



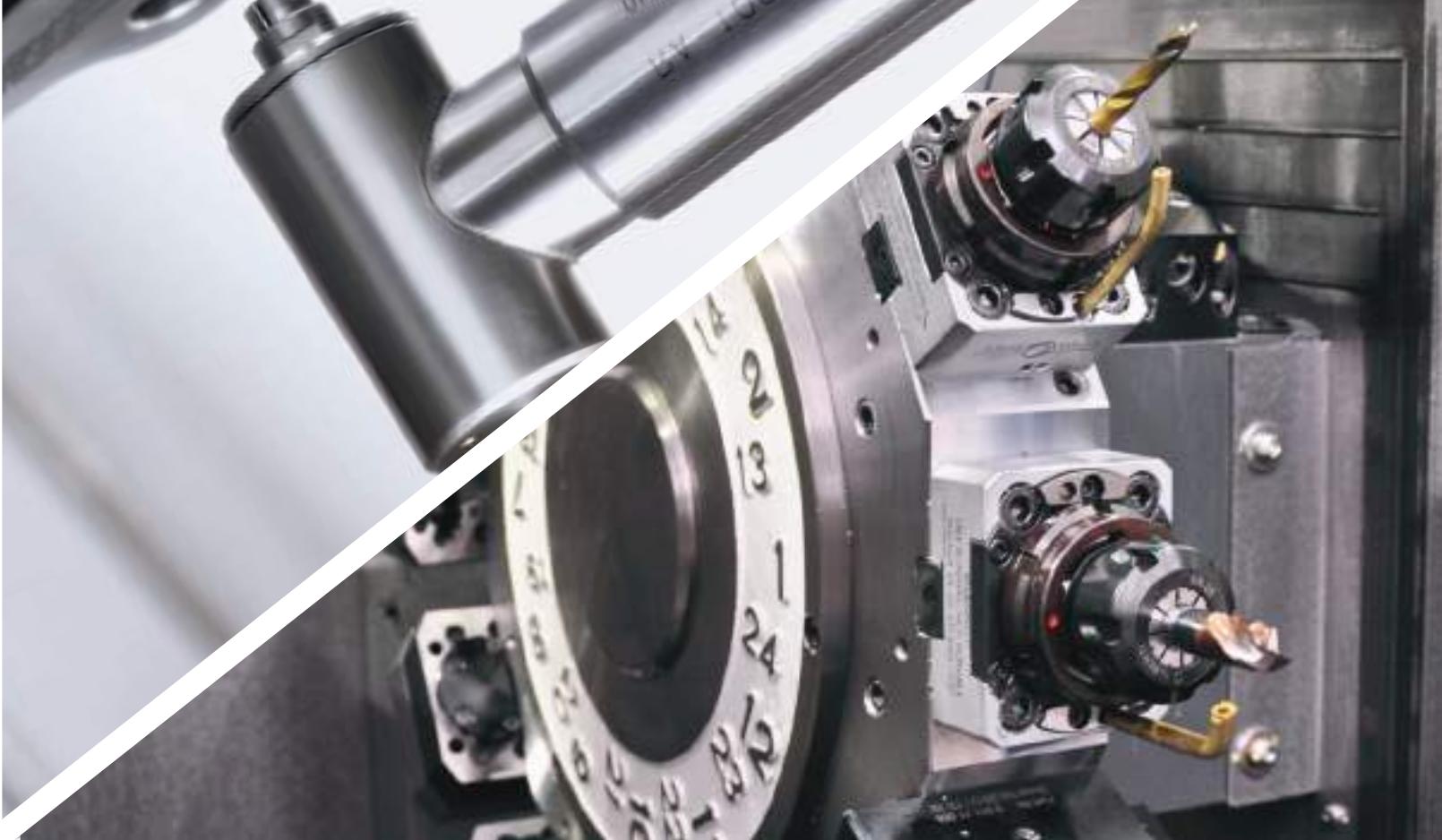
CATALOGO GENERALE

General Catalogue

2020

TESTE ANGOLARI *ANGLE HEADS*
MOTORIZZATI *LIVE TOOLS*
CAMBIO RAPIDO *SMART CHANGE*
ALTA VELOCITÀ *HIGH SPEED*

WWW.ALBERTIUMBERTO.COM



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1970 Umberto rileva l'azienda del padre, improntata dapprima sulla costruzione di modelli per fonderia e poi successivamente si specializza negli stampi per materie plastiche. Per esigenze lavorative progetta e costruisce la sua prima testa angolare. Il prodotto funziona e si rende estremamente utile per diminuire i tempi di lavorazione. Dato che in commercio non esiste nulla di simile, Umberto capisce l'importanza di questo tipo di mercato e comincia a realizzare i primi modelli: Serie L (Leggera), Serie M (Media), e Serie P (Pesante).

Umberto took over his father's company that used to manufacture moulds for the metal foundry industry, then he specialized in the production for moulds for plastic components. The first angle head had been designed and assembled mainly for this machining needs. The idea worked very well and helped in reducing the machining time. Being the product unique in its kind, Umberto immediately understood the potential and began producing the first models: L line (Light), M line (Medium), P line (Heavy).

1986 La moglie Franca si unisce all'attività del marito, dirigendone l'amministrazione. Vengono introdotti i modelli orientabili TCU e TDU, perfezionati quelli esistenti e acquistati i primi macchinari: il primo centro di lavoro Olivetti, e i primi torni Biglia e Mori Seiki. Per poter ampliare le vendite in Italia e all'estero, si appoggia ad una rete distributiva internazionale che comincerà a commercializzare le teste Alberti in tutto il mondo.

His wife Franca joined the company as CFO. Umberto developed the adjustable heads: TCU and TDU models and improved the existing models. He bought the first CNC machine by Olivetti and the first Biglia and Mori Seiki lathes. In order to improve sales in Italy and especially abroad Umberto decided to rely on an international sales network which began to sell Alberti heads worldwide.



MISSION

Diventare partner ufficiale per tutti i clienti che hanno bisogno di soluzioni complete di alta qualità dalla fase del progetto a quella del prodotto finito.

Alberti aims at becoming a reliable partner for all customers who are looking for a complete high quality solution from design to simulation to finished products.



1990

L'azienda si trasferisce a Saronno. Aumenta il personale a 15 dipendenti e viene rinnovato l'intero parco macchine: vengono introdotte la 1° Makino, il 1° tornio Nakamura e la 1° rettifica Studer. Alberti comincia a diversificare la produzione introducendo la produzione dei motorizzati e di altri modelli di teste speciali, quali la linea inclinata TA e arretrata TR.

Alberti moved to Saronno. The company increased its number of employees to 15 people and renewed its machines: 1° Makino, 1° Nakamura lathe and the 1° Studer grinding. Alberti started to diversify its production by introducing other products such as live tools. He also introduced other special angle heads models, such as TA tilted serie and TR offset serie.

2000

Vengono introdotte nuove linee di prodotti come la linea di teste ad alta velocità con motori ad aria ed elettromandriini. Grazie alle figlie Nadia ed Elisa l'azienda riesce a consolidare una rete distributiva affidata esclusivamente ai propri rivenditori e collaboratori e a commercializzare i propri prodotti in tutto il mondo.

New products have been projected, such as the high speed range of heads with air spindle motor. Thanks also to Nadia and Elisa, the company has developed its own worldwide sales network which relies on own exclusive dealers and partners.

2010

Nonostante alcuni anni difficili di crisi economica globale, l'azienda Alberti è in continua crescita. Attualmente si contano più di 30 persone impiegate tra produzione e ufficio tecnico e un ampliamento della sede con consistente rinnovamento del parco macchine, tra cui un'altra rettifica, un nuovo sistema integrato FMS 4.0 e una macchina di misura di alta precisione.

Despite the global crisis, Alberti grew in terms of employees, production plant and number of machines. At the moment there are more than 30 people hired among the production and technical department. The new building includes another grinding machine, 2 other lathes, a new FMS 4.0 integrated system and a high precision 3D measuring machine inside a controlled room temperature.

CHI SIAMO

Alberti ha iniziato a produrre teste angolari a fine anni Settanta e in brevissimo tempo le sue soluzioni si sono affermate in tutto il mondo per qualità, funzionalità e affidabilità ma anche per il raffinato design. Obiettivo dell'azienda è rispondere alle esigenze di un mercato di fascia alta, ovunque nel mondo, con tutte le soluzioni - di serie sviluppate ad hoc - necessarie per raggiungere i traguardi produttivi più ambiti. Grazie a questo approccio, Alberti si è affermato come il marchio dei prodotti "made in Italy", sia per la loro carica innovativa sia per i benchmark di comparazione prestazionale con gli altri competitor presenti sul mercato. Ogni singolo prodotto viene progettato realizzato interamente all'interno dell'azienda. La passione, il coinvolgimento e la cura dei particolari costituiscono apetti essenziali del modo di lavorare dell'azienda Alberti, che fa di essi un elemento di forza al di là di ogni altra logica puramente di mercato. In funzione dello scopo che il cliente deve raggiungere e del tipo di sforzo e di sollecitazione richiesti, i tecnici Alberti studiano la soluzione più adatta. A questa fase di ricerca applicativa e progettuale segue la realizzazione del prototipo e la sua sperimentazione in opera. Con il consueto servizio post-vendita, il prodotto viene poi supportato da Alberti durante tutto il ciclo di vita, con ogni intervento che si renda necessario.

Alberti started the production of angle heads at the end of the Seventies. In few years its solutions have come to dominate the international market thanks to huge quality, functionality, reliability as well as balanced design of its products. Aim of the company is to meet the demands of a discerning market niche worldwide and to offer optimum standard or custom-made solutions. Thanks to constant innovation and its modern solutions, Alberti is now leader among the manufacturers of the products "Made in Italy". Passion, involvement and great attention to details are the main features of Alberti philosophy and imply a point of strength in addition to market indicators. Every single internal part is designed and manufactured 100% inside the company. On the basis of the customers' information about the machining to be performed, the mechanical stress and the tools to be used, Alberti's technical department studies the most suitable solution. This stage of research and design is followed by the manufacturing and testing of the prototype in order to check real performances. All products are supported by an efficient after-sales service that allows Alberti to track back product life and repair history.

CARATTERISTICHE TECNICHE TESTE ALBERTI

TECHNICAL DATA

Albero con cono in acciaio cementato e temperato. Realizzato in un solo pezzo per aumentare il carico alla flessione del 25%, interamente rettificato ed equilibrato a 6,3G. Riesce a raggiungere alte velocità senza vibrazioni.

Spindle with arbor made as one solid piece of hardened steel to increase resistance to bending stress up to 25%. Completely ground and balanced at 6,3G. Possibility to reach higher RPM without vibrations

ALBERO CON CONO
SPINDLE W/ ARBOR



Corpo testa in ghisa sferoidale GS-600 stabilizzata per un assorbimento totale delle vibrazioni. Stabilità termica e rigidità superiori ad altri materiali (es. acciaio e alluminio). Cromatura opaca sul corpo e sedi dei cuscinetti interamente rettificate.

Casting made of GS 600 stabilized spheroidal cast iron to better absorb vibrations. Increased thermal stability and rigidity compared to materials such as steel and aluminum. Mat chromed finishing outside and ground bearing housing

CORPO TESTA
BODY



Albero porta-utensile in acciaio legato, temperato e con doppio labirinto. Completamente rettificato, con tolleranze inferiori ai 5 micron, per garantire una durata maggiore dell'utensile in lavorazione.

Output spindle made of hardened alloyed steel with double labyrinth seal. Completely ground with tolerance lower than 5 micron to ensure a longer tool life.

MANDRINO
SPINDLE



Flangia di indexaggio monolitica per garantire un'iterasse preciso. Il perno cilindrico assicura una notevole stabilità durante le lavorazioni.

Flange arm and pin as monolithic piece to grant an increased rigidity and stability to the whole structure whilst machining. Very precise pitch dimension and perfect match of the cylindrical pin with the Stop Block sleeve.

FLANGIA INDEX
INDEXING FLANGE



Fasce lappate per il corretto allineamento dell'utensile
Lapped side surface for correct alignment of the tool.

FASCE LAPPATE
LAPPED SURFACE



Tutti i particolari sono caratterizzati da nostro logo e codice per garantirne l'autenticità del prodotto e facilitare la ricerca dei particolari di ricambio. Tutti i controlli sono affidati alla macchina di misura di alta precisione in camera controllata.

All spare parts are laser marked with Alberti logo to guarantee the authenticity and simplify the recognition of each single item. All parts are measured with our new high precision 3D measuring machine inside a controlled room temperature.

Le nostre teste dispongono di un QR Code per consentirne una facile e rapida identificazione.
Our angular heads have a QR Code that enables an easy and quick identification.



CUSCINETTI BEARINGS



Cuscinetti a contatto obliqui precaricati in ABEC7-ABEC9. Con le sedi rettificate del corpo permettono una perfetta concentricità e stabilità di tutti gli organi rotanti, necessaria per raggiungere performance di lavorazioni superiori.

Angular contact super precision bearings with ABEC 7 and 9 accuracy rate. Mounted in ground bearing housing inside of the body, they ensure a perfect concentricity and stability during machining.

INGRANAGGI GEARS



Ingranaggi realizzati in superlegghe di acciaio, temperati e interamente rettificati. Vengono trattati con lucidatura isotropica che conferisce loro una rugosità pari a 0,01 Ra e un abbattimento notevole delle vibrazioni e dell'attrito.

Gears made of steel superalloy. They are hardened, completely ground and treated with isotropic polishing which allows to reach 0,01Ra roughness with a dramatic reduction of the vibrations and friction.

TENUTE MECCANICHE MECHANICAL SEALS



Tenute meccaniche studiate appositamente per sopportare alte pressioni fino a 100 bar e alti numeri di giri.

Mechanical seal specially studied to reach high pressure up to 100 bar and higher RPM.

GUARNIZIONI SEALS

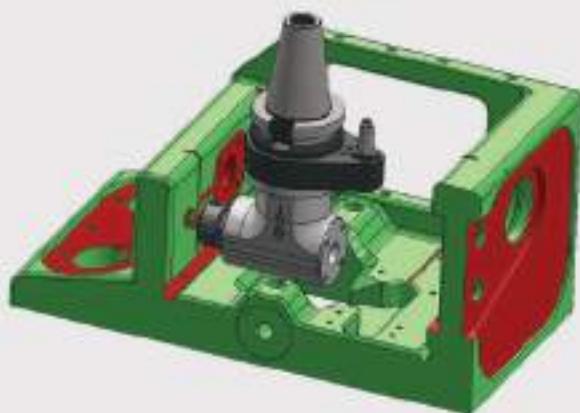


Tenute a bassissimo coefficiente d'attrito progettate dall'azienda con mescola particolare. Per le alte velocità sono previste tenute senza contatto con sistemi di pressurizzazioni.

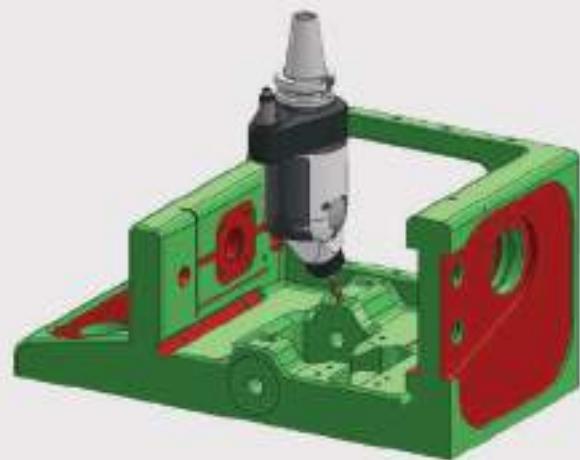
Low-friction seals made of a special composition. All studied and developed by Alberti.

ESEMPI DI LAVORAZIONI STANDARD

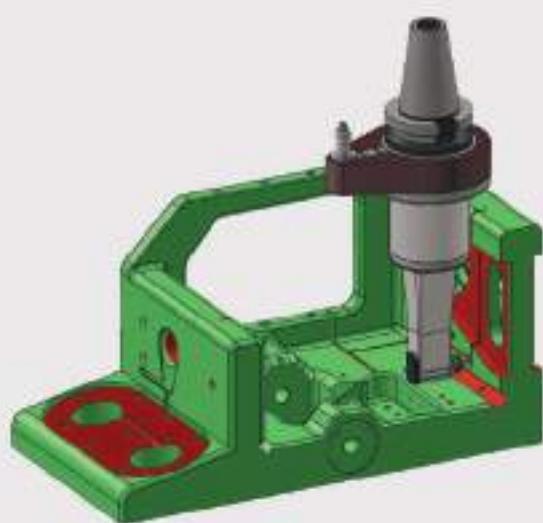
EXAMPLES OF STANDARD MACHINING



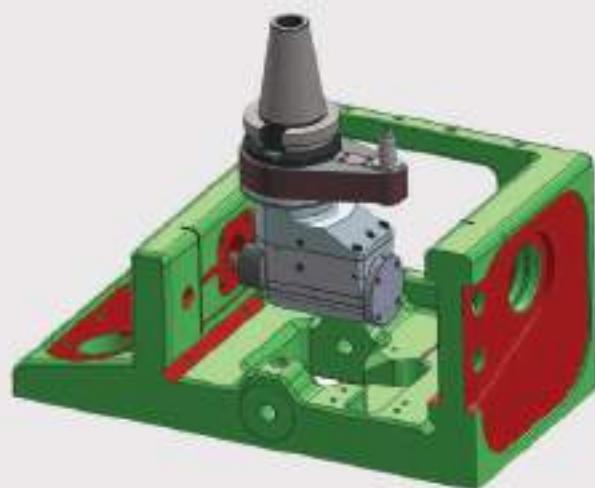
Testa a 90°
90° Head



Testa ad inclinazione regolabile
Head with adjustable angle +/- 90°



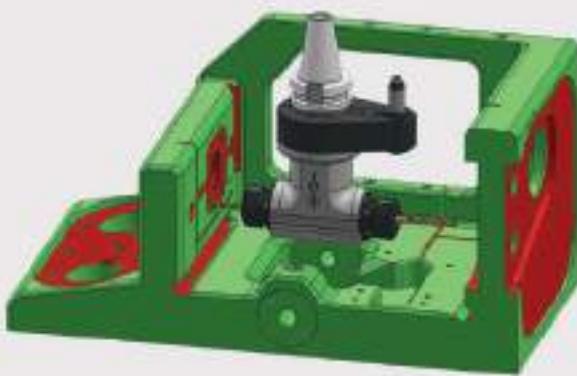
Testa a 90° prolungata
Extended lenght head



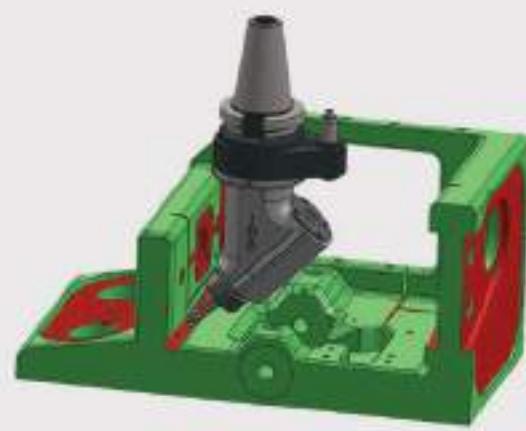
Testa con refrigerante
Head with internal coolant

ESEMPI DI LAVORAZIONI STANDARD

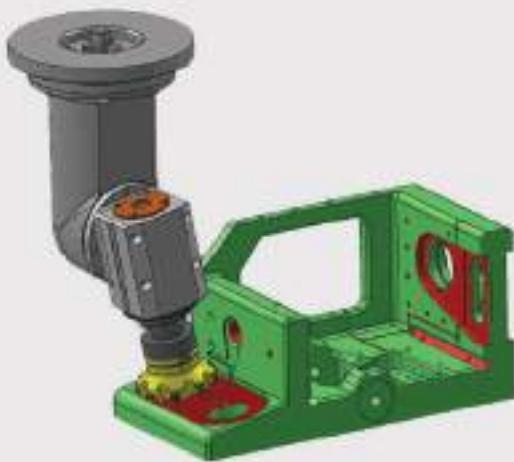
EXAMPLES OF STANDARD MACHINING



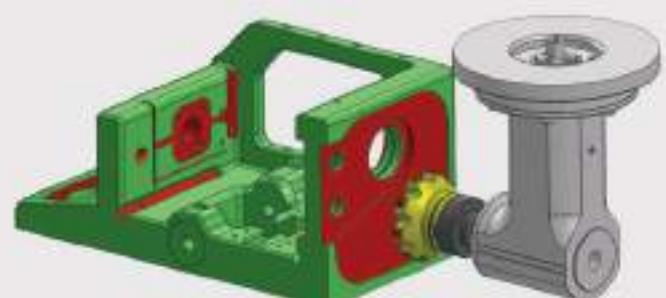
Testa con uscita doppia (180°)
Dual output head (180°)



Testa ad inclinazione fissa
Head with special fixed angle



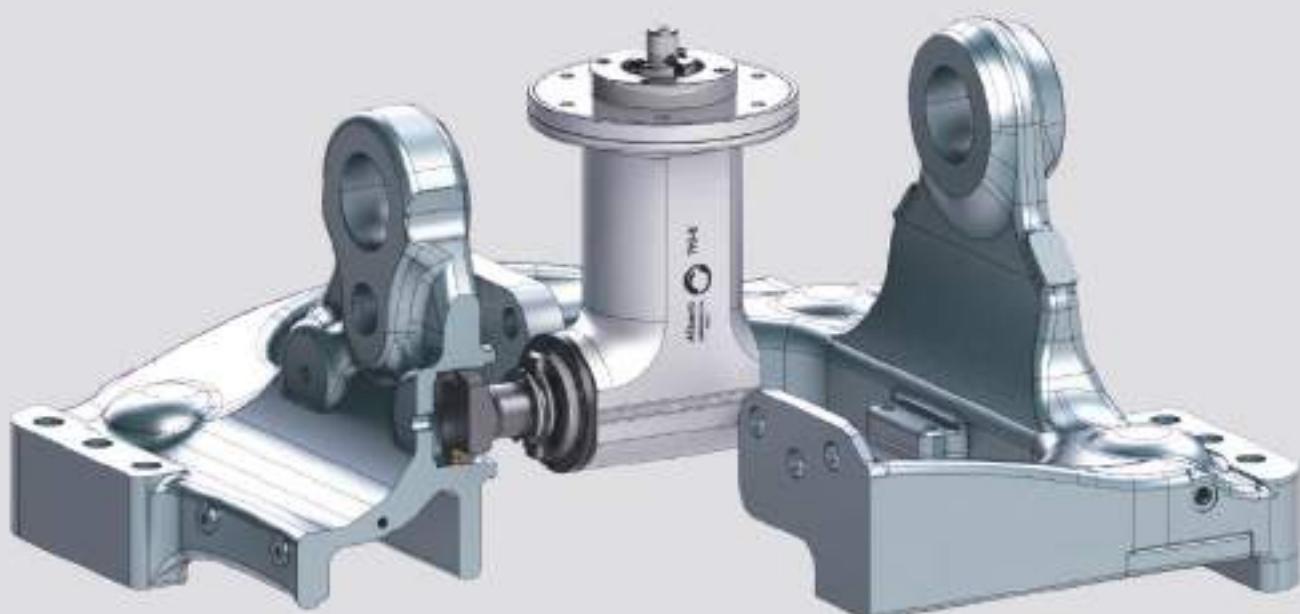
Testa orientabile di grosse dimensioni con
montaggio manuale
Big sized adjustable head with manual mounting



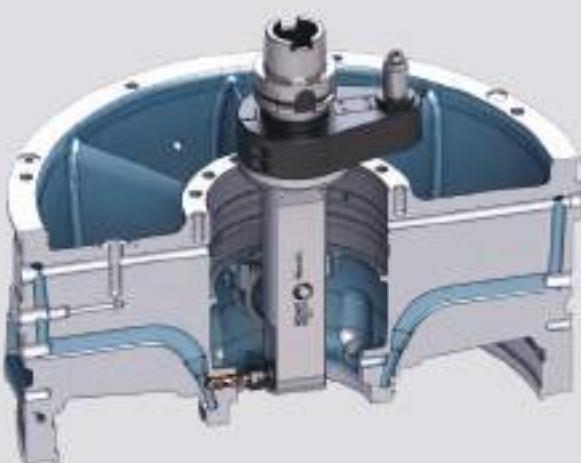
Testa fissa di grosse dimensioni con
montaggio manuale
Big sized fixed head with manual mounting

LA TESTA PIÙ IDONEA PER OGNI APPLICAZIONE

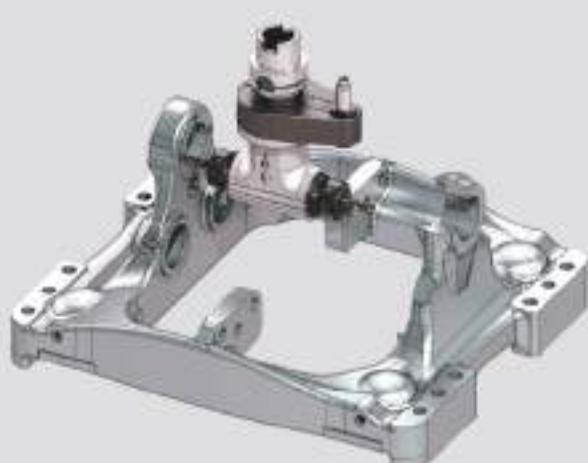
THE MOST SUITABLE HEAD FOR EACH APPLICATION



Testa a 90° con o senza flangia per pezzi grossi
90° Head with or without flange for big workpiece



Testa a 90° prolungata
90° head with extended lenght



Testa a 2 uscite contrapposte
Head with dual output opposite



Testa fissa ad angolo variabile
Head with variable fixed angle



Testa rinviate per spazi ristretti
Offset head for reduced spaces

ADDUZIONE REFRIGERANTE COOLANT OPTIONS

LOW PRESSURE

**COOLANT
INPUT**



Refrigerante attraverso il perno
e l'utensile
Pressione max 12 bar
Rotazione a secco NON possibile

*Coolant through pin and spindle
Max pressure 12 bar
Dry running NOT possible*

HIGH PRESSURE

**COOLANT
INPUT**



Refrigerante attraverso il cono
e l'utensile
Pressione max 100 bar
Rotazione a secco possibile

*Coolant through main spindle and tool
Max pressure 100 bar
Dry running possible*

**COOLANT
INPUT**

**COOLANT
INPUT**



Refrigerante attraverso cono
Pressione max 100 bar
Rotazione a secco possibile

*Coolant through main spindle
Max pressure 100 bar
Dry running possible*

**COOLANT
INPUT**

**COOLANT
INPUT**



Refrigerante attraverso ghiera reCOOL
Max pressure 15 bar
Rotazione a secco possibile

*Coolant through reCOOL Nuts
Max pressure 15 bar
Dry running possible*

COME SCEGLIERE LA TESTA IN BASE ALLA GRANDEZZA DEL PORTAUTENSILE

HOW TO CHOOSE YOUR HEAD ACCORDING TO THE SIZE OF THE TOOLHOLDER

		SHABLIN
PINZA / COLLET ER-8	WELDON Ø 6 mm	P6 (0,5-4,5 mm)
Testa/Head		Pag
T90cn-0,4		20
TR90cn-0,4		21
T90-0,4		70

PINZA/COLLET ER-11	WELDON Ø 6 mm	
Testa/Head		Pag
T90cn-0,5C		22
T90cn-0,5L		23
T90cn-0,5M		24
TCUcn-0,5M		25
TR90cn-0,5		26
T90-0,5C		71
T90-0,5L		72

		PORTAFRESA/SHELL MILL HOLDER 10 mm
PINZA/COLLET ER-16	WELDON Ø 10 mm	
Testa/Head		Pag
T90cn-1,5		27
T90cn-1,5L		28
T90cn-1,5 2U		29
TH90cn-1,5 100 bar		30
TH90cn-1,5L 100 bar		31
TR90cn-1,5		32
TCUcn-1,5		33
T90cn-1,5M		34
T90-1,5		73
T90-1,5L		74
T90-1,5 2U		75
PINZA/COLLET ER-25	WELDON Ø 16 mm	PORTAFRESA/SHELL MILL HOLDER 16 mm
T90cn-2,5		35
T90cn-2,5L		36
T90cn-2,5 2U		37
TH90cn-2,5 100 bar		38
TH90cn-2,5L 100 bar		39
TR90cn-2,5		40
TCUcn-2,5		41
T90cn-2,5M		42
T90-2,5		76
T90-2,5L		77
T90-2,5 2U		78
TCU-2,5		79

		PORTAFRESA/SHELL MILL HOLDER 27 mm
PINZA/COLLET ER-32	WELDON Ø 20 mm	
Testa/Head		Pag
T90cn-3,5		43
T90cn-3,5L		44
T90cn-3,5 2U		45
TH90cn-3,5 100 bar		46
TH90cn-3,5L 100 bar		47
TR90cn-3,5		48
TCUcn-3,5		49
T90cn-3,5M		50
T90-3,5		80
T90-3,5L		81
T90-3,5 2U		82
TCU-3,5		83
T90cn-3,5 SC		124
T90cn-3,5M SC		125
TH90cn-3,5 SC		126
TCUcn-3,5 SC		127
PINZA/COLLET ER-40	WELDON Ø 25 mm	PORTAFRESA/SHELL MILL HOLDER 27 mm
T90cn-4,5		51
T90cn-4,5L		52
T90cn-4,5 2U		53
TH90cn-4,5 100 bar		54
TH90cn-4,5L 100 bar		55
TR90cn-4,5		56
T90-4,5		84
T90-4,5L		85

		HSK63
PINZA/COLLET ISO40 DIN69871 - BT40 - CAT40	CAPTO C4	
Testa/Head		Pag
T90cn-5		57
T90cn-5 HP		58
T90cn-5L		59
T90-5		86
T90-5 HP		87
T90-5L		88
T90-8 HS		89
T90-8 HP		90
TDU-8		91
T90-8 XL		92
TCU-8 RI 15 bar		94
PINZA/COLLET ISO50 DIN69871 - BT50 - CAT50	HSK63	
T90-10		95
TDU-10		96
TCU-10 RI 15 bar		97
TR90-15		98
TR90-8 AUTO		101
TR90-15 AUTO		102
T90-15 AUTO		103

COME SCEGLIERE LA TESTA IN BASE ALLA GRANDEZZA DEL CONO

HOW TO CHOOSE YOUR HEAD ACCORDING TO THE SIZE OF THE SHANK

CONO/SPINDLE ISO/BT 30	
Testa/Head	Pag
T90cn-0,5M	24
TCUcn-0,5M	25
T90cn-1,5M	34
Turbodrill	116

CONO/SPINDLE ISO/BT/CAT 40	
Testa/Head	Pag
T90cn-0,4	20
TR90cn-0,4	21
T90cn-0,5C	22
T90cn-0,5L	23
TR90cn-0,5	26
T90cn-1,5	27
T90cn-1,5L	28
T90cn-1,5 2U	29
TH90cn-1,5 100 bar	30
TH90cn-1,5L 100 bar	31
TR90cn-1,5	32
TCUcn-1,5	33
T90cn-2,5	35
T90cn-2,5L	36
T90cn-2,5 2U	37
TH90cn-2,5 100 bar	38
TH90cn-2,5L 100 bar	39
TR90cn-2,5	40
TCUcn-2,5	41
T90cn-2,5M	42
T90cn-3,5	48
Tutte le teste Modular All modular heads	70-103
High Speed Line	104-118

CONO/SPINDLE HSK63	
Testa/Head	Pag
T90cn-0,4	20
TR90cn-0,4	21
T90cn-0,5C	22
T90cn-0,5L	23
TR90cn-0,5	26
T90cn-1,5	27
T90cn-1,5L	28
T90cn-1,5 2U	29
TH90cn-1,5 100 bar	30
TH90cn-1,5L 100 bar	31
TR90cn-1,5	32
TCUcn-1,5	33
T90cn-2,5	35
T90cn-2,5L	36
T90cn-2,5 2U	37
TH90cn-2,5 100 bar	38
TH90cn-2,5L 100 bar	39
TR90cn-2,5	40
TCUcn-2,5	41
T90cn-3,5	43
T90cn-3,5L	44
T90cn-3,5 2U	45
TH90cn-3,5 100 bar	46
TH90cn-3,5L 100 bar	47
TR90cn-3,5	48
TCUcn-3,5	49
T90cn-3,5M	50
T90cn-4,5	51
T90cn-4,5L	52
T90cn-4,5 2U	53
TH90cn-4,5 100 bar	54
TH90cn-4,5L 100 bar	55
TR90cn-4,5	56
T90cn-5	57
T90cn-5 HP	58
T90cn-5L	59
T90cn-3,5 SC	124
T90cn-3,5M SC	125
TH90cn-3,5 SC	126
TCUcn-3,5 SC	127
Tutte le teste Modular All modular heads	70-103
T90cn-3,5	43

CONO/SPINDLE HSK63	
Testa/Head	Pag
T90cn-3,5L	44
T90cn-3,5 2U	45
TH90cn-3,5 100 bar	46
TH90cn-3,5L 100 bar	47
TR90cn-3,5	48
TCUcn-3,5	49
T90cn-3,5M	50
T90cn-3,5 SC	124
T90cn-3,5M SC	125
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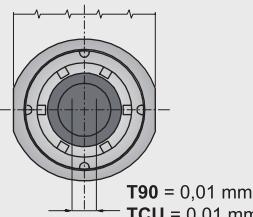
CONO/SPINDLE ISO/BT/CAT 50	
Testa/Head	Pag
T90cn-0,4	20
TR90cn-0,4	21
T90cn-0,5C	22
T90cn-0,5L	23
TR90cn-0,5	26
T90cn-1,5	27
T90cn-1,5L	28
T90cn-1,5 2U	29
TH90cn-1,5 100 bar	30
TH90cn-1,5L 100 bar	31
TR90cn-1,5	32
TCUcn-1,5	33
T90cn-2,5	35
T90cn-2,5L	36
T90cn-2,5 2U	37
TH90cn-2,5 100 bar	38
TH90cn-2,5L 100 bar	39
TR90cn-2,5	40
TCUcn-2,5	41
T90cn-2,5M	42
T90cn-3,5	43
T90cn-3,5L	44
T90cn-3,5 2U	45
TH90cn-3,5 100 bar	46
TH90cn-3,5L 100 bar	47
TR90cn-3,5	48
TCUcn-3,5	49
T90cn-3,5M	50
T90cn-4,5	51
T90cn-4,5L	52
T90cn-4,5 2U	53
TH90cn-4,5 100 bar	54
TH90cn-4,5L 100 bar	55
TR90cn-4,5	56
T90cn-5	57
T90cn-5 HP	58
T90cn-5L	59
T90cn-3,5 SC	124
T90cn-3,5M SC	125
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TCUcn-3,5 SC	127
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T90cn-3,5M SC	125
TH90cn-3,5 SC	126
TCUcn-3,5 SC	127
Tutte le teste Modular All modular heads	70-103
High Speed Line	104-118

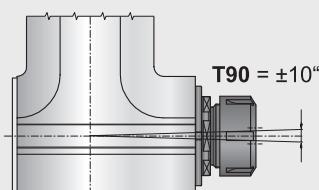
CONO/SPINDLE HSK 80/100	
Testa/Head	Pag
T90cn-0,4	20
TR90cn-0,4	21
T90cn-0,5C	22
T90cn-0,5L	23
TR90cn-0,5	26
T90cn-1,5	27
T90cn-1,5L	28
T90cn-1,5 2U	29
TH90cn-1,5 100 bar	30
TH90cn-1,5L 100 bar	31
TR90cn-1,5	32
TCUcn-1,5	33
T90cn-2,5	35
T90cn-2,5L	36
T90cn-2,5 2U	37
TH90cn-2,5 100 bar	38
TH90cn-2,5L 100 bar	39
TR90cn-2,5	40
TCUcn-2,5	41
T90cn-2,5M	42
T90cn-3,5	43
T90cn-3,5L	44
T90cn-3,5 2U	45
TH90cn-3,5 100 bar	46
TH90cn-3,5L 100 bar	47
TR90cn-3,5	48
TCUcn-3,5	49
T90cn-3,5M	50
T90cn-4,5	51
T90cn-4,5L	52
T90cn-4,5 2U	53
TH90cn-4,5 100 bar	54
TH90cn-4,5L 100 bar	55
TR90cn-4,5	56
T90cn-5	57
T90cn-5 HP	58
T90cn-5L	59
T90cn-3,5 SC	124
T90cn-3,5M SC	125
TH90cn-3,5 SC	126
TCUcn-3,5 SC	127
Tutte le teste Modular All modular heads	70-103
High Speed Line	104-118

DATI TECNICI

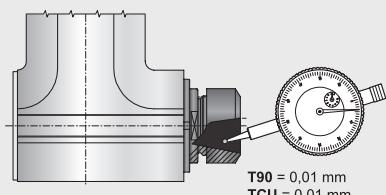
TECHNICAL DATA



Disassamento tra albero in entrata e mandrino portautensile
Maximum misalignment of input and output drive spindle



Errore angolare del mandrino portautensile rispetto ai 90° teorici
Tool spindle angular variation relative to 90° (theoretical value)



Oscillazione mandrino portautensile con testa in rotazione
Maximum runout of output spindle

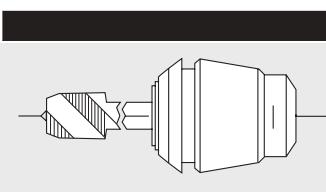
MASCHIATURA

TAPPING

Per le operazioni di maschiatura, tutte le teste standard possono utilizzare le pinze compensate. Queste pinze sono perfettamente intercambiabili con le normali pinze elastiche utilizzate per le altre operazioni, e permettono ai maschi di avere una corsa assiale di compensazione per eventuali errori di avanzamento e per l'inversione della rotazione.
La stessa testa, quindi, può essere impiegata sia per forare che per maschiare compatibilmente alla capacità della relativa pinza.

For tapping operations, all standard heads can be equipped with axially-compensating collets. These collets are fully interchangeable with the normal collets and allow the tap to move axially thereby compensating for any feed error and facilitating reversal of direction of rotation.

A single head can therefore be used for both drilling and tapping, up to the diameter allowed by the collet.



Head / Tipo testa	Collet / Tipo Pinza	Capacity / Capacità	Shift / Corsa
T90-1,5	ET-1-16	M1-M6	7 mm
T90/TCU-2,5	ET-1-25	M1-M12	8 mm
T90/TCU-3,5	ET-1-32	M4-M16	10 mm
T90-4,5	ET-1-40	M6-M20	13 mm

NOTE: Ogni pinza può portare una sola grandezza di maschio. Perciò sarà necessario specificare, in sede di ordine, il diametro del gambo del maschio che si intende utilizzare.
Each collet is designed to accommodate an individual tap size. Therefore, please specify the tap shank diameter when ordering collets.

TESTA PER CAMBIO UTENSILE AUTOMATICO
ANGLE HEAD FOR AUTOMATIC TOOL CHANGE



1. Tipo di portautensile e diametro utensile
Type of tool holder and cutting tool diameter

2. Cono di attacco alla macchina
Machine spindle

3. Distanza tra perno e cono attacco testa
Distance between pin and spindle

4. Tipo di macchina e peso al cambio utensile
Type of the machine and weight at tool change

5. **Stop Block**
Già presente in macchina oppure da realizzare
Already installed or to be manufactured

OPTION

Refrigerante interno
Internal coolant

Doppia uscita
Dual output

Portautensile diverso
Different tool holder

Lunghezza extra
Extra length

TESTA PER MONTAGGIO MANUALE
ANGLE HEAD FOR MANUAL MOUNTING



1. Tipo di portautensile e diametro utensile
Type of tool holder and cutting tool diameter

2. Cono di attacco alla macchina
Machine spindle

OPTION

Refrigerante interno
Internal coolant

Doppia uscita
Dual output

Portautensile diverso
Different tool holder

Lunghezza extra
Extra length

LINEA CONTROL



La LINEA CONTROL comprende una serie di teste angolari adatte ad essere montate nel magazzino utensile e quindi essere scambiate automaticamente. La corretta installazione prevede il montaggio di uno stop block a bordo macchina. Per una maggior rigidità il cono di attacco alla macchina è realizzato in un unico pezzo con l'albero principale.

CONTROL LINES include a wide range of angle heads to be used on machining centres with ATC and therefore can be mounted in the tool magazine and automatically exchanged in the machine spindle. A stop block mounted on the machine spindle ensure a correct positioning and prevents rotation. The input spindle is one solid piece with the main shaft to grant a higher rigidity.

SCANNERIZZA IL QR CODE
per le istruzioni di montaggio

SCAN THE QR CODE
for the set-up instructions



Dimensioni STOP BLOCK per teste
Dimensions STOP BLOCK for heads

T90cn-0,4 / 0,5 / 1,5 / 2,5 / 3,5 / 4,5



Dimensioni STOP BLOCK per teste
Dimensions STOP BLOCK for heads

T90cn-5



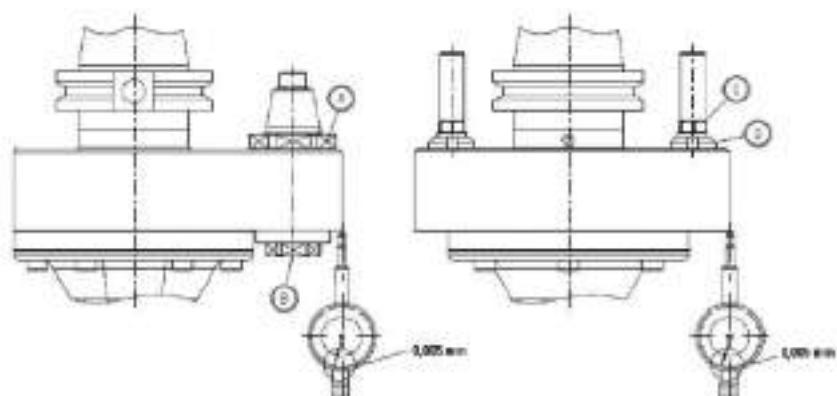
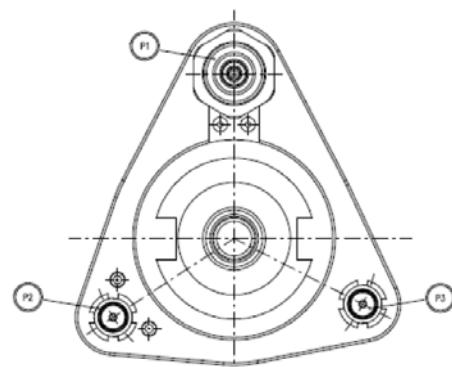
LINEA CONTROL

SUPPORTO 3 PUNTI 3 POINT SUPPORT

Per aumentare la rigidità e stabilità durante la lavorazione, è possibile realizzare una flangia con 3 punti di supporto. La flangia viene realizzata su misura a seconda delle dimensioni del mandrino macchina. Solitamente per questo tipo di realizzazione si prevede un magazzino esterno o una stazione pick up per accogliere la testa.

Ogni flangia con 3 punti di appoggio viene realizzata ad hoc in base al mandrino macchina pertanto non esiste uno standard. I punti di appoggio sono tutti regolabili e devono essere registrati durante la prima installazione.

In order to increase rigidity and stability during machining, Alberti can build a special flange with 3 point support system. The flange is custom-made according to the dimension of the machine spindle. With this system the head cannot be loaded into the tool magazine but requires an external uploading or pick up station.



LINEA CONTROL

ESEMPI DI STOP BLOCK E PERNO

EXAMPLES OF STOP BLOCKS AND PINS

In caso non fosse possibile utilizzare uno dei perni o stop block già disponibili, Alberti fornisce tutta l'assistenza necessaria per realizzare uno stop block ad hoc per la propria macchina.

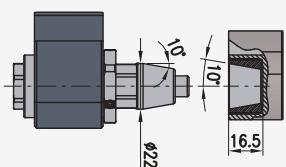
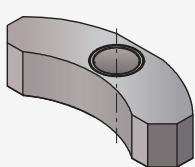
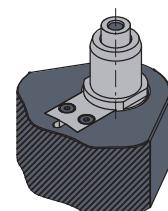
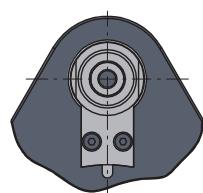
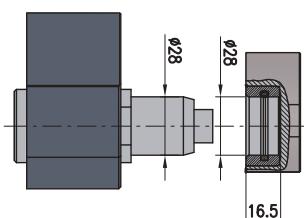
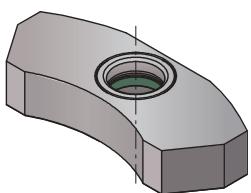
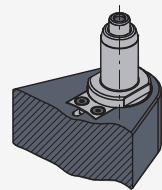
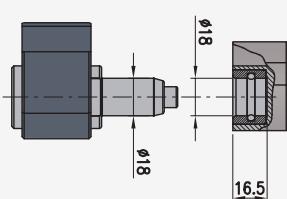
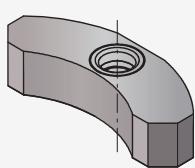
Di seguito alcuni esempi.

In case the customer cannot use any of the pins or stop block already available, Alberti will help in finding the correct solution and provide the customized stop block for the machine. Following few examples.

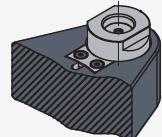
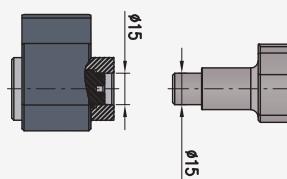
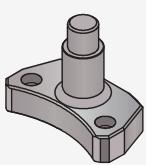
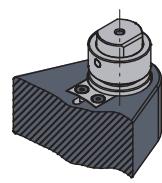
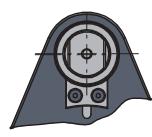
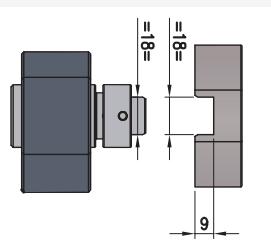
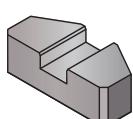
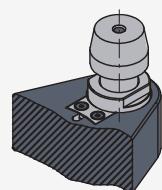
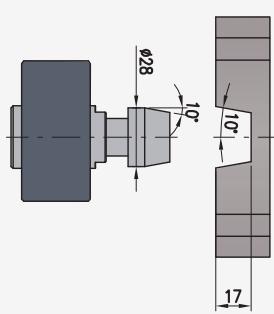
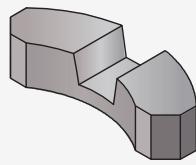
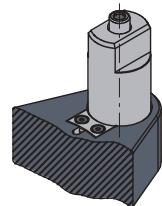
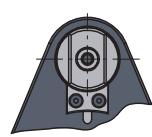
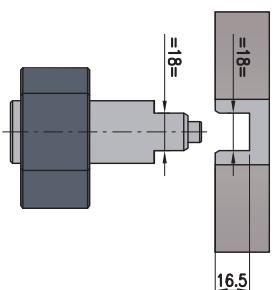
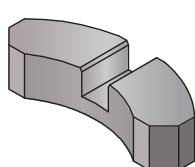
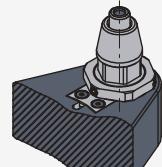


- A **Perno e Stop Block
Alberti standard**
Alberti standard
Pin and Block
Cod: 5951800001
- B **Perno e Stop Block
Alberti standard**
Adjustable conical pin
and stop block
Cod: 59518006
- C **Perno e stop block
conico regolabile**
Conical pin and
stop block
Cod: 5951800073
- D **Perno e stop
block prismatico**
Prismatic pin
and stop block
Cod: 4951800091
- E **Perno flottante**
Floating pin
- F **Perno maschio speciale**
Special male pin
- G **Perno femmina speciale**
Special female pin

LINEA CONTROL



Perno regolabile
Adjustable pin



T90cn-0,4

ACTC9004C

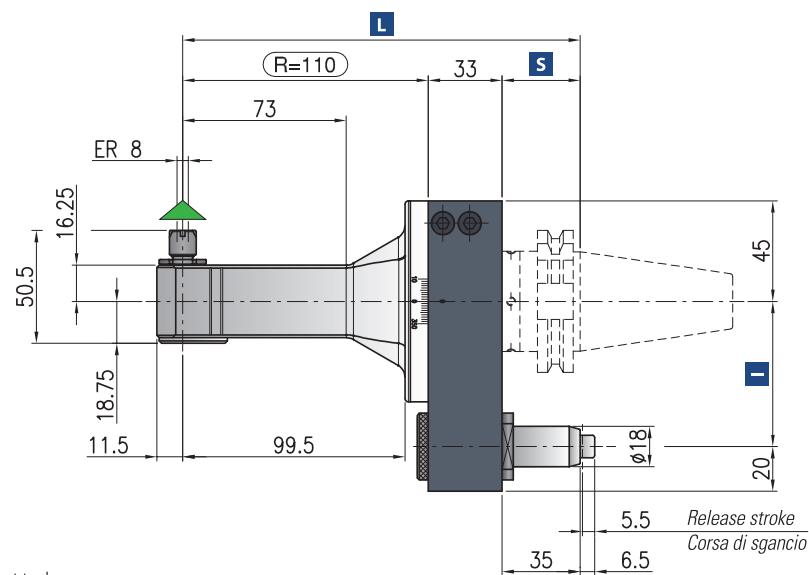
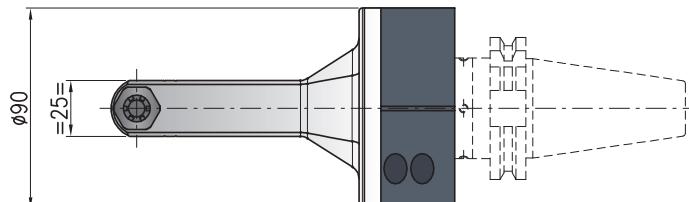
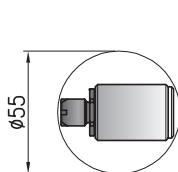
Ratio
Rapporto
1:1

RPM
Velocità
10.000 min⁻¹

Max. axial load
Max. carico assiale
100 N

Torque
Momento torcente
4 Nm

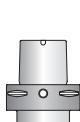
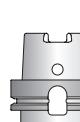
Weight
Peso
4 kg

Collet
Pinza
ER-8 (ø 0,5/5 mm)
*** STANDARD EQUIPMENT INCLUDES:**

Minimum diameter without tool
Diametro minimo senza utensile

Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino


Shank/Cono
DIN-69871
CAT
MAS-BT
HSK
CAPTO
KM
Size/Grandezza

40

50

40

50

63-80

100

C5-C6

C8

50-63

I

65-80-(110*)

80-(110*)

65-80-(110*)

65-80-(110*)

80-(110*)

65-80-(110*)

80-(110*)

65-80-(110*)

S

35

35

35

42

45

38

40

40

L

178

178

178

185

188

181

183

183

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option

bar max
12

Coolant through pin

Adduzione refrigerante attraverso il perno

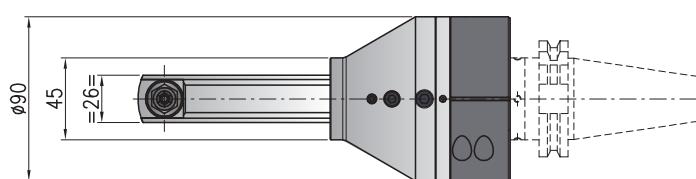
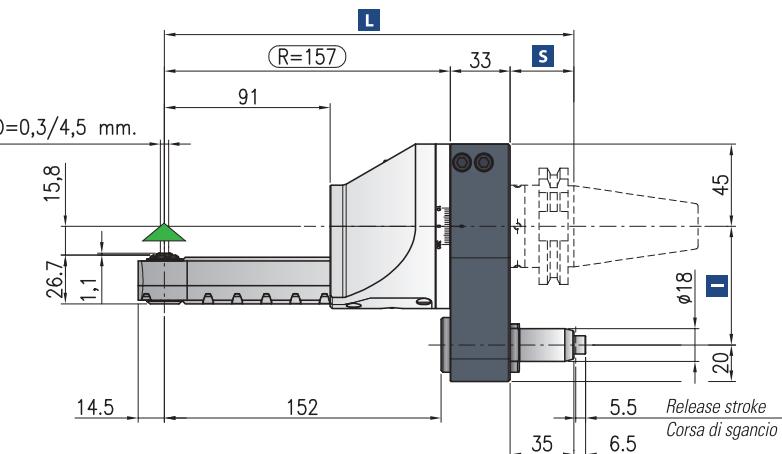
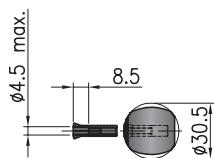

Ø mm max.
6

Weldon output
Weldon

TR90cn-0,4

ACTR904C

Minimum diameter without tool
Diametro minimo senza utensile


Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO

	Ratio <i>Rapporto</i> 1: 2.375 SPEEDER
	RPM <i>Velocità</i> 8.000 min ⁻¹ OUTPUT
	Max. axial load <i>Max. carico assiale</i> 135 N
	Torque <i>Momento torcente</i> 8 Nm
	Weight <i>Peso</i> 4,5 kg
	Collet <i>Pinza</i> SCHAUBLIN P6

** STANDARD EQUIPMENT INCLUDES:*

 Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*


Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	225	225	225	231	232	235

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili
Opcion / Option

bar max
12
Coolant through pin
Adduzione refrigerante attraverso il perno

T90cn-0,5C

ACT9005C


Ratio
Rapporto
1:1



RPM
Velocità
10.000 min⁻¹



Max. axial load
Max. carico assiale
150 N



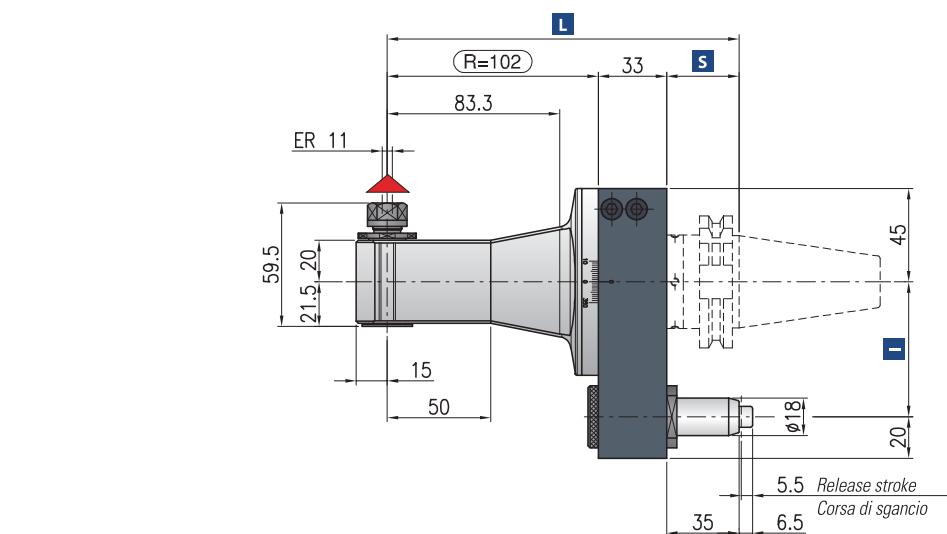
Torque
Momento torcente
8 Nm



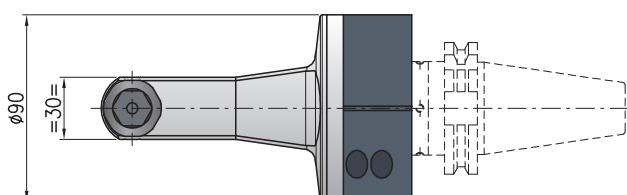
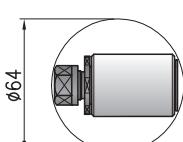
Weight
Peso
4 kg



Collet
Pinza
ER-11 (ø 0,5/7 mm)

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool
Diametro minimo senza utensile

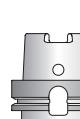


Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO



▲ Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	170	170	170	176	177	180

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option


bar max
12

Coolant through pin
Refrigerante attraverso il perno



Ø mm max.
Ø 0,5 / 7mm

ERAX-11



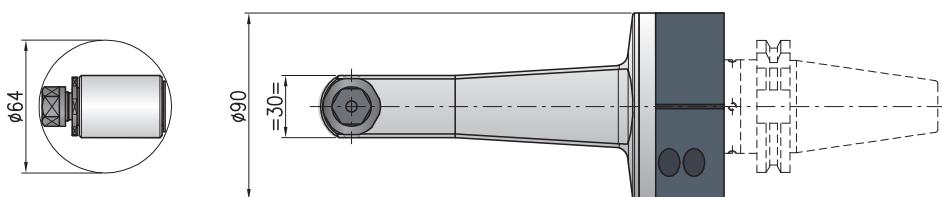
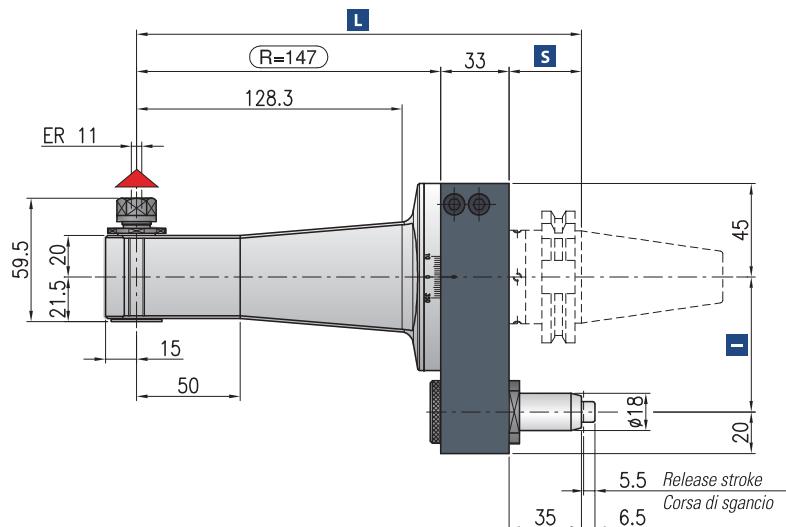
Ø mm max.
6

Weldon output
Weldon

LINEA CONTROL

T90cn-0,5L

ACT9005L



Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO

-  Ratio Rapporto 1:1
-  RPM Velocità 10.000 min⁻¹
-  Max. axial load Max. carico assiale 150 N
-  Torque Momento torcente 8 Nm
-  Weight Peso 4,3 kg
-  Collet Pinza ER-11 (Ø 0,5/7 mm)

* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	215	215	215	221	222	225
Dual contact spindles available/Disponibilità coni a doppio contatto						
*optional						

Dual contact spindles available/Disponibilità coni a doppio contatto

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcion / Option



bar max
12

Coolant through pin
Adduzione refrigerante attraverso il perno



Ø mm max.
Ø 0,5 / 7mm

ERAX-11



Ø mm max.
6

Weldon output
Weldon

T90cn-0,5M Aluminum

ACT9005C.ALU

Ratio
Rapporto
1:1

RPM
Velocità
10.000 min⁻¹

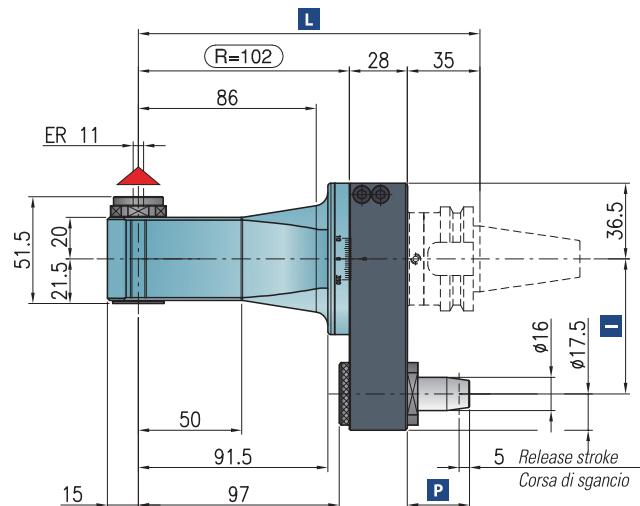
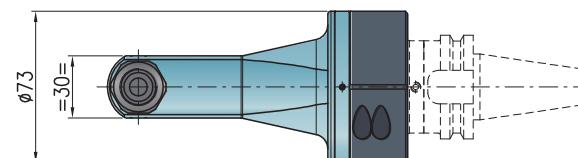
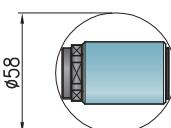
Max. axial load
Max. carico assiale
120 N

Torque
Momento torcente
8 Nm

Weight
Peso
2,7 Kg

Collet
Pinza
ERAX-11 (\varnothing 0,5/7 mm)

Shank
Cono
ISO 30DIN-69871/BT-30

*** STANDARD EQUIPMENT INCLUDES:**

Minimum diameter without tool
Diametro minimo senza utensile

Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO


	FANUC ROBODRILL	BROTHER S2D	BROTHER TC-32	BROTHER R450X1	BROTHER S500 S700 S1000	DMG MORI MILLTAP 700
I	65	80	80	50	80	65
P	24	24	30	24	25,75	24
L	165	165	165	165	165	165

Dual contact spindles available / Disponibilità coni a doppio contatto



Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino

Opzione / Option

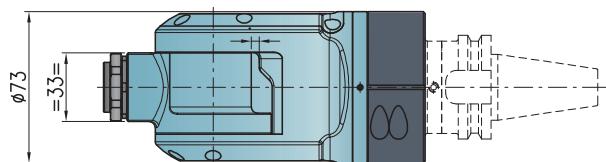
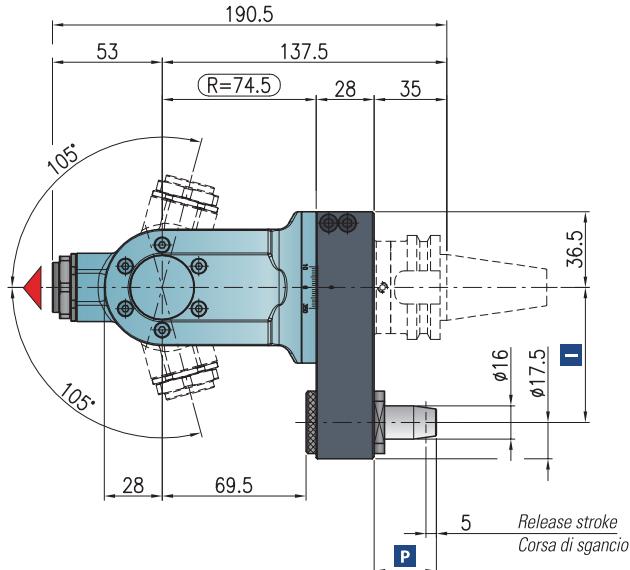
AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio

bar max
12

Coolant through pin
Refrigerante attraverso il perno

TCUcn-0,5M Aluminum

ACTCU05C.ALU


	Ratio Rapporto 1:1.5 (Speeder)
	RPM OUTPUT Velocità 6.000 min⁻¹
	Max. axial load Max carico assiale 215N
	Torque Momento torcente 8 Nm
	Weight Peso 2,8 Kg
	Collet Pinza ERAX-11 (Ø 0,5/7 mm)
	Shank Cono ISO 30DIN-69871/BT-30


Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO
*** STANDARD EQUIPMENT INCLUDES:**


	FANUC ROBODRILL	BROTHER S2D	BROTHER TC-32	BROTHER R450X1	BROTHER S500 S700 S1000	DMG MORI MILLTAP 700
I	65	80	80	50	80	65
P	24	24	30	24	25,75	24

Dual contact spindles available / Disponibilità coni a doppio contatto

Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino

Orazione / Option


bar max

12

Coolant through pin
Refrigerante attraverso il perno

TR90cn-0,5

ACTR905C


Ratio OUTPUT
Rapporto
1:2 speeder



RPM OUTPUT
Velocità
8.000 min⁻¹



Max. axial load
Max. carico assiale
200 N



Torque
Momento torcente
8 Nm

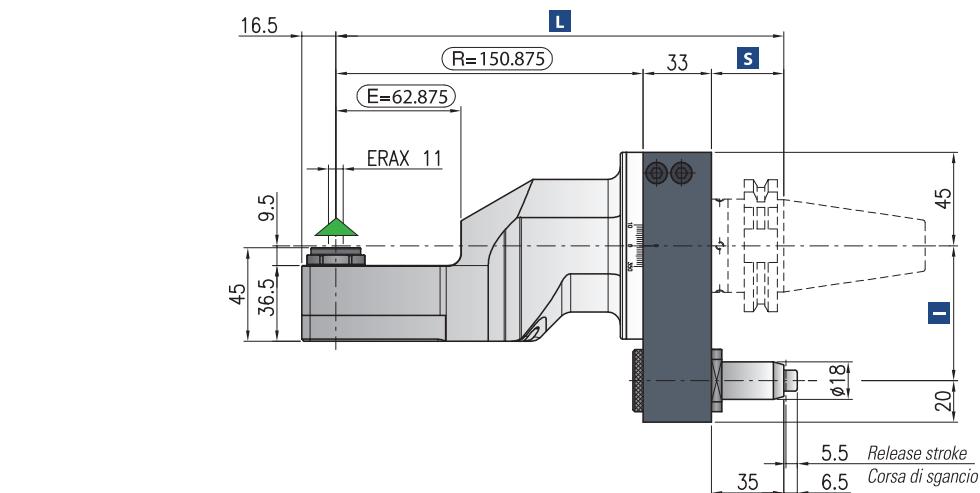
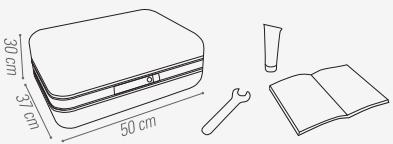


Weight
Peso
6 kg

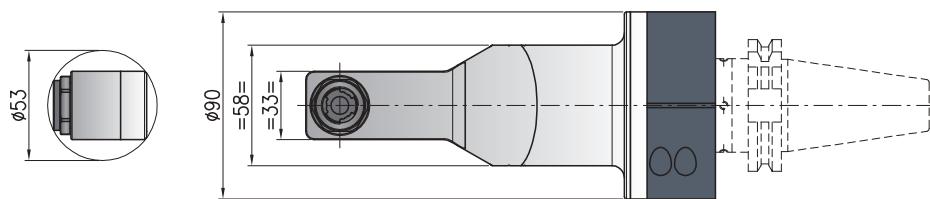


Collet
Pinza
ER-AX-11 (ø 0,5/7 mm)

* STANDARD EQUIPMENT INCLUDES:



Minimum diameter without tool
Diametro minimo senza utensile

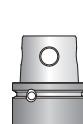
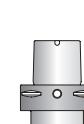
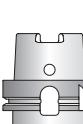


Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO



Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	38
L	218,875	218,875	218,875	224,875	225,875	228,875

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option



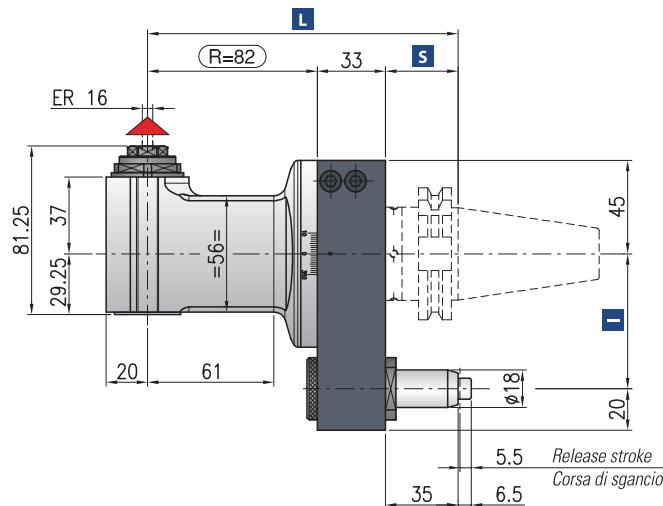
bar max

12

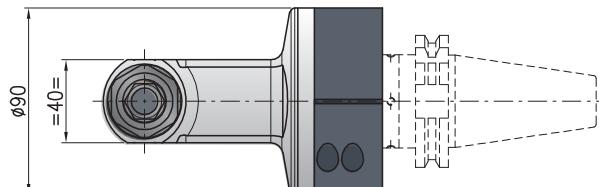
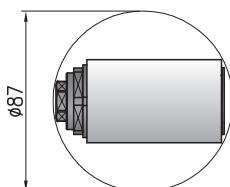
Coolant through pin

Adduzione refrigerante attraverso il perno

T90cn-1,5

ACT9015C


Minimum diameter without tool
Diametro minimo senza utensile

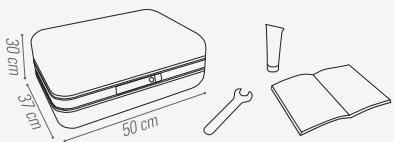


Retaining block / Tassello di ritegno / Stop-Block

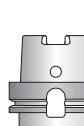
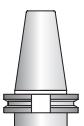
NOT INCLUDED - NON INCLUSO

-  Ratio Rapporto 1:1
-  RPM Velocità 8.000 min⁻¹
-  Max. axial load Max. carico assiale 250 N
-  Torque Momento torcente 15 Nm
-  Weight Peso 4,3 kg
-  Collet Pinza ER-16 (ø 1/10 mm)

* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	150	150	150	156	157	160

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcion / Option



bar max
12

Coolant through pin and spindle
Refrigerante interno attraverso utensile



Ø mm
13

Arbor output
Porta fresa



Ø mm max.
10

Weldon output
Weldon



ER-16/ER-11

Double output
Doppia uscita

T90cn-1,5L

ACT9015L


Ratio
Rapporto
1:1



RPM
Velocità
8.000 min⁻¹



Max. axial load
Max. carico assiale
250 N



Torque
Momento torcente
15 Nm



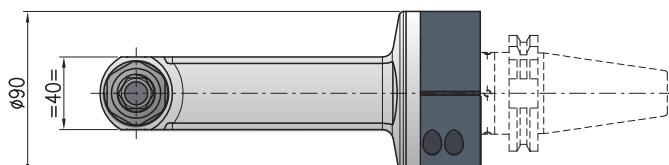
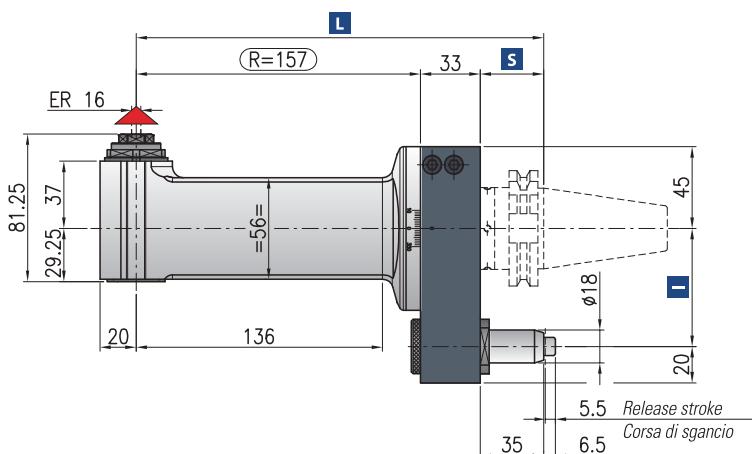
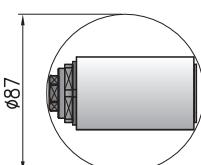
Weight
Peso
5,2 kg



Collet
Pinza
ER-16 (ø 1/10 mm)

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool
Diametro minimo senza utensile

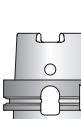


Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO



▲ Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cone	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	225	225	225	231	232	235

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Option / Opzione



bar max
12

Coolant through pin and spindle
Refrigerante interno attraverso utensile



Ø mm
13

Arbor output
Porta fresa



Ø mm max.
10

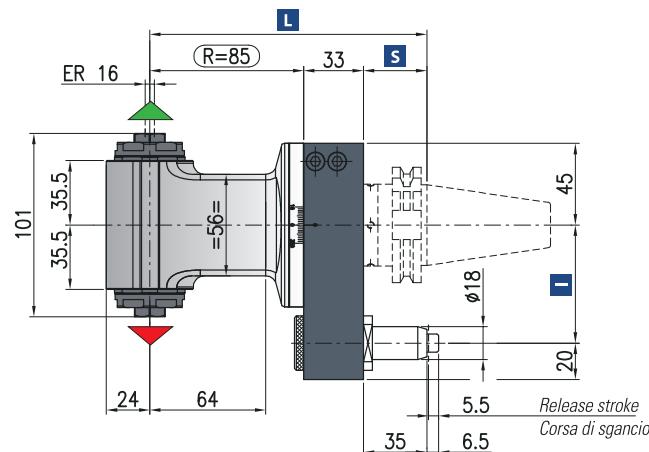
Weldon output
Weldon



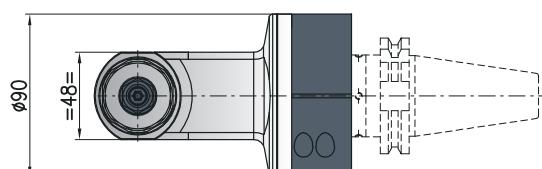
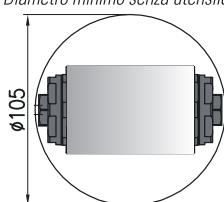
ER-16/ER-11

Double output
Doppia uscita

T90cn-1,5 2U

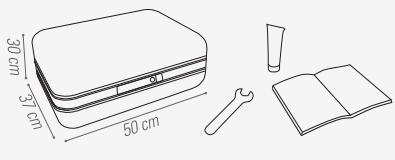
ACT9015D


Minimum diameter without tool
Diametro minimo senza utensile



	Ratio Rapporto 1:1
	RPM Velocità 8.000 min ⁻¹
	Max. axial load Max. carico assiale 250 N
	Torque Momento torcente 15 Nm
	Weight Peso 4,3 kg
	Collet Pinza ER-16 (Ø 1/10 mm)

* STANDARD EQUIPMENT INCLUDES:



Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO

- Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino
- Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	153	153	153	159	160	163

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcion / Option



Ø mm
13

Arbor output
Porta fresa



Ø mm max.
10

Weldon output
Weldon



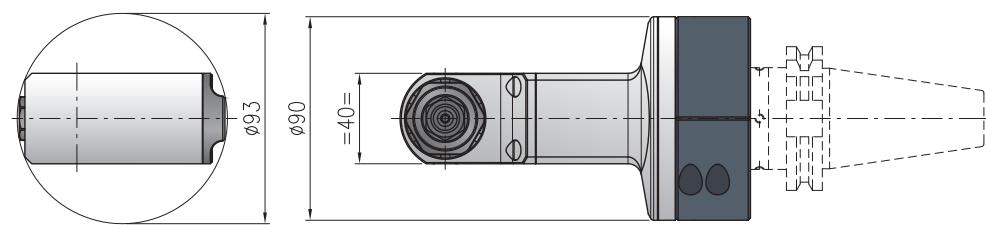
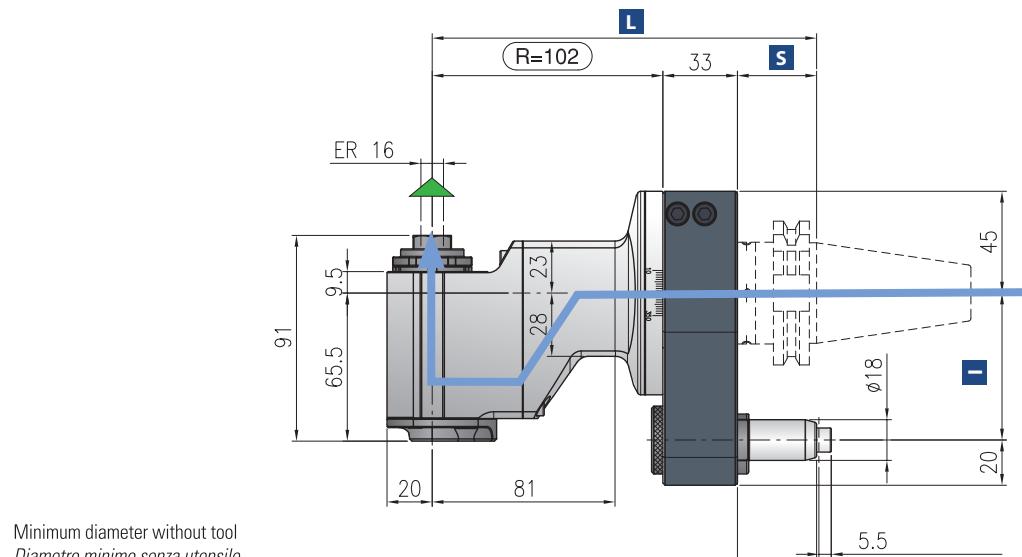
ER-16/ER-11

Double output
Doppia uscita

TH90cn-1,5 100 BAR

ACTH915C

	Ratio Rapporto 1:1
	RPM Velocità 10.000 min⁻¹
	RPM Dry running Velocità a secco 8.000 min⁻¹
	Max. axial load Max. carico assiale 250 N
	Torque Momento torcente 15 Nm
	Weight Peso 4,5 kg
	Collet Pinza ER-16 (ø 1/10 mm)

*** STANDARD EQUIPMENT INCLUDES:**

Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO

Dry running also possible / Rotazione a secco possibile
 Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino


Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	170	170	170	176	177	180

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

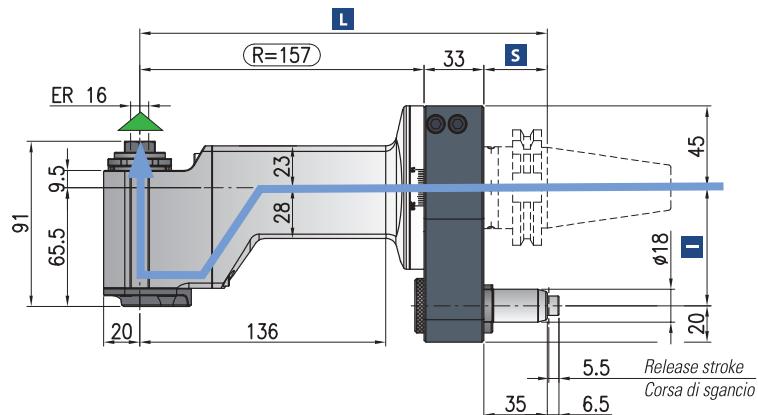
Non interchangeable input drive shank/ Coni di attacco non intercambiabili
Option / Opzione


Ø mm max.

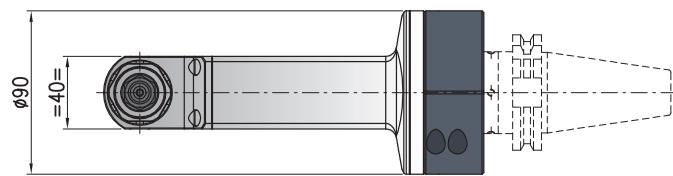
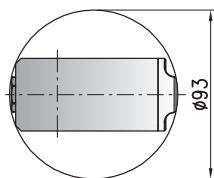
10

Weldon output
Weldon

TH90cn-1,5L 100 BAR

ACTH915L


Minimum diameter without tool
Diametro minimo senza utensile



	Ratio Rapporto 1:1
	RPM Velocità 10.000 min^{-1}
	RPM Dry running Velocità a secco 8.000 min^{-1}
	Max. axial load Max. carico assiale 250 N
	Torque Momento torcente 15 Nm
	Weight Peso 5,2 kg
	Collet Pinza ER-16 ($\varnothing 1/10 \text{ mm}$)

Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO



Dry running also possible / Rotazione a secco possibile



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	225	225	225	231	232	235

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Option / Opzione



Ø mm
13

Arbor output
Porta fresa



Ø mm max.
10

Weldon output
Weldon



ER-16/ER-11

Double output
Doppia uscita

TR90cn-1,5

ACTR915C


Ratio
Rapporto
1:1,5 speeder



RPM OUTPUT
Velocità
8.000 min⁻¹



Max. axial load
Max. carico assiale
350 N



Torque
Momento torcente
15 Nm

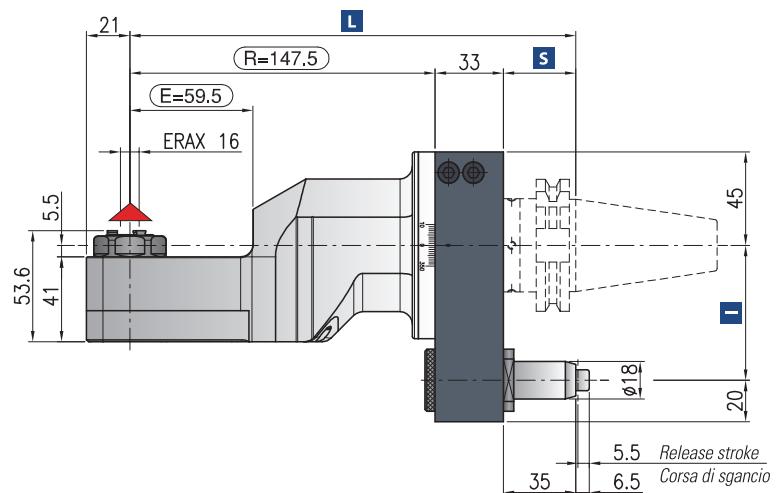


Weight
Peso
7 kg

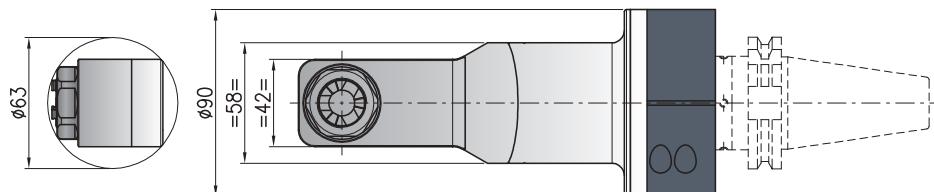


Collet
Pinza
ER-AX 16 (ø1/10 mm)

* STANDARD EQUIPMENT INCLUDES:



Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO

Dry running also possible / Rotazione a secco possibile

▲ Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	215,5	215,5	215,5	221,5	222,5	222,5

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Option / Opzione



bar max
12

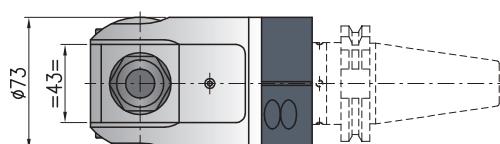
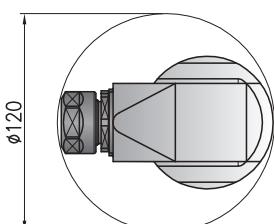
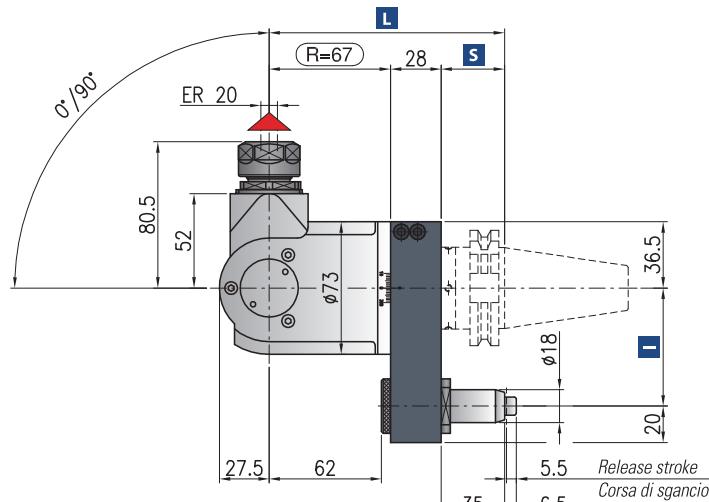
Coolant through pin
Refrigerante attraverso il perno



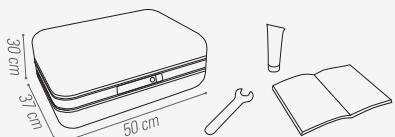
bar max
100

Coolant through spindle
Refrigerante attraverso il cono

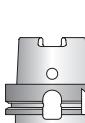
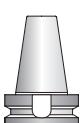
TCUcn-1,5

ACTCU15C

Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO


	Ratio Rapporto 1:1
	RPM Velocità 4.000 min⁻¹
	Max. axial load Max. carico assiale 450 N
	Torque Momento torcente 6 Nm
	Weight Peso 4.2 kg
	Collet Pinza ER-20 (ø 1/13 mm)

*** STANDARD EQUIPMENT INCLUDES:**


Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	130	130	130	136	137	140

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili
Opcionale / Option

bar max
12

Coolant through pin
Adduzione refrigerante attraverso il perno

min⁻¹
8.000

High speed optional RPM max.
Opzione alta velocità RPM max.

Ø mm max.
10

Weldon output
Weldon

T90cn-1,5M Aluminum

ACT9015C.ALU


Ratio
Rapporto
1:1



RPM
Velocità
8.000 min⁻¹



Max. axial load
Max. carico assiale
250 N



Torque
Momento torcente
15 Nm



Weight
Peso
2,9 kg

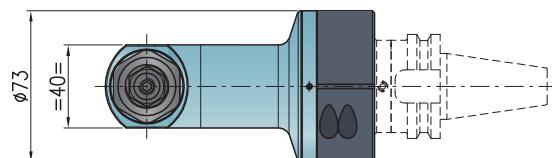
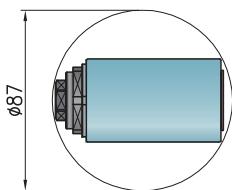
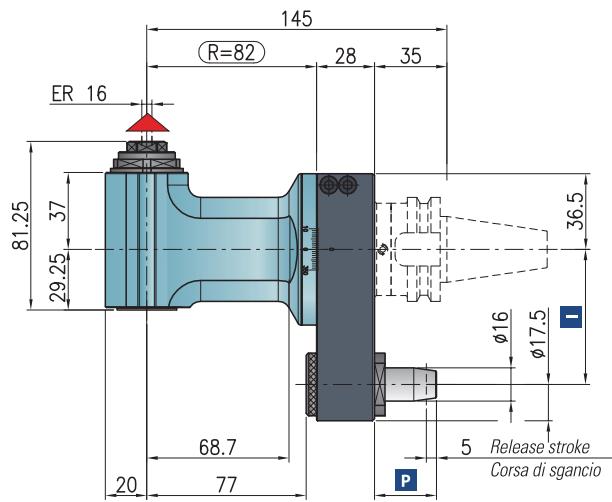


Collet
Pinza
ER 16 (ø 1-10 mm)



Shank
Cone
ISO 30DIN-69871/BT-30

Minimum diameter without tool
Diametro minimo senza utensile


*** STANDARD EQUIPMENT INCLUDES:**

Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO

Possibilità refrigerante / Internal coolant


Direction of rotation opposite to machine spindle / *senso di rotazione contrario al mandrino*

	FANUC ROBODRILL	BROTHER S2D	BROTHER TC-32	BROTHER R450X1	BROTHER S500 S700 S1000	DMG MORI MILLTAP 700
I	65	80	80	50	80	65
P	24	24	30	24	25,75	24

Dual contact spindles available/Disponibilità coni a doppio contatto

Opzione / Option

AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio

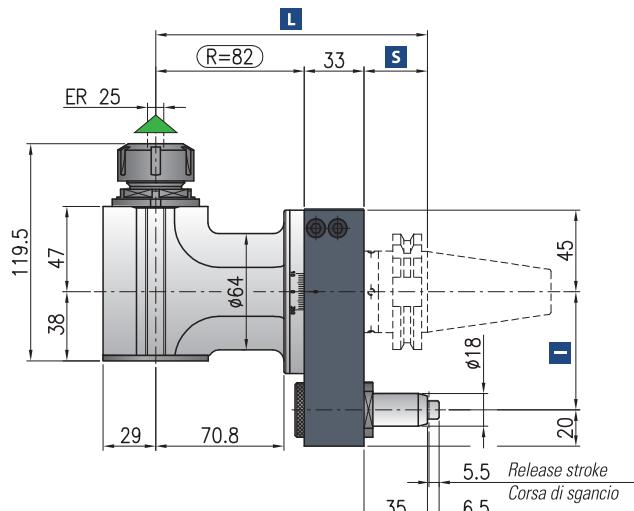
bar max
40

Coolant through spindle
Refrigerante attraverso il cono

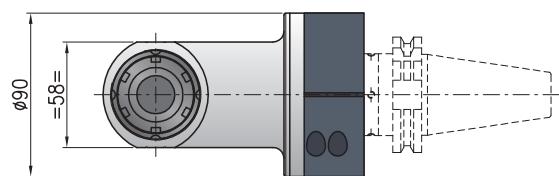
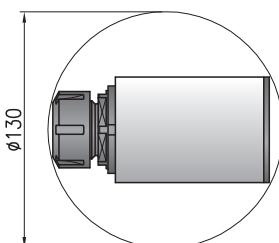
LINEA CONTROL

T90cn-2,5

ACT9025C



Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO

Ratio
Rapporto / Verhältnis
1:1

RPM
Velocità / Drehzahl max.
6.000 min⁻¹

Max. axial load
Max. carico assiale / Max. Axialbelastung
510 N

Torque
Momento torcente / Drehmoment
30 Nm

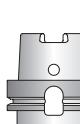
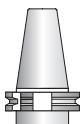
Weight
Peso / Gewicht
5,4 kg

Collet
Pinza / Spannzange
ER-25 (Ø 1/16 mm)

* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	150	150	150	156	157	160

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option



bar max
12



min⁻¹
8.000



Ø mm
16



Ø mm max.
16



HSK-32



ER-25/ER-16
Double output
Doppia uscita

Coolant through pin and spindle
Refrigerante interno
attraverso utensile

High speed RPM max.
Alta velocità RPM max.

Arbor output
Porta fresa

Weldon output
Weldon

Quick Change
Attacco rapido

T90cn-2,5L

ACT9025L


Ratio
Rapporto
1:1



RPM
Velocità
6.000 min⁻¹



Max. axial load
Max. carico assiale
510 N



Torque
Momento torcente
30 Nm



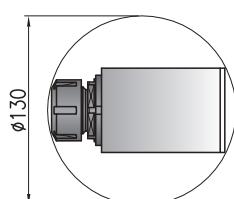
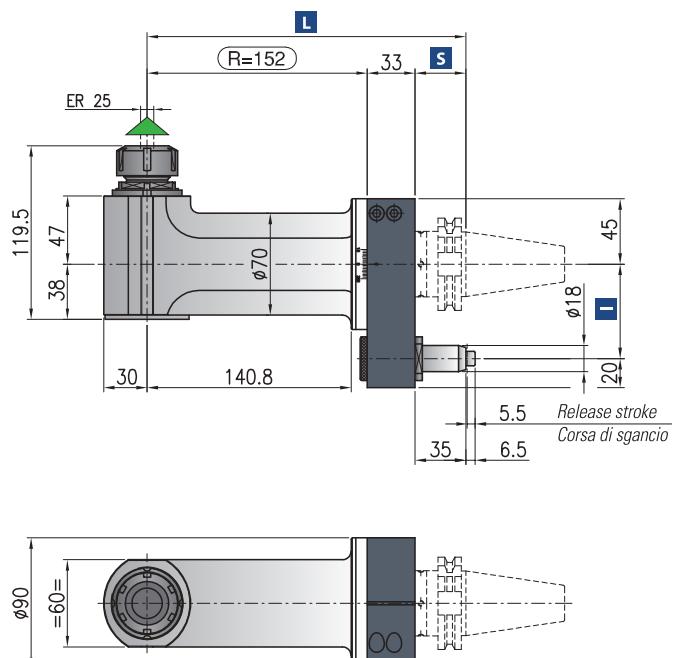
Weight
Peso
6,7 kg



Collet
Pinza
ER-25 (\varnothing 1/16 mm)

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool
Diametro minimo senza utensile

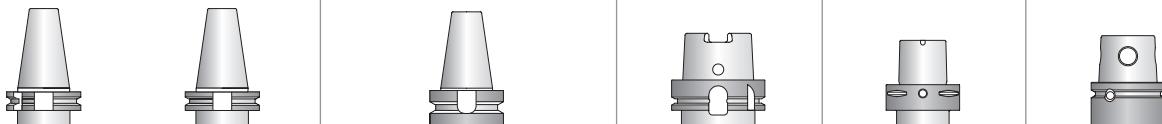


Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	220	220	220	226	227	230

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option


bar max
12



min⁻¹
8.000



Ø mm
16



Ø mm max.
16



HSK-32

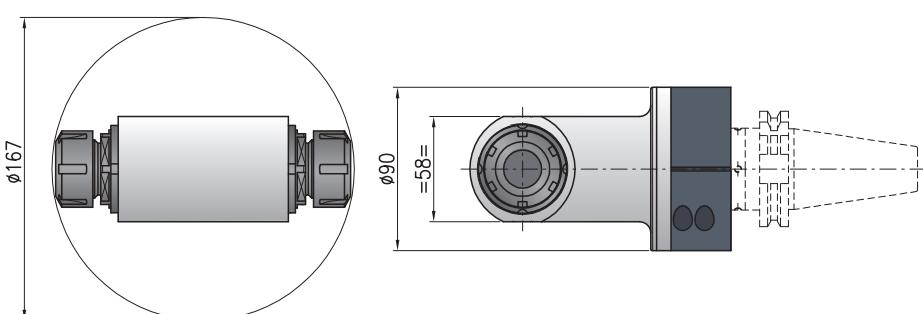
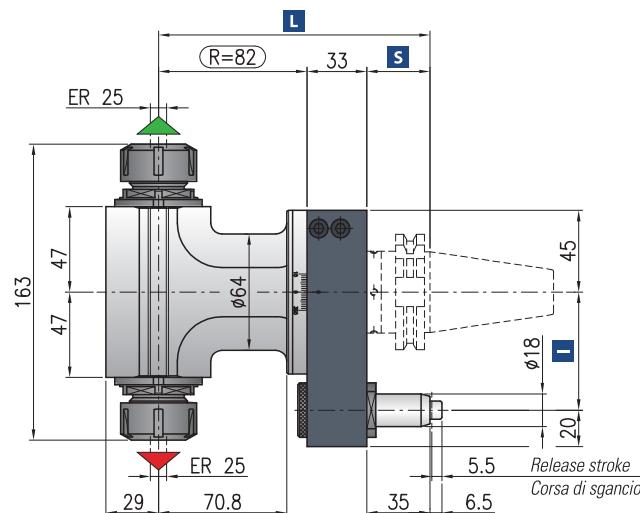


Double output
Doppia uscita

LINEA CONTROL

T90cn-2,5 2U

ACT9025D



	Ratio Rapporto 1:1
	RPM Velocità 9.000 min ⁻¹
	RPM Dry running Velocità a secco 6.000 min ⁻¹
	Max. axial load Max. carico assiale 510 N
	Torque Momento torcente 30 Nm
	Weight Peso 6,4 kg
	Collet Pinza ER-25 (Ø 1/16 mm)

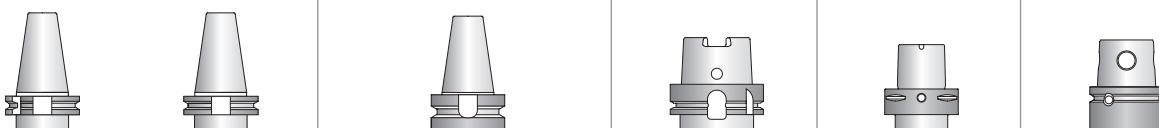
* STANDARD EQUIPMENT INCLUDES:



Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO

- ▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino
- ▲ Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	150	150	150	156	157	160

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option



bar max
12

Coolant through pin
Refrigerante attraverso il perno



min⁻¹
8.000

High speed optional RPM max.
Opzione alta velocità RPM max.



Ø mm
16

Arbor output
Porta fresa



Ø mm max.
16

Weldon output
Weldon

TH90cn-2,5 100 BAR

ACTH925C

Ratio
Rapporto
1:1

RPM
Velocità
9.000 min⁻¹

RPM Dry running
Velocità a secco
6.000 min⁻¹

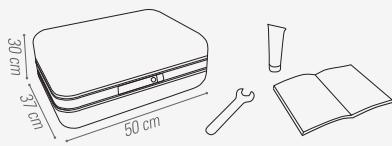
Max. axial load
Max. carico assiale
510 N

Torque
Momento torcente
30 Nm

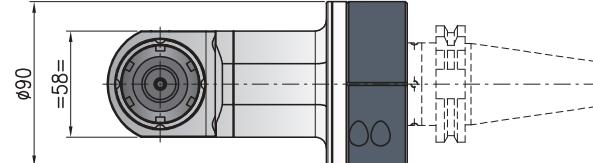
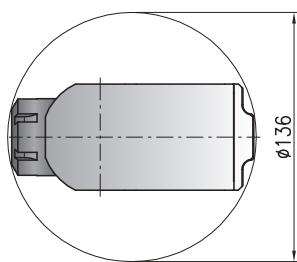
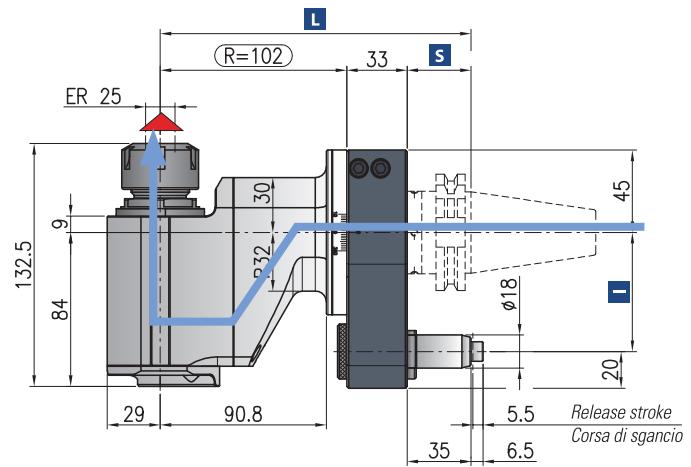
Weight
Peso
5,5 kg

Collet
Pinza
ER-25 (\varnothing 1/16 mm)

* STANDARD EQUIPMENT INCLUDES:



Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO



Dry running also possible / Rotazione a secco possibile

Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	170	170	170	176	177	180

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option



\varnothing mm max.

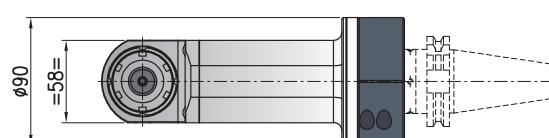
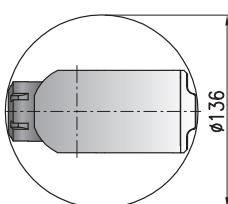
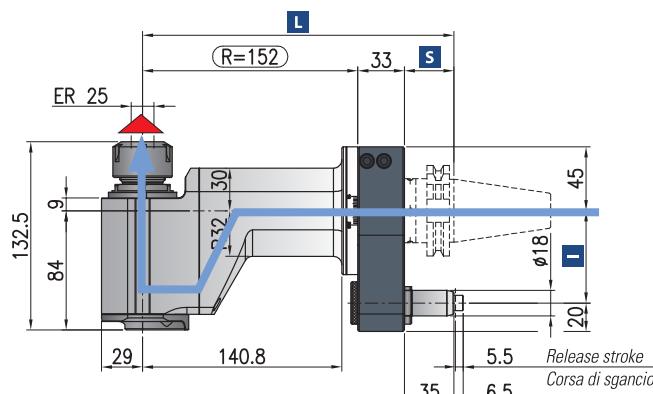
16

Weldon output
Weldon

TH90cn-2,5 L 100 BAR

ACTH925L

Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO



Ratio

Rapporto

1:1



RPM

Velocità

4.000 min⁻¹



Max. axial load

Max. carico assiale

510 N



Torque

Momento torcente

30 Nm



Weight

Peso

6,8 kg

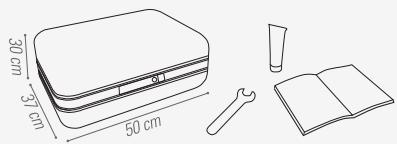


Collet

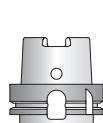
Pinza

ER-25(Ø2/16mm)

* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK		CAPTO	KM
Size/Grandezza	50		50	63-80	100	C6	C8
I	80-110		80-110	80-110	80-110	80-110	80-110
S	35		41	42	45	38	40
L	250		256	257	260	253	255

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcionale / Option



Ø mm max.

16

Weldon output
Weldon

TR90cn-2,5

ACTR925C


Ratio
Rapporto
1:1



RPM OUTPUT
Velocità
6000 min⁻¹



Max. axial load
Max. carico assiale
510 N



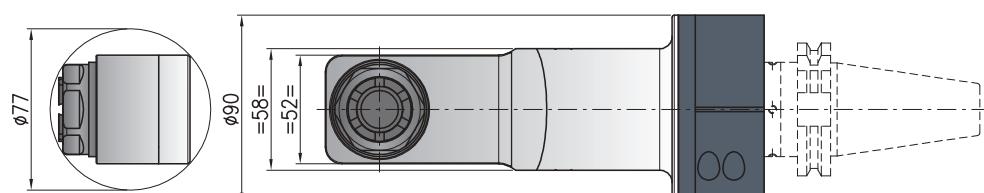
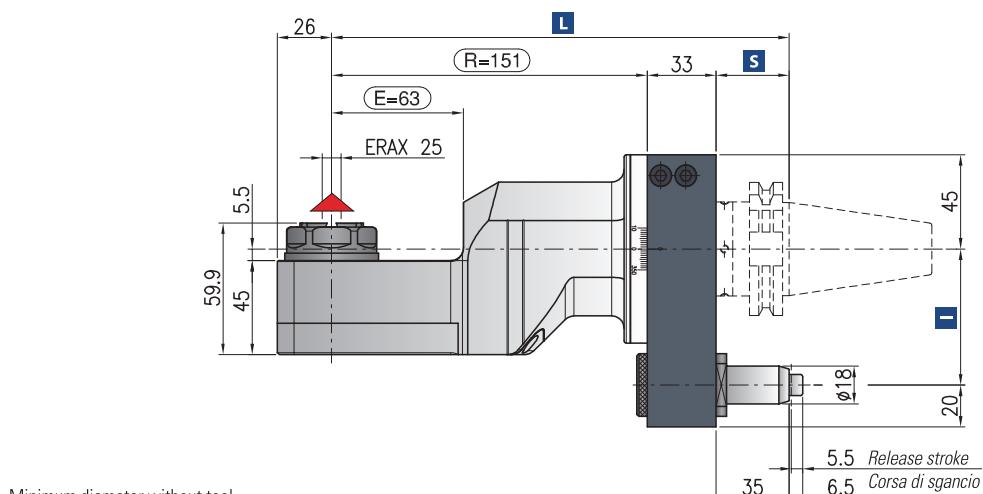
Torque
Momento torcente
30 Nm



Weight
Peso
7.5 kg



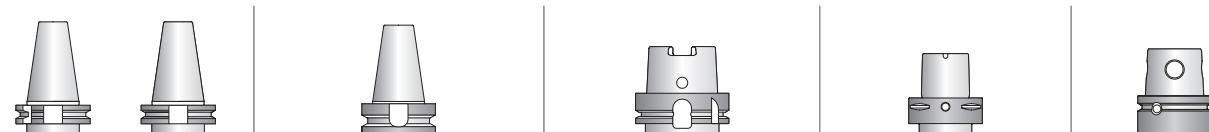
Collet
Pinza
ER-AX 25 (ø1-16mm)



Dry running also possible / Rotazione a secco possibile



Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)	65-80-(110*)	80-(110*)
S	35	35	35	41	42	45
L	219	219	219	225	226	229

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcionale / Option



bar max
12

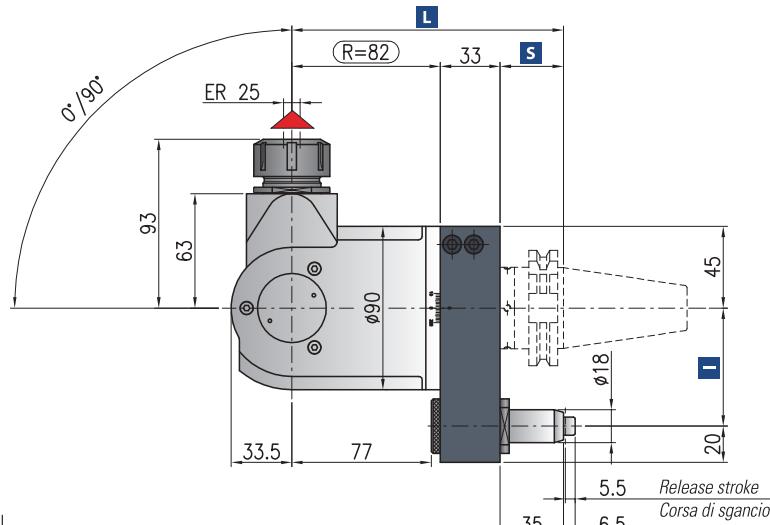
Coolant through pin
Adduzione refrigerante attraverso il perno



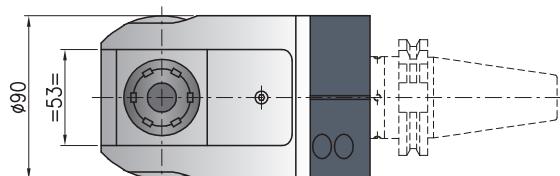
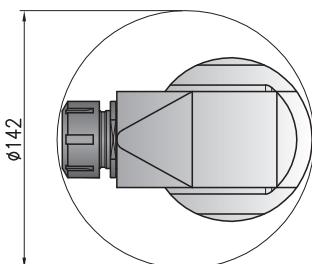
bar max
100

Coolant through spindle
Refrigerante attraverso il cono

TCUcn-2,5

ACTCU25C


Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block

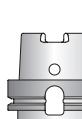
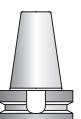
NOT INCLUDED - NON INCLUSO



	Ratio Rapporto 1:1
	RPM Velocità 4.000 min ⁻¹
	Max. axial load Max. carico assiale 480 N
	Torque Momento torcente 18 Nm
	Weight Peso 7 kg
	Collet Pinza ER-25 (ø 1/16 mm)



▲ Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono

DIN-69871

CAT

MAS-BT

HSK

CAPTO

KM

Size/Größe

40

50

40

50

63-80

100

C5-C6

C8

50-63

I

65-80 - (110*)

80-(110*)

65-80-(110*)

80-(110*)

65-80-(110*)

80-(110*)

65-80-(110*)

S

35

35

35

41

42

45

38

40

L

150

150

150

156

157

160

153

155

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcione / Option



bar max
12

Coolant through pin
Adduzione refrigerante attraverso il perno



min⁻¹
6.000

High speed optional RPM max.
Opzione alta velocità RPM max.



Ø mm max.
16

Weldon output
Weldon

T90cn-2,5M Aluminum

ACT9025C.ALU


Ratio
Rapporto
1:1



RPM
Velocità
6.000 min⁻¹



Max. axial load
Max. carico assiale
510 N



Torque
Momento torcente
20 Nm



Weight
Peso
4,9 kg

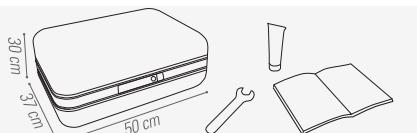


Collet
Pinza
ER 25 - Ø1-16 mm

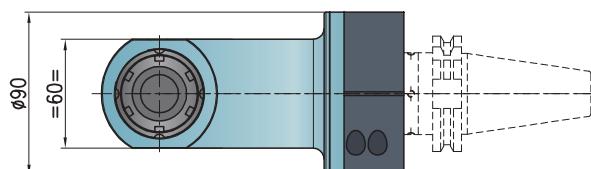
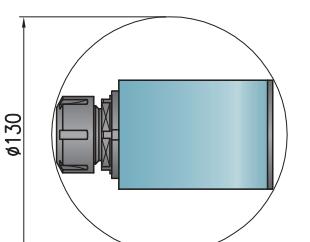
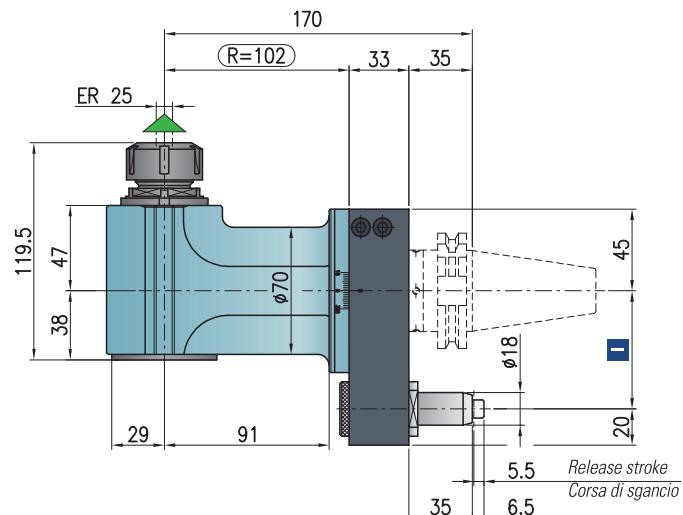


Shank
Cono
ISO40 DIN-69871/BT-40

* STANDARD EQUIPMENT INCLUDES:



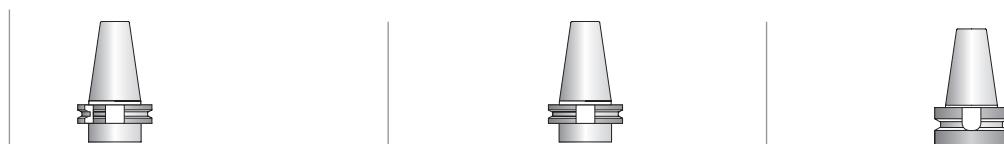
Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO

▲ Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*



Shank/Cono	DIN-69871	CAT	MAS-BT
Size/Grandezza	40	40	40
I	65-80	80-(110*)	65-80-(110*)

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option



AIR/OIL

Air/oil lubrication
Lubrificazione aria/olio



bar max
40

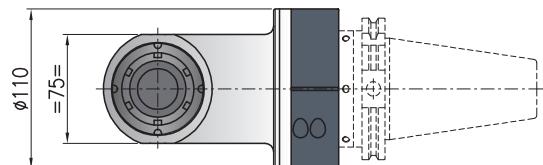
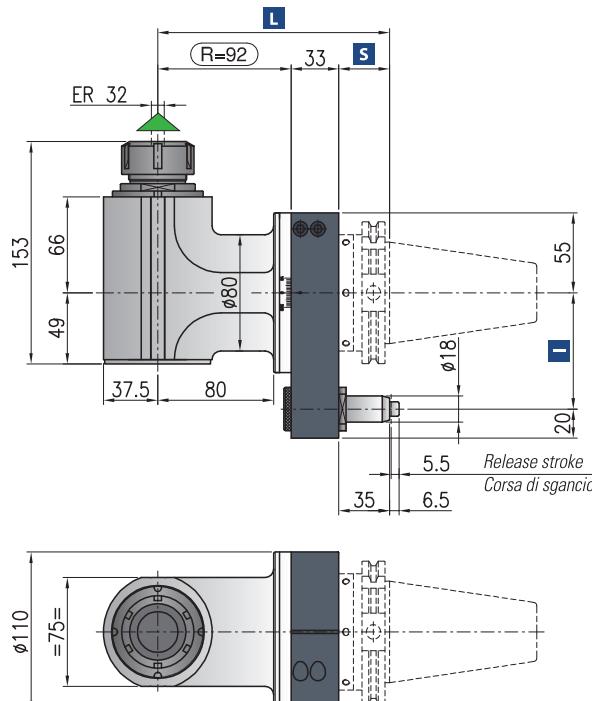
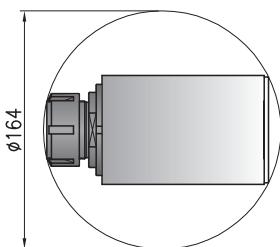
Coolant through spindle
Refrigerante attraverso il cono

LINEA CONTROL

T90cn-3,5

ACT9035C

Minimum diameter without tool
Diametro minimo senza utensile

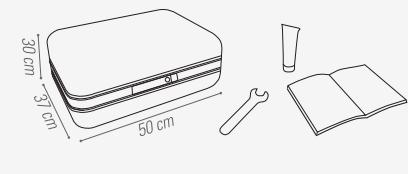


Retaining block / Tassello di ritegno / Stop-Block

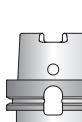
NOT INCLUDED - NON INCLUSO



* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	50	50	50	63-80	100	C6
I	80-110	80-110	80-110	80-110	80-110	80-110
S	35	41	41	42	45	38
L	160	166	166	167	170	165

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcione / Option



bar max
12



min⁻¹
6.000



Ø mm
27



Ø mm max.
20



ISO-30 HSK-40



ER-32/ER-20
Double output
Doppia uscita

Coolant through pin
Refrigerante attraverso il perno

High speed RPM max.
Alta velocità RPM max.

Arbor output
Porta fresa

Weldon output
Weldon

Quick Change
Attacco rapido

T90cn-3,5 L

ACT9035L


Ratio
Rapporto
1:1



RPM
Velocità
4.000 min⁻¹



Max. axial load
Max. carico assiale
1.250 N



Torque
Momento torcente
50 Nm



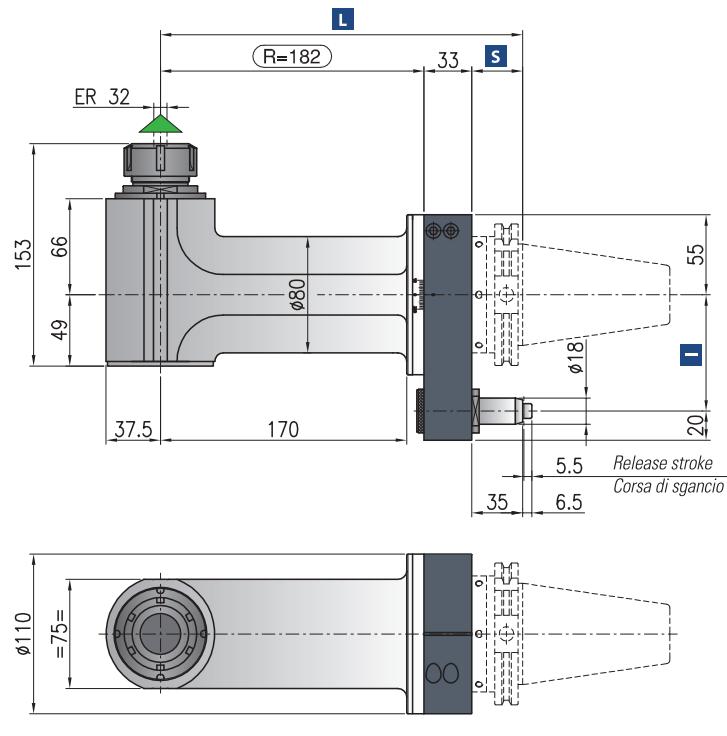
Weight
Peso
13,2 kg



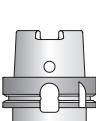
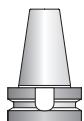
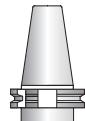
Collet
Pinza
ER-32 (ø 2/20 mm)

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool
Diametro minimo senza utensile



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK		CAPTO	KM
Size/Grandezza	50	50	50	63-80	100	C6	C8
I	80-110	80-110	80-110	80-110	80-110	80-110	80-110
S	35	41	41	42	45	38	40
L	250	256	256	257	260	253	255

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcion / Option


bar max
12

Coolant through pin and spindle
Refrigerante intemo attraverso utensile



min⁻¹
6.000

High speed RPM max.
Alta velocità RPM max.



Ø mm
27

Arbor output
Porta fresa



Ø mm max.
20

Weldon output
Weldon



ISO-30 HSK-40

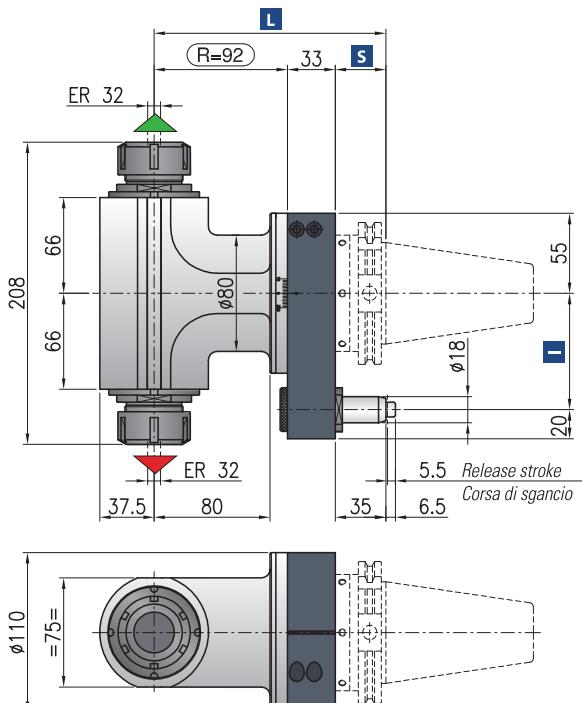
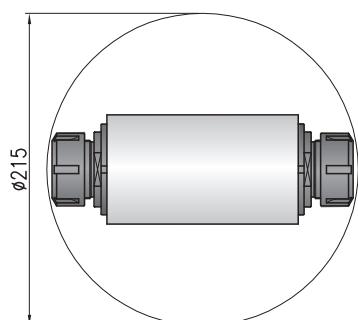
Quick Change
Attacco rapido



Double output
Doppia uscita

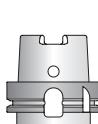
T90cn-3,5 2U

ACT9035D

 Minimum diameter without tool
Diametro minimo senza utensile

Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO

*** STANDARD EQUIPMENT INCLUDES:**


- ▲ Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*
▲ Direction of rotation opposite to machine spindle / *senso di rotazione contrario al mandrino*



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	50	50	50	63-80	100	C6
I	80-110	80-110	80-110	80-110	80-110	80-110
S	35		41	42	45	40
L	160		166	167	170	165

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcione / Option

 bar max
 12

 Coolant through pin
 Refrigerante attraverso il perno

 min⁻¹
 6.000

 High speed optional RPM max.
 Opzione alta velocità RPM max.

 Ø mm
 27

 Arbor output
 Porta fresa

 Ø mm max.
 20

 Weldon output
 Weldon

 HSK-40
 Quick Change
 Attacco rapido

TH90cn-3,5 100 BAR

ACTH935C


Ratio

Rapporto

1:1



RPM

Velocità

8.000 min⁻¹


RPM Dry running

Velocità a secco

4.000 min⁻¹


Max. axial load

Max. carico assiale

1.250 N



Torque

Momento torcente

50 Nm



Weight

Peso

12 kg



Collet

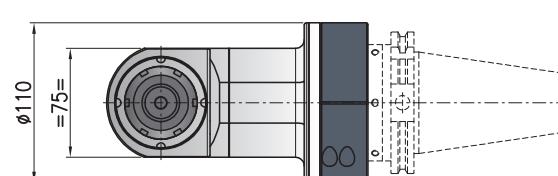
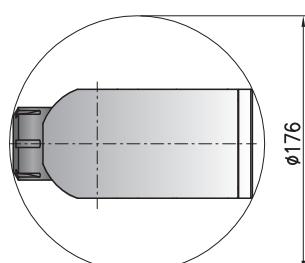
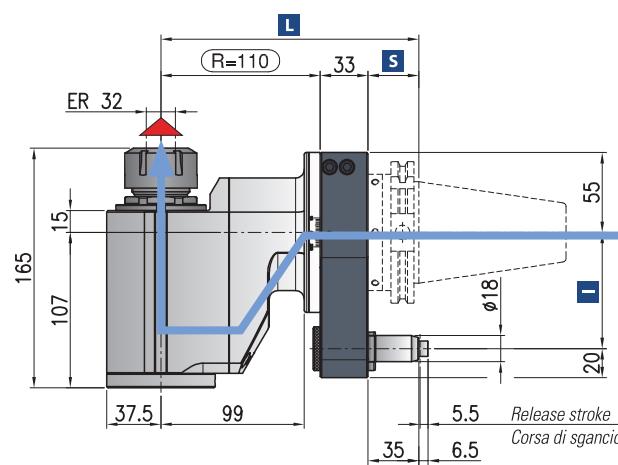
Pinza

ER-32 (ø 2/20 mm)

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool

Diametro minimo senza utensile

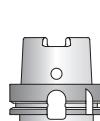
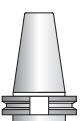


Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO

Dry running also possible / Rotazione a secco possibile

Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK		CAPTO	KM
Size/Grandezza	50	50	50	63-80	100	C6	C8
I	80-110	80-110	41	80-110	80-110	80-110	80-110
S	35	41	42	45	38	40	40
L	178	184	185	188	181	183	183

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcionale / Option


Ø mm max.

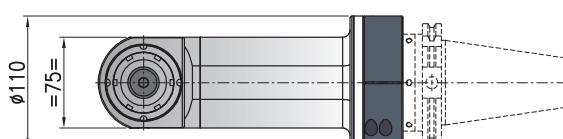
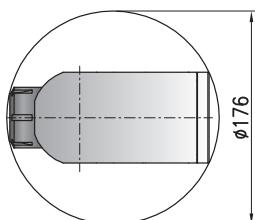
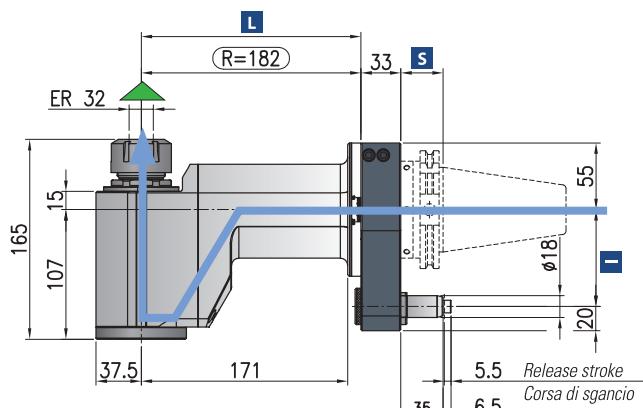
20

Weldon output
Weldon

TH90cn-3,5 L 100 BAR

ACTH935L

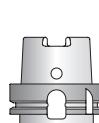
Minimum diameter without tool
Diametro minimo senza utensile



	Ratio Rapporto 1.1
	RPM Velocità 8.000 min⁻¹
	RPM Dry running Velocità a secco 4.000 min⁻¹
	Max. axial load Max. carico assiale 1.250 N
	Torque Momento torcente 50 Nm
	Weight Peso 12 kg
	Collet Pinza ER-32 (ø 2/20 mm)

*** STANDARD EQUIPMENT INCLUDES:**

Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO

Dry running also possible / Rotazione a secco possibile
 Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino


Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	50	50	50	63-80	100	C6
I	80-110	80-110	41	80-110	80-110	80-110
S	35		41	42	45	40
L	160		166	167	170	165

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili
Opzione / Option


Ø mm max.

20

*Weldon output
Weldon*

TR90cn-3,5

ACTR935C


Ratio
Rapporto
1: 1



RPM
Velocità
 4.000 min^{-1}



Max. axial load
Max. carico assiale
910 N



Torque
Momento torcente
50 Nm



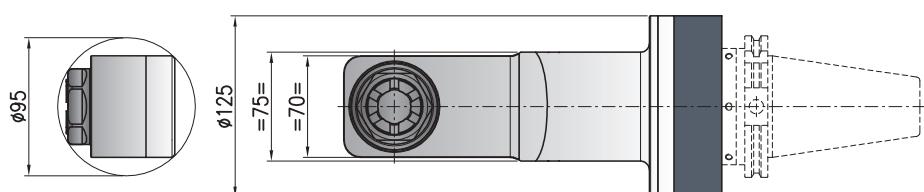
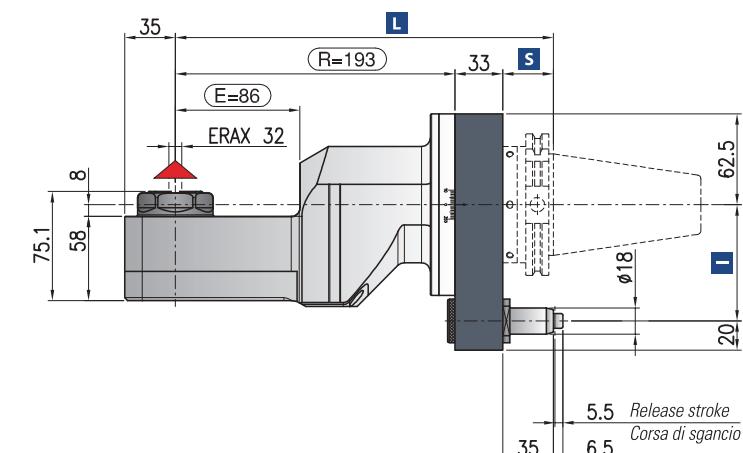
Weight
Peso
10 kg



Collet
Pinza
ER-AX 32 ($\varnothing 2-20 \text{ mm}$)

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block

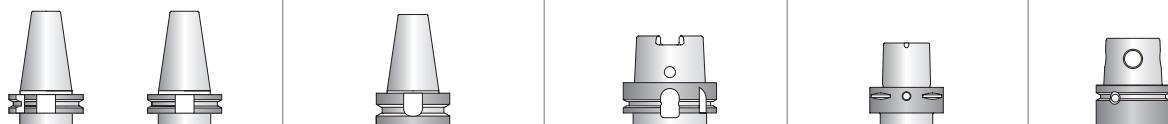
NOT INCLUDED - NON INCLUSO



Possibilità refrigerante / Internal coolant / Max. 100 bar

Dry running also possible / Rotazione a secco possibile

Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK		CAPTO	KM
Size/Grandezza	50	50	63-80	100	C6	C8	63
I	80-110	80-110	80-110	80-110	80-110	80-110	80-110
S	35	41	42	45	38	40	40
L	261	267	268	271	264	266	266

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option

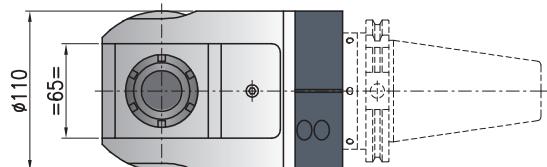
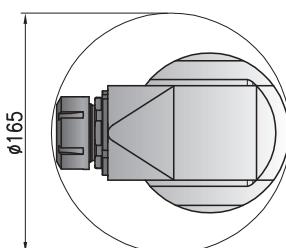
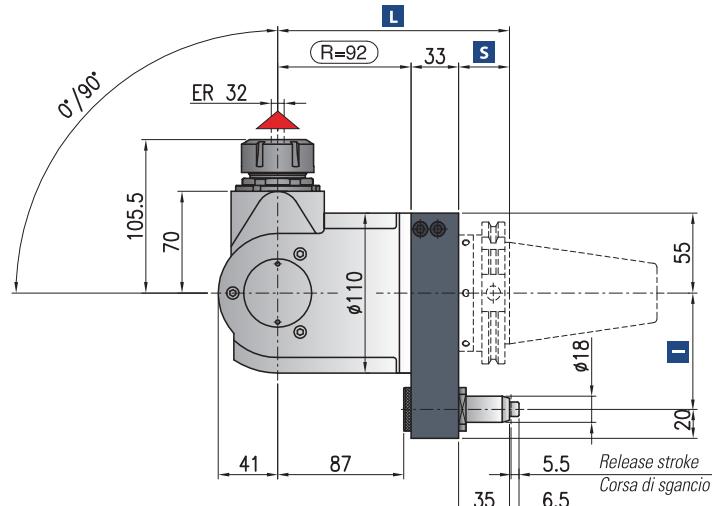


bar max

100

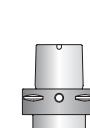
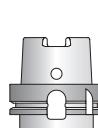
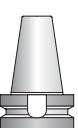
Coolant through spindle
Refrigerante attraverso il cono

TCUcn-3,5

ACTCU35C

Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO

-  Ratio Rapporto 1:1
-  RPM Velocità 4.000 min⁻¹
-  Max. axial load Max. carico assiale 715 N
-  Torque Momento torcente 32 Nm
-  Weight Peso 13 kg
-  Collet Pinza ER-32 (Ø 2/20 mm)

*** STANDARD EQUIPMENT INCLUDES:**

 Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino


Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	50	50		63-80	100	C6
I	80-110	80-(110*)		80-(110*)	80-(110*)	C8
S	35	41		42	45	80-(110*)
L	160	166		167	170	40

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili
Option / Opzione

bar max
12

*Coolant through pin
Adduzione refrigerante attraverso il perno*

min⁻¹
6.000

*High speed optional RPM max.
Opzione alta velocità RPM max.*

Ø mm max.
20

*Weldon output
Weldon*

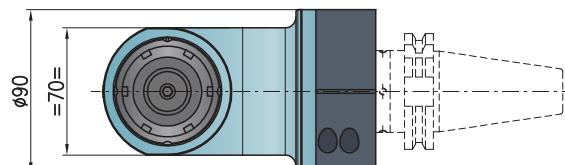
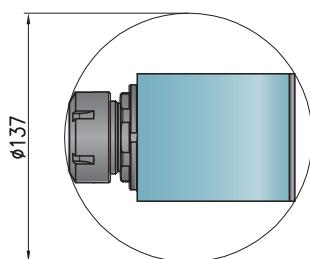
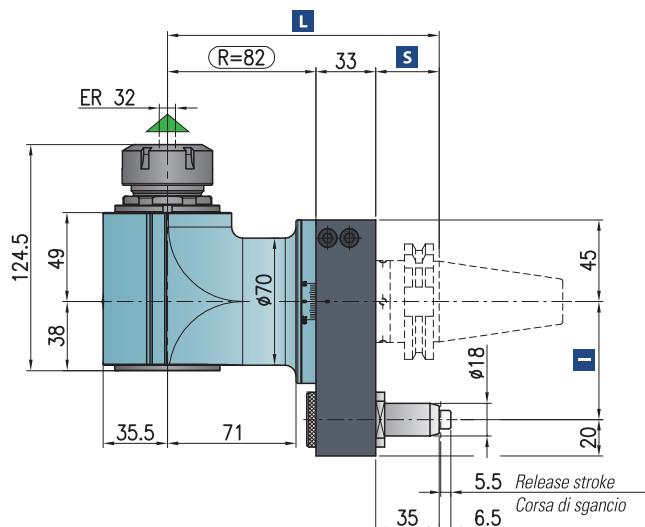
T90cn-3,5M Aluminum

ACT9035C.ALU

	Ratio Rapporto 1:1
	RPM Velocità 4.000 min⁻¹
	Max. axial load Max. carico assiale 1250 N
	Torque Momento torcente 40 Nm
	Weight Peso 5,5 kg
	Collet Pinza ER 32 - (ø2-20 mm)
	Shank Cono ISO40 DIN-69871/BT-40

*** STANDARD EQUIPMENT INCLUDES:**

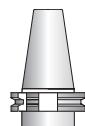

Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT
Size/Grandezza	40	40	40
I	65-80	80-(110*)	65-80-(110*)
S	35	35	35
L	150	150	150

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option

AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio



bar max
40

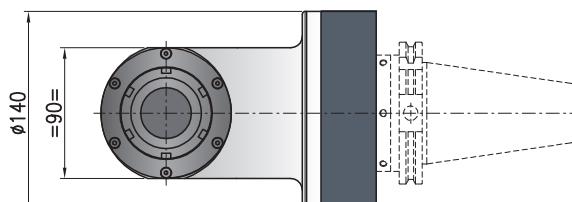
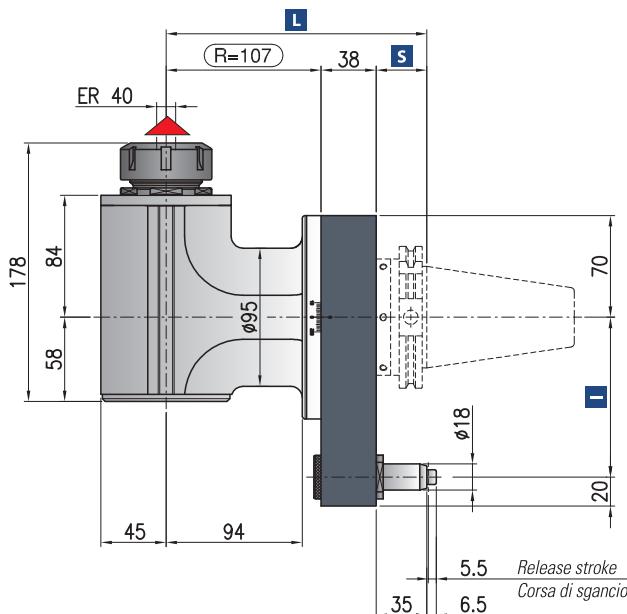
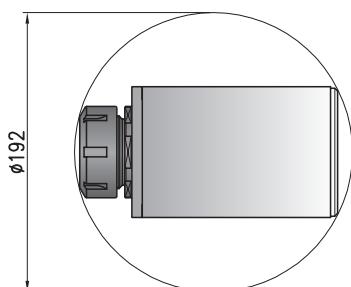
Coolant through spindle
Refrigerante attraverso il cono

LINEA CONTROL

T90cn-4,5

ACT9045C

Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO

Ratio
Rapporto
1:1

RPM
Velocità
4.000 min⁻¹

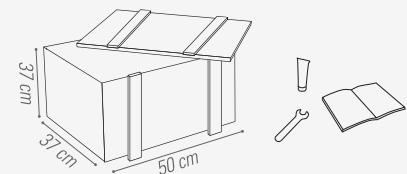
Max. axial load
Max. carico assiale
1.750 N

Torque
Momento torcente
75 Nm

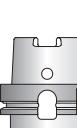
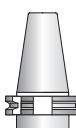
Weight
Peso
17 kg

Collet
Pinza
ER-40 (ø 3/30 mm)

* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO
Size/Grandezza	50	50	80	100	C8
I	110	110	110	110	110
S	35	41	42	45	40
L	180	186	187	190	185

Dual contact spindles available/Disponibilità coni a doppio contatto

* optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcion / Option



bar max
12



min⁻¹
6.000



Ø mm
27



Ø mm max.
25



ISO-30
HSK-40 CAPTO C4



ER-40/ER-25
Double output
Doppia uscita

Coolant through pin and spindle
Refrigerante intemo attraverso utensile

High speed optional RPM max.
Opzione alta velocità RPM max.

Arbor output
Porta fresa

Weldon output
Weldon

Quick Change
Attacco rapido

LINEA CONTROL

T90cn-4,5 L

ACT9045L



Ratio
Rapporto
1:1



RPM
Velocità
4.000 min⁻¹



Max. axial load
Max. carico assiale
1.750 N



Torque
Momento torcente
75 Nm

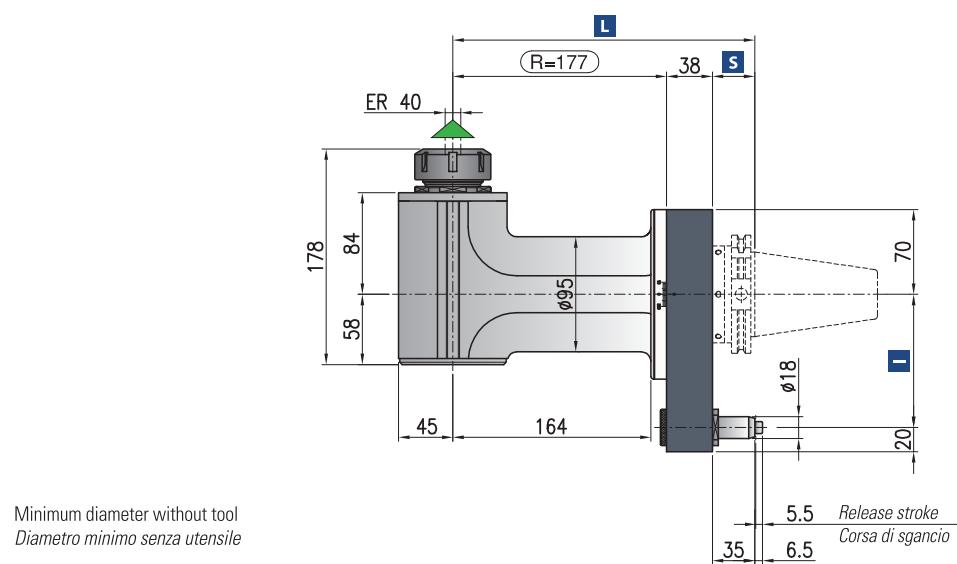
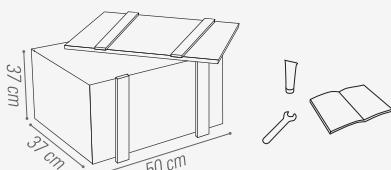


Weight
Peso
20 kg

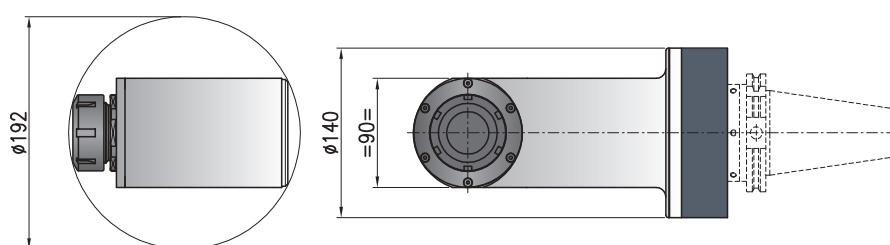


Collet
Pinza
ER-40 (ø 3/30 mm)

* STANDARD EQUIPMENT INCLUDES:



Minimum diameter without tool
Diametro minimo senza utensile

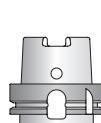


Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO
Size/Grandezza	50		50	80	100
I	110		110	110	110
S	35		41	42	45
L	250		256	257	260

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcione / Option



bar max
12



6.000



27



25



**ISO-30
HSK-40 CAPTO C4**



ER-40/ER-25

Coolant through pin and spindle
Refrigerante interno
attraverso utensile

High speed RPM max.
Alta velocità RPM max.

Arbor output
Porta fresa

Weldon output
Weldon

Quick Change
Attacco rapido

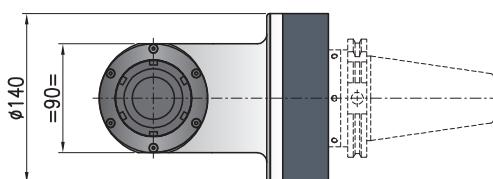
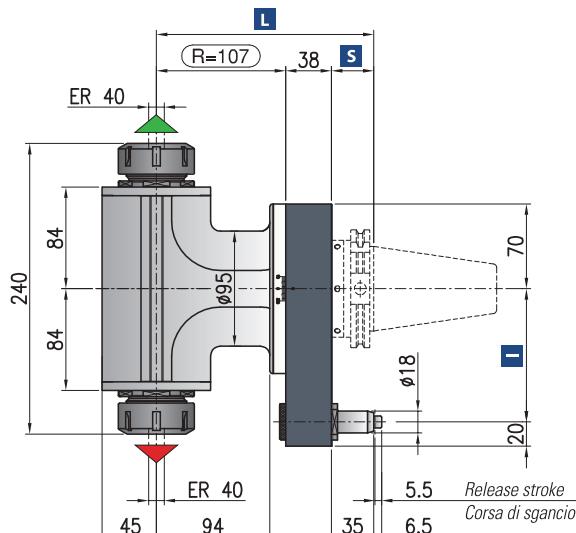
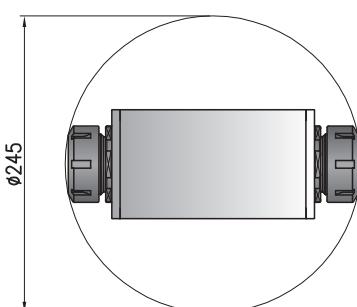
Double output
Doppia uscita

LINEA CONTROL

T90cn-4,5 2U

ACT9045D

Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block

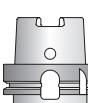
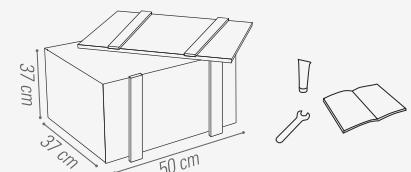
NOT INCLUDED - NON INCLUSO

▲ Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*

◆ Direction of rotation opposite to machine spindle / *senso di rotazione contrario al mandrino*

	Ratio <i>Rapporto</i> 1:1
	RPM <i>Velocità</i> 4.000 min ⁻¹
	Max. axial load <i>Max. carico assiale</i> 1.750 N
	Torque <i>Momento torcente</i> 75 Nm
	Weight <i>Peso</i> 20 kg
	Collet <i>Pinza</i> ER-40 (ø 3/30 mm)

* STANDARD EQUIPMENT INCLUDES:



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO
Size/Grandezza	50	50	80	100	C8
I	110	110	110	110	110
S	35	41	42	45	40
L	180	186	187	190	185

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option



min⁻¹
6.000

High speed optional RPM max.
Opzione alta velocità RPM max.



Ø mm
27

Arbor output
Porta fresa



Ø mm max.
25

Weldon output
Weldon



HSK-40

Quick Change
Attacco rapido

TH90cn-4,5 100 BAR

ACTH945C

Ratio
Rapporto
1:1

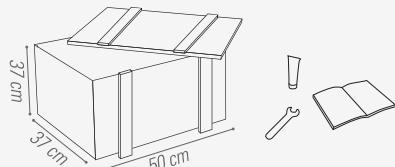
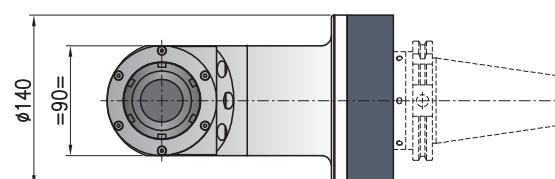
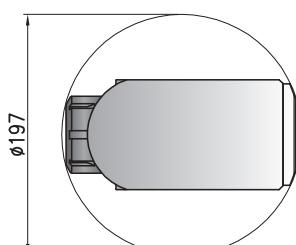
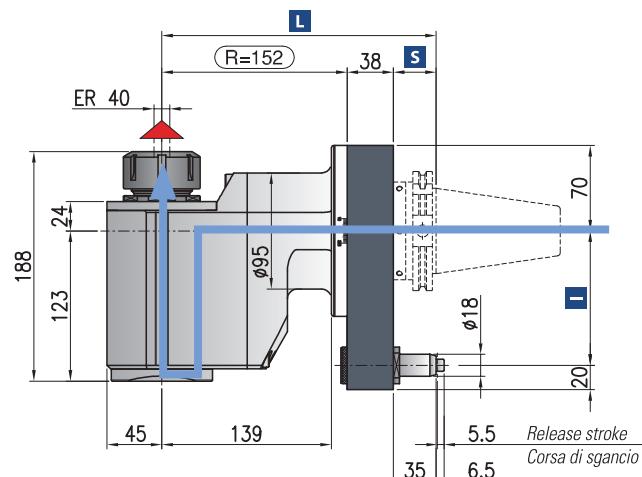
RPM
Velocità
6.000

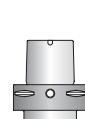
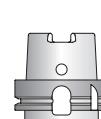
RPM Dry Running
Funz. a secco
4.000 min⁻¹

Max. axial load
Max. carico assiale
1.750 N

Torque
Momento torcente
75 Nm

Weight
Peso
21 kg

Collet
Pinza
ER-40 (ø 3/30 mm)
*** STANDARD EQUIPMENT INCLUDES:**

Minimum diameter without tool
Diametro minimo senza utensile

Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO

Dry running also possible / Rotazione a secco possibile
 Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino

Shank/Cono
DIN-69871
CAT
MAS-BT
HSK
CAPTO
Size/Grandezza
50
50
100
C8
I
110
110
110
110
S
35
41
45
40
L
225
231
235
230

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili
Opzione / Option

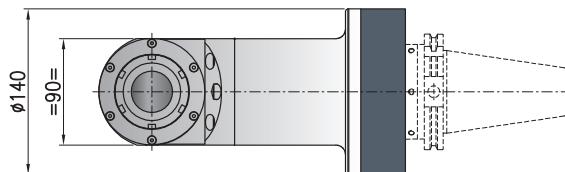
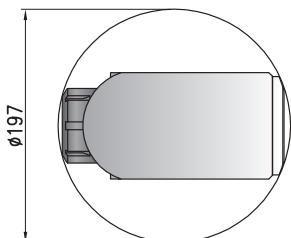
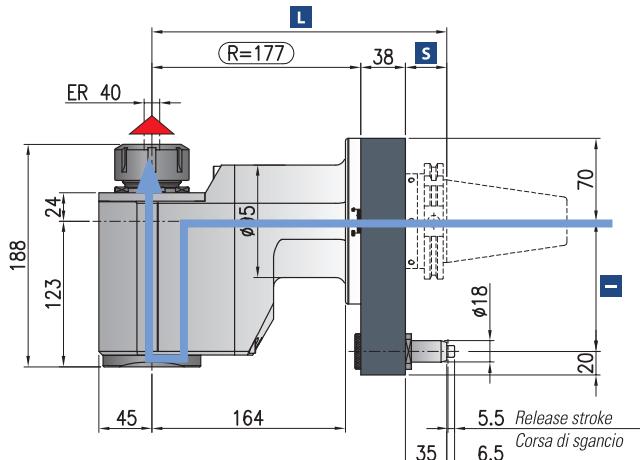
Ø mm max.
25
Weldon output
Weldon

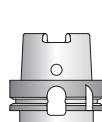
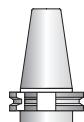
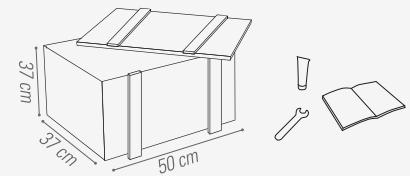
ISO-30
HSK-40 CAPTO C4
Quick Change
Attacco rapido

TH90cn-4,5 L 100 BAR

ACTH945L

Minimum diameter without tool
Diametro minimo senza utensile


Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO
Dry running also possible / Rotazione a secco possibile
 Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino

*** STANDARD EQUIPMENT INCLUDES:**

Shank/Cono
DIN-69871
CAT
MAS-BT
HSK
CAPTO
KM
Size/Grandezza
50
50
63-80
100
C6
C8
63
I
80-110
80-110
80-110
80-110
80-110
80-110
S
35
41
42
45
38
40
L
250
256
257
260
253
255

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili
Opcionale / Option

 Ø mm max.
25

 Weldon output
Weldon

ISO-30
HSK-40 CAPTO C4

 Quick Change
Attacco rapido

TR90cn-4,5

ACTR945C

 Ratio
Rapporto
1:1

 RPM
Velocità
4.000 min⁻¹

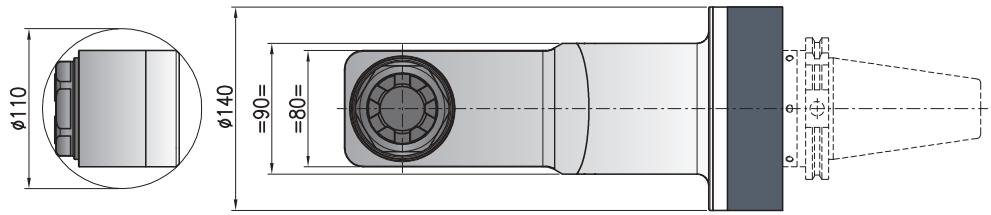
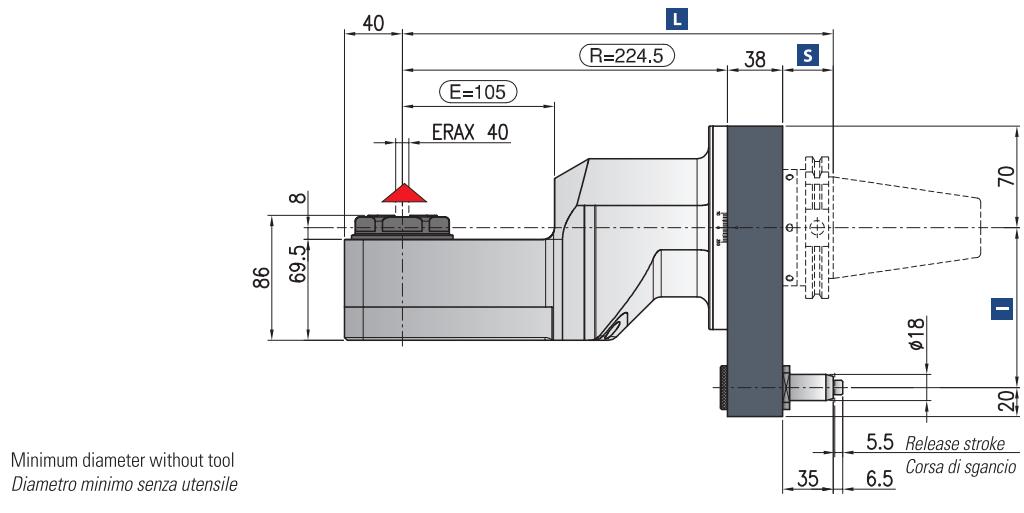
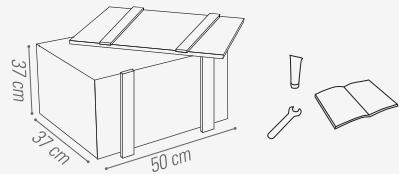
 Max. axial load
Max. carico assiale
1.200 N

 Torque
Momento torcente
75 Nm

 Weight
Peso
20 kg

 Collet
Pinza
ER-AX 40 (ø3/30 mm)

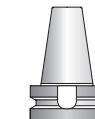
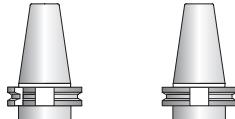
* STANDARD EQUIPMENT INCLUDES:



 Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO

Dry running also possible / Rotazione a secco possibile

 Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO
Size/Grandezza	50	50	80	100	C8
I	110	110	110	110	110
S	35	41	42	45	40
L	297,5	303,5	304,5	307,5	302,5

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opcionale / Option



bar max

100

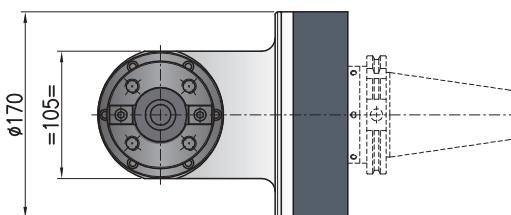
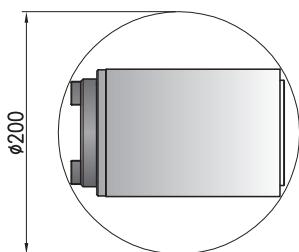
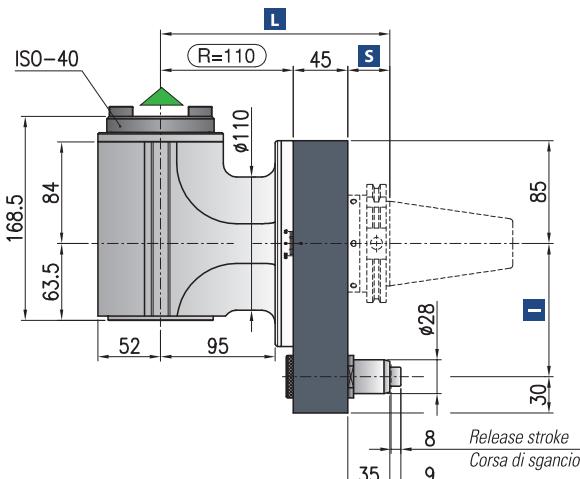
Coolant through spindle
Refrigerante attraverso il cono

LINEA CONTROL

T90cn-5

ACT905C

Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO



Possibilità refrigerante / Internal coolant - Max. 12 bar

▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino

Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO
Size/Grandezza	50	50	100	100	C8
I	110	110	110	110	110
S	35	41	45	45	40
L	190	196	200	200	195

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option



bar max
12

Coolant through pin and spindle
Refrigerante interno attraverso utensile



min⁻¹
6.000

High speed optional RPM max.
Opzione alta velocità RPM max.



HSK-63 CAPTO C4 C5

Quick Change
Attacco rapido

T90cn-5 HP

ACT905HP

 Ratio
Rapporto
1:1

 RPM
Velocità
3.000 min⁻¹

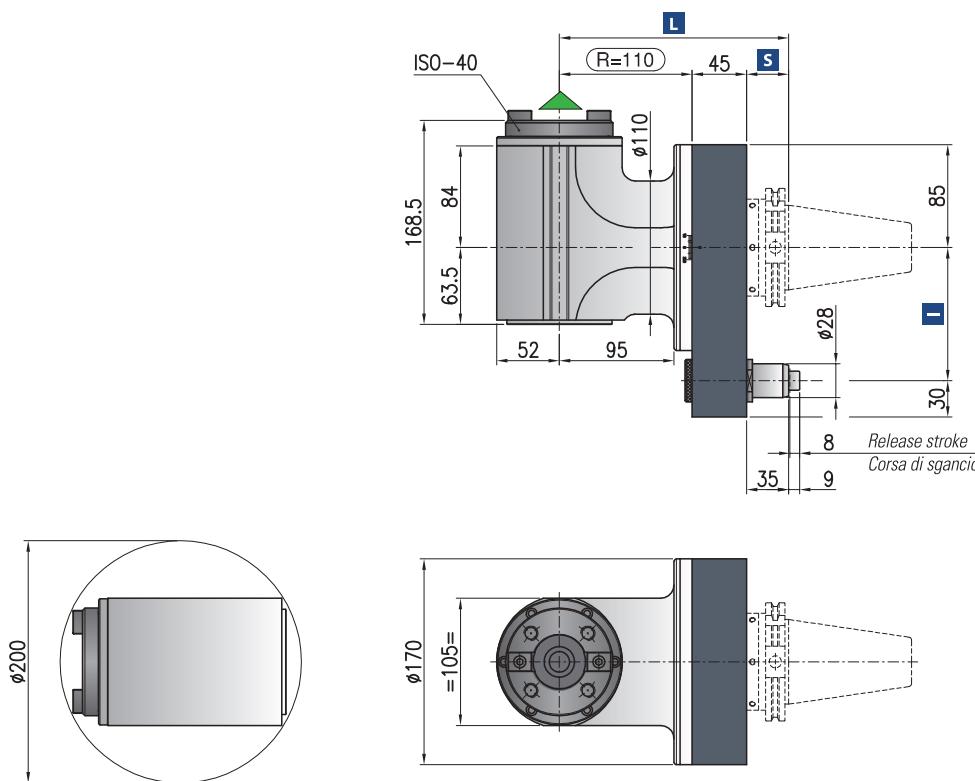
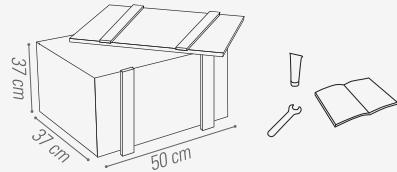
 Max. axial load
Max. carico assiale
1.800 N

 Torque
Momento torcente
160 Nm

 Weight
Peso
22 kg

 Collet
Pinza
ISO 40

* STANDARD EQUIPMENT INCLUDES:

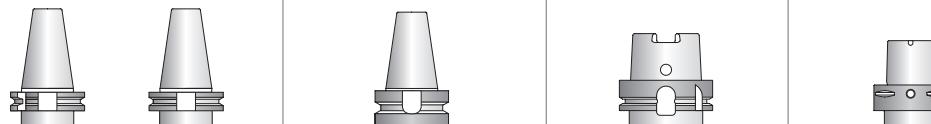


 Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO



 Possibilità refrigerante / Internal coolant - Max. 100 bar

 Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO
Size/Grandezza	50	50	100	110	C8
I	110	110	196	110	110
S	35	41		45	40
L	190		200		195

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option



bar max

12

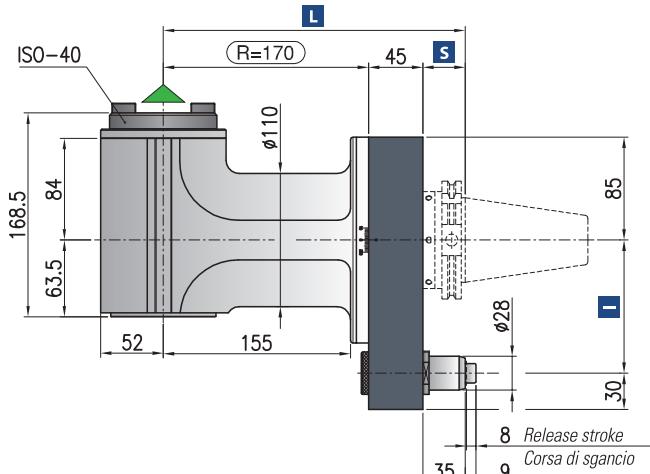
Coolant through pin and spindle
Refrigerante interno attraverso utensile



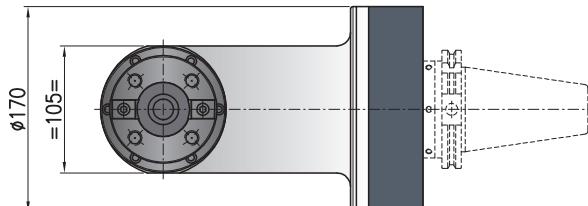
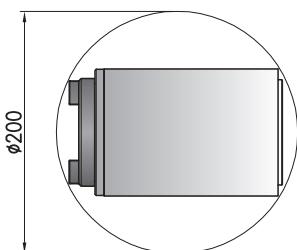
HSK-63 CAPTO C4 C5

Quick Change
Attacco rapido

T90cn-5L

ACT905L


Minimum diameter without tool
Diametro minimo senza utensile



Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO



Ratio
Rapporto
1:1



RPM
Velocità
3.000 min⁻¹



Max. axial load
Max. carico assiale
1.800 N



Torque
Momento torcente
100 Nm

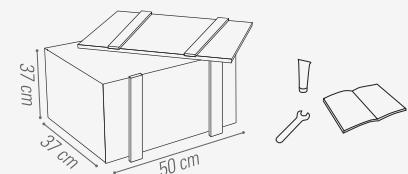


Weight
Peso
26,2 kg

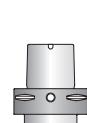
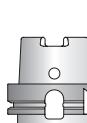


Collet
Pinza
ISO 40

* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO
Size/Grandezza	50		50	100	C8
I	110		110	110	110
S	35		41	45	40
L	250		256	260	255

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Opzione / Option


bar max
12

Coolant through pin and spindle
Refrigerante interno attraverso utensile



min⁻¹
6.000

High speed optional RPM max.
Opzione alta velocità RPM max



HSK-63 CAPTO C4 C5

Quick Change
Attacco rapido

LINEA CONTROL

TA LINEA TA TESTE SPECIALI / SPECIAL HEADS



Ratio
Rapporto
1:1



RPM up to
Velocità fino
10.000 min⁻¹



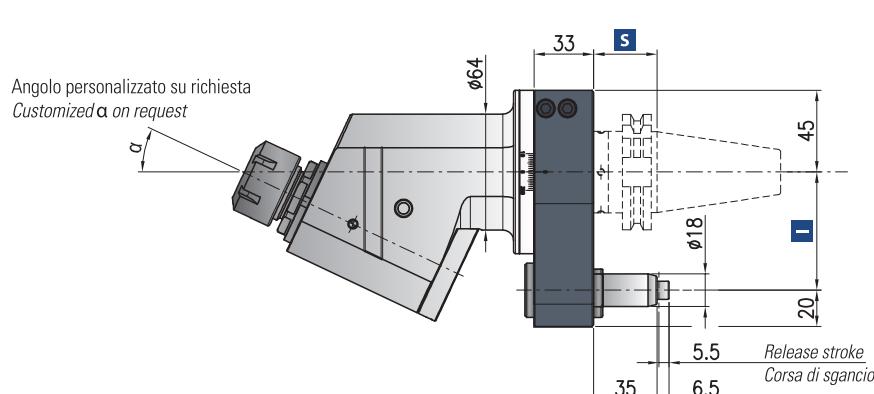
Angle
Angolo
A richiesta da
On request from
15°



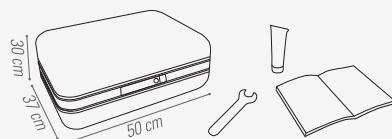
Collet
Pinza
ER-16(ø1/10mm)
ER-25(ø2/16mm)
ER-32(ø3/20mm)

Per richieste speciali di teste con angoli superiori a 15°, Alberti ha studiato una Linea TA con possibilità di adduzione refrigerante interna alta pressione. Tra i modelli più richiesti e standardizzati ci sono TA 30° - TA45° - TA60°

For all special inquiries of fixed angle heads with angles bigger than 15°, Alberti has developed a separate line of heads type TA with internal coolant possibility. Among the most requested, hence standardized items are TA30° - TA45° and TA60°



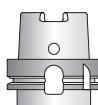
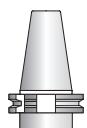
* STANDARD EQUIPMENT INCLUDES:



Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO



Possibilità refrigerante / Internal coolant



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110°)	80-(110°)	65-80-(110°)	80-(110°)	65-80-(110°)	80-(110°)
S	35	35	35	41	42	40

Dual contact spindles available/Disponibilità coni a doppio contatto

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

*optional

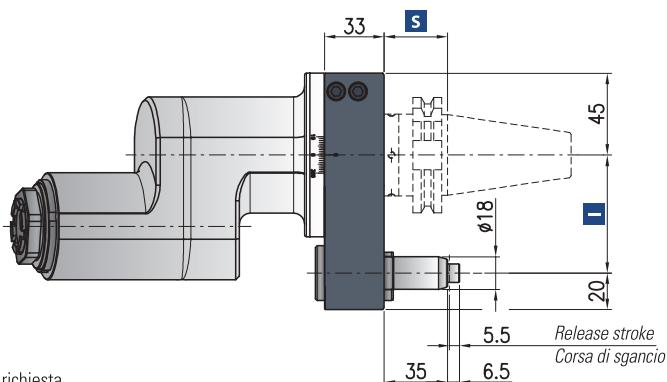


LINEA CONTROL

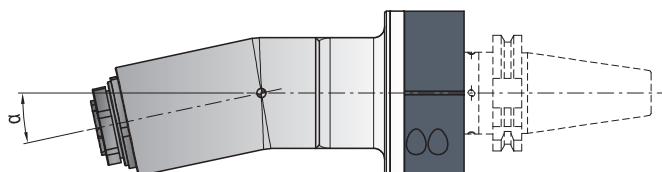
TDA LINEA TDA TESTE SPECIALI / SPECIAL HEADS

Per richieste speciali di teste con angoli inferiori a 15°, Alberti ha studiato una Linea TDA con possibilità di adduzione refrigerante interna alta pressione.

For all special inquiries of fixed angle heads with angles smaller than 15°, Alberti has developed a separate line of heads type TDA with internal coolant possibility.



Angolo personalizzato su richiesta
Customized α on request



- Ratio Rapporto 1:1
- RPM up to Velocità fino 10.000 min⁻¹
- Angle Angolo A richiesta da On request from 15°
- Collet Pinza ER-16(ø1/10mm)
ER-25(ø2/16mm)
ER-32(ø3/20mm)

* STANDARD EQUIPMENT INCLUDES:

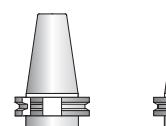


Retaining block / Tassello di ritegno / Stop-Block

NOT INCLUDED - NON INCLUSO



Possibilità refrigerante / Internal coolant



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	50	63-80	100
I	65-80-(110°)	80-(110°)	65-80-(110°)	80-(110°)	65-80-(110°)	80-(110°)
S	35	35	35	41	42	45

Dual contact spindles available/Disponibilità coni a doppio contatto

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

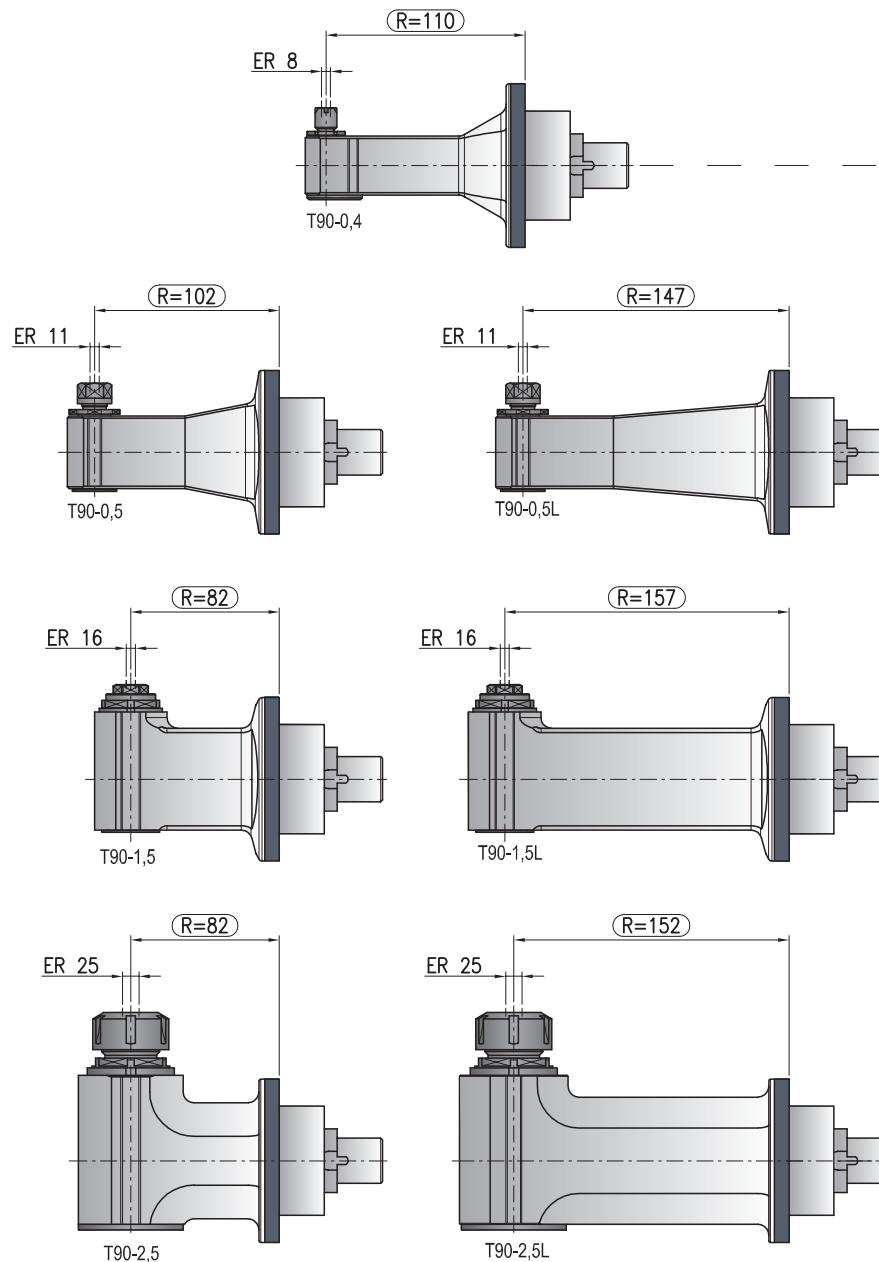
*optional



LINEA CONTROL

TESTE CON PROLUNGA EXTENDED HEADS

8000 Rpm



6000 Rpm

Caratteristiche tecniche a pagina/ Technical data page

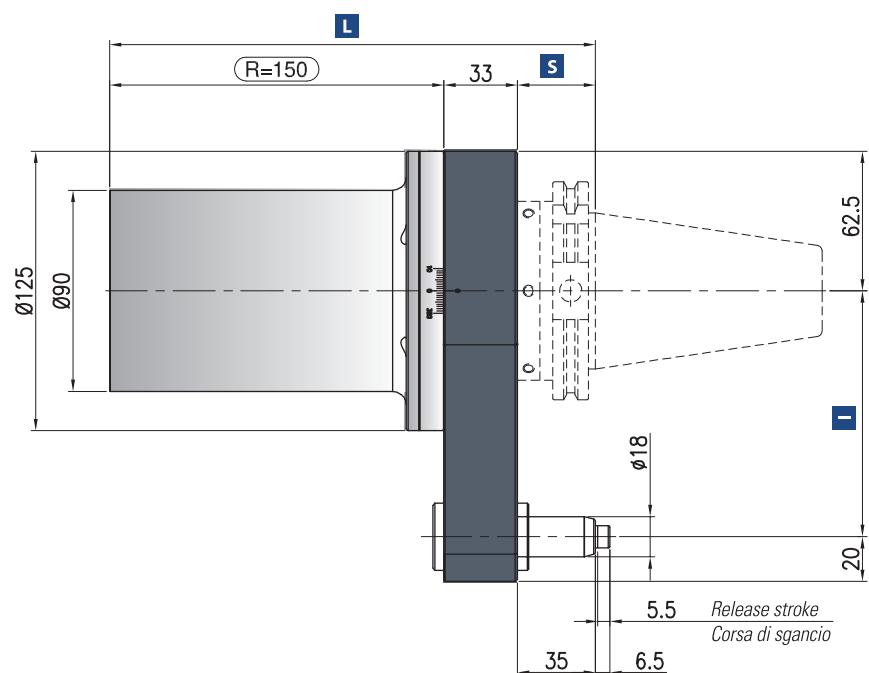


Testa/Head	Pagina/Page
T90-0,4	62
T90-0,5	63
T90-0,5L	64
T90-1,5	65
T90-1,5L	66
T90-2,5	67
T90-2,5L	68

LINEA CONTROL

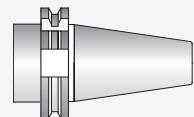
Le teste con prolunga sono composte da un blocco modulo di prolunga sul quale vengono montate una selezione di teste standard.

The extended heads are made up by a portion of extension spacer where it is possible to mount different standard heads.

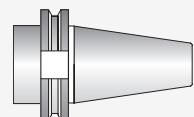


OPTIONAL DRIVE SHANK*
Non interchangeable input drive shank
Coni non intercambiabili

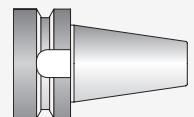
DIN-69871
ISO 50



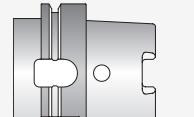
CAT
50



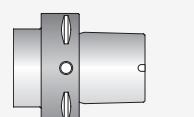
MAS-BT
50



HSK
63/80/100

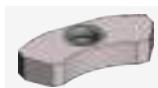


CAPTO
C8

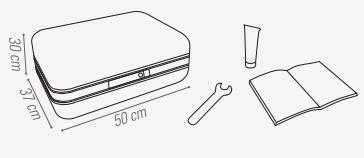


Weight
Peso / Gewicht
10 kg

* STANDARD EQUIPMENT INCLUDES:



Retaining block / Tassello di ritegno / Stop-Block
NOT INCLUDED - NON INCLUSO



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK		CAPTO	
Size/Grandezza	50		50	63-80	100	C6	C8
I	80-110		80-110	80-(110*)	80-110	80-(110*)	80-110
S	35		41	42	45	38	40
L	218		224	225	228	221	223

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Lunghezza totale testa/ Total length (R+L)

Shank/Cono	DIN-69871	CAT	MAS-BT	HSK		CAPTO	
Size/Grandezza		50	50	63-80	100	C6	C8
T90-0.4	mm	328	334	335	338	331	333
T90-0.5C	mm	320	326	327	330	323	325
T90-0.5L	mm	365	371	372	375	368	370
T90-1.5	mm	300	306	307	310	303	305
T90-1.5L	mm	375	381	382	385	378	380
T90-2.5	mm	300	306	307	310	303	305
T90-2.5L	mm	370	376	377	380	373	375

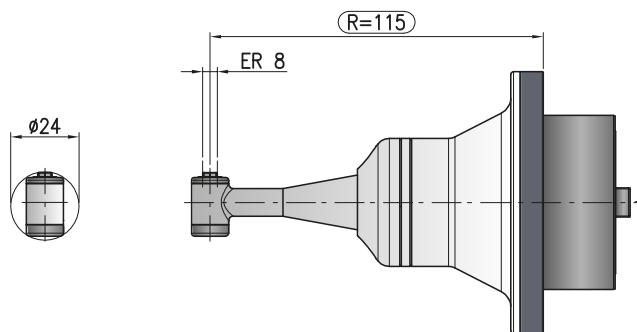
LINEA CONTROL

LINEA INDEX

INDEX LINE

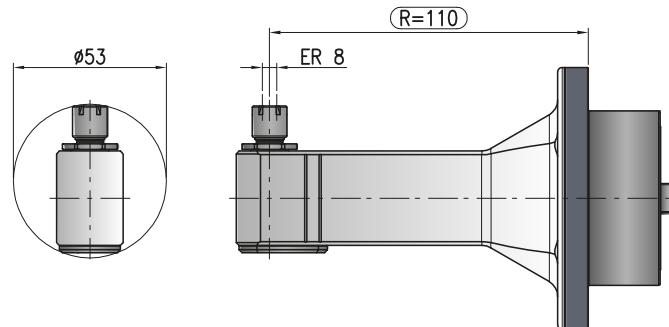
T90-0,3 SLIMLINE

Technical Data / Dati Tecnici		T90-0,3
RPM max input. / Max. Velocità input min ⁻¹		15.000
Ratio (reduction)		3:4
Weight / Peso	kg	3
Collet / Pinza		3mm



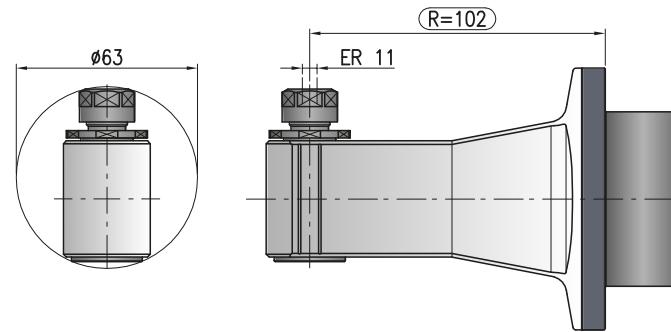
T90-0,4

Technical Data / Dati Tecnici		T90 0,4
RPM max input. / Max. Velocità input min ⁻¹		10.000
Ratio		1:1
Weight / Peso	kg	4
Collet / Pinza		ER8 0,5/5mm



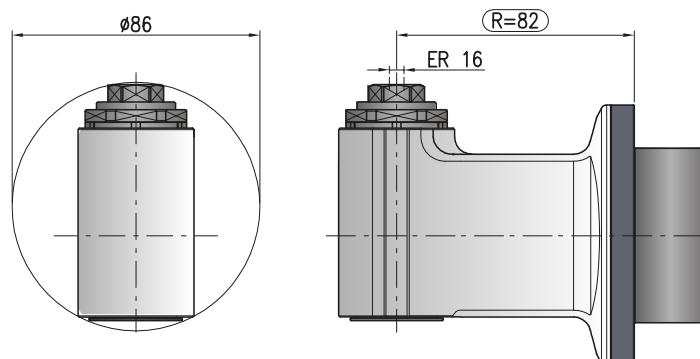
T90-0,5

Technical Data / Dati Tecnici		T90-0,5
RPM max input. / Max. Velocità input min ⁻¹		10.000
Ratio		1:1
Weight / Peso	kg	4
Collet / Pinza		ER-11 0,5/7mm



T90-1,5

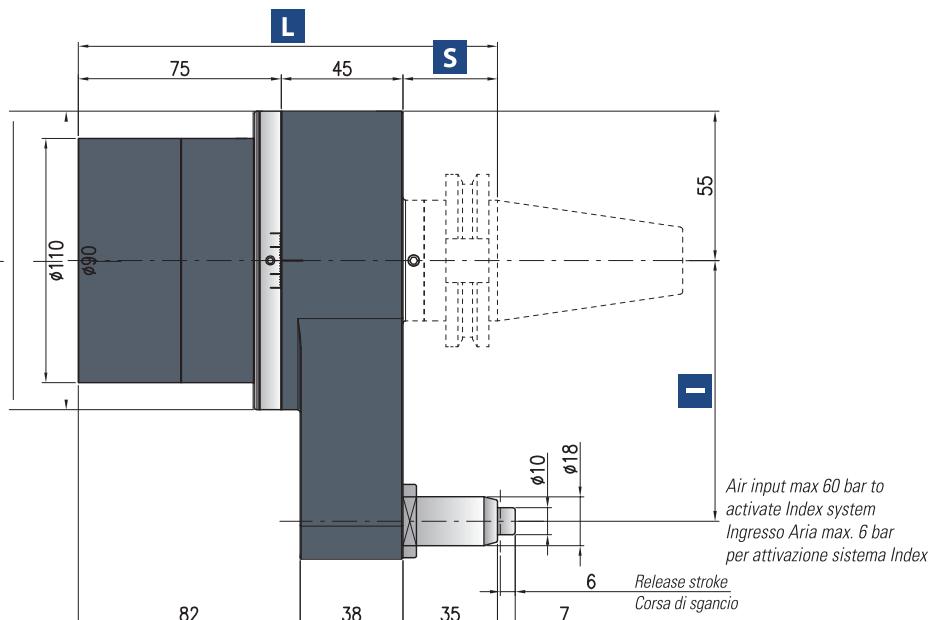
Technical Data / Dati Tecnici		T90-1,5
RPM max input. / Max. Velocità input min ⁻¹		8.000
Ratio		1:1
Weight / Peso	kg	4,3
Collet / Pinza		ER-16 1/10mm



LINEA CONTROL

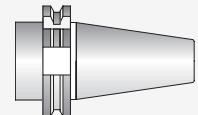
Posizionamento automatico del portautensile su 360° tramite mandrino macchina tramite un sistema di frizione interno attivato da aria compressa max 6 bar. NESSUNA POSIZIONE FISSA. ORIENTAMENTO SU TUTTI GLI ANGOLI.

Automatic positioning of the cutting holder around 360° by using machine spindle through an internal clutch mechanism activated by compressed air max 6 bar. NO FIXED POSITION. ANY ANGLE POSSIBLE.

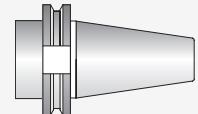


OPTIONAL DRIVE SHANK*
Non interchangeable input drive shank
Coni non intercambiabili

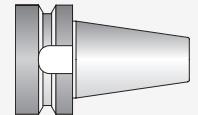
DIN-69871
ISO 40/50



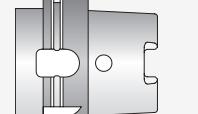
CAT
40/50



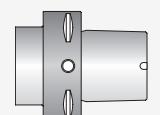
MAS-BT
40/50



HSK
63/80/100

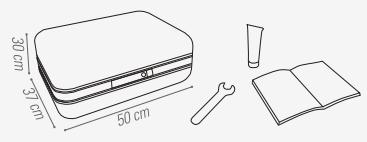


CAPTO
C5/C6/C8



Weight
Peso / Gewicht
7,5 kg

* STANDARD EQUIPMENT INCLUDES:



Shank/Cono	DIN-69871		CAT		MAS-BT		HSK		CAPTO	
Size/Grandezza	40	50	40	50	63-80	100	63-80	100	C5-C6	C8
I	80-(110*)	80-110	80-(110*)	80-110	80-(110*)	80-110	80-(110*)	80-110	80-(110*)	80-110
S	35	35	35	41	42	45	42	45	38	40
L	155	155	155	161	162	165	162	165	158	160

Dual contact spindles available/Disponibilità coni a doppio contatto

*optional

Lunghezza totale testa/ Total length (R+L)

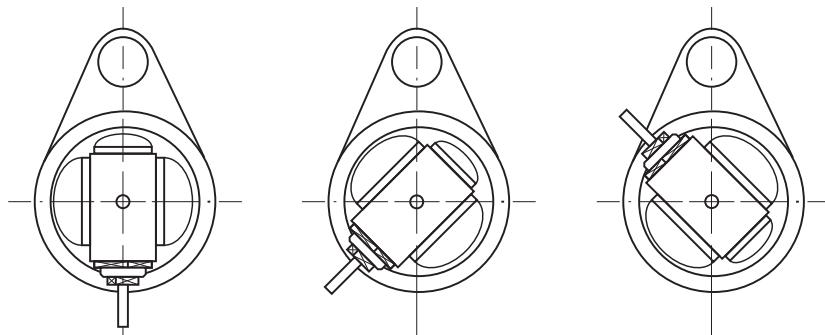
Shank/Cono	DIN-69871		CAT		MAS-BT		HSK		CAPTO	
Size/Grandezza	40	50	40	50	63-80	100	63-80	100	C5-C6	C8
T90-0.3 SLIMLINE	mm	270	270	270	276	277	280	273	275	275
T90-0.4	mm	265	265	265	271	272	275	268	270	270
T90-0.5	mm	257	257	257	263	264	267	260	262	262
T90-1.5	mm	237	237	237	243	244	247	240	242	242

LINEA CONTROL

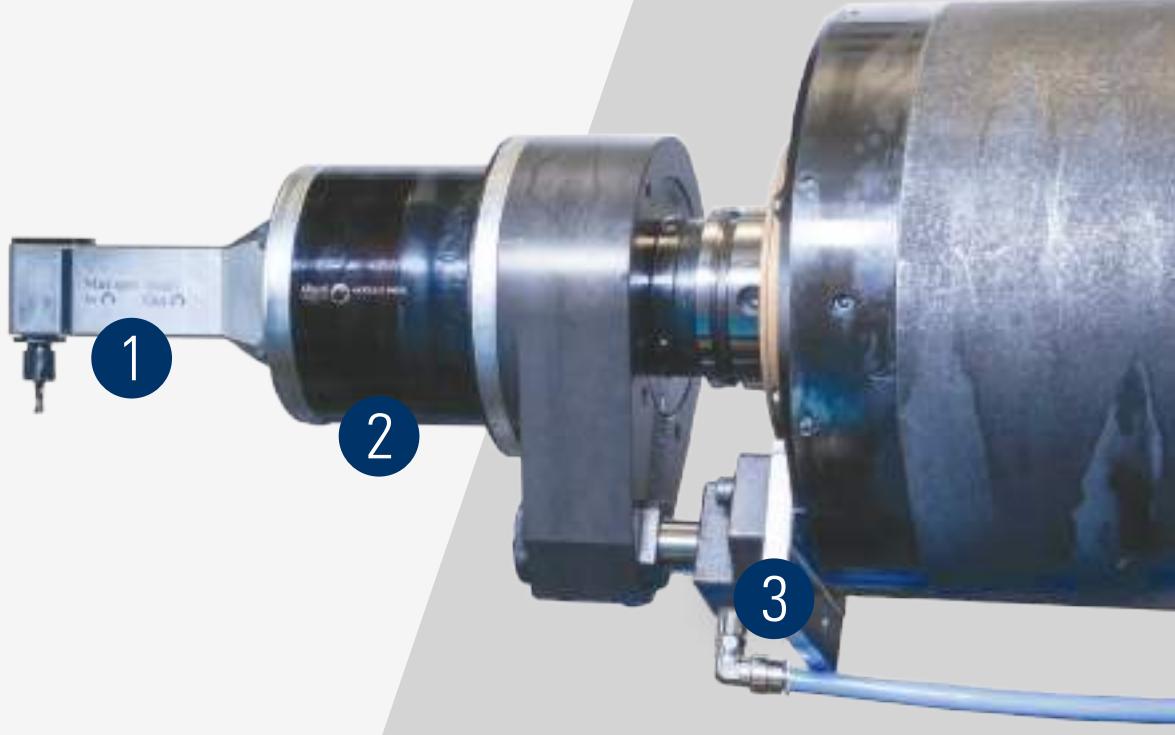
TESTE INDEX
INDEX HEADS

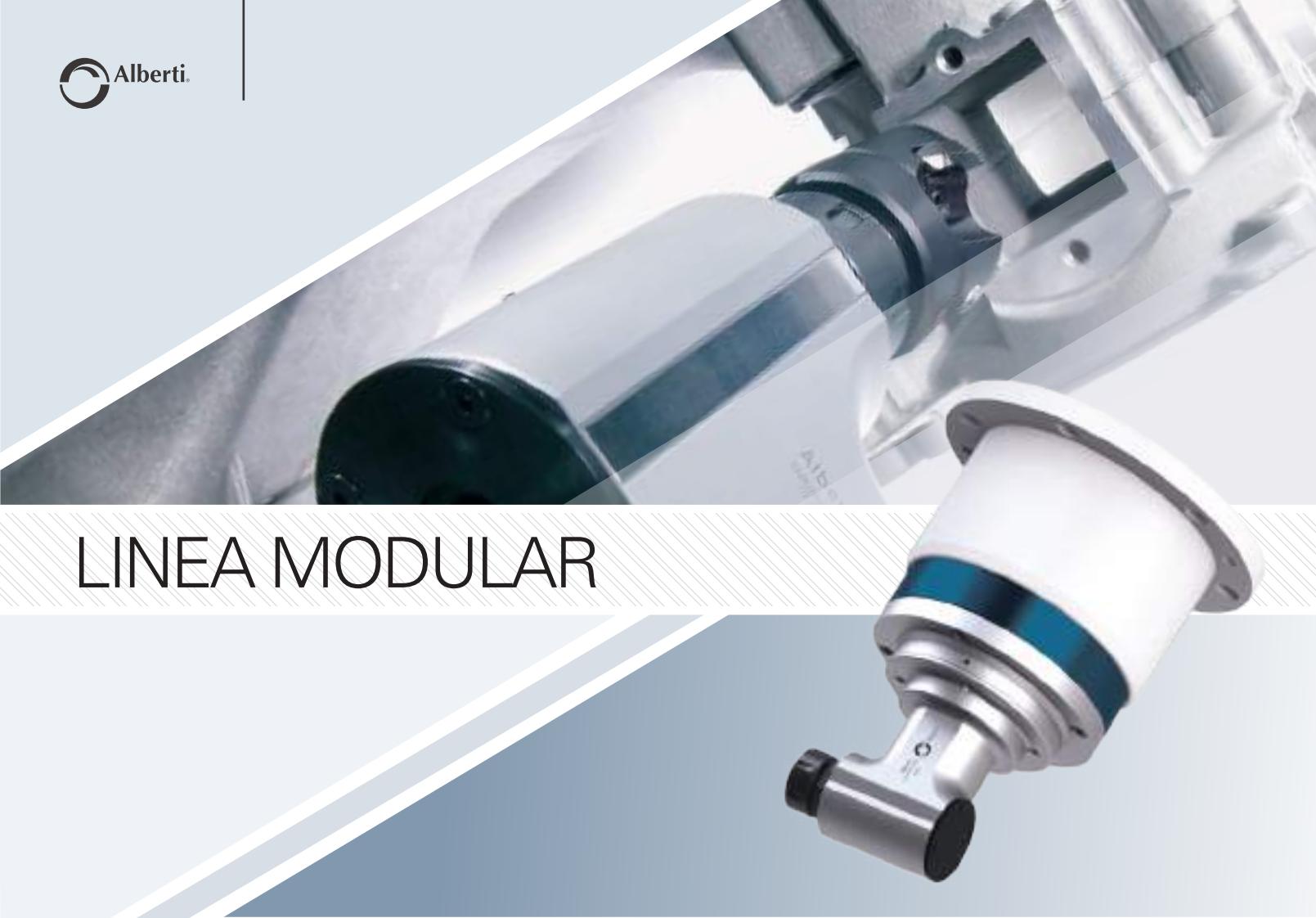
Le teste della Linea INDEX consentono di posizionare il portautensile in modo automatico sui 360° utilizzando l'asse controllato della macchina utensile. Possono quindi essere montate SOLAMENTE su macchine con asse controllato e aria esterna (max 6 bar) tramite lo Stop Block.

With the INDEX Line it is possible to orientate and position automatically over 360° the output of the head by using the controlled axis of the machine center. This line CAN ONLY be mounted on machines with controlled C axis and external air through the Stop Block (max 6 bar).



1. Porzione di testa modular standard posizionabile su 360°.
Portion of the standard modular. Head to be oriented over 360°.
2. Porzione di testa con sistema INDEX.
Portion of the head with INDEX system.
3. Aria dallo Stop Block (6 bar).
Air trough the Stop Block (6 bar).





LINEA MODULAR

Le teste della linea MODULAR sono adatte ad essere montate su macchine utensili tradizionali da fissare al mandrino tramite apposita flangia. Sono dotate di un cono intercambiabile, una flangia universale e la possibilità di avere alcuni moduli di prolunga per variarne la lunghezza. Per un corretto montaggio, è necessario realizzare una flangia di adattamento da inserire tra la testa e il mandrino.

Angle heads of the MODULAR line are suitable to be mounted on traditional machine tools and are attached to the spindle through a flange. They are sold together with an interchangeable shank and a universal flange and they can extend the total length thanks to extension spacers. For a correct mounting, it is necessary to build an adapting flange to be screwed between the head and the machine spindle.



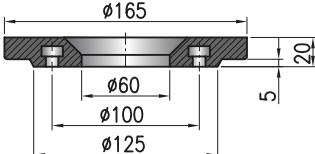
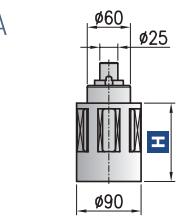
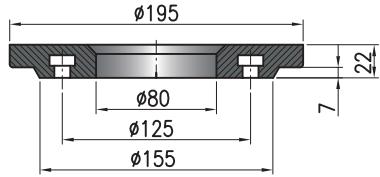
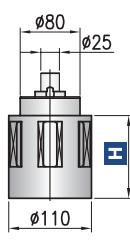
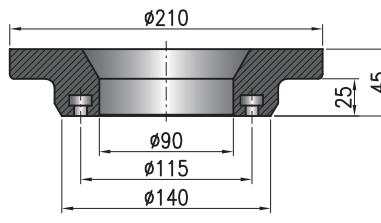
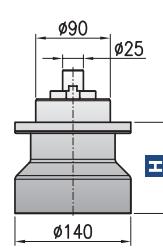
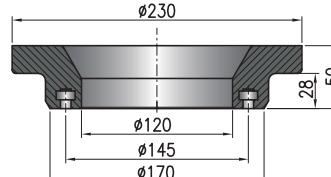
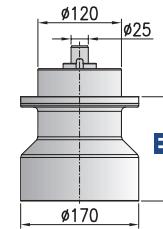
Esempio di montaggio in macchina / Example of mounting the head

LINEA MODULAR

FLANGIA UNIVERSALE - MODULI DI PROLUNGA UNIVERSAL FLANGE - EXTENSION SPACER

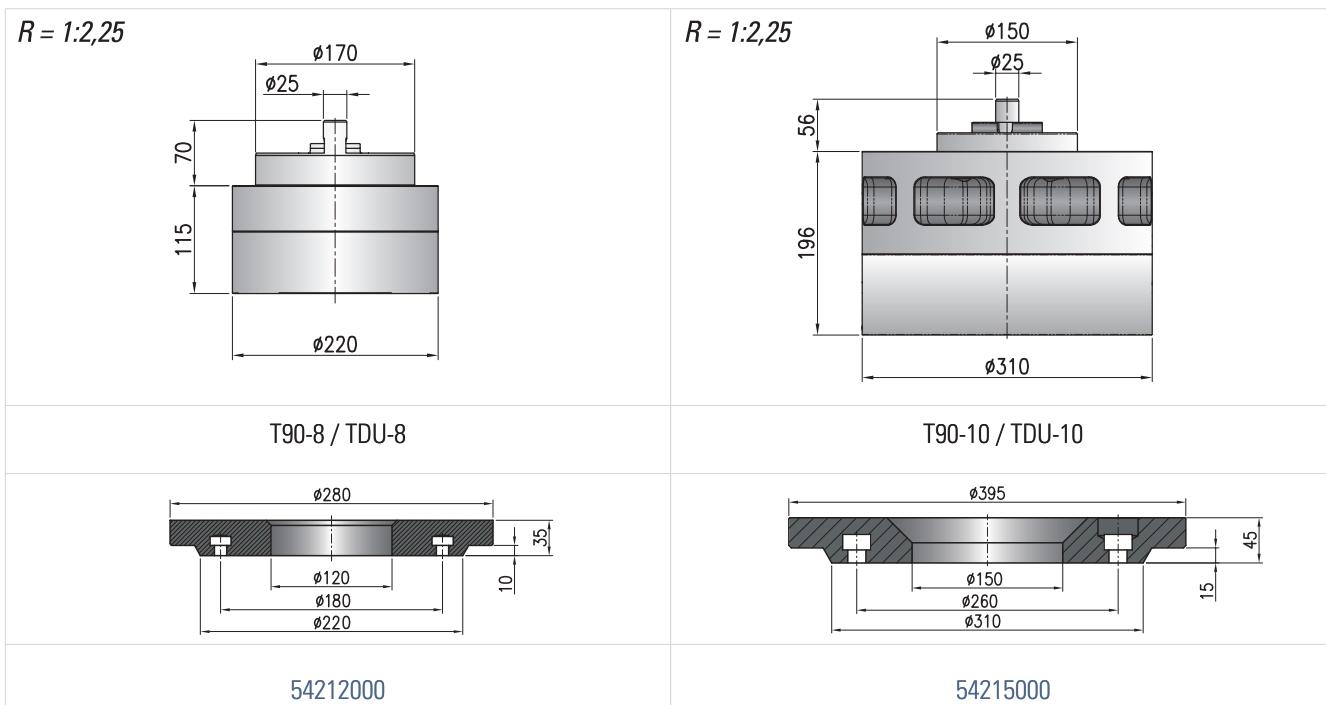
Un sistema modulare componibile, rende possibile variare la lunghezza del corpo testa aggiungendo l'elemento di prolunga. Modulo, coni e flangia sono modulari e quindi intercambiabili su tutti i corpi testa appartenenti allo stesso ordine di grandezza.

The modular system makes it possible to extend the lenght of the body by adding a spacer. The extension spacer, drive tapers and universal flange are modular and therefore interchangeable among all the heads of similar size.

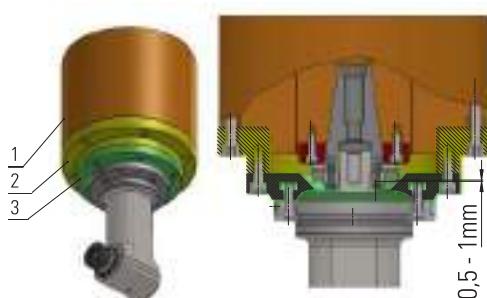
	Flangia <i>Flange</i>	Moduli di prolunga <i>Extension Spacer</i>	H	Codici <i>Part number</i>
T90-0,5 T90-1,5 T90-2,5 TCU-2,5 TCU-3,5	 54206000	 A	55 mm	90006010
			110 mm	90006A11
			150 mm	90006A15
			250 mm	90006A25
T90-3,5	 54208000	 B	55 mm	90008010
			110 mm	90008A11
			150 mm	90008A15
			250 mm	90008A25
			360 mm	90008A36
			450 mm	90008A45
T90-4,5	 54209001	 C	110 mm	90009000
			150 mm	90009050
T90-5	 54212004	 D	150 mm	90012005

LINEA MODULAR

MODULI DI PROLUNGA PER TESTE LINEA P MOLTIPLICATI EXTENSION SPACERS FOR HEADS LINEA P WITH SPEED INCREASE



ESEMPIO DI MONTAGGIO DI UNA TESTA TIPO MODULAR EXAMPLE OF FLANGE MOUNTING FOR MODULAR HEAD



1 Spindle
Mandrino

2 Flangia di interfaccia
Interface flange

3 Flangia universale
Universal flange

Per il corretto montaggio della testa in macchina, una volta avvitato il cono e la flangia universale sulla testa, è necessario realizzare un ulteriore flangia di adattamento tra la testa e il mandrino della macchina seguendo attentamente le istruzioni sul libretto in dotazione.

For a correct flange mounting on the machine, once you fix the shank and the universal flange on the head, it's necessary to make an adapting spacer between the head and the machine spindle and follow carefully the instruction on the given manual.

Esempio di montaggio testa modular con flangia universale standard e moduli di prolunga

Example of flange mounting for modular heads including extension spacers



T90-0,4

AMT9004C


Ratio
Rapporto
1:1



RPM
Velocità
10.000 min⁻¹



Max. axial load
Max. carico assiale
100 N



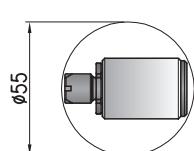
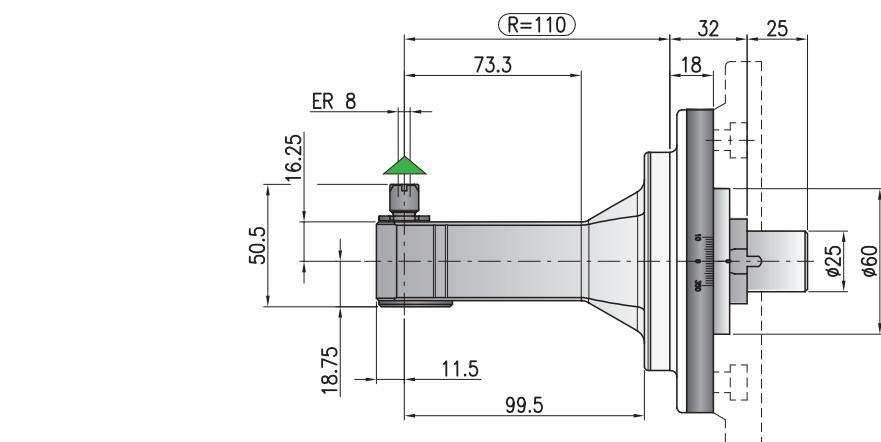
Torque
Momento torcente
4 Nm



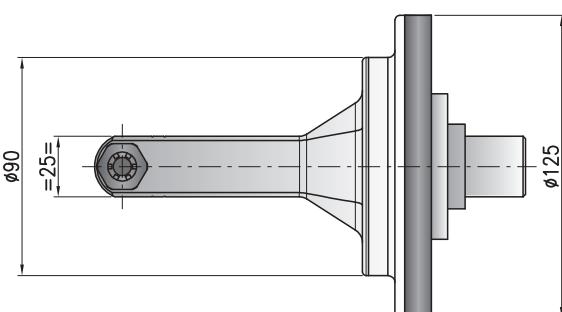
Weight
Peso
4 kg



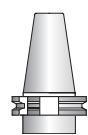
Collet
Pinza
ER-8 (ø 0,5/5 mm)

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool
Diametro minimo senza utensile



Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono

DIN-69871

CAT

MAS-BT



HSK



CAPTO



KM

Option / Opzione


bar max
12

Coolant through spindle
Adduzione refrigerante interna



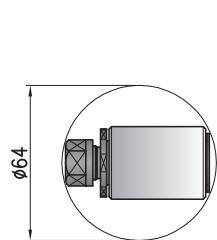
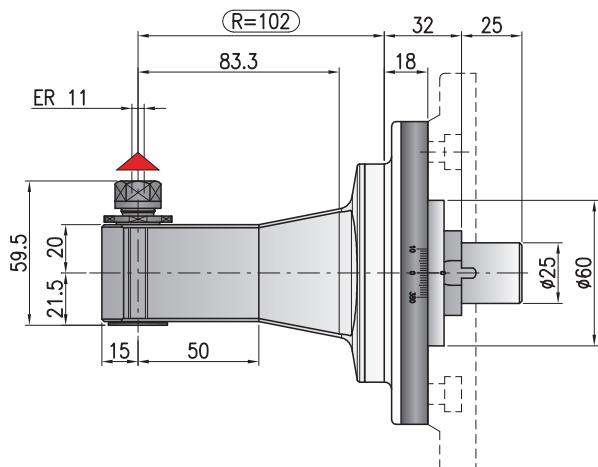
Ø mm max.
6

Weldon output
Weldon

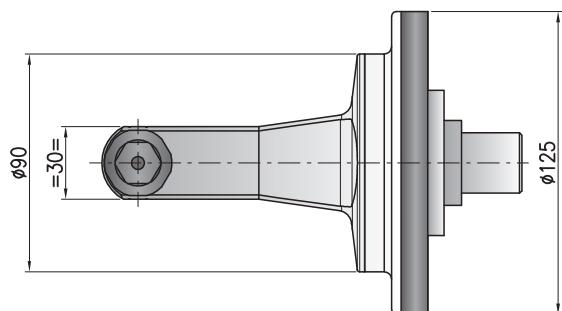
LINEA MODULAR

T90-0,5C

AMT9005C



Minimum diameter without tool
Diametro minimo senza utensile



 Ratio
Rapporto
1:1

 RPM
Velocità
10.000 min⁻¹

 Max. axial load
Max. carico assiale
150 N

 Torque
Momento torcente
8 Nm

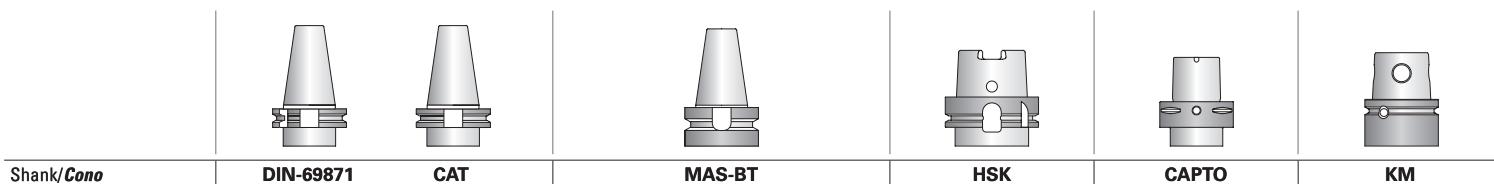
 Weight
Peso
4 kg

 Collet
Pinza
ER-11 (ø 0,5/7 mm)

* STANDARD EQUIPMENT INCLUDES:



 Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Option / Opzione



bar max
12

Coolant through spindle
Adduzione refrigerante interna



Ø mm max.
6

Weldon output
Weldon

T90-0,5L

AMT9005L

Ratio
Rapporto
1:1

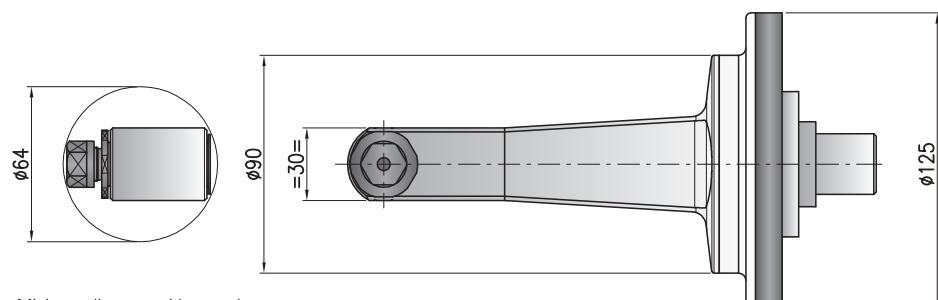
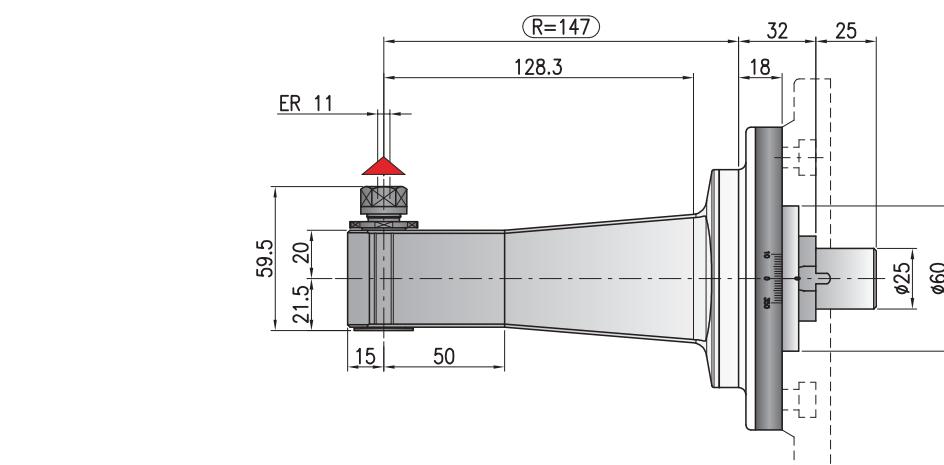
RPM
Velocità
10.000 min⁻¹

Max. axial load
Max. carico assiale
150 N

Torque
Momento torcente
8 Nm

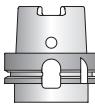
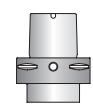
Weight
Peso
4,3 kg

Collet
Pinza
ER-11 (ø 0,5/7 mm)

*** STANDARD EQUIPMENT INCLUDES:**


Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino


Shank/Cono
DIN-69871
CAT

MAS-BT

HSK

CAPTO

KM
Option / Opzione


bar max
12

Coolant through spindle
Adduzione refrigerante interna



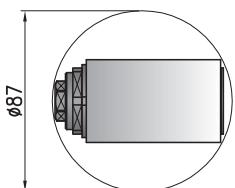
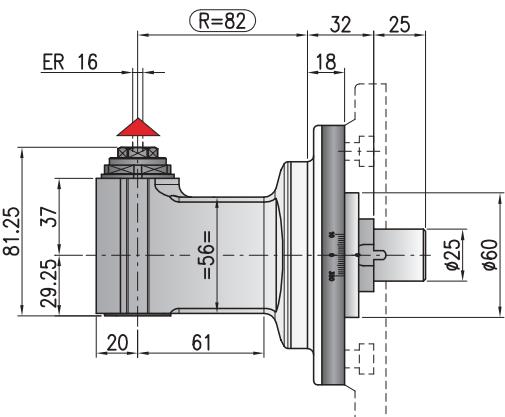
Ø mm max.
6

Weldon output
Weldon

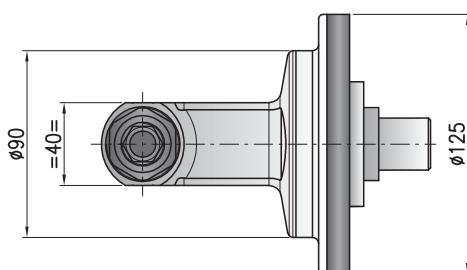
LINEA MODULAR

T90-1,5

AMT9015C



Minimum diameter without tool
Diametro minimo senza utensile



 Ratio
Rapporto
1:1

 RPM
Velocità
8.000 min⁻¹

 Max. axial load
Max. carico assiale
250 N

 Torque
Momento torcente
15 Nm

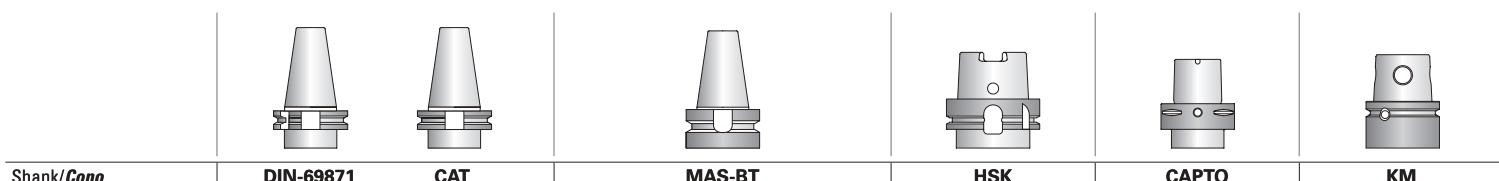
 Weight
Peso
4,3 kg

 Collet
Pinza
ER-16 (Ø 1/10 mm)

* STANDARD EQUIPMENT INCLUDES:



 Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Option / Opzione



bar max
12

Coolant through spindle
Adduzione refrigerante interna



min⁻¹
10.000

High speed optional RPM max.
Opzione alta velocità RPM max.



Ø mm
13

Arbor output
Porta fresa



Ø mm max.
10

Weldon output
Weldon



Double output
Doppia uscita

T90-1,5L

AMT9015L

Ratio
Rapporto
1:1

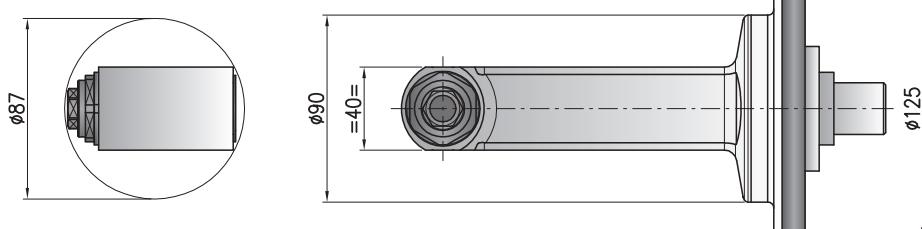
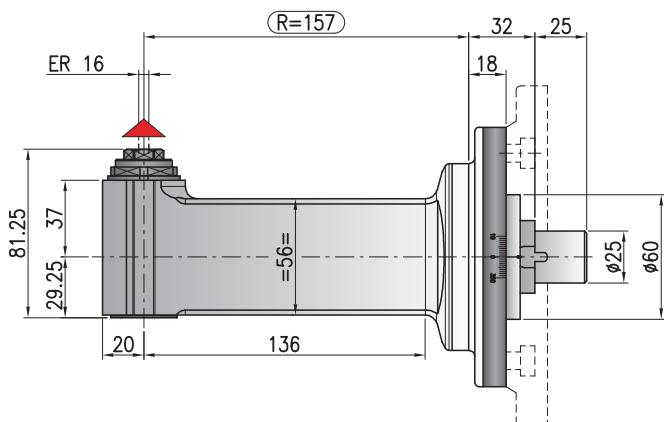
RPM
Velocità
8.000 min⁻¹

Max. axial load
Max. carico assiale
250 N

Torque
Momento torcente
15 Nm

Weight
Peso
5,2 kg

Collet
Pinza
ER-16 (ø 1/10 mm)

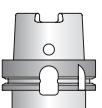

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool
Diametro minimo senza utensile

Direction of rotation opposite to machine spindle / *senso di rotazione contrario al mandrino*


Shank/Cono

DIN-69871

CAT

MAS-BT

HSK

CAPTO
KM
Option / Opzione


bar max
12

Coolant through spindle
Adduzione refrigerante interna



min⁻¹
10.000

High speed optional RPM max.
Opzione alta velocità RPM max



Ø mm
13

Arbor output
Porta fresa



Ø mm max.
10

Weldon output
Weldon

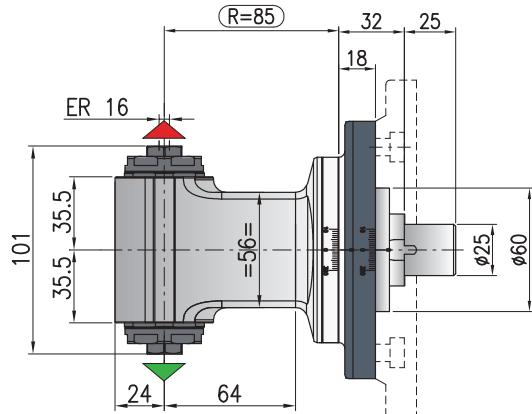


Double output
Doppia uscita

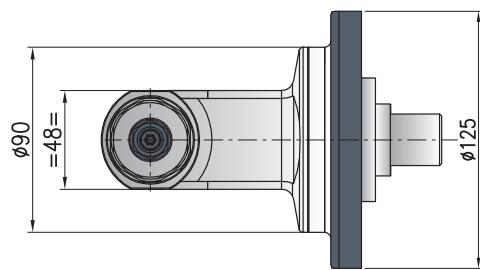
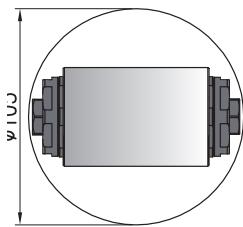
LINEA MODULAR

T90-1,5 2U

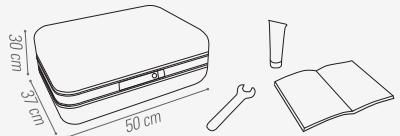
AMT9015D



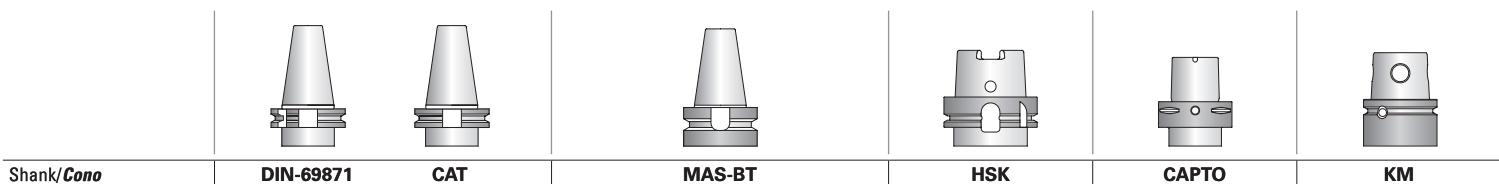
Minimum diameter without tool
Diametro minimo senza utensile



	Ratio Rapporto 1:1
	RPM Velocità 6.000 min ⁻¹
	Max. axial load Max. carico assiale 510 N
	Torque Momento torcente 30 Nm
	Weight Peso 5,4 kg
	Collet Pinza ER-25 (ø 1/16 mm)



-  Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino
-  Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Option / Opzione

					
bar max 12	min ⁻¹ 8.000	Ø mm 16	Ø mm max. 16	HSK-32	ER-25/ER-16
Coolant through spindle Adduzione refrigerante interna	High speed RPM max. Alta velocità RPM max..	Arbor output Porta fresa	Weldon output Weldon	Quick Change Attacco rapido	Double output Doppia uscita

T90-2,5

AMT9025C

Ratio
Rapporto
1:1

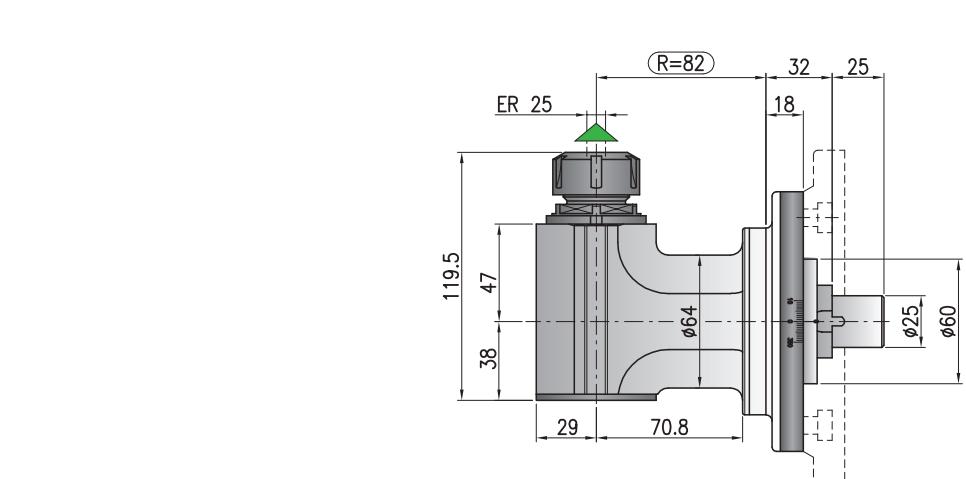
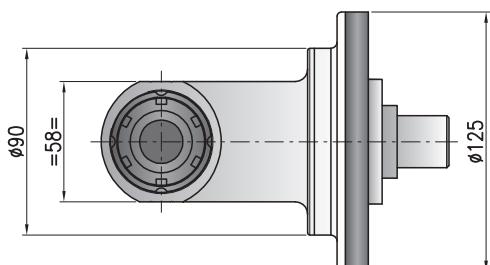
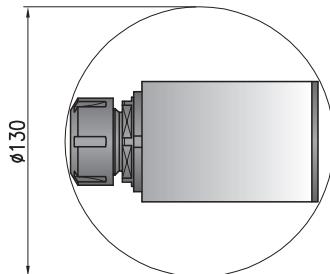
RPM
Velocità
6.000 min⁻¹

Max. axial load
Max. carico assiale
510 N

Torque
Momento torcente
30 Nm

Weight
Peso
5,4 kg

Collet
Pinza
ER-25 (\varnothing 1/16 mm)

*** STANDARD EQUIPMENT INCLUDES:**

Minimum diameter without tool
Diametro minimo senza utensile


Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
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Option / Opzione

bar max
12

Coolant through spindle
Adduzione refrigerante interna

min⁻¹
8.000

High speed RPM max.
Alta velocità RPM max.

Ø mm
16

Arbor output
Porta fresa

Ø mm max.
16

Weldon output
Weldon


HSK-32

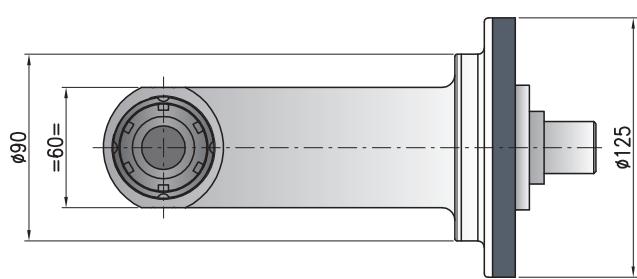
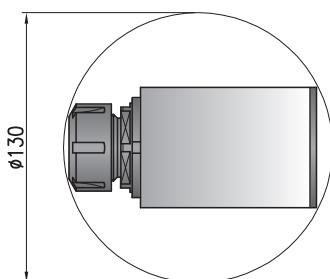
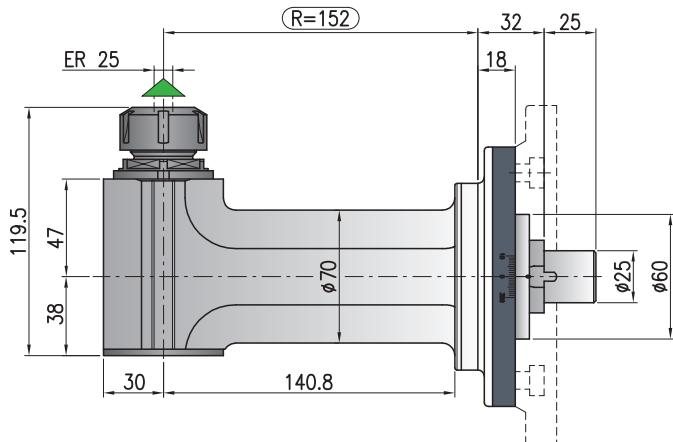
Quick Change
Attacco rapido

Double output
Doppia uscita

LINEA MODULAR

T90-2,5L

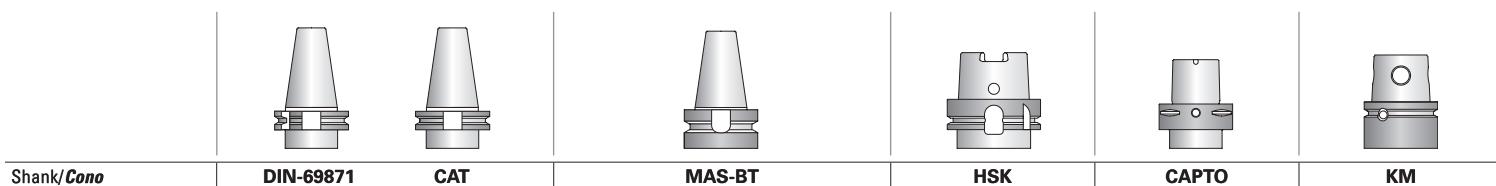
AMT9025L



	Ratio Rapporto 1:1
	RPM Velocità 6.000 min ⁻¹
	Max. axial load Max. carico assiale 510 N
	Torque Momento torcente 30 Nm
	Weight Peso 6,7 kg
	Collet Pinza ER-25 (Ø 1/16 mm)



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Option / Opzione

					
bar max 12	min ⁻¹ 8.000	Ø mm 16	Ø mm max. 16	HSK-32	ER-25/ER-16

Coolant through spindle
Adduzione refrigerante interna

High speed RPM max.
Alta velocità RPM max.

Arbor output
Porta fresa

Weldon output
Weldon

Quick Change
Attacco rapido

Double output
Doppia uscita

T90-2,5 2U

AMT9025D

Ratio
Rapporto
1:1

RPM
Velocità
6.000 min⁻¹

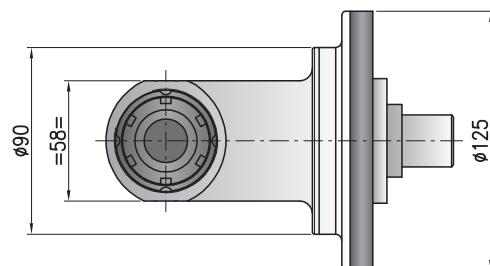
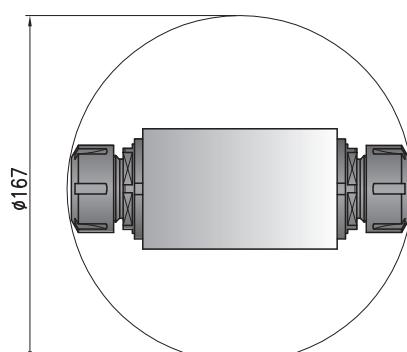
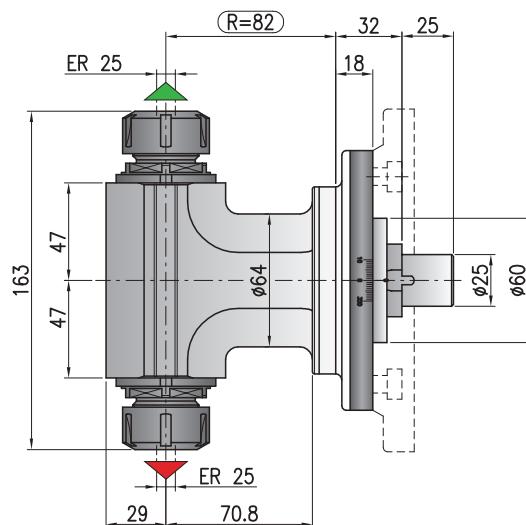
Max. axial load
Max. carico assiale
510 N

Torque
Momento torcente
30 Nm

Weight
Peso
6,4 kg

Collet
Pinza
ER-25 (\varnothing 1/16 mm)

*** STANDARD EQUIPMENT INCLUDES:**

Minimum diameter without tool
Diametro minimo senza utensile


- ▲ Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*
 ▲ Redirection of rotation opposite to machine spindle / *senso di rotazione contrario al mandrino*



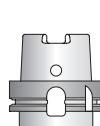
Shank/Cono



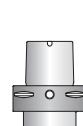
DIN-69871



CAT



MAS-BT



HSK



CAPTO

KM

Option / Opzione

min⁻¹
8.000

High speed optional RPM max.
Opzione alta velocità RPM max.

Ø mm
16

Arbor output
Porta fresa

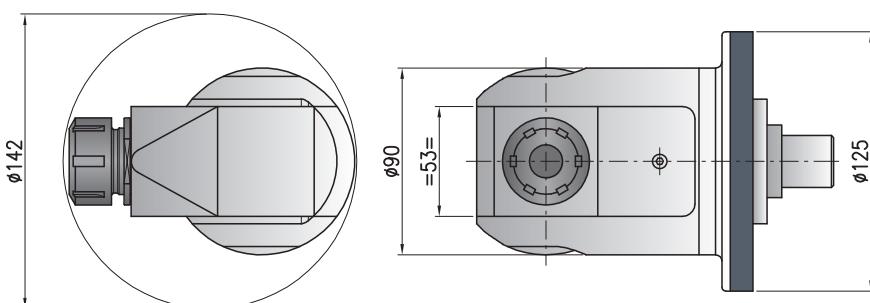
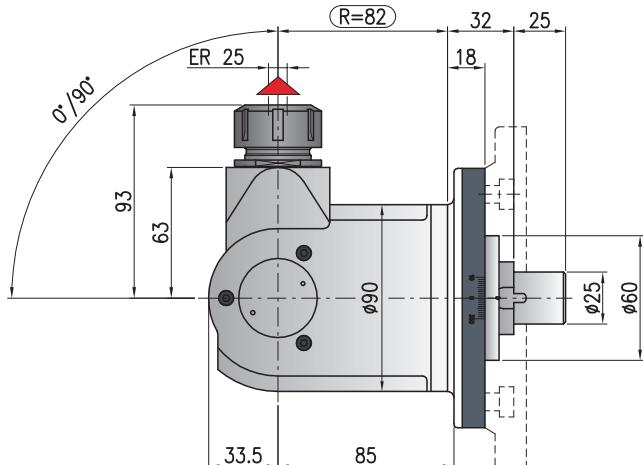
Ø mm max.
16

Weldon output
Weldon

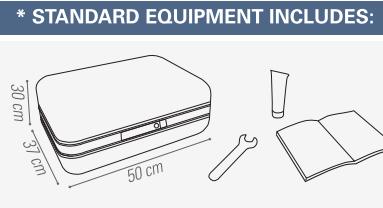
LINEA MODULAR

TCU-2,5

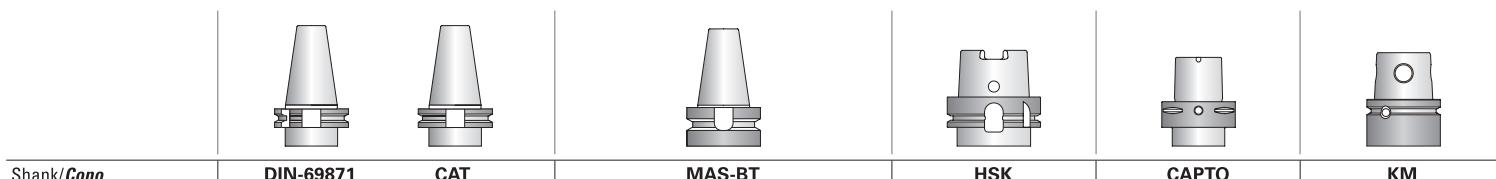
AMTCU25C



	Ratio <i>Rapporto</i> 1:1
	RPM <i>Velocità</i> 4.000 min ⁻¹
	Max. axial load <i>Max. carico assiale</i> 480 N
	Torque <i>Momento torcente</i> 18 Nm
	Weight <i>Peso</i> 7 kg
	Collet <i>Pinza</i> ER-25 (Ø 1/16 mm)



 Direction of rotation opposite to machine spindle / *senso di rotazione contrario al mandrino*



Option / Opzione



min⁻¹
6.000

High speed optional RPM max.
Opzione alta velocità RPM max.



Ø mm max.
16

Weldon output
Weldon

T90-3,5

AMT9035C


Ratio
Rapporto
1:1



RPM
Velocità
4.000 min⁻¹



Max. axial load
Max. carico assiale
1.250 N



Torque
Momento torcente
50 Nm

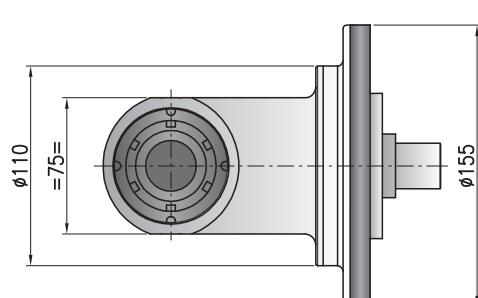
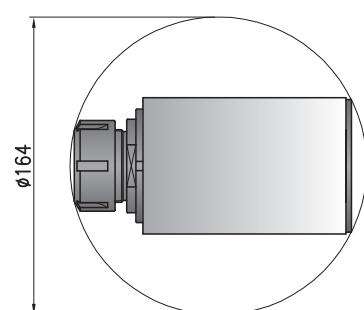
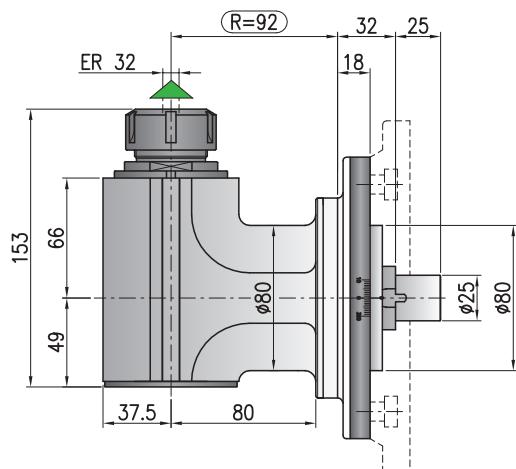


Weight
Peso
11 kg



Collet
Pinza
ER-32 (ø 2/20 mm)

Minimum diameter without tool
Diametro minimo senza utensile

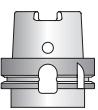

*** STANDARD EQUIPMENT INCLUDES:**

 Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*


Shank/Cono

DIN-69871

CAT

MAS-BT

HSK

CAPTO

KM
Option / Opzione

bar max
12

Coolant through spindle
Adduzione refrigerante interna

min⁻¹
6.000

High speed optional RPM max.
Opzione alta velocità RPM max.

Ø mm
27

Arbor output
Porta fresa

Ø mm max.
20

Weldon output
Weldon

ISO-30 HSK-40

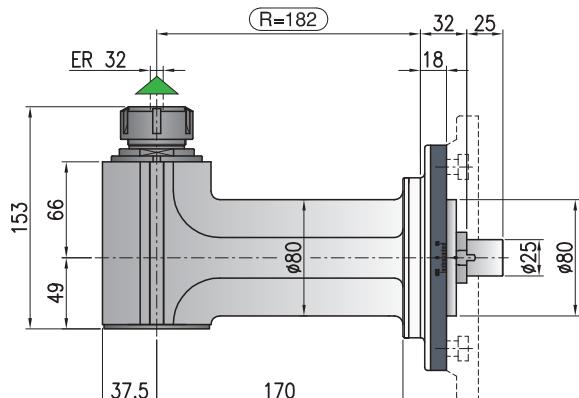
Quick Change
Attacco rapido

Double output
Doppia uscita

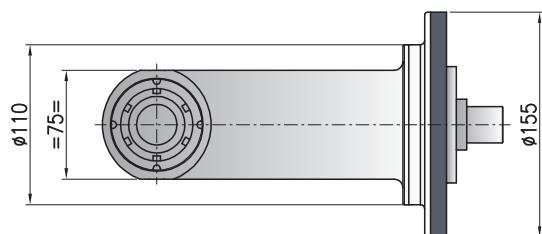
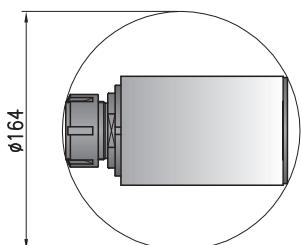
LINEA MODULAR

T90-3,5L

AMT9035L

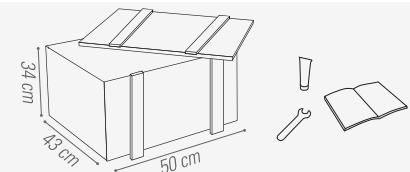


Minimum diameter without tool
Diametro minimo senza utensile



	Ratio Rapporto 1:1
	RPM Velocità 4.000 min ⁻¹
	Max. axial load Max. carico assiale 1.250 N
	Torque Momento torcente 50 Nm
	Weight Peso 13,2 kg
	Collet Pinza ER-32 (Ø 2/20 mm)

* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
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Option / Opzione

	bar max 12		min ⁻¹ 6.000		Ø mm 27		Ø mm max. 20		ISO-30 HSK-40		ER-32/ER-20
Coolant through spindle Adduzione refrigerante interna		High speed optional RPM max. Opzione alta velocità RPM max.		Arbor output Porta fresa		Weldon output Weldon		Quick Change Attacco rapido		Double output Doppia uscita	

T90-3,5 2U

AMT9035D

Ratio
Rapporto
1.1

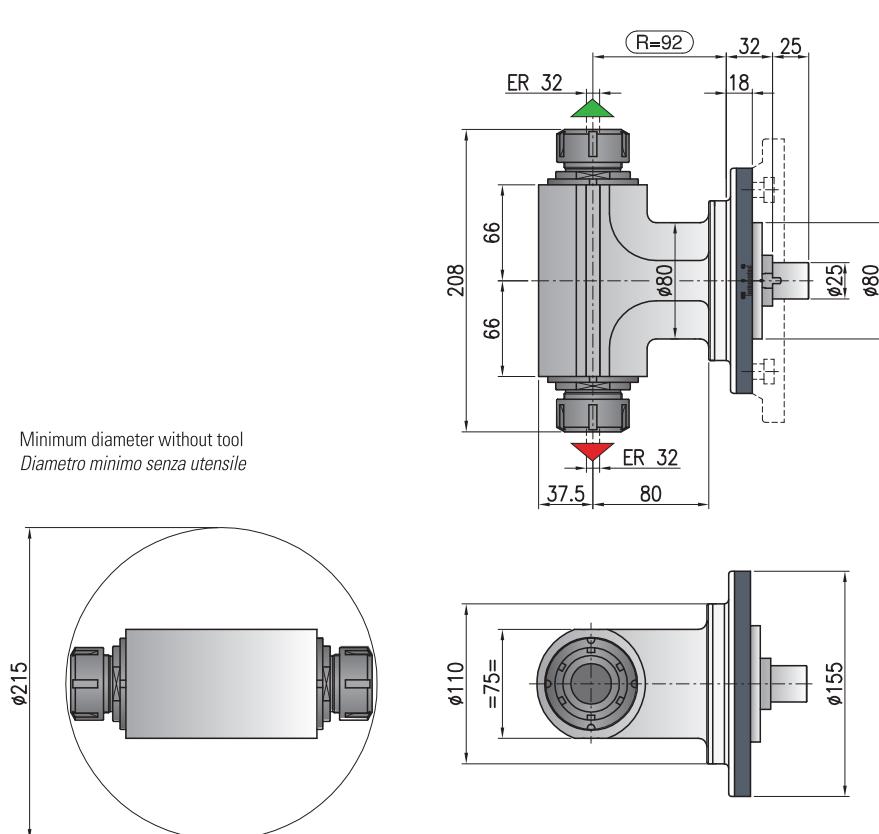
RPM
Velocità
4.000 min⁻¹

Max. axial load
Max. carico assiale
1.250 N

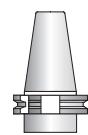
Torque
Momento torcente
50 Nm

Weight
Peso
12 kg

Collet
Pinza
ER-32 (ø 2/20 mm)
*** STANDARD EQUIPMENT INCLUDES:**

Minimum diameter without tool
Diametro minimo senza utensile


- ▲ Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*
 ▲ Direction of rotation opposite to machine spindle / *senso di rotazione contrario al mandrino*



Shank/Cono



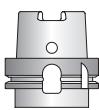
DIN-69871



CAT



MAS-BT



HSK



CAPTO



KM

Option / Opzione

min⁻¹
6.000

High speed optional RPM max.
Opzione alta velocità RPM max.

Ø mm
27

Arbor output
Porta fresa

Ø mm max.
20

Weldon output
Weldon

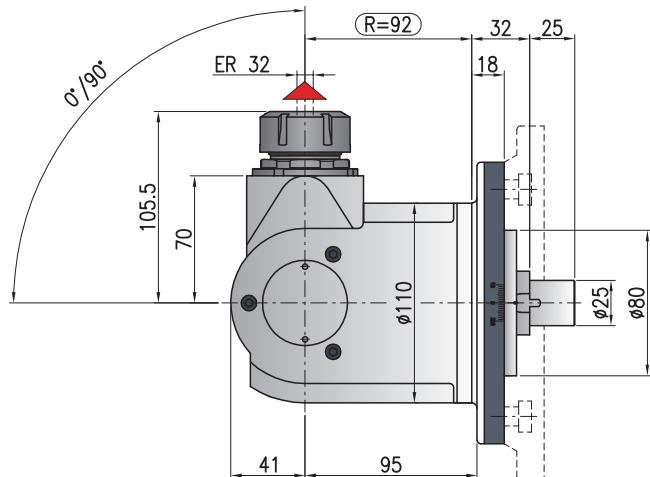
HSK-40

Quick Change
Attacco rapido

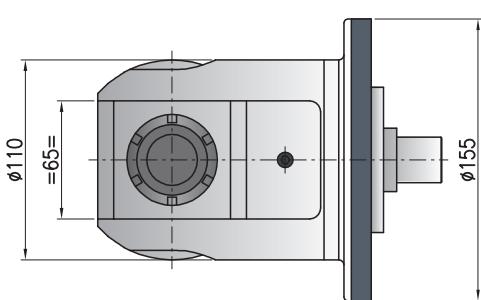
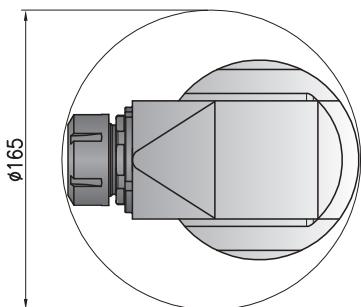
LINEA MODULAR

TCU-3,5

AMTCU35C



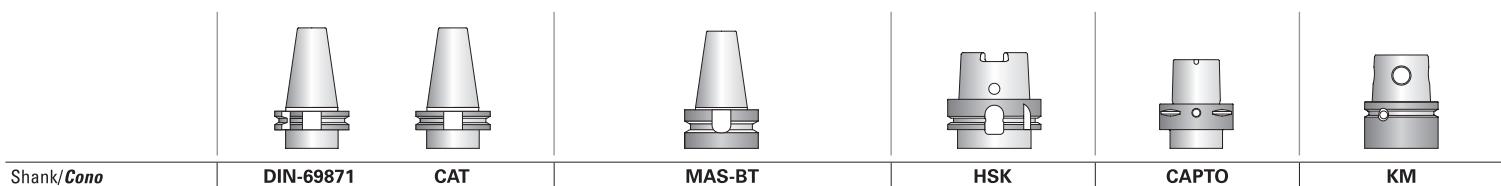
Minimum diameter without tool
Diametro minimo senza utensile



	Ratio Rapporto 1:1
	RPM Velocità 4.000 min ⁻¹
	Max. axial load Max. carico assiale 715 N
	Torque Momento torcente 32 Nm
	Weight Peso 13 kg
	Collet Pinza ER-32 (Ø 2/20 mm)



Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Option / Opzione



min⁻¹
6.000

High speed optional RPM max.
Opzione alta velocità RPM max.



Ø mm max.
20

Weldon output
Weldon

T90-4,5

AMT9045C


Ratio
Rapporto
1:1



RPM
Velocità
4.000 min⁻¹



Max. axial load
Max. carico assiale
1.750 N



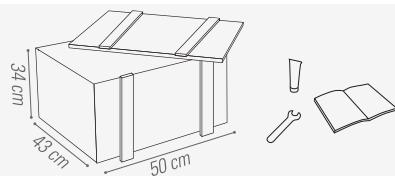
Torque
Momento torcente
75 Nm



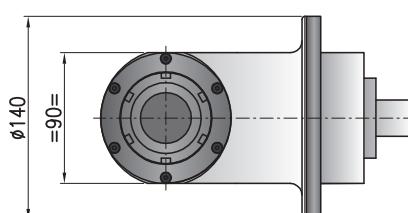
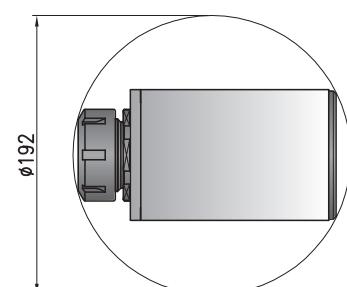
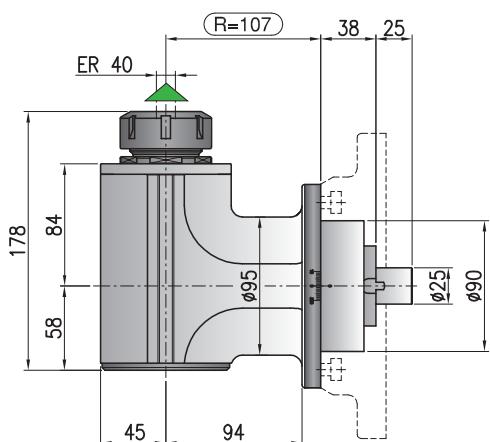
Weight
Peso
17 kg



Collet
Pinza
ER-40 (ø 3/30 mm)

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool
Diametro minimo senza utensile



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



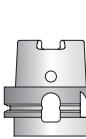
Shank/Cono



DIN-69871



CAT



MAS-BT



HSK



CAPTO

KM

Option / Opzione


bar max
12

Coolant through spindle
Adduzione refrigerante interna



min⁻¹
6.000

High speed optional RPM max.
Opzione alta velocità RPM max.



Ø mm
27

Arbor output
Porta fresa



Ø mm max.
25

Weldon output
Weldon



ISO-30
HSK-40 CAPTO C4

Quick Change
Attacco rapido

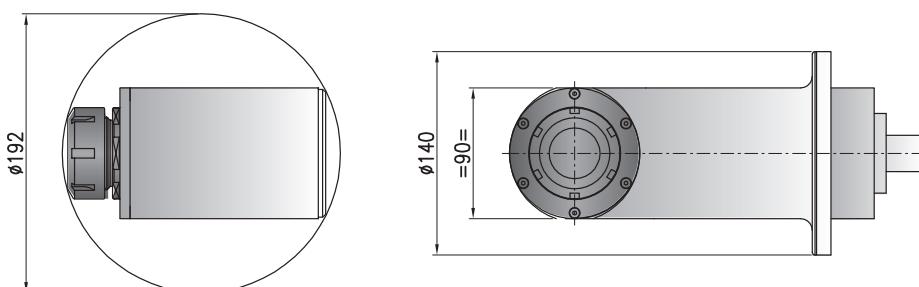
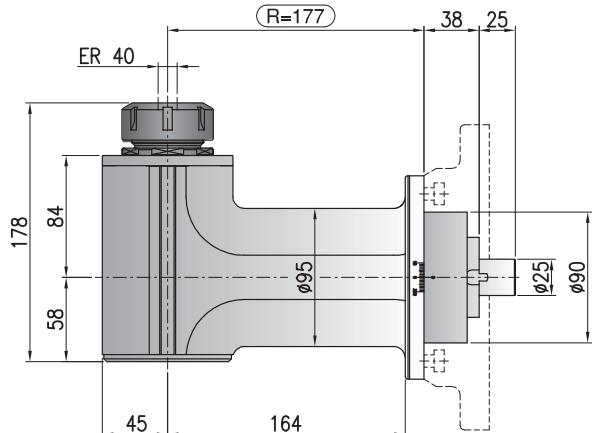


ER-40/ER-25
Double output
Doppia uscita

LINEA MODULAR

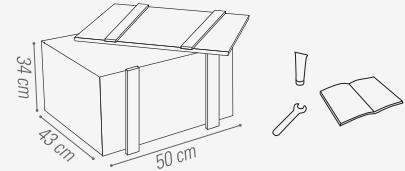
T90-4,5L

AMT9045L

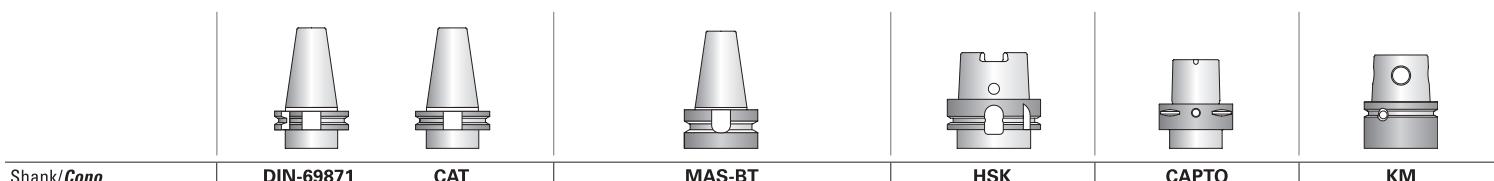


	Ratio Rapporto 1:1
	RPM Velocità 4.000 min ⁻¹
	Max. axial load Max. carico assiale 1.750 N
	Torque Momento torcente 75 Nm
	Weight Peso 20 kg
	Collet Pinza ER-40 (Ø 3/30 mm)

* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Option / Opzione

					
bar max 12	min ⁻¹ 6.000	Ø mm 27	Ø mm max. 25	ISO-30 HSK-40 CAPTO C4	ER-40/ER-25 Double output Doppia uscita
Coolant through spindle Adduzione refrigerante interna	High speed optional RPM max. Opzione alta velocità RPM max.	Arbor output Porta fresa	Weldon output Weldon	Quick Change Attacco rapido	

T90-5

AMT9050C


Ratio
Rapporto
1:1



RPM
Velocità
3.000 min⁻¹



Max. axial load
Max. carico assiale
1.800 N



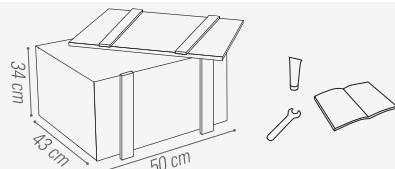
Torque
Momento torcente
100 Nm



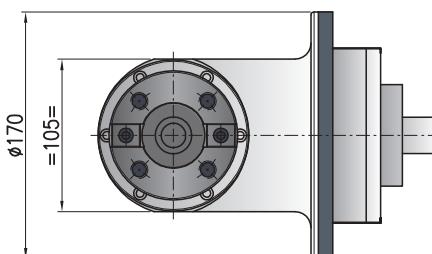
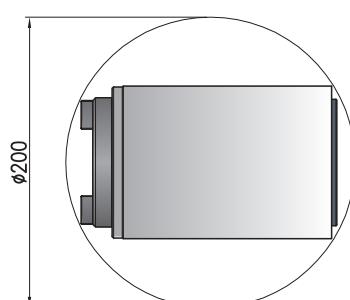
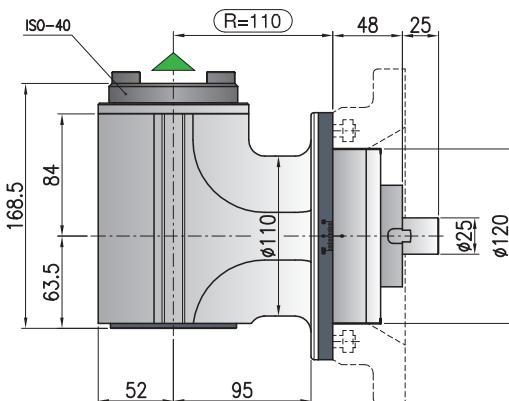
Weight
Peso
22 kg



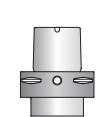
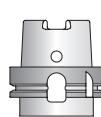
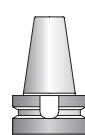
Collet
Pinza
ISO/BT 40

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool
Diametro minimo senza utensile



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono

DIN-69871

CAT

MAS-BT

HSK

CAPTO

KM

Option / Opzione


bar max
12

Coolant through spindle
Adduzione refrigerante interna



min⁻¹
6.000

High speed optional RPM max.
Opzione alta velocità RPM max.



HSK-63 CAPTO C4 C5

Quick Change
Attacco rapido



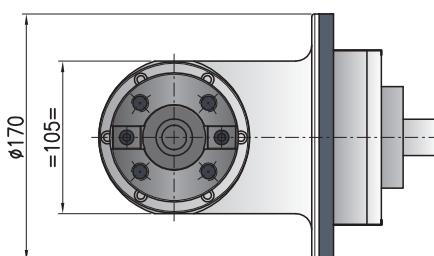
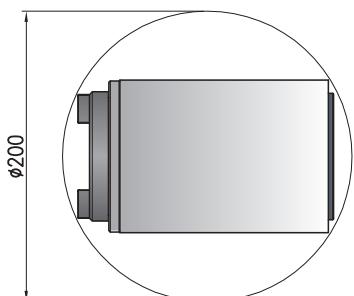
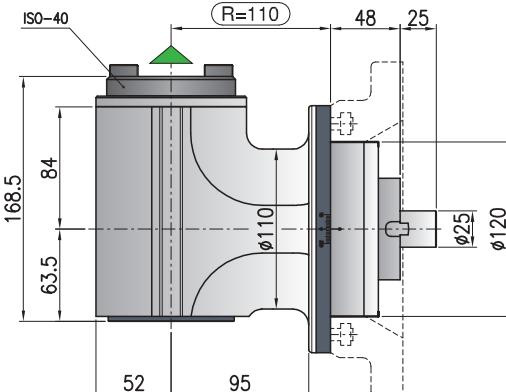
AIR/OIL
Lubrificazione aria / olio

LINEA MODULAR

T90-5 HP

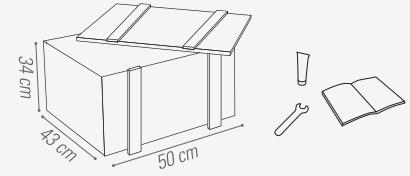
AMT9050HP

Minimum diameter without tool
Diametro minimo senza utensile

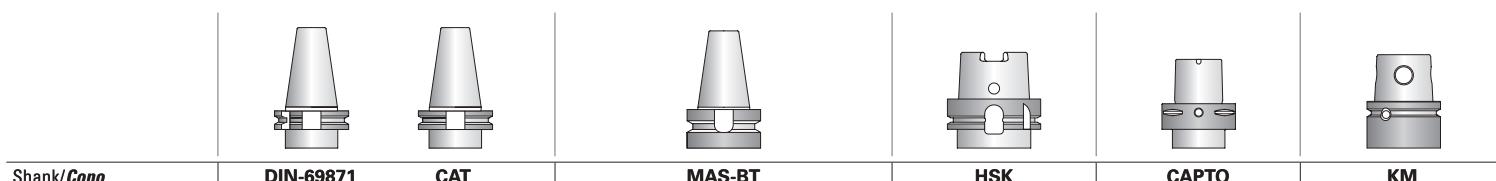


	Ratio Rapporto 1:1
	RPM Velocità 3.000 min ⁻¹
	Max. axial load Max. carico assiale 1.800 N
	Torque Momento torcente 160 Nm
	Weight Pesa 22 kg
	Collet Pinza ISO/BT 40

* STANDARD EQUIPMENT INCLUDES:



Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Option / Opzione



bar max
12

Coolant through spindle
Adduzione refrigerante interna



HSK-63 CAPTO C4 C5

Quick Change
Attacco rapido



AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio

T90-5L

AMT9050L


Ratio
Rapporto
1:1



RPM
Velocità
 3.000 min^{-1}



Max. axial load
Max. carico assiale
1.800 N



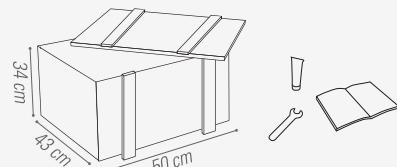
Torque
Momento torcente
100 Nm



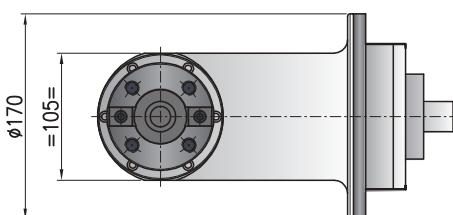
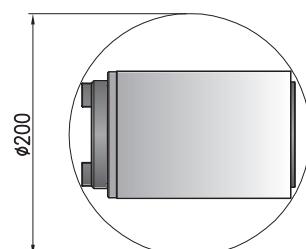
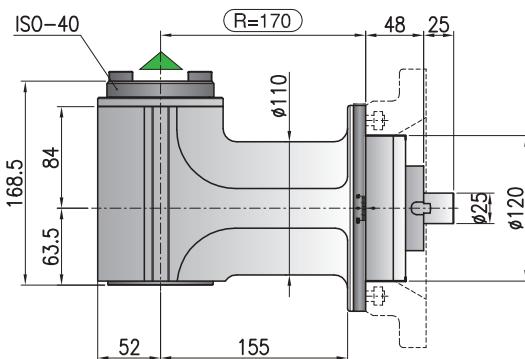
Weight
Peso
26,2 kg



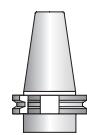
Collet
Pinza
ISO/BT 40

*** STANDARD EQUIPMENT INCLUDES:**


Minimum diameter without tool
Diametro minimo senza utensile



Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino

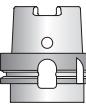

Shank/*Cono*

DIN-69871

CAT



MAS-BT



HSK



CAPTO



KM

Option / Opzione


bar max
12

Coolant through spindle
Adduzione refrigerante interna



min^{-1}
6.000

High speed optional RPM max.
Opzione alta velocità RPM max.



HSK-63 CAPTO C4 C5

Quick Change
Attacco rapido

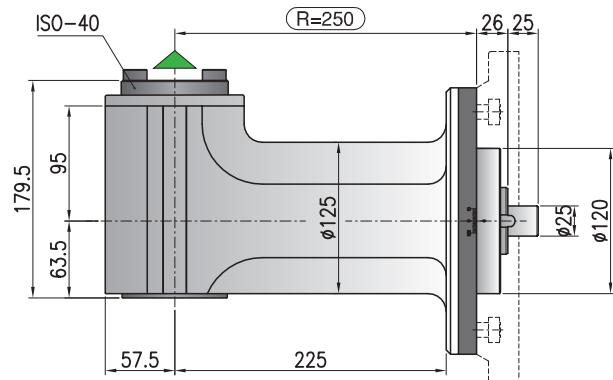


Air/oil lubrication
Lubrificazione aria/olio

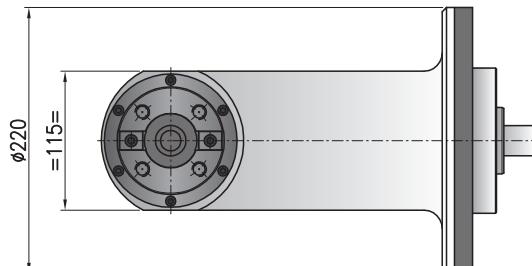
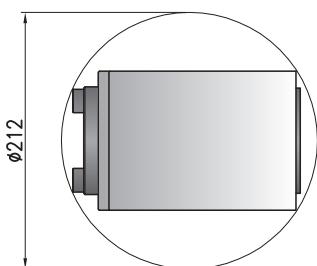
LINEA P-MODULAR

T90-8 HS

APT908HS

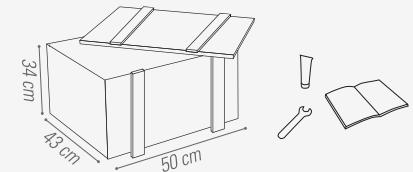


Minimum diameter without tool
Diametro minimo senza utensile

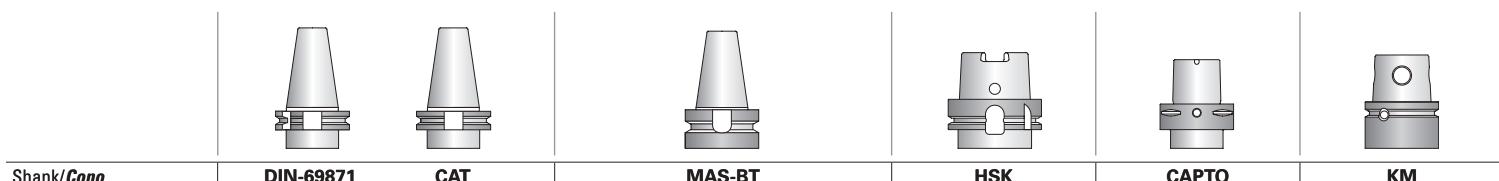


	Ratio Rapporto 1:1
	RPM Velocità 5.000 min ⁻¹
	Max. axial load Max. carico assiale 2.400 N
	Torque Momento torcente 100 Nm
	Weight Peso 33 kg
	ISO/BT 40

* STANDARD EQUIPMENT INCLUDES:



Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Option / Opzione



bar max
12

Coolant through spindle
Adduzione refrigerante interna



HSK-63 CAPTO C4 C5

Quick Change
Attacco rapido



AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio

T90-8 HP

APT908HP


Ratio
Rapporto
1:1



RPM
Velocità
3.000 min⁻¹



Max. axial load
Max. carico assiale
2.400 N



Torque
Momento torcente
200 Nm

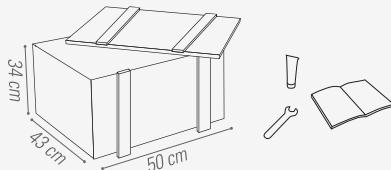


Weight
Peso
33 kg

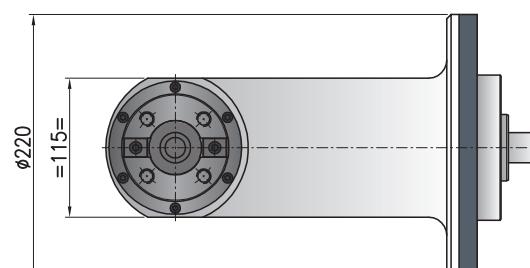
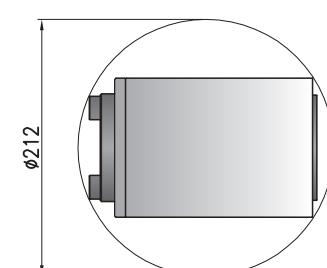
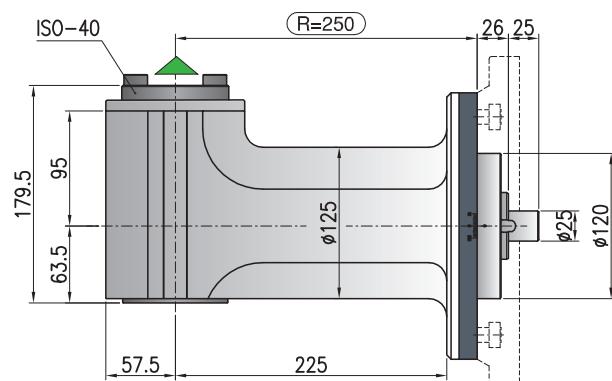


ISO/BT 40

*** STANDARD EQUIPMENT INCLUDES:**



Minimum diameter without tool
Diametro minimo senza utensile



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino

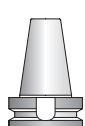


Shank/Cono

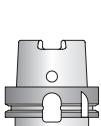
DIN-69871



CAT



MAS-BT



HSK



CAPTO



KM

Option / Opzione



bar max
12

Coolant through spindle
Adduzione refrigerante interna



HSK-63A CAPTO C4 C5

Quick Change
Attacco rapido



AIR/OIL

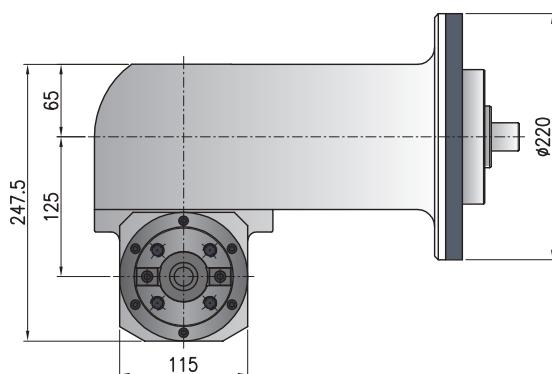
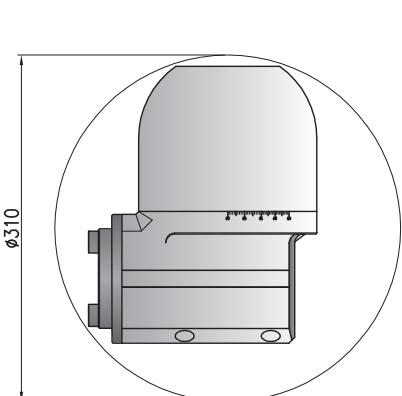
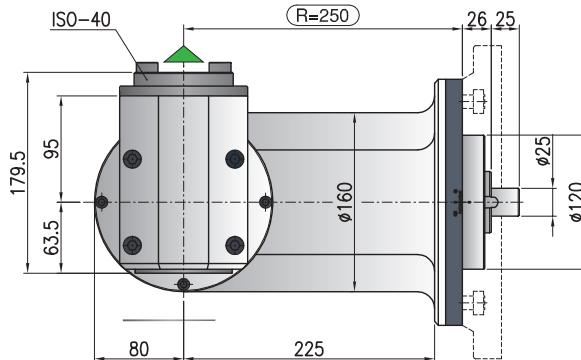
Air/oil lubrication
Lubrificazione aria/olio

LINEA P-MODULAR

TDU-8

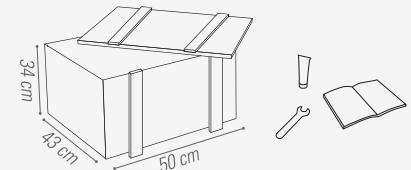
APTDU80C

Minimum diameter without tool
Diametro minimo senza utensile

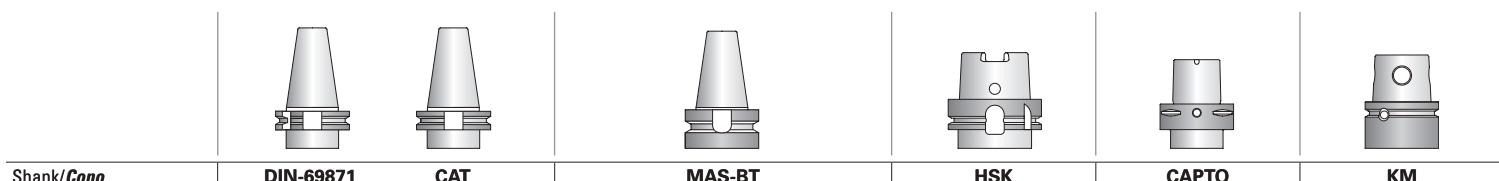


	Ratio Rapporto 1:1
	RPM Velocità 3.000 min ⁻¹
	Max. axial load Max. carico assiale 2.400 N
	Torque Momento torcente 100 Nm
	Weight Peso 50 kg
	Collet Pinza

* STANDARD EQUIPMENT INCLUDES:



Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Option / Opzione



bar max
12

Coolant through spindle
Adduzione refrigerante interna



HSK-63A CAPTO C4 C5

Quick Change
Attacco rapido



AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio

T90-8 XL - R=450 / 650 / 850



Ratio
Rapporto
1:1



RPM
Velocità
3.000 min⁻¹



Max. axial load
Max. carico assiale
2.400 N



Torque
Momento torcente
100 Nm

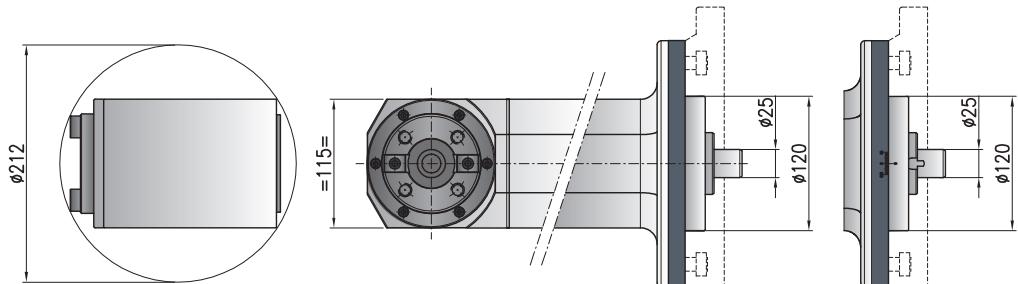


Collet
Pinza
ISO/BT 40

R= 450 / 650

R= 850

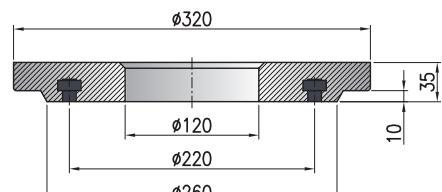
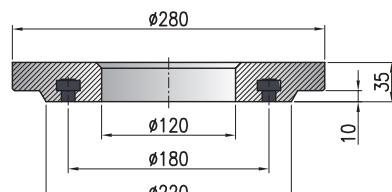
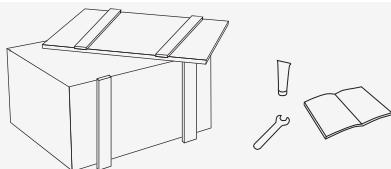
Minimum diameter without tool
Diametro minimo senza utensile



R= 450 / 650

R= 850

* STANDARD EQUIPMENT INCLUDES:



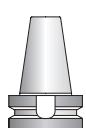
▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



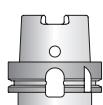
Shank/Cono



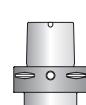
DIN-69871



CAT



MAS-BT



HSK



CAPTO

KM

Option / Opzione



bar max
12

Coolant through spindle
Adduzione refrigerante interna



HSK-63A CAPTO C4 C5

Quick Change
Attacco rapido



AIR/OIL

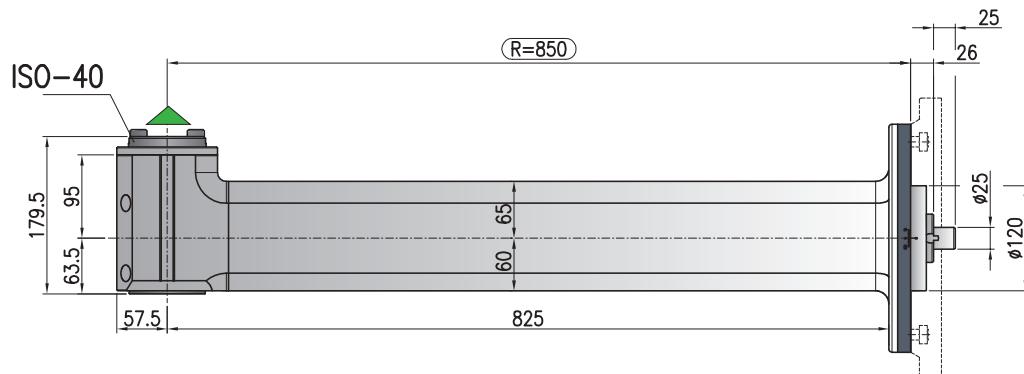
Air/oil lubrication
Lubrificazione aria/olio

LINEA P-MODULAR

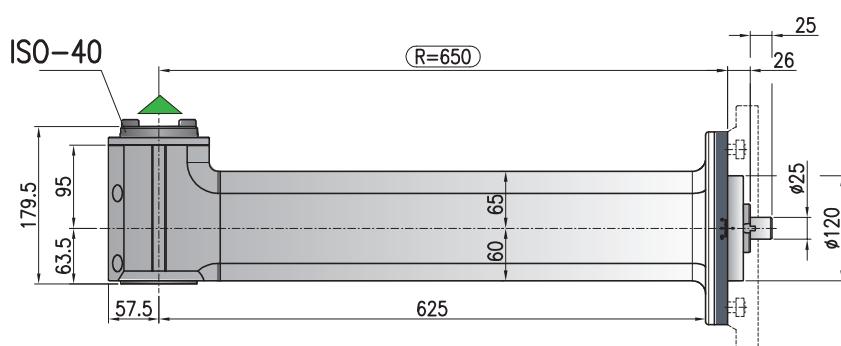
APT9080P.450 / APT9080S.650 / APT9080S.850



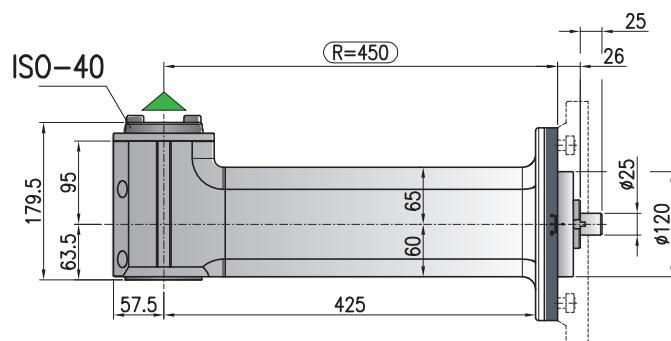
Weight
Peso
105 kg



Weight
Peso
75 kg



Weight
Peso
62 kg



TCU-8 R.I. 15 BAR

APTCU80C

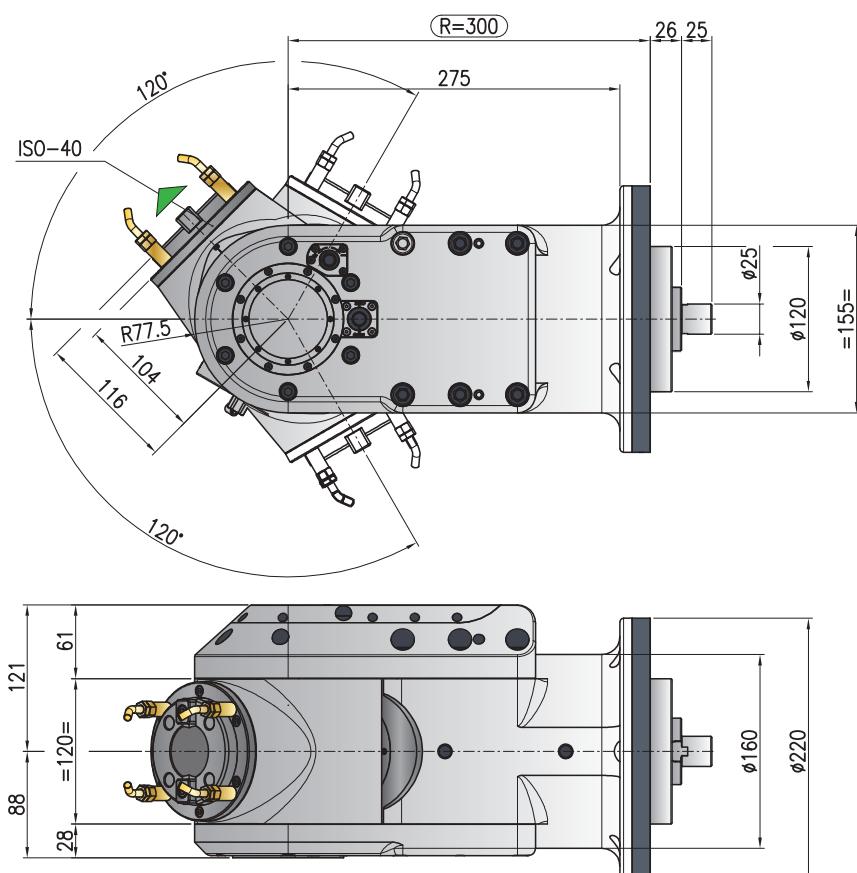
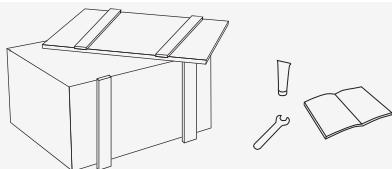
Ratio
Rapporto
1:1

RPM
Velocità
3.000 min⁻¹

Max. axial load
Max. carico assiale
2.400 N

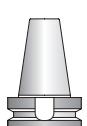
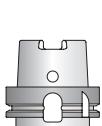
Torque
Momento torcente
100 Nm

Weight
Peso
72 kg

ISO/BT 40
*** STANDARD EQUIPMENT INCLUDES:**


▲ Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*


Shank/Cono

DIN-69871

CAT

MAS-BT

HSK

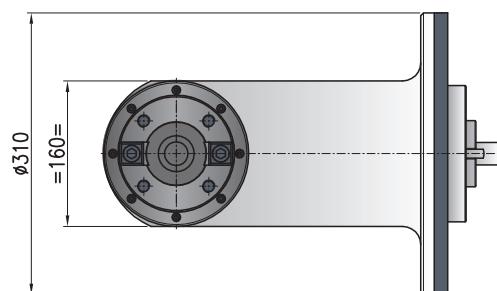
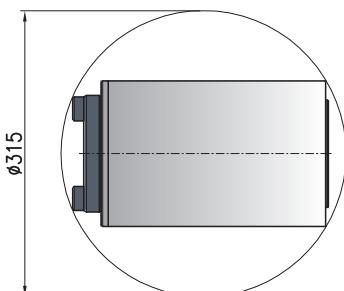
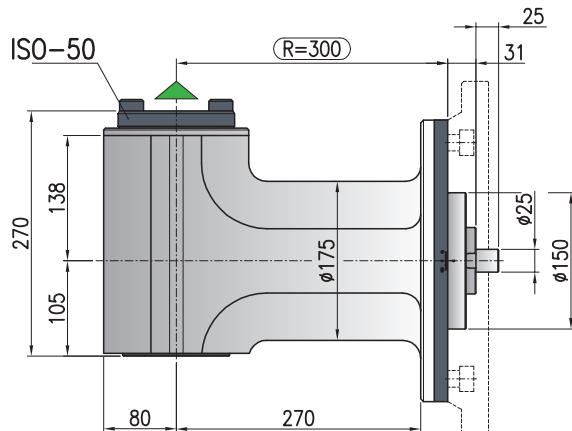
CAPTO
KM
Option / Opzione

bar max
12
Coolant through spindle
Adduzione refrigerante interna

HSK-63
Quick Change
Attacco rapido

OIL
Oil lubrication
Lubrificazione

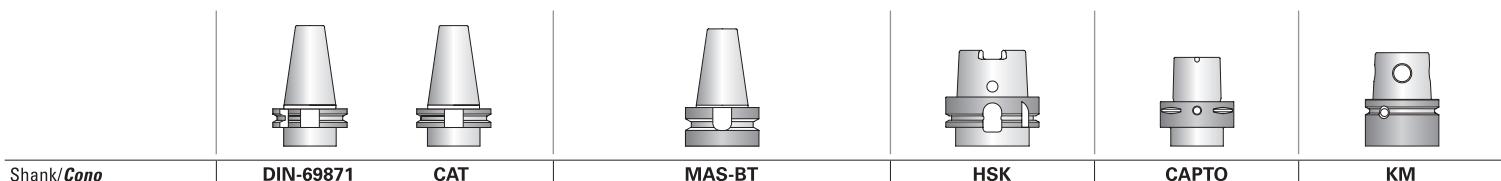
Minimum diameter without tool
Diametro minimo senza utensile



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino

	Ratio Rapporto 1:1
	RPM Velocità 3.000 min ⁻¹
	Max. axial load Max. carico assiale 3.300 N
	Torque Momento torcente 250 Nm
	Weight Peso 77 kg
	Collet Pinza ISO/BT 50

* STANDARD EQUIPMENT INCLUDES:


Option / Opzione


bar max
12

Coolant through spindle
Adduzione refrigerante interna



HSK-100

Quick Change
Attacco rapido



AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio

TDU-10

APTDU10C


Ratio
Rapporto
1:1



RPM
Velocità
3.000 min⁻¹



Max. axial load
Max. carico assiale
3.300 N



Torque
Momento torcente
250 Nm

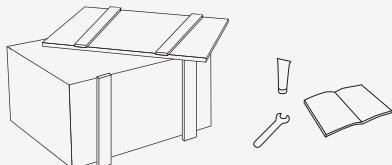


Weight
Peso
121 kg

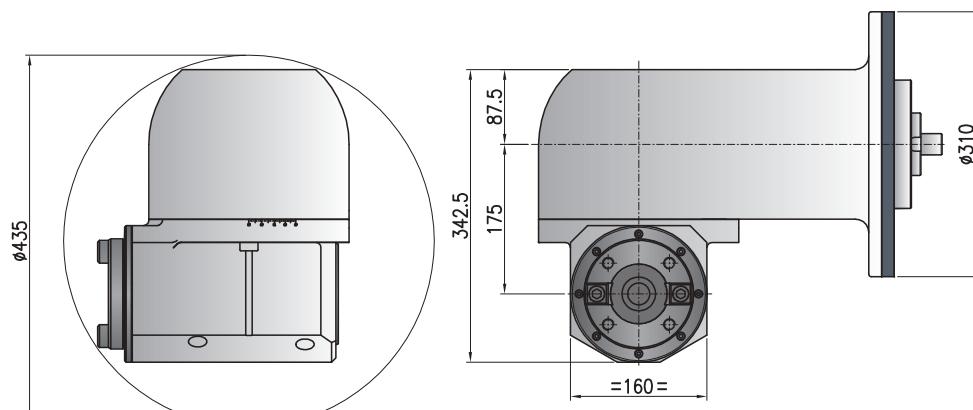
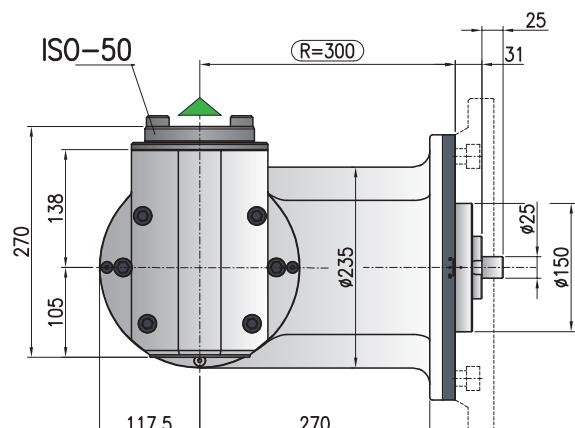


Collet
Pinza
ISO/BT 50

*** STANDARD EQUIPMENT INCLUDES:**



Minimum diameter without tool
Diametro minimo senza utensile



Direction of rotation same as to machine spindle / senso di rotazione uguale al mandrino



Shank/Cono

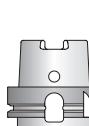
DIN-69871



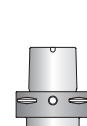
CAT



MAS-BT



HSK



CAPTO



KM

Option / Opzione



bar max
12

Coolant through spindle
Adduzione refrigerante interna



HSK-100

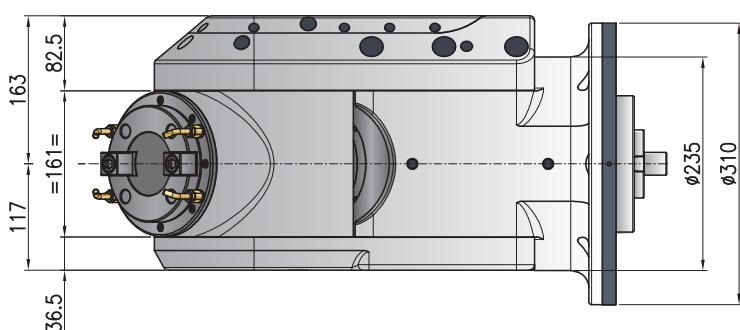
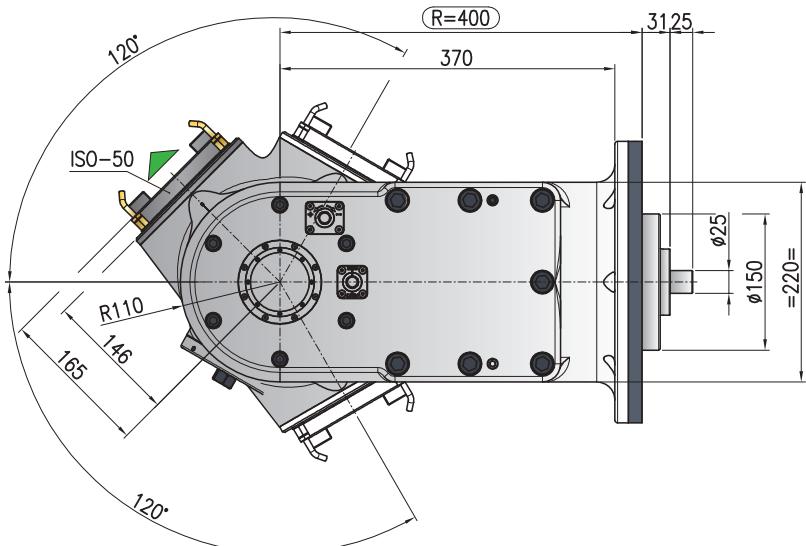
Quick Change
Attacco rapido



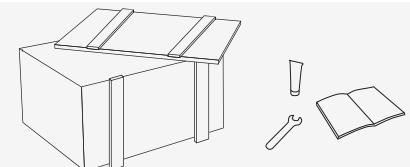
AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio

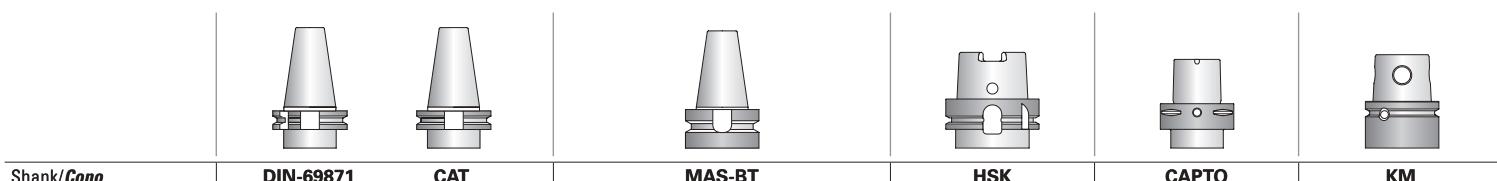
TCU-10 R.I. 15 BAR

APTCU10C


	Ratio Rapporto 1:1
	RPM Velocità 3.000 min⁻¹
	Max. axial load Max. carico assiale 3.300 N
	Torque Momento torcente 250 Nm
	Weight Peso 194 kg
	Collet Pinza ISO/BT 50

*** STANDARD EQUIPMENT INCLUDES:**


▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino


Option / Opzione


bar max
12

Coolant through spindle
Adduzione refrigerante interna



HSK-100

Quick Change
Attacco rapido



OIL

Oil lubrication
Lubrificazione

TR90-15



Ratio (riduzione)
Rapporto (reduction)
1.875:1



RPM
Velocità
2.500 min⁻¹



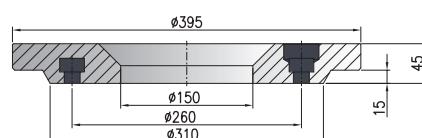
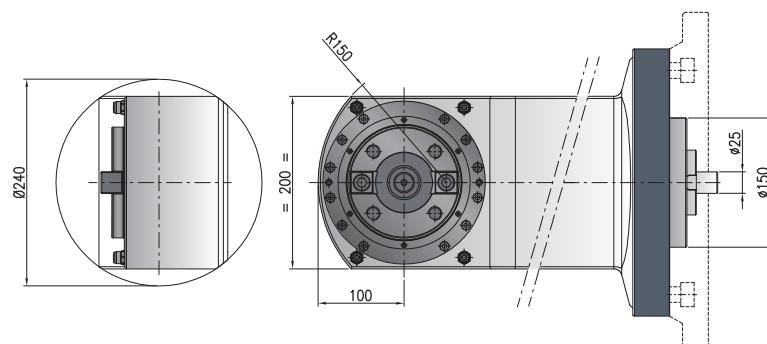
Max. axial load
Max. carico assiale
3.900 N



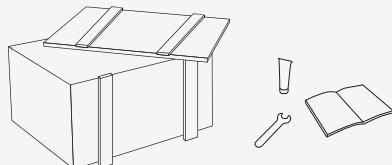
Torque
Momento torcente
600 Nm



Collet
Pinza
ISO/BT 50



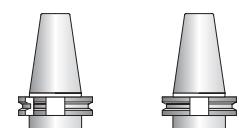
*** STANDARD EQUIPMENT INCLUDES:**



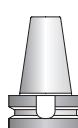
Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*



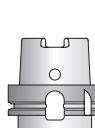
Shank/*Cono*



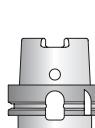
DIN-69871



CAT



MAS-BT



HSK



CAPTO



KM

Option / Opzione



bar max
12

Coolant through spindle
Adduzione refrigerante interna



HSK-63

Quick Change
Attacco rapido



AIR/OIL

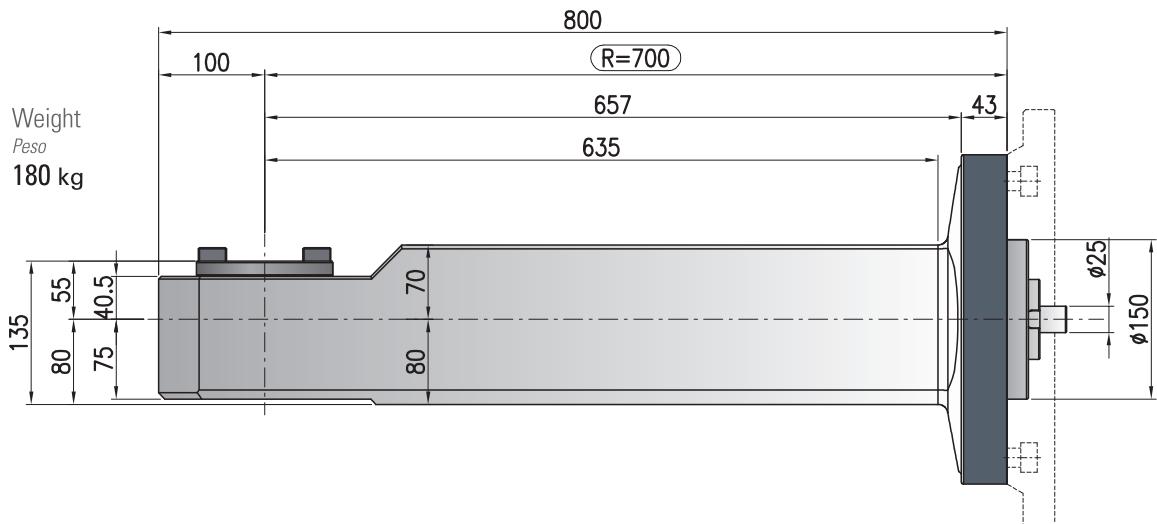
Air / oil lubrication
Lubrificazione aria / olio

LINEA P-MODULAR

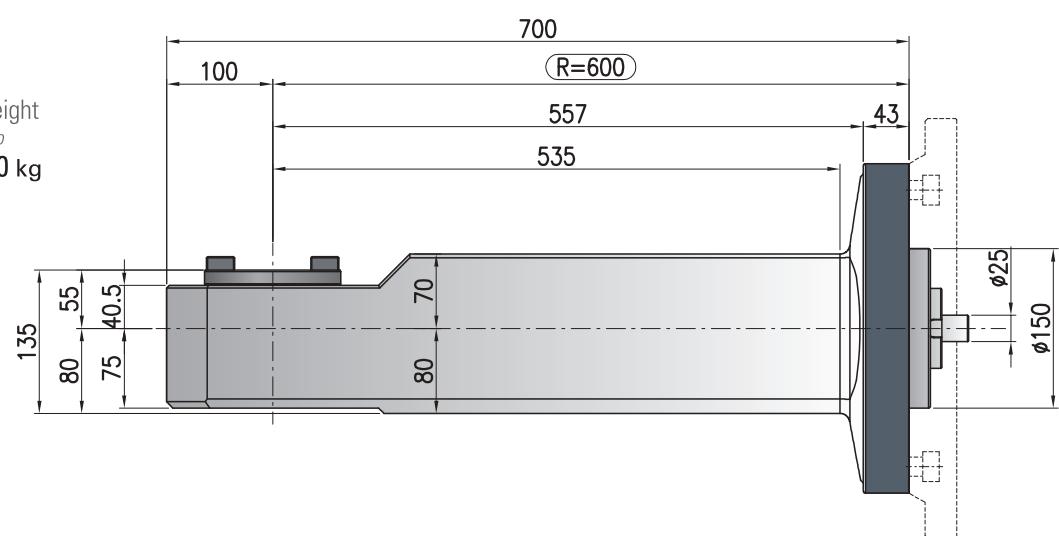
APTR9015C



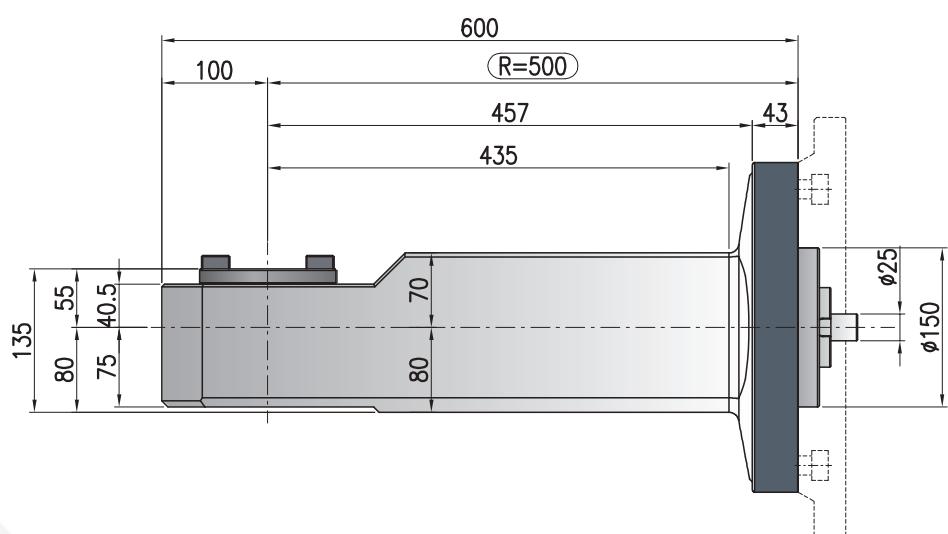
Weight
Peso
180 kg



Weight
Peso
140 kg



Weight
Peso
110 kg





TESTE "AUTO" CON TIRANTE AUTOMATICO "AUTO" ANGLE HEADS WITH AUTOMATIC CLAMPING TOOL

- Cono intercambiabile
Interchangeable shank
- Flangia di interfaccia realizzata su misura con sistema indexaggio cono per ATC
Customized connection flange including taper with indexing system for ATC
- Refrigerazione interna max. 70 bar
Internal coolant max. 70 bar
- Refrigerazione esterna max 20 bar
Low pressure external coolant max. 20 bar
- Refrigerazione esterna max 100 bar
High pressure external coolant max 100 bar
- MQL max 10 bar
MQL max 10 bar
- Pressurizzazione tenute
Seal pressurization
- Aria pulizia cono
Air for spindle cleaning
- Lubrificazione aria + olio
Air + oil lubrication
- Aspirazione olio in eccesso
Oil vacuum system
- Sensore di controllo cambio utensile
Sensor to detect ATC
- *Pick up di stoccaggio unità su misura*
Customized pick up station

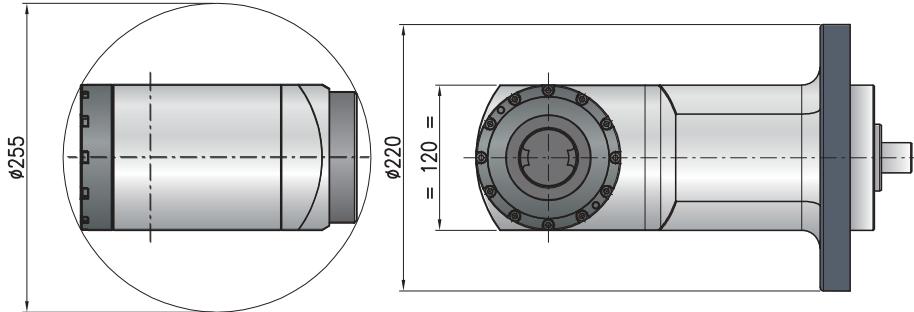
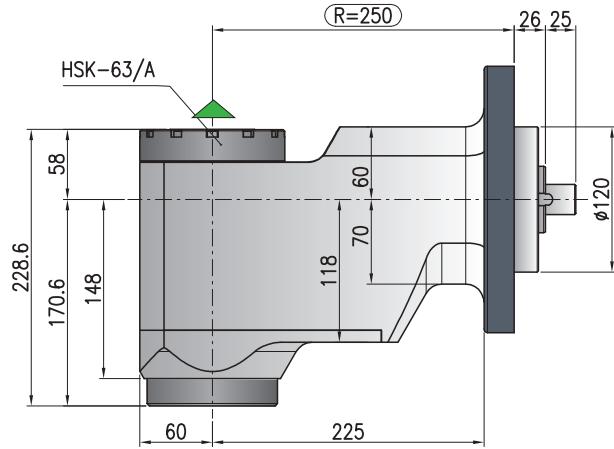


LINEA AUTO-MODULAR

TR90-8 AUTO

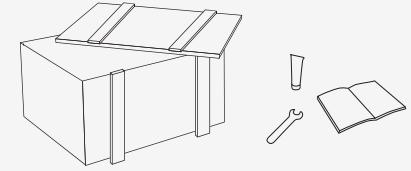
APTR9080A

Minimum diameter without tool
Diametro minimo senza utensile



	Ratio <i>Rapporto</i> 1:1
	Power <i>Potenza</i> 25 kW
	RPM <i>Velocità</i> 3.000 min ⁻¹
	Max. axial load <i>Max. carico assiale</i> 2.400 N
	Torque <i>Momento torcente</i> 200 Nm
	Weight <i>Peso</i> 55 kg
	HSK/63A

* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*

Shank/ <i>Cono</i>	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM

Option / *Opzione*



bar max
70

Coolant through spindle
Adduzione refrigerante interna



bar max
100

External coolant
Adduzione refrigerante esterna



AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio

TR90-15 AUTO

APTR9015A


Ratio
Rapporto
1:1



Power
Potenza
25 kW



RPM
Velocità
2.500 min⁻¹



Max. axial load
Max. carico assiale
4.800 N



Torque
Memento torcente
600 Nm



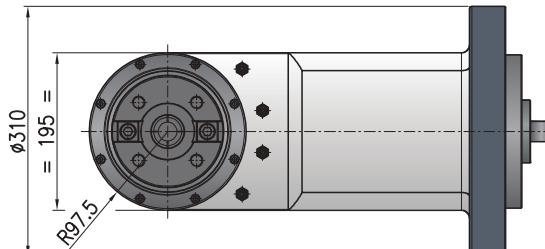
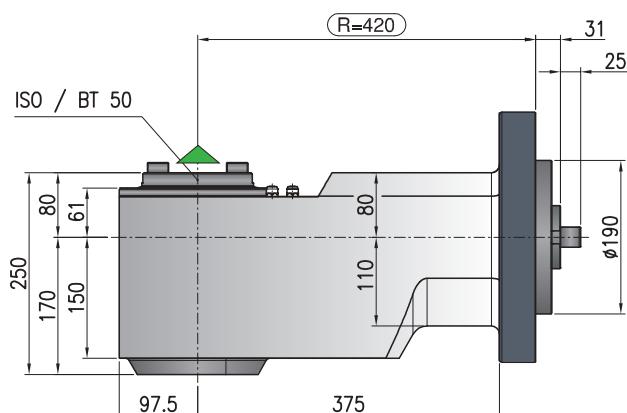
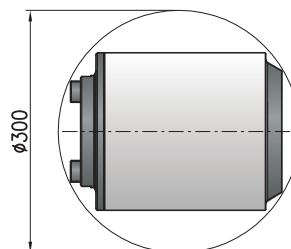
Weight
Peso
180 kg



ISO/ BT50


*** STANDARD EQUIPMENT INCLUDES:**

Minimum diameter without tool
Diametro minimo senza utensile



▲ Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*

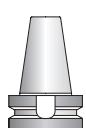


Shank/Cono

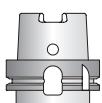
DIN-69871



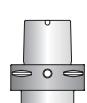
CAT



MAS-BT



HSK



CAPTO



KM

Option / Opzione


bar max
70

*Coolant through spindle
Adduzione refrigerante interna*



bar max
100

*External coolant
Adduzione refrigerante esterna*



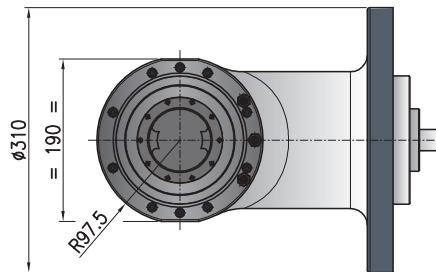
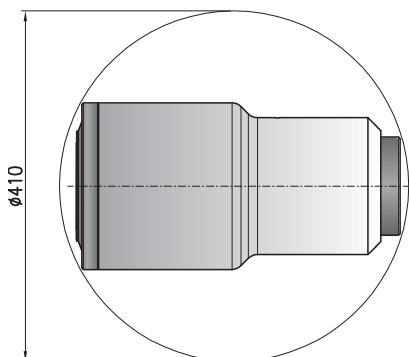
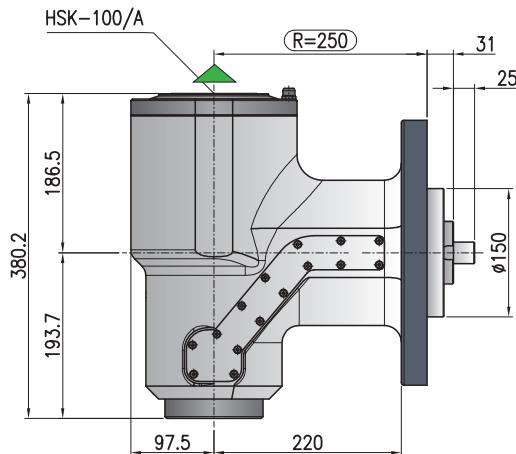
AIR/OIL

*Air / oil lubrication
Lubrificazione aria / olio*

T90-15 AUTO

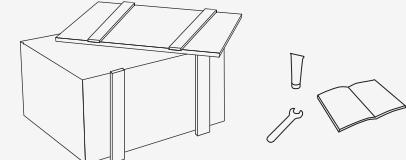
APT9015A

Minimum diameter without tool
Diametro minimo senza utensile

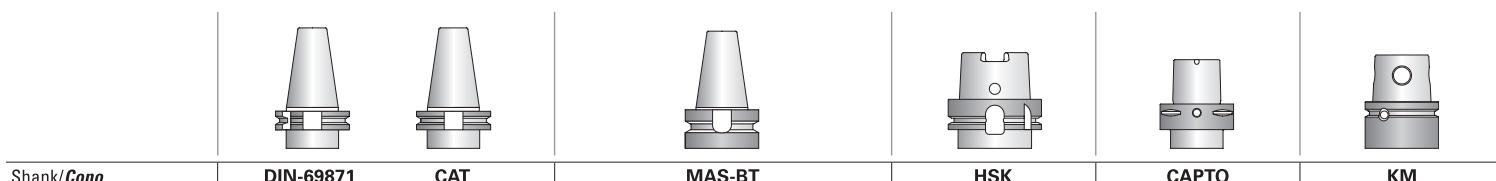


	Ratio Rapporto 1:1.5 (Reduction)
	Power Potenza 25 kW
	RPM Velocità 6.000 min⁻¹
	Max. axial load Max. carico assiale 6.000 N
	Torque Momento torcente 600 Nm
	Weight Peso 100 kg
	HSK/100A

* STANDARD EQUIPMENT INCLUDES:



Direction of rotation same as machine spindle / *senso di rotazione uguale al mandrino*



Option / **Opzione**



bar max
70

Coolant through spindle
Adduzione refrigerante interna



bar max
100

External coolant
Adduzione refrigerante esterna



AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio

LINEA HIGH SPEED HIGH SPEED LINE

MOLTIPLICATORE SPINDLE SPEEDER



MOLTIPLICATORE MECCANICO
MECHANICAL SPINDLE SPEEDER
Max 25.000 RPM



MOLTIPLICATORE AD ARIA
AIR DRIVEN SPEEDER
Max 60.000 RPM



MOLTIPLICATORE ELETTRICO
ELECTROSPINDLE
Max 80.000 RPM

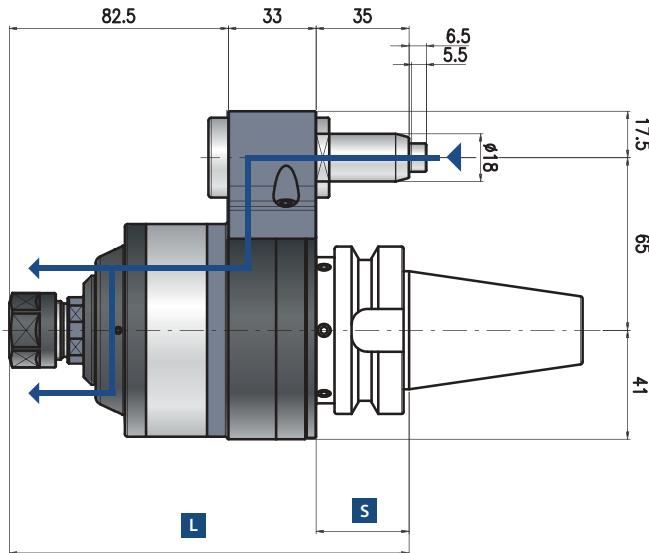
SLIMLINE

Rotazione tramite mandrino macchina
Rotation through machine spindle



LINEA HIGH SPEED

MOLTIPLICATORE SPEEDER



*Corpo principale con sistema di raffreddamento ad aria
Main body with air-water cooling system*

*Fori per raffreddamento ad aria o acqua
Bores for air-water cooling system*



	Ratio Rapporto 1:5
	RPM Velocità. 25.000 min⁻¹
	Max. axial load Max. carico assiale 60 N
	Torque Momento torcente 4 Nm
	Weight Peso 4 kg
	Collet Pinza ER-16 ø 1/10 mm
* STANDARD EQUIPMENT INCLUDES:	
	

Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40-50	40-50	63-80	100	C6	C8
I	80-100	80-100	80-100	80-100	80-100	80-100
S	35	41	42	45	38	40
L	150.5	156.5	157.5	160.5	153.5	155.5

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

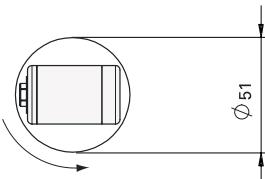
ROTAZIONE CON MANDRINO MACCHINA - SLIMLINE SPINDLE DRIVEN

RA-100

Diameter without tool with RA-100
Diametro senza utensile con RA-100

RPM max. output
Max. Velocità output

5.620 rpm



Technical Data / Dati Tecnici

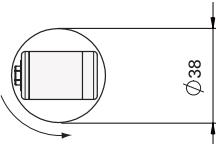
	RA-100
RPM max. input / Max. Velocità input	15.000
Rt. reduction / Rt. in riduzione	1/2,67
Weight / Peso	Kg 3,5

RA-200

Diameter without tool with RA-200
Diametro senza utensile con RA-200

RPM max. output
Max. Velocità output

10.000 rpm



Technical Data / Dati Tecnici

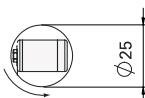
	RA-200
RPM max. input / Max. Velocità input	15.000
Rt. reduction / Rt. in riduzione	1/1,5
Weight / Peso	Kg 3,5

IC-300

Diameter without tool with IC-300
Diametro senza utensile con IC-300

RPM max. output
Max. Velocità output

11.250 rpm



Technical Data / Dati Tecnici

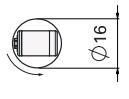
	IC-300
RPM max. input. / Max. Velocità input	15.000
Rt. reduction / Rt. in riduzione	3/4
Weight / Peso	Kg 3

MFC-300 S

Diameter without tool with MFC-300
Diametro senza utensile con MFC-300

RPM max. output
Max. Velocità output

15.000 rpm



Technical Data / Dati Tecnici

	MFC-300
RPM max. input. / Max. Velocità input	15.000
Rt. reduction / Rt. in riduzione	1/1
Weight / Peso	Kg 3



Spindle Runout

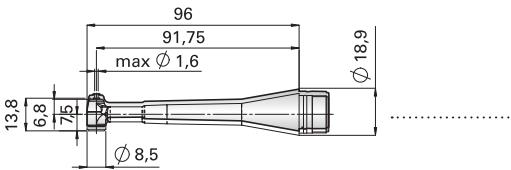
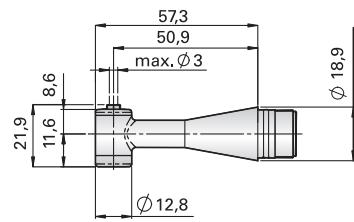
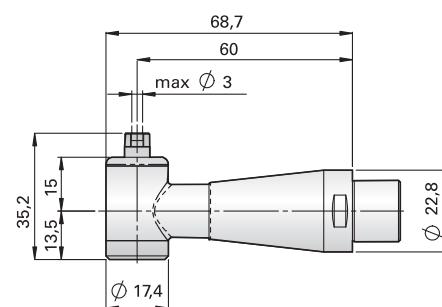
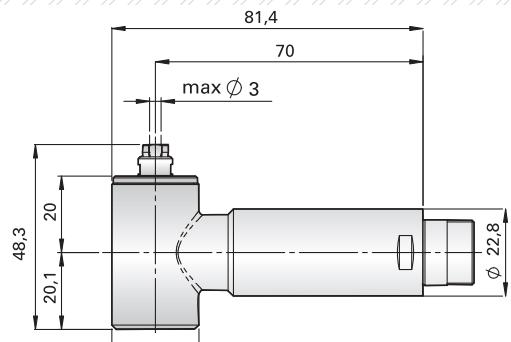
Spindle accuracy
Precisione del Mandrino

0,002 mm
0,00008 inch.



Coolant Option

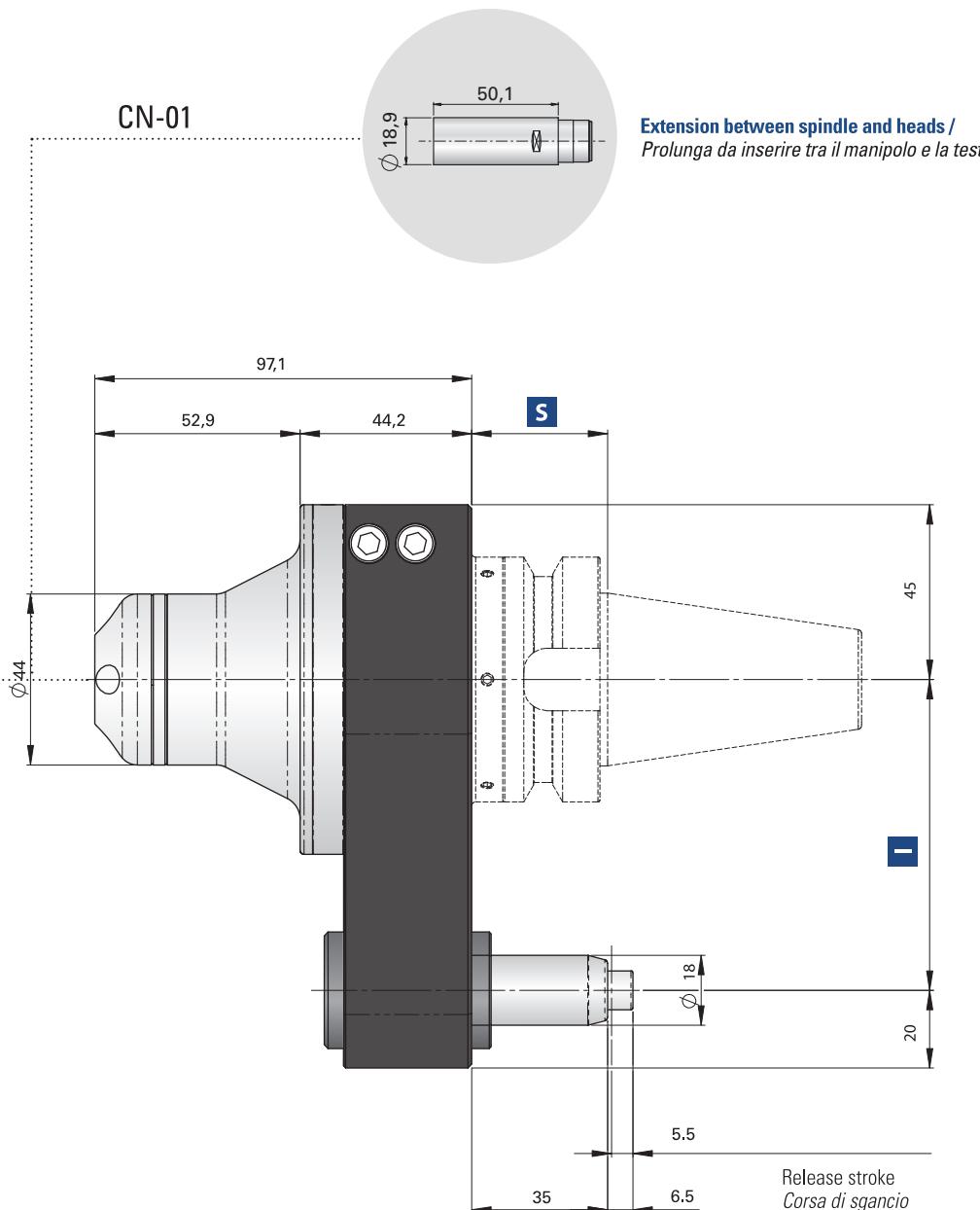
It is possible to use external coolant during the machining.
Consentito usare refrigerante esterno durante la lavorazione.



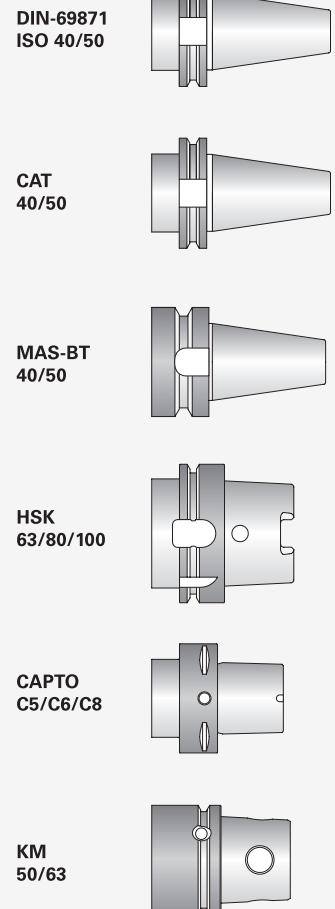
Collet

RA-100	mm	CH8: Ø 3 mm every 0,1 mm Ø 3mm
RA-200	mm	CHS: Ø 3mm, 2,35 every 1,6 and Ø 2,35, Ø 3,175
IC-300	mm	CHC: Ø 3mm, Ø 2,35mm, Ø 1,6 mm, Ø 2,00mm and Ø 3,175 mm
MFC-300	mm	K252 Ø 1,6mm

LINEA HIGH SPEED



OPTIONAL DRIVE SHANK*
Non interchangeable input drive shank
Coni non intercambiabili



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	40	50	40	63-80	100	C5-C6
I	65-80-(110*)	80-110	65-80-(110*)	80-110	65-80-(110*)	80-110
S	35	35	35	42	45	38

*optional

Accessories / Accessori	RA-100	RA-200	IC-300	MFC-300
Retaining block / Tassello di ritegno	Ø18 mm	Ø18 mm	Ø18 mm	Ø18 mm
Extension / Prolunga	CN-01	CN-01	CN-01	CN-01

Retaining block / Tassello di ritegno / Stop-Block

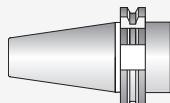


NOT INCLUDED
NON INCLUSO

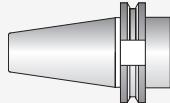
TESTE CON MOTORE AD ARIA AIR DRIVEN ANGLE HEADS

OPTIONAL DRIVE SHANK*

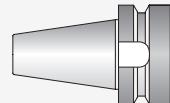
*Non interchangeable input drive shank
Coni non intercambiabili*



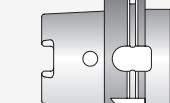
DIN-69871
ISO 40/50



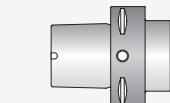
CAT
40/50



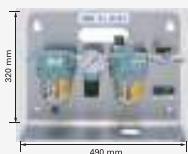
MAS-BT
40/50



HSK
63/80/100



CAPTO
63/80/100

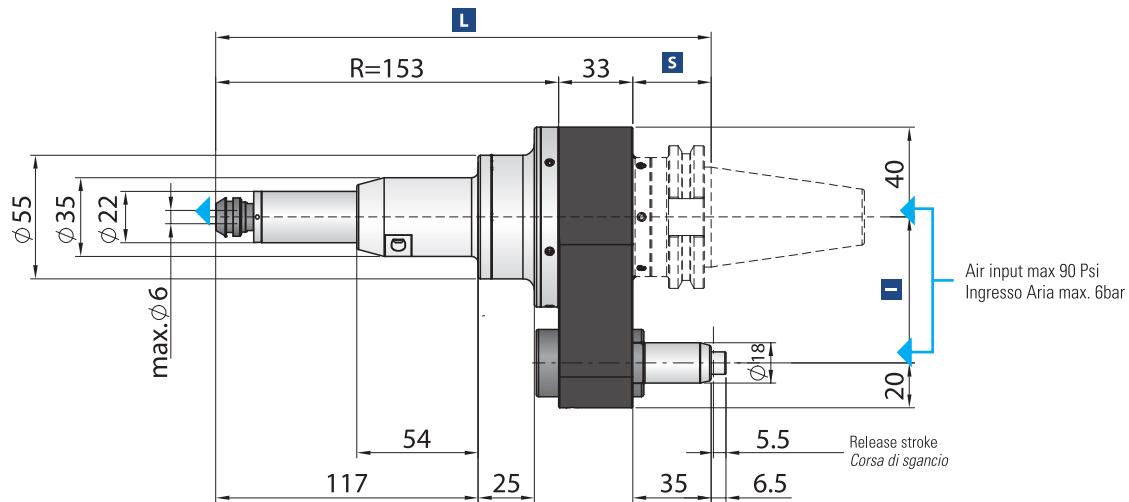
Air line kit / Filtro regolatore aria


**Retaining block /
Tassello di ritegno /
Stop-Block**

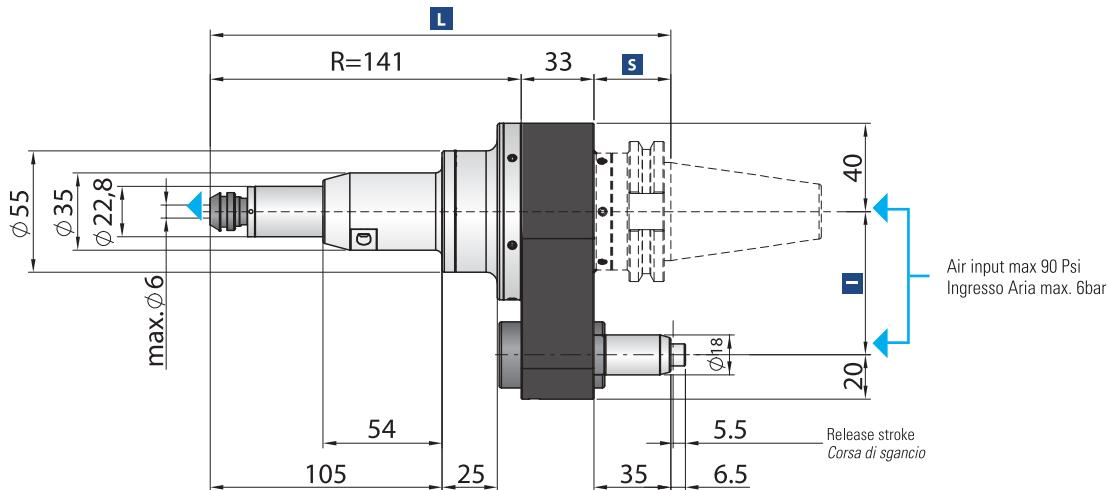


**NOT INCLUDED
NON INCLUSO**

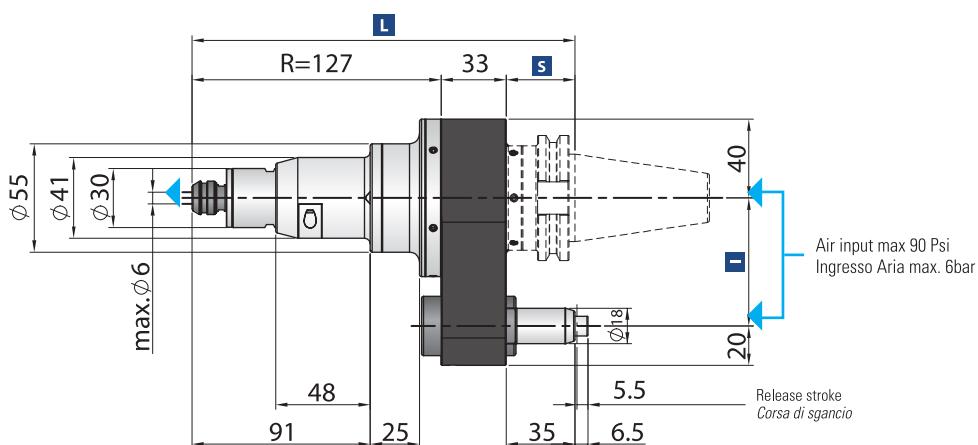
Turboflex 60.000 RPM



Turboflex 30.000 RPM



Turboflex 20.000 RPM



LINEA HIGH SPEED

DATI TECNICI TECHNICAL DATA

NR2351

Technical data / Dati tecnici		NR-2351	
RPM max. / Max. Velocità	min ⁻¹	60.000 ± 10%	
Type motor / Tipo di motore		AM-600	
Power / Potenza	W	76	
Air pressure / Pressione aria	bar	max. 6 (max. 90 Psi)	
Air consumption / Consumo aria	Nl/min	160	
Weight / Peso	Kg	4	

Disponibile anche senza flangia.
Also available without flange.



Collet

NR-2351

mm

CHK: ø 0,5 - max 6mm every 0,1

Coolant Option

Consentito usare refrigerante esterno durante la lavorazione.

It is possible to use external coolant during the machining.

Spindle Runout

Spindle accuracy

Precisione del Mandrino

0,002 mm

0,00008 inch.



È severamente vietato far ruotare il mandrino macchina causa danneggiamento della testa

It is strictly forbidden to rotate the machine spindle as it may cause damage to the head

NR303

Technical data / Dati tecnici		NR-303	
RPM max. / Max. Velocità	min ⁻¹	30.000 ± 10%	
Type motor / Tipo di motore		AM-310	
Power / Potenza	W	108	
Air pressure / Pressione aria	bar	max. 6 (max. 90 Psi)	
Air consumption / Consumo aria	Nl/min	226	
Weight / Peso	Kg	4	

Disponibile anche senza flangia.
Also available without flange.



Collet

NR-303

mm

CHK: ø 0,5 - max 6mm every 0,1

Coolant Option

Consentito usare refrigerante esterno durante la lavorazione.

It is possible to use external coolant during the machining.

Spindle Runout

Spindle accuracy

Precisione del Mandrino

0,002 mm

0,00008 inch.



È severamente vietato far ruotare il mandrino macchina causa danneggiamento della testa

It is strictly forbidden to rotate the machine spindle as it may cause damage to the head

*optional

NR3060

Technical data / Dati tecnici		NR-3060	
RPM max. / Max. Velocità	min ⁻¹	18.000 ± 10%	
Type motor / Tipo di motore		AM-3020	
Power / Potenza	W	125	
Air pressure / Pressione aria	bar	max. 6 (max. 90 Psi)	
Air consumption / Consumo aria	Nl/min	178	
Output RPM / N° Giri in uscita		18.000	
Rt. reduction / Rt. in riduzione		1/1	
Weight / Peso	Kg	4	

Disponibile anche senza flangia.
Also available without flange.



Collet

NR-3060

mm

CHK: ø 0,8 - max 6mm every 0,1

Coolant Option

Consentito usare refrigerante esterno durante la lavorazione.

It is possible to use external coolant during the machining.

Spindle Runout

Spindle accuracy

Precisione del Mandrino

0,002 mm

0,00008 inch.



È severamente vietato far ruotare il mandrino macchina causa danneggiamento della testa

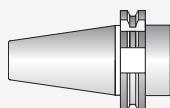
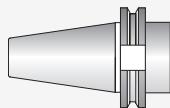
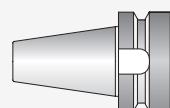
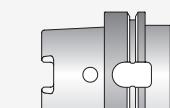
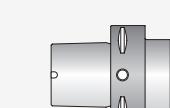
It is strictly forbidden to rotate the machine spindle as it may cause damage to the head

*optional

Shank/Cono		DIN 69871		CAT		MAS-BT		HSK		CAPTO		KM	
Size/Grandezza	40	50	40	50	63-80	100	C5-C6	C8	50-63				
I	65-80-(110*)	80-110	65-80-(110*)	80-110	65-80-(110*)	80-110	65-80-110	80-110	65-80-110	80-110	65-80-110		
S	35	35	35	41	42	42	38	40	40				

TESTE CON MOTORE AD ARIA

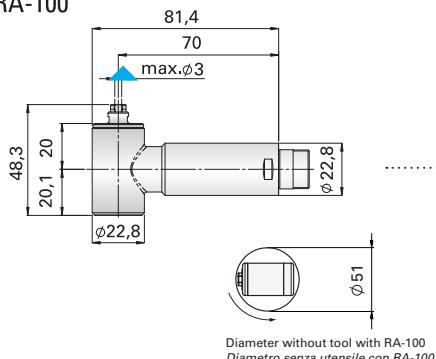
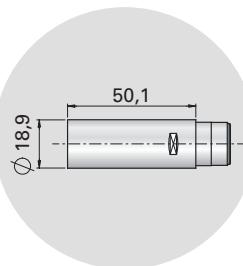
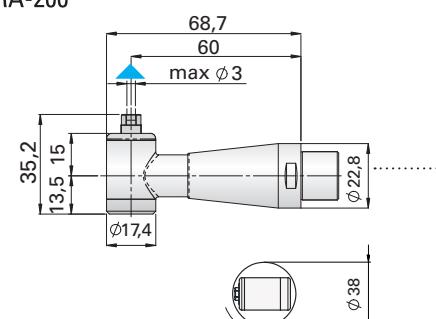
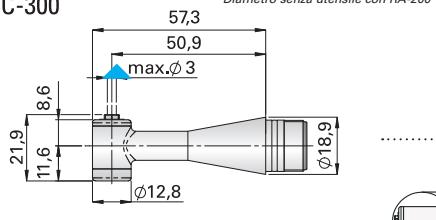
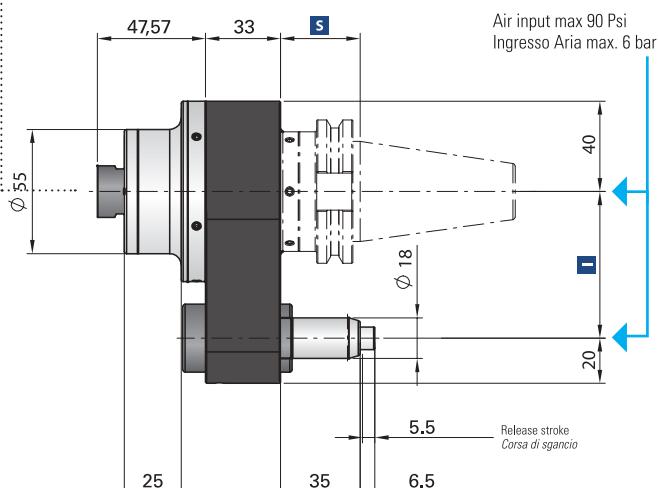
AIR DRIVEN ANGLE HEADS

OPTIONAL DRIVE SHANK*
*Non interchangeable input drive shank
Coni non intercambiabili*

DIN-69871
ISO 40/50

CAT
40/50

MAS-BT
40/50

HSK
63/80/100

CAPTO
63/80/100
Air line kit / Filtro regolatore aria

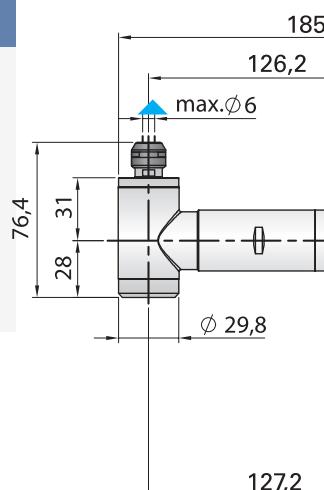
**Retaining block /
Tassello di ritegno /
Stop-Block**

NOT INCLUDED
NON INCLUSO

Turboflex 30.000 RPM

RA-100

CN-01

RA-200

IC-300

 Air input max 90 Psi
Ingresso Aria max. 6 bar

 Release stroke
Corsa di sgancio

Turboflex 20.000 RPM


 Possibilità di prolunga h = 35mm
Possibility for extension spaces h = 35mm

 Air input max 90 Psi
Ingresso Aria max. 6 bar

 Release stroke
Corsa di sgancio

LINEA HIGH SPEED

DATI TECNICI TECHNICAL DATA

Technical Data / Dati Tecnici	RA-100	RA-200	IC-300
RPM max. / Max. Velocità	min ⁻¹ 30.000 ± 10%	30.000 ± 10%	30.000 ± 10%
Type motor / Tipo di motore		AM-310	AM-310
Power / Potenza	W 108	108	108
Air pressure / Pressione aria	bar max. 6 (max. 90 Psi)	max. 6 (max. 90 Psi)	max. 6 (max. 90 Psi)
Air consumpion / Consumo aria	Nl/min 226	226	226
Output RPM / N° Giri in uscita	min ⁻¹ 11.230 ± 10%	20.000 ± 10%	22.000 ± 10%
Rt. reduction / Rt. in riduzione	1/2,67	1/1,5	3/4
Weight / Peso	Kg 4	4	4


Collet

RA-100 | mm | CH8: Ø0,8 Ø3 every 0,1 and Ø2,35 - Ø3,175

RA-200 | mm | CHS: Ø0,8 Ø3 every 0,1 and Ø2,35 - Ø3,175

IC-300 | mm | CH8: Ø0,8 Ø3 every 0,1 and Ø2,35 - Ø3,175


Spindle Runout

Spindle accuracy
Precisione del Mandrino 0,002 mm
0,00008 inch.


Coolant Option

Consentito usare refrigerante esterno
durante la lavorazione.
It is possible to use external coolant during
the machining.



**È severamente vietato far ruotare
il mandrino macchina causa
danneggiamento della testa**

*It is strictly forbidden to rotate the machine
spindle as it may cause damage to the head*

Shank / Cono	DIN 69871	CAT	MAS-BT		HSK		CAPTO		KM
Size / Grandezza	40	50	40	50	63-80	100	C5-C6	C8	50-63
I	65-80-(110*)	80-110	65-80-(110*)	80-110	65-80-(110*)	80-110	65-80-110	80-110	65-80-110
S	35	35	35	41	42	42	38	40	40

*optional

Disponibile anche senza flangia.
Also available without flange.


Technical Data / Dati Tecnici

	RAX-271E	
RPM max. / Max. Velocità	min ⁻¹	18.000 ± 10%
Type motor / Tipo di motore		AM-3020
Power / Potenza	W	125
Air pressure / Pressione aria	bar	max. 6 (max. 90 Psi)
Air consumpion / Consumo aria	Nl/min	178
Output RPM / N° Giri in uscita	min ⁻¹	12.000
Rt. reduction / Rt. in riduzione		1/1,5
Weight / Peso	Kg	4



RAX-271 | mm | CHK: Ø 0,5
max 6mm every 0,1


Spindle Runout

Spindle accuracy
Precisione del Mandrino 0,002 mm
0,00008 inch.


Coolant Option

Consentito usare refrigerante esterno
durante la lavorazione.
It is possible to use external coolant during
the machining.



**È severamente vietato far ruotare
il mandrino macchina causa
danneggiamento della testa**

*It is strictly forbidden to rotate the machine
spindle as it may cause damage to the head*

Shank / Cono	DIN 69871	CAT	MAS-BT		HSK		CAPTO		KM
Size / Grandezza	40	50	40	50	63-80	100	C5-C6	C8	50-63
I	65-80-(110*)	80-110	65-80-(110*)	80-110	65-80-(110*)	80-110	65-80-110	80-110	65-80-110
S	35	35	35	41	42	45	38	40	40

*optional

TURBOFLEX CON FLANGIA INDEXATA

TURBOFLEX WITH INDEXING SYSTEM

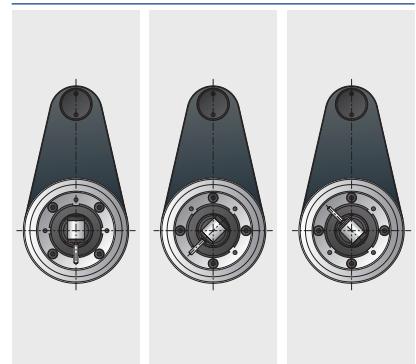
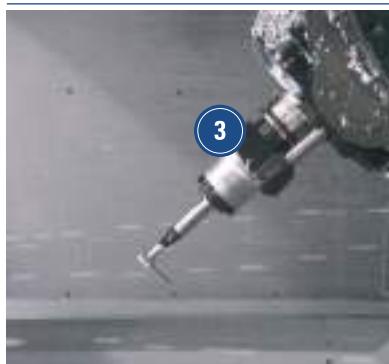
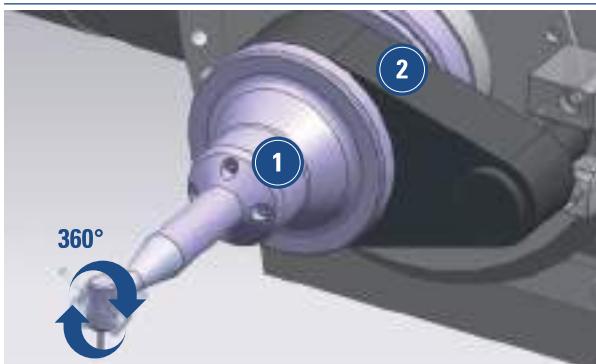
The cutting tool can be positioned over 360 degrees thanks to the indexing of the C axis of the machine while the rotation is given by the air motor mounted inside the head.

Il mandrino può essere posizionato su 360° grazie all'indexaggio dell'asse C della macchina, mentre la rotazione è assicurata dalla presenza del motore ad aria.

- 1** This portion rotates.
Questa parte ruota.
- 2** This portion remains fixed.
Questa parte resta ferma.

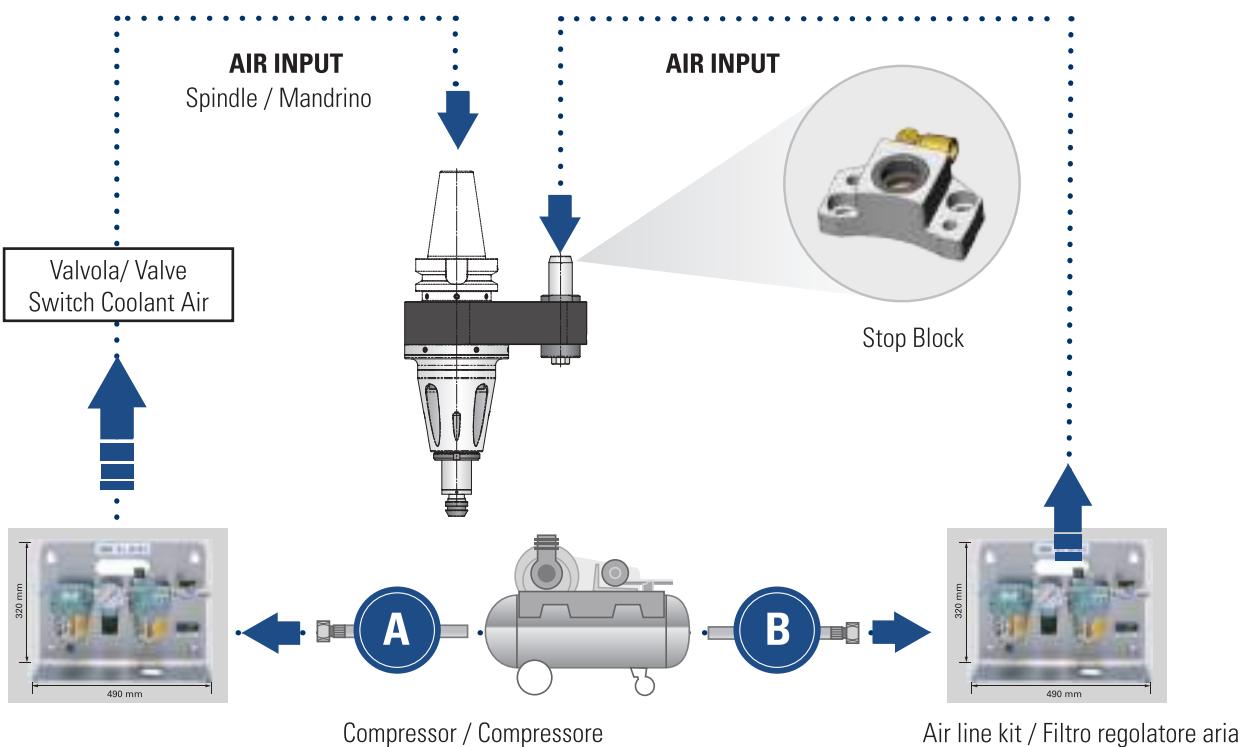
- 3** Air input from the machine spindle gives the rotation to the motor inside of the body.
L'aria garantisce la rotazione del motore nel corpo.

The indexing system allows to self-position the tool without additional positioning.
Il sistema di indexaggio permette il posizionamento del mandrino su 360°.



COME FUNZIONA TURBOFLEX

HOW IT WORKS



It is strictly forbidden to rotate the machine spindle as it may cause damage to the head
È severamente vietato far ruotare il mandrino macchina causa danneggiamento della testa



LINEA HIGH-SPEED - LEONARDO SYSTEM

Leonardo è un elettromandrino con cambio utensile automatico che viene montato sul mandrino macchina tramite Stop Block – da cui prende l'alimentazione – per poi essere scambiato automaticamente nel magazzino utensile. I grossi vantaggi sono la possibilità di regolare la velocità fino a 60.000RPM, l'integrazione completa con la macchina.

Leonardo System is an electrospindle with automatic tool change suitable to be mounted on the machine spindle with a Stop Block connected to the controller unit and power supply. Leonardo can be easily exchanged by the toolchanger and the main advantages are the possibility to adjust the RPM up to 60.000RPM and the interface with the machine.



Velocità fino a
80.000 RPM regolabile

Adjustable speed
up to 80.000RPM



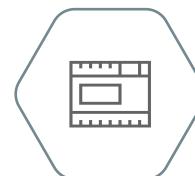
Tassello con contatti elettrici completamente
protetti da trucioli – Inclusi 10 mt di cavo

Stop Block with electric contacts completely
protected from chips 10 mt cable included



Completamente integrato alla
macchina utensile tramite codici M

Completely integrated with the
machine tool with M code



Centralina Nakanishi con regolazione di giri e
sensore per arresto mandrino

Nakanishi controller unit with adjustable RPM
and sensor to stop machine spindle

LINEA HIGH SPEED

ELETTROMANDRINO "LEONARDO" SYSTEM ELECTROSPINDLE "LEONARDO" SYSTEM

ATC 40



Power
Potenza
350 Watt



RPM
Velocità
60.000/80.000 min⁻¹



Weight
Peso
4,8 kg



Collet
Pinza
6 mm CHK
Ø0,8- Ø6 mm

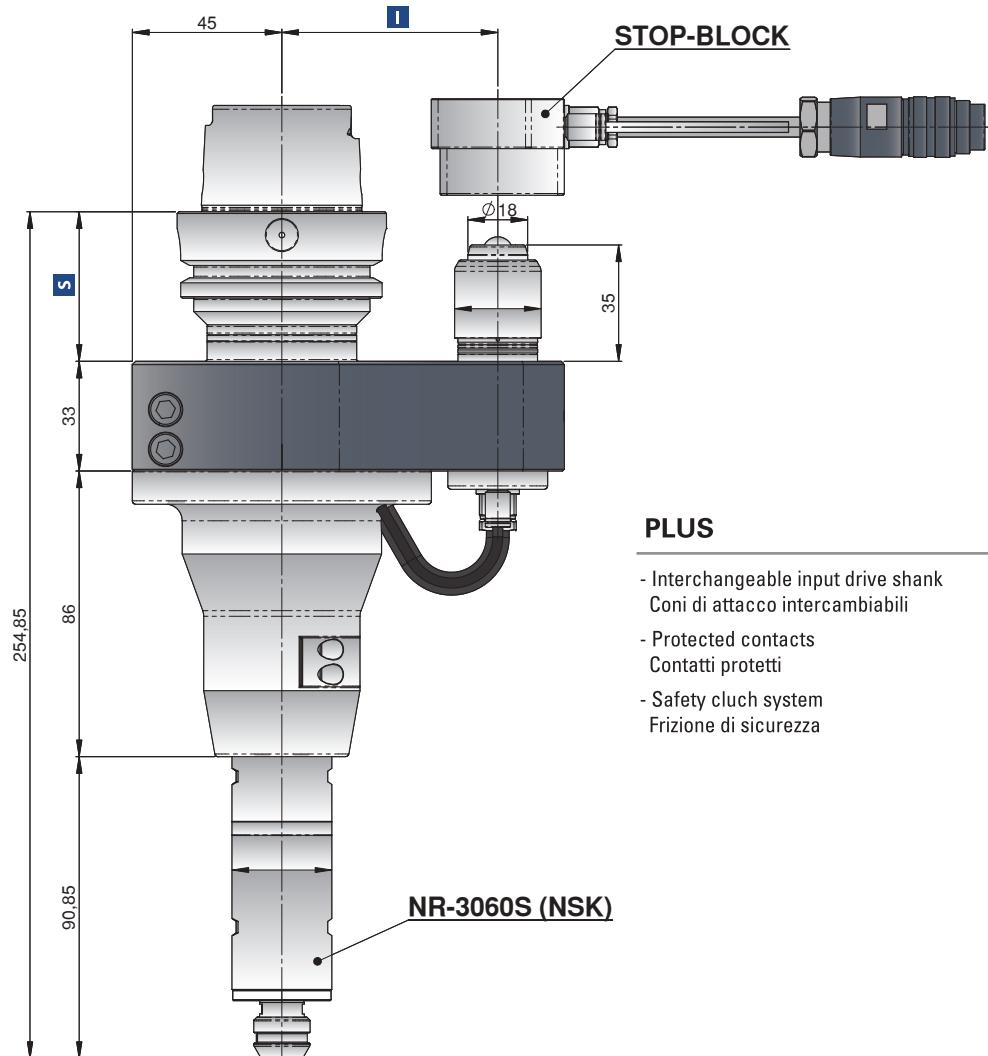


Spindle accuracy
Precisione
0,002 mm



Controller unit
Centralina
ISPEED5

* STANDARD EQUIPMENT INCLUDES:



PLUS

- Interchangeable input drive shank
Coni di attacco intercambiabili
- Protected contacts
Contatti protetti
- Safety clutch system
Frizione di sicurezza



It is strictly forbidden to rotate the machine spindle as it may cause damage to the head

È severamente vietato far ruotare il mandrino macchina causa danneggiamento della testa

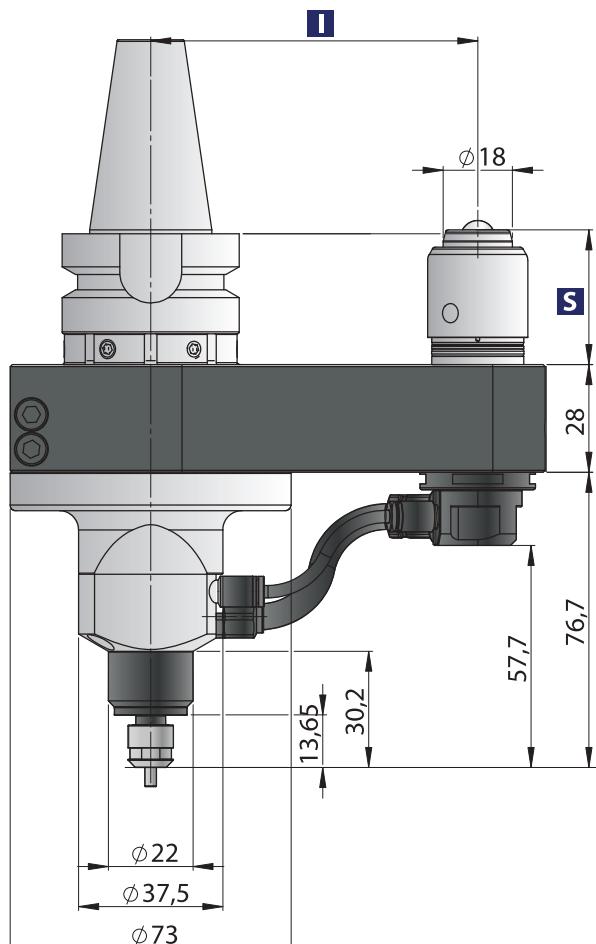
	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Shank/Cono						
Size/Grandezza	50	50	63-80	100	C6	C8
I	80-100	80-100	80-100	80-100	80-100	80-100
S	35	42	42	45	38	40
L	160	166	167	170	163	165

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

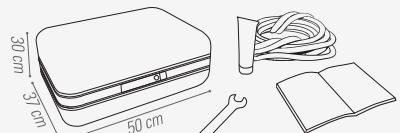
LINEA HIGH SPEED

ELETTROMANDRINO "LEONARDO" SYSTEM ELECTROSPINDLE "LEONARDO" SYSTEM

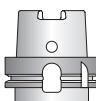
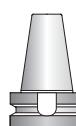
ATC 30

PLUS

- Interchangeable input drive shank
Coni di attacco intercambiabili
- Protected contacts
Contatti protetti
- Safety clutch system
Frizione di sicurezza

	Power Potenza 130 Watt
	RPM up to Velocità fino a 60.000/80.000 min ⁻¹
	Weight Peso 3 kg
	Collet Pinza 4 mm CHA Ø0,8 - Ø4 mm
	Spindle accuracy Precisione 1 µ
	Controller unit Centralina ISPEED3

*** STANDARD EQUIPMENT INCLUDES:**


It is strictly forbidden to rotate the machine spindle as it may cause damage to the head
È severamente vietato far ruotare il mandrino macchina causa danneggiamento della testa



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK		CAPTO	KM
Size/Grandezza	50	50		63-80	100	C6	C8
I	80-100	80-100		80-100	80-100	80-100	80-100
S	35	42		42	45	38	40
L	160	166		167	170	163	165

*optional
Non interchangeable input drive shank/ Coni di attacco non intercambiabili

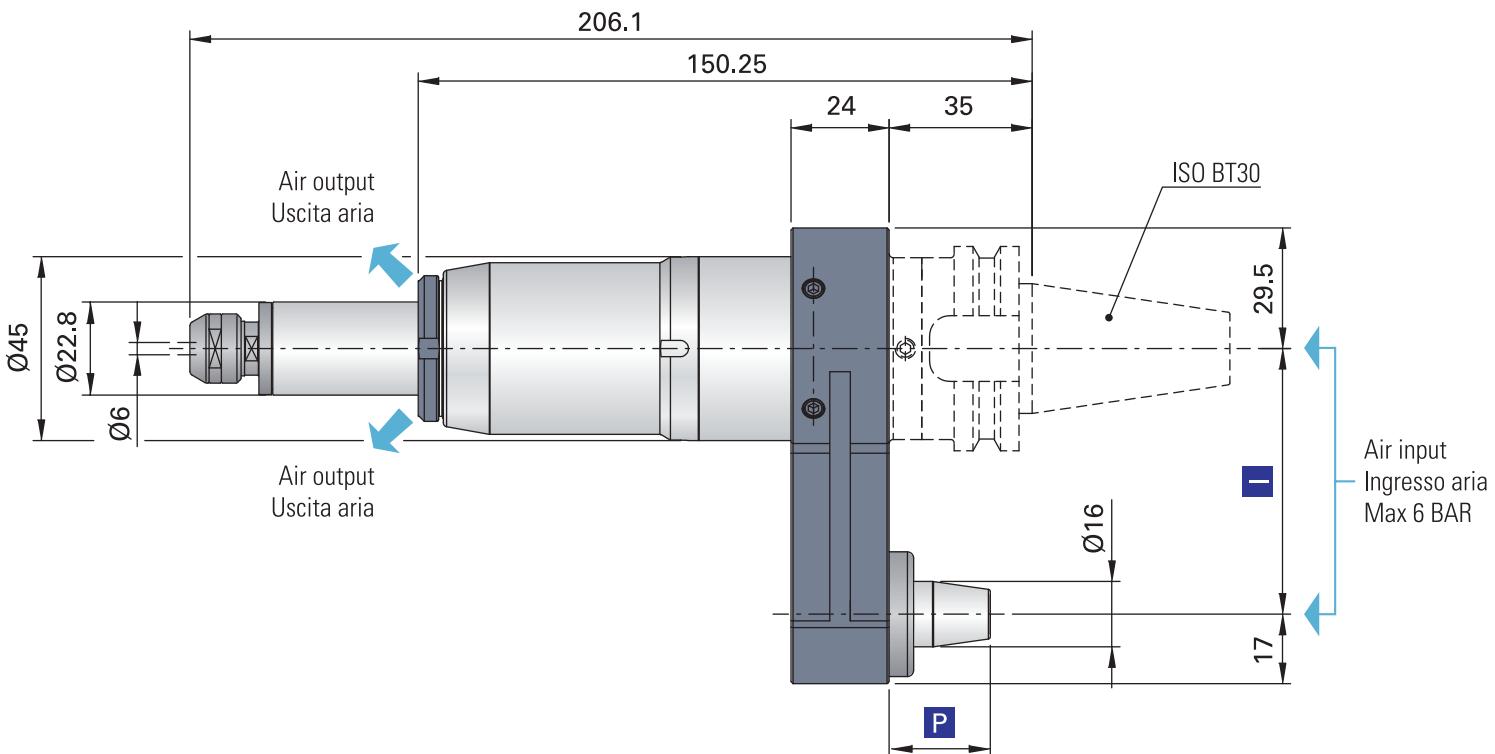
TURBODRILL NR-2351

Driven through air motor / Azionamento con motore ad aria



Machine spindle must not rotate

Il mandrino macchina non deve assolutamente girare



Possibility of order TURBODRILL without flange and pin with air through spindle
Possibilità di avere TURBODRILL senza flangia e perno con presa aria

Per other applications with air motor with ISO/BT 40-50
please refer to Slimline Catalogue

Per le soluzioni ad aria con coni ISO/BT 40-50 fare
riferimento al catalogo Slimline

Air line kit / Filtro regolatore aria



STANDARD EQUIPMENT INCLUDES:

- NAKANISHI Kit / Angle head / Collet Ø 3 mm / Wrenches / Instruction book / Case
- Testa / Manopolo NAKANISHI / Pinza Ø 3 mm / Chiavi di servizio / Libro istruzioni / Bauletto

Performance / Prestazioni

Technical Data / Dati Tecnici

RPM max. / Max. Velocità	min ⁻¹	58.000
Type motor / Tipo di motore		AM-600
Type spindle / Tipo di manipolo		NR-2351
Power / Potenza	W	76
Air pressure / Pressione Aria	Bar	max. 6 (max. 90 Psi)
Air consumption / consumo d'aria	Nl/min	160
Weight / Peso	Kg	2



CHK Ø 0,5 - max 6mm
every/ogni 0,1 mm

Collet
Pinza



Coolant option
Refrigerante opzional

*It is possible to use coolant external during the machining.
Consentito usare refrigerante esterno durante la lavorazione.*

LINEA HIGH SPEED

STOP BLOCK

PER MACCHINE BT-30
FOR BT-30 MACHINES

FANUC ROBODRILL



59516006

I	65
P	24

BROTHER S2D



59516003

I	80
P	24

BROTHER TC-32



59516008

I	80
P	30

BROTHER R450X1



59516009

I	50
P	24

BROTHER S500 S700 S1000



59516010

I	80
P	25,75

DMG MORI MILLTAP 700



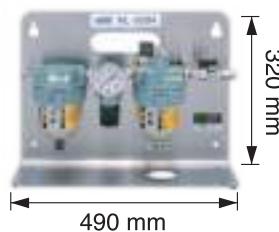
59516007

I	65
P	24

AIR LINE KIT For Turbodrill only ref. pag.6 / Solo per Turbodrill, rif. Pag 6



Stop Block /Air Valve



Air Through Spindle
Aria attraverso il mandrino

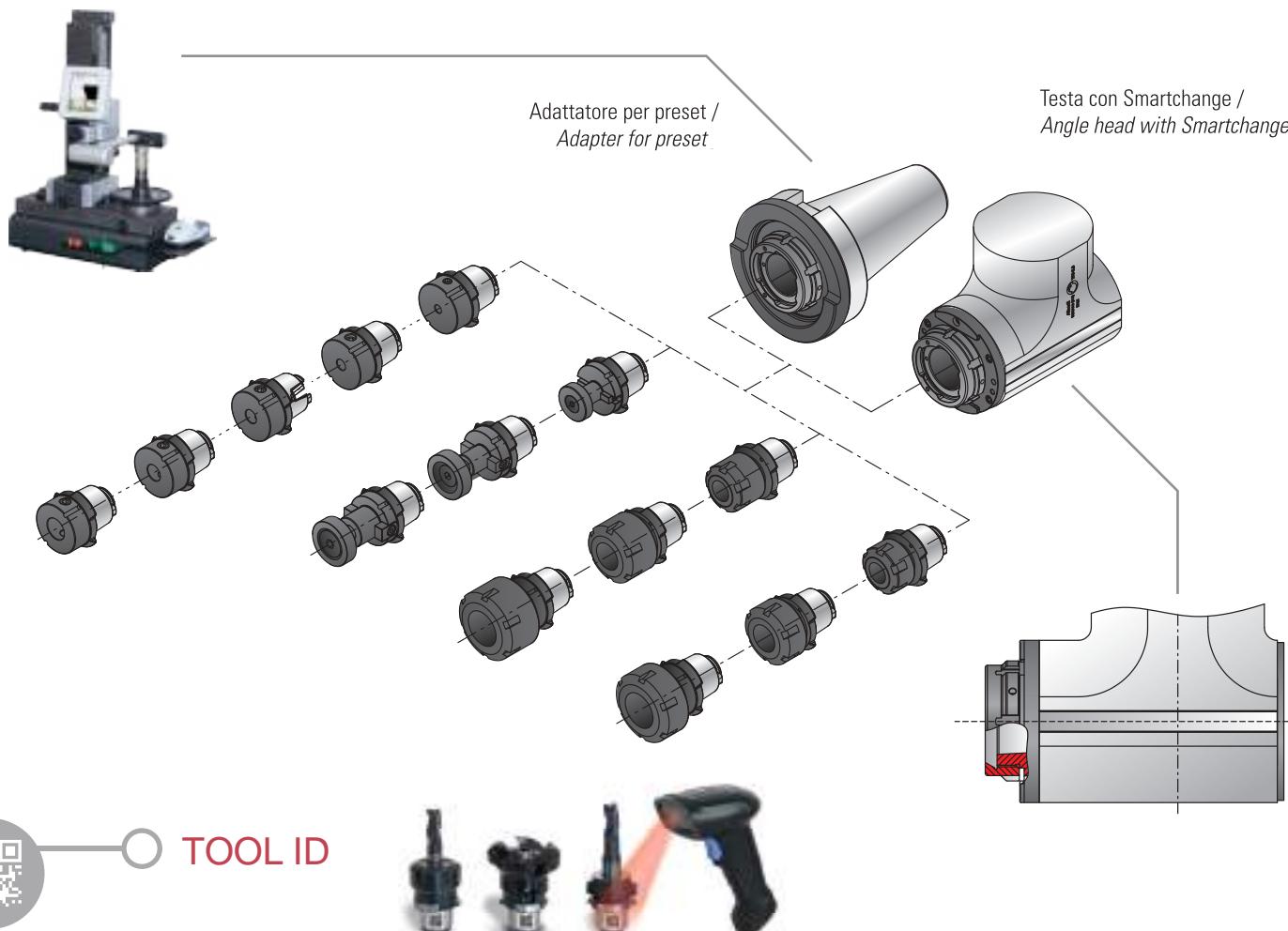






LINEA Smart Change

Smart Change è un sistema facile e innovativo, compatto nel design e veloce da utilizzare, che, grazie ad un triplo contatto, riesce a garantire una maggior rigidità e permette una miglior precisione durante la lavorazione. La modularità del sistema dà quindi la possibilità all'utilizzatore di poter usufruire di un'ampia gamma di adattatori di diversa dimensione che possono essere presettati fuori macchina in tempo mascherato, aumentando così la produttività e diminuendo tempi e costi di attrezzamento macchina. Il sistema, già operativo su gran parte dei motorizzati, è stato adeguato anche per le teste angolari.



Le cartucce Smart Change sono provviste di DATAMATRIX per l'identificazione e la gestione utensile in modo automatico. Il codice univoco è identificativo della cartuccia con il suo utensile.

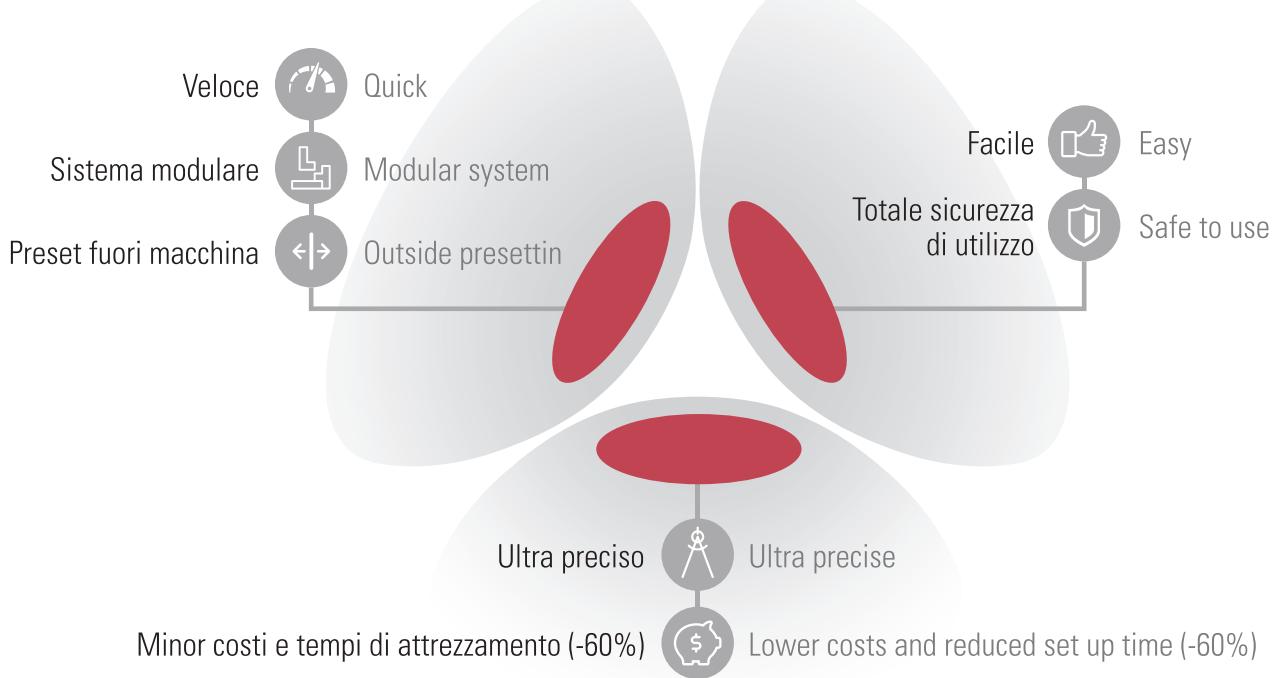
Smart Change adapters are marked with DATAMATRIX for the automatic tool identification and management. The unique code identify the adapter a long with its cutting tool.

LINEA SMART CHANGE

PERCHÈ 3 VOLTE SMART...

WHY 3 TIMES SMART...

Il sistema Smart Change sfrutta ben 3 superfici di contatto per una maggior precisione e ripetibilità.
Our Smart Change system features 3 contact surfaces as shown for a higher precision and accuracy



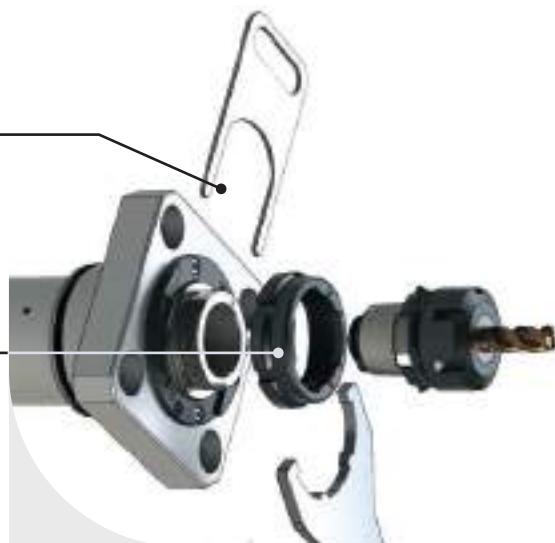
INCREMENTO DELLA PRODUTTIVITÀ INCREASED PRODUCTIVITY

LINEA SMART CHANGE

COME È FATTO HOW IT IS MADE

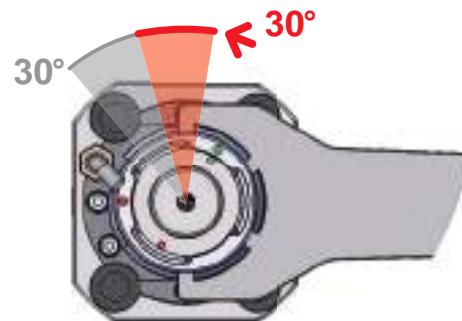
- Chiave di riscontro SmartChange
(permette montaggio con una sola mano)
*SmartChange Wrench
(one-hand handling)*

- Ghiera SmartChange brevettata
(fissata al corpo principale)
*Patented SmartChange nut
(fixed on the main body)*



COME FUNZIONA HOW IT WORKS

- Bloccaggio Ghiera
Clamping nut



- Sbloccaggio
Unclamping

- Estrazione
Pull out

Tempo massimo di sostituzione cartucce
Time to change front end

20''

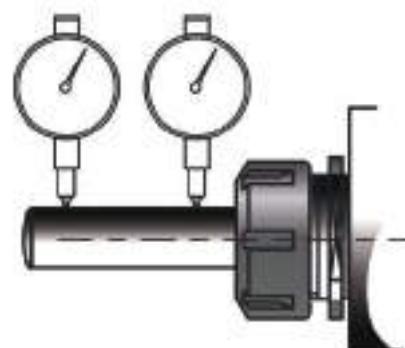
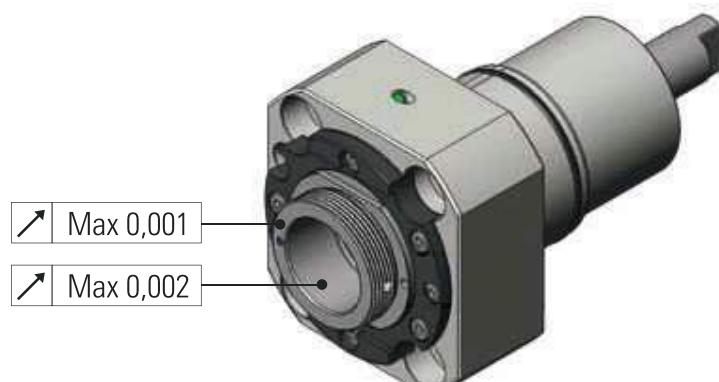
Precisione con barra inserita nel mandrino
Accuracy with gauge bar inserted in the collet chuck

Ripetibilità / Repeatability

0,003 mm

a 40 mm = 0,008 mm
a 120 mm = 0,01 mm

at 40 mm = 0,008 mm
at 120 mm = 0,01 mm



LINEA SMART CHANGE

LA GAMMA COMPLETA

THE COMPLETE SERIES



T90cn- 3,5



TCUcn - 3,5



TH90cn - 3,5



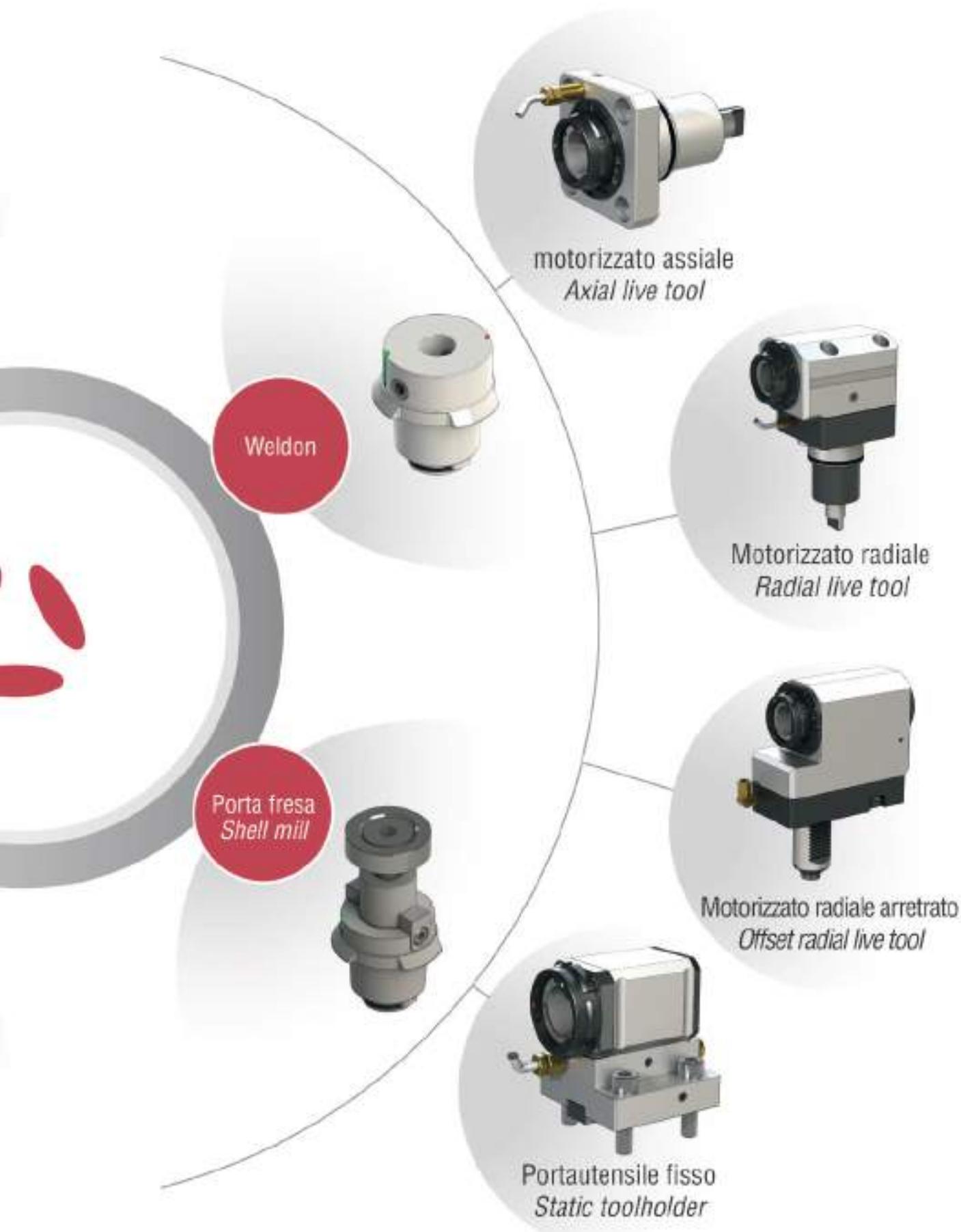
Blanks



T90cn - 3,5M Aluminum

Porta pinza
ColletCalettamento
Shrink fit

LINEA SMART CHANGE



T90cn-3,5 Smart Change

 Ratio
Rapporto
1:1

 RPM
Velocità
4000 min⁻¹

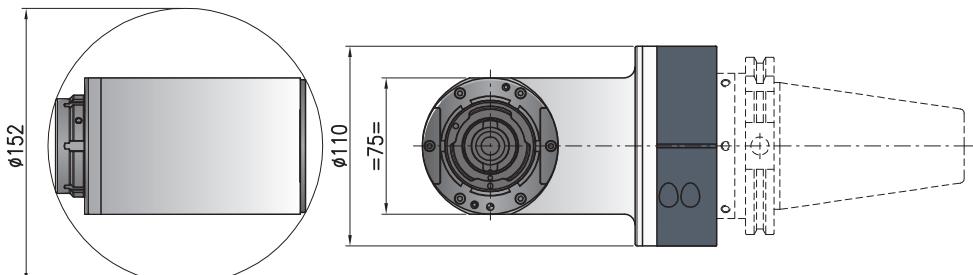
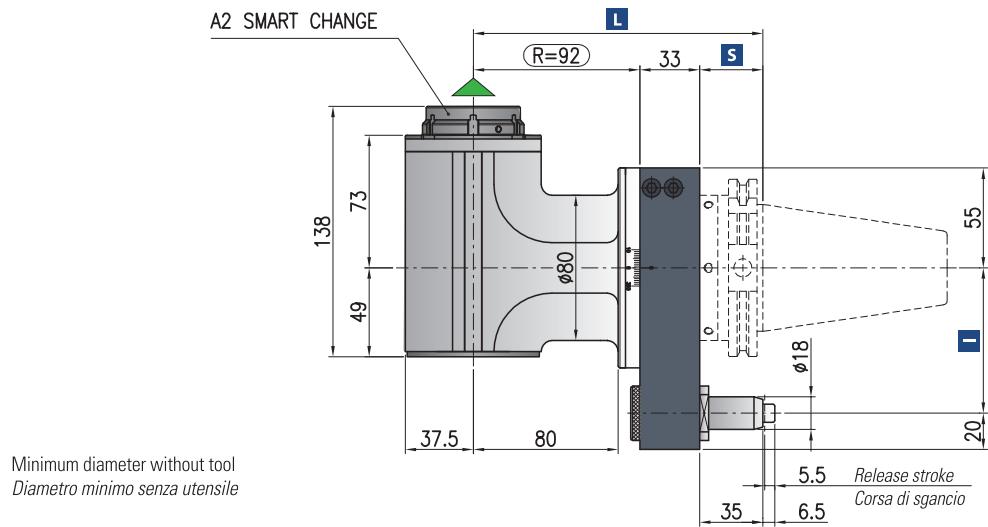
 Max. axial load
Max. carico assiale
1.250 N

 Torque
Momento torcente
50 Nm

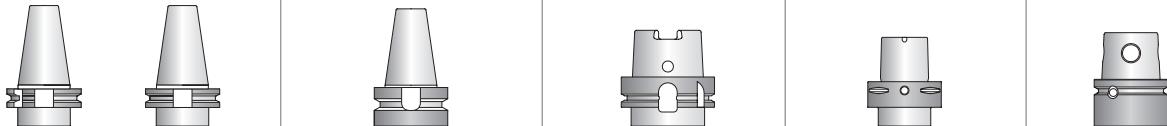
 Weight
Peso
11 kg

 Collet
Pinza
SmartChange System

* STANDARD EQUIPMENT INCLUDES:



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK	CAPTO	KM
Size/Grandezza	50	50	50	63-80	100	C6
I	80-110	80-110	41	80-110	80-110	80-110
S	35	41	166	42	45	38
L	160			167	170	165

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Option / Opzione



bar max
12

Coolant through pin and spindle
Refrigerante interno attraverso utensile

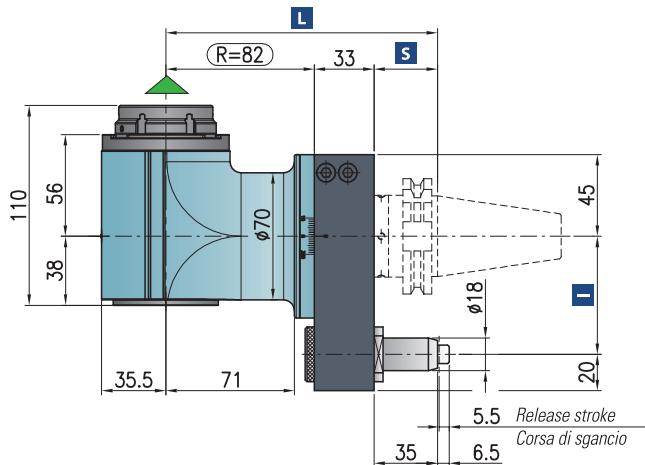


min⁻¹
6.000

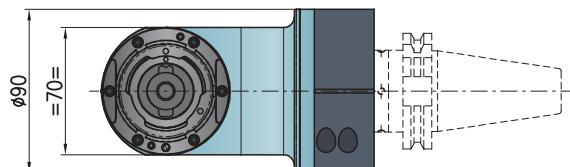
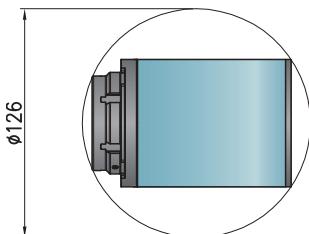
High speed optional RPM max.
Opzione alta velocità RPM max.

LINEA SMART CHANGE

T90cn-3,5 Aluminum Smart Change



Minimum diameter without tool
Diametro minimo senza utensile

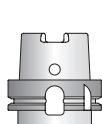


	Ratio Rapporto 1:1
	RPM Velocità 4000 min⁻¹
	Max. axial load Max. carico assiale 1.250 N
	Torque Momento torcente 40 Nm
	Weight Peso 5,5 kg
	Collet Pinza Smart Change
	Shank Cone ISO40 DIN-69871/BT-40

* STANDARD EQUIPMENT INCLUDES:



 Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK		CAPTO	
Size/Grandezza	40	40		63-80	100	C6	
I	80-110	80-110		110	80	80-110	80-110
S	35	41		42	45	38	40
L	150	156		157	160	153	155

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Option / Opzione



bar max
40

Coolant through pin
Refrigerante attraverso il perno



AIR/OIL

Air / oil lubrication
Lubrificazione aria / olio

TH90cn-3,5 Smart Change

 Ratio
Rapporto
1:1

 RPM
Velocità
8.000

 RPM Dry Running
Funz. a secco
4.000 min⁻¹

 Max. axial load
Max. carico assiale
1.250 N

 Torque
Momento torcente
50 Nm

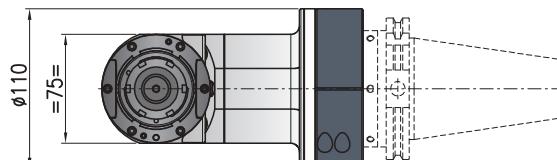
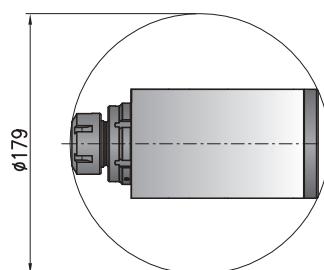
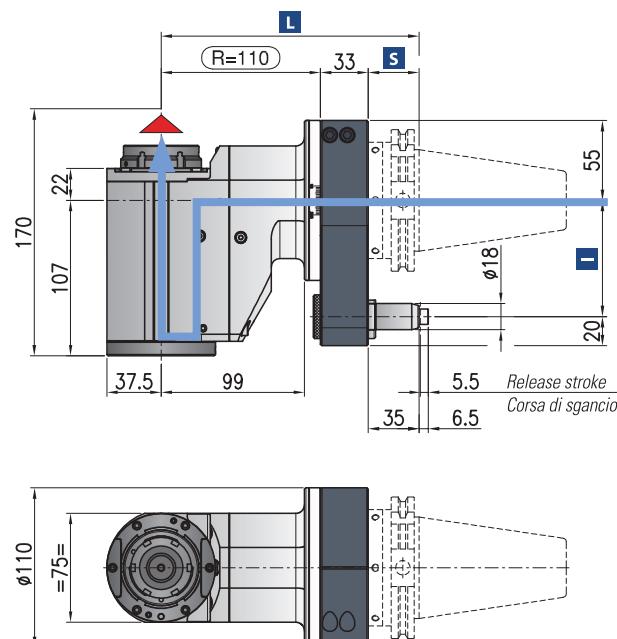
 Weight
Peso
12 kg

 Collet
Pinza
A2 Smart Change

* STANDARD EQUIPMENT INCLUDES:

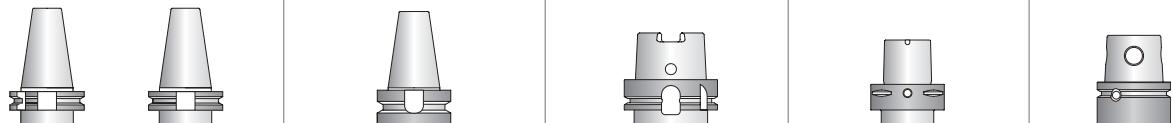


Minimum diameter without tool
Diametro minimo senza utensile



Dry running also possible / Rotazione a secco possibile

 Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



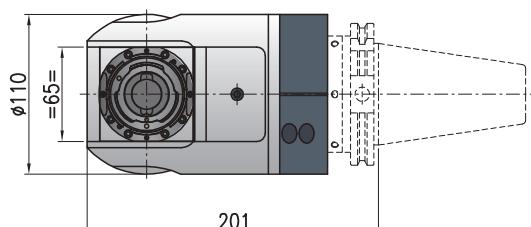
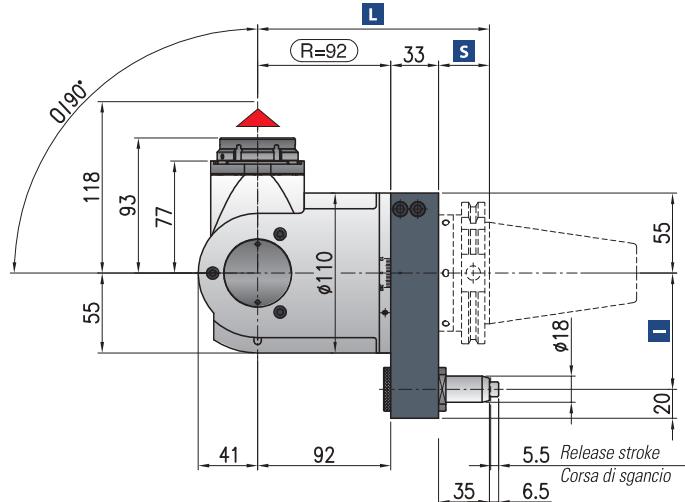
Shank/Cono	DIN-69871	CAT	MAS-BT	HSK		CAPTO		KM
Size/Grandezza	50	50	50	63-80	100	C6	C8	63
I	80-100	80-100	41	80-100	80-100	80-100	80-100	80-100
S	35		41	42	45	38	40	40
L	178		184	185	188	181	183	183

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

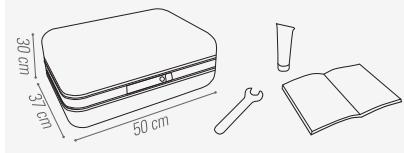
Option / Opzione

TCUcn-3,5 Smart Change

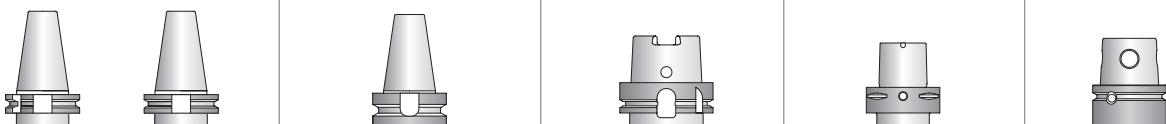


	Ratio Rapporto 1:1
	RPM Velocità 4000 min ⁻¹
	Max. axial load Max. carico assiale 715 N
	Torque Momento torcente 32 Nm
	Weight Peso 13 kg
	Collet Pinza A2 Smart Change

* STANDARD EQUIPMENT INCLUDES:



 Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino



Shank/Cono	DIN-69871	CAT	MAS-BT	HSK		CAPTO	KM
Size/Grandezza	50	50	41	63-80	100	C6	C8
I	80-100	80-100	41	80-100	80-100	80-100	80-100
S	35		41	42	45	38	40
L	160		166	167	170	163	165

*optional

Non interchangeable input drive shank/ Coni di attacco non intercambiabili

Option / Opzione



bar max

12

Coolant through pin
Adduzione refrigerante attraverso il perno



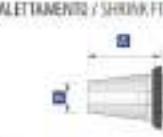
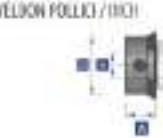
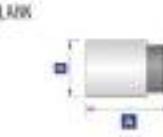
min⁻¹

6.000

High speed optional RPM max.
Opzione alta velocità RPM max.

LINEA SMART CHANGE

DATI TECNICI TECHNICAL DATA

	PORTAPINZA INCASSATO IN-BUILT COLLET		ER-20A ($\varnothing 1/13\text{mm}$)		ER-25A ($\varnothing 1/16\text{mm}$)											
	\varnothing	A	D	\varnothing	A	D										
	1/13	21,5	36,8	1/16	32,4	41										
	ER-20 ($\varnothing 1/13\text{mm}$)	ER-25 ($\varnothing 1/16\text{mm}$)	ER-32 ($\varnothing 2/22\text{mm}$)	PORTAPINZA / COLLET		ERC20 ($\varnothing 1/13\text{mm}$)		ERC25 ($\varnothing 1/16\text{mm}$)		ERC32 ($\varnothing 2/20\text{mm}$)						
	1/13	28,5	34	1/16	30,5	42	2/20	41,5	51			1/13	33,5	34		
	$(\varnothing 6)$	$(\varnothing 5)$	$(\varnothing 10)$	$(\varnothing 12)$	$(\varnothing 16)$					\varnothing	A	D	\varnothing	A	D	
	6	20	36,8	8	20	36,8	10	30	36,8	12	20	36,8	16	20	36,8	
	$(\varnothing 13)$	$(\varnothing 16)$	$(\varnothing 22)$	\varnothing	A	H	\varnothing	A	H	\varnothing	A	H	\varnothing	A	D	
	13	24,5	35	16	30,5	37	22	31,5	39							
	$(\varnothing 3\text{mm})$	$(\varnothing 4\text{mm})$	$(\varnothing 6\text{mm})$	$(\varnothing 8\text{mm})$	$(\varnothing 10\text{mm})$		$(\varnothing 12)$	$(\varnothing 16)$								
	3	40	13	4	40	15	6	40	21	8	40	21	10	40	24	
	$(\varnothing 1/4")$	$(\varnothing 3/8")$	$ER-20 (\varnothing 1/2")$	$(\varnothing 5/8")$	$(\varnothing 3/4")$											
	1/4"	20	36,8	3/8"	20	36,8	1/2"	30	36,8	5/8"	20	36,8	3/4"	20	36,8	
	$(\varnothing 3/4")$	$(\varnothing 1")$	\varnothing	A	H	\varnothing	A	H	\varnothing	A	D	\varnothing	A	D	\varnothing	A
	BLANK		\varnothing	A	D											
	1	10	50													



Accessori
Accessories



Adattatore preset ISO/BT
Preset adapter ISO/BT



Adattatore preset HSK
Preset adapter HSK



Tool boy



Chiavi di servizio
Wrenches

LINEA SMART CHANGE

PRESETTAGGIO FUORI MACCHINA OUTSIDE PRESETTING



Una volta montato l'utensile è possibile presettare la cartuccia utilizzando l'apposito adattatore.

Once the cutting tool is mounted, it is possible to preset the adapter in the presetter thanks to the Smart Change adapter

Adattatori disponibili

ISO –BT 40 / 50 –HSK 63 / 100

Available adapters

ISO –BT 40 / 50 –HSK 63 / 100



Ciò permette di ridurre i tempi e i costi legati all'attrezzamento macchina che avverrà in tempo mascherato, aumentando notevolmente la produttività.

This system allows to reduce time and costs for the set up with tremendous increase in the productivity.

Grazie alla nuova applicazione è possibile presettare tutta la testa con una cartuccia montata. Una particolare attrezzatura su cui è fissato lo Stop Block permette di montare l'intera testa nel preset e rilevare le misure necessarie.

Thanks to the new application it is possible to preset the complete head with the adapter mounted. A special fixture with the Stop Block allows to install the head into the presetter to measure the needed dimensions.

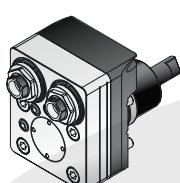
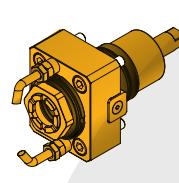
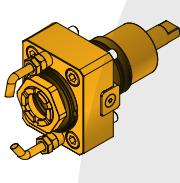
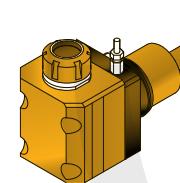
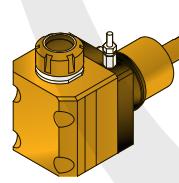
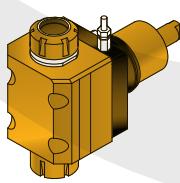
Immagine del presettaggio di una testa angolare regolabile: il preset misura l'angolo, dopo aver identificato i punti destro e sinistro, calcola in automatico il centro di rotazione dell'utensile e il suo diametro.

The picture shows the preset of an adjustable angle head: the preset measures the angle, after having identified the right and left points, it calculates automatically the rotation centre of the tool and its diameter.



MOTORIZZATI / LIVE TOOLS

SCEGLI IL MODELLO DI PORTA UTENSILE
CHOOSE THE TYPE OF TOOLHOLDER

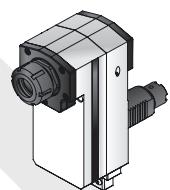
- 0120
ASSIALE
2 USCITE
STRAIGHT DUAL OUTPUT**
- 
- 010C
ASSIALE
REFRIGERANTE
STRAIGHT + COOLANT**
- 
- 0100
ASSIALE
STRAIGHT**
- 
- 0200
RADIALE
90° TOOL**
- 
- 020C
RADIALE
REFRIGERANTE
90° TOOL + COOLANT**
- 
- 0300
RADIALE
2 USCITE
CONTRAPPORTE
90° TOOL DUAL OPPOSITE OUTPUT**
- 
- 0220
RADIALE 2 USCITE
FRONTALE
90° TOOL DUAL FRONT OUTPUT**
- 



010S

ASSIALE MOLTIPLICATO

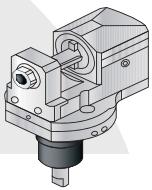
STRAIGHT SPEEDER



0400

ASSIALE DISASSATO

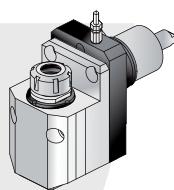
STRAIGHT OFFSET



0900

PORTACREATORE

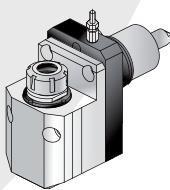
HOBBLING HOLDER



040C

ASSIALE DISASSATO REFRIGERANTE

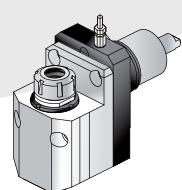
STRAIGHT OFFSET + COOLANT



070S

RADIALE MOLTIPLICATO

90° TOOL SPEEDER



0700

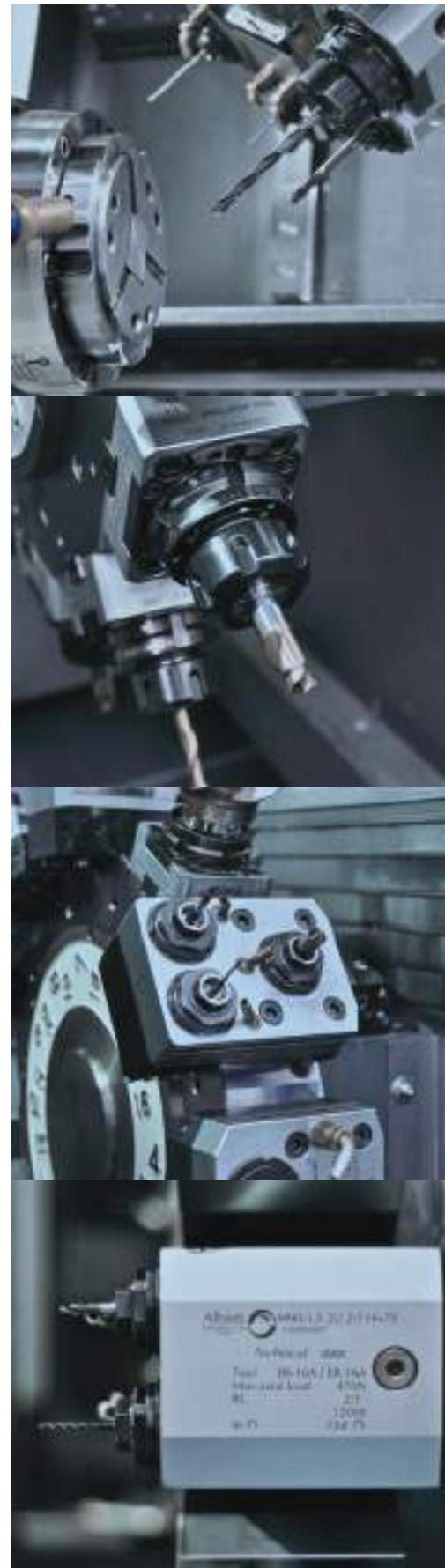
RADIALE ARRETRATO

90° TOOL OFFSET

070C

RADIALE ARRETRATO REFRIGERATO

90° TOOL OFFSET + COOLANT



MOTORIZZATI / LIVE TOOLS

SCEGLI IL MODELLO DI TORNIO
CHOOSE THE TYPE OF LATHE



Tooling

DMG MORI



Tooling

MAZAK



Tooling

NAKAMURA



Tooling

OKUMA



Tooling

DOOSAN



Tooling

GOODWAY



Tooling

FEELER



Tooling

SAMSUNG



Tooling

HYUNDAI



Tooling

HWACHEON

TESTE / HEADS

ACCESSORI ACCESSORIES



GHIERA <i>Clamping nut</i>		PINZA <i>Collet</i>		DISCHETTO DI TENUTA <i>Sealing disk</i>		CHIAVE PER GHIERA <i>Pin wrench</i>	CHIAVE DI CONTRASTO <i>Spanner</i>
		Ø Serraggio min max	Incremento increase	Ø Serraggio min max	Incremento increase		
ER-8 Serie 0.4	ER-8 M	0,5 - 5,0	0,5 mm			30930800	40941700
	33212080						
ER-11 Serie 0.5	UM/ER-11	0,5 - 7,0	0,5 mm			40941700	40927000
	33213110						
ER-16 Serie 1.5	ER-16A	0,5 - 10,0	0,5 mm	2,5 - 10,0	0,5 mm	40941700	40932000
	43211161						
ER-20 TCU-1.5	UM/ER 20	0,5 - 13,0	0,5 mm	2,5 - 13,0	0,5 mm	40930000	40932000
	33214200						
ER-25 Serie 2.5	UM/ER 25	0,5 - 17,0	0,5 mm			40932500	40939000
	33214250						
	IC/ER 25	0,5 - 17,0	0,5 mm	2,5 - 16,0	0,5 mm	40932500	40939000
	33215250						
ER-32 Serie 3.5	UM/ER 32	1,0 - 22,0	0,5 mm			40933200	40946000
	33214320						
	IC/ER 32	1,0 - 22,0	0,5 mm	2,5 - 20,0	0,5 mm	40933200	40946000
	33215320						
ER-40 Serie 4.5	UM/ER 40	2,0 - 30,0	0,5 mm			30934000	40959000
	33214400						
	IC/ER 40	2,0 - 30,0	0,5 mm	2,5 - 26,0	0,5 mm	30934000	40959000
	3321540						







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New Alberti website

WWW.ALBERTIUMBERTO.COM

- **Nuova sezione prodotti**
New product area
- **Contatto diretto con cliente**
Direct line with customer
- **Più versatilità**
Much flexibility

NUOVO SITO HEADS FOR FUTURE

New Heads For Future website

WWW.HEADS4FUTURE.COM

- **Database aggiornato con esempi di applicazioni, dettagli di lavorazione e parametri di taglio**
Update database with examples of machining, working details and cutting data
- **File multimediali (disegni 3D, libretti istruzione e video tutorial)**
Multimedia files (3D drawings instruction books and videos)



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