

ROTARY UNIONS

This month I want to talk about the proper installation and maintenance of **rotary unions**. Proper installation and maintenance are the key to performance and long life for rotary unions, and it can save money and down-time in the long term.

Rotary unions are devices that feed fluid or air from a stationery source such as a supply line to a moving or rotating piece of equipment. Rotary unions serve two purposes:

- (1) They supply air and coolant thru the spindle, and
- (2) Supply air for the work location confirmation signal

Since proper installation and maintenance are key factors to getting excellent performance and long life from rotary unions, let's discuss both.

INSTALLATION

The key to installing rotary unions is to properly install the mounting plate first. If the plate is not properly mounted, you **will not** be able to install the rotary union correctly. Below is the procedure for installing the mounting plate.

- (1) Stone and deburr all mating surfaces
- (2) Install the mounting plate and lightly secure all fastening bolts
- (3) Place an indicator on the outside of the plate (see picture 1)
- (4) Check the runout of the plate and set it as close to zero as possible. Use a soft face mallet or brass to tap on plate to get plate secured. ***This step is crucial when mounting the rotary union.***
- (5) Tighten all fastening bolts and re-check the runout. Make sure plate does not move when tightening

The next step is to install the rotary union using the following procedure:

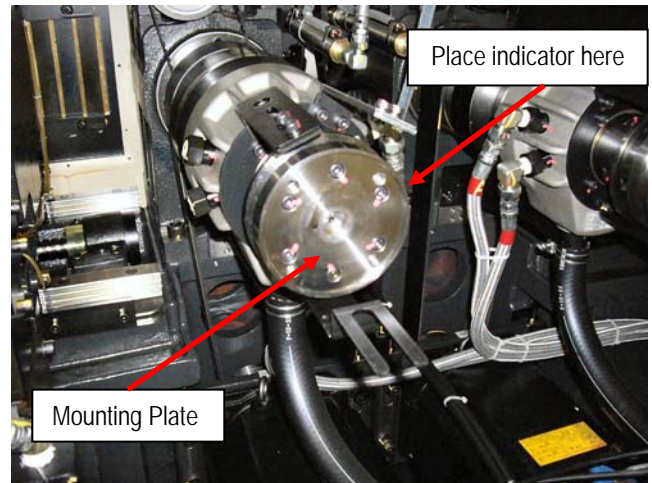
- (1) Stone and deburr the face of the mounting plate.
- (2) Install the rotary union and lightly secure all fastening bolts.
- (3) Place an indicator on the outside of the rotary union. (see picture 2)
- (4) Check the runout of the union and indicate it to within .02mm (.0005"). You must indicate by tightening and loosening of the fastening bolts. While you want **all the bolts to be snug**, they all **do not** need to be extremely tight. ***Do not tap on the union in order to get the runout in tolerance. This can damage the union.***

This completes the install procedure.

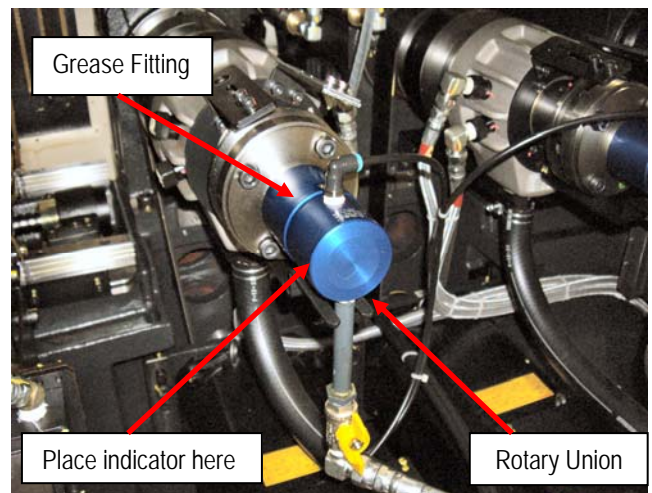
MAINTENANCE

Maintenance for rotary unions is very simple but extremely important to the life of the unit. Operating temperature for unions is between 0 deg F (-18 deg C) to 250 deg F (121 deg C).

A good ball bearing grease (manufacturer of rotary union recommends Chevron SRI 2) applied every three months or as needed will greatly increase performance and life of the union. Frequency can also depend greatly on the RPM's that are being run, as well. For more specific information, we suggest contacting the manufacturer.



Picture 1



Picture 2