



AEROSPACE STANDARD

AS4202**REV. A**

Issued 1992-06
Revised 1998-01
Reaffirmed 2015-06

Superseding AS4202

Adapter - Port Connection, Ring Locked Design,
Installation and Removal of
8000 psi Systems

RATIONALE

AS4202A has been reaffirmed to comply with the SAE five-year review policy.

1. SCOPE:

- 1.1 This SAE Aerospace Standard (AS) provides the essential minimum design, installation and removal standard for AS4200 adapter and is applicable when specified on engineering drawings, or in procurement documents.

2. REFERENCES:

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AS568 Aerospace Size Standard for O-rings
AS4200 Adapter Assembly - Port Connection Ring Locked to Beam Seal Fitting 8000 psi
AS4201 Port - Ring Locked Fluid Connection Type 8000 psi Standard Dimensions For

2.2 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

TT-P-1757 Primer Coating, Zinc Chromate, Low-Moisture-Sensitivity

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3. GENERAL DESIGN INFORMATION:

- 3.1 These adapters provide a semi-permanent male fitting for use in 8000 psi (24,000 psi burst pressure) fluid systems compatible with titanium, at -65 to +450 °F temperature range.
- 3.2 Adapters per AS4200 and installed per this document into ports per AS4201 shall have a stand-off dimension "P" per Figure 1 and Table 1.
- 3.3 O-ring size per Table 1 and per AS568 must be used. The O-ring compound shall be specified by the using design activity and shall be selected based on system fluid and temperature.
- 3.4 The lockring is driven into the mating port serrations after the adapter has been torqued. This prevents the adapter from rotating in the port during coupling nut assembly and disassembly and also eliminates the necessity of lock wiring the adapter. Only one wrench is required to install or remove the coupling nut.
- 3.5 Adapter removal is accomplished by lifting the lockring out of the port using a removal tool per Table 2.

4. DESIGN REQUIREMENTS:

- 4.1 Minimum data to be specified on engineering drawing or specification.
 - 4.1.1 Port diameter to be at least the minimum specified in AS4201.
 - 4.1.2 Location of port.
 - 4.1.3 Specific port size per AS4201. If tap drill depth is not through, then specify control dimensions.
 - 4.1.4 Specific adapter size per AS4200.
 - 4.1.5 Specific O-ring size and compound (see 3.3).
 - 4.1.6 Install adapter per this document.
 - 4.1.7 Corrosion protection is specified in 5.2.4. If materials or fluids require primer different from zinc chromate primer or if an additional sealant is required, so specify.
 - 4.1.8 Pressure testing of individual units is specified in 6.1. Testing other than that shown shall be specified.
 - 4.1.9 The port material for 8000 psi systems must have a minimum shear strength of 20 ksi to resist the axial load being generated from 24,000 psi burst pressure (based on thread minimum shear engagement area shown in Table 3).

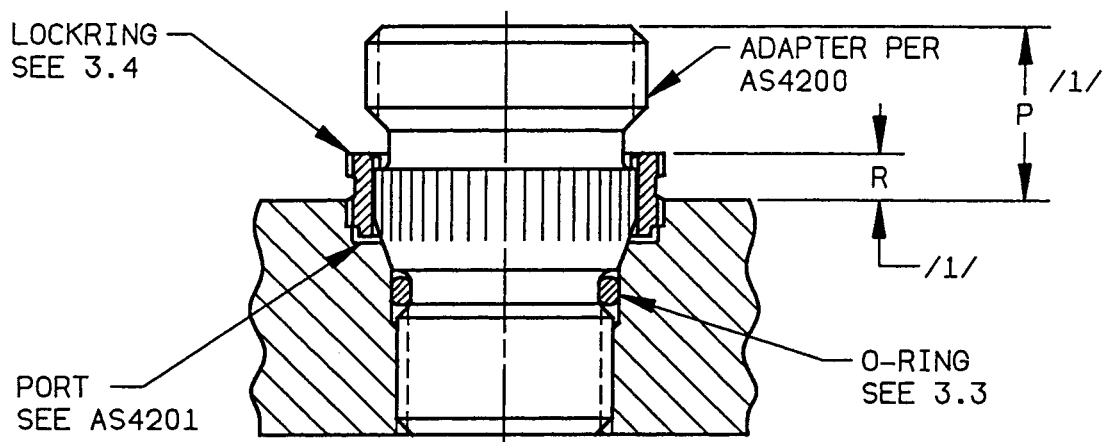


FIGURE 1 - Installed Adapter

TABLE 1 - Installation Dimensions

AS4201 Port Dash Number	AS4200 Adapter Dash Number	O-Ring Size See 3.3	P /1/ ±.020	R Max
02	02	AS568-007	.331	.124
03	03	AS568-008	.362	.124
04	04	AS568-010	.404	.124
05	05	AS568-011	.404	.124
06	06	AS568-012	.430	.130
07	07	AS568-013	.443	.130
08	08	AS568-014	.443	.130
09	09	AS568-015	.507	.130
10	10	AS568-016	.507	.130
11	11	AS568-017	.557	.140

/1/ "P" and "R" dimensions are for design purposes only and represent final stand-off dimensions. Do not use as installation dimensions.