

# 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 interporre 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.*

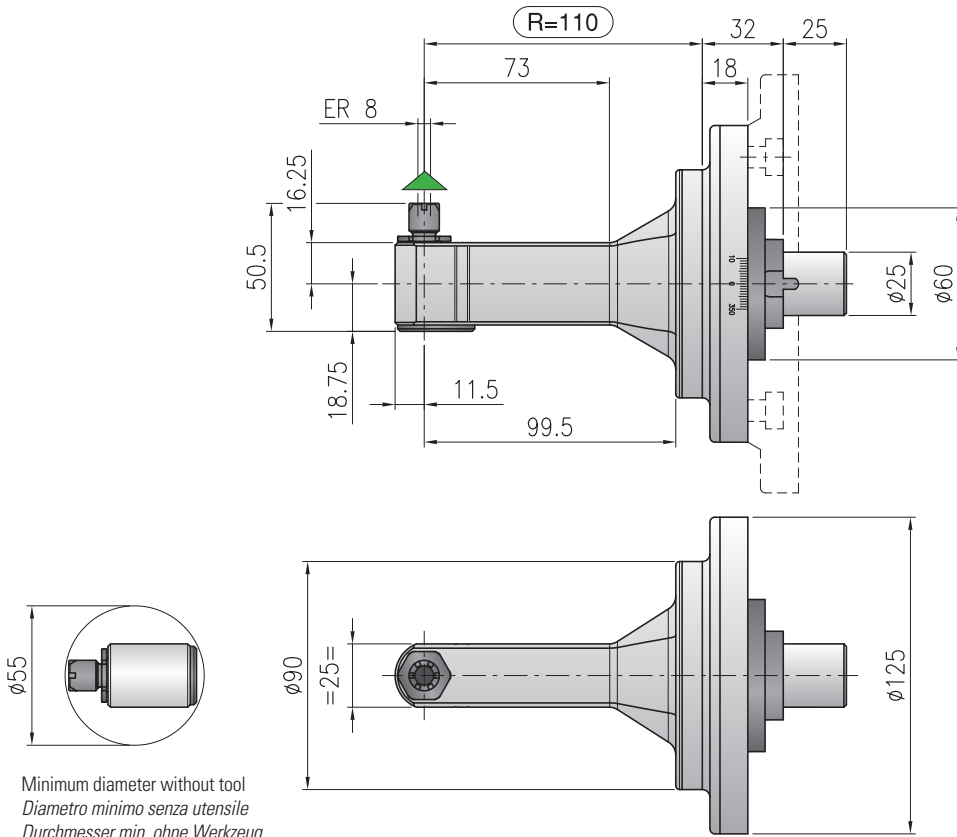
*Winkelköpfe von Linea MODULAR sind für traditionelle Werkzeugmaschinen geeignet und werden an der Maschinenspindel durch einen Flansch angebaut. Diese Köpfe sind zusammen mit einem wechselbaren Kegel und Universalflansch verkauft und können unterschiedlichen Verlängerungsmodule als Option verwendet werden um die Gesamtlänge zu ändern. Für eine korrekte Montage, soll man ein Abstandstück zwischen dem Kopf und Maschinenspindel fertigen.*



*Esempio di montaggio in macchina con modulo di prolunga / Example of mounting the head on the machine with extension / Beispiel von Montage mit Verlängerungsmodul*

# LINEA MODULAR

## T90-0,4



Ratio  
 Rapporto / Verhältnis  
**1:1**



RPM  
 Velocità / Drehzahl max.  
**10.000 min<sup>-1</sup>**



Max. axial load  
 Max. carico assiale / Max. Axialbelastung  
**60 N**



Torque  
 Momento torcente / Drehmoment  
**4 Nm**



Weight  
 Peso / Gewicht  
**4 kg**



Collet  
 Pinza / Spannzange  
**ER-8 Ø 0,5/5 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

- Special bag - wrenches - Grease tube - Instruction book
- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

▲ Direction of rotation same as machine spindle / *sensò di rotazione uguale al mandrino* / *Drehrichtung gleich wie Antriebsspindel*

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

**Option / Opzione / Option**



bar max  
**12**

Coolant through spindle  
 Adduzione refrigerante interna  
 Kühlmittelzufuhr durch Spindel



Ø mm max.  
**6**

Welding output  
 Weldon  
 Weldon-Aufnahme

# T90-0,5C



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**10.000 min<sup>-1</sup>**



Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**120 N**



Torque  
Momento torcente / Drehmoment  
**8 Nm**



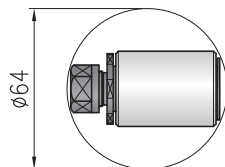
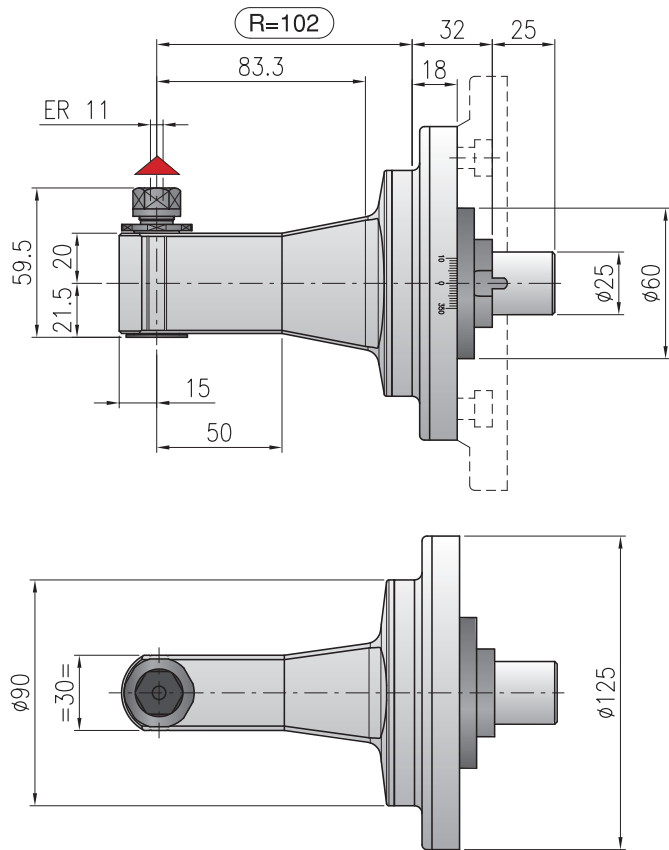
Weight  
Peso / Gewicht  
**4 kg**



Collet  
Pinza / Spannzange  
**ER-11  $\varnothing$  0,5/7 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

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- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung



Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug

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

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

Option / **Opzione** / Option



bar max  
**12**

Coolant through spindle  
Adduzione refrigerante interna  
Kühlmittelzufuhr durch Spindel

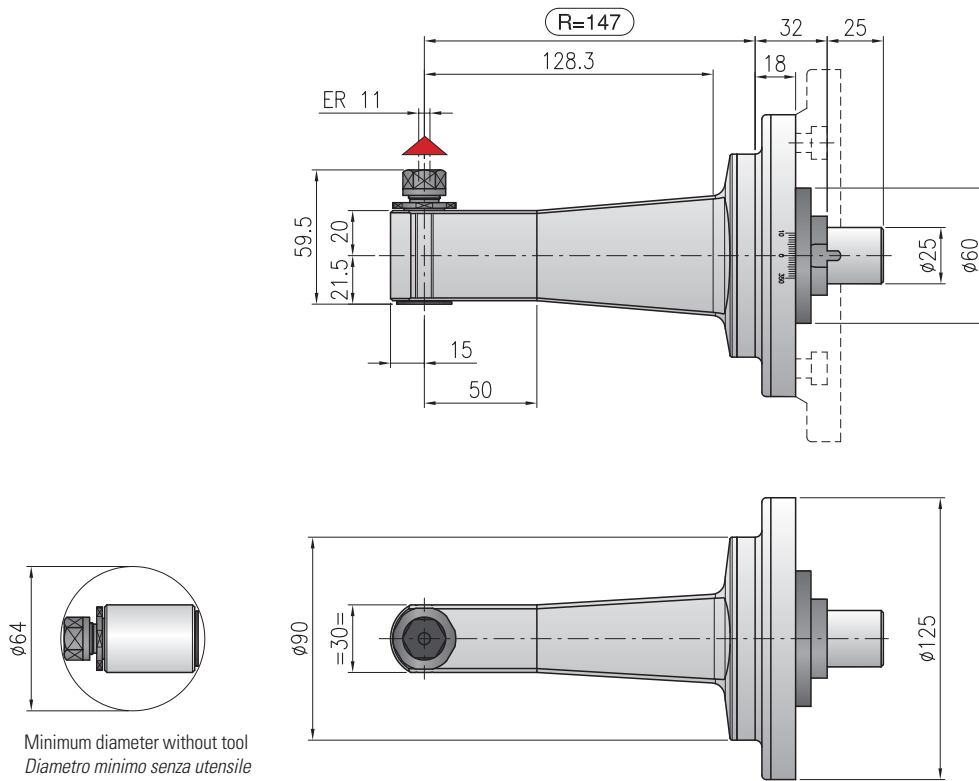


$\varnothing$  mm max.  
**6**





Weldon output  
Weldon  
Weldon-Aufnahme

# LINEA MODULAR

## T90-0,5L



Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug

- 
**Ratio**  
Rapporto / Verhältnis  
**1:1**
- 
**RPM**  
Velocità / Drehzahl max.  
**10.000 min<sup>-1</sup>**
- 
**Max. axial load**  
Max. carico assiale / Max. Axialbelastung  
**120 N**
- 
**Torque**  
Momento torcente / Drehmoment  
**8 Nm**
- 
**Weight**  
Peso / Gewicht  
**4,3 kg**
- 
**Collet**  
Pinza / Spannzange  
**ER-11  $\varnothing$  0,5/7 mm**

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- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

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

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

**Option / Opzione / Option**



bar max  
**12**

Coolant through spindle  
Adduzione refrigerante interna  
Kühlmittelzufuhr durch Spindel



$\varnothing$  mm max.  
**6**

Weldon output  
Weldon  
Weldon-Aufnahme

# T90-1,5



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**8.000 min<sup>-1</sup>**



Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**250 N**



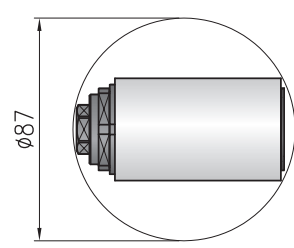
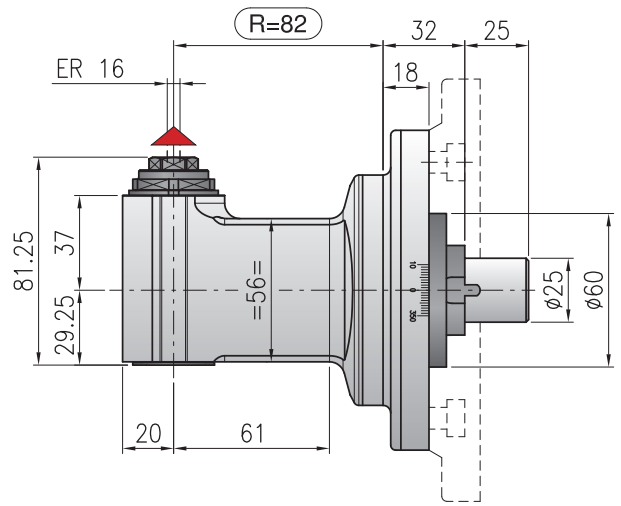
Torque  
Momento torcente / Drehmoment  
**15 Nm**



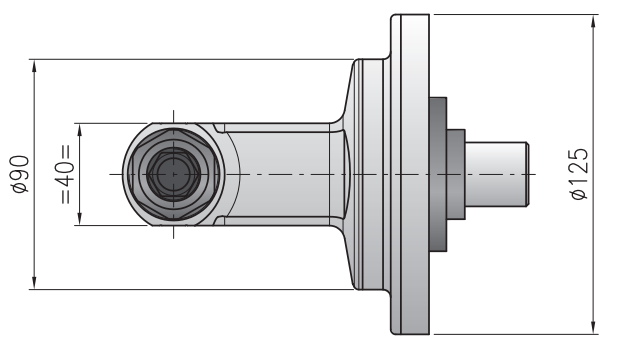
Weight  
Peso / Gewicht  
**4,3 kg**



Collet  
Pinza / Spannzange  
**ER-16 ø 1/10 mm**



Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug



**\* STANDARD EQUIPMENT INCLUDES:**

- Special bag - wrenches - Grease tube - Instruction book
- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

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

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

**Option / Opzione / Option**



bar max  
**12**

Coolant through spindle  
Adduzione refrigerante interna  
Kühlmittelzufuhr durch Spindel



min<sup>-1</sup>  
**10.000**

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



Ø mm  
**13**

Arbor output  
Porta fresa  
Fräseraufnahme



Ø mm max.  
**10**

Weldon output  
Weldon  
Weldon-Aufnahme

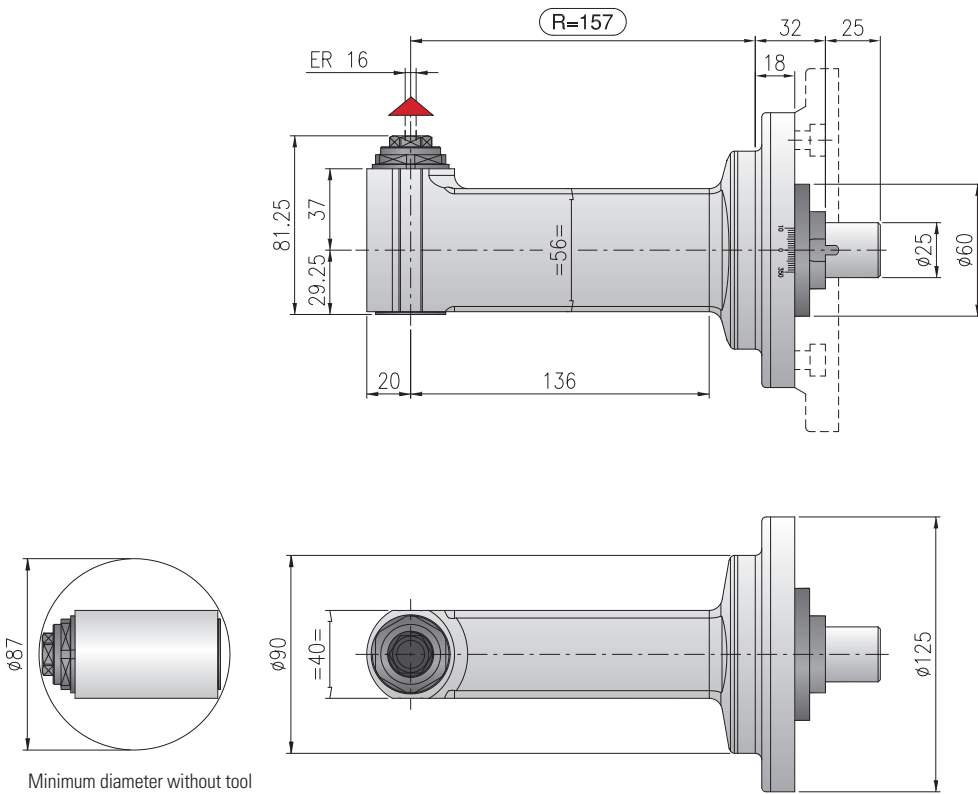


**ER-16/ER11**

Double output  
Doppia uscita  
Doppelter Ausgang

LINEA MODULAR

T90-1,5L



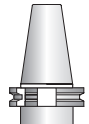
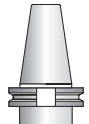
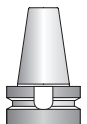
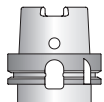


Minimum diameter without tool  
 Diametro minimo senza utensile  
 Durchmesser min. ohne Werkzeug

-  Ratio  
Rapporto / Verhältnis  
**1:1**
-  RPM  
Velocità / Drehzahl max.  
**8.000 min<sup>-1</sup>**
-  Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**250 N**
-  Torque  
Momento torcente / Drehmoment  
**15 Nm**
-  Weight  
Peso / Gewicht  
**5,2 kg**
-  Collet  
Pinza / Spannzange  
**ER-16  $\varnothing$  1/10 mm**






**\* STANDARD EQUIPMENT INCLUDES:**

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- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

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

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

Option / Opzione / Option

				
bar max <b>12</b>	min <sup>-1</sup> <b>10.000</b>	$\varnothing$ mm <b>13</b>	$\varnothing$ mm max. <b>10</b>	<b>ER-16/ER11</b>
Coolant through spindle Adduzione refrigerante interna Kühlmittelzufuhr durch Spindel	High speed optional RPM max. Opzione alta velocità RPM max Drehzahl max.	Arbor output Porta fresa Fräseraufnahme	Weldon output Weldon Weldon-Aufnahme	Double output Doppia uscita Doppelter Ausgang

## T90-2,5



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**6.000 min<sup>-1</sup>**



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



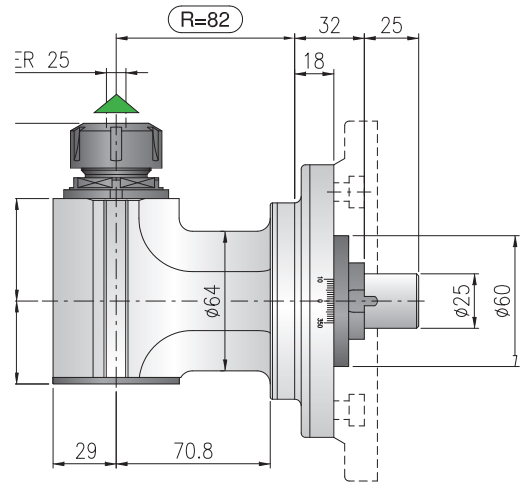
Torque  
Momento torcente / Drehmoment  
**30 Nm**



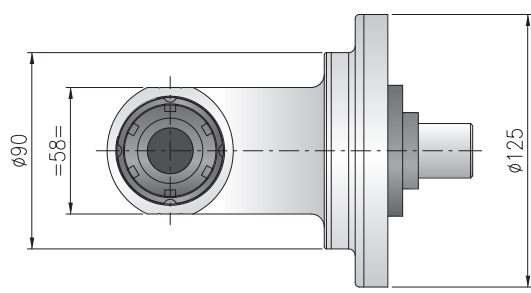
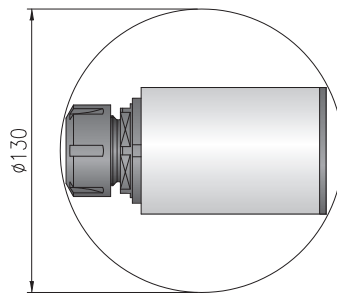
Weight  
Peso / Gewicht  
**5,4 kg**



Collet  
Pinza / Spannzange  
**ER-25 Ø 1/16 mm**



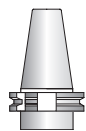
Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug



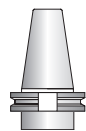
**\* STANDARD EQUIPMENT INCLUDES:**

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- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

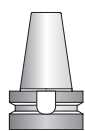
Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino / Drehrichtung gleich wie Antriebsspindel



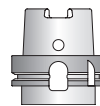
**DIN-69871**



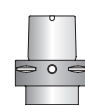
**CAT**



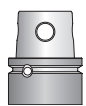
**MAS-BT**



**HSK**



**CAPTO**



**KM**

Shank/Cono/Aufnahme

**Option / Opzione / Option**



bar max  
**12**

Coolant through spindle  
Adduzione refrigerante interna  
Kühlmittelzufuhr durch Spindel



min<sup>-1</sup>  
**8.000**

High speed RPM max.  
Alta velocità RPM max.  
Drehzahl max.



Ø mm  
**16**

Arbor output  
Porta fresa  
Fräseraufnahme



Ø mm max.  
**16**

Welding output  
Welding  
Welding-Aufnahme



**HSK-32**

Quick Change  
Attacco rapido  
Schnellwechselfaufnahme

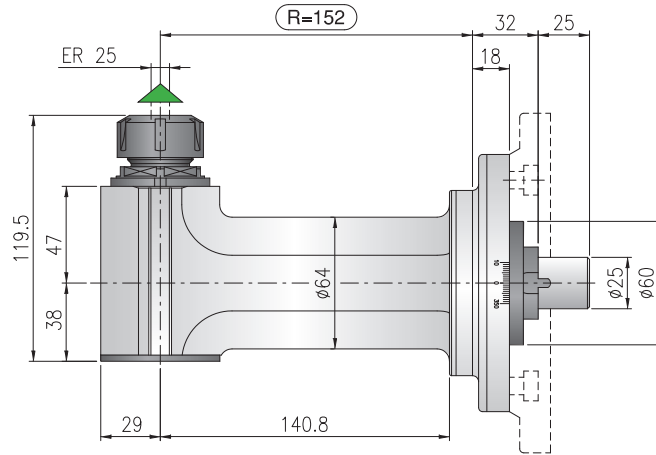


**ER-25/ER-16**

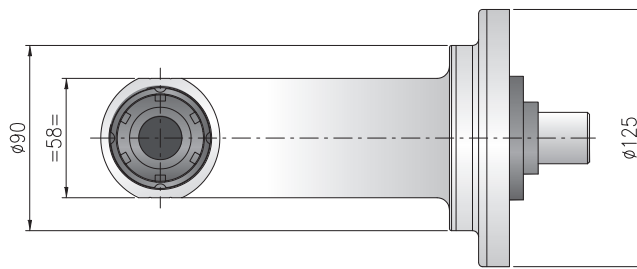
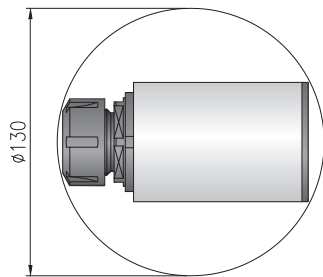
Double output  
Doppia uscita  
Doppelter Ausgang

# LINEA MODULAR

## T90-2,5L



Minimum diameter without tool  
 Diametro minimo senza utensile  
 Durchmesser min. ohne Werkzeug



- Ratio  
Rapporto / Verhältnis  
**1:1**
- RPM  
Velocità / Drehzahl max.  
**6.000 min<sup>-1</sup>**
- Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**510 N**
- Torque  
Momento torcente / Drehmoment  
**30 Nm**
- Weight  
Peso / Gewicht  
**6,7 kg**
- Collet  
Pinza / Spannzange  
**ER-25 ø 1/16 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

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- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino / Drehrichtung gleich wie Antriebsspindel

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

Option / Opzione / Option					
bar max <b>12</b>	min <sup>-1</sup> <b>8.000</b>	Ø mm <b>16</b>	Ø mm max. <b>16</b>	<b>HSK-32</b>	<b>ER-25/ER-16</b>
Coolant through spindle Adduzione refrigerante interna Kühlmittelzufuhr durch Spindel	High speed RPM max. Alta velocità RPM max. Drehzahl max.	Arbor output Porta fresa Fräseraufnahme	Welding output Weldon Weldon-Aufnahme	Quick Change Attacco rapido Schnellwechselfaufnahme	Double output Doppia uscita Doppelter Ausgang



# T90-2,5 2U



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**6.000 min<sup>-1</sup>**



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



Torque  
Momento torcente / Drehmoment  
**30 Nm**



Weight  
Peso / Gewicht  
**6,4 kg**

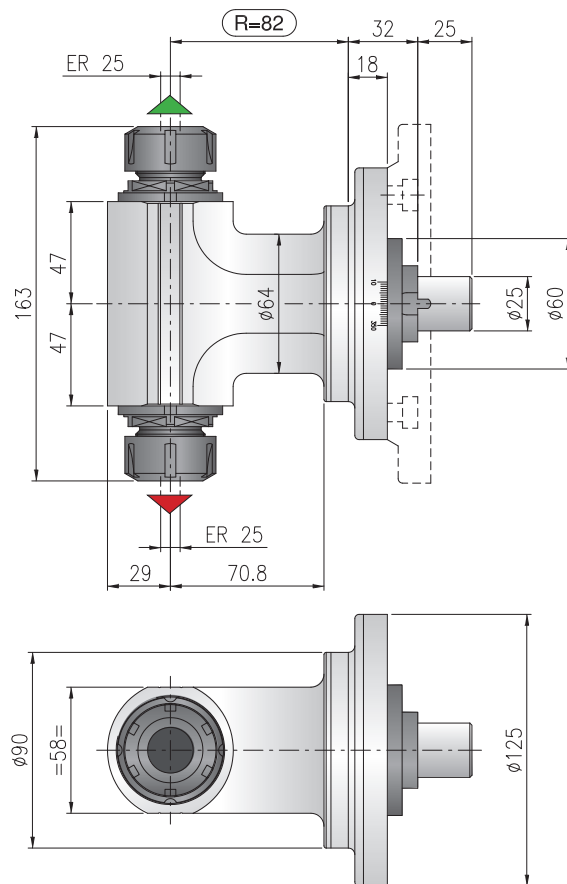
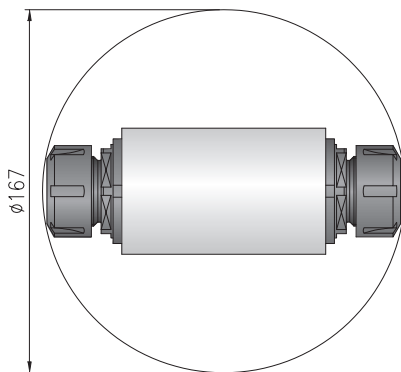


Collet  
Pinza / Spannzange  
**ER-25 Ø 1/16 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

- Special bag - wrenches - Grease tube - Instruction book
- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

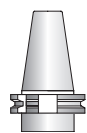
Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug



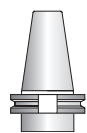
Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino / Drehrichtung gleich wie Antriebsspindel



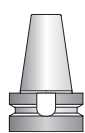
Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino / Drehrichtung entgegengesetzt Antriebsspindel



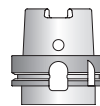
DIN-69871



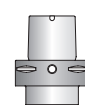
CAT



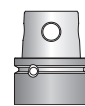
MAS-BT



HSK



CAPTO



KM

Shank/Cono/Aufnahme

Option / Opzione / Option



min<sup>-1</sup>  
**8.000**

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



Ø mm  
**16**

Arbor output  
Porta fresa  
Fräseraufnahme

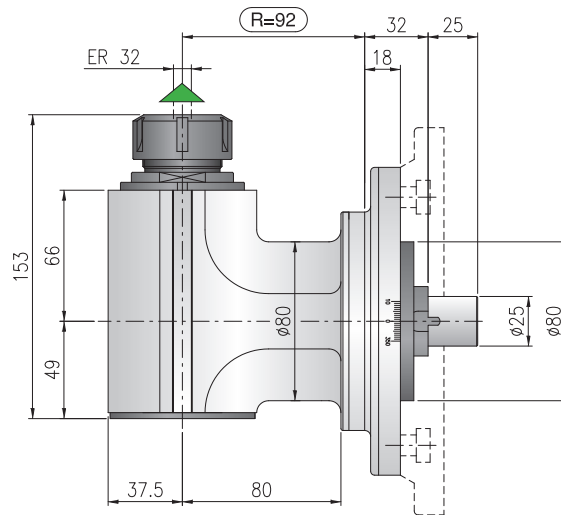


Ø mm max.  
**16**

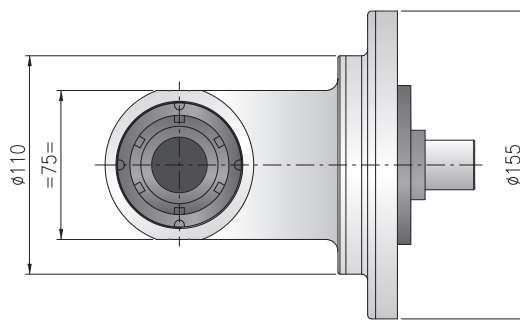
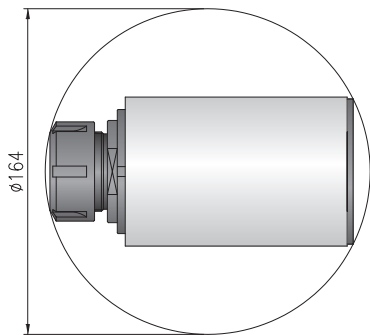
Weldon output  
Weldon  
Weldon-Aufnahme

# LINEA MODULAR

## T90-3,5



Minimum diameter without tool  
 Diametro minimo senza utensile  
 Durchmesser min. ohne Werkzeug



- Ratio  
Rapporto / Verhältnis  
**1:1**
- RPM  
Velocità / Drehzahl max.  
**4.000 min<sup>-1</sup>**
- Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**1.250 N**
- Torque  
Momento torcente / Drehmoment  
**50 Nm**
- Weight  
Peso / Gewicht  
**11 kg**
- Collet  
Pinza / Spannzange  
**ER-32 ø 2/20 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

- Special bag - wrenches - Grease tube - Instruction book
- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

Direction of rotation same as machine spindle / *sensò di rotazione uguale al mandrino* / *Drehrichtung gleich wie Antriebsspindel*

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

**Option / Opzione / Option**

bar max <b>12</b>	min <sup>-1</sup> <b>6.000</b>	Ø mm <b>27</b>	Ø mm max. <b>20</b>	<b>ISO-30 HSK-40</b>	<b>ER-32/ER-20</b>
Coolant through spindle Adduzione refrigerante interna Kühlmittelzufuhr durch Spindel	High speed optional RPM max. Opzione alta velocità RPM max. Drehzahl max.	Arbor output Porta fresa Fräseraufnahme	Welding output Welding Welding-Aufnahme	Quick Change Attacco rapido Schnellwechsellafnahme	Double output Doppia uscita Doppelter Ausgang

## T90-3,5L



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**4.000 min<sup>-1</sup>**



Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**1.250 N**



Torque  
Momento torcente / Drehmoment  
**50 Nm**



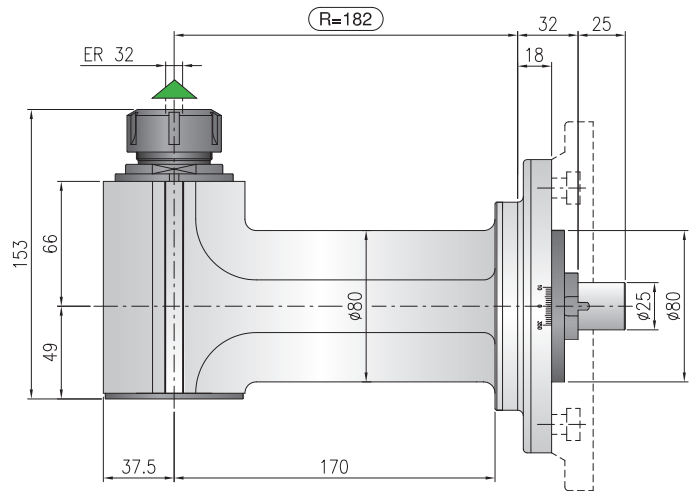
Weight  
Peso / Gewicht  
**13,2 kg**



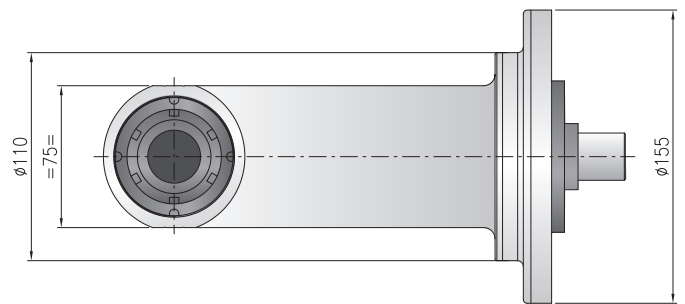
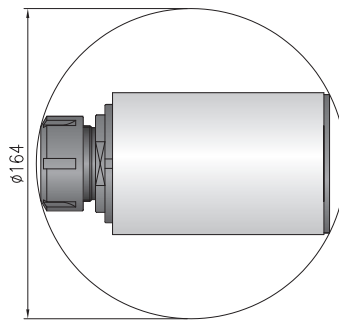
Collet  
Pinza / Spannzange  
**ER-32 Ø 2/20 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

- Special bag - wrenches - Grease tube - Instruction book
- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung



Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug



Direction of rotation same as machine spindle / *sensò di rotazione uguale al mandrino / Drehrichtung gleich wie Antriebsspindel*

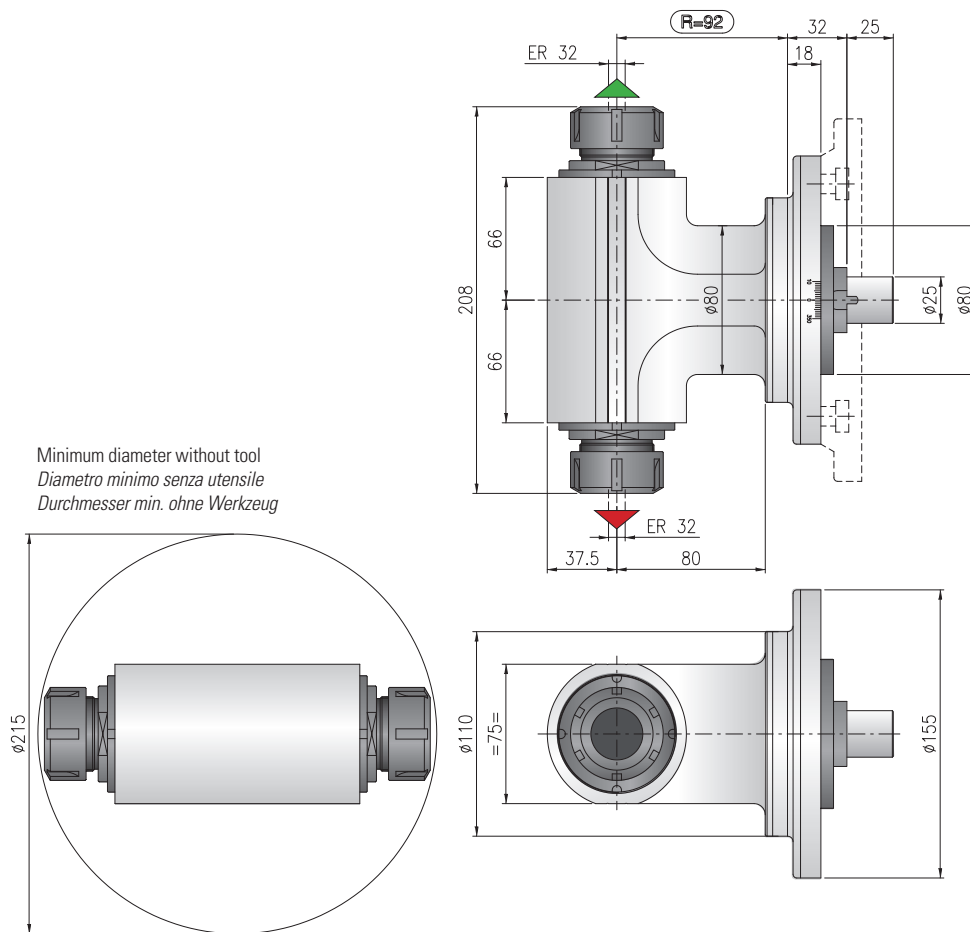
Shank/Cono/Aufnahme						
	<b>DIN-69871</b>	<b>CAT</b>	<b>MAS-BT</b>	<b>HSK</b>	<b>CAPTO</b>	<b>KM</b>

**Option / Opzione / Option**

bar max <b>12</b>	min <sup>-1</sup> <b>6.000</b>	Ø mm <b>27</b>	Ø mm max. <b>20</b>	<b>ISO-30 HSK-40</b>	<b>ER-32/ER-20</b>
Coolant through spindle Adduzione refrigerante interna Kühlmittelzufuhr durch Spindel	High speed optional RPM max. Opzione alta velocità RPM max. Drehzahl max.	Arbor output Porta fresa Fräseraufnahme	Weldon output Weldon Weldon-Aufnahme	Quick Change Attacco rapido Schnellwechsellafnahme	Double output Doppia uscita Doppelter Ausgang

# LINEA MODULAR

## T90-3,5 2U



- Ratio  
Rapporto / Verhältnis  
**1.1**
- RPM  
Velocità / Drehzahl max.  
**4.000 min<sup>-1</sup>**
- Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**1.250 N**
- Torque  
Momento torcente / Drehmoment  
**50 Nm**
- Weight  
Peso / Gewicht  
**12 kg**
- Collet  
Pinza / Spannzange  
**ER-32 ø 2/20 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

- Special bag - wrenches - Grease tube - Instruction book
- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

- Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino / Drehrichtung gleich wie Antriebsspindel
- Direction of rotation opposite to machine spindle / senso di rotazione contrario al mandrino / Drehrichtung entgegen Antriebsspindel

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

**Option / Opzione / Option**



min<sup>-1</sup>  
**6.000**

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



Ø mm  
**27**

Arbor output  
 Porta fresa  
 Fräseraufnahme



Ø mm max.  
**20**

Weldon output  
 Weldon  
 Weldon-Aufnahme



**HSK-40**

Quick Change  
 Attacco rapido  
 Schnellwechselfaufnahme

## T90-4,5



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**4.000 min<sup>-1</sup>**



Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**1.750 N**



Torque  
Momento torcente / Drehmoment  
**75 Nm**



Weight  
Peso / Gewicht  
**17 kg**

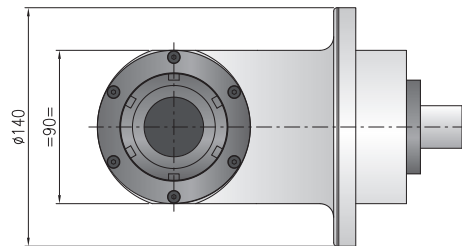
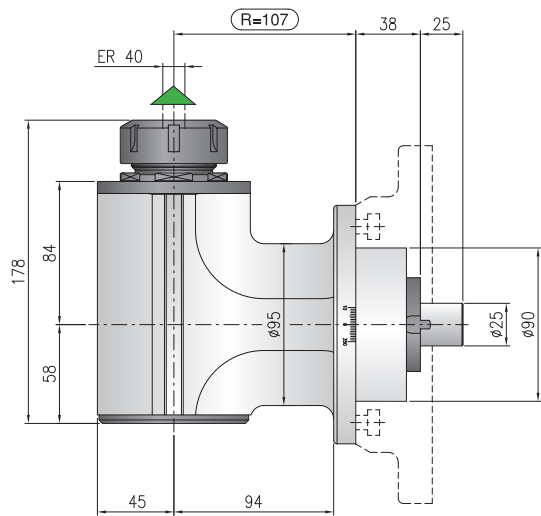
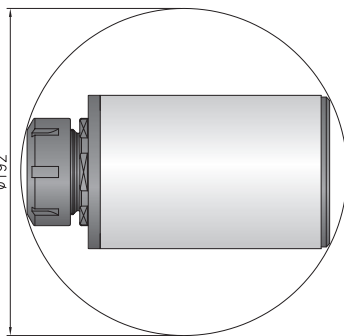


Collet  
Pinza / Spannzange  
**ER-40 Ø 3/30 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

- Wooden case - wrenches - Grease tube - Instruction book
- Cassa legno - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Holzkiste - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug



Direction of rotation same as machine spindle / *sensò di rotazione uguale al mandrino / Drehrichtung gleich wie Antriebsspindel*

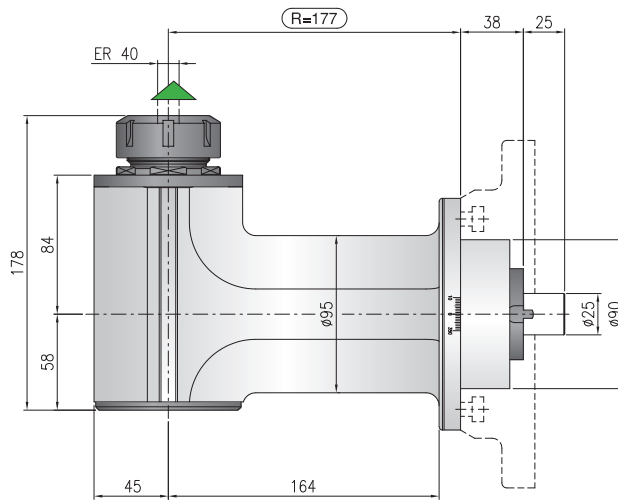
Shank/Cono/Aufnahme						
	<b>DIN-69871</b>	<b>CAT</b>	<b>MAS-BT</b>	<b>HSK</b>	<b>CAPTO</b>	<b>KM</b>

**Option / Opzione / Option**

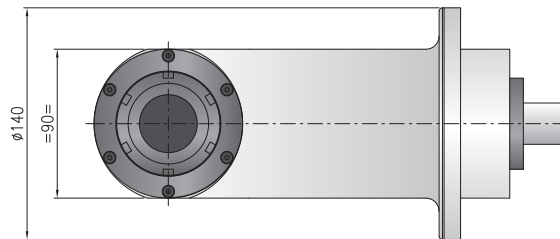
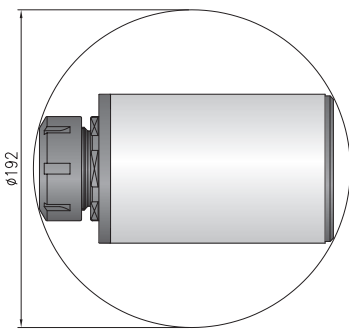
bar max <b>12</b>	min <sup>-1</sup> <b>6.000</b>	Ø mm <b>27</b>	Ø mm max. <b>25</b>	<b>HSK-40</b>	<b>ER-40/ER-25</b>
Coolant through spindle Adduzione refrigerante interna Kühlmittelzufuhr durch Spindel	High speed optional RPM max. Opzione alta velocità RPM max. Drehzahl max.	Arbor output Porta fresa Fräseraufnahme	Weldon output Weldon Weldon-Aufnahme	Quick Change Attacco rapido Schnellwechselfaufnahme	Double output Doppia uscita Doppelter Ausgang

# LINEA MODULAR

## T90-4,5L



Minimum diameter without tool  
 Diametro minimo senza utensile  
 Durchmesser min. ohne Werkzeug



- Ratio  
Rapporto / Verhältnis  
**1:1**
- RPM  
Velocità / Drehzahl max.  
**4.000 min<sup>-1</sup>**
- Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**1.750 N**
- Torque  
Momento torcente / Drehmoment  
**75 Nm**
- Weight  
Peso / Gewicht  
**20 kg**
- Collet  
Pinza / Spannzange  
**ER-40 Ø 3/30 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

- Wooden case - wrenches - Grease tube - Instruction book
- Cassa legno - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Holzkiste - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

Direction of rotation same as machine spindle / *sensò di rotazione uguale al mandrino / Drehrichtung gleich wie Antriebsspindel*

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

**Option / Opzione / Option**

bar max <b>12</b>	min <sup>-1</sup> <b>6.000</b>	Ø mm <b>27</b>	Ø mm max. <b>25</b>	<b>HSK-40</b>	<b>ER-40/ER-25</b>
Coolant through spindle Adduzione refrigerante interna Kühlmittelzufuhr durch Spindel	High speed optional RPM max. Opzione alta velocità RPM max. Drehzahl max.	Arbor output Porta fresa Fräseraufnahme	Weldon output Weldon Weldon-Aufnahme	Quick Change Attacco rapido Schnellwechselfaufnahme	Double output Doppia uscita Doppelter Ausgang

## T90-5



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**3.000 min<sup>-1</sup>**



Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**1.800 N**



Torque  
Momento torcente / Drehmoment  
**100 Nm**



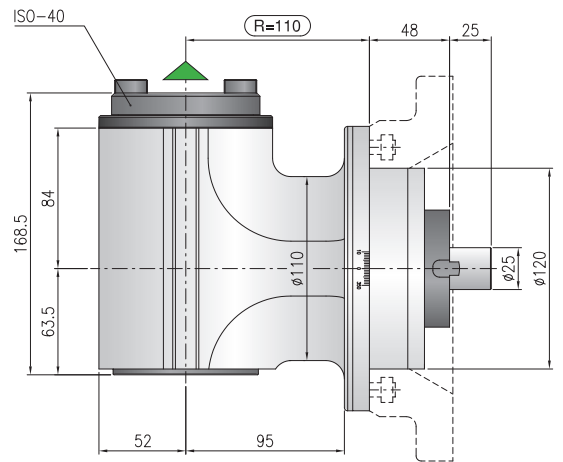
Weight  
Peso / Gewicht  
**22 kg**



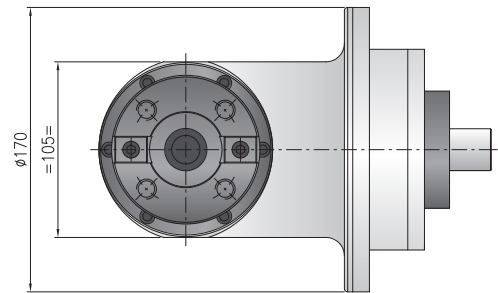
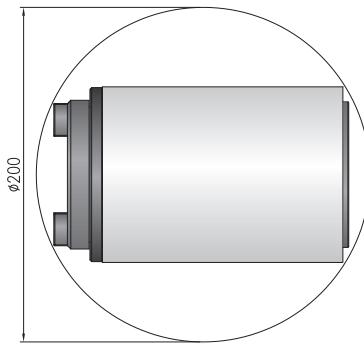
Collet  
Pinza / Spannzange  
**ISO 40**

**\* STANDARD EQUIPMENT INCLUDES:**

- Wooden case - wrenches - Grease tube - Instruction book
- Cassa legno - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Holzkiste - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung



Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug



Direction of rotation same as machine spindle / *sensò di rotazione uguale al mandrino / Drehrichtung gleich wie Antriebsspindel*

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

**Option / Opzione / Option**



bar max  
**12**

Coolant through spindle  
Addizione refrigerante interna  
Kühlmittelzufuhr durch Spindel



min<sup>-1</sup>  
**6.000**

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



**HSK-63**

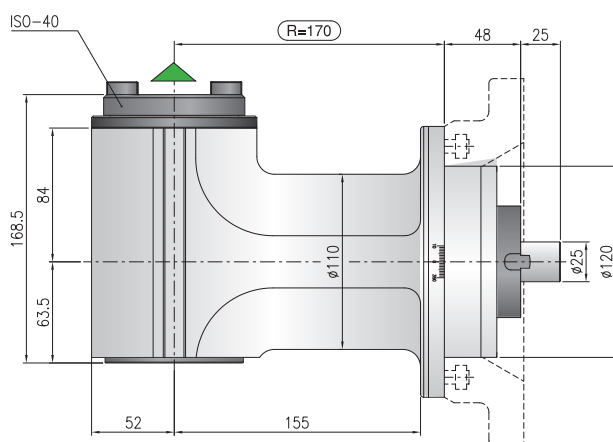
Quick Change  
Attacco rapido  
Schnellwechsellaufnahme



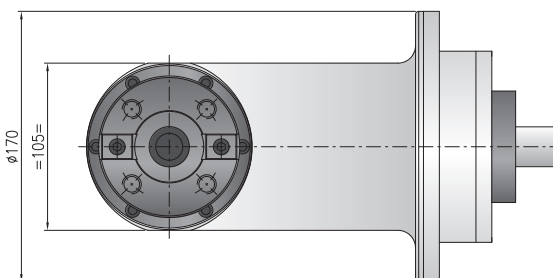
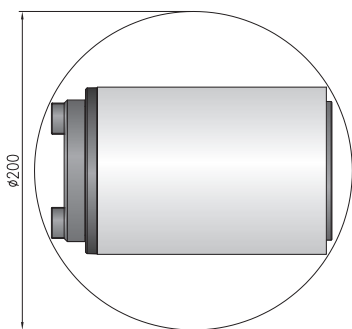
**OIL**

Oil lubrication  
Lubrificazione  
Ölschmierung

## T90-5L



Minimum diameter without tool  
 Diametro minimo senza utensile  
 Durchmesser min. ohne Werkzeug



Ratio  
 Rapporto / Verhältnis  
**1:1**



RPM  
 Velocità / Drehzahl max.  
**3.000 min<sup>-1</sup>**



Max. axial load  
 Max. carico assiale / Max. Axialbelastung  
**1.800 N**



Torque  
 Momento torcente / Drehmoment  
**100 Nm**



Weight  
 Peso / Gewicht  
**26,2 kg**



Collet  
 Pinza / Spannzange  
**ISO 40**

**\* STANDARD EQUIPMENT INCLUDES:**

- Wooden case - wrenches - Grease tube - Instruction book
- Cassa legno - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Holzkiste - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

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

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

**Option / Opzione / Option**



bar max  
**12**

Coolant through spindle  
 Adduzione refrigerante interna  
 Kühlmittelzufuhr durch Spindel



min<sup>-1</sup>  
**6.000**

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



**HSK-63**

Quick Change  
 Attacco rapido  
 Schnellwechsellafnahme



**OIL**

Oil lubrication  
 Lubrificazione  
 Ölschmierung



# TCU 2,5



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**4.000 min<sup>-1</sup>**



Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**480 N**



Torque  
Momento torcente / Drehmoment  
**18 Nm**



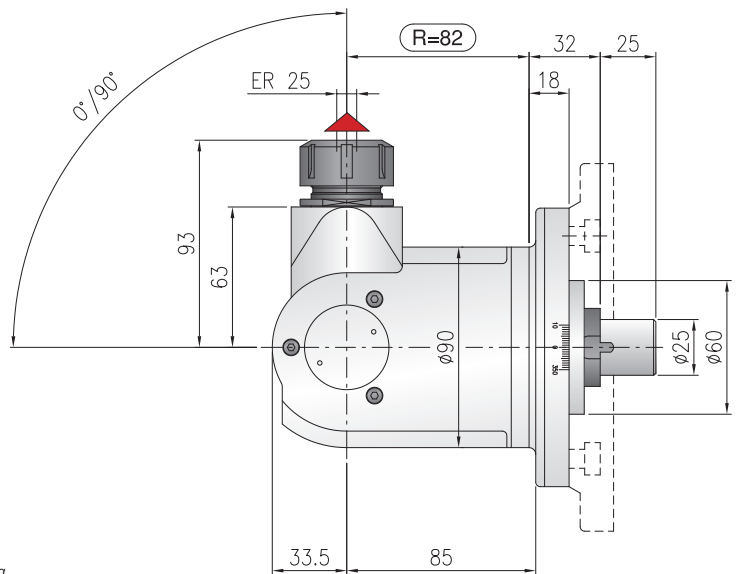
Weight  
Peso / Gewicht  
**7 kg**



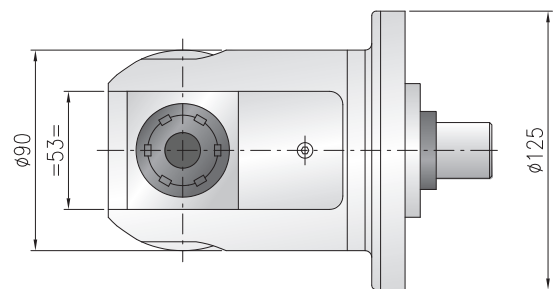
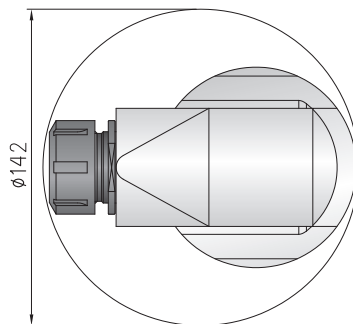
Collet  
Pinza / Spannzange  
**ER-25 Ø 1/16 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

- Special bag - wrenches - Grease tube - Instruction book
- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung



Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug



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

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

Option / **Opzione** / Option



min<sup>-1</sup>  
**6.000**

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

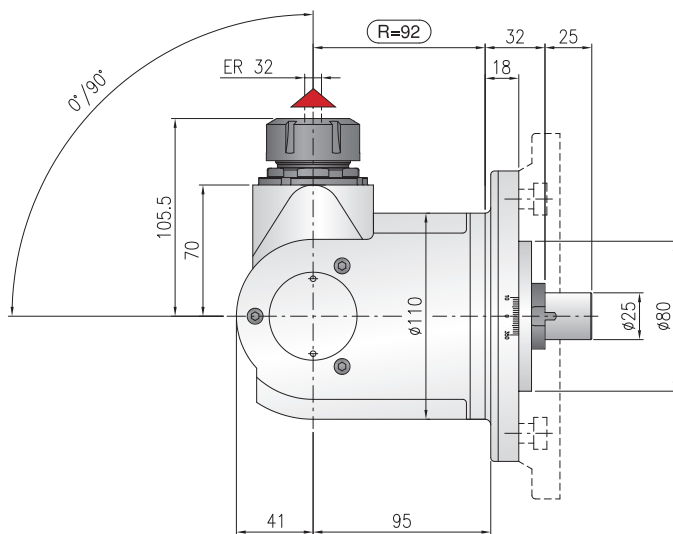


Ø mm max.  
**16**

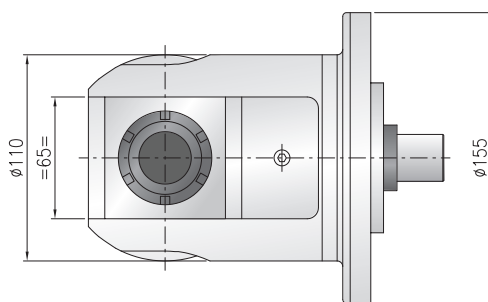
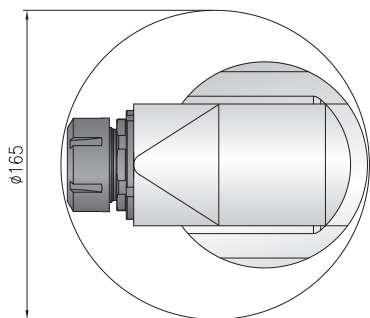
Weldon output  
Weldon  
Weldon-Aufnahme

# LINEA MODULAR

## TCU 3,5



Minimum diameter without tool  
 Diametro minimo senza utensile  
 Durchmesser min. ohne Werkzeug



Ratio  
 Rapporto / Verhältnis  
**1:1**



RPM  
 Velocità / Drehzahl max.  
**4.000 min<sup>-1</sup>**



Max. axial load  
 Max. carico assiale / Max. Axialbelastung  
**715 N**



Torque  
 Momento torcente / Drehmoment  
**32 Nm**



Weight  
 Peso / Gewicht  
**13 kg**



Collet  
 Pinza / Spannzange  
**ER-32 Ø 2/20 mm**

**\* STANDARD EQUIPMENT INCLUDES:**

- Special bag - wrenches - Grease tube - Instruction book
- Bauletto - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Spezialtasche - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

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

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

**Option / Opzione / Option**



min<sup>-1</sup>  
**6.000**

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



Ø mm max.  
**20**

Weldon output  
 Weldon  
 Weldon-Aufnahme

# T90-8 HS



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**5.000 min<sup>-1</sup>**



Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**2.400 N**



Torque  
Momento torcente / Drehmoment  
**100 Nm**



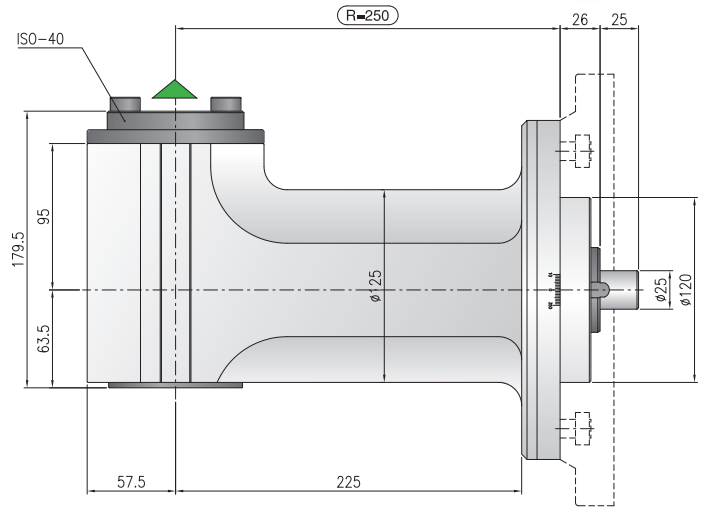
Weight  
Peso / Gewicht  
**33 kg**



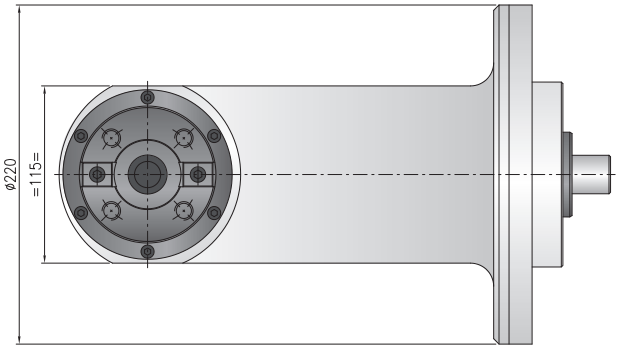
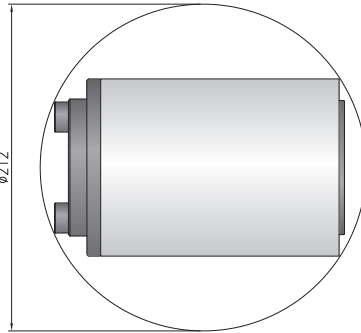
**ISO 40**

**\* STANDARD EQUIPMENT INCLUDES:**

- Wooden case - wrenches - Grease tube - Instruction book
- Cassa legno - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Holzkiste - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung



Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug



▲ Direction of rotation same as machine spindle / senso di rotazione uguale al mandrino / Drehrichtung gleich wie Antriebsspindel

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

**Option / Opzione / Option**



bar max  
**12**

Coolant through spindle  
Adduzione refrigerante interna  
Kühlmittelzufuhr durch Spindel



bar max  
**40**

Coolant through pin and spindle  
Refrigerante interno attraverso utensile  
Kühlmittelzufuhr durch Bolzen und Spindel



**HSK-63**

Quick Change  
Attacco rapido  
Schnellwechsellafnahme

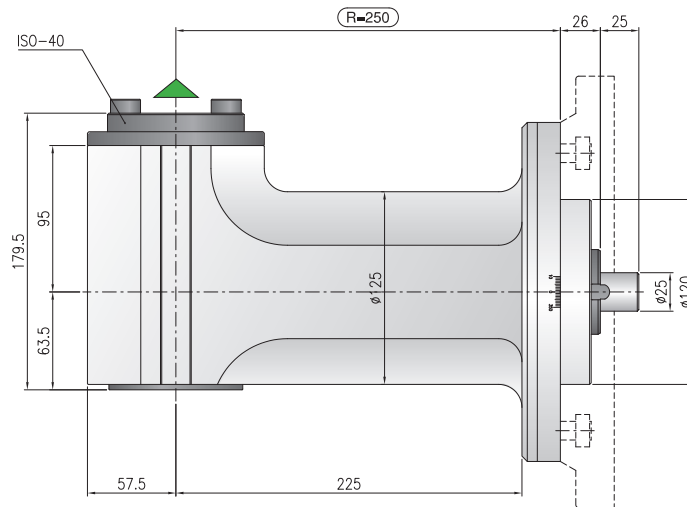


**OIL**

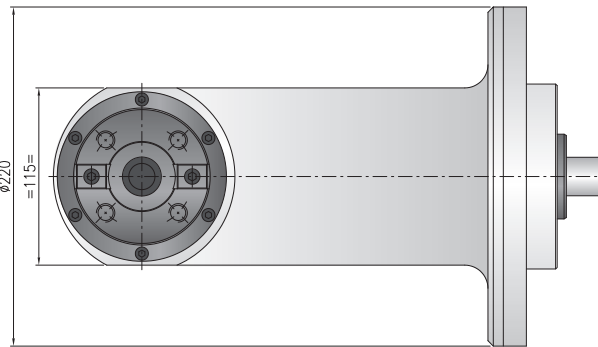
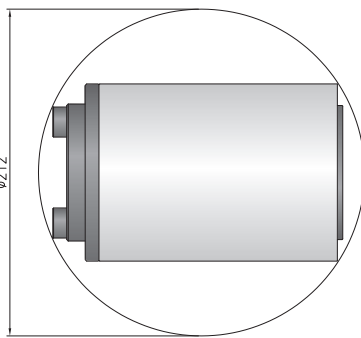
Oil Lubrication  
Lubrificazione  
Ölschmierung

LINEA P

# T90-8 HP



Minimum diameter without tool  
 Diametro minimo senza utensile  
 Durchmesser min. ohne Werkzeug



- Ratio  
Rapporto / Verhältnis  
**1:1**
- RPM  
Velocità / Drehzahl max.  
**3.000 min<sup>-1</sup>**
- Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**2.400 N**
- Torque  
Momento torcente / Drehmoment  
**200 Nm**
- Weight  
Peso / Gewicht  
**33 kg**
- ISO 40**

**\* STANDARD EQUIPMENT INCLUDES:**

- Wooden case - wrenches - Grease tube - Instruction book
- Cassa legno - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Holzkiste - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung

▲ Direction of rotation same as machine spindle / *sensò di rotazione uguale al mandrino / Drehrichtung gleich wie Antriebsspindel*

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

**Option / Opzione / Option**

bar max <b>12</b>	bar max <b>40</b>	<b>HSK-63</b>	<b>OIL</b>
Coolant through spindle Adduzione refrigerante interna Kühlmittelzufuhr durch Spindel	Coolant through pin and spindle Refrigerante interno attraverso utensile Kühlmittelzufuhr durch Bolzen und Spindel	Quick Change Attacco rapido Schnellwechsellafnahme	Oil Lubrication Lubrificazione Ölschmierung

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



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**3.000 min<sup>-1</sup>**



Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**2.400 N**



Torque  
Momento torcente / Drehmoment  
**100 Nm**

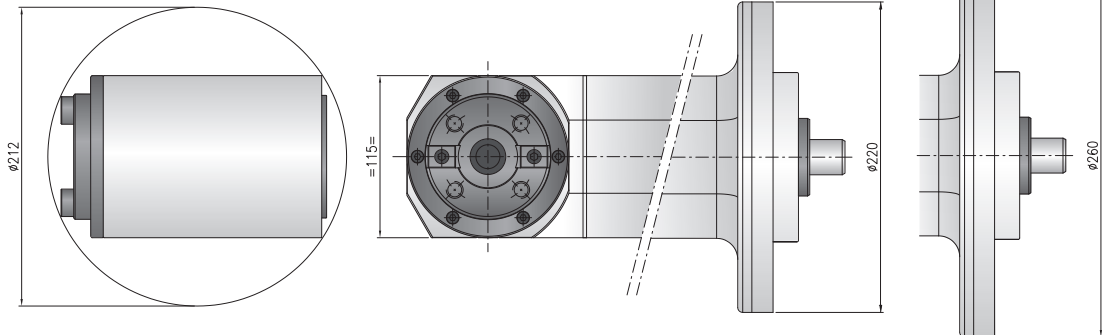


Collet  
Pinza / Spannzange  
**ISO/BT 40**

R= 450 / 650

R= 850

Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug

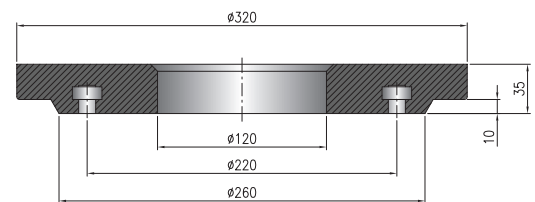
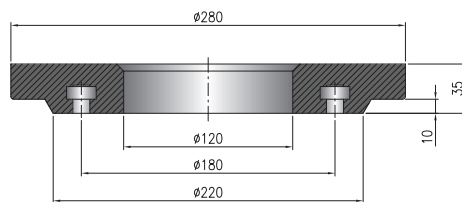


R= 450 / 650

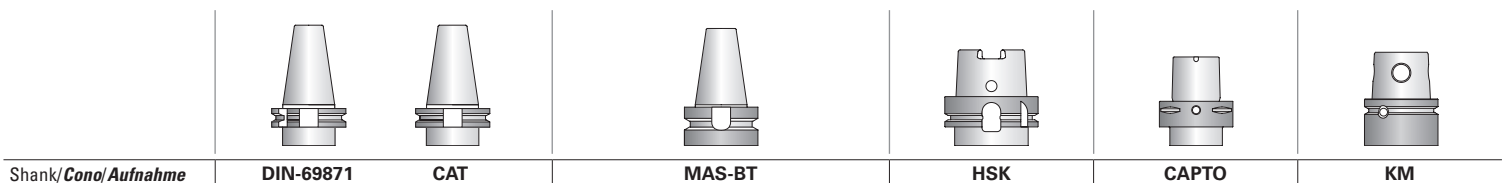
R= 850

**\* STANDARD EQUIPMENT INCLUDES:**

- Wooden case - wrenches - Grease tube - Instruction book
- Cassa legno - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Holzkiste - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung



▲ Direction of rotation same as machine spindle / *sensò di rotazione uguale al mandrino* / *Drehrichtung gleich wie Antriebsspindel*



**Option / Opzione / Option**



bar max  
**12**

Coolant through spindle  
Adduzione refrigerante interna  
Kühlmittelzufuhr durch Spindel



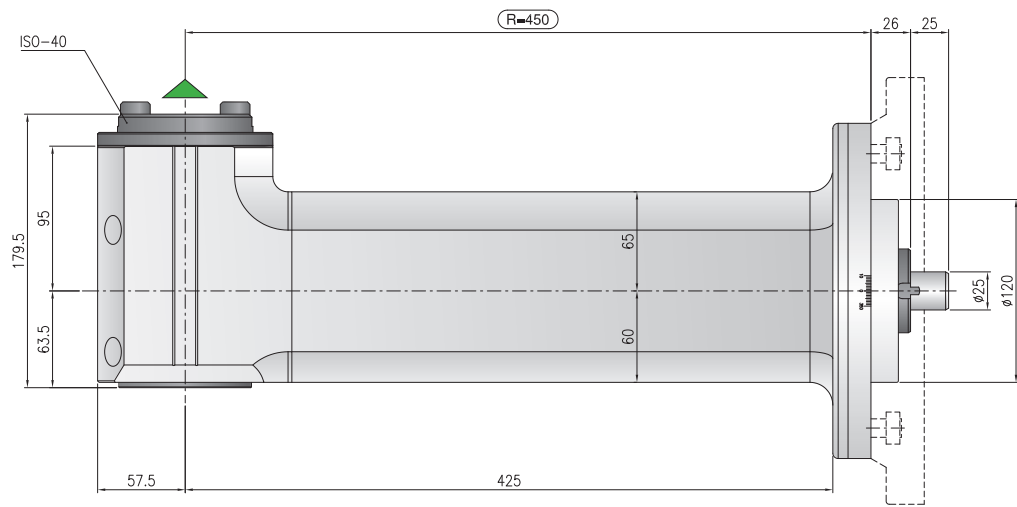
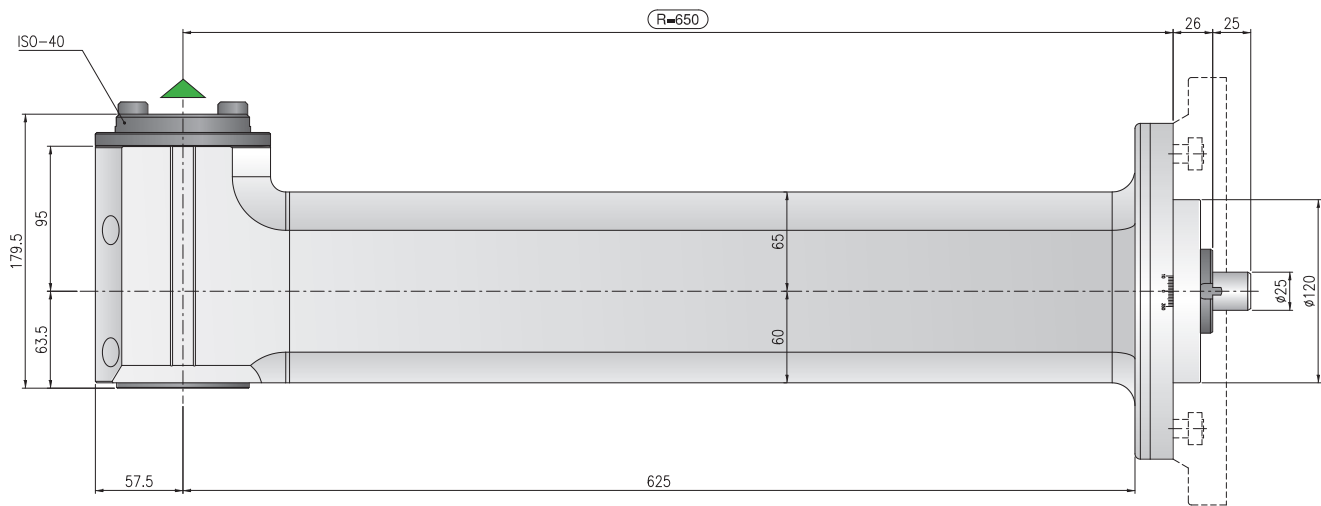
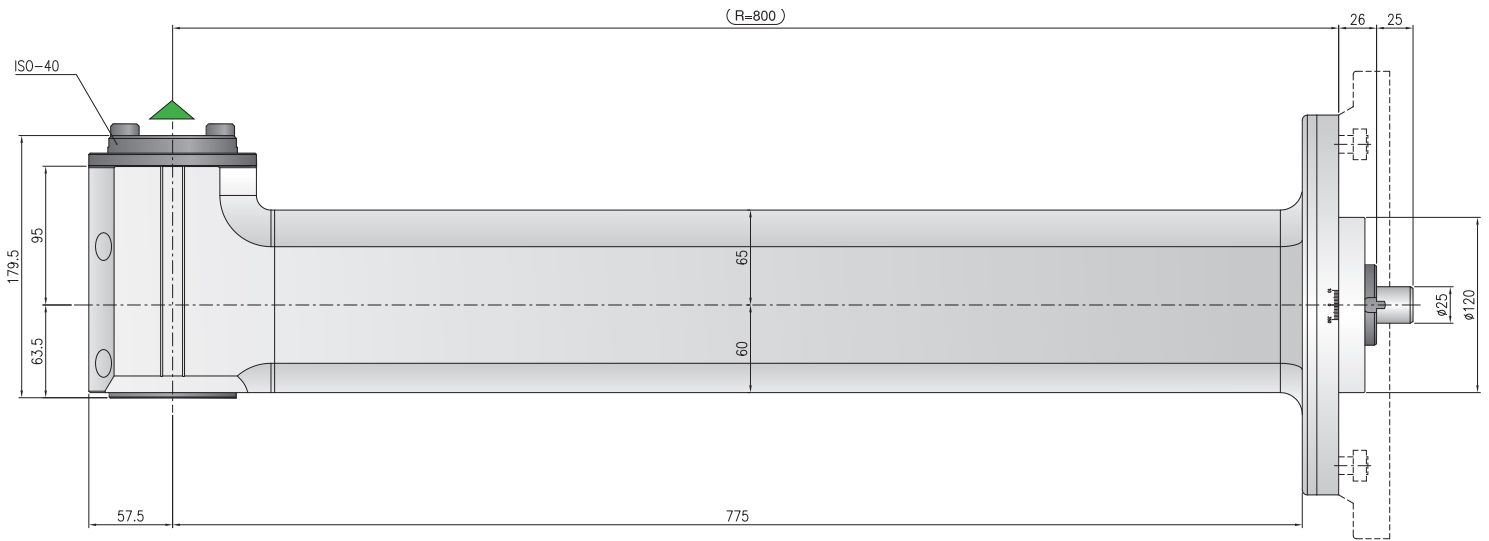
bar max  
**40**

Coolant through spindle  
Adduzione refrigerante interna  
Kühlmittelzufuhr durch Spindel



**HSK-63**

Quick Change  
Attacco rapido  
Schnellwechselfaufnahme



# T90-10



Ratio  
Rapporto / Verhältnis  
**1:1**



RPM  
Velocità / Drehzahl max.  
**3.000 min<sup>-1</sup>**



Max. axial load  
Max. carico assiale / Max. Axialbelastung  
**3.300 N**



Torque  
Momento torcente / Drehmoment  
**250 Nm**



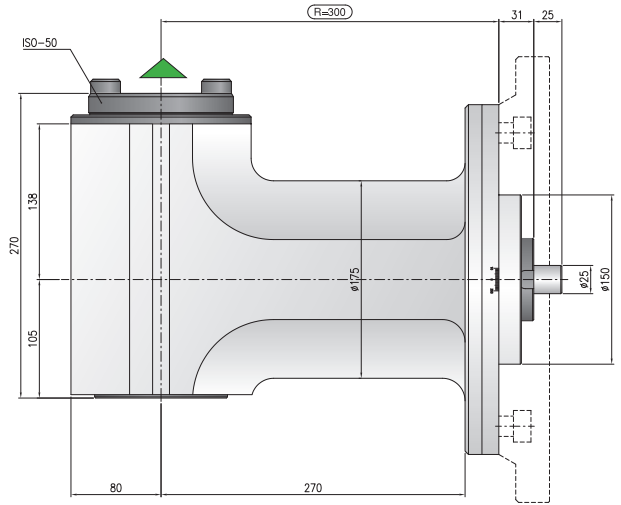
Weight  
Peso / Gewicht  
**77 kg**



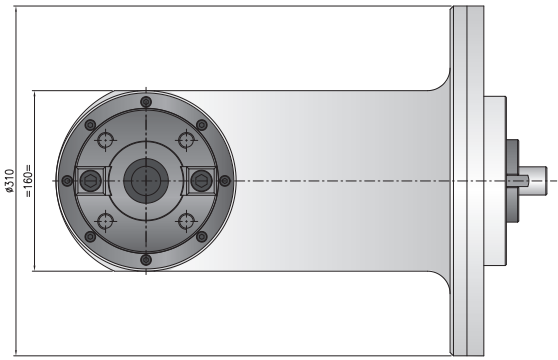
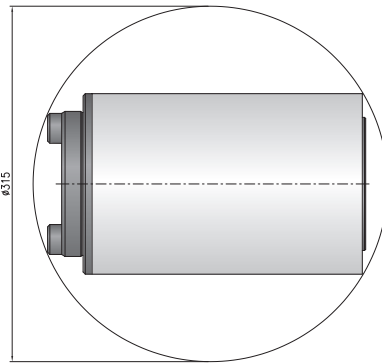
Collet  
Pinza / Spannzange  
**ISO/BT 50**

**\* STANDARD EQUIPMENT INCLUDES:**

- Wooden case - wrenches - Grease tube - Instruction book
- Cassa legno - Ghiera ER chiavi di servizio - Tubetto di grasso - Libro istruzioni
- Holzkiste - Schraubenschlüssel - Tube mit Fett - Bedienungsanleitung



Minimum diameter without tool  
Diametro minimo senza utensile  
Durchmesser min. ohne Werkzeug



▲ Direction of rotation same as machine spindle / *sensò di rotazione uguale al mandrino* / *Drehrichtung gleich wie Antriebsspindel*

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

**Option / Opzione / Option**



bar max  
**12**

Coolant through spindle  
Adduzione refrigerante interna  
Kühlmittelzufuhr durch Spindel



**HSK-63**

Quick Change  
Attacco rapido  
Schnellwechsellafnahme



**OIL**

Oil lubrication  
Lubrificazione  
Ölschmierung