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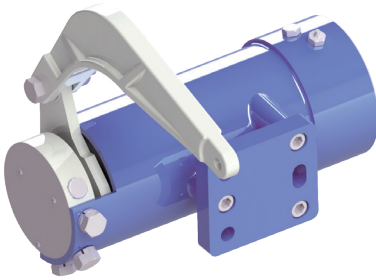
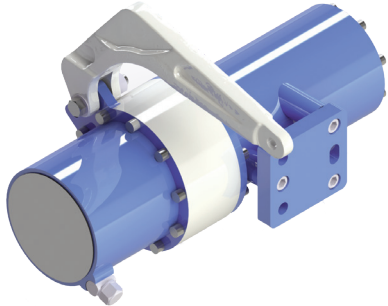
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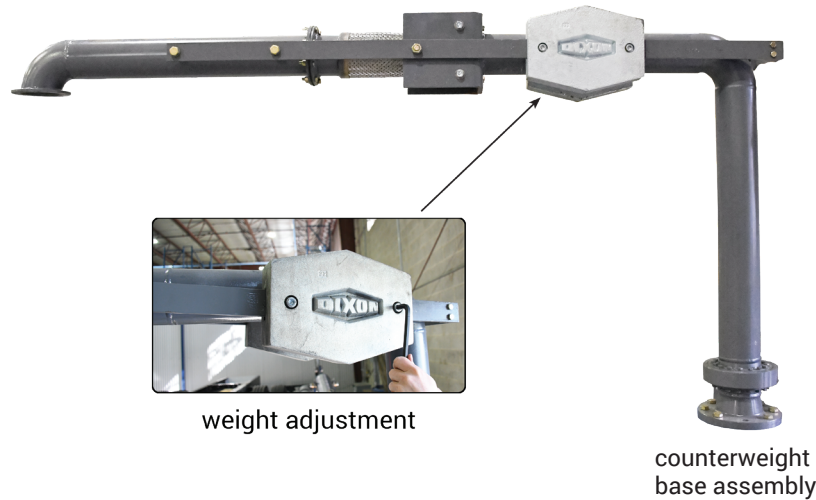
Loading Arm Introduction

A loading arm is a dynamic system allowing for the transfer of media such as liquids, liquified gas, or dry bulk from one storage vessel to another. Consisting of a combination of swivel joints, pipe and/or hose legs, a counterbalance, and various end connections, loading arms can be configured for both top loading and bottom loading applications. Dixon® loading arms are ideal for a wide range of applications, transferring product to and from tank trucks or rail cars as well as to drums and totes.

Dixon's Counterbalance Options

| | Counterweight | ESB1 Torsion Spring Counterbalance | ESB2 Torsion Spring Counterbalance |
|----------------------------------|--|--|--|
| |  |  |  |
| Description | <ul style="list-style-type: none"> • A classic and reliable means of supporting the weight of a loading arm • Utilizes a lever-and-fulcrum system with heavy metal weights that counteract the weight of the loading arm • Stores fully extended in the horizontal position | <ul style="list-style-type: none"> • A helical torsion spring inside a metal housing mounted on a loading arm base swivel • When a load pushes the spring downward, the spring exerts an upward balancing force to support the loading arm • Can be stored in various positions based on arm configuration and space requirements | <ul style="list-style-type: none"> • A heavy-duty helical torsion spring inside a metal housing mounted on a loading arm base swivel • Designed to support larger, heavier loading arms • Utilizes the same balancing method and offers the same storage benefits as the ESB1 |
| Adjustment | <ul style="list-style-type: none"> • Uses 2 or 4 weights depending on the reach and weight of the loading arm • The balancing force can be precisely adjusted for various reach and load applications by sliding the weights in and out along a rail | <ul style="list-style-type: none"> • The balancing force can be precisely adjusted for various load applications by tightening or loosening the adjustment bolt • Multiple spring rates are available to accommodate various reach and load applications | |
| Benefits and Applications | <ul style="list-style-type: none"> • Counterweights are ideal for tight spaces, locations loading multiple products, or where arm crossover may be necessary | <ul style="list-style-type: none"> • Spring balances allow for a variety of arm configurations, as well as a wide range of applications including bulk chemicals, food & beverage, and petroleum | |

Counterweight Loading Arms



Applications

- Bottom loading bulk liquids and other loading products
- Suitable for fuel loading racks and other loading products requiring multiple arms to crossover

Size

- 4" nominal pipe size

Features

- No springs
- Split flange base swivel
- 2 or 4 adjustable counterweights
- Easy adjustment, operation, and maintenance

Materials

- Carbon steel schedule 40 pipe construction
- 321 stainless steel flex joint with 304 stainless steel braid
- FKM or nitrile rubber seals

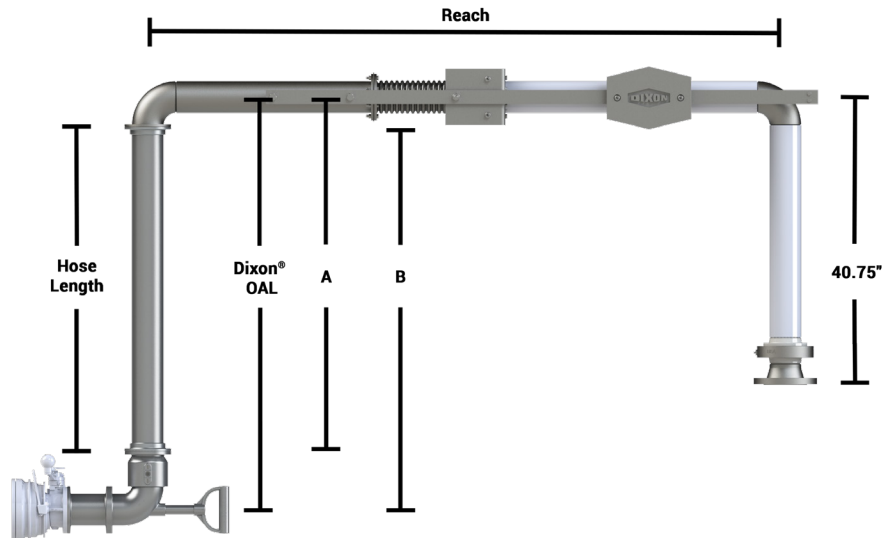
Specifications

- Composite or stainless steel braided drop hose
- Style 30 loading swivel
- D-handle or ball handle on loading swivel
- TTMA extension or color coded TTMA extension
- Safety breakaway
- Sight glass
- Wet-R-Dri™ valve
- 5500-series API coupler

| Counterweights | Reach Dimension | Part # | |
|----------------|-----------------|----------------------|---------------|
| | | Nitrile Rubber Seals | FKM Seals |
| 2 | 78" | CW2-LA4-078-0 | CW2-LA4-078-1 |
| 2 | 90" | CW2-LA4-090-0 | CW2-LA4-090-1 |
| 2 | 102" | CW2-LA4-102-0 | CW2-LA4-102-1 |
| 2 | 114" | CW2-LA4-114-0 | CW2-LA4-114-1 |
| 4 | 78" | CW4-LA4-078-0 | CW4-LA4-078-1 |
| 4 | 90" | CW4-LA4-090-0 | CW4-LA4-090-1 |
| 4 | 102" | CW4-LA4-102-0 | CW4-LA4-102-1 |

NOTE: The counterweight base assemblies shown above do not contain the drop leg or the bottom unit. 114" reach is only available with 2 weights.

Counterweight Reference Sheet



Shown with available options including: composite hose, ball handle, Wet-R-Dri valve, color coded TTMA extension, sight flow indicator, and 5500-series API coupler

| Hose Length | Dixon OAL | A | B | Reach / Part # | | | |
|-------------|-----------|------|------|------------------------------|------------------------------|------------------------------|------------------------------|
| | | | | 78" | 90" | 102" | 114" |
| 76" | 89" | 80" | 84" | WV4078EV076M1ED ¹ | WV4090EV076M1ED ¹ | WV20A2EV076M1ED ² | WV20B4EV076M1ED ² |
| 80" | 93" | 84" | 88" | WV4078EV080M1ED ¹ | WV4090EV080M1ED ¹ | WV20A2EV080M1ED ² | WV20B4EV080M1ED ² |
| 92" | 105" | 96" | 100" | - | WV4090EV092M1ED ¹ | WV20A2EV092M1ED ² | WV20B4EV092M1ED ² |
| 96" | 109" | 100" | 104" | - | WV4090EV096M1ED ¹ | WV20A2EV096M1ED ² | WV20B4EV096M1ED ² |
| 108" | 121" | 112" | 116" | - | WV4090EV0A8M1ED ¹ | WV40A2EV0A8M1ED ¹ | WV20B4EV0A8M1ED ² |
| 112" | 125" | 116" | 120" | - | WV4090EV0B2M1ED ¹ | WV40A2EV0B2M1ED ¹ | WV20B4EV0B2M1ED ² |
| 124" | 137" | 128" | 132" | - | WV4090EV0C4M1ED ¹ | WV40A2EV0C4M1ED ¹ | WV20B4EV0C4M1ED ² |
| 128" | 141" | 132" | 136" | - | WV4090EV0C8M1ED ¹ | WV40A2EV0C8M1ED ¹ | WV20B4EV0C8M1ED ² |

¹ 4 weights

² 2 weights

NOTE: Part numbers listed above include FKM seals, stainless steel braided metal hose, Style 30 with D-handle, TTMA extension, and 5500-series API coupler. Other hose lengths are available upon request.

A-Frame Loading Arm with Rigid Drop Pipe



Sizes

- 3" and 4"

Features

- Torsion spring counterbalance offered in left or right hand
- Base swivels offered: carbon steel V-ring, carbon steel split flange, or 316 stainless steel split flange
- Style 50 loading swivel
- Available accessories include safety breakaway, Wet-R-Dri™ valve, ball handle (see pages 20-29)

Materials

- Pipe leg materials offered: aluminum, carbon steel, and 316 stainless steel
- Available seals include: nitrile rubber, FKM, low temperature FKM, PTFE, EPDM, and food-grade nitrile

Specifications

- Standard configurations below include carbon steel base swivels, ESB1 torsion spring counterbalance, TTMA extension, 5500-series API, and D-handle
- Other options available upon request

| Size | Description | Part # |
|------|---|------------------|
| 3" | 60" x 60" aluminum legs, V-ring base swivel, FKM seals, API | AV3A46JAK48H6ED |
| | 60" x 60" aluminum legs, split flange base swivel, FKM seals, API | AV3G46JAK48H6ED |
| 4" | 60" x 60" aluminum legs, V-ring base swivel, FKM seals, API | BV4A44JAU46H6ED |
| | 60" x 60" aluminum legs, split flange base swivel, FKM seals, API | BV4G44JAU46H6ED* |
| | 60" x 72" aluminum legs, V-ring base swivel, FKM seals, API | BV4A44JAU58H6ED |
| | 60" x 72" aluminum legs, split flange base swivel, FKM seals, API | BV4G44JAU58H6ED |

*Shown in image above

A-Frame Loading Arm with Drop Hose



Sizes

- 3" and 4"

Features

- Torsion spring counterbalance offered in left or right hand
- Base swivels offered: carbon steel V-ring, carbon steel split flange, or 316 stainless steel split flange
- Style 30 loading swivel; style 50 available upon request
- Available accessories include safety breakaway, Wet-R-Dri™ valve, ball handle (see pages 20-29)

Materials

- Pipe leg materials offered: aluminum, carbon steel, and 316 stainless steel
- Available seals include: nitrile rubber, FKM, low temperature FKM, PTFE, EPDM, and food-grade nitrile
- Drop hose available in composite and stainless steel metal

Specifications

- Standard configurations below include carbon steel base swivels, ESB1 torsion spring counterbalance, TTMA extension, 5500-series API, and D-handle
- Other options available upon request

| Size | Description | Part # |
|------|--|------------------|
| 3" | 60" aluminum leg A x 72" metal drop hose, V-ring base swivel, FKM seals, API | AV3A46JAK59M1ED |
| | 60" aluminum leg A x 72" metal drop hose, split flange base swivel, FKM seals, API | AV3A46JAK59M1ED |
| | 60" aluminum leg A x 72" composite drop hose, V-ring base swivel, FKM seals, API | AV3G46JAK59C1ED |
| | 60" aluminum leg A x 72" composite drop hose, split flange base swivel, FKM seals, API | AV3G46JAK59C1ED |
| 4" | 60" aluminum leg A x 60" metal drop hose, V-ring base swivel, FKM seals, API | BV4A44JAU46M1ED |
| | 60" aluminum leg A x 60" metal drop hose, split flange base swivel, FKM seals, API | BV4G44JAU46M1ED |
| | 60" aluminum leg A x 60" composite drop hose, V-ring base swivel, FKM seals, API | BV4A44JAU46C1ED |
| | 60" aluminum leg A x 60" composite drop hose, split flange base swivel, FKM seals, API | BV4G44JAU46C1ED |
| | 60" aluminum leg A x 72" metal drop hose, V-ring base swivel, FKM seals, API | BV4A44JAU58M1ED |
| | 60" aluminum leg A x 72" metal drop hose, split flange base swivel, FKM seals, API | BV4G44JAU58M1ED* |
| | 60" aluminum leg A x 72" composite drop hose, V-ring base swivel, FKM seals, API | BV4A44JAU58C1ED |
| | 60" aluminum leg A x 72" composite drop hose, split flange base swivel, FKM seals, API | BV4G44JAU58C1ED |

*Shown in image above

Horizontal Hose Loader



Sizes

- 3" and 4"

Features

- Torsion spring counterbalance offered in left or right hand
- Base swivels offered: carbon steel V-ring, carbon steel split flange, or 316 stainless steel split flange
- Style 30 loading swivel; style 50 available upon request
- Available accessories include safety breakaway, Wet-R-Dri™ valve, ball handle (see pages 20-29)

Materials

- Pipe leg materials offered: aluminum, carbon steel, and 316 stainless steel
- Available seals include: nitrile rubber, FKM, low temperature FKM, PTFE, EPDM, and food-grade nitrile
- Drop hose available in composite hose and stainless steel metal hose

Specifications

- Standard configurations below include carbon steel base swivels, ESB1 torsion spring counterbalance, TTMA extension, 5500-series API, and D-handle
- Other options available upon request

| Size | Description | Part # |
|------|--|------------------|
| 3" | 52" aluminum leg A x 72" metal drop hose, V-ring base swivel, FKM seals, API | AV3A43MV061M1ED |
| | 52" aluminum leg A x 72" metal drop hose, split flange base swivel, FKM seals, API | AV3G43MV061M1ED |
| | 52" aluminum leg A x 72" composite drop hose, V-ring base swivel, FKM seals, API | AV3A43MV061C1ED |
| | 52" aluminum leg A x 72" composite drop hose, split flange base swivel, FKM seals, API | AV3G43MV061C1ED |
| 4" | 52" aluminum leg A x 72" metal drop hose, V-ring base swivel, FKM seals, API | BV4A42MV059M1ED |
| | 52" aluminum leg A x 72" metal drop hose, split flange base swivel, FKM seals, API | BV4G42MV059M1ED* |
| | 52" aluminum leg A x 72" composite drop hose, V-ring base swivel, FKM seals, API | BV4A42MV059C1ED |
| | 52" aluminum leg A x 72" composite drop hose, split flange base swivel, FKM seals, API | BV4G42MV059C1ED |

*Shown in image above

Fixed Reach Loading Arm



Sizes

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

Features

- Torsion spring counterbalance offered in left or right hand
- Base swivels offered: carbon steel V-ring, carbon steel split flange, or 316 stainless steel split flange
- Available accessories include tee deflector, diffuser, top loading valve with or without remote handle kit, various handles, locking mechanism (see pages 20-29)

Materials

- Pipe leg materials offered: aluminum, carbon steel, and 316 stainless steel
- Available seals include: nitrile rubber, FKM, low temperature FKM, PTFE, EPDM, and food-grade nitrile

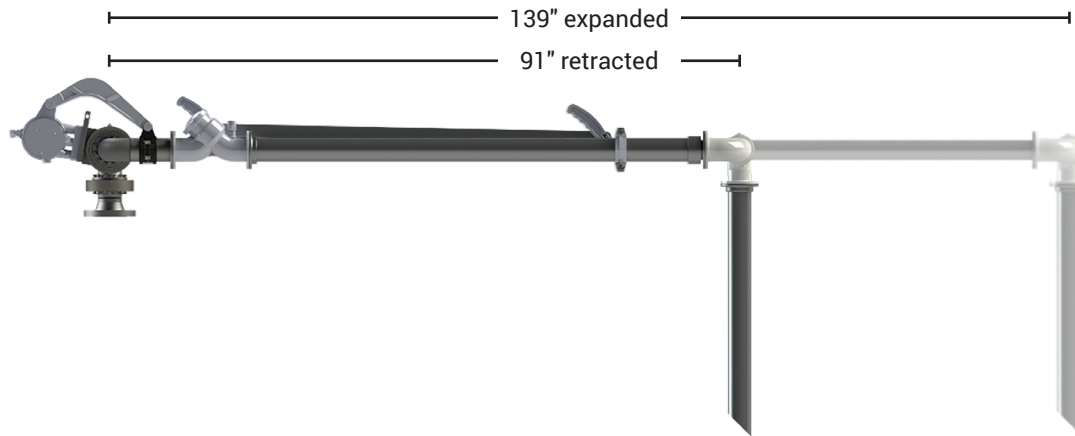
Specifications

- Standard configurations below include ESB1 torsion spring counterbalance
- Other options available upon request

| Size | Description | Part # |
|------|--|------------------|
| 2" | 60" x 48" 316 stainless steel legs, 316 stainless steel split flange base swivel, 45° cut, PTFE seals | AP2D48QUA45QC00 |
| 3" | 120" x 48" carbon steel legs, carbon steel split flange base and apex swivels LA handle, bucket hook, 45° cut, FKM seals | CV3GA8AFK45ACJ0 |
| 4" | 120" x 48" aluminum legs, carbon steel split flange base swivel, top loading valve, LA handle, bucket hook, 45° cut, FKM seals | CV4G90JAU42HCJY* |

*Shown in image above

Telescoping Loading Arm



Sizes

- 3" and 4"

Features

- Torsion spring counterbalance offered in left or right hand
- Base swivels offered: carbon steel V-ring or carbon steel split flange
- Available accessories include tee deflector, top loading valve with or without remote handle kit, various handles (see pages 20-29)


Materials

- Pipe leg materials offered: aluminum
- Available swivel seals include: nitrile rubber and FKM

Specifications

- Standard configurations below include carbon steel split flange base swivel, ESB1 torsion spring counterbalance, 45° cut end connection
- Other options available upon request

| Size | Description | Part # |
|------|--|------------------|
| 3" | telescoping x 42" overall length, FKM seals and top loading valve | AV3GB49AK37HC0Y |
| | telescoping x 42" overall length, FKM seals, top loading valve and remote handle | BV3GB49AK37HC0N |
| | telescoping x 48" overall length, FKM seals and top loading valve | BV3GB49AK43HC0Y |
| | telescoping x 48" overall length, FKM seals, top loading valve and remote handle | BV3GB49AK43HC0N* |

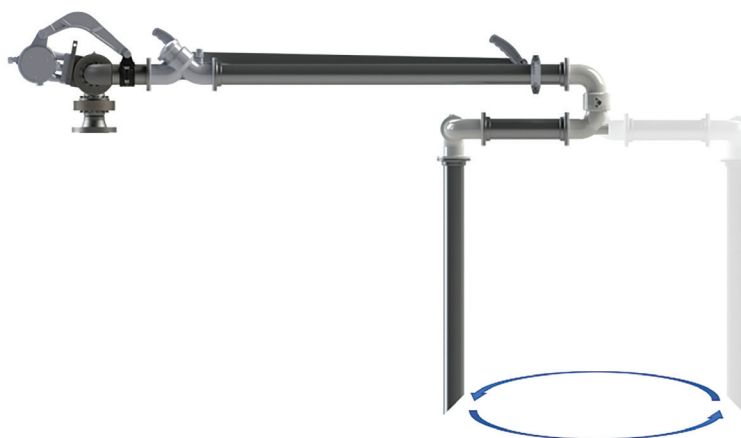
NOTE: Telescoping loading arms are for open discharge only. 

Telescoping Arm Replacement Parts

| Size | Description | Part # |
|------|--|-----------------|
| 3" | 3" aluminum telescoping leg, 66" retracted and 114" extended | 3SAL0-TFXTF-114 |
| | 3" nitrile rubber telescoping leg seal replacement kit | 3RKT |

*Shown in image above

Scissor Style Loading Arm



Sizes

- 2", 3", and 4"

Features

- Torsion spring counterbalance offered in left or right hand
- Base swivels offered: carbon steel V-ring, carbon steel split flange, or 316 stainless steel split flange
- Available accessories include tee deflector, diffuser, top loading valve with or without remote handle kit, various handles, locking mechanism (see pages 20-29)

Materials

- Pipe leg materials offered: aluminum, carbon steel, 316 stainless steel
- Available swivel seals include: nitrile rubber, FKM, low temperature FKM, PTFE, EPDM, or food-grade nitrile

Specifications

- Standard configurations below include carbon steel split flange base swivel, aluminum legs, top load valve, remote handle kit, and FKM seals
- Other options available upon request

| Size | Description | Part # |
|------|---|------------------|
| 3" | 84" x 48" drop leg with 24" scissor leg, 45° cut end, top loading valve, remote handle kit | AVBG59JAK43HC0N |
| | 108" x 48" drop leg with 36" scissor leg, 45° cut end, top loading valve, remote handle kit | BVCG83JAK43HC0N |
| 4" | 84" x 48" drop leg with 24" scissor leg, 45° cut end, top loading valve, remote handle kit | CVFG55JAU42HC0N* |
| | 108" x 48" drop leg with 36" scissor leg, 45° cut, heavy CB, top loading valve, remote handle kit | PVGG79JAU42HC0N |

*Shown in image above

Unsupported Boom Loading Arm



Sizes

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

Features

- Torsion spring counterbalance offered in left or right hand
- Base swivels offered: carbon steel V-ring, carbon steel split flange, or 316 stainless steel split flange
- Available accessories include tee deflector, diffuser, top loading valve with or without remote handle kit, various handles, and locking mechanism (see pages 20-29)

Materials

- Pipe and arm swivel materials offered: aluminum, carbon steel, and 316 stainless steel
- Available seals include: nitrile rubber, FKM, low temperature FKM, PTFE, EPDM, or food-grade nitrile

Specifications

- Standard configurations below include carbon steel split flange base swivel and ESB1 torsion spring
- Other options available upon request

| Size | Description | Part # |
|------|---|------------------|
| 3" | aluminum 78" x 48" drop leg w/ 45° cut, 48" carbon steel boom leg, FKM seals | HVDU64JAK43HC00 |
| | carbon steel 90" x 60" drop leg w/ 45° cut, 60" carbon steel boom leg, FKM seals | JVEU78AFK57AC00 |
| 4" | aluminum 78" x 48" drop leg w/ 45° cut, 48" carbon steel boom leg, FKM seals | HVHU62JAU43HC00* |
| | carbon steel 90" x 60" drop leg w/ 45° cut, 60" carbon steel boom leg, FKM seals | KVJU75AFU56AC00 |
| 6" | carbon steel 78" x 48" drop leg w/ 45° cut, 48" carbon steel boom leg, FKM seals, ESB2 counterbalance | Q02660AC642AC00 |

*Shown in image above

Supported Boom Loading Arm



Sizes

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

Features

- Torsion spring counterbalance offered in left or right hand
- Base swivels offered: carbon steel V-ring, carbon steel split flange, or 316 stainless steel split flange
- Available accessories include tee deflector, diffuser, top loading valve with or without remote handle kit, various handles, and locking mechanism (see pages 20-29)
- Includes triangulated bracing with pillow block bearing to support longer, heavier arms

Materials

- Pipe and arm swivel materials offered: aluminum, carbon steel, and 316 stainless steel
- Available seals include: nitrile rubber, FKM, low temperature FKM, PTFE, EPDM, or food-grade nitrile

Specifications

- Standard configurations below include split flange base swivel and ESB1 torsion spring counterbalance
- Other options available upon request

| Size | Description | Part # |
|------|--|------------------|
| 2" | stainless steel base swivel, stainless steel 60" x 48" drop leg w/ 45° cut, 49" boom leg, PTFE seals | H02148QUA45QC00 |
| 3" | carbon steel base swivel, aluminum 78" x 48" drop leg w/ 45° cut, carbon steel 69" boom leg, FKM seals | H02564JAK43HC00 |
| 4" | carbon steel base swivel, aluminum 78" x 48" drop leg w/ 45° cut, carbon steel 69" boom leg, FKM seals | H01362JAU42HC00* |

*Shown in image above

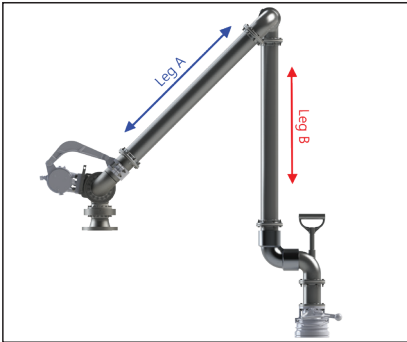
Section 1: Customer Information

Distributor name: _____
 Contact person: _____
 Distributor city, state: _____
 End user name: _____
 Contact person: _____

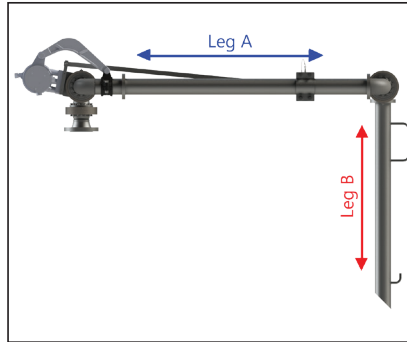
Phone: _____
 Email: _____
 Customer code: _____
 Phone: _____
 Email: _____

Section 2: Configuration(s)

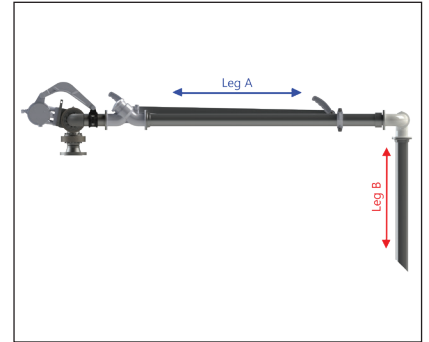
a. A-frame



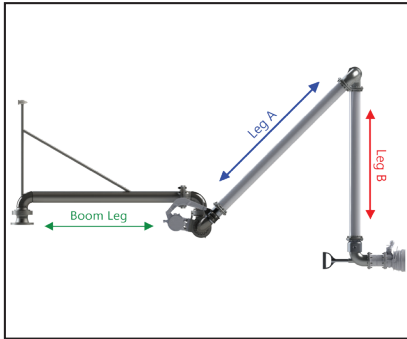
Fixed Reach (top load)



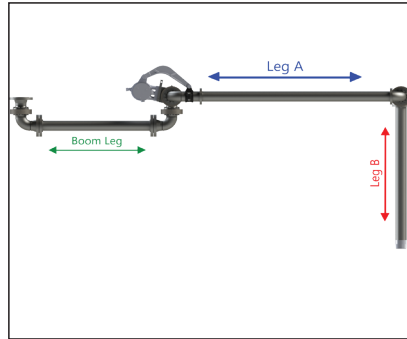
Telescoping*
 (*Leg A only available in one standard length)



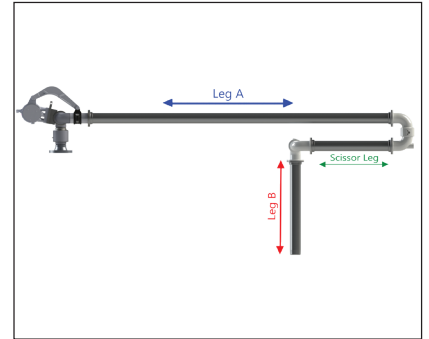
Supported boom



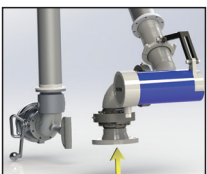
Unsupported boom



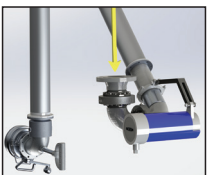
Scissor



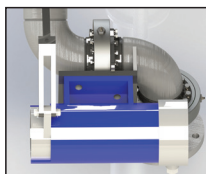
b. Upfeed



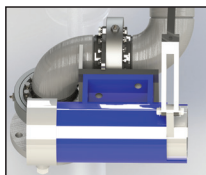
Downfeed



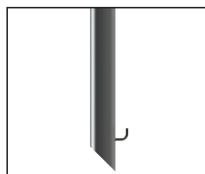
c. Left-hand



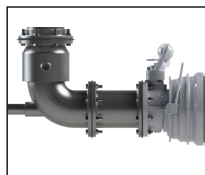
Right-hand



d. Top load



Bottom load



e. Other style/configurations:

Custom options are available. Contact Dixon Specialty Products at 888.226.4673 or load-arms@dixonvalve.com.

Section 3: Component Measurements and Materials

(Measure from centerline of swivel to centerline of swivel. Round to the nearest inch, i.e. 48", 60", etc.)

Leg A Length: _____ Material: carbon steel aluminum stainless steel

Leg B Length: _____ Material: carbon steel aluminum stainless steel
 composite hose metal hose

Boom/Scissor
 Leg Length: _____ Material: carbon steel stainless steel aluminum (scissor only)

Section 4: Load Arm Information

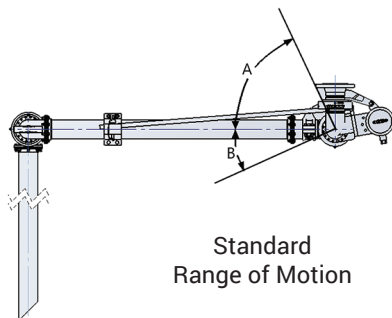
- a. Quantity: _____
- b. Pipe size: 2" 3" 4" other: _____"
- c. Base swivel: split flange style v-ring style
- d. Riser stand pipe connection: Class 150 ANSI flange Class 300 ANSI flange other: _____
- e. Type of media: asphalt fuel other: _____
- f. Seals (Dixon can recommend based on media): Nitrile rubber PTFE FKM-A
 low temperature FKM EPDM other: _____
- g. Environment conditions: temperature range _____ °F to _____ °F operating PSI : _____
- h. End connections (check all that apply):

| | | | |
|--|---|---|---|
| <input type="checkbox"/> 45° pipe cut | <input type="checkbox"/> cam & groove coupler | <input type="checkbox"/> top loading valve | <input type="checkbox"/> sight glass |
| <input type="checkbox"/> API coupler w/ flange extension | <input type="checkbox"/> cam & groove adapter | <input type="checkbox"/> top loading valve w/ remote handle kit | <input type="checkbox"/> D-handle |
| <input type="checkbox"/> tee-deflector | <input type="checkbox"/> dry disconnect | <input type="checkbox"/> butterfly (Wet-R-Dri™) valves | <input type="checkbox"/> ball handle |
| <input type="checkbox"/> male NPT | <input type="checkbox"/> TTMA flange | <input type="checkbox"/> locking mechanism | <input type="checkbox"/> bucket hook |
| <input type="checkbox"/> other: _____ | | <input type="checkbox"/> loading arm handle | <input type="checkbox"/> safety breakaway |
| | | <input type="checkbox"/> other: _____ | |
- i. Add-ons (check all that apply):

Section 5: Site Limitations

Providing the following information will help ensure that the loading arm performs as expected when in service.

A: 65 degrees
B: 24 degrees

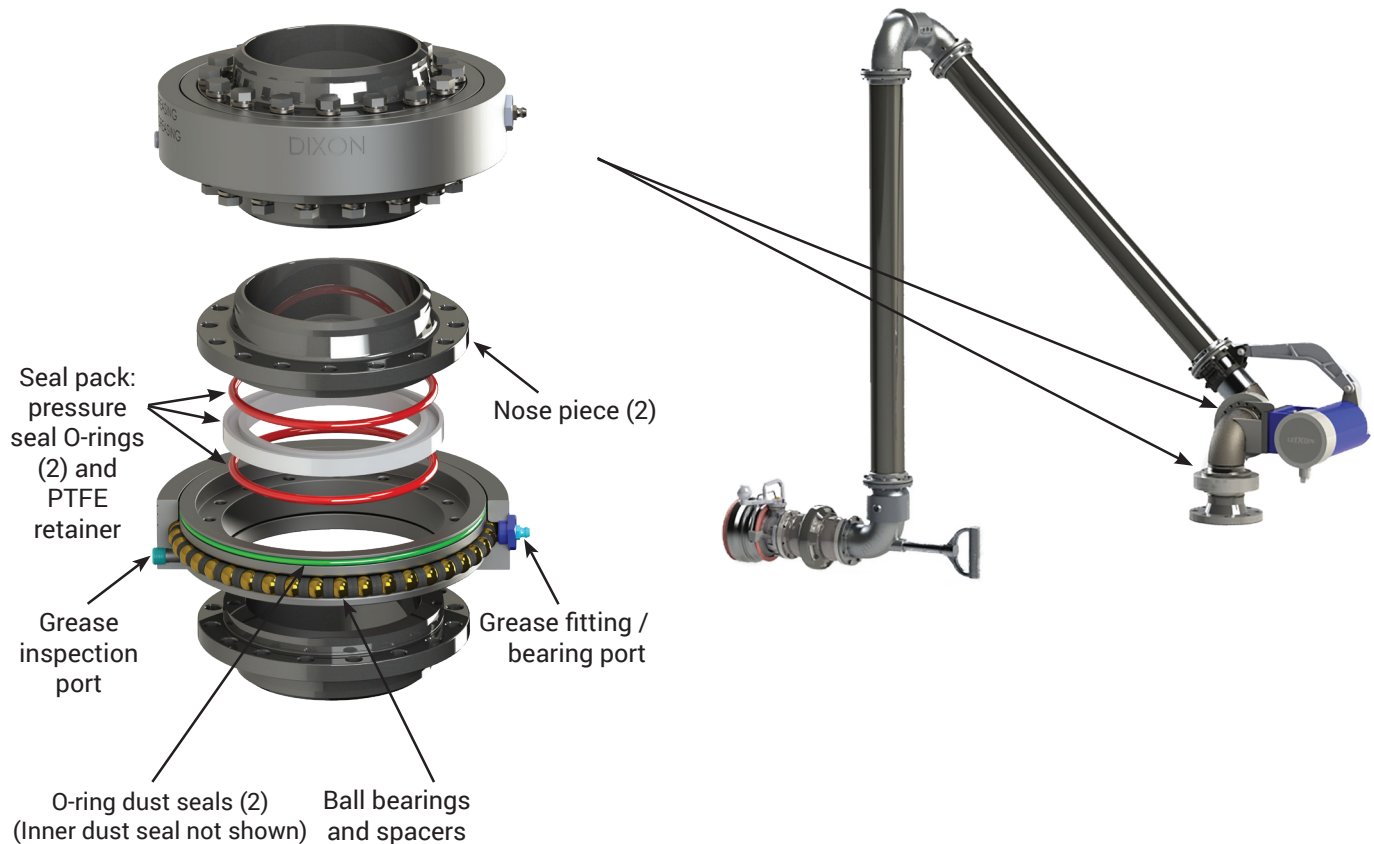


- a. Ceiling or roof height from riser pipe connection distance: _____
- b. Additional items being added by the customer (vapor hoses, drip buckets, hold-down chains, etc.) and estimated weight (pounds): _____

Sketches/Notes:

Custom options are available. Contact Dixon Specialty Products at 888.226.4673 or load-arms@dixonvalve.com.

Split Flange Swivels



Applications

- For use in industries from petroleum, blending plants, petrochemical, refining, mining, distilling, paint plants, farm irrigation and fertilizing, wastewater treatment, food and beverage process equipment, marine, and many more

Sizes

- 2", 3", and 4"

Features

- Bearing pack design allows easy seal change without removing the ball bearings
- Simple maintenance: remove one nose piece, replace seal pack, and reinstall with little downtime
- In-stream seal separates the wetted area from the ball bearings, allowing for longer bearing pack life compared to conventional swivels
- Wide-set bearing race for higher moment loads
- Compact design for low-profile applications
- Full penetration weld

Materials

- Bearing pack: through hardened forged high-carbon alloy
- Material contact surfaces: stainless steel, carbon steel, or aluminum nose pieces
- Seals: FKM-A, PTFE, and more upon request

Specifications

- Pressure rating: up to **600 PSI**
- Standard temperature range with Baylast seals is **-30°F to 212°F (-34°C to 100°C)**; contact factory for other temperature requirements

Available options

- Swivel end configurations: 150 lbs. and 300 lbs. flanges, FNPT, MNPT, butt weld, TTMA, and others upon request

O-Ring Swivel Joints

Applications

- Commonly used in aluminum loading/unloading arm applications

Sizes

- 1" - 4"

Features

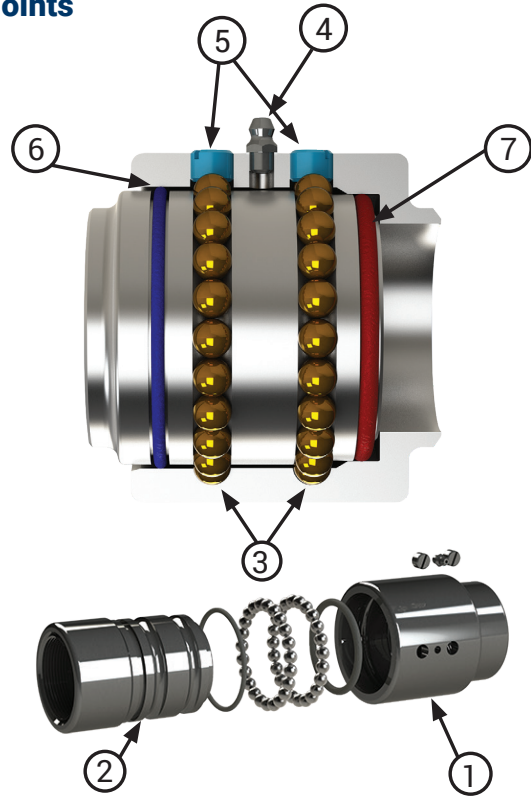
- O-ring pressure seal ensures a leak-proof seal and smooth rotation with lower torque
- Smooth moving seal for high-volume drum and tote loading
- Available working pressure ratings up to 1,000 PSI, based on material and end connections
- Available end connections include: 150 lbs. and 300 lbs. flanges, FNPT, MNPT, butt weld, TTMA, and others upon request
- End connections and materials offered may vary based on size, contact Dixon® for details

Materials

- Available materials include carbon steel, 316L stainless steel, aluminum, brass, and malleable iron

Bill of Materials

1. Body
2. Sleeve
3. Ball bearings
4. Grease fitting
5. Ball retainer screw
6. O-ring (dust seal)
7. O-ring (pressure seal)



V-Ring Swivel Joints

Applications

- V-ring, also known as chevron packing, is a multiple lip seal known for its reliability and long life
- The three V-ring seals are designed to seal even under misalignment caused by race wear from years of service. This design results in longer time between service periods, increased up-time efficiencies, and lower maintenance costs.

Sizes

- 2" - 12"

Features

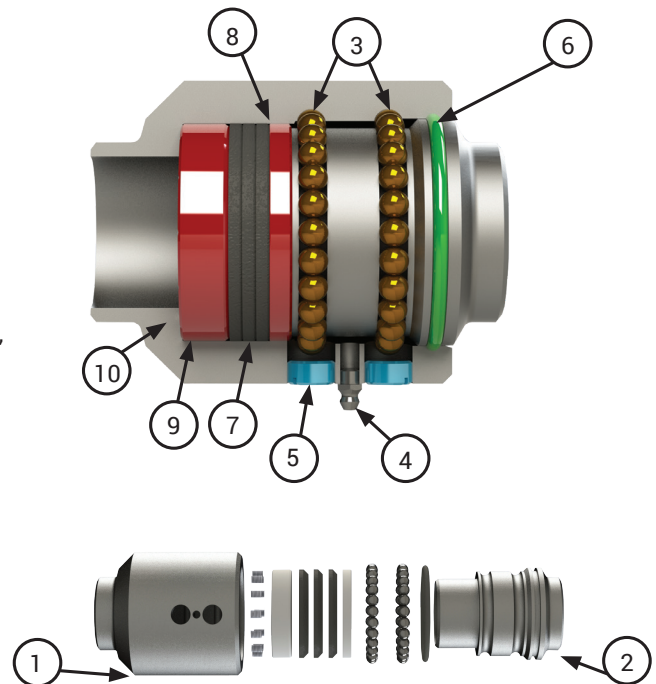
- Spring-loaded triple V-ring sealing system ensures a leak-proof seal at high or low pressure and extends seal life
- Swivels are shipped standard with the following:
 - Nitrile rubber pressure seals and dust seals
 - Carbon steel ball bearings
 - PTFE retainers in V-ring swivels
- Available working pressure ratings up to **1,000 PSI**
- End connections and materials offered may vary based on size, contact Dixon® for details

Materials

- Available materials include carbon steel, 316L stainless steel, and aluminum

Bill of Materials

1. Body
2. Sleeve
3. Ball bearings
4. Grease fitting
5. Ball retainer screw
6. O-ring (dust seal)
7. V-ring (pressure seal)
8. Seal retainer
9. Spring retainer
10. Springs



Base Swivels with Counterbalance

Sizes

- Carbon steel V-ring: 3", 4", and 6"
- Carbon steel split flange: 2", 3", and 4"
- 316 stainless steel split flange: 2", 3", and 4"

Features

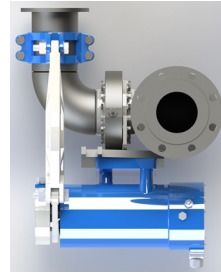
- Torsion spring counterbalance offered in right or left hand
- Style 50 or 70 available for base swivels based on configuration and flow of media
- Connecting arm and clamp included

Materials

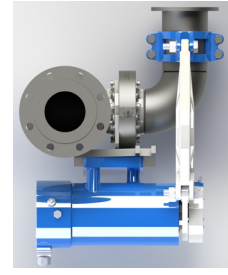
- Base swivel materials offered: carbon steel and 316 stainless steel
- Available seals include: nitrile rubber, FKM, low temperature FKM, PTFE, EPDM, or food-grade nitrile

Specifications

- Standard configurations below include carbon steel split flange base swivel, ESB1 torsion spring counterbalance, 150# flange inlet, and TTMA flange outlet
- Connection options include: 150# flange, 300# flange, and TTMA flange
- Other options available upon request



left hand style

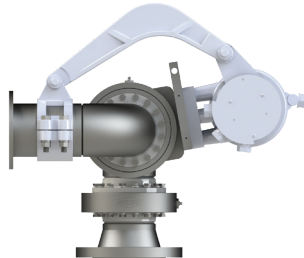


right hand style

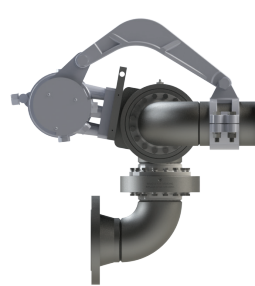
| Orientation | Seals | Counterbalance Spring | 3" Part # | 4" Part # |
|-------------|----------------|-----------------------|----------------|----------------|
| UFRH | Nitrile rubber | A | AB3G0000000000 | AB4G0000000000 |
| | | B | BB3G0000000000 | BB4G0000000000 |
| | | C | CB3G0000000000 | CB4G0000000000 |
| | FKM | A | AV3G0000000000 | AV4G0000000000 |
| | | B | BV3G0000000000 | BV4G0000000000 |
| | | C | CV3G0000000000 | CV4G0000000000 |
| UFLH | Nitrile rubber | E | EB3G0000000000 | EB4G0000000000 |
| | | F | FB3G0000000000 | FB4G0000000000 |
| | | G | GB3G0000000000 | GB4G0000000000 |
| | FKM | E | EV3G0000000000 | EV4G0000000000 |
| | | F | FV3G0000000000 | FV4G0000000000 |
| | | G | GV3G0000000000 | GV4G0000000000 |



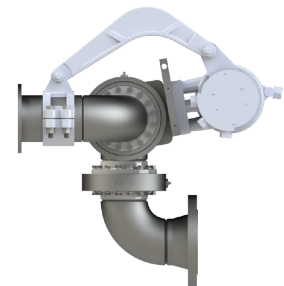
upfeed right-hand (UFRH)



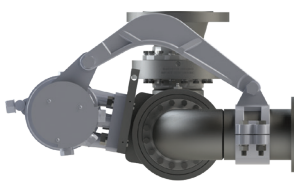
upfeed left-hand (UFLH)



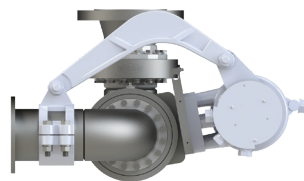
horizontal upfeed right-hand (HUFHRH)*



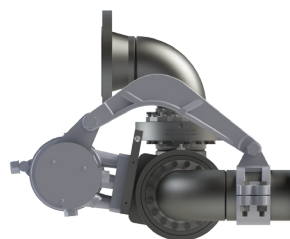
horizontal upfeed left-hand (HUFLH)*



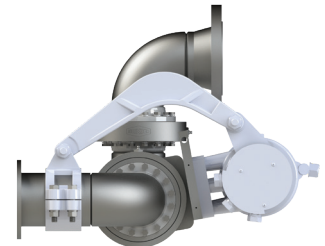
downfeed right-hand (DFRH)*



downfeed left-hand (DFLH)*



horizontal downfeed right-hand (HDFRH)*



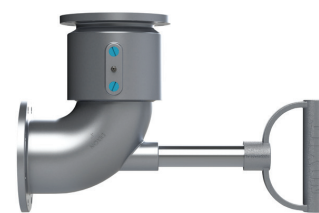
horizontal downfeed left-hand (HDFLH)*

*Not listed in chart above, contact Dixon® for details

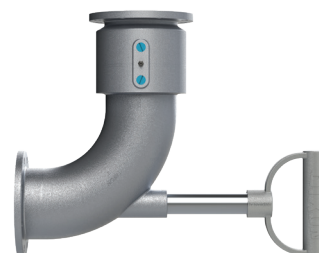
Loading Arm Swivels

Features

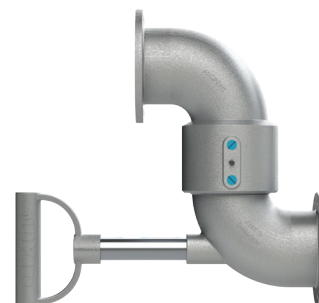
- TTMA-flanged aluminum loading arm swivel
- Optional D-handle or ball handle is used to guide the connection of the API load coupler to the adapter on the tank truck
- Optional long radius elbow improves the flow into the API load coupler and provides spacing between the load arm and the tank truck
- Can be used with flange extensions and other TTMA flanged accessories
- Available seals include: nitrile rubber, FKM, low temperature FKM, EPDM, or food-grade nitrile



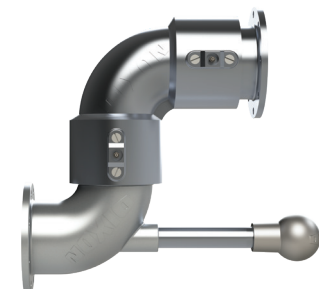
style 30, short radius



style 30, long radius



style 40



style 50

| Description | Handle | Seal | 3" Part # | 4" Part # |
|--------------------------|-------------|----------------|-----------------|-----------------|
| style 20 | no handle | Nitrile rubber | 320TFXTFAL00000 | 420TFXTFAL00000 |
| | | FKM | 320TFXTFAL11000 | 420TFXTFAL11000 |
| style 30 short radius | D-handle | Nitrile rubber | 33HTFXTFAL00000 | 43HTFXTFAL00000 |
| | | FKM | 33HTFXTFAL11000 | 43HTFXTFAL11000 |
| | ball handle | Nitrile rubber | 33BTFXTFAL00000 | 43BTFXTFAL00000 |
| | | FKM | 33BTFXTFAL11000 | 43BTFXTFAL11000 |
| | no handle | Nitrile rubber | 330TFXTFAL00000 | 430TFXTFAL00000 |
| | | FKM | 330TFXTFAL11000 | 430TFXTFAL11000 |
| style 30 long radius | D-handle | Nitrile rubber | --- | 43HTFTFLAL00000 |
| | | FKM | --- | 43HTFTFLAL11000 |
| | ball handle | Nitrile rubber | --- | 43BTFTFLAL00000 |
| | | FKM | --- | 43BTFTFLAL11000 |
| | no handle | Nitrile rubber | --- | 430TFTFLAL00000 |
| | | FKM | --- | 430TFTFLAL11000 |
| style 40 | D-handle | Nitrile rubber | 34HTFXTFAL00000 | 44HTFXTFAL00000 |
| | | FKM | 34HTFXTFAL11000 | 44HTFXTFAL11000 |
| | ball handle | Nitrile rubber | 34BTFXTFAL00000 | 44BTFXTFAL00000 |
| | | FKM | 34BTFXTFAL11000 | 44BTFXTFAL11000 |
| | no handle | Nitrile rubber | 340TFXTFAL00000 | 440TFXTFAL00000 |
| | | FKM | 340TFXTFAL11000 | 440TFXTFAL11000 |
| style 50 | D-handle | Nitrile rubber | 35HTFXTFAL00000 | 45HTFXTFAL00000 |
| | | FKM | 35HTFXTFAL11000 | 45HTFXTFAL11000 |
| | ball handle | Nitrile rubber | 35BTFXTFAL00000 | 45BTFXTFAL00000 |
| | | FKM | 35BTFXTFAL11000 | 45BTFXTFAL11000 |
| | no handle | Nitrile rubber | 350TFXTFAL00000 | 450TFXTFAL00000 |
| | | FKM | 350TFXTFAL11000 | 450TFXTFAL11000 |

Loading Arm Swivel Replacement Parts

| Description | Part # |
|----------------------------------|------------|
| 1" schedule 80 aluminum nipple | ATN100X7 |
| ball-style handle | 100BHAN-AL |
| D-Style heavy-duty shovel handle | 100DHAN-AL |
| Nitrile rubber seal kit | 4RK0BU |
| FKM-A seal kit | 4RKOVIVI |



Loading Arm Legs/Spools and Hoses



Sizes

- 1-1/2", 2", 3", 4", and 6"

Features

- Available connections include: TTMA flange, 150# flange, 300# flange, MNPT, FNPT, and weld end
- Additional options include: ports, jump sizes, handle, and bucket hooks

Materials

- Pipe: carbon steel, 316 stainless steel, and aluminum
- Hose: stainless steel metal and composite

Swivel Handles



100*HAN-AL



ATN100X7

Feature

- Threads into the elbow of a swivel

Material

- Aluminum

| Description | Part # |
|---|------------|
| ball handle for loading arm swivels | 100BHAN-AL |
| D-handle for loading arm swivels | 100DHAN-AL |
| 1" Schedule 80 nipple 7" overall length | ATN100X7 |

Top Loading Diffusers and T-Deflectors

Application

- Installed on drop leg of a top load loading arm to distribute media evenly to help reduce splash



diffuser

Features

- Diffusers distribute media evenly 360°
- T-deflectors distribute media to the sides of the tank, railcar, or tote
- Female NPT threaded

Materials

- Aluminum and stainless steel



T-deflector

| Size | Description | Part # |
|------|-----------------------------|-------------|
| 2" | aluminum T-deflector | 200-TLTD-AL |
| | stainless steel T-deflector | 200-TLTD-SS |
| 3" | aluminum 360° diffuser | TLD-300S |
| | aluminum T-deflector | 300-TLTD-AL |
| | stainless steel T-deflector | 300-TLTD-SS |
| 4" | aluminum 360° diffuser | TLD-400S |
| | aluminum T-deflector | 400-TLTD-AL |
| | stainless steel T-deflector | 400-TLTD-SS |

Split Flange Swivel Locking Kits

Applications

- Locks the swivel into a horizontal position
- Not to be used vertically

Feature


- Single or multiple hole design

Material

- Carbon steel



| Description | Part # |
|---|----------------|
| locking single hole T-handle kit for split flange swivel joints | LA-SFLOCKTHK-S |
| locking multiple hole T-handle kit for split flange swivel joints | LA-SFLOCKTHK-M |

Warning: This item is only intended to restrain the rotation during storage and is limited to a maximum of 12 in.-lbs. of torque. 

Locking Mechanism / Lock Bar Assembly

Application

- Used in top loading applications to help reduce sudden arm movement caused by pressure changes
- Contact Dixon® for more details

Material

- Carbon steel



Loading Arm Support Braces

Application

- Support the load on the arm for applications with a long reach or high moment load

Features

- Pillow block bearing support with turnbuckle for easy adjusting
- Clamp included for easy loading arm attachment
- Contact Dixon® for more details

Material

- Carbon steel



Counterbalances

Features

- Includes pivot arm (shown) and spring to help prevent possible pinch point
- Easy-adjust tension bolt, carbon steel housing

| Description | Part # |
|---|--------|
| light-duty white torsion spring, right hand | ESB1/A |
| medium-duty yellow torsion spring, right hand | ESB1/B |
| heavy-duty red torsion spring, right hand | ESB1/C |
| light-duty black torsion spring, left hand | ESB1/E |
| medium-duty grey torsion spring, left hand | ESB1/F |
| heavy-duty orange torsion spring, left hand | ESB1/G |



ESB1/A

Counterbalance Connecting Arm Clamps

Feature

- Clamps link counterbalance connecting arm to the primary leg

Materials

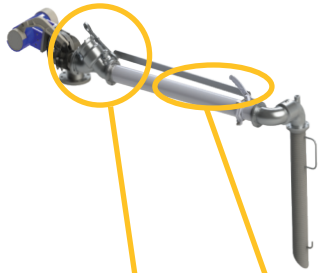
- 2" clamp: stainless steel
- 3" and 4" clamp: iron

| Size | Description | Part # |
|------|---|-------------|
| 2" | counterbalance connecting arm clamp for 2" pipe | ESB-CLAMP-2 |
| 3" | counterbalance connecting arm clamp for 3" pipe | ESB-CLAMP-3 |
| 4" | counterbalance connecting arm clamp for 4" pipe | ESB-CLAMP-4 |



ESB-CLAMP-3

Top Loading Valves and Accessories



Applications

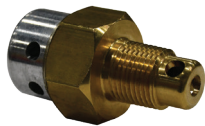
- Manual or remote controlled valve mounts before the loading arm horizontal leg to control flow
- Used in top loading fuels and other low viscosity media

Features

- Adjustable closure rate
- Manually operated "Deadman" style with spring-loaded handle
- Optional remote-handle available

Materials

- Valve: aluminum
- Vacuum breaker body: brass
- Vacuum breaker housing: aluminum
- Seals: FKM



| Size | Description | Part # |
|------|--|-------------------------|
| 2" | top loading valve with FNPT and vacuum breaker | TLV-200FTVBVIAL |
| 2" | top loading valve with TTMA flanges and vacuum breaker | TLV-200TFVBVIAL |
| 3" | top loading valve with TTMA flanges and vacuum breaker | TLV-300TFVBVIAL |
| 4" | top loading valve with TTMA flanges and vacuum breaker | TLV-400TFVBVIAL |
| 2" | valve remote, handle, and bracket kit with bar | TLRVK-200X58AL |
| 3" | valve remote, handle, and bracket kit with bar | TLRVK-300X58AL |
| 4" | valve remote, handle, and bracket kit with bar | TLRVK-400X58AL |
| 2" | valve remote, handle, and bracket kit | AT1350-2 |
| 3" | valve remote, handle, and bracket kit | AT1350-3 |
| 4" | valve remote, handle, and bracket kit | AT1350-4 |
| 1/2" | vacuum breaker, BSP threads | VB-050-BSP ¹ |
| 1/2" | vacuum breaker, NPT threads | VB-050-NPT |

¹ Replacement vacuum breaker for top loading valve.

TTMA-Series Flange Adapters

Features

- Simply and easily converts threaded components to a standard TTMA flange configuration
- Solid cast lightweight aluminum design is more durable than welded fabrications
- Design improves flow through adapter
- Compact size reduces the overall space needed to install

TTMA Flange x Female NPT Adapters

| TTMA Flange | Female NPT | Overall Length | Aluminum Part # |
|-------------|------------|----------------|-----------------|
| 4" | 3" | 2-1/2" | TTF4AL-3FT |
| | 4" | 2-1/2" | TTF4AL-4FT |

TTMA Slip-on Socket Weld Flange

| TTMA Flange | Pipe Size | 356T6 Aluminum Part # |
|-------------|-----------|-----------------------|
| 3" | 3" | TTF300SP |
| 4" | 4" | TTF400SP |



TTMA Flange Gaskets

| Size | O.D. | I.D. | Thick. | Material | Part # |
|------|----------|---------|--------|-----------------------------------|-----------|
| 3" | 5-5/8" | 3-1/2" | 1/8" | Cork / Nitrile rubber | 300GTTFCB |
| | 5-15/16" | 3-1/4" | 5/32" | PTFE envelope with Klinger filler | 300GTTFTK |
| | 5-5/8" | 3-1/2" | 1/8" | Klingsil® C-4300 | 300GTTFK |
| | 5-29/32" | 3-1/2" | 3/32" | PTFE with fiber core | 40321TF |
| | 5-5/8" | 3-5/8" | 1/8" | Baylast | 300GTTFBL |
| 4" | 6-5/8" | 4-9/16" | 1/8" | Cork / Nitrile rubber | 400GTTFCB |
| | 6-15/16" | 4-1/4" | 5/32" | PTFE envelope with Klinger filler | 400GTTFTK |
| | 6-5/8" | 4-9/16" | 1/8" | Klingsil C-4401 | 400GTTFK |
| | 6-7/8" | 4-9/16" | 3/32" | PTFE with fiber core | 40322TF |
| | 6-5/8" | 4-5/8" | 1/8" | Baylast | 400GTTFBL |



NOTE: For flange dimensions, diagrams, and additional information, please reference dixonvalve.com.

Betts Wet-R-Dri™ Valves

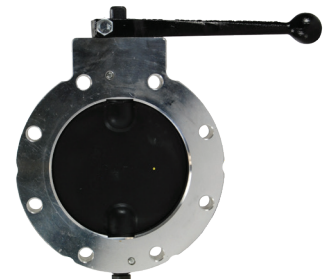
Applications

- Designed for handling liquid, gaseous, or dry products

Features

- Positive stop in the open and closed position
- Detent spring and ball assist in holding the disc in the open and closed position

| Size | Description | Part # |
|------|---|-----------|
| 3" | TTMA Wet-R-Dri valve with manually operated detent handle | WD301ALVB |
| 3" | TTMA Wet-R-Dri valve with manually operated metering handle | WD304ALVB |
| 4" | TTMA Wet-R-Dri valve with manually operated detent handle | WD401ALVB |
| 4" | TTMA Wet-R-Dri valve with manually operated metering handle | WD404ALVB |



WD401ALVB

TTMA Flanged Sight Flow Indicators



Features

- TT3ASG-ETH and TT4ASG-ETH for use with ethanol
- 5201-SFI for use with gasoline and diesel, up to E100 and B100 biofuels
- Tank truck flange gaskets and dimensional information at dixonvalve.com

Material

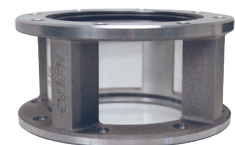
- Acrylic
- Baylast seals (in 5201-SFI only)

Specifications

- Maximum flange bolt torque is 200 in-lbs. 
- Due to the proprietary blending of petroleum products, Dixon recommends that the thermoplastic tubing and the gaskets be immersion tested in the product to be handled to ensure compatibility
- Not compatible with crude oil 



TT4ASG-ETH



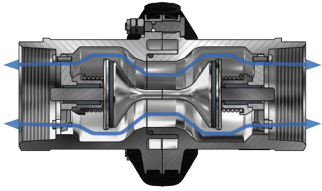
5201-SFI

| Size | Nominal Width | Part # |
|------|---------------|------------|
| 3" | 1-3/4" | TT3ASG-ETH |
| 4" | 1-3/4" | TT4ASG-ETH |
| 4" | 3-1/4" | 5201-SFI |

Safety Breakaways

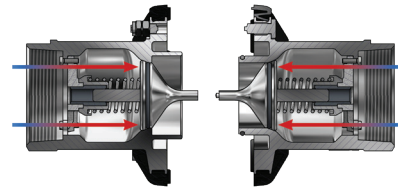
How it Works

Safety break-away couplings have three external breaking bolts. In the case of axial tension, all of the bolts take up the force corresponding to the break force on the hose with a safety margin. Non-axial forces concentrate the tension force more strongly on one bolt, so that the safety break-away coupling reacts in a natural way to the reduction of the hose break forces.



BEFORE emergency disconnect

The safety break-away valve consists of two halves, each with a valve that has an O-ring seal.



AFTER emergency disconnect

When the safety break-away couplings separate, the valves are able to close. The two valves close rapidly, minimizing exposure to personnel and the environment.

TTMA Flanged Breakaway Coupling

Application

- Installs between an API coupler and loading arm

Features

- Minimizes spillage and damage associated with driveaway and pull-away incidents
- Passive security against situations where a hose or loading arm could be subjected to inadvertent excessive loads
- Coupling automatically disconnects and closes the valves under excessive loads
- High flow rate/low pressure drop
- FKM/FPM is standard seal

Specification

- 150 PSI at ambient temperature 70°F (21°C)



| Size | Material | Part # |
|------|----------------------------|----------------|
| 4" | aluminum | SBC400ALTTMA |
| 4" | aluminum - compact version | SBC400ALTTMACP |

5900 -Series Safety Breakaway Coupling

Application

- Designed to protect loading arms and hoses used in petroleum loading applications

Features

- Designed to shear and separate protecting the loading arm or hose and preventing spillage of liquid product
- Sheared bolts are replaceable allowing the fitting to be reassembled and put back in service
- Poppet design holds open permitting low pressure drop flow through the coupling, should the coupling shear as a result of a drive away, the internal poppets will snap shut preventing spillage and loss of product
- Compact, fits behind any API loading coupler
- PTFE seal option is typically used in fuel applications to resist long term exposure to fuel additives
- Break force varies with line pressure, refer to the Maintenance & Operating Instructions for 5900-Series Breakaway Couplings

Materials

- Seal material options include nitrile rubber, FKM-GFLT, and PTFE
- Aluminum A356T6

| Size | Seal Material | Part # |
|------|-----------------------|--------------|
| 4" | nitrile rubber | 5900ALBN400A |
| | FKM encapsulated PTFE | 5900ALTV400A |
| | FKM-GFLT | 5900ALVG400A |



5900ALBN400A

TTMA Flange Extensions

Applications

- Used to connect an API coupler to a loading arm
- TTMA flange extension provides additional clearance near swivels, elbows, and valves
- Extension with groove provides a specified parting point to prevent excessive damage to the loading arm

Features

- Adds a 6" space to allow for clearance between the loading arm and the tank truck
- Color coded extensions are offered for product identification
- Other colors available upon request. Consult Dixon® for more details

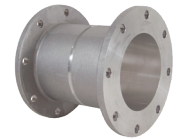
Materials

- Aluminum and powder coated aluminum

| Size | Description | Part # |
|------|---|---------------|
| 4" | TTMA flange extension | TETF4AL |
| | TTMA flange extension with groove | TETFG4AL |
| | TTMA flange extension with 1/2" female NPT port | TETF4ALFP50 |
| | TTMA flange extension with 3/4" female NPT port | TETF4ALFP75 |
| | TTMA flange extension; color-coded white | TETF4AL-W |
| | TTMA flange extension; color-coded blue | TETF4AL-B |
| | TTMA flange extension; color-coded green | TETF4AL-G |
| | TTMA flange extension; color-coded red | TETF4AL-R |
| | TTMA flange extension; color-coded yellow | TETF4AL-Y |
| | TTMA flange extension; color-coded orange | TETF4AL-O |
| | TTMA flange extension; color-coded black | TETF4AL-BLK |
| | TTMA flange extension; color-coded combination green and yellow | TETF4AL-G/Y |
| | TTMA flange extension; color-coded combination blue and white | TETF4AL-B/W |
| | TTMA flange extension; color-coded combination blue and red | TETF4AL-B/R |
| | TTMA flange extension; color-coded combination white and red | TETF4AL-W/R |
| | TTMA flange extension; color-coded combination red, white, and blue | TETF4AL-R/W/B |



TETF4AL



TETFG4AL



TETF4AL-W



TETF4AL-B



TETF4AL-G



TETF4AL-R



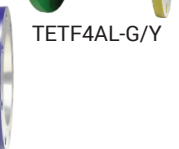
TETF4AL-Y



TETF4AL-G/Y



TETF4AL-R/W/B



TTMA Flange Extension Reducing Spools

| Size | Description | Material | Part # |
|---------|--------------------------------------|-----------------|-----------|
| 3" x 4" | TTMA flange extension reducing spool | aluminum | TETF3X4AL |
| | TTMA flange extension reducing spool | carbon steel | TETF3X4CS |
| | TTMA flange extension reducing spool | stainless steel | TETF3X4SS |



TETF3X4AL

5500-Series API Couplers



Normal wear and tear items (including seals) not covered¹

Applications

- Combined with API adapters, these couplers are suitable for rail car and tank truck loading or unloading

Features

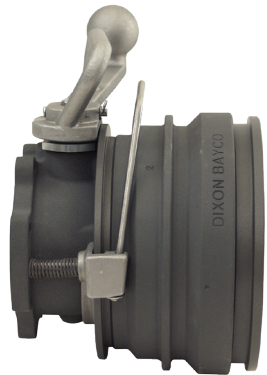
- Locking five-cam design provides easy alignment and tight connection
- Modular design allows various face seal combinations to be compatible with different alternative fuels, performance levels, and applications
- Replaceable nose seal can be changed without removing coupler from loading arm
- Fully interlocked collar prevents fitting from opening when disconnected and from being disconnected while opened
- 4" TTMA inlet mounting flange connection
- Ball-end handle for easy and comfortable operation
- No special tools needed for maintenance

Materials

- Body: 356 T6 aluminum anodized hard-coat
- Cam: stainless steel
- Poppet: 356T6 aluminum anodized hard-coat
- Seals: FKM-GFLT standard; Baylast, EPDM, Fluoroelastomer, FKM-B, HiFluor[®]
- Link, shaft, pin, crank: hardened 17-4PH stainless steel
- Handle: aluminum, stainless steel

Specifications

- Seal operating temperature:
 - Baylast: -35°F to 212°F (-37°C to 100°C)
 - EPDM: -20°F to 250°F (-28°C to 121°C)
 - FKM-B: -10°F to 400°F (-23°C to 204°C)
 - FKM-GFLT: -30°F to 400°F (-34°C to 204°C)
 - Fluorosilicone: -50°F to 350°F (-45°C to 176°C)
 - HiFluor: -15°F to 400°F (-26°C to 204°C)
- Flow rate: 600 GPM at 3 PSI pressure drop; maximum flow rate: 1,000 GPM
- Fully compliant with API RP1004:2003 specifications
- Maximum allowable working pressure: 150 PSI
- Surge pressure: 350 PSI



5500-Series



Replaceable nose seal:
Replace without removal from the loading arm



5500RK24

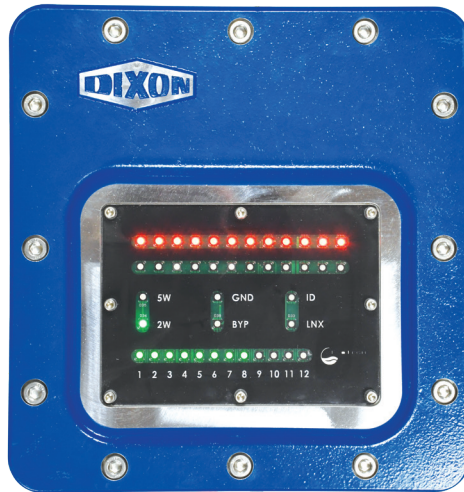
| Description | Seal Material | Part # | Complete Repair Kit ¹ Part # | Replaceable Nose Seal Part # |
|----------------|----------------|--------|--|---------------------------------|
| 4" API coupler | Baylast | 5500BL | 5500RK2 | 5500RK8 |
| | EPDM | 5500E | 5500RK3 | 5500RK9 |
| | FFKM | 5500K | 5500RK6 | 5500RK12 |
| | FKM-B | 5500B | 5500RK1 | 5500RK7 |
| | FKM-GFLT | 5500G | 5500RK5 | 5500RK11 |
| | Fluorosilicone | 5500F | 5500RK4 | 5500RK10 |
| | HiFluor | 5500H | 5500RK19 | 5500RK20 |

¹ Complete repair kit contains all the seals, pins, and cotter keys to replace all the seals.
NOTE: Stainless steel handles and locking handle kit options are available please contact Dixon for a quote.

API Coupler Repair Kits

| Description | Part # |
|--|----------|
| small parts kit for 5500 series rack coupler | 5500RK21 |
| aluminum replacement handle kit with bolt and nut | 5500RK22 |
| stainless steel replacement handle kit with bolt and nut | 5500RK23 |
| locking handle kit | 5500RK24 |
| aluminum short handle replacement kit with bolt and nut | 5500RK25 |
| replacement poppet kit with links, pins, and cotter pin | 5500RK26 |
| replacement seal cylinder - no seal | 5500RK27 |
| replacement FKM-GFLT bearing kit for 5500 | 5500RK51 |

Overfill Protection - Rack Monitor



FT7000

FT7000
Rack MonitorFT7500
Junction BoxFT600
Rack Cord

Application

- Installed on the gantry to control the loading process of petroleum fuels or other hazardous liquid into cargo tanks

Features

- Automatically switches between 2-wire or 5-wire type sensors
- Compatible with analog 2-wire thermistor type sensors
- Redundant relay outputs prevent single point failures
- Data management via RS485 port
- Wireless bypass key system
- Ground verification
- Reads trailer identification modules

Approvals

- Meets API RP1004 and EN13922 standards
- Suitable for Class I, Division 1, Group CD and Class I, Zone 1, Group IIB
- Rated to IP66

API-Compatible Systems



FT7500



FT7501



FT7502



FT600



FT620



FT600P
with 13-pin plastic



FT620P
with J560 aluminum

Features

- Plug is color-coded (5-wire optic) blue or (2-wire optic/thermistor) green
- Highly visible orange/blue safety jacket to meet trip hazard requirements
- Cord is bonded mechanically and resistant to abrasion and oil
- Cord sets are interchangeable with Scully and Civacon
- All wiring is compatible with standard Scully color codes and wiring number configurations
- The 9-pin conductor is shielded to be compatible with Scully VIP system
- For mating socket, consult Dixon®

Materials

- Plug body: reinforced nylon
- Button contacts: 316 stainless steel
- All other hardware: stainless steel

Order Guide

| Part # | Rack Monitor Description |
|--|---|
| FT7000 | rack monitor, auto switch between 2-wire / 5-wire sensors, ground verification, and trailer identification modules; API RP 1004 / EN13922 |
| Safe-T Connect Junction Box Description | |
| FT7600 | 8-pin, 2J, green API plug, and 30' safety orange coiled cable |
| FT7600-4 | 8-pin, 4J, green API plug, and 30' safety orange coiled cable |
| FT7600C | 10-pin, 4J, green API plug, and 30' safety orange coiled cable |
| FT7600P | 8-pin, 2J, green API plug, 30' safety orange coiled cable, and Plug-n-Play connector |
| FT7600S | 8-pin, 2J, green API plug, and 20' safety orange straight cable |
| FT7620 | 6-pin, 3J, blue API plug, and 30' blue coiled cable |
| FT7620P | 6-pin, 3J, blue API plug, 30' blue coiled cable, and Plug-n-Play connector |
| FT7620S | 6-pin, 3J, blue API plug, and 20' blue straight cable |
| FT7630 | 10-pin, 4J, black plug per EN13922, and 30' blue shielded coiled cable |
| FT7630D | 10-pin, 4J, black plug per EN13922, and 30' blue shielded coiled cable with Dixon Bayco® break-away |
| Junction Box Description | |
| FT7500 | single cord junction box |
| FT7501 | dual cord junction box |
| FT7502 | junction box with Cole Hersee yellow 13-pin break-away |
| FT7503 | junction box with D-type pigtail break-away |
| Rack Cord Description | |
| FT600 | 8-pin, 2J, API thermistor plug, and 30' safety orange coiled cable |
| FT600-4 | 8-pin, 4J, API thermistor plug, and 30' safety orange coiled cable |
| FT600C | 10-pin, 4J, API thermistor plug, and 30' safety orange coiled cable |
| FT600P | 8-pin, 2J, API thermistor plug, and 30' safety orange coiled cable with 13-pin Plug-n-Play |
| FT600S | 8-pin, 2J, API thermistor plug, and 20' safety orange straight cable |
| FT620 | 6-pin, 3J, API optic plug, and 30' blue coiled cable |
| FT620P | 6-pin, 3J, API optic plug, 30' blue coiled cable and Plug-n-Play connector |
| FT620S | 6-pin, 3J, API optic plug, and 20' blue straight cable |
| FT630 | 10-pin, 4J, black plug per EN13922, and 30' blue shielded coiled cable |
| FT630D | 10-pin, 4J, black plug per EN13922, 30' blue shielded coiled cable, and Dixon Bayco break-away |

Vapor Recovery Couplers

Features

- "Floating bridge" poppet design allows optimal flow
- Machined hose shank ensures easier insertion into hose and better sealing
- Durable and easy-to-couple
- Big wings ensure contact with air interlock button on tanker, helping prevent drive-offs
- Change poppet seal without removing the coupler from the hose
- Secure to hose with traditional band clamps or built-in crimp collar
- 4" MNPT version allows for either cam and groove or threaded flange option
- 45° angle version relieves stress common to vapor hoses, swivel version also available

Materials

- Coupler: aluminum
- Seal: nitrile rubber
- Cam arms: stainless steel

| Description | Part # |
|---------------------------------------|----------------|
| 4" coupler x 4" hose shank | VR4040CS-AL |
| 4" coupler x 3" 45° hose shank | VR4030CS-AL45 |
| 4" coupler x 4" 45° hose shank | VR4040CS-AL45 |
| 4" coupler x 4" 45° hose shank swivel | VR4040CS-ALS45 |
| 4" coupler x 4" MNPT connection | VR4040CS-4MNPT |
| 4" coupler x 4" female NPT | VR4040CS-4FNPT |
| 4" coupler x 3" hose shank | VR4030CS-SH |
| seal repair kit | VR4040CSRK1 |
| cam arm repair kit | VR4040CSRK2 |



VR4040CS-AL



VR4030CS-AL45 and
VR4040CS-AL45



VR4040CS-ALS45



VR4040CS-4MNPT
(TTF4AL-4FT sold separately)

Vapor Recovery Plates and Splash Guards

Application

- Vapor recovery plates are used to prevent unwanted emissions and to recover vapors that occur when products are being top loaded
- Splash guards are also used in top-loading applications, to reduce unwanted splash of products such as asphalt or other media while being loaded

Sizes

- Designed to work with 2", 3", and 4" loading arms

Features

- Design based on customers' needs and can be highly customized
- Available features include: threaded NPT ports, viewing ports, and handles
- Available connections include: cam & groove fittings, TTMA flanges, NPT threaded connections

Materials

- Vapor plate available materials include: aluminum and stainless steel
- Vapor plate gasket available materials include: nitrile rubber and FKM
- Splash guard available materials include: aluminum



vapor recovery plate



splash guard

Limited Warranty

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

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

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