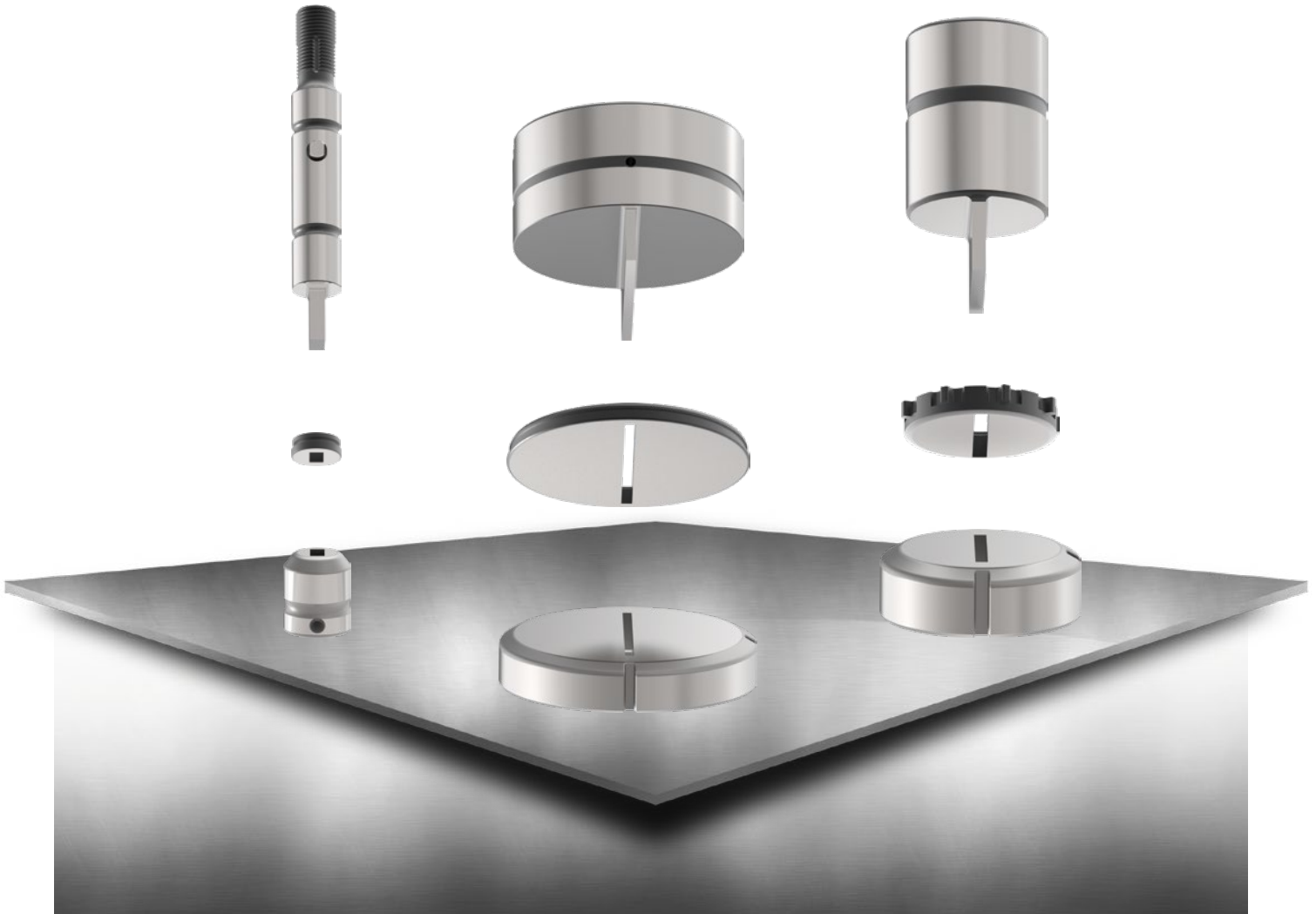




# CATALOG INSERTS FOR THIRD PARTY PRODUCTS 03/2023-PASS-WW



## 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)

## INSERTS FOR PRIMA POWER® GUIDE ASSEMBLIES

ps:®beta-V2® I Station A.....	page 6
ps:®beta-V2® I Station B.....	page 8
ps:®beta-V2® I Station C.....	page 10
ps:®beta-V2® I Station D.....	page 12
ps:®beta-V2® I Station E.....	page 14

## INSERTS FOR MATE® GUIDE ASSEMBLIES

Ultra® TEC®, Ultra® XT™ I Station A.....	page 18
Ultra® TEC®, Ultra® XT™ I Station B.....	page 20
Ultra® TEC® I Station C.....	page 22
Ultra® XT™ I Station C.....	page 24
Ultra® TEC® I Station D.....	page 26
Ultra® XT™ I Station D.....	page 28
Ultra® TEC® I Station E.....	page 30
Ultra® XT™ I Station E.....	page 32

## INSERTS FOR WILSON® GUIDE ASSEMBLIES

Serie 90, HP I Station A.....	page 36
Serie 90 WLS, HP WLS I Station A.....	page 38
Serie 90, HP I Station B.....	page 40
Serie 90 WLS, HP WLS I Station B.....	page 42
Serie 80, HP, HP WLS I Station C.....	page 44
Serie 80, HP, HP WLS I Station D.....	page 46
Serie 80, HP, HP WLS I Station E.....	page 48

## TECHNICAL INFORMATION

PASS Tool variety I Coatings.....	page 50
-----------------------------------	---------



# INSERTS FOR PRIMA POWER® GUIDE ASSEMBLIES

## Index

ps:®beta-V2® I Station A	page 6
ps:®beta-V2® I Station B	page 8
ps:®beta-V2® I Station C	page 10
ps:®beta-V2® I Station D	page 12
ps:®beta-V2® I Station E	page 14

# ps:®beta-V2® | STATION A

DIAMETER UP TO 12,7 MM



# ps:®beta-V2® | STATION A

DIAMETER UP TO 12,7 MM

PART-NO.

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

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

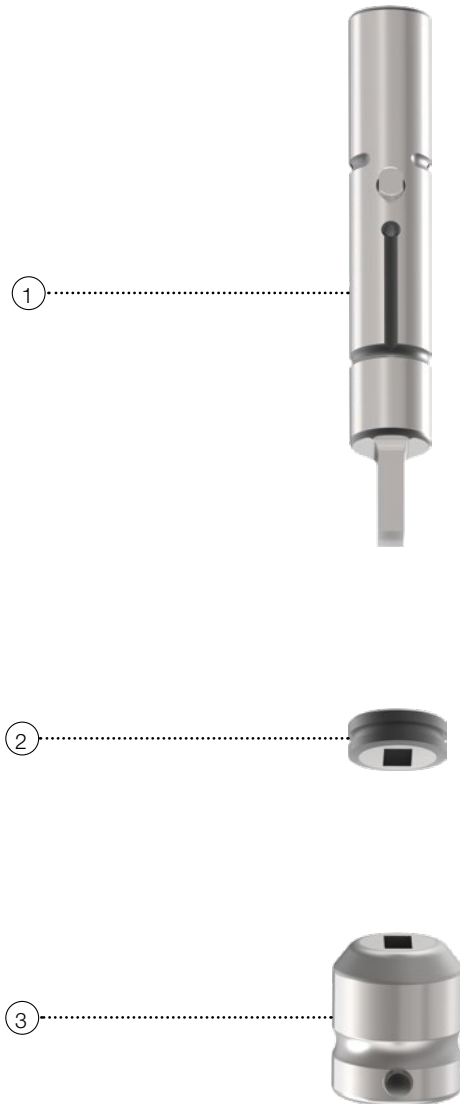
DIE (HWS)		
Round	4052A01	
Square	4052A02	
Rectangle	4052A03	
Oblong	4052A04	
O.D. Ground Special Shape	4052A0G	
EDM Required Special Shape	4052A0E	

## 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 DIES

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



# ps:®beta-V2® | STATION B

DIAMETER UP TO 31,75 MM





# ps:®beta-V2® | STATION B

DIAMETER UP TO 31,75 MM

PART-NO.

PUNCH BODY (H-PM®)		
Round		4020B01
Square		4020B02
Rectangle		4020B03
Oblong		4020B04
O.D. Ground Special Shape		4020B0G
EDM Required Special Shape		4020B0E

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

## 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 DIES

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



# ps:®beta-V2® | STATION C

DIAMETER UP TO 50,8 MM



# ps:®beta-V2® | STATION C

DIAMETER UP TO 50,8 MM

PART-NO.

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	

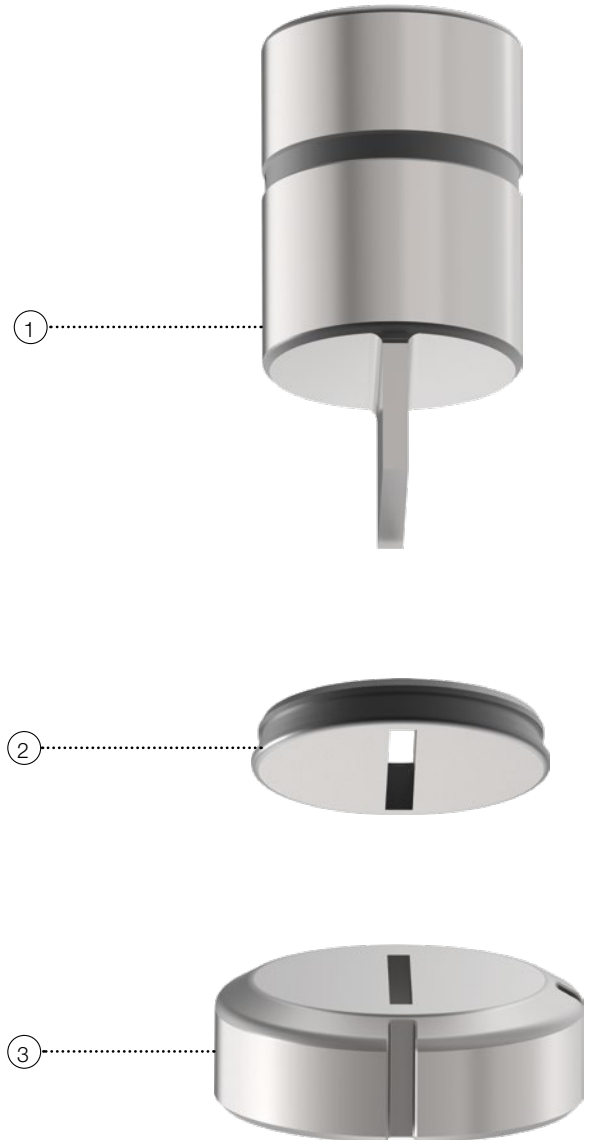
DIE (HWS)		
Round	4052C01	
Square	4052C02	
Rectangle	4052C03	
Oblong	4052C04	
O.D. Ground Special Shape	4052C0G	
EDM Required Special Shape	4052C0E	

## 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 DIES

- H-PM® Quality
- Additional keyway



# ps:®beta-V2® | STATION D

DIAMETER UP TO 88,9 MM



# ps:®beta-V2® | STATION D

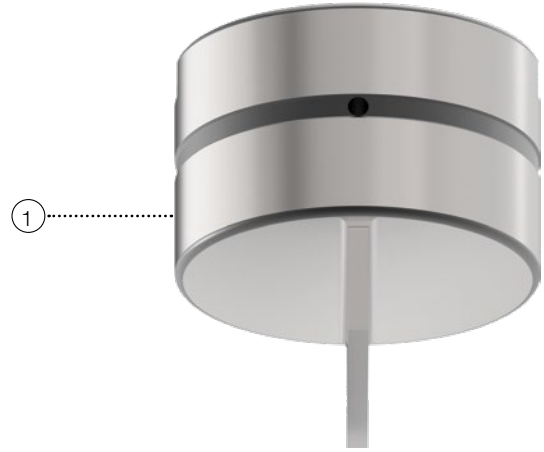
DIAMETER UP TO 88,9 MM

PART-NO.

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



## ADDITIONAL COSTS FOR PUNCH

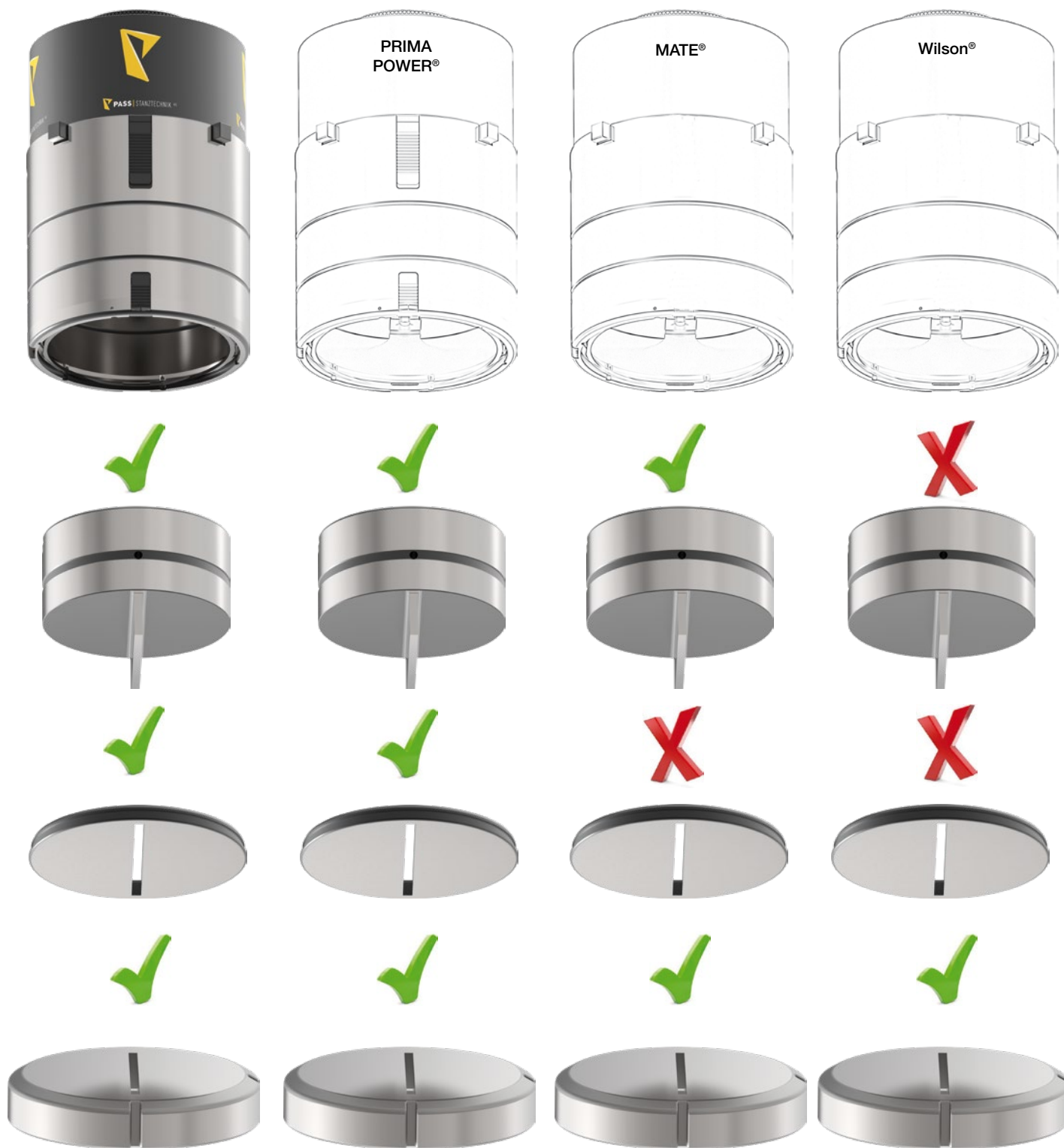
- TICN coating
- T-MAX coating
- A-MAX coating
- WT-shear
- DOWT-shear
- 2 PT-shear
- 4 PT-shear
- Additional keyway
- Cutting part under 1,00 mm

## ADDITIONAL COSTS FOR DIES

- H-PM® Quality
- Additional keyway

# ps:®beta-V2® | STATION E

DIAMETER UP TO 114,3 MM



# ps:®beta-V2® | STATION E

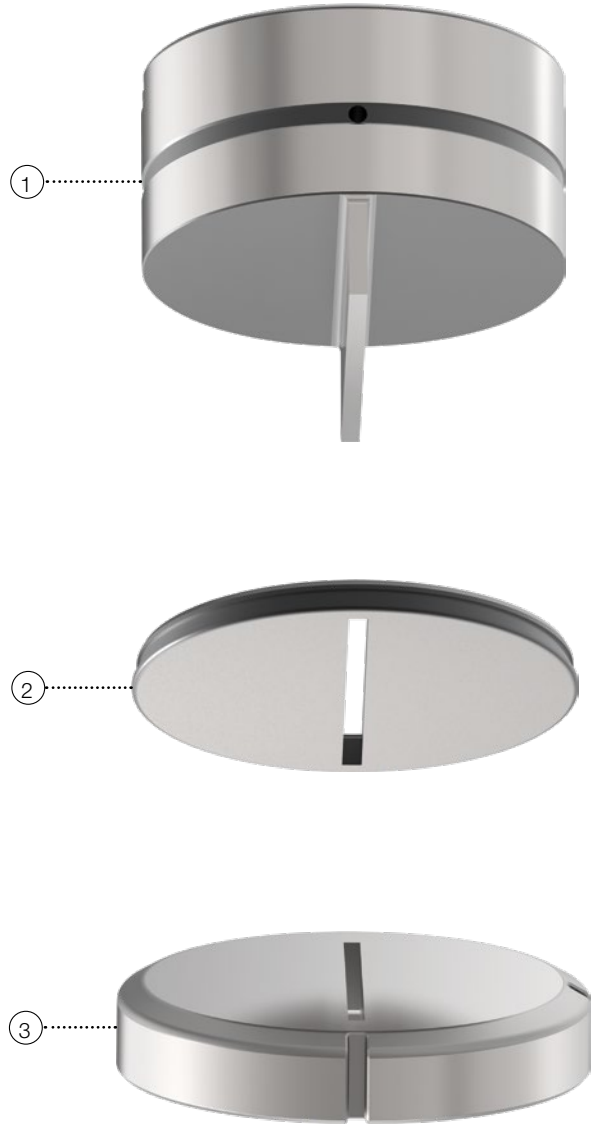
DIAMETER UP TO 114,3 MM

PART-NO.

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



## 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 DIES

- H-PM® Quality
- Additional keyway





# INSERTS FOR MATE® GUIDE ASSEMBLIES

## Index

Ultra® TEC®, Ultra® XT™   Station A	page 18
Ultra® TEC®, Ultra® XT™   Station B	page 20
Ultra® TEC®   Station C	page 22
Ultra® XT™   Station C	page 24
Ultra® TEC®   Station D	page 26
Ultra® XT™   Station D	page 28
Ultra® TEC®   Station E	page 30
Ultra® XT™   Station E	page 32

# ULTRA® TEC®, ULTRA® XT™ | STATION A

DIAMETER UP TO 12,7 MM



# ULTRA<sup>®</sup> TEC<sup>®</sup>, ULTRA<sup>®</sup> XT<sup>™</sup> | STATION A

DIAMETER UP TO 12,7 MM

PART-NO.

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

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

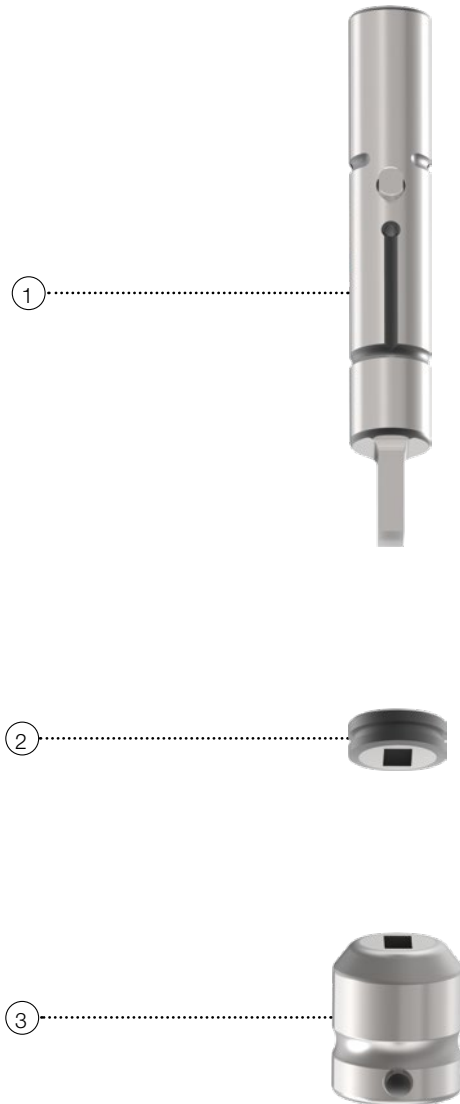
DIE (HWS)		
Round		4052A01
Square		4052A02
Rectangle		4052A03
Oblong		4052A04
O.D. Ground Special Shape		4052A0G
EDM Required Special Shape		4052A0E

## 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 DIES

- Reinforced die
- H-PM<sup>®</sup> Quality
- Additional pin hole



# ULTRA® TEC®, ULTRA® XT™ | STATION B

DIAMETER UP TO 31,75 MM



# ULTRA<sup>®</sup> TEC<sup>®</sup>, ULTRA<sup>®</sup> XT<sup>™</sup> | STATION B

DIAMETER UP TO 31,75 MM

PART-NO.

PUNCH BODY (H-PM <sup>®</sup> )		
Round		4020B01
Square		4020B02
Rectangle		4020B03
Oblong		4020B04
O.D. Ground Special Shape		4020B0G
EDM Required Special Shape		4020B0E

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

## 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 DIES

- Reinforced die
- H-PM<sup>®</sup> Quality
- Additional pin hole



# ULTRA® TEC® I STATION C

DIAMETER UP TO 50,8 MM



# ULTRA® TEC® | STATION C

DIAMETER UP TO 50,8 MM

PART NO.

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		461C11
Square		461C12
Rectangle		461C13
Oblong		461C14
O.D. Ground Special Shape		461C1G
EDM Required Special Shape		461C1E

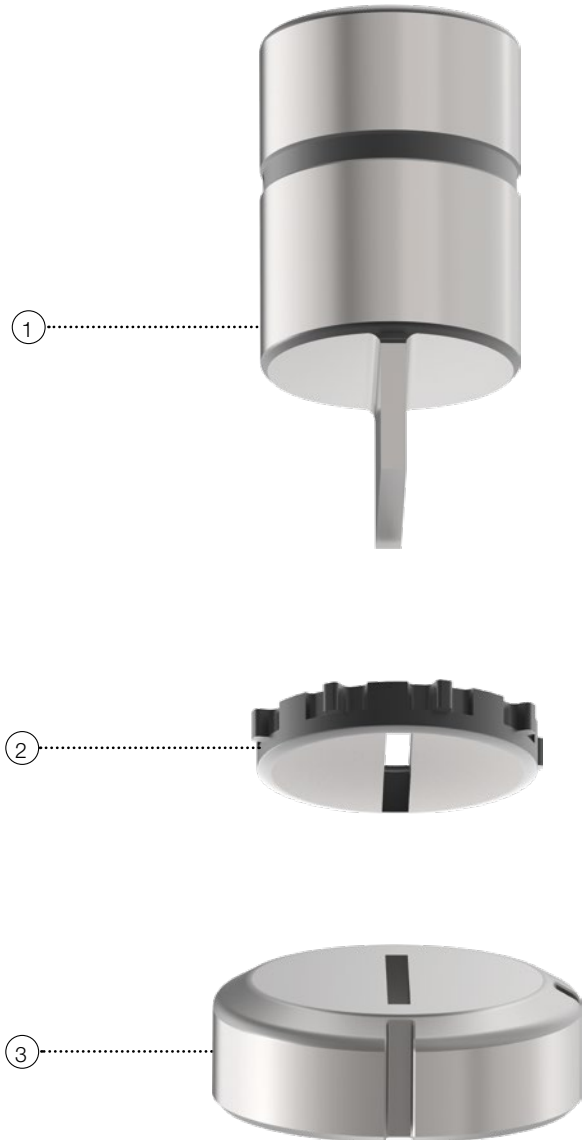
DIE (HWS)		
Round		4052C01
Square		4052C02
Rectangle		4052C03
Oblong		4052C04
O.D. Ground Special Shape		4052C0G
EDM Required Special Shape		4052C0E

## 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 DIES

- H-PM® Quality
- Additional pin hole



# ULTRA® XT™ | STATION C

DIAMETER UP TO 50,8 MM





# ULTRA® XT™ | STATION C

DIAMETER UP TO 50,8 MM

PART-NO.

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

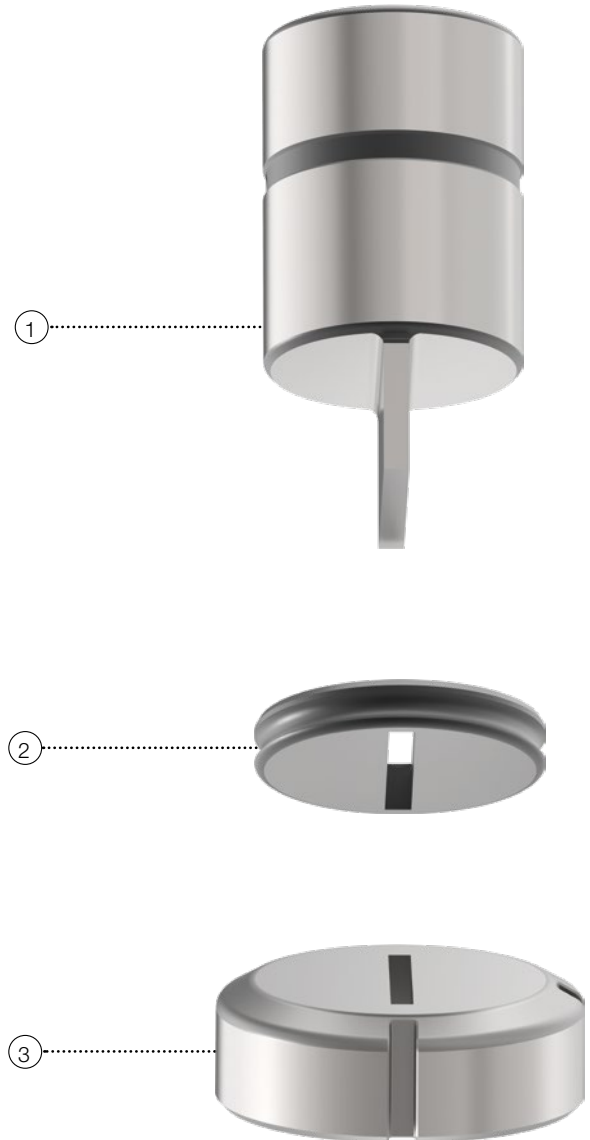
DIE (HWS)		
Round		4052C01
Square		4052C02
Rectangle		4052C03
Oblong		4052C04
O.D. Ground Special Shape		4052C0G
EDM Required Special Shape		4052C0E

## 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 DIES

- H-PM® Quality
- Additional pin hole



# ULTRA® TEC® I STATION D

DIAMETER UP TO 88,9 MM



# ULTRA<sup>®</sup> TEC<sup>®</sup> | STATION D

DIAMETER UP TO 88,9 MM

PART-NO.

PUNCH BODY (H-PM <sup>®</sup> )		
Round		4020D01
Square		4020D02
Rectangle		4020D03
Oblong		4020D04
O.D. Ground Special Shape		4020D0G
EDM Required Special Shape		4020D0E

STRIPPER		
Round		461D11
Square		461D12
Rectangle		461D13
Oblong		461D14
O.D. Ground Special Shape		461D1G
EDM Required Special Shape		461D1E

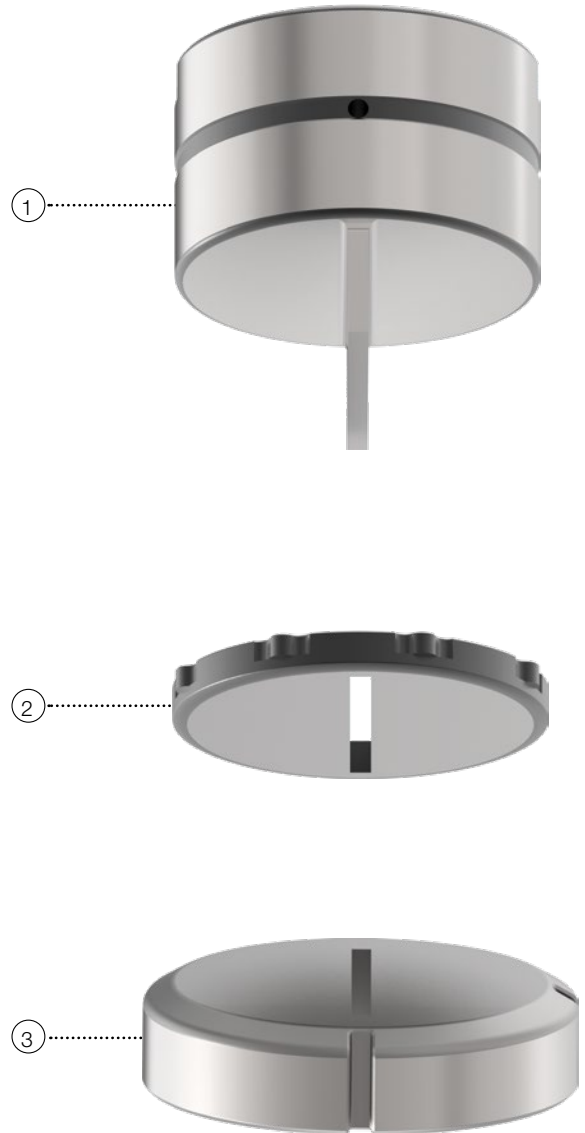
DIE (HWS)		
Round		4052D01
Square		4052D02
Rectangle		4052D03
Oblong		4052D04
O.D. Ground Special Shape		4052D0G
EDM Required Special Shape		4052D0E

## 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 DIES

- H-PM<sup>®</sup> Quality
- Additional keyway



# ULTRA® XT™ | STATION D

DIAMETER UP TO 88,9 MM



# ULTRA® XT™ | STATION D

DIAMETER UP TO 88,9 MM

PART-NO.

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

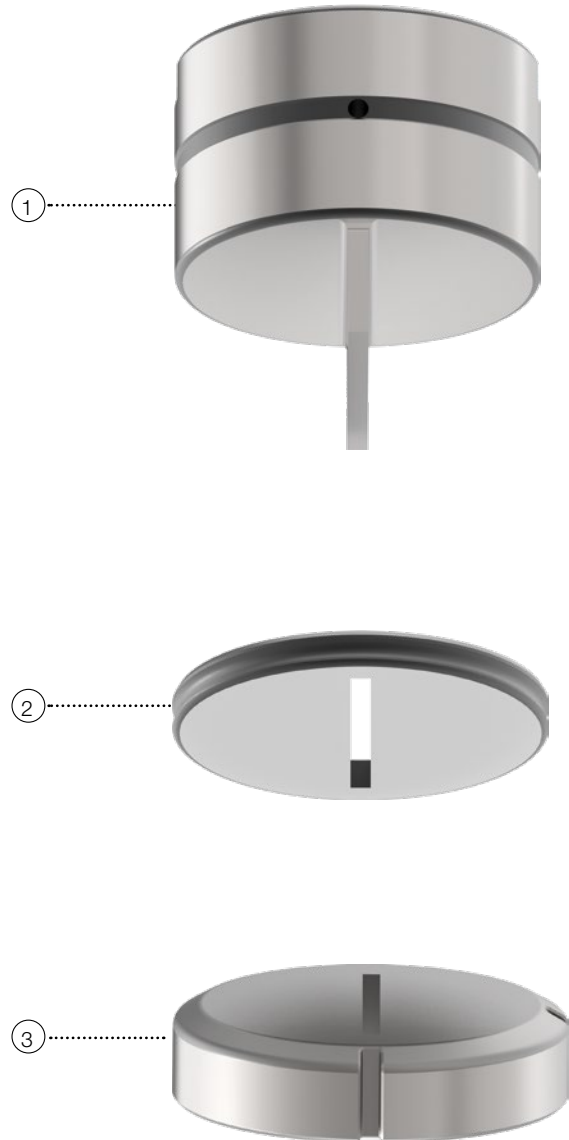
DIE (HWS)		
Round		4052D01
Square		4052D02
Rectangle		4052D03
Oblong		4052D04
O.D. Ground Special Shape		4052D0G
EDM Required Special Shape		4052D0E

## 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 DIES

- H-PM® Quality
- Additional keyway



# ULTRA® TEC® I STATION E

DIAMETER UP TO 114,3 MM



# ULTRA<sup>®</sup> TEC<sup>®</sup> | STATION E

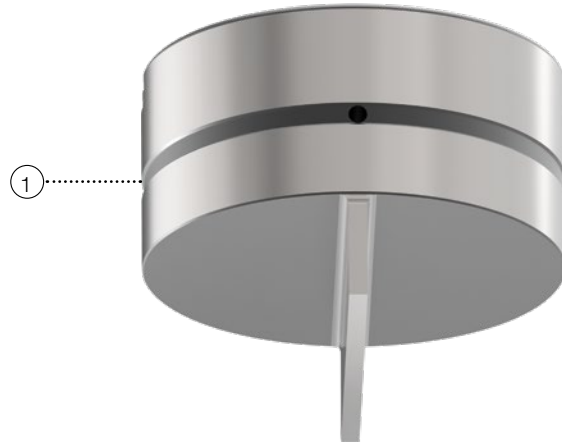
DIAMETER UP TO 114,3 MM

PART-NO.

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

STRIPPER	
Round	461E11
Square	461E12
Rectangle	461E13
Oblong	461E14
O.D. Ground Special Shape	461E1G
EDM Required Special Shape	461E1E

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



## 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 DIES

- H-PM<sup>®</sup> Quality
- Additional keyway

# ULTRA® XT™ | STATION E

DIAMETER UP TO 114,3 MM





# ULTRA<sup>®</sup> XT<sup>™</sup> | STATION E

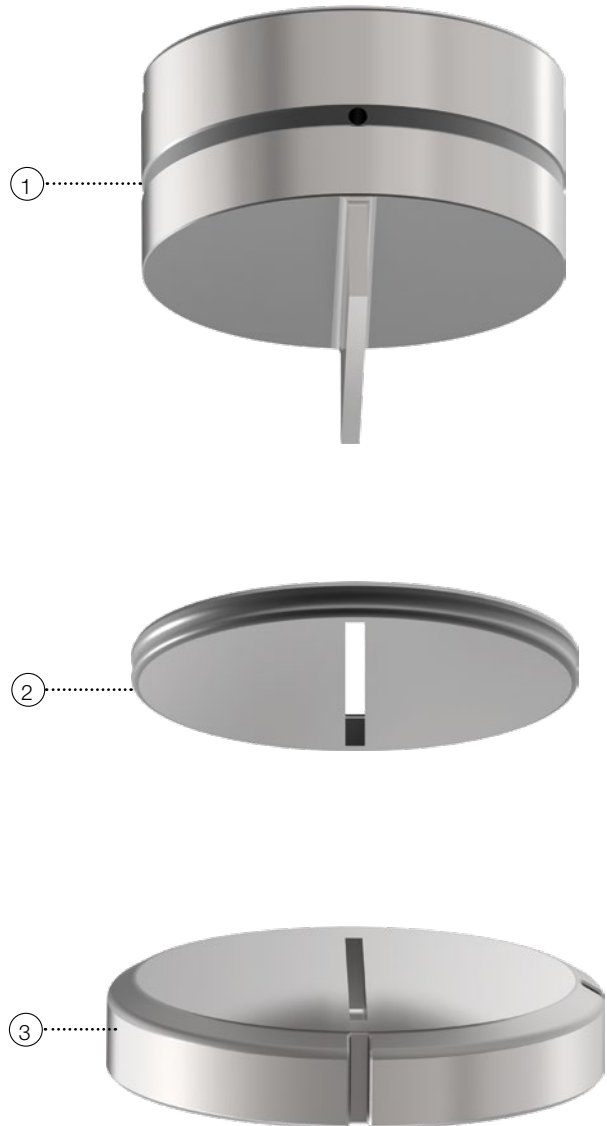
DIAMETER UP TO 114,3 MM

PART-NO.

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

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	



## 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 DIES

- H-PM<sup>®</sup> Quality
- Additional keyway



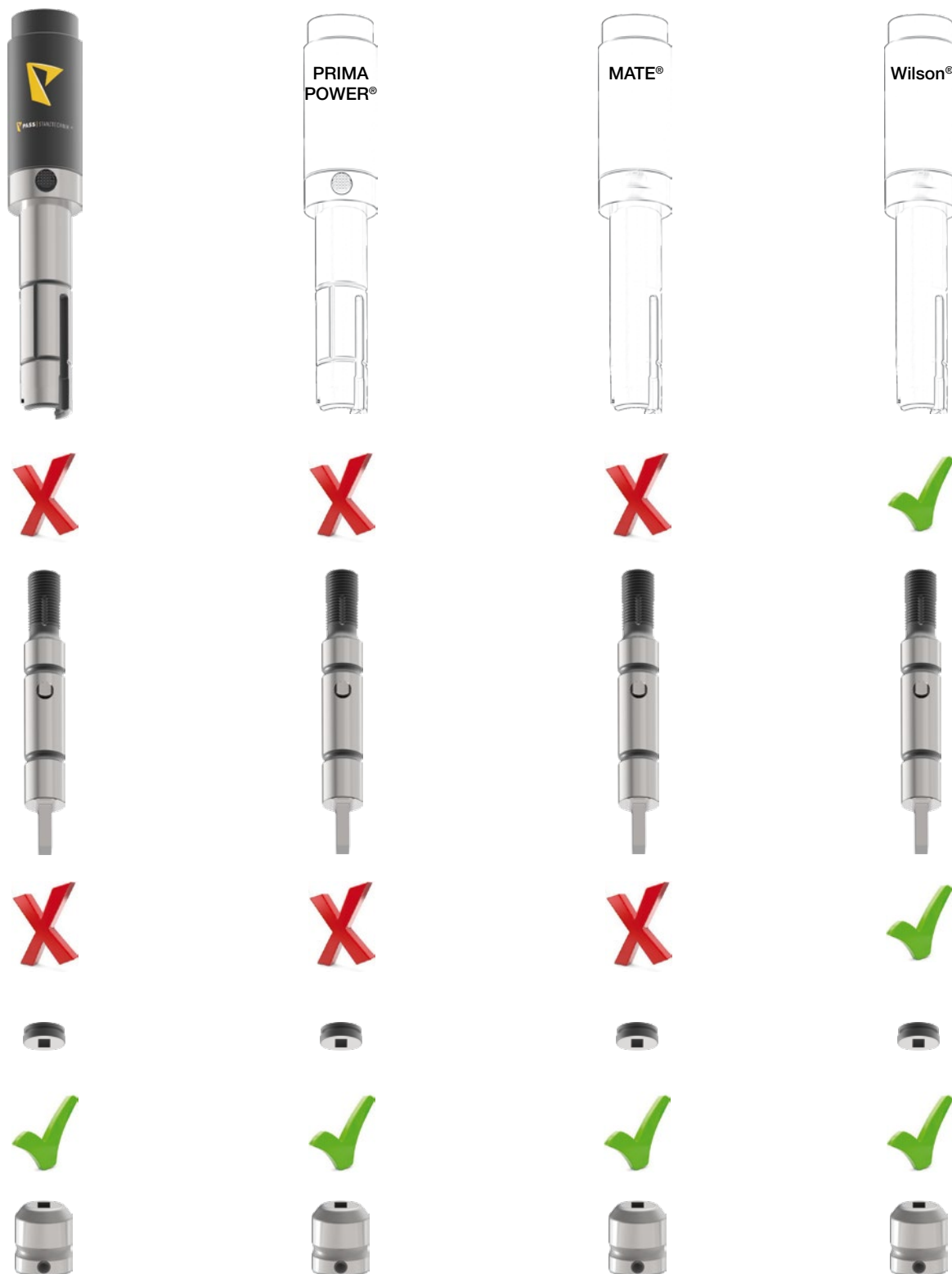
# INSERTS FOR WILSON® GUIDE ASSEMBLIES

## Index

Serie 90, HP I Station A	page 36
Serie 90 WLS, HP WLS I Station A	page 38
Serie 90, HP I Station B	page 40
Serie 90 WLS, HP WLS I Station B	page 42
Serie 80, HP, HP WLS I Station C	page 44
Serie 80, HP, HP WLS I Station D	page 46
Serie 80, HP, HP WLS I Station E	page 48

# SERIE 90, HP I STATION A

DIAMETER UP TO 12,7 MM



# SERIE 90, HP I STATION A

DIAMETER UP TO 12,7 MM

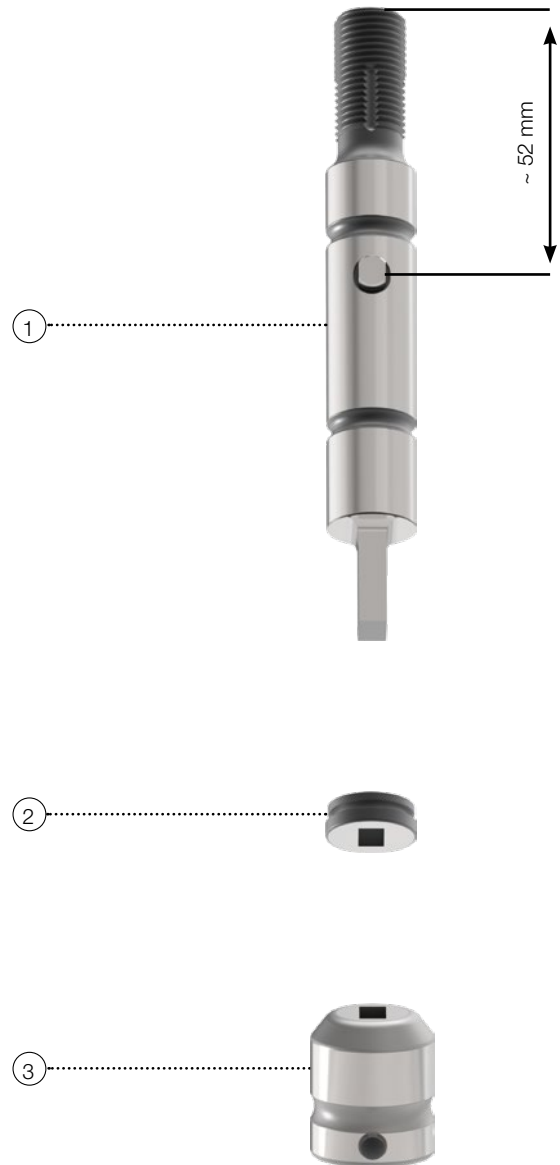
		PART-NO.
<b>PUNCH (H-PM®)</b>		
	Round	422A21
	Square	422A22
	Rectangle	422A23
	Oblong	422A24
	O.D. Ground Special Shape	422A2G
	EDM Required Special Shape	422A2E
<b>STRIPPER</b>		
	Round	461A21
	Square	461A22
	Rectangle	461A23
	Oblong	461A24
	O.D. Ground Special Shape	461A2G
	EDM Required Special Shape	461A2E
<b>DIE (HWS)</b>		
	Round	4052A01
	Square	4052A02
	Rectangle	4052A03
	Oblong	4052A04
	O.D. Ground Special Shape	4052A0G
	EDM Required Special Shape	4052A0E

## ADDITIONAL COSTS FOR PUNCHES

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

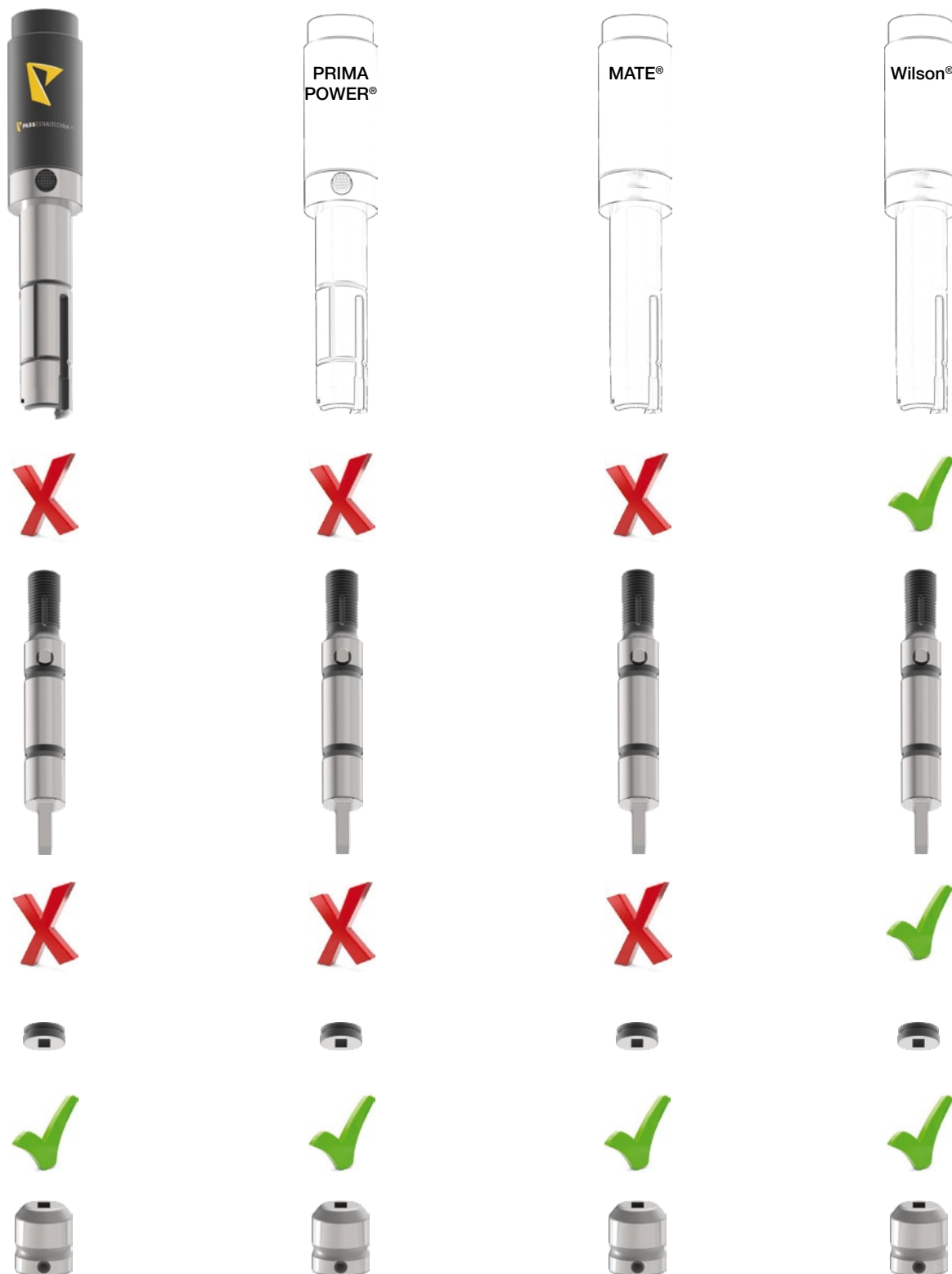
## ADDITIONAL COSTS FOR DIES

Reinforced version  
 H-PM® Quality



# SERIE 90 WLS, HP WLS | STATION A

DIAMETER UP TO 12,7 MM



# SERIE 90 WLS, HP WLS I STATION A

DIAMETER UP TO 12,7 MM

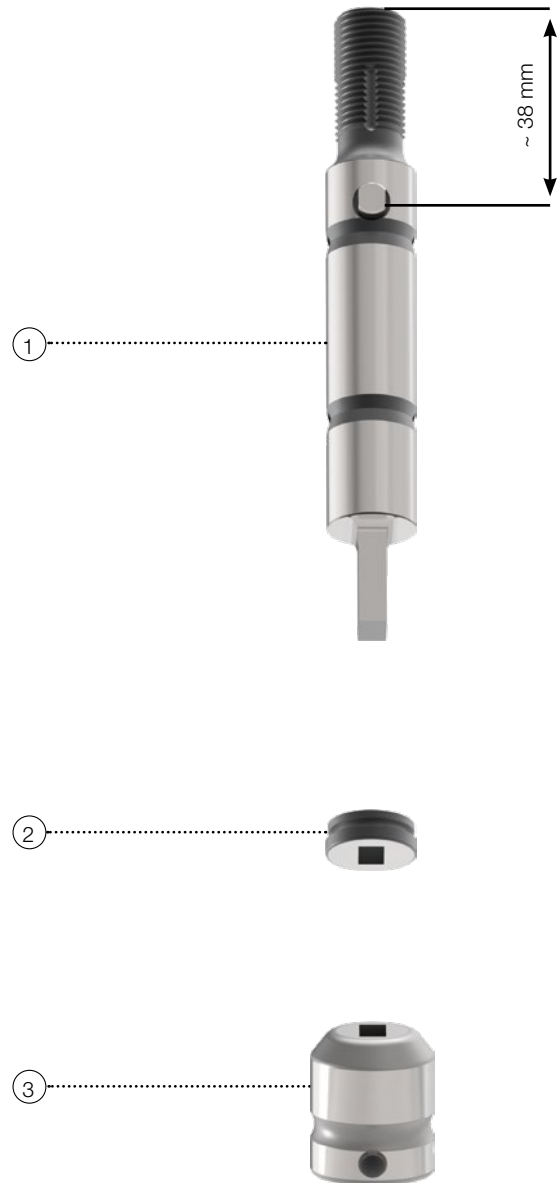
		PART-NO.
<b>PUNCH (H-PM®)</b>		
	Round	422A41
	Square	422A42
	Rectangle	422A43
	Oblong	422A44
	O.D. Ground Special Shape	422A4G
	EDM Required Special Shape	422A4E
<b>STRIPPER</b>		
	Round	461A41
	Square	461A42
	Rectangle	461A43
	Oblong	461A44
	O.D. Ground Special Shape	461A4G
	EDM Required Special Shape	461A4E
<b>DIE (HWS)</b>		
	Round	4052A01
	Square	4052A02
	Rectangle	4052A03
	Oblong	4052A04
	O.D. Ground Special Shape	4052A0G
	EDM Required Special Shape	4052A0E

## ADDITIONAL COSTS FOR PUNCHES

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

## ADDITIONAL COSTS FOR DIES

- Reinforced version
- H-PM® Quality



# SERIE 90, HP I STATION B

DIAMETER UP TO 31,75 MM





# SERIE 90, HP I STATION B

DIAMETER UP TO 31,75 MM

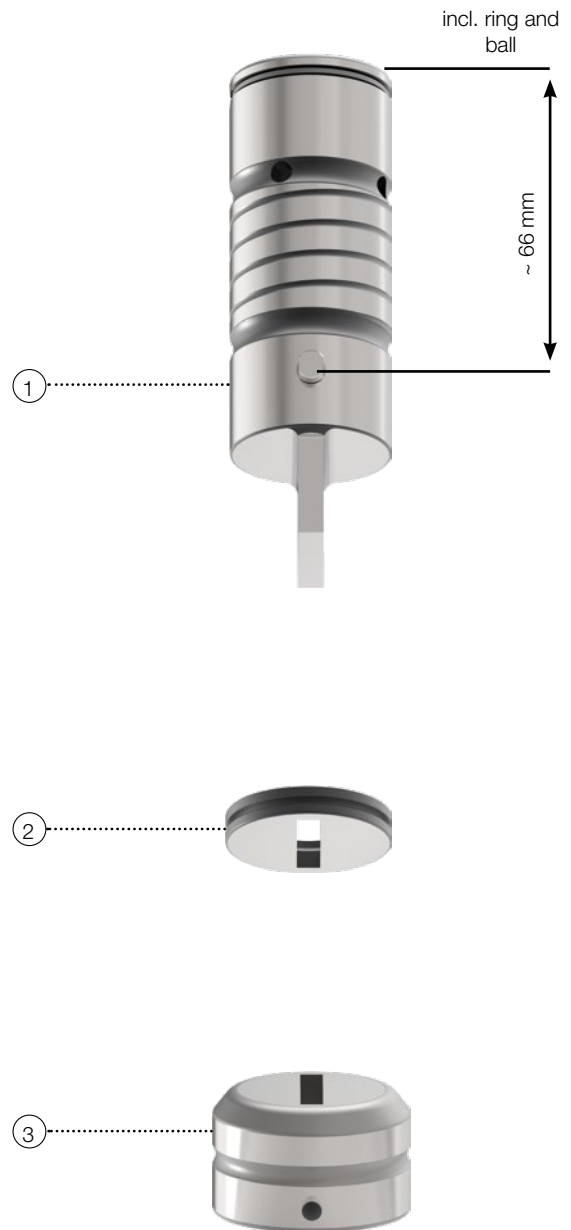
		PART-NO.
<b>PUNCH (H-PM®)</b>		
	Round	422B21
	Square	422B22
	Rectangle	422B23
	Oblong	422B24
	O.D. Ground Special Shape	422B2G
	EDM Required Special Shape	422B2E
<b>STRIPPER</b>		
	Round	461B21
	Square	461B22
	Rectangle	461B23
	Oblong	461B24
	O.D. Ground Special Shape	461B2G
	EDM Required Special Shape	461B2E
<b>DIE (HWS)</b>		
	Round	4052B01
	Square	4052B02
	Rectangle	4052B03
	Oblong	4052B04
	O.D. Ground Special Shape	4052B0G
	EDM Required Special Shape	4052B0E

#### ADDITIONAL COSTS FOR PUNCHES

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

#### ADDITIONAL COSTS FOR DIES

Reinforced version  
 H-PM® Quality



# SERIE 90 WLS, HP WLS I STATION B

DIAMETER UP TO 31,75 MM



# SERIE 90 WLS, HP WLS I STATION B

DIAMETER UP TO 31,75 MM

		PART-NO.
<b>PUNCH (H-PM®)</b>		
	Round	422B41
	Square	422B42
	Rectangle	422B43
	Oblong	422B44
	O.D. Ground Special Shape	422B4G
	EDM Required Special Shape	422B4E

<b>STRIPPER</b>		
	Round	461B41
	Square	461B42
	Rectangle	461B43
	Oblong	461B44
	O.D. Ground Special Shape	461B4G
	EDM Required Special Shape	461B4E

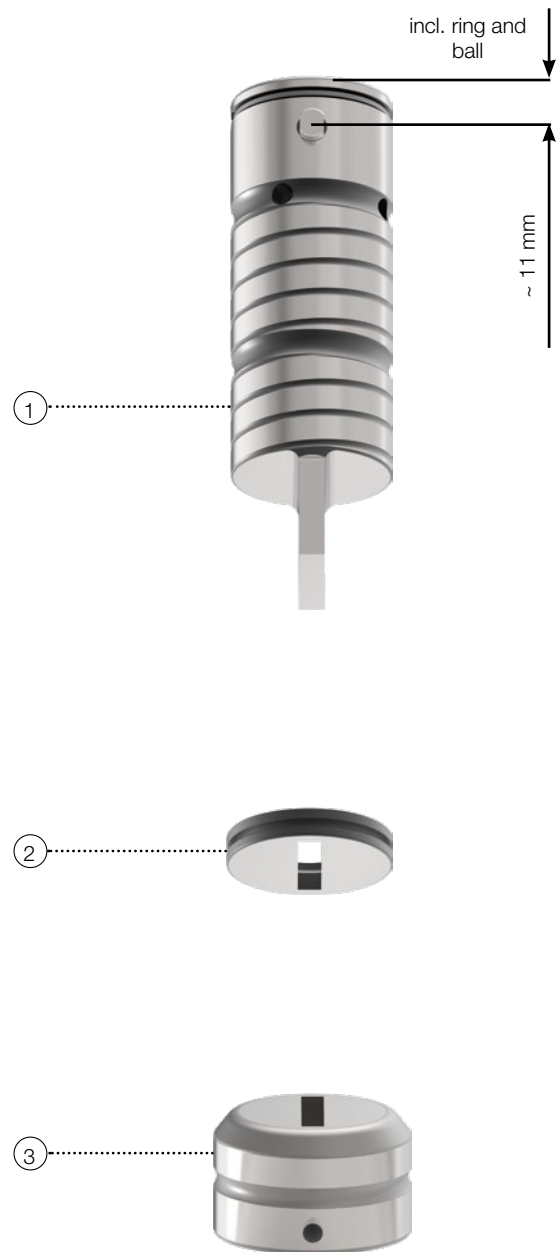
<b>DIE (HWS)</b>		
	Round	4052B01
	Square	4052B02
	Rectangle	4052B03
	Oblong	4052B04
	O.D. Ground Special Shape	4052B0G
	EDM Required Special Shape	4052B0E

#### ADDITIONAL COSTS FOR PUNCHES

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

#### ADDITIONAL COSTS FOR DIES

Reinforced version  
 H-PM® Quality

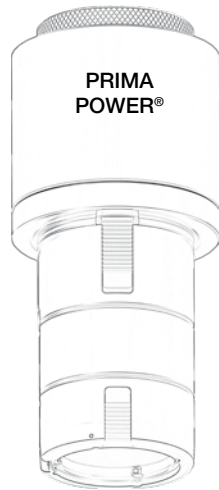


# SERIE 80, HP, HP WLS | STATION C

DIAMETER UP TO 50,8 MM



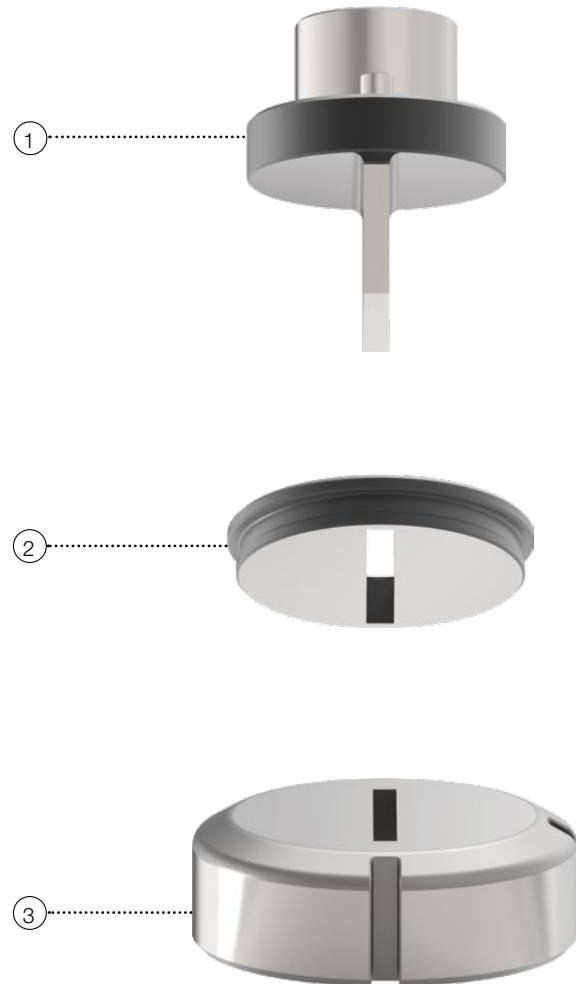
Adapter set for punch (code 635448) possible  
- price on request -



# SERIE 80, HP, HP WLS | STATION C

DIAMETER UP TO 50,8 MM

		PART-NO.
<b>PUNCH (H-PM®)</b>		
	Round	422C21
	Square	422C22
	Rectangle	422C23
	Oblong	422C24
	O.D. Ground Special Shape	422C2G
	EDM Required Special Shape	422C2E
<b>STRIPPER</b>		
	Round	461C21
	Square	461C22
	Rectangle	461C23
	Oblong	461C24
	O.D. Ground Special Shape	461C2G
	EDM Required Special Shape	461C2E
<b>DIE (HWS)</b>		
	Round	4052C01
	Square	4052C02
	Rectangle	4052C03
	Oblong	4052C04
	O.D. Ground Special Shape	4052C0G
	EDM Required Special Shape	4052C0E



## ADDITIONAL COSTS FOR PUNCHES

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

## ADDITIONAL COSTS FOR DIES

- H-PM® Quality

# SERIE 80, HP, HP WLS | STATION D

DIAMETER UP TO 88,9 MM



Adapter set for punch (code 667636) possible  
- price on request -

# SERIE 80, HP, HP WLS | STATION D

DIAMETER UP TO 88,9 MM

	PART-NO.
<b>PUNCH (H-PM®)</b>	
Round	422D21
Square	422D22
Rectangle	422D23
Oblong	422D24
O.D. Ground Special Shape	422D2G
EDM Required Special Shape	422D2E
<b>STRIPPER</b>	
Round	461D21
Square	461D22
Rectangle	461D23
Oblong	461D24
O.D. Ground Special Shape	461D2G
EDM Required Special Shape	461D2E
<b>DIE (HWS)</b>	
Round	4052D01
Square	4052D02
Rectangle	4052D03
Oblong	4052D04
O.D. Ground Special Shape	4052D0G
EDM Required Special Shape	4052D0E



## ADDITIONAL COSTS FOR PUNCHES

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

## ADDITIONAL COSTS FOR DIES

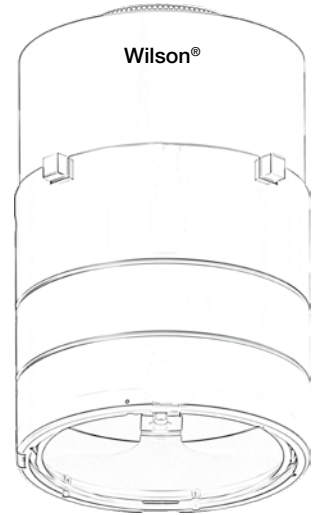
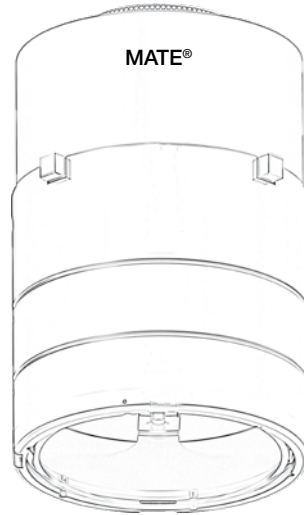
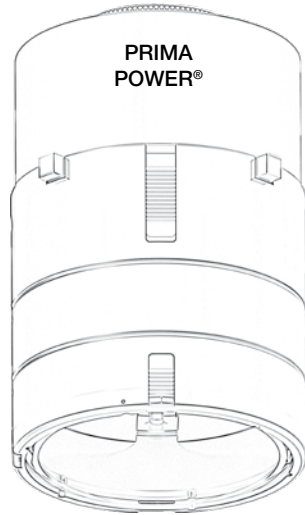
H-PM® Quality

# SERIE 80, HP, HP WLS | STATION E

DIAMETER UP TO 114,3 MM



Adapter set for punch on request





# SERIE 80, HP, HP WLS I STATION E

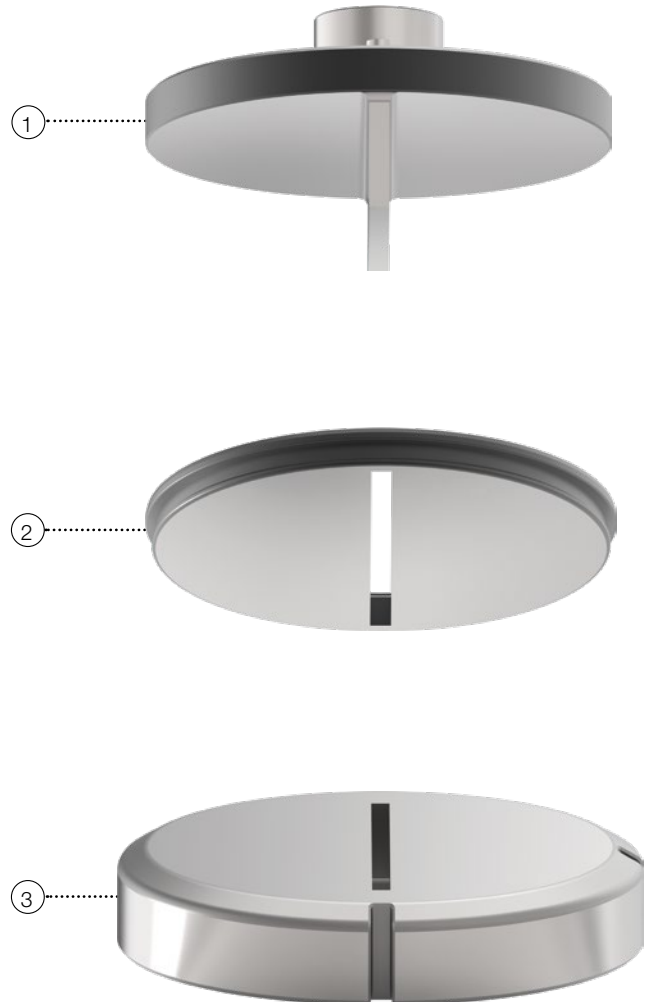
DIAMETER UP TO 114,3 MM

PART-NO.

PUNCH (H-PM®)		
	Round	422E21
	Square	422E22
	Rectangle	422E23
	Oblong	422E24
	O.D. Ground Special Shape	422E2G
	EDM Required Special Shape	422E2E

STRIPPER		
	Round	461E21
	Square	461E22
	Rectangle	461E23
	Oblong	461E24
	O.D. Ground Special Shape	461E2G
	EDM Required Special Shape	461E2E

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



## ADDITIONAL COSTS FOR PUNCHES

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

## ADDITIONAL COSTS FOR DIES

- H-PM® Quality

# PASS TOOL VARIETY | COATINGS

## 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 lifetime due to the uniformed microstructure
- increased current hit-flex-capability; suitable as an excellent base for dies

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 temporing and deep-freeze subsequently.

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

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

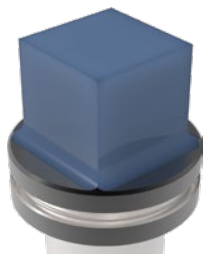
A high punch hardness as well as an excellent grinding surface are important in order to counteract the problem with edge build-up.

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

Built-up edges are known especially when working with

- galvanised steel
- aluminium sheets

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



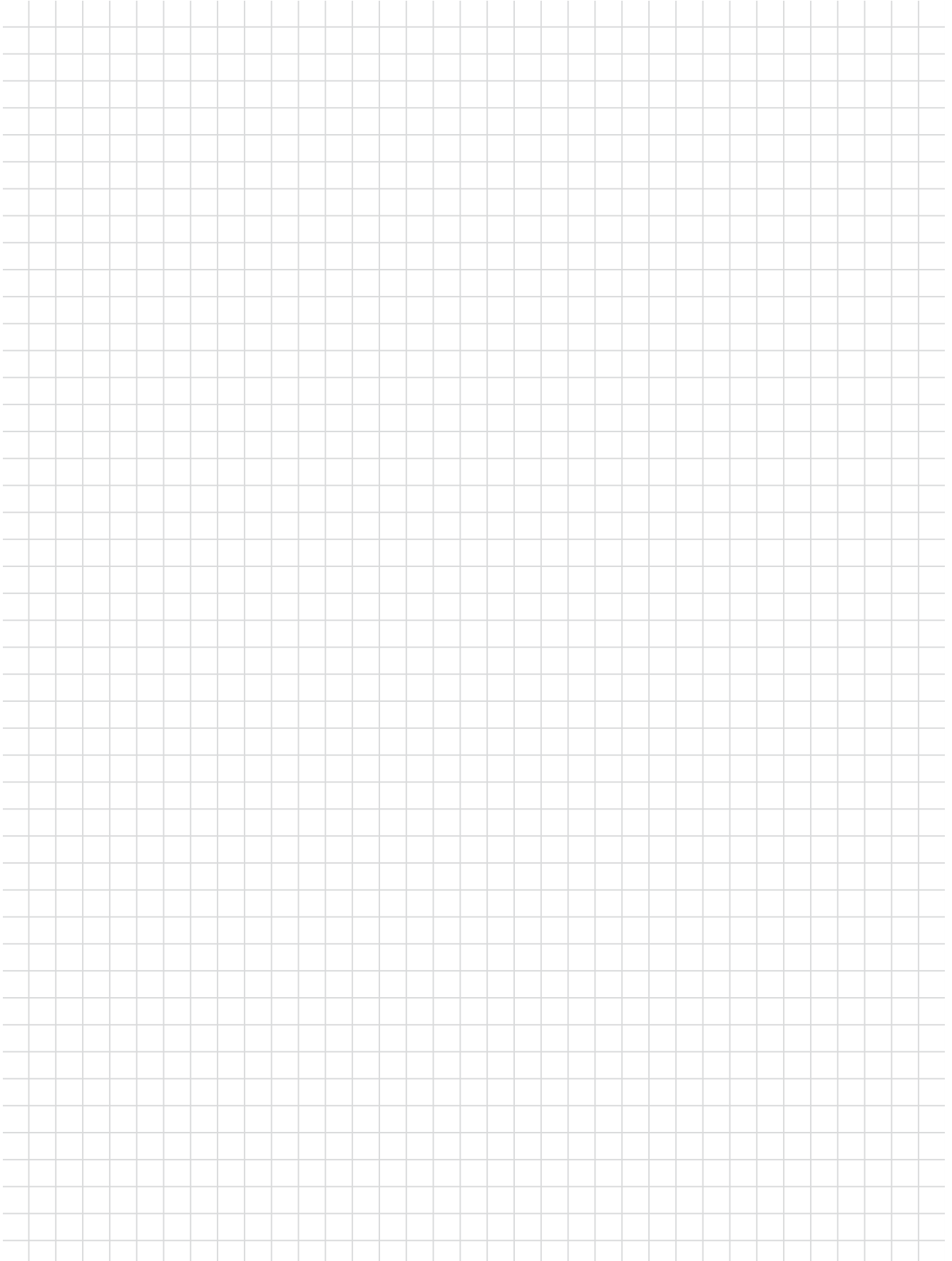
A-MAX

for dry processing with aluminium sheet



T-MAX

for working with galvanised sheet / zincor



**SALVAGNINI** | **THICK TURRET** | **TRUMPF**



Am Steinkreuz 2  
95473 Creußen | Germany

**WEB:** [www.pass-ag.com](http://www.pass-ag.com)  
**MAIL:** [info@pass-ag.com](mailto:info@pass-ag.com)

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