

#### Vice clamping

##### I. What is necessary to do before clamping the vice to the cutter working table?

- ensure the tidiness of the table and the vice
- have a tool attached
- clean the jaws of the vice

##### II. What do we use to attach the vice to the cutter working table?

- anchors
- bolts into T grooves
- magnets

##### III. Why do we need to level the vice onto the cutter working table?

- to ensure the flatness of the milled areas
- to ensure the smaller wear of a tool
- to ensure the parallelism of the milled areas

#### Alignment of the vice

##### IV. What means are used to align the vice on the cutter working table?

- thanks to the end dipsticks
- thanks to a the angle guide or a deviation gauge
- it does not matter how the vice is aligned

**V. What aids do you ready for the alignment of the vice using the deviation gauge?**

- the ground washer, deviation gauge, magnetic stand
- forwarding tool, the ground washer
- a small mallet, an angle guide and angle guide with a guide

**VI. What units does the deviation gauge use?**

- 0.001 mm
- 0.01 mm
- 0.1 mm

#### Tool clamping

**VII. What do we use to attach the attaching cutter?**

- mandrel
- into the attaching head
- straight into the spindle

**VIII. What will you need to attach the shell-type milling cutter?**

- a shell-type milling cutter, a clamping head, a spacer ring, an attaching bolt, a clamping wrench
- a shell-type milling cutter, a clamping arbor/mandrel, a spacer ring, a clamping bolt, a clamping wrench
- a shank cutter, a clamping arbor/mandrel, a spacer ring, a clamping bolt, a clamping wrench

**IX. What do we use to attach the shank cutter?**

- a mandrel
- clamping head
- straight into the spindle

**X. What will you need to attach the shank cutter?**

- a shell-type milling cutter, a clamping arbor/mandrel, a spacer ring, a clamping bolt, a clamping wrench
- a shell-type milling cutter, a clamping arbor/mandrel, a spacer ring, a clamping bolt, a clamping wrench
- a shank cutter, a clamping head, a collet, clamping wrench

**XI. Describe the tools used for clamping of the shell-type milling cutter.**



1 .....  
2 .....  
3 .....

4 .....  
5 .....  
6 .....

XII. Describe the tools used for clamping of the shank cutter.



1 .....

3 .....

2 .....

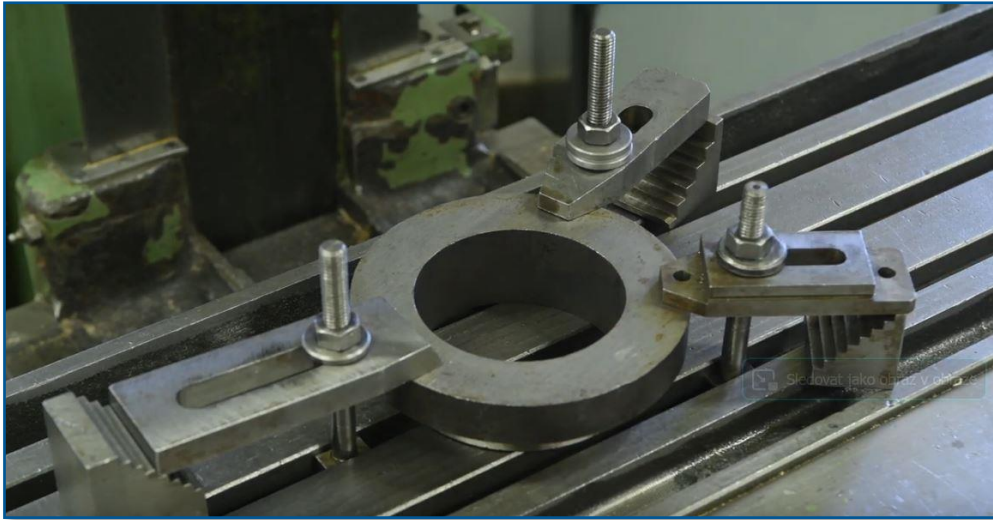
4 .....

### Clamping using the clamps

XIII. Location of the bolt during the tightening must be ...

- closer to the workpiece
- closer to the support
- right in between of the workpiece and the support

XIV. Describe what tools/aids were used during the workpiece clamping.



1 .....

3 .....

2 .....

XV. Name the types of cutters. Assign the numbers to the correct names.



..... a shank angle cutter

..... a shank cylinder cutter

..... a shell-type milling cutter

XVI. Photo credits: STEP IN partnership

XVII. Notes:

STEP IN to the online world/virtual learning, Facilitation of access to Vocational practice through online teaching at secondary technical schools

The project is co-financed by the European Union, ERASMUS+ programme.

Contract number: 2020-1-SK01-KA226-VET-094400

The European Commission's support for the production of this material does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

STEP IN project in partnership with:

