PASS | STANZTECHNIK AG

TRUMPF

THICK TURRET

SALVAGNINI

OPERATION MANUAL 05/2024-WW

MULTITOOL

THANK YOU VERY MUCH,

for purchasing our multitool system TRUMPF, produced by PASS Stanztechnik AG.

It is our utmost intention to guarantee you a long-term service with your new PASS multitool.
Therefore, we have prepared a detailed operation manual for you including notes on technology requirements, application area, installation, drawing and parts list as well as cleaning and care.

Please feel free to contact us in any case of questions.

Yours

PASS Stanztechnik AG

SAFETY

ps:®MT5 FOR PUNCHING

ps:®easy-type

ps:®MT10 FOR PUNCHING

ps:®MT10 FOR EMBOSSING

SAFETY
MULTITOOL

A. WARRANTY AND LIABILITY

Before using the tools for the first time, it is recommended to read this operation manual carefully, as PASS Stanztechnik AG does not assume any liability for damages and malfunctions resulting from non-observance of this operation manual.

Please contact us by email if you require further information: sales@pass-ag.com.

Basically, the „General Terms and Conditions of Delivery and Payment“ of PASS Stanztechnik AG are to be obtained. These will be made available to the operator at the latest when the contract is concluded. Warranty and liability claims concerning personal injury and damage to property are excluded if they are due to one or more of the following causes:

- improper use of the tool
- improper assembly, disassembly and maintenance
- non-compliance with the instructions in the operation manual
- inadequate control of tools or tool parts subject to wear and non-observance of the prescribed maintenance intervals
- improperly performed repairs
- disasters caused by foreign objects and force majeure

Furthermore, when using tools from PASS Stanztechnik AG, the standards, regulations and laws applicable in the respective country must be observed.

B. GENERAL SAFETY INSTRUCTIONS

Risk of cuts and bruises!

Working without approved protective work clothing can result in cuts and bruises.

Therefore, always wear suitable protective clothing such as work shoes and work gloves to avoid injuries.

Danger of ejected metal shavings!

When grinding tools, there is an increased risk of injury from flying metal chips.

Always wear safety goggles when working to prevent eye injury.

NOTES

ps:®MT5 FOR PUNCHING
MULTITOOL

A. TECHNOLOGY REQUIREMENTS

Machines

Usable for machine group I:

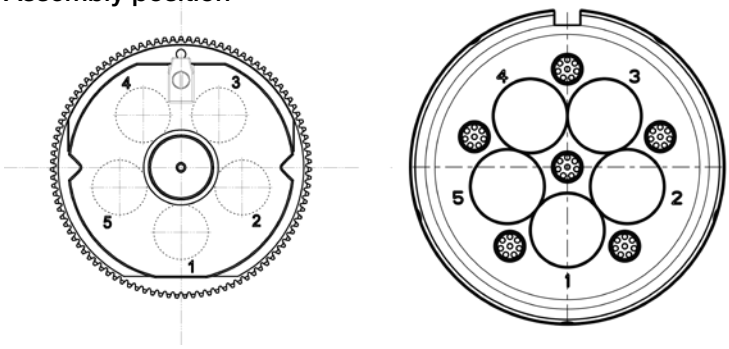
- TruPunch 1000/2000/2020/3000/5000
- TruMatic 1000/3000/6000/7000

B. APPLICATION AREA

- sheet material: aluminium / steel / stainless steel
- sheet thickness:
  - active stripper: aluminium and steel up to s = 4,5 mm, stainless steel up to s = 3,0 mm
  - passive stripper: aluminium and steel up to s = 4,0 mm, stainless steel up to s = 3,0 mm
  - passive stripper for low-scratch material handling: aluminium, steel and stainless steel up to s = 3,0 mm
- max. diameter: 16,0 mm
- max. permissible punching force: 57 kN

C. INSTALLATION

Assembly position



Note

NOTE

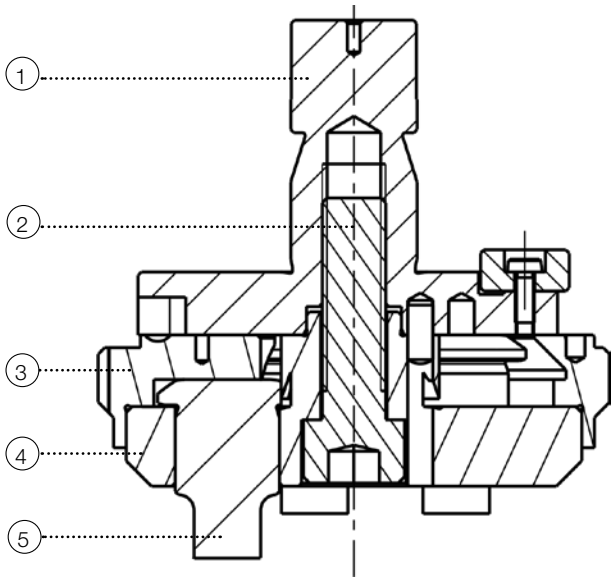
Observe the initial position!

When installing into the cassette, the punch holder always has to be set so that the punch at station 1 is active.

Adjustment

- tool length: 45,2 mm
- arrangement of punches on a hole circle: 40,0 mm
- offset dimension of the active punch according to centre point (C = 0°)
  - in X-direction: 0 mm
  - in Y-direction: 20,0 mm
- die height: 30,0 mm
- stripper plunge depth: 21,0 mm

Assembly of punch holder



1. Shaft
2. Screw
3. Gear ring
4. Base body
5. Punch

- open the shaft by loosening the screw
- remove the gear ring and the base body
- remove the punch
- clean gear ring, shaft and base body and grease the sliding surfaces
- install the punch into the base body (note tool position!)
- place the gear ring onto the base body
- put on the shaft and thighten the screw with 20 Nm
- check the gear ring by hand for ease of movement of the punches

Assembly of die holder

- loosen the pin in the die holder
- change dies (after regrinding dies, use shims accordingly)
- tighten the pin in the die holder (make sure that the ball is between the pin and the die)

CAUTION

Check the correct position of the punches and dies!

Otherwise, machine or tool damage can occur!

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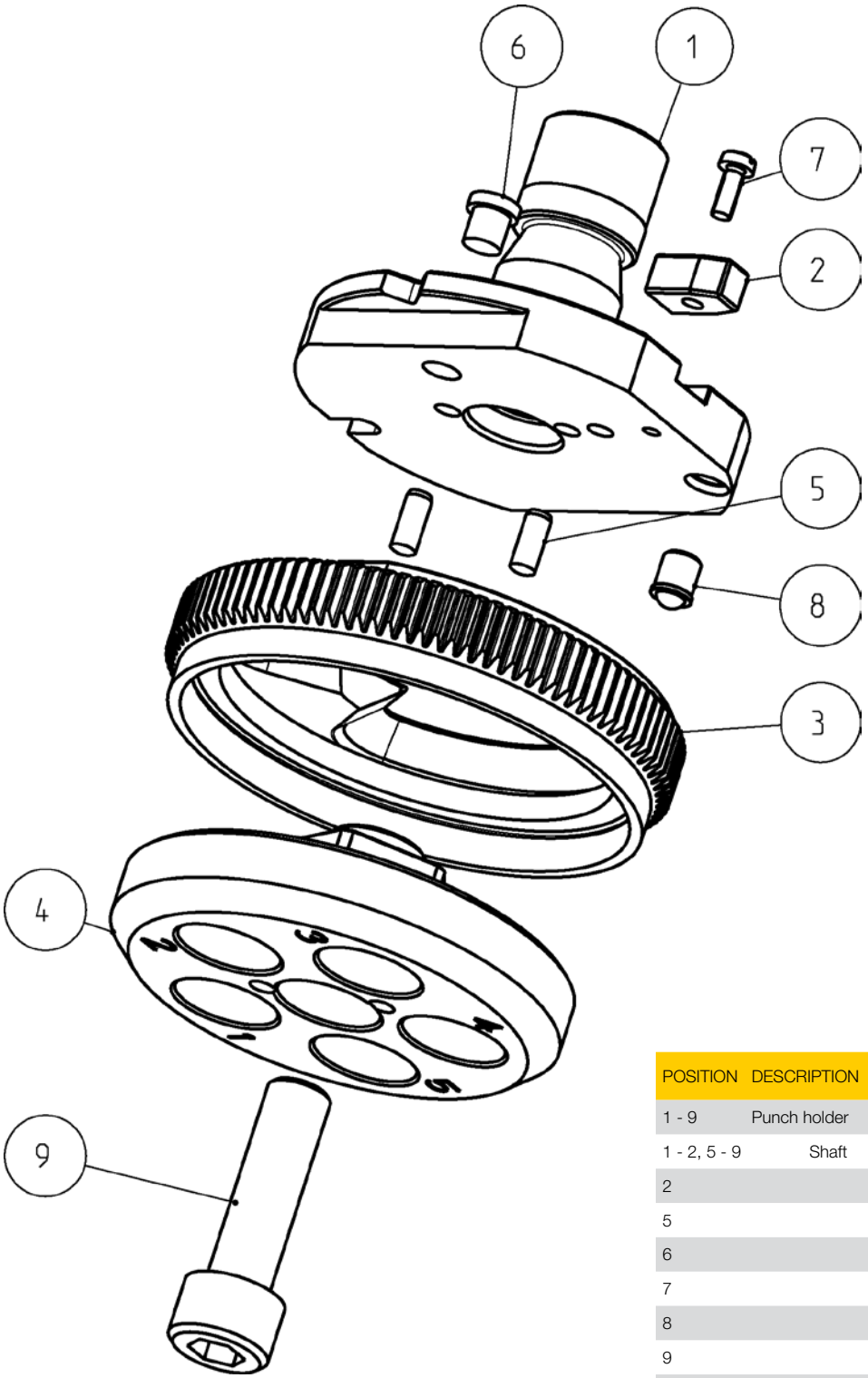
MULTITOOL

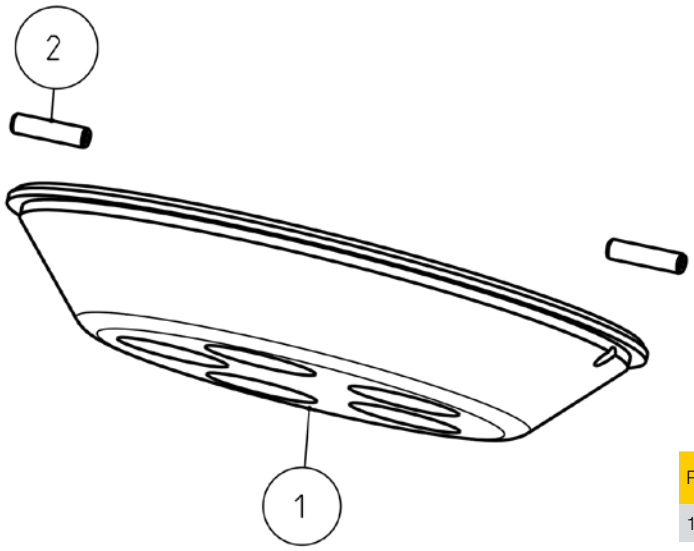
D. DRAWING AND PARTS LIST

Punch holder



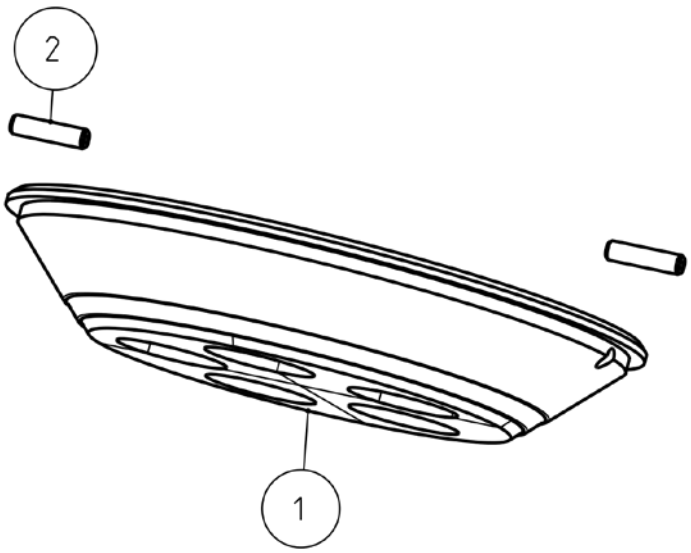
POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 9	Punch holder	1	113S30
1 - 2, 5 - 9	Shaft	1	113S31
2	Adjusting key	1	113S31-2
5	Pin	2	113S31-5
6	Lubrication nipple	1	113S31-6
7	Screw	1	113S31-7
8	Ball plunger	1	113S31-8
9	Screw	1	113S31-9
3	Gear ring	1	113S32
4	Base body	1	113S33

Stripper round 17



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 2	Stripper round 17	1	115A30
2	Pin	2	115A30-2

Stripper with PU surface round 17



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 2	Stripper with PU surface round 17	1	115PU30
2	Pin	2	115A30-2

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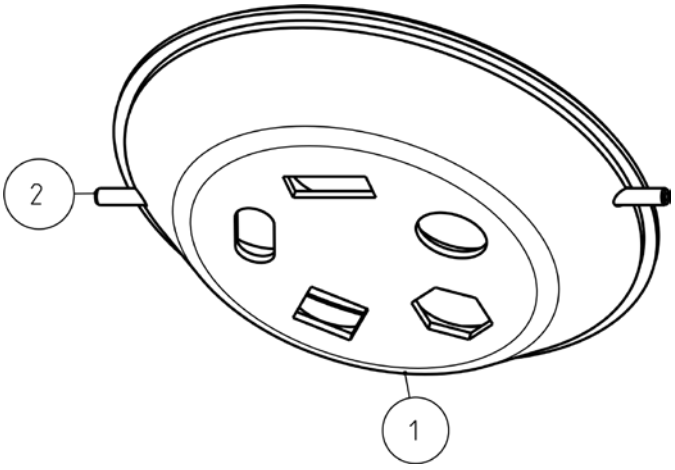
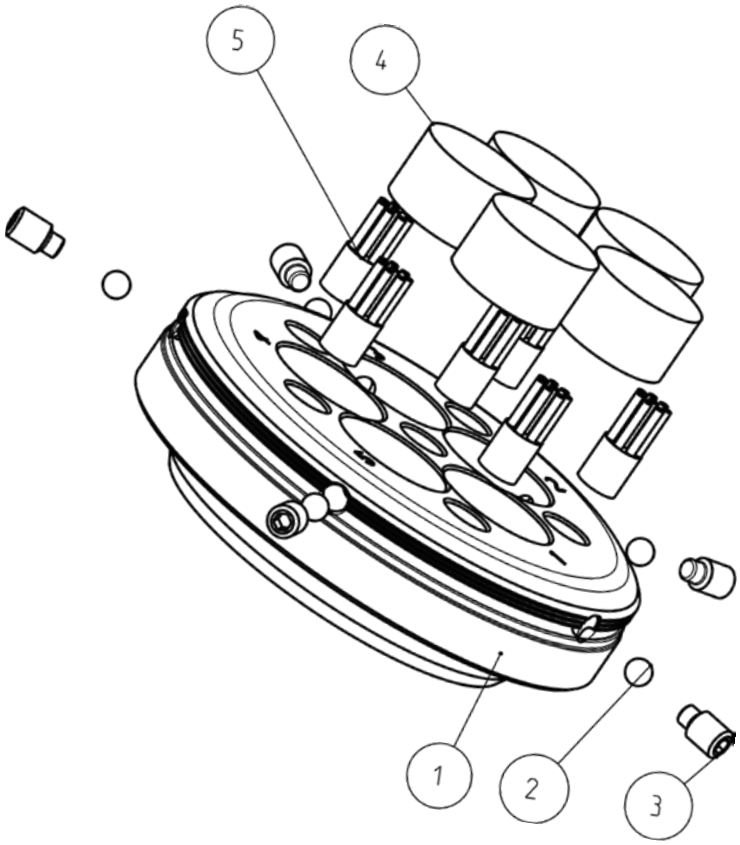
Stripper with customized shape



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 2	Stripper with customized shape	1	115B30
2	Pin	2	115A30-2

Die holder



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 5	Die holder	1	114Z30
2	Ball	5	114Z30-2
3	Pin	5	114Z30-3
4	Handling aid	5	114Z30-4
5	Brush	6	114Z30-5

ACCESSORIES	INSTALLED PIECES	PART-NO. (PER PIECE)
Set shims (2x t = 0,1 / 2x t = 0,3 / 2x t = 0,5)	1	114U3M

E. CLEANING & CARE

We recommend to check and if necessary to clean the tool daily. Especially when you work with galvanised steel, periodic visual inspections for wear and tear should be made more frequently. Sharpening or grinding the material in time increases the tool life enormously.

NOTE

Carry out periodic (daily) visual inspections and clean the tool if necessary!

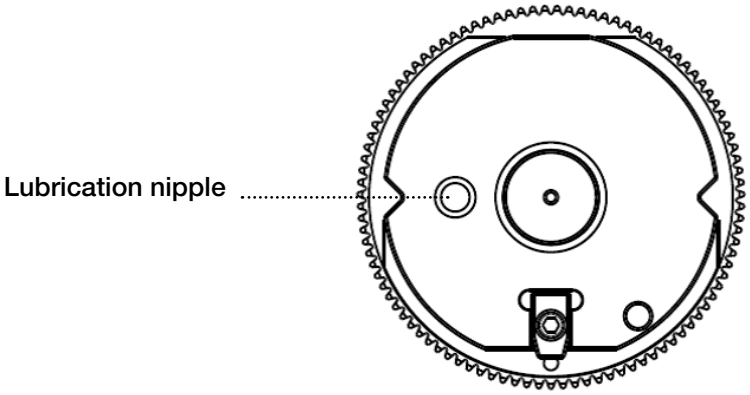
Especially when soft and galvanised or foil-coated sheets are processed, abrasion of material, zinc or foils can get into the tool and can lead to a damage of the tool!

Regrinding

- max. regrinding length of the punches: 0,5 mm
- max. regrinding length of the dies: 1,0 mm
- after regrinding the die, install it with the appropriate shim (0,1 mm / 0,3 mm / 0,5 mm)

Lubrication

- lubricate the punch holder daily or more often (lubricating nipple on the punch holder)
- recommended grease: Molykote OKS 400



ps:®easy-type
MULTITOOL

A. TECHNOLOGY REQUIREMENTS

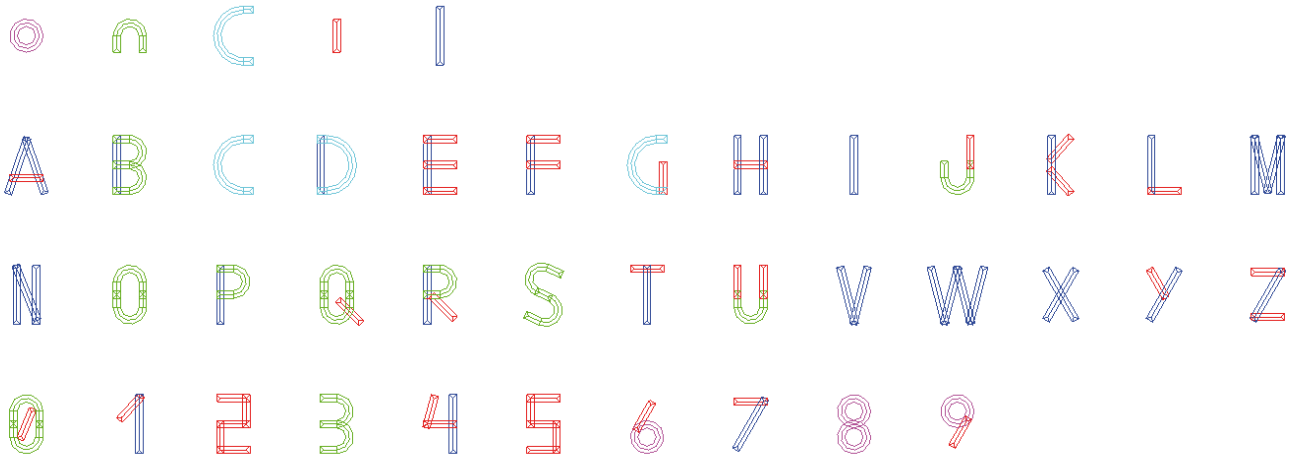
Machines

Usable for machine group I:

- TruPunch 1000/2000/2020/3000/5000
- TruMatic 1000/3000/6000/7000

B. APPLICATION AREA

With the **ps:®easy-type** numbers and letters can be embossed into the sheet metal by lining up embossing segments. Therefore, the inserts must be created according to tool type 14 in TruTops. A correction of the punching depth is made by the UT-offset in PTT tab.



- sheet material: aluminium / steel / stainless steel
- sheet thickness: 0,5 up to 8,0 mm

NOTE

Attention for material thicknesses s < 1,0 mm!

For sheet thicknesses below 1,0 mm, an UT-offset of + 0,1 up to + 0,2 mm must be entered in the PTT tab.

- direction of embossing: from above
- font sizes: 4, 5, 6, 8 or 10 mm possible
- embossing depth: max. 0,5 mm

Note

NOTE

Make sure to use adaptive stroke calibration!

Adaptive stroke calibration must be used to compensate for sheet tolerances in order to ensure a constant embossing depth.

C. INSTALLATION

Assembly position

Punch view from below

Note

NOTE

Observe the initial position!

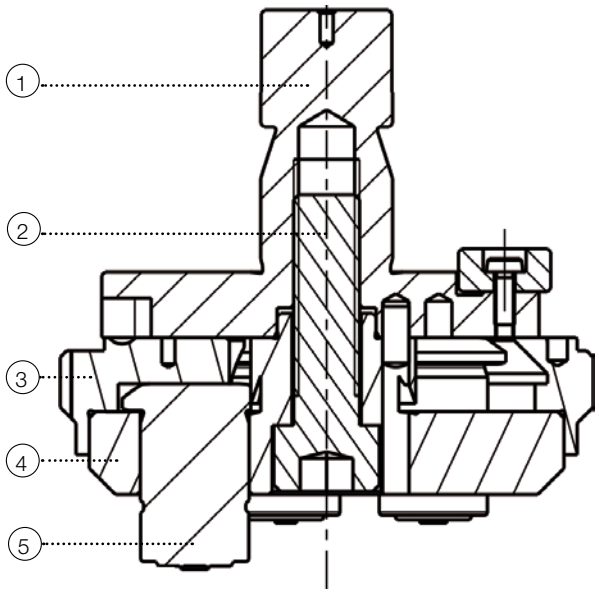
When installing into the cassette, the punch holder always has to be set so that the punch at station 1 is active.

Adjustment

- tool length: 45,2 mm
- arrangement of punches on a hole circle: 40,0 mm
- offset dimension of the active punch according to centre point (C = 0°)
  - in X-direction: 0 mm
  - in Y-direction: 20,0 mm
- die height: 30,0 mm
- stroke type: punch without support position / stroke type 1
- stripper plunge depth: 21,0 mm
- tool type: embossing (type 14)

ps:®easy-type
MULTITOOL

Assembly of punch holder



1. Shaft
2. Screw
3. Gear ring
4. Base body
5. Punch insert

- open the shaft by loosening the screw
- remove the gear ring and the base body
- remove the punch
- clean gear ring, shaft and base body and grease the sliding surfaces
- install the punch into the base body (note tool position!)
- place the gear ring onto the base body
- put on the shaft and thighten the screw with 20 Nm
- check the gear ring by hand for ease of movement of the punches

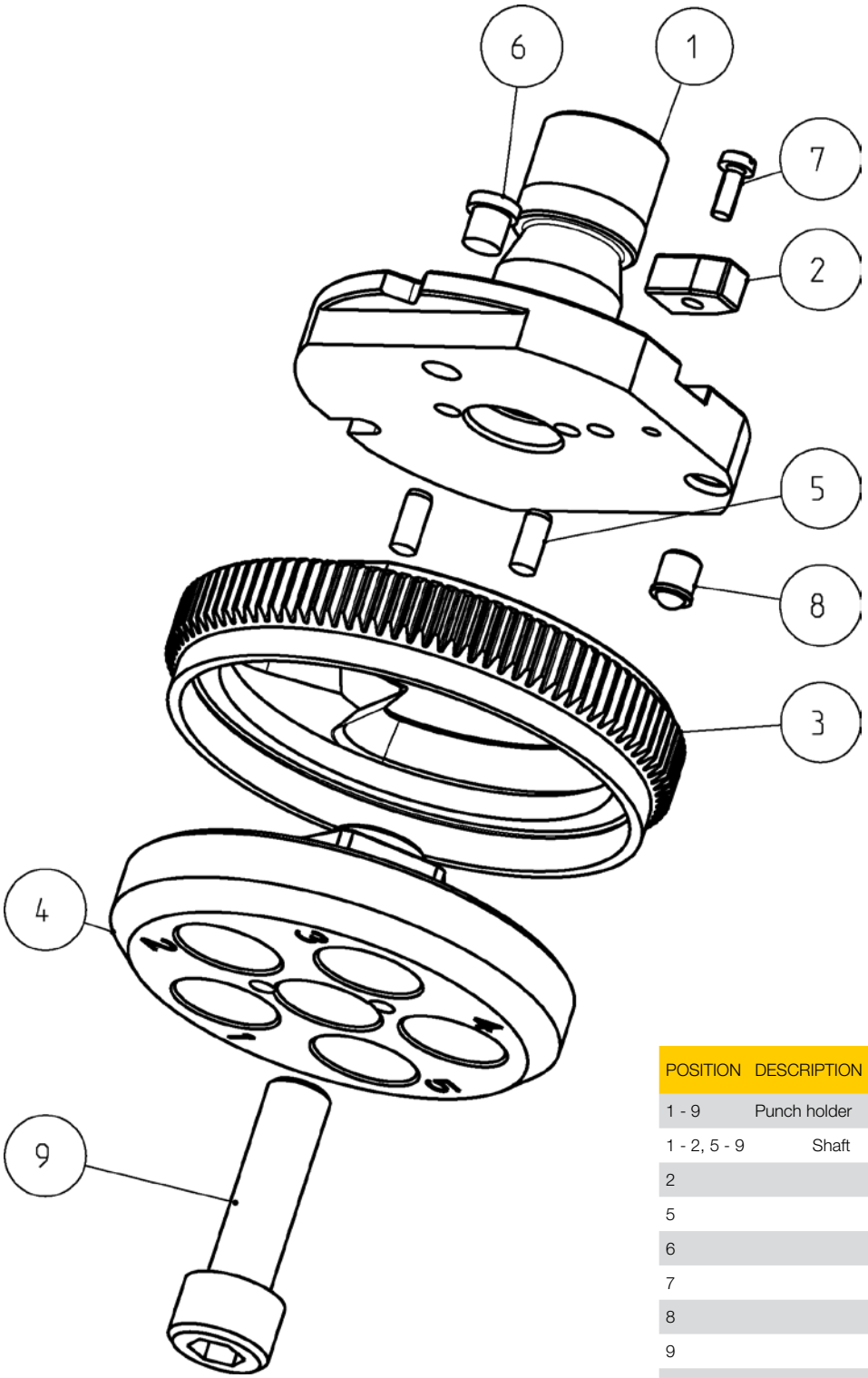
CAUTION

Check the correct position of the punches!

Otherwise, machine or tool damage can occur!

D. DRAWING AND PARTS LIST

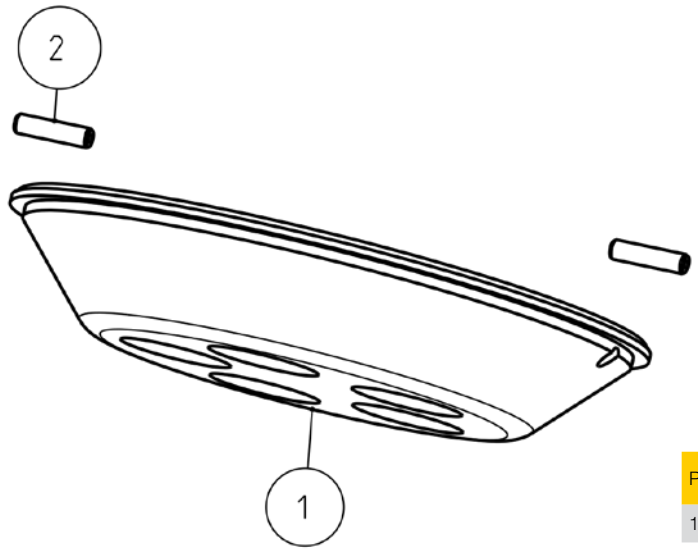
Punch holder



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 9	Punch holder	1	113S30
1 - 2, 5 - 9	Shaft	1	113S31
2	Adjusting key	1	113S31-2
5	Pin	2	113S31-5
6	Lubrication nipple	1	113S31-6
7	Screw	1	113S31-7
8	Ball plunger	1	113S31-8
9	Screw	1	113S31-9
3	Gear ring	1	113S32
4	Base body	1	113S33

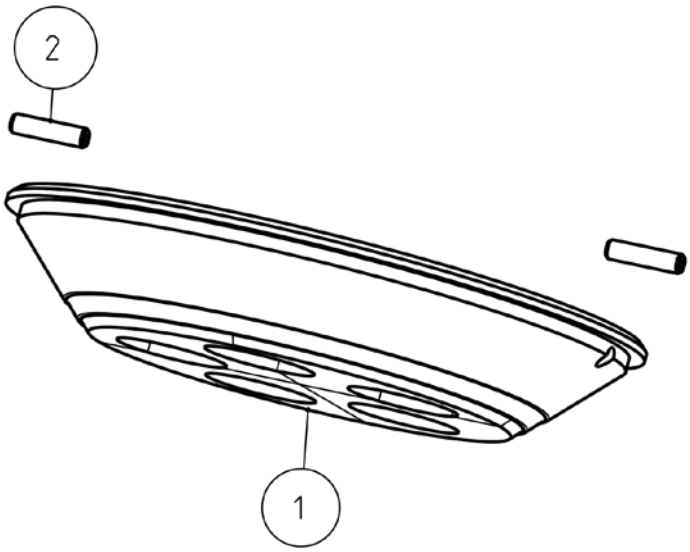
ps:®easy-type
MULTITOOL

Stripper round 17



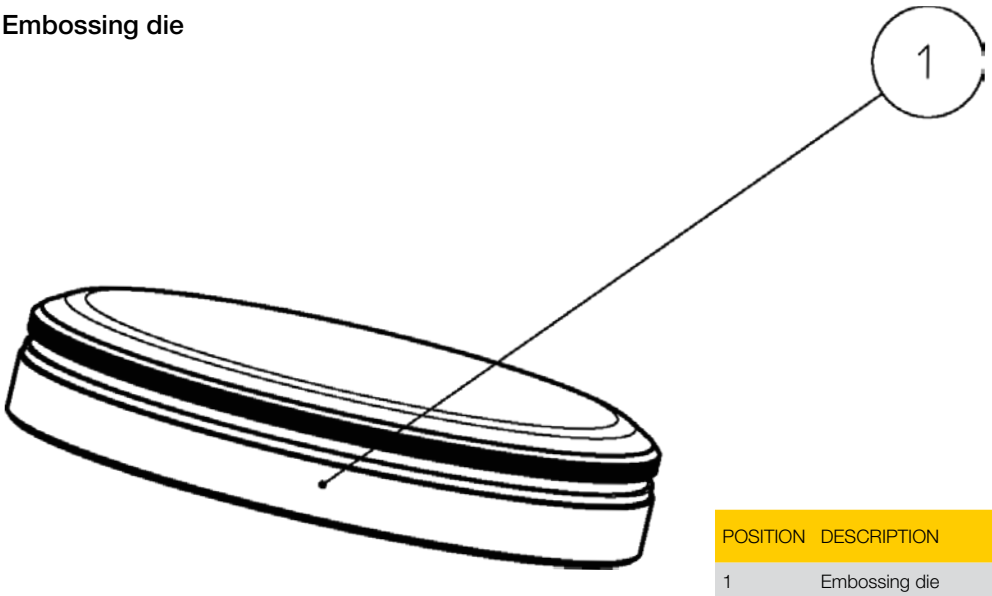
POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 2	Stripper round 17	1	115A30
2	Pin	2	115A30-2

Stripper with PU surface round 17



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 2	Stripper with PU surface round 17	1	115PU30
2	Pin	2	115A30-2

Embossing die



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1	Embossing die	1	113PM10

E. CLEANING & CARE

We recommend to check and if necessary to clean the tool daily. Especially when you work with galvanised steel, periodic visual inspections for wear and tear should be made more frequently. Sharpening or grinding the material in time increases the tool life enormously.

NOTE

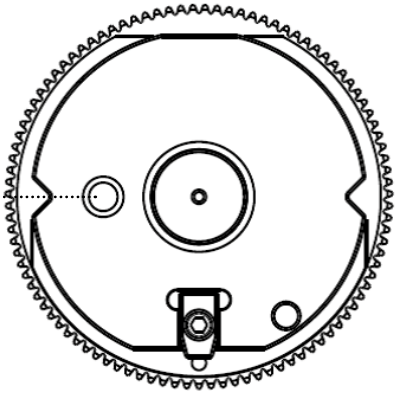
Carry out periodic (daily) visual inspections and clean the tool if necessary!

Especially when soft and galvanised or foil-coated sheets are processed, abrasion of material, zinc or foils can get into the tool and can lead to a damage of the tool!

Lubrication

- lubricate the punch holder daily or more often (lubricating nipple on the punch holder)
- recommended grease: Molykote OKS 400

Lubrication nipple



ps:®MT10 FOR PUNCHING
MULTITOOL

A. TECHNOLOGY REQUIREMENTS

Machines

Usable for machine group I:

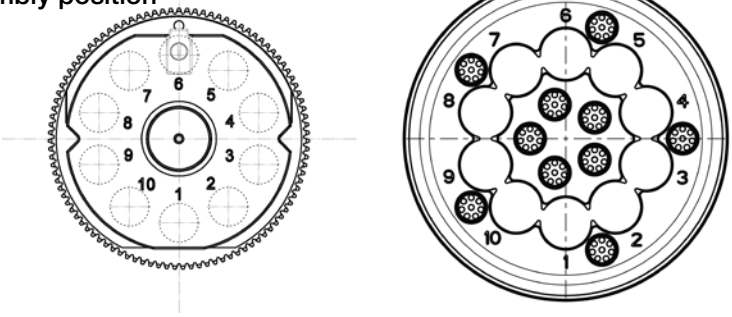
- TruPunch 1000/2000/2020/3000/5000
- TruMatic 1000/3000/6000/7000

B. APPLICATION AREA

- sheet material: aluminium / steel / stainless steel
- sheet thickness:
  - active stripper: aluminium and steel up to s = 4,5 mm, stainless steel up to s = 3,0 mm
  - passive stripper: aluminium and steel up to s = 4,0 mm, stainless steel up to s = 3,0 mm
  - passive stripper for low-scratch material handling: aluminium, steel and stainless steel up to s = 3,0 mm
- max. diameter: 10,5 mm
- max. diameter at sheet thickness 4,5 mm: 10,0 mm
- max. permissible punching force: 57 kN

C. INSTALLATION

Assembly position



NOTE

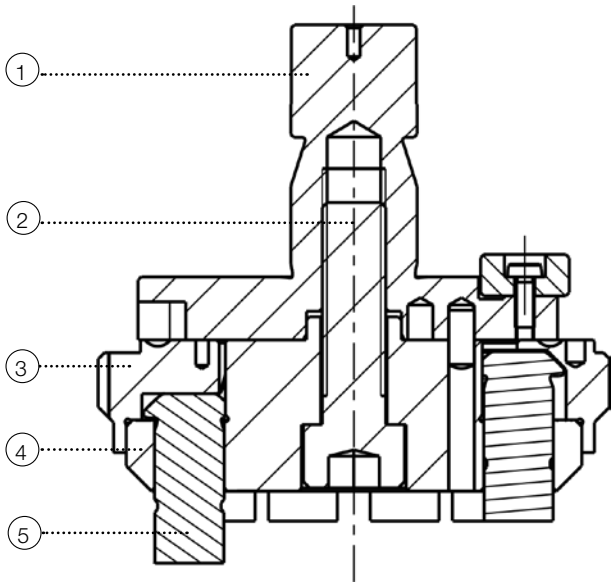
Observe the initial position!

When installing into the cassette, the punch holder always has to be set so that the punch at station 1 is active.

Adjustment

- tool length: 45,2 mm
- arrangement of punches on a hole circle: 52,0 mm
- offset dimension of the active punch according to centre point (C = 0°)
  - in X-direction: 0 mm
  - in Y-direction: 26,0 mm
- die height: 30,0 mm
- stripper plunge depth: 21,0 mm

Assembly of punch holder



1. Shaft
2. Screw
3. Gear ring
4. Base body
5. Punch

- open the shaft by loosening the screw
- remove the gear ring and the base body
- remove the punch
- clean gear ring, shaft and base body and grease the sliding surfaces
- install the punch into the base body (note tool position!)
- place the gear ring onto the base body
- put on the shaft and thighten the screw with 20 Nm
- check the gear ring by hand for ease of movement of the punches

Assembly of die holder

- loosen the pin in the die holder
- change dies (after regrinding dies, use shims accordingly)
- tighten the pin in the die holder (make sure that the ball is between the pin and the die)

CAUTION

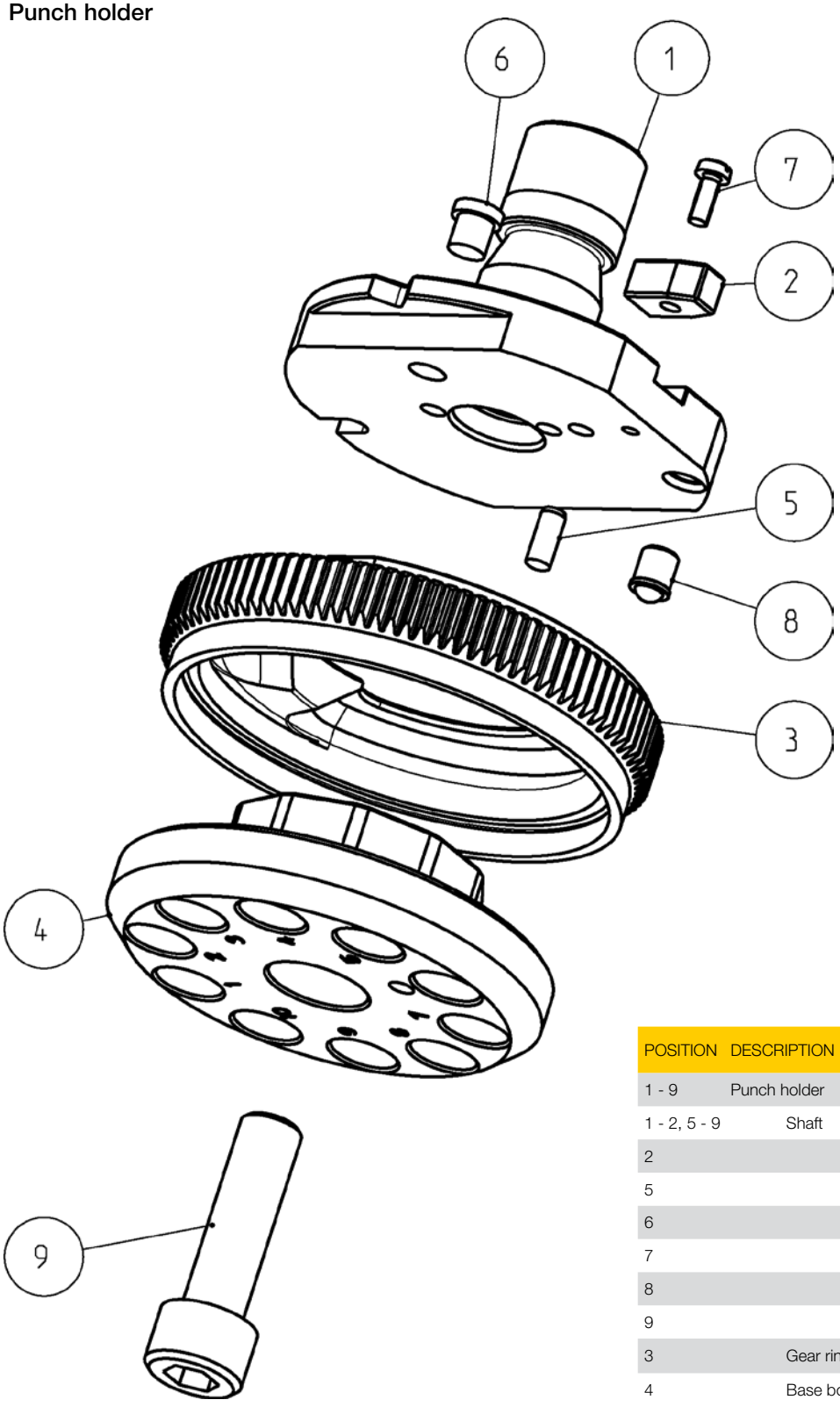
Check the correct position of the punches and dies!

Otherwise, machine or tool damage can occur!

ps:®MT10 FOR PUNCHING
MULTITOOL

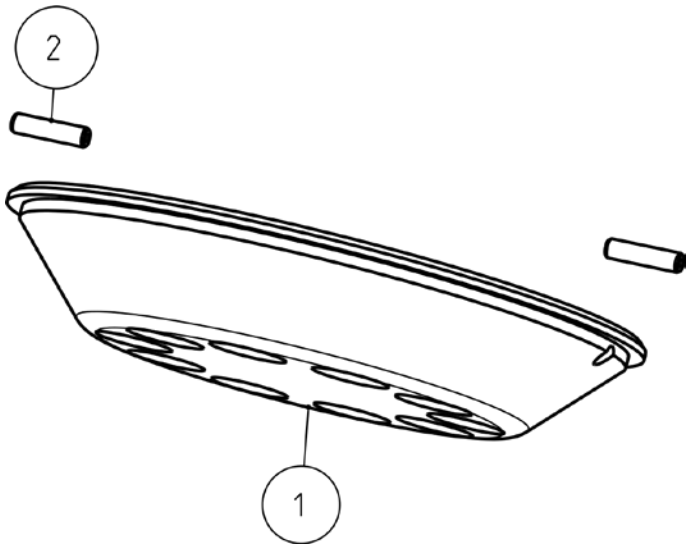
D. DRAWING AND PARTS LIST

Punch holder



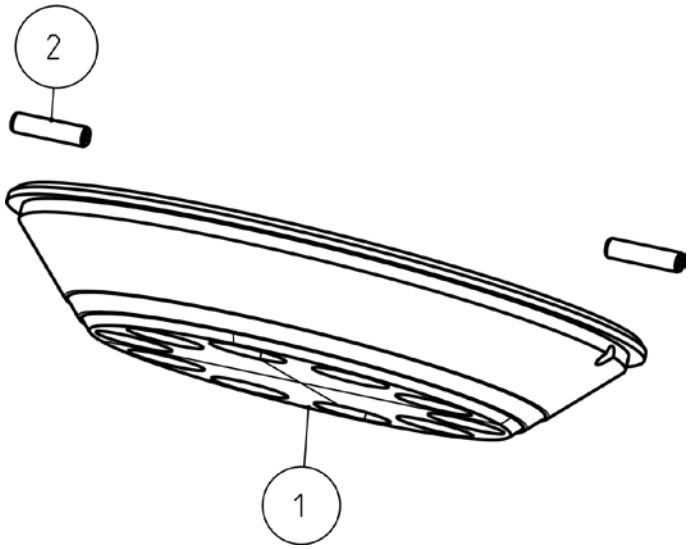
POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 9	Punch holder	1	113S40
1 - 2, 5 - 9	Shaft	1	113S41
2	Adjusting key	1	113S41-2
5	Pin	1	113S41-5
6	Lubrication nipple	1	113S41-6
7	Screw	1	113S41-7
8	Ball plunger	1	113S41-8
9	Screw	1	113S41-9
3	Gear ring	1	113S42
4	Base body	1	113S43

Stripper round 12



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 2	Stripper round 12	1	115A40
2	Pin	2	115A40-2

Stripper with PU surface round 12



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 2	Stripper with PU surface round 12	1	115PU40
2	Pin	2	115A40-2

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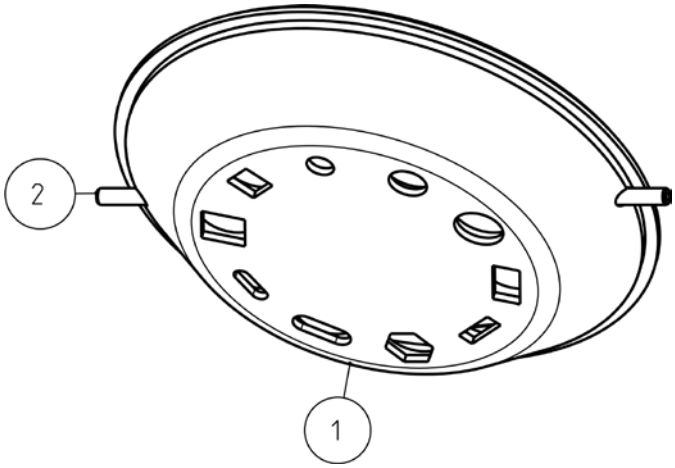
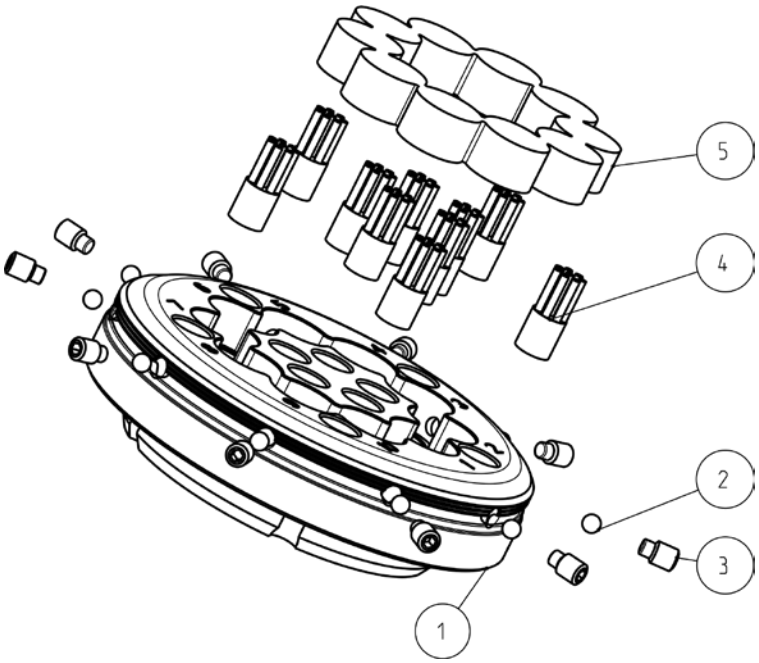
Stripper with customized shape



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 2	Stripper with customized shape	1	115B40
2	Pin	2	115A40-2

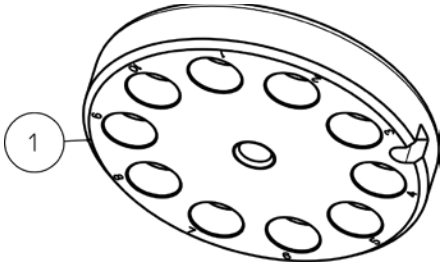
Die holder



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 5	Die holder	1	114Z40
2	Ball	10	114Z40-2
3	Pin	10	114Z40-3
4	Brush	10	114Z40-4
5	Handling aid	1	114Z40-5

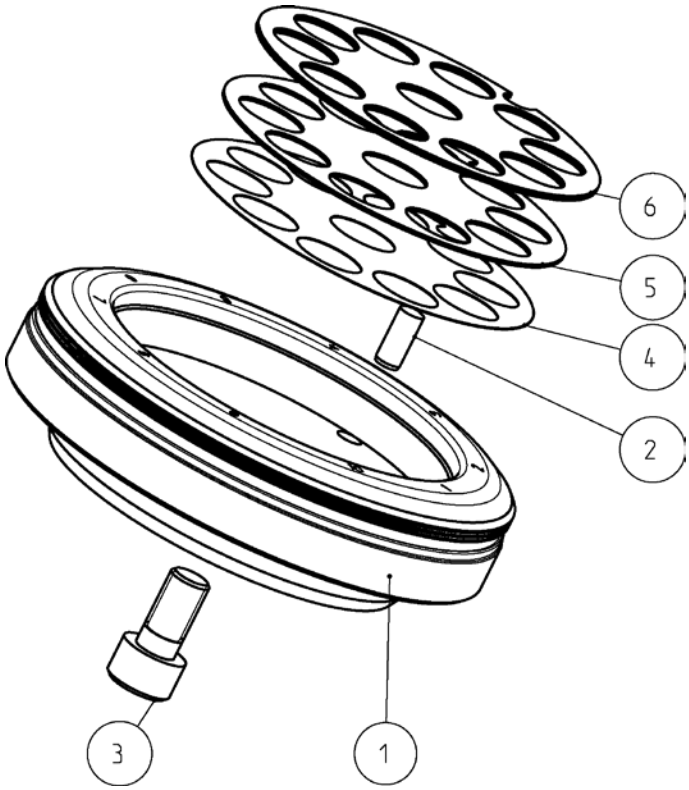
ACCESSORIES	INSTALLED PIECES	PART-NO. (PER PIECE)
Set shims (2x t = 0,1 / 2x t = 0,3 / 2x t = 0,5)	1	114U4M

Cutting die



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1	Cutting die	1	114941

Cutting die holder



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 6	Cutting die holder	1	114640
2	Pin	1	114640-2
3	Screw	1	114640-3
4 - 6	Set shims (2x t = 0,1 / 2x t = 0,3 / 2x t = 0,5)	1	114U4MG

ps:®MT10 FOR PUNCHING
MULTITOOL

E. CLEANING & CARE

We recommend to check and if necessary to clean the tool daily. Especially when you work with galvanised steel, periodic visual inspections for wear and tear should be made more frequently. Sharpening or grinding the material in time increases the tool life enormously.

NOTE

Carry out periodic (daily) visual inspections and clean the tool if necessary!

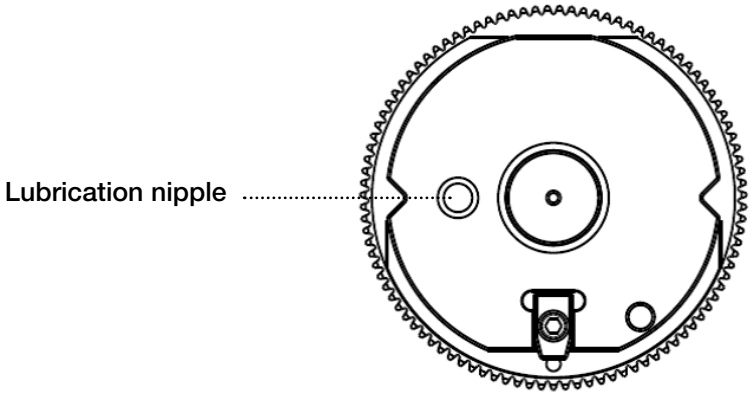
Especially when soft and galvanised or foil-coated sheets are processed, abrasion of material, zinc or foils can get into the tool and can lead to a damage of the tool!

Regrinding

- max. regrinding length of the punches: 0,5 mm
- max. regrinding length of the dies: 1,0 mm
- after regrinding the die, install it with the appropriate shim (0,1 mm / 0,3 mm / 0,5 mm)

Lubrication

- lubricate the punch holder daily or more often (lubricating nipple on the punch holder)
- recommended grease: Molykote OKS 400



NOTES

ps:®MT10 FOR EMBOSSING
MULTITOOL

A. TECHNOLOGY REQUIREMENTS

Machines

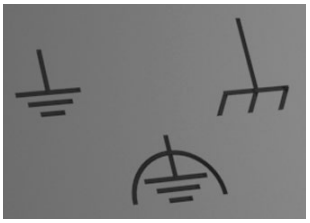
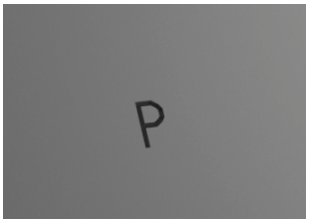
Usable for machine group I:

- TruPunch 1000/2000/2020/3000/5000
- TruMatic 1000/3000/6000/7000

B. APPLICATION AREA

The **ps:®MT10** can also be used for embossings (e.g. numbers, protective conductor symbol, etc.) Therefore, the inserts must be created according to tool type 14 in the tool database. A correction of the punching depth is made by the UT-offset.

E.g.:

- sheet material: aluminium / steel / stainless steel
- sheet thickness: 0,5 up to 8,0 mm

NOTE

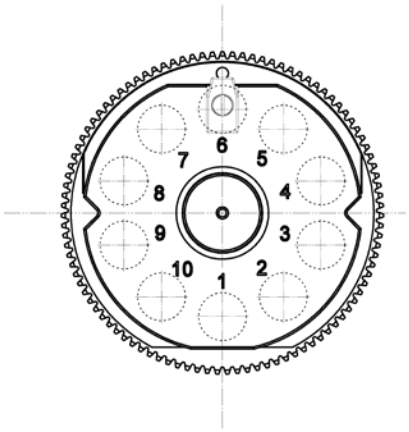
Attention for material thicknesses s < 1,0 mm!

For sheet thicknesses below 1,0 mm, an UT-offset of + 0,1 up to + 0,2 mm must be entered in the PTT tab.

- direction of embossing: from above
- embossing depth: approx. 0,5 mm

C. INSTALLATION

Assembly position



NOTE

Observe the initial position!

When installing into the cassette, the punch holder always has to be set so that the punch at station 1 is active.

Adjustment

- tool length: 45,2 mm
- arrangement of punches on a hole circle: 52,0 mm
- offset dimension of the active punch according to centre point (C = 0°)
  - in X-direction: 0 mm
  - in Y-direction: 26,0 mm
- die height: 30,0 mm
- stroke type: punch without support position / stroke type 1
- stripper plunge depth: 21,0 mm
- tool type: embossing (type 14)

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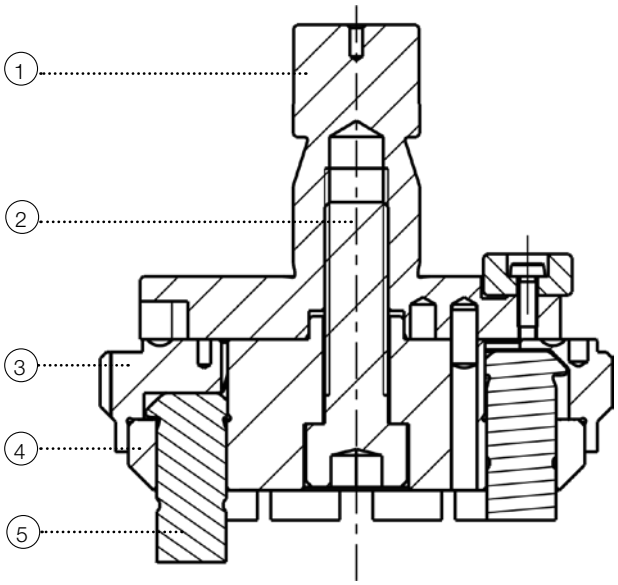
Assembly of punch holder



1. Shaft
2. Screw
3. Gear ring
4. Base body
5. Punch

- open the shaft by loosening the screw
- remove the gear ring and the base body
- remove the punch
- clean gear ring, shaft and base body and grease the sliding surfaces
- install the punch into the base body (note tool position!)
- place the gear ring onto the base body
- put on the shaft and thighten the screw with 20 Nm
- check the gear ring by hand for ease of movement of the punches

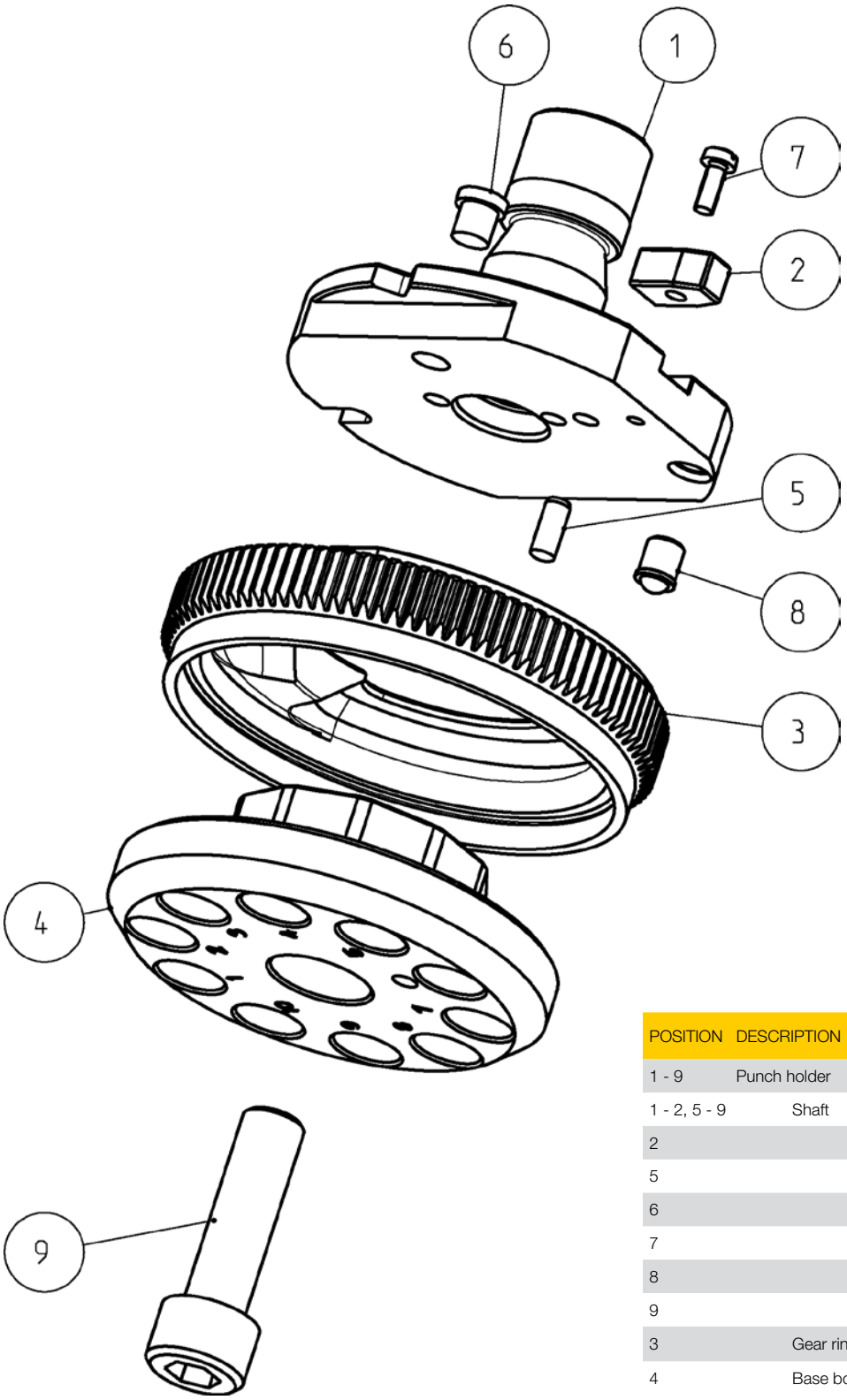
CAUTION

Check the correct position of the punches!

Otherwise, machine or tool damage can occur!

D. DRAWING AND PARTS LIST

Punch holder



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 9	Punch holder	1	113S40
1 - 2, 5 - 9	Shaft	1	113S41
2	Adjusting key	1	113S41-2
5	Pin	1	113S41-5
6	Lubrication nipple	1	113S41-6
7	Screw	1	113S41-7
8	Ball plunger	1	113S41-8
9	Screw	1	113S41-9
3	Gear ring	1	113S42
4	Base body	1	113S43

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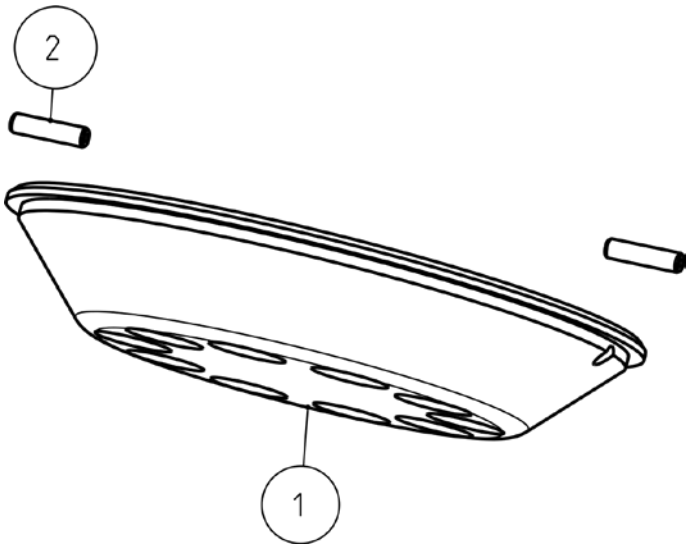
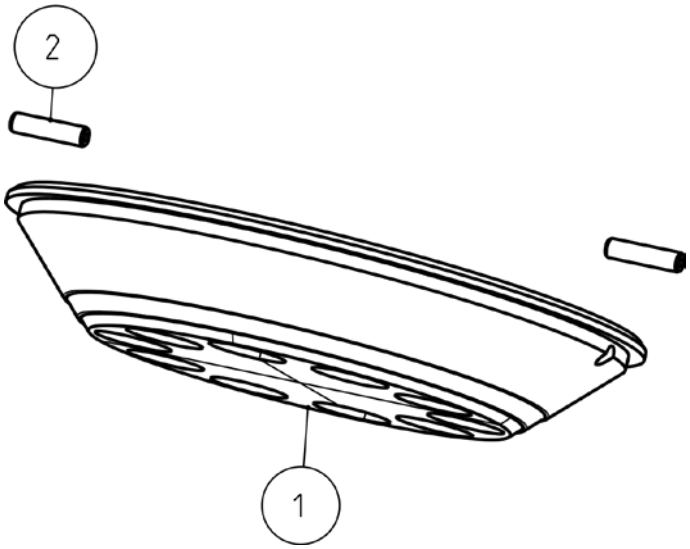
Stripper round 12



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 2	Stripper round 12	1	115A40
2	Pin	2	115A40-2

Stripper with PU surface round 12



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1 - 2	Stripper with PU surface round 12	1	115PU40
2	Pin	2	115A40-2

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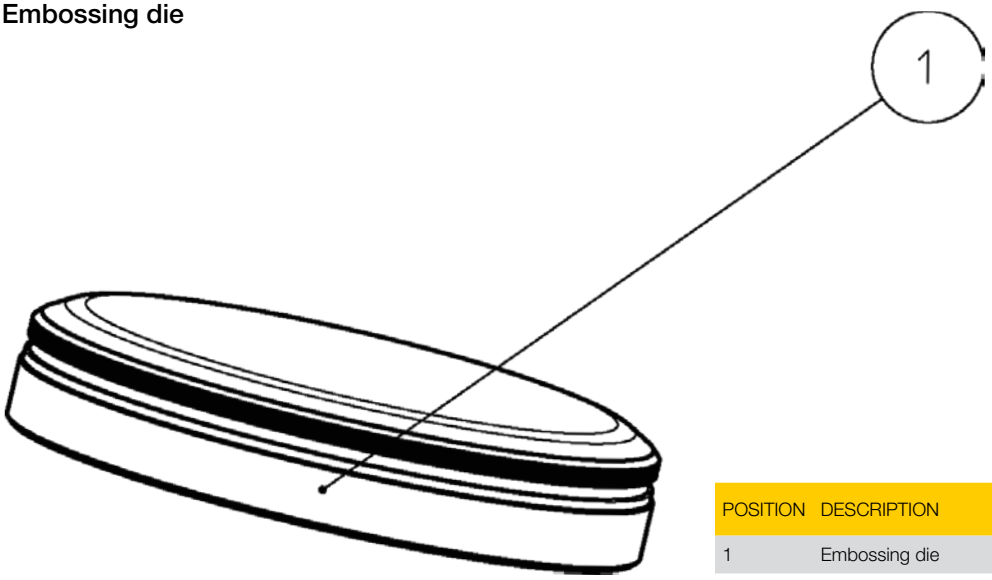
Embossing die



POSITION	DESCRIPTION	INSTALLED PIECES	PART-NO. (PER PIECE)
1	Embossing die	1	113PM10

E. CLEANING & CARE

We recommend to check and if necessary to clean the tool daily. Especially when you work with galvanised steel, periodic visual inspections for wear and tear should be made more frequently. Sharpening or grinding the material in time increases the tool life enormously.

NOTE

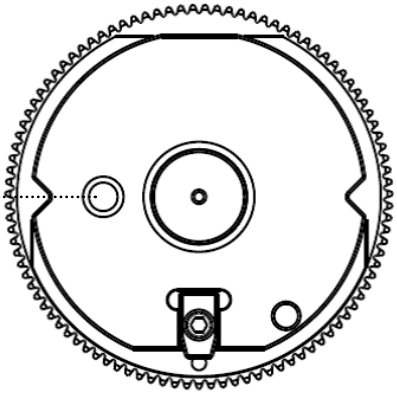
Carry out periodic (daily) visual inspections and clean the tool if necessary!

Especially when soft and galvanised or foil-coated sheets are processed, abrasion of material, zinc or foils can get into the tool and can lead to a damage of the tool!

Lubrication

- lubricate the punch holder daily or more often (lubricating nipple on the punch holder)
- recommended grease: Molykote OKS 400

Lubrication nipple



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Am Steinkreuz 2
95473 Creußen | Germany

WEB: www.pass-ag.com
MAIL: info@pass-ag.com

FON: +49 (0) 92 70 / 9 85 - 0
FAX: +49 (0) 92 70 / 9 85 - 99