Micro Series and Ultra Force® Series (U.0175/U.0325)
Installation and Operation Specifications

Operating Specifications
Charging Medium:
Max Charging Pressure C.045/C.070/C.090/C.180/C.250: 177 bar (2560 psi)
Max Charging Pressure E.16/E.24: 150 bar (2175 psi)
Max Charging Pressure U.0175/U.0325/SL.16: 180 bar (2600 psi)
Maximum Speed:
1.6 m/s (63 in/sec)
Operating Temperature:
4°C – 71°C (40°F – 160°F)

General Information
- DO NOT exceed 90% of stroke
- Stripping applications require a slight preload
- 0.5 mm – 1 mm (.02” – .04”)
- Use enough force to strip the part
- Design adequate safety so spring is not over stroked

NITROGEN GAS SPRINGS ARE CHARGED UP TO 180 BAR.
- Do not weld
- Do not machine or modify
- Protect from damage
- Dispose of properly (see below).

Installation in Pockets
It is necessary to have a flat surface against the base of the spring in all circumstances.
Maximal torque limit for C.045, C.070 is ø8 mm, C.090, C.180, C.250 is ø10 mm, U.0175 and U.0325 is ø12mm. Inaccurate pockets may cause structural damage or reduced life.

Recommended Mount Installation
A minimum thread engagement of 1.5 x thread diameter is recommended for threaded body (TB) style gas springs. Use the torque specification above for proper installation. Torque specification varies if using a RT Ratcheting Tool, refer to Bulletin No. B04139B.

Threaded Body Installation Recommendations
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Improper Installation Examples
- Verify cap screw length. Do not exceed M6 x 1 Tap length. Incorrect installation of cap screw may cause damage.
- Do not use the bottom mount in unsupported or open mounting application.
- Do not constrain the rod end.
- Do not compress gas springs in an unsafe manner. Never compress in a vice or clamp outside a die; damage can result. Never strike the rod with a hammer to test for pressure.

Draw Die and Other Contaminants
- Direct contact with certain die lubricants and cleaners can be harmful to gas springs or can cause pressure increase. The Duralene® rod wiper, standard in Micro Series springs, will help prevent lubricant contamination. If lubricant exposure is still a problem, contact DADCO.
- Avoid large gaps in side loading. Use tapped hole in base to secure and pre-load if possible.
- Protect gas springs by providing adequate drainage in gas spring pockets. This is especially important if the spring will be exposed to draw die lubricants or oils.

Uncontrolled Release
- Jammed parts are very dangerous. If parts are jamming, determine the root cause and repair it before production continues. Failure to repair the problem will cause failure or damage of the gas spring.
- Pre-loading the pad will prevent gas spring damage from “snap action” or sudden release.
- Sudden release will cause gas spring to exhaust. Restricting rod travel will help prevent gas spring damage.

Proper Disposal
Before throwing out damaged or worn out gas springs be sure to discharge all pressure.

CAUTION
Always wear safety goggles and use extreme care when handling a damaged gas spring.

1. Discharge through the adjustable valve using the Valve Bleed Tool or Charging Adapter, 90.315.5.
2. If spring is damaged and cannot be discharged using the Valve Bleed Tool then drill a hole to discharge.

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All properly installed mounts (RM, NF, FA, VFA, RF, TB) support the load. No back-up is required.

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