temp           | Standard            | 1A14487A           |
| Hammer Union           | No Actuator      | Low Temp           | Standard            | 1A24017            |
| Safety Iron            | Manual           | Low Temp           | Standard            | 2A27973            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 2" 1502 Plug Valves - H2S Service

\*NSCWP 10,000 psi

| <u>Connection Type</u> | <u>Actuation</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------|--------------------|---------------------|--------------------|
| Hammer Union           | Manual           | Low Temp           | H2S                 | 1A14492            |
| Hammer Union           | Manual           | High Temp          | H2S                 | 2A26271            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 2" Light Weight Plug Valves - Standard Service

| <u>Connection Type</u> | <u>Actuation</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------|--------------------|---------------------|--------------------|
| Hammer Union           | Manual           | Low Temp           | Standard            | 2A29633            |

\*Note: Other parts or configurations may be available. Contact SPM.

### Threaded 2" Plug Valves - Standard Service

| <u>Connection Type</u> | <u>Actuation</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------|--------------------|---------------------|--------------------|
| LPTL - 5,000 psi       | Manual           | Low Temp           | Standard            | 1A12477            |
| LPTL - 5,000 psi       | Manual           | Low Temp           | Standard (Viton)    | 1A18231            |
| LPTL - 10,000 psi      | Manual           | Low Temp           | Standard            | 1A12478            |
| LPTL - 15,000 psi      | Manual           | Low Temp           | Standard            | 1A11742            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 3" 1502 Plug Valves - Standard Service

| <u>Connection Type</u> | <u>Actuation</u>   | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|--------------------|--------------------|---------------------|--------------------|
| Hammer Union           | Manual             | Low Temp           | Standard            | 2A26611            |
| Hammer Union           | Gear               | Low Temp           | Standard            | 1A14496            |
| Hammer Union           | Gear               | Low Temp           | Standard (Viton)    | 1A14496V           |
| Hammer Union           | Gear - Low Profile | Low Temp           | Standard            | 2A30297            |
| Hammer Union           | Hydraulic          | Low Temp           | Standard            | 1A14496H           |
| Hammer Union           | Hydraulic          | Low Temp           | Standard (Viton)    | 2A29316H           |
| Hammer Union           | Air                | Low Temp           | Standard            | 1A14496A           |
| Hammer Union           | No Actuator        | Low Temp           | Standard            | 1A18962            |
| Hammer Union           | No Actuator        | Low Temp           | Standard (Viton)    | 2A29315            |
| Safety Iron            | Manual             | Low Temp           | Standard            | 2A27943            |
| Safety Iron            | Gear               | Low Temp           | Standard            | 2A27942            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 3" 1502 Plug Valves - H2S Service

*\*NSCWP 10,000 psi*

| <u>Connection Type</u> | <u>Actuation</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------|--------------------|---------------------|--------------------|
| Hammer Union           | Gear             | Low Temp           | H2S                 | 1A19585            |
| Hammer Union           | Hydraulic        | Low Temp           | H2S                 | 1A19585H           |
| Hammer Union           | No Actuator      | Low Temp           | H2S                 | 1A20933            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 4" 1002 Plug Valves - Standard Service

| <u>Connection Type</u> | <u>Actuation</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------|--------------------|---------------------|--------------------|
| Hammer Union           | Gear             | Low Temp           | Standard            | 2A25182            |
| Hammer Union           | Hydraulic        | Low Temp           | Standard            | 2A25182HB          |
| Hammer Union           | No Actuator      | Low Temp           | Standard            | 2A25154            |
| Safety Iron            | Gear             | Low Temp           | Standard            | 2A27872            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 4" 1502 Plug Valves - Standard Service

| <u>Connection Type</u> | <u>Actuation</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------|--------------------|---------------------|--------------------|
| Hammer Union           | Gear             | Low Temp           | Standard            | 2A25168            |
| Hammer Union           | Hydraulic        | Low Temp           | Standard            | 2A25168HB          |
| Hammer Union           | No Actuator      | Low Temp           | Standard            | 2A25167            |
| Safety Iron            | Gear             | Low Temp           | Standard            | 2A28135            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 1" x 2" 1502 Plug Valve Kits & Parts

| <u>Kit Type</u> | <u>Service Type</u> | <u>Other</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------|--------------------|
| Parts Kit       | Standard            |              | 4L11769            |
| Elastomer Kit   | Standard            |              | 4L20947            |
| Elastomer Kit   | H2S                 | Acid Solvent | 4L20949            |
| Seal Kit        | Standard            |              | 4L14203            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

## 2" 1502 Plug Valve Kits & Parts

| <u>Kit Type</u> | <u>Service Type</u> | <u>Other</u>  | <u>Part Number</u> |
|-----------------|---------------------|---------------|--------------------|
| Parts Kit       | Standard            |               | 4L11982            |
| Parts Kit       | H2S                 |               | 4L14522            |
| Parts Kit       | H2S                 | No Side Ports | 4L20574            |
| Elastomer Kit   | Standard            |               | 4L20948            |
| Elastomer Kit   | H2S                 | Acid Solvent  | 4L20950            |
| Seal Kit        | Standard            |               | 4L13694            |
| Seal Kit        | Standard            | Acid Solvent  | 4L16824            |
| Seal Kit        | H2S                 | No Side Ports | 4L20575            |

\*Note: Other parts or configurations may be available. Contact SPM.

## 2" 1502 Lightweight Plug Valve Kits & Parts

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 2A30161            |
| Seal Kit        | Standard            | 2A30162            |

\*Note: Other parts or configurations may be available. Contact SPM.

## 3" 1502 Plug Valve Kits & Parts

| <u>Kit Type</u>                   | <u>Service Type</u> | <u>Other</u> | <u>Part Number</u> |
|-----------------------------------|---------------------|--------------|--------------------|
| Parts Kit (SD)                    | Standard            |              | 2A30675            |
| Parts Kit (SD) - No Side Segments | Standard            |              | 2A34110            |
| Elastomer Kit (SD)                | Standard            |              | 2A30678            |
| Seal Kit (SD)                     | Standard            |              | 2A30677            |

\*Note: Other parts or configurations may be available. Contact SPM.

## 4" 1002 Plug Valve Kits & Parts

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 2A26353            |

\*Note: Other parts or configurations may be available. Contact SPM.

## 4" 1502 Plug Valve Kits & Parts

| <u>Kit Type</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------|---------------------|--------------------|
| Parts Kit       | Standard            | 2A26354            |

\*Note: Other parts or configurations may be available. Contact SPM.

## Misc. Plug Valve Parts

| <u>Part</u>    | <u>Service Type</u> | <u>Other</u> | <u>Part Number</u> |
|----------------|---------------------|--------------|--------------------|
| Grease Stick   | Std Temp            | Carton of 10 | P13336             |
| Grease Stick   | Low Temp            | Carton of 10 | P13337             |
| Grease Stick   | Low Temp            |              | P16832             |
| Grease Fitting |                     | 3/8" NPT     | P10064             |

\*Note: Other parts or configurations may be available. Contact SPM.

### Kit Definitions:

Parts Kit: plug, seals, side segments, seal segments, grease fitting, backup ring

Seal Kit: seals, backup rings, grease fitting, seal segment

Elastomer Kit: seals, backup ring

## Relief Valves

### 2" Spring Relief Valves - Standard Service

| <u>Connection Type</u> | <u>Outlet/Branch Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------------------------|--------------------|---------------------|--------------------|
| Hammer Union           | 2" LPTL F Outlet                   | Low Temp           | Standard            | 2A18138            |
| Hammer Union           | 2" 1502F Outlet                    | Low Temp           | Standard            | 2A18192            |
| Hammer Union           | 2" 1502F Outlet                    | Low Temp           | Standard (Viton)    | 2A18192V           |
| Hammer Union           | 2" 2002F Outlet                    | Low Temp           | Standard            | 2A18796            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 2" Spring Relief Valves - H2S Service

\*NSCWP 10,000 psi

| <u>Connection Type</u> | <u>Outlet/Branch Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------------------------|--------------------|---------------------|--------------------|
| Hammer Union           | 2" 1502F Outlet                    | Low Temp           | H2S                 | 2A18544            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 3" Spring Relief Valves - Standard Service

| <u>Connection Type</u> | <u>Outlet/Branch Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------|------------------------------------|--------------------|---------------------|--------------------|
| Hammer Union           | 3" 1502F Outlet                    | Low Temp           | Standard            | 2A22356            |
| Safety Iron            | Safety Iron                        | Low Temp           | Standard            | 2A29371            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 3" Nitrogen Relief Valves - Standard Service

| <u>Valve Type</u>        | <u>Outlet/Branch Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--------------------------|------------------------------------|--------------------|---------------------|--------------------|
| Nitrogen - Unloading     | 3" 1502F Outlet                    | Low Temp           | Standard            | 1A23392            |
| Nitrogen - Back Pressure | 3" 1502F Outlet                    | Low Temp           | Standard            | 1A23493LT          |

\*Note: Other parts or configurations may be available. Contact SPM.

### 2" Spring Relief Valve Parts

| <u>Type</u>             | <u>Other</u> | <u>Part Number</u> |
|-------------------------|--------------|--------------------|
| Parts Kit               | Buna         | 4L20418            |
| Ball, Seat and Seal Kit |              | 4L18755            |
| Seal Kit                | Buna         | 4L20423            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 3" Spring Relief Valve Parts

| <u>Type</u>             | <u>Outlet/Branch Configuration</u> | <u>Service Type</u> | <u>Other</u>  | <u>Part Number</u> |
|-------------------------|------------------------------------|---------------------|---------------|--------------------|
| Parts Kit               |                                    |                     | Buna          | 4L22486            |
| Gate, Nozzle & Seal Kit |                                    |                     |               | 4L22481            |
| Seal Kit                |                                    |                     | Buna          | 4L22482            |
| Body Assembly           | 3" 1502F Outlet                    | Standard            | Vessel Tested | 2A28817            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 3" Nitrogen Relief Valve Parts

| <u>Type</u>                   | <u>Outlet/Branch Configuration</u> | <u>Service Type</u> | <u>Other</u>  | <u>Part Number</u> |
|-------------------------------|------------------------------------|---------------------|---------------|--------------------|
| Parts Kit - Unloading         |                                    | Standard            |               | 4L23547            |
| Parts Kit - Back Pressure     |                                    | Standard            |               | 4L24315            |
| Body Assembly - Unloading     | 3" 1502F Outlet                    | Standard            | Vessel Tested | 2A28818            |
| Body Assembly - Back Pressure | 3" 1502F Outlet                    | Standard            | Vessel Tested | 2A28819            |

\*Note: Other parts or configurations may be available. Contact SPM.

### Kit Definitions (nitrogen):

Parts Kit (Unloading): wear sleeve, nozzle, cartridge, spider, sleeve, seals, backup ring

Parts Kit (Back Pressure): retainer spring, gate, spide, nozzle, seals, bushing, pins, spring

**NPS Pipe****2" 1502 NPS Pipe**

| <b>Style</b>          | <b>Length</b> | <b>Connection Type</b> | <b>Temperature</b> | <b>Service Type</b> | <b>Part Number</b> |
|-----------------------|---------------|------------------------|--------------------|---------------------|--------------------|
| Non-Detachable        | 24"           | Hammer Union           | Low Temp           | Standard            | 2A12519            |
| Non-Detachable        | 36"           | Hammer Union           | Low Temp           | Standard            | 2A12521            |
| Non-Detachable        | 48"           | Hammer Union           | Low Temp           | Standard            | 2A12525            |
| Non-Detachable        | 60"           | Hammer Union           | Low Temp           | Standard            | 2A12526            |
| Non-Detachable        | 72"           | Hammer Union           | Low Temp           | Standard            | 2A12527            |
| Non-Detachable        | 96"           | Hammer Union           | Low Temp           | Standard            | 2A12528            |
| Non-Detachable        | 120"          | Hammer Union           | Low Temp           | Standard            | 2A12530            |
| Detachable - Shoulder | 24"           | Hammer Union           | Low Temp           | Standard            | 2A22811            |
| Detachable - Shoulder | 36"           | Hammer Union           | Low Temp           | Standard            | 2A22766            |
| Detachable - Shoulder | 48"           | Hammer Union           | Low Temp           | Standard            | 2A22812            |
| Detachable - Shoulder | 60"           | Hammer Union           | Low Temp           | Standard            | 2A22813            |
| Detachable - Shoulder | 72"           | Hammer Union           | Low Temp           | Standard            | 2A22814            |
| Detachable - Shoulder | 96"           | Hammer Union           | Low Temp           | Standard            | 2A22815            |
| Detachable - Shoulder | 120"          | Hammer Union           | Low Temp           | Standard            | 2A22816            |
| Detachable - Plain    | 24"           | Hammer Union           | Low Temp           | Standard            | 2A23281            |
| Detachable - Plain    | 36"           | Hammer Union           | Low Temp           | Standard            | 2A23384            |
| Detachable - Plain    | 48"           | Hammer Union           | Low Temp           | Standard            | 2A23282            |
| Detachable - Plain    | 60"           | Hammer Union           | Low Temp           | Standard            | 2A23385            |
| Detachable - Plain    | 72"           | Hammer Union           | Low Temp           | Standard            | 2A23283            |
| Detachable - Plain    | 96"           | Hammer Union           | Low Temp           | Standard            | 2A23390            |
| Detachable - Plain    | 120"          | Hammer Union           | Low Temp           | Standard            | 2A23284            |

\*Note: Other parts or configurations may be available. Contact SPM.

**3" 1502 NPS Pipe**

| <b>Style</b>          | <b>Length</b> | <b>Connection Type</b> | <b>End Configuration</b> | <b>Temperature</b> | <b>Service Type</b> | <b>Part Number</b> |
|-----------------------|---------------|------------------------|--------------------------|--------------------|---------------------|--------------------|
| Non-Detachable        | 24"           | Hammer Union           |                          | Low Temp           | Standard            | 2A12554            |
| Non-Detachable        | 36"           | Hammer Union           |                          | Low Temp           | Standard            | 2A12556            |
| Non-Detachable        | 48"           | Hammer Union           |                          | Low Temp           | Standard            | 2A12559            |
| Mix - Non-Detachable  | 48"           | Mix                    | 3" 15K SI x 3" 1502F     | Low Temp           | Standard            | 2A28038            |
| Non-Detachable        | 60"           | Hammer Union           |                          | Low Temp           | Standard            | 2A12562            |
| Non-Detachable        | 72"           | Hammer Union           |                          | Low Temp           | Standard            | 2A12563            |
| Non-Detachable        | 96"           | Hammer Union           |                          | Low Temp           | Standard            | 2A12565            |
| Non-Detachable        | 120"          | Hammer Union           |                          | Low Temp           | Standard            | 2A12568            |
| Detachable - Shoulder | 24"           | Hammer Union           |                          | Low Temp           | Standard            | 2A22820            |
| Detachable - Shoulder | 36"           | Hammer Union           |                          | Low Temp           | Standard            | 2A22768            |
| Detachable - Shoulder | 48"           | Hammer Union           |                          | Low Temp           | Standard            | 2A22821            |
| Detachable - Shoulder | 60"           | Hammer Union           |                          | Low Temp           | Standard            | 2A22822            |
| Detachable - Shoulder | 72"           | Hammer Union           |                          | Low Temp           | Standard            | 2A22823            |
| Detachable - Shoulder | 96"           | Hammer Union           |                          | Low Temp           | Standard            | 2A22824            |
| Detachable - Shoulder | 120"          | Hammer Union           |                          | Low Temp           | Standard            | 2A22825            |
| Detachable - Plain    | 24"           | Hammer Union           |                          | Low Temp           | Standard            | 2A23268            |
| Detachable - Plain    | 36"           | Hammer Union           |                          | Low Temp           | Standard            | 2A23627            |
| Detachable - Plain    | 48"           | Hammer Union           |                          | Low Temp           | Standard            | 2A23269            |
| Detachable - Plain    | 60"           | Hammer Union           |                          | Low Temp           | Standard            | 2A23628            |
| Detachable - Plain    | 72"           | Hammer Union           |                          | Low Temp           | Standard            | 2A23285            |
| Detachable - Plain    | 120"          | Hammer Union           |                          | Low Temp           | Standard            | 2A23270            |
| N/A                   | 48"           | Safety Iron            |                          | Low Temp           | Standard            | 2A27931            |
| N/A                   | 120"          | Safety Iron            |                          | Low Temp           | Standard            | 2A27939            |

\*Note: Other parts or configurations may be available. Contact SPM.

## 4" 1002 NPS Pipe

| <u>Style</u>          | <u>Length</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|-----------------------|---------------|------------------------|--------------------|---------------------|--------------------|
| Non-Detachable        | 24"           | Hammer Union           | Low Temp           | Standard            | 2A28239            |
| Non-Detachable        | 36"           | Hammer Union           | Low Temp           | Standard            | 2A28240            |
| Non-Detachable        | 48"           | Hammer Union           | Low Temp           | Standard            | 2A28243            |
| Non-Detachable        | 60"           | Hammer Union           | Low Temp           | Standard            | 2A28245            |
| Non-Detachable        | 72"           | Hammer Union           | Low Temp           | Standard            | 2A28246            |
| Non-Detachable        | 96"           | Hammer Union           | Low Temp           | Standard            | 2A28251            |
| Non-Detachable        | 120"          | Hammer Union           | Low Temp           | Standard            | 2A28254            |
| Detachable - Shoulder | 24"           | Hammer Union           | Low Temp           | Standard            | 2A28881            |
| Detachable - Shoulder | 36"           | Hammer Union           | Low Temp           | Standard            | 2A28882            |
| Detachable - Shoulder | 48"           | Hammer Union           | Low Temp           | Standard            | 2A28883            |
| Detachable - Shoulder | 72"           | Hammer Union           | Low Temp           | Standard            | 2A28886            |
| Detachable - Shoulder | 96"           | Hammer Union           | Low Temp           | Standard            | 2A28887            |
| Detachable - Shoulder | 120"          | Hammer Union           | Low Temp           | Standard            | 2A28888            |
| Detachable - Plain    | 24"           | Hammer Union           | Low Temp           | Standard            | 2A29067            |
| Detachable - Plain    | 36"           | Hammer Union           | Low Temp           | Standard            | 2A29068            |
| Detachable - Plain    | 48"           | Hammer Union           | Low Temp           | Standard            | 2A29069            |
| Detachable - Plain    | 60"           | Hammer Union           | Low Temp           | Standard            | 2A29070            |
| Detachable - Plain    | 72"           | Hammer Union           | Low Temp           | Standard            | 2A29071            |
| Detachable - Plain    | 96"           | Hammer Union           | Low Temp           | Standard            | 2A29072            |
| Detachable - Plain    | 120"          | Hammer Union           | Low Temp           | Standard            | 2A29073            |
| N/A                   | 24"           | Safety Iron            | Low Temp           | Standard            | 2A29648            |
| N/A                   | 36"           | Safety Iron            | Low Temp           | Standard            | 2A29651            |
| N/A                   | 48"           | Safety Iron            | Low Temp           | Standard            | 2A29653            |
| N/A                   | 60"           | Safety Iron            | Low Temp           | Standard            | 2A29654            |
| N/A                   | 72"           | Safety Iron            | Low Temp           | Standard            | 2A29656            |
| N/A                   | 96"           | Safety Iron            | Low Temp           | Standard            | 2A29659            |
| N/A                   | 120"          | Safety Iron            | Low Temp           | Standard            | 2A29660            |

\*Note: Other parts or configurations may be available. Contact SPM.



## Integral Pup Joints

### 2" 1502 Pup Joints - Standard Service

| <u>Length</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------|------------------------|--------------------|---------------------|--------------------|
| 48"           | Hammer Union           | Low Temp           | Standard            | 2A19448            |
| 60"           | Hammer Union           | Low Temp           | Standard            | 2A20387            |
| 72"           | Hammer Union           | Low Temp           | Standard            | 2A19859            |
| 90"           | Hammer Union           | Low Temp           | Standard            | 2A19449            |
| 114"          | Hammer Union           | Low Temp           | Standard            | 2A19861            |
| 48"           | Safety Iron            | Low Temp           | Standard            | 2A27947            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 2" 1502 Pup Joints - H2S Service

\*NSCWP 10,000 psi

| <u>Length</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------|------------------------|--------------------|---------------------|--------------------|
| 48"           | Hammer Union           | Low Temp           | H2S                 | 2A19453            |
| 60"           | Hammer Union           | Low Temp           | H2S                 | 2A22081            |
| 72"           | Hammer Union           | Low Temp           | H2S                 | 2A19856            |
| 90"           | Hammer Union           | Low Temp           | H2S                 | 2A19454            |
| 114"          | Hammer Union           | Low Temp           | H2S                 | 2A19858            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 3" 1502 Pup Joints - Standard Service

| <u>Length</u> | <u>Connection Type</u> | <u>End Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------|------------------------|--------------------------|--------------------|---------------------|--------------------|
| 48"           | Hammer Union           |                          | Low Temp           | Standard            | 2A20522            |
| 60"           | Hammer Union           |                          | Low Temp           | Standard            | 2A24677            |
| 72"           | Hammer Union           |                          | Low Temp           | Standard            | 2A20523            |
| 90"           | Hammer Union           |                          | Low Temp           | Standard            | 2A20524            |
| 114"          | Hammer Union           |                          | Low Temp           | Standard            | 2A20526            |
| 48"           | Mix                    | 3" 15K SI x 3" 1502F     | Low Temp           | Standard            | 2A28216            |
| 48"           | Mix                    | 3" 15K SI x 3" 1502M     | Low Temp           | Standard            | 2A28179            |
| 48"           | Safety Iron            |                          | Low Temp           | Standard            | 2A27906            |
| 72"           | Mix                    | 3" 15K SI x 3" 1502M     | Low Temp           | Standard            | 2A28181            |
| 72"           | Mix                    | 3" 15K SI x 3" 1502F     | Low Temp           | Standard            | 2A28196            |

\*Note: Other parts or configurations may be available. Contact SPM.

### 3" 1502 Pup Joints - H2S Service

\*NSCWP 10,000 psi

| <u>Length</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---------------|------------------------|--------------------|---------------------|--------------------|
| 48"           | Hammer Union           | Low Temp           | H2S                 | 2A20527            |
| 60"           | Hammer Union           | Low Temp           | H2S                 | 2A22596            |
| 72"           | Hammer Union           | Low Temp           | H2S                 | 2A20528            |
| 114"          | Hammer Union           | Low Temp           | H2S                 | 2A20531            |

\*Note: Other parts or configurations may be available. Contact SPM.

## Integral Crossovers

### Short Crossovers (Under 24") - Standard Service

| Outlet/Branch Configuration | Length | Other         | Temperature | Service Type     | Part Number |
|-----------------------------|--------|---------------|-------------|------------------|-------------|
| 2" 1502F x 2" 1502F         | 7"     |               | Low Temp    | Standard         | 2P10026     |
| 2" 1502F x 3" 1502F         | 7"     |               | Std Temp    | Standard         | 3P10107     |
| 2" 1502F x 4" 1502F         | 7"     |               | Std Temp    | Standard         | 2P26413     |
| 2" 1502M x 2" 1502F         | 5.25"  |               | Std Temp    | Standard         | 3A22166     |
| 2" 1502M x 2" 1502F         | 6"     |               | Low Temp    | Standard         | 3A23131     |
| 2" 1502M x 2" 1502F         | 6.5"   |               | Std Temp    | Standard         | 3L13232     |
| 2" 1502M x 2" 1502F         | 7"     |               | Std Temp    | Standard         | 3L11579     |
| 2" 1502M x 2" 1502F         | 7"     |               | Low Temp    | Standard         | 3A22139     |
| 2" 1502M x 2" 1502F         | 8"     |               | Std Temp    | Standard         | 3A24829     |
| 2" 1502M x 2" 1502F         | 8.5"   |               | Std Temp    | Standard         | 3A23164     |
| 2" 1502M x 2" 1502F         | 10.03  |               | Std Temp    | Standard         | 3A21100     |
| 2" 1502M x 2" 1502F         | 10.03" |               | Low Temp    | Standard         | 3A21306     |
| 2" 1502M x 2" 1502F         | 12"    |               | Std Temp    | Standard         | 3A21290     |
| 2" 1502M x 2" 1502F         | 13.5"  |               | Low Temp    | Standard         | 2A29643     |
| 2" 1502M x 2" 1502F         | 13.88" |               | Low Temp    | Standard         | 3A20540     |
| 2" 1502M x 2" 1502F         | 14"    |               | Std Temp    | Standard         | 3A24833     |
| 2" 1502M x 2" 1502F         | 19.5"  |               | Low Temp    | Standard         | 2A29644     |
| 2" 1502M x 2" 1502F         | 20"    |               | Std Temp    | Standard         | 3A24746     |
| 2" 1502M x 2" 1502F         | 9"     | .25" ID Choke | Low Temp    | Standard         | 2A28868     |
| 2" 1502M x 2" 1502F         | 9"     | .5" ID Choke  | Low Temp    | Standard         | 2A28869     |
| 2" 1502M x 2" 1502F         | 8.63"  | Choke FC140   | Low Temp    | Standard         | 2A26132     |
| 2" 1502M x 2" 1502F         | 8.63"  | Choke FC140   | Low Temp    | Standard         | 3A20638     |
| 2" 1502M x 2" 1502F         | 5.5"   | Eccentric     | Low Temp    | Standard         | 2A28658     |
| 2" 1502M x 2" 1502F         | 5.88"  | Eccentric     | Low Temp    | Standard         | 2A28659     |
| 2" 1502M x 2" 1502M         | 7"     |               | Low Temp    | Standard         | 3L11571     |
| 2" 1502M x 2" 1502M         | 8.06"  |               | Low Temp    | Standard         | 3A19564     |
| 2" 1502M x 2" 1502M         | 8.5"   |               | Low Temp    | Standard         | 2A28584     |
| 2" 1502M x 2" 1502M         | 9"     |               | Std Temp    | Standard         | 3A24742     |
| 2" 1502M x 2" 1502M         | 11"    |               | Std Temp    | Standard         | 3A18213     |
| 2" 1502M x 2" 1502M         | 11"    |               | Low Temp    | Standard         | 3A20981     |
| 2" 1502M x 2" 1502M         | 12"    |               | Std Temp    | Standard         | 3A21209     |
| 2" 1502M x 2" 1502M         | 12.38" |               | Std Temp    | Standard         | 3A23676     |
| 2" 1502M x 2" 1502M         | 16.25" |               | Low Temp    | Standard         | 2A28947     |
| 2" 1502M x 3" 1502F         | 7"     |               | Std Temp    | Standard         | 3L11582     |
| 2" 1502M x 3" 1502F         | 7"     |               | Low Temp    | Standard         | 3A20090     |
| 2" 1502M x 3" 1502F         | 7"     |               | Std Temp    | Standard (Viton) | 3L13416     |
| 2" 1502M x 3" 1502M         | 7"     |               | Low Temp    | Standard         | 3A20088     |
| 2" 1502M x 3" 1502M         | 7"     |               | Std Temp    | Standard         | 3L11572     |
| 2" 1502M x 3" 602F          | 7"     |               | Std Temp    | Standard         | 3A22250     |
| 2" 1502M x 4" 1002F         | 7"     |               | Std Temp    | Standard         | 3L11588     |
| 2" 1502M x 4" 1002M         | 7"     |               | Std Temp    | Standard         | 3A24884     |
| 2" 1502M x 4" 1502F         | 7"     |               | Std Temp    | Standard         | 2A28858     |
| 2" 15K SI x 2" 1502F        | 5"     |               | Std Temp    | Standard         | 2A27798     |
| 2" 15K SI x 2" 1502M        | 6"     |               | Std Temp    | Standard         | 2A26880     |
| 2" 15K SI x 2" 1502M        | 6"     |               | Std Temp    | Standard         | 2A27797     |
| 2" 15K SI x 3" 1502F        | 5"     |               | Std Temp    | Standard         | 2A27799     |
| 2" 2002M x 2" 1502F         | 7"     |               | Low Temp    | Standard         | 3A21065     |
| 3" 1502F x 3" 1502F         | 7"     |               | Std Temp    | Standard         | 3P10109     |

|                       |        |                |          |                  |           |
|-----------------------|--------|----------------|----------|------------------|-----------|
| 3" 1502F x 3" 1502F   | 18.5"  |                | Low Temp | Standard         | 2A29672   |
| 3" 1502M x 2" 1502F   | 5.62"  |                | Std Temp | Standard         | 3L11580   |
| 3" 1502M x 2" 1502F   | 5.62"  |                | Low Temp | Standard         | 3A20089   |
| 3" 1502M x 3" 1502F   | 7"     |                | Std Temp | Standard         | 3L11583   |
| 3" 1502M x 3" 1502F   | 7"     |                | Std Temp | Standard (Viton) | 3L11583V  |
| 3" 1502M x 3" 1502F   | 8.27"  |                | Std Temp | Standard         | 2A108286  |
| 3" 1502M x 3" 1502F   | 11"    |                | Low Temp | Standard (Viton) | 2A29289   |
| 3" 1502M x 3" 1502F   | 12"    |                | Std Temp | Standard         | 2A24351   |
| 3" 1502M x 3" 1502F   | 14.44" |                | Low Temp | Standard (Viton) | 2A29293   |
| 3" 1502M x 3" 1502F   | 14.87" |                | Low Temp | Standard         | 2A111936  |
| 3" 1502M x 3" 1502F   | 14.87" |                | Std Temp | Standard         | 2A28684   |
| 3" 1502M x 3" 1502F   | 14.87" |                | Low Temp | Standard         | 2A29041   |
| 3" 1502M x 3" 1502F   | 15.5"  |                | Low Temp | Standard         | 2A33312   |
| 3" 1502M x 3" 1502F   | 16"    |                | Std Temp | Standard         | 2A27056   |
| 3" 1502M x 3" 1502F   | 17"    |                | Low Temp | Standard (Viton) | 2A29295   |
| 3" 1502M x 3" 1502F   | 18"    | 4.5" OD        | Std Temp | Standard         | 3A22436   |
| 3" 1502M x 3" 1502F   | 21"    | 4.5" OD        | Std Temp | Standard         | 2A25469   |
| 3" 1502M x 3" 1502M   | 7"     |                | Std Temp | Standard         | 3L11574   |
| 3" 1502M x 3" 1502M   | 7"     |                | Low Temp | Standard         | 3A20576   |
| 3" 1502M x 3" 1502M   | 12"    |                | Std Temp | Standard         | 3A22406   |
| 3" 1502M x 3" 1502M   | 15"    |                | Std Temp | Standard         | 2A27514   |
| 3" 1502M x 3" 602F    | 7"     |                | Std Temp | Standard         | 3A21282   |
| 3" 1502M x 4" 1002M   | 7"     |                | Std Temp | Standard         | 3A22124   |
| 3" 1502M x 4" 1502F   | 7"     |                | Low Temp | Standard         | 2A28957   |
| 3" 1502M x 4" 1502F   | 7"     |                | Std Temp | Standard         | 3L12546   |
| 3" 1502M x 4" 1502F   | 7"     |                | Std Temp | Standard         | 2A28735   |
| 3" 1502M x 4" 1502M   | 8"     |                | Std Temp | Standard         | 3A20632   |
| 3" 15K SI x 2" 1502F  | 5"     |                | Low Temp | Standard         | 2A27785   |
| 3" 15K SI x 2" 1502M  | 6"     |                | Low Temp | Standard         | 2A27788   |
| 3" 15K SI x 3" 1502F  | 5"     |                | Std Temp | Standard         | 2A27900   |
| 3" 15K SI x 3" 1502F  | 5"     |                | Low Temp | Standard         | 2A27901LT |
| 3" 15K SI x 3" 1502F  | 8.25"  | 1" ID Choke    | Low Temp | Standard         | 2A29844   |
| 3" 15K SI x 3" 1502F  | 8.25"  | 1.19" ID Choke | Low Temp | Standard         | 2A29845   |
| 3" 15K SI x 3" 1502F  | 8.25"  | 1.38" ID Choke | Low Temp | Standard         | 2A29846   |
| 3" 15K SI x 3" 1502M  | 6"     |                | Std Temp | Standard         | 2A27902   |
| 3" 15K SI x 3" 1502M  | 6"     |                | Low Temp | Standard         | 2A27903LT |
| 3" 15K SI x 3" 1502M  | 11"    |                | Low Temp | Standard         | 2A29333   |
| 3" 15K SI x 3" 1502M  | 12"    |                | Low Temp | Standard         | 2A32853   |
| 3" 15K SI x 3" 15K SI | 7.25"  |                | Low Temp | Standard         | 2A30274   |
| 3" 15K SI x 3" 15K SI | 10.91" |                | Low Temp | Standard         | 2A30344   |
| 3" 15K SI x 3" 15K SI | 11.13" |                | Low Temp | Standard         | 2A29467   |
| 3" 15K SI x 3" 15K SI | 13.63" |                | Low Temp | Standard         | 2A29422   |
| 3" 15K SI x 3" 15K SI | 13.63" |                | Std Temp | Standard         | 2A30511   |
| 3" 15K SI x 3" 15K SI | 14.25" |                | Low Temp | Standard         | 2A30414   |
| 3" 15K SI x 3" 15K SI | 14.72" |                | Low Temp | Standard         | 2A30416   |
| 3" 15K SI x 3" 15K SI | 16.54" |                | Std Temp | Standard         | 2A32433   |
| 3" 15K SI x 3" 15K SI | 16"    | 2.5" Bore      | Low Temp | Standard         | 2A29130   |
| 3" 15K SI x 3" 15K SI | 14.77" | 2.5" ID        | Low Temp | Standard         | 2A28814   |
| 3" 15K SI x 3" 15K SI | 14.77" | 2.5" ID        | Std Temp | Standard         | 2A28850   |
| 3" 15K SI x 3" 15K SI | 15.63" | 2.5" ID        | Std Temp | Standard         | 2A28639   |
| 3" 15K SI x 3" 15K SI | 8"     | 2.5" ID        | Low Temp | Standard         | 2A29680   |
| 3" 15K SI x 3" 15K SI | 8.51"  | 2.75" ID       | Low Temp | Standard         | 2A29301   |
| 3" 15K SI x 3" 15K SI | 6.5"   | 3" ID          | Std Temp | Standard         | 2A28725   |
| 3" 15K SI x 3" 15K SI | 10.16" | Adjustable     | Low Temp | Standard         | 2A28751   |
| 3" 15K SI x 3" 15K SI | 14.75" | Adjustable     | Low Temp | Standard         | 2A26719   |

|                       |        |            |          |          |           |
|-----------------------|--------|------------|----------|----------|-----------|
| 3" 15K SI x 3" 15K SI | 21"    | Adjustable | Low Temp | Standard | 2A33093   |
| 3" 15K SI x 4" 10K SI | 5"     |            | Low Temp | Standard | 2A27792   |
| 3" 602M x 2" 1502F    | 5.63"  |            | Std Temp | Standard | 3L13573   |
| 3" 602M x 3" 602F     | 7"     |            | Std Temp | Standard | 3A22251   |
| 3" 602M x 4" 602F     | 7"     |            | Std Temp | Standard | 3A22253   |
| 4" 1002F x 3" 1502M   | 7"     |            | Std Temp | Standard | 3L11589   |
| 4" 1002F x 4" 1002F   | 7"     |            | Std Temp | Standard | 2P21017   |
| 4" 1002F x 4" 1502F   | 7"     |            | Std Temp | Standard | 2P27474   |
| 4" 1002M x 2" 1502F   | 7"     |            | Std Temp | Standard | 3A19457   |
| 4" 1002M x 3" 1502F   | 7"     |            | Std Temp | Standard | 3A20832   |
| 4" 1002M x 3" 1502F   | 7"     |            | Std Temp | Standard | 3A20498   |
| 4" 1002M x 4" 1002F   | 7"     |            | Std Temp | Standard | 3A20157   |
| 4" 1002M x 4" 1002F   | 19.69" |            | Std Temp | Standard | 2A28856   |
| 4" 1002M x 4" 1002M   | 7"     |            | Std Temp | Standard | 3A19581   |
| 4" 1002M x 4" 1502F   | 8.13"  |            | Std Temp | Standard | 3A20443   |
| 4" 10K SI x 2" 1502F  | 3.75"  |            | Low Temp | Standard | 2A27790   |
| 4" 10K SI x 2" 1502F  | 6"     |            | Low Temp | Standard | 2A28158   |
| 4" 10K SI x 2" 1502M  | 7"     |            | Std Temp | Standard | 2A27795   |
| 4" 10K SI x 2" 1502M  | 7"     |            | Low Temp | Standard | 2A27791   |
| 4" 10K SI x 3" 1502F  | 5"     |            | Low Temp | Standard | 2A27786   |
| 4" 10K SI x 4" 1002F  | 5"     |            | Std Temp | Standard | 2A27977   |
| 4" 10K SI x 4" 1002F  | 20"    |            | Low Temp | Standard | 2A29189   |
| 4" 10K SI x 4" 1002M  | 7.25"  |            | Std Temp | Standard | 2A27979   |
| 4" 10K SI x 4" 1002M  | 7.25"  |            | Low Temp | Standard | 2A27980LT |
| 4" 10K SI x 4" 1502M  | 7.75"  |            | Std Temp | Standard | 2A27794   |
| 4" 1502F x 3" 1502F   | 7"     |            | Std Temp | Standard | 2P25864   |
| 4" 1502F x 4" 1502F   | 7"     |            | Low Temp | Standard | 2A33139   |
| 4" 1502F x 4" 1502F   | 7"     |            | Std Temp | Standard | 2P26750   |
| 4" 1502M x 2" 1502F   | 7"     |            | Std Temp | Standard | 2A25235   |
| 4" 1502M x 4" 1002F   | 7"     |            | Std Temp | Standard | 3A19583   |
| 4" 1502M x 4" 1002F   | 8.13"  |            | Std Temp | Standard | 3A20445   |
| 4" 1502M x 4" 1002M   | 8"     |            | Std Temp | Standard | 2A22470   |
| 4" 1502M x 4" 1502F   | 7.5"   |            | Low Temp | Standard | 2A28702   |
| 4" 1502M x 4" 1502F   | 12"    |            | Std Temp | Standard | 2A30625   |
| 4" 1502M x 4" 1502F   | 16"    |            | Low Temp | Standard | 2A28861   |
| 4" 15K SI x 3" 1502F  | 6"     |            | Low Temp | Standard | 2A28138   |
| 4" 15K SI x 3" 1502F  | 6"     |            | Low Temp | Standard | 2A28156   |
| 4" 15K SI x 3" 1502M  | 8.5"   |            | Low Temp | Standard | 2A28136   |
| 4" 15K SI x 3" 15K SI | 7"     |            | Low Temp | Standard | 2A27789   |
| 4" 15K SI x 4" 1002F  | 6"     |            | Low Temp | Standard | 2A28157   |
| 4" 15K SI x 4" 1002M  | 9.25"  |            | Low Temp | Standard | 2A28159   |
| 4" 15K SI x 4" 10K SI | 7"     |            | Low Temp | Standard | 2A29687   |
| 4" 15K SI x 4" 1502M  | 8.5"   |            | Low Temp | Standard | 2A28139   |
| 4" 15K SI x 4" 15K SI | 12"    |            | Low Temp | Standard | 2A28330   |
| 4" 15K SI x 4" 15K SI | 14"    |            | Low Temp | Standard | 2A28165   |
| 4" 15K SI x 4" 15K SI | 21"    |            | Low Temp | Standard | 2A30369   |
| 4" 15K SI x 4" 15K SI | 15.75" | 6.5" OD    | Low Temp | Standard | 2A28665   |

\*Note: Other parts or configurations may be available. Contact SPM.

### Short Crossovers (Under 24") - H2S Service

| <u>Outlet/Branch Configuration</u> | <u>Length</u> | <u>Other</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------------------|---------------|--------------|--------------------|---------------------|--------------------|
| 2" 1502F x 2" 1502F                | 7"            |              | Low Temp           | H2S                 | 3P18499            |
| 2" 1502F x 3" 1502F                | 7"            |              | Low Temp           | H2S                 | 3P19736            |
| 2" 1502M x 2" 1502F                | 5"            |              | Low Temp           | H2S                 | 2A26273            |
| 2" 1502M x 2" 1502F                | 7"            |              | Low Temp           | H2S                 | 3A19476            |

|                     |        |          |          |     |         |
|---------------------|--------|----------|----------|-----|---------|
| 2" 1502M x 2" 1502F | 10.03" |          | Low Temp | H2S | 3A25059 |
| 2" 1502M x 2" 1502F | 12"    |          | Low Temp | H2S | 3A20962 |
| 2" 1502M x 2" 1502M | 7"     |          | Low Temp | H2S | 3A18501 |
| 2" 1502M x 2" 2202F | 7"     |          | Low Temp | H2S | 3A19154 |
| 2" 1502M x 3" 1502F | 7"     |          | Low Temp | H2S | 3A20095 |
| 2" 1502M x 3" 1502M | 7"     |          | Low Temp | H2S | 3A20092 |
| 2" 2202M x 2" 1502F | 7"     |          | Low Temp | H2S | 3A21037 |
| 2" 2202M x 3" 2202F | 9"     | 1.78" ID | Low Temp | H2S | 2A27174 |
| 3" 1502F x 3" 1502F | 7"     |          | Low Temp | H2S | 3P19741 |
| 3" 1502M x 2" 1502F | 5.62"  |          | Low Temp | H2S | 3A20093 |
| 3" 1502M x 3" 1502F | 7"     |          | Low Temp | H2S | 3A21058 |
| 3" 1502M x 3" 1502M | 7"     |          | Low Temp | H2S | 3A20091 |

\*Note: Other parts or configurations may be available. Contact SPM.

### Long Crossovers (Over 24") - Standard Service

| <u>Outlet/Branch Configuration</u> | <u>Length</u> | <u>Other</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------------------|---------------|--------------|--------------------|---------------------|--------------------|
| 2" 1502M x 2" 1502F                | 24"           |              | Std Temp           | Standard            | 3A20482            |
| 2" 1502M x 2" 1502F                | 24"           |              | Low Temp           | Standard            | 3A23824            |
| 2" 1502M x 2" 1502F                | 36"           |              | Low Temp           | Standard            | 3A23376            |
| 2" 1502M x 2" 1502F                | 38"           |              | Std Temp           | Standard            | 2A24948            |
| 2" 1502M x 2" 1502F                | 49.75"        |              | Low Temp           | Standard            | 2A29968            |
| 3" 1502F x 3" 1502F                | 34"           |              | Low Temp           | Standard            | 2A30125            |
| 3" 1502F x 3" 1502F                | 36"           |              | Low Temp           | Standard            | 2A29618            |
| 3" 1502F x 3" 1502F                | 42"           |              | Std Temp           | Standard            | 2A29465            |
| 3" 1502M x 3" 1502F                | 24"           |              | Low Temp           | Standard            | 2A29010            |
| 3" 1502M x 3" 1502F                | 24"           |              | Std Temp           | Standard            | 3A23472            |
| 3" 1502M x 3" 1502F                | 31.06"        |              | Low Temp           | Standard (Viton)    | 2A29291            |
| 3" 1502M x 3" 1502F                | 36"           |              | Std Temp           | Standard            | 2A25597            |
| 3" 1502M x 3" 1502F                | 36"           |              | Low Temp           | Standard            | 2A29011            |
| 3" 1502M x 3" 1502F                | 37.38"        |              | Low Temp           | Standard            | 2A29439            |
| 3" 1502M x 3" 1502F                | 38.63"        |              | Std Temp           | Standard            | 2A26384            |
| 3" 1502M x 3" 1502F                | 39"           |              | Low Temp           | Standard            | 2A29305            |
| 3" 1502M x 3" 1502F                | 40.88"        |              | Low Temp           | Standard            | 2A30582            |
| 3" 1502M x 3" 1502F                | 42"           |              | Low Temp           | Standard            | 2A30026            |
| 3" 1502M x 3" 1502F                | 43.41"        |              | Std Temp           | Standard            | 2A28542            |
| 3" 1502M x 3" 1502F                | 48"           |              | Low Temp           | Standard            | 2A34098            |
| 3" 1502M x 3" 1502F                | 51.88"        |              | Low Temp           | Standard            | 2A29484            |
| 3" 1502M x 3" 1502F                | 61.06"        |              | Low Temp           | Standard            | 2A29766            |
| 3" 1502M x 3" 1502F                | 62"           |              | Low Temp           | Standard            | 2A30583            |
| 3" 1502M x 3" 1502F                | 62"           |              | Std Temp           | Standard            | 2A28280            |
| 3" 1502M x 3" 1502F                | 64.25"        |              | Std Temp           | Standard            | 2A26385            |
| 3" 1502M x 3" 1502F                | 65"           |              | Low Temp           | Standard            | 2A33272            |
| 3" 1502M x 3" 1502F                | 65.14"        |              | Std Temp           | Standard            | 2A28805            |
| 3" 1502M x 3" 1502F                | 65.25"        |              | Std Temp           | Standard            | 2A27057            |
| 3" 1502M x 3" 1502F                | 65.25"        |              | Low Temp           | Standard            | 2A30584            |
| 3" 1502M x 3" 1502F                | 73.875"       |              | Std Temp           | Standard            | 2A30095            |
| 3" 1502M x 3" 1502F                | 74.33"        |              | Std Temp           | Standard            | 2A28738            |
| 3" 1502M x 3" 1502F                | 82.25"        |              | Low Temp           | Standard            | 2A28582            |
| 3" 1502M x 3" 1502F                | 24"           | 4.5" OD      | Std Temp           | Standard            | 3A23861            |
| 3" 15K SI x 3" 1502F               | 25"           |              | Low Temp           | Standard            | 2A30615            |
| 3" 15K SI x 3" 1502M               | 30"           |              | Std Temp           | Standard            | 2A30493            |
| 3" 15K SI x 3" 15K SI              | 24"           |              | Low Temp           | Standard            | 2A33092            |
| 3" 15K SI x 3" 15K SI              | 27.9"         |              | Low Temp           | Standard            | 2A33604            |
| 3" 15K SI x 3" 15K SI              | 30.15"        |              | Low Temp           | Standard            | 2A32432            |
| 3" 15K SI x 3" 15K SI              | 31.25"        |              | Low Temp           | Standard            | 2A28995            |
| 3" 15K SI x 3" 15K SI              | 37.11"        |              | Low Temp           | Standard            | 2A29505            |
| 3" 15K SI x 3" 15K SI              | 58.4"         |              | Low Temp           | Standard            | 2A29503            |
| 3" 15K SI x 3" 15K SI              | 73.25"        |              | Low Temp           | Standard            | 2A29437            |

|                       |         |          |          |          |           |
|-----------------------|---------|----------|----------|----------|-----------|
| 3" 15K SI x 3" 15K SI | 75.88"  |          | Low Temp | Standard | 2A30418   |
| 3" 15K SI x 3" 15K SI | 85.22"  |          | Low Temp | Standard | 2A30420   |
| 3" 15K SI x 3" 15K SI | 48"     | 2.5" ID  | Low Temp | Standard | 2A29676   |
| 3" 15K SI x 3" 15K SI | 54.68"  | 2.5" ID  | Low Temp | Standard | 2A28769LT |
| 3" 15K SI x 3" 15K SI | 48"     | 2.75" ID | Low Temp | Standard | 2A29352   |
| 3" 15K SI x 3" 15K SI | 54.56"  | 2.75" ID | Std Temp | Standard | 2A29335   |
| 3" 15K SI x 3" 15K SI | 120.44" | 3" ID    | Std Temp | Standard | 2A28727   |
| 3" 15K SI x 3" 15K SI | 36"     | 3" ID    | Low Temp | Standard | 2A32999   |
| 3" 15K SI x 3" 15K SI | 97.25"  | 3" ID    | Std Temp | Standard | 2A28726   |
| 4" 1002M x 4" 1002F   | 24"     |          | Std Temp | Standard | 3A22497   |
| 4" 10K SI x 4" 1002F  | 32"     |          | Low Temp | Standard | 2A29091   |
| 4" 10K SI x 4" 10K SI | 32"     |          | Low Temp | Standard | 2A28993   |
| 4" 1502M x 4" 1502F   | 120"    |          | Low Temp | Standard | 2A28706   |
| 4" 1502M x 4" 1502F   | 144"    |          | Low Temp | Standard | 2A28969   |
| 4" 1502M x 4" 1502F   | 24"     |          | Low Temp | Standard | 2A28375   |
| 4" 1502M x 4" 1502F   | 30"     |          | Low Temp | Standard | 2A29132   |
| 4" 1502M x 4" 1502F   | 36"     |          | Low Temp | Standard | 2A28704   |
| 4" 1502M x 4" 1502F   | 48"     |          | Low Temp | Standard | 2A28705   |
| 4" 1502M x 4" 1502F   | 60"     |          | Low Temp | Standard | 2A28709   |
| 4" 1502M x 4" 1502F   | 72"     |          | Low Temp | Standard | 2A28630   |
| 4" 1502M x 4" 1502F   | 84"     |          | Std Temp | Standard | 2A30623   |
| 4" 1502M x 4" 1502F   | 96"     |          | Low Temp | Standard | 2A29028   |
| 4" 15K SI x 4" 1502F  | 48"     |          | Low Temp | Standard | 2A29904   |
| 4" 15K SI x 4" 1502M  | 72"     |          | Low Temp | Standard | 2A28824   |
| 4" 15K SI x 4" 15K SI | 102"    |          | Low Temp | Standard | 2A28901   |
| 4" 15K SI x 4" 15K SI | 108"    |          | Low Temp | Standard | 2A28690   |
| 4" 15K SI x 4" 15K SI | 111"    |          | Low Temp | Standard | 2A29298   |
| 4" 15K SI x 4" 15K SI | 114"    |          | Low Temp | Standard | 2A29180   |
| 4" 15K SI x 4" 15K SI | 120"    |          | Low Temp | Standard | 2A28902   |
| 4" 15K SI x 4" 15K SI | 132"    |          | Low Temp | Standard | 2A29463   |
| 4" 15K SI x 4" 15K SI | 24"     |          | Low Temp | Standard | 2A28167   |
| 4" 15K SI x 4" 15K SI | 240"    |          | Low Temp | Standard | 2A30286   |
| 4" 15K SI x 4" 15K SI | 26.8"   |          | Low Temp | Standard | 2A33168   |
| 4" 15K SI x 4" 15K SI | 33"     |          | Low Temp | Standard | 2A30371   |
| 4" 15K SI x 4" 15K SI | 36.5"   |          | Low Temp | Standard | 2A29003   |
| 4" 15K SI x 4" 15K SI | 42"     |          | Low Temp | Standard | 2A30373   |
| 4" 15K SI x 4" 15K SI | 48"     |          | Low Temp | Standard | 2A28831   |
| 4" 15K SI x 4" 15K SI | 50.5"   |          | Low Temp | Standard | 2A33166   |
| 4" 15K SI x 4" 15K SI | 60"     |          | Low Temp | Standard | 2A28873   |
| 4" 15K SI x 4" 15K SI | 60.25"  |          | Low Temp | Standard | 2A29005   |
| 4" 15K SI x 4" 15K SI | 66"     |          | Low Temp | Standard | 2A33170   |
| 4" 15K SI x 4" 15K SI | 72"     |          | Low Temp | Standard | 2A28689   |
| 4" 15K SI x 4" 15K SI | 74.25"  |          | Low Temp | Standard | 2A29730   |
| 4" 15K SI x 4" 15K SI | 84"     |          | Low Temp | Standard | 2A28961   |
| 4" 15K SI x 4" 15K SI | 88"     |          | Low Temp | Standard | 2A28985   |
| 4" 15K SI x 4" 15K SI | 90"     |          | Low Temp | Standard | 2A29176   |
| 4" 15K SI x 4" 15K SI | 96"     |          | Low Temp | Standard | 2A28900   |
| 4" 15K SI x 4" 15K SI | 72.75"  | 6.5" OD  | Low Temp | Standard | 2A28666   |

\*Note: Other parts or configurations may be available. Contact SPM.

Long Crossovers (Over 24") - H2S Service

| <u>Outlet/Branch Configuration</u> | <u>Length</u> | <u>Other</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|------------------------------------|---------------|--------------|--------------------|---------------------|--------------------|
| 2" 1502M x 2" 1502F                | 24"           |              | Low Temp           | H2S                 | 3A22938            |
| 2" 1502M x 2" 1502F                | 36"           |              | Low Temp           | H2S                 | 2A29967            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

## Laterals



**A** Note: The outlet configuration as described below corresponds with the branch labels in this illustration.

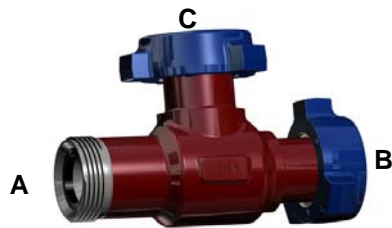
### 45 Degree Laterals

| <u>Outlet/Branch Configuration (A x B x C)</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Other</u>        | <u>Part Number</u> |
|--|--------------------|---------------------|---------------------|--------------------|
| 2" 1502F x 2" 1502M x 2" 1502F                 | Low Temp           | Standard            |                     | 3L11611            |
| 2" 1502F x 2" 1502M x 2" 1502F                 | Low Temp           | Standard            | FC-140 Choke Cavity | 2A11764            |
| 2" 1502F x 2" 1502M x 2" 1502F                 | Low Temp           | H2S                 |                     | 3A18498            |
| 2" 1502M x 2" 1502F x 2" 1502F                 | Low Temp           | Standard            |                     | 3L14032            |
| 2" 1502M x 2" 1502F x 2" 1502F                 | Low Temp           | Standard            | Rock Trap           | 2A13712            |
| 2" 1502M x 2" 1502F x 2" 1502F                 | Low Temp           | H2S                 |                     | 2A21090            |
| 2" 1502M x 2" 1502F x 2" 1502F                 | Low Temp           | Standard            | Rock Trap           | 2A28531            |
| 2" 1502M x 2" 1502F x 2" 1502M                 | Low Temp           | Standard            |                     | 3A22184            |
| 3" 1502F x 3" 1502M x 2" 1502F                 | Low Temp           | Standard            | N2 Choke Cavity     | 3A21008            |
| 3" 1502F x 3" 1502M x 2" 1502F                 | Low Temp           | Standard            |                     | 3L11616            |
| 3" 1502F x 3" 1502M x 3" 1502F                 | Low Temp           | Standard            |                     | 3L11613            |
| 3" 1502F x 4" 1002M x 3" 1502F                 | Low Temp           | Standard            |                     | 3A20513            |
| 3" 1502M x 3" 1502F x 3" 1502F                 | Low Temp           | Standard            |                     | 3A20010            |
| 3" 1502M x 3" 1502F x 3" 1502M                 | Low Temp           | Standard            |                     | 3A16949            |
| 3" 1502M x 3" 1502M x 3" 1502F                 | Low Temp           | Standard            |                     | 3A24880            |
| 3" 1502M x 4" 1002F x 3" 1502M                 | Low Temp           | Standard            | Reduced Bore        | 2A29056            |
| 3" 1502M x 4" 1502F x 3" 1502M                 | Low Temp           | Standard            |                     | 2A28729            |
| 3" 15K SI x 3" 15K SI x 3" 15K SI              | Low Temp           | Standard            |                     | 2A27834            |
| 4" 1002F x 4" 1002M x 3" 1502F                 | Low Temp           | Standard            |                     | 3A21270            |
| 4" 1002F x 4" 1002M x 4" 1002F                 | Low Temp           | Standard            |                     | 3L12998            |
| 4" 1002F x 4" 1002M x 4" 1002F                 | Low Temp           | Standard            |                     | 2A29143            |
| 4" 1002M x 4" 1002F x 4" 1002F                 | Low Temp           | Standard            |                     | 3L14670            |
| 4" 1002M x 4" 1002F x 4" 1002M                 | Low Temp           | Standard            |                     | 2A26157            |
| 4" 10K SI x 4" 10K SI x 3" 1502F               | Low Temp           | Standard            |                     | 2A27831            |
| 4" 10K SI x 4" 10K SI x 3" 15K SI              | Low Temp           | Standard            |                     | 2A27832            |
| 4" 1502F x 4" 1502M x 3" 1502F                 | Low Temp           | Standard            |                     | 2A26756            |
| 4" 1502F x 4" 1502M x 4" 1502F                 | Low Temp           | Standard            |                     | 2A21296            |
| 4" 1502F x 4" 1502M x 4" 15K SI                | Low Temp           | Standard            |                     | 2A29444            |
| 4" 1502M x 4" 1502F x 3" 1502F                 | Low Temp           | Standard            |                     | 2A26759            |
| 4" 1502M x 4" 1502F x 3" 1502M                 | Low Temp           | Standard            |                     | 2A26754            |
| 4" 1502M x 4" 1502F x 4" 1502M                 | Low Temp           | Standard            |                     | 2A28733            |
| 4" 15K SI x 3" 1502M x 3" 1502M                | Low Temp           | Standard            |                     | 2A28316            |
| 4" 15K SI x 4" 1502F x 3" 1502F                | Low Temp           | Standard            |                     | 2A28663            |
| 4" 15K SI x 4" 15K SI x 3" 1502F               | Low Temp           | Standard            | 2.75" ID            | 2A29848            |
| 4" 15K SI x 4" 15K SI x 3" 15K SI              | Low Temp           | Standard            |                     | 2A28162            |
| 4" 15K SI x 4" 15K SI x 3" 15K SI              | Low Temp           | Standard            |                     | 2A29419            |
| 4" 15K SI x 4" 15K SI x 4" 15K SI              | Low Temp           | Standard            |                     | 2A28635            |

\*Note: Other parts or configurations may be available. Contact SPM.



Tees



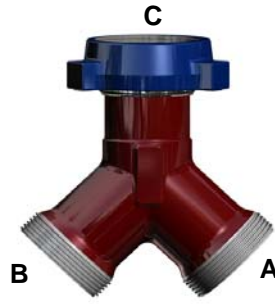
Note: The outlet configuration as described below corresponds with the branch labels in this illustration.

| Outlet/Branch Configuration (A x B x C)         | Temperature | Service Type     | Other                       | Part Number |
|---|-------------|------------------|-----------------------------|-------------|
| 2" 1502F x 2" 1502F x 2" 1502F                  | Low Temp    | Standard         |                             | 2A13794     |
| 2" 1502F x 2" 1502F x 2" 1502F                  | Low Temp    | H2S              |                             | 2P16900     |
| 2" 1502F x 2" 1502F x 2" 1502M                  | Low Temp    | Standard         |                             | 3L13150     |
| 2" 1502F x 2" 1502F x 2" 1502M                  | Low Temp    | H2S              |                             | 2A16897     |
| 2" 1502F x 2" 1502M x 2" 1502F                  | Low Temp    | H2S              |                             | 2A16768     |
| 2" 1502F x 2" 1502M x 2" 1502F                  | Low Temp    | Standard         |                             | 3L11592     |
| 2" 1502F x 2" 1502M x 2" 1502F                  | Low Temp    | Standard (Viton) |                             | 3L13302     |
| 2" 1502F x 2" 1502M x 2" 1502F                  | Low Temp    | Standard         | Choke - Non Ported          | 2A26278     |
| 2" 1502F x 2" 1502M x 2" 1502F                  | Low Temp    | H2S              | Choke - Non Ported          | 2A26283     |
| 2" 1502F x 2" 1502M x 2" 1502F                  | Low Temp    | Standard         | Choke - AE F-562-C Port (L) | 2A26280     |
| 2" 1502F x 2" 1502M x 2" 1502F                  | Low Temp    | Standard         | Choke - AE F-562-C Port (R) | 2A26281     |
| 2" 1502F x 2" 1502M x 2" 1502F                  | Low Temp    | H2S              | Choke - AE F-562-C Port (L) | 2A26285     |
| 2" 1502F x 2" 1502M x 2" 1502F                  | Low Temp    | H2S              | Choke - AE F-562-C Port (R) | 2A26286     |
| 2" 1502F x 2" 1502M x 2" 1502M                  | Low Temp    | Standard         |                             | 3L13230     |
| 2" 1502F x 2" 1502M x 2" 1502M                  | Low Temp    | Standard (Viton) |                             | 3L14509     |
| 2" 1502F x 2" 1502M x 2" 1502M                  | Low Temp    | H2S              |                             | 2A16770     |
| 2" 1502F x 2" 1502M x 4" 1002F                  | Low Temp    | Standard         |                             | 3A22198     |
| 2" 1502F x 3" 1502F x 3" 1502M                  | Low Temp    | Standard         |                             | 2A28803     |
| 2" 1502F x 3" 1502M x 2" 1502F                  | Low Temp    | Standard         |                             | 3A22199     |
| 2" 1502F x 2" 1502F x 2" 1502F x 2" 1502F Gauge | Low Temp    | Standard         | Gauge Tee                   | 2A25993     |
| 2" 1502F x 2" 1502M x 2" 1502F x 2" 1502F Gauge | Low Temp    | Standard         | Gauge Tee                   | 2A13402     |
| 2" 1502F x 2" 1502M x 2" 1502F x 2" 1502F Gauge | Low Temp    | Standard (Viton) | Gauge Tee                   | 2A13402V    |
| 2" 1502M x 2" 1502M x 2" 1502F                  | Low Temp    | Standard         |                             | 3L13229     |
| 2" 1502M x 2" 1502M x 2" 1502F                  | Low Temp    | H2S              |                             | 2A16769     |
| 2" 1502M x 2" 1502M x 2" 1502M                  | Low Temp    | Standard         |                             | 3L11598     |
| 2" 1502M x 2" 1502M x 2" 1502M                  | Low Temp    | H2S              |                             | 2A16898     |
| 2" 1502M x 2" 1502F x 2" 1502M x 2" 1502F Gauge | Low Temp    | Standard         | Gauge Tee                   | 2A25992     |
| 2" 1502M x 2" 1502F x 2" 1502F x 2" 1502F Gauge | Low Temp    | Standard (Viton) | Gauge Tee                   | 2A20150V    |
| 2" 15K SI x 2" 15K SI x 2" 15K SI               | Low Temp    | Standard         |                             | 2A27813     |
| 2" 2202F x 2" 2202F x 2" 2202M                  | Low Temp    | H2S              |                             | 3A22204     |
| 2" 2202F x 2" 2202M x 2" 2202F                  | Low Temp    | H2S              |                             | 3A22205     |
| 3" 1502F x 2" 1502M x 2" 1502M                  | Low Temp    | Standard         |                             | 3A22189     |
| 3" 1502F x 3" 1502F x 3" 1502F                  | Low Temp    | Standard         |                             | 3L16472     |
| 3" 1502F x 3" 1502F x 3" 1502M                  | Low Temp    | Standard         |                             | 3L13151     |
| 3" 1502F x 3" 1502M x 2" 1502F                  | Low Temp    | Standard         |                             | 3L11593     |
| 3" 1502F x 3" 1502M x 2" 1502M                  | Low Temp    | Standard         |                             | 3A23126     |
| 3" 1502F x 3" 1502M x 2" 1502M                  | Low Temp    | H2S              |                             | 3A22335     |
| 3" 1502F x 3" 1502M x 3" 1502F                  | Low Temp    | Standard         |                             | 3L11594     |
| 3" 1502F x 3" 1502M x 3" 1502F                  | Low Temp    | Standard (Viton) |                             | 3L13300     |
| 3" 1502F x 3" 1502M x 3" 1502F                  | Low Temp    | H2S              |                             | 2A18096     |
| 3" 1502F x 3" 1502M x 3" 1502M                  | Low Temp    | Standard         |                             | 3L19916     |
| 3" 1502F x 3" 1502M x 3" 1502M                  | Low Temp    | Standard (Viton) |                             | 3L19916V    |
| 3" 1502F x 3" 1502M x 3" 1502M                  | Low Temp    | H2S              |                             | 3L16702     |
| 3" 1502F x 2" 1502M x 3" 1502F x 2" 1502F Gauge | Low Temp    | Standard         | Gauge Tee                   | 2A14458     |
| 3" 1502F x 3" 1502M x 2" 1502F x 2" 1502F Gauge | Low Temp    | Standard         | Gauge Tee                   | 2A24985     |
| 3" 1502F x 3" 1502M x 3" 1502F x 2" 1502F       | Low Temp    | Standard         |                             | 2A29288     |
| 3" 1502M x 2" 1502F x 3" 1502F                  | Low Temp    | Standard         |                             | 3A22188     |
| 3" 1502M x 3" 1502M x 2" 1502F                  | Low Temp    | Standard         |                             | 3A24879     |
| 3" 1502M x 3" 1502M x 3" 1502F                  | Low Temp    | Standard         |                             | 2A25417     |
| 3" 1502M x 3" 1502M x 3" 1502M                  | Low Temp    | Standard         |                             | 3L11599     |
| 3" 1502M x 3" 1502M x 3" 1502M                  | Low Temp    | H2S              |                             | 3L16704     |
| 3" 1502M x 3" 1502F x 3" 1502M x 2" 1502F Gauge | Low Temp    | Standard         | Gauge Tee                   | 2A29204     |
| 3" 15K SI x 3" 15K SI x 2" 1502F                | Low Temp    | Standard         |                             | 2A27997     |
| 3" 15K SI x 3" 15K SI x 2" 1502F                | Low Temp    | Standard         | 3" ID                       | 2A29717     |
| 3" 15K SI x 3" 15K SI x 3" 1502F                | Low Temp    | Standard         |                             | 2A27998     |
| 3" 15K SI x 3" 15K SI x 3" 1502F                | Low Temp    | Standard         |                             | 2A28745     |

|                                   |          |                  |          |          |
|-----------------------------------|----------|------------------|----------|----------|
| 3" 15K SI x 3" 15K SI x 3" 15K SI | Low Temp | Standard         |          | 2A27809  |
| 3" 15K SI x 3" 15K SI x 3" 15K SI | Low Temp | Standard         | 2.75" ID | 2A29339  |
| 3" 15K SI x 3" 15K SI x 3" 15K SI | Low Temp | Standard         | 3" ID    | 2A29714  |
| 3" 15K SI x 4" 15K SI x 4" 15K SI | Low Temp | Standard         |          | 2A29164  |
| 4" 1002F x 4" 1002F x 4" 1002M    | Low Temp | Standard         |          | 2A28894  |
| 4" 1002F x 4" 1002M x 2" 1502F    | Low Temp | Standard         | 3.88" ID | 2A27060  |
| 4" 1002F x 4" 1002M x 2" 1502F    | Low Temp | Standard         | 4" ID    | 2A29147  |
| 4" 1002F x 4" 1002M x 2" 1502M    | Low Temp | Standard         |          | 2A29491  |
| 4" 1002F x 4" 1002M x 3" 1502F    | Low Temp | Standard         |          | 3L12827  |
| 4" 1002F x 4" 1002M x 4" 1002F    | Low Temp | Standard         |          | 3L12826  |
| 4" 1002F x 4" 1002M x 4" 1002M    | Low Temp | Standard         |          | 2A28544  |
| 4" 1002M x 4" 1002F x 2" 1502F    | Low Temp | Standard         |          | 3A19580  |
| 4" 1002M x 4" 1002F x 3" 15K SI   | Low Temp | Standard         |          | 2A28964  |
| 4" 10K SI x 4" 10K SI x 2" 1502F  | Low Temp | Standard         |          | 2A28001  |
| 4" 10K SI x 4" 10K SI x 2" 15K SI | Low Temp | Standard         |          | 2A27816  |
| 4" 10K SI x 4" 10K SI x 3" 1502F  | Low Temp | Standard         |          | 2A28002  |
| 4" 10K SI x 4" 10K SI x 4" 10K SI | Low Temp | Standard         |          | 2A27810  |
| 4" 1502F x 4" 1502F x 4" 1502M    | Low Temp | Standard         |          | 2A25855  |
| 4" 1502F x 4" 1502M x 2" 1502F    | Low Temp | Standard         |          | 2A26065  |
| 4" 1502F x 4" 1502M x 2" 1502M    | Low Temp | Standard         |          | 2A26467  |
| 4" 1502F x 4" 1502M x 3" 1502F    | Low Temp | Standard         |          | 2A25853  |
| 4" 1502F x 4" 1502M x 3" 1502F    | Low Temp | Standard (Viton) |          | 2A25853V |
| 4" 1502F x 4" 1502M x 3" 15K SI   | Low Temp | Standard         |          | 2A28481  |
| 4" 1502F x 4" 1502M x 4" 1502F    | Low Temp | Standard         |          | 2A25990  |
| 4" 1502F x 4" 1502M x 4" 1502M    | Low Temp | Standard         |          | 2A24928  |
| 4" 1502M x 4" 1502F x 3" 1502M    | Low Temp | Standard         |          | 2A27345  |
| 4" 1502M x 4" 1502M x 4" 1502F    | Low Temp | Standard         |          | 2A29970  |
| 4" 15K SI x 4" 15K SI x 2" 15K SI | Low Temp | Standard         |          | 2A29366  |
| 4" 15K SI x 4" 15K SI x 3" 1502F  | Low Temp | Standard         |          | 2A28004  |
| 4" 15K SI x 4" 15K SI x 3" 1502M  | Low Temp | Standard         |          | 2A28667  |
| 4" 15K SI x 4" 15K SI x 3" 15K SI | Low Temp | Standard         |          | 2A27811  |
| 4" 15K SI x 4" 15K SI x 3" 15K SI | Low Temp | Standard         | 3" ID    | 2A29415  |
| 4" 15K SI x 4" 15K SI x 4" 15K SI | Low Temp | Standard         |          | 2A28140  |

\*Note: Other parts or configurations may be available. Contact SPM.

**Wyes**

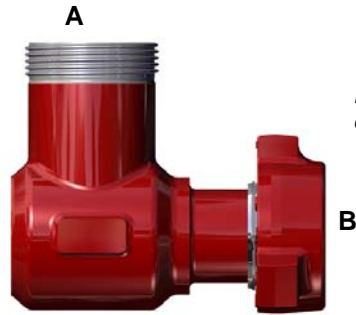


*Note: The outlet configuration as described below corresponds with the branch labels in this illustration.*

| <b>Outlet/Branch Configuration (A x B x C)</b> | <b>Temperature</b> | <b>Service Type</b> | <b>Part Number</b> |
|--|--------------------|---------------------|--------------------|
| 2" 1502F x 2" 1502F x 2" 1502M                 | Low Temp           | Standard            | 3L13139            |
| 2" 1502F x 2" 1502F x 2" 1502M                 | Low Temp           | H2S                 | 3A20226            |
| 2" 1502F x 2" 1502M x 2" 1502F                 | Low Temp           | Standard            | 2A29185            |
| 2" 1502F x 2" 1502M x 2" 1502M                 | Low Temp           | Standard            | 3A22926            |
| 2" 1502M x 2" 1502M x 2" 1502F                 | Low Temp           | Standard            | 3L13143            |
| 2" 1502M x 2" 1502M x 2" 1502F                 | Low Temp           | H2S                 | 3A21102            |
| 3" 1502F x 3" 1502F x 3" 1502M                 | Low Temp           | Standard            | 2L14419            |
| 3" 1502F x 3" 1502F x 3" 1502M                 | Low Temp           | Standard            | 2L14419V           |
| 3" 1502F x 3" 1502F x 3" 1502M                 | Low Temp           | H2S                 | 3A21104            |
| 3" 1502M x 2" 1502F x 2" 1502F                 | Low Temp           | Standard            | 2A25558            |
| 3" 1502M x 3" 1502M x 3" 1502F                 | Low Temp           | Standard            | 3L13144            |
| 4" 1002F x 4" 1002F x 4" 1002M                 | Low Temp           | Standard            | 3L13141            |
| 4" 1002M x 4" 1002F x 4" 1002F                 | Low Temp           | Standard            | 2A29145            |
| 4" 1002M x 4" 1002M x 4" 1002F                 | Low Temp           | Standard            | 3L13146            |
| 4" 1502M x 4" 1502M x 4" 1502F                 | Low Temp           | Standard            | 2A25857            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

Ells

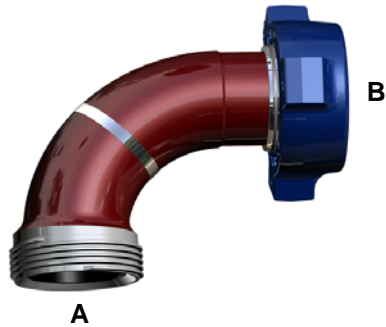


Note: The outlet configuration as described below corresponds with the brach labels in this illustration.

Ells

| <u>Outlet/Branch Configuration (A x B)</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Type</u> | <u>Part Number</u> |
|--|--------------------|---------------------|-------------|--------------------|
| 2" 1502F x 2" 1502M                        | Low Temp           | Standard            | Standard    | 3L13234            |
| 2" 1502F x 2" 1502M                        | Low Temp           | H2S                 | Standard    | 2A21068            |
| 2" 1502F x 2" 1502M                        | Low Temp           | Standard            | Target      | 2A25338            |
| 2" 1502F x 2" 1502M                        | Low Temp           | H2S                 | Target      | 2A25339            |
| 2" 1502F x 2" 1502M                        | Low Temp           | Standard            | Cushion     | 2A25522            |
| 2" 1502F x 2" 1502M                        | Low Temp           | Standard (Viton)    | Cushion     | 2A26314            |
| 2" 1502F x 2" 1502M                        | Low Temp           | H2S                 | Cushion     | 2A26659            |
| 2" 1502F x 2" 1502M x 2" 1502F             | Low Temp           | Standard            | Gauge       | 3L14451            |
| 2" 1502M x 2" 1502F                        | Low Temp           | Standard            | 45 Degree   | 3A20075            |
| 2" 1502M x 2" 1502M                        | Low Temp           | Standard            | Standard    | 3L14476            |
| 2" 1502M x 2" 1502M                        | Low Temp           | H2S                 | Standard    | 2A21069            |
| 2" 15K SI x 2" 15K SI                      | Low Temp           | Standard            | Standard    | 2A27837            |
| 3" 1502F x 3" 1502M                        | Low Temp           | Standard            | Standard    | 3L14591            |
| 3" 1502F x 3" 1502M                        | Low Temp           | Standard            | Target      | 2A26012            |
| 3" 1502M x 3" 1502F                        | Low Temp           | Standard            | 45 Degree   | 1A24627            |
| 3" 1502M x 3" 1502F                        | Low Temp           | H2S                 | Standard    | 2A19202            |
| 3" 1502M x 3" 1502F                        | Low Temp           | Standard            | Target      | 2A26013            |
| 3" 1502M x 3" 1502M                        | Low Temp           | Standard            | Standard    | 3L14996            |
| 3" 15K SI x 2" 15K SI                      | Low Temp           | Standard            | Standard    | 2A28724            |
| 3" 15K SI x 3" 15K SI                      | Low Temp           | Standard            | Standard    | 2A27838            |
| 3" 15K SI x 3" 15K SI                      | Low Temp           | Standard            | 45 Degree   | 2A28750            |
| 4" 1002F x 4" 1002M                        | Low Temp           | Standard            | Standard    | 3L14430            |
| 4" 1502F x 4" 1502M                        | Low Temp           | Standard            | Standard    | 2A27100            |
| 4" 15K SI x 4" 15K SI                      | Low Temp           | Standard            | Standard    | 2A28155            |

\*Note: Other parts or configurations may be available. Contact SPM.

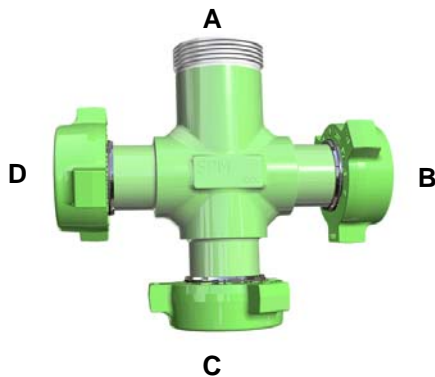


Long Radius Ells

| <u>Outlet/Branch Configuration (A x B)</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--|--------------------|---------------------|--------------------|
| 2" 1502F x 2" 1502M                        | Low Temp           | Standard            | 3A20534            |
| 2" 1502F x 2" 1502M                        | Low Temp           | H2S                 | 3A20535            |

\*Note: Other parts or configurations may be available. Contact SPM.

**Crosses**



**Standard Crosses**

| <u>Outlet/Branch Configuration (A x B x C x D)</u>            | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|---|--------------------|---------------------|--------------------|
| 2" 1502F x 2" 1502F x 2" 1502F x 2" 1502F                     | Low Temp           | Standard            | 2P10775            |
| 2" 1502F x 2" 1502F x 2" 1502M x 2" 1502F                     | Low Temp           | Standard            | 3L11607            |
| 2" 1502F x 2" 1502F x 2" 1502M x 2" 1502F                     | Low Temp           | H2S                 | 3A20544            |
| 2" 1502F x 2" 1502M x 2" 1502M x 2" 1502F                     | Low Temp           | Standard            | 3L11603            |
| 2" 1502F x 2" 1502M x 2" 1502M x 2" 1502M                     | Low Temp           | Standard            | 1A19904            |
| 2" 1502F x 2" 1502M x 2" 1502M x 2" 1502M                     | Low Temp           | H2S                 | 2A21081            |
| 2" 1502M x 2" 1502M x 2" 1502M x 2" 1502M                     | Low Temp           | Standard            | 2A22907            |
| 3" 1502F x 2" 1502F x 3" 1502M x 2" 1502F                     | Low Temp           | Standard            | 3A19910            |
| 3" 1502F x 2" 1502M x 3" 1502M x 2" 1502F                     | Low Temp           | Standard            | 3A22178            |
| 3" 1502F x 3" 1502F x 3" 1502F x 3" 1502F                     | Low Temp           | Standard            | 2P25055            |
| 3" 1502F x 3" 1502F x 3" 1502M x 3" 1502F                     | Low Temp           | Standard            | 3L11608            |
| 3" 1502F x 3" 1502F x 3" 1502M x 3" 1502F                     | Low Temp           | H2S                 | 2A21085            |
| 3" 1502F x 3" 1502M x 3" 1502M x 3" 1502F                     | Low Temp           | Standard            | 3L11605            |
| 3" 1502M x 3" 1502M x 3" 1502M x 3" 1502M                     | Low Temp           | Standard            | 3L14320            |
| 3" 15K SI x 3" 15K SI x 3" 15K SI x 2" 1502F                  | Low Temp           | Standard            | 2A29497            |
| 4" 1002F x 2" 1502F x 4" 1002M x 2" 1502F                     | Low Temp           | Standard            | 3A20837            |
| 4" 1002F x 3" 1502F x 4" 1002M x 3" 1502F                     | Low Temp           | Standard            | 3A20835            |
| 4" 1002F x 4" 1002F x 4" 1002F x 4" 1002F                     | Low Temp           | Standard            | 2A26958            |
| 4" 1002F x 4" 1002M x 4" 1002M x 4" 1002F                     | Low Temp           | Standard            | 3A22179            |
| 4" 1002M x 4" 1002F x 4" 1002F x 4" 1002F                     | Low Temp           | Standard            | 3A24047            |
| 4" 1002M x 4" 1002F x 4" 1002F x 4" 1002F                     | Low Temp           | Standard            | 3L12838            |
| 4" 15K SI x 4" 15K SI (Short) x 4" 15K SI x 4" 15K SI (Short) | Low Temp           | Standard            | 2P32585            |

\*Note: Other parts or configurations may be available. Contact SPM.

**Gauge Crosses**

| <u>Outlet/Branch Configuration</u>                   | <u>Temperature</u> | <u>Service Type</u> | <u>Other</u> | <u>Part Number</u> |
|--|--------------------|---------------------|--------------|--------------------|
| 3" 1502F x 2" 1502F x 3" 1502M x 2" 1502F x 2" 1502F | Low Temp           | Standard            |              | 3A19678            |
| 3" 1502F x 3" 1502F x 3" 1502M x 2" 1502F            | Low Temp           | Standard            |              | 3A20012            |
| 4" 1002F x 2" 1502F x 4" 1002M x 2" 1502F x 2" 1502F | Low Temp           | Standard            |              | 3A20583            |
| 4" 1002F x 3" 1502F x 4" 1002M x 3" 1502F x 2" 1502F | Low Temp           | Standard            |              | 2A27283            |
| 4" 1002F x 3" 1502F x 4" 1002M x 3" 1502F x 2" 1502F | Low Temp           | Standard            | 3.88" ID     | 2A27534            |
| 4" 1002F x 4" 1002F x 4" 1002M x 4" 1002F x 2" 1502F | Low Temp           | Standard            |              | 3L14450            |

\*Note: Other parts or configurations may be available. Contact SPM.

**Bull Plugs****2" Bull Plugs**

| <u>Connection Rating</u> | <u>Connection Type</u> | <u>End Type</u> | <u>Other</u>             | <u>Temperature</u> | <u>Part Number</u> |
|--------------------------|------------------------|-----------------|--------------------------|--------------------|--------------------|
| 15K SI                   | Safety Iron            |                 |                          | Std Temp           | 2A28653            |
| 15K SI                   | Safety Iron            |                 | Clamp Not Included       | Std Temp           | 2P26671            |
| Fig 1502                 | Hammer Union           | Male            |                          | Low Temp           | 3A20349            |
| Fig 1502                 | Hammer Union           | Male            |                          | Std Temp           | 3A12737            |
| Fig 1502                 | Hammer Union           | Male            | Lifting Assembly         | Std Temp           | 3A22113            |
| Fig 1502                 | Hammer Union           | Male            | Wingnut Not Included     | Std Temp           | 3P10141            |
| Fig 1502                 | Hammer Union           | Female          |                          | Std Temp           | 3P10149            |
| Fig 1502                 | Hammer Union           | Female          | Lifting Assembly         | Std Temp           | 3A22429            |
| Fig 1502                 | Hammer Union           | Female          | Lifting (Bull Plug Only) | Std Temp           | 3P10511            |
| Fig 1502                 | Hammer Union           | Male            |                          | Std Temp           | 3A20314            |
| Fig 1502                 | Hammer Union           | Male            | Wingnut Not Included     | Low Temp           | 3P13261            |
| Fig 206                  | Hammer Union           | Male            |                          | Std Temp           | 2A29736            |
| Fig 206                  | Hammer Union           | Male            | Wingnut Not Included     | Std Temp           | 3P13927            |

\*Note: Other parts or configurations may be available. Contact SPM.

**3" Bull Plugs**

| <u>Connection Rating</u> | <u>Connection Type</u> | <u>End Type</u> | <u>Other</u>             | <u>Temperature</u> | <u>Part Number</u> |
|--------------------------|------------------------|-----------------|--------------------------|--------------------|--------------------|
| 15K SI                   | Safety Iron            |                 |                          | Std Temp           | 2A28654            |
| Fig 1502                 | Hammer Union           | Male            |                          | Low Temp           | 3A20681            |
| Fig 1502                 | Hammer Union           | Male            |                          | Std Temp           | 3A12738            |
| Fig 1502                 | Hammer Union           | Male            | Wingnut Not Included     | Std Temp           | 3P10142            |
| Fig 1502                 | Hammer Union           | Male            | Lifting Assembly         | Std Temp           | 3A22130            |
| Fig 1502                 | Hammer Union           | Female          |                          | Std Temp           | 3P10151            |
| Fig 1502                 | Hammer Union           | Female          | Lifting Assembly         | Std Temp           | 2A27024            |
| Fig 1502                 | Hammer Union           | Female          | Lifting (Bull Plug Only) | Std Temp           | 3P10513            |
| Fig 1502                 | Hammer Union           | Male            |                          | Low Temp           | 3A20316            |
| Fig 206                  | Hammer Union           | Male            |                          | Std Temp           | 2A28193            |
| Fig 206                  | Hammer Union           | Male            | Wingnut Not Included     | Std Temp           | 2P25269            |
| Fig 602                  | Hammer Union           | Male            |                          | Std Temp           | 3A21280            |

\*Note: Other parts or configurations may be available. Contact SPM.

**4" Bull Plugs**

| <u>Connection Rating</u> | <u>Connection Type</u> | <u>End Type</u> | <u>Other</u>         | <u>Temperature</u> | <u>Part Number</u> |
|--------------------------|------------------------|-----------------|----------------------|--------------------|--------------------|
| 10K SI                   | Safety Iron            |                 | Clamp Not Included   | Std Temp           | 2P26663            |
| 15K SI                   | Safety Iron            |                 |                      | Low Temp           | 2A29036            |
| 15K SI                   | Safety Iron            |                 | Clamp Not Included   | Low Temp           | 2P29035            |
| 15K SI                   | Safety Iron            |                 |                      | Std Temp           | 2A28636            |
| 15K SI                   | Safety Iron            |                 | Clamp Not Included   | Std Temp           | 2P27106            |
| Fig 1002                 | Hammer Union           | Male            |                      | Std Temp           | 3A12742            |
| Fig 1002                 | Hammer Union           | Male            | Wingnut Not Included | Std Temp           | 3P12743            |
| Fig 1002                 | Hammer Union           | Male            | Lifting Assembly     | Std Temp           | 3A22120            |
| Fig 1002                 | Hammer Union           | Female          |                      | Std Temp           | 3P10995            |
| Fig 1502                 | Hammer Union           | Male            |                      | Low Temp           | 2A33142            |
| Fig 1502                 | Hammer Union           | Male            | Wingnut Not Included | Low Temp           | 2P33134            |
| Fig 1502                 | Hammer Union           | Male            |                      | Std Temp           | 3A20967            |
| Fig 1502                 | Hammer Union           | Male            | Wingnut Not Included | Std Temp           | 2P16725            |
| Fig 1502                 | Hammer Union           | Female          |                      | Std Temp           | 2P22454            |
| Fig 100                  | Hammer Union           | Male            |                      | Std Temp           | 3A22441            |
| Fig 200/206/207          | Hammer Union           | Female          | Western Pump Style   | Std Temp           | 3P18008            |
| Fig 206                  | Hammer Union           | Male            |                      | Std Temp           | 2A28194            |
| Fig 206                  | Hammer Union           | Male            | Wingnut Not Included | Std Temp           | 3P24161            |
| Fig 206                  | Hammer Union           | Male            | Retainer Ring Groove | Std Temp           | 2A28795            |

\*Note: Other parts or configurations may be available. Contact SPM.

Other Bull Plugs

| <u>Connection Rating</u> | <u>Connection Type</u> | <u>End Type</u> | <u>Other</u>         | <u>Temperature</u> | <u>Part Number</u> |
|--------------------------|------------------------|-----------------|----------------------|--------------------|--------------------|
| 1" Fig 200               | Hammer Union           | Male            | Wingnut Not Included | Std Temp           | 3P20705            |
| 6" Fig 206               | Hammer Union           | Female          |                      | Std Temp           | 2P19156            |
| 8" Fig 206               | Hammer Union           | Male            |                      | Std Temp           | 2A33004            |

\*Note: Other parts or configurations may be available. Contact SPM.

2" Gauge Plugs

| <u>Connection Rating</u> | <u>Connection Type</u> | <u>End Type</u>    | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--------------------------|------------------------|--------------------|--------------------|---------------------|--------------------|
| Fig 1502                 | Hammer Union           | Male               | Low Temp           | Standard            | 3A21291            |
| Fig 1502                 | Hammer Union           | Male               | Std Temp           | Standard            | 3A20058            |
| Fig 1502                 | Hammer Union           | Male (No Wing Nut) | Std Temp           | Standard            | 3P10145            |
| Fig 1502                 | Hammer Union           | Male               | Low Temp           | H2S                 | 3A21152            |
| Fig 1502                 | Hammer Union           | Male               | Std Temp           | Standard            | 3A22077            |
| Fig 1502                 | Hammer Union           | Male               | Std Temp           | Standard            | 3A22713            |
| Fig 1502                 | Hammer Union           | Male               | Std Temp           | Standard            | 3A24692            |
| Fig 1502                 | Hammer Union           | Female             | Std Temp           | Standard            | 3P10519            |
| Fig 1502                 | Hammer Union           | Female             | Low Temp           | H2S                 | 3P20241            |

\*Note: Other parts or configurations may be available. Contact SPM.

3" Gauge Plugs

| <u>Connection Rating</u> | <u>Connection Type</u> | <u>End Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--------------------------|------------------------|-----------------|--------------------|---------------------|--------------------|
| Fig 1502                 | Hammer Union           | Male            | Low Temp           | Standard            | 3A21316            |
| Fig 1502                 | Hammer Union           | Male            | Std Temp           | Standard            | 3A22214            |
| Fig 1502                 | Hammer Union           | Male            | Std Temp           | Standard            | 3A22716            |
| Fig 1502                 | No Hammer Union        | Female          | Std Temp           | Standard            | 3P10520            |
| Fig 1502                 | No Hammer Union        | Female          | Std Temp           | Standard            | 3P23318            |

\*Note: Other parts or configurations may be available. Contact SPM.

4" Gauge Plugs

| <u>Connection Rating</u> | <u>Connection Type</u> | <u>End Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|--------------------------|------------------------|-----------------|--------------------|---------------------|--------------------|
| Fig 1002                 | Hammer Union           | Male            | Std Temp           | Standard            | 3A22722            |

\*Note: Other parts or configurations may be available. Contact SPM.

**Swages**

## Swages

| <u>Outlet/Branch Configuration</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Other</u>         | <u>Part Number</u> |
|------------------------------------|--------------------|---------------------|----------------------|--------------------|
| 2" 1502 x 2.00 LPTL                | Std Temp           | Standard            | With Flats           | 2P24925            |
| 2" 1502F x 1.5 LPT                 | Std Temp           | Standard            |                      | 3P13408            |
| 2" 1502F x 2.00 LPTL               | Std Temp           | Standard            |                      | 3P10286            |
| 2" 1502F x 2.00 LPTL               | Std Temp           | Standard            |                      | 3P20227            |
| 2" 1502F x 2.38 EUE                | Std Temp           | Standard            |                      | 3P10288            |
| 2" 1502F x 2.38 EUE                | Std Temp           | Standard            | With Flats           | 2P24926            |
| 2" 1502F x 2.88 EUE                | Std Temp           | Standard            |                      | 3P10290            |
| 2" 1502F x 3.00 LPT                | Std Temp           | Standard            |                      | 3P10362            |
| 2" 1502F x 3.5 8EUE                | Std Temp           | Standard            |                      | 3P11955            |
| 2" 1502M x 1.5 LPT                 | Std Temp           | Standard            |                      | 3A22220            |
| 2" 1502M x 2" ~ 11 1/2" V LPT Long | Std Temp           | Standard            |                      | 3L11548            |
| 2" 1502M x 2.38 8EUE               | Std Temp           | Standard            |                      | 3L11549            |
| 2" 1502M x 2.88 8EUE               | Std Temp           | Standard            |                      | 3L11550            |
| 2" 1502M x 3.5 8EUE                | Std Temp           | Standard            |                      | 3A19530            |
| 2" 1502M x 4" 8V LPT               | Std Temp           | Standard            |                      | 3L11560            |
| 3" 1502F x 2 LPTL                  | Std Temp           | Standard            | With Flats           | 2P29694            |
| 3" 1502F x 2 LPTL                  | Std Temp           | Standard            |                      | 3P10292            |
| 3" 1502F x 2.38 8RD EUE            | Std Temp           | Standard            |                      | 3P10294            |
| 3" 1502F x 2.88 8RD EUE            | Std Temp           | Standard            | 7" Length With Flats | 2P27279            |
| 3" 1502F x 2.88 8RD EUE            | Std Temp           | Standard            | 7" Length            | 3P10296            |
| 3" 1502F x 3.5 10R                 | Std Temp           | Standard            |                      | 3P16589            |
| 3" 1502F x 3.5 8RD EUE             | Std Temp           | Standard            |                      | 3P10032            |
| 3" 1502F x 5.5 8SCT                | Std Temp           | Standard            |                      | 3P12302            |
| 3" 1502M x 2.00 LPT                | Std Temp           | Standard            |                      | 3L11551            |
| 3" 1502M x 2.00 LPTL               | Std Temp           | Standard            |                      | 3P10293            |
| 3" 1502M x 2.38 8RD                | Std Temp           | Standard            |                      | 3L11552            |
| 3" 1502M x 2.38 8RD EUE            | Std Temp           | Standard            |                      | 3P10295            |
| 3" 1502M x 2.88 8RD                | Std Temp           | Standard            |                      | 3L11553            |
| 3" 1502M x 3" 8V LPT               | Std Temp           | Standard            |                      | 3L11559            |
| 3" 1502M x 5.5 8RD SCT             | Std Temp           | Standard            |                      | 3A22239            |
| 4" 1002F x 4.50-8SCT               | Std Temp           | Standard            | 3.88" ID             | 2P27054            |
| 4" 1002M x 2.38 8RD                | Std Temp           | Standard            |                      | 3A22242            |
| 4" 1002M x 2.88 8RD                | Std Temp           | Standard            |                      | 3A22243            |
| 4" 1002M x 4.5 8RD SCT             | Std Temp           | Standard            |                      | 3A20222            |
| 4" 1002M x 5.5 8RD SCT             | Std Temp           | Standard            |                      | 3A22246            |

\*Note: Other parts or configurations may be available. Contact SPM.



## Wing Union Components

### Wing Nut

| <u>Size</u> | <u>Fig. Rating</u> | <u>Style</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|-------------|--------------------|--------------|--------------------|---------------------|--------------------|
| 1"          | 602                | Standard     | Low Temp           | Standard            | 2P12043            |
| 1"          | 1002               |              | Low Temp           | Standard            | 2P12087            |
| 1"          | 1502               |              | Low Temp           | Standard            | 3P11520            |
| 1"          | 1502               |              | Low Temp           | H2S                 | 3P16550            |
| 1 1/2"      | 602                | NPS          | Low Temp           | Standard            | 3P12047            |
| 1 1/2"      | 1002               |              | Low Temp           | Standard            | 3P12091            |
| 1 1/2"      | 1502               |              | Low Temp           | Standard            | 3P11452            |
| 2"          | 200/206            |              | Low Temp           | Standard            | 3P12004            |
| 2"          | 402                |              | Low Temp           | Standard            | 2P12857            |
| 2"          | 602                | Standard     | Low Temp           | Standard            | 2P12051            |
| 2"          | 1002               |              | Low Temp           | Standard            | 2P12095            |
| 2"          | 1502               |              | Low Temp           | Standard            | 3P10228            |
| 2"          | 1502               |              | Low Temp           | H2S                 | 2P13710            |
| 2"          | 2002               |              | Low Temp           | Standard            | 2P14202            |
| 2"          | 2202               |              | Low Temp           | H2S                 | 2P14714            |
| 3"          | 200/206            |              | Low Temp           | Standard            | 2P12009            |
| 3"          | 602                | Standard     | Low Temp           | Standard            | 2P12055            |
| 3"          | 602                | Detachable   | Low Temp           | Standard            | 2P12074            |
| 3"          | 602                | Detachable   | Low Temp           | H2S                 | 2P16530            |
| 3"          | 1002               | Standard     | Low Temp           | Standard            | 3P10245            |
| 3"          | 1002               | Standard     | Low Temp           | H2S                 | 2P14954            |
| 3"          | 1502               |              | Low Temp           | Standard            | 2P10257            |
| 3"          | 1502               |              | Low Temp           | H2S                 | 2P14370            |
| 3"          | 2002               |              | Low Temp           | Standard            | 2P19422            |
| 3"          | 2202               |              | Low Temp           | H2S                 | 2P19342            |
| 4"          | 100                |              | Low Temp           | Standard            | 2P12168            |
| 4"          | 200/206            |              | Low Temp           | Standard            | 2P11765            |
| 4"          | 602                |              | Low Temp           | Standard            | 2P10274            |
| 4"          | 602                | Detachable   | Low Temp           | Standard            | 2P10276            |
| 4"          | 602                | Detachable   | Low Temp           | H2S                 | 2P16531            |
| 4"          | 1002               | Detachable   | Low Temp           | Standard            | 2P10963            |
| 4"          | 1002               | Standard     | Low Temp           | Standard            | 2P10965            |
| 4"          | 1502               |              | Low Temp           | Standard            | 2P11729            |
| 6"          | 100                |              | Low Temp           | Standard            | 2P14238            |
| 6"          | 206                |              | Low Temp           | Standard            | 2P14250            |
| 8"          | 100                |              | Low Temp           | Standard            | 2P14242            |
| 8"          | 206                |              | Low Temp           | Standard            | 2P14255            |
| 10"         | 206                |              | Low Temp           | Standard            | 2P14260            |

\*Note: Other parts or configurations may be available. Contact SPM.

## Misc. Union Components

| <u>Type</u>      | <u>Size</u> | <u>Pressure Rating</u> | <u>Style</u>                 | <u>Service Type</u> | <u>Part Number</u> |
|------------------|-------------|------------------------|------------------------------|---------------------|--------------------|
| Blanking Cap     | 3"          | 207                    | With Chain Keeper            | Standard            | 3A23442            |
| Blanking Cap     | 3"          | 207                    | SCH 40                       | Standard            | 2P11996            |
| Blanking Cap     | 4"          | 207                    | With Chain Keeper            | Standard            | 3A18587            |
| Blanking Cap     | 4"          | 207                    |                              | Standard            | 2P11684            |
| Blanking Cap     | 4"          | 207                    | .25 NPT                      | Standard            | 2P23813            |
| Retainer Ring    | 1 1/2"      | 1502                   |                              | Standard            | P11945             |
| Retainer Ring    | 2"          | 1502                   |                              | Standard            | P10232             |
| Retainer Ring    | 3"          | 602/1002/1502          |                              | Standard            | P10261             |
| Retainer Ring    | 4"          | 1502                   |                              | Standard            | P12439             |
| Retainer Segment | 1 1/2"      | 1502                   |                              | Standard            | 3P11460            |
| Retainer Segment | 2"          | 1502                   |                              | Standard            | 3P10231            |
| Retainer Segment | 3"          | 602/1002/1502          |                              | Standard            | 3P10260            |
| Retainer Segment | 3"          | 602/1002/1502          |                              | H2S                 | 3P16534            |
| Retainer Segment | 4"          | 602/1002               |                              | Standard            | 3P10277            |
| Retainer Segment | 4"          | 602/1002               |                              | H2S                 | 3P16535            |
| Retainer Segment | 4"          | 1502                   |                              | Standard            | 3P16929            |
| Retainer Segment | 6"          | 206                    |                              | Standard            | P29058             |
| Seal Ring        | 1"          | 1502                   | Pressure Seal & NPS          | Standard            | 3P11635            |
| Seal Ring        | 1"          | 602/1002/1502          |                              | Standard            | 3P14975            |
| Seal Ring        | 1"          | 602/1002/1502          | Pressure Seal - Viton        | Standard            | 3P16484            |
| Seal Ring        | 1 1/2"      | 1502                   | Pressure Seal & NPS          | Standard            | 3P11451            |
| Seal Ring        | 1 1/2"      | 602/1002/1502          |                              | Standard            | 3P12283            |
| Seal Ring        | 2"          | 1502                   | Pressure Seal                | Standard            | 4P10229            |
| Seal Ring        | 2"          | 1502                   | Pressure Seal - Viton        | Standard            | 4P13258            |
| Seal Ring        | 2"          | 1502/2002              | Pressure Seal Anti-Extrusion | Standard            | 4P22391            |
| Seal Ring        | 2"          | 1502/2002              | Anti-Extrusion HNBR          | Standard            | 2P27527            |
| Seal Ring        | 2"          | 2202                   | Viton                        | Standard            | 3P14833            |
| Seal Ring        | 3"          | 1502                   | Pressure Seal                | Standard            | 4P10258            |
| Seal Ring        | 3"          | 1502                   | Pressure Seal - Viton        | Standard            | 4P13259            |
| Seal Ring        | 3"          | 1502/2002              | Pressure Seal Anti-Extrusion | Standard            | 2P30108            |
| Seal Ring        | 3"          | 1502/2002              | Anti-Extrusion Nitrile       | Standard            | 2P30108            |
| Seal Ring        | 3"          | 1502/2002              | Anti-Extrusion - Viton       | Standard            | 4P22395            |
| Seal Ring        | 3"          | 1502/2002              | Anti-Extrusion HNBR          | Standard            | 4P28399            |
| Seal Ring        | 4"          | 602/1002               | Pressure Seal                | Standard            | 4P10275            |
| Seal Ring        | 4"          | 1502                   | Pressure Seal Anti-Extrusion | Standard            | 4P22397            |
| Seal Ring        | 4"          | 1502                   | Pressure Seal - Viton        | Standard            | 4P13260            |

\*Note: Other parts or configurations may be available. Contact SPM.

## Safety Iron Component Parts

### 2" 15K Safety Iron

| <u>Type</u>       | <u>Style</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|-------------------|--------------|--------------------|---------------------|--------------------|
| Clamp & Seal Kits | Buna         | Low Temp           | Standard            | 2A25919            |
| Seal Kit          | Buna         | Low Temp           |                     | 2A26024            |
| Seal Kit          | Viton        | Low Temp           | Standard            | 2A28031            |
| Soft Seal         | Buna         | Low Temp           |                     | 2P28294            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 3" 15K Safety Iron

| <u>Type</u>       | <u>Style</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|-------------------|--------------|--------------------|---------------------|--------------------|
| Clamp & Seal Kits | Buna         | Low Temp           | Standard            | 2A25917            |
| Seal Kit          | Buna         | Low Temp           | Standard            | 2A26026            |
| Soft Seal         | Buna         | Low Temp           | Standard            | 2P28292            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 4" 10K Safety Iron

| <u>Type</u>       | <u>Style</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|-------------------|--------------|--------------------|---------------------|--------------------|
| Clamp & Seal Kits | Buna         | Low Temp           | Standard            | 2A25927            |
| Seal Kit          | Buna         | Low Temp           | Standard            | 2A26028            |
| Soft Seal         | Buna         | Low Temp           | Standard            | 2P27767            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

### 4" 15K Safety Iron

| <u>Type</u>       | <u>Style</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|-------------------|--------------|--------------------|---------------------|--------------------|
| Clamp & Seal Kits | Buna         | Low Temp           | Standard            | 2A25402            |
| Seal Kit          | Buna         | Low Temp           | Standard            | 2A26029            |
| Soft Seal         | Buna         | Low Temp           | Standard            | 2P28291            |
| Hard Seal Ring    |              | Low Temp           | Standard            | 2P24735            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

#### Kit Definitions:

Clamp & Seal Kits: clamp assembly, hard seal ring, soft seals

Seal Kit: hard seal ring, soft seals

## Ball Injectors

### Ball Injector Assemblies

| <u>Type</u>                | <u>Size</u> | <u>Fig. Rating</u> | <u>End Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Ball Size</u>     | <u>Part Number</u> |
|----------------------------|-------------|--------------------|-----------------|--------------------|---------------------|----------------------|--------------------|
| Remote Actuated - Electric | 3"          | 1502               | Male x Female   | Std Temp           | Standard            | 0.88 - 1.00 Diameter | 2A28467            |
| Manual Actuated            | 3"          | 1502               | Male x Female   | Std Temp           | Standard            | 0.88 - 1.00 Diameter | 2A27422            |
| Manual Actuated            | 3"          | 1502               | Male x Female   | Low Temp           | Standard            | 0.88 - 1.00 Diameter | 2A29763            |
| Manual Actuated            | 3"          | 1502               | Male            | Std Temp           | Standard            | 0.88 - 1.00 Diameter | 2A28452            |

\*Note: Other parts or configurations may be available. Contact SPM.

### Ball Injector Parts

| <u>Type</u>    | <u>Size</u> | <u>Part Number</u> |
|----------------|-------------|--------------------|
| Parts Kit      | 3"          | 4L18114            |
| Screw Assembly | 1.00"       | 2A24251            |
| Screw Assembly | .88"        | 2A14848            |
| Screw Assembly | .63"        | 2A14844            |

\*Note: Other parts or configurations may be available. Contact SPM.

### Kits Definition:

Parts Kit: screw, seals, bearing, snap rings, pins, backup ring

## Butterfly Valves

### Butterfly Valve Assemblies

| <u>Size</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|-------------|--------------------|---------------------|--------------------|
| 3"          | Std Temp           | Standard            | 2A25203            |
| 4"          | Std Temp           | Standard            | 2A25200            |
| 5"          | Std Temp           | Standard            | 2A25206            |
| 6"          | Std Temp           | Standard            | 2A25208            |
| 8"          | Std Temp           | Standard            | 2A25209            |
| 10"         | Std Temp           | Standard            | 2A25508            |
| 12"         | Std Temp           | Standard            | 2A25201            |

\*Note: Other parts or configurations may be available. Contact SPM.

## Choke Valves

### Choke Valves

| <u>Type</u> | <u>End Type</u>       | <u>Style</u> | <u>Connection Type</u> | <u>Temperature</u> | <u>Service Type</u> | <u>Part Number</u> |
|-------------|-----------------------|--------------|------------------------|--------------------|---------------------|--------------------|
| Adjustable  | 2" 1502F x 2" 1502M   | 0.75 Seat    | Hammer Union           | Low Temp           | Standard            | 2A18156-0.75       |
| Adjustable  | 2" 1502F x 2" 1502M   | 0.75 Seat    | Hammer Union           | Low Temp           | H2S                 | 2A19461-0.75       |
| Adjustable  | 2" 1502M x 2" 1502F   | 0.75 Seat    | Hammer Union           | Low Temp           | Standard            | 2A18158-0.75       |
| Adjustable  | 2" 1502F x 2" 1502F   | 0.75 Seat    | Hammer Union           | Low Temp           | Standard            | 2A18159-0.75       |
| Adjustable  | 2" 1502F x 2" 1502M   | 1.00 Seat    | Hammer Union           | Low Temp           | Standard            | 2A18156-1.00       |
| Adjustable  | 2" 1502F x 2" 1502M   | 1.00 Seat    | Hammer Union           | Low Temp           | H2S                 | 2A19461-1.00       |
| Adjustable  | 2" 1502M x 2" 1502M   | 1.00 Seat    | Hammer Union           | Low Temp           | Standard            | 2A18157-1.00       |
| Adjustable  | 2" 1502M x 2" 1502F   | 1.00 Seat    | Hammer Union           | Low Temp           | Standard            | 2A18158-1.00       |
| Adjustable  | 3" 1502F x 3" 1502M   | 2.00 Seat    | Hammer Union           | Low Temp           | Standard            | 2A21253            |
| Adjustable  | 3" 1502F x 3" 1502M   | 2.00 Seat    | Hammer Union           | Low Temp           | H2S                 | 2A23122            |
| Positive    | 2" 1502M x 2" 1502F   | w/o Bean     | Hammer Union           | Low Temp           | Standard            | 2A18160            |
| Positive    | 2" 1502M x 2" 1502F   | 0.75 Seat    | Hammer Union           | Low Temp           | Standard            | 2A18160-0.75       |
| Positive    | 2" 15K SI x 2" 15K SI | w/o Bean     | Safety Iron            | Low Temp           | Standard            | 2A27968            |
| Positive    | 2" 1502M x 2" 1502F   | w/o Bean     | Hammer Union           | Low Temp           | H2S                 | 2A22016            |

\*Note: Other parts or configurations may be available. Contact SPM.

## Safety Lifting Clamps

### Clamps

| <u>Type</u>      | <u>Part Number</u> |
|------------------|--------------------|
| 4.06" - 6.63" OD | 2A29636            |
| 5" - 5.5" OD     | 2A29637            |

*\*Note: Other parts or configurations may be available. Contact SPM.*

## Safety Hammers

### Assemblies & Spares

| <u>Type</u>       | <u>Size</u> | <u>Cage Fig. Rating</u> | <u>Part Number</u> |
|-------------------|-------------|-------------------------|--------------------|
| Complete Assembly | 2"          | 1502                    | 2A26689            |
| Complete Assembly | 3"          | 1502                    | 2A26699            |
| Complete Assembly | 4"          | 200 & 206               | 2A26886            |
| Complete Assembly | 4"          | 602 & 1002              | 2A26709            |
| Pneumatic Hammer  |             |                         | 2A26730            |
| Hammer Tool       |             |                         | 2P27058            |
| Cage              | 2"          | 1502                    | 2P26690            |
| Cage              | 3"          | 200 / 206               | 2P26887            |
| Cage              | 3"          | 1502                    | 2P26700            |
| Cage              | 4"          | 1002                    | 2P26710            |

*\*Note: Other parts or configurations may be available. Contact SPM.*