

KATALOG 08/2019-PP-WW-A.1

PRIMA POWER



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TOOLS STATION A TO E

PASS TOOLS FOR YOUR
THICK TURRET SYSTEM

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ps:®beta-V2® | STATION A

DIAMETER UP TO 12,7 MM



HEAD UNIT

Canister for sheet thickness up to 6 mm

Spring

10 mm length adjustment by thread

Oil channel for sheet lubrication



PUNCH BODY

Oil channel for sheet lubrication

Alignment pin with double D for exact adjustment

Punch body made with premium H-PM®



PUNCH GUIDE

Simple length adjustment in assembled state by pressing the locking button

Surface-hardened and polished punch guide for sheet thickness up to 6 mm

Keyway:

All shapes: 0-90-225°

STRIPPER

Interchangeable stripper plate

ps:®beta-V2® | STATION A

DIAMETER UP TO 12,7 MM

PART-NO.

COMPLETE PUNCH ASSEMBLY		
Round	4010A01-PP	
Square	4010A02-PP	
Rectangle	4010A03-PP	
Oblong	4010A04-PP	
O.D. Ground Special Shape	4010A0G-PP	
EDM Required Special Shape	4010A0E-PP	

HEAD UNIT		
For all shapes	4090A10-PP	

PUNCH BODY (H-PM®)		
Round	4020A01	
Square	4020A02	
Rectangle	4020A03	
Oblong	4020A04	
O.D. Ground Special Shape	4020A0G	
EDM Required Special Shape	4020A0E	

PUNCH GUIDE		
For all shapes	4030A05	

STRIPPER		
Round	4040A01	
Square	4040A02	
Rectangle	4040A03	
Oblong	4040A04	
O.D. Ground Special Shape	4040A0G	
EDM Required Special Shape	4040A0E	

DIE (HWS)		
Round	4052A01	
Square	4052A02	
Rectangle	4052A03	
Oblong	4052A04	
O.D. Ground Special Shape	4052A0G	
EDM Required Special Shape	4052A0E	

SPARE PARTS		ADDITIONAL COSTS FOR PUNCH	
O-Ring (in punch guide)	4092A51	TICN coating	
PU ejector Ø 3x6 (in punch)	4092P03	T-MAX coating	
PU ejector Ø 6x10 (in punch)	4092P06	A-MAX coating	
		WT-shear	
		DOWT-shear	
		2 PT-shear	
		4 PT-shear	
		Cutting part under 1,00 mm	+ 40%
COMPENSATING SHIM FOR PUNCH		ADDITIONAL COSTS FOR PUNCH GUIDE	
Not necessary		Additional keyway	

SET OF COMPENSATING SHIMS FOR DIE		ADDITIONAL COSTS FOR DIES	
1x0,4 mm/1x0,8 mm/1x1,2 mm	499A1M1	Reinforced die	
		H-PM® Quality	
		Additional pin hole	



ps:®beta-compact I STATION A

DIAMETER UP TO 12,7 MM



HEAD UNIT

Canister for sheet thickness up to 6 mm

Spring

10 mm length adjustment by thread

Oil channel for sheet lubrication



PUNCH BODY

Oil channel for sheet lubrication

Alignment pin with double D for exact adjustment

Punch body made with premium H-PM®



PUNCH GUIDE

Simple length adjustment in assembled state by pressing the locking button

Surface-hardened and polished punch guide for sheet thickness up to 6 mm

Keyway:

Round: 0°

Square: 0-45°

Rect./Oblong: 0-90-225°

Asym. shapes: 0-90-180-270°

Tool shapes integrated in guide

ps:®beta-compact I STATION A

DIAMETER UP TO 12,7 MM

PART NO.

COMPLETE PUNCH ASSEMBLY

Round	4016A01-PP
Square	4016A02-PP
Rectangle	4016A03-PP
Oblong	4016A04-PP
O.D. Ground Special Shape	4016A0G-PP
EDM Required Special Shape	4016A0E-PP

HEAD UNIT

For all shapes	4094A10-PP
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PUNCH BODY (H-PM®)

Round	4024A01
Square	4024A02
Rectangle	4024A03
Oblong	4024A04
O.D. Ground Special Shape	4024A0G
EDM Required Special Shape	4024A0E

PUNCH GUIDE

Round	4036A01
Square	4036A02
Rectangle	4036A03
Oblong	4036A04
O.D. Ground Special Shape	4036A0G
EDM Required Special Shape	4036A0E

DIE (HWS)

Round	4052A01
Square	4052A02
Rectangle	4052A03
Oblong	4052A04
O.D. Ground Special Shape	4052A0G
EDM Required Special Shape	4052A0E



SPARE PARTS

O-Ring (in punch guide)	4092A51
PU ejector Ø 3x6 (in punch)	4092P03
PU ejector Ø 6x10 (in punch)	4092P06

ADDITIONAL COSTS FOR PUNCH

TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm
+ 40%

COMPENSATING SHIM FOR PUNCH

Not necessary

ADDITIONAL COSTS FOR PUNCH GUIDE

Additional keyway

SET OF COMPENSATING SHIMS FOR DIE

1x0,4 mm/1x0,8 mm/1x1,2 mm	499A1M1
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ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole

ps:®beta-V2® | STATION B

DIAMETER UP TO 31,7 MM



HEAD UNIT

Canister for sheet thickness up to 6 mm

Spring

10 mm length adjustment by thread

Oil channel for sheet lubrication



PUNCH BODY

Oil channel for sheet lubrication

Alignment pin with double D for exact adjustment

Punch body made with premium H-PM®



PUNCH GUIDE

Simple length adjustment in assembled state by pressing the locking button

Surface-hardened and polished punch guide for sheet thickness up to 6 mm

Keyway:

All shapes: 0-90-225°

STRIPPER

Interchangeable stripper plate

ps:®beta-V2® | STATION B

DIAMETER UP TO 31,7 MM

PART-NO.

COMPLETE PUNCH ASSEMBLY

Round	4010B01-PP
Square	4010B02-PP
Rectangle	4010B03-PP
Oblong	4010B04-PP
O.D. Ground Special Shape	4010B0G-PP
EDM Required Special Shape	4010B0E-PP

HEAD UNIT

For all shapes	4090B10-PP
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PUNCH BODY (H-PM®)

Round	4020B01
Square	4020B02
Rectangle	4020B03
Oblong	4020B04
O.D. Ground Special Shape	4020B0G
EDM Required Special Shape	4020B0E

PUNCH GUIDE

For all shapes	4030B05
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STRIPPER

Round	4040B01
Square	4040B02
Rectangle	4040B03
Oblong	4040B04
O.D. Ground Special Shape	4040B0G
EDM Required Special Shape	4040B0E

DIE (HWS)

Round	4052B01
Square	4052B02
Rectangle	4052B03
Oblong	4052B04
O.D. Ground Special Shape	4052B0G
EDM Required Special Shape	4052B0E

SPARE PARTS

O-Ring (in punch guide)	4092B51
PU ejector Ø 3x6 (in punch)	4092P03
PU ejector Ø 6x10 (in punch)	4092P06

ADDITIONAL COSTS FOR PUNCH

TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm
+ 40%

COMPENSATING SHIM FOR PUNCH

Not necessary

ADDITIONAL COSTS FOR PUNCH GUIDE

Additional keyway

SET OF COMPENSATING SHIMS FOR DIE

1x0,4 mm/1x0,8 mm/1x1,2 mm	499B1M1
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ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole



ps:®beta-compact I STATION B

DIAMETER UP TO 31,7 MM



HEAD UNIT

Canister for sheet thickness up to 6 mm

Spring

10 mm length adjustment by thread

Oil channel for sheet lubrication



PUNCH BODY

Oil channel for sheet lubrication

Alignment pin with double D for exact adjustment

Punch body made with premium H-PM®



PUNCH GUIDE

Simple length adjustment in assembled state by pressing the locking button

Surface-hardened and polished punch guide for sheet thickness up to 6 mm

Keyway:

Round: 0°

Square: 0-45°

Rect./Oblong: 0-45-90-135°

Asym. shapes: 0-90-180-270°

Tool shapes integrated in guide

ps:®beta-compact I STATION B

DIAMETER UP TO 31,7 MM

PART NO.

COMPLETE PUNCH ASSEMBLY		
Round	4016B01-PP	
Square	4016B02-PP	
Rectangle	4016B03-PP	
Oblong	4016B04-PP	
O.D. Ground Special Shape	4016B0G-PP	
EDM Required Special Shape	4016B0E-PP	

HEAD UNIT		
For all shapes	4094B10-PP	

PUNCH BODY (H-PM®)		
Round	4024B01	
Square	4024B02	
Rectangle	4024B03	
Oblong	4024B04	
O.D. Ground Special Shape	4024B0G	
EDM Required Special Shape	4024B0E	

PUNCH GUIDE		
Round	4036B01	
Square	4036B02	
Rectangle	4036B03	
Oblong	4036B04	
O.D. Ground Special Shape	4036B0G	
EDM Required Special Shape	4036B0E	

DIE (HWS)		
Round	4052B01	
Square	4052B02	
Rectangle	4052B03	
Oblong	4052B04	
O.D. Ground Special Shape	4052B0G	
EDM Required Special Shape	4052B0E	



SPARE PARTS		ADDITIONAL COSTS FOR PUNCH	
O-Ring (in punch guide)	4092B51	TICN coating	
PU ejector Ø 3x6 (in punch)	4092P03	T-MAX coating	
PU ejector Ø 6x10 (in punch)	4092P06	A-MAX coating	
		WT-shear	
		DOWT-shear	
		2 PT-shear	
		4 PT-shear	
		Cutting part under 1,00 mm	+ 40%
COMPENSATING SHIM FOR PUNCH		ADDITIONAL COSTS FOR PUNCH GUIDE	
Not necessary		Additional keyway	
SET OF COMPENSATING SHIMS FOR DIE		ADDITIONAL COSTS FOR DIES	
1x0,4 mm/1x0,8 mm/1x1,2 mm	499B1M1	Reinforced die	
		H-PM® Quality	
		Additional pin hole	

ps:®beta-V2® | STATION C

DIAMETER UP TO 50,8 MM



GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

Oil channel for sheet lubrication

10 mm length adjustment in assembled state
by pressing the locking button

Keyway: 0-90°

Surface-hardened and polished punch guide
for sheet thickness up to 6 mm

Fast and easy clamping system for stripper



PUNCH BODY

Thread M12 with oil channel

Punch body made with premium H-PM®

STRIPPER

Interchangeable stripper plate

ps:®beta-V2® | STATION C

DIAMETER UP TO 50,8 MM

PART NO.

GUIDE ASSEMBLY		
	For all shapes	4030C01-PP

PUNCH BODY (H-PM®)		
	Round	4020C01
	Square	4020C02
	Rectangle	4020C03
	Oblong	4020C04
	O.D. Ground Special Shape	4020C0G
	EDM Required Special Shape	4020C0E

STRIPPER		
	Round	4040C01
	Square	4040C02
	Rectangle	4040C03
	Oblong	4040C04
	O.D. Ground Special Shape	4040C0G
	EDM Required Special Shape	4040C0E

DIE (HWS)		
	Round	4052C01
	Square	4052C02
	Rectangle	4052C03
	Oblong	4052C04
	O.D. Ground Special Shape	4052C0G
	EDM Required Special Shape	4052C0E



SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TICN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating
		A-MAX coating
		WT-shear
		DOWT-shear
		2 PT-shear
		4 PT-shear
		Additional keyway
		Cutting part under 1,00 mm
COMPENSATING SHIM FOR PUNCH		ADDITIONAL COSTS FOR PUNCH GUIDE
Not necessary		Additional keyway
SET OF COMPENSATING SHIMS FOR DIE		ADDITIONAL COSTS FOR DIES
1x0,4 mm/1x0,8 mm/1x1,2 mm	499C2M1	H-PM® Quality
		Additional keyway

ps:®beta-V2® SLITTING TOOL I STATION C



GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

Oil channel for sheet lubrication

10 mm length adjustment in assembled state
by pressing the locking button

Keyway: 0-90°

Surface-hardened and polished punch guide
for sheet thickness up to 6 mm

Fast and easy clamping system for stripper

SLITTING TOOL ADAPTER

2 fixing threads M6

Thread M12 with oil channel

SLITTING TOOL

Punch body made with premium H-PM®

STRIPPER

Interchangeable stripper plate

ps:®beta-V2® SLITTING TOOL I STATION C

		PART NO.
GUIDE ASSEMBLY		
	For all shapes	4030C01-PP
SLITTING TOOL ADAPTER		
	For all shapes	4220CT00
SLITTING TOOL (MAX. 6,35X50) / (H-PM®)		
	Rectangle	4020CT03
	Oblong	4020CT04
	Trapezoid G09	4020CT0G
	Double Trapezoid E03	4020CT0E
STRIPPER		
	Rectangle	4040CT03
	Oblong	4040CT04
	Trapezoid G09	4040CT0G
	Double Trapezoid E03	4040CT0E
REVERSIBLE PLATE ADAPTER		
		4390CT00
REVERSIBLE PLATE (H-PM®)		
	Rectangle	4052CT03
	Oblong	4052CT04
	Trapezoid G09	4052CT0G
	Double Trapezoid E03	4052CT0E



SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TICN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating
		A-MAX coating
		WT-shear
		DOWT-shear
		2 PT-shear
		4 PT-shear
		Additional keyway
		Cutting part under 1,00 mm
COMPENSATING SHIM FOR SLITTING TOOL ADAPTER		ADDITIONAL COSTS FOR PUNCH GUIDE
Not necessary		Additional keyway
SET OF COMPENSATING SHIMS FOR REVERSIBLE PLATE		
1x0,4 mm/1x0,8 mm/1x1,2 mm	499CT60	Additional keyway

ps:®beta-V2® | STATION D

DIAMETER UP TO 88,9 MM



GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

Oil channel for sheet lubrication

10 mm length adjustment in assembled state
by pressing the locking button

Keyway: 0-90°

Surface-hardened and polished punch guide
for sheet thickness up to 6 mm

Fast and easy clamping system for stripper



PUNCH BODY

Thread M12 with oil channel

Punch body made with premium H-PM®

STRIPPER

Interchangeable stripper plate

ps:®beta-V2® | STATION D

DIAMETER UP TO 88,9 MM

		PART NO.
GUIDE ASSEMBLY		
	For all shapes	4030D01-PP
PUNCH BODY (H-PM®)		
	Round	4020D01
	Square	4020D02
	Rectangle	4020D03
	Oblong	4020D04
	O.D. Ground Special Shape	4020D0G
	EDM Required Special Shape	4020D0E
STRIPPER		
	Round	4040D01
	Square	4040D02
	Rectangle	4040D03
	Oblong	4040D04
	O.D. Ground Special Shape	4040D0G
	EDM Required Special Shape	4040D0E
DIE (HWS)		
	Round	4052D01
	Square	4052D02
	Rectangle	4052D03
	Oblong	4052D04
	O.D. Ground Special Shape	4052D0G
	EDM Required Special Shape	4052D0E



SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TICN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating
		A-MAX coating
		WT-shear
		DOWT-shear
		2 PT-shear
		4 PT-shear
		Additional keyway
		Cutting part under 1,00 mm
COMPENSATING SHIM FOR PUNCH		ADDITIONAL COSTS FOR PUNCH GUIDE
Not necessary		Additional keyway
SET OF COMPENSATING SHIMS FOR DIE		ADDITIONAL COSTS FOR DIES
1x0,4 mm/1x0,8 mm/1x1,2 mm	499D2M1	H-PM® Quality
		Additional keyway

ps:®beta-V2® SLITTING TOOL I STATION D



GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

Oil channel for sheet lubrication

10 mm length adjustment in assembled state
by pressing the locking button

Keyway: 0-90°

Surface-hardened and polished punch guide
for sheet thickness up to 6 mm

Fast and easy clamping system for stripper

SLITTING TOOL ADAPTER

4 fixing threads M6

Thread M12 with oil channel

SLITTING TOOL

Punch body made with premium H-PM®

STRIPPER

Interchangeable stripper plate

ps:®beta-V2® SLITTING TOOL I STATION D

		PART NO.
GUIDE ASSEMBLY		
	For all shapes	4030D01-PP
SLITTING TOOL ADAPTER		
	For all shapes	4220DT00
SLITTING TOOL (MAX. 6,35X85) / (H-PM®)		
	Rectangle	4020DT03
	Oblong	4020DT04
	Trapezoid G09	4020DT0G
	Double Trapezoid E03	4020DT0E
STRIPPER		
	Rectangle	4040DT03
	Oblong	4040DT04
	Trapezoid G09	4040DT0G
	Double Trapezoid E03	4040DT0E
REVERSIBLE PLATE ADAPTER		
		4390DT00
REVERSIBLE PLATE (H-PM®)		
	Rectangle	4052DT03
	Oblong	4052DT04
	Trapezoid G09	4052DT0G
	Double Trapezoid E03	4052DT0E



SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TICN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating
		A-MAX coating
		WT-shear
		DOWT-shear
		2 PT-shear
		4 PT-shear
		Additional keyway
		Cutting part under 1,00 mm
COMPENSATING SHIM FOR SLITTING TOOL ADAPTER		ADDITIONAL COSTS FOR PUNCH GUIDE
Not necessary		Additional keyway
SET OF COMPENSATING SHIMS FOR REVERSIBLE PLATE		
1x0,4 mm/1x0,8 mm/1x1,2 mm	499DT60	Additional keyway

ps:®beta-V2® SLITTING TOOL I STATION D CLOSE TO CLAMP



GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

Oil channel for sheet lubrication

10 mm length adjustment in assembled state
by pressing the locking button

Keyway: 0-90°

Surface-hardened and polished punch guide
for sheet thickness up to 6 mm

Fast and easy clamping system for stripper

SLITTING TOOL ADAPTER

4 fixing threads M6

Thread M12 with oil channel

SLITTING TOOL

Punch body made with premium H-PM®

STRIPPER

Interchangeable stripper plate

One or two-sided relief for punching close to clamp

ps:®beta-V2® SLITTING TOOL I STATION D

CLOSE TO CLAMP

PART-NO.

GUIDE ASSEMBLY		
	For all shapes	4030DTP01-PP

SLITTING TOOL ADAPTER		
	For all shapes	4220DT00

SLITTING TOOL (MAX. 6,35X85) / (H-PM®)		
	Rectangle	4020DT03
	Oblong	4020DT04
	Trapezoid G09	4020DT0G
	Double Trapezoid E03	4020DT0E

STRIPPER ONE-SIDED FREE		
	Rectangle	4040DTP03-1
	Oblong	4040DTP04-1
	Trapezoid G09	4040DTP0G-1
	Double Trapezoid E03	4040DTP0E-1

STRIPPER TWO-SIDED FREE		
	Rectangle	4040DTP03-2
	Oblong	4040DTP04-2
	Trapezoid G09	4040DTP0G-2
	Double Trapezoid E03	4040DTP0E-2

DIE ONE-SIDED FREE (HWS)		
	Rectangle	4052DTP03-1
	Oblong	4052DTP04-1
	Trapezoid G09	4052DTP0G-1
	Double Trapezoid E03	4052DTP0E-1

DIE TWO-SIDED FREE (HWS)		
	Rectangle	4052DTP03-2
	Oblong	4052DTP04-2
	Trapezoid G09	4052DTP0G-2
	Double Trapezoid E03	4052DTP0E-2

SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TiCN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating

A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear

Additional keyway

Cutting part under 1,00 mm

COMPENSATING SHIM FOR SLITTING TOOL ADAPTER		ADDITIONAL COSTS FOR PUNCH GUIDE
Not necessary		Additional keyway

SET OF COMPENSATING SHIMS FOR DIE		ADDITIONAL COSTS FOR DIES
1x0,4 mm/1x0,8 mm/1x1,2 mm	499D2M1	H-PM® Quality
		Additional keyway



Function:

The ps:®clean-cut for PRIMA POWER machines was developed to obtain slitting perforations without any witness marks.

The typical nibbling slitting tool leaves marks that can be seen and are noticeable. These marks normally have to be polished manually to be removed.



When using the ps:®clean-cut no witness marks are made and only smooth and clean cuts can be seen - without the need of additional rework.

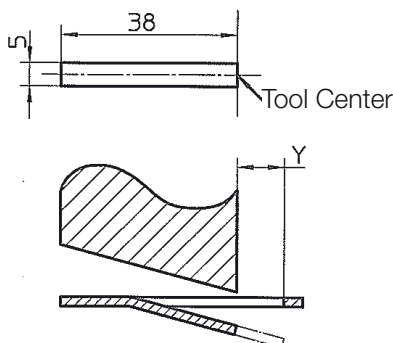


Functional principle of the tool:

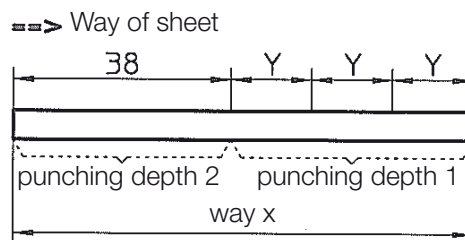
Continuous slitting. The shavings will be guided within the die and will be separated into pieces with the second slitting unit.

Programming information:

The punch shape rectangle 5x38 is located asymmetrically to the tool center. Thus, the beginning of the slitting point is located at the tool center. The endpoint of the slit is transferred by 38 mm to the tool center.



The way X will be cut with a punching depth 1 (continuous slit - see sketch). The last hit has to be programmed with a punching depth 2 (deep hit - see sketch), in order to specify the way length exactly and remove the remaining slug out of the tool.



Technical handling of the tool:

The upper part has got a total length of 208,5 mm (see drawing 499110001).

The die is spring-loaded and 4 mm higher (see drawing 499110001).

The result of this is the increasing programming working position of minimum 4 mm (better would be 6 mm).

Step 1:

The punching depth 1 (continuous slitting) has to be determined by fine adjustment on the machine. In this case the slit on the sheet upper side must have a length of 32 to 37 mm. For this reason one sheet sample (size ~ 60 x 60 mm to 100 x 100 mm) should be placed by hand onto the die. After the test hit the station can be returned to changing position and the sheet can be removed.

WARNING: Please do not use a complete sheet plate in the clamp for test hits, as manual removal of the sheet is almost impossible.

Step 2:

The punching depth 2 (deep end hit) has to be determined by fine adjustment on the machine. In this case the slug must be punched 2,0 to 3,0 mm into the die on the short side of the whisper shear. (Theoretical calculation: punching depth 1 + sheet thickness + 2 to 3 mm).

ps:®clean-cut

FOR MACHINE TYPE PRIMA POWER - STATION D

		PART-NO.
COMPLETE TOOL		
		499110001-PP
COMPLETE UPPER PART		
		499110001-1-PP
COMPLETE DIE		
		499110001-2
SPARE PARTS TO UPPER ASSY		
Punch insert (Re 5x38)		499110040
Stripper plate		499110030
SPARE PARTS TO DIE ASSY		
Die plate		199110050
Guillotine unit cpl. incl. slitting plate		199110001-3
Slitting plate - top		199110140
Slitting plate - bottom		199110150
Set springs for die plate		199110903
Set shoulder screws for die plate		199110904



TECHNICAL INFORMATION

Aluminium:	0,5 - 1,2 mm (step: 16 mm) TiCN coating (for stainless steel-sheet)
Steel:	0,5 - 1,2 mm (step: 16 mm) A-MAX coating (for aluminium sheet)
Stainless steel:	0,5 - 1,2 mm (step: 16 mm) T-MAX coating (for zinc steel)
Aluminium:	1,25 - 1,5 mm (step: 12 mm)
Steel:	1,25 - 1,5 mm (step: 12 mm)
Aluminium:	1,6 - 2,0 mm (step: 10 mm)

ADDITIONAL COSTS FOR SLITTING BLADE

ADDITIONAL COSTS FOR STRIPPER

Polished version for low-scratch material handling

MAX. REGRINDING LENGTH

Punch (Lmin = 201,5 mm)	7 mm
Die plate (Hmin = 33,5 mm)	0,5 mm

ADDITIONAL COSTS FOR DIE PLATE

Polished version for low-scratch material handling

ps:®beta-V2® | STATION E

DIAMETER UP TO 114,3 MM



GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

Oil channel for sheet lubrication

10 mm length adjustment in assembled state
by pressing the locking button

Keyway: 0-90°

Surface-hardened and polished punch guide
for sheet thickness up to 6 mm

Fast and easy clamping system for stripper

PUNCH BODY

Thread M12 with oil channel

Punch body made with premium H-PM®

STRIPPER

Interchangeable stripper plate

ps:®beta-V2® | STATION E

DIAMETER UP TO 114,3 MM

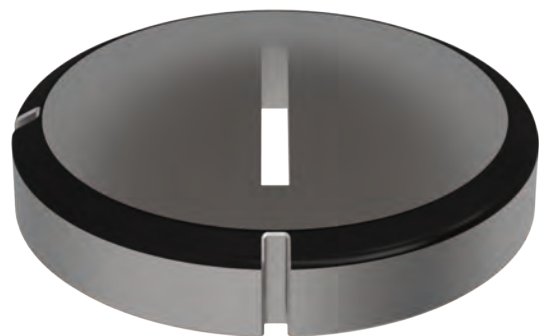
PART NO.

GUIDE ASSEMBLY		
	For all shapes	4030E01-PP

PUNCH BODY (H-PM®)		
	Round	4020E01
	Square	4020E02
	Rectangle	4020E03
	Oblong	4020E04
	O.D. Ground Special Shape	4020E0G
	EDM Required Special Shape	4020E0E

STRIPPER		
	Round	4040E01
	Square	4040E02
	Rectangle	4040E03
	Oblong	4040E04
	O.D. Ground Special Shape	4040E0G
	EDM Required Special Shape	4040E0E

DIE (HWS)		
	Round	4052E01
	Square	4052E02
	Rectangle	4052E03
	Oblong	4052E04
	O.D. Ground Special Shape	4052E0G
	EDM Required Special Shape	4052E0E



SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TICN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating
		A-MAX coating
		WT-shear
		DOWT-shear
		2 PT-shear
		4 PT-shear
		Additional keyway
		Cutting part under 1,00 mm
COMPENSATING SHIM FOR PUNCH		ADDITIONAL COSTS FOR PUNCH GUIDE
Not necessary		Additional keyway
Set of compensating shims for die		Additional costs for dies
1x0,4 mm/1x0,8 mm/1x1,2 mm	499E2M1	H-PM® Quality
		Additional keyway

ps:®beta-V2® SLITTING TOOL | STATION E



GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

Oil channel for sheet lubrication

10 mm length adjustment in assembled state
by pressing the locking button

Keyway: 0-90°

Surface-hardened and polished punch guide
for sheet thickness up to 6 mm

Fast and easy clamping system for stripper

SLITTING TOOL ADAPTER

4 fixing threads M6

Thread M12 with oil channel

SLITTING TOOL

Punch body made with premium H-PM®

STRIPPER

Interchangeable stripper plate

ps:®beta-V2® SLITTING TOOL I STATION E

		PART NO.
GUIDE ASSEMBLY		
	For all shapes	4030E01-PP
SLITTING TOOL ADAPTER		
	For all shapes	4220ET00
SLITTING TOOL (MAX. 6,35X111) / (H-PM®)		
	Rectangle	4020ET03
	Oblong	4020ET04
	Trapezoid G09	4020ET0G
	Double Trapezoid E03	4020ET0E
STRIPPER		
	Rectangle	4040ET03
	Oblong	4040ET04
	Trapezoid G09	4040ET0G
	Double Trapezoid E03	4040ET0E
REVERSIBLE PLATE ADAPTER		
		4390ET00
REVERSIBLE PLATE (H-PM®)		
	Rectangle	4052ET03
	Oblong	4052ET04
	Trapezoid G09	4052ET0G
	Double Trapezoid E03	4052ET0E



SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TICN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating
		A-MAX coating
		WT-shear
		DOWT-shear
		2 PT-shear
		4 PT-shear
		Additional keyway
		Cutting part under 1,00 mm
COMPENSATING SHIM FOR SLITTING TOOL ADAPTER		ADDITIONAL COSTS FOR PUNCH GUIDE
Not necessary		Additional keyway
SET OF COMPENSATING SHIMS FOR REVERSIBLE PLATE		
1x0,4 mm/1x0,8 mm/1x1,2 mm	499ET60	Additional keyway

ps:®beta-V2® SLITTING TOOL | STATION E

CLOSE TO CLAMP



GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

Oil channel for sheet lubrication

10 mm length adjustment in assembled state
by pressing the locking button

Keyway: 0-90°

Surface-hardened and polished punch guide
for sheet thickness up to 6 mm

Fast and easy clamping system for stripper

SLITTING TOOL ADAPTER

4 fixing threads M6

Thread M12 with oil channel

SLITTING TOOL

Punch body made with premium H-PM®

STRIPPER

Interchangeable stripper plate

One or two-sided relief for punching close to clamp

ps:®beta-V2® SLITTING TOOL I STATION E

CLOSE TO CLAMP

PART-NO.

GUIDE ASSEMBLY		
	For all shapes	4030ETP01-PP

SLITTING TOOL ADAPTER		
	For all shapes	4220ET00

SLITTING TOOL (MAX. 6,35X111) / (H-PM®)		
	Rectangle	4020ET03
	Oblong	4020ET04
	Trapezoid G09	4020ET0G
	Double Trapezoid E03	4020ET0E

STRIPPER ONE-SIDED FREE		
	Rectangle	4040ETP03-1
	Oblong	4040ETP04-1
	Trapezoid G09	4040ETP0G-1
	Double Trapezoid E03	4040ETP0E-1

STRIPPER TWO-SIDED FREE		
	Rectangle	4040ETP03-2
	Oblong	4040ETP04-2
	Trapezoid G09	4040ETP0G-2
	Double Trapezoid E03	4040ETP0E-2

DIE ONE-SIDED FREE (HWS)		
	Rectangle	4052ETP03-1
	Oblong	4052ETP04-1
	Trapezoid G09	4052ETP0G-1
	Double Trapezoid E03	4052ETP0E-1

DIE TWO-SIDED FREE (HWS)		
	Rectangle	4052ETP03-2
	Oblong	4052ETP04-2
	Trapezoid G09	4052ETP0G-2
	Double Trapezoid E03	4052ETP0E-2

SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TiCN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating

A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear

Additional keyway

Cutting part under 1,00 mm

COMPENSATING SHIM FOR SLITTING TOOL ADAPTER		ADDITIONAL COSTS FOR PUNCH GUIDE
Not necessary		Additional keyway

SET OF COMPENSATING SHIMS FOR DIE		ADDITIONAL COSTS FOR DIES
1x0,4 mm/1x0,8 mm/1x1,2 mm	499E2M1	H-PM® Quality
		Additional keyway





MULTITOOLS

ps:®multitool FOR YOUR
PRIMA POWER MACHINE

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ps:®MTP8Ri3-16 I INSERTS

FOR MACHINE TYPE PRIMA POWER

SUITABLE FOR SHEET THICKNESS UP TO 6 MM



POS.-NO.

PART-NO.

PUNCH			
	Round	1	413161-1
	Square	1	413162-1
	Rectangle	1	413163-1
	Oblong	1	413164-1
	O.D. Ground Special Shape	1	41316G-1
	EDM Required Special Shape	1	41316E-1

STRIPPER			
	Round	2	415161
	Square	2	415162
	Rectangle	2	415163
	Oblong	2	415164
	O.D. Ground Special Shape	2	41516G
	EDM Required Special Shape	2	41516E

8-STATION STRIPPER *			
	Optional - shape adaptable stripper		450802000

DIE (HWS)			
	Round	3	414161
	Square	3	414162
	Rectangle	3	414163
	Oblong	3	414164
	O.D. Ground Special Shape	3	41416G
	EDM Required Special Shape	3	41416E

SPARE PARTS

PU ejector Ø 3x6 (in punch)	4092P03
PU ejector Ø 6x10 (in punch)	4092P06

ADDITIONAL COSTS FOR PUNCH

TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm

INDEX

* Stripper - adaptable to shape (form)

Optional, one 8-station stripper, adaptable to shape, can be used in order to avoid marks on the sheet surface (e.g. when using polished aluminium).

ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole

SET OF COMPENSATING SHIMS FOR DIE

2x0,1 mm/2x0,3 mm/2x0,5 mm	41416US
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ps:®MTP8Ri3-16 | ADAPTER

FOR MACHINE TYPE PRIMA POWER
SUITABLE FOR SHEET THICKNESS UP TO 6 MM

	POS.-NO.	PART-NO.
8-STATION PUNCH UNIT		
(without punch or stripper inserts)	1	450800000-PP
8-STATION DIE UNIT		
(without die inserts)	2	450802100



ps:®MTP3Ri3-31,75 I INSERTS

FOR MACHINE TYPE PRIMA POWER

SUITABLE FOR SHEET THICKNESS UP TO 6 MM



	POS.-NO.	PART-NO.
PUNCH		
Punch head	1	450301700
Round	2	413191
Square	2	413192
Rectangle	2	413193
Oblong	2	413194
O.D. Ground Special Shape	2	41319G
EDM Required Special Shape	2	41319E

STRIPPER		
Round	3	415191
Square	3	415192
Rectangle	3	415193
Oblong	3	415194
O.D. Ground Special Shape	3	41519G
EDM Required Special Shape	3	41519E

3-STATION STRIPPER *		
Optional - shape adaptable stripper		450302000

DIE (HWS)		
Round	4	414191
Square	4	414192
Rectangle	4	414193
Oblong	4	414194
O.D. Ground Special Shape	4	41419G
EDM Required Special Shape	4	41419E

SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TiCN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating

INDEX	ADDITIONAL COSTS FOR DIES
-------	---------------------------

*** Stripper - adaptable to shape (form)**
Optional, one 3-station stripper, adaptable to shape, can be used in order to avoid marks on the sheet surface (e.g. when using polished aluminium).

Reinforced die
H-PM® Quality
Additional pin hole

SET OF COMPENSATING SHIMS FOR DIE	
2x0,1 mm/2x0,3 mm/2x0,5 mm	41419US

ps:®MTP3Ri3-31,75 | ADAPTER

FOR MACHINE TYPE PRIMA POWER

SUITABLE FOR SHEET THICKNESS UP TO 6 MM

	POS.-NO.	PART-NO.
3-STATION PUNCH UNIT		
(without punch or stripper inserts)	1	450300000-PP
3-STATION DIE UNIT		
(without die inserts)	2	450301900



ps:®MTP8RiA-12,7 I INSERTS

FOR MACHINE TYPE PRIMA POWER

SUITABLE FOR SHEET THICKNESS UP TO 6 MM



	POS.-NO.	PART-NO.
PUNCH BODY (H-PM®)		
Punch head	1	453801800
Round	2	4020A01
Square	2	4020A02
Rectangle	2	4020A03
Oblong	2	4020A04
O.D. Ground Special Shape	2	4020A0G
EDM Required Special Shape	2	4020A0E
STRIPPER		
Round	3	4040A01
Square	3	4040A02
Rectangle	3	4040A03
Oblong	3	4040A04
O.D. Ground Special Shape	3	4040A0G
EDM Required Special Shape	3	4040A0E
DIE (HWS)		
Round	4	4052A01
Square	4	4052A02
Rectangle	4	4052A03
Oblong	4	4052A04
O.D. Ground Special Shape	4	4052A0G
EDM Required Special Shape	4	4052A0E

SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TiCN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating
		A-MAX coating
		WT-shear
		DOWT-shear
		2 PT-shear
		4 PT-shear
		Cutting part under 1,00 mm
COMPENSATING SHIM FOR PUNCH		ADDITIONAL COSTS FOR DIES
Not necessary		Reinforced die
		H-PM® Quality
		Additional pin hole
COMPENSATING SHIM FOR DIE		
2x0,1 mm/2x0,3 mm/2x0,5 mm	41416US	

ps:®MTP8RiA-12,7 I ADAPTER

FOR MACHINE TYPE PRIMA POWER

SUITABLE FOR SHEET THICKNESS UP TO 6 MM

	POS.-NO.	PART-NO.		POS.-NO.	PART-NO.
8-STATION PUNCH UNIT PIN			8-STATION PUNCH UNIT I-RAM		
(without punch or stripper inserts)	1	453800000-PP	(without punch or stripper inserts)	1	453800010-PP
8-STATION DIE UNIT			8-STATION DIE UNIT		
(without die inserts)	2	453802100	(without die inserts)	2	453802100



ps:®MTP3RiB-31,75 I INSERTS

FOR MACHINE TYPE PRIMA POWER

SUITABLE FOR SHEET THICKNESS UP TO 6 MM



	POS.-NO.	PART-NO.
PUNCH BODY (H-PM®)		
Punch head	1	450301700
Round	2	4020B01
Square	2	4020B02
Rectangle	2	4020B03
Oblong	2	4020B04
O.D. Ground Special Shape	2	4020B0G
EDM Required Special Shape	2	4020B0E
STRIPPER		
Round	3	4040B01
Square	3	4040B02
Rectangle	3	4040B03
Oblong	3	4040B04
O.D. Ground Special Shape	3	4040B0G
EDM Required Special Shape	3	4040B0E
DIE (HWS)		
Round	4	4052B01
Square	4	4052B02
Rectangle	4	4052B03
Oblong	4	4052B04
O.D. Ground Special Shape	4	4052B0G
EDM Required Special Shape	4	4052B0E

SPARE PARTS		ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03	TICN coating
PU ejector Ø 6x10 (in punch)	4092P06	T-MAX coating
		A-MAX coating
		WT-shear
		DOWT-shear
		2 PT-shear
		4 PT-shear
		Cutting part under 1,00 mm
COMPENSATING SHIM FOR PUNCH		ADDITIONAL COSTS FOR DIES
Not necessary		Reinforced die
		H-PM® Quality
		Additional pin hole
COMPENSATING SHIM FOR DIE		
2x0,1 mm/2x0,3 mm/2x0,5 mm	41419US	

ps:®MTP3RiB-31,75 I ADAPTER

FOR MACHINE TYPE PRIMA POWER

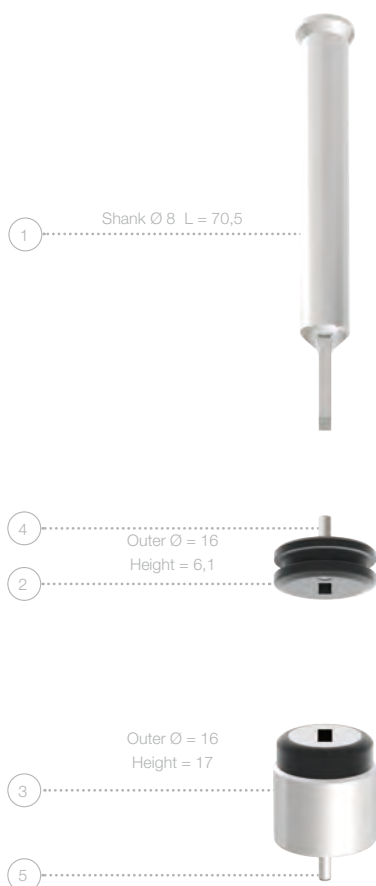
SUITABLE FOR SHEET THICKNESS UP TO 6 MM

	POS.-NO.	PART-NO.		POS.-NO.	PART-NO.
3-STATION PUNCH UNIT PIN			3-STATION PUNCH UNIT I-RAM		
(without punch or stripper inserts)	1	453300000-PP	(without punch or stripper inserts)	1	453300010-PP
3-STATION DIE UNIT			3-STATION DIE UNIT		
(without die inserts)	2	450301910	(without die inserts)	2	450301910



ps:®MTPi24-8 AND ps:®MTP16-8 I INSERTS

FOR MACHINE TYPE PRIMA POWER



	POS.-NO.	PART-NO.
PUNCH (H-PM®)		
Round	1	413121
Square	1	413122
Rectangle	1	413123
Oblong	1	413124
O.D. Ground Special Shape	1	41312G
EDM Required Special Shape	1	41312E
STRIPPER		
Round	2	415121
Square	2+4	415122
Rectangle	2+4	415123
Oblong	2+4	415124
O.D. Ground Special Shape	2+4	41512G
EDM Required Special Shape	2+4	41512E
DIE (HWS)		
Round	3	414121
Square	3+5	414122
Rectangle	3+5	414123
Oblong	3+5	414124
O.D. Ground Special Shape	3+5	41412G
EDM Required Special Shape	3+5	41412E

ADDITIONAL COSTS FOR PUNCHES

TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm

ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole

ps:®MTPi24-8 AND ps:®MTP16-8 | ADAPTER

FOR MACHINE TYPE PRIMA POWER

	POS.-NO.	PART-NO.
PUNCH ADAPTER ps:®MTPi24-8		
(without punch or stripper inserts)	1	454224000-PPX
DIE ADAPTER ps:®MTPi24-8		
(without die inserts)	2	454224060X

	POS.-NO.	PART-NO.
PUNCH ADAPTER ps:®MTP16-8		
(without punch or stripper inserts)	1	454116000-PPX
DIE ADAPTER ps:®MTP16-8		
(without die inserts)	2	454116060X



ps:®MTPi10-16 AND ps:®MTP8-16 I INSERTS

FOR MACHINE TYPE PRIMA POWER



	POS.-NO.	PART-NO.
PUNCH (H-PM®)		
Round	1	413201
Square	1+6	413202
Rectangle	1+6	413203
Oblong	1+6	413204
O.D. Ground Special Shape	1+6	41320G
EDM Required Special Shape	1+6	41320E
STRIPPER		
Round	2	415201
Square	2	415202
Rectangle	2	415203
Oblong	2	415204
O.D. Ground Special Shape	2	41520G
EDM Required Special Shape	2	41520E
DIE (HWS)		
Round	3	414201
Square	3+5	414202
Rectangle	3+5	414203
Oblong	3+5	414204
O.D. Ground Special Shape	3+5	41420G
EDM Required Special Shape	3+5	41420E

ADDITIONAL COSTS FOR PUNCHES

TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm

ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole

ps:®MTPi10-16 AND ps:®MTP8-16 | ADAPTER

FOR MACHINE TYPE PRIMA POWER

	POS.-NO.	PART-NO.
PUNCH ADAPTER ps:®MTPi10-16		
(without punch or stripper inserts)	1	454210000-PPX
DIE ADAPTER ps:®MTPi10-16		
(without die inserts)	2	454210060X

	POS.-NO.	PART-NO.
PUNCH ADAPTER ps:®MTP8-16		
(without punch or stripper inserts)	1	454108000-PPX
DIE ADAPTER ps:®MTP8-16		
(without die inserts)	2	454108060X



ps:®MTPi8-24 AND ps:®MTP5-24 I INSERTS

FOR MACHINE TYPE PRIMA POWER



	POS.-NO.	PART-NO.
PUNCH (H-PM®)		
Round	1	413211
Square	1+6	413212
Rectangle	1+6	413213
Oblong	1+6	413214
O.D. Ground Special Shape	1+6	41321G
EDM Required Special Shape	1+6	41321E
STRIPPER		
Round	2	415211
Square	2	415212
Rectangle	2	415213
Oblong	2	415214
O.D. Ground Special Shape	2	41521G
EDM Required Special Shape	2	41521E
DIE (HWS)		
Round	3	414211
Square	3+5	414212
Rectangle	3+5	414213
Oblong	3+5	414214
O.D. Ground Special Shape	3+5	41421G
EDM Required Special Shape	3+5	41421E

ADDITIONAL COSTS FOR PUNCHES

TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm

ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole

ps:®MTPi8-24 AND ps:®MTP5-24 | ADAPTER

FOR MACHINE TYPE PRIMA POWER

	POS.-NO.	PART-NO.
PUNCH ADAPTER ps:®MTPi8-24		
(without punch or stripper inserts)	1	454208000-PPX
DIE ADAPTER ps:®MTPi8-24		
(without die inserts)	2	454208060X

	POS.-NO.	PART-NO.
PUNCH ADAPTER ps:®MTP5-24		
(without punch or stripper inserts)	1	454105000-PPX
DIE ADAPTER ps:®MTP5-24		
(without die inserts)	2	454105060X



ps:®MTP3B I INSERTS

FOR MACHINE TYPE PRIMA POWER



	POS.-NO.	PART-NO.
PUNCH (H-PM®)		
Round	1	4020B01
Square	1	4020B02
Rectangle	1	4020B03
Oblong	1	4020B04
O.D. Ground Special Shape	1	4020B0G
EDM Required Special Shape	1	4020B0E
STRIPPER		
Round	2	4040B01
Square	2	4040B02
Rectangle	2	4040B03
Oblong	2	4040B04
O.D. Ground Special Shape	2	4040B0G
EDM Required Special Shape	2	4040B0E
DIE (HWS)		
Round	3	4052B01
Square	3	4052B02
Rectangle	3	4052B03
Oblong	3	4052B04
O.D. Ground Special Shape	3	4052B0G
EDM Required Special Shape	3	4052B0E

ADDITIONAL COSTS FOR PUNCHES

TiCN coating
 T-MAX coating
 A-MAX coating
 WT-shear
 DOWT-shear
 2 PT-shear
 4 PT-shear
 Cutting part under 1,00 mm

ADDITIONAL COSTS FOR DIES

Reinforced die
 H-PM® Quality
 Additional pin hole

ps:®MTP3B | ADAPTER

FOR MACHINE TYPE PRIMA POWER

	POS.-NO.	PART-NO.
PUNCH ADAPTER ps:®MTP3B		
(without punch or stripper inserts)	1	452301001-PPX
DIE ADAPTER ps:®MTP3B		
(without die inserts)	2	452302001X



ps:[®]MTPi4B+4 I INSERTS

FOR MACHINE TYPE PRIMA POWER



	POS.-NO.	PART-NO.
PUNCH (H-PM[®])		
Round	1	4020B01
Square	1	4020B02
Rectangle	1	4020B03
Oblong	1	4020B04
O.D. Ground Special Shape	1	4020B0G
EDM Required Special Shape	1	4020B0E
STRIPPER		
Round	2	4040B01
Square	2	4040B02
Rectangle	2	4040B03
Oblong	2	4040B04
O.D. Ground Special Shape	2	4040B0G
EDM Required Special Shape	2	4040B0E
DIE (HWS)		
Round	3	4052B01
Square	3	4052B02
Rectangle	3	4052B03
Oblong	3	4052B04
O.D. Ground Special Shape	3	4052B0G
EDM Required Special Shape	3	4052B0E

ADDITIONAL COSTS FOR PUNCHES

TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm

ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM[®] Quality
Additional pin hole

ps:®MTPi4B+4 | ADAPTER

FOR MACHINE TYPE PRIMA POWER

	POS.-NO.	PART-NO.
PUNCH ADAPTER ps:®MTPi4B+4		
(without punch or stripper inserts)	1	452401001-PPX
DIE ADAPTER ps:®MTPi4B+4		
(without die inserts)	2	452402001X



ps:®MTPi4B+4 I INSERTS

FOR MACHINE TYPE PRIMA POWER

FOR ENGRAVING, FOIL CUTTING, COUNTERSINKING AND STAMPING



	POS.-NO.	PART-NO.
ENGRAVING		
complete set	1	452404101
FOIL CUTTING		
complete set	2	452404106
COUNTERSINKING		
complete set	3	4524041XX
STAMPING		
complete set	4	4524041XX

SPARE PARTS	
Green spring - soft	91701025A
Blue spring - medium	91701025B
Red spring - hard	91701025C
Yellow spring - very hard	91701025D
Black spring - very soft	916000046
Brass needle (foil cutting)	199103940
Diamond needle (engraving)	199103962

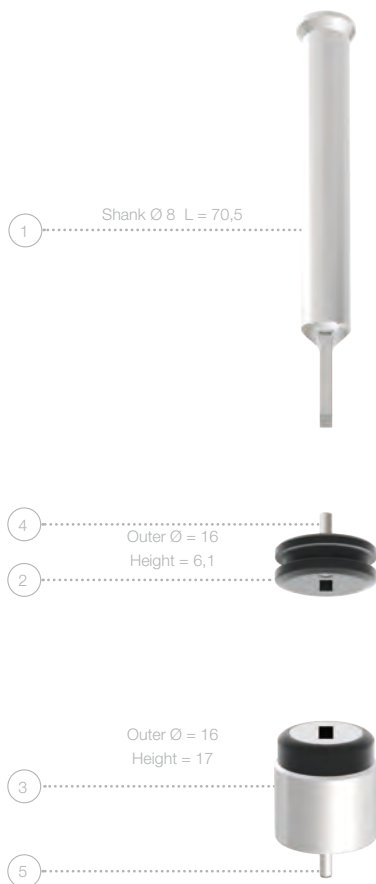
ps:®MTPi4B+4 | ADAPTER

FOR MACHINE TYPE PRIMA POWER

	POS.-NO.	PART-NO.
PUNCH ADAPTER ps:®MTPi4B+4		
(without punch or stripper inserts)	1	452401001-PPX
DIE ADAPTER ps:®MTPi4B+4		
(without die inserts)	2	452402001X



PRIMA POWER - MTPi24-8; MTP16-8; MT24-8; MTH16-8



	POS.-NO.	PART-NO.
PUNCH (H-PM®)		
Round	1	413121
Square	1	413122
Rectangle	1	413123
Oblong	1	413124
O.D. Ground Special Shape	1	41312G
EDM Required Special Shape	1	41312E
STRIPPER		
Round	2	415121
Square	2+4	415122
Rectangle	2+4	415123
Oblong	2+4	415124
O.D. Ground Special Shape	2+4	41512G
EDM Required Special Shape	2+4	41512E
DIE (HWS)		
Round	3	414121
Square	3+5	414122
Rectangle	3+5	414123
Oblong	3+5	414124
O.D. Ground Special Shape	3+5	41412G
EDM Required Special Shape	3+5	41412E

ADDITIONAL COSTS FOR PUNCHES

TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm

ADDITIONAL COSTS FOR DIES

Reinforced version
H-PM® Quality
Additional pin hole

PRIMA POWER - MTPi10-16; MTP8-16; MT10-16; MTH16-16

	POS.-NO.	PART-NO.
PUNCH (H-PM®)		
Round	1	413021
Square	1	413022
Rectangle	1	413023
Oblong	1	413024
O.D. Ground Special Shape	1	41302G
EDM Required Special Shape	1	41302E
STRIPPER		
Round	2	415021
Square	2+4	415022
Rectangle	2+4	415023
Oblong	2+4	415024
O.D. Ground Special Shape	2+4	41502G
EDM Required Special Shape	2+4	41502E
DIE (HWS)		
Round	3	414021
Square	3+5	414022
Rectangle	3+5	414023
Oblong	3+5	414024
O.D. Ground Special Shape	3+5	41402G
EDM Required Special Shape	3+5	41402E



ADDITIONAL COSTS FOR PUNCHES

TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm

ADDITIONAL COSTS FOR DIES

Reinforced version
H-PM® Quality
Additional pin hole

PRIMA POWER - MTPi8-24; MTP5-24; MT8-24



	POS.-NO.	PART-NO.
PUNCH (H-PM®)		
Round	1	413131
Square	1	413132
Rectangle	1	413133
Oblong	1	413134
O.D. Ground Special Shape	1	41313G
EDM Required Special Shape	1	41313E
STRIPPER		
Round	2	415131
Square	2+4	415132
Rectangle	2+4	415133
Oblong	2+4	415134
O.D. Ground Special Shape	2+4	41513G
EDM Required Special Shape	2+4	41513E
DIE (HWS)		
Round	3	414131
Square	3+5	414132
Rectangle	3+5	414133
Oblong	3+5	414134
O.D. Ground Special Shape	3+5	41413G
EDM Required Special Shape	3+5	41413E

ADDITIONAL COSTS FOR PUNCHES

TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm

ADDITIONAL COSTS FOR DIES

Reinforced version
H-PM® Quality
Additional pin hole



ACCESSORIES

ACCESSORIES FOR YOUR PRIMA POWER MACHINE

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PASS Alignment tools	page 63
PASS T-Handle	page 64

STATION A



STATION B



STATION C



STATION D



STATION E



EQUIPPED PLATE WITH ADAPTER

PART-NO.

COMPLETE SET ASSEMBLY KIT		
Set consists of	499M09SET	
5 assembly adapter (Stat. A-E)		
1 assembling plate		

ADDITIONAL ADAPTER		
Pi135	499M08007	
P110	499M08008	

P110



Pi135



ASSEMBLING SET

FOR PASS GUIDE ASSEMBLY STAT. C, D, E / FOR ps:®multitool STAT. D /

FOR ps:®multi-thread®

PART-NO.

COMPLETE MAINTENANCE KIT

Torque wrench / 25-130Nm

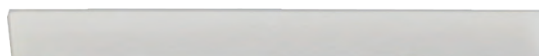
incl. 4 socket wrench
SW 8 / SW10 / SW 12 / SW 14

Multipurpose grease 400 gr.

Triangular whetstone

Diamond needle file with quick-acting clamp

Total price 499MONKIT



ADAPTER

PUNCH ADAPTER

Surface-hardened and polished



	STATION	PART-NO.
MACHINE TYPE: PRIMA POWER		
Punch adapter	B/A	401BAS1
Die adapter	B/A	401BAM1
Punch adapter	C/B	401CBS1
Die adapter	C/B	401CBM1 ^(*)
Punch adapter	D/A	401DAS1
Die adapter	D/A	401DAM1
Punch adapter	D/B	401DBS1
Die adapter	D/B	401DBM1
Die adapter upforming	D/B	499400435
Punch adapter	D/C	401DCS1
Die adapter	D/C	401DCM1 ^(*) ⁽²⁾
Die adapter upforming	D/C	499400434

^(*) for max. sheet thickness 2 mm

⁽²⁾ 2 mm increased

DIE ADAPTER

Surface-hardened and polished

2 clamp screws



PASS ALIGNMENT TOOLS

	STATION	POSITION	PART-NO.
ALIGNMENT TOOLS			
Alignment punch	A	*	499701A01
Alignment die	A	*	499701A06
Alignment punch	B	*	499701B01
Alignment die	B	*	499701B06
Alignment punch	C	2	499701C01
Alignment die	C	5	499701C06
Alignment punch	D	*	499701D01
Alignment die	D	*	499701D06
Alignment punch	E	*	499701E01
Alignment die	E	*	499701E06
Calibration adjustment	A-E	3	499701Z01
Handle	A-E	1	499701Z11
Alignment rod	A-E	4	499701Z21

* no picture



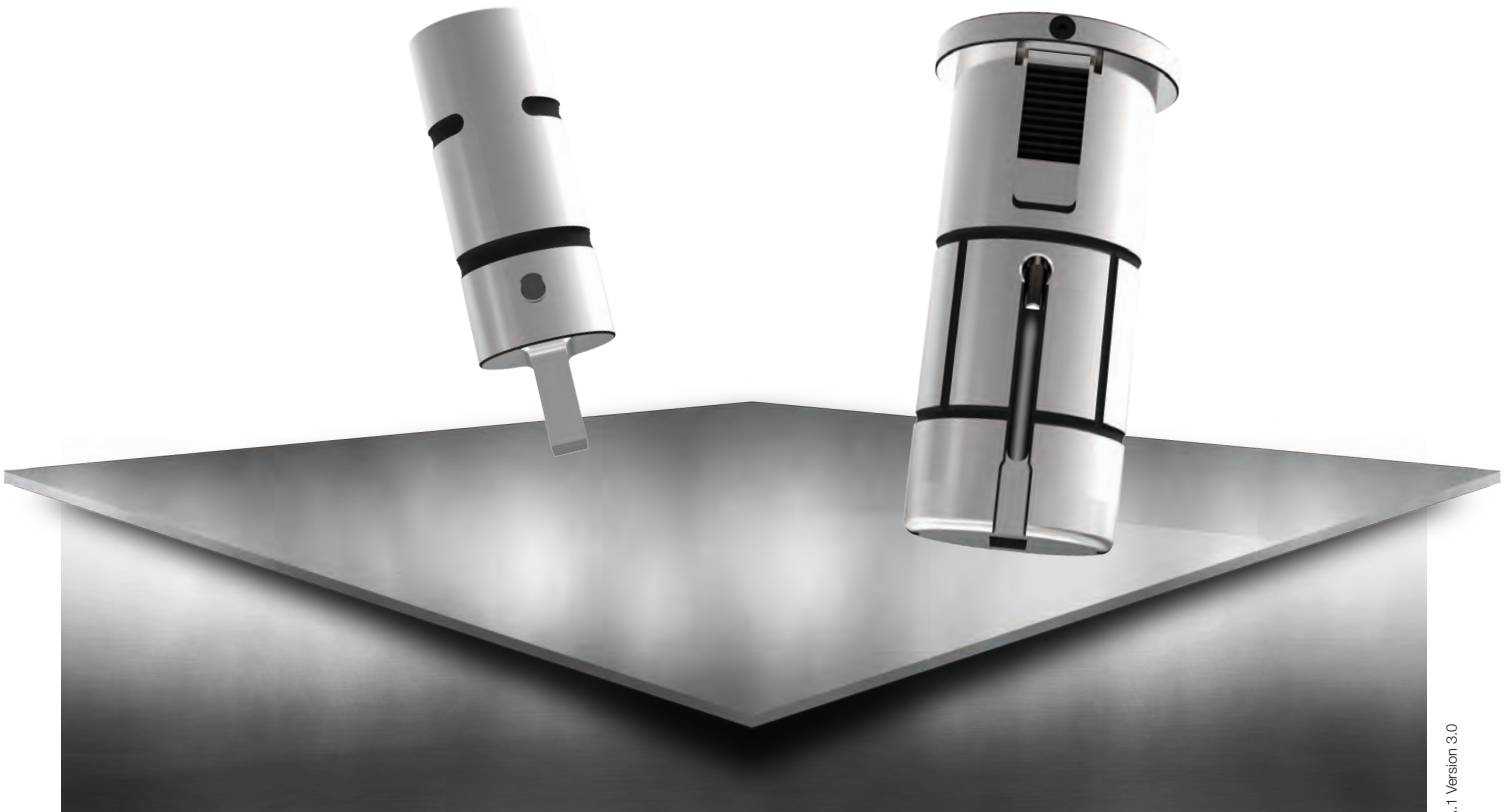
PASS T-HANDLE

FOR STATION C - E

PART-NO.

T-HANDLE		
	M20	999000028





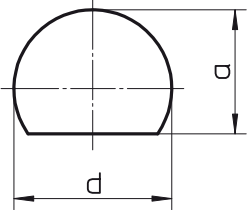
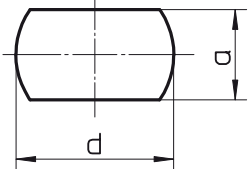
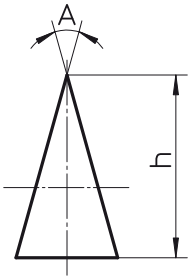
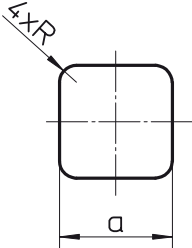
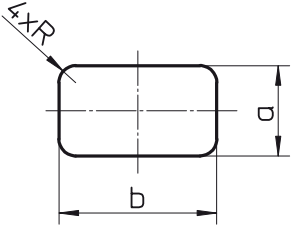
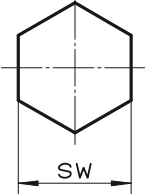
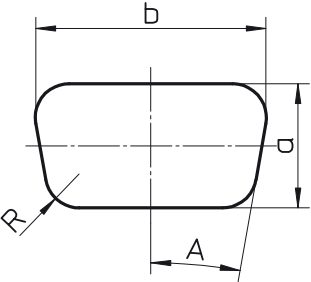
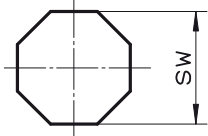
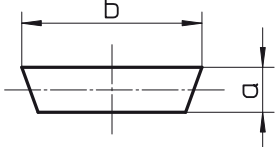
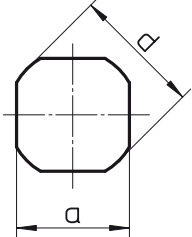
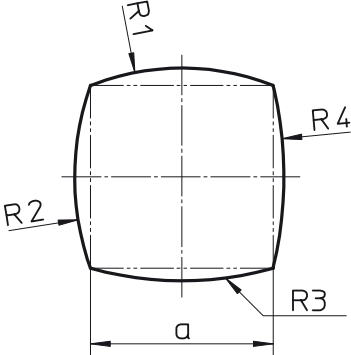
TECHNICAL INFORMATION

INFORMATION ABOUT OUR TOOLS FOR YOUR PRIMA POWER MACHINE

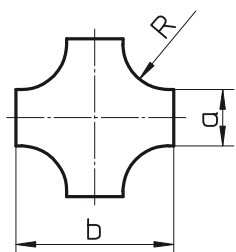
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PASS corner radius on punches	page 76
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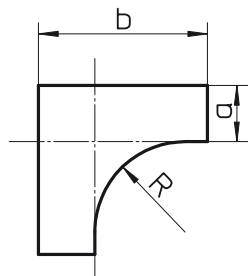
O.D. GROUND SPECIAL SHAPES

 <p>G01</p>	 <p>G02</p>	 <p>G03</p>
 <p>G04</p>	 <p>G05</p>	 <p>G06</p>
 <p>G07</p>	 <p>G08</p>	 <p>G09</p>
 <p>G10</p>	 <p>G11</p>	

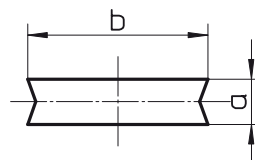
EDM REQUIRED SPECIAL SHAPES



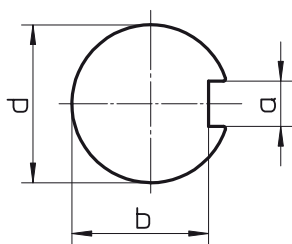
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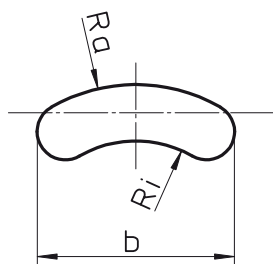
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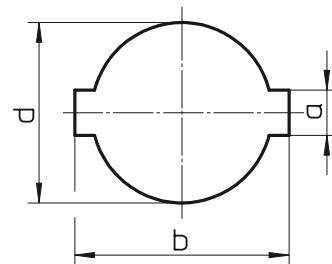
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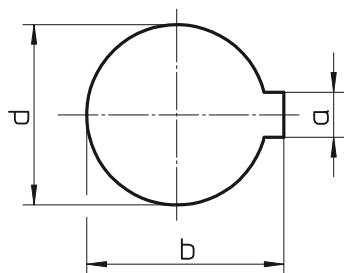
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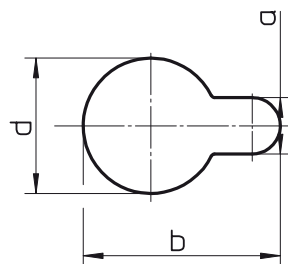
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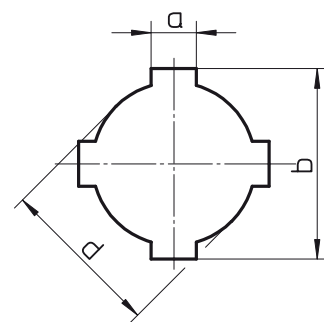
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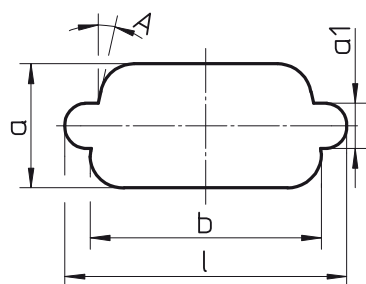
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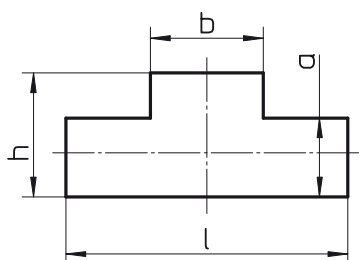
E08



E09



E10



E11

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.

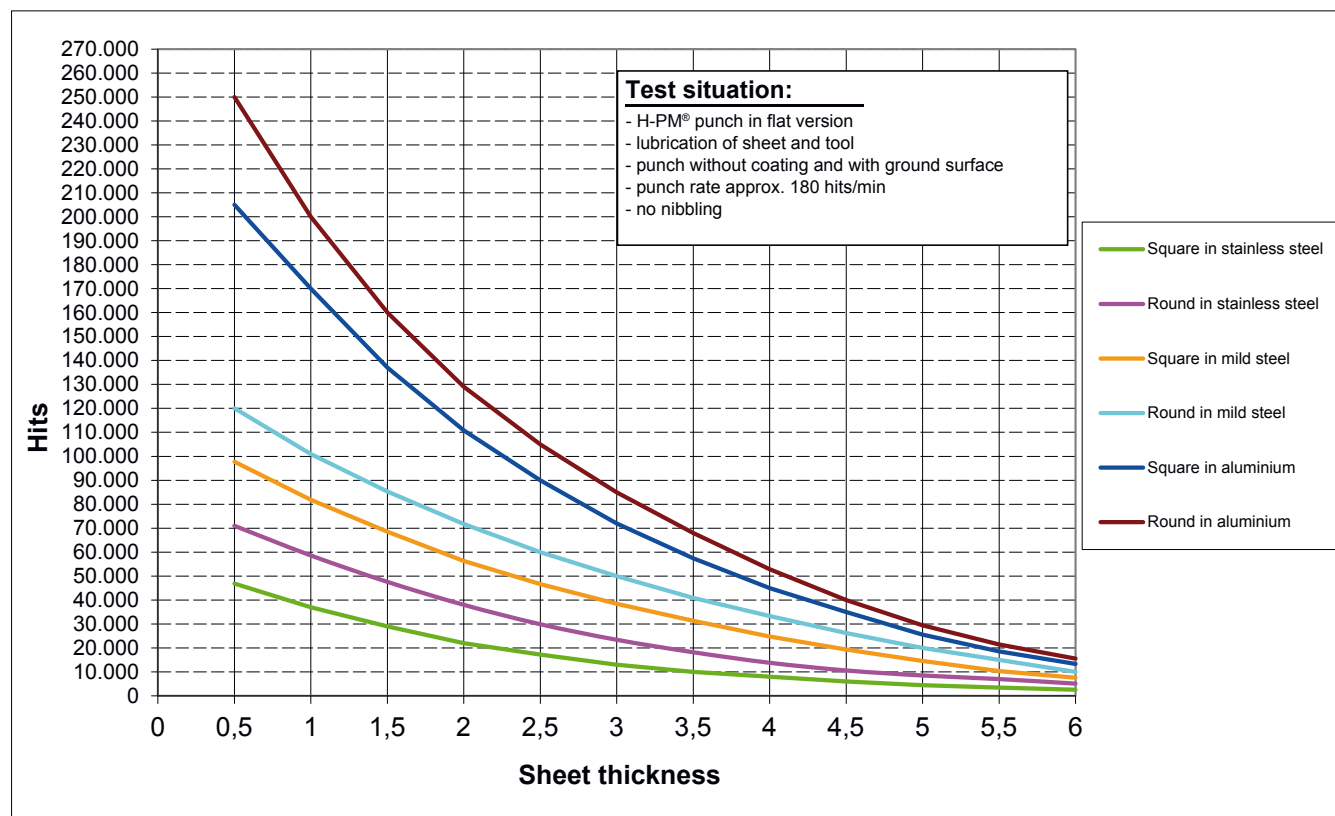
The high ductility of the segregational uniformed microstructure guarantees best possible fatigue limit. This kind of steel is especially suitable for dies with risk-breakage in regards to special shapes.

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 punches	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.

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 fulfil 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/mm² – no matter if it concerns mild alloyed aluminium, mild steel, stainless steel or spring band steel.

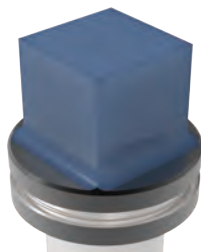
A high punch hardness as well as an excellent grinding surface are important in order to counteract the problem with edge-up.

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

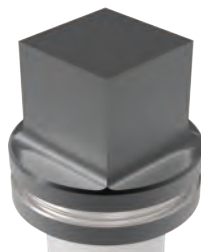
- zinc steel
- aluminium

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



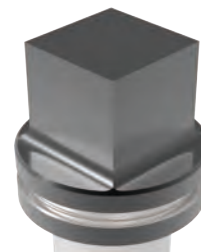
TiCN

for working with stainless steel



A-MAX

for dry processing with aluminium sheet



T-MAX

for working with galvanized sheet / zincor

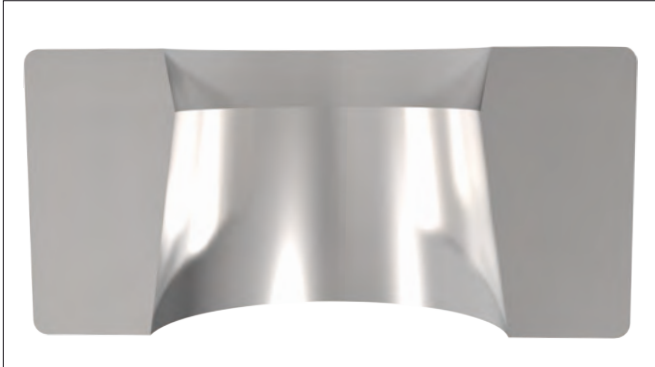
We recommend draw-polished punch edges to increase tool lifetime and reduce material build up (prices on request):



DIE VERSIONS

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

SLUG-STOP (STANDARD)



PASS dies for tooling system THICK TURRET are produced in standard version with a slug-stop version (without additional costs).

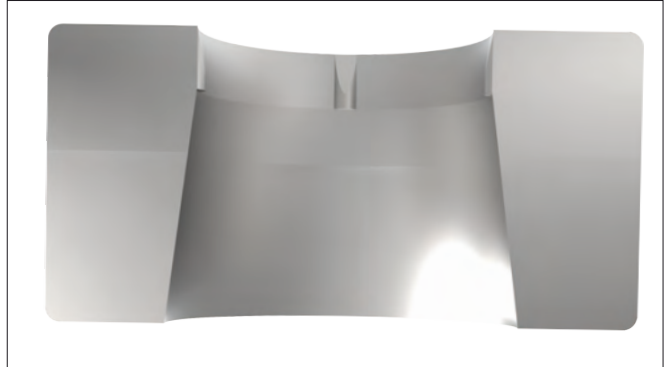
This means that the upper part of the cutting part is produced with a negative angle.

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)



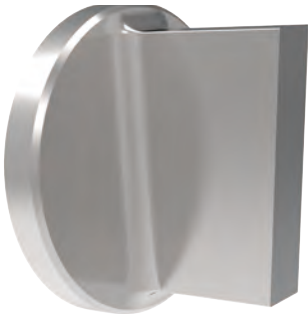

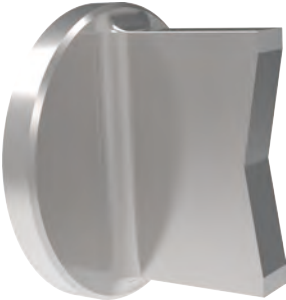

Alternatively we offer our slug-snap version (additional costs).

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

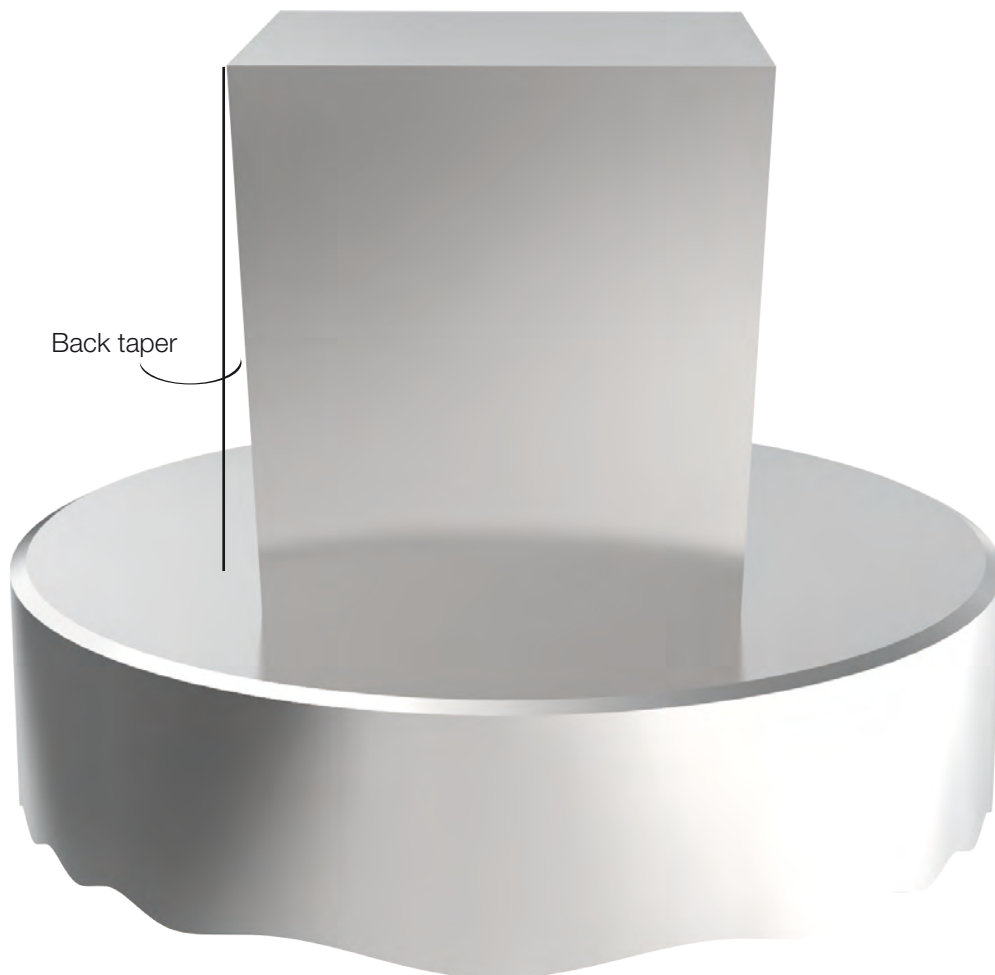
		DESCRIPTION
WT		<div>WT</div> <div>Advantage</div> <div>easy regrindable</div> <div>Disadvantage</div> <div>lateral forces</div>
DOWT		<div>DOWT</div> <div>Advantages</div> <div>easy regrindable no lateral forces</div> <div>Disadvantage</div> <div>only reasonable for big shapes</div>
2 PT		<div>2 PT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

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.

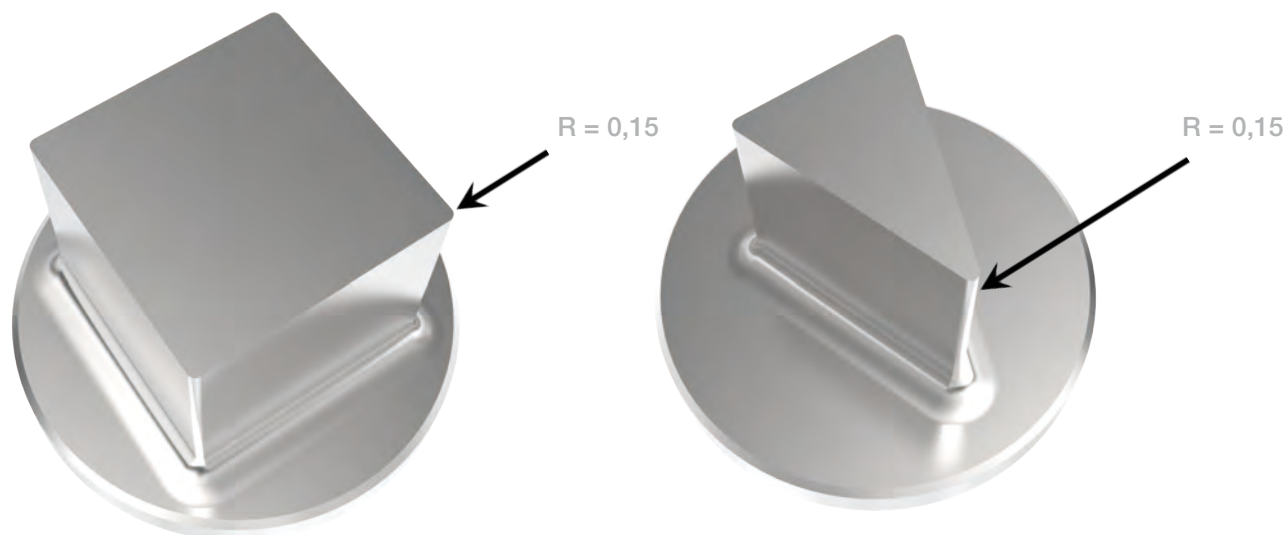
We recommend a line polished version for cutting parts, which have to be produced sink-eroded (special shape with internal shape, e.g. cross-form, U-form, etc.) and in high quality sheets.



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.

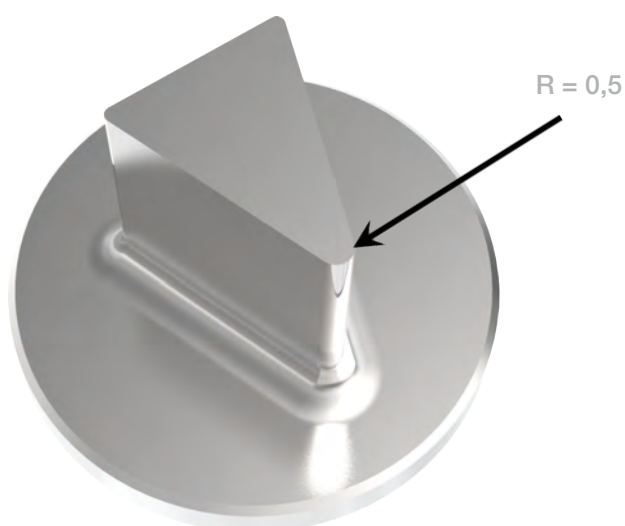
E.g.: square and triangle punch



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.



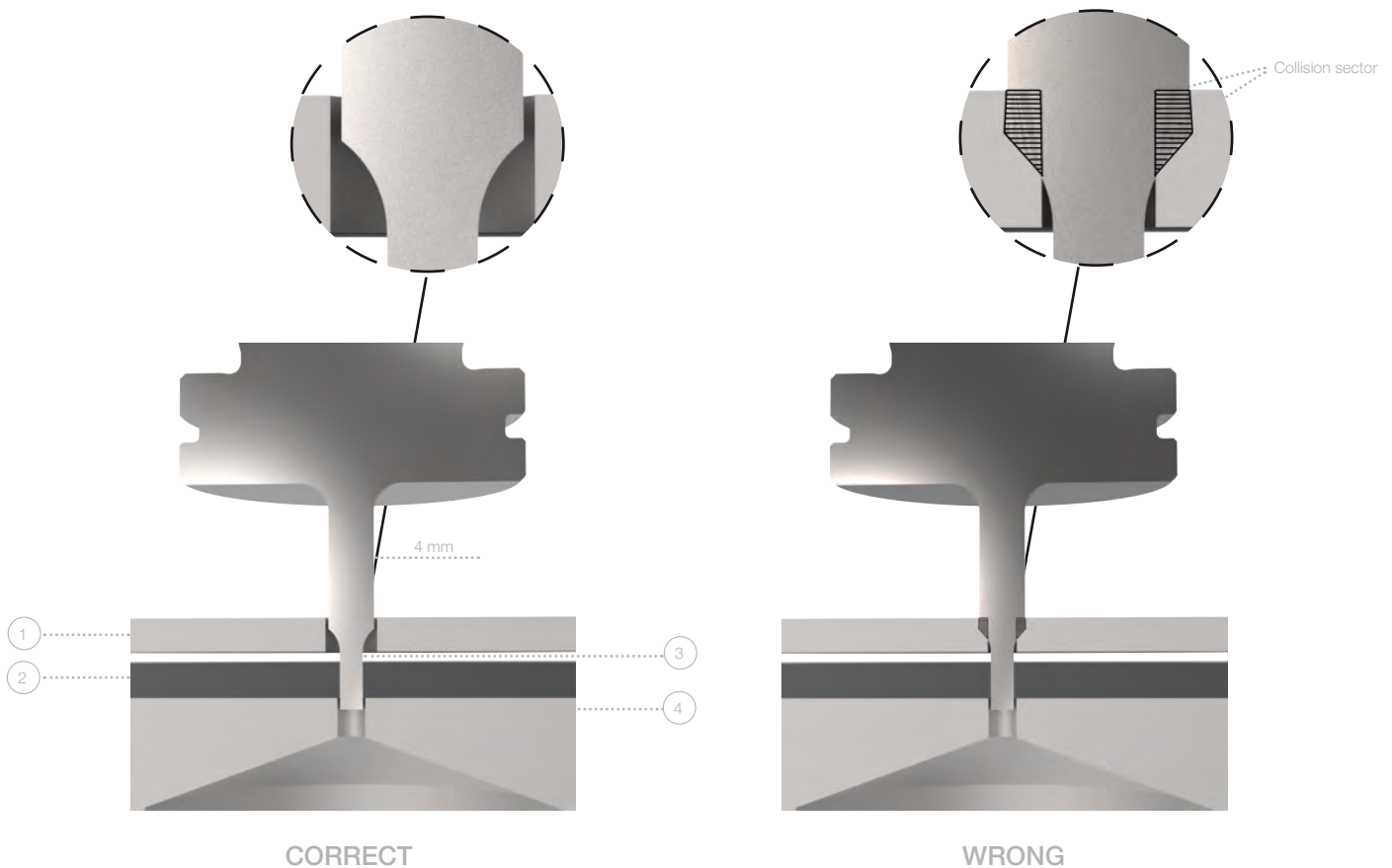
PASS PUNCHES WITH REINFORCED SHOULDER

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.



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