



CATALOG 08/2019-WW-A.1

# SYSTEM THICK TURRET



## SCOPE OF APPLICATION:

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

## GENERAL REMARKS:

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

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# TOOLS STATION A TO E

## PASS TOOLS FOR YOUR THICK TURRET SYSTEM

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# PASS STANDARD I STATION A

DIAMETER UP TO 12,7 MM



## HEAD UNIT

Hexagon head screw for simply assembling of punch assembly

Spring for sheet thickness up to 6 mm

2 mm length adjustment by turning of the distance ring



## PUNCH BODY

Metric-thread M12 x 1,25

Punch body made with premium H-PM®

Alignment pin with double D for exact adjustment



## PUNCH GUIDE

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

# PASS STANDARD I STATION A

DIAMETER UP TO 12,7 MM

PART NO.

## COMPLETE PUNCH ASSEMBLY

Round	4012A01
Square	4012A02
Rectangle	4012A03
Oblong	4012A04
O.D. Ground Special Shape	4012A0G
EDM Required Special Shape	4012A0E

## HEAD UNIT (HEAD SCREW, SPRING, DISTANCE RING)

For all shapes	4092A01
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## PUNCH BODY (H-PM®)

Round	4022A01
Square	4022A02
Rectangle	4022A03
Oblong	4022A04
O.D. Ground Special Shape	4022A0G
EDM Required Special Shape	4022A0E

## PUNCH GUIDE

Round	4032A01
Square	4032A02
Rectangle	4032A03
Oblong	4032A04
O.D. Ground Special Shape	4032A0G
EDM Required Special Shape	4032A0E

## DIE (HWS)

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



## SPARE PARTS

Head screw	4092A31
Spring	4092A11
Distance ring	4092A21
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

## COMPENSATING SHIM FOR PUNCH

Piece (2 mm)	499A4S2
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## ADDITIONAL COSTS FOR PUNCH GUIDE

Additional keyway
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## SET OF COMPENSATING SHIMS FOR DIE

1x0,4 mm/1x0,8 mm/1x1,2 mm	499A1M1
Shimkeeper (0,5 mm)	499A1M95

## ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole

# ps:<sup>®</sup>alpha I STATION A

DIAMETER UP TO 12,7 MM



## HEAD UNIT

Canister for sheet thickness up to 4 mm

Continuously and easy length adjustment  
in assembled status



## PUNCH BODY

Metric-thread M12 x 1,25

Punch body made with premium H-PM<sup>®</sup>

Alignment pin with double D for exact adjustment



## PUNCH GUIDE

Surface-hardened and polished punch  
guide for sheet thickness up to 4 mm

Keyway:  
All shapes: 0-90-225°

## STRIPPER

Interchangeable stripper plate



# ps:® alpha I STATION A

DIAMETER UP TO 12,7 MM

PART-NO.

## COMPLETE PUNCH ASSEMBLY

Round	4013A01
Square	4013A02
Rectangle	4013A03
Oblong	4013A04
O.D. Ground Special Shape	4013A0G
EDM Required Special Shape	4013A0E

## HEAD UNIT

For all shapes	4093A01
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## PUNCH BODY (H-PM®)

Round	4023A01
Square	4023A02
Rectangle	4023A03
Oblong	4023A04
O.D. Ground Special Shape	4023A0G
EDM Required Special Shape	4023A0E

## PUNCH GUIDE

For all shapes	4033A05
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## STRIPPER

Round	4043A01
Square	4043A02
Rectangle	4043A03
Oblong	4043A04
O.D. Ground Special Shape	4043A0G
EDM Required Special Shape	4043A0E

## 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

## COMPENSATING SHIM FOR PUNCH

Not necessary
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## ADDITIONAL COSTS FOR PUNCH GUIDE

Additional keyway
-------------------

## SET OF COMPENSATING SHIMS FOR DIE

1x0,4 mm/1x0,8 mm/1x1,2 mm	499A1M1
Shimkeeper (0,5 mm)	499A1M95

## ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole



# ps:<sup>®</sup>alpha-compact I STATION A

DIAMETER UP TO 12,7 MM



## HEAD UNIT

Canister for sheet thickness up to 4 mm

Continuously and easy length adjustment  
in assembled status



## PUNCH BODY

Metric-thread M12 x 1,25

Punch body made with premium H-PM<sup>®</sup>

Alignment pin with double D for exact adjustment



## PUNCH GUIDE

Surface-hardened and polished punch  
guide for sheet thickness up to 4 mm

Keyway:

Round: 0°

Square: 0-45°

Rect./Oblong: 0-90-225°

Asym. shapes: 0-90-180-270°

Tool shapes integrated in guide

# ps:® alpha-compact I STATION A

DIAMETER UP TO 12,7 MM

PART NO.

## COMPLETE PUNCH ASSEMBLY

Round	4017A01
Square	4017A02
Rectangle	4017A03
Oblong	4017A04
O.D. Ground Special Shape	4017A0G
EDM Required Special Shape	4017A0E

## HEAD UNIT

For all shapes	4093A01
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## PUNCH BODY (H-PM®)

Round	4023A01
Square	4023A02
Rectangle	4023A03
Oblong	4023A04
O.D. Ground Special Shape	4023A0G
EDM Required Special Shape	4023A0E

## PUNCH GUIDE

Round	4032A01
Square	4032A02
Rectangle	4032A03
Oblong	4032A04
O.D. Ground Special Shape	4032A0G
EDM Required Special Shape	4032A0E

## 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

## COMPENSATING SHIM FOR PUNCH

Not necessary	
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## ADDITIONAL COSTS FOR PUNCH GUIDE

Additional keyway
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## SET OF COMPENSATING SHIMS FOR DIE

1x0,4 mm/1x0,8 mm/1x1,2 mm	499A1M1
Shimkeeper (0,5 mm)	499A1M95

## ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole

# 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
Square		4010A02
Rectangle		4010A03
Oblong		4010A04
O.D. Ground Special Shape		4010A0G
EDM Required Special Shape		4010A0E

HEAD UNIT		
For all shapes		4090A10

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
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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

COMPENSATING SHIM FOR PUNCH		ADDITIONAL COSTS FOR PUNCH GUIDE
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Not necessary		Additional keyway
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SET OF COMPENSATING SHIMS FOR DIE		ADDITIONAL COSTS FOR DIES
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1x0,4 mm/1x0,8 mm/1x1,2 mm	499A1M1	Reinforced die
Shimkeeper (0,5 mm)	499A1M95	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
Square	4016A02
Rectangle	4016A03
Oblong	4016A04
O.D. Ground Special Shape	4016A0G
EDM Required Special Shape	4016A0E

## HEAD UNIT

For all shapes	4094A10
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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

## COMPENSATING SHIM FOR PUNCH

Not necessary	
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## ADDITIONAL COSTS FOR PUNCH GUIDE

Additional keyway
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## SET OF COMPENSATING SHIMS FOR DIE

1x0,4 mm/1x0,8 mm/1x1,2 mm	499A1M1
Shimkeeper (0,5 mm)	499A1M95

## ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole

# PASS STANDARD I STATION B

DIAMETER UP TO 31,7 MM



## HEAD UNIT

Hexagon head screw  
for simply assembling of punch assembly

Spring for sheet thickness up to 6 mm

2 mm length adjustment  
by turning of the distance ring



## PUNCH BODY

Metric-thread M20 x 1,5

Punch body made with premium H-PM®

Alignment pin with double D for exact adjustment



## PUNCH GUIDE

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

Keyway:

Round: 0°

Square: 0-45°

Rect./Oblong: 0-90-225°

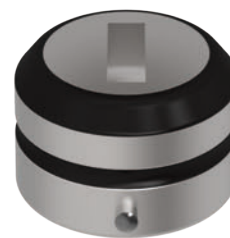
Asym. shapes: 0-90-180-270°

Tool shapes integrated in guide



# PASS STANDARD I STATION B

DIAMETER UP TO 31,7 MM



PART NO.

## COMPLETE PUNCH ASSEMBLY

Round	4012B01
Square	4012B02
Rectangle	4012B03
Oblong	4012B04
O.D. Ground Special Shape	4012B0G
EDM Required Special Shape	4012B0E

## HEAD UNIT (HEAD SCREW, SPRING, DISTANCE RING)

For all shapes	4092B01
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## PUNCH BODY (H-PM®)

Round	4022B01
Square	4022B02
Rectangle	4022B03
Oblong	4022B04
O.D. Ground Special Shape	4022B0G
EDM Required Special Shape	4022B0E

## PUNCH GUIDE

Round	4032B01
Square	4032B02
Rectangle	4032B03
Oblong	4032B04
O.D. Ground Special Shape	4032B0G
EDM Required Special Shape	4032B0E

## DIE (HWS)

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

## SPARE PARTS

Head screw	4092B31
Spring	4092B11
Distance ring	4092B21
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

## COMPENSATING SHIM FOR PUNCH

Piece (2 mm)	499B4S2
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## ADDITIONAL COSTS FOR PUNCH GUIDE

Additional keyway
-------------------

## SET OF COMPENSATING SHIMS FOR DIE

1x0,4 mm/1x0,8 mm/1x1,2 mm	499B1M1
Shimkeeper (0,5 mm)	499B1M95

## ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole

# ps:<sup>®</sup>alpha I STATION B

DIAMETER UP TO 31,7 MM



## HEAD UNIT

Canister for sheet thickness up to 4 mm

Continuously and easy length adjustment  
in assembled status



## PUNCH BODY

Metric-thread M20 x 1,5

Punch body made with premium H-PM<sup>®</sup>

Alignment pin with double D for exact adjustment



## PUNCH GUIDE

Surface-hardened and polished punch  
guide for sheet thickness up to 4 mm

Keyway:

All shapes: 0-45-90-180-270°

## STRIPPER

Interchangeable stripper plate

# ps:® alpha I STATION B

DIAMETER UP TO 31,7 MM

PART-NO.

## COMPLETE PUNCH ASSEMBLY

Round	4013B01
Square	4013B02
Rectangle	4013B03
Oblong	4013B04
O.D. Ground Special Shape	4013B0G
EDM Required Special Shape	4013B0E

## HEAD UNIT

For all shapes	4093B01
----------------	---------

## PUNCH BODY (H-PM®)

Round	4023B01
Square	4023B02
Rectangle	4023B03
Oblong	4023B04
O.D. Ground Special Shape	4023B0G
EDM Required Special Shape	4023B0E

## PUNCH GUIDE

For all shapes	4033B05
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## STRIPPER

Round	4043B01
Square	4043B02
Rectangle	4043B03
Oblong	4043B04
O.D. Ground Special Shape	4043B0G
EDM Required Special Shape	4043B0E

## 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

## COMPENSATING SHIM FOR PUNCH

Not necessary	
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## SET OF COMPENSATING SHIMS FOR DIE

1x0,4 mm/1x0,8 mm/1x1,2 mm	499B1M1
Shimkeeper (0,5 mm)	499B1M95

## ADDITIONAL COSTS FOR PUNCH

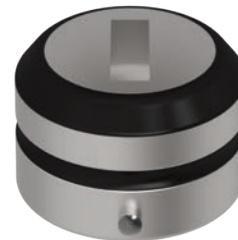
TICN coating
T-MAX coating
A-MAX coating
WT-shear
DOWT-shear
2 PT-shear
4 PT-shear
Cutting part under 1,00 mm

## ADDITIONAL COSTS FOR PUNCH GUIDE

Additional keyway
-------------------

## ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole



# ps:<sup>®</sup>alpha-compact I STATION B

DIAMETER UP TO 31,7 MM



## HEAD UNIT

Canister for sheet thickness up to 4 mm

Continuously and easy length adjustment  
in assembled status



## PUNCH BODY

Metric-thread M20 x 1,5

Punch body made with premium H-PM<sup>®</sup>

Alignment pin with double D for exact adjustment



## PUNCH GUIDE

Surface-hardened and polished punch  
guide for sheet thickness up to 4 mm

Keyway:

Round: 0°

Square: 0-45°

Rect./Oblong: 0-45-90-135°

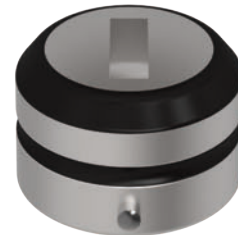
Asym. shapes: 0-90-180-270°

Tool shapes integrated in guide

# ps:<sup>®</sup>alpha-compact I STATION B

DIAMETER UP TO 31,7 MM

	PART NO.
<b>COMPLETE PUNCH ASSEMBLY</b>	
Round	4017B01
Square	4017B02
Rectangle	4017B03
Oblong	4017B04
O.D. Ground Special Shape	4017B0G
EDM Required Special Shape	4017B0E
<b>HEAD UNIT</b>	
For all shapes	4093B01
<b>PUNCH BODY (H-PM<sup>®</sup>)</b>	
Round	4023B01
Square	4023B02
Rectangle	4023B03
Oblong	4023B04
O.D. Ground Special Shape	4023B0G
EDM Required Special Shape	4023B0E
<b>PUNCH GUIDE</b>	
Round	4032B01
Square	4032B02
Rectangle	4032B03
Oblong	4032B04
O.D. Ground Special Shape	4032B0G
EDM Required Special Shape	4032B0E
<b>DIE (HWS)</b>	
Round	4052B01
Square	4052B02
Rectangle	4052B03
Oblong	4052B04
O.D. Ground Special Shape	4052B0G
EDM Required Special Shape	4052B0E



<b>SPARE PARTS</b>		<b>ADDITIONAL COSTS FOR PUNCH</b>	
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	
<b>COMPENSATING SHIM FOR PUNCH</b>		<b>ADDITIONAL COSTS FOR PUNCH GUIDE</b>	
Not necessary		Additional keyway	
<b>SET OF COMPENSATING SHIMS FOR DIE</b>		<b>ADDITIONAL COSTS FOR DIES</b>	
1x0,4 mm/1x0,8 mm/1x1,2 mm	499B1M1	Reinforced die	
Shimkeeper (0,5 mm)	499B1M95	H-PM <sup>®</sup> 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
Square	4010B02
Rectangle	4010B03
Oblong	4010B04
O.D. Ground Special Shape	4010B0G
EDM Required Special Shape	4010B0E

## HEAD UNIT

For all shapes	4090B10
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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

## COMPENSATING SHIM FOR PUNCH

Not necessary	
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## ADDITIONAL COSTS FOR PUNCH GUIDE

Additional keyway
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## SET OF COMPENSATING SHIMS FOR DIE

1x0,4 mm/1x0,8 mm/1x1,2 mm	499B1M1
Shimkeeper (0,5 mm)	499B1M95

## 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
Square	4016B02
Rectangle	4016B03
Oblong	4016B04
O.D. Ground Special Shape	4016B0G
EDM Required Special Shape	4016B0E

## HEAD UNIT

For all shapes	4094B10
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## 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

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

## COMPENSATING SHIM FOR PUNCH

Not necessary	
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## ADDITIONAL COSTS FOR PUNCH GUIDE

Additional keyway
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## SET OF COMPENSATING SHIMS FOR DIE

1x0,4 mm/1x0,8 mm/1x1,2 mm	499B1M1
Shimkeeper (0,5 mm)	499B1M95

## ADDITIONAL COSTS FOR DIES

Reinforced die
H-PM® Quality
Additional pin hole

# PASS STANDARD I STATION C

DIAMETER UP TO 50,8 MM



## GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

3 mm length adjustment  
by using compensating shims

Keyway: 0-90°

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

Clamping-screw to fix the strippers

## PUNCH BODY

Thread M12

Punch body made with premium H-PM®

## STRIPPER

Interchangeable stripper plate

# PASS STANDARD I STATION C

DIAMETER UP TO 50,8 MM

PART NO.

GUIDE ASSEMBLY	
For all shapes	499C01

PUNCH BODY (H-PM®)	
Round	4022C01
Square	4022C02
Rectangle	4022C03
Oblong	4022C04
O.D. Ground Special Shape	4022C0G
EDM Required Special Shape	4022C0E

STRIPPER	
Round	4032C01
Square	4032C02
Rectangle	4032C03
Oblong	4032C04
O.D. Ground Special Shape	4032C0G
EDM Required Special Shape	4032C0E

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
Set clamping-springs with screws	499C71	A-MAX coating
Guiding key with screws	499C63	WT-shear

		DOWT-shear
		2 PT-shear
		4 PT-shear
		Additional keyway
		Cutting part under 1,00 mm

SET OF COMPENSATING SHIMS FOR PUNCH		ADDITIONAL COSTS FOR PUNCH GUIDE
1x0,4 mm/1x0,8 mm/1x1,2 mm	499C1S1	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 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

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
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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
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Not necessary		Additional keyway
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SET OF COMPENSATING SHIMS FOR DIE		ADDITIONAL COSTS FOR DIES
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1x0,4 mm/1x0,8 mm/1x1,2 mm	499C2M1	H-PM® Quality
		Additional keyway

# ps:®beta-V2® SLITTING TOOL | 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.
<b>GUIDE ASSEMBLY</b>	
For all shapes	4030C01
<b>SLITTING TOOL ADAPTER</b>	
For all shapes	4220CT00
<b>SLITTING TOOL (MAX. 6,35X50) / (H-PM®)</b>	
Rectangle	4020CT03
Oblong	4020CT04
Trapezoid G09	4020CT0G
Double Trapezoid E03	4020CT0E
<b>STRIPPER</b>	
Rectangle	4040CT03
Oblong	4040CT04
Trapezoid G09	4040CT0G
Double Trapezoid E03	4040CT0E
<b>REVERSIBLE PLATE ADAPTER</b>	
	4390CT00
<b>REVERSIBLE PLATE (H-PM®)</b>	
Rectangle	4052CT03
Oblong	4052CT04
Trapezoid G09	4052CT0G
Double Trapezoid E03	4052CT0E



<b>SPARE PARTS</b>		<b>ADDITIONAL COSTS FOR PUNCH</b>
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
<b>COMPENSATING SHIM FOR SLITTING TOOL ADAPTER</b>		<b>ADDITIONAL COSTS FOR PUNCH GUIDE</b>
Not necessary		Additional keyway
<b>SET OF COMPENSATING SHIMS FOR REVERSIBLE PLATE</b>		<b>ADDITIONAL COSTS FOR DIES</b>
1x0,4 mm/1x0,8 mm/1x1,2 mm	499CT60	Additional keyway

# PASS STANDARD I STATION D

DIAMETER UP TO 88,9 MM



## GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

3 mm length adjustment  
by using compensating shims

Keyway: 0-90°

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

Clamping-screw to fix the strippers

## PUNCH BODY

Thread M12

Punch body made with premium H-PM®

## STRIPPER

Interchangeable stripper plate



# PASS STANDARD I STATION D

DIAMETER UP TO 88,9 MM

PART NO.

GUIDE ASSEMBLY		
	For all shapes	499D01

PUNCH BODY (H-PM®)		
	Round	4022D01
	Square	4022D02
	Rectangle	4022D03
	Oblong	4022D04
	O.D. Ground Special Shape	4022D0G
	EDM Required Special Shape	4022D0E

STRIPPER		
	Round	4032D01
	Square	4032D02
	Rectangle	4032D03
	Oblong	4032D04
	O.D. Ground Special Shape	4032D0G
	EDM Required Special Shape	4032D0E

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
Set clamping-springs with screws	499D71	A-MAX coating
Guiding key with screws	499D63	WT-shear
		DOWT-shear
		2 PT-shear
		4 PT-shear
		Additional keyway
		Cutting part under 1,00 mm
SET OF COMPENSATING SHIMS FOR PUNCH		ADDITIONAL COSTS FOR PUNCH GUIDE
1x0,4 mm/1x0,8 mm/1x1,2 mm	499D3S1	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® | 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.
<b>GUIDE ASSEMBLY</b>	
For all shapes	4030D01
<b>PUNCH BODY (H-PM®)</b>	
Round	4020D01
Square	4020D02
Rectangle	4020D03
Oblong	4020D04
O.D. Ground Special Shape	4020D0G
EDM Required Special Shape	4020D0E
<b>STRIPPER</b>	
Round	4040D01
Square	4040D02
Rectangle	4040D03
Oblong	4040D04
O.D. Ground Special Shape	4040D0G
EDM Required Special Shape	4040D0E
<b>DIE (HWS)</b>	
Round	4052D01
Square	4052D02
Rectangle	4052D03
Oblong	4052D04
O.D. Ground Special Shape	4052D0G
EDM Required Special Shape	4052D0E



<b>SPARE PARTS</b>		<b>ADDITIONAL COSTS FOR PUNCH</b>
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
<b>COMPENSATING SHIM FOR PUNCH</b>		<b>ADDITIONAL COSTS FOR PUNCH GUIDE</b>
Not necessary		Additional keyway
<b>SET OF COMPENSATING SHIMS FOR DIE</b>		<b>ADDITIONAL COSTS FOR DIES</b>
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.
<b>GUIDE ASSEMBLY</b>	
For all shapes	4030D01
<b>SLITTING TOOL ADAPTER</b>	
For all shapes	4220DT00
<b>SLITTING TOOL (MAX. 6,35X85) / (H-PM®)</b>	
Rectangle	4020DT03
Oblong	4020DT04
Trapezoid G09	4020DT0G
Double Trapezoid E03	4020DT0E
<b>STRIPPER</b>	
Rectangle	4040DT03
Oblong	4040DT04
Trapezoid G09	4040DT0G
Double Trapezoid E03	4040DT0E
<b>REVERSIBLE PLATE ADAPTER</b>	
	4390DT00
<b>REVERSIBLE PLATE (H-PM®)</b>	
Rectangle	4052DT03
Oblong	4052DT04
Trapezoid G09	4052DT0G
Double Trapezoid E03	4052DT0E



<b>SPARE PARTS</b>		<b>ADDITIONAL COSTS FOR PUNCH</b>
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
<b>COMPENSATING SHIM FOR SLITTING TOOL ADAPTER</b>		<b>ADDITIONAL COSTS FOR PUNCH GUIDE</b>
Not necessary		Additional keyway
<b>SET OF COMPENSATING SHIMS FOR REVERSIBLE PLATE</b>		<b>ADDITIONAL COSTS FOR DIES</b>
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

SLITTING TOOL ADAPTER		
	For all shapes	4220DT00

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

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

COMPENSATING SHIM FOR SLITTING TOOL ADAPTER		
Not necessary		

SET OF COMPENSATING SHIMS FOR DIE		
1x0,4 mm/1x0,8 mm/1x1,2 mm		499D2M1

## ADDITIONAL COSTS FOR PUNCH

- TICN coating
- T-MAX coating
- A-MAX coating
- WT-shear
- DOWT-shear
- 2 PT-shear
- 4 PT-shear
- Additional keyway

Cutting part under 1,00 mm

## ADDITIONAL COSTS FOR PUNCH GUIDE

- Additional keyway

## ADDITIONAL COSTS FOR DIES

- H-PM® Quality
- Additional keyway



### Function:

The ps:® clean-cut for THICK TURRET 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.

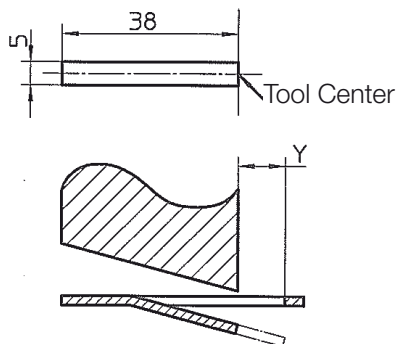


### Functional principle of the tool:

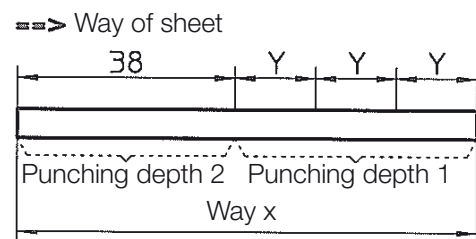
Continuous slitting. The shavings will be guided within the die and will be separated into pieces with the second slitting unit.

### 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 THICK TURRET - STATION D

	PART NO.
<b>COMPLETE TOOL</b>	
	499110001
<b>COMPLETE UPPER PART</b>	
	499110001-1
<b>COMPLETE DIE</b>	
	499110001-2
<b>SPARE PARTS TO UPPER ASSY</b>	
Punch insert (Re 5x38)	499110040
Stripper plate	499110030
<b>SPARE PARTS TO DIE ASSY</b>	
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	ADDITIONAL COSTS FOR SLITTING BLADE
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 STRIPPER
	Polished version for low-scratch material handling

MAX. REGRINDING LENGTH	ADDITIONAL COSTS FOR DIE PLATE
Punch: (Lmin = 201,5 mm)	7 mm Polished version for low-scratch material handling
Die plate: (Hmin = 33,5 mm)	0,5 mm

08/2019-WW-A-1 Version 3.2

# PASS STANDARD I STATION E

DIAMETER UP TO 114,3 MM



## GUIDE ASSEMBLY

Screw M12

Springs for sheet thickness up to 6 mm

3 mm length adjustment by using compensating shims

Keyway: 0-90°

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

Clamping-screw to fix the strippers

## PUNCH BODY

Thread M12

Punch body made with premium H-PM®

## STRIPPER

Interchangeable stripper plate

# PASS STANDARD I STATION E

DIAMETER UP TO 114,3 MM

PART NO.

GUIDE ASSEMBLY		
	For all shapes	499E01

PUNCH BODY (H-PM®)		
	Round	4022E01
	Square	4022E02
	Rectangle	4022E03
	Oblong	4022E04
	O.D. Ground Special Shape	4022E0G
	EDM Required Special Shape	4022E0E

STRIPPER		
	Round	4032E01
	Square	4032E02
	Rectangle	4032E03
	Oblong	4032E04
	O.D. Ground Special Shape	4032E0G
	EDM Required Special Shape	4032E0E

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
Set clamping-springs with screws	499E71	A-MAX coating
Guiding key with screws	499E63	WT-shear

		DOWT-shear
		2 PT-shear
		4 PT-shear
		Additional keyway
		Cutting part under 1,00 mm

SET OF COMPENSATING SHIMS FOR PUNCH		ADDITIONAL COSTS FOR PUNCH GUIDE
1x0,4 mm/1x0,8 mm/1x1,2 mm	499E3S1	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® | 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

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

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 | STATION E

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



SPARE PARTS	ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch)	4092P03
PU ejector Ø 6x10 (in punch)	4092P06
	TICN coating
	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	ADDITIONAL COSTS FOR DIES
1x0,4 mm/1x0,8 mm/1x1,2 mm	499ET60
	Additional keyway

# ps:<sup>®</sup>beta-V2<sup>®</sup> SLITTING TOOL I 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<sup>®</sup>

## 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

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

COMPENSATING SHIM FOR SLITTING TOOL ADAPTER		
Not necessary		

SET OF COMPENSATING SHIMS FOR DIE		
1x0,4 mm/1x0,8 mm/1x1,2 mm		499E2M1

## ADDITIONAL COSTS FOR PUNCH

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

## ADDITIONAL COSTS FOR PUNCH GUIDE

- Additional keyway

## ADDITIONAL COSTS FOR DIES

- H-PM® Quality
- Additional keyway





# MULTITOOL

ps:®multitool

FOR YOUR PRIMA POWER MACHINES

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# ps:®MTP8Ri3-16 | 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

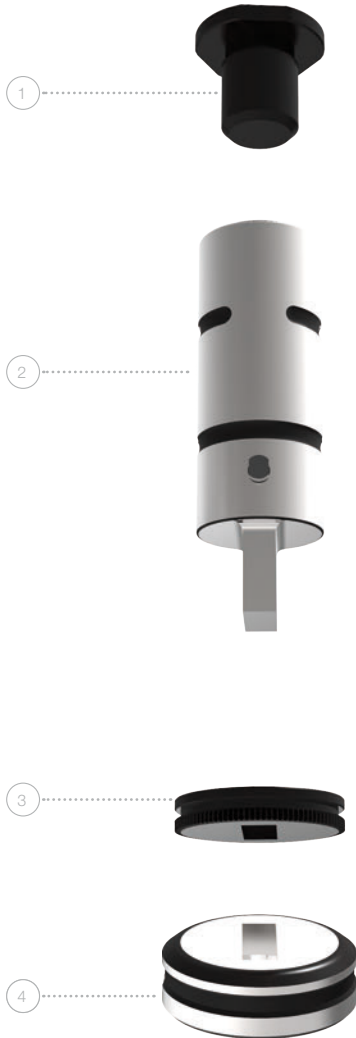
	POS.-NO.	PART-NO.
<b>8-STATION PUNCH UNIT</b>		
(without punch or stripper inserts)	1	450800000
<b>8-STATION DIE UNIT</b>		
(without die inserts)	2	450802100



# ps:®MTP3Ri3-31,75 | INSERTS

FOR MACHINE TYPE PRIMA POWER

SUITABLE FOR SHEET THICKNESS UP TO 6 MM



	POS.-NO.	PART-NO.
<b>PUNCH</b>		
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
<b>STRIPPER</b>		
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
<b>3-STATION STRIPPER *</b>		
Optional - shape adaptable stripper		450302000
<b>DIE (HWS)</b>		
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
	A-MAX coating
	WT-shear
	DOWT-shear
	2 PT-shear
	4 PT-shear
	Cutting part under 1,00 mm
INDEX	ADDITIONAL COSTS FOR DIES
<b>* Stripper - adaptable to shape (form)</b>	Reinforced die
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).	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.
<b>3-STATION PUNCH UNIT</b>		
(without punch or stripper inserts)	1	450300000
<b>3-STATION DIE UNIT</b>		
(without die inserts)	2	450301900



# ps:®MTP8RiA-12,7 | INSERTS

FOR MACHINE TYPE PRIMA POWER

SUITABLE FOR SHEET THICKNESS UP TO 6 MM



	POS.-NO.	PART-NO.
<b>PUNCH BODY (H-PM®)</b>		
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
<b>STRIPPER</b>		
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
<b>DIE (HWS)</b>		
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 | ADAPTER

FOR MACHINE TYPE PRIMA POWER

SUITABLE FOR SHEET THICKNESS UP TO 6 MM

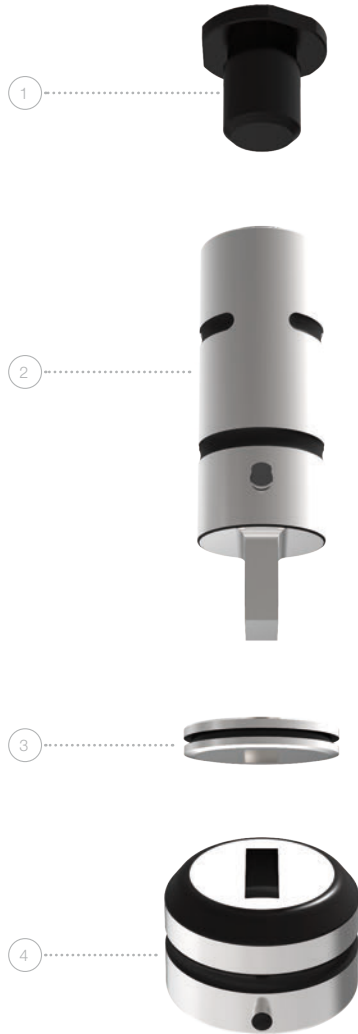
	POS.-NO.	PART-NO.		POS.-NO.	PART-NO.
<b>8-STATION PUNCH UNIT PIN</b>			<b>8-STATION PUNCH UNIT I-RAM</b>		
(without punch or stripper inserts)	1	453800000	(without punch or stripper inserts)	1	453800010
<b>8-STATION DIE UNIT</b>			<b>8-STATION DIE UNIT</b>		
(without die inserts)	2	453802100	(without 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.
<b>PUNCH BODY (H-PM®)</b>		
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
<b>STRIPPER</b>		
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
<b>DIE (HWS)</b>		
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

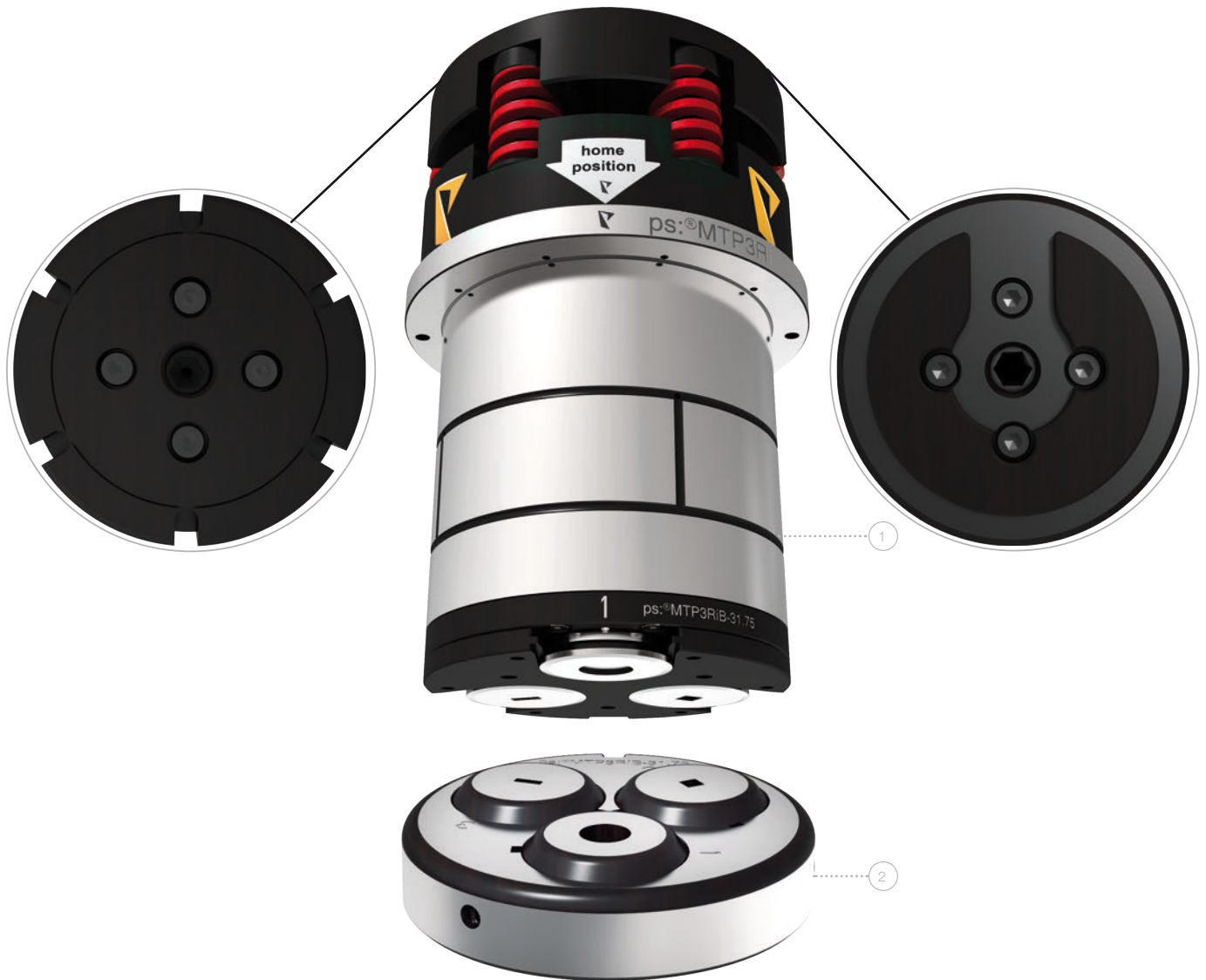
SPARE PARTS	ADDITIONAL COSTS FOR PUNCH
PU ejector Ø 3x6 (in punch) 4092P03	TICN coating
PU ejector Ø 6x10 (in punch) 4092P06	T-MAX coating
	A-MAX coating
	WT-shear
	DOWT-shear
	2 PT-shear
	4 PT-shear
	Cutting part under 1,00 mm
COMPENSATING SHIM FOR PUNCH	ADDITIONAL COSTS FOR DIES
Not necessary	Reinforced 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 | ADAPTER

FOR MACHINE TYPE PRIMA POWER

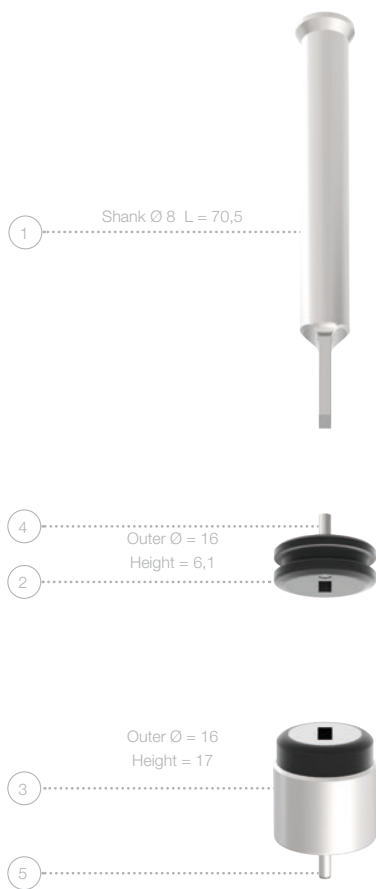
SUITABLE FOR SHEET THICKNESS UP TO 6 MM

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



# ps:<sup>®</sup>MTPi24-8 AND ps:<sup>®</sup>MTP16-8 | INSERTS

FOR MACHINE TYPE PRIMA POWER



	POS.-NO.	PART-NO.
<b>PUNCH (H-PM<sup>®</sup>)</b>		
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
<b>STRIPPER</b>		
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
<b>DIE (HWS)</b>		
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<sup>®</sup> Quality  
 Additional pin hole

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

FOR MACHINE TYPE PRIMA POWER

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

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



# ps:®MTPi10-16 AND ps:®MTP8-16 | INSERTS

FOR MACHINE TYPE PRIMA POWER



	POS.-NO.	PART-NO.
<b>PUNCH (H-PM®)</b>		
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
<b>STRIPPER</b>		
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
<b>DIE (HWS)</b>		
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.
<b>PUNCH ADAPTER ps:®MTPi10-16</b>		
(without punch or stripper inserts)	1	454210000-PPX
<b>DIE ADAPTER ps:®MTPi10-16</b>		
(without die inserts)	2	454210060X

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



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

FOR MACHINE TYPE PRIMA POWER



	POS.-NO.	PART-NO.
<b>PUNCH (H-PM®)</b>		
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
<b>STRIPPER</b>		
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
<b>DIE (HWS)</b>		
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.
<b>PUNCH ADAPTER ps:®MTPi8-24</b>		
(without punch or stripper inserts)	1	454208000-PPX
<b>DIE ADAPTER ps:®MTPi8-24</b>		
(without die inserts)	2	454208060X

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



# ps:®MTP3B I INSERTS

## FOR MACHINE TYPE PRIMA POWER



	POS.-NO.	PART-NO.
<b>PUNCH (H-PM®)</b>		
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
<b>STRIPPER</b>		
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
<b>DIE (HWS)</b>		
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.
<b>PUNCH ADAPTER ps:®MTP3B</b>		
(without punch or stripper inserts)	1	452301001-PPX
<b>DIE ADAPTER ps:®MTP3B</b>		
(without die inserts)	2	452302001X



# ps:®MTPi4B+4 | INSERTS

FOR MACHINE TYPE PRIMA POWER



	POS.-NO.	PART-NO.
<b>PUNCH (H-PM®)</b>		
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
<b>STRIPPER</b>		
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
<b>DIE (HWS)</b>		
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.
<b>PUNCH ADAPTER ps:®MTPi4B+4</b>		
(without punch or stripper inserts)	1	452401001-PPX
<b>DIE ADAPTER ps:®MTPi4B+4</b>		
(without die inserts)	2	452402001X



# ps:®MTPi4B+4 | INSERTS

FOR MACHINE TYPE PRIMA POWER

FOR ENGRAVING, FOIL CUTTING, COUNTERSINKING AND STAMPING



	POS.-NO.	PART-NO.
<b>ENGRAVING</b>		
complete set	1	452404101
<b>FOIL CUTTING</b>		
complete set	2	452404106
<b>COUNTERSINKING</b>		
complete set	3	4524041XX
<b>STAMPING</b>		
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

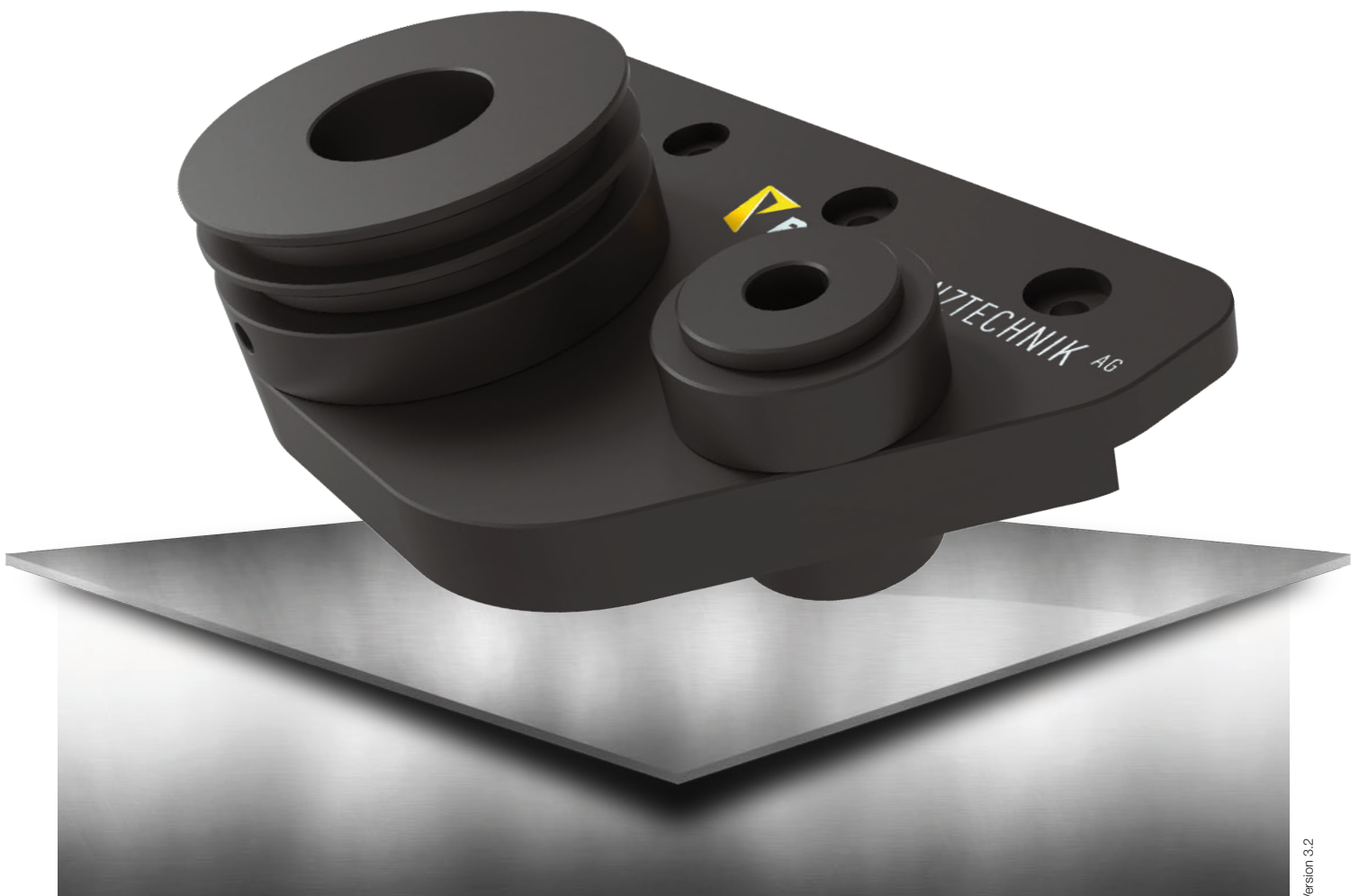
# ps:®MTPi4B+4 | ADAPTER

FOR MACHINE TYPE PRIMA POWER

FOR ENGRAVING, FOIL CUTTING, COUNTERSINKING AND STAMPING

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







# ACCESSORIES

PASS ACCESSORIES FOR YOUR  
THICK TURRET SYSTEM

## INDEX

ps.®assembly	page 74
PASS Assembling Set	page 75
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PASS Dies	page 77
PASS Alignment Tools	page 78
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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



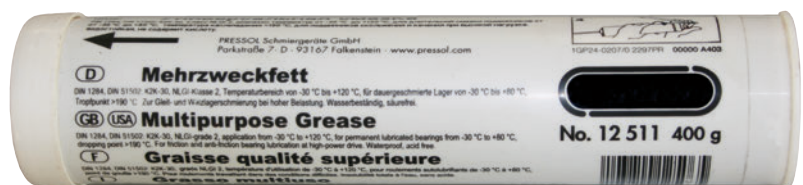
# PASS ASSEMBLING SET

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

FOR ps:<sup>®</sup>multi-thread<sup>®</sup>

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	
<b>Total price</b>	499MONKIT



# PASS ADAPTER

## PUNCH ADAPTER

Surface-hardened and polished



## DIE ADAPTER

Surface-hardened and polished

2 clamp screws



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 <sup>(*)</sup>
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 <sup>(*)</sup> <sup>(2)</sup>
Die adapter upforming	D/C	499400434

<sup>(\*)</sup> max. stamping and punching force: 70 kN

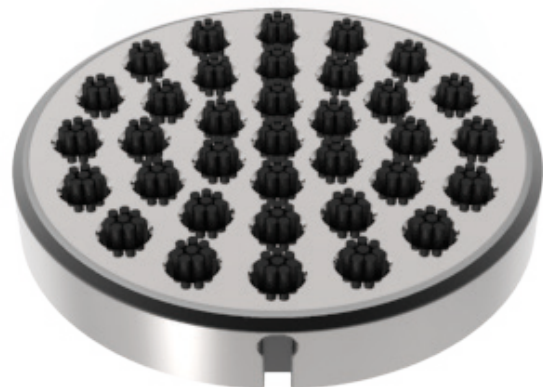
<sup>(2)</sup> 2 mm increased

MACHINE TYPE: PIVATIC & WEMO & DALCOS		
Punch adapter	B/A	401BAS3
Die adapter	B/A	401BAM3
Punch adapter	C/B	401CBS3
Die adapter	C/B	401CBM3
Punch adapter	D/A	401DAS3
Die adapter	D/A	401DAM3
Punch adapter	D/B	401DBS3
Die adapter	D/B	401DBM3
Punch adapter	D/C	401DCS3
Die adapter	D/C	not usable

# PASS DIES

## WITH BRUSH INSERTS

	STATION	PART-NO.
<b>PASS DIES WITH BRUSH INSERTS</b>		
1x Ø13	A	441711A01
3x Ø13	B	441711B01
7x Ø13	C	441711C01
19x Ø13	D	441711D01
35x Ø13	E	441711E01



# PASS ALIGNMENT TOOLS



	STATION	POSITION	PART-NO.
<b>ALIGNMENT TOOLS</b>			
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

PART-NO.

T-HANDLE		
	M14	999000024
	M20	999000028



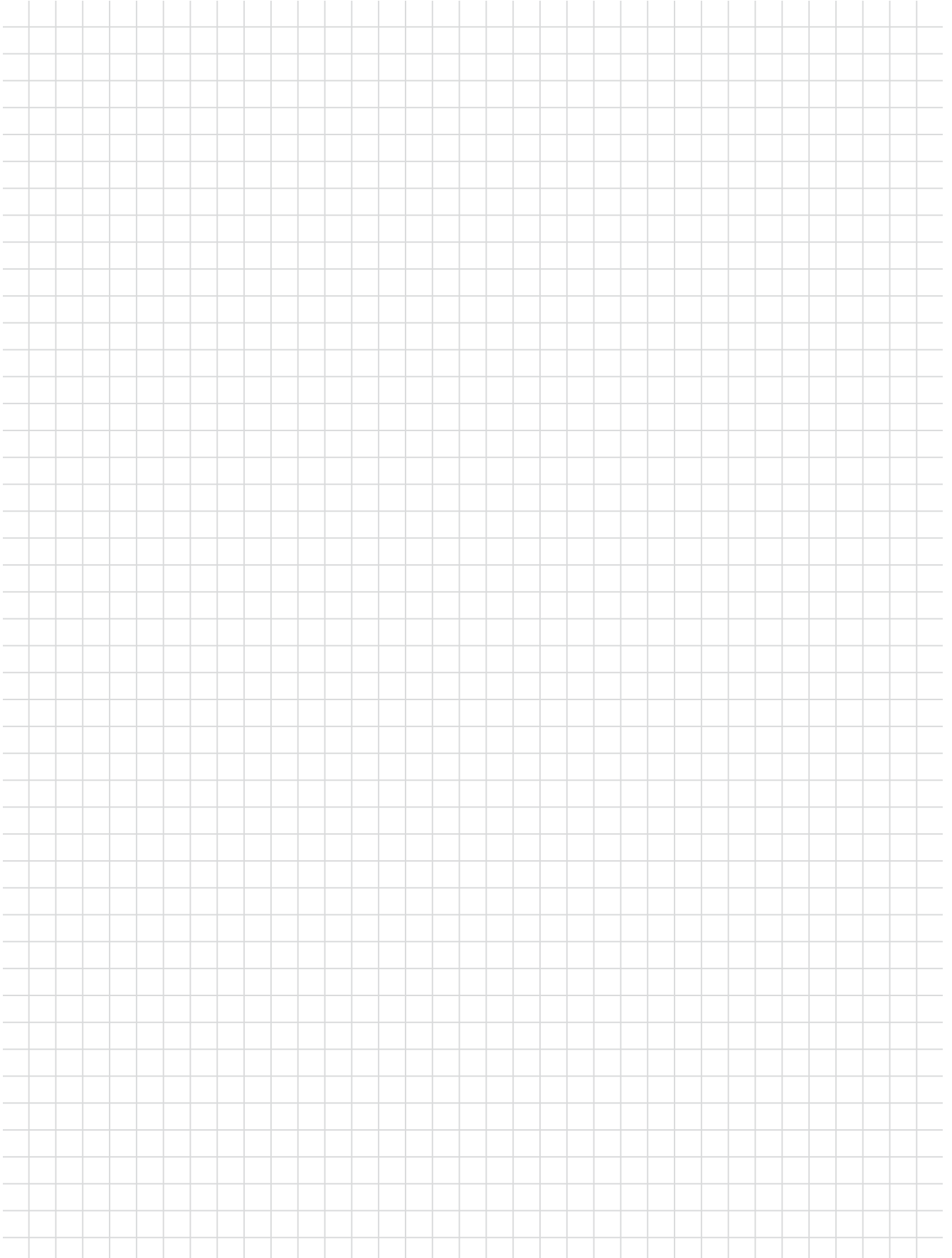
# ps:®marking-all-in-one

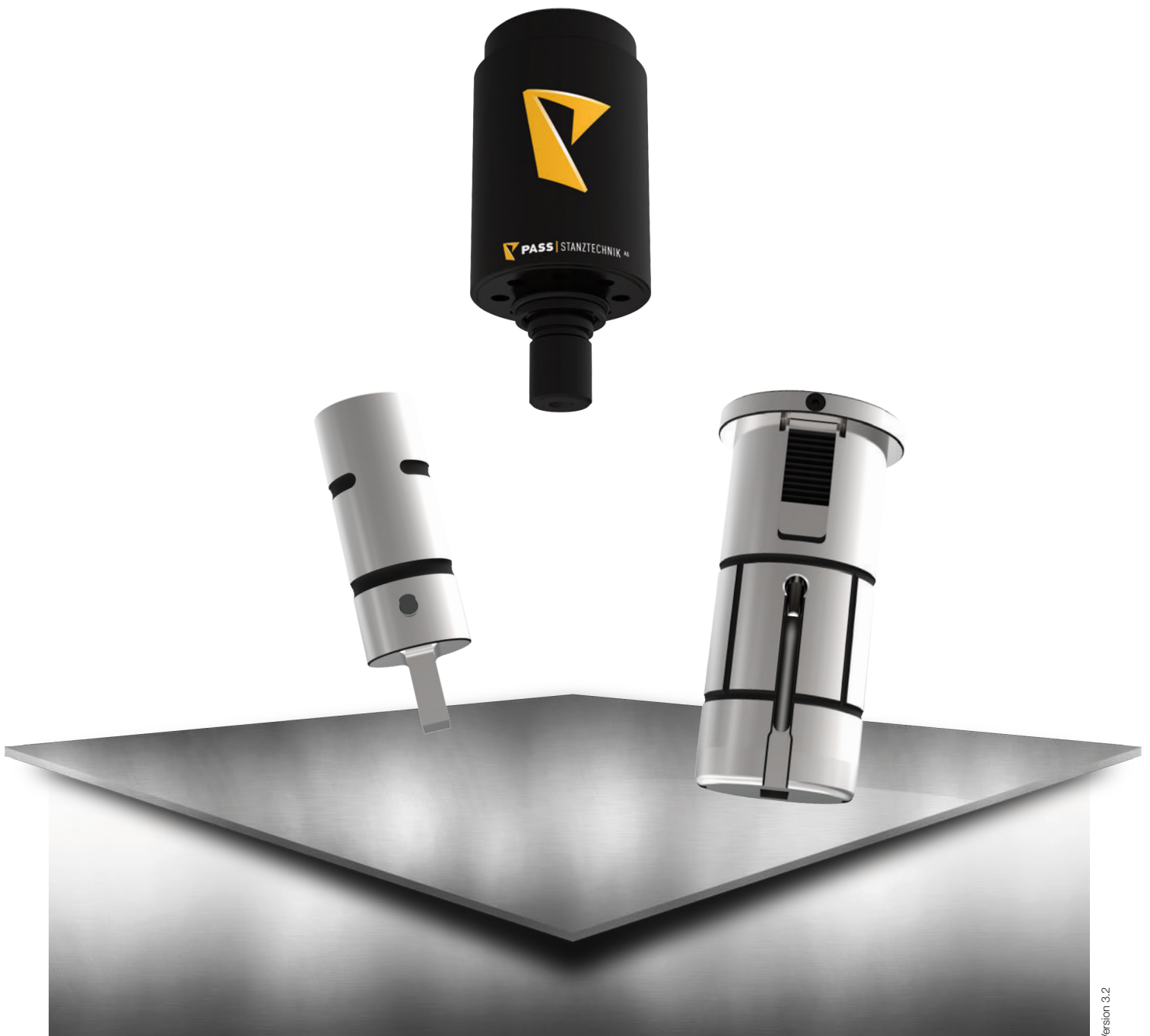
PART-NO.

COMPLETE SET		
Set consists of		499104000
1 punch head		
1 punch guide		
1 needle holder		
1 centerpunch needle made of H-PM®		
1 engraving needle with diamond point		
1 foil tearing needle made of brass		
1 spring green (soft)		
1 spring blue (middle)		
1 spring red (hard)		
1 spring black (extra soft)		
1 marking pen + 1 weight		
1 pressure bar engraving function		
1 pressure bar centerpunch		
1 die		
1 ball roller die		









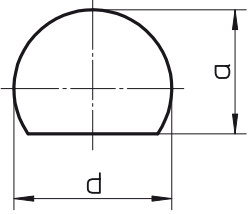
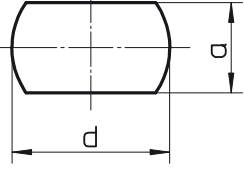
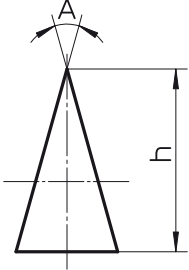
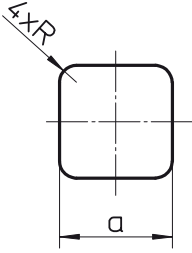
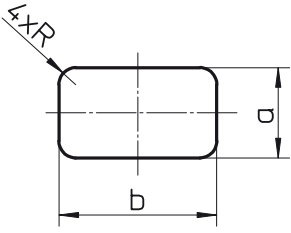
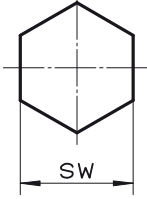
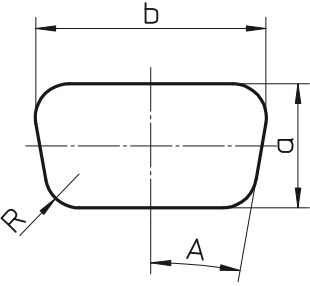
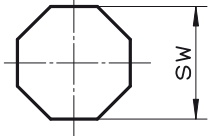
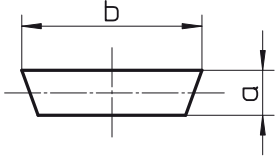
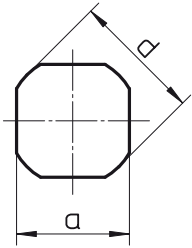
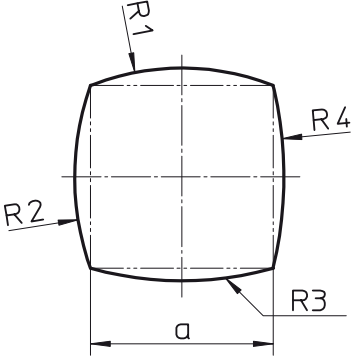
# TECHNICAL INFORMATION

## INFORMATION ABOUT OUR TOOLS FOR YOUR THICK TURRET SYSTEM

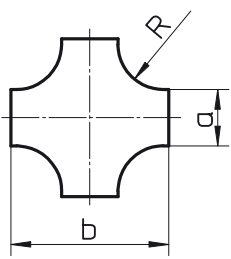
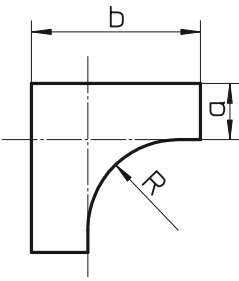
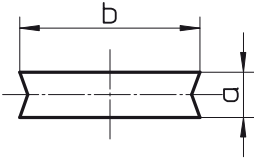
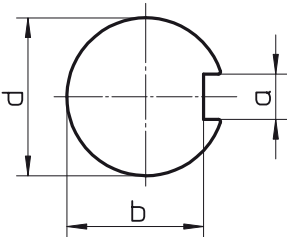
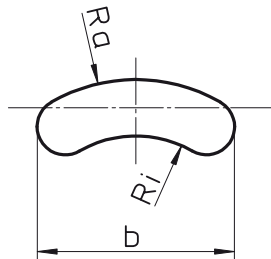
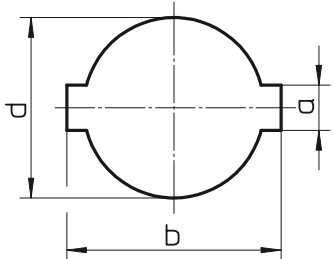
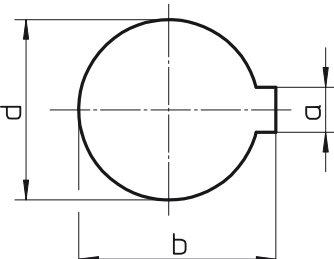
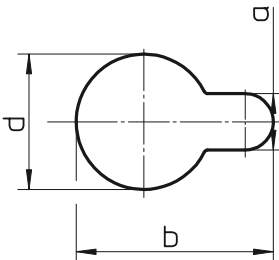
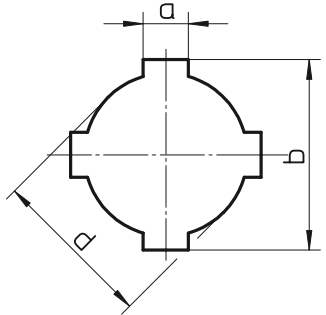
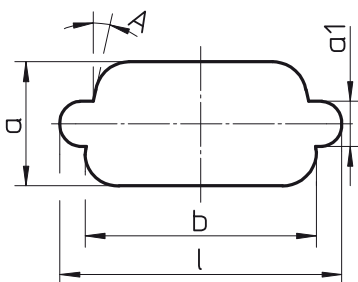
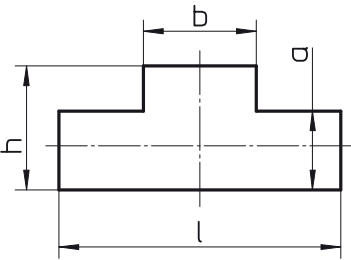
### INDEX

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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

 <p>E01</p>	 <p>E02</p>	 <p>E03</p>
 <p>E04</p>	 <p>E05</p>	 <p>E06</p>
 <p>E07</p>	 <p>E08</p>	 <p>E09</p>
 <p>E10</p>	 <p>E11</p>	

# PASS TOOL VARIETY

## HWS

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

Advantage for customer:

- excellent cost in accordance to performance

## H-PM®

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

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

Advantage for customer:

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

## X3-PM

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

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

Advantage for customer:

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

## X8-PM

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

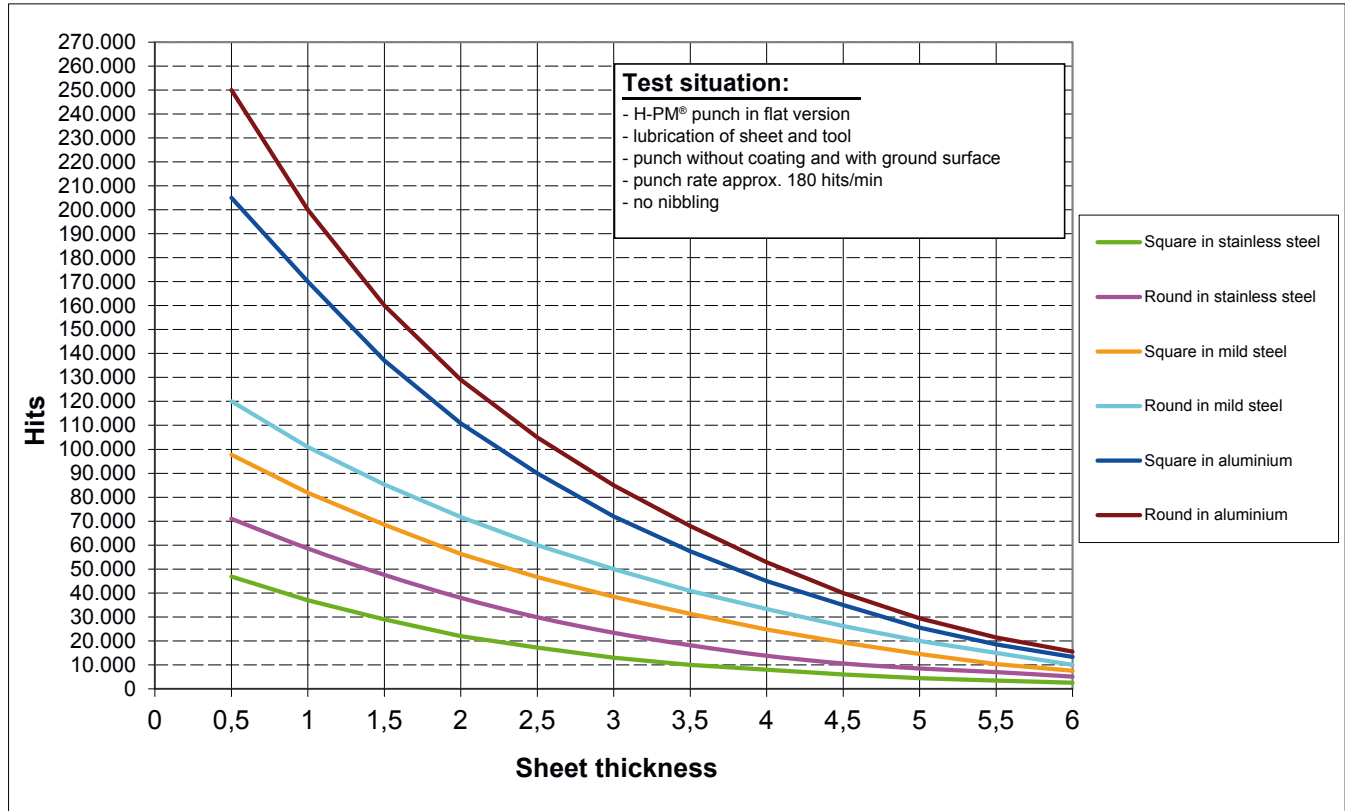
The high ductility of the segregational uniformed microstructure guarantees best possible fatigue limit. This kind of steel is especially suitable for dies with risk-breakage in regards to special shapes.

Advantage for customer:

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

# LIFE-TIME OF TOOLS | REGRIND ADVICE

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



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

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

# PASS COATING VERSIONS / DRAW-POLISHING

## TO REDUCE MATERIAL BUILD-UP

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

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

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

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

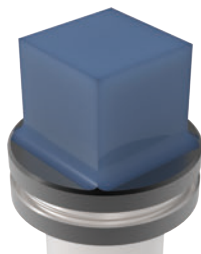
A high punch hardness as well as an excellent grinding surface are important in order to counteract the problem with edge-up.

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

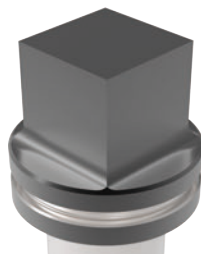
- zinc steel
- aluminium

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



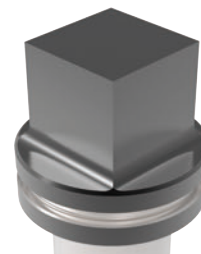
TiCN

for working with stainless steel



A-MAX

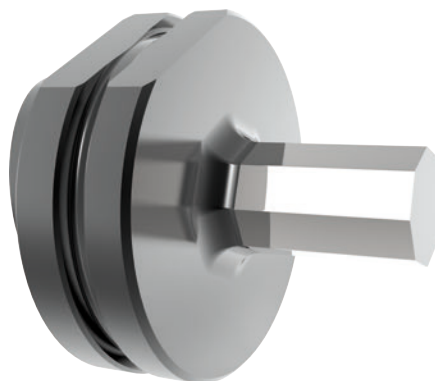
for dry processing with aluminium sheet



T-MAX

for working with galvanized sheet / zinc steel

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

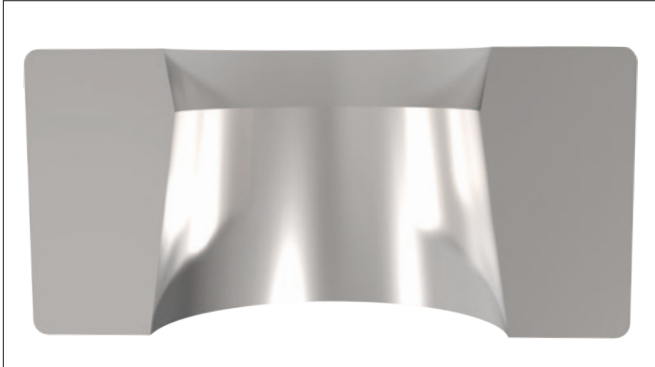




# DIE VERSIONS

## 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).

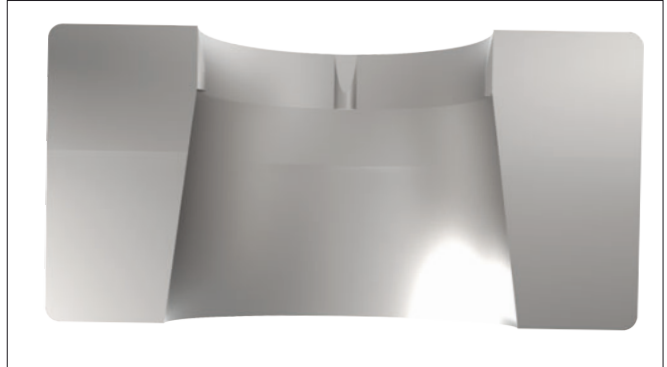
This means that the upper part of the cutting part is produced with a negative angle.

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)



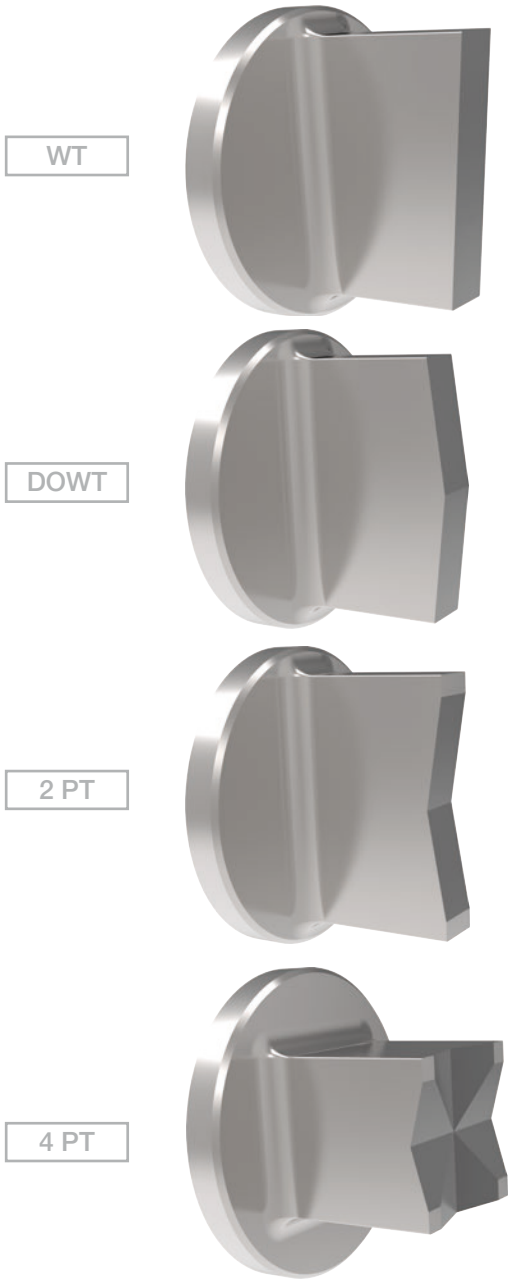
Alternatively we offer our slug-snap version (additional costs).

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



WT

DOWT

2 PT

4 PT

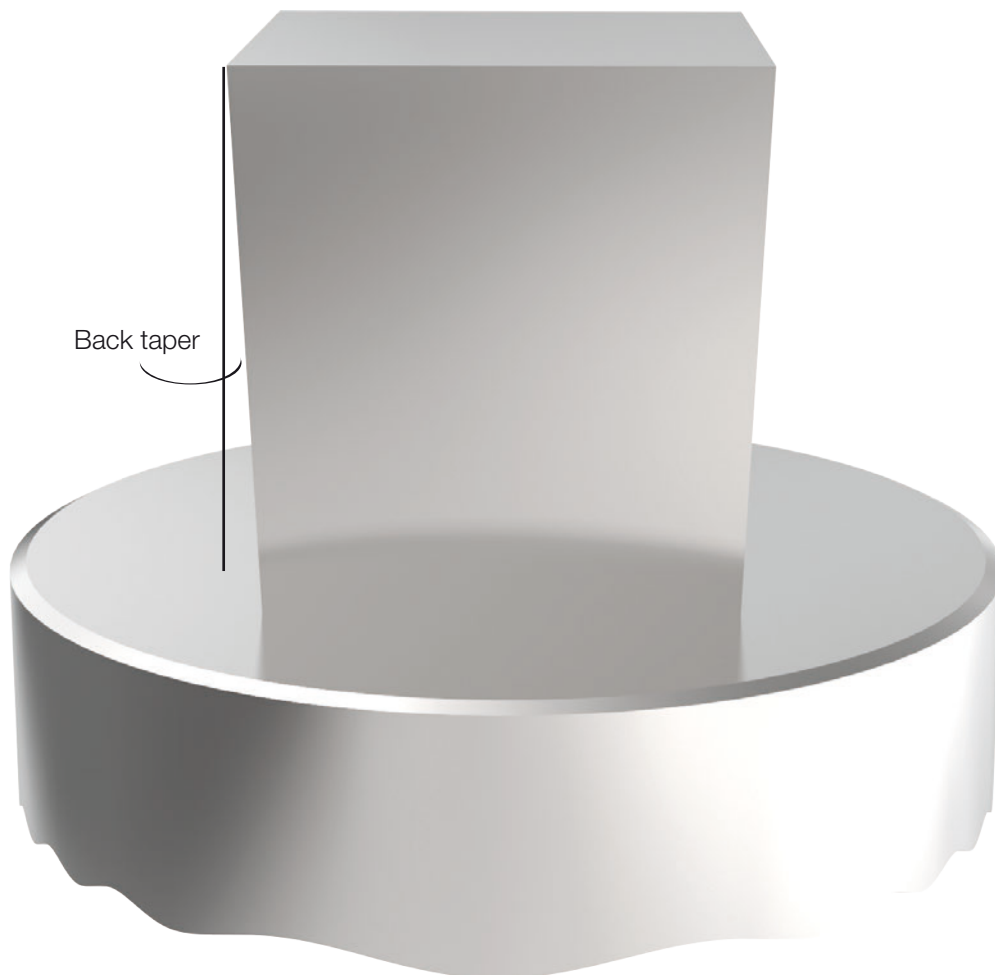
	DESCRIPTION
<b>WT</b>	
Advantage	easy regrindable
Disadvantage	lateral forces
<b>DOWT</b>	
Advantages	easy regrindable no lateral forces
Disadvantage	only reasonable for big shapes
<b>2 PT</b>	
Advantages	no lateral forces optimal die cutting
Disadvantages	only reasonable for big and slim shapes difficult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

# PASS BACK TAPER ON PUNCHES

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

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

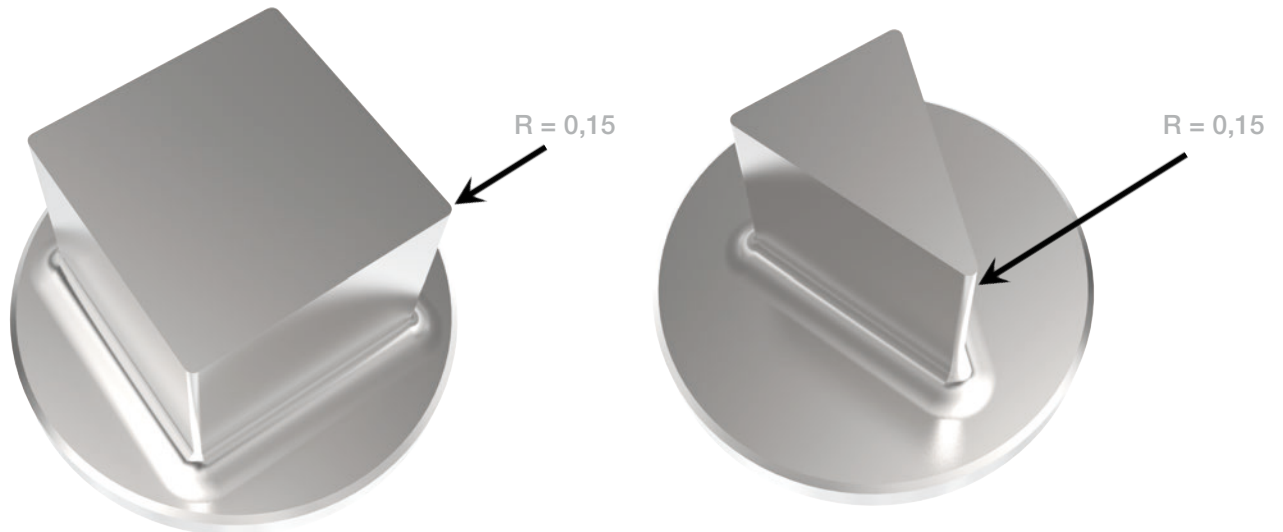
We recommend a line polished version for cutting parts, which have to be produced sink-eroded (special shape with internal shape, e.g. cross-form, U-form, etc.) and in high quality sheets.



# PASS CORNER RADIUS ON PUNCHES

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

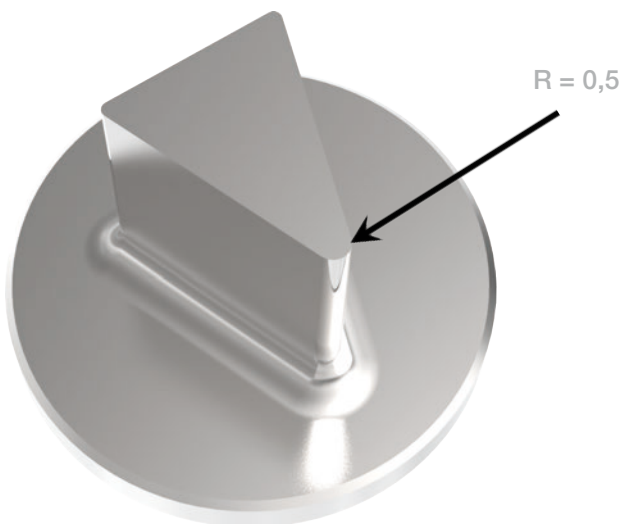
E.g.: square and triangle punch



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

E.g.:

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



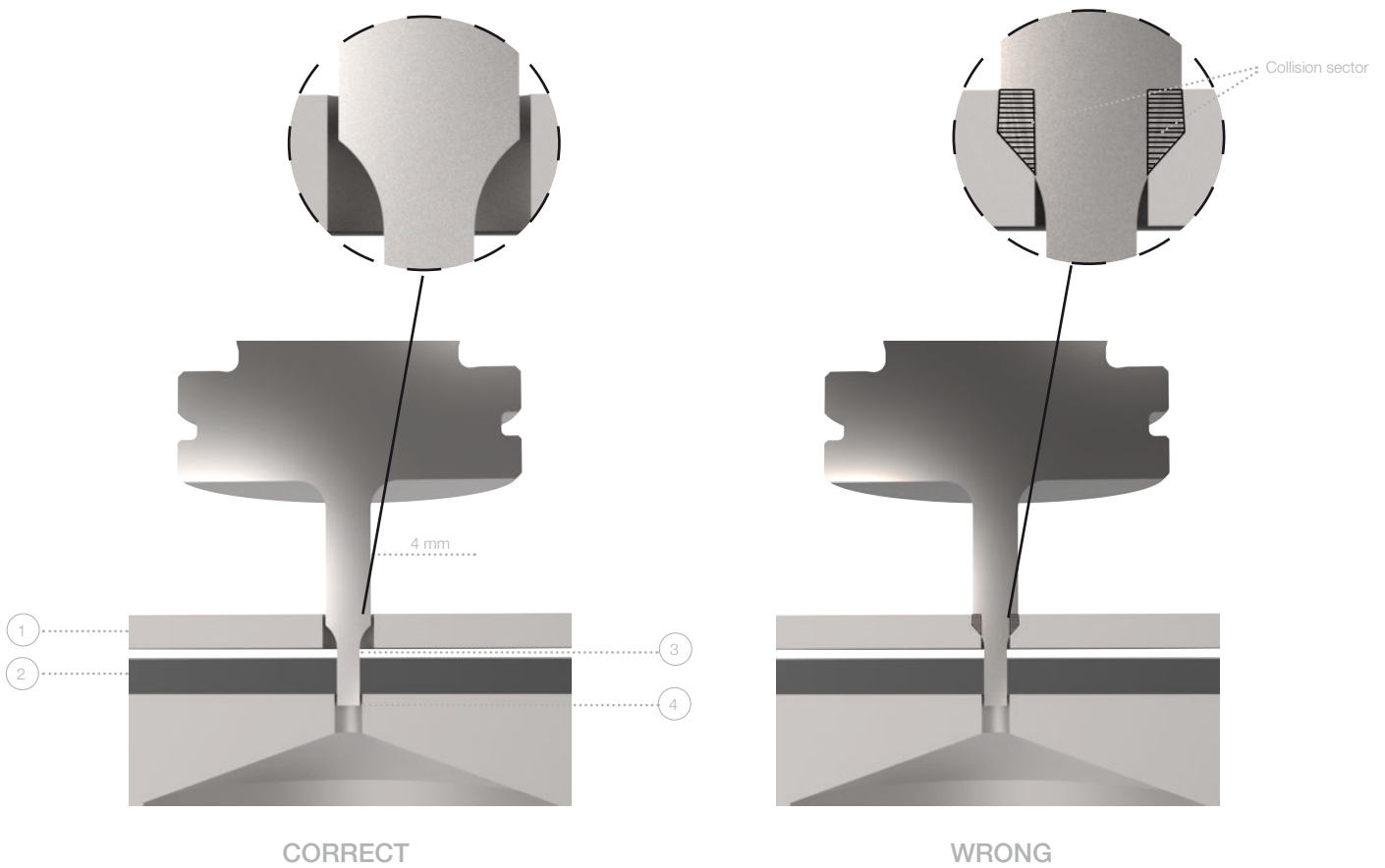
# PASS PUNCHES WITH REINFORCED SHOULDER

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

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

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

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



# NOTES

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

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