

MM-12 **MM-12-US**



meteor

Precision Drill Grinding Machine MM-12

for right- and left hand drills of $\varnothing 0,2-13$ mm

Grinding Center MM-12-US

for small- and microtools of $\varnothing 0,2-13$ mm

meteor

The success of the machine Meteor type MM-12 is based on the modular princip as well as on the high precision and the easyness of handling. Over 2000 sold machines worldwide prove the success of this machine type.

Precision drill grinding machine Meteor MM-12

For precise grinding and point-thinning of right- and left hand drills of $\varnothing$ 0,2 – 13 mm in one position.
Four faces.

Clamping range:	
Precision chuck	$\varnothing$ 0,2-6,2 mm
Collets (option)	$\varnothing$ 6-13 mm
Point angle	90-180°
On request	0-180°
Clearance angle	0- 45°
Max. drill length	160 mm
On request also for longer drills	
Microscope	15/(30)x

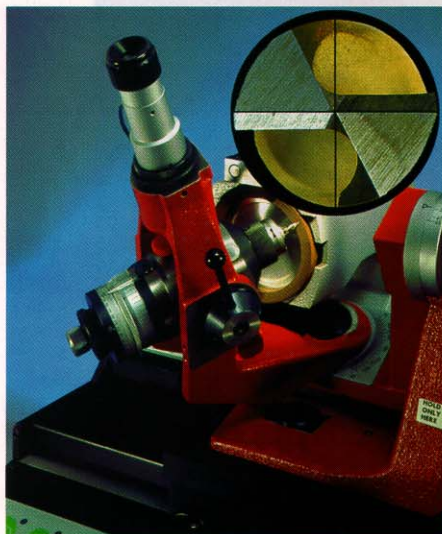
Weight MM-12:	net 30 kg
Space required:	480x280x450 mm

Basic machine:
Technical datas according last page



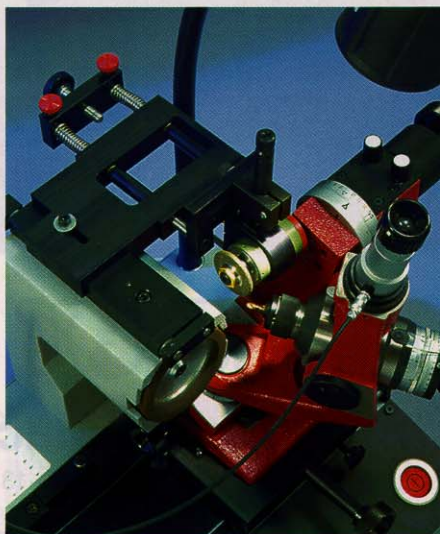
The chisel edge

of the drill can be thinned to various shapes (control through microscope at any time).



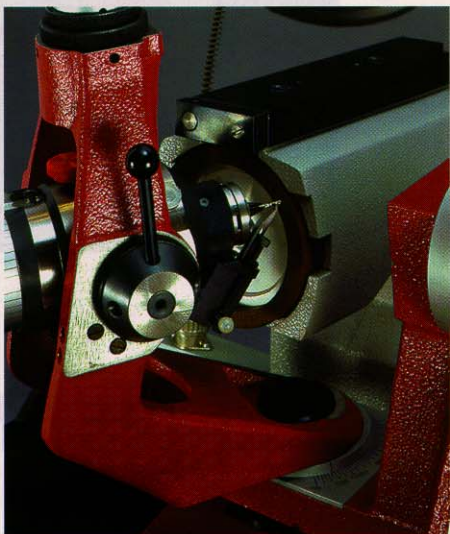
Special point thinning device

Above all used for stainless steel (U-point-thinning) available as a special accessorie.



Drill support for small drills with reinforced shafts

This accessorie can be adjusted individual to each drill.



meteor

Grinding center for small and microtools Meteor MM-12-US

For regrinding of right- and left hand small-tools as well as engraving-tools of all kinds and shapes and milling cutters, radius milling cutters and boring-tools.

Clamping range:	
Collets	Ø 1-13 mm
Precision chuck (option)	Ø 0,2-6,2 mm
Microscope	10/(20)x

6-axes adjustable with measuring-scale
Tool-holder with deviding table
Lateral stops for the positioning repeatability

Weight MM-12-US	net 35 kg
Space required	480x280x500 mm

Basic machine:
Technical datas according last page



Grinding and measuring

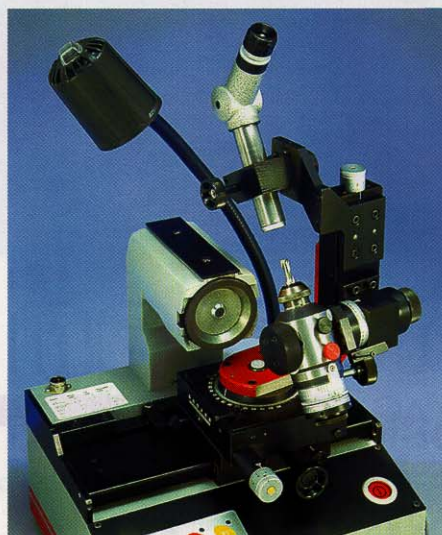
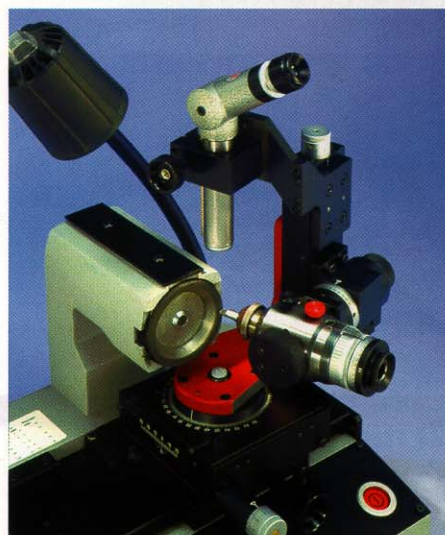
The tool can be grinded in one position and can be controlled with the measuring microscope in all positions.

Universal grinding center

Adjustable up to 6 axes. Tool-holder with integrated deviding device.

Inclinable table for square tools

With clamping device





Execution with camera-monitor
Meteor MM-12-TV

For drills of $\varnothing 1 - 6,2$ mm
Suitable for bigger series with 35/(70)x
magnification of the picture at the monitor



Execution for deephole one-lip-drills
Meteor MM-10-DH

For standard- and overlong drills
special drills, microscope 10x



Execution for printed circuit board drills
Meteor MM-10-PD

For smallest measurements as well as drills
with reinforced shaft.
Microscope 30/(40)x

Technical datas basic machine:

- Motor AC single phase
230 (110) Volt, 50/60 Hz, 170 W
Clock- and counterclockwise turning,
Dynamic motor brake
- Spindle speed 5400 r/min
- Working lamp 24 Volt
- Dustproof control panel
- Carborundum-, borazon- and diamond
grinding wheels available in various grits
and shapes
- Further accessories on request

Novatech, Inc.
15895 North 77th Street
Scottsdale, AZ 85260-1746
480.991.9445 / Fax 480.991.9465
<http://www.novatechonline.com>

Applied for a patent

Technical alterations subject to change

The machines are according to the
CE-norms

Made in Switzerland

Meteor Modular-System

BGM-99 + WA-99 + BSG-99 = MM-12

BGM-99 + WA-99 + TV-99 = MM-12-TV

BGM-99 + WA-99 + PD-99 = MM-12-PD

BGM-99 + WA-99 + DH-99 = MM-12-DH

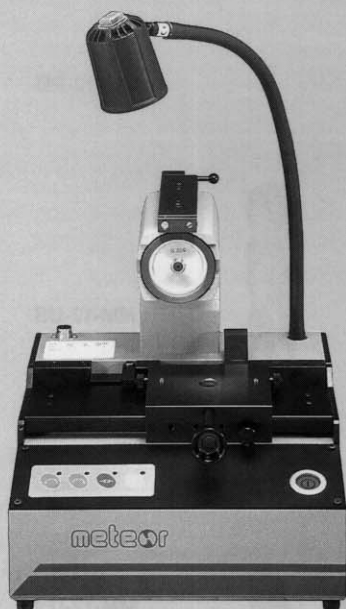
BGM-99 + USE-99-2 = MM-12-US

BGM-99

Grundmaschine

Basic machine

Machine de base

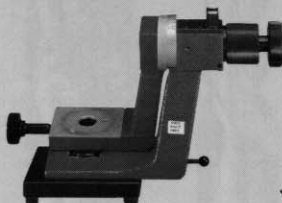


WA-99

Winkeleinstellarm

Angle adjustable arm

Bras pour le réglage des angles

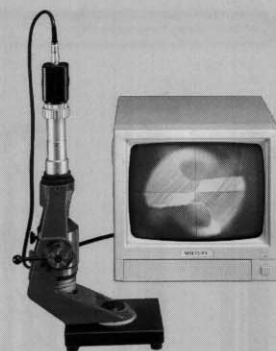


BSG-99

Bohrerschärfaufsatz

Drill grinding attachment

Dispositif pour l'affûtage des mèches

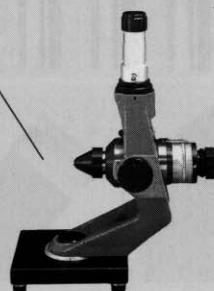


TV-99

Monitor/Kamera-System

Monitor/Camera-System

Système Camera/Moniteur



PD-99

Leiterplattenbohrer-Schräfaufsatz

PCB-drill grinding attachment

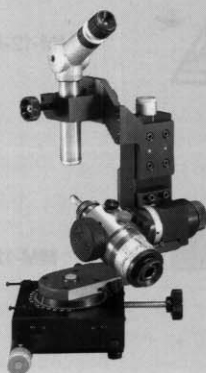
Dispositif pour l'affûtage des mèches pour circuits imprimés

USE-99-2

Universal-Werkzeugschräfaufsatz

Universal tool grinding attachment

Dispositif d'affûtage universel



DH-99

Tieflochbohrerschärfaufsatz

Deep-hole grinding attachment

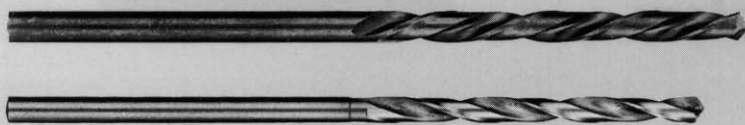
Dispositif pour l'affûtage des forets longs pour trous profonds



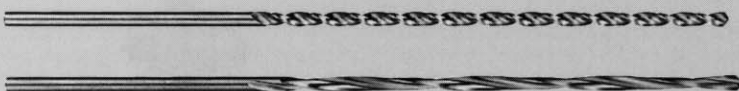
Schleifbeispiele

Grinding examples

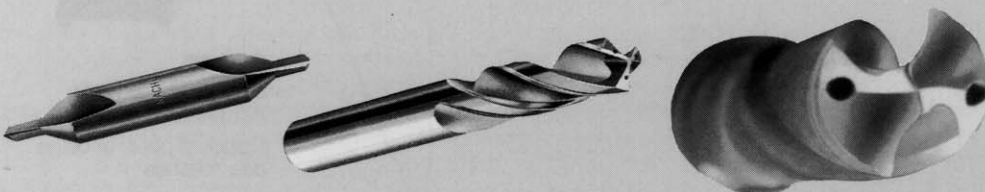
Exemples d'affûtage



MM-12
+
MM-12-TV



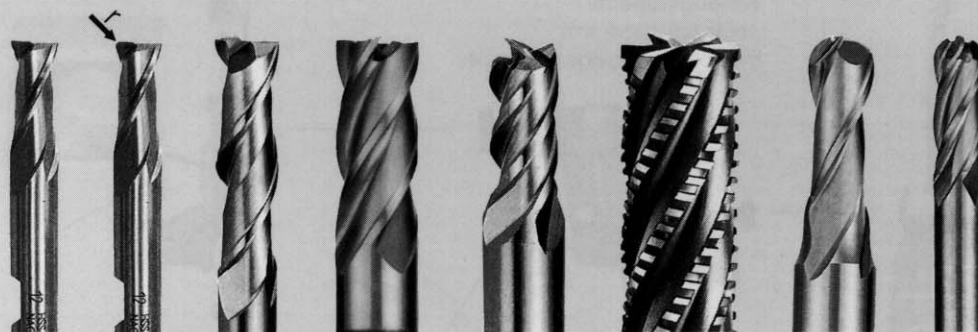
MM-12
+
MM-12-TV



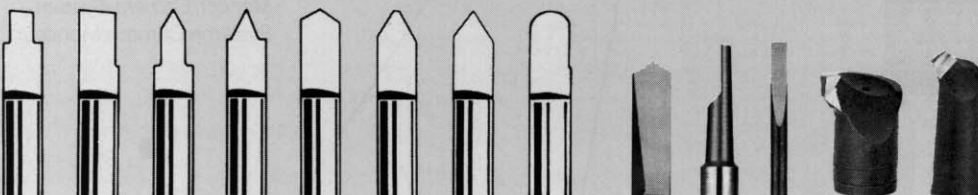
MM-12



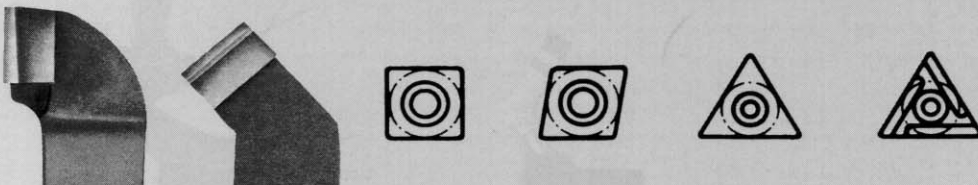
MM-12-PD



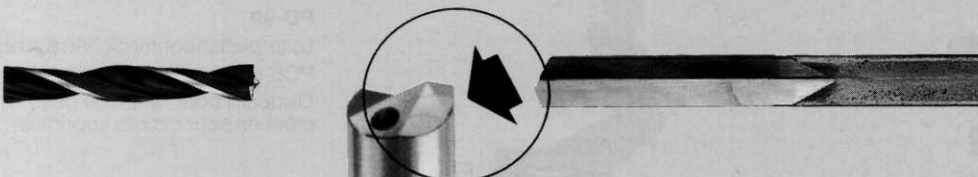
MM-12-US



MM-12-US



MM-12-US/WT



MM-12-DH