



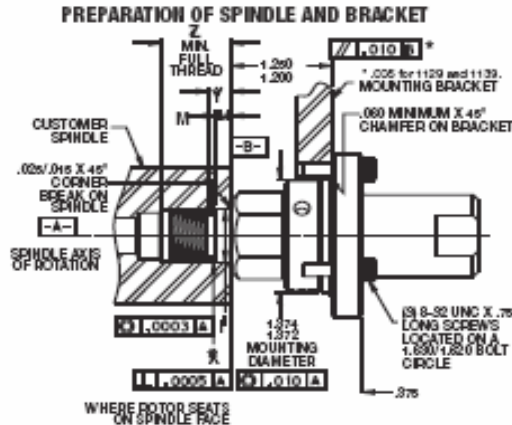
BEARINGLESS COOLANT UNIONS INSTALLATION AND MAINTENANCE INSTRUCTIONS

WARNING

Deublin Unions should not be used to seal HYDROCARBONS, FLAMMABLE MEDIA, or GROUP D materials because leaks may result in EXPLOSIONS OR FIRES. Deublin Unions should not be used for applications other than specified in the catalog. The use of our product on exotic or corrosive Medias is strictly forbidden. For applications other than stated in the catalog, the Deublin Engineering Department should be contacted for recommendations.

UNION INSTALLATION

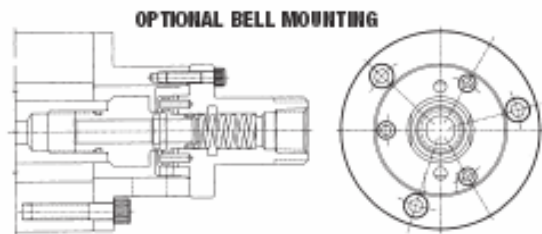
Deublin Coolant Unions are manufactured to precise tolerances for smooth running, long care-free service when operating within their individual operating capabilities. However, proper installation procedures are absolutely essential to a successful operation.



| ROTOR PILOT | | SPINDLE END | | |
|-------------|------|-------------|------|------|
| I | M | X | Y | Z |
| .055 | .187 | .6550 | .251 | .812 |
| .054 | | .6551 | | |
| 17,003 | 4.7 | 18,010 | 7.0 | 17.0 |
| 17,008 | | 17,005 | | |

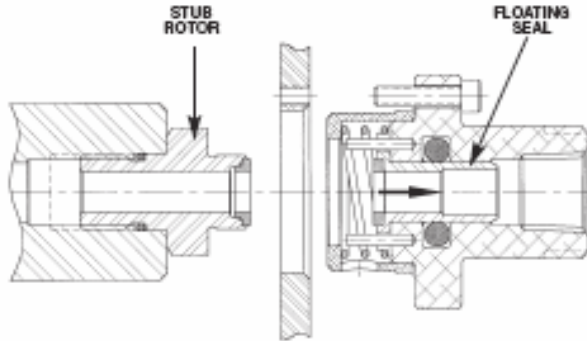
ALWAYS CHECK

1. Thread size, type and if it's right or left handed.
2. Pilot Bore dimensions— diameter and depth. There are many spindles presently operating with pilot diameters of .6249 and 16 mm, and others. Therefore, all retrofit installations must be carefully inspected and gauged for actual pilot bore diameter. Proper installation *cannot* be achieved with a mismatched pilot and pilot bore.
3. The spindle face must be clean and deburred — free from chips or dents.
4. A bearingless union installation will transfer an axial load (thrust load) to the spindle bearings, from the coolant pressure. Since this varies with union design, contact our Engineering Department for specific information.



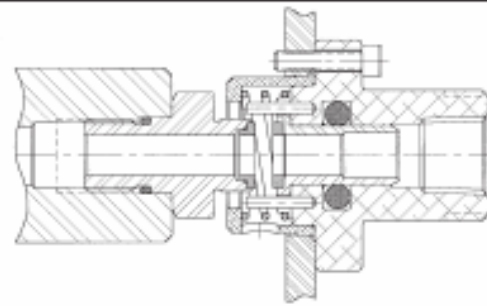
AVAILABLE FROM DEUBLIN

ADDITIONAL INSTALLATION INSTRUCTIONS FOR MODELS 1129 & 1139 ONLY:



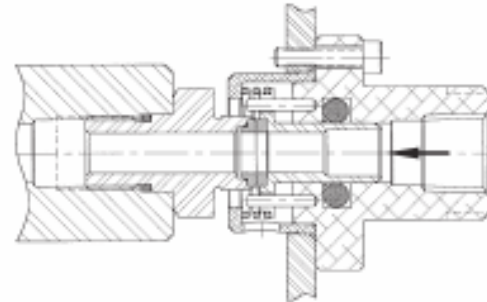
STEP ONE:

Before attaching union cartridge to mounting bracket, push the floating seal with your finger (using a lint free cloth) in direction of arrow until it bottoms out.



STEP TWO:

Attach union cartridge to mounting bracket.

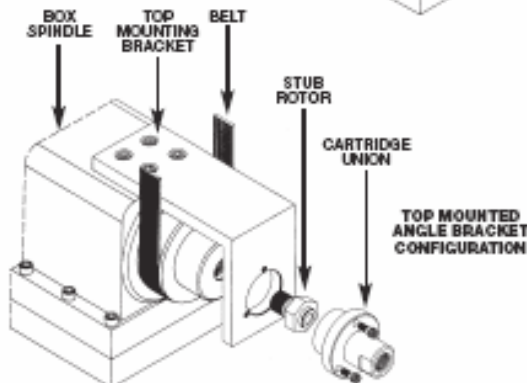
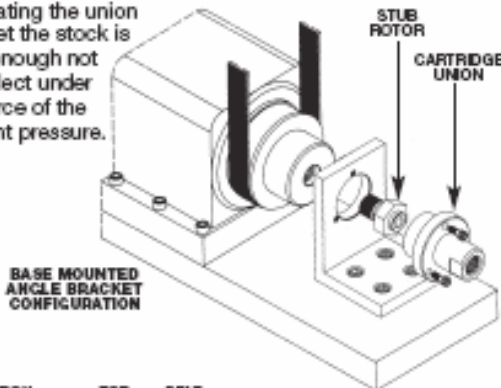


STEP THREE:

Using a screwdriver, carefully push the floating seal in the direction of the arrow until contact is made with the stub rotor seal.

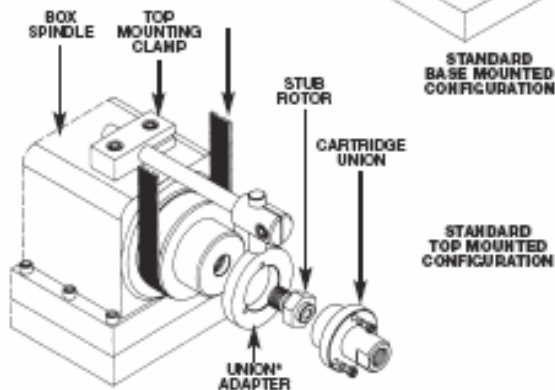
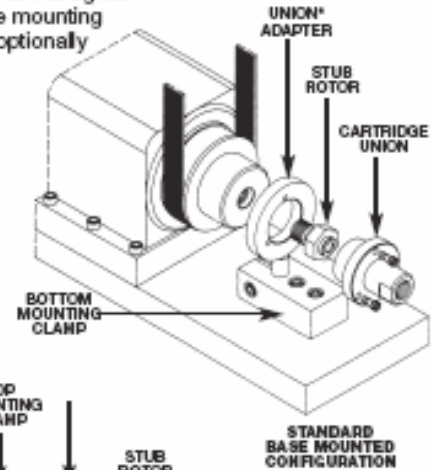
ANGLE BRACKET

It is important that when fabricating the union bracket the stock is rigid enough not to deflect under the force of the coolant pressure.



ADJUSTABLE BRACKET

These brackets are designed for easy precise mounting of unions. It is optionally supplied by Deublin Company.



These instructions are provided by Deublin as general guidelines. They do not contain exhaustive information about the installation, use or maintenance of unions. Purchasers and users of Deublin unions should be certain that they have reviewed Deublin's catalog and have sufficient experience and training in the use of unions before attempting installation or use of Deublin's products. The principal responsibility for the safe and effective use of Deublin unions rests with the user and its employees. Deublin will, upon request, provide advice to users about products and assistance with difficulties and problems.