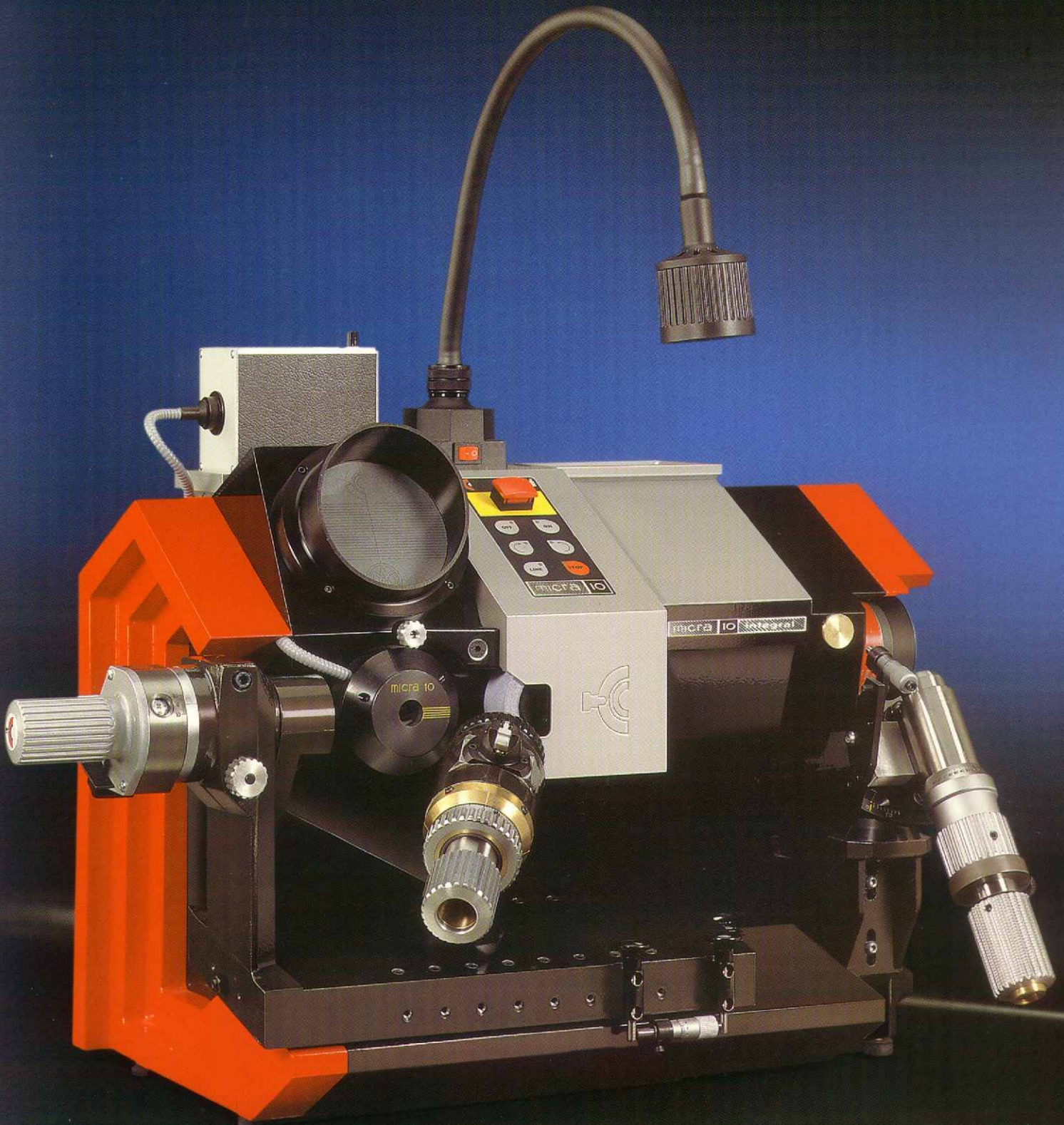
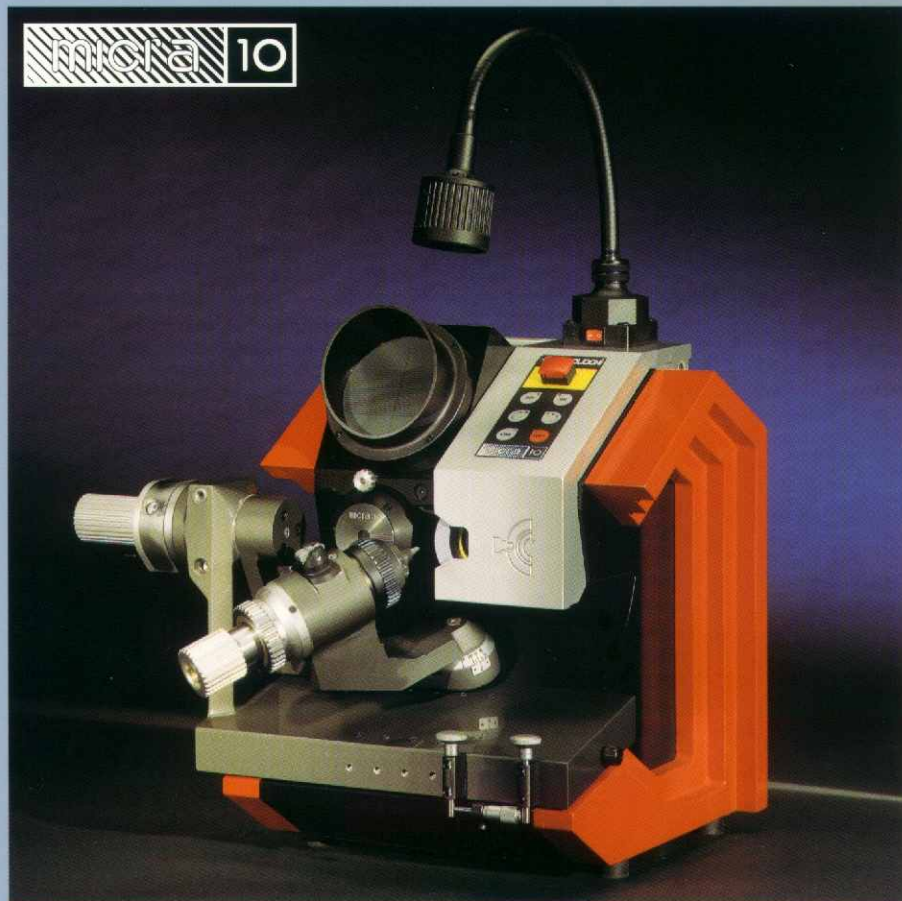


micra 10 integral





The quality and accuracy of the MICRA 10 and MICRA 10 INTEGRAL sharpening system are obtained by highly advanced constructional technologies and expressed by a truly updated design, able to comply with the most modern ergonomic and functional dictates. The shell consists of a monolithic aluminium casting and has been designed to achieve an ordered and compact assembly of the various parts: the grinding wheel spindle, optical gauge, drill holder unit centered on a tilting support and mounted on a sliding saddle.

The grinding wheel spindle is fixed to a special support allowing the spindle itself to make an axial transferring movement governed by a micrometric screw. This movement is necessary during the grinding wheel dresser phase in order to position the grinding wheel in relation to the diamond which occupies a fixed position in relation to the tilting axis.

The optical gauge carries out a double function. It both facilitates tool positioning and enables sharpening to be monitored when the two main rakes and web reduction operations are carried out. These inspections can be accomplished after each complete machining or sharpening phase, allowing the operator to correct any positioning errors or geometric abnormalities of the drill.

The drill holder unit includes a high precision four-jaw-chuck, one collet chuck from 6 to 16 mm, and an option collet chuck from 16 to 20 mm.. This ensures that the drills are concentric and stable, clamping them on the twist, right at the back of the sharpening area. The whole drill holder unit moves along high precision linear slideways with double crossed rollers, guaranteeing rigid yet smooth movement.

All these special features help eliminate vibration which would damage both the drill and the grinding wheel.

MICRA 10 and MICRA 10 INTEGRAL can be equipped with cold air cooling system and pneumatic dust suction built into a specially designed and built work table.



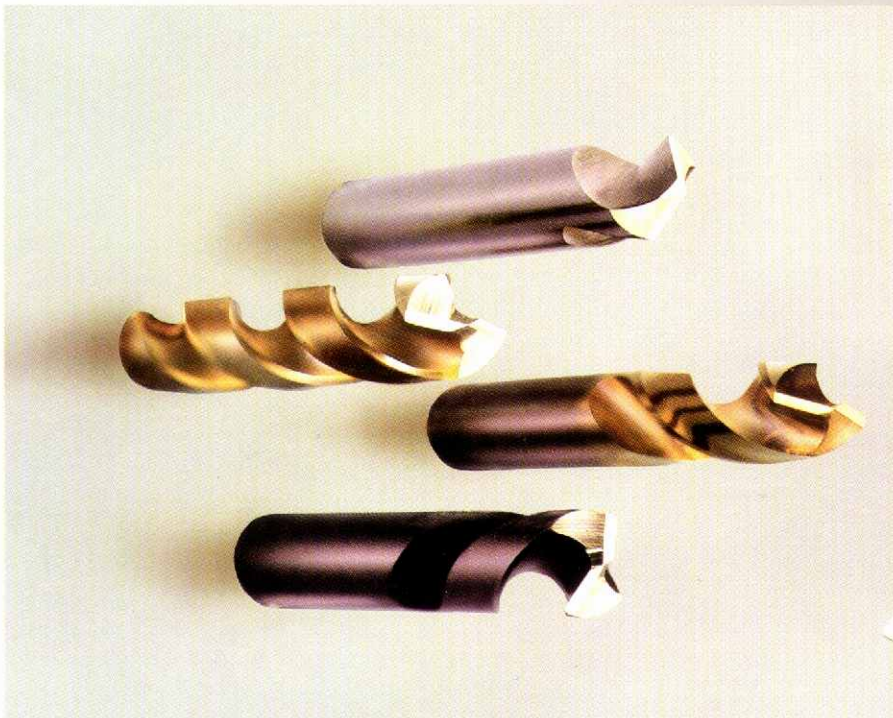
Continuous technological development has led companies in the mechanical field to direct their attention towards work process automation systems. Modern numerical control machine tools perfectly position the twist drill on the required hole axis, but this accuracy is generally jeopardized by the inability of the drill to maintain the dimensions of the hole, coaxial to the spindle, if sharpened by conventional systems. This inconvenience is generally overcome by including a centering operation in the machining processes, but this obviously costs both time and money. Considering the high application level that drilling has reached in the machining field, Cuoghi Affilatrici, a leading company in the drill sharpening industry, presents MICRA 10 and MICRA 10 INTEGRAL. Specifically designed and built for regrinding systems of the self-centering type, it is able to eliminate intermediate centering operations and to ensure an adequate level of accuracy, both for HSS and hard metal drills.

By a single drill clamping operation and using the same grinding wheel, the two main sharpening rakes can be obtained in sequence on both cutting surfaces. The rake intersection will perfectly coincide with the drill center while the third rake will correspond to the thinned part of the web obtainable with

- negative geometry for HSS drills with normal web (Micra 10 e Micra 10 Integral)
- positive geometry for HSS drills with thick web and hard metal drills (Micra 10 Integral)

The advantages of this "3+3 rake" self-centering sharpening system can be briefly summarized in the following way:

- shorter drilling times;
- longer tool life from one regrinding operation to the next;
- greater tool penetration with less machining tool stress;
- use on the most varied ferrous and non-ferrous materials;
- radial stability during drilling, with consequently less likelihood of twist edge seizure.



Technical features:

	MICRA 10	MICRA 10 Integral
Min. max. sharpening capacity	mm. 0,5 - 20	mm. 0,5 - 20
Nr. left or right cutting edges	2-3	2-3
Web thinning	negative	negative and positive
Drill angle	80°-180°	80°-180°
Cutting angle adjustment	0°-18°	0°-18°
Drill length	unlimited	unlimited
Grinding wheel dimensions	70x30x25 E 10	70x30x25 E 10
Grinding wheel spindle speed	7100 rpm	7100 rpm
Power supply	threephase 400 V 50Hz	threephase 400 V 50Hz
Spindle motor power	0,18 KW	0,18 KW
Motor rotation	clockwise and anticlockwise	anticlockwise
Control panel and halogen lamp	24 V	24 V
Machine dimension mm.	570x500x520	680x500x520
Table dimension (weight kg. 48) mm	650x520x900	650x520x900
Approximate weight	kg. 40	kg. 57

Standard equipment :

High precision 4-jaw chuck with 0,5 to 6,35 mm clamp	Yes	Yes
Collet chuck with 6 to 16 mm clamp	Yes	Yes
Set of 6 to 16 mm collets (n. 10 pcs)	Yes	Yes
16x optical gauge for drill positioning (optic fibres)	Yes	Yes
Micrometric limit switch for web thinning adjustment	Yes	Yes
Halogen lamp 24 V	Yes	Yes
N. 3 grinding wheels grain 60 - 100 - 220 with flanges	Yes	Yes
N. 1 CBN grinding wheel 15° with flange	Yes	Yes
for positive web thinning	No	Yes
Positive web thinning device	No	Yes
Grinding wheel dresser device with 0,5 ct diamond	Yes	Yes
Grinding wheel spindle advancement device	Yes	Yes
Protective cover and instruction manual	Yes	Yes

Optional equipment MICRA 10 and MICRA 10 INTEGRAL:

Collet chuck and set of collets (n. 8 pcs) from 16 to 20 mm clamp
 Work table with tool drawer
 Cold air cooling system and pneumatic dust suction
 Diamond and CBN grinding wheels

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