



Hold-down Bolting - Rotary Compressors

Ariel rotary compressors have four mounting feet. However, those with a bell housing use only the two discharge end (non-drive end) feet with the bell housing flange for a three-point mounting. The other two mounting feet have no bolting and do not contact the skid. See Ariel outline drawings for details. Compressors without a bell housing use all four mounting feet.

Ariel recommends **SAE Grade 8** for hold-down bolting and bell housing flange to driver bolting. Lower grade bolting material requires less torque for less bolting stretch and increased chances of loosening. For the same reason, when designing a compressor support structure, make the foot mounting bolting-span between the bolt head and nut as long as reasonably possible.

Table 1 torques are based on petroleum based lubricants applied to threads and seating surfaces. Use lubricating oil or Lubriplate 630. Do not use Molybdenum disulfide lubricants or Never Seez to lubricate hold-down bolting - excessive stress can result with Table 1 torques. Clean and de-burr threads.

Qualified service personnel should always apply fastener torques with a calibrated torque wrench. See ER-63.1 or ER-63.2 for further recommendations for torque accuracy.

TABLE 1 Recommended SAE Grade 8 Bolt Sizes & Torques

Compressor Model	Compressor Foot to Skid		
	Hole Diameter inch (mm)	Bolting Size inch--TPI	Torque lb-ft (N•m)
AR166	1.063 (27)	7/8--9	470 (640)
AR208	1.299 (33)	1-1/8--7	1000 (1350)
AR260	1.535 (39)	1-3/8--6	1850 (2500)
AR321	1.339 (34)	1-1/4--7	1400 (1900)
RG282, RG282M, RG357M	1.375 (35)	1-1/4--7	1400 (1900)
Bell Housing Flange to Driver			
RG282, RG282M, RG357M	0.531 (13.5)	1/2--13	85 (115)

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