



## A small, high accuracy machining system to mill, drill and bore.

# MICRO Mill FF 230

The MICRO Mill FF 230 is a small, accurate milling system used to mill, drill and countersink steel, cast iron, aluminum, brass and plastic. The headstock swivels through 360°, indicated on a scale. Height is adjustable. One revolution equals 1/32" (1mm) travel, 1 division equals .002" (0,05mm). The quill and headstock may be locked in position, which is essential when milling. The powerful permanent magnet motor drives via a polyvbelt, yielding high torques, especially at lower speeds.

The machine comes with three collets of 15/64", 5/16" and 25/64" (6, 8 and 10mm). The solid table has a size of 10.5/8" x 3.5/32" (270 x 80mm) and is T-slotted to 15/32" x 15/64" x 13/64" (the MICROMOT norm of  $12 \times 6 \times 5$ mm).



#### Technical data:

Speeds 280 - 550 - 870 - 1,200 - 1,500 - 2,200rpm

Table Size 10 5/8" x 3 5/32" (270 x 80mm)

Column Size Ø 1 3/8" x 15 3/4" long (35 x 400mm)

X-Y Travel 6 11/16" x 2 9/16" (170mm x 65mm)

Overall Height 20" (500mm)

Volts 110 - 120V AC, 60Hz

Weight 41 lb. (17kg)

NO 34 108

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#### California Residents Prop 65 Information



# **M** WARNING:

This product can expose you to chemicals including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

#### Important:

For best results when milling, it is recommended to lock the headstock. This is easily done via the FF 230's lock levers.

#### Note:

Fine feed available separately as NO 24 140.

# Useful accessories for MICRO Mill FF 230

# Splash guard and chip collecting tray for PROXXON milling machines



Made of 1/16" (1.5mm) thick sheet steel, powder-coated. Secure stand due to drill holes for fastening to a work surface (the use of steel sleeves keeps the tray tightly sealed). 27 1/2" x 16/12" x 1 37/64" (L 700mm, W 420mm, H 40mm).

NO 24 322

# Fine Feed for Mill/Drill Head PF 230 and MICRO Milling Machine FF 230

Easily installed. The feed may now be used via the height feed (vertical) or the fine feed in the tilted position. One revolution is equivalent to 1/16" (1.5mm) spindle travel, with 1 division = .002" (0.05mm). The graduated scale can be reset to zero.



NO 24 140

#### Five Piece Collet Set for PF 230 and FF 230

Includes 1 each collet for round stock 3/32", 7/64", 1/8", 5/32" and 13/64" (2.4 - 3.0 - 3.2 - 4.0 and 5.0mm). Supplied in a wooden box and lid.

NO 24 144



#### **Drill Chuck**

German industrial drill chuck for MICRO Mill PF 230 and FF 230 with 13/32" (10mm) capacity and 13/32" (10mm) arbor to fit the 10mm collet.

NO 24 110



# Step Clamp Set

Made of steel. Complete with 2 step blocks, 2 clamps, 2 nuts and 2 T-slot nuts for MICROMOT standard ( $29/64" \times 7/16" \times 5/32" / 11.5 \times 11 \times 4mm$ ). For use with the lathe systems PD 230/E, KT 150 and MF 70

NO 24 256



## Step Clamp Set

Consists of 2 step blocks and 2 clamps, 2 nuts, 2 T-slot nuts. Secures objects to approx. 1 3/8" (35 mm) high. May be used with PD 230/E and FF 230. Supplied in wooden box.

NO 24 257



# Milling Cutter Set 5/64" - 13/64" (2 - 5mm)

HSS, all with 15/64" (6mm) shank. Cutters of Ø 5/64", 7/64", 5/32" and 13/64" (2, 3, 4 and 5mm). Double fluted. Supplied in wooden box.

NO 24 610



# Milling Cutter Set 15/64" - 13/32" (6 - 10mm)

HSS, 4 cutters  $\emptyset$  15/64", 9/32", 5/16" and 13/32" (6, 7, 8 and 10mm). Four flute design. Supplied in wooden box.

NO 24 620



#### Three Piece Center Drill Set

HSS, 60°. Complete set with sizes of 2, 2.5 and 3.15mm (5/64", 3/32", 1/8"). Made from high-quality Cobalt HSS, pre-ground. Packaged in a wooden box.





#### Precision Machine Vice

Milled in steel. Can be used on its side and back. Width of jaws 2 3/8" (60mm), clamping capacity 1 2/3" (42mm). Complete with mounting bolts. Packed in a wooden box.

NO 24 255



#### **Precision V-Blocks**

Used to clamp various work pieces. Made from hardened steel, precision ground in pairs. Four different depths of prism incisions V, all at  $90^{\circ}$ . Size  $2'' \times 1 \ 3/16'' \times 1 \ 3/16'' \times 30 \times 30 \ mm$ ). The solid clamp and knurled knob ensure superb securing of the work piece.

NO 24 262 2 pieces



## Edge Finder Set

Used for fast and accurate location of starting point of work pieces with respect to the machine spindle on milling machines. Size 15/64" x 15/64" x 2" (6 x 6 x 50 mm) and 15/64" x 3/16" x 3" (6 x 5 x 75mm). Comes in a wooden box.



NO 24 434