



Hardinge 5C and 16C Master Expanding Collets

The Hardinge Super-Precision Master Expanding Collet is hardened and ground. It is a valuable aid for close tolerance machining. There is no end movement of the Master Expanding Collet or pads. The shoulder faced on the machineable pads locates the work for precision length control for facing repetitive parts to the same length. This design requires no spindle mount.

The Hardinge design uses a large internal draw bar. A Limit Ring is used to hold the pads while being turned to size. Only one limit ring is required for each style pad. There are two styles of machinable pads - 2" steel pads and 3" aluminum pads. Pads are precision ground internally to fit the OD of the master expanding collet. The pads are soft for turning to the required chucking diameter.

2" and 3" Master Pad Machining Dimensions

Chucking Diameter	2" Pads Max. Turned Length	3" Pads Max. Turned Length
1/4" to 3/8"	Equal to Dia.	N/A
3/8" to 1-1/2"	3/4"	N/A
3/4" to 1-1/2"	N/A	3/4"
1-1/2" to 2"	1-1/16"	1-1/16"
2" to 3"	N/A	1-5/8"

Turning Pads to the desired size:

- Match the letter markings on the pad segments with the markings on the master collet. Hold the pad against the face of the collet while mounting the screws.
- Mount the master collet in the spindle and position the Limit Ring on the OD of the 2" Pads or the pilot of the 3" pads.
- Adjust the collet closer so that the Limit Ring is just gripped when the collet is expanded.
- Turn the pads to the desired diameter: Do NOT exceed the maximum length limits described in the chart to the left.
- Release the collet closer and remove the Limit Ring.

2" and 3" Master Pad Part Numbers

Description	Part No.	Model
2" Steel Master Pad Set	1147	5EC-70-4
Limit Ring for 2" Pads	1149	5EC-70-5
3" Aluminum Master Pad Set	1153	5EC-70-7
Limit Ring for 3" Pads	1111-22	MP3462C

5C and 16C Master Expanding Collet Assembly and Parts List

Description	5C Part No.	5C Model No.	16C Part No.	16C Model No.
Master Expanding Collet Assembly- includes:	1139	5EC-70	1191	16EC-80
— Expanding Collet Body	1141	5EC-70-1	1193	16EC-80-1
— Draw Thread	1143	5EC-70-2	1195	16EC-80-2
— Draw Plug	1145	5EC-70-3	1197	16EC-80-3
— Spring	1151	5EC-70-6	1151	5EC-70-6
— Screw	0100306	—	0100306	—
— Nut	U-4141-C	—	U-4141-C	—
Pads not included				