All warranties, expressed or implied, for Mueller Drilling Machines are rendered null and void if the machines are used with shell cutters or equipment manufactured by someone other than Mueller Co.
Capacity and Use
The Mueller® Bottom-Out Stopper is designed to temporarily stop the flow of gas through the bottom opening of a bottom-out line stopper fitting. The bottom-out stopper uses two seals. The primary seal is a large resilient seat that matches the contour of the fitting bottom and stops the major part of the gas flow through the bottom opening. The secondary seal is an inner poppet type valve that seals off the balance of the gas flow when the plunger shaft of the stopper is fully depressed. This inner seal also acts as an equalizing valve when the plunger shaft is retracted. It allows gas to flow past the primary seal to equalize pressure above and below it, making it possible to remove the stopper easily.

Pressure Ratings
The bottom-out stopper is rated according to the gas pressure being applied from its top side. In no case may this pressure exceed that given in the chart (below), which shows the maximum pressure of the various bottom-out stopper and stopping unit combinations. However, the actual working pressure of the job may have to be lowered so as not to exceed the pressure rating of the piece of equipment being used that has the lowest maximum working pressure rating.

**maximum Working Pressure**

<table>
<thead>
<tr>
<th>Mueller Stopping Unit</th>
<th>Max. Working Pressure of Machine/Stopper Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-5</td>
<td>250 psig*</td>
</tr>
<tr>
<td>DH-5</td>
<td>250 psig*</td>
</tr>
<tr>
<td>#1</td>
<td>125 psig</td>
</tr>
<tr>
<td>#2</td>
<td>100 psig</td>
</tr>
<tr>
<td>#3</td>
<td>100 psig</td>
</tr>
<tr>
<td>3SW</td>
<td>275 psig</td>
</tr>
<tr>
<td>3SW-500</td>
<td>500 psig*</td>
</tr>
<tr>
<td>4SW</td>
<td>500 psig*</td>
</tr>
</tbody>
</table>

*Certain fittings in specific sizes allows higher maximum pressure: D-5 and DH-5 on 2” H-17161 and H-1712604 – 500 psig max. For 3SW-500, fittings must be the enhanced design manufactured since 1997.

Operating Instructions

1. Determine proper equipment required for the stop-off operation from the Mueller Gas Products Catalog.

2. Remove completion cap; attach required equipment and remove completion plug from stopper fitting. (Refer to the Mueller operating instruction manual for the stopping unit being used.)

**Note:** Some 8” bottom-out fittings manufactured between 1957 and 1962 have four lugs inside the fitting above the bottom opening, and are not compatible with the bottom-out stopper. To determine compatibility, install an inspection flange (catalog number H-17619) on the fitting and look for the four lugs. If no lugs are found, proceed with the stop-off operation.

3. Inspect bottom-out stopper to assure that resilient sealing surfaces are in good condition, and apply Mueller Rubber Stopper Lubricant (part no. 580657) to the primary seal.

4. Securely attach bottom-out stopper to the stopping machine (using the appropriate adapter, if one is required; refer to chart on page 4) and retract bar to its rearmost position.

5. Attach stopping machine to gate valve.

6. Pressurize the machine above the gate valve by using the by-pass valve on the machine.

7. Open the gate valve fully.
FOR STOPPING UNIT #1, #2, #3 and D SERIES

Follow Operating Instructions 1-7 on page 2.

2. Lower machine bar slowly until stopper is seated in the bottom of Fitting.

3. Swing feed yoke of the machine over feed collar and secure in place.

4. Slowly turn feed yoke clockwise to first compress primary seal against fitting, then continue turning to depress plunger shaft of the stopper against the inner seal. A gage and/or test nipple is recommended on the section of pipe to be isolated to help determine when gas flow has been completely stopped.

5. Blow down the isolated section of main and check for a complete shut off. If shut off is not complete, continue to compress the stopper, turning the yoke in 1/4 to 1/2 turn increments, until shut off is satisfactory.

6. Complete repairs to the isolated section of main as required and test for leaks using accepted practice.

7. When ready to restore gas flow: slowly turn feed yoke counter-clockwise to raise plunger shaft off the inner seal, allowing gas to flow into the isolated section until pressure is equalized. Purge air from isolated section.

8. Continue turning feed yoke in counter-clockwise direction to fully unseat stopper and retract stopping machine bar and stopper to rearmost position above gate valve.


10. Blow down pressure in stopping machine by turning by-pass relief valve to relief position.

11. Remove stopping machine.

12. Attach completion machine to gate valve and install completion plug into fitting. (Refer to Mueller Operating Instruction manual for Stopping Machine being used.)

13. Install completion cap and perform finishing procedures.

FOR STOPPING UNIT 3SW, 3SW–500 and 4SW

1. Follow Operating Instructions 1-7 on page 2.

2. Lower bottom-out stopper into fitting by turning stopping machine handle in the counter-clockwise direction until primary seal is seated in bottom of fitting and inner seal is compressed. A gage and/or test nipple is recommended on the section of main to be isolated to determine when gas flow has been completely stopped.

3. Blow down the isolated section of main and check for a complete shut-off. If shut-off is not complete, continue to compress the stopper until shut-off is satisfactory.

4. Complete repairs to the main as required and test for leaks using accepted practice.

5. When ready to restore gas flow: slowly turn crank handle clockwise to raise plunger shaft off the inner seal, allowing gas to flow into the isolated section until pressure is equalized. Purge air from isolated section.

6. Continue turning crank handle in clockwise direction to fully unseat stopper and retract machine bar and stopper to rearmost position above gate valve.

7. Close gate valve.

8. Blow down pressure in stopping machine by turning by-pass relief valve to relief position.

9. Remove stopping machine.

10. Attach completion machine to gate valve and install completion plug into fitting. (Refer to Mueller Operating Instruction manual for Stopping Machine being used.)

11. Install completion cap and perform finishing procedures.

CAUTION: Do NOT raise primary stopper seal off fitting until pressure is equalized.
Compatible Equipment

The Mueller Bottom-Out Stopper is designed to be used with existing Mueller line stopping machines. As supplied, the stopper includes a thread adapter, which adapts the stopper shaft to the appropriate machine boring bar (except the 3" stopper where the shaft fits directly to the machine without an adapter). To use the 2" stopper with a D Series machine, an additional adapter (part number 580932) must be used. Refer to the chart below to determine machine/stopper compatibility.

Repair Parts

<table>
<thead>
<tr>
<th>STOPPER SIZE</th>
<th>STOPPER NUMBER</th>
<th>PRIMARY SEAL NUMBER</th>
<th>INNER SEAL NUMBER</th>
<th>SPRING NUMBER</th>
<th>SHAFT NUMBER</th>
<th>THREAD ADAPTER NUMBER</th>
<th>COMPATIBLE MACHINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot;</td>
<td>681989</td>
<td>529002</td>
<td>529005</td>
<td>311747</td>
<td>529006</td>
<td>529007</td>
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<td>529010</td>
<td>529014</td>
<td>311748</td>
<td>529015</td>
<td>–</td>
<td>#2</td>
</tr>
<tr>
<td>4&quot;</td>
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<td>529014</td>
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<td>529015</td>
<td>681979</td>
<td>#2</td>
</tr>
<tr>
<td>6&quot;</td>
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<td>529027</td>
<td>529031</td>
<td>311749</td>
<td>529032</td>
<td>681982</td>
<td>#3</td>
</tr>
<tr>
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<td>529027</td>
<td>529031</td>
<td>311749</td>
<td>529032</td>
<td>681983</td>
<td>3SW Series</td>
</tr>
<tr>
<td>8&quot;</td>
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<td>529037</td>
<td>529041</td>
<td>311750</td>
<td>529042</td>
<td>682633</td>
<td>#3 x CL300 LSF</td>
</tr>
<tr>
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<td>529037</td>
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<tr>
<td>10&quot; / 12&quot;</td>
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<td>529037</td>
<td>529041</td>
<td>311750</td>
<td>538299</td>
<td>682998</td>
<td>4SW</td>
</tr>
</tbody>
</table>

WELDING NOTES: While the bottom-out stopper is in use in the fitting, DO NOT weld within 12" from the nearest edge of a 2", 3" or 4" stopper fitting; within 18" from the nearest edge of a 6" or 8" stopper; within 20" of a 10" or 12" stopper fitting.