

Drill Chuck Arbors

R8 to Jacobs Taper



Jacobs Taper	R8 Shank Order No.
JT 0	290-0800
JT 1	290-0801
JT 2	290-0802
JT 3	290-0803
JT 4	290-0804
JT 5	290-0805
JT 6	290-0806
JT 33	290-0833

MT Shank to Jacobs Taper



Jacobs Taper	MT0 Order No.	MT1 Order No.	MT2 Order No.	MT3 Order No.	MT4 Order No.	MT5 Order No.	MT6 Order No.
JT 0	290-1000	290-1100	290-1200	290-1300	290-1400	290-1500	290-2700
JT 1	290-1001	290-1101	290-1201	290-1301	290-1401	290-1501	290-2701
JT 2	290-1002	290-1102	290-1202	290-1302	290-1402	290-1502	290-2702
JT 3	290-1003	290-1103	290-1203	290-1303	290-1403	290-1503	290-2703
JT 4	290-1004	290-1104	290-1204	290-1304	290-1404	290-1504	290-2704
JT 5	290-1005	290-1105	290-1205	290-1305	290-1405	290-1505	290-2705
JT 6	290-1006	290-1106	290-1206	290-1306	290-1406	290-1506	290-2706
JT 33	290-1033	290-1133	290-1233	290-1333	290-1433	290-1533	290-2733

30, 40, 50 Shank to Jacobs Taper



Jacobs Taper	ISO 30 Order No.	ISO 40 Order No.	ISO 45 Order No.	ISO 50 Order No.
JT 0	290-2300	290-2400	290-2600	290-2500
JT 1	290-2301	290-2401	290-2601	290-2501
JT 2	290-2302	290-2402	290-2602	290-2502
JT 3	290-2303	290-2403	290-2603	290-2503
JT 4	290-2304	290-2404	290-2604	290-2504
JT 5	290-2305	290-2405	290-2605	290-2505
JT 6	290-2306	290-2406	290-2606	290-2506
JT 33	290-2333	290-2433	290-2633	290-2533

Straight Shank to Jacobs Taper



Jacobs Taper	1/2" Straight Shank Order No.	5/8" Straight Shank Order No.	3/4" Straight Shank Order No.	7/8" Straight Shank Order No.	1" Straight Shank Order No.	1-1/2" Straight Shank Order No.	1-3/4" Straight Shank Order No.
JT 0	290-1600	290-1700	290-1800	290-1900	290-2000	290-2100	290-2200
JT 1	290-1601	290-1701	290-1801	290-1901	290-2001	290-2101	290-2201
JT 2	290-1602	290-1702	290-1802	290-1902	290-2002	290-2102	290-2202
JT 3	290-1603	290-1703	290-1803	290-1903	290-2003	290-2103	290-2203
JT 4	290-1604	290-1704	290-1804	290-1904	290-2004	290-2104	290-2204
JT 5	290-1605	290-1705	290-1805	290-1905	290-2005	290-2105	290-2205
JT 6	290-1606	290-1706	290-1806	290-1906	290-2006	290-2106	290-2206
JT 33	290-1633	290-1733	290-1833	290-1933	290-2033	290-2133	290-2233

Straight Shank to Threaded Shank



Size	Order No.
straight shank 1/2" to 3/8"-24	290-2902

MT to Threaded Shank



Size	Order No.
MT2 to 3/8"-24	290-2910
MT2 to 1/2"-20	290-2912
MT2 to 5/8"-16	290-2914
MT3 to 1/2"-13	290-2916
MT3 to 5/8"-16	290-2918

Vertical 5C Angle Collet Fixture

Model A

Base Size: 2-1/2"x7-3/4"

Height: 4"

Order No. 235-6090



H/V 5C Angle Collet Fixture

Model C



Base In Horizontal	Height In Horizontal	Base In Vertical	Height In Vertical	Order No.
5x4"	3-5/8"	5x3-5/8"	4"	235-6080

H/V 5C Angle Collet Fixture

Model B

Base Size: 4-1/4"x4-1/4"

Height: 4"-1/4"

Order No. 235-6095



H/V 5C Angle Collet Fixture

Model D



Base	Height	Order No.
5x3-5/8"	3-3/4"	235-6085

5C Collet Index Fixture

- Threaded spindle is hardened and ground (2-1/4"-8TPI).
- Single lever action activates the indexing mechanism.
- Precision ground index plate has 24 indexing locations in fifteen degree.
- 15° increments, any of which can be masked for greater versatility.

Specifications	Max Var.
Dividing spindle concentricity	.004"
Cylinder center bore (per 1") concentricity	.008"
Lateral offset of center slot of dividing spindle	.008"
Center slot to dividing spindle concentric	.008"
Spindle center line parallelism	.008"



Order No. 235-6200

5C Collet Index Fixture

Great for drilling, milling, grinding and locating angles.
Precision ground spindle
Plate can be bolted to top of drill bushing
Use in vertical position with angle plate
Model 5C complete with 24 space ring and 5C draw nut.



Order No. 235-6081

5C Spin Index Fixtures

- Hardened and precision ground spindle.
- Direct indexing in ten steps, graduated in 5° increments.
- Applicable to all milling machines, surface grinders and inspection equipment.
- Precision ground 36 position index plate.
- .0004" T.I.R spindle accuracy.
- Super time saver.



Descriptions	Order No.
5C Spin Index Fixture Only	235-6011
5C Spin Index Fixture(235-6011) & Tailstock(200-1104)	235-6012

5C Collet Chuck

Designed for 5C Collets
Used for clamping tools or workpieces in turning, grinding, boring and milling machines
Supplied with wrench

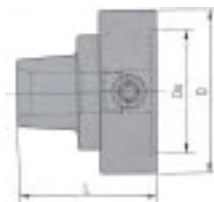
Fixture outside diameter size: 5"/126mm
Collet capacity:
Round 5C collets: 3/64-1-1/8"(1-28mm)
Square 5C collets: 1/8-3/4"(3-19mm)
Hex 5C collets: 1/8-7/8"(3-22mm)

Max. RPM: 6000

Weight: Approx: 10lbs



Model	Order No.
D1-4 Spindle	235-6020
D1-5 Spindle	235-6021
D1-6 Spindle	235-6022
Plain Back	235-6023



Blade Resharpener Fixture

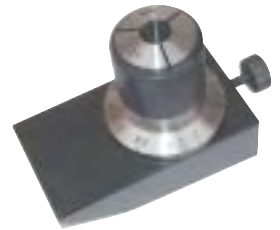
This fixture accommodates all APT MULTI-TOOL blade diameters and thicknesses. The correct end tooth relief angle is built into the fixture marking resharpener simple, accurate and inexpensive on any surface grinder.



Order No. 209-9012

End Mill Grinding Fixture

- The fixture uses 5C collects (no more bushings to lose) which means any shank-size end mill from 1/16" to 1-1/8" can be ground. Shell mills can easily be held with straight shank arbors.
- Grinds 2,3,4,6,8 & 12 fluted end mills and shell mills. Faces only!
- Clearance and relief angles are built into base.
- Solid 2-1/2" x 4-1/2" base ground on bottom for sure contact with magnet.
- Black oxide finish.



Order No. 287-6000

End Mill Cutters/Sharpener

Type 287

- Designed to accomplish all sharpening need.
- Diameter of shank of end mill is 3/8, 1/2", 5/8".
- It may be equally divided to 2,3,4,6,8.



Order No. 231-0287

End Mill Sharpener

- Designed to accomplish all sharpening needs. No need to send out tools. Specials as standards can be sharpened.
- Spindles and bushings to cover the full range of 3/16" up to 1-1/4"
- Shank end-mills are supplied. Will accept cutters with diameters up to 12", and even larger with the use of "riser blocks".
- Quickly sharpens cutters and end-mills right on your tool or surface grinder.
- Two spindles and four bushings cover the full range of 3/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1" and 1-1/4" shank end-mills.
- Accept double end, end-mills



Order No. 287-6530

Specifications	Maximum Variation
Spindle center line to base parallelism (per 12"	0.0024"
Body to stand concentricity	0.0012"
Repeat accuracy	0.0012"

Electric Drill Sharpener

- Volt/Frequency: 110V/60Hz, or 230V/50Hz.
- Input Power: 70 Watts.
- Max. Speed: 1600 RPM.
- Sharpening Size: 9/64"-25/64"/3.6-10mm.
- Comes with sharpening wheel-80 grit 60mm diameter.
- Net Weight: 3.50LBS/1.60Kg.



Order No. 287-6520