The gas spring is used in excess of the specified stroke range S, gas leakage will occur and the piston rod will not return. Make sure to use the gas spring within the specified stroke range so that it does not contact the overstroke check pin.

**Weight (kg)**

<table>
<thead>
<tr>
<th>D</th>
<th>d</th>
<th>B</th>
<th>L</th>
<th>H</th>
<th>Mᵃ</th>
<th>J</th>
<th>Mb</th>
<th>Load N/kg</th>
<th>Catalog No.</th>
<th>Base unit price</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>30</td>
<td>4</td>
<td>M8×12 20</td>
<td>125</td>
<td>130</td>
<td>M8×12</td>
<td>5000 (510)</td>
<td>GSSR</td>
<td>60 → 25</td>
<td></td>
</tr>
<tr>
<td>1.22</td>
<td></td>
<td></td>
<td></td>
<td>161</td>
<td>143</td>
<td></td>
<td>9750 (994)</td>
<td></td>
<td>25 → 38</td>
<td></td>
</tr>
<tr>
<td>1.35</td>
<td></td>
<td></td>
<td></td>
<td>185</td>
<td>135</td>
<td></td>
<td></td>
<td></td>
<td>38 → 50</td>
<td></td>
</tr>
<tr>
<td>1.37</td>
<td></td>
<td></td>
<td></td>
<td>245</td>
<td>165</td>
<td></td>
<td></td>
<td></td>
<td>50 → 80</td>
<td></td>
</tr>
</tbody>
</table>

**Order Catalog No.**

GSSR 50 – 59

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**Features**

- The return time (speed) of the piston rod can be adjusted using the needle valve. To adjust the needle valve, insert a hex wrench into the hexagon socket hole for return speed adjustment.
- Turn clockwise: The valve closes and the piston rod returns slower.
- Turn counterclockwise: The valve opens and the piston rod returns faster. When the piston rod descends, nitrogen gas flows into the auxiliary pressure chamber.
- The operating environment temperature range is 0 → 40°C. Ensure that the surface temperature of the gas spring does not exceed 70°C.
- For the precautions for use, refer to P.1011.

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**Structure**

- Needle valve stopper
- Needle valve
- Overstroke check pin
- Needle valve

---

**Example of use**

- Do not use two or more gas springs on either the die side or punch side. Because it is difficult to synchronize the return timing of multiple gas springs, the die guide may vibrate or the die may be damaged.
- If the needle valve is tightened too much, the valve may be deformed, resulting in malfunction of the gas spring.
- Do not turn the needle valve stopper. Although it is bonded in place, turning it forcefully may cause gas leakage.
- Because the nitrogen gas in the auxiliary pressure chamber reduces the pressure in the main pressure chamber, the return speed of the piston rod slows down.

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**Precautions**

- Do not turn the needle valve stopper.
- Needle valve stopper
- Needle valve
- Overstroke check pin
- Needle valve

---

**Relationship between piston rod return time and needle valve position for GSSR**

This graph is a relationship image of stroke returned and time. Please use as a reference.

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**Shot limit**

- Shot limit: Number of shots per minute. The shot limit may be affected by the operating environment. The figures shown here are for reference only.

---

**Limit stroke speed**

The stroke speed shall not exceed 80mm/sec.