

.....
ATTREZZATURE
SPECIAL TOOLS
AUSRÜSTUNG

.....
TORNITURA
TURNING
DREHEN

.....
RETTIFICA
GRINDING
SCHLEIFEN

.....
CONTROPUNTE FISSE
FIXED TAILSTOCKS
ZENTRIERSPITZEN

.....
DENTATURA
GEAR CUTTING
VERZÄHNUNG



Il nostro ufficio tecnico è a disposizione per eventuali chiarimenti e disponibile per la progettazione di attrezzature speciali.

I disegni tecnici non sono in scala;
le misure sono espresse in millimetri.

Nuova PTM si riserva il diritto di modificare senza preavviso le caratteristiche del presente catalogo;

Tutti i diritti sono riservati.
È fatto espresso divieto di qualunque riproduzione totale o parziale del presente catalogo.

.....
Our technical office is at your disposal for any clarifications and for the engineering of special tools.

*The technical drawings are not to scale;
all measurements are expressed in mm.*

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.....
Unsere Technikabteilung steht bei allen eventuellen Fragen, sowie zur Gestaltung von Spezialausrüstungen zur Verfügung.

Die technischen Zeichnungen sind nicht maßstäblich ausgeführt. Die Maße sind in Millimetern ausgedrückt.

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NUOVA PTM, la progettazione

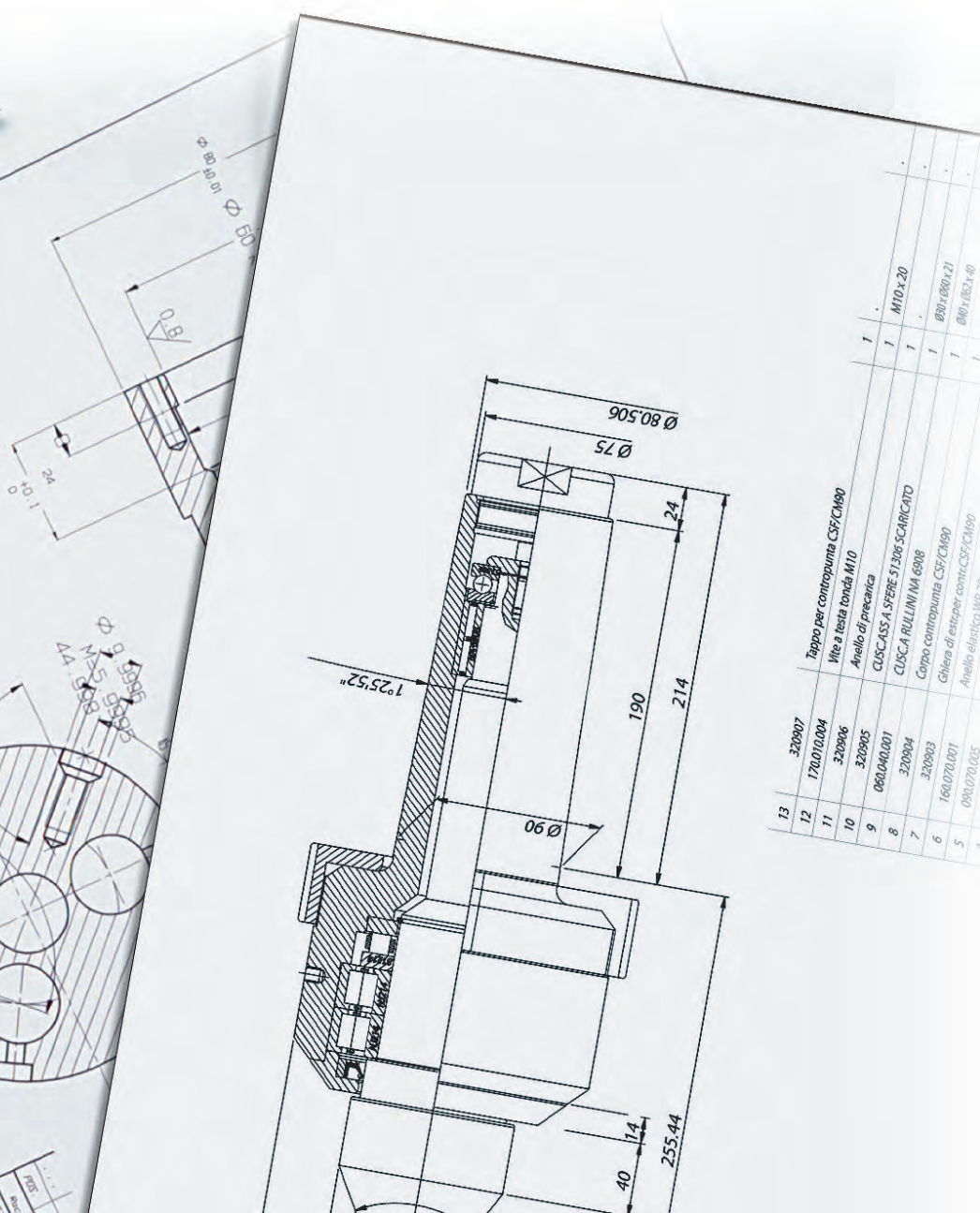
L'esperienza, abbinata all'utilizzo di software specifici, ci permette di proporre attrezzature con uno standard qualitativo veramente elevato e di essere in grado di poter soddisfare le richieste dei nostri Clienti con rapidità e serietà.

NUOVA PTM, engineering

Our experience, combined with the use of specific software, means that we are able to propose equipment with a really high standard of quality and to satisfy the requirements of our clients quickly and professionally.

NUOVA PTM, die Projektierung

Die Erfahrung ermöglicht es uns in Kombination mit dem Einsatz spezifischer Software, Ausrüstungen mit einem wirklich hohen Qualitätsstandard anzubieten und versetzt uns in die Lage, schnell und seriös Lösungen anzubieten und auf unsere Kunden einzugehen.





NUOVA PTM qualità e marketing

L'azienda deve il suo successo all'ottimo rapporto qualità/prezzo, alla disponibilità del materiale ed alla filosofia professionale che da anni la contraddistingue sul mercato.

NUOVA PTM quality and marketing

The company owes its success to the excellent quality/price ratio, to the availability of material and to our professional philosophy which for many years have been our distinguishing features.

NUOVA PTM Qualität und Marketing

Das Unternehmen dankt seinen Erfolg dem optimalen Preis-/Leistungsverhältnis, der Verfügbarkeit des Materials und der professionellen Philosophie, die es seit Jahren auf dem Markt auszeichnet.





NUOVA PTM per l'Europa

Con una rete commerciale ormai affermata, siamo entrati nei più importanti mercati europei, consolidando sempre di più, l'elevata qualità dei nostri prodotti e la continuità nella distribuzione.

NUOVA PTM for Europe

Thanks to a well-established sales network we have penetrated the main European markets, confirming the high quality of our products and distribution continuity.

NUOVA PTM für Europa

Mit einem schon lange etablierten Vertriebsnetz haben wir die größten europäischen Märkte erreicht und dabei immer mehr die hohe Qualität unserer Produkte, sowie die Kontinuität im Vertrieb konsolidiert.





NUOVA PTM, la produzione

Tutti i prodotti provengono dalle nostre officine e questo garantisce alla Clientela una produzione sempre controllata con qualità e puntualità nel servizio.

NUOVA PTM, production

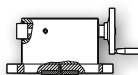
All our products are manufactured in-house, guaranteeing our clients production control, quality and punctuality.

NUOVA PTM, die Produktion

Alle Produkte kommen aus unseren Werkstätten, und dies garantiert der Kundschaft eine stets kontrollierte Qualitätsproduktion mit pünktlichem Service.



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CATALOGUE SECTIONS
KATALOGABSCHNITTE



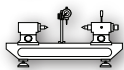
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Supporto contropunta
Tailstock support
Unterstützung Reitstock



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Mandrini ad espansione e anelli di registro
Cartridge mandrel and alignment ring
Hülzenspanndorne und Ausrichttring



03 ▶

Strumenti di controllo
Control instruments
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04 ▶

Attrezzature speciali
Special tools
Spezialausrüstungen

ATTREZZATURE
SPECIAL TOOLS
AUSRÜSTUNG



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Contropunte rotanti - Carichi medi
Live centers - Medium loads
Mitlaufende Spitzen - Mittlere Belastung



06 ▶

Contropunte rotanti - Carichi elevati
Live centers - Heavy loads
Mitlaufende Spitzen - Hohe Belastung



07 ▶

Contropunte rotanti con carico assiale variabile
Variable axial load live centers
Körnerspitze mit variabler Axiallast bilden



08 ▶

Trascinatori frontali
Face drivers
Stirnseiten mitnehmer



09 ▶

Cassette complete
Complete kits
Spannmittelsätze mit Kasten

TORNITURA
TURNING
DREHEN



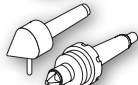
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Live centers
Mitlaufende Spitzen



11 ▶

Contropunte rotanti ad alta velocità
High speed live centers
Mitlaufende Hochgeschwindigkeits Körnerspitze



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RETIFICA
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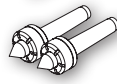
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CONTROPUNTE FISSE
DEAD CENTERS
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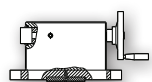


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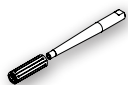
Trascinatori per dentatrici, attacchi, ...
Drivers for gear cutters, couplings, ...
Mitnehmer für die Verzahnung, Verbindungen, ...

DENTATURA
GEAR CUTTING
VERZAHNUNG

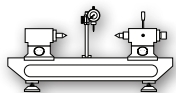
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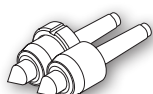


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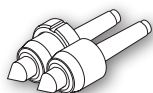


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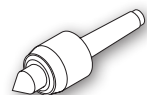
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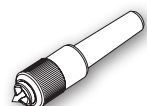
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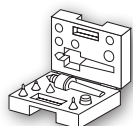
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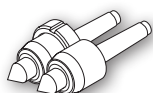


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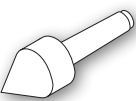
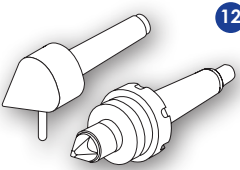
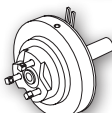


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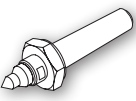
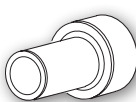
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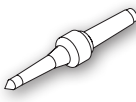
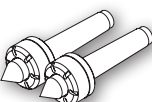
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On request also MEASUREMENT TOOLS catalogue
Anfrage auch der Katalog MESSGERÄTE





In questo catalogo viene presentata tutta la produzione Nuova PTM. I prodotti sono divisi per tipologia a cui corrisponde un codice di ingresso (ad esempio CN, o WK, ecc...). Il codice completo contraddistingue il modello specifico rappresentato.

The entire PTM production range is presented in this catalogue. The products are divided according to type, each identified by a code (e.g. CN, WK, etc.). The complete code identifies the specific model illustrated.

In diesem Katalog wird die gesamte Produktion von Nuova PTM vorgestellt. Die Produkte sind nach Typologie gegliedert, der jeweils ein Eingangscode entspricht (zum Beispiel CN oder WK usw...). Der vollständige Code identifiziert das spezifisch dargestellte Modell.

Nome del prodotto e specifica del cono morse
Name of the product and taper specifications
Name des Produkts und Spezifikation des Morsekegels

Descrizione tipologie di prodotti
Product type description
Beschreibung der Produkttypologie

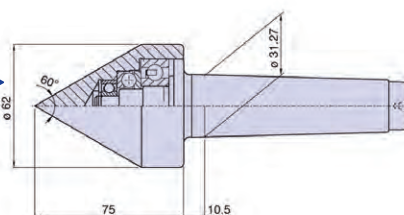
Rappresentazione tecnica del prodotto
Technical representation of the product
Technische Darstellung des Produkts

Capitolo
Chapter
Kapitel

Codice generale di ingresso prodotto
General product identification code
Allgemeiner Produktteingangscode

07 RETIFICA
TYPE WK

Contropunta tipo WK4 (tipo normale) per cono morse 4
Tailstock type WK4 (standard) for taper 4
Körnerspitze Typ WK4 (Typ Normal) für Morsekegel 4

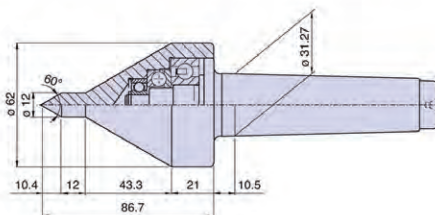


► Code 90204

Carico max	da N 1500
Max load	
Max belastung	
Eccentricità max	
Max eccentricity	mm 0,002
Max Rundlaufabweichung	
Giri/1'	7000
R.p.m.	
U/min	

Caratteristiche tecniche
Technical characteristics
Technische Eigenschaften

Contropunta tipo WK14 (tipo con codolo) per cono morse 4
Tailstock type WK14 (with shank) for taper 4
Körnerspitze Typ WK14 (Typ mit speziellen End-Teil) für Morsekegel 4

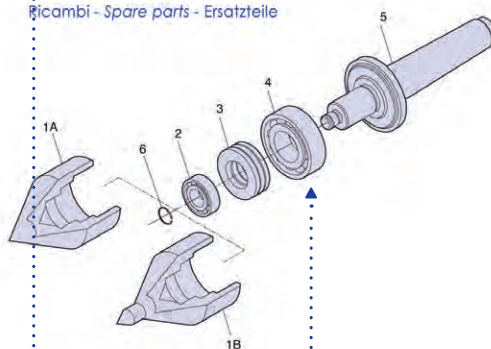


► Code 90214

Carico max	da N 1150
Max load	
Max belastung	
Eccentricità max	
Max eccentricity	mm 0,002
Max Rundlaufabweichung	
Giri/1'	7000
R.p.m.	
U/min	

Codice commerciale prodotto
Commercial product code
Produkt-Handelscode

Ricambi - Spare parts - Ersatzteile



94 GRINDING SCHLEIFEN

Settore
Sector
Sektors

Disegno esploso del prodotto
Exploded view of the product
Explosionszeichnung des Produkts

CODE	DENOMINATION	Q.TY
1A 902041	Testa Head - Kopf	1
1B 902141	Testa Head - Kopf	1
2 010010002	Cuscinetto Bearing - Lager	1
3 050017002	Cuscinetto Bearing - Lager	1
4 010020004	Cuscinetto Bearing - Lager	1
5 902042	Corpo Body - Körper	1
6 160010001	Anello Ring	1

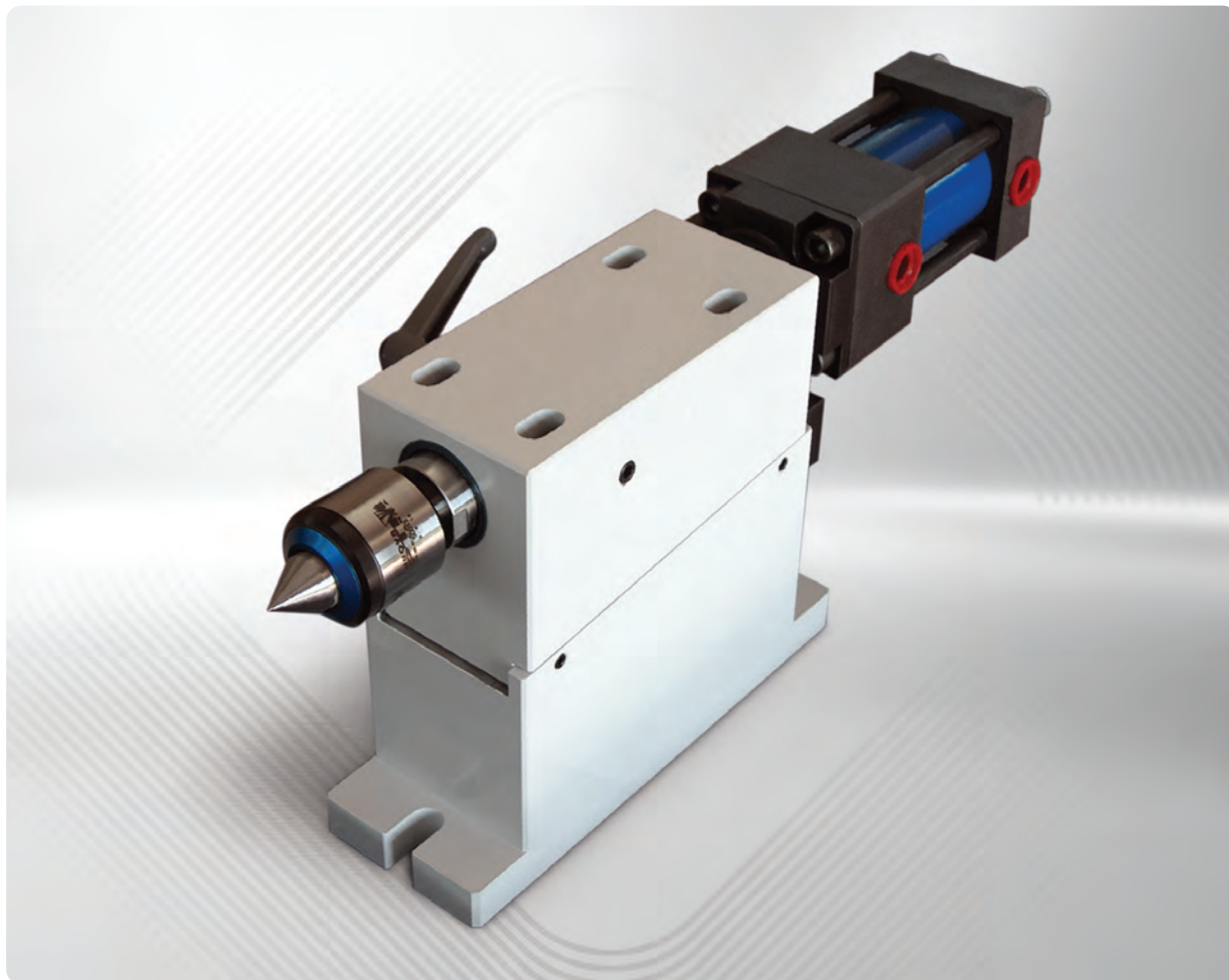
Elenco e codifica ricambi
Spare parts list and codes
Verzeichnis und Codierung der Ersatzteile

SU RICHIESTA ON REQUEST

Supporto contropunta

Tailstock support

Unterstützung Reitstock



Modelli realizzabili in versione manuale, idraulica e pneumatica.

Adatti ad ogni tipo di tavola, sia CNC che manuale, hanno un'elevata rigidità, una corsa standard della contropunta di 50mm e possono essere realizzate (a richiesta) con la possibilità di registrazione verticale e orizzontale per ottimizzare l'allineamento con il supporto abbinato. Le altezze della contropunta sono realizzate secondo la tabella riportata nella pagina seguente, ma si possono realizzare anche con misura specifica a richiesta del cliente.

Models workable in manual, hydraulic and pneumatic version.

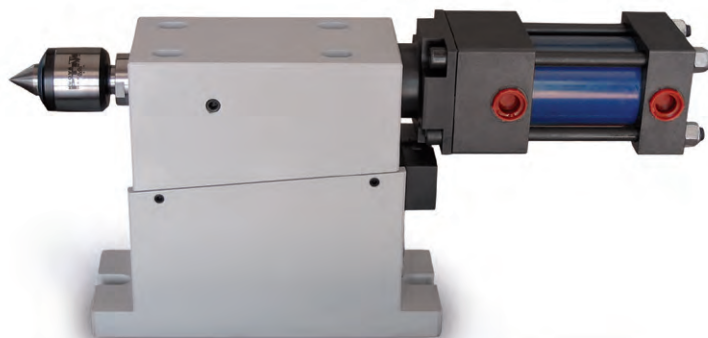
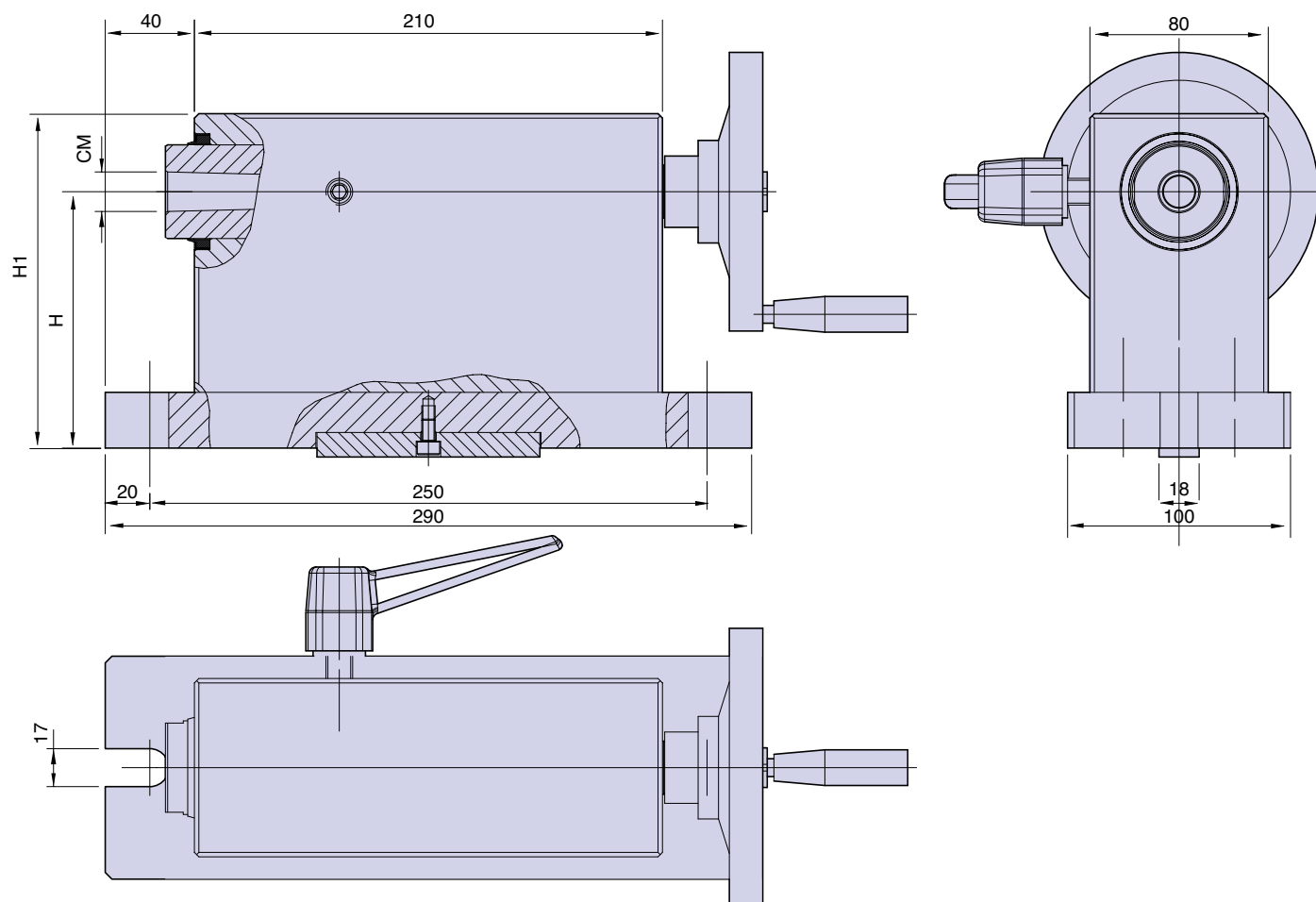
The tailstock-holder will be for any kind of rotating- table adaptable in CNC or manual version. They will have an high performed rigidity, a 50 mm standard running of the tailstock and may be used (on request) with the option of horizontal and vertical adjustment to optimize the alignment of the combined mech. support. The height of the tailstock will be manufactured according to the attached sheet and may be also customized on request.

Bearbeitbare Modelle im manuellen, hydraulischen und pneumatischen.

Sind fuer jeden Typen von Drehbrett geeignet weder in CNC noch manuell mit einer hoehen Starrheit und einem standard Lauf von 500 mm des Reitstocks.

Auf Anfrage koennen die Reitstock auch mit der Einstellung in waagrecht oder senkrecht Ausfuehrung hergestellt werden um die Anpassung mit der kombinierten Stuetze zu optimieren.

Die Hoehe der Reitstocken werden gemaess beigefuegter Tabelle oder auf Anfrage des Kundens mit spezifischen Massen hergestellt.

ALTEZZA FISSA | *FIXED HEIGHT* | FESTE HÖHEALTEZZA REGISTRABILE | *ADJUSTABLE HEIGHT* | HÖHENVERSTELLBAR

▶ Cono morse, Cono morse, Cono morse	H	H1	Code
2	115	150	0VM-001-115-00
2	125	160	0VM-001-125-00
2	132	167	0VM-001-132-00
3	170	205	0VM-001-170-00
3	185	220	0VM-001-185-00
4	210	245	0VM-001-210-00
4	255	290	0VM-001-255-00
4	300	335	0VM-001-300-00

SU RICHIESTA ON REQUEST

**Mandrini ad espansione
e anelli di registro**

**Cartridge mandrel and
alignment ring**

**Hülsenspanndorne
und Ausrichttring**



Queste spine sono realizzate per la lavorazione tra le punte e possono essere utilizzate per operazioni di tornitura, rettifica, bilanciamento e controllo pezzi. La spina centrale è dotata di un piano per l'eventuale applicazione di una brida di trascinamento. L'eccentricità massima garantita è di 0,01 mm. Di semplice utilizzo, queste attrezzature consentono di mantenere tempi di cambio pezzo contenuti.

Gli anelli vengono utilizzati per il corretto posizionamento dei creatori.

These pins are made for processing between points and can be used for turning, grinding, balancing and piece-check operations. The central pin has a surface usable for any application of a drive vice. The maximum guaranteed eccentricity is 0.01 mm. Easy to use, this tool keeps piece changeover times to a minimum.

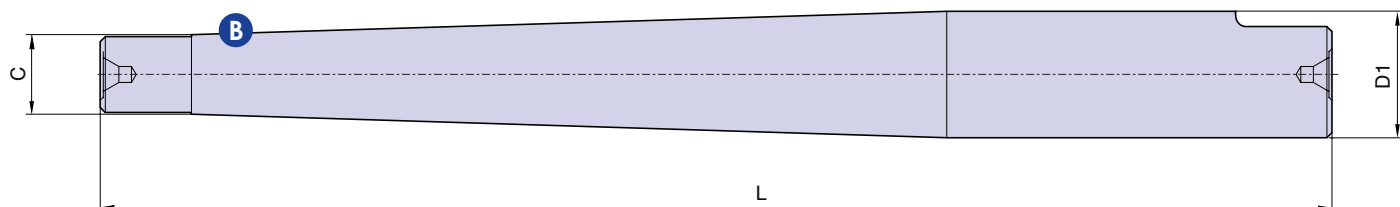
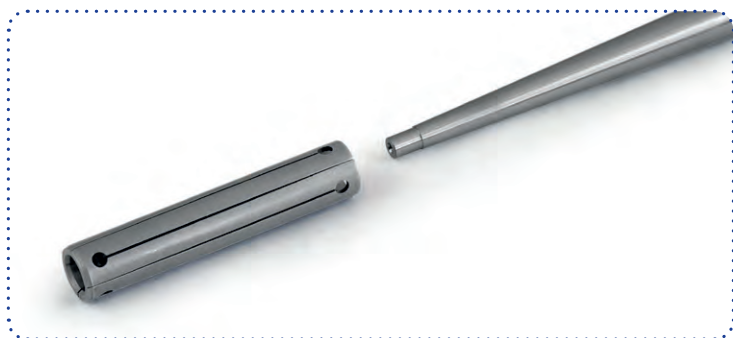
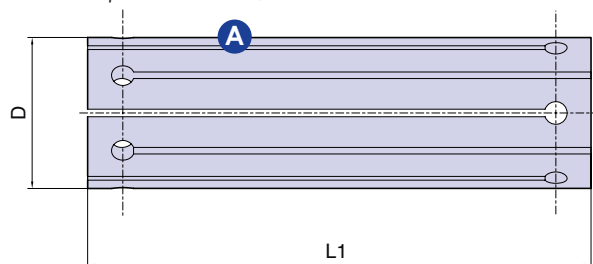
The rings are used to position the hobs correctly.

Diese Stifte sind zur Bearbeitung zwischen Spitzen ausgeführt und können verwendet werden für Dreh-, Schleif-, und Werkstückkontrollarbeiten. Der Mittelstift ist mit einer Aufnahme zur eventuellen Anbringung eines Drehherzes ausgestattet. Die garantierte maximale Exzentrizität beträgt 0,01 mm. Diese Ausrüstungen sind einfach zu bedienen und erlauben die Einhaltung niedriger Werkstückwechselzeiten.

Die Ringe werden für das korrekte Positionieren der Walzfräser eingesetzt.

Espansione: 1 ÷ 1,5 mm max

Expansion: 1 ÷ 1,5 mm max

**Indicazioni di utilizzo**

Per il corretto utilizzo posizionare il pezzo da lavorare al centro della pinza ad espansione, quindi farlo scorrere simultaneamente lungo la spina centrale fino a ottenere un primo bloccaggio. Per ottenere un serraggio, tenere saldamente in mano il pezzo da lavorare, quindi colpire la spina nella parte terminale della spina dal lato del piano per il trascinamento. Per ridurre al minimo il valore dell'eccentricità, pulire le superfici di contatto tra la spina e la pinza e i fori di centraggio. Per sbloccare il pezzo colpire la spina dal lato opposto.

Use directions

For correct use, position the piece to be processed at the centre of the expansion gripper, then slide it simultaneously along the central pin up to the first lock.

To tighten, hold the piece to be processed in your hand then hit the end of the pin from the drive surface side.

To reduce eccentricity to a minimum, clean the contact surface between the pin and the gripper and the centering holes. To release the piece, hit the pin from the opposite side.

Hinweise zur Bedienung

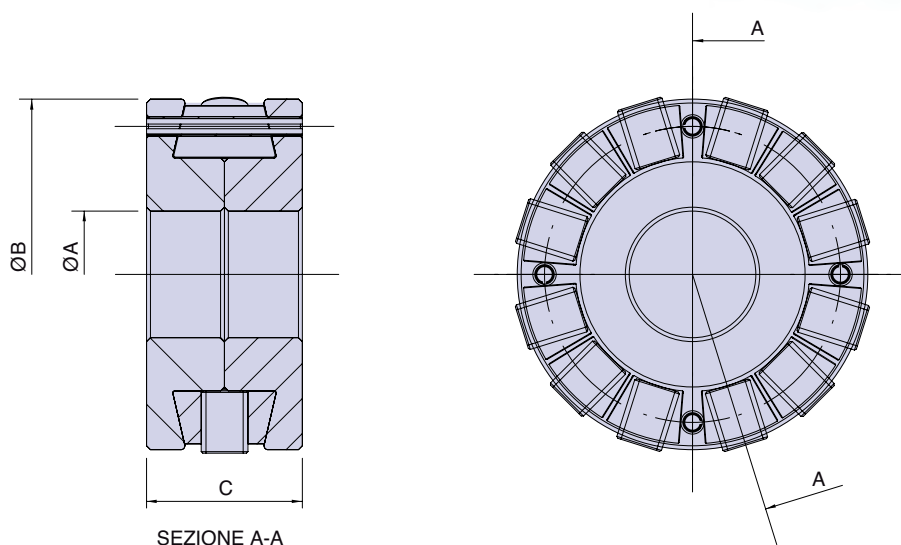
Positionieren Sie das Werkstück für eine korrekte Bearbeitung in der Mitte der Expansionszange und lassen es dann gleichzeitig den mittleren Bolzen entlang laufen, bis eine erste Einspannung erreicht ist. Zum Erhalt einer endgültigen Einspannung halten Sie das Werkstück fest in der Hand und stoßen anschließend den Bolzen im Endteil des Bolzens von der Seite der Mitnahme-fläche. Um den Exzentrizitätswert auf ein Minimum zu reduzieren, reinigen Sie die Kontaktoberflächen zwischen dem Bolzen und der Zange sowie die Zentrierbohrungen. Zur Freigabe des Werkstücks stoßen Sie den Bolzen von der gegenüberliegenden Seite.

A

Pinze - Clamps - Zange											
► Code	D = 8	D = 10	D = 12	D = 14	D = 16	D = 19	D = 22	D = 25	D = 35	D = 45	D = 55
	TBP08	TBP10	TBP12	TBP14	TBP16	TBP19	TBP22	TBP25	TBP35	TBP45	TBP55
► Code	D = 9	D = 11	D = 13	D = 15	D = 17	D = 20	D = 23	D = 26	D = 36	D = 48	D = 58
	TBP09	TBP11	TBP13	TBP15	TBP17	TBP20	TBP23	TBP26	TBP36	TBP48	TBP58
► Code					D = 18	D = 21	D = 24	D = 28	D = 38	D = 50	D = 60
					TBP18	TBP21	TBP24	TBP28	TBP38	TBP50	TBP60
► Code								D = 30	D = 40	D = 52	D = 62
								TBP30	TBP40	TBP52	TBP62
► Code								D = 32	D = 42	D = 54	D = 65
								TBP32	TBP42	TBP54	TBP65
► Code								D = 34	D = 44		
								TBP34	TBP44		

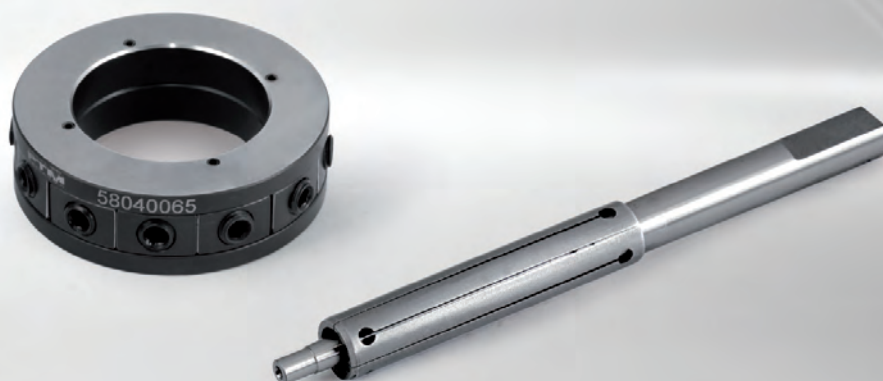
B

Spina - Pin - Bolzen												
D	From	8	10	12	14	16	19	22	25	35	45	55
	to	9	11	13	15	18	21	24	34	44	54	65
..... Peso pinza Gripper weight Zangengewicht	L1	40	45	60	70	70	80	80	100	100	125	135
	L	90	125	140	155	165	190	195	245	245	320	350
	D1	8	10	12	14	16	19	21	25	33	45	53
	C	4,1	5,5	5,9	7,1	8,6	10,5	12,2	14,4	22,5	30,6	37,7
.....>g		20	60	85	150	178	330	440	850	1200	3000	6000
> Code		TBS08	TBS10	TBS12	TBS14	TBS16	TBS19	TBS21	TBS25	TBS33	TBS45	TBS53



► Code	ØA	ØB	C
58016045	16	45	20
58016052	16	52	20
58022045	22	45	20
58022052	22	52	20
58022057	22	57	20
58027052	27	52	20
58027057	27	57	20
58027065	27	65	20
58032057	32	57	20
58032065	32	65	20
58032073	32	73	20
58040065	40	65	20

► Code	ØA	ØB	C
58040073	40	73	20
58040085	40	85	20
58050073	50	73	20
58050085	50	85	20
58050105	50	105	20
58060085	60	85	20
58060105	60	105	20
58060150	60	150	20
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58100150	100	150	20

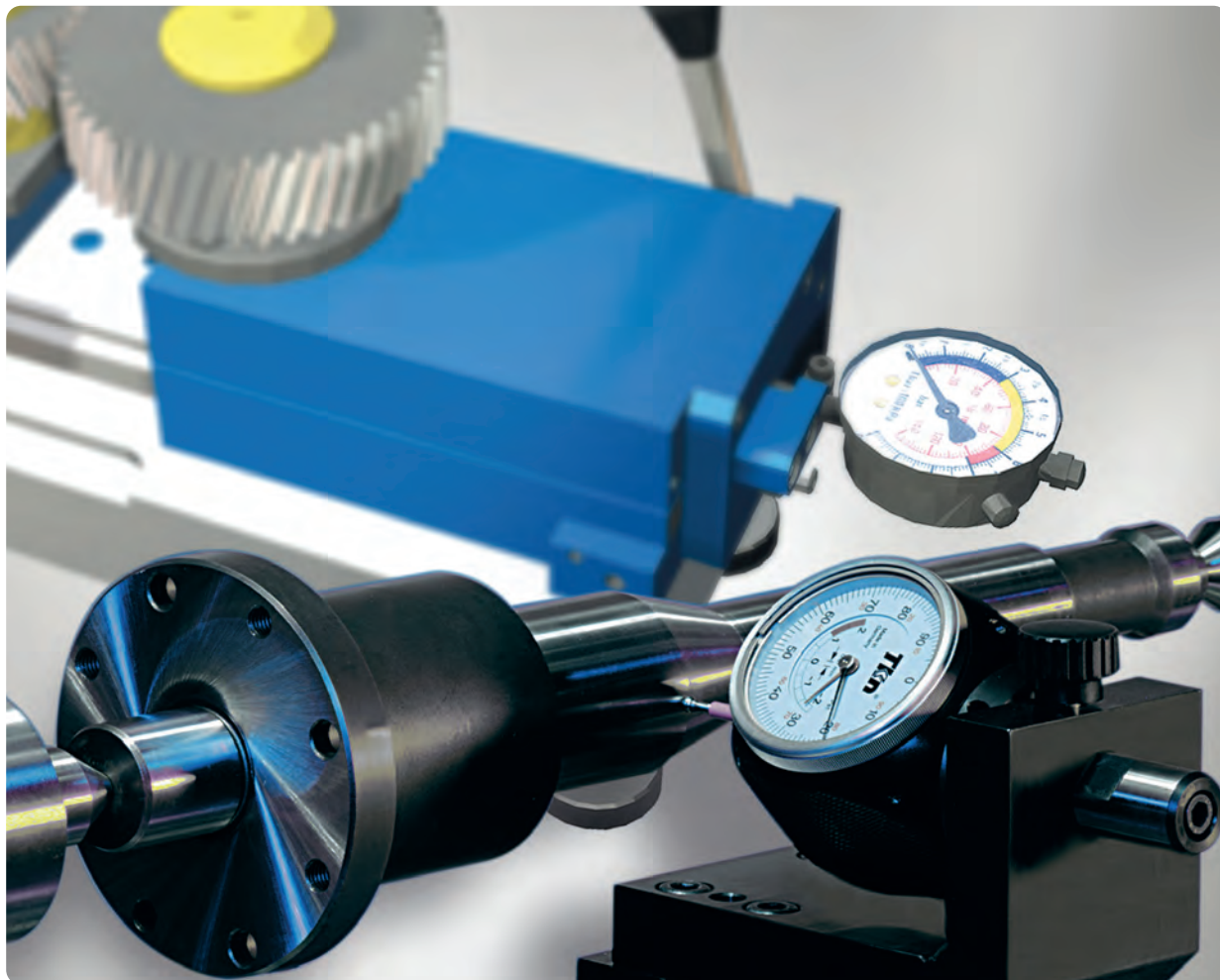


SU RICHIESTA ON REQUEST

Strumenti di controllo

Control instruments

Formprüfgeräte



La tecnologia per la lavorazione degli ingranaggi (dentatura, shaping, shaving, rettifica), richiede controlli tecnici di eccentricità costanti. Su richiesta possiamo fornire modelli di banchi equipaggiati con diverse strumentazioni di controllo, manuali o elettroniche.

The technology for processing gears (gear-cutting, shaping, shaving, grinding), requires constant technical eccentricity checks. On request we can supply bench models equipped with various control instruments, both manual and electronic.

Die Technologie zur Bearbeitung von Zahngetrieben (Zahnung, Shaping, Shaving, Schleifen) erfordert konstante technische Exzentrizitätskontrollen. Auf Anfrage können wir Werkbankmodelle liefern, die mit verschiedenen manuellen oder elektronischen Kontrollinstrumentierungen ausgestattet sind.

TESTING 2000 - Strumento di controllo eccentricità
 TESTING 2000 - Eccentricity control instrument
 TESTING 2000 - Formprüfgeräte der Rundlaufabweichung

► Code

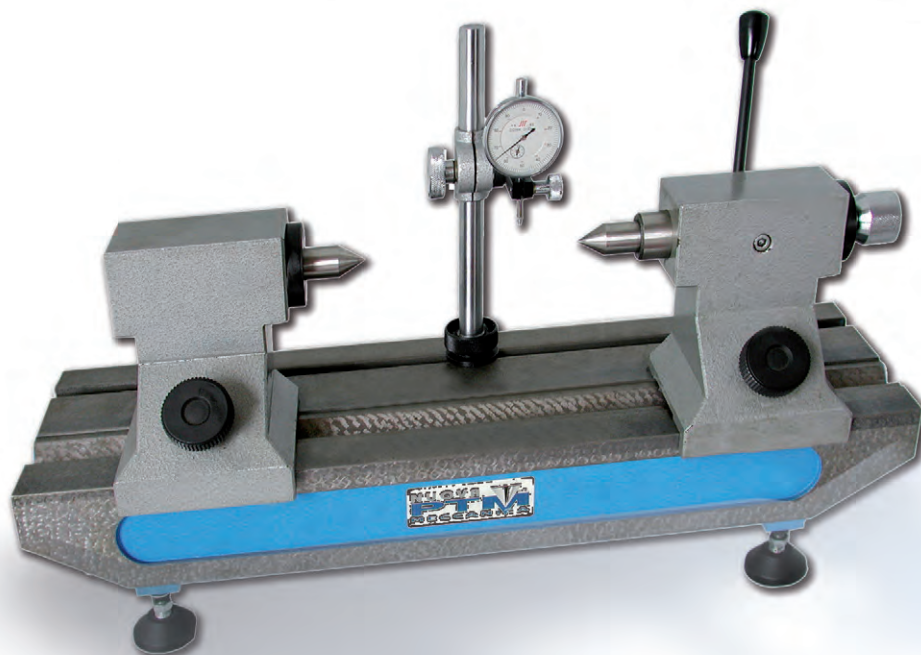
235115**

A richiesta si eseguono costruzioni particolari
 On request special versions available
 Auf Anfrage spezielle Versionen verfügbar

Testing 2000 è uno strumento utilizzato per il controllo delle eccentricità, costruito in ghisa stabilizzata interamente rettificato e assemblato con materiali di qualità.

Testing 2000, an instrument used to control eccentricity, is constructed in stabilized cast iron fully ground and assembled with quality materials.

Testing 2000 ist ein Formprüfgeräte der Rundlaufabweichung, das Grundgestell ist aus Gusseisen mit feingeschliffenen Führungen und Qualitätsmaterial.



DATI TECNICI

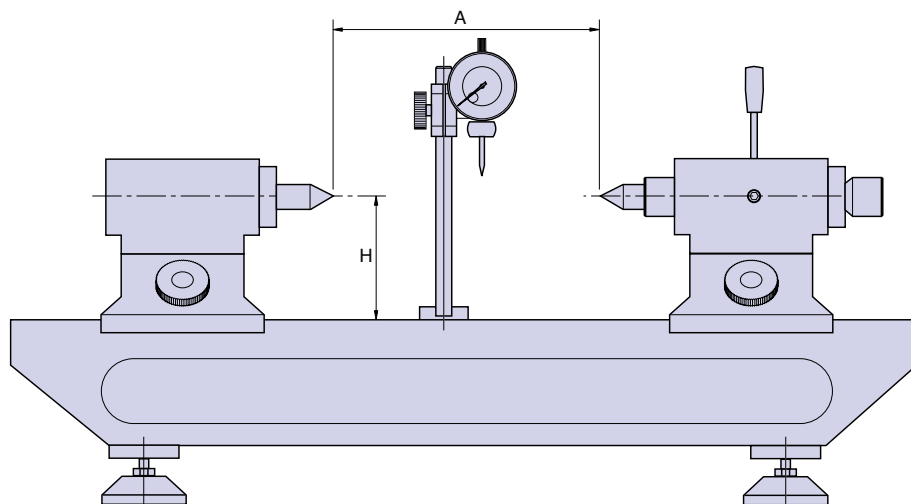
- Basamento in ghisa stabilizzata
- 2 contropunte di cui una con canotto fisso, una con canotto regolabile mediante leva con molla precariata, corsa 10 mm. circa
- 1 asta porta comparatore con regolazione micrometrica
- 1 comparatore centesimale
- 2 contropunte fisse CM 3

TECHNICAL DATA

- Base in stabilized cast iron
- 2 livecenters, one of which with fixed sleeve that may be adjusted by means of a pre-loaded spring lever with a travel of about 10 mm
- 1 comparator - carrying rod with micrometric adjustment
- 1 centesimal comparator
- 2 dead centers (CM 3)

TECHNISCHE DATEN

- Grundgestell aus Gusseisen und gehärtetem Stahl
- 2 Körnerspitzen, eine feste Spitze die sich mittels eines Hebels mit Feder-spannung ca. 10 mm regeln lässt
- 1 Tragestange fuer die Präzisions-Messuhr mit mikrometrischer Regulierung
- 1 Hochwertige Präzisions-Messuhr
- 2 Zentrierspitzen (CM 3)



► Code	A	H	Kg
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23511520 *	500	160	100
23511540 *	1000	200	200

SU RICHIESTA ON REQUEST

Attrezzature speciali

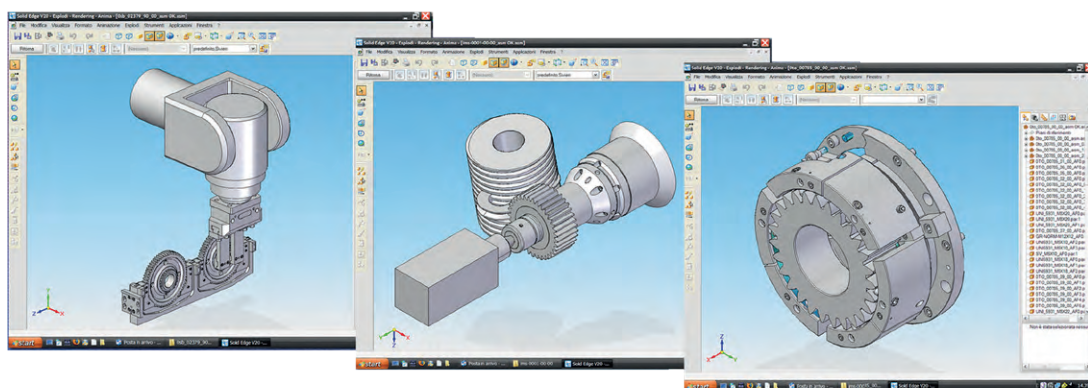
Si possono realizzare attrezzature speciali applicabili a tutte le macchine per dentatura, sbarbatura, rettifica denti, tornitura sul duro, manipolazione e movimentazione pezzi.

Special tools

Special tools can be made, suitable for all gear cutting, shaving, tooth grinding, hardened metal turning, piece handling & moving machines.

Spezialausrüstungen

Es können Spezialausrüstungen angefertigt werden, die auf allen Maschinen für Zahnung, Schaben, Schleifen, Drehen auf harten Materialien, Handling und Bewegung von Werkstücken eingesetzt werden können.

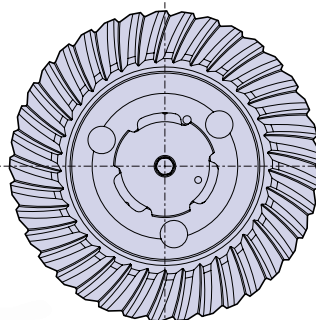
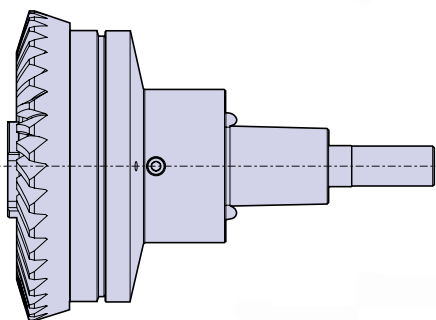


► **SU RICHIESTA** ◀
ON REQUEST

Studiamo e realizziamo
attrezzature per taglio
coppie coniche

*Design and production
of tools for cutting
bevel gears*

Wir entwickeln und
realisieren Ausrüstungen für
den Schnitt von Kegelpaaren.

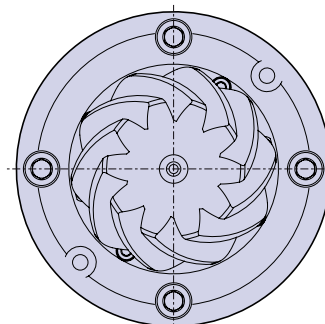
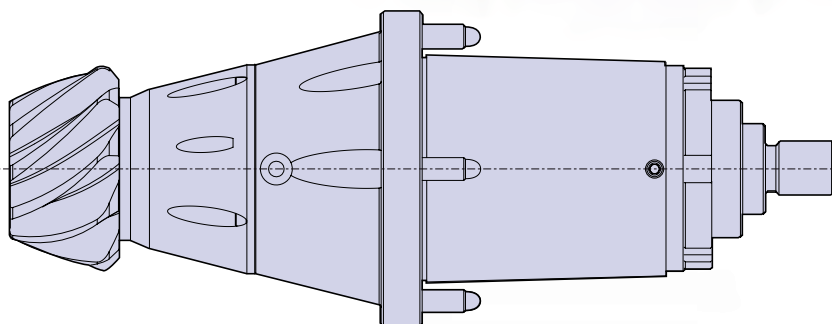
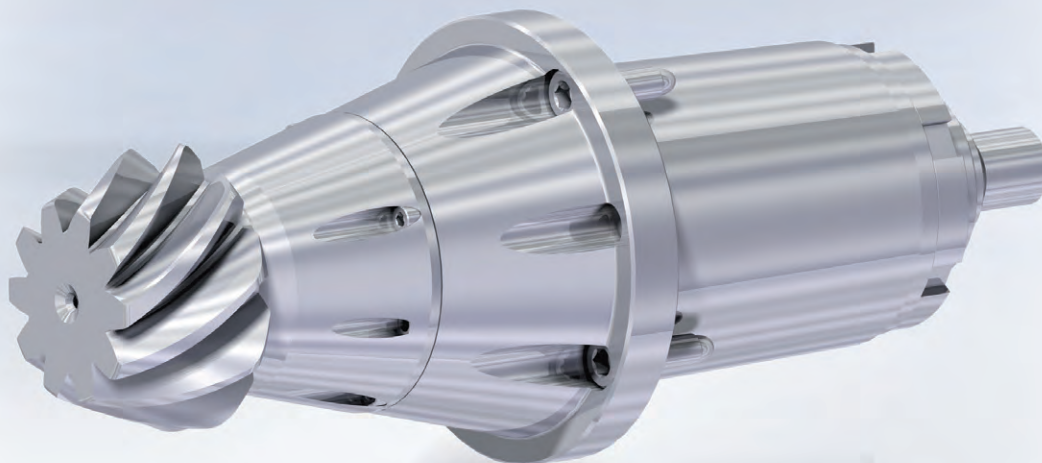


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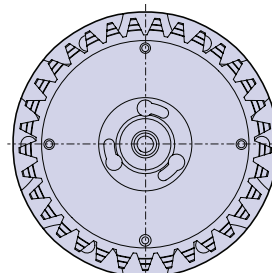
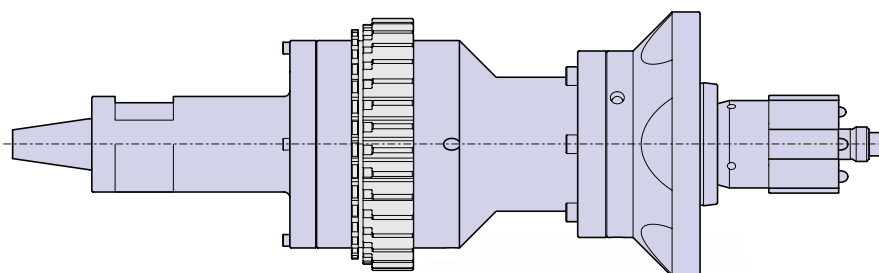
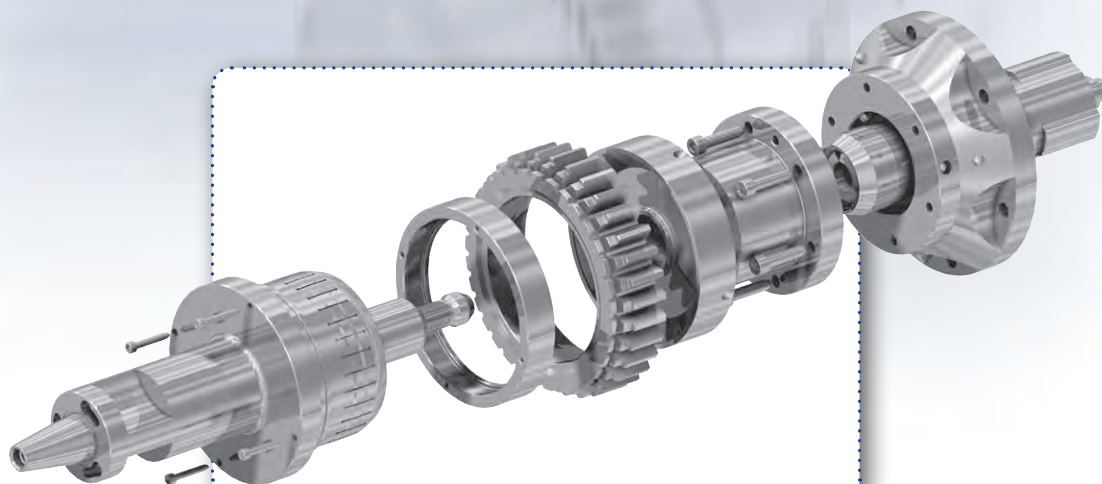
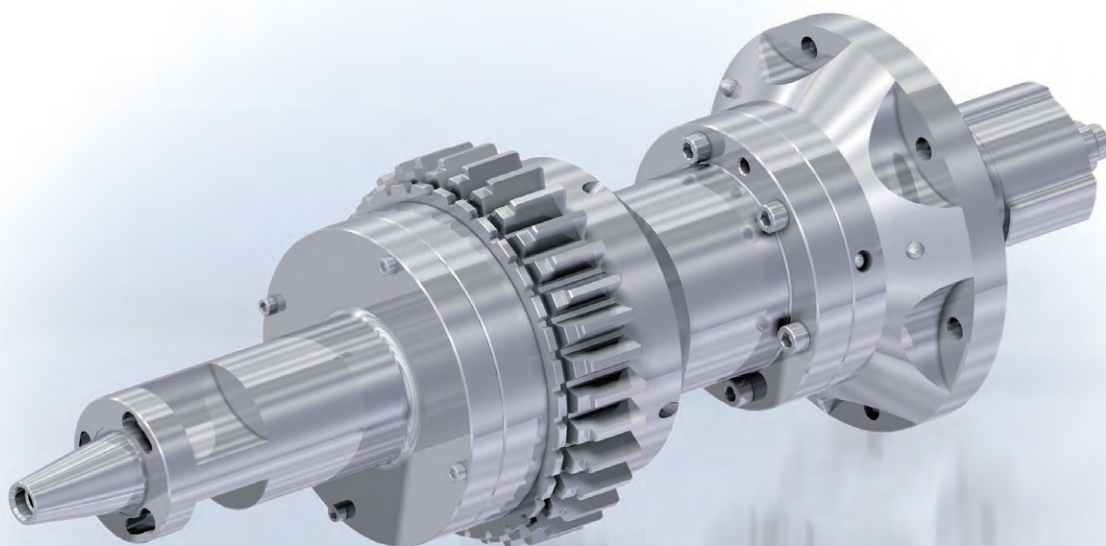


SU RICHIESTA ON REQUEST

Spina con recupero giochi
per dentatura con creatore

Pin with backlash recovery for
gear cutting with creator

Bolzen mit Spielausgleich für
Zahnung mit Wälzfräser

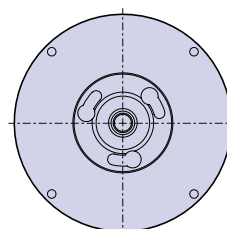
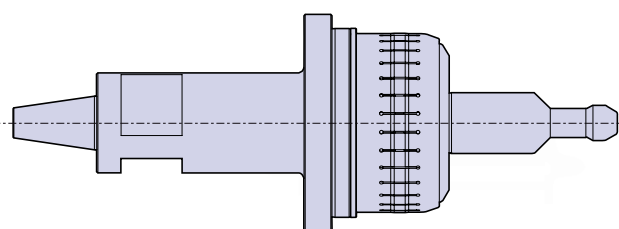
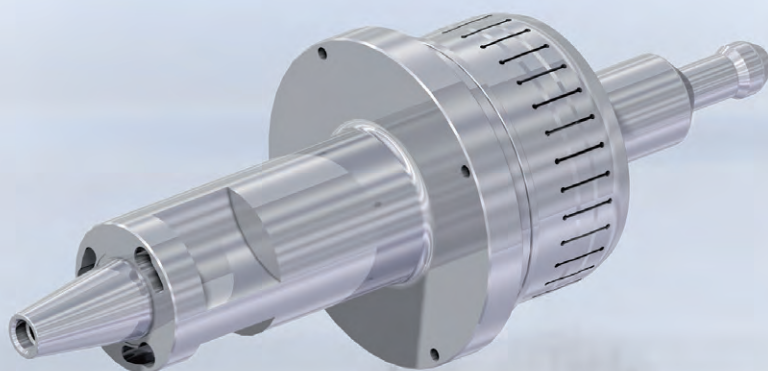


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ON REQUEST

Spina con recupero giochi
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*Pin with backlash recovery for
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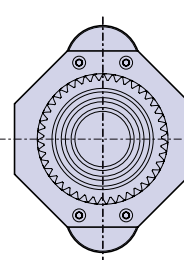
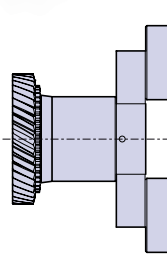
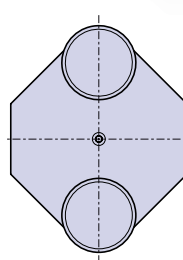
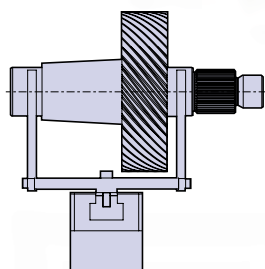
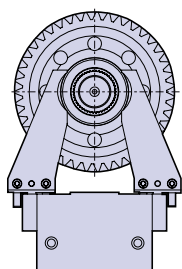


SU RICHIESTA ON REQUEST

Si eseguono attrezzamenti
per Robot di movimentazione
pezzi

*Production of tooling for
piece-moving robots*

Es werden Ausrüstungen für
Roboter zur Bewegung von
Werkstücken hergestellt

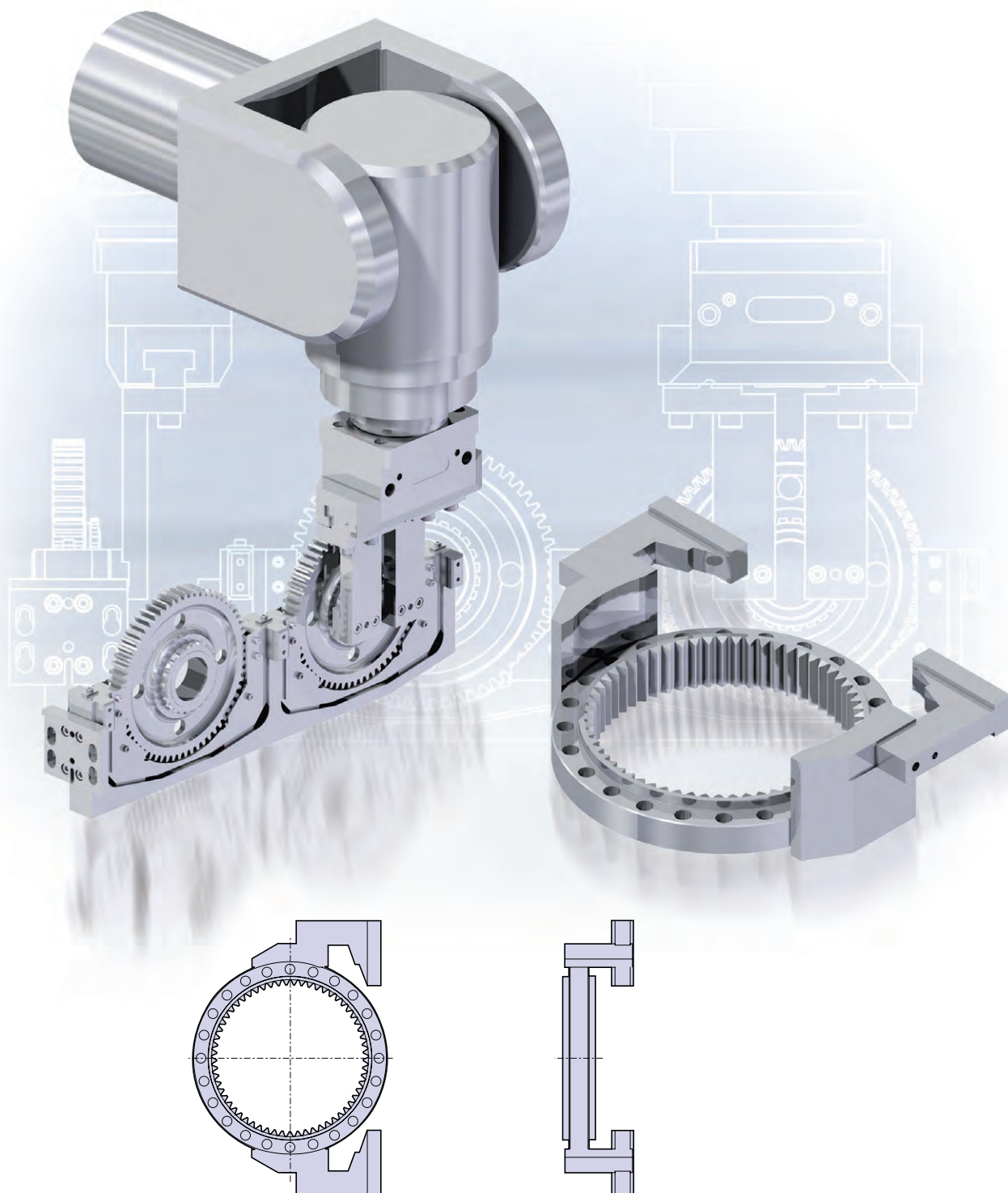


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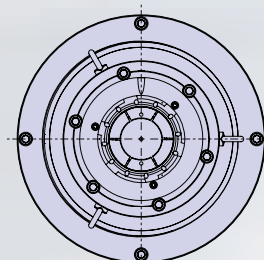
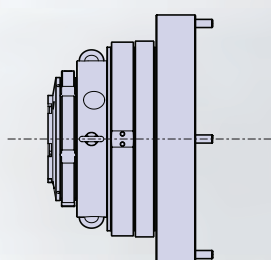
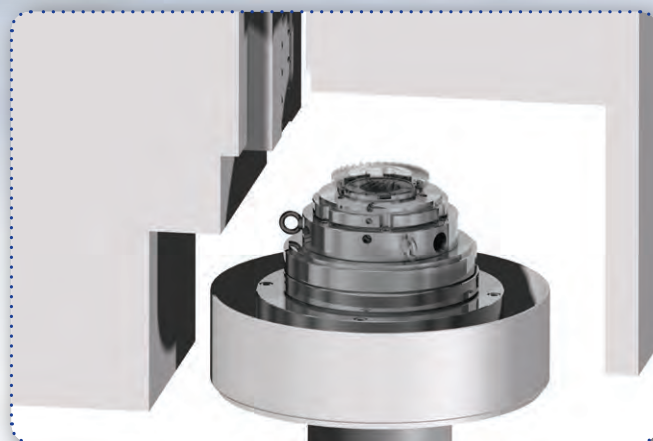


SU RICHIESTA ON REQUEST

Serraggio esterno per
dentatura interna corone
con macchina di dentatura
a coltello

*External clamping for ring gears
for Gear-ring shaping machine*

Aussenauflassung fuer
Innenradverzahnung mit
Stossmaschine

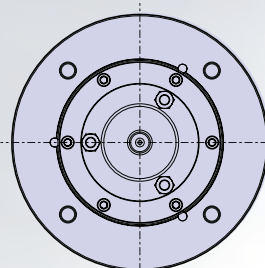
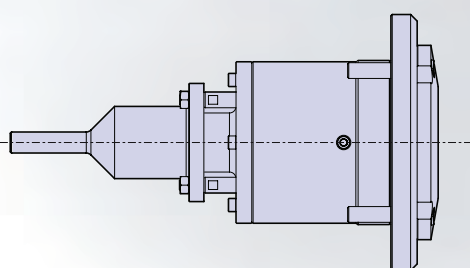
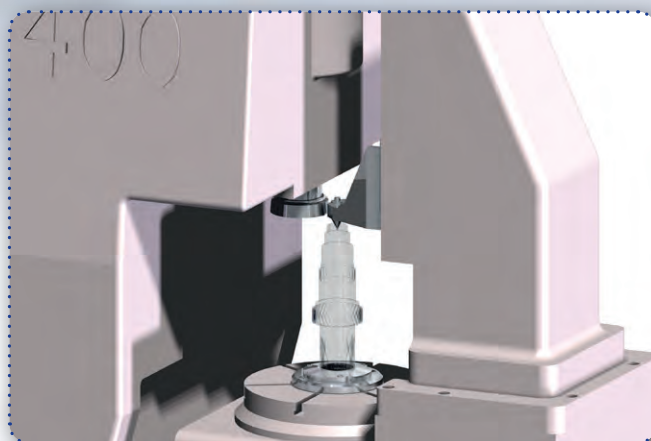
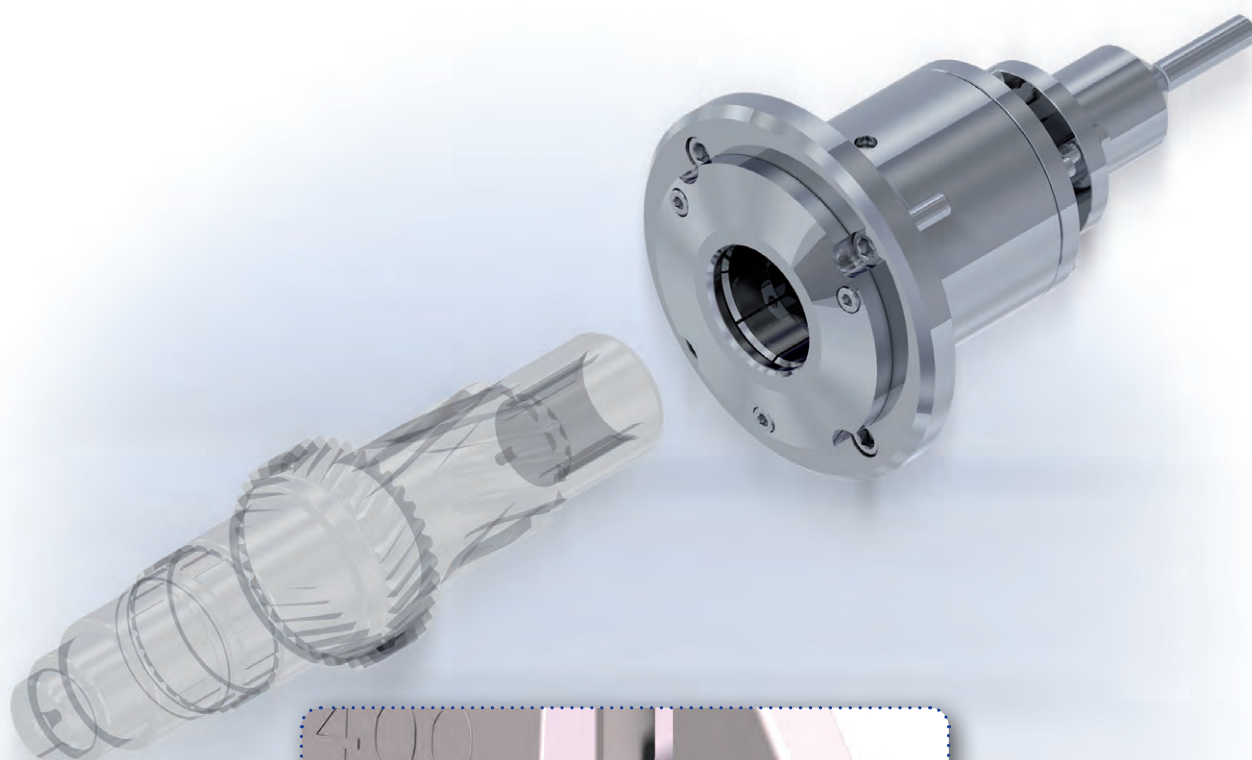


► **SU RICHIESTA** ◀
ON REQUEST

Serraggio esterno con cuspi-
de di centraggio per macchi-
na di dentatura a coltello

*External clamping with center dri-
ve for gear shaping machine*

Aussenaufspannung mit
Zentrier-Laufspitze fuer
Stossmaschine

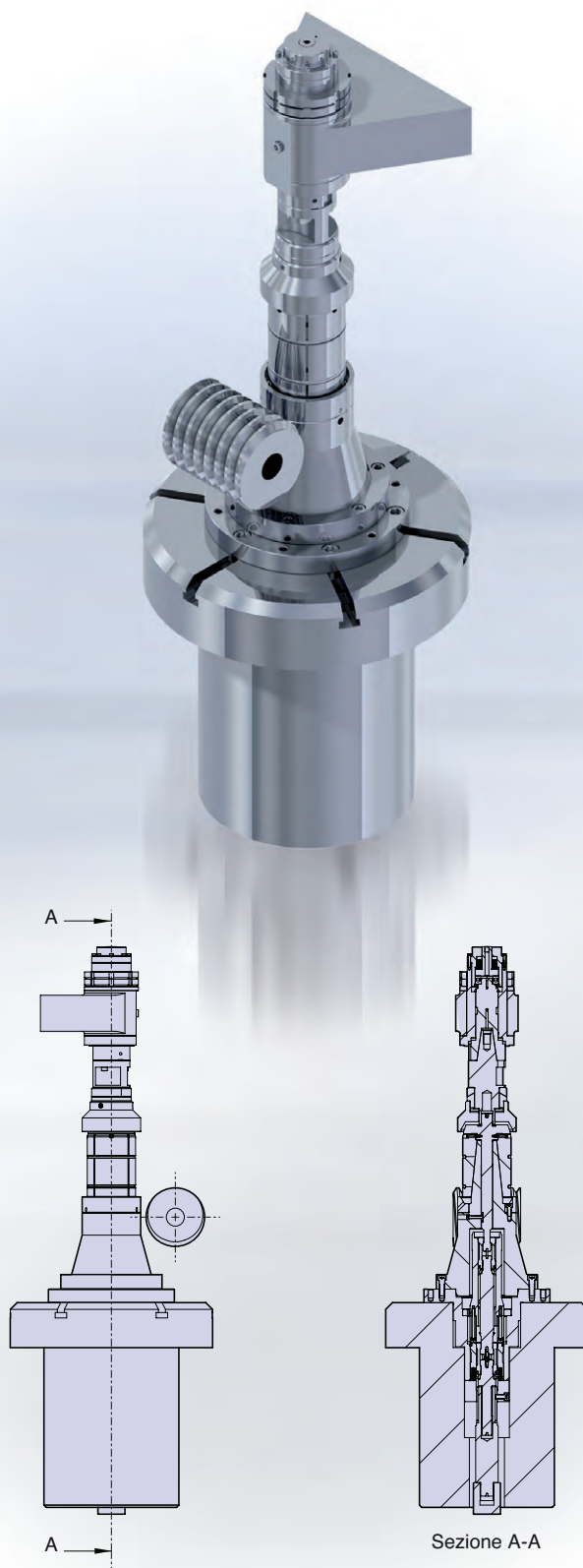


► **SU RICHIESTA** ◀
ON REQUEST

Kit di trasformazione per
 attacchi rapidi per macchina
 di dentatura con creatore

*Transformation kit for quick-setup
 for gear hobbing machine*

Umwandlungssatz fuer
 Schnellanschluesse auf Wa-
 elzfraesmaschine

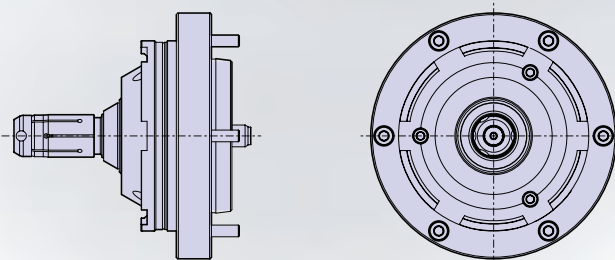
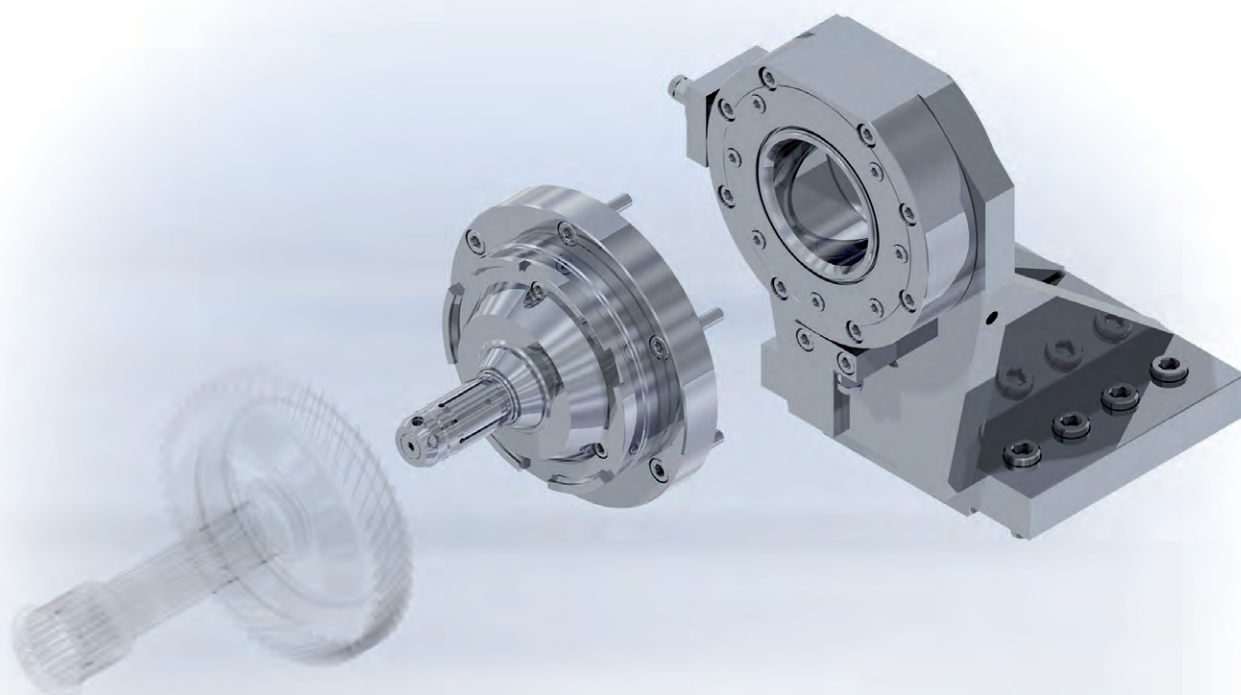


SU RICHIESTA ON REQUEST

Serraggio con pinza ad espansione e centraggio con contropunta negativa per macchina di dentatura a coltello

Expanding collect fixture with center drive and reverse tailstock for gear shaping machine

Aufspannung mit Spreizange und Zentrierung mit negativem Reitstock fuer Stossmaschine

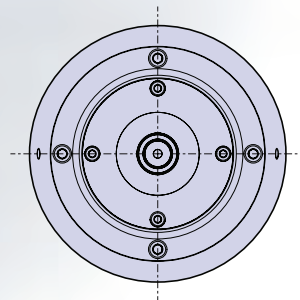
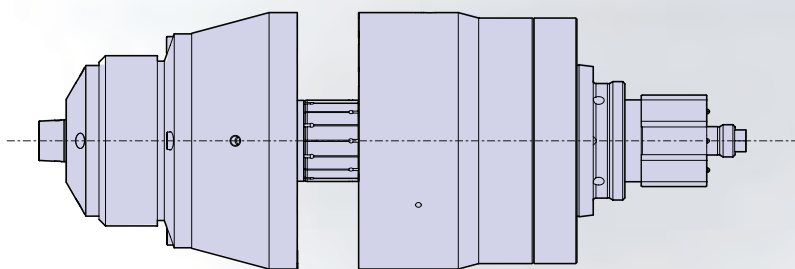
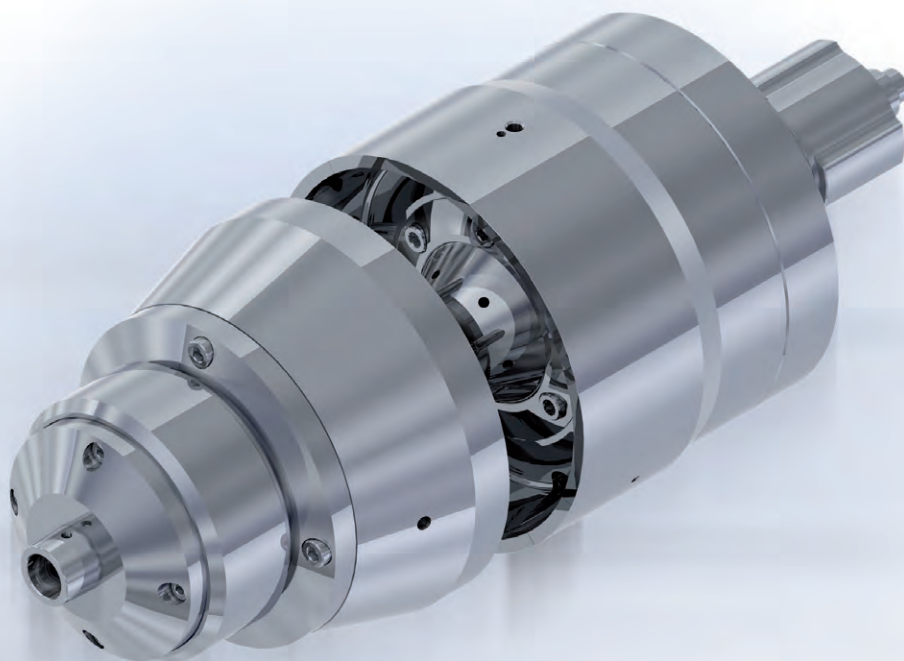


► **SU RICHIESTA** ◀
ON REQUEST

Serraggio con pinza ad espansione e piani di riferimento ingranaggio per macchina di dentatura con creatore

*Expanding collect fixture with
mainly gear face rest for gear
hobbing machine*

Aufspannung mit Spreizzange
und Zahnrad-Bezugsebenen
für Wälzfräsmaschine

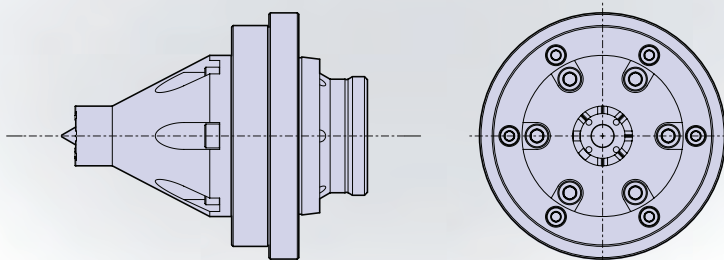
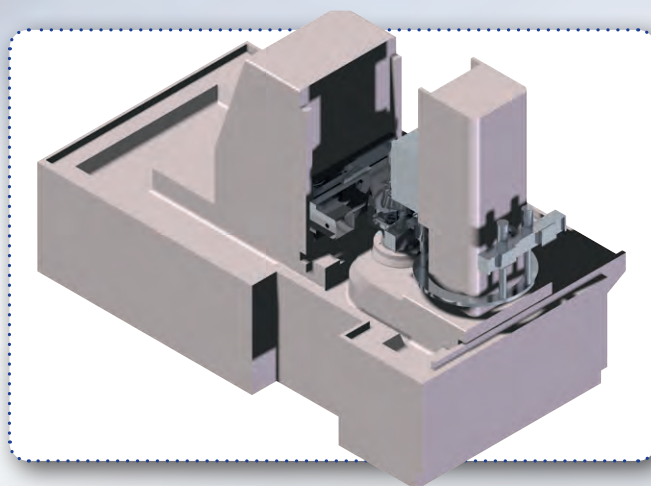


► **SU RICHIESTA** ◀
ON REQUEST

Trascinatore da piccole
a grandi dimensioni per
macchina di dentatura con
creatore

*Face driver from small to
very big size for hobbing machine*

Mitnehmer, kleine bis grosse
Abmessungen, fuer
Waelzfraesmaschine

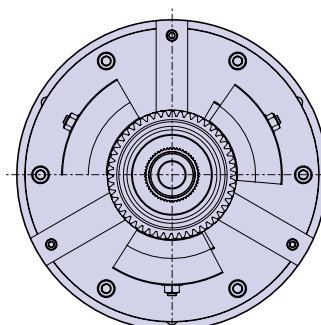
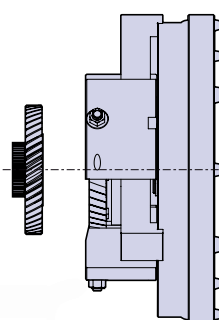
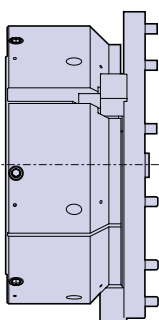
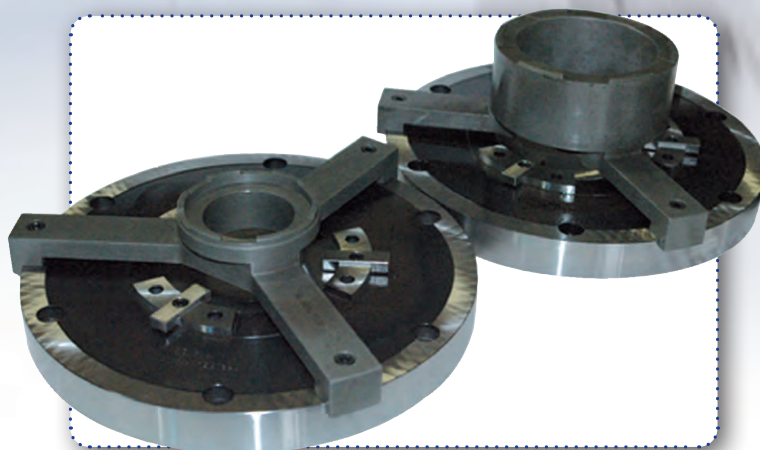


SU RICHIESTA ON REQUEST

Membrane a deformazione
elastica per tornitura e rettifica
- TORNITURA SU TEMPRATO -

*Elastic deformation membrane
for turning and grinding*
- HARDENED STEEL TURNING -

Membrane mit elastischer
Verformung zum Drehen und
Schleifen – DREHEN AUF
GEHÄRTETEN MATERIALIEN

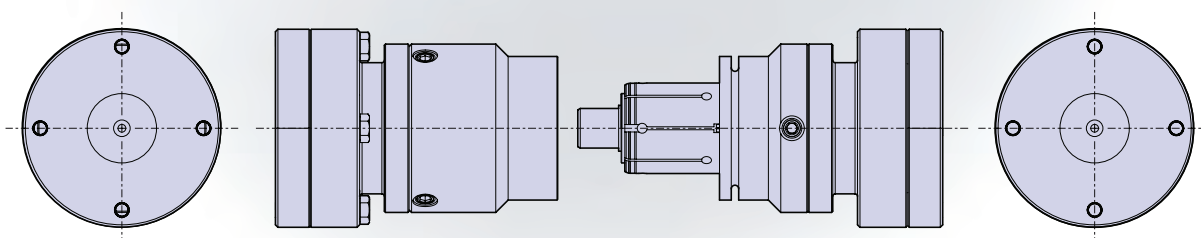
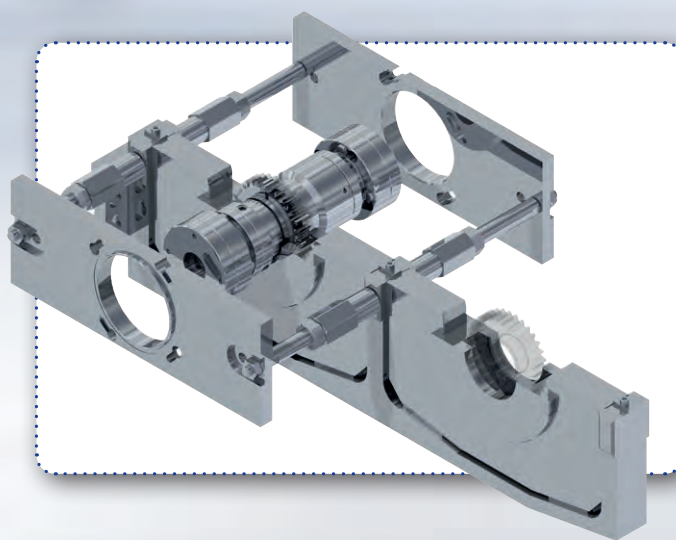


► **SU RICHIESTA** ◀
ON REQUEST

Serraggio con pinza ad
 espansione per macchina
 di sbarbatura

*Expanding collet fixture for
 gear shaving machine*

Aufspannung mit Spreiz-
 ange für Schabmaschine

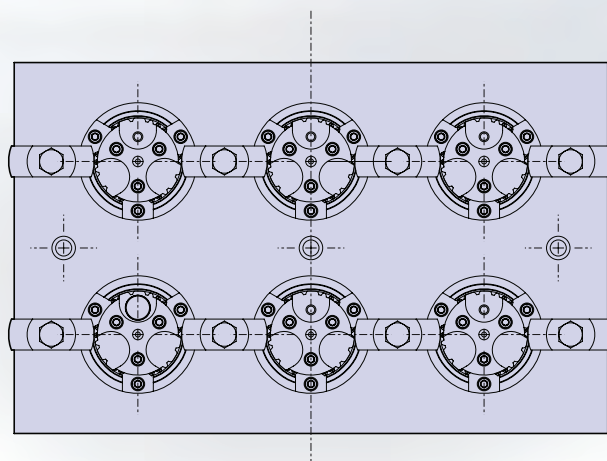
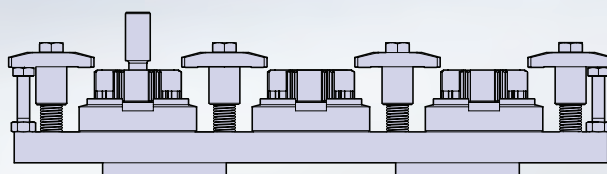
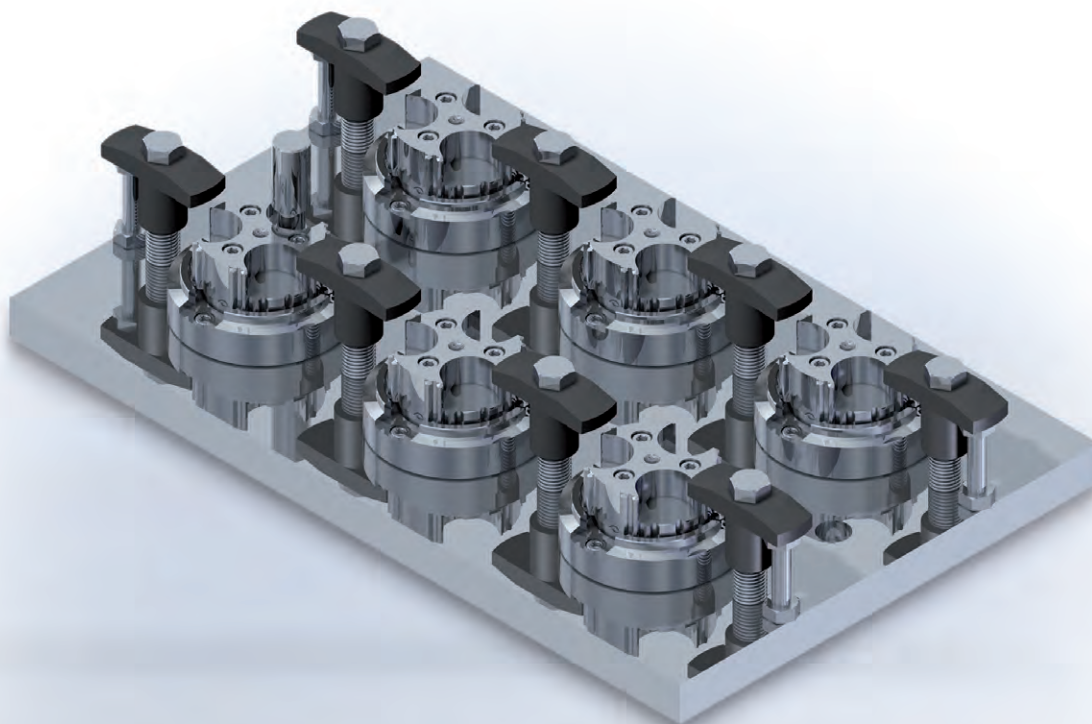


SU RICHIESTA ON REQUEST

Attrezzo per fresatura su centri di lavoro (sistema multiplo di serraggio automatico o manuale)

Milling machine
(several clamping fixture automatic or handling)

Fraesvorrichtung auf Bearbeitungszentren (Mehrfachaufspannung automatisch oder manuell)

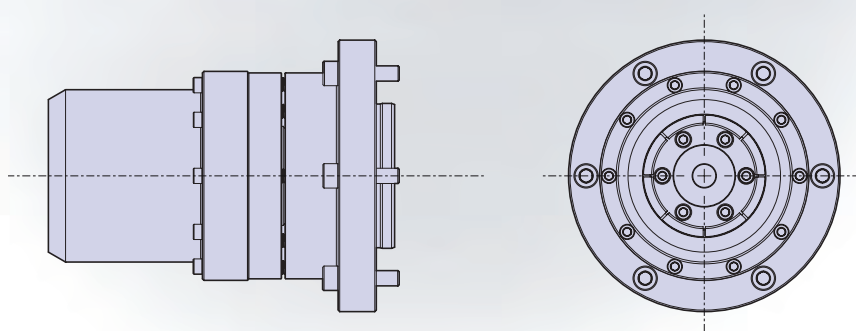
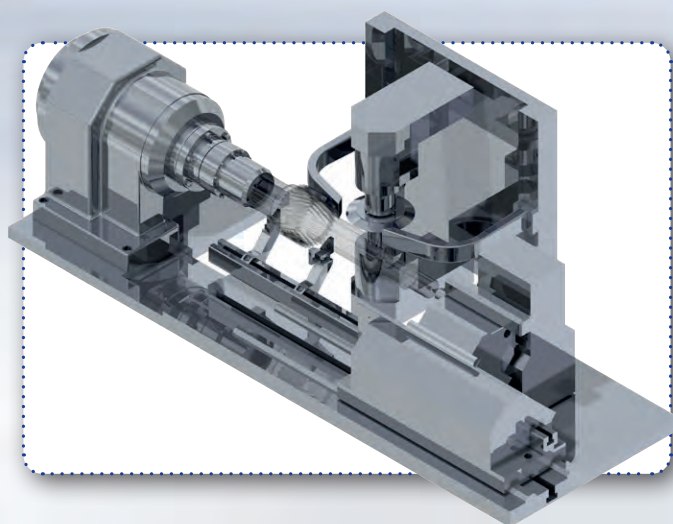
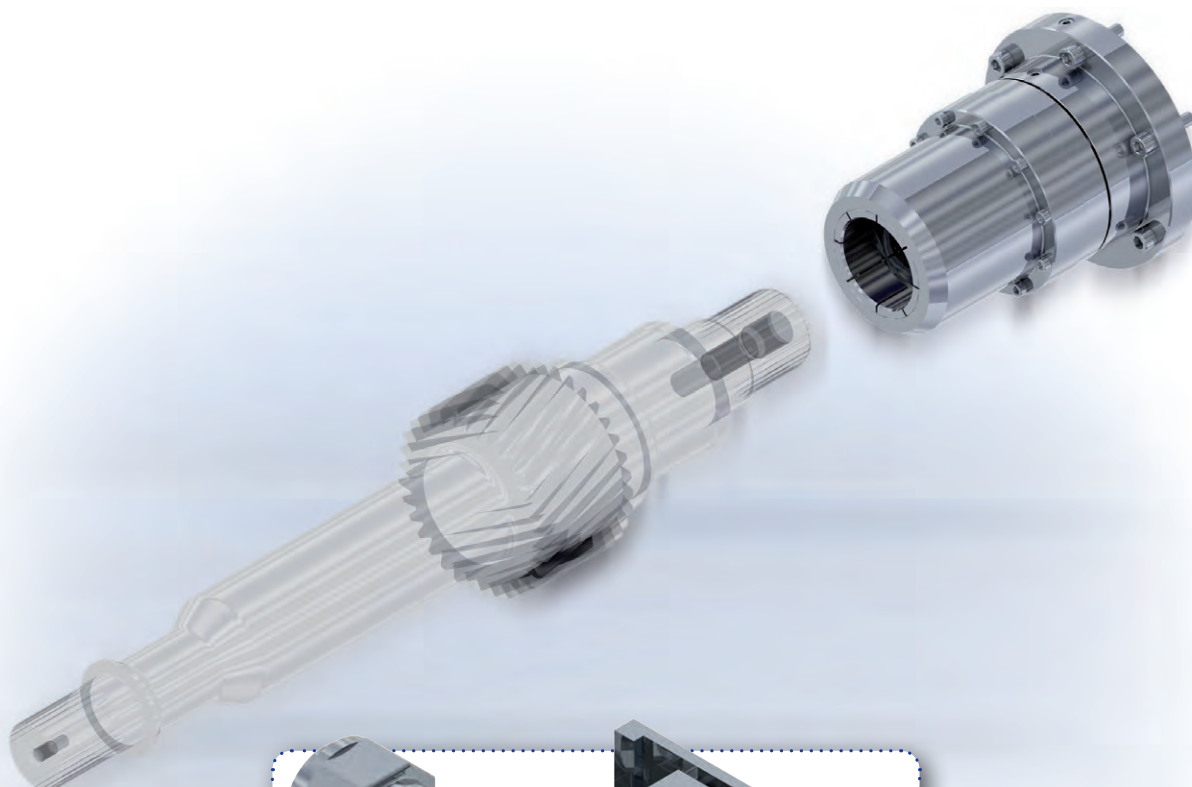


SU RICHIESTA ON REQUEST

Rettifica denti (centraggio
albero su centro e chiusura
su diametro)

*Tooth gear grinding
(shaft centering with center
drive and clamp on diameter)*

Verzahnungsschleifen
(Wellenzentrierung mittig und
Verschluss auf Durchmesser)

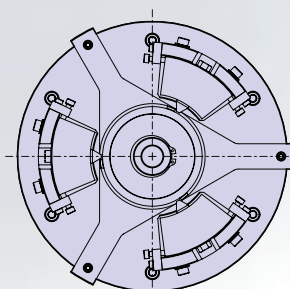
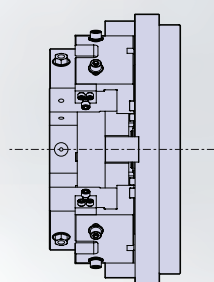
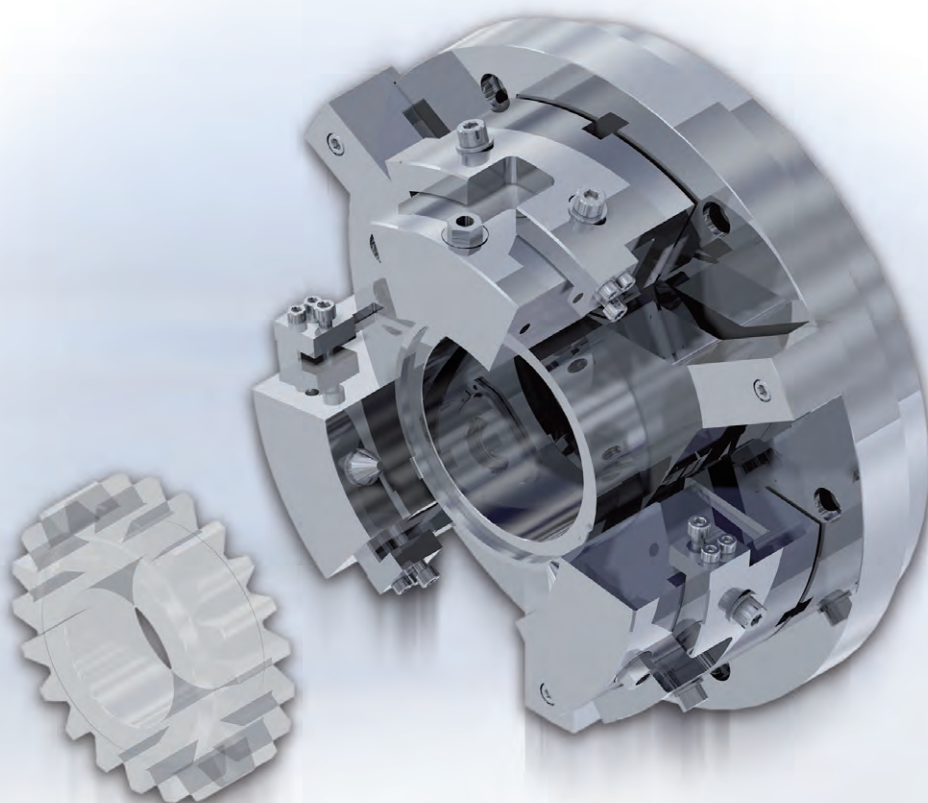


SU RICHIESTA ON REQUEST

Serraggio su diametro primitivo con angolo registrabile per setup rapido (macchina per rettifica interna)

Clamping on pitch dia. angular reg. for quick-setup (internal grinding machine)

Aufspannung auf Teilkreisdurchmesser mit einstellbarem Winkel fuer schnelles Setup (innenschleifmaschine)

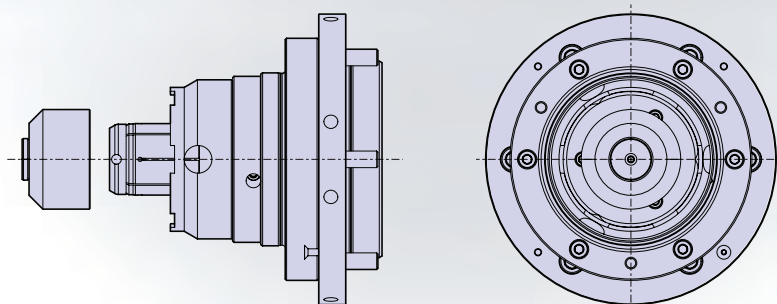
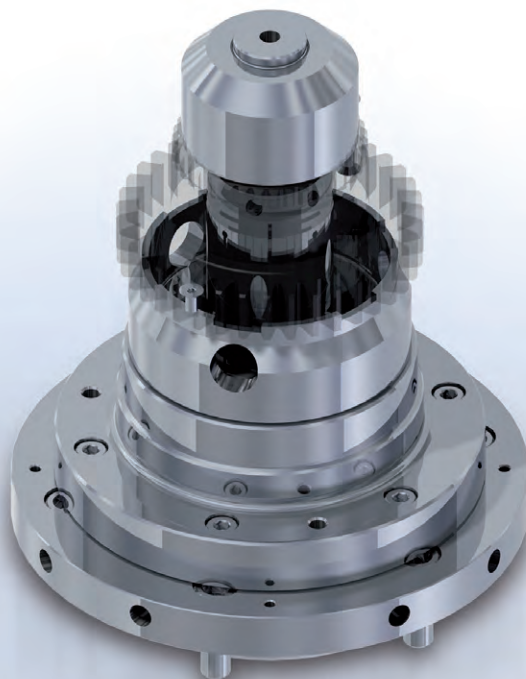


SU RICHIESTA ON REQUEST

Serraggio con pinza ad espansione (macchina di dentatura a coltello)

*Expanding collet fixture
(gear shaping machine)*

Aufspannung mit
Spreizange (Stossmaschine)

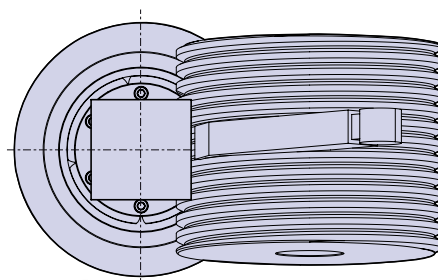
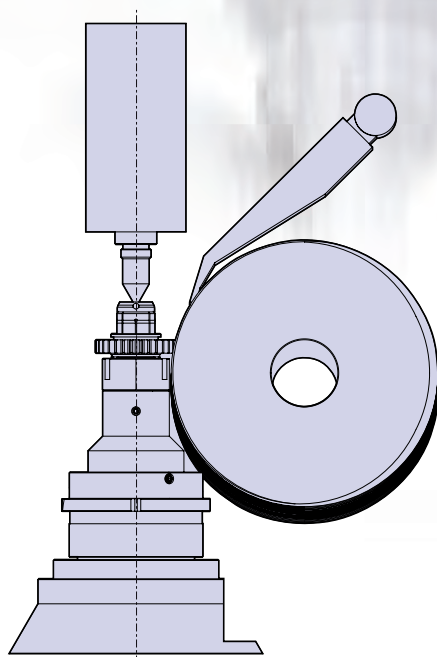
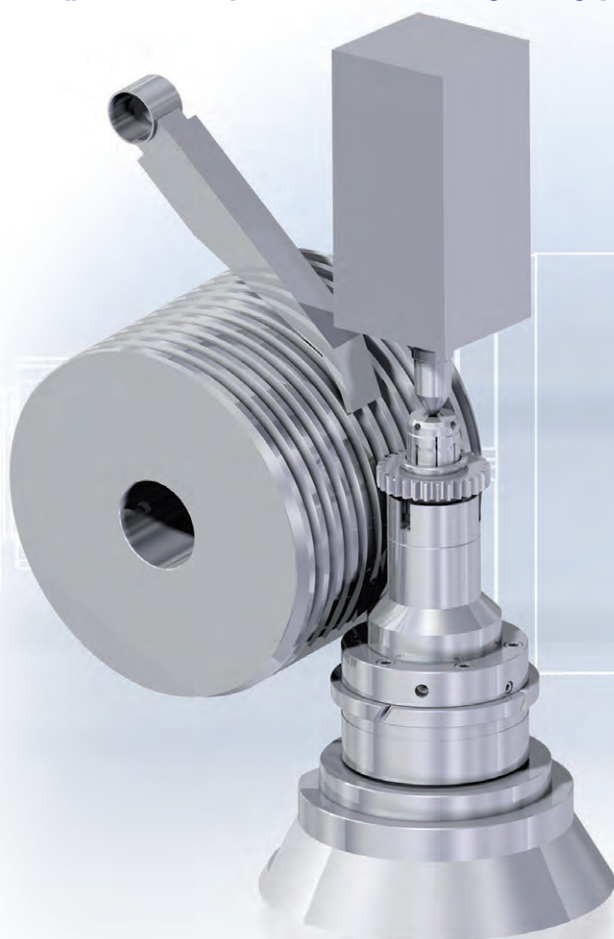


SU RICHIESTA ON REQUEST

Pinze elastiche per rettifica
denti (presa su foro)

Spring grippers for tooth
grinding (hole grip)

Elastische Zangen zum Schlei-
fen von Zähnen
(Aufnahme auf Bohrung)

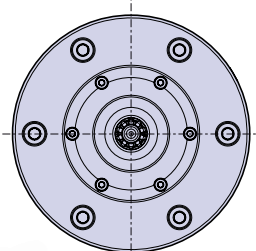
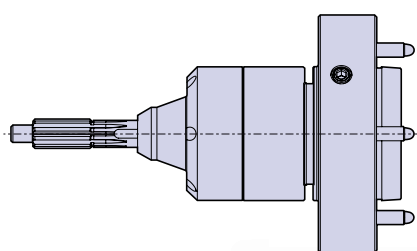


► **SU RICHIESTA** ◀
ON REQUEST

Pinze elastiche per rettifica
denti (presa su albero)

*Spring grippers for tooth grinding
(shaft grip)*

Elastische Zangen zum Schlei-
fen von Zähnen
(Aufnahme auf Welle)

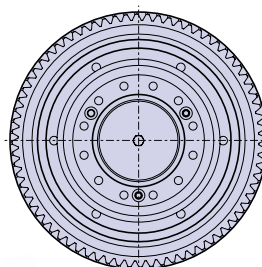
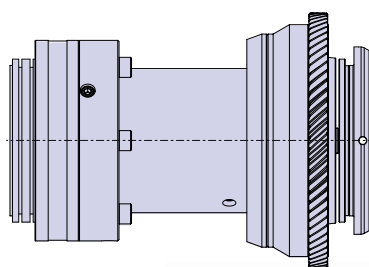
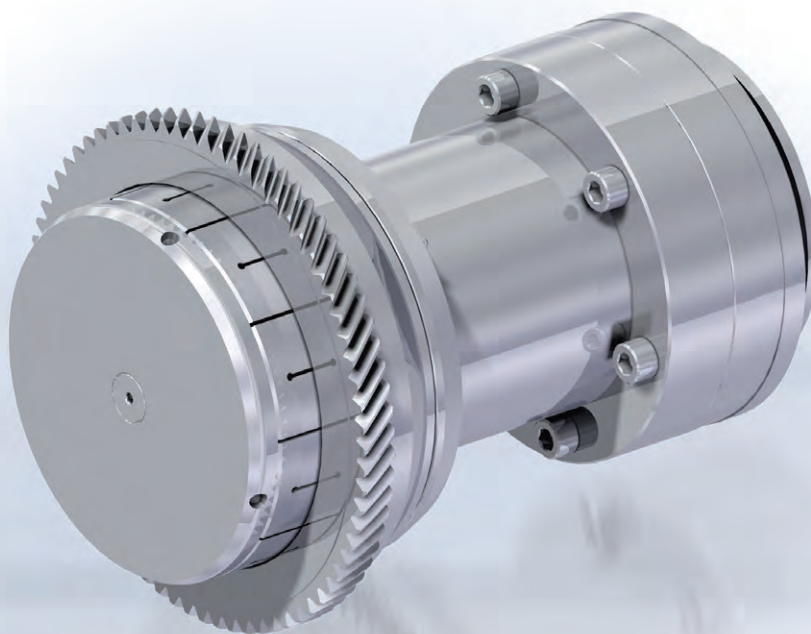


SU RICHIESTA ON REQUEST

Spina elastica per
rettifica denti (attuazione
meccanica o idraulica)

*Tension pin for tooth grinding
(mechanical or hydraulic
actuation)*

Elastischer Bolzen zum Schleif-
fen von Zähnen (mechanische
oder hydraulische Betätigung)



► **SU RICHIESTA** ◀
ON REQUEST

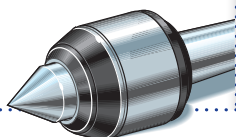
Pinze elastiche per rettifica

Spring grippers for tooth grinding

Elastische Zangen zum Schleifen von Zähnen

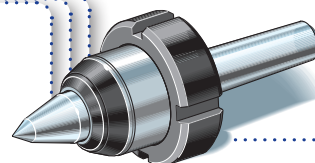






Contropunte rotanti
Carichi medi

► CN - CN/G ◀



Mitlaufende Spitzen
Mittlere Belastung



Nuovo
WPS

New
WPS

Neue
WPS

Robuste e precise, le contropunte della serie CN si caratterizzano per l'ottimo rapporto resa/prezzo. Sono adatte per lavori di tornitura/finitura su tutti i tipi di torni ad elevato numero di giri. Le contropunte della serie CN si distinguono per il loro corpo esterno estremamente compatto e rigido e permettono di essere assemblate con un sistema particolarmente studiato di cuscinetti e reggispinta in sedi rettificata e protette da paraolio che esclude l'ingresso di polveri o liquido refrigerante e lubrificate con grasso permanente, che ne garantisce una durata indicativa, per ogni modello, di almeno 1200 ore.

The sturdy and precise CN series live centers are characterised by their excellent performance/price ratio. They are suitable for turning/finishing jobs on all types of high r.p.m. lathes.

The CN series livecenters are distinguished by their extremely compact and rigid outer body, allowing them to be assembled with a specially designed system of bearings and thrust blocks in ground sites protected by oil seals, preventing dust or cooling liquid from entering. They are permanently grease-lubricated, and that ensures an average life of at least 1200 hours for each model.

Besonderes Merkmal der robusten, hochgenauen mitlaufenden Körnerspitzen der Baureihe CN ist ihr ausgezeichnetes Preis-/Leistungsverhältnis. Sie eignen sich für Dreh- und Fertigungsarbeiten auf allen schnell laufenden Drehmaschinen. Die mitlaufenden Körnerspitzen der Baureihe CN zeichnen sich durch einen extrem kompakten und drehsteifen Grundkörper aus, der den Einbau von speziellen Radial- und Axiallagern in feingeschliffene Lageraufnahmen ermöglicht. Ein Dichtring verhindert das Eindringen von Staub und Kühlschmiermittel in die dauergeschmierten Lager, die bei allen Modellen eine durchschnittliche Lebensdauer von 1200 Betriebsstunden erreichen.

Water Protection System

► TECHNICAL INFORMATION ◀

NUOVO:
Water Protection System

Le nuove dimensioni delle nostre contropunte ne aumentano la durata, eliminando eventuali infiltrazioni di liquido lubrorefrigerante e proteggendo ulteriormente i cuscinetti.

TEMPERATURA DI ESERCIZIO

Le contropunte rotanti durante il funzionamento possono raggiungere temperature superiori ai 60°C.

LUBRIFICAZIONE

Le contropunte rotanti vengono prodotte con un sistema di lubrificazione interno a grasso permanente e con opportune guarnizioni che escludono l'ingresso di trucioli o polveri o liquido refrigerante. Durante le prime ore di lavoro è normale una leggera fuoriuscita di grasso. In genere non necessitano di manutenzione ma si consiglia una revisione periodica.

SOSTA PROLUNGATA

Nel caso di inutilizzo di una contropunta per lunghi periodi, si consiglia di iniziare ad operare per alcuni minuti a basso regime, per consentire al grasso interno di riprendere la sua funzione lubrificante.

NEW:
Water Protection System

The newly redesigned Nuova PTM Live Centers greatly increases their life by preventing coolant from entering the bearings.

OPERATING TEMPERATURE

During turning operations, the rotating livecenters can reach temperatures exceeding 60°C.

LUBRICATION

The rotating livecenters are produced with an internal permanent grease lubrication system with special gaskets that prevent the entry of shavings, dust or coolant. During the initial working hours it is normal for some grease to come out. Normally, no maintenance is required but a periodical check is recommended.

PROLONGED STOP

When using a tailstock that has not been used for a long period, it is advisable to start by running it for a few minutes at a reduced speed to allow the internal grease to resume its lubricating function.

NEUE:
Water Protection System

Dank unserer neuen Gegenspitzen mit neuer Abmessungen sind mögliche Infiltration von Schmier-Kuehlmittel beseitigt worden und dadurch die Lager weiter geschuetzt.

BETRIEBSTEMPERATUR

Die rotierenden Reitstöcke können während des Drehens Temperaturen von mehr als 60 °C erreichen.

SCHMIERUNG

Die rotierenden Reitstöcke werden mit einem internen Dauerfett-Schmiersystem sowie mit speziellen Dichtungen hergestellt, die das Eindringen von Spänen, Staub oder Kühlflüssigkeit ausschließen. Während der ersten Betriebsstunden ist ein leichter Fettaustritt normal. Im Allgemeinen ist keine Wartung erforderlich, eine regelmäßige Überholung wird jedoch empfohlen.

LÄNGERER STILLSTAND

Nach längerer Nichtbenutzung eines Reitstocks empfiehlt es sich, den Betrieb zunächst für einige Minuten bei geringer Drehzahl zu starten, um dem Fett im Innern seine Schmierfunktion wiedererlangen zu lassen.

► TECHNICAL INFORMATION ◀

REVISIONE PERIODICA

Per prolungare la durata delle contropunte rotanti si consiglia una revisione periodica in funzione dei vari modelli:

- Contropunte rotanti per carichi medi (ogni 1.000 - 1.200 ore di lavoro)
- Contropunte rotanti carichi elevati (ogni 600 - 700 ore di lavoro)
- Contropunte a compensazione (ogni 600 - 700 ore di lavoro)
- Trascinatori frontali (manutenzione periodica ogni 200 ore di lavoro)
- Contropunte rotanti per rettifica (manutenzione periodica ogni 200 ore di lavoro)
- Contropunte rotanti alta velocità per rettifica (manutenzione periodica ogni 350 ore di lavoro)

Segnali indicativi che l'attrezzatura necessita di revisione sono:

- perdita di precisione
- rumorosità dei cuscinetti

In linea generale le tempistiche per la revisione dipendono comunque dalle condizioni generali di utilizzo.

E' consigliato l'utilizzo di pezzi di ricambio originali.

CONTROPUNTE CON GHIERA

Per utilizzi intensivi (carichi elevati), è consigliato l'utilizzo di contropunte con ghiera di estrazione che ha la funzione di irrigidire l'attrezzatura eliminando flessioni o vibrazioni.

PERIODICAL OVERHAUL

For a long working life, a periodical overhaul of the rotating livecenters is recommended, to be carried out as follows:

- Rotating livecenters for medium loads (every 1.000 - 1.200 working hours)
- Rotating livecenters for high loads (every 600 - 700 working hours)
- Compensation livecenters (every 600 - 700 working hours)
- Face drivers (routine maintenance every 200 working hours)
- Rotating livecenters for grinding (routine maintenance every 200 working hours)
- High speed rotating livecenters for grinding (routine maintenance every 350 working hours)

Indications that the tool needs overhauling are:

- loss of precision
- noisy bearings

As a rule, the regularity with which an overhaul should be carried out depends on the general conditions of use.

Always use original spare parts.

LIVECENTERS WITH RING-NUT

For intensive use (high loads), it is advisable to use livecenters with extraction ring-nut which gives rigidity to the tool, eliminating bending or vibrations.

REGELMÄßIGE ÜBERHOLUNG

Zur Gewährleistung einer längeren Lebensdauer der rotierenden Reitstöcke empfiehlt sich eine regelmäßige Überholung, je nach den verschiedenen Modellen:

- Rotierende Reitstöcke für mittlere Belastungen (alle 1.000 - 1.200 Betriebsstunden)
- Rotierende Reitstöcke für hohe Belastungen (alle 600 - 700 Betriebsstunden)
- Kompensations-Reitstöcke (alle 600 - 700 Betriebsstunden)
- Stirnseiten Mitnehmer (regelmäßige Wartung alle 200 Betriebsstunden)
- Rotierende Reitstöcke für Schleifarbeiten (regelmäßige Wartung alle 200 Betriebsstunden)
- Rotierende Hochgeschwindigkeits-Reitstöcke für Schleifarbeiten (regelmäßige Wartung alle 350 Betriebsstunden)

Anzeichen dafür, dass das Werkzeug eine Überholung erfordert:

- Präzisionsverlust
 - Geräusch der Lager
- Im Allgemeinen hängen die Zeiten für die Überholung jedoch von den generellen Einsatzbedingungen ab.

Es sollten unbedingt Originalersatzteile verwendet werden.

REITSTÖCKE MIT NUTMUTTER

Bei intensiven Bearbeitungen (hohen Lasten) empfiehlt sich die Verwendung von Reitstöcken mit Abziehnutmutter, deren Aufgabe es ist, das Werkzeug zu versteifen und Biegungen oder Vibrationen zu vermeiden.

► TECHNICAL INFORMATION ◀

CUSPIDI

La nostra serie di contropunte rotanti con albero portacuspide può montare ogni tipo di cuspidi intercambiabile (vedi catalogo).

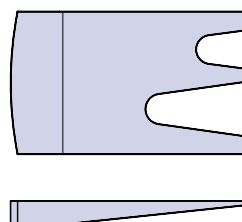
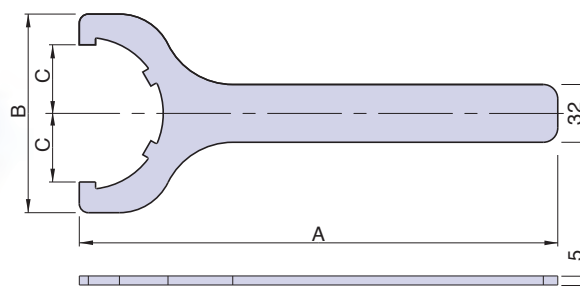
La sostituzione è rapida, con l'apposito attrezzo. Prima di rimontare una nuova cuspidi, pulire bene la sede e la superficie di accoppiamento.

CENTERING POINTS

Our series of rotating live-centers with centering point support shaft can mount every type of interchangeable centering point (see catalogue). With the special tool, replacement is rapid. Before re-mounting a new centering point, clean the seat and coupling surfaces well.

ZENTRIERSPITZEN

Unsere Serie rotierender Reitstöcke mit Zentrierspitzenträgerwelle kann jeden austauschbaren Zentrierspitzentyp aufnehmen (siehe Katalog). Die Auswechslung erfolgt schnell mit dem eigens vorgesehenen Werkzeug. Reinigen Sie vor dem Einsetzen einer neuen Spitze sorgfältig Sitz und Kopplungsfläche.

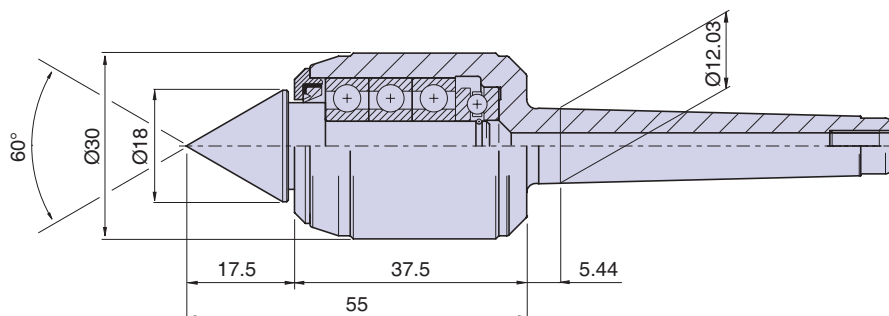
Bietta per estrazione cuspidi**Wedge to extract cusps****Keil zum Abziehen der Spitzen****Code****20001****Chiave per ghiera****Hook spanner****Hakenschlüssel**

Code	A	B	C
310323-KEY	265	91	27.5
310333-KEY	269.25	96	31.75
310433-KEY	266.5	110	38
310533-KEY	264	112	44.5
310633-KEY	265	140	54.5

Contropunta tipo CN1/S (standard) per cono morse 1

Live center type CN1/S (standard) for taper 1

Körnerspitze Typ CN1/S (Standard) für Morsekegel 1



► Code

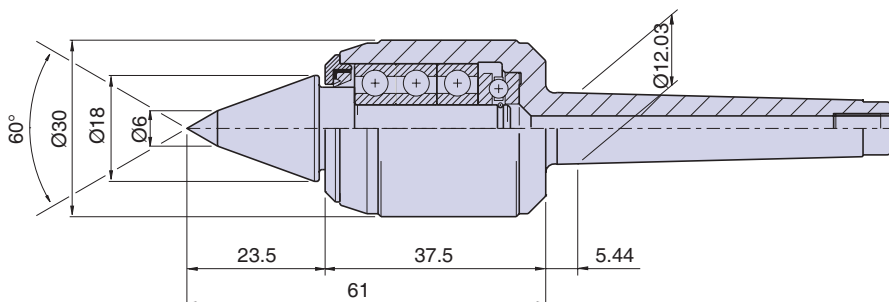
30011

Carico max	daN 150
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	6000
R.p.m.	
U/min	

Contropunta tipo CN1/L (punta da copia) per cono morse 1

Live center type CN1/L (copying point) for taper 1

Körnerspitze Typ CN1/L (verlängerte Laufspitze) für Morsekegel 1

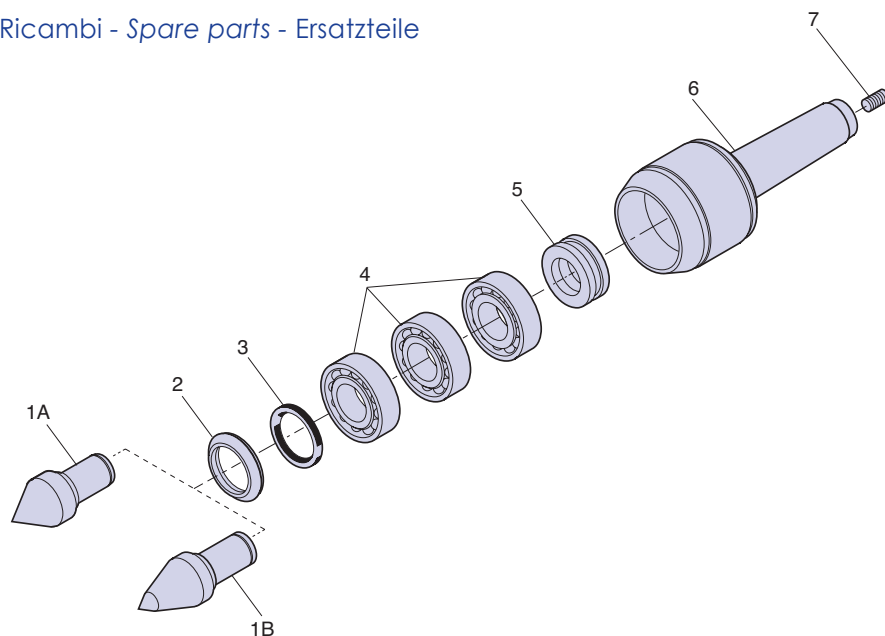


► Code

30031

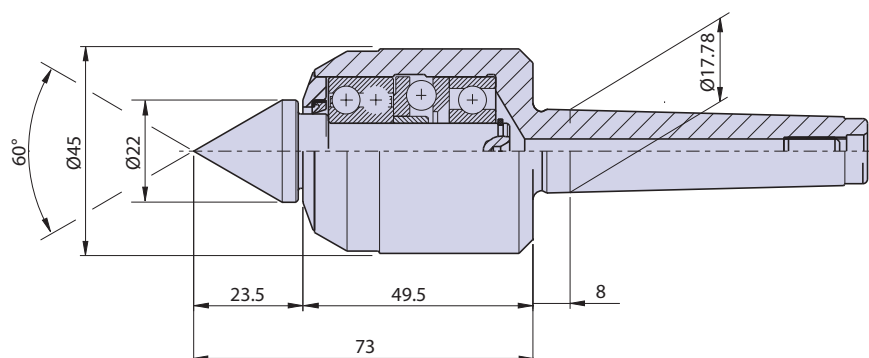
Carico max	daN 130
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	6000
R.p.m.	
U/min	

Ricambi - Spare parts - Ersatzteile



	CODE	DENOMINATION	Q.TY
1A	300112	Albero Shaft - Welle	1
1B	300113	Albero Shaft - Welle	1
2	300115	Coperchio Cover - Abdeckung	1
3	1500140012	Anello Ring	1
4	010008002	Cuscinetto Bearing - Lager	3
5	010001001	Cuscinetto Bearing - Lager	1
6	300110	Corpo Body - Körper	1
7	170005001	Vite Screw - Schraube	1

Contropunta tipo CN2/S (standard) per cono morse 2
 Live center type CN2/S (standard) for taper 2
 Körnerspitze Typ CN2/S (Standard) für Morsekegel 2



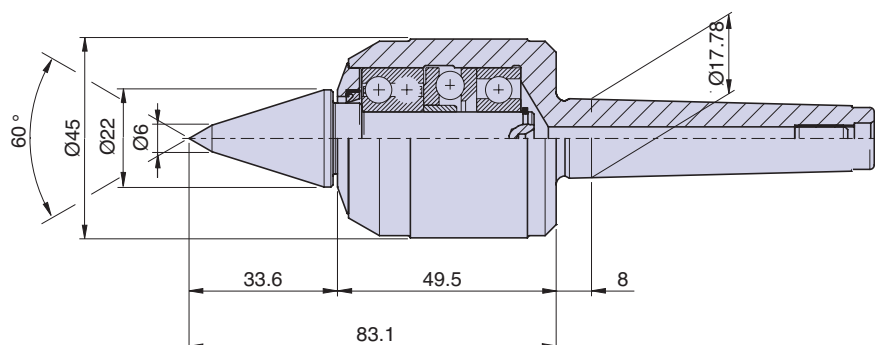
► Code **30012**

Carico max	daN 400
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

► Code **31032**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CN2/L (punta da copia) per cono morse 2
 Live center type CN2/L (copying point) for taper 2
 Körnerspitze Typ CN2/L (verlängerte Laufspitze) für Morsekegel 2



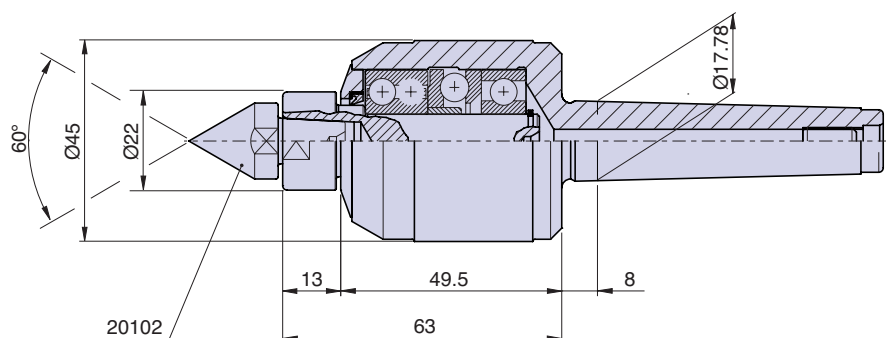
► Code **30032**

Carico max	daN 340
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

► Code **31042**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CN2/R (con ricambio) per cono morse 2
 Live center type CN2/R (with spare point) for taper 2
 Körnerspitze Typ CN2/R (mit auswechselbaren Einsätzen) für Morsekegel 2

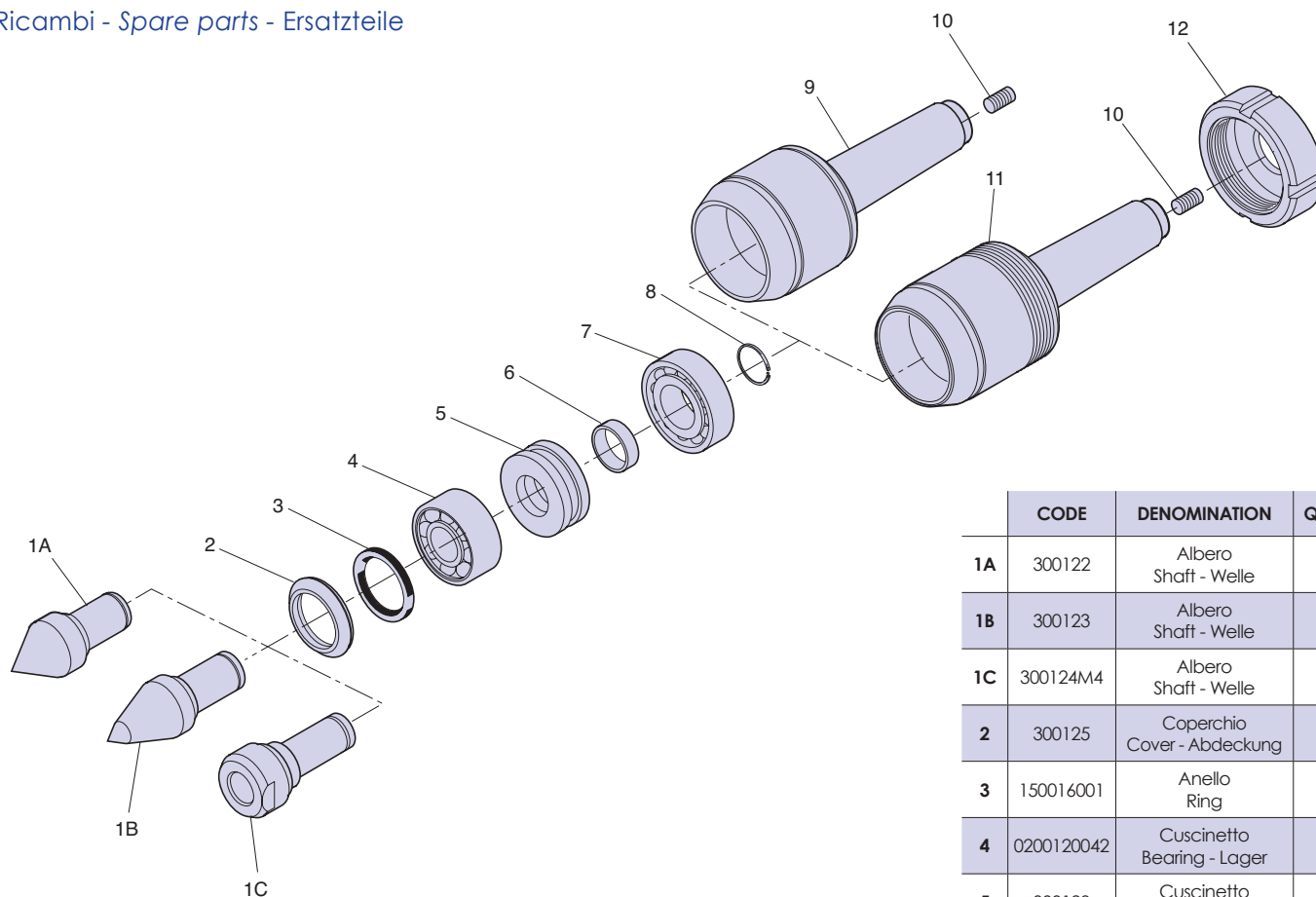


► Code **30022**

Carico max	daN 280
Max load	
Max Belastung	
Eccentricità max	mm 0,007
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

► Code **31052**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



Code 20001

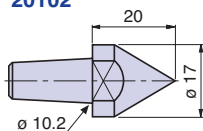
Chiave per ghiera
Hook spanner
Hakenschlüssel



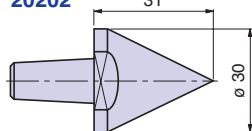
Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	300122	Albero Shaft - Welle	1
1B	300123	Albero Shaft - Welle	1
1C	300124M4	Albero Shaft - Welle	1
2	300125	Coperchio Cover - Abdeckung	1
3	150016001	Anello Ring	1
4	0200120042	Cuscinetto Bearing - Lager	1
5	300128	Cuscinetto Bearing - Lager	1
6	300129	Boccola Bush - Buchse	1
7	010012004	Cuscinetto Bearing - Lager	1
8	160012001	Anello Ring	1
9	300120	Corpo Body - Körper	1
10	170006009	Vite Screw - Schraube	1
11	310120	Corpo Body - Körper	1
12	310323	Ghiera Ring-nut Abdruckmutter	1

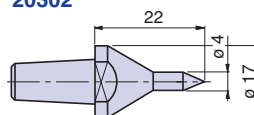
20102



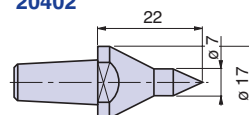
20202



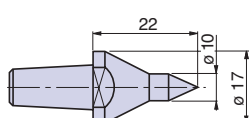
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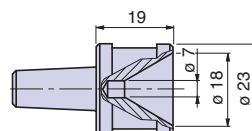
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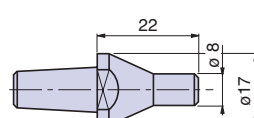
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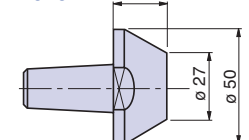
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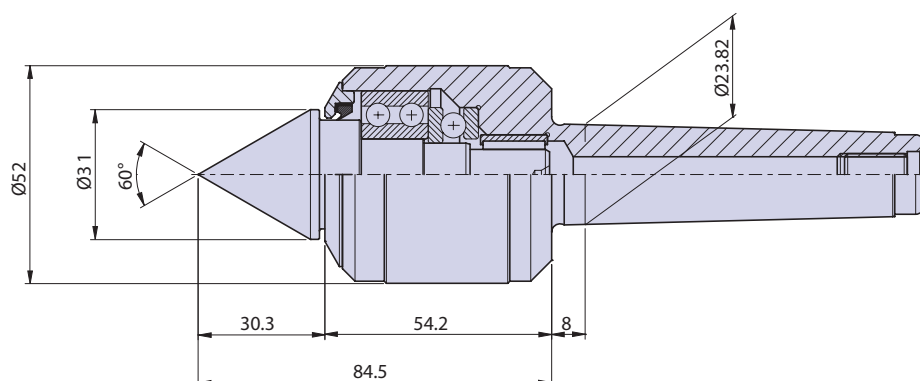
20902



20702



Contropunta tipo CN3/S (standard) per cono morse 3
 Live center type CN3/S (standard) for taper 3
 Körnerspitze Typ CN3/S (Standard) für Morsekegel 3



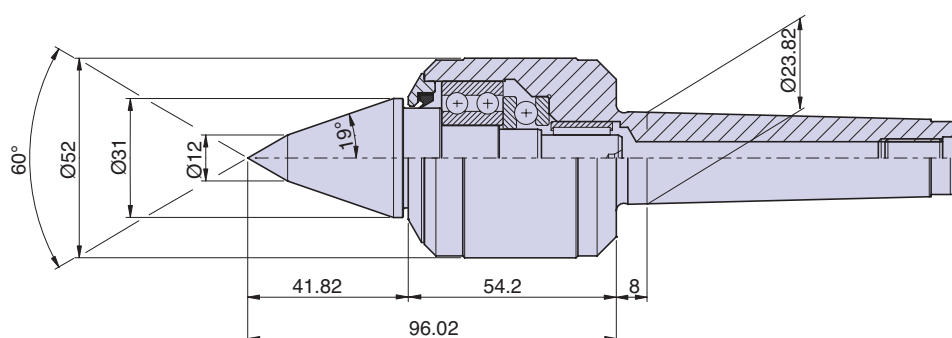
► Code **50013**

Carico max	daN 850
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

► Code **51013**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CN3/L (punta da copia) per cono morse 3
 Live center type CN3/L (copying point) for taper 3
 Körnerspitze Typ CN3/L (verlängerte Laufspitze) für Morsekegel 3



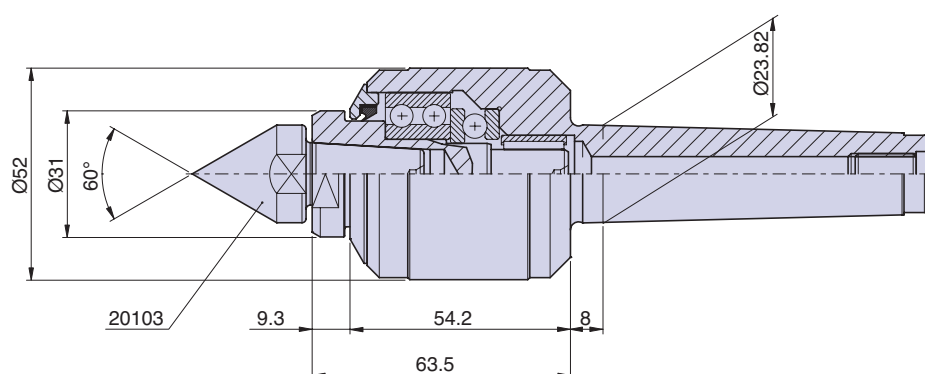
► Code **50033**

Carico max	daN 750
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

► Code **51033**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CN3/R (con ricambio) per cono morse 3
 Live center type CN3/R (with spare point) for taper 3
 Körnerspitze Typ CN3/R (mit auswechselbaren Einsätzen) für Morsekegel 3

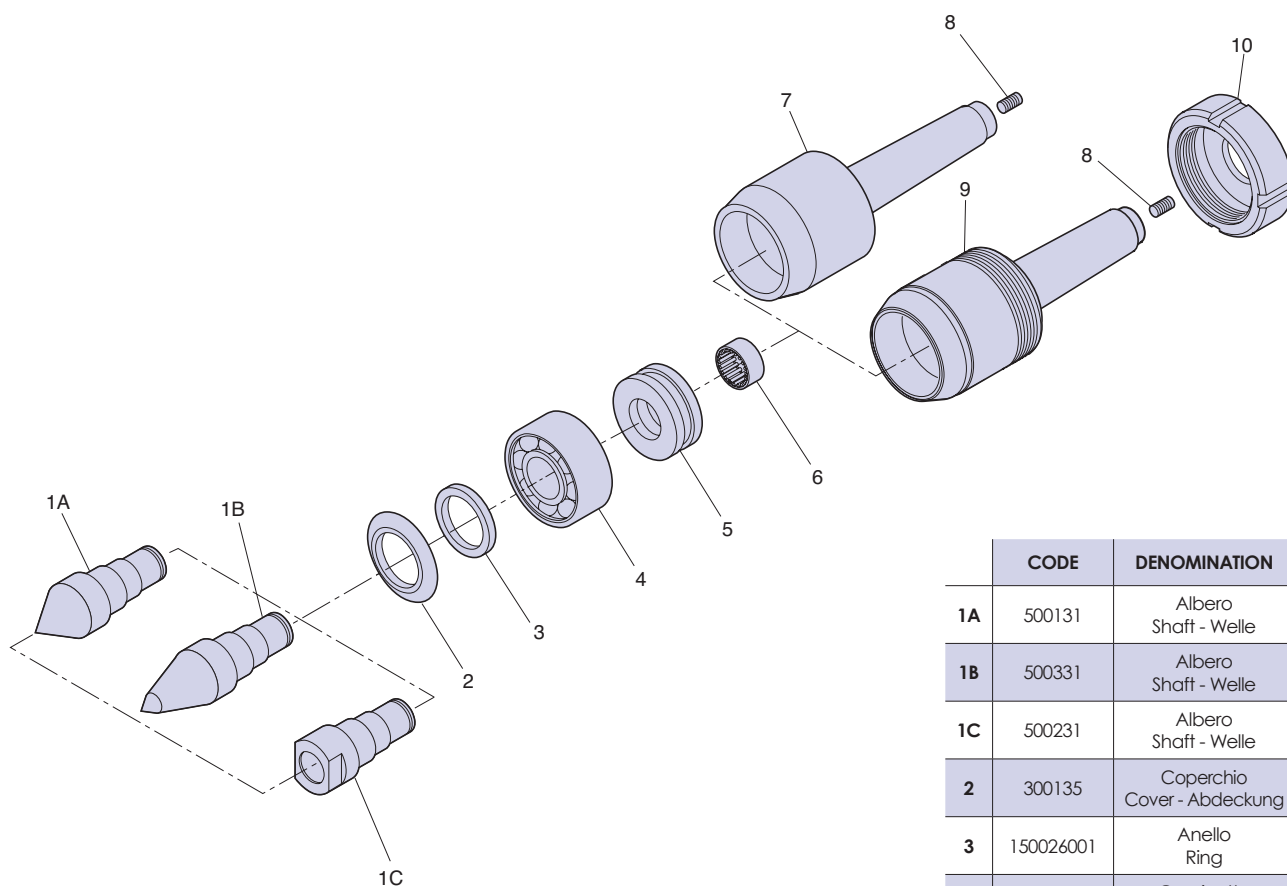


► Code **50023**

Carico max	daN 650
Max load	
Max Belastung	
Eccentricità max	mm 0,006
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

► Code **51023**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



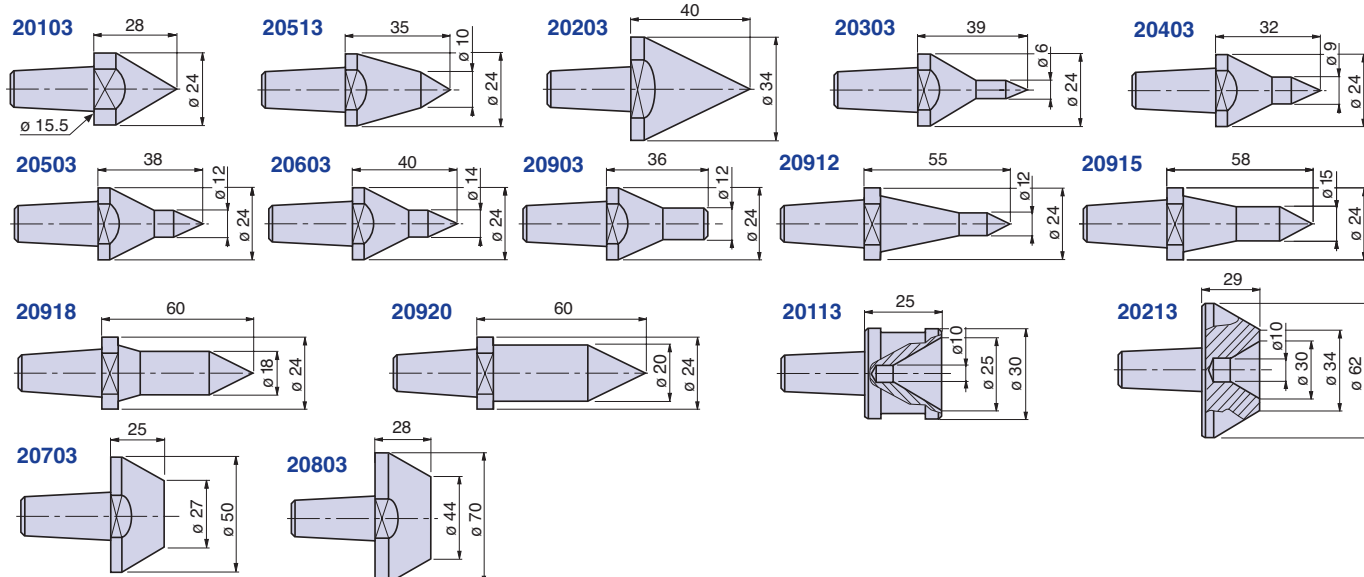
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

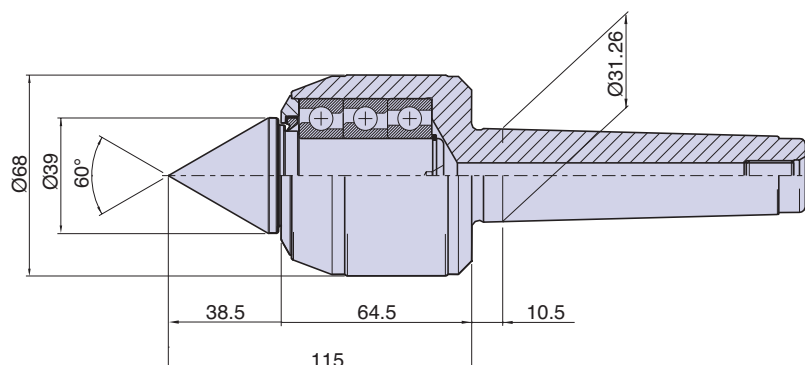


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	500131	Albero Shaft - Welle	1
1B	500331	Albero Shaft - Welle	1
1C	500231	Albero Shaft - Welle	1
2	300135	Coperchio Cover - Abdeckung	1
3	150026001	Anello Ring	1
4	020017002	Cuscinetto Bearing - Lager	1
5	050015002	Cuscinetto Bearing - Lager	1
6	080012001	Cuscinetto Bearing - Lager	1
7	500130	Corpo Body - Körper	1
8	170010002	Vite Screw - Schraube	1
9	510130	Corpo Body - Körper	1
10	310333	Ghiera Ring-nut Abdrückmutter	1



Contropunta tipo CN4/S (standard) per cono morse 4
 Live center type CN4/S (standard) for taper 4
 Körnerspitze Typ CN4/S (Standard) für Morsekegel 4



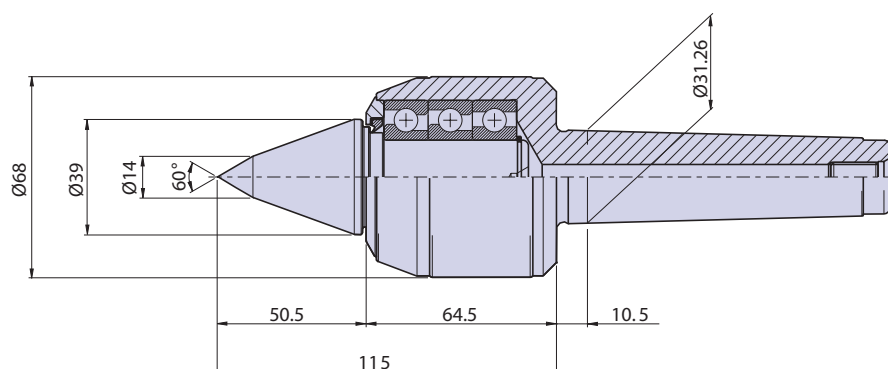
► Code **30014**

Carico max	daN 1250
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	

► Code **31034**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CN4/L (punta da copia) per cono morse 4
 Live center type CN4/L (copying point) for taper 4
 Körnerspitze Typ CN4/L (verlängerte Laufspitze) für Morsekegel 4



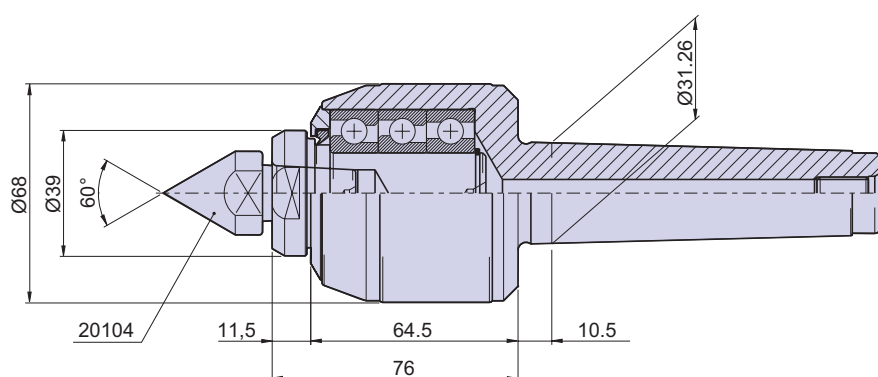
► Code **30034**

Carico max	daN 1000
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	

► Code **31044**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CN4/R (con ricambio) per cono morse 4
 Live center type CN4/R (with spare point) for taper 4
 Körnerspitze Typ CN4/R (mit auswechselbaren Einsätzen) für Morsekegel 4

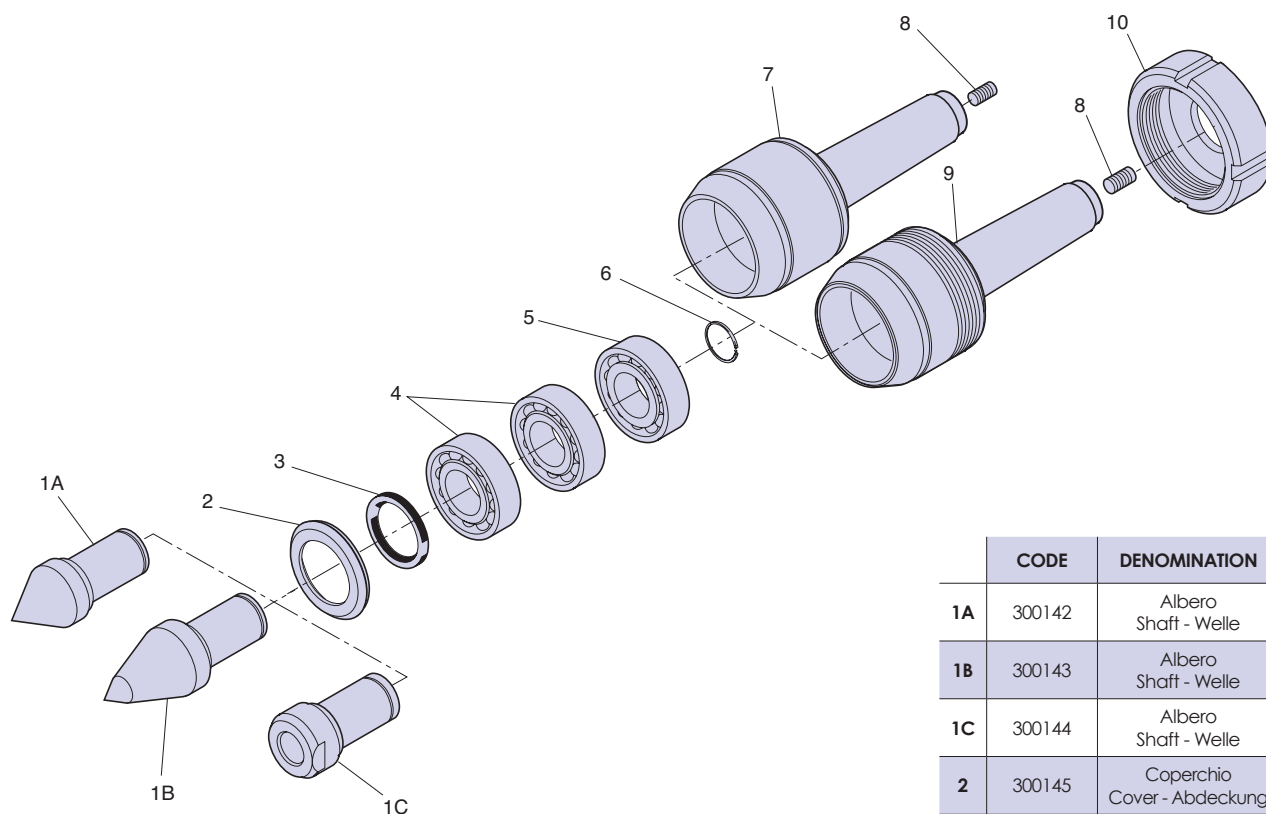


► Code **30024**

Carico max	daN 900
Max load	
Max Belastung	
Eccentricità max	mm 0,007
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	

► Code **31054**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



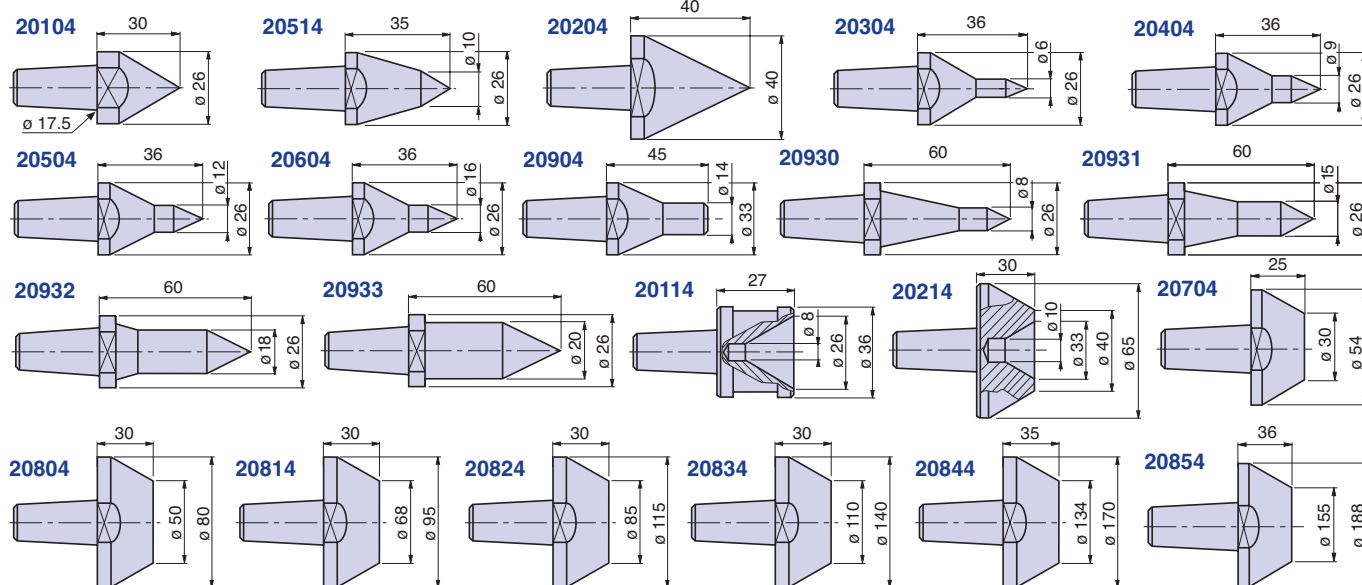
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

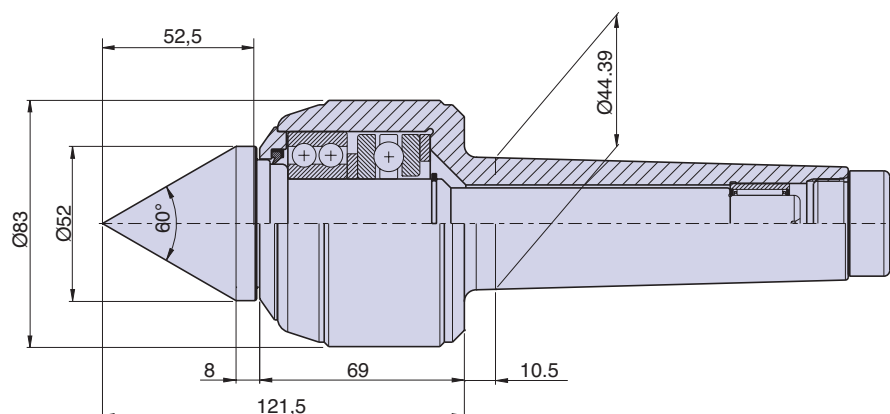


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	300142	Albero Shaft - Welle	1
1B	300143	Albero Shaft - Welle	1
1C	300144	Albero Shaft - Welle	1
2	300145	Coperchio Cover - Abdeckung	1
3	150030001	Anello Ring	1
4	040025004	Cuscinetto Bearing - Lager	2
5	010025004	Cuscinetto Bearing - Lager	1
6	160025001	Anello Ring	1
7	300140	Corpo Body - Körper	1
8	170010002	Vite Screw - Schraube	1
9	310340	Corpo Body - Körper	1
10	310433	Ghiera Ring-nut Abdrückmutter	1



Contropunta tipo CN5/S (standard) per cono morse 5
 Live center type CN5/S (standard) for taper 5
 Körnerspitze Typ CN5/S (Standard) für Morsekegel 5



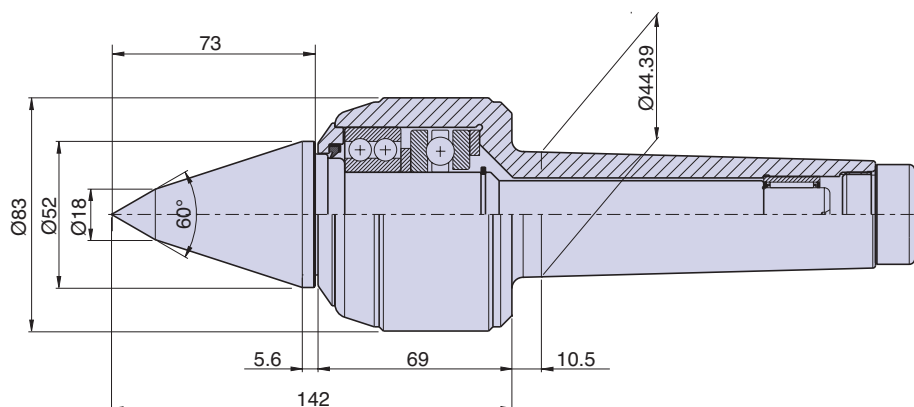
► Code 30015

Carico max	daN 3300
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	2500
R.p.m.	
U/min	

► Code 31035

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CN5/L (punta da copia) per cono morse 5
 Live center type CN5/L (copying point) for taper 5
 Körnerspitze Typ CN5/L (verlängerte Laufspitze) für Morsekegel 5



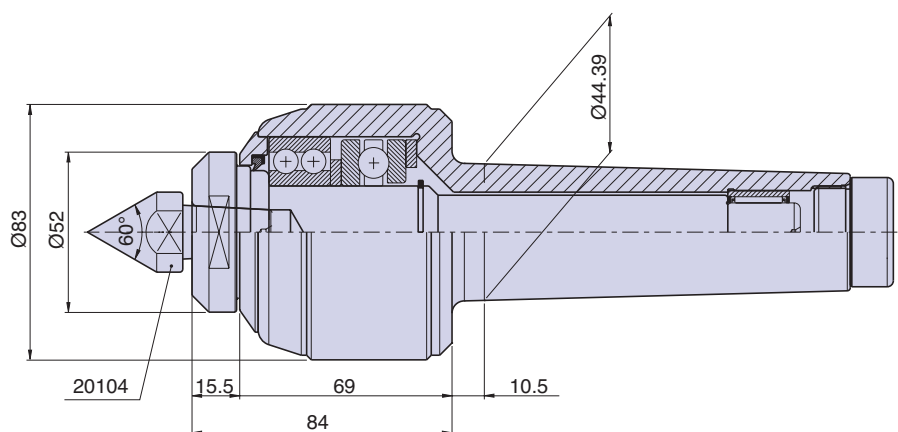
► Code 30035

Carico max	daN 2600
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	2500
R.p.m.	
U/min	

► Code 31045

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CN5/R (con ricambio) per cono morse 5
 Live center type CN5/R (with spare point) for taper 5
 Körnerspitze Typ CN5/R (mit auswechselbaren Einsätzen) für Morsekegel 5

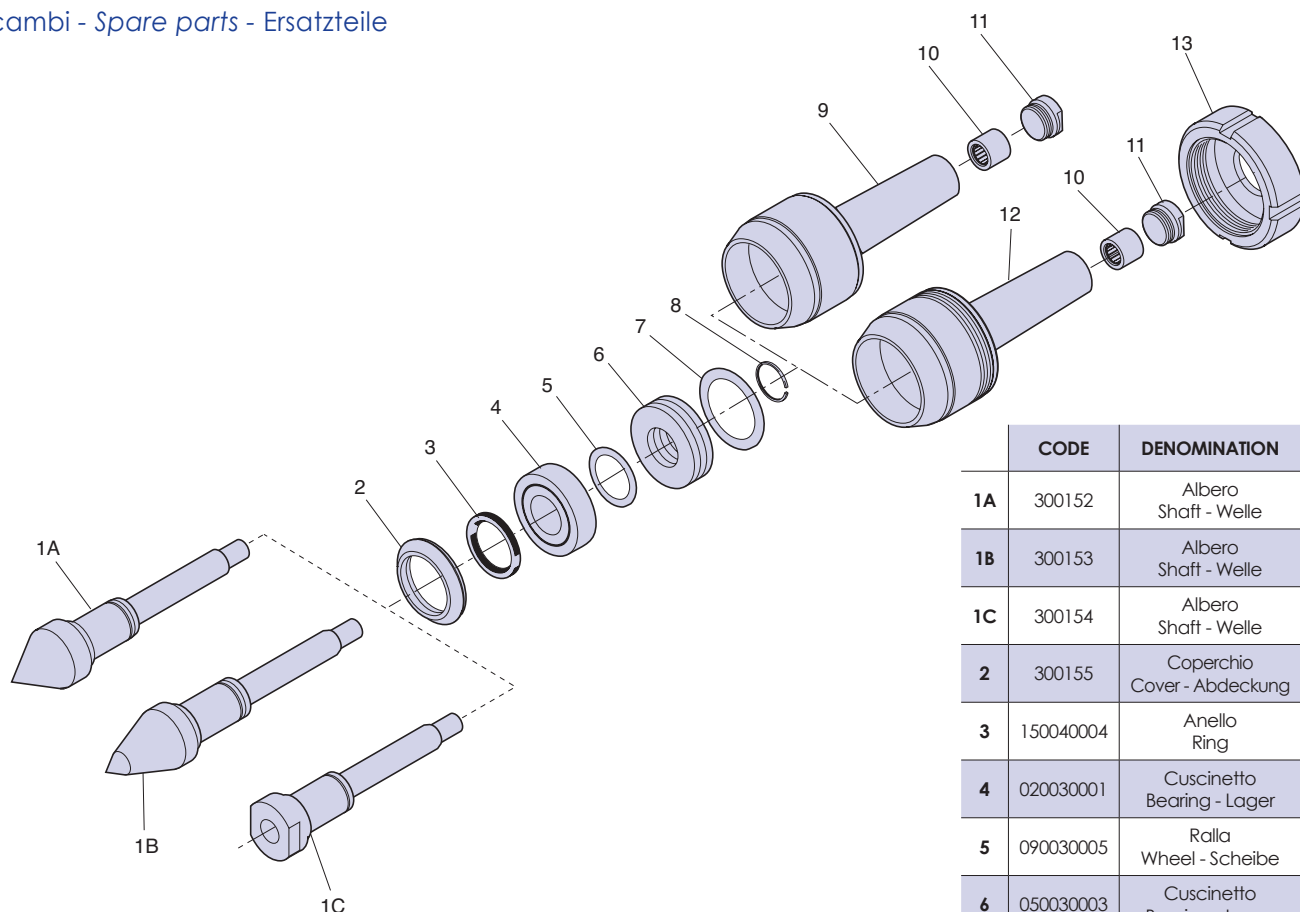


► Code 30025

Carico max	daN 2400
Max load	
Max Belastung	
Eccentricità max	mm 0,006
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	2300
R.p.m.	
U/min	

► Code 31055

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



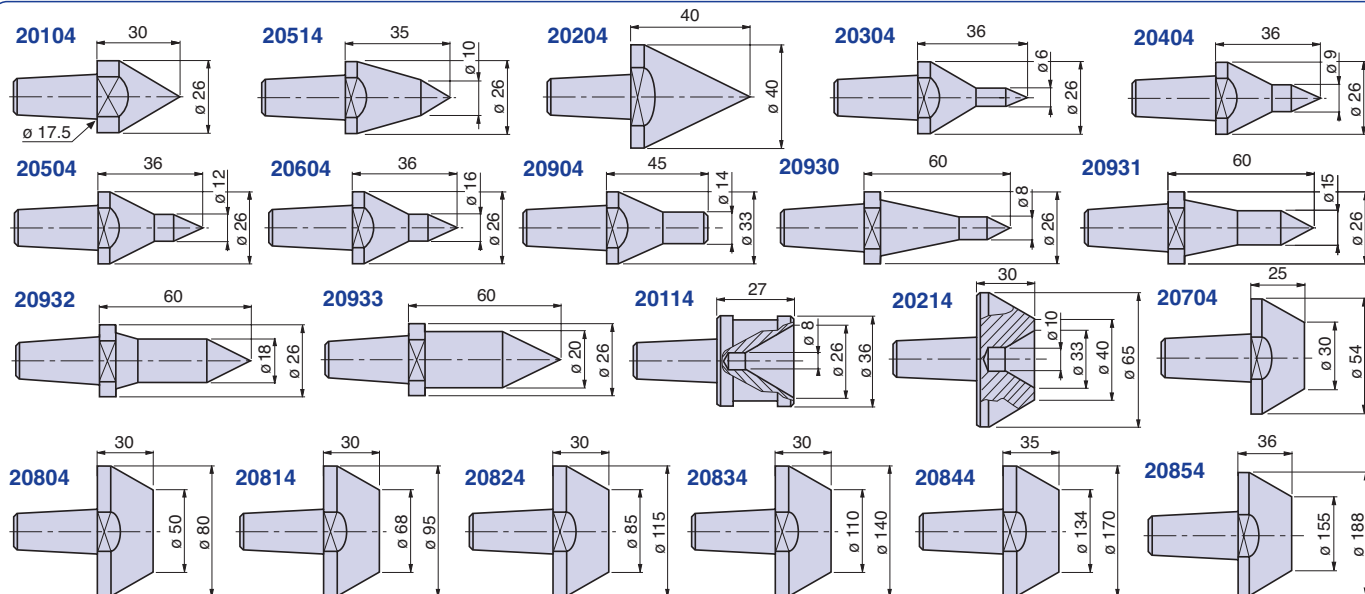
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

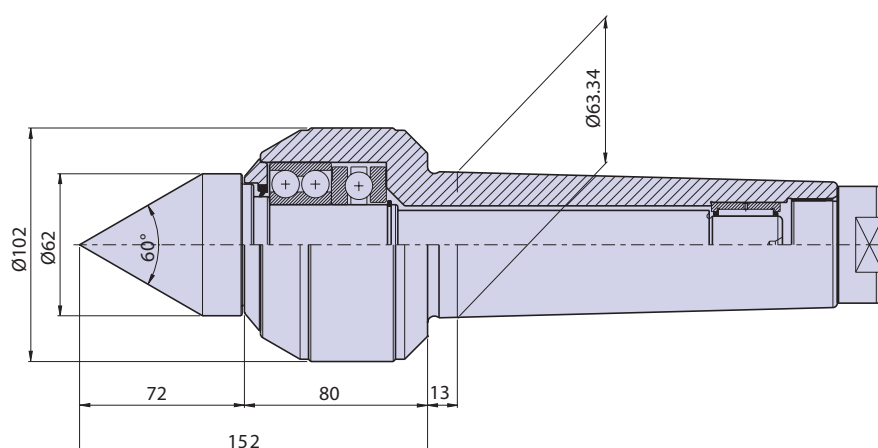


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	300152	Albero Shaft - Welle	1
1B	300153	Albero Shaft - Welle	1
1C	300154	Albero Shaft - Welle	1
2	300155	Coperchio Cover - Abdeckung	1
3	150040004	Anello Ring	1
4	020030001	Cuscinetto Bearing - Lager	1
5	090030005	Ralla Wheel - Scheibe	1
6	050030003	Cuscinetto Bearing - Lager	1
7	090040004	Ralla Wheel - Scheibe	1
8	160030001	Anello Ring	1
9	300150	Corpo Body - Körper	1
10	080019001	Cuscinetto Bearing - Lager	1
11	300156	Tappo Plug - Stopfen	1
12	310150	Corpo Body - Körper	1
13	310533	Ghiera Ring-nut Abdruckmutter	1



Contropunta tipo CN6/S (standard) per cono morse 6
 Live center type CN6/S (standard) for taper 6
 Körnerspitze Typ CN6/S (Standard) für Morsekegel 6



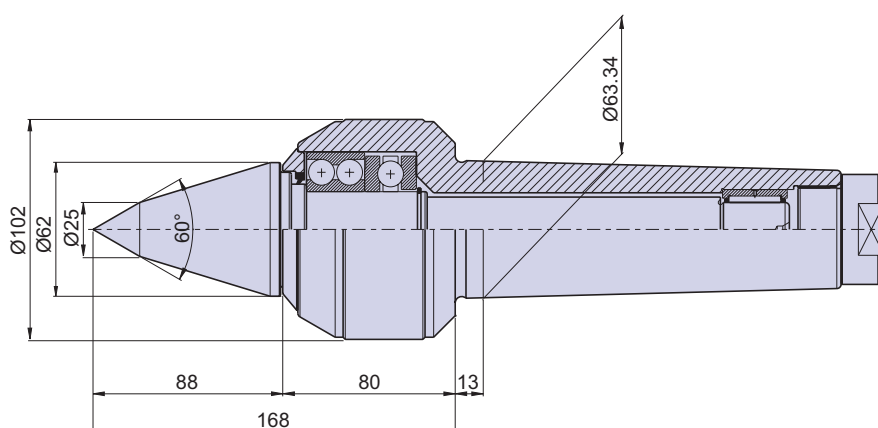
► Code 30016

Carico max	daN 4400
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	2500
R.p.m.	
U/min	

► Code 31036

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CN6/L (punta da copia) per cono morse 6
 Live center type CN6/L (copying point) for taper 6
 Körnerspitze Typ CN6/L (verlängerte Laufspitze) für Morsekegel 6



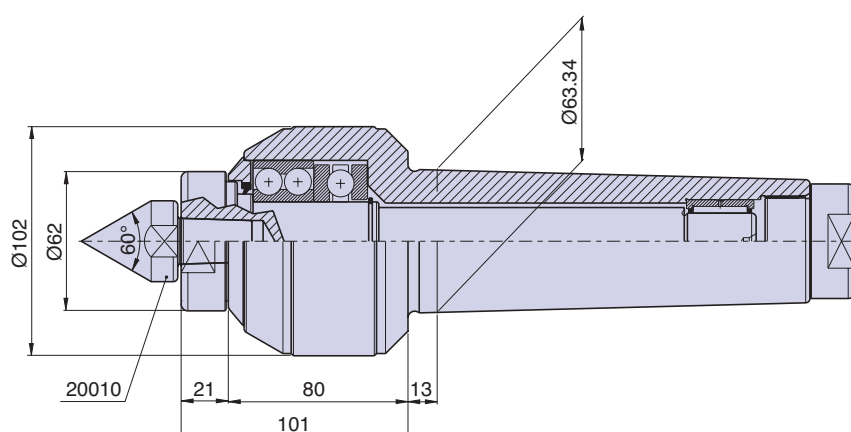
► Code 30036

Carico max	daN 4000
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	2500
R.p.m.	
U/min	

► Code 31046

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CN6/R (con ricambio) per cono morse 6
 Live center type CN6/R (with spare point) for taper 6
 Körnerspitze Typ CN6/R (mit auswechselbaren Einsätzen) für Morsekegel 6

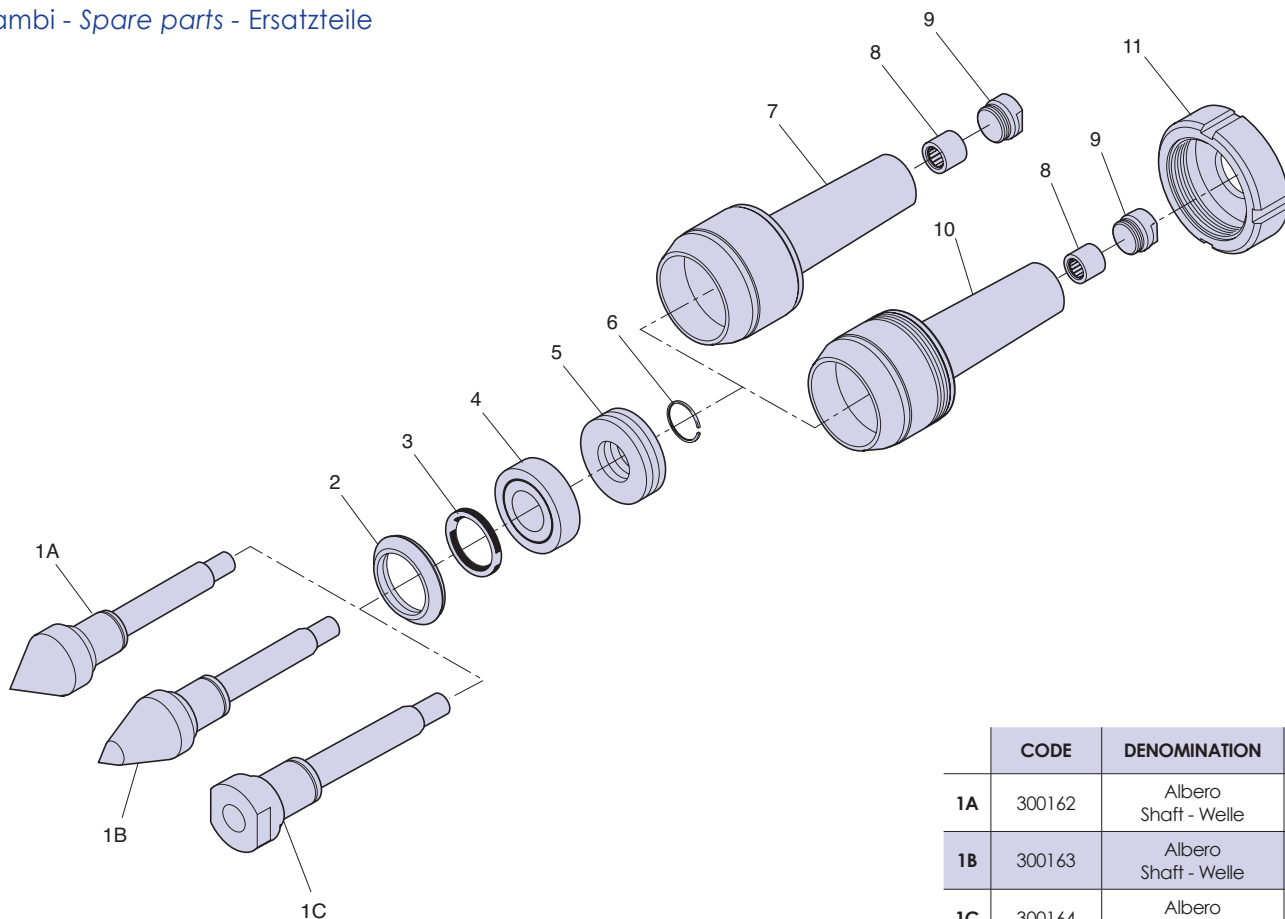


► Code 30026

Carico max	daN 3700
Max load	
Max Belastung	
Eccentricità max	mm 0,006
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	2500
R.p.m.	
U/min	

► Code 31056

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



Code 20001

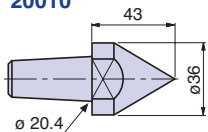
Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

Chiave per ghiera
Hook spanner
Hakenschlüssel

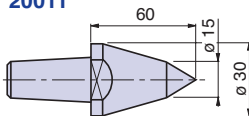


	CODE	DENOMINATION	Q.TY
1A	300162	Albero Shaft - Welle	1
1B	300163	Albero Shaft - Welle	1
1C	300164	Albero Shaft - Welle	1
2	300165	Coperchio Cover - Abdeckung	1
3	150042001	Anello Ring	1
4	040035001	Cuscinetto Bearing - Lager	1
5	320168	Cuscinetto Bearing - Lager	1
6	160035001	Anello Ring	1
7	300160	Corpo Body - Körper	1
8	080025002	Cuscinetto Bearing - Lager	1
9	300166	Tappo Plug - Stopfen	1
10	310160	Corpo Body - Körper	1
11	310633	Ghiera Ring-nut Abdrückmutter	1

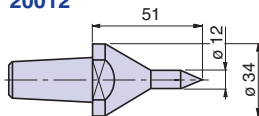
20010



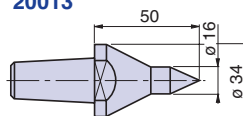
20011



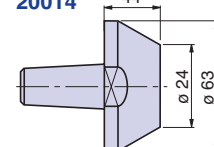
20012



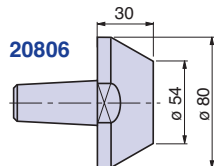
20013



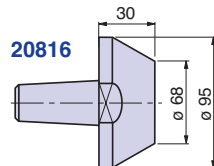
20014



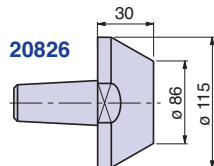
20806



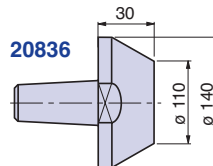
20816



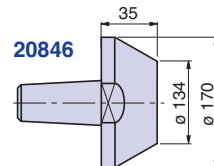
20826



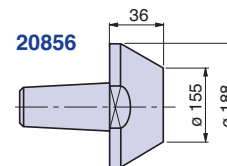
20836



20846

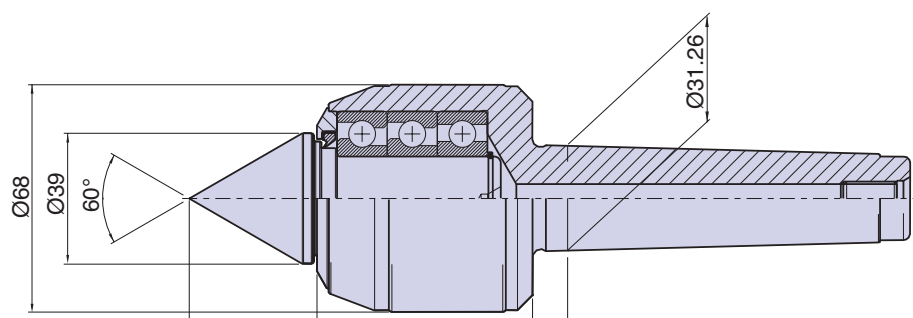


20856



Contropunta tipo CNC4/S (standard), attacco cilindrico
 Live center type CNC4/S (standard), cylindrical coupling
 Körnerspitze Typ CNC4/S (Standard), zylindrisch Anschluss

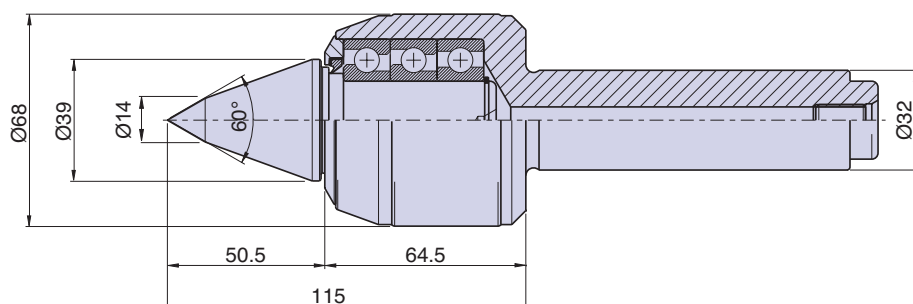
► Code

34014

Carico max	
Max load	daN 1250
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	8000
U/min	

Contropunta tipo CNC4/L (punta da copia), attacco cilindrico
 Live center type CNC4/L (copying point), cylindrical coupling
 Körnerspitze Typ CNC4/L (verlängerte Laufspitze), zylindrisch Anschluss

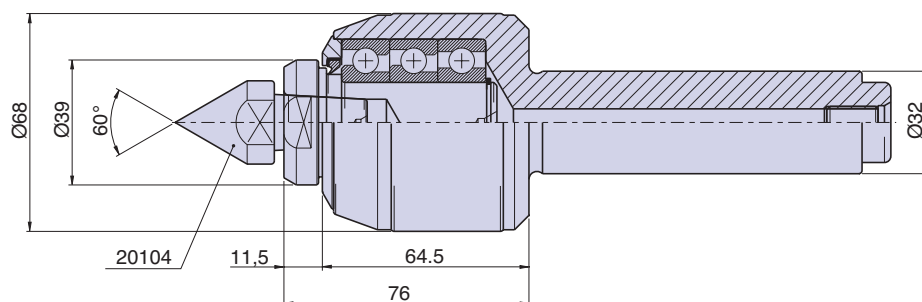
► Code

34034

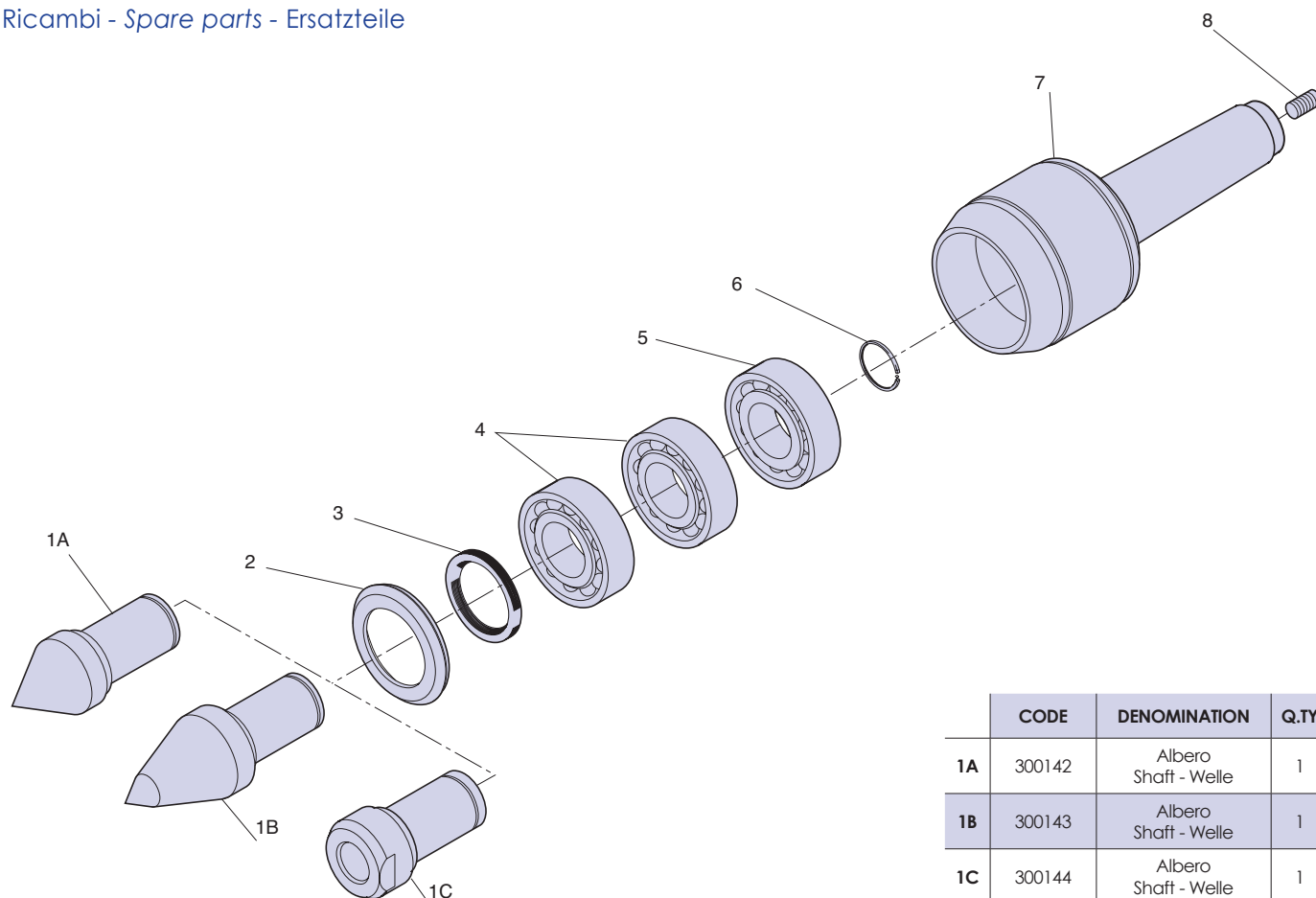
Carico max	
Max load	daN 1000
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	8000
U/min	

Contropunta tipo CNC4/R (con ricambio), attacco cilindrico
 Live center type CNC4/R (with spare point), cylindrical coupling
 Körnerspitze Typ CNC4/R (mit auswechselbaren Einsätzen), zylindrisch Anschluss

► Code

34024

Carico max	
Max load	daN 900
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,007
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	8000
U/min	



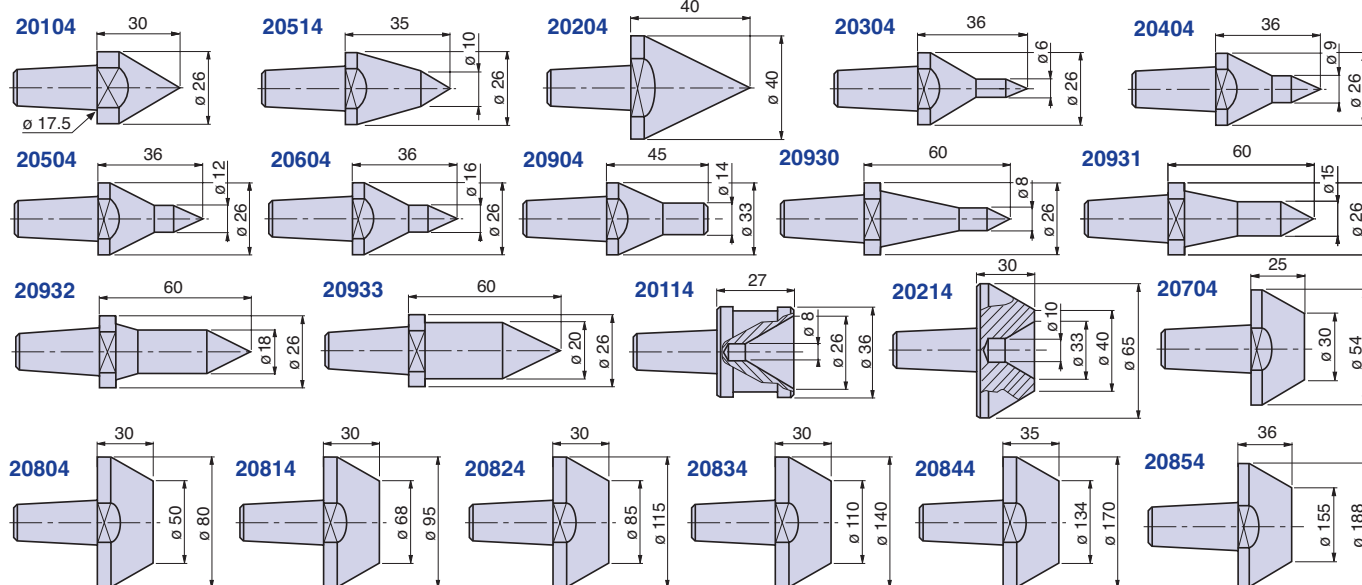
Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



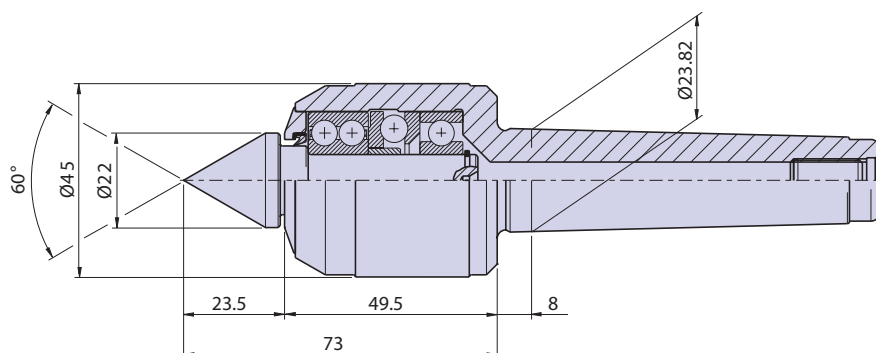
Code 20001

Per dettagli vedi pag. 44 - For details see page 44
Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	300142	Albero Shaft - Welle	1
1B	300143	Albero Shaft - Welle	1
1C	300144	Albero Shaft - Welle	1
2	300145	Coperchio Cover - Abdeckung	1
3	150030001	Anello Ring	1
4	040025004	Cuscinetto Bearing - Lager	2
5	010025004	Cuscinetto Bearing - Lager	1
6	160025001	Anello Ring	1
7	300141	Corpo Body - Körper	1
8	170010002	Vite Screw - Schraube	1



Contropunta tipo CNB3/S (standard) per cono morse 3
 Live center type CNB3/S (standard) for taper 3
 Körnerspitze Typ CNB3/S (Standard) für Morsekegel 3



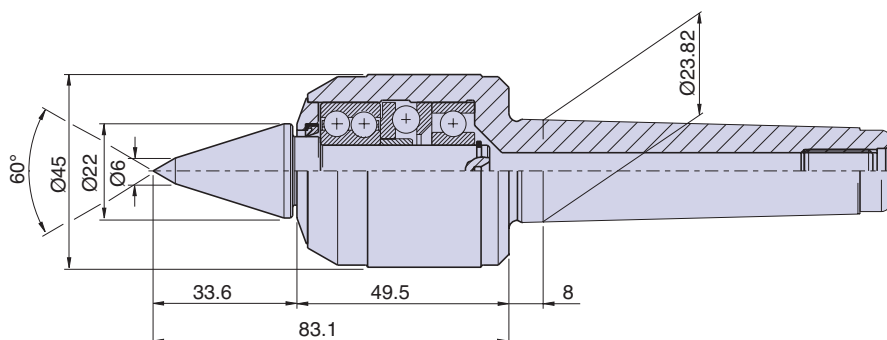
► Code **35013**

Carico max	daN 400
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

► Code **35113**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNB3/L (punta da copia) per cono morse 3
 Live center type CNB3/L (copying point) for taper 3
 Körnerspitze Typ CNB3/L (verlängerte Laufspitze) für Morsekegel 3



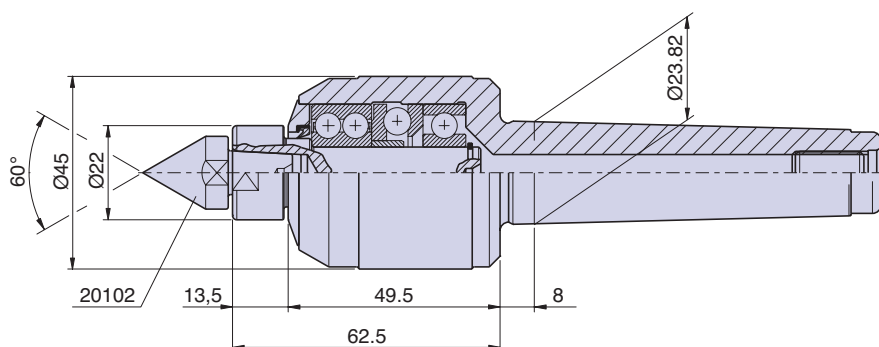
► Code **35033**

Carico max	daN 340
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

► Code **35133**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNB3/R (con ricambio) per cono morse 3
 Live center type CNB3/R (with spare point) for taper 3
 Körnerspitze Typ CNB3/R (mit auswechselbaren Einsätzen) für Morsekegel 3

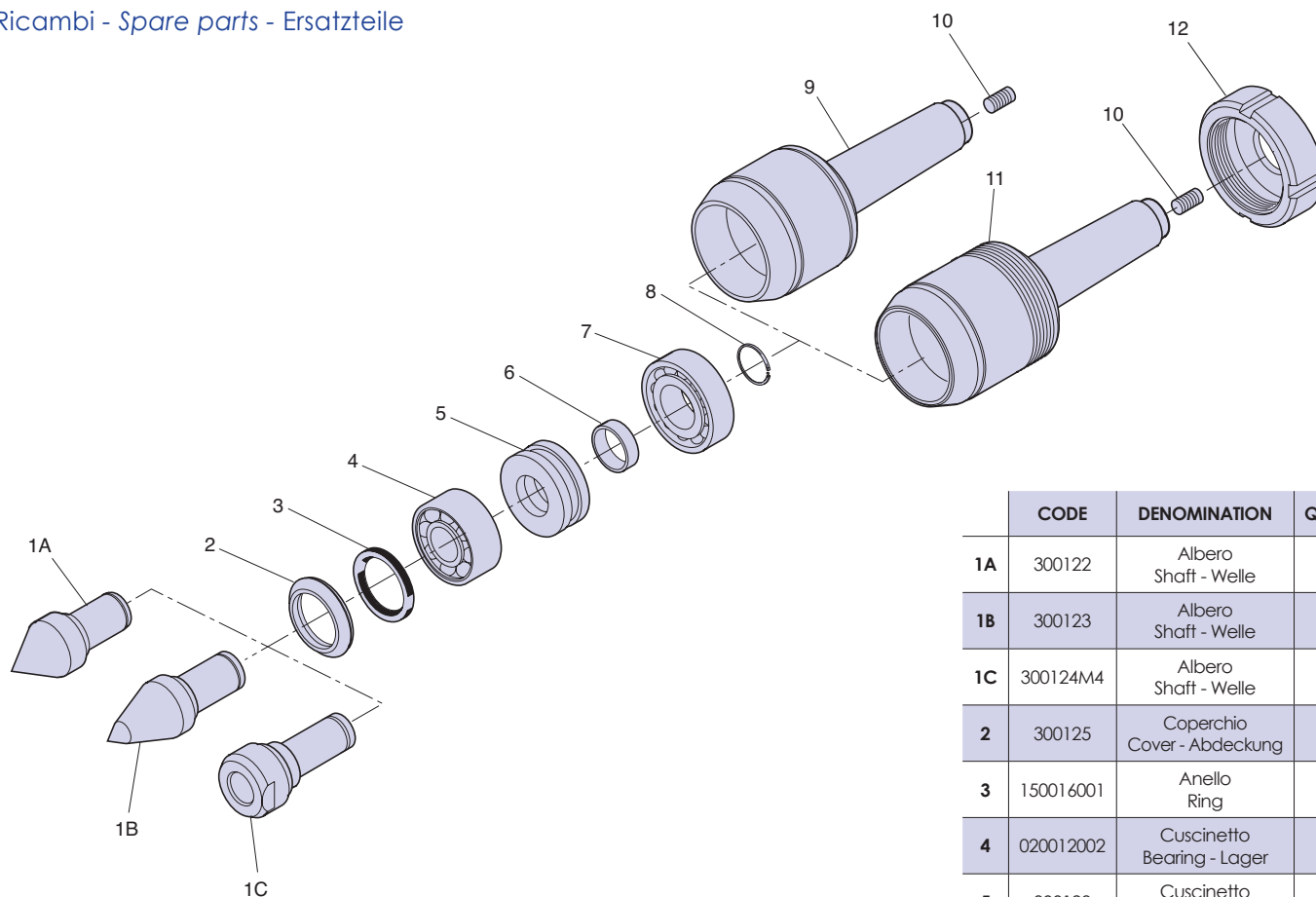


► Code **35023**

Carico max	daN 280
Max load	
Max Belastung	
Eccentricità max	mm 0,007
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

► Code **35123**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



Code 20001

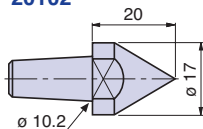
Chiave per ghiera
Ring nut wrench
Hakenschlüssel



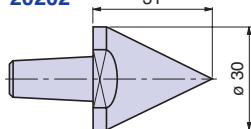
Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	300122	Albero Shaft - Welle	1
1B	300123	Albero Shaft - Welle	1
1C	300124M4	Albero Shaft - Welle	1
2	300125	Coperchio Cover - Abdeckung	1
3	150016001	Anello Ring	1
4	020012002	Cuscinetto Bearing - Lager	1
5	300128	Cuscinetto Bearing - Lager	1
6	300129	Boccola Bush - Buchse	1
7	010012004	Cuscinetto Bearing - Lager	1
8	160012001	Anello Ring	1
9	350130	Corpo Body - Körper	1
10	170010002	Vite Screw - Schraube	1
11	351130	Corpo Body - Körper	1
12	310323	Ghiera Ring-nut Abdrückmutter	1

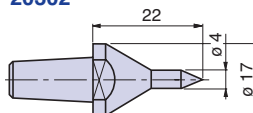
20102



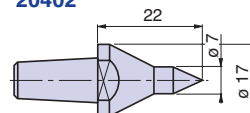
20202



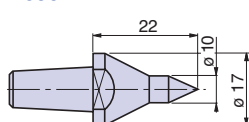
20302



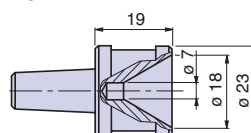
20402



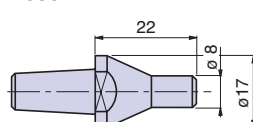
20502



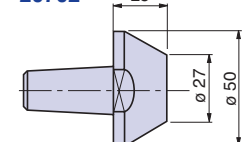
20112



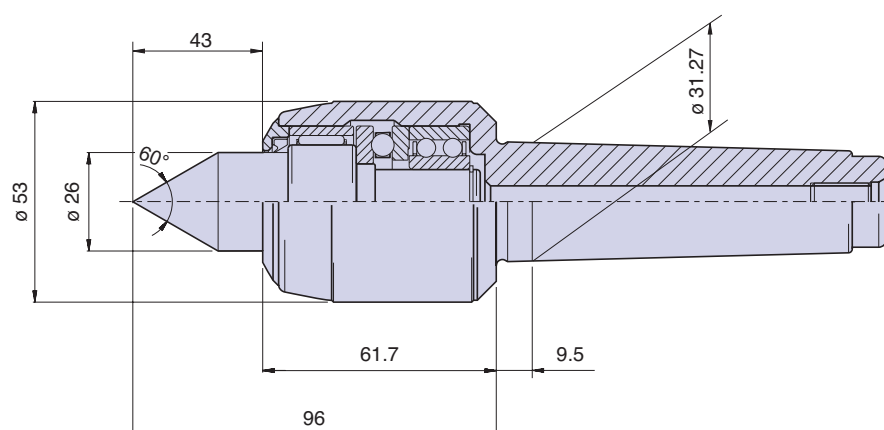
20902



20702



Contropunta tipo CNB4/S (standard) per cono morse 4
 Live center type CNB4/S (standard) for taper 4
 Körnerspitze Typ CNB4/S (Standard) für Morsekegel 4



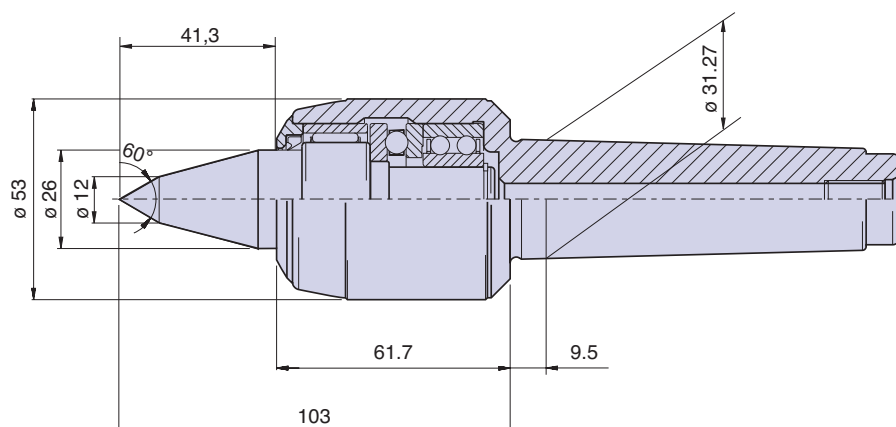
► Code **35014**

Carico max	daN 850
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5000
R.p.m.	
U/min	

► Code **35114**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNB4/L (punta da copia) per cono morse 4
 Live center type CNB4/L (copying point) for taper 4
 Körnerspitze Typ CNB4/L (verlängerte Laufspitze) für Morsekegel 4



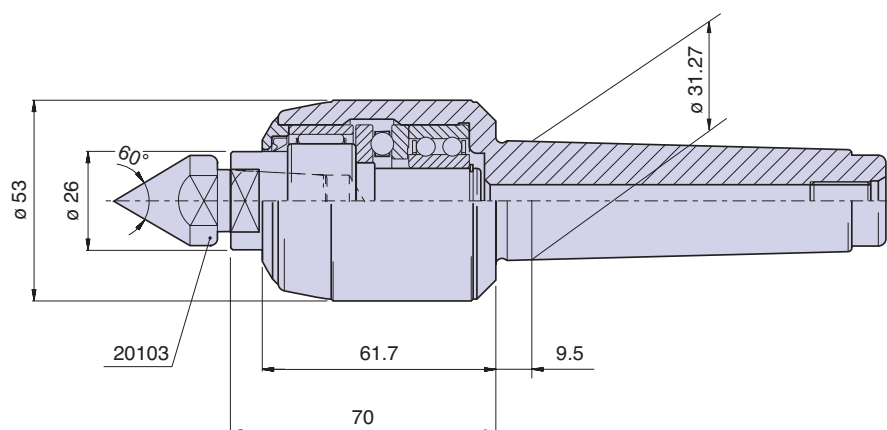
► Code **35034**

Carico max	daN 750
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5000
R.p.m.	
U/min	

► Code **35134**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNB4/R (con ricambio) per cono morse 4
 Live center type CNB4/R (with spare point) for taper 4
 Körnerspitze Typ CNB4/R (mit auswechselbaren Einsätzen) für Morsekegel 4

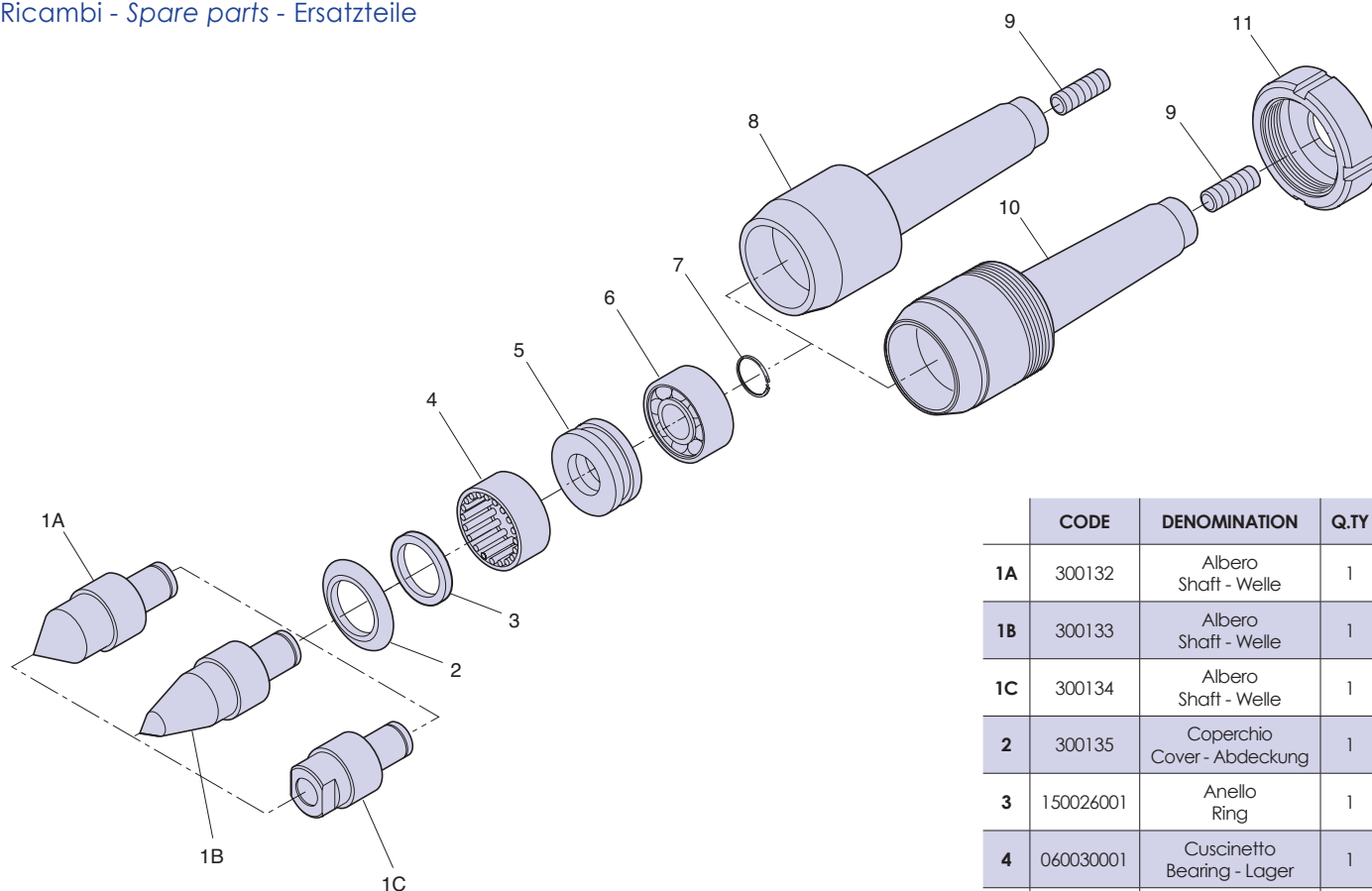


► Code **35024**

Carico max	daN 650
Max load	
Max Belastung	
Eccentricità max	mm 0,006
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5000
R.p.m.	
U/min	

► Code **35124**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



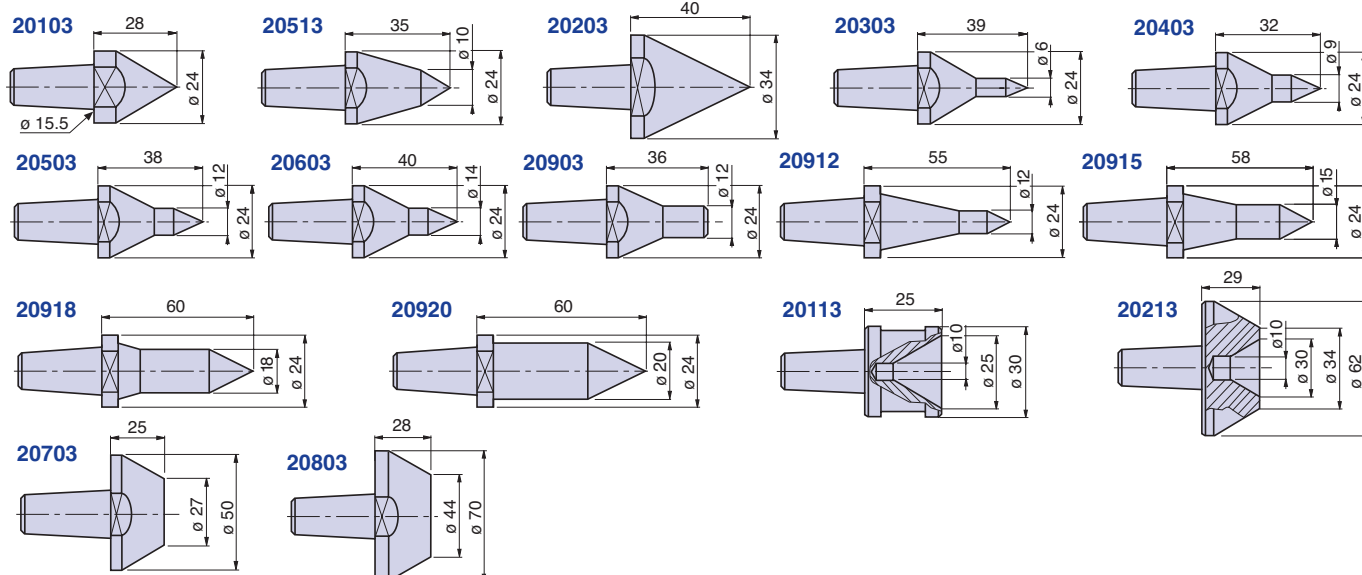
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

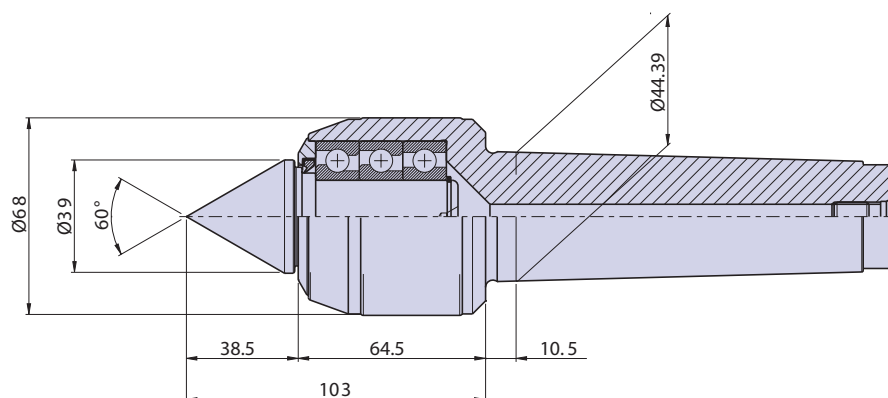


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	300132	Albero Shaft - Welle	1
1B	300133	Albero Shaft - Welle	1
1C	300134	Albero Shaft - Welle	1
2	300135	Coperchio Cover - Abdeckung	1
3	150026001	Anello Ring	1
4	060030001	Cuscinetto Bearing - Lager	1
5	300137	Cuscinetto Bearing - Lager	1
6	020017002	Cuscinetto Bearing - Lager	1
7	160017001	Anello Ring	1
8	350140	Corpo Body - Körper	1
9	170010002	Vite Screw - Schraube	1
10	351140	Corpo Body - Körper	1
11	w	Ghiera Ring-nut Abdrückmutter	1



Contropunta tipo CNB5/S (standard) per cono morse 5
 Live center type CNB5/S (standard) for taper 5
 Körnerspitze Typ CNB5/S (Standard) für Morsekegel 5



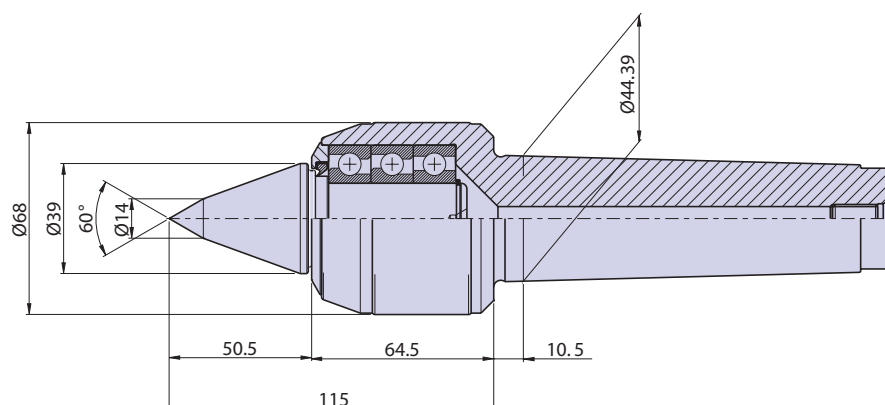
► Code **35015**

Carico max	daN 1250
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	

► Code **35115**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNB5/L (punta da copia) per cono morse 5
 Live center type CNB5/L (copying point) for taper 5
 Körnerspitze Typ CNB5/L (verlängerte Laufspitze) für Morsekegel 5



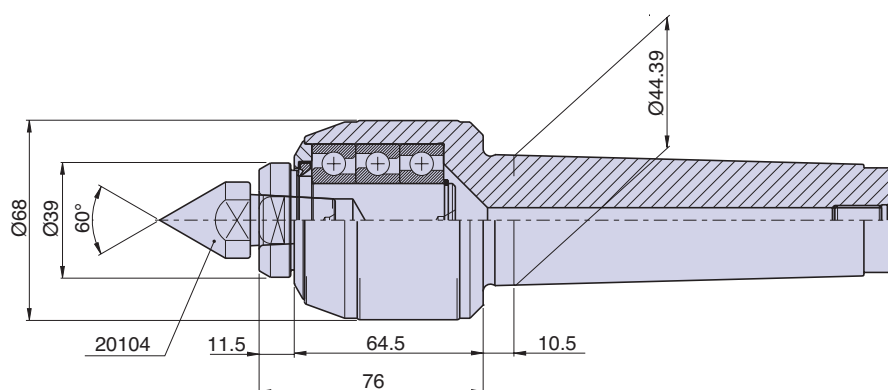
► Code **35035**

Carico max	daN 1000
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	

► Code **35135**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNB5/R (con ricambio) per cono morse 5
 Live center type CNB5/R (with spare point) for taper 5
 Körnerspitze Typ CNB5/R (mit auswechselbaren Einsätzen) für Morsekegel 5

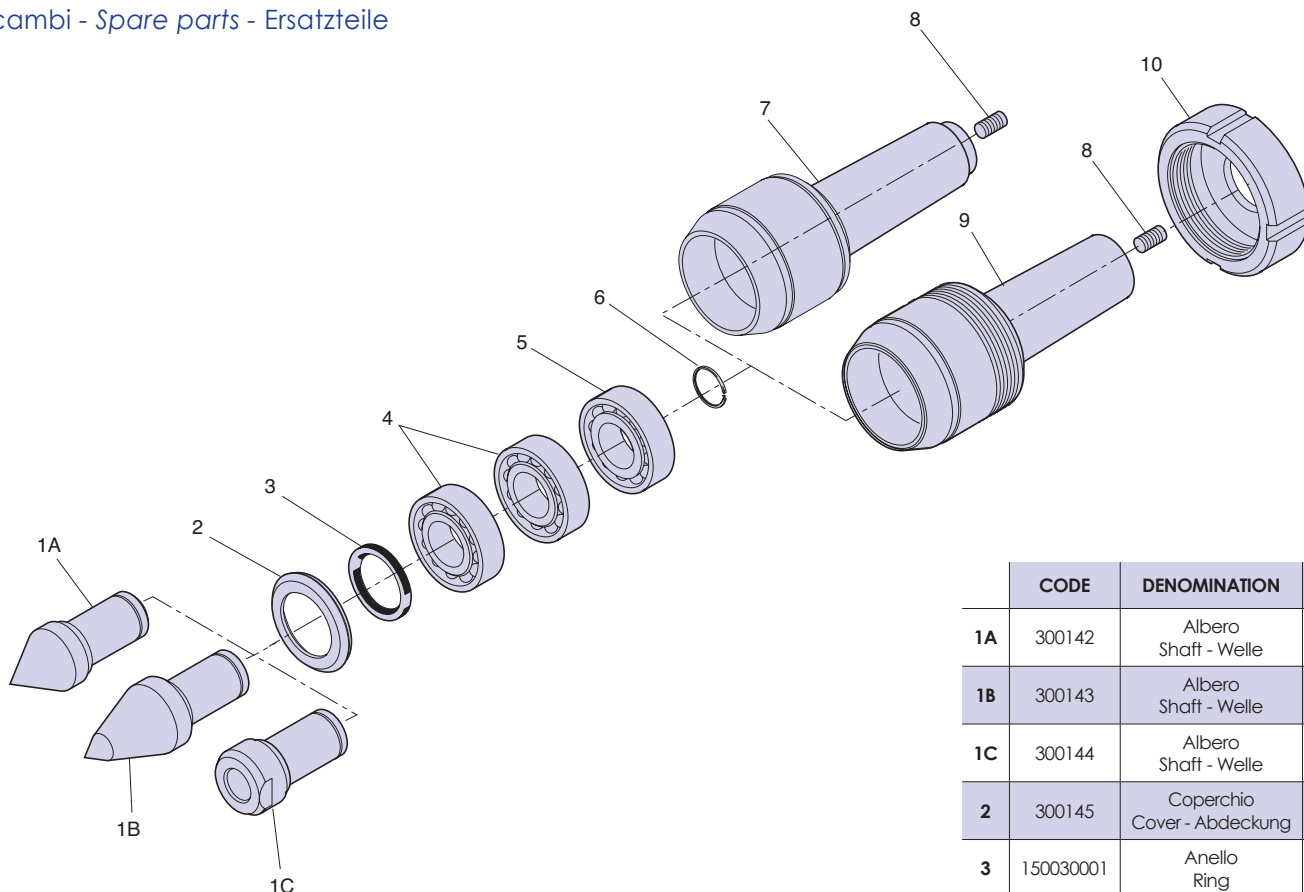


► Code **35025**

Carico max	daN 900
Max load	
Max Belastung	
Eccentricità max	mm 0,007
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	

► Code **35125**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



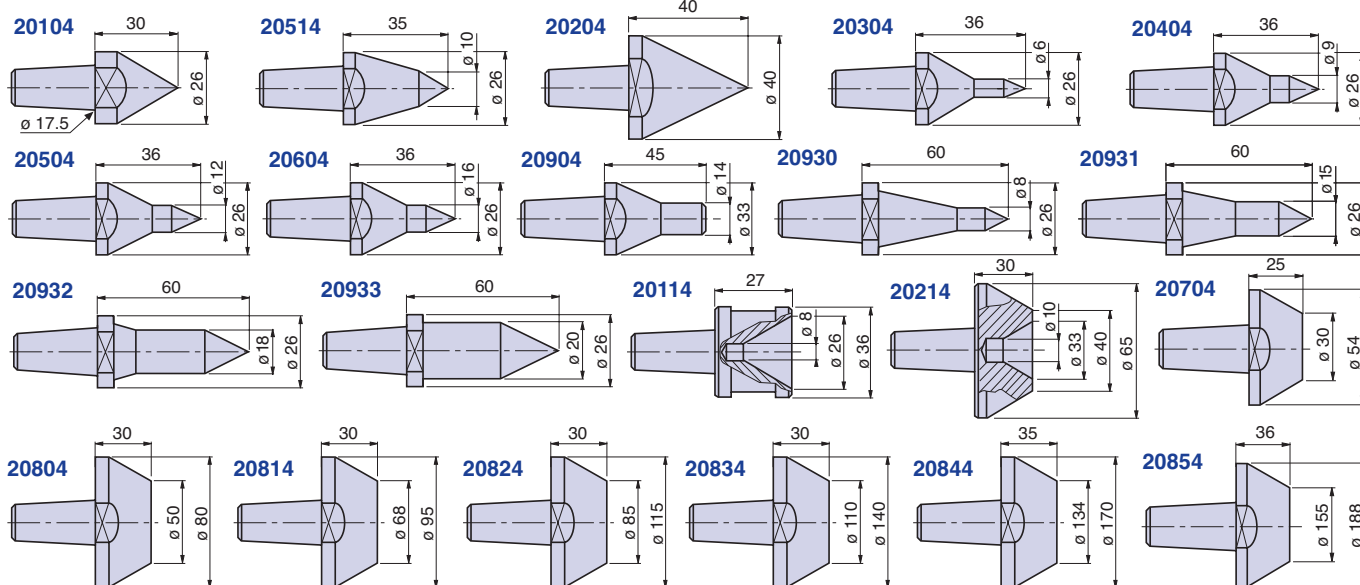
Code 20001

Chiave per ghiera
Ring nut wrench
Hakenschlüssel

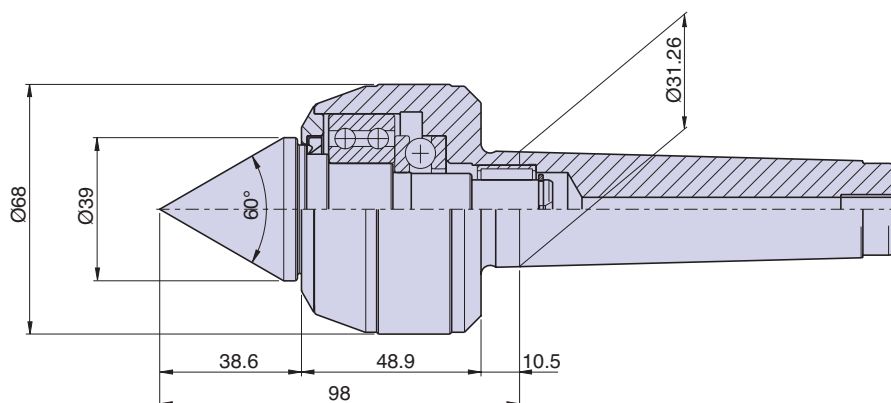


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	300142	Albero Shaft - Welle	1
1B	300143	Albero Shaft - Welle	1
1C	300144	Albero Shaft - Welle	1
2	300145	Coperchio Cover - Abdeckung	1
3	150030001	Anello Ring	1
4	040025004	Cuscinetto Bearing - Lager	2
5	010025004	Cuscinetto Bearing - Lager	1
6	160025001	Anello Ring	1
7	350150	Corpo Body - Körper	1
8	170010001	Vite Screw - Schraube	1
9	351150	Corpo Body - Körper	1
10	310433	Ghiera Ring-nut Abdrückmutter	1



Contropunta tipo CNE4/S per cono morse 4
 Live center type CNE4/S for taper 4
 Körnerspitze Typ CNE4/S für Morsekegel 4



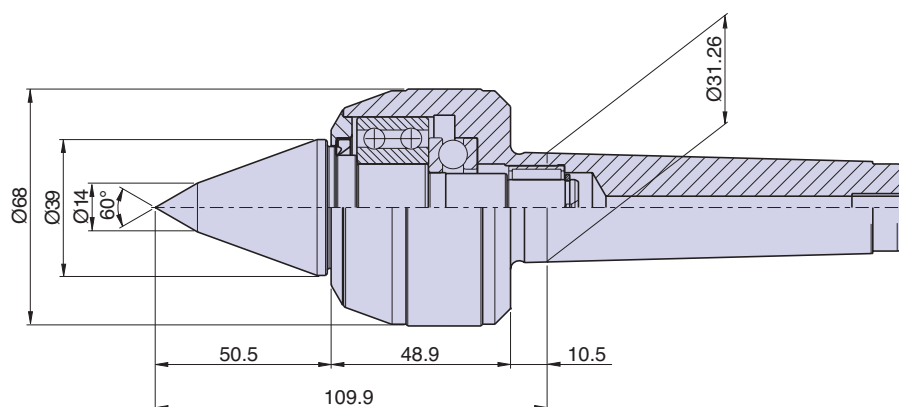
► Code **50014**

Carico max	daN 1100
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	4500
R.p.m.	
U/min	

► Code **51014**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNE4/L per cono morse 4
 Live center type CNE4/L for taper 4
 Körnerspitze Typ CNE4/L für Morsekegel 4



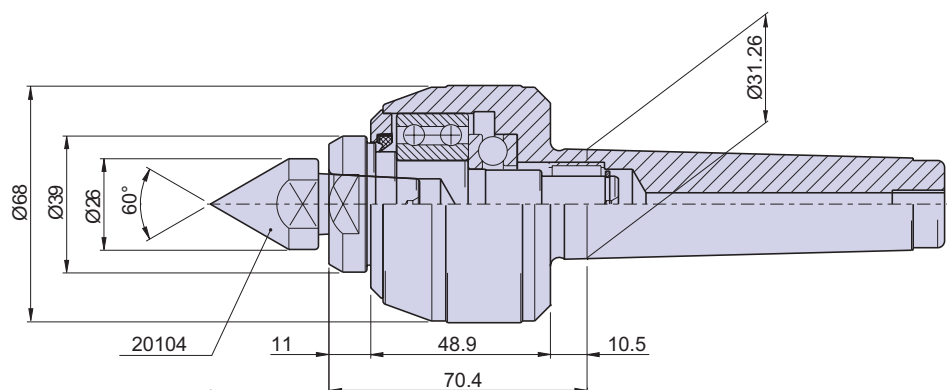
► Code **50034**

Carico max	daN 900
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	4500
R.p.m.	
U/min	

► Code **51034**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNE4/R (con ricambio) per cono morse 4
 Live center type CNE4/R (with spare point) for taper 4
 Körnerspitze Typ CNE4/R (mit auswechselbaren Einsätzen) für Morsekegel 4

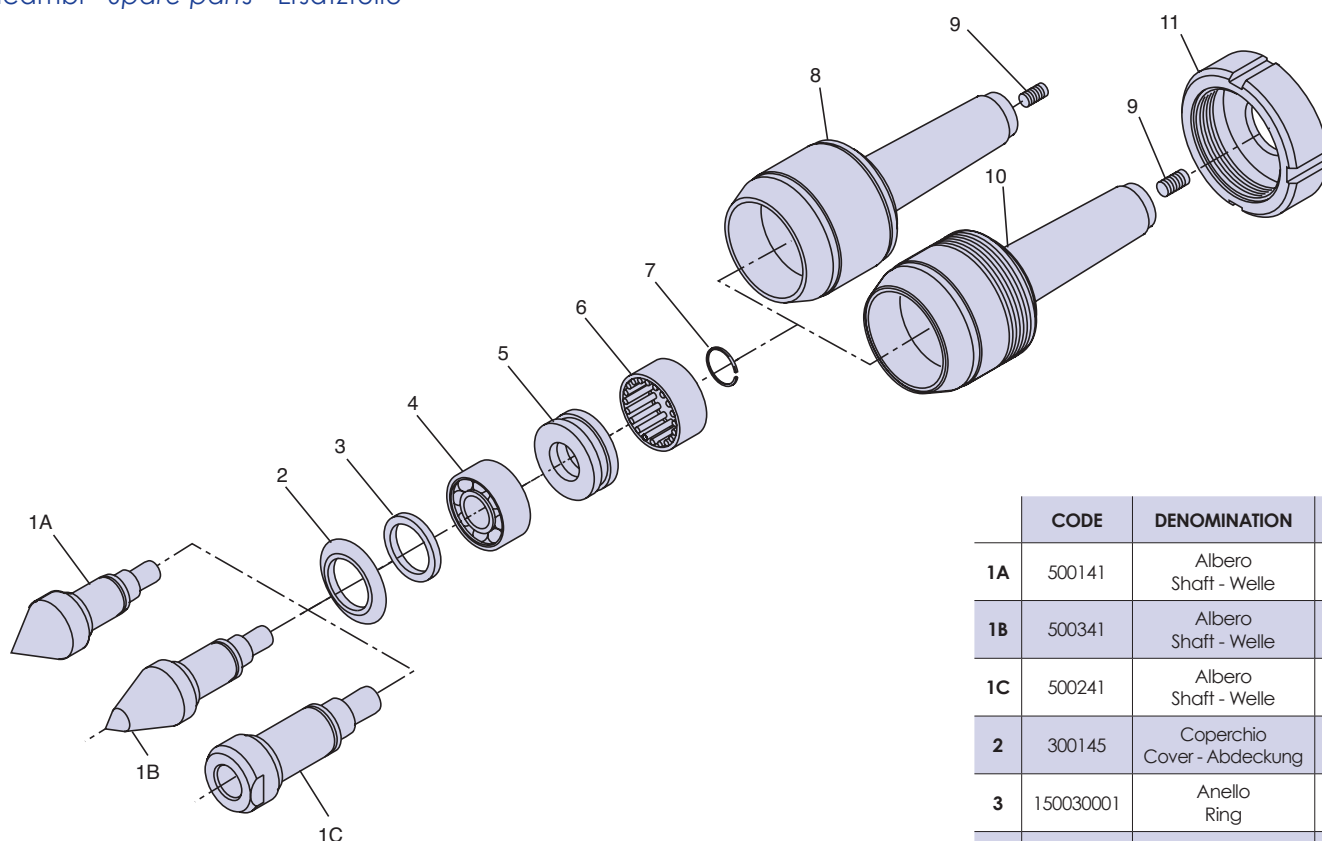


► Code **50024**

Carico max	daN 800
Max load	
Max Belastung	
Eccentricità max	mm 0,006
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	4500
R.p.m.	
U/min	

► Code **51024**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



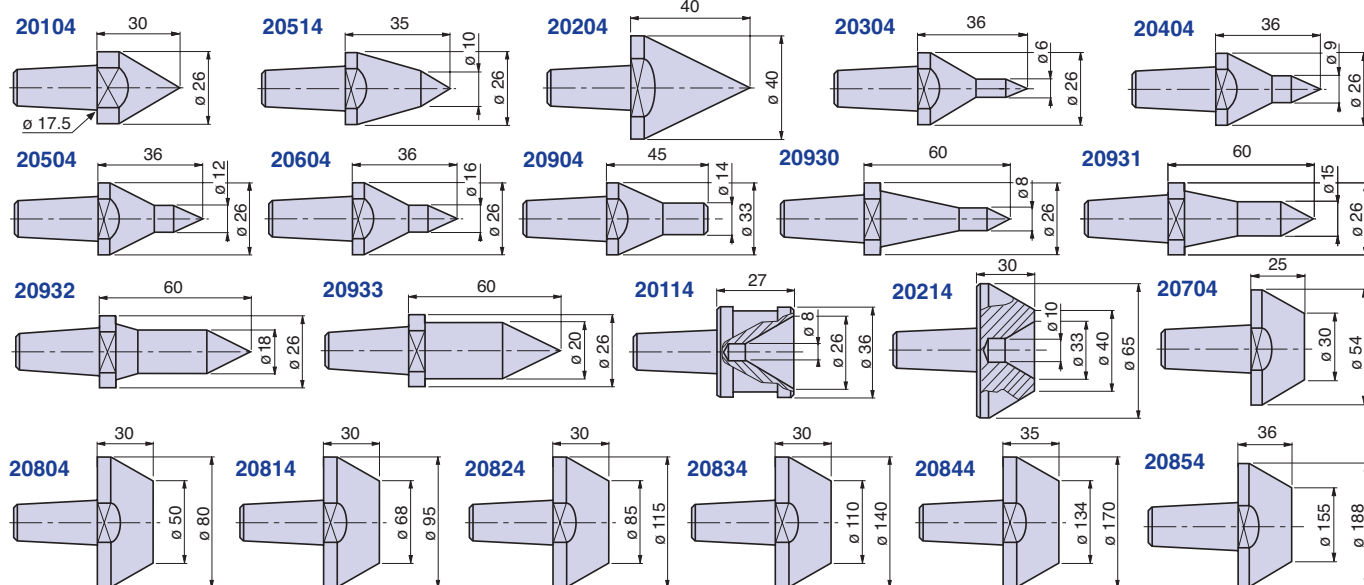
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

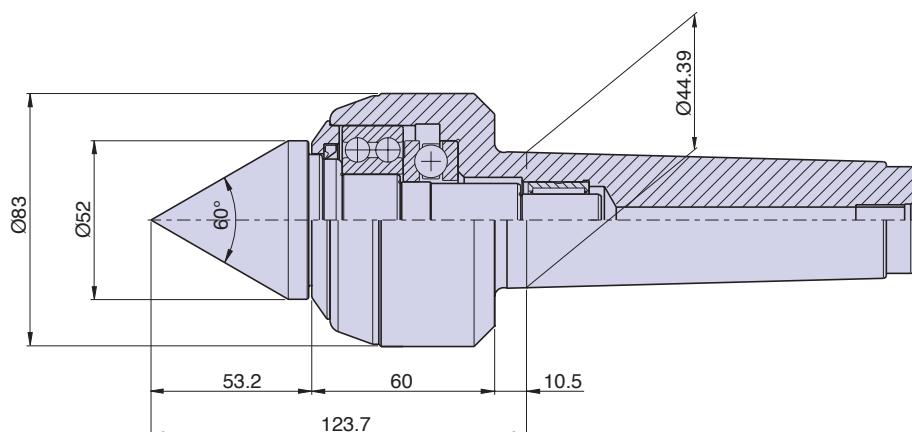


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	500141	Albero Shaft - Welle	1
1B	500341	Albero Shaft - Welle	1
1C	500241	Albero Shaft - Welle	1
2	300145	Coperchio Cover - Abdeckung	1
3	150030001	Anello Ring	1
4	020025001	Cuscinetto Bearing - Lager	1
5	050020002	Cuscinetto Bearing - Lager	1
6	080016001	Cuscinetto Bearing - Lager	1
7	160016001	Anello Ring	1
8	500140	Corpo Body - Körper	1
9	170008002	Vite Screw - Schraube	1
10	510140	Corpo Body - Körper	1
11	310433	Ghiera Ring-nut Abdruckmutter	1



Contropunta tipo CNE5/S per cono morse 5
 Live center type CNE5/S for taper 5
 Körnerspitze Typ CNE5/S für Morsekegel 5



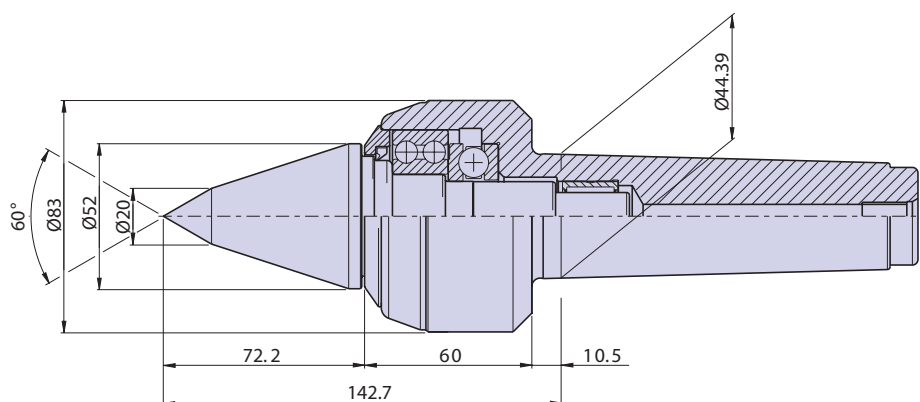
► Code **50015**

Carico max	daN 2300
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	3500
R.p.m.	
U/min	

► Code **51015**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNE5/L per cono morse 5
 Live center type CNE5/L for taper 5
 Körnerspitze Typ CNE5/L für Morsekegel 5



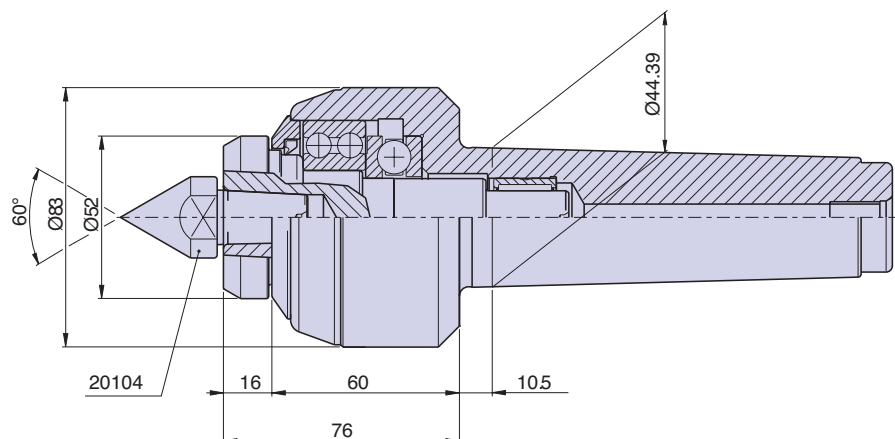
► Code **50035**

Carico max	daN 2000
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	3500
R.p.m.	
U/min	

► Code **51035**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNE5/R (con ricambio) per cono morse 5
 Live center type CNE5/R (with spare point) for taper 5
 Körnerspitze Typ CNE5/R (mit auswechselbaren Einsätzen) für Morsekegel 5

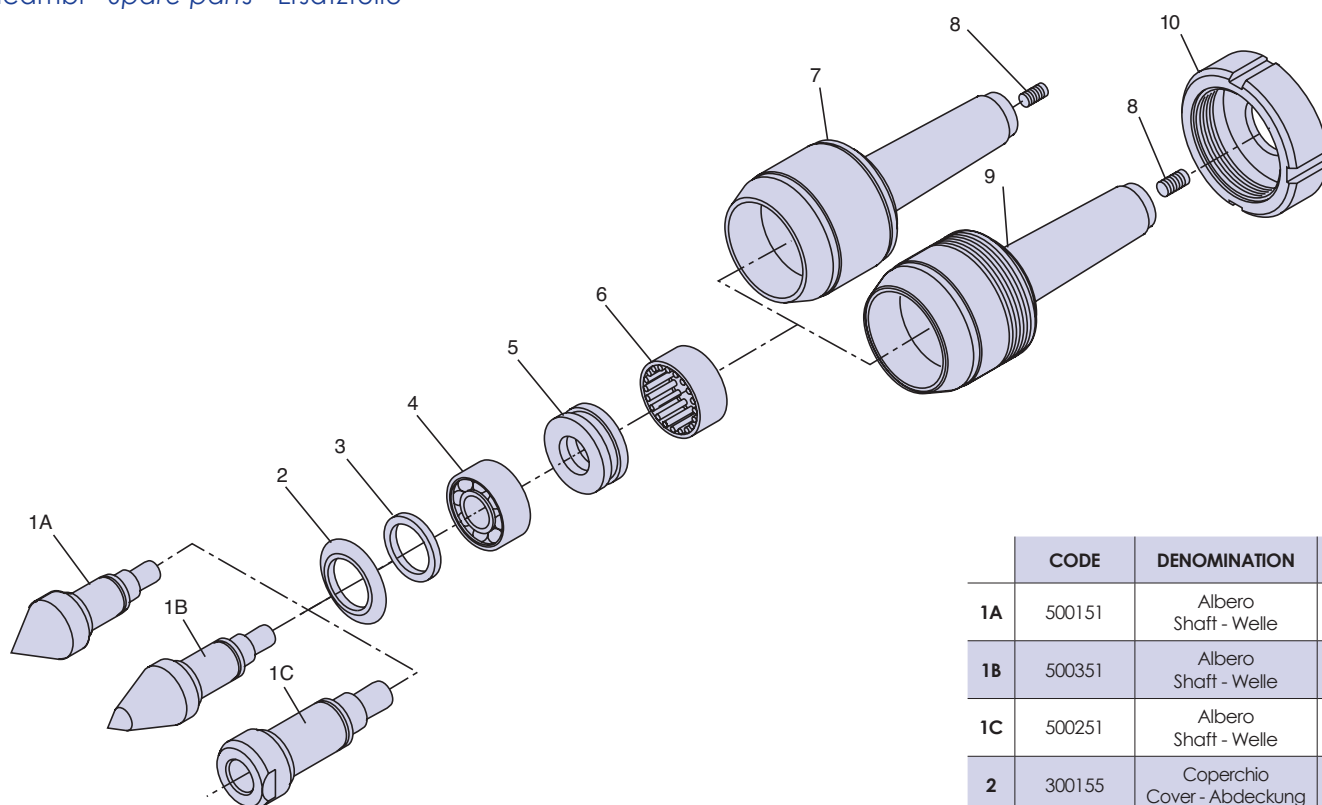


► Code **50025**

Carico max	daN 1900
Max load	
Max Belastung	
Eccentricità max	mm 0,006
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	3500
R.p.m.	
U/min	

► Code **51025**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



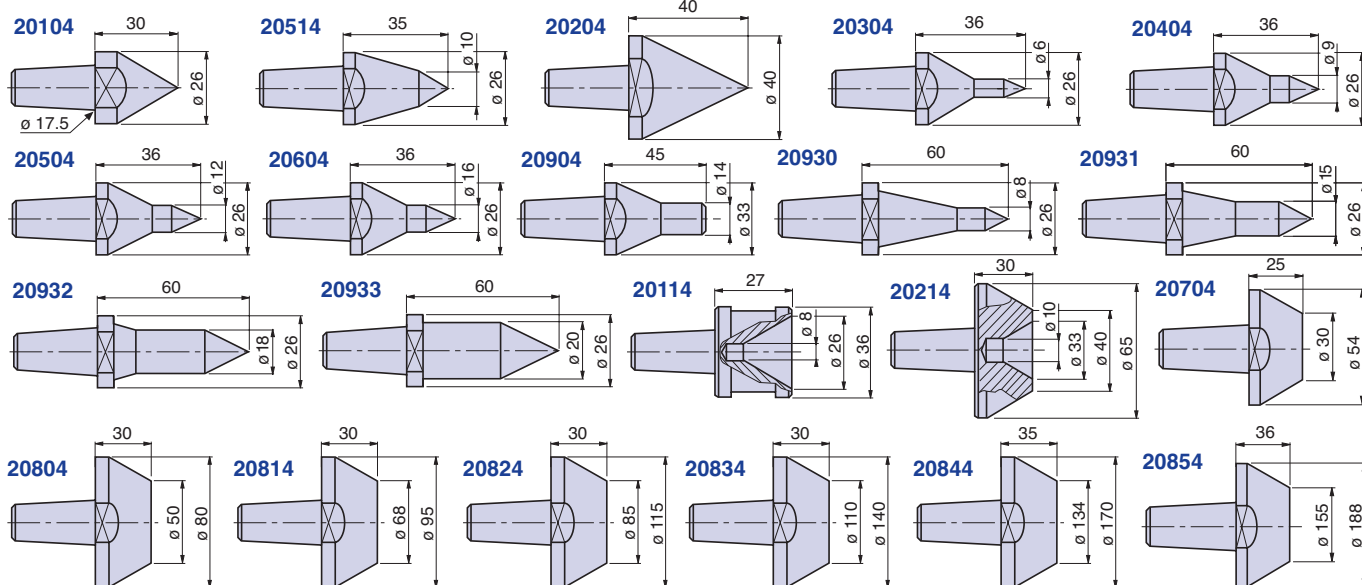
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

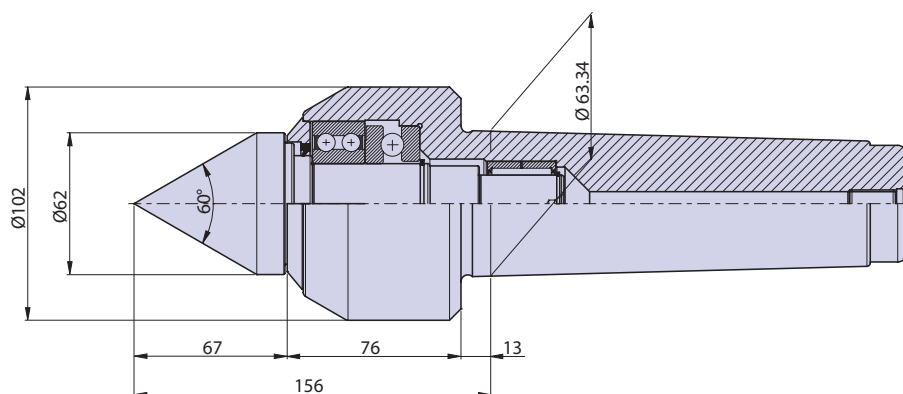


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	500151	Albero Shaft - Welle	1
1B	500351	Albero Shaft - Welle	1
1C	500251	Albero Shaft - Welle	1
2	300155	Coperchio Cover - Abdeckung	1
3	15004004	Anello Ring	1
4	020030001	Cuscinetto Bearing - Lager	1
5	050.025.004	Cuscinetto Bearing - Lager	1
6	080017010	Cuscinetto Bearing - Lager	1
7	500150	Corpo Body - Körper	1
8	170010001	Vite Screw - Schraube	1
9	510150	Corpo Body - Körper	1
10	310533	Ghiera Ring-nut Abdrückmutter	1



Contropunta tipo CNE6/S per cono morse 6
 Live center type CNE6/S for taper 6
 Körnerspitze Typ CNE6/S für Morsekegel 6



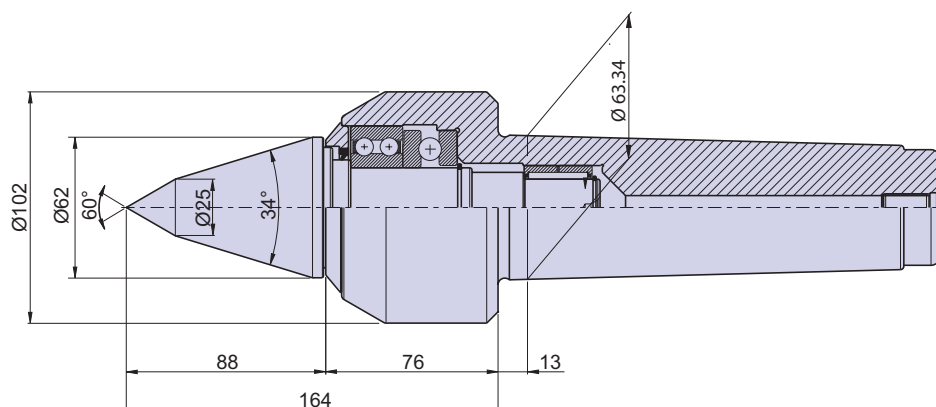
► Code **50016**

Carico max	daN 3500
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	3000
R.p.m.	
U/min	

► Code **51016**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNE6/L per cono morse 6
 Live center type CNE6/L for taper 6
 Körnerspitze Typ CNE6/L für Morsekegel 6



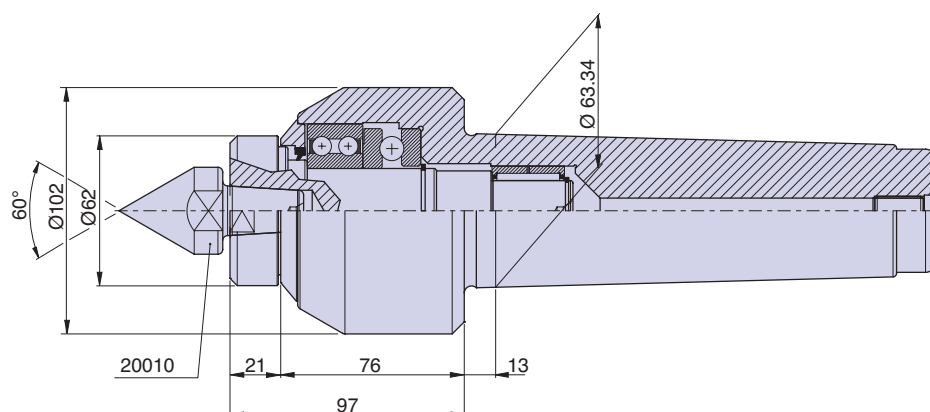
► Code **50036**

Carico max	daN 3100
Max load	
Max Belastung	
Eccentricità max	mm 0,004
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	3000
R.p.m.	
U/min	

► Code **51036**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CNE6/R (con ricambio) per cono morse 6
 Live center type CNE6/R (with spare point) for taper 6
 Körnerspitze Typ CNE6/R (mit auswechselbaren Einsätzen) für Morsekegel 6

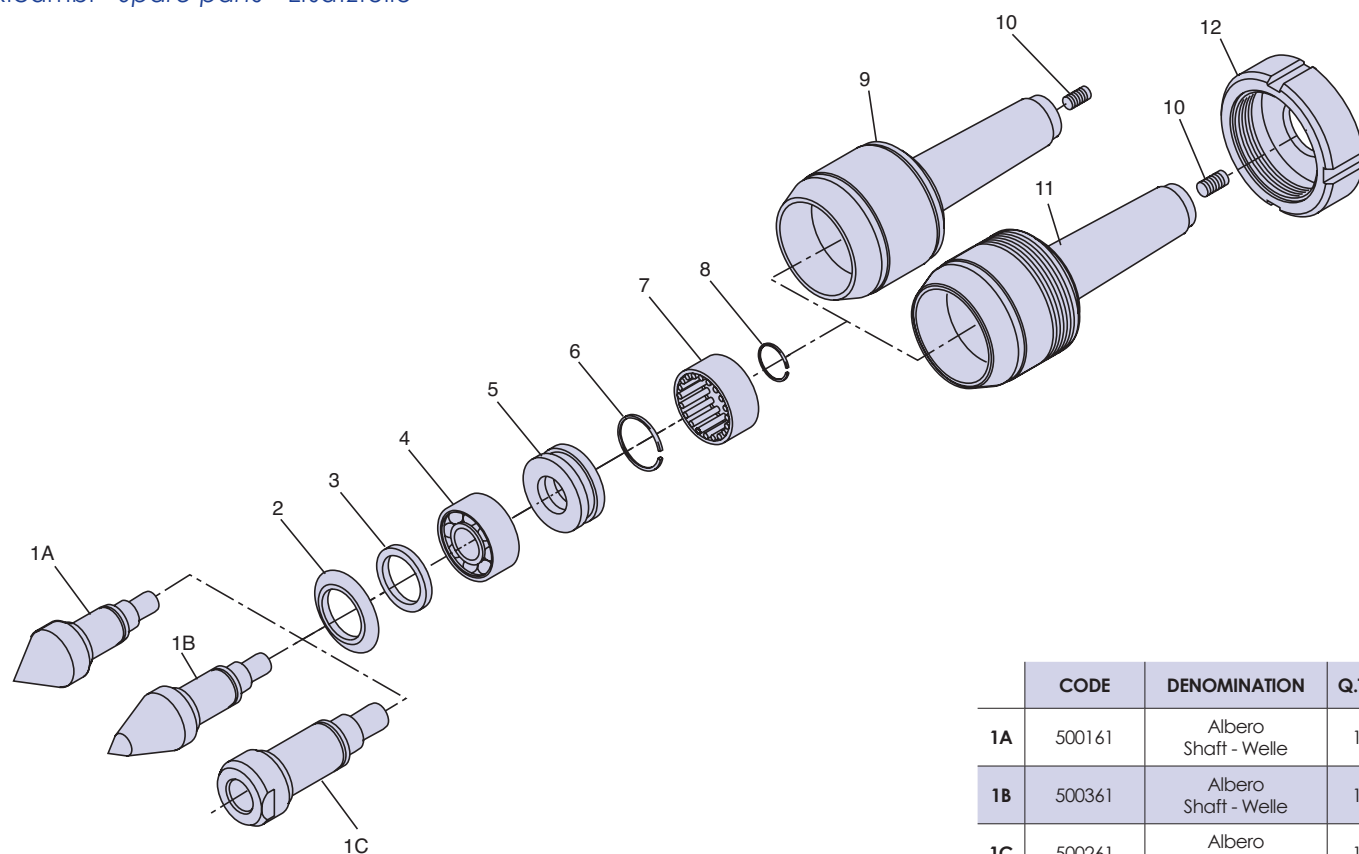


► Code **50026**

Carico max	daN 2900
Max load	
Max Belastung	
Eccentricità max	mm 0,006
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	3000
R.p.m.	
U/min	

► Code **51026**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



Code 20001

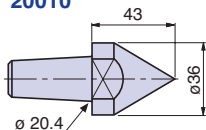
Chiave per ghiera
Hook spanner
Hakenschlüssel



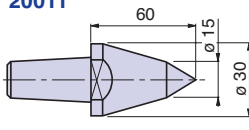
Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	500161	Albero Shaft - Welle	1
1B	500361	Albero Shaft - Welle	1
1C	500261	Albero Shaft - Welle	1
2	300165	Coperchio Cover - Abdeckung	1
3	150042001	Anello Ring	1
4	020035001	Cuscinetto Bearing - Lager	1
5	320168	Cuscinetto Bearing - Lager	1
6	160035001	Anello Ring	1
7	080025002	Cuscinetto Bearing - Lager	1
8	160025001	Anello Ring	1
9	500160	Corpo Body - Körper	1
10	170012001	Vite Screw - Schraube	1
11	510160	Corpo Body - Körper	1
12	310633	Ghiera Ring-nut Abdrückmutter	1

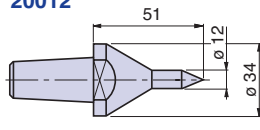
20010



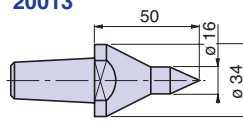
20011



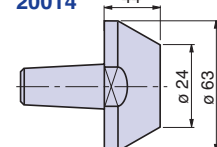
20012



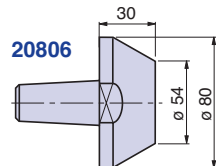
20013



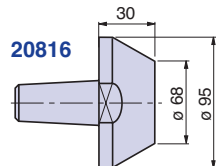
20014



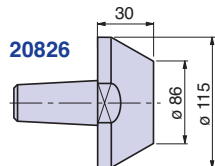
20806



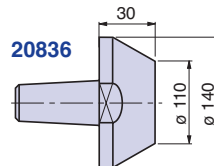
20816



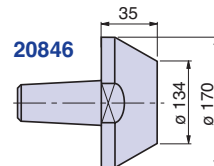
20826



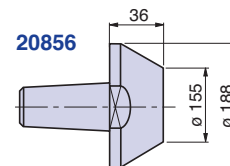
20836



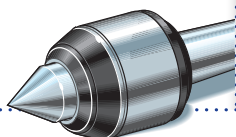
20846



20856

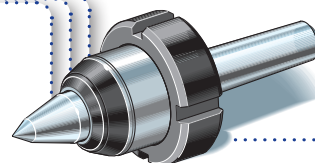






Contropunte rotanti
Carichi elevati

► CSF - CSF/G ◀



Mitlaufende Spitzen
Hohe Belastung

Live centers
Heavy loads

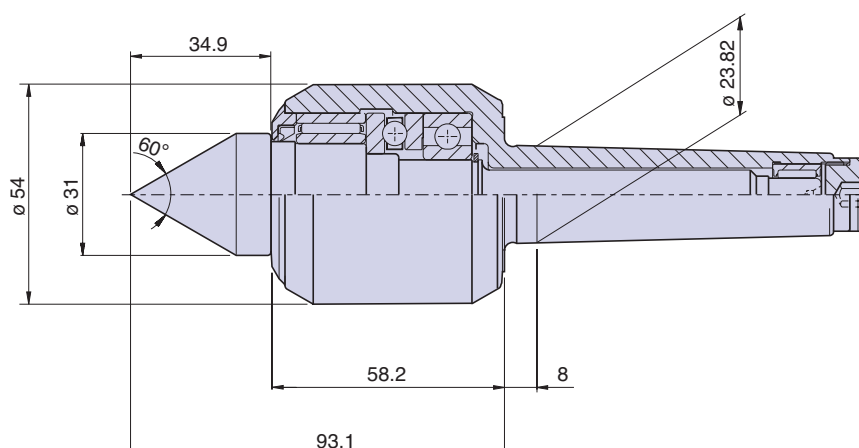


Le contropunte della serie CSF, si differenziano dalle altre sul mercato, per la caratteristica del loro corpo, di ampia sezione, che permette, oltre all'inserimento di cuscinetti di grandi dimensioni, un maggiore avvicinamento del carrello porta utensile al pezzo, con il grande vantaggio di non avere un utensile a sbalzo, guadagnando in rigidità e precisione. Costruite con un albero centrale lungo quanto il corpo, permettono alti carichi di lavoro ed elevate spinte assiali della contropunta, non raggiungibili, con lo stesso cono morse, da qualsiasi altro prodotto.

The CSF series live centers differ from others on the market thanks to their large section body. This not only allows large bearings to be used but also permits the tool carriage to move closer to the workpiece; the great advantage is not having an overhang tool, thus increasing rigidity and precision. Made with a central shaft the same length as the body, they allow heavy work loads and high axial thrusts of the tailstock that, with the same taper, are not possible with any other product.

Die CSF Körnerspitzen unterscheiden sich von anderen auf dem Markt durch ihren großen Grundkörper. Damit können nicht nur große Lager verwendet werden sondern es kann auch der Werkzeughalter näher an das Werkstück bewegt werden. Der große Vorteil ist aber nicht ein Ausladungs-Werkzeug zu haben, sondern eine Steigerung von Steifheit und Genauigkeit. Da der zentraler Schaft genauso lang ist wie der Körper, kann eine hohe Arbeitsbelastungen und ein hoher Axialdruck auf die Körnerspitze ausgewirkt werden. Nicht möglich mit dem selben Morsekegel irgendeines anderen Produktes.

Contropunta tipo CSF3/S (standard) per cono morse 3
 Live center type CSF3/S (standard) for taper 3
 Körnerspitze Typ CSF3/S (Standard) für Morsekegel 3



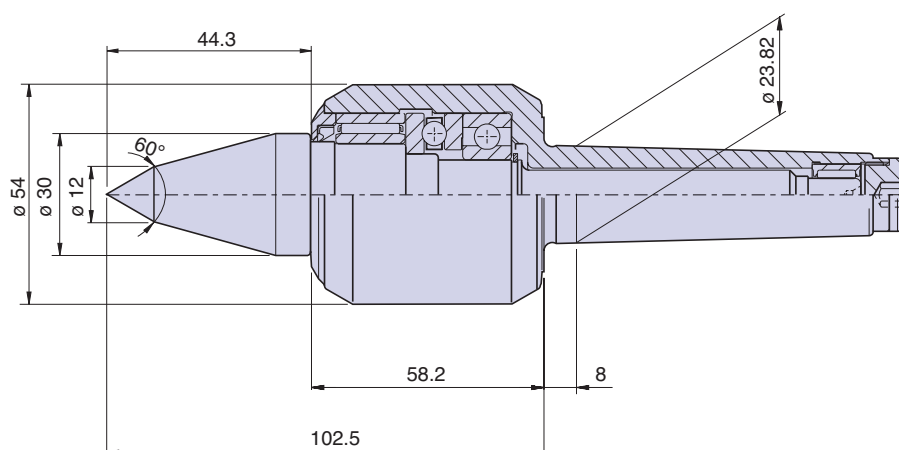
► Code **32013**

Carico max	daN 2000
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5000
R.p.m.	
U/min	

► Code **G32013**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CSF3/L (punta da copia) per cono morse 3
 Live center type CSF3/L (copying point) for taper 3
 Körnerspitze Typ CSF3/L (verlängerte Laufspitze) für Morsekegel 3



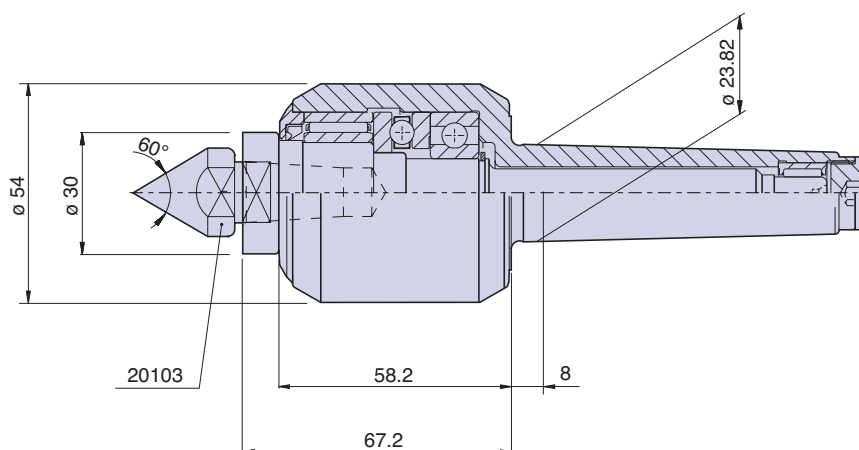
► Code **32033**

Carico max	daN 1600
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5000
R.p.m.	
U/min	

► Code **G32033**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CSF3/R (con ricambio) per cono morse 3
 Live center type CSF3/R (with spare point) for taper 3
 Körnerspitze Typ CSF3/R (mit auswechselbaren Einsätzen) für Morsekegel 3

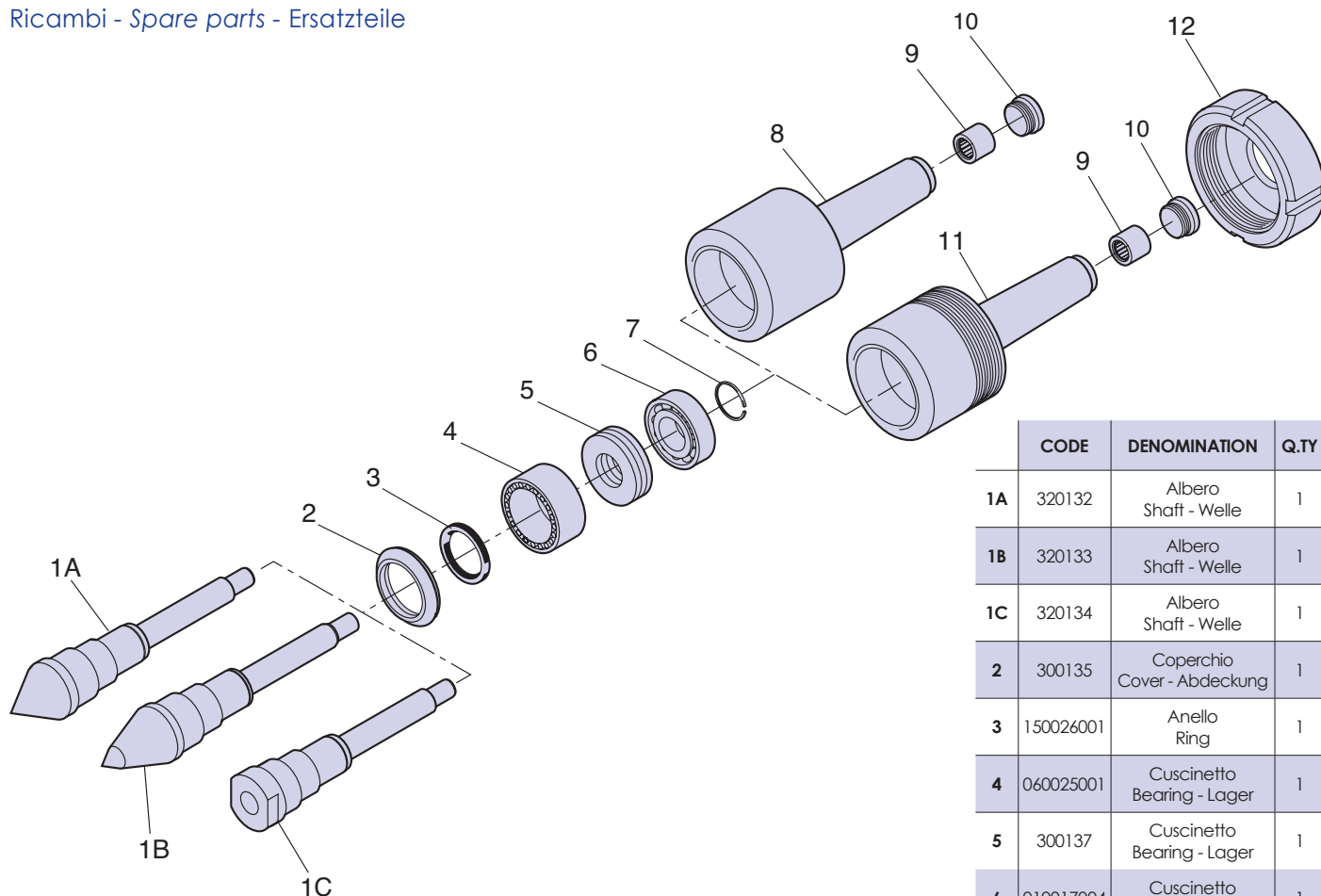


► Code **32023**

Carico max	daN 1400
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5000
R.p.m.	
U/min	

► Code **G32023**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



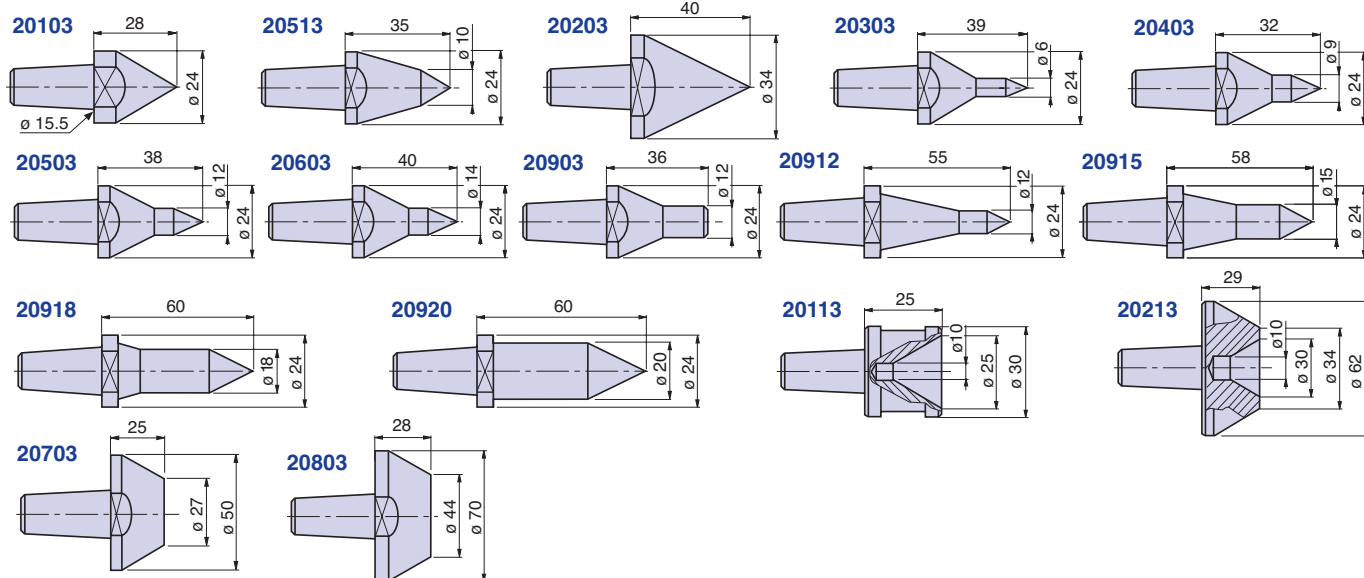
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

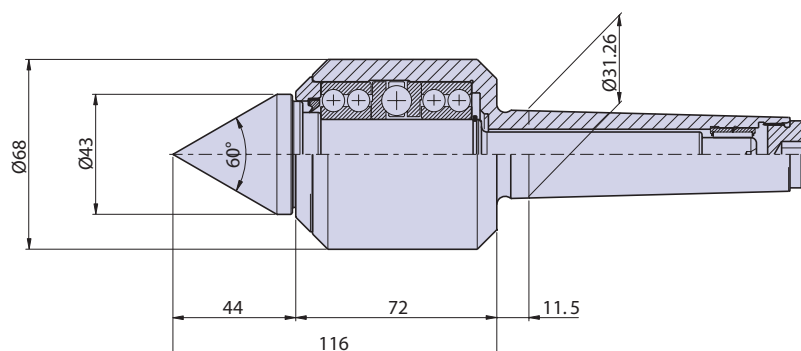


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	320132	Albero Shaft - Welle	1
1B	320133	Albero Shaft - Welle	1
1C	320134	Albero Shaft - Welle	1
2	300135	Coperchio Cover - Abdeckung	1
3	150026001	Anello Ring	1
4	060025001	Cuscinetto Bearing - Lager	1
5	300137	Cuscinetto Bearing - Lager	1
6	010017004	Cuscinetto Bearing - Lager	1
7	160017001	Anello Ring	1
8	320130	Corpo Body - Körper	1
9	080008001	Cuscinetto Bearing - Lager	1
10	320136	Tappo Plug - Stopfen	1
11	G320130	Corpo Body - Körper	1
12	310333	Ghiera Ring-nut Abdrückmutter	1



Contropunta tipo CSF4/S (standard) per cono morse 4
 Live center type CSF4/S (standard) for taper 4
 Körnerspitze Typ CSF4/S (Standard) für Morsekegel 4



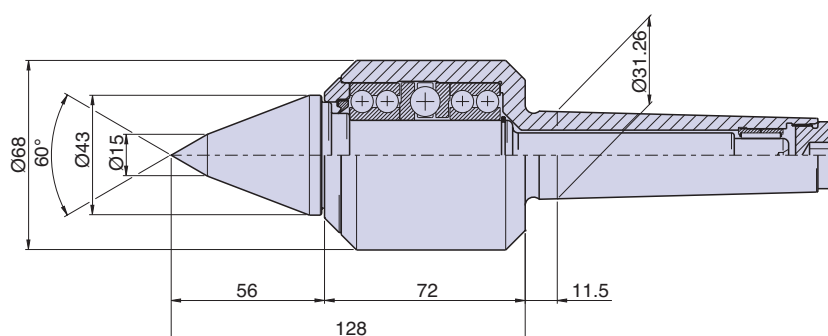
► **Code** **32014**

Carico max	daN 2300
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	4000
R.p.m.	
U/min	

► **Code** **G32014**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CSF4/L (punta da copia) per cono morse 4
 Live center type CSF4/L (copying point) for taper 4
 Körnerspitze Typ CSF4/L (verlängerte Laufspitze) für Morsekegel 4



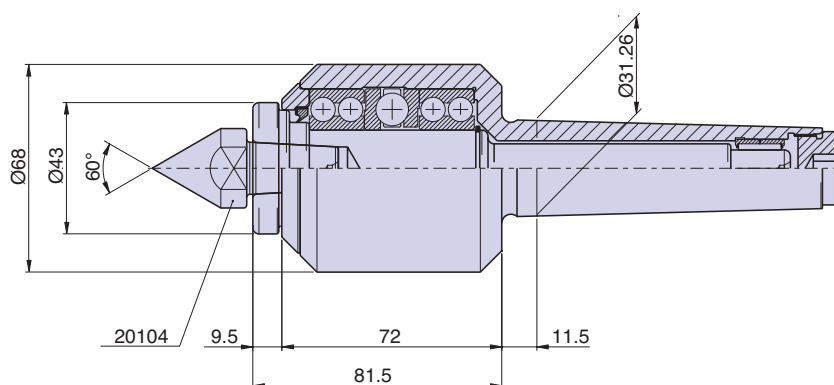
► **Code** **32034**

Carico max	daN 2000
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	4000
R.p.m.	
U/min	

► **Code** **G32034**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CSF4/R (con ricambio) per cono morse 4
 Live center type CSF4/R (with spare point) for taper 4
 Körnerspitze Typ CSF4/R (mit auswechselbaren Einsätzen) für Morsekegel 4

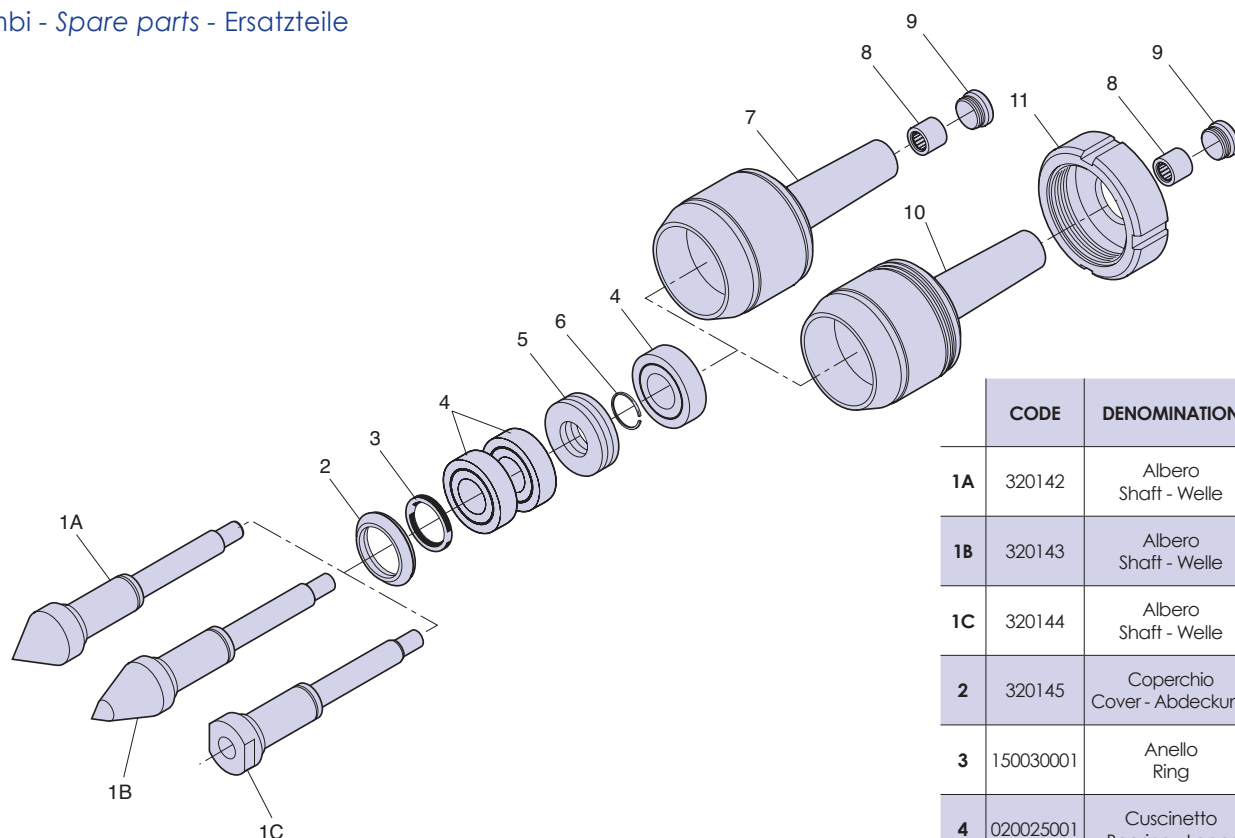


► **Code** **32024**

Carico max	daN 1700
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	4000
R.p.m.	
U/min	

► **Code** **G32024**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



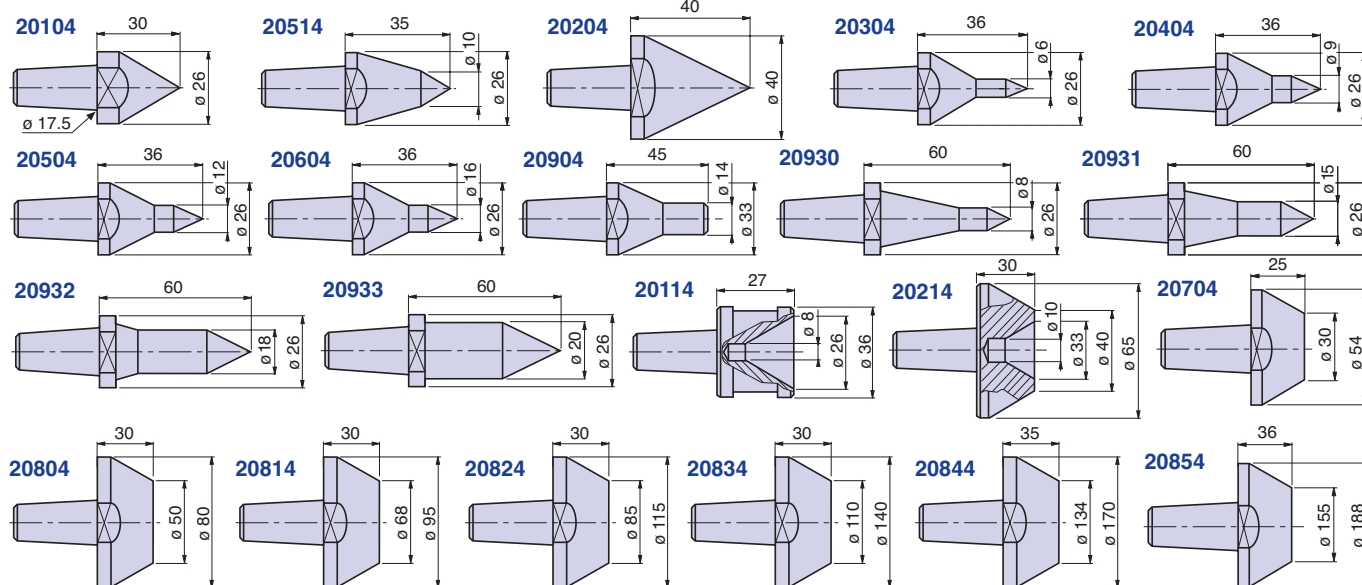
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

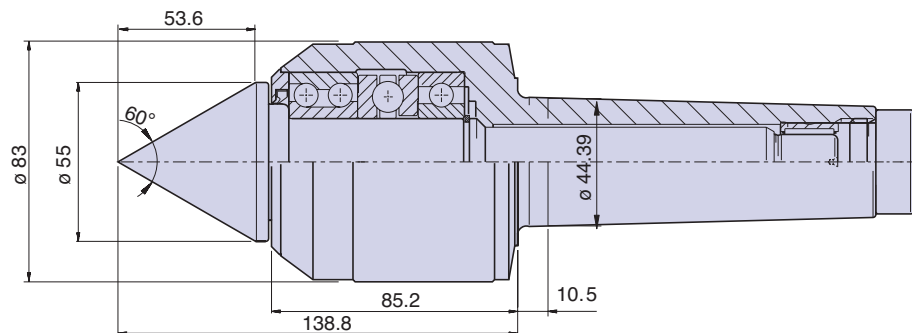


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	320142	Albero Shaft - Welle	1
1B	320143	Albero Shaft - Welle	1
1C	320144	Albero Shaft - Welle	1
2	320145	Coperchio Cover - Abdeckung	1
3	150030001	Anello Ring	1
4	020025001	Cuscinetto Bearing - Lager	2
5	320147	Cuscinetto Bearing - Lager	1
6	160025001	Anello Ring	1
7	320140	Corpo Body - Körper	1
8	080012001	Cuscinetto Bearing - Lager	1
9	320146	Tappo Plug - Stopfen	1
10	G320140	Corpo Body - Körper	1
11	310433	Ghiera Ring-nut Abdrückmutter	1



Contropunta tipo CSF5/S (standard) per cono morse 5
 Live center type CSF5/S (standard) for taper 5
 Körnerspitze Typ CSF5/S (Standard) für Morsekegel 5



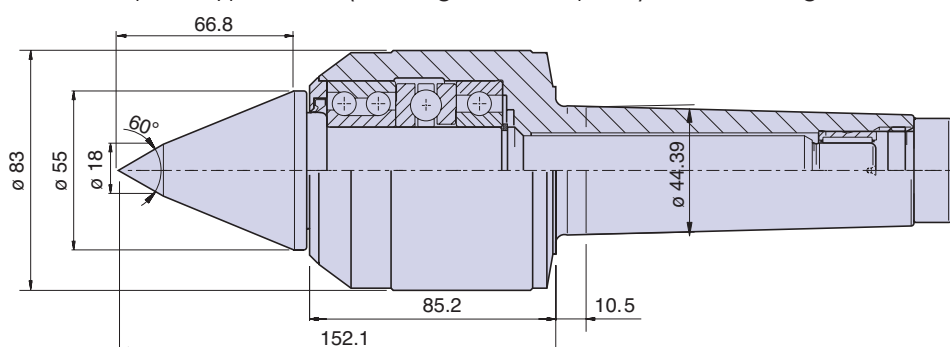
* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 32015

► Code *G32015

Carico max	
Max load	daN 3700
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,003
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	

Contropunta tipo CSF5/L (punta da copia) per cono morse 5
 Live center type CSF5/L (copying point) for taper 5
 Körnerspitze Typ CSF5/L (verlängerte Laufspitze) für Morsekegel 5



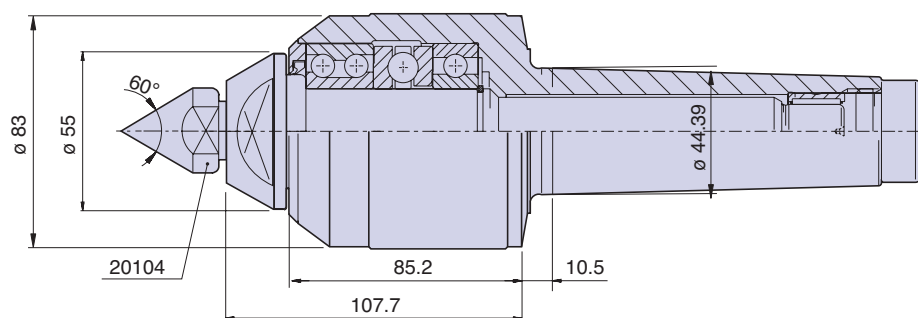
* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 32035

► Code *G32035

Carico max	
Max load	daN 3200
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,003
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	

Contropunta tipo CSF5/R (con ricambio) per cono morse 5
 Live center type CSF5/R (with spare point) for taper 5
 Körnerspitze Typ CSF5/R (mit auswechselbaren Einsätzen) für Morsekegel 5



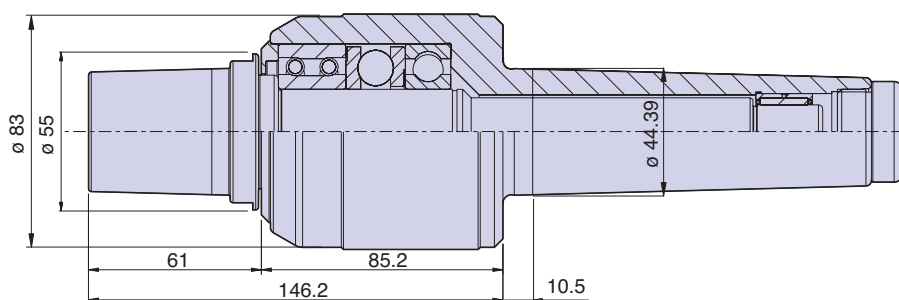
* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 32025

► Code *G32025

Carico max	
Max load	daN 2900
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	

Contropunta tipo CSF5/R (con ricambio) per cono morse 5
 Live center type CSF5/R (with spare point) for taper 5
 Körnerspitze Typ CSF5/R (mit auswechselbaren Einsätzen) für Morsekegel 5

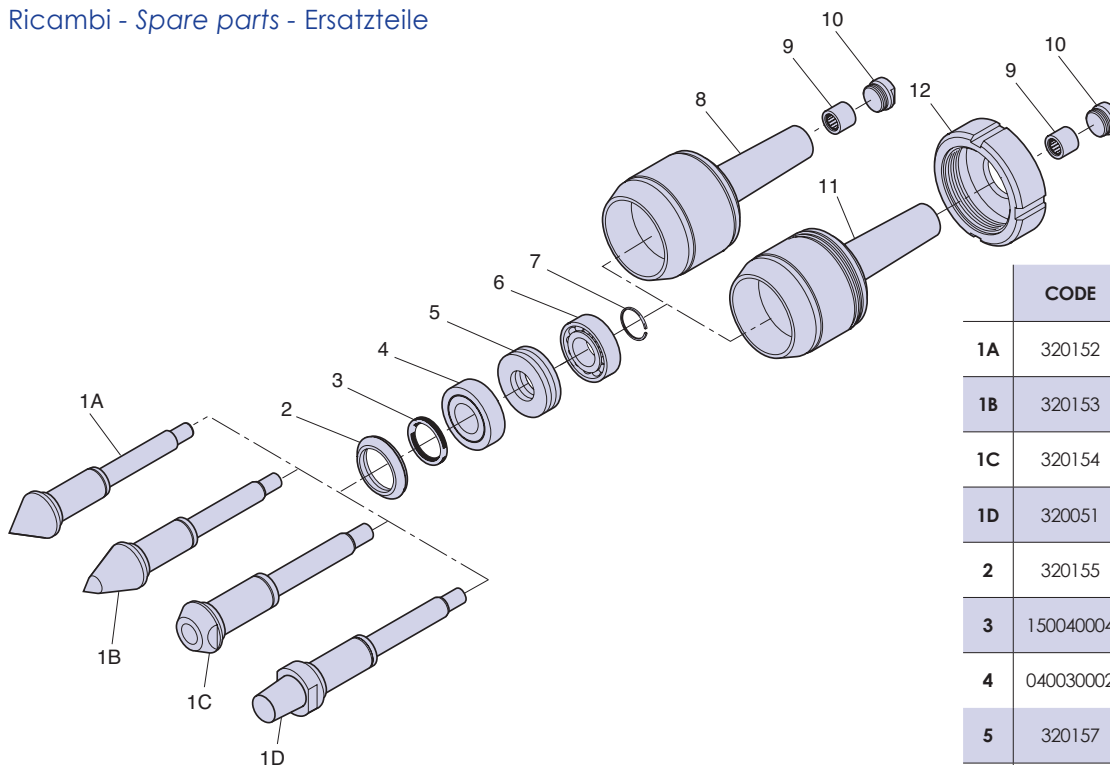


* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 32005

► Code *G32005

Carico max	
Max load	daN 3100
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



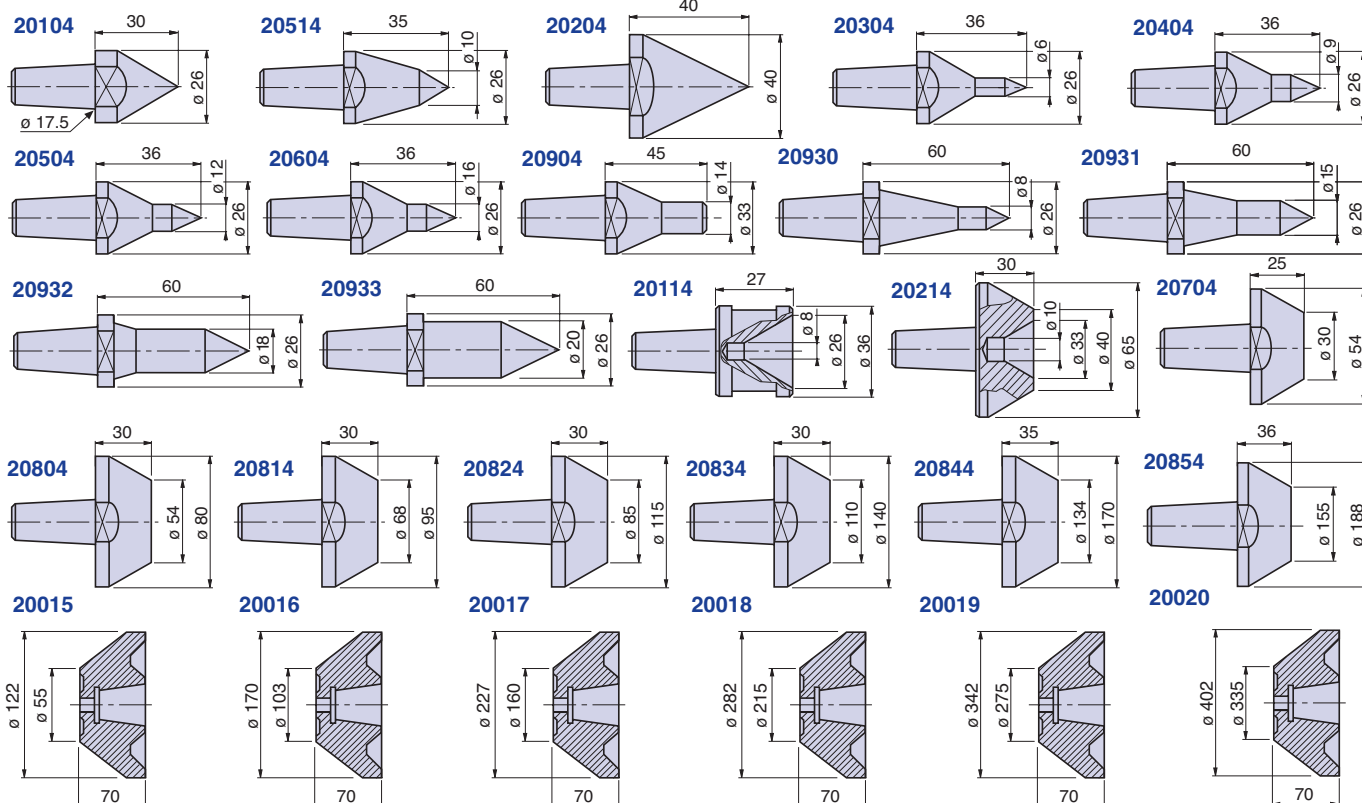
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

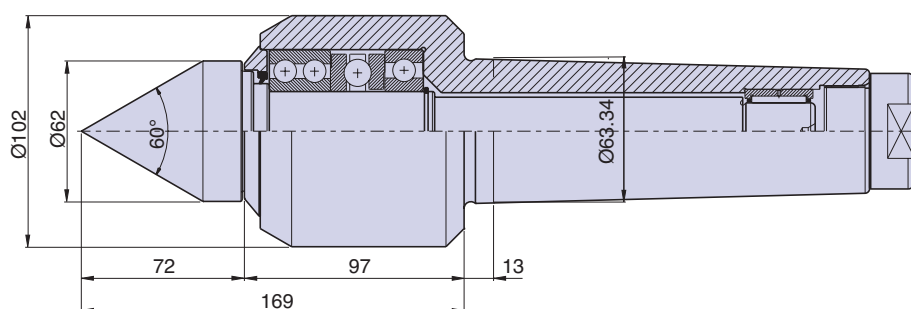


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	320152	Albero Shaft - Welle	1
1B	320153	Albero Shaft - Welle	1
1C	320154	Albero Shaft - Welle	1
1D	320051	Albero Shaft - Welle	1
2	320155	Coperchio Cover - Abdeckung	1
3	150040004	Anello Ring	1
4	040030002	Cuscinetto Bearing - Lager	1
5	320157	Cuscinetto Bearing - Lager	1
6	010030005	Cuscinetto Bearing - Lager	1
7	160030001	Anello Ring	1
8	320150	Corpo Body - Körper	1
9	080019001	Cuscinetto Bearing - Lager	1
10	300156	Tappo Plug - Stopfen	1
11	G320150	Corpo Body - Körper	1
12	310533	Ghiera - Ringa-nut Abdrückmutter	1



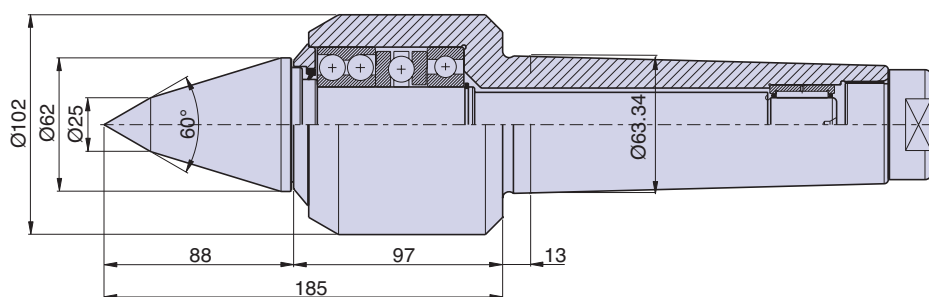
Contropunta tipo CSF6/S (standard) per cono morse 6
 Live center type CSF6/S (standard) for taper 6
 Körnerspitze Typ CSF6/S (Standard) für Morsekegel 6



* Con ghiera - With ring nut - Mit Abdrückmutter

► Code	32016
► Code	*G32016
Carico max	daN 4900
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	2200
R.p.m.	
U/min	

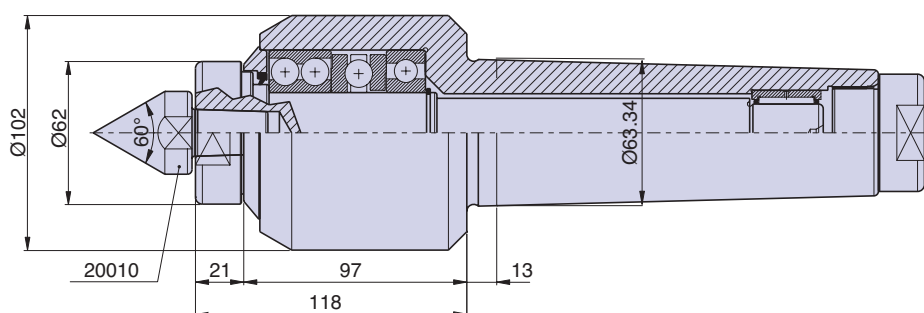
Contropunta tipo CSF6/L (punta da copia) per cono morse 6
 Live center type CSF6/L (copying point) for taper 6
 Körnerspitze Typ CSF6/L (verlängerte Laufspitze) für Morsekegel 6



* Con ghiera - With ring nut - Mit Abdrückmutter

► Code	32036
► Code	*G32036
Carico max	daN 4400
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	2200
R.p.m.	
U/min	

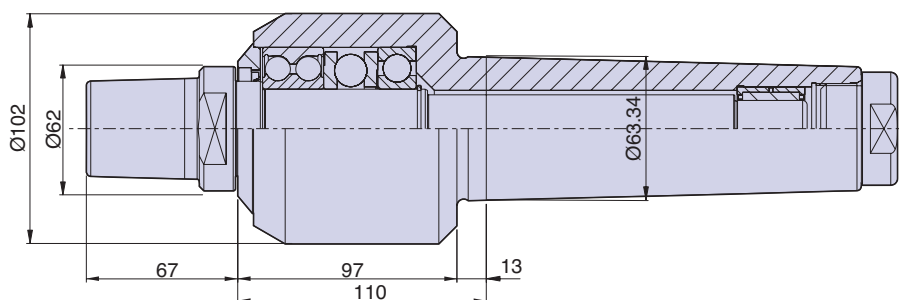
Contropunta tipo CSF6/R (con ricambio) per cono morse 6
 Live center type CSF6/R (with spare point) for taper 6
 Körnerspitze Typ CSF6/R (mit auswechselbaren Einsätzen) für Morsekegel 6



* Con ghiera - With ring nut - Mit Abdrückmutter

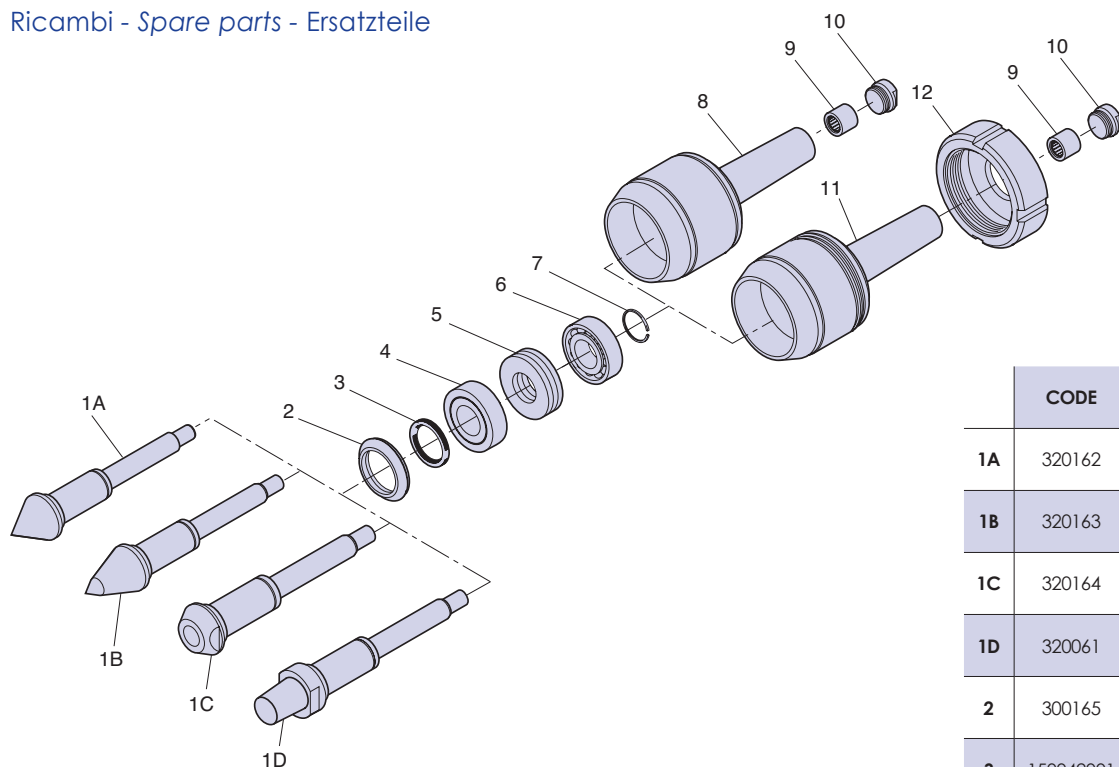
► Code	32026
► Code	*G32026
Carico max	daN 3800
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	2200
R.p.m.	
U/min	

Contropunta tipo CSF6/R (con ricambio) per cono morse 6
 Live center type CSF6/R (with spare point) for taper 6
 Körnerspitze Typ CSF6/R (mit auswechselbaren Einsätzen) für Morsekegel 6



* Con ghiera - With ring nut - Mit Abdrückmutter

► Code	32006
► Code	*G32006
Carico max	daN 4200
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	2200
R.p.m.	
U/min	



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



Code 20001

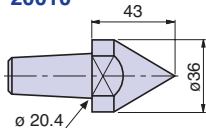
Chiave per ghiera
Hook spanner
Hakenschlüssel



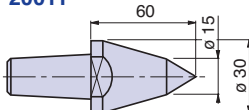
Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	320162	Albero Shaft - Welle	1
1B	320163	Albero Shaft - Welle	1
1C	320164	Albero Shaft - Welle	1
1D	320061	Albero Shaft - Welle	1
2	300165	Coperchio Cover - Abdeckung	1
3	150042001	Anello Ring	1
4	040035001	Cuscinetto Bearing - Lager	1
5	320168	Cuscinetto Bearing - Lager	1
6	010035004	Cuscinetto Bearing - Lager	1
7	160035001	Anello Ring	1
8	320160	Corpo Body - Körper	1
9	080025002	Cuscinetto Bearing - Lager	1
10	300166	Tappo Plug - Stopfen	1
11	G320160	Corpo Body - Körper	1
12	310633	Ghiera Ring a-nut Abdrückmutter	1

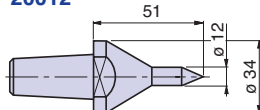
20010



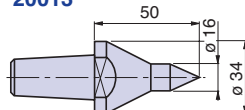
20011



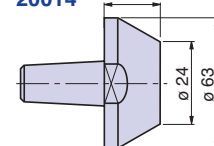
20012



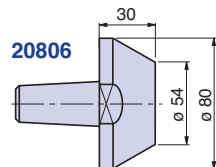
20013



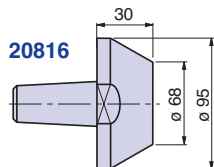
20014



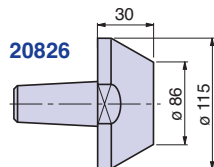
20806



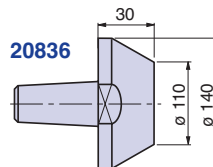
20816



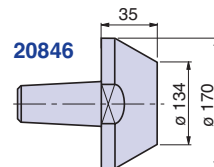
20826



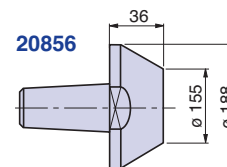
20836



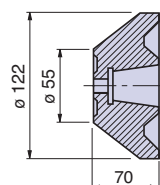
20846



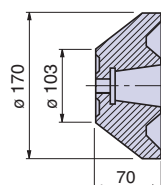
20856



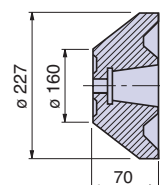
20015



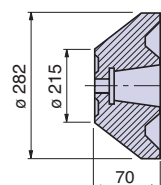
20016



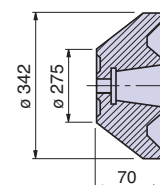
20017



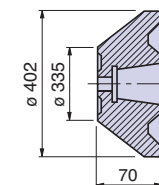
20018



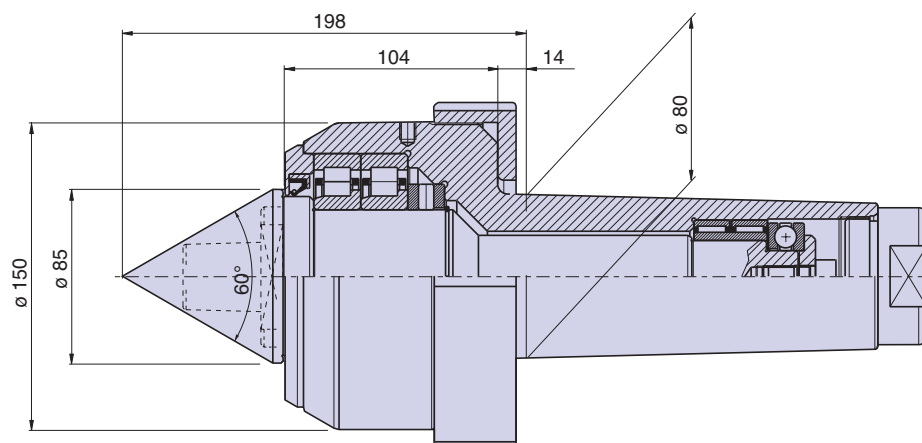
20019



20020



Contropunta tipo CSF/CM80 per cono metrico 80
 Live center type CSF/CM80 for taper 80
 Körnerspitze Typ CSF/CM80 für Morsekegel 80



► Code

N32080

Carico max	daN 9000
Max load	
Max Belastung	
Eccentricità max	mm 0,005~0,008
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	1000
R.p.m.	
U/min	

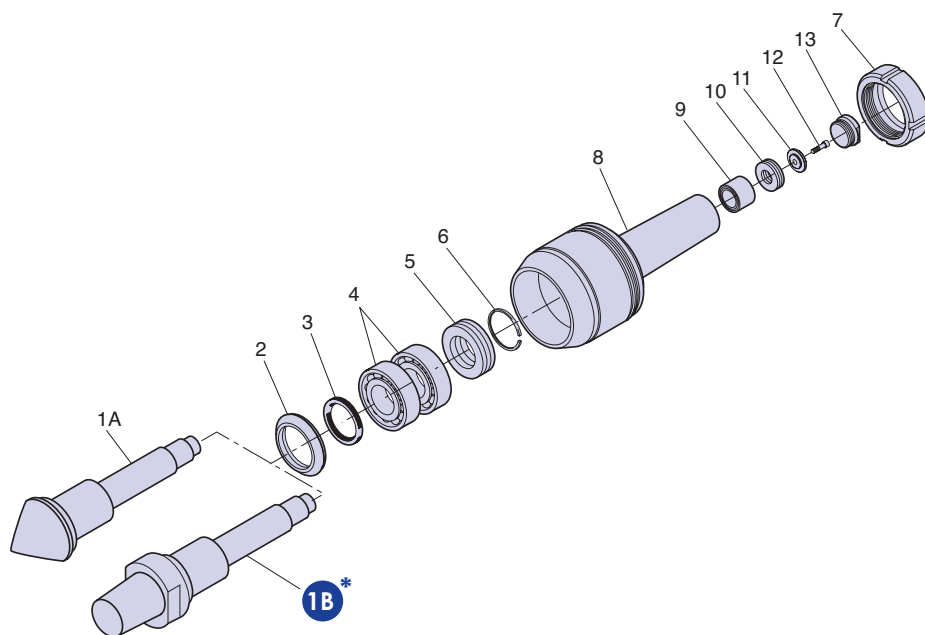
► Code

32081

Con albero
 with shaft
 mit Welle

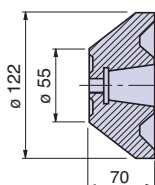
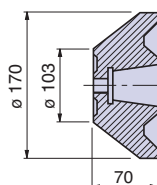
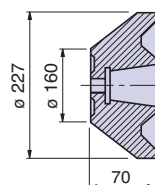
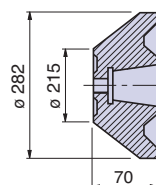
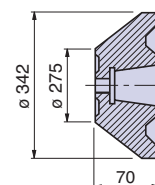
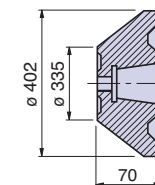
1B*

Ricambi - Spare parts - Ersatzteile



A richiesta con cuspidi di ricambio
 On demand with spare parts
 Auf anfrage mit auswechselbaren Einsätzen

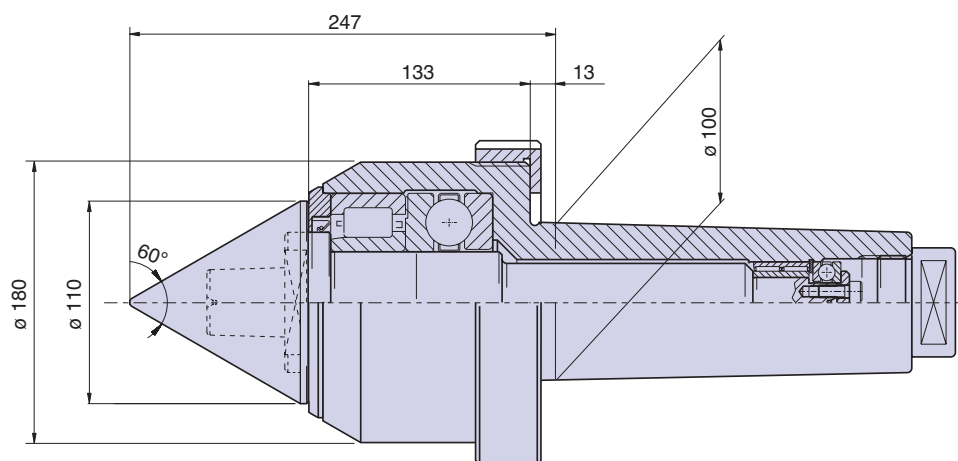
	CODE	DENOMINATION	Q.TY
1A	320801	Albero Shaft - Welle	1
1B	320808	Albero Shaft - Welle	1
2	320802	Coperchio Cover - Abdeckung	1
3	150078001	Anello Ring	1
4	080065002	Cuscinetto Bearing - Lager	2
5	090065001	Cuscinetto Bearing - Lager	1
6	160065001	Anello Ring	1
7	320803	Ghiera Ring-nut Abdrückmutter	1
8	320804	Corpo Body - Körper	1
9	060035001	Cuscinetto Bearing - Lager	1
10	320805	Cuscinetto Bearing - Lager	1
11	320806	Anello Ring	1
12	170010004	Vite Screw - Schraube	1
13	320807	Tappo Plug - Stopfen	1

20015**20016****20017****20018****20019****20020**

Contropunta tipo CSF/CM100 per cono metrico 100

Live center type CSF/CM100 for taper 100

Körnerspitze Typ CSF/CM100 für Morsekegel 100



► Code

N32100

Carico max	daN 14000
Max load	
Max Belastung	
Eccentricità max	mm 0,005~0,008
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	1000
R.p.m.	
U/min	

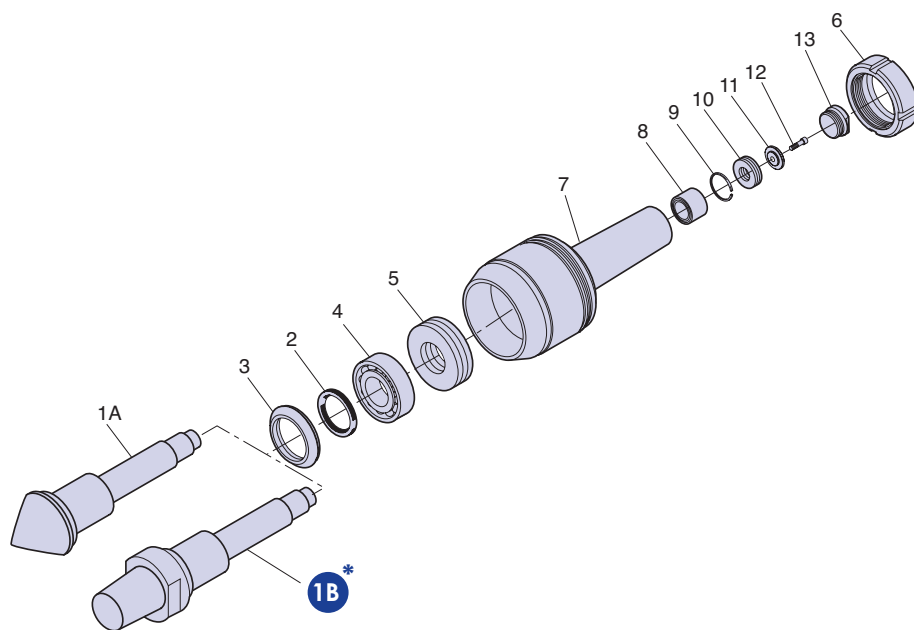
► Code

32101

Con albero
with shaft
mit Welle

1B*

Ricambi - Spare parts - Ersatzteile



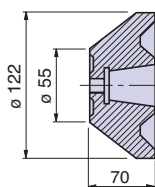
A richiesta con cuspidi di ricambio

On demand with spare parts

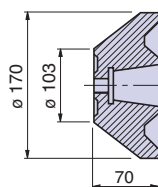
Auf anfrage mit auswechselbaren Einsätzen

	CODE	DENOMINATION	Q.TY
1A	N321001	Albero Shaft - Welle	1
1B	321009	Albero Shaft - Welle	1
2	150090002	Anello Ring	1
3	321002	Coperchio Cover - Abdeckung	1
4	080065004	Cuscinetto Bearing - Lager	1
5	321003	Cuscinetto Bearing - Lager	1
6	321004	Ghiera Ring-nut Abdrückmutter	1
7	N321005	Corpo Body - Körper	1
8	060040001	Cuscinetto Bearing - Lager	1
9	160065001	Anello Ring	1
10	321008	Cuscinetto Bearing - Lager	1
11	N321006	Rondella Washer - Scheibe	1
12	170008025	Vite Screw - Schraube	2
13	321007	Tappo Plug - Stopfen	1

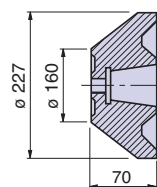
20015



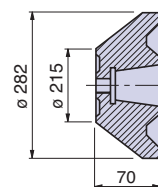
20016



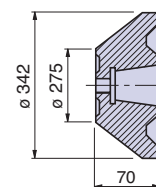
20017



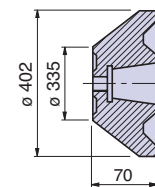
20018



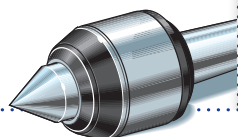
20019



20020







► CM ◀

**Contropunte con
carico assiale variabile**

**Variable axial
load live centers**

**Körnerspitze mit variabler
Axiallast Belastung**



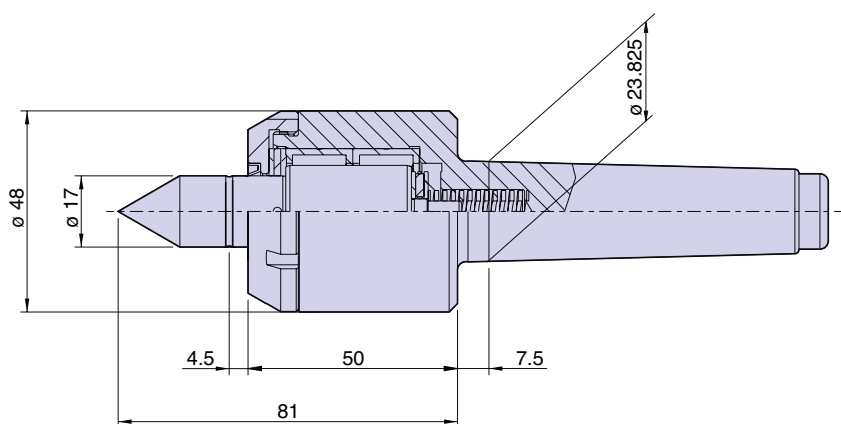
I particolari che costituiscono le contropunte con carico assiale variabile sono costruite in acciaio temprato. L'utilizzo di queste contropunte è indicato per il recupero automatico delle dilatazioni termiche sul pezzo in lavorazione.

The component parts of the variable axial load live centers are made from hardened steel. These live centers are particularly suitable for the automatic recovery of thermal expansion on the piece being processed.

Die Teile, welche die Körnerspitze mit variabler Axiallast Belastung, bestehen aus gehärtetem Stahl. Der Einsatz dieser Reitstöcke ist angezeigt für den automatischen Ausgleich der Wärmeausdehnungen am Werkstück.

Contropunta con carico assiale variabile tipo CM3
 Variable axial load live centers type CM3
 Körnerspitze mit variabler Axiallast Belastung Typ CM3

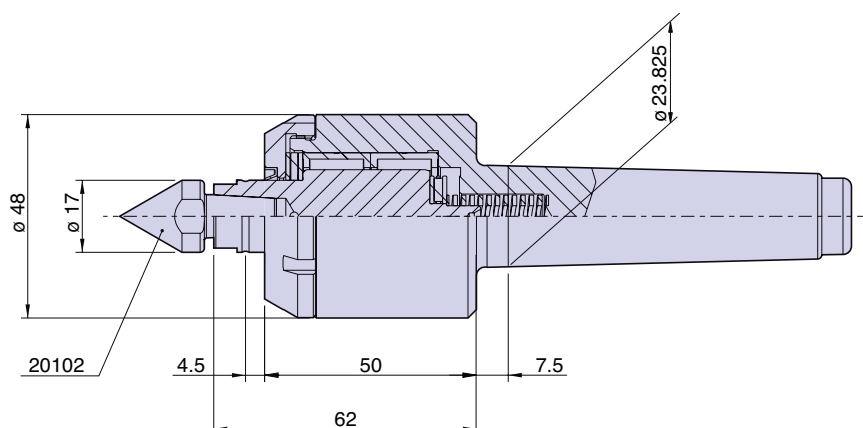
► Code

38013

Carico max suggerito	daN
Max recommended load	800
Max Empfohlene Belastung	
Eccentricità max	mm
Max eccentricity	0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	

Contropunta a carico assiale variabile tipo CM3
 Variable axial load live centers type CM3
 Körnerspitze mit variabler Axiallast Belastung Typ CM3

► Code

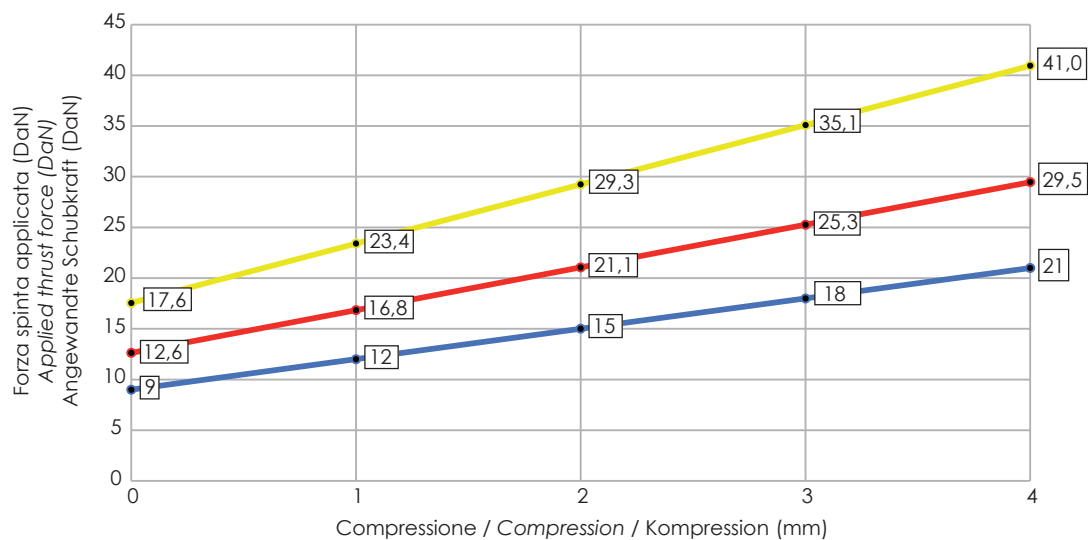
38023

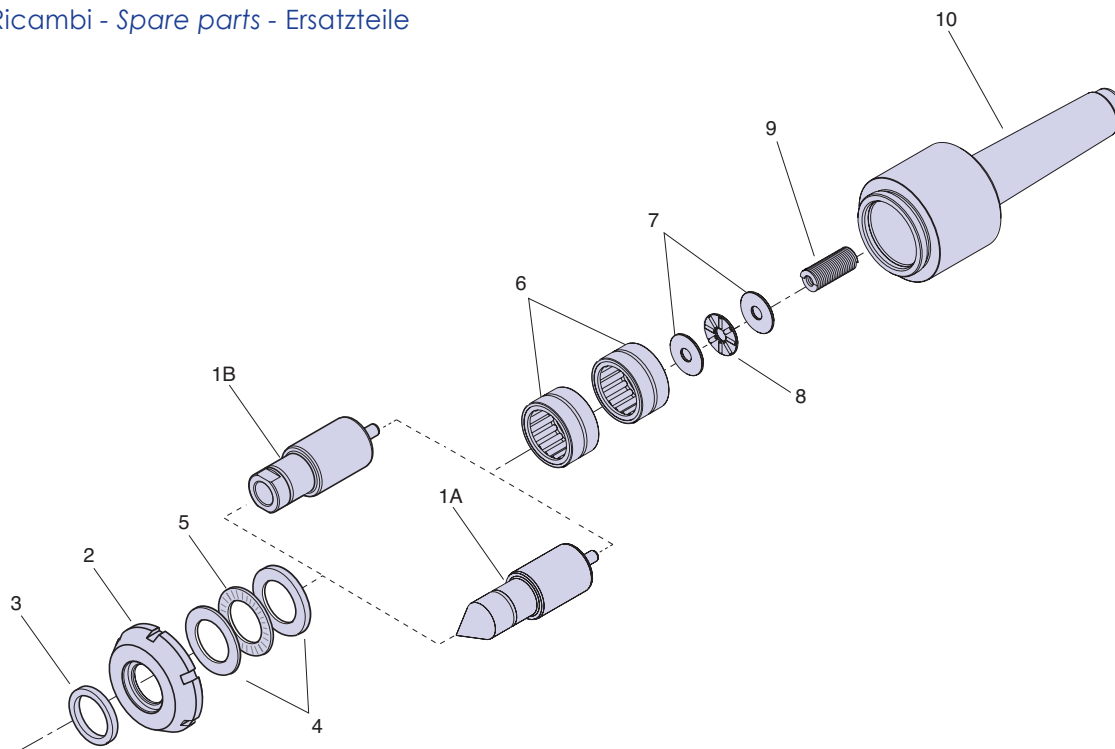
Carico max suggerito	daN
Max recommended load	800
Max Empfohlene Belastung	
Eccentricità max	mm
Max eccentricity	0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	

Grafico spinta assiale - molla 13x25
 Axial thrust graph - 13x25 spring
 Diagramm der axialen Schubkraft - 13x25 Feder

- MOLLA BLU
BLUE SPRING
BLAUER FRÜHLING
- MOLLA ROSSA
RED SPRING
ROTER FRÜHLING
- MOLLA GIALLA
YELLOW SPRING
GELBER FRÜHLING

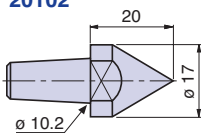
1 DaN = 1,02 Kg



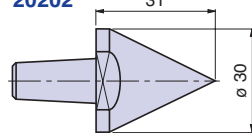


	CODE	DENOMINATION	Q.TY				
				6	080022001	Cuscinetto Bearing - Lager	2
1A	380131	Punta centrale - S	1	7	090006002	Ralla Wheel - Scheibe	2
1B	380231	Punta centrale - R	1	8	090006001	Gabbia Cage - Käfig	1
2	380133	Ghiera di serraggio Ring-nut Abdrückmutter	1	9	160013001	Molla Spring - Feder	1
3	150017001	Anello Ring	1	10	380130	Corpo CM3	1
4	090025004	Ralla Wheel - Scheibe	2				
5	090025001	Gabbia Cage - Käfig	1				

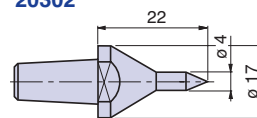
20102



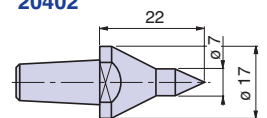
20202



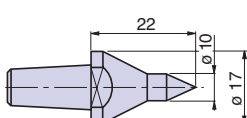
20302



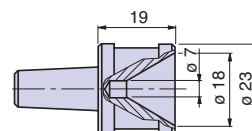
20402



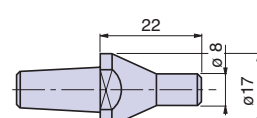
20502



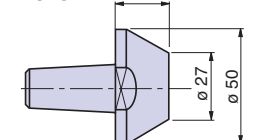
20112



20902



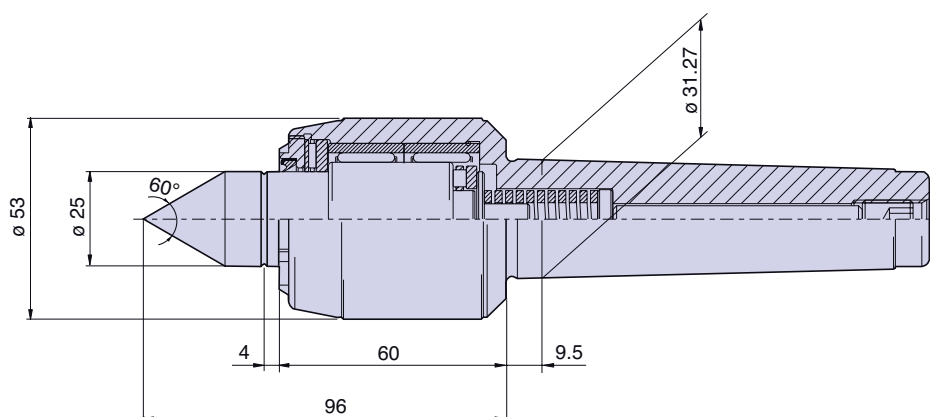
20702



Contropunta con carico assiale variabile tipo CM4
Variable axial load live centers type CM4
Körnerspitze mit variabler Axiallast Belastung Typ CM4

▶ Code

38014

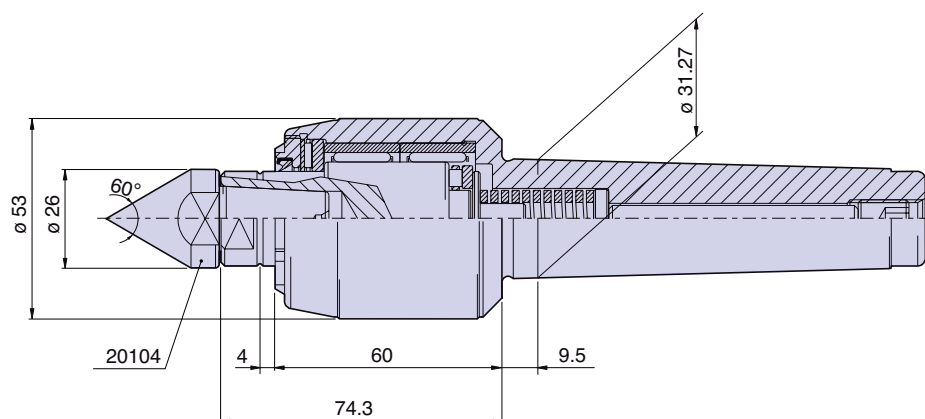


Carico max suggerito	daN
Max recommended load	800
Max Empfohlene Belastung	
Eccentricità max	mm
Max eccentricity	0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	

Contropunta a carico assiale variabile tipo CM4
Variable axial load live centers type CM4
Körnerspitze mit variabler Axiallast Belastung Typ CM4

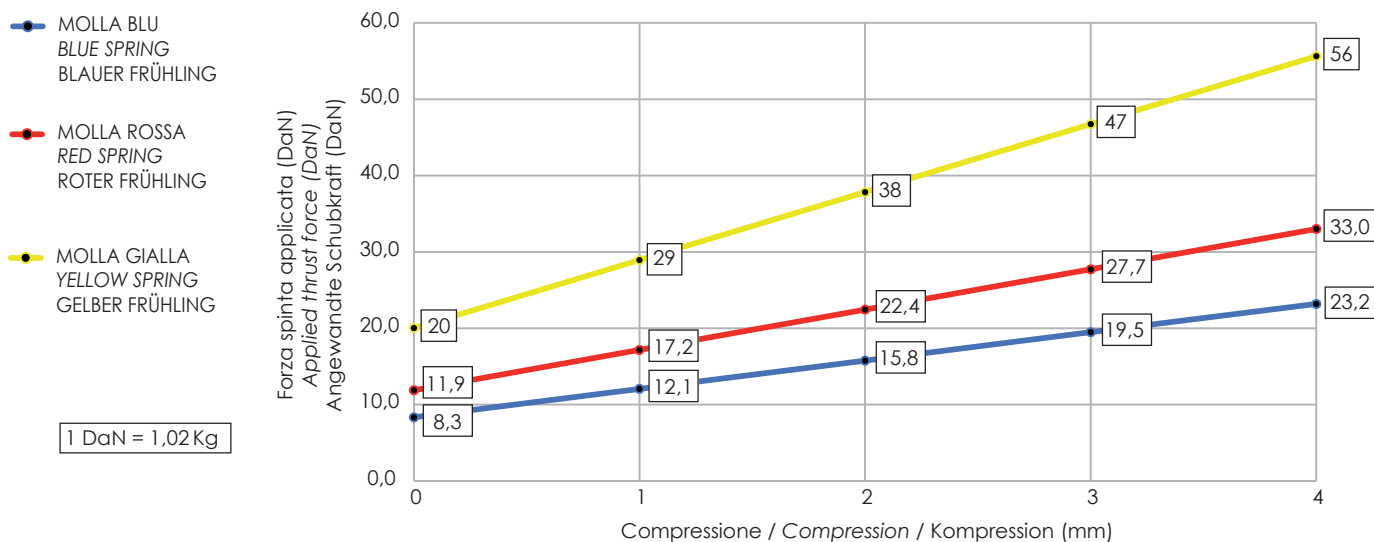
▶ Code

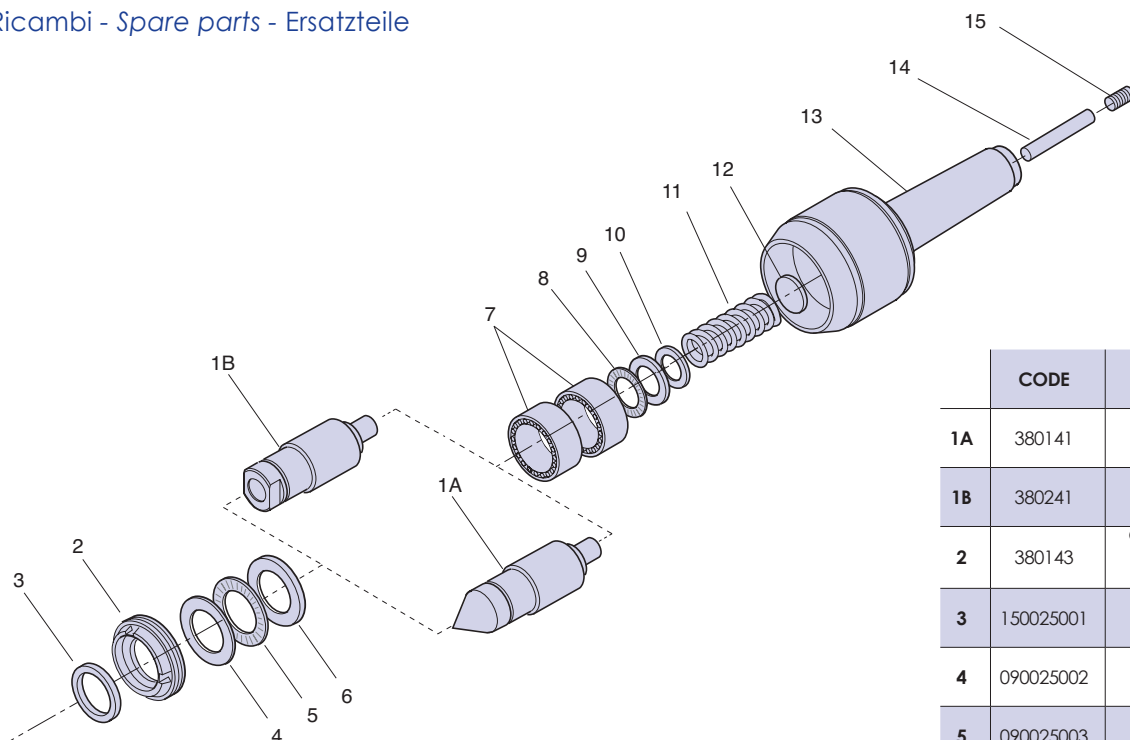
38024



Carico max suggerito	daN
Max recommended load	800
Max Empfohlene Belastung	
Eccentricità max	mm
Max eccentricity	0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	

Grafico spinta assiale - molla 16x32
Axial thrust graph - 16x32 spring
Diagramm der axialen Schubkraft - 6x32 Feder





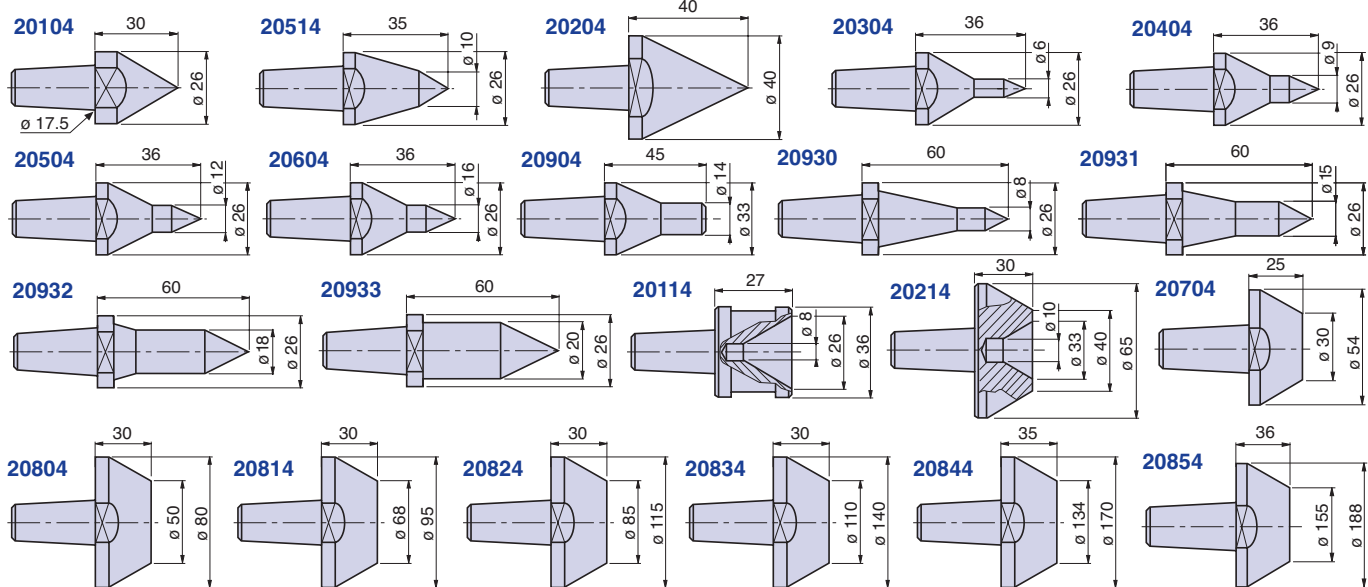
Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



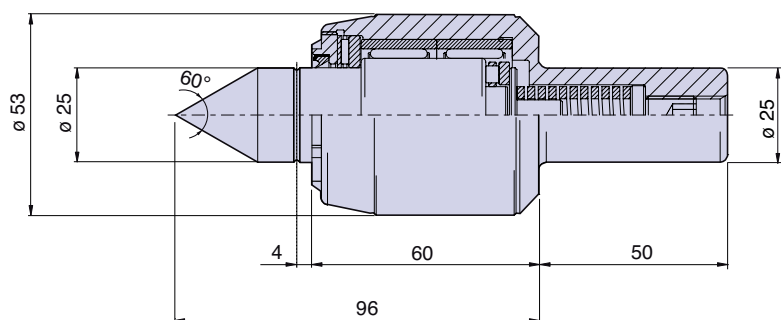
Code 20001

Per dettagli vedi pag. 44 - For details see page 44
Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	380141	Albero Shaft - Welle	1
1B	380241	Albero Shaft - Welle	1
2	380143	Ghiera di serraggio Ring-nut Abdrückmutter	1
3	150025001	Anello Ring	1
4	090025002	Ralla Wheel - Scheibe	1
5	090025003	Gabbia Cage - Käfig	1
6	090025007	Ralla Wheel - Scheibe	1
7	080030001	Cuscinetto Bearing - Lager	2
8	090030009	Gabbia Cage - Käfig	1
9	090030012	Ralla Wheel - Scheibe	1
10	380144	Piattello Plate - Platte	1
11	160008004	Molla Spring - Feder	1
12	380145	Piattello Plate - Platte	1
13	380140	Corpo CM4 Body - Körper	1
14	380146	Perno Pin - Zapfen	1
15	170010001	Vite Screw - Schraube	1



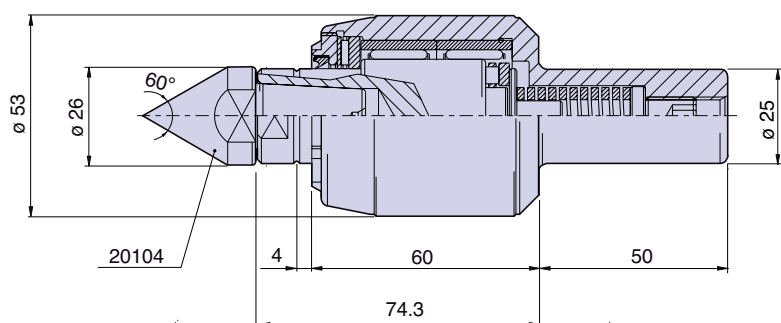
Contropunta con carico assiale variabile tipo Codolo D25
 Variable axial load live centers tang type D25
 Körnerspitze mit variabler Axiallast Belastung Typ Schaff D25



► Code **38214**

Carico max suggerito	daN 800
Max recommended load	
Max Empfohlene Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	3000
R.p.m.	
U/min	

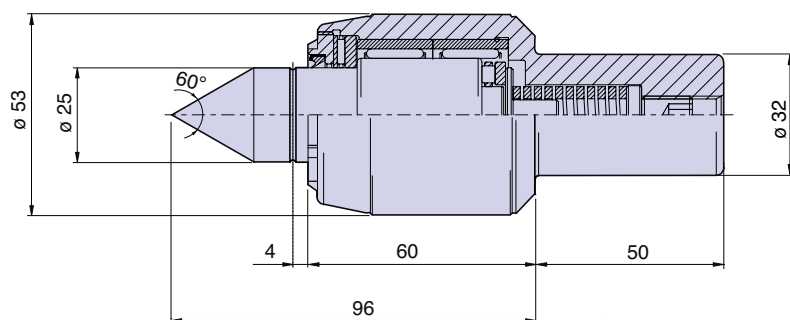
Contropunta con carico assiale variabile tipo Codolo D25
 Variable axial load live centers tang type D25
 Körnerspitze mit variabler Axiallast Belastung Typ Schaff D25



► Code **38224**

Carico max suggerito	daN 800
Max recommended load	
Max Empfohlene Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	3000
R.p.m.	
U/min	

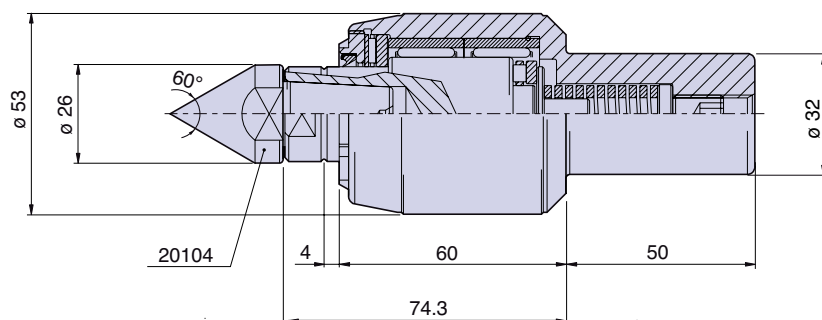
Contropunta con carico assiale variabile tipo Codolo D32
 Variable axial load live centers tang type D32
 Körnerspitze mit variabler Axiallast Belastung Typ Schaff D32



► Code **38314**

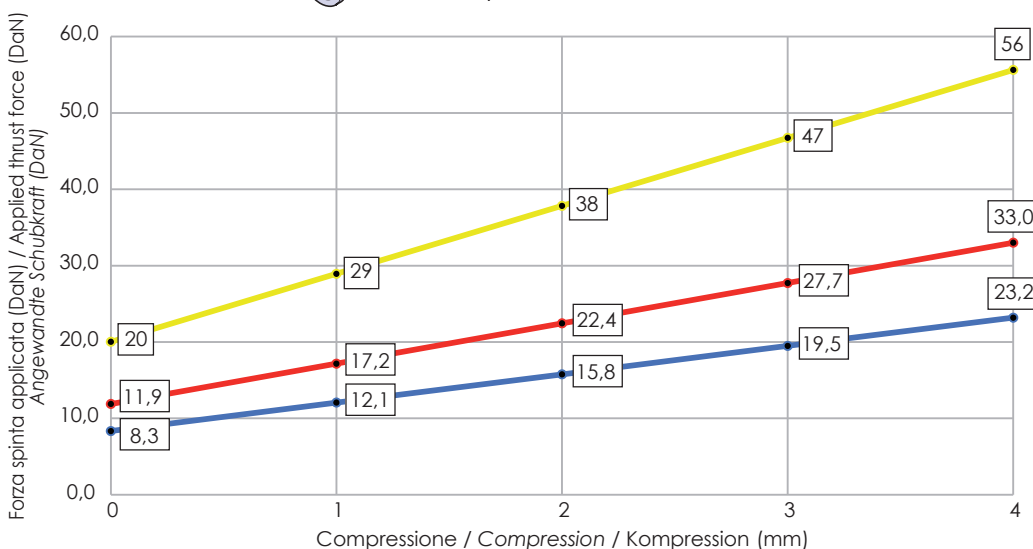
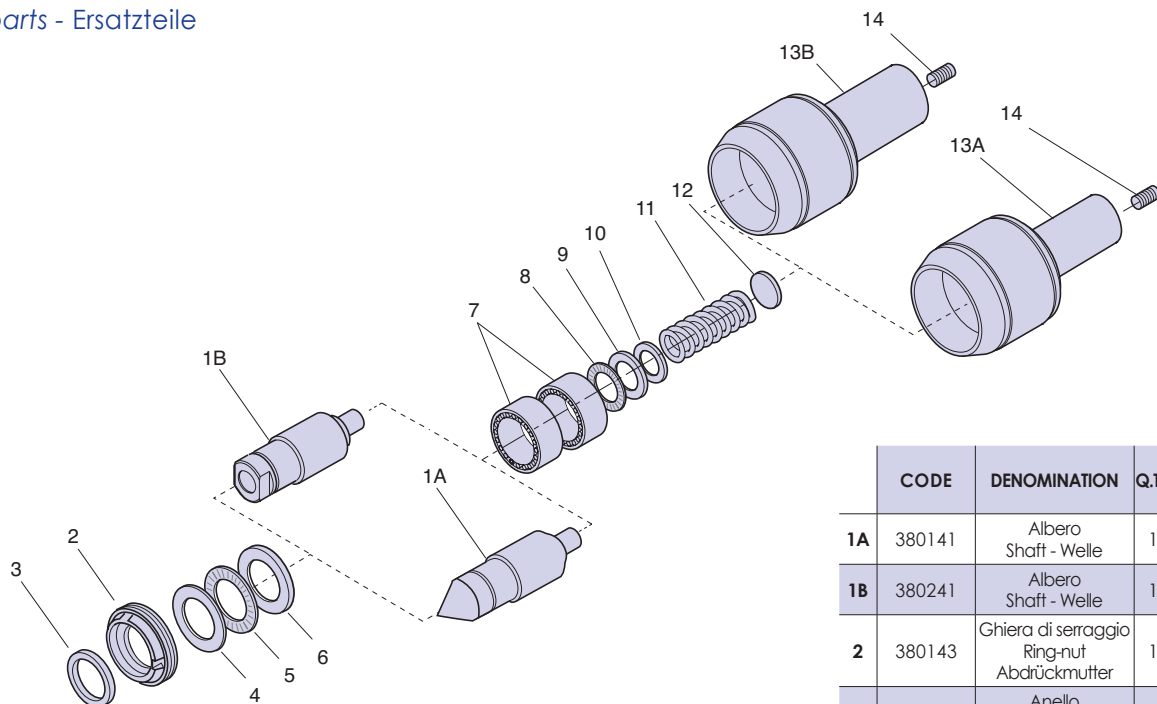
Carico max suggerito	daN 800
Max recommended load	
Max Empfohlene Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	3000
R.p.m.	
U/min	

Contropunta con carico assiale variabile tipo Codolo D32
 Variable axial load Live centers tang type D32
 Körnerspitze mit variabler Axiallast Belastung Typ Schaff D32



► Code **38324**

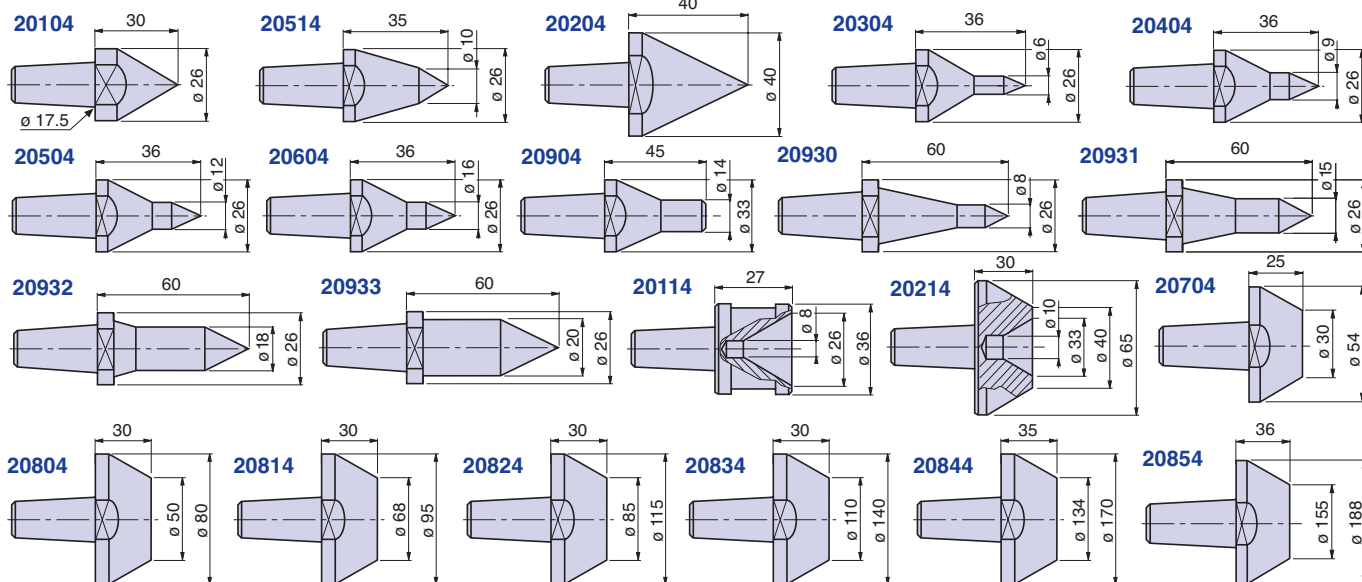
Carico max suggerito	daN 800
Max recommended load	
Max Empfohlene Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	3000
R.p.m.	
U/min	



- MOLLA BLU / BLUE SPRING / BLAUER FRÜHLING
- MOLLA ROSSA / RED SPRING / ROTER FRÜHLING
- MOLLA GIALLA / YELLOW SPRING / GELBER FRÜHLING

1 DaN = 1,02 Kg

	CODE	DENOMINATION	Q.TY
1A	380141	Albero Shaft - Welle	1
1B	380241	Albero Shaft - Welle	1
2	380143	Ghiera di serraggio Ring-nut Abdrückmutter	1
3	150025001	Anello Ring	1
4	090025002	Rolla Wheel - Scheibe	1
5	090025003	Gabbia Cage - Käfig	1
6	090025007	Rolla Wheel - Scheibe	1
7	080030001	Cuscinetto Bearing - Lager	2
8	090030009	Gabbia Cage - Käfig	1
9	090030012	Rolla Wheel - Scheibe	1
10	380144	Piattello Plate - Platte	1
11	160008004	Molla Spring - Feder	1
12	380145	Piattello Plate - Platte	1
13A	382140	Corpo Body - Körper	1
13B	383140	Corpo Body - Körper	1
14	170010001	Vite Screw - Schraube	1





AVVERTENZE GENERALI

• La caduta accidentale di una contropunta, dato il peso, può compromettere il funzionamento dell'attrezzo, oltre che procurare ferite agli arti inferiori.

• Utilizzare sempre pezzi con i fori di centraggio eseguiti in modo corretto, con un buon allineamento e con dimensioni adeguate al pezzo da lavorare. I fori di centraggio non allineati e/o non correttamente dimensionati, potrebbero causare danni alle attrezzature fino ad arrivare alla proiezione del pezzo in lavorazione, con conseguente pericolo per l'operatore.

• Assicurarsi che il cono della contropunta e la relativa sede di contatto siano integri, per non compromettere l'eccentricità.

• Non superare mai i carichi ed il numero di giri consigliato dalle caratteristiche del modello

Se durante il funzionamento la punta si surriscalda:

- può essere stato superato il numero di giri consigliato
- è consigliato sostituire il grasso interno (revisione della contropunta). Viscosità elevata
- foro di centraggio sul pezzo troppo piccolo
- lubrificazione dei cuscinetti inadeguata (revisione della contropunta)
- cuspidi bloccata o frenata

Se durante il funzionamento la punta si rompe:

- foro di centraggio del pezzo non in asse o poco profondo
- peso del pezzo da lavorare non proporzionato alla contropunta
- contropunta non in asse rispetto al mandrino

Se durante il funzionamento la punta si blocca:

- cuscinetti grippati (mancanza di revisione della contropunta)
- forza assiale troppo elevata rispetto al modello
- pezzo da lavorare troppo piccolo

GENERAL PRECAUTIONS

• Given the weight of a tailstock, should it accidentally fall this could not only jeopardize the working efficiency of the tool but could also cause injury to lower limbs.

• Always use pieces with correctly made centering holes, well-aligned and with dimensions suitable for the piece being processed. Incorrectly sized or out-of-line centering holes could damage the tool and project the piece being processed with consequent risk for the operator.

• Make sure that the tailstock taper and the relative contact seat are integral to avoid compromising eccentricity.

• Never exceed the loads or number of revs recommended by the characteristics of the model.

If the point overheats during operation:

- the recommended number of revs has been exceeded
- replace the internal grease (tailstock overhaul). High viscosity
- centering hole on the piece is too small
- insufficient lubrication of the bearings (tailstock overhaul)
- centering point locked or braked

If the point breaks during operation:

- centering hole on the piece is out of axis or too shallow
- the weight of the piece being processed is disproportionate to the tailstock
- tailstock out of axis respect to the chuck

If the point locks during operation:

- bearings seized-up (tailstock not overhauled)
- axial force is too high for the model
- piece being processed is too small

ALLGEMEINE HINWEISE

• Das unbeabsichtigte Fallen eines Körnerspitze kann aufgrund seines Gewichts die Funktionstüchtigkeit des Werkzeugs beeinträchtigen und Verletzungen an den unteren Gliedmaßen hervorrufen.

• Verwenden Sie stets Werkstücke mit korrekt ausgeführten, gut ausgerichteten und für das zu bearbeitende Werkstück geeignet bemessenen Zentrierbohrungen. Nicht ausgerichtete und/oder nicht korrekt bemessene Zentrierbohrungen können zu Schäden an den Werkzeugen führen und darüber hinaus das Herausschleudern des zu bearbeitenden Werkstücks mit entsprechender Gefährdung des Bedieners verursachen.

• Stellen Sie sicher, dass der Reitstockkegel und der zugehörige Kontaktsitz unversehrt sind, damit die Exzentrizität nicht beeinträchtigt wird.

• Überschreiten Sie niemals die in den Kenndaten des Modells empfohlenen Lasten und Drehzahlen.

Wenn sich die Spitze während des Betriebs zu stark erwärmt:

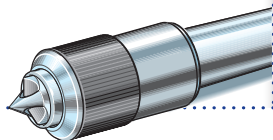
- kann die empfohlene Drehzahl überschritten worden sein
- empfiehlt sich die Auswechslung des inneren Fettes (Überholung des Reitstocks). hohe Viskosität
- Zentrierbohrung am Werkstück zu klein
- unzureichende Schmierung der Lager (Überholung des Reitstocks).
- Zentrierspitze blockiert oder gebremst

Wenn die Spitze während des Betriebs bricht:

- Zentrierbohrung am Werkstück nicht in Achse oder nicht tief genug
- Gewicht des Werkstücks steht nicht im Verhältnis zum Reitstock.
- Reitstock nicht in Achse in Bezug auf die Spindel.

Wenn die Spitze während des Betriebs blockiert:

- Lager zerfressen (fehlende Zentrierbohrung am Werkstück (Überholung des Reitstocks)
- Axialkraft zu hoch im Verhältnis zum Modell
- Werkstück zu klein



► T ◀

Trascinatori frontali

Face drivers

Stirnseiten mitnehmer



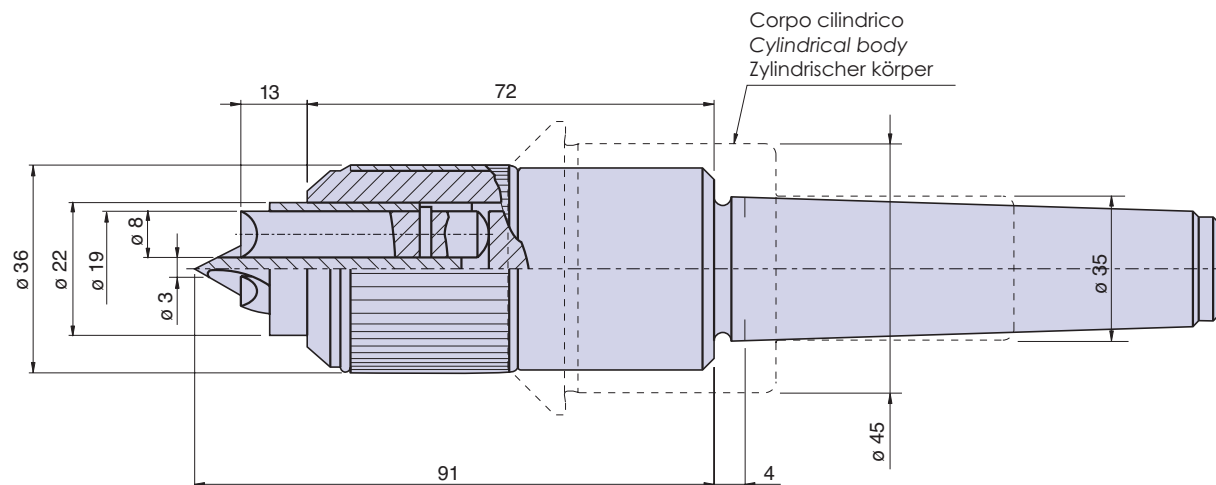
I nostri trascinatori frontali della serie "T" trovano il loro miglior impiego nella produzione di pezzi in serie in quanto consentono una riduzione dei tempi di serraggio nelle varie operazioni di tornitura. Molto compatti nella loro forma, permettono un ottimo avvicinamento dell'utensile al pezzo e garantiscono un trascinamento sicuro anche per particolari non tagliati perfettamente ortogonali. Montando la punta prolungata si riesce anche a lavorare alberi che presentano dei fori al posto del centro.

Our "T" series face drivers are best used in the mass production of parts since they make it possible to reduce the clamping times in the various turning operations. Their extremely compact shape allows excellent approach of the tool to the workpiece. They ensure safe driving even for parts that are not perfectly squarely cut. When the extended point is fitted it is also possible to machine shafts which have holes in the centre.

Die Stirnseiten-Mitnehmer der Baureihe „T“ sind besonders für die Teilherstellung in Serienfertigung geeignet, da sie die Spannzeiten für die einzelnen Drehbearbeitungen deutlich verringern. Die kompakt gebauten Spannmittel sorgen für eine optimale Anstellung des Werkzeugs an das Werkstück und gewährleisten eine sichere Einspannung selbst bei unebenen Stirnseiten des Werkstücks. Bei Einbau der verlängerten Spitze lassen sich ebenfalls Wellen mitmittigen Bohrungen bearbeiten.

Campo di lavoro $\varnothing$ 5 - 30 mm
 Working range $\varnothing$ 5 - 30 mm
 Einsatzbereich $\varnothing$ 5 - 30 mm

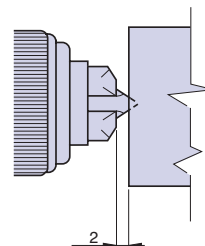
Type T/A	Code	
	Normal	Extended
3	100103	100113
4	100104	100114
Cylindric	100105	100115



N.B.: in caso di usura dell'artiglio su di un lato del tagliente, lo stesso deve essere ruotato di 180°.

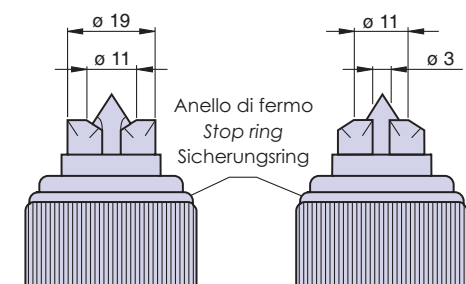
In base al diametro minore che dovete lavorare, scegliete, come da schema, il tipo di artiglio più idoneo. Il modello prolungato è più lungo di 10mm. Montando la punta prolungata "P" in abbinamento agli artigli più corti (della serie "S" per esempio) si possono lavorare centri di diametro più grande.

A richiesta si possono ottenere attacchi speciali o cilindrici per autocentranti.



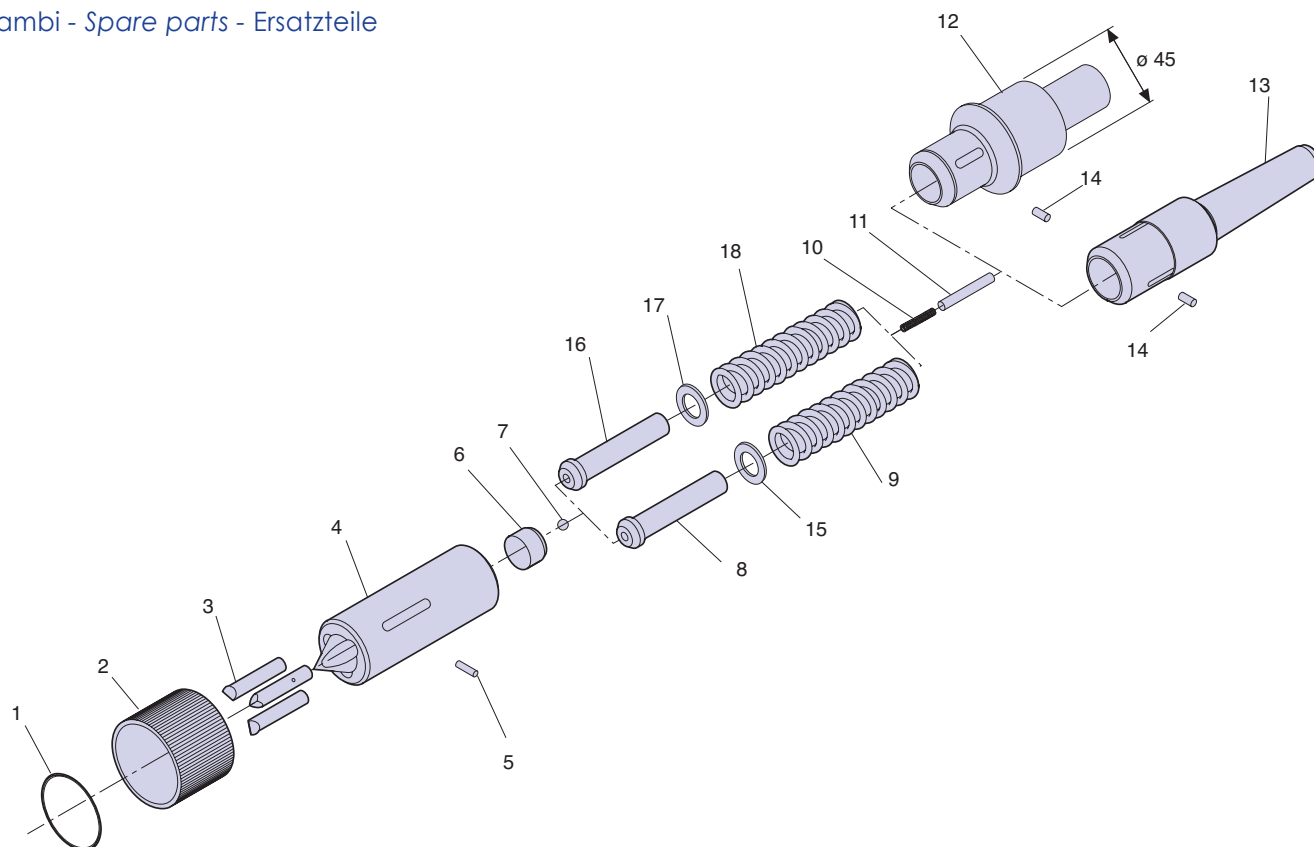
ATT.: if a driving tooth becomes worn on the cutting side, it must be turned 180°. Depending on the lesser diameter to be machines, choose the most appropriate driving tooth, as par the diagram. The extended model is 10mm longer. By fitting the longer tip "P" in conjunction with the shorter pins (of the "S" series for example), larger diameter centers can be machined.

On request special or cylindrical coupling for self-centering chuks can be provided.



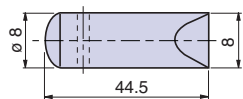
HINWEIS: bei Verschleiß del Mitnehmerbolzens an einer Schneide-seite kann der Bolzen um 180° gedreht werden. Wählen sie in der Übersicht den Mitnehmerbolzen für den kleinsten zu bearbeitenden Durchmesser. Die verlängerte Ausführung ist um 10mm länger. Durch die Montage der verlängerten Spitze "P" in Verbindung mit den kürzeren Krallen (z. B. der "S" -Serie) können Zentrierungen mit größerem Durchmesser funktionieren. Auf Anfrage können Spezialverbindungen für das Spannfutter angeboten werden.



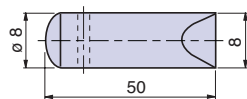


	CODE	DENOMINATION	Q.TY				
				10	170004007	Molla Spring - Feder	1
1	160032001	Anello Ring	1	11	170004004	Spina Pin - Stift	1
2	1001002	Coperchio Cover - Abdeckung	1	12	1001008	Corpo cilindrico Cylindrical body Zylindrischer Körper	1
3	10101 - P 10102 - P	Artigli Driving teeth Mitnehmerbolzen	3	13	1001006 1001007	Corpo CM3-4 Taper 3-4 body Körper Morsekegel 3-4	1
4	10103 10103-P	Punta Point - Spitze	1	14	170005014	Spina Pin - Stift	1
5	170003003	Spina Pin - Stift	3	15	1001001	Distanziale piattello Spacer - distanzstück	1
6	1001003	Disco Disk - Scheibe	1	16	1001009	Perno Pin - Zapfen	1
7	110006001	Sfera Ball - Kugel	1	17	1001010	Distanziale Spacer - distanzstück	1
8	1001004	Perno Pin - Zapfen	1	18	1001011	Molla Spring - Feder	1
9	1001005	Molla Spring - Feder	1				

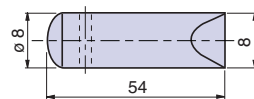
10101



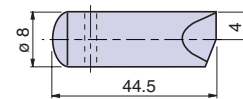
10101 S



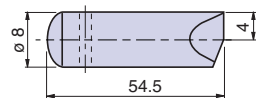
10101 P



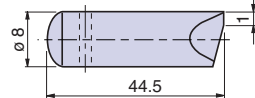
10102



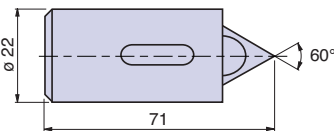
10102 P



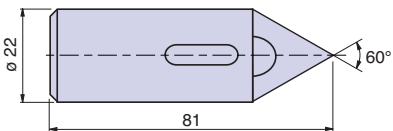
10102 N



10103

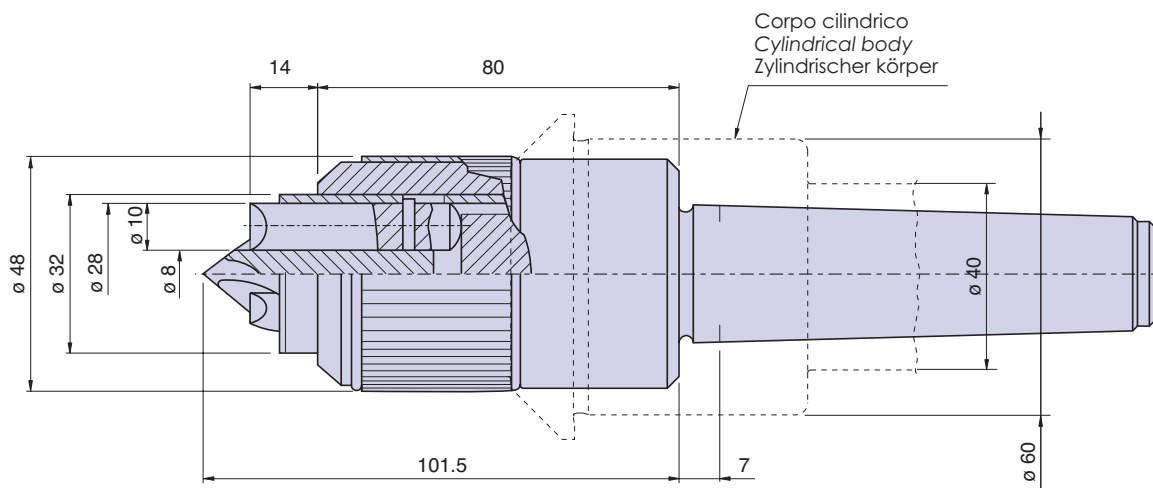


10103 P



Campo di lavoro $\varnothing 18 - 40$ mm
 Working range $\varnothing 18 - 40$ mm
 Einsatzbereich $\varnothing 18 - 40$ mm

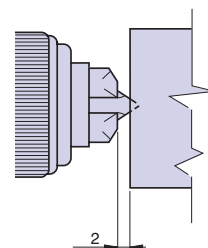
Type T/B	Code	
	Normal	Extended
3	120203	120213
4	120204	120214
Cylindric	120207	120217



N.B.: in caso di usura dell'artiglio su di un lato del tagliente, lo stesso deve essere ruotato di 180° .

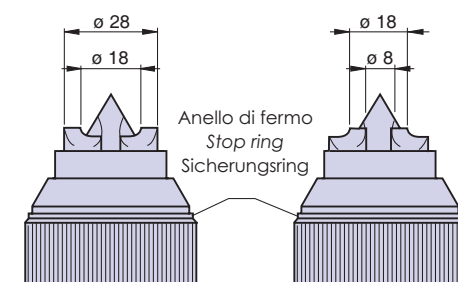
In base al diametro minore che dovete lavorare, scegliete, come da schema, il tipo di artiglio più idoneo. Il modello prolungato è più lungo di 10mm. Montando la punta prolungata "P" in abbinamento agli artigli più corti (della serie "S" per esempio) si possono lavorare centri di diametro più grande.

A richiesta si possono ottenere attacchi speciali o cilindrici per autocentranti.



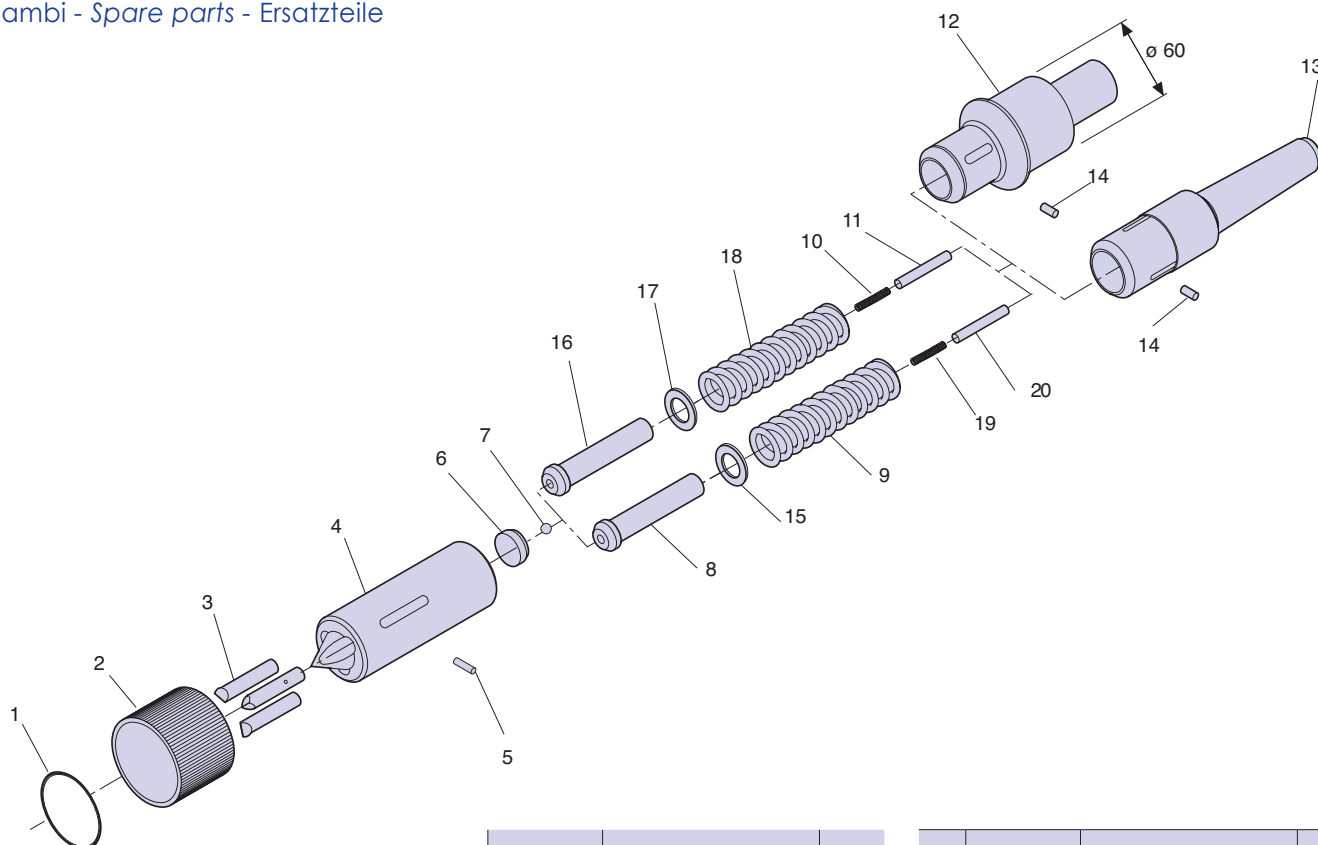
ATT.: if a driving tooth becomes worn on the cutting side, it must be turned 180° . Depending on the lesser diameter to be machined, choose the most appropriate driving tooth, as per the diagram. The extended model is 10mm longer. By fitting the longer tip "P" in conjunction with the shorter pins (of the "S" series for example), larger diameter centers can be machined.

On request special or cylindrical coupling for self-centering chucks can be provided.



HINWEIS: bei Verschleiß des Mitnehmerbolzens an einer Schneideseite kann der Bolzen um 180° gedreht werden. Wählen sie in der Übersicht den Mitnehmerbolzen für den kleinsten zu bearbeitenden Durchmesser. Die verlängerte Ausführung ist um 10mm länger. Durch die Montage der verlängerten Spitze "P" in Verbindung mit den kürzeren Krallen (z. B. der "S" -Serie) können Zentrierungen mit größerem Durchmesser funktionieren. Auf Anfrage können Spezialverbindungen für das Spannfutter angeboten werden.

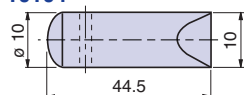




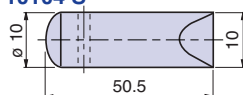
	CODE	DENOMINATION	Q.TY
1	160044001	Anello Ring	1
2	1202002	Coperchio Cover - Abdeckung	1
3	10104-S-P 10105-S-P 10106-S-P	Artigli Driving teeth Mitnehmerbolzen	3
4	10107 10107-P	Punta Point - Spitze	1
5	170003004	Spina Pin - Stift	3
6	1202003	Disco Disk - Scheibe	1
7	110009001	Sfera Ball - Kugel	1
8	1202012	Perno Pin - Zapfen	1
9	1202013	Molla Spring - Feder	1
10	160004001	Molla Spring - Feder	1

11	170004004	Spina Pin - Stift	1
12	1202006	Corpo cilindrico Cylindrical body Zylindrischer Körper	1
13	1202007 1202008	Corpo CM3-4 Taper 3-4 body Körper Morsekegel 3-4	1
14	170006002	Spina Pin - Stift	1
15	1202014	Distanziale Spacer - distanzstück	1
16	1202004	Perno Pin - Zapfen	1
17	1202009	Distanziale Spacer - distanzstück	1
18	1202005	Molla Spring - Feder	1
19	160006002	Molla Spring - Feder	1
20	170006022	Perno Pin - Zapfen	1

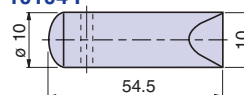
10104



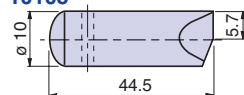
10104 S



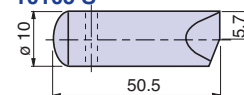
10104 P



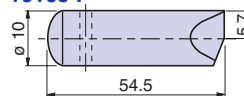
10105



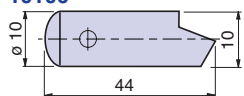
10105 S



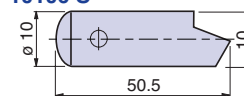
10105 P



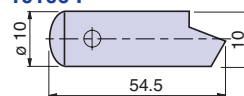
10106



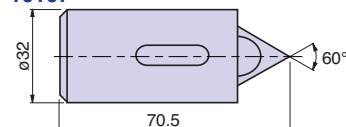
10106 S



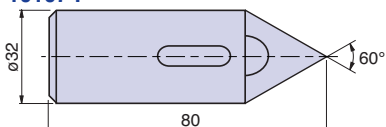
10106 P



10107

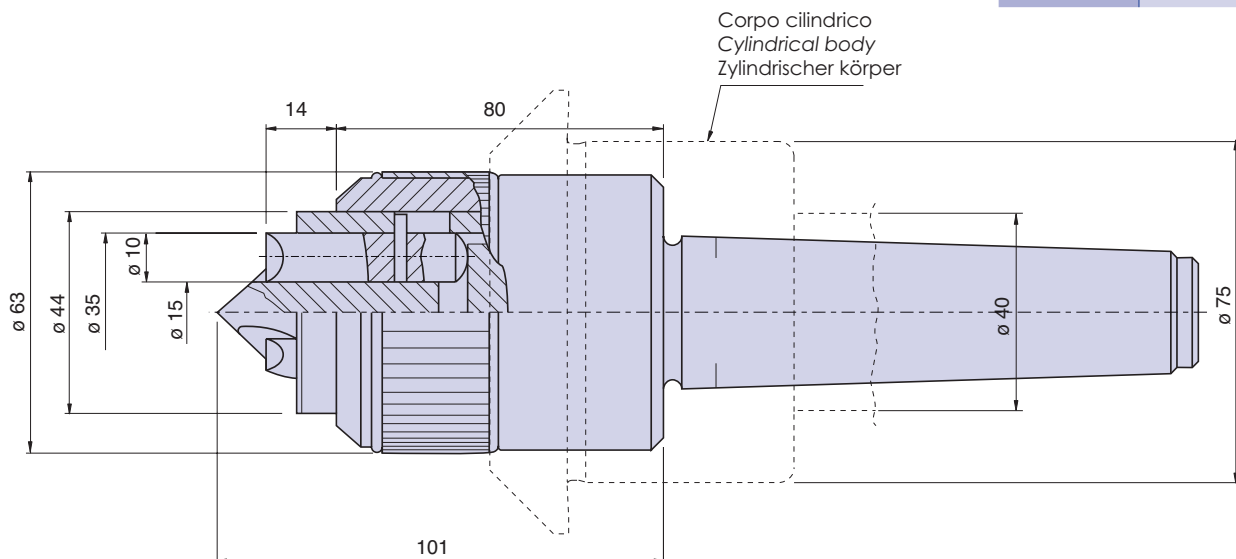


10107 P



Campo di lavoro $\varnothing$ 25 - 60 mm
 Working range $\varnothing$ 25 - 60 mm
 Einsatzbereich $\varnothing$ 25 - 60 mm

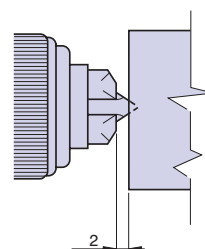
Type T/OC	Code	
	Normal	Extended
3	140303	140313
4	140304	140314
5	140305	140315
6	140306	140316
Cylindric	140307	140317



N.B.: in caso di usura dell'artiglio su di un lato del tagliente, lo stesso deve essere ruotato di 180°.

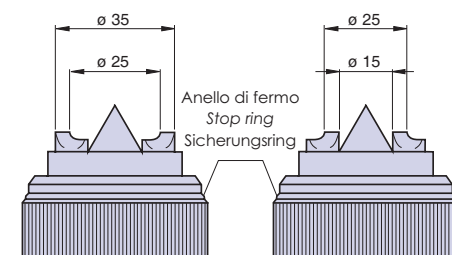
In base al diametro minore che dovete lavorare, scegliete, come da schema, il tipo di artiglio più idoneo. Il modello prolungato è più lungo di 10mm. Montando la punta prolungata "P" in abbinamento agli artigli più corti (della serie "S" per esempio) si possono lavorare centri di diametro più grande.

A richiesta si possono ottenere attacchi speciali o cilindrici per autocentranti.



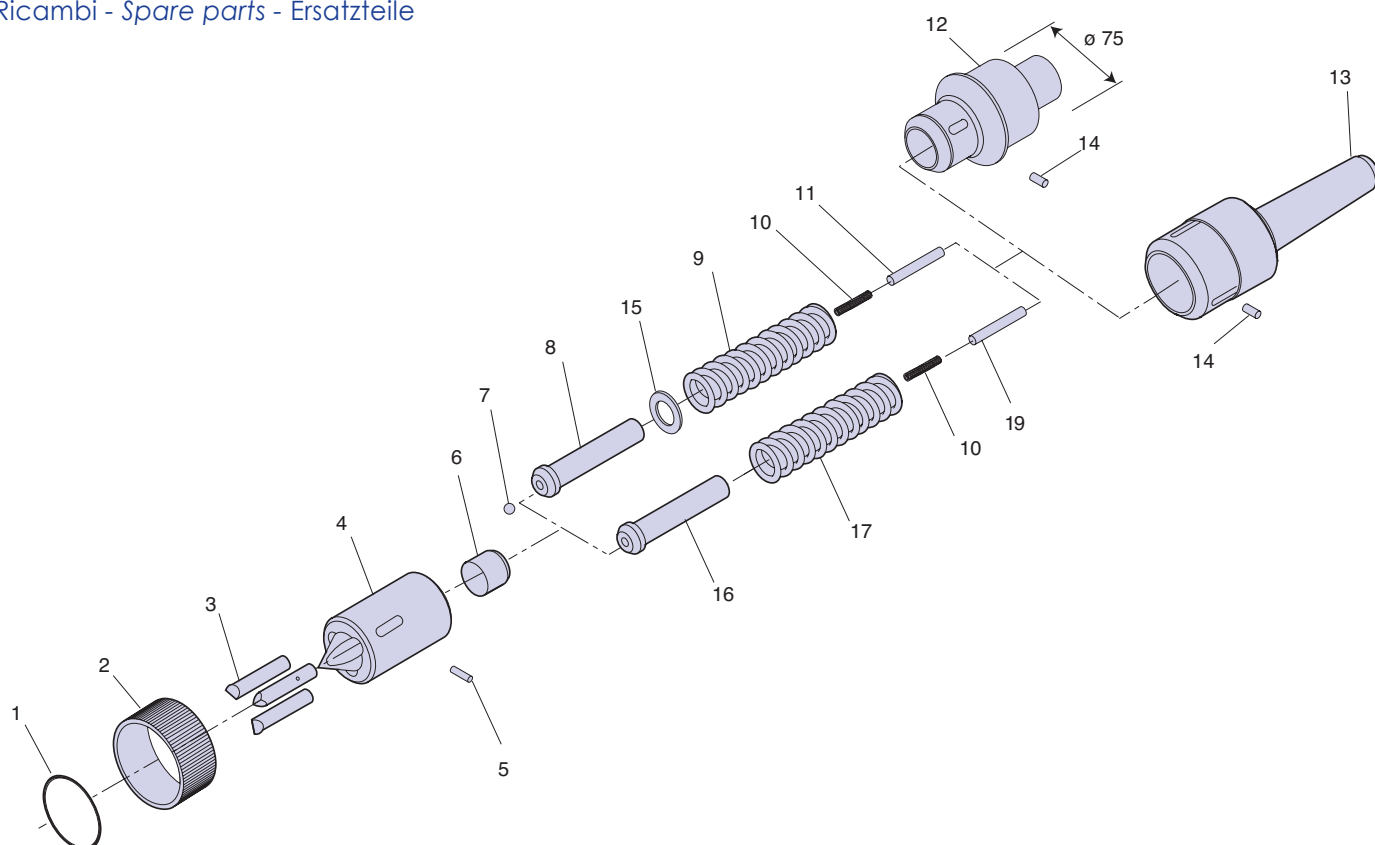
ATT.: if a driving tooth becomes worn on the cutting side, it must be turned 180°. Depending on the lesser diameter to be machines, choose the most appropriate driving tooth, as par the diagram. The extended model is 10mm longer. By fitting the longer tip "P" in conjunction with the shorter pins (of the "S" series for example), larger diameter centers can be machined.

On request special or cylindrical coupling for self-centering chucks can be provided.



HINWEIS: bei Verschleiß des Mitnehmerbolzens an einer Schneideseite kann der Bolzen um 180° gedreht werden. Wählen sie in der Übersicht den Mitnehmerbolzen für den kleinsten zu bearbeitenden Durchmesser. Die verlängerte Ausführung ist um 10mm länger. Durch die Montage der verlängerten Spitze "P" in Verbindung mit den kürzeren Krallen (z. B. der "S" -Serie) können Zentrierungen mit größerem Durchmesser funktionieren. Auf Anfrage können Spezialverbindungen für das Spannfutter angeboten werden.

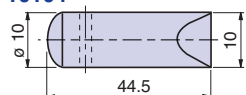




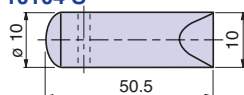
	CODE	DENOMINATION	Q.TY
1	160058001	Anello Ring	1
2	1403002	Coperchio Cover - Abdeckung	1
3	10104-S-P 10105-S-P 10106-S-P	Artigli Driving teeth Mitnehmerbolzen	3
4	10108 10108-P	Punta Point - Spitze	1
5	170003002	Spina Pin - Stift	3
6	1403003	Disco Disk - Scheibe	1
7	110009001	Sfera Ball - Kugel	1
8	1403004	Perno Pin - Zapfen	1
9	1202005	Molla Spring - Feder	1
10	160006002	Molla Spring - Feder	1

11	1700060022	Spina Pin - Stift	1
12	1403006	Corpo cilindrico Cylindrical body Zylindrischer Körper	1
13	1403011 1403007 1403008 1403009	Corpo CM 3-4-5-6 Taper 3-4-5-6 body Körper Morsekegel 3-4-5-6	1
14	170006002	Spina Pin - Stift	1
15	1403010	Distanziale Spacer - distanzstück	1
16	1202012	Perno Pin - Zapfen	1
17	1202013	Molla per perno Spring for pin - Feder für Zapfen	1
18	160004001	Molla Spring - Feder	1
19	170004004	Spina Pin - Stift	1

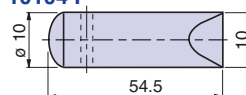
10104



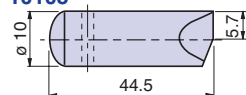
10104 S



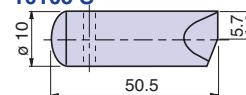
10104 P



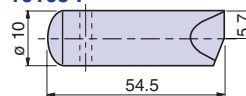
10105



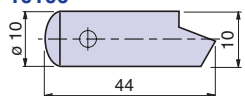
10105 S



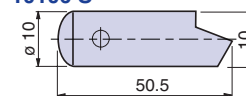
10105 P



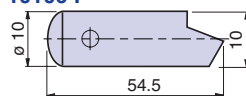
10106



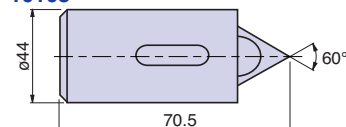
10106 S



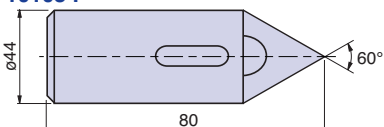
10106 P



10108

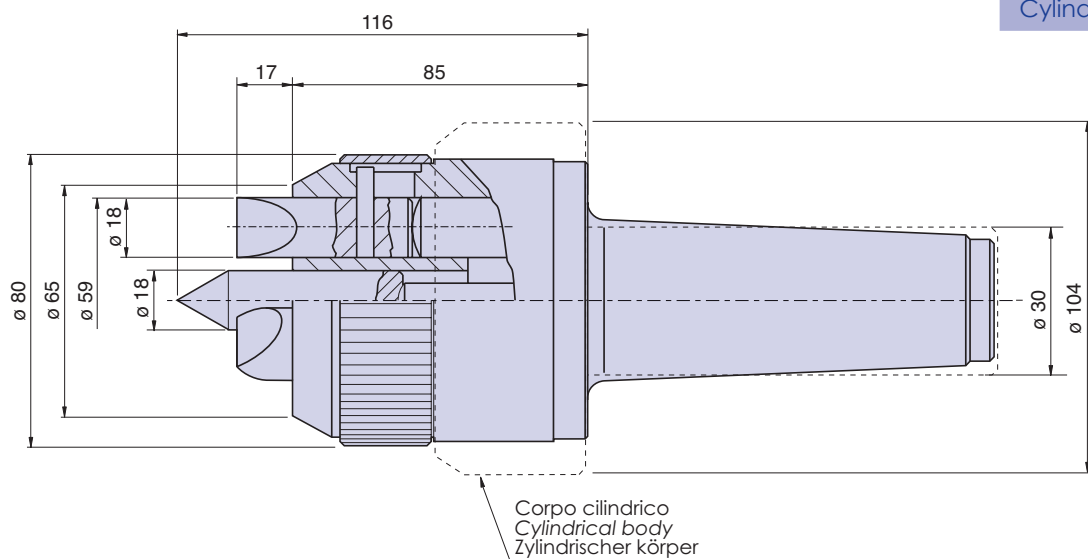


10108 P



Campo di lavoro $\varnothing 41 - 110$ mm
 Working range $\varnothing 41 - 110$ mm
 Einsatzbereich $\varnothing 41 - 110$ mm

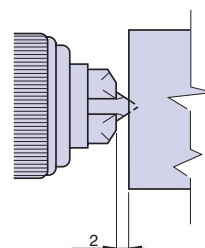
Type T/C	Code	
	Normal	Extended
4	160404	160414
5	160405	160415
6	160406	160416
Cylindric	160407	160417



N.B.: in caso di usura dell'artiglio su di un lato del tagliente, lo stesso deve essere ruotato di 180°.

In base al diametro minore che dovete lavorare, scegliete, come da schema, il tipo di artiglio più idoneo. Il modello prolungato è più lungo di 10mm. Montando la punta prolungata "P" in abbinamento agli artigli più corti (della serie "S" per esempio) si possono lavorare centri di diametro più grande.

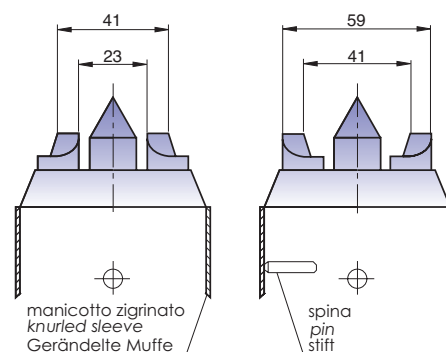
A richiesta si possono ottenere attacchi speciali o cilindrici per autocentranti.



ATT.: if a driving tooth becomes worn on the cutting side, it must be turned 180°. Depending on the lesser diameter to be machines, choose the most appropriate driving tooth, as par the diagram.

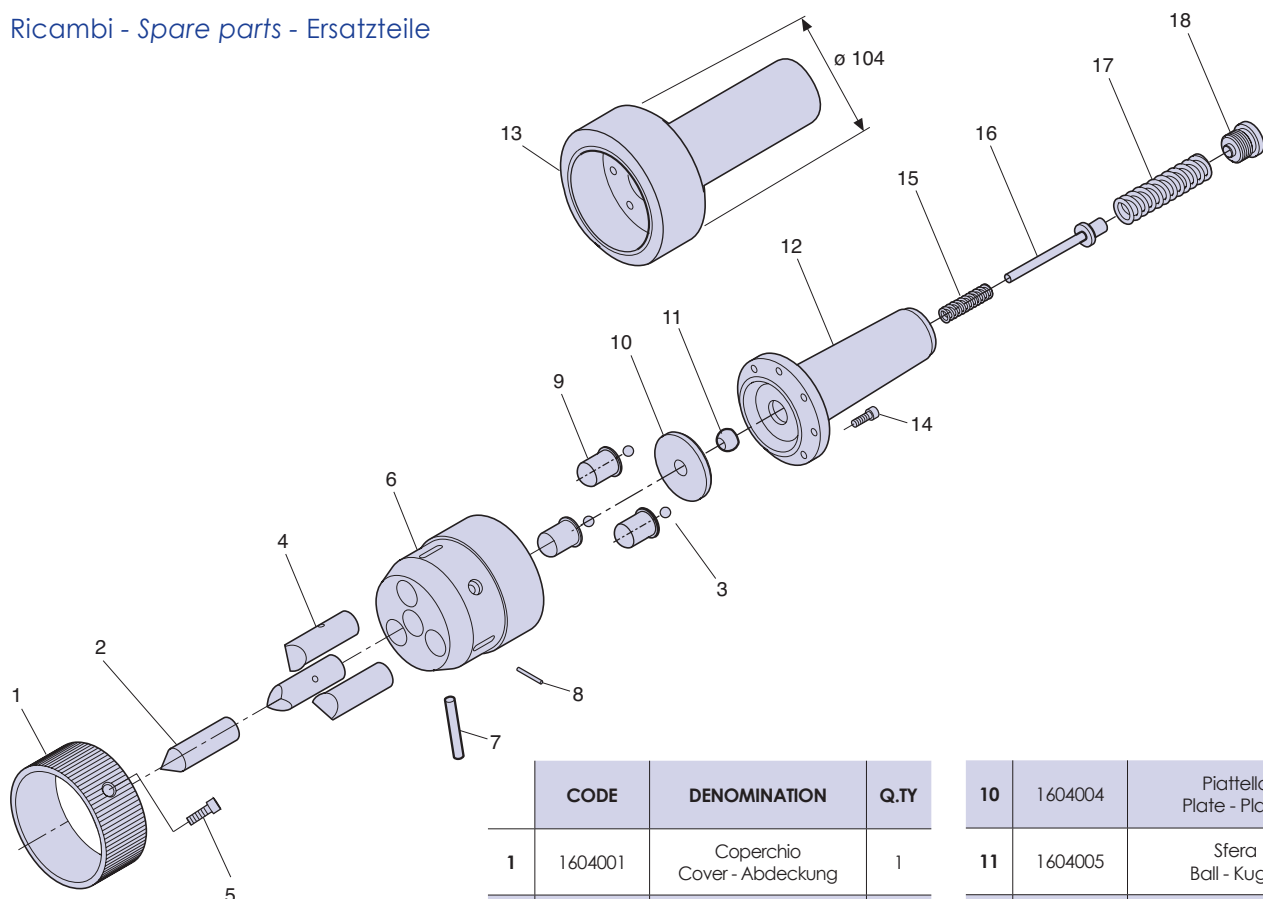
The extended model is 10mm longer. By fitting the longer tip "P" in conjunction with the shorter pins (of the "S" series for example), larger diameter centers can be machined.

On request special or cylindrical coupling for self-centering chucks can be provided.



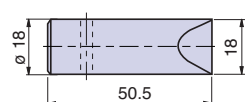
HINWEIS: bei Verschleiß des Mitnehmerbolzens an einer Schneideseite kann der Bolzen um 180° gedreht werden. Wählen sie in der Übersicht den Mitnehmerbolzen für den kleinsten zu bearbeitenden Durchmesser. Die verlängerte Ausführung ist um 10mm länger. Durch die Montage der verlängerten Spitze "P" in Verbindung mit den kürzeren Krallen (z. B. der "S" -Serie) können Zentrierungen mit größerem Durchmesser funktionieren.

Auf Anfrage können Spezialverbindungen für das Spannfutter angeboten werden.

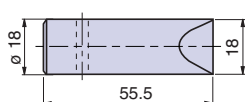


	CODE	DENOMINATION	Q.TY				
				10	1604004	Piattello Plate - Platte	1
1	1604001	Coperchio Cover - Abdeckung	1	11	1604005	Sfera Ball - Kugel	1
2	10112 10112-P *	Punta (n.8 models) Point Spitze	1	12	1604006 1604007 1604013	Corpo CM 4-5-6 Taper 4-5-6 body Körper Morsekegel 4-5-6	1
3	11009001	Sfera Ball - Kugel	3	13	1604008	Corpo cilindrico Cylindrical body Zylindrischer Körper	1
4	10109-P-S 10110-P-S 10111-P-S	Artigli (n.9 models) Driving teeth Mitnehmerbolzen	3	14	170005015	Vite Screw - Schraube	8
5	170006012	Vite Screw - Schraube	1	15	1604009	Molla Spring - Feder	1
6	1604002	Boccola Bush - Buchse	1	16	1604010	Perno Pin - Zapfen	1
7	170004005	Spina Pin - Stift	3	17	40106	Molla Spring - Feder	1
8	170006001	Spina Pin - Stift	1	18	1604012	Tappo Plug - Stopfen	1
9	1604003	Perno Pin - Zapfen	3				

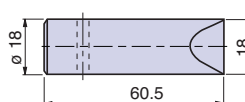
10109



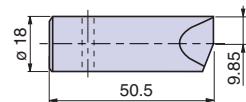
10109 S



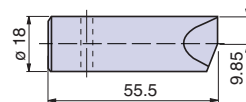
10109 P



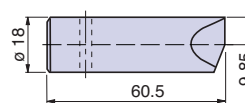
10110



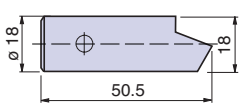
10110 S



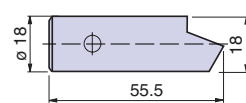
10110 P



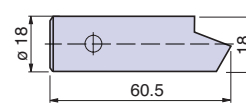
10111



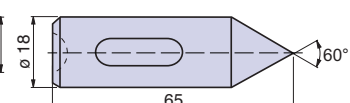
10111 S



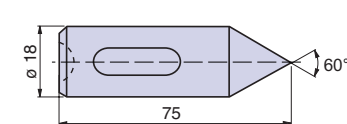
10111 P



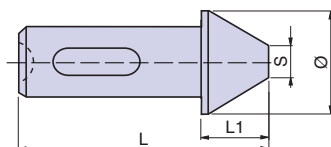
10112



10112 P



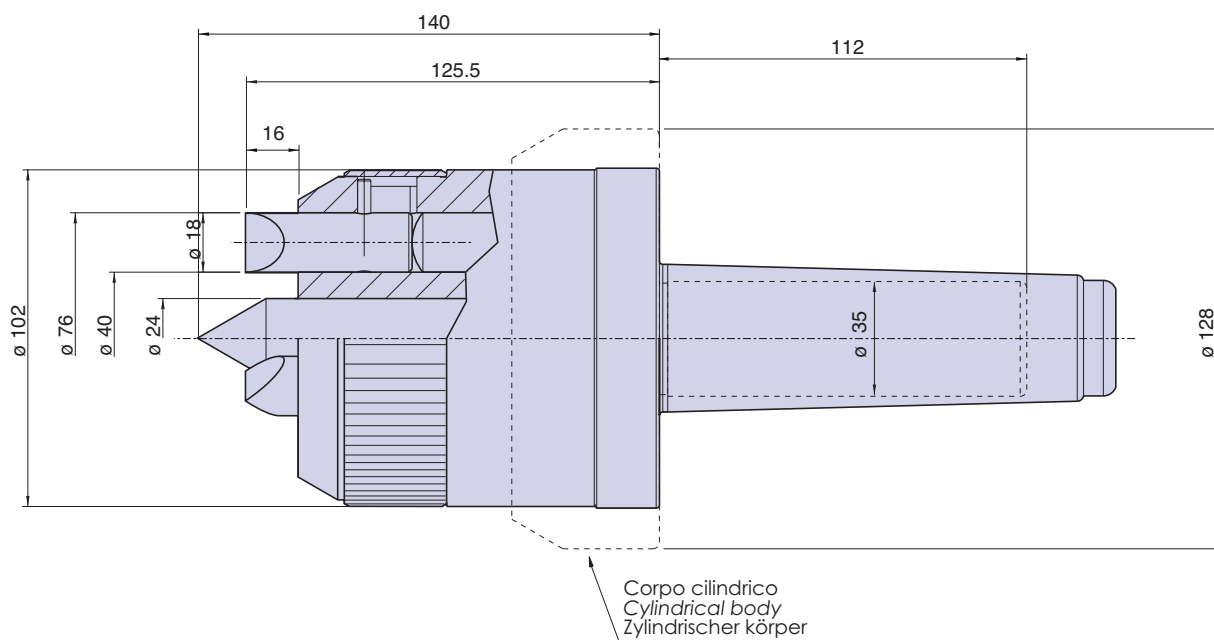
* 10120-10121-10122-10123-10124-10125



Code	10120	10121	10122	10123	10124	10125
Ø	30	35	40	45	50	55
L	72	77	77	77	77	77
S	8,1	7,3	12,3	17,3	22,3	27,3
L1	20	25	25	25	25	25

Campo di lavoro $\varnothing$ 58 - 130 mm
 Working range $\varnothing$ 58 - 130 mm
 Einsatzbereich $\varnothing$ 58 - 130 mm

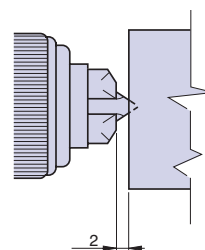
Type T/E	Code	
	Normal	Extended
5	170505	170515
6	170506	170516
Cylindric	170507	170517



N.B.: in caso di usura dell'artiglio su di un lato del tagliente, lo stesso deve essere ruotato di 180°.

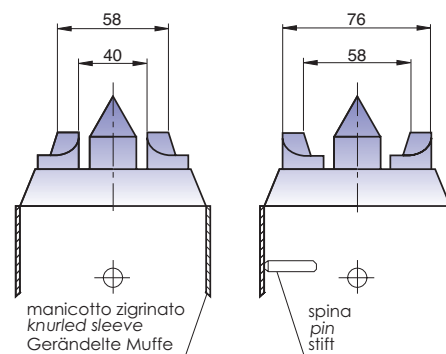
In base al diametro minore che dovete lavorare, scegliete, come da schema, il tipo di artiglio più idoneo. Il modello prolungato è più lungo di 10mm. Montando la punta prolungata "P" in abbinamento agli artigli più corti (della serie "S" per esempio) si possono lavorare centri di diametro più grande.

A richiesta si possono ottenere attacchi speciali o cilindrici per autocentranti.

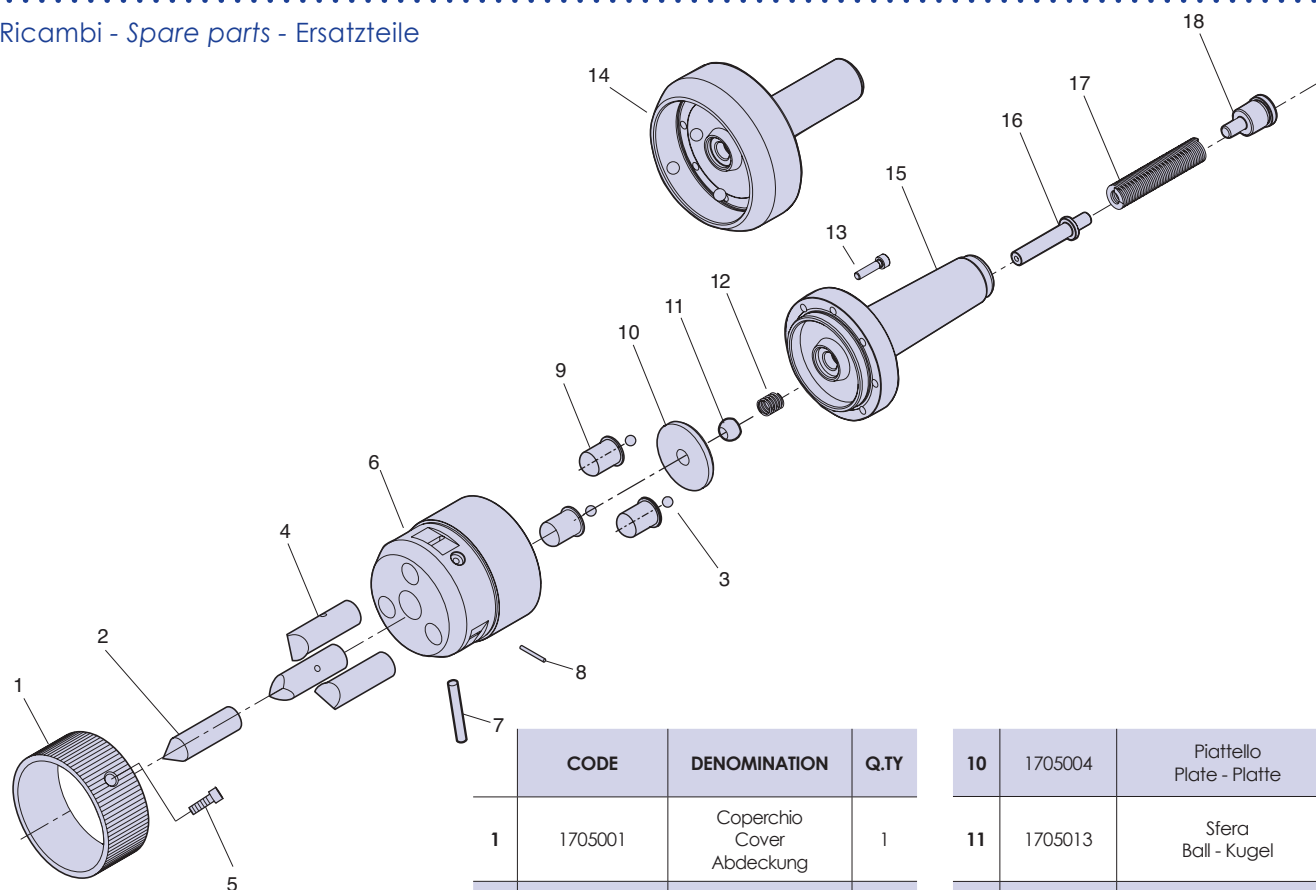


ATT.: if a driving tooth becomes worn on the cutting side, it must be turned 180°. Depending on the lesser diameter to be machines, choose the most appropriate driving tooth, as par the diagram. The extended model is 10mm longer. By fitting the longer tip "P" in conjunction with the shorter pins (of the "S" series for example), larger diameter centers can be machined.

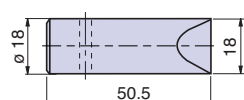
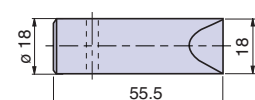
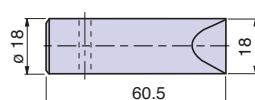
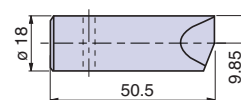
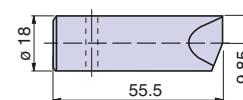
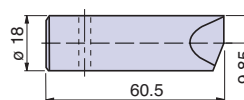
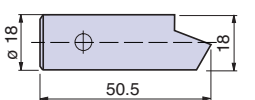
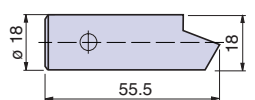
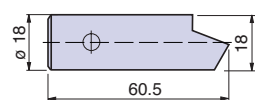
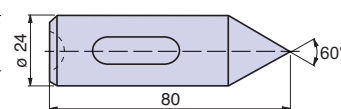
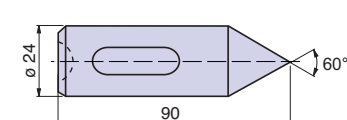
On request special or cylindrical coupling for self-centering chucks can be provided.



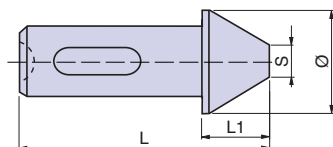
HINWEIS: bei Verschleiß des Mitnehmerbolzens an einer Schneide-seite kann der Bolzen um 180° gedreht werden. Wählen sie in der Übersicht den Mitnehmerbolzen für den kleinsten zu bearbeitenden Durchmesser. Die verlängerte Ausführung ist um 10mm länger. Durch die Montage der verlängerten Spitze "P" in Verbindung mit den kürzeren Krallen (z. B. der "S" -Serie) können Zentrierungen mit größerem Durchmesser funktionieren. Auf Anfrage können Spezialverbindungen für das Spannfutter angeboten werden.



	CODE	DENOMINATION	Q.TY				
				10	1705004	Piattello Plate - Platte	1
1	1705001	Coperchio Cover Abdeckung	1	11	1705013	Sfera Ball - Kugel	1
2	10113 10113-P	Punta Point - Spitze	1	12	160011020	Molla Spring - Feder	1
3	110009001	Sfera Ball - Kugel	3	13	170006019	Vite Screw - Schraube	8
4	10109-P-S 10110-P-S 10111-P-S	Artigli Driving teeth Mitnehmerbolzen	3	14	1705007	Corpo cilindrico Cylindrical body Zylindrischer Körper	1
5	170006012	Vite Screw - Schraube	1	15	1705005 1705006	Corpo CM 5-6 Taper 5-6 body Körper Morsekeget 5-6	1
6	1705002	Boccola Bush Buchse	1	16	1705010	Perno Pin - Zapfen	1
7	170006023	Spina Pin - Stift	1	17	160010004	Molla Spring - Feder	1
8	170004028	Spina Pin - Stift	3	18	1705012	Tappo Plug - Stopfen	1
9	1705003	Perno Pin - Zapfen	3				

10109**10109 S****10109 P****10110****10110 S****10110 P****10111****10111 S****10111 P****10113****10113 P**

Su richiesta - On request - Auf Anfrage



Funzionamento trascinatore frontali Face drivers functioning Betrieb der Stirnseitenmitnehmer

Per un buon funzionamento del trascinatore e per un'ottima tenuta sul pezzo attenersi allo schema allegato.

Tipo T/A

Per un campo di lavoro da $\varnothing 11$ a $\varnothing 5$
Per un campo di lavoro da $\varnothing 30$ a $\varnothing 11$

Tipo T/B

Per un campo di lavoro da $\varnothing 28$ a $\varnothing 18$
Per un campo di lavoro da $\varnothing 40$ a $\varnothing 28$

Tipo T/OC

Per un campo di lavoro da $\varnothing 25$ a $\varnothing 35$
Per un campo di lavoro da $\varnothing 35$ a $\varnothing 60$

Tipo T/C

Per un campo di lavoro da $\varnothing 41$ a $\varnothing 59$
Per un campo di lavoro da $\varnothing 59$ a $\varnothing 110$

Tipo T/E

Per un campo di lavoro da $\varnothing 58$ a $\varnothing 76$
Per un campo di lavoro da $\varnothing 76$ a $\varnothing 130$

For correct functioning of the driver and for perfect grip on the piece, follow the indications given below.

Tipo T/A

For a working range from $\varnothing 11$ to $\varnothing 5$
For a working range from $\varnothing 30$ to $\varnothing 11$

Tipo T/B

For a working range from $\varnothing 28$ to $\varnothing 18$
For a working range from $\varnothing 40$ to $\varnothing 28$

Tipo T/OC

For a working range from $\varnothing 25$ to $\varnothing 35$
For a working range from $\varnothing 35$ to $\varnothing 60$

Tipo T/C

For a working range from $\varnothing 41$ to $\varnothing 59$
For a working range from $\varnothing 59$ to $\varnothing 110$

Tipo T/E

For a working range from $\varnothing 58$ to $\varnothing 76$
For a working range from $\varnothing 76$ to $\varnothing 130$

Für den einwandfreien Betrieb des Mitnehmers sowie für den optimalen Halt am Werkstück ist das beigefügte Schema einzuhalten.

Typ T/A

für einen Arbeitsbereich von $\varnothing 11$ bis $\varnothing 5$
für einen Arbeitsbereich von $\varnothing 30$ bis $\varnothing 11$

Typ T/B

für einen Arbeitsbereich von $\varnothing 28$ bis $\varnothing 18$
für einen Arbeitsbereich von $\varnothing 40$ bis $\varnothing 28$

Typ T/OC

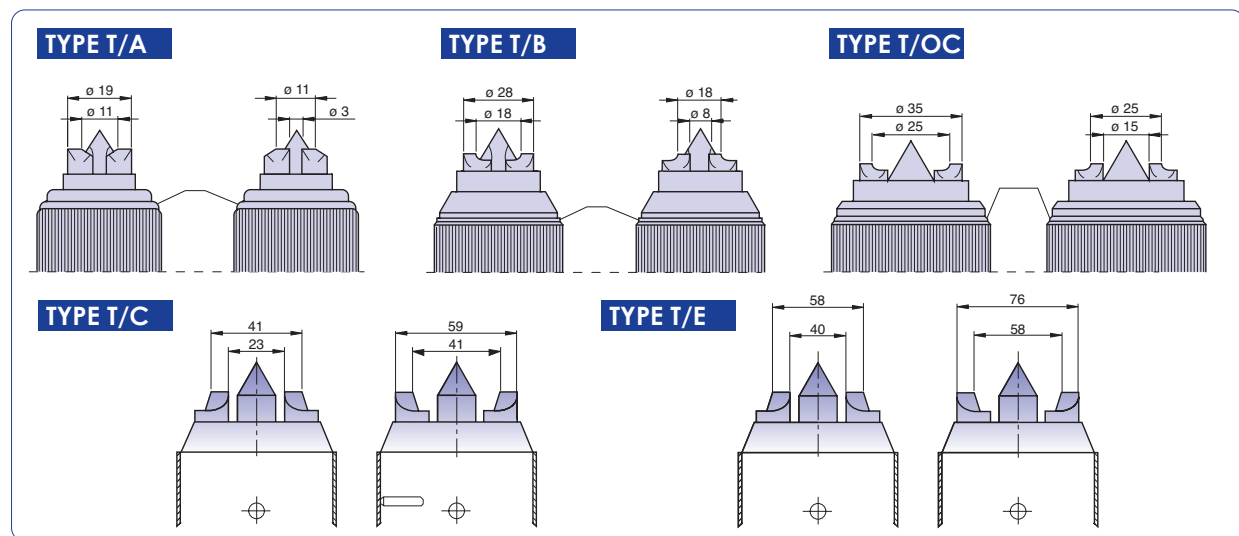
für einen Arbeitsbereich von $\varnothing 25$ bis $\varnothing 35$
für einen Arbeitsbereich von $\varnothing 35$ bis $\varnothing 60$

Typ T/C

für einen Arbeitsbereich von $\varnothing 41$ bis $\varnothing 59$
für einen Arbeitsbereich von $\varnothing 59$ bis $\varnothing 110$

Typ T/E

für einen Arbeitsbereich von $\varnothing 58$ bis $\varnothing 76$
für einen Arbeitsbereich von $\varnothing 76$ bis $\varnothing 130$



Per ottenere quanto sopra togliere l'anello di fermo e sfilare la busta zigrinata (Fig. A-B). Estrarre le spinette e gli artigli (Fig. C). Ruotare gli artigli stessi secondo lo schema voluto e rimontare il tutto ingrassando le sedi di scorrimento, possibilmente con grasso anti- calore.

To obtain the above values, remove the stop ring and the knurled sleeve (Fig. A-B). Remove the pins and the driving teeth (Fig. C). Turn the driving teeth according to the required type in the diagram and replace all the removed parts, greasing the sliding housings, preferably with heatproof grease.

Zum Erhalt der oben angegebenen Werte entfernen Sie den Sicherungsring und ziehen den gerändelten Beutel ab (Abb. A-B). Ziehen Sie Stifte und Mitnahmebolzen ab (Abb. C). Drehen Sie die Mitnahmebolzen selbst, gemäß dem gewünschten Schema und montieren Sie alles wieder, wobei Sie die Gleitlager möglichst mit Hitzeschutzfett einschmieren.

Fig. A

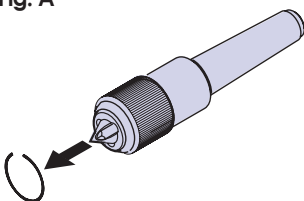


Fig. B

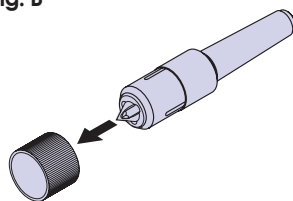
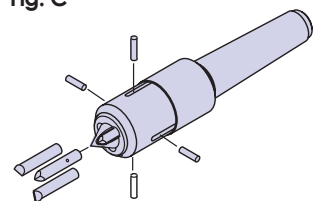


Fig. C



► TECHNICAL INFORMATION ◀

**MANUTENZIONE O SOSTITUZIONE
DEGLI ARTIGLI NEI TRASCINATORI
FRONTALI**

I trascinatori frontali hanno un campo di lavoro che varia da Ø 5 mm a Ø 110 mm, in funzione del modello e degli artigli utilizzati. In caso di usura, gli artigli possono essere ruotati di 180° per essere riutilizzati (vedi catalogo). Tale rotazione, tuttavia, può variare il diametro del campo di lavoro.

Il periodo che può intercorrere tra le manutenzioni con l'eventuale sostituzione degli artigli, sono in funzione dell'utilizzo del trascinatore e del materiale lavorato.

E' possibile affilare un artiglio al massimo di 2 mm al di sotto della sua dimensione iniziale.

**SOSTITUZIONE PUNTA CENTRALE
NEI TRASCINATORI FRONTALI**

I nostri modelli di trascinatori frontali hanno la punta centrale molleggiata. La sostituzione è semplice e non richiede particolari attrezzature. E' sufficiente prenderla con le dita e farla uscire dalla sede. L'operazione può essere eseguita anche con l'attrezzatura montata in macchina.

Non regolare in nessun modo il tappo posteriore di precarica molla.

**MAINTENANCE OR REPLACEMENT
OF THE CLAWS IN FACE DRIVERS**

The face drivers have an operating range that goes from Ø 5 mm to Ø 110 mm, depending on the model and the claws used. In case of wear, the claws can be rotated by 180° and re-used (see catalogue). However, this rotation could change the diameter of the operating range.

The period between maintenance interventions (with any replacement of claws) depends on the use of the driver and the material processed.

A claw can be sharpened to a maximum of 2 mm below its original size.

**REPLACEMENT OF CENTRAL POINT
IN FACE DRIVERS**

Our face drivers have a sprung central point. The replacement is straightforward and does not require any special tools, just grasp it by hand and remove it from the seat. The operation can also be performed using the tool mounted on the machine.

Under no circumstances must the rear spring-tensioning cap be adjusted.

**WARTUNG UND AUSWECHSELUNG
DER MITNAHMEBOLZEN IN DEN
STIRNSEITENMITNEHMERN**

Der Arbeitsbereich der Stirnseitenmitnehmer liegt je nach Modell und verwendeten Mitnahmebolzen zwischen Ø 5 mm und Ø 110 mm.

Bei Verschleiß können die Mitnahmebolzen zur Wiederverwendung um 180° gedreht werden (siehe Katalog). Diese Drehung kann jedoch je nach Durchmesser des Arbeitsbereiches anders bemessen sein.

Der Zeitraum zwischen den Wartungseingriffen mit der eventuellen Auswechslung der Mitnahmebolzen hängt von der Verwendung des Mitnehmers und des bearbeiteten Materials ab.

Es ist möglich, einen Mitnahmebolzen um maximal 2 mm unter seiner Ausgangsgröße zu schleifen.

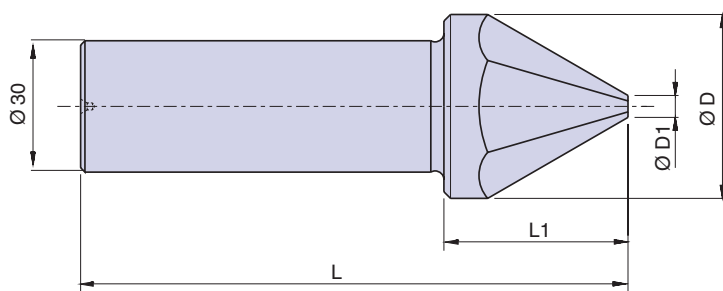
**AUSWECHSELUNG DER MITTELSPIITZE
IN DEN STIRNSEITENMITNEHMERN**

Bei unseren Modellen sind die Stirnseitenmitnehmer mit einer gefederten Mittelspitze ausgestattet. Die Auswechslung ist einfach und erfordert keine speziellen Ausrüstungen. Es reicht aus, die Spitze mit den Fingern zu ergreifen und aus dem Sitz treten zu lassen. Der Eingriff kann auch bei in der Maschine montierter Ausrüstung durchgeführt werden.

Regulieren Sie auf keinen Fall den hinteren Feder-vorspannungsstopfen.

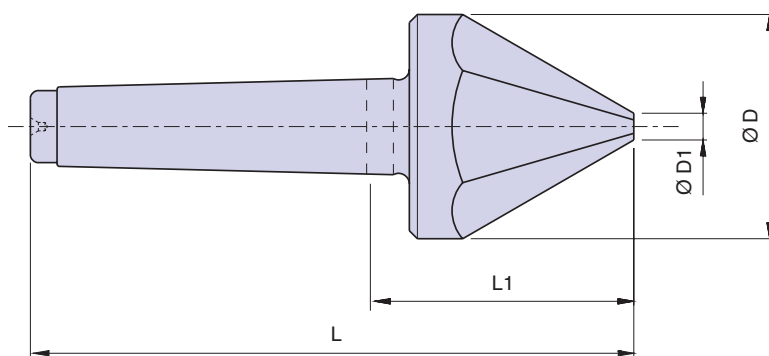


Trascinatore per tubo cilindrico in acciaio speciale completamente temperato
Cylindrical pipe driving centre in special fully hardened steel
 Mitnehmer für zylindrische Rohre in speziellen Stahl, komplett wärmebehandelt



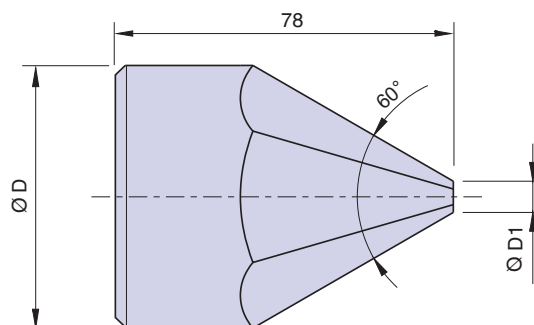
CM	ØD	ØD1	L1	L	► Code
Cilindrico Cylindrical Zylindrisch	42	5	42	125	0528000
Cilindrico Cylindrical Zylindrisch	60	15	49	132	0528010

Trascinatore per tubo conico in acciaio speciale completamente temperato
Conical pipe driving centre in special fully hardened steel
 Mitnehmer für konische Rohre in speziellen Stahl, komplett wärmebehandelt



CM	ØD	ØD1	L1	L	► Code
2	42	5	50	113	0528002
3	42	5	50	131	0528003
4	42	5	51,5	153	0528004
5	42	5	50,5	180	0528005

Trascinatore per tubo conico per grandi dimensioni completamente temperato
Fully hardened steel driving centre for conical pipes of large dimensions
 Mitnehmer für konische Rohre für große Größen, komplett wärmebehandelt



ØD	ØD1	Code►
70	20	05281070
115	65	05281115
160	110	05281160
200	150	05281200
245	195	05281245

Cassette complete

Complete kits

Spannmittelsätze
mit Kasten

Si tratta di un assortimento di pezzi intercambiabili per contro-punta tipo CN/R e CSF/R. Sistemate in un'elegante e robusta cassetta in plastica con imbottitura antiurto (in omaggio). Sono indicate per attrezzare macchine utensili e per le lavorazioni quotidiane di tornitura o rettifica.

These are assortments of interchangeable pieces for live centers type CN/R and CSF/R. Housed in a complimentary smart and sturdy plastic case with protective padding, these pieces are suitable for equipping your machine tool for routine turning or grinding operations.

Diese Produktreihe umfasst diverse Sätze auswechselbarer Einsätze für Zentrierspitzen vom Typ CN/R und CSF/R. Die in einem formschönen und robusten Kunststoffkasten mit stoßfestem Einsatz gelieferten Sets eignen sich ideal zum Rüsten Ihrer Werkzeugmaschine für die täglichen Dreh- und Schleifbearbeitungen.

Cassetta CN/R3 (cono morse 3)

Contiene:

- 1 contropunta CN3/R
- 7 cuspidi di ricambio



► Code

C30023

Kit CN/R3 (taper 3)

Contains:

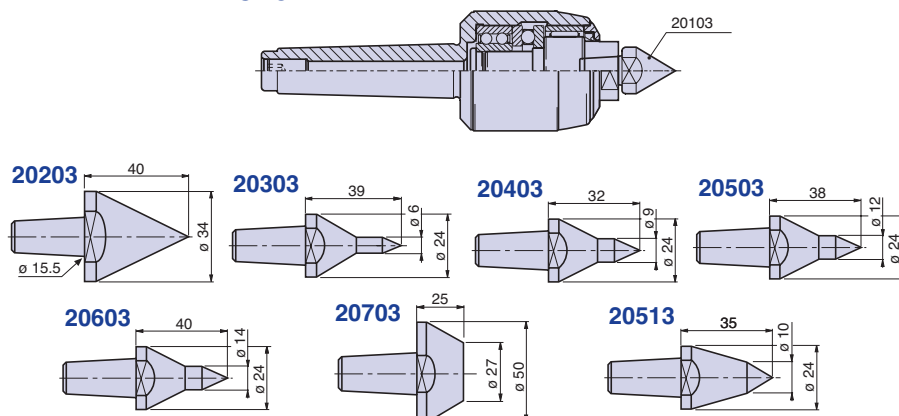
- 1 Live center type CN3/R
- 7 spare centering points

Sortiment CN/R3 (Morsekegel 3)

Inhalt:

- 1 Zentrierspitze Typ CN3/R
- 7 Ersatz-Laufspitzen

CN3/R



Cassetta CN/R4 (cono morse 4)

Contiene:

- 1 contropunta CN4/R
- 7 cuspidi di ricambio



► Code

C30024

Kit CN/R4 (taper 4)

Contains:

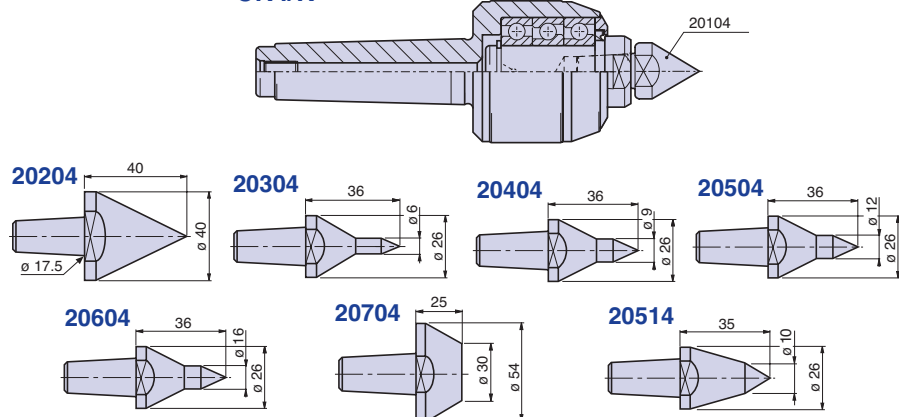
- 1 Live center type CN4/R
- 7 spare centering points

Sortiment CN/R4 (Morsekegel 4)

Inhalt:

- 1 Zentrierspitze Typ CN4/R
- 7 Ersatz-Laufspitzen

CN4/R



Cassetta CN/R5 (cono morse 5)

Contiene:

- 1 contropunta CN5/R
- 7 cuspidi di ricambio



► Code

C30025

Kit CN/R5 (taper 5)

Contains:

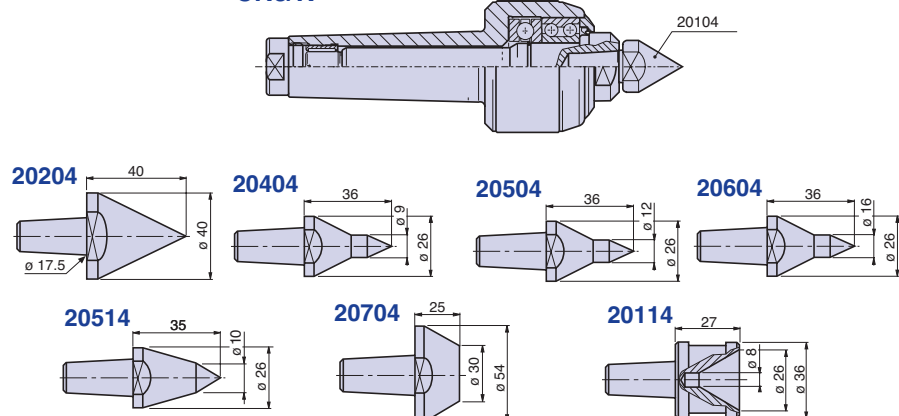
- 1 Live center type CN5/R
- 7 spare centering points

Sortiment CN/R5 (Morsekegel 5)

Inhalt:

- 1 Zentrierspitze Typ CN5/R
- 7 Ersatz-Laufspitzen

CN5/R



Cassetta CSF/R3 (cono morse 3)

Contiene:

- 1 contropunta CSF/R
- 7 cuspidi di ricambio



► Code

C32023

Kit CSF/R3 (taper 3)

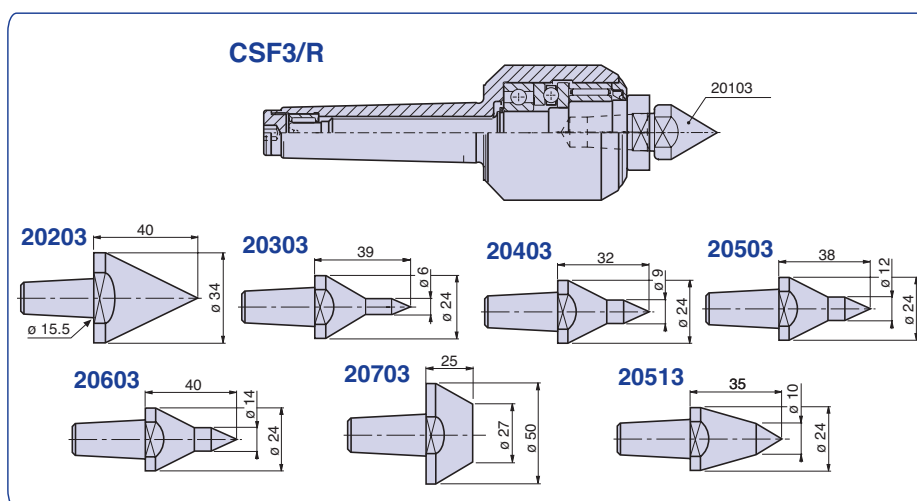
Contains:

- 1 Live center type CSF/R
- 7 spare centering points

Sortiment CSF/R3 (Morsekegel 3)

Inhalt:

- 1 Zentrierspitze Typ CSF/R
- 7 Ersatz-Laufspitzen



Cassetta CSF/R4 (cono morse 4)

Contiene:

- 1 contropunta CSF/R
- 7 cuspidi di ricambio



► Code

C32024

Kit CSF/R4 (taper 4)

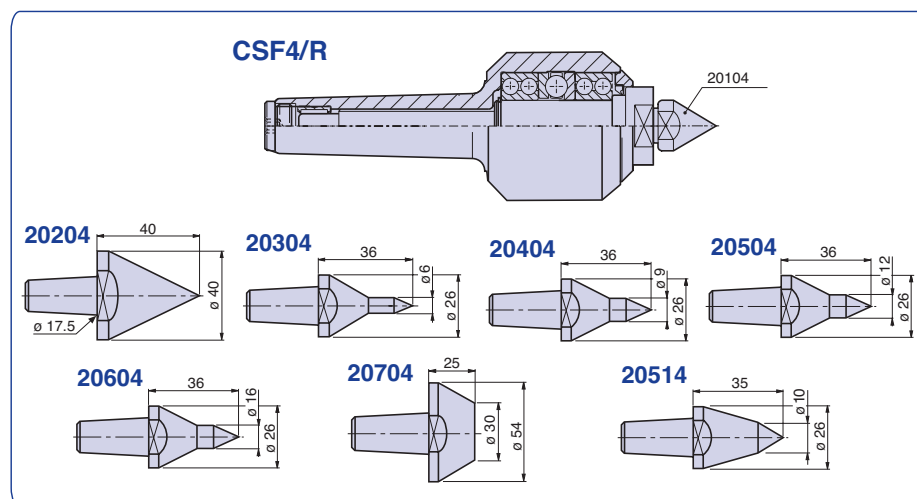
Contains:

- 1 live center type CSF/R
- 7 spare centering points

Sortiment CSF/R4 (Morsekegel 4)

Inhalt:

- 1 Zentrierspitze Typ CSF/R
- 7 Ersatz-Laufspitzen



Cassetta CSF/R5 (cono morse 5)

Contiene:

- 1 contropunta CSF/R
- 7 cuspidi di ricambio



► Code

C32025

Kit CSF/R5 (taper 5)

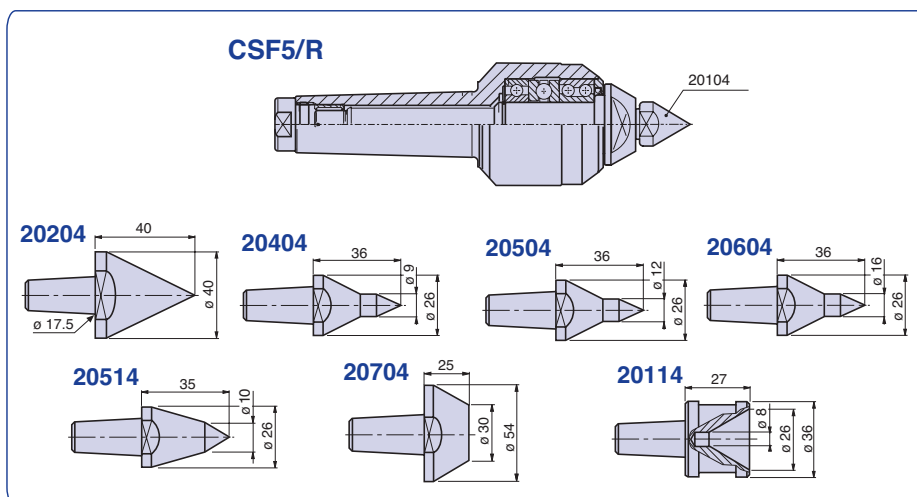
Contains:

- 1 live center type CSF/R
- 7 spare centering points

Sortiment CSF/R5 (Morsekegel 5)

Inhalt:

- 1 Zentrierspitze Typ CSF/R
- 7 Ersatz-Laufspitzen



Cassette complete

Complete kits

Spannmittelsätze
mit Kasten

Si tratta di un gruppo contropunta/trascinatore per tornitura. Sistemato in una elegante e robusta cassetta in plastica con imbottitura antiurto (in omaggio) è indicato per attrezzare la vostra macchina utensile per le lavorazioni quotidiane.

Dead center/driving center kit for turning. Comes in a complimentary smart and sturdy plastic case with protective padding. Especially suited for fitting out machine tools for routine machining operations.

Dieses Sortiment umfasst eine Zentrierspitze und einen Stirnseiten-Mitnehmer für Drehmaschinen. Das in einem formschönen und robusten Kunststoffkasten mit stoßfestem Einsatz gelieferte Set eignet sich ideal zum täglichen Rüsten Ihrer Werkzeugmaschine.

Cassetta CN4/R
(cono morse 4)

Contiene:

- 1 contropunta CN4/R
- 3 cuspidi di ricambio
- 1 trascinatore cilindrico normale (COD. 140307)
- 3 artigli (cod. 10105)

Kit CN4/R (taper 4)

Contains:

- 1 dead center type CN4/R
- 3 spare tips
- 1 standard cylindrical driving center (COD. 140307)
- 3 driving teeth (cod. 10105)

Sortiment CN4/R
(Morsekegel 4)

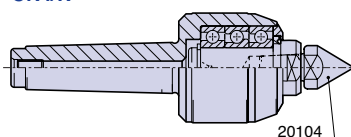
Inhalt:

- 1 Zentrierspitze Typ CN4/R
- 3 Ersatz-Laufspitzen
- 1 zylindrischer Stirnseiten-Mitnehmer in Standardausführung (Teilnummer 140307)
- 3 Mitnehmerbolzen (Teilnummer 10105)

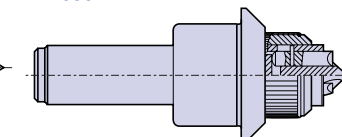
► Code

C30120

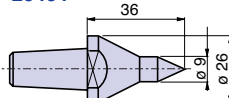
CN4/R



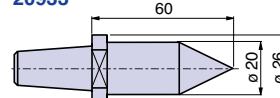
140307



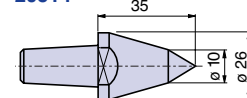
20404



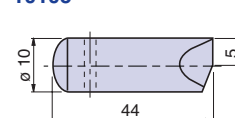
20933



20514



10105



► CSK ◀

Contropunte rotanti

Live centers

Mitlaufende Spitzen

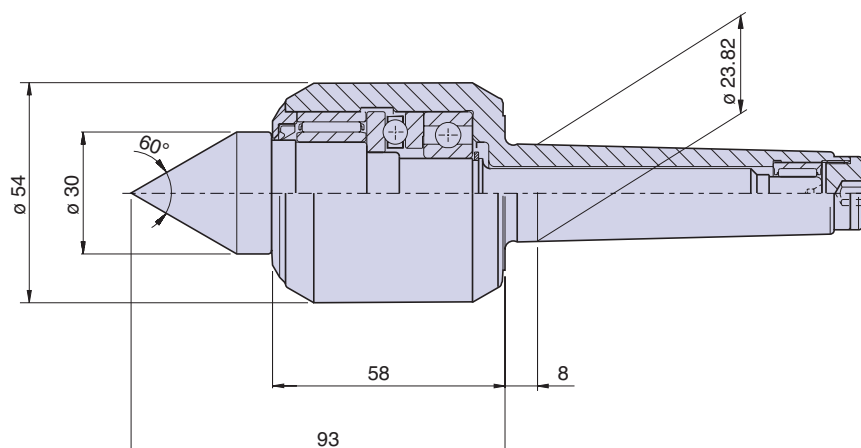


Le contropunte della serie CSK da rettifica si differenziano dalla serie CSF da tornitura per un pacco cuscinetti di alta precisione "SKF" e grasso lubrificante con eccellenti caratteristiche di scorrevolezza e durabilità.

The live centers of the CSK series for grinding differ from the CSF series for turning by a high-precision bearing pack and lubricating grease with excellent smoothness and durability characteristics.

Die mitlaufenden Spitzen der Serie CSK zum Schleifen unterscheiden sich von der Serie CSF zum Drehen durch ein Hochpräzisions-Lager und Schmierfett mit hervorragenden Gleiteigenschaften und Haltbarkeit.

Contropunta tipo CSK3/S (standard) per cono morse 3
 Live center type CSK3/S (standard) for taper 3
 Körnerspitze Typ CSK3/S (Standard) für Morsekegel 3



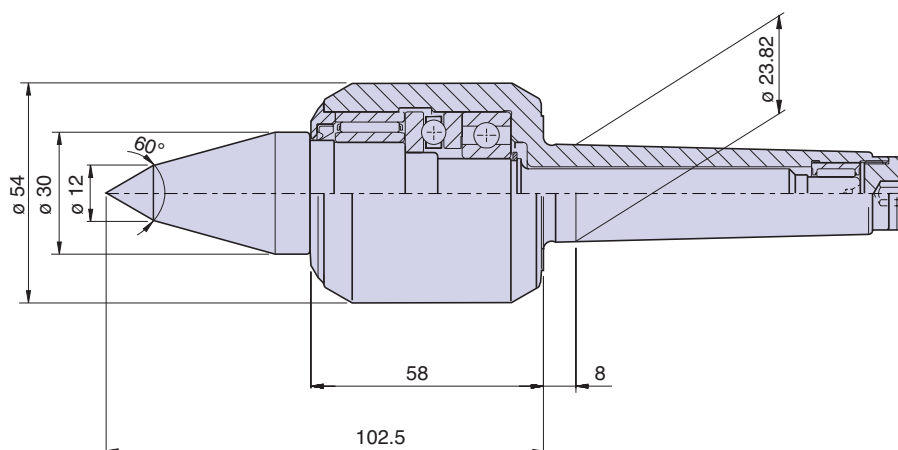
► Code **33013**

Carico max	daN 2000
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5000
R.p.m.	
U/min	

► Code **G33013**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CSK3/L (punta da copia) per cono morse 3
 Live center type CSK3/L (copying point) for taper 3
 Körnerspitze Typ CSK3/L (verlängerte Laufspitze) für Morsekegel 3



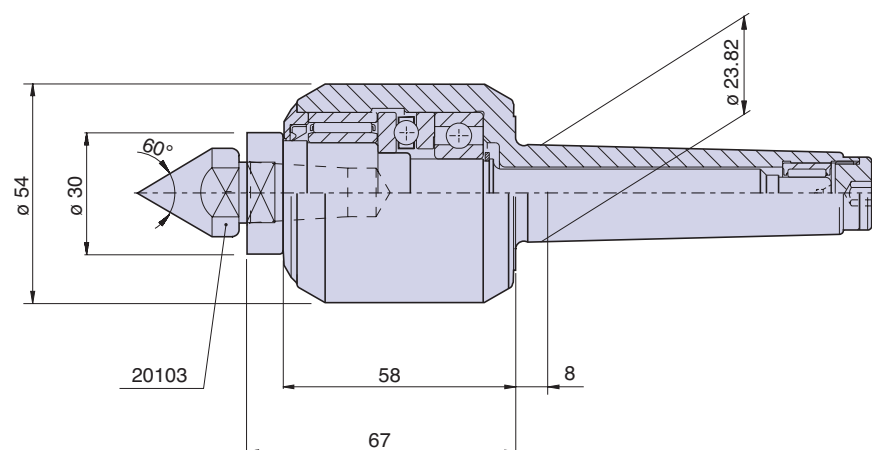
► Code **33033**

Carico max	daN 1600
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5000
R.p.m.	
U/min	

► Code **G33033**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CSK3/R (con ricambio) per cono morse 3
 Live center type CSK3/R (with spare point) for taper 3
 Körnerspitze Typ CSK3/R (mit auswechselbaren Einsätzen) für Morsekegel 3

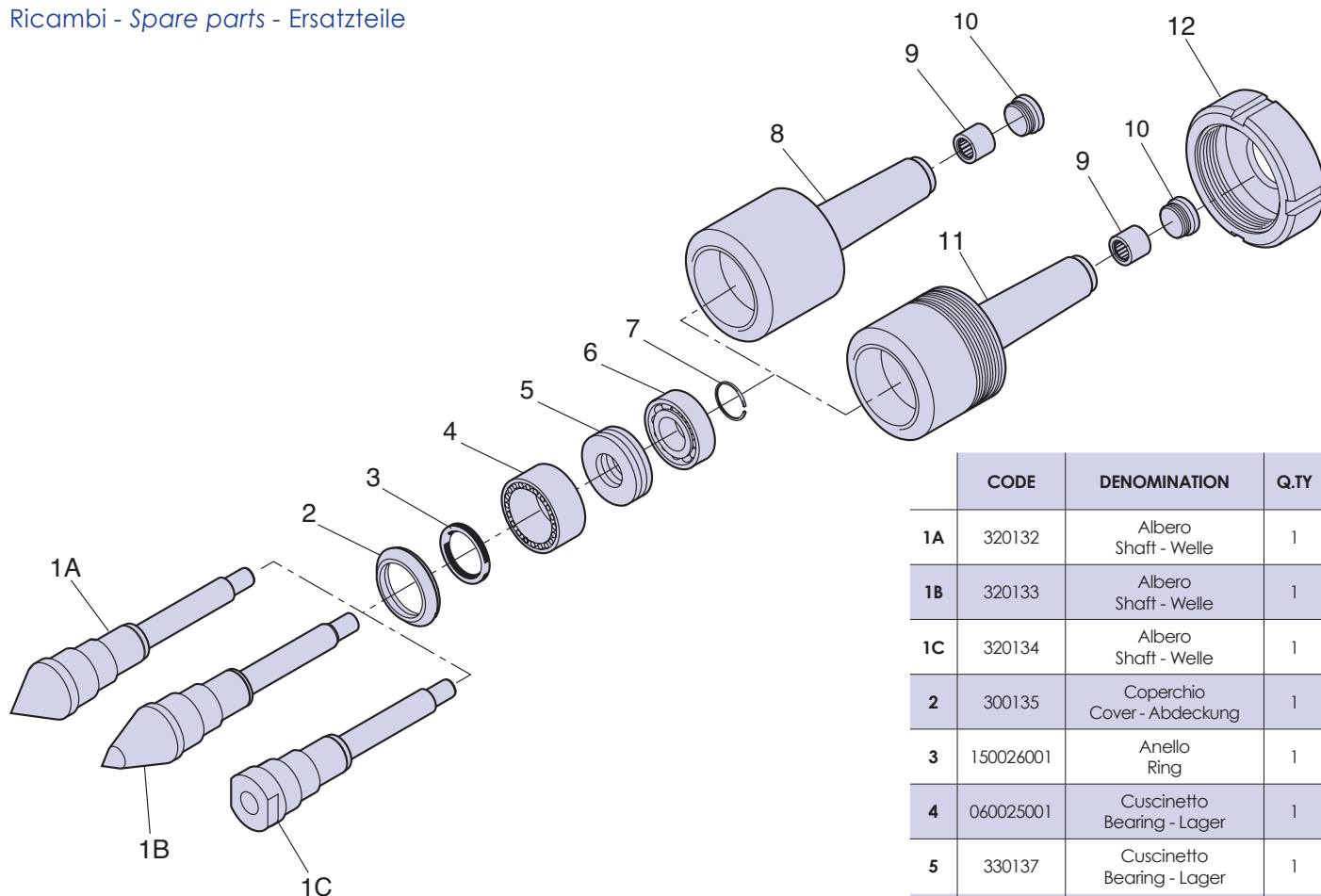


► Code **33023**

Carico max	daN 1400
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5000
R.p.m.	
U/min	

► Code **G33023**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



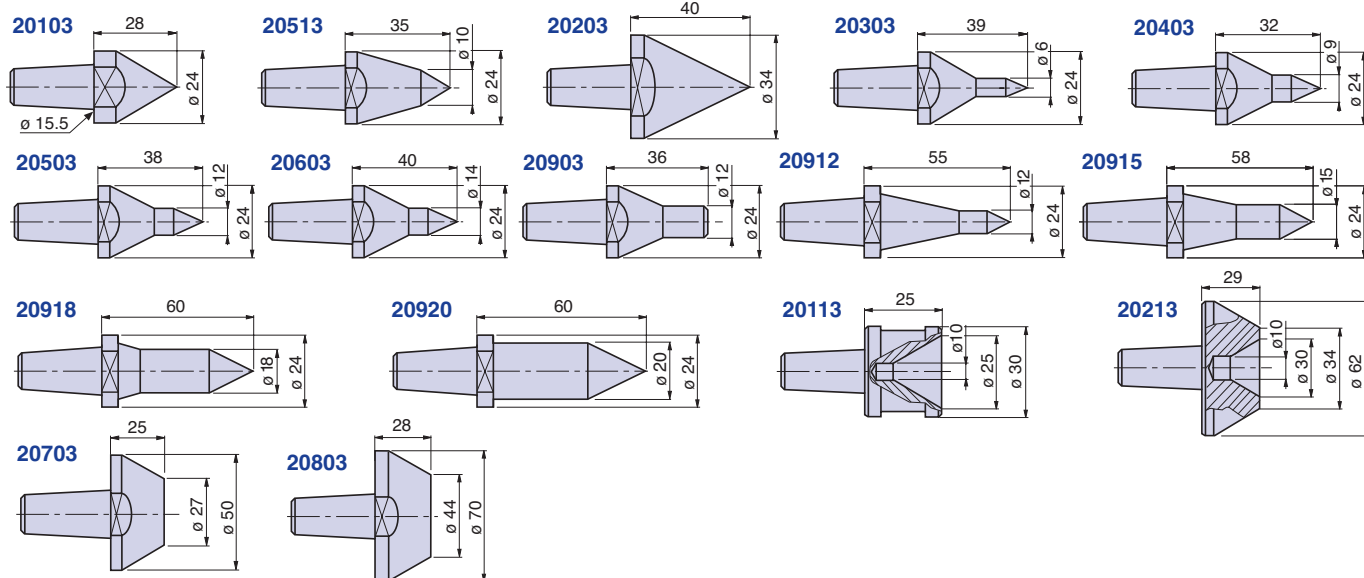
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

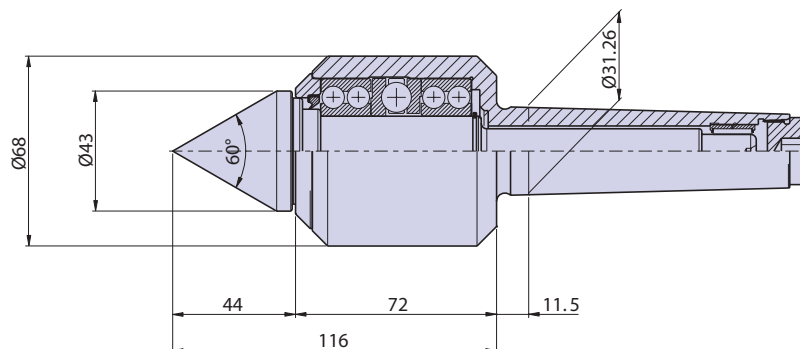


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	320132	Albero Shaft - Welle	1
1B	320133	Albero Shaft - Welle	1
1C	320134	Albero Shaft - Welle	1
2	300135	Coperchio Cover - Abdeckung	1
3	150026001	Anello Ring	1
4	060025001	Cuscinetto Bearing - Lager	1
5	330137	Cuscinetto Bearing - Lager	1
6	010017006	Cuscinetto Bearing - Lager	1
7	160017001	Anello Ring	1
8	320130	Corpo Body - Körper	1
9	080008001	Cuscinetto Bearing - Lager	1
10	320136	Tappo Plug - Stopfen	1
11	G320130	Corpo Body - Körper	1
12	310333	Ghiera - Ring-nut Abdrückmutter	1



Contropunta tipo CSK4/S (standard) per cono morse 4
 Live center type CSK4/S (standard) for taper 4
 Körnerspitze Typ CSK4/S (Standard) für Morsekegel 4



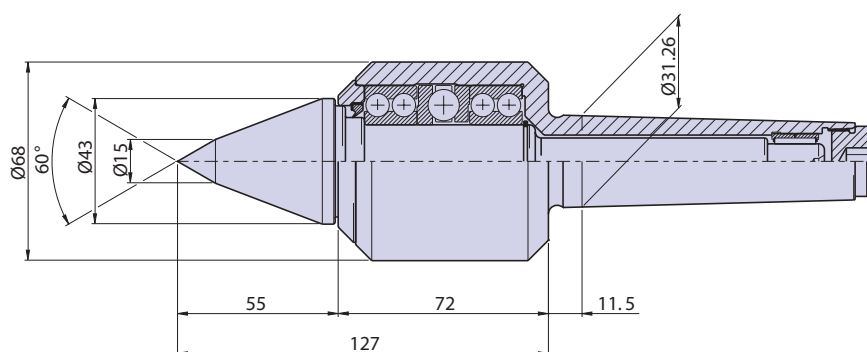
► Code **33014**

Carico max	daN 2300
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	4000
R.p.m.	
U/min	

► Code **G33014**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CSK4/L (punta da copia) per cono morse 4
 Live center type CSK4/L (copying point) for taper 4
 Körnerspitze Typ CSK4/L (verlängerte Laufspitze) für Morsekegel 4



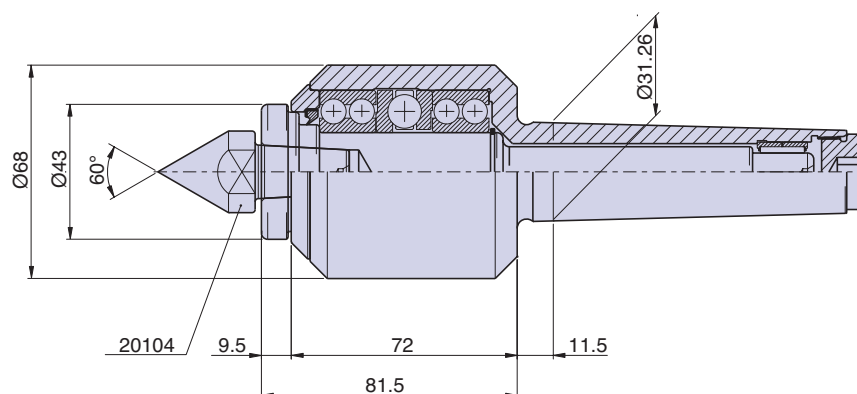
► Code **33034**

Carico max	daN 2000
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	4000
R.p.m.	
U/min	

► Code **G33034**

Con ghiera
 With ring nut
 Mit Abdrückmutter

Contropunta tipo CSK4/R (con ricambio) per cono morse 4
 Live center type CSK4/R (with spare point) for taper 4
 Körnerspitze Typ CSK4/R (mit auswechselbaren Einsätzen) für Morsekegel 4

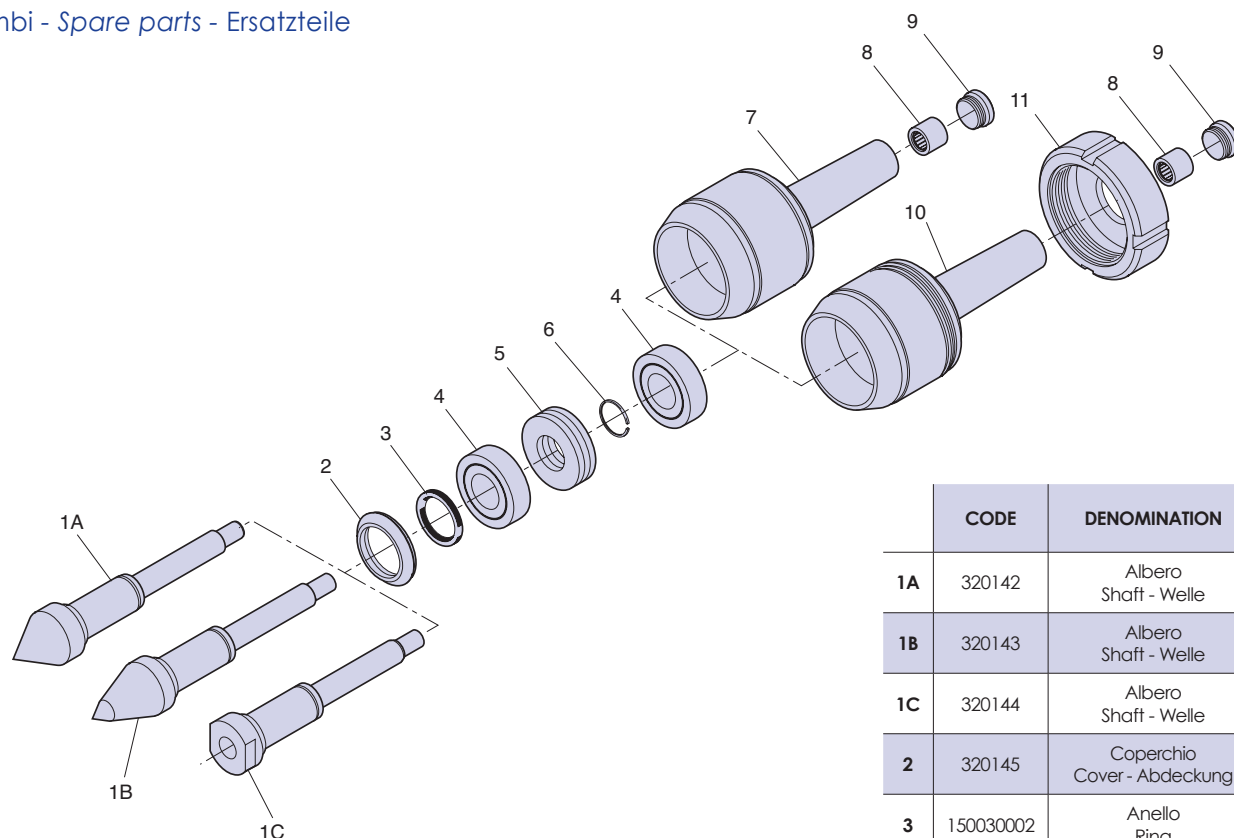


► Code **33024**

Carico max	daN 1700
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	4000
R.p.m.	
U/min	

► Code **G33024**

Con ghiera
 With ring nut
 Mit Abdrückmutter



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



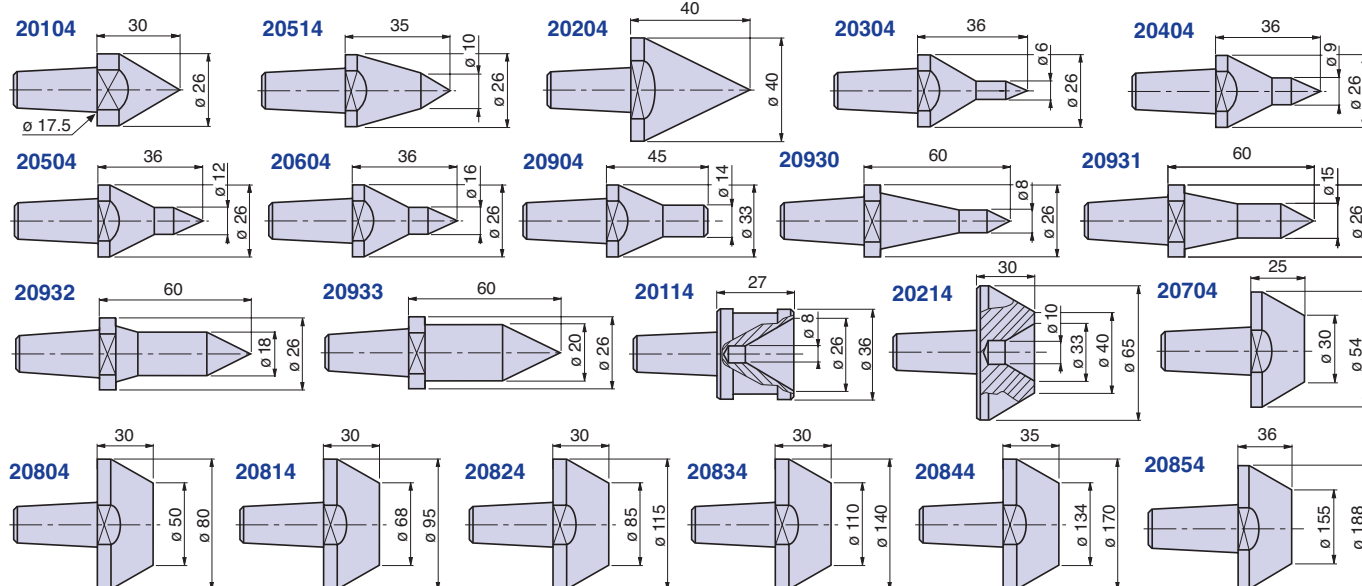
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

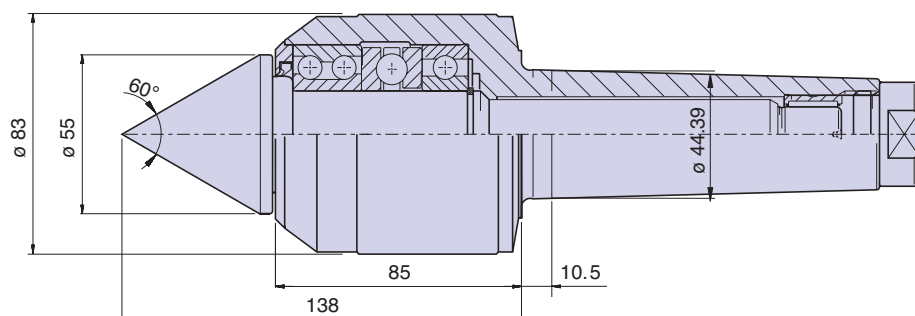


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	320142	Albero Shaft - Welle	1
1B	320143	Albero Shaft - Welle	1
1C	320144	Albero Shaft - Welle	1
2	320145	Coperchio Cover - Abdeckung	1
3	150030002	Anello Ring	1
4	020025003	Cuscinetto Bearing - Lager	1
5	330147	Cuscinetto Bearing - Lager	1
6	160025002	Anello Ring	1
7	320140	Corpo Body - Körper	1
8	080012001	Cuscinetto Bearing - Lager	1
9	320146	Tappo Plug - Stopfen	1
10	G320140	Corpo Body - Körper	1
11	310433	Ghiera Ring-nut Abdrückmutter	1



Contropunta tipo CSK5/S (standard) per cono morse 5
 Live center type CSK5/S (standard) for taper 5
 Körnerspitze Typ CSK5/S (Standard) für Morsekegel 5



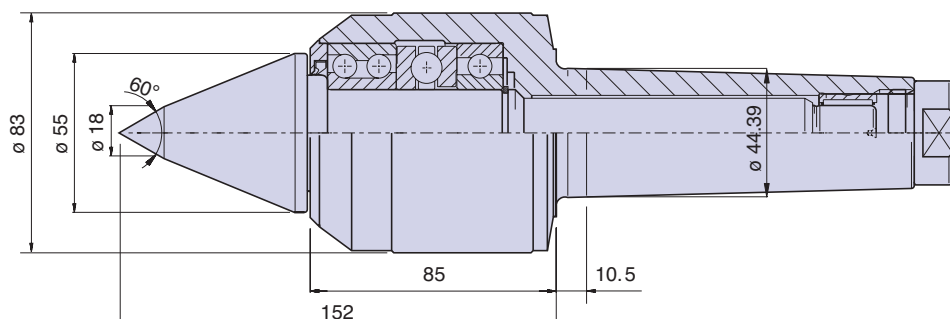
* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 33015

► Code *G33015

Carico max	
Max load	daN 3700
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,003
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	

Contropunta tipo CSK5/L (punta da copia) per cono morse 5
 Live center type CSK5/L (copying point) for taper 5
 Körnerspitze Typ CSK5/L (verlängerte Laufspitze) für Morsekegel 5



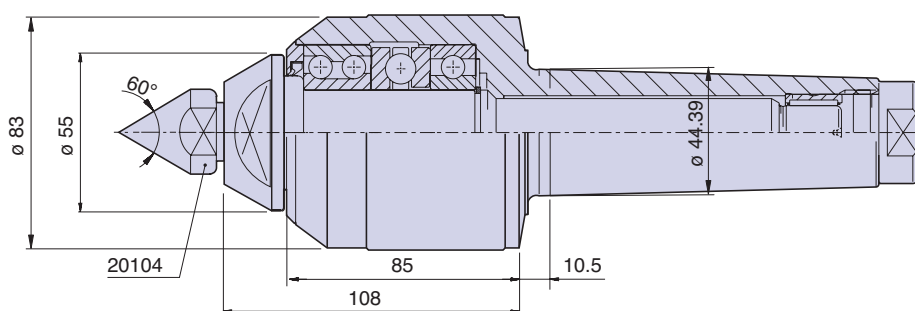
* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 33035

► Code *G33035

Carico max	
Max load	daN 3200
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,003
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	

Contropunta tipo CSK5/R (con ricambio) per cono morse 5
 Live center type CSK5/R (with spare point) for taper 5
 Körnerspitze Typ CSK5/R (mit auswechselbaren Einsätzen) für Morsekegel 5



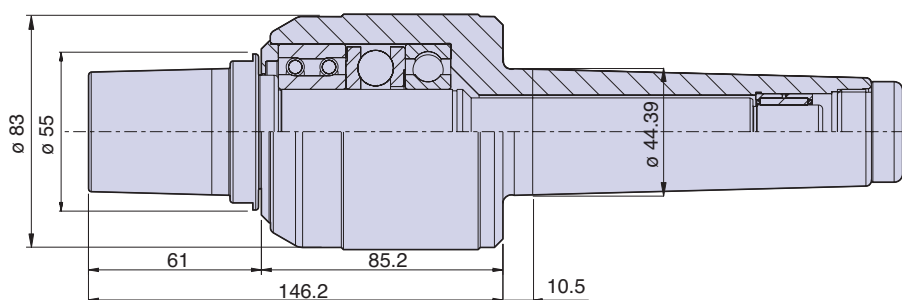
* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 33025

► Code *33025

Carico max	
Max load	daN 2900
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	

Contropunta tipo CSK5/R (con ricambio) per cono morse 5
 Live center type CSK5/R (with spare point) for taper 5
 Körnerspitze Typ CSK5/R (mit auswechselbaren Einsätzen) für Morsekegel 5

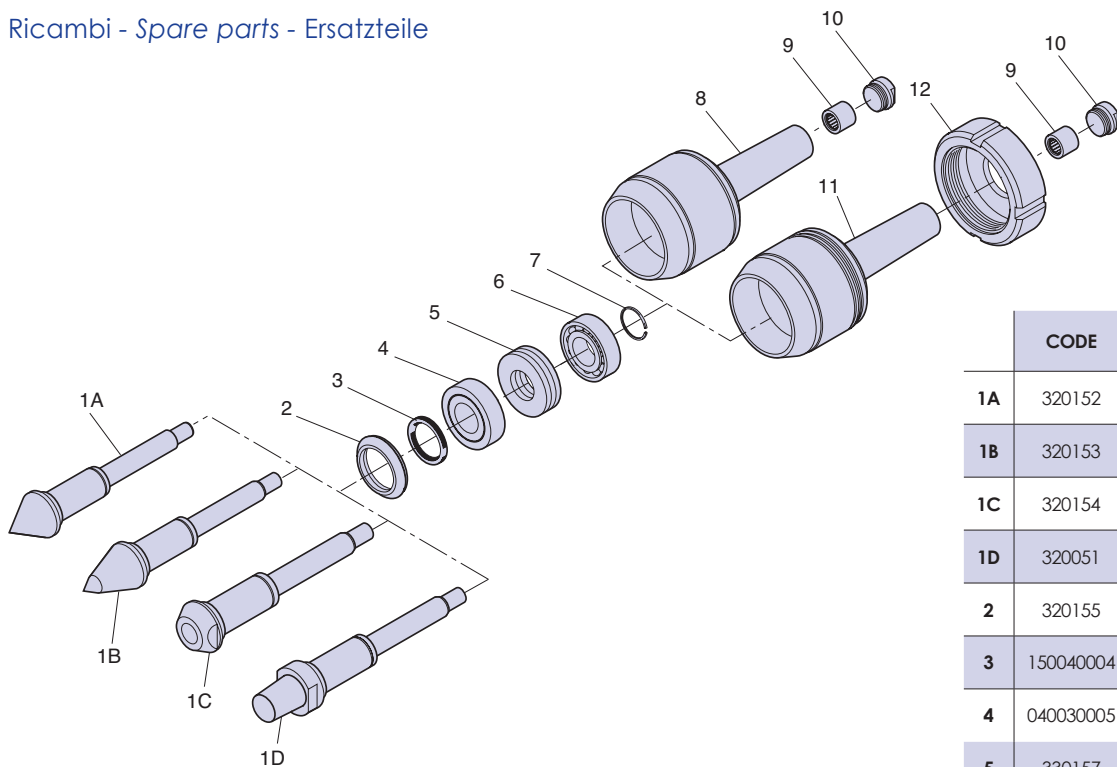


* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 33005

► Code *G33005

Carico max	
Max load	daN 3100
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	3000
U/min	



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



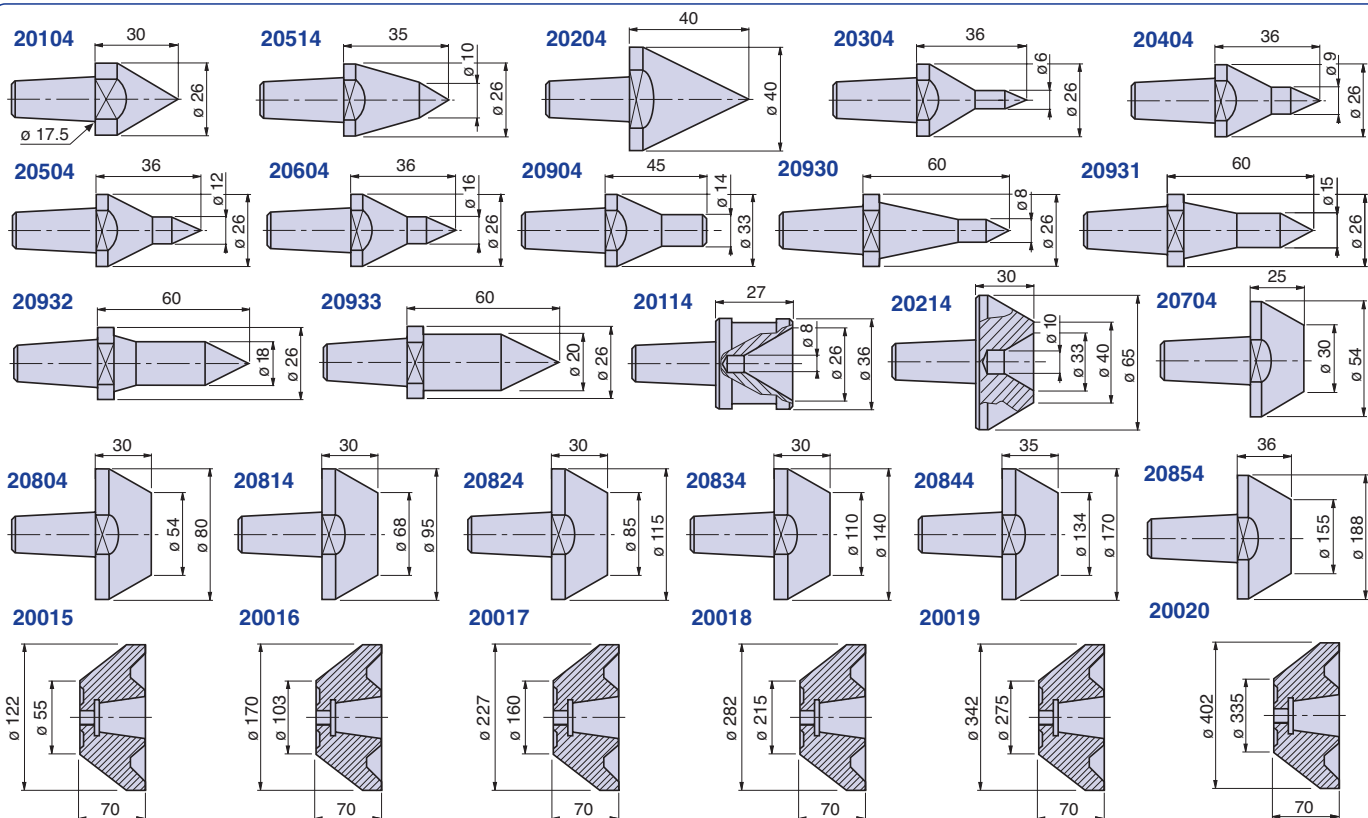
Code 20001

Chiave per ghiera
Hook spanner
Hakenschlüssel

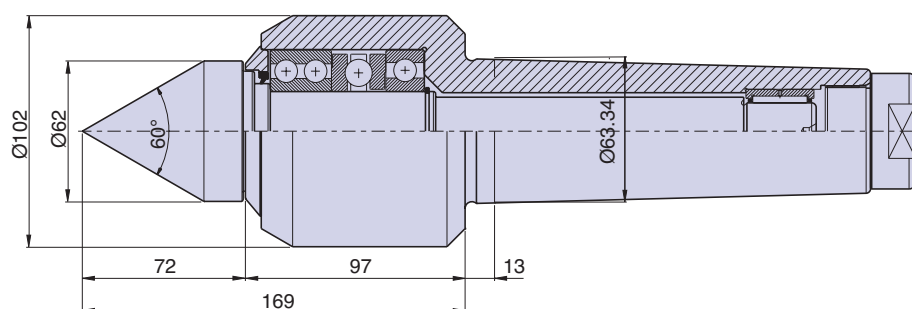


Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	320152	Albero Shaft - Welle	1
1B	320153	Albero Shaft - Welle	1
1C	320154	Albero Shaft - Welle	1
1D	320051	Albero Shaft - Welle	1
2	320155	Coperchio Cover - Abdeckung	1
3	150040004	Anello Ring	1
4	040030005	Cuscinetto Bearing - Lager	
5	330157	Cuscinetto Bearing - Lager	1
6	010030006	Cuscinetto Bearing - Lager	1
7	160030001	Anello Ring	1
8	320150	Corpo Body - Körper	1
9	080019001	Cuscinetto Bearing - Lager	1
10	300156	Tappo Plug - Stopfen	1
11	G320150	Corpo Body - Körper	1
12	310533	Ghiera - Ringa-nut Abdruckmutter	



Contropunta tipo CSK6/S (standard) per cono morse 6
 Live center type CSK6/S (standard) for taper 6
 Körnerspitze Typ CSK6/S (Standard) für Morsekegel 6



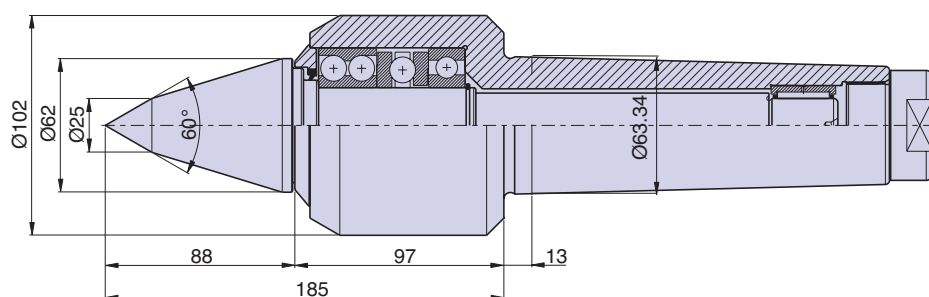
* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 33016

► Code *G33016

Carico max	
Max load	daN 4900
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,003
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	2200
U/min	

Contropunta tipo CSK6/L (punta da copia) per cono morse 6
 Live center type CSK6/L (copying point) for taper 6
 Körnerspitze Typ CSK6/L (verlängerte Laufspitze) für Morsekegel 6



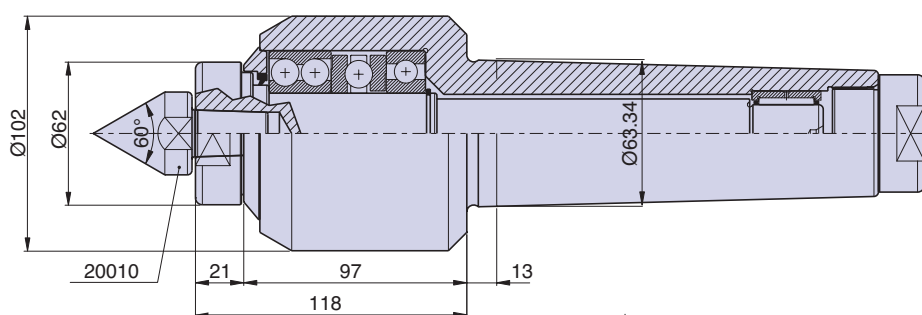
* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 33036

► Code *G33036

Carico max	
Max load	daN 4400
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,003
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	2200
U/min	

Contropunta tipo CSK6/R (con ricambio) per cono morse 6
 Live center type CSK6/R (with spare point) for taper 6
 Körnerspitze Typ CSK6/R (mit auswechselbaren Einsätzen) für Morsekegel 6



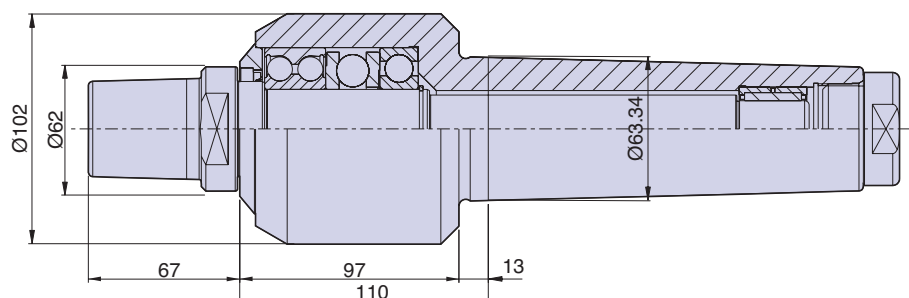
* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 33026

► Code *G33026

Carico max	
Max load	daN 3800
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,010
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	2200
U/min	

Contropunta tipo CSK6/R (con ricambio) per cono morse 6
 Live center type CSK6/R (with spare point) for taper 6
 Körnerspitze Typ CSK6/R (mit auswechselbaren Einsätzen) für Morsekegel 6

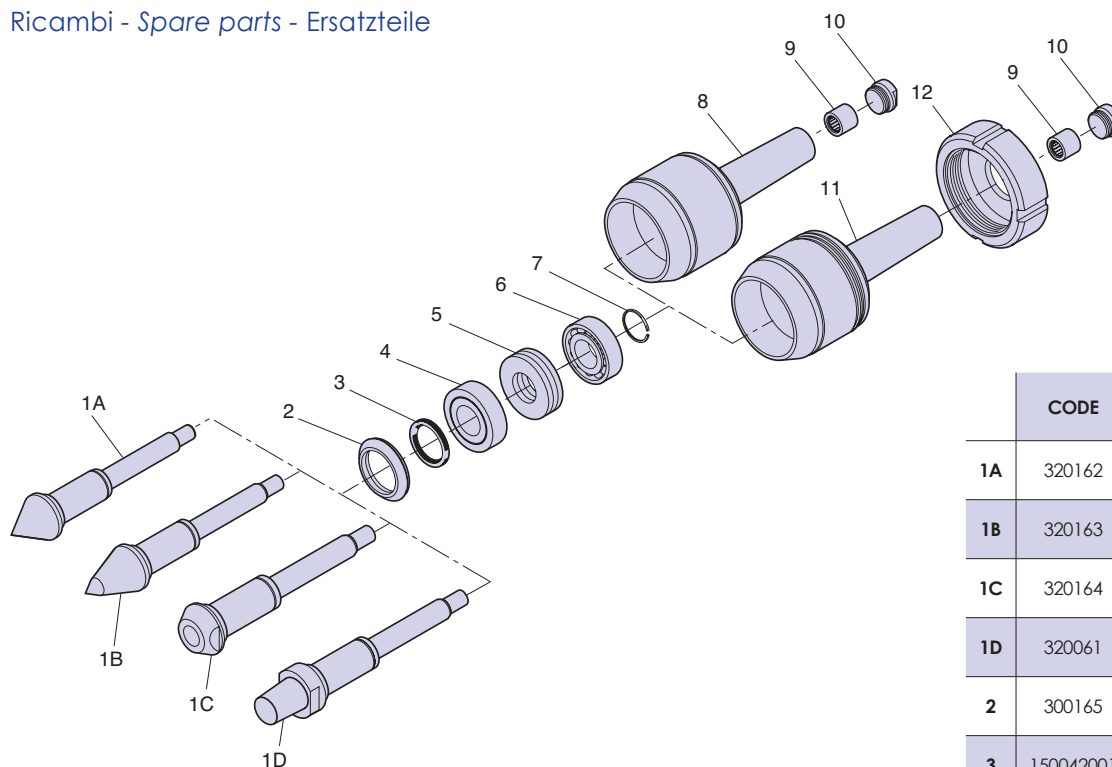


* Con ghiera - With ring nut - Mit Abdrückmutter

► Code 33006

► Code *G33006

Carico max	
Max load	daN 4200
Max Belastung	
Eccentricità max	
Max eccentricity	mm 0,005
Max Rundlaufabweichung	
Giri/1'	
R.p.m.	2200
U/min	



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen



Code 20001

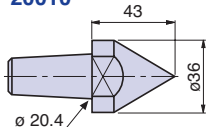
Chiave per ghiera
Hook spanner
Hakenschlüssel



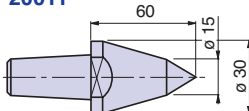
Per dettagli vedi pag. 44 - For details see page 44 - Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1A	320162	Albero Shaft - Welle	1
1B	320163	Albero Shaft - Welle	1
1C	320164	Albero Shaft - Welle	1
1D	320061	Albero Shaft - Welle	1
2	300165	Coperchio Cover - Abdeckung	1
3	150042001	Anello Ring	1
4	040035003	Cuscinetto Bearing - Lager	
5	330168	Cuscinetto Bearing - Lager	1
6	010035005	Cuscinetto Bearing - Lager	1
7	160035001	Anello Ring	1
8	320160	Corpo Body - Körper	1
9	080025002	Cuscinetto Bearing - Lager	1
10	300166	Tappo Plug - Stopfen	1
11	G320160	Corpo Body - Körper	1
12	310633	Ghiera Ring a-nut Abdrückmutter	

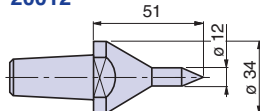
20010



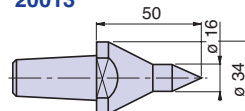
20011



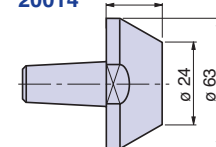
20012



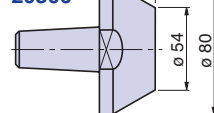
20013



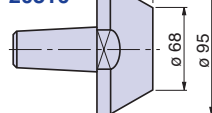
20014



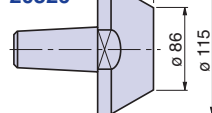
20806



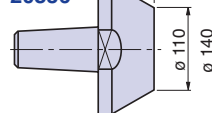
20816



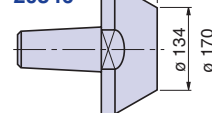
20826



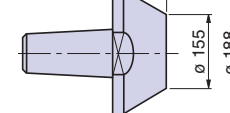
20836



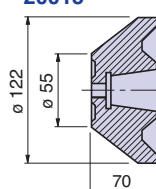
20846



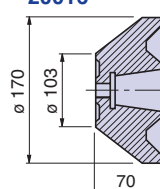
20856



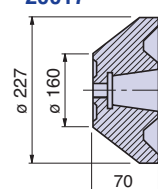
20015



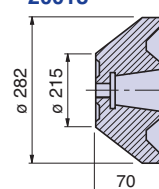
20016



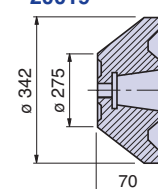
20017



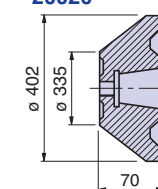
20018



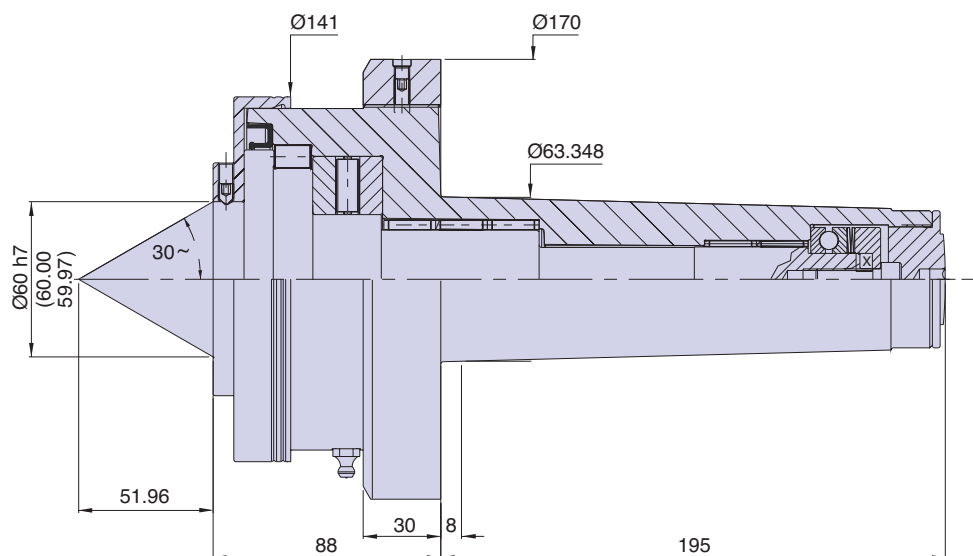
20019



20020



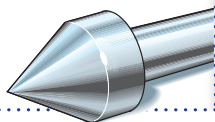
Contropunta tipo ASSY
Live center type ASSY
Körnerspitze Typ ASSY



► Code **33016 NEW**

Carico max	daN 14700
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	500
R.p.m.	
U/min	





► WK ◀

**Contropunte rotanti
ad alta velocità**

**High speed
live centers**

**Mitlaufende Hochgeschwin-
digkeits Körnerspitze**



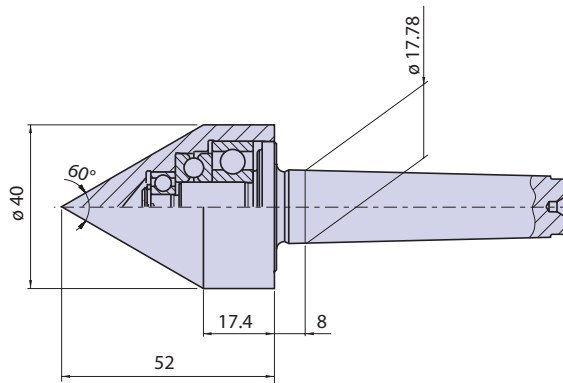
Le contropunte della serie WK risultano il miglior compromesso tra elevata precisione, ampia gamma di lavoro ed ottimo prezzo. Con il loro particolare sistema di assemblaggio, dove i cuscinetti sono posti direttamente sotto il carico che devono sopportare, garantiscono una assoluta rigidità. Particolarmente adatte per lavori di precisione e per la dentatura di ingranaggi.

The WK series live centers are the perfect compromise between high precision, wide working range and excellent price.

Thanks to their particular assembly system, with the bearings positioned directly beneath the load to be supported, they ensure absolute rigidity. They are particularly suitable for grinding, precision turning and gear toothing.

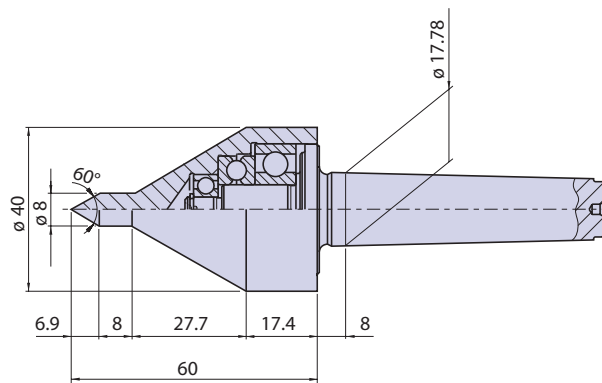
Die Körnerspitzen der Baureihe WK sind der beste Kompromiss zwischen hoher Präzision, breitem Arbeitsbereich und ausgezeichnetem Preis. Dank ihres besonderem Zusammenbaus, bei dem die Lagern direkt unter der Last liegen, sichern sie eine absolute Steifigkeit. Sie sind besonders geeignet für das Schleifen, Genauigkeitsdrehen und für die Zahnradverzahnung.

Contropunta tipo WK2 (tipo normale) per cono morse 2
 Live center type WK2 (standard) for taper 2
 Körnerspitze Typ WK2 (Typ Normal) für Morsekegel 2



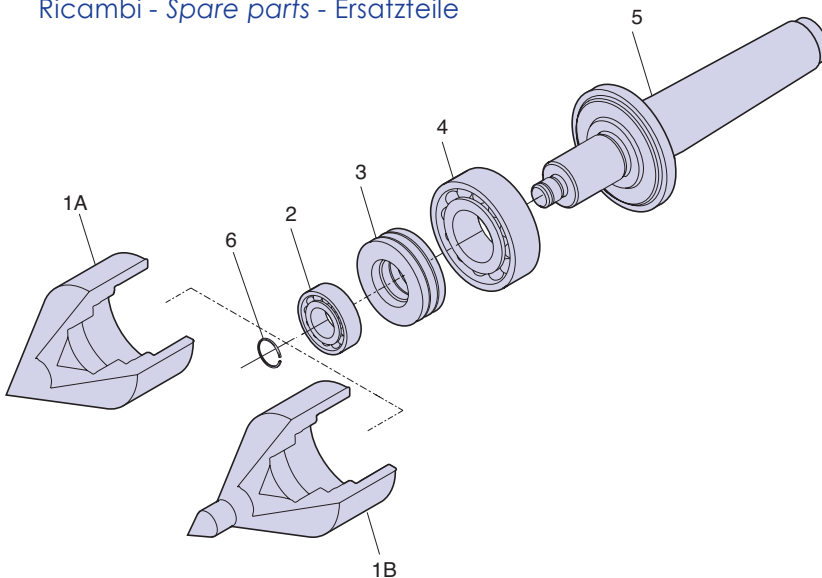
Code	90202
Carico max	daN 800
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	9000
R.p.m.	
U/min	

Contropunta tipo WK12 (tipo con codolo) per cono morse 2
 Live center type WK12 (with shank) for taper 2
 Körnerspitze Typ WK12 (Typ mit speziellen End-Teil) für Morsekegel 2



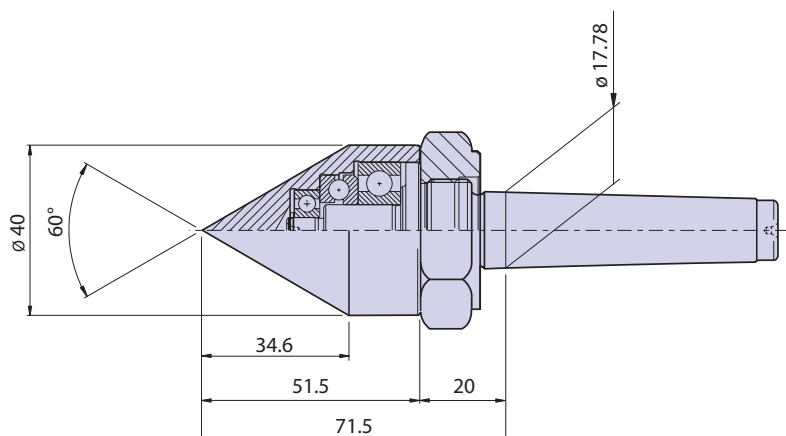
Code	90212
Carico max	daN 700
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	9000
R.p.m.	
U/min	

Ricambi - Spare parts - Ersatzteile



	CODE	DENOMINATION	Q.TY
1A	902021	Testa Head - Kopf	1
1B	902121	Testa Head - Kopf	1
2	010006002	Cuscinetto Bearing - Lager	1
3	050012001	Cuscinetto Bearing - Lager	1
4	010012004	Cuscinetto Bearing - Lager	1
5	902022	Corpo Body - Körper	1
6	160006001	Anello Ring	1

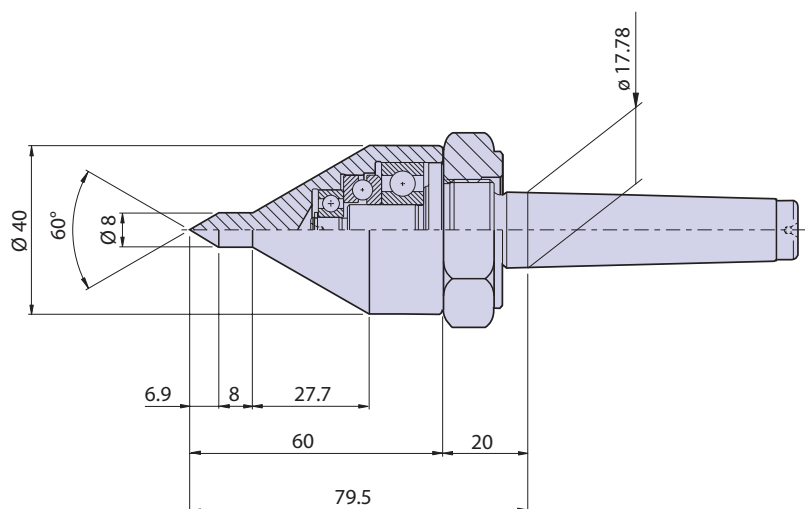
Contropunta tipo WK2 con ghiera per cono morse 2
Live center type WK2 with ring nut for taper 2
Körnerspitze Typ WK2 mit Abdrückmutter für Morsekegel 2



► Code **G90202**

Carico max	daN 800
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	9000
R.p.m.	
U/min	

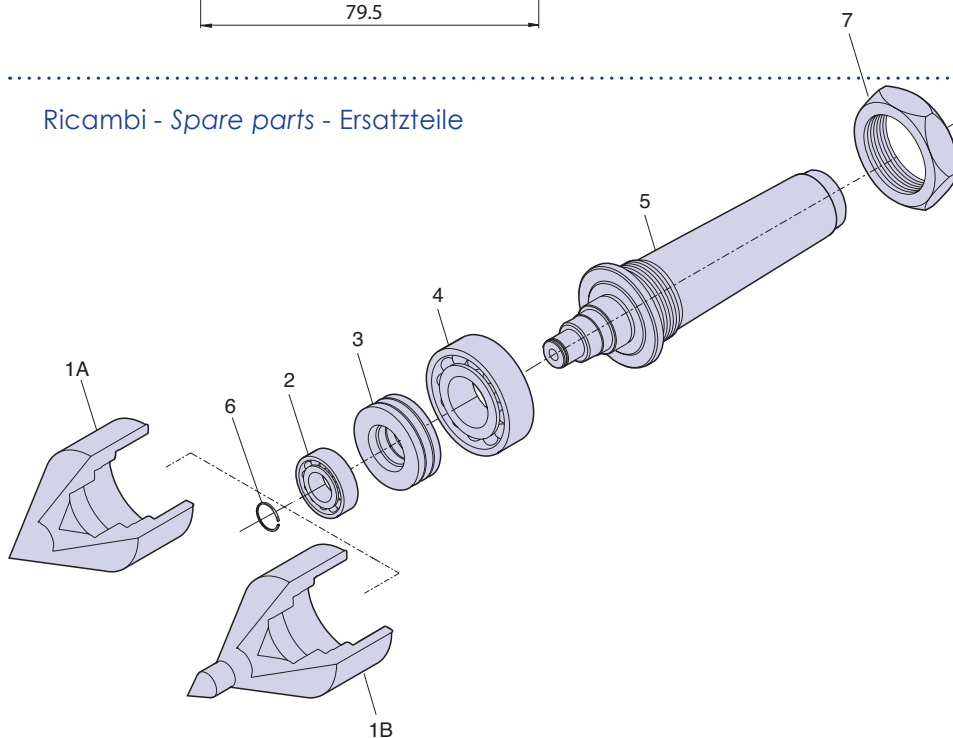
Contropunta tipo WK12 con ghiera
Live center type WK12 with ring nut
Körnerspitze Typ WK12 mit Abdrückmutter



Code **G90212**

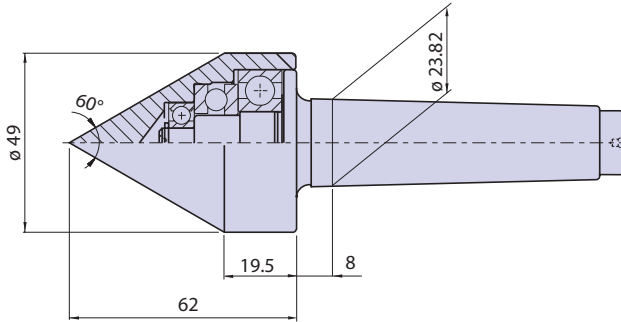
Carico max	daN 700
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	9000
R.p.m.	
U/min	

Ricambi - Spare parts - Ersatzteile



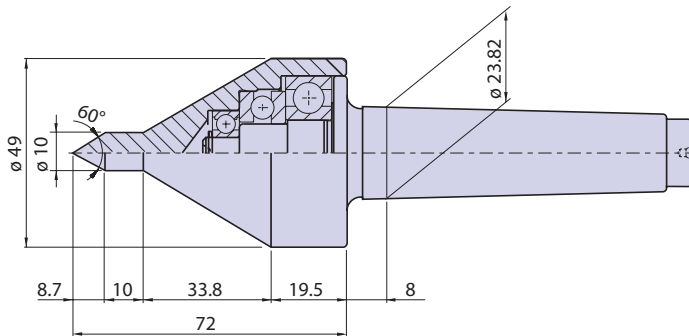
	CODE	DENOMINATION	Q.TY
1A	902021	Testa Head - Kopf	1
1B	902121	Testa Head - Kopf	1
2	010006002	Cuscinetto Bearing - Lager	1
3	050012001	Cuscinetto Bearing - Lager	1
4	010012004	Cuscinetto Bearing - Lager	1
5	G902022	Corpo Body - Körper	1
6	160006001	Anello Ring	1
7	901030	Ghiera Ring a-nut Abdrückmutter	1

Contropunta tipo WK3 (tipo normale) per cono morse 3
Live center type WK3 (standard) for taper 3
Körnerspitze Typ WK3 (Typ Normal) für Morsekegel 3



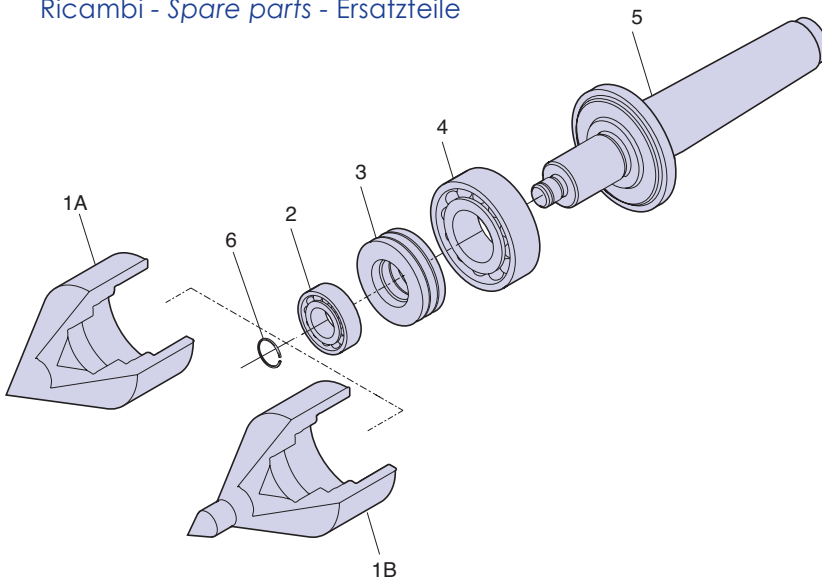
► Code	90203
Carico max	daN 1100
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	

Contropunta tipo WK13 (tipo con codolo) per cono morse 3
Live center type WK13 (with shank) for taper 3
Körnerspitze Typ WK13 (Typ mit speziellen End-Teil) für Morsekegel 3



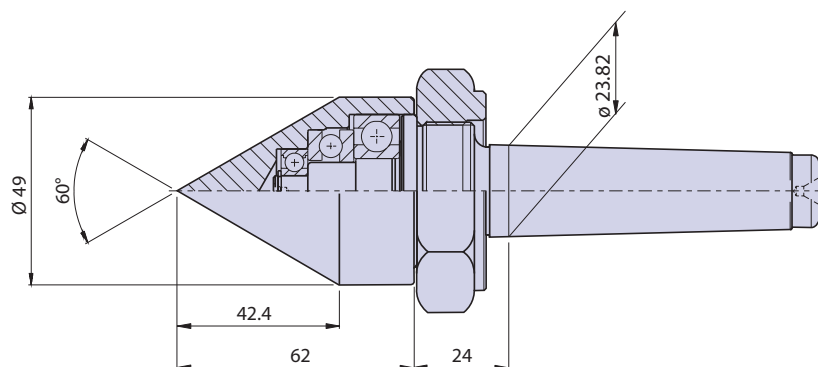
► Code	90213
Carico max	daN 900
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	

Ricambi - Spare parts - Ersatzteile



	CODE	DENOMINATION	Q.TY
1A	902031	Testa Head - Kopf	1
1B	902131	Testa Head - Kopf	1
2	010008002	Cuscinetto Bearing - Lager	1
3	050015002	Cuscinetto Bearing - Lager	1
4	010017004	Cuscinetto Bearing - Lager	1
5	902032	Corpo Body - Körper	1
6	160008002	Anello Ring	1

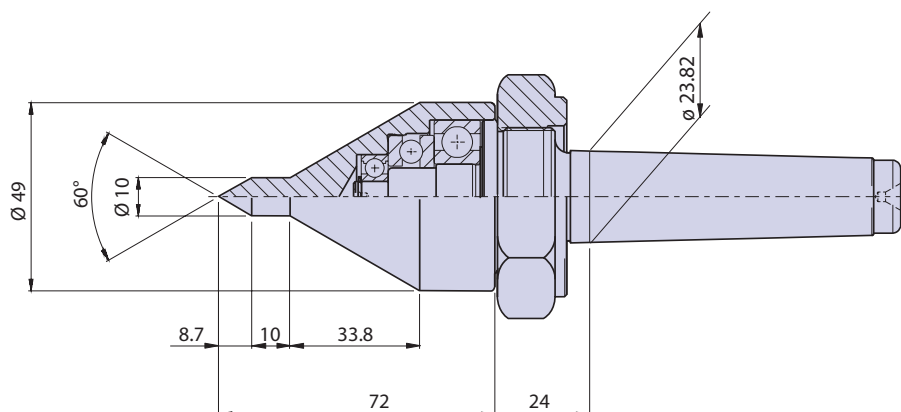
Contropunta rotante tipo WK3 per cono morse 3
 Live center typ WK3 for taper 3
 Mitlaufende Körnerspitze Typ WK3 für Morsekegel 3



► **Code** **G90203**

Carico max	daN 1100
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	

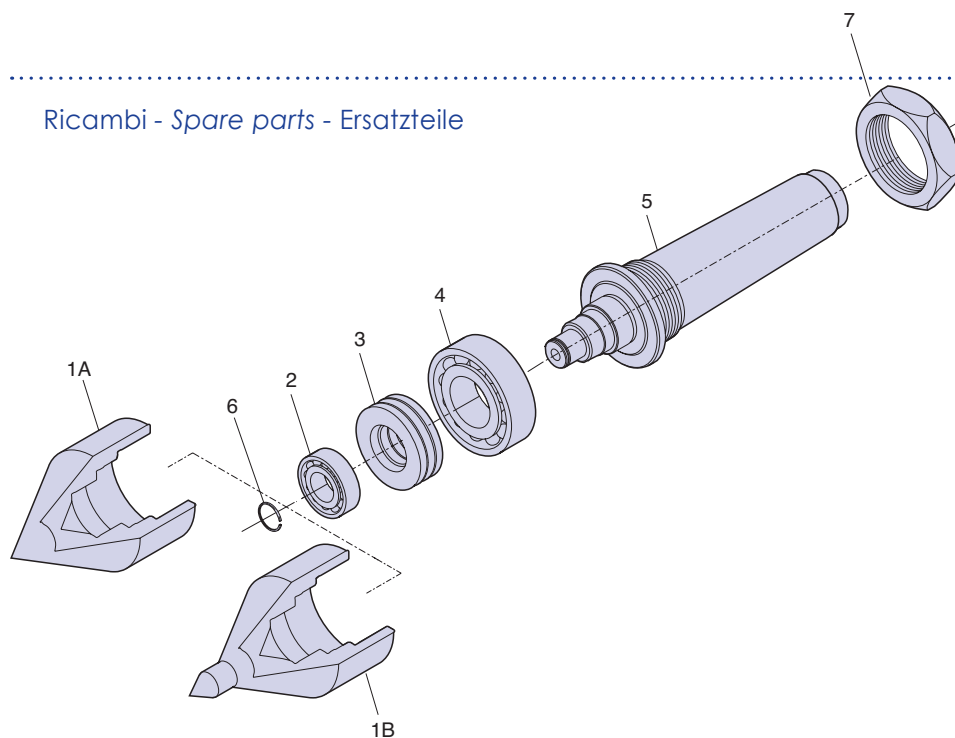
Contropunta rotante tipo WK13 per cono morse 3
 Live center type WK13 for taper 3
 Mitlaufende Spitze Typ WK13 für Morsekegel 3



► **Code** **G90213**

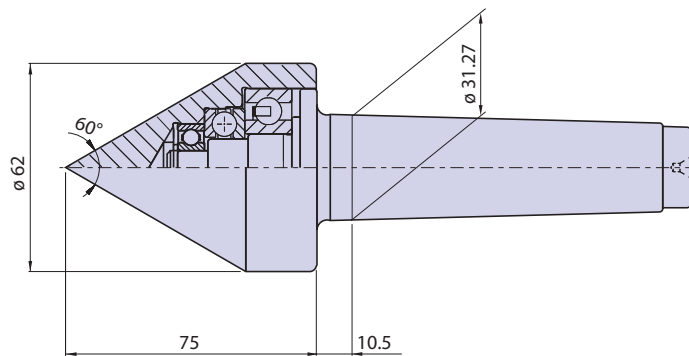
Carico max	daN 900
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	

Ricambi - Spare parts - Ersatzteile



	CODE	DENOMINATION	Q.TY
1A	902031	Testa Head - Kopf	1
1B	902131	Testa Head - Kopf	1
2	010008002	Cuscinetto Bearing - Lager	1
3	050015002	Cuscinetto Bearing - Lager	1
4	010017004	Cuscinetto Bearing - Lager	1
5	902032G	Corpo Body - Körper	1
6	160008002	Anello Ring	1
7	901040	Ghiera Ring a-nut Abdrückmutter	1

Contropunta tipo WK4 (tipo normale) per cono morse 4
Live center type WK4 (standard) for taper 4
 Körnerspitze Typ WK4 (Typ Normal) für Morsekegel 4

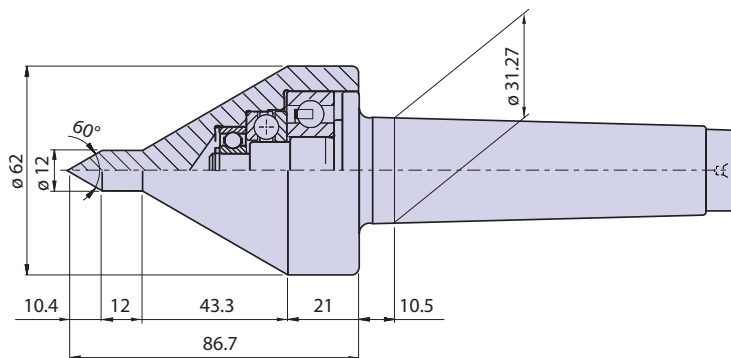


► **Code** **90204**

Carico max	daN 1500
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	7000
R.p.m.	
U/min	

TYPE WK

Contropunta tipo WK14 (tipo con codolo) per cono morse 4
Live center type WK14 (with shank) for taper 4
 Körnerspitze Typ WK14 (Typ mit speziellen End-Teil) für Morsekegel 4

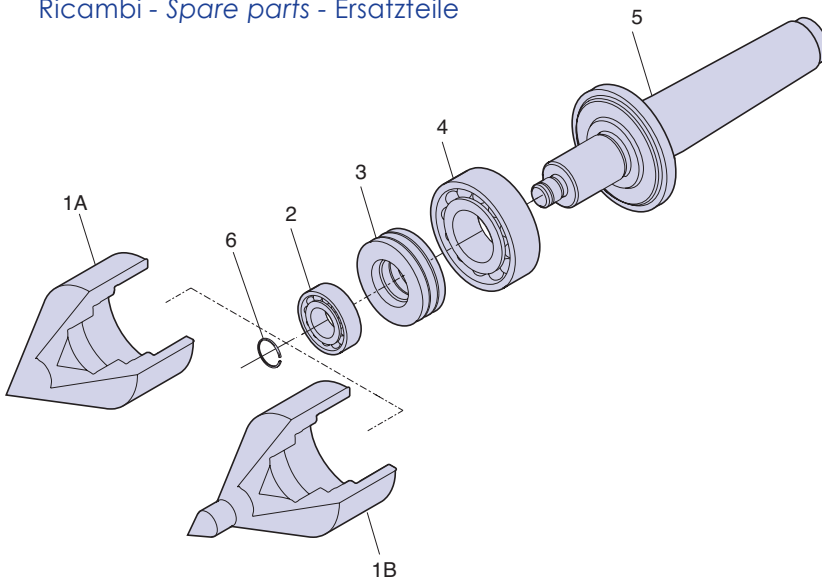


Code **90214**

Carico max	daN 1150
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	7000
R.p.m.	
U/min	

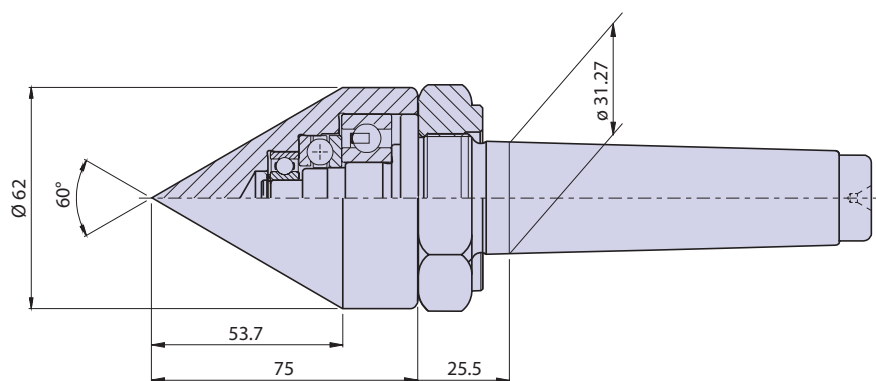
11 RETIFICA

Ricambi - Spare parts - Ersatzteile



	CODE	DENOMINATION	Q.TY
1A	902041	Testa Head - Kopf	1
1B	902141	Testa Head - Kopf	1
2	010010002	Cuscinetto Bearing - Lager	1
3	050017002	Cuscinetto Bearing - Lager	1
4	010020004	Cuscinetto Bearing - Lager	1
5	902042	Corpo Body - Körper	1
6	160010001	Anello Ring	1

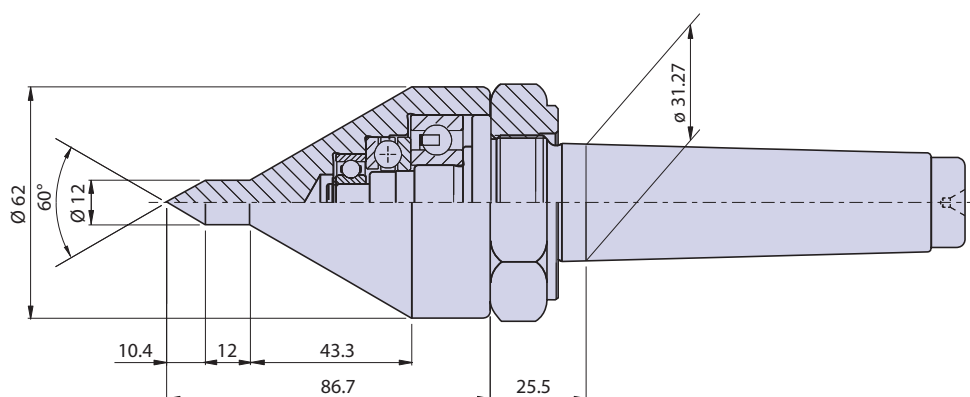
Contropunta tipo WK4 (tipo normale) per cono morse 4
 Live center type WK4 (standard) for taper 4
 Körnerspitze Typ WK4 (Typ Normal) für Morsekegel 4



► **Code** **G90204**

Carico max	daN 1500
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	7000
R.p.m.	
U/min	

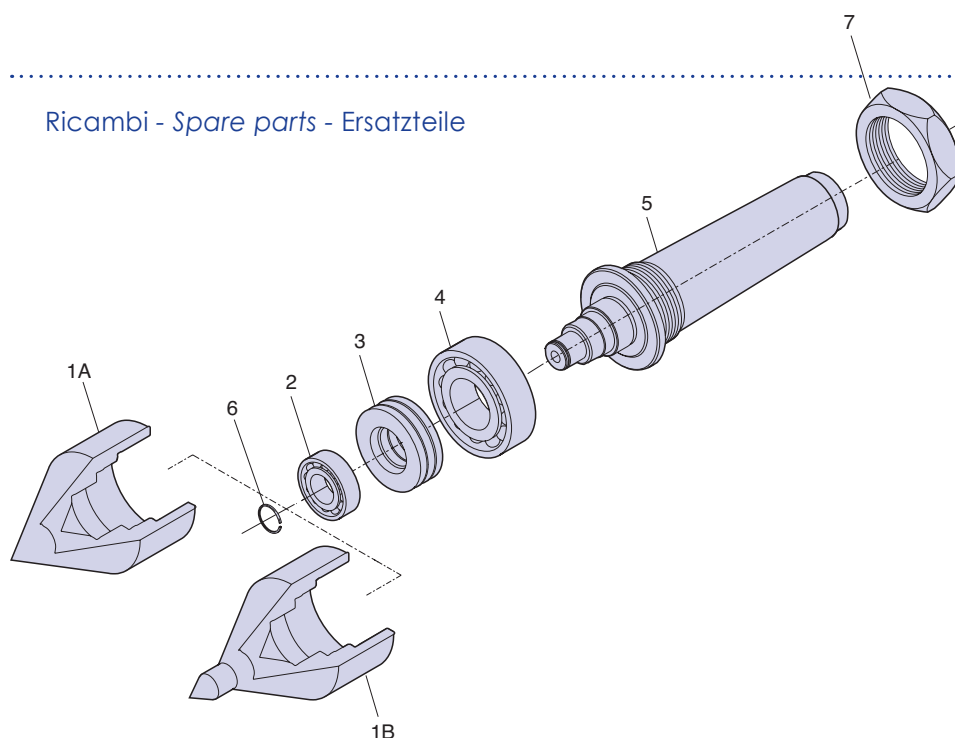
Contropunta tipo WK14 per cono morse 4
 Live center type WK14 for taper 4
 Körnerspitze Typ WK14 für Morsekegel 4



Code **G90214**

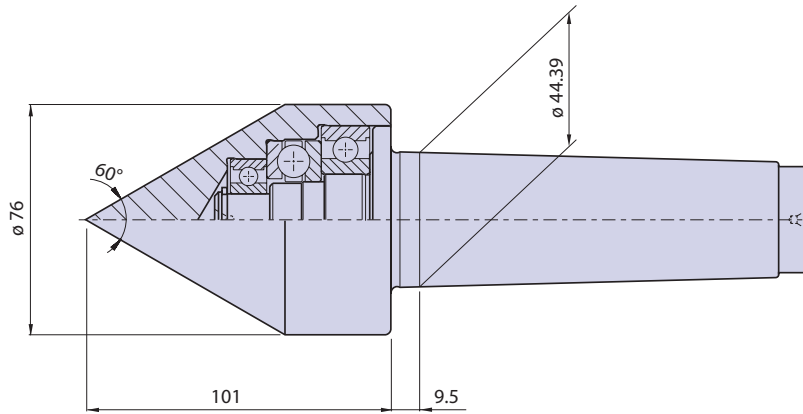
Carico max	daN 1150
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	7000
R.p.m.	
U/min	

Ricambi - Spare parts - Ersatzteile



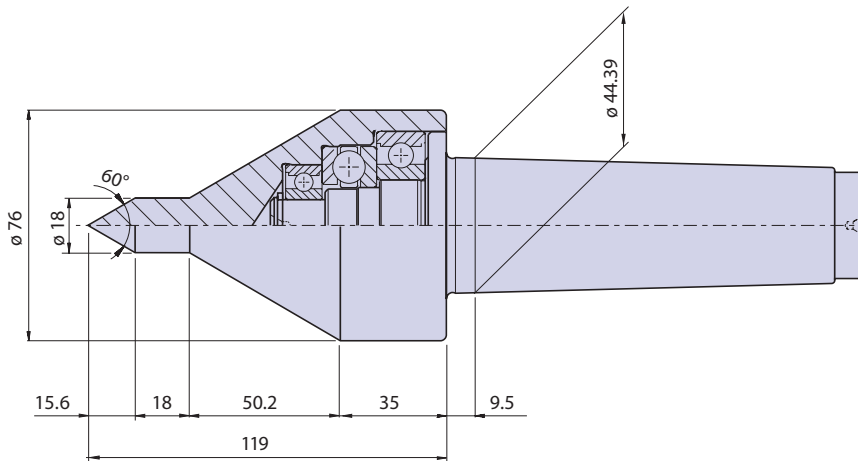
	CODE	DENOMINATION	Q.TY
1A	902041	Testa Head - Kopf	1
1B	902141	Testa Head - Kopf	1
2	010010002	Cuscinetto Bearing - Lager	1
3	050017002	Cuscinetto Bearing - Lager	1
4	010020004	Cuscinetto Bearing - Lager	1
5	G902042	Corpo Body - Körper	1
6	160010001	Anello Ring	1
7	901040	Ghiera Ring a-nut Abdrückmutter	1

Contropunta tipo WK5 (tipo normale) per cono morse 5
Live center type WK5 (standard) for taper 5
Körnerspitze Typ WK5 (Typ Normal) für Morsekegel 5



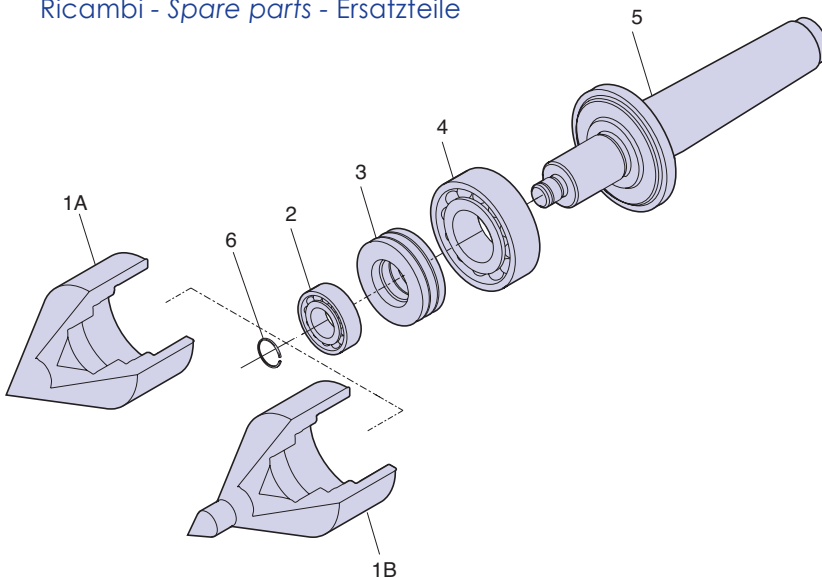
► Code	90205
Carico max	daN 2400
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

Contropunta tipo WK15 (tipo con codolo) per cono morse 5
Live center type WK15 (with shank) for taper 5
Körnerspitze Typ WK15 (Typ mit speziellen End-Teil) für Morsekegel 5



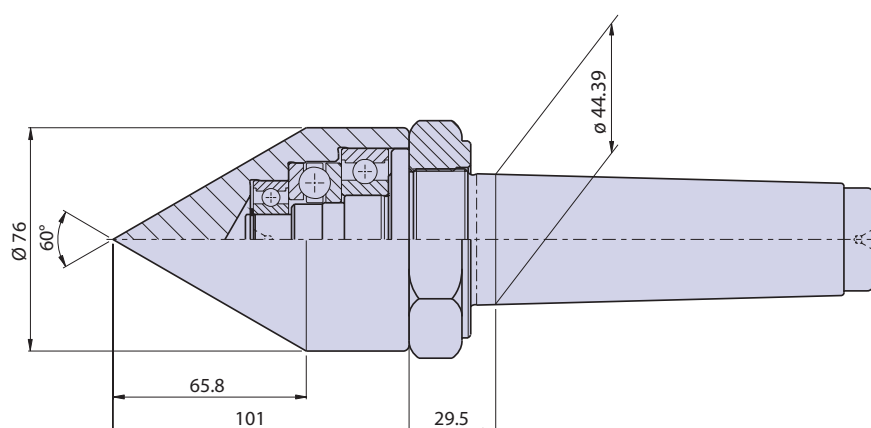
► Code	90215
Carico max	daN 1800
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

Ricambi - Spare parts - Ersatzteile



	CODE	DENOMINATION	Q.TY
1A	902051	Testa Head - Kopf	1
1B	902151	Testa Head - Kopf	1
2	010017004	Cuscinetto Bearing - Lager	1
3	050025004	Cuscinetto Bearing - Lager	1
4	010030005	Cuscinetto Bearing - Lager	1
5	902052	Corpo Body - Körper	1
6	160017001	Anello Ring	1

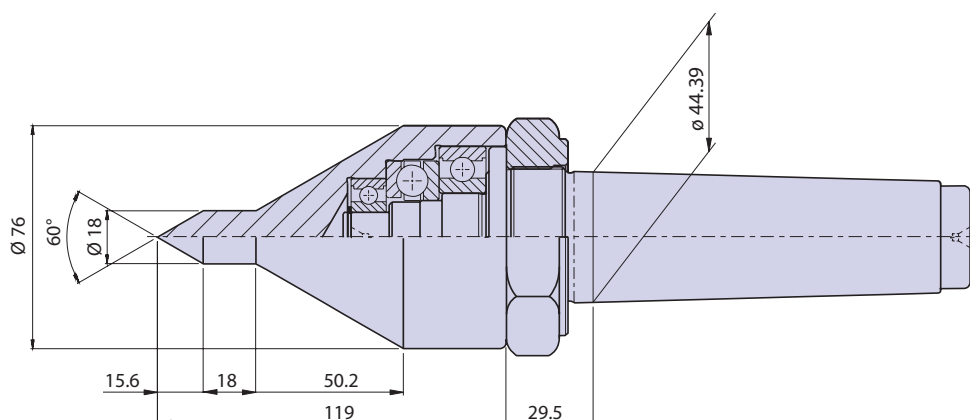
Contropunta tipo WK5 per cono morse 5
Live center type WK5 for taper 5
Körnerspitze Typ WK5 für Morsekegel 5



► Code **G90205**

Carico max	daN 2400
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

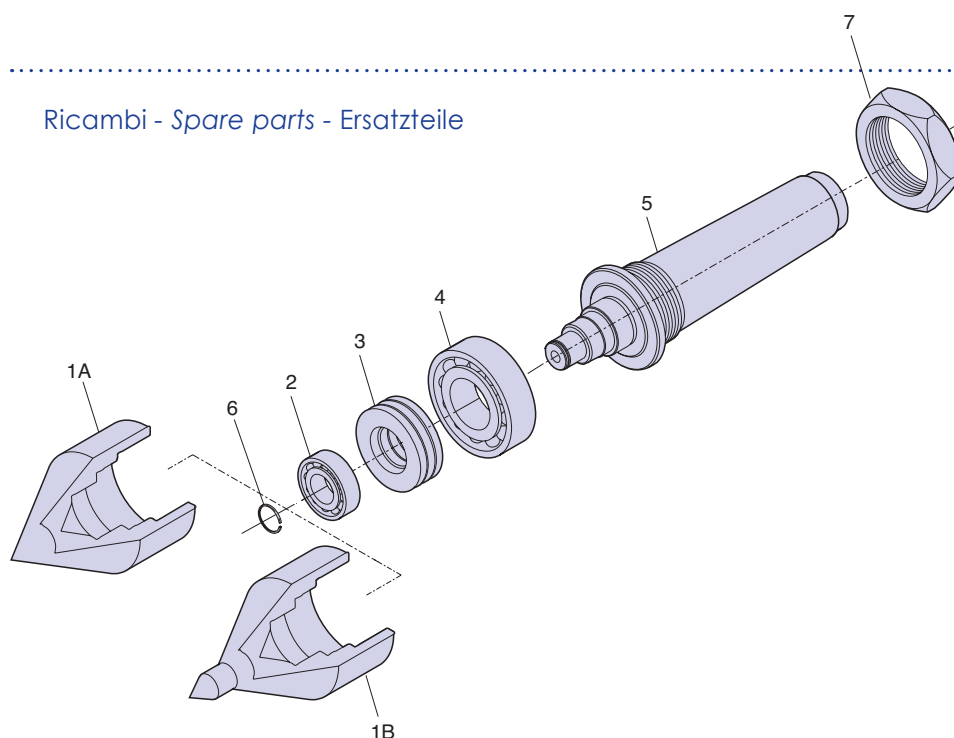
Contropunta rotante tipo WK15 per cono morse 5
Live center type WK15 for taper 5
Mitlaufende Spitze Typ WK15 für Morsekegel 5



Code **G90215**

Carico max	daN 1800
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	5500
R.p.m.	
U/min	

Ricambi - Spare parts - Ersatzteile

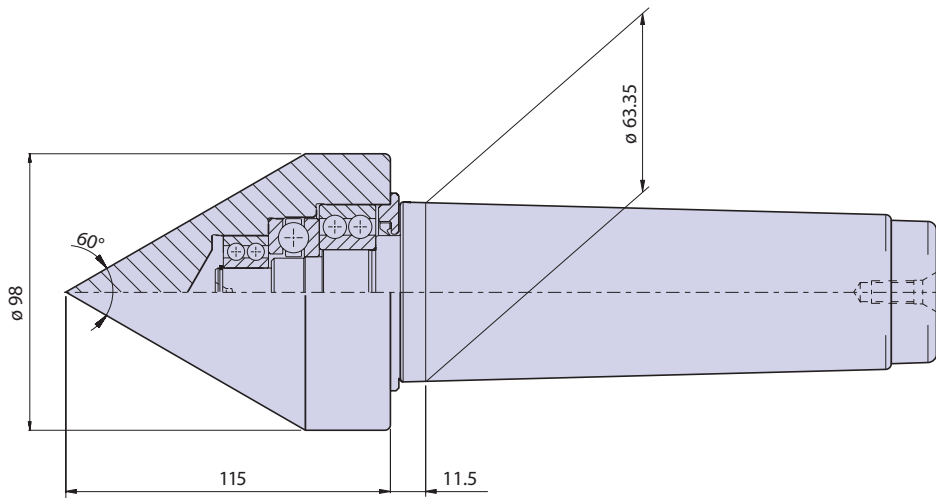


	CODE	DENOMINATION	Q.TY
1A	902051	Testa Head - Kopf	1
1B	902151	Testa Head - Kopf	1
2	010017004	Cuscinetto Bearing - Lager	1
3	050025004	Cuscinetto Bearing - Lager	1
4	010030005	Cuscinetto Bearing - Lager	1
5	902052G	Corpo Body - Körper	1
6	160017001	Anello Ring	1
7	901050	Ghiera Ring a-nut Abdrückmutter	1

Contropunta tipo WK6 (tipo normale) per cono morse 6
 Live center type WK6 (standard) for taper 6
 Körnerspitze Typ WK6 (Typ Normal) für Morsekegel 6

► Code

90206



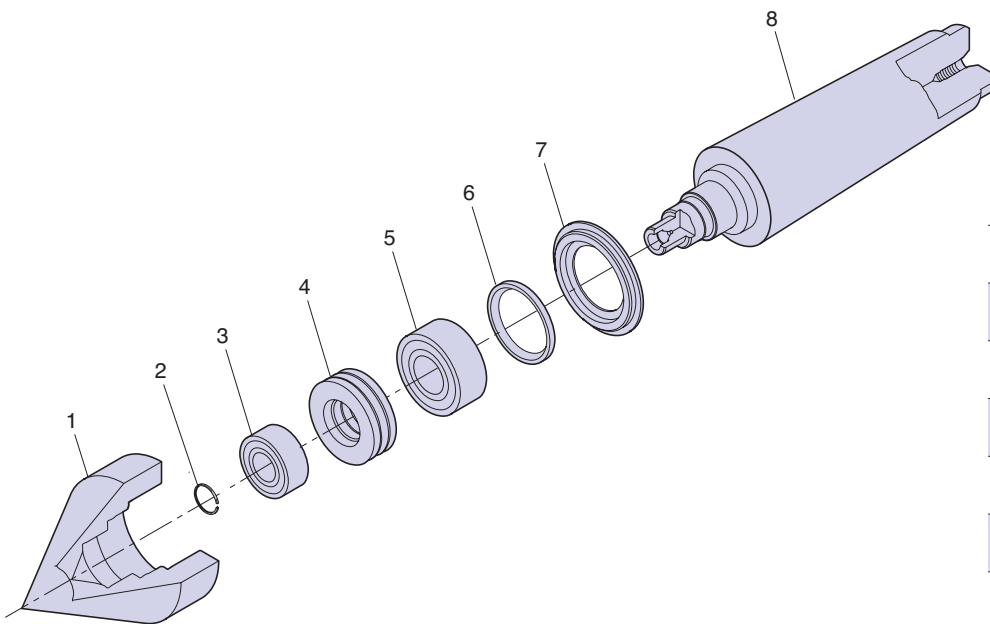
Carico max	daN 2800
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	4000
R.p.m.	
U/min	

TYPE WK

Dotata di anello di protezione per l'entrata di liquidi o polveri
 Equipped with protective ring to prevent the entry of liquid or dust
 Ausgestattet mit einem Schutzring, um das Eindringen von Flüssigkeit oder Staub zu verhindern.

11 RETTIFICA

Ricambi - Spare parts - Ersatzteile



	CODE	DENOMINATION	Q.TY
1	902061	Testa Head - Kopf	1
2	160017001	Anello Ring	1
3	020017002	Cuscinetto Bearing - Lager	1
4	050025004	Cuscinetto Bearing - Lager	1
5	020030001	Cuscinetto Bearing - Lager	1
6	150040004	Coperchio Cover - Abdeckung	1
7	904063	Anello Ring	1
8	904062	Corpo Body - Körper	1

TRASCINATORI PER RETTIFICA FACE DRIVERS FOR GRINDING

**Trascinatori a punta fissa
e per chiavette**

**Face driver fixed center point
and front drive key**

**Mitnehmer mit feste Spitze
und für frontseitigem
Mitnehmerstift**



Trascinatore per **rettifica** dotato di **punta centrale fissa** e sistema di artigli di trascinamento.

A differenza dei trascinatori tradizionali, dove la punta è mobile e arretra durante il serraggio permettendo agli artigli di fuoriuscire, in questo modello la punta rimane completamente fissa, garantendo maggiore rigidità e stabilità del pezzo durante la lavorazione.

Trascinatore per rettifica dotato di **chiavetta frontale di trascinamento**, progettato per garantire la rotazione del pezzo attraverso l'innesco diretto nella sede della chiavetta presente sul particolare da lavorare. Questo accoppiamento meccanico assicura un trasferimento di coppia stabile, preciso e privo di slittamenti.

**Face Driver for grinding
equipped with fixed center
point and driving teeth.**

Unlike traditional face drivers, where the center point is mobile and retracts during clamping to allow the driving teeth to engage the workpiece, in this model the center point remains

completely fixed, ensuring greater rigidity and stability of the workpiece during machining.

Face Driver for grinding equipped with a front drive key, designed to ensure rotation of the workpiece through direct engagement with the keyway present in the workpiece to be machined. This mechanical coupling guarantees stable, precise torque transmission without slippage.

Mitnehmer für **Schleifmaschinen mit einem vorderen feststehende Mitnehmerspitze** und

Mitnehmerbolzensystem.

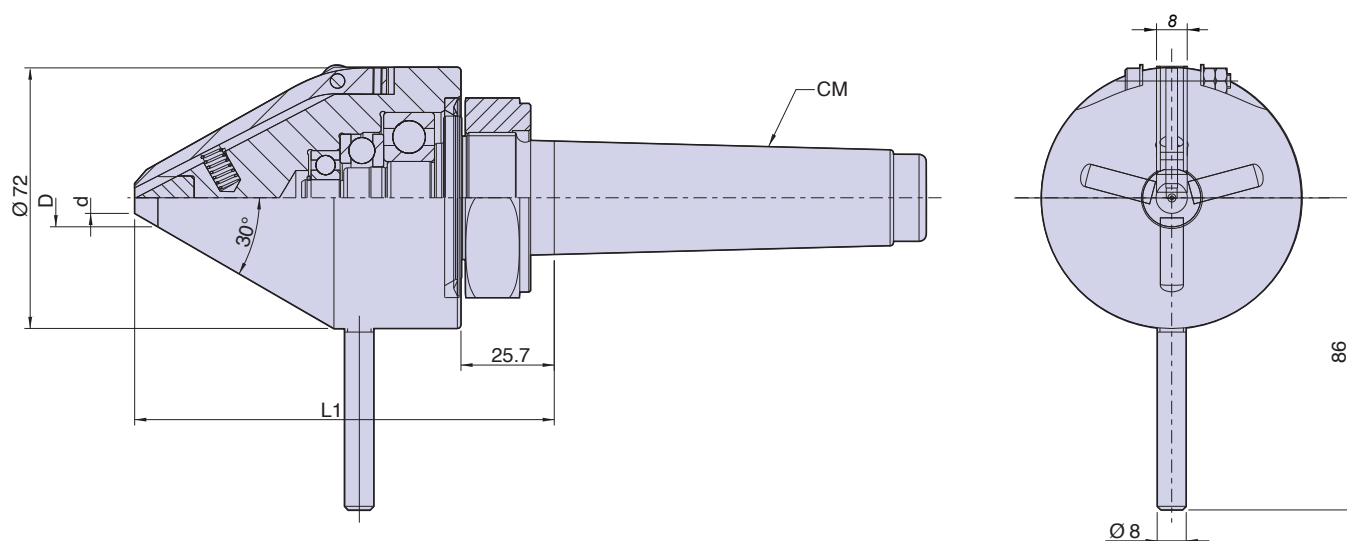
Im Gegensatz zu herkömmlichen Mitnehmern, bei denen die Spitze beweglich ist und sich beim Spannen zurückzieht, sodass die Mitnehmerbolzen herausgleiten können, bleibt die Spitze bei diesem Modell vollständig fixiert, was eine höhere Steifigkeit und Stabilität des Werkstücks während der Bearbeitung garantiert.

Mitnehmer für Schleifmaschinen mit **frontseitigem Mitnehmerstift**, der die Drehung des Werkstücks durch direkte Einsteckung in die Aufnahme des zu bearbeitenden Werkstücks gewährleistet. Diese mechanische Verbindung garantiert eine stabile, präzise und verschiebungsfreie Drehmomentübertragung.

Trascinatori per chiavette
Face Drivers for keys
Mitnehmer für Mitnehmerstifte

► **Code** **G90203-CH**

Carico max	daN 1100
Max load	
Max Belastung	
Eccentricità max	mm 0,002
Max eccentricity	
Max Rundlaufabweichung	
Giri/1'	8000
R.p.m.	
U/min	



G90203-CH	CM	CH	CODICE	Dim. Ø	d	D	L1
TYPE A	3	3	G90203-CH3	8 - 10	6,50	14,00	105,90
		4	G90203-CH4	10 - 12	8,60	16,00	104,10
		5	G90203-CH5	12 - 17	11,00	20,00	102,00
TYPE B		6	G90203-CH6	17 - 22	15,50	30,50	98,10
		8	G90203-CH8	22 - 30	20,50	35,50	93,80
		10	G90203-CH10	30 - 38	28,50	43,50	86,90
		12	G90203-CH12	38 - 44	36,50	51,50	79,90

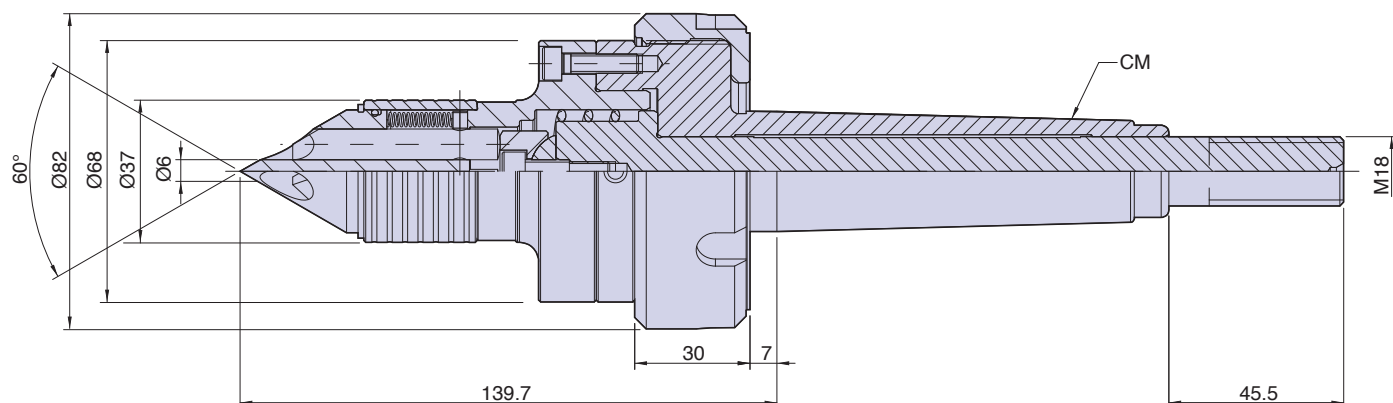
G90204-CH	CM	CH	CODICE	Dim. Ø	d	D	L1
TYPE A	4	3	G90204-CH3	8 - 10	6,50	14,00	117,40
		4	G90204-CH4	10 - 12	8,60	16,00	115,60
		5	G90204-CH5	12 - 17	11,00	20,00	113,50
TYPE B		6	G90204-CH6	17 - 22	15,50	30,50	109,60
		8	G90204-CH8	22 - 30	20,50	35,50	105,30
		10	G90204-CH10	30 - 38	28,50	43,50	98,40
		12	G90204-CH12	38 - 44	36,50	51,50	91,40

Trascinatori a punta fissa
Face Drivers with fixed center point
Mitnehmer mit feste Spitze

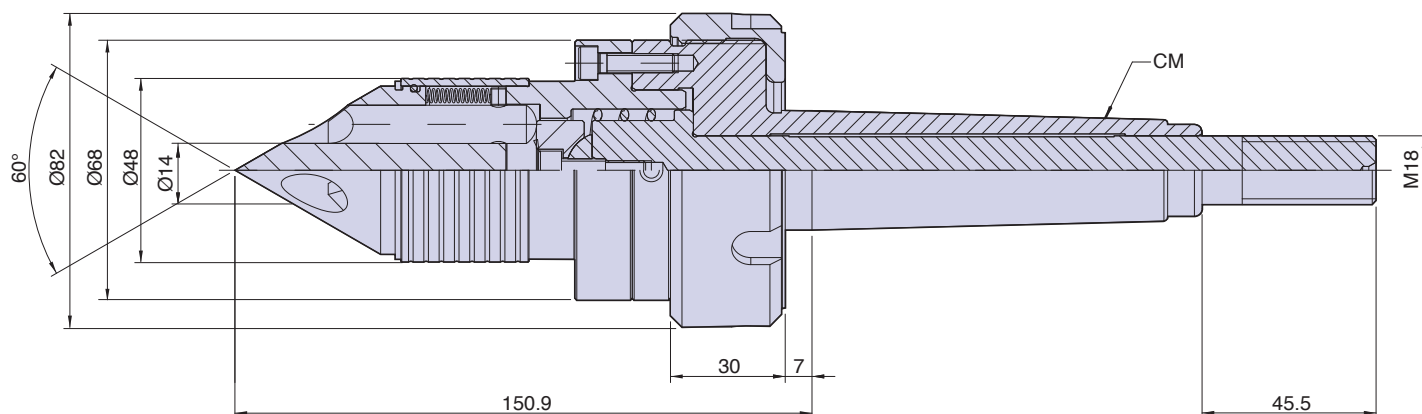
► Code

90206

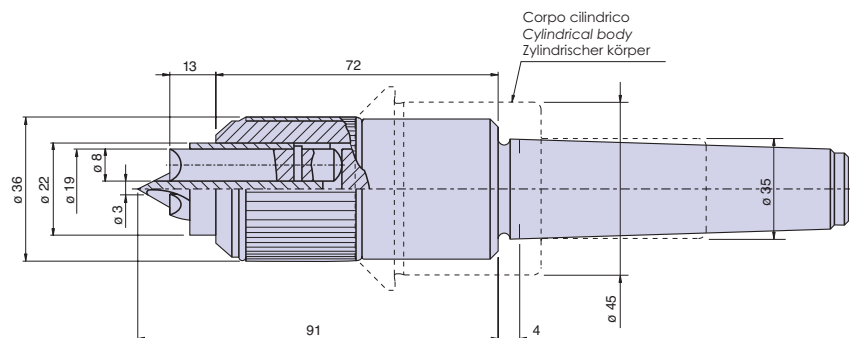
TYPE A	CM	CODICE
	4	220204
	5	220205



TYPE B	CM	CODICE
	4	240304
	5	240305

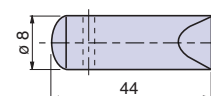


TYPE T/AW

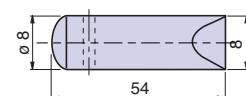


Artigli - Driving teeth - Mitnehmerbolzen

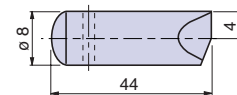
10101 W



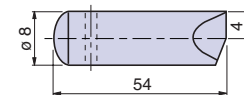
10101 WP



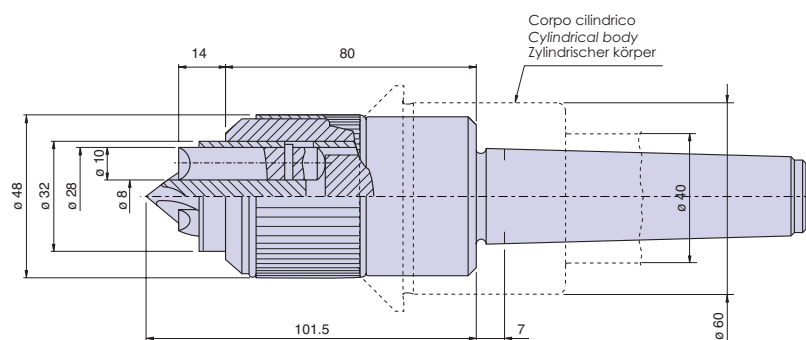
10102 W



10102 WP

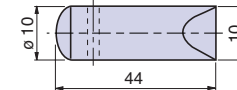


TYPE T/BW

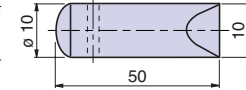


Artigli - Driving teeth - Mitnehmerbolzen

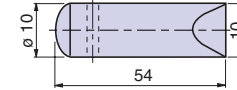
10104 W



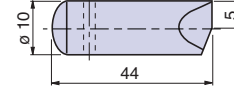
10104 WS



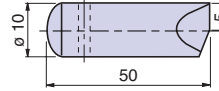
10104 WP



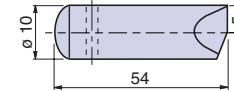
10105 W



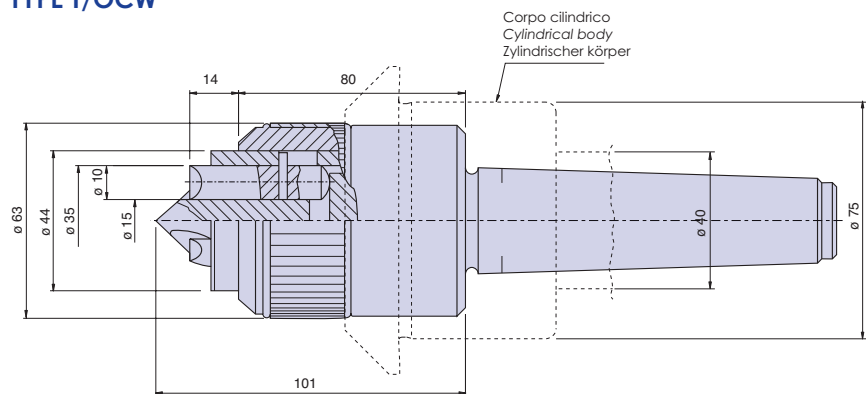
10105 WS



10105 WP

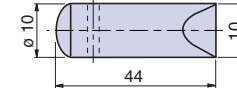


TYPE T/OCW

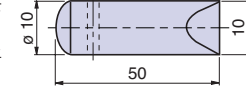


Artigli - Driving teeth - Mitnehmerbolzen

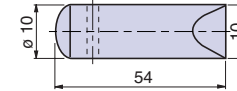
10104 W



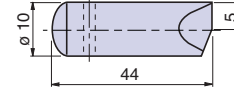
10104 WS



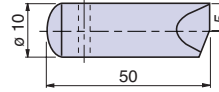
10104 WP



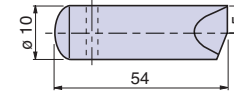
10105 W



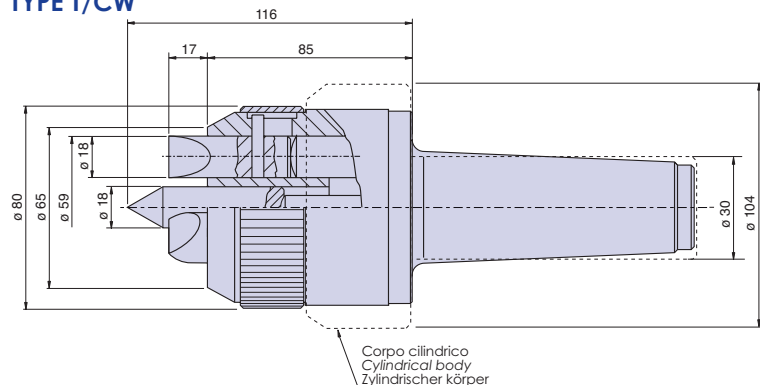
10105 WS



10105 WP

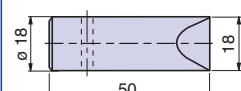


TYPE T/CW

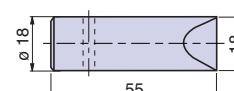


Artigli - Driving teeth - Mitnehmerbolzen

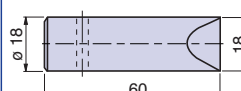
10109 W



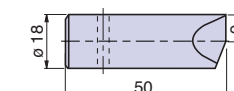
10109 WS



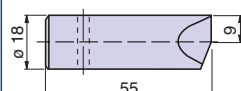
10109 WP



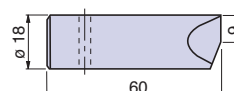
10110 W



10110 WS



10110 WP



Per elenco parti di ricambio, consultare da pag. 92 a pag. 99
For spare parts list, look from page 92 to page 99
Für liste Ersatzteile, finden Sie auf Seite 92 bis Seite 99

Brida pneumomeccanica

Pneumo-mechanical vice

Druckmechanisches Drehherz



Funziona con la chiusura meccanica e apertura pneumatica. Questa condizione ha il vantaggio di mantenere sempre il pezzo con una presa corretta, anche in caso di un calo di pressione nel circuito dell'aria.

This operates by mechanical closing and pneumatic opening. This system has the advantage of maintaining the piece in the correct position, even if there is a pressure drop in the air circuit.

Funktioniert mit mechanischer Schließung und pneumatischer Öffnung. Diese Bedingung hat den Vorteil, dass das Werkstück stets in einer korrekten Position gehalten wird, auch bei einem Druckabfall im Luftkreis.

► Patent Nr. 1367759 ◀

Brida pneumomeccanica

Pneumo-mechanical vice

Druckmechanisches Drehherz

DATI TECNICI

- Punta di centramento fissa
- Prese del pezzo con 3 morsetti
- Bloccaggio coassiale con punta fissa di centramento anche su pezzi grezzi
- Campo di lavoro per macchine a C.N.C. robotizzate o manuali

TECHNICAL DATA

- Dead centering nose
- Workpiece grip by means of three hardened clamps
- Coaxial clamping with dead centering nose even on blanks
- Work field suitable for robot or manual computerized numeric al control machines

TECHNISCHE DATEN

- Feste Zentrierspitze
- Spannung des Werkstücks durch 3 Spannbacken
- Koaxiale Einspannung mit fester Zentrierspitze auch für Rohlinge
- Einsatz auf allen CNC - gesteuerten Maschinen mit automatischer oder manueller Beschickung

► Code	X	L1
BRD-02-00CM3	23,825	125
BRD-02-00CM4	31,267	127,5
BRD-02-00CM5	44,399	127,5



N.B.: si eseguono studi per applicazioni speciali

Note: Special applications can be studied on request

Notiz: Es werden Studien für Sonderanwendungen ausgeführt.

DATI TECNICI

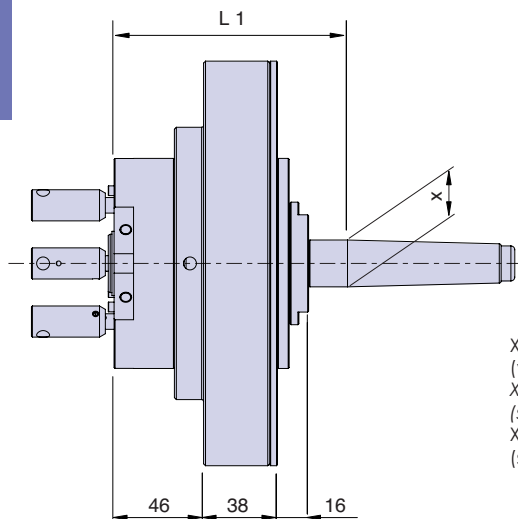
- Disponibili con cono morse 3, 4 e 5
- Campo di bloccaggio da Ø 10 Ø 55 mm
- Pressione di esercizio:
 - 10 ÷ 30 mm → 3 - 4 bar
 - 30 ÷ 35 mm → 4 - 6 bar
- Precisione di eccentricità: 0,0015 mm max.

TECHNICAL DATA

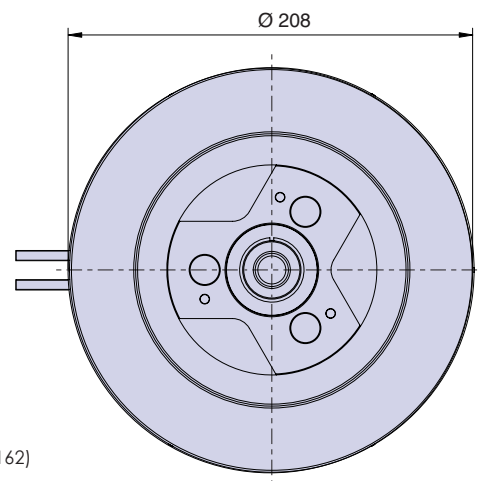
- Available with Morse taper sleeve 3, 4 and 5
- Clamping range: Ø 10 Ø 55 mm
- Working pressure:
 - 10 ÷ 30 mm → 3 - 4 bar
 - 30 ÷ 35 mm → 4 - 6 bar
- Maximum eccentricity accuracy: 0,0015 mm max.

TECHNISCHE DATEN

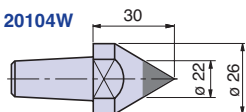
- Mit Morsekegel 3, 4 und 5 lieferbar
- Spannungsbereich von Ø 10 bis Ø 55 mm
- Betriebsdruck:
 - 10 ÷ 30 mm → 3 - 4 bar
 - 30 ÷ 35 mm → 4 - 6 bar
- Rundlaufabweichung: 0,0015 mm max.



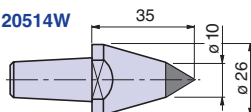
X = Valido per cono morse 3, 4 o 5
(vedi unificazione cono morse pag. 162)
X = applicable to Morse taper 3, 4 or 5
(see Morse taper unification page 162)
X = gültig für Morsekegel 3, 4 oder 5
(siehe Gesamtdarstellung des Morsekegels Seite 162)



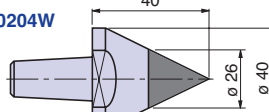
20104W



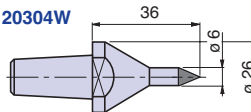
20514W



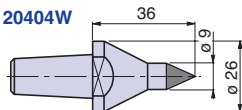
20204W



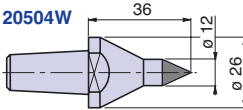
20304W



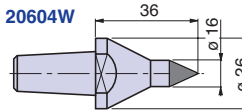
20404W



20504W

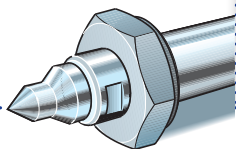


20604W



Articoli disponibili con punta in metallo duro
Items available with carbide

Artikel erhältlich mit Hartmetallspitze



► CM ◀

Contropunte fisse

Dead centers

Zentrierspitzen



Le contropunte fisse in acciaio sono costruite con i migliori materiali che sono oggi sul mercato. Interamente temperate per ottenere il miglior compromesso tra tenacità e durezza superficiale. Sono tutte rettificate con tolleranze che permettono una eccentricità non superiore a 0,002 mm. Le contropunte con il metallo duro, sono saldate con le più moderne macchine a induzione.

Le contropunte fisse sono fornibili, se richiesto, con standard MAZAK.

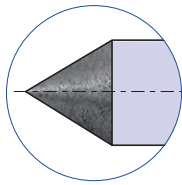
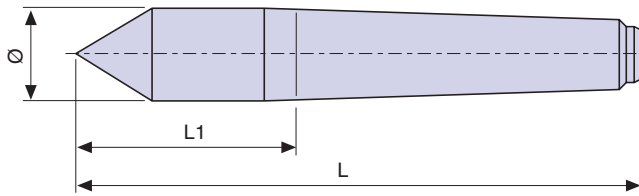
The steel dead centers are made from the best materials currently available on the market. Fully hardened for best combination of toughness and surface hardness, the centers are ground with tolerances which permit an eccentricity not exceeding 0.002 mm. Hard metal centers are welded by means of the most advanced induction machines.

The dead centers could be supplied, on demand, with MAZAK standard.

Die Alle Stahl-Zentrierspitzen werden aus dem hochwertigsten derzeit erhältlichen Werkstoffen hergestellt. Sie sind durchgehärtet und bieten damit eine ideale Kombination von Zähigkeit und Oberflächenhärte. Sämtliche Zentrierspitzen sind im engen Toleranzbereich feingeschliffen und ermöglichen damit Rundlaufabweichungen von max. 0,002 mm. Zentrierspitzen mit Hartmetallspitzen werden mit modernsten Induktions-Schweißgeräten bearbeitet.

Die Stahl-Zentrierspitzen Können auf Wunsch mit MAZAK standard geliefert werden.

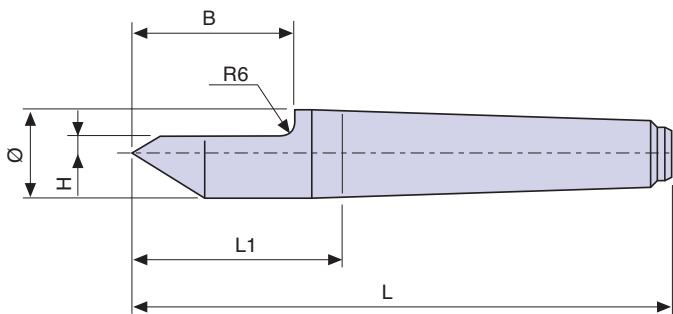
Contropunta normale
Dead center
Standard-Zentrierspitze



Su richiesta si esegue il riporto in polvere di diamante per effettuare il trascinamento del particolare.
On request, diamond powder coating can be applied to ensure piece driving
Auf Anfrage ist eine Beschichtung mit Diamantpulver verfügbar, um das Mitnehmen des Werkstücks zu ermöglichen.

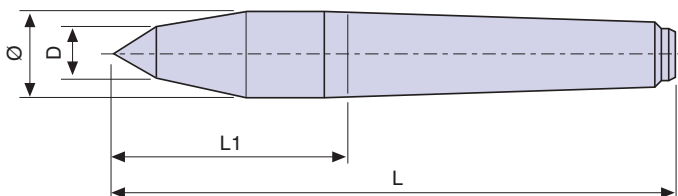
Cono morse Taper Morsekegel	Ø	L	L1	► Code
1	12,2	80	26,5	30101
		98	44,5	30501
2	18	100	36	30102
		150	86	30502
3	24,1	125	44	30103
		180	99	30503
4	31,6	160	57,5	30104
		200	97,5	30504
5	44,7	200	70,5	30105
		230	100,5	30505
6	63,8	270	88	30106
		300	118	30506

Contropunta tagliata
Cutaway dead center
Zentrierspitze mit halber Spitze



Cono morse Taper Morsekegel	Ø	H	B	L	L1	► Code
1	12,2	1,5	22	80	26,5	30301
			40	98	44,5	30701
2	18	3	30	100	36	30302
			67	150	86	30702
3	24,1	4	38	125	44	30303
			90	180	99	30703
4	31,6	7,2	50	160	57,5	30304
			85	200	97,5	30704
5	44,7	7,1	63	200	70,5	30305
			85	230	100,5	30705
6	63,8	10,1	79	270	88	30306
			90	300	118	30706

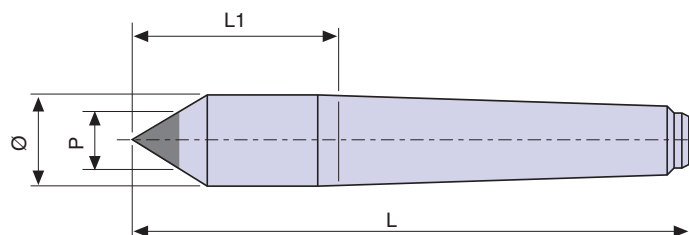
Contropunta a doppia inclinazione
Double pitch dead center
Zentrierspitze mit zwei Spitzwinkeln



Cono morse Taper Morsekegel	Ø	L	L1	D	► Code
1	12,2	88	34,5	8	30901
2	18	112	48	10	30902
3	24,1	150	69	12	30903
4	31,6	178	75,5	14	30904
5	44,7	220	90,5	18	30905
6	63,8	280	98	25	30906

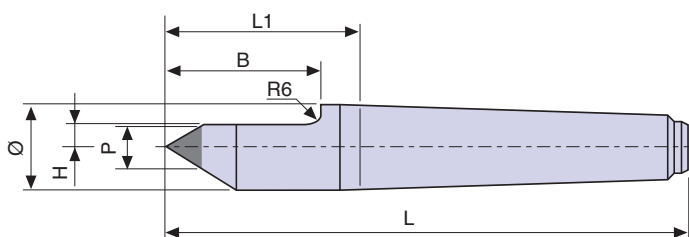
- A richiesta si possono ottenere offerte per dimensioni particolari, di qualsiasi forma e grandezza, in acciaio o con punta in metallo duro (vedi tabelle ordini a fondo catalogo).
- On request, offers can be made for special dimensions, of any shape and size, in steel or with hard metal tip (see order table at the end of the catalogue).
- Auf Anfrage sind spezielle Dimensionen, in jeder Form und Größe, in Stahl oder mit Hartmetallspitze verfügbar (siehe Bestelltabelle am Ende des Katalogs).

Contropunta per rettifica
Dead center for grinding machines
Zentrierspitze für Schleifmaschinen



Cono morse Taper Morsekegel	Ø	P	L	L1	► Code
1	12,2	8	85	31,5	30201
			98	44,5	30601
2	25	18	100	37	60102
	18	12	100	36	30202
3	24,1	18	150	86	30602
			126	45	60103
		14	125	44	30203
			150	69	30203.150
4	31,6	30	180	99	30603
			200	70,5	60104
		22	160	58,5	30204
			180	77,5	30204.180
5	44,7	36	200	97,5	30604
			230	100,5	60105
		25	200	70,5	30205
			250	120,5	30605.250
6	63,8	36	270	88	60106
			300	118	30606
		30	270	88	30206
			325	143	30606.325

Contropunta tagliata per rettifica
Cutaway dead center for grinding machines
Zentrierspitze mit halber Spitze für Schleifmaschinen



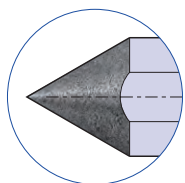
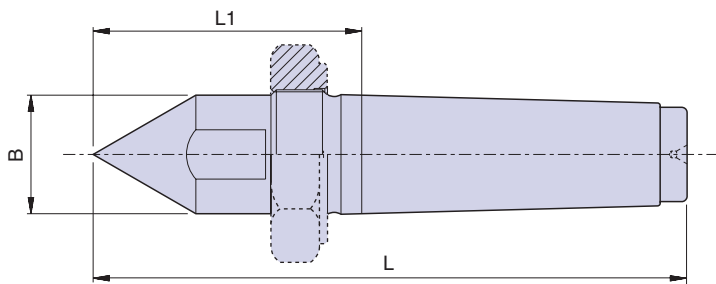
Cono morse Taper Morsekegel	Ø	P	H	B	L	L1	► Code
1	12,2	8	2	23	80	26,5	30401
				40	98	44,5	30801
2	18	8	2	32	100	36	30402
		10	3	67	150	87	30802
3	24,1	10	4	38	125	44	30403
				90	186	105	30803
4	31,6	14	5,5	50	160	57,5	30404
				85	200	97,5	30804
5	44,7	16	7,5	63	200	71,5	30405
				85	230	100,5	30805
6	63,8	20	10,1	79	270	88	30406
				90	300	118	30806

- A richiesta si possono ottenere offerte per dimensioni particolari, di qualsiasi forma e grandezza, in acciaio o con punta in metallo duro.
- On request, offers can be made for special dimensions, of any shape and size, in steel or with hard metal tip.
- Auf Anfrage sind spezielle Dimensionen, in jeder Form und Größe, in Stahl oder mit Hartmetallspitze verfügbar.

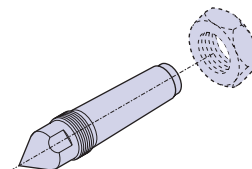
Contropunta tipo standard in acciaio

Normal dead center

Stahl-Zentrierspitzen



Su richiesta si esegue il riporto in polvere di diamante per effettuare il trascinamento del particolare.
 On request, diamond powder coating can be applied to ensure piece driving
 Auf Anfrage ist eine Beschichtung mit Diamantpulver verfügbar, um das Mitnehmen des Werkstücks zu ermöglichen.



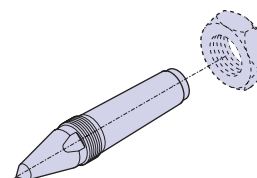
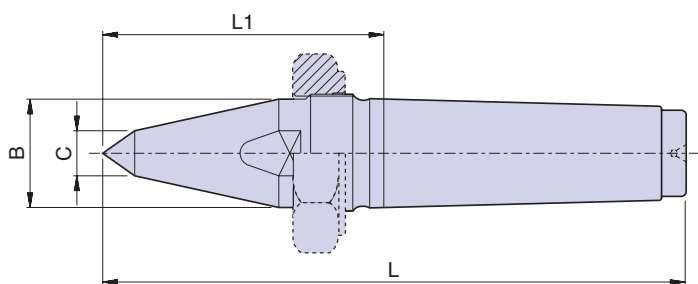
Cono morse Taper Morsekegel	B	L	L1	► Code*
3	22	136	55	90103
4	32	162,5	60	90104
5	44	221	92	90105
6	63	300	118	90106

Cono morse Taper Morsekegel	Ghiera Ring nut Abdruckmutter ► Code
3	901030
4	901040
5	901050
6	901060

Contropunta tipo doppia inclinazione in acciaio

Double pitch steel dead center

Stahl-Zentrierspitzen mit zwei Spitzenwinkeln



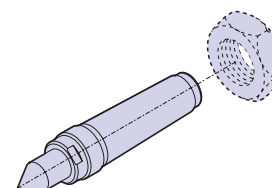
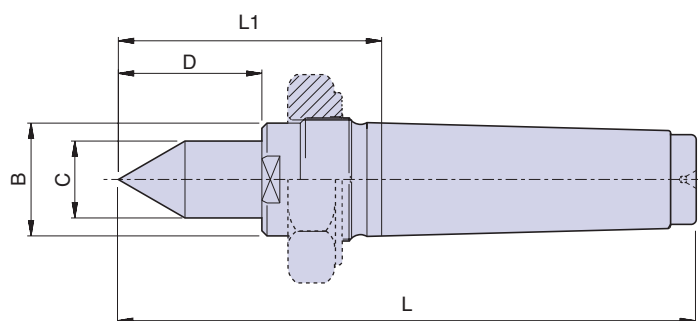
Cono morse Taper Morsekegel	B	C	L	L1	► Code*
3	20	12	146	65	90113
4	32	14	194	92	90114
5	44	18	251	122	90115
6	60	25	334	152	90116

Cono morse Taper Morsekegel	Ghiera Ring nut Abdruckmutter ► Code
3	901030
4	901040
5	901050
6	901060

Contropunta tipo codolo cilindrico in acciaio

Cylindrical shank steel dead center

Spezial-Zentrierspitze mit zylindrischem Schaft



Cono morse Taper Morsekegel	B	C	D	L	L1	► Code*
3	20	8	18	136	55	90123
4	32	20	40	176	74	90124
5	44	30	56	221	92	90125
6	64	40	75	310	128	90126

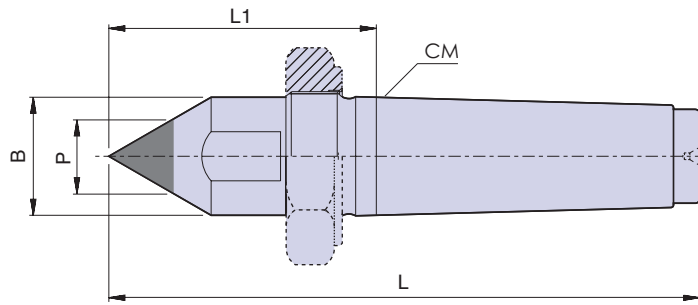
Cono morse Taper Morsekegel	Ghiera Ring nut Abdruckmutter ► Code
3	901030
4	901040
5	901050
6	901060

* Il codice della contropunta non comprende la ghiera.

* The tailstock code does not include the ring nut.

* Der Code der Zentrierspitze schließt nicht die Abdruckmutter

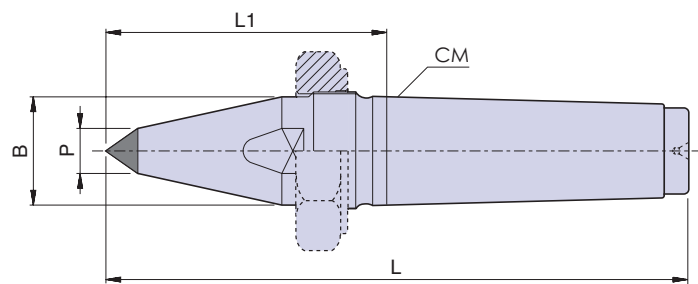
Contropunta tipo standard in metallo duro
Standard hard metal dead center
 Standard-Zentrierspitze mit Hartmetallspitze



CM = Cono morse Taper Morsekegel	L1	B	L	P	► Code*
3	50	22	131	18	90163
4	60	32	162	26	90164
5	92	44	221	30	90165

Cono morse Taper Morsekegel	Ghiera Ring nut Abdruckmutter ► Code
3	901030
4	901040
5	901050

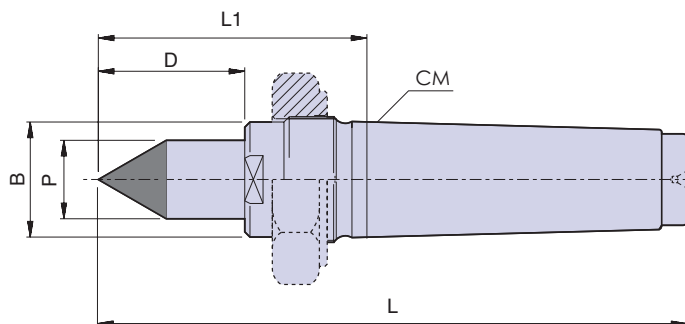
Contropunta tipo doppia inclinazione in metallo duro
Double pitch hard metal dead center
 Zentrierspitze mit zwei Spitzenwinkeln mit Hartmetallspitze



CM = Cono morse Taper Morsekegel	L1	B	L	P	► Code*
3	65	22	146	12	90173
4	92	32	194	14	90174
5	122	44	252	18	90175

Cono morse Taper Morsekegel	Ghiera Ring nut Abdruckmutter ► Code
3	901030
4	901040
5	901050

Contropunta tipo codolo cilindrico con punta in metallo duro
Cylindrical shank hard metal dead center
 Spezial-Zentrierspitze aus Hartmetall, mit zylindrischem Schaft



CM = Cono morse Taper Morsekegel	L1	B	D	L	P	► Code*
3	60	22	18	141	8	90183
4	74	32	40	176	20	90184
5	92	44	56	222	30	90185

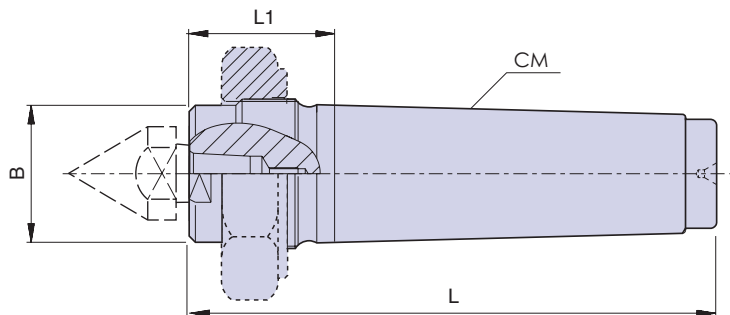
Cono morse Taper Morsekegel	Ghiera Ring nut Abdruckmutter ► Code
3	901030
4	901040
5	901050

* Il codice della contropunta non comprende la ghiera.

* The tailstock code does not include the ring nut.

* Der Code der Zentrierspitze schließt nicht die Abdrückmutter

Contropunta con cuspidi intercambiabili
 Dead center with interchangeable centering points
 Körnerspitze mit auswechselbaren Einsätzen



CM = Cono morse Taper Morsekegel	L1	B	L	► Code*
2	45	32	109	90132
3	42	32	123	90133
4	50	32	152	90134
5	45	44	175	90135
6	50	63	232	90136

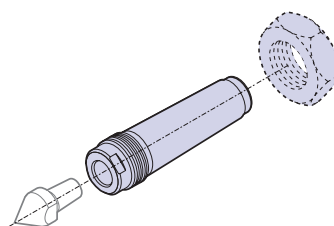
* Il codice della contropunta non comprende la ghiera e cuspidi.
 * The tailstock code does not include the ring nut and spare parts.
 * Der Code der Zentrierspitze schließt nicht die Abdrückmutter und die Einsätze

Bietta per estrazione cuspidi
 Wedge to extract cusps
 Keil zum Abziehen der Spitzen

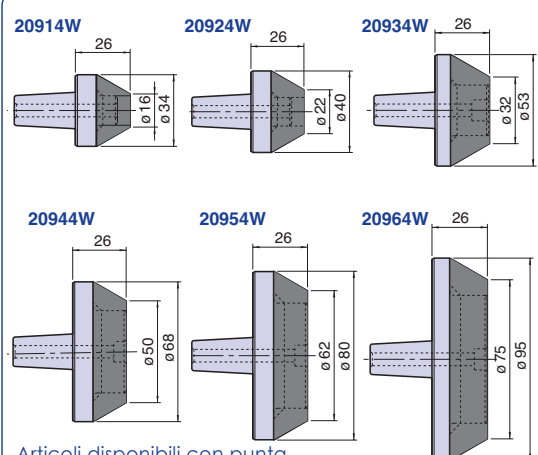
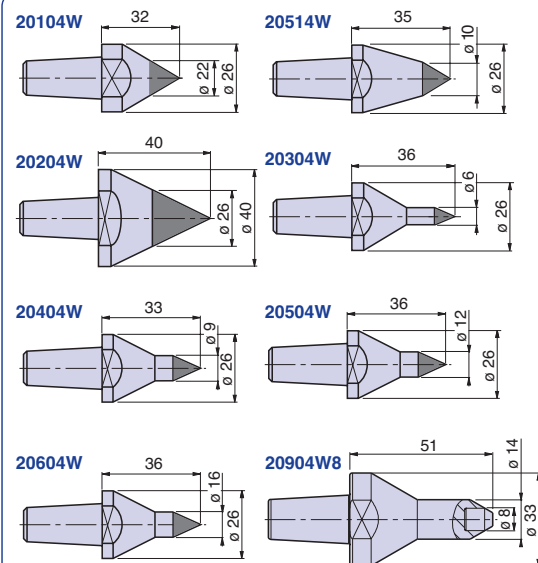
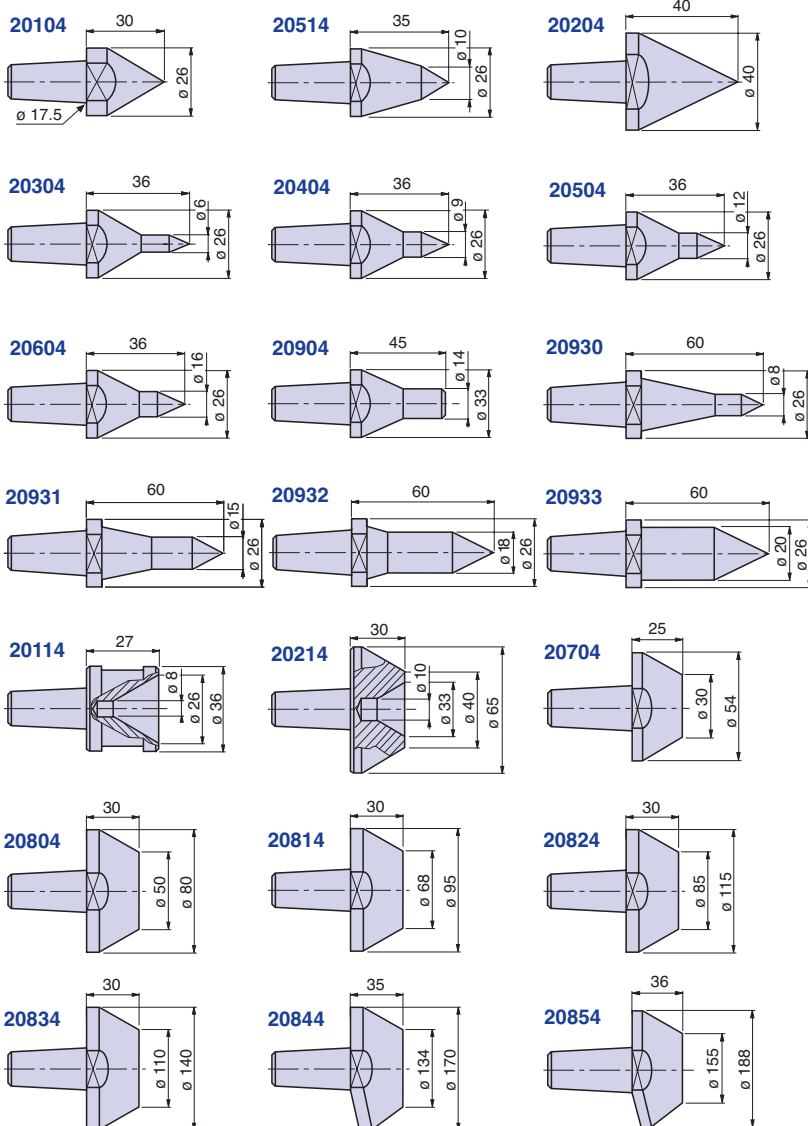


Code 20001

Per dettagli vedi pag. 44 - For details see page 44
 Einzelheiten finden Sie auf Seite 44

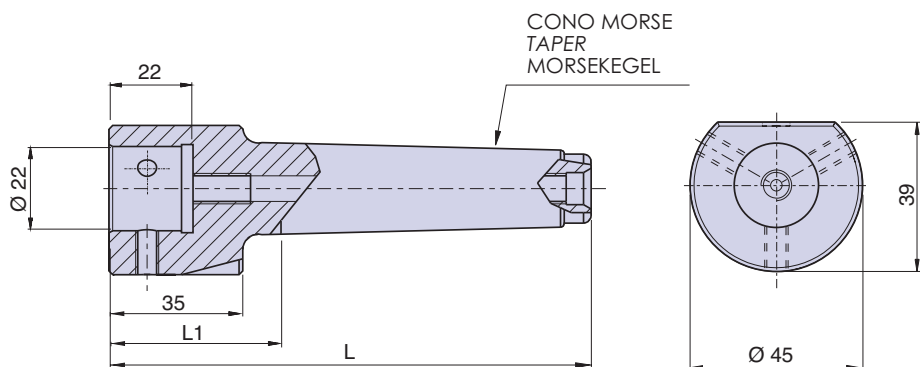


Cono morse Taper Morsekegel	Ghiera Ring nut Abdruckmutter ► Code
2	901040
3	901040
4	901040
5	901050
6	901060



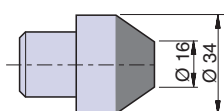
Articoli disponibili con punta
 in metallo duro
 Items available with carbide
 Artikel erhältlich mit Hartmetallspitze

Corpo per contropunta ad altissima resistenza all'usura
Extra wear-resistant dead center body
 Besonders strapazierfähiger Körnespitzen körper

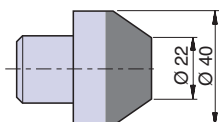


Cono morse Taper Morsekegel	L	L1	►Code
3	126	45	501030
4	149	46,5	501040
5	176	46,5	501050

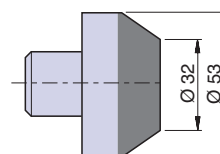
► Code **501001**



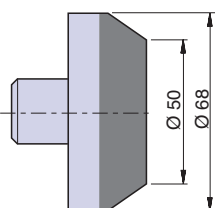
► Code **501002**



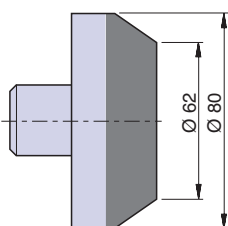
► Code **501003**



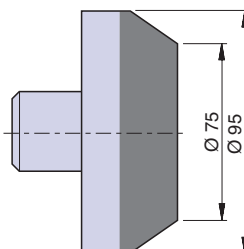
► Code **501004**



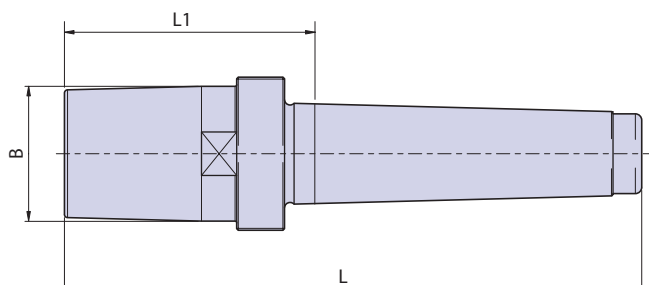
► Code **501005**



► Code **501006**



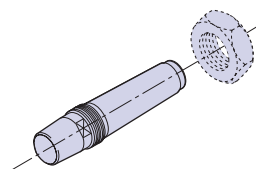
Contropunta con cuspidi intercambiabili
Dead center with interchangeable centering points
 Zentrierspitzen mit auswechselbaren Einsätzen



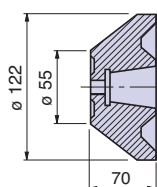
Cono morse Taper Morsekegel	B	L	L1	►Code*
4	44,399	181	78,5	90134-1
	35,615	174	73,5	90134-2
5	44,399	208	78,5	90135-1
	35,268	199	69,5	90135-2

Cono morse Taper Morsekegel	Ghiera Ring nut Abdruckmutter ►Code
4	901050
5	

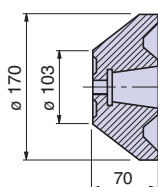
* Il codice della contropunta non comprende la ghiera.
 * The tailstock code does not include the ring nut.
 * Der Code der Zentrierspitze schließt nicht die Abdruckmutter



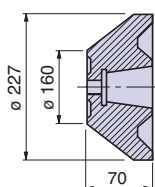
20015



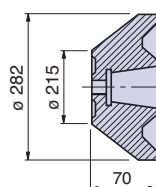
20016



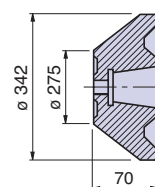
20017



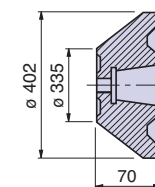
20018



20019



20020



Contropunta ad altissima resistenza all'usura
Dead center with very high resistance to wear
 Sehr widerstandsfähige Körnerspitze

PER BANCHI DI CONTROLLO

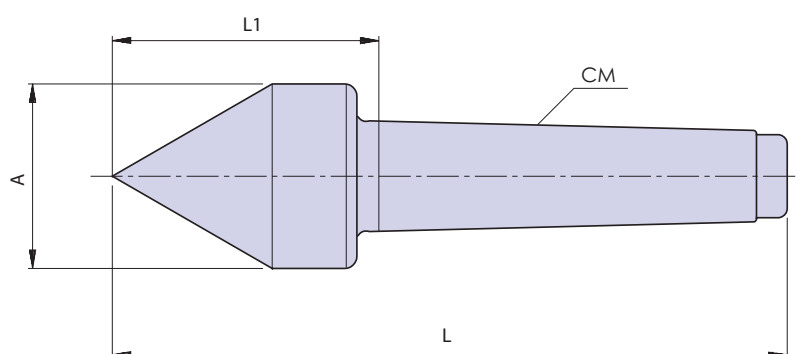
Costruite in acciaio temprato permettono controlli con altissimi standard qualitativi grazie alle tolleranze ridottissime.

FOR TEST BENCHES

Constructed in hardened steel, they allow testing at very high quality standards thanks to the extremely limited tolerance.

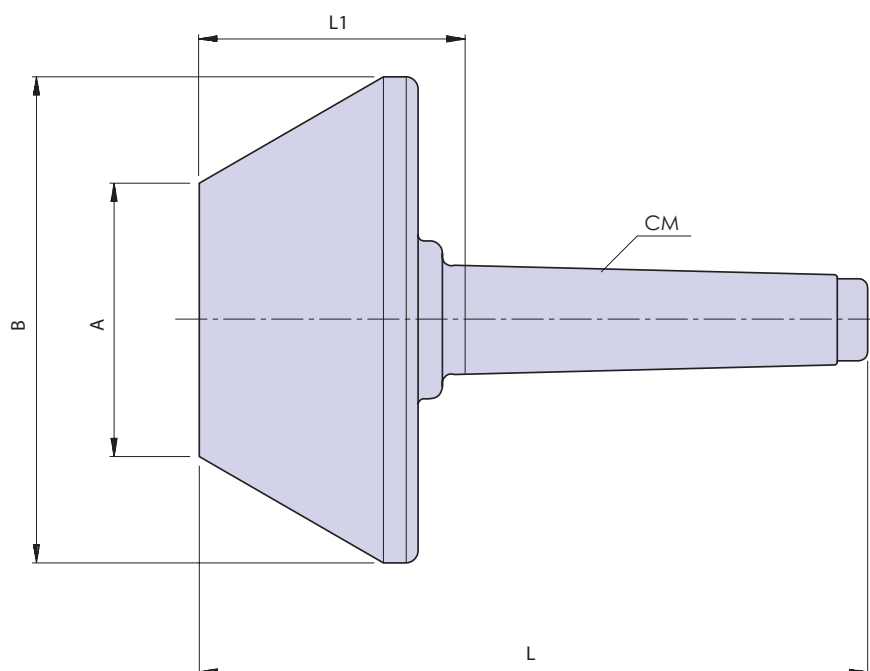
FÜR KONTROLLBÄNKE

In gehärteten Stahl gefertigt ermöglicht es qualitativ hochwertige Kontrollen durchzuführen, dank der reduzierten Toleranzen.



CM = Cono morse Taper Morsekegel	A	L	L1	C
2	21	100	36	820021
2	25	105	41	820025
2	30	110	46	820030
2	35	115	51	820035

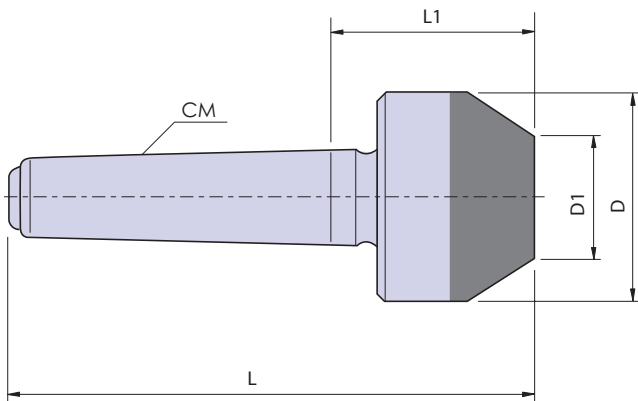
CM = Cono morse Taper Morsekegel	A	L	L1	C
3	30	125	44	830030
3	35	130	49	830035
3	40	135	54	830040
3	45	140	59	830045



CM = Cono morse Taper Morsekegel	A	B	L	L1	C
2	18	42	100	36	821842
2	26	48	106	42	822648
2	35	64	106	42	823564
2	45	80	111	47	824580

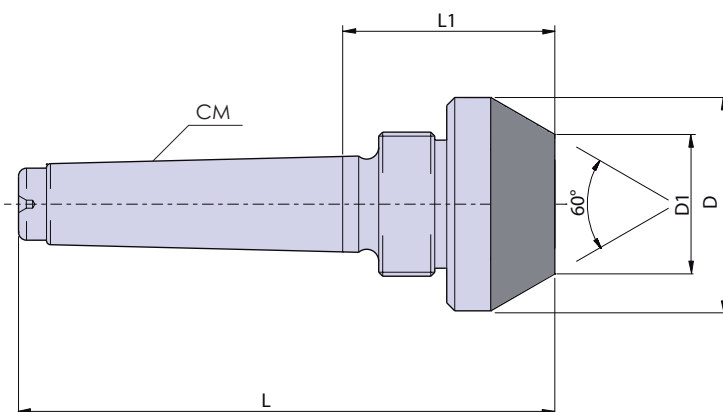
CM = Cono morse Taper Morsekegel	A	B	L	L1	C
3	18	42	120	39	831842
3	26	48	125	44	832648
3	35	64	125	44	833564
3	45	85	130	49	834585

Punta standard
Standard center
Standardstift



Cono morse CM = Taper Morsekegel	D	D1	L	L1	► Code standard*
2	40	21	100	36	70101
	32	13			70102
3	68	49	116	35	70103
	53	31	118	37	70104
	40	21		37	70105
	32	13		37	70106
4	80	61	135	32	70121
	68	49			70107
	53	31			70108
	40	21	134	33	70109
	32	13	134		70110
5	80	61	168	39	70111
	68	49	169		70112
	53	31	168		70113
	40	21			70114
	32	13	169	39	70115

Punta con filettatura per ghiera di estrazione
Center with thread for extraction ring-nut
Stift mit Gewinde für Abdrückmutter



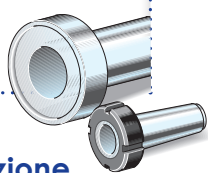
Cono morse CM = Taper Morsekegel	D	D1	L	L1	► Code*	Ghiera Ring nut Abdrückmutter
2	40	21	109	45	70201	901030
	32	13			70202	
3	68	49	134	53	70203	901040
	53	32			70204	
	40	21			70205	
	32	13			70206	
4	80	61	150	47	70221	901050
	68	49			70207	
	53	31			70208	
	40	21	147	44	70209	901050
	32	13	146	43	70210	901040
5	80	61	184	55	70211	901050
	68	49			70212	
	53	31			184	
	40	21	178	48	70214	
	32	13			70215	

* Il codice della contropunta non comprende la ghiera.

* The tailstock code does not include the ring nut.

* Der Code der Zentrierspitze schließt nicht die Abdrückmutter

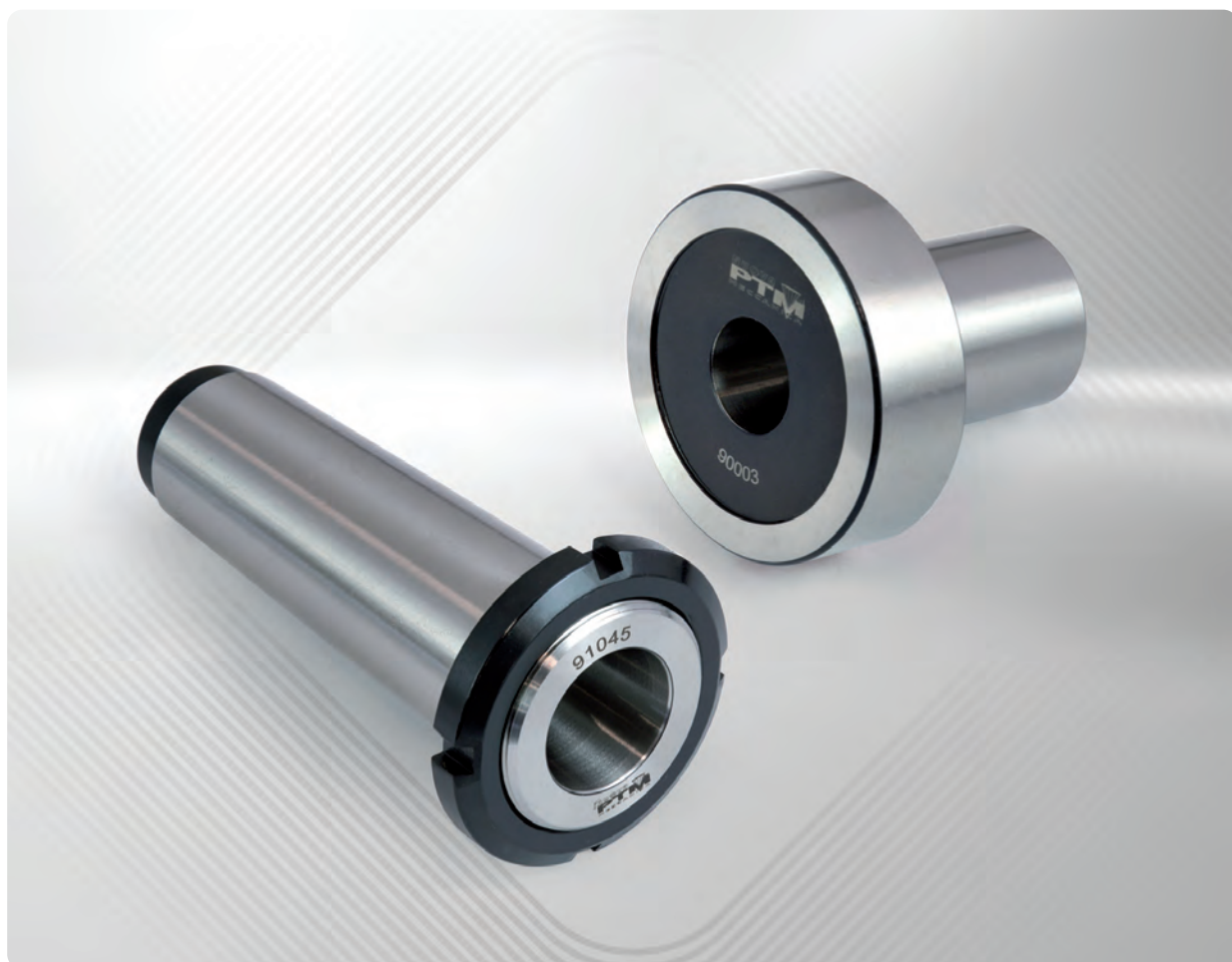




Bussole di riduzione

Reduction bushings

Reduzierhülsen

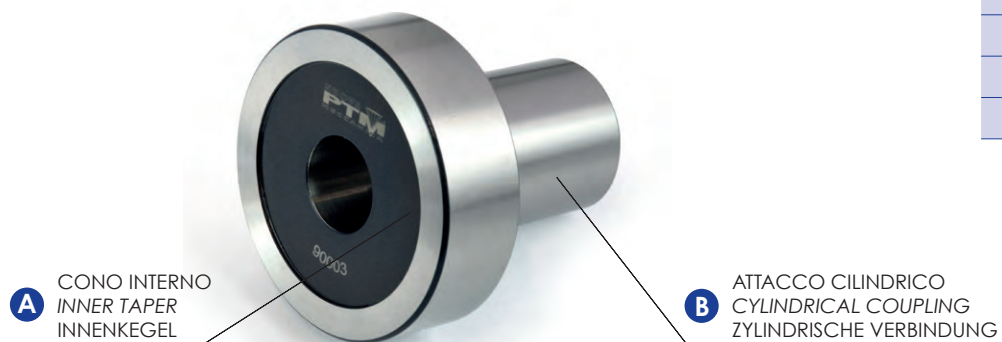


Si tratta di attrezzature particolarmente versatili in uso su tutte le macchine utensili, sia normali che automatiche. Costruite in materiale da cementazione, vengono rettificate direttamente al nostro interno, in quanto una perfetta esecuzione, può garantire un ottimo accoppiamento del cono, senza dover alterare l'eccentricità dell'attrezzo che andremo ad inserire al loro interno.

These are particularly versatile devices, used on all machine tools, both normal and automatic. Made from casehardened material, they are ground in our factory, since perfect manufacturing can ensure excellent coupling of the cone without having to alter the eccentricity of the tool that will be fitted in them.

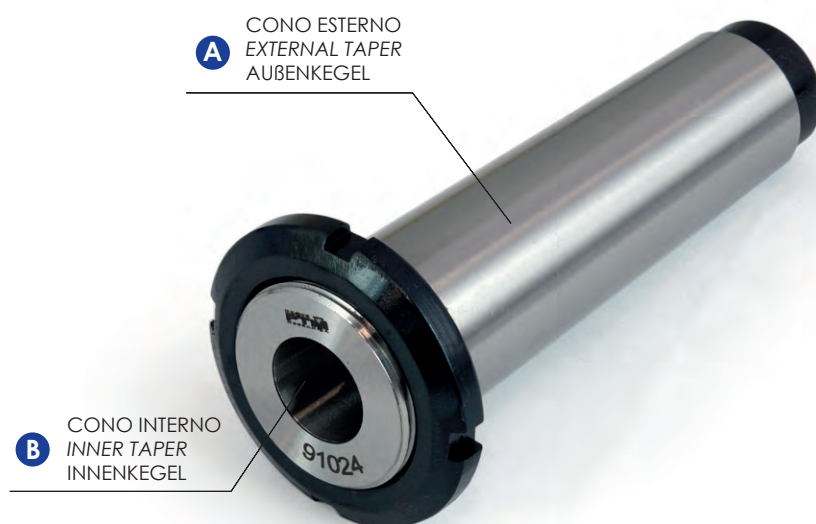
Diese Werkzeuge sind vielseitig einsetzbar in allen normalen und automatischen Werkzeugmaschinen. Hergestellt in gehärtetem Material werden sie direkt bei uns im Haus geschliffen. Durch die perfekte Ausführung ist eine sehr gute Verbindung vom Kegel möglich, ohne die Exzentrizität von dem Werkstück verändern zu müssen, das in sie eingesteckt wird.

Da conico a cilindrico
From taper to cylindrical
Von kegelförmig auf zylindrisch



A	B	► Code*
CM2	∅ 40	90002
CM3	∅ 40	90003
CM4	∅ 45	90004
CM5	∅ 60	90005
CM6	∅ 85	90006

Bussole di riduzione con ghiera di estrazione
Reduction bushing with ring nut
Reduzierhülse mit Abdrückmutter



A	B	► Code*
CM2	CM1	91012
CM3	CM1	91013
CM3	CM2	91023
CM4	CM1	91014
CM4	CM2	91024
CM4	CM3	91034
CM5	CM1	91015
CM5	CM2	91025
CM5	CM3	91035
CM5	CM4	91045
CM6	CM1	91016
CM6	CM2	91026
CM6	CM3	91036
CM6	CM4	91046
CM6	CM5	91056

- A richiesta si possono ottenere attacchi speciali cilindrici o riduzioni per qualsiasi tipo di conicità.
- On request special cylindrical couplings or reductions can be obtained for any type of taper.
- Auf Anfrage sind zylindrische Spezialverbindungen oder Reduzierungen für jeden Winkeltyp möglich.

N.B.: tutte le bussole hanno un'eccentricità di 2 µ
Note: all bushes have an eccentricity of 2 µ
Notiz: alle Hülzen haben eine Exzentrizität von 2 µ

► RH ◀

**Contropunte rotanti
ad alta precisione**

**High precision
live centers**

**Mitlaufende Hochpräzi-
sions-Körnerspitzen**

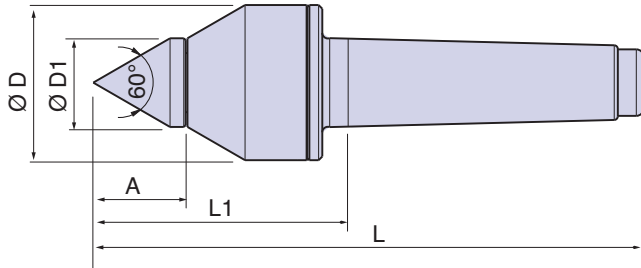


Le contropunte della serie RH si differenziano dagli altri modelli per la loro particolare costruzione. Particolarmente adatte alla rettifica degli ingranaggi di piccole dimensioni, dove è richiesta una concentricità pressoché assoluta abbinata ad una elevata precisione di rotazione. La loro forma è stata studiata per permettere l'uscita della mola dal dente dell'ingranaggio. Assemblate con tolleranze molto ristrette, sono dotate di un grasso particolare a lunga durata. Per eventuali riparazioni, bisogna rivolgersi direttamente al nostro ufficio tecnico.

The RH series live centers differ from the other models thanks to their special construction. Particularly suitable for grinding small gears, where almost absolute concentricity is required, together with rotation precision. Their shape is designed to facilitate wheel exit from the gear tooth. Assembled with extremely limited tolerances and special long-life grease. For any repairs that may be necessary, please contact our technical department.

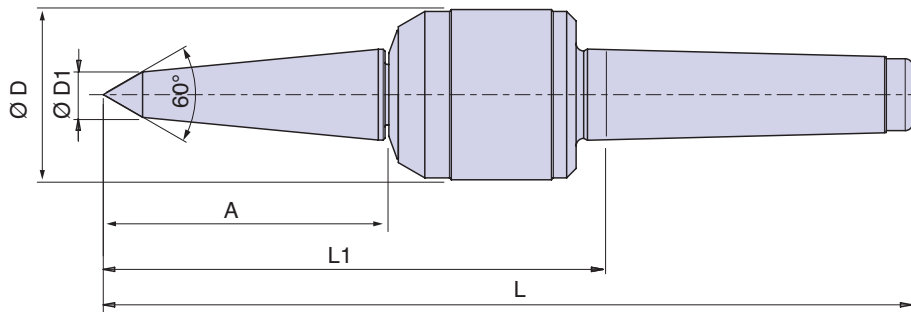
Die Körnerspitzen der Baureihe RH unterscheiden sich von den anderen Modellen durch ihrer spezielle Konstruktion. Besonders gut geeignet um kleine Zahnräder zu schleifen, wobei fast absolute Konzentrität zusammen mit Rundlaufgenauigkeit verlangt wird. Die Form ist so entwickelt worden, dass es das Herausfahren der Schleifscheibe von dem Zahnradzahn erleichtert. Montiert mit äußerst geringen Toleranzen und speziellem Fett mit langer Lebensdauer. Für jegliche Reparaturen, die notwendig sein könnten, setzen sie sich bitte mit unsere technischen Abteilung in Verbindung.

Contropunta speciale ridotta ad elevata precisione per cono morse 3
Special high-precision reduced center for Morse taper sleeve 3
 Verkürzte Spezial- Hochpräzision-Körnerspitze für Morsekegel 3



Cono morse Taper Morsekegel	D	D1	A	L1	L	► Code
3	42	24	25,5	69	150	90303
3	45	12	60,5	118	199	90304
3	45	8	80,5	138	219	90305
3	45	12	93,5	151	232	90306
3	45	14	93,5	151	232	90314
3	54	24	85	151	232	90324

Contropunta speciale ad elevata precisione per cono morse 3
Special high-precision live center for taper 3
 Spezial- Hochpräzision-Körnerspitze für Morsekegel 3



Sono particolarmente adatte all'uso su rettificatrici per ingranaggi. Il diametro della punta rotante è costruito per permettere il miglior avvicinamento della mola. Sono estremamente precise; adatte a lavorazioni dove è richiesta una concentricità pressoché assoluta e una notevolissima precisione dimensionale.

They are particularly appropriate for use on gear grinding machines. The diameter of the rotating point allows optimum wheel approach. These livecenters are extremely precise; they are suitable for jobs requiring almost absolute concentricity and notable dimensional precision.

Diese Körnerspitzen sind besonders gut für Verzahnungsschleifmaschinen geeignet. Der Durchmesser der mitlaufenden Spitze ermöglicht die beste Annäherung der Schleifscheibe. Die Körnerspitzen sind äußerst präzise; gemacht für Bearbeitungen die fast absolute Konzentrität und eine beachtliche dimensionale Genauigkeit verlangen.

RPM MAX. : 50/1'

►CMP◀

Punte compatte

Solid tail

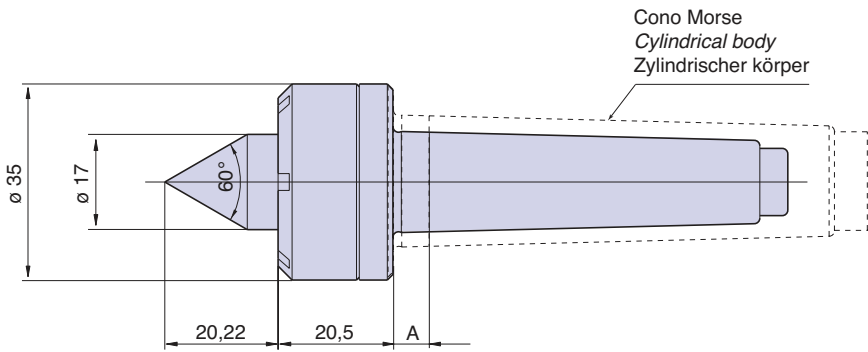
Kompakte Spitze



Le contropunte della serie "compatta", garantiscono ottime precisioni di lavorazione. Grazie agli ingombri estremamente ridotti e all'attrito particolarmente basso, è possibile l'utilizzo della contropunta rotante anche in condizioni di lavoro particolari.

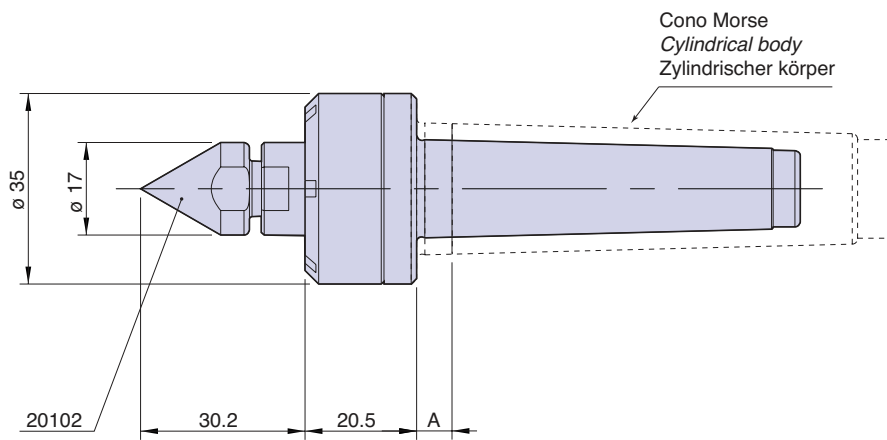
The live center named "solid" perform high working precision. Thanks to the high compacted dimension and the particularly low friction will be possible to use the rotating tailstock also in heavy working condition.

Der Reitstock von der Serie "kompakt" gewährleisten sehr gute Präzisionsarbeit. Dank der äussersten kleinen Aussmassen und der besonderen niedrigen Reibung ist es möglich den drehenden Reitstock auch in bestimmten Arbeitslage zu verwenden.



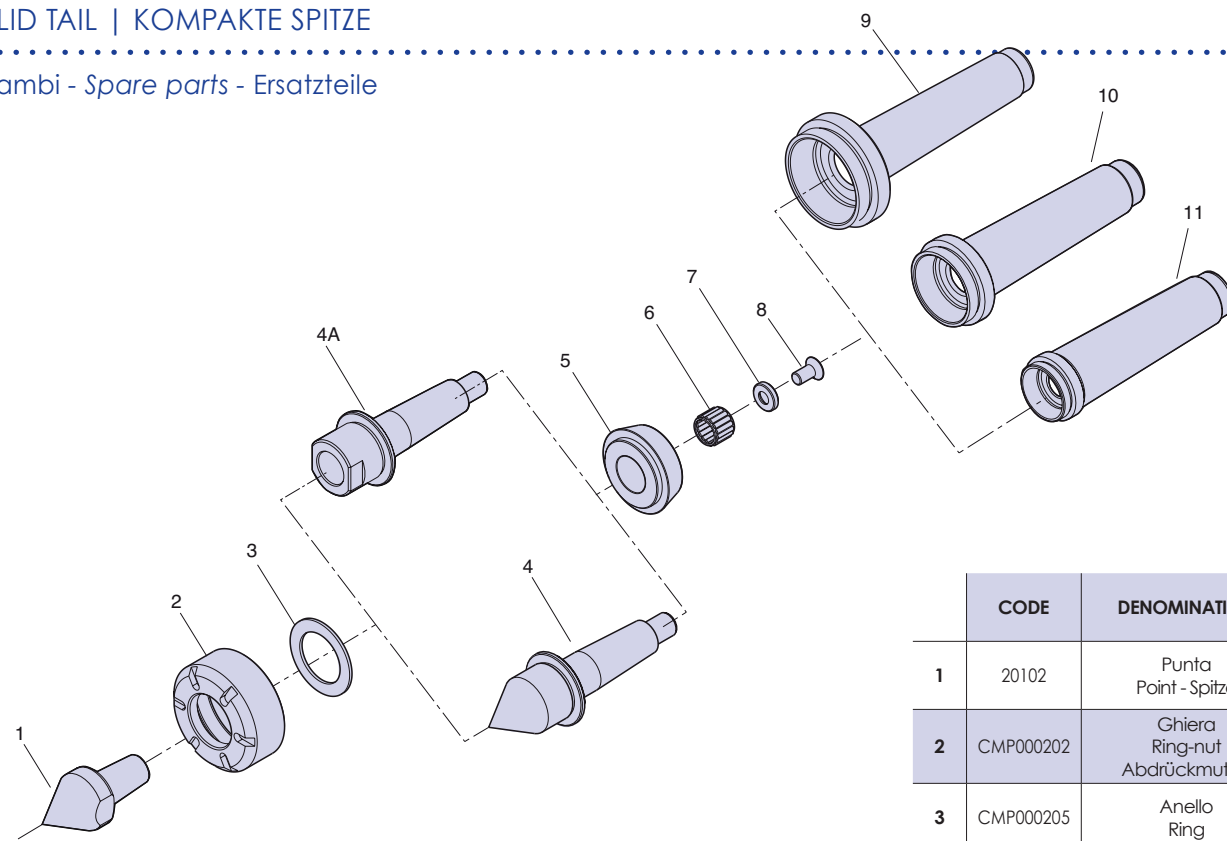
Cono morse Taper Morsekegel	Standard	A
2	39012	6,5
3	39013	6,5
4	39014	8,5

Carico max	daN 860
Max load	
Max Belastung	
Eccentricità max	mm 0,003
Max eccentricity	
Max Rundlaufabweichung	



Cono morse Taper Morsekegel	Con ricambi With spare points Mit auswechselbaren Einsätzen	A
2	39022	6,5
3	39023	6,5
4	39024	8,5

Carico max	daN 690
Max load	
Max Belastung	
Eccentricità max	mm 0,005
Max eccentricity	
Max Rundlaufabweichung	



Bietta per estrazione cuspidi
Wedge to extract cusps
Keil zum Abziehen der Spitzen

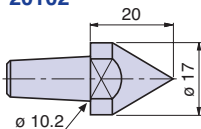


Code 20001

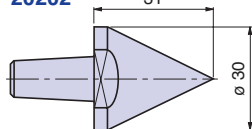
Per dettagli vedi pag. 44 - For details see page 44
Einzelheiten finden Sie auf Seite 44

	CODE	DENOMINATION	Q.TY
1	20102	Punta Point - Spitze	1
2	CMP000202	Ghiera Ring-nut Abdrückmutter	1
3	CMP000205	Anello Ring	1
4	CMP000201	Albero Shaft - Welle	1
4A	CMP000221	Albero Shaft - Welle	1
5	070010001	Cuscinetto Bearing - Lager	1
6	060007001	Gabbia Cage - Käfig	1
7	CMP000204	Rondella Washer - Scheibe	1
8	270004008	Vite - Screw Schraube	1
9	CMP000403	Corpo CM4 CM4 Body CM4 Körper	1
10	CMP000303	Corpo CM3 CM3 Body CM3 Körper	1
11	CMP000203	Corpo CM2 CM2 Body CM2 Körper	1

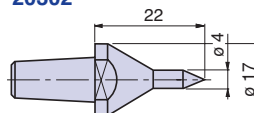
20102



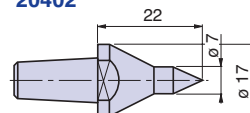
20202



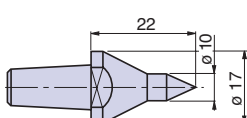
20302



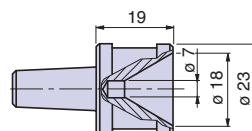
20402



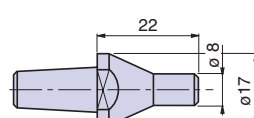
20502



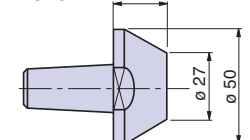
20112

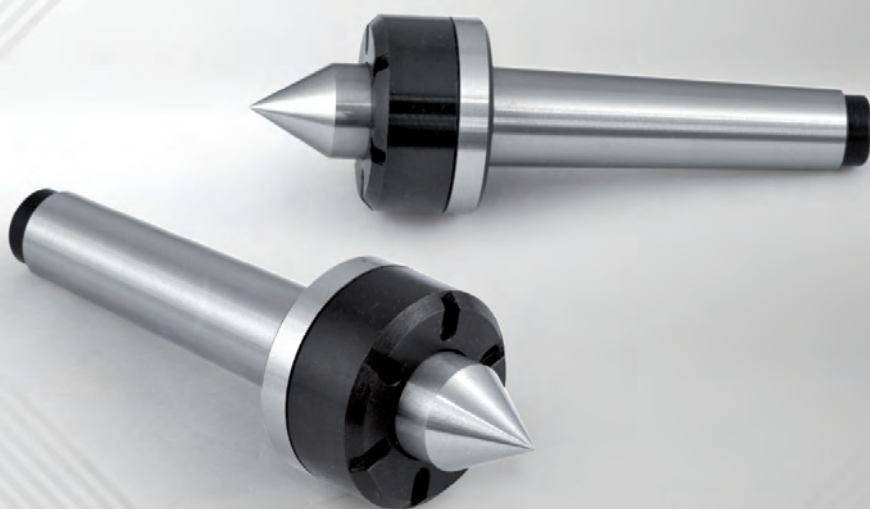


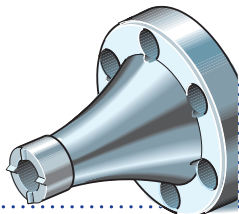
20902



20702







► TD ◀

**Trascinatori per dentatrici,
attacchi, anelli di riduzione**

**Drivers for gear cutters, couplings,
reduction rings**

**Mitnehmer für die Verzahnung,
Verbindungen, Reduktionsringe**



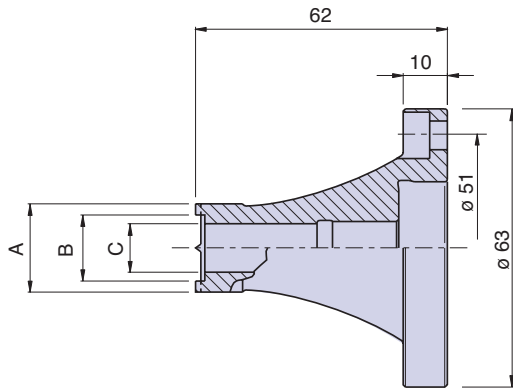
I nostri trascinatori della serie TD, sono progettati per la costruzione di ingranaggi, di pignoni, di alberi scanalati, ecc. ecc. Costruiti con un ottimo materiale a tutta tempra, uniscono ad una elevata resistenza all'usura, la possibilità di riaffilare i denti di trascinamento, mantenendo invariata la loro durezza superficiale. Applicabili su tutte le più moderne macchine da ingranaggi, permettono una ampia gamma di utilizzo, con tutte le varie possibilità sia in altezza, che in diametro, con la loro particolare forma, studiata a computer, per il miglior passaggio dei creatori o utensili. Adattando una base PTM alla propria macchina utensile, si avrà la possibilità di poter passare da un diametro piccolo ad un diametro grande con la più semplice rapidità, ma soprattutto ad un costo che risulta oggi tra i più bassi sul mercato.

Our TD series drivers are designed for the construction of gears, pinions, splined shafts, etc.

Made from fully hardened material, they combine high resistance to wear with the possibility of resharping the driving teeth while maintaining the surface hardness unchanged. They can be used on all the most modern gear cutting machines, offering an extensive working range, with all the various possibilities in height and in diameter, with their particular computer-designed shape allowing easy passage of hobs or tools. By adapting a PTM base flange to your machine tool, you will be able to change from small to large diameters quickly and easily, but above all at a cost which is currently one of the lowest on the market.

Unsere Mitnehmer der Baureihe TD sind für die Produktion von Zahnrädern, Ritzeln, Keilwellen etc. geeignet. Sie sind aus gehärtetem Material gefertigt und verbinden somit höchste Widerstandsfähigkeit und die Möglichkeit des Nachschleifens des Führungszahns wobei aber die Oberflächenhärte unverändert bleibt. Sie können auf allen modernen Verzahnungsmaschinen verwendet werden und sie haben eine große Bandbreite an Möglichkeiten in Höhe und Durchmesser, mit ihrer besonderen Form ermöglichen sie eine einfache Verbindung von Wälzfräser oder Werkzeugen. Wenn Sie in Ihrer Werkzeugmaschine die Produkte von Nuova PTM benutzen, haben Sie die Möglichkeit von einem kleinen auf einen großen Durchmesser in kürzester Zeit zu wechseln, und das bei einem Preis der einer der niedrigsten auf dem derzeitigen Markt ist.

Testina intercambiabile a 6 fori tipo TD/6 normale
Interchangeable head with 6 holes, type TD/6 normal
 Auswechselbarer Kopf mit 6 Löchern Typ TD/6 Normal



A	B	C	► Code
9	-	5,3	40109
12	-	6	40112
14	-	6	40114
16	-	11	40116
18	-	11	40118
20	-	11	40120
24	15	11	40124
26	15	11	40126
28	19	11	40128
30	22	11	40130
36	25	11	40136
40	30	11	40140
45	31	11	40145
50	35	11	40150
55	37	11	40155
60	40	11	40160

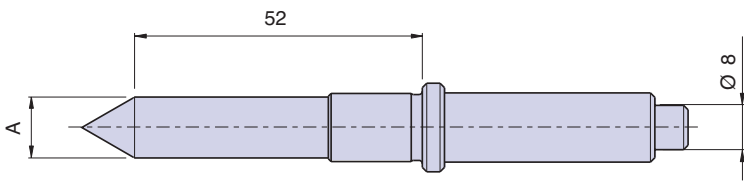
NOTE: il trascinatore deve essere ordinato completo di punta centrale.

NOTE: the driver must be ordered complete with the central point.

HINWEIS: Der Mitnehmer muss komplett mit der zentralen Spitze bestellt werden.

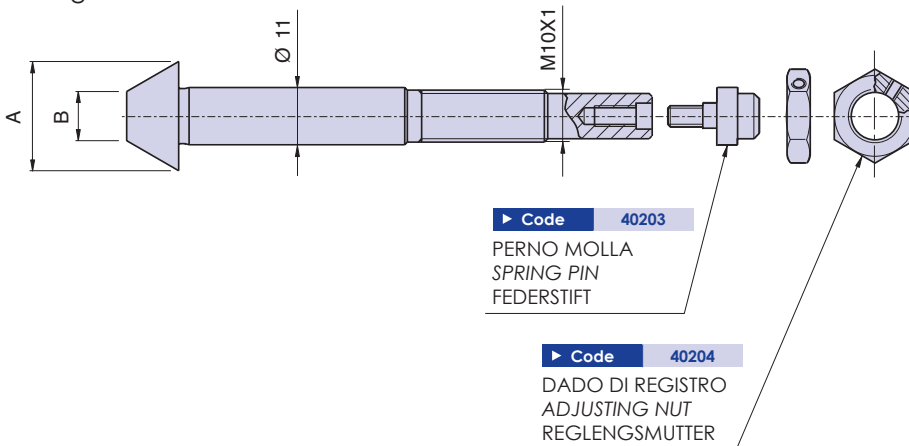
Punte centrali - Central points - Zentrale Spitzen

Normale
 Normal
 Normal



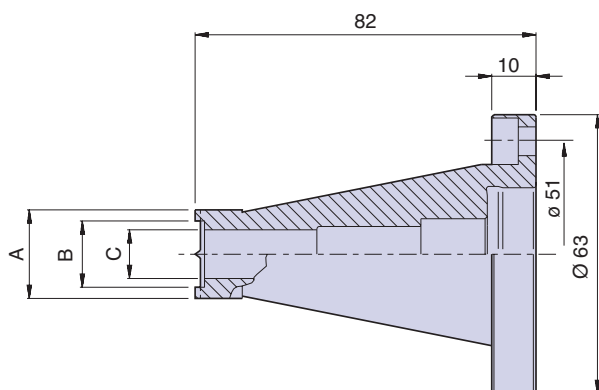
A	► Code
5,3	40165
6	40166
11	40171

Tronco conica
 Truncated cone
 Kegelstamm



A	B	► Code
14	7	40181
18	6,5	40182
21	9,5	40183
24	12,5	40184
27	15,5	40185
30	18,5	40186
33	21,5	40187
35	23,5	40188
38	19	40189

Testina intercambiabile a 6 fori tipo TD/6 prolungata
Interchangeable head with 6 holes, type TD/6 extended
 Auswechselbarer Kopf mit 6 Löchern Typ TD/6 verlängert



A	B	C	► Code
9	-	5,3	40209
14	-	5,3	40214
16	-	8	40216
18	-	8	40218
22	-	11	40222
26	15	11	40226
30	24	11	40230
36	26	11	40236
40	30	11	40240
45	33	11	40245
50	35	11	40250
45	33	20	40345
50	35	20	40350
58	42	20	40358
65	50	20	40365
84	64	20	40384
100	78	20	40300
115	92	20	40315

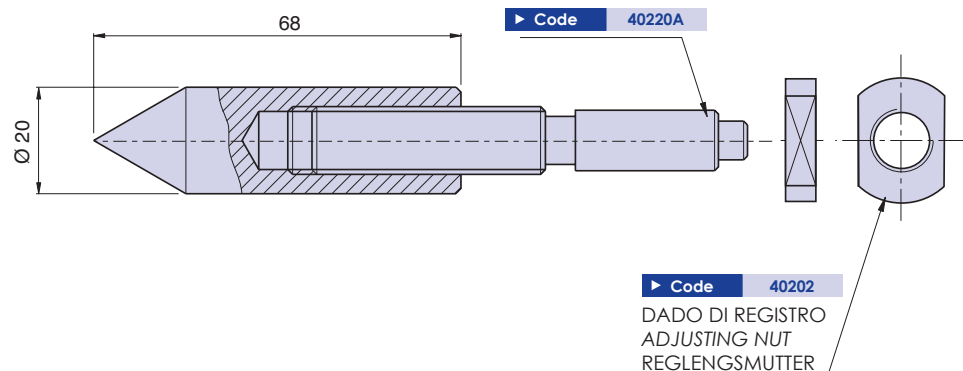
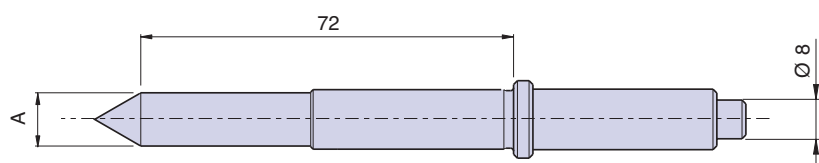
NOTE: il trascinato deve essere ordinato completo di punta centrale.

NOTE: the driver must be ordered complete with the central point.

HINWEIS: Der Mitnehmer muss komplett mit der zentralen Spitze bestellt werden.

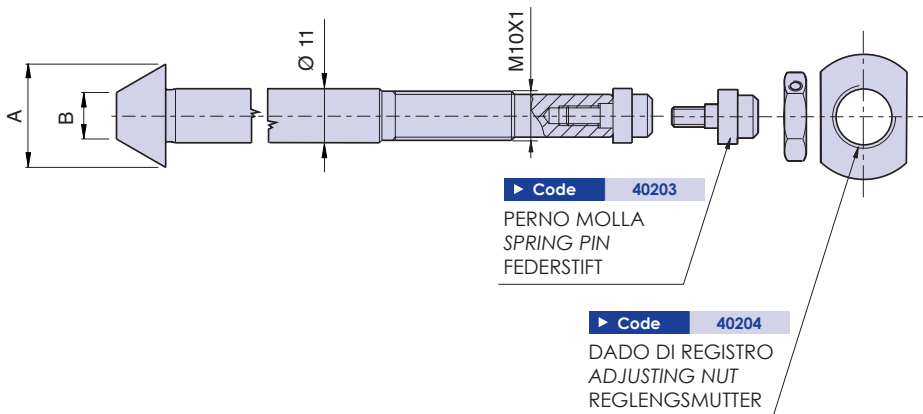
Punte centrali - Central points - Zentrale Spitzen

Prolungata
 Extended
 Verlängert



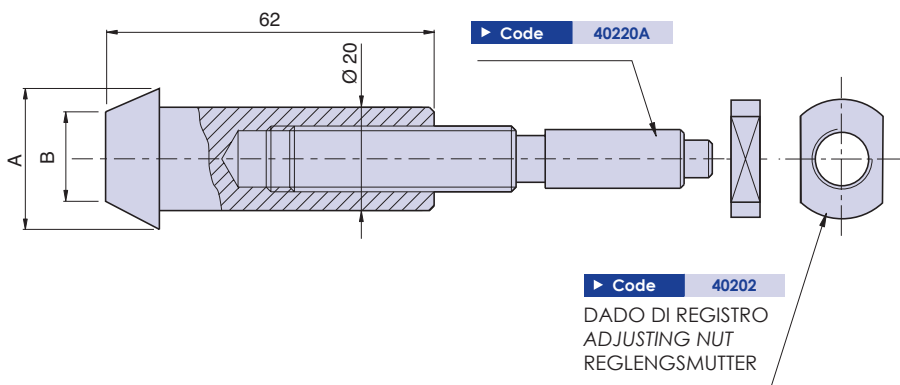
A	► Code
5,3	40205
8	40208
11	40211
20	40220

Tronco conica prolungata $\varnothing 11$ per testina prolungata tipo TD/6
 Extended truncated cone $\varnothing 11$ for extended head type TD/6
 Verlängerter Kegelstamm $\varnothing 11$ für verlängerten Kopf Typ TD/6



A	B	► Code
14	7	40314
18	6,5	40318
21	9,5	40321
24	12,5	40324
27	15,5	40327
30	18,5	40330
33	21,5	40333
35	23,5	40335
38	19	40338

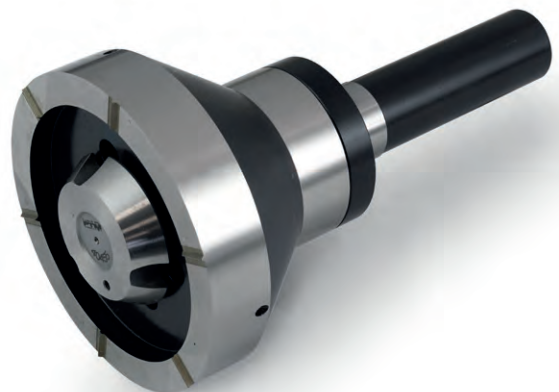
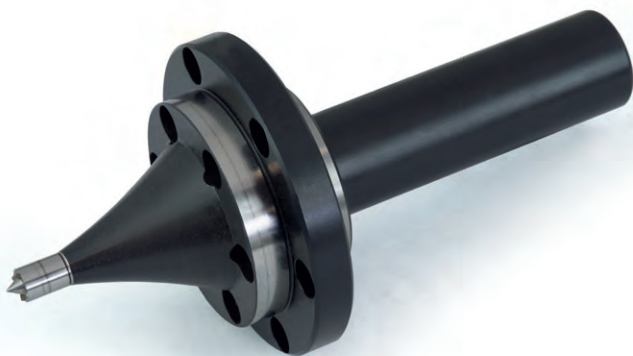
Tronco conica prolungata $\varnothing 20$ per testina prolungata tipo TD/6
 Extended truncated cone $\varnothing 20$ for extended head type TD/6
 Verlängerter Kegelstamm $\varnothing 20$ für verlängerten Kopf Typ TD/6



A	B	► Code
27	13	40427
31	16	40430
35	21	40435
40	26	40440
45	31	40445
50	36	40450
55	41	40455
60	46	40460
65	51	40465
70	56	40470

Esempio di testina intercambiabile prolungata completa
 Example of complete extended interchangeable head
 Beispiel eines kompletten verlängerten auswechselbaren Kopfes

Esempio di trascinatore completo di punta tronca conica $\varnothing 115$
 Example of driver complete with $\varnothing 115$ truncated cone point
 Beispiel eines kompletten Mitnehmers mit Kegelstammsspitze $\varnothing 115$

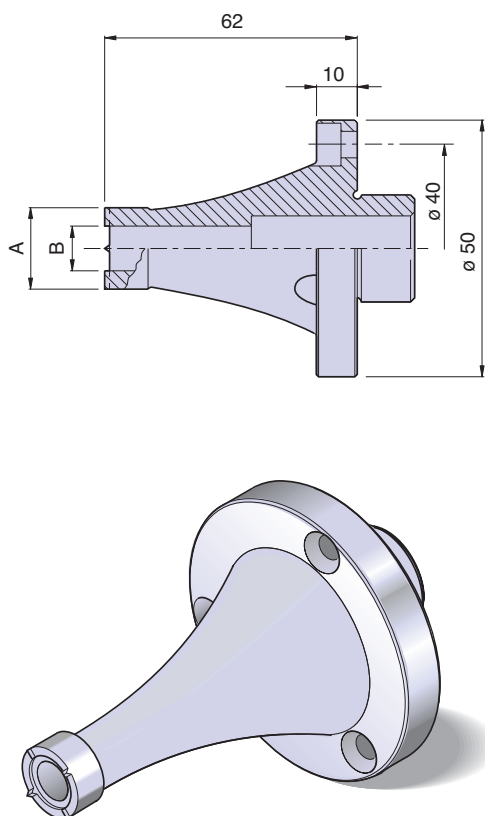


Testina intercambiabile tipo TD/3 Interchangeable head type TD/3 Auswechselbarer Kopf Typ TD/3

Si tratta di trascinatori per dentatrici di nuova concezione, a 3 fori di fissaggio, con possibilità di montare molle a carico forte o extra forte. Sono costruite in acciaio speciale ad alta resistenza interamente temprato e con un anello di riduzione, sono intercambiabili con i modelli TD/6.

These are new concept drivers for gear cutters, with 3 fixing holes, and can be fitted with strong-load or extra strong-load springs. They are made from special high-resistance fully hardened steel and are equipped with a reduction ring. They are interchangeable with the TD/6 models.

Es handelt sich um einen neuentwickelten Mitnehmer für die Verzahnung mit 3 Befestigungs-Löchern, mit der Möglichkeit Federn für hohe oder sehr hohe Belastung zu montieren. Sie sind in komplett gehärteten sehr widerstandsfähigen Stahl gefertigt und haben einen Reduktionsring und austauschbar mit den TD/6 Modellen.



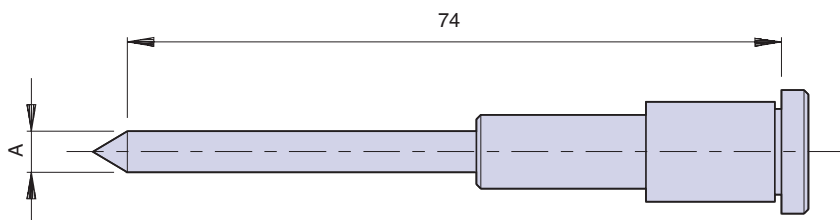
A	B	► Code
6,5	3	40506
8	5	40508
9,5	6	40509
11	6	40511
12	6	40512
14	8	40514
16	8	40516
18	11	40518
21	11	40521
24	12	40524
26	14	40526

NOTE: il trascinatore deve essere ordinato completo di punta centrale.

NOTE: the driver must be ordered complete with the central point.

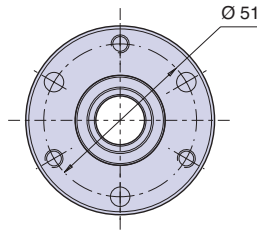
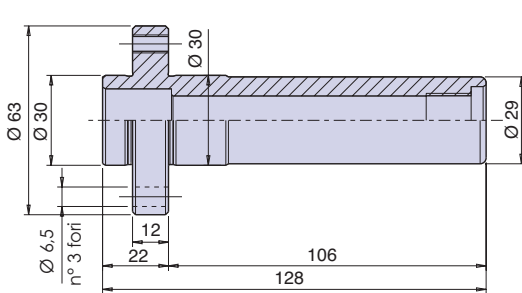
HINWEIS: Der Mitnehmer muss komplett mit der zentralen Spitze bestellt werden.

Punte centrali - Central points - Zentrale Spitzen

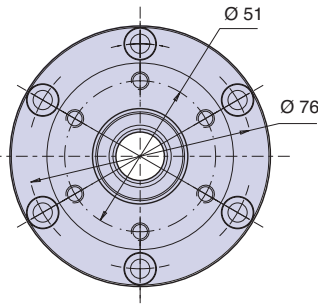
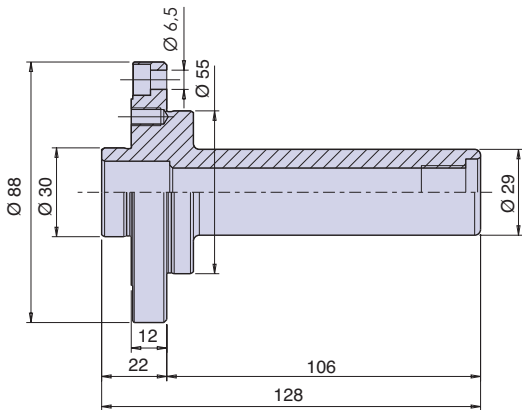


A	► Code
3	40533
5	40535
6	40536
8	40538
11	40541
12	40542
14	40544

Attacco a base cilindrico
Cylindrical base coupling
Zylindrische Basisverbindung

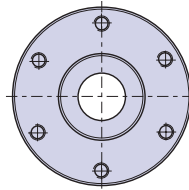
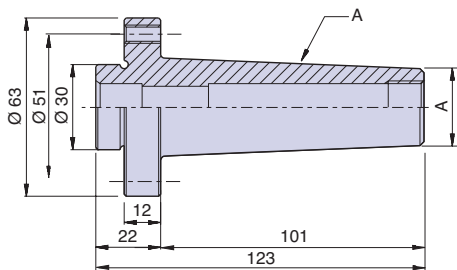


► Code 40100



► Code 40101

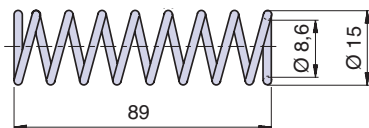
Attacco a base a cono morse
Taper base coupling
Morsekegel Basisverbindung



A	► Code
CM3	40103
CM4	40104
CM5	40105

Molle e tappi - Springs and plugs - Feder und Stopfen

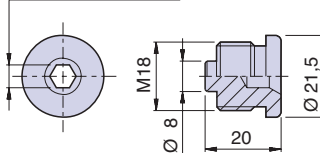
Molla
Spring
Feder



	RG	Code
Forte	2,6 N/mm	40106
Extra forte	4,4 N/mm	40107

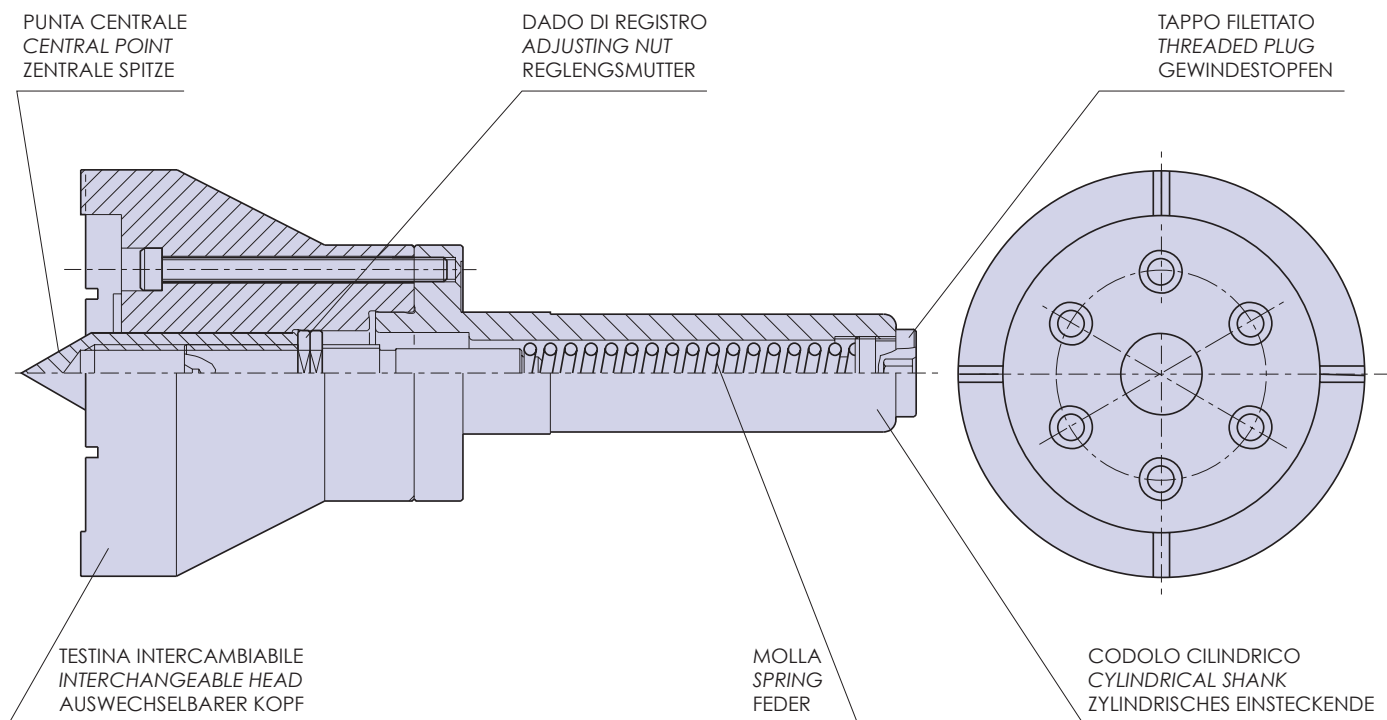
Tappo filettato con incasso esagonale
Threaded plug with hexagonal recess
Gewindestopfen sechseckiger Einlassung

esagono chiave 6
Hexagonal wrench 6
Sechskantschlüssel 6



► Code 40108

Esempi di utilizzo
Application examples
Anwendungsbeispiele



Gli articoli di questa serie, come si vede in figura, sono dotati di meccanismo per la regolazione dello sbalzo della punta centrale.

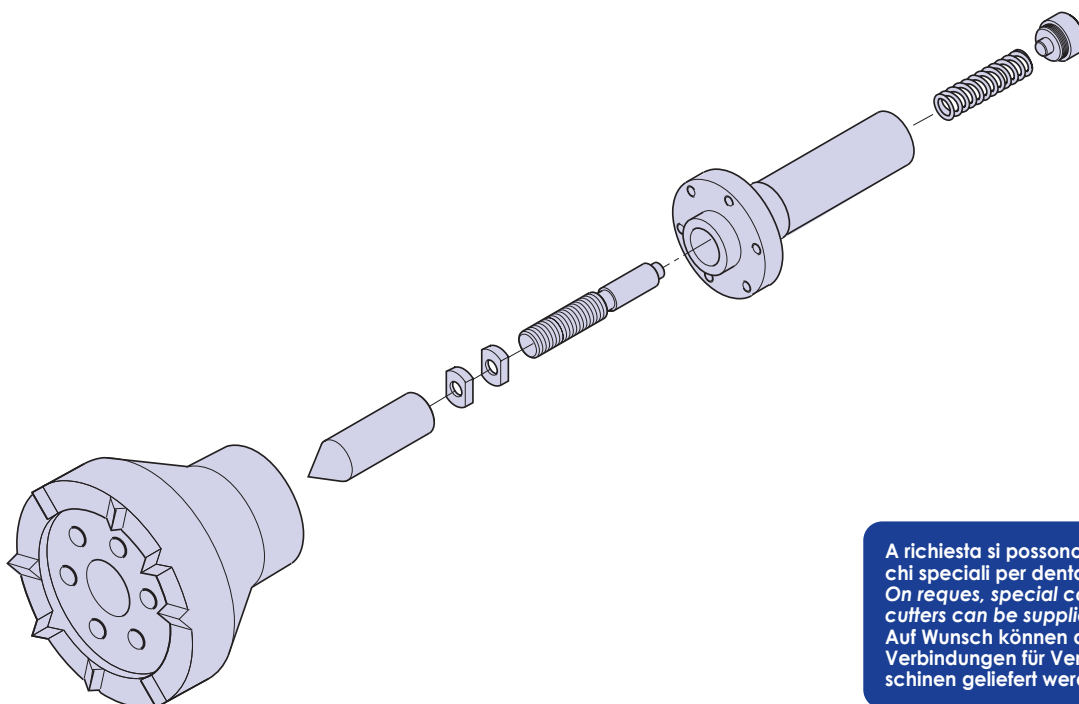
I denti di trascinamento possono subire diverse affilature senza perdere durezza e tenacità.

As can be seen in the figure, the articles in this series are equipped with a mechanism for adjusting the overhang of the central point.

The driving teeth can be sharpened several times without any loss of hardness or toughness.

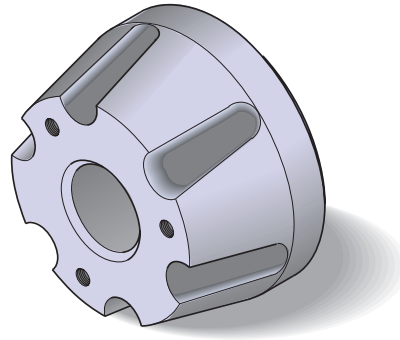
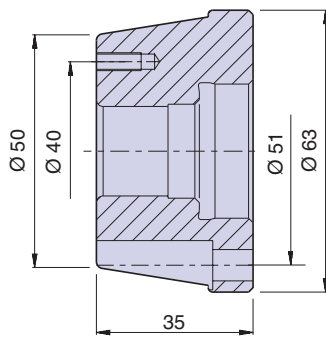
Wie man in dieser Abbildung sehen kann, sind die Artikel dieser Serie mit einem Mechanismus ausgestattet der den Überhang der zentralen Spitze regelt.

Die Führungszähne können diverse Male geschliffen werden ohne jeden Verlust an Härte und Zähigkeit.



A richiesta si possono ottenere attacchi speciali per dentatrici
On request, special coupling for gear cutters can be supplied
Auf Wunsch können auch spezielle Verbindungen für Verzahnungsmaschinen geliefert werden.

Anello di riduzione per trascinatori tipo TD/6 e TD/3
 Reduction ring for drivers type TD/6 e TD/3
 Reduktionsring für Mitnehmer Typ TD/6 und TD/3

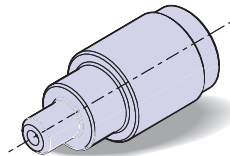
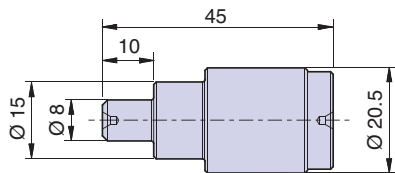


► Code **40200**

Consente di passare dal sistema T.D./6 a 6 fori al sistema T.D./3 mantenendo invariato il corpo.

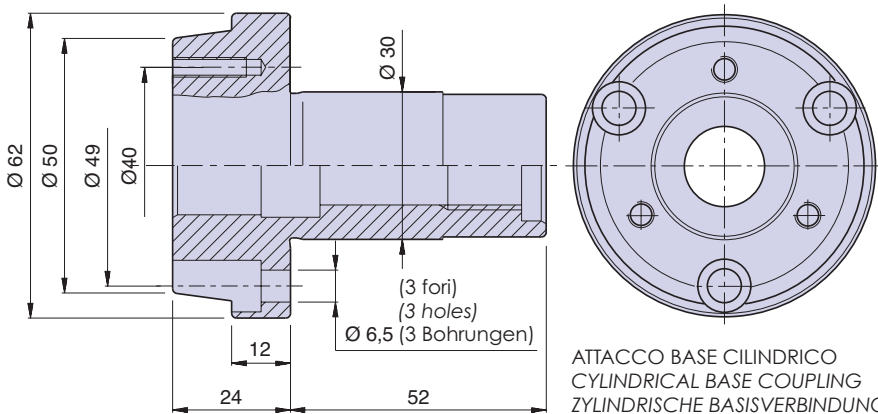
This makes it possible to change from the TD/6 system with 6 holes to the TD/3 system without changing the body.

Der Reduktionsring macht es möglich vom TD/6 (mit 6 Löchern) zum TD/3 System zu wechseln, ohne den Körper zu wechseln.



DISTANZIALE
SPACER
DISTANZSTÜCK

► Code **40210**

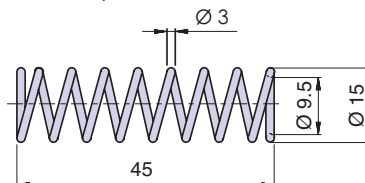


ATTACCO BASE CILINDRICO
CYLINDRICAL BASE COUPLING
ZYLINDRISCHE BASISVERBINDUNG

► Code **40530**

Molle e tappi - Springs and plugs - Feder und Stopfen

Molla
Spring
Feder



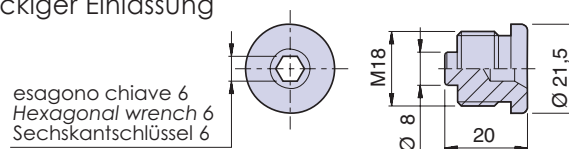
RG ► Code

3,6 N/mm **40527**

5,6 N/mm **40528**

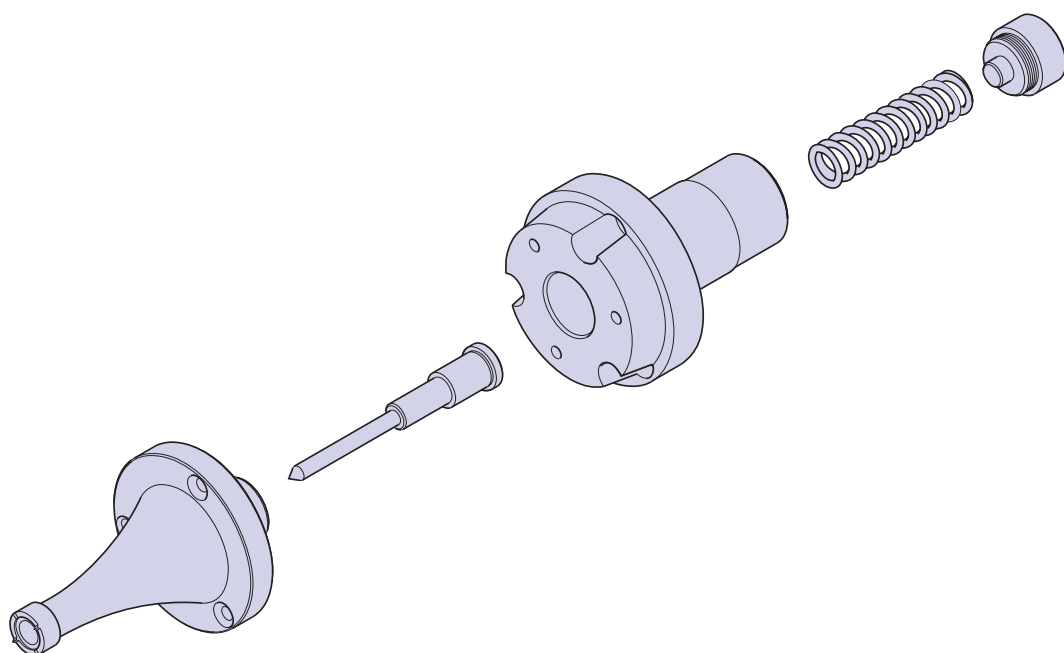
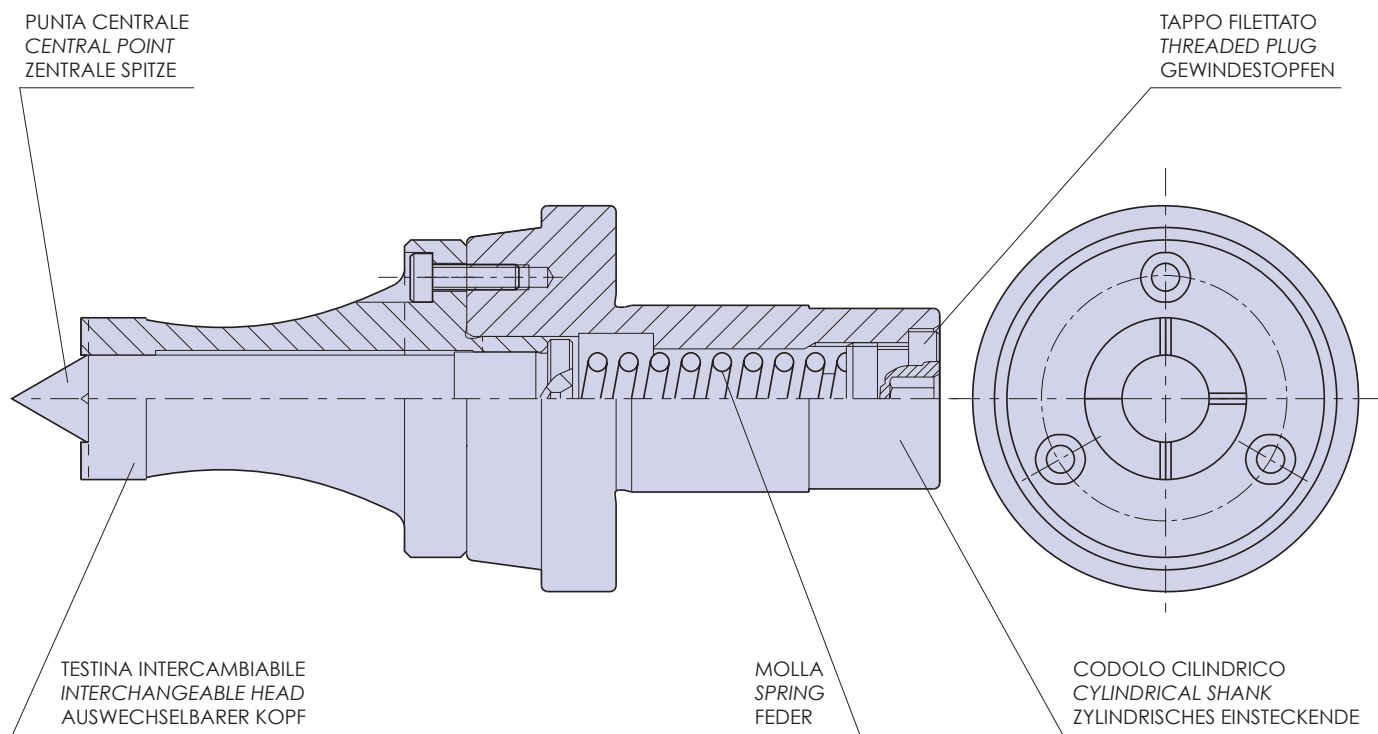
Tappo filettato con incasso esagonale
Threaded plug with hexagonal recess
Gewindestopfen sechseckiger Einlassung

► Code **40108**



esagono chiave 6
Hexagonal wrench 6
Sechskantschlüssel 6

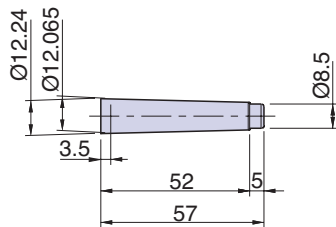
Esempi di utilizzo
Application examples
Anwendungsbeispiele



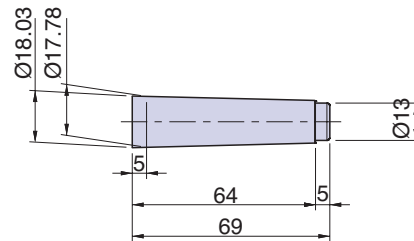
Unificazione cono morse (dimensioni)
Morse taper unification (dimensions)
Gesamtdarstellung des Morsekegels
(Abmessungen)

UNI 521

CM 1

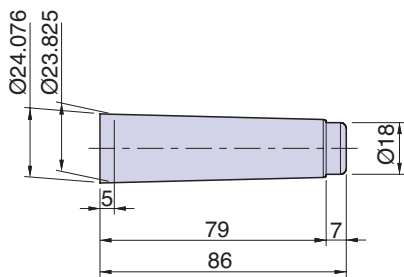


CM 2

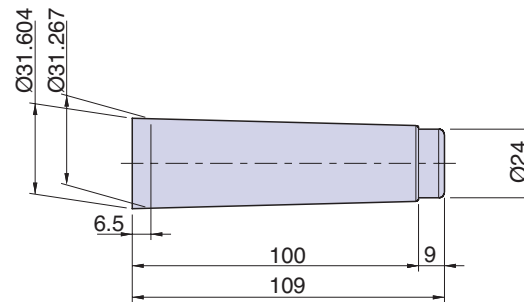


CM = Cono morse
Taper
Morsekegel

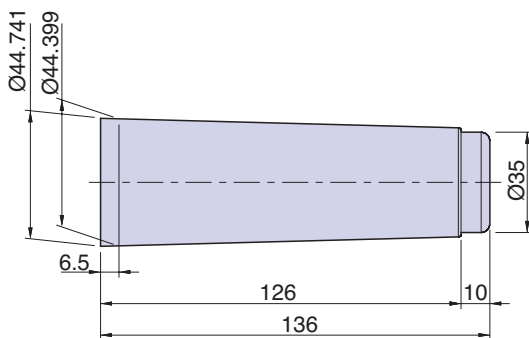
CM 3



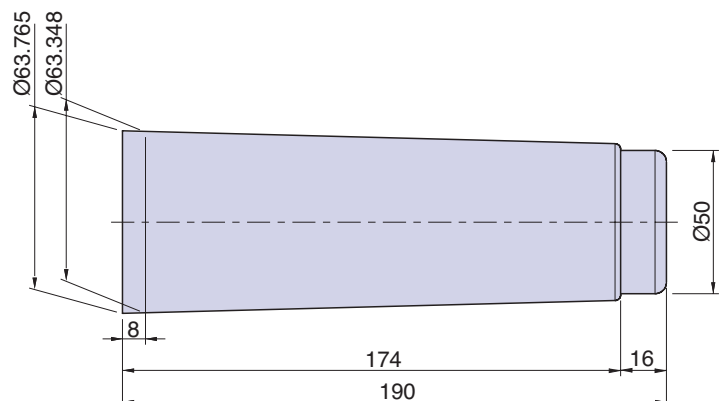
CM 4



CM 5

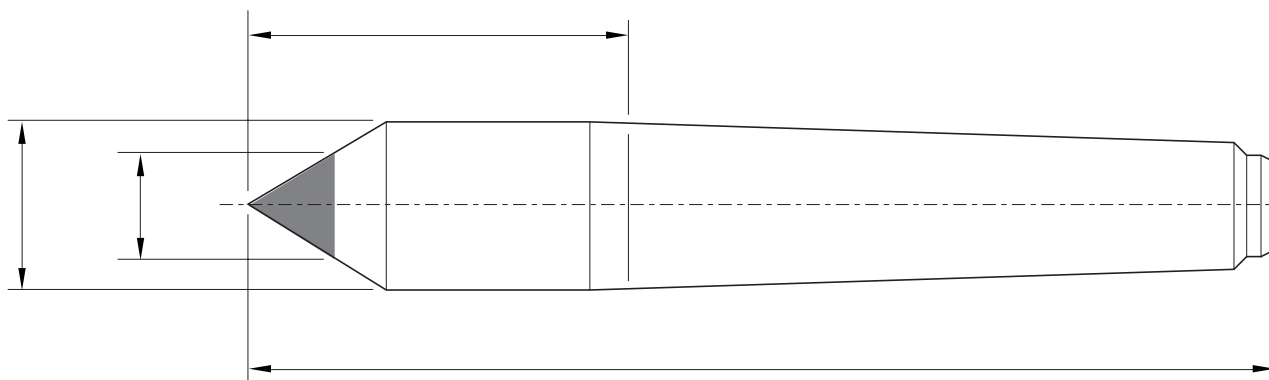
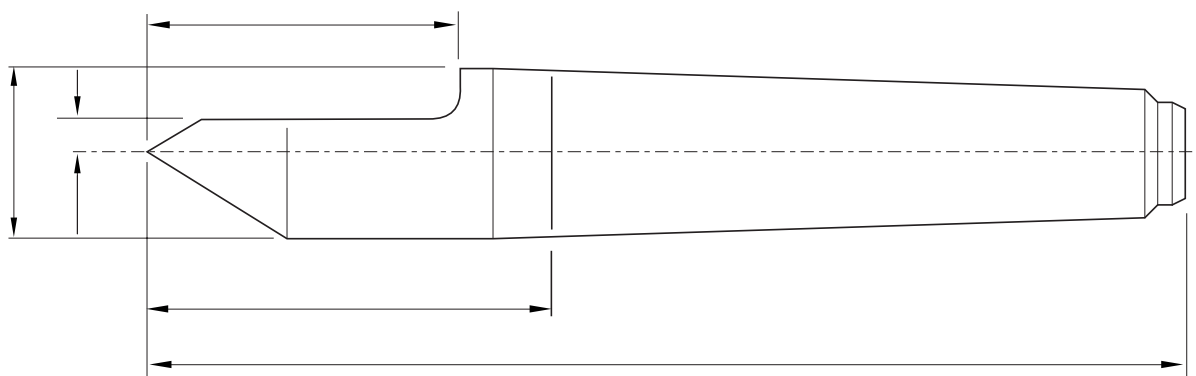
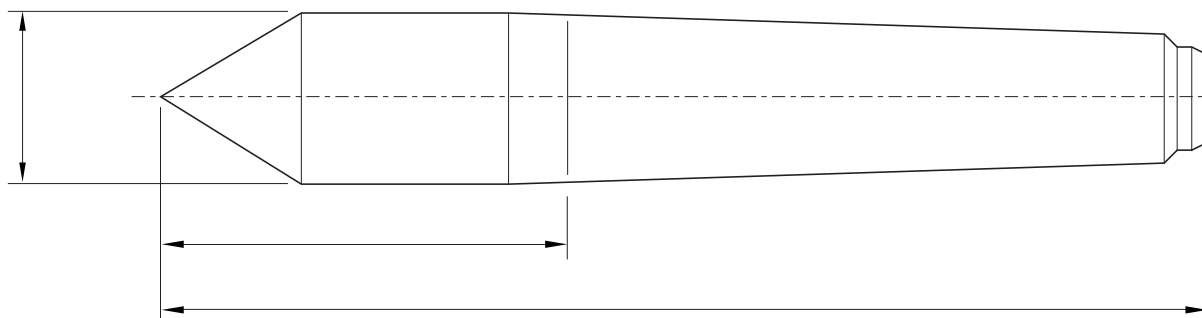


CM 6



SCHEDA ORDINI - ORDER FORM - BESTELLSCHEIN

Contropunta
Dead center
Körnerspitze



AZIENDA
COMPANY
FIRMA

DATA
DATE
DATUM

CODE

QUANTITÀ
QUANTITY
STÜCKZAHL

DATA CONSEGNA
DELIVERY DATE
LIEFERDATUM

MITTENTE
NAME

TEL.

FAX

NOTE

Via G. di Vagno, 9 - 40053 Valsamoggia Loc. Monteveglio (BO)
Tel. +39-051.67.22.485 - Fax +39-051.96.13.67
www.nuovaptm.eu - info@nuovaptm.eu

NUOVA
PTM
MECCANICA



[illegible]



CONTACT US

- Tel. +39 - 051.6722485
- info@nuovaptm.com

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Ufficio tecnico Nuova PTM
MediaticaWeb
(Progetto grafico, illustrazioni
e fotocomposizione)



CONTACT US

- Tel. +39 - 051.6722485
- info@nuovaptm.com



NUOVA PTM MECCANICA s.r.l.

Via G. Di Vagno, 9 Valsamoggia
Loc. Monteveglio - 40053
Bologna - Italy
Tel. +39 - 051.6722485

www.nuovaptm.eu
info@nuovaptm.com

