DOOR CHECKS

5 DOOR CHECK
- Polished stainless steel springs, rod & swing arm assembly
- Pre-polished stainless steel spring rod
- Steel mounting brackets with black zinc finish
- Stainless steel arm mounting bracket
- Available with arm lengths of 7", 8", & 11"
- Available with 5lb., 15 lb., 23 lb. or 30 lb. spring tension

5-AB DOOR CHECK
- Steel construction/zinc finish
- Weldable cast iron bracket
- Available with 6, 10, 12 & 37 lb. spring tension
- Available with various mounting bracket styles (inquire for additional details)

5-EZ DOOR CHECK
- Polished stainless steel spring & rod
- Zinc die cast mounting brackets, black zinc or black powder coat finish
- Nylon center bushing with adjustable nut
- 11" arm
- Available with 15 lb. or 30 lb. spring tension
- Available with stamped end bracket

23 DOOR CHECK
- Steel construction/zinc finish
- Zinc die cast end & side brackets
- Available with 6", 7", 8" & 11" arm lengths
- Available with 15 lb., 30 lb. & 60 lb. spring tension
- Available with stamped end bracket
Telescopic Props

- STORAGE CONTAINERS
- UTILITY BOXES
- TOOL BOXES
- COWLINGS
- HOODS
- AWNINGS
- WINDOWS
- DOORS
- LIDS
- SHELVES
- CABINETS

A. LENGTH, PIVOT POINT TO PIVOT POINT

<table>
<thead>
<tr>
<th></th>
<th>LATCHED OPEN</th>
<th>CLOSED</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; PROP</td>
<td>7.25&quot;</td>
<td>4.75&quot;</td>
</tr>
<tr>
<td>8&quot; PROP</td>
<td>11.25&quot;</td>
<td>6.75&quot;</td>
</tr>
<tr>
<td>10&quot; PROP</td>
<td>15.25&quot;</td>
<td>8.75&quot;</td>
</tr>
<tr>
<td>12&quot; PROP</td>
<td>19.25&quot;</td>
<td>10.75&quot;</td>
</tr>
<tr>
<td>16&quot; PROP</td>
<td>27.25&quot;</td>
<td>14.75&quot;</td>
</tr>
</tbody>
</table>

NOTE: REQUIRES .63" OVERTRAVEL FOR LATCHING AND UNLATCHING.

B. DIMENSION .62"
C. HEIGHT, 90 FLANGE 1.03"
D. OVERLAP IN LATCHED POSITION 3.5"
E. WIDTH, ALL FLANGES 2.25"
F. HEIGHT, OUTER SLIDE 1.4"
G. DIMENSION, FLANGE TO CENTERLINE .45"
H. DIMENSION, HOLESpread 1.5"
I. DIMENSION, HOLE LOCATION 5.8"
J. HOLE DIAMETER .343"
K. OFFSET FLANGE, OFFSET .44"
L. OFFSET FLANGE, HOLE LOCATION 1.4"
M. WIDTH, OUTER SLIDE .57"

- Constructed from 16 gauge steel and tested by the University of Notre Dame for strength.
- Special Nylon Washers at each flange's pivot point for smooth, taut operation.
- Safety pin holes provided in latched position to prevent accidental unlatching.

FINISH
Bright Zinc (std.)
Black Zinc
Cadmium
Chrome

INDUSTRIAL HARDWARE
620 Spicer St.
Akron, OH 44311
(330) 762-8836 (330) 762-9422 Fax
(800) 824-1864(OH) (800) 453-3747 (NAT'L)

INDUSTRIAL HARDWARE
3415 S.W. 6th St.
Ocala, FL 34474
(352) 732-4040 (352) 732-6005 Fax
(800) 682-8900
LID SUPPORTS

16-5/8"x1-1/4" Zinc Plated(2C) Heavy Folding Table Leg Brace – 495680

Features and Benefits
- Extra heavy brace is ideal for use on tables with folding legs
- Designed with a positive, easily operated locking feature
- Legs lie flat against table when legs are folded
- Steel construction for added strength
- Right hand or left hand identified on brace leg
- Set includes one right hand and one left hand brace (with screws)

Product Details
Length: 16-5/8", 422.28mm
Width: 1-1/4", 31.75mm
Class: 446
Finish: 2C
Finish Description: Zinc Plated

13-1/2"x5/8" Zinc Plated(2C) Folding Table Leg Brace – 496080

Features and Benefits
- Brace can be used on folding legs of tables
- Positive locking feature is easily operated
- Legs are braced in open position – lay flat against table in closed position
- Right hand or left hand identified on brace leg
- Set includes one right hand and one left hand brace (with screws)

Product Details
Length: 13-1/2", 342.9mm
Width: 5/8", 15.88mm
Class: 446-1/4
Finish: 2C
Finish Description: Zinc Plated

Center Mount Antique Brass(F8) Safety Lid Support – 800447

Features and Benefits
- For use on storage containers where holding lid in open position is desired
- May be used on toy chests, tool boxes and other furniture items
- For center mounting applications only

Product Details
Class: CD447
Finish: F8
Finish Description: Antique Brass

Door Stop – PROGRAM 1087

<table>
<thead>
<tr>
<th>Opening angle</th>
<th>X</th>
<th>Y</th>
<th>minimal door width</th>
</tr>
</thead>
<tbody>
<tr>
<td>90°</td>
<td>140</td>
<td>180</td>
<td>403</td>
</tr>
<tr>
<td>105°</td>
<td>120</td>
<td>166</td>
<td>389</td>
</tr>
<tr>
<td>120°</td>
<td>110</td>
<td>150</td>
<td>373</td>
</tr>
<tr>
<td>135°</td>
<td>100</td>
<td>146</td>
<td>369</td>
</tr>
</tbody>
</table>

180° Door stop m.s. zinc plated, guide plate polyamide GF black

RH | 1087-U2

Door stop m.s. zinc plated

|     | 1087-U1

---

DOOR STOP KIT

Catalog No. | Description
-----------|-------------
NH-45005   | Door Stop Kit - Type 4/12 - Pltd. - Y
NH-45010   | Door Stop Kit - Type 4/12 - T304SS
NH-45013   | Door Stop Kit - Type 4/12 - T316SS

Application
For use on most standard TYPE 4 and TYPE 12 enclosures.

Design
The Door Stop Kit is designed to secure the door in an open position. It may be installed on the top or bottom of the door frame. Installation requires the drilling of (2) 7/32 holes in the enclosure and (2) 7/32 holes in the door. The door stop may be adjusted to stop the door at any angle up to 90°. When the door is closed, the door stop retracts to an out of the way position. To operate properly, the door must open horizontally and the width of the enclosure must be 16 inches or more. Hardware is supplied for installation.
LID SUPPORTS

090-0520 Window Hold-Open

**DESIGNED FOR:**
- Top and side hinged venting windows for on and off-highway vehicles

**FEATURES/BENEFITS:**
- Overcenter design orientates the window at fully closed and fully open positions
- Easy to operate
- Mushroom window fixings designed for 5mm or 6mm glass thickness
- Non-handed style will work on windows in any orientation
- Easy to install with window fixings (optional)

**AVAILABLE:**
- With or without quick release pin

**INSTALLATION:**
- Installs through 18mm dia. hole

**MATERIAL:**
- Glass reinforced nylon (black)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>19344-01</td>
<td>Window Hold-Open, None, Quick Release Pin</td>
</tr>
<tr>
<td>19345-01</td>
<td>Window Hold-Open, None, Rivet</td>
</tr>
<tr>
<td>19344-02</td>
<td>Window Hold-Open, With Gasket/With Cap (5mm-6mm Glass), Quick Release Pin</td>
</tr>
<tr>
<td>19345-02</td>
<td>Window Hold-Open, With Gaskets/With Cap (5mm-6mm Glass), Rivet</td>
</tr>
<tr>
<td>19344-03</td>
<td>Window Hold-Open, With Gaskets/With Cap (3mm-4mm Glass), Quick Release Pin</td>
</tr>
<tr>
<td>19345-03</td>
<td>Window Hold-Open, With Gaskets/With Cap (3mm-4mm Glass), Rivet</td>
</tr>
</tbody>
</table>
LID SUPPORTS

• MADE OF 300 SERIES STAINLESS STEEL AND BLACK ANODIZED ALUMINUM
• ORIGINAL PATENTED DESIGN
• PREVENTS OVER-OPENING
• WILL NOT STRETCH OUT OR BREAK

The automatic Hatch Holder is great for holding hatches doors, table leaves, lids etc. Simply pop it into place after unlatching and easily push or pull to close. The retaining cable saves over-opening on many models. It’s easy to install and made of durable stainless steel.

Originally designed for use in boat hatches, the Hatch Holder is useful in many other applications - bait tanks, battery boxes, electronics consoles and more! And, because it is made of quality stainless steel and black anodized aluminum fittings to precise specifications, you can be assured that it will not stretch out or appear over used. Easy to install. (US Patent Nos. 3570043/272,718)

- MADE OF 300 SERIES STAINLESS STEEL AND BLACK ANODIZED ALUMINUM
- ORIGINAL PATENTED DESIGN
- PREVENTS OVER-OPENING
- WILL NOT STRETCH OUT OR BREAK

SHORT-SMALL
7/16” diameter 300 series stainless steel spring. Approx 6-1/4” long. Suitable for supporting approx. 10 lbs. Retaining cable to prevent over-opening.
PN 0304-1  Bracket with support and cable

SMALL
7/16” diameter 300 series stainless steel spring. Approx. 8 1/2” long. Suitable for supporting approx. 10 lbs.
PN 0045  Bracket with L-shaped support
PN 0045-1  Bracket with L-shaped support and cable
PN 0045-2  Bracket with support as shown above
PN 0045-3  Bracket with support and cable
PN 0080-1  Car and track with L-shaped support and cable
PN 0080-2  Car and track with support and cable

To release the Hatch Holder just push or pull.

Other applications:
• Engine Covers • Bait Tank Lids
• Deck Hatches • Deck Freezers
• Dock Boxes • Fish Holds

BIG
7/8” diameter 316 series stainless steel spring, black nylon end plugs and fittings made of black anodized aluminum. Approx 11 3/4” from pivot point to pivot point. Supports approx. 100 lbs.
PN 0115  Bracket with plate (as shown)
PN 0115-1  Bracket with plate and cable

BIG-ADJUSTABLE
Adjust your hatch from “barely open” for ventilation to “wide open” for stuffing sails, gear or lots of air. 7/8” diameter 316 stainless steel, black nylon end plugs. Approx. 11 3/4” from pivot point to pivot point. Supports approx. 100 lbs.
PN 0301-1  Car and track with plate and cable

Easy access to storage.

Industrial Hardware Distributors, Inc.
620 Spicer St., Akron, OH 44311 • 800.824.1864 | 3415 S.W. 6th St., Ocala, FL 34474 • 800.682.8900
www.industrialhwe.com
# N-TP200BC Door Closer

** Manufactured in USA • Competitor Series • Adjustable Backcheck
** Deluxe • Trimline • Full Size Body • With 3 Regulating Valves

### Features

- All installation and mounting instructions are supplied TRI-LINGUAL (English, Spanish, French)
- Each closer packed with 3 FULL SIZE mounting templates for regular, top jamb and parallel arm installation
- Full rack and pinion for control up to 180° door opening.
- Universal Application. Non-handed for standard, top jamb or parallel arm installation (tri-packed).
- All closers supplied with precision shaft bearings to increase life span and increase operating efficiency rating.
- All valves with Double O Rings to prevent leakage.
- High strength Aluminum Alloy full size #4 case.
- Heat treated, hardened rack and pinion which has been finished by a special pressing process that results in a reduction of friction which increases the operating efficiency rate.
- Supplied with 2 non-critical “THERMAL-CONSTANT” regulating valves, which separately control door closing and latching speed and provide a constant closing speed even at extreme temperatures.
- Fully adjustable hydraulic backcheck to prevent uncontrolled opening of the door from approximately 60°. Cushions door and prevents damage resulting from severe thrust of the door from wind gusts or rough usage.
- 3 different preset Spring Powers (#3-4-5).
- High compression Steel Spring
- Bodies and arms are corrosion resistant and are first finished with a prime coating and then finished with a durable top coating applied by a radial disc method which ensures 100% surface coverage
- 3 position power adjustable mounting bracket offers 15% spring power adjustment
- 3 popular commercial finishes:
  - Aluminum
  - Duronodic
  - Gold
  - other popular finishes available upon request, including Dull Bronze, Statuary Bronze and Black

### ANSI A156.4 Model

<table>
<thead>
<tr>
<th>CROSS REFERENCE</th>
<th>NORTON</th>
<th>1600</th>
<th>USA</th>
<th>CANADA</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL SIZE NO. 4 CASE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CROSS REFERENCE</th>
<th>NORTON</th>
<th>1600</th>
<th>USA</th>
<th>CANADA</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL SIZE NO. 4 CASE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** TP200 Series Supplied Tri-Packed with Both Regular Arm and Parallel Arm Bracket. Also with Adjustable Backcheck Feature.**

- TP200 Series Supplied Tri-Packed with Both Regular Arm and Parallel Arm Bracket. Also with Adjustable Backcheck Feature.

### CROSS REFERENCE

<table>
<thead>
<tr>
<th>NORTON</th>
<th>1600</th>
<th>USA</th>
<th>CANADA</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL SIZE NO. 4 CASE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Full Size No. 4 Case**

### CROSS REFERENCE

<table>
<thead>
<tr>
<th>NORTON</th>
<th>1600</th>
<th>USA</th>
<th>CANADA</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL SIZE NO. 4 CASE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Full Size No. 4 Case**

### CROSS REFERENCE

<table>
<thead>
<tr>
<th>NORTON</th>
<th>1600</th>
<th>USA</th>
<th>CANADA</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL SIZE NO. 4 CASE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Full Size No. 4 Case**
N-TP333BC-DA  ANSI 1  Series  DELUXE MULTI-SIZE  DOOR CLOSER

Manufactured in USA • ANSI Grade 1 • 25 Year Warranty

Adjustable Sizes 1 thru 6 • Adjustable Backchecking • Delayed Closing Action

- All installation and mounting instructions are supplied TRI-LINGUAL (English, Spanish, French)
- Each closer packed with 3 FULL SIZE mounting templates for regular, top jamb and parallel arm installation
- Full rack and pinion for control up to 180° door opening
- Universal Application. Non-handed for standard, top jamb or parallel arm installation
- All closers supplied with needle shaft bearings to increase life span and increase operating efficiency rating
- All valves with Double O Rings to prevent leakage
- High strength Aluminum Alloy full size #4 case
- 2 adjustable spring power capable of compliance with 5 lbs. (interior) and 8 1/2 lbs. (exterior) barrier free opening force restrictions
- Heat treated, hardened rack and pinion which has been finished by a special pressing process that results in a reduction of friction which increases the operating efficiency rate
- Supplied with 2 non-critical “THERMAL-CONSTANT” regulating valves, which separately control door closing and latching speed and provide a constant closing speed even at extreme temperatures
- Fully adjustable hydraulic backcheck to prevent uncontrolled opening of the door from approximately 60°. Cushions door and prevents damage resulting from severe thrust of the door from wind gusts or rough usage
- High compression Steel Spring
- Bodies and arms are corrosion resistant and are first finished with a prime coating and then finished with a durable top coating applied by a radial disc method which ensures 100% surface coverage
- 3 position power adjustable mounting bracket offers 15% spring power adjustment
- 3 popular commercial finishes:
  - Aluminum • Duronodic • Bronze Gold
  - other popular finishes available upon request

TP333 Series Supplied Tri-Packed with Both Regular Arm and Parallel Arm Bracket. Also with Adjustable Backcheck Feature.

ANSI A156.4-GRADE 1  MODEL  TP333BC SERIES

- FULL SIZE  NO. 4 CASE

Cross Reference

Norton  1601  1601BF  FULL SIZE
Yale  51  51BF  NO. 4 CASE
Dorma  7400

High compression Steel Spring

Bodies and arms are corrosion resistant and are first finished with a prime coating and then finished with a durable top coating applied by a radial disc method which ensures 100% surface coverage

3 position power adjustable mounting bracket offers 15% spring power adjustment

3 popular commercial finishes:
- Aluminum • Duronodic • Bronze Gold
- other popular finishes available upon request

Industrial Hardware Distributors, Inc.
620 Spicer St., Akron, OH 44311 • 800.824.1864 | 3415 S.W. 6th St., Ocala, FL 34474 • 800.682.8900
www.industrialhwe.com
## Powerise™ Series

### Dimensions and Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>A (Stroke)</th>
<th>B Compressed Length ±.008”</th>
<th>C Extended Length ±.008”</th>
<th>D₁ Rod Dia.</th>
<th>D₂ Cylinder Dia.</th>
<th>F₁ Forces (lb.)</th>
<th>F₂ Ratio F₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAA-8200-U</td>
<td>2.0</td>
<td>50.8</td>
<td>6.40</td>
<td>.32</td>
<td>8.0</td>
<td>20, 30, 60, 90, 130</td>
<td>1.57</td>
</tr>
<tr>
<td>EAA-8350-U</td>
<td>3.5</td>
<td>89.9</td>
<td>8.40</td>
<td>.32</td>
<td>8.0</td>
<td>20, 30, 60, 90, 120</td>
<td>1.30</td>
</tr>
<tr>
<td>EAA-8500-U</td>
<td>5.0</td>
<td>127.0</td>
<td>10.25</td>
<td>.32</td>
<td>8.0</td>
<td>20, 30, 60, 90, 120</td>
<td>1.30</td>
</tr>
<tr>
<td>EAA-8600-U</td>
<td>6.0</td>
<td>152.4</td>
<td>11.00</td>
<td>.32</td>
<td>8.0</td>
<td>20, 30, 60, 90, 120</td>
<td>1.30</td>
</tr>
<tr>
<td>EAA-8700-U</td>
<td>7.0</td>
<td>177.8</td>
<td>12.63</td>
<td>.32</td>
<td>8.0</td>
<td>20, 30, 60, 90, 120</td>
<td>1.30</td>
</tr>
<tr>
<td>EBB-10100-U</td>
<td>10.0</td>
<td>254.0</td>
<td>17.80</td>
<td>.39</td>
<td>10.0</td>
<td>100, 120, 150, 200, 250</td>
<td>1.30</td>
</tr>
</tbody>
</table>

Specify “U” for Pneu-Spring, Ball Stud and Retaining Clip.

No. 16714-R/L
Support arm assembly for use with gas springs. Support arm supplied with 2 ball studs that are riveted onto arms with .39 diameter and one mounting bracket. Part comes in (ST) finish (black sand tex finish).
Ball Studs, End Fittings and Retaining Clips

Typical Assembly

Press end fitting onto ball stud.

Insert retaining clip.

Note: Retaining clip to be used to secure ball stud into gas spring.

No. 16298
Ball stud – 10 mm

Model-EAA Series
Model-Masterlift Series

No. 16301
Ball stud – 13 mm
All ball studs have 5/16-18UNC-2A threads.

Torque Requirements for No. 16298 and No. 16301 ball studs are 12 to 15 pounds per foot.

No. 16299
Retaining clip 25 mm

No. 16302
Retaining clip 30 mm

No. EMB-8350-A
Mounting bracket with No. 16298 ball stud.

No. EMB-8350-B
Mounting bracket with No. 16298 ball stud.
Powerise™ Pneu-Spring® Design Data Sheet
Fax Design Data Sheet to Industrial Hardware Distributors, Inc. at 330-762-9422

Requested by: ___________________________ Date: ___________________________
Name ___________________________ Title ___________________________
Company ___________________________
Address ___________________________
City ___________________________ State ________ Zip ________
Phone ___________________________ Fax ________ Email ___________________________

Requested Information:
Nature of vehicle/apparatus on which the Pneu-Spring will be installed: ___________________________
Estimated annual quantities required: ___________________________

We will determine the appropriate Pneu-Spring and attachment points for your application. **We REQUIRE an engineering drawing showing both the moveable and fixed components to which the spring will attach.** The drawing must have sufficient detail to enable us to specify suitable attachment locations. Include the following specific information:

1) Length of component from hinge edge (i.e. pivot point) to handle (Fig 1A, 1B, 1C): Handle length: ___________________________
2) How is the panel mounted (Fig 1A, 1B, 1C)? Vertical Horizontal Offset
   X= ________ Y= ________
3) Center of gravity location from center of hinge pivot (Fig 1A, 1B, 1C):
   X= ________ Y= ________
4) Location of hinge pivot from mounting surface (Fig 1A, 1B, 1C):

   FIGURE 1B

5) What is the weight of the panel? ___________________________
6) What is the thickness of the panel? ___________________________
7) What is the composition of the panel? ___________________________
8) Are there limitations of attachment points (e.g. obstructions, structural member to which a spring must be attached, inside or outside installation, maximum permissible penetration into enclosures, etc.)? ___________________________
9) How is the panel hinged (Fig 2)?

10) Total angle of opening (Fig 3):

11) Angle offset from horizontal plane (Fig 3):

12) Desired action using Pneu-Spring (Fig 4): check one

- to operate under its own force once it is released
- to operate as an assist to relieve the effort required to move the panel weight
- after an assist to start the motion, it will complete the motion by itself
- to go over center installation provides two actions: (1) in the closed position, it keeps the
door closed and (2) it provides an assist in opening the door

---

*Industrial Hardware will not be responsible for any claims or damage resulting from installations which have not been approved by the engineering department of Eberhard Mfg. Co.*
GAS SPRINGS

No. AL-16339-A

Material – Aluminum bracket

No. AL-16339-A – Supplied with ball stud No. 16298.
No. AL-16339-B – Supplied with ball stud No. 16301.
No. AL-16339 – Aluminum bracket less ball studs (shown).

No. AL-16340-A

Material – Aluminum bracket.

No. AL-16340-A – Supplied with ball stud No. 16298.
No. AL-16340-B – Supplied with ball stud No. 16301.
No. AL-16340 – Aluminum bracket less ball studs (shown).
### Standard Compression Gas Springs

with Plastic Ball Socket End Fittings

**Features & Benefits**

- End of Travel Dampening
- Composite & Steel End Fittings
- Black Nitride/Chrome Shafts
- Orbital riveted piston assy.
- Available from Stock
- Selection of Force Ratings

---

<table>
<thead>
<tr>
<th>Gas Spring P/N</th>
<th>Rod Dia.: (d)</th>
<th>Cyl. Dia.: (D)</th>
<th>Stroke: (A)</th>
<th>Extended Length (L)</th>
<th>Compressed Length (CL)</th>
<th>Ball Socket Dia.</th>
<th>Force (Lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>66U057151BB****</td>
<td>.236</td>
<td>.590</td>
<td>2.25</td>
<td>7.50</td>
<td>5.25</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>66U060184BB****</td>
<td>.236</td>
<td>.590</td>
<td>2.4</td>
<td>8.66</td>
<td>6.24</td>
<td>10mm</td>
<td>100 to 150 Lbs.</td>
</tr>
<tr>
<td>66U076214BB****</td>
<td>.236</td>
<td>.590</td>
<td>3</td>
<td>10.00</td>
<td>7</td>
<td>10mm</td>
<td>100 to 150 Lbs.</td>
</tr>
<tr>
<td>66U089264BB****</td>
<td>.236</td>
<td>.590</td>
<td>3.5</td>
<td>12.00</td>
<td>8.5</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>66U100264BB****</td>
<td>.236</td>
<td>.590</td>
<td>3.9</td>
<td>12.00</td>
<td>8.1</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>66U140341BB****</td>
<td>.236</td>
<td>.590</td>
<td>5.5</td>
<td>15.00</td>
<td>9.5</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>66U150364BB****</td>
<td>.236</td>
<td>.590</td>
<td>5.9</td>
<td>15.74</td>
<td>9.04</td>
<td>10mm</td>
<td>20 to 160 Lbs.</td>
</tr>
<tr>
<td>66U153392BB****</td>
<td>.236</td>
<td>.590</td>
<td>6</td>
<td>17.00</td>
<td>11</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>66U178396BB****</td>
<td>.236</td>
<td>.590</td>
<td>7</td>
<td>17.00</td>
<td>10</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>66U184434BB****</td>
<td>.236</td>
<td>.590</td>
<td>7.25</td>
<td>18.50</td>
<td>11.25</td>
<td>10mm</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>66U203468BB****</td>
<td>.236</td>
<td>.590</td>
<td>8</td>
<td>20.00</td>
<td>12</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>89U057151BB****</td>
<td>.314</td>
<td>.708</td>
<td>2.25</td>
<td>7.50</td>
<td>5.25</td>
<td>10mm</td>
<td>20 to 160 Lbs.</td>
</tr>
<tr>
<td>8AU080194BB****</td>
<td>.314</td>
<td>.708</td>
<td>3.14</td>
<td>9.60</td>
<td>6.45</td>
<td>10mm</td>
<td>100 to 150 Lbs.</td>
</tr>
<tr>
<td>8AU089264BB****</td>
<td>.314</td>
<td>.708</td>
<td>3.5</td>
<td>12.00</td>
<td>8.5</td>
<td>10mm</td>
<td>100 to 150 Lbs.</td>
</tr>
<tr>
<td>89U100268BB****</td>
<td>.314</td>
<td>.708</td>
<td>3.9</td>
<td>12.00</td>
<td>8.1</td>
<td>10mm</td>
<td>20 to 160 Lbs.</td>
</tr>
<tr>
<td>89U107275BB****</td>
<td>.314</td>
<td>.708</td>
<td>4.25</td>
<td>12.25</td>
<td>8</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>89U140341BB****</td>
<td>.314</td>
<td>.708</td>
<td>5.5</td>
<td>15.00</td>
<td>9.5</td>
<td>10mm</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>89U150368BB****</td>
<td>.314</td>
<td>.708</td>
<td>5.9</td>
<td>15.90</td>
<td>10</td>
<td>10mm</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>8AU153392BB****</td>
<td>.314</td>
<td>.708</td>
<td>6</td>
<td>17.00</td>
<td>11</td>
<td>10mm</td>
<td>20 to 160 Lbs.</td>
</tr>
<tr>
<td>89U184434BB****</td>
<td>.314</td>
<td>.708</td>
<td>7.25</td>
<td>18.5&quot;</td>
<td>11.25</td>
<td>10mm</td>
<td>20 to 160 Lbs.</td>
</tr>
<tr>
<td>89U200463BB****</td>
<td>.314</td>
<td>.708</td>
<td>7.9</td>
<td>19.63</td>
<td>11.73</td>
<td>10mm</td>
<td>21 to 150 Lbs.</td>
</tr>
<tr>
<td>8AU203468BB****</td>
<td>.314</td>
<td>.708</td>
<td>8</td>
<td>20.00</td>
<td>12</td>
<td>10mm</td>
<td>20 to 160 Lbs.</td>
</tr>
<tr>
<td>89U250568BB****</td>
<td>.314</td>
<td>.708</td>
<td>9.8</td>
<td>23.75</td>
<td>13.95</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>8AU276633BB****</td>
<td>.314</td>
<td>.708</td>
<td>11</td>
<td>26.50</td>
<td>15.5</td>
<td>10mm</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>1CU350745BB****</td>
<td>.393</td>
<td>.866</td>
<td>13.77</td>
<td>30.9</td>
<td>17.13</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>8AU406864BB****</td>
<td>.393</td>
<td>.866</td>
<td>16</td>
<td>35.43</td>
<td>19.43</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>1CU416885BB****</td>
<td>.393</td>
<td>.866</td>
<td>16.37</td>
<td>36.25</td>
<td>19.88</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
</tbody>
</table>

**** 4 digit code which references the force in Newtons (lbs. x 4.448 = Newtons)
Example: 150 lbs. force = 667 Newtons or P/N suffix "0667"
P/N 8AU203468BB0667 = .314" Rod x 8" stroke, composite ball joint ends & 150 lbs. of force
*"BB" = Composite ball joint end fittings
*"JJ" = Metal ball joint end fittings
*Stock Items in Bold
GAS SPRINGS

Standard Compression Gas Springs with Metal Ball Socket End Fittings

Features & Benefits
*End of Travel Dampening
*Composite & Steel End Fittings
*Black Nitride/Chrome Shafts
*Orbital riveted piston assy.
*Available from Stock
*Selection of Force Ratings

<table>
<thead>
<tr>
<th>Gas Spring P/N</th>
<th>Rod Dia.: (d)</th>
<th>Cyl. Dia.: (D)</th>
<th>Stroke: (A)</th>
<th>Extended Length (L)</th>
<th>Compressed Length (CL)</th>
<th>Ball Socket Dia.</th>
<th>Force (Lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>66U057151JJ****</td>
<td>.236</td>
<td>.590</td>
<td>2.25</td>
<td>7.50</td>
<td>5.25</td>
<td>10mm</td>
<td>100 to 250 Lbs.</td>
</tr>
<tr>
<td>66U060184JJ****</td>
<td>.236</td>
<td>.590</td>
<td>2.4</td>
<td>8.70</td>
<td>6.3</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>66U076214JJ****</td>
<td>.236</td>
<td>.590</td>
<td>3</td>
<td>10.00</td>
<td>7</td>
<td>10mm</td>
<td>100 to 250 Lbs.</td>
</tr>
<tr>
<td>66U089264JJ****</td>
<td>.236</td>
<td>.590</td>
<td>3.5</td>
<td>12.00</td>
<td>8.5</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>66U100264JJ****</td>
<td>.236</td>
<td>.590</td>
<td>3.9</td>
<td>12.00</td>
<td>8.1</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>66U140341JJ****</td>
<td>.236</td>
<td>.590</td>
<td>5.5</td>
<td>15.00</td>
<td>9.5</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>66U153392JJ****</td>
<td>.236</td>
<td>.590</td>
<td>6</td>
<td>17.00</td>
<td>11</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>66U178396JJ****</td>
<td>.236</td>
<td>.590</td>
<td>7</td>
<td>17.00</td>
<td>10</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>66U194434JJ****</td>
<td>.236</td>
<td>.590</td>
<td>7.25</td>
<td>18.50</td>
<td>11.25</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>66U203468JJ****</td>
<td>.236</td>
<td>.590</td>
<td>8</td>
<td>20.00</td>
<td>12</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>89U057151JJ****</td>
<td>.314</td>
<td>.708</td>
<td>2.25</td>
<td>7.50</td>
<td>5.25</td>
<td>10mm</td>
<td>100 to 250 Lbs.</td>
</tr>
<tr>
<td>8AU080194JJ****</td>
<td>.314</td>
<td>.708</td>
<td>3.14</td>
<td>9.60</td>
<td>6.45</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>8AU089264JJ****</td>
<td>.314</td>
<td>.708</td>
<td>3.5</td>
<td>12.00</td>
<td>8.5</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>89U100268JJ****</td>
<td>.314</td>
<td>.708</td>
<td>3.9</td>
<td>12.00</td>
<td>8.1</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>89U107275JJ****</td>
<td>.314</td>
<td>.708</td>
<td>4.25</td>
<td>12.25</td>
<td>8</td>
<td>10mm</td>
<td>10 to 160 Lbs.</td>
</tr>
<tr>
<td>89U140341JJ****</td>
<td>.314</td>
<td>.708</td>
<td>5.5</td>
<td>15.00</td>
<td>9.5</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>89U150368JJ****</td>
<td>.314</td>
<td>.708</td>
<td>5.9</td>
<td>15.90</td>
<td>10</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>8AU153392JJ****</td>
<td>.314</td>
<td>.708</td>
<td>6</td>
<td>17.00</td>
<td>11</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>89U184434JJ****</td>
<td>.314</td>
<td>.708</td>
<td>7.25</td>
<td>18.5</td>
<td>11.25</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>89U200468JJ****</td>
<td>.314</td>
<td>.708</td>
<td>7.9</td>
<td>19.90</td>
<td>12</td>
<td>10mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>8AU203468JJ****</td>
<td>.314</td>
<td>.708</td>
<td>8</td>
<td>20.00</td>
<td>12</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>89U250568JJ****</td>
<td>.314</td>
<td>.708</td>
<td>9.8</td>
<td>23.75</td>
<td>13.95</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>8AU276633JJ****</td>
<td>.314</td>
<td>.708</td>
<td>11</td>
<td>26.50</td>
<td>15.5</td>
<td>10mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>1CU020368JJ****</td>
<td>.393</td>
<td>.866</td>
<td>8</td>
<td>20</td>
<td>12</td>
<td>13mm</td>
<td>10 to 150 Lbs.</td>
</tr>
<tr>
<td>1CU292671JJ****</td>
<td>.393</td>
<td>.866</td>
<td>11.5</td>
<td>28</td>
<td>16.5</td>
<td>13mm</td>
<td>10 to 90 Lbs.</td>
</tr>
<tr>
<td>1CU350745JJ****</td>
<td>.393</td>
<td>.866</td>
<td>13.77</td>
<td>30.9</td>
<td>17.13</td>
<td>13mm</td>
<td>100 to 565 Lbs.</td>
</tr>
<tr>
<td>1CU350725JJ****</td>
<td>.393</td>
<td>.866</td>
<td>13.77</td>
<td>30.9</td>
<td>17.13</td>
<td>13mm</td>
<td>100 to 780 Lbs.</td>
</tr>
<tr>
<td>1CU068664JJ****</td>
<td>.393</td>
<td>.866</td>
<td>16</td>
<td>35.43</td>
<td>19.43</td>
<td>10mm</td>
<td>100 to 780 Lbs.</td>
</tr>
<tr>
<td>1CU168865JJ****</td>
<td>.393</td>
<td>.866</td>
<td>16.37</td>
<td>36.25</td>
<td>19.88</td>
<td>10mm</td>
<td>100 to 875 Lbs.</td>
</tr>
<tr>
<td>5IG003913JJ****</td>
<td>.55</td>
<td>1.10</td>
<td>2.28</td>
<td>9.56</td>
<td>7.28</td>
<td>16mm</td>
<td>100 to 250 Lbs.</td>
</tr>
<tr>
<td>7IG004083JJ****</td>
<td>.62</td>
<td>1.10</td>
<td>2.28</td>
<td>9.56</td>
<td>7.28</td>
<td>16mm</td>
<td>100 to 250 Lbs.</td>
</tr>
<tr>
<td>9IG100282JJ****</td>
<td>.71</td>
<td>1.10</td>
<td>2.28</td>
<td>9.56</td>
<td>7.28</td>
<td>16mm</td>
<td>100 to 250 Lbs.</td>
</tr>
</tbody>
</table>

**** 4 digit code which references the force in Newtons (lbs. x 4.448 = Newtons)
Example: 150 lbs. force = 667 Newtons or P/N suffix “0667”
P/N 8AU203468BB0667 = .314” Rod x 8” stroke, composite ball joint ends & 150 lbs. of force
“BB” = Composite ball joint end fittings
“JJ” = Metal ball joint end fittings
*Stock Items In Bold
## Safety Locking Shroud Gas Springs

### Features & Benefits
- End of Travel Dampening
- Black Nitride or Chrome Shafts
- Safety Red Thumb Activator
- Composite or Steel End Fittings
- Orbital riveted piston assy.
- Selection of Force Ratings

### Gas Springs Specifications

<table>
<thead>
<tr>
<th>Gas Spring P/N</th>
<th>Rod Dia.: (d)</th>
<th>Cyl. Dia.: (D)</th>
<th>Stroke: (A)</th>
<th>Extended Length (L)</th>
<th>Compressed Length (CL)</th>
<th>Force (Lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>89S057151BB****</td>
<td>.314</td>
<td>.708</td>
<td>2.25</td>
<td>7.50</td>
<td>5.25</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>8AS080194BB****</td>
<td>.314</td>
<td>.708</td>
<td>3.14</td>
<td>9.60</td>
<td>6.45</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>8AS089264BB****</td>
<td>.314</td>
<td>.708</td>
<td>3.5</td>
<td>12.00</td>
<td>8.5</td>
<td>20 to 250 Lbs.</td>
</tr>
<tr>
<td>89S100268BB****</td>
<td>.314</td>
<td>.708</td>
<td>3.9</td>
<td>12.00</td>
<td>8.1</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>89U107275BB****</td>
<td>.314</td>
<td>.708</td>
<td>4.25</td>
<td>12.25</td>
<td>8</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>89U140341BB****</td>
<td>.314</td>
<td>.708</td>
<td>5.5</td>
<td>15.00</td>
<td>9.5</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>89S150368BB****</td>
<td>.314</td>
<td>.708</td>
<td>5.9</td>
<td>15.82</td>
<td>9.92</td>
<td>20 to 160 Lbs.</td>
</tr>
<tr>
<td>8AS153392BB****</td>
<td>.314</td>
<td>.708</td>
<td>6</td>
<td>17.00</td>
<td>11</td>
<td>100 to 250 Lbs.</td>
</tr>
<tr>
<td>89S184434BB****</td>
<td>.315</td>
<td>.708</td>
<td>7.25</td>
<td>18.50</td>
<td>11.25</td>
<td>21 to 150 Lbs.</td>
</tr>
<tr>
<td>8AS203468BB****</td>
<td>.314</td>
<td>.708</td>
<td>8</td>
<td>20.00</td>
<td>12</td>
<td>20 to 160 Lbs.</td>
</tr>
<tr>
<td>89S250568BB****</td>
<td>.314</td>
<td>.708</td>
<td>9.8</td>
<td>23.75</td>
<td>13.95</td>
<td>101 to 250 Lbs.</td>
</tr>
<tr>
<td>8AS276633JJ****</td>
<td>.314</td>
<td>.708</td>
<td>11</td>
<td>26.50</td>
<td>15.5</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>1CS203468JJ****</td>
<td>.393</td>
<td>.866</td>
<td>8</td>
<td>20</td>
<td>12</td>
<td>20 to 150 Lbs.</td>
</tr>
<tr>
<td>1CS292671JJ****</td>
<td>.393</td>
<td>.866</td>
<td>11.5</td>
<td>28</td>
<td>16.5</td>
<td>20 to 160 Lbs.</td>
</tr>
<tr>
<td>1CS350745BB****</td>
<td>.393</td>
<td>.866</td>
<td>13.77</td>
<td>30.9</td>
<td>17.13</td>
<td>20 to 160 Lbs.</td>
</tr>
</tbody>
</table>

**** 4 digit code which references the force in Newtons (lbs. x 4.448 = Newtons)
Example: 150 lbs. force = 667 Newtons or P/N suffix "667"
P/N 8AS203468BB0667 = .314" Rod x 8" stroke, Safety Shroud, composite ball joint ends & 150 lbs. of force

*BB* = Composite ball joint end fittings

*JJ* = Metal ball joint end fittings

*Allow 4-6 weeks initial delivery, OEM stocking programs available

---

### Images
- Shroud for motor/generator
- Portable compressors
- Utility truck enclosures
- Machine tool cabinets

---

Industrial Hardware Distributors, Inc.
620 Spicer St., Akron, OH 44311 • 800.824.1864 | 3415 S.W. 6th St., Ocala, FL 34474 • 800.682.8900
www.industrialhwe.com