Air tubes
Operating manual

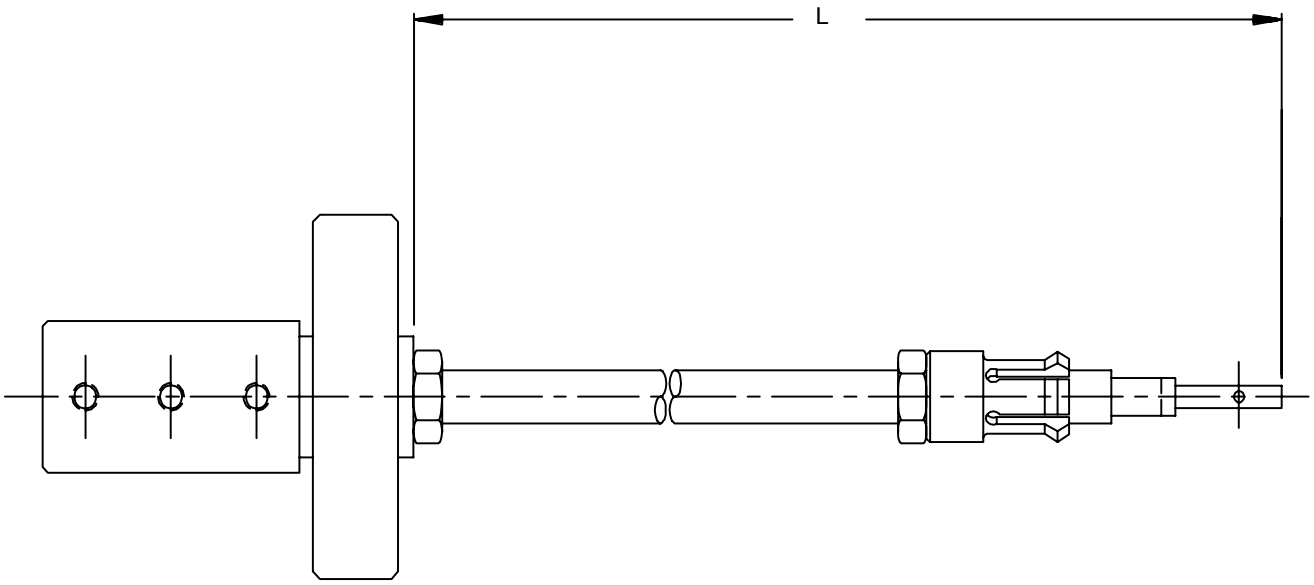

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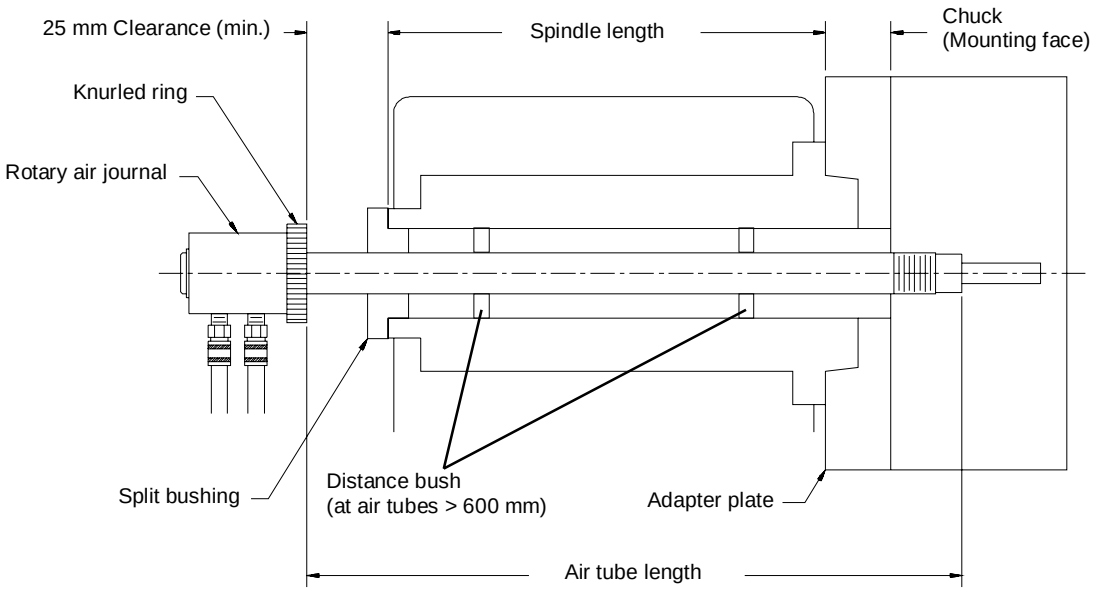
Illustration



Precautions

1. An air filter-regulator-lubricator unit must be installed to assure proper operation.

2. The air tube must be of proper length with a minimum of 25 mm to a maximum of 50 mm clearance at the rear of the machine spindle.

3. The air journal requires continuous lubrication. Lubricated air is supplied by the air filter-regulator-lubricator unit. Minimum rate of lubrication to the air flow is 4 drops per hour. Recommended lubricant is a light spindle oil, e.g. Mobil Velocite No. 6 or equivalent.

4. On the use of air bearing (e.g. Mod.50) one passage must be supported continuously by air while the tube is in rotation, to ensure the bearing function.

Installations

1. The air tube must be supported by the split bushing provided. Machine a short step on the bushing for a slip fit into the spindle as shown above. Tighten the set screw on the bushing to secure it in place.

   The air tube must be free to rotate and there should be a clearance of 0,05 mm. Secure that the air tube has enough space to make an axial stroke. Cause the rotation nothing should slide on the air tube.

2. a) At air tube lengths > 600 mm you have to built in 2-3 distance bushes into the spindle to avoid possible vibrations of the air tube.
   b) For a speed greater than 3000 r.p.m. an adjustable mounting set is required. With it you have to adjust the air tube as descripted in point 6.

3. Install the tube by threading it into the manifold of the chuck. All threads and steps on the air tube must be free of swarf and dirt and the Teflon-ring in the manifold of the chuck must be at the hole ground. On damage of the Teflon-ring the function is not ensured. Tighten the tube by hand using the black knurled ring. Tighten securely, but do not use excessive force. On some types there is no thread in the manifold. These air tubes have plugs to mount it into the manifold.

   Note: Do not remove the knurled ring. Aside from providing a convenient grip during tightening, the ring functions as a clamp, securing the outer tube to the air journal.

4. Secure the air tube fittings of the rotary air journal through a sheet metal fork or through pins (fixed on the machine housing) against distortion.

5. On quick starting or breaking machines it is recommended, to built in an additional torque dog for the rotary air journal.

6. On speeds > 3000 r.p.m. the air tube has to be oriented concentrically to the spindle axes. The following steps are performed:
   a) Set the rotary dial gauge on the air distribution pipe.
   b) Turn the machine spindle slowly.
   c) If the eccentric is > 0,03 mm adjust the concentricity of the tube at the mounting set.
   d) Repeat steps b) and c) until the concentricity of the rotary distributor is < 0,03 mm.

Troubleshooting

If the chuck does not operate, or if it does not generate appropriate holding force, verify that the air tube is threaded firmly into the chuck. If you have still problems, please check the Teflon ring in the manifold of the chuck. For additional information please call our Service department.

Notices