

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



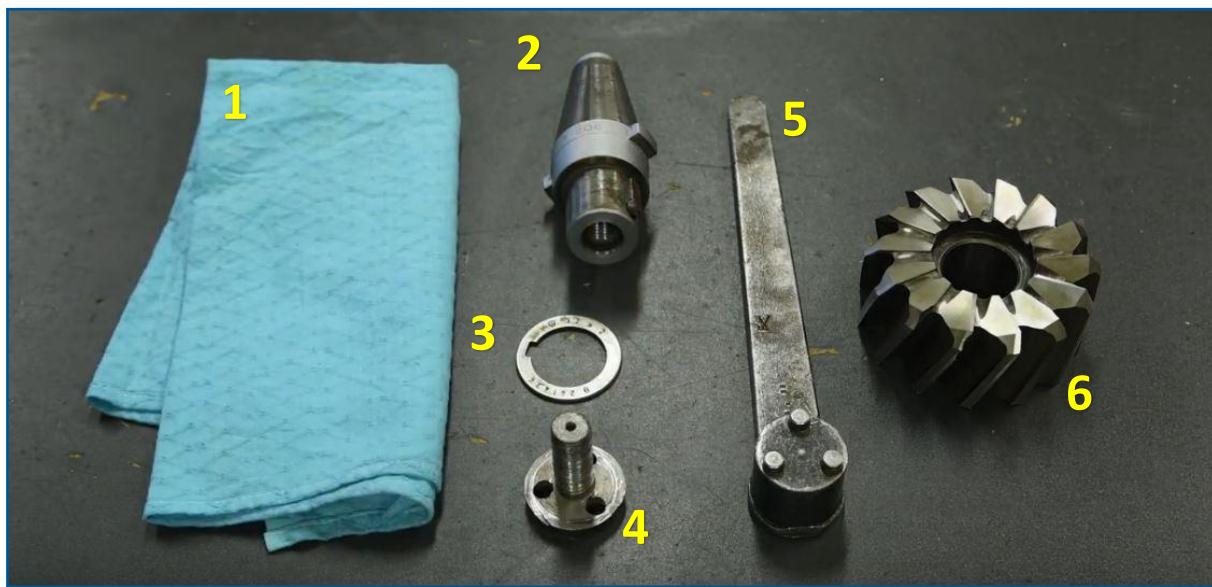
IX. What do we use to attach the shank cutter?

- 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

4

2

5

3

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



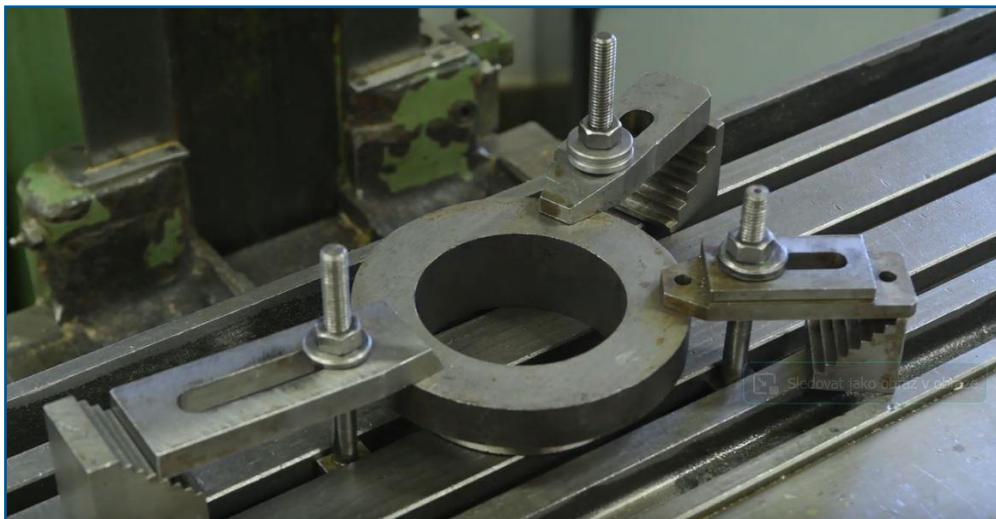
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OUTCOME TEST
MODULE 3 / TEST 2

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



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OUTCOME TEST
MODULE 3 / TEST 2

MACHINING

Milling

Clamping of tools and workpieces on milling machines

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

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