CUTTERMASTERS (5)

Machines for Machinists Product Lineup 2018



Tradesman Machinist



Journeyman End Mill Grinder JX



CUTTERMASTER Professional Tool Grinder CM-01P

TOYCEN



Welcome to Cuttermasters.

Having been in machine shops for all of my adult life, I found that I was not happy with the tool grinders, bench grinders and belt sanders that were available. The primary problem was speed. AC motors are cheap, which is why they are commony used, leaving the user stuck with what is usually the wrong speed --- too fast to grind without burning the tools. With my background in design of bridge cranes and bomb disposal robots, I knew that DC motors were a better way to go. There was a second problem in that most end mill sharpeners are spin-offs of much larger tool grinders, meaning most of that weight was just not needed to sharpen a tool --- the grinders were too big and too fast.

Soon we had the DC variable speed CUTTERMASTER Professional, *The Pro*, which answered these problems. And every Saturday for the last decade I've worked directly with our engineering team to roll out a new product or improvement, then the following week we build it (visit our blog to see the latest).

Hot on the heels of The Pro came the Tradesman family of DC bench/belt grinders, which are amongst the best machines available in the world today: The eight inch Tradesman 8, popular with woodturners and sharpeners, and the six inch Tradesman 6 designed for machine shops. New for 2017 these grinders have 36" and 48" belt sanding attachments that can also be easily retrofitted to existing machines. The Tradesman 8x36" is a variable grit belt grinder that features quick change belts and uses a Cuttermasters CBN wheel as the drive wheel.

The Journeyman JX End Mill Sharpener can be configured as a basic end mill grinder (JXB) or as a more advanced JX (articulating motor head for greater set up versatility).

The ultimate tool grinder, the CUTTERMASTER Professional replaces the JX's motor with the TOYCEN Universal Tower and the air spindle with the Toycen Radius Air Bearing. The Pro is an 11-axis machine so it will grind most anything.

In 2017 Toycen partnered with Synic Precision to create a line of world class drill and end mill end sharpeners. These are the ES (End Mill End), DS, (Drill) and CS (Combination End Mill and Drill) grinders. These precision grinders are the best of their class and are guaranteed by Cuttermasters for two years on parts and labor.

We offer offer books and manuals and are always around if you've got a question about grinding.

Jeff Toycen

Jeff Tayen



Machines at a glance



Journeyman End Mill and Tool Grinder CM-01DC.....\$3,575.00







Tradesman DC Variable Speed Bench Grinder (Shown with CM-06 Drill and Countersinks)
Tradesman Six Inch Machinist (Machinists and Fabricators)

Tradesman Eight Inch (Woodturners)

Tradesman Eight Inch Belt - Variable Grit / Variable Speed - (Woodturners and Sharpeners)

Tradesman Belt (36" and 48") (Fabricators and Sharpeners)

Combination Grinder



CS320D End Mill Grinder and Drill Grinder 3-20mm (1/8" to 3/4")..........\$3,875.00



ESR520D End Mill Grinder and **Corner Radius Grinder** 5-20mm (1/8" to 3/4")......\$3,975.00

Drill Point Grinders



End Mill End Grinders



ES320D End Mill Grinder 3-20mm (1/8" to 3/4")......\$2,625.00

Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 308 Isabella Street, Ogdensburg NY 13669

CUTTERMASTER **PROFESSIONAL** END MILL (TOOL) GRINDER - CM-01P

The 2017 Cuttermaster Professional has been designed to get the job done. Easy to use use and fast to set up with the dual wheel coonfiguration for tool regrinding and tool modifications (switch between

The 2017 CM01-P is the new Universal Infinate Twin DC Tower with the patented-Toycen Radius Air Bearing on a beautiful-CUTTERMASTER Base.

Sharpen end mill ends, flutes and corner rads, reamers, annular cutters, drills, countersinks, cut off and neck grind both carbide and high speed steel.





wheel types on the fly).

Corner Radius





Easy Ends and Flutes



Set Screw Flats / Chamfers / Neck Reduction



Air Bearing Stroke	10.5" (266.7mm)
Air Bearing Collet	Standard 5C
Cutting Tool Capacity	2" shank, 9.8" O.D.
Flute Length	10.5"
T-Slot Dimension	0.8" (20.32mm) x 0.5" (12.7mm) x 0.67" (17.018mm)
X-Axis Table Working Space	16.5" 5.5"
Y-Axis Table Working space	12" x 5.5"
Wheel	Any tool grinding wheel
Motor Tilt	Infinite

CM-01P Tool Grinder complete with Cuttermaster Universal Base, Toycen MK2 Radius Air Spindle, Toycen Variable Speed, Reversing Infinite Twin Whisper Drive DC Motor Tower and Control, 7 Piece 5C Collet Set, Maintenance Tool Set,





Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669



5

CUTTERMASTER

PROFESSIONAL CM-01P TRS CUTTING TOOL GRINDING SYSTEM





Easy Ends and Flutes



Flute Gumming



Coutersinks / Step Drills



EC313 Drill Grinder 3-13mm



Set Screw Flats / Chamfers / Neck Reduction



Bull Nose / Ball Nose Corner Radius



Tradesman Neck and Cut Off Grinder



Coutersinks / Step Drill Cam Set

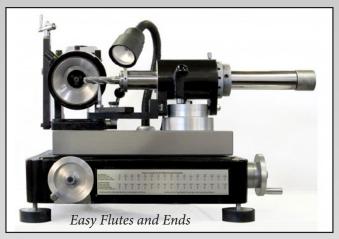




Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669



JOURNEYMAN END MILL GRINDER - JX



Air Bearing Stroke	10.5" (266.7mm)
Air Bearing Swing Over Table	9.8"(248.92)
Cutting Tool Capacity	2" shank, 9.8" O.D.
Flute Length	10.5"
T-Slot Dimension	0.8" (20.32mm) x 0.5" (12.7mm) x 0.67" (17.018mm)
X-Axis Table Travel	6" (152.4mm)
Y-Axis Table Travel	3" (76.2mm) + sildes 6"(152.4mm)
X-Axis Table Working Space	16.5" (419.1mm) x 5.5" (139.7mm)
Y-Axis Table Working space	13" (330.2) x 5.5" (139.7)
Wheel	Any tool grinding wheel
Motor Tilt	+35° -10°
Motor	400 - 4000 rpm, 500 W

OPERATIONS AND ACCESSORIES



Flute Sharpening



Tapered Weldon Flat Grinding



Corner Radius and Ball Nose



Reduced Neck Grinding



Anular Cutter Sharpening



Countersink ,Champher Tool Sharpening



Tool Cut Off



Tap Sharpening

The Journeyman JX Tool Grinder is designed to be easy to set up and easy to use when grinding and re-grinding modern cutting tool materials and geometries.

The single wheel drive will mount any tool grinder wheel including Cuttermasters' precision plated wheels, is reversible, variable speed and produces ten times the torque of the standard 1/3 HP motor (five foot pounds at 1000 rpm), eliminating tool burning by facilitating heavy cuts at greatly reduced rpm, cutting grinding times in half on some tools.

Our DC motor is mounted so that it has more down tilt, and swivels on the base to allow for faster alignment and positioning for grinding of countersinks, reamers, annular cutters and side and face cutters.

Production Support Package - JX including 7pc. 5C collet set, 1 set of resin bond grinding wheels (CBN and Diamond), Wheel Trueing Device, air filter and water separator, machine oiler, vibration dampening feet, taper attachment, work light, manual. \$4,475.00





Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669

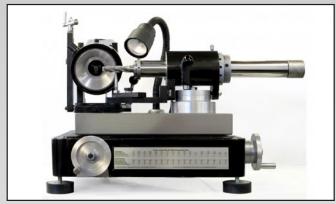




CUTTERMASTER

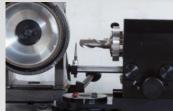
CM-01 DC

DC VARIABLE SPEED CUTTERMASTER END MILL SHARPENER



Easy Flutes and Ends

Air Bearing Stroke	10.5" (266.7mm)
Air Bearing Swing Over Table	9.8"(248.92)
Cutting Tool Capacity	2" shank, 9.8" O.D.
Flute Length	10.5"
T-Slot Dimension	0.8" (20.32mm) x 0.5" (12.7mm) x 0.67" (17.018mm)
X-Axis Table Travel	6" (152.4mm)
Y-Axis Table Travel	3" (76.2mm) + sildes 6"(152.4mm)
X-Axis Table Working Space	16.5" (419.1mm) x 5.5" (139.7mm)
Y-Axis Table Working space	13" (330.2) x 5.5" (139.7)
Wheel	Any tool grinding wheel
Motor Tilt	+35° -10°
Motor	400 - 4000 rpm, 500 W



Flute Sharpening



Tapered Weldon Flat Grinding



Corner Radius and Ball Nose



Reduced Neck Grinding



Reamer Sharpening



Countersink ,Champher Tool Sharpening



Tool Cut Off



Tap Sharpening

The tried and true CM-01DC is designed to be easy to set up and easy to use when grinding and re-grinding modern cutting tool materials and geometries.

The CM01-DC is single wheel drive is reversible, variable speed and produces ten times the torque of the standard 1/3 HP AC motor (5 Foot Pounds @ 1000 rpm). This eliminates tool burning by facilitating heavy cuts at greatly reduced RPM, cutting grinding times in half on some tools.

The Torque Compensating DC Whisper Drive is mounted so that it has more down tilt than the original AC Version of the CUTTERMASTER CM-01.

It is quiet, powerful and with the variable speed, a pleasure to use.







CUTTERMASTER

CM-01 DCR

DC VARIABLE SPEED CUTTERMASTER END MILL SHARPENER



Easy Flutes, Ends and Rads

Air Bearing Stroke	10.5" (266.7mm)
Air Bearing Swing Over Table	9.8"(248.92)
Cutting Tool Capacity	2" shank, 9.8" O.D.
Flute Length	10.5"
T-Slot Dimension	0.8" (20.32mm) x 0.5" (12.7mm) x 0.67" (17.018mm)
X-Axis Table Travel	6" (152.4mm)
Y-Axis Table Travel	3" (76.2mm) + sildes 6"(152.4mm)
X-Axis Table Working Space	16.5" (419.1mm) x 5.5" (139.7mm)
Y-Axis Table Working space	13" (330.2) x 5.5" (139.7)
Wheel	Any tool grinding wheel
Motor Tilt	+35° -10°
Motor	400 - 4000 rpm, 500 W



Flute Sharpening



Weldon Flat Grinding



Corner Radius and Ball Nose



Reduced Neck Grinding



Reamer Sharpening



Countersink , Champher Tool Sharpening



Tool Cut Off



Tap Sharpening

The tried and true CUTTERMASTER is known for easy set up and use. The New Cuttermaster Profesional CM01-DCR, with the Patented Toycen Radius air spindle, further reduces set up time and the need for an add-on radius attachment. The Radius Air is both a linear bearing for flutes and ends and a radius spindle for ball and bull nose.

The CM01-DCR single wheel is reversible, variable speed and produces ten times the torque of the standard 1/3 HP AC motor (5 Foot Pounds @ 1000 rpm). This eliminates tool burning by facilitating heavy cuts at greatly reduced RPM, cutting grinding times in half on some tools.

The Torque Compensating DC Whisper Drive Pivots 360° (good for face wheel use) and has more down tilt than the original AC Version of the CUTTERMASTER CM-01. It is quiet, powerful and a pleasure to use.

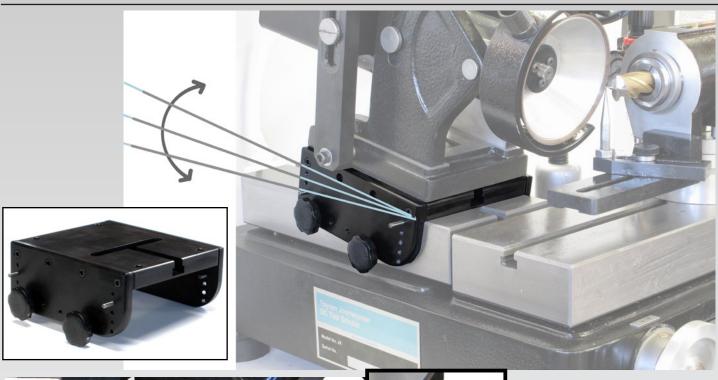


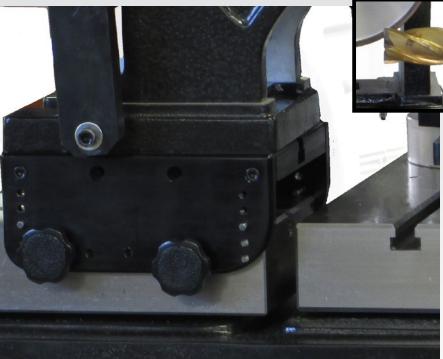


Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669



QUICK SET RISER JX AND CUTTERMASTER - CMS-R





HEIGHT ADJUSTMENT

FLAT GRINDING **FLUTE INSIDE AND OUTSIDE AND GASH**

(Tower Like **OPERATION WITHOUT** A TOWER)

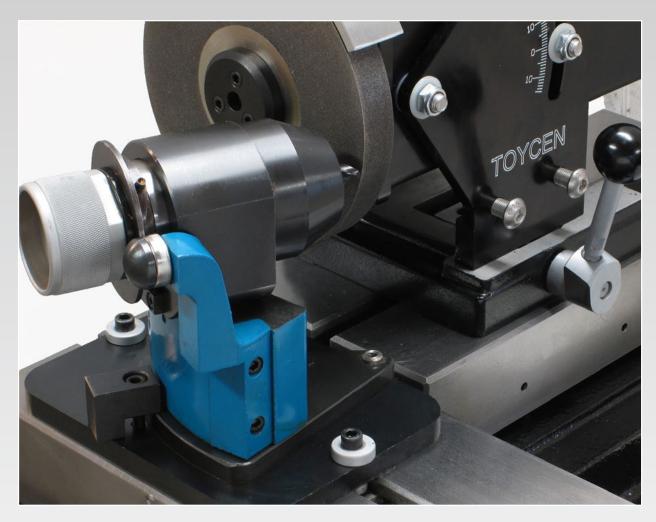
Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669

CALL US 1 (800) 417-2171





DRILL GRINDING ATTACHMENT JX AND CUTTERMASTER - CM-06





CMS-06 Drill Grinding Attachment

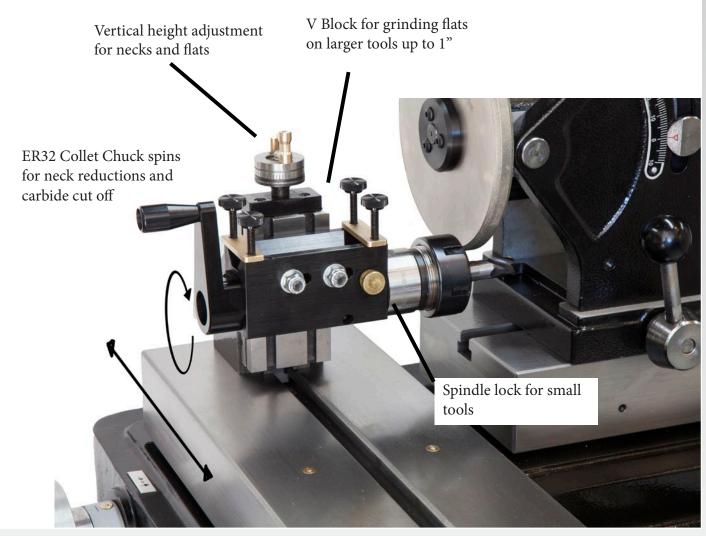
- Sharpens drills from 3 to 22mm (1/8" to 7/8")
- Easily adjustable point angle
- Thru hole in chuck allows for any drill length
- Set up and sharpen in less than two minutes

Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 308 Isabella Street, Ogdensburg NY 13669

CALL US 1 (800) 417-2171



SHANK, FLAT AND CUT OFF FIXTURE JX AND CUTTERMASTER-JX SFC





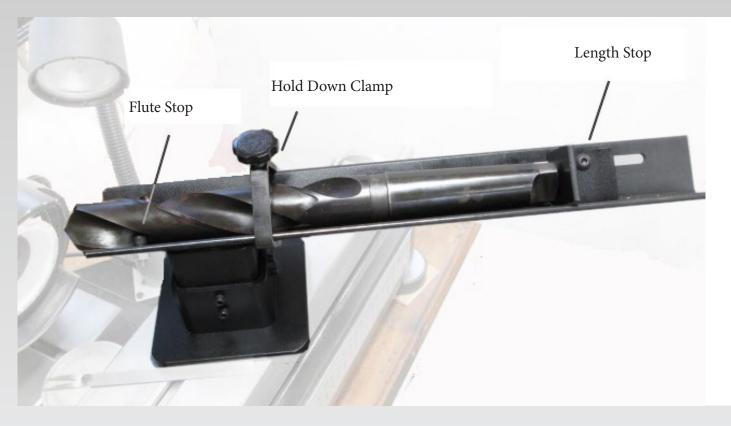
SET SCREW FLAT, NECK REDUCTION AND CARBIDE CUT OFF

The CUTTERMASTER was not designed with set screw flats or neck reductions so we created this fixture to make these operations possible. The z-axis adjustment allows the tool to be held below the wheel so that truly flat, Weldon set screw flats can be achieved. Use this fixture for necks and cut off as well as to avoid wearing out your air spindle.

Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 308 Isabella Street, Ogdensburg NY 13669

CALL US 1 (800) 417-2171

LARGE DRILL GRINDING ATTACHMENT CM-06B



- This fixture is designed to bolt onto all CUTTERMASTER type machines or other tool grinders.
- For sharpening all large drills and core drills
- Angle adjustment from 180 to 100 degrees



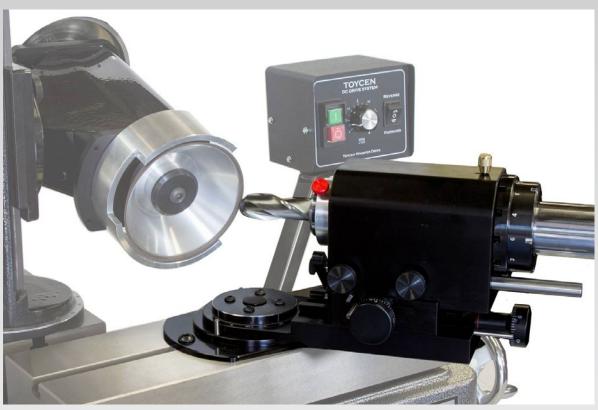


Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY $\,$ 13669



RADIUS AIR BEARING

CM-02R









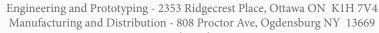
Grind any bull nose or ball nose corner radius with the Radius Air Bearing, as well as other features such as ends and flutes.

The CM-02R Radius Air Spindle was designed for the CUTTERMASTER Professional CM-01P and is compatible with other CUTTERMASTER type grinders such as the JX, CM-01 or any grinder with t-slot attachment.

The CM-02R combines a high accuracy air spindle with the capabilities of the CM-03 Radius Attachment.











CM-02A AIR BEARING FOR CUTTERMASTER

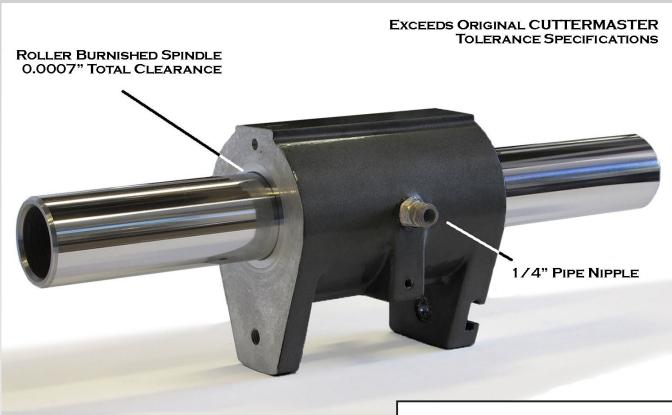


The CM-02 Air Spindle for CUTTERMASTER and CUTTERMASTER type machines is a fluid air bearing that floats on a cusion of air when air is applied. This is what allows the operator to create helical grinds, like the outside diamter of an end mill or router bit. It is an improvement over the original air bearing supplied with the CM-01 and MG-30 CUTTERMASTERs, in that the bushing is roller burnished and provides greater tolerance.

To upgrade your existing CM-02A (if blocked airways or damage is hindering performance), you can purchase our CM-02A Upgrade (may be a preferable solution to a new complete CM-02A Air Bearing Assembly. The upgrade consists of the main spindle and upper spindle housing.



CM-02A UPGRADE NEW MAIN AIR SPINDLE BODY AND HOUSING



The CM-02A Air Spindle Upgrade for CUTTERMASTER and CUTTERMASTER type machines replaces the main body and spindle of the air bearing. It is an improvement over the original air bearing supplied with the CM-01 and MG-30 CUTTERMASTERs, in that the bushing is roller burnished and provides greater tolerance (0.0007").



If you have blocked airways in your main housing or if your spindle is too loose or is damaged, our air spindle upgrade may be a preferable solution to a new complete CM-02A Air Bearing Assembly.

This kit only provides the main housing and spindle, the remaining parts are transferred from your existing air spindle (base, collars, handles, etc).

Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 308 Isabella Street, Ogdensburg NY $\,$ 13669

UNIVERSAL TOWER FOR CUTTERMASTER

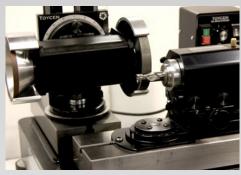
CMS-UT



EASY ENDS, FLUTES



MULTI AXIS, DUAL WHEEL



DC WHISPER DRIVE CONTROL

Toycen DC Drives for CUTTERMASTER are an upgrade to the venerable, 1972 CUTTERMASTER to a configuration that is more useful for modern cutting tool materials and geometries.

The Universal DC Tower will mount on any tool grinder, is reversible, variable speed and produces ten times the torque of the standard 1/3 HP motor (5 Foot Pounds @ 1000 rpm). This eliminates tool burning by facilitating heavy cuts at greatly reduced RPM, cutting grinding times in half on some tools.

The Tower is an infinitely variable speed and powerful wheel head with the Toycen DC Drive System. It can replace the CUTTERMASTER motor and control and fits the CUTTERMASTER models FCG- 30, CM-01, CMX, HDT-30 or any tool grinder with a table and T slot. It comes complete with controler and is available in 110V and 220V.

This revolutionary product was designed and built in our own shop. Now you can grind reduced necks and flats on carbide shanks, and sharpen reamers, saws, annular cutters, hogger mills, taps, side and face cutters, countersinks and step drills on your CUTTERMASTER.

Jeff Toycen,

Toycen Industries







X-AXIS EXTENSION KIT FOR JOURNEYMAN

JX-XAE



Increase the maximum flute length of the Journeyman End Mill Grinder with the JX-XAE X-Axis Extension Kit. By mounting the stylus to the motor, and extending the x-axis way, flute lengths of up to x" are acheivable. This kit includes the JX-Riser and requires the Journeyman motor, which unlike the original CUTTERMASTER motor, can pivot.







Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY $\,$ 13669

CALL US 1 (800) 417-2171

COUNTERSINK SHARPENING CAM SET FOR CUTTERMASTER TYPE MACHINES

CMS-CSB

Basic Set - CMX-CSB 5pc.

1 FLUTE (0.020, 0.030) 3-6 FLUTE (0.031, 0.065) 4-8 FLUTE (0.084)



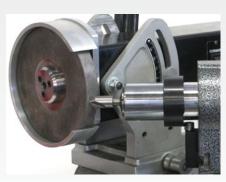


CMS-CSJ

Journeyman Set - CMX-CSJ 9pc.

1 FLUTE (0.020, 0.030) 2 FLUTE (.015, .040, .065) 3-6 FLUTE (0.025, 0.031, 0.062) 4-8FLUTE (0.084)

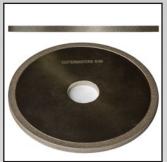
Sharpen drills, countersinks and step drills on the CUTTERMASTER and CUTTERMASTER Professional with the CMX Countersink Sharpening Cam Set. Cam follower tensioner and hand wheel included.



Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY $\,$ 13669

CALL US 1 (800) 417-2171

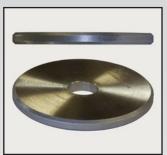
SHANK, SHOULDER, WELDON FLAT AND FACE GRINDING



Shoulder Wheels

Our 6" CBN shoulder wheels come in three widths: 1/4", 1/8" and 3/32". These wheels can be used to creat shoulders and neck reductions on your tools.

- CMS-S.25 6" CBN 180 grit, 1.25" arbor, 0.25" (1/4") width
- CMS-S.125 6" CBN 180 grit, 1.25" arbor, 0.125" (1/8") width
- CMS-S.09 6" CBN 180 grit, 1.25" arbor, 0.09" (3/32") width



Weldon Flat / Set Screw Flat / Chamfer Wheel

Our 6" diamond chamfer wheels come in two widths: 1/2" and 1/4". They have a 45 chamfer suitable for creating Weldon or set screw flats.

- CMS-WF.5 6" diamond 180 grit, 1.25" arbor, 0.5" (1/2") width flat
- CMS-WF.25 6" diamond 180 grit, 1.25" arbor, 0.125" (1/8") width flat



CBN and Diamond Face Wheels

Our 5" and 6" CBN and Diamond face wheels all have .75" (3/4") width and 1.25" of face plating. These wheels are suitable for grinding large faces such as countersinks.

- CMS-6FD180.625 6" diamond 180 grit, 0.625" arbor
- CMS-6FD180 6" diamond 180 grit, 1.25" arbor
- CMS-6FC180.625 6" diamond 180 grit, 0.625" arbor
- CMS-6FC120 6" CBN 180 grit, 1.25" arbor
- CMS-5FC120 5" diamond 180 grit, 1.25" arbor
- CMS-5FD180 5" CBN 180 grit, 1.25" arbor



1A1 6" CBN or Diamond, Darex M5 Replacement Wheel

Our 6" M5 Darex Replacement wheels are more durable than the original Darex wheels and they are great for general grinding as well. They have a .75" width and 1.25" arbor.

- CMS-M5D100 6" Diamond 100 grit
- CMS-M5D180 6" Diamond 180 grit
- CMS-M5C100 6" CBN 100 grit
- CMS-M5C180 6" CBN 180 grit

CUT OFF WHEELS



Resin Cut Off

CMS-CTC 6" diamond 100 grit, 1.25" arbor



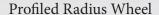
PLATED Cut Off

• CMS-CUT.06C 6" Plated CBN 100 grit, .06" slotted rim, 1.25" arbor

• CMS-CUT.06D 6" Plated diamond 100 grit, .06" slotted rim, 1.25" arbor



PROFILED RADIUS WHEELS



• CMS-36RAD .03" and .06" radius, 6" diamond 220 grit, 1.25" arbor

• CMS-912RAD .09" and .12" radius, 6" diamond 220 grit, 1.25" arbor



PROPRIETARY END MILL SHARPENING WHEELS

Formulated for good form retention - Dry Grinding



11V9C 5 Flared Cup Wheel

CBN or diamond Features an improved shape for complex operations such as end gash. Has 50% less mass improving performance and balance.

11V9C D150
 11V9C D500
 11V9C C120
 5" Diamond 150 grit, 1.25" arbor
 11V9C C120
 5" CBN 150 grit, 1.25" arbor



100mm Super 12V9 (modified) Wheel

CBN and diamond resin bond wheels, are superior to 11V9 Cup wheels, do not requrire balncing

CMS-36 100mm Diamond 100 grit, 1.25" arbor
 CMS-37 100mm CBN 100 grit, 1.25" arbor



Traditional Cup Wheel

CMS-30
 CMS-30/500
 Diamond 120 grit, 1.25" arbor
 Diamond 500 grit, 1.25" arbor

• CMS-31 5" CBN 120 grit, 1.25" arbor



Plated Cup Wheel

CMS-30Pl
 CMS-31Pl
 5" Diamond 180 grit. 1.25" arbor
 CBN 180 grit. 1.25" arbor

Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669

BRAKED WHEEL TRUING DEVICE CMS-WTD



Wheel Truing Device mounts in a 3/8" collet

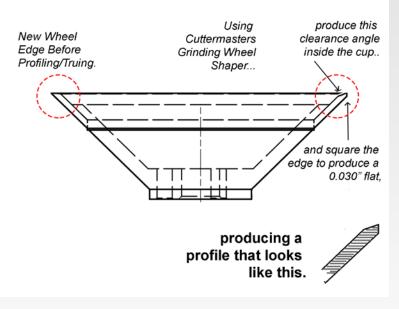


Using the CMS-WTD on the CUTTERMASTER Professional to true a Diamond resin bond cup wheel CMS-30

Recommended Wheel Profiling / Truing

The reason for shaping the wheel is to create a small specific point or shape where the wheel contacts the tool being ground.

This also creates a more durable wheel edge.



This is very easy to set up abrasive wheel system is a simpler solution to truing your bonded wheels.

The spindle mounted, dynamically braked abrasive truing wheel is specially formulated for grinding CBN and Diamond resin bond wheels into true.

- Wheel dimensions: 0.52" width x 2.5" diameter.
- Shaft diameter: 3/8"
- Rated at 10,000 RPM

This system is designed to be used with tool grinders where it is convenient to hold the truing assembly in a collet or chuck.

Saves on set up time and makes it possible to touch up already mounted wheels without breaking complicated setups.

Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669

CUTTERMASTERS GRINDING WHEELS

Our Industrial Grinding Wheels are Precision Plated meaning they'll stay sharp, stay cool, hold their shape and won't emit dust. Ideal for bench grinders and bench top tool grinders our customers are typically woodturners and machinists sharpening carbide and high speed steel drills bits and end mills.

If you are used to working with stone grinding wheels our Industrial Grinding Wheels are a breath of fresh air in terms of ease-of-use and safety. They are an excellent return on investment when you consider that they'll outlast your stone wheels by many lifetimes.

8 INCH GRINDING WHEELS



Tradesman Wheel

The Tradesman Wheel was designed for our 8" Tradesman DC Bench Grinder. It features a thicker flange providing greater mass and 1/2" of plated surface for flat grinding.

- T-8 100 8" CBN 100 grit, 5/8" arbor
- T-8 180 8" CBN 180 grit, 5/8" arbor



Tradesman Aluminum Wheel

The Tradesman Aluminum Wheel was designed for our 8" Tradesman DC Bench Grinder. This wheel is machined from aluminum and features 1/2" of plated surface on each side for flat grinding.

- T-8A 100 8" CBN 80 grit, 5/8" arbor
- T-8A 180 8" CBN 180 grit, 5/8" arbor



Cuttermasters Wheel

The Cuttermasters wheel was designed for 8" grinders with a 5/8" shaft. This wheel is machined from aluminum and features 1/4" of plated surface on each side for flat grinding.

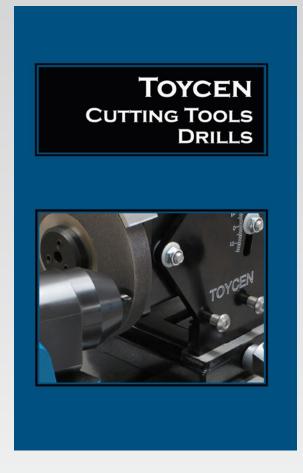
CMS-8C60 8" CBN 60 grit, 5/8" arbor
 CMS-8C100 8" CBN 100 grit, 5/8" arbor
 CMS-8C180 8" CBN 180 grit, 5/8" arbor
 CMS-8C200 8" CBN 200 grit, 5/8" arbor

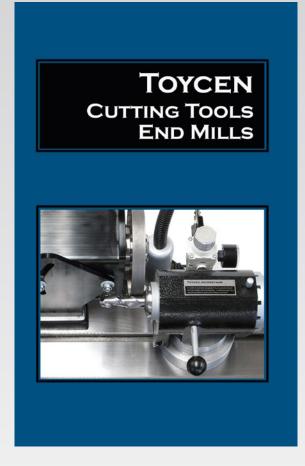
Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669

CALL US 1 (800) 417-2171



TOYCEN BOOKS ON CUTTING TOOLS CMX-BD, CMX-BEM





Jeff Toycen's series of shop reference books on cutting tools.

Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669

TRADESMAN WOODWORKERS-T8

Rough. Sharpen. Hone.









Chisels

Gouges

Belt with Tormek

Planer Blades

Pictured below is the Tradesman 8" DC Variable Speed Bench Grinder complete with our precision plated grinding wheels, and standard tool rests. This is our standard set up – ready to grind just about any material. If your going to run superabrasive wheel give it a good home.

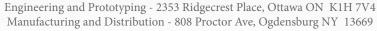
Use the Wolverine or Tormek jigs to sharpen your favourite woodworking tools and more. Add our Mitre rest Jig plate for chisels and our Belt-Over-Wheel Belt Sander for variable grit set ups.



- Whisper Drive DC Motor and Control
- 5 times as powerful as an AC motor and provides high torque, quiet and cool grinding, 400-4000 RPM.
- Super Abrasive Wheels Super Precision Plated CBN up to 600 Grit Balanced, true and won't change shape.
- No Burnt Tools Our patented DC motor with CBN wheels allows for aggressive grinding without generating damaging temperatures.
- **Proudly Made in North America** built by machinists in Canada and the USA using quality parts and practices you can trust.









TRADESMAN 8 BELT

SHARPENERS ~ WOODTURNERS T8-BELT, VARIABLE SPEED



This is the Tradesman 8" DC Variable Speed Bench Grinder with the Belt-Over-Wheel Belt Sanding Attachment (reverse available). This belt attachment uses Cuttermasters' 8" x 1.25" grinding wheels as the drive wheel. This allows you to quickly change grits — rough to polish — without changing your setup. Grind anything – variable speed – variable grit. Use your Wolverine and Tormek jigs.











Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4
Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669

CALL US 1 (800) 417-2171



TRADESMAN BELT T-36, T-48, T-8X48





2" x 48"

A TRULY POWERFUL VARIABLE SPEED BELT/GRINDER

In the world of belt sanders / grinders there are few that are really different.

We designed the new belt attachment to fit both the Tradesman 8" and 6". For the *ultimate* there is the new Tradesman Belt on the 6" Machinist platform. It is truely infinately variable speed and very quiet.

For part deburing it is a dream come true with loads of options for sharpeners and standard quick-set tool rests.

SPEED / TORQUE COMPENSATION / DIRECTIONAL CONTROL

5X MORE POWERFUL THAN ANY GRINDER IN THIS CLASS 5 FT LBS AT 1000 RPM GRINDER







Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669



TRADESMAN MACHINIST-T6

WITH Y-AXIS FEED MITRE JIG WORK REST



TRADESMAN MACHINIST

Grinders with conventional wheels dont grind carbide very well. Fifty percent of the effort, energy and torque in the grinding process is wasted in wheel wear and consumption --- and lots of noise.

The Tradesman 8 inch has been the woodturners' favorite for a few years now, so we thought it was time to build one for machine shops.

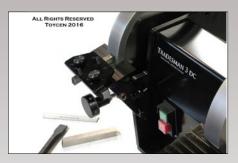
The Tradesman with Cuttermasters Precision Plated Superabrasive wheels is different.

Nice flat sharp grinding surface (great for shaping tools), quiet, powerful variable speed and no bucket of water on the front, and its quiet! We have a patent on

Low Speed High Feed grinding. With the Tradesman, it is not like using other grinders, period. You can grind carbide tools or Teflon on the same wheel. This is because at 500 RPM, with no run out, there's nothing threatening about it. Grind anything.

GRIND ANYTHING WITH THE MACHINIST ACCESSORIES



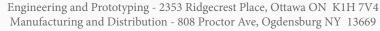




- · Corner rads, reamers, lathe tools, carbide inserts, countersinks
- · Neck reduction grinds, Weldon set screw flats, carbide cut off
- · Superabrasive Plated Wheels: Consistently flat and precise grinding surface.











TRADESMAN MACHINIST - T6

END MILLS: FLATS, NECKS, CARBIDE CUT OFF, CORNER RADS



HIGH SPEED STEEL AND CARBIDE LATHE TOOLS



T-ER32

T-ER32 End Mill Workstation For grinding reduced necks, producing accurate Weldon flats and carbide tool cut off.

Very little run out, 5/8" shafts, 1-1/4" tool grinder hubs, belt sander attachment, CBN and diamond wheels, face wheels, grind anything – Teflon to carbide, cut off. 200-4000 RPM.

DRILLS AND COUNTERSINKS

CMS-06 DCS

• Drills .125" to .875",

END MILL STATION

FLATS
CORNER CHAMFER AND RADS
NECK REDUCTION GRINDS
ER32 COLLET TO 1"

- 1 and zero flute countersinks up to 2".
- •.020" and .03" cams.
- Three Flute Countersinks up to 2". .025,.031,.050 Cams









Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY $\,$ 13669

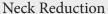
CALL US 1 (800) 417-2171



TRADESMAN NC NECK REDUCTION AND TOOL CUT OFF T-6









Tool Cut Off



Weldon Set Screw Flats



T-Cutter Creation

We designed the new Tradesman NC (Necker / Cutter) to suit the needs of those who want a dedicated machine for neck reduction operations, Weldon set screw flat grinds, and tool cut off.

SPEED / TORQUE COMPENSATION / DIRECTIONAL CONTROL OPTION 5X MORE POWERFUL THAN ANY GRINDER IN THIS CLASS 5 FT LBS AT 1000 RPM GRINDER



Shown with T-WF, V-Block Set Up (Tradesman Flat Maker)





Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY $\,$ 13669

CALL US 1 (800) 417-2171

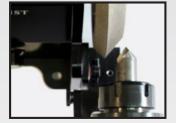


STEP DRILLS AND COUNTERSINK GRINDING ATTACHMENT T-SDCS











Step Drills

Countersinks

Step drill and countersink grinding attachment for the any Tradesman Machinist Grinder (T6 or T-NC required). Uses the CUTTER-MASTER countersink grinding cam set. Sharpen single and 3 flute countersinks and step drills. Comes complete with collet set, cam set and your choice of one of two angle wheels: 118°-135° and 82°-90°.

POWERFUL VARIABLE SPEED / TORQUE COMPENSATION / LOW SPEED ROUGHING ELIMINATES BURNING - HIGH SPEED FINISHING .7" THRU SPINDLE BORE, ER COLLETS UP TO 7/8" SHARPEN COUNTERSINKS UP TO 1"



with the T-SDC Step Drill and Countersink Attachment





Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669



TRADESMAN VACUUM TABLE -T-VAC











Cuttermasters wheels don't wear to produce dust the same way that stone wheels do. However grinding swarf of the material you are grinding is produced.

Often this will fall straight down and collect under the grinding wheels. We've produced the Tradesman Vacuum table to safely remove swarf from the grinding area.

The vacuum table comes with a universal vacuum hose adapter kit so that it can be used with your shop vacuum system.

Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY $\,$ 13669



TRADESMAN TOWER

MULTI-AXIS BENCH GRINDING WORKSTATION T-Tower







GRIND ANYTHING, ANY POSITION, EITHER DIRECTION

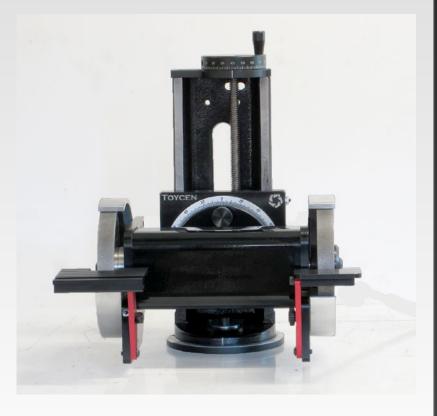
The Tradesman DC Tower is easy to mount, is reversible, variable speed and produces ten times the torque of the standard 1/3 hp motor (5 Foot Poinds @ 1000 rpm). This eliminates tool burning by facilitating heavy cuts at greatly reduced rpm, cutting grinding times in half on some tools.

The Tradesman DC Tower is an infinitely variable and powerful variable speed wheel head with the Toycen DC control Drive System.

SPEED / TORQUE COMPENSATION / DIRECTIONAL CONTROL OPTION

5X MORE POWERFUL THAN ANY GRINDER IN THIS CLASS

5 FT LBS AT 1000 RPM GRINDER







Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY 13669

TOYCEN



TRADESMAN V-BLOCK WORK REST FOR CUT OFF AND SET SCREW FLATS T-WFB



The Tradesman Weldon Flat V-Block is a v-block tool holder designed to easily hold the tool square to the wheel when grinding Weldon set screw flats. The V-Block can also be used with our cut off wheel to aid in carbide tool cut off.







Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY $\,$ 13669

COMBINATION DRILL AND END MILL END GRINDER CS320D



CS320D Combination End Mill and Drill Grinder

- All steel construction
- Grinds drills and 2-6 flute end mills 3mm to 20mm (1/8" to 3/4") diameter
- Creates 90° to 140° drill point angle
- Adjustable depth-of-cut for split point geometry (drills)
- Adjustable depth-of-cut for gash (end mills)
- Includes 23pc collet set and two grinding wheels for both HSS and carbide tools.
- Machine size: 45cm x 27cm x 19cm x 25kg
- Steel tool cablinet for tool and wheel storage









Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY $\,$ 13669

CALL US 1 (800) 417-2171

DRILL POINT GRINDERS DS213 & DS220D



DS213 Drill Grinders

- \bullet DS213 Grinds drills 2mm to 12mm (1/8" to 1/2") diameter
- DS213 Grinds drills 2mm to 16mm (1/8" to 5/8") diameter
- Creates 90° to 140° point angle
- • Creates variable split point geometry S / N / X and XR type
- Adjustable depth-of-cut for split point geometry
- Grinds both High Speed Steel and Carbide drill bits with the same wheel
- Includes 12pc collet set (DS213 includes 10 pc.)
- Machine size: 26cm x 16cm x 19cm x 8kg

DS220D Drill Grinder

- Grinds drills 2mm to 20mm (1/8" to 3/4") diameter
- Creates 90° to 140° point angle
- \bullet Creates variable split point geometry S / N / X and XR type
- Adjustable depth-of-cut for split point geometry
- Includes 19pc collet set and tool storage drawer
- Machine size: 26cm x 16cm x 19cm x 10kg





AFTER







Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY $\,$ 13669

CALL US 1 (800) 417-2171

TOYCEN



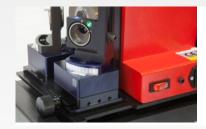
ADVANCED DRILL POINT, ANGULAR TIP GRINDER CHAMFER MILL, SPOT DRILL, PERFORMANCE DRILL SDD220D



SDD220D Drill Grinders

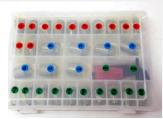
- SDD220D Grinds drills 2mm to 20mm (1/8" to 3/4") diameter advanced tip tools
- Creates 80-140° tip angles in several geometries5th generation Drill tip with full backsplit
- Creates variable split point geometry S / N / X and XR and U type for High speed drilling
- Grinds both High Speed Steel and Carbide create chamfer mills from used end mill stock
- Solid Steel construction with tool storage drawer
- Machine size: 26cm x 16cm x 19cm x 8kg

Advanced 1A1 Wheels common both sides allows for wider faces and reduced wheel cost











TOYCEN



ADVANCED DRILL POINT, ANGULAR TIP GRINDER CHAMFER MILL, SPOT DRILL, PERFORMANCE DRILL SDD220D



Advanced 4 Facet



Advanced Helical Progresive split



High Speed Steel Drilling



High Speed Soft metals



Spot Drill



U Type Heavy High Speed Tip



SG High Speed Stub Drill



Chamfer Mill

LARGE DRILL POINT GRINDER DS1332D



DS1332D Drill Grinders

- Sharpens drills 13mm to 32mm (1/2" to 1 1/4") diameter
- Creates 90° to 140° point angle
- Creates variable split point geometry S / N / X and XR type
- Adjustable depth-of-cut for split point geometry
- Sharpens both High Speed Steel and Carbide drill bits with the same wheel
- Includes 20pc collet set and tool cabinet
- Machine size: 35cm x 27cm x 17cm x 17kg







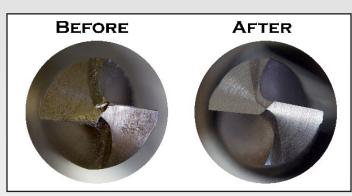
CHUCK-TYPE DRILL POINT GRINDER



EC313

EC313 Chuck-Type Drill Grinder

- Chucks the drill instead of using collets
- Grinds drills 2mm to 13mm (1/8" to 1/2") diameter
- Creates 90° to 140° point angle
- Creates variable split point geometry S / N / X and XR type
- Adjustable depth-of-cut for split point geometry
- Grinds both High Speed Steel and Carbide drill bits with the same wheel
- Includes 12pc collet set (DS213 includes 10 pc.)
- Machine size: 26cm x 16cm x 19cm x 8kg









Engineering and Prototyping - 2353 Ridgecrest Place, Ottawa ON $\,$ K1H 7V4 Manufacturing and Distribution - 808 Proctor Ave, Ogdensburg NY $\,$ 13669

CALL US 1 (800) 417-2171

www.cuttermasters.com or email: cuttermaster@gmail.com

LARGE DRILL POINT GRINDER DS232











DS232 Large Capacity Drill Sharpener

- Sharpens drills 2mm to 32mm (1/8" to 1 1/4") diameter
- Creates 90° to 140° point angle
- Creates variable split point geometry S / N / X and XR type
- Adjustable depth-of-cut for split point geometry
- Sharpens both High Speed Steel and Carbide drill bits with the same wheel
- Includes 32pc collet set
- Machine size: 45cm x 27cm x 19cm x 25kg

SMALL DRILL POINT GRINDER SDS16

Small drills are not always expensive but down time is.

Common tip geometry allows set up symetry between machines.

Creating your own tip, you can have better control of cycle time.

The SDS16 is very easy to use and can be kept at the machine or in the tool room

The 400 grit diamond or CBN wheel produces a very accurate point split with a fine finish ensuring good tip life.



1/16" TO 1/4" CARBIDE, COBALT, HIGH SPEED STEEL, 2,3 FLUTE

SDS16 Drill Grinder

- Grinds drills 1/16" to 1/4" diameter
- Creates 90° to 140° point angle
- \bullet Creates variable split point geometry S / N / X and XR type
- Adjustable depth-of-cut for split point geometry
- Includes 12pc collet set
- Machine size: 26cm x 16cm x 19cm x 8kg









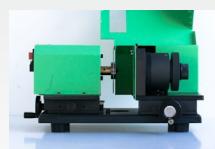
CUT OFF AND NECK GRINDING MACHINE

GS-13N



GS-13N Cut Off and Neck Grinding Machine

- Cuts off and neck grinds tools from 3mm to 13mm (1/8" to 1/2") diameter
- Tool rotates to decrease cutting time and temperature
- Cutting time: aproximately 60 seconds
- Includes one CBN or diamond neck wheel, two diamond cut off wheels (for carbide) and 5 resin cut off wheels (for high speed steel)
- Machine size: 38cm x 23cm x 22cm x 22kg





GS-13N with necking wheel



Cut off end mill

END MILL END GRINDER AND TOOL CUTTER ESC520D



ESC520D End Mill Sharpener and Tool Cutter

- Sharpens end mills 5mm to 20mm (0.196" to 0.750") diameter
- Cutting angle concavity: 0° to 3°
- Lip clearance: 6°
- Cuts ends of tool off
- Sharpens both High Speed Steel and Carbide tools with a wheel change
- Includes collet set
- Machine size: 36cm x 18cm x 23cm x 15kg





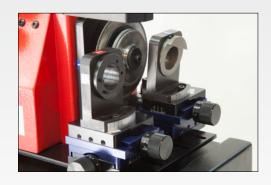
END MILL END, CORNER RADIUS GRINDER





ESR520D End Grinder, Corner Radius Grinder

- Grinds from (3/16 to 3/4") 2-6 flute end mills on the left hand side of the machine (optional 1/8" capacity)
- Cutting angle concavity: 0° to 3°
- Grinds corner radius up to 1/8" on a 3/4" end mill on the right hand side of the machine
- Lip clearance: 6°
- Chucks and collet sets, wheels (set for carbide tools) all steel construction with tool and wheel storage cabinet
- Machine size: 36 x 18 x 23mm, 15kg







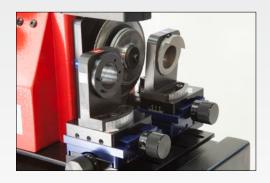
END MILL END, TOOL CUTTER, CORNER RADIUS GRINDER





ESCR520D End Grinder, Cutter, Corner Radius Grinder

- Grinds from (3/16 to 3/4") 2-6 flute end mills on the left hand side of the machine (optional 1/8" capacity)
 Cuts off and grinds corner radius up to 1/8" on a 3/4"
- Cuts off and grinds corner radius up to 1/8" on a 3/4" end mill on the right hand side of the machine
- Cutting angle concavity: 0° to 3°
- Lip clearance: 6°
- Chucks and collet sets, wheels (set for carbide tools) all steel construction with tool and wheel storage cabinet
- Machine size: 36 x 18 x 23mm, 15kg









END MILL END GRINDER ES520D













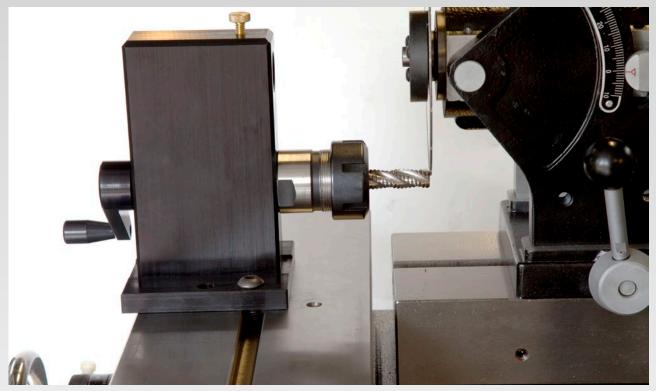
ES320D End Mill End Grinder

- Grinds 5-20mm (3/16" 3/4") 2-6 flute end mills (optional 1/8" capacity)
- Cutting angle concavity: 0° to 3°
- Lip clearance: 6°
- Includes collet set and grinding wheel
- Machine size: 36 x 18 x 23mm, 15kg
- Will grind 3mm with addition of sharp wheel

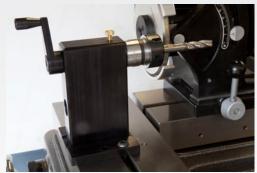
SHANK, FLAT AND CUT OFF FIXTRUE

JX-ER32

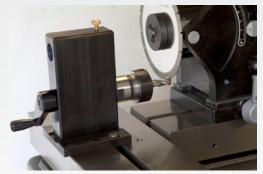
Our Shank, Flat and Cut Off Fixture was designed to take the work load off your air spindle for operations where a fluid air bearing is not needed. Use it for tool cut off, grinding Weldon set screw flats and neck reductions



Fits all CUTTERMASTER Style Machines



Weldon Set Screw Flats, Neck Reduction



Carbide Cut Off



NOTES

Ive had the joy of being in a manufacturing setting for most of my life. In my travels I've learned that I like to design things and I've had the pleasure of building ships, cranes, buildings, armored vehicles, robots and rocketparts. Most interesting of all were the machine shops and along the way I learned about DC motors and controls. In 2005 I thought I'd bring that experience (common in large machine tools) to tool grinders, bench grinders and belt sanders. The benefits being speed control, torque and reversing potential. AC motors are very inexpensive which is why they are commonly used. I felt that tool grinders and bench grinders were too big or too fast and needed a visit. Time for some new material. To begin with, we designed the CUTTERMASTER Professional, and then Rolled out the Tradesman Line. Hope you like what we've done.

Jeff Tayen