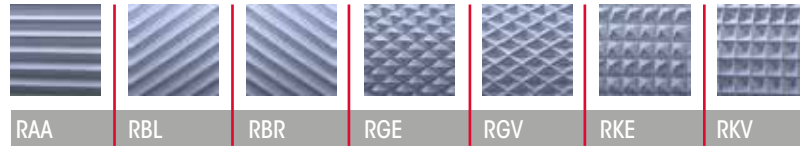


# Process characteristics



## Form knurling

Knurl profiles on  
DIN 82 workpiece



### Application:

- Non-cutting forming
- Processing of workpieces suitable for cold forming
- All knurling forms and profiles can be manufactured
- Suitable for face and knurling within a bore
- Knurling up to a shoulder is possible
- Tool can be started at any location on the workpiece

### Handling:

- Only minimal preparation of workpiece required
- Very easy handling of tool (short setup times)

### Features:

- Material displacement increases the outer diameter of the workpiece
- The surface is compacted
- Form knurling of small diameters is possible only to a limited extent

## Cut knurling

Knurl profiles on  
DIN 82 workpiece



### Application:

- Alternative cutting process
- Material removal at axial feed drive
- Machining of thin-walled, soft and hard-to-machine materials is possible
- Only cylindrical workpieces can be machined in axial direction
- Machining of small diameters is possible
- Maximum precision and surface quality, therefore suitable primarily for visible knurling
- A plunge cut is necessary for applying the tool in the middle area of the workpiece
- Knurling up to a shoulder is not possible

### Handling:

- Requires precise tool adjustment and fine adjustment
- Requires precise preparation of the workpiece

### Features:

- Minimal change in the outer diameter
- Minimal surface compaction
- Lower strain on machine than in form knurling
- Minimum pressure on the workpiece and machine