SUPER DUTY REGULATOR

R274X1–X00

RELEASED: 5–1–98
REVISED:
(REV.)

R274 [X] 1 – [X00]

PORT SIZE
- 3/4" – 5
- 1" – 6
- 1–1/4" – 7
- 1–1/2" – 8

SPRING RANGE
- 100 – 5–125 PSIG
- 200 – 5–50 PSIG
- 300 – 10–250 PSIG

TECHNICAL SPECIFICATIONS

OPERATION CONDITIONS

Models / Port Sizes:	See chart above
Fluid:	Compressed Air
Relief Type:	Relieving
Pressure Range:	10 to 250 psig (1.0 to 17.2 bar)
Thread type:	PTF
Maximum Inlet Air Pressure:	300 p.s.i.g. (20.7 bar)
Temperature range:	0° to 175°F (–18° to 79°C) Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

MATERIALS OF CONSTRUCTION

Body:	Aluminum
Bonnet:	Aluminum
Bottom Plug:	Acetal
Valve:	Aluminum and nylon
Elastomers:	Buna "N"
Panel mounting hole diameter:	2.28" (58mm)
Panel thickness:	0.06" to 0.16" (2 to 4 mm)

OPERATING AND SAFETY PRECAUTIONS

- **Use only genuine ARO replacement parts to assure compatible pressure rating and performance.**
- **Read carefully all warnings and safety precautions and heed the following before operating, to avoid personal injury and/or property damage.**
- **Be certain anyone operating this equipment has been trained to use it safely.**
- **The accuracy of the indication of the pressure gauges can change, both during shipment (despite care in packaging) and during the service life. If a pressure gauge is to be used with these products and if inaccurate indications may be hazardous to personnel or property, the gauge should be calibrated before initial installation and at regular intervals during use. For gauge standards refer to ANSI B40.1.**

⚠WARNING COMPONENT RUPTURE. DO NOT EXCEED MAXIMUM RATED OPERATING PRESSURE AS STATED IN TECHNICAL SPECIFICATIONS. To avoid possible damage or personal injury, DO NOT expose the unit to excessive pressure beyond the intended working range.

⚠WARNING USE RELIEF VALVE. Install a pressure relief valve downstream of the regulator if outlet pressure in excess of the regulator pressure setting could cause downstream equipment to rupture or malfunction. The relief pressure and flow capacity of the relief device must satisfy system requirements.

⚠WARNING TEMPERATURE LIMITS. DO NOT EXCEED MAXIMUM TEMPERATURE LIMITS AS STATED IN *TECHNICAL SPECIFICATIONS*. Excessive temperature can affect non–metallic parts which may weaken them and cause failure.

⚠WARNING AVOID MISAPPLICATIONS. Before using these products with fluids other than air, for non–industrial applications, or for life–support systems consult the factory.

⚠WARNING USE WITH INDUSTRIAL COMPRESSED AIR SYSTEMS ONLY. Do not use with bottled gas products or fluids. misapplications can result in component failure or personal injury.

⚠WARNING DISASSEMBLY HAZARD. DO NOT DISASSEMBLE THIS UNIT WHEN IT IS UNDER PRESSURE. Shut off and relieve air supply before attempting service or disassembly procedures. Isolate the unit by closing the line valve or disconnect the supply line or hose.

INSTALLATION

- Install regulator in air line at any angle and as close as possible to the device being serviced.
- Install upstream of cycling valves
- Install with air flow in direction of arrow on body.
- Connect piping to proper ports using pipe thread sealant on male threads only. Do not allow sealant to enter interior of regulator.
- Air line piping should be the same size as regulator ports.

ADJUSTMENT

1. Turn adjustment clockwise to increase pressure setting. Turn adjustment counterclockwise to decrease pressure setting.
2. Always approach the desired pressure from a lower pressure. When reducing from higher to a lower setting, first reduce to some pressure less than that desired, then bring up to the desired pressure.

NOTE: With non–relieving regulators, make pressure reductions with some air flow in the system. If made under no flow (dead–end) conditions, the regulator can trap the over–pressure in the downstream line.

KNOB ADJUSTMENT: Push lock ring on knob down to lock pressure setting. Pull lock ring up to release. Install tamper resistant seal wire (See replacement Items) in groove above lock ring to make setting tamper resistant.

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FLUID PRODUCTS

MAINTENANCE

CLEANING

- Clean other parts using warm water and soap.
- Do not submerge knob bonnet (1) in solution as lubricant will be removed.
- Dry parts and blow out internal passages in body using dry compressed air.
- Inspect and replace any parts found to be worn or damaged.

SERVICE KITS

Repair Kits are universal and may contain items not used on your product. Always replace used parts with identical parts from the kit.

SERVICE

DISASSEMBLY

1. Shut off air inlet pressure and reduce pressure to zero.
2. Turn adjusting knob counterclockwise until all load is removed from the spring (3). Regulator can be disassembled without removal from air line.
3. Unscrew bonnet (1) and remove, remove regulating spring (3), slip ring (4) and diaphragm (5).
4. Unscrew bottom plug (6) and remove O-ring (7), valve spring (8) valve and valve stem (9) and O-rings (10,11).
5. Regulator can be disassembled without removing from air line. Disassemble in accordance with the exploded view.

REASSEMBLY

1. Lubricate seals and O-rings with a small amount of good quality O-ring grease, valve stem (9), valve bore in bottom plug (6), then assemble as shown on the exploded view.
2. Torque Table

Item	Torque in Ft.lbs (N-m)
Bonnet (1)	45-50 (61 to 68)
Bottom Plug (6)	Hand Tight

Note: Individual parts are not available.

KIT DESCRIPTION	KIT NO.	ITEM NOS. INCLUDED
Service Kit (Relieving)	**104117**	**5,7,8,9,10,11**
Spring 5-125 lb.	**104121**	**3** *Standard*
Spring 5-50 lb.	**104120**	**3** *Optional*
Spring 10-250 lb.	**104122**	**3** *Optional*
Gauge 0-160 lb.	**100067**	**14**
Gauge 0-300 lb.	**100083**	**14**
Gauge 0-60 lb.	**100066**	**14**
Panel Mount & Bracket Kit	**104114**	*See Catalog*