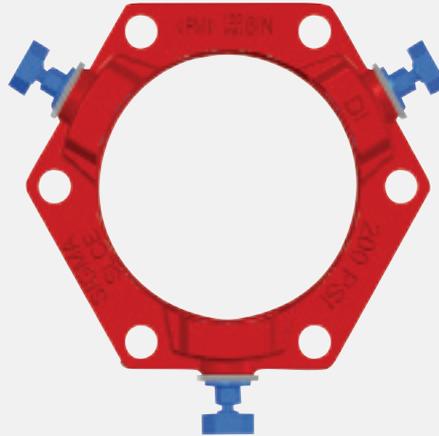
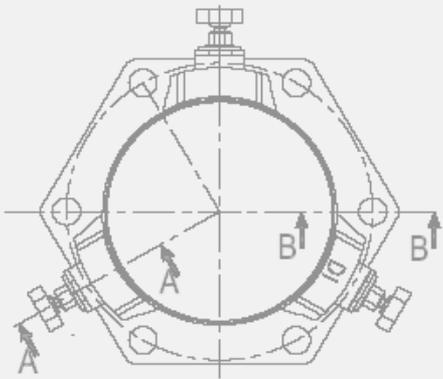
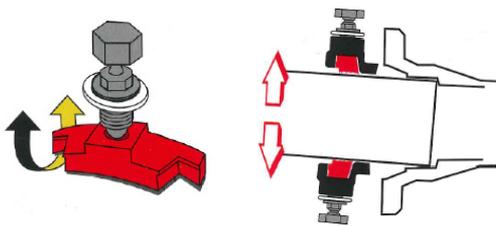


# ONE-LOK™ Series SLCE for PVC Pipe



## Features & Advantages:



1) The SIGMA ONE-LOK Series SLCE is a mechanical joint restraining gland that implements a series of individually activated wedges into the mechanical joint follower gland. When the wedge segment is engaged by the actuating bolt, the primary contact edges of each wedge segment lock onto the pipe wall. This action causes the primary contact edges to grip the pipe and effectively restrain all classifications of both AWWA C900/C905 and ASTM D2241 IPS size PVC pipe.

2) ONE-LOK SLCE's precision contoured wedges provide proper contact and support of the PVC pipe wall. Each wedge is manufactured with an elongated contour that evenly matches the outside circumference of each nominal diameter of PVC pipe.

3) ONE-LOK SLCE's wedge actuating bolt provides the installer with two visual torque indicators. The breakaway top and secondary shoulder stop ensure proper engagement of the wedge segment at the time of installation. Unlike other actuating bolts, the ONE-LOK SLCE is manufactured with a proprietary quality control system that ensures the breakaway tops will activate at the correct torque. The breakaway top is sized to match the same dimensions of the bolts and nuts used to assemble the mechanical joint fitting and follower gland, eliminating the need for special installation tools. Once engaged, the actuating bolt leaves a residual hex-head shank, allowing post-installation disassembly of the restrained joint, if necessary.

4) ONE-LOK SLCE also features a non-corrosive, two-piece ABS plastic spacer that is removed when using the product to restrain IPS sized pipes meeting ASTM D2241. The two-piece design of this spacer allows it to be removed without requiring disassembly of the product. When the ONE-LOK SLCE is used to restrain pipes meeting AWWA C900, the spacer is left intact on the actuating bolt.

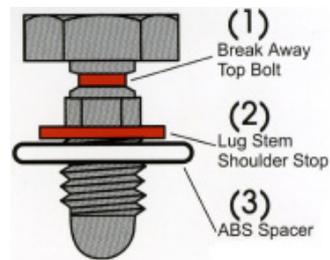
5) ONE-LOK SLCE's unique wedge segment and actuating bolt design allows the two components to interface using a cam action principle, allowing the wedge segments to rock and increase their grip on the pipe wall as thrust on the assembled joint increases. This also allows improved resistance to subsidence, seismic forces, and other movement within the maximum deflection limitations of the mechanical joint under applicable AWWA standards.

SIGMA ONE-LOK SLCE's can be used on all pressure classes and thicknesses of PVC pipe.

ONE-LOK's unique **CAM ACTION** allows the restraining lugs to "rock" and grip the PVC pipe wall more securely as thrust force increases, and allows for subsidence, seismic or other forces after installation, up to the maximum allowed deflection.

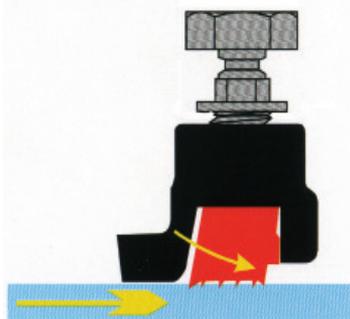


# ONE-LOK™ Series SLCE for PVC Pipe



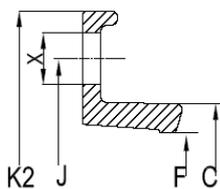
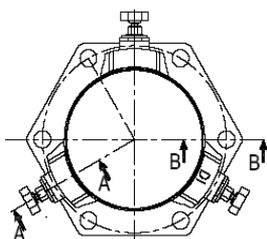
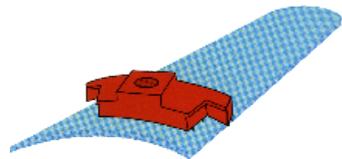
## Sample Specification:

Restraint for standard mechanical joint fittings shall be incorporated in the design of the follower gland and shall utilize multiple wedge segments that act against the pipe, increasing their resistance as the line pressure increases. The assembled joint shall maintain the maximum flexibility and deflection of all nominal pipe sizes after burial. Restraining gland, wedge segments, and actuating bolts shall be manufactured of high strength ductile iron conforming to the requirements of ASTM A536, Grade 65-45-12. Dimensions shall be compatible with standardized mechanical joints conforming to the requirements AWWA C111/ANSI A21.11 and AWWA C153/ANSI 21.53 through 24" (latest revision). Breakaway tops shall be incorporated in the design of the actuating bolts to visually ensure proper torque. The manufacturing of the actuating bolt must incorporate a quality control procedure that is deemed acceptable by the specifier and positively assures precise and consistent operating torque of the breakaway top. The mechanical joint restraining devices shall have a working pressure rating of 235 psi and provide no less than a safety factor of 2:1. Restraint shall be FM approved in applicable sizes. Restraining device shall be SIGMA ONE-LOK™ or approved equal.

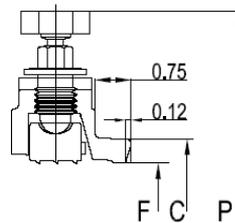


## Material:

- Gland body, brackets, wedge segments & actuating bolts ASTM A536 65-45-12 ductile iron.
- Restraining Rods & Nuts: High strength, low alloy steel meeting AWWA/ANSI C111/A21.11 with minimum 65,000 psi tensile strength and 45,000 psi yield strength.
- Side Clamping Bolts & Hex Nuts: ASTM A449 high strength steel.



SECTION B - B



SECTION A - A

## Dimensions in Inches, Weights in Pounds

| Size | Item # | Weight | PVC Pipe DI OD | IPS Pipe OD | Dimensions |       |       |      |       |       |       |       | Bolts and Inserts |      |        | T-bolts |           |         | Gasket |        |
|------|--------|--------|----------------|-------------|------------|-------|-------|------|-------|-------|-------|-------|-------------------|------|--------|---------|-----------|---------|--------|--------|
|      |        |        |                |             | C          | F     | K2    | T    | P     | P*    | X     | J     | No                | Size | Torque | No      | Size      | Torque  | No     | Item # |
| 3    | SLCE3  | 6.21   |                | 3.50        | 4.76       | 3.60  | 7.18  | 0.60 | 9.42  | 8.50  | 0.750 | 6.14  | 2                 | 7/8  | 45-55  | 4       | 5/8 x 3.0 | 45-60   | 1      | TG-3   |
| 4    | SLCE4  | 6.78   | 4.80           | 4.50        | 5.92       | 4.90  | 7.92  | 0.60 | 10.22 | 9.30  | 0.875 | 7.50  | 2                 | 7/8  | 50-60  | 4       | 3/4 x 3.5 | 80-90   | 1      | MG-4   |
| 6    | SLCE6  | 10.28  | 6.90           | 6.63        | 8.01       | 7.00  | 10.00 | 0.60 | 12.87 | 11.95 | 0.875 | 9.50  | 3                 | 7/8  | 50-60  | 6       | 3/4 x 3.5 | 80-90   | 1      | MG-6   |
| 8    | SLCE8  | 14.48  | 9.05           | 8.63        | 10.17      | 9.15  | 12.18 | 0.75 | 14.37 | 13.45 | 0.875 | 11.75 | 4                 | 7/8  | 50-60  | 6       | 3/4 x 4.0 | 80-90   | 1      | MG-8   |
| 10   | SLCE10 | 21.40  | 11.10          | 10.75       | 12.22      | 11.20 | 14.60 | 0.85 | 16.68 | 15.76 | 0.875 | 14.00 | 6                 | 7/8  | 50-60  | 8       | 3/4 x 4.0 | 80-90   | 1      | MG-10  |
| 12   | SLCE12 | 26.96  | 13.20          | 12.75       | 14.32      | 13.30 | 16.64 | 0.85 | 18.58 | 17.66 | 0.875 | 16.25 | 8                 | 7/8  | 50-60  | 8       | 3/4 x 4.0 | 80-90   | 1      | MG-12  |
| 14   | SLCE14 | 33.67  | 15.30          |             | 16.40      | 15.44 | 20.25 | 1.20 | 21.68 | 19.98 | 0.875 | 18.75 | 10                | 7/8  | 55-65  | 10      | 3/4 x 4.5 | 80-90   | 1      | MG-14  |
| 16   | SLCE16 | 41.67  | 17.40          |             | 18.50      | 17.54 | 22.45 | 1.21 | 23.65 | 21.95 | 0.875 | 21.00 | 12                | 7/8  | 55-65  | 12      | 3/4 x 4.5 | 80-90   | 1      | MG-16  |
| 18   | SLCE18 | 49.50  | 19.50          |             | 20.60      | 19.64 | 24.75 | 1.25 | 25.79 | 24.09 | 0.875 | 23.25 | 12                | 7/8  | 55-65  | 12      | 3/4 x 4.5 | 80-90   | 1      | MG-18  |
| 20   | SLCE20 | 61.17  | 21.60          |             | 22.70      | 21.74 | 27.00 | 1.34 | 28.16 | 26.46 | 0.875 | 25.50 | 14                | 7/8  | 55-65  | 14      | 3/4 x 5.0 | 80-90   | 1      | MG-20  |
| 24   | SLCE24 | 79.33  | 25.80          |             | 26.90      | 25.94 | 31.50 | 1.46 | 32.70 | 31.00 | 0.875 | 30.00 | 16                | 7/8  | 55-65  | 16      | 3/4 x 5.0 | 80-90   | 1      | MG-24  |
| 30   | SLCE30 | 198.00 | 32.00          |             | 33.29      | 32.17 | 38.42 | 2.00 | 41.92 | 39.92 | 1.125 | 36.88 | 20                | 1.00 | 65-75  | 20      | 1 x 6.5   | 100-120 | 1      | MGS-30 |
| 36   | SLCE36 | 248.00 | 38.30          |             | 39.59      | 38.47 | 46.00 | 2.00 | 48.78 | 46.78 | 1.125 | 43.75 | 24                | 1.00 | 65-75  | 24      | 1 x 6.5   | 100-120 | 1      | MGS-36 |

ONE-LOK SLCE was previously referred to as model SLC

P\* Dim shows OD after head is broken/removed.



Sizes 4" - 12" are UL listed and have been tested in accordance with ASTM F1674.  
 Sizes 4" - 12" are FM approved on AWWA C900 pipe.



Quality – Service – Commitment – Delivered.

| Nominal Pipe Size | Item # | Pressure Rating |      |      |      |      |        |        |      |      |            |       |       |         |       |     |
|-------------------|--------|-----------------|------|------|------|------|--------|--------|------|------|------------|-------|-------|---------|-------|-----|
|                   |        | C900            |      |      |      |      |        |        |      |      | ASTM D2241 |       |       |         |       |     |
|                   |        | DR14            | DR17 | DR18 | DR21 | DR25 | DR27.5 | DR32.5 | DR41 | DR51 | SDR17      | SDR21 | SDR26 | SDR32.5 | SDR41 |     |
| 3                 | SLCE3  | -               | -    | -    | -    | -    | -      | -      | -    | -    | -          | 250   | 200   | 160     | 125   | 100 |
| 4                 | SLCE4  | 305             | 250  | 235  | 200  | 165  | 150    | -      | -    | -    | 250        | 200   | 160   | 125     | 100   |     |
| 6                 | SLCE6  | 305             | 250  | 235  | 200  | 165  | 150    | -      | -    | -    | 250        | 200   | 160   | 125     | 100   |     |
| 8                 | SLCE8  | 305             | 250  | 235  | 200  | 165  | 150    | -      | -    | -    | 250        | 200   | 160   | 125     | 100   |     |
| 10                | SLCE10 | 305             | 250  | 235  | 200  | 165  | 150    | -      | -    | -    | 250        | 200   | 160   | 125     | 100   |     |
| 12                | SLCE12 | 305             | 250  | 235  | 200  | 165  | 150    | -      | -    | -    | 250        | 200   | 160   | 125     | 100   |     |
| 14                | SLCE14 | 305             | 250  | 235  | 200  | 165  | 150    | 125    | 100  | -    | -          | -     | -     | -       | -     |     |
| 16                | SLCE16 | 305             | 250  | 235  | 200  | 165  | 150    | 125    | 100  | -    | -          | -     | -     | -       | -     |     |
| 18                | SLCE18 | 305             | 250  | 235  | 200  | 165  | 150    | 125    | 100  | 80   | -          | -     | -     | -       | -     |     |
| 20                | SLCE20 | 305             | 250  | 235  | 200  | 165  | 150    | 125    | 100  | 80   | -          | -     | -     | -       | -     |     |
| 24                | SLCE24 | 305             | 250  | 235  | 200  | 165  | 150    | 125    | 100  | 80   | -          | -     | -     | -       | -     |     |
| 30                | SLCE30 | -               | 250  | 235  | 200  | 165  | 150    | 125    | 100  | 80   | -          | -     | -     | -       | -     |     |
| 36                | SLCE36 | -               | 250  | 235  | 200  | 165  | 150    | 125    | 100  | 80   | -          | -     | -     | -       | -     |     |

NOTE: All packs come with ONE-LOK SLCE Gland, MJ or SIGMA Seal Gaskets & required # of T-Bolts

### **Installation Instructions:**

*Note: This product is not designed to be used on plain end fittings.*

1. Clean fitting socket and pipe end. Lubricate gasket (a transition gasket is required if using on “IPS” PVC pipe) and pipe end with soapy water (or approved pipe lubricant meeting AWWA C111). Install ONE-LOK™ restrainer on the pipe with the lip extension facing the pipe end, followed by the gasket, tapered side toward end of pipe. Insert pipe into fitting outlet and seat the gasket firmly and evenly into the gasket cavity. Maintain a straight joint during assembly.

NOTE: SIGMASEAL Gasket is recommended for ONE-LOK 30-36”. When installing SIGMASEAL gasket, the tapered edges of the gasket must face away from the pipe wall.

2. Push the ONE-LOK gland toward the fitting and center it around the pipe with the lip evenly against the gasket. Insert the T-bolts and hand-tighten the nuts. If deflection is required, make up after joint assembly but before tightening T-bolts.

3. Tighten T-bolts in an alternating manner maintaining an even gap between the gland and the fitting face at all points around the socket. Repeat alternate tightening cycle of the t-bolts until one full complete cycle is completed where each individual t-bolt maintains the recommended torque.

4. For installation on IPS O.D. PVC Pipe, twist, break, and remove the ABS spacers from the actuating bolts (a transition gasket is required if using on “IPS” PVC pipe). DO NOT REMOVE SPACERS when installing product on C900 PVC. Hand tighten all actuating bolt until complete contact of all wedge segments is made with the pipe.

5. Tighten each actuating in a clockwise direction, alternating between the bolts in a star pattern until the break-off tops have been removed. Never tighten an actuating bolt more than 180 degrees before moving to the next bolt.

## LOCATIONS

### Northeast Region

**Cream Ridge, New Jersey (HQ)**  
700 Goldman Drive  
Cream Ridge, NJ 08514  
Phone (800) 999-2550  
Fax (609) 758-1158  
crmcsr@sigmaco.com

### REPCO

395 Boul. Labbé Nord  
Victoriaville, Qc G6P 1B1  
Phone (888) 744-6262  
Fax (819) 758-1153  
jboucher@repcocan.ca

### Concord Supply

2353 Bowman Street  
Innisfil, Ontario L9S 3V6  
Phone (877) 436-3800  
Fax (705) 436-6338  
tanya@concordsupply.ca

### Midwest Region

**Sauk Village, Illinois**  
21699 Torrence Avenue  
Sauk Village, IL 60411  
Phone (888) 999-0420  
Fax (708) 758-6790  
chicsr@sigmaco.com

### Southeast Region

**Alexander City, Alabama**  
1500 Highway 22 W  
Alexander City, AL 35010  
Phone (800) 824-4513  
Fax (256) 234-4956  
alxcsr@sigmaco.com

### Southwest Region

**Houston, Texas**  
5000 Askins Lane  
Houston, TX 77093  
Phone (800) 999-0109  
Fax (281) 987-0200  
htncsr@sigmaco.com

### Western Region

**Ontario, California**  
4652 E. Guasti Road  
Ontario, CA 91761  
Phone (800) 688-6230  
Fax (909) 391-2033  
ontcsr@sigmaco.com

### Auburn, Washington (Branch)

902 W Main Street  
Auburn, WA 98001  
Phone (800) 688-6230  
Fax (909) 391-2033  
ontcsr@sigmaco.com

## AWWA Ductile Iron Fittings



- 2-64" C153 Ductile Iron Mechanical Joint Fittings
- 2-48" C110 Ductile Iron Mechanical Joint Fittings
- 2-64" C110 Ductile Iron Flanged Fittings
- 3-24" C153 Ductile Iron Push-On Fittings
- 4-24" C110 Ductile Iron Push-On Fittings
- 4-24" Ductile Iron Mechanical Joint Connector
- C116 Fusion Bonded Epoxy Lining Available
- PROTECTO 401® Ceramic Epoxy Lining Available

Visit our website for available special coatings. <http://www.sigmaco.com/fittings-coatings-linings/>

## Mechanical Joint Accessories



- Prepackaged and Loose Mechanical Joint Accessories
- SIGMASEAL™ Improved Mechanical Joint Gasket
- Snap-On Multi-Purpose Gasket for Ductile Iron or PVC Pressure Pipes
- OMNI-SLEEVE™ Improved Wall Penetration Sleeve
- Specialty Bolts and Nuts for Mechanical Joint Assemblies

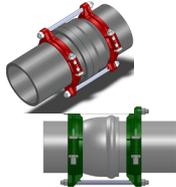
## ONE-LOK™ Wedge Action Restraints



- 3-48" ONE-LOK D-SLDE Domestic Wedge Restraint for Ductile Iron Pipe
- 3-64" ONE-LOK SLDE Wedge Restraint for Ductile Iron Pipe (Import)
- 4-48" ONE-LOK T-SLDE Tandem Wedge Restraint for High Pressure Ductile Iron Pipe
- 3-36" ONE-LOK D-SLCE Domestic Wedge Restraint for PVC Pipe
- 3-36" ONE-LOK SLCE Wedge Restraint for PVC Pipe (Import)
- 3-36" ONE-LOK SLDEH Wedge Harness Restraint for Ductile Iron Pipe
- 4-12" / 20" ONE-LOK SLDM Wedge Restraint for Oversized Cast Iron Pipe
- 4-36" ONE-LOK SSLD Split Wedge Restraint for Installed Ductile Iron Pipe & Fitting
- 4-36" ONE-LOK SSLDH Split Wedge Harness Restraint for Installed Ductile Iron Pipe
- 4-12" ONE-LOK SLCEH Wedge Harness Restraint for AWWA C900 PVC Pipe

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## PV-LOK™ Serration Lock Restraints



- 4-48" PV-LOK PWM Serrated Restraint for Ductile Iron Fitting & AWWA C900/905 PVC Pipe
- 4-48" PV-LOK PWP Serrated Bell Joint Restraint for AWWA C900/905 PVC Pipe
- 4-12" PV-LOK D-PWP Domestic Serrated Bell Joint Restraint for AWWA C900 PVC Pipe
- 4-48" PV-LOK PVPF Restraint for AWWA C900/905 PVC Pipe & PVC Fitting
- 4-12" PV-LOK PWH Serrated Harness Restraint for AWWA C900 PVC Pipe
- 2-12" PV-LOK PVM Serrated Restraint for Ductile Iron & IPS OD PVC Pipe
- 2-12" PV-LOK PVP Serrated Bell Joint Restraint for IPS OD PVC Pipe
- 4-8" PV-LOK PVPF Serrated Restraint for IPS OD PVC Pipe & PVC Fitting
- 4-12" PV-LOK PWP Serrated Bell Joint Restraint for Ductile Iron Pipe

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- 3-48" Tapped High Hub Threaded Flanges
- 3-36" Extra Heavy 250lb Drilled Threaded Flanges
- 3-48" Threaded MJ Bell Adapters
- 3-48" MJ x PE Bell Adapter
- 3-48" Anchor Flanges
- 3-16" Filler Flanges

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- Flange-Pak™ Prepackaged Flange Accessory Sets
- Polyethylene Encasement for Ductile Iron Pipe
- Copper Tubing Products
- Tracer Wire & Detectable/Non-Detectable Marking Tape
- Pipe Joint Lubricant & Hydraulic Cement
- Socket Clamps and Tie Rod Accessories
- Boxlok Valve Box Alignment Device
- Cast Iron Companion Flanges

## Flange Adapters



- 3-36" SIGMAFLANGE Flange Adapter Sleeve for PVC and Ductile Iron Pipe
- 2-48" ZIP FLANGE Set Screw Style Flange Adapter

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