

What's the best way to install an O-Ring?

To reduce friction and the potential for seal damage or twisting, O-rings should be lubricated prior to installation. A thin film of mineral oil, grease, silicone oil, or application fluid is usually sufficient. In addition, break or cover sharp edges and threads, and, if possible, plan the installation so that the O-ring does not pass over any ports while compressed.

How can I predict the compressive load necessary to squeeze an O-Ring?

We have developed empirical charts of compressive load per linear inch of seal material.

How can I calculate the necessary bolt torque and spacing on a face seal?

This is a three-step process. First, calculate the needed compressive load (see above.) Second, determine the maximum bolt spacing to prevent plate deflection under pressure. Finally, calculate the amount of torque required to generate this amount of compressive load based on the size of bolt.

How much torque is required when tightening an O-Ring tube fitting?

It varies with the tube fitting design. As a general rule, the mating halves of the fitting should bottom-out with metal-to-metal contact. The tube fitting manufacturer may have more information. Contact the Parker Tube Fittings Division by email: TFDmailbox@parker.com.

Are there tools available to aid in O-Ring installation?

Parker sells brass installation tool kits to aid in the insertion and removal of O-rings.

Where do I find information on automated O-Ring installation equipment?

At this time, Parker does not manufacture automated O-ring installation equipment or recommend a manufacturer.

How do I install a backup ring in a face seal groove?

You don't. Face seals are designed to have metal-to-metal contact between the mating faces, making backup rings unnecessary. If this is not possible in your application, click on the Request for Quote on This Product link at the bottom of this page and a Customer Service Representative will contact you. You've got a problem that can't be solved over the internet.