

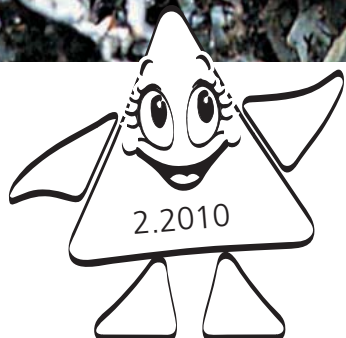
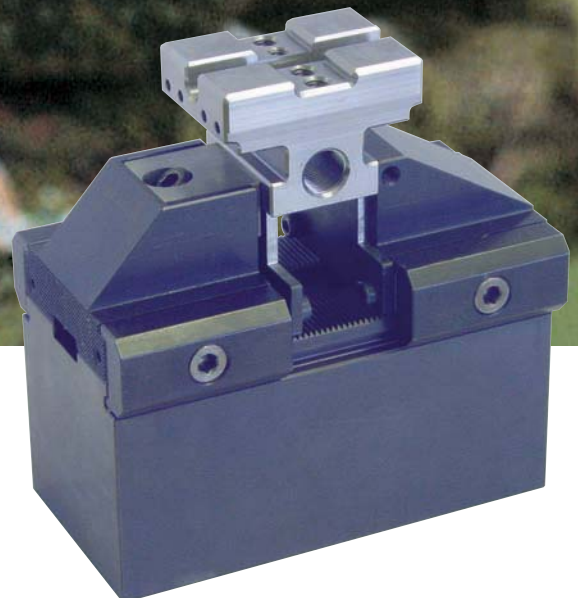


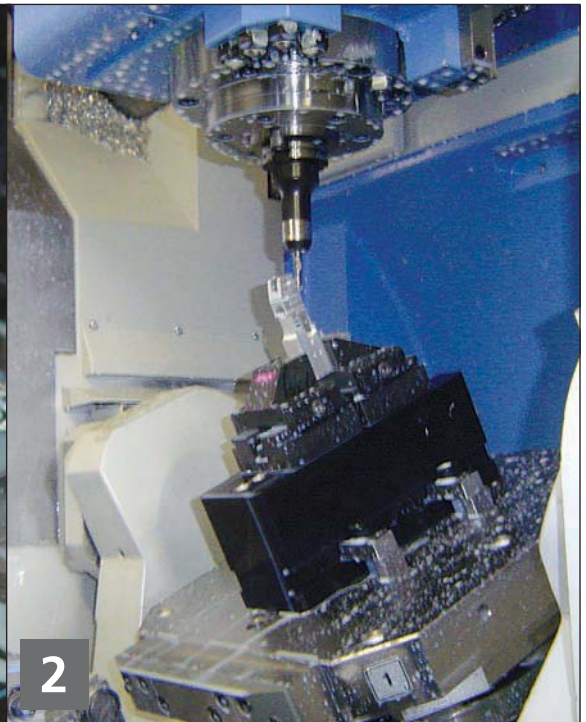
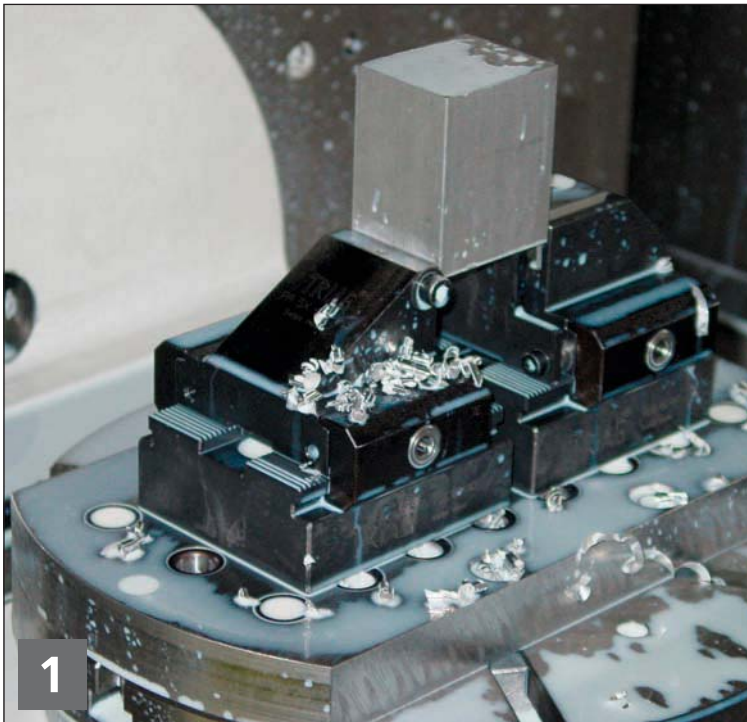
TRIAG[®]

5axesCLAMP

Für 5-Achsenmaschinen
for 5-axes machines
Pour les machines à 5 axes

Modularspannsystem
Modular workholding system
Système de serrage modulaire

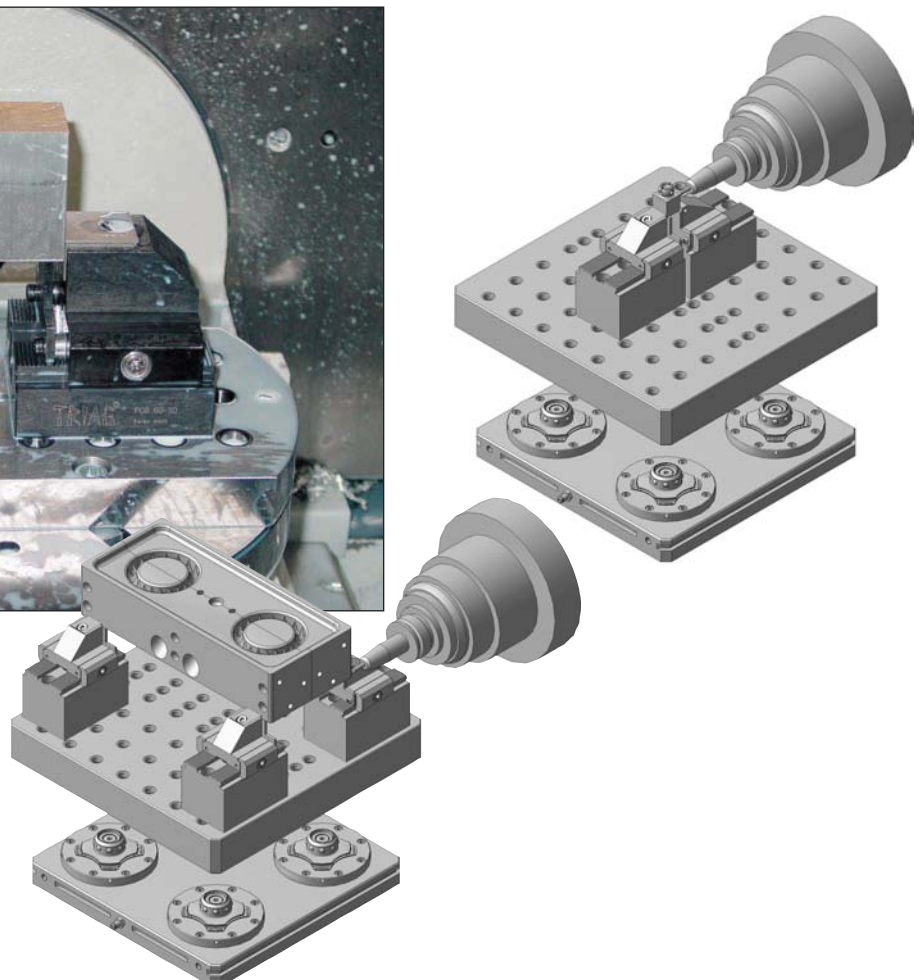
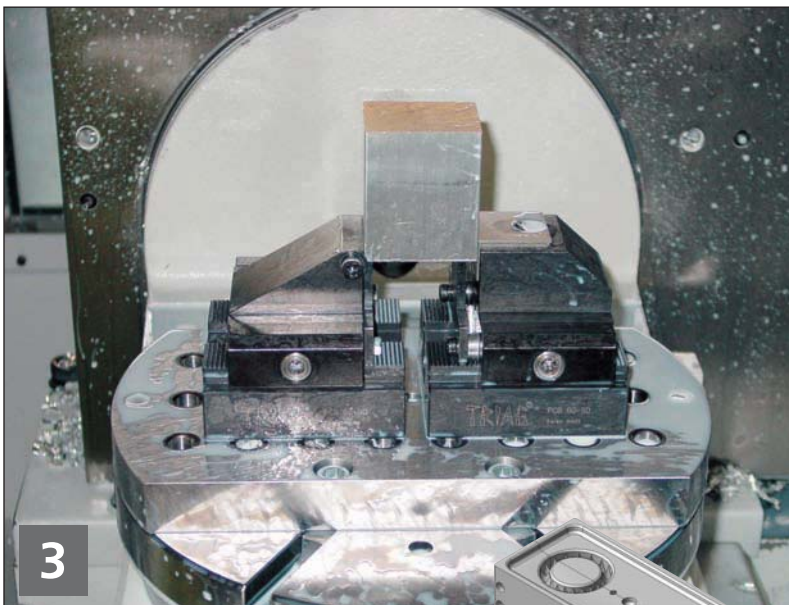




Das 5axesCLAMP wurde speziell für 5-Achsen-Maschinen entwickelt. Dieses modulare Spannsystem ermöglicht ein freies Zukommen der Maschinenspindel zum Werkstück. Es können damit kleine wie grosse Werkstücke optimal gespannt werden.

5axesCLAMP was developed especially for 5-axes machines. This modular workholding system allows the machine spindle to reach the work-piece without restraint. Both small and large workpieces can be clamped without difficulties.

Le système 5axesCLAMP a été développé spécialement pour les machines à 5 axes. Ce système de serrage modulaire autorise un libre accès avec la broche vers la pièce à usiner. Le système garantit le serrage de pièces à usiner petites et grandes sans problèmes.



Anwendungsbeispiel / Example for application / Exemple d'application

ACHTUNG / CAUTION / ATTENTION

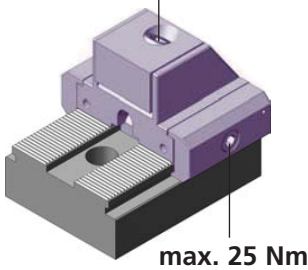
WICHTIG: Die angegebenen Drehmomente sind die absoluten Maximalwerte. Über die Spannkraften gibt die untenstehende Tabelle Auskunft.

IMPORTANT: The torque numbers specified represent the absolute maximum. The table at the bottom of this page provides further information on the workholding forces.

IMPORTANT: Les valeurs des couples de torsion mentionnés sont les valeurs maximales absolues. Pour les forces de serrage vous pouvez vous référer à la table ci-dessous.

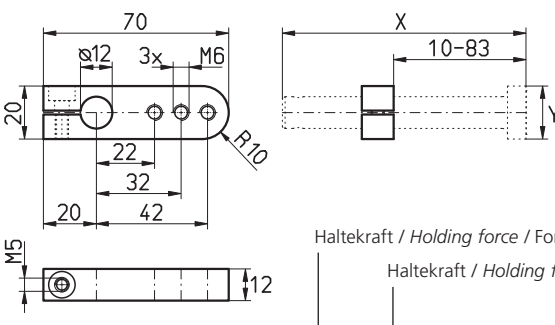
PC-Module			Schraube Screw Vis	Drehmoment max. Torque max. Couple de torsion max.		Spannkraft max. Workholding force max. Force de serrage max.		
				Nm	(lb-ft)	daN	(lb)	t
PS5X	19N49	-20	M6	15	11	1520	3340	1,52
PS5X	26N49	-26	M8	25	18,4	2100	4600	2,10
PS5X	34N49	-45	M8	25	18,4	2100	4600	2,10
PS5X	43N49	-60	M8	25	18,4	2100	4600	2,10
PS5X	48N49	-80	M10	30	22,1	2000	4400	2,00
PS5X	48L49	-105	M8	40	29,5	1600	3600	1,60
PS5X	48L34	-105	M8	40	29,5	1600	3600	1,60
PS5X	94N49	-90	M10	30	22,1	2000	4400	2,00
PS5X	125N49	-95	M10	30	22,1	2000	4400	2,00

Schraube Screw Vis	Drehmoment Torque Couple de torsion		Spannkraft Workholding force Force de serrage		
	Nm	(lb-ft)	daN	(lb)	t
M6	12	8,9	1220	2680	1,22
	14	10,4	1450	3200	1,45
	15	11	1520	3340	1,52
M8	4	3	410	900	0,41
	5	3,7	490	1080	0,49
	6	4,4	560	1200	0,56
	7	5,2	660	1450	0,66
	8	5,9	730	1600	0,73
	9	6,6	810	1790	0,81
	10	7,4	900	1980	0,90
M10	15	11	1520	3340	1,52
	20	14,8	1810	4000	1,81
	25	18,4	2100	4600	2,10
	10	7,4	400	890	0,40
	20	14,8	1400	3080	1,40
M10	30	22,1	2000	4400	2,00
	40	29,5	2800	6150	2,80



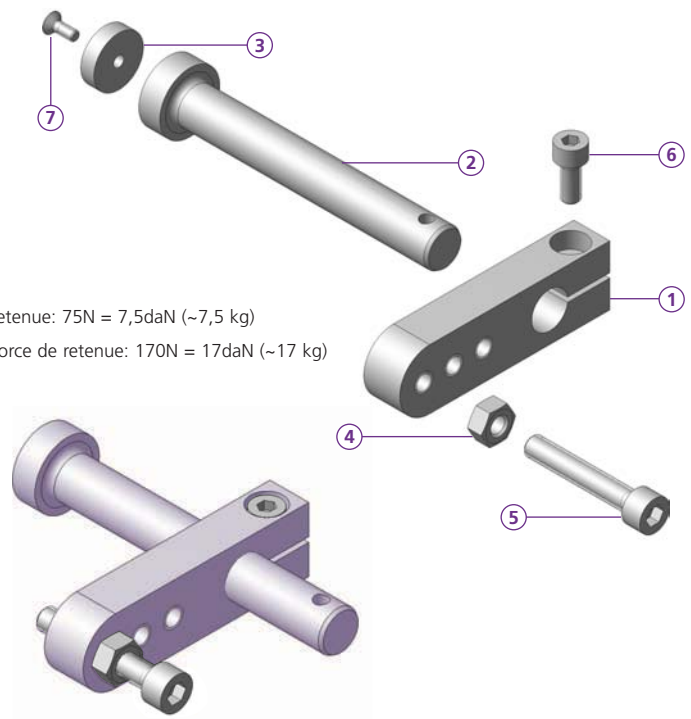
Spannbacken und Schrauben regelmässig fetten!
Lubricate clamping jaw and screw regularly with grease!
lubrifiez le mors et les vis régulièrement!

Magnetanschlag
Magnetic milling buffer
Butée magnétique



Haltekraft / Holding force / Force de retenue: 75N = 7,5daN (~7,5 kg)

Haltekraft / Holding force / Force de retenue: 170N = 17daN (~17 kg)



FA UM 2070	
①	1x FA 2070
②	1x FAD 2092
③	1x MG 1645
④	1x M6 ISO 4032
⑤	1x M6x35 ISO 4762
⑥	1x M5x14 ISO 4762
⑦	1x M3x8 ISO 10642
X	92
Y	Ø 20

FA UM 2070 S	
①	1x FA 2070
②	1x FAD 2092 S
③	1x MG 2570
④	1x M6 ISO 4032
⑤	1x M6x35 ISO 4762
⑥	1x M5x14 ISO 4762
⑦	1x M5x16 ISO 10642
X	95
Y	Ø 25

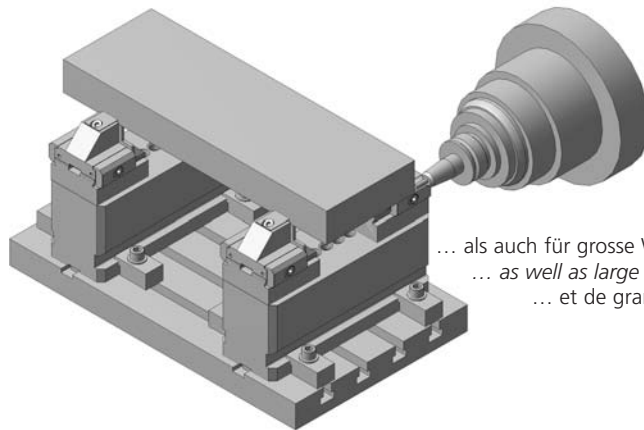
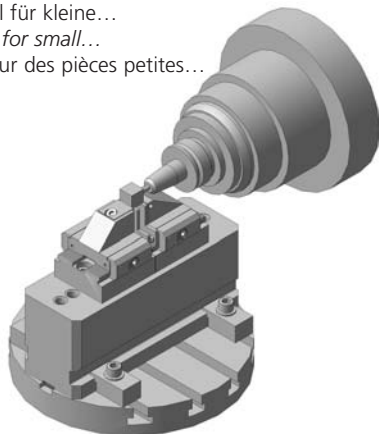
Bestellbeispiel / ordering example / exemple de commande: FA UM 2070

5AX 28-115AL - R20 SET

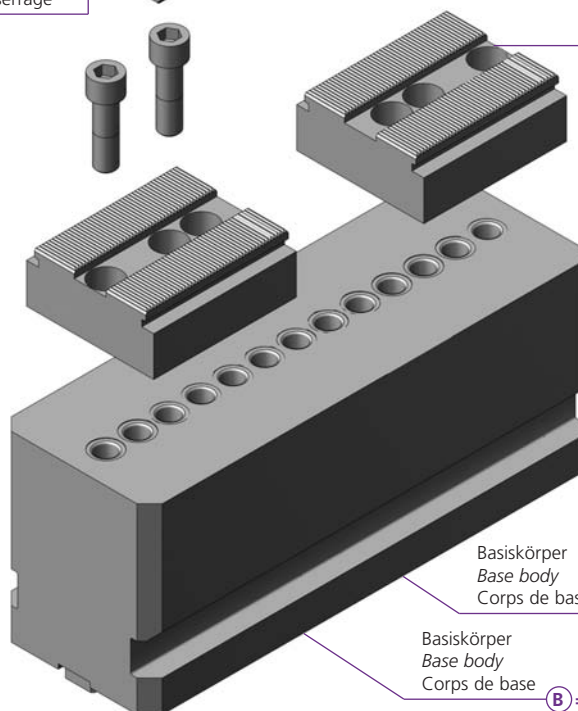
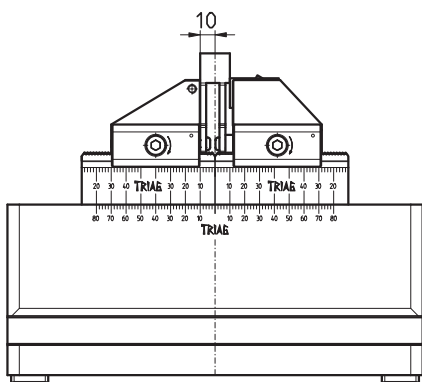
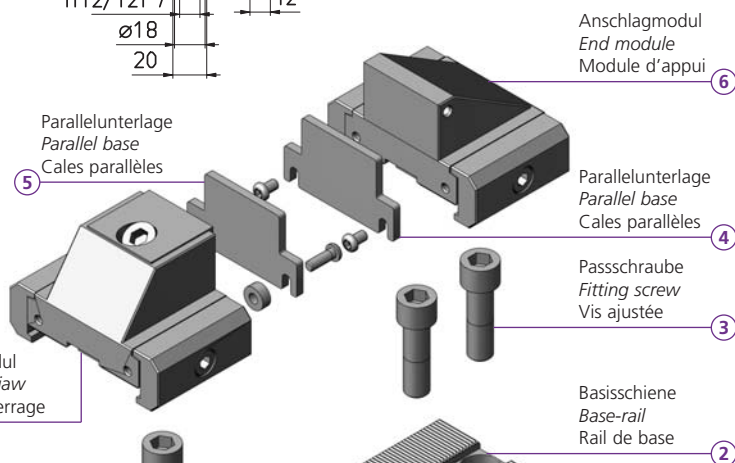
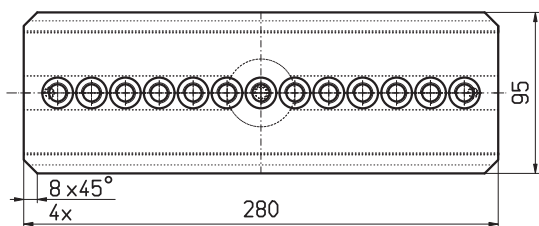
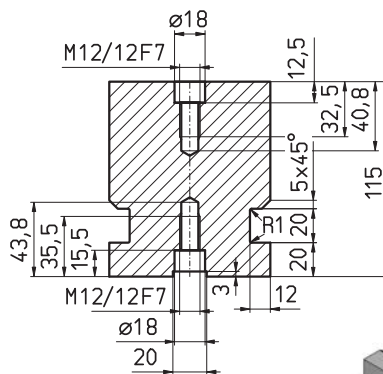
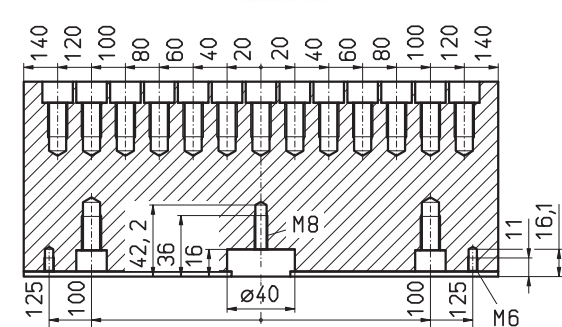
5AX 28-115ST - R20 SET

5axesCLAMP

Geeignet sowohl für kleine...
especially suited for small...
 recommandé pour des pièces petites...



... als auch für grosse Werkstücke!
... as well as large workpieces!
 ... et de grandes pièces!



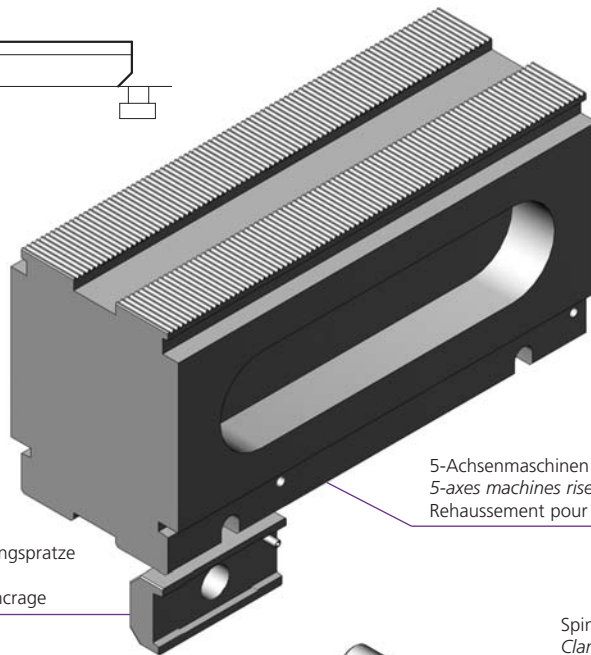
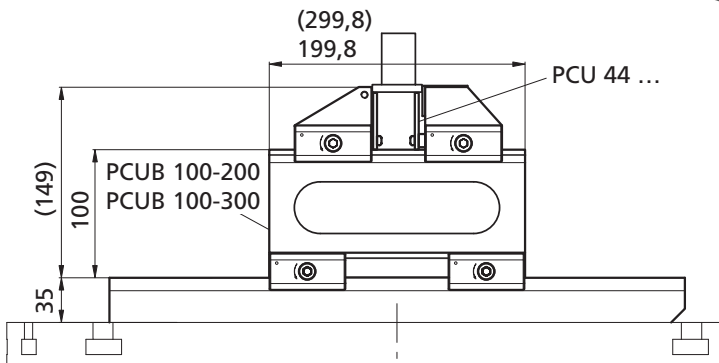
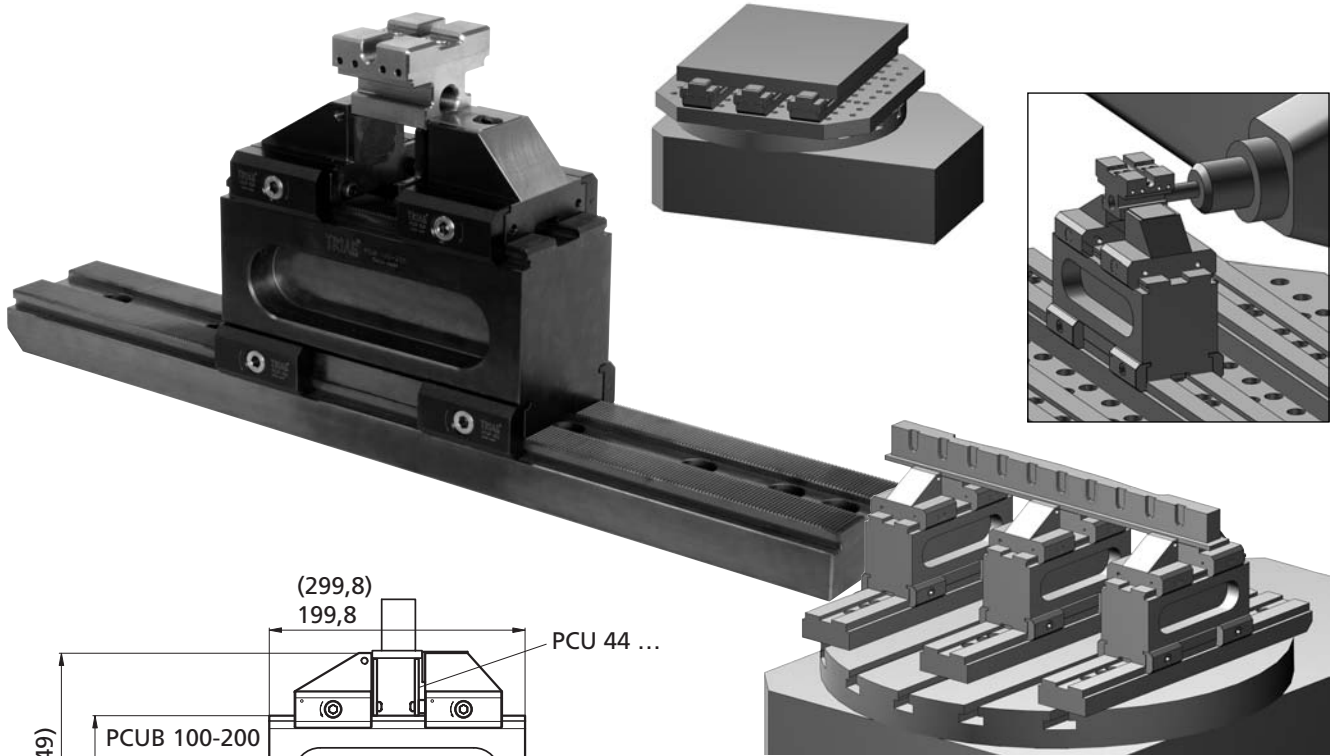
5AX 28-115AL - R20 SET	
Ⓐ	1x 5AX 28-115AL R20
Ⓑ	2x PCB 6090
Ⓒ	4x TWPAS 1240
Ⓓ	2x PCU 39047
	2x PCU 44047
Ⓔ	1x PA5X 48-49R
Ⓕ	1x PS5X 48N49 B81
kg	14

5AX 28-115ST - R20 SET	
Ⓐ	1x 5AX 28-115ST R20
Ⓑ	2x PCB 6090
Ⓒ	4x TWPAS 1240
Ⓓ	2x PCU 39047
	2x PCU 44047
Ⓔ	1x PA5X 48-49R
Ⓕ	1x PS5X 48N49 B81
kg	28,3

Bestellbeispiel
 ordering example
 exemple de commande: **5AX 28-115AL-R20 SET**

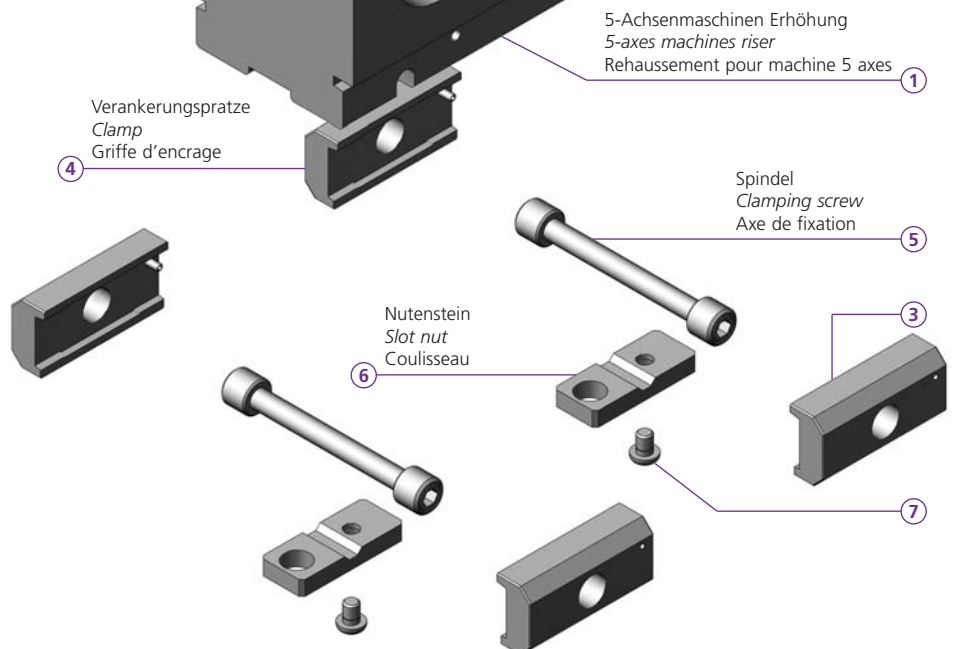
5-Achsenmaschinen Erhöhung
5-axes machines riser
Rehaussement pour machine 5 axes

5axesCLAMP



PCUB 100-200	
①	1x PCUB 100-200
③	2x PCSP 60R
④	2x PCSP 60L
⑤	2x PCS 14
⑥	2x PCGU 20 49
⑦	2x M6x8 ISO 7380
kg	10,5

PCUB 100-300	
①	1x PCUB 100-300
③	3x PCSP 60R
④	3x PCSP 60L
⑤	3x PCS 14
⑥	3x PCGU 20 49
⑦	3x M6x8 ISO 7380
kg	16



Bestellbeispiel / ordering example / exemple de commande: PCUB 100-200

Die Basisschiene ist die Grundlage des powerCLAMP Spannsystems

Der Einsatz der Basisschiene als Modularspannstock ist jedem Mechaniker ein Begriff. Die Vorteile ihres Einsatzes als mechanisches Nullpunktsystem sind in der Zwischenzeit ebenfalls ins Planungsdenken der mechanischen Fertigung eingeflossen.

Die powerCLAMP-Schiene dient als Basis für über 60 verschiedene Spannmodule, Zentrischspanner, Rohlingsmodule und Vakuumplatten.

The serrated base rail is the basic structure of the powerCLAMP workholding system

Using the base rail as a modular workholding vise is standard practice to any mechanic. The advantages of using it as a zero point system have also widely influenced the planning stages of mechanical production.

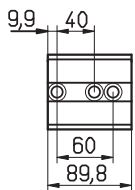
The powerCLAMP base rail serves as a supporting plate for more than 60 different clamping modules, self centering vises, blank modules and vacuum clamping plates.

Le rail de base est le fondement du système de serrage powerCLAMP

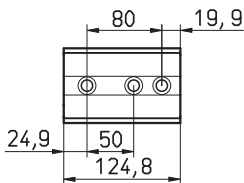
L'utilisation du rail de base comme étau modulaire est pour chaque mécanicien un concept. Les avantages des utilisations comme système point zéro mécanique.

Comme base le rail powerCLAMP s'utilise pour plus de 60 modules de serrage différents; serrage centreur, modules ébauches et table vacuum.

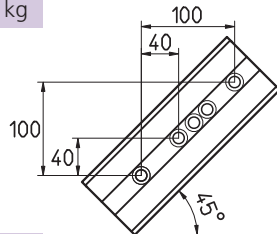
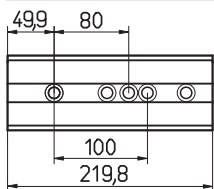
PCB 60-90 1,8 kg



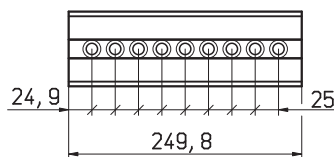
PCB 40-50-125 2,3 kg



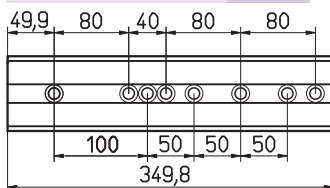
PCB 40-50-220-W2 4,3 kg



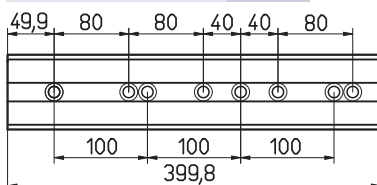
PCB 25-50-250 4,8 kg



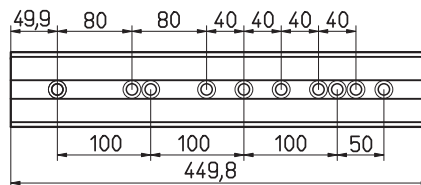
PCB 40-50-350 6,9 kg



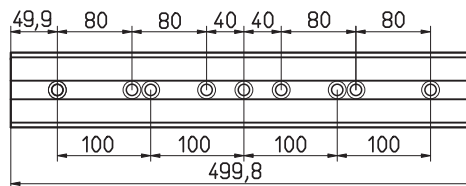
PCB 40-50-400 7,9 kg



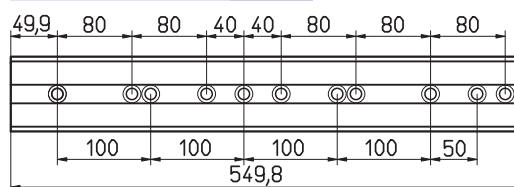
PCB 40-50-450 8,9 kg



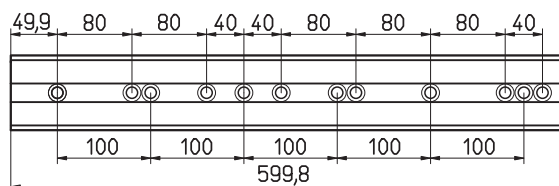
PCB 40-50-500 9,9 kg



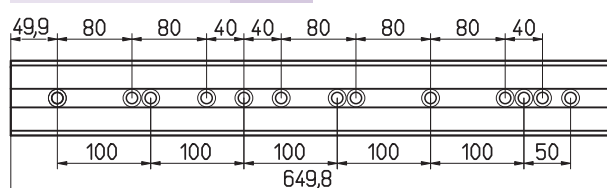
PCB 40-50-550 10,8 kg



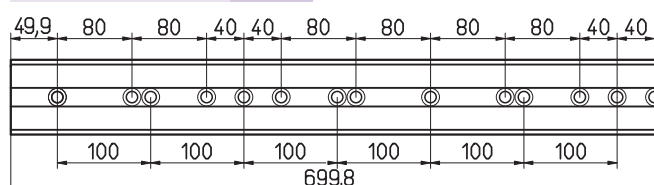
PCB 40-50-600 11,8 kg



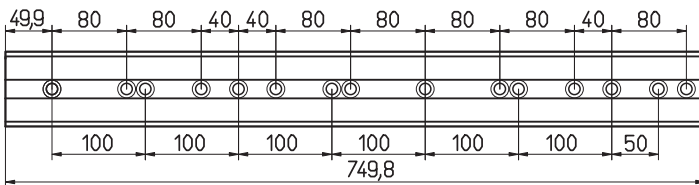
PCB 40-50-650 12,8 kg



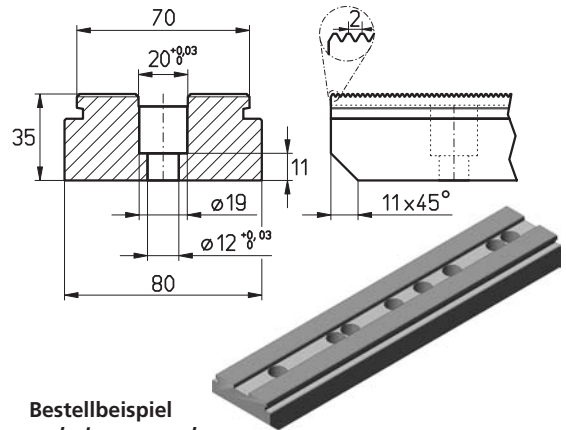
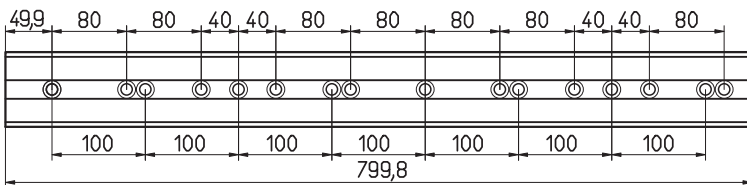
PCB 40-50-700 13,8 kg



PCB 40-50-750 14,8 kg

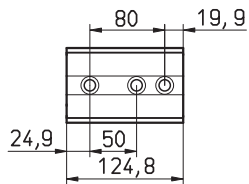


PCB 40-50-800 15,3 kg

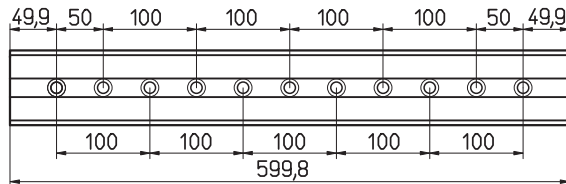


Bestellbeispiel
ordering example
exemple de commande: PCB 60-90

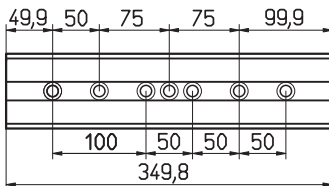
PCB 40-50-125 H80 7,5 kg



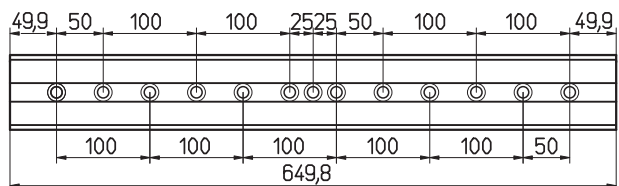
PCB 50-600 H80 27,3 kg



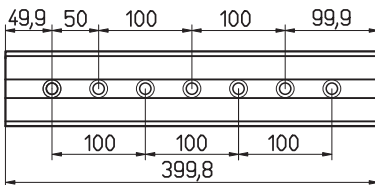
PCB 50-350 H80 15,8 kg



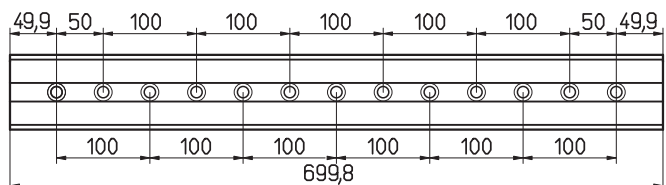
PCB 50-650 H80 29,4 kg



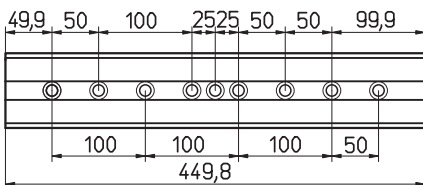
PCB 50-400 H80 18,2 kg



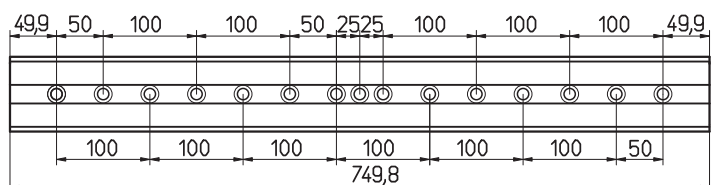
PCB 50-700 H80 31,8 kg



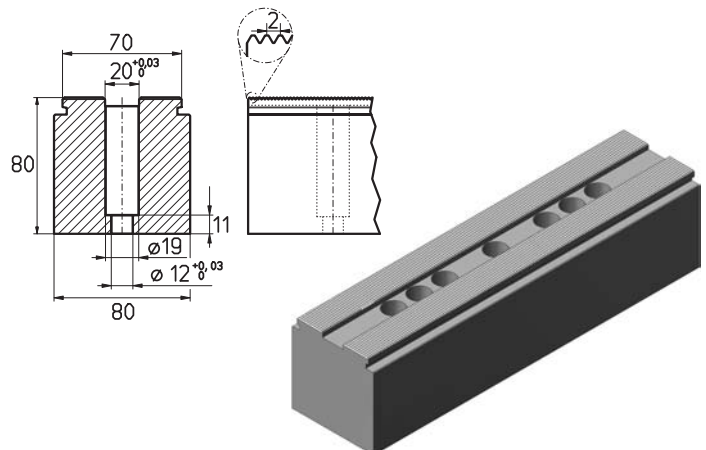
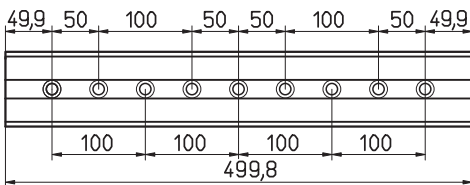
PCB 50-450 H80 20,3 kg



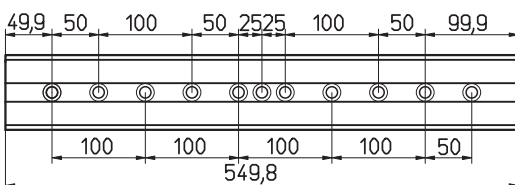
PCB 50-750 H80 33,9 kg



PCB 50-500 H80 22,8 kg



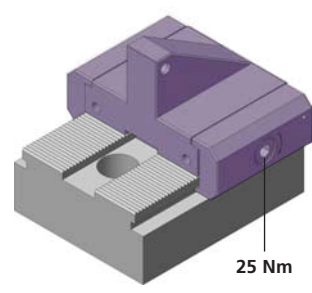
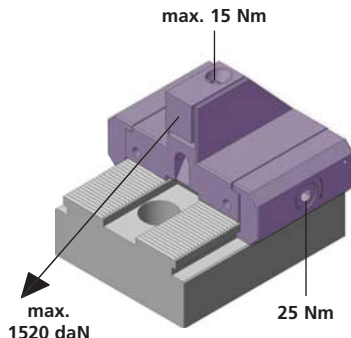
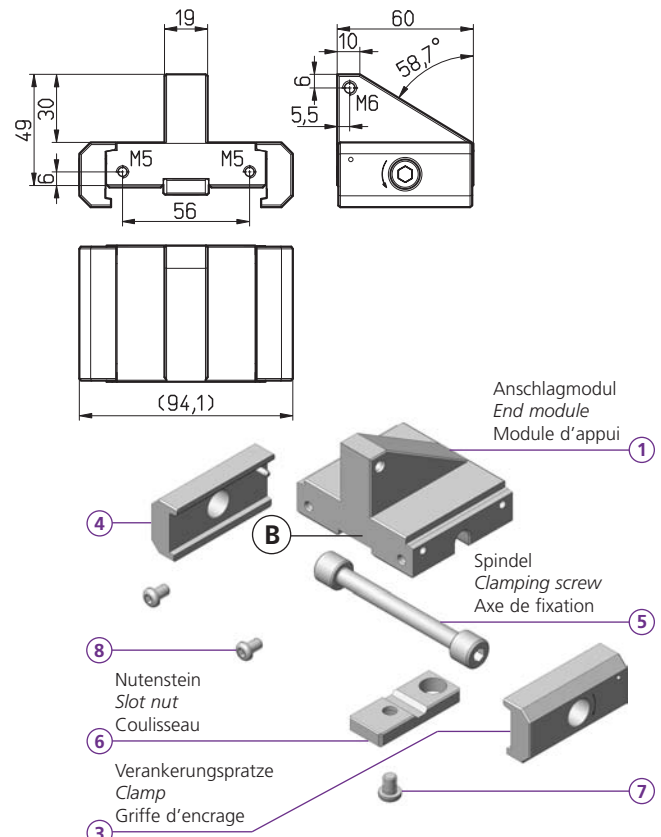
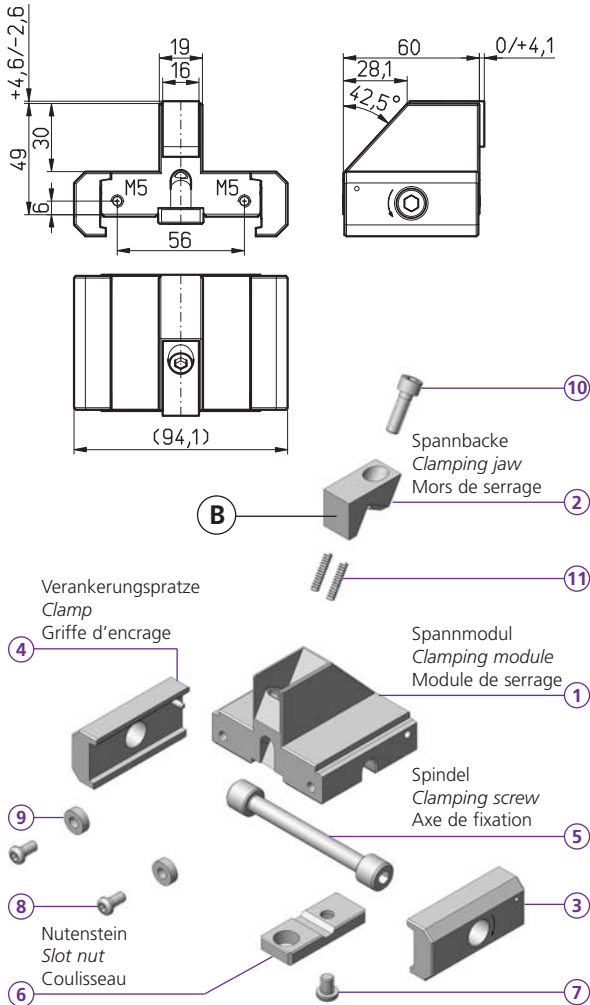
PCB 50-550 H80 24,8 kg



PS5X 19N49 -20

PA5X 19-49 R/F

5axesCLAMP



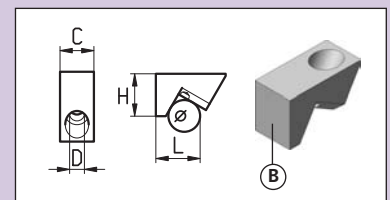
	PA5X 19-49 F	
	PA5X 19-49 R	
1	1x PA5X 19-49- (F/R)	
3	1x PCSP 60R	
4	1x PCSP 60L	
5	1x PCS 14	
6	1x PCGU 20 49	
7	1x M6x8 ISO 7380	
8	2x M5x10 ISO 4762	
kg	1,1	

PS5X 19N49 B21

Bestellbeispiel / ordering example / exemple de commande:

PA5X 19-49 F

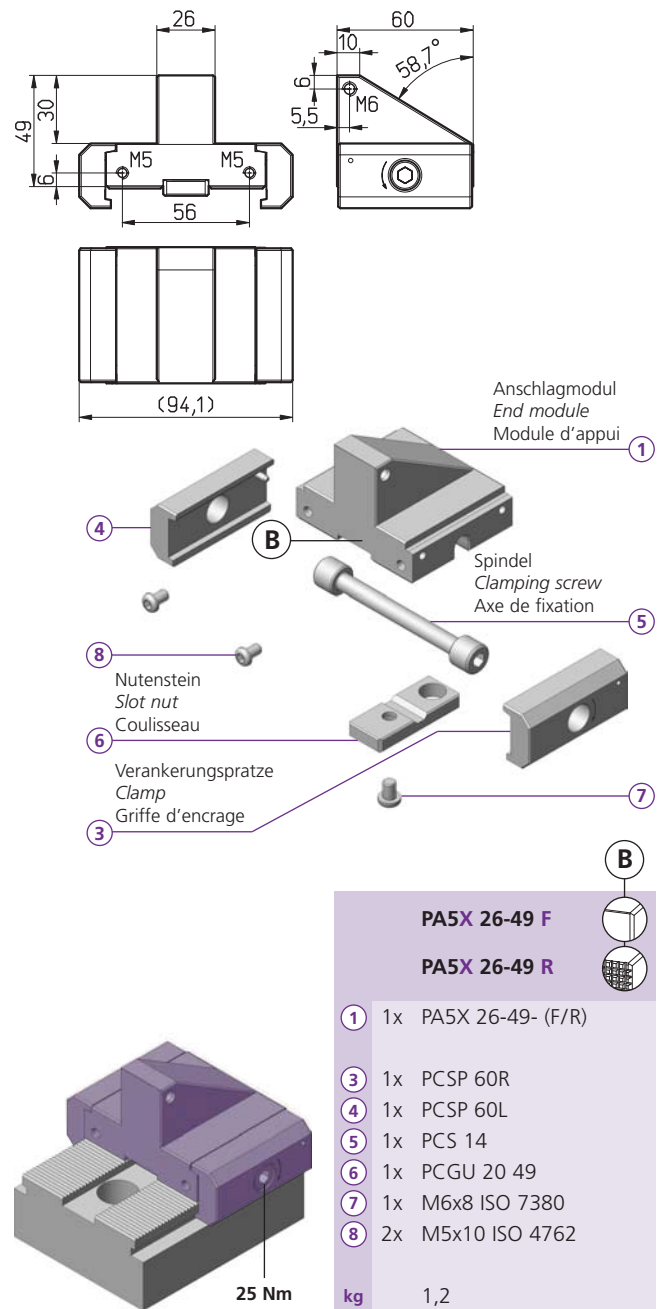
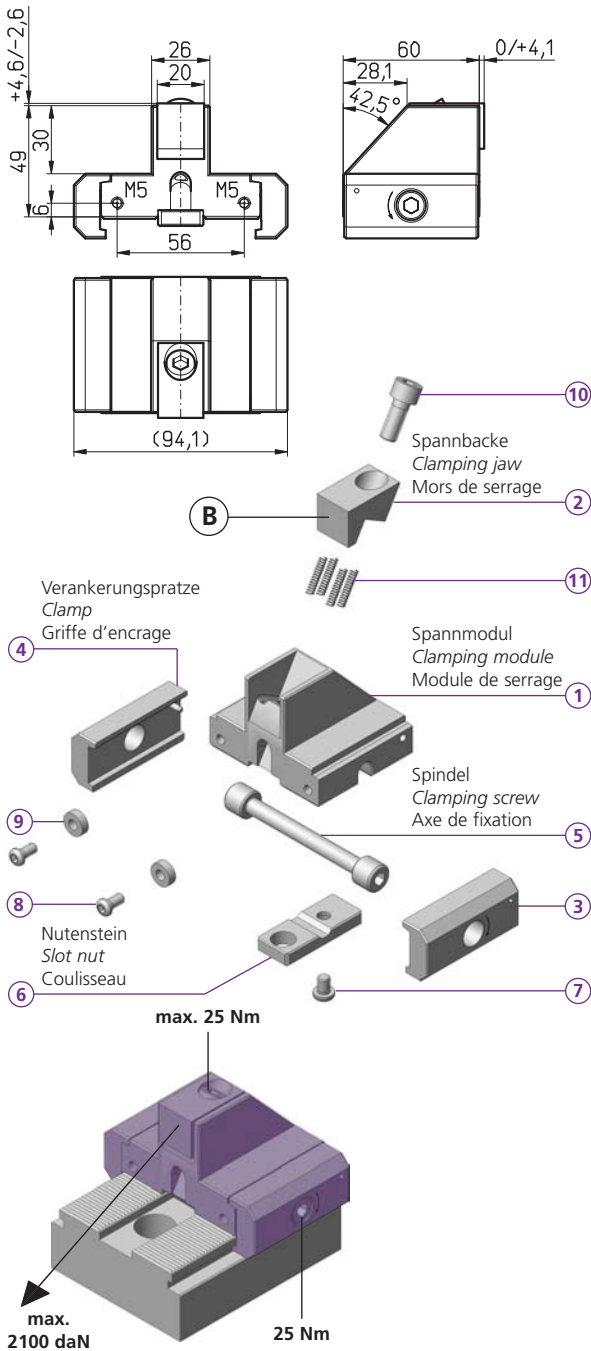
PS5X 19N49 -20		B20	B21	B22
1	1x PS5X 19N49 -20	C 16	16	16
2	1x _____	H 20	20	20
3	1x PCSP 60R	L 19	19	19
4	1x PCSP 60L	D 6,5	6,5	6,5
5	1x PCS 14	o 12	12	12
6	1x PCGU 20 49	i HV700xHV700x	*	*
7	1x M6x8 ISO 7380		0,2mm	0,2mm
8	2x M5x14 ISO 4762			
9	2x PCD 005			
10	1x M6x20 ISO 4762			
11	2x FED 0418			
kg	1,2			



PS5X 26N49 -26

PA5X 26-49 R/F

5axesCLAMP



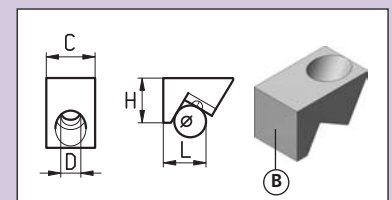
	PA5X 26-49 F	PA5X 26-49 R
1	1x PA5X 26-49- (F/R)	
3	1x PCSP 60R	
4	1x PCSP 60L	
5	1x PCS 14	
6	1x PCGU 20 49	
7	1x M6x8 ISO 7380	
8	2x M5x14 ISO 4762	
kg	1,2	

PS5X 26N49 B26

Bestellbeispiel / ordering example / exemple de commande:

PA5X 26-49 F

	PS5X 26N49 -26	B26	B27	B28
1	1x PS5X 26N49 -26			
2	1x	C		
3	1x PCSP 60R	H		
4	1x PCSP 60L	L		
5	1x PCS 14	D		
6	1x PCGU 20 49	o		
7	1x M6x8 ISO 7380	i		
8	2x M5x14 ISO 4762			
9	2x PCD 005			
10	1x M8x20 ISO 4762			
11	4x FED 0418			
kg	1,2			

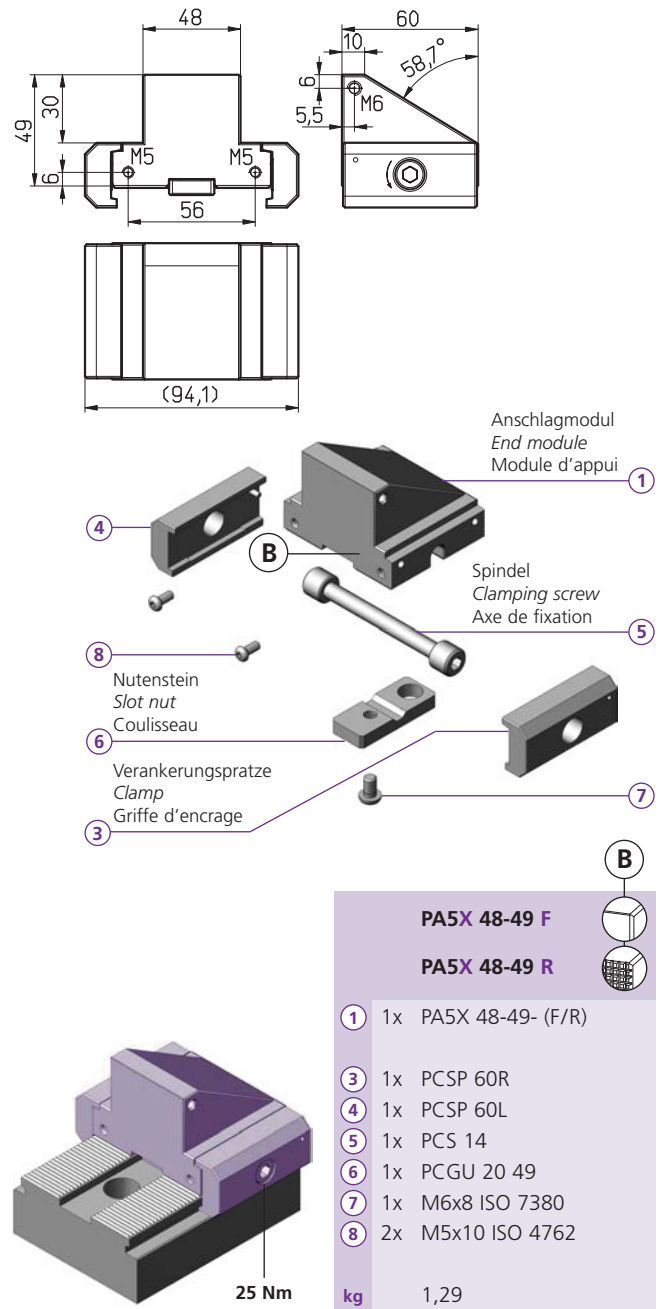
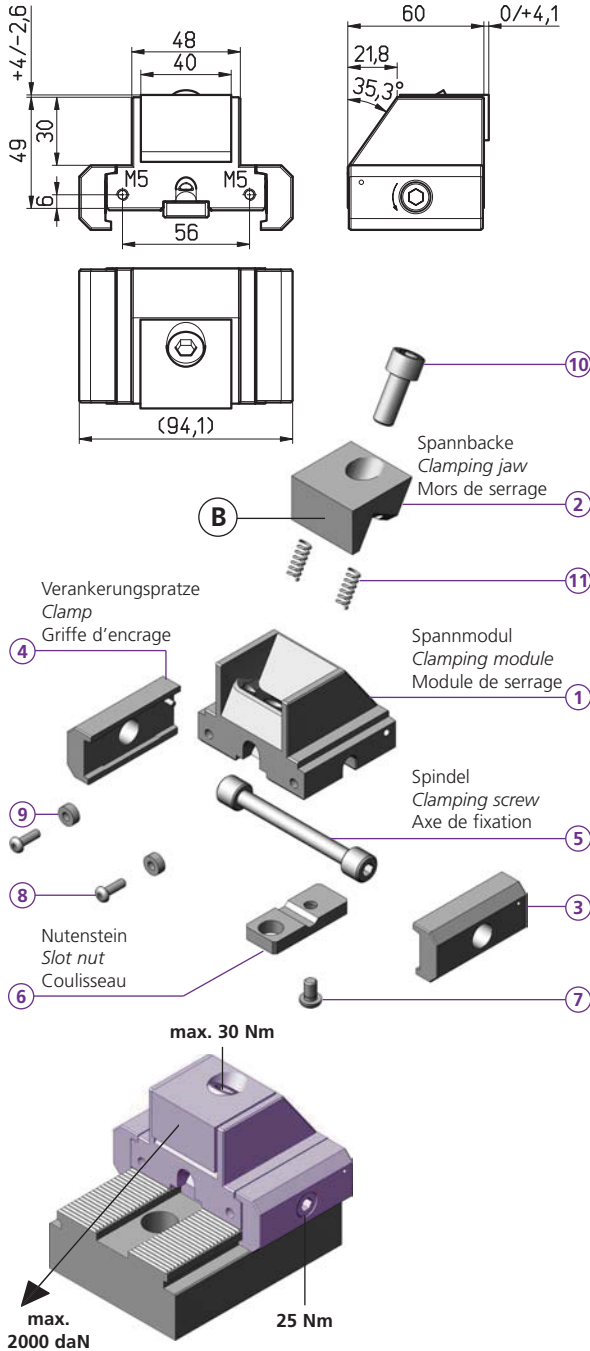


* = weich / soft / doux

PS5X 48N49 -80

PA5X 48-49 R/F

5axesCLAMP



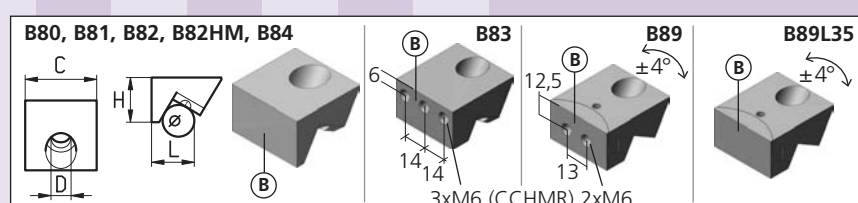
	PA5X 48-49 F	
	PA5X 48-49 R	
1	1x PA5X 48-49- (F/R)	
3	1x PCSP 60R	
4	1x PCSP 60L	
5	1x PCS 14	
6	1x PCGU 20 49	
7	1x M6x8 ISO 7380	
8	2x M5x10 ISO 4762	
kg	1,29	

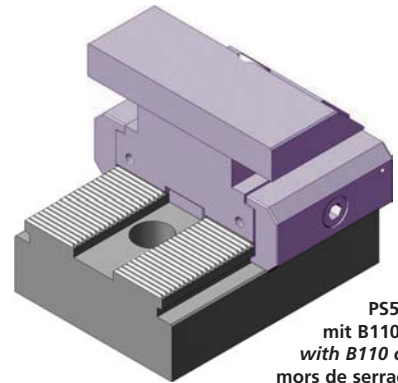
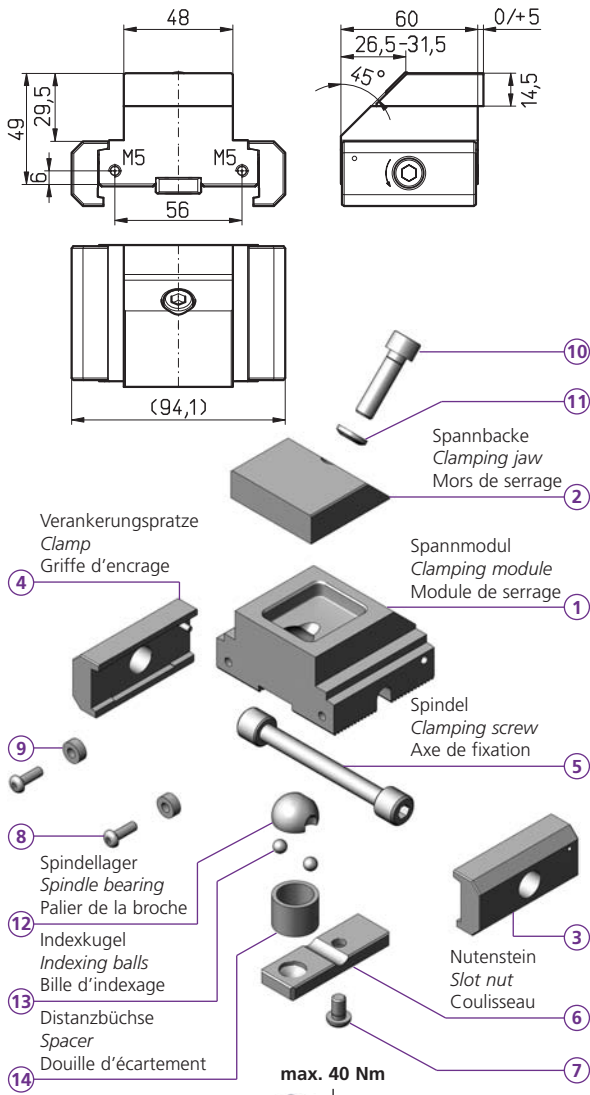
PS5X 48N49 -B80

Bestellbeispiel / ordering example / exemple de commande:

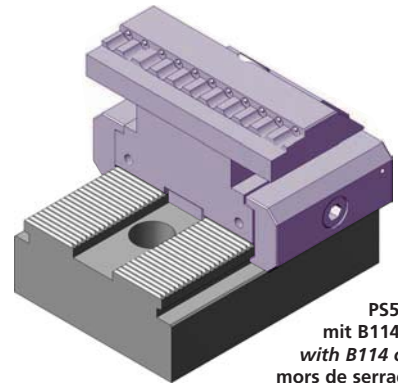
PA5X 48-49 F

	B80	B81	B82	B82HM	B83	B84	B89	B89 L35
1	1x PS5X 48N49 -80							
2	1x							
3	1x PCSP 60R							
4	1x PCSP 60L							
5	1x PCS 14							
6	1x PCGU 20 49							
7	1x M6x8 ISO 7380							
8	2x M5x14 ISO 4762							
9	2x PCD 005							
10	1x M10x25 ISO 4762							
11	2x FED 0618							
kg	1,4							

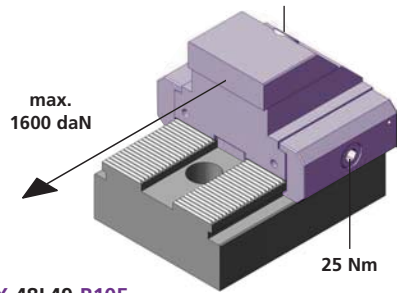




PS5X 48L49 -105 mit B110 Spannbacke with B110 clamping jaw mors de serrage avec B110



PS5X 48L49 -105 mit B114 Spannbacke with B114 clamping jaw mors de serrage avec B114



Drehmoment Torque Couple de torsion	Spannkraft Workholding force Force de serrage
10 Nm =	0,4 t 400 daN
20 Nm =	0,8 t 800 daN
30 Nm =	1,2 t 1200 daN
40 Nm =	1,6 t 1600 daN

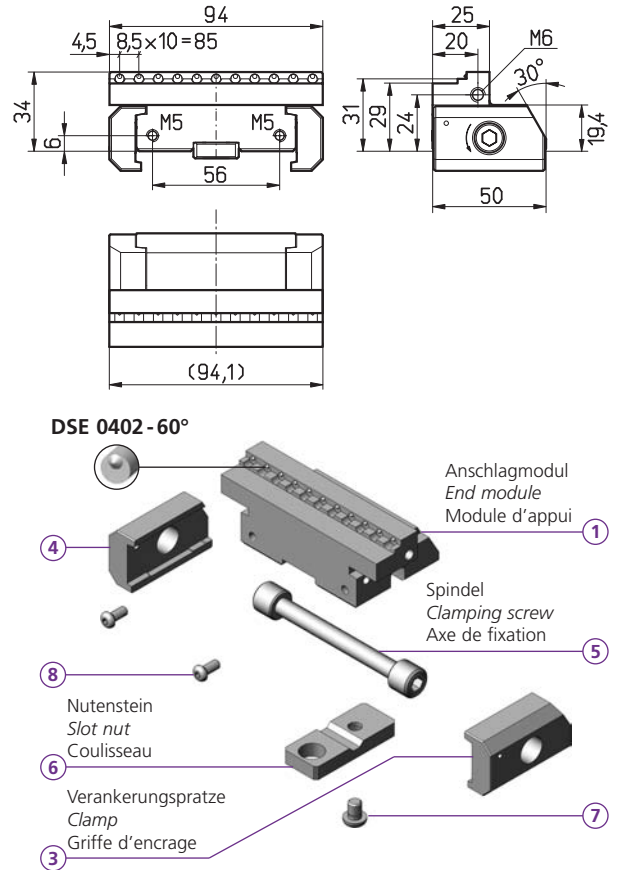
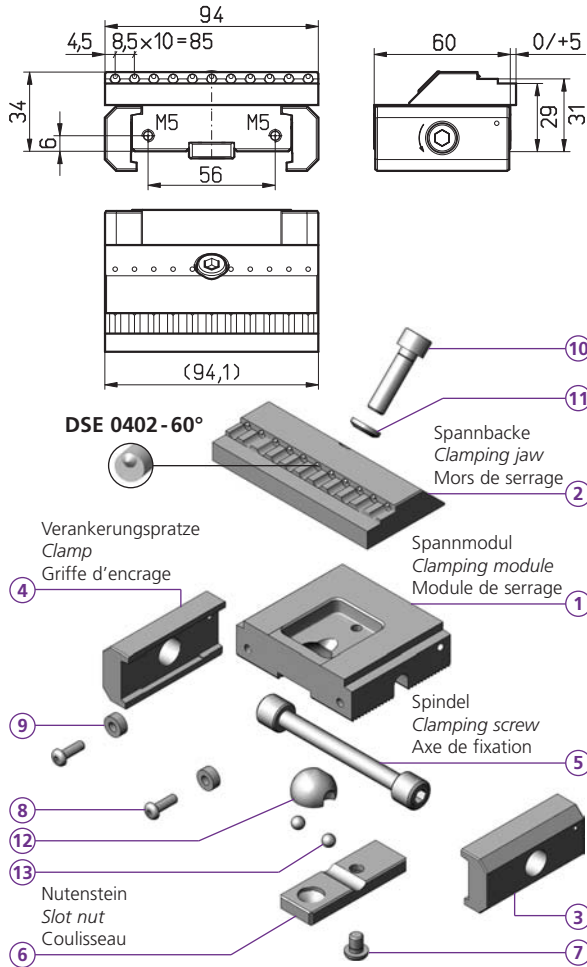
PS5X 48L49 B105

Bestellbeispiel / ordering example / exemple de commande:

- | PS5X 48L49 -105 | |
|-----------------|--------------------|
| ① | 1x PS5X 48L49 -105 |
| ② | 1x _____ p. 15 |
| ③ | 1x PCSP 60R |
| ④ | 1x PCSP 60L |
| ⑤ | 1x PCS 14 |
| ⑥ | 1x PCGU 20 59 |
| ⑦ | 1x M6x8 ISO 7380 |
| ⑧ | 2x M5x14 ISO 4762 |
| ⑨ | 2x PCD 005 |
| ⑩ | 1x M8x30 ISO 4762 |
| ⑪ | 1x PCUSR 14 |
| ⑫ | 1x PCKMR 45 M8 |
| ⑬ | 2x BN 869 d=6 |
| ⑭ | 1x PCD 20L15 |
| kg | 1,4 |

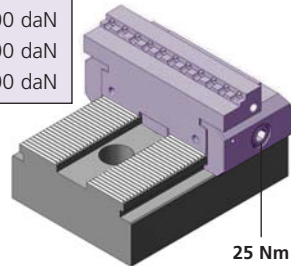
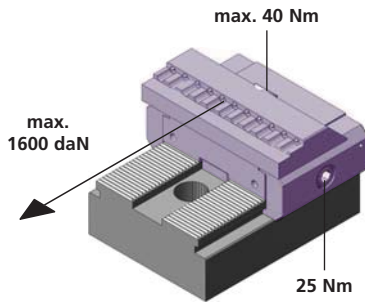
* = weich / soft / doux





Drehmoment Torque Couple de torsion	Spannkraft Workholding force Force de serrage
10 Nm =	0,4 t 400 daN
20 Nm =	0,8 t 800 daN
30 Nm =	1,2 t 1200 daN
40 Nm =	1,6 t 1600 daN

PA5X 94-34 PRG	
1	1x PA5X 94-34 PRG
3	1x PCSP 50R F
4	1x PCSP 50L F
5	1x PCS 14
6	1x PCGU 20 49
7	1x M6x8 ISO 7380
8	2x M5x10 ISO 4762
kg	0,93



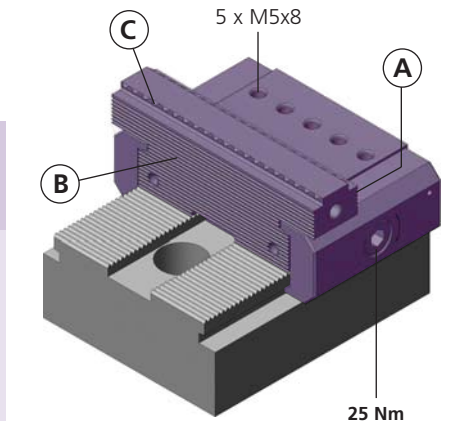
PS5X 48L34 B105

Bestellbeispiel / ordering example / exemple de commande:

PA5X 94-34 PRG

PS5X 48L34 -105	
1	1x PS5X 48L34 -105
2	1x _____ p. 15
3	1x PCSP 60R
4	1x PCSP 60L
5	1x PCS 14
6	1x PCGU 20 59
7	1x M6x8 ISO 7380
8	2x M5x14 ISO 4762
9	2x PCD 005
10	1x M8x30 ISO 4762
11	1x PCUSR 14
12	1x PCKMR 45 M8
13	2x BN 869 d=6
kg	0,48

PAND 94-34 PRG	
1	1x PAND 94-34 PRG
3	1x PCSP 60R
4	1x PCSP 60L
5	1x PCS 14
6	1x PCGU 20 49
7	1x M6x8 ISO 7380
12	4x M5x10 ISO 4762
kg	1,1



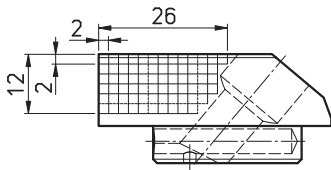
Detail im Katalog «powerCLAMP»
Detail in the catalog «powerCLAMP»
Détail dans le catalogue «powerCLAMP»

Backen zu Linear PS5X R/F ...L... -105

Jaws for linear PS5X R/F ...L... -105

Mors pour module linéaire PS5X R/F ...L... -105

5axesCLAMP



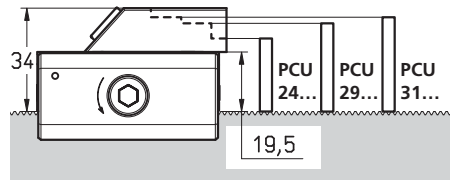
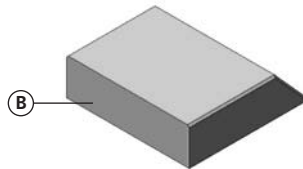
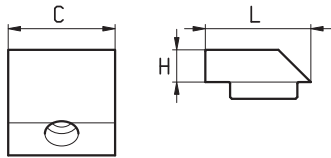
Zum Erstellen Ihrer individuellen Formbacke:
Schnittzeichnung zum Ermitteln der maximalen Bearbeitungsprofiltiefe.

If a dedicated jaw is being machined:
This sketch will be of help regarding the workpiece penetration depth.

Pour régler votre mors individuel aux étages:
Dessin en coupe pour déterminer la profondeur maximum du profil à usiner.

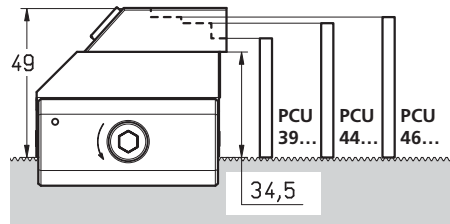
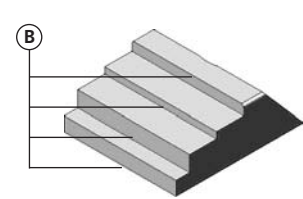
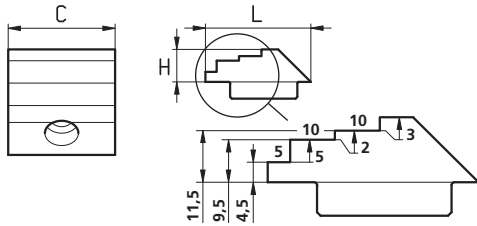
für / for / pour B107, B112, B112E, 112HG

B105, B106, B107*, B110, B111, B112*, B112HG

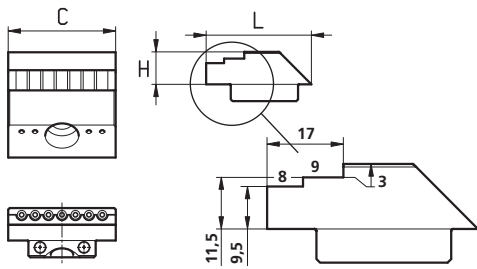


B108, B113

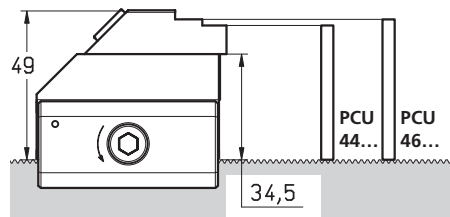
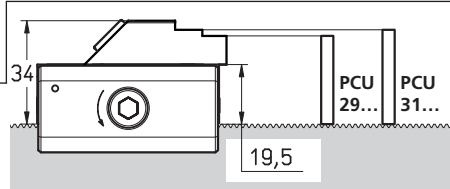
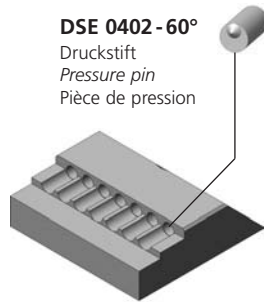
Empfohlen / recommended / recommandé



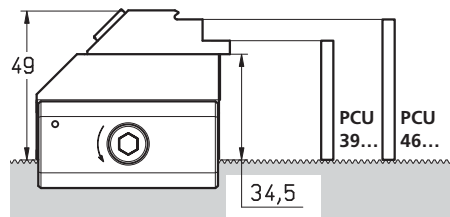
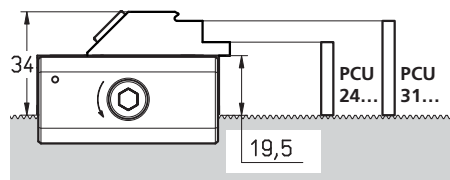
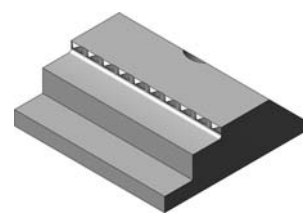
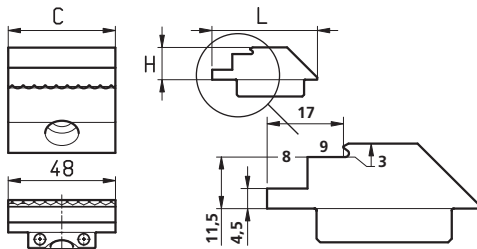
B109, B114



DSE 0402 - 60°
Druckstift
Pressure pin
Pièce de pression



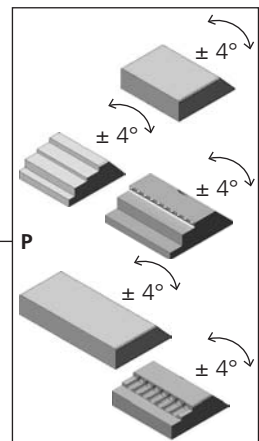
B115, B120



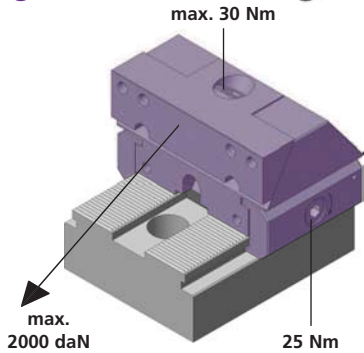
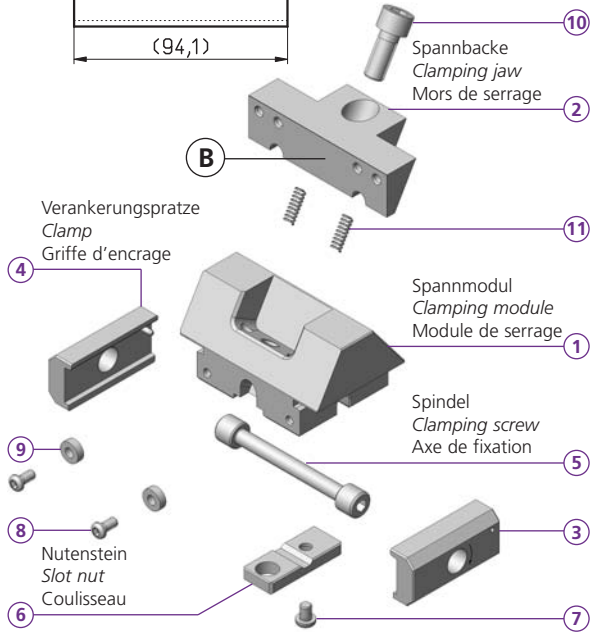
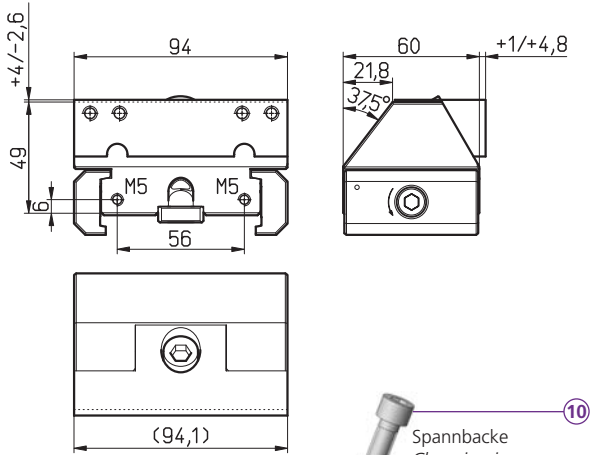
B

HG = Hochgenau / high-precision / haut precision

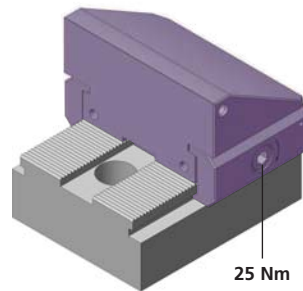
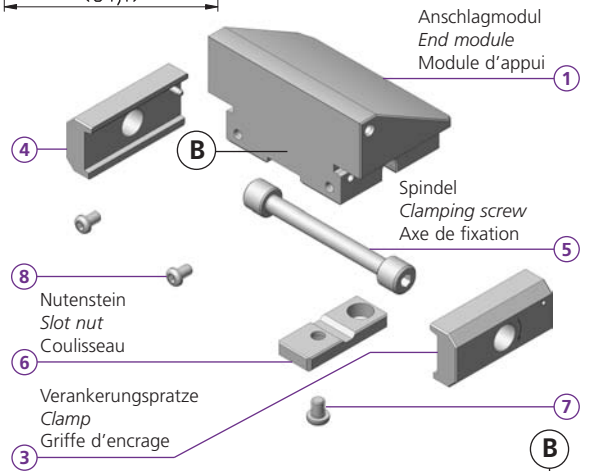
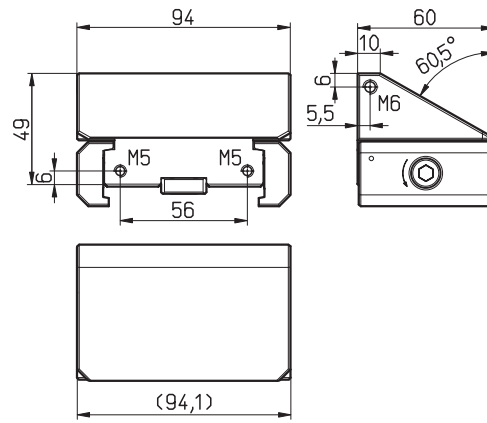
	B105	B106	B107	B108	B109	B110	B111	B112	B112E	B113	B114	B115	B120
	B105P	B106P	B107P	B108P	B109P	B110P	B111P	B112P	B112EP	B113P	B114P	B115P	B120P
C	48	48	48	48	48	94	94	94	94	94	94	48	94
H	14,5	14,5	14,5	14,5	14,5	14,5	14,5	14,5	14,5	14,5	14,5	14,5	14,5
L	47	47	47	47	47	47	47	47	47	47	47	47	47
i	HV700x 0,2mm	HV700x 0,2mm	*	HV700x 0,2mm	HV700x 0,2mm	HV700x 0,2mm	HV700x 0,2mm	*	**	HV700x 0,2mm	HV700x 0,2mm	57HRc	57HRc



* = weich / soft / doux ** = 1.5752 Einsatzstahl / cementation steel / Aciers de cémentation



PS5X 94N49 B92



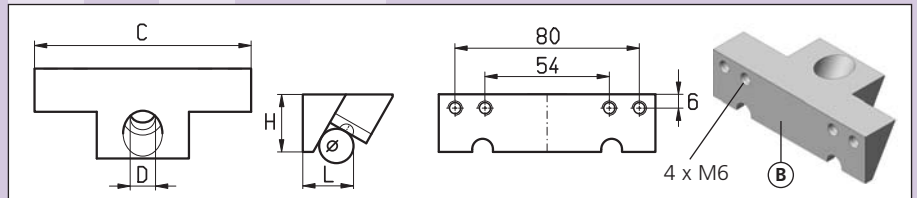
PA5X 94-49 F	
PA5X 94-49 R	
1	1x PA5X 94-49- (F/R)
3	1x PCSP 60R
4	1x PCSP 60L
5	1x PCS 14
6	1x PCGU 20 49
7	1x M6x8 ISO 7380
8	2x M5x10 ISO 4762
kg	2

Bestellbeispiel / ordering example / exemple de commande:

PA5X 94-49 F

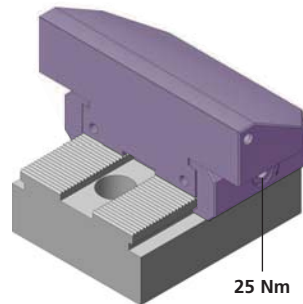
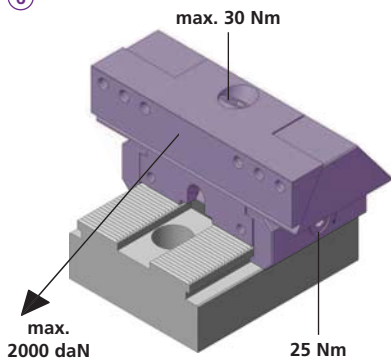
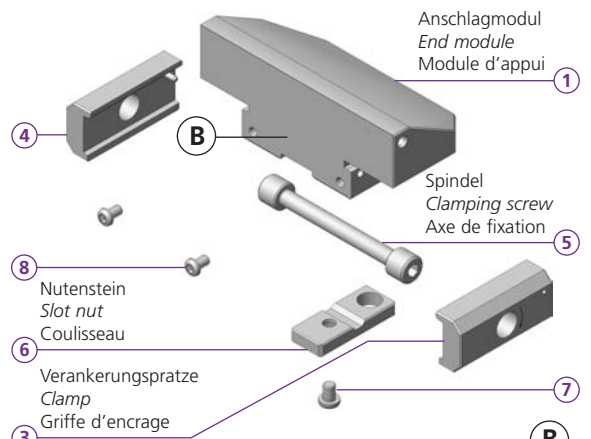
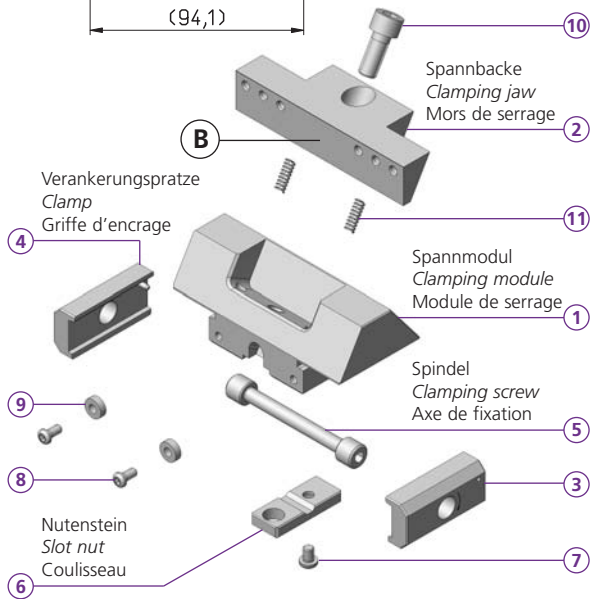
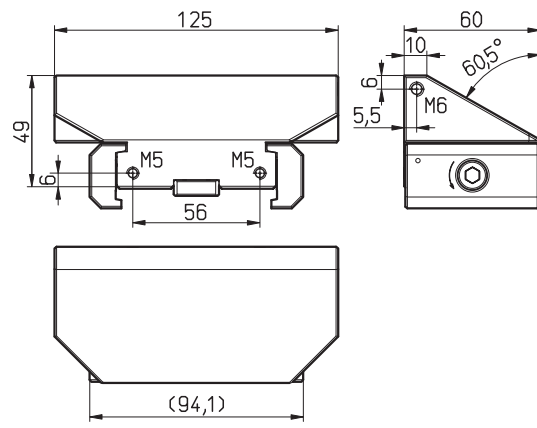
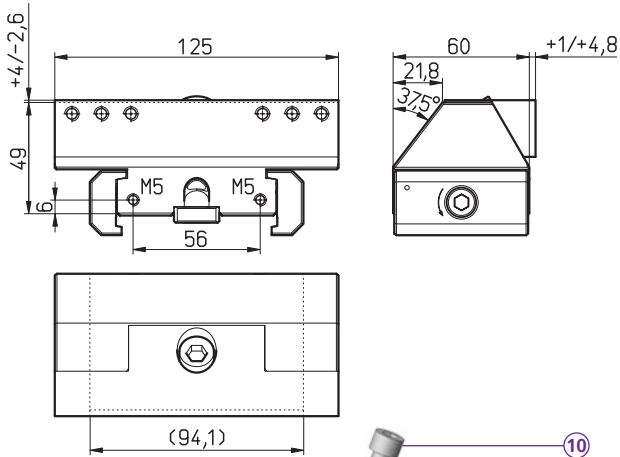
PS5X 94N49 -90	
1	1x PS5X 94N49 -90
2	1x _____
3	1x PCSP 60R
4	1x PCSP 60L
5	1x PCS 14
6	1x PCGU 20 49
7	1x M6x8 ISO 7380
8	2x M5x14 ISO 4762
9	2x PCD 005
10	1x M10x25 ISO 4762
11	2x FED 0618
kg	2

	B90	B91	B92	B93	B94
C	94	94	94	94	94
H	25	25	25	25	25
L	23	23	23	23	23
D	11	11	11	11	11
ø	15	15	15	15	15
i	HV700xHV700x 0,2mm 0,2mm	*		HV700x 0,2mm	*



PS5X 125N49 -95
PA5X 125-49 R/F

5axesCLAMP



PA5X 125-49 F	
PA5X 125-49 R	
1	1x PA5X 125-49- (F/R)
3	1x PCSP 60R
4	1x PCSP 60L
5	1x PCS 14
6	1x PCGU 20 49
7	1x M6x8 ISO 7380
8	2x M5x10 ISO 4762
kg	2,7

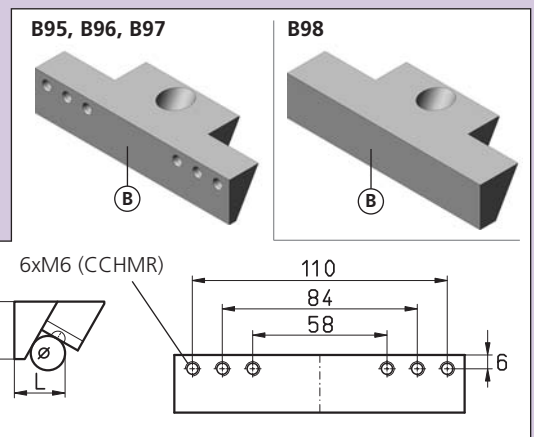
PS5X 125N49 B95

Bestellbeispiel / ordering example / exemple de commande:

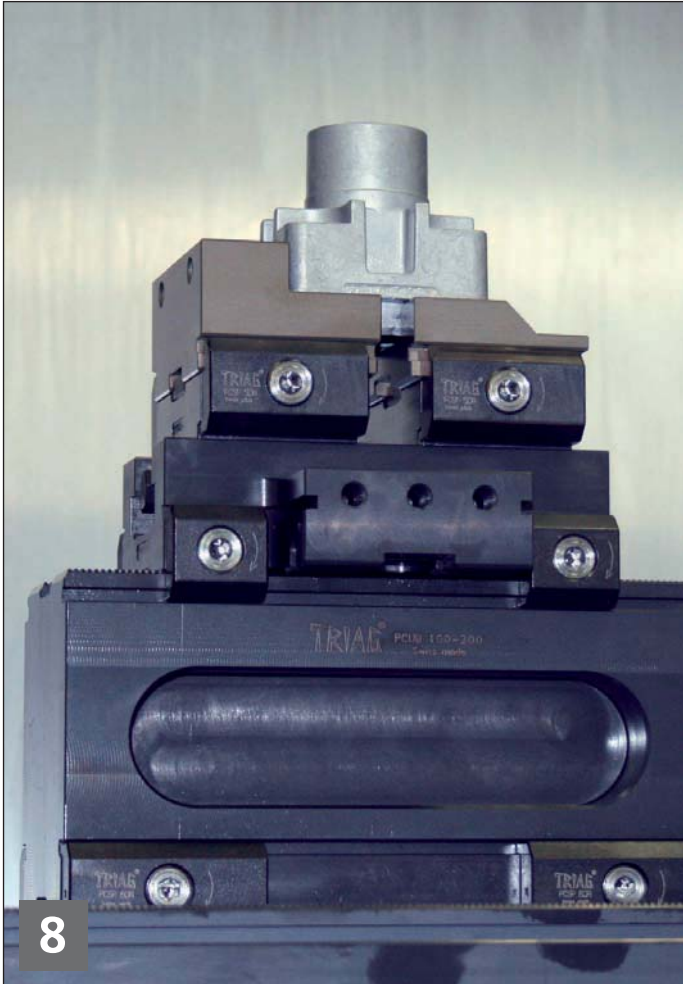
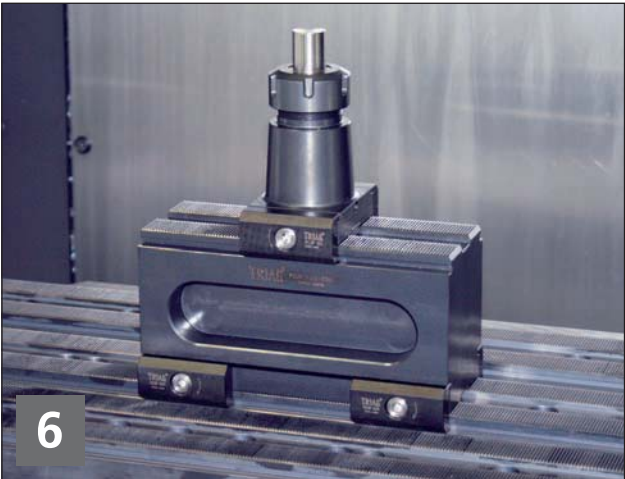
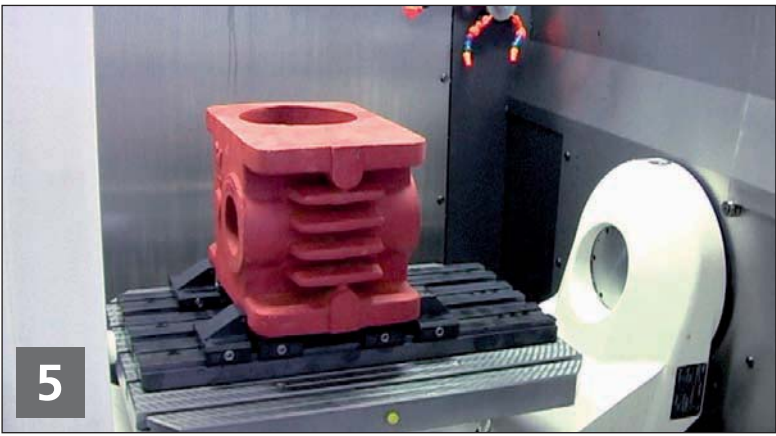
PA5X 125-49 F

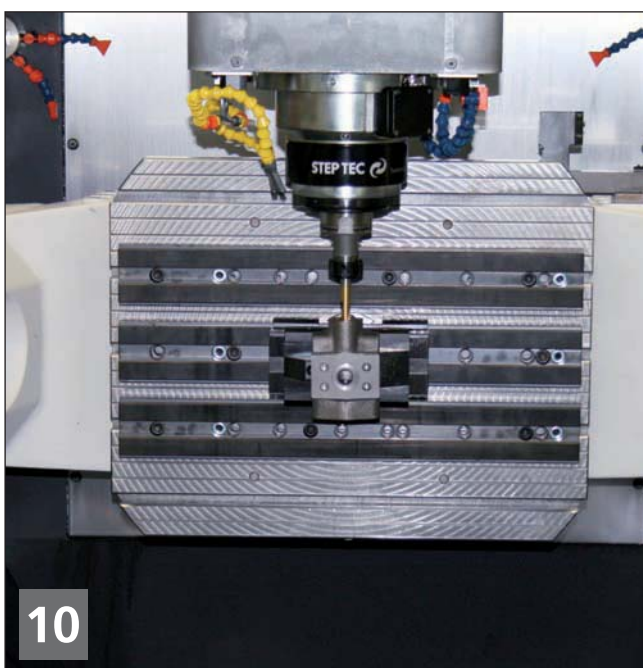
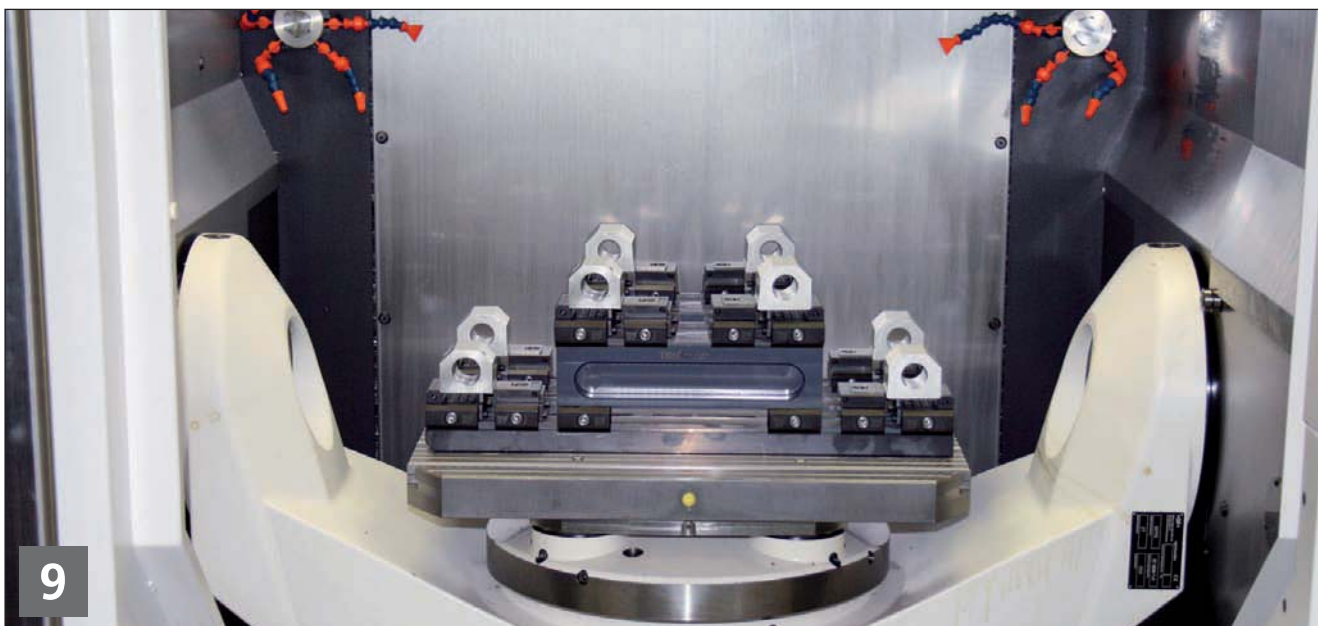
PS5X 125N49 -95	
1	1x PS5X 125N49 -95
2	1x
3	1x PCSP 60R
4	1x PCSP 60L
5	1x PCS 14
6	1x PCGU 20 49
7	1x M6x8 ISO 7380
8	2x M5x16 ISO 4762
9	2x PCD 005
10	1x M10x25 ISO 4762
11	2x FED 0618
kg	2,4

	B95	B96	B97	B98
C	125	125	125	125
H	25	25	25	25
L	23	23	23	29
D	11	11	11	11
o	15	15	15	15
i	HV700xHV700x 0,2mm 0,2mm		*	*



* = weich / soft / doux







powerCLAMP

Das am schnellsten verstellbare Spannsystem mit der grössten Auswahl an Spannmodulen! Die Positionierung erfolgt mittels einer Verzahnung auf der Schiene. Befestigung mit einer Schraube!



compactCLAMP

Das flexible Modulspannsystem! Die Positionierung erfolgt mittels Präzisionsbohrungen in Noniusanordnung. Die Spannelemente werden mit der Basis verstiftet und können sich daher nicht verschieben.



microCLAMP

Kleinst-Vorrichtungsbau Module für eine maximale Spanndichte. Sie haben eine grosse Spannkraft (bis 4'000 daN), der benötigte Abstand zwischen den Werkstücken ist im Optimalfall nur 15 mm.



tripoxyMINERAL

Spanntürme aus Mineralguss. Die Vibrationsdämpfung ist zehn mal besser als bei Grauguss. Das spezifische Gewicht ist hingegen kleiner als bei Aluminium. Erhältlich in vielen verschiedenen Formen.



mivaCLAMP

Vakuumspannsystem: Bestens geeignet für plattenförmige Werkstücke (auch nicht magnetische). Es können sowohl Druckstellen als auch Deformationen an labilen Teilen vermieden werden.



aptoCLAMP

Die hohe Spannkraft dieses Systems ermöglicht den Einsatz für schwere Zerspanung.



triGEL

Spannen mit Eis. Sehr gut geeignet für unförmige Teile. Es erlaubt mehrseitiges Bearbeiten ohne Neuspannen. Das Haftvermögen ist sehr gross, wobei die Gefrier- und Auftauzeiten sehr gering sind.



oppSystem

Unser Nullpunktpalettiersystem ermöglicht ein genaues Positionieren von Mehrfachspannsystemen, Schraubstöcken und Vorrichtungen auf Maschinentischen oder Spanntürmen.



5axesCLAMP

Modulares Spannsystem für 5-Achsen-Maschinen. Es ermöglicht ein freies Zukommen der Maschinenspindel zum Werkstück. Sowohl kleine wie grosse Werkstücke können damit problemlos gespannt werden.

powerCLAMP

This multiple workholding system is known to be the fastest for setting up. A great variety of vice modules are available for easy adaptation. Positioning by means of a teethed base rail. Repositioning by opening one single screw!

compactCLAMP

The simple and flexible multiple workholding system! Positioning by bores arranged in vernier type layout. The workholding modules are pinned down to the base and thus can't move.

microCLAMP

Miniature clamping modules to be used on dedicated fixtures. Having a high clamping force (up to 4'000 daN) the distance between workpieces is only 15 mm in optimum set up.

tripoxyMINERAL

Tombstones made of composite concrete. Vibration damping effect is ten times better than with cast iron. Specific weight on the other hand is less than aluminum. Available in many different shapes.

mivaCLAMP

Workholding by vacuum: Suited for plateshaped workpieces (also for non magnetical). Pressure marks as well as deformations on soft parts can be avoided.

aptoCLAMP

The high clamping force of the aptoCLAMP enables heavy cuts.

triGEL

Workholding by freezing: Well suited for strangely shaped parts. It allows processing from more than one side without unclamping. Holding effects are very strong whereas freezing and defrosting times are very short.

oppSystem

Our zero-point palleting system allows exact positioning of multiple workholding systems, vices and dedicated fixtures on machining tables or tombstones.

5axesCLAMP

This modular workholding system was specifically developed for 5-axes machines. It allows the machine spindle to access freely to the workpiece. Both small and large workpieces can be clamped without difficulties.

powerCLAMP

Le plus rapide système de serrage réglable avec le plus grand choix de modules de serrage! Le positionnement du module s'effectue grâce à une denture rectifiée sur le rail de base. Le positionnement du module est garanti par une seule vis.

compactCLAMP

Le système de serrage modulaire le plus flexible. Le positionnement s'effectue avec des alésages de précision disposés en ordre Nonius. Les modules de serrage sont fixés sur la base avec des goupilles et de ce fait ne peuvent pas se déplacer.

microCLAMP

Le plus petit module pour la construction de gabarits et pour une surface maximale de serrages. Les modules de serrage microCLAMP ont une grande force de serrage (jusqu'à 4'000 daN). La distance nécessaire entre les pièces à usiner est dans le cas optimal de 15 mm.

tripoxyMINERAL

Les tourelles de serrage en fonte minérale. L'atténuation des vibrations est dix fois supérieure à la fonte grise. Le poids spécifique est plus petit que l'aluminium. Elles sont livrables en diverses formes.

mivaCLAMP

La meilleure solution pour la fixation de pièces plates (aussi non magnétique). Pas de marques ou blessures sur des matières tendres et pas de déformation avec des pièces instables.

aptoCLAMP

La grande force de serrage de ce système rend sa mise en service possible.

triGEL

Fixation par glaciation. Recommandé pour des pièces difformes. Permet l'usinage sur plusieurs côtés sans nouvelle fixation. La force de fixation est très grande et le temps de prise et de dégel est très court.

oppSystem

Notre système de palettisation point zéro garanti un positionnement précis du système de serrage multiple, des étaux, gabarits, constructions spéciales sur la table de la machine ou sur la tourelle de fixation.

5axesCLAMP

Le système de serrage modulaire pour machines à 5 axes. Ce système autorise un libre accès avec la broche de la machine vers la pièce à usiner. Ce système garanti le serrage de petites et de grandes pièces à usiner.