



79-400-008 CNC Milling and Notching Machine

Standards

ASTM D256, ASTM D6110, BS 2782 P.3, DIN 53 453, EN 20179, EN ISO 179, EN ISO 180, EN ISO 8256, UNI 6323



Application

Automatic CNC milling machine for machining standard samples for tensile-, flexural-, impact-strength- and many other tests

Features

The CNC milling machine is equipped with three linear axes that can be controlled electronically. Additionally, a fourth (rotary) axis is available.

The machine is suitable for milling, boring, cutting, engraving, proportioning, metering, positioning, and many similar applications. Many different cutting tools and accessories appropriate for the applications mentioned above can be installed.

The CNC milling machine is suitable for plastics (PE/PA/PC/PMMA/GPR and CFRP composites), aluminium, brass and wood (equipment for other materials available on request).

For removing milling chips the machine is prepared for connecting a vacuum cleaner.

The selection of specimen with standard geometry is done by the software and an integrated windows PC. For this purpose, a large library with milling files according to many different standards is to the user's disposal.

Technical Data

Traverse path X/Y/Z	400 x 300 x 140 mm
Maximum axis speed X/Y/Z	20 mm/s
Pass-through height	170 mm
T-nut clamping plate L x W	600 x 375 mm
T-slot-grid	25 mm
Sound pressure level	<75 dB



Dimensions and Connection

Dimensions (WxDxH)	780 x 850 x 810 mm
Weight	120 kg
Mains	230 V, 50 Hz
Power	1500 W
Interfaces	RS232
Air	n.a.
Cooling	Optional: cooling air
Others	n.a.

Device configuration

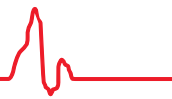
incl.	Item no.	Description
-	79-400-008	CNC controlled milling machine Plug-and-play configuration with CE-conform safety housing incl. 1x control unit with pre-configured WIN-software, keyboard, mouse, TFT 1x Cold air nozzle with magnet valve 1x Working room lighting 1x Clamping block for Milling motor 1x Milling Motor set - Milling motor, 1050 W - Collet chuck 8 mm - Collet chuck 6 mm - Collet chuck 3 mm - Double open-ended wrench 14x17 - Hexagon key L-wrench set

Accessories

incl.	Item no.	Description
-	6-102-108	Control software for CNC models Windows Version
-	6-102-112	Design software 2.5D CAD/CAM
-	79-024-010	Milling motor 220 V, 1050 W
-	79-029-001	Collet chuck 3 mm for milling motor 1050 W
-	79-029-003	Collet chuck 4 mm for milling motor 1050 W
-	79-029-004	Collet chuck 6 mm for milling motor 1050 W
-	79-029-007	Collet chuck 8 mm for milling motor 1050 W
-	79-029-005	Collet chuck 10 mm for milling motor 1050 W
-	79-006	Designing of one milling file acc. to customer specification
-	79-309	Length measuring sensor for the z-position of tools
-	79-300-001	Luminous source for CNC Milling Machine
-	52-060-003	Coesfeld PC with TFT-Monitor, keyboard and mouse

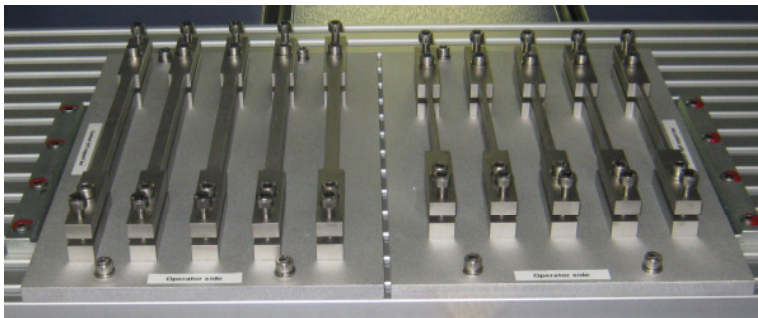
Suction device

incl.	Item no.	Description
-	79-017-005	Industrial vacuum cleaner
-	79-026	Brushes vacuum device



Clamping devices

incl.	Item no.	Description
-	201-124	Universal Base plate with 5 clamping devices for standard bars > 8 mm
-	201-125	Universal Base plate with 5 clamping devices for standard bars > 3 mm
-	79-002	Universal tension support
-	79-003-001	Clamping device for laminated plastic, plate dimensions max. 200x290x10
-	201-124-056	Form-locking clamping for standard rod ISO 6259-3 Type 3
-	201-124-010	Clamping device for Dynstat; for milling 10 Dynstat samples (not notched), 15 x 10 mm
-	79-102-021	Sample magazine for 24 bars DIN EN ISO 527-2 Type 1A for cutting off shoulders of 1A specimen bar



Universal base plates 201-124 and 201-125

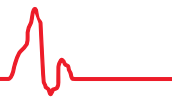


Milling cutter with cooling unit

Milling cutters (to be used selectively, at least 1 unit necessary for use)

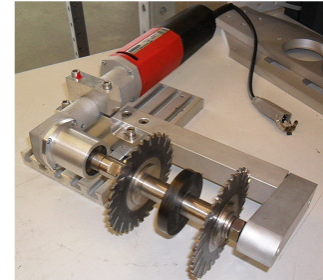
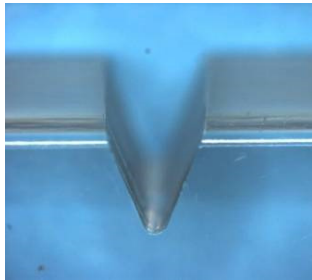
incl.	Item no.	Description
-	79-014-014	Cutter with 2 cutting teeth hard metal for PE/PA and similar plastics, 3 mm Ø, shank 6 mm Ø, selling unit = 5 pc.
-	79-014-017	Cutter with 2 cutting teeth hard metal for PE/PA and similar plastics, 8mm Ø, cutting length 30 mm
-	79-014-019	Cutter with 2 cutting teeth hard metal for PE/PA and similar plastics, 6mm Ø, cutting length 25 mm
-	79-014-020	Cutter with 2 cutting teeth hard metal for PE/PA and similar plastics, 10mm Ø, cutting length 50 mm
-	79-014-043	Cutter with 2 cutting teeth, PKD, CFRP, Ø 6mm, L 60mm
-	79-014-044	Cutter with 2 cutting teeth, PKD, CFK, Ø 8mm, L 80mm
-	79-014-046	Solid carbide cutter with DLC Ø 6 mm, for Alu and plastics
-	79-014-047	Solid carbide cutter with DLC Ø 8 mm, for Alu and plastics

(other millers are available on request)



Accessories for sample notching (necessary, also for upgrading millers in stock)

incl.	Item no.	Description
-	79-024-100	Extension module for sample notching (for initial equipment only) (incl. bevel gear with fixture and tool holder)
-	79-024-200	Extension module for parallel sample notching and sawing of shouldered test bars
-	205-009-001	Measuring instrument for testing the residual specimen width of a single V-shaped notch
-	205-009-003	Measuring tip for digital Measuring device for measuring the residual specimen width (0.1 mm notches)



Notch cutters (to be used selectively, but at least 1 unit necessary)

incl.	Item no.	Description
-	75-840-210 LM	Single-tooth notch cutter, carbide, V-shaped, radius 0.25 mm
-	75-840-211 LM	Single-tooth notch cutter, carbide, V-shaped, radius 0.1 mm
-	75-840-212 LM	Single-tooth notch cutter, carbide, V-shaped, radius 1.0 mm
-	75-840-213 LM	Single-tooth notch cutter, PCD, V-shaped, radius 0.25 mm
-	75-840-214 LM	Single-tooth notch cutter, PCD, V-shaped, radius 0.1 mm
-	75-840-215 LM	Single-tooth notch cutter, PCD, V-shaped, radius 1.0 mm
-	75-840-216 LM	Single-tooth notch cutter, carbide, U-shaped, width 0.8 mm
-	75-840-217 LM	Single-tooth notch cutter, carbide, U-shaped, width 2.0 mm

(PCD = polycrystalline diamond)

Sample magazines (Mounting plate necessary - remaining accessories to be used selectively, but at least 1 unit necessary)

incl.	Item no.	Description
-	79-101	Precision clamp block to fix the sample magazine
-	79-101-004	Mounting plate for fixing sample magazines with quick release
-	79-101-006	Magazine for notching of Dynstat samples
-	75-840-145	Revolving magazine for standard small rods 50 x 6 x 4 mm (requires 79-101-004)
-	75-840-146	Revolving magazine for ISO standard rods 80 x 10 x 4 mm (requires 79-101-004)
-	75-840-147	Revolving magazine for ASTM specimens ASTM D 6110 or ASTM D 256 (requires 79-101-004)

Accessories for metal cutting (absolutely necessary for metal cutting; Alu or brass up to maximum 5 mm thickness)

incl.	Item no.	Description
-	79-015-003	Cooling / spraying system for 79-400-008
-	79-015-006	T-nut groove plate with channelling for 79-400-008
-	79-016	Cooling Spray Oil, 1 liter
-	79-016/5	Cooling Spray Oil, 5 liter
-	79-016/10	Cooling Spray Oil, 10 liter



List of standardized milling files (*Ask us for custom milling files*)

Library	Standard	Description
Lib1	DIN EN ISO 527-2	Sample 1A
	DIN EN ISO 527-2	Sample 1B
	DIN EN ISO 527-2	Sample 1BA
	DIN EN ISO 527-2	Sample 1BB
	DIN EN ISO 527-3	Sample 4
	DIN EN ISO 527-3	Sample 5
	DIN EN ISO 527-3	Sample 5A
	DIN EN ISO 527-3	Sample 5B
	ISO 1798	Sample 1
	ISO 6259	Sample 2
	ISO 6259	Sample 3
	DIN 53455	Sample 3
	DIN 53455	Sample 4
	DIN 53504	Sample S1
	DIN 53504	Sample S2
	DIN 53504	Sample S3A
	DIN 53571	Sample A
Lib2	ASTM D 256	Standard Sample
	ASTM D 638	Sample 1
	ASTM D 638	Sample 2
	ASTM D 638	Sample 3
	ASTM D 638	Sample 4
	ASTM D 638	Sample 5
	ASTM D 638M	Sample 1
	ASTM D 790	Standard Sample
	ASTM E 96	Standard Sample
Lib3	DIN 53435	Dynstat Sample
	DIN 53453	Standard Small Bar 50 x 6 mm
	DIN 53453	Standard Bar 120 x 15 mm
	DIN 75201	Sample Circle 80 mm Ø
	DIN EN ISO 75	Sample 80 x 10 mm
	DIN EN ISO 75	Sample 120 x 10 mm
	DIN EN ISO 178	Standard Sample 80 x 10 mm
	DIN EN ISO 179	Standard Sample 80 x 10 mm
	DIN EN ISO 180	Sample 63,5 x 12,7 mm
	DIN EN ISO 180	Sample 80 x 10 mm
	ISO 8256	Sample 1
	ISO 8256	Sample 2
	ISO 8256	Sample 3
	ISO 8256	Sample 4
ISO 8256	Sample 5	