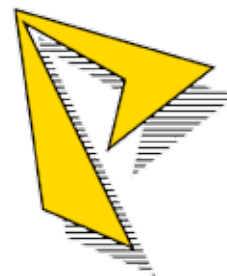


PASS STANZTECHNIK AG

Precision in Perfection



Catalogue 04/2013-WW-T.1

Trumpf



Pricelist 04/2013-WW-T.1

Validity of Prices:

**This pricelist is effective from the 1st of April 2013.
Due to that date ancient catalogues lose their validity.**



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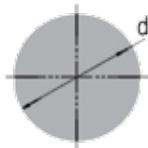
PASS Standard Tools ROUND

Size	Dim. „d“ in mm	Part.-no.
Punch (H-PM®)		
0	1,00 - 6,00	107A01C
0	6,01 - 10,50 ^(*)	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



Stripper		
2	1,00 - 78,00	112211C

Die (HWS)		
1 ⁽²⁾	1,00 - 32,00	106111C
2 ⁽³⁾	32,01 - 77,00	106211C
1 reinforced	1,00 - 32,00	109111C
2 reinforced	32,01 - 42,00	109221C
2 reinforced	42,01 - 62,00	109231C



Surcharges:

Punch:
Punches with shear (WT / DOWT / etc.) - see page 56
^(*) 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:
⁽²⁾ H-PM® quality
⁽³⁾ H-PM® quality
slug-stop version (negative cutting part) no surcharge
Brush version for low-scratch material handling
X8-PM quality - see page 68

Cross-references:

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Die:	
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Compensating rings	38
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Die clip	52
slug-snap version (for slug problems)	57



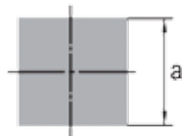
PASS Standard Tools SQUARE

Size	Dim. a	Part.-no.
Punch (H-PM®)		
0	1,00 - 4,20	107A02C
0	4,21 - 7,40 ^(*)	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



Stripper		
2	1,00 - 56,00	112212C

Die (HWS)		
1 ⁽²⁾	1,00 - 22,50	106112C
2 ⁽³⁾	22,51 - 54,90	106212C
1 reinforced	1,00 - 22,50	109112C
2 reinforced	22,51 - 30,20	109222C
2 reinforced	30,21 - 43,00	109232C



Surcharges:

Punch:

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

^(*) 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:

⁽²⁾ H-PM® quality

⁽³⁾ H-PM® quality

slug-stop version (negative cutting part) no surcharge

Additional keyway

Brush version for low-scratch material handling

X8-PM quality - see page 68

Cross-references:

Punch:

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Cutting part polished	55

Stripper:

Spare Parts	52
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PU-stripper	65

Die:

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

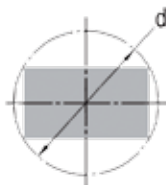
PASS Standard Tools RECTANGLE

Size	Dim. „d“ in mm	Part.-no.
Punch (H-PM®)		
0	1,00 - 6,00	107A03C
0	6,01 - 10,50 ^(*)	107B03C
1	0,80 - 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	30,01 - 40,00	108123C



Stripper		
2	1,00 - 78,00	112213C

Die (HWS)		
1 ⁽²⁾	1,00 - 32,00	106113C
2 ⁽³⁾	32,01 - 77,00	106213C
1 reinforced	1,00 - 32,00	109113C
2 reinforced	32,01 - 42,00	109223C
2 reinforced	42,01 - 62,00	109233C



Surcharges:

Punch:

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

^(*) 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:

⁽²⁾ H-PM® quality

⁽³⁾ H-PM® quality

slug-stop version (negative cutting part) no surcharge

Additional keyway

Brush version for low-scratch material handling

X8-PM quality - see page 68

Cross-references:

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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 clip	52
slug-snap version (for slug problems)	57



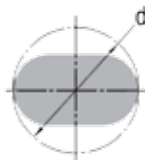
PASS Standard Tools OBLONG

Size	Dim. „d“ in mm	Part-no.
Punch (H-PM®)		
0	1,00 - 6,00	107A04C
0	6,01 - 10,50 ^(*)	107B04C
1	0,80 - 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



Stripper		
2	1,00 - 78,00	112214C

Die (HWS)		
1 ⁽²⁾	1,00 - 32,00	106114C
2 ⁽³⁾	32,01 - 77,00	106214C
1 reinforced	1,00 - 32,00	109114C
2 reinforced	32,01 - 42,00	109224C
2 reinforced	42,01 - 62,00	109234C



Surcharges:

Punch:

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

^(*) 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:

⁽²⁾ H-PM® quality

⁽³⁾ H-PM® quality

slug-stop version (negative cutting part) no surcharge

Additional keyway

Brush version for low-scratch material handling

X8-PM quality - see page 68

Cross-references:

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Cutting part polished	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 clip	52
slug-snap version (for slug problems)	57

PASS Special Shape Tools Group 1 (SF01, SF02, SF04, SF05)

Size	Dim. „d“ in mm	Part.-no.
Punch (H-PM®)		
0	1,00 - 6,00	121A0__C1
0	6,01 - 10,50 ^(*)	121B0__C1
1	0,80 - 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



Stripper		
2	1,00 - 78,00	127H1__C1

Die (HWS)		
1 ⁽²⁾	1,00 - 32,00	12611__C1
2 ⁽³⁾	32,01 - 77,00	12621__C1
1 reinforced	1,00 - 32,00	V2611__C1
2 reinforced	32,01 - 42,00	126V1__C1
2 reinforced	42,01 - 62,00	126V2__C1



SF01



SF02



SF04



SF05



Surcharges:

Punch:

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

^(*) 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:

⁽²⁾ H-PM® quality

⁽³⁾ H-PM® quality

slug-stop version (negative cutting part) no surcharge

Additional keyway

Brush version for low-scratch material handling

X8-PM quality - see page 68

Cross-references:

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Coating-surcharge	54
Cutting part polished	55
Stripper:	
Spare Parts	52
PU-stripper	65
Die:	
Adapter rings	35
Compensating rings	38
RTC-cartridge and die carrier	41
Die clip	52
slug-snap version (for slug problems)	57



PASS Special Shape Tools Group 2 (SF03, SF07, SF13, SF17)

Size	Dim. „d“ in mm	Part.-no.
Punch (H-PM®)		
0	1,00 - 6,00	121A0_C2
0	6,01 - 10,50 ^(*)	121B0_C2
1	0,80 - 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



Stripper		
2	1,00 - 78,00	127H1_C2

Die (HWS)		
1 ⁽²⁾	1,00 - 32,00	12611_C2
2 ⁽³⁾	32,01 - 77,00	12621_C2
1 reinforced	1,00 - 32,00	V2611_C2
2 reinforced	32,01 - 42,00	126V1_C2
2 reinforced	42,01 - 62,00	126V2_C2



SF03



SF07



SF13



SF17



Surcharges:

Punch:

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

^(*) 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:

⁽²⁾ H-PM® quality

⁽³⁾ H-PM® quality

slug-stop version (negative cutting part) no surcharge

Additional keyway

Brush version for low-scratch material handling

X8-PM quality - see page 68

Cross-references:

Punch:

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Fully guided Tools	15
Slitting Tools for slittings close to embossing	30 - 31
Adjusting rings	34
Punch Chuck	35
PASS-fit System - Explanation and surcharges	40
Coating-surcharge	54
Cutting part polished	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 clip	52
slug-snap version (for slug problems)	57

PASS Special Shape Tools Group 3 (SF06, SF08, SF14, SF16)

Size	Dim. „d“ in mm	Part.-no.
Punch (H-PM®)		
0	1,00 - 6,00	121A0__C3
0	6,01 - 10,50 ^(*)	121B0__C3
1	0,80 - 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



Stripper		
2	1,00 - 78,00	127H1__C3

Die (HWS)		
1 ^(*)	1,00 - 32,00	12611__C3
2 ^(*)	32,01 - 77,00	12621__C3
1 reinforced	1,00 - 32,00	V2611__C3
2 reinforced	32,01 - 42,00	126V1__C3
2 reinforced	42,01 - 62,00	126V2__C3



Surcharges:

Punch:
Punches with shear (WT / DOWT / etc.) - see page 56
^(*) 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:
^(*) H-PM® quality
^(*) H-PM® quality
slug-stop version (negative cutting part) no surcharge
Additional keyway
Brush version for low-scratch material handling
X8-PM quality - see page 68

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Cross-references:

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Punch Chuck	35
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Coating-surcharge	54
Cutting part polished	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 clip	52
slug-snap version (for slug problems)	57



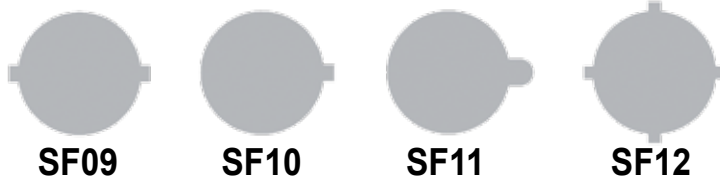
PASS Special Shape Tools Group 4 (SF09, SF10, SF11, SF12)

Size	Dim. „d“ in mm	Part.-no.
Punch (H-PM®)		
0	1,00 - 6,00	121A0_C4
0	6,01 - 10,50 ^(*)	121B0_C4
1	0,80 - 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



Stripper		
2	1,00 - 78,00	127H1_C4

Die (HWS)		
1 ⁽²⁾	1,00 - 32,00	12611_C4
2 ⁽³⁾	32,01 - 77,00	12621_C4
1 reinforced	1,00 - 32,00	V2611_C4
2 reinforced	32,01 - 42,00	126V1_C4
2 reinforced	42,01 - 62,00	126V2_C4



Surcharges:

Punch:

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

^(*) 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:

⁽²⁾ H-PM® quality

⁽³⁾ H-PM® quality

slug-stop version (negative cutting part) no surcharge

Additional keyway

Brush version for low-scratch material handling

X8-PM quality - see page 68

Cross-references:

Punch:

	Page
Fully guided Tools	15
Adjusting rings	34
Punch Chuck	35
PASS-fit System - Explanation and surcharges	40
Coating-surcharge	54
Cutting part polished	55

Stripper:

Spare Parts	52
PU-stripper	65

Die:

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

PASS Fully guided Tools for Round punch (dim. „d“ in mm = 0,50 - 6,0 mm / 6,01 - 10,50 mm)

Up to 6,00 mm

Description	Pos.	Part.-no.
Complete Upper part	1 - 5	1S160A
Stripper round 20 mm	6	112211C20
Die (HWS) ^(*)	7	106111C

Spare Parts

Spare-Punch needle (H-PM®)	2	1S16SA
Spare-Spring	3	1S1608
Spare-Guide	4	1S1603
Spare-Clamp nut	5	1S1607

Up to 10,50 mm ^(*)

Complete Upper part	1 - 5	1S160B
Stripper round 20 mm	6	112211C20
Die (HWS) ^(*)	7	106111C

Spare Parts

Spare-Punch needle (H-PM®)	2	1S16SB
Spare-Spring	3	1S1609
Spare-Guide	4	1S1604
Spare-Clamp nut	5	1S1607



— 1
— 2
— 3
— 4
— 5



— 6



— 7

Surcharges:

Punch:

^(*) smaller 6,00 mm
Cutting part under 1,00 mm

Stripper:

PU-coating for low-scratch material handling

Die:

^(*) H-PM® quality
Brush version for low-scratch material handling

Cross-references:

Punch:

	Page
Standard round punch	6
Matching Adjusting ring - part.-no. 118101	34
Punch Chuck	35
Coating-surcharge (such as size 0)	54
Cutting part polished (such as size 0)	55

Stripper:

Spare Parts	52
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Die:

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



PASS Punch with guided Cutting part for form punch (dim. „d“ in mm = 0,50 - 16,00 mm)

Description	Pos.	Part.-no.
Square		
Complete Upper part	1 - 6	1S16502
Spare-Punch insert (H-PM®)	3	1S16532
Spare-Spring	4	1S16540
Spare-Guide	6	1S16562
Die (HWS) ^(*)	7	106112C

Description	Pos.	Part.-no.
Rectangular		
Complete Upper part	1 - 6	1S16503
Spare-Punch insert (H-PM®)	3	1S16533
Spare-Spring	4	1S16540
Spare-Guide	6	1S16563
Die (HWS) ^(*)	7	106113C

Description	Pos.	Part.-no.
Oblong		
Complete Upper part	1 - 6	1S16504
Spare-Punch insert (H-PM®)	3	1S16534
Spare-Spring	4	1S16540
Spare-Guide	6	1S16564
Die (HWS) ^(*)	7	106114C

Description	Pos.	Part.-no.
Special Shape Tools		
Complete Upper part	1 - 6	
Spare-Punch insert (H-PM®)	3	
Spare-Spring	4	
Spare-Guide	6	
Die (HWS) ^(*)	7	



Surcharges:

Punch:
Cutting part under 1,00 mm

Cross-references:

Punch:	Page
Standard punch	ab 7
Punch Chuck	35
Coating-surcharge (such as size 1)	54
Cutting part polished (such as size 1)	55

Stripper:

Polished version for low-scratch material handling
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Stripper:

Spare Parts	52
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Die:

^(*) H-PM® quality
Brush version for low-scratch material handling

Die:

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



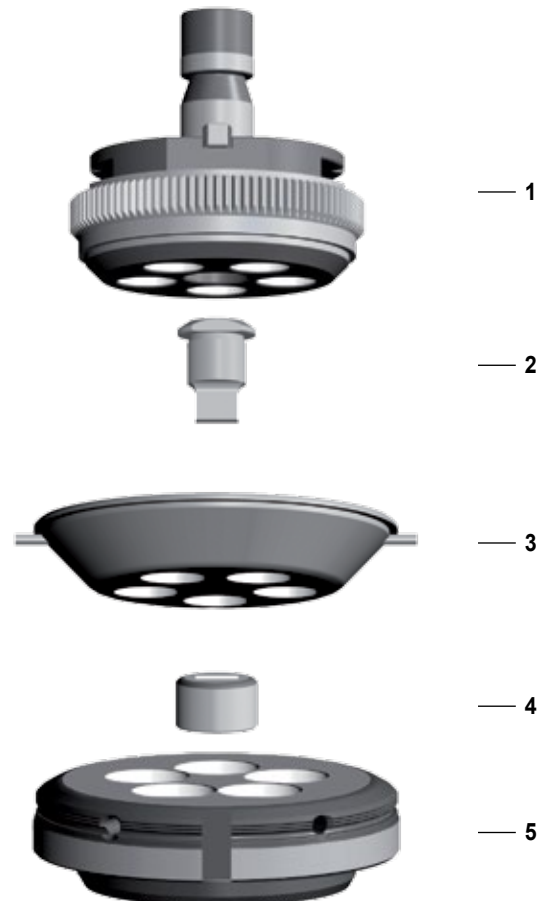


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PASS Multitool 5-station for Machine Group I (dim. 1,00 - 16,00 mm) (TruPunch1000, 2000, 2020, 3000, 5000, TruMatic3000, 6000, 7000)

Description	Pos.	Part.-no.
Upper part		
Punch adapter	1	113S30
Punch insert (H-PM®)		
Round	2	113N31
Square	2	113N32
Rectangle	2	113N33
Oblong	2	113N34
Special shape	2	
Stripper		
Standard (round)	3	115A30
Close-fitting ^(*)	(3) ^{without picture}	115B30
Die insert (H-PM®)		
Round	4	114031
Square	4	114032
Rectangle	4	114033
Oblong	4	114034
Special shape	4	
Base		
Die adapter ⁽²⁾	5	114Z30



Details / Surcharges:

Punch adapter and Punch insert:

Max. sheet thickness - Steel and Alu up to 4,5 mm / VA-Sheet up to 3,0 mm
Cutting part under 1,00 mm

Stripper:

Polished version for low-scratch material handling
^(*) Contours on customers request

Die adapter and Die insert:

slug-stop version (negative cutting part) no surcharge
⁽²⁾ Brush version for low-scratch material handling
Compensating rings: 1 set (2xt=0, 1/2xt=0, 3/2xt=0,5) - Part.-no.: 114U3M

Cross-references:

Punch:	Page
Types of special shapes	10 - 13
Coating-surcharge (Multitool)	54
Cutting part polished (Multitool)	55

Stripper:

Spare Parts	52
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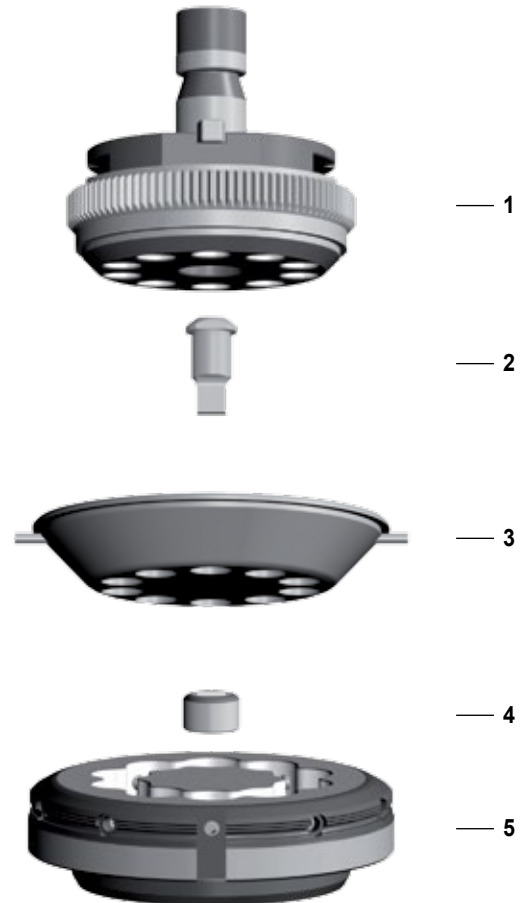
Die:

RTC-cartridge and die carrier	41
slug-snap version (for slug problems)	57



PASS Multitool 10-station
for Machine Group I (dim. 1,00 - 10,50 mm)
(TruPunch1000, 2000, 2020, 3000, 5000, TruMatic3000, 6000, 7000)

Description	Pos.	Part.-no.
Upper part		
Punch adapter	1	113S40
Punch insert (H-PM®)		
Round	2	113N41
Square	2	113N42
Rectangle	2	113N43
Oblong	2	113N44
Special shape	2	
Stripper		
Standard (round)	3	115A40
Close-fitting ^(*)	(3) without picture	115B40
Die insert (H-PM®)		
Round	4	114041
Square	4	114042
Rectangle	4	114043
Oblong	4	114044
Special shape	4	
Base		
Die adapter ^(*)	5	114Z40



Details / Surcharges:

Punch adapter and Punch insert:

Max. sheet thickness - Steel and Alu up to 4,5 mm / VA-Sheet up to 3,0 mm
Cutting part under 1,00 mm

Stripper:

Polished version for low-scratch material handling
^(*) Contours on customers request

Die adapter and Die insert:

slug-stop version (negative cutting part) no surcharge
^(*) Brush version for low-scratch material handling
Compensating rings: 1 set (2xt=0,1/2xt=0,3/2xt=0,5) - Part.-no.: 114U4M

Cross-references:

Punch:	Page
Types of special shapes	10 - 13
Coating-surcharge (Multitool)	54
Cutting part polished (Multitool)	55

Stripper:

Spare Parts	52
-------------	----

Die:

^(*) version as onepiece die insert	22
RTC-cartridge and die carrier	41
slug-snap version (for slug problems)	57

PASS Multitool 4-station

for Machine Group H and TC260 (dim. 1,00 - 16,00 mm)
(TC600L, TC500R, TC200R, TC190R, TC260R, TC260L)

Description	Pos.	Part.-no.
Upper part		
Punch adapter incl. stripper-system	(without picture)	
Punch insert (H-PM®)		
Round	2	113N11
Square	2	113N12
Rectangle	2	113N13
Oblong	2	113N14
Special shape	2	
Stripper adapter		
All Contours	3	
Stripper plate		
Standard (round)	4	
Close-fitting ^(*)	4 (without picture)	
Die insert (H-PM®)		
Round	5	114011
Square	5	114012
Rectangle	5	114013
Oblong	5	114014
Special shape	5	
Base		
Die adapter ^(*)	(without picture)	



— 2



— 3



— 4



— 5

Details / Surcharges:

Punch adapter and Punch insert:

Max. sheet thickness - Steel and Alu up to 3,00 mm / VA-Sheet up to 2,00 mm
Cutting part under 1,00 mm

Stripper:

Polished version for low-scratch material handling
^(*) Contours on customers request

Die adapter and Die insert:

slug-stop version (negative cutting part) no surcharge

^(*) Brush version for low-scratch material handling

Compensating rings: 1 set (2xt=0, 1/2xt=0, 3/2xt=0,5) - Part.-no.: 114U1M

Cross-references:

Punch:

	Page
Types of special shapes	10 - 13
Coating-surcharge (Multitool)	54
Cutting part polished (Multitool)	55

Stripper:




Spare Parts	52
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Die:

slug-snap version (for slug problems)	57
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PASS Multitool 6-station for Machine Group H and TC260 (dim. 1,00 - 10,50 mm) (TC600L, TC500R, TC200R, TC190R, TC260R, TC260L)

Description	Pos.	Part.-no.		
Upper part				
Punch adapter incl. stripper-system	(without picture)			— 2
Punch insert (H-PM®)				
Round	2	113N21		
Square	2	113N22		
Rectangle	2	113N23		
Oblong	2	113N24		
Special shape	2			
Stripper adapter				
All Contours	3			— 3
Stripper plate				
Standard (round)	4			
Close-fitting ^(*)	4 (without picture)			
Die insert (H-PM®)				
Round	5	114021		
Square	5	114022		
Rectangle	5	114023		
Oblong	5	114024		
Special shape	5			
Base				
Die adapter ^(*)	(without picture)			— 5

Details / Surcharges:

Punch adapter and Punch insert:

Max. sheet thickness - Steel and Alu up to 3,00 mm / VA-Sheet up to 2,00 mm
Cutting part under 1,00 mm

Stripper:

Polished version for low-scratch material handling
^(*) Contours on customers request

Die adapter and Die insert:

slug-stop version (negative cutting part) no surcharge

^(*) Brush version for low-scratch material handling

Compensating rings: 1 set (2xt=0,1/2xt=0,3/2xt=0,5) - Part.-no.: 114U2M

Cross-references:

Punch:	Page
Types of special shapes	10 - 13
Coating-surcharge (Multitool)	54
Cutting part polished (Multitool)	55

Stripper:

Spare Parts	52
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Die:

slug-snap version (for slug problems)	57
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Alternativ 10-station die
for Multitool - Machine Group I (dim. 1,00 - 10,50 mm)
(TruPunch1000, 2000, 2020, 3000, 5000, TruMatic3000, 6000, 7000)

Description	Pos.	Part.-no.
Die insert (H-PM®)		
Contours on customers request	1	114941



— 1

Die adapter (*)		
Without die insert	2	114640



— 2

Details / Surcharges:

Die adapter and Die insert:

(*) incl. 1 set of shims

slug-stop version (negative cutting part)

no surcharge

slug-snap version (for slug problems)

Compensating rings for die insert:

1 set (2xt=0,1/2xt=0,3/2xt=0,5) - Part.-no.: 114U4MG







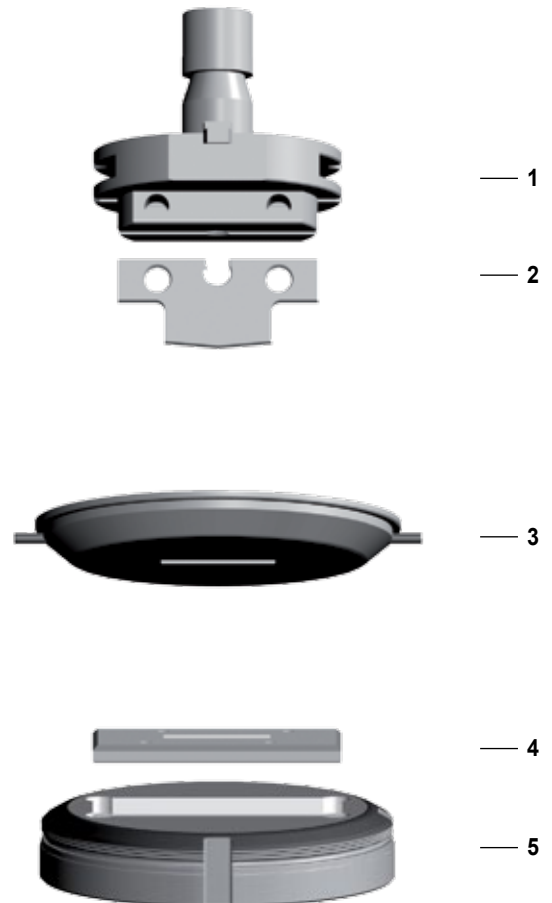
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Slitting Tool 5x56	page	27
Slitting Tool 5x76,2	page	28
Slitting Tool 5x56 with spring loaded metal stripper	page	29
Slitting Tool 5x56 with PU-stripper	page	30
Slitting Tool 5x76,2 with PU-stripper	page	31

PASS Slitting Tool size 2 / 5 x 30

with integrated adjusting ring, slitting punch blade insert and die plate insert

Description	Pos.	Part.-no.
Tool complete		
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
Slitting punch blade adapter (without knife)		
with integrated adjusting ring	1	1S0393
Slitting punch blade insert (H-PM®) ^(*)		
Oblong	2	1S04331
Rectangle	2	1S04332
Rectangle with 4 x R=0,5	2	1S04333
Trapezoid SF17	2	1S04334
Double trapezoid SF16	2	1S04335
Stripper		
Oblong	3	119234
Rectangle	3	119233
Rectangle with 4 x R=0,5	3	119233
Trapezoid SF17	3	119237
Double trapezoid SF16	3	119236
Die plate insert (H-PM®)		
Oblong	4	1S17251
Rectangle ^(*)	4	1S17252
Trapezoid SF17	4	1S17254
Double trapezoid SF16	4	1S17255
Die plate adapter (without die plate insert) ^(*)		
Incl. screws	5	1S1730



Details / Surcharges:

Upper part:

Max. sheet thickness up to 3,00 mm

^(*) surcharge for reduced dimensional deviation

^(*) Standard version with rooftop

no surcharge

Set spare screw M 8 x 16 (per set 2 pieces) - Part.-no.: 1S0393Z

Stripper:

PU-coating for low-scratch material handling

Base:

Compensating rings: 1 set (2xt=0,1/2xt=0,3/2xt=0,5) - Part.-no.: 1S3794

^(*) for rectangle, as well as rectangle 4 x R=0,5 usable

^(*) Brush version for low-scratch material handling

Cross-references:

Upper part:

Page

Coating-surcharge (Slitting punch blade insert)

54

Cutting part polished (Punch size 2)

55

Stripper:

Spare Parts

52

Push-out stripper

53

Base:

RTC-cartridge and die carrier

41

Die clip

52

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

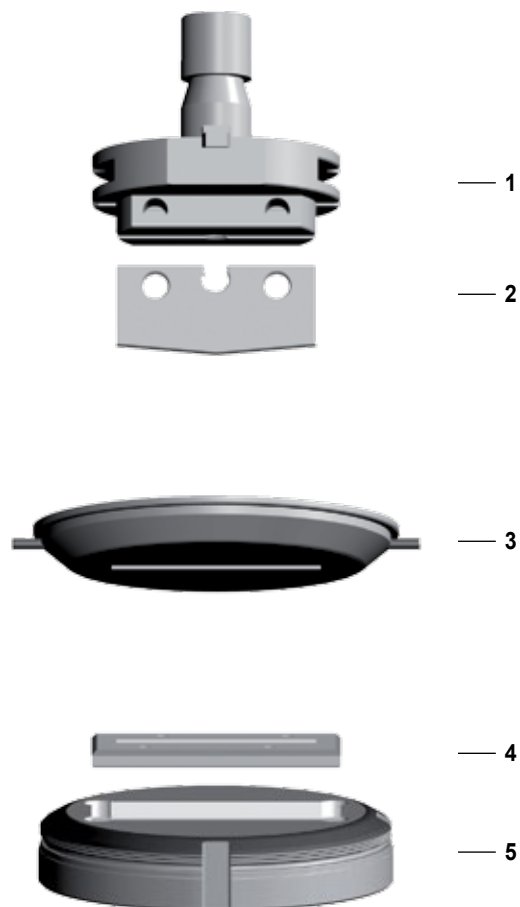
57



PASS Slitting Tool size 2 / 5 x 56

with integrated adjusting ring, slitting punch blade insert and die plate insert

Description	Pos.	Part.-no.
Tool complete		
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
Slitting punch blade adapter (without knife)		
With integrated adjusting ring	1	1S0393
Slitting punch blade insert (H-PM®) ^(*)		
Oblong	2	1S04311
Rectangle	2	1S04312
Rectangle with 4 x R=0,5	2	1S04313
Trapezoid SF17	2	1S04314
Double trapezoid SF16	2	1S04315
Stripper		
Oblong	3	119254
Rectangle	3	119253
Rectangle with 4 x R=0,5	3	119253
Trapezoid SF17	3	119257
Double trapezoid SF16	3	119256
Die plate insert (H-PM®)		
Oblong	4	1S17261
Rectangle ^(**)	4	1S17262
Trapezoid SF17	4	1S17264
Double trapezoid SF16	4	1S17265
Die plate adapter (without die plate insert) ^(***)		
Incl. screws	5	1S1756



Details / Surcharges:

Upper part:

Max. sheet thickness up to 3,00 mm

^(*) surcharge for reduced dimensional deviation

^(*) Standard version with rooftop

no surcharge

Set spare screw M 8 x 16 (per set 2 pieces) Part.-no.: 1S0393Z

Stripper:

PU-coating for low-scratch material handling

Base:

Compensating rings: 1 set (2xt=0,1/2xt=0,3/2xt=0,5) - Part.-no.: 1S3794

^(**) for rectangle, as well as rectangle 4 x R=0,5 usable

^(***) Brush version for low-scratch material handling

Cross-references:

Upper part:

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Cutting part polished (punch size 2)	55

Stripper:

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Push-out stripper	53

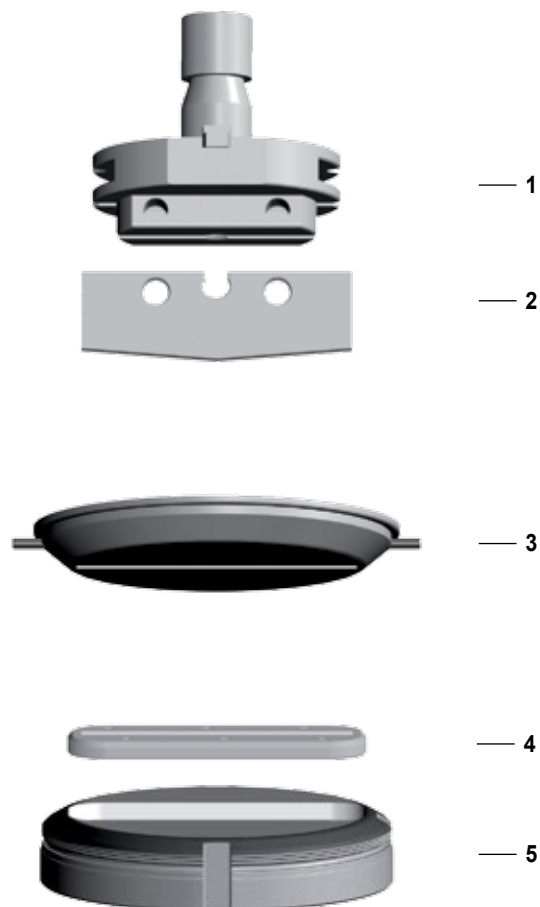
Base:

RTC-cartridge and die carrier	41
Die clip	52
slug-snap version for slug problems (die size 2)	57

PASS Slitting Tool size 2 / 5 x 76,2

with integrated adjusting ring, slitting punch blade insert and die plate insert

Description	Pos.	Part.-no.
Tool complete		
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
Slitting punch blade adapter (without knife)		
With integrated adjusting ring	1	1S0393
Slitting punch blade insert (H-PM®) ^(*)		
Oblong	2	1S04321
Rectangle	2	1S04322
Rectangle with 4 x R=0,5	2	1S04323
Trapezoid SF17	2	1S04324
Double trapezoid SF16	2	1S04325
Stripper		
Oblong	3	119274
Rectangle	3	119273
Rectangle with 4 x R=0,5	3	119273
Trapezoid SF17	3	119277
Double trapezoid SF16	3	119276
Die plate insert (H-PM®)		
Oblong	4	1S17411
Rectangle ^(*)	4	1S17412
Trapezoid SF17	4	1S17414
Double trapezoid SF16	4	1S17415
Die plate adapter (without die plate insert) ^(*)		
Incl. screws	5	1S1776



Details / Surcharges:

Upper part:

Max. sheet thickness up to 2,50 mm

^(*) surcharge for reduced dimensional deviation

^(*) Standard version with rooftop

no surcharge

Set spare screw M 8 x 16 (per set 2 pieces) Part.-no.: 1S0393Z

Stripper:

PU-coating for low-scratch material handling

Base:

Compensating rings: 1 set (2xt=0,1/2xt=0,3/2xt=0,5) - Part.-no.: 1S3794

^(*) for rectangle, as well as rectangle 4 x R=0,5 usable

^(*) Brush version for low-scratch material handling

Cross-references:

Upper part:

Page

Slittings close to embossing

31

Coating-surcharge (slitting punch blade insert)

54

Cutting part polished (punch size 2)

55

Stripper:

Spare Parts

52

Push-out stripper

53

Base:

RTC-cartridge and die carrier

41

Die clip

52

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

57



PASS Slitting Tool size 2 / 5 x 56

**with integrated adjusting ring, slitting punch blade insert and die plate insert
for slittings close to embossing up to H = 4,50 mm, with spring-loaded metal stripper**

Tool complete

Description	Pos.	Part.-no.
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

Upper part complete

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

Spare Parts for upper part

Slitting punch blade adapter	1	1S0371
Set spare springs and screws	3 + 4	1S0379
Active Stripper	5	1S03752C

Slitting punch blade insert (H-PM®) ^(*)

Oblong	2	1S04311
Rectangle	2	1S04312
Rectangle with 4 x R=0,5	2	1S04313
Trapezoid SF17	2	1S04314
Double trapezoid SF16	2	1S04315

Die plate insert (H-PM®)

Oblong	6	1S17261
Rectangle ^(*)	6	1S17262
Trapezoid SF17	6	1S17264
Double trapezoid SF16	6	1S17265

Die plate adapter (without die plate insert) ^(**)

Incl. screws	7	1S1756
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Details / Surcharges:

Upper part:

Max. sheet thickness up to 1,50 mm

^(*) surcharge for reduced dimensional deviation

^(*) Standard version with rooftop

no surcharge

Set spare screw M 8 x 16 (pro set 2 pieces) Part.-no.: 1S0393Z

Stripper:

Polished version for low-scratch material handling

Base:

Compensating rings: 1 set (2xt=0,1/2xt=0,3/2xt=0,5) - Part.-no.: 1S3794

^(*) for rectangle, as well as rectangle 4 x R=0,5 usable

^(*) Brush version for low-scratch material handling

Cross-references:

Upper part:

Coating-surcharge (slitting punch blade insert)

Cutting part polished (punch size 2)

Page

54

55

Stripper:

Base:

RTC-cartridge and die carrier

Die clip

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

41

52

57

PASS Slitting Tool size 2 / 5 x 56 for slittings close to embossing, with PU-stripper

Description	Pos.	Part.-no.
Tool complete		
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
Upper part complete (incl. springs, screws, screw-adapter)		
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
Punch (without springs, screws, screw-adapter) (H-PM®) ^(*)		
Oblong	1	1S29511
Rectangle	1	1S29512
Rectangle with 4 x R=0,5	1	1S29513
Trapezoid SF17	1	1S29514
Double trapezoid SF16	1	1S29515
Die plate insert (H-PM®)		
Oblong	5	1S17261
Rectangle ^(*)	5	1S17262
Trapezoid SF17	5	1S17264
Double trapezoid SF16	5	1S17265
Die plate adapter (without die plate insert) ^(*)		
Incl. screws	6	1S1756



— 1
— 2
— 3
— 4



— 5
— 6

Details / Surcharges:

Upper part:

Max. sheet thickness up to 3,00 mm

^(*) surcharge for reduced dimensional deviation

^(*) Standard version with rooftop

no surcharge

X3-PM quality - see page 68

Stripper:

Set spare - PU-springs - Part.-no.: 1S2956 - Pos. 4

Set spare - screw-adapter - Part.-no.: 1S2954 - Pos. 3

Set spare - screws - Part.-no.: 1S2950 - Pos. 2

Base:

Compensating rings: 1 set (2xt=0,1/2xt=0,3/2xt=0,5) - Part.-no.: 1S3794

^(*) for rectangle, as well as rectangle 4 x R=0,5 usable

^(*) Brush version for low-scratch material handling

Cross-references:

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Coating-surcharge (punch size 2)

54

Cutting part polished (punch size 2)

55

Stripper:

Base:

RTC-cartridge and die carrier

41

Die clip

52

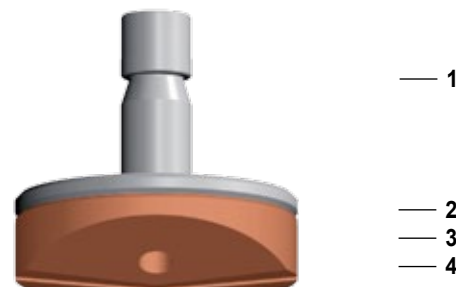
slug-snap version for slug problems (die size 2)

57



PASS Slitting Tool size 2 / 5 x 76,2 for slittings close to embossing, with PU-stripper

Description	Pos.	Part.-no.
Tool complete		
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
Upper part complete (incl. springs, screws, screw-adapter)		
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
Punch (without springs, screws, screw-adapter) (H-PM®) ^(*)		
Oblong	1	1S29711
Rectangle	1	1S29712
Rectangle with 4 x R=0,5	1	1S29713
Trapezoid SF17	1	1S29714
Double trapezoid SF16	1	1S29715
Die plate insert (H-PM®)		
Oblong	5	1S17411
Rectangle ^(**)	5	1S17412
Trapezoid SF17	5	1S17414
Double trapezoid SF16	5	1S17415
Die plate adapter (without die plate insert) ^(***)		
Incl. screws	6	1S1776



Details / Surcharges:

Upper part:

Max. sheet thickness up to 2,50 mm

^(*) surcharge for reduced dimensional deviation

^(*) Standard version with rooftop

no surcharge

X3-PM quality - see page 68

Stripper:

Set spare - PU-springs - Part.-no.: 1S2955 - Pos. 4

Set spare - screw-adapter - Part.-no.: 1S2954 - Pos. 3

Set spare - screws - Part.-no.: 1S2950 - Pos.2

Base:

Compensating rings: 1 set (2xt=0,1/2xt=0,3/2xt=0,5) - Part.-no.: 1S3797

^(**) for rectangle, as well as rectangle 4 x R=0,5 usable

^(***) Brush version for low-scratch material handling

Cross-references:

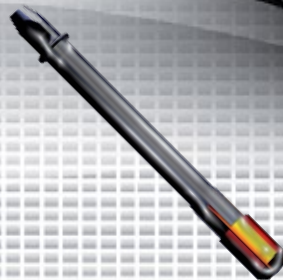
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Cutting part polished (punch size 2)	55

Stripper:

Base:

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RTC-cartridge and die carrier	page	41

PASS Adjusting rings (for Machine Groups E / F / H / I)

Size	Pos.	Part.-no.
Automatic Adjusting rings incl. key		
Size 1 with cut out	1	118101
Size 2 without cut out	2	118201



— 1

Adjusting ring incl. key for reinforced version punches		
reinforced	3	118V01



— 2



— 3



— 4



— 5

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:

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Punch size 1 and 2	6 - 15
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Spare Parts	52



PASS Punch Chuck, Adapter rings (for Machine Groups E / F / H / I)

Size	Pos.	Part.-no.
Punch Chuck		
0 (up to 6,00 mm)	1	119A01
0 (up to 10,50 mm)	1	119B01

Adapter ring for die		
2 / 1	2	120210

Adapter ring with brushes		
2 / 1	3	1S1820



— 1



— 2



— 3



— 4

Spare Parts:

Spare Parts for Adapter ring with brushes:

Spare brush for adapter ring- Part.-no. 1S1822 - Pos. 4
Set compensating rings / shims (6xt = 0,5) - Part.-no. 1S1823 - Pos. 5

Cross-references:

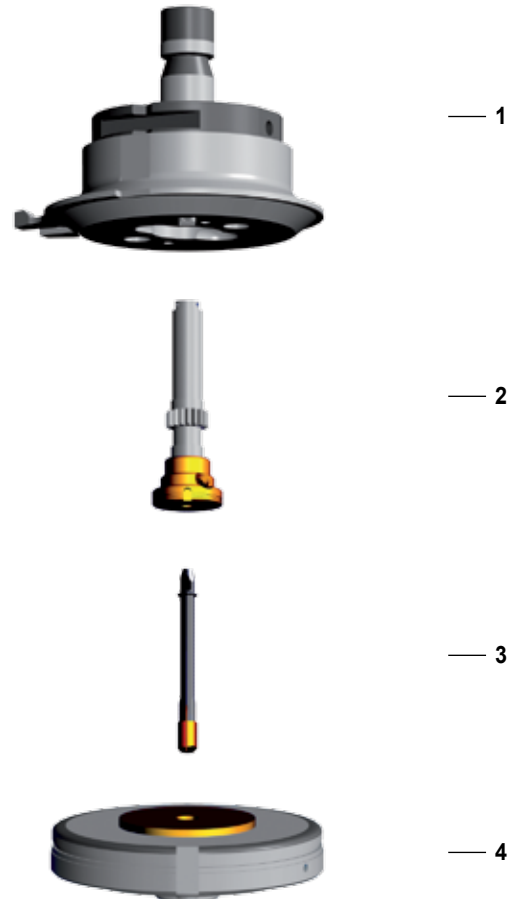
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PASS Tapping Tools for Machine Group I

(TruPunch1000, 2000, 2020, 3000, 5000, TruMatic3000, 6000, 7000)

Description	Size	Pos	Part.-no.
Tool type 1 ^{(*)5}			
Upper part ^{(*)1}	M2,5 - M5	1	924GF1101
Spare tapping module ^{(*)2}	M2,5	2	924GF1301
Spare tapping module ^{(*)2}	M3	2	924GF1302
Spare tapping module ^{(*)2}	M3,5	2	924GF1303
Spare tapping module ^{(*)2}	M4	2	924GF1304
Spare tapping module ^{(*)2}	M5	2	924GF1305
Spare tap 6HX - TIN	M2,5	3	924GF1401
Spare tap 6HX - TIN	M3	3	924GF1402
Spare tap 6HX - TIN	M3,5	3	924GF1403
Spare tap 6HX - TIN	M4	3	924GF1404
Spare tap 6HX - TIN	M5	3	924GF1405
Die type A ^{(*)3}	M2,5 - M10	4	924GF2201
Die type B ^{(*)4}	M2,5 - M8	4	924GF2211

Tool type 2 ^{(*)6}			
Upper part ^{(*)1}	M6 - M10	1	924GF2101
Spare tapping module ^{(*)2}	M6	2	924GF2301
Spare tapping module ^{(*)2}	M8	2	924GF2302
Spare tap 6HX - TIN	M6	3	924GF2401
Spare tap 6HX - TIN	M8	3	924GF2402
Die type A ^{(*)3}	M2,5 - M10	4	924GF2201
Die type B ^{(*)4}	M2,5 - M8	4	924GF2211



Details:

Information:

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

^{(*)1} without spare tapping module and spare tap

^{(*)2} without spare tap

^{(*)3} suitable for flat sheets and extrusions (form-up)

^{(*)4} suitable for flat sheets and extrusions (form-up and down)

^{(*)5} suitable for max. Sheet thickness s = 1,50 up to 5,00 mm

^{(*)6} suitable for max. Sheet thickness s = 3,00 up to 8,00 mm

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

Please observe that Tapping Tools are exclusively used on machines with programming option „Thread Forming“.

Cross-references:

Accessories:

RTC-cartridge and die carrier

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PASS Adjustment unit for Punch

Part.-no.

Possible angles: 0° - 22,5° - 30° - 45° - 60° - 67,5° - 90°

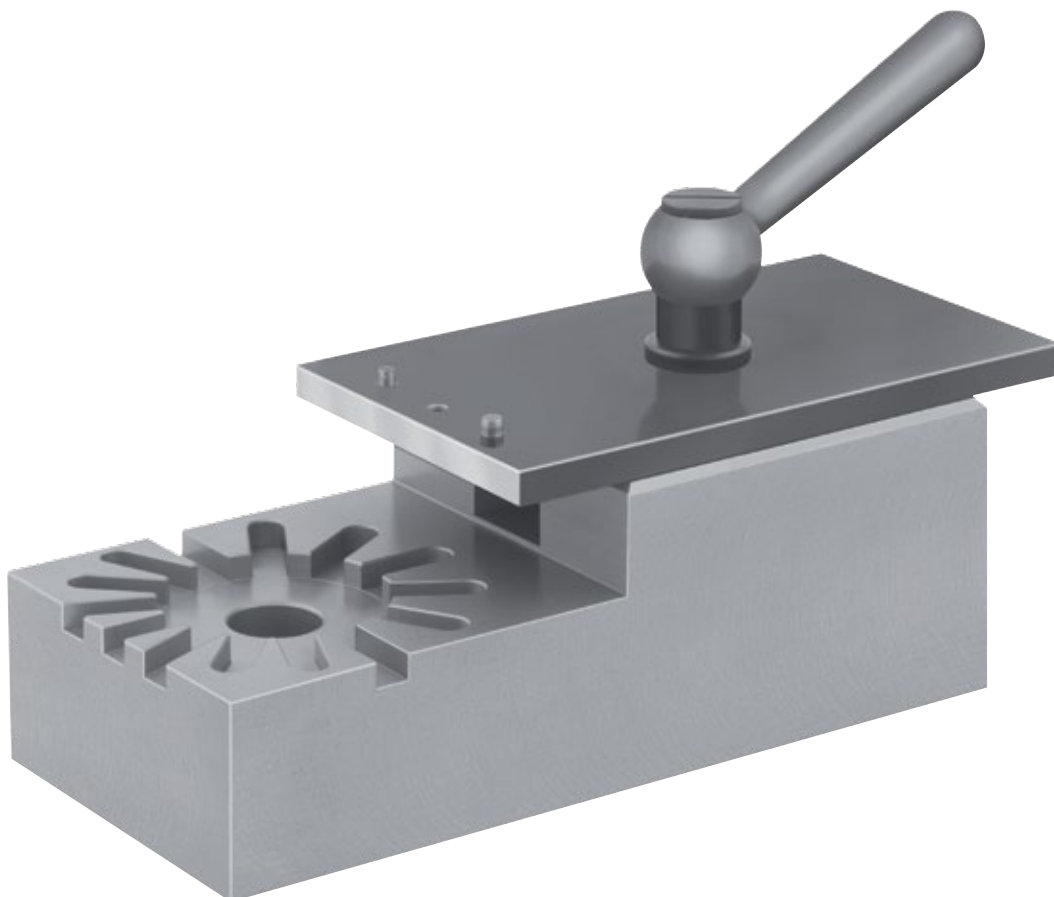
Z497673



incl. extension
for Slitting Tools

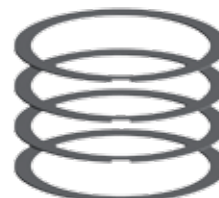


incl. angle for Blanking
Tools

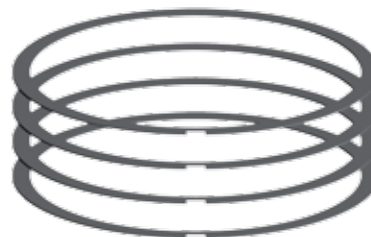


PASS Compensating rings for dies

Size	Dim.	Part.-no.
Set compensating rings for die size 1		
1	6 x t = 0,1 mm	11AS01
1	6 x t = 0,3 mm	11AS03
1	6 x t = 0,5 mm	11AS05
1	2 x t = 0,1 / 0,3 / 0,5 mm	11AS0_



Size	Dim.	Part.-no.
Set compensating rings for die size 2		
2	6 x t = 0,1 mm	12AS01
2	6 x t = 0,3 mm	12AS03
2	6 x t = 0,5 mm	12AS05
2	2 x t = 0,1 / 0,3 / 0,5 mm	12AS0_



Details:

Accessories:	Page
Adapter rings for die	35
RTC-cartridge and die carrier	41



PASS Soft pads

Soft pad for Stripper

Size	Dim.	Pos.	Part.-no.
2	inside-Ø 16	1	PAD2A16
2	inside-Ø 25	1	PAD2A25
2	inside-Ø 50	1	PAD2A50
2	inside-Ø 76	1	PAD2A76



— 1

Soft pad for die

2	General	2	PAD2MAN
2	Square	3	PAD2MQN
2	Rectangle/ Oblong	4	PAD2MFN



— 2



— 3

Soft pad for adapter ring

2 to 1		5	PAD2ZAN
--------	--	---	---------



— 4



— 5

PASS-fit System

for fast and easy adjustment without the need for a fixture

Description	Machine group	Part.-no.
PASS-fit Adjusting ring incl. Key for Punch size 1		
Size 1	E-I	1181P1

PASS-fit Adjusting ring incl. Key for Punch size 2		
Size 2	E-I	1182P1

PASS-fit Adjusting ring incl. Key for Punch reinforced Form		
reinforced	E-I	118VP1

Description	Location	Part.-no.
PASS-fit for Punch size 1		
First keyway	0°	___ P1
Each additional keyway		

PASS-fit for Punch size 2 and size 3		
First alignment hole & pin	0 - 90°	___ P2
Each additional hole		

PASS-fit Punch reinforced Form		
First keyway	0°	___ P1
Each additional keyway		



Details / Surcharges:

Spare Parts:

Adjusting key for PASS-fit - Adjusting ring size 1 and size 2 - Part.-no. 118902
Adjusting key for PASS-fit - Adjusting ring reinforced Form - Part.-no. 118903

Information about PASS-fit System:

- high operational security, preventing expensive tool misalignments
- utilizes a fixed pin for reliable, precise alignment of alignment ring and punch
- can be used with tougher materials like thick stainless; the punch shaft is intact (without any keyways or holes)
- high precision mating with punch; does not add to tool length
- standard on PASS cluster and shaped forming tools. Optional on all other tools
- useful for positive alignment of intricate special shape or tight clearance tools



RTC-Cartridge for Machine Group I

(TruPunch1000, 2000, 2020, 3000, 5000, TruMatic3000, 6000, 7000)

Description	Pos.
RTC cartridges and die carrier	
RTC cartridge	1
Die carrier for RTC cartridge	2
RTC cartridge incl. die carrier	1 + 2



— 1

— 2





Index for Center Punch Tools and Marking Tools:

Center Punch Tool downform	page	44
Center Punch Tool upform	page	45
Marking Tool	page	46
Engraving Tool	page	47
Letter Marking Multitool 10-station	page	48

PASS Center Punch Tool downform

Description	Sheetthickness	Pos.	Part.-no.
Center Punch Tool „solid version“ - punch chuck, center-punch, die ^(*)			
Tool complete	1,00 - 4,50	1 - 3	1S092A
Tool complete	4,51 - 8,00	1 - 3	1S092B
Tool complete	8,01 - 11,50	1 - 3	1S092C
Tool complete	9,01 - 12,50	1 - 3	1S092D



— 1

— 2

Spare center punch			
Length 55,3 mm	1,00 - 4,50	2	1S0921
Length 51,3 mm	4,51 - 8,00	2	1S0922
Length 47,3 mm	8,01 - 11,50	2	1S0923
Length 46,3 mm	9,01 - 12,50	2	1S0924

Spare die			
Flat	1,00 - 12,50	3	1S3940



— 3

Details:

Accessories:

^(*) Adjusting ring - Part.-no. 118101 - see page 34

^(*) Thread screw with shoulder M14 x 1,5 x 12 - Part.-no.. 1S0925



PASS Center Punch Tool upform

Description	Sheet thickness	Pos.	Part.-no.
Center Punch Tool with depth adjustment ^(*)			
Tool complete	1,00 - 4,00	1 - 7	1S2800



— 1

Spare parts for Center Punch Tool with depth adjustment			
Upper part	1,00 - 4,00	1	1S2801
Stripper	1,00 - 4,00	2	1S2804
Center punch	1,00 - 4,00	3	1S2805
Spring	1,00 - 4,00	4	1S2806
Adjusting screw	1,00 - 4,00	7	1S2809



— 2

— 3

— 4

— 7

Details:

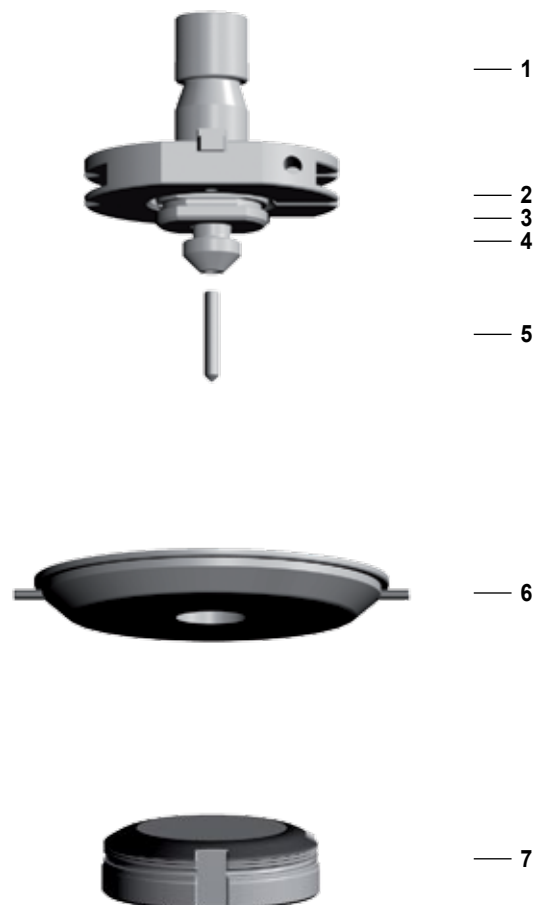
Accessories:

^(*) Adjusting ring - Part.-no. 118201 - see page 34

PASS Marking Tool

for sheet thickness from 0,80 up to 8,00 mm

Description	Pos.	Part.-no.
Marking Tool complete		
Consisting of:	1 - 7	1S390W
Upper part complete, incl. adjusting ring, Stripper \varnothing 20 and flat die		
Marking Tool - Upper part complete		
Consisting of:	1 - 5	1S3900
adapter, adjusting ring, sign insert and spring		
Spare sign insert		
Made of H-PM® steel	5	1S3930
Spare stripper		
\varnothing 20	6	112211-20
Spare die		
Flat	7	1S3940



Details:

Accessories:	Page
Spare adjusting ring - Part.-no. 118101	34

Please observe that Marking Tools are exclusively used on machines with programming option „Marking“



PASS Engraving Tool for sheet thickness from 1,00 up to 8,00 mm

Description	Pos.	Part.-no.
Engraving tool incl. die and ball caster		

Consisting of:	1 - 8	199103950
Upper part complete incl. 3 types of springs, adjusting ring, die and ball caster		

Engraving Tool - Upper part		
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Incl. 3 types of springs	1 - 5	199103950-1
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Spare engraving needle		
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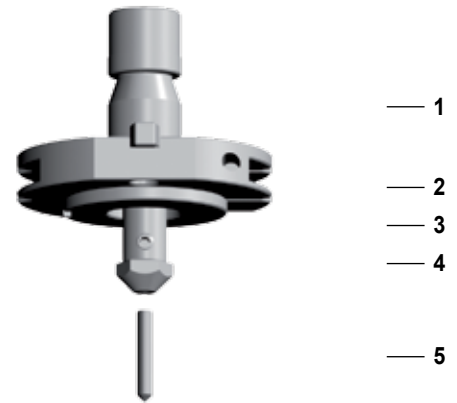
Made of H-PM®	5	199103951
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Spare die		
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Incl. Ampco plate and ball caster	6 - 8	199103950-2
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Spare springs		
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„Green“ for Aluminium		91701025A
„Blue“ for Steel		91701025B
„Red“ for VA		91701025C



Details:

Accessories:	Page
Spare adjusting ring - Part.-no. 118101	34

Please observe that Engraving Tools are exclusively used on machines with programming option „Engraving“

PASS Letter Marking Multitool 10-station for Machine Group I

(TruPunch1000, 2000, 2020, 3000, 5000, TruMatic3000, 6000, 7000)

Description	Pos.	Part.-no.
Upper part		
Punch adapter	1	113540

Letter Marking Punch for 10-station-Multitool		
Letter, number or special sign on customers request	2	113P10

Stripper for 10-station-Multitool		
Standard round	3	113PA10

Die for 10-station-Multitool		
Flat	4	113PM10



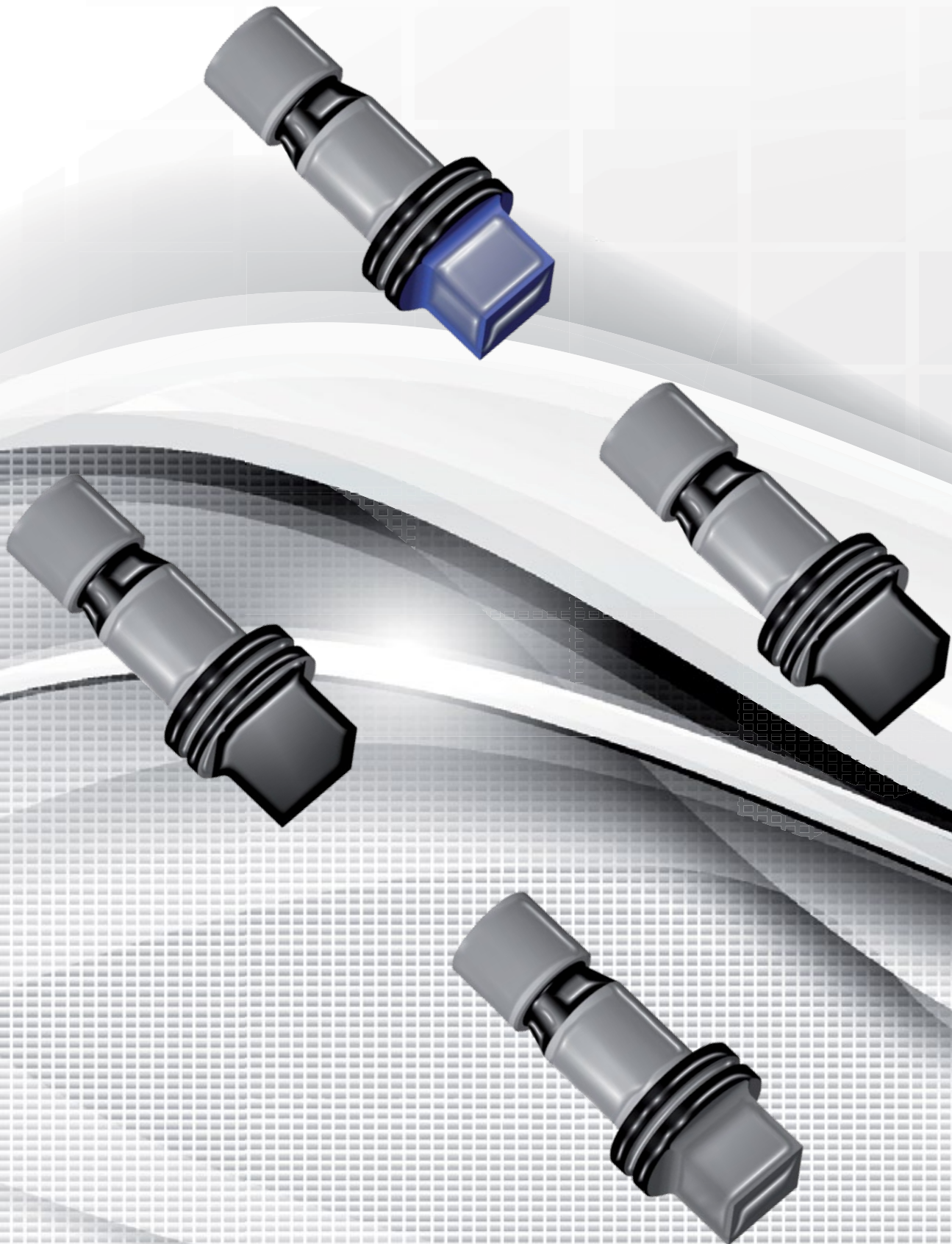
Cross-references / Surcharges:

Accessories

RTC-cartridge and die carrier - see page 41

Stripper in polished version for low-scratch material handling







Index for Miscellaneous:

Spare Parts	page	52
Push-out stripper	page	53
Surcharges for coatings (TICN / A-MAX / C-MAX / T-MAX)	page	54
Surcharges for draw polished punch edges	page	55
Surcharges for punches with shear	page	56
Surcharges for slug-snap for dies	page	57



Spare Parts

Description	Pos.	Part.-no.
Screws		
M5x10 for Punch Chuck Ø 6,00 mm		905006
M6x6 for Punch Chuck Ø 10,50 mm		905019
M8x16 for adapter rings size 2/1		905009
M8x12 with pin for adapter rings size 3/1 - 3/2		905008
M14x1,5x12 for Punch Chuck		119991
Cylinder pin		
Ø 8x16 for adapter ring size 2/1		1-901013
Ø 8x16 for adapter ring size 3/1 - 3/2		2-901013
PASS-fit		
Cylinder pin Ø 3x10 for adjusting ring size 1		901003
Adjusting key for punch size 2 + 3		118900006
Slitting punch blade insert and die plate insert		
Center pin Ø 6x20 for slitting punch blade adapter		901018
Set spare screws for die plate adapter M4x12 6 pc		1-907005
Set spare screws for die plate adapter M4x12 4 pc		2-907005
Miscellaneous		
Die clip		106991
Stripper pin		110991
Clamping screw M6x25 for adjusting ring size 1 + 2		907013
Fixing screw M3x8 for adjusting key		907062
Handle for stripper adpter ring „manual“ size 3/2		120326-2



PASS Push-out stripper for Machine Group „H / I“

Description	Pos.	Part.-no.
Push-out stripper		
Round	1 - 4	1S21201
Square	1 - 4	1S21202
Rectangle	1 - 4	1S21203
Oblong	1 - 4	1S21204
Special shape	1 - 4	1S21200

Spare Parts		
Spare screws (4 per set)	2	1S21291
Spare springs (4 per set)	3	1S21292



Surcharges:

Stripper:

Polished version for low-scratch material handling

Cross-references:

	Page
Standard Tools	6 - 13
Slitting Tools	26 - 28
Spare Parts	52

Punch-coatings

Advantage: increase the tool lifetime, reduce material build up

Size	Dim.
TICN coating (for working with stainless steel) ^(*)	
0	- 10,50
1	- 30,50
2	- 76,20
3	- 105,00
Multitool	- 16,00
Slitting punch blade insert	- 60,00
Slitting punch blade insert	- 80,00

T-MAX coating (for working with galvanized sheet) ^(*)	
0	- 10,50
1	- 30,50
2	- 76,20
3	- 105,00
Multitool	- 16,00
Slitting punch blade insert	- 60,00
Slitting punch blade insert	- 80,00

A-MAX coating (for dry processing with aluminium sheet) ^(*)	
0	- 10,50
1	- 30,50
2	- 76,20
3	- 105,00
Multitool	- 16,00
Slitting punch blade insert	- 60,00
Slitting punch blade insert	- 80,00

C-MAX coating (for processing with cooper) ^(*)	
0	- 10,50
1	- 30,50
2	- 76,20
3	- 105,00
Multitool	- 16,00
Slitting punch blade insert	- 60,00
Slitting punch blade insert	- 80,00



TICN



T-MAX



A-MAX



C-MAX

Details:

^(*) usable for Cutting part sizes from Ø 4,00 mm or wide 2,50 mm.



Draw-Polished punch edges

Increasing the tool lifetime, reduce material build up

Size	Dim.
Round	
0	- 10,50
1	- 30,50
2	- 76,20
3	- 105,00
Multitool	- 16,00

Size	Dim.
Square / Rectangle / Oblong	
0	- 10,50
1	- 30,50
2	- 76,20
3	- 105,00
Multitool	- 16,00

Size	Dim.
O.D. Ground Special shapes (special shape group 1 & 2)	
0	- 10,50
1	- 30,50
2	- 76,20
3	- 105,00
Multitool	- 16,00

Size	Dim.
EDM required Special shapes (special shape group 3 & 4)	
0	- 10,50
1	- 30,50
2	- 76,20
3	- 105,00
Multitool	- 16,00



PASS punches with shear

Description

WT

- Advantage: easy to regrind

- Disadvantage: lateral forces



WT

DOWT

- Advantages: easy to regrind
 no lateral forces

- Disadvantage: only make sense for big contours



DOWT

WTC

- Advantage: reduced edge weight

- Disadvantage: lateral forces



WTC

2 PT

- Advantages: no lateral forces
 optimal die cutting

- Disadvantages: only make sense for big and slim contours
 difficult to regrind



2 PT

4 PT

- Advantages: no lateral forces
 optimal die cutting
 usable for trimming

- Disadvantages: only make sense for big contours
 difficult to regrind

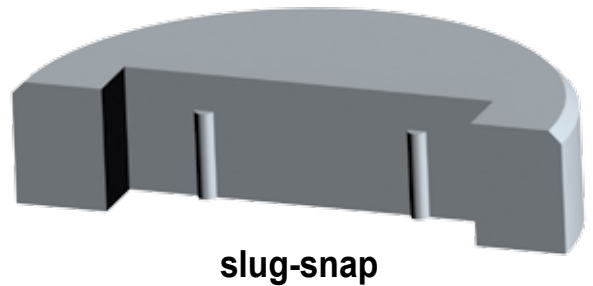


4 PT

PASS slug-snap for dies

Size	Dim.
For dies - round	
1	- 32,00
2	- 77,00
1 reinforced form	- 32,00
2 reinforced form	- 62,00
Multitool	- 16,00

Size	Dim.
For dies - form	
1	- 32,00
2	- 77,00
1 reinforced form	- 32,00
2 reinforced form	- 62,00
Multitool	- 16,00

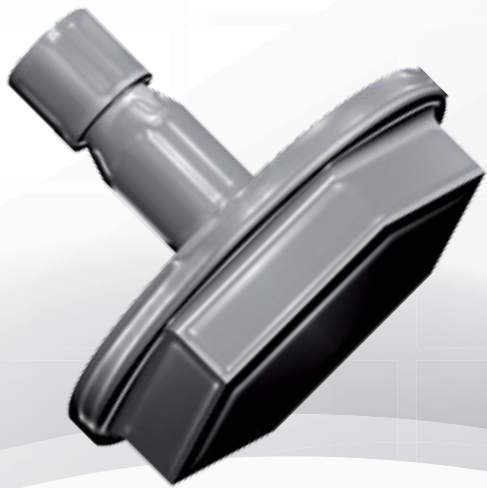


Details:

slug-snap

Special holding bolts are included in the die, clamping the pulling 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





Index for specific tools for Boschert punching machines and Trumpf size 3:

Round Tools	page	60
Form Tools	page	61
Adapter rings and manual adjusting rings	page	62
Slitting Tool size 2	page	63
Slitting Tool size 3	page	64
PU-stripper	page	65

PASS Punching Tools size 3

Description	Dim. „d“ in mm	Part.-no.
Round		
Punch	76,21 - 105,00	101311C
Die	77,01 - 107,00	106311C
Stripper automatic	78,01 - 107,00	110311C
Stripper manual	78,01 - 107,00	111311C

Square		
Punch	53,91 - 74,25	101312C
Die	54,91 - 75,50	106312C
Stripper automatic	56,01 - 77,00	110312C
Stripper manual	56,01 - 77,00	111312C

Rectangle		
Punch	76,21 - 105,00	101313C
Die	77,01 - 107,00	106313C
Stripper automatic	78,01 - 107,00	110313C
Stripper manual	78,01 - 107,00	111313C

Oblong		
Punch	76,21 - 105,00	101314C
Die	77,01 - 107,00	106314C
Stripper automatic	78,01 - 107,00	110314C
Stripper manual	78,01 - 107,00	111314C



Surcharges:

Punch:

Punches with shear (WT / DOWT / etc.) - see page 56
Cutting part under 1,00 mm
4 x same corner radius
X3-PM quality - see page 68

Stripper:

Polished version for low-scratch material handling

Die:

slug-stop version (negative cutting part) no surcharge
Additional keyway
Brush version for low-scratch material handling
X8-PM quality - see page 68

Cross-references:

Punch:

	Page
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Coating-surcharge	54
Cutting part polished	55
Adjusting rings	62

Stripper:

Spare Parts	52
PU-stripper	65

Die:

slug-snap version (for slug problems)	57
Adapter rings - on request	62

PASS Punching Tools size 3

Description	Dim. „d“ in mm	Part.-no.
Special Shape Tools Group 1 (SF01, 02, 04, 05)		
Punch	76,21 - 105,00	12131__C1
Die	77,01 - 107,00	12631__C1
Stripper automatic	78,01 - 107,00	12731__C1
Stripper manual	78,01 - 107,00	1273D__C1

Special Shape Tools Group 2 (SF03, 07, 13, 17)		
Punch	76,21 - 105,00	12131__C2
Die	77,01 - 107,00	12631__C2
Stripper automatic	78,01 - 107,00	12731__C2
Stripper manual	78,01 - 107,00	1273D__C2

Special Shape Tools Group 3 (SF06, 08, 14, 16)		
Punch	76,21 - 105,00	12131__C3
Die	77,01 - 107,00	12631__C3
Stripper automatic	78,01 - 107,00	12731__C3
Stripper manual	78,01 - 107,00	1273D__C3

Special Shape Tools Group 4 (SF09, 10, 11, 12, 15)		
Punch	76,21 - 105,00	12131__C4
Die	77,01 - 107,00	12631__C4
Stripper automatic	78,01 - 107,00	12731__C4
Stripper manual	78,01 - 107,00	1273D__C4



Surcharges:

Punch:

Punches with shear (WT / DOWT / etc.) - see page 56
Cutting part under 1,00 mm
X3-PM quality - see page 68

Stripper:

Polished version for low-scratch material handling

Die:

slug-stop version (negative cutting part) no surcharge
Additional keyway
Brush version for low-scratch material handling
X8-PM quality - see page 68

Cross-references:

Punch:

	Page
Types of special shapes	10 - 13
PASS-fit System - Explanation and surcharges	40
Coating-surcharge	54
Cutting part polished	55
Adjusting rings	34 + 62

Stripper:

Spare Parts	52
PU-stripper	65

Die:

slug-snap version (for slug problems)	57
Adapter rings - on request	62

PASS Adapter rings and manual adjusting rings

Description	Machine group	Pos.	Part.-no.
Adapter ring for die			
from 3 to 1	G	1 (without picture)	120310
from 3 to 2	G	1	120320



Adjusting rings (manual)				
1	A-D	2	118102	
2	A-D	2 (without picture)	118202	
3 (outside Ø 95)	A-D	2 (without picture)	118302	



PASS-fit adjusting rings (manual)				
1	A-D	3	1181P2	
2	A-D	3 (without picture)	1182P2	
3 (outside Ø 95)	A-D	3 (without picture)	1183P2	





PASS Slitting Tool for Boschert Punching machines - size 2

Spring loaded Slitting Tool size 2 - measure 5 x 30 4 x R=0,5 ^(*)

Description	Pos.	Part.-no.
Upper part complete	1 - 4	1S0330530
Spare slitting punch blade insert ^(**)	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__



Spring loaded Slitting Tool size 2 - measure 5 x 40 4 x R=0,5 ^(*)

Upper part complete	1 - 4	1S0330540
Spare slitting punch blade insert ^(**)	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__

Spring loaded Slitting Tool size 2 - measure 5 x 56 4 x R=0,5 ^(*)

Upper part complete	1 - 4	1S0330540
Spare slitting punch blade insert ^(**)	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__

Other Spare Parts

Spare-springs:		
Set steel springs (2 x big / 2 x small)	3	1S0331



Details:

^(*) max sheet thickness = 4,00 mm

^(**) Slitting punch blade insert general with PASS T-MAX coating

^(**) surcharge for reduced dimensional deviation

PASS Slitting Tool for Boschert Punching machines - size 3

Description	Pos.	Part.-no.
Spring loaded Slitting Tool size 3 - measure 8 x 30 4 x R=1,0 ^(*)		
Upper part complete	1 - 4	1S0350830
Spareslitting punch blade insert ⁽²⁾	2	1S0446
Spare stripper	4	1S0355830
Die cl 0,3 - cl 1,0	5	109T830__
Die cl 1,2 - cl 1,5	5	109T830__

Spring loaded Slitting Tool size 3 - measure 8 x 40 4 x R=1,0 ^(*)		
Upper part complete	1 - 4	1S0350840
Spareslitting punch blade insert ⁽²⁾	2	1S0447
Spare stripper	4	1S0355840
Die cl 0,3	5	106T840__
Die cl 0,4 - cl 1,2	5	109T840__

Spring loaded Slitting Tool size 3 - measure 8 x 56 4 x R=1,0 ^(*)		
Upper part complete	1 - 4	1S0350856
Spareslitting punch blade insert ⁽²⁾	2	1S0448
Spare stripper	4	1S0355856
Die cl 0,3	5	106T856__
Die cl 0,4 - cl 1,0	5	109T856__

Spare Parts		
Spare springs:		
Set Steel springs (4 x big / 4 x small)	3	



Details:

^(*) for slitting up to s = 6,00 mm

⁽²⁾ Slitting punch blade insert generally with PASS T-MAX coating

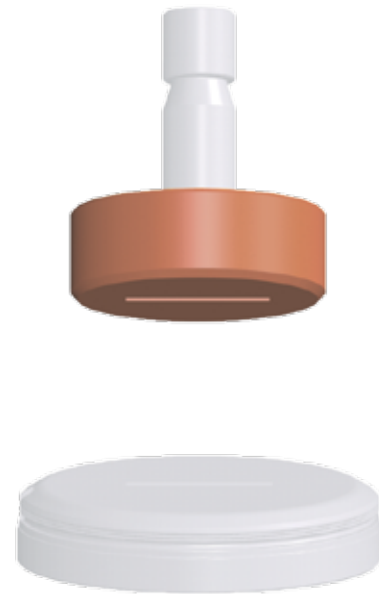
⁽²⁾ surcharge bei reduced dimensional deviation

PASS PU-Stripper

Springtype	Punch shape ^(*)	Dim.	Part.-no.
Without contour			
1	Flat size 0	- 6,00	1S013800
1	Flat size 0	- 10,50	1S013805
1	Flat	- 12,00	1S013810
1	Whisper	- 12,00	1S013820
2	Flat	- 30,50	1S013830
2	Whisper	- 30,50	1S013840
3	Flat	- 48,00	1S013850
3	Whisper	- 48,00	1S013860
	Flat / Whisper	> 48,00	

For punch - Round			
1	Flat size 0	- 6,00	1S013801
1	Flat size 0	- 10,50	1S013806
1	Flat	- 12,00	1S013811
1	Whisper	- 12,00	1S013821
2	Flat	- 30,50	1S013831
2	Whisper	- 30,50	1S013841
3	Flat	- 48,00	1S013851
3	Whisper	- 48,00	1S013861
	Flat / Whisper	> 48,00	

For punch - Form			
1	Flat size 0	- 6,00	1S013802
1	Flat size 0	- 10,50	1S013807
1	Flat	- 12,00	1S013812
1	Whisper	- 12,00	1S013822
2	Flat	- 30,50	1S013832
2	Whisper	- 30,50	1S013842
3	Flat	- 48,00	1S013852
3	Whisper	- 48,00	1S013862
	Flat / Whisper	> 48,00	



Details:

Punches with shear

(*) Flat = Length 74,00 mm

(*) Whisper = Length 77,00 mm

(*) Flat size 0 = Length 59,50 mm



spring type 1



spring type 2



spring type 3





Index for Information:

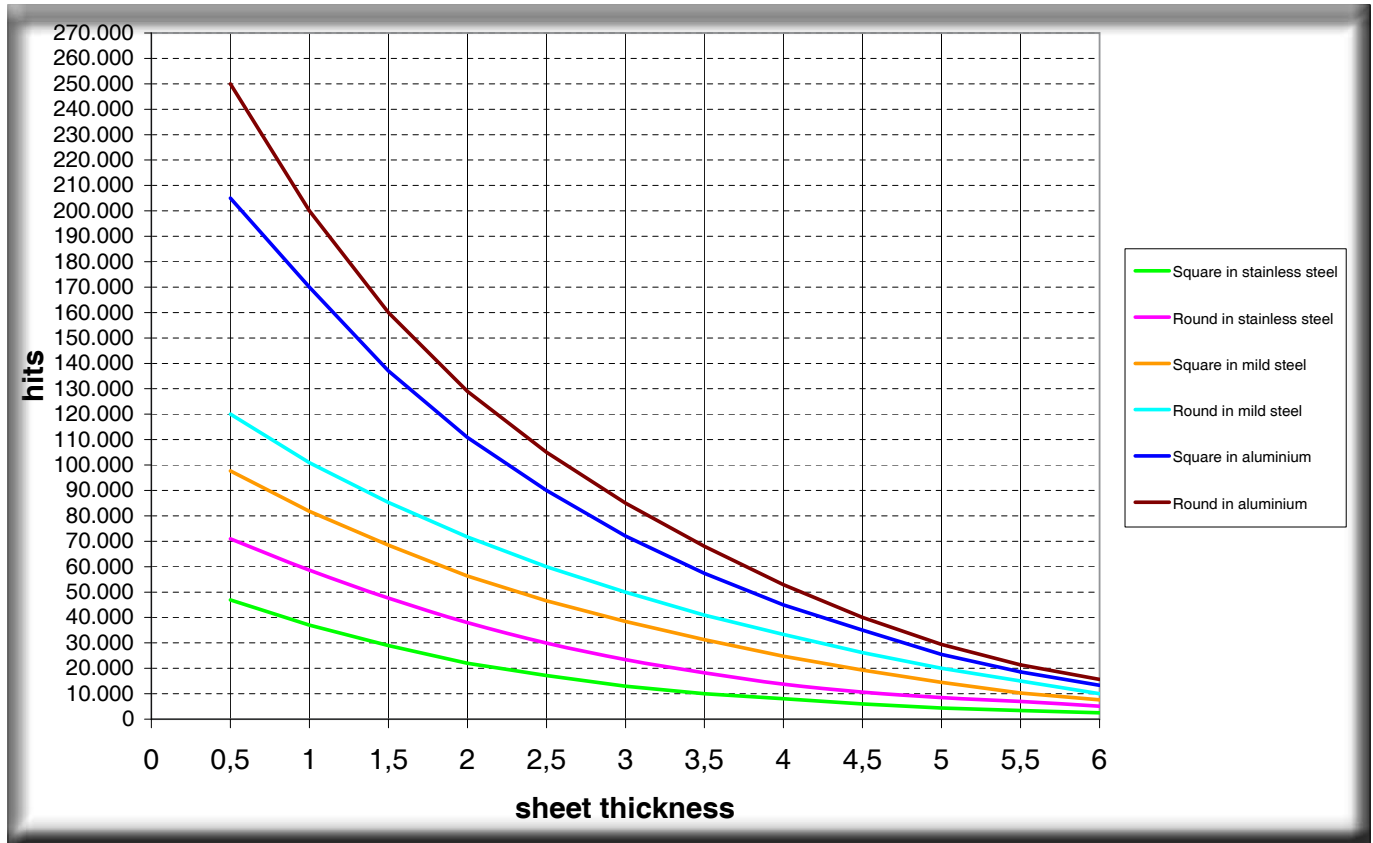
Steel Information	page	68
Life-time of tools / Re grind advice	page	69
Alphabetical Index	page	70

PASS Steel identification

HWS	<p>HWS is known as secondary hardened cold work steel with superior toughness. This type of steel is especially suitable for dies.</p> <p><u>Advantages for the customer:</u></p> <ul style="list-style-type: none"> - excellent cost in accordance to performance
H-PM®	<p>H-PM® steel is known as steel made on a powder-metallurgical base with a high degree of purity. This guarantees a segregational uniformed microstructure in the complete cross-section of the tool.</p> <p><u>Advantages for the customer:</u></p> <ul style="list-style-type: none"> - excellent cost in accordance to performance - good stability for the edges by increased toughness - high tool-lifetime due to the uniformed microstructure - increased current hit-flex-capability; suitable as an excellent base for dies
X3-PM	<p>The X3-PM is known as 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 resistant regarding tool-lifetime.</p> <p><u>Advantages for the customer:</u></p> <ul style="list-style-type: none"> - 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	<p>The X8-PM is known as a high-end powder-metallurgical steel with 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 contours.</p> <p><u>Advantages for the customer:</u></p> <ul style="list-style-type: none"> - 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 / C-Max for copper)	2,0 - 4,0
- PASS-punch made with special H-PM® steel	6,0 - 10,0
- nibbling	0,7 - 0,9
- corner-punching	0,5 - 0,7
- Whispertool	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 too close radius	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.



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