



## Marking heads for marking unit 322

### Technical data sheet

#### Operating mode

Scribe marking means a diamond or solid carbide tip is pressed into the workpiece surface and simultaneously drawn through the material - similar to a scribe.

Dot matrix/ DataMatrix marking and Vibropeening mean a solid carbide tip is pressed into the surface. Each dot positioning is activated separately. Particular mention must be made of the great tolerance equalisation in the workpiece distance and the capability of deep marking.

Stylus marking means a solid carbide tip is pressed into the surface. The dot positioning happens in frequencies. Thus, very close, individual dots are created.

#### Application area

- **Scribe marking**

Very well applicable on almost any 3-dimensional deformable material. Very low noise marking process with highly attractive print image. Well suited for slightly curved surfaces. Minimal force onto workpiece.



- **Dot matrix marking**

Very well applicable on almost any 3-dimensional deformable material. Individually visible dots, often in connection with DataMatrix coding. Eminently suited for deep stamping. Minimal force onto workpiece.



- **DataMatrix**

Camera legible 2D-code (ECC 200) - marked with the same tool as the dot matrix marking. Process capable code, readable even after hardening, blasting or thin coating of the material. Very well applicable on almost any 3-dimensional deformable material.



- **Vibropeening**

The result of this marking process is similar to stylus marking. It is either created with dot matrix or DataMatrix marking heads. The marking speed is a bit slower than the stylus marking. But the tolerance equalisation distance to the workpiece is reasonably bigger.



- **Stylus marking**






Very well applicable on almost any 3-dimensional deformable material. Minimal force onto workpiece. Even applicable for slightly curved surfaces. Eminently suited for type plates with foil cover or for filigree markings.



## Options

### Scribe marking heads

- Different diamond and solid carbide tips are available
- Scribe marking heads for almost any material, e.g. (stainless) steel, aluminium cast – crude, machined grey cast iron excluding scribe marking head RZ 16
- Slightly uneven surfaces can be stamped with consistent depth.

<ul style="list-style-type: none"> <li>• R20 K</li> </ul> 	<ul style="list-style-type: none"> <li>• Short, slim (base-) marking head</li> <li>• Marking depths from about 0.01 to 0.1 mm*</li> <li>• Standard distance of marking stylus to workpiece surface 1 mm</li> <li>• Max. distance up to 4 mm possible, if workpiece is made out of aluminium or plastic</li> </ul>
<ul style="list-style-type: none"> <li>• R20 M</li> </ul> 	<ul style="list-style-type: none"> <li>• Medium-length, slim marking head</li> <li>• Marking depths from about 0.01 to 0.1 mm*</li> <li>• Standard distance of marking stylus to workpiece surface 1 mm</li> <li>• Max. distance up to 4 mm possible, if workpiece is made out of aluminium or plastic</li> </ul>
<ul style="list-style-type: none"> <li>• R20 L</li> </ul> 	<ul style="list-style-type: none"> <li>• Long, slim marking head</li> <li>• Marking depths from about 0.01 to 0.1 mm*</li> <li>• Standard distance of marking stylus to workpiece surface 1 mm</li> <li>• Max. distance up to 4 mm possible, if workpiece is made out of aluminium or plastic</li> <li>• Reinforced unit necessary</li> </ul>
<ul style="list-style-type: none"> <li>• R32 K</li> </ul> 	<ul style="list-style-type: none"> <li>• Short, strong marking head</li> <li>• Marking depths &gt; 0.1 mm possible*</li> <li>• Standard distance of marking stylus to workpiece surface 1 mm</li> <li>• Max. distance up to 4 mm possible, if workpiece is made out of aluminium or plastic</li> <li>• Reinforced unit necessary</li> </ul>
<ul style="list-style-type: none"> <li>• R32 M</li> </ul> 	<ul style="list-style-type: none"> <li>• Medium length, slim and strong marking head</li> <li>• Marking depths &gt; 0.1 mm possible*</li> <li>• Standard distance of marking stylus to workpiece surface 1 mm</li> <li>• Max. distance up to 4 mm possible, if workpiece is made out of aluminium or plastic</li> <li>• Reinforced unit necessary</li> </ul>

• RZ 16



- Marking head with forward stroke of 13 mm for „softer“ materials, e.g. aluminium, plastics
- Z-stroke is moved out over the first character and moved in after the last stamped character.
- Marking depths from about 0.01 to 0.1 mm\*
- Standard distance of marking stylus to workpiece surface 13 + 1 mm
- Max. distance up to 13 + 3 mm possible, if workpiece is made out of aluminium or plastic

• RZ 20



- Marking head with forward stroke of 13 mm
- Z-stroke is moved out over the first character and moved in after the last stamped character.
- Marking depths from about 0.01 to 0.1 mm\*
- Standard distance of marking stylus to workpiece surface 13 + 1 mm
- Max. distance up to 13 + 3 mm possible, if workpiece is made out of aluminium or plastic

**Stylus marking heads**

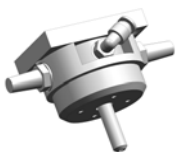
- For any wrought material

• NGS 10



- Short stylus marking head
- Marking depths from about 0.05 to 0.1 mm\*
- Suitable for even workpieces like e.g. type plates
- Distance of marking stylus to workpiece surface 2.5 mm ± 0.5 mm

• NGS 20



- Short stylus marking head
- Marking depths from 0.05 to 0.15 mm\*
- Suitable for even workpieces that need deeper stamping depths
- Distance of marking stylus to workpiece surface 2.5 mm ± 0.5 mm

• Stylus marking head PN, Z-axis



- Long, slim stylus marking head
- Marking depths from 0.05 to 0.15 mm\*
- Integrated Zustellachse für einen Toleranzausgleich bis 20mm durch aufsetzende Führungshülse
- Suitable for slightly uneven or curved surfaces

### Dot matrix/ DataMatrix marking heads

- Different marking tips are available
- Optional probing
- Bigger differences in distance result in different dot sizes and marking depths.
- For almost any material, e.g. (stainless) steel, aluminium cast, grey cast iron crude or machined
- Suitable even for curved surfaces

<ul style="list-style-type: none"> <li>• PD12K</li> </ul> 	<ul style="list-style-type: none"> <li>• Short, slim marking head for „softer“ materials, e.g. aluminium, plastic</li> <li>• For smaller text with low marking depths</li> <li>• Slightly uneven surfaces can be marked with consistent depth.</li> <li>• Standard distance of marking stylus to workpiece surface 2.5 mm</li> <li>• Max. marking stroke 7 mm</li> </ul>
<ul style="list-style-type: none"> <li>• PD16K</li> </ul> 	<ul style="list-style-type: none"> <li>• Short, slim marking head for „softer“ materials, e.g. aluminium, plastic</li> <li>• Well suited for curved surfaces</li> <li>• Standard distance of marking stylus to workpiece surface 2.5 mm</li> <li>• Max. marking stroke 7 mm</li> </ul>
<ul style="list-style-type: none"> <li>• PD16LS</li> </ul> 	<ul style="list-style-type: none"> <li>• Long, slim marking head</li> <li>• Standard distance from marking head to workpiece surface 5 mm</li> <li>• Max. stamping stroke of 13 mm possible</li> </ul>
<ul style="list-style-type: none"> <li>• PD20L</li> </ul> 	<ul style="list-style-type: none"> <li>• Long, slim marking head</li> <li>• Marking depths of &gt; 0.2 mm possible*</li> <li>• Standard distance from marking head to workpiece surface 2.5 mm</li> <li>• Max. marking stroke of 16 mm possible</li> </ul>

### Double marking head



- R20 K + PD20K
- Combination of the short and slim marking heads R20 K and PD20K
- Marking depths from about 0.01 to 0.1 mm\*
- Max. distance up to 4 mm possible, if workpiece is made out of aluminium or plastic
- Connect the advantages of the scribe marking with very low noise and highly attractive print image with the DataMatrix marking
- Application of the best suited marking tool for each marking process
- Depending on the application the marking area changed

### Further option:

- Quick changing adaptor

Technical details are subject to change.

\*) Details on marking depths are only guideline values. Exact information on marking depths can only be made after a sample marking with an original workpiece.