

# Produktinformation PI 50.1

*product information PI 50.1*

## Spindelköpfe

*Spindle units*

**0.5.928.x04**

*für / for*

**NZ-Series MORI-SEIKI**

**0.5.928.x06**

*für / for*

**NL-Series MORI-SEIKI**

2009-04-03

### HINWEIS:

Die in dieser Produktinformation enthaltenen Informationen beruhen auf den zum Zeitpunkt der Drucklegung vorhandenen Erkenntnissen. Änderungen, die sich im Rahmen der ständigen Weiterentwicklung ergeben, behalten wir uns ausdrücklich vor.

*The information contained in this Product Information is in conformity with the knowledge at the point of printing. Subject to modification which occur within continuous further development.*



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## Beschreibung

### Description

Spindelköpfe dieser Produktinformation sind zum Einsatz auf Maschinen von **MORI-SEIKI Serie NZ** und **Serie NL** vorgesehen.

#### Leistungswerte:

Die in den nachfolgenden Tabellen angegebenen Drehmomente  $M_{max}$  beziehen sich auf eine stoßfreie Bearbeitung (z.B. Gewindeschneiden). Bei stark stoßbehafteten Bearbeitungen (insbesondere unterbrochener Schnitt) muss eine Reduzierung der zulässigen Werte um 50% und mehr berücksichtigt werden. Stoßfaktoren bis 10 sind nicht ausgeschlossen.

Die angegebenen Werte  $n_{max}$ ,  $P_{max}$  sind Anhaltswerte bei Kurzzeitbetrieb. Die jeweils zulässige relative Einschaltdauer ist abhängig

- von der Ausführung des Spindelkopfes (mit oder ohne Getriebe)
- vom Vorhandensein einer Kühlung und von der Art der Kühlung (extern oder intern durch die Werkzeugspindel)
- vom Bearbeitungsmoment.

Spindelköpfe mit Getriebe haben bei höheren Drehzahlen eine erhöhte Geräusentwicklung!

*Spindle units shown in this Product Information are for **MORI-SEIKI Machines Serie NZ** and **Serie NL***

#### Performance values:

*The torques  $M_{max}$  specified in the tables below refer to shock-free processing (e.g. threaded cutting). For processes involving major shock loads (interrupted cutting particularly), a value reduction of up to 50% and more needs to be taken into account. Push factors up to 10 are possible.*

*The values  $n_{max}$ ,  $P_{max}$  rendered are guideline values for short-time operation.*

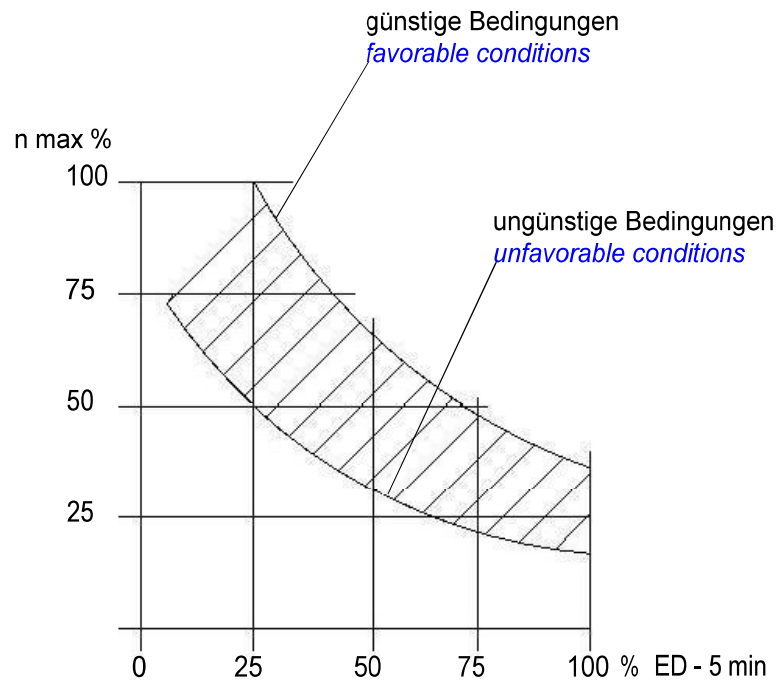
*The permissible relative operating duration depends*

- *on the version of the spindle unit (with or without gear)*
- *on the presence of a cooling system and the type of cooling (external or internal through the tool spindle)*
- *on the processing torque Spindle units with gears produce more noise at higher speeds!*

*Spindle units with gears produce more noise at higher speeds!*

## Zulässige relative Einschaltdauer (ED) -Anhaltswerte-

*Permissible relative operating duration (guideline values)*



## Lebensdauer :

*Lifetime*

Bei einer Belastung von ca. 60 % der Maximalwerte ergibt sich eine rechnerische Lebensdauer von 2000 Stunden.

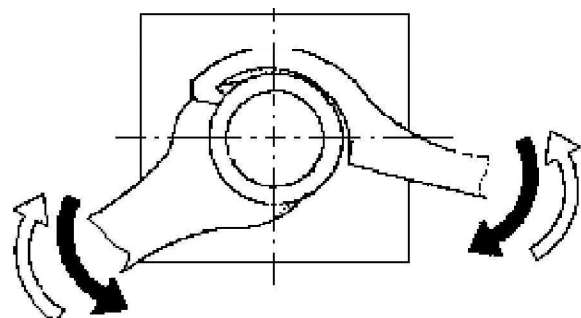
*At a load of approx. 60% of the maximum values an arithmetical life time of 2000 hours gives up.*

## Bedienung :

*Operation*

Zum Auswechseln des Werkzeugs Spannen und Lösen Sie die Spannmutter entsprechend Bild.

*For replacing the tool please clamp and unclamp the nut acc. to the picture.*



## Beschreibung

*Description*

 **Spannen**  
**Clamping**

 **Lösen**  
**Unclamping**



## Wartung und Reparatur :

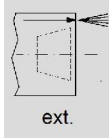
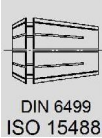
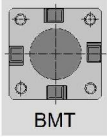
*Maintenance and repair*

Die Spindelköpfe sind lebensdauer geschmiert. Bei starker Beanspruchung und rauen Betriebsbedingungen ist mit Verschleiß der Lager und Dichtungen zu rechnen. Wir empfehlen dringend, Reparaturarbeiten in unserer Service-Abteilung durchführen zu lassen.

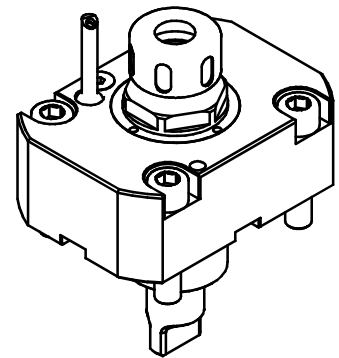
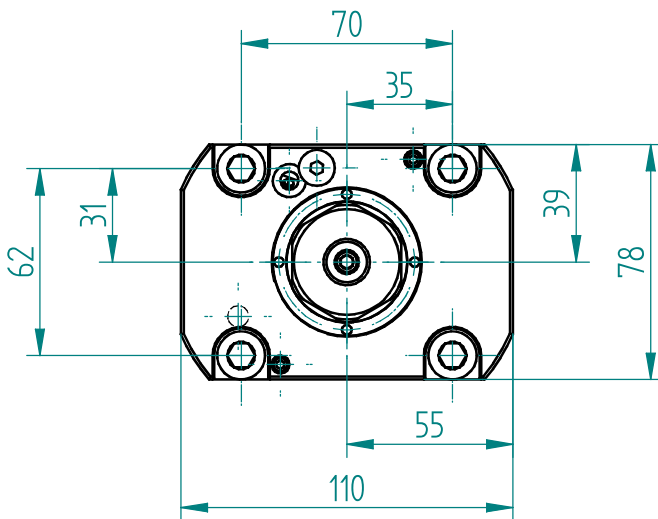
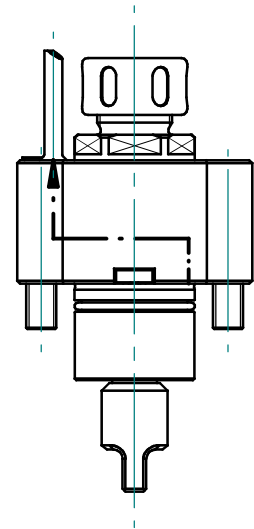
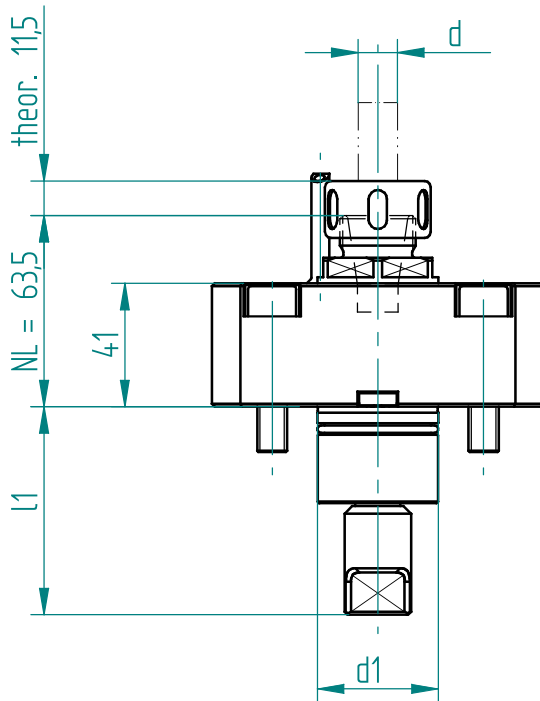
*The spindle units are life time lubricated. At strong use and rough operating conditions there is a good chance for wear on the bearings and seals. We recommend to carry out repair work in our service department.*

<b>Element</b> <i>Elements</i>	<b>Menge</b> <i>Quantity</i>	<b>Schmierstoff</b> <i>Smearing substance</i>	<b>Hersteller</b> <i>Manufacturer</i>
Dichtringe <i>Seal rings</i>	Raum zwischen den Lippen füllen <i>Fill room between the lips</i>	Isoflex NBU 15	Klüber
Kugellager <i>Roller bearings</i>	1/3 des Lagerraumes füllen <i>Fill 1/3 of the bearing room</i>		
Zahnräder <i>Gear wheels</i>	Zahnlücken füllen <i>Fill room between the teeth</i>		





ext. 80 bar



Änderungen vorbehalten. Subject to modification

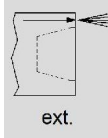
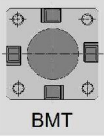
Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>	Kupplung <i>coupling</i>							
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>		
40	69.0	BMT Mori Seiki 40 32.0	6000	7.5	-1.00	ISO 15488 - 20 - A 1-13	gerade <i>straight</i>	<b>126555</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

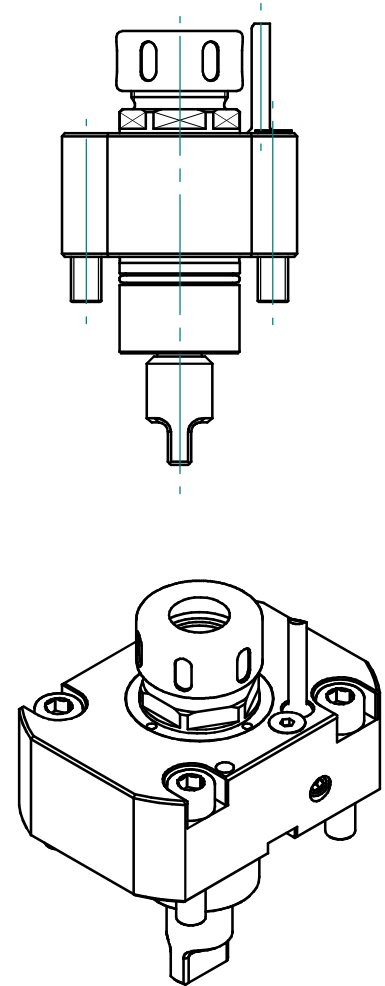
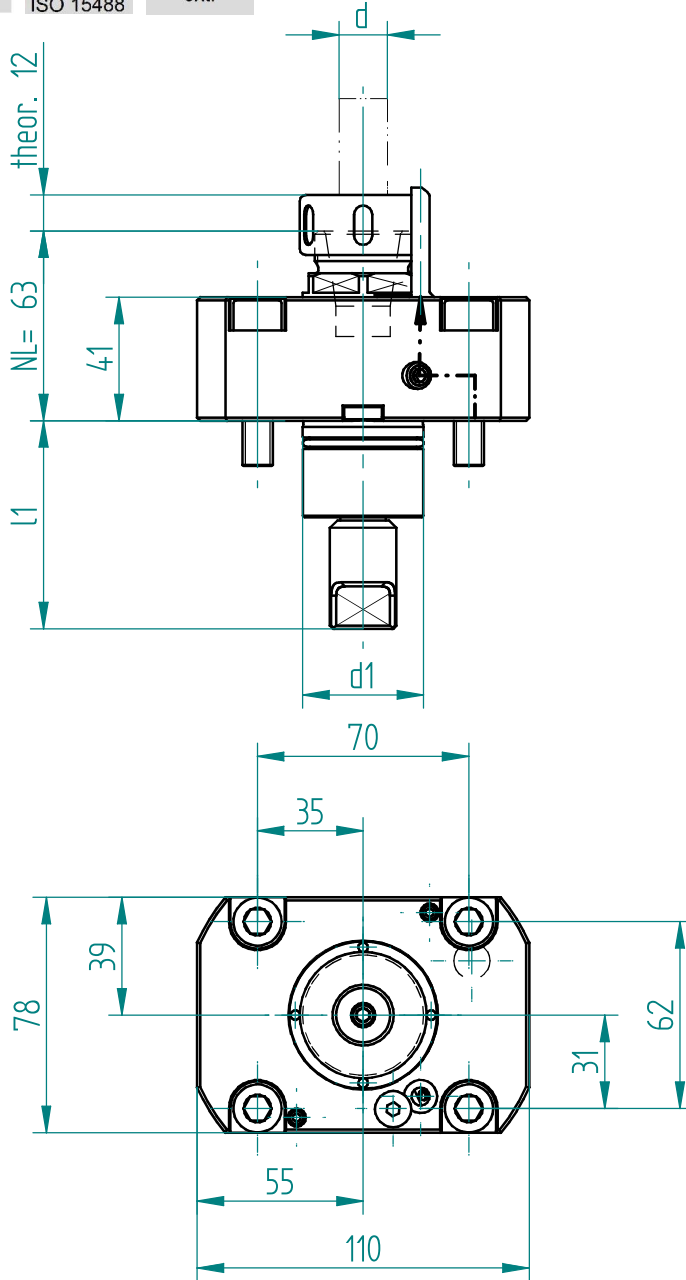
129816

Rev 09/2016 // Erst.:fre , erstellt am 2013.03.06 // Prüf.:has , geprüft am 2013.03.13





ext. 80 bar



Änderungen vorbehalten. Subject to modification

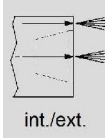
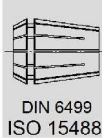
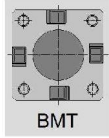
Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>			
40	69.0	BMT Mori Seiki 40	32.0	6000	7.5	-1.00	ISO 15488 - 25 - A 1-16	gerade <i>straight</i>	<b>126316</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

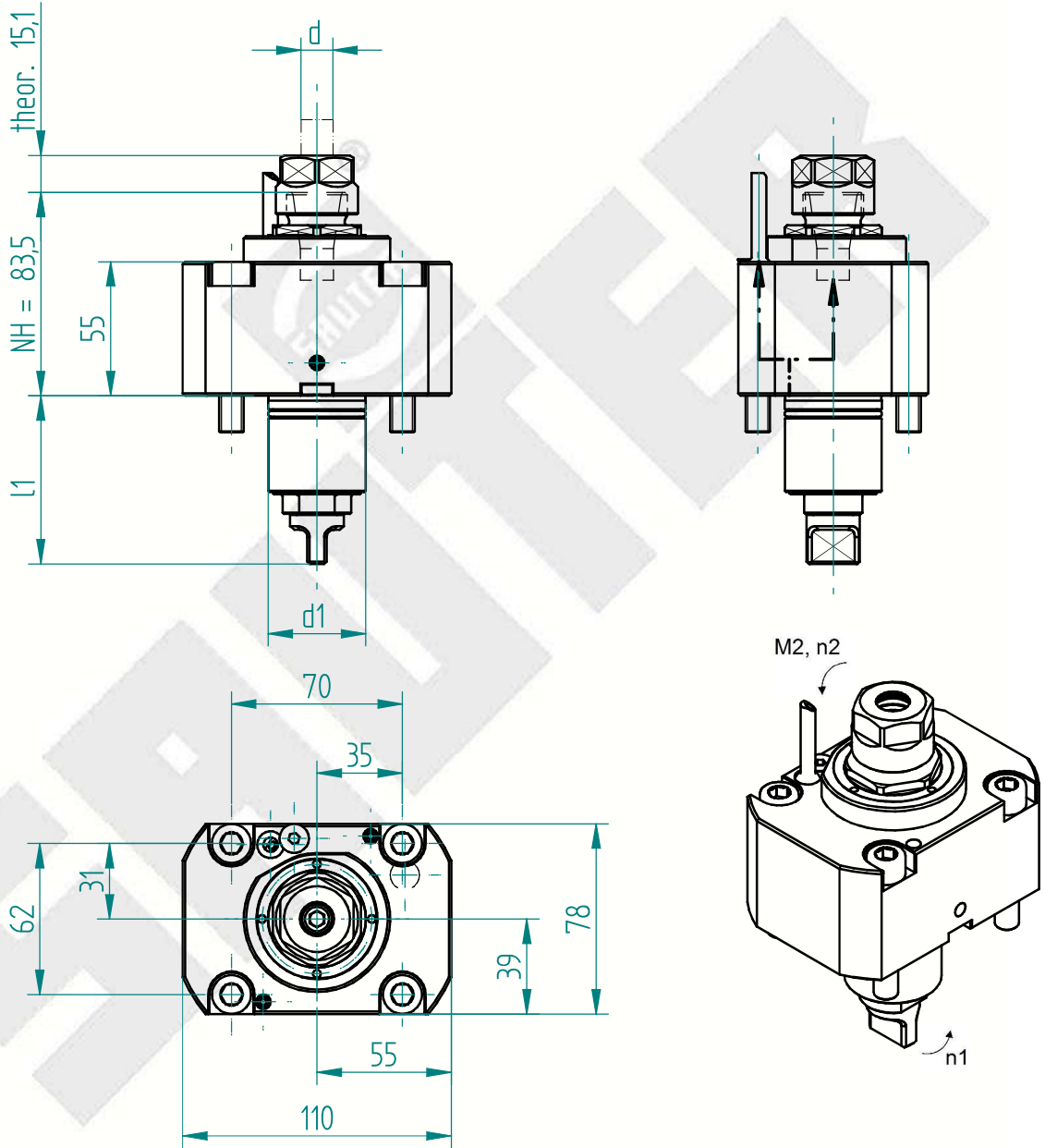
129817

Rev 09/2016 // Erst.:fre , erstellt am 2013.03.12 // Prüf.:has , geprüft am 2013.04.10





int. 80 bar  
ext. 80 bar  
-  $\diamond$  50  $\mu$ m  
- Dry run: 100%

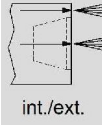
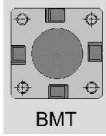


Schnittstelle Revolver <i>interface tool turret</i>		Kupplung <i>coupling</i>	Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>									
d1 mm	l1 mm		M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>		
0	0.0	BMT Mori Seiki 40	32.0	6000	7.5	1.00	ISO 15488 - 20 - A 1-13	gerade <i>straight</i>	<b>126423</b>

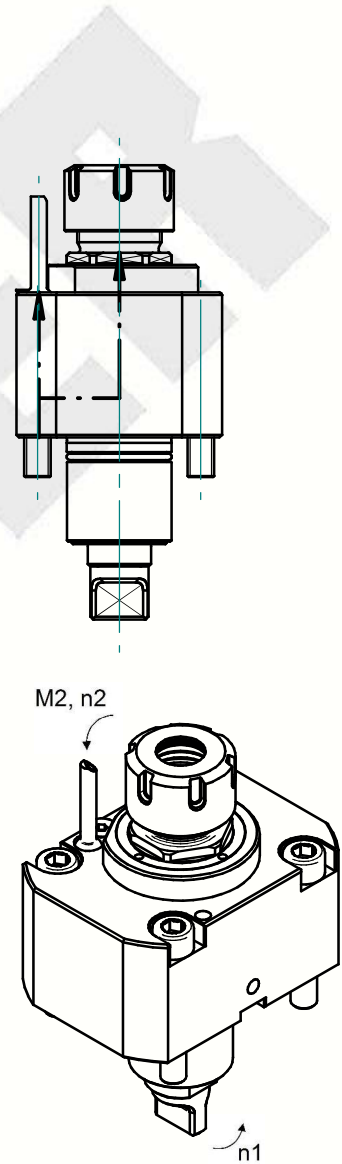
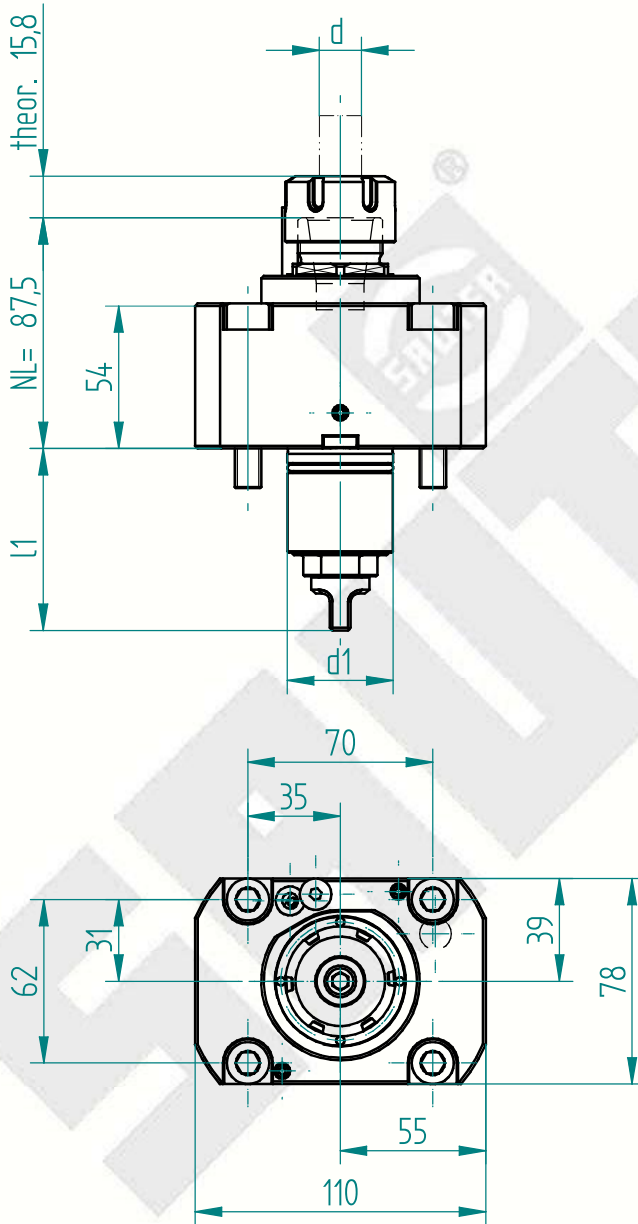
Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

080066





int. 80 bar  
ext. 80 bar  
-  $\diamond$  50  $\mu$ m  
- Dry run: 100%



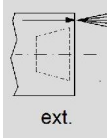
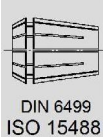
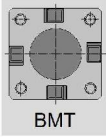
Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>	Kupplung <i>coupling</i>							
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>		
40	69.0	BMT Mori Seiki 40 32.0	6000	7.5	1.00	ISO 15488 - 25 - A 1-16	gerade <i>straight</i>	<b>128508</b>

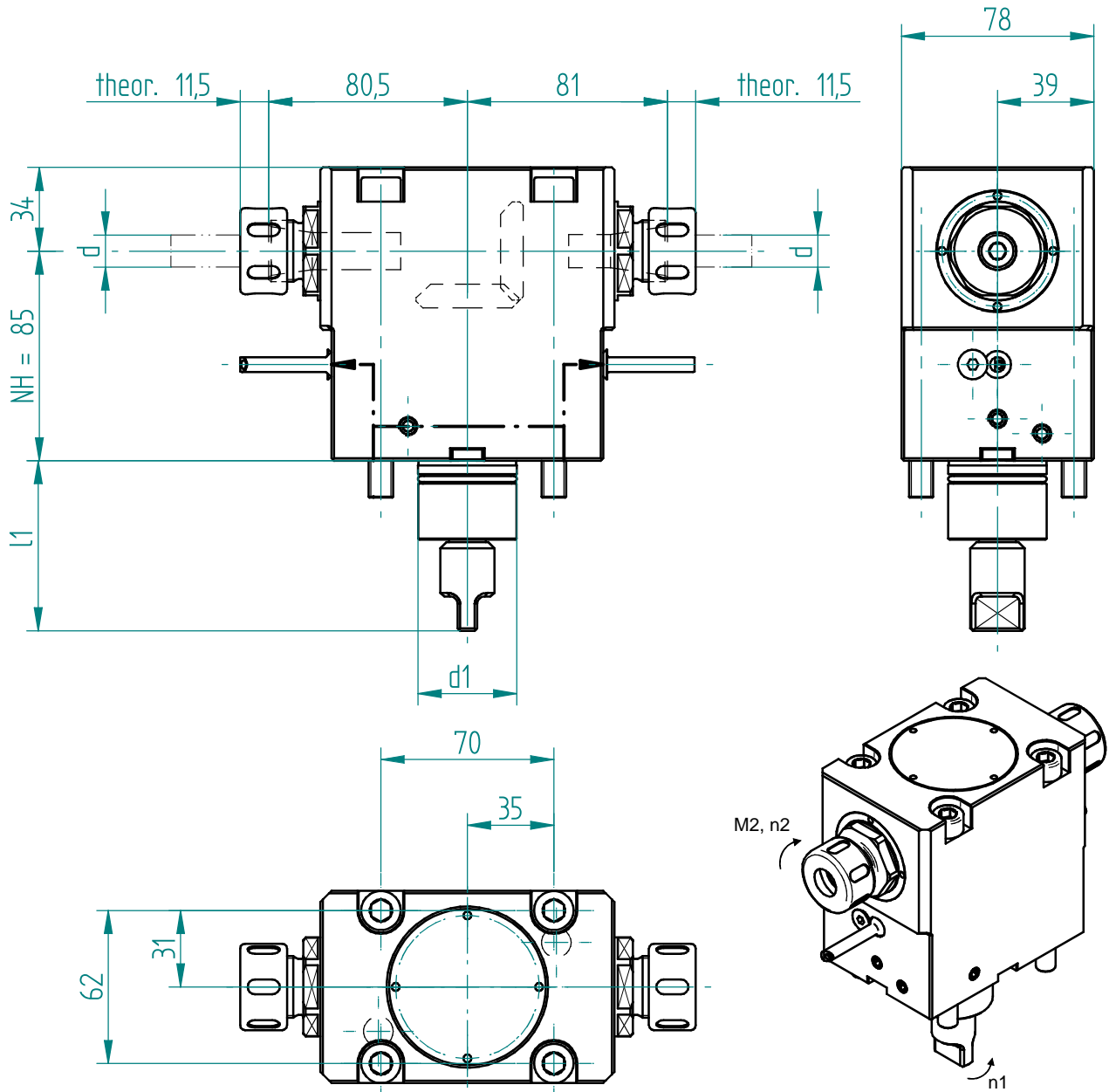
Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

147732





ext. 80 bar

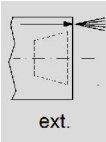
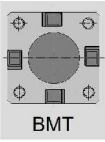


Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1 : n2	Spannbereich d <i>chucking capacity d</i>			
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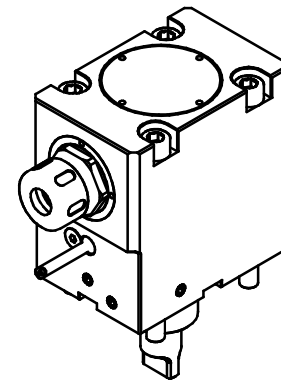
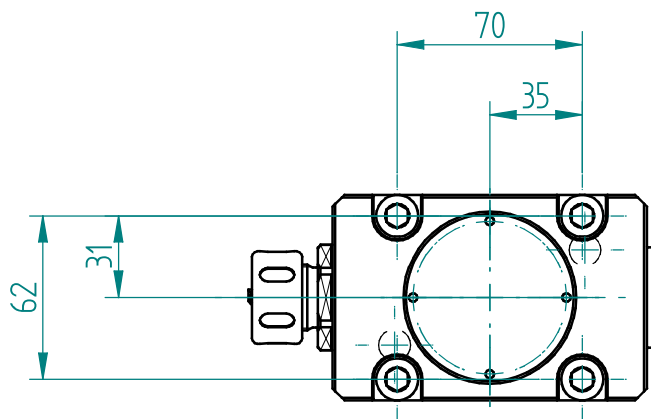
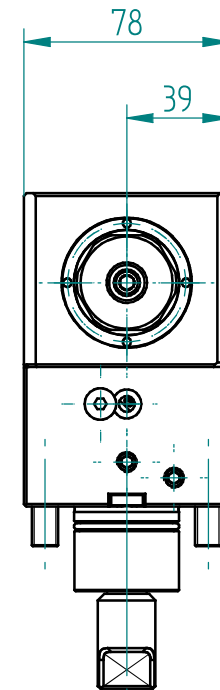
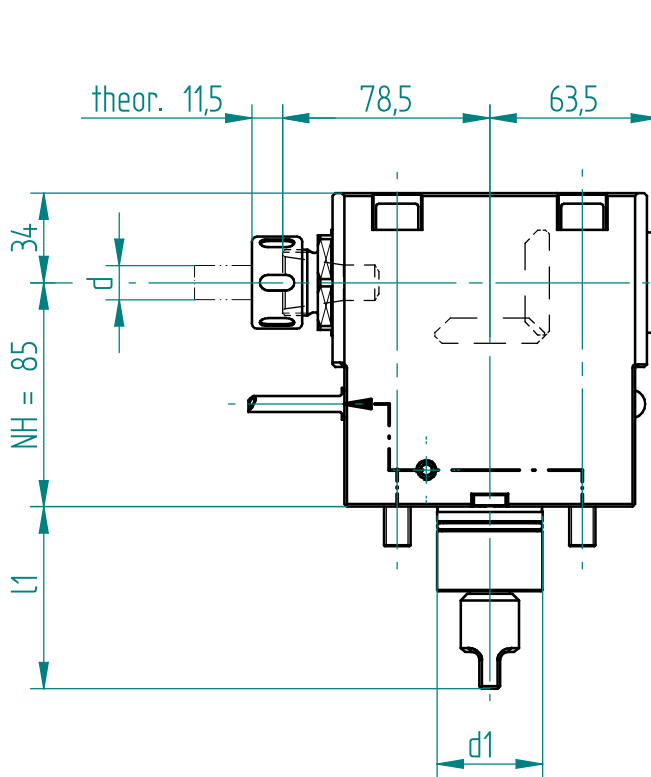
Erforderliche(r) Schlüssel zur Werkzeugspannung / necessary key(s) for tool clamping

129816





ext. 80 bar

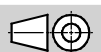


Änderungen vorbehalten. Subject to modification

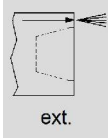
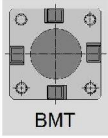
Schnittstelle Revolver <i>interface tool turret</i>		Kupplung <i>coupling</i>	Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>									
d1 mm	l1 mm		M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>		
40	69.0	BMT Mori Seiki 40	32.0	6000	7.5	1.00	ISO 15488 - 20 - A 1-13	universal universal	<b>126357</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

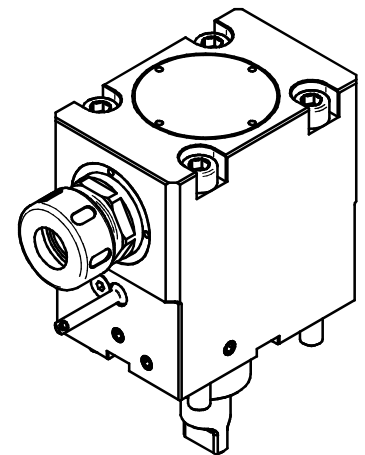
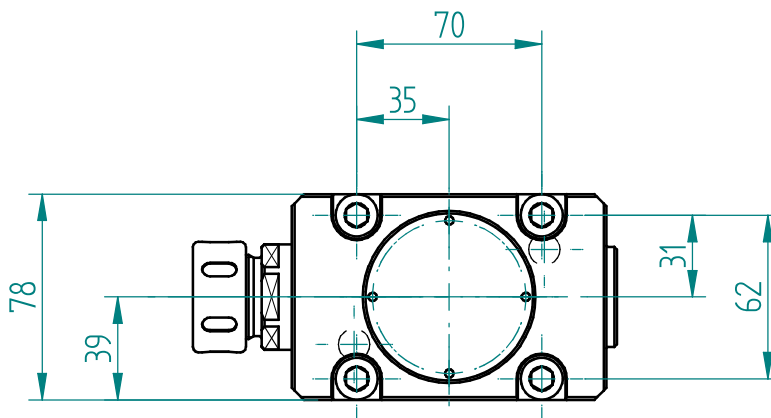
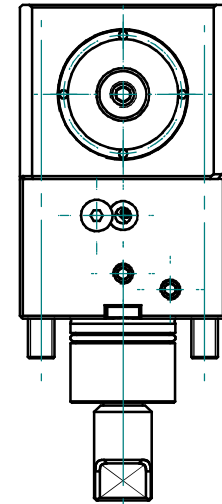
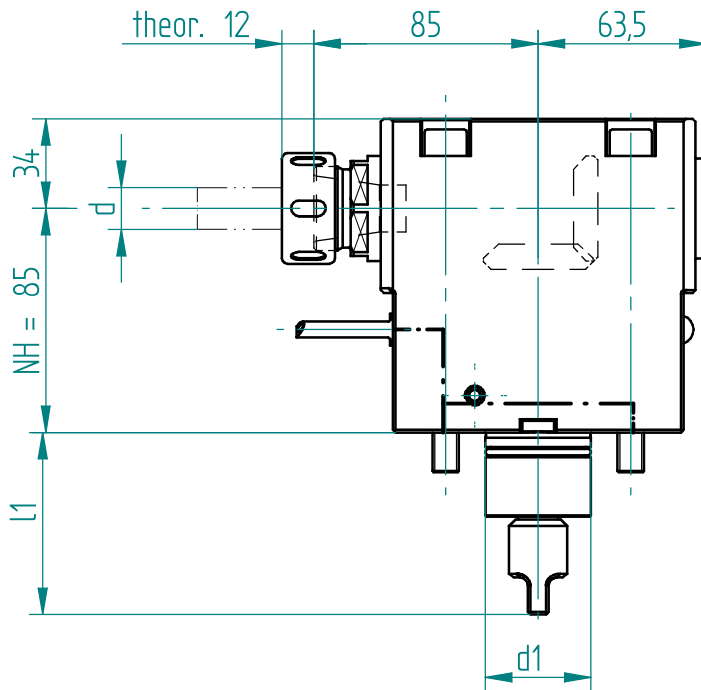
129816







ext. 80 bar

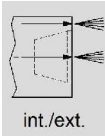
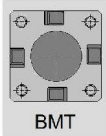


Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>			
40	69.0	BMT Mori Seiki 40	32.0	6000	7.5	1.00	ISO 15488 - 25 - A 1-16	universal universal	<b>126513</b>

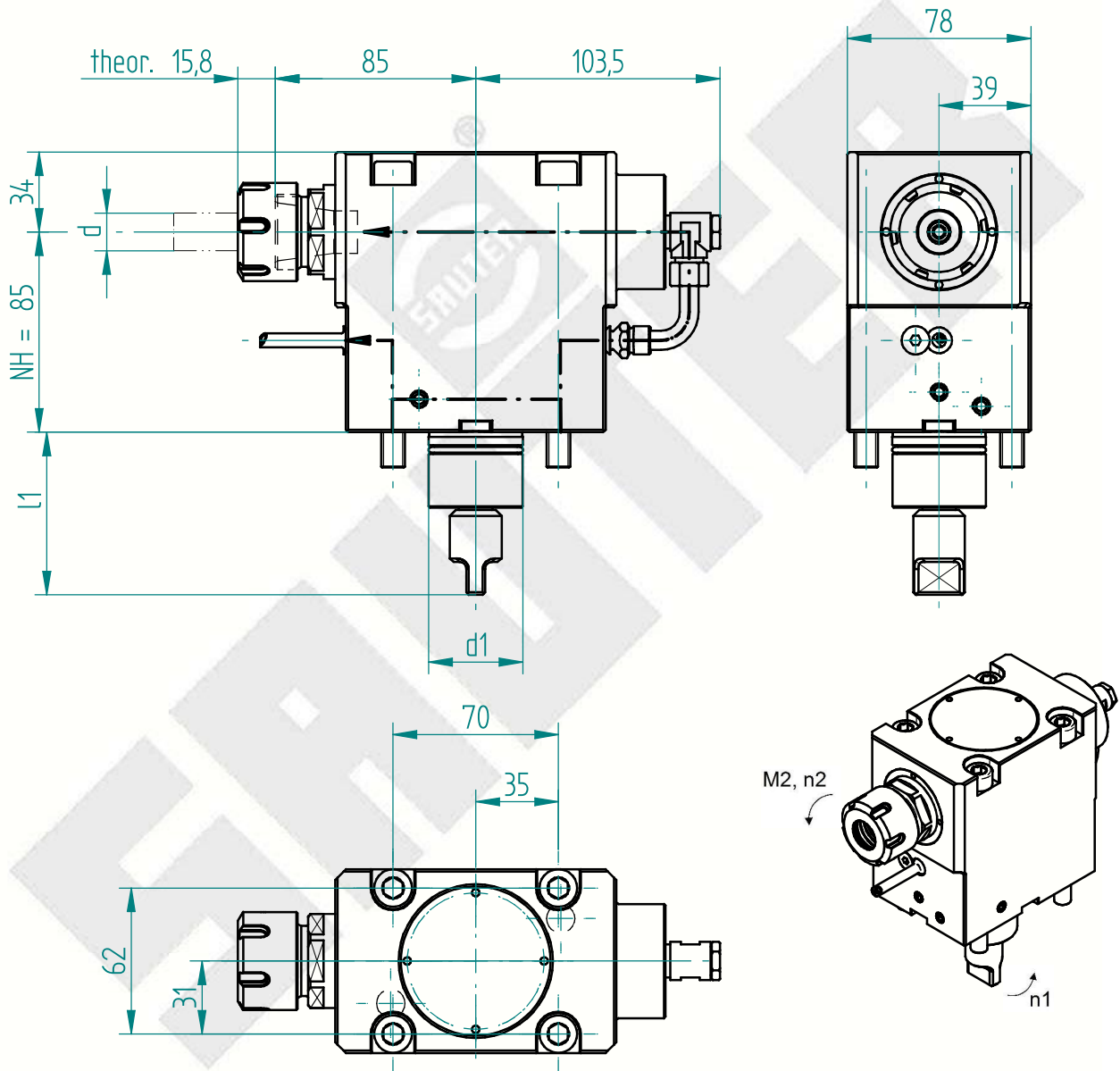
Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

129817





int. 80 bar  
ext. 80 bar  
-  $\diamond$  50  $\mu$ m  
- Dry run: 100%

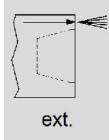
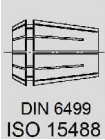
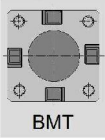


Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>	Kupplung <i>coupling</i>							
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>		
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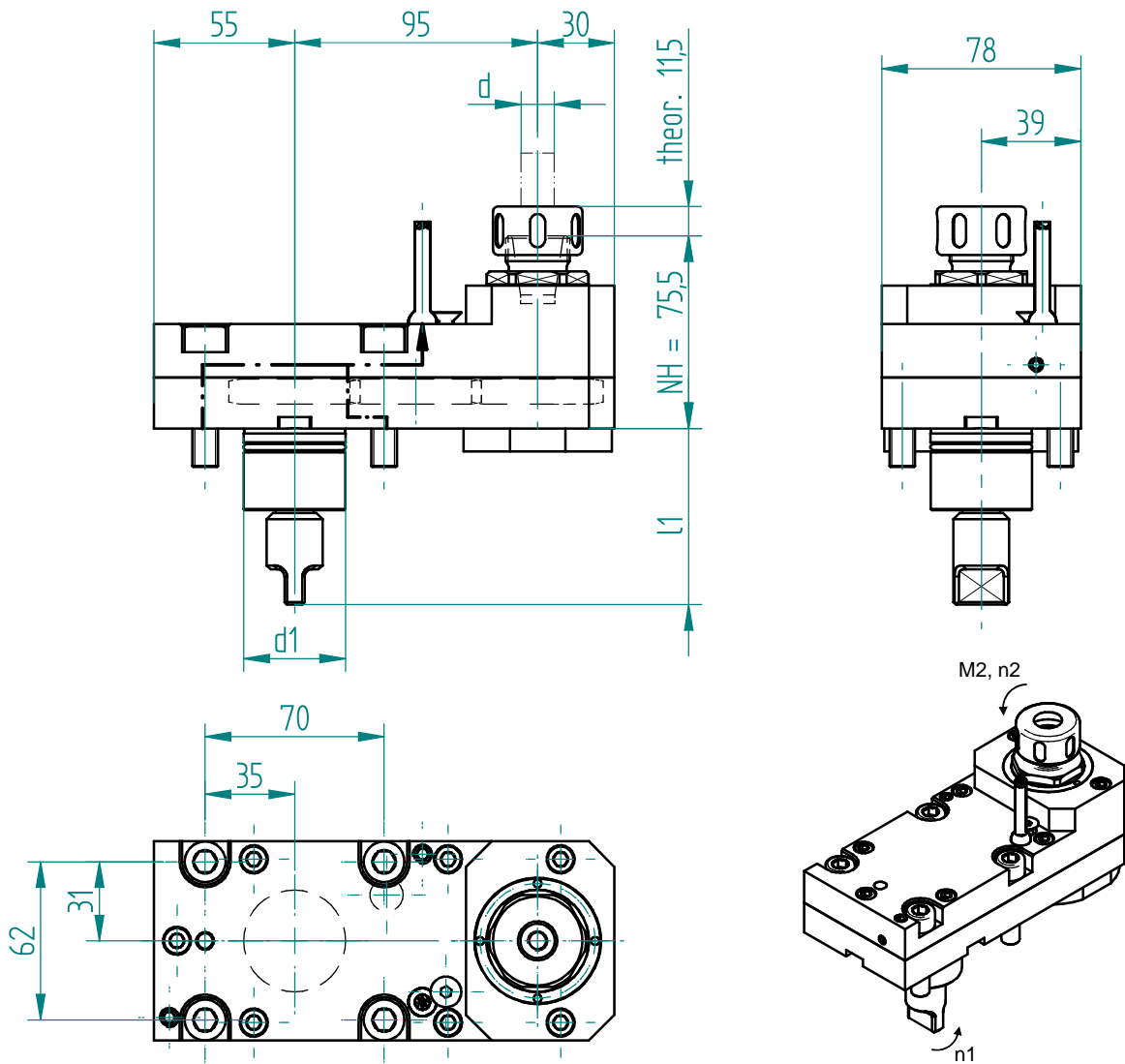
Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

147732





ext. 80 bar

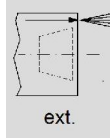
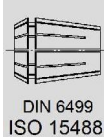
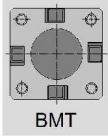


Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
$d_1$ mm	$l_1$ mm	M2 max Nm	$n_2$ max 1/min	P max KW	$i = n_1 : n_2$	Spannbereich $d$ <i>chucking capacity <math>d</math></i>			
40	69.0	BMT Mori Seiki 40	32.0	6000	7.5	1.00	ISO 15488 - 20 - A 1-13	universal universal	<b>126453</b>

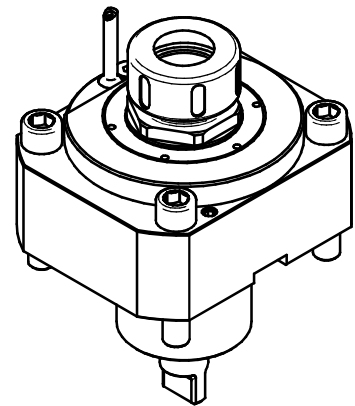
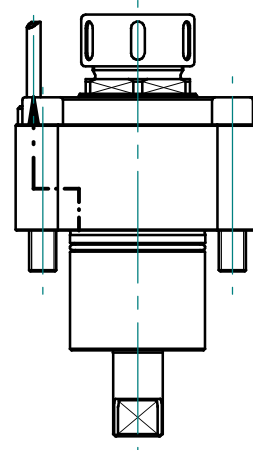
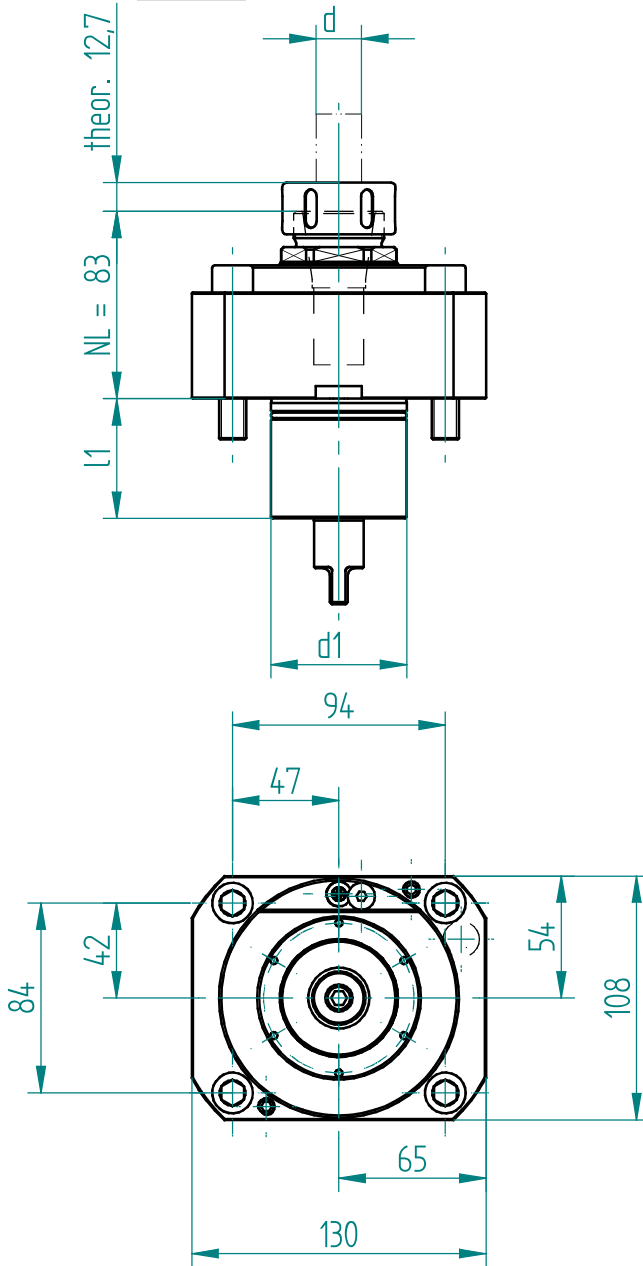
Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

129816





ext. 80 bar



Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>			
60	53.0	BMT Mori Seiki 60	100.0	6000	5.5	1.00	ISO 15488 - 32 - A 2-20	gerade <i>straight</i>	<b>123241</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

122194

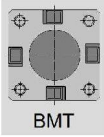


Typenblatt  
Data Sheet

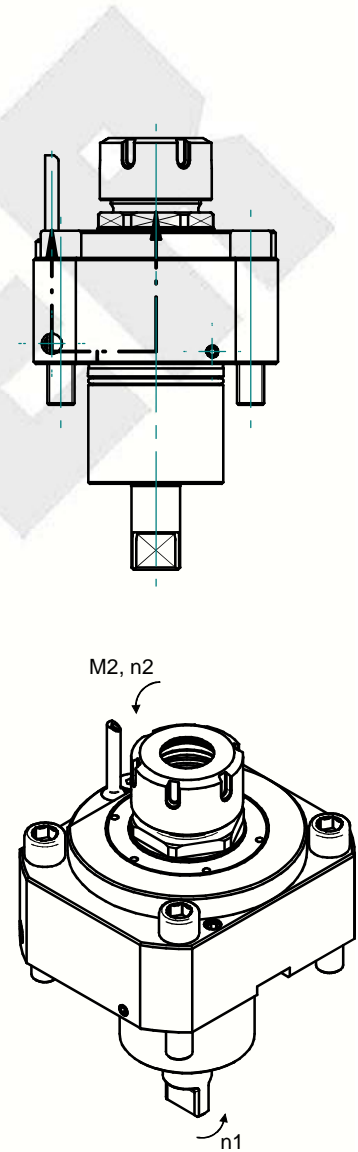
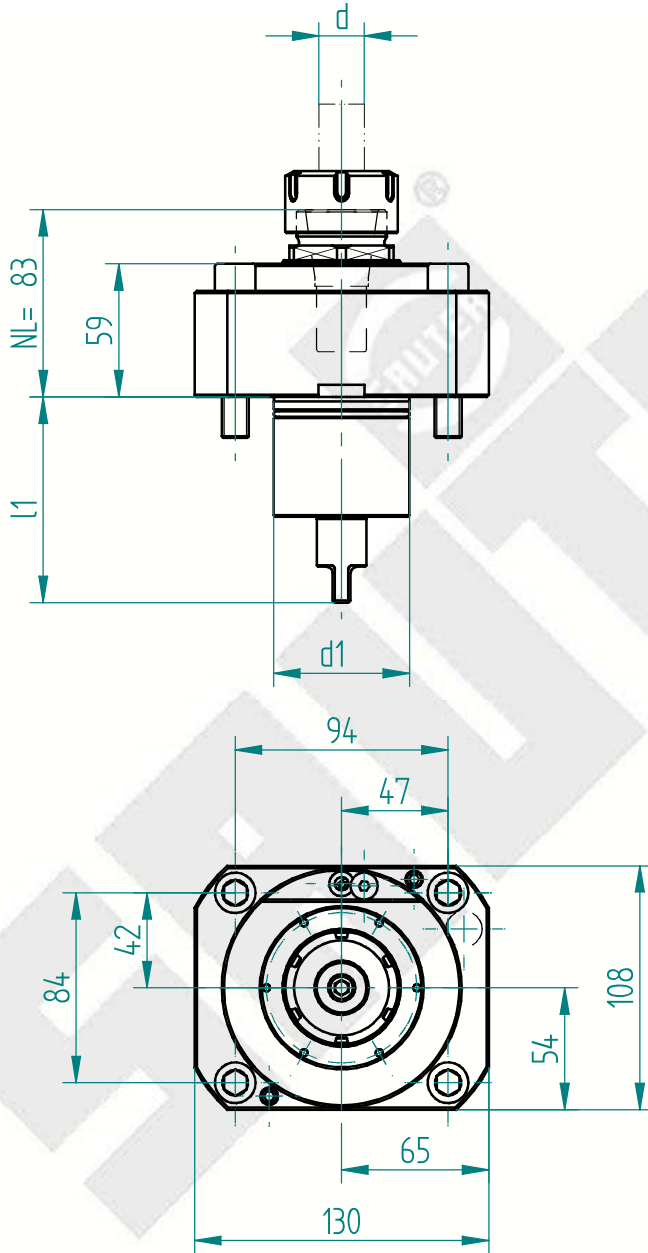
# Angetriebenes Werkzeug gerade Spannzangenaufnahme

straight driven tool ; collet chuck

**SAUTER**  
Mit uns dreht die Welt!



int. 80 bar  
ext. 80 bar  
-  $\diamond$  50  $\mu$ m  
- Dry run: 100%



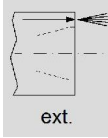
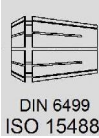
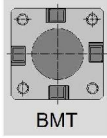
Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver interface tool turret		Drehmoment torque	Drehzahl tool speed	Leistung output	Übersetzung gear ratio	Wkzg.Aufnahme Spannbereich tool holding fixture clamping range	Ausführung version	Bestell-Nr. order N°	
Schaft shank	Kupplung coupling								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d chucking capacity d			
60	91.0	BMT Mori Seiki 60	100.0	6000	5.5	1.00	ISO 15488 - 32 - A 2-20	gerade straight	<b>123774</b>

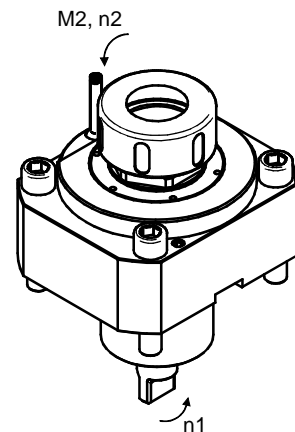
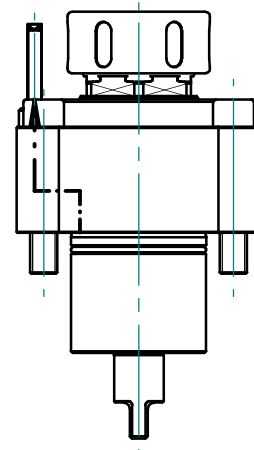
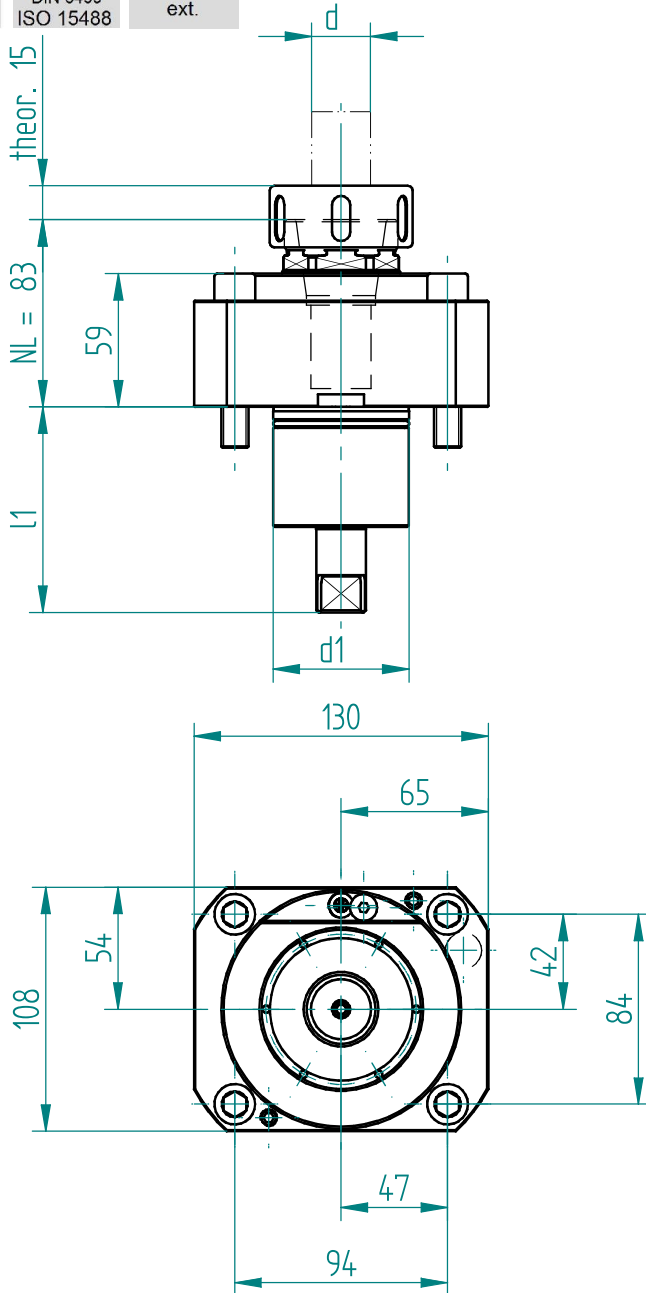
Erforderliche(r) Schlüssel zur Werkzeugspannung / necessary key(s) for tool clamping

147843





ext. 80 bar



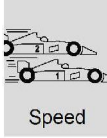
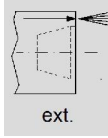
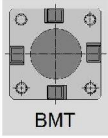
Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver <i>interface tool turret</i>		Kupplung <i>coupling</i>	Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>									
d1 mm	l1 mm		M2 max Nm	n2 max 1/min	P max KW	i = n1 : n2	Spannbereich d <i>chucking capacity d</i>		
60	91.0	BMT Mori Seiki 60	100.0	6000	5.5	-1.00	ISO 15488 - 40 - A 3-26	gerade <i>straight</i>	<b>121334</b>

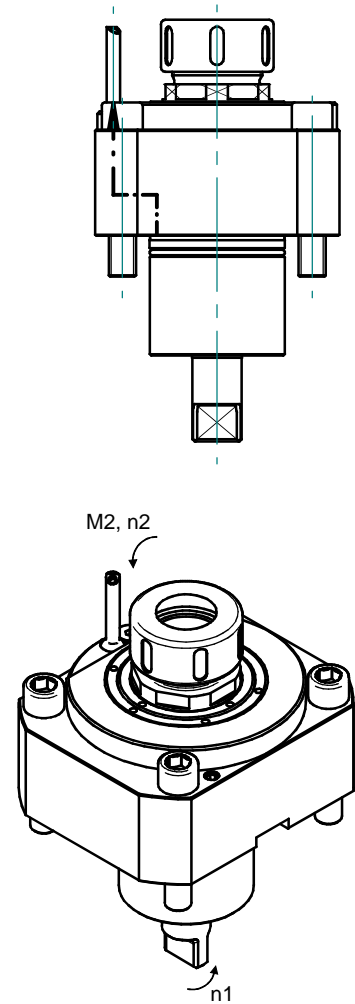
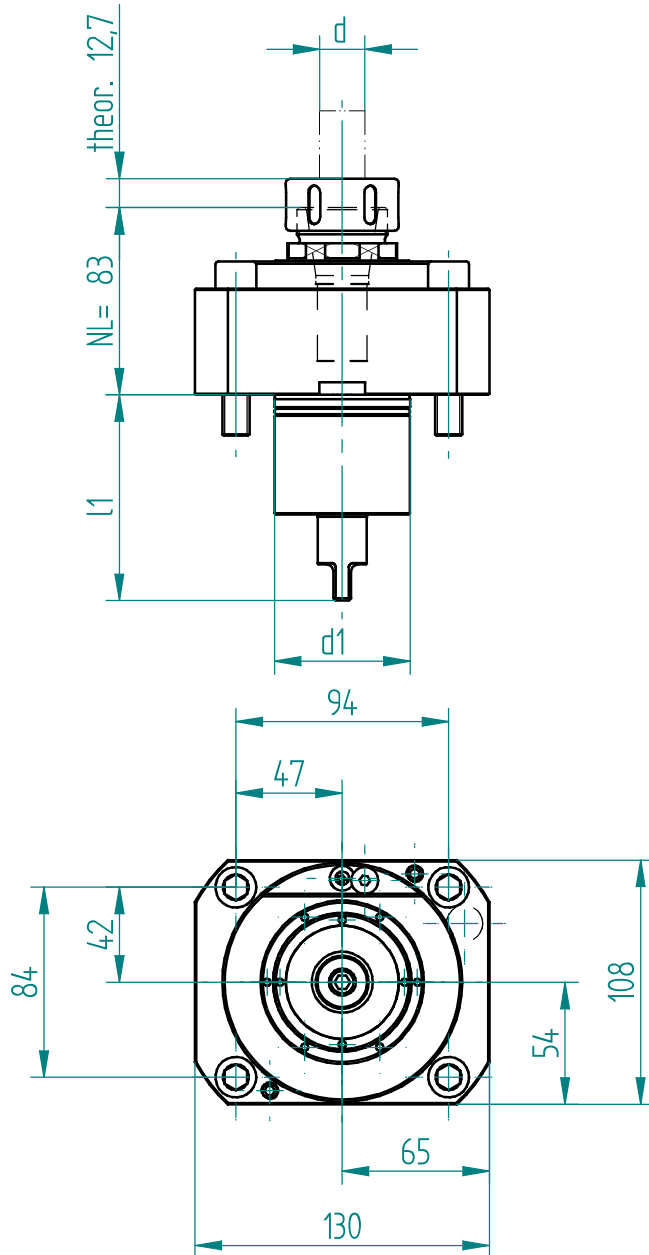
Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

122191





ext. 80 bar



Änderungen vorbehalten. Subject to modification

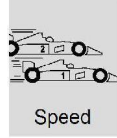
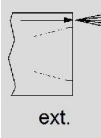
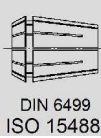
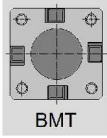
Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>	Kupplung <i>coupling</i>							
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>		
60	91.0	Mori Seiki	10000	5.5	1.00	ISO 15488 - 32 - A 2-20	gerade <i>straight</i>	<b>147511</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

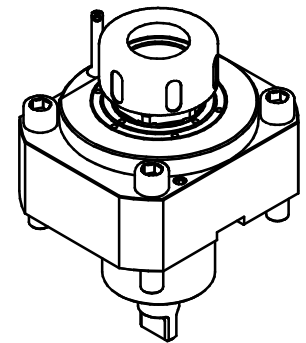
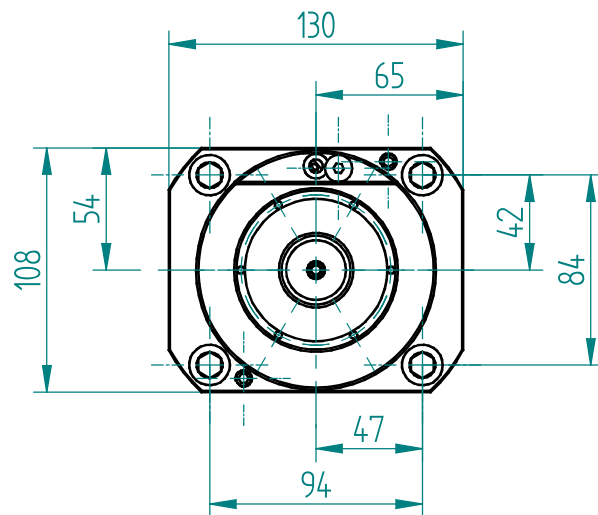
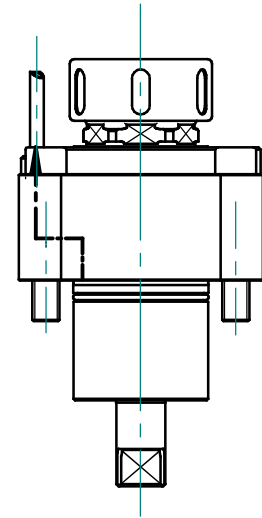
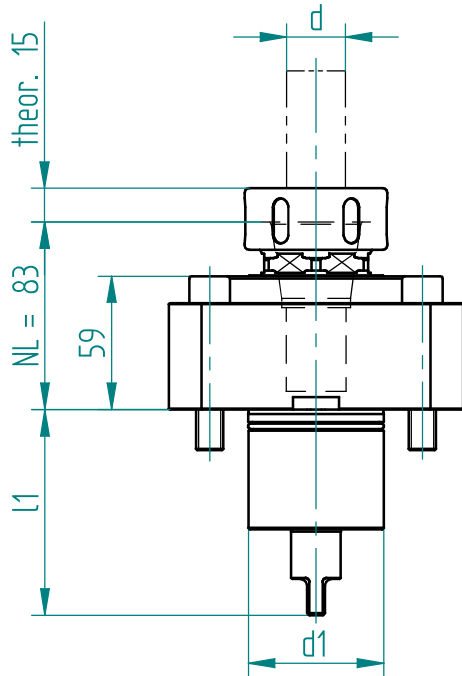
122194







ext. 80 bar



Änderungen vorbehalten. Subject to modification

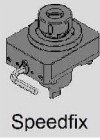
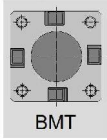
Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>			
60	91.0	BMT Mori Seiki 60	100.0	10000	5.5	1.00	ISO 15488 - 40 - A 3-26	gerade <i>straight</i>	<b>147508</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

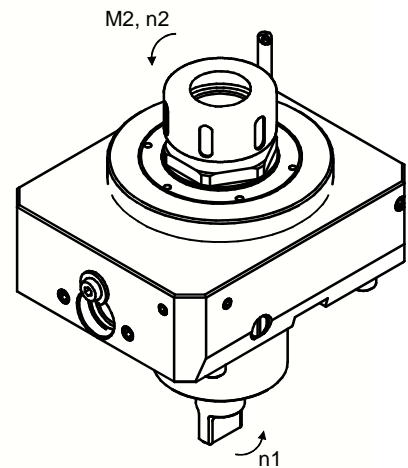
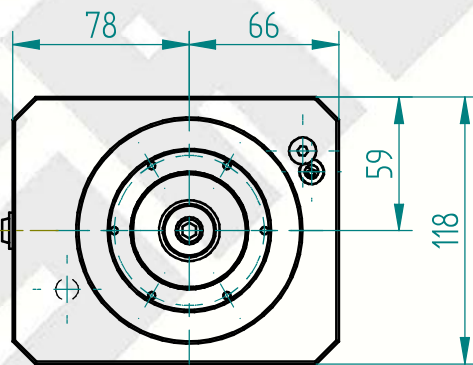
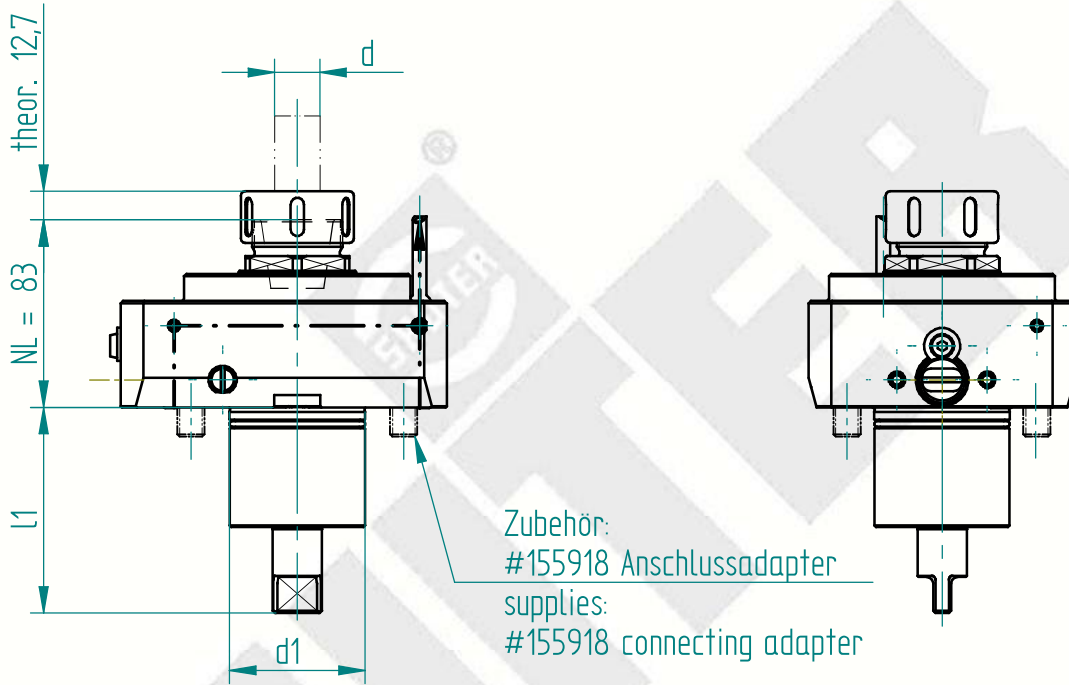
122191







ext. 80 bar



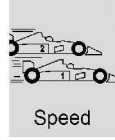
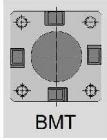
Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver <i>interface tool turret</i>		Kupplung <i>coupling</i>	Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>	ISO 10889								
d1 mm	l1 mm		M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>		
60	91.0	BMT Mori Seiki 60	100.0	6000	5.5	1.00	ISO 15488 - 32 - A 2-20	gerade <i>straight</i>	<b>154300</b>

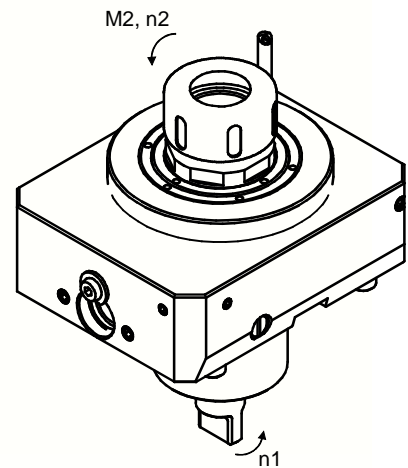
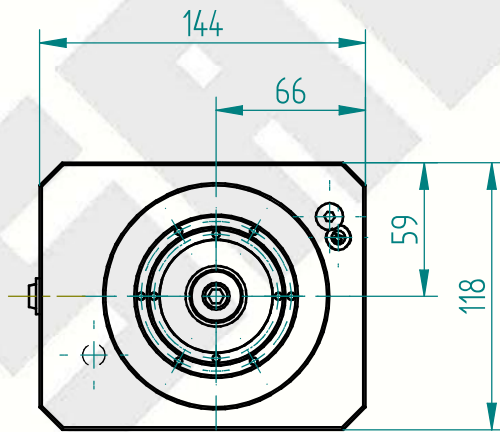
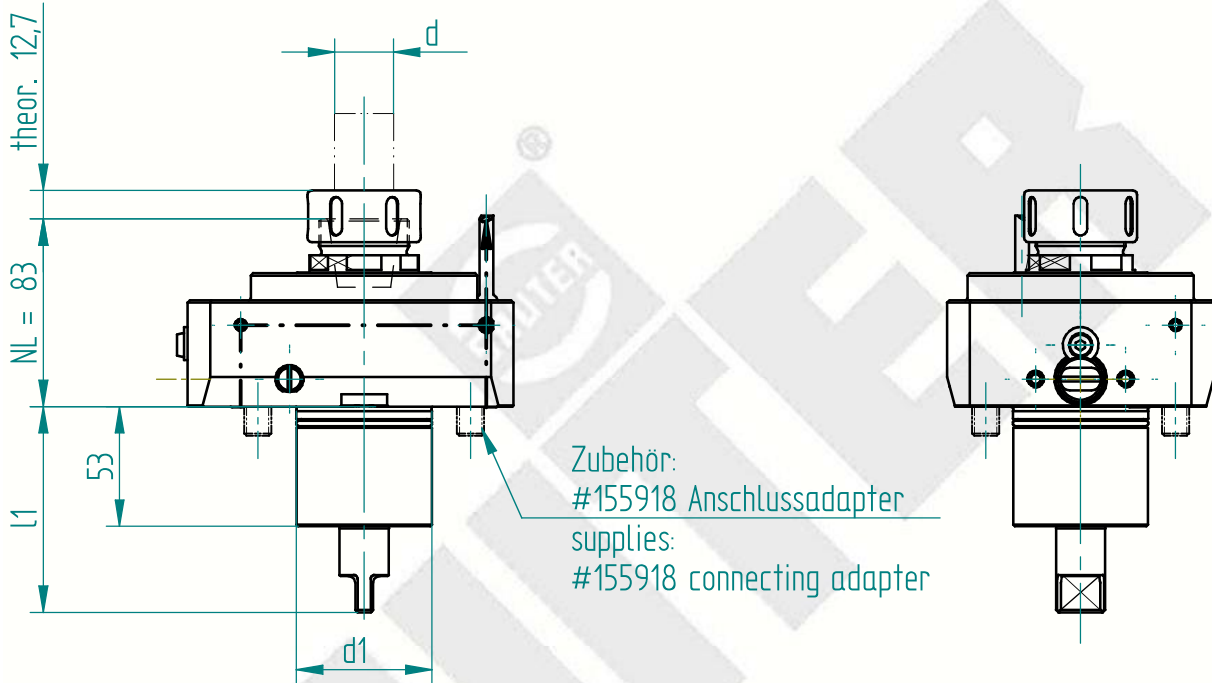
Erforderliche(r) Schlüssel zur Werkzeugspannung / necessary key(s) for tool clamping

122194





ext. 80 bar

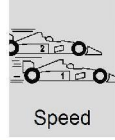
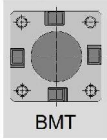


Schnittstelle Revolver <i>interface tool turret</i>		Kupplung <i>coupling</i>	Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>	ISO 10889								
d1 mm	l1 mm		M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>		
60	91.0	BMT Mori Seiki 60	100.0	10000	5.5	1.00	ISO 15488 - 32 - A 2-20	gerade <i>straight</i>	<b>154338</b>

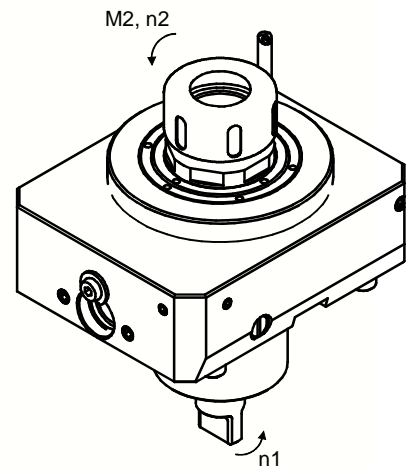
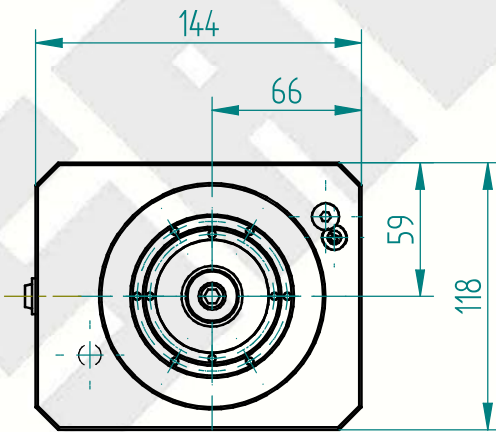
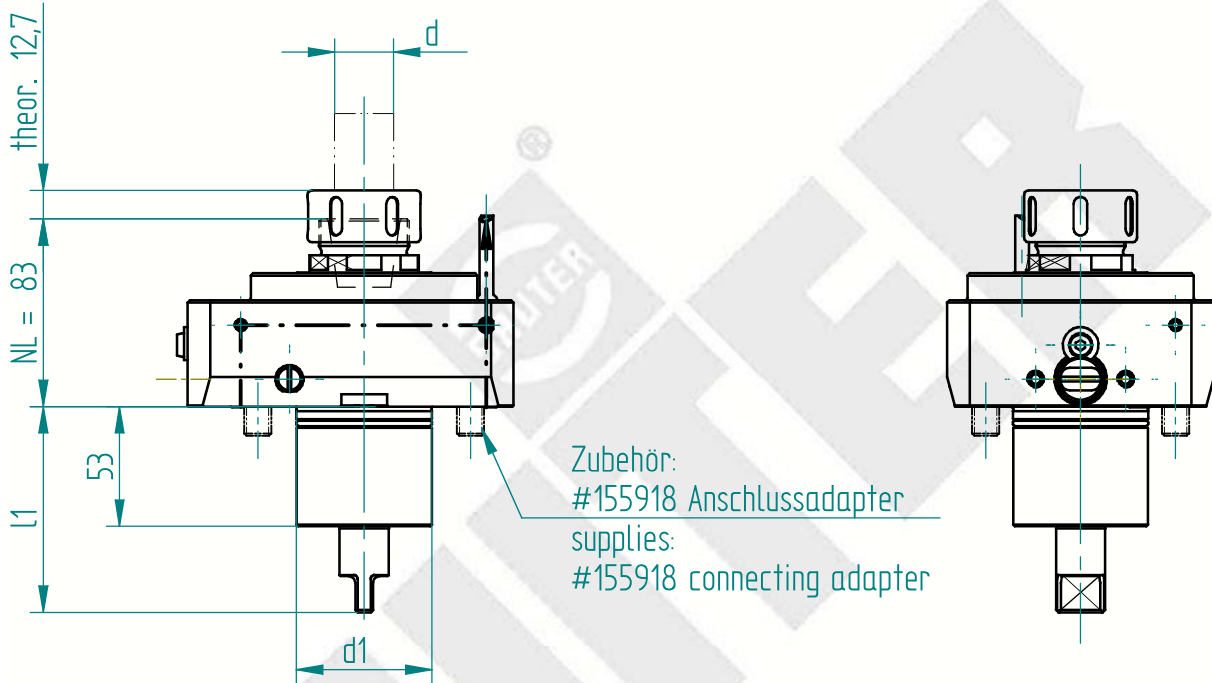
Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

122194





ext. 80 bar

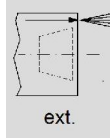
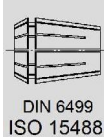
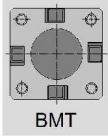


Schnittstelle Revolver <i>interface tool turret</i>		Kupplung <i>coupling</i>	Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>	ISO 10889								
d1 mm	l1 mm		M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>		
60	91.0	BMT Mori Seiki 60	100.0	10000	5.5	1.00	ISO 15488 - 32 - A 2-20	gerade <i>straight</i>	<b>154338</b>

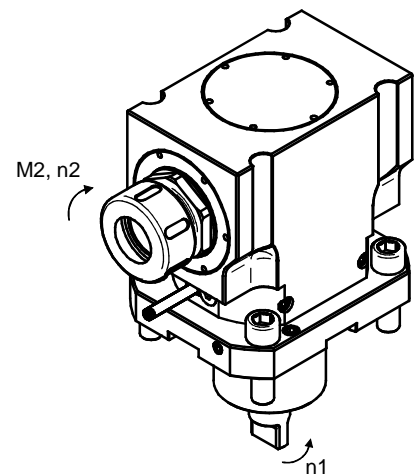
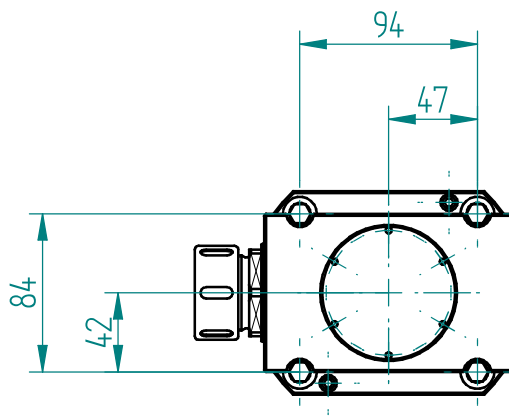
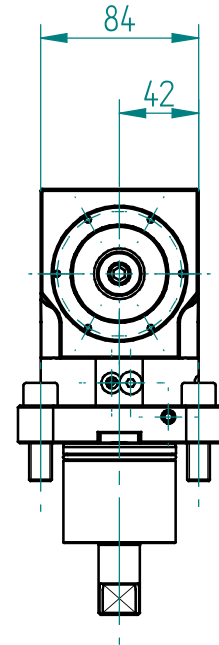
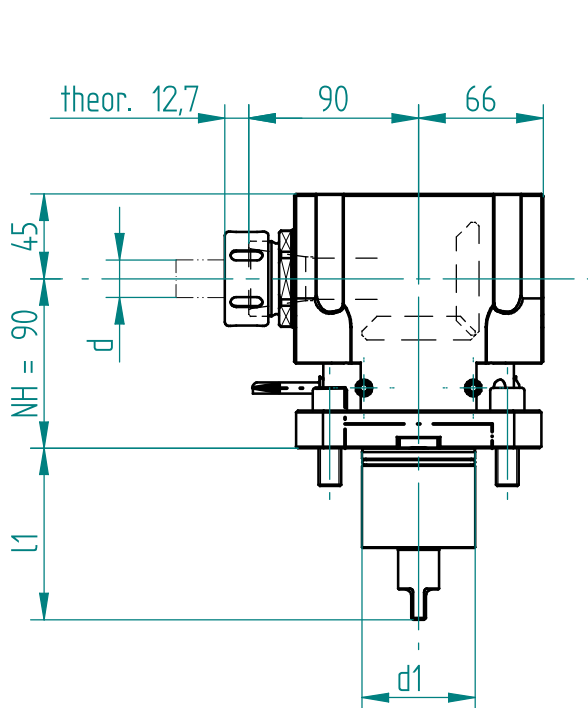
Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

122194





ext. 80 bar

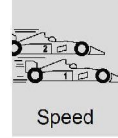
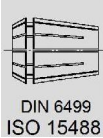
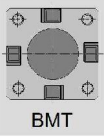


Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>			
60	91.0	BMT Mori Seiki 60	100.0	6000	5.5	1.00	ISO 15488 - 32 - A 2-20	universal universal	<b>121346</b>

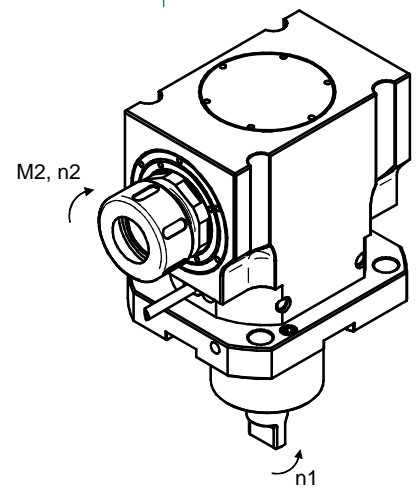
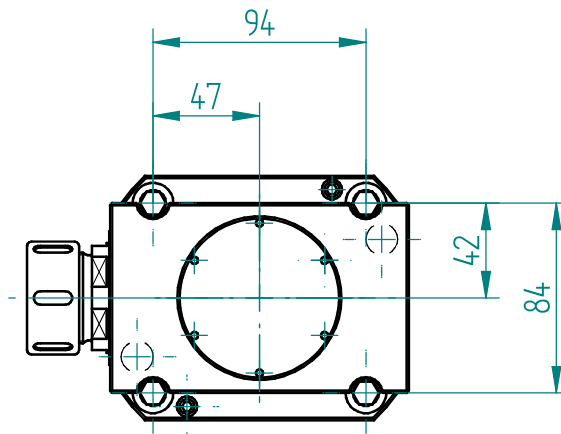
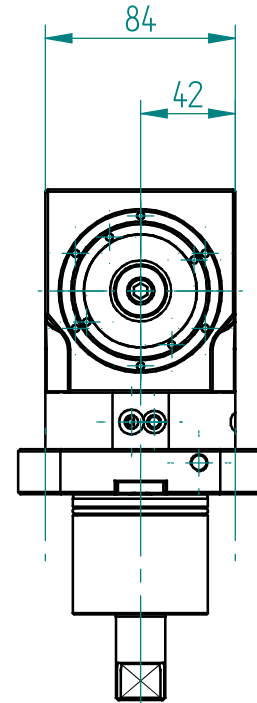
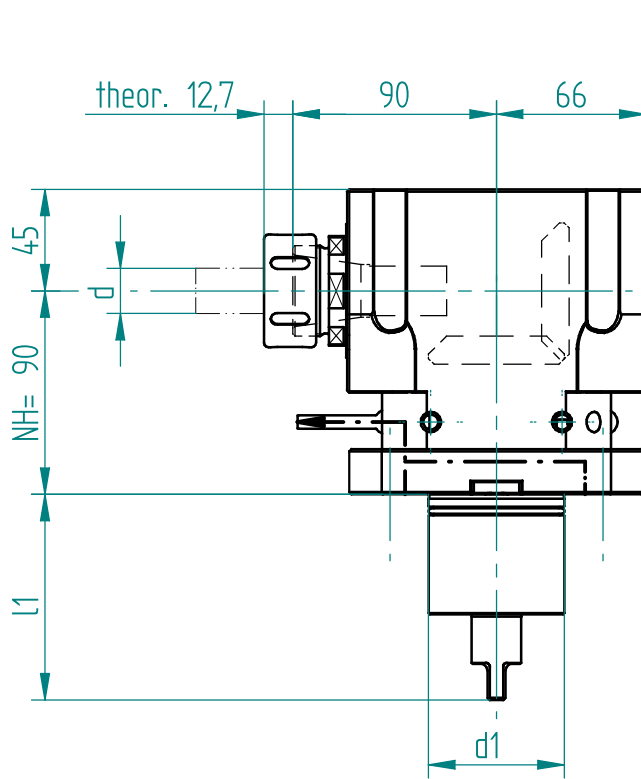
Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

122194





ext. 80 bar



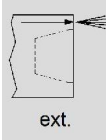
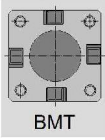
Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver interface tool turret		Drehmoment torque	Drehzahl tool speed	Leistung output	Übersetzung gear ratio	Wkzg.Aufnahme Spannbereich tool holding fixture clamping range	Ausführung version	Bestell-Nr. order N°	
Schaft shank	Kupplung coupling								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d chucking capacity d			
60	91.0	BMT Mori Seiki 60	100.0	10000	5.5	1.00	ISO 15488 - 32 - A 2-20	universal universal	<b>147484</b>

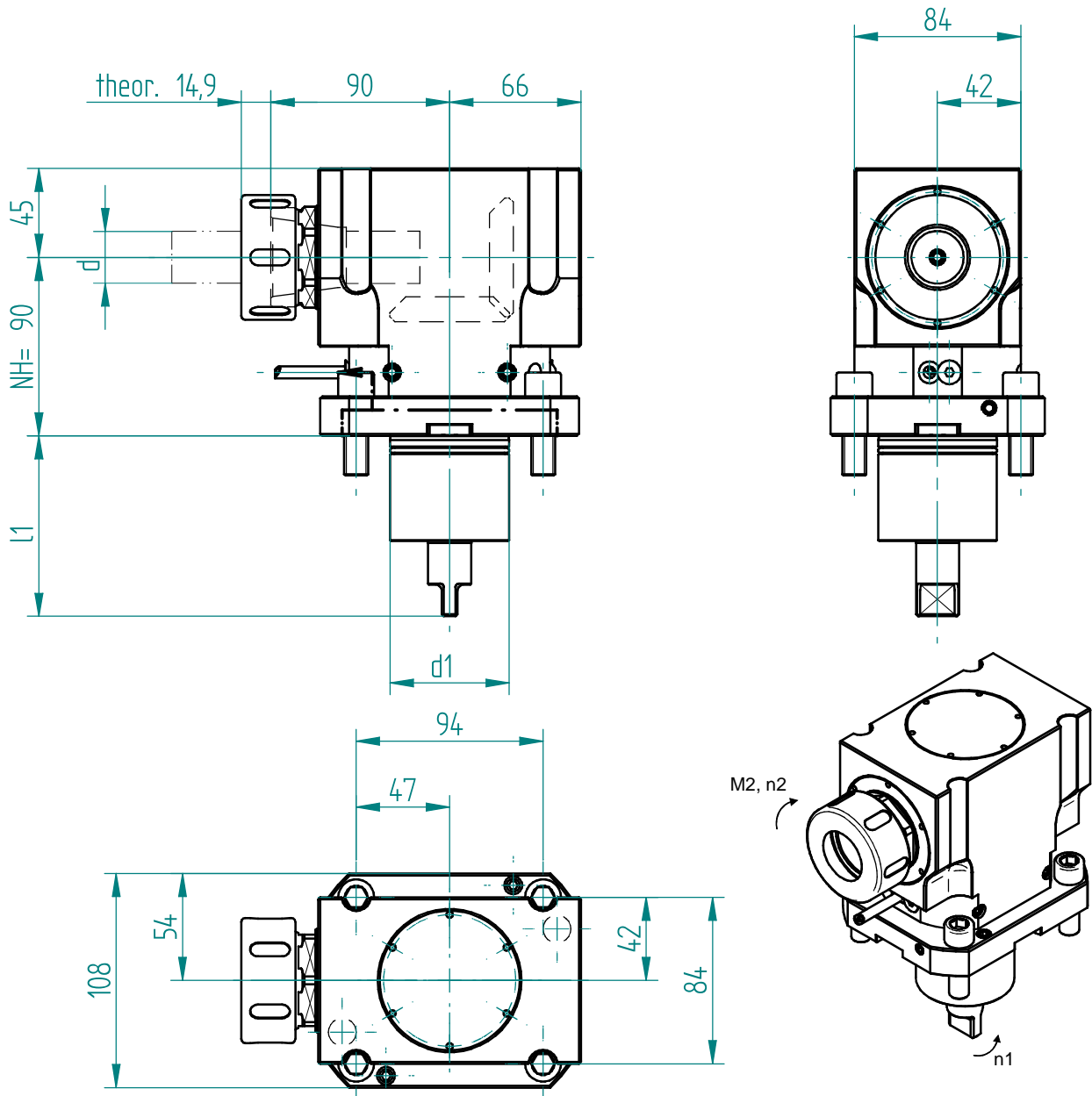
Erforderliche(r) Schlüssel zur Werkzeugspannung / necessary key(s) for tool clamping

122194





ext. 80 bar



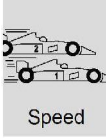
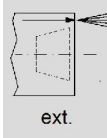
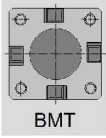
Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>			
60	91.0	BMT Mori Seiki 60	100.0	6000	5.5	1.00	ISO 15488 - 40 - A 3-26	universal universal	<b>121345</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / necessary key(s) for tool clamping

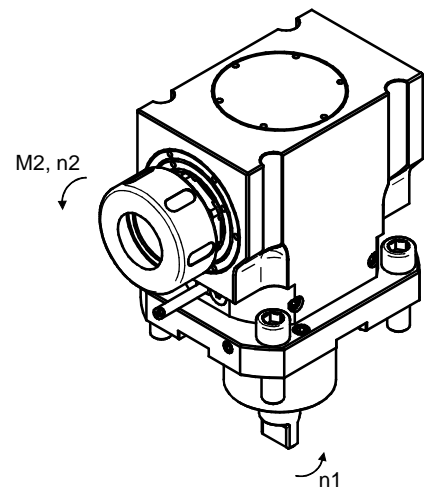
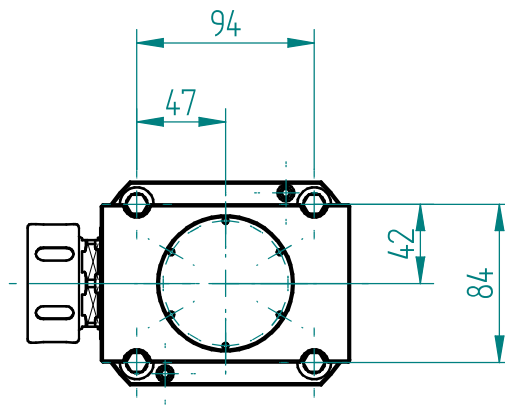
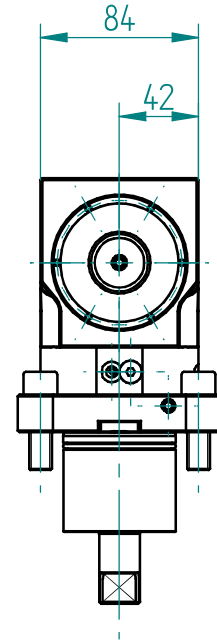
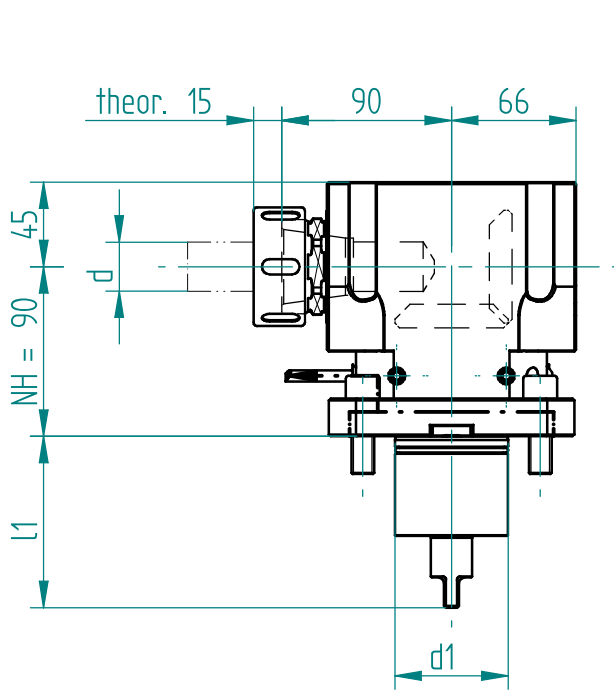
122191







ext. 80 bar



Änderungen vorbehalten. Subject to modification

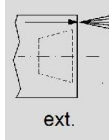
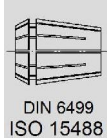
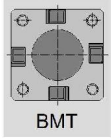
Schnittstelle Revolver interface tool turret		Drehmoment torque	Drehzahl tool speed	Leistung output	Übersetzung gear ratio	Wkzg.Aufnahme Spannbereich tool holding fixture clamping range	Ausführung version	Bestell-Nr. order N°	
Schaft shank	Kupplung coupling								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d chucking capacity d			
60	91.0	BMT Mori Seiki 60	100.0	10000	5.5	1.00	ISO 15488 - 40 - A 3-26	universal universal	<b>147499</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / necessary key(s) for tool clamping

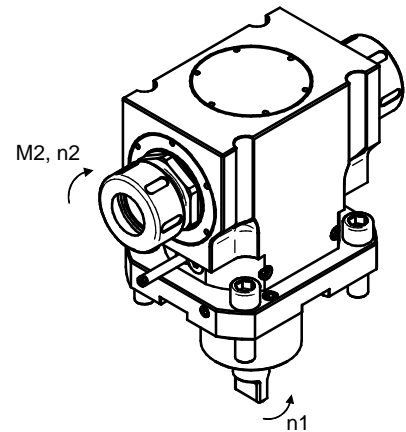
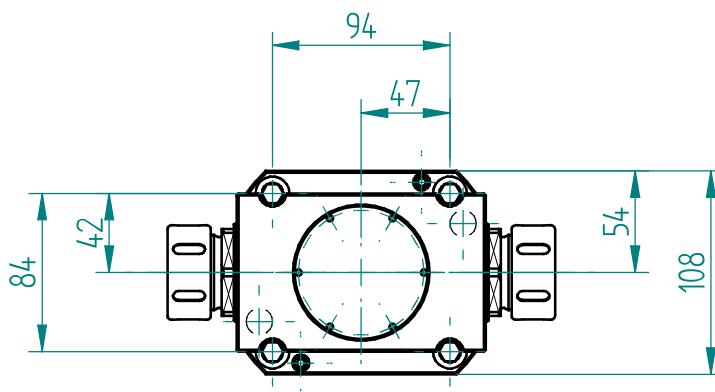
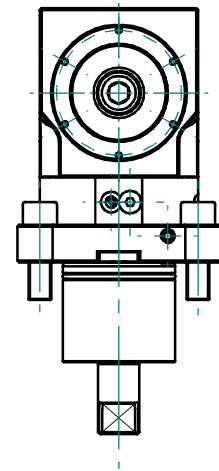
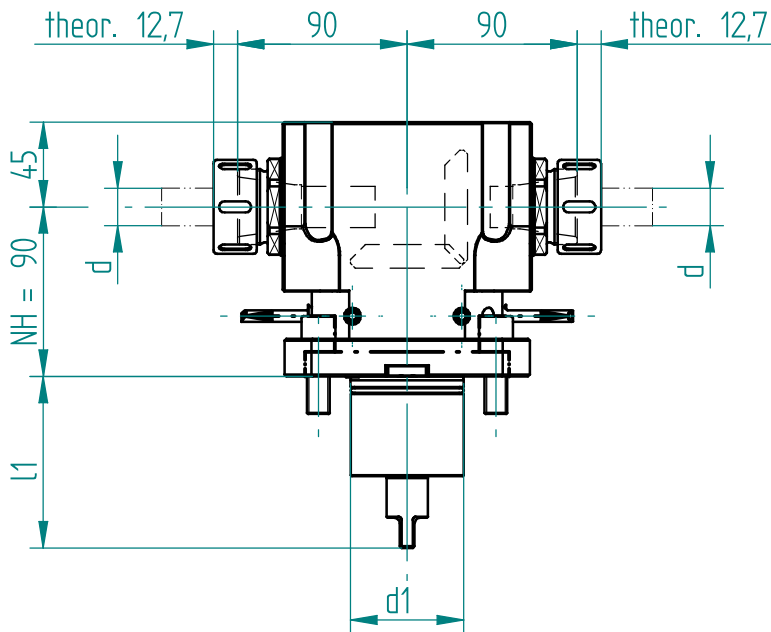
122191

Rev 09/2016 // Erst.:msc , erstellt am 2013.05.28 // Prüf.:has , geprüft am 2015.06.12





ext. 80 bar



Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>			
60	91.0	BMT Mori Seiki 60	100.0	6000	5.5	1.00	ISO 15488 - 32 - A 2-20	universal universal	<b>121437</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

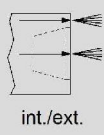
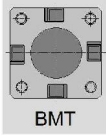
122194



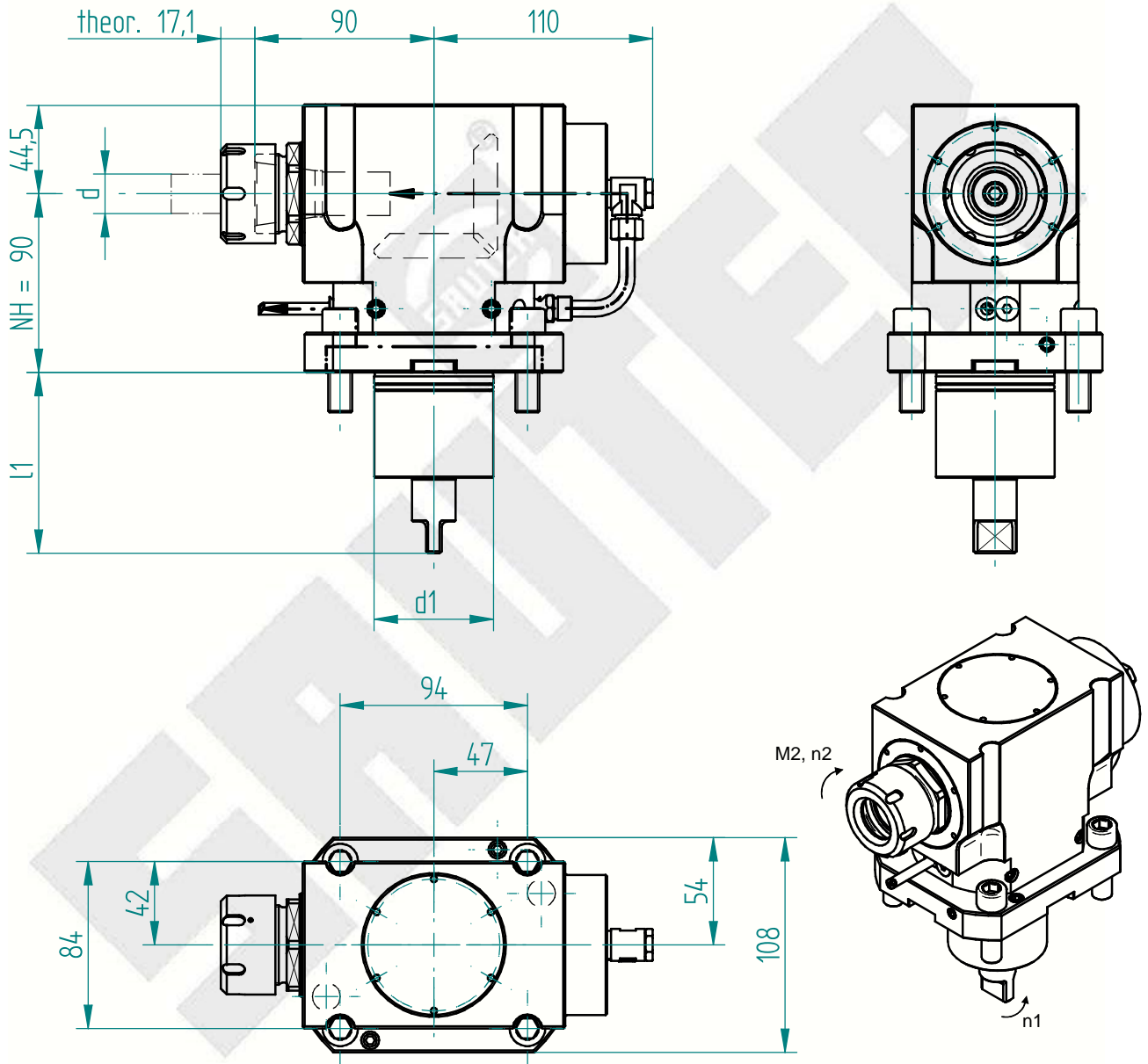


Typenblatt  
Data Sheet

Angetriebenes Werkzeug 90°  
Spannzangenaufnahme  
*driven tool 90° ; collet chuck*



int. 80 bar  
ext. 80 bar  
-  $\diamond$  50  $\mu$ m  
- Dry run: 100%



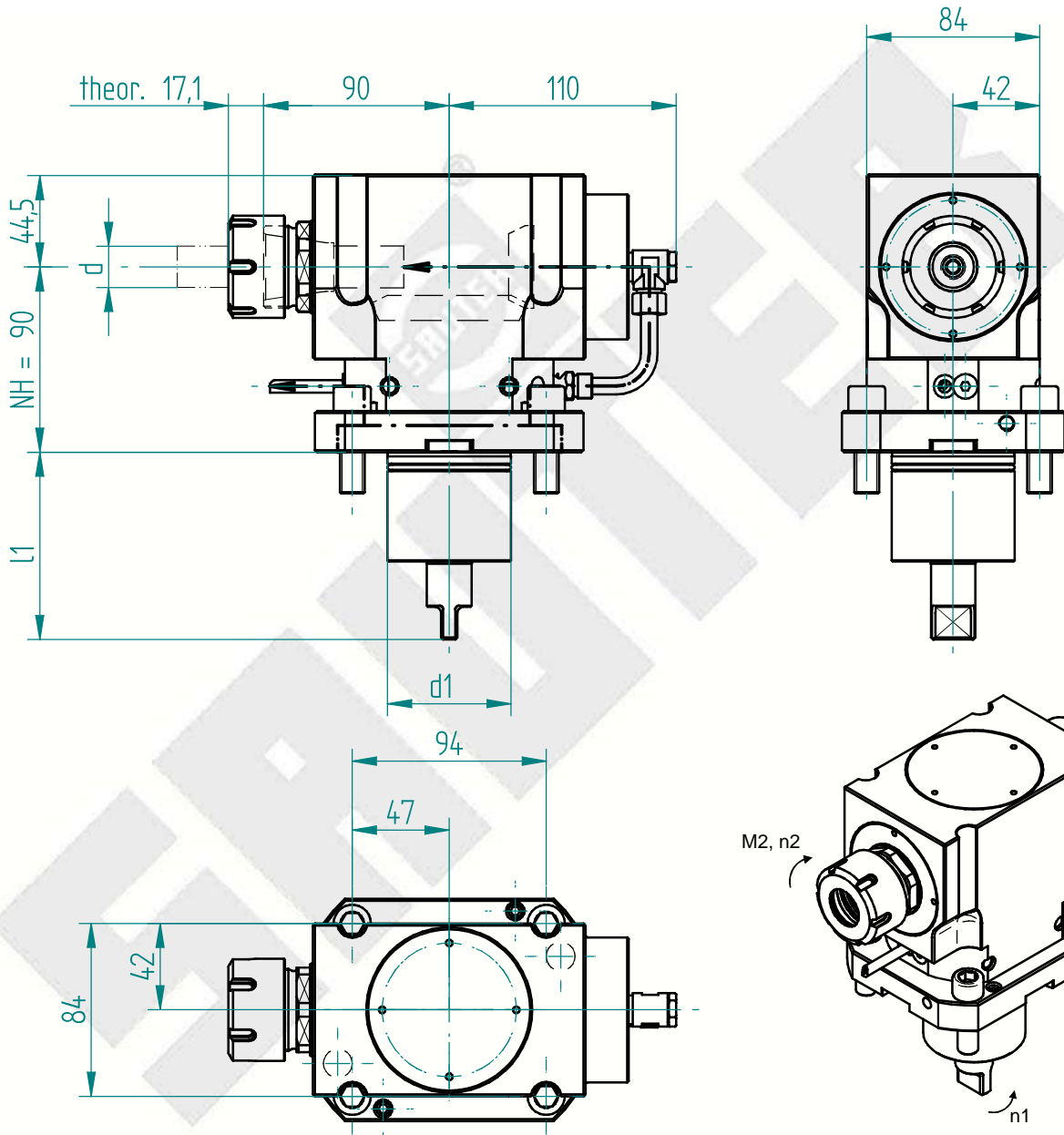
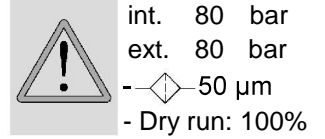
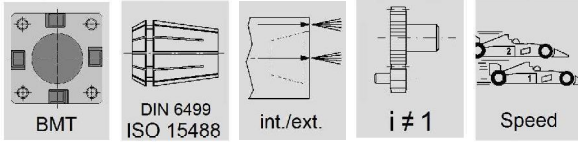
Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>			
60	91.0	BMT Mori Seiki 60	100.0	6000	5.5	1.00	ISO 15488 - 32 - A 2-20	universal universal	<b>123670</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

147843



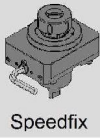
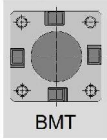


Schnittstelle Revolver <i>interface tool turret</i>		Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>	
Schaft <i>shank</i>	Kupplung <i>coupling</i>								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>			
60	91.0	BMT Mori Seiki 60	100.0	10000	5.5	0.50	ISO 15488 - 32 - A 2-20	universal universal	<b>130165</b>

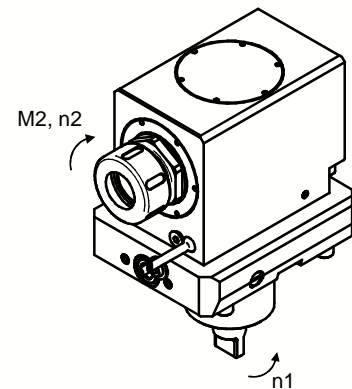
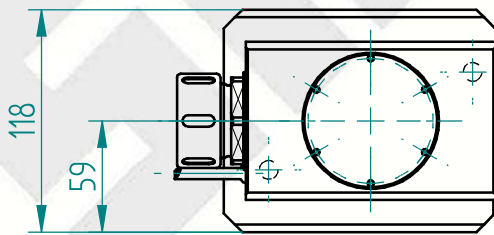
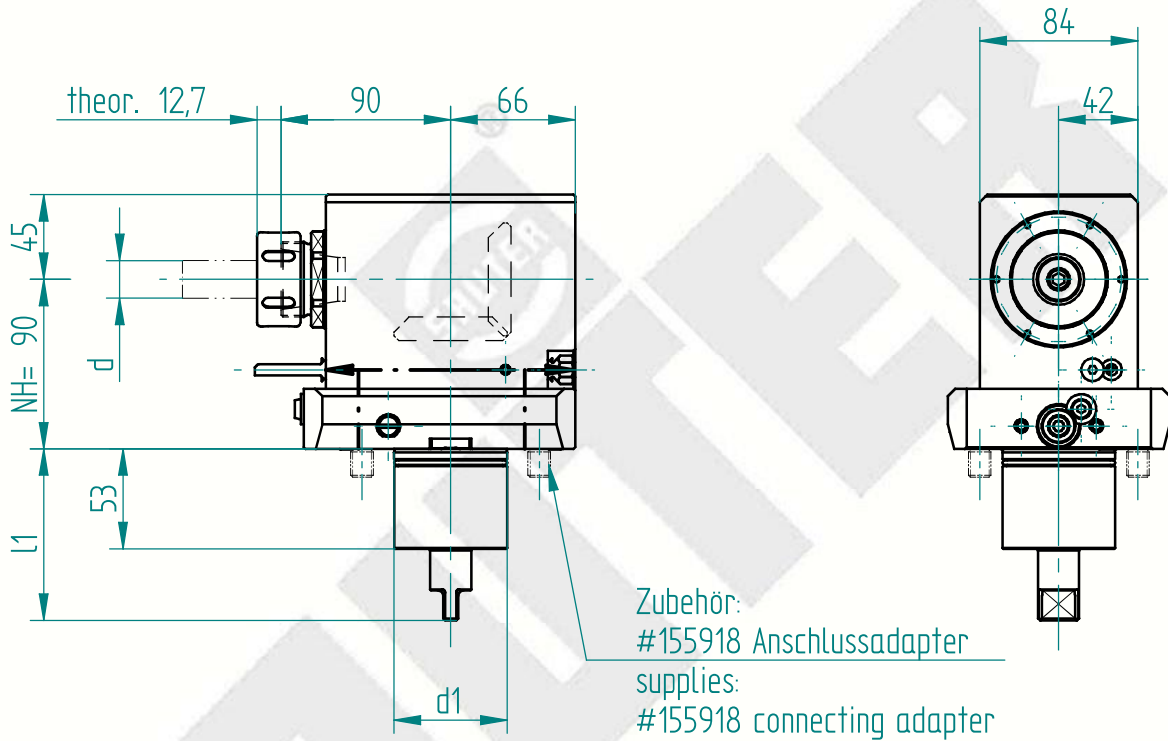
Erforderliche(r) Schlüssel zur Werkzeugspannung / *necessary key(s) for tool clamping*

147734





ext. 80 bar



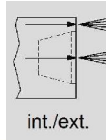
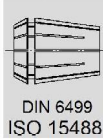
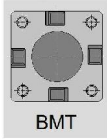
Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver <i>interface tool turret</i>		Kupplung <i>coupling</i>	Drehmoment <i>torque</i>	Drehzahl <i>tool speed</i>	Leistung <i>output</i>	Übersetzung <i>gear ratio</i>	Wkzg.Aufnahme Spannbereich <i>tool holding fixture clamping range</i>	Ausführung <i>version</i>	Bestell-Nr. <i>order N°</i>
Schaft <i>shank</i>	ISO 10889								
d1 mm	l1 mm		M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d <i>chucking capacity d</i>		
60	91.0	BMT Mori Seiki 60	100.0	6000	5.5	1.00	ISO 15488 - 32 - A 2-20	universal universal	<b>154345</b>

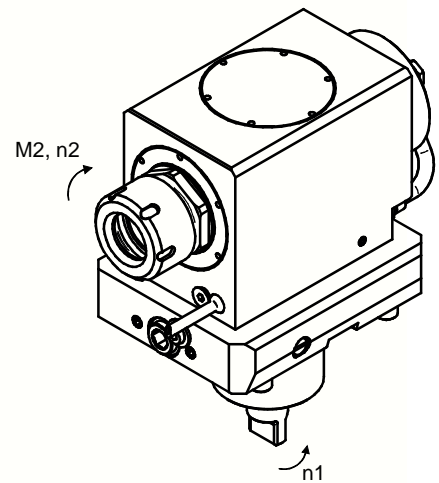
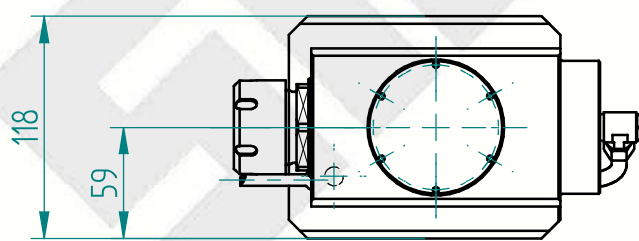
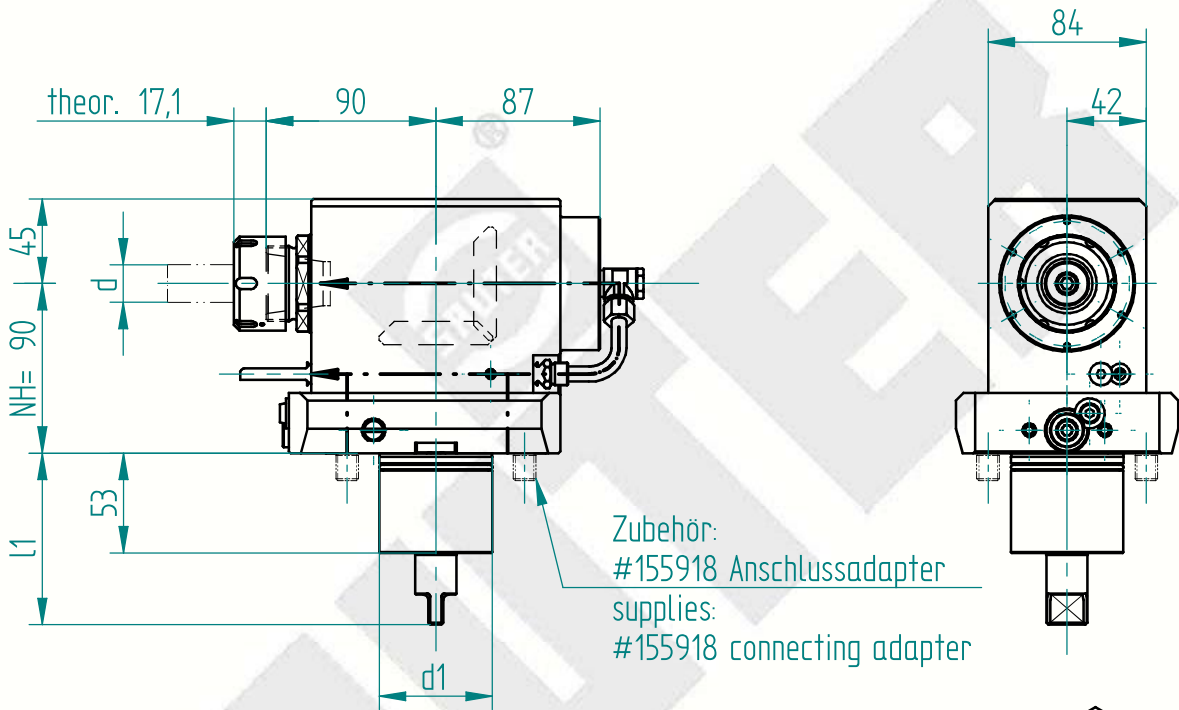
Erforderliche(r) Schlüssel zur Werkzeugspannung / necessary key(s) for tool clamping

122194





int. 5-80 bar  
ext. 80 bar  
-  $\diamond$  50  $\mu$ m  
- Dry run: 100%



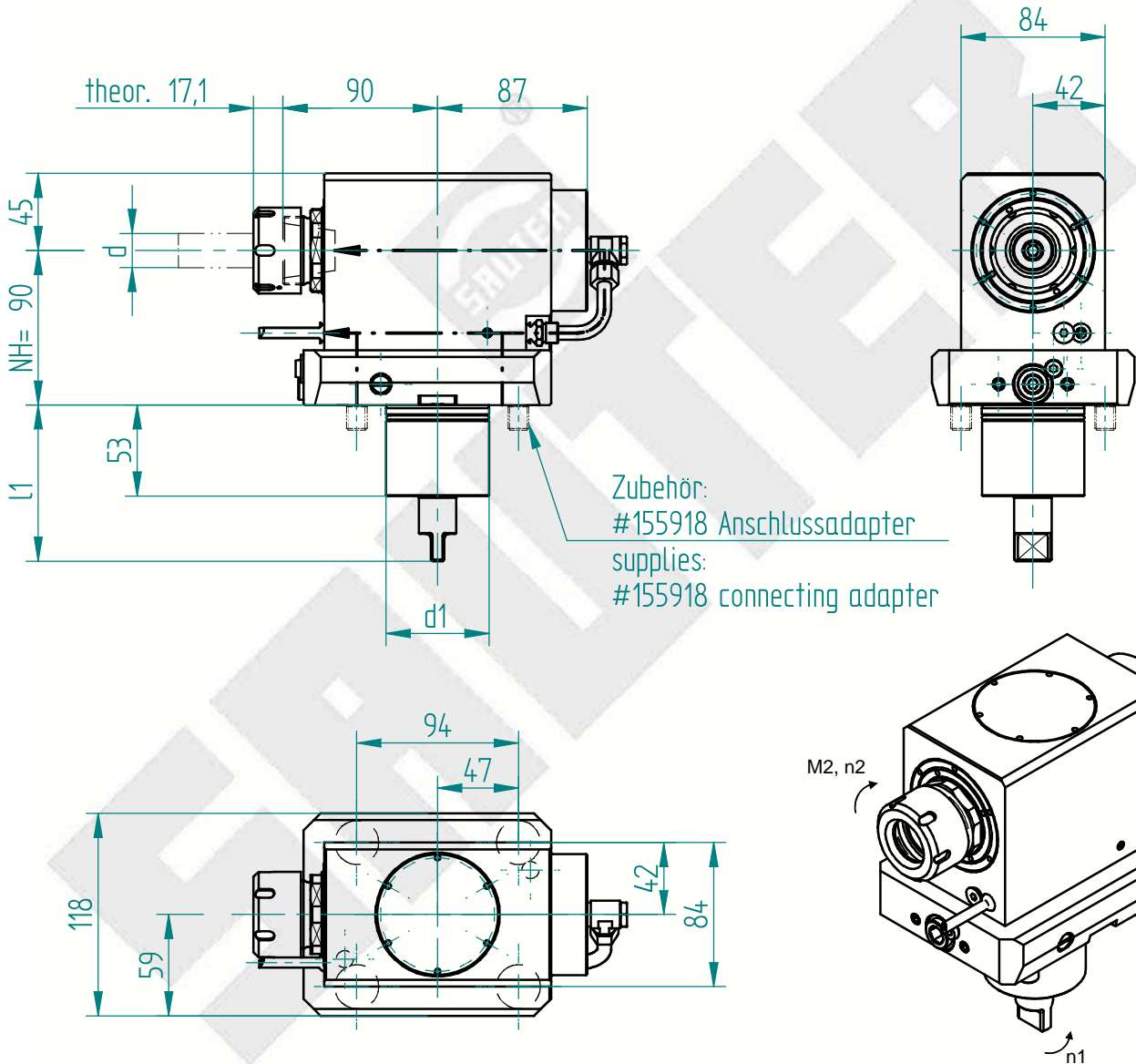
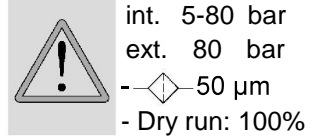
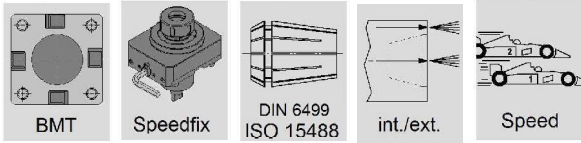
Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver interface tool turret		Kupplung coupling	Drehmoment torque	Drehzahl tool speed	Leistung output	Übersetzung gear ratio	Wkzg.Aufnahme Spannbereich tool holding fixture clamping range	Ausführung version	Bestell-Nr. order N°
Schaft shank	ISO 10889								
d1 mm	l1 mm		M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d chucking capacity d		
60	91.0	BMT Mori Seiki 60	100.0	6000	5.5	1.00	ISO 15488 - 32 - A 2-20	universal universal	<b>154351</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / necessary key(s) for tool clamping

147843





Änderungen vorbehalten. Subject to modification

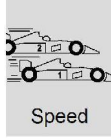
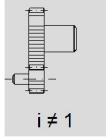
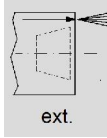
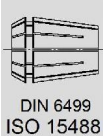
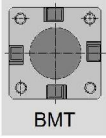
Schnittstelle Revolver interface tool turret		Kupplung coupling	Drehmoment torque	Drehzahl tool speed	Leistung output	Übersetzung gear ratio	Wkzg.Aufnahme Spannbereich tool holding fixture clamping range	Ausführung version	Bestell-Nr. order N°
Schaft shank	ISO 10889								
d1 mm	l1 mm		M2 max Nm	n2 max 1/min	P max KW	i = n1: n2	Spannbereich d chucking capacity d		
60	91.0	BMT Mori Seiki 60	100.0	10000	5.5	1.00	ISO 15488 - 32 - A 2-20	universal universal	<b>156914</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / necessary key(s) for tool clamping

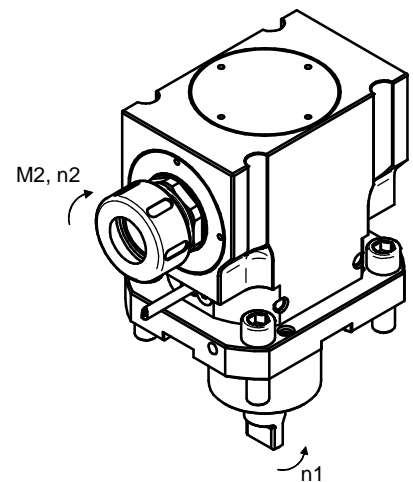
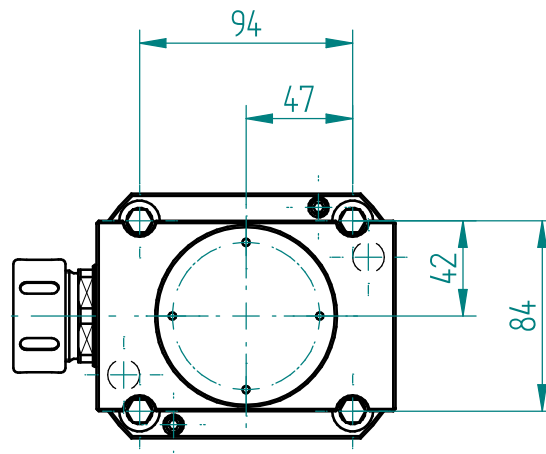
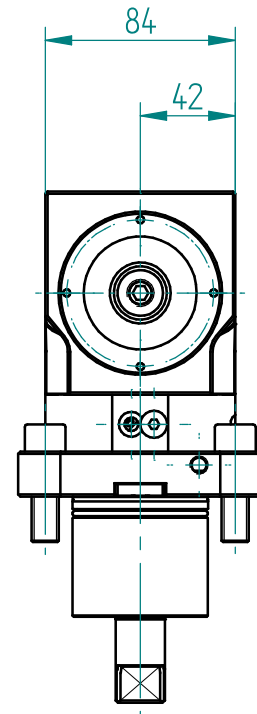
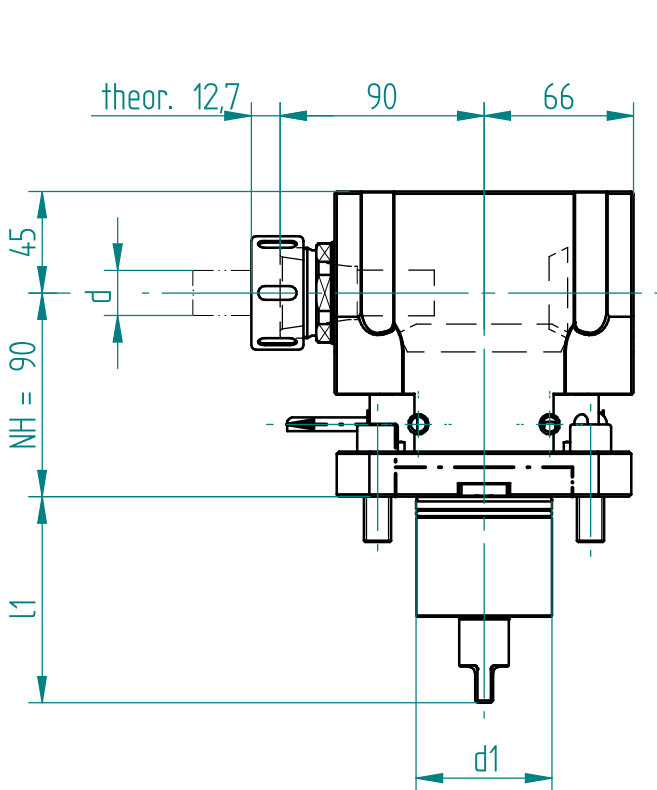
133507







ext. 80 bar



Änderungen vorbehalten. Subject to modification

Schnittstelle Revolver interface tool turret		Drehmoment torque	Drehzahl tool speed	Leistung output	Übersetzung gear ratio	Wkzg.Aufnahme Spannbereich tool holding fixture clamping range	Ausführung version	Bestell-Nr. order N°	
Schaft shank	Kupplung coupling								
d1 mm	l1 mm	M2 max Nm	n2 max 1/min	P max KW	$i = n1 : n2$	Spannbereich d chucking capacity d			
60	91.0	BMT Mori Seiki 60	100.0	10000	5.5	0.50	ISO 15488 - 32 - A 2-20	universal universal	<b>130250</b>

Erforderliche(r) Schlüssel zur Werkzeugspannung / necessary key(s) for tool clamping

147003

