

PRECISION PUNCH FORMERS



- Specifications:**
3324-5100 Punch former
- Max. clamping diameter in V-slot -70mm dia.
 - Travel of V-block - 35mm
 - 24 tooth and 15+5 degree dividing disk.



- Specifications:**
3324-5105 Punch Former
- Max. clamping diameter in V-slot -70mm dia.
 - Travel of V-block - 35mm
 - Transverse of slider. ± 35 mm
 - 24 tooth and 15+5 degree dividing disk



- Specifications:**
3324-5120 3 Jaw chuck Punch Former
- 3 Jaw punch former
 - 3 jaw chuck bore -16mm (5/8")
 - Min./Max. clamping diameter- 2/70mm



- Specifications:**
3324-5110 Punch Former
- Center height -80-81mm
 - clamping diameter in V-slot 4-30mm dia.
 - travel of V-block - 25mm
 - Transverse of slider. ± 12.5 mm
 - Max. radius for dress arc- convex - R48mm/Concave-R100mm
 - Drawing of this punch former
 - 24tooth and 15+5 degree dividing disk.
 - Formulas - Convex arc - $h=H-R$ /Concave arc- $h=H+R$
 - Max. wheel diameter-200mm



- Specifications:**
3324-5115 Punch Former
- Center height -80-81mm
 - clamping diameter in V-slot 4-30mm dia.
 - travel of V-block-25mm
 - Transverse of slider- +12.5mm
 - Max. radius for dress arc-convex - R48mm/Concave-R100mm
 - Max. wheel diameter-200mm



- Specifications:**
3324-5125 ER Collet Punch Former
- 7 pcs. ER-16 collets- 4/6/8/10/12/16/20mm.
 - Rapidly clamping



- Specifications:**
3324-5130 Sine Plate for Punch Formers
- Hardness -HRC55 deg. Accuracy - <0.005mm



- Specifications:**
3324-5150 Punch Grinder
- Max. grinding dia. 0.5-5mm
 - Max. grinding length -10mm



- Specifications:**
3324-5145 Punch Grinder
- Max. O.D-1.5-25mm dia,
 - Max. grinding length- 5-35mm



- Specifications:**
3324-5155 Mortoized Punch Grinder
- Working length -20-120mm
 - O.D grinding length -5-35mm
 - Grinding length (OD) -15.-25mm
 - Accuracy -0.005mm
 - 110V/60Hz.- roller drive speed - 129 rpm.
 - 220V/50Hz. -roller drive speed- 108 rpm

END MILL GRINDING FIXTURE

SPECIFICATION

- Grinds 2/3/4/6/8 and 12 fluted end mills and shell mills, faces only! Clearance and relief angles area built into base, Solid 2-1/2"x4-1/2" base ground on bottom for sure contact with magnet. The product finished-black oxide.

FEATURES

- This fixture uses 5-C Collets, Any shank size end mill from 1/16" to 1-1/8" can be ground. Steel mill can be held with straight shank arbor. Solid positive ball stops with 15 degree spacing for fast, easy set-ups.



▲ 4034-2111

END MILL CUTTER SHARPENER

SPECIFICATION

- Spindle center line to base parallelism per 12"(300mm) maximum tolerance 0.0024"(0.006mm). Body stand concentricity-0.0012"(0.003mm) net weight-10.89 kgs(24lbs) features-Spindles & bushings to cover the full range of 3/16" up to 1-1/4" shank end mills are supplied. 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 spindle and 4 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. Accepts double end mills.



▲ 4034-2012

5C COLLET BLOCK SET

FEATURES

- A simple and effective short run jig for machinist parallel on drill press/milling machine/lathes and surface grinders. square or Hex shapes as well as for cross hole drilling at 60/90/120 degrees. Made of hardened steel. Capacity-1/16" through 1-1/8". Ground to 0.0005" flatness, squareness & Parallelism. Standard nut closer and cam operated, quick action closer can be used on both the square and hex blocks

SET INCLUDES

- 1 square block,
- 1 Hex block
- 1 Lever operated closer
- 1 2 Nut closer
- 1 Plastic box or wooden box (selected).



▲ 4034-2015