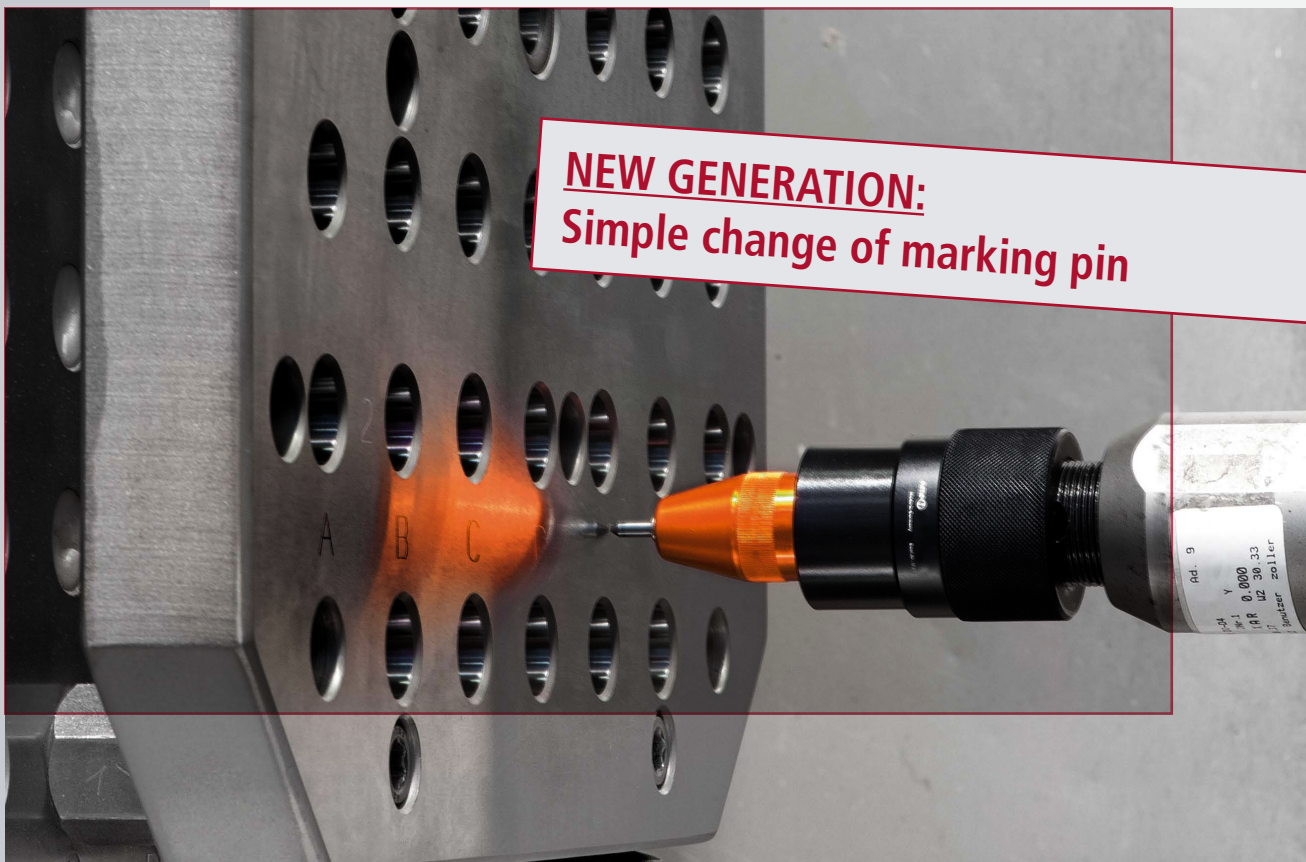


MARKATOR® BZ-MARKER NG FOR CNC-MACHINING CENTERS



MARKATOR®

New generation (NG) of BZ-MARKER's

The BZ-Markers are work tools for the durable marking of work pieces. These marking tools can be seated into a weldon tool holder or a collet and can with this easily be integrated into the machine spindle of your CNC machining center.

An exterior cooling during the marking process is not necessary. The maximum marking speed is depending on the speed of the machining center.

Due to the high quality guiding of the tools, uneven and raw surfaces (with levels between 3 and 9 mm) can be marked consistent and in a high quality. A stepless adjustment, depending on the material hardness and the requested marking depth is possible.

Thanks to a long lifetime of the marking pins and to a high marking speed (saves time) this marking tools are very economical.

Economic efficiency calculation of one of our customer:

Process	Traditional marking process	Marking process with BZ-Marker NG
Maschine costs (€ per hour)	100	100
Number of markings per shift (8 hour shift)	60	60
Time of one marking process (seconds)	60	12
Time of all marking processes per shift (minutes)	60	12
Costs for marking processes per shift	100,00 €	20,00 €
Costs for marking processes per year (250 working days)	25.000,00 €	5.000,00 €
Saving per shift per year	20.000,00 €	

Using the BZ-Marker NG, the marking times in your machining center will be reduced demonstrable by more than 75%. Due to this a quick rationalisation effect of this tool is guaranteed.



BZ-Marker NG S (Small)

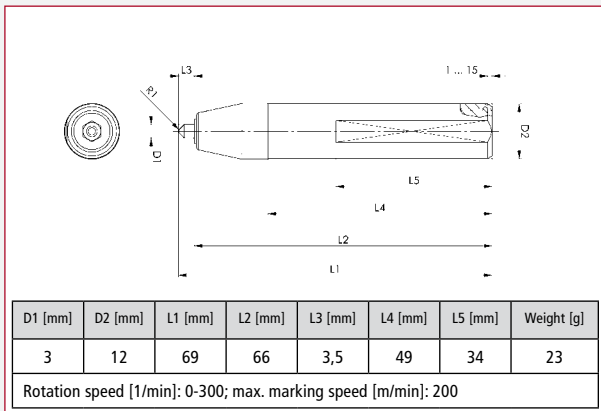
For 12 mm collets or weldon holders.
Smallest marking tool of this type series.

Features:

- This version of the BZ-Marker is suitable for marking a wide variety of materials (e.g. aluminium, titanium, steel, bronze, copper, brass, plastics and so on)
- Ideal for large-scale productions as the marking tool has to be dismantled from the toolholder for adjustment
- Robust marking pin (90°, radius 0,3 mm)
- High quality guidings
- Stepless adjustment due to an internal screw which can be adjusted using a hexagon wrench
- Uneven surfaces with differences up to 3 mm will be compensated
- Marks workpieces with a hardness up to 57 HRC



Dimensions:



BZ-Marker NG M (Medium)

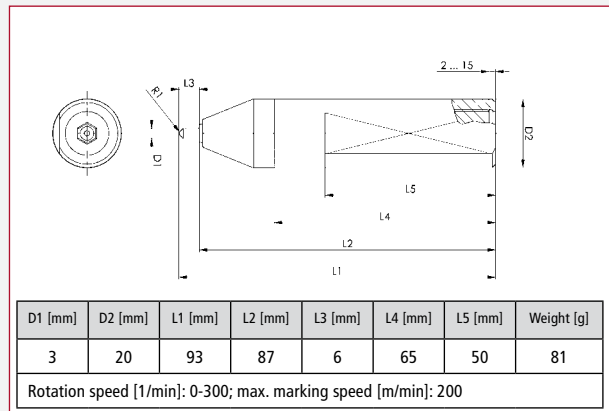
For 20 mm collets or weldon holders.
Weldon holders are necessary when using the function check.

Features:

- This version of the BZ-Marker is suitable for marking a wide variety of materials (e.g. aluminium, titanium, steel, bronze, copper, brass, plastics and so on)
- Ideal for large-scale productions as the marking tool has to be dismantled from the toolholder for adjustment
- Robust marking pin (90°, radius 0,5 mm)
- High quality guidings
- Stepless adjustment due to an internal screw which can be adjusted using a hexagon wrench
- Uneven surfaces with differences up to 6 mm will be compensated
- Marks workpieces with a hardness up to 55 HRC



Dimensions:



Advantages:

- Easy and quick change of marking pin:
The marking pin can be extracted and changed using a pair of tongs.
This is very helpful in case of worn or broken marking pins.
- High wear resistance.
- Suitable for the marking of several kinds of material.
- Compact design



BZ-Marker NG L (Large)

For 20 mm collets or weldon holders.

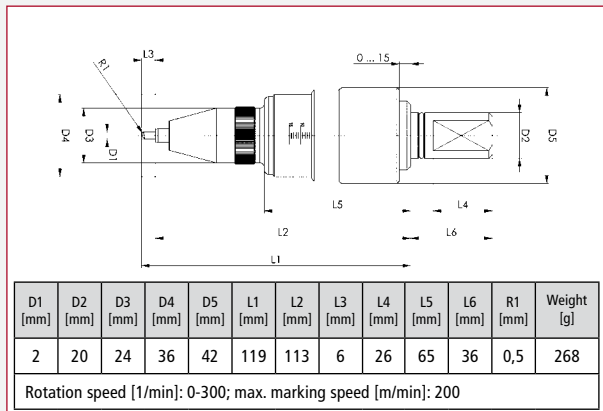
Weldon holders are necessary when using the function check.

Features:

- This version of the BZ-Marker is suitable for marking a wide variety of materials (e.g. aluminium, titanium, steel, bronze, copper, brass, plastics and so on)
- Robust marking pin (90°, radius 0,5 mm)
- Strengthened guidings
- Stepless adjustment due to a knurled nut, scale from 0-15, with this ideal for small and medium lot sizes
- Uneven surfaces with differences up to 6 mm will be compensated
- Marks workpieces with a hardness up to 55 HRC



Dimensions:



BZ-Marker NG XL (Extra Large)

For 20 mm collets or weldon holders.

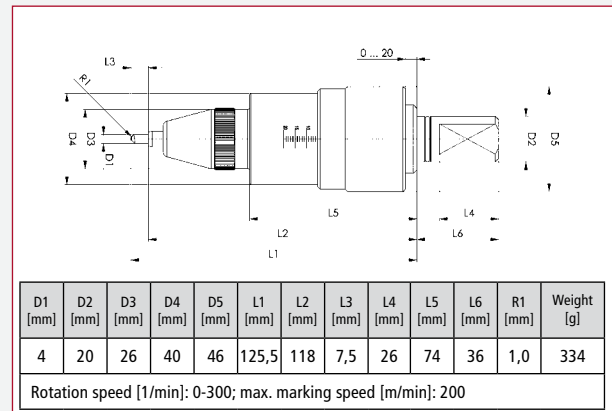
Weldon holders are necessary when using the function check.

Features:

- This version of the BZ-Marker is particularly suitable for markings on uneven and rough surfaces with big character heights and a bold font style.
- Special marking pin with thick tip (90°, radius 1,0)
- Strengthened guidings
- Stepless adjustment due to a knurled nut, scale from 0-20, with this ideal for small and medium lot sizes
- Uneven surfaces with differences up to 7 mm will be compensated
- Marks workpieces with a hardness up to 50 HRC

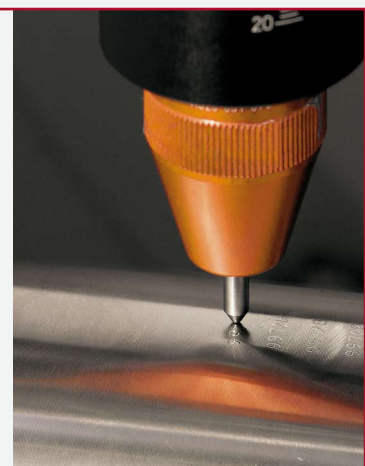


Dimensions:



Advantages:

- Easy and quick change of marking pin in case of worn or broken marking pins. The marking pin can be extracted and changed using a pair of tongs.
- Clear markings.
- Due to an integrated function check this marking tool is well equipped for the use in automatic production lines.
- Query possible via a pneumatic pressure monitoring system. The machine tool needs to have an internal coolant supply and a free M-command which can be acknowledged.
- Extremely high wear resistance.
- Suitable to mark rough / uneven work pieces.
- Convenient adjustment via knurled nut (in clamped position).



Functionality:

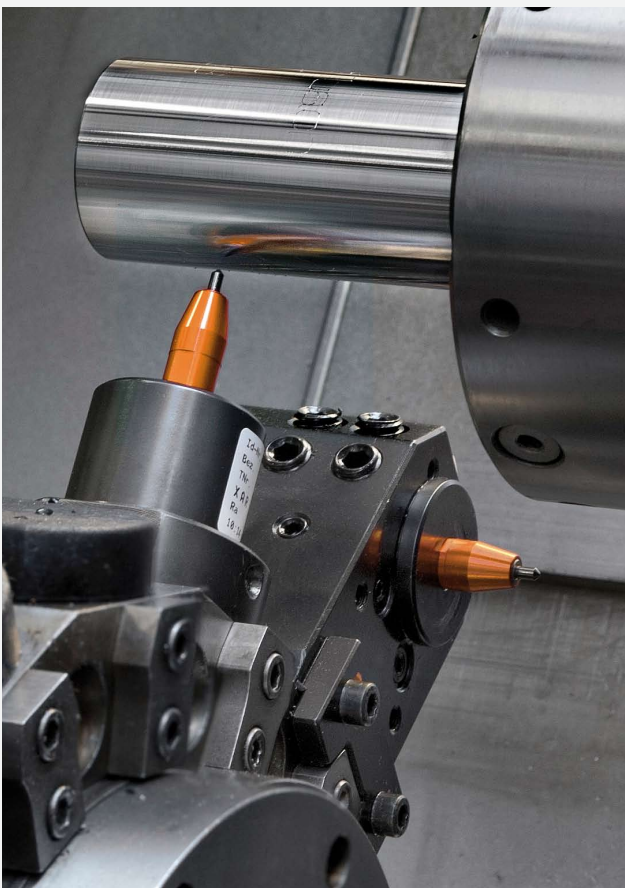
The marking pin of the marking tool BZ-Marker NG is pre-tensioned by a spring and can be pressed into the material by setting the infeed of the machining center on minus.

Due to the forward feed of the machine, the marking pin with a rounded point will be pulled through the material according to the preprogrammed font. The marking on the work piece results from both, material compaction and material displacement. No burr appears.

The precisely produced, centric carbide marking pin with a rounded point guarantees a perfect typeface of the marking. When using an external cooling and a spindle rotation, the BZ-Marker NG can also be operated with a slightly excentric marking pin.

Advantages:

- The surface of the work piece will not be damaged or weakened but compressed and with this strengthened
- High marking speeds as possible
- Good wear resistance and with this long lifetime of the marking pin
- Also suitable for thin-walled work pieces
- High quality type face of the marking.
No burr appears on the marking lines
- Uneven surfaces will be compensated
- Also suitable to mark round work pieces (up to 15°)
- Depending on the different types of the BZ-Marker NG, markings on hard materials up to 57 HRC as possible
- No noise generation
- Marking pin can easily be changed by yourself
- Cheaper than markings via milling tool or laser



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