



Special Mandrel 16-440500 For Tube and Pipe 1/2" I.D. to 3/4" I.D. (12 - 19 mm)

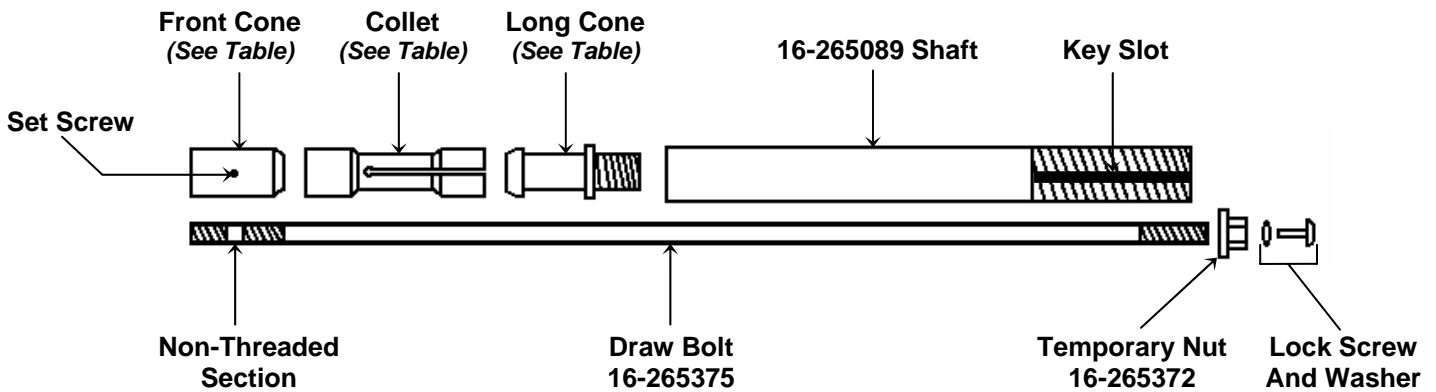


Figure 1
MANDREL COMPONENTS

ID Range (mm)	ID Range (inch)	Front Cone	Collet	Long Cone
12 – 13	0.472 – 0.512	16-330012	16-321212	16-310012
13 – 14	0.512 – 0.551	16-330012	16-321213	16-310012
14 – 15	0.551 – 0.591	16-330014	16-321414	16-310014
15 – 16	0.591 – 0.630	16-330014	16-321415	16-310014
16 – 17	0.630 – 0.669	16-330016	16-321616	16-310016
17 – 18	0.669 – 0.709	16-330016	16-321617	16-310016
18 – 19	0.709 – 0.748	16-330016	16-321618	16-310016

Table 1

1. Measure accurately the inside diameter of the tube or pipe.
2. Select the mandrel components from Figure 1 and Table 1.

3. Assemble the mandrel per following steps:

Step 1: Clamp the shaft in a soft jawed vice and screw the Long Cone into the shaft.

NOTE! *The Long Cone is a reversed thread.*

Step 2: Screw the Front Cone onto the short threaded end of the drawbolt, ensuring that the tapered end is inwards and that the end of the drawbolt is flush with the end of the Front Cone.

Step 3: Lock the Front Cone into position by tightening the two screws, using 2mm Allen key provided.

NOTE! *Following the positioning instructions in Step 3 above will ensure that locking screws tighten onto the non-threaded section of the drawbolt. Failure to do this will cause damage to the drawbolt threads.*

Step 4: Slide the drawbolt through the collet and shaft.

NOTE! *The collet assembly part numbering system allows the correct parts to be identified and sized. The first four numbers identify the components as below:*

16-31xxxx	Front Cone
16-32xxxx	Collet
16-33xxxx	Long Cone

On a collet, the fifth and sixth numbers refer to the size (in millimetres) of the Front Cone and Long Cone that the collet should be used with. The last two numbers on the collet are the start inside diameter range of the collet (in millimetres). Each collet has a 1mm range.

For example, 16-321618 is a collet that should be used with 16mm diameter cones. The collet has a start or relax diameter of 18mm. This collet will expand to a maximum diameter of 19mm.

Step 5: The shaft is now fully assembled and ready for use. Install into machine.

NOTE! *Due to the thinness of collet walls, care must be taken not to over expand the collet. Over expansion will stretch the ligaments and not allow the collet to collapse to its relax diameter.*