

Floating Clamps • compact construction, combined clamping and locking M 12

EH 23320.



PRODUCT DESCRIPTION

The floating clamp is used to **clamp and support** additional clamping points on components.

The benefits of the floating clamp are:

- Avoids vibration during the processing
- Clamps ribs, beads and shackles to reinforce clamped components
- Distortion-free clamping of raw parts
- Compact version with reduced height.

Material

Adjustable body

- Aluminium, red anodised

Body

- Case-hardened steel, nitrided, manganese phosphated and ground

Clamping jaws

- Case-hardened steel, nitrided, manganese phosphated

Assembly

1. Mount the floating clamp onto the device (mounting holes for M 6, see drawing).
2. Adjust the height limit stop and the rotating area with the sleeve, and clamp with set screw (4x WS 2.5). When setting the height limit upwards provide generous clearance (workpiece tolerance).

Operation

1. Push the floating clamp downwards.
2. Pivot the clamping jaws in as far as possible. The floating clamp contacts the bottom of the workpiece with a slight spring load.

3. Tighten the floating clamp with a hexagonal nut (WS 18) having a min. torque of 15 Nm and a maximum torque of 30 Nm.

In the clamping process, the workpiece is clamped and simultaneously supported.

4. Releasing is done in reverse order.

MORE INFORMATION

Notes

For specific clamping situations, the standard clamping jaws supplied can be exchanged or replaced (see catalogue drawing: screw ISO 4762 - M8 - 12.9, M max. = 43 Nm).

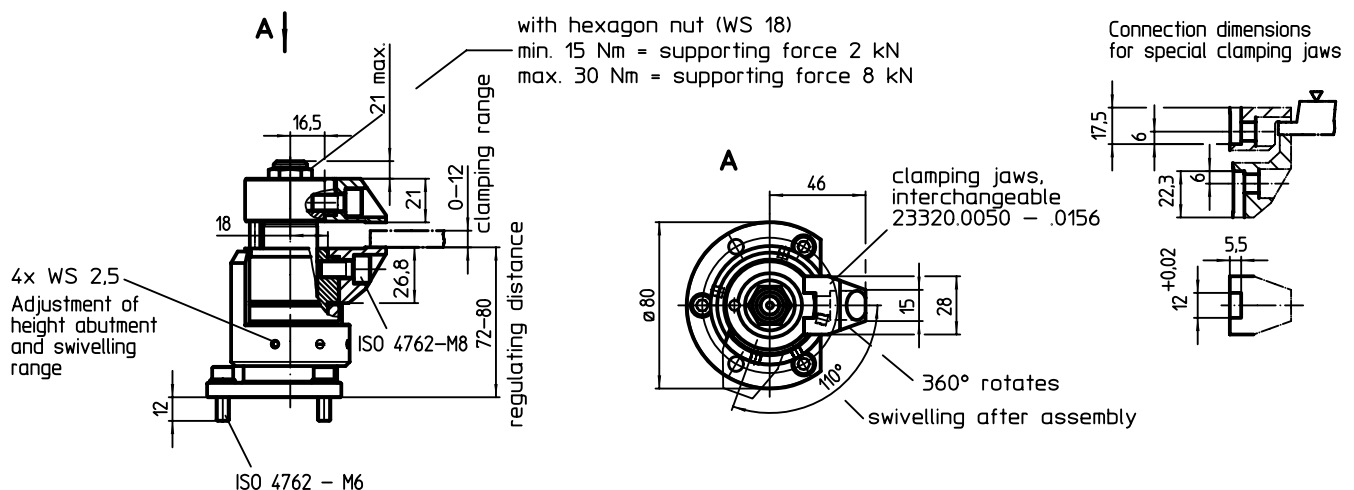
Accessories

As an accessory, we offer clamping jaws with an increased clamping range, refer to 23320.0050-.0058, as well as pivot jaws, refer to 23320.0148-.0156.

Further products

- Nuts for T-Slots, DIN 508 → p. 384
 Nuts for T-Slots, extended → p. 388
 Standard Clamping Jaws, for floating clamp M 12 → p. 491
 Clamping Jaws, for floating clamp M 12 → p. 492

DRAWING

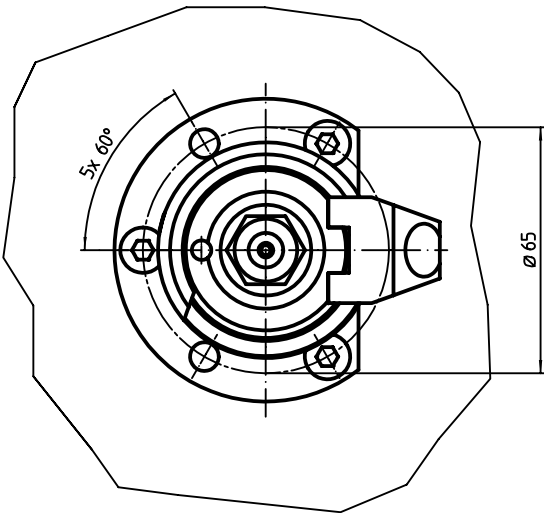
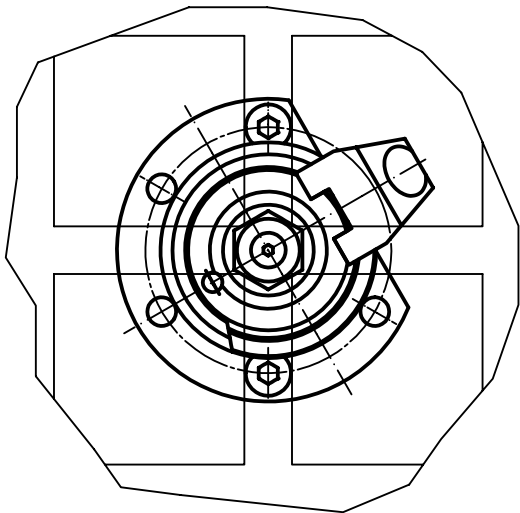
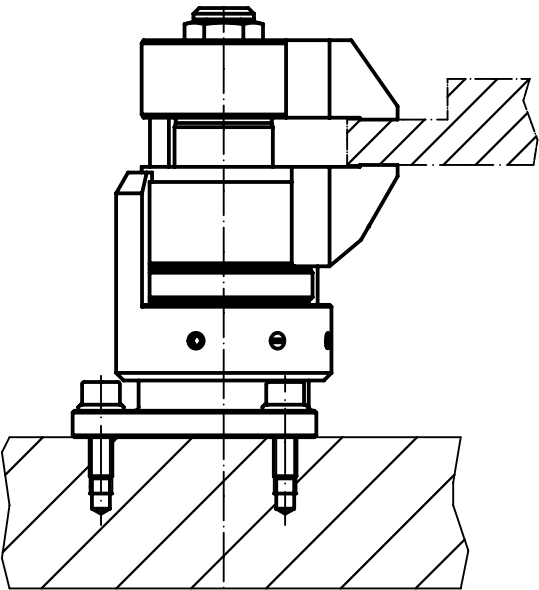
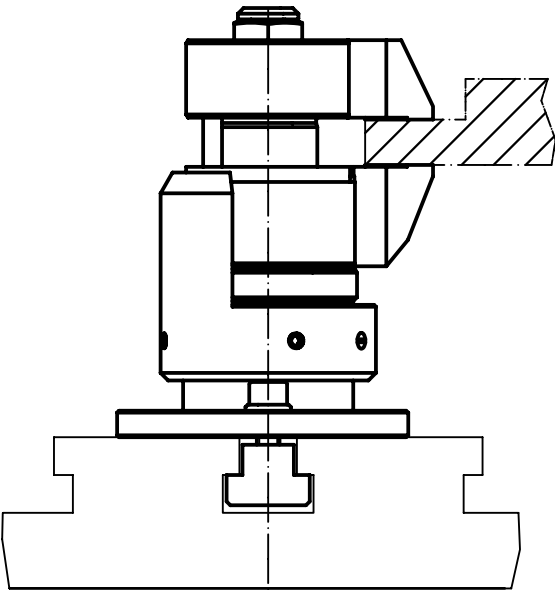


ORDER INFORMATION

	Art. No.
 [g] 1654	23320.0008

APPLICATION EXAMPLE

3



Floating Clamps • compact construction, separate clamping and locking M 12

EH 23320.



PRODUCT DESCRIPTION

Floating clamps with separate clamping and locking are used to clamp and support additional clamping points on extremely pliable workpieces. Both, clamping and supporting force can be designed individually.

The benefits of the floating clamp are:

- Avoids vibration during the processing
- Clamps ribs, beads and shackles to reinforce clamped components
- Distortion-free clamping of raw parts
- Compact version with reduced height.

Material

Adjustable body

- Aluminium, blue anodised

Body

- Case-hardened steel, nitrided, manganese phosphated and ground

Clamping jaws

- Case-hardened steel, nitrided, manganese phosphated

Assembly

1. Mount the floating clamp onto the device (mounting holes for M 6, see drawing).
2. Adjust the height limit stop and the rotating area with the sleeve, and clamp with set screw (4x WS 2.5). When setting the height limit upwards provide generous clearance (workpiece tolerance).

Operation

1. Push the floating clamp downwards.
2. Pivot the clamping jaws inwards.
3. Release floating clamp. The bottom jaw contacts the workpiece with the force of the contact spring.
4. Tighten the fixture nut (WS 18) (max. torque 15 Nm). **The jaws clamp the workpiece - the clamp is still floating.**
5. Then tighten the hexagon collar nut (WS

10) (max. torque 10 Nm).

6. The workpiece clamping process is complete.

7. Releasing is performed in the reverse order: Release hexagon collar nut (WS 10) - release hexagon nut (WS 18) - pivot out the clamping jaws

8. Floating clamp is in end position.

MORE INFORMATION

Notes

For specific clamping situations, the standard clamping jaws supplied can be exchanged or replaced (see catalogue drawing: screw ISO 4762 - M8 - 12.9, M max. = 43 Nm).

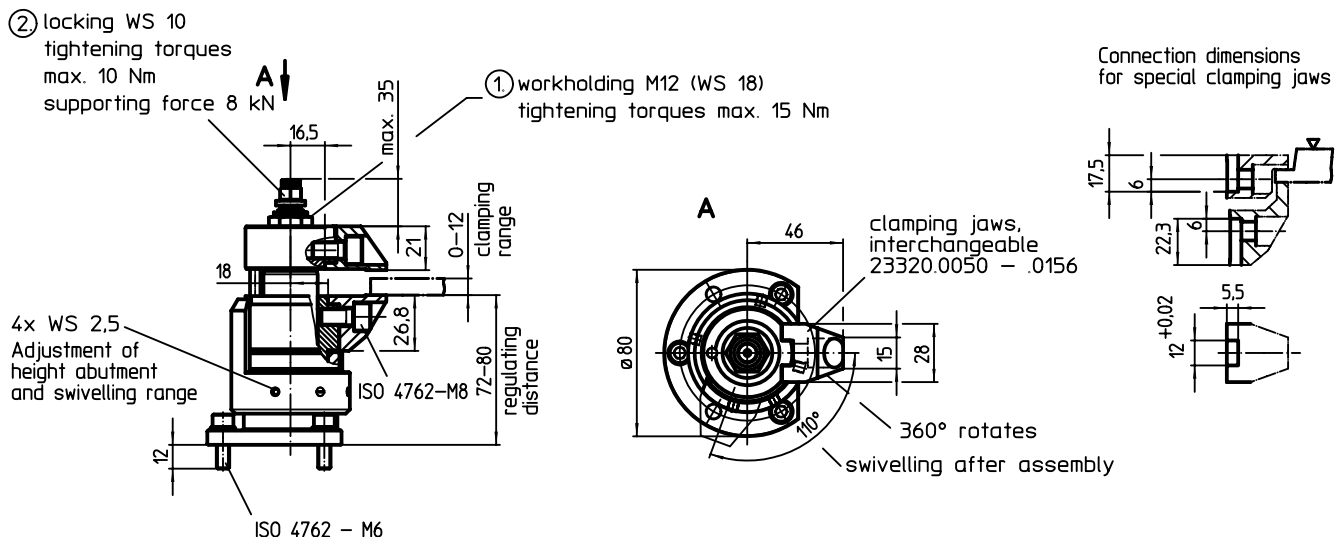
Accessories

As an accessory, we offer clamping jaws with an increased clamping range, refer to 23320.0050-.0058, as well as pivot jaws, refer to 23320.0148-.0156.

Further products

- Nuts for T-Slots, DIN 508 → p. 384
- Nuts for T-Slots, extended → p. 388
- Standard Clamping Jaws, for floating clamp M 12 → p. 491
- Clamping Jaws, for floating clamp M 12 → p. 492

DRAWING

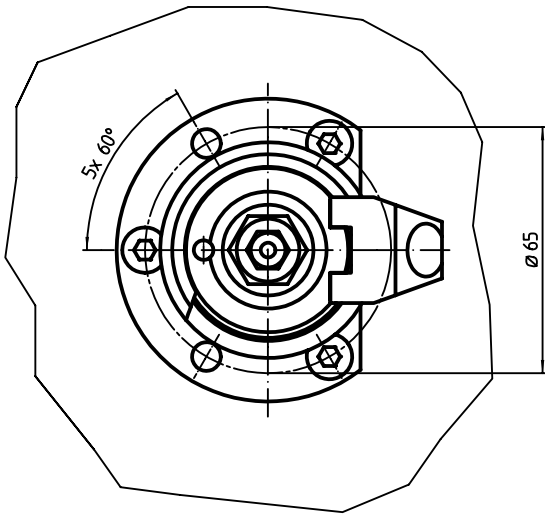
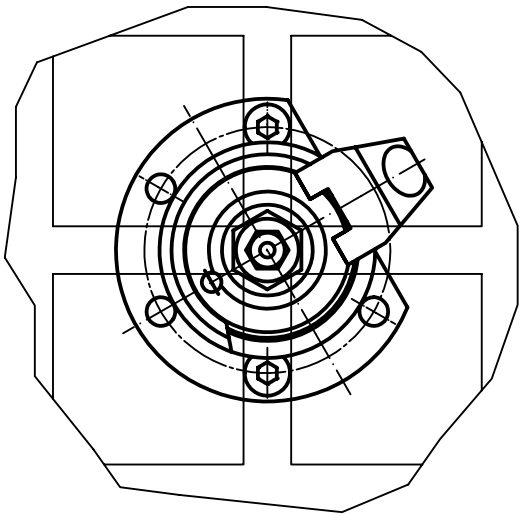
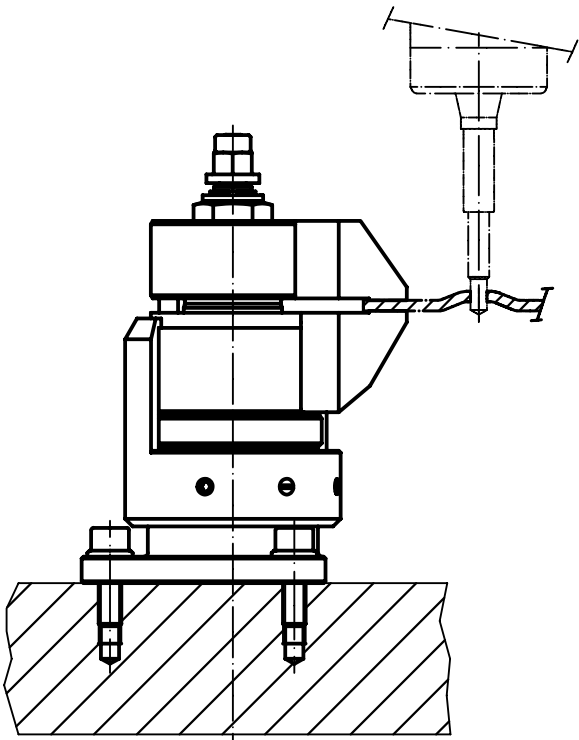
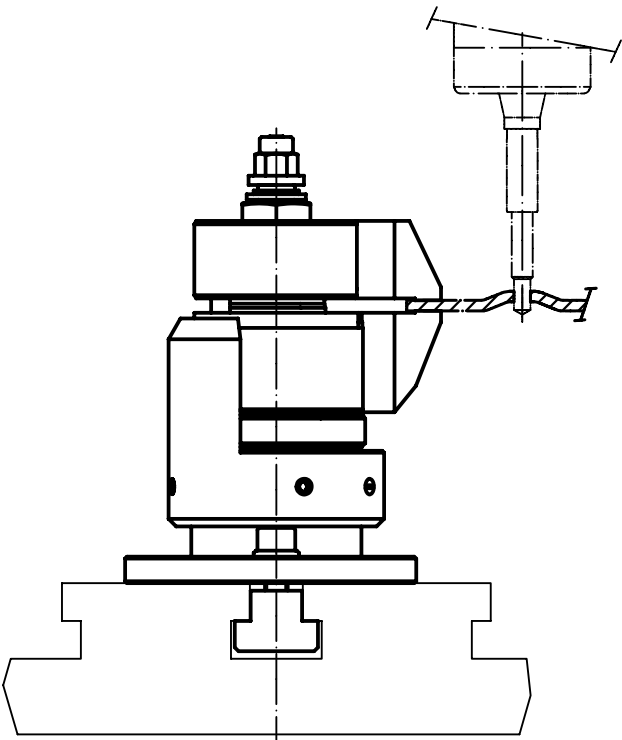


ORDER INFORMATION

	Art. No.
 [g] 1663	23320.0010

APPLICATION EXAMPLE

3



Floating Clamps • combined clamping and locking M 12

EH 23320.



PRODUCT DESCRIPTION

The floating clamp is used to **clamp and support** additional clamping points on components.

The benefits of the floating clamp are:

- Avoids vibration during the processing
- Clamps ribs, beads and shackles to reinforce clamped components
- Distortion-free clamping of raw parts.

Material

Adjustable body

- Aluminium, red anodised

Body

- Case-hardened steel, nitrided, manganese phosphated and ground

Clamping jaws

- Case-hardened steel, nitrided, manganese phosphated

Assembly

1. Mount the floating clamp (M 12 connection thread) onto the device with a wrench (WS 46).
2. Adjust the height limit stop and the rotating area with the red sleeve and clamp with a set screw (3 x WS 2.5). When setting the height limit, consider tolerance of workpiece.

Operation

1. Push the floating clamp downwards.
2. Pivot the clamping jaws in as far as possible. The floating clamp contacts the bottom of the workpiece with a slight spring load.
3. Tighten the floating clamp with a hexagonal nut (WS 18) having a min. torque of 15 Nm and a maximum torque of 30 Nm.

In the clamping process, the workpiece is clamped and simultaneously

supported.

4. Releasing is done in reverse order.

MORE INFORMATION

Notes

The thread bore must always be closed for safe functioning, e.g. set screw M 12 x 10. For specific clamping situations, the standard clamping jaws supplied can be exchanged or replaced (see catalogue drawing: screw ISO 4762 - M8 - 12.9, M max. = 43 Nm).

References

Additional flexible possibility of fitting with holder 23470.0250 or holding plate for down-hold clamps 23210.0740.

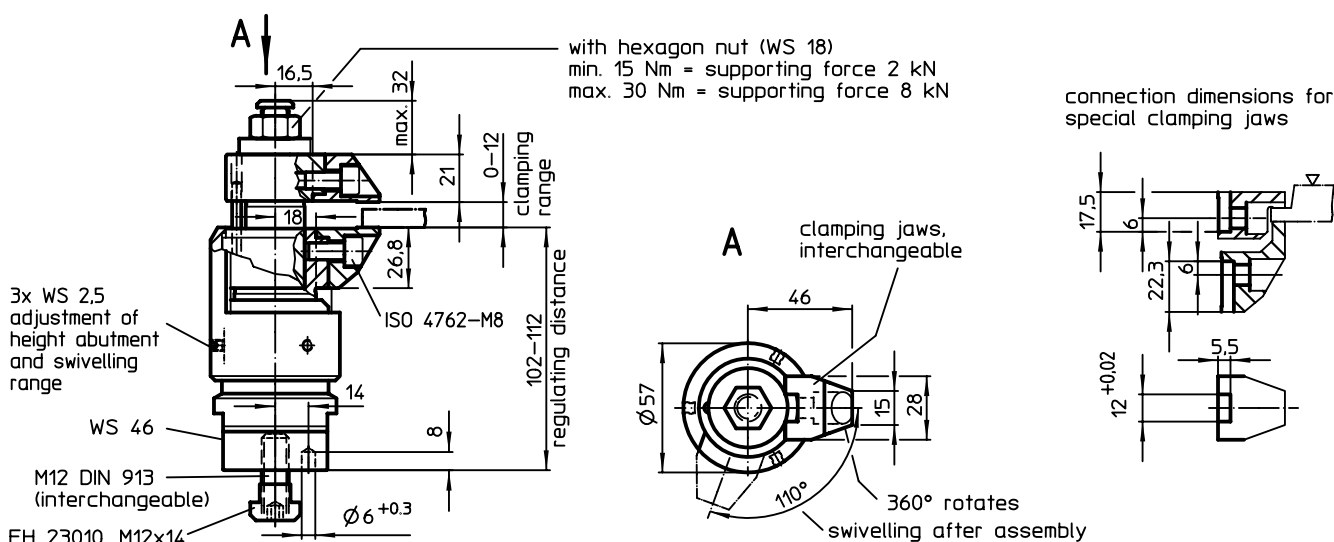
Accessories

As an accessory, we offer clamping jaws with an increased clamping range, refer to 23320.0050-.0058, as well as pivot jaws, refer to 23320.0148-.0156.

Further products

Holding Plates, for down-hold clamps. → p. 457
 Floating Clamps, separate clamping and locking M 12. → p. 489
 Standard Clamping Jaws, for floating clamp M 12. → p. 491
 Clamping Jaws, for floating clamp M 12. → p. 492

DRAWING

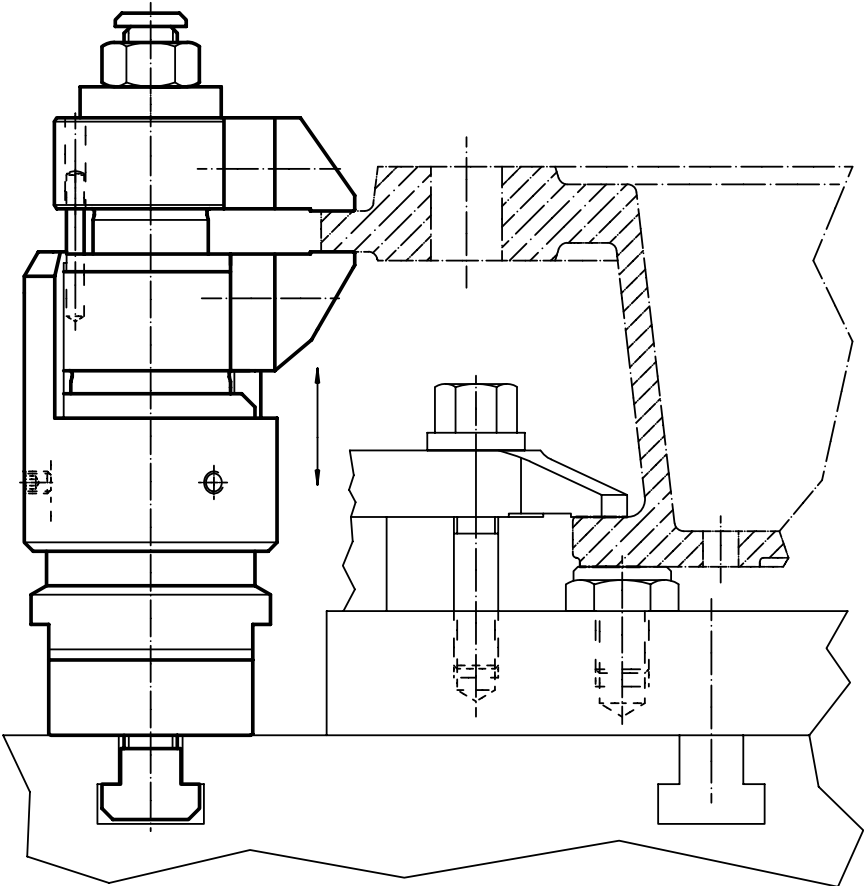
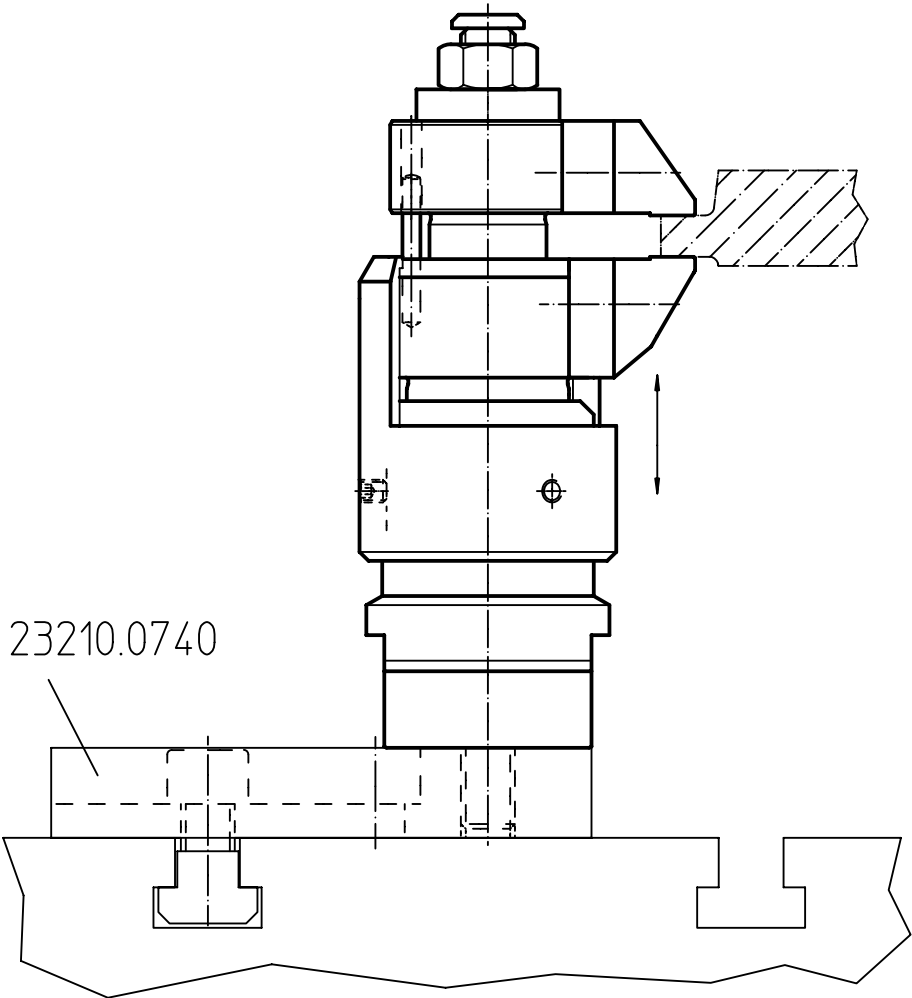


ORDER INFORMATION

 [g]	Art. No.
2103	23320.0012

APPLICATION EXAMPLE

3



Floating Clamps • separate clamping and locking M 12

EH 23320.



PRODUCT DESCRIPTION

Floating clamps with separate clamping and locking are used to clamp and support additional clamping points on extremely pliable workpieces. Both, clamping and supporting force can be designed individually.

The benefits of the floating clamp are:

- Avoids vibration during the processing
- Clamps ribs, beads and shackles to reinforce clamped components
- Distortion-free clamping of raw parts.

Material

Adjustable body

- Aluminium, blue anodised

Body

- Case-hardened steel, nitrided, manganese phosphated and ground

Clamping jaws

- Case-hardened steel, nitrided, manganese phosphated

Assembly

1. Mount the floating clamp (M 12 connection thread) onto the device with a wrench (WS 46).
2. Adjust the height limit stop and the rotating area with the blue sleeve and clamp with a set screw (3 x WS 2.5). When setting the height limit, consider tolerance of workpiece.

Operation

1. Push the floating clamp downwards.
2. Pivot the clamping jaws inwards.
3. Release floating clamp. The bottom jaw contacts the workpiece with the force of the contact spring.
4. Tighten the fixture nut (WS 18) (max. torque 15 Nm). **The jaws clamp the workpiece - the clamp is still floating.**
5. Then tighten the hexagon collar nut (WS 10) (max. torque 10 Nm).
6. The workpiece clamping process is complete.

7. Releasing is performed in the reverse order: Release hexagon collar nut (WS 10) - release hexagon nut (WS 18) - pivot out the clamping jaws
8. Floating clamp is in end position.

MORE INFORMATION

Notes

The thread bore must always be closed for safe functioning, e.g. set screw M 12 x 10. For specific clamping situations, the standard clamping jaws supplied can be exchanged or replaced (see catalogue drawing: screw ISO 4762 - M8 - 12.9, M max. = 43 Nm).

References

Additional flexible possibility of fitting with holder 23470.0250 or holding plate for down-hold clamps 23210.0740.

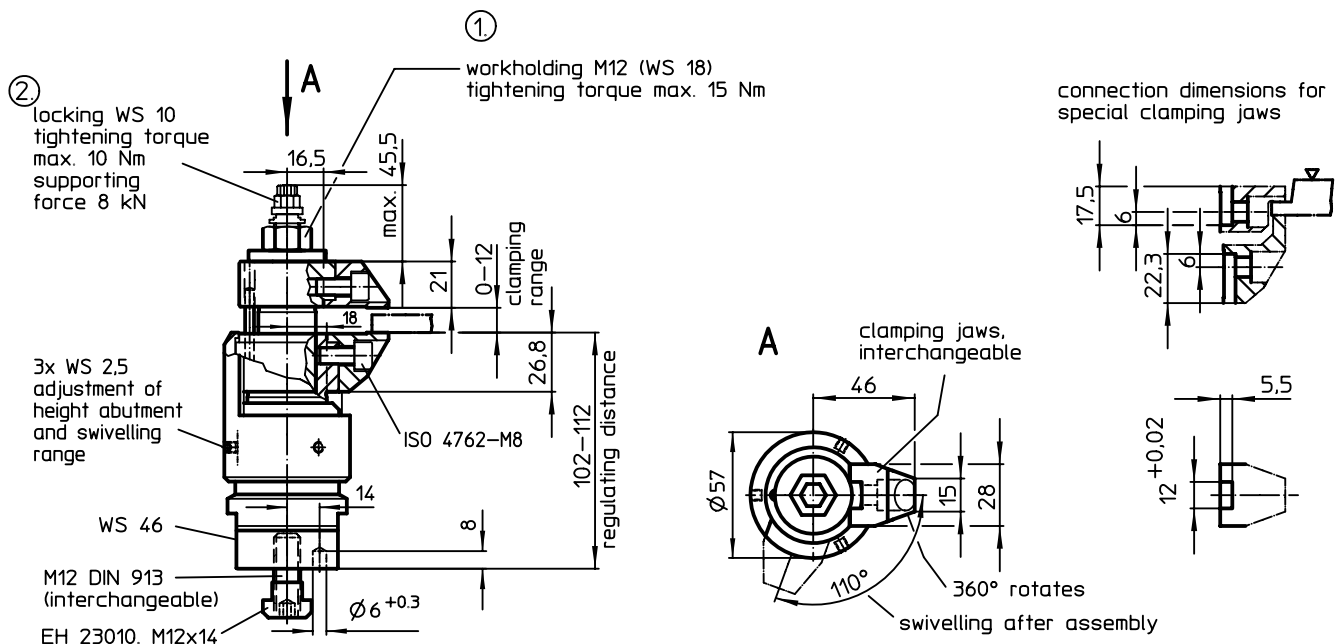
Accessories

As an accessory, we offer clamping jaws with an increased clamping range, refer to 23320.0050-.0058, as well as pivot jaws, refer to 23320.0148-.0156.

Further products

Holding Plates, for down-hold clamps → p. 457
 Floating Clamps, combined clamping and locking M 12 → p. 487
 Standard Clamping Jaws, for floating clamp M 12 → p. 491
 Clamping Jaws, for floating clamp M 12 → p. 492

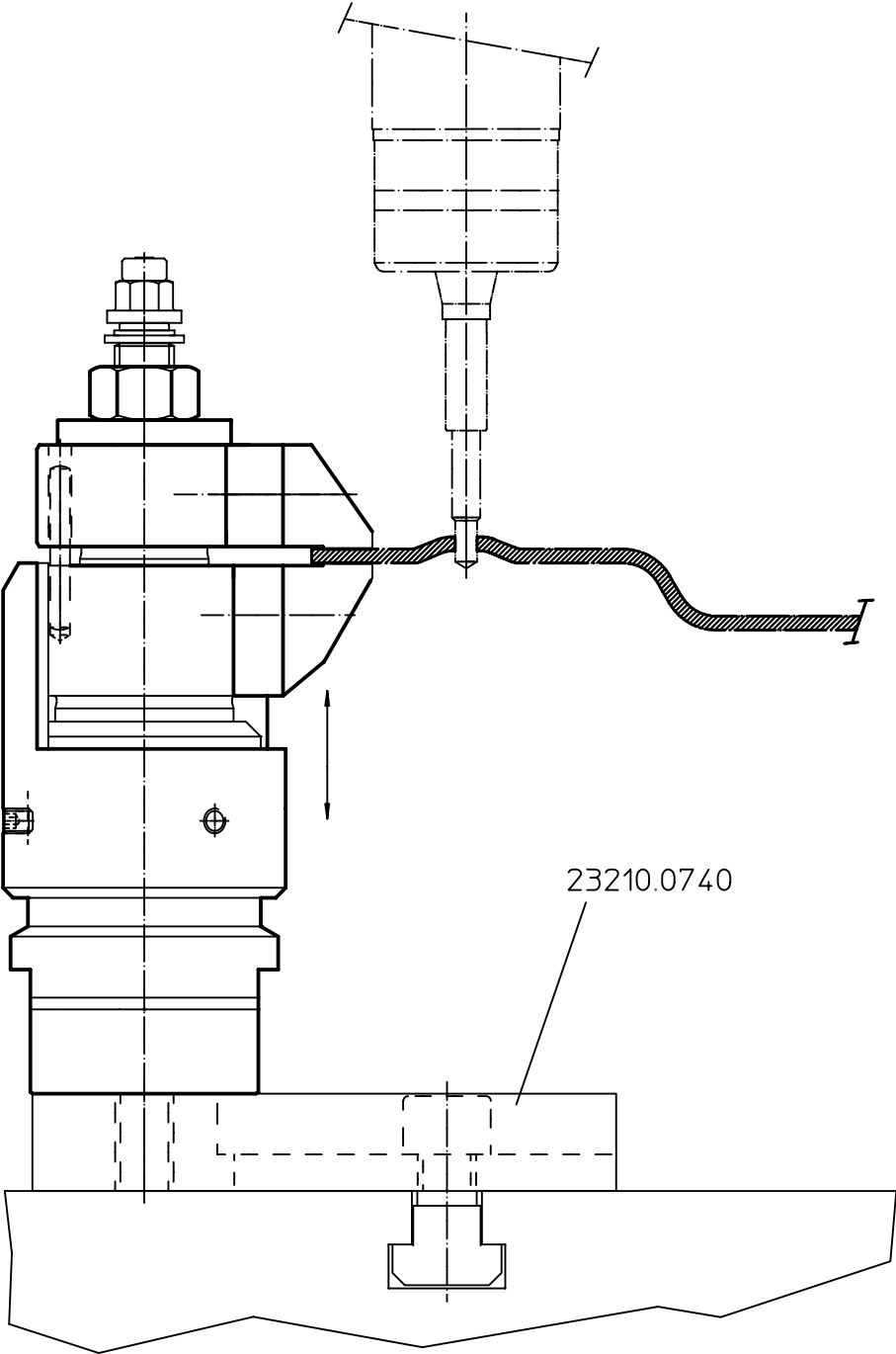
DRAWING



ORDER INFORMATION

 [g]	Art. No.
379	23320.0014

APPLICATION EXAMPLE



Standard Clamping Jaws • for floating clamp M 12

EH 23320.



PRODUCT DESCRIPTION

The clamping jaws can be used for floating clamps 23320.0008, 23320.0010, 23320.0012, and 23320.0014.

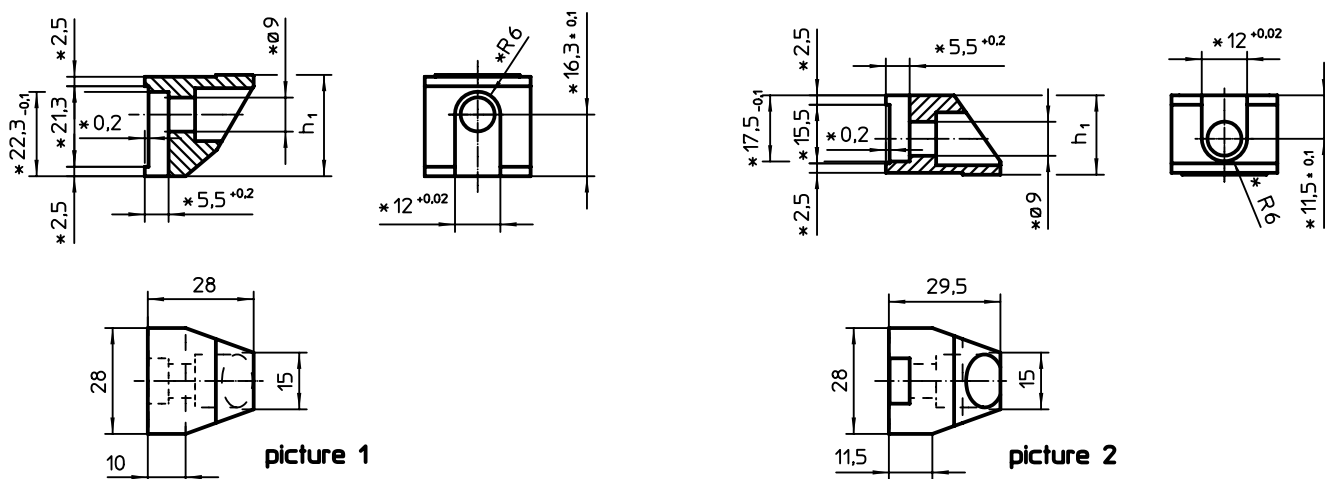
Material

- Case-hardened steel, nitrided, manganese phosphated

Assembly

When using custom-made jaws, it is important to insert the tightening screw (M 8-12.9, 43 Nm) 10 mm deep into the clamp housing on the upper clamping jaw and 9 mm deep into the clamp housing on the lower clamping jaw.

DRAWING



* Specifications and material of especially designed jaws have to be taken into consideration.

ORDER INFORMATION

Clamping range	Dimensions		Art. No.
[mm]	h_1 -0.1 [mm]	[g]	
lower standard clamping jaw – picture 1			
–	26.8	99	23320.0050
upper standard clamping jaw – picture 2			
0 – 12	21.0	69	23320.0052

Clamping Jaws • for floating clamp M 12

EH 23320.



PRODUCT DESCRIPTION

The clamping jaws can be used for floating clamps 23320.0008, 2332.0010, 23320.0012, and 23320.0014.

The upper clamping jaw (23320.0054, 23320.0056, and 23320.0058 - pictures 1 to 3) can be used to extend the clamping range.

Various standard parts can be screwed into in the upper clamping jaw as required, using locating thread M 8 (23320.0154 / .0156 - pictures 4 + 5) - see "Further products".

The lower clamping jaw with pivot function (23320.0148 - picture 6) adapts to the profiles of the workpiece.

Material

Ball

- Ball-bearing steel

Clamping jaws

- Case-hardened steel, nitrided, manganese phosphated

MORE INFORMATION

Notes

The tightening torque of the floating clamp must be adapted/reduced situationally.

Observe the surface pressure due the the

reduced contact surface of the clamping jaws.

Further products

Seating Pins, ribbed or pointed → p. 309

Ball-Ended Thrust Screws, headless, ball protected against rotating → p. 320

Ball-Ended Thrust Screws, headless, flat-faced ball → p. 327

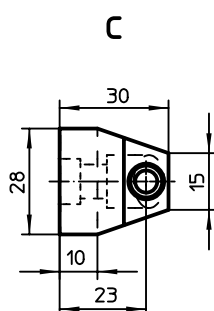
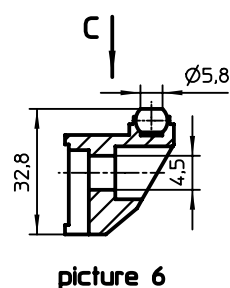
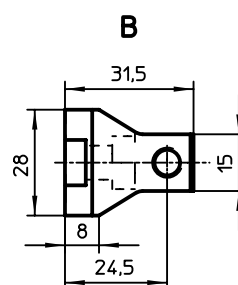
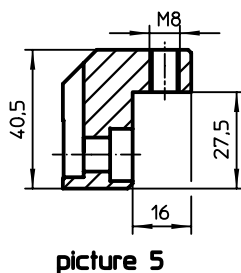
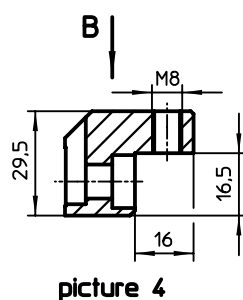
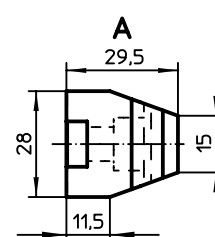
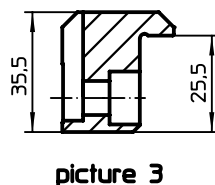
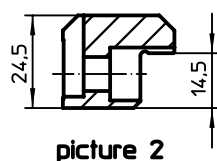
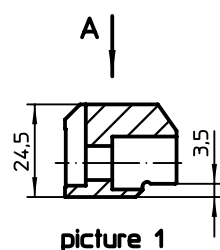
Thrust Screws, with brass pad → p. 334

Thrust Screws, with plastic pad → p. 335

Self-Aligning Pads, adjustable → p. 343

Self-Aligning Pads, adjustable, self-resetting → p. 344

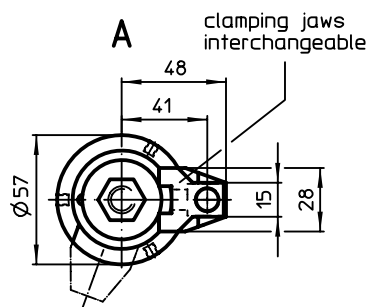
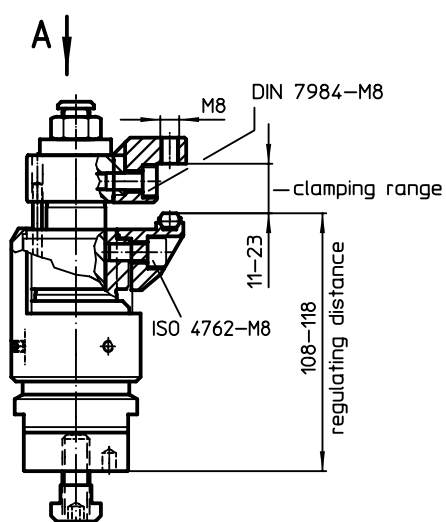
DRAWING



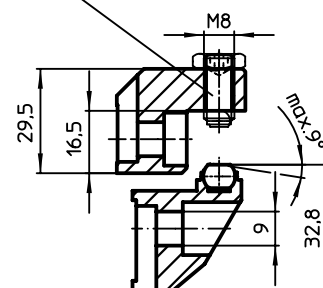
ORDER INFORMATION

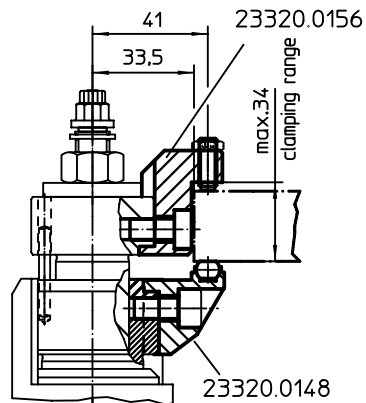
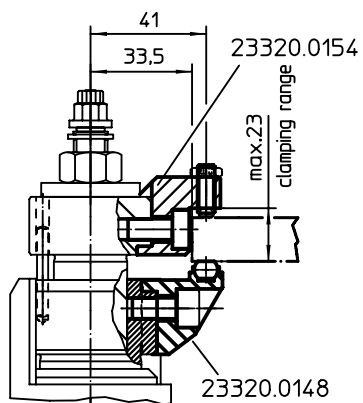
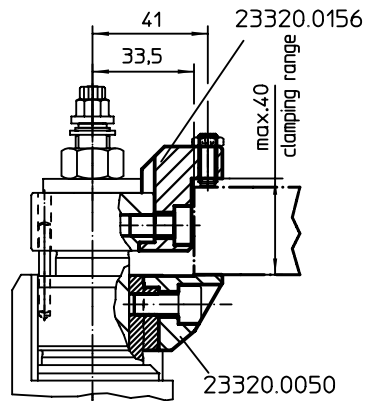
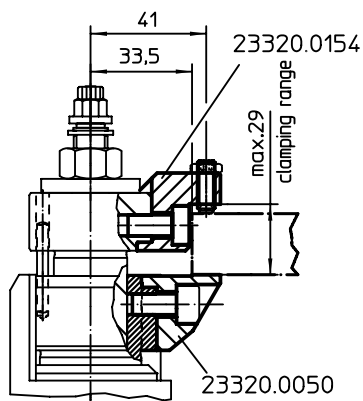
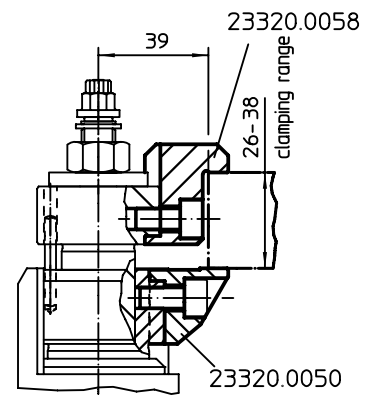
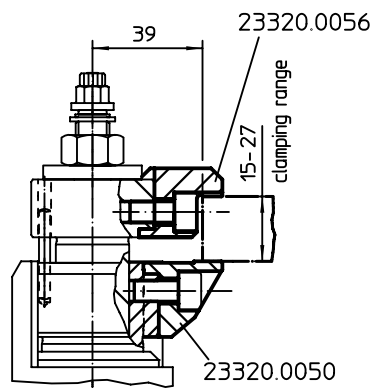
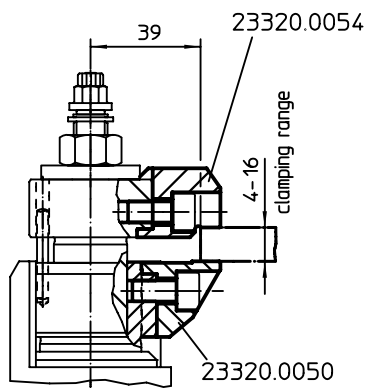
Clamping range max. in combination with 23320.0050 [mm]	Clamping range max. in combination with 23320.0148 [mm]	 [g]	Art. No.
upper exchange clamping jaw – picture 1			
4 – 16	–	91	23320.0054
upper exchange clamping jaw – picture 2			
15 – 27	–	88	23320.0056
upper exchange clamping jaw – picture 3			
26 – 38	–	130	23320.0058
upper clamping jaw with location hole – picture 4			
29	23	83	23320.0154
upper clamping jaw with location hole – picture 5			
40	34	112	23320.0156
lower clamping jaw with flat-faced ball and pivot function, plain surface, protected against rotating – picture 6			
–	–	98	23320.0148

APPLICATION EXAMPLE



e.g. Ball-Ended Thrust Screw (EH 22720.)





Floating Clamps • combined clamping and locking M 16

EH 23320.



PRODUCT DESCRIPTION

The floating clamp is used to **clamp and support** additional clamping points on components.

The benefits of the floating clamp are:

- Especially suitable for large workpieces with heavy machining
- Avoids vibration during the processing
- Clamps ribs, beads and shackles to reinforce clamped components
- Distortion-free clamping of raw parts

Material

Adjustable body

- Aluminium, red anodised

Body

- Case-hardened steel, nitrided, manganese phosphated and ground

Clamping jaws

- Case-hardened steel, nitrided, manganese phosphated

Assembly

1. Mount the floating clamp (M 16 connection thread) onto the device with a wrench (WS 55).
2. Adjust the height limit stop and the rotating area with the red sleeve and clamp with a set screw (3 x WS 3). When setting the height limit, consider tolerance of workpiece.

Operation

1. Push the floating clamp downwards.

2. Pivot the clamping jaws in as far as possible. The floating clamp contacts the bottom of the workpiece with a low spring load.
3. Tighten the floating clamp with a hexagonal nut (WS 24) having a min. torque of 50 Nm and a maximum torque of 115 Nm. **In the clamping process, the workpiece is clamped and simultaneously supported.**
4. Releasing is done in reverse order.

MORE INFORMATION

Accessories

For custom clamping situation, the standard upper clamping jaw supplied can be replaced by the exchange clamping jaws (23320.0062 / .0064 / .0066).

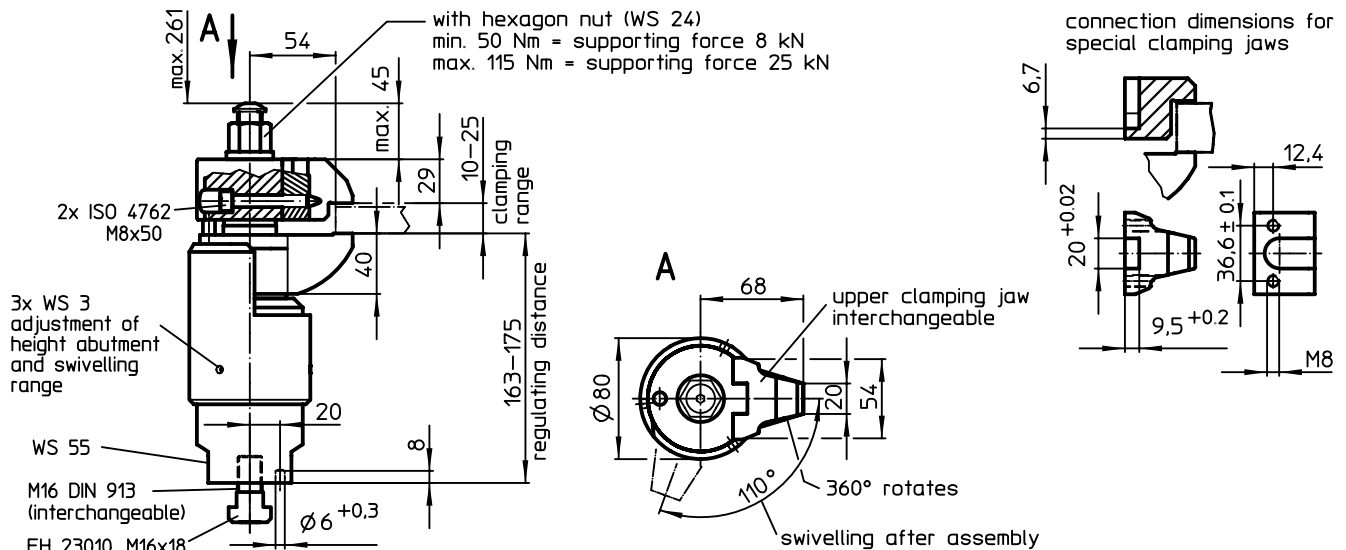
Further products

Clamping Jaws, for floating clamp

M 16. → p. 497

Wrenches → p. 786

DRAWING

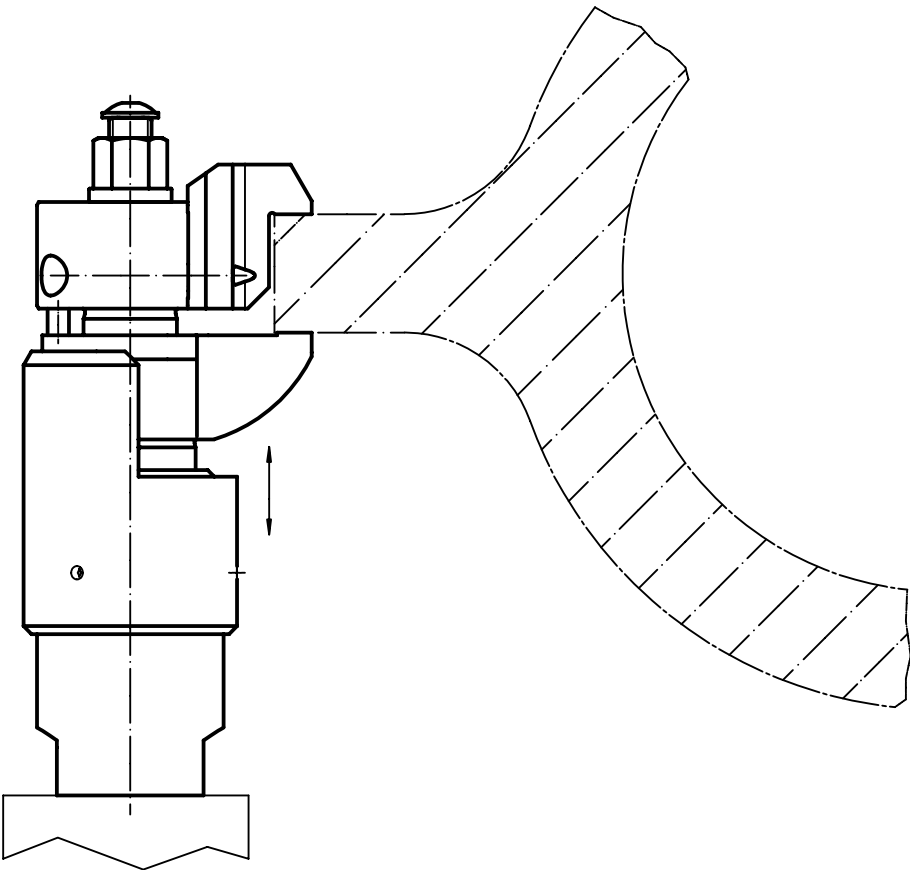


ORDER INFORMATION

	Art. No.
[g]	
6597	23320.0016

APPLICATION EXAMPLE

3



Clamping Jaws • for floating clamp M 16

EH 23320.

3



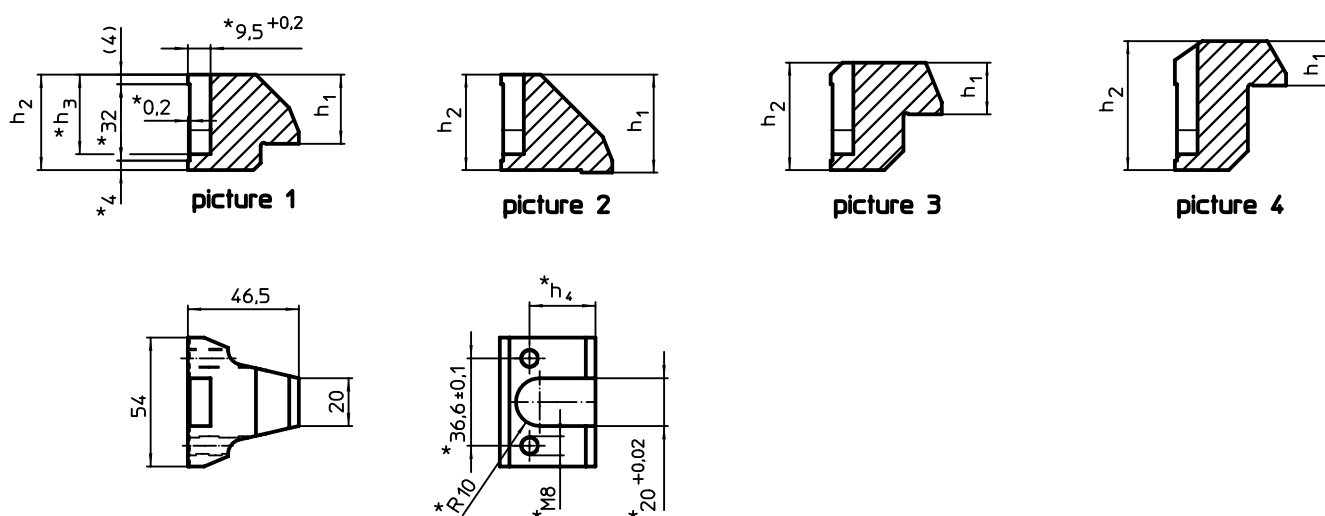
PRODUCT DESCRIPTION

The clamping jaws can be used for the floating clamp 23320.0016 to increase or decrease the clamping range.

Material

- Case-hardened steel, nitrided, manganese phosphated

DRAWING



* Specifications and material of especially designed jaws have to be taken into consideration.

ORDER INFORMATION

Clamping range	Dimensions					Art. No.
[mm]	h_1	h_2	h_3	h_4		
			[mm]		[g]	
upper standard clamping jaw – picture 1						
10 – 25	29.0	40	33.3	27.6	402	23320.0060
upper exchange clamping jaw – picture 2						
0 – 14	41.0	40	33.3	27.6	380	23320.0062
upper exchange clamping jaw – picture 3						
23 – 38	21.6	45	38.3	32.6	435	23320.0064
upper exchange clamping jaw – picture 4						
35 – 50	18.6	54	47.3	41.6	500	23320.0066

APPLICATION EXAMPLE

