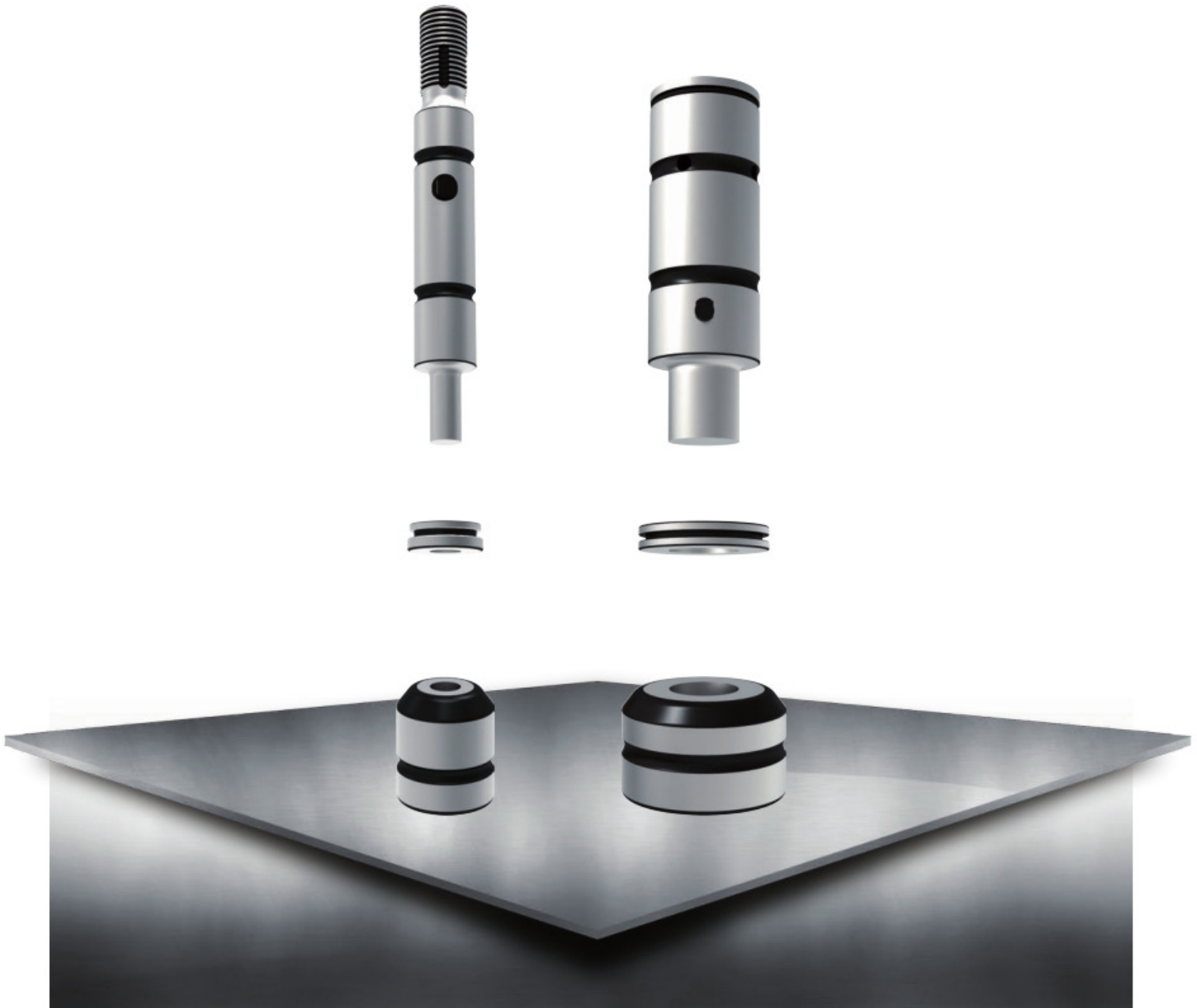




PRICE LIST 08/2019-WW-A.9.4

# SYSTEM GAMMA

# PRICE LIST 08/2019-WW-A.9.4



## VALIDITY OF PRICES:

This price list is valid from 01.08.2019. From this date old price lists lose their validity. The prices do not include statutory value added tax.

## CONDITIONS OF PAYMENT:

Unless otherwise stipulated, our invoices are payable in full 30 days after the submission of the invoice.

## 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)

## STATION A

Gamma I Station A .....	page 4
Gamma-V2 I Station A.....	page 5

## STATION B

Gamma I Station B .....	page 6
Gamma-V2 I Station B.....	page 7

## STATION C

Gamma and Gamma-V2 I Station C .....	page 8
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## STATION D

Gamma and Gamma-V2 I Station D .....	page 9
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## STATION E

Gamma and Gamma-V2 I Station E .....	page 10
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## GENERAL INFORMATION

PASS Tool variety I Coatings .....	page 11
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# GAMMA I STATION A

DIAMETER UP TO 12,7 MM



		PART-NO.	PRICE IN €
<b>PUNCH (H-PM<sub>6</sub>)</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  
 2PT-shear  
 4PT-shear

#### ADDITIONAL COSTS FOR DIES

Reinforced version  
 H-PM<sub>6</sub>Quality

# GAMMA-V2 | STATION A

DIAMETER UP TO 12,7 MM

		PART-NO.	PRICE IN €
<b>PUNCH (H-PM<sub>6</sub>)</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  
 2PT-shear  
 4PT-shear

## ADDITIONAL COSTS FOR DIES

Reinforced version  
 H-PM<sub>6</sub> Quality



# GAMMA I STATION B

DIAMETER UP TO 31,75 MM



		PART-NO.	PRICE IN €
<b>PUNCH (H-PM<sub>6</sub>)</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
- 2PT-shear
- 4PT-shear

#### ADDITIONAL COSTS FOR DIES

- Reinforced version
- H-PM<sub>6</sub>Quality

# GAMMA-V2 | STATION B

DIAMETER UP TO 31,75 MM

		PART-NO.	PRICE IN €
<b>PUNCH (H-PM<sub>6</sub>)</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
- 2PT-shear
- 4PT-shear

## ADDITIONAL COSTS FOR DIES

- Reinforced version
- H-PM<sub>6</sub> Quality

# GAMMA AND GAMMA-V2 | STATION C

DIAMETER UP TO 50,8 MM



		PART-NO.	PRICE IN €
<b>PUNCH (H-PM<sup>®</sup>)</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
- 2PT-shear
- 4PT-shear

#### ADDITIONAL COSTS FOR DIES

- H-PM<sup>®</sup> Quality



# GAMMA AND GAMMA-V2 | STATION D

DIAMETER UP TO 88,9 MM

		PART-NO.	PRICE IN €
<b>PUNCH (H-PM<sub>6</sub>)</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

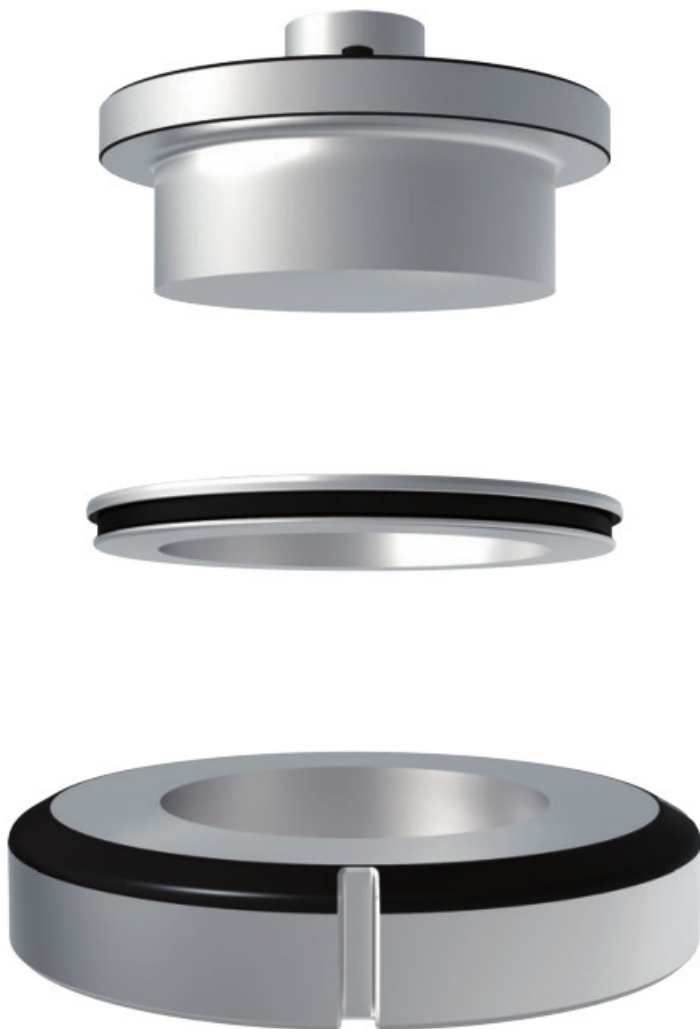
TICN coating  
 T-MAX coating  
 A-MAX coating  
 WT-shear  
 DOWT-shear  
 2PT-shear  
 4PT-shear

## ADDITIONAL COSTS FOR DIES

H-PM<sub>6</sub> Quality

# GAMMA AND GAMMA-V2 I STATION E

DIAMETER UP TO 114,3 MM



		PART-NO.	PRICE IN €
<b>PUNCH (H-PM®)</b>			
	Round	422E21	
	Square	422E22	
	Rectangle	422E23	
	Oblong	422E24	
	O.D. Ground Special Shape	422E2G	
	EDM Required Special Shape	422E2E	
<b>STRIPPER</b>			
	Round	461E21	
	Square	461E22	
	Rectangle	461E23	
	Oblong	461E24	
	O.D. Ground Special Shape	461E2G	
	EDM Required Special Shape	461E2E	
<b>DIE (HWS)</b>			
	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  
 2PT-shear  
 4PT-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 segregation 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

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

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

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

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

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

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

Built-up edges are known especially when working with

- zinc steel
- aluminium 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 galvanized sheet / zincor

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



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