

MARKATOR®-PRODUCT RANGE

**TABLE-, HAND-HELD AND
COMBI MARKING SYSTEMS**



MANFRED BORRIES GMBH

MARKATOR®

ABOUT US

We are experts for the unforgeable, durable and economic marking of industrial parts.

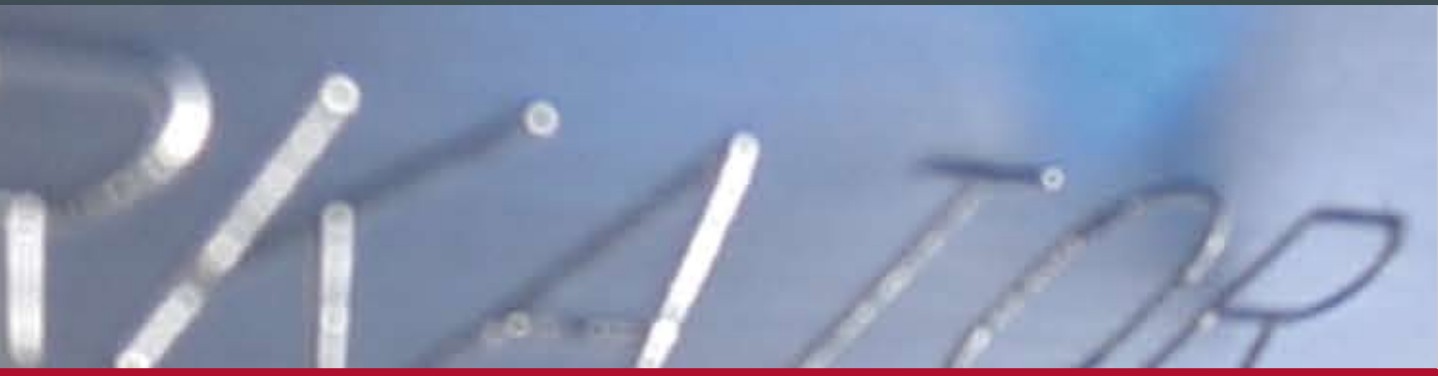
MARKATOR® develops and manufactures high-quality systems for pin and scribe marking since 20 years. We also produce hand-held and machinery marking tools. Our customers need will be realised individually and exactly.

Our quality standards achieve highest demands. We attach importance to solid consulting, customer-related development and user-friendly marking systems.

In a permanent dialogue with our customers concerning their applications we ensure an essential advance in product optimisation and innovations within our product range.

We complete our benefits with a committed and professional service, which is manned with our high-qualified employees. See for yourself!
We are pleased to get to know you!





FUNCTIONALITY OF PIN AND SCRIBE MARKING

Pin marking

A full carbide pin oscillates by pneumatic and electronic means. It is moved by two carriages in x and y direction and hits into the material by an up and down movement.

Depending on the impact frequency the marking either becomes a continuous or a single dotted line – perfect for

characters, logos or two-dimensional codes, e.g. Data Matrix® Code.

Cause of the single dotted marking, the force effect into the material is very little.



MARKATOR® pin marking systems

- Individual free programming
- Extremely fast marking time
- Very high quality
- Self-explanatory software
- Simple handling with a high-resolution display

- Supplementation with additional components (consistent modular design system)

Scribe marking

Compared to pin marking the scribe pin doesn't hit into the material with an up and down movement.

It is pressed into the material. In this position the carbide or diamond scribe pin is moved by two carriages in x and y direction.

The MARKATOR® scribe marking system offers optimal adaptability and high quality at maximum marking speed. The system is suitable for almost all materials – from hardened steel to pressure-sensitive finished products.



MARKATOR® scribe marking systems

- Easy programming
- Deep marking free from distortion
- Little force effect
- Durable and silent marking under full load
- Compact design
- Supplementation with additional components (consistent modular design system)

Single dot characters

Raster fonts are occurred in uniform size by single dots.

The typeface is 5 x 7 and 9 x 13.

The result of the special typeface, called matrix, is a font without continuous

line, which avoids predetermined break points in the marked material. Single dot marking achieves only a small notching effect – perfectly for applications in aerospace industries.





CENTRAL CONTROL UNIT ZE 301

Our marking systems are part of a consistent modular conception. They are extensible with different additional components. The development of the central control unit ZE 301 was also based on this consistent modular design system.

Hardware

The central control unit ZE 301 is equipped with integrated PC functions for independent operation without an external PC. A big high-resolution display is integrated in the front panel, which shows all information at a glance.

For the marking of round parts the central control unit can be extended with a rotating axis. It is also possible to attach a manual hand-held barcode scanner or to integrate a chip card reader.



Software

The standard system software S 301 is 100% operator prompted. It offers high flexibility and comfort for fast creating of marking files. The logical and self-explanatory operating interface enables a fast and simple training.

The final marking can be checked before on the display by the preview function. By the way, over 2000 marking files can be managed in the memory of the central control unit.

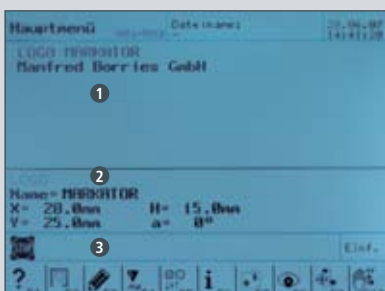


Interfaces

- PS2-keyboard-port
- 2 x 9 pin Sub-D-connector RS 232
- Optional power board for stepping motor
- Optional chip card reader
- 37 pin Sub-D-connector, synchro connector for I/O



Menu



- ① marking text
- ② parameter overview
- ③ function keys
- ④ marking preview
- ⑤ scale
- ⑥ online help



PIN MARKER T0 AND T1

The flexible table marking system is offered with marking areas 100 x 100 mm (T0) and 200 x 100 mm (T1).

The marking head with high-class guidance in connection with a combination of self-lubricating bearings is maintenance free. It offers optimal wear behaviour.

The marking system is equipped with a maintenance free stylus. The full carbide pin is break-proof and can be re-sharpened.

The machine table has massive tracks and makes sure a high stability. The marking head can be adjust in the height with a hand wheel. Long cranking is avoided by precise and smooth-running mechanics. The adjustment of the height is four times faster than conventional machine tables. The respectively adjusted height is shown by a digital display on the machine column. It can be simply fixed by two clamp levers. The high-class cover protects the spindles of dust and obviates injuries.



Technical data

Marking area

T0 (x/y) 100 x 100 mm

T1 (x/y) 200 x 100 mm

Available character heights

0.7 bis 99.9 mm

Marking direction

Any, from 0° to 360°

Marking frequency

About 300 Hz, depending on size of the stylus and kind of marked material

Resolution of the stepping motors

0.05 mm for a very high marking quality

Required space

342 x 515 mm

PIN MARKER HAND HELD AND COMBI

The flexible Combi marking systems MT0 (100 x 100 mm) and MT1 (200 x 100 mm) are developed as a combination of a table and a hand held marking system.

The marking head is equipped with a handhold and a rugged start button. It works in all positions. A hoop guard against unintended operation is attached for safety reasons. Fixing the marking head to the column frame, you can adjust it in the height by the hand wheel at the column. The respectively adjusted height is shown by a digital display.

The hand held marker can be mounted on individual supporting feet or prisms as fast and simple as to the column frame. The handhold must not be taken off.

The marking head with high-class guidance in connection with a combination of self-lubricating bearings is maintenance free. It offers optimal wear behaviour.

The mobile, hand operated marking systems are also available separate with marking areas 100 x 100 mm, 200 x 200 mm and 30 x 65 mm.



Technical data

Marking area

MT0/M0 (x/y) 100 x 100 mm

MT1/M1 (x/y) 200 x 100 mm

M2 (x/y) 30 x 65 mm

Marking frequency

About 300 Hz, depending on size of stylus and kind of marked material

Marking direction

Any, from 0° to 360°

Available character heights

0.7 - 99.9 mm

Resolution of the stepping motors

0.05 mm for a very high marking quality

SCRIBE MARKER VT0

The machine type VT0 is designed as a scribe marking system with a marking area of 100 x 100 mm. The system features are very high quality and a very low acoustic emission at marking.

High value linear guidance in connection with ball bearing screws guarantee highest marking repeat accuracy and assure high stability of the marking head. Two brushless stepping motors drive the marking axis. The marking head is maintenance free and offers optimal wear behaviour.

The different marking forces are adjustable infinitely variable by the pressure controller of the compressed-air conditioning unit.

The marking system is equipped with the strongest scribe stylus size F and a low-wear diamond-equipped marking pin with a radius of 0,2 mm. The marking pin works pneumatically. Depending on the customer's application, other pin sizes and radiuses are available. The scribe stylus is maintenance free.



Technical data

Marking area

VT0 (x/y) 100 x 100 mm

Available character heights

0.7 - 99.9 mm

Resolution of the stepping motors

0.0125 mm for an extremely high marking quality

Marking direction

Any, from 0° to 360°

Max. acoustic emission

Idle running in 1 m distance about 70 db (A), under full load not over 80 db (A)

Required space

342 x 515 mm



RAPID COLUMN FRAME

With the simple handling and the exact positioning by a multi functional hand wheel, the Rapid column frame is probably the most economical system to mark your single parts economic, fast and well. It is equipped with a z-travel of 300 mm. As an option it is available with a height (z) detector and a laser pointer for an even more "rapid" handling. The quick adjustment at the column frame enables extremely short setup times and to that effect saving of time up to 70% compared to conventional column frames with a crank.

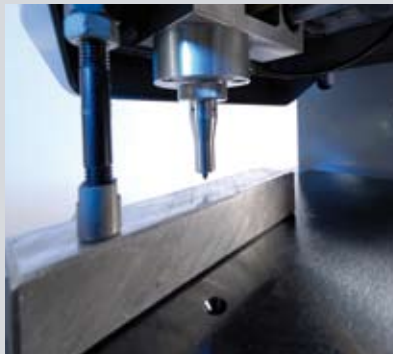
The well legible digital display is easy to operate. It is equipped with a reset button for the respective base setting. For a quick adjustment, a handhold is mounted behind the marking head. The vernier adjustment occurs by a hand wheel.



Proceeding



1. Push the hand wheel to unlock the height adjustment. The quick adjustment is activated. Position the marking head with the handhold above the part to be marked approximately.



2. Set the required pin distance by the height detector and trim the distance by turning the hand wheel.



3. Lock the height adjustment by pulling the hand wheel. Hold the part to be marked under the positioned pin and start marking! The total required time here for is under 10 seconds!



OPTIONS



HPGL

Program to transform logos or graphic files in HPGL format. Scaling, turning and positioning occur within the marking file.



Rotating axis RKM

A device for mechanical clamping means. Incl. power board for motor, connection cable and program option to mark round parts on circumference.



Hand-held bar code scanner

A fast and simple readout of bar codes directly into the central control unit with translation into clear text. Plug & play with RS 232 connection cable and wall wart.



Electrical safety foot switch

Safe working! Both hands are free for positioning the part to be marked.



Card reader insert

Simple definition of access authorisations and comfortable administration of marking files by a memory card. At the front of the central control unit.



Prism stop

For the application with round parts to be marked. Safe hold at marking. Fast and simple flange mount.



TECHNOLOGY

MARKATOR® is a manufacturer of rugged and marking systems, insensitive of dirt, which are very appreciated for their reliability. Our products are suitable without difficulties for the permanent implementation in a 3-shift production. Our marking heads are equipped with rigid guide bars for maximum stability and production safety.

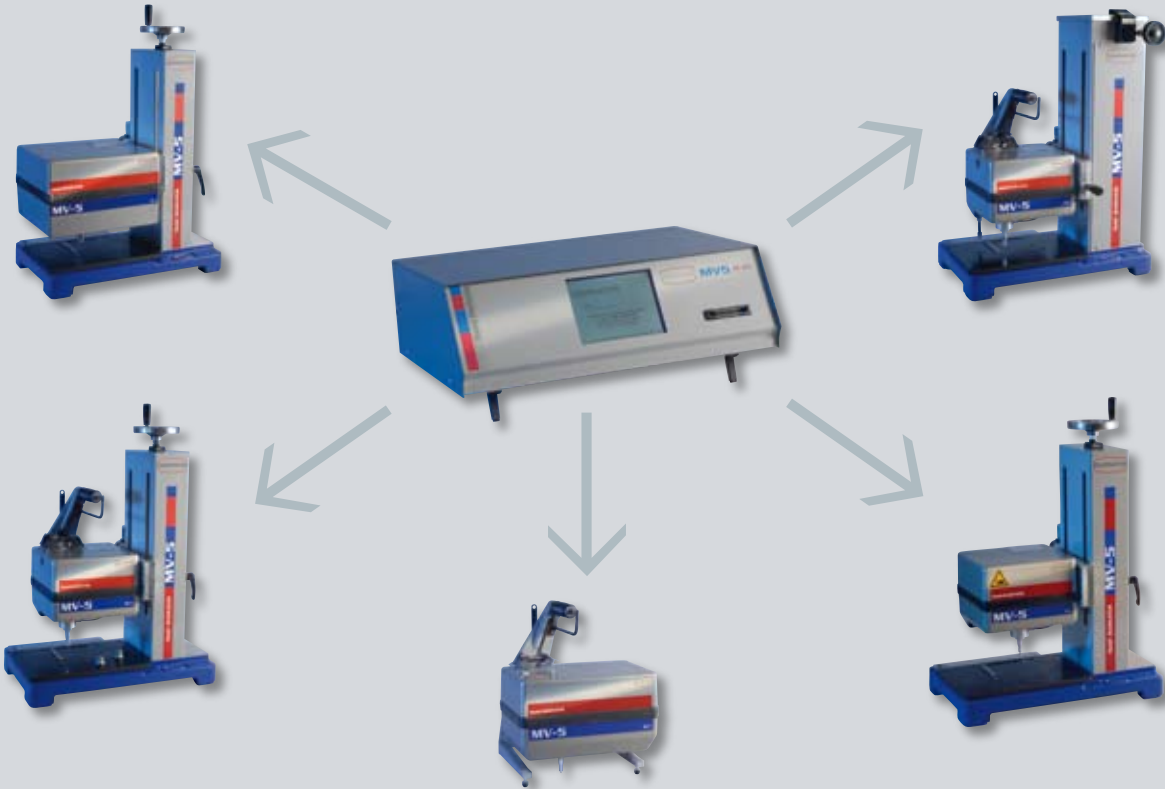
Our marking systems are equipped exclusively with high-class marking pins

to be resharpened, which guarantee a high tool life.

With our scribe marker we get highest precision also at maximum speed. Design and production occur exclusively in Germany. Thereby we assure a continuous high quality "Made in Germany". Due to our modular design system, which is permanent further developed, we are able to solve the most marking tasks with our standard marking systems.



Options of combination





MORE PRODUCTS

Units ready for integration



VU4

The scribe marking head VU4 (marking area 80 x 50 mm) is featured by a very low noise emission and an extremely high marking quality! With the option Sprint you will achieve an even shorter marking time.



U75

The compact marking head U75 (marking area 75 x 25 mm) is developed to be integrated in every kind of production lines. In connection with the central control unit ZE 101, a fast and easy integration in automatic production processes is possible.



U30

The compact marking head U30 (marking area 30 x 65 mm) is the ideal system for rational, durable and careful marking of every kind of parts – for high quantities and short cycle times.

Central Control unit



ZE 101

The central control unit ZE 101 was specially designed for the integration of marking units. The installation is possible as a front or back installation. Special features: Type of protection IP54, INTERBUS, PROFIBUS.



ZE 401

The central control unit ZE 401 is for highest requirements. It is offered as front or back installation but also as a 19" board rack or a cabinet. Special features: Type of protection IP54, VGA display, diagnostic function.



Conventional Marking

In addition to the CNC controlled marking systems we also offer products in the range of conventional marking – e.g. impact marking systems, numbering heads, interchangeable steel types, marking tools and every kind of special stamps.

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