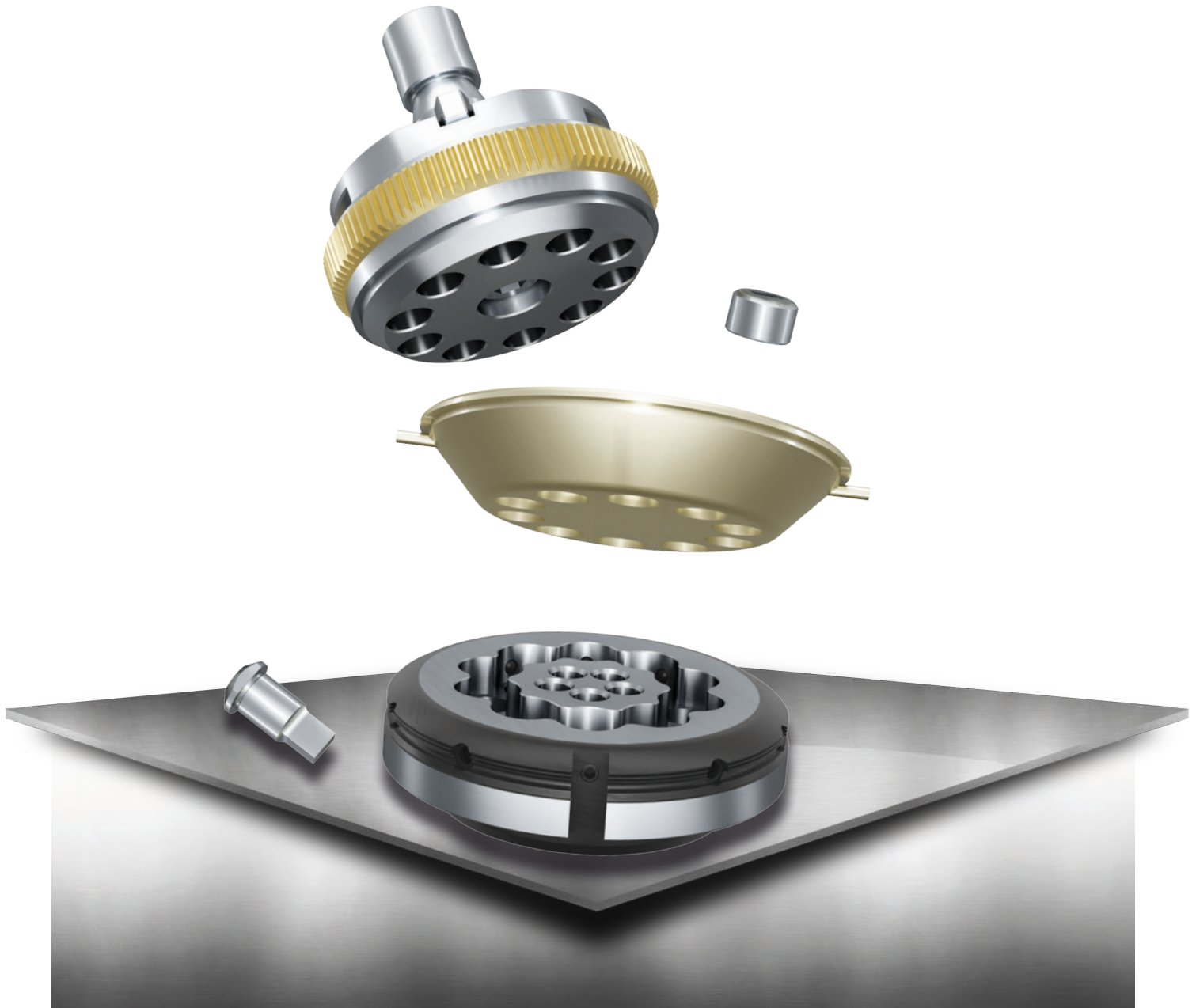




CATALOG 08/2019-VVV-T.1

# SYSTEM TRUMPF



## SCOPE OF APPLICATION:

Deliveries and services provided by PASS Stanztechnik AG are effected exclusively according to PASS delivery and payment conditions. These conditions shall be deemed accepted at the latest upon receipt of the goods or services.

## GENERAL REMARKS:

You can find our general terms and conditions on our Homepage under: [www.pass-ag.com](http://www.pass-ag.com)

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# RE-EXPERIENCE THE STANDARD: STANDARD TOOLS

PASS TOOLS FOR YOUR  
TRUMPF SYSTEM

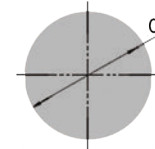
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# PASS STANDARD TOOLS ROUND



	SIZE	DIM. D	PART-NO.
<b>PUNCH (H-PM®)</b>			
	0	1,00 - 6,00	107A01C
	0	6,01 - 10,50 <sup>(1)</sup>	107B01C
	1	1,00 - 30,50	101111C
	2	30,51 - 40,00	101211C
	2	40,01 - 50,80	101221C
	2	50,81 - 60,00	101231C
	2	60,01 - 72,00	101241C
	2	72,01 - 76,20	101251C
	Reinforced	1,00 - 30,50	108111C
	Reinforced	30,51 - 40,00	108121C
<b>STRIPPER</b>			
	2	1,00 - 78,00	112211C
<b>DIE (HWS)</b>			
	1 <sup>(2)</sup>	1,00 - 32,00	106111C
	2 <sup>(3)</sup>	32,01 - 77,00	106211C
	1 reinforced <sup>(2)</sup>	1,00 - 32,00	109111C
	2 reinforced <sup>(3)</sup>	32,01 - 42,00	109221C
	2 reinforced <sup>(3)</sup>	42,01 - 62,00	109231C



## Additional costs:

### PUNCH

Punches with shear (WT / DOWT / etc.) -> see page 56

<sup>(1)</sup> Smaller 6,00 mm

Cutting part under 1,00 mm

X3-PM quality -> see page 68

## Cross references:

### PUNCH

Fully guided punch

Adjusting rings

Punch chuck

Additional costs for coating

Polished cutting part

see page

14

34

35

54

55

### STRIPPER

PU coating for low-scratch material handling

### STRIPPER

Spare parts

PU stripper

52

65

### DIE

<sup>(2)</sup> H-PM® quality

<sup>(3)</sup> H-PM® quality

Slug-stop version (negative cutting)

Brush version for low-scratch material handling

X8-PM quality -> see page 68

### DIE

Adapter rings

Compensating rings

RTC cartridge and die carrier

Die clips

Slug-snap version (for slug-problems)

35

38

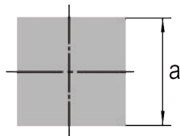
41

52

57

# PASS STANDARD TOOLS SQUARE

	SIZE	DIM. A	PART-NO.
<b>PUNCH (H-PM®)</b>			
	0	1,00 - 4,20	107A02C
	0	4,21 - 7,40 <sup>(*)</sup>	107B02C
	1	1,00 - 21,55	101112C
	2	21,56 - 28,25	101212C
	2	28,26 - 35,90	101222C
	2	35,91 - 42,40	101232C
	2	42,41 - 50,90	101242C
	2	50,91 - 53,90	101252C
	Reinforced	1,00 - 21,55	108112C
	Reinforced	21,56 - 28,25	108122C
<b>STRIPPER</b>			
	2	1,00 - 56,00	112212C
<b>DIE (HWS)</b>			
	1 <sup>(2)</sup>	1,00 - 22,50	106112C
	2 <sup>(3)</sup>	22,51 - 54,90	106212C
	1 reinforced <sup>(2)</sup>	1,00 - 22,50	109112C
	2 reinforced <sup>(3)</sup>	22,51 - 30,20	109222C
	2 reinforced <sup>(3)</sup>	30,21 - 43,00	109232C



## Additional costs:

### PUNCH

Punches with shear (WT / DOWT / etc.) -> see page 56

<sup>(\*)</sup> Smaller 4,20 mm

Cutting part under 1,00 mm

4 x same corner radius

X3-PM quality -> see page 68

### STRIPPER

PU coating for low-scratch material handling

### DIE

<sup>(2)</sup> H-PM® quality

<sup>(3)</sup> H-PM® quality

Slug-stop version (negative cutting)

Additional keyway

Brush version for low-scratch material handling

X8-PM quality -> see page 68

## Cross references:

### PUNCH

Fully guided punch	15
Adjusting rings	34
Punch chuck	35
ps:®passfit - explanation and additional costs	40
Additional costs for coating	54
Polished cutting part	55

### STRIPPER

Spare parts	52
Push-out stripper	53
PU stripper	65

### DIE

Adapter rings	35
Compensating rings	38
RTC cartridge and die carrier	41
Die clips	52
Slug-snap version (for slug-problems)	57

## see page

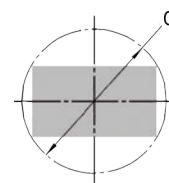
# PASS STANDARD TOOLS RECTANGLE



SIZE	DIM. D	PART-NO.
<b>PUNCH (H-PM®)</b>		
0	1,00 - 6,00	107A03C
0	6,01 - 10,50 <sup>(1)</sup>	107B03C
1	1,00 - 30,50	101113C
2	30,51 - 40,00	101213C
2	40,01 - 50,80	101223C
2	50,81 - 60,00	101233C
2	60,01 - 72,00	101243C
2	72,01 - 76,20	101253C
Reinforced	1,00 - 30,50	108113C
Reinforced	30,51 - 40,00	108123C

<b>STRIPPER</b>		
2	1,00 - 78,00	112213C

<b>DIE (HWS)</b>		
1 <sup>(2)</sup>	1,00 - 32,00	106113C
2 <sup>(3)</sup>	32,01 - 77,00	106213C
1 reinforced <sup>(2)</sup>	1,00 - 32,00	109113C
2 reinforced <sup>(3)</sup>	32,01 - 42,00	109223C
2 reinforced <sup>(3)</sup>	42,01 - 62,00	109233C



## Additional costs:

### PUNCH

Punches with shear (WT / DOWT / etc.) -> see page 56

<sup>(1)</sup> Smaller 6,00 mm

Cutting part under 1,00 mm

4 x same corner radius

X3-PM quality -> see page 68

### STRIPPER

PU coating for low-scratch material handling

### DIE

<sup>(2)</sup> H-PM® quality

<sup>(3)</sup> H-PM® quality

Slug-stop version (negative cutting)

Additional keyway

Brush version for low-scratch material handling

X8-PM quality -> see page 68

## Cross references:

### PUNCH

Fully guided punch

Slitting tools for slittings close to embossing

Adjusting rings

Punch chuck

ps:®passfit - explanation and additional costs

Additional costs for coating

Polished cutting part

### STRIPPER

Spare parts

Push-out stripper

PU stripper

### DIE

Adapter rings

Compensating rings

RTC cartridge and die carrier

Die clips

Slug-snap version (for slug-problems)

see page

15

30 - 31

34

35

40

54

55

52

53

65

35

38

41

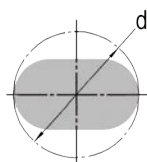
52

57



# PASS STANDARD TOOLS OBLONG

	SIZE	DIM. D	PART-NO.
<b>PUNCH (H-PM®)</b>			
	0	1,00 - 6,00	107A04C
	0	6,01 - 10,50 <sup>(*)</sup>	107B04C
	1	1,00 - 30,50	101114C
	2	30,51 - 40,00	101214C
	2	40,01 - 50,80	101224C
	2	50,81 - 60,00	101234C
	2	60,01 - 72,00	101244C
	2	72,01 - 76,20	101254C
	Reinforced	1,00 - 30,50	108114C
	Reinforced	30,51 - 40,00	108124C
<b>STRIPPER</b>			
	2	1,00 - 78,00	112214C
<b>DIE (HWS)</b>			
	1 <sup>(2)</sup>	1,00 - 32,00	106114C
	2 <sup>(3)</sup>	32,01 - 77,00	106214C
	1 reinforced <sup>(2)</sup>	1,00 - 32,00	109114C
	2 reinforced <sup>(3)</sup>	32,01 - 42,00	109224C
	2 reinforced <sup>(3)</sup>	42,01 - 62,00	109234C



## Additional costs:

### PUNCH

Punches with shear (WT / DOWT / etc.) -> see page 56

<sup>(\*)</sup> Smaller 6,00 mm

Cutting part under 1,00 mm

X3-PM quality -> see page 68

### STRIPPER

PU coating for low-scratch material handling

### DIE

<sup>(2)</sup> H-PM® quality

<sup>(3)</sup> H-PM® quality

Slug-stop version (negative cutting)

Additional keyway

Brush version for low-scratch material handling

X8-PM quality -> see page 68

## Cross references:

### PUNCH

Fully guided punch	15
Slitting tools for slittings close to embossing	30 - 31
Adjusting rings	34
Punch chuck	35
ps:®passfit - explanation and additional costs	40
Additional costs for coating	54
Polished cutting part	55

### STRIPPER

Spare parts	52
Push-out stripper	53
PU stripper	65

### DIE

Adapter rings	35
Compensating rings	38
RTC cartridge and die carrier	41
Die clips	52
Slug-snap version (for slug-problems)	57

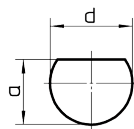
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# PASS SPECIAL SHAPE TOOLS GROUP 1

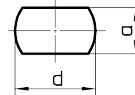
(SF01, SF02, SF04, SF05)



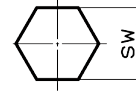
SIZE	DIM. D	PART-NO.
<b>PUNCH (H-PM®)</b>		
0	1,00 - 6,00	121A0_C1
0	6,01 - 10,50 <sup>(1)</sup>	121B0_C1
1	1,00 - 30,50	12111_C1
2	30,51 - 40,00	12121_C1
2	40,01 - 50,80	12122_C1
2	50,81 - 60,00	12123_C1
2	60,01 - 72,00	12124_C1
2	72,01 - 76,20	12125_C1
Reinforced	1,00 - 30,50	V2111_C1
Reinforced	30,51 - 40,00	121V1_C1
<b>STRIPPER</b>		
2	1,00 - 78,00	127H1_C1
<b>DIE (HWS)</b>		
1 <sup>(2)</sup>	1,00 - 32,00	12611_C1
2 <sup>(3)</sup>	32,01 - 77,00	12621_C1
1 reinforced <sup>(2)</sup>	1,00 - 32,00	V2611_C1
2 reinforced <sup>(3)</sup>	32,01 - 42,00	126V1_C1
2 reinforced <sup>(3)</sup>	42,01 - 62,00	126V2_C1



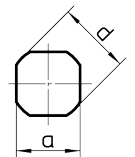
SF01



SF02



SF04



SF05

**Additional costs:**

**PUNCH**

Punches with shear (WT / DOWT / etc.) -> see page 56

<sup>(1)</sup> Smaller 6,00 mm

Cutting part under 1,00 mm

X3-PM quality -> see page 68

**Cross references:**

**PUNCH**

Fully guided punch	15
Adjusting rings	34
Punch chuck	35
ps:®passfit - explanation and additional costs	40
Additional costs for coating	54
Polished cutting part	55

**STRIPPER**

PU coating for low-scratch material handling

**STRIPPER**

Spare parts	52
PU stripper	65

**DIE**

<sup>(2)</sup> H-PM® quality

<sup>(3)</sup> H-PM® quality

Slug-stop version (negative cutting)

Additional keyway

Brush version for low-scratch material handling

X8-PM quality -> see page 68

**DIE**

Adapter rings	35
Compensating rings	38
RTC cartridge and die carrier	41
Die clips	52
Slug-snap version (for slug-problems)	57

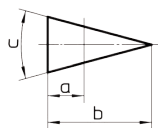
# PASS SPECIAL SHAPE TOOLS GROUP 2

(SF03, SF07, SF13, SF17)

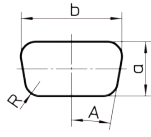
SIZE	DIM. D	PART-NO.
<b>PUNCH (H-PM®)</b>		
0	1,00 - 6,00	121A0_C2
0	6,01 - 10,50 <sup>(*)</sup>	121B0_C2
1	1,00 - 30,50	12111_C2
2	30,51 - 40,00	12121_C2
2	40,01 - 50,80	12122_C2
2	50,81 - 60,00	12123_C2
2	60,01 - 72,00	12124_C2
2	72,01 - 76,20	12125_C2
Reinforced	1,00 - 30,50	V2111_C2
Reinforced	30,51 - 40,00	121V1_C2

<b>STRIPPER</b>		
2	1,00 - 78,00	127H1_C2

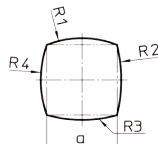
<b>DIE (HWS)</b>		
1 <sup>(**)</sup>	1,00 - 32,00	12611_C2
2 <sup>(***)</sup>	32,01 - 77,00	12621_C2
1 reinforced <sup>(**)</sup>	1,00 - 32,00	V2611_C2
2 reinforced <sup>(***)</sup>	32,01 - 42,00	126V1_C2
2 reinforced <sup>(***)</sup>	42,01 - 62,00	126V2_C2



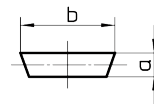
SF03



SF07



SF13



SF17



**Additional costs:**

**PUNCH**

Punches with shear (WT / DOWT / etc.) -> see page 56

<sup>(\*)</sup> Smaller 6,00 mm

Cutting part under 1,00 mm

X3-PM quality -> see page 68

**STRIPPER**

PU coating for low-scratch material handling

**DIE**

<sup>(\*\*)</sup> H-PM® quality

<sup>(\*\*\*)</sup> H-PM® quality

Slug-stop version (negative cutting)

Additional keyway

Brush version for low-scratch material handling

X8-PM quality -> see page 68

**Cross references:**

**PUNCH**

Fully guided punch	15
Slitting tools for slittings close to embossing	30 - 31
Adjusting rings	34
Punch chuck	35
ps:®passfit - explanation and additional costs	40
Additional costs for coating	54
Polished cutting part	55

**STRIPPER**

Spare parts	52
Push-out stripper	53
PU stripper	65

**DIE**

Adapter rings	35
Compensating rings	38
RTC cartridge and die carrier	41
Die clips	52
Slug-snap version (for slug-problems)	57

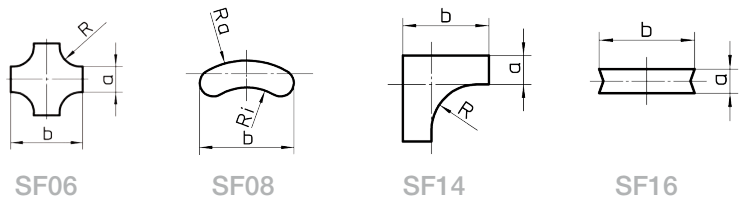
**see page**

# PASS SPECIAL SHAPE TOOLS GROUP 3

(SF06, SF08, SF14, SF16)



SIZE	DIM. D	PART-NO.
<b>PUNCH (H-PM®)</b>		
0	1,00 - 6,00	121A0_C3
0	6,01 - 10,50 <sup>(1)</sup>	121B0_C3
1	1,00 - 30,50	12111_C3
2	30,51 - 40,00	12121_C3
2	40,01 - 50,80	12122_C3
2	50,81 - 60,00	12123_C3
2	60,01 - 72,00	12124_C3
2	72,01 - 76,20	12125_C3
Reinforced	1,00 - 30,50	V2111_C3
Reinforced	30,51 - 40,00	121V1_C3
<b>STRIPPER</b>		
2	1,00 - 78,00	127H1_C3
<b>DIE (HWS)</b>		
1 <sup>(2)</sup>	1,00 - 32,00	12611_C3
2 <sup>(3)</sup>	32,01 - 77,00	12621_C3
1 reinforced <sup>(2)</sup>	1,00 - 32,00	V2611_C3
2 reinforced <sup>(3)</sup>	32,01 - 42,00	126V1_C3
2 reinforced <sup>(3)</sup>	42,01 - 62,00	126V2_C3



**Additional costs:**

**PUNCH**

Punches with shear (WT / DOWT / etc.) -> see page 56

<sup>(1)</sup> Smaller 6,00 mm

Cutting part under 1,00 mm

X3-PM quality -> see page 68

**STRIPPER**

PU coating for low-scratch material handling

**DIE**

<sup>(2)</sup> H-PM® quality

<sup>(3)</sup> H-PM® quality

Slug-stop version (negative cutting)

Additional keyway

Brush version for low-scratch material handling

X8-PM quality -> see page 68

**Cross references:**

**PUNCH**

Fully guided punch	15
Slitting tools for slittings close to embossing	30 - 31
Adjusting rings	34
Punch chuck	35
ps:®passfit - explanation and additional costs	40
Additional costs for coating	54
Polished cutting part	55

**STRIPPER**

Spare parts	52
Push-out stripper	53
PU stripper	65

**DIE**

Adapter rings	35
Compensating rings	38
RTC cartridge and die carrier	41
Die clips	52
Slug-snap version (for slug-problems)	57

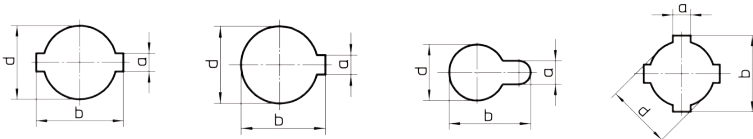
# PASS SPECIAL SHAPE TOOLS GROUP 4

(SF09, SF10, SF11, SF12)

SIZE	DIM. D	PART-NO.
<b>PUNCH (H-PM®)</b>		
0	1,00 - 6,00	121A0_C4
0	6,01 - 10,50 <sup>(*)</sup>	121B0_C4
1	1,00 - 30,50	12111_C4
2	30,51 - 40,00	12121_C4
2	40,01 - 50,80	12122_C4
2	50,81 - 60,00	12123_C4
2	60,01 - 72,00	12124_C4
2	72,01 - 76,20	12125_C4
Reinforced	1,00 - 30,50	V2111_C4
Reinforced	30,51 - 40,00	121V1_C4

<b>STRIPPER</b>		
2	1,00 - 78,00	127H1_C4

<b>DIE (HWS)</b>			
1 <sup>(2)</sup>	1,00 - 32,00	12611_C4	
2 <sup>(3)</sup>	32,01 - 77,00	12621_C4	
1 reinforced <sup>(2)</sup>	1,00 - 32,00	V2611_C4	
2 reinforced <sup>(3)</sup>	32,01 - 42,00	126V1_C4	
2 reinforced <sup>(3)</sup>	42,01 - 62,00	126V2_C4	



SF09

SF10

SF11

SF12

**Additional costs:**

**PUNCH**

Punches with shear (WT / DOWT / etc.) -> see page 56

<sup>(\*)</sup> Smaller 6,00 mm

Cutting part under 1,00 mm

X3-PM quality -> see page 68

**Cross references:**

**PUNCH**

Fully guided punch	15
Adjusting rings	34
Punch chuck	35
ps:®passfit - explanation and additional costs	40
Additional costs for coating	54
Polished cutting part	55

see page

**STRIPPER**

PU coating for low-scratch material handling

**STRIPPER**

Spare parts	52
PU stripper	65

**DIE**

<sup>(2)</sup> H-PM® quality

<sup>(3)</sup> H-PM® quality

Slug-stop version (negative cutting)

Additional keyway

Brush version for low-scratch material handling

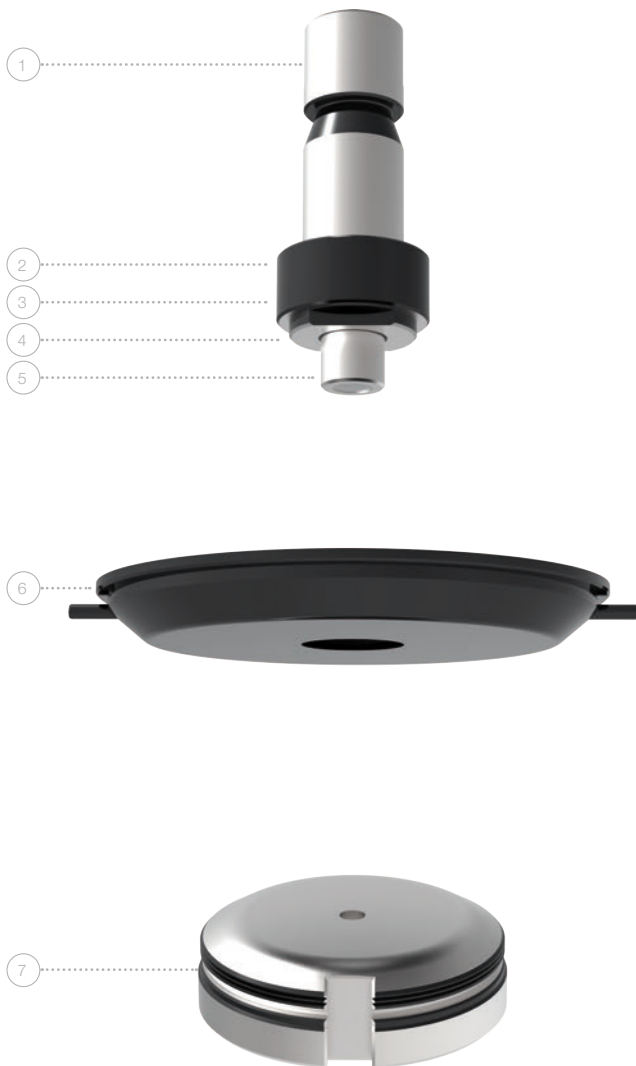
X8-PM quality -> see page 68

**DIE**

Adapter rings	35
Compensating rings	38
RTC cartridge and die carrier	41
Die clips	52
Slug-snap version (for slug-problems)	57

# PASS PUNCH WITH GUIDED CUTTING PART

FOR ROUND PUNCH (DIMENSION D = 0,50 MM – 6,00 MM / 6,01 MM – 10,50 MM)



DESCRIPTION	POSITION	PART-NO.
<b>UP TO 6,00 MM</b>		
Complete upper part	1 - 5	1S160A
Stripper round 26 mm	6	112211C26
Die (HWS) <sup>(2)</sup>	7	106111C

SPARE PARTS		
Spare punch needle (H-PM <sup>®</sup> )	2	1S16SA
Spare spring	3	1S1608
Spare guide	5	1S1603
Spare clamp nut	4	1S1607

UP TO 10,50 MM		
Complete upper part <sup>(1)</sup>	1 - 5	1S160B
Stripper round 26 mm	6	112211C26
Die (HWS) <sup>(2)</sup>	7	106111C

SPARE PARTS		
Spare punch needle (H-PM <sup>®</sup> ) <sup>(1)</sup>	2	1S16SB
Spare spring	3	1S1609
Spare guide	5	1S1604
Spare clamp nut	4	1S1607

Additional costs:

## PUNCH

<sup>(1)</sup> Smaller 6,00 mm

Cutting part under 1,00 mm

Cross references:

## PUNCH

Standard round punch

Suitable adjusting ring - part-no. 118101

Punch chuck

Additional costs for coating (such as size 0)

Polished cutting part (such as size 0)

see page

6

34

35

54

55

## STRIPPER

PU coating for low-scratch material handling

## STRIPPER

Spare parts

52

## DIE

<sup>(2)</sup> H-PM<sup>®</sup> quality

Brush version for low-scratch material handling

## DIE

Adapter rings

Compensating rings

RTC cartridge and die carrier

Slug-snap version (for slug-problems)

35

38

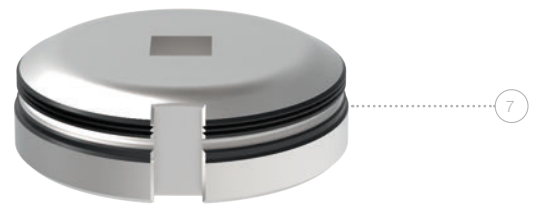
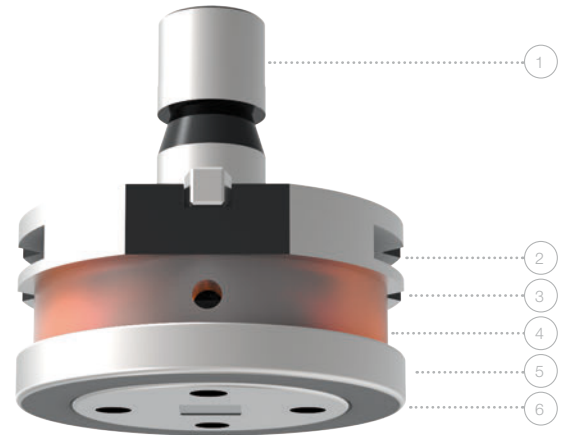
41

57

# PASS PUNCH WITH GUIDED CUTTING PART

FOR FORM PUNCH (DIMENSION D = 0,50 MM – 16,00 MM)

DESCRIPTION	POSITION	PART-NO.
<b>SQUARE</b>		
Complete upper part	1 - 6	1S16502
Spare punch insert (H-PM®)	3	1S16532
Spare spring	4	1S16540
Spare guide	6	1S16562
Die (HWS) <sup>(2)</sup>	7	106112C
<b>RECTANGLE</b>		
Complete upper part	1 - 6	1S16503
Spare punch insert (H-PM®)	3	1S16533
Spare spring	4	1S16540
Spare guide	6	1S16563
Die (HWS) <sup>(2)</sup>	7	106113C
<b>OBLONG</b>		
Complete upper part	1 - 6	1S16504
Spare punch insert (H-PM®)	3	1S16534
Spare spring	4	1S16540
Spare guide	6	1S16564
Die (HWS) <sup>(2)</sup>	7	106114C
<b>SPECIAL SHAPES</b>		
Complete upper part	1 - 6	on request
Spare punch insert (H-PM®)	3	on request
Spare spring	4	on request
Spare guide	6	on request
Die (HWS) <sup>(2)</sup>	7	on request



Additional costs: Cross references: see page

PUNCH	PUNCH	
Cutting part under 1,00 mm	Standard punch	from 7
	Punch chuck	35
	Additional costs for coating (such as size 1)	54
	Polished cutting part (such as size 1)	55

STRIPPER	STRIPPER	
Polished version for low-scratch material handling	Spare parts	52

DIE	DIE	
<sup>(2)</sup> H-PM® quality	Adapter rings	35
Brush version for low-scratch material handling	Compensating rings	38
	RTC cartridge and die carrier	41
	Die clips	52
	Slug-snap version (for slug-problems)	57





# BEING MULTILATERAL: MULTITOOLS

PASS TOOLS FOR YOUR  
TRUMPF SYSTEM

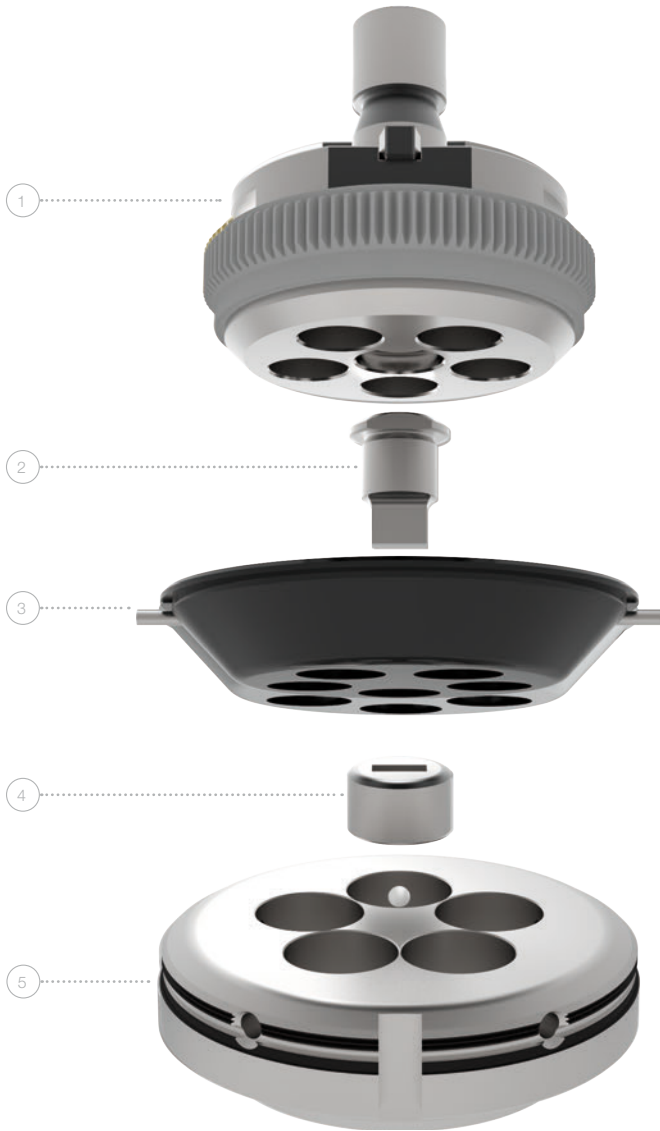
## INDEX

PASS Multitool 5-Station	page 18
PASS Multitool 10-Station	page 19
PASS Multitool 4-Station	page 20
PASS Multitool 6-Station	page 21
Alternatively 10-Station Die	page 22

# PASS MULTITOOL 5-STATION

FOR MACHINE GROUP I (DIMENSION 1,00 MM – 16,00 MM)

(TRUPUNCH1000, 2000, 2020, 3000, 5000 TRUMATIC1000, 3000, 6000, 7000)



DESCRIPTION	POSITION	PART-NO.
<b>UPPER PART</b>		
Punch holder	1	113S30
<b>PUNCH INSERT (H-PM®)</b>		
Round	2	113N31
Square	2	113N32
Rectangle	2	113N33
Oblong	2	113N34
Special shape	2	on request
<b>STRIPPER</b>		
Standard (round)	3	115A30
Close-fitting <sup>(*)</sup>	3*	115B30
<b>DIE INSERT (H-PM®)</b>		
Round	4	114031
Square	4	114032
Rectangle	4	114033
Oblong	4	114034
Special shape	4	on request
<b>LOWER PART</b>		
Die adapter <sup>(*)</sup>	5	114Z30

\* no picture

Details / Additional costs:

## PUNCH ADAPTER AND PUNCH INSERT

Max. sheet thickness - steel and alu up to 4,50 mm / stainless steel up to 3,00 mm

Cutting part under 1,00 mm

Cross references:

## PUNCH

Types of special shapes

Additional costs for coating (Multitool)

Polished cutting part (Multitool)

see page

10 - 13

54

55

## STRIPPER

Polished version for low-scratch material handling

PU coating for low-scratch material handling

<sup>(\*)</sup> Shapes on customer request

## DIE

Slug-stop version (negative cutting)

<sup>(\*)</sup> Brush version for low-scratch material handling

Compensating rings:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 114U3M

## STRIPPER

Spare parts

52

## DIE

RTC cartridge and die carrier

Slug-snap version (for slug-problems)

41

57

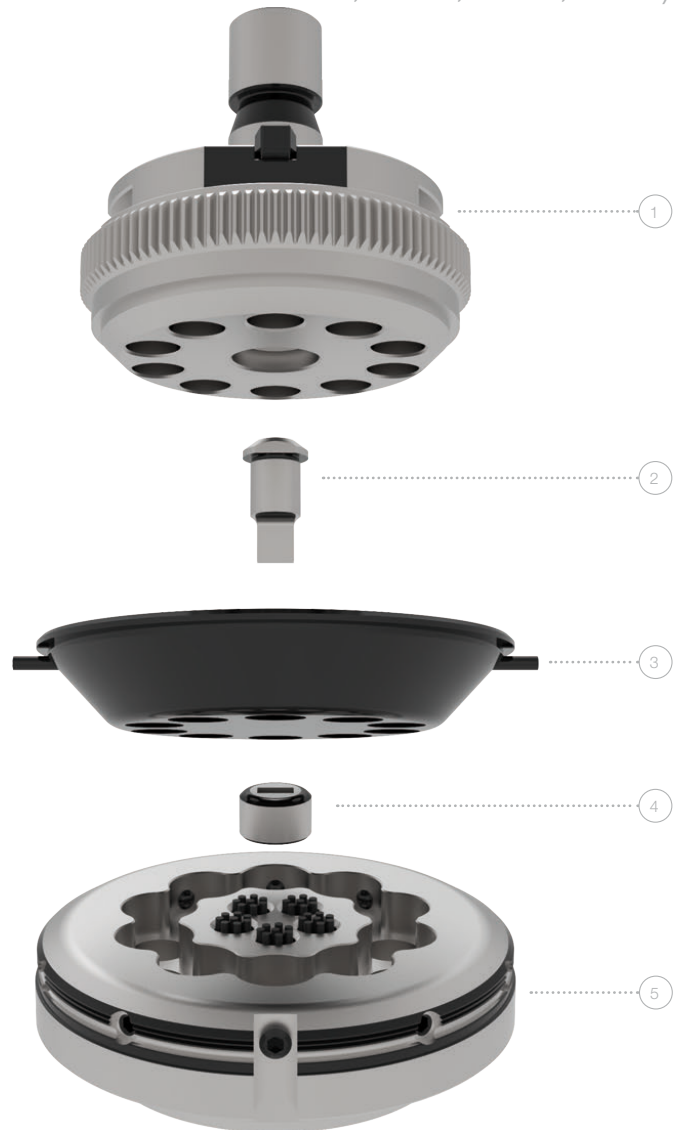
# PASS MULTITOOL 10-STATION

FOR MACHINE GROUP I (DIMENSION 1,00 MM – 10,50 MM)

(TRUPUNCH1000, 2000, 2020, 3000, 5000 TRUMATIC1000, 3000, 6000, 7000)

DESCRIPTION	POSITION	PART-NO.
<b>UPPER PART</b>		
Punch holder	1	113S40
<b>PUNCH INSERT (H-PM®)</b>		
Round	2	113N41
Square	2	113N42
Rectangle	2	113N43
Oblong	2	113N44
Special shape	2	on request
<b>STRIPPER</b>		
Standard (round)	3	115A40
Close-fitting <sup>(1)</sup>	3'	115B40
<b>DIE INSERT (H-PM®)</b>		
Round	4	114041
Square	4	114042
Rectangle	4	114043
Oblong	4	114044
Special shape	4	on request
<b>LOWER PART</b>		
Die adapter <sup>(2)</sup>	5	114Z40

\* no picture



Details / Additional costs:

## PUNCH ADAPTER AND PUNCH INSERT

Max. sheet thickness - steel and alu up to 4,50 mm / stainless steel up to 3,00 mm

Cutting part under 1,00 mm

Cross references:

## PUNCH

Types of special shapes

Additional costs for coating (Multitool)

Polished cutting part (Multitool)

see page

10 - 13

54

55

## STRIPPER

Polished version for low-scratch material handling

PU coating for low-scratch material handling

<sup>(1)</sup> Shapes on customer request

## DIE

Slug-stop version (negative cutting)

<sup>(2)</sup> Brush version for low-scratch material handling

Compensating rings:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 114U4M

## STRIPPER

Spare parts

52

## DIE

<sup>(2)</sup> Version as one piece die insert

RTC cartridge and die carrier

Slug-snap version (for slug-problems)

22

41

57

# PASS MULTITOOL 4-STATION

FOR MACHINE GROUP H AND TC260 (DIMENSION 1,00 MM – 16,00 MM)  
(TC600L, TC500R, TC200R, TC260R, TC260L)



DESCRIPTION	POSITION	PART-NO.
<b>UPPER PART</b>		
Punch adapter incl. stripper system	*	on request
<b>PUNCH INSERT (H-PM®)</b>		
Round	2	113N11
Square	2	113N12
Rectangle	2	113N13
Oblong	2	113N14
Special shape	2	on request
<b>STRIPPER ADAPTER</b>		
For all shapes	3	on request
<b>STRIPPER PLATE</b>		
Standard (round)	4	on request
Close-fitting <sup>(1)</sup>	4*	on request
<b>DIE INSERT (H-PM®)</b>		
Round	5	114011
Square	5	114012
Rectangle	5	114013
Oblong	5	114014
Special shape	5	on request
<b>LOWER PART</b>		
Die adapter <sup>(2)</sup>	*	on request

\* no picture

Details / Additional costs:

## PUNCH ADAPTER AND PUNCH INSERT

Max. sheet thickness - steel and alu up to 3,00 mm / stainless steel up to 2,00 mm  
Cutting part under 1,00 mm

Cross references:

## PUNCH

Types of special shapes 10 - 13  
Additional costs for coating (Multitool) 54  
Polished cutting part (Multitool) 55

see page

## STRIPPER

Polished version for low-scratch material handling

<sup>(1)</sup> Shapes on customer request

## STRIPPER

Spare parts

52

## DIE

Slug-stop version (negative cutting)

<sup>(2)</sup> Brush version for low-scratch material handling

Compensating rings:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 114U1M

## DIE

Slug-snap version (for slug-problems)

57

# PASS MULTITOOL 6-STATION

FOR MACHINE GROUP H AND TC260 (DIMENSION 1,00 MM – 10,50 MM)  
(TC600L, TC500R, TC200R, TC260R, TC260L)

DESCRIPTION	POSITION	PART-NO.
<b>UPPER PART</b>		
Punch adapter incl. stripper system	*	on request
<b>PUNCH INSERT (H-PM®)</b>		
Round	2	113N21
Square	2	113N22
Rectangle	2	113N23
Oblong	2	113N24
Special shape	2	on request
<b>STRIPPER ADAPTER</b>		
For all shapes	3	on request
<b>STRIPPER PLATE</b>		
Standard (round)	4	on request
Close-fitting <sup>(1)</sup>	4*	on request
<b>DIE INSERT (H-PM®)</b>		
Round	5	114021
Square	5	114022
Rectangle	5	114023
Oblong	5	114024
Special shape	5	
<b>LOWER PART</b>		
Die adapter <sup>(2)</sup>	*	

\* no picture



Details / Additional costs:

## PUNCH ADAPTER AND PUNCH INSERT

Max. sheet thickness - steel and alu up to 3,00 mm / stainless steel up to 2,00 mm  
Cutting part under 1,00 mm

Cross references:

## PUNCH

	see page
Types of special shapes	10 - 13
Additional costs for coating (Multitool)	54
Polished cutting part (Multitool)	55

## STRIPPER

Polished version for low-scratch material handling

<sup>(1)</sup> Shapes on customer request

## STRIPPER

Spare parts

52

## DIE

Slug-stop version (negative cutting)

<sup>(2)</sup> Brush version for low-scratch material handling

Compensating rings:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 114U2M

## DIE

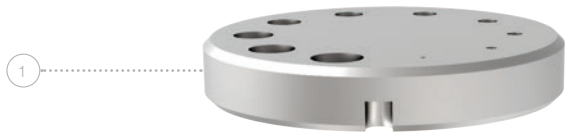
Slug-snap version (for slug-problems)

57

# ALTERNATIVELY 10-STATION DIE

FOR MULTITOOL MACHINE GROUP I (DIMENSION 1,00 MM - 10,50 MM)

(TRUPUNCH1000, 2000, 2020, 3000, 5000 TRUMATIC1000, 3000, 6000, 7000)



DESCRIPTION	POSITION	PART-NO.
<b>PUNCH (H-PM®)</b>		
Shapes on customer request	1	114941
<b>DIE ADAPTER <sup>(1)</sup></b>		
Without die insert	2	114640



Details / Additional costs:

### DIE ADAPTER AND DIE INSERT

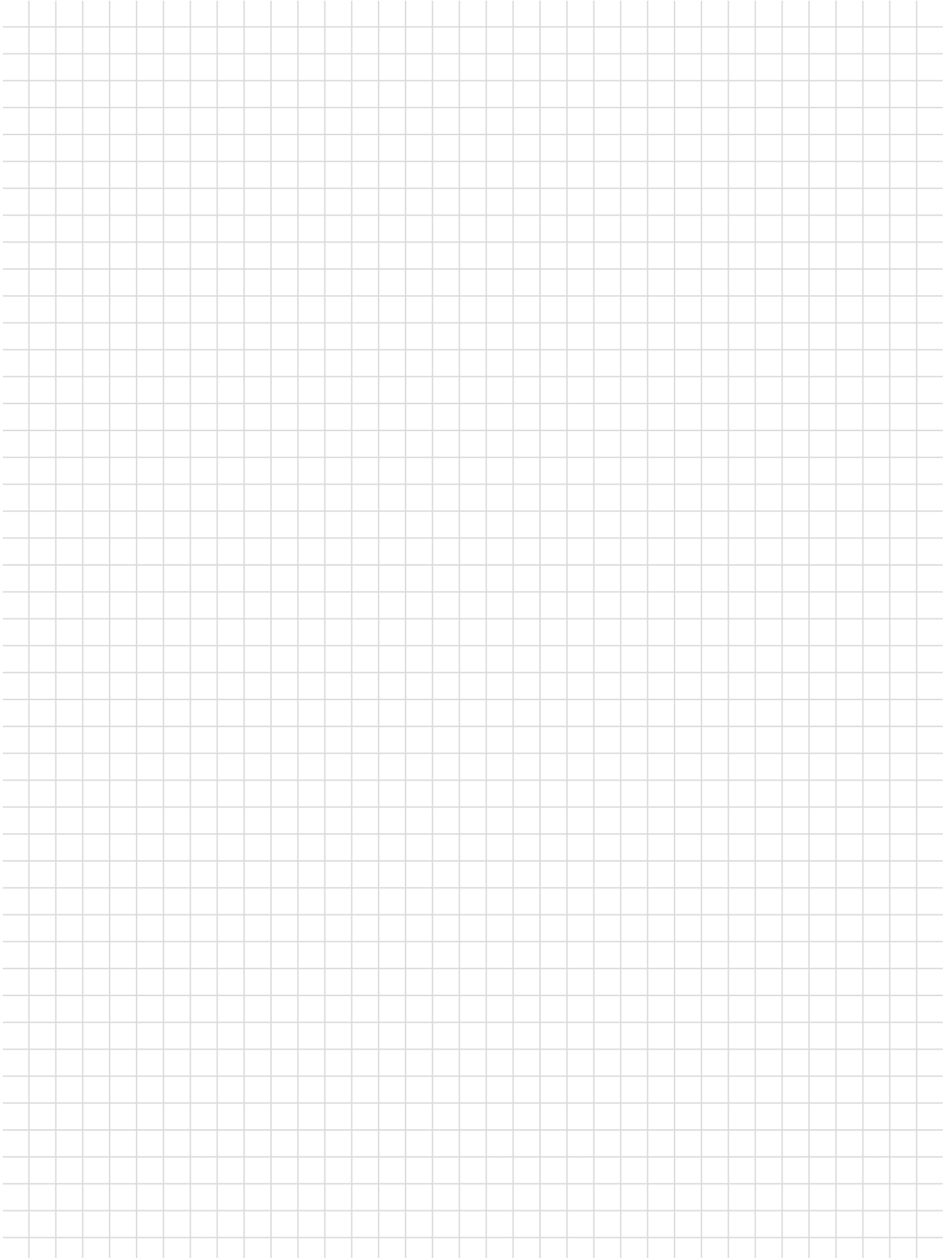
<sup>(1)</sup> Incl. 1 set of shims

Slug-stop version (negative cutting)

Slug-snap version (for slug-problems)

Compensating rings for die insert:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 114U4MG







# SLITTING TOOLS

PASS TOOLS FOR YOUR  
TRUMPF SYSTEM

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PASS Slitting Tool Size 2 / 5 x 56	page 29
PASS Slitting Tool Size 2 / 5 x 56	page 30
PASS Slitting Tool Size 2 / 5 x 76,2	page 31

# PASS SLITTING TOOL SIZE 2 / 5 X 30

INTEGRATED ADJUSTING RING, SLITTING PUNCH BLADE, DIE PLATE INSERT



DESCRIPTION	POSITION	PART-NO.
<b>COMPLETE TOOL <sup>(1)</sup></b>		
Oblong	1 - 5	1S0433110
Rectangle	1 - 5	1S0433120
Rectangle with 4 x R = 0,5	1 - 5	1S0433130
Trapezoid SF17	1 - 5	1S0433140
Double Trapezoid SF16	1 - 5	1S0433150
<b>SLITTING PUNCH BLADE ADAPTER (WITHOUT PUNCH BLADE INSERT)</b>		
With integrated adjusting ring	1	1S0393
<b>PUNCH PLATE INSERT (H-PM<sup>®</sup>) <sup>(1)</sup></b>		
Oblong	2	1S04331
Rectangle	2	1S04332
Rectangle with 4 x R = 0,5	2	1S04333
Trapezoid SF17	2	1S04334
Double Trapezoid SF16	2	1S04335
<b>STRIPPER</b>		
Oblong	3	119234
Rectangle	3	119233
Rectangle with 4 x R = 0,5	3	119233
Trapezoid SF17	3	119237
Double Trapezoid SF16	3	119236
<b>DIE PLATE INSERT (H-PM<sup>®</sup>)</b>		
Oblong	4	1S17251
Rectangle <sup>(2)</sup>	4	1S17252
Trapezoid SF17	4	1S17254
Double Trapezoid SF16	4	1S17255
<b>DIE PLATE ADAPTER (WITHOUT DIE PLATE INSERT) <sup>(3)</sup></b>		
Incl. screws	5	1S1730

Details / Additional costs:

## UPPER PART

Max. sheet thickness up to 3,00 mm

<sup>(1)</sup> Additional costs for reduced dimensional deviation

<sup>(1)</sup> Standard version with rooftop

Set of spare screws M 8 x 16 (2 pc per set)

Part-no. 1S0393Z

Cross references:

see page

## UPPER PART

Additional costs for coating (slitting punch blade insert)

54

Polished cutting part (punch size 2)

55

## STRIPPER

PU coating for low-scratch material handling

## STRIPPER

Spare parts

52

Push-out stripper

53

## LOWER PART

Compensating rings:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 1S3794

<sup>(2)</sup> Suitable for rectangle, as well as rectangle 4 x R = 0,5

<sup>(3)</sup> Brush version for low-scratch material handling

## LOWER PART

RTC cartridge and die carrier

41

Die clips

52

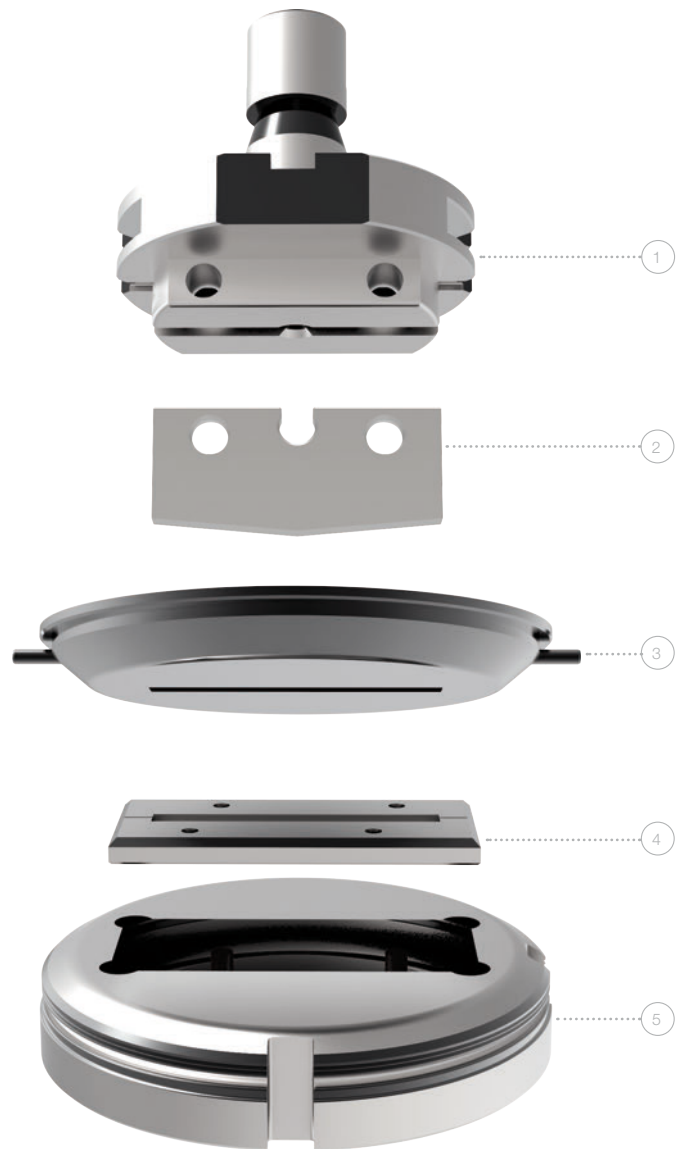
Slug-snap version for slug problems (die size 2)

57

# PASS SLITTING TOOL SIZE 2 / 5 X 56

INTEGRATED ADJUSTING RING, SLITTING PUNCH BLADE, DIE PLATE INSERT

DESCRIPTION	POSITION	PART-NO.
<b>COMPLETE TOOL <sup>(1)</sup></b>		
Oblong	1 - 5	1S0431110
Rectangle	1 - 5	1S0431120
Rectangle with 4 x R = 0,5	1 - 5	1S0431130
Trapezoid SF17	1 - 5	1S0431140
Double Trapezoid SF16	1 - 5	1S0431150
<b>SLITTING PUNCH BLADE ADAPTER (WITHOUT PUNCH BLADE INSERT)</b>		
With integrated adjusting ring	1	1S0393
<b>PUNCH PLATE INSERT (H-PM<sup>®</sup>) <sup>(1)</sup></b>		
Oblong	2	1S04311
Rectangle	2	1S04312
Rectangle with 4 x R = 0,5	2	1S04313
Trapezoid SF17	2	1S04314
Double Trapezoid SF16	2	1S04315
<b>STRIPPER</b>		
Oblong	3	119254
Rectangle	3	119253
Rectangle with 4 x R = 0,5	3	119253
Trapezoid SF17	3	119257
Double Trapezoid SF16	3	119256
<b>DIE PLATE INSERT (H-PM<sup>®</sup>)</b>		
Oblong	4	1S17261
Rectangle <sup>(2)</sup>	4	1S17262
Trapezoid SF17	4	1S17264
Double Trapezoid SF16	4	1S17265
<b>DIE PLATE ADAPTER (WITHOUT DIE PLATE INSERT) <sup>(3)</sup></b>		
Incl. screws	5	1S1756



Details / Additional costs:

## UPPER PART

Max. sheet thickness up to 3,00 mm

<sup>(1)</sup> Additional costs for reduced dimensional deviation

<sup>(1)</sup> Standard version with rooftop

Set of spare screws M 8 x 16 (2 pc per set)

Part-no. 1S0393Z

Cross references:

see page

## UPPER PART

Slitting close to embossing

29 - 30

Additional costs for coating (slitting punch blade insert)

54

Polished cutting part (punch size 2)

55

## STRIPPER

PU coating for low-scratch material handling

## STRIPPER

Spare parts

52

Push-out stripper

53

## LOWER PART

Compensating rings:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 1S3794

<sup>(2)</sup> Suitable for rectangle, as well as rectangle 4 x R = 0,5

<sup>(3)</sup> Brush version for low-scratch material handling

## LOWER PART

RTC cartridge and die carrier

41

Die clips

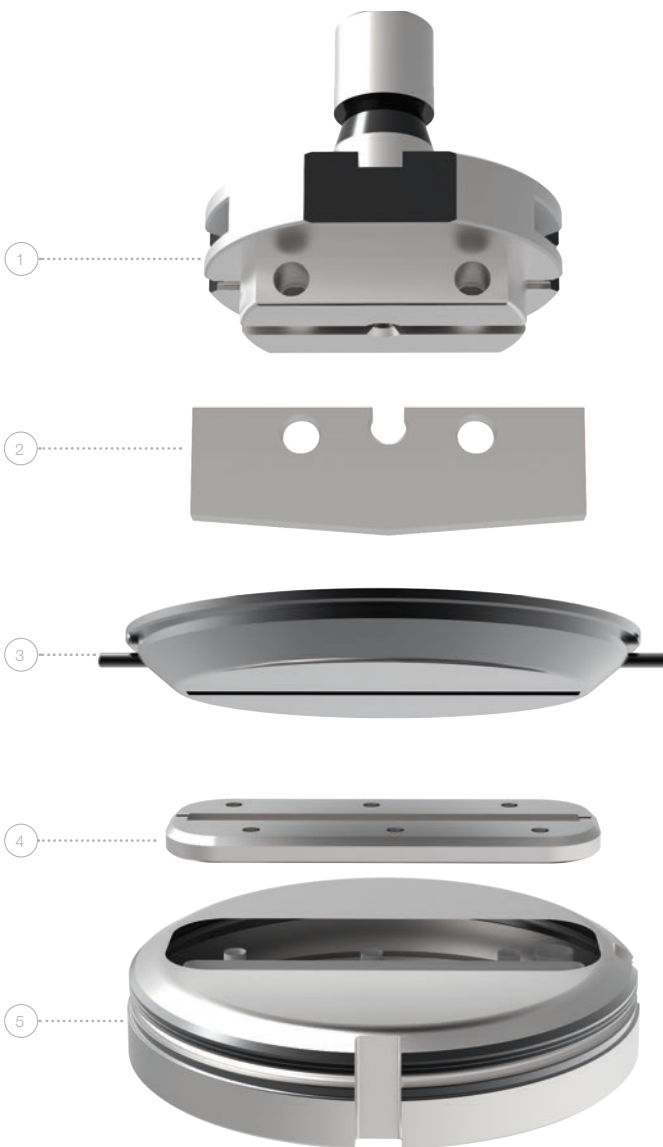
52

Slug-snap version for slug problems (die size 2)

57

# PASS SLITTING TOOL SIZE 2 / 5 X 76,2

INTEGRATED ADJUSTING RING, SLITTING PUNCH BLADE, DIE PLATE INSERT



DESCRIPTION	POSITION	PART-NO.
<b>COMPLETE TOOL <sup>(1)</sup></b>		
Oblong	1 - 5	1S0432110
Rectangle	1 - 5	1S0432120
Rectangle with 4 x R = 0,5	1 - 5	1S0432130
Trapezoid SF17	1 - 5	1S0432140
Double Trapezoid SF16	1 - 5	1S0432150
<b>SLITTING PUNCH BLADE ADAPTER (WITHOUT PUNCH BLADE INSERT)</b>		
With integrated adjusting ring	1	1S0393
<b>PUNCH PLATE INSERT (H-PM<sup>®</sup>) <sup>(1)</sup></b>		
Oblong	2	1S04321
Rectangle	2	1S04322
Rectangle with 4 x R = 0,5	2	1S04323
Trapezoid SF17	2	1S04324
Double Trapezoid SF16	2	1S04325
<b>STRIPPER</b>		
Oblong	3	119274
Rectangle	3	119273
Rectangle with 4 x R = 0,5	3	119273
Trapezoid SF17	3	119277
Double Trapezoid SF16	3	119276
<b>DIE PLATE INSERT (H-PM<sup>®</sup>)</b>		
Oblong	4	1S17411
Rectangle <sup>(2)</sup>	4	1S17412
Trapezoid SF17	4	1S17414
Double Trapezoid SF16	4	1S17415
<b>DIE PLATE ADAPTER (WITHOUT DIE PLATE INSERT) <sup>(3)</sup></b>		
Incl. screws	5	1S1776

Details / Additional costs:

## UPPER PART

Max. sheet thickness up to 2,50 mm

<sup>(1)</sup> Additional costs for reduced dimensional deviation

<sup>(1)</sup> Standard version with rooftop

Set of spare screws M 8 x 16 (2 pc per set)

Part-no. 1S0393Z

Cross references:

see page

## UPPER PART

Slitting close to embossing

31

Additional costs for coating (slitting punch blade insert)

54

Polished cutting part (punch size 2)

55

## STRIPPER

PU coating for low-scratch material handling

## STRIPPER

Spare parts

52

Push-out stripper

53

## LOWER PART

Compensating rings:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 1S3797

<sup>(2)</sup> Suitable for rectangle, as well as rectangle 4 x R = 0,5

<sup>(3)</sup> Brush version for low-scratch material handling

## LOWER PART

RTC cartridge and die carrier

41

Die clips

52

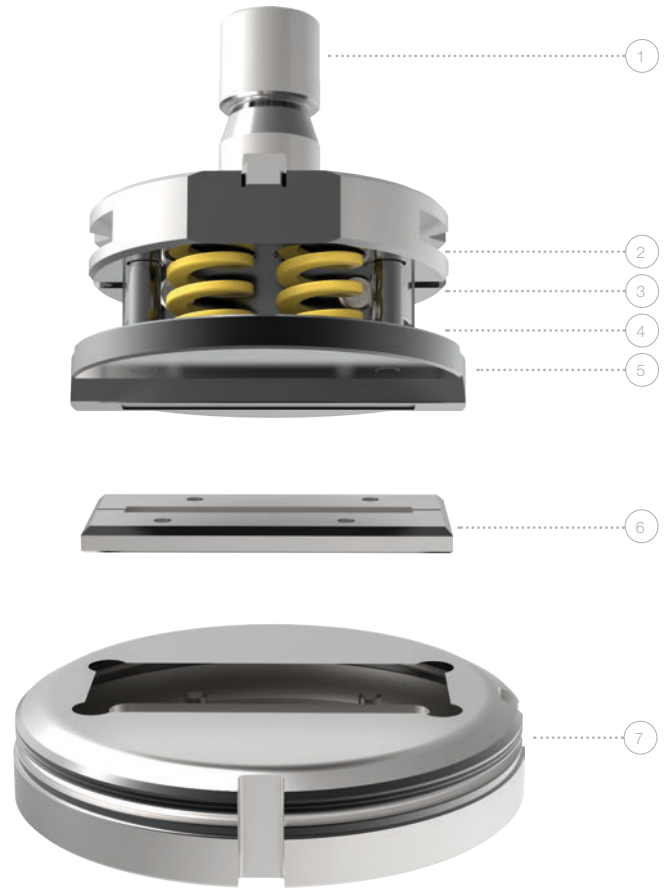
Slug-snap version for slug problems (die size 2)

57

# PASS SLITTING TOOL SIZE 2 / 5 X 56

INTEGRATED ADJUSTING RING, SLITTING PUNCH BLADE AND DIE PLATE INSERT FOR SLITTING CLOSE TO EMBOSSING UP TO H = 4,50 MM, WITH SPRING-LOADED METAL STRIPPER

DESCRIPTION	POSITION	PART-NO.
<b>COMPLETE TOOL <sup>(*)</sup></b>		
Oblong	1 - 7	1S037110
Rectangle	1 - 7	1S037120
Rectangle with 4 x R = 0,5	1 - 7	1S037130
Trapezoid SF17	1 - 7	1S037140
Double Trapezoid SF16	1 - 7	1S037150
<b>COMPLETE UPPER PART <sup>(*)</sup></b>		
Oblong	1 - 5	1S03711
Rectangle	1 - 5	1S03712
Rectangle with 4 x R = 0,5	1 - 5	1S03713
Trapezoid SF17	1 - 5	1S03714
Double Trapezoid SF16	1 - 5	1S03715
<b>SPARE PARTS FOR UPPER PART</b>		
Slitting punch blade adapter	1	1S0371
Set of spare springs and screws	3 + 4	1S0379
Active stripper	5	1S03752C
<b>PUNCH PLATE INSERT (H-PM<sup>®</sup>) <sup>(*)</sup></b>		
Oblong	2	1S04311
Rectangle	2	1S04312
Rectangle with 4 x R = 0,5	2	1S04313
Trapezoid SF17	2	1S04314
Double Trapezoid SF16	2	1S04315
<b>DIE PLATE INSERT (H-PM<sup>®</sup>)</b>		
Oblong	6	1S17261
Rectangle <sup>(*)</sup>	6	1S17262
Trapezoid SF17	6	1S17264
Double Trapezoid SF16	6	1S17265
<b>DIE PLATE ADAPTER (WITHOUT DIE PLATE INSERT) <sup>(*)</sup></b>		
Incl. screws	7	1S1756



Details / Additional costs:

## UPPER PART

Max. sheet thickness up to 1,50 mm

<sup>(\*)</sup> Additional costs for reduced dimensional deviation

<sup>(\*)</sup> Standard version with rooftop

Set of spare screws M 8 x 16 (2 pc per set)

Part-no. 1S0393Z

Cross references:

## UPPER PART

Additional costs for coating (slitting punch blade insert)

Polished cutting part (punch size 2)

see page

54

55

## STRIPPER

Polished version for low-scratch material handling

## STRIPPER

## LOWER PART

Compensating rings:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 1S3794

<sup>(\*)</sup> Suitable for rectangle, as well as rectangle 4 x R = 0,5

<sup>(\*)</sup> Brush version for low-scratch material handling

## LOWER PART

RTC cartridge and die carrier

Die clips

Slug-snap version for slug problems (die size 2)

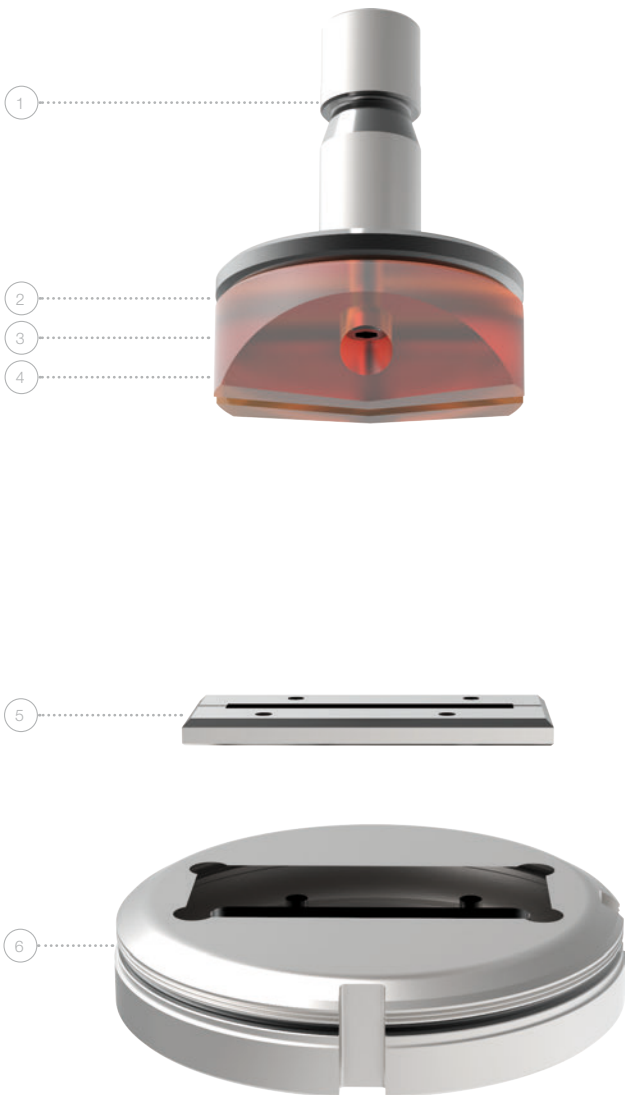
41

52

57

# PASS SLITTING TOOL SIZE 2 / 5 X 56

FOR SLITTING CLOSE TO EMBOSSING, WITH PU STRIPPER



DESCRIPTION	POSITION	PART-NO.
<b>COMPLETE TOOL <sup>(1)</sup></b>		
Oblong	1 - 6	1S295010
Rectangle	1 - 6	1S295020
Rectangle with 4 x R = 0,5	1 - 6	1S295030
Trapezoid SF17	1 - 6	1S295040
Double Trapezoid SF16	1 - 6	1S295050
<b>COMPLETE UPPER PART (INCL. SPRINGS, SCREWS, SCREW-ADAPTER) <sup>(1)</sup></b>		
Oblong	1 - 4	1S29501
Rectangle	1 - 4	1S29502
Rectangle with 4 x R = 0,5	1 - 4	1S29503
Trapezoid SF17	1 - 4	1S29504
Double Trapezoid SF16	1 - 4	1S29505
<b>PUNCH (WITHOUT SPRINGS, SCREWS, SCREW-ADAPTER) (H-PM<sup>®</sup>) <sup>(1)</sup></b>		
Oblong	1	1S29511
Rectangle	1	1S29512
Rectangle with 4 x R = 0,5	1	1S29513
Trapezoid SF17	1	1S29514
Double Trapezoid SF16	1	1S29515
<b>DIE PLATE INSERT (H-PM<sup>®</sup>)</b>		
Oblong	5	1S17261
Rectangle <sup>(2)</sup>	5	1S17262
Trapezoid SF17	5	1S17264
Double Trapezoid SF16	5	1S17265
<b>DIE PLATE ADAPTER (WITHOUT DIE PLATE INSERT) <sup>(3)</sup></b>		
Incl. screws	6	1S1756

Details / Additional costs:

## UPPER PART

Max. sheet thickness up to 3,00 mm

<sup>(1)</sup> Additional costs for reduced dimensional deviation

<sup>(1)</sup> Standard version with rooftop

X3-PM quality -> see page 68

Cross references:

see page

## UPPER PART

Adjusting rings

34

ps:®passfit - explanation and additional costs

40

Additional costs for coating (punch size 2)

54

Polished cutting part (punch size 2)

55

## STRIPPER

Set of spare PU springs - part-no. 1S2956 - pos. 4

Set of spare screw-adapter - part-no. 1S2954 - pos. 3

Set of spare screws - part-no. 1S2950 - pos. 2

## STRIPPER

## LOWER PART

Compensating rings:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 1S3794

<sup>(2)</sup> Suitable for rectangle, as well as rectangle 4 x R = 0,5

<sup>(3)</sup> Brush version for low-scratch material handling

## LOWER PART

RTC cartridge and die carrier

41

Die clips

52

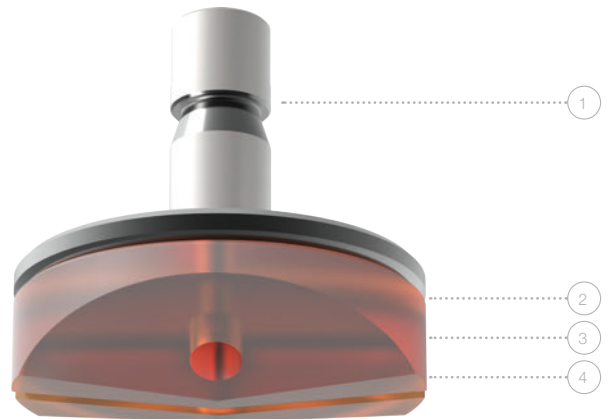
Slug-snap version for slug problems (die size 2)

57

# PASS SLITTING TOOL SIZE 2 / 5 X 76,2

## FOR SLITTING CLOSE TO EMBOSSING, WITH PU STRIPPER

DESCRIPTION	POSITION	PART-NO.
<b>COMPLETE TOOL <sup>(1)</sup></b>		
Oblong	1 - 6	1S297010
Rectangle	1 - 6	1S297020
Rectangle with 4 x R = 0,5	1 - 6	1S297030
Trapezoid SF17	1 - 6	1S297040
Double Trapezoid SF16	1 - 6	1S297050
<b>COMPLETE UPPER PART (INCL. SPRINGS, SCREWS, SCREW-ADAPTER) <sup>(1)</sup></b>		
Oblong	1 - 4	1S29701
Rectangle	1 - 4	1S29702
Rectangle with 4 x R = 0,5	1 - 4	1S29703
Trapezoid SF17	1 - 4	1S29704
Double Trapezoid SF16	1 - 4	1S29705
<b>PUNCH (WITHOUT SPRINGS, SCREWS, SCREW-ADAPTER) (H-PM) <sup>(1)</sup></b>		
Oblong	1	1S29711
Rectangle	1	1S29712
Rectangle with 4 x R = 0,5	1	1S29713
Trapezoid SF17	1	1S29714
Double Trapezoid SF16	1	1S29715
<b>DIE PLATE INSERT (H-PM) <sup>(1)</sup></b>		
Oblong	5	1S17411
Rectangle <sup>(2)</sup>	5	1S17412
Trapezoid SF17	5	1S17414
Double Trapezoid SF16	5	1S17415
<b>DIE PLATE ADAPTER (WITHOUT DIE PLATE INSERT) <sup>(3)</sup></b>		
Incl. screws	6	1S1776



Details / Additional costs:

### UPPER PART

Max. sheet thickness up to 2,50 mm

<sup>(1)</sup> Additional costs for reduced dimensional deviation

<sup>(1)</sup> Standard version with rooftop

X3-PM quality -> see page 68

Cross references:

see page

### UPPER PART

Adjusting rings 34

ps:<sup>®</sup>passfit - explanation and additional costs 40

Additional costs for coating (punch size 2) 54

Polished cutting part (punch size 2) 55

### STRIPPER

Set of spare PU springs - part-no. 1S2955 - pos. 4

Set of spare screw-adapter - part-no. 1S2954 - pos. 3

Set of spare screws - part-no. 1S2950 - pos. 2

### LOWER PART

Compensating rings:

1 Set (2xt = 0,1 mm / 2xt = 0,3 mm / 2xt = 0,5 mm) - part-no. 1S3797

<sup>(2)</sup> Suitable for rectangle, as well as rectangle 4 x R = 0,5

<sup>(3)</sup> Brush version for low-scratch material handling

### STRIPPER

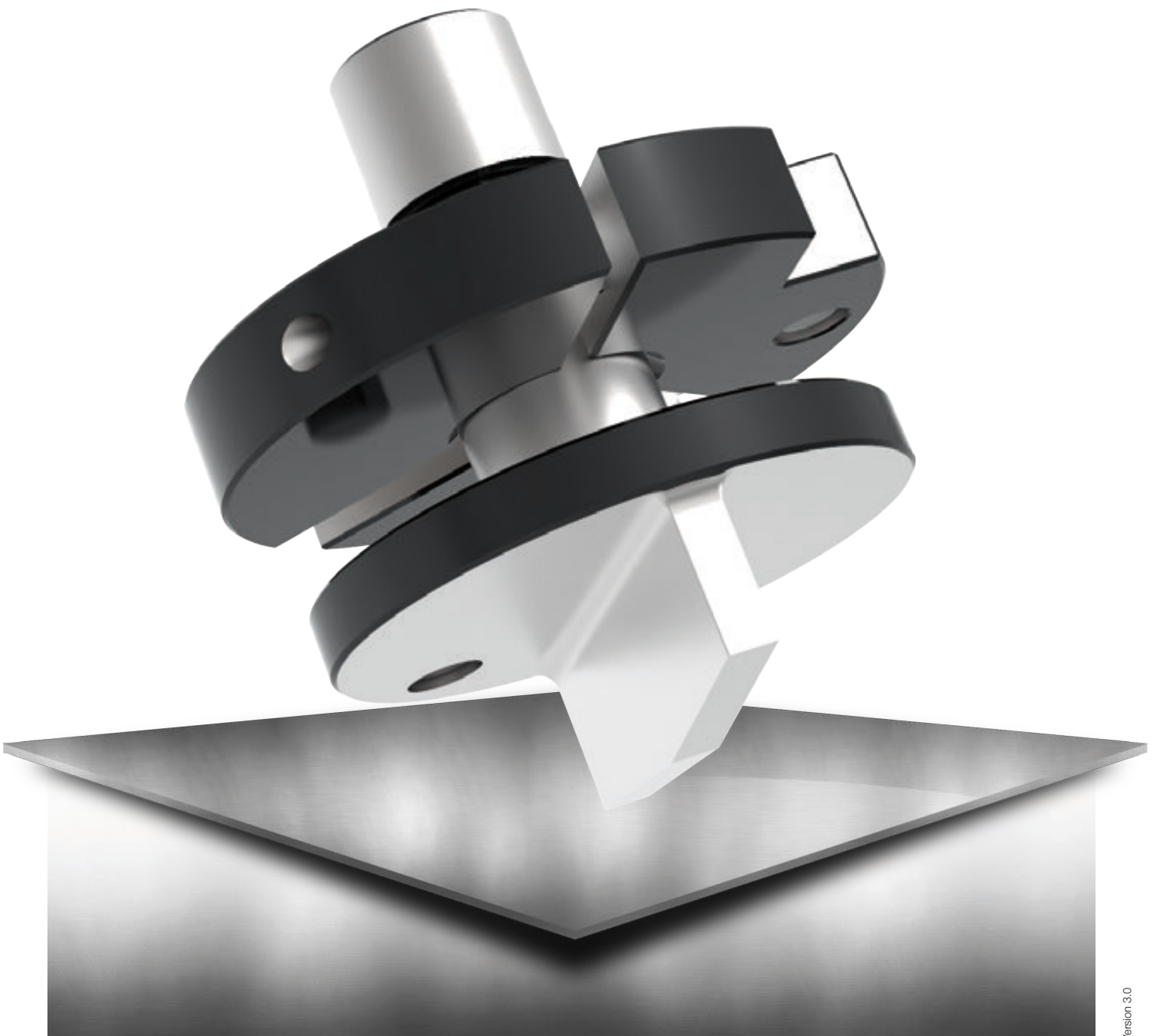
### LOWER PART

RTC cartridge and die carrier 41

Die clips 52

Slug-snap version for slug problems (die size 2) 57







# IT DEPENDS ON: ACCESSORIES

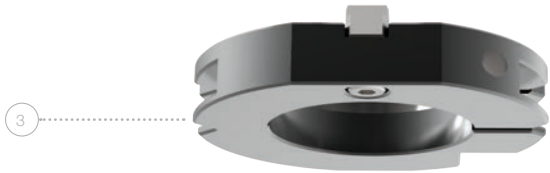
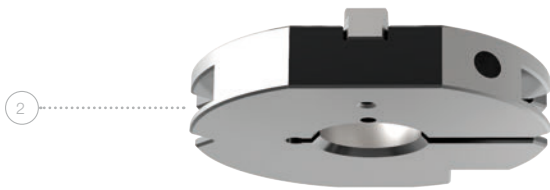
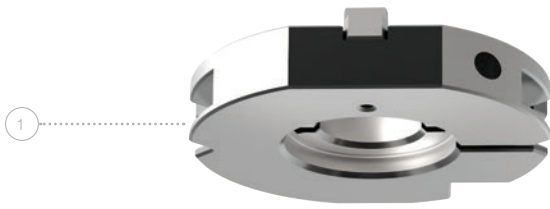
PASS ACCESSORIES FOR YOUR  
TRUMPF SYSTEM

## INDEX

PASS Adjusting Rings	page 34
PASS Punch Chucks, Adapter Rings	page 35
PASS Tapping Tools	page 36
PASS Adjustment Unit for Punch	page 37
PASS Compensating Rings for Dies	page 38
PASS Soft Pads	page 39
ps:®passfit	page 40
RTC Cartridge	page 41

# PASS ADJUSTING RINGS

(FOR MACHINE GROUPS E / F / H / I)



SIZE	POSITION	PART-NO.
<b>AUTOMATIC ADJUSTING RINGS INCL. KEY</b>		
Size 1 with cut-out	1	118101
Size 2 without cut-out	2	118201

<b>ADJUSTING RING INCL. KEY FOR REINFORCED VERSION PUNCHES FORM</b>		
Reinforced	3	118V01

**Spare parts:**

**SPARE PARTS FOR ADJUSTING RINGS**

Key for automatic adjusting rings - part-no. 118902 - pos. 4

Key for reinforced adjusting rings - part-no. 118903 - pos. 5

**Cross references:**

**ACCESSORIES**

Punch size 1 and 2

ps:®passfit - explanation and additional costs

Spare parts

see page

6 - 13

40

52

# PASS PUNCH CHUCKS, ADAPTER RINGS

(FOR MACHINE GROUPS E / F / H / I)

SIZE	POSITION	PART-NO.
<b>PUNCH CHUCK</b>		
0 (up to 6,00 mm)	1	119A01
0 (up to 10,50 mm)	1	119B01
<b>ADAPTER RING FOR DIE</b>		
2 / 1	2	120210
<b>ADAPTER RING WITH BRUSHES</b>		
2 / 1	3	1S1820



## Spare parts:

### SPARE PARTS FOR ADAPTER RING WITH BRUSHES

Spare brush for adapter ring - part-no. 1S1822 - pos. 4

Set of compensating rings / shims (6xt = 0,5 mm) - part-no. 1S1823 - pos. 5

## Cross references:

### ACCESSORIES

Punch size 0

Die size 1

Spare parts

see page

6 - 13

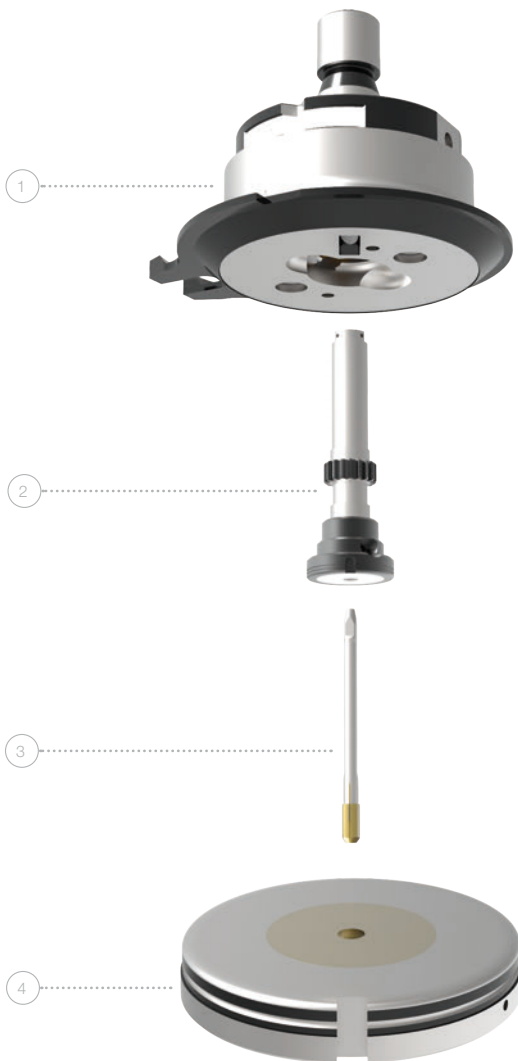
6 - 15

52

# PASS TAPPING TOOLS

FOR MACHINE GROUP I

(TRUPUNCH1000, 2000, 2020, 3000, 5000 TRUMATIC1000, 3000, 6000, 7000)



DESCRIPTION	SIZE	POSITION	PART-NO.
<b>TOOL TYPE 1 <sup>(*)</sup></b>			
Upper part <sup>(1)</sup>	M2,5 - M5	1	924GF1101
Spare tapping module <sup>(2)</sup>	M2,5	2	924GF1301
Spare tapping module <sup>(2)</sup>	M3	2	924GF1302
Spare tapping module <sup>(2)</sup>	M3,5	2	924GF1303
Spare tapping module <sup>(2)</sup>	M4	2	924GF1304
Spare tapping module <sup>(2)</sup>	M5	2	924GF1305
Tap insert 6HX - TIN	M2,5	3	924GF1401
Tap insert 6HX - TIN	M3	3	924GF1402
Tap insert 6HX - TIN	M3,5	3	924GF1403
Tap insert 6HX - TIN	M4	3	924GF1404
Tap insert 6HX - TIN	M5	3	924GF1405
Die type A <sup>(3)</sup>	M2,5 - M8	4	924GF2201
Die type A <sup>(3)</sup>	M10	4	924GF2206
Die type B <sup>(4)</sup>	M2,5 - M8	4	924GF2211
<b>TOOL TYPE 2 <sup>(*)</sup></b>			
Upper part <sup>(1)</sup>	M6 - M10	1	924GF2101
Spare tapping module <sup>(2)</sup>	M6	2	924GF2301
Spare tapping module <sup>(2)</sup>	M8	2	924GF2302
Spare tapping module <sup>(2)</sup>	M10	2	924GF2303
Tap insert 6HX - TIN	M6	3	924GF2401
Tap insert 6HX - TIN	M8	3	924GF2402
Tap insert 6HX - TIN	M10	3	924GF2403
Die type A <sup>(3)</sup>	M2,5 - M8	4	924GF2201
Die type A <sup>(3)</sup>	M10	4	924GF2206
Die type B <sup>(4)</sup>	M2,5 - M8	4	924GF2211

Details:

## INFORMATION

One complete tool always includes:  
„upper part; tapping module; tap insert and die“

<sup>(1)</sup> Without spare tapping module and tap insert

<sup>(2)</sup> Without tap insert

<sup>(3)</sup> Suitable for flat sheets and extrusions (form-up)

<sup>(4)</sup> Suitable for flat sheets and extrusions (form-up and down)

<sup>(5)</sup> Suitable for max. sheet thickness s = 1,50 mm to 5,00 mm

<sup>(6)</sup> Suitable for max. sheet thickness s = 1,50 mm to 8,00 mm  
(for M10 s = 3,00 mm to 8,00 mm)

Other thread sizes and versions (e. g. thread measured in inches) on request

Please note that tapping tools are exclusively used in machines with programming option „Thread Forming“

Cross references:

## ACCESSORIES

RTC cartridge and die carrier

see page

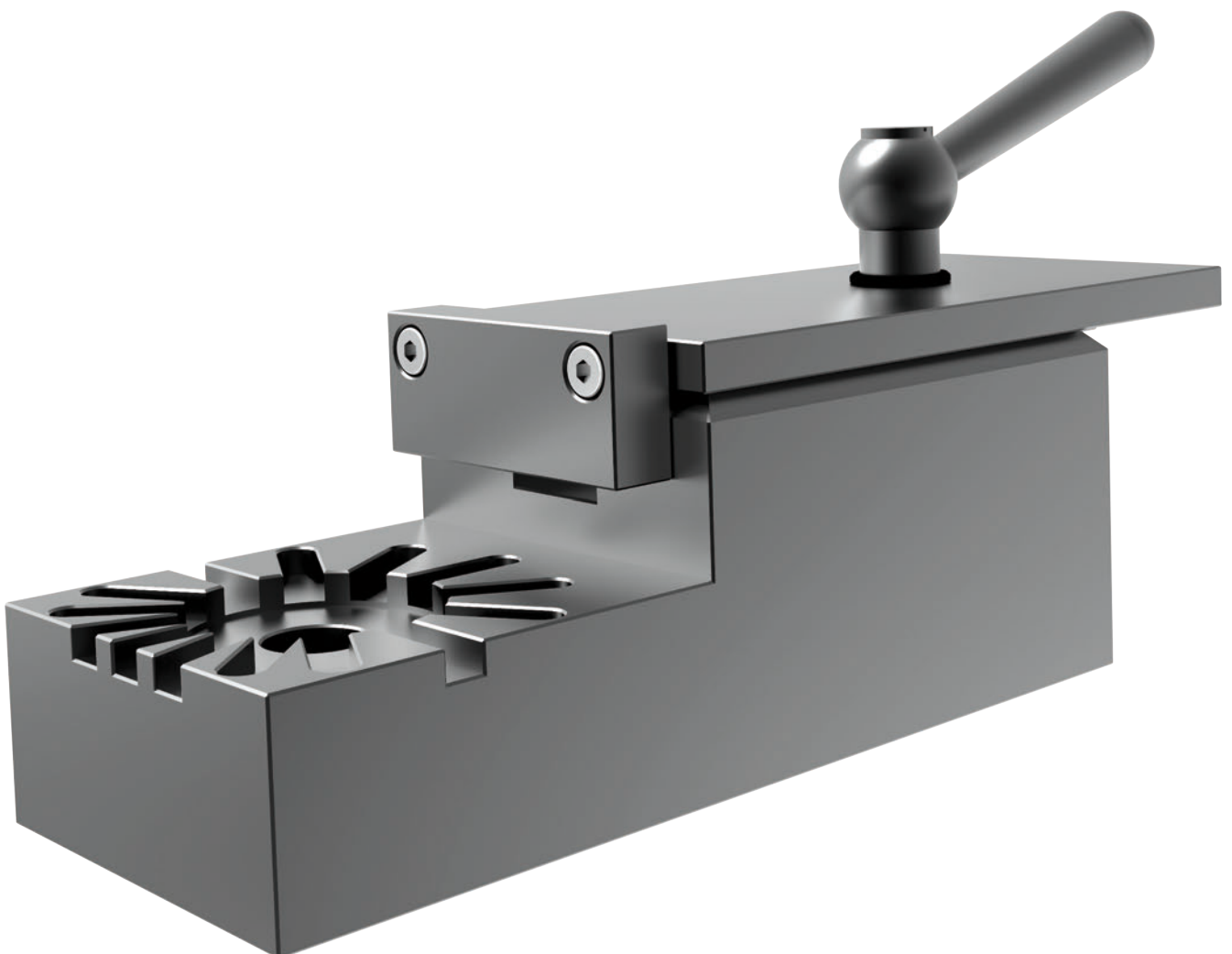
41

# PASS ADJUSTMENT UNIT FOR PUNCH

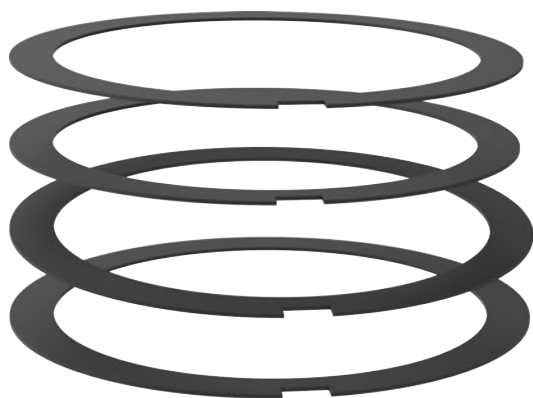
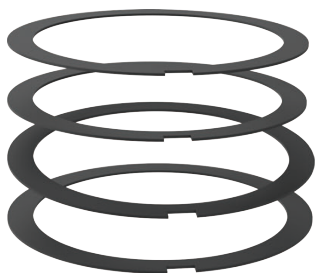
PART-NO.

POSSIBLE ANGLES: 0° - 22,5° - 30° - 45° - 60° - 67,5° - 90°

Z497673



# PASS COMPENSATING RINGS FOR DIES



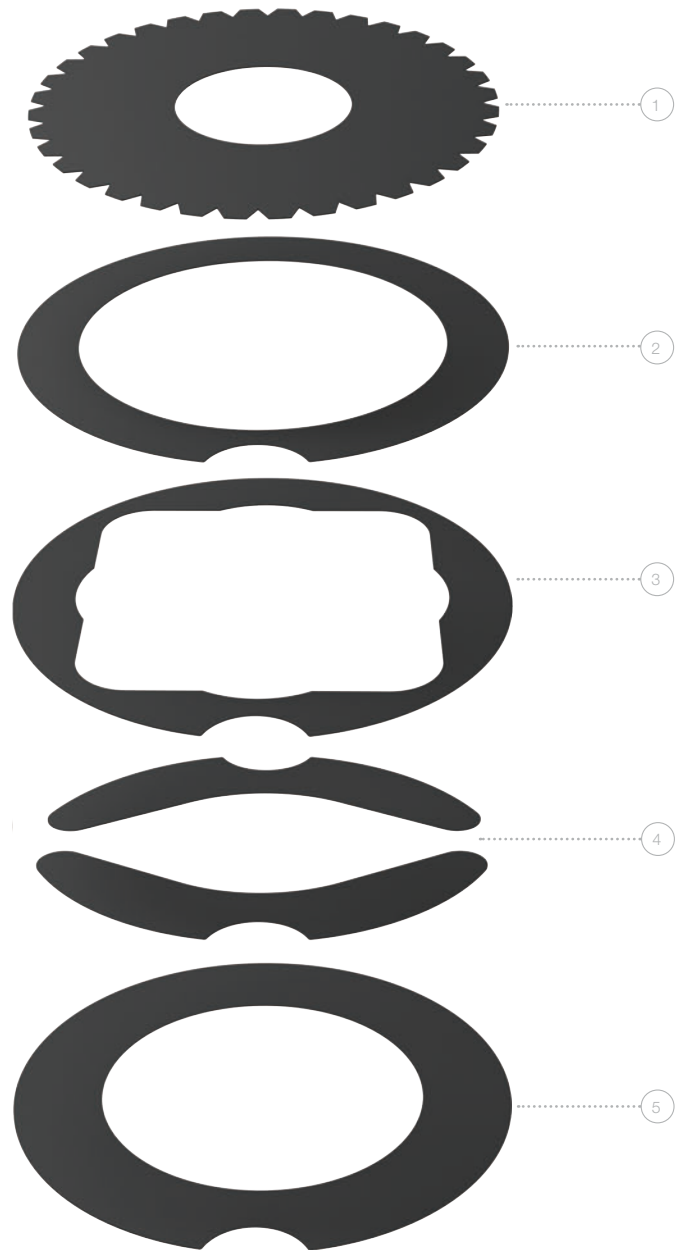
SIZE	RANGE	PART-NO.
<b>SET OF COMPENSATING RINGS FOR DIE SIZE 1</b>		
1	4 x t = 0,1 mm	11AS01
1	4 x t = 0,3 mm	11AS03
1	4 x t = 0,5 mm	11AS05
1	2x t = 0,1/1x t = 0,3/1x t = 0,5 mm	11AS0_
<b>SET OF COMPENSATING RINGS FOR DIE SIZE 2</b>		
2	4 x t = 0,1 mm	12AS01
2	4 x t = 0,3 mm	12AS03
2	4 x t = 0,5 mm	12AS05
2	2x t = 0,1/1x t = 0,3/1x t = 0,5 mm	12AS0_

Details: see page

ACCESSORIES	
Adapter rings for die	35
RTC cartridge and die carrier	41

# PASS SOFT PADS

SIZE	RANGE	POSITION	PART-NO.
<b>SOFT PADS FOR STRIPPER</b>			
2	Inside-Ø 16	1	PAD2A16
2	Inside-Ø 25	1	PAD2A25
2	Inside-Ø 50	1	PAD2A50
2	Inside-Ø 76	1	PAD2A76
<b>SOFT PADS FOR DIE</b>			
2	General	2	PAD2MAN
2	Square	3	PAD2MQN
2	Rectangle / oblong	4	PAD2MFN
<b>SOFT PADS FOR ADAPTER RING</b>			
2 to 1		5	PAD2ZAN





DESCRIPTION	MACHINE GROUP	PART-NO.
ps:®passfit ADJUSTING RING INCL. KEY FOR PUNCH SIZE 1		
Size 1	E-I	1181P1

ps:®passfit ADJUSTING RING INCL. KEY FOR PUNCH SIZE 2		
Size 2	E-I	1182P1

ps:®passfit ADJUSTING RING INCL. KEY FOR PUNCH REINFORCED VERSION		
Reinforced	E-I	118VP1

DESCRIPTION	LOCATION	PART-NO.
ps:®passfit FOR PUNCH SIZE 1		
First keyway	0°	__P1
Each additional keyway		

ps:®passfit FOR PUNCH SIZE 2 AND SIZE 3		
First alignment hole & pin	0 - 90°	__P2
Each additional alignment hole		

ps:®passfit PUNCH REINFORCED FORM		
First keyway	0°	__P1
Each additional keyway		

### Details:

#### INFORMATION ABOUT ps:®passfit

- Form-fitting anti-rotation-lock
- High operational security of the machine
- Solid tool, as the approved standard punches serve as basic tool
- Profile debilitation develops at the tension shaft
- High precision mating with punch; does not add to tool length
- Keyways on customer request
- Also reasonable for special tools
- All PASS cluster tools are generally equipped with ps:®passfit

### Additional costs:

#### SPARE PARTS

- Adjusting key for ps:®passfit - adjusting ring size 1 and size 2 - part-no. 118902
- Adjusting key for ps:®passfit - adjusting ring reinforced form - part-no. 118903



# RTC CARTRIDGE

FOR MACHINE GROUP H & I

(TC 200, TC500, TC600, TRUPUNCH1000, 2000, 2020, 3000, 5000  
TRUMATIC1000, 3000, 6000, 7000)

DESCRIPTION	POSITION	PART-NO.
RTC CARTRIDGE AND DIE CARRIER	1 - 2	on request
RTC CARTRIDGE	1	960100010
DIE CARRIER FOR RTC CARTRIDGE	2	960100020





# WITH PRECISION AND SWING: MARKING AND SIGNING

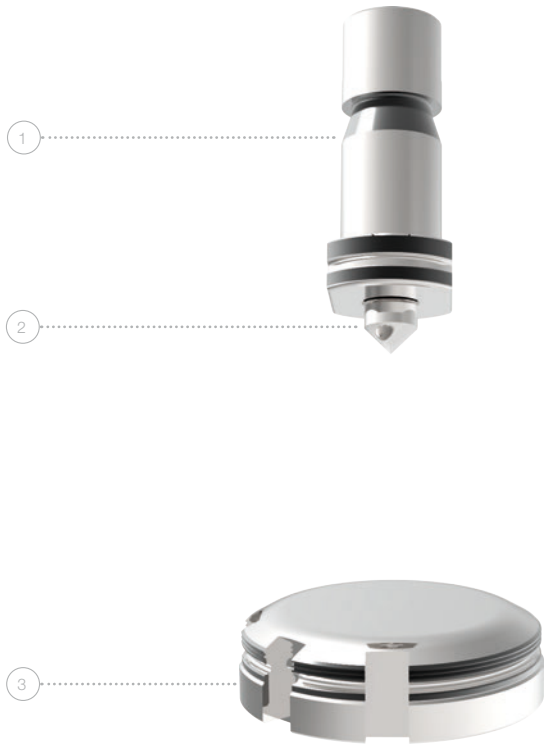
PASS CENTRE PUNCH AND SIGNING TOOLS FOR YOUR  
TRUMPF SYSTEM

## INDEX

PASS Centre Punch Tool from Above	page 44
PASS Centre Punch Tool from Below	page 45
PASS Signing Tool	page 46
PASS Engraving Tool	page 47
PASS Letter Marking Tool 10-Station	page 48

# PASS CENTRE PUNCH TOOL FROM ABOVE

## FOR MACHINE GROUP H



DESCRIPTION	SHEET THICKNESS	POSITION	PART-NO.
<b>CENTRE PUNCH TOOL „SOLID“ - PUNCH CHUCK, CENTRE PUNCH, DIE<sup>(1)</sup></b>			
Complete tool	1,00 - 4,50*	1 - 3	1S092A
Complete tool	4,51 - 8,00	1 - 3	1S092B
<b>SPARE CENTRE PUNCH</b>			
Length 55,3 mm	1,00 - 4,50*	2	1S0921
Length 51,3 mm	4,51 - 8,00	2	1S0922
<b>SPARE DIE</b>			
Flat	1,00 - 8,00	3	1S3940

\* for machine group I up to 8,00 mm

Details / Additional costs:

### ACCESSORIES

<sup>(1)</sup> Suitable adjusting ring - part-no. 118101 -> see page 34

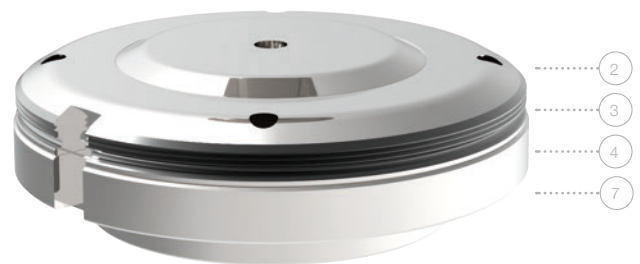
<sup>(1)</sup> Thread screw with shoulder M14 x 1,5 x 12 - part-no. 1S0925

# PASS CENTRE PUNCH TOOL FROM BELOW

## FOR MACHINE GROUP H

DESCRIPTION	SHEET THICKNESS	POSITION	PART-NO.
<b>CENTRE PUNCH TOOL WITH STEPLESS ADJUSTABLE CENTRE MARK TEMPLATE DEPTH <sup>(*)</sup></b>			
Complete tool	1,00 - 4,00*	1 - 7	1S2800
<b>SPARE PARTS FOR CENTRE PUNCH TOOL WITH STEPLESS ADJUSTABLE DEPTH</b>			
Upper Part	1,00 - 4,00	1	1S2801
Stripper	1,00 - 4,00	2	1S2804
Centre punch	1,00 - 4,00	3	1S2805
Cushioning element	1,00 - 4,00	4	1S2806
Adjusting screw	1,00 - 4,00	7	1S2809

\* for machine group I up to 8,00 mm



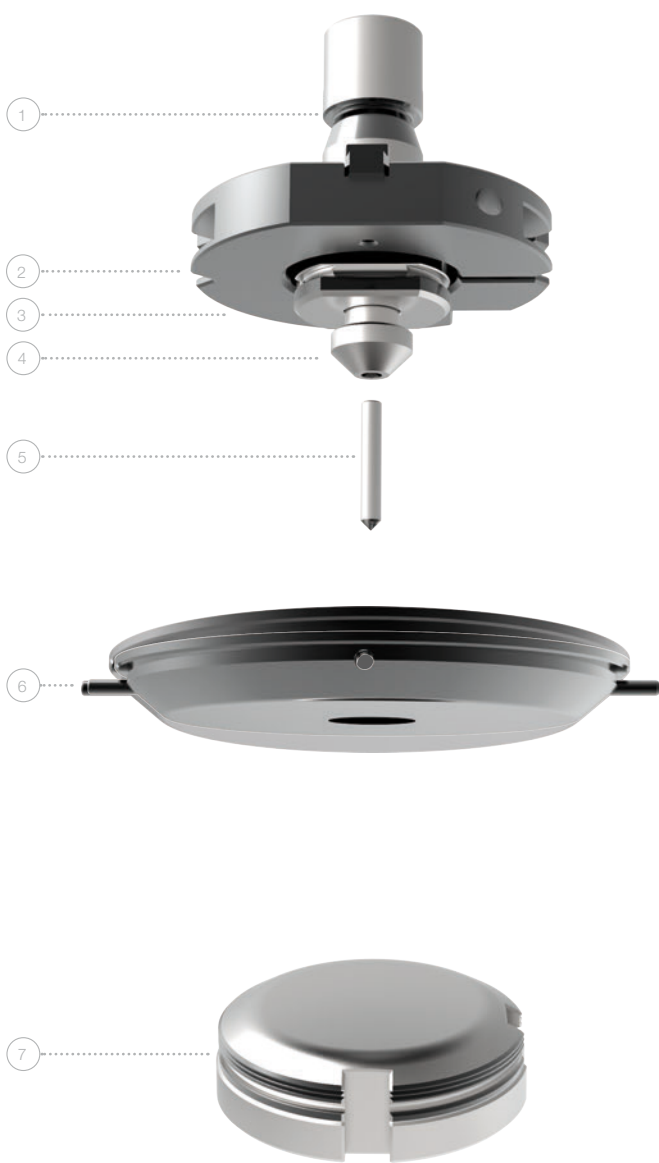
Details:

### ACCESSORIES

<sup>(\*)</sup> Suitable adjusting ring - part-no. 118201 -> see page 34

# PASS SIGNING TOOL

FOR SHEET THICKNESSES FROM 0,80 MM TO 8,00 MM



DESCRIPTION	POSITION	PART-NO.
<b>COMPLETE SIGNING TOOL</b>		
Consisting of:	1 - 7	1S390W
complete upper part, incl. adjusting ring, stripper Ø 20 and flat die		
<b>COMPLETE SIGNING UPPER PART</b>		
Consisting of:	1 - 5	1S3900
adapter, adjusting ring, signing pin and spring		
<b>SPARE SIGNING PIN</b>		
Made of H-PM® steel	5	1S3930
<b>SPARE STRIPPER</b>		
Ø 20	6	112211-20
<b>SPARE DIE</b>		
Flat	7	1S3940

Details: see page

**ACCESSORIES**

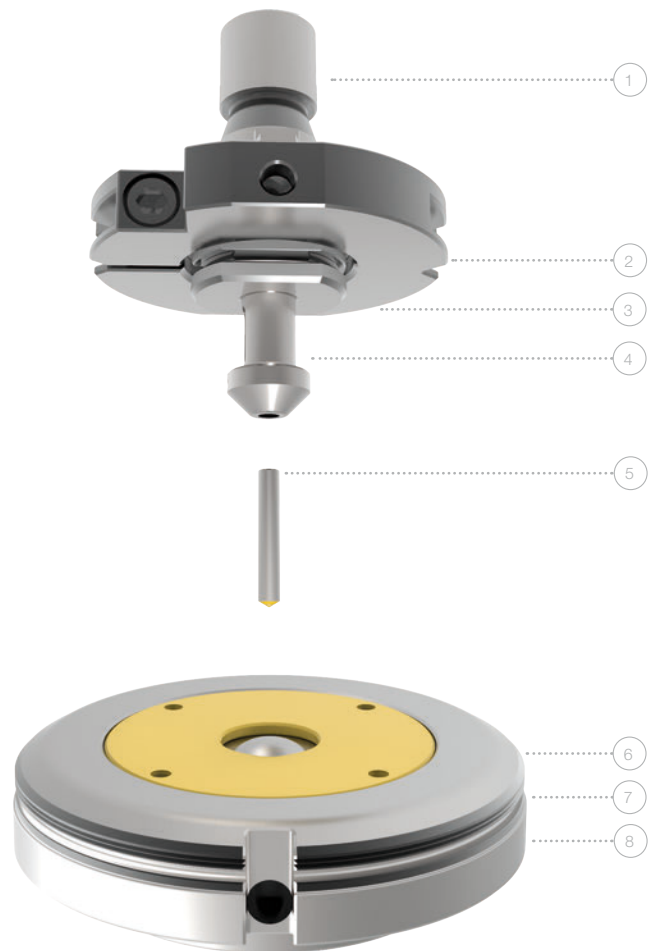
Spare adjusting ring - part-no. 118101 34

Option „signing“ must be unlocked in the machine controlling

# PASS ENGRAVING TOOL

FOR SHEET THICKNESSES FROM 1,00 MM TO 8,00 MM

DESCRIPTION	POSITION	PART-NO.
<b>ENGRAVING TOOL INCL. DIE AND BALL CASTER</b>		
Consisting of:	1 - 8	199103950
complete upper part, incl. 3 types of springs, adjusting ring, die and ball caster		
<b>ENGRAVING TOOL UPPER PART</b>		
Incl. 3 types of springs	1 - 5	199103950-1
<b>SPARE ENGRAVING PIN</b>		
Diamond	5	199103962
<b>SPARE DIE</b>		
Incl. Ampco plate and ball caster	6 - 8	199103950-2
<b>SPARE SPRINGS</b>		
„Green“ for aluminium		91701025A
„Blue“ for steel		91701025B
„Red“ for stainless steel		91701025C



Details: see page

## ACCESSORIES

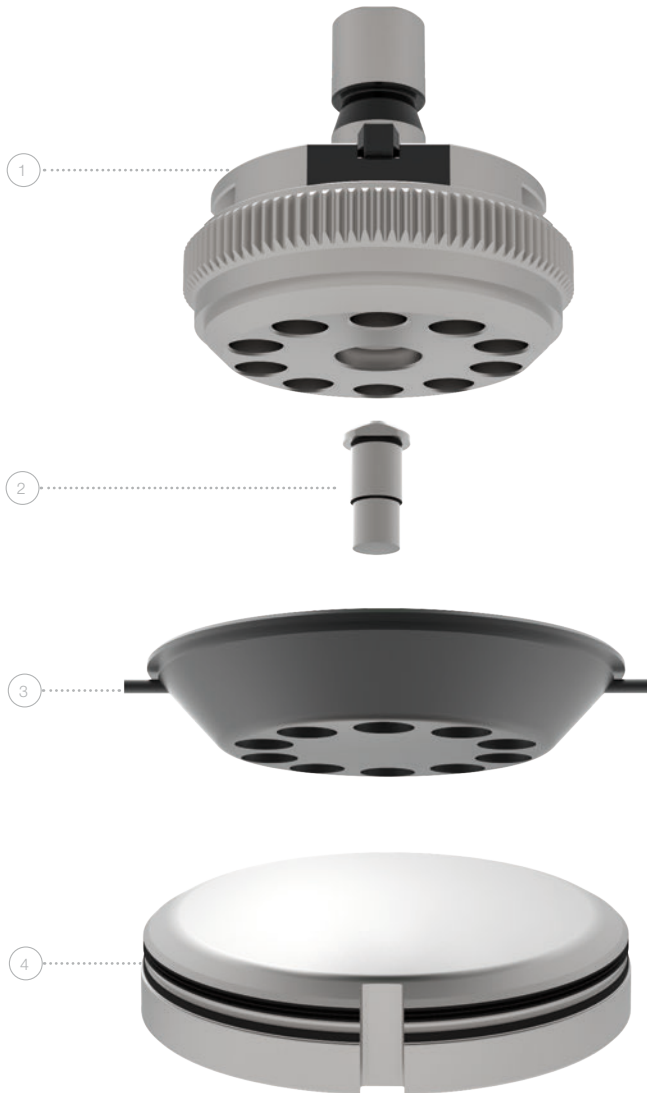
Spare adjusting ring - part-no. 118101 34

Option „engraving“ must be unlocked in the machine controlling

# PASS LETTER MARKING TOOL 10-STATION

FOR MACHINE GROUP I

(TRUPUNCH1000, 2000, 2020, 3000, 5000 TRUMATIC1000, 3000, 6000, 7000)



DESCRIPTION	POSITION	PART-NO.
<b>UPPER PART</b>		
Punch holder	1	113S40
<b>LETTER MARKING PUNCH INSERT</b>		
Letter, digit or special sign on customer request	2	113P10_?
<b>STRIPPER</b>		
Standard round	3	113PA10
<b>DIE FOR 10-STATION MULTITOOL</b>		
Flat	4	113PM10

Cross references / Additional costs:

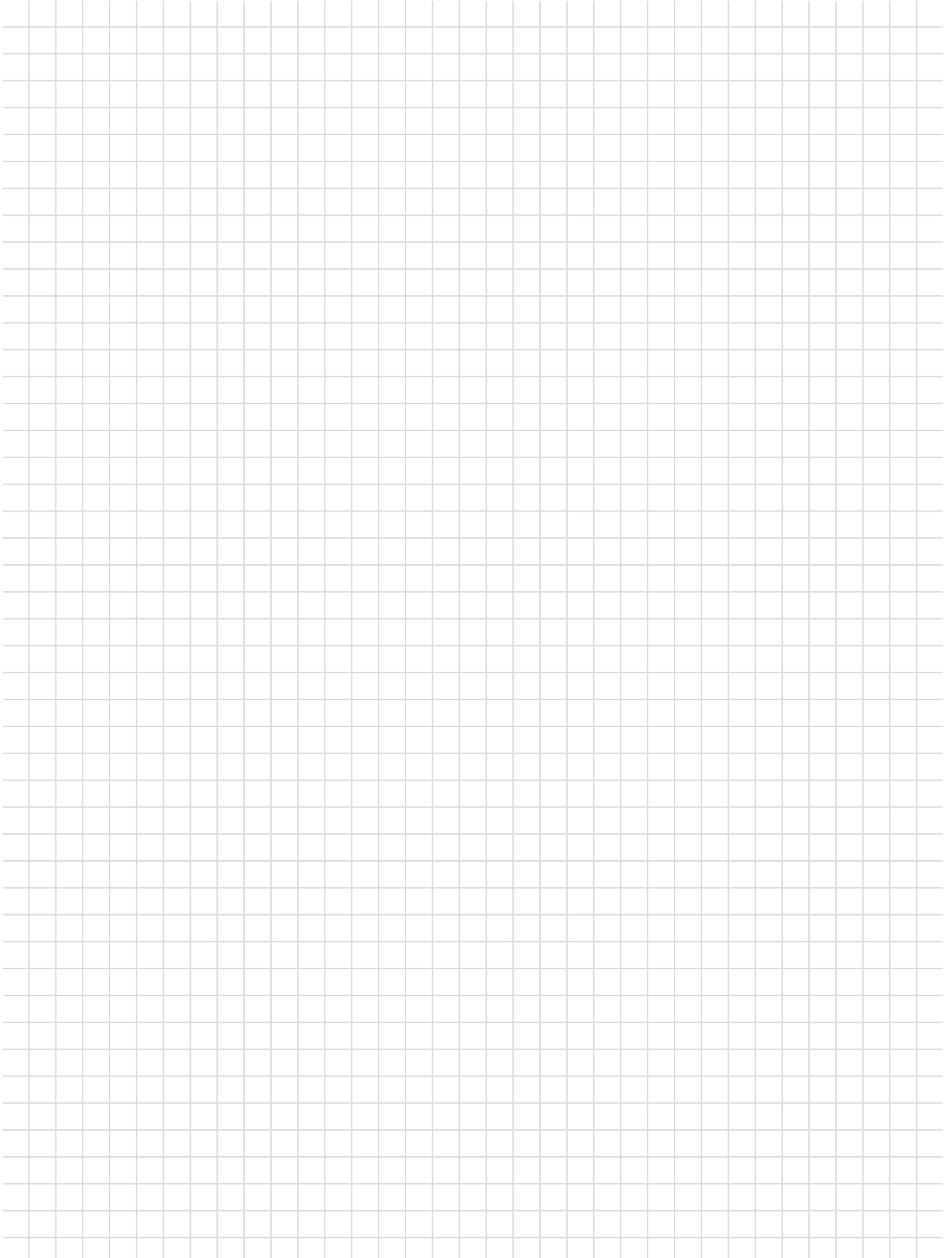
#### ACCESSORIES

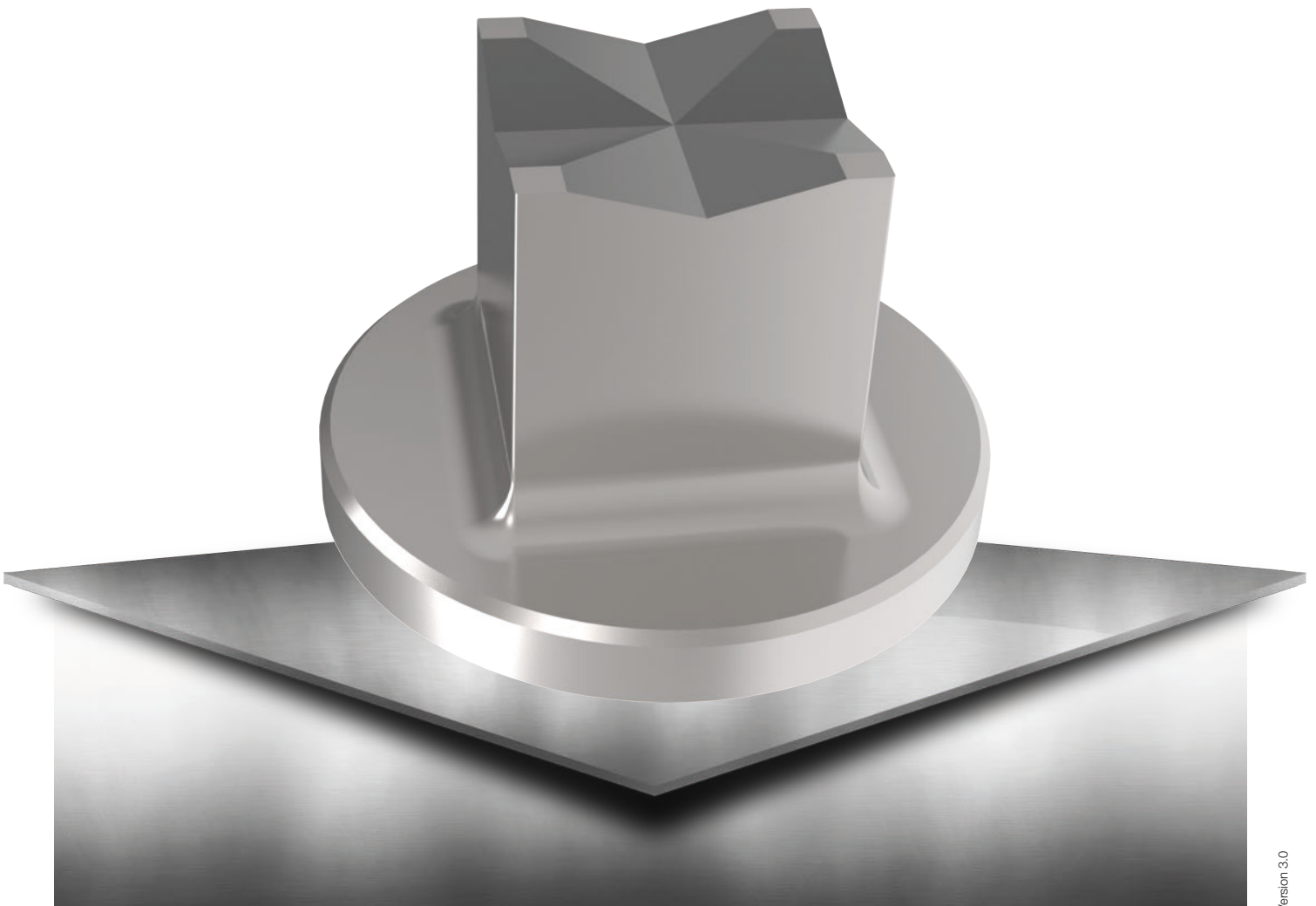
RTC cartridge and die carrier - see page 41

Stripper in polished version for low-scratch material handling

PU coating for low-scratch material handling







# WORKING EFFECTIVELY: EXTRA EQUIPMENT

PASS EXTRA EQUIPMENT FOR YOUR  
TRUMPF SYSTEM

## INDEX

Spare Parts	page 52
PASS Push-out Stripper	page 53
Punch Coatings	page 54
Draw-Polishing	page 55
Punches with Different Shear Types	page 56
PASS slug-snap for Dies	page 57

# SPARE PARTS

DESCRIPTION	PART-NO.
<b>SCREWS</b>	
M5 x 10 for punch chuck Ø 6,00 mm	905006
M6 x 6 for punch chuck Ø 10,50 mm	905019
M8 x 16 for adapter rings size 2/1	905009
M8 x 12 with pins for adapter rings 3/1 - 3/2	905008
M14 x 1,5 x 12 for punch chuck	119991
<b>CYLINDER PIN</b>	
Ø 8 x 16 for adapter ring size 2/1	1-901013
Ø 8 x 16 for adapter ring size 3/1 - 3/2	2-901013
<b>ps:®passfit</b>	
Cylinder pin Ø 3 x 10 for adjusting ring size 1	901003
Adjusting key for punch size 2 + 3	118900006
<b>SLITTING PUNCH BLADE INSERT AND DIE PLATE INSERT</b>	
Center pin Ø 6 x 20 for slitting punch blade adapter	901018
Set of spare screws for die plate adapter M4 x 12 - 6 pieces	1-907005
Set of spare screws for die plate adapter M4 x 12 - 4 pieces	2-907005
<b>MISCELLANEOUS</b>	
Die clip for die	106991
Stripper pin	110991
Clamping screw M6 x 25 for adjusting ring size 1 + 2	907013
Fixing screw M3 x 8 for adjusting key	907062
Handle for stripper adapter ring „manual“ size 3/2	120326-2

# PASS PUSH-OUT STRIPPER

(FOR MACHINE GROUPS H / I)

DESCRIPTION	POSITION	PART-NO.
<b>PUSH-OUT STRIPPER</b>		
Round	1 - 4	1S21201
Square	1 - 4	1S21202
Rectangle	1 - 4	1S21203
Oblong	1 - 4	1S21204
Special shape	1 - 4	1S21200
<b>SPARE PARTS</b>		
Spare screws (4 per set)	2	1S21291
Spare springs (4 per set)	3	1S21292



Additional costs:	Cross references:	see page
<b>STRIPPER</b>		
Polished version for low-scratch material handling	Standard tools	6 - 13
	Slitting tools	26 - 28
	Spare parts	52

# PUNCH COATINGS

ADVANTAGE: INCREASES TOOL LIFETIME, REDUCES MATERIAL BUILD UP

TICN



T-MAX



A-MAX



SIZE	RANGE
<b>TICN COATING (FOR WORKING WITH STAINLESS STEEL) <sup>(*)</sup></b>	
0	- 10,50 mm
1	- 30,50 mm
2	- 76,20 mm
3	- 105,00 mm
Multitool	- 16,00 mm
Slitting punch blade insert	- 60,00 mm
Slitting punch blade insert	- 80,00 mm

SIZE	RANGE
<b>T-MAX COATING (FOR WORKING WITH GALVANIZED SHEET / ZINCOR) <sup>(*)</sup></b>	
0	- 10,50 mm
1	- 30,50 mm
2	- 76,20 mm
3	- 105,00 mm
Multitool	- 16,00 mm
Slitting punch blade insert	- 60,00 mm
Slitting punch blade insert	- 80,00 mm

SIZE	RANGE
<b>A-MAX COATING (FOR DRY PROCESSING WITH ALUMINIUM SHEET) <sup>(*)</sup></b>	
0	- 10,50 mm
1	- 30,50 mm
2	- 76,20 mm
3	- 105,00 mm
Multitool	- 16,00 mm
Slitting punch blade insert	- 60,00 mm
Slitting punch blade insert	- 80,00 mm

Details:

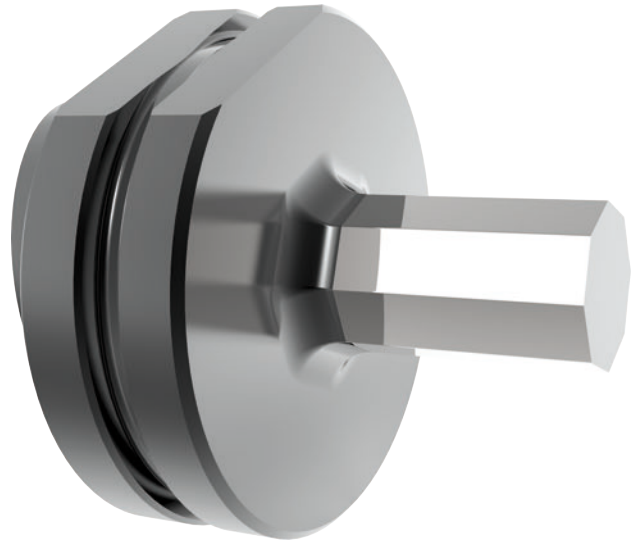
<sup>(\*)</sup> Suitable for cutting part sizes from Ø 4,00 mm or wide bases of 2,50 mm

# DRAW-POLISHING

## PUNCH EDGES

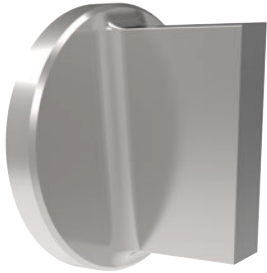
INCREASES TOOL LIFETIME, REDUCES MATERIAL BUILD UP

SIZE	RANGE
<b>ROUND</b>	
0	- 10,50 mm
1	- 30,50 mm
2	- 76,20 mm
3	- 105,00 mm
Multitool	- 16,00 mm
<b>SQUARE / RECTANGLE / OBLONG</b>	
0	- 10,50 mm
1	- 30,50 mm
2	- 76,20 mm
3	- 105,00 mm
Multitool	- 16,00 mm
<b>O.D. GROUND SPECIAL SHAPES (SPECIAL SHAPE GROUP 1 &amp; 2)</b>	
0	- 10,50 mm
1	- 30,50 mm
2	- 76,20 mm
3	- 105,00 mm
Multitool	- 16,00 mm
<b>EDM REQUIRED SPECIAL SHAPES (SPECIAL SHAPE GROUP 3 &amp; 4)</b>	
0	- 10,50 mm
1	- 30,50 mm
2	- 76,20 mm
3	- 105,00 mm
Multitool	- 16,00 mm

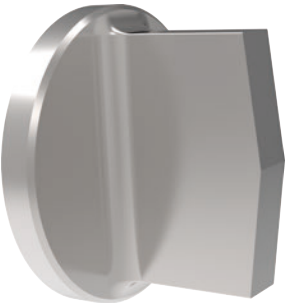


# PUNCHES WITH DIFFERENT SHEAR TYPES

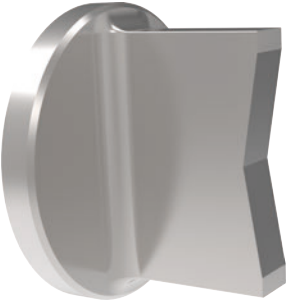
WT



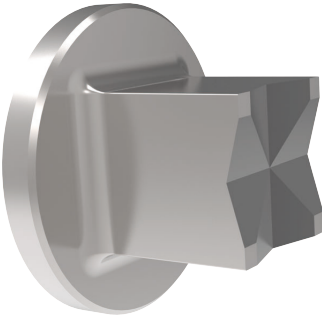
DOWT



2 PT



4 PT



DESCRIPTION

SHEAR TYPES	
WT	
DOWT	
2 PT	
4 PT	



# PASS SLUG-SNAP FOR DIES

SIZE	RANGE
<b>FOR DIES ROUND</b>	
1	- 32,00 mm
2	- 77,00 mm
1 reinforced form	- 32,00 mm
2 reinforced form	- 62,00 mm
Multitool	- 16,00 mm
<b>FOR DIE FORM</b>	
1	- 32,00 mm
2	- 77,00 mm
1 reinforced form	- 32,00 mm
2 reinforced form	- 62,00 mm
Multitool	- 16,00 mm



SLUG-SNAP

Details:

## SLUG-SNAP

Special holding bolts are included in the die, clamping the slug positively (better than the slug-stop version, negative cutting part)

The slug-snap version is also more convenient for shapes smaller than 4 mm and clearance smaller/equal 0,1 mm



# YOU NEED IT BIG SIZE?

## PASS TOOLS SIZE 3 AND SPECIFIC TOOLING FOR BOSCHERT PUNCHING MACHINES

### INDEX

PASS Punching Tools (Standard) Size 3	page 60
PASS Punching Tools (FORM) Size 3	page 61
PASS Adapter and Manual Adjusting Rings	page 62
PASS Slitting Tool Size 2	page 63
PASS Slitting Tool Size 3	page 64
PASS PU Stripper	page 65

# PASS PUNCHING TOOLS (STANDARD) SIZE 3



DESCRIPTION	DIM. D	PART-NO.
<b>ROUND</b>		
Punch (H-PM®)	76,21 - 105,00 mm	101311C
Die	77,01 - 107,00 mm	106311C
Automatic stripper	78,01 - 107,00 mm	110311C
Manual stripper	78,01 - 107,00 mm	111311C
<b>SQUARE</b>		
Punch (H-PM®)	53,91 - 74,25 mm	101312C
Die	54,91 - 75,50 mm	106312C
Automatic stripper	56,01 - 77,00 mm	110312C
Manual stripper	56,01 - 77,00 mm	111312C
<b>RECTANGLE</b>		
Punch (H-PM®)	76,21 - 105,00 mm	101313C
Die	77,01 - 107,00 mm	106313C
Automatic stripper	78,01 - 107,00 mm	110313C
Manual stripper	78,01 - 107,00 mm	111313C
<b>OBLONG</b>		
Punch (H-PM®)	76,21 - 105,00 mm	101314C
Die	77,01 - 107,00 mm	106314C
Automatic stripper	78,01 - 107,00 mm	110314C
Manual stripper	78,01 - 107,00 mm	111314C

## Additional costs:

### PUNCH

Punches with shear (WT / DOWT / etc.) -> see page 56

Cutting part under 1,00 mm

4 x corner radius

X3-PM quality -> see page 68

## Cross references:

### PUNCH

ps:®passfit - explanation and additional costs

Additional costs for coating

Polished cutting part

Adjusting rings

see page

40

54

55

62

### STRIPPER

Polished version for low-scratch material handling

### STRIPPER

Spare parts

PU stripper

52

65

### DIE

Slug-stop version (negative cutting)

Additional keyway

Brush version for low-scratch material handling

X8-PM quality -> see page 68

### DIE

Slug-snap version (for slug problems) - price on request

Adapter rings

57

62

# PASS PUNCHING TOOLS (FORM) SIZE 3

DESCRIPTION	DIM. D	PART-NO.
<b>SPECIAL SHAPE TOOLS GROUP 1 (SF01, SF02, SF04, SF05)</b>		
Punch (H-PM®)	76,21 - 105,00 mm	12131__C1
Die	77,01 - 107,00 mm	12631__C1
Automatic stripper	78,01 - 107,00 mm	12731__C1
Manual stripper	78,01 - 107,00 mm	1273D__C1
<b>SPECIAL SHAPE TOOLS GROUP 2 (SF03, SF07, SF13, SF17)</b>		
Punch (H-PM®)	76,21 - 105,00 mm	12131__C2
Die	77,01 - 107,00 mm	12631__C2
Automatic stripper	78,01 - 107,00 mm	12731__C2
Manual stripper	78,01 - 107,00 mm	1273D__C2
<b>SPECIAL SHAPE TOOLS GROUP 3 (SF06, SF08, SF14, SF16)</b>		
Punch (H-PM®)	76,21 - 105,00 mm	12131__C3
Die	77,01 - 107,00 mm	12631__C3
Automatic stripper	78,01 - 107,00 mm	12731__C3
Manual stripper	78,01 - 107,00 mm	1273D__C3
<b>SPECIAL SHAPE GROUP 4 (SF09, SF10, SF11, SF12, SF15)</b>		
Punch (H-PM®)	76,21 - 105,00 mm	12131__C4
Die	77,01 - 107,00 mm	12631__C4
Automatic stripper	78,01 - 107,00 mm	12731__C4
Manual stripper	78,01 - 107,00 mm	1273D__C4



## Additional costs:

### PUNCH

Punches with shear (WT / DOWT / etc.) -> see page 56

Cutting part under 1,00 mm

X3-PM quality -> see page 68

## Cross references:

### PUNCH

Types of special shapes

ps:®passfit - explanation and additional costs

Additional costs for coating

Polished cutting part

Adjusting rings

see page

10 - 13

40

54

55

34 + 62

### STRIPPER

Polished version for low-scratch material handling

### STRIPPER

Spare parts

PU stripper

52

65

### DIE

Slug-stop version (negative cutting)

Additional keyway

Brush version for low-scratch material handling

X8-PM quality -> see page 68

### DIE

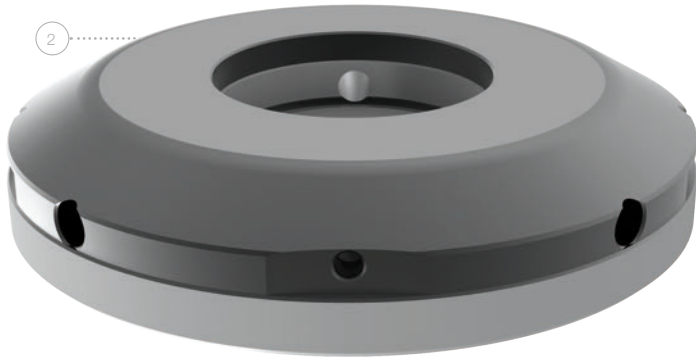
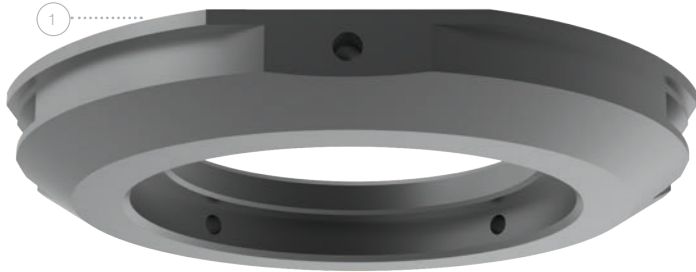
Slug-snap version (for slug problems) - price on request

Adapter rings

57

62

# PASS ADAPTER AND MANUAL ADJUSTING RINGS



DESCRIPTION	MACHINE GROUP	POSITION	PART-NO.
<b>ADAPTER RING FOR STRIPPER</b>			
From 3 to 2	G	1	120321
From 3 to 2	C - D	1*	120326

<b>ADAPTER RING FOR DIE</b>			
From 3 to 1	G	2	120310
From 3 to 2	G	2*	120320

<b>ADJUSTING RINGS (MANUAL)</b>			
1	A - D	3*	118102
2	A - D	3*	118202
3 (outside Ø 95 mm)	A - D	3	118302

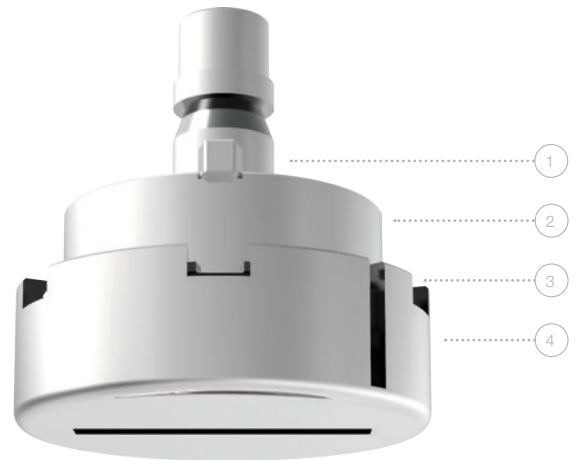
<b>ps:®passfit ADJUSTING RINGS (MANUAL)</b>			
1	A - D	4*	1181P2
2	A - D	4*	1182P2
3 (outside Ø 95 mm)	A - D	4	1183P2

\* no picture

# PASS SLITTING TOOL SIZE 2

## FOR BOSCHERT PUNCHING MACHINES

DESCRIPTION	POSITION	PART NO.
<b>SPRING LOADED SLITTING TOOL SIZE 2 - MEASURE 5 X 30 - 4 X R=0,5 <sup>(1)</sup></b>		
Upper part - complete	1 - 4	1S0330530
Spare slitting punch blade insert <sup>(2)</sup> (H-PM®)	2	1S0440
Spare stripper 6 x 57	4	1S0333
Die cl 0,1 - cl 0,3	5	106T530__
Die cl 0,4 - cl 1,0	5	109T530__
<b>SPRING LOADED SLITTING TOOL SIZE 2 - MEASURE 5 X 40 - 4 X R=0,5 <sup>(1)</sup></b>		
Upper part - complete	1 - 4	1S0330540
Spare slitting punch blade insert <sup>(2)</sup> (H-PM®)	2	1S0441
Spare stripper 6 x 57	4	1S0333
Die cl 0,1 - cl 0,3	5	106T540__
Die cl 0,4 - cl 1,0	5	109T540__
<b>SPRING LOADED SLITTING TOOL SIZE 2 - MEASURE 5 X 56 - 4 X R=0,5 <sup>(1)</sup></b>		
Upper part - complete	1 - 4	1S0330556
Spare slitting punch blade insert <sup>(2)</sup> (H-PM®)	2	1S0442
Spare stripper 6 x 57	4	1S0333
Die cl 0,1 - cl 0,3	5	106T556__
Die cl 0,4 - cl 1,0	5	109T556__
<b>OTHER SPARE PARTS</b>		
Spare springs		
Set of steel springs (2 x big / 2 x small)	3	1S0331



Details / Additional costs:

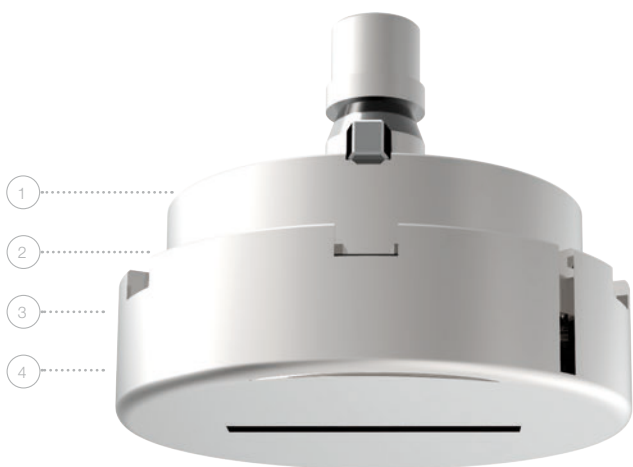
<sup>(1)</sup> For slitting: aluminium s = 4,00 mm,  
steel s = 4,00 mm, stainless steel s = 2,5 mm

<sup>(2)</sup> Slitting punch blade insert general with PASS T-MAX coating

<sup>(2)</sup> Additional costs for reduced dimensional deviation

# PASS SLITTING TOOL SIZE 3

FOR BOSCHERT PUNCHING MACHINES



DESCRIPTION	POSITION	PART-NO.
<b>SPRING LOADED SLITTING TOOL SIZE 3 - MEASURE 8 X 30 - 4 X R = 1,00 <sup>(1)</sup></b>		
Upper part - complete	1 - 4	1S0350830
Spare slitting punch blade insert <sup>(2)</sup> (H-PM <sup>®</sup> )	2	1S0446
Spare stripper	4	1S0355830
Die cl 0,3 - cl 1,0	5	109T830__
Die cl 1,2 - cl 1,5	5	109T830__
<b>SPRING LOADED SLITTING TOOL SIZE 3 - MEASURE 8 X 40 - 4 X R = 1,00 <sup>(1)</sup></b>		
Upper part - complete	1 - 4	1S0350840
Spare slitting punch blade insert <sup>(2)</sup> (H-PM <sup>®</sup> )	2	1S0447
Spare stripper	4	1S0355840
Die cl 0,3	5	106T840__
Die cl 0,4 - cl 1,2	5	109T840__
<b>SPRING LOADED SLITTING TOOL SIZE 3 - MEASURE 8 X 56 - 4 X R = 1,00 <sup>(1)</sup></b>		
Upper part - complete	1 - 4	1S0350856
Spare slitting punch blade insert <sup>(2)</sup> (H-PM <sup>®</sup> )	2	1S0448
Spare stripper	4	1S0355856
Die cl 0,3	5	106T856__
Die cl 0,4 - cl 1,0	5	109T856__
<b>OTHER SPARE PARTS</b>		
Spare springs		
Set of steel springs (4 x big / 4 x small)	3	1S03558X1

Details / Additional costs:

<sup>(1)</sup> For slitting: aluminium s = 6,00 mm,  
steel s = 6,00 mm, stainless steel s = 3,00 mm

<sup>(2)</sup> Slitting punch blade insert general with PASS T-MAX coating

<sup>(2)</sup> Additional costs for reduced dimensional deviation



# PASS PU STRIPPER

SPRING TYPE	PUNCH SHAPE <sup>(*)</sup>	RANGE	PART-NO.
<b>WITHOUT SHAPE</b>			
1	Flat size 1	- 12,00 mm	1S013810
1	Whisper size 1	- 12,00 mm	1S013820
2	Flat size 1	- 30,50 mm	1S013830
2	Whisper size 1	- 30,50 mm	1S013840
3	Flat size 2	- 48,00 mm	1S013850
3	Whisper size 2	- 48,00 mm	1S013860
	Flat / Whisper size 2	> 48,00 mm	on request

<b>FOR ROUND PUNCHES</b>			
1	Flat size 1	- 12,00 mm	1S013811
1	Whisper size 1	- 12,00 mm	1S013821
2	Flat size 1	- 30,50 mm	1S013831
2	Whisper size 1	- 30,50 mm	1S013841
3	Flat size 2	- 48,00 mm	1S013851
3	Whisper size 2	- 48,00 mm	1S013861
	Flat / Whisper size 2	> 48,00 mm	on request

<b>FOR FORM PUNCHES</b>			
1	Flat size 1	- 12,00 mm	1S013812
1	Whisper size 1	- 12,00 mm	1S013822
2	Flat size 1	- 30,50 mm	1S013832
2	Whisper size 1	- 30,50 mm	1S013842
3	Flat size 2	- 48,00 mm	1S013852
3	Whisper size 2	- 48,00 mm	1S013862
	Flat / Whisper size 2	> 48,00 mm	on request

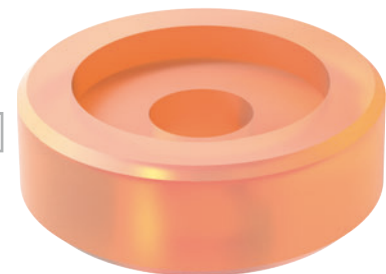
SPRING TYPE 1



SPRING TYPE 2



SPRING TYPE 3



Details:

## PUNCH SECTION

<sup>(\*)</sup> Flat = length 74,00 mm

<sup>(\*)</sup> Whisper = length 77,00 mm



# TECHNICAL INFORMATION

## INFORMATION ABOUT OUR TOOLS FOR YOUR TRUMPF SYSTEM

### INDEX

PASS Tool Variety	page 68
Life-time of Tools / Re grind Advice	page 69
PASS Coating Versions / Draw-polishing	page 70
Die Versions	page 71
Punches with Different Shear Types	page 72
PASS Back Taper on Punches	page 73
PASS Corner Radius on Punches	page 74
PASS Punches with Reinforced Shoulder	page 75
Index	page 79

# PASS TOOL VARIETY

## HWS

HWS tools are made of a secondary hardened cold work steel with superior toughness. This type of steel is especially suitable for dies.

Advantage for customer:

- excellent cost in accordance to performance

## H-PM®

H-PM® tools are produced with steel made on powder-metallurgical base with a high degree of purity.

This guarantees a segregational uniformed microstructure in the complete cross-section of the tool.

Advantage for customer:

- excellent cost in accordance to performance
- good stability for edges by increased toughness
- high tool life time due to the uniformed microstructure
- increased current hit-flex-capability;
- suitable as an excellent base for dies

## X3-PM

The X3-PM tools are made of a high-end powder-metallurgical steel with the best possible performance characteristics for punches in the punching technology due to the best possible degree of purity.

The segregational uniformed microstructure with high vanadium concentration in the complete cross-section of the punch guarantees best possible wear resistance regarding tool life time.

Advantage for customer:

- best efficiency by multiple increase of the punch hit count
- best possible stability for cutting edges
- extremely high abrasion resistance
- utmost compressive strength

## X8-PM

The X8-PM tools are made of a high-end powder-metallurgical steel the best possible performance characteristics for dies in the punching technology caused by best possible degree of purity.

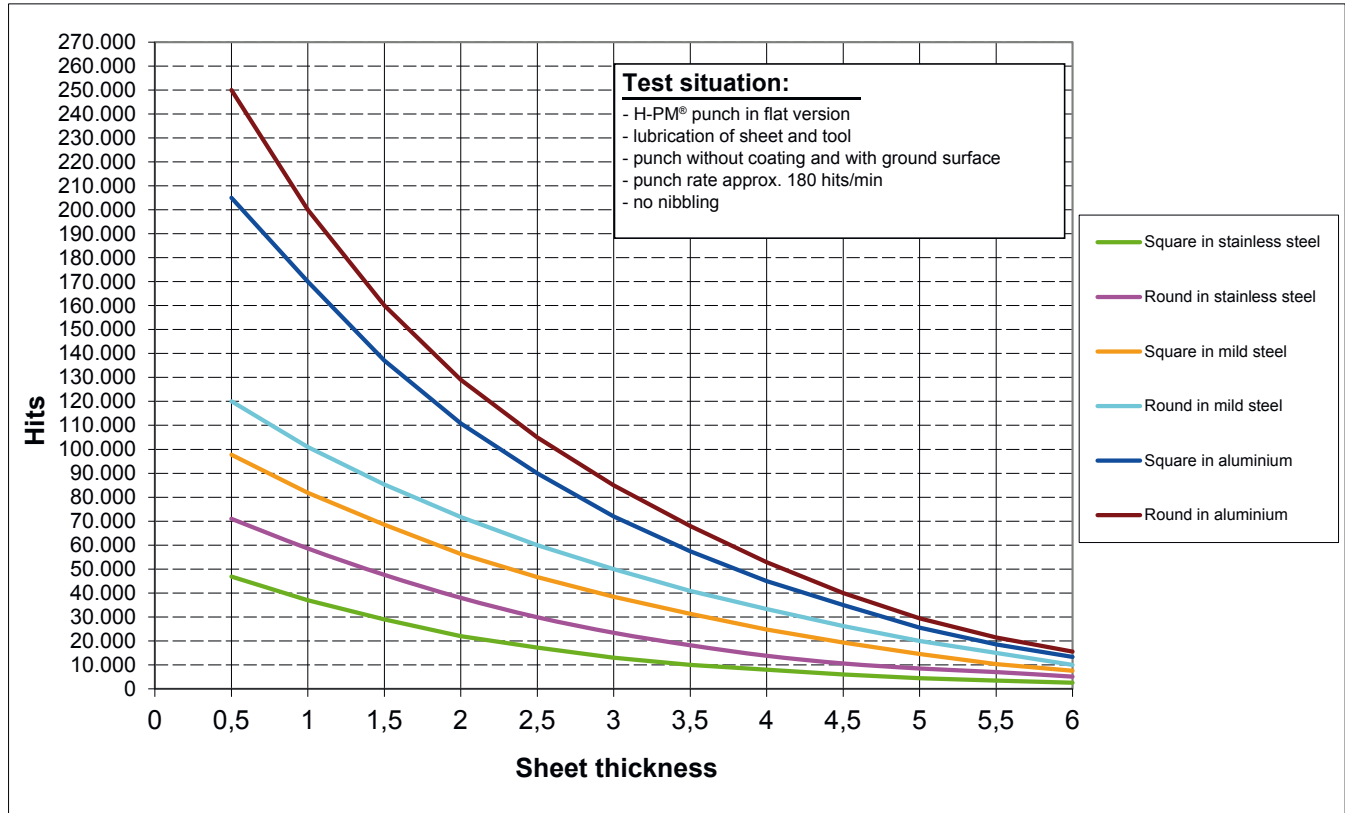
The high ductility of the segregational uniformed microstructure guarantees best possible fatigue limit. This kind of steel is especially suitable for dies with risk-breakage in regards to special shapes.

Advantage for customer:

- best possible absorption of hit-flex stress;
- prevents fatigue breakage
- high abrasion resistance

# LIFE-TIME OF TOOLS / REGRIND ADVICE

PASS punches and dies are made of high-end special steel in order to guarantee best life-time of tools together with high robustness.



INFLUENCING FACTORS	FACTOR
Zinc coated sheet / stainless steel with foil / aluminium anodized	0,5 - 0,8
No sheet lubrication	0,4 - 0,6
Punch coating (TICN for stainless steel / T-MAX for zinc coated steel / A-MAX for aluminium)	2,0 - 4,0
PASS X3-PM punch	6,0 - 10,0
Nibbling	0,7 - 0,9
Notching	0,5 - 0,7
Shear	0,8 - 0,9
Punching rate > 300 hits / min.	0,8 - 0,9
Cutting part with EDM surface	0,4 - 0,8
Cutting part with polished surface	1,5 - 3,0
Cutting part smaller than 1,5x sheet thickness	0,6 - 0,8
Cutting part smaller than 1,0x sheet thickness	0,3 - 0,5
Using of a too small clearance	0,4 - 0,9

An average decrease of the tool life of 5-10 % per regrind has to be taken in account for the first regrind.

# PASS COATING VERSIONS / DRAW-POLISHING

## TO REDUCE MATERIAL BUILD-UP

**H-PM®** tools are produced with steel made on powder-metallurgical base with a high degree of purity to fulfill the highest punching demands.

Furthermore we attach great importance to a high quality hardening process by repeated tempering and deep-freeze subsequently.

This process guarantees an extremely high hardness with an outstanding wear resistance of our punching tools.

Associated with modern production methods (grinding of the cutting edges with special grinding wheels) we can ensure that the wide range of different sheet qualities can be punched up to 1.600 N/mm<sup>2</sup> – no matter if it concerns mild alloyed aluminium, mild steel, stainless steel or spring band steel.

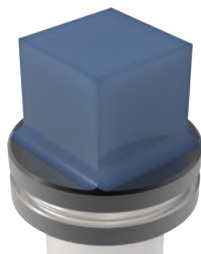
A high punch hardness as well as an excellent grinding surface are important in order to counteract the problem with edge build-up.

Tests show us that the well-known TiCN coating is a good coating to increase the lifetime (especially working with stainless steel). However, the problem of material buildup on the edges have not really been counteracted.

Built-up edges are known especially when working with

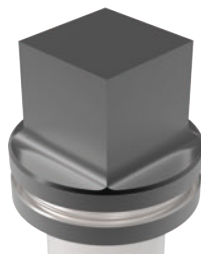
- zinc steel
- aluminium

After specialized tests at PASS Stanztechnik AG the below mentioned coatings turned out to be the most successful coatings:



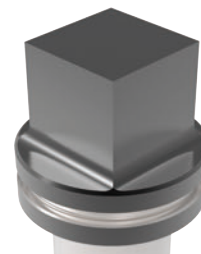
TiCN

for working with  
stainless steel



A-MAX

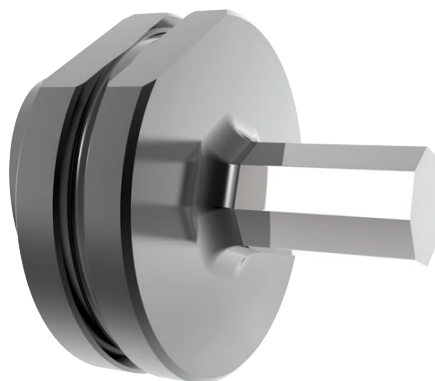
for dry processing with  
aluminium sheet



T-MAX

for working with  
galvanized sheet / zincor

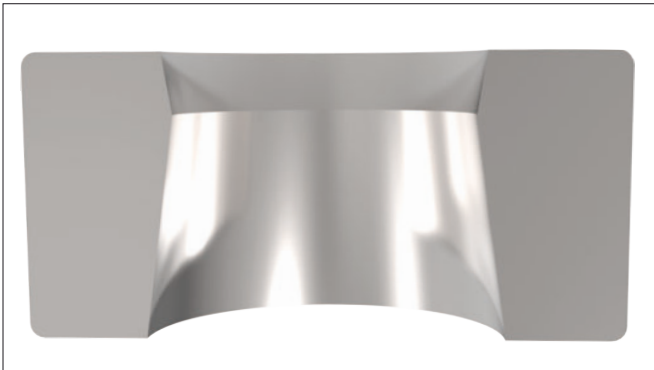
We recommend draw-polished punch edges to increase tool lifetime and reduce material build up (prices on request):



# DIE VERSIONS

## SLUG-STOP AND SLUG-SNAP (AVOID THE BUILD-UP OF THE SLUGS)

SLUG-STOP (WITHOUT ADDITIONAL COSTS)



PASS dies for tooling system TRUMPF are produced in standard version with clearance angle (without additional costs).

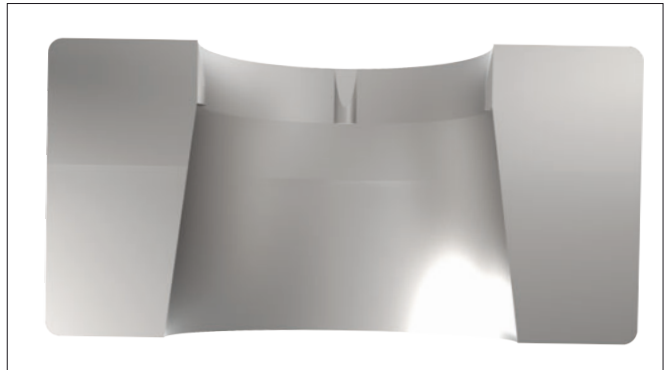
Dies can be produced in slug-stop version in case of problems with pulling slugs. This means that the upper part of the cutting part is produced with a negative angle.

The slug will be held with the complete circumference in the die.

This is not recommended for:

- shapes smaller than 1,25 mm
- clearance smaller 0,1 mm

SLUG-SNAP (SPECIAL VERSION - ADDITIONAL COSTS)



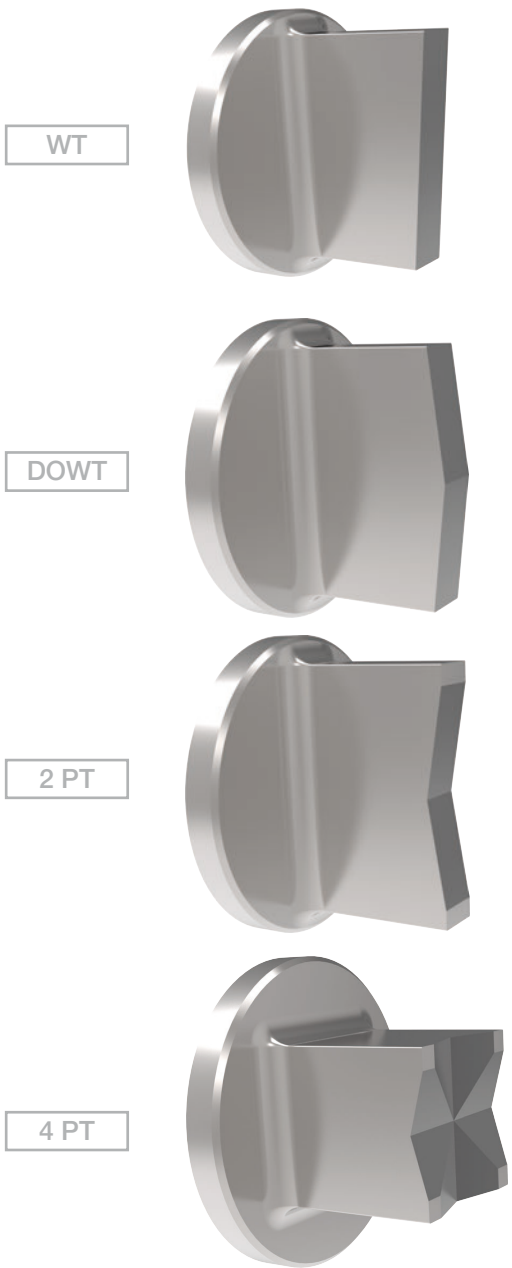
Alternatively we offer our slug-snap version (additional costs).

In this case special holding bolts are included in the die, clamping the slug positively (better than the slug-stop version).

The slug-snap version is also more convenient for:

- shapes smaller than 1,25 mm
- clearance smaller 0,1 mm

# PUNCHES WITH DIFFERENT SHEAR TYPES



	DESCRIPTION
<b>WT</b>	
Advantage	easy regrindable
Disadvantage	lateral forces
<b>DOWT</b>	
Advantages	easy regrindable no lateral forces
Disadvantage	only reasonable for big shapes
<b>2 PT</b>	
Advantages	no lateral forces optimal die cutting
Disadvantages	only reasonable for big and slim shapes difficult to regrind
<b>4 PT</b>	
Advantages	no lateral forces optimal die cutting suitable for trimming
Disadvantages	only reasonable for big shapes difficult to regrind

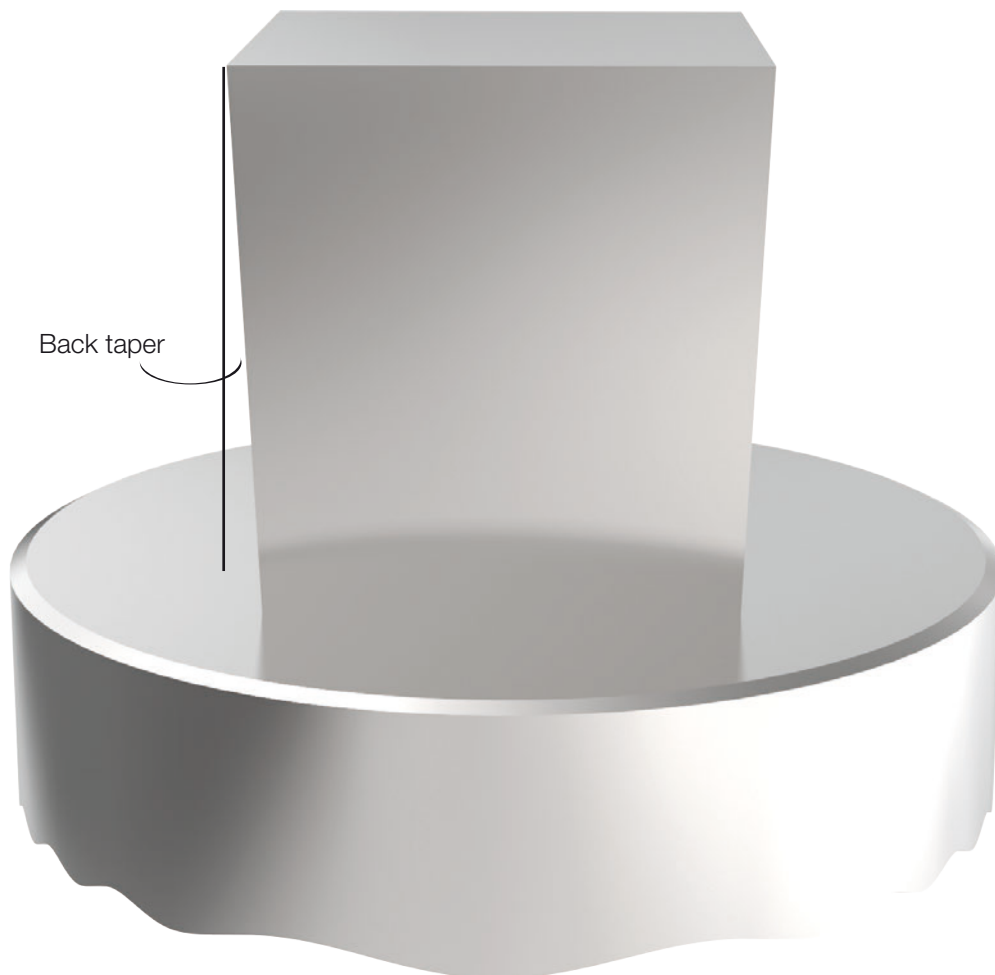


# PASS BACK TAPER ON PUNCHES

PASS punches are normally produced with back taper to reduce galling and premature punch wear.

However it should be mentioned that back taper is very important when punching materials such as stainless steel or very thick material to reduce galling and eliminate breakage of the tool corners and edges.

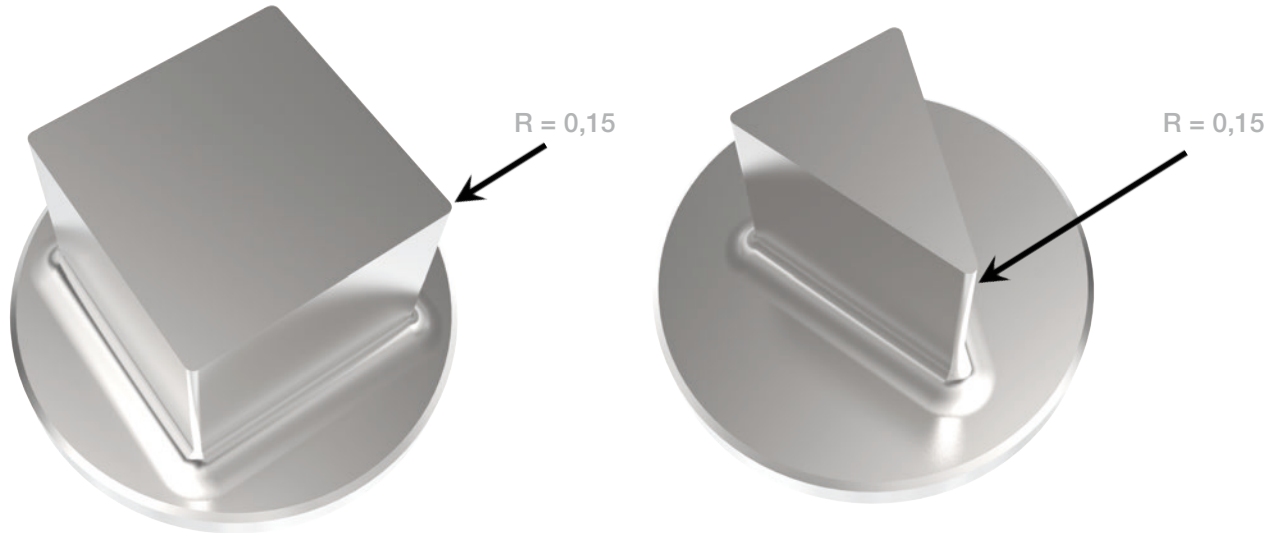
We recommend a line polished version for cutting parts, which have to be produced sink-eroded (special shape with internal shape, e.g. cross-form, U-form, etc.) and in high quality sheets.



# PASS CORNER RADIUS ON PUNCHES

PASS punches are automatically produced with corner radius  $R = 0,15$  mm. This process increases the life-time as the corner abrasive wear will be decreased considerably.

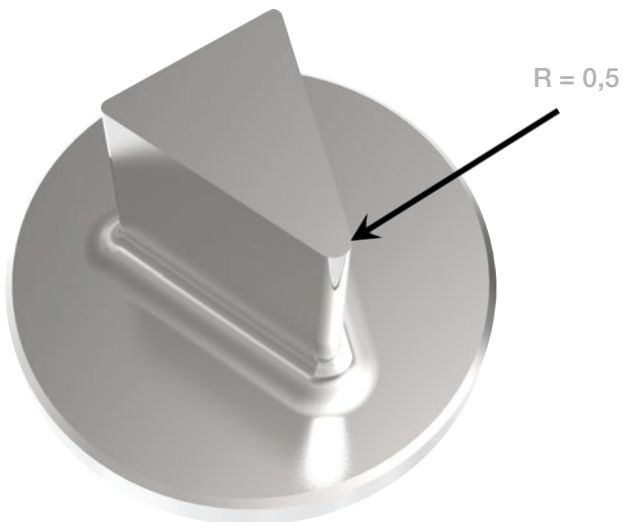
E.g.: square and triangle punch



The corner radius can be changed on customer's request.

E.g.:

$R = 0,5$  mm instead of  $R = 0,15$  mm for stainless steel in order to increase tool-life.



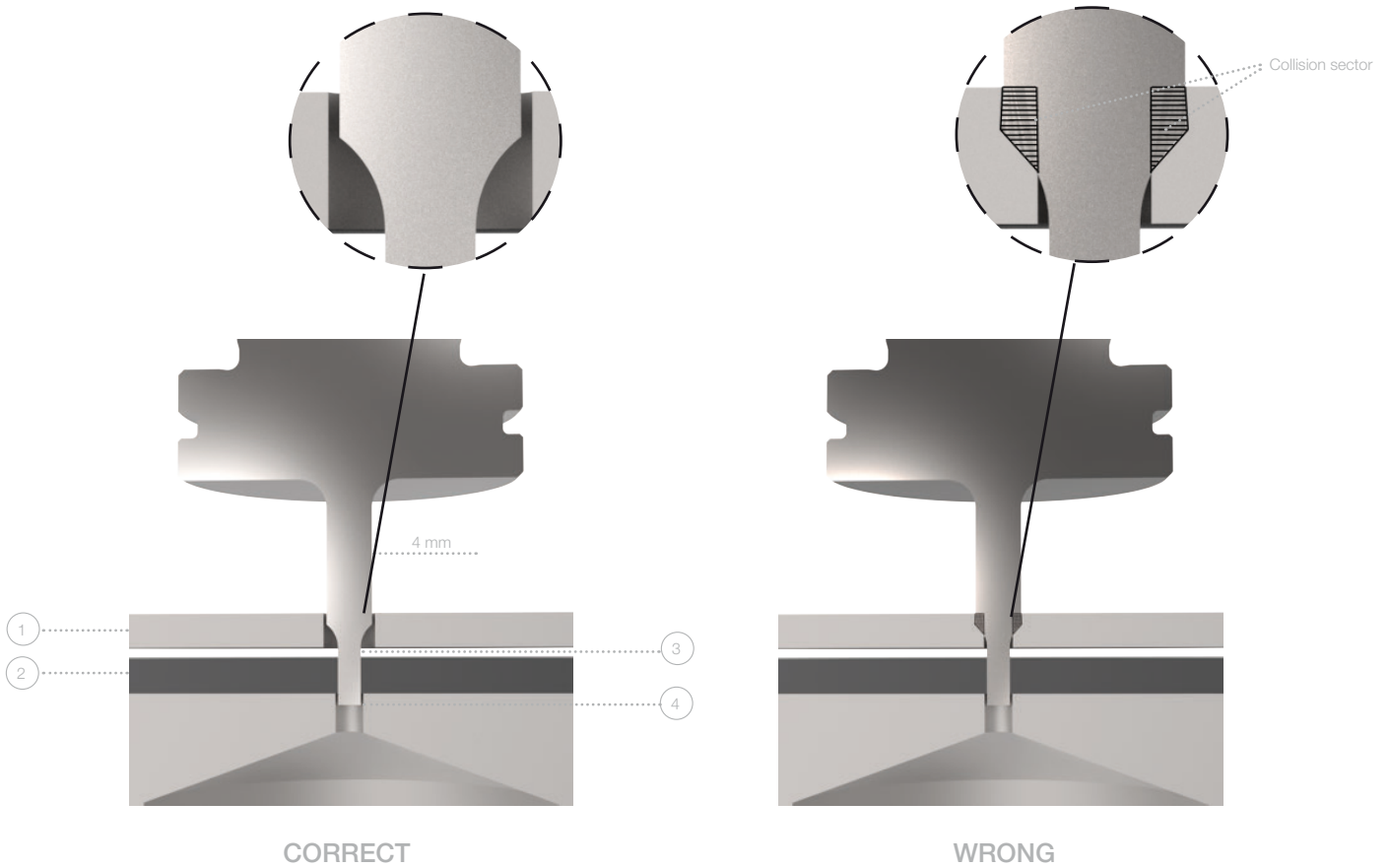
# PASS PUNCHES WITH REINFORCED SHOULDER

All PASS punches are produced with a 4 mm reinforced shoulder as soon as the cutting section is required smaller than 4 mm.

This guarantees that you will get a tool with highest stability in order to punch also thicker and high-strength sheets.

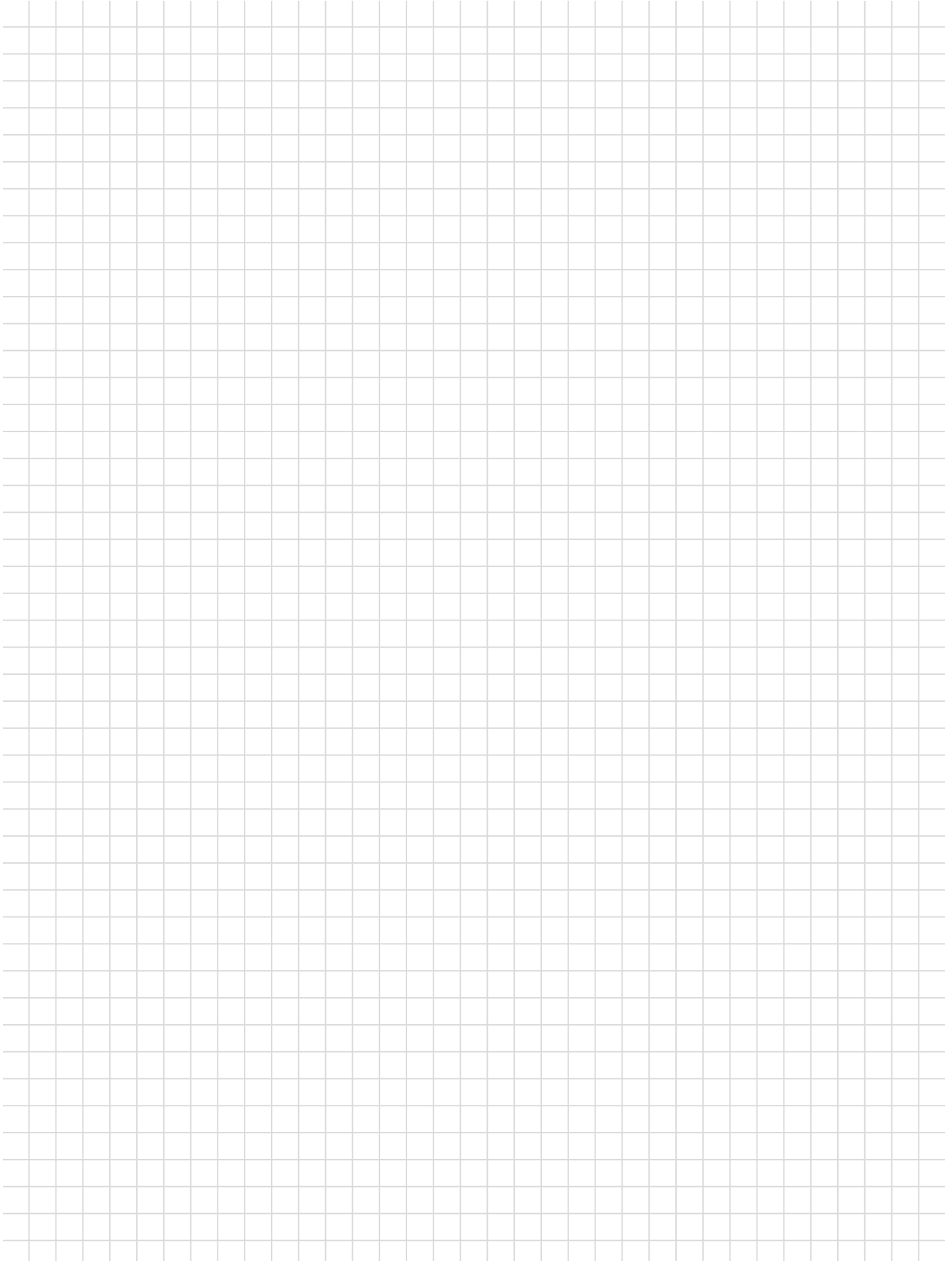
However, the correct stripper size has to be selected in subject to machine type, tool design, sheet thickness (1), immersion depth (2), stripper thickness (3) and stripper overlap (4).

It might be possible that it gets necessary to use a stripper with an appropriate big shape (width min. 4.5 mm) in order to get sure that the reinforced punch shoulder can immerse into the stripper.



# NOTES

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.



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