



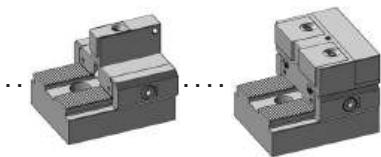
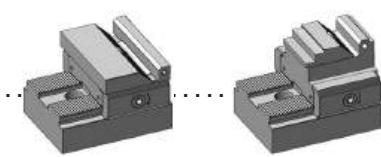
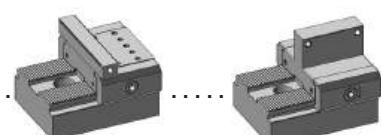
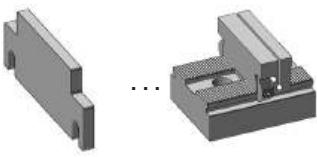
powerCLAMP & 5axes



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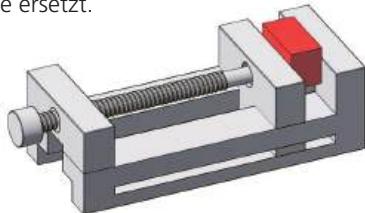
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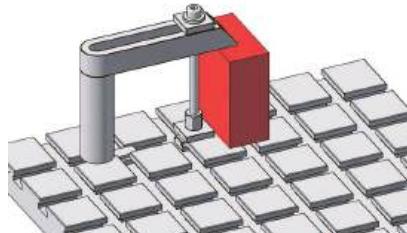
Warum modular Spannen Why modular workholding

powerCLAMP

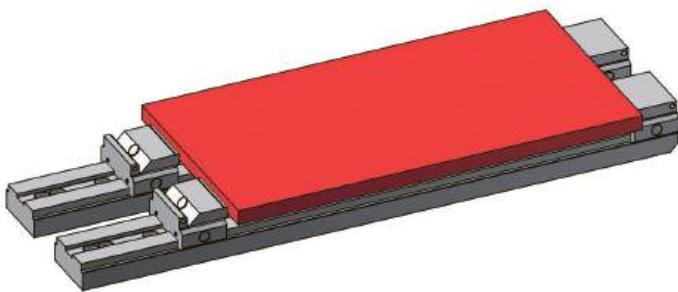
Der klassische Maschinenschraubstock ist für gewisse Zerspanungsarbeiten vielfach die richtige Wahl, obwohl man einen Spannstock ohne Mehrkosten auch mit einem Modularsystem aufbauen kann. Er wird durch die erhöhten Anforderungen an die Prozessop- timentierung immer mehr durch modulare Spann- systeme ersetzt.



Spannen mit dem Spannstock
Clamping with the machine vise

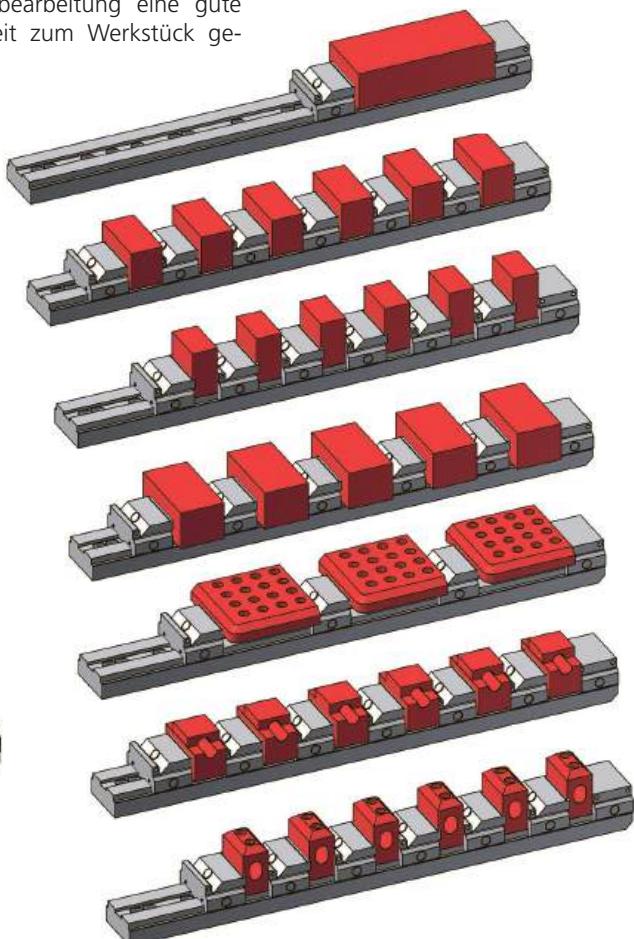


Spannen mit Spannpratzen
Clamps in operation

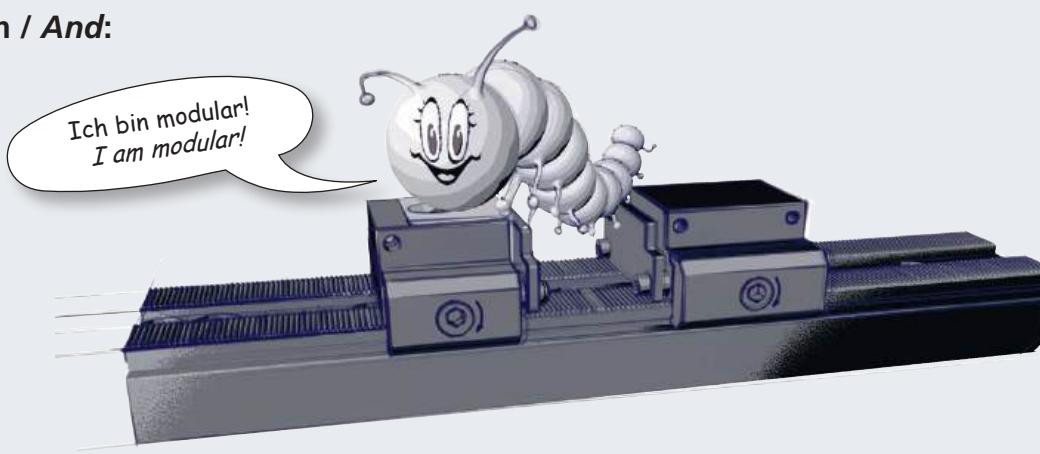


The classic machine vise is still a good option, on the other hand can you set up the same with a modular clamp system without higher costs! Because of always increasing demand and high competition you see more modular systems at endusers places, to keep up with productivity.

With modular clamp system you achieve a high flexibility and also grosser Spanndichte erreicht. Dies high density of holding workpieces. führt auch bei der Einzelteil- und Kleinserienfertigung zur Senkung der kostenintensiven Nebenzeiten, This brings you big advantages also by producing single parts or small quantities! Compared to dedicated fixtures you can use this vises for Wertschöpfungskette darstellen. Ge- genüber Vorrichtungen ist der Vorteil, dass bei einem modularisiertem Aufbau die Aufspannung aus einem Baukastensystem (also standardisierten Einzelbauteilen) besteht, die kostengünstiger sind und für andere Aufspannungen wiederverwendet werden können. Zudem wird für die 3-Seitenbearbeitung eine gute Zugänglichkeit zum Werkstück gewährleistet.



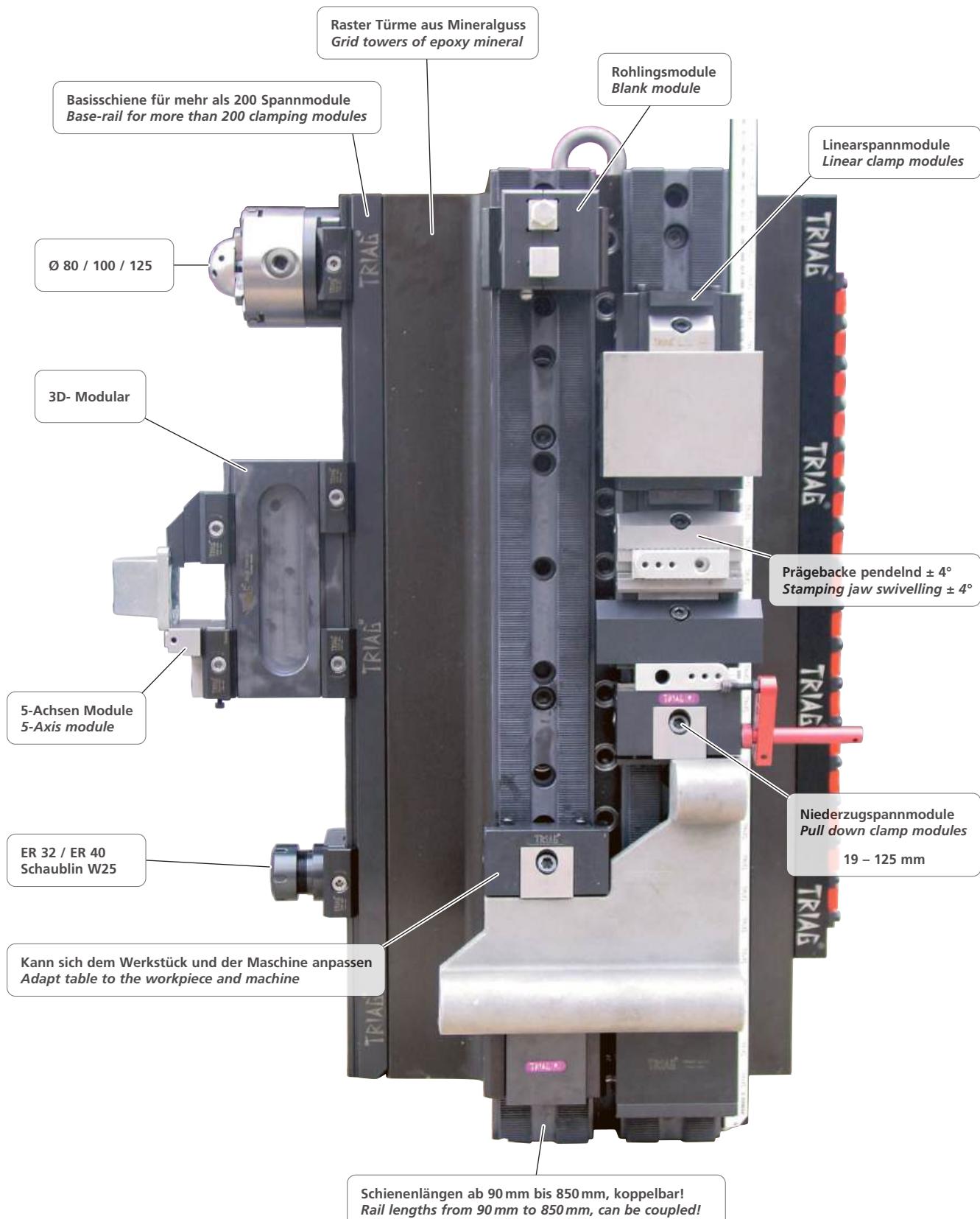
Ausserdem / And:



Die Idee des modularen Spannens

The idea of modular workholding

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Modulares Spannen =

**Einzelspannung, Mehrfachspannung sowie auch das Spannen von kleinen, grossen oder unformigen Werkstücken.
Chaotisches, gemischtes spannen!**

Modular workholding =

**Single clamping, multiple clamping small parts and large workpieces can be clamped, also shaped parts are possible to clamp.
Mixed setups in chaotical clamp situation!**

Mit dem Spannsystem Power Clamp hat die Triag International ein Produkt entwickelt, welches die Vorteile des klassischen Maschinenschraubstocks mit der Modularität eines innovativen Spannsystems in einer optimalen Art und Weise kombiniert und eine enorme Vielseitigkeit bietet. Einfache Spannungen sind genauso möglich wie Mehrfachspannungen und Spannungen von schwierigen Werkstücken.

With Power Clamp Triag has developed a produkt which includes the advantages of a classical vise and has the features of an advanced modular system. It can be used to clamp single parts (small and big) or multiple workholding as well as difficult to clamp parts.

Schnelligkeit / Quickness



Eine Schraube lösen
Loosen a screw

Mit nur einer Schraubspindel, welche von beiden Seiten her zugänglich ist, werden die positionierten Module in einem patentierten Pratzensystem zuverlässig geklemmt.

Die Module können an jeder Stelle der Trägerschienen aufgesetzt werden. Verglichen mit dem üblichen axialen Aufschieben beschleunigt das den Aufbau von Mehrfachspannern und ermöglicht, diese Spannsysteme auch bei begengten Platzverhältnissen komfortabel zu rüsten.

Abheben und neu platzieren
lift and change position

With only one bolt screw (left and right hand thread) the clamp modules can be lifted and change position in 2mm steps.

This patented system is unique and fast, as well as accurate.

Eine Schraube anziehen
fasten one screw



Drehmoment beachten
Observe the torque

Geringes Gewicht Low weight



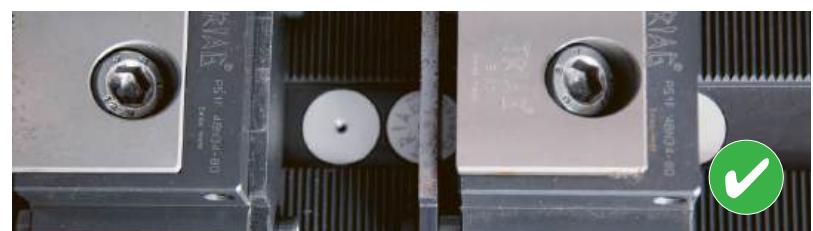
= Einfaches Handling
= Easy handling

Das Modul kann mit zwei Fingern abgehoben werden.

The clamp module can be moved by two fingers.



Einfache Reinigung Easy cleaning



Keine spänefüllenden T-Nuten (im Gegensatz zu vielen Wettbewerbsprodukten) - Basis bilden stabile, mit Teilstücken verlängerbare Trägerschienen. Sie verfügen über eine hochgenau gefräste Verzahnung.

Eine Vielzahl an Spannmodulen mit unterschiedlichen Spannelementen lassen sich auf den Trägerschienen in einem Raster von 2 mm positionieren.

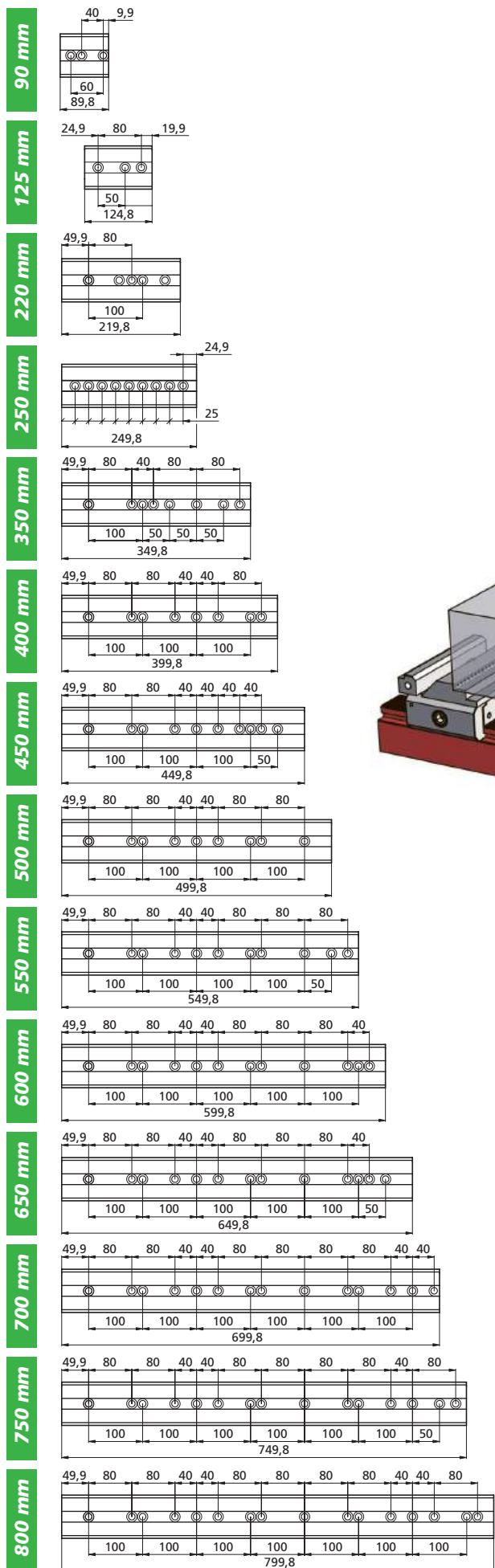
No chip catching T-slots (opposite of many competitors). The base rails are rigid and can be used modular in length width and hight. The serration is accurate and checked for each base rail.

Many different clamp modules can be used on only one type base rail (step 2 mm)

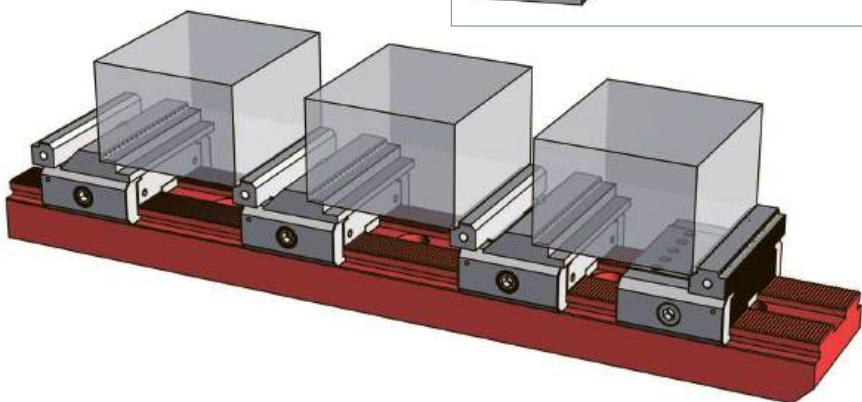
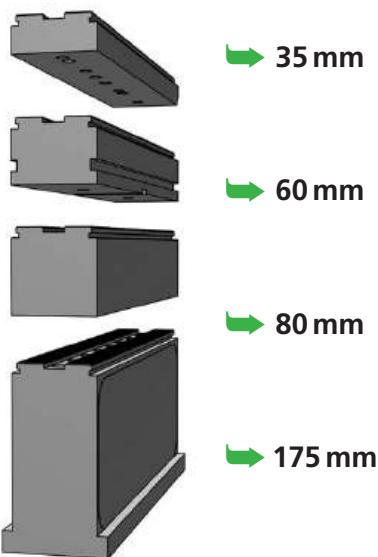


Basisschienen / Base rails

Masssystem / Measurement system = metric & inch powerCLAMP



Schienen sind in den folgenden Höhen lieferbar:
Rails are in following ups available:



Basisschiene

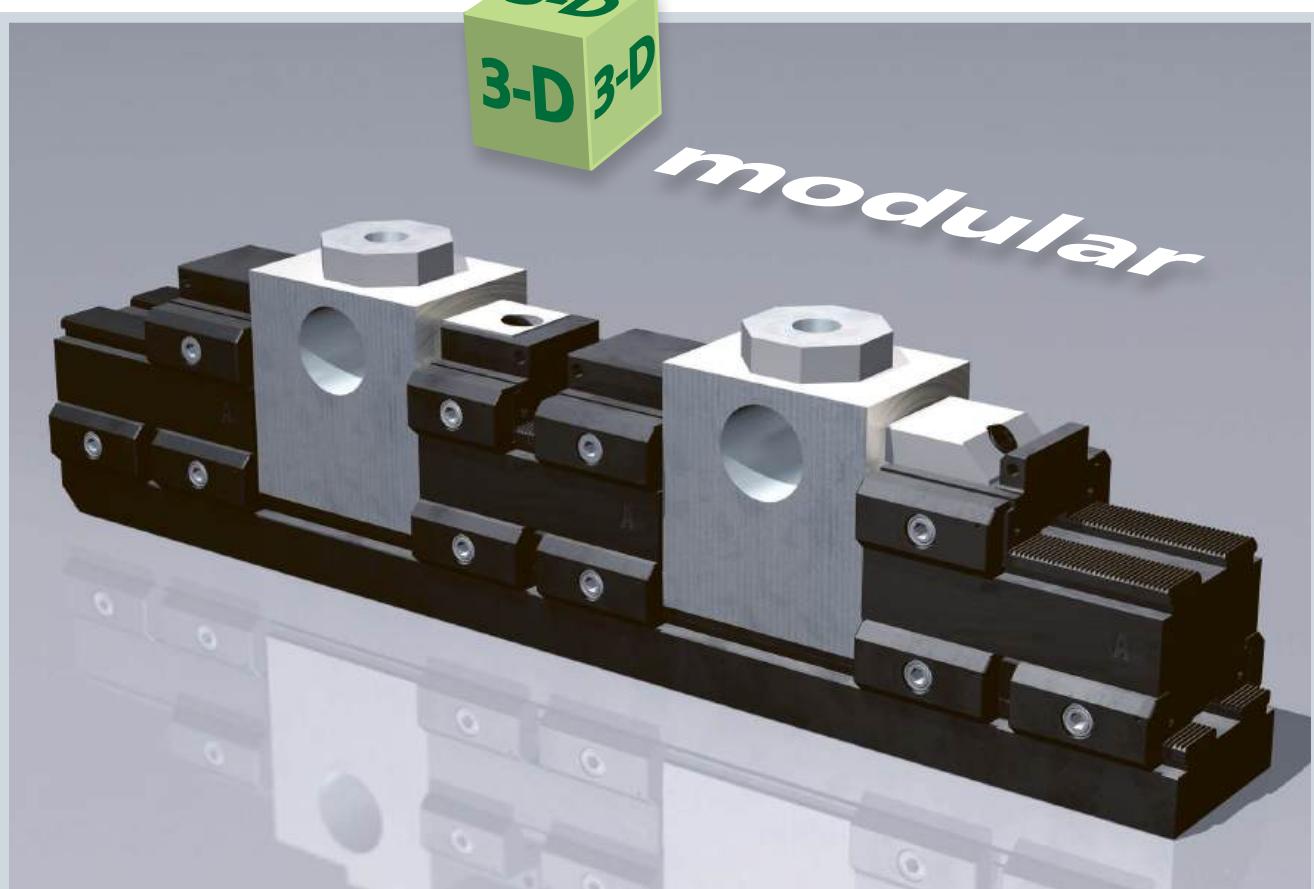
Die Basisschiene ist das Grundelement des modularen Spannsystems von Triag International und ist in den Höhen 35 mm, 60 mm, 80 mm und 175 mm verfügbar. Auf der Basisschiene werden alle Spann- und Anschlagmodule über eine Schraubspindel mit einer Haltekraft von 15.000 daN (= 15 t) befestigt. Eine schnelle und genaue Positionierung ist durch die Verzahnung (2 mm Teilung) auf der Basisschiene gewährleistet und sorgt somit für kurze Rüstzeiten.

Durch den Einsatz von Erhöhungsmodulen wird die Werkstück-Zugänglichkeit speziell bei 5-Achsenmaschinen auch mit kurzen Werkzeugaufnahmen ermöglicht. Somit ist die Maximalgrösse der Werkstücke nur noch durch die Maschinengrösse eingeschränkt. Die Basisschiene dient in diesem Zusammenhang als mechanisches Nullpunktssystem.

Die Basisschienen sind für eine schnelle Aufspannung auf den gängigsten Palettenystemen konzipiert. Aus Gewichtsgründen können auch die eigens entwickelten Spanntürme aus Mineralguss eingesetzt werden. Diese verfügen über eine so hohe Vibrationsdämpfung, dass dadurch im oberen Bereich der Türme sehr präzise gearbeitet und dabei eine exzellente Oberflächengüte erreicht werden kann.

Basisschienen / Base rails

Masssystem / Measurement system = metric & inch powerCLAMP



Mit verschiedenen Basismodulen kann man auch die 3. Dimension Modular gestalten! Mit der Höhe von 60 mm kann die Modulhöhe auf 94 respektive auf 109 mm erhöht werden (34/49 Modulhöhe). Die Länge von 130 mm erlaubt es jeweils ein Spannmodul und ein Anschlagmodul zu platzieren.

There are different sizes of riser blocks to increase the height of the clamp modules. This way you can get from 34 to a clamp height of 94 or 109 mm depending on the clamp module you choose. This riser blocks makes the power clamp system 3D-modular!

Mehr auf Seite | More on Page 48

Base rail

The base rail is the basic element of the Triag modular clamp system. We offer them in different lengths and heights and more than a hundred different standard clamp modules will fit onto the base rails.

Holding force which the clamp modules are clamped to the base rail is 15'000 daN (15 t). The precision serration in 2 mm pitch allows to fit the clamps fast and accurate.

All three dimension are modular! You can double or triple the length with coupling the rails or you can use them side words in a row. Also the height is modular (please see next page)



Basisschienen in Zoll
Base rails in inch



Die Module Modules

über 200 Standard Module
over 200 standard modules

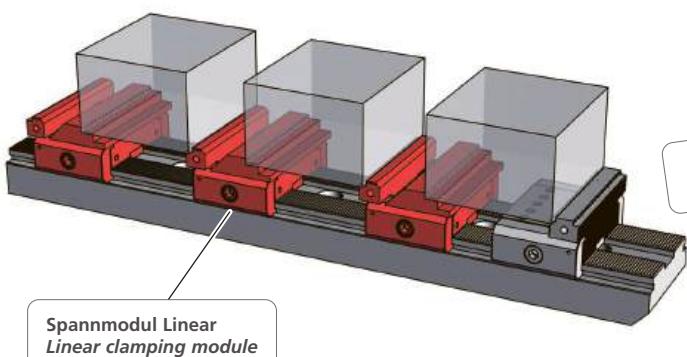
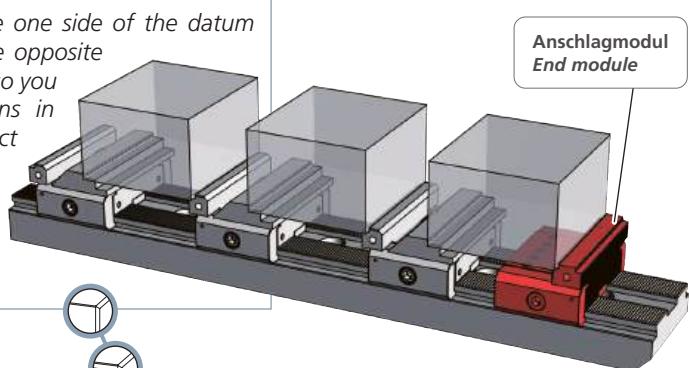
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Das Anschlagmodul / End modules

Für das Spannsystem «Power Clamp» ist in der Regel nur ein Anschlagmodul als «feste Backe» notwendig. Mittels der 2 mm Verzahnung lässt sich das Modul sehr genau auf der Basisschiene positionieren und ist mit der Schraubspindel schnell befestigt.

Für die unterschiedlichen Bearbeitungssituationen steht eine Vielzahl von Ausführungen zur Verfügung. Diese unterscheiden sich in der Breite der Backen (ab 19 mm bis max. 150 mm) als auch in der Beschaffenheit der Spannflächen (glatt, geriffelt, gerillt, hartmetallbeschichtet oder mit Prägeverzahnung, mit der direkt geprägt werden kann).

In a row of parts there is usually one end module followed by the clamp modules. For all the different clamp situation we offer a wide range of different end modules from 19 mm to 150 mm.
Usually you have one side of the datum face flat and the opposite double serrated so you have two options in one. Also direct stamping end modules with a workholding step of 3 mm are available.



Verschiedene Ausführungen der Anschlagflächen!
Different styles at grip surfaces!



Lineare Direktprägespannung
Linear direct stamping module

Das Spannmodul / Clamp modules

Die «beweglichen Backen» gibt es in zwei Ausführungen. Zum einen für das Niederguzspannungsyste und zum anderen für das Linearspannungsyste. Dabei dient das Spannmodul bei beiden Systemen wiederum als Anschlagmodul für die nächste Aufspannung.

Die Breite der Spannfläche bewegt sich wie bei den Anschlagmodulen im Bereich zwischen 19 mm und 125 mm. Durch die innovativen Ausführungen der Spannflächen wie z. B. die Prägebäcken oder Druckstifte werden enorme Haltekräfte erreicht.

Bei umfangreichen Testreihen zu der Werkstückverschiebung bei einer Spannkraft von 2000 daN und einer Zerspankkraft von bis zu 600 daN wurden bei der Verwendung von Prägebäcken nur minimale Abweichungen vom Nullpunkt festgestellt. Leichte Abweichungen von der Parallelität der Werkstücke werden mit der Pendelfunktion ($\pm 4^\circ$) ausgeglichen.

Innovative Lösungen gibt es auch für spezielle Spannaufgaben, wie z.B. Formbacken, Dreibacken- und Spannzangenfutter, Vakuumplatten oder Magnetspannplatten.

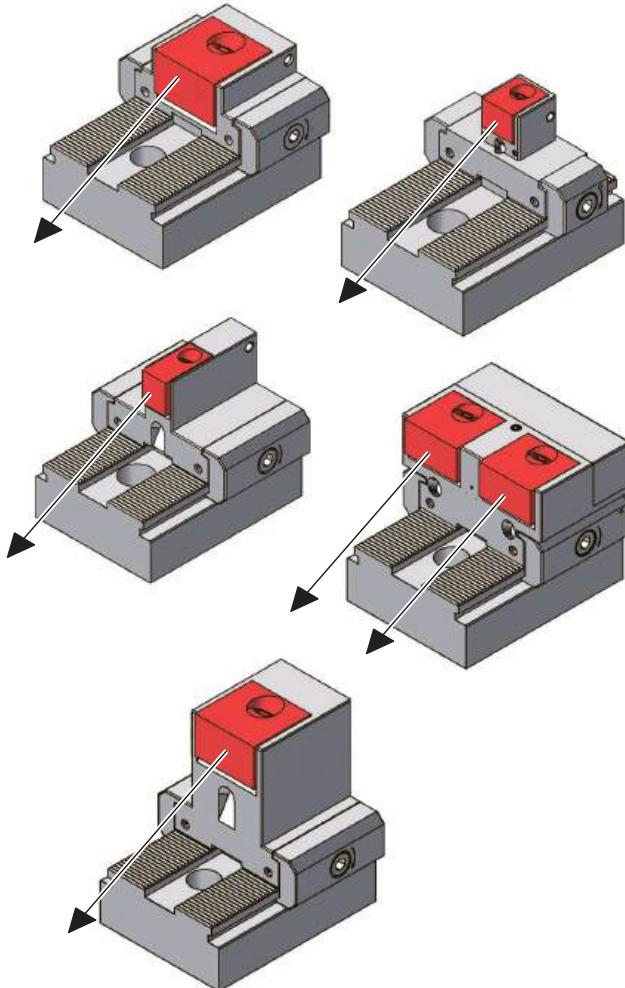
There are mainly two different types of clamp modules. Linear and pull down jaws both with integrated datum face for the next workpiece. Datum face can normally be double serrated or flat.

The movable jaws you can get in various versions such as hardened flat, carbide coated soft jaws double serrated, linear pull down, direct stamping dovating and more. The width of the clamps modules starts from 19 mm up to 125 mm.

Clamping force goes to a maximum of 2800 daN (2,8t).

For special clamping situations we offer also chucks, collet chucks vacuum plates or even magnet plates which fits onto the Power Clamp base rails.

**Niederzugspannmodule
Pull down clamp modules**



Die Fakten beim Niederzugspannsystem

Verstellbereich: 0- 4,1 mm
Spannkraft: Bis 2'800 daN

Vorteile beim Niederzugspannsystem:

- Höhere Haltekräfte
- Hohe Wiederholgenauigkeit
- Optimale Spannmethode für Kleinteile
- Mit Schnellwechselbacken
- Doppelspannsystem in einer Backe zum Spannen und Bearbeiten von zwei Kleinteilen
- Mit Vorsatz als Linearspannsystem einsetzbar
- Auch Anschläge mit Niederzugeffekt erhältlich

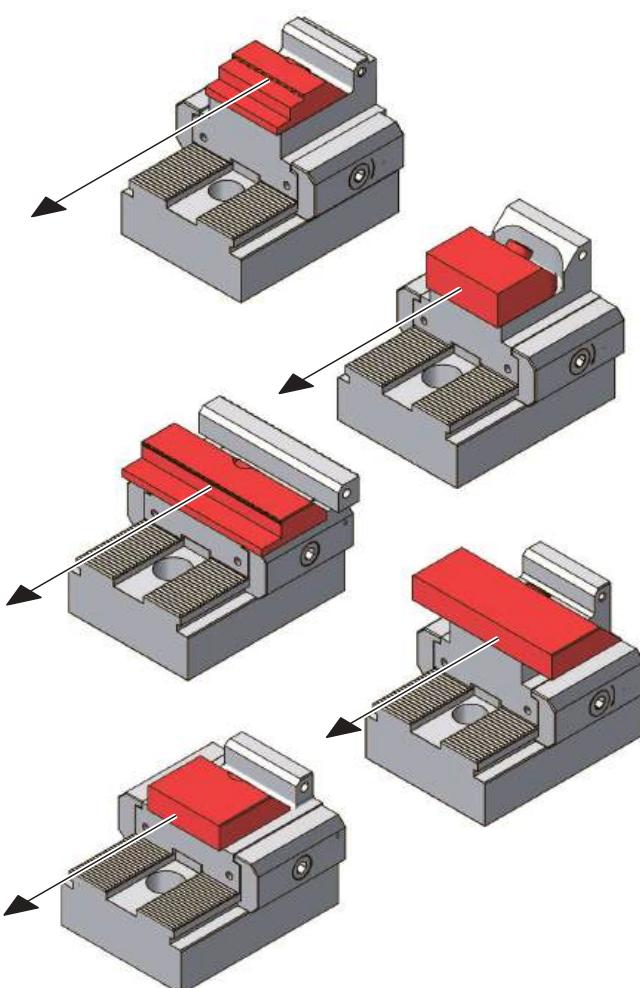
Facts for pull down clamp modules

Jaw range: 0- 4,1 mm
Clamping force: up to 2'800 daN

Advantages pull down jaws:

- Higher holding force
- With linear adaptable jaws
- Also with pull down jaws for the stop side available
- With adapter set can be changed to linear
- Also pull down jaws for datum face

**Linearspannmodule
Linear clamp modules**



Die Fakten beim Linearspannsystem

Verstellbereich: 0- 5,0 mm
Spannkraft: Bis 1'600 daN

Vorteile beim Linearspannsystem:

- Spannstockähnliches Spannen
- Prozesssichere Positionierung der zweiten Aufspannung
- Gut geeignet für die Erstellung von individuellen Formbacken
- Sicherer Halt mit Prägetechnik

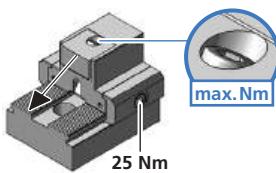
Facts for linear clamp modules

Jaw range: 0- 5,0 mm
Clamping force: up to 1'600 daN

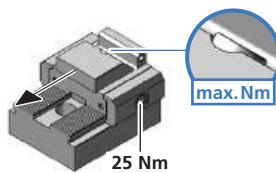
Advantages linear jaws:

- Similar clamp as conventional vise
- Good for shaped jaws
- Secure clamped with direct stamping jaws
- Higher accuracy

ACHTUNG / CAUTION



Niederzug Spannmodul
Pull adown module



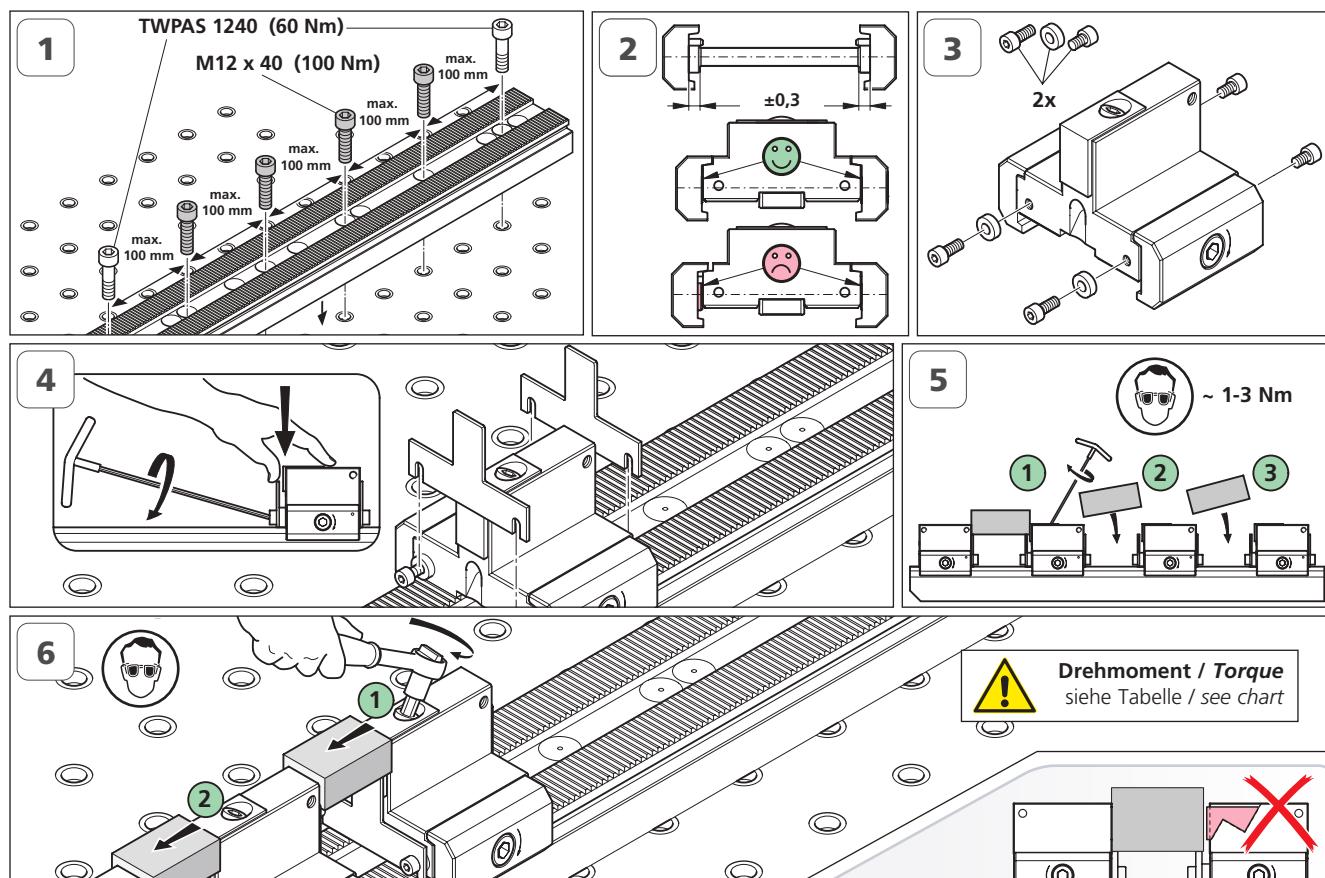
Linear Spannmodul
Linear module

Schraube / Screw	Drehmoment / Torque		Spannkraft / Workholding force		
	Nm	(lb-ft)	~daN	~(lb)	~t
M5 + M6	4	3	= 500	1100	0,50
	5	3,7	= 580	1280	0,58
	6	4,4	= 690	1520	0,69
	7	5,2	= 780	1720	0,78
	8	5,9	= 880	1940	0,88
	9	6,6	= 980	2160	0,98
M6	10	7,4	= 1020	2250	1,02
	12	8,9	= 1220	2690	1,22
	14	10,4	= 1450	3200	1,45
M8	15	11	= 1520	3350	1,52
	4	3	= 410	900	0,41
	5	3,7	= 490	1080	0,49
	6	4,4	= 560	1230	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
	15	11	= 1520	3350	1,52
	20	14,8	= 1810	3990	1,81
M10	25	18,4	= 2100	4630	2,10
	10	7,4	= 400	880	0,40
	20	14,8	= 1400	3090	1,40
	30	22,1	= 2000	4410	2,00
	40	29,5	= 2800	6170	2,80

Schraube / Screw	Drehmoment / Torque		Spannkraft / Workholding force		
	Nm	(lb-ft)	~daN	~(lb)	~t
M8	10	7,4	= 400	880	0,4
	20	14,8	= 800	1760	0,8
	30	22,2	= 1200	2650	1,2
	40	29,6	= 1600	3530	1,6

WICHTIG: Die angegebenen Drehmomente sind die absoluten Maximalwerte. Über die Spannkräfte geben die Tabellen 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.

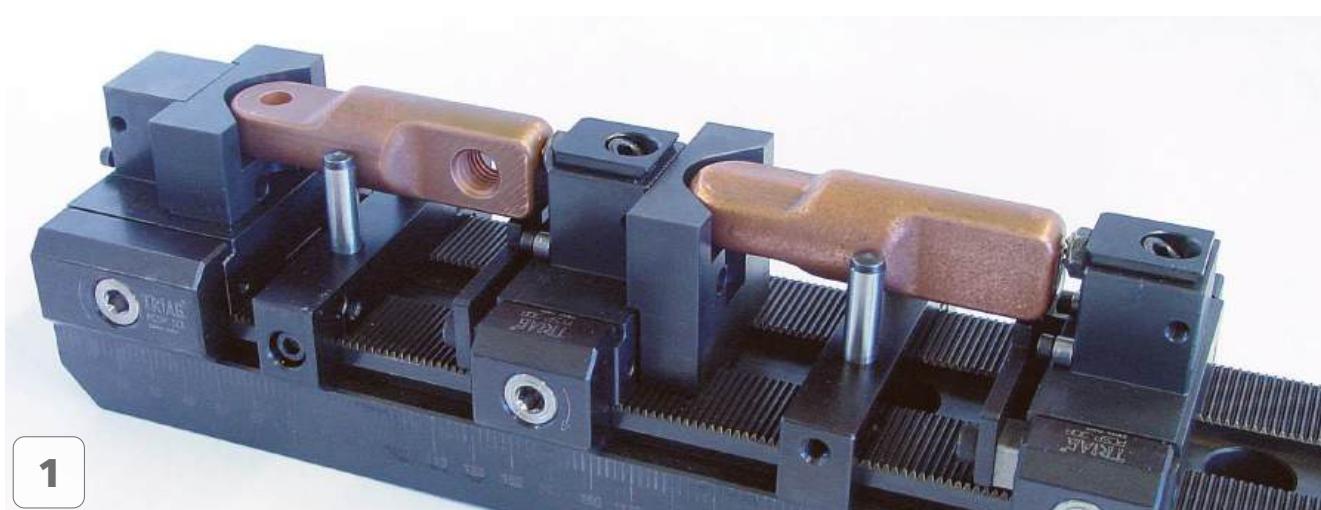


7 WICHTIG:

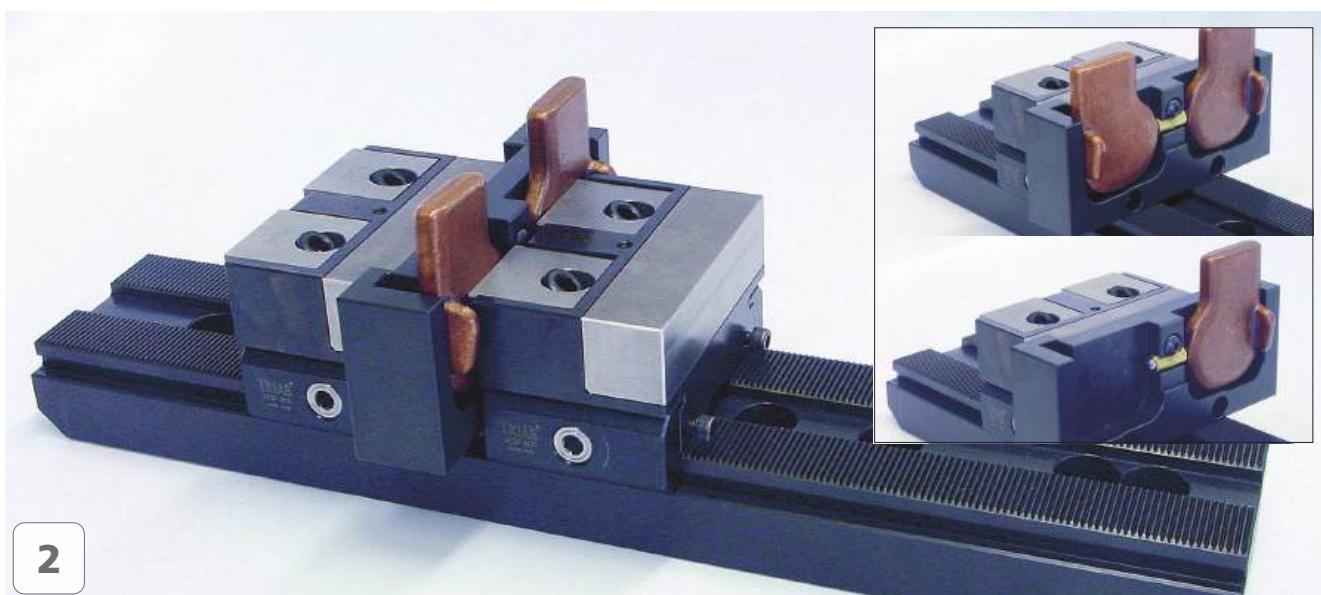
Vor dem Positionieren der Spannmodule für ein neues Werkstück, ist die **Spannbacke ganz zurück zu stellen**, dies gewährleistet eine sichere Spannung!

IMPORTANT:

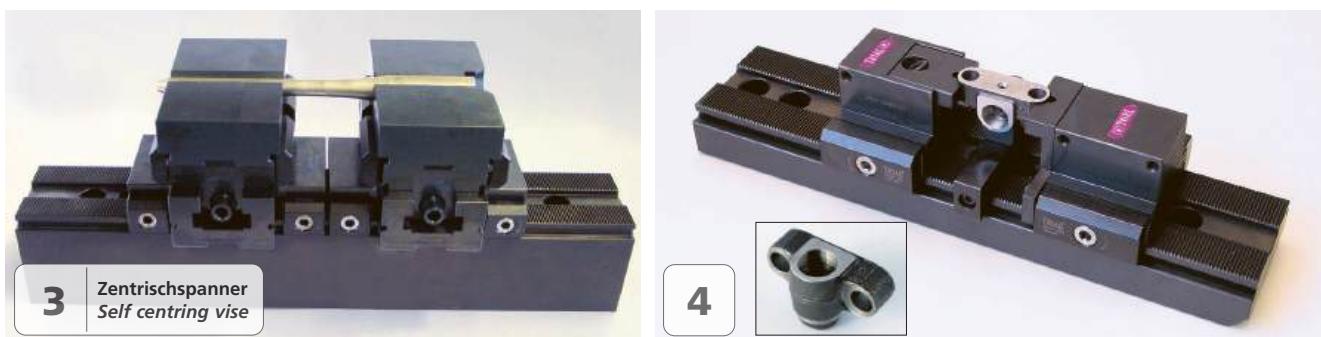
Prior to setting up a new clamping module the **clamping jaw of the vice module must be retracted all the way!** This guarantees proper clamping of the new workpiece.



1



2



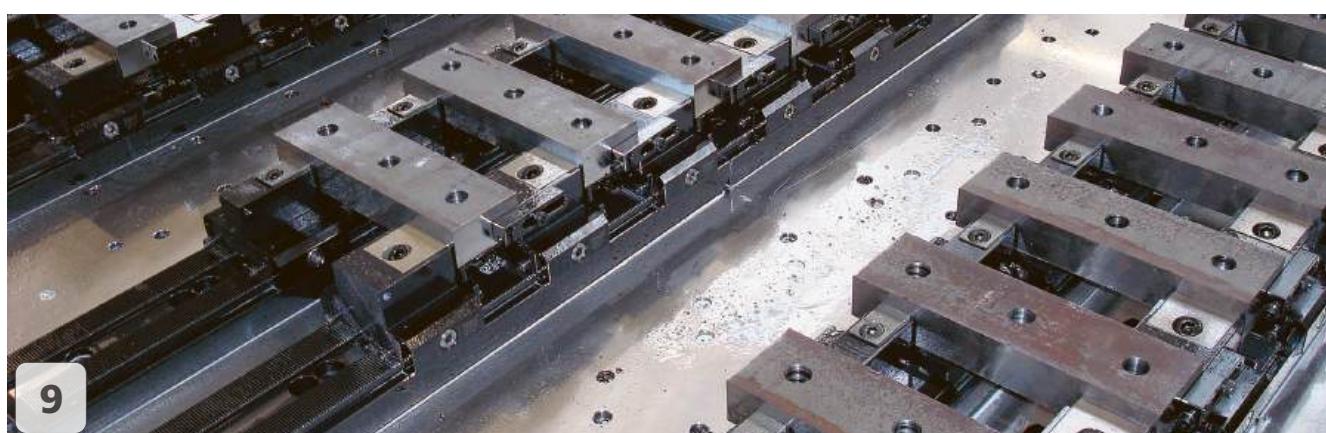
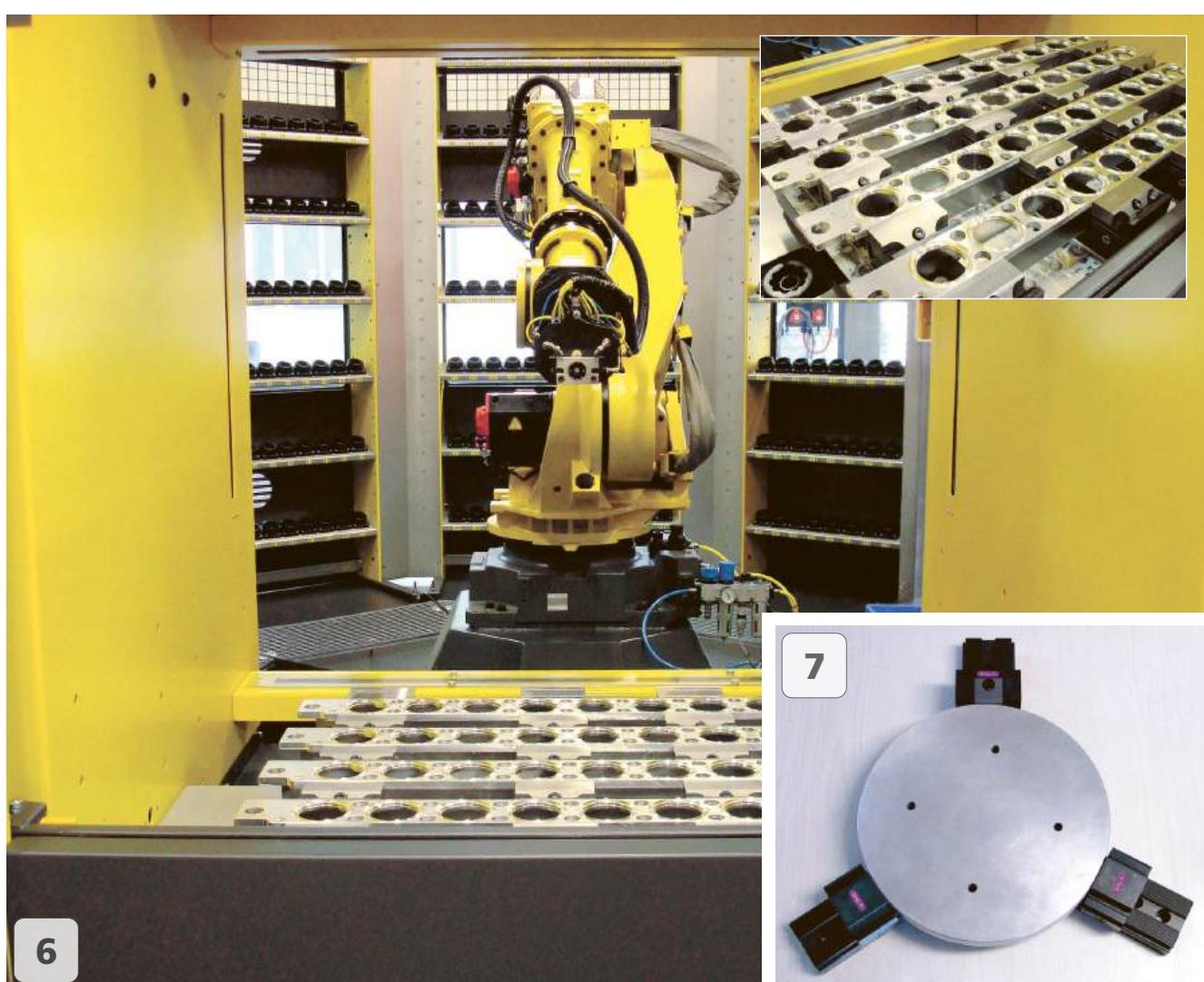
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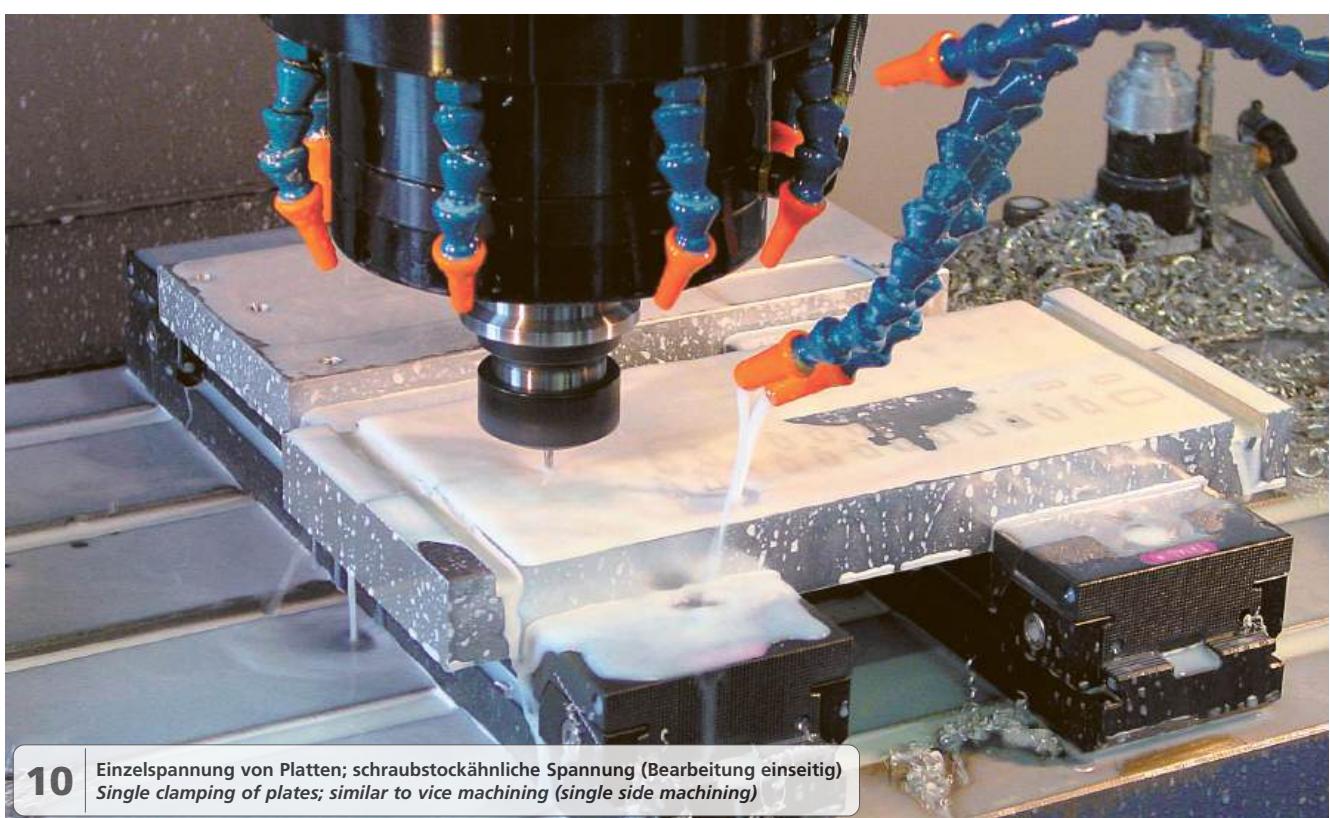
Zentrischspanner
Self centring vise

4



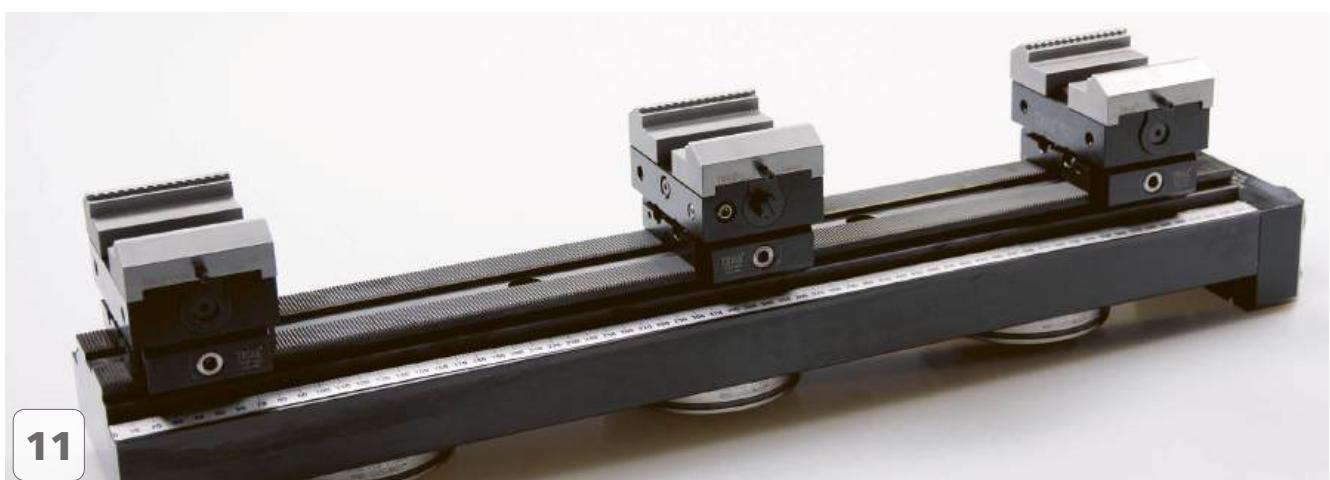
5





10

Einzelspannung von Platten; schraubstockähnliche Spannung (Bearbeitung einseitig)
Single clamping of plates; similar to vice machining (single side machining)

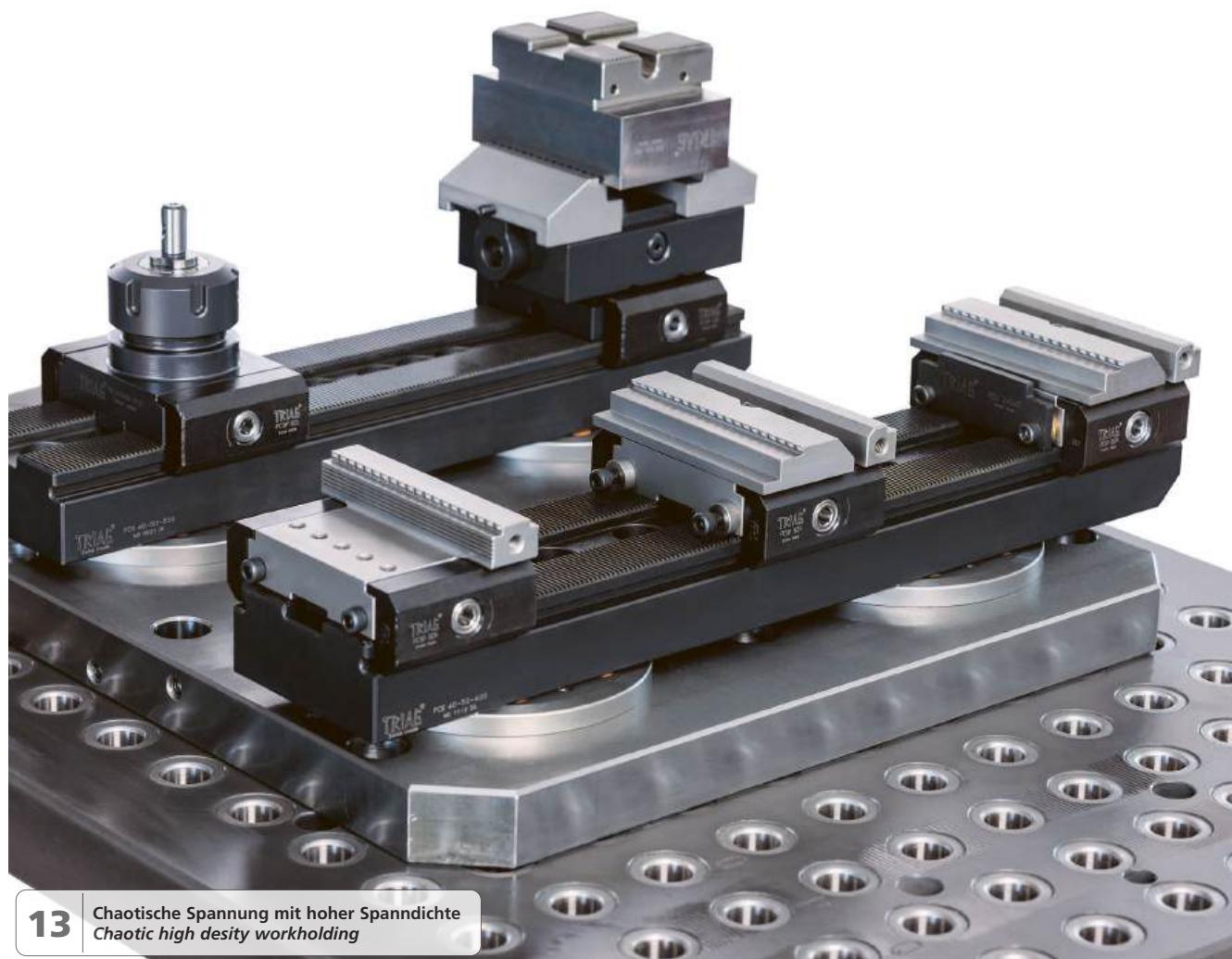


11



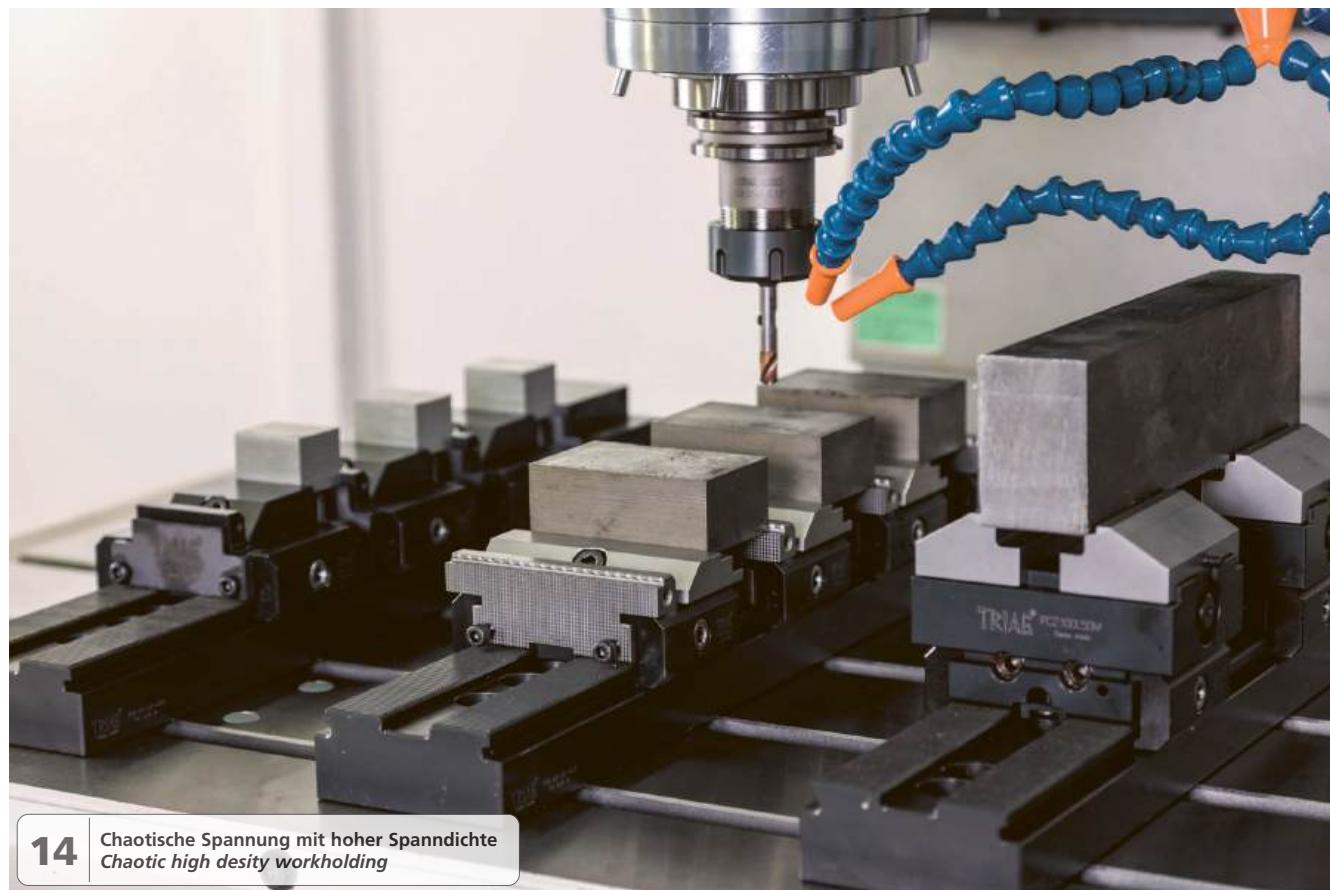
12

Verschiedene dringende Werkstücke in Bearbeitung, Grundplatte, Nutenstein und Keile (Total 9 Werkstücke)
Various urgent work pieces in progress, base plate, nuts and wedges (totally 9 pieces)



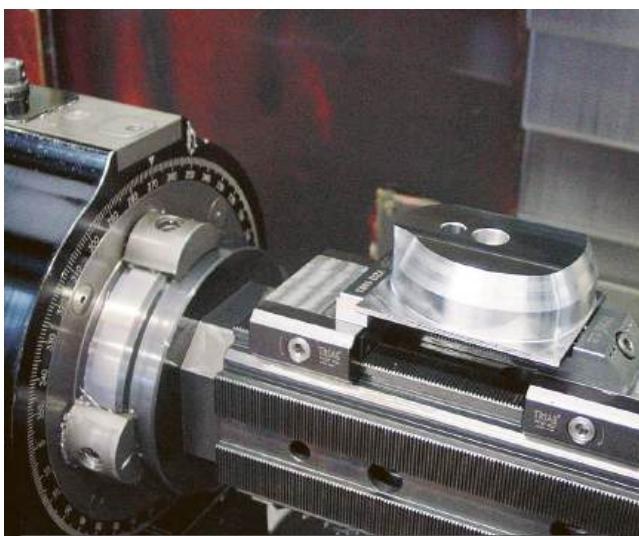
13

Chaosche Spannung mit hoher Spanndichte
Chaotic high desity workholding



14

Chaosche Spannung mit hoher Spanndichte
Chaotic high desity workholding



15 Prägespannung auf sehr kleiner Einspannhöhe von 3 mm
Clamped 3 mm depth with direct stamping jaws



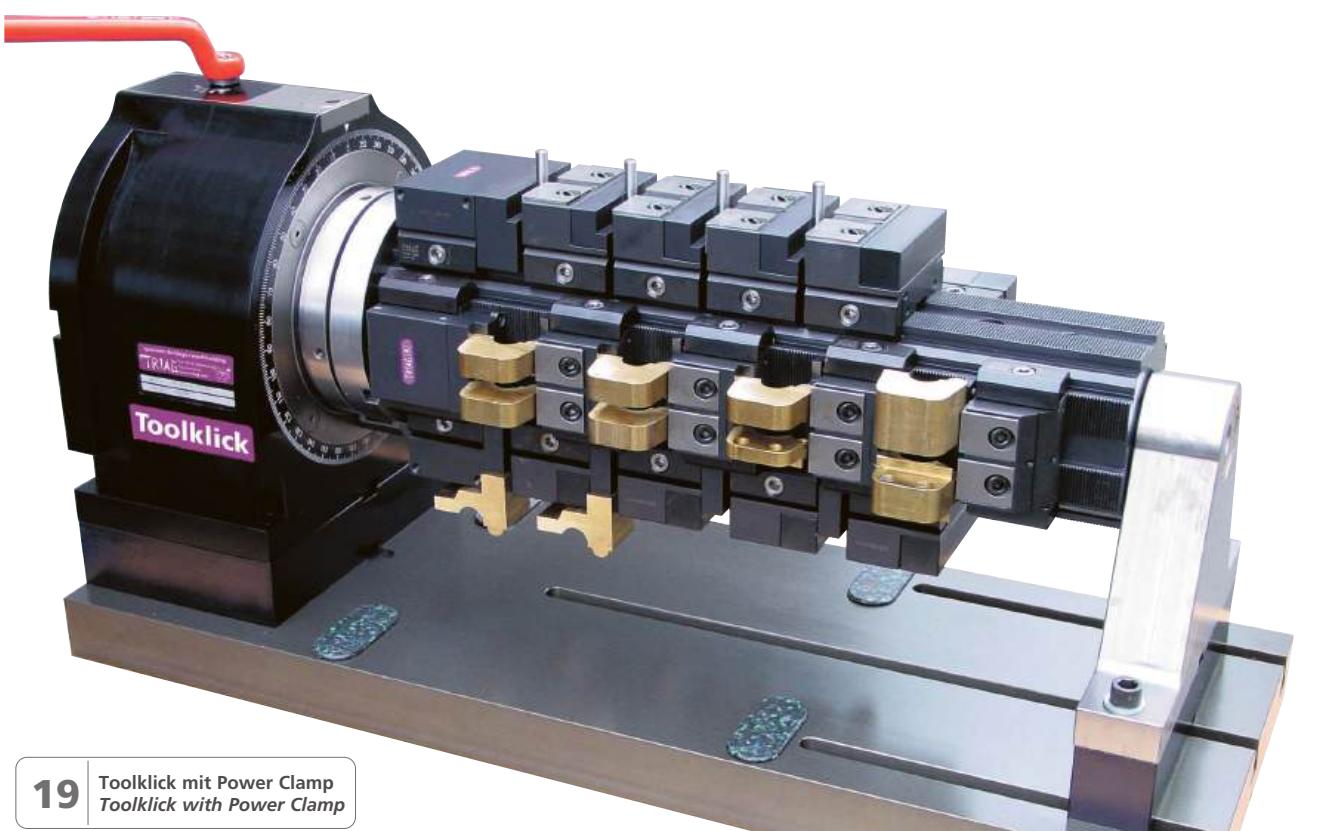
16 Dreiseitenbearbeitung ab 19 mm
Three-sided machining beginning at 19 mm



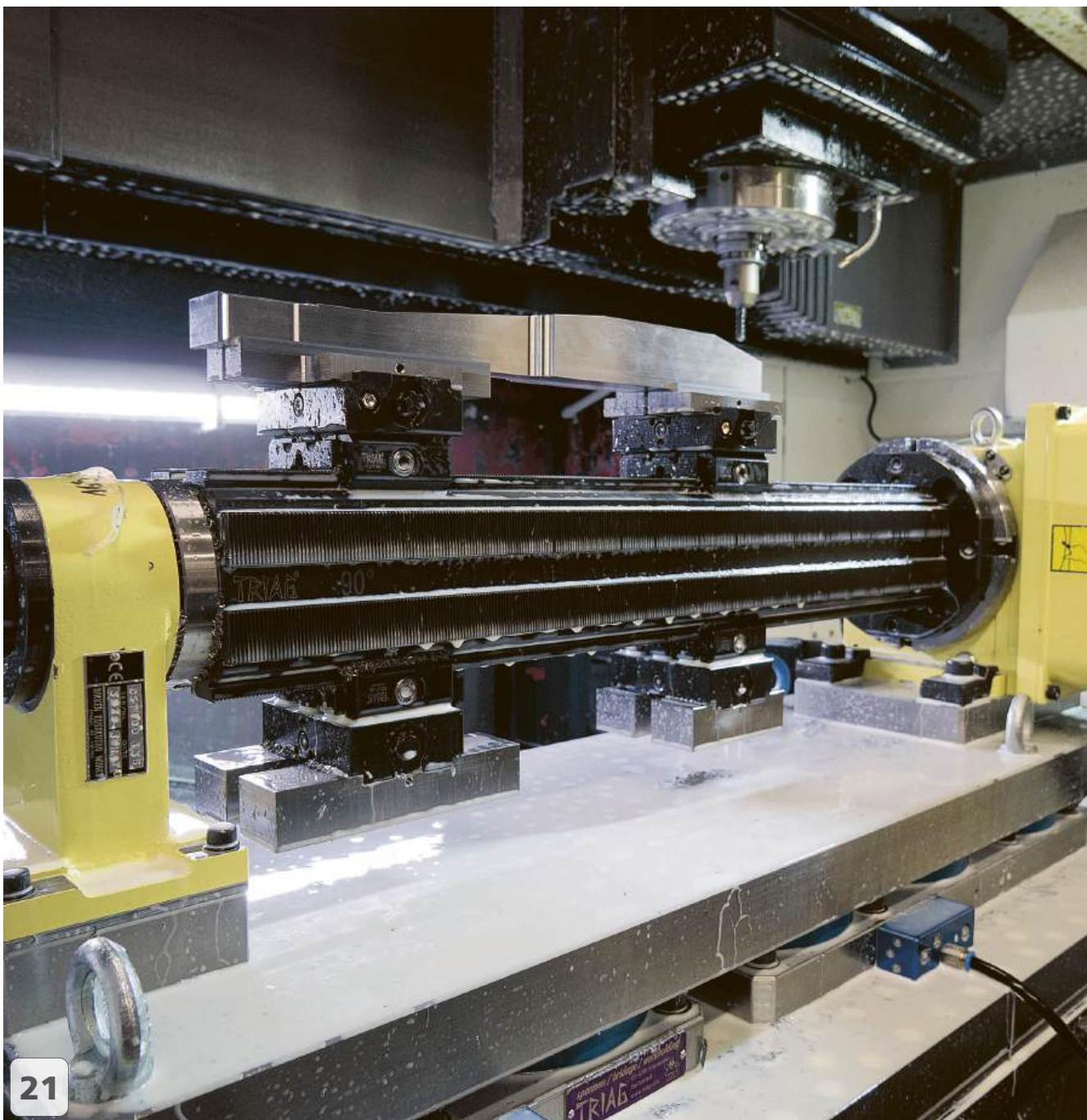
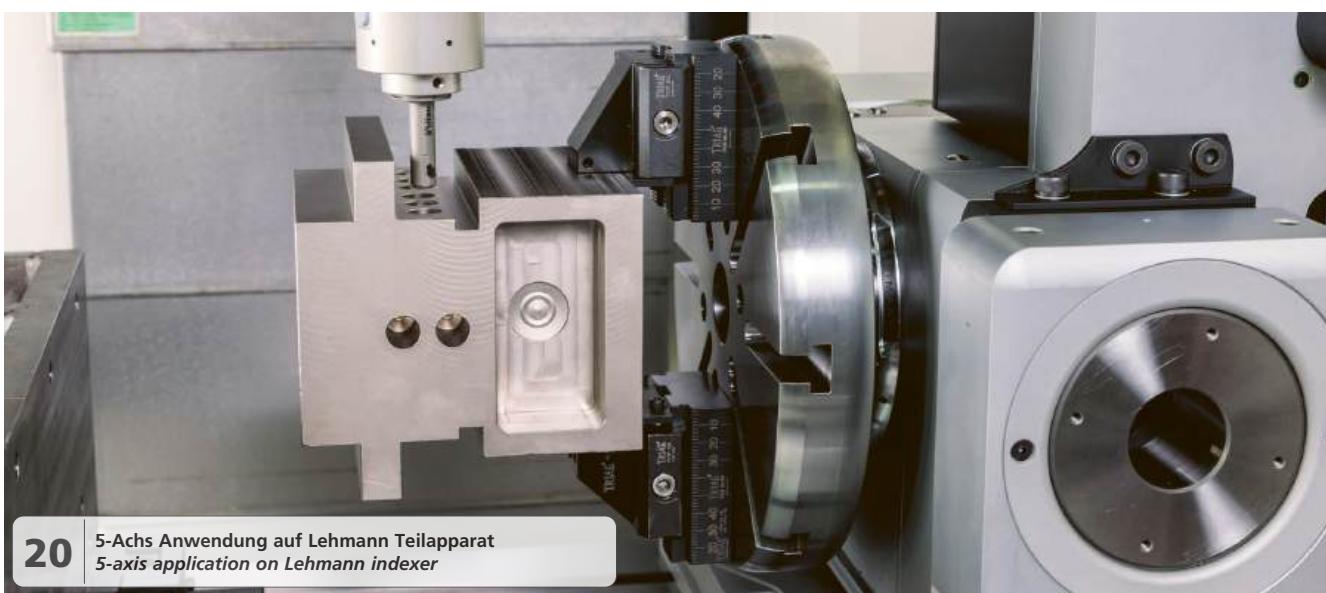
17 ... im Einsatz auf der 4. Achse
... in action on the 4th axis

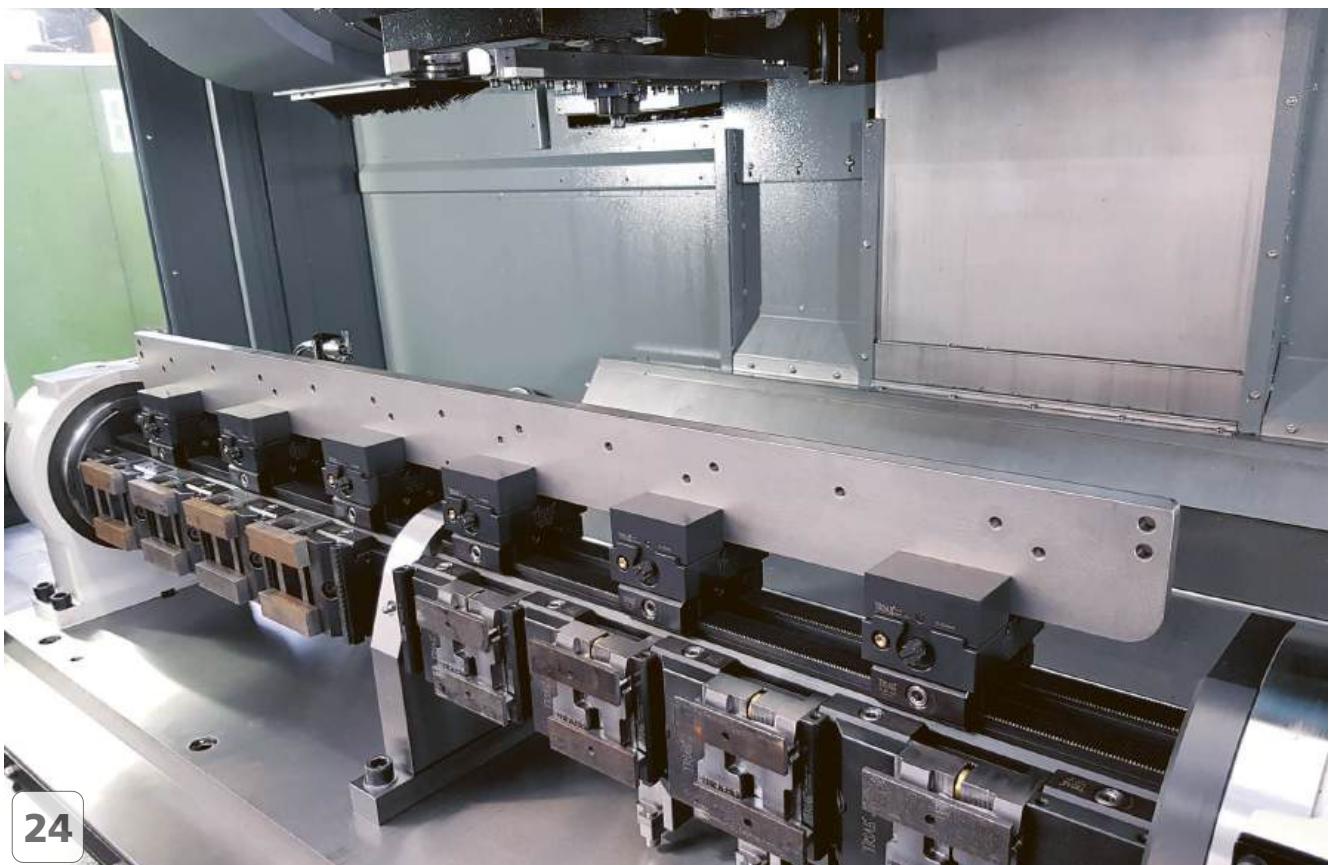
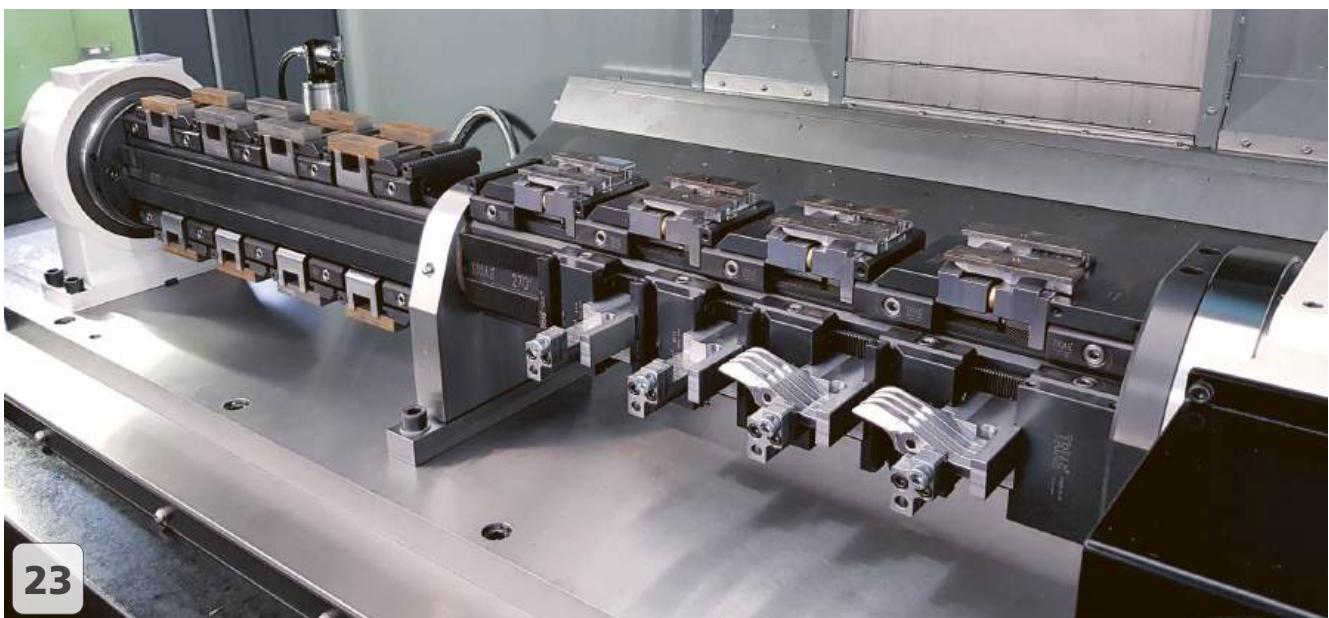
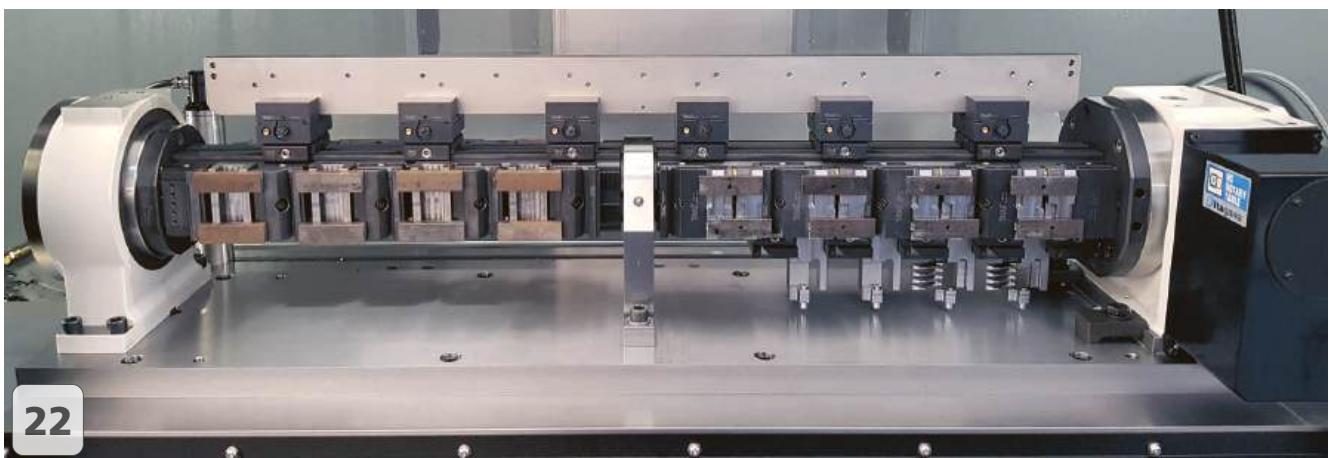


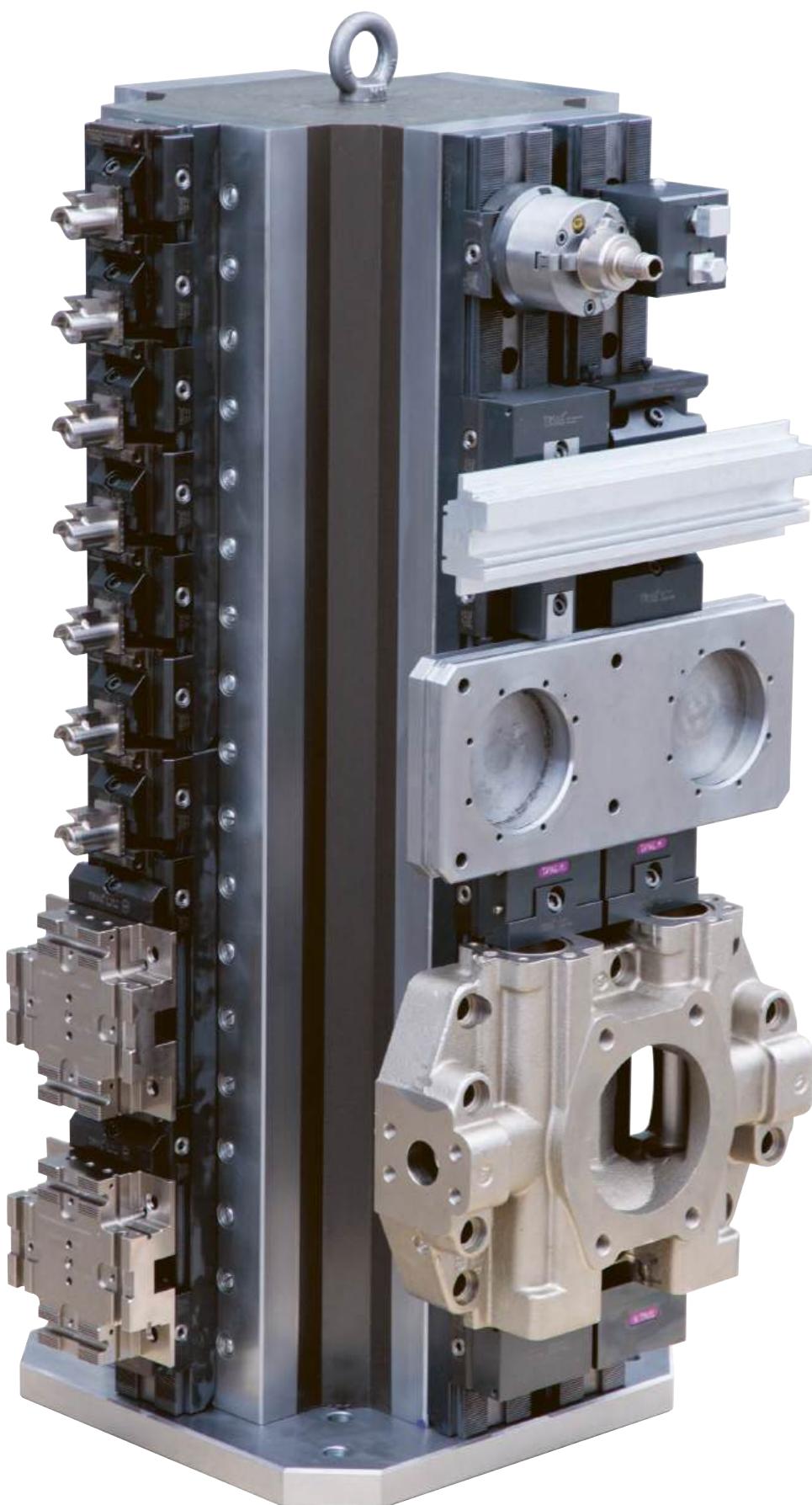
18 Das Triag Power Clamp im Einsatz als Spannstock (Starterset)
Triag Power Clamp in action as machine vise (starter set)



19 Toolclick mit Power Clamp
Toolclick with Power Clamp





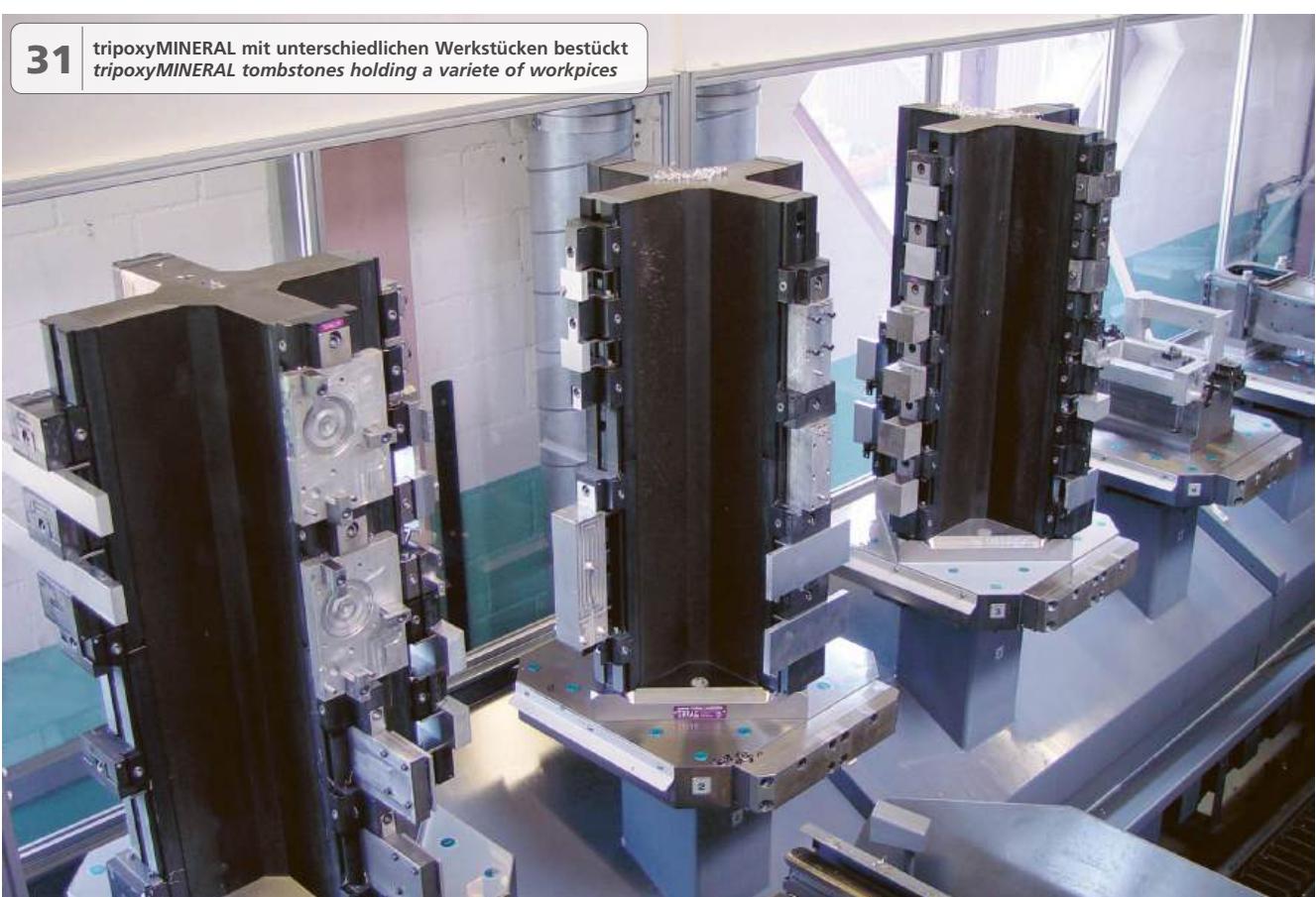


25

tripoxyMINERAL Kreuzturm mit PowerCLAMP Schienen für chaotische Spannung
tripoxyMINERAL Cross version with PowerCLAMP baserails for chaotic workholding

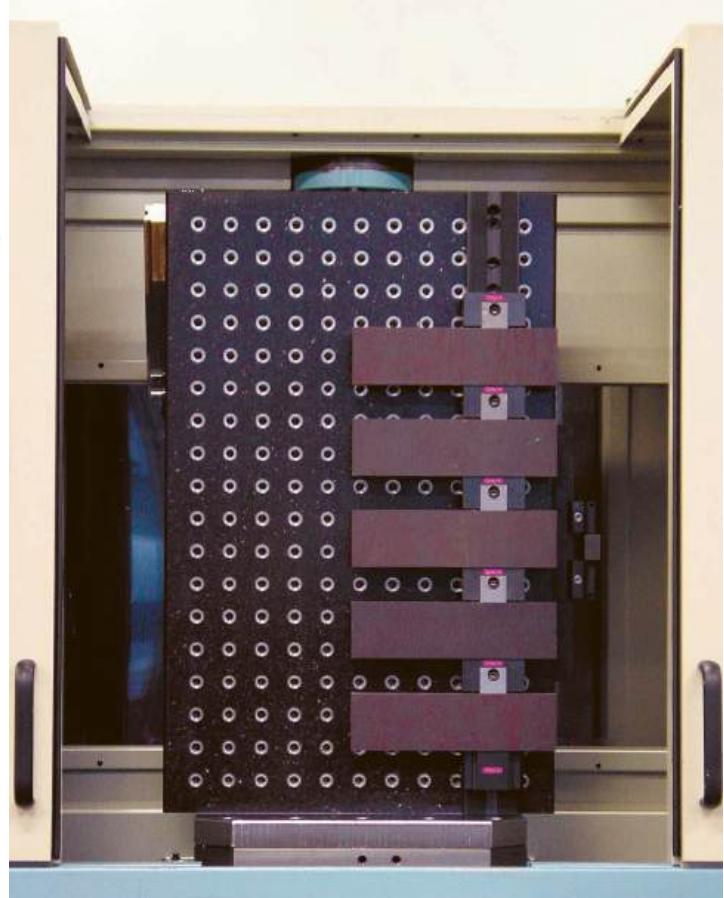
31

tripoxyMINERAL mit unterschiedlichen Werkstücken bestückt
tripoxyMINERAL tombstones holding a variete of workpieces



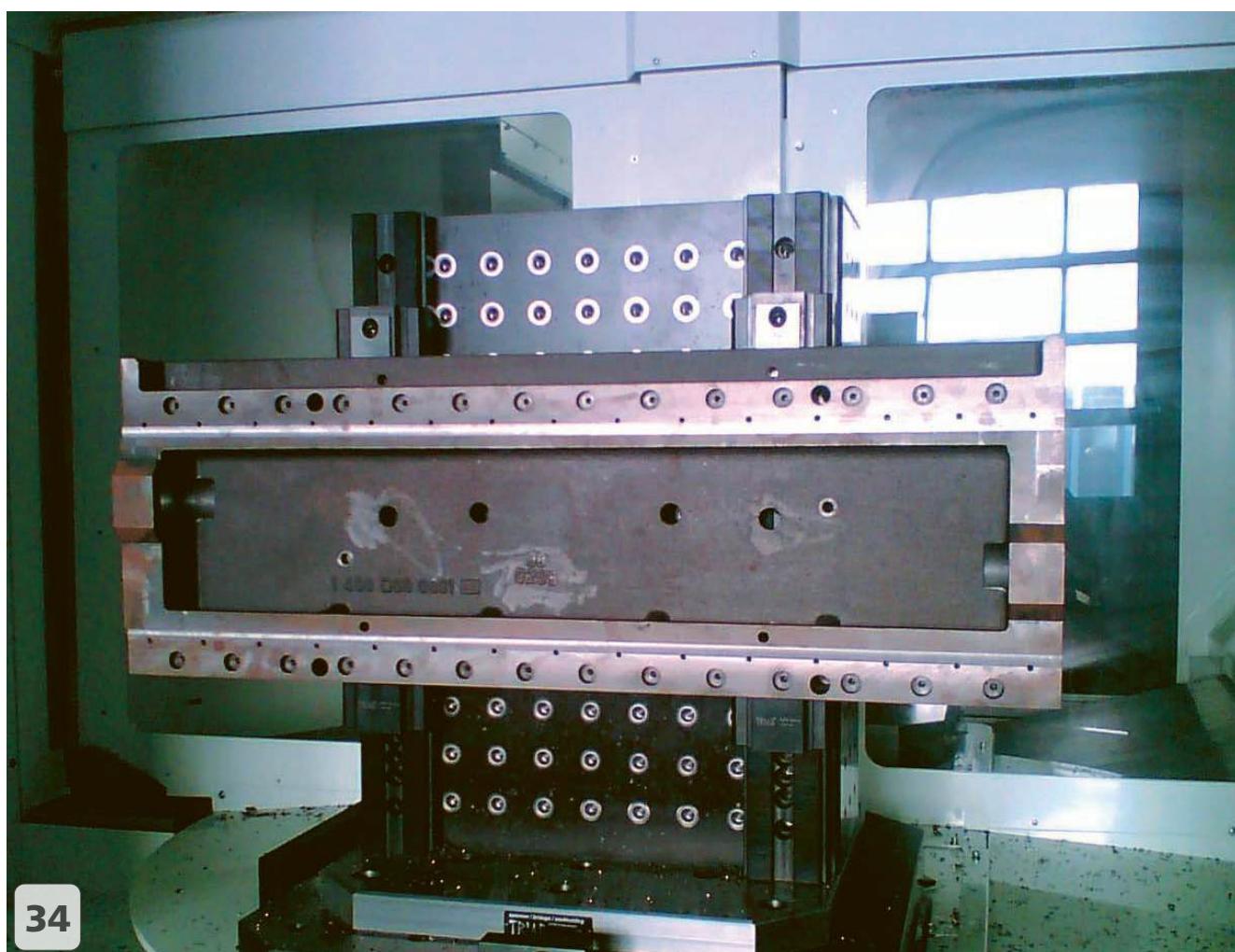
32

Zentrischspanner auf einem Spezialturm
Centric vices installed on a special tombstone

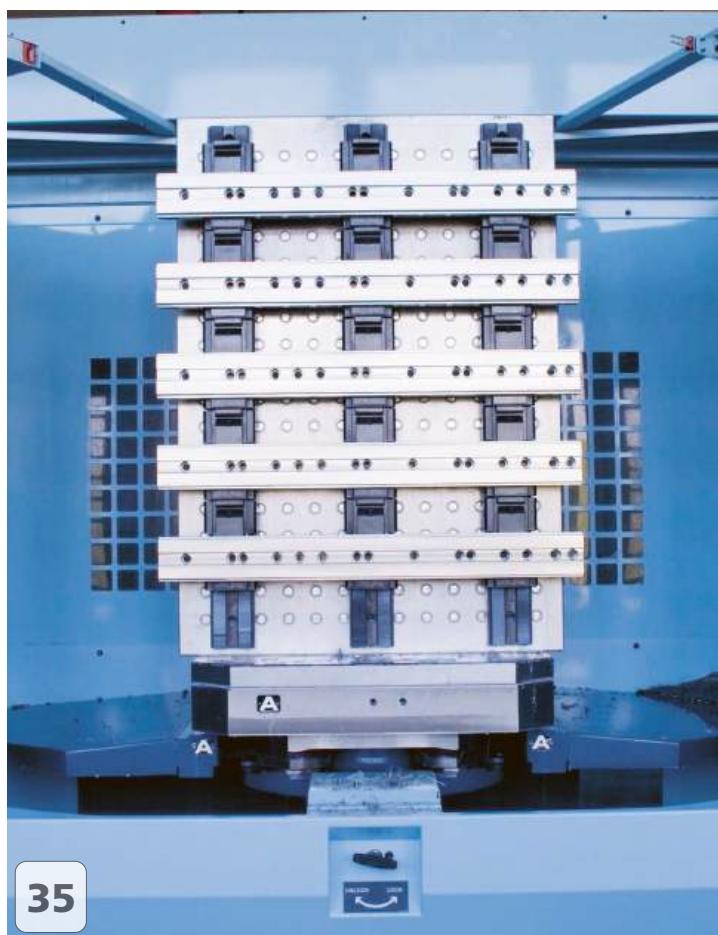


33

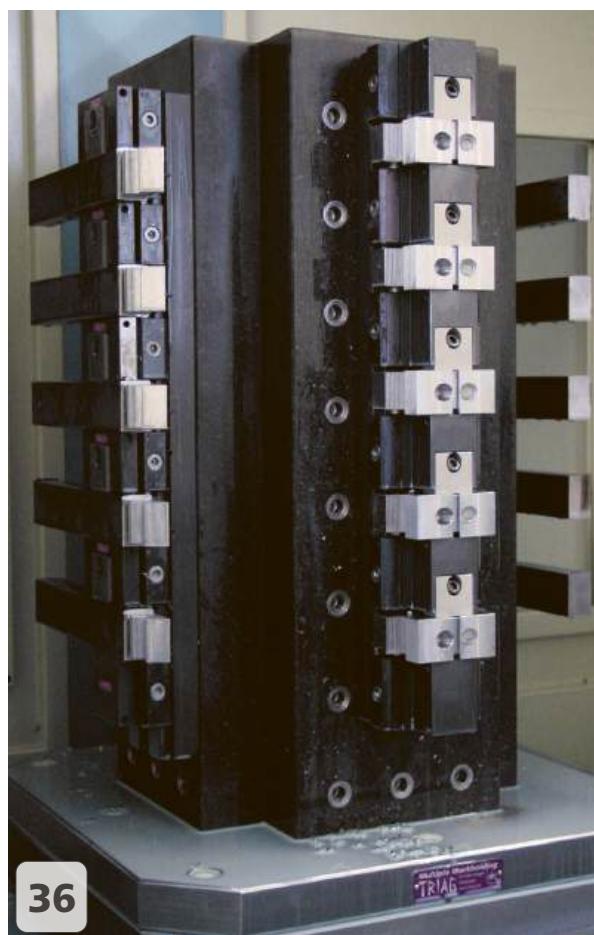
Aufspannung mit Power Clamp auf einem Mineralgussturm
Set up with Power Clamp on a tombstone made of composite concrete



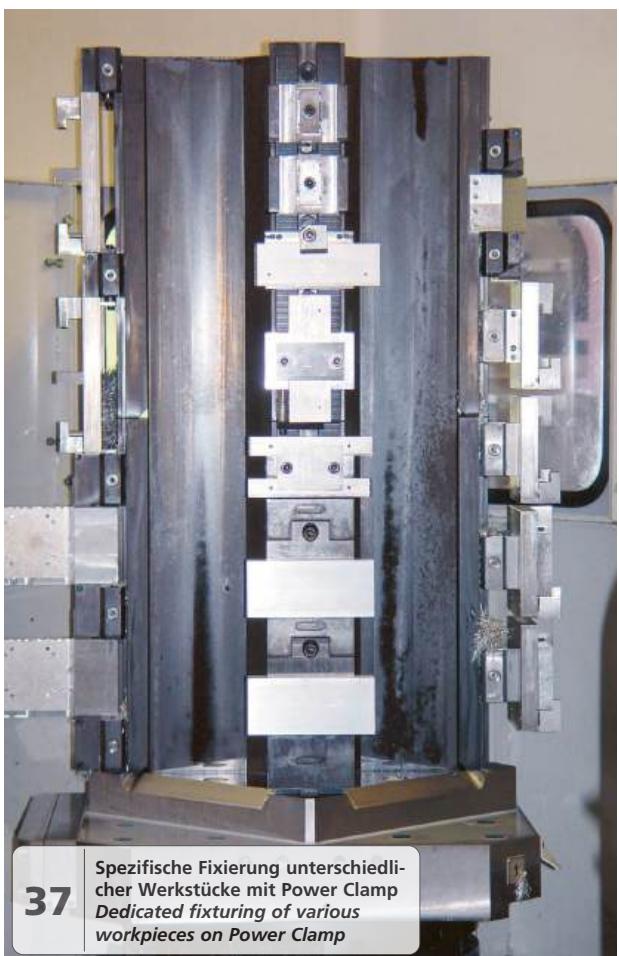
34



35



36



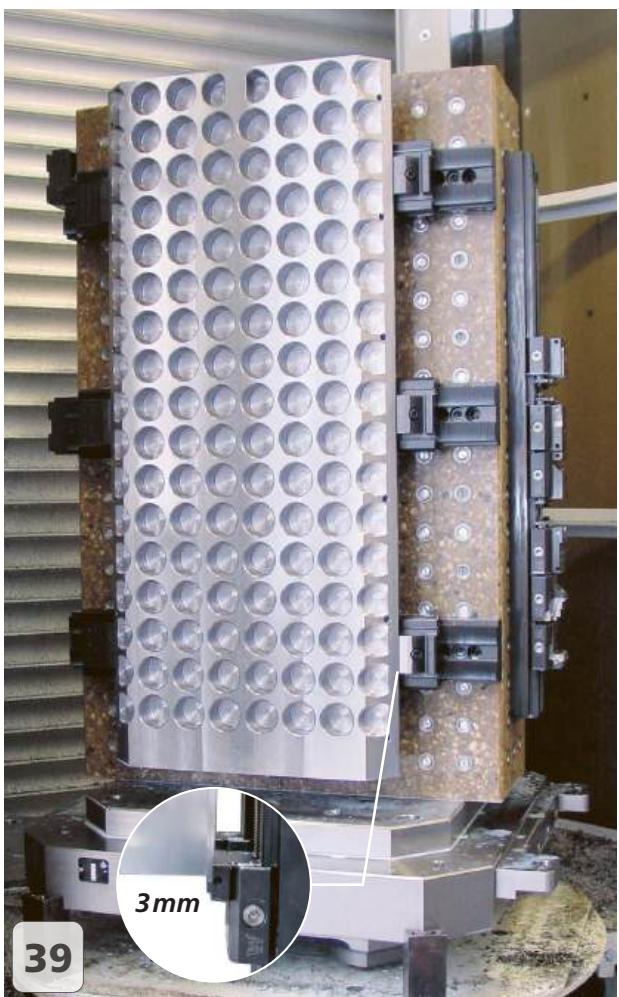
37

Spezifische Fixierung unterschiedlicher Werkstücke mit Power Clamp
Dedicated fixturing of various workpieces on Power Clamp



38

Prägespannung auf sehr kleiner Einspannhöhe von 3 mm
Clamped 3 mm depth with direct stamping jaws



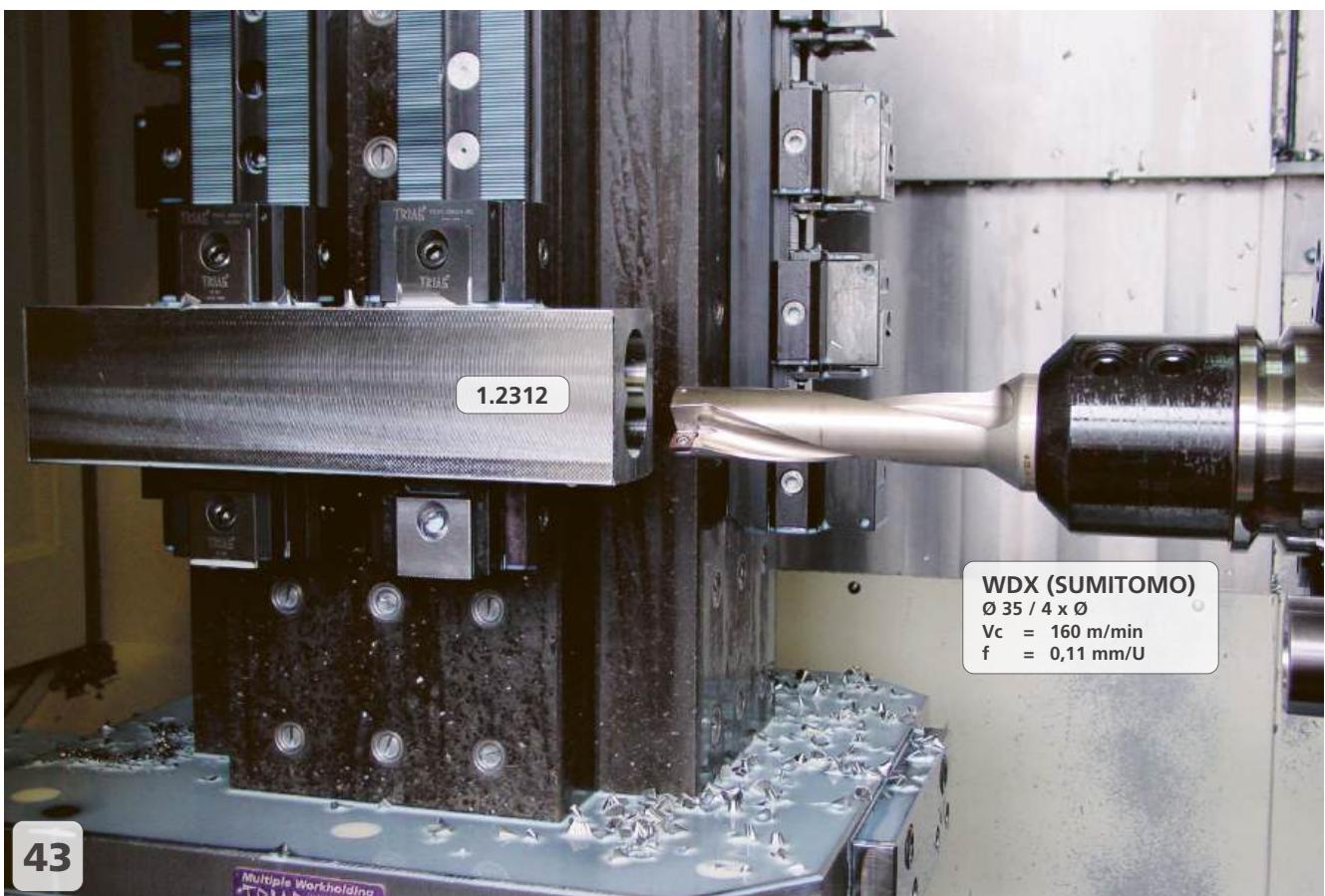
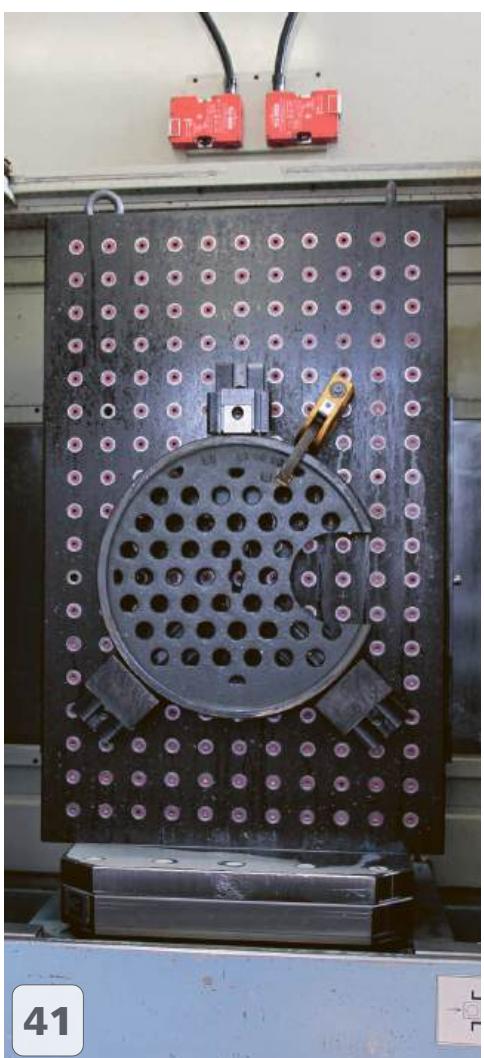
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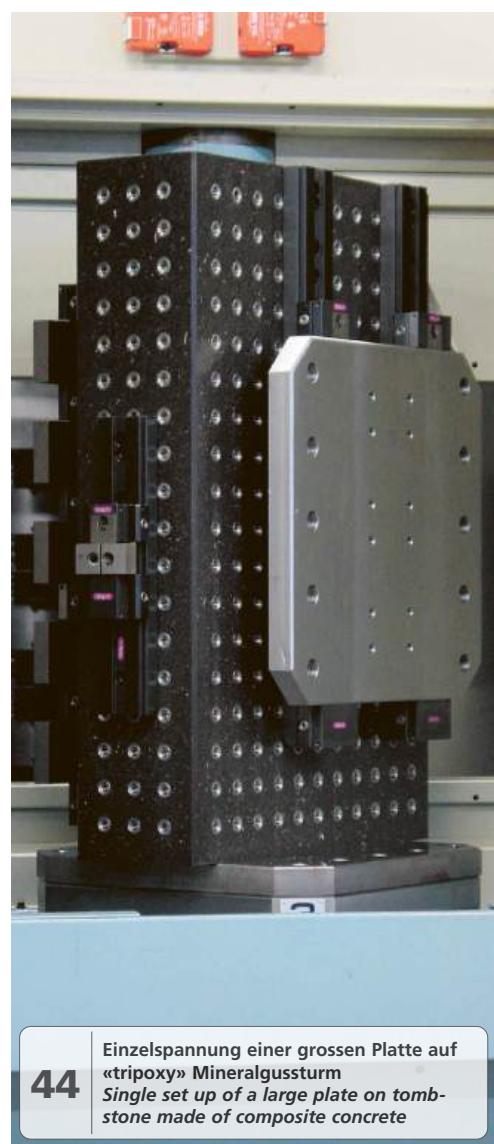
3mm

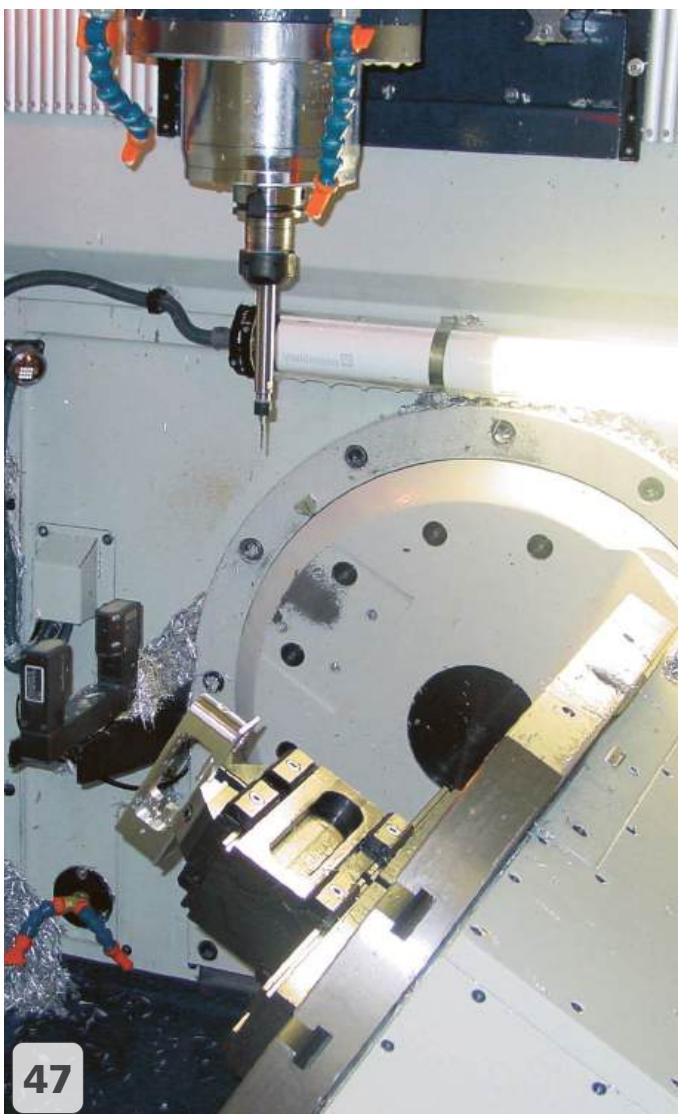


40

Aufspannung mit Power Clamp auf einem „Tripoxy“ Mineralgussturm
Set up with Power Clamp on a tombstone made of composite concrete





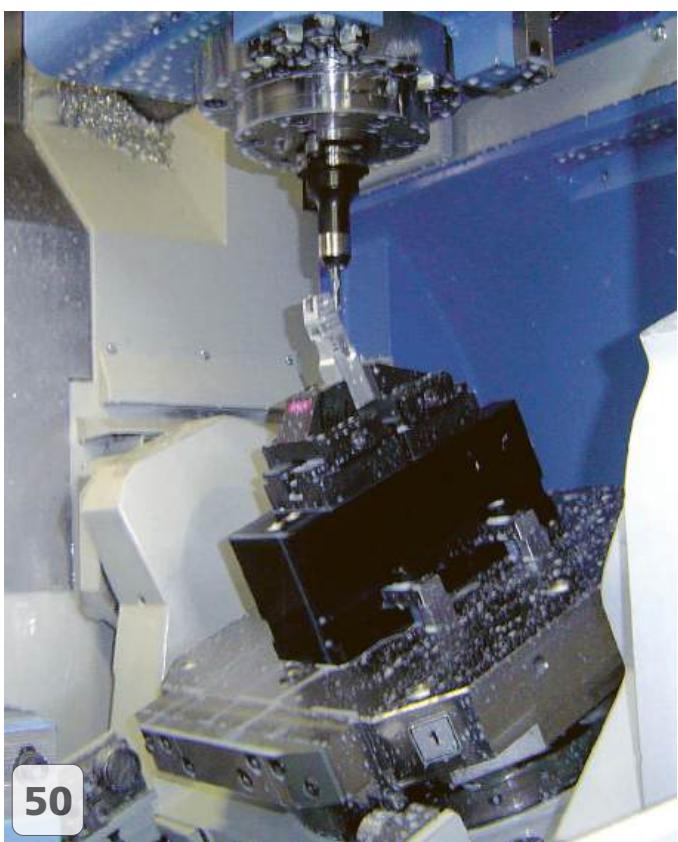


47



48

Im Einsatz auf der 5 Achsenmaschine
In action on a 5 axis machine



50



49

... im Einsatz auf der 5 Achsenmaschine
... in action on a 5 axis machine



51

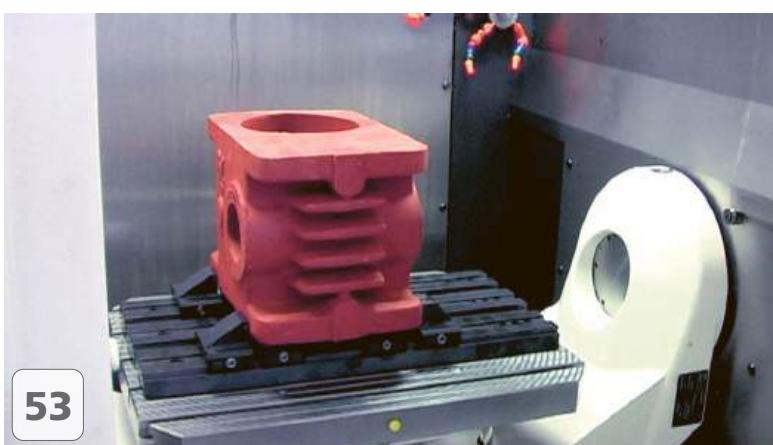
oppSystem in Anwendung mit Werkstückwechsler
oppSystem in application with workpiece changer



52



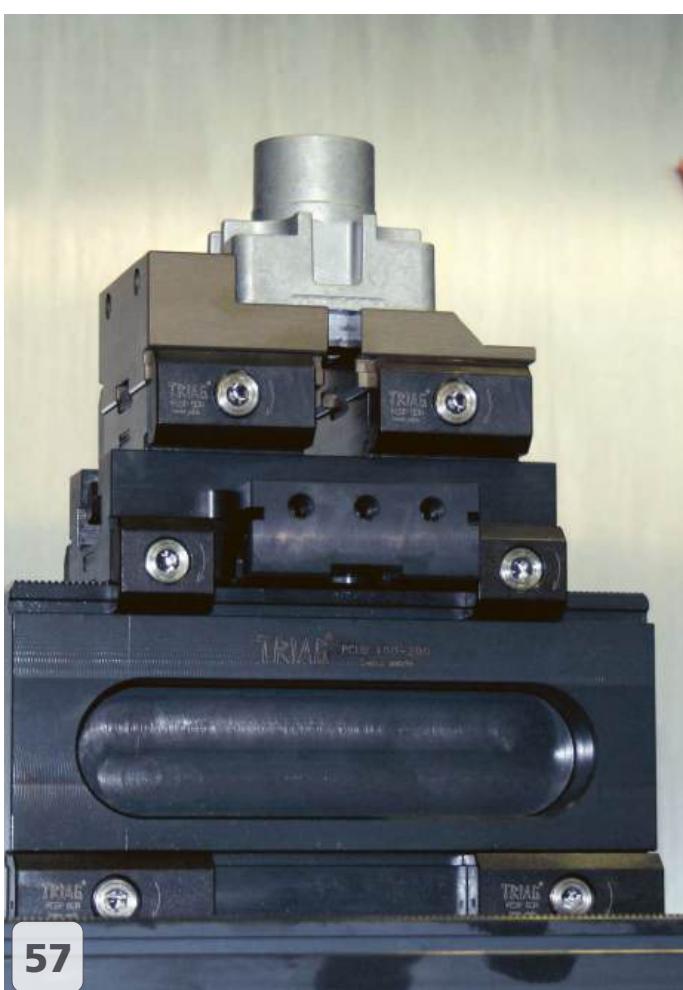
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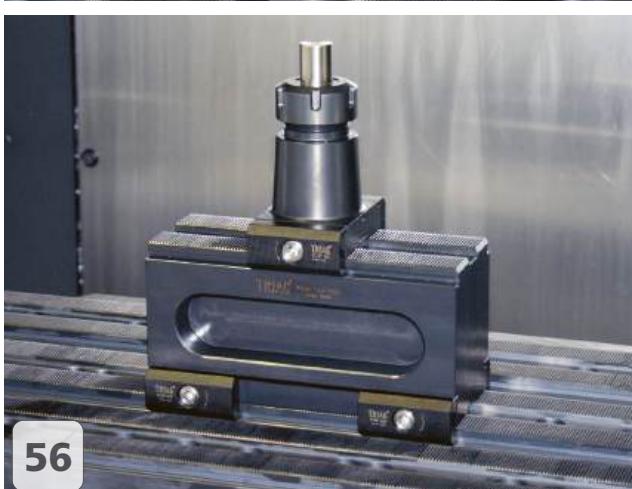
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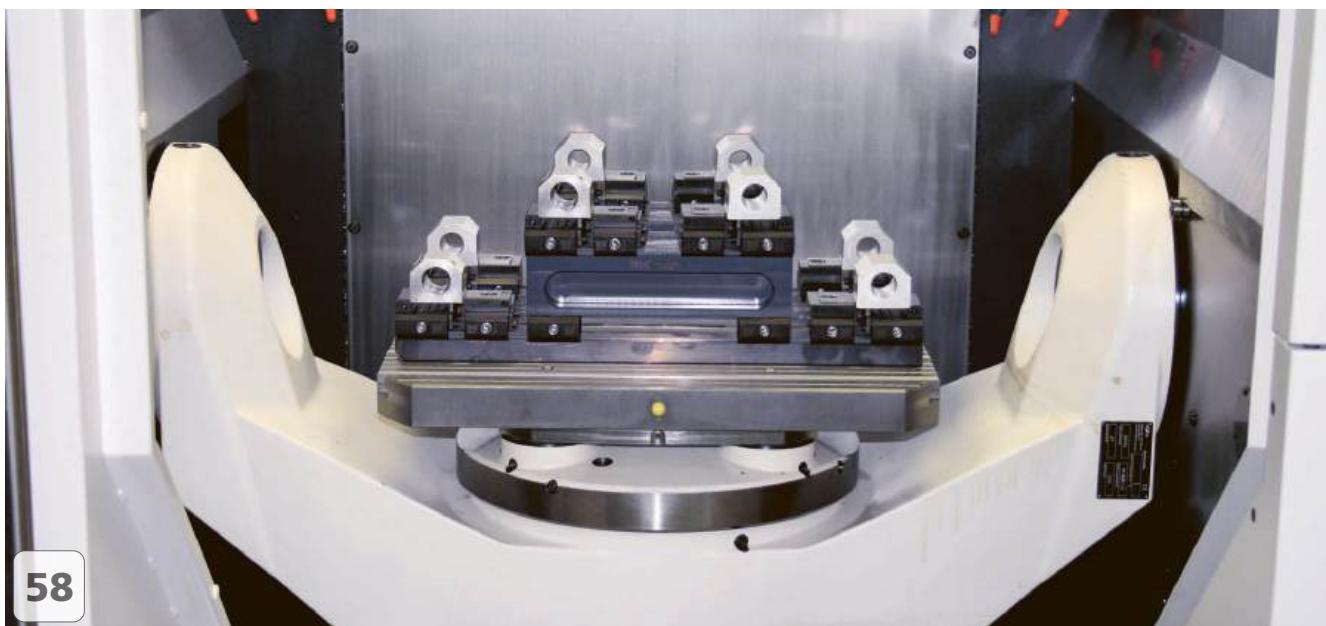
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57



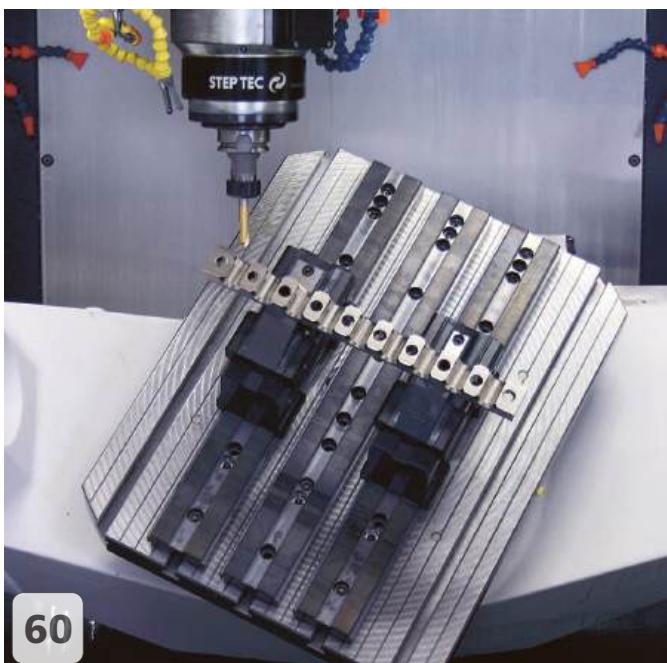
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58



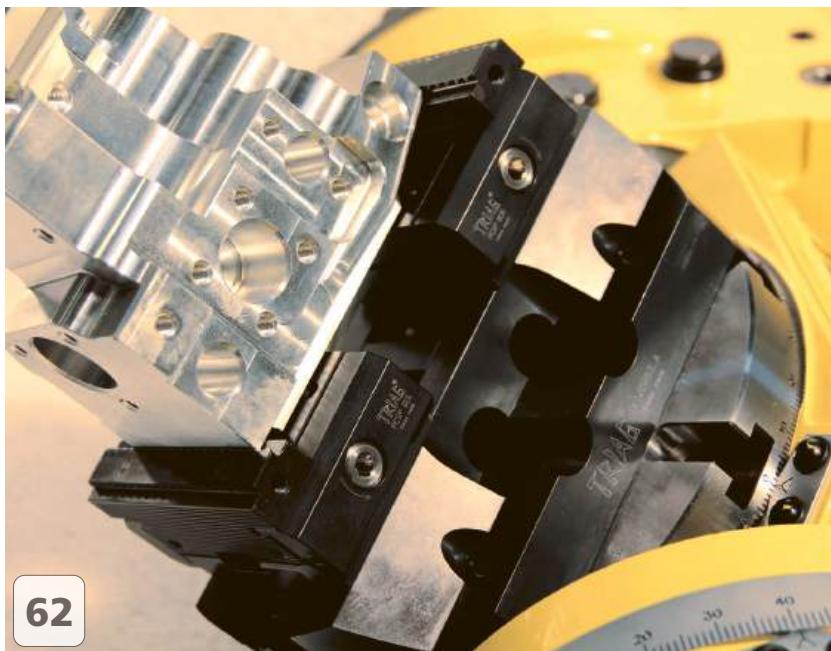
59



60



61



62

Modulares Mehrfachspannen auf 5-Achsen- Maschinen

Modular workholding system for 5-axis machines

Immer öfter werden die 5-Achsen-Maschinen in den Produktionsabläufen eingesetzt, um den Ansprüchen der heutigen effizienten Herstellung gerecht zu werden und weltweit wettbewerbsfähig zu bleiben. Die Werkstückspannung ist sehr anspruchsvoll und fordert die technischen Mitarbeiter ausserordentlich, wie auf den nachfolgenden Bildern dargestellt.

Increasingly, the 5-axis machines are used in the production processes to be in accordance with the demands of today's efficient manufacturing and remain globally competitive. The workpiece clamping is very demanding and calls for extremely technical staff, as shown on the following pictures.

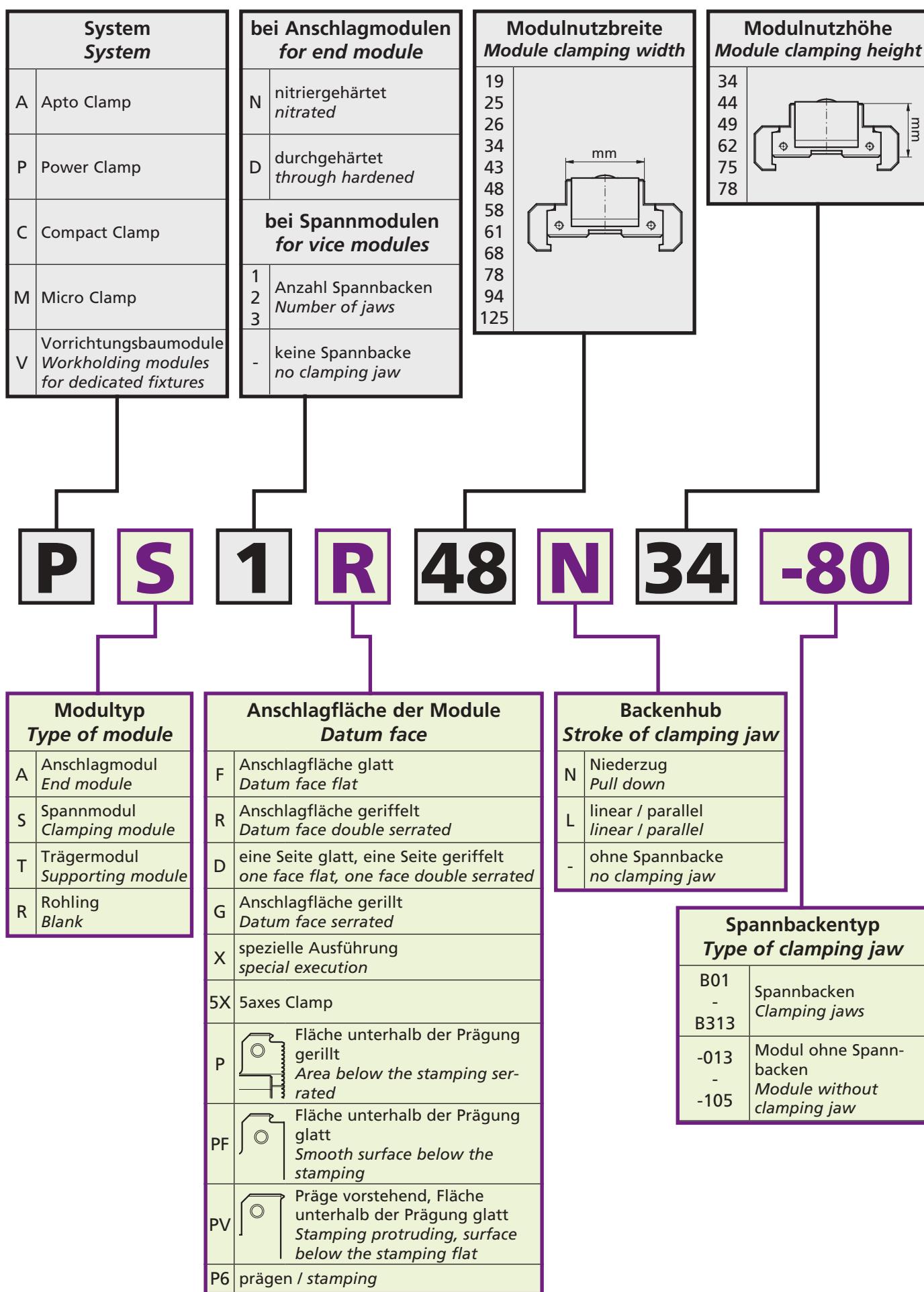
Vorteile der Triag 5-Achsen Spannsysteme:

- Die unteren Basisschienen dienen sowohl als mechanisches Nullpunktspannungsysteem, aber auch als Spannstock.
- Die Spannkraft wirkt direkt beim Werkstück, trotzdem ist das Werkstück ob klein, lang oder gross mit kurzen Werkzeugen sehr gut zugänglich. (Die Einschränkung ist der Maschinentisch!)!
- Bei der Dreiseitenbearbeitung ist auch Mehrfachspannung möglich.
- Es können über 200 verschiedene Spannmodule, sowie Rohrmodule, Zentrischspanner, Dreibackenfutter, Spannzangenfutter, Vakuumspannmodule usw. aufgesetzt werden. Die Schnittstelle ist immer dieselbe.
- Sehr schnelles Umrüsten!
- Wenig Reinigungsaufwand, da keine T-Nuten vorhanden sind.
- Besonders gut geeignet für 5-Achsen-Maschinen. Alle Spannvorrichtungen können auch auf Horizontal- und Vertikalmaschinen universell eingesetzt werden.

Benefits of Triag 5-axis workholding systems:

- The lower base rails serve both as a mechanical zero-point clamping system, but also as a vice.
- The tension acts directly at the workpiece, the workpiece is still, whether small, long or large, very accessible with short tools. The constraint is the machine table!
- 3-side machining is possible as well.
- There may be placed over 200 different clamping modules, as well as raw modules, self-centring modules, three jaw chuck, collet chuck, vacuum clamping modules and so on. The interface is always the same.
- Very fast setup!
- Reduced cleaning required, since no T-slots available.
- Especially suitable for 5-axis machines. All clamping devices can also be used universally on horizontal and vertical machines.







Die Basisschiene ist die Grundlage des Power Clamp Spannsystems

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

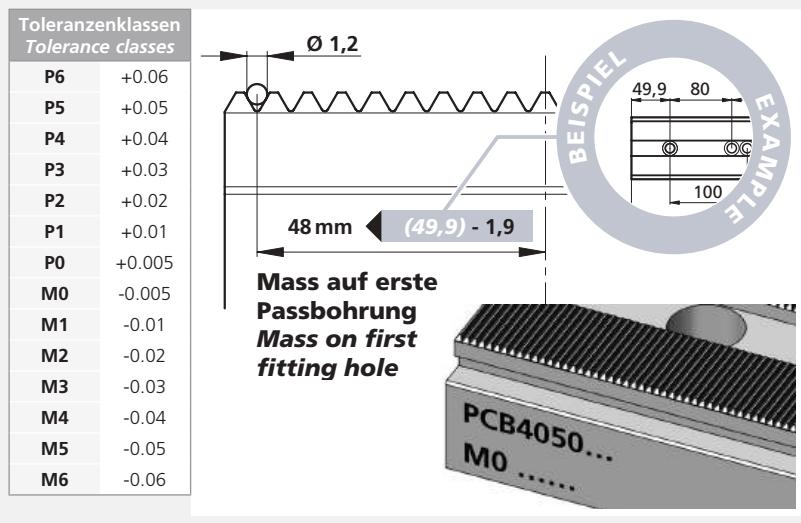
Die Power Clamp-Schiene dient als Basis für über 200 verschiedene Spannmodule, Zentrischspanner, Rohlingsmodule und Vakuumplatten.

The serrated base rail is the basic structure of the Power Clamp 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 Power Clamp base rail serves as a supporting plate for more than 200 different clamping modules, self centring vises, blank modules and vacuum clamping plates.

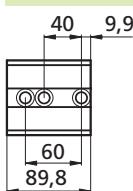
Toleranz gilt für alle PCB-Basischienen / Tolerance applies to all PCB base rails



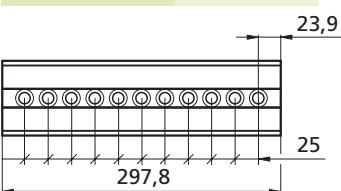
Basisschienen

Base rails

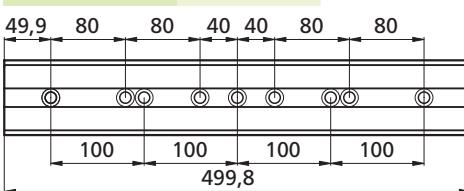
PCB6090 kg ~1,7



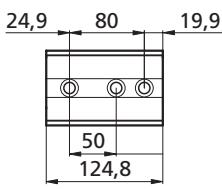
PCB25300 kg ~5,4



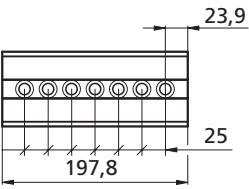
PCB4050500 kg ~9,5



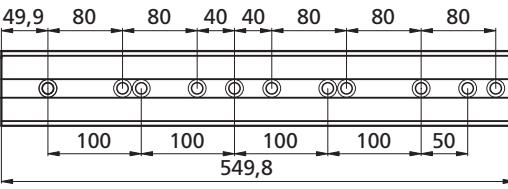
PCB4050125 kg ~2,3



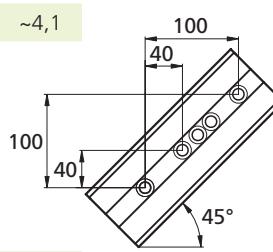
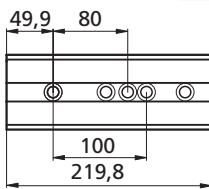
PCB25200 kg ~3,6



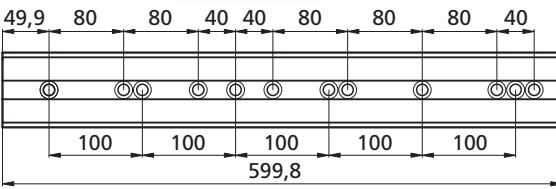
PCB4050550 kg ~10,3



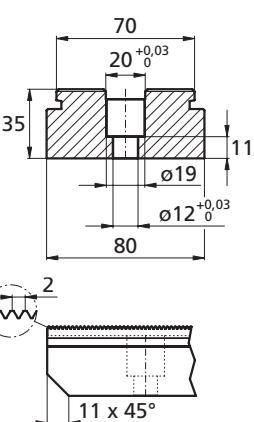
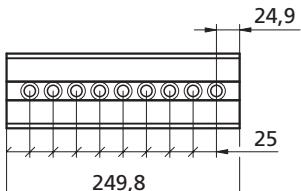
PCB4050220W2 kg ~4,1



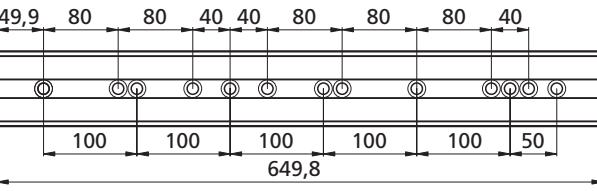
PCB4050600 kg ~11,3



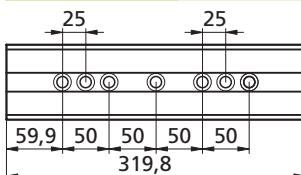
PCB2550250 kg ~4,5



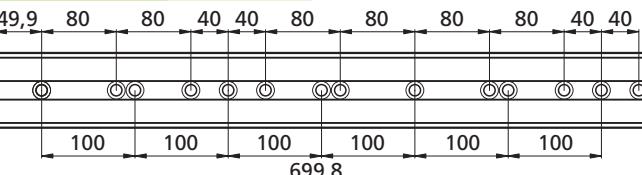
PCB4050650 kg ~12,2



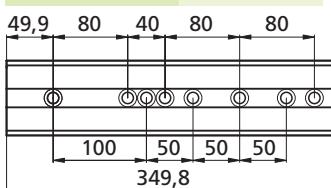
PCB50320 kg ~6,0



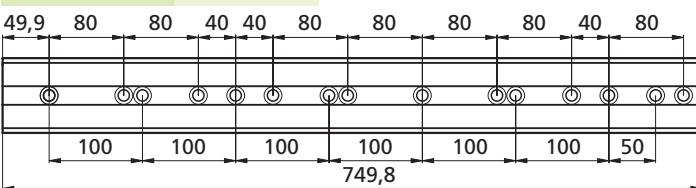
PCB4050700 kg ~13,2



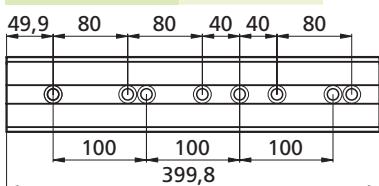
PCB4050350 kg ~6,5



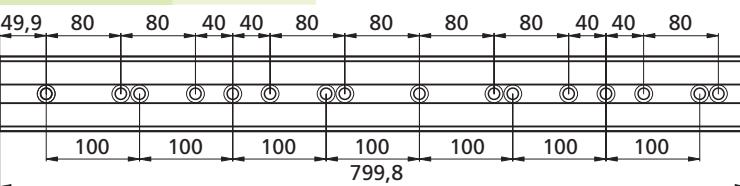
PCB4050750 kg ~14,1



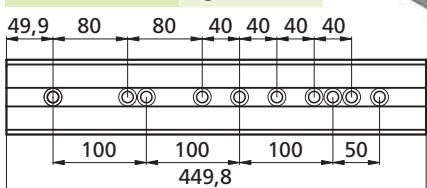
PCB4050400 kg ~7,5



PCB4050800 kg ~15,0

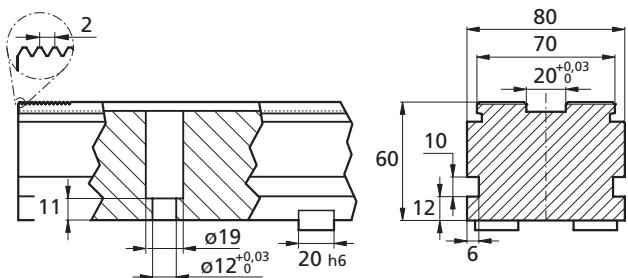


PCB4050450 kg ~8,4

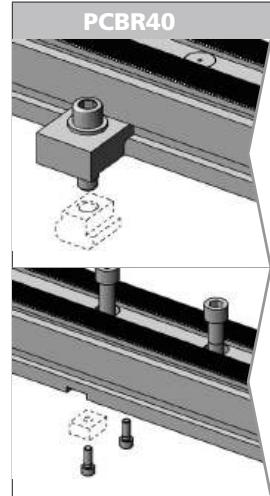
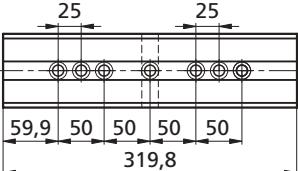


Bestellbeispiel / Ordering example: PCB4050125

Basisschienen in Zoll
Base rails in inch



PCB50320H60
① 1x TF190449
② 2x M6X12ISO4762
③ 2x SM1136-20
kg ~10,3



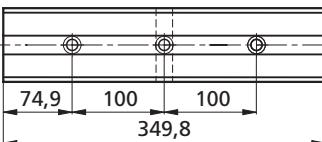
1. Befestigung 1. Fastening

Mit den seitlichen Pratzen, kann die Basischiene frei auf Ihrem Maschinentisch montiert werden.
With the lateral clamps, the base-rail can be mounted freely on your machine table.

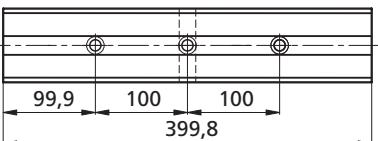
2. Befestigung 2. Fastening

Diese Nutenstein sind zum Ausrichten der Basischiene auf Ihrem Maschinentisch.
These t-slot nuts are for aligning the base-rail on your machine table.

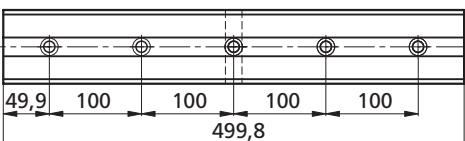
PCB100350H60
① 1x TH170888
② 2x M6X12ISO4762
③ 2x SM1136-20
kg ~11,7



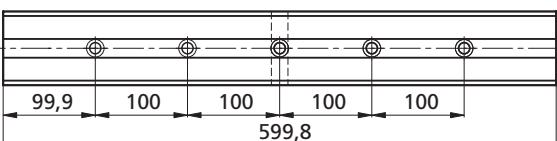
PCB100400H60
① 1x TB140546
② 2x M6X12ISO4762
③ 2x SM1136-20
kg ~13,4



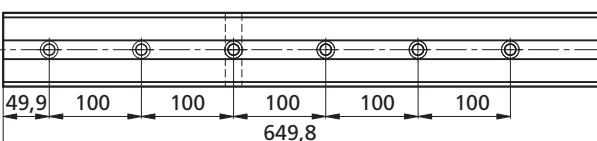
PCB100500H60
① 1x TB140553
② 2x M6X12ISO4762
③ 2x SM1136-20
kg ~16,7



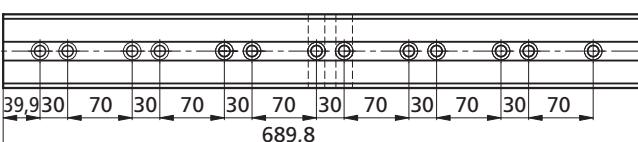
PCB100600H60
① 1x TB140556
② 2x M6X12ISO4762
③ 2x SM1136-20
kg ~20,1



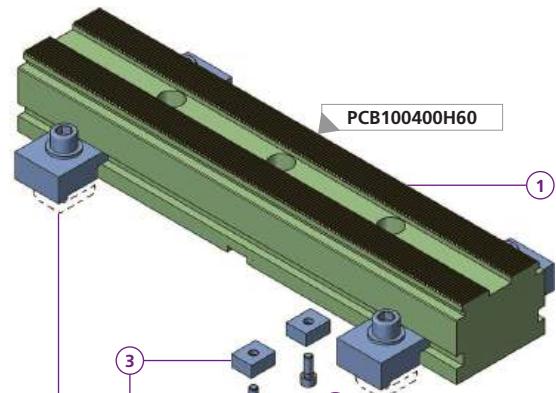
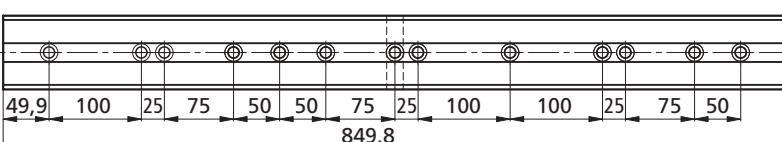
PCB100650H60
① 1x TB140559
② 2x M6X12ISO4762
③ 2x SM1136-20
kg ~21,8



PCB100690H60
① 1x ZL100122
② 2x M6X12ISO4762
③ 2x SM1136-20
kg ~22,6

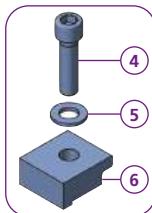


PCB100850H60
① 1x TB140562
② 2x M6X12ISO4762
③ 2x SM1136-20
kg ~27,9



PCBR40

④ 1x M12X45ISO4762
⑤ 1x TN100251
⑥ 1x TK200035
kg ~0,25



T-Nutensteine T-slot nuts

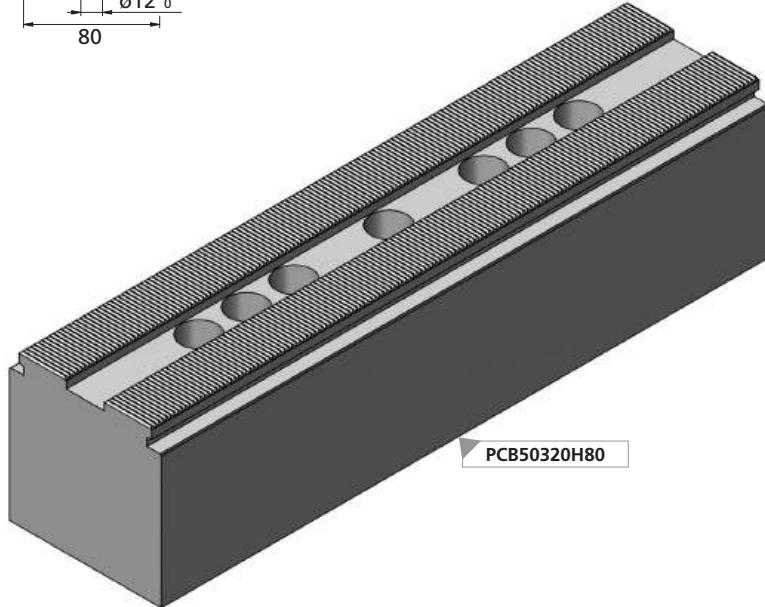
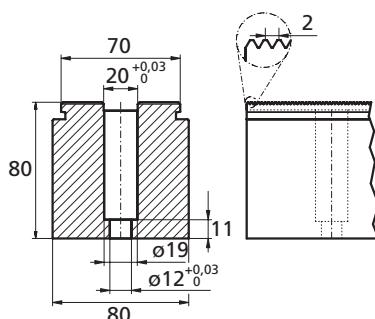
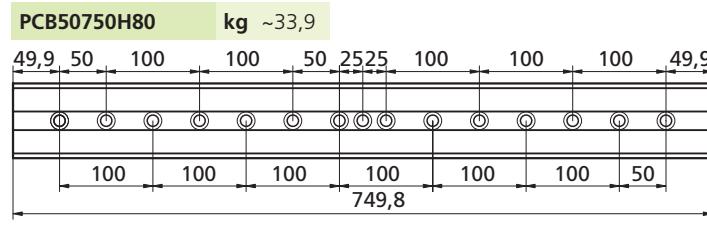
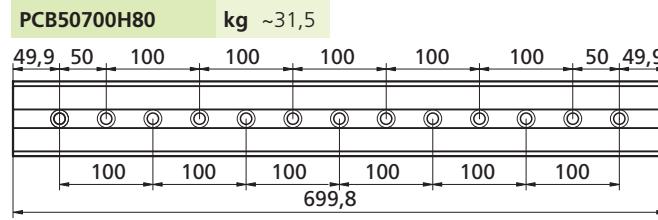
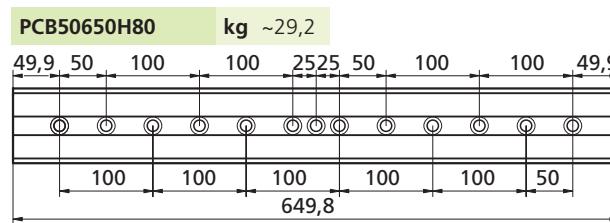
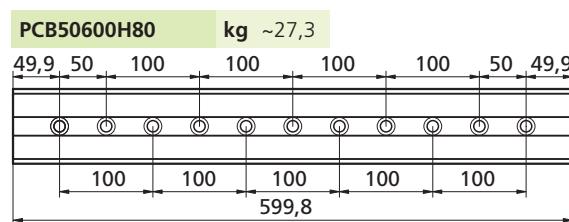
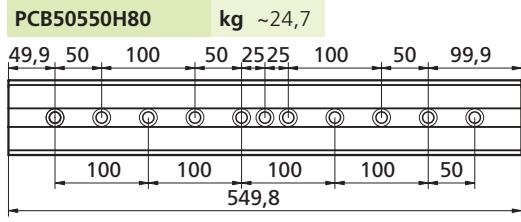
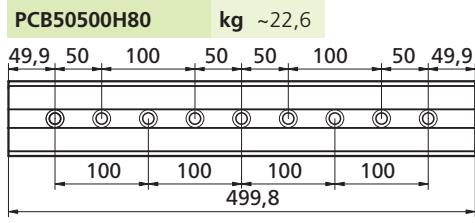
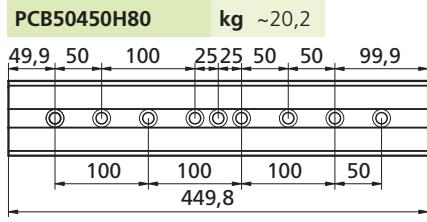
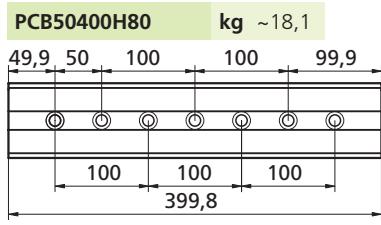
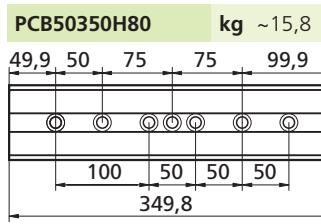
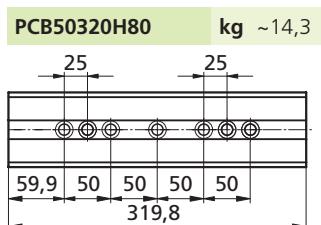
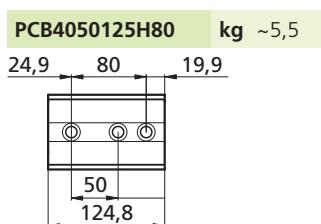
T-Nutensteine je nach Maschinentisch, muss separat bestellt werden.
T-slot nuts depending on the machine table, must be ordered separately.

Basisschienen

Base rails

H80

powerCLAMP



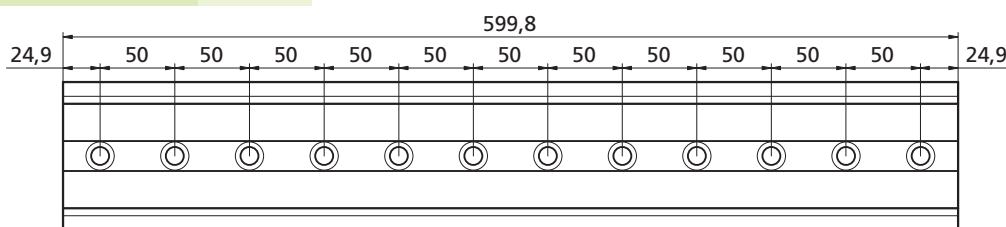
Bestellbeispiel / Ordering example: **PCB4050125H80**

Basisschiene Stahl-Mineralguss
Base-rail steel-epoxy mineral tombstones

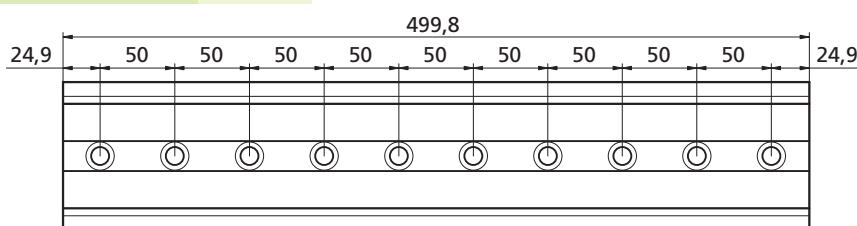
H175

powerCLAMP

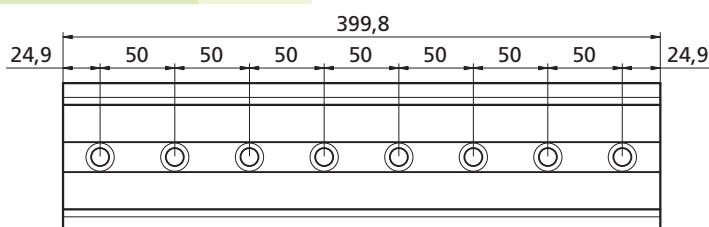
PCMB50600H175 kg ~39



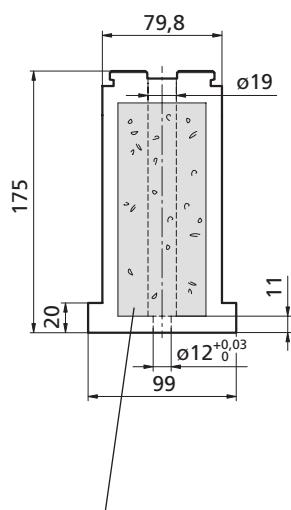
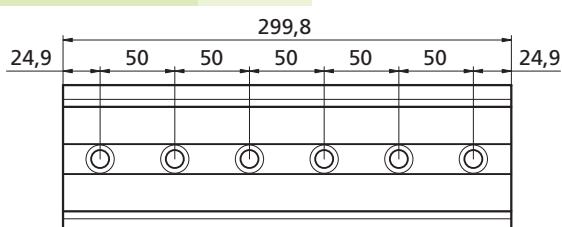
PCMB50500H175 kg ~34



PCMB50400H175 kg ~27



PCMB50300H175 kg ~22



Epoxy Mineral

Für gute Vibrationsdämpfung
For brilliant dampening effect

Kupplungsstück (Basisschienen zum koppeln)

Coupling element (Base rails for coupling)

powerCLAMP

Kupplungsstücke für PCB Basisschiene auf Mineralguss-Türmen

Mit diesen Kupplungsstücken ist es möglich, die PCB Basisschienen zu verlängern. Aufgrund des durchgängigen Kraftschlusses wird eine übermässige Belastung des Mineralgussturmes vermieden. Erforderlich ist eine Modifikation der Enden der Basisschienen gemäss der untenstehenden Zeichnung durch den Anwender. Selbstverständlich können neue Schienen bereits mit dieser Modifikation ausgeliefert werden.

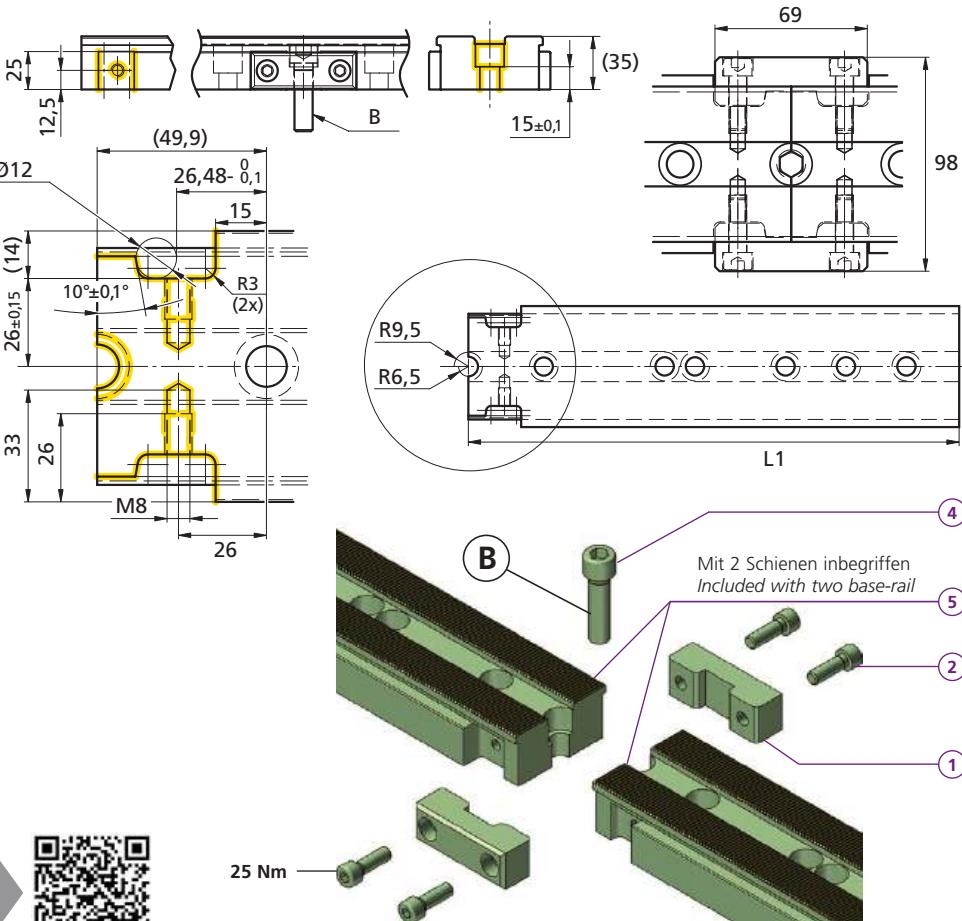
So können die zwei Kupplungsstücke montiert werden, die nach dem Platzieren der Schienen eingesetzt und festgezogen werden. Eine zusätzliche Schraube (B) nimmt allfällige, senkrecht zur Befestigungsfläche auftretende Kräfte auf.

Detailzeichnung zum Bearbeiten aller Basisschienen H35, um die Aussparung für das Kupplungstück bei vorhandenen Schienen nachträglich herzustellen.

Detail drawing for machining all base rails H35 to retrofit the recess for the coupling piece on existing rails.



Montageanleitung siehe Video
Assembly instructions see video



PCBP69SET	
① 2x TW900078	PCB4050250KP
② 4x M8X25ISO4762	⑤ L1 = 250
④ 1x M12X45ISO4762	kg ~5,1

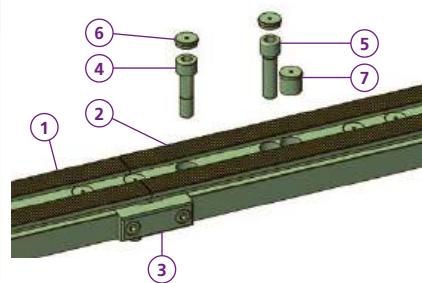
kg ~0,4



25 Nm

Bestellbeispiel / Ordering example: PCB4050250KP

PCB850SET	PCB900SET	PCB950SET	PCB1000SET
① 1x PCB4050400KP	① 1x PCB4050650KP	① 1x PCB4050700KP	① 2x PCB4050500KP
② 1x PCB4050450KP	② 1x PCB4050250KP	② 1x PCB4050250KP	③ 1x PCBP69SET
③ 1x PCBP69SET	③ 1x PCBP69SET	③ 1x PCBP69SET	④ 4x TWPAS1240
④ 4x TWPAS1240	④ 4x TWPAS1240	④ 4x TWPAS1240	⑤ 6x M12X40ISO4762
⑤ 5x M12X40ISO4762	⑤ 6x M12X40ISO4762	⑤ 6x M12X40ISO4762	⑥ 6x M12X40ISO4762
⑥ 9x PCPF16L6	⑥ 10x PCPF16L6	⑥ 10x PCPF16L6	⑥ 10x PCPF16L6
⑦ 9x PCPF16L18	⑦ 8x PCPF16L18	⑦ 9x PCPF16L18	⑦ 8x PCPF16L18
kg ~17,1	kg ~18,2	kg ~19,1	kg ~20,2

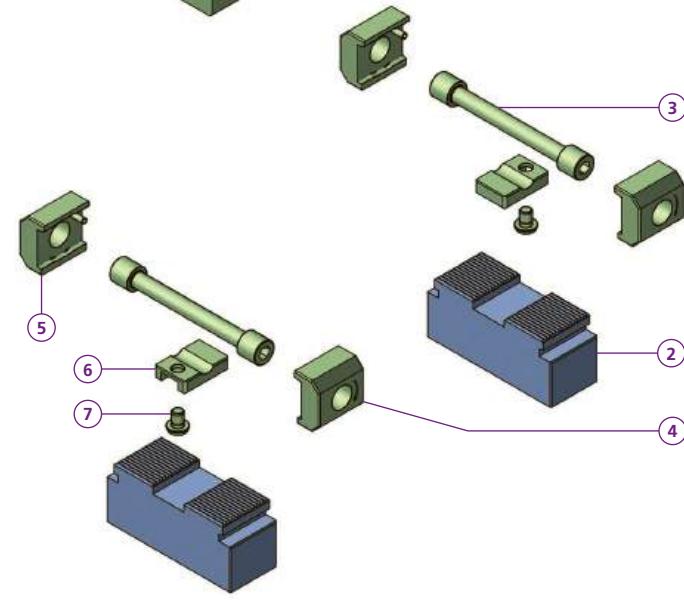
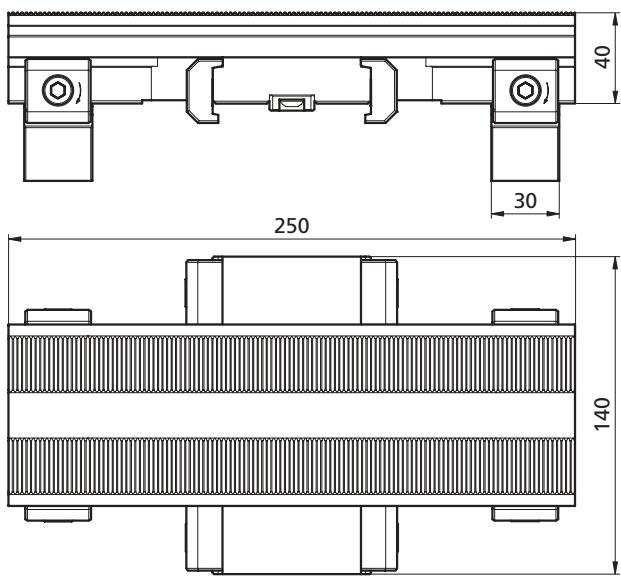
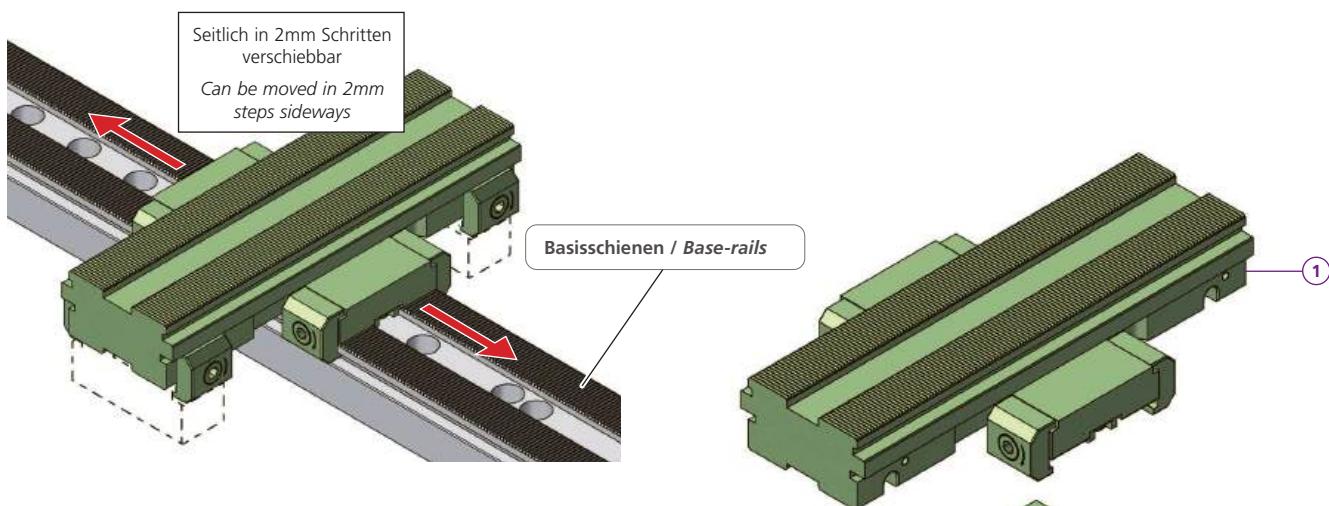


Bestellbeispiel / Ordering example: PCB850SET

Querschiene 90° Crossbar 90°

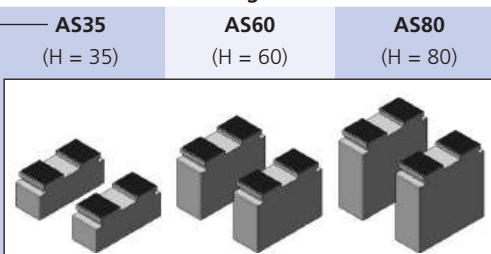
PCB250Q90-H35

powerCLAMP



PCB250Q90H35	
1	1x TH151032
2	2x
3	4x PCS14
4	4x PCSP30L
5	4x PCSP30R
6	4x PCGU2030
7	1x M6X8ISO7380
kg	~8,18

Schienenhöhe / Rail height



Seitliche Stützen

Bei Gebrauch der Querschiene 90°, werden je nach Höhe der Basisschiene auf dessen sie aufgesetzt sind, zwei seitliche Stützen AS35 / AS60 / AS80 unterlegt.

Side support

When using the cross rail 90°, a side support AS35 / AS60 / AS80 is underlaid, depending on the height of the base rail on which it is placed.

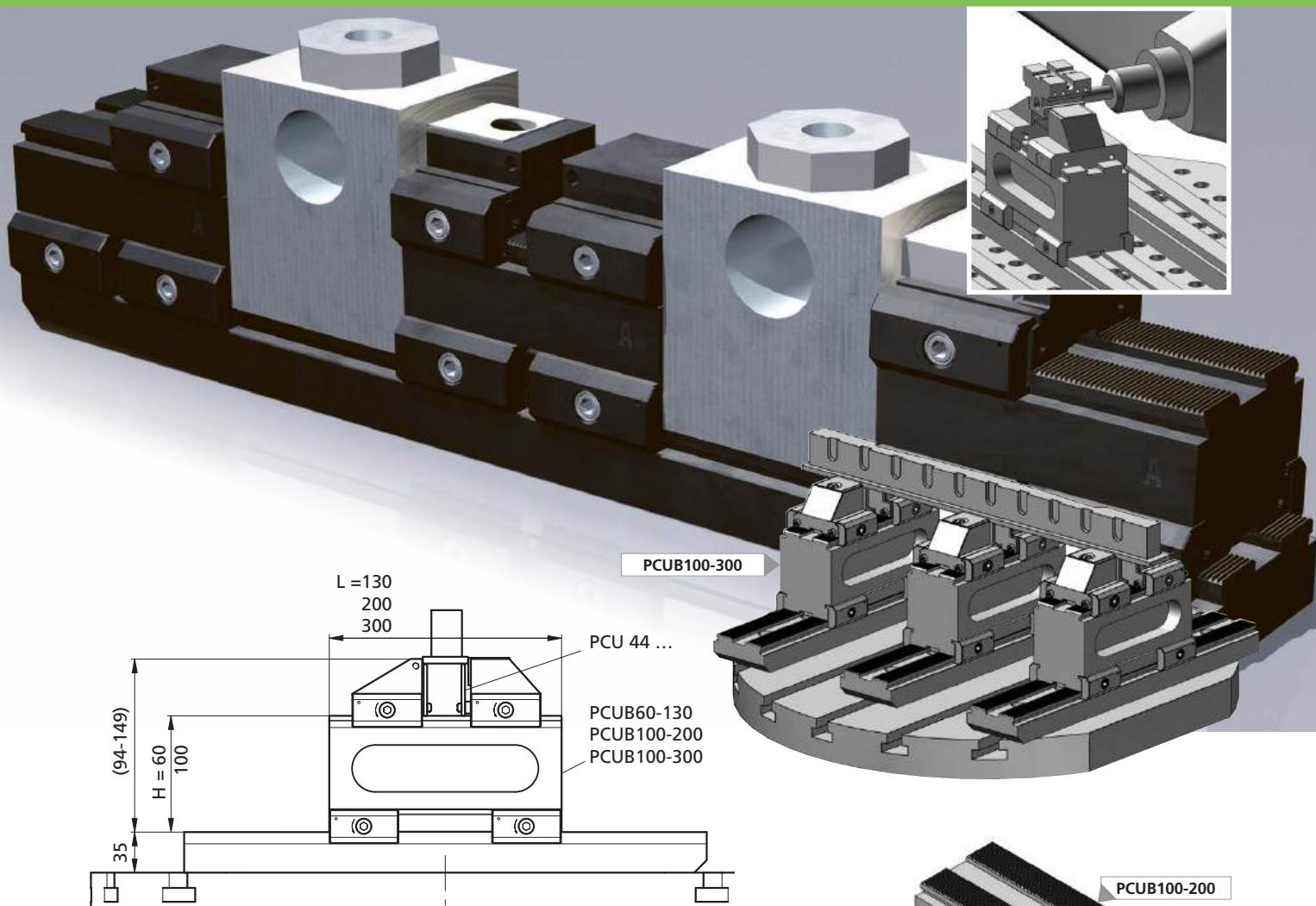
Bestellbeispiel / Ordering example: **PCB250Q90H35**

Erhöhung für 5-Achsenmaschinen

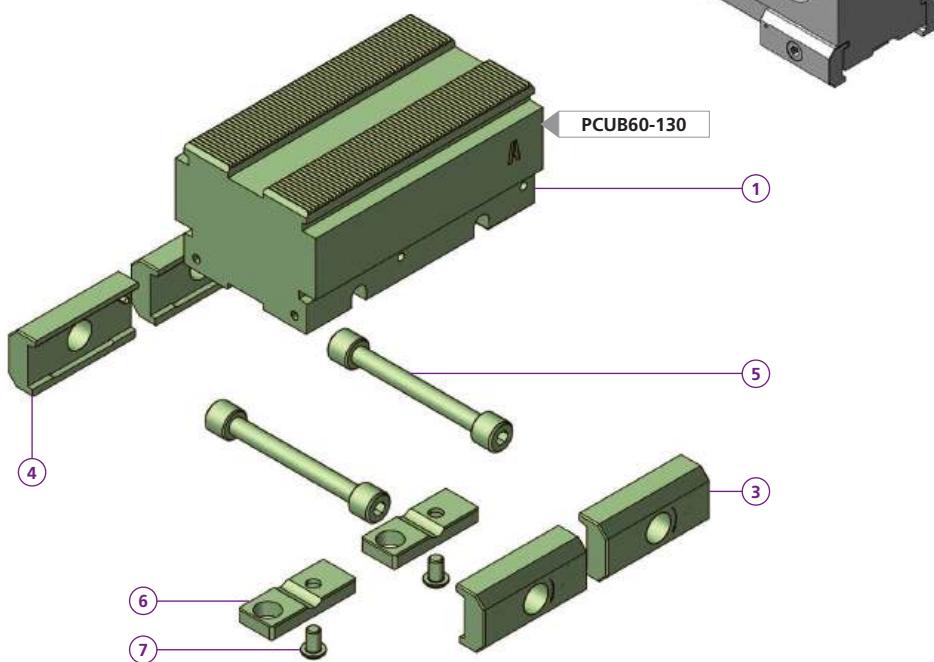
Riser for 5-axis machines

PCUB60-130
PCUB100-200
PCUB100-300

powerCLAMP



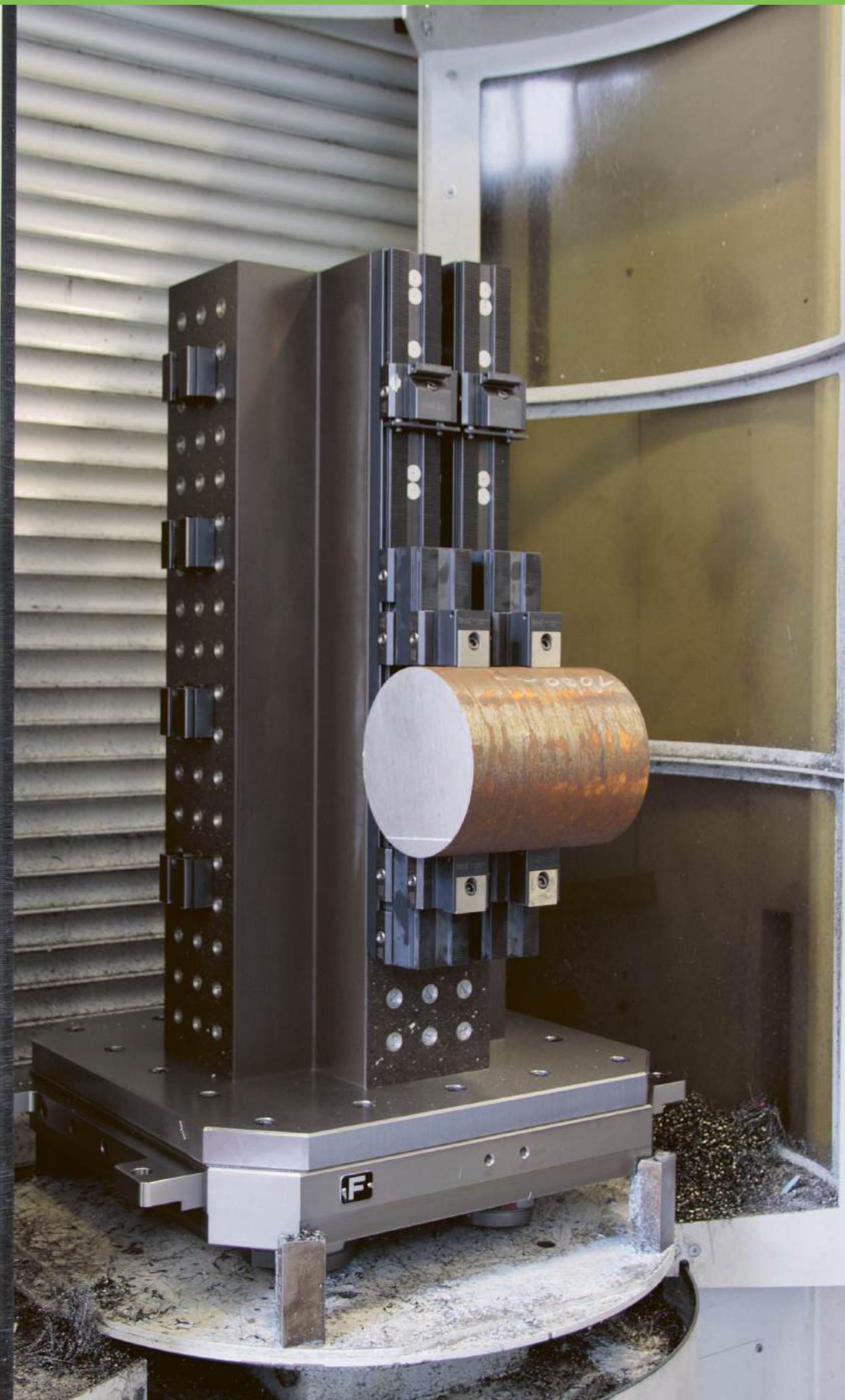
PCUB60-130	
①	1x TK120596
③	2x PCSP60R
④	2x PCSP60L
⑤	2x PCS14
⑥	2x PCGU2049
⑦	2x M6X8ISO7380
L	= 130
H	= 60
kg	~5,8
PCUB100-200	
①	1x TK130108
L	= 200
H	= 100
kg	~10,5
PCUB100-300	
①	1x TK130109
③	3x PCSP60R
④	3x PCSP60L
⑤	3x PCS14
⑥	3x PCGU2049
⑦	3x M6X8ISO7380
L	= 300
H	= 100
kg	~16



Bestellbeispiel / Ordering example: **PCUB100-200**

Anwendungsbeispiele
Examples of application

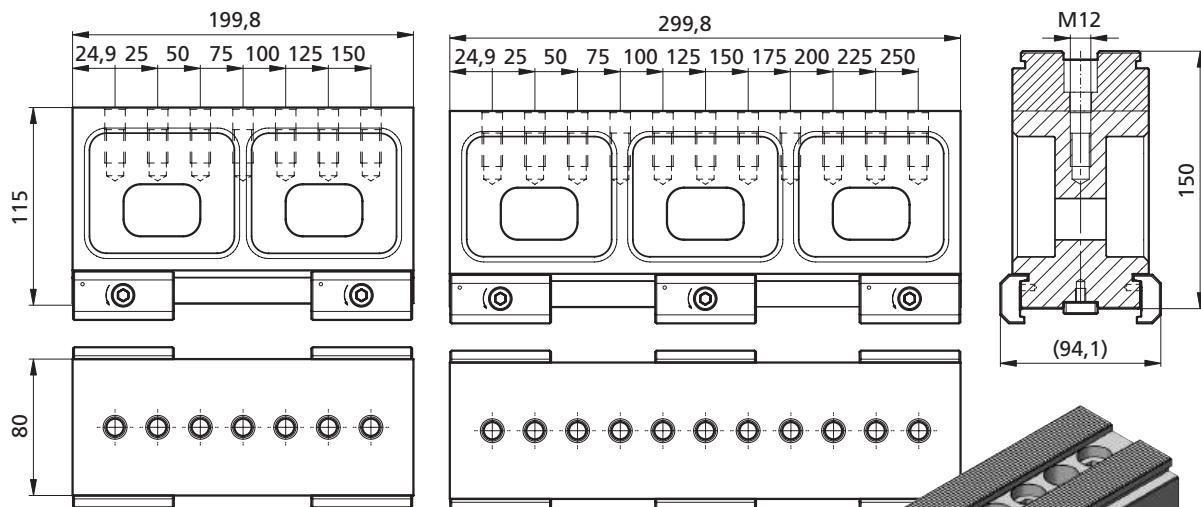
powerCLAMP



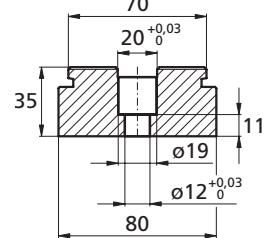
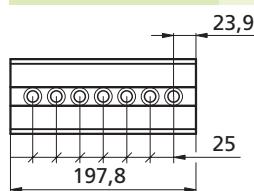
PCUB115-200-R25

PCUB115-300-R25

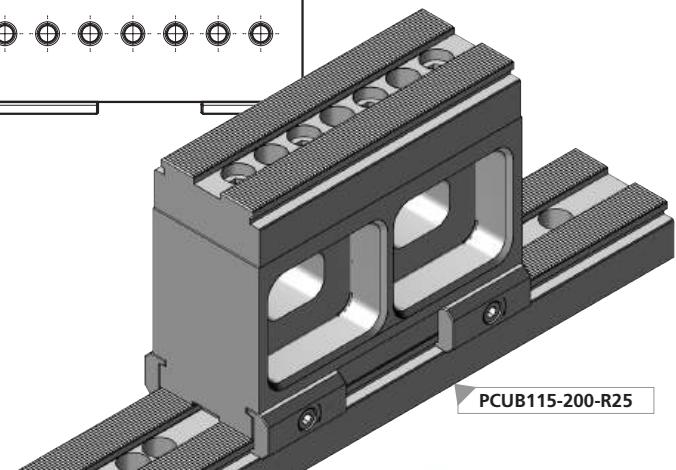
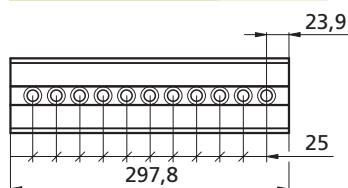
powerCLAMP



PCB25200 kg ~3,6

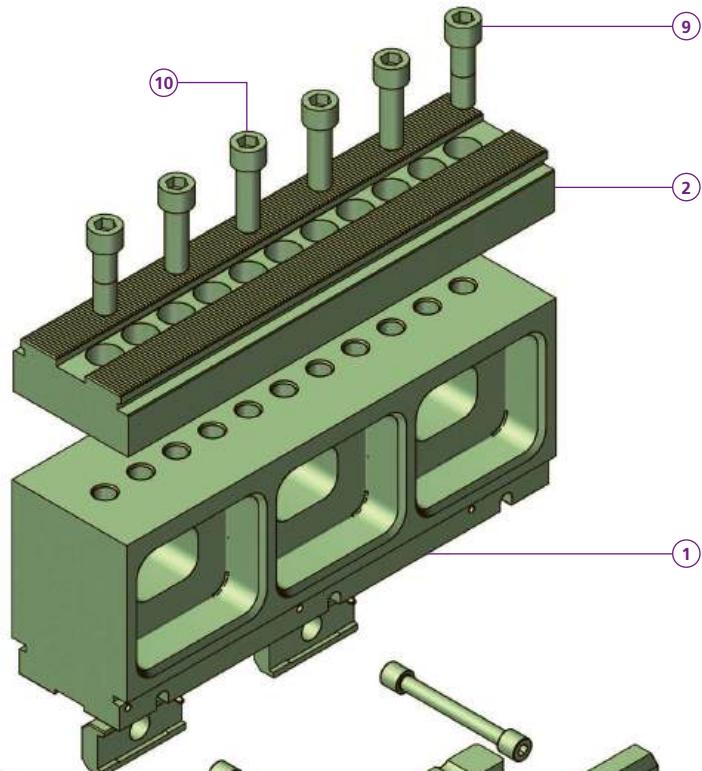


PCB25300 kg ~5,4



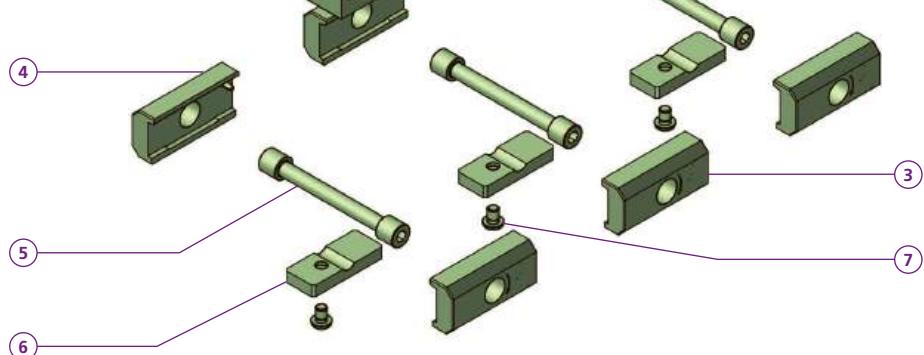
PCUB115-200-R25

- ① 1x TK130323
 - ② 1x PCB25200
 - ③ 2x PCSP60R
 - ④ 2x PCSP60L
 - ⑤ 2x PCS14
 - ⑥ 2x PCGU2049
 - ⑦ 2x M6X8ISO7380
 - ⑨ 2x TWPAS1240
 - ⑩ 2x M12X40ISO4762
- kg** ~13

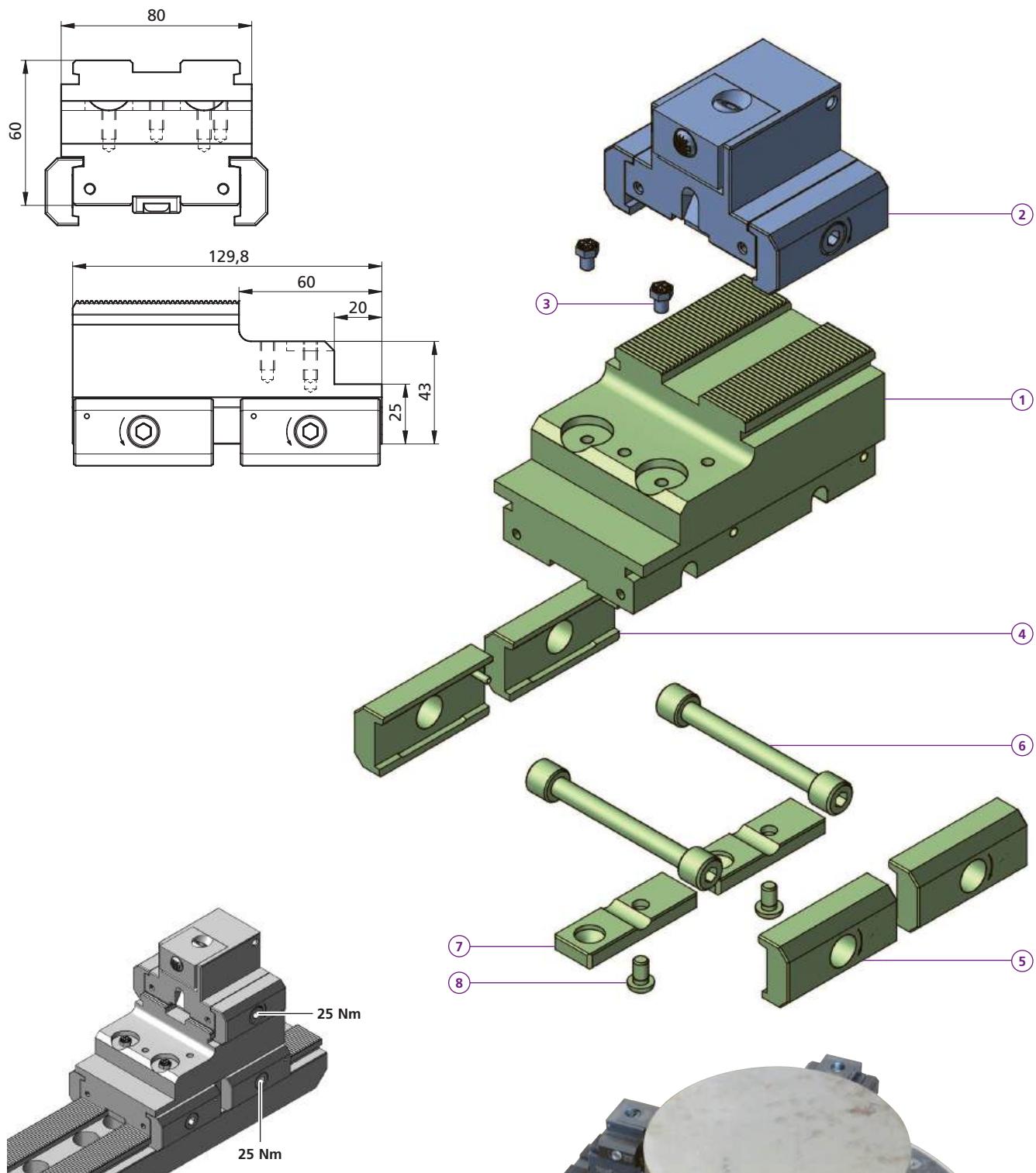


PCUB115-300-R25

- ① 1x TK130324
 - ② 1x PCB25300
 - ③ 3x PCSP60R
 - ④ 3x PCSP60L
 - ⑤ 3x PCS14
 - ⑥ 3x PCGU2049
 - ⑦ 3x M6X8ISO7380
 - ⑨ 2x TWPAS1240
 - ⑩ 4x M12X40ISO4762
- kg** ~19,6



Bestellbeispiel / Ordering example: **PCUB115-300-R25**



PCUB60-70-130	
①	1x TK130707
②	1x PS1F43N49-60
③	2x CCHMR
④	2x PCSP60L
⑤	2x PCSP60R
⑥	2x PCS14
⑦	2x PCGU2049
⑧	2x M6X8ISO7380
kg	~4,3

p. 64

Zubehör / Accessories p. 337



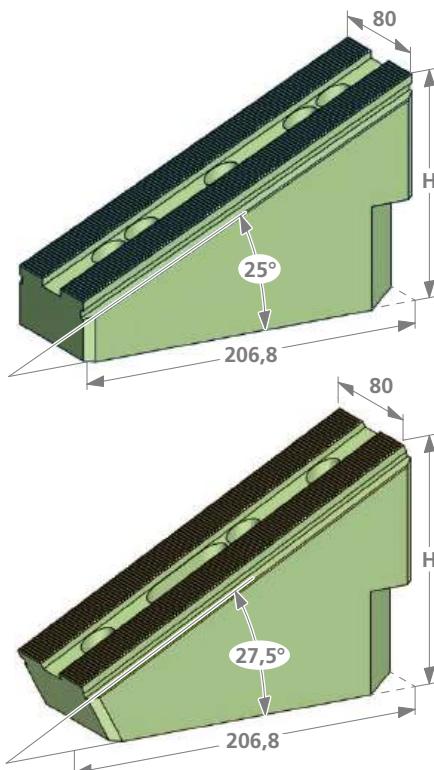
Bestellbeispiel / Ordering example: PCUB60-70-130

Schräge Basisschiene für 5-Achsenmaschinen

Slanted base rail for 5-axis machines

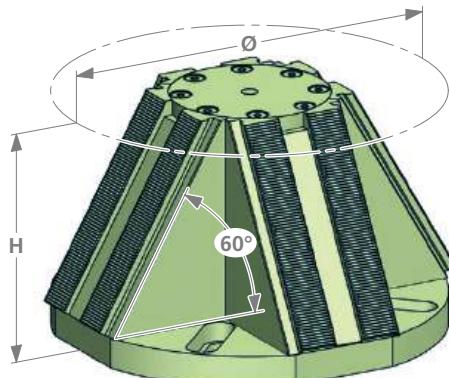
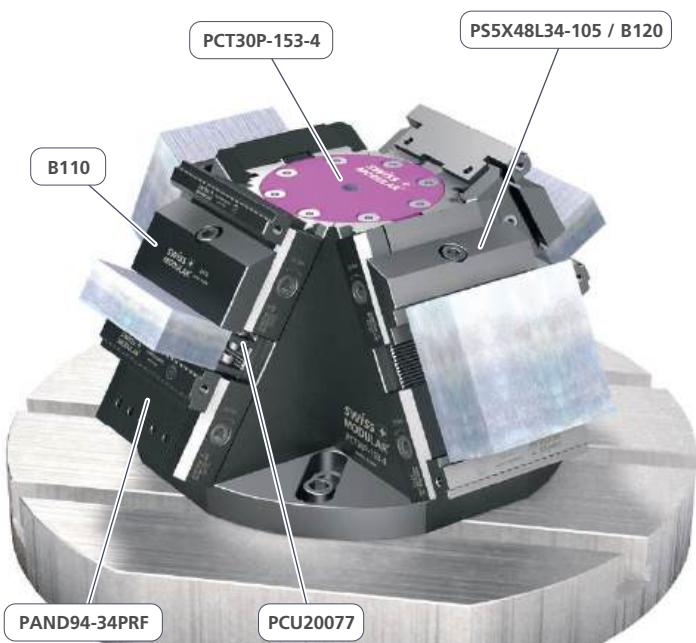
**5axes
powerCLAMP**

Art. Nr.	kg	Δ	H
PCB50207W25	~9,2	25°	131,5
PCB50207W27	~9,5	27,5°	139,7



Die Basisschienen können auf einem 50 mm Raster je nach Bedarf parallel oder diagonal platziert werden.
The base rails can be placed on a 50 mm grid either parallel or diagonal as required.

Art. Nr.	kg	Δ	\emptyset	H
PCT30P-153-4	~24	60°	266	152,4



Die Stahl-Mineralgusspyramide verfügt über eine powerCLAMP Schnittstelle und ermöglicht eine kompakte und zugleich flexible 5-Achs-Bearbeitung. Die Module werden in einem Winkel von 60° montiert. Dank dem eingesetzten Mineralguss, hat die Konstruktion ein relativ tiefes Gewicht bei einer hohen Festigkeit.

The steel mineral casting pyramid has a powerCLAMP interface and enables compact and, at the same time, flexible 5-axis machining. The modules are mounted at an angle of 60°. Due to the mineral cast used, the construction has a relatively low weight with a high rigidity.

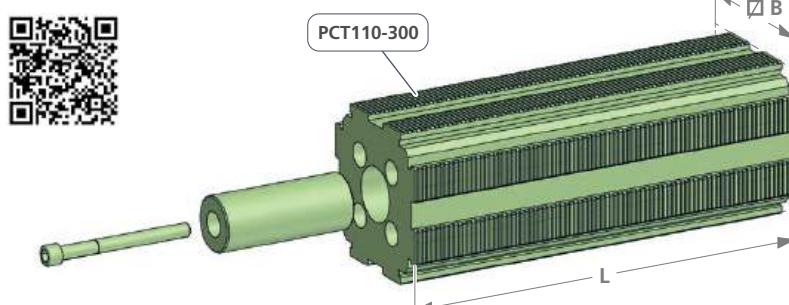


Monobloc Balken & Gegenlager zu Teilapparat

Monobloc & Counterbearing for 4th-axis

powerCLAMP

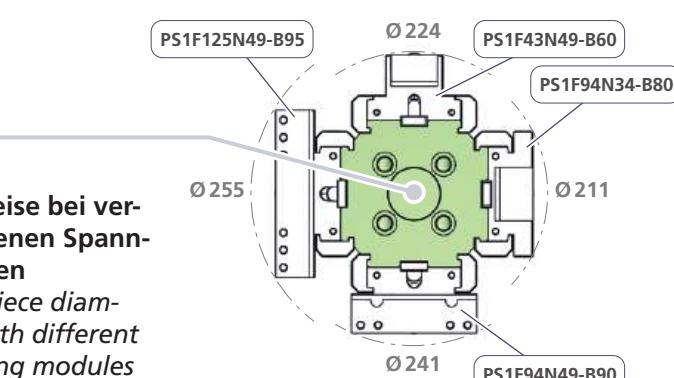
Art. Nr.	kg	L	B
PCT110-300	~24,5	300	110x110
PCT110-350	~27,5	350	110x110
PCT110-400	~31,5	400	110x110
PCT110-450	~35,5	450	110x110
PCT110-500	~39,5	500	110x110
PCT110-550	~43,0	550	110x110
PCT110-600	~47,0	600	110x110
PCT110-650	~51,0	650	110x110
PCT110-700	~55,2	700	110x110



Stahl-Mineralguss
Steel-expoxy mineral

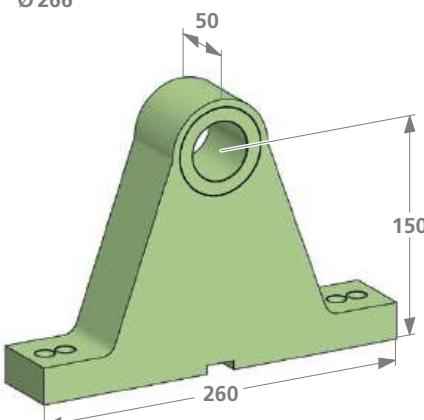
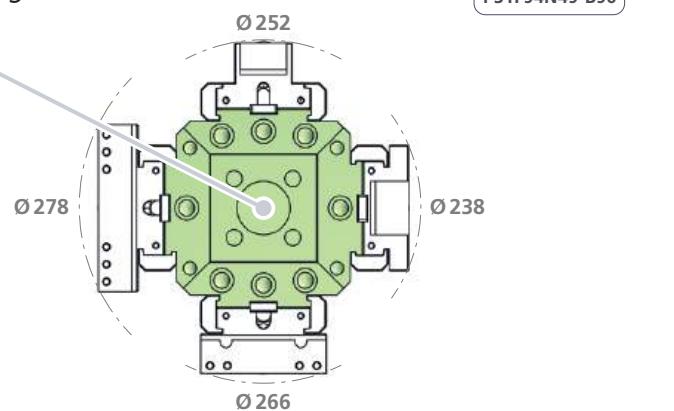
Art. Nr.	kg	L	B
PCMT150-700	~83,0	700	150x150
PCMT150-750	~89,0	750	150x150
PCMT150-800	~95,0	800	150x150
PCMT150-850	~101,0	850	150x150

Störkreise bei ver-
schiedenen Spann-
modulen
Workpiece diam-
eter with different
clamping modules



Gegenlager
Counterbearing

Art. Nr.	kg
PCGL15050	~8,0



Reduziert Vibrationen und ist leicht
Reduces vibrations and is light



Spanntürme zu 5-Achs Bearbeitungszentren

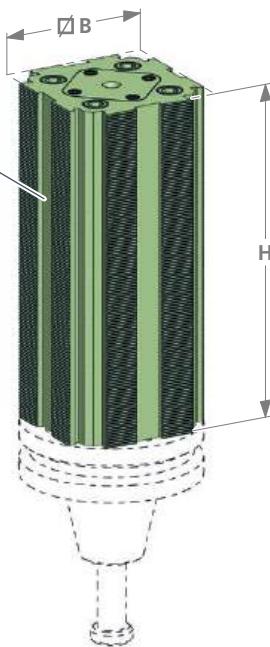
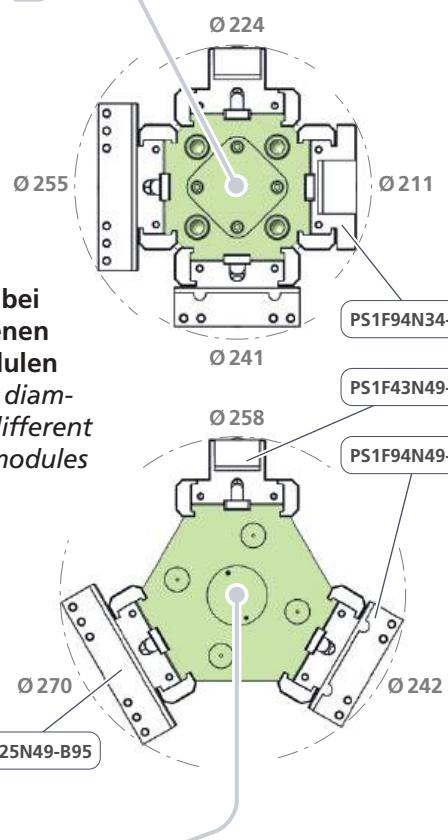
Clamping fixtures for 5 axis machines

5 axes
powerCLAMP

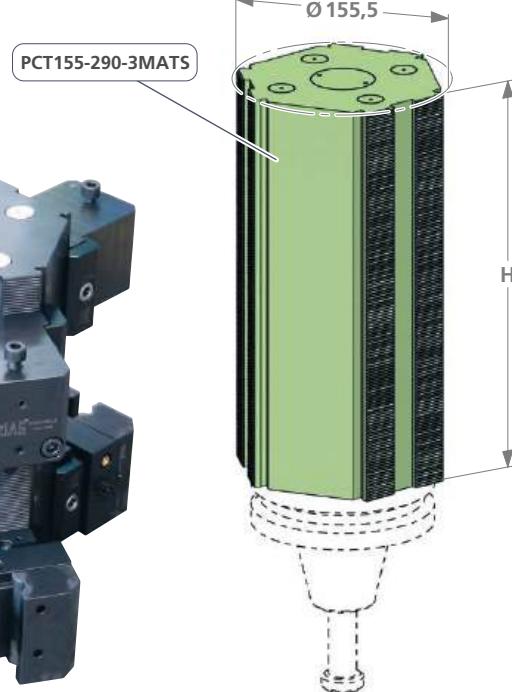
Art. Nr.	kg	H	B
PCT110-250MATS	~17	250	110x110
PCT110-300MATS	~21	300	110x110



Störkreise bei verschiedenen Spannmodulen
Workpiece diameter with different clamping modules



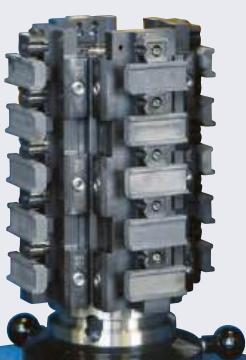
Art. Nr.	kg	H
PCT155-290-3MATS	~30	290



Spanntürme zu 5-Achs Bearbeitungszentren

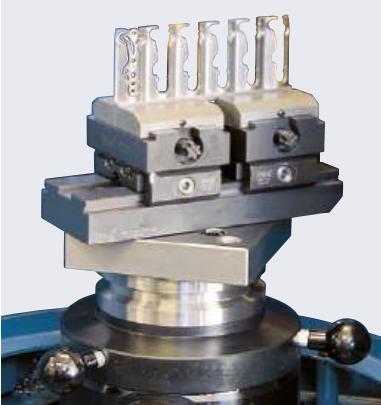
Clamping fixtures for 5 axis machines

powerCLAMP



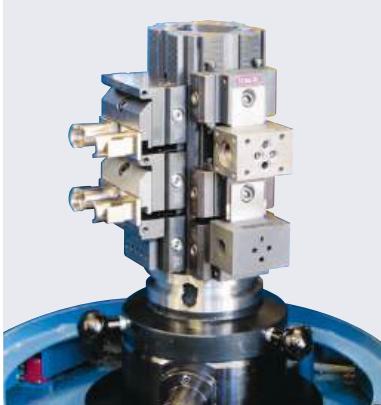
microCLAMP

p. 178



triCENTRO

p. 126



powerCLAMP

p. 74, 64



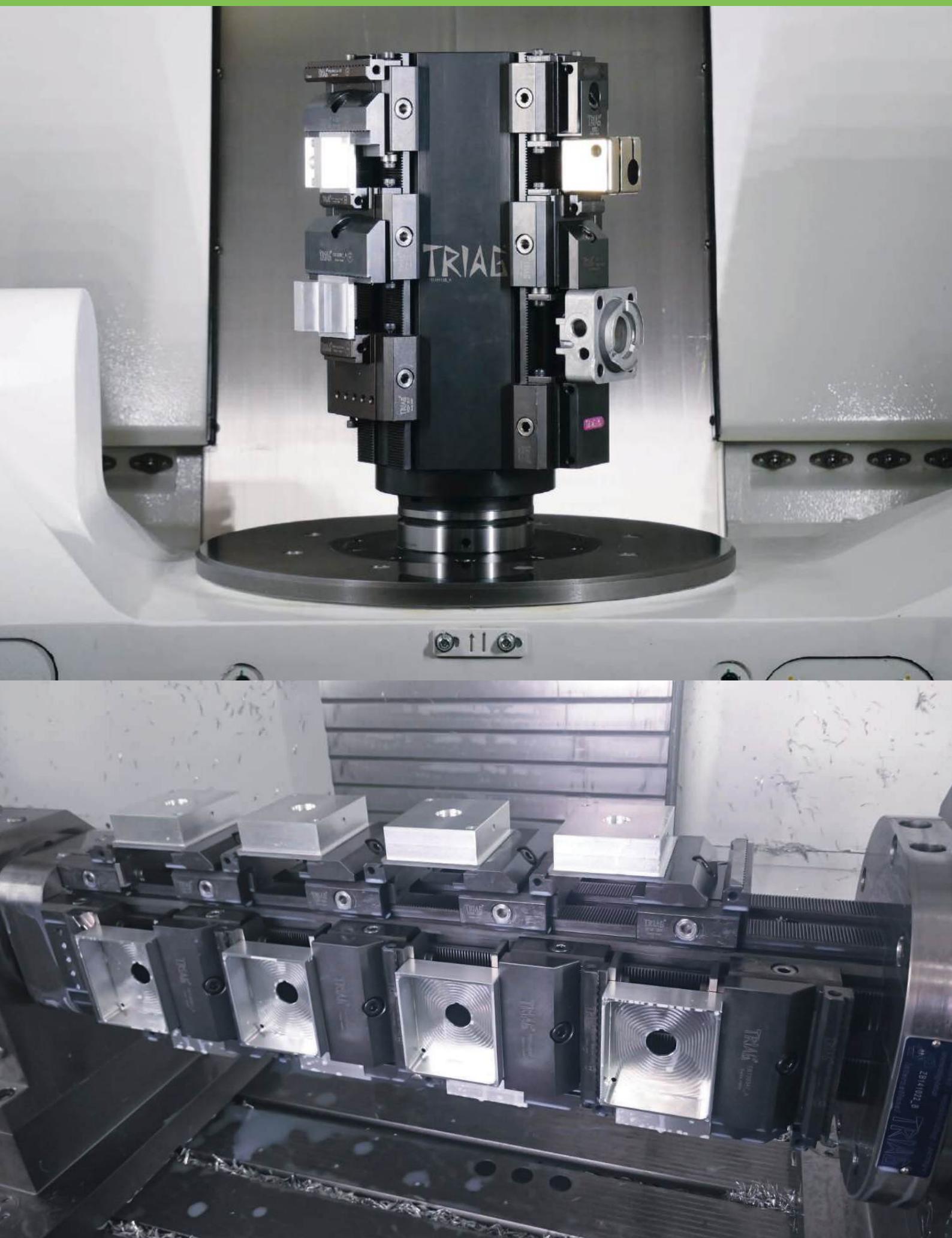
microCLAMP

p. 202

Anwendungsbeispiele

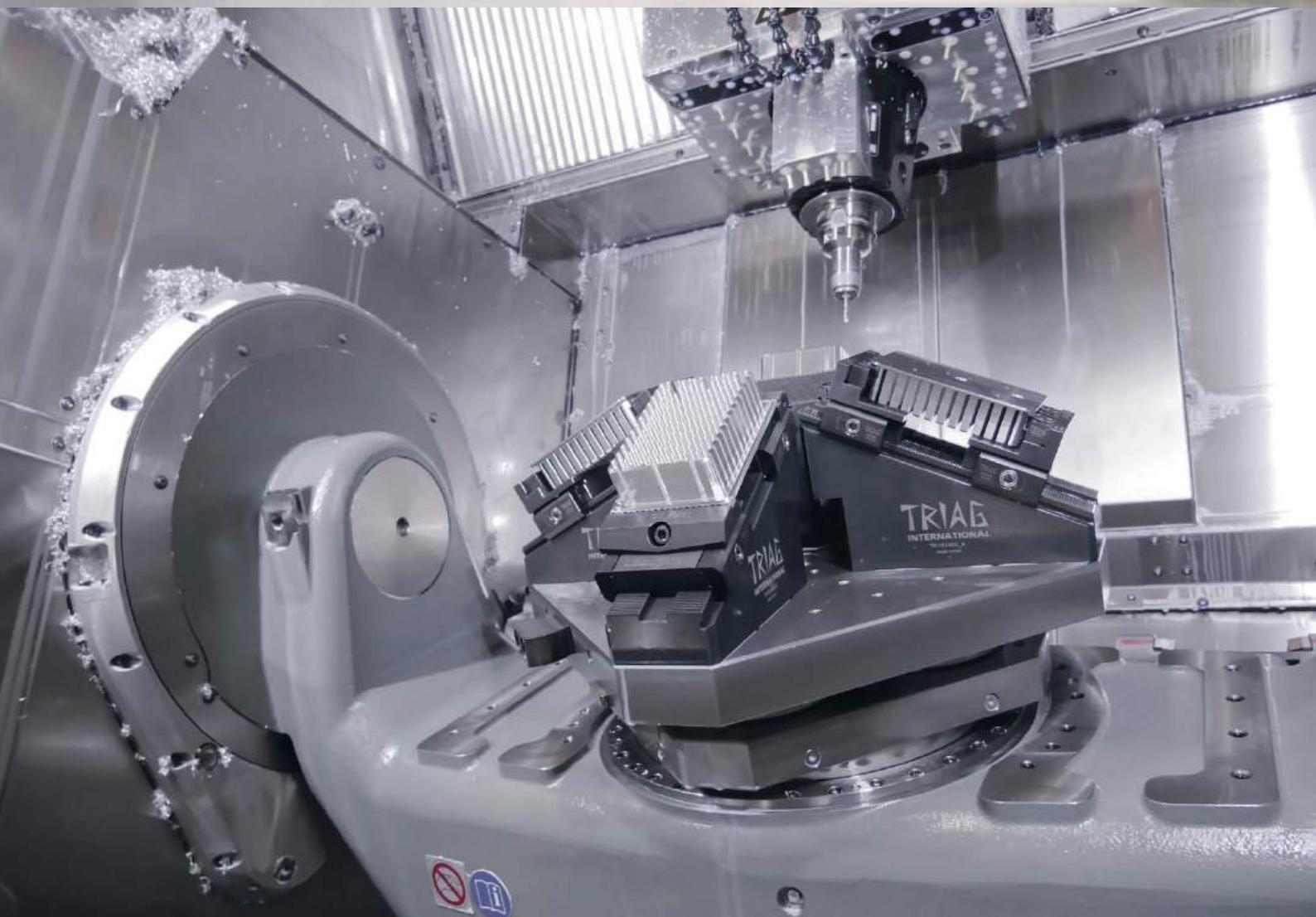
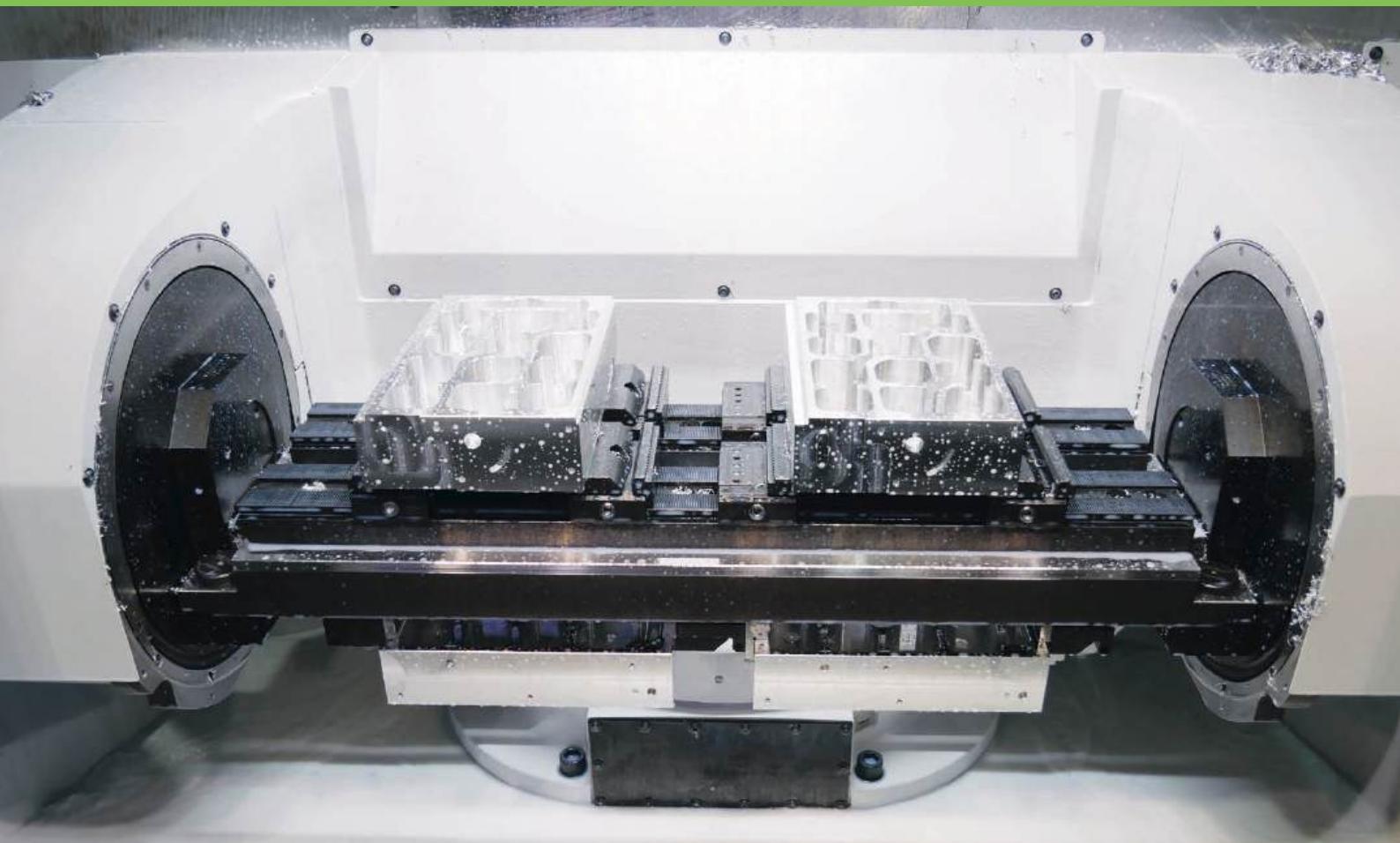
Examples of application

powerCLAMP

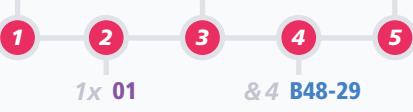


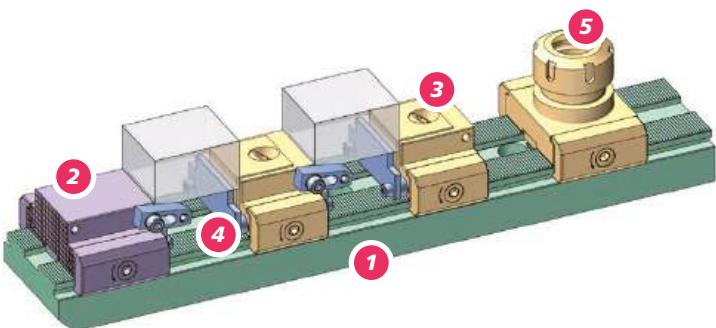
Anwendungsbeispiele *Examples of application*

powerCLAMP



BESTELLBEISPIEL / ORDERING EXAMPLE

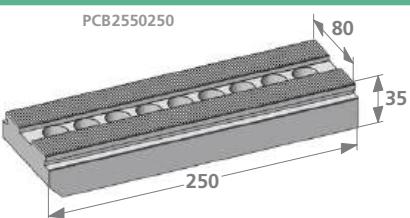
1x PCSET18-450A 2x PCSET18-N3 1x PS1X50N62-ER32

 1x 01 & 4 B48-29



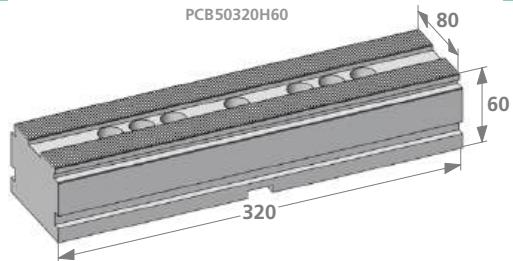
Zu jeder Basisschiene gehört 1 Anschlagmodul «Tabelle 2» nach Ihrer Wahl!
 Each base rail comes with 1 end module "table 2" of your choice!

1 Basisschienen / Base-rails

PCSET18-250A	PCB2550250	PCSET18-600A	PCB4050600
PCSET18-350A	PCB4050350	PCSET18-650A	PCB4050650
PCSET18-400A	PCB4050400	PCSET18-700A	PCB4050700
PCSET18-450A	PCB4050450	PCSET18-750A	PCB4050750
PCSET18-500A	PCB4050500	PCSET18-800A	PCB4050800
PCSET18-550A	PCB4050550		



PCSET18-320B	PCB50320H60
PCSET18-400B	PCB100400H60
PCSET18-500B	PCB100500H60
PCSET18-600B	PCB100600H60
PCSET18-650B	PCB100650H60
PCSET18-690B	PCB100690H60
PCSET18-850B	PCB100850H60



2 Anschlagmodule / End modules

48		78		94	
PAND 48-34	01	PAND 48-49	02	PAND 78-34	05
	03		04		06
	07		08		09
	10	F = glatt / flat R = geriffelt / double serrated D = Direktprägebacken / Direct stamping			

5

Dreibackenfutter | Spannzangenmodul | Mini-Zentrischspanner
Three-jaw chuck | Collet module | Mini-self centering vise

PS3X125L87BSET	PS3X100L82BSET	PS3X80L75BSET	PS1X50N62-ER32	PCZ80L40PRG62	PC100L50

3

Niederzugspannmodule / Pull down clamp modules

48		78		94	
PS1R48N34 B80N	PS1R48N49 B80N	PS1R78N49 B90R78	PS1F78N49 B90F78	PS1R94N49 B90	PS1F94N49 B90
PCSET18-N1	PCSET18-N2	PCSET18-N5	PCSET18-N6	PCSET18-N7	PCSET18-N8
PS1F48N34 B80N	PS1F48N49 B80N	<p> F = glatt / flat R = geriffelt / double serrated D = Direktprägebacken / Direct stamping </p>		PS1R94N49 B93	
PCSET18-N3	PCSET18-N4			PCSET18-N9	

Linearspannmodule / Linear clamp modules

48		78		94	
PS1PF48L34 B115P	PS1PF48L49 B115P	PS1R78L34 B141	PS1F78L34 B140	PS1PF94L34 B120P	PS1PF94L49 B120P
PCSET18-L1	PCSET18-L2	PCSET18-L5	PCSET18-L6	PCSET18-L9	PCSET18-L11
PS1R48L49 B106	PS1F48L49 B105	PS1R78L49 B141	PS1F78L49 B140	PS1R94L34 B111	PS1F94L34 B110
PCSET18-L3	PCSET18-L4	PCSET18-L7	PCSET18-L8	PCSET18-L12	PCSET18-L13
PS1R48L34 B106	PS1F48L34 B105	<p>Bei jedem Niederzug und Linear Spannmodul sind 2 Parallelunterlagen nach Ihrer Wahl und 1 Fräsanschlag enthalten.</p> <p>Each pull-down and linear clamping module includes 2 parallels of your choice and 1 milling buffer.</p>		PS1R94L49 B111	PS1F94L49 B110
PCSET18-L16	PCSET18-L17			PCSET18-L14	PCSET18-L15

4

Parallelunterlagen / Steel parallels

48		78		94	
PCU29047	H PCU 20 047 PCU 24 047 PCU 29 047 PCU 31 047 PCU 34 047 PCU 39 047 PCU 44 047 PCU 46 047	PCU39077	H PCU 20 077 PCU 24 077 PCU 29 077 PCU 31 077 PCU 34 077 PCU 39 077 PCU 44 077 PCU 46 077	PCU29093	H PCU 14 093 PCU 20 093 PCU 24 093 PCU 29 093 PCU 31 093 PCU 34 093 PCU 39 093 PCU 44 093 PCU 46 093 PCU 47 093
B48- ...		B78- ...		B94- ...	
Fräsanschlag / Milling buffer				1 x Inklusive / Included	



Für mehr Informationen (Genaue Bemessung, Material, Spannkraft, Drehmoment)
For further informations (exact dimensions, material, clamping forces, torque)

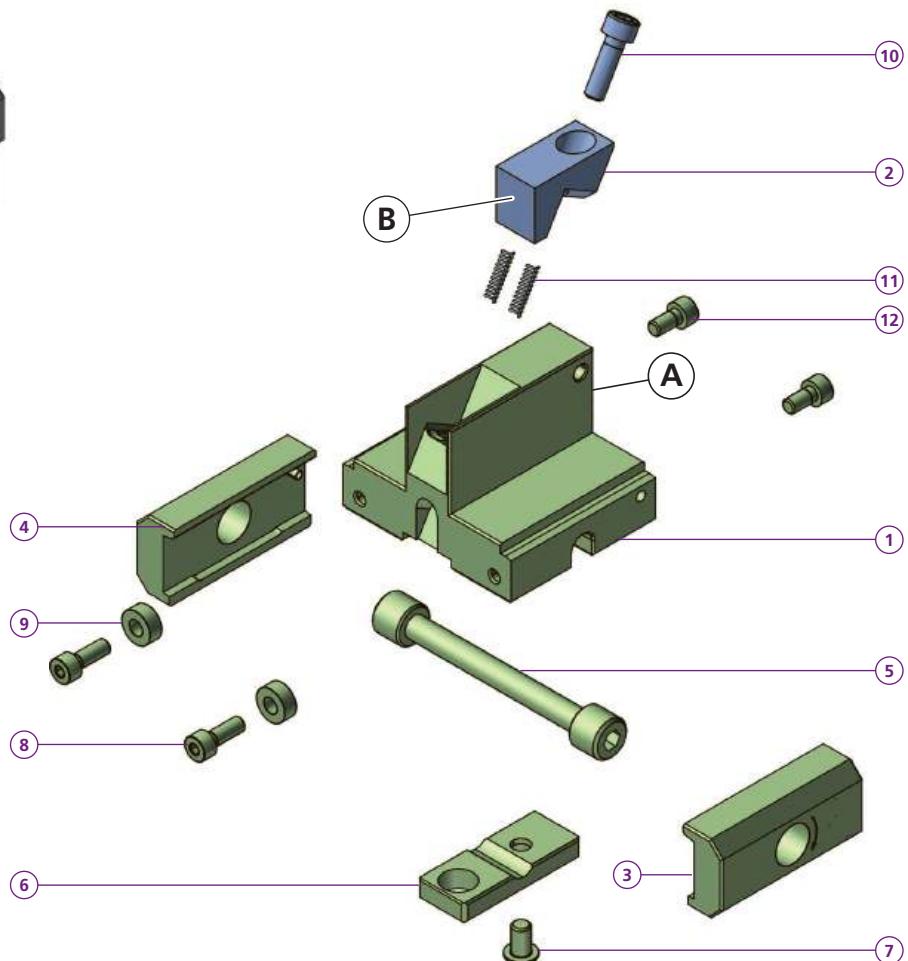
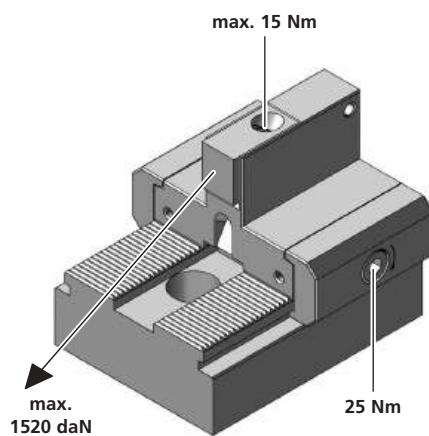
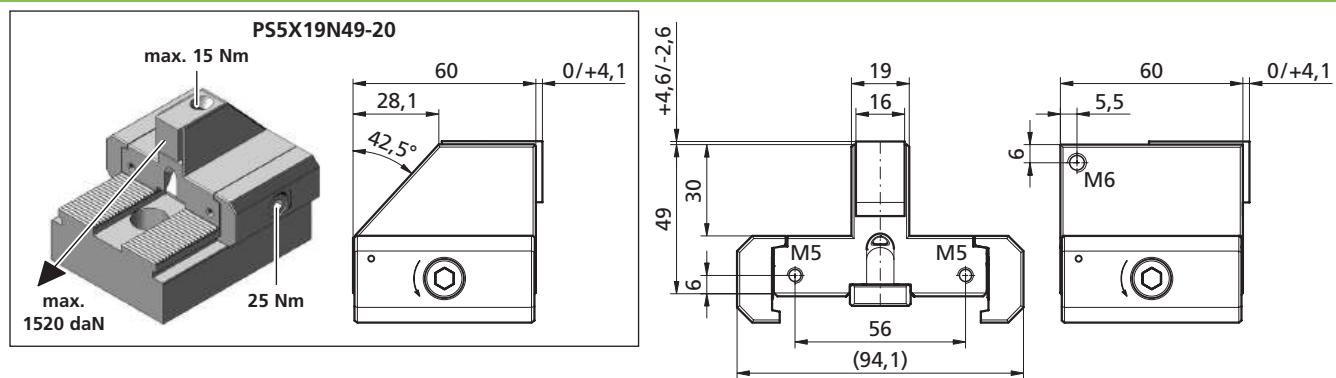
p. 60 - 112



Spannmodule
Clamping module

PS1R/F19N49-20
PS5X19N49-20

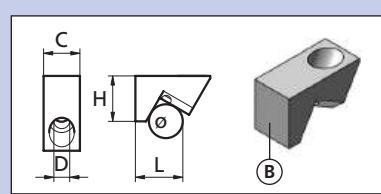
5axes
powerCLAMP



	PS5X19N49-20
(1)	1x TF140449
(9)	2x PCD005
(8)	2x M5X14ISO4762
kg	~1,1
PS1F19N49-20	
(1)	1x TF150961
PS1R19N49-20	
(1)	1x TF140448
(2)	1x _____
(3)	1x PCSP60R
(4)	1x PCSP60L
(5)	1x PCS14
(6)	1x PCGU2049
(7)	1x M6X8ISO7380
(8)	2x M5X14ISO4762
(9)	2x PCD005
(10)	1x M6X20ISO4762
(11)	2x FED0418
(12)	2x M5X10ISO4762
kg	~1,2

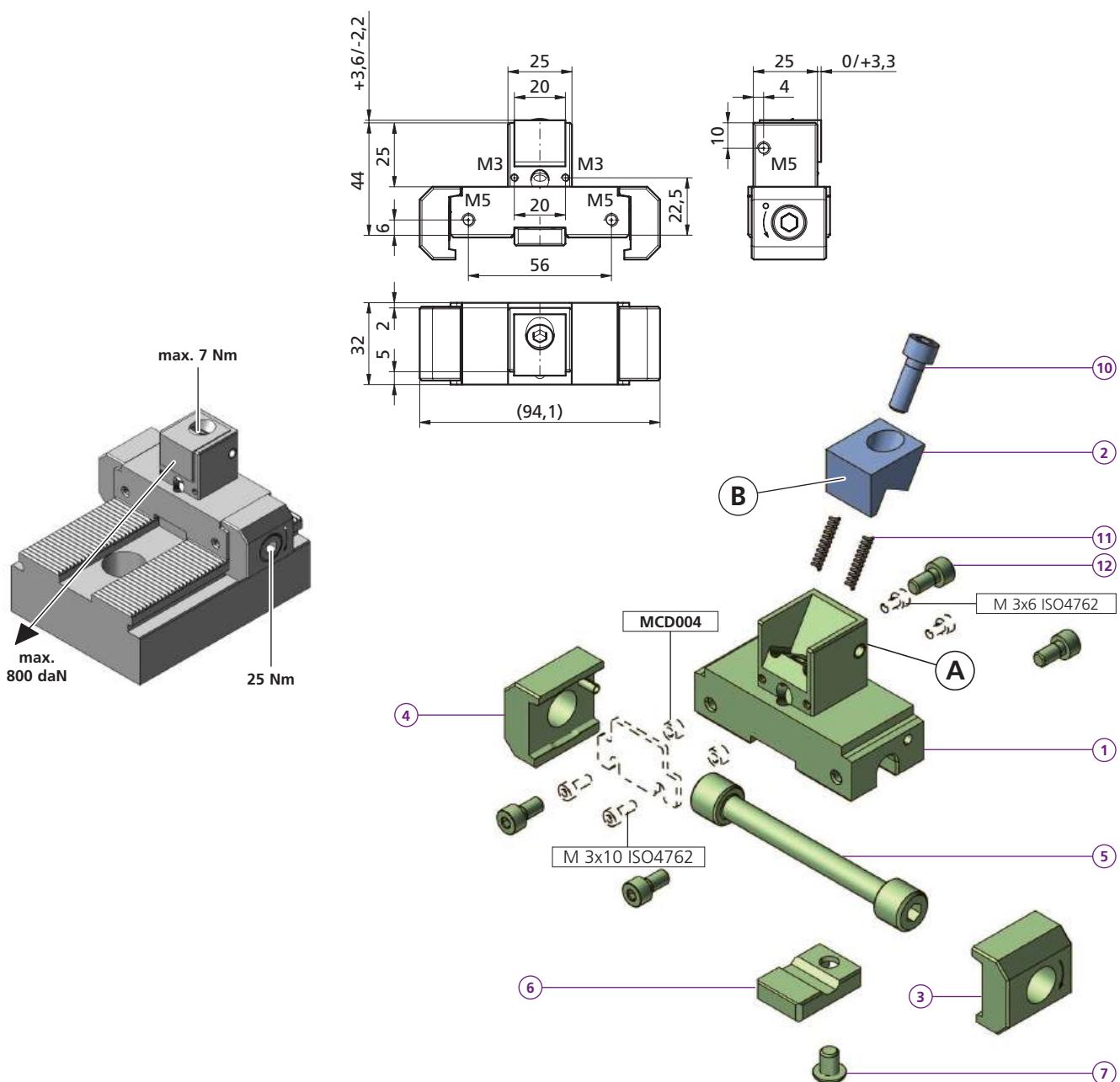
B	B20	B21	B22
(C)	16	16	16
(H)	20	20	20
(L)	19	19	19
(D)	6,5	6,5	6,5
(ø)	12	12	12
(i)	HV700 x0,2mm	HV700 x0,2mm	*
kg	~0,06	~0,06	~0,06

Bestellbeispiel / Ordering example: 1x **PS1R19N49-20** & 1x **B21**



Separat bestellen / Order separately

* = weicher Stahl / soft steel



PS1F25N44-13	A
① 1x TF150960	
PS1R25N44-13	
① 1x TF140450	
② 1x —	
③ 1x PCSP30R	
④ 1x PCSP30L	
⑤ 1x PCS14	
⑥ 1x PCGU2030	
⑦ 1x M6X8ISO7380	
⑩ 1x M6X16ISO4762	
⑪ 2x FED03018	
⑫ 4x M5X10ISO4762	
kg	~0,6

Bestellbeispiel / Ordering example: 1x **PS1R25N44-13** & 1x **B14**

	H	B	N	kg
MCU11037	11	23	2	~0,004
MCU15037	15	23	2	~0,006
MCU18037	18	23	2	~0,008
MCU20037	20	23	2	~0,008
MCU22537	22,5	23	2	~0,008
2x M3X10ISO4762				
2x M3X6ISO4762				
2x MCD004				
B	B13	B14	B15	B16
(C)	20	20	20	20
(H)	16	16	16	16
(L)	13,8	13,8	13,8	19
(D)	6,5	6,5	6,5	6,5
(ø)	10	10	10	10
(i)	HV700	HV700	*	*
	x0,2mm	x0,2mm		
kg	~0,05	~0,05	~0,05	~0,06

C
H
D
L

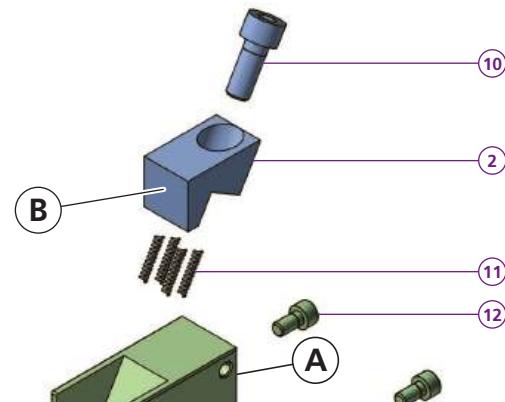
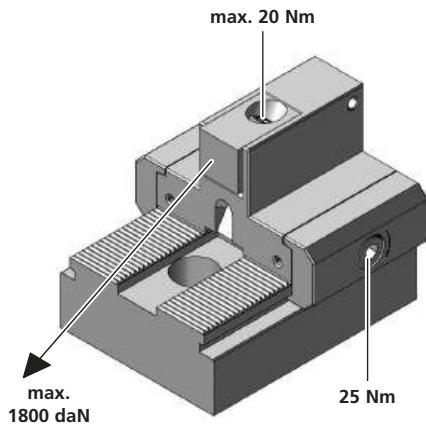
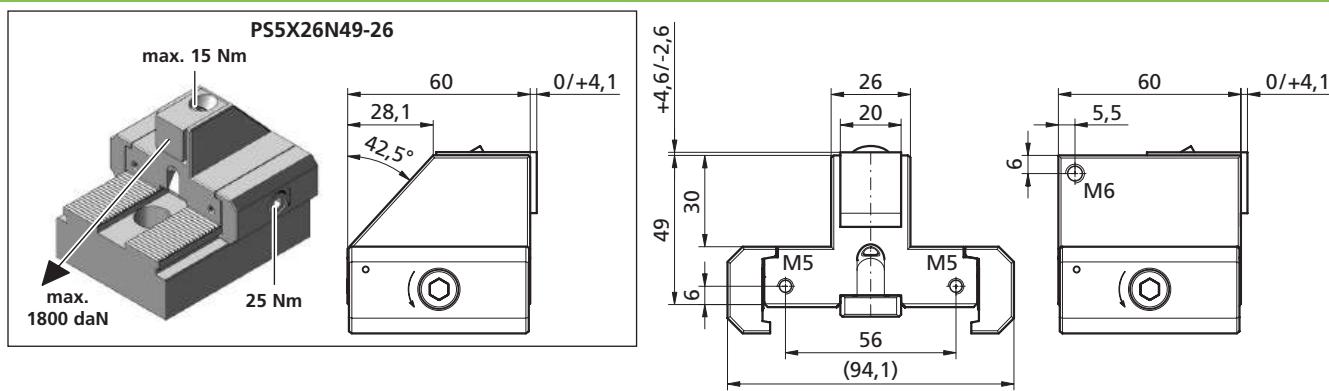
B13, B14, B15 | B16

MCU
B
N
H
20
9
3,5
2,1

* = weicher Stahl / soft steel

PS1R/F26N49-26

PS5X26N49-26

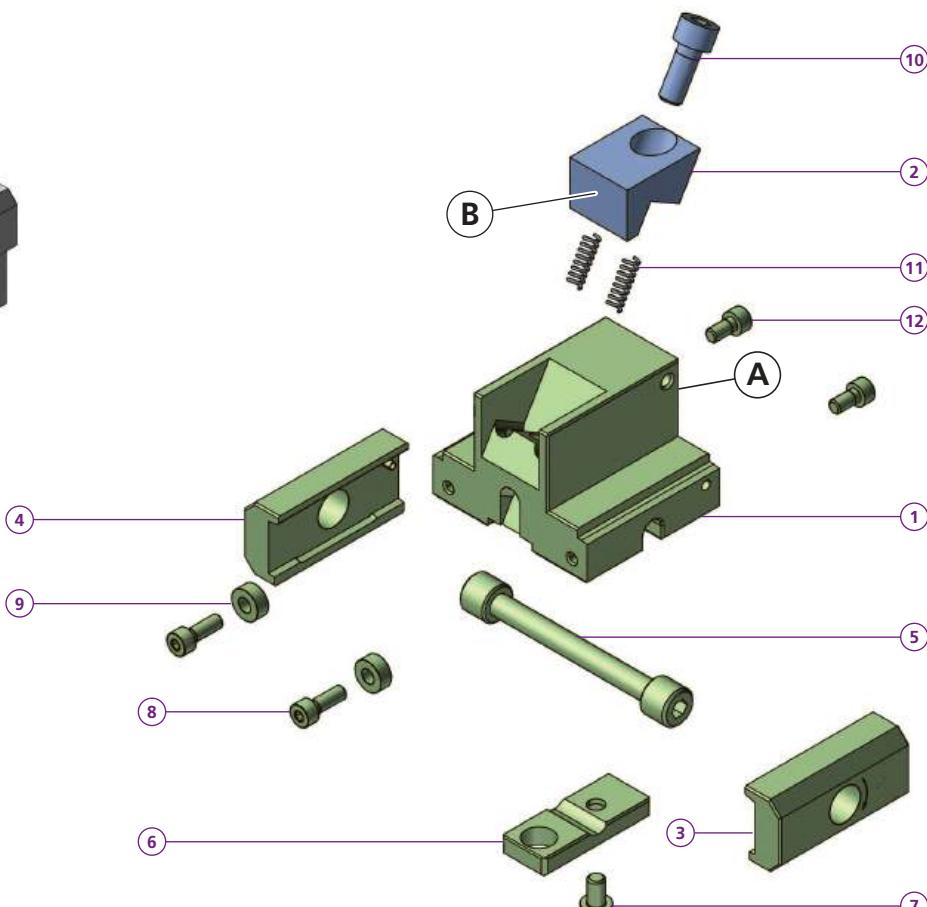
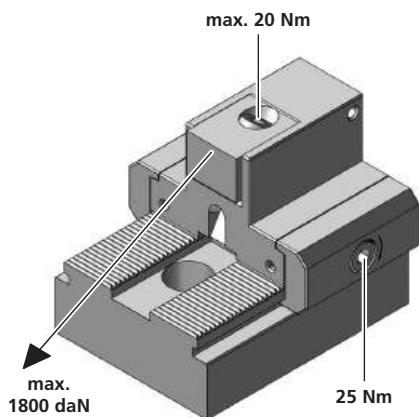
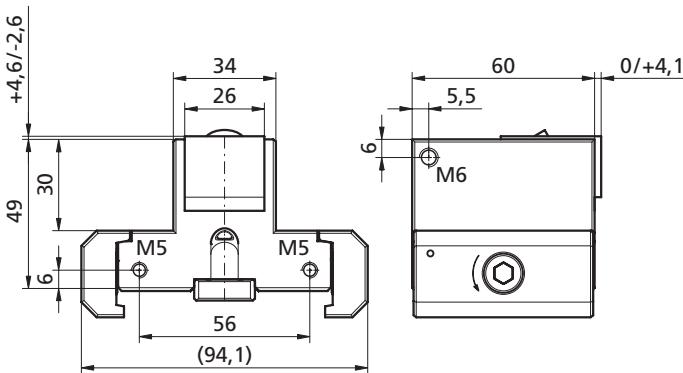
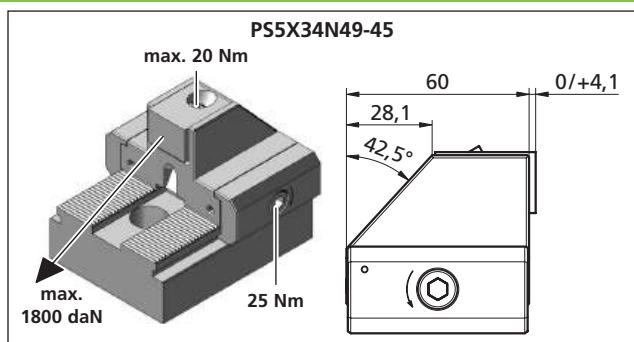


	PS5X26N49-26
(1)	1x TF140453
(9)	2x PCD005
(8)	2x M5X14ISO4762
kg	~1,1
PS1F26N49-26	
(1)	1x TF140451
PS1R26N49-26	
(1)	1x TF140452
(2)	1x
(3)	1x PCSP60R
(4)	1x PCSP60L
(5)	1x PCS14
(6)	1x PCGU2049
(7)	1x M6X8ISO7380
(8)	2x M5X14ISO4762
(9)	2x PCD005
(10)	1x M8X20ISO4762
(11)	4x FED0418
(12)	2x M5X10ISO4762
kg	~1,2

Bestellbeispiel / Ordering example: 1x PS1R26N49-26 & 1x B26			
B	B26	B27	B28
(C)	20	20	20
(H)	20	20	20
(L)	19	19	19
(D)	9	9	9
(o)	12	12	12
(i)	HV700 x0,2mm	HV700 x0,2mm	*
kg	~0,07	~0,07	~0,07

PS1R/F34N49-45

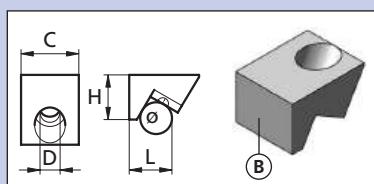
PS5X34N49-45



	PS5X34N49-45
①	1x TF140455
⑨	2x PCD005
⑧	2x M5X14ISO4762
kg	~1,2
PS1F34N49-45	
①	1x TF191071
PS1R34N49-45	
①	1x TF140454
②	1x _____
③	1x PCSP60R
④	1x PCSP60L
⑤	1x PCS14
⑥	1x PCGU2049
⑦	1x M6X8ISO7380
⑧	2x M5X14ISO4762
⑨	2x PCD005
⑩	1x M8X20ISO4762
⑪	2x FED0618
⑫	2x M5X10ISO4762
kg	~1,3

Bestellbeispiel / Ordering example: 1x PS5X34N49-45 & 1x B47HM

B	B45	B46	B47	B47HM
C	26	26	26	26
H	20	20	20	20
L	19	19	19,1	19,1
D	9	9	9	9
o	12	12	12	12
i	HV700 x0,2mm	HV700 x0,2mm	*	HM
kg	~0,1	~0,1	~0,1	~0,1



* = weicher Stahl / soft steel

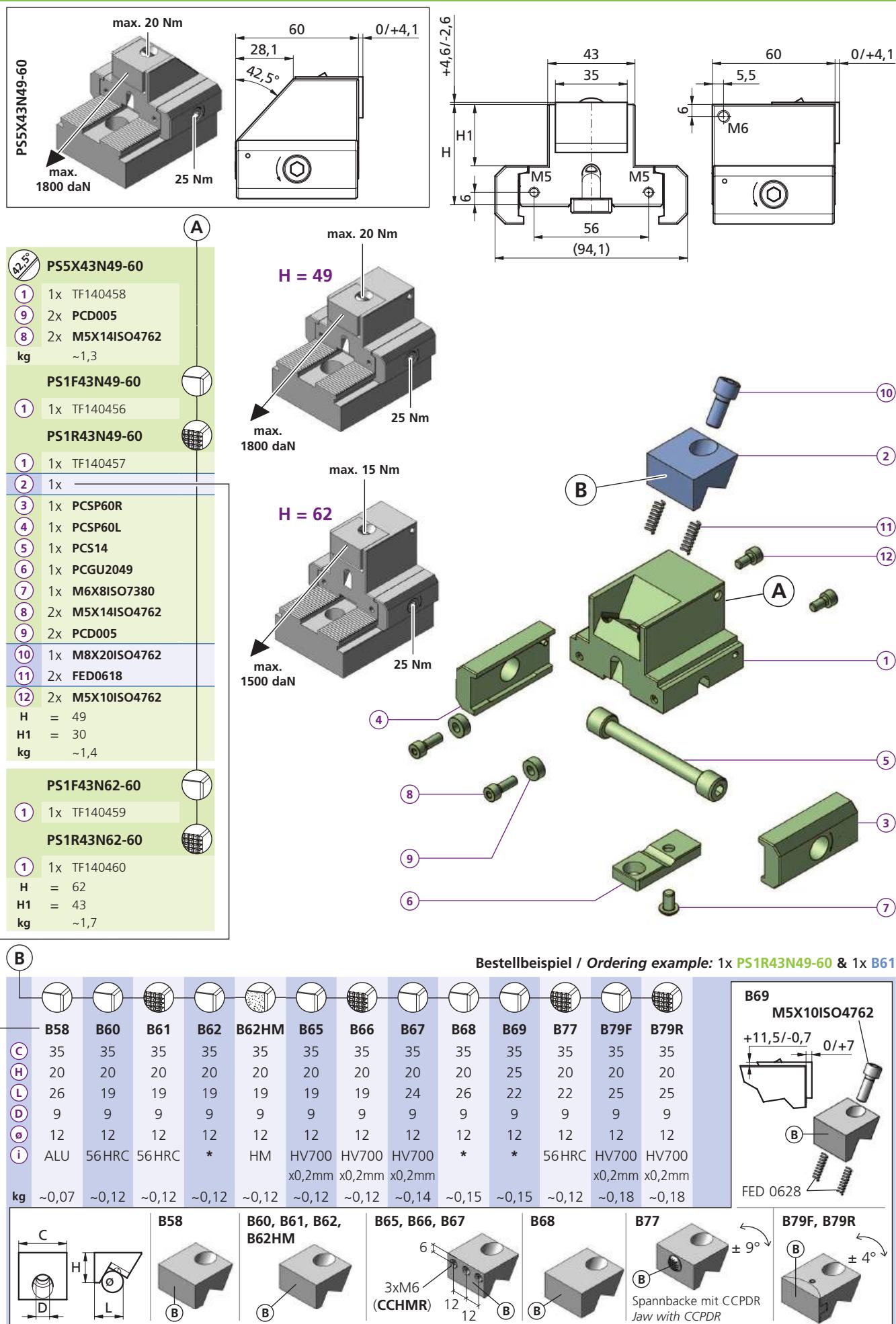
HM = Hartmetallbeschichtet / Carbide coated

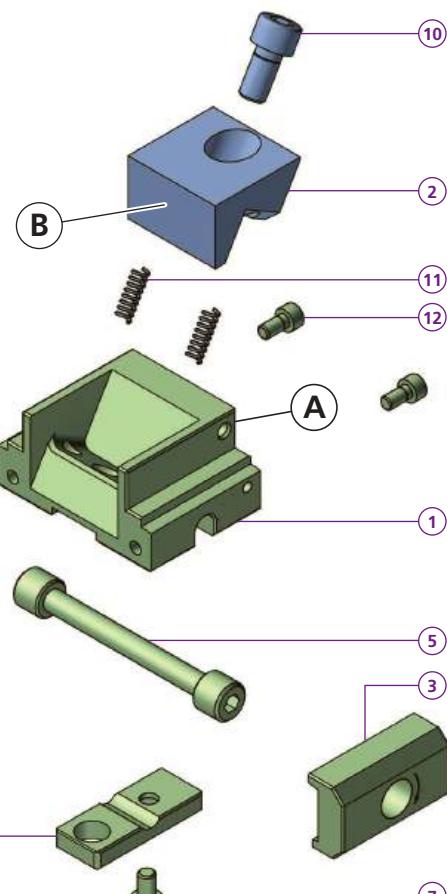
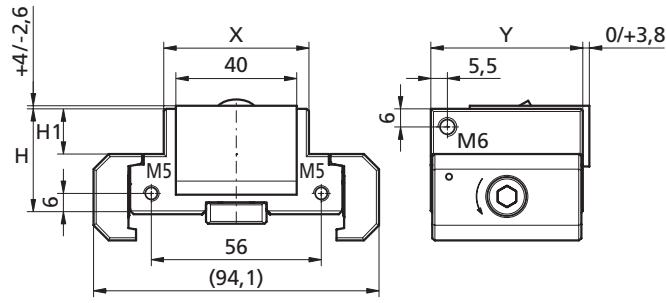
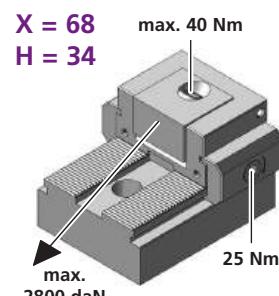
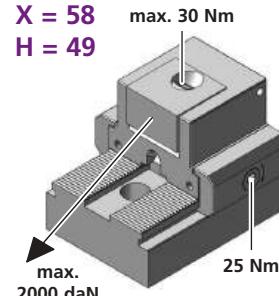
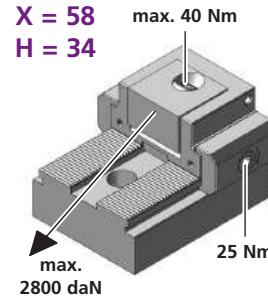
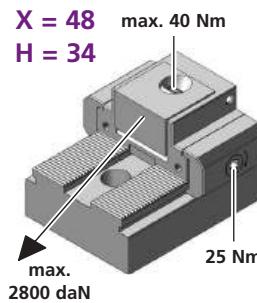
PS1R/F43N49-60

PS1R/F43N62-60

PS5X43N49-60

**5axes
powerCLAMP**



PS1R/F48N34-80**PS1R/F68N34-80****PS1R/F58N34-80****PS1R58N49-80****powerCLAMP****PS1F48N34-80**

- ① 1x TF140461
 - ② 1x
 - ③ 1x PCSP50R
 - ④ 1x PCSP50L
 - ⑤ 1x PCS14
 - ⑥ 1x PCGU2049
 - ⑦ 1x M6X8ISO7380
 - ⑧ 2x M5X14ISO4762
 - ⑨ 2x PCD005
 - ⑩ 1x M10X25ISO4762
 - ⑪ 2x FED0618
 - ⑫ 2x M5X10ISO4762
- X = 48
H = 34
H1 = 15
Y = 50
kg ~0,9

PS1F58N34-80

- ① 1x TF140463
- ② 1x
- ③ 1x TF140464
- ④ X = 58
- ⑤ H = 34
- ⑥ H1 = 15
- ⑦ Y = 50
- ⑧ kg ~0,9

PS1R58N49-80

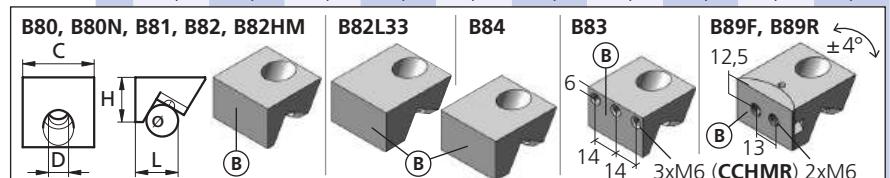
- ① 1x TK120129
- ③ 1x PCSP60R
- ④ 1x PCSP60L
- ⑤ X = 58
- ⑥ H = 49
- ⑦ H1 = 30
- ⑧ Y = 60
- ⑨ kg ~1,6

PS1F68N34-80

- ① 1x TF140465
- ② 1x
- ③ 1x TF140466
- ④ X = 68
- ⑤ H = 34
- ⑥ H1 = 15
- ⑦ Y = 50
- ⑧ kg ~1,0

Bestellbeispiel / Ordering example: 1x **PS1F68N34-80** & 1x **B82HM**

B	B80	B80N	B81	B82	B82L33	B82HM	B83	B84	B89F	B89R
C	40	40	40	40	40	40	40	40	40	40
H	25	25	25	25	25	25	25	25	25	25
L	22	22	22	22,2	33	22,2	22	26,3	29	29
D	11	11	11	11	11	11	11	11	11	11
E	15	15	15	15	15	15	15	15	15	15
i	56HRC	HV700	56HRC	*	*	56HRC	HV700	*	HV700	HV700
kg	~0,2	~0,2	~0,2	~0,2	~0,28	~0,2	~0,2	~0,2	~0,24	~0,24



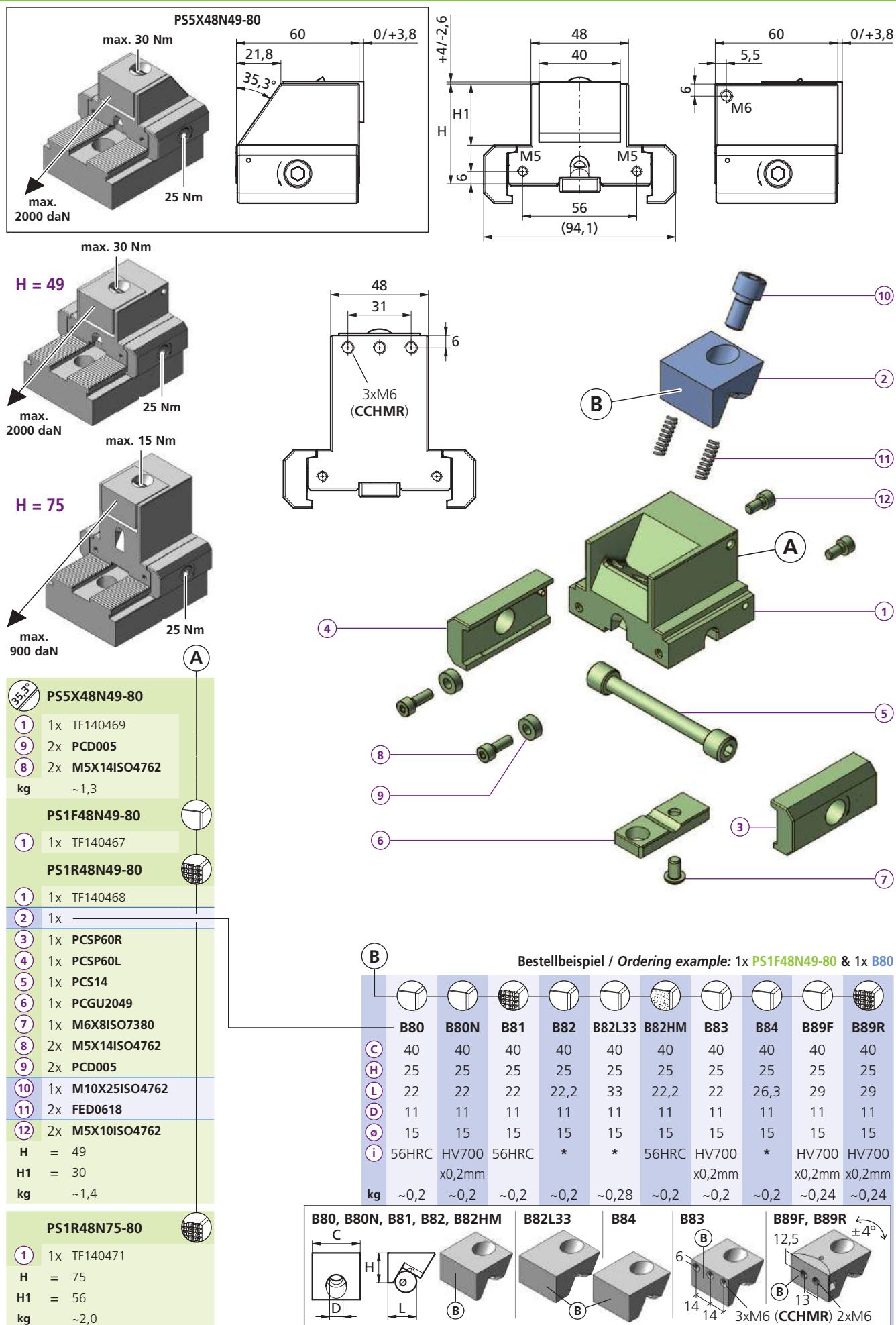
* = weicher Stahl / soft steel

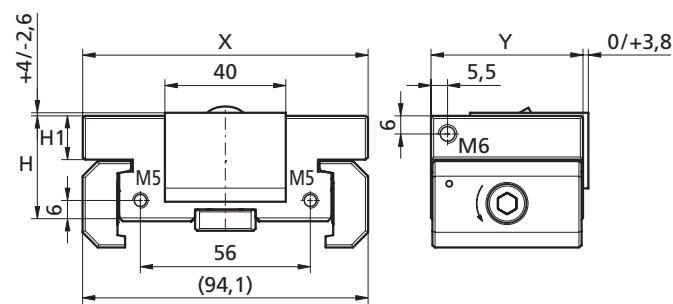
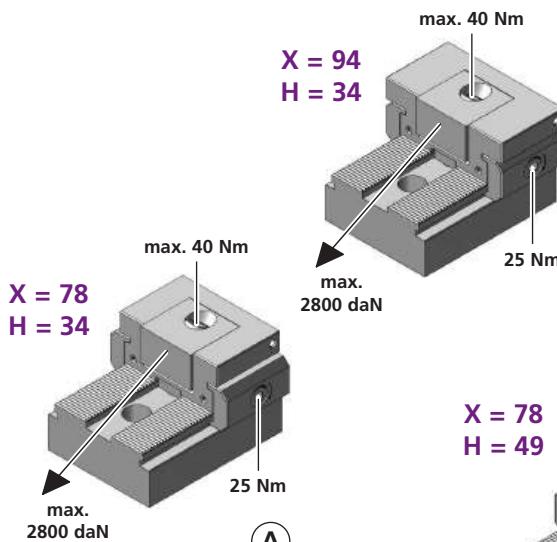
HM = Hartmetallbeschichtet / Carbide coated

PS1R/F48N49-80

PS1R48N75-80

PS5X48N49-80

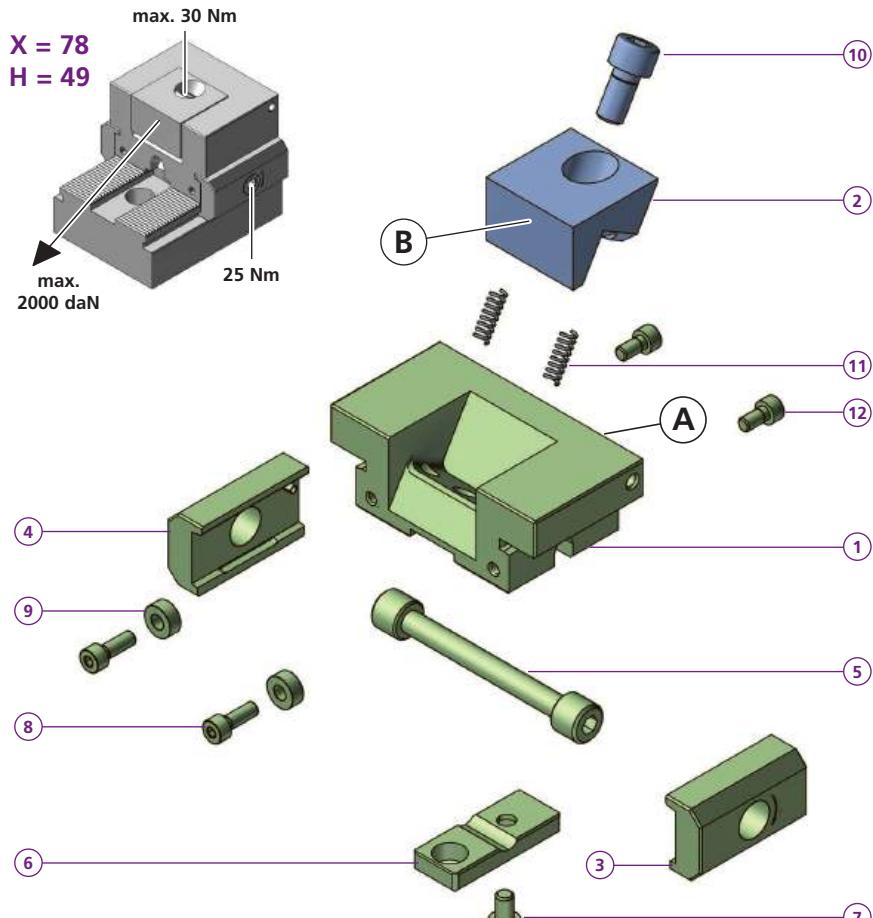




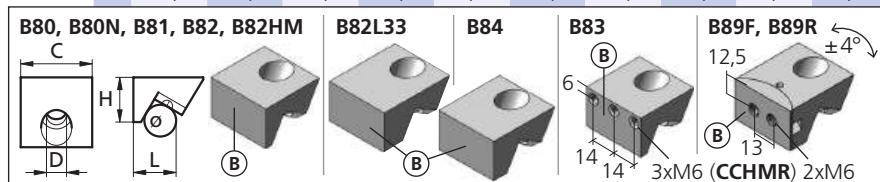
PS1F78N34-80
① 1x TF140472
PS1R78N34-80
① 1x TF140473
② 1x —
③ 1x PCSP50R
④ 1x PCSP50L
⑤ 1x PCS14
⑥ 1x PCGU2049
⑦ 1x M6X8ISO7380
⑧ 2x M5X14ISO4762
⑨ 2x PCD005
⑩ 1x M10X25ISO4762
⑪ 2x FED0618
⑫ 2x M5X10ISO4762
X = 48
H = 34
H1 = 15
Y = 50
kg ~1,1

PS1F94N34-80
① 1x TF140476
PS1R94N34-80
① 1x TF140477
X = 94
H = 34
H1 = 15
Y = 50
kg ~1,1

PS1F78N49-80
① 1x TF140474
PS1R78N49-80
① 1x TF140475
③ 1x PCSP60R
④ 1x PCSP60L
X = 78
H = 49
H1 = 30
Y = 60
kg ~1,8



Bestellbeispiel / Ordering example: 1x PS1R94N34-80 & 1x B80										
B	B80	B80N	B81	B82	B82L33	B82HM	B83	B84	B89F	B89R
C	40	40	40	40	40	40	40	40	40	40
H	25	25	25	25	25	25	25	25	25	25
L	22	22	22	22,2	33	22,2	22	26,3	29	29
D	11	11	11	11	11	11	11	11	11	11
O	15	15	15	15	15	15	15	15	15	15
i	56HRC	HV700	56HRC	*	*	56HRC	HV700	*	HV700	HV700
	x0,2mm	x0,2mm				x0,2mm	x0,2mm		x0,2mm	x0,2mm
kg	~0,2	~0,2	~0,2	~0,2	~0,28	~0,2	~0,2	~0,2	~0,24	~0,24



* = weicher Stahl / soft steel

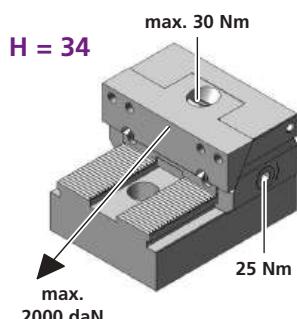
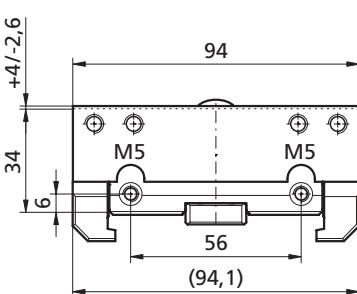
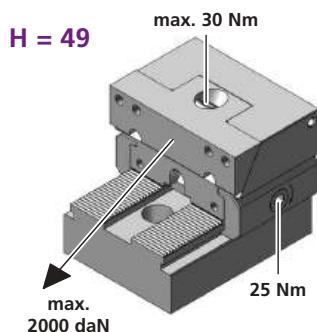
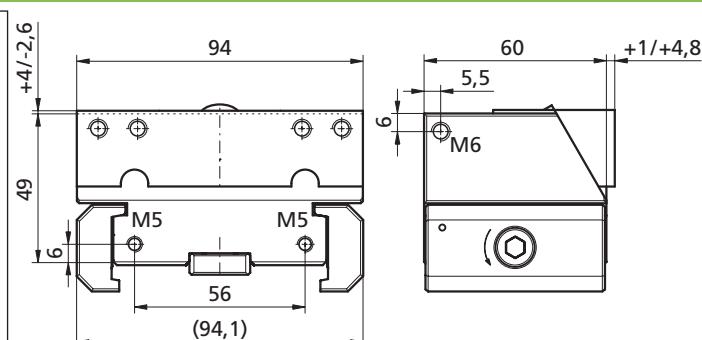
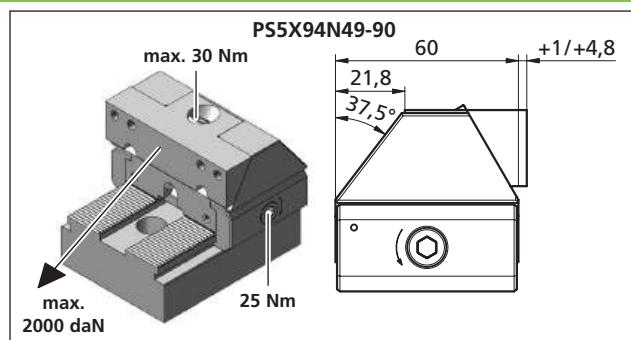
HM = Hartmetallbeschichtet / Carbide coated

PS1R/F94N34-90

PS1R/F94N49-90

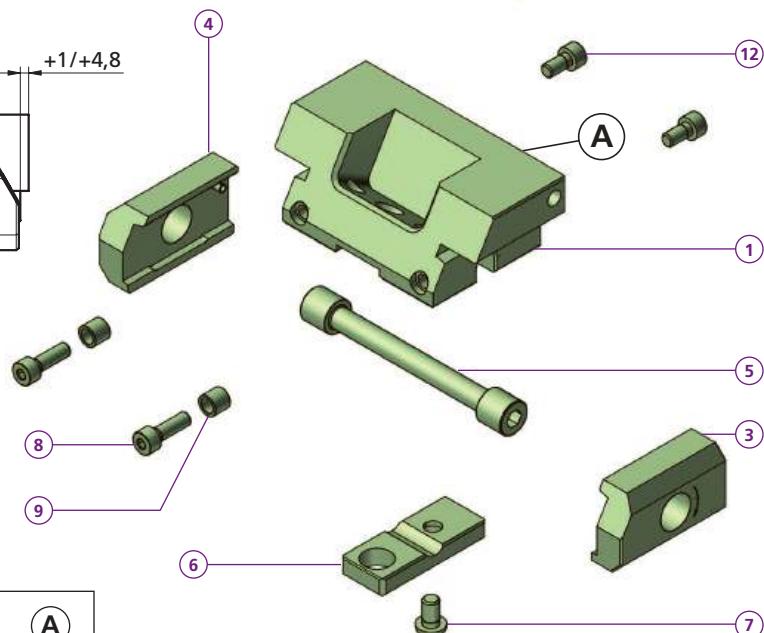
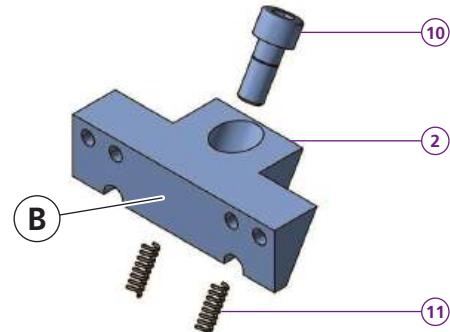
PS5X94N49-90

**5axes
powerCLAMP**



PS1F94N34-90	
①	1x TF140478
PS1R94N34-90	
①	1x TF140479
②	1x —
③	1x PCSP50RF
④	1x PCSP50LF
⑤	1x PCS14
⑥	1x PCGU2049
⑦	1x M6X8ISO7380
⑧	2x M5X16ISO4762
⑨	2x PCD008
⑩	1x M10X25ISO4762
⑪	2x FED0618
⑫	2x M5X10ISO4762
H =	34
kg	~1,0

	PS5X94N49-90
①	1x TF140482
③	1x PCSP60R
④	1x PCSP60L
⑨	2x PCD005
⑧	2x M5X14ISO4762
kg	~1,8
	PS1F94N90-90
①	1x TF140480
	PS1R94N49-90
①	1x TF140481
②	1x —
③	1x PCSP60R
④	1x PCSP60L
⑧	2x M5X14ISO4762
⑨	2x PCD005
kg	~0,33
H =	49
kg	~2,0

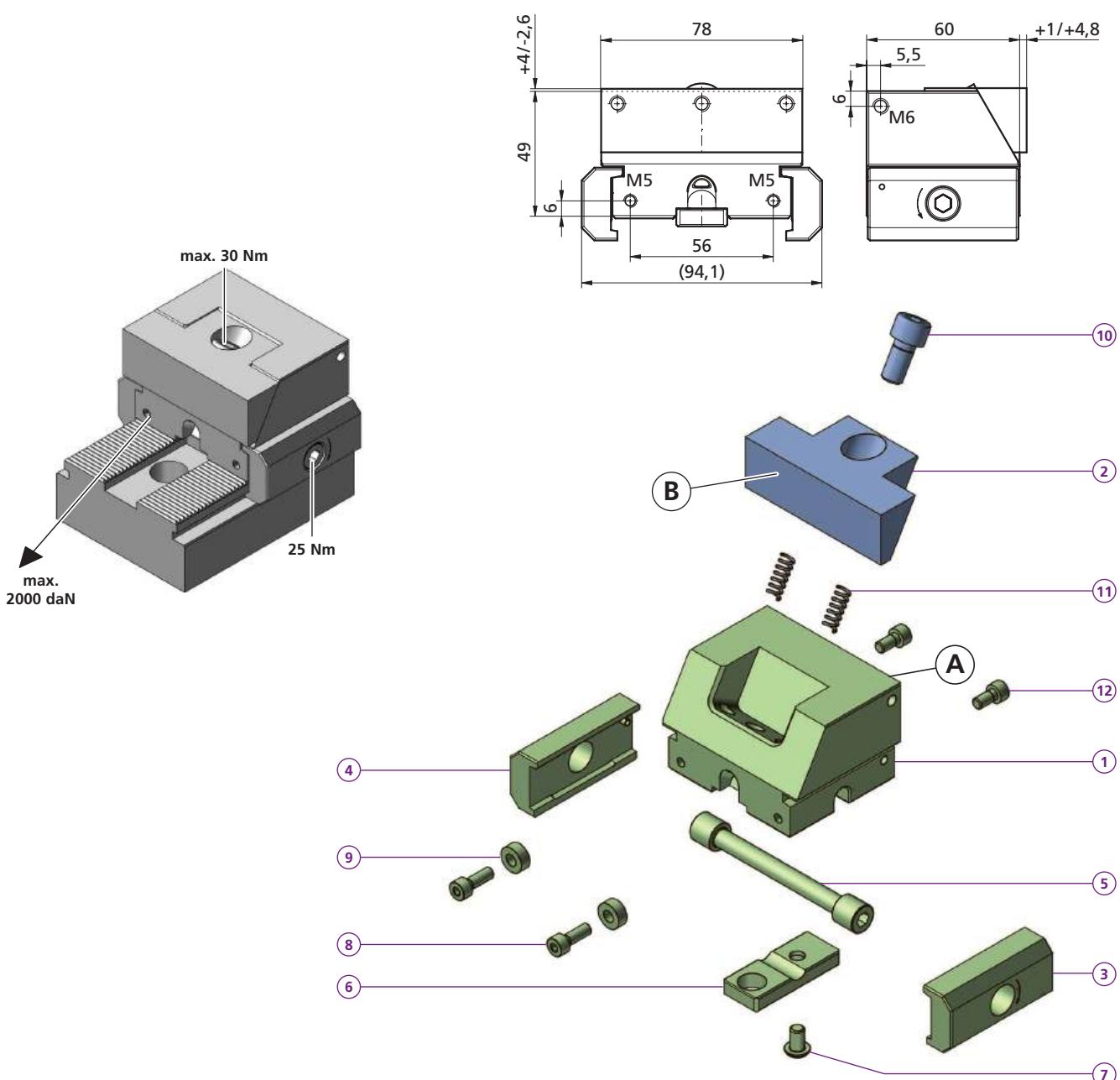


Bestellbeispiel / Ordering example:
1x PS1F94N34-90 & 1x B91

B90, B91, B92, B93					B94
C	H	L	D	80	54
				4xM6	(CCHMR)

Separat bestellen / Order separately

* = weicher Stahl / soft steel



PS1F78N49-90	
①	1x TH160490
PS1R78N49-90	
①	1x TH160490
②	1x —
③	1x PCSP60R
④	1x PCSP60L
⑤	1x PCS14
⑥	1x PCGU2049
⑦	1x M6X8ISO7380
⑧	2x M5X14ISO4762
⑨	2x PCD005
⑩	1x M10X25ISO4762
⑪	2x FED0618
⑫	2x M5X10ISO4762
kg	~1,8

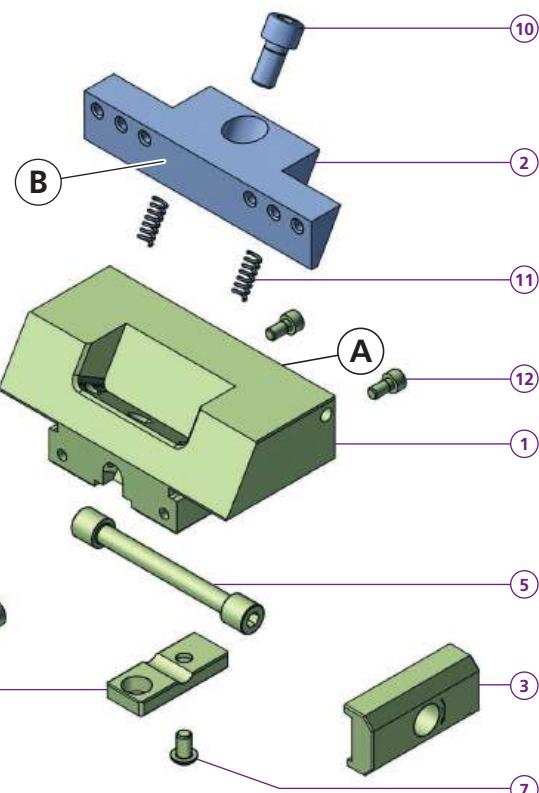
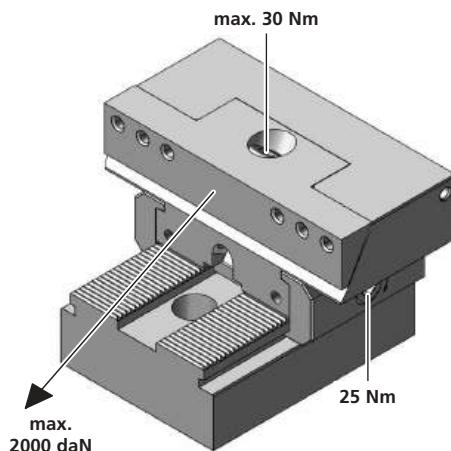
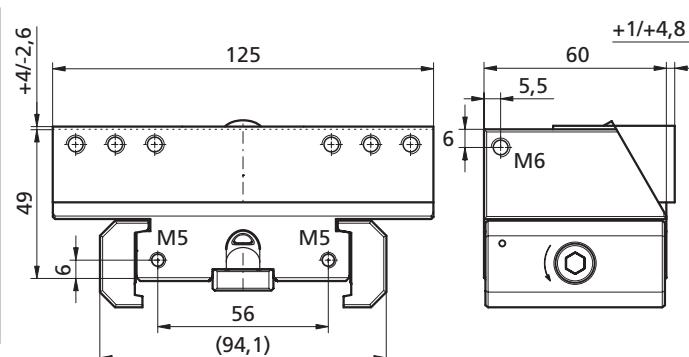
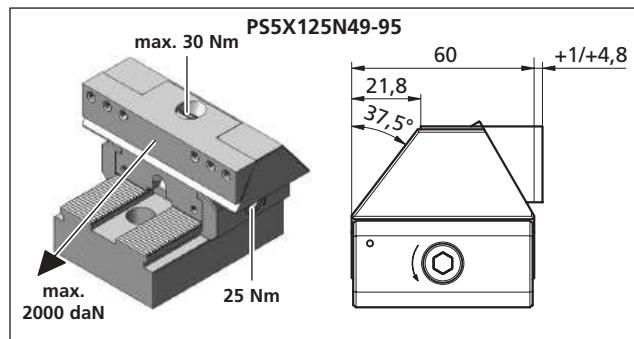
Bestellbeispiel / Ordering example:
1x PS1F78N49-90 & 1x B90F78

	B90F78	B90W78	B90R78
C	78	78	78
H	25	25	25
L	23	28	23
D	11	11	11
ø	15	15	15
i	HV700 x0,2mm	*	HV700 x0,2mm
kg	~0,3	~0,37	~0,3

B90F78, B90W78

B90R78

* = weicher Stahl / soft steel



	PS5X125N49-95
(1)	1x TF140485
(9)	2x PCD005
(8)	2x M5X14ISO4762
kg	~2,0
PS1F125N49-95	
(1)	1x TF140483
PS1R125N49-95	
(1)	1x TF140484
(2)	1x _____
(3)	1x PCSP60R
(4)	1x PCSP60L
(5)	1x PCS14
(6)	1x PCGU2049
(7)	1x M6X8ISO7380
(8)	2x M5X14ISO4762
(9)	2x PCD005
(10)	1x M10X25ISO4762
(11)	2x FED0618
(12)	2x M5X10ISO4762
kg	~2,3

Bestellbeispiel / Ordering example: 1x PS5X125N49-95 & 1x B95					
B	B95	B96	B97	B98	B99
(C)	125	125	125	125	125
(H)	25	25	25	25	25
(L)	23	23	23	30	23
(D)	11	11	11	11	11
(ø)	15	15	15	15	15
(i)	HV700 x0,2mm	HV700 x0,2mm	*	*	HV700 x0,2mm
kg	~0,46	~0,45	~0,46	~0,63	~0,45

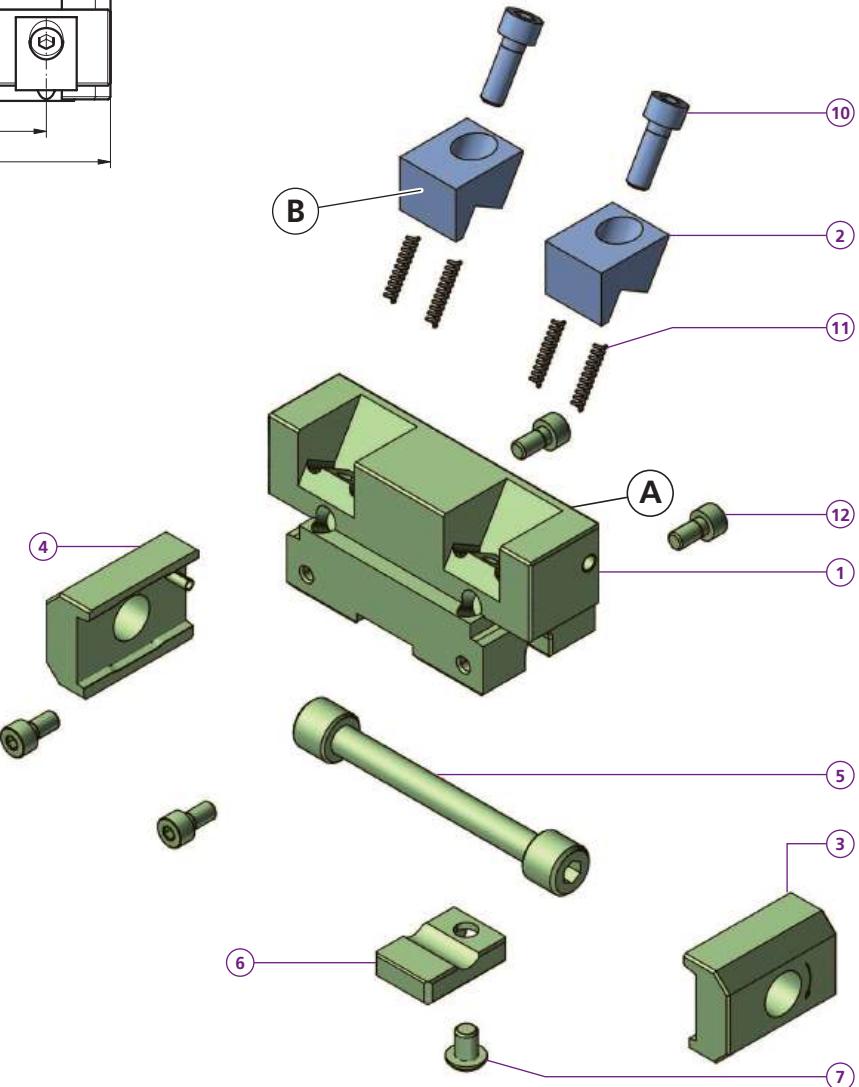
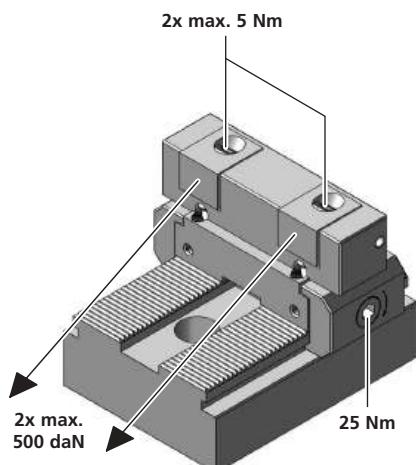
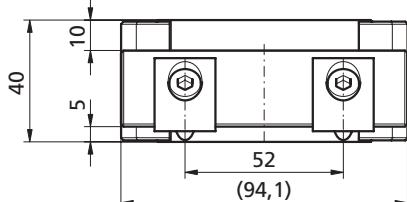
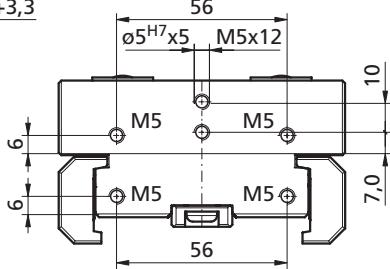
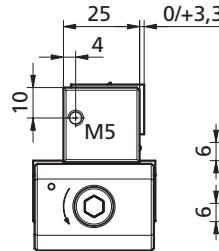
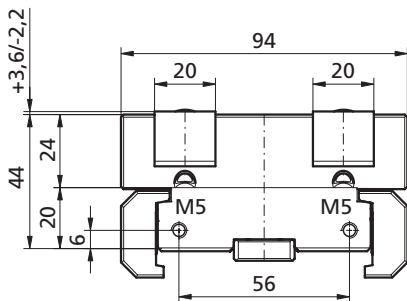
B95, B96, B97, B99

B98

C

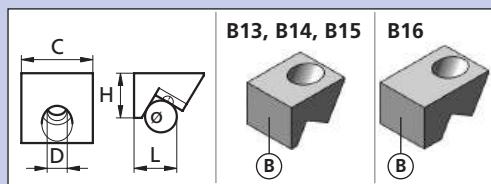
6xM6 (CCHMR)

PS2G94N44-13

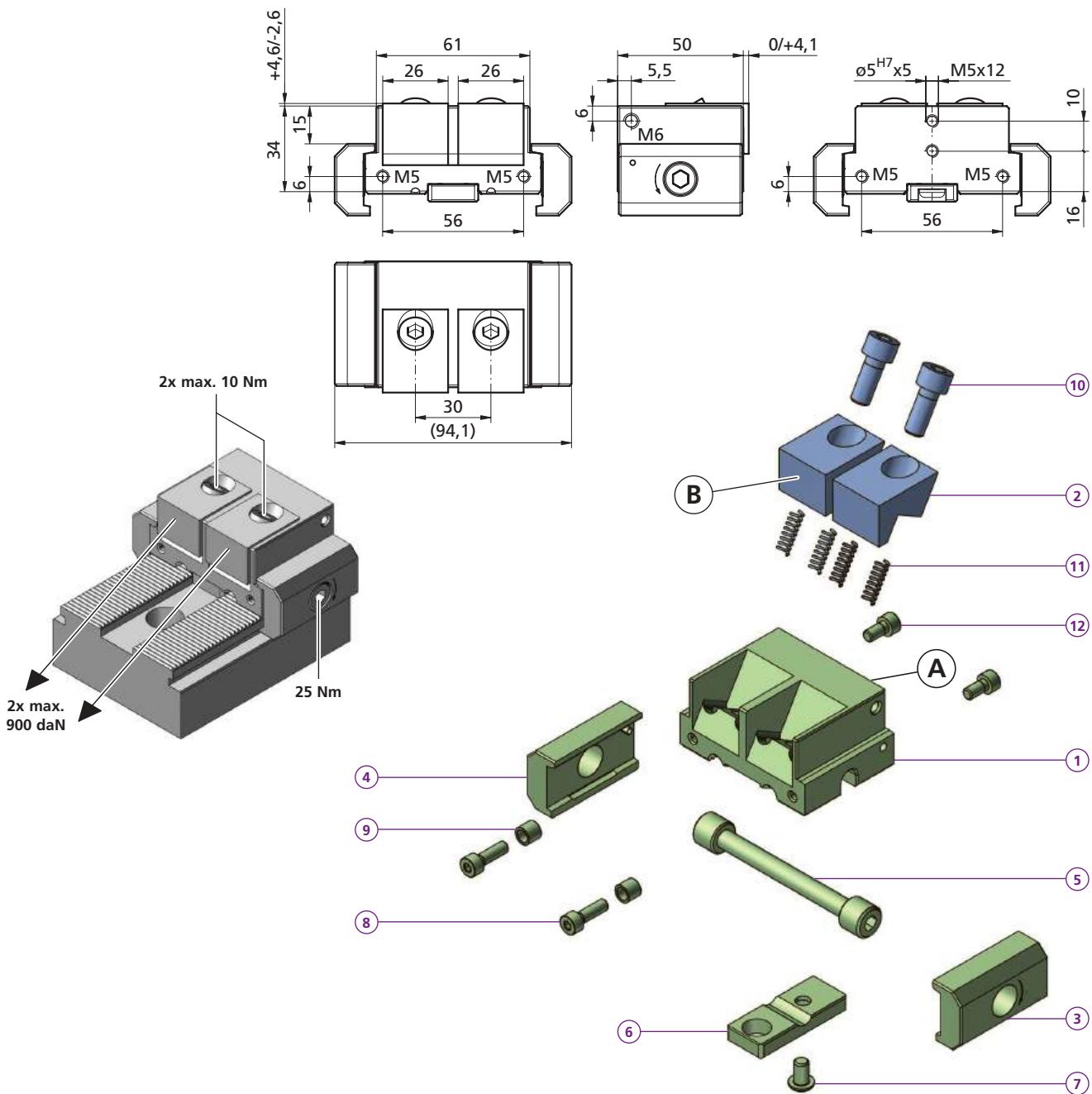


PS2G94N44-13	
①	1x TF140486
②	2x —
③	1x PCSP40R
④	1x PCSP40L
⑤	1x PCS14
⑥	1x PCGU2030
⑦	1x M6X8ISO7380
⑩	2x M6X16ISO4762
⑪	4x FED0318
⑫	4x M5X10ISO4762
kg	~1,0

B	Bestellbeispiel / Ordering example: 1x PS2G94N44-13 & 2x B14			
	B13	B14	B15	B16
C	20	20	20	20
H	16	16	16	16
L	13,8	13,8	13,8	19
D	6,5	6,5	6,5	6,5
ø	10	10	10	10
i	HV700 x0,2mm	HV700 x0,2mm	*	*
kg	~0,05	~0,05	~0,05	~0,06



* = weicher Stahl / soft steel

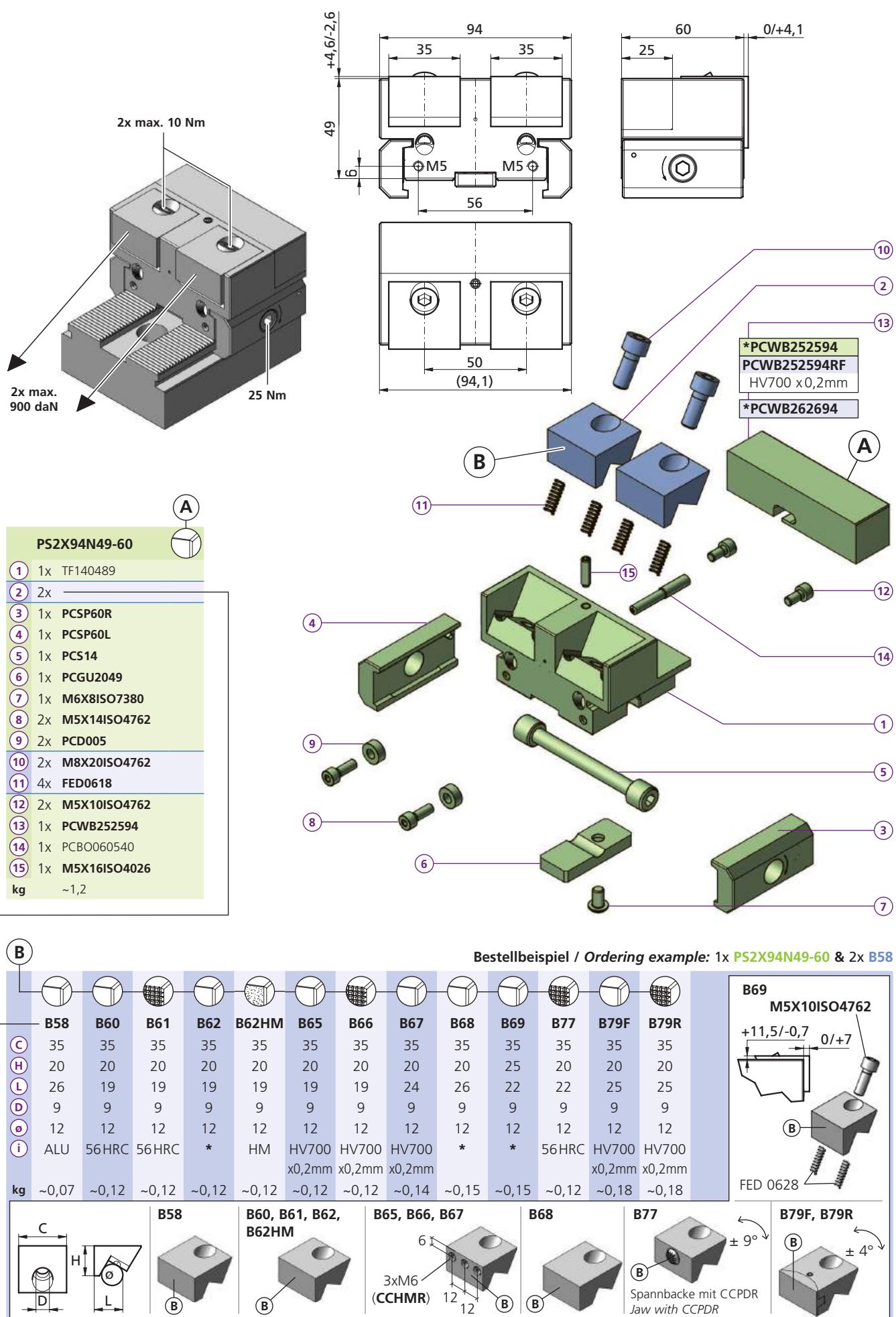


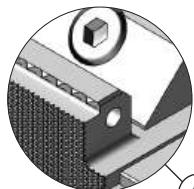
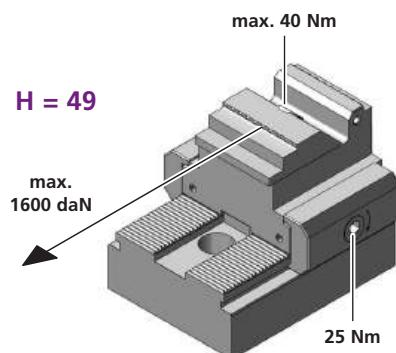
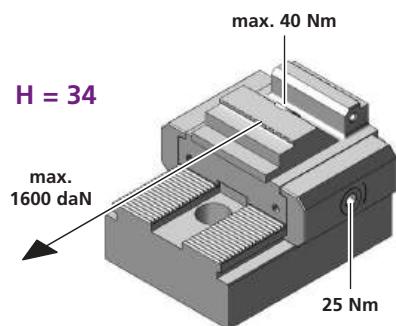
PS2F61N34-45	(A)
① 1x TF140487	
PS2R61N34-45	(B)
① 1x TF140488	
② 2x —	
③ 1x PCSP50R	B45
④ 1x PCSP50L	B46
⑤ 1x PCS14	B47
⑥ 1x PCGU2049	B47HM
⑦ 1x M6X8ISO7380	(C) 26
⑧ 2x M5X16ISO4762	(H) 20
⑨ 2x PCD008	(L) 19
⑩ 2x M8X20ISO4762	(D) 9
⑪ 4x FED0618	(o) 12
⑫ 2x M5X10ISO4762	(i) HV700 x0,2mm
kg ~1,0	HM

Bestellbeispiel / Ordering example: 1x PS2R61N34-45 & 2x B47HM				
B	C	H	L	D
B45	26	26	26	26
B46	20	20	20	20
B47	19	19	19,1	19,1
B47HM	*	*	*	*
kg	~0,1	~0,1	~0,1	~0,1
	HV700 x0,2mm	HV700 x0,2mm	*	HM

Technical Drawing:

Separat bestellen / Order separately





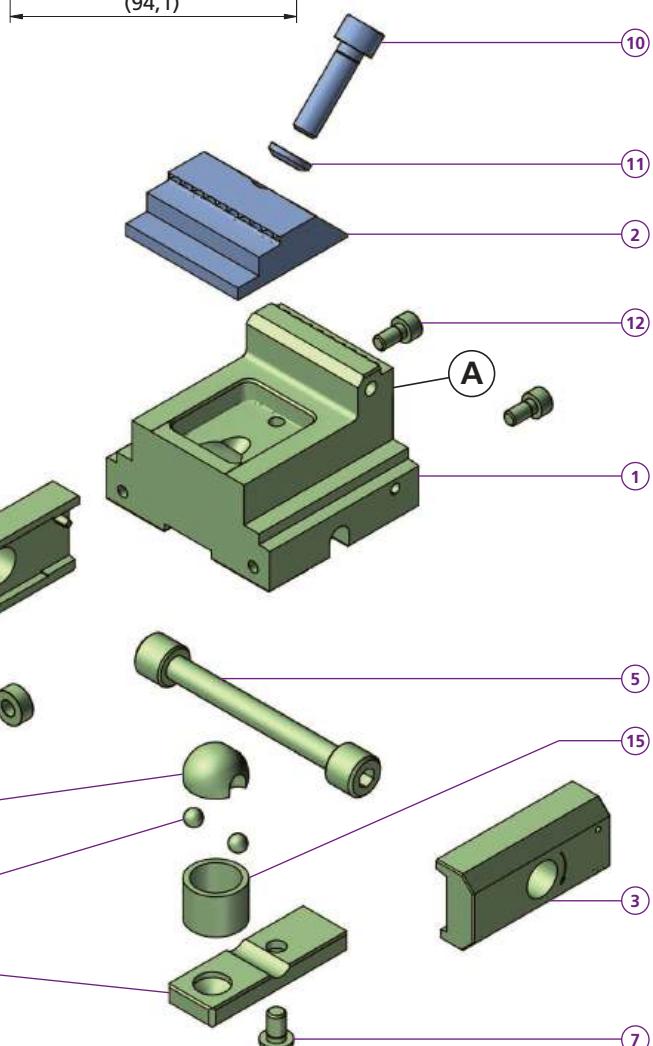
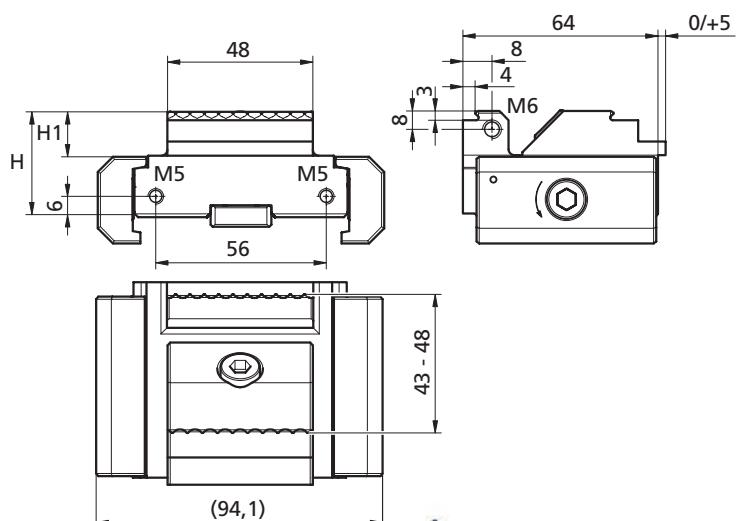
PS1P48L34-105	
1x	TW100098-01
1x	—
1x	PCSP60R
1x	PCSP60L
1x	PCS14
1x	PCGU2059
1x	M6X8ISO7380
2x	M5X14ISO4762
2x	PCD005
1x	M8X28ISO4762
1x	PCUSR16
2x	M5X10ISO4762
1x	PCKMR45M8
2x	D=6 DIN 5401
H	= 34
H1	= 15
kg	~1,0

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PS1PF48L34-105	
1x	TK140780
H	= 49
H1	= 30
kg	~1,0

PS1P48L49-105	
1x	TK120011
15	1x PCD20L15
H	= 49
H1	= 30
kg	~1,4

PS1PF48L49-105	
1x	TK140781
15	1x PCD20L15
H	= 49
H1	= 30
kg	~1,4



Bestellbeispiel / Ordering example:
1x PS1P48L34-105 & 1x B115

Drehmoment Torque	Spannkraft Workholding force		
	Nm (lb·ft)	~daN (~lb)	~t
10	7,4	= 400	880
20	14,8	= 800	1'760
30	22,2	= 1'200	2'650
40	29,6	= 1'600	3'530

PS1P94L34-105

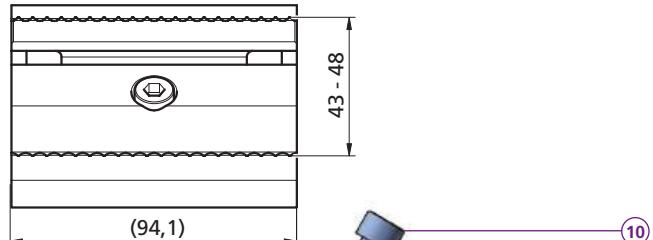
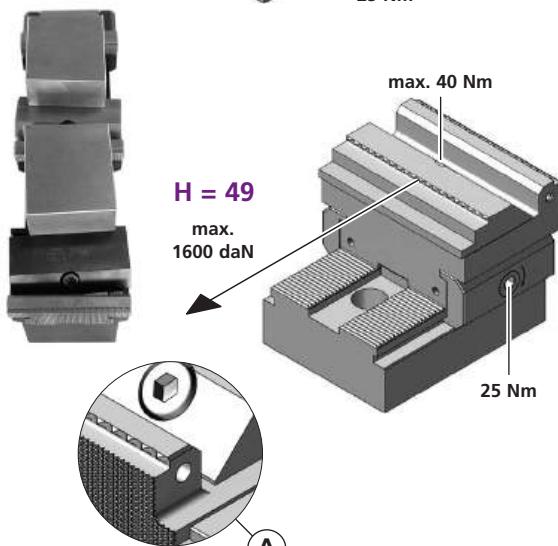
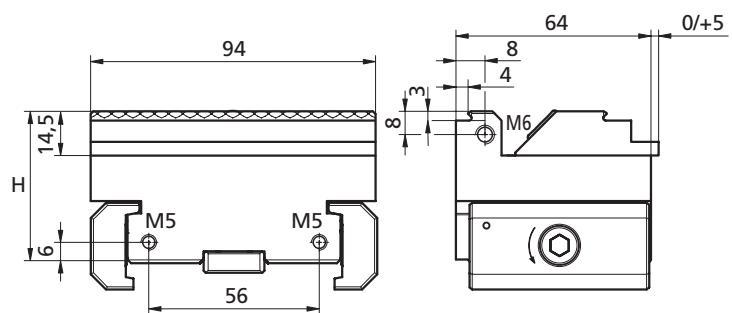
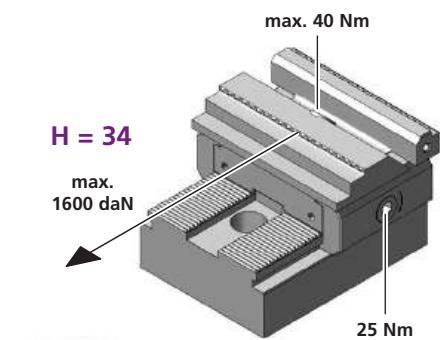
PS1P694L34-105

PS1P94L49-105

PS1PF94L49-105

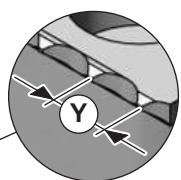
PS1PF94L34-105

powerCLAMP



PS1P94L34-105	
①	1x TW100100-01
②	1x —
③	1x PCSP60R
④	1x PCSP60L
⑤	1x PCS14
⑥	1x PCGU2059
⑦	1x M6X8ISO7380
⑧	2x M5X14ISO4762
⑨	2x PCD005
⑩	1x M8X28ISO4762
⑪	1x PCUSR16
⑫	2x M5X10ISO4762
⑬	1x PCKMR45M8
⑭	2x D=6 DIN 5401
H	= 34
kg	~1,1

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PS1P694L34-105	
①	1x TW100100-02
Y	6,0 mm
kg	~1,1

PS1PF94L34-105	
①	1x TK140782
H	= 49
kg	~1,1

PS1P94L49-105	
①	1x TK120857
⑯	1x PCD20L15

PS1PF94L49-105	
①	1x TK140783
⑯	1x PCD20L15
H	= 49
kg	~1,8

Bestellbeispiel / Ordering example:
 1x PS1P94L34-105 & 1x B120

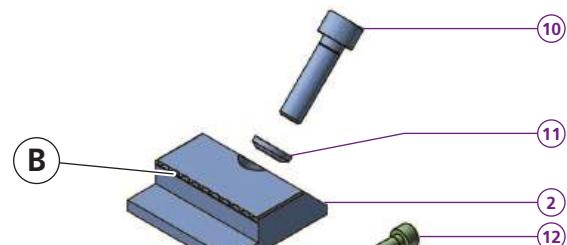
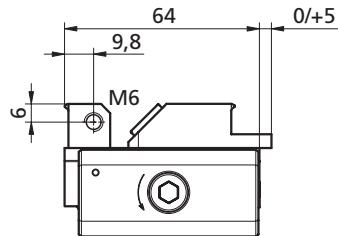
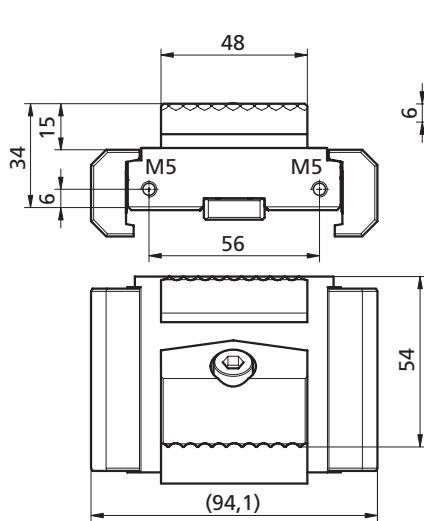
Drehmoment Torque	Spannkraft Workholding force		
	Nm (lb·ft)	~daN (~lb)	~t
10	7,4	= 400	880
20	14,8	= 800	1'760
30	22,2	= 1'200	2'650
40	29,6	= 1'600	3'530

Separat bestellen / Order separately

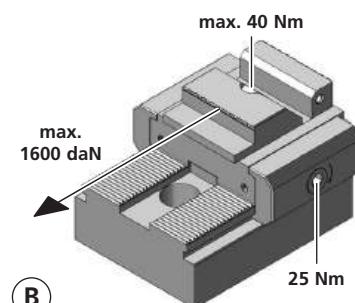
PS1PV48L34-105
PS1R/F48L34-105

Linear

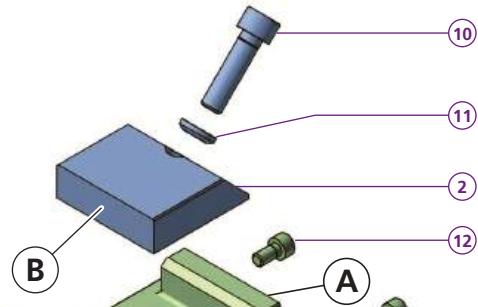
powerCLAMP



PS1PV48L34-105	
1	1x TK140762
2	1x —
3	1x PCSP60R
4	1x PCSP60L
5	1x PCS14
6	1x PCGU2059
7	1x M6X8ISO7380
8	2x M5X14ISO4762
9	2x PCD005
10	1x M8X28ISO4762
11	1x PCUSR16
12	2x M5X10ISO4762
13	1x PCKMR45M8
14	2x D=6 DIN 5401
kg	~1,0

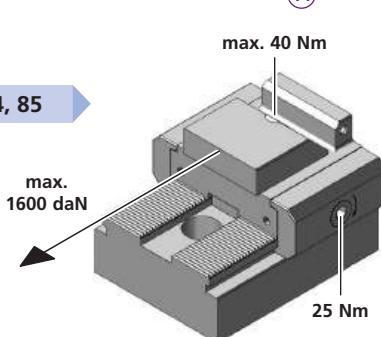


B123P	
C	48
H	14,5
L	47
i	56HRC
kg	~0,21



PS1R48L34-105	
1	1x TF140573
2	1x —
3	1x PCSP60R
4	1x PCSP60L
5	1x PCS14
6	1x PCGU2059
7	1x M6X8ISO7380
8	2x M5X14ISO4762
9	2x PCD005
10	1x M8X30ISO4762
11	1x PCUSR14
12	2x M5X10ISO4762
13	1x PCKMR45M8
14	2x D=6 DIN 5401
kg	~1,0

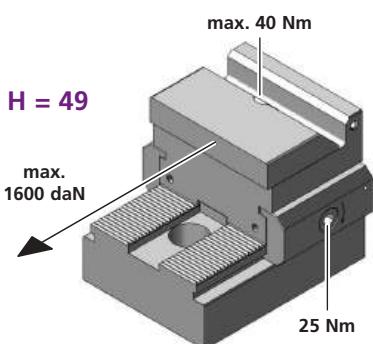
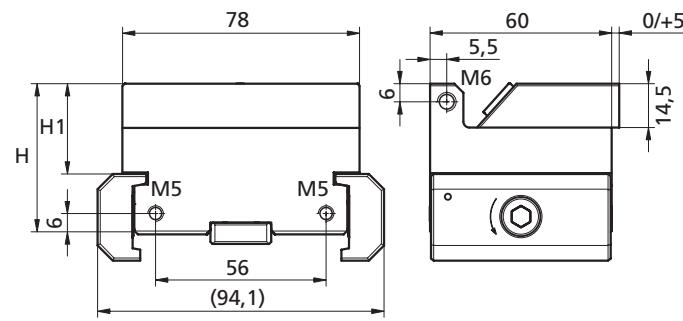
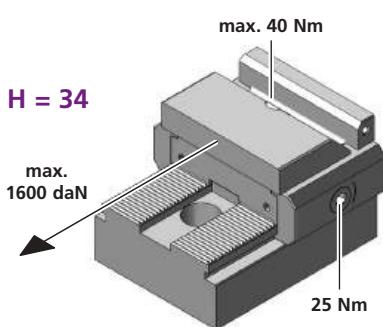
p. 84, 85



Bestellbeispiel / Ordering example:
1x **PS1R48L34-105** & 1x **B123P**

Drehmoment Torque	Spannkraft Workholding force		
	Nm (lb·ft)	~daN (~lb)	~t
10	7,4	= 400	880
20	14,8	= 800	1'760
30	22,2	= 1'200	2'650
40	29,6	= 1'600	3'530

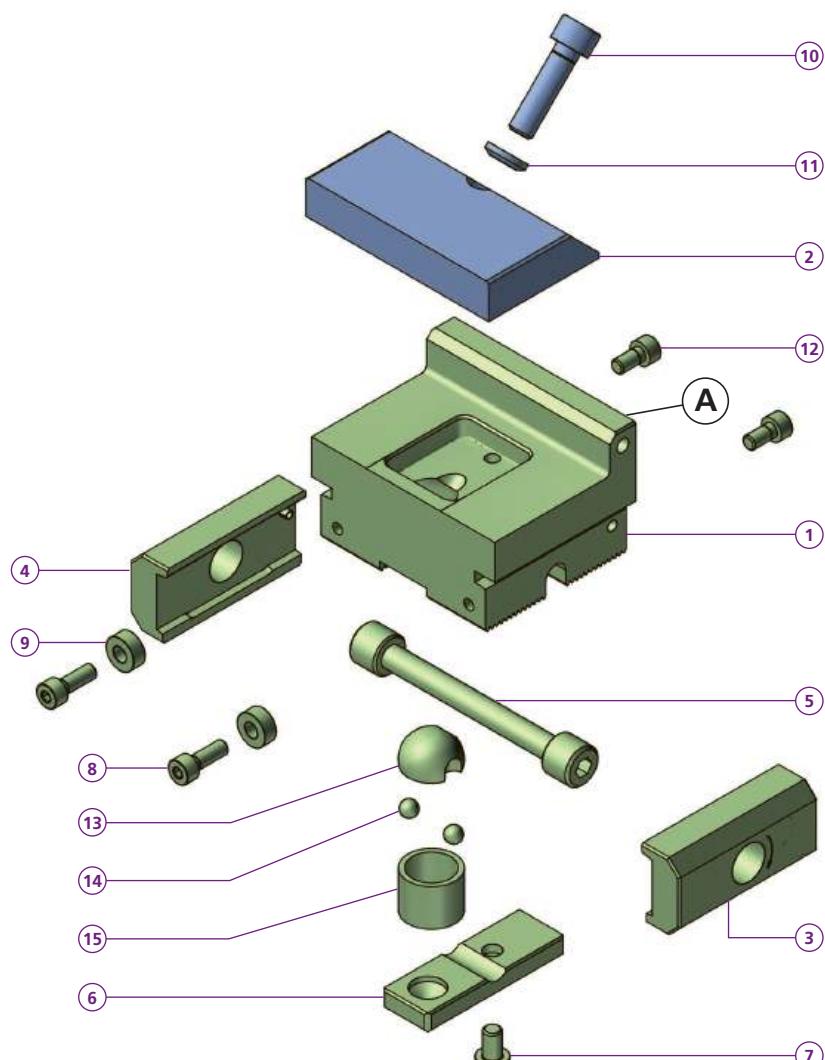
Separat bestellen / Order separately



PS1R78L34-105	
①	1x TF140575
PS1F78L34-105	
①	1x TF140574
②	1x —
③	1x PCSP60R
④	1x PCSP60L
⑤	1x PCS14
⑥	1x PCGU2059
⑦	1x M6X8ISO7380
⑧	2x M5X14ISO4762
⑨	2x PCD005
⑩	1x M8X30ISO4762
⑪	1x PCUSR14
⑫	2x M5X10ISO4762
⑬	1x PCKMR45M8
⑭	2x D=6 DIN 5401
H	= 34
H1	= 15
kg	~1,0

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PS1R78L49-105	
①	1x TK110399
⑯	2x PCD20L15
PS1F78L49-105	
①	1x TK110400
⑯	2x PCD20L15
H	= 49
H1	= 30
kg	~1,5

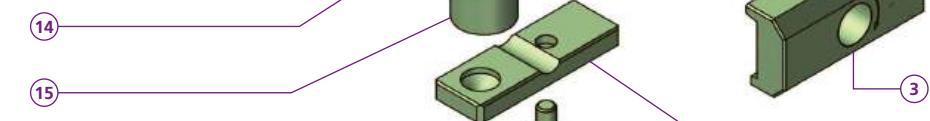
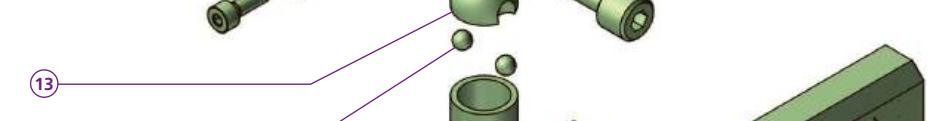
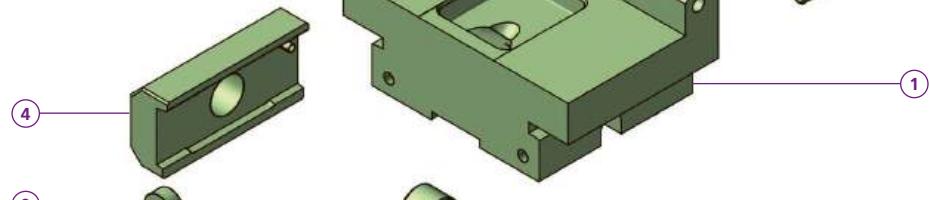
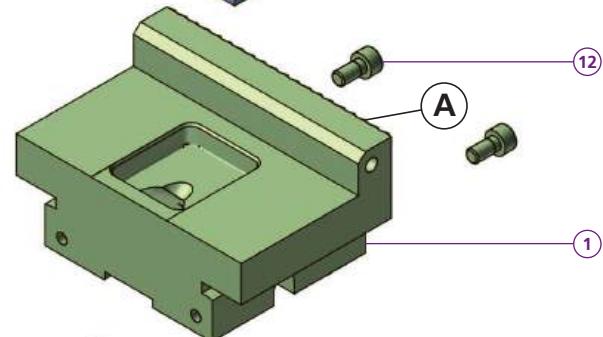
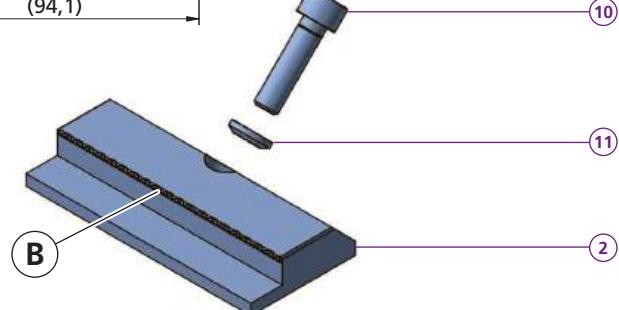
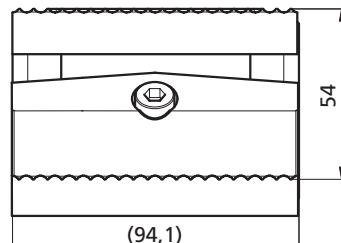
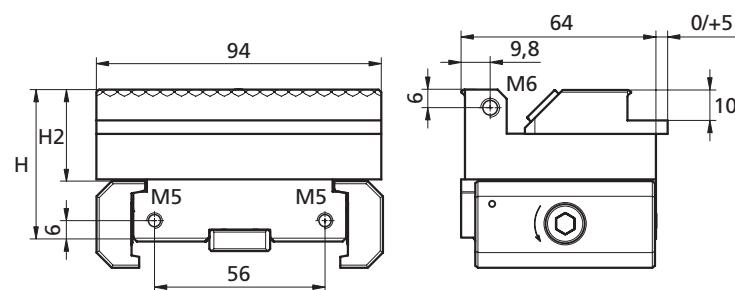
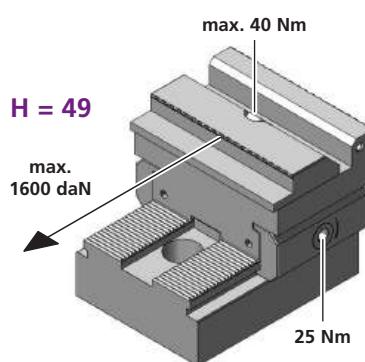
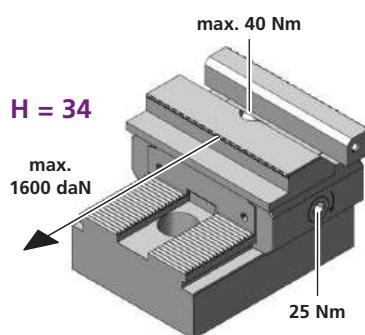


Bestellbeispiel / Ordering example:
1x PS1R48L34-105 & 1x B105

Drehmoment Torque		Spannkraft Workholding force		
Nm (lb·ft)	~daN ~(lb)	~t	~t	
10	7,4	= 400	880	0,4
20	14,8	= 800	1'760	0,8
30	22,2	= 1'200	2'650	1,2
40	29,6	= 1'600	3'530	1,6

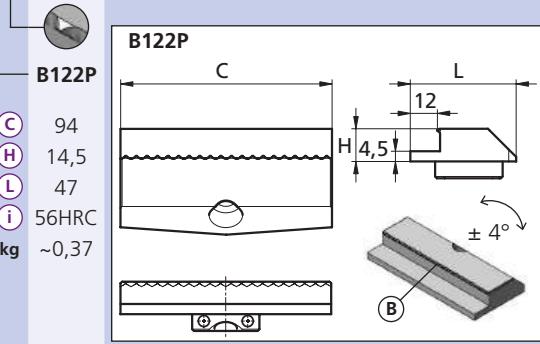
PS1PV94L34-105

PS1PV94L49-105



PS1PV94L34-105	
①	1x TK120230
②	1x —
③	1x PCSP60R
④	1x PCSP60L
⑤	1x PCS14
⑥	1x PCGU2059
⑦	1x M6X8ISO7380
⑧	2x M5X14ISO4762
⑨	2x PCD005
⑩	1x M8X28ISO4762
⑪	1x PCUSR16
⑫	2x M5X10ISO4762
⑬	1x PCKMR45M8
⑭	2x D=6 DIN 5401
H =	34
H1 =	15
kg	~1,1

PS1PV94L49-105	
①	1x TK110250
⑯	1x PCD20L15
H =	49
H1 =	30
kg	~1,8

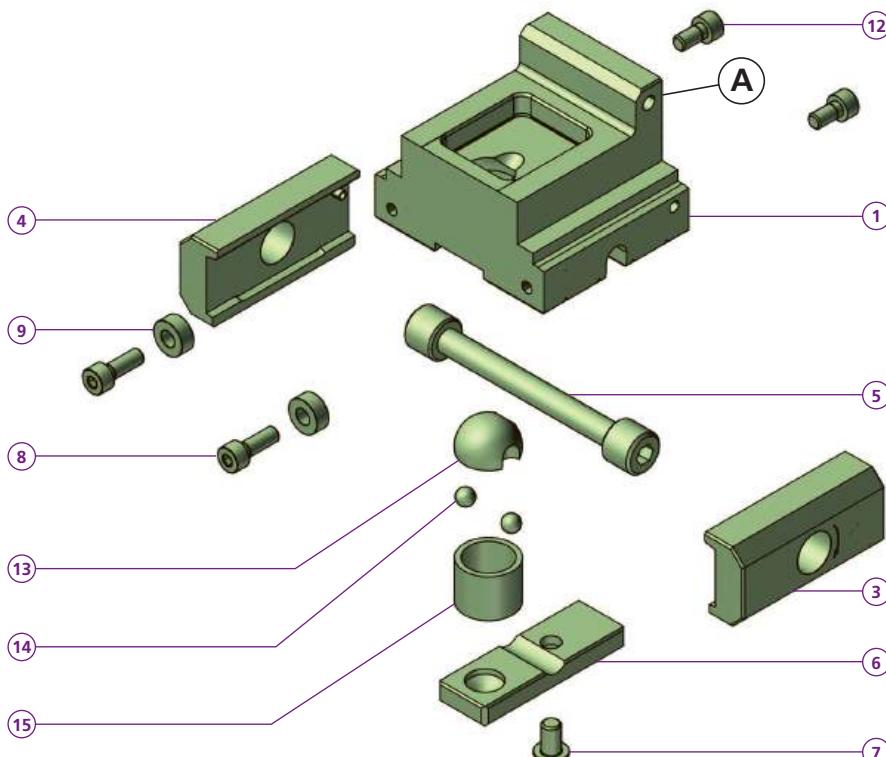
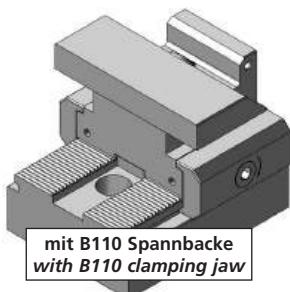
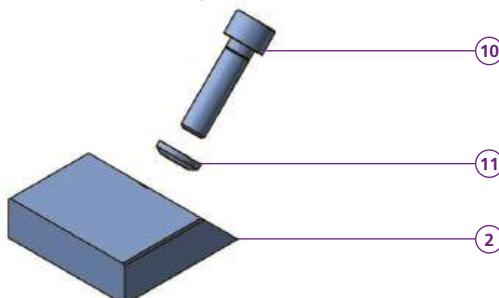
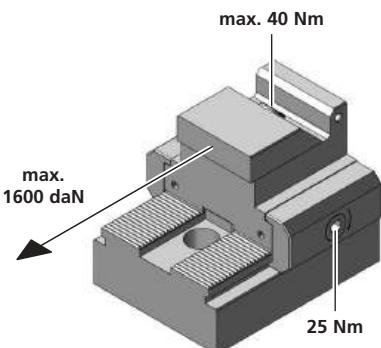
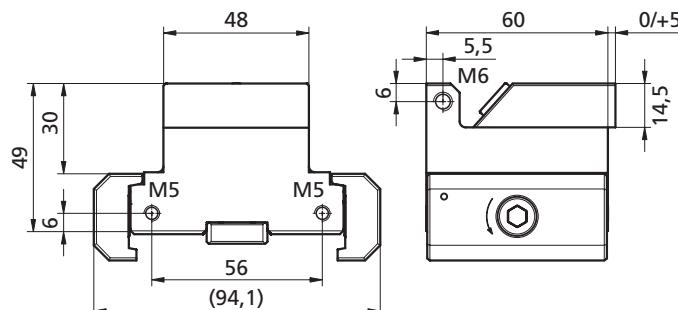
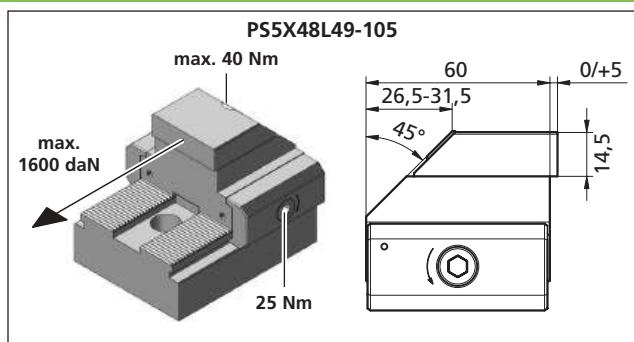


Bestellbeispiel / Ordering example:
1x **PS1PV94L49-105** & 1x **B122P**

Nm (lb·ft)	Drehmoment Torque	Spannkraft Workholding force		
		~daN	~(lb)	~t
10	7,4	= 400	880	0,4
20	14,8	= 800	1'760	0,8
30	22,2	= 1'200	2'650	1,2
40	29,6	= 1'600	3'530	1,6

PS1R/F48L49-105

PS5X48L49-105



	PS5X48L49-105
(1)	1x TF190651
(9)	2x PCD005
(8)	2x M5X14ISO4762
kg	~1,2
PS1F48L49-105	
(1)	1x TF140673
PS1R48L49-105	
(1)	1x TF140672
(2)	1x _____
(3)	1x PCSP60R
(4)	1x PCSP60L
(5)	1x PCS14
(6)	1x PCGU2059
(7)	1x M6X8ISO7380
(8)	2x M5X14ISO4762
(9)	2x PCD005
(10)	1x M8X30ISO4762
(11)	1x PCUSR14
(12)	2x M5X10ISO4762
(13)	1x PCKMR45M8
(14)	2x D=6 DIN 5401
(15)	1x PCD20L15
kg	~1,3

p. 84, 85

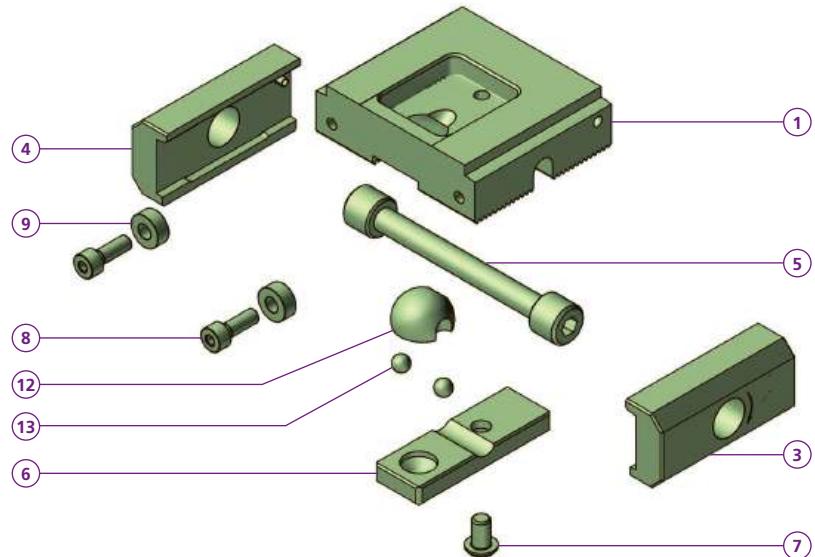
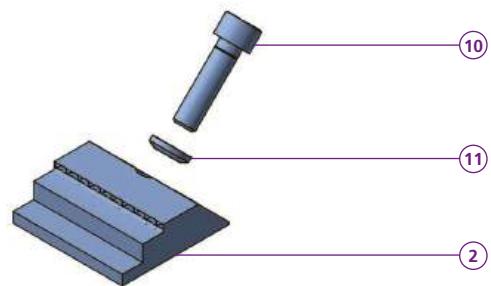
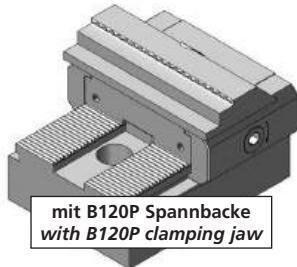
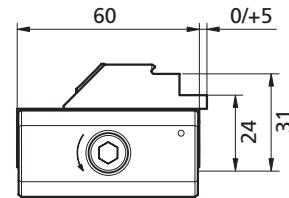
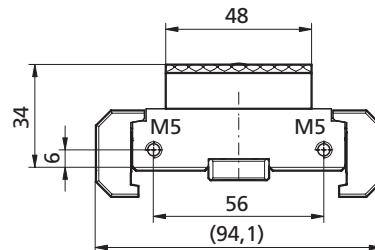
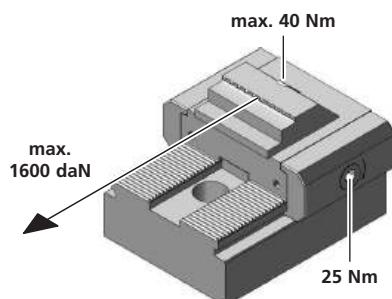


Bestellbeispiel / Ordering example:
1x **PS1F48L49-105** & 1x **B105**

Drehmoment Torque		Spannkraft Workholding force
Nm (lb·ft)	~daN (~lb)	~t
10	7,4	= 400 880 0,4
20	14,8	= 800 1'760 0,8
30	22,2	= 1'200 2'650 1,2
40	29,6	= 1'600 3'530 1,6

**Linear
5axes
powerCLAMP**

PS5X48L34-105



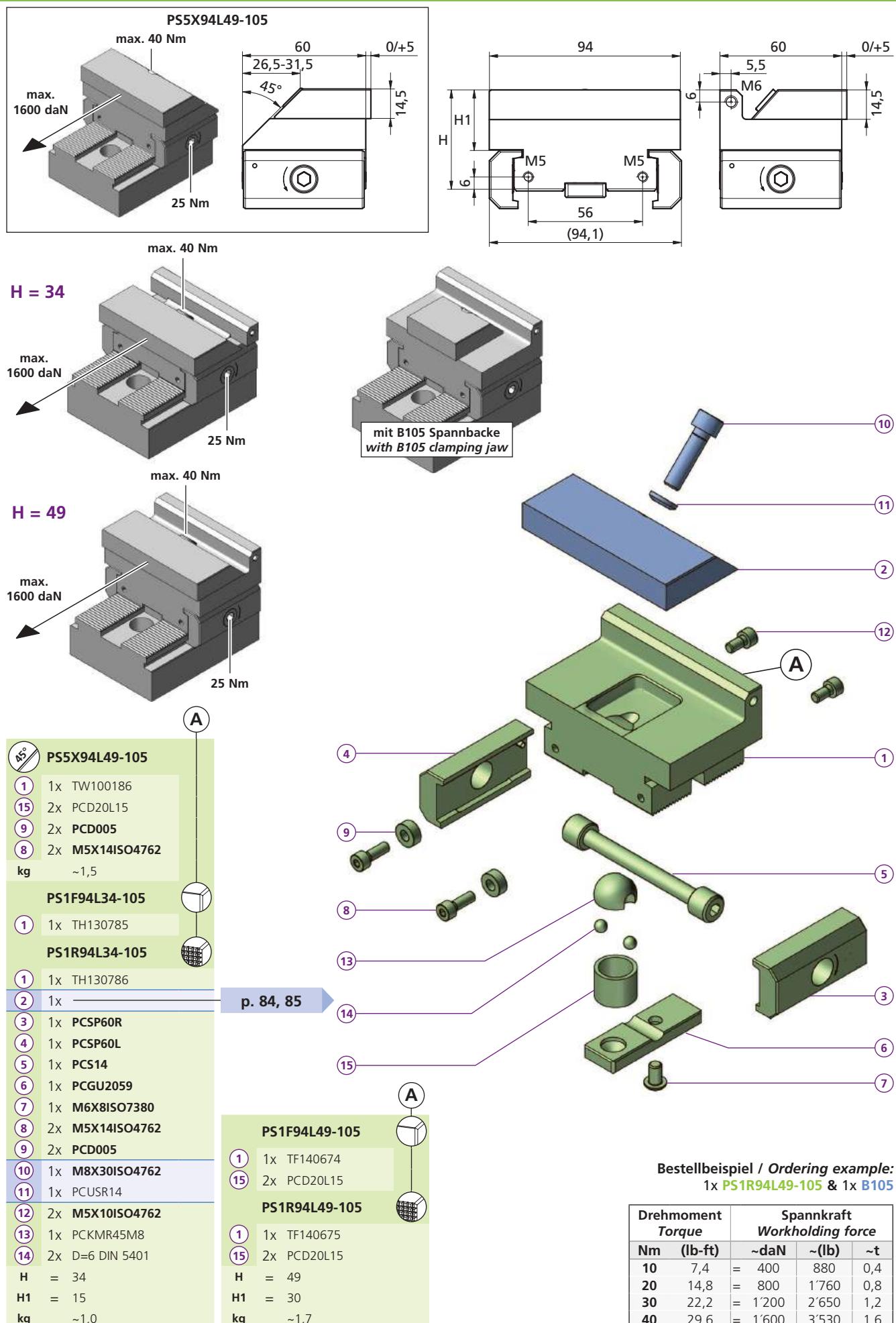
PS5X48L34-105

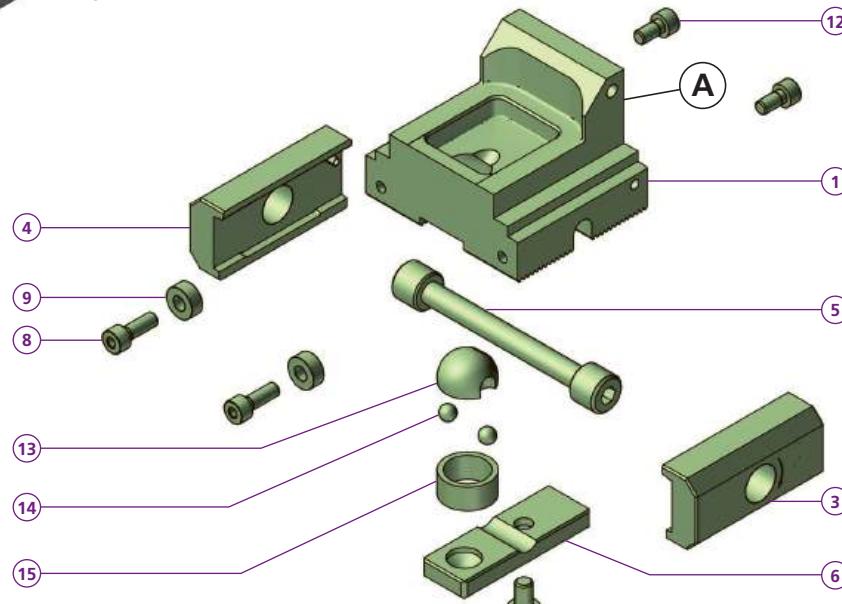
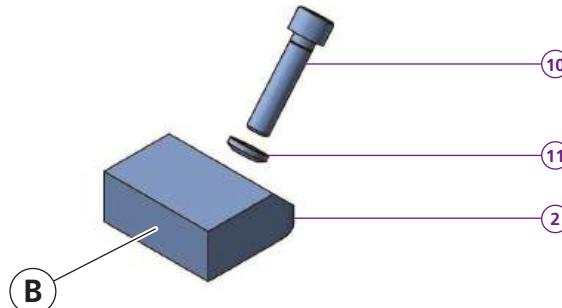
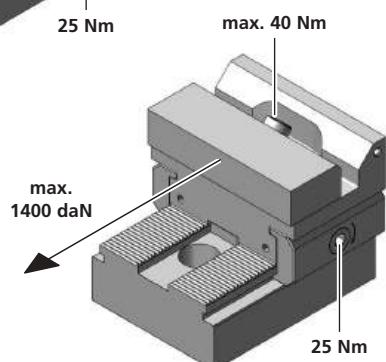
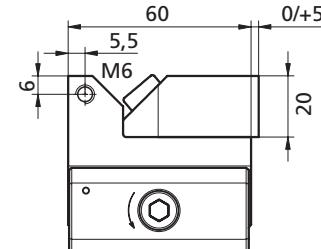
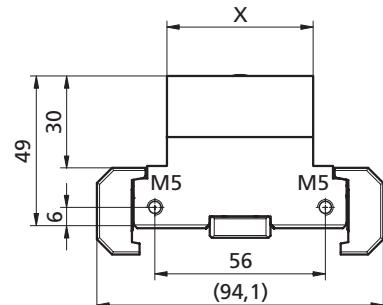
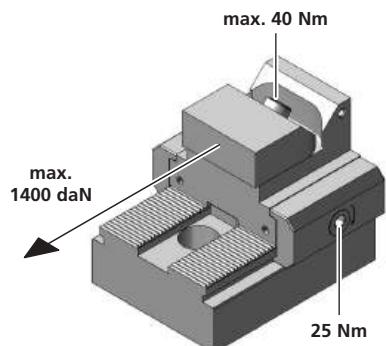
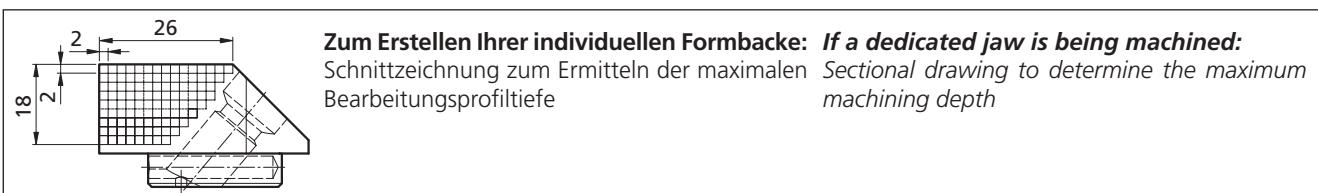
1	1x T00365
2	1x
3	1x PCSP60R
4	1x PCSP60L
5	1x PCS14
6	1x PCGU2059
7	1x M6X8ISO7380
8	2x M5X14ISO4762
9	2x PCD005
10	1x M8X28ISO4762
11	1x PCUSR16
12	1x PCKMR45M8
13	2x D=6 DIN 5401
kg	~0,9

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Bestellbeispiel / Ordering example:
1x PS5X48L34-105 & 1x B105

Drehmoment Torque		Spannkraft Workholding force		
Nm	(lb·ft)	~daN	~(lb)	~t
10	7,4	= 400	880	0,4
20	14,8	= 800	1'760	0,8
30	22,2	= 1'200	2'650	1,2
40	29,6	= 1'600	3'530	1,6

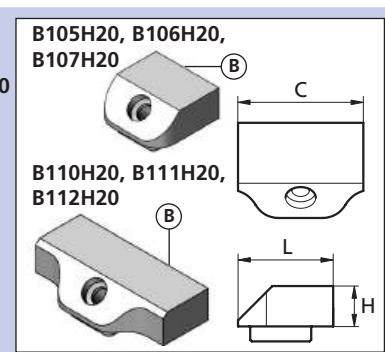




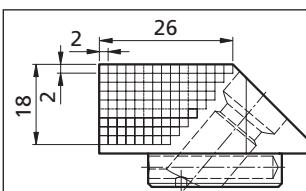
PS1R48L49-105H20	
①	1x TW100161-01
②	1x
③	1x PCSP60R
④	1x PCSP60L
⑤	1x PCS14
⑥	1x PCGU2059
⑦	1x M6X8ISO7380
⑧	2x M5X14ISO4762
⑨	2x PCD005
⑩	1x M8X35ISO4762
⑪	1x PCUSR14
⑫	2x M5X10ISO4762
⑬	1x PCKMR45M8
⑭	2x D=6 DIN 5401
⑮	1x PCD20L095
X	= 48
kg	~1,2
PS1R94L49-105H20	
①	1x TW100161-07
X	= 94
kg	~1,5

Bestellbeispiel / Ordering example: 1x PS1R48L49-105H20 & 1x B107H20					
B105H20	B106H20	B107H20	B110H20	B111H20	B112H20
C	48	48	48	94	94
H	20	20	20	20	20
L	47	47	47	47	47
i	HV700 x0,2mm	HV700 x0,2mm	*	HV700 x0,2mm	HV700 x0,2mm
kg	~0,38	~0,38	~0,38	~0,57	~0,56

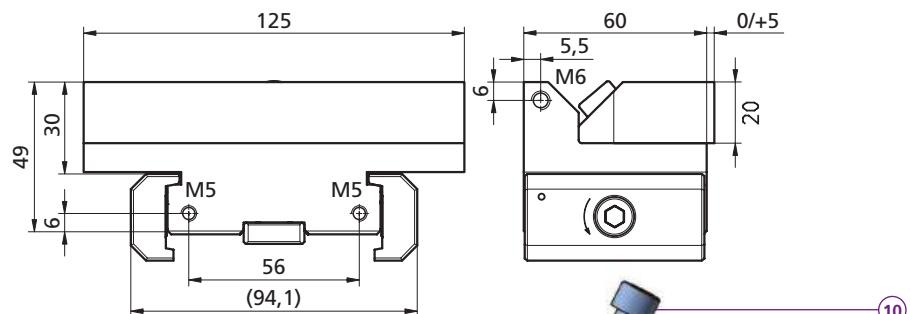
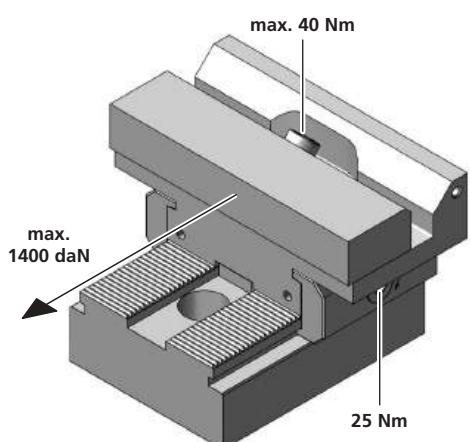
* = weicher Stahl / soft steel



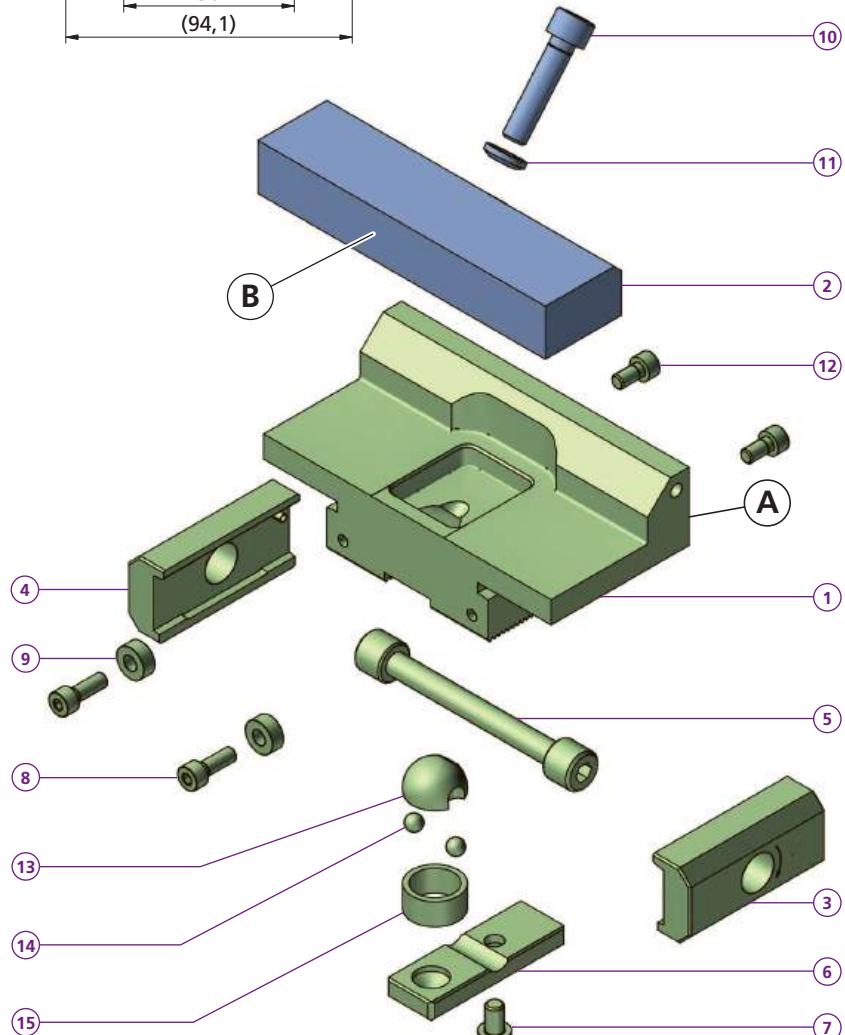
Separat bestellen / Order separately



Zum Erstellen Ihrer individuellen Formbacke: *If a dedicated jaw is being machined:*
Schnitzeichnung zum Ermitteln der maximalen Bearbeitungsprofiltiefe
Sectional drawing to determine the maximum machining depth



PS1R125L49-105H20	
①	1x TW110037
②	1x —
③	1x PCSP60R
④	1x PCSP60L
⑤	1x PCS14
⑥	1x PCGU2059
⑦	1x M6X8ISO7380
⑧	2x M5X14ISO4762
⑨	2x PCD005
⑩	1x M8X35ISO4762
⑪	1x PCUSR14
⑫	2x M5X10ISO4762
⑬	1x PCKMR45M8
⑭	2x D=6 DIN 5401
⑮	1x PCD20L095
kg	~1,7
PS1F125L49-105H20	
①	1x TH150895
X	= 125
kg	~1,7



Bestellbeispiel / Ordering example: 1x PS1R125L49-105H20 & 1x B132H20P

B	B130H20P	B131H20P	B132H20P
C	125	125	125
H	20	20	20
L	47	47	47
i	HV700 x0,2mm	HV700 x0,2mm	*
kg	~0,71	~0,71	~0,71

B130H20P, B131H20P, B132H20P

* = weicher Stahl / soft steel



zum Einsatz in unterschiedlichen Spannsituationen
for use in different clamping situations

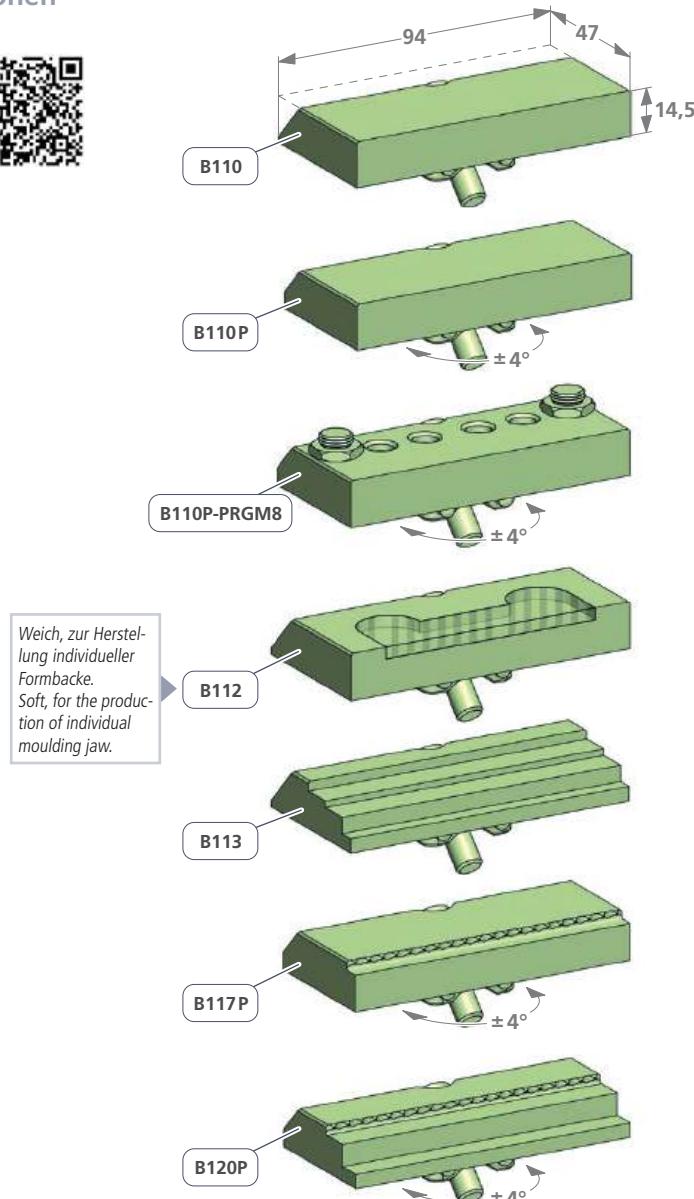
Art. Nr.	i	kg
B110	HV700 x 0,2mm	~0,49
B110P	HV700 x 0,2mm	~0,49



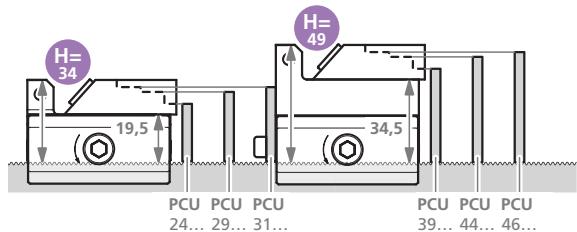
mit Prägeeinsätzen
with direct-stamping inserts

Art. Nr.	i	kg
B110P-PRGM8	HV700 x 0,2mm	~0,46

Art. Nr.	i	kg
B111	HV700 x 0,2mm	~0,48
B111P	HV700 x 0,2mm	~0,48
B112	weicher Stahl soft steel (1.2312)	~0,49
B112P	weicher Stahl soft steel (1.2312)	~0,49
B112HG	Hochgenau High-precision	~0,49
B112E	Einsatzstahl (1.5752) Case hardening steel	~0,49
B112EP	Einsatzstahl (1.5752) Case hardening steel	~0,47
B113	HV700 x 0,2mm	~0,39
B113P	HV700 x 0,2mm	~0,39
B117P	57HRC	~0,46
B120	57HRC	~0,4
B120P	57HRC	~0,4



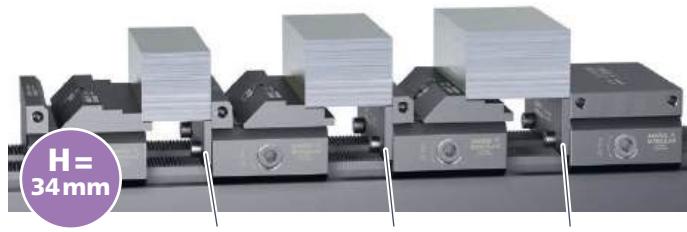
Modulhöhen / Module heights 34 / 49 mm



Beim Einsatz einer Stufenbacke, ist die richtige Modulspannhöhe 34 mm/49 mm zu berücksichtigen. Die Werkstücke auf der Anschlagseite werden mit den passenden Parallelunterlagen abgestützt.

When using a step jaw is applied, the correct module clamping height 34 mm/49 mm must be taken into account. The workpieces on the end module are supported with the appropriate steel parallel.

Eingesetzte Stufenbacken / Inserted stepped jaws (B113)



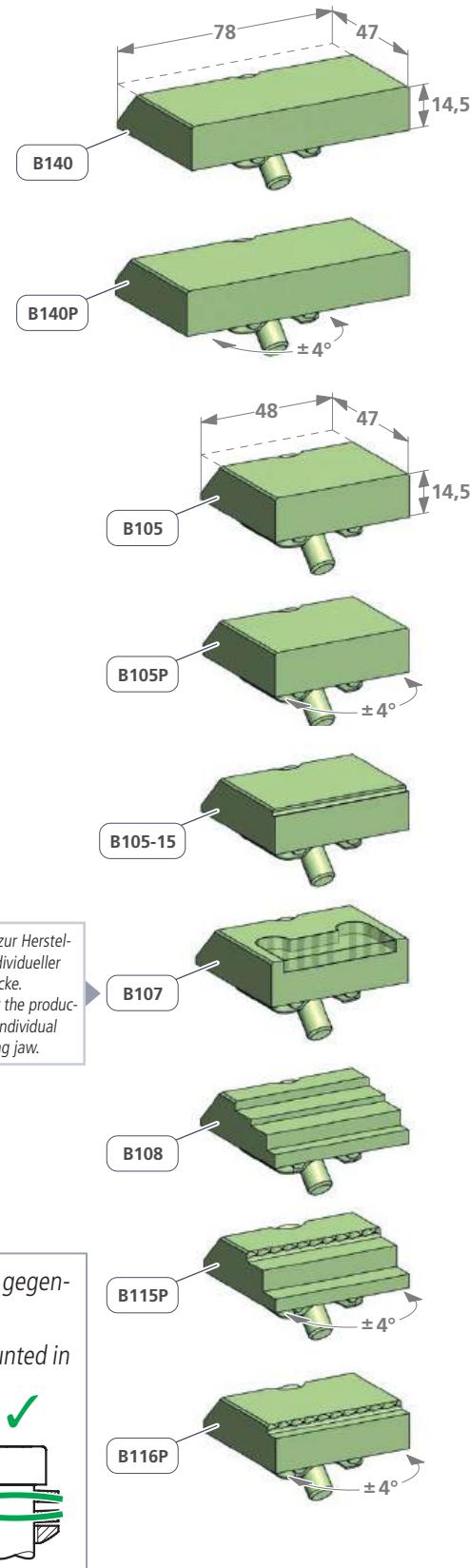
Linear- Spannbacken ... → | Linear clamping jaws ...



powerCLAMP

zum Einsatz in unterschiedlichen Spannsituationen
for use in different clamping situations

Art.Nr.	i	kg
B140	HV700 x 0,2mm	~0,41
B140P	HV700 x 0,2mm	~0,41
B141	HV700 x 0,2mm	~0,41
B141P	HV700 x 0,2mm	~0,41
B105	HV700 x 0,2mm	~0,27
B105P	HV700 x 0,2mm	~0,27
B105-15	HV700 x 0,2mm	~0,27
B106	HV700 x 0,2mm	~0,27
B106P	HV700 x 0,2mm	~0,27
B107	weicher Stahl soft steel (1.2312)	~0,27
B107P	weicher Stahl soft steel (1.2312)	~0,27
B108	HV700 x 0,2mm	~0,22
B108P	HV700 x 0,2mm	~0,22
B115	57HRC	~0,21
B115P	57HRC	~0,21
B116P	57HRC	~0,25



Für Prägebacken / For stamping jaws

PF-SET Krafterhaltung mit Nachfederung
Spring loaded mechanism to maintain clamping force

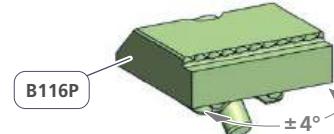
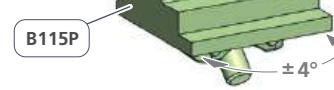
Bei allen Prägebacken kann die Krafterhaltung mit den nachfedernden Tellerfedern eingesetzt werden um ein Freiwiegeln des Werkstücks zu verhindern.

On every spring loaded stamping jaw, the force retention with the disc springs can be used to prevent the workpiece from wiggling free.

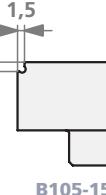
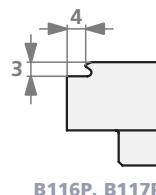
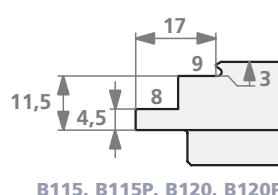
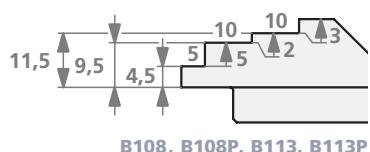


Die Tellerfedern werden gegenläufig montiert.

The disc springs are mounted in opposite directions.



Detailvermassung der Stufenbacken / Detailed dimensioning of the stepped jaws



Anschlagmodule ...

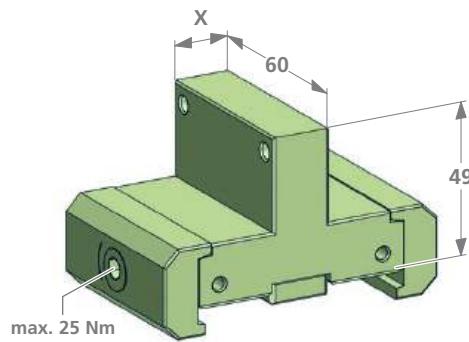
End module ...



5 axes
powerCLAMP

für die horizontale und vertikale Bearbeitung
for horizontal and vertical machining

Art. Nr.	kg	X
PAND19-49	~1,2	19
PAND26-49	~1,3	26
PAND34-49	~1,4	34



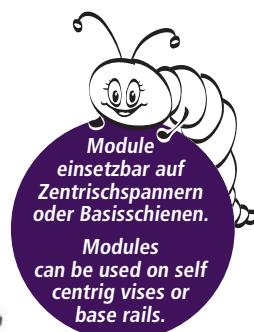
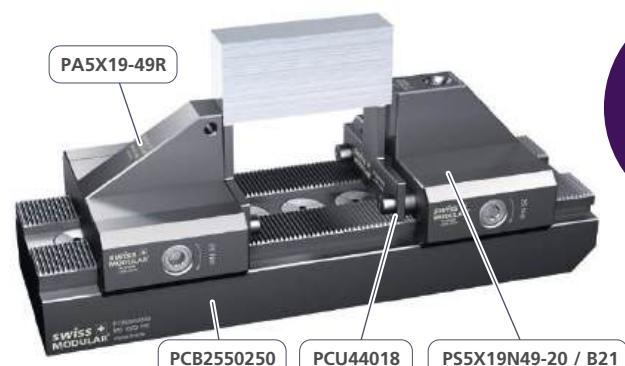
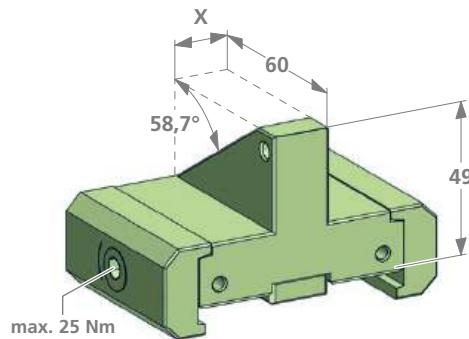
Schmale Anschlagmodule und Werkstücke
in der Mehrfachspannung.

Slim stop modules and workpieces in
multiple clamping.



für 5-Achs Bearbeitung
for 5-axis machining

Art. Nr.	kg	X
PA5X19-49F	~1,1	19
PA5X19-49R	~1,1	19
PA5X26-49F	~1,1	26
PA5X26-49R	~1,1	26
PA5X34-49F	~1,2	34
PA5X34-49R	~1,2	34



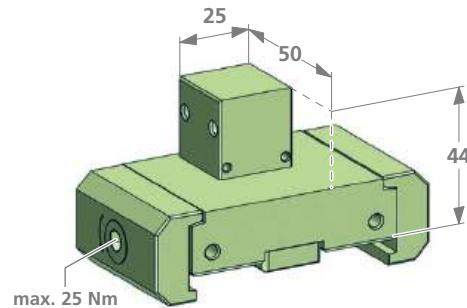
Anschlagmodule ... End module ...



powerCLAMP

für die horizontale und vertikale Bearbeitung
for horizontal and vertical machining

Art. Nr.	kg
PAND25-44	~0,9



Schlankes und kurzes Anschlagmodul für Kleinteil-Serien (Mehrfachspannung).

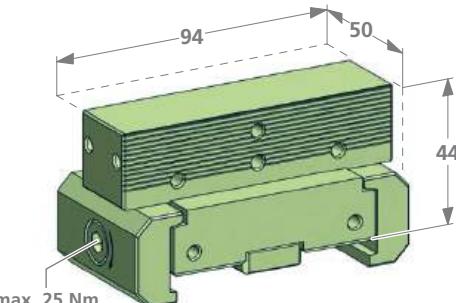
Slim and short end module for small part series (Multiple workholding).

Art. Nr.	kg
PAND94-44	~1,3



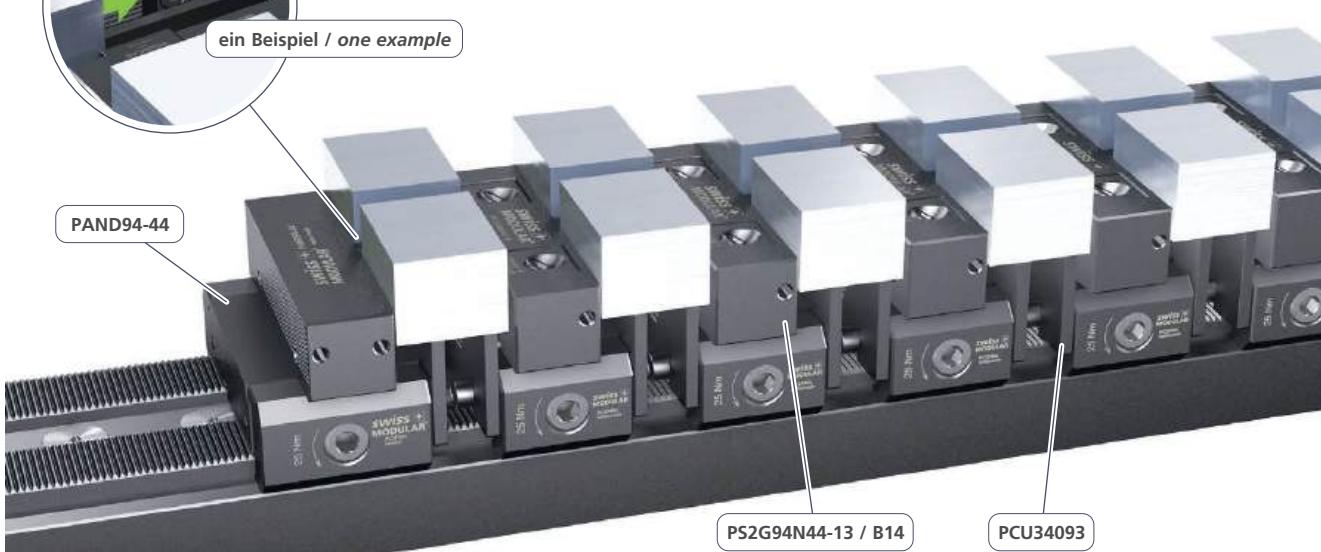
Die Anschlagfläche enthält 2 Passbohrungen. Mit MS50 Passschrauben kann mittig ein Seitenanschlag präzise platziert werden.

The stop surface contains 2 fitting holes. A side stop can be placed precisely in the centre with MS50 fitting screws.



Anschlagmodul mit Doppelspannfunktion. Verdoppelt die Anzahl Spannbereiche auf gleichbleibendem Raum.

End module with double clamping function. Doubles the number of clamping areas in the same amount of working space.



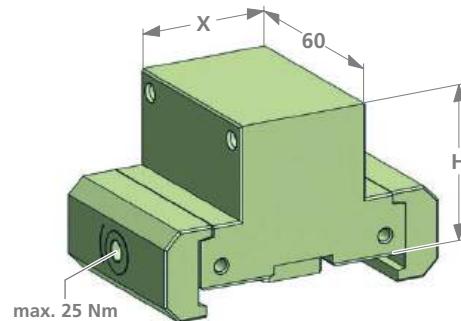
Anschlagmodule ... End module ...



**5axes
powerCLAMP**

für die horizontale und vertikale Bearbeitung
for horizontal and vertical machining

Art. Nr.	kg	X	H	QR
PAND43-49	~1,6	43	49	
PAND48-34	~1,3	48	34	
PAND48-49	~1,6	48	49	
PAND48-75	~2,2	48	75	
PAND58-34	~1,4	58	34	
PAND58-49	~1,8	58	49	
PAND61-34	~1,4	61	34	
PAND68-34	~1,4	68	34	

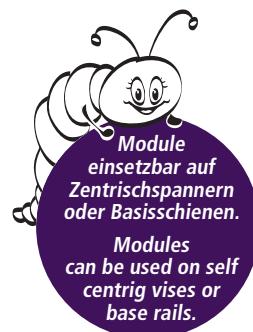


43 mm bis 68 mm breite Anschlagmodule
für die Einzel- und Mehrfachspannung.
43 mm to 68 mm wide end modules for
single and multiple clamping.

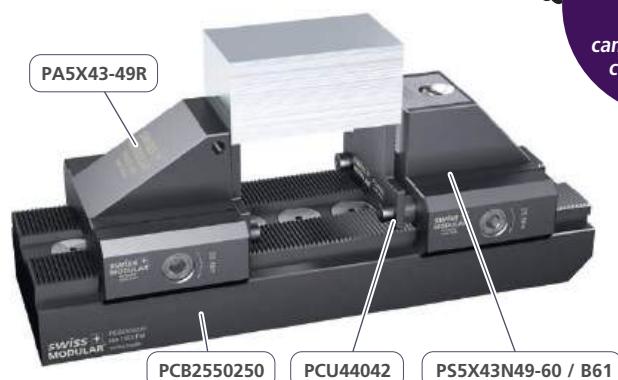
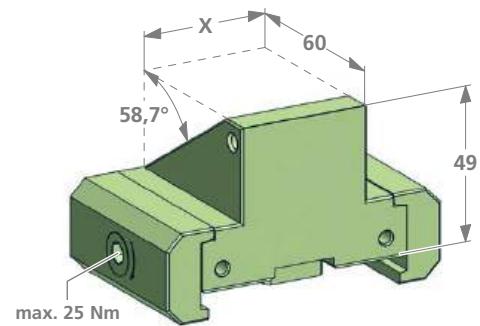


für 5-Achs Bearbeitung
for 5-axis machining

Art. Nr.	kg	X	QR
PA5X43-49F	~1,3	43	
PA5X43-49R	~1,3	43	
PA5X48-49F	~1,4	48	
PA5X48-49R	~1,4	48	



Module
einsetzbar auf
Zentrischspannern
oder Basisschienen.
Modules
can be used on self
centrig vises or
base rails.



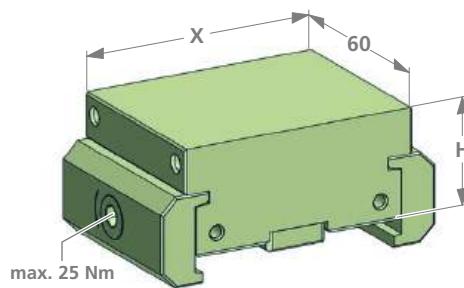
Anschlagmodule ... End module ...



5axes
powerCLAMP

für die horizontale und vertikale Bearbeitung
for horizontal and vertical machining

Art. Nr.	kg	X	H	QR
PAND78-34	~1,5	78	34	
PAND78-49	~2,1	78	49	
PAND94-34	~1,6	94	34	
PAND94-49	~2,3	94	49	
PAND125-49	~2,7	125	49	



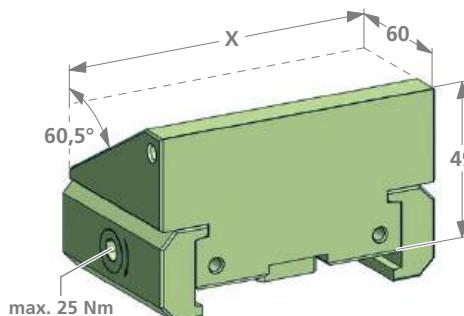
78 mm bis 125 mm breite Anschlagmodule
für die Einzel- und Mehrfachspannung.

78 mm to 125 mm wide end modules for
single and multiple clamping.



für 5-Achs Bearbeitung
for 5-axis machining

Art. Nr.	kg	X	QR
PA5X94-49F	~1,8	94	
PA5X94-49R	~1,8	94	
PA5X125-49F	~2,0	125	
PA5X125-49R	~2,0	125	

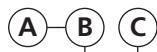


PAND48-34PRG/F-A1
PAND48-49PRG/F-A1
PAND94-34PRG/F-A1

PAND94-49PRG/F-A1
PAND125-49PRG-A1

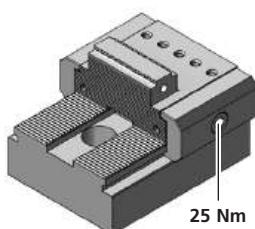
prägen
stamping

5axes
powerCLAMP



PAND48-34PRG-A1

- ① 1x TH120684



PAND48-34PRF-A1

- ① 1x TK140239
- ③ 1x PCSP60R
- ④ 1x PCSP60L
- ⑤ 1x PCS14
- ⑥ 1x PCGU2049
- ⑦ 1x M6X8ISO7380
- ⑫ 4x M5X10ISO4762

X = 48

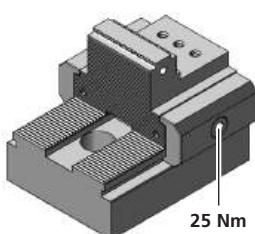
H = 34

H1 = 15

kg ~1,1

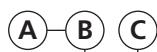
PAND48-49PRG-A1

- ① 1x TH120685



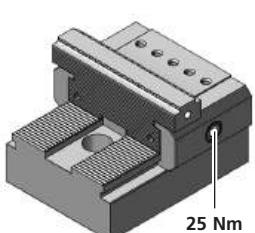
PAND48-49PRF-A1

- ① 1x TK140597
- X = 48
H = 49
H1 = 30
kg ~1,3



PAND94-34PRG-A1

- ① 1x TH120686

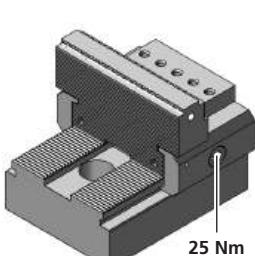


PAND94-34PRF-A1

- ① 1x TH140185
- X = 94
H = 34
H1 = 15
kg ~1,2

PAND94-49PRG-A1

- ① 1x TH120687



PAND94-49PRF-A1

- ① 1x TH130754
- X = 94
H = 49
H1 = 30
kg ~1,6



PAND125-49PRG-A1

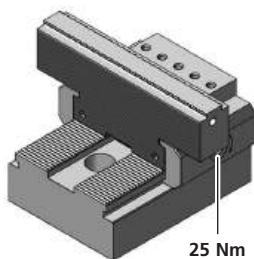
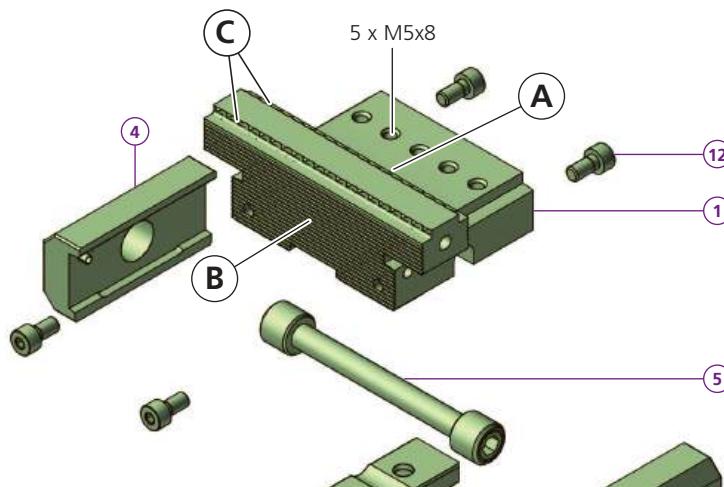
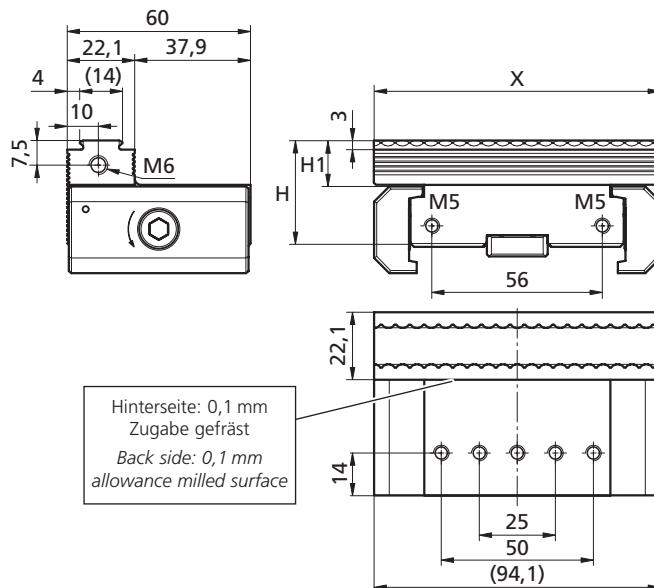
- ① 1x TB160295

X = 125

H = 49

H1 = 30

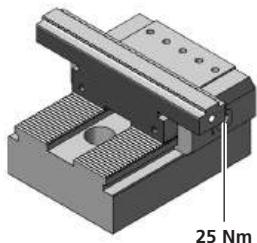
kg ~1,7



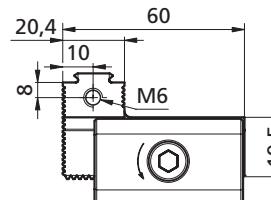
Bestellbeispiel / Ordering example: **PAND94-34PRG-A1**



X = 125

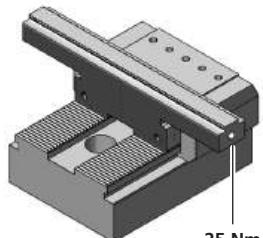


25 Nm

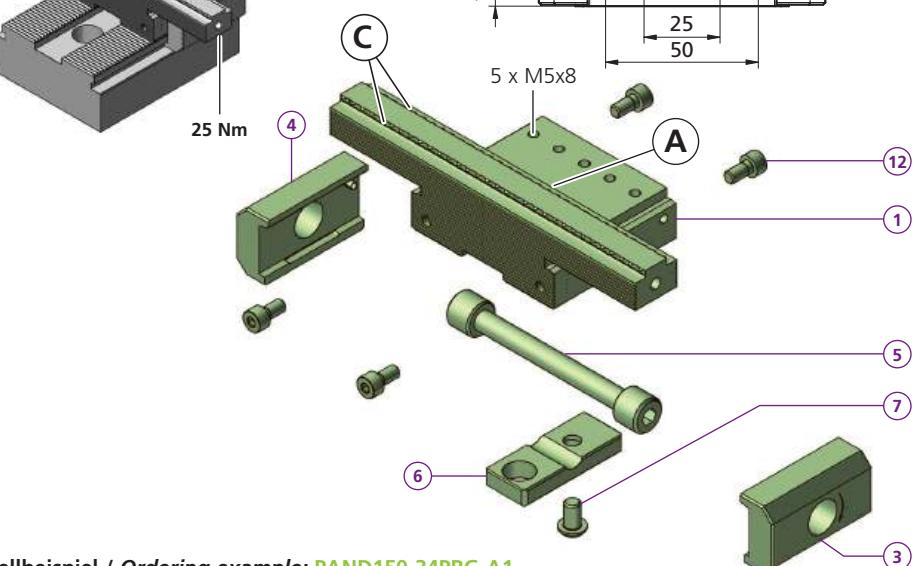
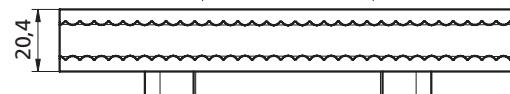


X

X = 150

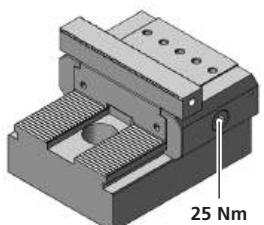


25 Nm



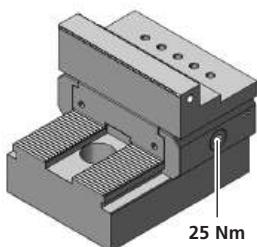
Bestellbeispiel / Ordering example: PAND150-34PRG-A1

H = 34

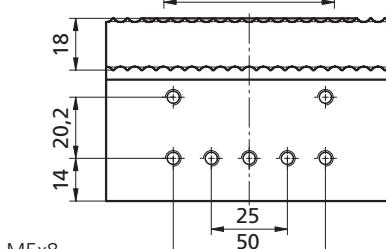
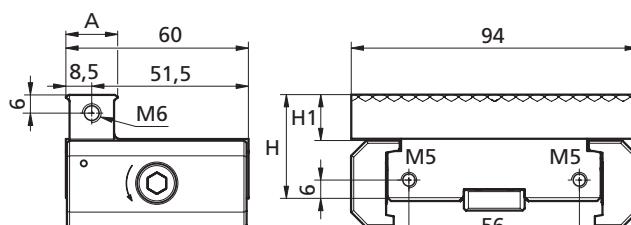


25 Nm

H = 49



25 Nm



PAND94-34PRGV

- ① 1x TH171180
 - ③ 1x PCSP60R
 - ④ 1x PCSP60L
 - ⑤ 1x PCS14
 - ⑥ 1x PCGU2049
 - ⑦ 1x M6X8ISO7380
 - ⑫ 4x M5X10ISO4762
- H = 34
H1 = 15
A = 17,5
kg ~1,2

PAND94-49PRGV

- ① 1x TH171179
- H = 49
H1 = 30
A = 17
kg ~1,6

Bestellbeispiel / Ordering example: PAND94-34PRGV

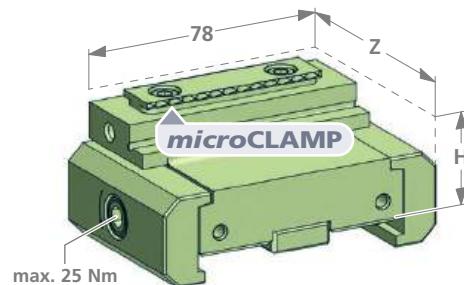
Anschlagmodule zum Prägen ... End modules for stamping ...

78 94 120

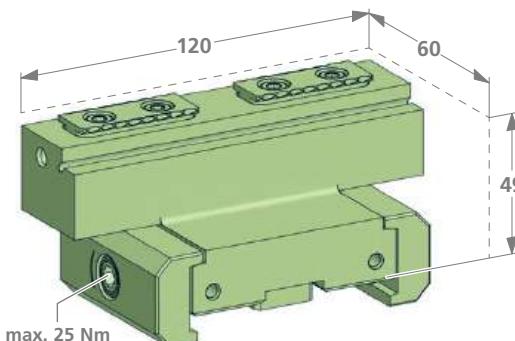
5axes
powerCLAMP

für die horizontale und vertikale Bearbeitung
for horizontal and vertical machining

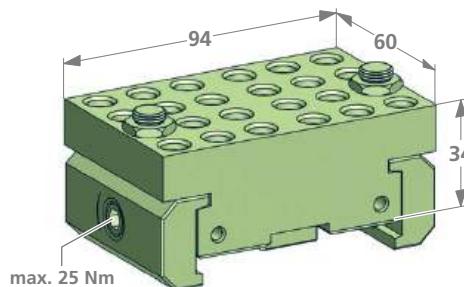
Art. Nr.		kg	Z	H
PAND78-34UPRG	 	~1,2	60	34
PAND78-49UPRG	 	~1,5	60	49
PAND78-34X50UPRG	 	~1,0	50	34



Art. Nr.		kg
PAND120-49UPRG	 	~1,8



Art. Nr.		kg
PANF94-34PRGM8	 	~1,5



Der Einsatz dieser Spannmodule erweitert die Spannmöglichkeiten für runde und un-
förmige Werkstücke erheblich.

The use of these clamping modules ex-
pands the clamping possibilities for round
and bulky workpieces considerably.



Bei knapp gespannten Werkstücken sind direkt-
Prägebacken die ideale Wahl zum spannen.

For tight clamped workpieces, direct stamping
jaws are the ideal choice for clamping.

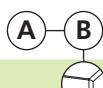
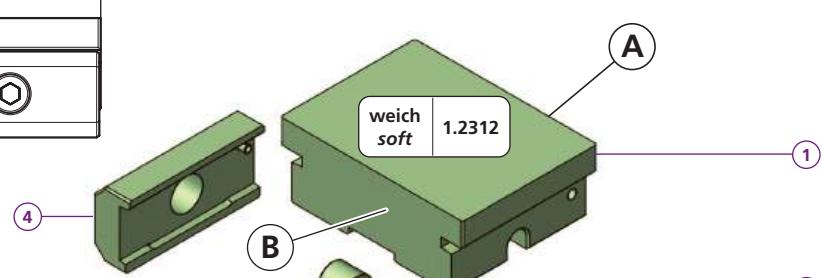
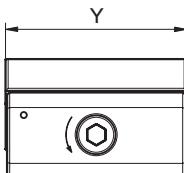
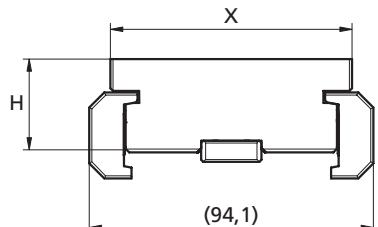


Rohlingsmodule
Blank module

PT-F80-30X60
PT-F80-30X60NS
PT-F80-30X30NS

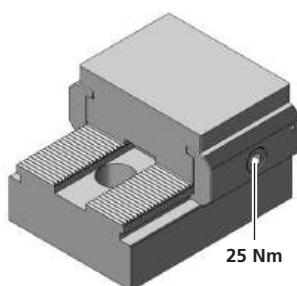
PT-F61-25X60
PT-F61-25X50
PT-F61-25X30

5 axes
powerCLAMP

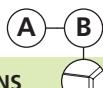


PT-F80-30X60

- ① 1x TF140637
 - ③ 1x PCSP60R
 - ④ 1x PCSP60L
 - ⑤ 1x PCS14
 - ⑥ 1x PCGU2049
 - ⑦ 1x M6X8ISO7380
- X = 80
H = 30
Y = 60
kg ~1,4

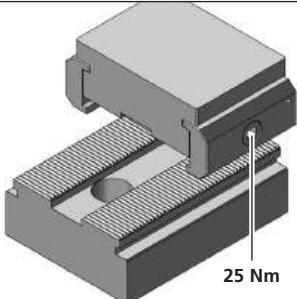


25 Nm

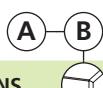


PT-F80-30X60NS

NS = Rohlingsmodul freie Positionierung ohne Verzahnung
Carrier module without positioning serration for free positioning

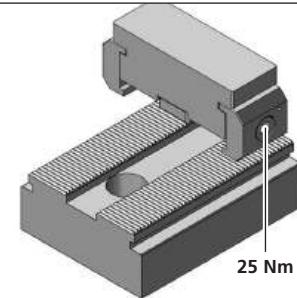


25 Nm



PT-F80-30X30NS

NS = Rohlingsmodul freie Positionierung ohne Verzahnung
Carrier module without positioning serration for free positioning

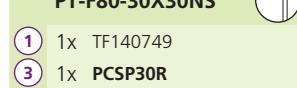
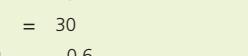
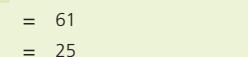
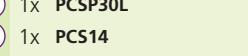
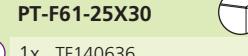
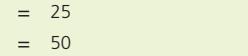
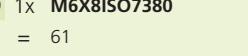
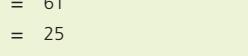
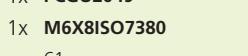
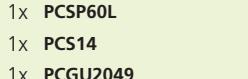
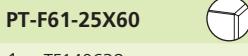
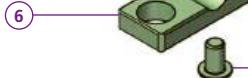
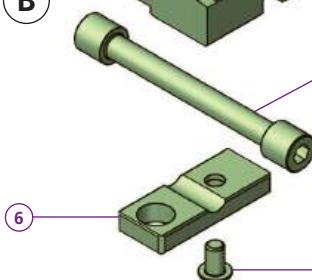


25 Nm



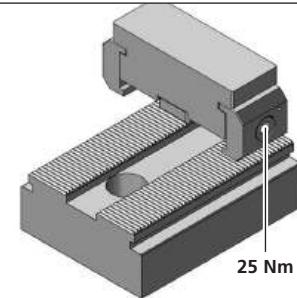
weich
soft
1.2312

B

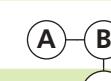


PT-F80-30X30NS

- ① 1x TF140749
 - ③ 1x PCSP30R
 - ④ 1x PCSP30L
 - ⑤ 1x PCS14
 - ⑥ 1x PCGU2030
 - ⑦ 1x M6X8ISO7380
- X = 80
H = 30
Y = 30
kg ~0,7

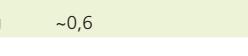
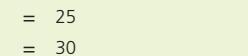
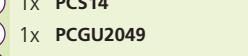
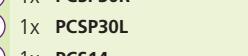


25 Nm



weich
soft
1.2312

B



Bestellbeispiel / Ordering example: **PT-F80-30X60**

Rohlingsmodule
Blank module

PR94-49SET

PR125-49SETALU

PT-F132-34RDSET

PR94-39-50SET

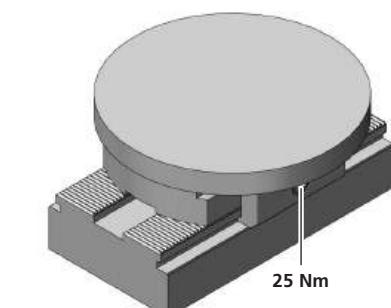
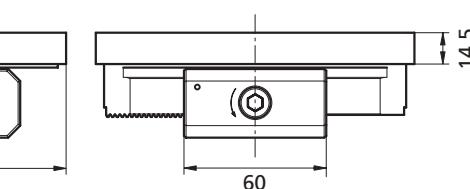
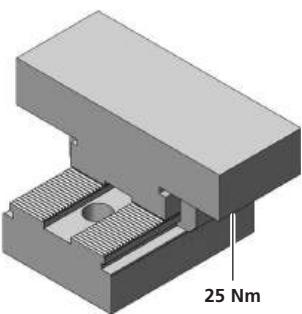
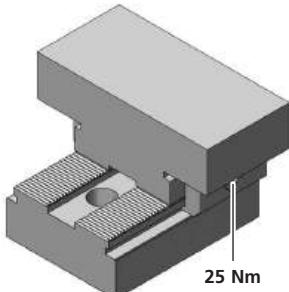
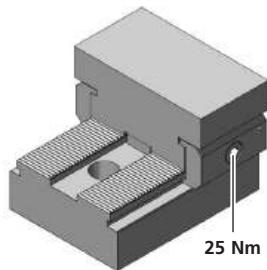
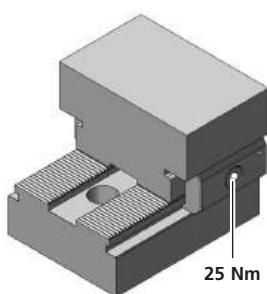
PR150-49SET

PR125-49SET

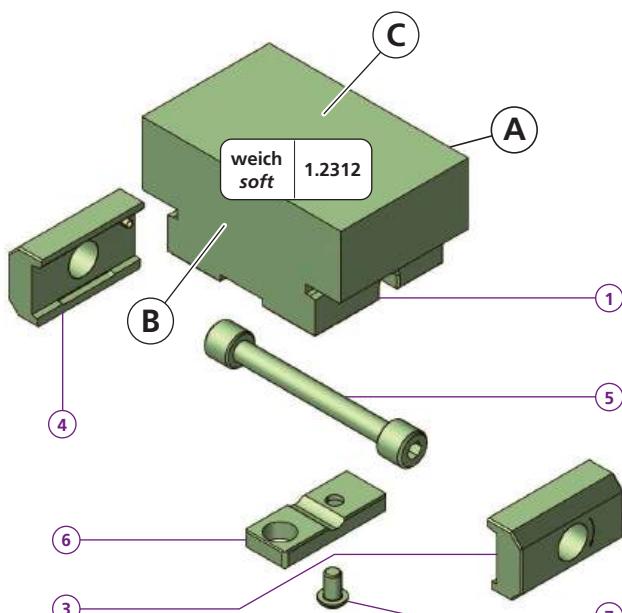
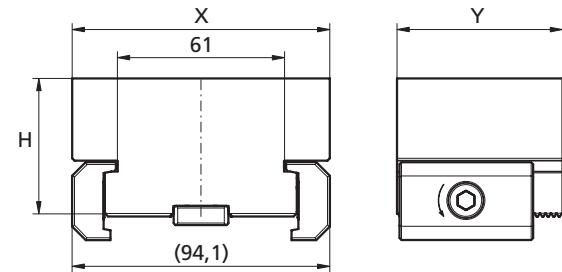
5axes

powerCLAMP

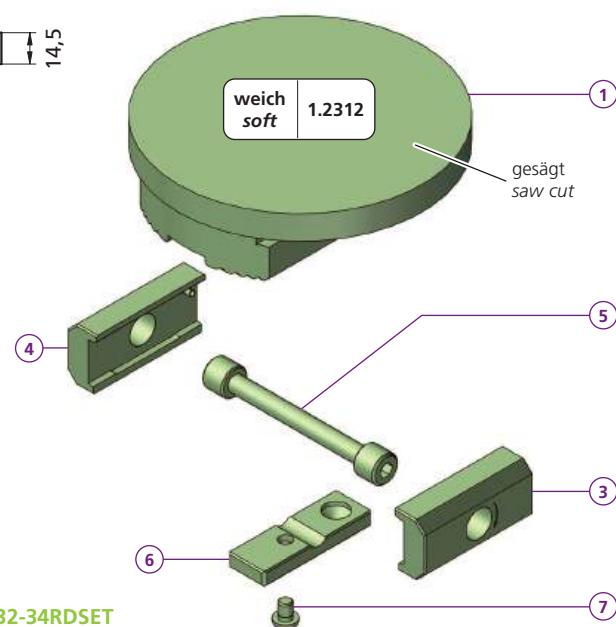
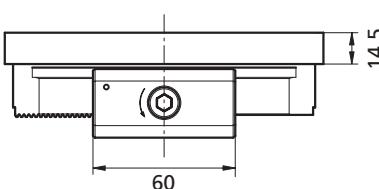
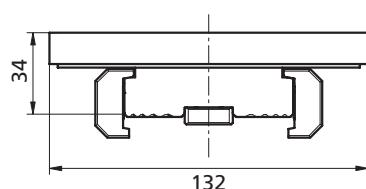
	A	B	C
PR94-49SET			
① 1x PR94-49			
③ 1x PCSP50R			
④ 1x PCSP50L			
⑤ 1x PCS14			
⑥ 1x PCGU2049			
⑦ 1x M6X8ISO7380			
X = 94			
H = 49			
Y = 60,4			
kg ~2,3			
PR94-39-50SET			
① 1x PR94-39-50			
X = 94			
H = 39			
Y = 50,4			
kg ~1,6			
PR125-49SET			
① 1x PR125-49			
X = 125			
H = 49			
Y = 60,4			
kg ~2,7			
PR125-49SETALU			
① 1x *PR125-49ALU			
X = 125			
H = 49			
Y = 60,4			
kg ~0,83			
PR150-49SET			
① 1x PR150-49			
X = 150			
H = 49			
Y = 60,4			
kg ~3,1			



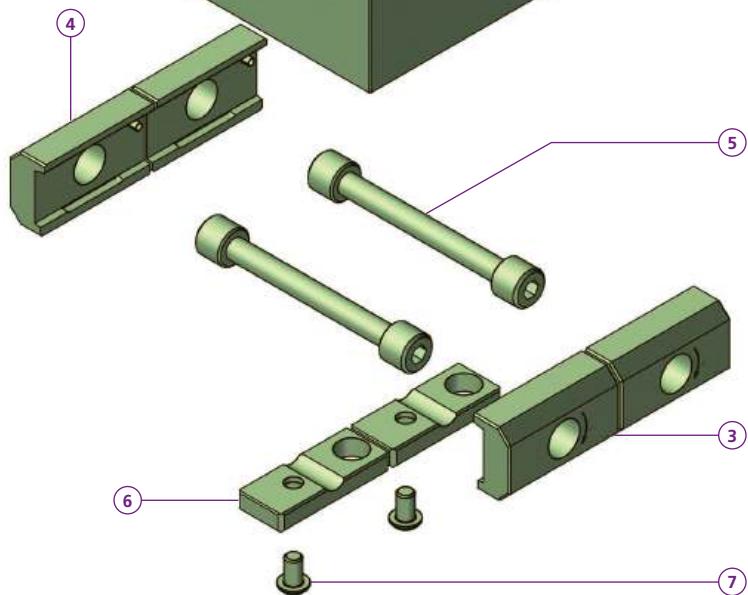
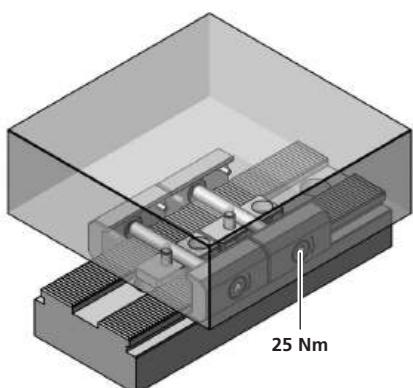
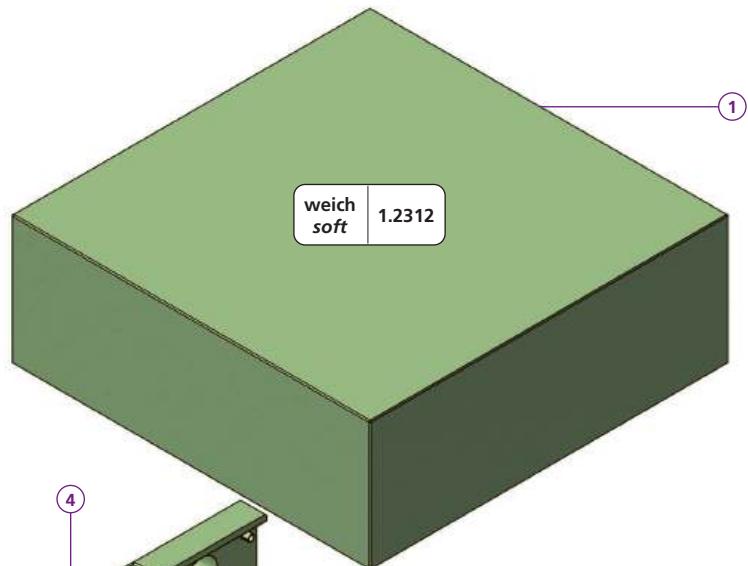
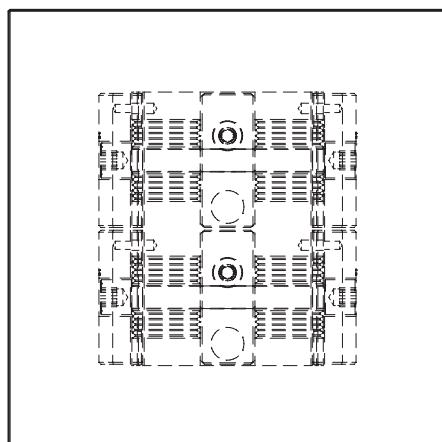
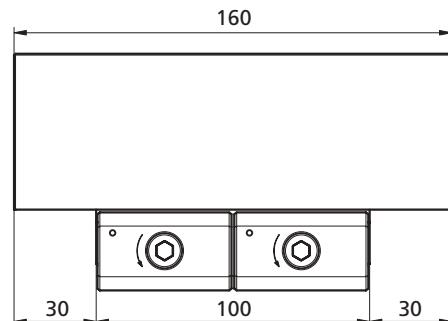
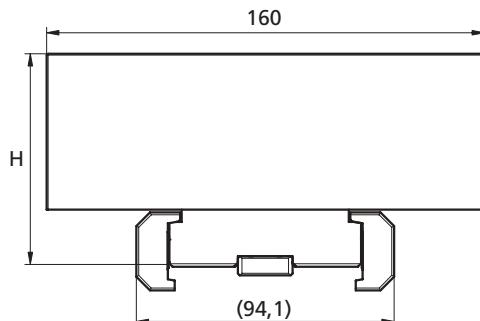
Bestellbeispiel / Ordering example: PT-F132-34RDSET



* ALU = ENAW-7022 Bestellbeispiel / Ordering example: PR94-49SET

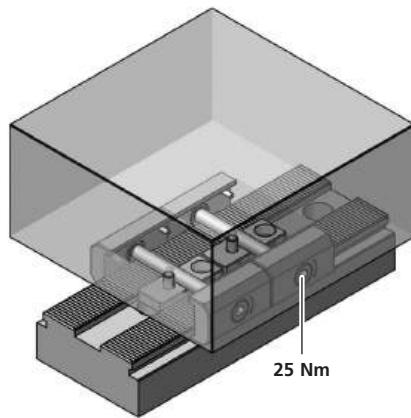


	A	B	C
PT-F132-34RDSET			
① 1x PT-F132-34RD			
③ 1x PCSP60R			
④ 1x PCSP60L			
⑤ 1x PCS14			
⑥ 1x PCGU2059			
⑦ 1x M6X8ISO7380			
kg ~3,1			



PTX160-57S	
①	1x TH130539
③	2x PCSP50R
④	2x PCSP50L
⑤	2x PCS14
⑥	2x PCGU2049
⑦	2x M6X8ISO7380
H	= 57
kg	~9

PTX160-77S	
①	1x TH130723
H	= 77
kg	~13

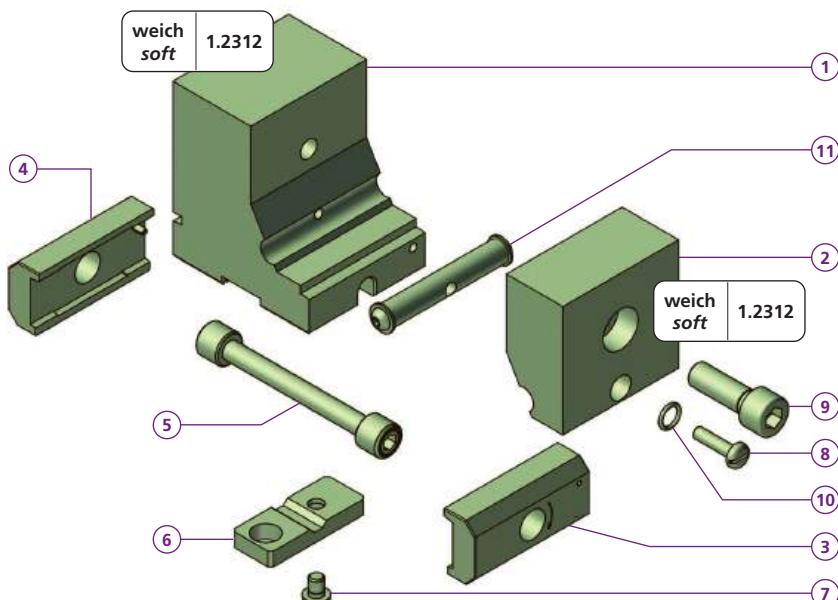
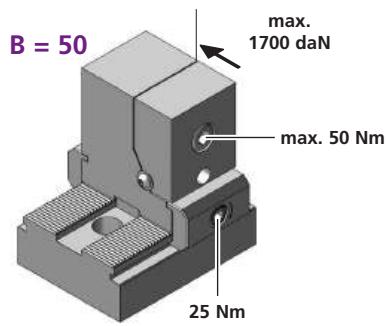
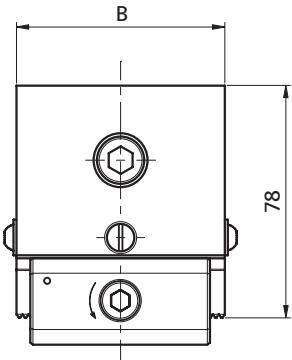
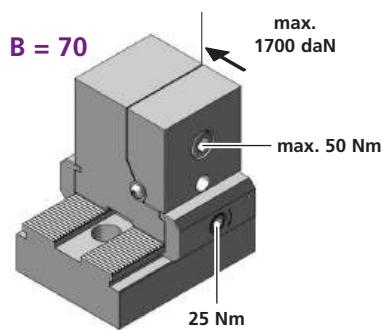


Bestellbeispiel / Ordering example: PTX160-57S

Schnellwechsel - Spannbacken - Rohling

Quick change - jaw blank

5axes powerCLAMP



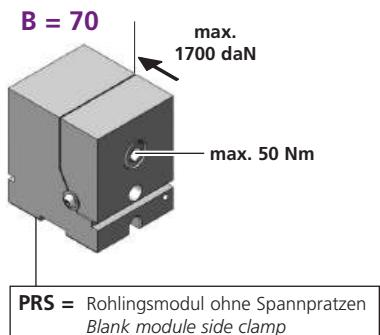
Drehmoment Torque		Spannkraft Workholding force		
Nm	(lb·ft)	~daN	~(lb)	~t
10	7,4	= 400	880	0,4
20	14,8	= 800	1'760	0,8
30	22,2	= 1'200	2'650	1,2
40	29,6	= 1'600	3'530	1,6

PS1X70L78ST	
1	1x PRS7078AST
2	1x PRS7078SST
3	1x PCSP60R
4	1x PCSP60L
5	1x PCS14
6	1x PCGU2049
7	1x M6X8ISO7380
8	1x M5X20BN1362
9	1x M10X30ISO4762
10	1x OR Ø 8x1,5
11	1x PRS7078G
B	= 70
kg	~3,2

PS1X50L78ST	
1	1x PRS5078AST
2	1x PRS5078SST
3	1x PCSP50R
4	1x PCSP50L
11	1x PRS5078G
B	= 50
kg	~2,3

PRS70L78ST	
1	1x PRS7078AST
2	1x PRS7078SST
11	1x PRS7078G
B	= 70
kg	~2,8

PRS50L78ST	
1	1x PRS5078AST
2	1x PRS5078SST
11	1x PRS5078G
B	= 50
kg	~2,0



PRS = Rohlingsmodul ohne Spannpratzen
Blank module side clamp



Spannbacken Rohling auf Kundenwunsch angepasst
Jaw blank machined to customer specification

Bestellbeispiel / Ordering example: PS1X70L78ST

Anschlagmodule ...

Clamping module ...



 **5axes**
powerCLAMP

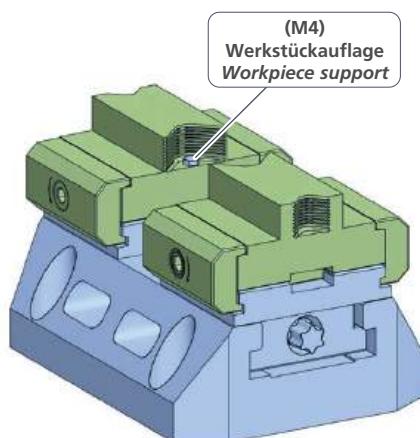
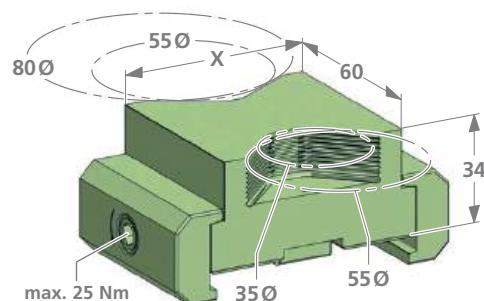
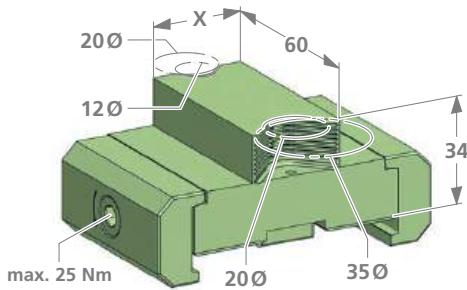
Anschlagmodul für runde Werkstücke
Endmodule for round workpieces

Art. Nr.		Ø	X	kg
PAND30-34RV12-35		12 – 35	30	~1,1
PAND61-34RV35-80		35 – 80	61	~1,26



Runde Werkstücke, die einen Durchmesserbereich von 12 – 80 mm abdecken, können auf vielfältige Art gespannt werden.

Round workpieces covering a diameter range from 12 - 80 mm can be clamped in a variety of ways.



Drehmoment Torque		Spannkraft Workholding force
Nm (lb·ft)	~daN ~(lb)	~t
10	7,4 = 200	440 0,2
20	14,8 = 500	1'102 0,5
30	22,2 = 1'000	2'204 1,0
40	29,6 = 1'300	2'866 1,3
50	37,0 = 1'600	3'527 1,6

NUSS3/8"TX30E14

WICHTIG!
Bitte separat bestellen
IMPORTANT!
Please order separately

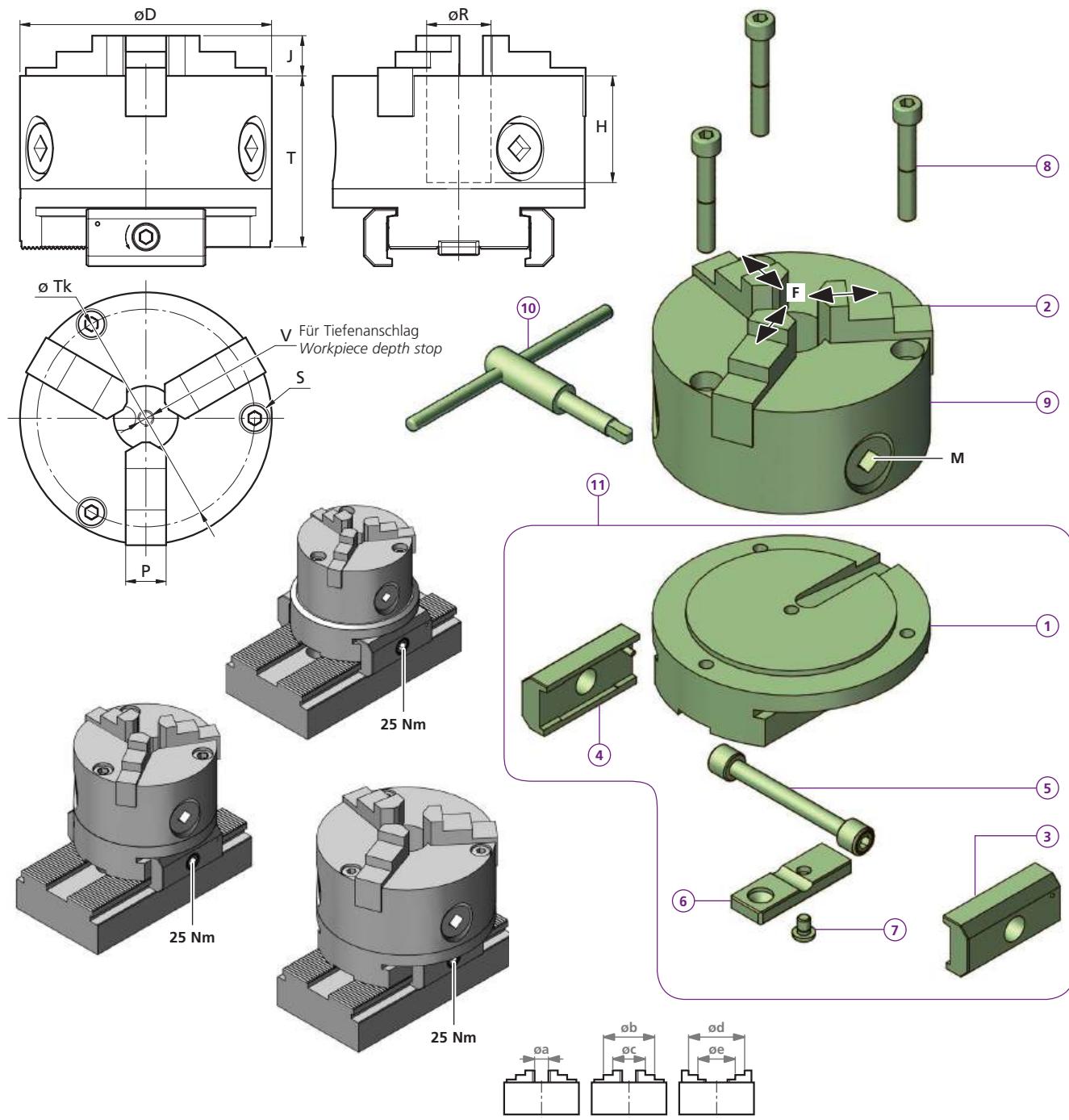


SEPARAT BESTELLEN
ORDER SEPARATELY

Dreibackenfutter
Three jaw chuck

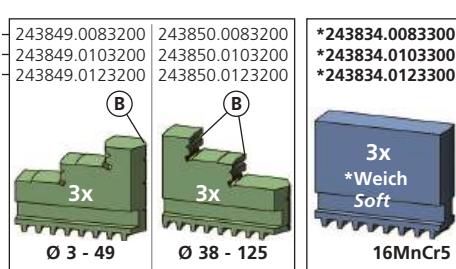
PS3X80L75BSET
PS3X100L82BSET
PS3X125L87BSET

5axes
powerCLAMP



	D	J	T	R	H	P	V	a mm	b mm	c mm	d mm	e mm	M (max.)	F (max.)	Ø Tk	S
PS3X80L75BSET	80	13	75	15	42,5	10	M6	3...27	48...73	23...48	52...76	27...51	28 Nm	1300 daN	67	M6
PS3X100L82BSET	100	17	82	20	49,5	14	M8	3...39	58...94	24...60	64...100	30...66	38 Nm	1600 daN	83	M8
PS3X125L87BSET	125	19	87	32	55	16	M8	3...49	70...116	30...75	83...125	38...84	55 Nm	2600 daN	108	M8

PS3X80L75BSET		PS3X100L82BSET		PS3X125L87BSET	
①	1x TW90013_01	②	2x 3 Stk. / pcs	②	2x 3 Stk. / pcs
③	1x PCSP60R	④	1x PCSP60L	④	1x PCSP60L
⑤	1x PCS14	⑥	1x PCGU2059	⑥	1x PCGU2059
⑦	1x M6X8ISO7380	⑧	3x M6X45ISO4762	⑧	3x M8X50ISO4762
⑨	1x 243809.0083220	⑩	1x 243809.0103220	⑩	1x 243809.0123220
⑪	1x 243864.0080000	⑪	1x 243864.0100000	⑪	1x 243864.0120000
PTX80-30		PTX100-30		PTX125-29	
kg	~2,8	kg	~4,3	kg	~6,3

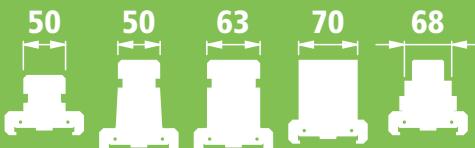


Separat bestellen / Order separately

Bestellbeispiel / Ordering example: **PS3X125L87BSET**

Spannzangenmodule

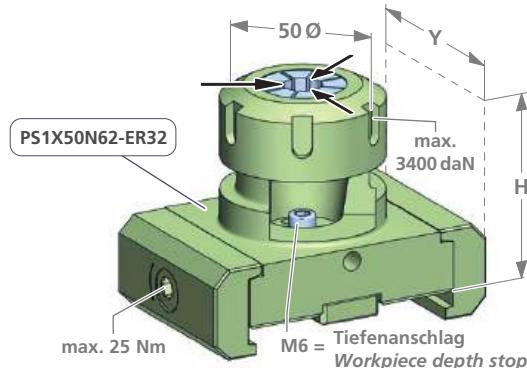
Collet modules



5axes
powerCLAMP

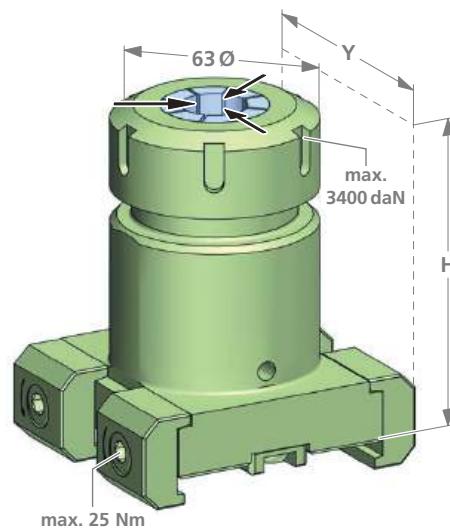
für die horizontale und vertikale Bearbeitung
for horizontal and vertical machining

Art. Nr.	kg	Ø	Y	H
PS1X50N62-ER32	~1,3	2-22	60	62
PS1X50N100-ER32	~2,2	2-22	60	100
PS1X63N100-ER40	~2,3	3-29	80	100



Diese Spannzangenmodule ermöglichen das ideale Spannen und Bearbeiten von Stangenmaterial.

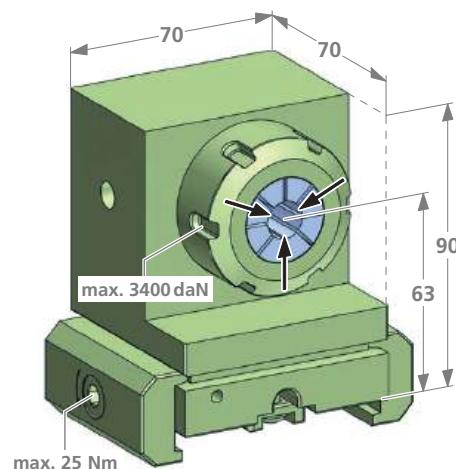
These collet modules enable ideal clamping and machining of bar material.



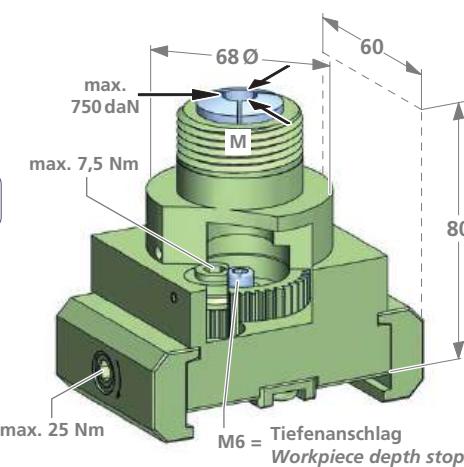
Art. Nr.	kg	Ø
PS1X50N70H-ER32-NS	~2,98	2-22

Die seitlichen Spannpratzen können um 90° gedreht werden, dadurch kann das Spannzangenmodul auch quer zur Schiene platziert werden.

The side clamps can be turned by 90°, the module can therefore be placed crosswise to the rail.

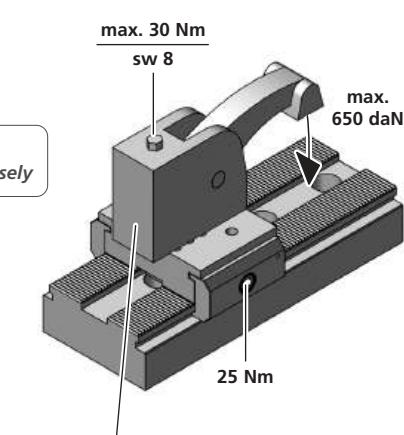
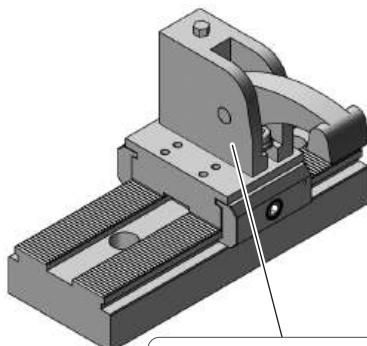
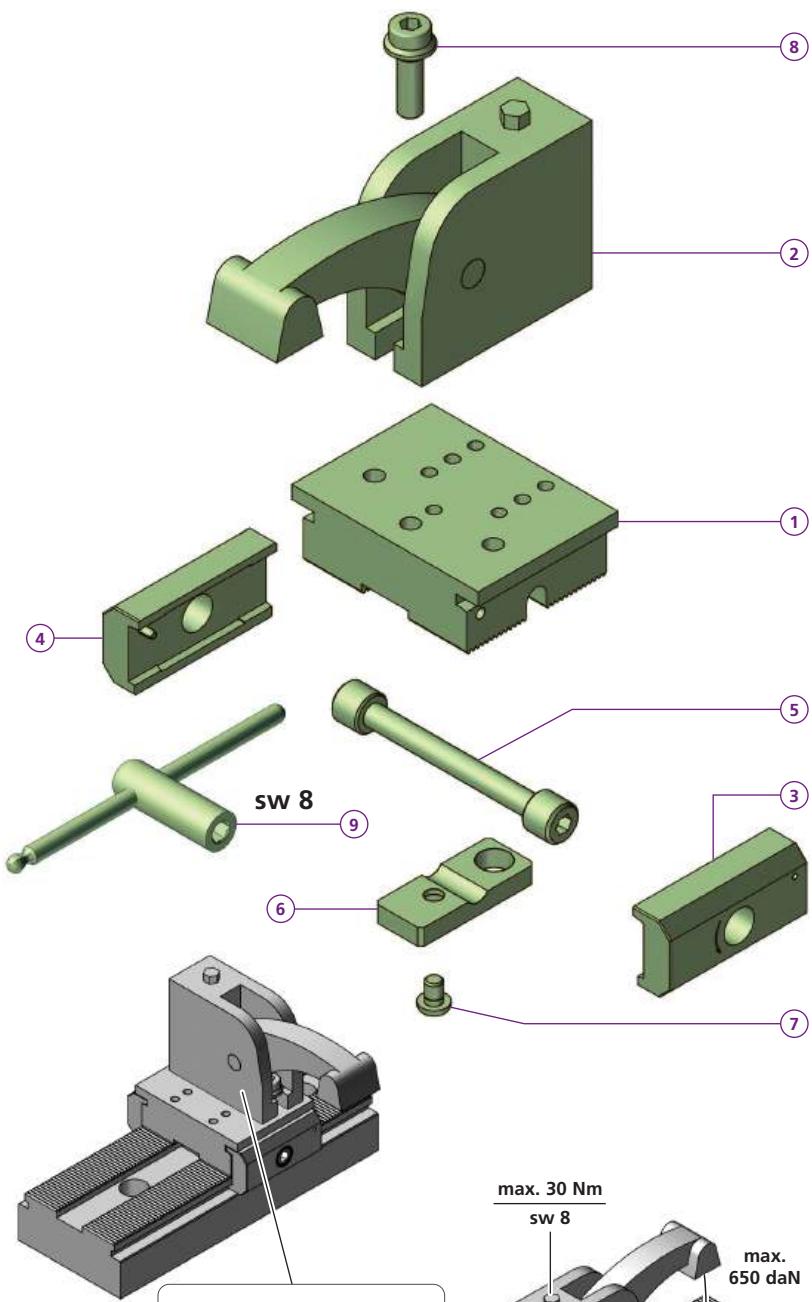
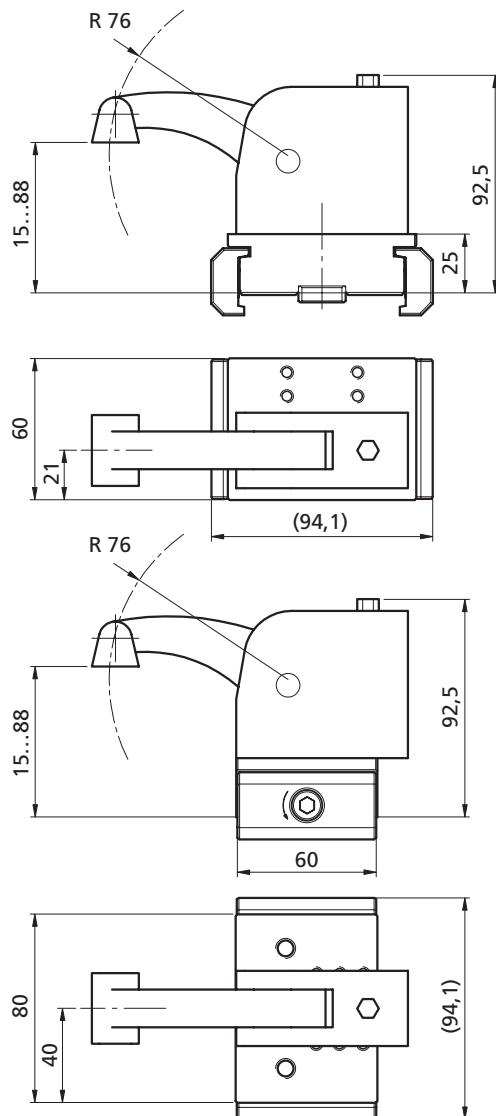


Art. Nr.	kg	Ø	M
PS1X68N80-W20	~1,8	0,5-20	M37,6x3



PS1F-KLD1
PS1F-KLD1NS

powerCLAMP



NS = Trägermodul freie Positionierung ohne Verzahnung
Carrier module without positioning serration for free positioning

PS1F-KLD1

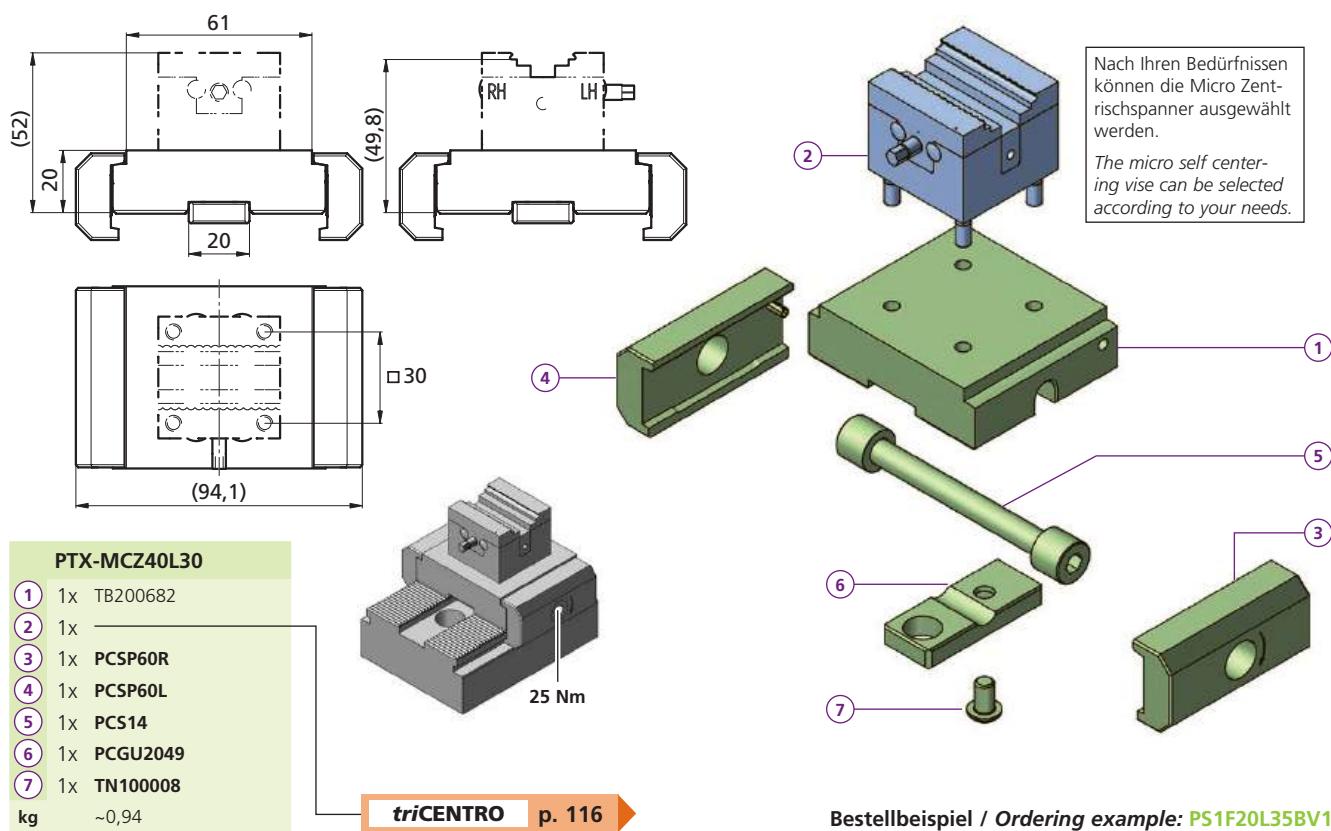
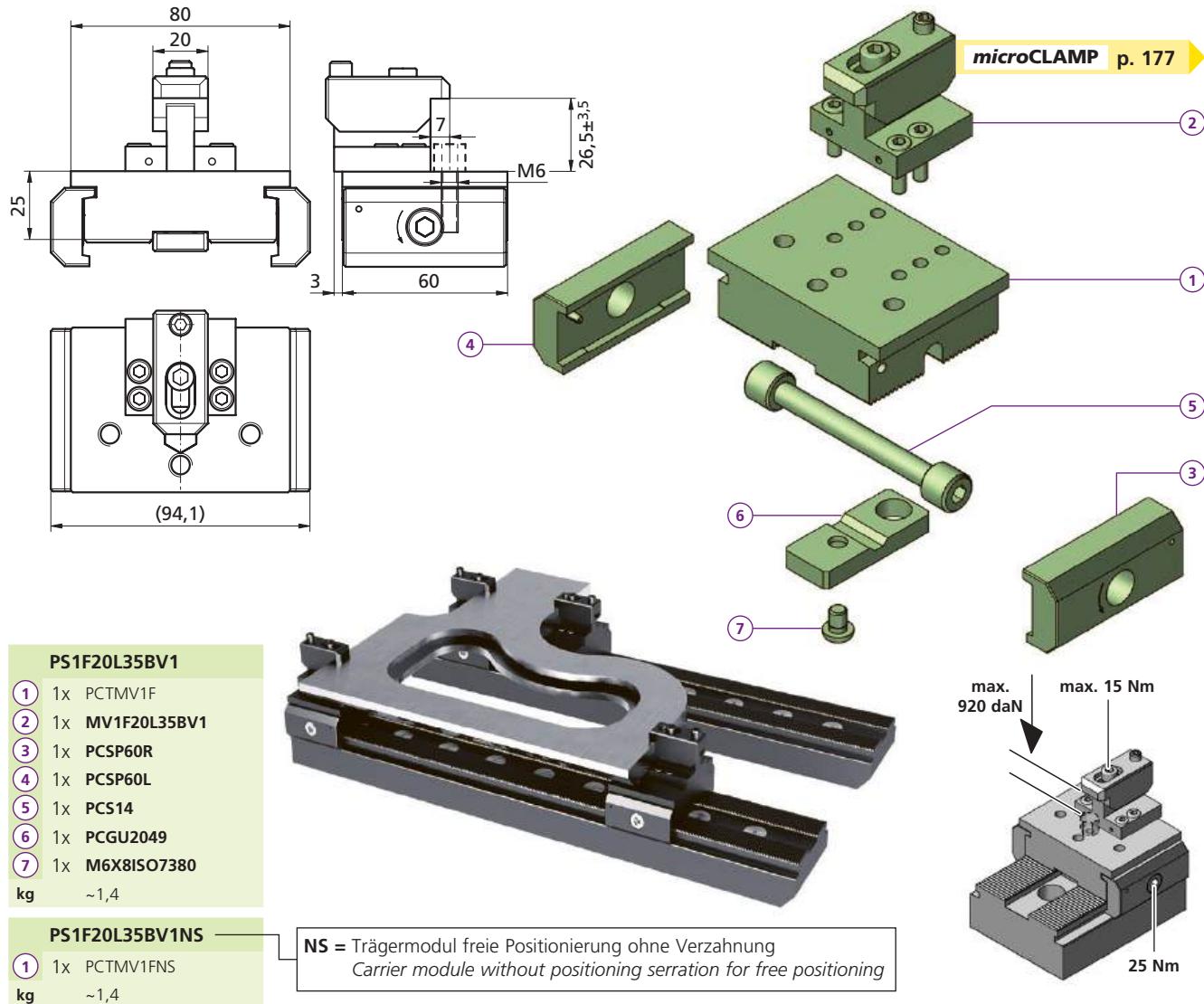
- (1) 1x PCTMV1F
- (2) 1x 07-020
- (3) 1x PCSP60R
- (4) 1x PCSP60L
- (5) 1x PCS14
- (6) 1x PCGU2049
- (7) 1x M6X8ISO7380
- (8) 1x M8x25 TW080012-02
- (9) 1x 07-180
- kg** ~2,1

PS1F-KLD1NS

- (2) 1x PCTMV1FNS
- kg** ~2,1

Bestellbeispiel / Ordering example: **PS1F-KLD1NS**

Plattenspanner / Plate clamping modul PS1F20L35BV1
Trägermodul für Micro Zentrischspanner PS1F20L35BV1NS
Support module for micro self centering vise PTX-MCZ40L30 powerCLAMP



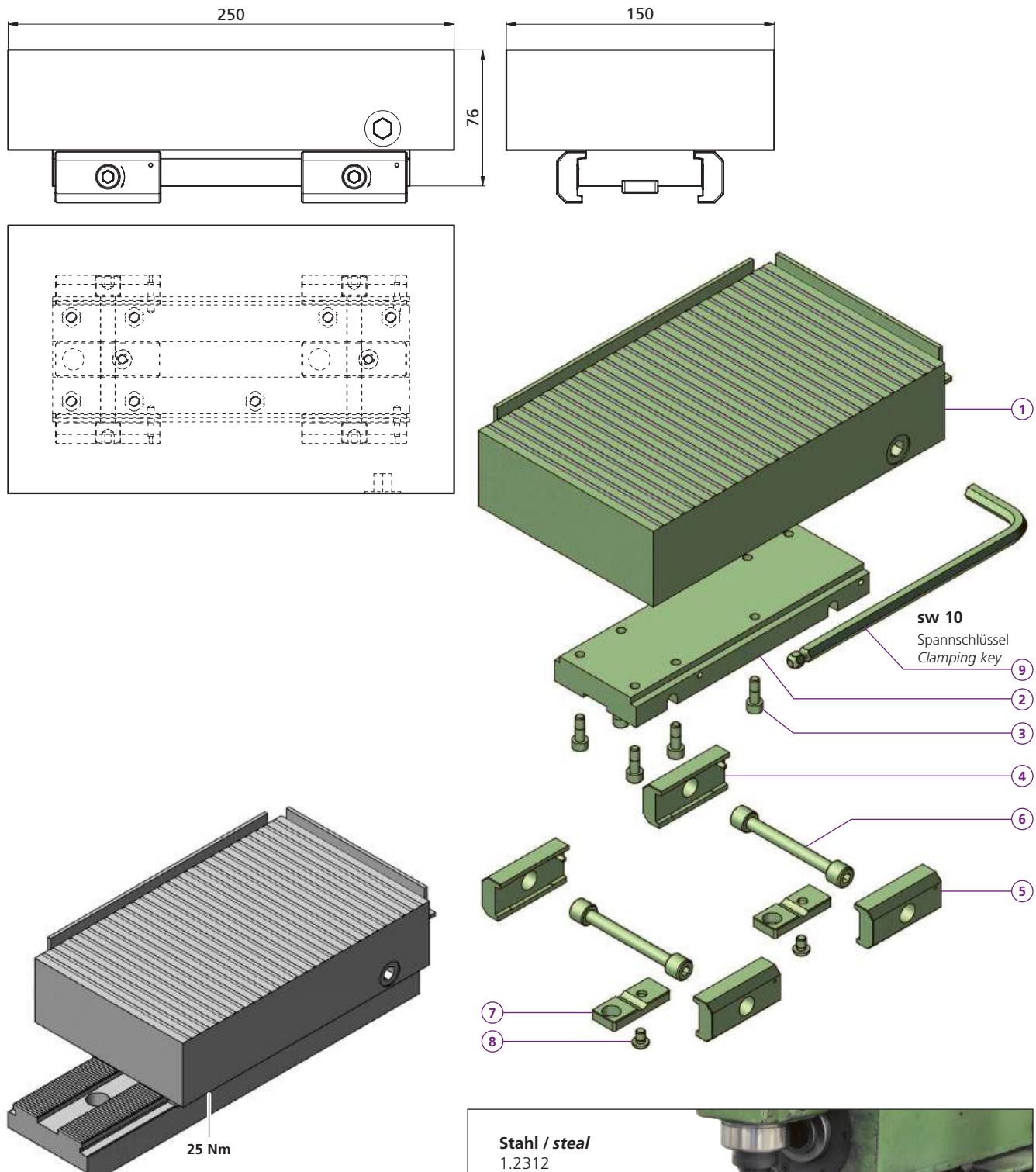
Bestellbeispiel / Ordering example: PS1F20L35BV1

Magnetspannplatte

Magnetic chuck

PS1X150L60-250MAG11

powerCLAMP



PS1X150L60-250MAG11

- ① 1x XNeomill 250x150
- ② 1x TL110010-01
- ③ 7x MS60
- ④ 2x PCSP60L
- ⑤ 2x PCSP60R
- ⑥ 2x PCS14
- ⑦ 2x PCGU2049
- ⑧ 2x M6X8ISO7380
- ⑨ 1x ISL10 DIN 911L
- kg ~19,5

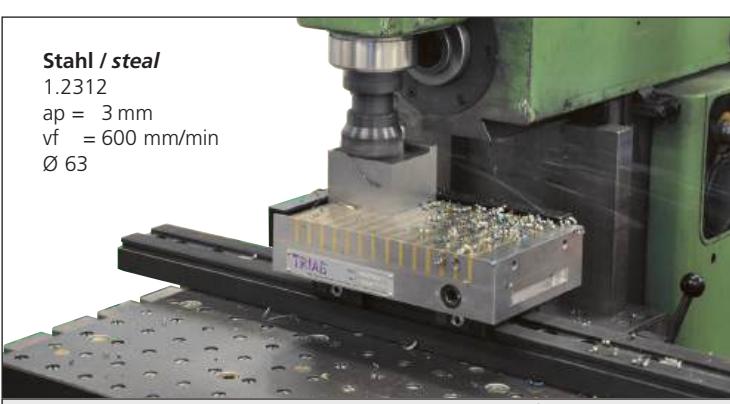
Stahl / steel

1.2312

ap = 3 mm

vf = 600 mm/min

Ø 63



max. Haltekraft / max. holding force = 120 N/cm²

- Werkstücke ab 26 mm Länge und 6 mm Stärke werden optimal gespannt
- Workpieces from 26 mm length and 6mm thickness will be optimally hold

Bestellbeispiel / Ordering example: PS1X150L60-250MAG11

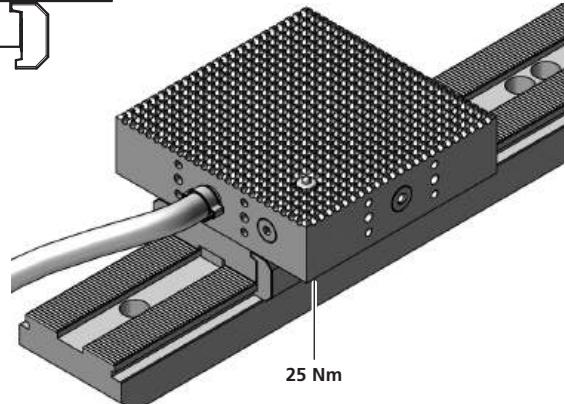
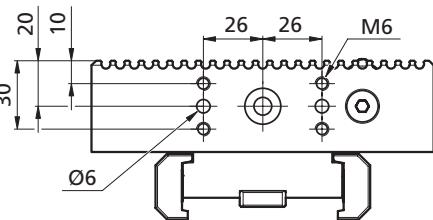
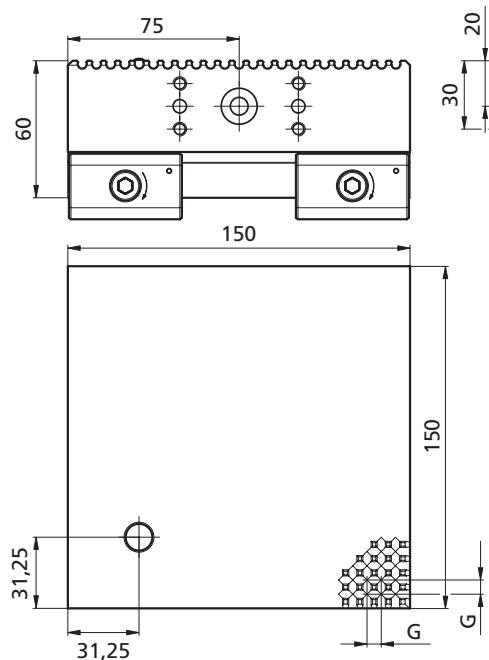
Vakuum-Modul

Vacuum module

PS1X150L60-VAC

5axes

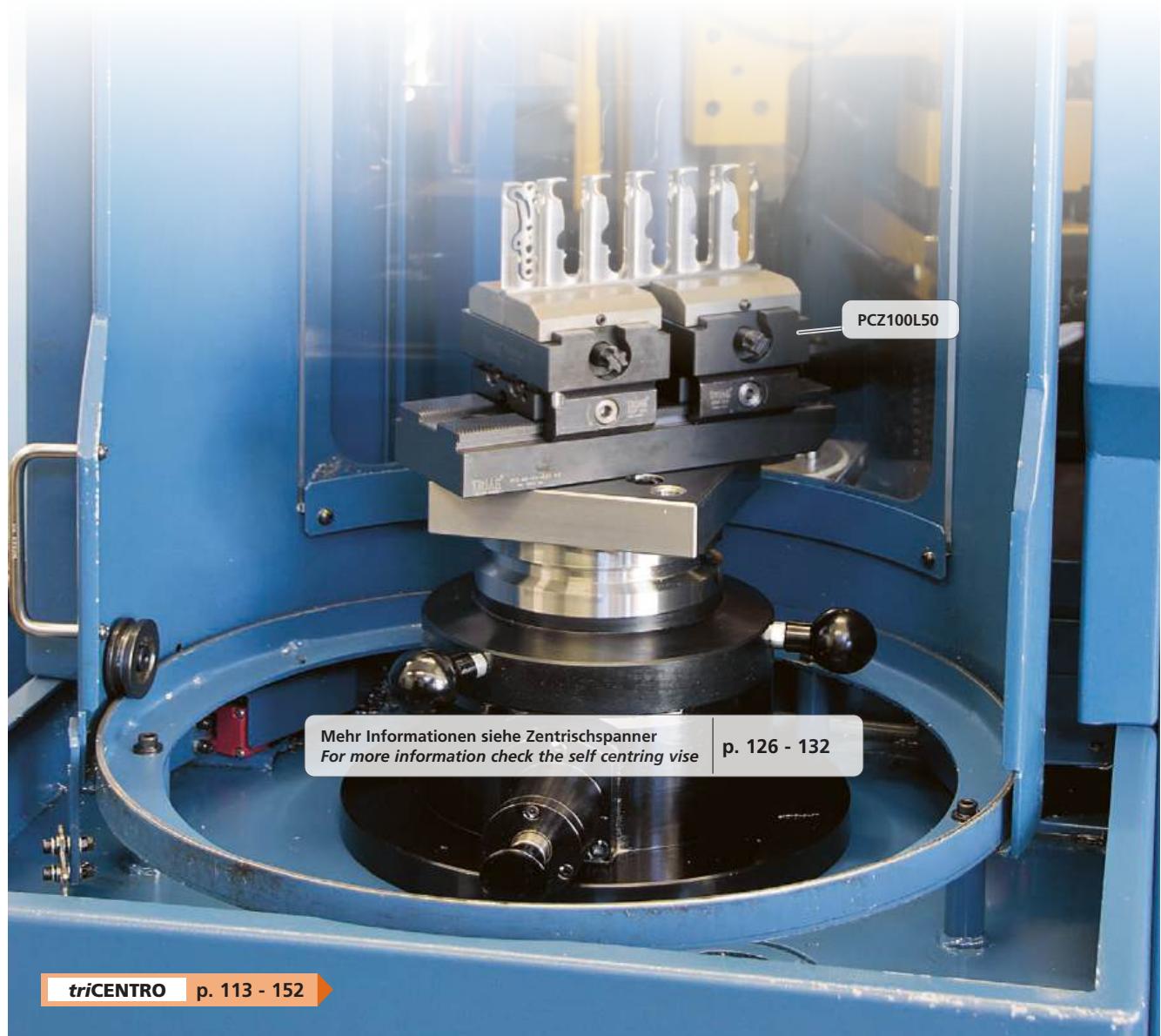
powerCLAMP



trivaCLAMP p. 318

Bestellbeispiel / Ordering example: PS1X150L60-VAC

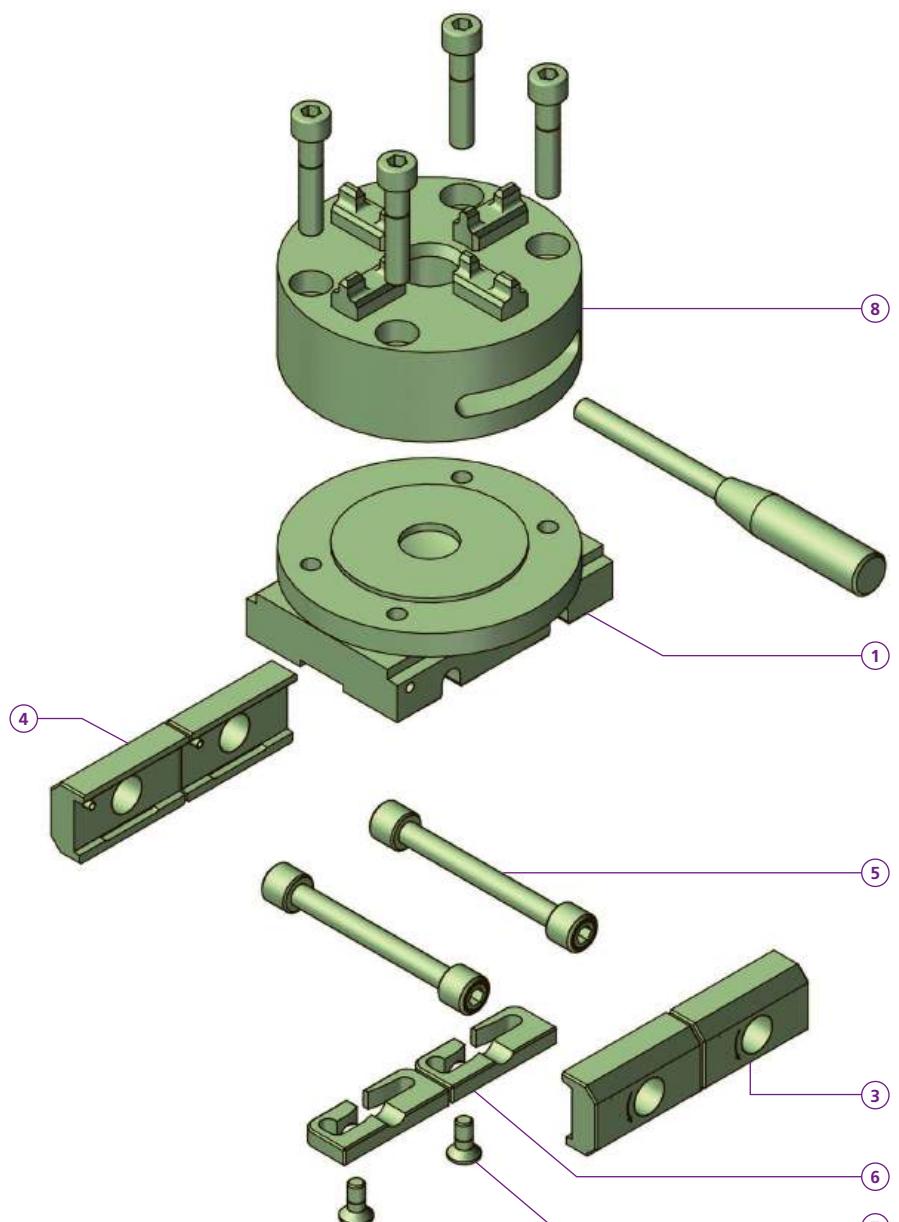
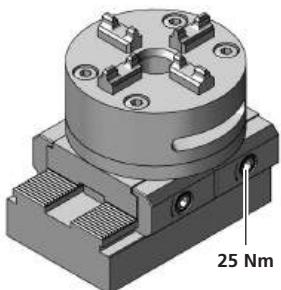
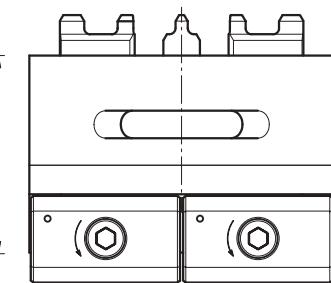
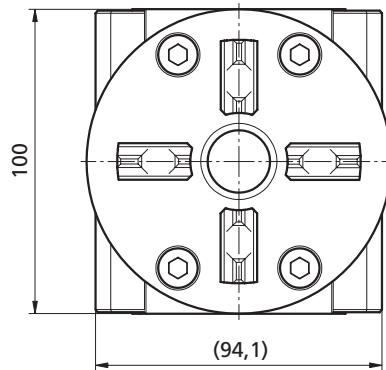
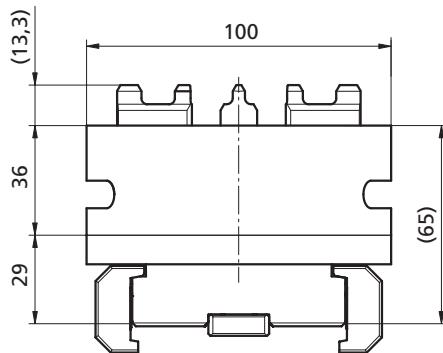
Mehr Informationen siehe Vacuum
For more information check the vacuum workholding



Trägermodul zu Erowa Spannfutter
Support base to Erowa collet chuck

PS1X100-65ER-036345

5 axes
powerCLAMP



PS1X100-65ER-036345

- ① 1x PTX100-29
 - ③ 2x PCSP50L
 - ④ 2x PCSP50R
 - ⑤ 2x PCS14
 - ⑥ 2x PCGU2049F
 - ⑦ 2x M6X14ISO10642
 - ⑧ 1x ER036345
- kg** ~4,0

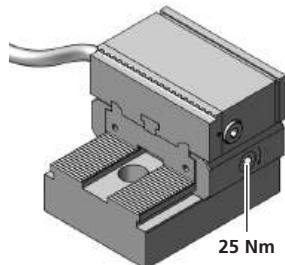
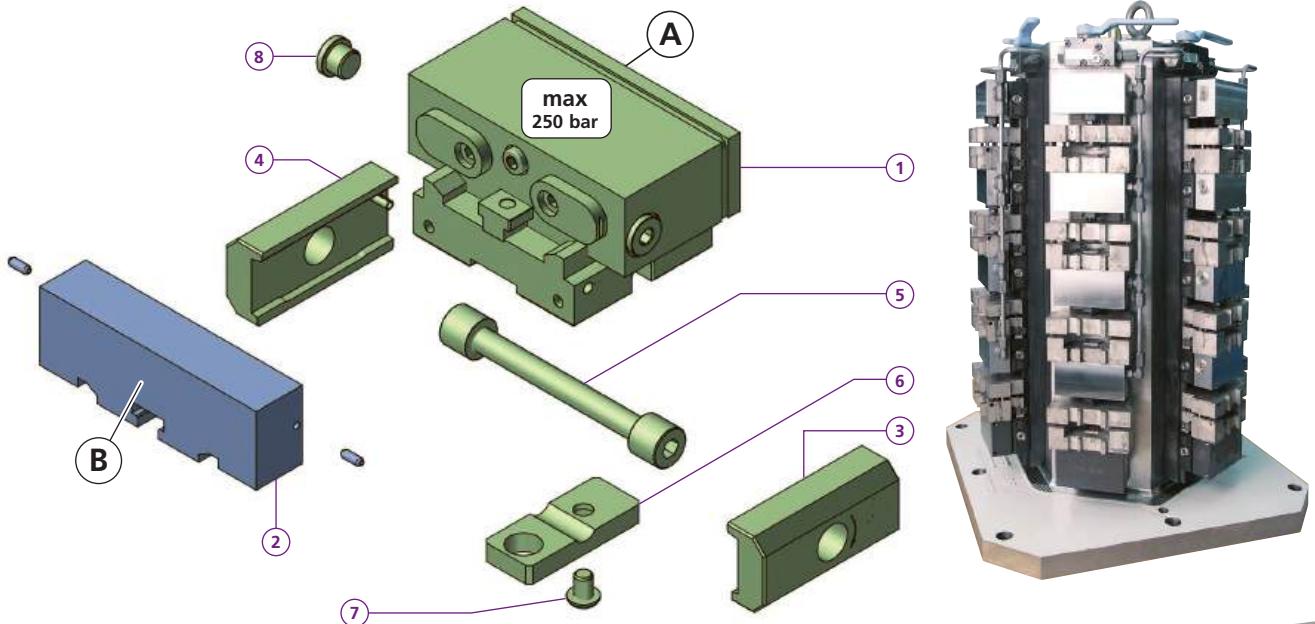
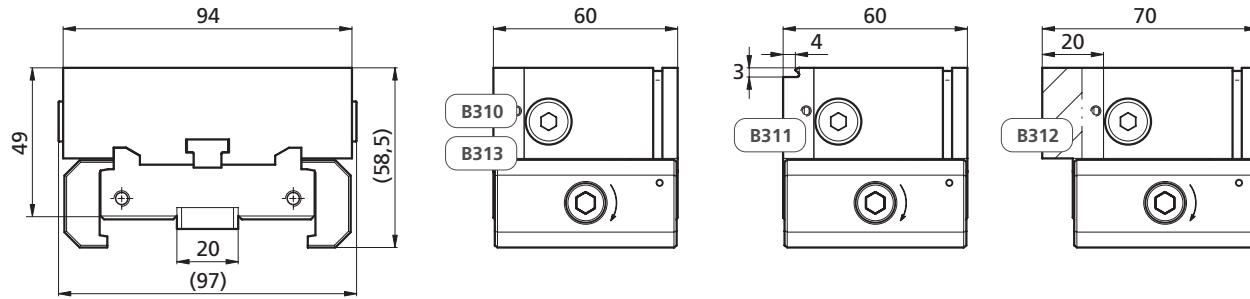
Bestellbeispiel / Ordering example: **PS1X100-65ER-036345**

Hydraulisches Spannmodul

Hydraulic clamping module

PSH1X94L49-310

5 axes
powerCLAMP



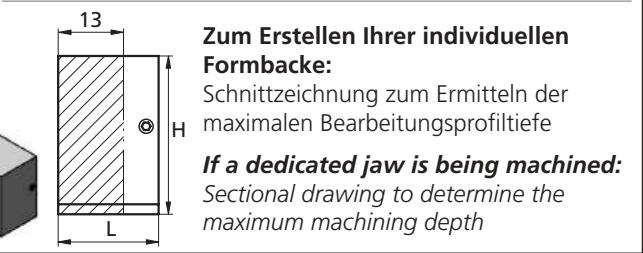
Ölvolumen / Oil volume			
Spannen / Clamping			
8 cm³			
5 mm Hub / Stroke			
bar	~daN	~(lb)	~t
100	= 960	2116	0,96
150	= 1'440	3175	1,44
200	= 1'920	4233	1,92
250	= 2'400	5291	2,4



Bestellbeispiel / Ordering example: PSH1X94L49-310 & 1 x B310

PSH1X94L49-310			
1	1x ZF191349		
2	1x —		
3	1x PCSP60R		
4	1x PCSP60L		
5	1x PCS14		
6	1x PCGU2049		
7	1x M6X8ISO7380		
8	2x TN100014		
kg	~1,94		

B	B310	B311	B312	B313	C	H	L	i
C	94	94	94	94				
H	31,5	31,5	31,5	31,5				
L	10	10	20	10				
i	HV700	57HRC	*	HV700				
x0,2mm	x0,2mm		x0,2mm	x0,2mm				
kg	~0,18	~0,17	~0,39	~0,17				



Zum Erstellen Ihrer individuellen Formbacke:

Schnitzeichnung zum Ermitteln der maximalen Bearbeitungsprofiltiefe

If a dedicated jaw is being machined:
Sectional drawing to determine the maximum machining depth

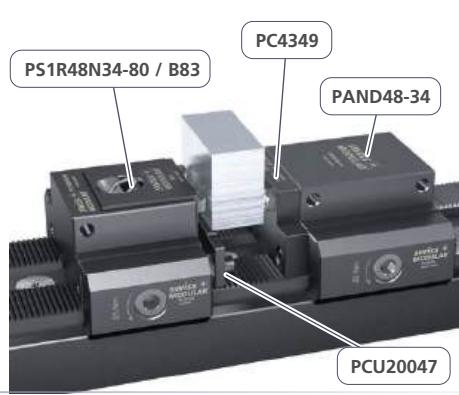
* = weich / soft (1.7225 Vergütungsstahl / Tempering steel)

für Hartmetalldruckstücke
for carbide grippers

Art. Nr.	kg	Y	X
PC4349	~0,21	43	49
PC4834	~0,17	48	34
PC12549	~0,46	125	49

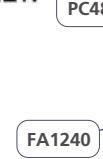


PC12549



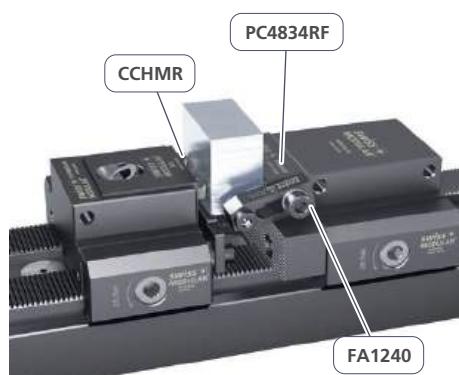
für Hartmetalldruckstücke und Fräsanschlag
for carbide grippers and milling buffer

Art. Nr.	kg	X
PC4834RF	~0,34	34
PC4849RF	~0,44	49
PC9434RF	~0,43	34
PC9449RF	~0,63	49



FA1240

PC9434RF



mit pendelnden Kugeldruckstücken
with swinging ball thrust grippers

Art. Nr.	kg
PC9460	~0,45
PC9460R	~0,45

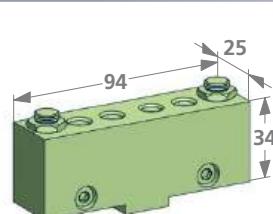


PC9460R



mit Prägeeinsätzen
with embossed inserts

Art. Nr.	kg
PC9434-25PRGM8	~0,64

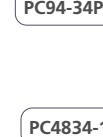


mit direkt-Prägezähnen und Spannstufen
with direct stamping teeth and clamping steps

Art. Nr.	kg	H
PC48-34PRG	~0,18	34
PC48-49PRG	~0,24	49
PC94-34PRG	~0,25	34
PC94-49PRG	~0,48	49
PC4834-15	~0,19	34
PC4849-15	~0,24	49



PC48-34PRG



PC94-34PRG

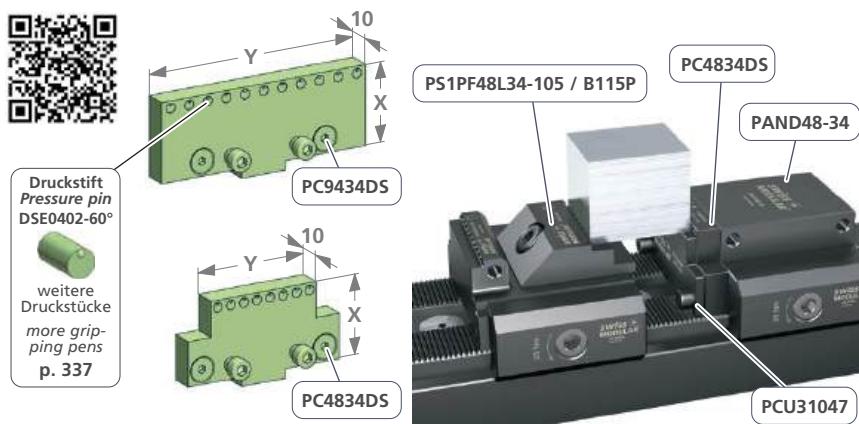


PC4834-15



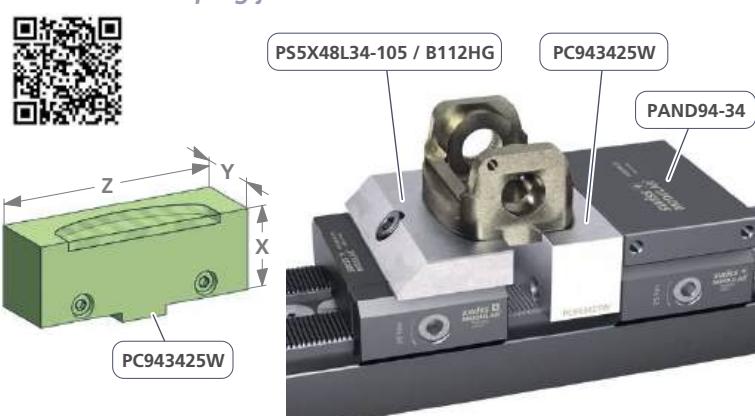
mit Druckstiften
with pressure pins

Art. Nr.	kg	Y	X
PC4349DS	~0,22	43	49
PC4834DS	~0,17	48	34
PC4849DS	~0,23	48	49
PC9434DS	~0,27	94	34
PC9449DS	~0,38	94	49
PC12549DS	~0,49	125	49



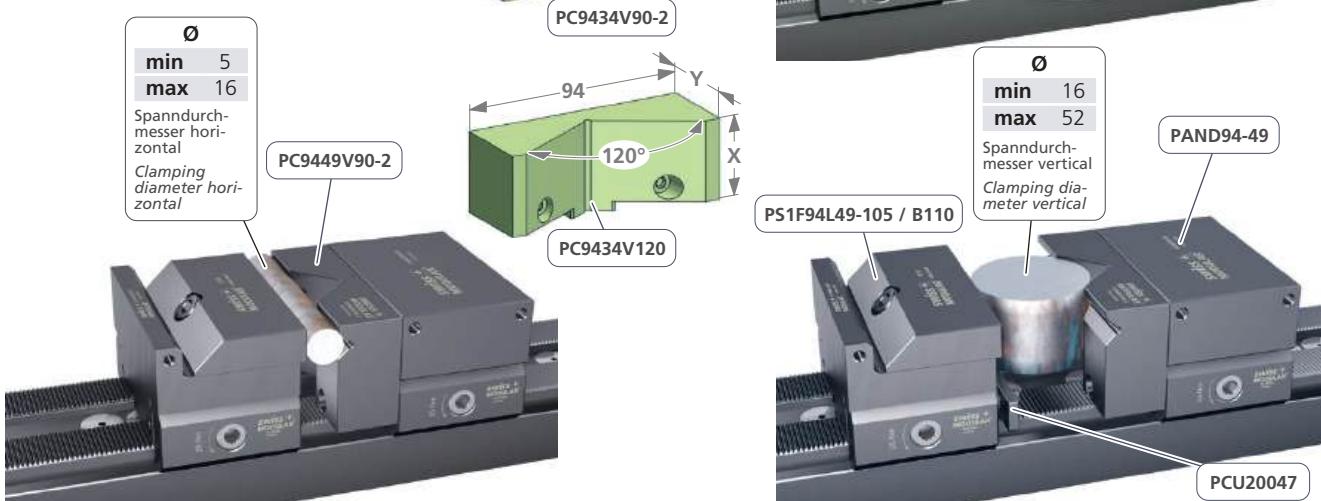
aus weichem Stahl, zur Herstellung Ihrer individuellen Backe
made of soft steel, for the production of your individual clamping jaw

Art. Nr.	i	kg	Z	Y	X
PC943425W	weicher Stahl soft steel (1.0570)	~0,64	94	25	34
PC943430W	weicher Stahl soft steel (1.0570)	~0,77	94	30	34
PC944930W	weicher Stahl soft steel (1.0570)	~1,10	94	30	49
PC1254930W	weicher Stahl soft steel (1.0570)	~1,46	125	30	49



in Prismiform
in prism form

Art. Nr.	kg	Y	X
PC9434V90-2	~0,58	28	34
PC9449V90-2	~0,58	28	49
PC9434V120	~0,62	35	34
PC9449V120	~0,89	35	49



Linearset

PCL4349N

PCL9449N

PCL12549N

PCL4834N

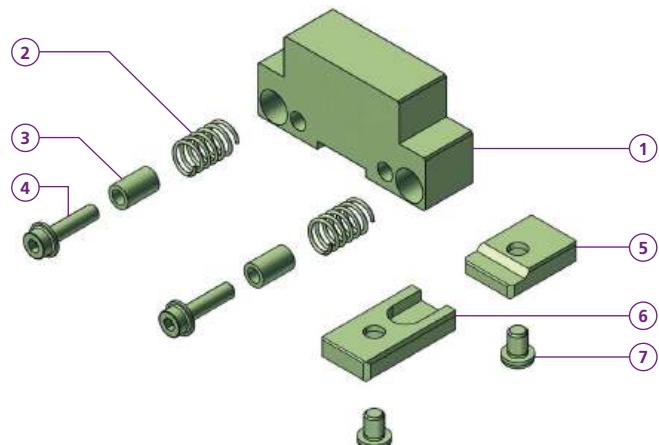
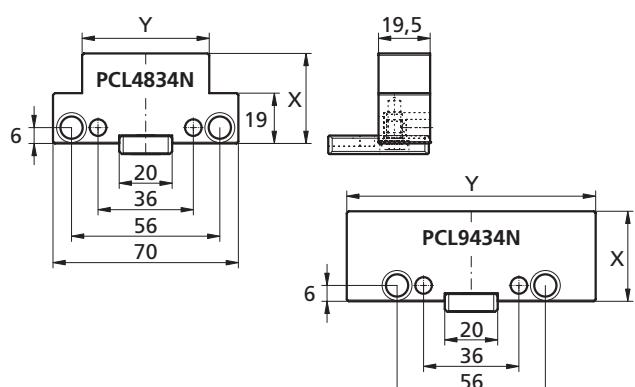
PCL9434N

BL-SET

powerCLAMP

Von Niederzug zu Linear!

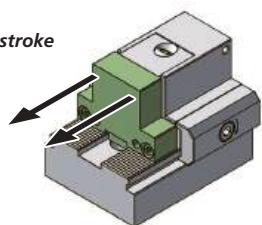
From pull down jaws to linear stroke!



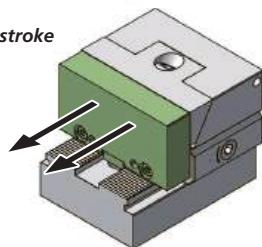
PCL4349N

- ① 1x TF140697
- ② 2x FED10175
- ③ 2x PCD0813
- ④ 2x M5X20BN1392
- ⑤ 1x PCGU2028
- ⑥ 1x PCGU2030LB
- ⑦ 2x M6X8ISO7380
- X = 49
- Y = 43
- kg ~0,43

Spannhub
Clamping stroke
0/+3,8



Spannhub
Clamping stroke
0/+3,8



PCL9449N

- ① 1x TF140700
- X = 49
- Y = 94
- kg ~0,74

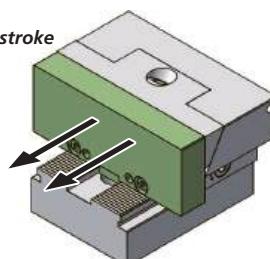
PCL12549N

- ① 1x T00317
- X = 49
- Y = 125
- kg ~0,97

PCL4834N

- ① 1x TF140698
- ② 2x FED10175
- ③ 2x PCD0813
- ④ 2x M5X20BN1392
- ⑤ 1x PCGU2028
- ⑥ 1x PCGU2030LB
- ⑦ 2x M6X8ISO7380
- ⑧ 1x M10X22ISO4762
- X = 34
- Y = 48
- kg ~0,35

Spannhub
Clamping stroke
0/+4,8



PCL9434N

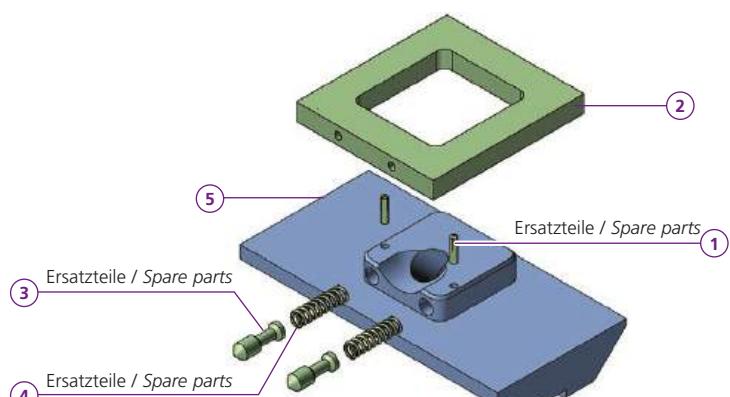
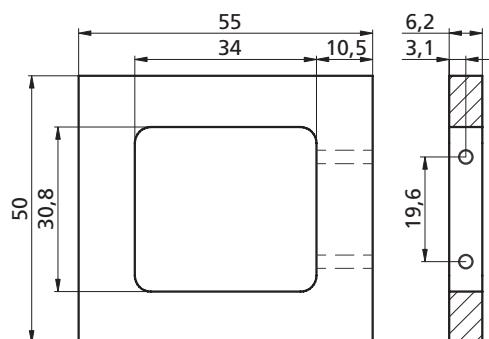
- ① 1x TF140699
- X = 34
- Y = 94
- kg ~0,52

Die Spannschraube ⑧ der 34 mm hohen Spannmodule müssen durch eine kürzere Schraube ausgetauscht werden!

The clamping screws ⑧ of the 34mm high clamping modules must be replaced by a shorter screw!

Bestellbeispiel / Ordering example: PCL4834N

Montagehilfe und Ersatzteile für Linearbacken Assembling tool for linear jaws and spare parts



BL-SET

- ① 2x TN100823
- ② 1x TK160609
- ③ 2x PCRB0516
- ④ 2x TN100614
- ⑤ 1x _____
- kg ~0,08

p. 84, 85

Alle Linearbacken
All linear jaws

Version mit Stiften / Version with pins

ab August / as of August 2018

Montageanleitung siehe Video
Assembly instructions see video

Version mit Kugeln / Version with balls

vor August / before August 2018



Separat bestellen / Order separately

Click-Flex

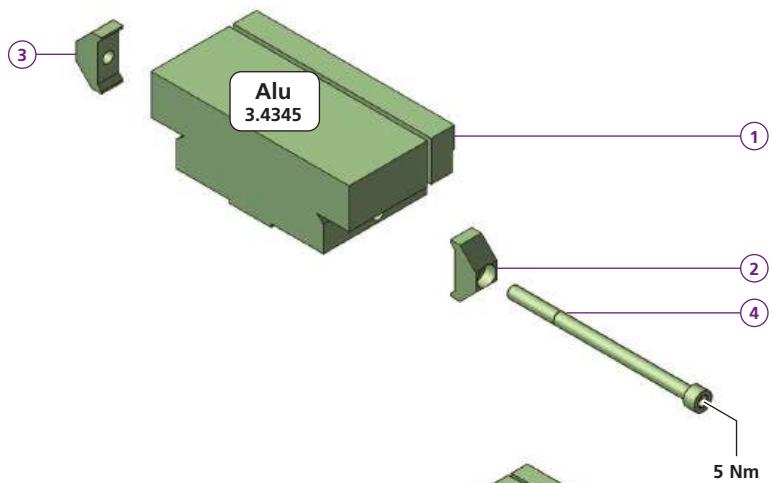
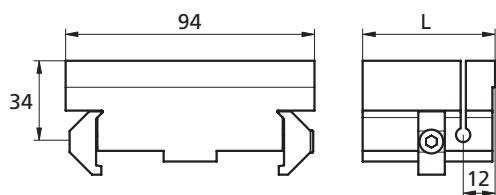
PCFX30

PCFX35

PCFX50

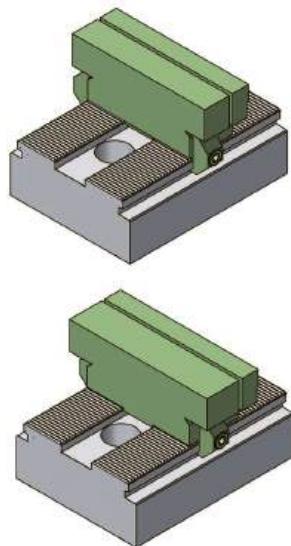
PCFX70

powerCLAMP



PCFX30	
(1)	1x TF140702
(2)	1x PCSP10B
(3)	1x PCSP10G
(4)	1x M5X85ISO4762
L	= 30
kg	~0,27

PCFX35	
(1)	1x TF140703
L	= 35
kg	~0,31

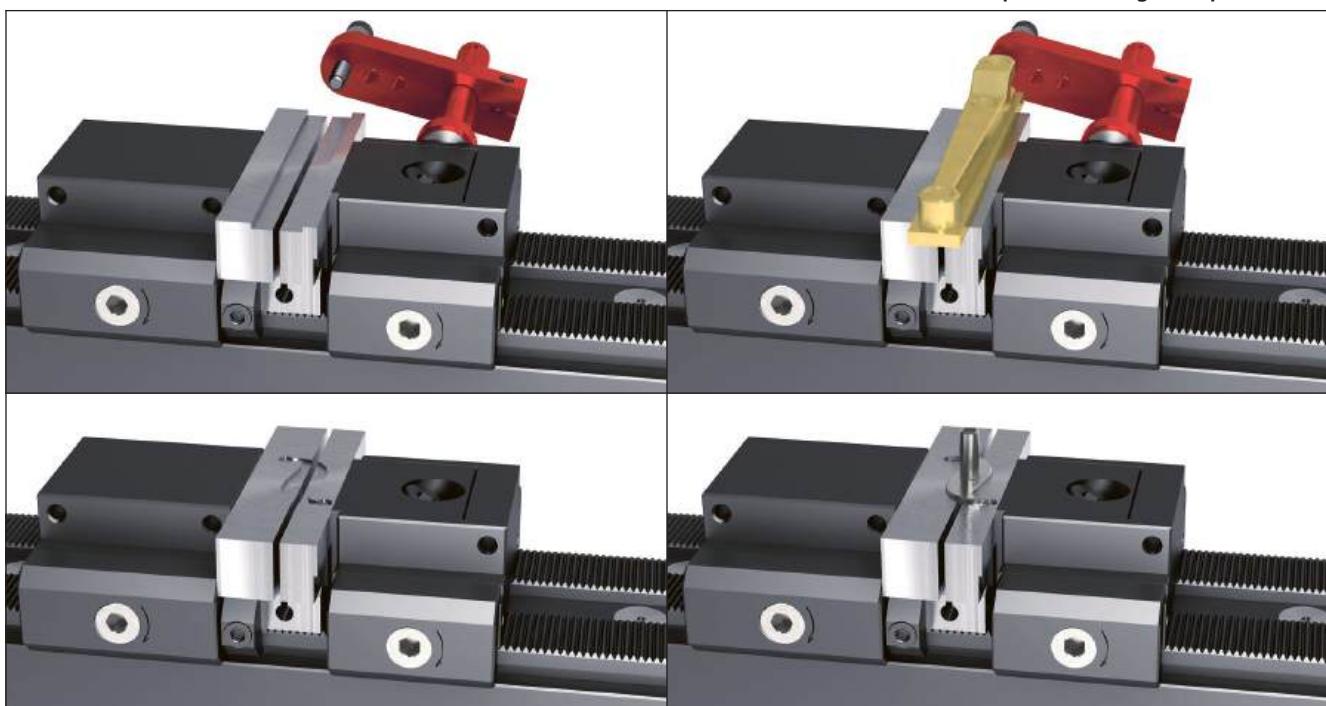


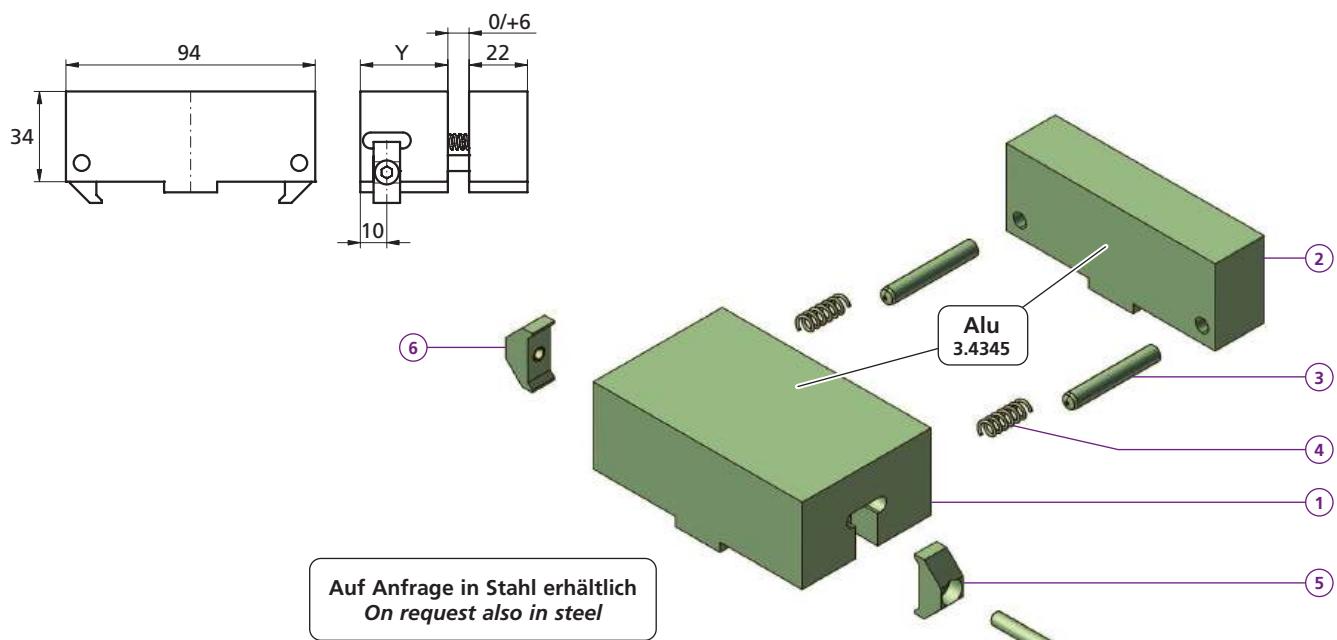
PCFX50	
(1)	1x TF140704
(2)	1x PCSP10B
(3)	1x PCSP10G
(4)	1x M5X85ISO4762
L	= 50
kg	~0,45

PCFX70	
(1)	1x TF140705
L	= 70
kg	~0,62

Auf Anfrage in Stahl erhältlich
On request also in steel

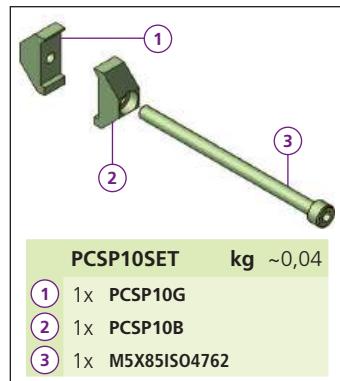
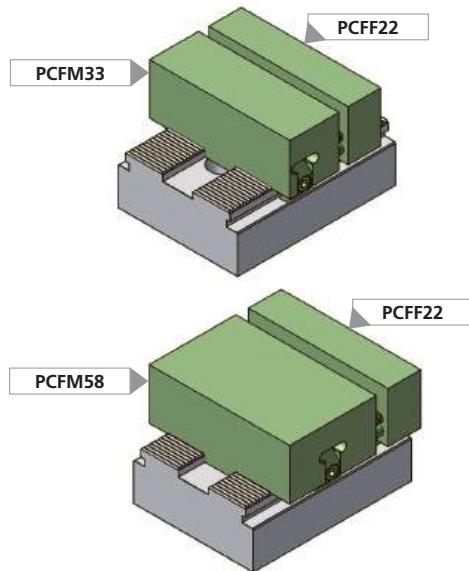
Bestellbeispiel / Ordering example: PCFX30





PCFM3322	
①	1x PCFM33
②	1x PCFF22
③	2x CCBO0801
④	2x FED0618
⑤	1x PCSP10B
⑥	1x PCSP10G
⑦	1x M5X85ISO4762
Y =	33
kg	~0,52

PCFM5822	
①	1x PCFM58
Y =	58
kg	~0,75

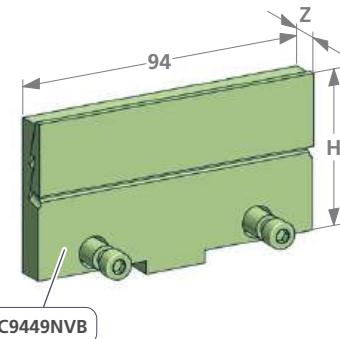
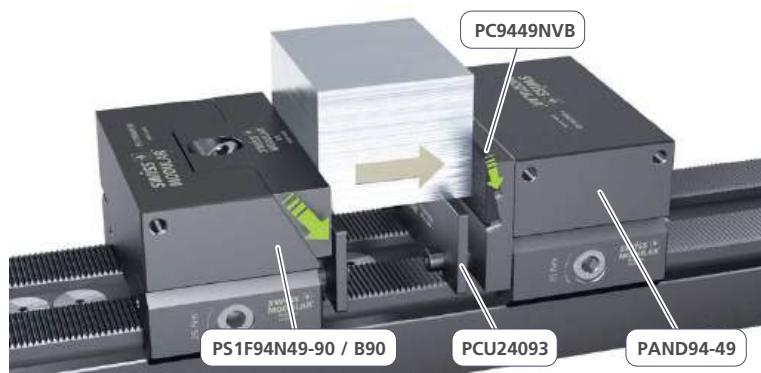


Bestellbeispiel / Ordering example: PCFM3322

Anschlagbacke flach Jaw flat stop			Unterlagen gehärtet und geschliffen Parallels hardened and ground		
B	H	kg	B	H	kg
56	6,7		56	6,7	
56	34	~0,11	56	20	~0,06
56	49	~0,14	56	24	~0,08
56	29	~0,09	56	31	~0,10
56	34	~0,11	56	39	~0,12
56	44	~0,14	56	46	~0,14
56	37	~0,15	56	37	~0,15

Niederzugbacken für die Anschlagseite
Pull-down jaws for the solid reference face

Art. Nr.	kg	H	z
PC9434NVB	~0,24	49,8 – 49	10,21 – 10
PC9449NVB	~0,35	34,8 – 34	10,21 – 10

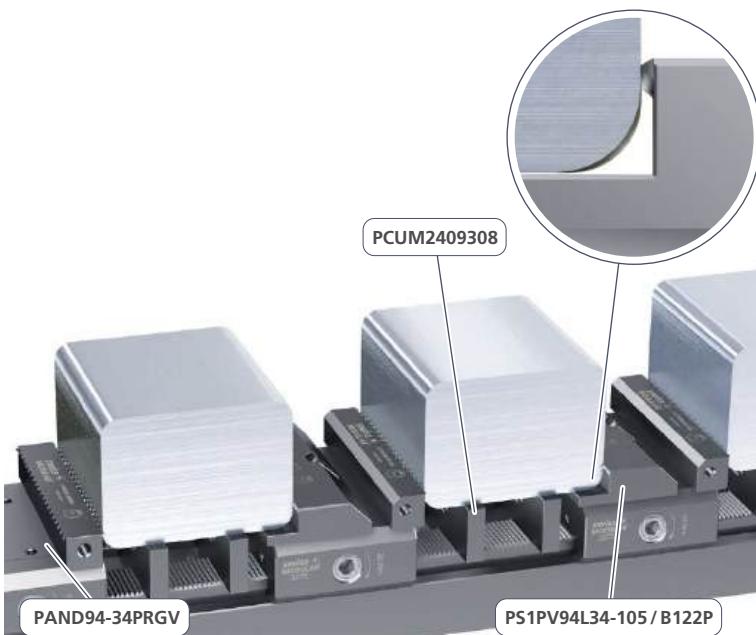
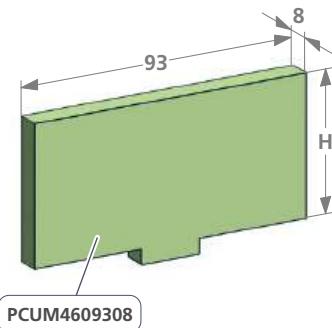


Die Niederzugbacke dient um einen zusätzlichen Niederzug-Klemmdruck auf der Anschlagseite zu erhalten.

The pull-down jaw is used to obtain an additional pull-down clamping pressure on the end module side.

Magnetische Parallelunterlagen
Magnetic steel parallels

Art. Nr.	kg	H
PCUM1409308	~0,09	14
PCUM2009308	~0,13	20
PCUM2409308	~0,15	24
PCUM2909308	~0,18	29
PCUM3109308	~0,20	31
PCUM3409308	~0,21	34
PCUM3909308	~0,24	39
PCUM4409308	~0,27	44
PCUM4609308	~0,28	46



Mit diesen magnetischen Parallelunterlagen ist die Positionierung auf der Basisschiene frei wählbar. Bei Werkstücken mit grösseren Rundungen sind die Spannbacken B122P / B123P zusammen mit den Anschlagmodulen PAND94-34PRGV / PAND94-49PRGV bestens geeignet.

With these magnetic steel parallels, the positioning on the base rail is freely selectable. For workpieces with larger curves, the clamping jaws B122P / B123P together with the end modules PAND94-34PRGV / PAND94-49PRGV are best suited.

Parallelunterlage

Steel parallels

powerCLAMP

19mm	B	H	kg	34mm	B	H	kg	48mm	B	H	kg	61mm	B	H	kg	94mm	B	H	kg
PCU20018	18	20	~0,04	PCU20033	33	20	~0,04	PCU20047	47	20	~0,04	PCU20060	60	20	~0,04	PCU14093	93	14	~0,04
PCU24018	18	24	~0,04	PCU24033	33	24	~0,05	PCU24047	47	24	~0,05	PCU24060	60	24	~0,05	PCU20093	93	20	~0,06
PCU29018	18	29	~0,05	PCU29033	33	29	~0,05	PCU29047	47	29	~0,05	PCU29060	60	29	~0,06	PCU24093	93	24	~0,07
PCU31018	18	31	~0,05	PCU31033	33	31	~0,05	PCU31047	47	31	~0,05	PCU31060	60	31	~0,06	PCU29093	93	29	~0,09
PCU34018	18	34	~0,05	PCU34033	33	34	~0,06	PCU34047	47	34	~0,07	PCU34067	67	20	~0,04	PCU34093	93	34	~0,10
PCU39018	18	39	~0,05	PCU39033	33	39	~0,06	PCU39047	47	39	~0,07	PCU39067	67	24	~0,05	PCU39093	93	39	~0,11
PCU44018	18	44	~0,05	PCU44033	33	44	~0,07	PCU44047	47	44	~0,08	PCU44067	67	29	~0,06	PCU44093	93	44	~0,12
PCU46518	18	46,5	~0,06	PCU46033	33	46	~0,06	PCU46047	47	46	~0,08	PCU46067	67	31	~0,07	PCU46093	93	46	~0,14
26mm	B	H	kg	43mm	B	H	kg	58mm	B	H	kg	61mm	B	H	kg	94mm	B	H	kg
PCU20025	25	20	~0,04	PCU20042	42	20	~0,04	PCU20057	57	20	~0,04	PCU20077	77	20	~0,05	PCU20124	124	20	~0,08
PCU24025	25	24	~0,05	PCU24042	42	24	~0,05	PCU24057	57	24	~0,05	PCU24077	77	24	~0,06	PCU24124	124	24	~0,09
PCU29025	25	29	~0,05	PCU29042	42	29	~0,05	PCU29057	57	29	~0,06	PCU29077	77	29	~0,07	PCU29124	124	29	~0,11
PCU31025	25	31	~0,05	PCU31042	42	31	~0,06	PCU31057	57	31	~0,06	PCU31077	77	31	~0,08	PCU31124	124	31	~0,12
PCU34025	25	34	~0,05	PCU34042	42	34	~0,06					PCU34077	77	34	~0,08	PCU34124	124	34	~0,13
PCU39025	25	39	~0,06	PCU39042	42	39	~0,07					PCU39077	77	39	~0,09	PCU39124	124	39	~0,15
PCU44025	25	44	~0,06	PCU44042	42	44	~0,07					PCU44077	77	44	~0,11	PCU44124	124	44	~0,17
PCU46525	25	46,5	~0,06	PCU46042	42	46	~0,08					PCU46124	124	46	~0,18				

