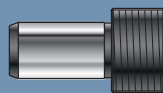




ATR..

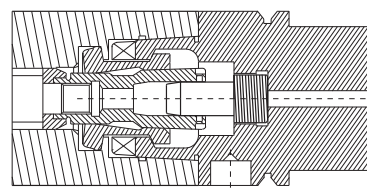
**ADUTTORE REFRIGERANTE PER MANDRINI HSK**

- COOLANT FEED FOR HSK CHUCK
- KÜHLMITTELZUFUHR FÜR HSK-AUFNAHME
- ABDUCTEUR DU RÉFRIGÉRANTE POUR MANDRINS HSK



PAG 922

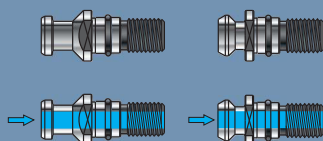
DIN 69893 - HSK



03 599../03 599.N

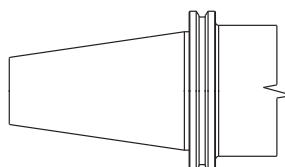
**TIRANTE CON GUARNIZIONE**

- TENSION ROD WITH PACKING
- ANZUGSBOLZEN MIT DICHTUNG
- TIRANT AVEC GARNITURE



PAG 922

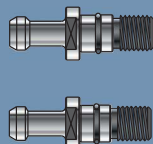
DIN 69871



BT 599..

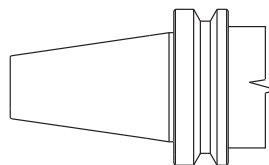
**TIRANTE CON GUARNIZIONE**

- TENSION ROD WITH PACKING
- ANZUGSBOLZEN MIT DICHTUNG
- TIRANT AVEC GARNITURE



PAG 923

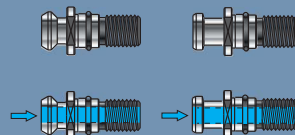
MAS 403 BT



03 599..MAZAK  
03 599..JIS

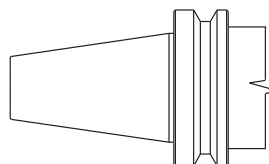
**TIRANTE DA DIN69871 A MANDRINO MAS 403 BT**

- DIN69871 A CHUCK RETENTION KNOB MAS 403 BT
- ANZUGSBOLZEN NACH DIN69871 MIT AUFNAHME MAS 403 BT
- TIRANT DE DIN69871 À BROCHE MAS 403 BT



PAG 923

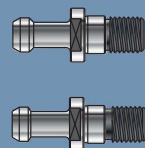
MAS 403 BT



BT 599..xDIN69871

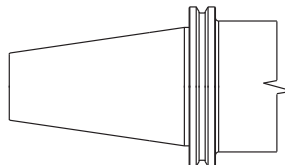
**TIRANTE DA MAS 403 BT A MANDRINO DIN69871**

- MAS 403 BT A CHUCK RETENTION KNOB DIN69871
- ANZUGSBOLZEN NACH MAS 403 BT MIT AUFNAHME DIN69871
- TIRANT DE MAS 403 BT À BROCHE DIN69871



PAG 923

DIN 69871



253..W

ER-DIN 6499

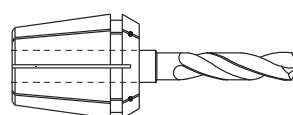
**PORTAPINZA DIN 6499**

- COLLET HOLDER DIN 6499
- FRÄSERSPANFUTTER DIN 6499
- MANDRINS A PINCES DIN 6499



PAG 924

ER-DIN 6499 A-B



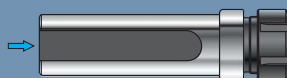
253..NCW

ER-DIN 6499

**NEW**

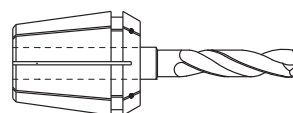
**PORTAPINZA DIN 6499**

- COLLET HOLDER DIN 6499
- FRÄSERSPANFUTTER DIN 6499
- MANDRINS A PINCES DIN 6499

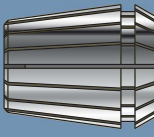

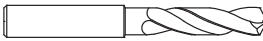
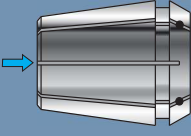


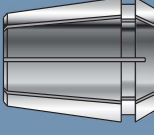

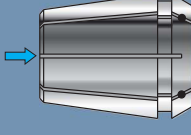




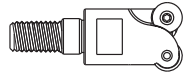





PAG 924

ER-DIN 6499 A-B





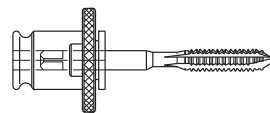
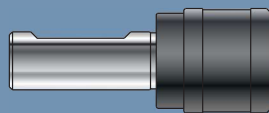
<p><b>PINZA AUTOESTRAIBILE DIN 6499</b>            - AUTO-CENTERING COLLET DIN 6499            - SELBSTZENTRIER-SPANNZANGEN DIN 6499            - PINCE DE SERRAGE À AUTO-CENTRAGE DIN 6499</p>	<p>228.. STANDARD 228Q.. PRECISION</p>  <p>ER-DIN 6499</p> <p>PAG 925 PAG 926</p>	 <p>DIN 1835 A - DIN 6535 HA</p> 
<p><b>PINZA AUTOESTRAIBILE CON GOMMA DI TENUTA DIN 6499</b>            - AUTO-CENTERING COLLET WITH RETAINING RUBBER DIN 6499            - SELBSTZENTRIER-SPANNZANGEN MIT DICHTGUMMI DIN 6499            - PINCE AUTO-EXTRACTIBLE AVEC JOINT D'ÉTANCHÉITÉ DIN 6499</p>	<p>230.. STANDARD 230QN.. PRECISION</p>  <p>ER-DIN 6499</p> <p>PAG 927 PAG 928</p>	 <p>DIN 1835 A - DIN 6535 HA</p> 
<p><b>PINZA AUTOESTRAIBILE PORTAMASCHI DIN 6499-AZ</b>            - AUTO-CENTERING COLLET TAP HOLDERS DIN 6499-AZ            - SELBSTZENTRIER-SPANNZANGEN GEWINDEBOHRERAUFNAHME DIN 6499-AZ            - PINCE DE SERRAGE À AUTO-CENTRAGE PORTE TARAUDS DIN 6499-AZ</p>	<p>328..</p>  <p>ER-DIN 6499 B</p> <p>PAG 929</p>	
<p><b>PINZA AUTOESTRAIBILE PORTAMASCHI CON GOMMA DI TENUTA</b>            - AUTO-CENTERING COLLET WITH RETAINING RUBBER            - SELBSTZENTRIER-SPANNZANGEN MIT DICHTGUMMI            - PINCE AUTOEXTRACTIBLE PORTE-MALES AVEC CAOUTCHOUC D'ÉTANCHEITE</p>	<p>330..</p>  <p><b>NEW</b></p> <p>PAG 930</p>	
<p><b>BOCCOLA DI RIDUZIONE PER UTENSILI PER MINIALESATURA</b>            - COLLET ADAPTERS FOR MINI BOHRING TOOL            - REDUKTION FÜR MINI BOHRSTANGE            - DOUILLE DE RÉDUCTION POUR OUTIL À ALÈSER MINIATURE</p>	<p>216..</p>  <p>PAG 931</p>	<p>ART.603</p> 
<p><b>PROLUNGA IN ACCIAIO CON ATTACCO CILINDRICO PER MODULARE FILETTATO</b>            - STEEL EXTENSION WITH CYLINDRICAL CONNECTION FOR THREADED MODULAR TOOL SYSTEM            - STAHLVERLÄNGERUNG MIT ZYLINDRAUFNHAME FÜR GEWINDE-MODULARWERKZEUGSYSTEM            - RALLONGE EN ACIER AVEC ATTACHEMENT CYLINDRIQUE PAR LE SYSTEME MODULAIRE FILETÉ</p>	<p>CIL..MF..W</p>  <p>PAG 931</p>	
<p><b>PROLUNGA IN ACCIAIO CON ATTACCO A CALETTAMENTO TERMICO CON GRANO DI REGOLAZIONE</b>            - STEEL SHRINK-FIT EXTENSION WITH ADJUSTMENT DOWEL.            - STAHL VERLÄNGERUNG MIT SCHRUMPFVERBINDUNG MIT EINSTELLSTIFT            - RALLONGE EN ACIER AVEC ATTACHEMENT À EMBOÎTEMENT THERMIQUE AVEC GRAIN DE REGULATION</p>	<p>CIL...CTPN...W</p>  <p>PAG 932</p>	<p>DIN 1835 A - DIN 6535 HA</p>  





CWE..MC..

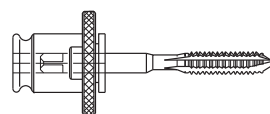
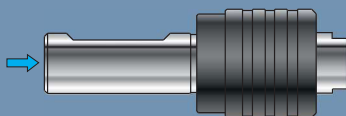
**PORTAMASCHIO A CAMBIO RAPIDO  
CON DOPPIA COMPENSAZIONE ASSIALE**  
- QUICK-CHANGE TAP HOLDER WITH DOUBLE  
AXIAL COMPENSATION  
- GEWINDESCHNEID-SCHNELLWECHSELFUTTER  
MIT DOPPELAUSGLEICH  
- MANDRINS DE TARAUDAGE À CHANGEMENT  
RAPIDE À DOUBLE COMPENSATION AXIALE



PAG 933

CWE..MR..

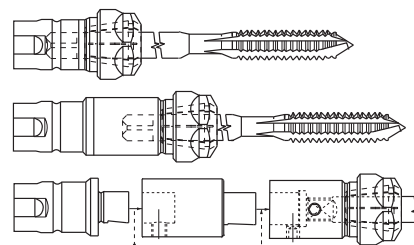
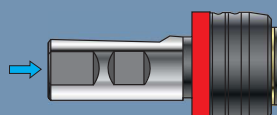
**PORTAMASCHIO A CAMBIO RAPIDO  
SENZA COMPENSAZIONE ASSIALE**  
- QUICK-CHANGE TAPPING CHUCK WITHOUT  
AXIAL COMPENSATION  
- GEWINDESCHNEID-SCHNELLWECHSELFUTTER  
OHNE AUSGLEICH  
- MANDRINS DE TARAUDAGE À CHANGEMENT  
RAPIDE SANS COMPENSATION AXIALE



PAG 933

CWE..MS..

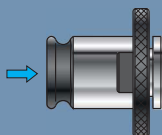
**PORTAMASCHIO PER MASCHIATURA  
SINCRONIZZATA**  
- TAP HOLDERS FOR SYNCHRONIZED TAPPING  
- GEWINDEBOHRERHALTER FÜR SYNCHRON  
STEUERUNG  
- MANDRINS DE TARAUDAGE POUR TARAUDAGE  
SYNCHRONISÉ



PAG 933

331..

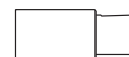
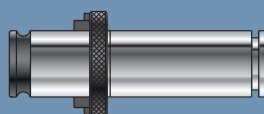
**BUSSOLA PORTAMASCHI**  
- TAP-COLLET  
- GEWINDEBOHRER-AUFNAHME  
- DOUILLE PORTE-TARAUDS



PAG 935

333..

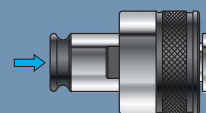
**BUSSOLA PORTAMASCHI MODULARE  
PROLUNGATA**  
- EXTENDED MODULAR TAP-COLLET LONG  
TYPE  
- VERLÄNGERTE MODULARE  
GEWINDEBOHRER-AUFNAHME  
- DOUILLE PORTE-TARAUDS MODULAIRE  
SERIE LONGUE



PAG 936

334..

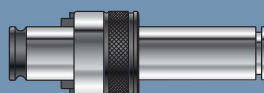
**BUSSOLA PORTAMASCHI CON FRIZIONE**  
- TAP-COLLET WITH OVERLOAD CLUTCH  
- GEWINDEBOHRER-AUFNAHME MIT  
DREHMOMENTBEGRENZUNG  
- DOUILLE PORTE-TARAUDS AVEC  
EMBAYAGE



PAG 937

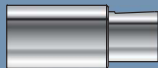
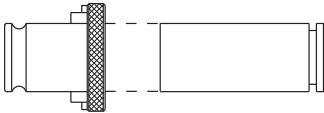
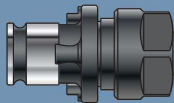
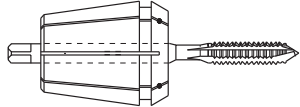
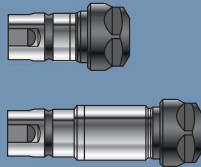
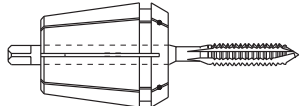
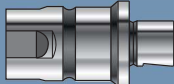
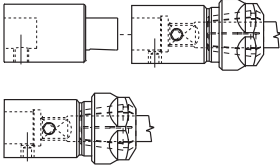
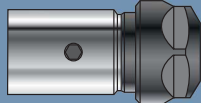
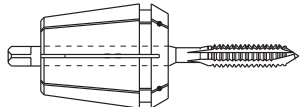
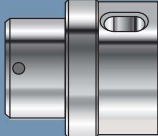
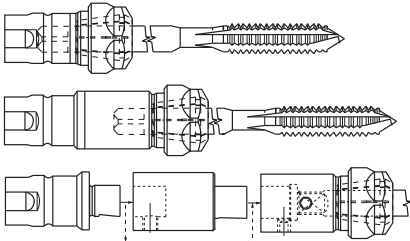


336..

**BUSSOLA PORTAMASCHI MODULARE  
PROLUNGATA CON FRIZIONE**  
- EXTENDED MODULAR TAP-COLLET WITH  
OVERLOAD CLUTCH  
- VERLÄNGERTE MODULARE  
GEWINDEBOHRER-AUFNAHME MIT  
DREHMOMENTBEGRENZUNG  
- DOUILLE PORTE-TARAUDS MODULAIRE  
PROLONGÉ AVEC EMBRAYAGE



PAG 938



<p><b>PROLUNGA PER BUSSOLA PORTAMASCHI MODULARE</b>          - EXTENSION FOR MODULAR TAP-COLLET          - VERLÄNGERUNG FÜR MODULARE GEWINDEBOHRER-AUFNAHME          - RALLONGE POUR DOUILLE PORTE-TARAUDS MODULAIRE</p>	<p>339../340..</p>  <p>PAG 939</p>	
<p><b>BUSSOLA PORTAMASCHIO CON PINZA AUTOESTRAIBILE</b>          - TAP-COLLET WITH AUTO-CENTERING COLLET          - GEWINDEBOHRER-AUFNAHME MIT SELBSTZENTRIERSPANNZANGE          - DOUILLE PORTE-TARAUDS AVEC PINCE AUTO-EXTRACTIBLE</p>	<p>332..</p>  <p>PAG 939</p>	<p>ER-DIN 6499</p> 
<p><b>BUSSOLA PORTAMASCHIO PER MASCHIATURE SINCRONIZZATE</b>          - TAP-COLLET FOR SYNCHRONIZED TAPPING          - GEWINDEBOHRER-AUFNAHME FÜR SYNCHRONSTEUERUNG          - DOUILLE PORTE-TARAUD POUR TARAUDAGES SYNCHRONIZÉES</p>	<p>335..</p>  <p>PAG 940</p>	<p>ER-DIN 6499 B</p> 
<p><b>CORPO BUSSOLA PROLUNGATA</b>          - EXTENDED TAP ADAPTER BODY          - EINSATZ MIT LANGE AUSFÜHRUNG          - CORPS DE LA DOUILLE PROLONGÉ</p>	<p>341..</p>  <p><b>NEW</b>          PAG 940</p>	
<p><b>TERMINALE</b>          - TERMINAL          - TERMINAL          - TERMINAL</p>	<p>342..</p>  <p><b>NEW</b>          PAG 941</p>	<p>ER-DIN 6499 B</p> 
<p><b>SUPPORTO DI MONTAGGIO</b>          - ASSEMBLY SUPPORT          - MONTAGE BLOCK          - SUPPORT DE MONTAGE</p>	<p>RCDM ...</p>  <p><b>NEW</b>          PAG 941</p>	
<p><b>BOCCOLA DI RIDUZIONE</b>          - COLLET ADAPTERS          - REDUKTION          - DOUILLES DE RÉDUCTION</p>	<p>218..</p>  <p>PAG 942</p>	



**BOCCOLA DISASSATRICE AD INTERASSE FISSO**

- OFFSET COLLETS WITH FIXED CENTER DISTANCE
- ACHSVERSATZ-BÜCHSEN MIT FESTEM ACHSABSTAND
- DOUILLES DESAXANTES AVEC ENTRE-AXES FIXE

BPUH..



PAG 942



**BOCCOLE DI RIDUZIONE CILINDRICHE**

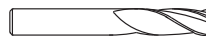
- CYLINDRICAL REDUCTION COLLETS
- ZYLINDRISCHE REDUZIERBÜCHSEN
- DOUILLES DE RÉDUCTION CYLINDRIQUES

BEMSN..

**NEW**



PAG 943



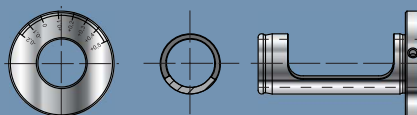
DIN 1835 A - DIN 6535 HA



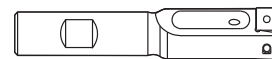
**BOCCOLA DISASSATRICE REGOLABILE**

- ADJUSTABLE OFFSET COLLETS
- EINSTELLBARE ACHSVERSATZ-BÜCHSEN
- DOUILLES DESAXANTES AVEC REGULATION

BECR..



PAG 944



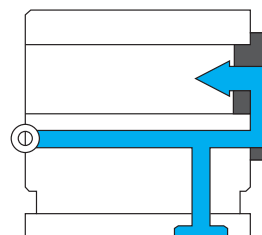
**TAPPO DI CHIUSURA DEL PORTABARENO PER MACCHINE NON DOTATE DI REFRIGERANTE**

- PLUG FOR BORING BAR HOLDERS FOR MACHINES WITHOUT INTERNAL COOLING.
- ANSCHLUSSPLATTE FÜR BOHRSTANGENAUFNAHME AM REVOLVER, BEI MASCHINEN OHNE INNENKÜHLUNG
- BOUCHON DE FERMETURE DU PORTE-ALÉSEUSE POUR LES MACHINES PAS DOTÉES DE RÉFRIGÉRANT À L'INTÉRIEUR

CH-...-...



PAG 946



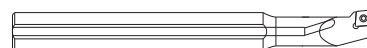
**BOCCOLA DI RIDUZIONE PORTA BARENO**

- BORING BAR REDUCING COUPLING
- BOHRSTANGEN-REDUZIERHUELSE
- DOUILLE DE REDUCTION PORTE BARRE D'ALEPAGE

BK-...-...



PAG 947

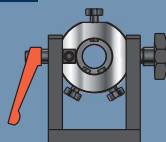


**LUBROJET**

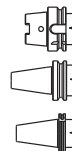
**ATTREZZO PER IL MONTAGGIO E LO SMONTAGGIO DI MANDRINI**

- TOOL FOR THE ASSEMBLY AND DISASSEMBLY OF ARBORS
- MONTAGE HILFE
- OUTIL POUR LE MONTAGE ET LE DEMONTAGE DE MANDRINS

06 36.. UN



PAG 949



HSK DIN69893-A



MAS 403 BT

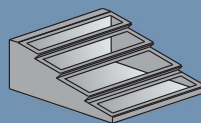


DIN 69871

**TELAIO DA BANCO PORTAMANDRINI**

- BENCH-MOUNTED STORAGE RACK ARBORS
- AUFNAHMETRAEGER
- BOITE DE COMPTOIR PORTE-MANDRINS

A-140..



PAG 949

ART A-1..



**BOCCOLA PORTAMANDRINI**

- STORAGE BASE FOR ARBORS
- AUFNAHMEBUCHSE
- RÉDUCTIONS PORTE-MANDRINS

A-1..



PAG 949











ISO...



VDI...





<p><b>TELO DI PROTEZIONE</b>          - MACHINE FABRIC PROTECTIVE COVER          - SCHUTZPLANE          - BÂCHE DE PROTECTION</p>	<p><b>TP..</b></p>	 <p>PAG 950</p>
<p><b>SET DISCHI DI ARRESTO E CENTRAGGIO</b>          - SET OF STOP AND CENTRING DISCS          - SATZ ANSCHLAG-UND ZENTRIERRINGE          - JEU DE DISQUES D'ARRÊT ET CENTRAGE</p>	<p><b>TSFB..</b></p>	 <p>PAG 950</p>
<p><b>FERMO</b>          - STOP BLOCK          - HALTEVORRICHTUNG          - ARRÊT</p>	<p><b>STBO</b></p>	 <p>PAG 951</p>
<p><b>BOBINE INTERCAMBIABILI</b>          - INTERCHANGEABLE COILS          - AUSWECHSELBARE SPULEN          - BOBINES INTERCHANGEABLES</p>	<p><b>BI 03..</b></p>	 <p>PAG 951</p>
<p><b>KIT INVERSO</b>          - REVERSE KIT          - UMKEHRSET          - KIT INVERSE</p>	<p><b>KI3400..</b></p>	 <p>PAG 952</p>
<p><b>ADATTATORE PER PRESETTING</b>          - ADAPTER FOR PRESETTING          - ADAPTER FÜR VOREINSTELLUNGEN          - ADAPTATEUR POUR PRÉRÉGLAGE</p>	<p><b>MPBZ..</b></p>	 <p>PAG 953</p>
<p><b>REGOLATORE DELLA LUNGHEZZA DELL'UTENSILE</b>          - TOOL LENGTH CONTROLLER          - LÄNGENREGLER DES WERKZEUGS          - RÉGULATEUR DE LA LONGUEUR DE L'OUTIL</p>	<p><b>LSBZ..</b></p>	 <p>PAG 953</p>
<p><b>GHIERA CON CUSCINETTO PER PINZE ER-DIN6499</b>          - BEARING METAL RING FOR ER-DIN6499          - RING MIT LAGER FÜR ER-DIN6499SPANNZANGEN          - FRETTE AVEC COUSSINET POUR PINCES ER-DIN6499</p>	<p><b>RGK..</b></p>	 <p>PAG 954</p>
<p><b>GHIERA DI PRECISIONE</b>          - PRECISION RING NUTS          - PRÄZISIONSRINGE          - FRETTE DE PRECISION</p>	<p><b>RGC..</b></p>	 <p>PAG 954</p>
<p><b>GHIERA STANDARD PER PINZE ER-DIN6499</b>          - STANDARD METAL RING FOR ER-DIN6499 COLLET          - STANDARDRING FÜR ER-DIN6499 SPANNZANGEN          - FRETTE STANDARD POUR PINCES ER-DIN6499</p>	<p><b>RGS..</b></p>	 <p>PAG 954</p>

**GHIERA ESAGONALE PER PINZE ER-DIN6499**

- METAL RING FOR ER-DIN6499 COLLETS
- SECHSECKIGER GEWINDERING FÜR ER-DIN6499 SPANNZANGEN
- FRETTE À SIX PANS POUR PINCES ER-DIN6499

RGSE..



PAG 954

**MINI GHIERA PER PINZE ER-DIN6499**

- MINI METAL RING FOR ER-DIN6499 COLLET
- MINI-RING FÜR ER-DIN6499 SPANNZANGEN
- MINI FRETTE POUR PINCES ER-DIN6499

RGM..



PAG 954

**GHIERE A TENUTA IDRAULICA**

- SEALING RINGS
- DICHTSCHEIBEN
- FRETTE À ÉTANCHÉITÉ HYDRAULIQUE

RGSW..

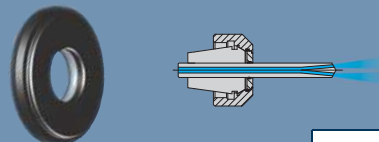


PAG 954

**ANELLI PER ADDUZIONE ATTRAVERSO L'UTENSILE**

- RINGS FOR COOLANT THROUGH THE TOOL
- RINGE ZUR KÜHLMITTEL-INNEINFÜHRUNG
- BAGUES D'ADDITION À TRAVES L'OUTIL

AGT..

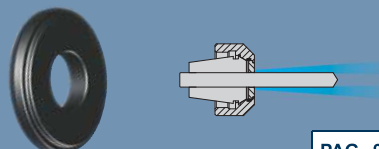


PAG 955

**ANELLI PER ADDUZIONE INTORNO ALL'UTENSILE**

- RINGS FOR COOLANT AROUND THE TOOL
- RINGE ZUR KÜHLMITTELFÜHRUNG UM DAS WERKZEUG
- BAGUES D'ADDITION AUTOUR L'OUTIL

AGW..

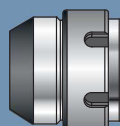


PAG 955

**GHIERA PER ARTICOLI A FORTE SERRAGGIO**

- RING NUT FOR HIGH CLAMPING ARTICLES
- NUTRING FÜR HOHE EINSpanNKRAFT
- FRETTE POUR ARTICLES À SERRAGE FORT

RGMS..

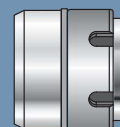


PAG 956

**GHIERA PER ARTICOLI A FORTE SERRAGGIO CON LUBRIFICAZIONE A 100 BAR**

- RING NUT FOR HIGH CLAMPING ARTICLES WITH 100 BAR LUBRICATION
- NUTRING FÜR HOHE EINSpanNKRAFT MIT 100 BAR-SCHMIERUNG
- FRETTE POUR ARTICLES À SERRAGE FORT AVEC LUBRIFICATION À 100 BARS

RGMSB..



PAG 956

**ANELLO DI TENUTA**

- SEALING RING
- DICHTRING
- BAGUE D'ÉTANCHÉITÉ

AGMS..

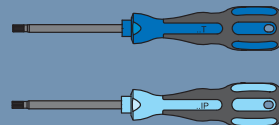


PAG 957

**CACCIAVITE**

- SCREWDRIVERS
- SCHRAUBENDREHER
- TOURNEVISSES

56..

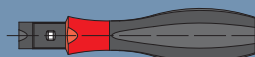


PAG 958

**CACCIAVITE DINAMOMETRICO REGOLABILE**

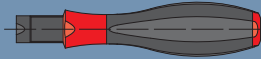






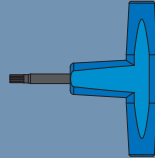


- ADJUSTABLE DYNAMOMETRIC SCREWDRIVER
- EINSTELLBARER DYNAMOMETRISCHER SCHRAUBENDREHER
- TOURNEVIS DYNAMOMÉTRIQUE RÉGLABLE

2646..




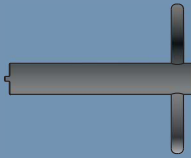
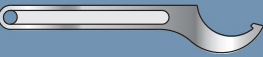

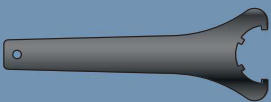


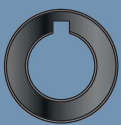


PAG 958

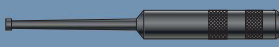


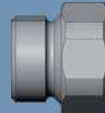




<p><b>CACCIAVITE DINAMOMETRICO CON VALORI DI COPPIA FISSO</b>            - DYNAMOMETRIC SCREWDRIVER WITH FIXED TORQUE VALUES            - DREHMOMENTSCHRAUBENDREHER MIT FASTEN DREHMOMENTWERTEN            - TOURNEVIS DYNAMOMÉTRIQUE AVEC VALEURS DE COUPLE FIXE</p>	<p>260../261..</p>	 <p>PAG 958</p>
<p><b>LAME</b>            - BLADES            - MESSERS            - LAME</p>	<p>278../2955.</p>	 <p>PAG 958</p>
<p><b>KIT DINAPLUS</b>            - DINAPLUS KIT            - DINAPLUS KIT            - KIT DINAPLUS</p>	<p>KITDP00000</p>	 <p>PAG 959</p>
<p><b>MANICO CACCIAVITE DINAPLUS</b>            - DYNAPLUS SCREWDRIVER HANDLE            - DYNAPLUS SCHRAUBENDREHER-GRIFF            - MANCHE TOURNEVIS DYNAPLUS</p>	<p>26000</p>	 <p>PAG 959</p>
<p><b>LAME</b>            - BLADES            - MESSERS            - LAME</p>	<p>270../290..</p>	 <p>PAG 959</p>
<p><b>CHIAVE A BANDIERA</b>            - FLAG KEY            - FLAGGE-SCHLÜSSEL            - CLÉ À "PAVILLON"</p>	<p>55..</p>	 <p>PAG 960</p>
<p><b>CHIAVE TORX A L</b>            - TORX KEY (L-SHAPED)            - TORX-SCHLÜSSEL (L-FÖRMIG)            - CLÉ TORX À L</p>	<p>54..</p>	 <p>PAG 960</p>
<p><b>CHIAVE TORX A T</b>            - TORX KEY (T-SHAPED)            - TORX-SCHLÜSSEL (T-FÖRMIG)            - CLÉ TORX À T</p>	<p>CTT..</p>	 <p>PAG 960</p>
<p><b>CHIAVE A BRUGOLA A T</b>            - T-SETSCREW WRENCH            - T-INBUSSCHLÜSSEL            - CLÉ À 6 PANS À T</p>	<p>CTE..</p>	 <p>PAG 961</p>
<p><b>CHIAVE A BRUGOLA A L</b>            - L-SETSCREW WRENCH            - L-INBUSSCHLÜSSEL            - CLÉ À 6 PANS À L</p>	<p>50..</p>	 <p>PAG 961</p>



<p><b>CHIAVE PER ESTRAZIONE INSERTI</b> - INSERT LIFTING KEY - AUSZIEHLSCHLÜSSEL FÜR WENDEPLATTEN - CLÉ POUR EXTRACTION PLAQUETTES</p>	<p>SESG-1</p>	 <p>PAG 961</p>
<p><b>CHIAVE ERGONOMICA MONTAGGIO/ESTRAZIONE INSERTI</b> - INSERT ASSEMBLY/REMOVAL ERGONOMIC KEY - ERGONOMISCHER MONTAGE-/AUSZIEHLSCHLÜSSEL FÜR WENDEPLATTEN - CLÉ A MANCHE ERGONOMIQUE DE MONTAGE/EXTRACTION DES PLAQUETTES</p>	<p>CH-TRL30-40</p>	 <p><b>NEW</b> PAG 962</p>
<p><b>CHIAVE PER UNITÀ MICROREGISTRABILE</b> - KEY FOR MICRO-BORING UNITS - SCHLÜSSEL FÜR FEINBOHREINHEITEN - CLÉ POUR UNITÉS MICROMÉTRIQUES</p>	<p>45.95.6..</p>	 <p>PAG 962</p>
<p><b>CHIAVE A DENTI PER BOCCOLE BCF</b> - PIN WRENCH FOR BCF BUSHING - ZAPFENSCHLÜSSEL FÜR BCF-BUCHSEN - CLÉ À GIFFES POUR DOUILLE BCF</p>	<p>CH-HK..</p>	 <p>PAG 962</p>
<p><b>CHIAVE A SETTORE CON DENTE PER GHIERE RGS/RGE</b> - PIN WRENCH FOR RGS/RGE - ZAPFENSCHLÜSSEL FÜR RGS/RGE RING - CLÉ À SECTEUR AVEC GRIFFE POUR FRETTE RGS/RGE</p>	<p>925..</p>	 <p>PAG 963</p>
<p><b>CHIAVE A SETTORE CON PERNO PER GHIERE RGK</b> - PIN WRENCH FOR RGK - ZAPFENSCHLÜSSEL FÜR RGK-RING - CLÉ À SECTEUR AVEC TOURILLON POUR FRETTE RGK</p>	<p>926..</p>	 <p>PAG 963</p>
<p><b>CHIAVE A SETTORE CON 4 DENTI PER GHIERE RGS/RGE</b> - PIN WRENCH(4TEETH) FOR RGS/RGE - ZAPFENSCHLÜSSEL FÜR RGS/RGE (4 ZÄHNE) - CLÉ À SECTEUR À 4 GRIFFES POUR FRETTE RGS/RGE</p>	<p>927.. / 927..MS</p>	 <p>PAG 963</p>
<p><b>CHIAVE A SETTORI PER GHIERE RGM</b> - PIN WRENCH FOR RGM - ZAPFENSCHLÜSSEL FÜR RGM-RINGE - CLÉ À SECTEUR POUR FRETTE RGM</p>	<p>938..</p>	 <p>PAG 963</p>
<p><b>CHIAVE PER VITI CON TESTA A CROCE</b> - CROSS-SLOTTED SCREW WRENCH - KREUZSCHLÜSSEL - CLÉ POUR VIS AVEC TÊTE À CROIX</p>	<p>423..</p>	 <p>PAG 964</p>
<p><b>ANELLO DISTANZIATORE PER PORTAFRESA COMBINATO</b> - DISTANCE RING FOR COMBI MILL-HOLDER - DISTANZRING FÜR KOMBI-FRÄSERAUFNAHME - BAGUE D' ENTRETOISE POUR MANDRIN PORTE-FRAISE COMBINÉ</p>	<p>195..</p>	 <p>PAG 964</p>



<p><b>ESTRATTORE PER PINZE</b> - EXTRACTOR FOR COLLETS - ENTFERNER FÜR REDUZIERHULSEN - EXTRACTEUR POUR PINCES</p>	<p><b>ESMS..</b></p>	 <p>PAG 965</p>
<p><b>TUBO DRITTO RACCORDATO</b> - FITTED HOSE STRAIGHT - GERADE SCHLAUCHLEITUNG - TUBE DROIT RACCORDE</p>	<p><b>ATUB..</b></p>	 <p><b>NEW</b> PAG 965</p>
<p><b>RACCORDO DRITTO</b> - STRAIGHT FITTING - GERADE VERBINDUNGSSTÜCK - RACCORD DROIT</p>	<p><b>A00MM18..</b></p>	 <p><b>NEW</b> PAG 965</p>
<p><b>RIDUZIONE</b> - ADAPTER - REDUZIERUNGEN - RÉDUCTION</p>	<p><b>ARIMF14180</b></p>	 <p><b>NEW</b> PAG 966</p>
<p><b>RACCORDO 90°</b> - 90° FITTING - 90°-KUPPLUNG - RACCORD 90°</p>	<p><b>A90MM18..</b></p>	 <p><b>NEW</b> PAG 966</p>
<p><b>ANELLO DI TENUTA</b> - SEALING RING - DICHRING - ANNEAU D'ETANCHEITE</p>	<p><b>ABS000M100</b></p>	 <p><b>NEW</b> PAG 966</p>



ACCESSORI



ACCESSORIES



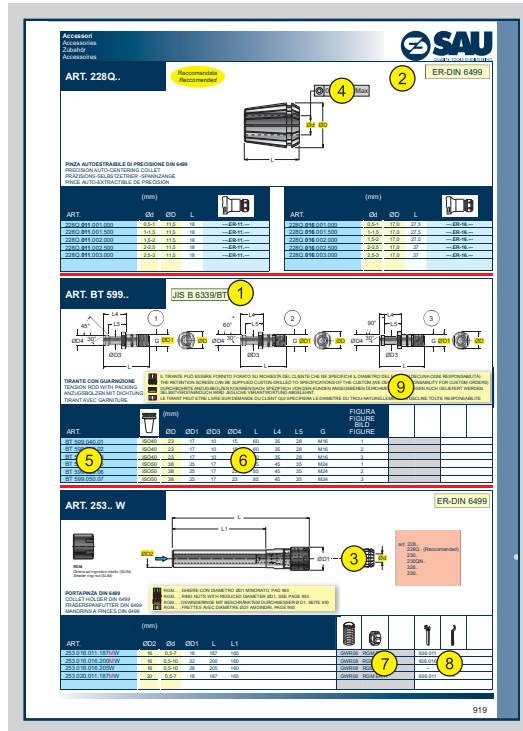
ZUBEHÖR



ACCESSOIRES



ACCESORIOS



- 1 = NORMA ATTACCO
- 2 = NORMA PARTE ANTERIORE
- 3 = ACCESSORI OPZIONALI A RICHIESTA
- 4 = CARATTERISTICHE TECNICHE
- 5 = ARTICOLO
- 6 = MISURE, DATI, INDICAZIONI
- 7 = ACCESSORI E RICAMBI IN DOTAZIONE
- 8 = ACCESSORI E RICAMBI OPZIONALI A RICHIESTA
- 9 = NOTE E AVVERTIMENTI



- 1 = SHANK STANDARD
- 2 = TOOL-HOLDER STANDARD
- 3 = OPTIONAL ACCESSORIES ON REQUEST.
- 4 = TECHNICAL FEATURES
- 5 = ITEM
- 6 = MEASURES, DATA, INDICATIONS
- 7 = ACCESORIES AND SPARE PARTS EQUIPMENT
- 8 = OPTIONAL ACCESORIES AND SPARE PARTS ON REQUEST
- 9 = NOTES AND WARNINGS

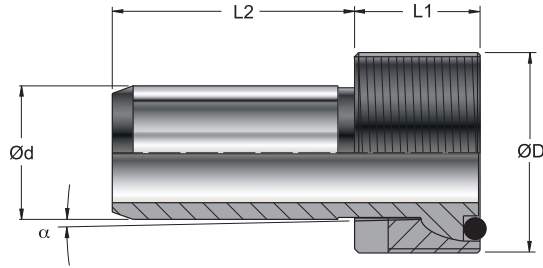


- 1 = KEGEL-NORM
- 2 = AUFNAHME-NORM
- 3 = OPTIONALZUBEHÖR AUF ANFRAGE
- 4 = TECHNISCHE HAUPTMERKMALE
- 5 = ARTKEL
- 6 = ABMESSUNGEN, DATEN, HINWEISE
- 7 = ZUBEHÖR UND ERSATZTEIL AUSSTATTUNG
- 8 = OPTIONALZUBEHÖR UND -ERSATZTEILE AUF ANFRAGE
- 9 = ANMERKUNGEN UND HINWEISE






- 1 = NORMES POUR ATTACHEMENT
- 2 = NORME POUR MANDRIN
- 3 = ACCESSOIRES OPTIONNELS SUR DEMANDE
- 4 = CARACTERISTIQUES TECHNIQUES
- 5 = ARTICLE
- 6 = DIMENSIONES, DONNÉES, INDICATIONS
- 7 = ACCESSOIRES ET RECHANGE EN DOTATION
- 8 = ACCESSOIRES ET RECHANGES OPTIONNELS SUR DEMANDE
- 9 = NOTES ET AVERTISSEMENTS

## ART. ATR..

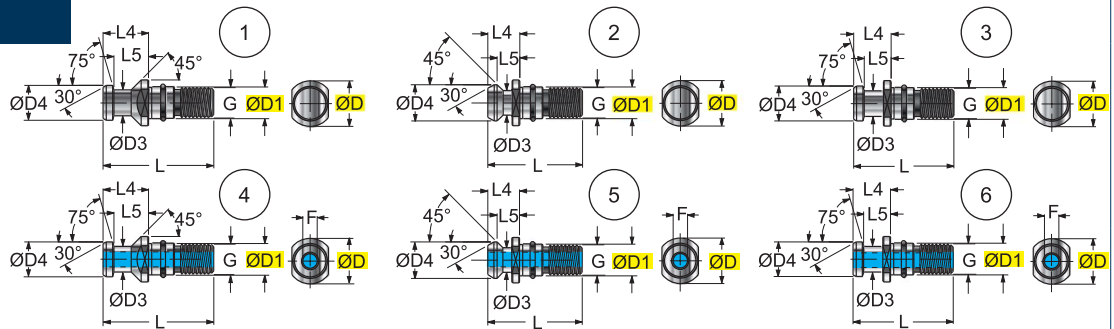


**ADDUTTORE REFRIGERANTE PER MANDRINI HSK**  
COOLANT FEED FOR HSK CHUCK  
KÜHLMITTELZUFUHR FÜR HSK-AUFNAHME  
ABDUCTEUR DU RÉFRIGÉRANTE POUR MANDRINS HSK


ART.		(mm)							
		HSK	ØD	Ød	L1	L2			
ATR012 HK40	HSK40	M12x1	8	8	21,5	-	OR-HK040		CH-HK040
ATR016 HK50	HSK50	M16x1	10	10	23	-	OR-HK050		CH-HK050
ATR018 HK63	HSK63	M18x1	12	11,5	36,2	1,3°	OR-HK063		CH-HK063
ATR020 HK80	HSK80	M20x1,5	14	13,5	39,7	1,4°	OR-HK080		CH-HK080
ATR024 HK100	HSK100	M24x1,5	16	15	43,6	1,4°	OR-HK100		CH-HK100

## ART. 03 599.. ART. 03 599..N

DIN 69872  
ISO 7388/2 A-B

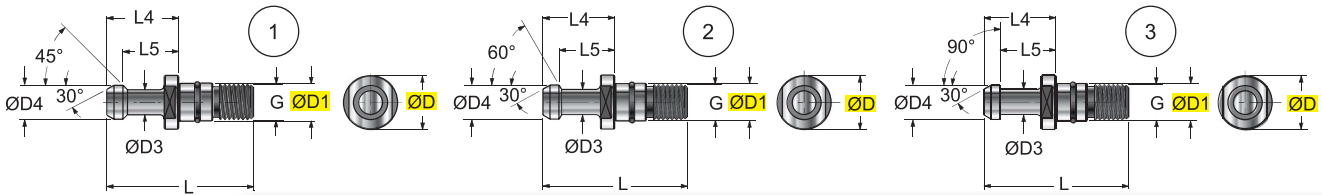


TIRANTE CON GUARNIZIONE  
TENSION ROD WITH PACKING  
ANZUGSBOLZEN MIT DICHTUNG  
TIRANT AVEC GARNITURE

ART.		(mm)										FIGURA FIGURE BILD FIGURE		
		ISO	ØD	ØD1	ØD3	ØD4	L	L4	L5	G	F			
03 599.040.01 DIN	ISO40	23,0	17	14,0	19,0	54,0	26,0	20,0	M16	7,0	4	DIN 69872 A		
03 599.050.05 DIN	ISO50	36,0	25	21,0	28,0	74,0	34,0	25,0	M24	11,5	4			
03 599.040.01 ISO	ISO40	23,0	17	14,0	19,0	54,0	26,0	20,0	M16	7,0	6	ISO 7388/2 A		
03 599.050.05 ISO	ISO50	36,0	25	21,0	28,0	74,0	34,0	25,0	M24	11,5	6			
03 599.040.02	ISO40	22,5	17	12,95	18,95	44,5	16,4	11,15	M16	7,35	5	ISO 7388 A		
03 599.050.06	ISO50	37,0	25	19,6	29,1	65,5	25,55	17,95	M24	11,55	5			
03 599.040.01N DIN	ISO40	23,0	17	14,0	19,0	54,0	26,0	20,0	M16	-	1	DIN 69872 B		
03 599.050.05N DIN	ISO50	36,0	25	21,0	28,0	74,0	34,0	25,0	M24	-	1			
03 599.040.01N ISO	ISO40	23,0	17	14,0	19,0	54,0	26,0	20,0	M16	-	3	ISO 7388/2 B		
03 599.050.05N ISO	ISO50	36,0	25	21,0	28,0	74,0	34,0	25,0	M24	-	3			
03 599.040.02N	ISO40	22,5	17	12,95	18,95	44,5	16,4	11,15	M16	-	2	ISO 7388 B		
03 599.050.06N	ISO50	37,0	25	19,6	29,1	65,5	25,55	17,95	M24	-	2			

## ART. BT 599..

JIS B 6339/BT



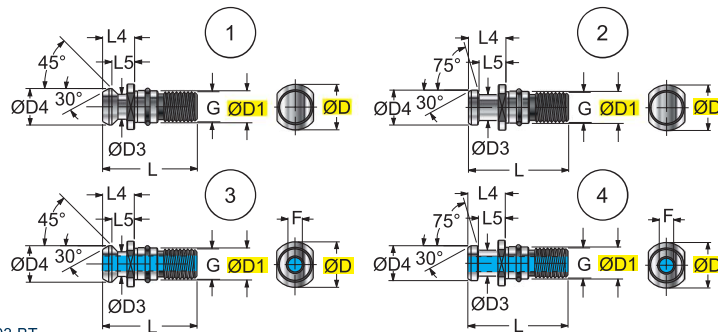
**TIRANTE CON GUARNIZIONE**  
TENSION ROD WITH PACKING  
ANZUGSBOLZEN MIT DICHTUNG  
TIRANT AVEC GARNITURE

IL TIRANTE PUÒ ESSERE FORNITO FORATO SU RICHIESTA DEL CLIENTE CHE NE SPECIFICHI IL DIAMETRO DEL FORO, (SI DECLINA OGNI RESPONSABILITÀ)  
 THE RETENTION SCREEN CAN BE SUPPLIED CUSTOM-DRILLED TO SPECIFICATIONS OF THE CUSTOM, (WE DECLINE RESPONSIBILITY FOR CUSTOM ORDERS)  
 DURCHBOHRTE ANZUGSBOLZEN KOENNEN NACH SPEZIFISCH VON DEN KUNDEN ANGEGEBENEN DURCHMESSER GROESSEN AUCH GELIEFERT WERDEN, SELBSTVERSTÄENDLICH WIRD JEDLICHE VERANTWORTUNG ABGELEHNT.  
 LE TIRANT PEUT ETRE LIVRE SUR DEMANDE DU CLIENT QUI SPECIFIERA LE DIAMETRE DU TROU-NATURELLEMENT ON DECLINE TOUTE RESPONSABILITE

ART.	(mm)	ØD	ØD1	ØD3	ØD4	L	L4	L5	G	FIGURA FIGURE BILD FIGURE
BT 599.040.01	ISO40	23	17	10	15	60	35	28	M16	1
BT 599.040.02	ISO40	23	17	10	15	60	35	28	M16	2
BT 599.040.03	ISO40	23	17	10	15	60	35	28	M16	3
BT 599.050.05	ISO50	38	25	17	23	85	45	35	M24	1
BT 599.050.06	ISO50	38	25	17	23	85	45	35	M24	2
BT 599.050.07	ISO50	38	25	17	23	85	45	35	M24	3

## ART. 03 599..MAZAK ART. 03 599..JIS

ISO 7388/2 B  
JIS 6339

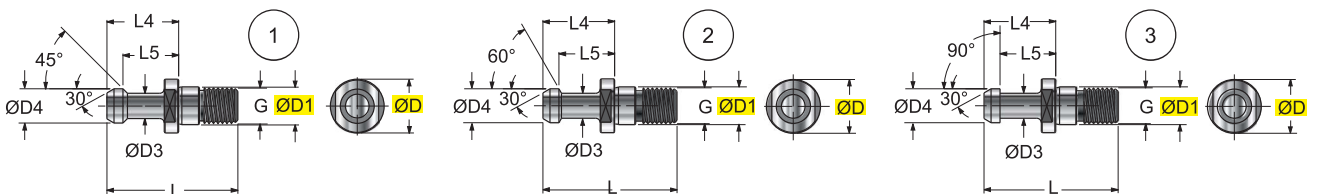


**TIRANTE DA DIN69871 A MANDRINO MAS 403 BT**  
DIN69871 A CHUCK RETENTION KNOB MAS 403 BT  
ANZUGSBOLZEN NACH DIN69871 MIT AUFNAHME MAS 403 BT  
TIRANT DE DIN69871 À BROCHE MAS 403 BT

ART.	(mm)	ØD	ØD1	ØD3	ØD4	L	L4	L5	G	F	FIGURA FIGURE BILD FIGURE
03 599.040.02NXBT MAZAK*	ISO40	22,5	17	12,95	18,95	44,5	19,1	14,1	M16	-	1
03 599.040.02XBT MAZAK*	ISO40	22,5	17	12,95	18,95	44,5	19,1	14,1	M16	7,35	3
03 599.040.01NXBT JIS	ISO40	23	17	14	19	54	29	23	M16	-	2
03 599.040.01XBT JIS	ISO40	23	17	14	19	54	29	23	M16	5,5	4

## ART. BT 599.. xDIN69871

JIS B 6339/BT



**TIRANTE DA MAS 403 BT A MANDRINO DIN69871**  
MAS 403 BT A CHUCK RETENTION KNOB DIN69871  
ANZUGSBOLZEN NACH MAS 403 BT MIT AUFNAHME DIN69871  
TIRANT DE MAS 403 BT À BROCHE DIN69871

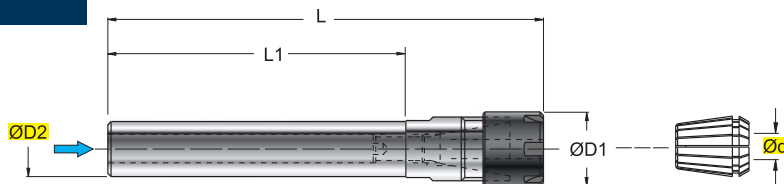
ART.	(mm)	ØD	ØD1	ØD3	ØD4	L	L4	L5	G	FIGURA FIGURE BILD FIGURE
BT 599.040.01xDIN69871	ISO40	23	17	10	15	57	32	25	M16	1
BT 599.040.02xDIN69871	ISO40	23	17	10	15	57	32	25	M16	2
BT 599.040.03xDIN69871	ISO40	23	17	10	15	57	32	25	M16	3

## ART. 253.. W

ER-DIN 6499



**RGM**  
Ghiera ad ingombro ridotto (SLIM)  
Smaller ring nut (SLIM)



art. 228..  
228Q.. (Recommended)  
230..  
230QN..  
328..  
330..

**PORTAPINZA DIN 6499**  
COLLET HOLDER DIN 6499  
FRÄSERSPANFUTTER DIN 6499  
MANDRINS A PINCES DIN 6499

RGM... , GHIERE CON DIAMETRO ØD1 MINORATO, PAG 954  
 RGM... , RING NUTS WITH REDUCED DIAMETER ØD1, SEE PAGE 954  
 RGM... , GEWINDERINGE MIT BESCHRÄNKTEM DURCHMESSER Ø D1, SEITE 954  
 RGM... , FRETES AVEC DIAMÈTRE ØD1 AMOINDRI, PAGE 954

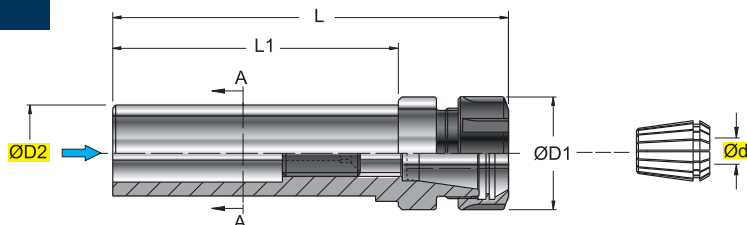
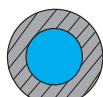
(mm)													
ART.	ØD2	Ød	ØD1	L	L1								
253.016.011.187MW	16	0,5-7	16	187	165	GWR06	RGM ER11	938.011	-	-	-	-	-
253.016.016.200MW	16	0,5-10	22	200	160	GWR08	RGM ER16	938.016	-	-	-	-	-
253.016.016.205W	16	0,5-10	28	205	160	GWR08	RGSE ER16	-	-	-	-	-	-
253.020.011.187MW	20	0,5-7	16	187	165	GWR06	RGM ER11	938.011	-	-	-	-	-
253.020.016.200MW	20	0,5-10	22	200	160	GWR10	RGM ER16	938.016	-	-	-	-	-
253.020.016.205W	20	0,5-10	28	205	160	GWR10	RGSE ER16	-	-	-	-	-	-
253.020.025.210W	20	0,5-16	42	210	160	GWR10	RGS ER25	-	-	925.040	-	-	-
253.020.025.210MW	20	0,5-16	35	210	160	GWR10	RGM ER25	938.025	-	-	-	-	-
253.025.016.205W	25	0,5-10	28	205	160	GWR08	RGSE ER16	-	-	-	-	-	-
253.025.025.210MW	25	0,5-16	35	210	160	GWR10	RGM ER25	938.025	-	-	-	-	-
253.025.025.210W	25	0,5-16	42	210	160	GWR10	RGS ER25	-	-	925.040	-	-	-
253.025.032.213W	25	2-20	50	213	160	GWR10	RGS ER32	-	-	925.052	-	-	-
253.032.016.205W	32	0,5-10	28	205	160	GWR08	RGSE ER16	-	-	-	-	-	-
253.032.025.210W	32	0,5-16	42	210	160	GWR10	RGS ER25	-	-	925.040	-	-	-
253.032.032.210W	32	2-20	50	210	160	GWR10	RGS ER32	-	-	925.052	-	-	-
253.032.040.140W	32	3-30	63	140	80	GWR14	RGS ER40	-	-	925.068	-	-	-
253.040.032.210W <b>New</b>	40	2-20	50	210	160	GWR10	RGS ER32	-	-	925.052	-	-	-
253.040.040.140W	40	3-30	63	140	80	GWR14	RGS ER40	-	-	925.068	-	-	-

## ART. 253.. NCW

ER-DIN 6499

**NEW**

SEZ A-A



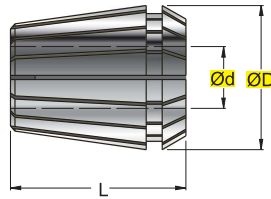
art. 228..  
228Q.. (Recommended)  
230..  
230QN..  
328..  
330..

**PORTAPINZA PER TORNIO DIN 6499**  
COLLET HOLDER DIN 6499  
FRÄSERSPANFUTTER DIN 6499  
MANDRINS A PINCES POUR TOUR DIN 6499

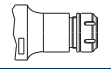
(mm)								
ART.	ØD2	Ød	ØD1	L	L1			
253.032.032.130NCW	32	2-20	50	128	80	GRF22	RGS ER32	925.052
253.040.032.130NCW	40	2-20	50	128	80	GRF22	RGS ER32	925.052


**ART. 228..**

ER-DIN 6499



**PINZA AUTOESTRAIBILE DIN 6499**  
**AUTO-CENTERING COLLET DIN 6499**  
**SELBSTZENTRIER-SPANNZANGEN DIN 6499**  
**PINCE DE SERRAGE À AUTO-CENTRAGE DIN 6499**

ART.	(mm)			
	Ød	ØD	L	
228.011.001.000	0,5-1	11,5	18	---ER-11---
228.011.001.500	1-1,5	11,5	18	---ER-11---
228.011.002.000	1,5-2	11,5	18	---ER-11---
228.011.002.500	2-2,5	11,5	18	---ER-11---
228.011.003.000	2,5-3	11,5	18	---ER-11---
228.011.003.500	3-3,5	11,5	18	---ER-11---
228.011.004.000	3,5-4	11,5	18	---ER-11---
228.011.004.500	4-4,5	11,5	18	---ER-11---
228.011.005.000	4,5-5	11,5	18	---ER-11---
228.011.005.500	5-5,5	11,5	18	---ER-11---
228.011.006.000	5,5-6	11,5	18	---ER-11---
228.011.006.500	6-6,5	11,5	18	---ER-11---
228.011.007.000	6,5-7	11,5	18	---ER-11---
228.016.001.000	0,5-1	17,0	27	---ER-16---
228.016.001.500	1-1,5	17,0	27	---ER-16---
228.016.002.000	1,5-2	17,0	27	---ER-16---
228.016.002.500	2-2,5	17,0	27	---ER-16---
228.016.003.000	2,5-3	17,0	27	---ER-16---
228.016.004.000	3-4	17,0	27	---ER-16---
228.016.005.000	4-5	17,0	27	---ER-16---
228.016.006.000	5-6	17,0	27	---ER-16---
228.016.007.000	6-7	17,0	27	---ER-16---
228.016.008.000	7-8	17,0	27	---ER-16---
228.016.009.000	8-9	17,0	27	---ER-16---
228.016.010.000	9-10	17,0	27	---ER-16---
228.025.001.000	0,5-1	26,0	35	---ER-25---
228.025.001.500	1-1,5	26,0	35	---ER-25---
228.025.002.000	1,5-2	26,0	35	---ER-25---
228.025.002.500	2-2,5	26,0	35	---ER-25---
228.025.003.000	2,5-3	26,0	35	---ER-25---
228.025.004.000	3-4	26,0	35	---ER-25---
228.025.005.000	4-5	26,0	35	---ER-25---
228.025.006.000	5-6	26,0	35	---ER-25---
228.025.007.000	6-7	26,0	35	---ER-25---
228.025.008.000	7-8	26,0	35	---ER-25---
228.025.009.000	8-9	26,0	35	---ER-25---
228.025.010.000	9-10	26,0	35	---ER-25---
228.025.011.000	10-11	26,0	35	---ER-25---
228.025.012.000	11-12	26,0	35	---ER-25---
228.025.013.000	12-13	26,0	35	---ER-25---
228.025.014.000	13-14	26,0	35	---ER-25---
228.025.015.000	14-15	26,0	35	---ER-25---
228.025.016.000	15-16	26,0	35	---ER-25---
228.032.003.000	2-3	33	40	---ER-32---
228.032.004.000	3-4	33	40	---ER-32---
228.032.005.000	4-5	33	40	---ER-32---
228.032.006.000	5-6	33	40	---ER-32---
228.032.007.000	6-7	33	40	---ER-32---
228.032.008.000	7-8	33	40	---ER-32---
228.032.009.000	8-9	33	40	---ER-32---
228.032.010.000	9-10	33	40	---ER-32---
228.032.011.000	10-11	33	40	---ER-32---
228.032.012.000	11-12	33	40	---ER-32---
228.032.013.000	12-13	33	40	---ER-32---
228.032.014.000	13-14	33	40	---ER-32---
228.032.015.000	14-15	33	40	---ER-32---
228.032.016.000	15-16	33	40	---ER-32---
228.032.017.000	16-17	33	40	---ER-32---
228.032.018.000	17-18	33	40	---ER-32---

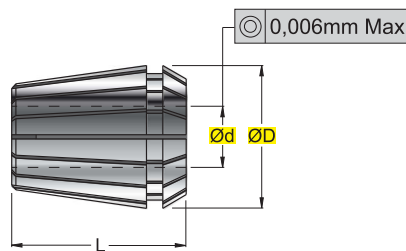
ART.	(mm)			
	Ød	ØD	L	
228.032.019.000	18-19	33	40	---ER-32---
228.032.020.000	19-20	33	40	---ER-32---
228.040.004.000	3-4	41	46	---ER-40---
228.040.005.000	4-5	41	46	---ER-40---
228.040.006.000	5-6	41	46	---ER-40---
228.040.007.000	6-7	41	46	---ER-40---
228.040.008.000	7-8	41	46	---ER-40---
228.040.009.000	8-9	41	46	---ER-40---
228.040.010.000	9-10	41	46	---ER-40---
228.040.011.000	10-11	41	46	---ER-40---
228.040.012.000	11-12	41	46	---ER-40---
228.040.013.000	12-13	41	46	---ER-40---
228.040.014.000	13-14	41	46	---ER-40---
228.040.015.000	14-15	41	46	---ER-40---
228.040.016.000	15-16	41	46	---ER-40---
228.040.017.000	16-17	41	46	---ER-40---
228.040.018.000	17-18	41	46	---ER-40---
228.040.019.000	18-19	41	46	---ER-40---
228.040.020.000	19-20	41	46	---ER-40---
228.040.021.000	20-21	41	46	---ER-40---
228.040.022.000	21-22	41	46	---ER-40---
228.040.023.000	22-23	41	46	---ER-40---
228.040.024.000	23-24	41	46	---ER-40---
228.040.025.000	24-25	41	46	---ER-40---
228.040.026.000	25-26	41	46	---ER-40---
228.040.027.000	26-27	41	46	---ER-40---
228.040.028.000	27-28	41	46	---ER-40---
228.040.029.000	28-29	41	46	---ER-40---
228.040.030.000	29-30	41	46	---ER-40---



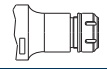
**ART. 228Q..**

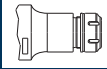
Raccomandata  
Recommended

ER-DIN 6499



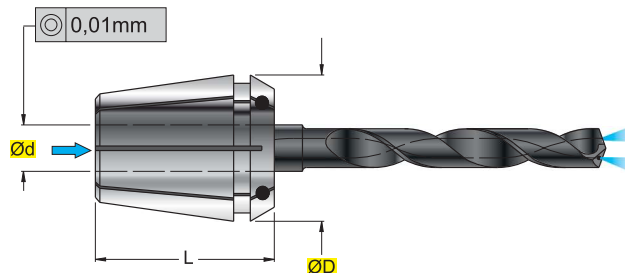
**PINZA AUTOESTRAIBILE DI PRECISIONE DIN 6499**  
PRECISION AUTO-CENTERING COLLET  
PRÄZISIONS-SELBSTZETRIER -SPANNZANGE  
PINCE AUTO-EXTRACTIBLE DE PRECISION

ART.	(mm)			
	Ød	ØD	L	
228Q.011.001.000	0,5-1	11,5	18	---ER-11---
228Q.011.001.500	1-1,5	11,5	18	---ER-11---
228Q.011.002.000	1,5-2	11,5	18	---ER-11---
228Q.011.002.500	2-2,5	11,5	18	---ER-11---
228Q.011.003.000	2,5-3	11,5	18	---ER-11---
228Q.011.003.500	3-3,5	11,5	18	---ER-11---
228Q.011.004.000	3,5-4	11,5	18	---ER-11---
228Q.011.004.500	4-4,5	11,5	18	---ER-11---
228Q.011.005.000	4,5-5	11,5	18	---ER-11---
228Q.011.005.500	5-5,5	11,5	18	---ER-11---
228Q.011.006.000	5,5-6	11,5	18	---ER-11---
228Q.011.006.500	6-6,5	11,5	18	---ER-11---
228Q.011.007.000	6,5-7	11,5	18	---ER-11---
228Q.016.001.000	0,5-1	17,0	27,5	---ER-16---
228Q.016.001.500	1-1,5	17,0	27,5	---ER-16---
228Q.016.002.000	1,5-2	17,0	27,5	---ER-16---
228Q.016.002.500	2-2,5	17,0	27	---ER-16---
228Q.016.003.000	2,5-3	17,0	27	---ER-16---
228Q.016.004.000	3-4	17,0	27,5	---ER-16---
228Q.016.005.000	4-5	17,0	27	---ER-16---
228Q.016.006.000	5-6	17,0	27	---ER-16---
228Q.016.007.000	6-7	17,0	27	---ER-16---
228Q.016.008.000	7-8	17,0	27,5	---ER-16---
228Q.016.009.000	8-9	17,0	27	---ER-16---
228Q.016.010.000	9-10	17,0	27	---ER-16---
228Q.025.001.000	0,5-1	26,0	35	---ER-25---
228Q.025.001.500	1-1,5	26,0	35	---ER-25---
228Q.025.002.000	1,5-2	26,0	35	---ER-25---
228Q.025.002.500	2-2,5	26,0	34	---ER-25---
228Q.025.003.000	2,5-3	26,0	35	---ER-25---
228Q.025.004.000	3-4	26,0	35	---ER-25---
228Q.025.005.000	4-5	26,0	34	---ER-25---
228Q.025.006.000	5-6	26,0	35	---ER-25---
228Q.025.007.000	6-7	26,0	35	---ER-25---
228Q.025.008.000	7-8	26,0	34	---ER-25---
228Q.025.009.000	8-9	26,0	35	---ER-25---
228Q.025.010.000	9-10	26,0	35	---ER-25---
228Q.025.011.000	10-11	26,0	35	---ER-25---
228Q.025.012.000	11-12	26,0	35	---ER-25---
228Q.025.013.000	12-13	26,0	35	---ER-25---
228Q.025.014.000	13-14	26,0	35	---ER-25---
228Q.025.015.000	14-15	26,0	35	---ER-25---
228Q.025.016.000	15-16	26,0	34	---ER-25---
228Q.032.002.000	1,5-2	33	40	---ER-32---
228Q.032.002.500	2-2,5	33	40	---ER-32---
228Q.032.003.000	2,5-3	33	40	---ER-32---
228Q.032.004.000	3-4	33	40	---ER-32---
228Q.032.005.000	4-5	33	40	---ER-32---
228Q.032.006.000	5-6	33	40	---ER-32---
228Q.032.007.000	6-7	33	40	---ER-32---
228Q.032.008.000	7-8	33	40	---ER-32---
228Q.032.009.000	8-9	33	40	---ER-32---
228Q.032.010.000	9-10	33	40	---ER-32---
228Q.032.011.000	10-11	33	40	---ER-32---
228Q.032.012.000	11-12	33	40	---ER-32---
228Q.032.013.000	12-13	33	40	---ER-32---
228Q.032.014.000	13-14	33	40	---ER-32---
228Q.032.015.000	14-15	33	40	---ER-32---
228Q.032.016.000	15-16	33	40	---ER-32---

ART.	(mm)			
	Ød	ØD	L	
228Q.032.017.000	16-17	33	40	---ER-32---
228Q.032.018.000	17-18	33	40	---ER-32---
228Q.032.019.000	18-19	33	40	---ER-32---
228Q.032.020.000	19-20	33	40	---ER-32---
228Q.040.004.000	3-4	41	46	---ER-40---
228Q.040.005.000	4-5	41	46	---ER-40---
228Q.040.006.000	5-6	41	46	---ER-40---
228Q.040.007.000	6-7	41	46	---ER-40---
228Q.040.008.000	7-8	41	46	---ER-40---
228Q.040.009.000	8-9	41	46	---ER-40---
228Q.040.010.000	9-10	41	46	---ER-40---
228Q.040.011.000	10-11	41	46	---ER-40---
228Q.040.012.000	11-12	41	46	---ER-40---
228Q.040.013.000	12-13	41	46	---ER-40---
228Q.040.014.000	13-14	41	46	---ER-40---
228Q.040.015.000	14-15	41	46	---ER-40---
228Q.040.016.000	15-16	41	46	---ER-40---
228Q.040.017.000	16-17	41	46	---ER-40---
228Q.040.018.000	17-18	41	46	---ER-40---
228Q.040.019.000	18-19	41	46	---ER-40---
228Q.040.020.000	19-20	41	46	---ER-40---
228Q.040.021.000	20-21	41	46	---ER-40---
228Q.040.022.000	21-22	41	46	---ER-40---
228Q.040.023.000	22-23	41	46	---ER-40---
228Q.040.024.000	23-24	41	46	---ER-40---
228Q.040.025.000	24-25	41	46	---ER-40---
228Q.040.026.000	25-26	41	46	---ER-40---

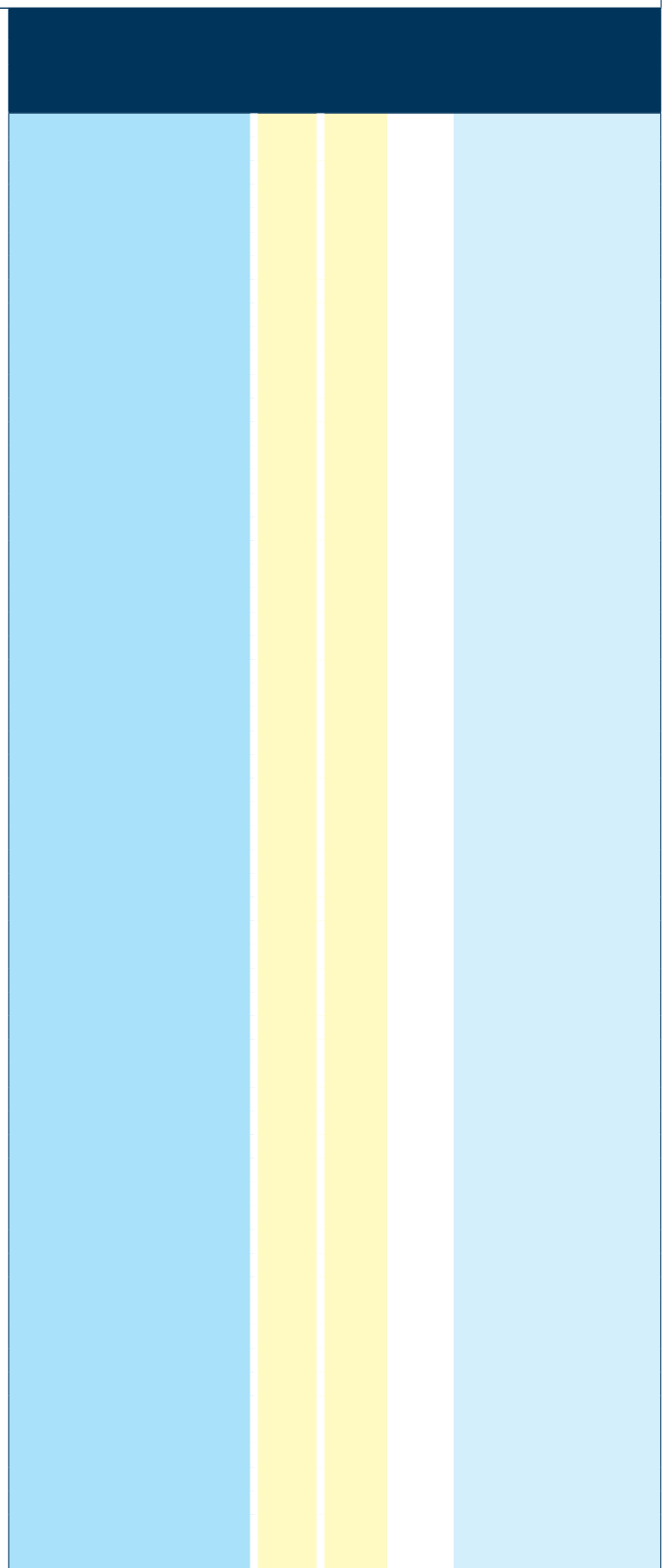
**ART. 230..**

ER-DIN 6499



**PINZA AUTOESTRAIBILE CON GOMMA DI TENUTA DIN 6499**  
 AUTO-CENTERING COLLET WITH RETAINING RUBBER DIN 6499  
 SELBSTZENTRIER-SPANNZANGEN MIT DICHTGUMMI DIN 6499  
 PINCE AUTO-EXTRACTIBLE AVEC JOINT D'ETANCHÉITÉ DIN 6499

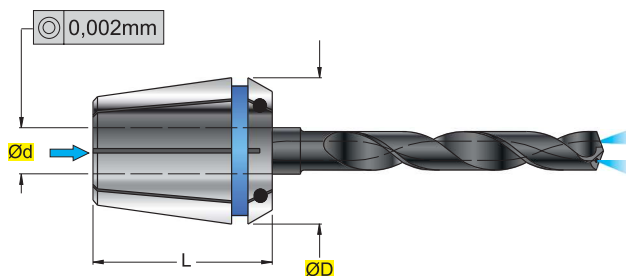
ART.	Ød (mm)	ØD (mm)	L (mm)	
230.025.003.000	3	26	35	---ER-25---
230.025.004.000	4	26	35	---ER-25---
230.025.005.000	5	26	35	---ER-25---
230.025.006.000	6	26	35	---ER-25---
230.025.007.000	7	26	35	---ER-25---
230.025.008.000	8	26	35	---ER-25---
230.025.009.000	9	26	35	---ER-25---
230.025.010.000	10	26	35	---ER-25---
230.025.011.000	11	26	35	---ER-25---
230.025.012.000	12	26	35	---ER-25---
230.025.013.000	13	26	35	---ER-25---
230.025.014.000	14	26	35	---ER-25---
230.025.015.000	15	26	35	---ER-25---
230.025.016.000	16	26	35	---ER-25---
230.032.003.000	3	33	40	---ER-32---
230.032.004.000	4	33	40	---ER-32---
230.032.005.000	5	33	40	---ER-32---
230.032.006.000	6	33	40	---ER-32---
230.032.007.000	7	33	40	---ER-32---
230.032.008.000	8	33	40	---ER-32---
230.032.009.000	9	33	40	---ER-32---
230.032.010.000	10	33	40	---ER-32---
230.032.011.000	11	33	40	---ER-32---
230.032.012.000	12	33	40	---ER-32---
230.032.013.000	13	33	40	---ER-32---
230.032.014.000	14	33	40	---ER-32---
230.032.015.000	15	33	40	---ER-32---
230.032.016.000	16	33	40	---ER-32---
230.032.017.000	17	33	40	---ER-32---
230.032.018.000	18	33	40	---ER-32---
230.032.019.000	19	33	40	---ER-32---
230.032.020.000	20	33	40	---ER-32---
230.040.004.000	4	41	46	---ER-40---
230.040.005.000	5	41	46	---ER-40---
230.040.006.000	6	41	46	---ER-40---
230.040.007.000	7	41	46	---ER-40---
230.040.008.000	8	41	46	---ER-40---
230.040.009.000	9	41	46	---ER-40---
230.040.010.000	10	41	46	---ER-40---
230.040.011.000	11	41	46	---ER-40---
230.040.012.000	12	41	46	---ER-40---
230.040.013.000	13	41	46	---ER-40---
230.040.014.000	14	41	46	---ER-40---
230.040.015.000	15	41	46	---ER-40---
230.040.016.000	16	41	46	---ER-40---
230.040.017.000	17	41	46	---ER-40---
230.040.018.000	18	41	46	---ER-40---
230.040.019.000	19	41	46	---ER-40---
230.040.020.000	20	41	46	---ER-40---
230.040.021.000	21	41	46	---ER-40---
230.040.022.000	22	41	46	---ER-40---
230.040.023.000	23	41	46	---ER-40---
230.040.024.000	24	41	46	---ER-40---
230.040.025.000	25	41	46	---ER-40---
230.040.026.000	26	41	46	---ER-40---



**ART. 230QN..**

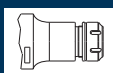
ER-DIN 6499

**NEW**



**PINZA AUTOESTRAIBILE DI PRECISIONE CON GOMMA DI TENUTA DIN 6499**  
PRECISION AUTO-CENTERING COLLET WITH RETAINING RUBBER DIN 6499  
PRÄZISIONS-SELBSTZENTRIER-SPANNZANGEN MIT DICHTGUMMI DIN 6499  
PINCE AUTO-EXTRACTIBLE DE PRECISION AVEC JOINT D'ÉTANCHÉITÉ DIN 6499

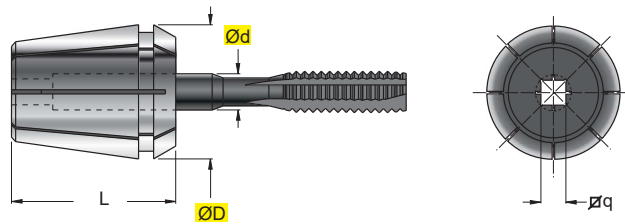
(mm)



ART.	Ød	ØD	L	
230QN.025.006.000	6	25,7	34	---ER-25---
230QN.025.007.000	7	25,7	34	---ER-25---
230QN.025.008.000	8	25,7	34	---ER-25---
230QN.025.009.000	9	25,7	34	---ER-25---
230QN.025.010.000	10	25,7	34	---ER-25---
230QN.025.011.000	11	25,7	34	---ER-25---
230QN.025.012.000	12	25,7	34	---ER-25---
230QN.025.013.000	13	25,7	34	---ER-25---
230QN.025.014.000	14	25,7	34	---ER-25---
230QN.025.015.000	15	25,7	34	---ER-25---
230QN.025.016.000	16	25,7	34	---ER-25---
230QN.032.006.000	6	32,7	40	---ER-32---
230QN.032.007.000	7	32,7	40	---ER-32---
230QN.032.008.000	8	32,7	40	---ER-32---
230QN.032.009.000	9	32,7	40	---ER-32---
230QN.032.010.000	10	32,7	40	---ER-32---
230QN.032.011.000	11	32,7	40	---ER-32---
230QN.032.012.000	12	32,7	40	---ER-32---
230QN.032.013.000	13	32,7	40	---ER-32---
230QN.032.014.000	14	32,7	40	---ER-32---
230QN.032.015.000	15	32,7	40	---ER-32---
230QN.032.016.000	16	32,7	40	---ER-32---
230QN.032.017.000	17	32,7	40	---ER-32---
230QN.032.018.000	18	32,7	40	---ER-32---
230QN.040.006.000	6	40,7	46	---ER-40---
230QN.040.008.000	8	40,7	46	---ER-40---
230QN.040.010.000	10	40,7	46	---ER-40---
230QN.040.012.000	12	40,7	46	---ER-40---
230QN.040.014.000	14	40,7	46	---ER-40---
230QN.040.016.000	16	40,7	46	---ER-40---
230QN.040.018.000	18	40,7	46	---ER-40---

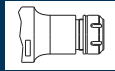
**ART. 328..**

ER-DIN 6499 B



**PINZA AUTOESTRAIBILE PORTA MASCHI DIN 6499-AZ**  
**AUTO-CENTERING COLLET TAP HOLDERS DIN 6499-AZ**  
**SELBSTZENTRIER-SPANNZANGEN GEWINDEBOHREUFNAHME DIN 6499-AZ**  
**PINCE DE SERRAGE À AUTO-CENTRAGE PORTE TAURAUDS DIN 6499-AZ**

(mm)

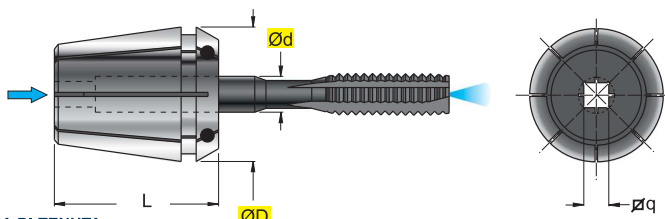


ART.	Ød	ØD	L	Øq	
328.016.035.027	3,5	17	27,5	2,7	---ER-16---
328.016.040.030	4,0	17	27,5	3,0	---ER-16---
328.016.045.034	4,5	17	27,5	3,4	---ER-16---
328.016.050.040	5,0	17	27,5	4,0	---ER-16---
328.016.055.043	5,5	17	27,5	4,3	---ER-16---
328.016.060.049	6,0	17	27,5	4,9	---ER-16---
328.016.063.050	6,3	17	27,5	5,0	---ER-16---
328.016.070.055	7,0	17	27,5	5,5	---ER-16---
328.016.080.062	8,0	17	27,5	6,2	---ER-16---
328.016.090.070	9,0	17	27,5	7,0	---ER-16---
328.016.100.080	10,0	17	27,5	8,0	---ER-16---
328.025.045.034	4,5	26	34	3,4	---ER-25---
328.025.055.043	5,5	26	34	4,3	---ER-25---
328.025.060.049	6,0	26	34	4,9	---ER-25---
328.025.070.055	7,0	26	34	5,5	---ER-25---
328.025.080.062	8,0	26	34	6,2	---ER-25---
328.025.090.070	9,0	26	34	7,0	---ER-25---
328.025.100.080	10,0	26	34	8,0	---ER-25---
328.025.110.090	11,0	26	34	9,0	---ER-25---
328.025.120.090	12,0	26	34	9,0	---ER-25---
328.032.045.034	4,5	33	40	3,4	---ER-32---
328.032.055.043	5,5	33	40	4,3	---ER-32---
328.032.060.049	6,0	33	40	4,9	---ER-32---
328.032.070.055	7,0	33	40	5,5	---ER-32---
328.032.080.062	8,0	33	40	6,2	---ER-32---
328.032.090.070	9,0	33	40	7,0	---ER-32---
328.032.100.080	10,0	33	40	8,0	---ER-32---
328.032.110.090	11,0	33	40	9,0	---ER-32---
328.032.120.090	12,0	33	40	9,0	---ER-32---
328.032.140.110	14,0	33	40	11,0	---ER-32---
328.032.160.120	16,0	33	40	12,0	---ER-32---
328.040.070.055	7,0	41	46	5,5	---ER-40---
328.040.080.062	8,0	41	46	6,2	---ER-40---
328.040.090.070	9,0	41	46	7,0	---ER-40---
328.040.100.080	10,0	41	46	8,0	---ER-40---
328.040.110.090	11,0	41	46	9,0	---ER-40---
328.040.120.090	12,0	41	46	9,0	---ER-40---
328.040.140.110	14,0	41	46	11,0	---ER-40---
328.040.160.120	16,0	41	46	12,0	---ER-40---
328.040.180.145	18,0	41	46	14,5	---ER-40---
328.040.200.160	20,0	41	46	16,0	---ER-40---

**ART. 330..**

ER-DIN 6499 B

**NEW**



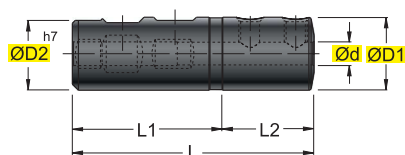
**PINZA AUTOESTRAIBILE PORTA MASCHI CON GOMMA DI TENUTA**  
**AUTO-CENTERING COLLET WITH RETAINING RUBBER**  
**SELBSTZENTRIER-SPANNZANGEN MIT DICHTGUMMI**  
**PINCE AUTOEXTRACTIBLE PORTE-MALES AVEC CAOUTCHOUC D'ETANCHEITE**

(mm)



ART.	Ød	ØD	L	øq	
330.016.040.030	4,0	17	27,5	3,0	---ER-16---
330.016.045.034	4,5	17	27,5	3,4	---ER-16---
330.016.050.040	5,0	17	27,5	4,0	---ER-16---
330.016.055.043	5,5	17	27,5	4,3	---ER-16---
330.016.060.049	6,0	17	27,5	4,9	---ER-16---
330.016.070.055	7,0	17	27,5	5,5	---ER-16---
330.016.080.062	8,0	17	27,5	6,2	---ER-16---
330.025.040.030	4,0	26	34	3,0	---ER-25---
330.025.045.034	4,5	26	34	3,4	---ER-25---
330.025.050.040	5,0	26	34	4,0	---ER-25---
330.025.055.043	5,5	26	34	4,3	---ER-25---
330.025.060.049	6,0	26	34	4,9	---ER-25---
330.025.070.055	7,0	26	34	5,5	---ER-25---
330.025.080.062	8,0	26	34	6,2	---ER-25---
330.025.090.070	9,0	26	34	7,0	---ER-25---
330.025.100.080	10,0	26	34	8,0	---ER-25---
330.025.110.090	11,0	26	34	9,0	---ER-25---
330.025.120.090	12,0	26	34	9,0	---ER-25---
330.032.045.034	4,5	33	40	3,4	---ER-32---
330.032.050.040	5,0	33	40	4,0	---ER-32---
330.032.055.043	5,5	33	40	4,3	---ER-32---
330.032.060.049	6,0	33	40	4,9	---ER-32---
330.032.070.055	7,0	33	40	5,5	---ER-32---
330.032.080.062	8,0	33	40	6,2	---ER-32---
330.032.090.070	9,0	33	40	7,0	---ER-32---
330.032.100.080	10,0	33	40	8,0	---ER-32---
330.032.110.090	11,0	33	40	9,0	---ER-32---
330.032.120.090	12,0	33	40	9,0	---ER-32---
330.032.140.110	14,0	33	40	11,0	---ER-32---
330.032.160.120	16,0	33	40	12,0	---ER-32---
330.040.060.049	6,0	41	46	4,9	---ER-40---
330.040.070.055	7,0	41	46	5,5	---ER-40---
330.040.080.062	8,0	41	46	6,2	---ER-40---
330.040.090.070	9,0	41	46	7,0	---ER-40---
330.040.100.080	10,0	41	46	8,0	---ER-40---
330.040.110.090	11,0	41	46	9,0	---ER-40---
330.040.120.090	12,0	41	46	9,0	---ER-40---
330.040.140.110	14,0	41	46	11,0	---ER-40---
330.040.160.120	16,0	41	46	12,0	---ER-40---
330.040.180.145	18,0	41	46	14,5	---ER-40---
330.040.200.160	20,0	41	46	16,0	---ER-40---

## ART. 216..

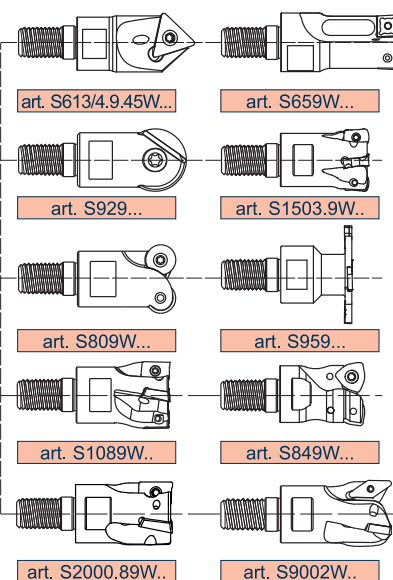
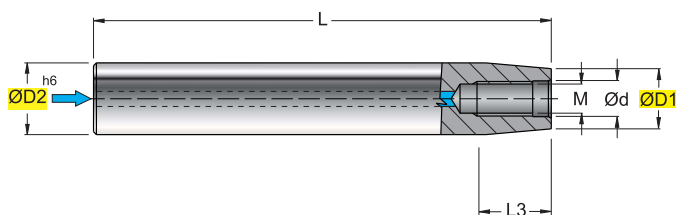


**BOCCOLA DI RIDUZIONE PER UTENSILE PER MINIALESATURA**  
COLLET ADAPTERS FOR MINI BOHRING TOOL  
REDUKTION FÜR MINI BOHRSTANGE  
DOUILLE DE RÉDUCTION POUR OUTIL À ALÈSER MINIATURE

0,005

(mm)							GR505	GR606	5025	5003
ART.	ØD2 <sup>h7</sup>	Ød <sup>H7</sup>	ØD1	L	L1	L2				
216.016.005.016	16	5	16	53	33	20	GR505	GR606	5025	5003
216.016.006.016	16	6	16	55	33	22				
216.016.008.020	16	8	20	60	33	27				
216.016.010.022	16	10	22	60	33	27				
216.016.012.024	16	12	24	65	33	32				

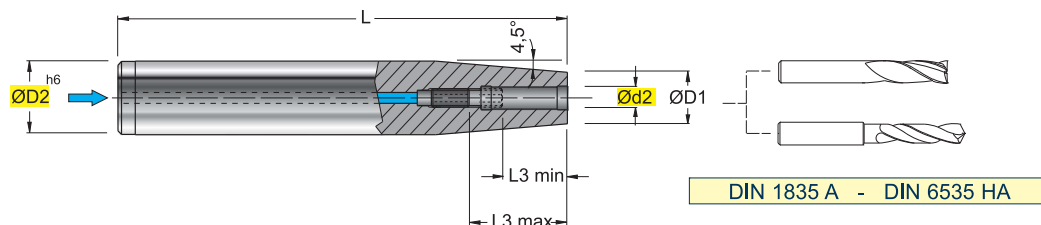
## ART. CIL.. MF.. W



**PROLUNGA IN ACCIAIO CON ATTACCO CILINDRICO PER MODULARE FILETTATO**  
STEEL EXTENSION WITH CYLINDRICAL CONNECTION FOR THREADED MODULAR TOOL SYSTEM  
STAHLVERLÄNGERUNG MIT ZYLINDRAUFNAHME FÜR GEWINDE-MODULARWERKZEUGSYSTEM  
RALLONGE EN ACIER AVEC ATTACHEMENT CILYNDRIQUE POUR LE SISTEME MODULAIR FILETÉ

(mm)							GR505	GR606	5025	5003
ART.	M	Ød <sup>h6</sup>	ØD1	ØD2	L	L3				
CIL.012.MF005.115W	5	5,5	8	12	115	14	GR505	GR606	5025	5003
CIL.012.MF006.115W	6	6,5	10	12	115	14				
CIL.016.MF008.127W	8	8,5	13	16	127	15				
CIL.020.MF010.140W	10	10,5	18	20	140	15				
CIL.025.MF012.160W	12	12,5	21	25	160	20				
CIL.032.MF016.187W	16	17,0	29	32	187	20				

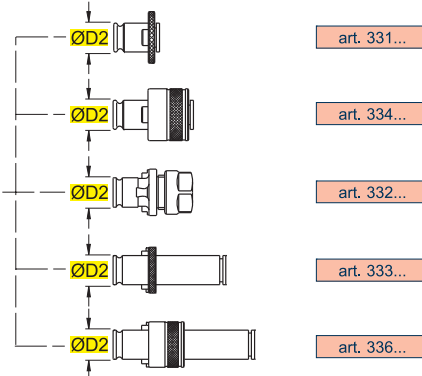
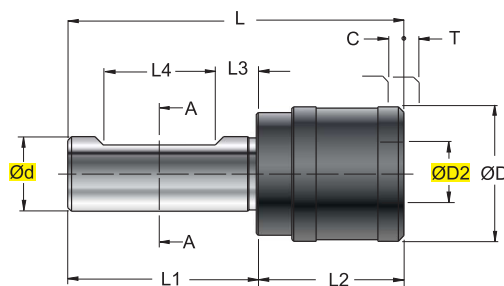
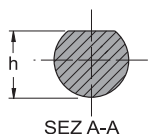
## ART. CIL.. CTPN.. W



**PROLUNGA IN ACCIAIO CON ATTACCO A CALETTAMENTO TERMICO CON GRANO DI REGOLAZIONE**  
**STEEL SHRINK-FIT EXTENSION WITH ADJUSTMENT DOWEL.**  
**STAHLVERLÄNGERUNG MIT SCHRUMPFVERBINDUNG MIT EINSTELLSTIFT**  
**RALLONGE EN ACIER AVEC ATTACHEMENT A EMBOITEMENT TERMIQUE AVEC GRAIN DE REGULATION**

ART.	(mm)						GWR	5025	5003	5004	5005	5006	5008
	Ød2	ØD1	ØD2 <sup>h6</sup>	L	L3max	L3min							
CIL.012.CTPN003.160W	3	8	12	160	9,0	-	-	-	-	-	-	-	-
CIL.012.CTPN004.160W	4	8	12	160	12,0	-	-	-	-	-	-	-	-
CIL.016.CTPN003.160W	3	10	16	160	9,0	-	-	-	-	-	-	-	-
CIL.016.CTPN004.160W	4	10	16	160	12,0	-	-	-	-	-	-	-	-
CIL.016.CTPN005.160W	5	10	16	160	15,0	-	-	-	-	-	-	-	-
CIL.016.CTPN006.160W	6	10	16	160	36,0	26,0	GWR 05L	-	-	-	-	5025	-
CIL.020.CTPN006.160W	6	14	20	160	36,0	26,0	-	-	-	-	-	-	-
CIL.020.CTPN008.160W	8	14	20	160	36,0	26,0	GWR 06L	-	-	-	-	5003	-
CIL.025.CTPN008.160W	8	19	25	160	36,0	26,0	-	-	-	-	-	-	-
CIL.025.CTPN008.200W	8	19	25	200	36,0	26,0	-	-	-	-	-	-	-
CIL.025.CTPN010.160W	10	20	25	160	41,0	31,0	GWR 08CTD	-	-	-	-	5004	-
CIL.025.CTPN010.200W	10	20	25	200	41,0	31,0	-	-	-	-	-	-	-
CIL.025.CTPN012.160W	12	20	25	160	46,0	36,0	GWR 10CTD	-	-	-	-	5005	-
CIL.025.CTPN012.200W	12	20	25	200	46,0	36,0	-	-	-	-	-	-	-
CIL.025.CTPN014.160W	14	22	25	160	46,0	36,0	-	-	-	-	-	-	-
CIL.025.CTPN016.160W	16	22	25	160	49,0	39,0	GWR 12CTD	-	-	-	-	5006	-
CIL.025.CTPN016.200W	16	22	25	200	49,0	39,0	-	-	-	-	-	-	-
CIL.032.CTPN016.160W	16	27	32	160	49,0	39,0	-	-	-	-	-	-	-
CIL.032.CTPN016.200W	16	27	32	200	49,0	39,0	-	-	-	-	-	-	-
CIL.032.CTPN018.160W	18	27	32	160	49,0	39,0	-	-	-	-	-	-	-
CIL.032.CTPN020.160W	20	27	32	160	51,0	41,0	GWR 16CTD	-	-	-	-	5008	-
CIL.032.CTPN020.200W	20	27	32	200	51,0	41,0	-	-	-	-	-	-	-

## ART. CWE.. MC..

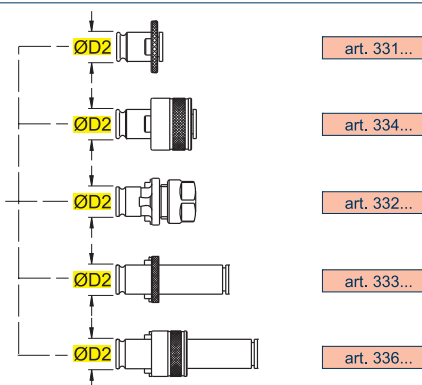
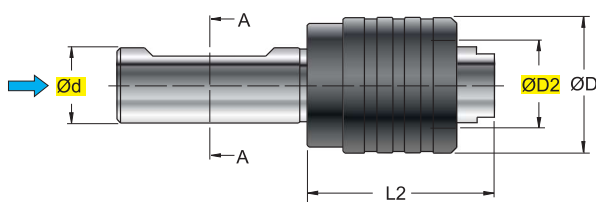
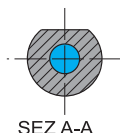


**PORTAMASCHIO A CAMBIO RAPIDO CON DOPPIA COMPENSAZIONE ASSIALE**  
**QUICK-CHANGE TAP HOLDER WITH DOUBLE AXIAL COMPENSATION**  
**GEWINDESCHNEID-SCHNELLWECHSELFUTTER MIT DOPPELAUSGLEICH**  
**MANDRINS DE TARAUDAGE À CHANGEMENT RAPIDE À DOUBLE COMPENSATION AXIALE**

(mm)

ART.	ØD	Ød	ØD2	L	L1	L2	L3	L4	h	C	T
CWE.020.MC019.041	38	20	19	90	50	40	10,5	30	18	7,5	7,5
CWE.025.MC031.063	55	25	31	120	56	64	10,5	30	23	12,5	12,5
CWE.032.MC048.109	79	32	48	169	60	109	6,0	37	30	24	24

## ART. CWE.. MR..

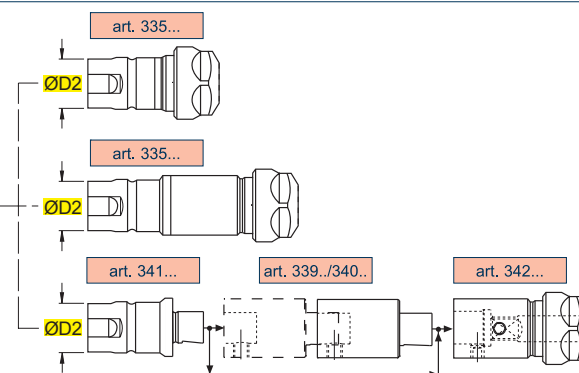
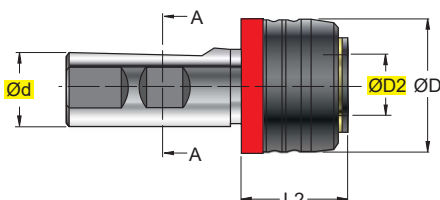
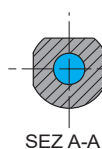


**PORTAMASCHIO A CAMBIO RAPIDO SENZA COMPENSAZIONE ASSIALE**  
**QUICK-CHANGE TAPPING CHUCK WITHOUT AXIAL COMPENSATION**  
**GEWINDESCHNEID-SCHNELLWECHSELFUTTER OHNE AUSGLEICH**  
**MANDRINS DE TARAUDAGE À CHANGEMENT RAPIDE SANS COMPENSATION AXIALE**

(mm)

ART.	ØD	Ød	ØD2	L2
CWE.020.MR019.041	38	20	19	41
CWE.025.MR019.040	33	25	19	40
CWE.025.MR031.063	55	25	31	63
CWE.032.MR031.063	50	32	31	63
CWE.040.MR048.087	72	40	48	87

## ART. CWE.. MS..



**PORTAMASCHIO PER MASCHIATURA SINCRONIZZATA**  
**TAP HOLDERS FOR SYNCHRONIZED TAPPING**  
**GEWINDEBOHRERHALTER FÜR SYNCHRON STEUERUNG**  
**MANDRINS DE TARAUDAGE POUR TARAUDAGE SYNCHRONISÉ**

(mm)

ART.	ØD	Ød	ØD2	L2
CWE.025.MS016.034	43	25	20	34
CWE.025.MS020.056	60	25	32	56
CWE.040.MS033.080	87	40	50	80

### CARATTERISTICHE TECNICHE - TECHNICAL CHARACTERISTICS

1. Perfetto allineamento maschio-foro: 0,003 mm
2. Durata del maschio tripla rispetto ad un sistema di maschiatura tradizionale
3. Cambio rapido del maschio e della bussola
4. Adatto per maschiatura rigida sincronizzata con compensazione in sfilamento (1mm) ed in rientro (0,2mm)
5. Predisposto per il passaggio della lubrificazione fino a 50 bar
6. Ingombro ridotto

1. Perfect line up tap-hole: 0,003mm
2. Triple life of tap in comparison to a traditional tapping system
3. Quick change of the tap and of the adapter
4. Suitable for rigid tapping with a micro compensation in extension (1mm) and (0,2mm) in compression
5. Possible coolant flow till 50bar
6. Reduced dimensions






 **BUSSOLE SENZA FRIZIONE**

 **TAP ADAPTERS WITHOUT OVERLOAD CLUTCH.**

 **GEWINDEBOHRERAUFNAHME OHNE DREHMOMENTBEGRENZUNG**

 **DOUILLES SANS EMBRAYAGE.**



						
		DIN371	DIN376-374	DIN353	DIN2182	DIN2183
331.019.028.021		M2-M2,5				
331.019.035.027	333.019.035.027	M3	M5		1/8"	
331.019.040.030		M3,5				
331.019.045.034	333.019.045.034	M4	M6		5/32"	1/4"
331.019.060.049	333.019.060.049	M5-M6	M8		7/32"	
331.019.070.055	333.019.070.055		M10	R1/8"	1/4"	3/8"
331.019.080.062	333.019.080.062	M8			5/16"	7/16"
331.019.090.070	333.019.090.070		M12		3/8"	1/2"
331.019.100.080	333.019.100.080	M10				
331.019.110.090			M14	R1/4"		9/16"
	333.031.060.049	M5-M6	M8		7/32"	
	333.031.070.055		M10	R1/8"	1/4"	3/8"
331.031.080.062	333.031.080.062	M8			5/16"	7/16"
331.031.090.070	333.031.090.070		M12		3/8"	1/2"
331.031.100.080	333.031.100.080	M10				
331.031.110.090	333.031.110.090		M14	R1/4"		9/16"
331.031.120.090	333.031.120.090		M16	R3/8"		5/8"
331.031.140.110	333.031.140.110		M18			11/16"
331.031.160.120	333.031.160.120		M20	R1/2"		13/16"
331.031.180.145			M22-M24	R5/8"		7/8-15/16"
331.031.200.160			M27	R3/4"		1"
331.031.220.180			M30			
331.048.120.090			M16	R3/8"		5/8"
331.048.140.110			M18			11/16"
331.048.160.120			M20	R1/2"		13/16"
331.048.180.145			M22-M24	R5/8"		7/8-15/16"
331.048.200.160			M27	R3/4"		1"
331.048.220.180			M30	R7/8"		1,1/8"
331.048.250.200			M33	R1"		1,1/4"
331.048.280.220			M36	R1,1/8"		1,3/8"
331.048.320.240			M42	R1,1/4"		1,1/2-1,5/8"
331.048.360.290			M48	R1,2/2"		1,3/4-1,7/8"

 **BUSSOLE CON FRIZIONE**  
(\* PREPARATE (\*\* DA TARARE

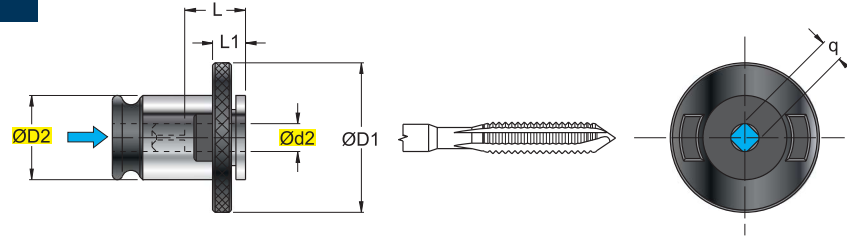
 **TAP ADAPTERS WITH OVERLOAD CLUTCH.**  
(\* PRE-CALIBRATED (\*\* UNCALIBRATED

 **GEWINDEBOHRERAUFNAHME MIT DREHMOMENTBEGRENZUNG**  
(\* VORKALIBRIERT (\*\* UNKALIBRIERT

 **DOUILLES SANS EMBRAYAGE**  
(\* PRE-CALIBRÉES (\*\* À CALIBRER

		(*)		(**)			
		DIN371	DIN376	DIN376-374	DIN353	DIN2182	DIN2183
334.019.028.021		M2-M2,5					
334.019.035.027	336.019.035.027	M3		M5		1/8"	
334.019.040.030		M3,5					
334.019.045.034	336.019.045.034	M4		M6		5/32"	1/4"
334.019.060.049	336.019.060.049.5 336.019.060.049.6	M5 M6		M8		7/32"	
334.019.070.055	336.019.070.055		M10		R1/8"	1/4"	3/8"
334.019.080.062	336.019.080.062	M8				5/16"	7/16"
334.019.090.070	336.019.090.070		M12			3/8"	1/2"
334.019.100.080	336.019.100.080	M10					
	336.031.060.049	M6				5/16"	7/16"
	336.031.070.055		M10				
334.031.080.062	336.031.080.062	M8					
334.031.090.070	336.031.090.070		M12			3/8"	1/2"
334.031.100.080	336.031.100.080	M10					
334.031.110.090	336.031.110.090		M14		R1/4"		9/16"
334.031.120.090	336.031.120.090		M16		R3/8"		5/8"
334.031.140.110	336.031.140.110		M18				11/16"
334.031.160.120	336.031.160.120		M20		R1/2"		13/16"
334.031.180.145			M22-M24		R5/8"		7/8-15/16"
334.048.120.090			M16		R3/8"		5/8"
334.048.140.110			M18				11/16"
334.048.160.120			M20		R1/2"		13/16"
334.048.180.145			M22-M24		R5/8"		7/8-15/16"
334.048.200.160			M27		R3/4"		1"
334.048.220.180			M30		R7/8"		1,1/8"
334.048.250.200			M33		R1"		1,1/4"
334.048.280.220			M36		R1,1/8"		1,3/8"

**ART. 331..**

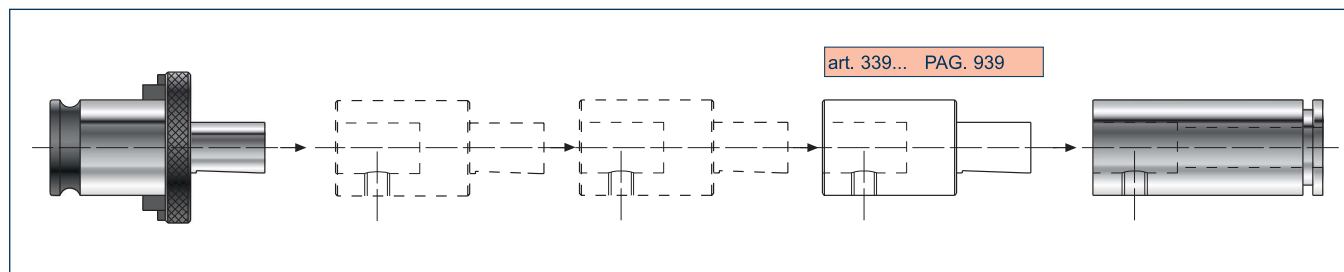
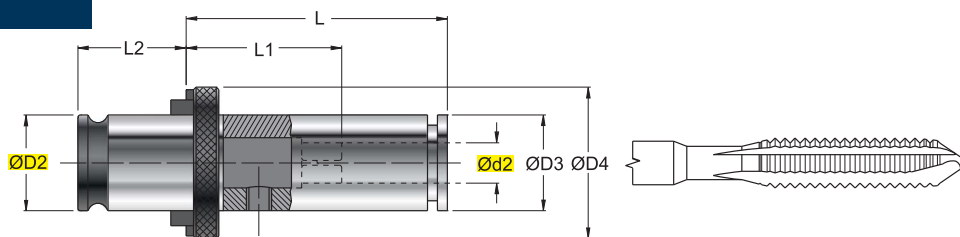


**BUSSOLA PORTA MASCHI**  
TAP-COLLET  
GEWINDEBOHRER-AUFNAHME  
DOUILLE PORTE-TARAUDS

(mm)										
ART.	Ød2	ØD2	ØD1	L	L1	q				
331.019.028.021	2,8	19	30	17	7	2,1				
331.019.035.027	3,5	19	30	17	7	2,7				
331.019.040.030	4,0	19	30	17	7	3,0				
331.019.045.034	4,5	19	30	17	7	3,4				
331.019.060.049	6,0	19	30	17	7	4,9				
331.019.070.055	7,0	19	30	17	7	5,5				
331.019.080.062	8,0	19	30	17	7	6,2				
331.019.090.070	9,0	19	30	17	7	7,0				
331.019.100.080	10,0	19	30	17	7	8,0				
331.019.110.090	11,0	19	30	17	7	9,0				
331.031.080.062	8,0	31	48	30	11	6,2				
331.031.090.070	9,0	31	48	30	11	7,0				
331.031.100.080	10,0	31	48	30	11	8,0				
331.031.110.090	11,0	31	48	30	11	9,0				
331.031.120.090	12,0	31	48	30	11	9,0				
331.031.140.110	14,0	31	48	30	11	11,0				
331.031.160.120	16,0	31	48	30	11	12,0				
331.031.180.145	18,0	31	48	30	11	14,5				
331.031.200.160(*)	20,0	31	48	30	11	16,0				
331.031.220.180(*)	22,0	31	48	30	11	18,0				
331.048.120.090	12,0	48	70	44	14	9,0				
331.048.140.110	14,0	48	70	44	14	11,0				
331.048.160.120	16,0	48	70	44	14	12,0				
331.048.180.145	18,0	48	70	44	14	14,5				
331.048.200.160	20,0	48	70	44	14	16,0				
331.048.220.180	22,0	48	70	44	14	18,0				
331.048.250.200	25,0	48	70	44	14	20,0				
331.048.280.220	28,0	48	70	44	14	22,0				
331.048.320.240(*)	32,0	48	70	44	14	24,0				
331.048.360.290(*)	36,0	48	70	44	14	29,0				

(\*) = PER LAVORAZIONI LEGGERE  
SUITABLE FOR LIGHT MACHINING  
FÜR LEICHTMETALLBEARBEITUNG  
APTE POUR USINAGE LÉGER

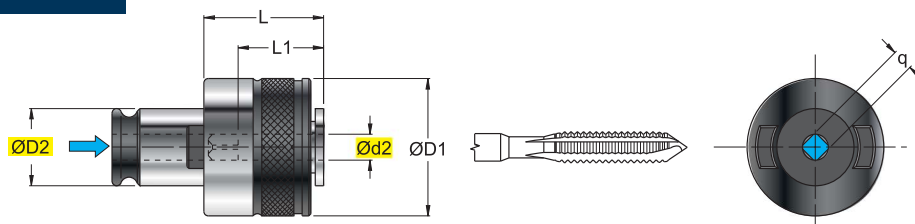
**ART. 333..**



**BUSSOLA PORTA MASCHI MODULARE PROLUNGATA**  
EXTENDED MODULAR TAP-COLLET LONGTYPE  
VERLÄNGERTE MODULARE GEWINDEBOHRERAUFNAHME  
DOUILLE PORTE -TARAUDS MODULAIRE SERIE LONGUE

ART.	(mm)										
	Ød2	ØD2	ØD3	ØD4	L	L1	L2				
333.019.035.027	3,5	19	23	30	52	33	21,5	GR606	5003	5005	339.019.019.025 339.019.019.050
333.019.045.034	4,5	19	23	30	52	33	21,5	GR606	5003	5005	339.019.019.025 339.019.019.050
333.019.060.049	6,0	19	23	30	52	33	21,5	GR606	5003	5005	339.019.019.025 339.019.019.050
333.019.070.055	7,0	19	23	30	52	33	21,5	GR606	5003	5005	339.019.019.025 339.019.019.050
333.019.080.062	8,0	19	23	30	52	33	21,5	GR606	5003	5005	339.019.019.025 339.019.019.050
333.019.090.070	9,0	19	23	30	52	33	21,5	GR606	5003	5005	339.019.019.025 339.019.019.050
333.019.100.080	10,0	19	23	30	52	33	21,5	GR606	5003	5005	339.019.019.025 339.019.019.050
333.031.060.049	6,0	31	34,5	46	74	44	35	GR1008	5005	5005	339.031.031.050 339.031.031.100
333.031.070.055	7,0	31	34,5	46	74	44	35	GR1008	5005	5005	339.031.031.050 339.031.031.100
333.031.080.062	8,0	31	34,5	46	74	44	35	GR1008	5005	5005	339.031.031.050 339.031.031.100
333.031.090.070	9,0	31	34,5	46	74	44	35	GR1008	5005	5005	339.031.031.050 339.031.031.100
333.031.100.080	10,0	31	34,5	46	74	44	35	GR1008	5005	5005	339.031.031.050 339.031.031.100
333.031.110.090	11,0	31	34,5	46	74	44	35	GR1008	5005	5005	339.031.031.050 339.031.031.100
333.031.120.090	12,0	31	34,5	46	74	44	35	GR1008	5005	5005	339.031.031.050 339.031.031.100
333.031.140.110	14,0	31	34,5	46	74	44	35	GR1008	5005	5005	339.031.031.050 339.031.031.100
333.031.160.120	16,0	31	34,5	46	74	44	35	GR1008	5005	5005	339.031.031.050 339.031.031.100

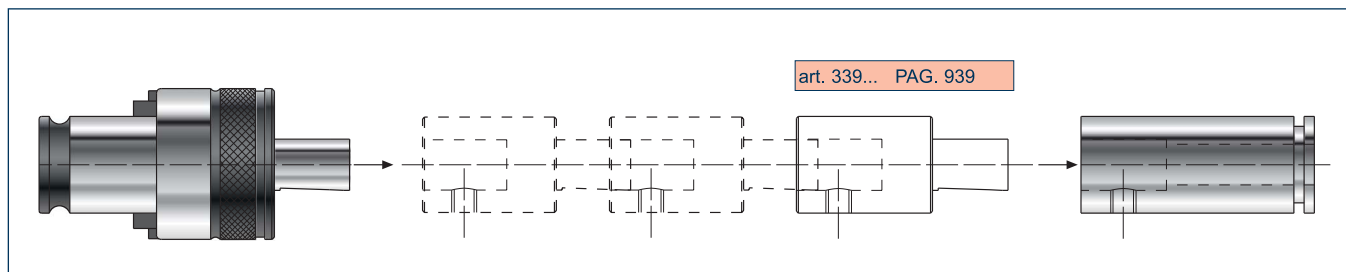
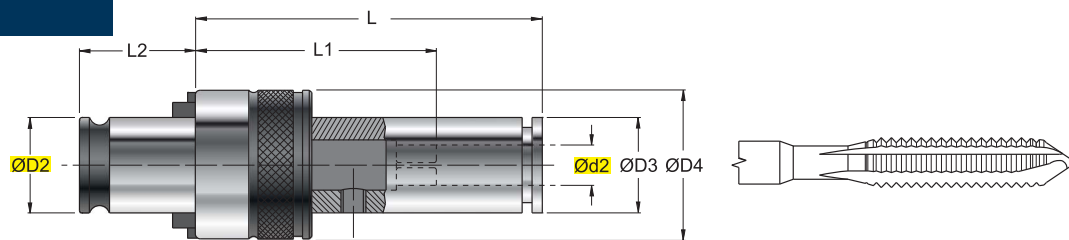
**ART. 334..**



**BUSSOLA PORTA MASCHI CON FRIZIONE**  
TAP-COLLET WITH OVERLOAD CLUTCH  
GEWINDEBOHRER-AUFNAHME MIT DREHMOMENTBEGRENZUNG  
DOUILLE PORTE-TARAUDS AVEC EMBRAYAGE

(mm)													
ART.	Ød2	ØD2	ØD1	L	L1	q							
334.019.028.021	2,8	19	32	25	17	2,1							
334.019.035.027	3,5	19	32	25	17	2,7							
334.019.040.030	4,0	19	32	25	17	3,0							
334.019.045.034	4,5	19	32	25	17	3,4							
334.019.060.049	6,0	19	32	25	17	4,9							
334.019.070.055	7,0	19	32	25	17	5,5							
334.019.080.062	8,0	19	32	25	17	6,2							
334.019.090.070	9,0	19	32	25	17	7,0							
334.019.100.080	10,0	19	32	25	17	8,0							
334.031.060.049	New 6,0	31	50	34	30	4,9							
334.031.070.055	New 7,0	31	50	34	30	5,5							
334.031.080.062	8,0	31	50	34	30	6,2							
334.031.090.070	9,0	31	50	34	30	7,0							
334.031.100.080	10,0	31	50	34	30	8,0							
334.031.110.090	11,0	31	50	34	30	9,0							
334.031.120.090	12,0	31	50	34	30	9,0							
334.031.140.110	14,0	31	50	34	30	11,0							
334.031.160.120	16,0	31	50	34	30	12,0							
334.031.180.145	18,0	31	50	34	30	14,5							
334.048.120.090	12,0	48	72	45	44	9,0							
334.048.140.110	14,0	48	72	45	44	11,0							
334.048.160.120	16,0	48	72	45	44	12,0							
334.048.180.145	18,0	48	72	45	44	14,5							
334.048.200.160	20,0	48	72	45	44	16,0							
334.048.220.180	22,0	48	72	45	44	18,0							
334.048.250.200	25,0	48	72	45	44	20,0							
334.048.280.220	28,0	48	72	45	44	22,0							

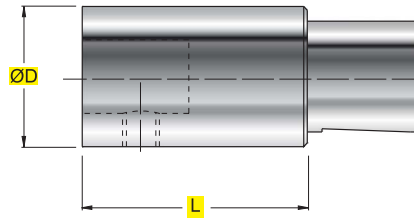
**ART. 336..**



**BUSSOLA PORTA MASCHI MODULARE PROLUNGATA CON FRIZIONE**  
EXTENDED MODULAR TAP-COLLET WITH OVERLOAD CLUTCH  
VERLÄNGERTE MODULARE GEWINDEBOHRERAUFNAHME MIT DREHMOMENTBEGRENZUNG  
DOUILLE PORTE -TARAUDS MODULAIRE PROLONGÉE AVEC EMBRAYAGE

ART.	(mm)							GR606	5003	339.019.019.025 339.019.019.050
	Ød2	ØD2	ØD3	ØD4	L	L1	L2			
336.019.035.027	3,5	19	23	32	70	51	21,5	GR606	5003	339.019.019.025 339.019.019.050
336.019.045.034	4,5	19	23	32	70	51	21,5	GR606	5003	339.019.019.025 339.019.019.050
336.019.060.049.5	6,0	19	23	32	70	51	21,5	GR606	5003	339.019.019.025 339.019.019.050
336.019.060.049.6	6,0	19	23	32	70	51	21,5	GR606	5003	339.019.019.025 339.019.019.050
336.019.070.055	7,0	19	23	32	70	51	21,5	GR606	5003	339.019.019.025 339.019.019.050
336.019.080.062	8,0	19	23	32	70	51	21,5	GR606	5003	339.019.019.025 339.019.019.050
336.019.090.070	9,0	19	23	32	70	51	21,5	GR606	5003	339.019.019.025 339.019.019.050
336.019.100.080	10,0	19	23	32	70	51	21,5	GR606	5003	339.019.019.025 339.019.019.050
336.031.060.049	6,0	31	34,5	50	96	66	35	GR1008	5003	339.031.031.050 339.031.031.100
336.031.070.055	7,0	31	34,5	50	96	66	35	GR1008	5003	339.031.031.050 339.031.031.100
336.031.080.062	8,0	31	34,5	50	96	66	35	GR1008	5003	339.031.031.050 339.031.031.100
336.031.090.070	9,0	31	34,5	50	96	66	35	GR1008	5003	339.031.031.050 339.031.031.100
336.031.100.080	10,0	31	34,5	50	96	66	35	GR1008	5003	339.031.031.050 339.031.031.100
336.031.110.090	11,0	31	34,5	50	96	66	35	GR1008	5003	339.031.031.050 339.031.031.100
336.031.120.090	12,0	31	34,5	50	96	66	35	GR1008	5003	339.031.031.050 339.031.031.100
336.031.140.110	14,0	31	34,5	50	96	66	35	GR1008	5003	339.031.031.050 339.031.031.100
336.031.160.120	16,0	31	34,5	50	96	66	35	GR1008	5003	339.031.031.050 339.031.031.100

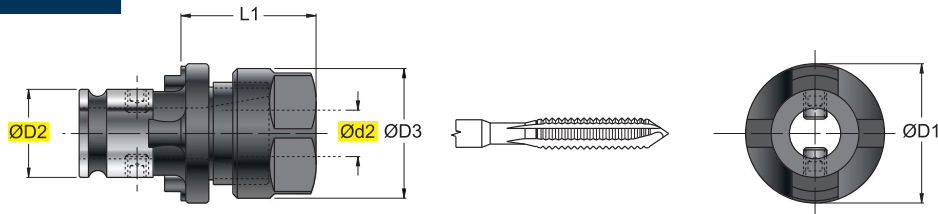
**ART. 339..  
340..**



**PROLUNGA PER BUSSOLA PORTAMASCHI MODULARE**  
EXTENSION FOR MODULAR TAP-COLLET  
VERLÄNGERUNG FÜR MODULARE GEWINDEBOHRERAUFNAHME  
RALLONGE POUR DOUILLE PORTE-TARAUDS MODULAIRE

(mm)						
ART.	ØD	L				
339.019.019.025	23	25	GR 606		5003	
339.019.019.050	23	50				
339.031.031.050	35	50	GR 1008		5005	
339.031.031.100	35	100				
340.048.048.050	New 48	50	GR 808		5004	
340.048.048.100	New 48	100				

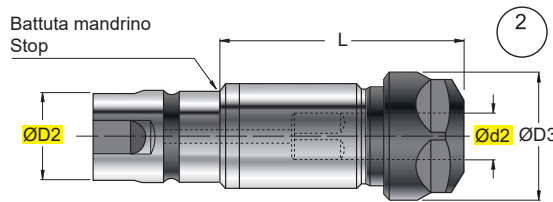
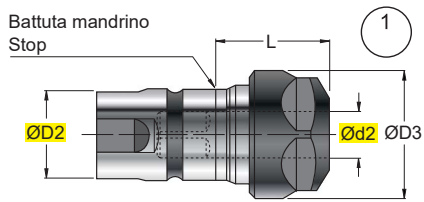
**ART. 332..**



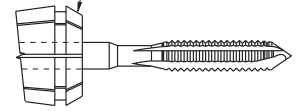
**BUSSOLA PORTA MASCHIO CON PINZA AUTOESTRAIBILE**  
TAP-COLLET WITH AUTO-CENTERING COLLET  
GEWINDEBOHRERAUFNAHME MIT SELBSTZENTRIERSPANNZANGE  
DOUILLE PORTE-TARAUDS AVEC PINCE AUTO-EXTRACTIBLE

(mm)											
ART.	Ød2	ØD2	ØD3	ØD1	L1						
332.019.016.000	M3-M12	19	28	32	34	RGS ER16	GR505	-	925.022	5025	-
332.031.032.000	M6-M27	31	50	50	62	RGS ER32	GR816	-	925.052	5004	-

## ART. 335..



art. 328... PAG. 929  
art. 330... PAG. 930

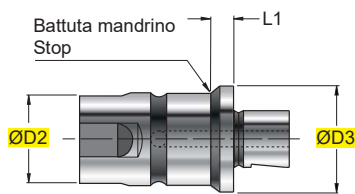


**BUSSOLE PORTA MASCHIO PER MASCHIATURE SINCRONIZZATE**  
TAP-COLLET FOR SYNCHRONIZED TAPPING  
GEWINDEBOHRER-AUFNAHME FÜR SYNCHRONSTEUERUNG  
DOUILLE PORTE-TARAUD POUR TARAUDAGES SYNCHRONIZÉES

ART.	(mm)				FIGURA FIGURE BILD FIGURE				
	Ød2	ØD2	ØD3	L					
335.020.ER016.024	2-10	20	28	24	1	--.016.--			
335.032.ER025.028	2-16	32	42	28	1	--.025.--			
335.040.ER040.032	6-26	50	63	32	1	--.040.--			
335.020.ER016.055	2-10	20	28	55	2	--.016.--			
335.032.ER025.086	2-16	32	42	86	2	--.025.--			
335.040.ER040.095	6-26	50	63	95	2	--.040.--			

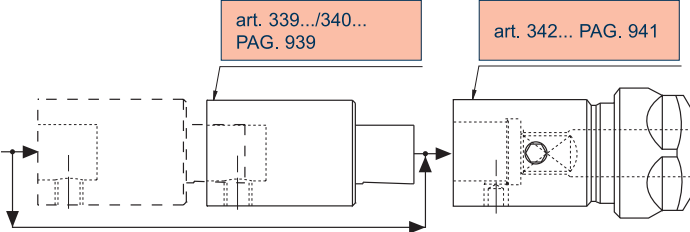
## ART. 341..

**NEW**



art. 339.../340...  
PAG. 939

art. 342... PAG. 941

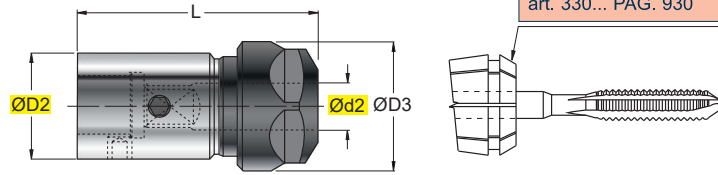


**CORPO BUSSOLA PROLUNGATA**  
EXTENDED TAP ADAPTER BODY  
EINSATZ MIT LANGE AUSFÜHRUNG  
CORPS DE LA DOUILLE PROLONGÉ

ART.	ØD2	ØD3	L1					
341.023.020.005	20	23	5		--.016.--			
341.035.032.007	32	35	7		--.025.--			
341.050.050.002	50	50	2		--.040.--			

## ART. 342..

**NEW**

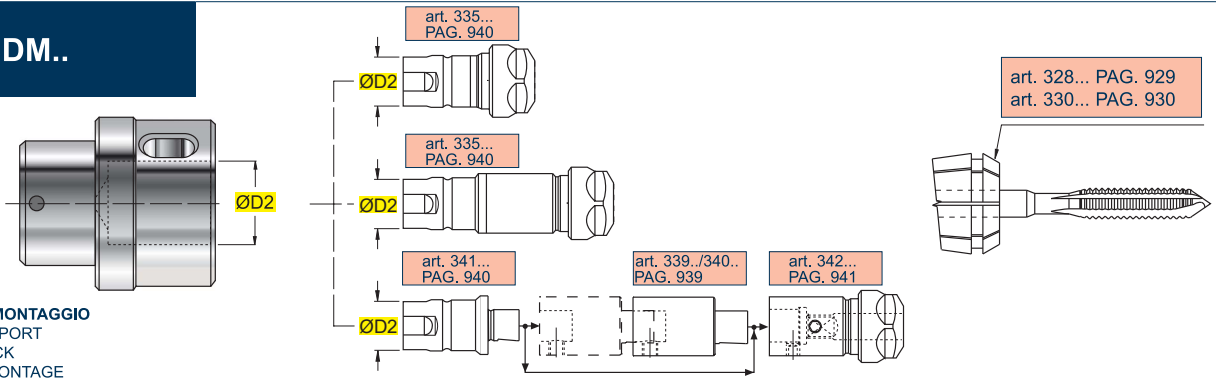


TERMINALE  
TERMINAL  
TERMINAL  
TERMINAL

ART.	Ød2	ØD2	ØD3	L					
342.023.ER016.050	2-10	23	28	50	--.016.--				
342.035.ER025.079	2-16	35	42	79	--.025.--				
342.048.ER040.093	6-26	48	63	93	--.040.--				

## ART. RCDM..

**NEW**

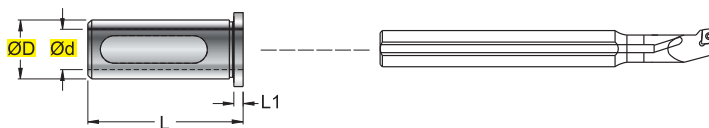


SUPPORTO DI MONTAGGIO  
ASSEMBLY SUPPORT  
MONTAGE BLOCK  
SUPPORT DE MONTAGE

ART.	ØD2								
RCDM 20	20				--.016.--				
RCDM 32	32				--.025.--				
RCDM 50	50				--.040.--				



## ART. 218..

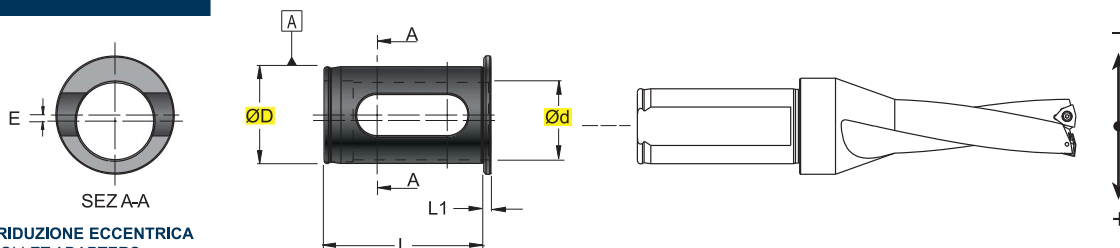


**BOCCOLA DI RIDUZIONE**  
COLLET ADAPTERS  
REDUKTION  
DOUILLES DE RÉDUCTION

ART.	(mm)			
	ØD	Ød <sub>H7</sub>	L	L1
218.025.016.000	25	16	54	2
218.025.020.000	25	20	54	2
218.032.016.000	32	16	58	2
218.032.020.000	32	20	58	2
218.032.025.000	32	25	58	2

ART.	(mm)			
	ØD	Ød <sub>H7</sub>	L	L1
218.040.016.000	40	16	68	2
218.040.020.000	40	20	68	2
218.040.025.000	40	25	68	2
218.040.032.000	40	32	68	2

## ART. BPUH..



**BOCCOLA DI RIDUZIONE ECCENTRICA**  
ECCENTRIC COLLET ADAPTERS  
EXZENTERREDUZIERHÜLSE  
DOUILLES DE RÉDUCTION EXECENTRIQUE

ART.	(mm)				
	0/-0,01 ØD	+0,01/0 Ød	E	L	L1
BPUH.3225.010	32	25	+/-0,1	56	3
BPUH.3225.030	32	25	+0,3	56	3
BPUH.4032.010	40	32	+/-0,1	66	3
BPUH.4032.030	40	32	+0,3	66	3

ART.	(mm)				
	0/-0,01 ØD	+0,01/0 Ød	E	L	L1
BPUH.5040.010	50	40	+/-0,1	76	3
BPUH.5040.030	50	40	+0,3	76	3

LE PUNTE **TDC**, **SDQ** SI POSSONO USARE SU MACCHINE CON PUNTA ROTANTE E PEZZO FERMO, CON BOCCOLE PER DISASSAMENTO. LE PUNTE POSSONO ESSERE DISASSATE DA -0,1 A +0,3 mm. DA USARE SOLO CON MANDRINI TIPO **PU..**

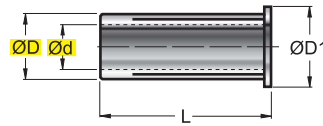
**TDC**, AND **SDQ** DRILL BITS CAN BE USED ON MACHINES WITH ROTATING DRILL AND STATIONARY WORKPIECE, WITH OFFSET BUSHINGS. THE DRILL CAN BE OFFSET BY -0,1 TO +0,3 mm. ONLY FOR USE WITH **PU..** CHUCKS

DIE BOHRER **TDC** **SDQ** KÖNNEN AN MASCHINEN MIT DREHENDEM BOHRER UND UNBEWEGLICHEM WERKSTÜCK VERWENDET WERDEN, MIT LAGERN ZUR ACHSVERSETZUNG. DIE BOHRER KÖNNEN VON -0,1 BIS +0,3 mm AUS DER ACHSLINIE VERSETZT WERDEN. NUR ZUM EINSATZ MIT **PU..**-AUFNAHMEN

ON PEUT UTILIZER LES FORETS **TDC** **SDQ** SUR MACHINES AVEC FORET ROTATIVE ET PIÈCE QUE NE BOUGE PAS. AVEC DOUILLES POUR DÉSAXÈMENT. LES FORETS PEUVENT ÊTRE DÉSAXÉES DEPUIS -0,1 JUSQU'À +0,3 mm. À UTILISER SEULEMENT AVEC MANDRINS DU TYPE **PU..**

## ART. BEMSN..

**NEW**



**BOCCOLE DI RIDUZIONE CILINDRICHE**  
 CYLINDRICAL REDUCTION COLLETS  
 ZYLINDRISCHE REDUZIERBUCHSEN  
 DOUILLES DE RÉDUCTION CYLINDRIQUES

Nm Max 600

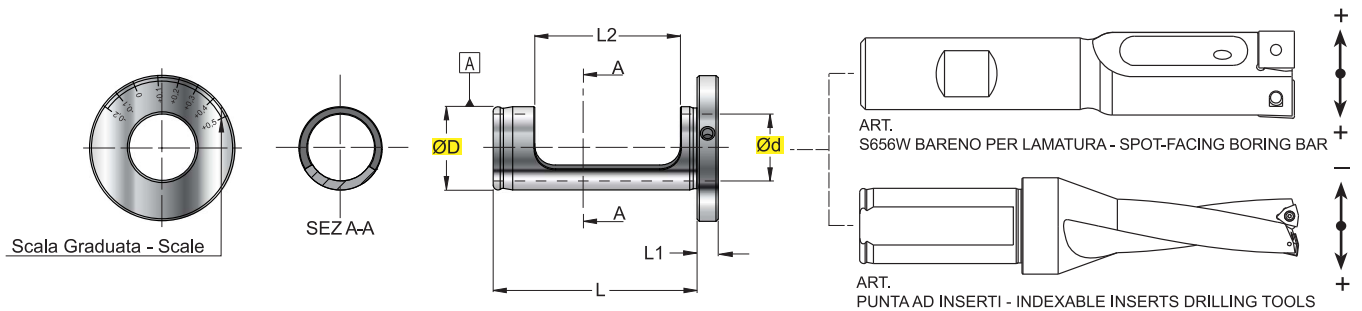


0,005

(mm)				
ART.	ØD	Ød	ØD1	L
BEMSN.2003	20	3	30	52,5
BEMSN.2004	20	4	30	52,5
BEMSN.2005	20	5	30	52,5
BEMSN.2006	20	6	30	52,5
BEMSN.2008	20	8	30	52,5
BEMSN.2010	20	10	30	52,5
BEMSN.2012	20	12	30	52,5
BEMSN.2014	20	14	30	52,5
BEMSN.2015	20	15	30	52,5
BEMSN.2016	20	16	30	52,5
BEMSN.2018	20	18	30	52,5

(mm)				
ART.	ØD	Ød	ØD1	L
BEMSN.3206	32	6	36	63
BEMSN.3208	32	8	36	63
BEMSN.3210	32	10	36	63
BEMSN.3212	32	12	36	63
BEMSN.3214	32	14	36	63
BEMSN.3216	32	16	36	63
BEMSN.3220	32	20	36	63
BEMSN.3225	32	25	36	63

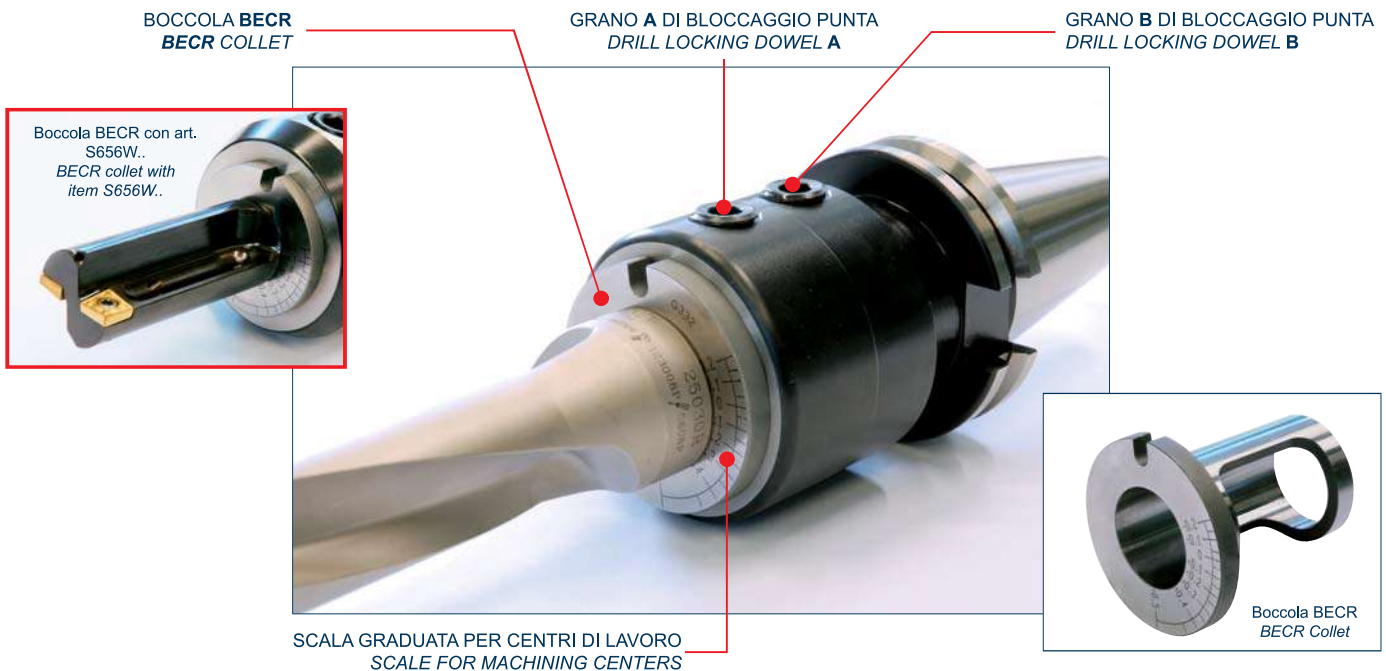
**ART. BECR..**



**BOCCOLE DISASSATRICI REGOLABILI**  
ADJUSTABLE OFFSET COLLETS  
EINSTELLBARE ACHSVERSATZ-BÜCHSEN  
DOUILLES DESAXANTES AVEC REGULATION

ART.	(mm)		L	L1	L2	Campi Reg. Ø Ø Adjustment ranges				
	h7 ØD	H7 Ød								
BECR.1620	20	16	49	5	35	+0,4/-0,2				
BECR.2025	25	20	43	4	30	+0,4/-0,2				
BECR.2532	32	25	48	6	33	+0,4/-0,2				
BECR.3240	40	32	53	6	35	+0,4/-0,2				

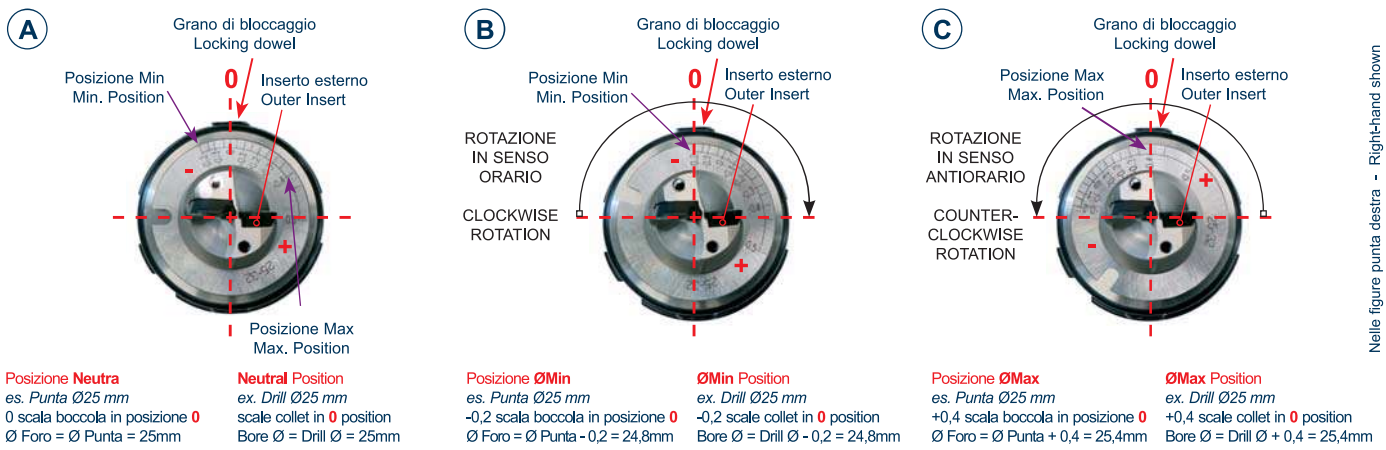
**MODALITÀ D'IMPIEGO BOCCOLA BECR.. - USE OF COLLET BECR..  
ANWENDUNG DER BÜCHSE BECR.. - MODE D'EMPLOI POUR LA DOUILLE BECR..**



**REGOLAZIONE DEL DIAMETRO - PER I CENTRI DI LAVORO - DIAMETER ADJUSTMENT-FOR MACHINING CENTRES  
DURCHMESSEREINSTELLUNG-FÜR BEARBEITUNGSZENTREN - REGULATION DU DIAMETRE POUR LE CENTRE DE TRAVAIL**

- Per ottenere un diametro maggiore del diametro nominale, ruotare la boccia in **senso antiorario** verso il segno + , per ottenere un diametro minore, ruotare la boccia in **senso orario** verso il segno -
- To obtain a diameter larger than the rated diameter, rotate the collet **counter-clockwise** towards the symbol + , to obtain a smaller diameter, rotate the collet **clockwise** towards the symbol -
- Um einen Durchmesser größer als den Nenn Durchmesser zu erhalten, Büchse **gegen den Uhrzeigersinn** zum Symbol + drehen, um einen kleineren Durchmesser zu erhalten, Büchse **im Uhrzeigersinn** zum Symbol - drehen.
- Pour obtenir un diamètre plus grande du diamètre nominale, tourner la douille dans le **sens antihoraire** vers le signe + , pour obtenir un diamètre plus petit tourner la douille dans le **sens horaire** vers le signe -

**POSIZIONE DI REGOLAZIONE** : Punta Destra = Grano di bloccaggio in alto, inserto esterno a destra  
Punta Sinistra = Grano di bloccaggio in alto, inserto esterno a sinistra  
**ADJUSTMENT POSITION** : Right Drill = Locking dowel on the top, outer insert on the right  
Left Drill = Locking dowel on the top, outer insert on the left



Nelle figure punta destra - Right-hand shown

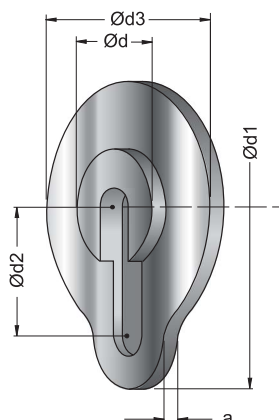
- LA SCALA GRADUATA DELLA BUSSOLA BECR É SOLAMENTE INDICATIVA.
- NON DEVE ESSERE ASSOLUTAMENTE USATA COME "GHIERA DIVISORE" DI UN MANDRINO.
- NEL CASO DI LUNGHEZZE SUPERIORI A L/D 4 O DI AMPIE REGOLAZIONI, É NECESSARIO RIDURRE L'AVANZAMENTO.
- THE SCALE ON THE BECR COLLET IS PROVIDED JUST AS AN INDICATION.
- ABSOLUTELY NOT TO BE USED AS "DIVIDING RING NUT" FOR AN ARBOR
- IN CASE OF LENGTHS OVER L/D 4 OR LARGE ADJUSTMENTS FEED MUST BE REDUCED
- DIE SKALENEINTEILUNG DER BÜCHSE BECR DIENT NUR ALS ANHALTSPUNKT.
- SIE DARF AUF KEINEN FALL ALS "TRENNHÜLSE" EINER SPINDEL ANGESEHEN WERDEN.
- BEI LÄNGEN ÜBER L/D 4 ODER BEI GROßEN EINSTELLUNGEN MUSS DER VORSCHUB VERKÜRZT WERDEN.
- L'ECHELLE GRADUEE DE LA DOUILLE BECR EST UNIQUEMENT A TITRE INDICATIF.
- ELLE NE DOIT ABSOLUMENT PAS ETRE UTILISEE COMME "BAGUE DE SEPARATION" D'UNE BROCHE.
- DANS LE CAS DE LONGUEURS SUPERIEURES A L/D 4 OU D'AMPLES REGLAGES IL Y A LIEU DE REDUIRE L'AVANCE.

Tappo di chiusura del portabareno per macchine non dotate di refrigerante all'interno.

Plug for boring bar holders for machines without internal cooling.

Anschlussplatte für Bohrstangenaufnahme am Revolver, bei Maschinen ohne Innenkühlung.

Bouchon de fermeture du porte-aléreuse pour les machines pas dotées de réfrigérant à l'intérieur.



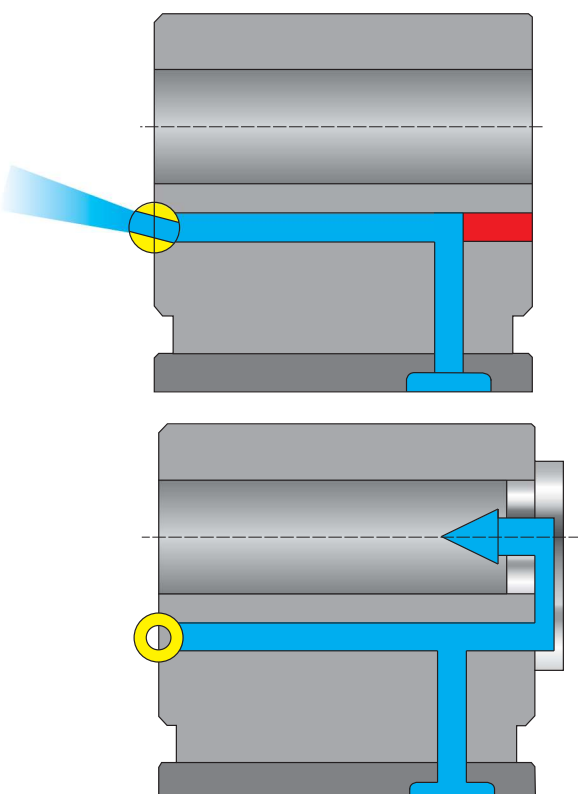
ART.	Ød	Ød1	Ød2	Ød3	a
CH-065-025	25	65	26	40	5
CH-075-025	25	75	30	40	5
CH-085-025	25	85	35	40	5
CH-095-025	25	95	40	40	5
CH-075-032	32	75	30	52	5
CH-085-032	32	85	35	52	5
CH-095-032	32	95	40	52	5
CH-085-040	40	85	36	63	5
CH-095-040	40	95	42	63	5
CH-105-040	40	105	47	63	5
CH-095-050	50	95	42	70	5
CH-105-050	50	105	48	70	5
CH-115-050	50	115	53	70	5

Operazioni da eseguire per portare il liquido refrigerante al centro del bareno.

Operations required to convey the coolant to the centre of the boring bar.

Änderungen für die Kühlmittelzufuhr bei bohrstangen mit IK.

Operations à faire pour acheminer le liquide refrigerant vers le centre de la barre d'alesage.



- Forare il portautensile come evidenziato in rosso.
- Follow the instructions in red for the drilling of the toolholder.
- Die Bohrungen in der Bohrstangenaufnahme neu anbringen wie in der Skizze mit rot gekennzeichnet.
- Percer le porte-outil comme il est mis en évidence en rouge.

- Applicare la chiusura posteriore.
- Fit the back plug.
- Die Kühlmitteldüse verschliessen.
- Appliquer la fermeture postérieure.

**LUBROJET**

BOCCOLA DI RIDUZIONE PORTA BARENO.  
BOHRSTANGEN-REDUZIERHUELSE.  
BORING BAR REDUCING COUPLING.  
DOUILLE DE REDUCTION PORTE BARRE D'ALEPAGE.

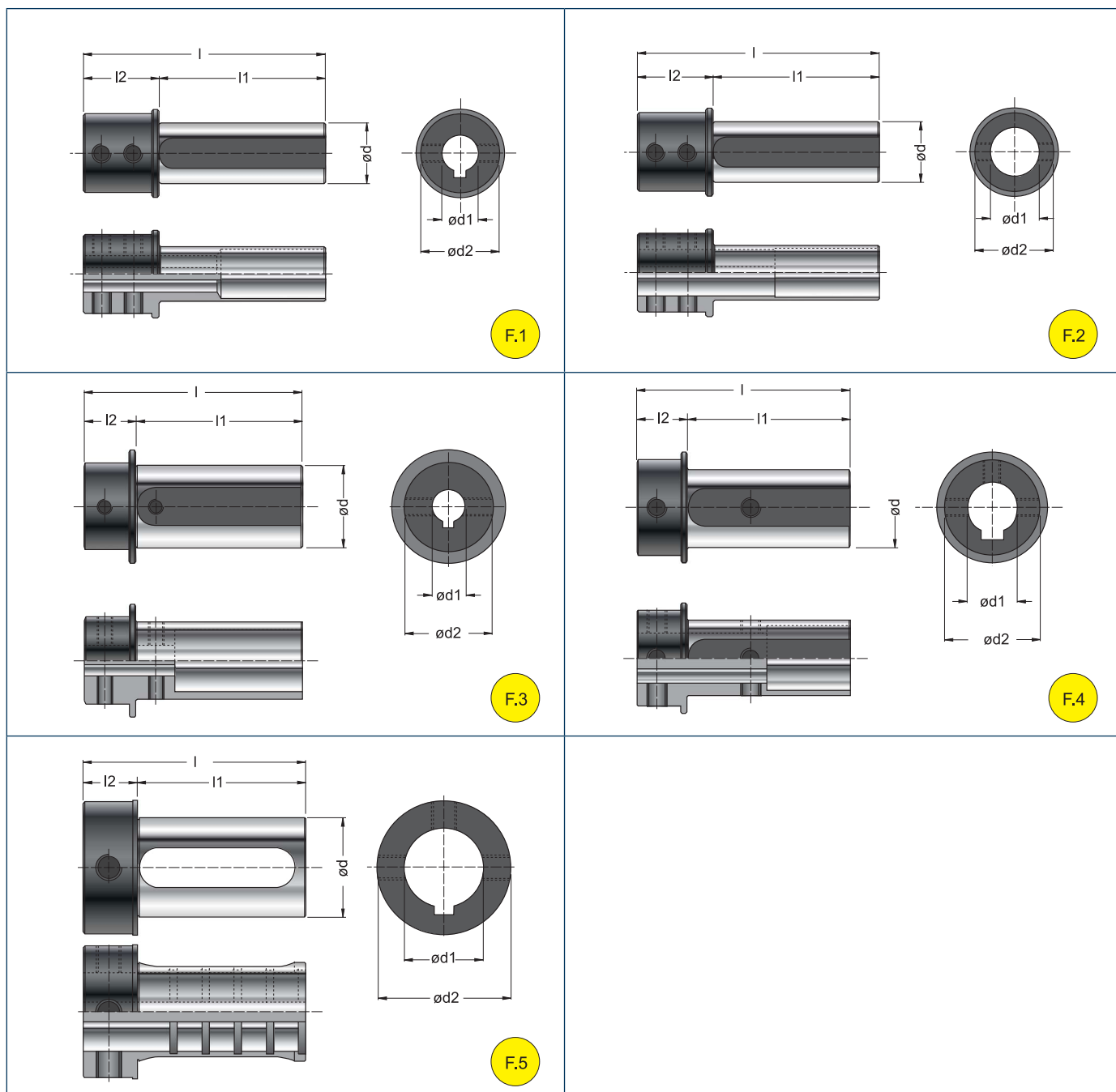
L'uscita del refrigerante avviene attraverso la scanalatura interna della riduzione e l'eventuale foro dell'utensile.



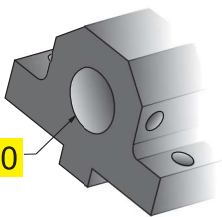
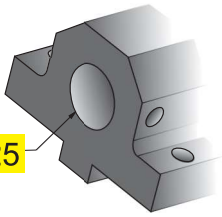
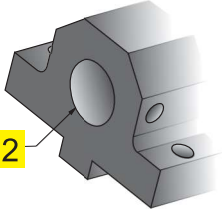
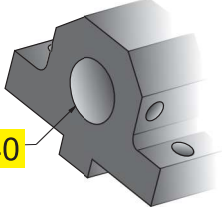
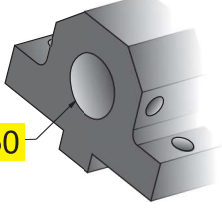
Il truciolo viene espulso tramite il getto forzato del lubrificante.

The coolant is discharged from the internal channel in the reduction or from the hole in the holder.  
The chip is discharged through the pressure-jet of the coolant.

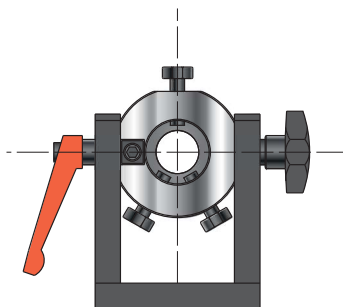
Das Kühlmittel tritt seitlich an der Reduzierung aus und auch, soweit vorhanden, an der Kühlmittelbohrung der Bohrstange. Der Span wird durch die Innenkühlung besser aus dem Werkstück gespült.

Le réfrigérant sort par la rainure interne de la réduction et l' éventuel trou de l'outil.  
Le copeau est expulsé par le jet forcé du lubrifiant.






Ø	ART.	F.	f7		F9		l	l1	l2		
			ød	ød1	ød2						
 Ø20	BK-020.008	1	20	08	22	80	55	25	GR606	GR606	
	BK-020.010	1	20	10	24	80	55	25	GR606	GR606	
	BK-020.012	1	20	12	26	80	55	25	GR606	GR606	
	BK-020.016	2	20	16	28	80	55	25	GR606	GR606	
 Ø25	BK-025.008	1	25	08	26	80	55	25	GR608	GR608	
	BK-025.010	1	25	10	28	80	55	25	GR608	GR608	
	BK-025.012	1	25	12	30	80	55	25	GR608	GR608	
	BK-025.016	1	25	16	34	80	55	25	GR608	GR608	
	BK-025.020	2	25	20	38	80	55	25	GR608	GR608	
 Ø32	BK-032.008	3	32	08	30	85	65	20	GR610	GR610	
	BK-032.010	3	32	10	32	85	65	20	GR610	GR610	
	BK-032.012	3	32	12	34	85	65	20	GR610	GR608	
	BK-032.016	4	32	16	34	85	65	20	GR808	GR806	
	BK-032.020	4	32	20	38	85	65	20	GR808	GR806	
	BK-032.025	5	32	25	43	85	65	20	GR808	-	
 Ø40	BK-040.008	3	40	08	30	90	70	20	GR610	GR614	
	BK-040.010	3	40	10	32	90	70	20	GR610	GR614	
	BK-040.012	3	40	12	34	90	70	20	GR610	GR612	
	BK-040.016	4	40	16	42	90	70	20	GR812	GR810	
	BK-040.020	4	40	20	46	90	70	20	GR812	GR808	
	BK-040.025	4	40	25	47	90	70	20	GR810	GR806	
	BK-040.032	5	40	32	54	90	70	20	GR810	-	
 Ø50	BK-050.016	4	50	16	42	93	73	20	GR812	GR814	
	BK-050.020	4	50	20	46	93	73	20	GR812	GR814	
	BK-050.025	4	50	25	47	93	73	20	GR810	GR810	
	BK-050.032	4	50	32	54	93	73	20	GR810	GR808	
	BK-050.040	5	50	40	62	93	73	20	GR810	-	

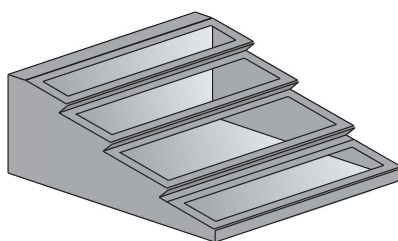
## ART. 06 36.. .UN




**ATTREZZO PER IL MONT. E LO SMONT. DI MANDRINI**  
TOOL FOR THE ASSEMBLY AND DISASSEMBLY OF ARBORS  
MONTAGE HILFE  
OUTIL POUR LE MONTAGE ET LE DEMONTAGE DE MANDRINS

ART.								
06 3620.40.UN	HSK63	ISO40	ISO40					
06 3622.50.UN	HSK100	ISO50	ISO50					

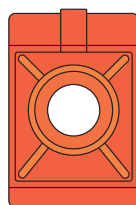
## ART. A-140..




**TELAIO DA BANCO PORTAMANDRINI**  
BENCH-MOUNTED STORAGE RACK ARBORS  
AUFNAHMETRAEGER  
BOITE DE COMPTOIR PORTE-MANDRINS

ART.		N°BOCCOLE					
A140	A100	24					
	A105	24					
	A110	18					
	A115	15					
	A120	24					
	A125	18					
	A130	18					

## ART. A-1..



**BOCCOLA PORTAMANDRINI**  
STORAGE BASE FOR ARBORS  
AUFNAHMEBUCHSE  
RÉDUCTIONS PORTE-MANDRINS

ART.		DIM					
A100	ISO30	65x138x48H					
A105	ISO40	65x138x63H					
A110	ISO45	83x138x63H					
A115	ISO50	102x138x63H					
A120	VDI30	65x138x74H					
A125	VDI40	83x138x82H					
A130	VDI50	83x138x98H					



## ART. TP..



**TELO DI PROTEZIONE**  
MACHINE FABRIC PROTECTIVE COVER  
SCHUTZPLANE  
BÂCHE DE PROTECTION

ART.	ISG3400TLK/-WS	ISG3400TWK/-WS	ISG3400WK/-WS						
TPSH	■	■	-						
TPLO	-	-	■						

## ART. TSFB..



**SET DISCHI DI ARRESTO E CENTRAGGIO**  
SET OF STOP AND CENTRING DISCS  
SATZ ANSCHLAG-UND ZENTRIERRINGE  
JEU DE DISQUES D'ARRÊT ET CENTRAGE

Contenuto del box - Box content		(mm)							
ART.	ISG3400WK	Ø							
<b>SET CODE</b>	<b>TSFBK SET</b>								
DISK3	TSFBK 030	3							
DISK4	TSFBK 040	4							
DISK5	TSFBK 050	5							
DISK6	TSFBK 060	6							
DISK8	TSFBK 080	8							
DISK10	TSFBK 100	10							
DISK12	TSFBK 120	12							
DISK14	TSFBK 140	14							
DISK16	TSFBK 160	16							
DISK18	TSFBK 180	18							
DISK20	TSFBK 200	20							
DISK25	TSFBK 250	25							

## ART. STBO



**FERMO**  
STOP BLOCK  
HALTEVORRICHTUNG  
ARRÊT

ART.	ISG3400WK	ISG3400WK-WS						
STBO	■	-						

## ART. BI 03..



3 - 32 mm



3 - 50 mm

**BOBINE INTERCAMBIABILI**  
INTERCHANGEABLE COILS  
AUSWECHSELBARE SPULEN  
BOBINES INTERCHANGEABLES

ART.	ISG...-WS	ISG3400WK-WS						
BI 0332	■	■						
BI 0350	-	■						

## ART. KI3400..



**KIT INVERSO**  
REVERSE KIT  
UMKEHRSET  
KIT INVERSE

### Contenuto del box - Box content

ART.	ISG3400TWK-WS + ISG3400WK-WS	ISG3400TLK-WS
KI3400WK	■	-
KI3400TLK	-	■

## ISTRUZIONI D'USO - INSTRUCTIONS FOR USE



#### Caratteristiche:

- Tagliente dell'utensile > diametro del gambo dell'utensile
- Possibile solo su macchine dotate di "Bobina Intercambiabile"

#### Esempio di processo:

ISG3400WK-WS con kit inverso ISGZ3400WK-INV

1. Impostare l'operazione di calettamento con funzione inversa sulla macchina
2. Sostituire la bobina standard con la bobina per "calettamento inverso"
3. Posizionare il fermo di arresto all'altezza desiderata
4. Avviare la procedura di "calettamento inverso":  
la macchina si posizionerà all'altezza del fermo ed eseguirà il calettamento come mostrato nelle figure



#### Features:

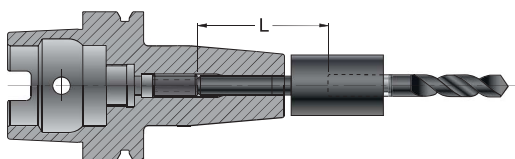
- Cutting edge of the tool > tool shank diameter
- Only possible on machines fitted with an "Interchangeable Coil"

#### process example:

ISG3400WK-WS with inverse kit ISGZ3400WK-INV

1. Set the shrink-on operation via the reverse function on the machine
2. Replace the standard coil with the "reverse shrink-on" coil
3. Position the stop block at the height wanted
4. Start the "reverse shrink-on" procedure:  
the machine moves to the height of the stop block and performs shrinking-on as shown in the figures.

## ART. MPBZ..



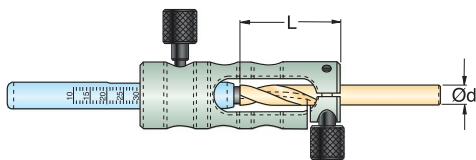
Dispositivo che permette la regolazione della sporgenza per utensili da montare sui Portautensili SAU (quota di sporgenza fissa L=80 mm). Conseguentemente rimosso il dispositivo è possibile l'avviamento del ciclo di calettamento.

Device that allows the protrusion for tools to fit on the SAU toolholders to be adjusted (fixed protrusion dimension L=80 mm). After the device is removed the shrinking-on cycle can be started.

**ADATTATORE PER PRESETTING**  
ADAPTER FOR PRESETTING  
ADAPTER FÜR VOREINSTELLUNGEN  
ADAPTATEUR POUR PRÉRÉGLAGE

(mm)									
ART.	Ød	L	SW						
MPBZ 060	6	80	2,5						
MPBZ 080	8	80	3,0						
MPBZ 100	10	80	4,0						
MPBZ 120	12	80	5,0						
MPBZ 140	14	80	5,0						
MPBZ 160	16	80	6,0						
MPBZ 180	18	80	6,0						
MPBZ 200	20	80	8,0						
MPBZ 250	25	80	8,0						
MPBZ 320	32	80	8,0						

## ART. LSBZ..



Il manicotto di regolazione permette di determinare esattamente quanto gli utensili da taglio possono uscire dal mandrino di calettamento. Lo spintore presenta un nonio su cui regolare la lunghezza desiderata, durante il calettamento l'utensile da taglio viene quindi inserito nel foro, bloccandosi contro il fermo di plastica.

The adjustment sleeve precisely determines how many cutting tools can leave the shrinking-on chuck. The pusher has a nonius on which the desired length can be adjusted. The cutting tool is then put inside the hold during shrinking-on, becoming blocked against the plastic retainer.

**REGOLATORE DELLA LUNGHEZZA DELL'UTENSILE**  
TOOL LENGTH CONTROLLER  
LÄNGENREGLER DES WERKZEUGS  
RÉGULATEUR DE LA LONGUEUR DE L'OUTIL

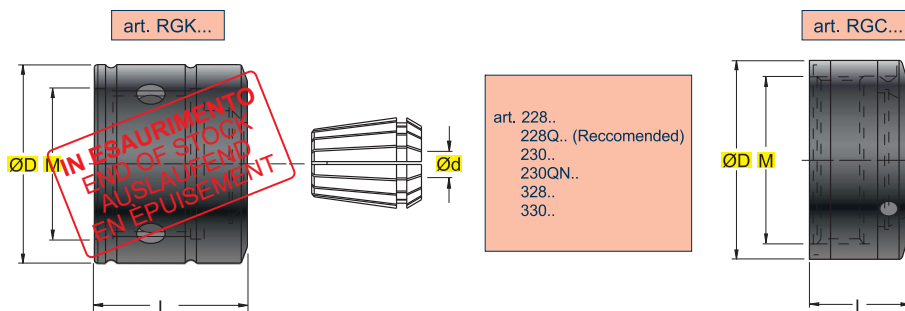
(mm)									
ART.	Ød	L							
LSBZ 030	3	5-25							
LSBZ 030L	3	30-50							
LSBZ 040	4	5-25							
LSBZ 040L	4	30-50							
LSBZ 050	5	5-25							
LSBZ 050L	5	30-50							
LSBZ 060	6	10-35							
LSBZ 060L	6	35-60							
LSBZ 080	8	10-35							
LSBZ 080L	8	35-60							
LSBZ 100	10	15-50							
LSBZ 100L	10	35-60							
LSBZ 120	12	15-50							
LSBZ 160	16	30-65							

## ART. RGK.. RGC..

CON CUSCINETTO  
WITH BEARING  
MIT LAGER  
AVEC COUSSINET

PRE-EQUILIBRATE  
PRE-BALANCED

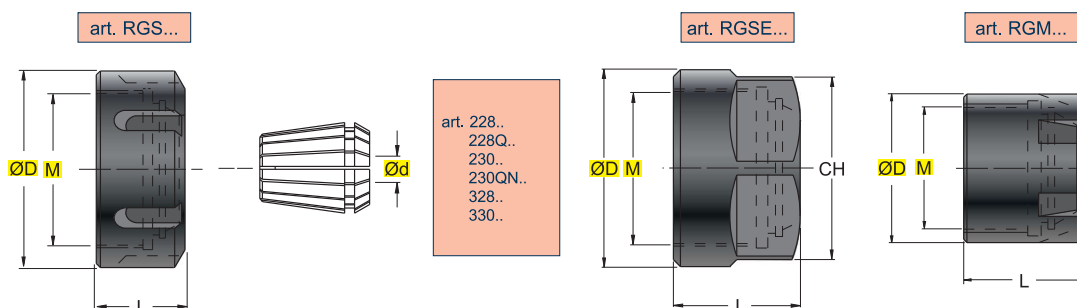
GHIERE DI PRECISIONE  
PRECISION RING NUTS  
PRÄZISIONSRINGE  
FRETTE DE PRECISION



ART.	(mm)										
	Ød	ØD	M	L							
RGK ER25	0,5-16	42	32x1,5	24,7	--025--				-	926.040	-
RGK ER32	2,5-20	50	40x1,5	27,7	--032--				-	926.052	-
RGK ER40	3-30	63	50x1,5	30	--040--				-	926.068	-
RGC ER16	0,5-10	30	22x1,5	18	--016--				-	925.022	-
RGC ER25	0,5-16	40	32x1,5	20,5	--025--				-	925.040	-
RGC ER32	2,5-20	50	40x1,5	23,5	--032--				-	925.052	-
RGC ER40	3-30	63	50x1,5	26	--040--				-	925.068	-

## ART. RGS.. RGSE.. RGM..

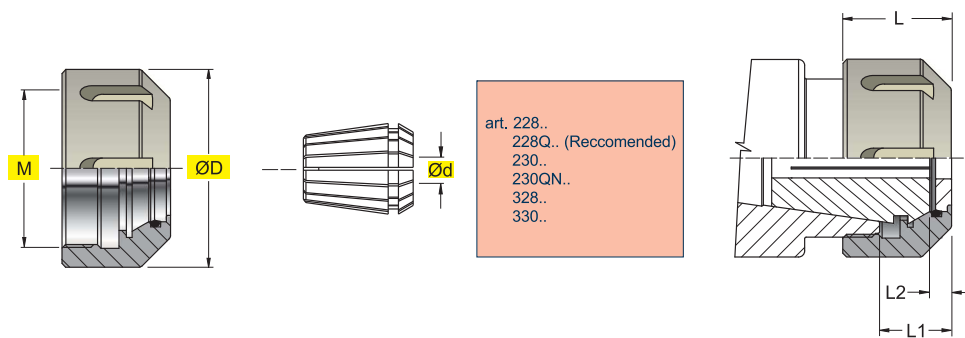
GHIERE  
RINGS  
RING  
FRETTE



ART.	(mm)											
	Ød	ØD	M	CH	L							
RGS ER16	0,5-10	32	22x1,5	-	17	--016--				925.022	-	927.022
RGS ER25	0,5-16	42	32x1,5	-	20	--025--				925.040	-	927.040
RGS ER32	2,5-20	50	40x1,5	-	22	--032--				925.052	-	927.052
RGS ER40	3-30	63	50x1,5	-	26	--040--				925.068	-	927.068
RGSE ER16	0,5-10	28	22x1,5	25	17	--016--				-	-	-
RGM ER11	0,5-7	16	13x0,75	-	12	--011--				-	938.011	-
RGM ER16	0,5-10	22	19x1	-	18	--016--				-	938.016	-
RGM ER25	0,5-16	35	30x1	-	20	--025--				-	938.025	-

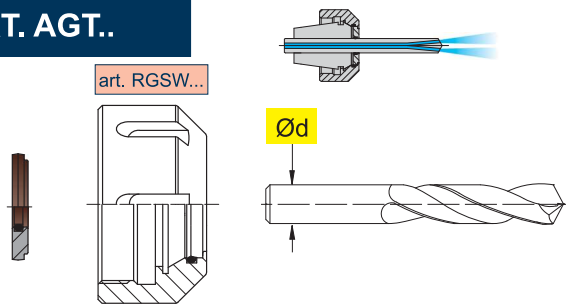
## ART. RGSW..

GHIERE A TENUTA IDRAULICA  
SEALING RINGS  
DICHTSCHEIBEN  
FRETTE À ÉTANCHÉITÉ HYDRAULIQUE



ART.	(mm)								Nm					
	Ød	ØD	M	L	L1	L2								
RGSW ER25	2-16	42	32x1,5	25	17	5	80+100	--025--		ORM 0210-20	925.040	927.040		
RGSW ER32	2-20	50	40x1,5	27	18	5	90+110	--032--		OR-0267-178	925.052	927.052		

## ART. AGT..



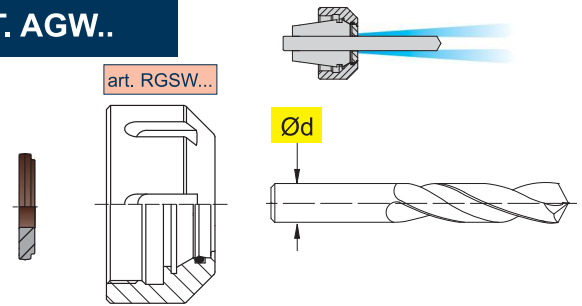
ANELLI PER ADDUZIONE ATTRAVERSO L'UTENSILE  
RINGS FOR COOLANT THROUGH THE TOOL  
RINGE ZUR KÜHLMITTEL-INNFÜHRUNG  
BAGUES D'ADDITION A TRAVERS L'OUTIL

(mm)



ART.	Ød	
AGT 25 4.0	4,0 ÷ 3,5	OR-0035-150
AGT 25 4.5	4,5 ÷ 4,0	OR-0040-150
AGT 25 5.0	5,0 ÷ 4,5	OR-0045-150
AGT 25 5.5	5,5 ÷ 5,0	OR-0050-150
AGT 25 6.0	6,0 ÷ 5,5	OR-0055-150
AGT 25 6.5	6,5 ÷ 6,0	OR-0060-150
AGT 25 7.0	7,0 ÷ 6,5	OR-0065-150
AGT 25 7.5	7,5 ÷ 7,0	OR-0070-150
AGT 25 8.0	8,0 ÷ 7,5	OR-0075-150
AGT 25 8.5	8,5 ÷ 8,0	OR-0080-150
AGT 25 9.0	9,0 ÷ 8,5	OR-0085-150
AGT 25 9.5	9,5 ÷ 9,0	OR-0090-150
AGT 25 10.0	10,0 ÷ 9,5	OR-0095-150
AGT 25 10.5	10,5 ÷ 10,0	OR-0100-150
AGT 25 11.0	11,0 ÷ 10,5	OR-0105-150
AGT 25 11.5	11,5 ÷ 11,0	OR-0110-150
AGT 25 12.0	12,0 ÷ 11,5	OR-0115-150
AGT 25 12.5	12,5 ÷ 12,0	OR-0120-150
AGT 25 13.0	13,0 ÷ 12,5	OR-0125-150
AGT 25 13.5	13,5 ÷ 13,0	OR-0130-150
AGT 25 14.0	14,0 ÷ 13,5	OR-0135-150
AGT 25 14.5	14,5 ÷ 14,0	OR-0140-150
AGT 25 15.0	15,0 ÷ 14,5	OR-0145-150
AGT 25 15.5	15,5 ÷ 15,0	OR-0150-150
AGT 25 16.0	16,0 ÷ 15,5	OR-0155-150
AGT 32 4.0	4,0 ÷ 3,5	OR-0035-150
AGT 32 4.5	4,5 ÷ 4,0	OR-0040-150
AGT 32 5.0	5,0 ÷ 4,5	OR-0045-150
AGT 32 5.5	5,5 ÷ 5,0	OR-0050-150
AGT 32 6.0	6,0 ÷ 5,5	OR-0055-150
AGT 32 6.5	6,5 ÷ 6,0	OR-0060-150
AGT 32 7.0	7,0 ÷ 6,5	OR-0065-150
AGT 32 7.5	7,5 ÷ 7,0	OR-0070-150
AGT 32 8.0	8,0 ÷ 7,5	OR-0075-150
AGT 32 8.5	8,5 ÷ 8,0	OR-0080-150
AGT 32 9.0	9,0 ÷ 8,5	OR-0085-150
AGT 32 9.5	9,5 ÷ 9,0	OR-0090-150
AGT 32 10.0	10,0 ÷ 9,5	OR-0095-150
AGT 32 10.5	10,5 ÷ 10,0	OR-0100-150
AGT 32 11.0	11,0 ÷ 10,5	OR-0105-150
AGT 32 11.5	11,5 ÷ 11,0	OR-0110-150
AGT 32 12.0	12,0 ÷ 11,5	OR-0115-150
AGT 32 12.5	12,5 ÷ 12,0	OR-0120-150
AGT 32 13.0	13,0 ÷ 12,5	OR-0125-150
AGT 32 13.5	13,5 ÷ 13,0	OR-0130-150
AGT 32 14.0	14,0 ÷ 13,5	OR-0135-150
AGT 32 14.5	14,5 ÷ 14,0	OR-0140-150
AGT 32 15.0	15,0 ÷ 14,5	OR-0145-150
AGT 32 15.5	15,5 ÷ 15,0	OR-0150-150
AGT 32 16.0	16,0 ÷ 15,5	OR-0155-150
AGT 32 16.5	16,5 ÷ 16,0	OR-0160-150
AGT 32 17.0	17,0 ÷ 16,5	OR-0165-150
AGT 32 17.5	17,5 ÷ 17,0	OR-0170-150
AGT 32 18.0	18,0 ÷ 17,5	OR-0175-150
AGT 32 18.5	18,5 ÷ 18,0	OR-0180-150
AGT 32 19.0	19,0 ÷ 18,5	OR-0185-150
AGT 32 19.5	19,5 ÷ 19,0	OR-0190-150
AGT 32 20.0	20,0 ÷ 19,5	OR-0195-150

## ART. AGW..

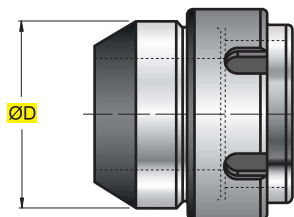


ANELLI PER ADDUZIONE INTORNO ALL'UTENSILE  
RINGS FOR COOLANT AROUND THE TOOL  
RINGE ZUR KÜHLMITTELFÜHRUNG UM DAS WERKZEUG  
BAGUES D'ADDITION AUTOUR L'OUTIL

(mm)

ART.	Ød	
AGW 32 4.0	4,0 ÷ 3,5	
AGW 32 4.5	4,5 ÷ 4,0	
AGW 32 5.0	5,0 ÷ 4,5	
AGW 32 5.5	5,5 ÷ 5,0	
AGW 32 6.0	6,0 ÷ 5,5	
AGW 32 6.5	6,5 ÷ 6,0	
AGW 32 7.0	7,0 ÷ 6,5	
AGW 32 7.5	7,5 ÷ 7,0	
AGW 32 8.0	8,0 ÷ 7,5	
AGW 32 8.5	8,5 ÷ 8,0	
AGW 32 9.0	9,0 ÷ 8,5	
AGW 32 9.5	9,5 ÷ 9,0	
AGW 32 10.0	10,0 ÷ 9,5	
AGW 32 10.5	10,5 ÷ 10,0	
AGW 32 11.0	11,0 ÷ 10,5	
AGW 32 11.5	11,5 ÷ 11,0	
AGW 32 12.0	12,0 ÷ 11,5	
AGW 32 12.5	12,5 ÷ 12,0	
AGW 32 13.0	13,0 ÷ 12,5	
AGW 32 13.5	13,5 ÷ 13,0	
AGW 32 14.0	14,0 ÷ 13,5	
AGW 32 14.5	14,5 ÷ 14,0	
AGW 32 15.0	15,0 ÷ 14,5	
AGW 32 15.5	15,5 ÷ 15,0	
AGW 32 16.0	16,0 ÷ 15,5	
AGW 32 16.5	16,5 ÷ 16,0	
AGW 32 17.0	17,0 ÷ 16,5	
AGW 32 17.5	17,5 ÷ 17,0	
AGW 32 18.0	18,0 ÷ 17,5	
AGW 32 18.5	18,5 ÷ 18,0	
AGW 32 19.0	19,0 ÷ 18,5	
AGW 32 19.5	19,5 ÷ 19,0	
AGW 32 20.0	20,0 ÷ 19,5	

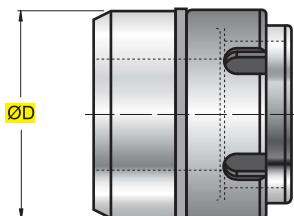
## ART. RGMS..



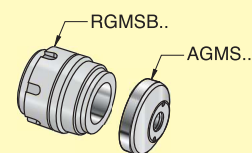
**GHIERA PER ARTICOLI A FORTE SERRAGGIO**  
RING NUT FOR HIGH CLAMPING ARTICLES  
NUTRING FÜR HOHE EINSpanNKRAFT  
FRETTE POUR ARTICLES À SERRAGE FORT

ART.	(mm) ØD					
RGMS 006	26	-				
RGMS 008	27	-				
RGMS 010	32	-				
RGMS 012	35	-				
RGMS 016	40	-				
RGMS 020	46	--.020.--			927.044MS	
RGMS 025	52	-				
RGMS 032	67	--.032.--			927.067MS	

## ART. RGMSB..



**GHIERA PER ARTICOLI A FORTE SERRAGGIO CON LUBRIFICAZIONE FINO A 100 BAR**  
RING NUT FOR HIGH CLAMPING ARTICLES WITH 100 BAR LUBRICATION  
NUTRING FÜR HOHE EINSpanNKRAFT MIT 100 BAR-SCHMIERUNG  
FRETTE POUR ARTICLES À SERRAGE FORT AVEC LUBRIFICATION À 100 BARS



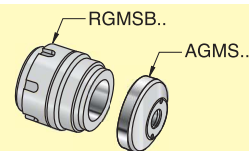
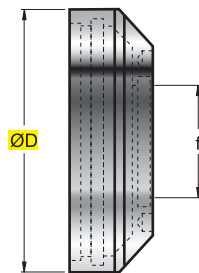
Per avere una tenuta del lubrificante fino a 100 bar bisogna acquistare la ghiera opzionale RGMSB.. , con anello di tenuta AGMS..

*To obtain a no-leak coolant flow up to 100 bar you should purchase the optional ring nut RGMSB.. , with the AGMS sealing ring.*



ART.	(mm) ØD					
RGMSB 020	46	--.020.--			927.044MS	
RGMSB 032	67	--.032.--			927.067MS	

## ART. AGMS..



Per avere una tenuta del lubrificante fino a 100 bar bisogna acquistare la ghiera opzionale RGMSB.. , con anello di tenuta AGMS..

*To obtain a no-leak coolant flow up to 100 bar you should purchase the optional ring nut RGMSB.. , with the AGMS sealing ring.*

**ANELLO DI TENUTA**  
SEALING RING  
DICHRING  
BAGUE D'ÉTANCHÉITÉ

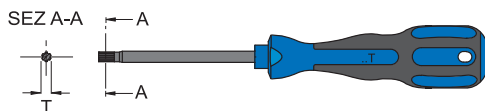
ART.	(mm)	
ART.	ØD	f
AGMS.020.060	47	6+5,5
AGMS.020.065	47	6,5+6
AGMS.020.070	47	7+6,5
AGMS.020.075	47	7,5+7
AGMS.020.080	47	8+7,5
AGMS.020.085	47	8,5+8
AGMS.020.090	47	9+8,5
AGMS.020.095	47	9,5+9
AGMS.020.100	47	10+9,5
AGMS.020.105	47	10,5+10
AGMS.020.110	47	11+10,5
AGMS.020.115	47	11,5+11
AGMS.020.120	47	12+11,5
AGMS.020.125	47	12,5+12
AGMS.020.130	47	13+12,5
AGMS.020.135	47	13,5+13
AGMS.020.140	47	14+13,5
AGMS.020.145	47	14,5+14
AGMS.020.150	47	15+14,5
AGMS.020.155	47	15,5+15
AGMS.020.160	47	16+15,5
AGMS.020.165	47	16,5+16
AGMS.020.170	47	17+16,5
AGMS.020.175	47	17,5+17
AGMS.020.180	47	18+17,5
AGMS.020.185	47	18,5+18
AGMS.020.190	47	19+18,5
AGMS.020.195	47	19,5+19
AGMS.020.200	47	20+19,5
AGMS.032.060	68	6+5,5
AGMS.032.065	68	6,5+6
AGMS.032.070	68	7+6,5
AGMS.032.075	68	7,5+7
AGMS.032.080	68	8+7,5
AGMS.032.085	68	8,5+8
AGMS.032.090	68	9+8,5
AGMS.032.095	68	9,5+9
AGMS.032.100	68	10+9,5
AGMS.032.105	68	10,5+10
AGMS.032.110	68	11+10,5
AGMS.032.115	68	11,5+11
AGMS.032.120	68	12+11,5
AGMS.032.125	68	12,5+12
AGMS.032.130	68	13+12,5
AGMS.032.135	68	13,5+13
AGMS.032.140	68	14+13,5
AGMS.032.145	68	14,5+14
AGMS.032.150	68	15+14,5
AGMS.032.155	68	15,5+15
AGMS.032.160	68	16+15,5
AGMS.032.165	68	16,5+16
AGMS.032.170	68	17+16,5
AGMS.032.175	68	17,5+17
AGMS.032.180	68	18+17,5
AGMS.032.185	68	18,5+18
AGMS.032.190	68	19+18,5

ART.	(mm)	
ART.	ØD	f
AGMS.032.195	68	19,5+19
AGMS.032.200	68	20+19,5
AGMS.032.205	68	20,5+20
AGMS.032.210	68	21+20,5
AGMS.032.215	68	21,5+21
AGMS.032.220	68	22+21,5
AGMS.032.225	68	22,5+22
AGMS.032.230	68	23+22,5
AGMS.032.235	68	23,5+23
AGMS.032.240	68	24+23,5
AGMS.032.245	68	24,5+24
AGMS.032.250	68	25+24,5
AGMS.032.255	68	25,5+25
AGMS.032.260	68	26+25,5
AGMS.032.265	68	26,5+26
AGMS.032.270	68	27+26,5
AGMS.032.275	68	27,5+27
AGMS.032.280	68	28+27,5
AGMS.032.285	68	28,5+28
AGMS.032.290	68	29+28,5
AGMS.032.295	68	29,5+29
AGMS.032.300	68	30+29,5
AGMS.032.305	68	30,5+30
AGMS.032.310	68	31+30,5
AGMS.032.315	68	31,5+30
AGMS.032.320	68	32+31,5

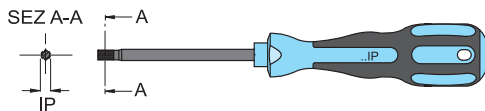


## ART. 56..

**CACCIAVITI**  
SCREWDRIVERS  
SCHRAUBENDREHER  
TOURNEVISSES



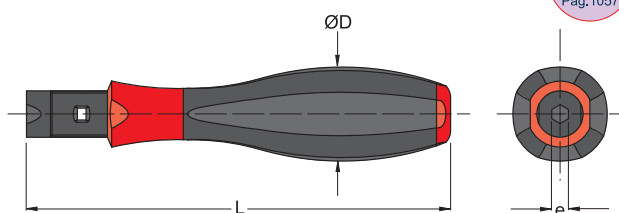
TORX



TORX PLUS

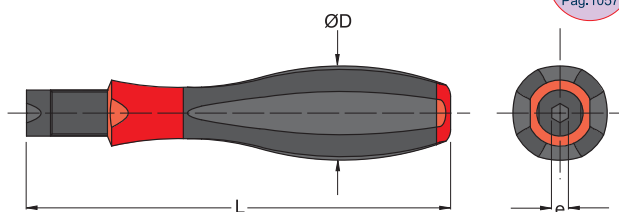
(mm)			(mm)		
ART.	Torx	Torx Plus	ART.	Torx	Torx Plus
5605P	-	5IP	5615	15	-
5606	6	-	5615P	-	15IP
5606P	-	6IP	5620	20	-
5607	7	-	5620P	-	20IP
5607P	-	7IP	5625	25	-
5608	8	-			
5608P	-	8IP			
5609	9	-			
5610P	-	10IP			

## ART. 264..



**GIRAVITE DINAMOMETRICO REGOLABILE**  
ADJUSTABLE DYNAMOMETRIC SCREWDRIVER  
EINSTELLBARER DYNAMOMETRISCHER SCHRAUBENDREHER  
TOURNEVIS DYNAMOMÉTRIQUE RÉGLABLE

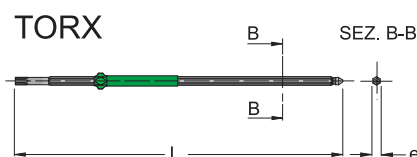
## ART. 260../261..



**GIRAVITE DINAMOMETRICO CON VALORI DI COPPIA FISSO**  
DYNAMOMETRIC SCREWDRIVER WITH FIXED TORQUE VALUES  
DREHMOMENTSCHRAUBENDREHER MIT FASTEN DREHMOMENTWERTEN  
TOURNEVIS DYNAMOMÉTRIQUE AVEC VALEURS DE COUPLE FIXE

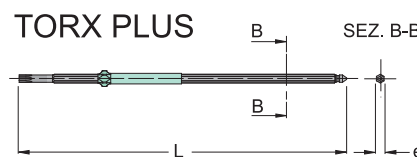
ART.	(mm)			Nm	Torque Setter	ART.
	e	ØD	L			
26461	4	23	122+127	0,4+1,0	26864	278../2955..
26462	4	30	126+131	0,8+2,0		
26463	4	36	133+138	1,0+5,0		
26464	4	41	137+142	2,0+8,0		
26127	4	23	112	0,5	-	278../2955..
26047	4	23	112	0,6		
26048	4	23	112	0,9		
26133	4	30	119	1,1		
26051	4	30	119	2,0		
26128	4	30	119	2,5		
26052	4	36	126	3,0		
26129	4	36	126	3,8		
26130	4	41	132	5,5		

## ART. 2781.



**LAMA INTERCAMBIABILE**  
INTERCHANGEABLE BLADE  
AUSTAUSCHBARES MESSER  
LAME INTERCHANGEABLE

## ART. 2955.



**LAMA INTERCAMBIABILE**  
INTERCHANGEABLE BLADE  
AUSTAUSCHBARES MESSER  
LAME INTERCHANGEABLE

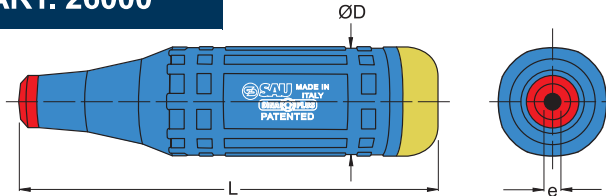
ART.	(mm)				Nm <sup>Max</sup>	TIPO TYPE
	Torx	Torx Plus	e	L		
27818	6	-	4	175	0,6	Torx Magic Spring
27812	7	-	4	175	0,9	
27813	8	-	4	175	1,3	
27814	9	-	4	175	2,5	
27815	10	-	4	175	3,8	
27816	15	-	4	175	5,5	
27817	20	-	4	175	8,0	
29553	-	6IP	4	175	0,8	Torx Plus Magic Spring
29554	-	7IP	4	175	1,3	
29555	-	8IP	4	175	2,0	
29556	-	9IP	4	175	3,0	
29557	-	10IP	4	175	4,5	
29558	-	15IP	4	175	6,6	
29559	-	20IP	4	175	8,0	

### ART. KITDP00000



KIT DINAPLUS  
DYNAPLUS KIT  
DYNAPLUS KIT  
KIT DINAPLUS

### ART. 26000



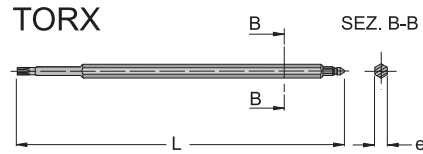
MANICO CACCIAVITE DINAPLUS  
DYNAPLUS SCREWDRIVER HANDLE  
DYNAPLUS SCHRAUBENDREHER-GRIF  
MANCHE TOURNEVIS DYNAPLUS

**Contenuto del kit / Content of the kit :**

- n°1 cacciavite / screwdriver DINAPLUS
- n°1 TORX T6 (Nm0,6)
- n°1 TORX T7 (Nm0,9)
- n°1 TORX T8 (Nm1,2)
- n°1 TORX T9 (Nm1,4)
- n°1 TORX T10 (Nm2,0)
- n°1 TORX T15 (Nm3,0)
- n°1 TORX T20 (Nm5,0)
- n°1 TORX PLUS IP6 (Nm0,6)
- n°1 TORX PLUS IP7 (Nm0,9)
- n°1 TORX PLUS IP8 (Nm1,2)
- n°1 TORX PLUS IP9 (Nm1,4)
- n°1 TORX PLUS IP10 (Nm2,0)
- n°1 TORX PLUS IP15 (Nm3,0)
- n°1 TORX PLUS IP20 (Nm5,0)

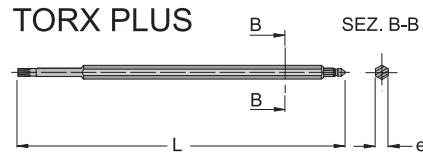
ART.	(mm)			L	270../290..
	e	ØD	L		
26000	7,3	33,2	131,4		

### ART. 270..



LAMA INTERCAMBIABILE  
INTERCHAGEABLE BLADE  
AUSTAUSCHBARES MESSER  
LAME INTERCHANGEABLE

### ART. 290..



LAMA INTERCAMBIABILE  
INTERCHAGEABLE BLADE  
AUSTAUSCHBARES MESSER  
LAME INTERCHANGEABLE

ART.	(mm)		e	L	Nm <sup>Max</sup>	TIPO TYPE
	Torx	Plus				
27006	6	-	6,3	175	0,6	Torx
27007	7	-	6,3	175	0,9	
27008	8	-	6,3	175	1,2	
27009	9	-	6,3	175	1,4	
27010	10	-	6,3	175	2,0	
27015	15	-	6,3	175	3,0	
27020	20	-	6,3	175	5,0	
29006	-	6IP	6,3	175	0,6	Torx Plus
29007	-	7IP	6,3	175	0,9	
29008	-	8IP	6,3	175	1,2	
29009	-	9IP	6,3	175	1,4	
29010	-	10IP	6,3	175	2,0	
29015	-	15IP	6,3	175	3,0	
29020	-	20IP	6,3	175	5,0	

#### CARATTERISTICHE E VANTAGGI:

- Grazie al sistema DINAPLUS si eviteranno serraggi eccessivi con conseguente grippaggio della vite o rottura inserto, tutto ciò con un sistema automatico, semplice ed intuitivo
- Facilissimo da usare, nessun tipo di regolazione da effettuare, la regolazione avviene automaticamente inserendo la lama nell'impugnatura.
- Ampia gamma di lame utilizzabili (T6+T20 / IP6+IP20), facilmente identificabili, inserite in un comodo KIT.
- Nello svitamento la coppia di serraggio è al 100%
- Impugnatura elegante, in alluminio anodizzato

#### USO:

Inserire nell'impugnatura la lama adatta alla sede torx da utilizzare, **dopo essersi assicurati che abbia raggiunto la battuta (udibile con un "clack")**, (il numero o il colore presente ne stabilirà la grandezza esatta) (**fig.1a**), per avvitare, ruotare in senso orario il cacciavite fino a raggiungere lo scatto (**udibile con un "clack"**), che determina la giusta coppia di serraggio della vite (**fig.2**), per svitare, ruotare in senso antiorario il cacciavite (**fig.3**). L'estrazione di una qualsiasi lama dall'impugnatura si può effettuare quando la stessa si trova in posizione neutra (**fig.1b**) e subito dopo il clack di avvitarmento di una vite (**fig.2**) operazioni diverse da quelle indicate potrebbero compromettere l'integrità del cacciavite.

#### FEATURES AND ADVANTAGES:

- The DINAPLUS system avoids overtightening which can seize the screws or break the insert. The system is automatic, simple and user-friendly.
- Very easy to use, no adjustments required, the blade is set automatically in the handle.
- Wide range of blades (T6+T20 / IP6+IP20), easily identifiable in a handy KIT.
- 100% unscrewing torque
- Elegant handle in anodised aluminium.

#### USE:

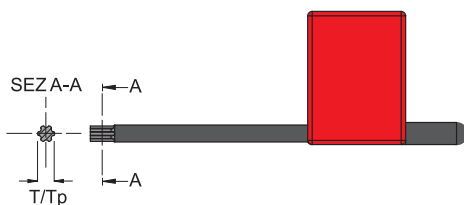
Insert the blade in the handle suited to the torx head screw to use but before doing so, **make sure it has snapped in (you should hear a "click")**, (the number or the colour gives the exact size) (**fig.1a**). To screw down, turn the screwdriver clockwise until you **hear the click**, which means the tightening torque is right (**fig.2**), while to unscrew it turn the screwdriver anticlockwise (**fig.3**). All blades can be taken out of the handle only when the latter is in the neutral position (**fig.1b**) and straight after the tightening click of a screw (**fig.2**); the screwdriver could be damaged if done any differently.



Viti / Screws TORX	Viti / Screws TORX PLUS	Nm
T6	IP6	0,6
T7	IP7	0,9
T8	IP8	1,2
T9	IP9	1,4
T10	IP10	2,0
T15	IP15	3,0
T20	IP20	5,0



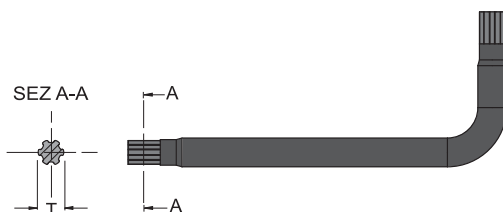
## ART. 55..



**CHIAVE A BANDIERA**  
FLAG KEY  
FLAGGE-SCHLÜSSEL  
CLÉ À "PAVILLON"

(mm)			(mm)		
ART.	Torx	Torx Plus	ART.	Torx	Torx Plus
5506P	-	6IP	5520P	-	20IP
5507P	-	7IP	5525	25	-
5508P	-	8IP			
5509	9	-			
5510	10	-			
5515P	-	15IP			
5520	20	-			

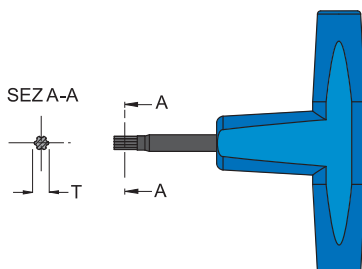
## ART. 54..



**CHIAVE TORX A L**  
TORX KEY (L-SHAPED)  
TORX-SCHLÜSSEL (L-FÖRMIG)  
CLÉ TORX À L

(mm)			(mm)		
ART.	Torx	Torx Plus	ART.	Torx	Torx Plus
5407	7	-	5430	30	-
5408	8	-	5440	40	-
5409	9	-			
5410	10	-			
5415	15	-			
5420	20	-			
5425	25	-			

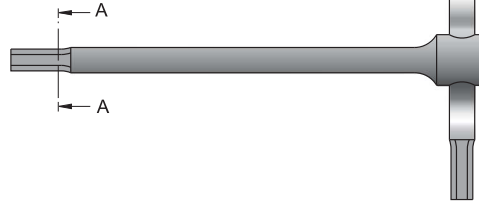
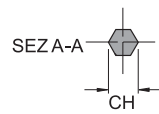
## ART. CTT..



**CHIAVE TORX A T**  
TORX KEY (T-SHAPED)  
TORX-SCHLÜSSEL (T-FÖRMIG)  
CLÉ TORX À T

(mm)	
ART.	Torx
CTT 20	20
CTT 25	25

## ART. CTE..

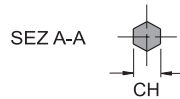


**CHIAVE A BRUGOLA A T**  
T-SETSCREW WRENCH  
T-INBUSSCHLÜSSEL  
CLÉ À 6 PANS À T

(mm)

ART.	CH
CTE 05	5,0
CTE 06	6,0
CTE 08	8,0
CTE 10	10,0
CTE 12	12,0
CTE 14	14,0
CTE 17	17,0

## ART. 50..



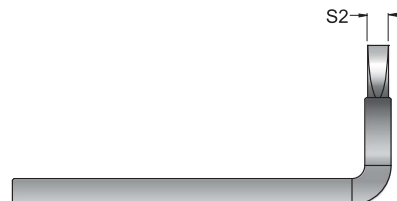
**CHIAVE A BRUGOLA A L**  
L-SETSCREW WRENCH  
L-INBUSSCHLÜSSEL  
CLÉ À 6 PANS À L

(mm)

(mm)

ART.	CH	ART.	CH
5015	1,5	5005	5,0
5002	2,0	5006	6,0
5025	2,5	5007	7,0
5003	3,0	5008	8,0
5035	3,5	5010	10,0
5004	4,0	5017	17,0
5045	4,5		

## ART. SESG-1



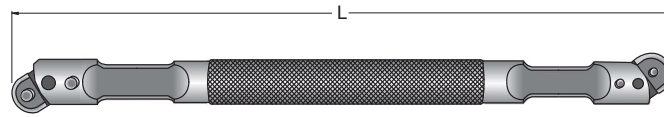
**CHIAVE PER ESTRAZIONE INSERTI**  
INSERT LIFTING KEY  
AUSZIEHSCHLÜSSEL FÜR WENDEPLATTEN  
CLÉ POUR EXTRACTION PLAQUETTES

(mm)

ART.	S2
SESG-1	23

## ART. CH-TRL30-40

**NEW**

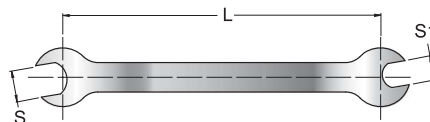


**CHIAVE ERGONOMICA MONTAGGIO/ESTRAZIONE INSERTI**  
INSERT ASSEMBLY/REMOVAL ERGONOMIC KEY  
ERGONOMISCHER MONTAGE-/AUSZIEHLSCHLÜSSEL FÜR WENDEPLATTEN  
CLÉ A MANCHE ERGONOMIQUE DE MONTAGE/EXTRACTION DES PLAQUETTES

(mm)

ART.	L
CH-TRL30-40	220

## ART. 45.95.6..

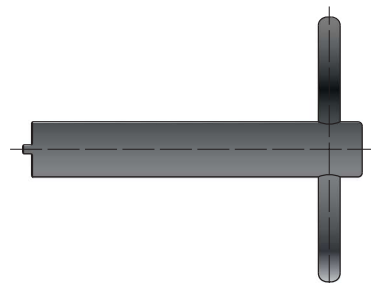


**CHIAVE PER UNITÀ MICROREGISTRABILI**  
KEY FOR MICRO-BORING UNITS  
SCHLÜSSEL FÜR FEINBOHREINHEITEN  
CLÉ POUR UNITÉS MICROMÉTRIQUES



(mm)

ART.	L	S	S1
45.95.640	130	13	10
45.95.644	130	22	15

## ART. CH-HK..





**CHIAVE A DENTI PER BOCCOLE BCF**  
PIN WRENCH FOR BCF BUSHING  
ZAPPENSCHLÜSSEL FÜR BCF-BUCHSEN  
CLÉ À GIFFES POUR DOUILLE BCF

ART.		ART.	
CH-HK040 <b>New</b>	ATR012 HK40	CH-HK080	ATR020 HK80
CH-HK050 <b>New</b>	ATR016 HK50	CH-HK100	ATR024 HK100
CH-HK063	ATR018 HK63		

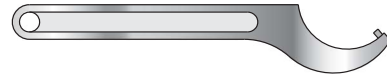
### ART. 925..




**CHIAVE A SETTORE CON DENTE PER GHIERE RGS/RGE**  
PIN WRENCH FOR RGS/RGE  
ZAPFENSCHLÜSSEL FÜR RGS/RGE RING  
CLÉ À SECTEUR AVEC GRIFFE POUR FRETTEES RGS/RGE

ART.		
925.022	RGC ER16	RGS ER16
925.040	RGC ER25	RGS ER25
925.052	RGC ER32	RGS ER32
925.058	-	-
925.068	RGC ER40	RGS ER40

### ART. 926..






**CHIAVE A SETTORE CON PERNO PER GHIERE RGK**  
PIN WRENCH FOR RGK  
ZAPFENSCHLÜSSEL FÜR RGK-RING  
CLÉ À SECTEUR AVEC TOURILLON POUR FRETTEES RGK

ART.		
926.022		RGK ER11
926.030		RGK ER16
926.040		RGK ER25
926.052		RGK ER32
926.068		RGK ER40

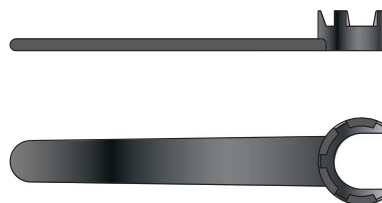
### ART. 927.. / 927..MS




**CHIAVE A SETTORE CON 4 DENTI PER GHIERE RGS/RGE/RGMS/RGMSB**  
PIN WRENCH(4TEETH) FOR RGS/RGE/RGMS/RGMSB  
ZAPFENSCHLÜSSEL FÜR RGS/RGE/RGMS/RGMSB (4 ZÄHNE)  
CLÉ À SECTEUR À 4 GRIFFES POUR FRETTEES RGS/RGE/RGMS/RGMSB

ART.			ART.		
927.022	RGS ER16		927.027MS	RGMS006	-
927.040	RGS ER25		927.032MS	RGMS010	-
927.052	RGS ER32		927.039MS	RGMS016	-
927.068	RGS ER40		927.044MS	RGMS020	RGMSB020
			927.049MS	RGMS025	-
			927.063MS	RGMS032	RGMSB032

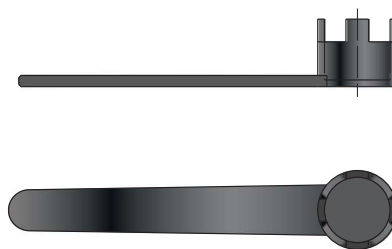
### ART. 938..




**CHIAVE A SETTORI PER GHIERE RGM**  
PIN WRENCH FOR RGM  
ZAPFENSCHLÜSSEL FÜR RGM-RINGE  
CLÉ À SECTEUR POUR FRETTEES RGM

ART.		
938.011		RGM ER11
938.016		RGM ER16
938.025		RGM ER25

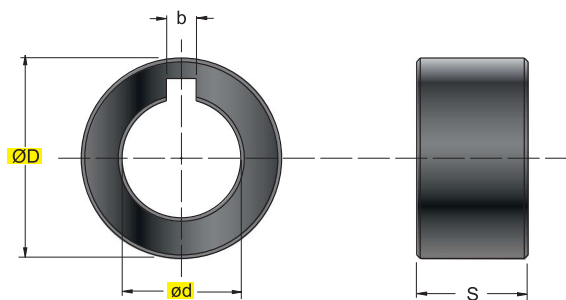
## ART. 423..



CHIAVE PER VITI CON TESTA A CROCE  
CROSS-SLOTTED SCREW WRENCH  
KREUZSCHLÜSSEL  
CLÉ POUR VIS AVEC TÊTE À CROIX

ART.	
423.016.000.000	422.016..
423.022.000.000	422.022..
423.027.000.000	422.027..
423.032.000.000	422.032..
423.040.000.000	422.040..
423.050.000.000	422.050..

## ART. 195..



ANELLO DISTANZIATORE PER PORTAFRESA COMBINATO  
DISTANCE RING FOR COMBI MILL-HOLDER  
Distanzring für Kombi-Fräseraufnahme  
Bague d'entretoise pour mandrin porte-fraise combiné

ART.	(mm)									
	ØD	ød	b	S						
195.016.010	25	16	4	1						
195.016.020	27	16	4	2						
195.016.030	27	16	4	3						
195.016.040	27	16	4	4						
195.016.050	27	16	4	5						
195.022.010	33	22	6	1						
195.022.020	34	22	6	2						
195.022.030	34	22	6	3						
195.022.040	34	22	6	4						
195.022.050	34	22	6	5						
195.027.010	39	27	7	1						
195.027.020	41	27	7	2						
195.027.030	41	27	7	3						
195.027.040	41	27	7	4						
195.027.050	41	27	7	5						
195.032.010	45	32	8	1						
195.032.020	47	32	8	2						
195.032.030	47	32	8	3						
195.032.040	47	32	8	4						
195.032.050	47	32	8	5						
195.040.010	54	40	10	1						
195.040.020	55	40	10	2						
195.040.030	55	40	10	3						
195.040.040	55	40	10	4						
195.040.050	55	40	10	5						
195.050.010	67	50	12	1						
195.050.020	69	50	12	2						
195.050.030	69	50	12	3						
195.050.060	69	50	12	6						

## ART. ESMS..



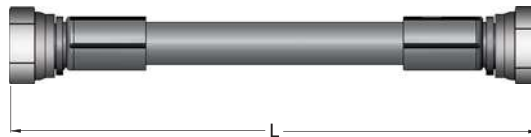
**ESTRATTORE PER PINZE**  
EXTRACTOR FOR COLLETS  
ENTFERNER FÜR REDUZIERHULSEN  
EXTRACTEUR POUR PINCES

ART.

ESMS.010

## ART. ATUB..

**NEW**



**TUBO DRITTO RACCORDATO**  
FITTED HOSE STRAIGHT  
GERADE SCHLAUCHLEITUNG  
TUBE DROIT RACCORDE

(mm)

ART.

L

ATUB150TT0	150	3/16"FF 1/8G-1/8G
ATUB225TT0	225	3/16"FF 1/8G-1/8G
ATUB300TT0	300	3/16"FF 1/8G-1/8G

## ART. A00MM18..

**NEW**



**RACCORDO DRITTO**  
STRAIGHT FITTING  
GERADE VERBINDUNGSTÜCK  
RACCORD DROIT

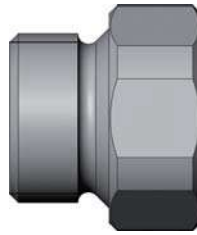
ART.

A00MM18180	MM 1/8G-1/8G
A00MM18100	MM 1/8G-M10



## ART. ARIMF14180

**NEW**



**RIDUZIONE**  
ADAPTER  
REDUZIERUNGEN  
REDUCTION

ART.

ARIMF14180

FM 1/8G-1/4G

## ART. A90MM18..

**NEW**



**RACCORDO 90°**  
90° FITTING  
90°-KUPPLUNG  
RACCORD 90°

ART.

A90MM18180

MM 1/8G-1/8G

A90MM18100

MM 1/8G-M10

## ART. ABS000M100

**NEW**



**ANELLO DI TENUTA**  
SEALING RING  
DICHRING  
ANNEAU D'ETANCHEITE

ART.


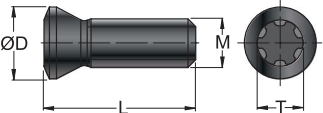
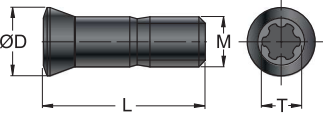
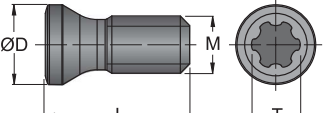
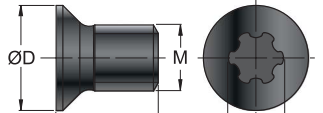
ABS000M100

B-SEAL M10


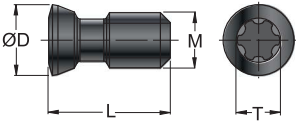
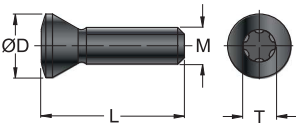
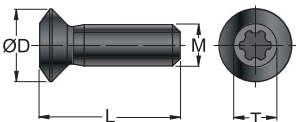
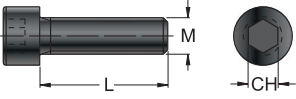

**INDICE - INDEX - INHALTSÜBERSICHT - INDEX - INDICE**

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- Viti staffe - Bracket screws		969	- Rompitruccioli - Chip-breakers		984
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- Viti di regolazione - Adjusting screws		973	- Tasselli - Small blocks		985
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- Sedi in acciaio - Steel seats		981	- Componenti Smussatori - Components chamfering tools		989

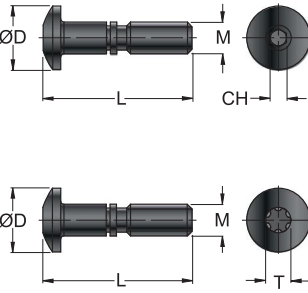
**VITI DI FISSAGGIO INSERTI - INSERT CLAMPING SCREWS**  
**WENDEPLATTENSCHRAUBEN - VISSÉS POUR LE FIXAGE PLAQUETTES**

	ART.	(mm)					Nm
		ØD	M	L	Torx		
	121837	2,7	M1,8x0,35	3,7	6	0,4±0,5	
	121838P	2,4	M1,8x0,35	3,8	6IP	0,4±0,5	
	122033	2,7	M2x0,4	3,3	6	0,5±0,6	
	12203	2,7	M2x0,4	3,6	6	0,5±0,6	
	12204P	2,6	M2x0,4	4,8	6IP	0,5±0,6	
	122041P	2,7	M2x0,4	4,0	6IP	0,5±0,6	
	122042	2,8	M2x0,4	4,0	6	0,5±0,6	
	12205	3,6	M2x0,4	5,4	6	0,5±0,6	
	12224	3,0	M2,2x0,45	4,5	7	0,9±1,0	
	12225P	3,0	M2,2x0,45	5,15	7IP	0,9±1,0	
	122250P	3,0	M2,2x0,45	5,0	7IP	0,9±1,0	
	1225	3,5	M2,5x0,45	7,0	7	1,0±1,2	
	12253	3,5	M2,5x0,45	4,5	7	1,0±1,2	
	12254P	3,5	M2,5x0,45	5,5	7IP	1,0±1,2	
	122545	3,0	M2,5x0,45	4,5	7	1,0±1,2	
	122549	3,2	M2,5x0,45	5,0	7	1,0±1,2	
	12255P	3,6	M2,5x0,45	7,5	8IP	1,1±1,3	
	122555PK	3,4	M2,5x0,45	5,5	8	1,1±1,3	
	12256CP	3,5	M2,5x0,45	5,5	8IP	1,1±1,3	
	12256P	3,5	M2,5x0,45	6,3	8IP	1,1±1,3	
	123006	4,1	M3x0,5	5,4	8	1,2±1,5	
	123008P	4,1	M3x0,5	7,3	8IP	1,2±1,5	
	123010	4,3	M3x0,5	8,8	8	1,2±1,5	
	123009P	4,8	M3,5x0,6	9,4	10IP	2,0±3,0	
	123505	5,2	M3,5x0,6	6,7	15	3,0±3,5	
	123507	5,2	M3,5x0,6	7,2	15	3,0±3,5	
	123509P	5,2	M3,5x0,6	8,6	15IP	3,0±3,5	
	123511P	5,2	M3,5x0,6	11,0	15IP	3,0±3,5	
	123512P	5,3	M3,5x0,6	12,1	15IP	3,0±3,5	
	12404P	4,4	M4x0,7	4,5	8IP	1,2±1,5	
	1240P	5,3	M4x0,7	11,0	15IP	3,8±5,0	
	12409P	5,3	M4x0,7	8,5	15IP	3,8±5,0	
	124011	6,5	M4x0,7	11,5	20	3,8±5,0	
	1440	5,3	M4x0,7	7,4	15	3,5±4,0	
	124510	6,6	M4,5x0,75	10,5	20	4,0±5,0	
	124511P	6,9	M4,5x0,75	11,0	20IP	4,0±5,0	
124512P	6,6	M4,5x0,75	11,5	20IP	4,0±5,0		
124513P	6,6	M4,5x0,75	13,0	20IP	4,0±5,0		
125088	6,6	M5x0,8	8,8	20	5,5±7,0		
125009	7,2	M5x0,8	9,0	20	5,5±7,0		
125011	7,2	M5x0,8	10,5	20	5,5±7,0		
125016	6,7	M5x0,8	16,0	20	5,5±7,0		
126011	9,2	M6x1	11,0	25	7,5±9,0		
126012	8,5	M6x1	12,0	25	7,5±9,0		
126014P	11,2	M6x1	14,0	20	4,0±5,0		
	12RA08	3,1	M2,5x0,35	6,25	7	0,8±1,0	
	12RA10	3,7	M3x0,35	7,8	8	1,8±2,0	
	12RA12	4,7	M3,5x0,6	9,5	10	2,8±3,0	
	12RA16	5,8	M4x0,7	13,3	15	4,5±5,5	
	12RA20	6,8	M5x0,8	16,2	20	5,5±7,0	
	12RA25	8,4	M6x1	20,0	30	10±13	
	12RA32	11,0	M8x1,25	25,0	40	24±30	
	C02205	3,4	M2,2x0,45	5,5	7	0,9±1,2	
	C02506	3,4	M2,5x0,45	6,4	7	1,0±1,5	
	C03006	4,2	M3x0,5	6,8	9	1,5±2,0	
	C03007	4,2	M3x0,5	7,6	9IP	1,5±2,0	
	C03508	5,5	M3,5x0,6	8,7	15	3,0±4,0	
	C03510P	5,43	M3,5x0,6	10,5	15IP	3,0±4,0	
	C04008P	5,5	M4x0,7	8,2	15IP	3,8±5,0	
	C04011P	5,5	M4x0,7	10,5	15IP	3,8±5,0	
	C05011	7,15	M5x0,8	10,5	15	5,0±6,0	
	C05012	7,15	M5x0,8	12,0	15	5,0±6,0	
C06013	8,0	M6x1	13,0	20	6,0±7,5		
	C93504	5,25	M3,5x0,6	3,5	9	1,8±2,0	
	C93505	5,25	M3,5x0,6	4,1	9	1,8±2,0	
	C94005	6,4	M4x0,7	5,0	15	2,0±2,2	
	C94006	6,4	M4x0,7	6,2	15	2,0±2,2	
	C94008	6,4	M4x0,7	8,2	15	2,0±2,2	
	C94010	6,4	M4x0,7	10,0	15	2,0±2,2	

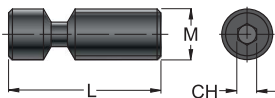
**VITI DI FISSAGGIO INSERTI - INSERT CLAMPING SCREWS**  
**WENDEPLATTENSCHRAUBEN - VISSÉS POUR LE FIXAGE PLAQUETTES**

	ART.	(mm)				Nm 
		ØD	M	L	Torx	
	FS 242	6,4	M5x0,8	9,5	20	5,5÷7,0
	FS 243	6,4	M5x0,8	11	20	5,5÷7,0
	FS 244P	5,04	M4x0,7	9,0	15IP	3,5÷4,0
	S16T	5,5	5-40UNC	12,4	10	1,8÷2,0
	S22T	7,5	8-32UNC	14,9	20	2,5÷3,0
	SM 521	8,8	M5x0,8	17	20	5,0÷6,0
	SM 522	8,8	M5x0,8	20	20	5,0÷6,0
	SM 523	8,8	M5x0,8	15	20	5,0÷6,0
	SM 612	10	M6x1	17	CH4	5,5÷7,0
	SM 516	–	M5x0,8	16	CH 4	5,0÷6,0
	SM 520	–	M5x0,8	20	4	5,0÷6,0
	SM 614	–	M6x1	14	5	5,5÷7,0
	SM 620	–	M6x1	20	5	5,5÷7,0

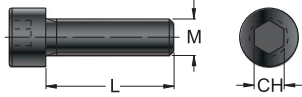
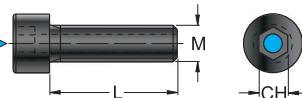
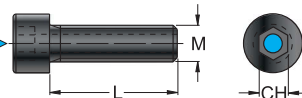

**VITI STAFFE - BRACKET SCREWS**  
**PRATZENSCHRAUBEN - VISSÉS POUR BRIDES**

	ART.	(mm)					
		ØD	M	L	CH	Torx	
	1614	10	W1/4"	25	4	–	PER STAFFA: FOR BRACKET: 2316 / 2326
	100-82	7,8	M5x0,8	18,5	–	9	100-53
	100-84	10	M5x0,8	23,5	2,5	–	100-50 / 100-52
	100-85	11	M6x1	25,5	3	–	100-51
	100-90	6,5	M5x0,8	14	2,5	–	2107
	100-91	8,5	M6x1	18,5	3	–	2109
	100-92	6,5	M5x0,8	16	2,5	–	2207
	100-93	8,5	M6x1	21	3	–	2209 / 2210

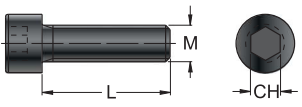
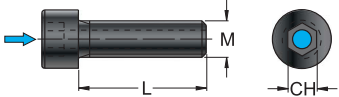
**VITI LEVE - LEVER SCREWS  
HEBELSCHRAUBEN - VISSÉS LEVIERS**

	ART.	(mm)				
		ØD	M	L	CH	
	1603	—	M5x0,8	9,5	2	
	1604	—	M6x1	13,6	2,5	
	1605	—	M5x0,8	12	2	
	1606	—	M6x1	17	2,5	
	1608	—	M8x1	21	3	
	1610	—	M10x1	27	4	
	1618	—	M8x1	24	3	
	1626	—	M6x1	13,5	2,5	
	1628	—	M8x1	22	3	
	1638	—	M8x1	21	3	
	1648	—	M8x1	17	3	

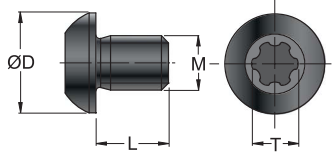
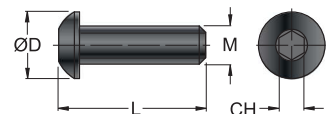
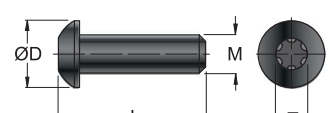
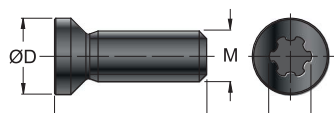
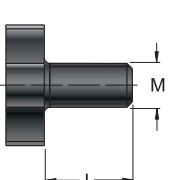
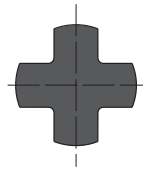
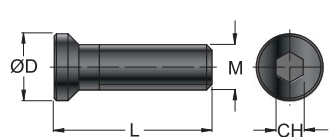
**VITI A TESTA CILINDRICA - CHEESE-HEADED SCREWS  
ZYLINDERKOPFSCHRAUBEN - VISSÉS À TÊTE CYLINDRIQUE**

	ART.	(mm)					
		ØD	M	L	CH		
	905.004.070.010	—	M4x0,7	10	3		
	905.005.080.012	—	M5x0,8	12	4		
	905.006.100.016	—	M6x1	16	5		
	905.006.100.050	—	M6x1	50	5		
	905.010.150.045	—	M10x1,5	45	8		
	905.010.150.070	—	M10x1,5	70	8		
	905.010.150.100	—	M10x1,5	100	8		
	905.010.150.130	—	M10x1,5	130	8		
	905.012.175.035	—	M12x1,75	35	10		
	905.012.175.055	—	M12x1,75	55	10		
	905.012.175.090	—	M12x1,75	90	10		
	905.012.175.120	—	M12x1,75	120	10		
	905.016.200.040	—	M16x2	40	14		
	905.016.200.100	—	M16x2	200	14		
		AL 6X14	—	M6x1	14	4	
		AL 10X30	—	M10x1,5	30	7	
AL 10X40		—	M10x1,5	40	7		
AL 12X35		—	M12x1,75	35	8		
AL 16X35		—	M16x2	35	14		
AL 20X45		—	M20x2,5	45	17		
		VB 02	—	M3x0,5	10	2,5	
	VB 03	—	M3x0,5	12	2,5		
	VB 04	—	M4x0,7	10	3		
	VB 05	—	M5x0,8	14	4		
	VB 06	—	M6x1	17,5	5		
	VB 06C	—	M6x1	30	5		
	VB 06L	—	M6x1	16	5		
	VB 06XL	—	M6x1	25	5		
	VB 10	—	M10x1,5	45	8		
	VB 12	—	M12x1,75	55	10		
	VB 12C	—	M12x1,75	25	10		
	VB 16	—	M16x2	55	14		
	VB 20		—	M20x2,5	70	12	
	VBC 02	—	M3x0,7	10	2,5		
	VBC 04	—	M4x0,7	12	3		
	VBC 05	—	M5x0,8	14	4		
	VBC 06	—	M6x1	16	5		

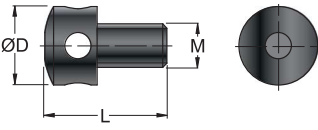
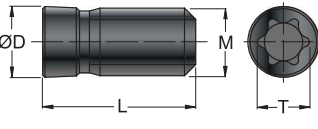
**VITI A TESTA CILINDRICA - CHEESE-HEADED SCREWS  
ZYLINDERKOPFSCHRAUBEN - VISSÉS À TÊTE CYLINDRIQUE**

	ART.	(mm)					Torx
		ØD	M	L	CH		
	VBF 06	—	M6x1	35	5	—	
	VBF 10	—	M10x1,5	45	8	—	
	VBF 12	—	M12x1,75	40	8	—	
	VBF 16	—	M16x2	50	10	—	
	VBL 03	—	M3x0,5	4,3	2,5	—	
	VBL 03C	—	M3x0,5	3,5	2,5	—	
	VBL 03L	—	M3x0,5	6	2,5	—	
	VBL 03XL	—	M3x0,5	8	2,5	—	
	VBL 05	—	M5x0,8	20	4	—	
	VBL 05L	—	M5x0,8	80	4	—	
	VBL 06	—	M6x1	30	5	—	
	VBL 06BL	—	M6x1	28	5	—	
	VBL 06C	—	M6x1	12	5	—	
	VBL 06L	—	M6x1	35	5	—	
	VBL 08	—	M8x1,25	45	6	—	
	VBL 10	—	M10x1,5	65	8	—	
	VBL 10C	—	M10x1,5	50	8	—	
	VBL 10L	—	M10x1,5	75	8	—	
	VBPF 060	—	M6x1	35	5	—	
	VBPF 061	—	M6x1	95	5	—	
	VBPF 100	—	M10x1,5	30	8	—	
	VBPF 101	—	M10x1,5	45	8	—	
	VBPF 102	—	M10x1,5	105	8	—	
	VBPF 104	—	M10x1,5	135	8	—	
	VBPF 120	—	M12x1,75	38	8	—	
	VBPF 121	—	M12x1,75	45	10	—	
	VBPF 124	—	M12x1,75	135	10	—	
	VBPF 160	—	M16x2	55	14	—	
	VBPF 162	—	M16x2	135	14	—	
	VBSF08C	—	M8x1,25	25	6	—	
	VBSF08L	—	M8x1,25	35	6	—	
	VBSF10	—	M10x1,5	30	8	—	
	VBSF10L	—	M10x1,5	45	8	—	
	VBSF10XL	—	M10x1,5	50	8	—	
	VBSF12	—	M12x1,75	35	10	—	
	VBSF12L	—	M12x1,75	45	10	—	
	VBSF16	—	M16x2	35	14	—	
	VBSF16L	—	M16x2	45	14	—	
	VBSF20	—	M20x2,5	45	17	—	
	VBTF10	—	M10x1,5	100	8	—	
	VBTF10L	—	M10x1,5	120	8	—	
	VS16T	—	5-40UNC	4,2	—	10	
	VS22T	—	8-32UNC	5,2	—	20	

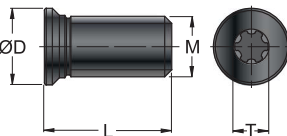
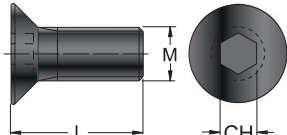
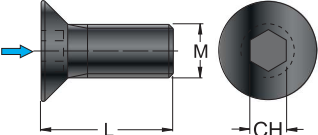

**VITI - SCREWS  
SCHRAUBEN - VISSÉS**

	ART.	(mm)					
		ØD	M	L	CH	Torx	
	100-86 100-87	5,4 7,4	M3x0,5 M4x0,7	4 4	- -	8 15	
 	1803 1803C 1803N 1804 1806 1806C 1808	5,5 5,5 5,5 7,3 10,3 10,3 13,8	M3x0,5 M3x0,5 M3x0,5 M4x0,7 M6x1 M6x1 M8x1,25	11,5 9,5 11,5 12,5 25 23 35	2 2 - 2,5 4 4 5	- - 9 - - - -	
	183008P 184012P 185014P  N° 3 183008P 45.95.532 N° 3 184012P 45.95.536 N° 3 185014P 45.95.538	4,4 6,0 10,0	M3x0,5 M4x0,7 M5x0,8	8 12 14	- - -	8 15 20	
 	422.016.000.000 422.022.000.000 422.027.000.000 422.032.000.000 422.040.000.000 422.050.000.000	- - - - - -	M8x1,25 M10x1,5 M12x1,75 M16x2 M20x2,5 M24x3	16 18 22 25 30 36	- - - - - -	- - - - - -	
	VBSF08 VBSF10AV	11 14	M8x1,25 M10x1,5	35 40	5 6	- -	

**VITI DI REGOLAZIONE - ADJUSTING SCREWS  
STELLSCHRAUBEN - VISSÉS DE RÉGLAGE**

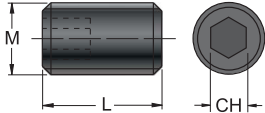
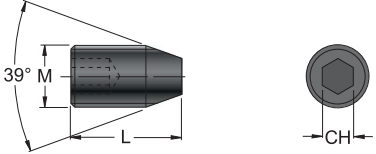
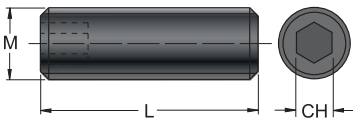
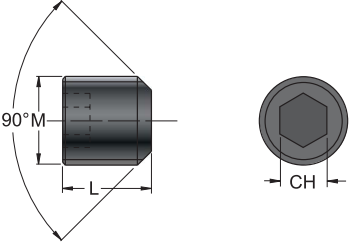
	ART.	(mm)					
		ØD	M	L	CH	Torx	
	1403	5	M3x0,5	11	-	-	
	1405	9	M5x0,8	14	-	-	
	1406	10	M6x1	15	-	-	
	724	6,3	M6x1	13,6	4	-	
							

**VITI A TESTA SVASATA - COUNTERSUNK SCREWS  
SENKSCHEUBEN - VISSÉS À TÊTE ÉVASÉE**

	ART.	(mm)					
		ØD	M	L	CH	Torx	
	KMS 3	6	M5x0,8	8	-	9	
	KMS 4	7,6	M6x1	12,7	-	15	
	KMS 4S	7,6	M6x1	11,0	-	15	
	KMS 5	10,2	M8x1	16	-	15	
	KMS 6	11,8	M10x1	16	-	15	
	 	VBRF 204 } 	-	M20x2,5	80	12	
VBS 0308		-	M3x0,5	8	2	-	
VBS 08		-	M8x1,25	35	5	-	
VBS 10		-	M10x1,5	30	6	-	
VBS 12		-	M12x1,75	35	8	-	
VBS 16		-	M16x2	40	10	-	
VBS 20		-	M20x2,5	40	12	-	
VBS 24		-	M24x3	40	14	-	
VBS 312		-	M3x0,5	12	2	-	
VBS 420		-	M4x0,7	20	2,5	-	
VBS 514		-	M5x0,8	14	3	-	
VSSF10		-	M10x1,5	35	6	-	




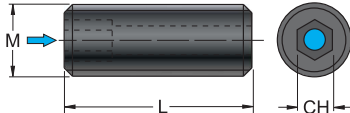
**GRANI - DOWELS  
MADENSCHRAUBEN - GRAINS**

	ART.	(mm)					
		M	M1	L	CH	Torx	
	1503	M3x0,5	-	4	1,5	-	
	1504	M4x0,7	-	4	2	-	
	1505	M5x0,8	-	5	2,5	-	
	4196	M6x1	-	10	3	-	
	901.004.012.000	M4x0,7	-	12	2	-	
	901.006.016.010	M6x1	-	16	3	-	
	901.006.020.010	M6x1	-	20	3	-	
	901.006.025.010	M6x1	-	25	3	-	
	901.006.030.010	M6x1	-	30	3	-	
	901.008.040.012	M8x1,25	-	40	4	-	
	GR 05	M5x0,8	-	10	2,5	-	
	GR 06	M6x1	-	10	3	-	
	GR 08	M8x1,25	-	10	4	-	
	GR 10	M10x1,5	-	12	5	-	
	GR 1010F	M10x1	-	10	5	-	
	GR 12	M12x1,75	-	16	6	-	
	GR 1212	M12x1,75	-	12	6	-	
	GR 1215	M12x1,5	-	16	6	-	
	GR 14	M14x2	-	16	6	-	
	GR 1414	M14x2	-	14	6	-	
	GR 1415	M14x1,5	-	16	6	-	
	GR 16	M16x2	-	16	8	-	
	GR 1610	M16x1	-	10	8	-	
	GR 1612	M16x2	-	12	8	-	
	GR 1615	M16x1,5	-	16	8	-	
	GR 18	M18x2	-	20	10	-	
	GR 1814	M18x2	-	14	10	-	
	GR 1815	M18x1,5	-	20	10	-	
	GR 1818	M18x2	-	18	10	-	
	GR 20	M20x2	-	20	10	-	
	GR 2015	M20x1,5	-	20	10	-	
	GR 2016	M20x2	-	16	10	-	
	GR 2420	M24x2	-	20	17	-	
	GR 810F	M8x1	-	10	4	-	

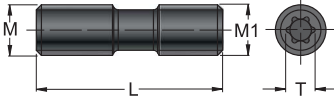
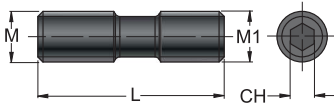
**GRANI - DOWELS  
MADENSCHRAUBEN - GRAINS**

	ART.	(mm)					
		M	M1	L	CH		
	GR 404	M4x0,7	—	4	2	—	
	GR 505	M5x0,8	—	5	2,5	—	
	GR 505FP	M5x0,5	—	5	—	9	
	GR 606	M6x1	—	6	3	—	
	GR 608	M6x1	—	8	3	—	
	GR 610	M6x1	—	10	3	—	
	GR 612	M6x1	—	12	3	—	
	GR 614	M6x1	—	14	3	—	
	GR 618.05	M6x0,5	—	18	3,5	—	
	GR 806	M8x1,25	—	6	4	—	
	GR 808	M8x1,25	—	8	4	—	
	GR 810	M8x1,25	—	10	4	—	
	GR 812	M8x1,25	—	12	4	—	
	GR 814	M8x1,25	—	14	4	—	
	GR 816	M8x1,25	—	16	5	—	
	GR 1008	M10x1,5	—	8	5	—	
	GR10Q26	M10x1,5	—	15,0	5		
	GR12Q34	M12x1,75	—	19,8	6		
	GR16Q42	M16x2	—	24,9	8		
	GRB3	M3x0,5	—	16	1,5		
	GRB4	M4x0,7	—	25	2		
	GRB4C	M4x0,7	—	20	2		
	GRB4L	M4x0,7	—	35	2		
	GRB5	M5x0,8	—	40	2,5		
	GRB6	M6x1	—	60	3		
	GRB6C	M6x1	—	50	3		
	GRB6L	M6x1	—	70	3		
	GRF06	M6x1	—	12	3		
	GRF10	M10x1,5	—	14	3		
	GRF12	M12x1,75	—	20	4		
	GRF18	M18x1,5	—	20	5		
	GRF22	M22x1,5	—	20	5		
	GRF28	M28x2	—	25	5		
		GRT14	M5x0,8	—	8		2,5
GRT18		M6x1	—	10	3		
GRT22		M8x1,25	—	13,5	4		
GRT27		M8x1,25	—	15	4		
GRT32		M10x1,5	—	18	5		
GRT40		M12x1,75	—	20	6		
GRT63		M16x2	—	25	8		
GRT80		M20x2,5	—	35	10		
GRTS14		M6x1	—	13	3		

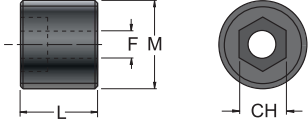
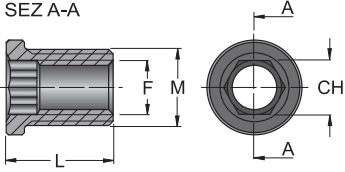
**GRANI - DOWELS  
MADENSCHRAUBEN - GRAINS**

	ART.	(mm)				
		M	M1	L	CH	
	GWH06	M6x1	—	10	3	
	GWH08	M8x1,25	—	10	4	
	GWH10	M10x1,5	—	12	5	
	GWH12	M12x1,75	—	16	6	
	GWR05	M5x0,8	—	12	2,5	
	GWR05L	M5x0,8	—	20	2,5	
	GWR06	M6x1	—	14	3	
	GWR06L	M6x1	—	20	3	
	GWR08	M8x1,25	—	16	4	
	GWR10	M10x1,5	—	20	5	
	GWR12	M12x1,75	—	20	6	
	GWR14	M14x2	—	14	6	
	GWR16	M16x2	—	20	8	
	GWR20	M20x2,5	—	24	10	
	GWR 08CT	M8x1	—	16	4	
	GWR 08CTD	M8x1	—	20	4	
	GWR 10CT	M10x1	—	18	5	
	GWR 10CTD	M10x1	—	20	5	
	GWR 12CT	M12x1	—	18	5	
	GWR 12CTD	M12x1	—	20	6	
GWR 16CT	M16x1	—	10	8		
GWR 16CTD	M16x1	—	20	8		

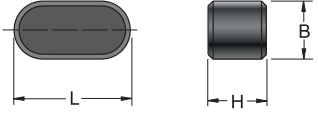
**PRIGIONIERI - STUD BOLTS  
STIFTBOLZEN - PRISIONNERS**

	ART.	(mm)				Nm
		M	M1	L	Torx	
	DS8	M8x1sx	M8x1	16	25	6,5÷8,0
	STCM04	M8x1sx	M8x1	30	25	7,0÷8,0
	STCM20	M6x1sx	M6x1	30	15	5,0÷6,0
	STCM25	M6x1sx	M6x1	25	15	5,0÷6,0
	TDS 820	M8x1sx	M8x1	20	25	5,5÷6,0
	VDST 206	M6x1sx	M6x1	17	20	5,5÷7,0
	VDST 2008	M8x0,75	M8x1,25	30	4	8,0÷10,0

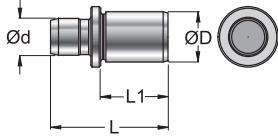
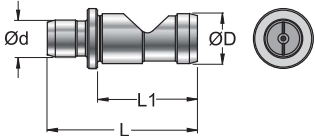
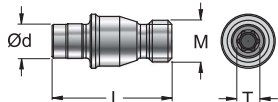
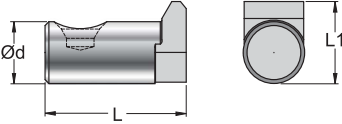
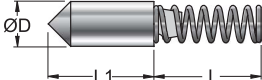
**BOCCOLE - BUSHES  
BUCHSEN - DOUILLES**

	ART.	(mm)					
		M	L	F	H	CH	
	BCF 01 BCF 02	M18x1,5 M18x1,5	10 10	6 10	- -	6 10	
	BCL 7 BCL 15	M5x0,5 M6x0,75	7 9	M3,5x0,6 M4,5x0,75	- -	3,5 4,5	

**CHIAVETTA DI TRASCINAMENTO - DRIVING KEYS  
MITNAHMEKEILE - CLAVETTES D'ENTRAÎNEMENT**

	ART.	(mm)					
		L	B	H			
	CT 0410 CT 0420 CT 0612 CT 0625 CT 0715 CT 0725 CT 0820 CT 0828 CT 1020 CT 1032 CT 1236	9,8 19,8 11,8 24,6 16,1 24,8 17,9 27,8 19,8 31,8 35,5	4 4 6 6 7 7 8 8 10 10 12	4 4 6 6 7 7 7 7 8 8 8			

**PERNI - PINS  
STIFTE - TOURILLONS**

	ART.	(mm)					
		ØD/M	Ød	L	L1	T	
	4184	4	3,69	10,0	5,9	-	
	4185	6	5,0	11,5	6,5	-	
	4187	5	3,69	9,9	4,9	-	
	4188	5	3,69	11,7	6,7	-	
	4190	6	5,0	14,3	9,3	-	
	4186	5	3,69	15,0	10,0	-	
	4192	6	5,0	18,5	13,5	-	
	KLM 34L	M5x0,8	3,65	13,1	-	T8	
	KLM 44	M6x1	5,0	13,3	-	T15	
	KLM 46	M6x1	5,0	17,3	-	T15	
	KLM 46L	M6x1	5,0	18,7	-	T15	
	KLM 46S	M6x1	5,0	16,6	-	T15	
	KLM 58	M8x1	6,25	22,0	-	T15	
	KLM 68	M10x1	7,8	22,0	-	T25	
	477.020	-	5,75	22,0	8,3	-	
	477.025	-	7,75	23,0	11,3	-	
	477.032	-	9,75	26,0	13,4	-	
	477.040	-	11,75	32,0	16,9	-	
	477.050	-	15,75	36,0	20,9	-	
	477.063	-	19,75	47,0	26,6	-	
	477.080	-	24,75	56,5	30,1	-	
	4201	4,8	-	6	3	-	
	4202	4,8	-	12	5	-	
	4204	4,8	-	12	10,5	-	

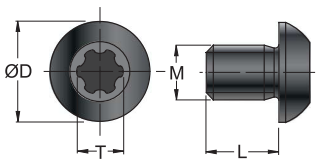
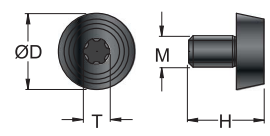


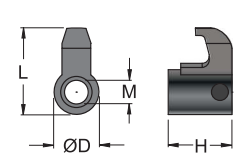
**LEVE - LEVERS  
HEBEL - LEVIERS**

	ART.	(mm)			
		L	L1	S	S1
	8008	6,3	7,8	2,2	2,6
	8009	12,1	9,7	3,5	3,6
	8010	7,7	9,5	3,6	3,2
	8012	13,1	12,7	4,7	4,6
	8016	17,1	15,5	6,0	6,0
	8019	19,6	21,1	7,5	7,5
	8212	12,6	10,6	4,8	4,7
	8216	9,5	10,0	3,7	3,2
	8410	10,0	11,6	3,5	3,8
	8411	11,5	11,6	3,5	3,8
8415	14,7	15,3	4,7	4,7	

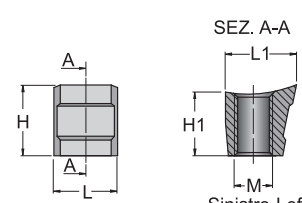
**STAFFE - BRACKETS  
PRATZEN - BRIDES**

	ART.	(mm)								
		M	L	ØD/L1	H	CH/T				
	100-11	M4x0,7	21,8	11,0	17	IP9				
	100-21	M5x0,8	25,8	14,5	20	T15	100-11.1	100-11.2	100-11.3	
	100-31	M6x1	31,2	17,7	25	T20	100-21.1	100-21.2	100-21.3	
	100-41	M6x1	35,1	19,0	25	T20	100-31.1	100-31.2	100-31.3	
							100-41.1	100-31.2	100-31.3	
	100-50	M5x0,8	15,6	18,5	23,5	2,5				
	100-51	M6x1	16,5	24	25,5	3	100-50.1	100-84	RP051010	EMI H5
	100-52	M5x0,8	15,6	18,5	23,5	2,5	100-51.1	100-85	RP061205	EMI H6
	100-53	M5x0,8	12,7	16,2	18,5	T10	100-52.1	100-84	RP051010	EMI H5
							100-56.1	100-82	-	EMI H5
	2107	M5x0,8	14	6,8	14	2,5				
	2109	M6x1	16,4	8,7	18,5	3	1148	100-90	EMI H5	
	2207	M5x0,8	14	6,8	16	2,5	1149	100-91	EMI H6	
	2304	M4x0,7	13,3	8	14	2,5	1148	100-92	EMI H5	
	2304C	M4x0,7	13,3	8	14	2,5	-	-	-	
	2305	M5x0,8	16,5	10	19	3	-	-	-	
	2305C	M5x0,8	16,5	10	19	3	-	-	-	
							-	-	-	
	2316	-	25,4	23,5	12,3	-				
	2326	-	25,4	23,5	12,3	-				

**STAFFE - BRACKETS  
PRATZEN - BRIDES**

	ART.	(mm)						
		M	L	ØD/L1	H	Torx		
	2435	M3,5x0,6	7,2	8	-	15		
	2440 2445	M4x0,7 M4,5x0,75	- -	9 11	8,2 10,8	15 20	 2403 2404	 C04008 124510
	CKM 12 CKM 21 CKM 22	M8x1sx M6x1sx M6x1sx	22,2 18,25 21,25	10,8 9,45 9,45	17,5 13,4 13,4	- - -		

**CUNEI - WEDGES  
KEILE - COINS**

	ART.	(mm)					
		M	L	L1	H	H1	
	453	M6x1sx	19,5	11,3	11,2	10,0	
	722	M8x1sx	15,6	13,1	9,0	9,3	
	919 919.16	M8x1sx M8x1sx	17,6 18,1	13,1 12,7	10,8 10,7	8,7 8,7	
	454	M6x1sx	10,0	11,3	11,2	10,0	
	723	M8x1sx	12,0	13,1	9,0	9,3	
	920	M8x1sx	12,0	13,3	10,8	8,7	

**CUNEI - WEDGES  
KEILE - COINS**

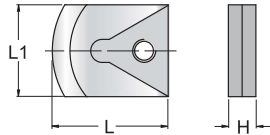
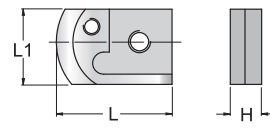
	ART.	(mm)					
		M	L	ØD/L1	H	H1	
	488.07.T1	M8x1sx	10,0	14,0	8,5	8,3	
	460.063.010.006	M6x1sx	10,5	12	6	-	

**SEDI IN ACCIAIO - STEEL SEATS  
STAHLITZE - SIÈGES EN ACIER**

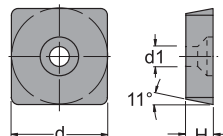
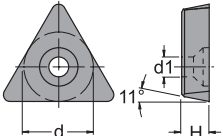
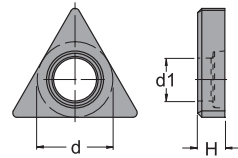
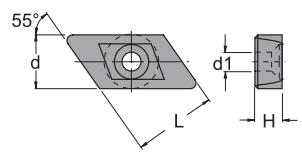
	ART.	(mm)					
		d	d1	L	L1	H	
	452 452.15	- -	- -	26,6 25,9	20,5 20,5	12,4 12,4	
	721	-	-	23,5	15,7	9,2	
	918. 918.16	- -	- -	27,6 28,1	17,1 16,4	12,6 12,6	



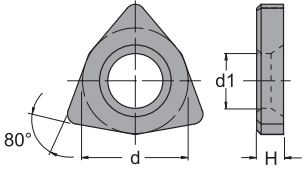
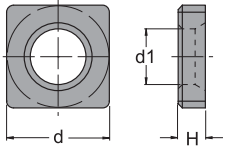
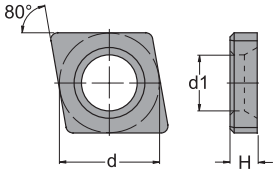
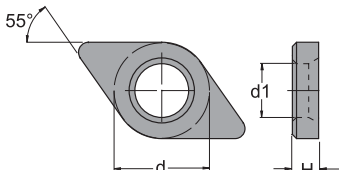
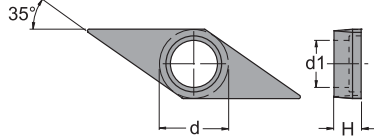
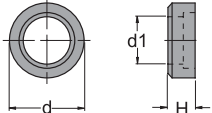
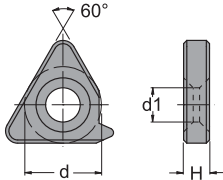
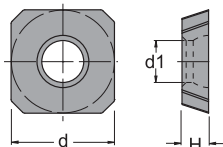
**SEDI IN ACCIAIO - STEEL SEATS**  
**STAHL SITZE - SIÈGES EN ACIER**

	ART.	(mm)					
		d	d1	L	L1	H	
	S11	-	-	12,7	10	2,8	
	S16	-	-	19,5	15,9	4,8	
	S12.4	-	-	20,9	13,7	5,7	

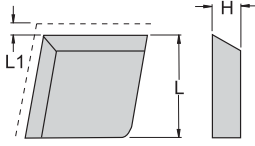
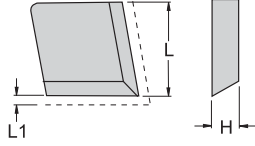
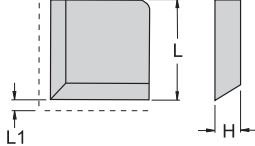
**SEDI IN METALLO DURO - SOLID CARBIDE SEATS**  
**HARTMETALLSITZE - SIÈGES EN CARBURE**

	ART.	(mm)					
		d	d1	L	$\alpha$	H	
	3112	11,3	2,3	-	11°	3,18	
	3116	8,1	2,3	-	11°	3,18	
	3216	8,8	5,0	-	-	3,18	
	3222	11,9	6,0	-	-	4,76	
	3415	8,75	5,5	-	-	2,38	
	3416	9,0	5,0	-	-	2,85	
	3418 3422	8,4 11,85	5,4 6,5	- -	- -	2,70 3,18	
	3226	9,4	3,3	14,5	-	4,76	
	3236	9,4	3,3	14,5	-	4,76	

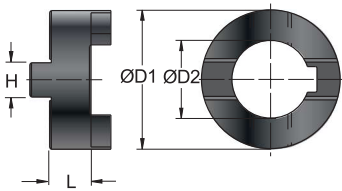
**SEDI IN METALLO DURO - SOLID CARBIDE SEATS  
HARTMETALLSITZE - SIÈGES EN CARBURE**

	ART.	(mm)							
		d	d1	L	$\alpha$	H			
	3306	8,9	4,8	—	—	2,9			
	3308M	12,5	6,5	—	—	3,18			
	3509	8,5	5,5	—	—	2,38			
	3511	11,4	6,5	—	—	3,18			
	3512	11,96	6,5	—	—	3,18			
	3514	11,6	6,9	—	—	3,1			
	3515	14,7	8,0	—	—	4,76			
	3519	17,8	9,7	—	—	4,76			
	KSN433 KSN633	12,5 18,8	7,3 11,2	— —	— —	4,76 4,76			
	3608	8,5	4,8	—	—	3,97			
	3609	8,4	5,5	—	—	2,38			
	3610	8,5	4,8	—	—	3,18			
	3611	11,4	6,5	—	—	3,18			
	3612	11,7	6,5	—	—	3,18			
	3616	14,5	8,0	—	—	4,76			
	3619	18,0	9,7	—	—	4,76			
	KCN433 KCN533 KCN633	12,5 15,6 18,8	7,3 9,7 11,2	— — —	— — —	4,76 4,84 4,76			
		3710	8,5	4,8	—	—		3,18	
		3711	8,4	5,5	—	—		2,38	
3715		11,65	6,5	—	—	3,18			
KDN433		12,45	7,4	—	—	4,82			
	3716	8,1	5,5	—	—	3,18			
	KVN323	9,3	5,8	—	—	3,2			
	3810	8,7	5,5	—	—	3,18			
	GX 16	9,52	4,2	—	—	3,18			
	GX 16-1	9,52	4,2	—	—	3,18			
	U16ER	9,52	4	—	—	3,18			
	U16IR	9,52	4	—	—	3,18			
	U22ER U22IR	12,7 12,7	5,3 5,3	— —	— —	3,97 3,97			
	PA13M	10,65	5,3	—	9°	3,0			

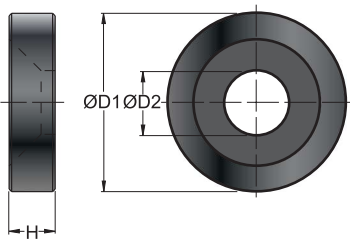
**ROMPITRUCIOLI - CHIP-BREAKERS  
SPANBRECHER - BRISE-COUPEAUX**

	ART.	(mm)					
		d	d1	L	L1	H	
	RCK1225	-	-	10,7	2,3	2,5	
	RCN1225	-	-	10,7	2,3	2,5	
	RSN1225	-	-	10,7	2,3	2,5	

**ANELLI DI TRASCINAMENTO - DRIVING RINGS  
MITNAHMERINGE - BAGUES D'ENTRAÎNEMENT**

	ART.	(mm)					
		ØD1	ØD2	H	L		
	08.3501.016.AT	32,0	16,5	7,9	10		
	08.3502.022.AT	40,0	22,5	9,9	12		
	08.3503.027.AT	48,0	27,5	11,9	12		
	08.3504.032.AT	57,5	32,5	13,9	14		
	08.3505.040.AT	69,5	40,5	15,9	14		
	08.3506.050.AT	90,0	50,5	17,9	16		

**RONDELLE - WASHERS  
UNTERLEGSCHIEBEN - RONDELLES**

	ART.	(mm)					
		ØD1	ØD2	H	L		
	4513	22	11	8	-		
	RS 16	22	8,5	7	-		
	RS 22	29	10,5	8	-		
	RS 27	36	12,5	9	-		
	RS 32	43	16,5	10	-		
	RS 40	52	20,5	11	-		
	RS 50	64	24,5	13	-		
	RS 60	75	24,5	14	-		
	RSPU 04	7,2	4,5	4	-		

**SPESSORI - SHIMS  
UNTERLAGEN - ÉPAISSEUR**

	ART.	(mm)				
		ØD1	ØD2	H	L	
	RP 030610	6	3,5	1,0	-	
	RP 040810	8	4,5	1,0	-	
	RP 061212	12	6,5	1,2	-	
	RP 081412	14	9,0	1,2	-	
	RP 101616	20	11,0	2,0	-	

**TASSELLI - SMALL BLOCKS  
DÜBEL - CHEVILLE**

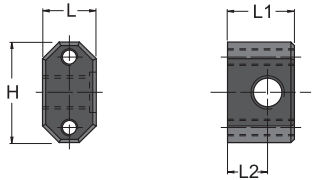
	ART.	(mm)				
		ØD	L	B	H	M
	426.063.010.008	-	18,5	10,0	8	4
	426.080.012.008	-	21,0	12,0	8	5
	426.100.016.010	-	28,0	16,0	10	5
	CH 22	-	27,5	10,0	9	3
	CH 27	-	28,0	12,0	15,5	4
	CH 32	-	29,0	14,0	24	6
	CH 40	-	30,0	16,0	21,4	6
	CHF 16	-	14,5	8,0	7	3
	CHF 22	-	18,5	10,0	10	4
	CHF 27	-	21,0	12,0	12	5
	CHF 32	-	23,5	14,0	14	6
	CHF 40	-	20,5	16,0	16	6
	CHF 40 L	-	23,5	16,0	16	6
	CHF 60	-	24,0	20,5	20	12
	CHT 14	-	12,2	6,0	3,5	3
	CHT 18	-	12,2	6,0	4	3
	CHT 22	-	12,2	8,0	4,5	3
	CHT 27	-	12,2	8,0	6,5	3
	TF 25	-	6,0	25,4	20	12
		TSFS16	-	11	8	10,5
TSFS22		-	13	10	11,5	-
TSFS27		-	15	12	12,5	-
TSFS32		-	17	14	14	-
TSFS40		-	19,5	16	16	-
TSFF40		-	19,5	15,9	16	-
TSFF60		-	26,6	25,4	25	-

**ADATTATORE - ADAPTERS  
ADAPTER - ADAPTATEURS**

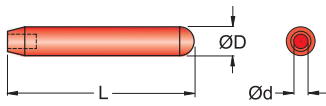
	ART.	(mm)				
		L	L1	L2	S	S1
	RD 12	50	23,5	19,5	5	4

ADATTATORE DA  
CARTUCCE 16CA...  
A CARTUCCE 12CA...  
  
ADAPTER CARTRIDGE  
16CA... TO 12CA...

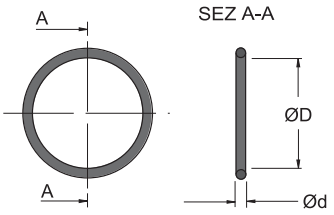
**BLOCCHETTI - BLOCKS  
BLÖCKE - CALES**

	ART.	(mm)					
		L	L1	L2	H		
	BRA.BLO.10	16	20	12	30		

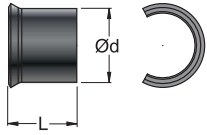
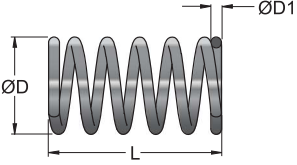
**PUNZONI - PUNCHES  
STEMPEL - POINÇONS**

	ART.	(mm)					
		ØD	Ød	L			
	0009 0012 0015 0019	8 10 12 14	4 5 7 8	60 65 70 70			

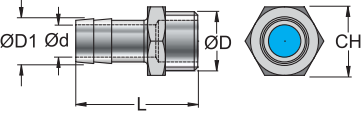
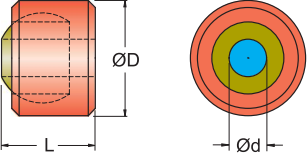
**GUARNIZIONI OR - OR SEALS  
OR-DICHTUNGEN - GARNITURES**

	ART.	(mm)					
		ØD	Ød				
	OR-0035-150	3,5	1,5				
	OR-0040-150	4,0	1,5				
	OR-0045-150	4,5	1,5				
	OR-0050-150	5,0	1,5				
	OR-0055-150	5,5	1,5				
	OR-0060-150	6,0	1,5				
	OR-0065-150	6,5	1,5				
	OR-0070-150	7,0	1,5				
	OR-0075-150	7,5	1,5				
	OR-0080-150	8,0	1,5				
	OR-0085-150	8,5	1,5				
	OR-0090-150	9,0	1,5				
	OR-0095-150	9,5	1,5				
	OR-0100-150	10,0	1,5				
	OR-0105-150	10,5	1,5				
	OR-0110-150	11,0	1,5				
	OR-0115-150	11,5	1,5				
	OR-0120-150	12,0	1,5				
	OR-0125-150	12,5	1,5				
	OR-0130-150	13,0	1,5				
	OR-0135-150	13,5	1,5				
	OR-0140-150	14,0	1,5				
	OR-0145-150	14,5	1,5				
	OR-0150-150	15,0	1,5				
	OR-0155-150	15,5	1,5				
	OR-0160-150	16,0	1,5				
	OR-0165-150	16,5	1,5				
	OR-0170-150	17,0	1,5				
	OR-0175-150	17,5	1,5				
	OR-0180-150	18,0	1,5				
OR-0185-150	18,5	1,5					
OR-0190-150	19,0	1,5					
OR-0195-150	19,5	1,5					
OR-0267-178	26,7	1,78					
OR-0280-2	28,0	2,0					
OR-HK063	11,0	2,0					
OR-HK100	15,0	2,5					
ORM-210-20	21,0	2,0					

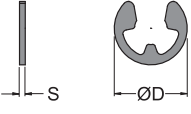
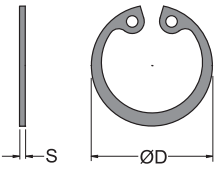
**MOLLE - SPRINGS  
FEDERN - RESSORTS**

	ART.	(mm)					
		ØD	Ød	ØD1	L	L1	
	4108	-	5	-	4,5	-	
	4109	-	5	-	5,2	-	
	4112	-	6,5	-	6	-	
	4115	-	8	-	9,3	-	
	4119	-	9,5	-	11,2	-	
	4295	9,5	-	1,0	13	-	
	UM010005	2,5	-	0,4	0,4	-	
	UM020005	3,2	-	0,5	0,5	-	
	UM030005	3,5	-	0,7	0,7	-	
	UM040005	4,6	-	0,7	0,7	-	

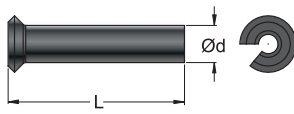
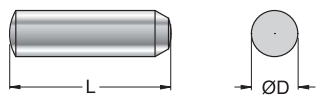
**RACCORDI/UGELLI - JOINTS/NOZZLES  
VERBINDUNGEN/DÜSEN - RACCORDS/TUYÈRES**

	ART.	(mm)					
		ØD	Ød	ØD1	L	CH	
	260Z1/4-12	1/4"	9	12	33	17	
	260Z1/8-9	1/8"	6	9	30	12	
	260Z3/8-12	3/8"	9	12	34	19	
	RUR 008	8	3	-	7	-	UGELLO ORIENTABILE SWIVEL-NOZZLE



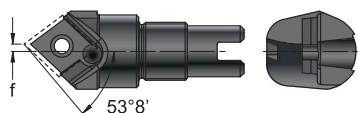
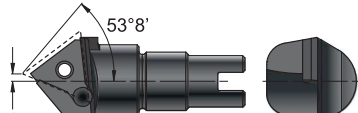


**ANELLI SEEGER - SEEGER RINGS  
SEEGER-RINGE - BAGUES SEEGER**

	ART.	(mm)					
		ØD	S				
	EMI H5	6,2	0,6				
	EMI H6	7,4	0,7				
	SG 161	17,5	1				

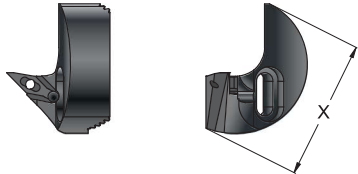
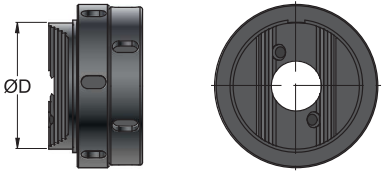
**SPINE - PINS  
STECKSTIFTE - CHEVILLES**

	ART.	(mm)				
		ØD	Ød	L		
	4002	-	2	10		
	4012	-	3	10		
	2063	2	-	6		
	3098	3	-	10		
	4158	4	-	16		
	903.002.008.000	2	-	8		
	903.004.014.000	4	-	14		
	903.005.018.000	5	-	18		
	903.006.020.000	6	-	20		
	903.008.022.000	8	-	24		
SPI 04	4	-	7,5			
SPI 06	6	-	9,0			

**PORTA INSERO PER UNITÀ MICROREGISTRABILE - INSERT HOLDER FOR MICRO-BORING UNIT  
WENDEPLATTENHALTER FÜR FEINBOHREINHEIT - PORTE-PLAQUETTE POUR UNITÉ MICRORÉGLABLE**

	ART.	(mm)				
		α	f			
	UM050003R/L	53°8'	0,36	0602	-	
	UM060003R/L	53°8'	1,07	0602	-	
	UM070003R/L	53°8'	1,30	09T3	-	
	UM080006R/L	53°8'	1,56	09T3	-	
	UM060007R/L	53°8'	1,07	-	0902	
	UM070007R/L	53°8'	1,30	-	1102	
	UM080007R/L	53°8'	1,56	-	16T3	
	UM010003	90°	5,1	0602	-	
	UM020003	90°	6,3	0602	-	
	UM030003	90°	7,2	09T3	-	
	UM040006	90°	10,0	09T3	-	
	UM020007	90°	6,3	-	0902	
	UM030007	90°	7,2	-	1102	
	UM040007	90°	10,0	-	16T3	

**COMPONENTI SMUSSATORI - COMPONENTS CHAMFERING TOOLS  
ABSCHRÄGBAUTEILE - COMPOSANTES DISPOSITIF DE BISEAUTAGE**

	ART.	(mm)					
		ØD	X				
	<p>LMA.CIL.0618.10W LMA.ER.0618.10</p>	<p>– –</p>	<p>35,5 42,5</p>				
	<p>SMU-ER25-00 SMU-ER32-00 SMU-ER40-00</p>	<p>40 48 57,5</p>	<p>– – –</p>				



