



preliminary

HEIDENHAIN

Mounting Instructions
Montageanleitung
Instructions de montage
Istruzioni di montaggio
Instrucciones de montaje
取付説明書
安装说明
安裝指導手冊
설치 지침

TS 460 TS 462

7/2013

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Warnings
Warnhinweise
Avvertissement
Avvertenze
Notas de aviso



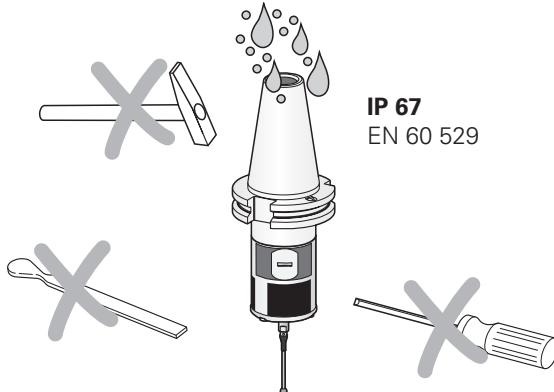
Note: Mounting and commissioning is to be conducted by a qualified specialist under compliance with local safety regulations.

Achtung: Die Montage und Inbetriebnahme ist von einer qualifizierten Fachkraft unter Beachtung der örtlichen Sicherheitsvorschriften vorzunehmen.

Attention: le montage et la mise en service doivent être assurés par un personnel qualifié dans le respect des consignes de sécurité locales.

Attenzione: Il montaggio e la messa in funzione devono essere eseguite da personale qualificato nel rispetto delle norme di sicurezza locali.

Atención: El montaje y la puesta en marcha deben ser realizados por un especialista cualificado, observando las prescripciones locales de seguridad.



Do not drop the touch probe.
Tastsystem nicht fallen lassen.
Ne pas laisser tomber le palpeur.
Non far cadere il tastatore.
No dejar caer el palpador.

Warnings

注意事項

提示

警告

경고



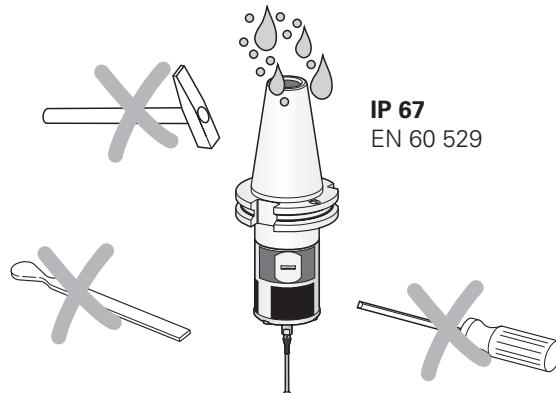
Note: Mounting and commissioning is to be conducted by a qualified specialist under compliance with local safety regulations.

注意：取付け及び試運転は設置国の安全規格のもとで有資格の専門家により実施するようにしてください。

注意：安装和调试时必须符合当地安全要求并由具有资质的专业人员操作

注意：安裝與調整要經由已認證的專業人員指導以符合當地安全規範要求。

주의: 설치 및 조정은 한국의 안전도 규정에 의하여 작업을 수행할 수 있는 공인된 기술자에 의해 수행되어야 합니다.



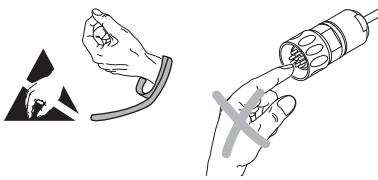
Do not drop the touch probe.

タッチプローブを落とさないでください。

请不要使测头跌落。

探針請勿掉落。

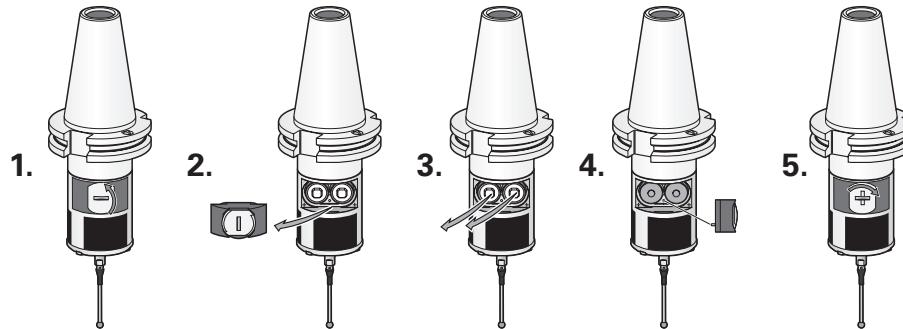
터치 프루브를 떨어뜨리면 않됩니다.



Use a coin to open the battery compartment.

Batteriefach mit einer Münze öffnen.

Provide power to position encoders only from PELV systems (EN 50178).
Provide high-frequency grounding with low impedance (EMC chapter in EN 60204-1).
Positionsmessgeräte nur aus PELV-Systemen (EN 50178) speisen.
Hochfrequent niederohmige Erdung (EN 60204-1 Kap. EMV) vorsehen.
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Hochfrequent niederohmige Erdung (EN 60204-1 Kap. EMV) vorsehen.



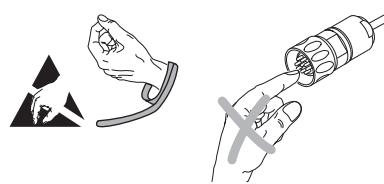
Remove the battery's protective cap before initial operation.

Vor erster Inbetriebnahme die Schutzkappe der Batterie entfernen.

Enlever le capot de protection de la batterie avant la première mise en service.

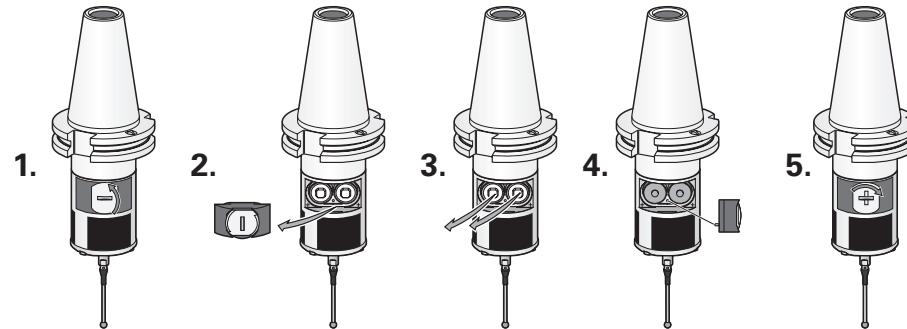
Prima della messa in funzione rimuovere la protezione della batteria.

Retirar la tapa de protección de la batería antes de la primera puesta en marcha.



Use a coin to open the battery compartment.
Use a coin to open the battery compartment.

Provide power to position encoders only from PELV systems (EN 50178).
Provide high-frequency grounding with low impedance (EMC chapter in EN 60204-1).
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Provide high-frequency grounding with low impedance (EMC chapter in EN 60204-1).



Remove the battery's protective cap before initial operation.
初期運転の前にバッテリーの保護キャップを取り外してください。
开始工作前拆下电池保护盖。
“初始操作必須先行拆下電池保護蓋。”
초기 가동 전 보호 캡을 제거하세요.

Approval for radio transmission**Funkerlaubnis****Funkerlaubnis****Funkerlaubnis****Funkerlaubnis**

For operation in radio mode (see page 19).

Für den Betrieb im Funkmodus (siehe Seite 19).

Für den Betrieb im Funkmodus (siehe Seite 19).

Für den Betrieb im Funkmodus (siehe Seite 19).

Für den Betrieb im Funkmodus (siehe Seite 19).

USA

FCC ID YJKTSX6TTX6

FCC User information (USA only)**acc. Section 15.19**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

acc. Section 15.21

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

acc. Section 15.105

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Europe 

DR. JOHANNES HEIDENHAIN GmbH hereby declares that the TS460 and TS462 touch probe systems are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The EC Declaration of Conformity can be requested from

DR. JOHANNES HEIDENHAIN GmbH
Dr.-Johannes-Heidenhain-Straße 5
83301 Traunreut, Germany

or www.heidenhain.de

Die DR. JOHANNES HEIDENHAIN GmbH erklärt hiermit, dass sich die Tastsysteme TS460 und TS462 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befinden.

Die Konformitätserklärung kann unter folgender Adresse angefordert werden:

DR. JOHANNES HEIDENHAIN GmbH
Dr.-Johannes-Heidenhain-Straße 5
83301 Traunreut, Germany

oder www.heidenhain.de

Canada IC: 11148A-TSX6TTX6

RSS Gen Issue 3 Sect. 7.1.3

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Approval for radio transmission
Approval for radio transmission
Approval for radio transmission
Approval for radio transmission
Approval for radio transmission

For operation in radio mode (see page 20.)
For operation in radio mode (see page 20).
For operation in radio mode (see page 20).
For operation in radio mode (see page 20).
For operation in radio mode (see page 20).

Japan TBD

China TBD

Taiwan TBD

Korea TBD

Specifications of the following pages are preliminary

Items supplied

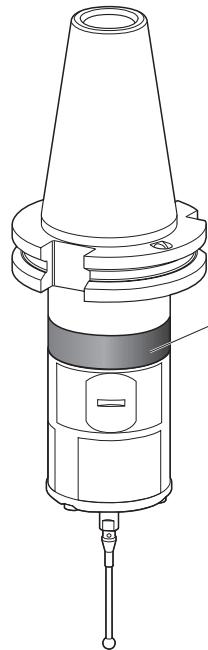
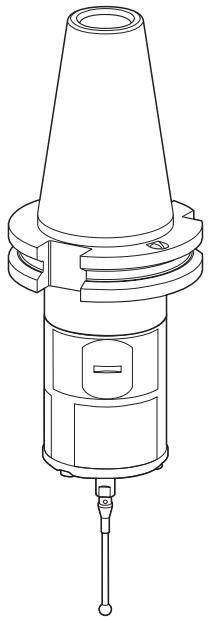
Lieferumfang

Objet de la fourniture

Standard di fornitura

Suministro

TS 460



Collision protection
Kollisionsschutz
Kollisionsschutz
Kollisionsschutz
Kollisionsschutz

Replacement stylus
Ersatzstift
Ersatzstift
Ersatzstift
Ersatzstift

Items supplied depend on product variant

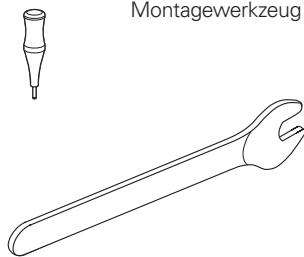
Lieferumfang abhängig von Gerätevariante

Lieferumfang abhängig von Gerätevariante

Lieferumfang abhängig von Gerätevariante

Lieferumfang abhängig von Gerätevariante

Assembly tool
Montagewerkzeug
Montagewerkzeug
Montagewerkzeug
Montagewerkzeug



To be ordered separately:

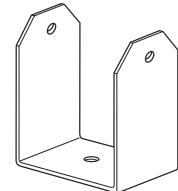
Separat bestellen:

Commander séparément:

Da ordinare separatamente:

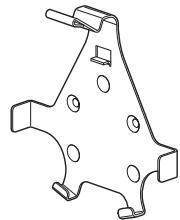
Pedir por separado:

ID 370827-01



Holder for SE 64x
Halter für SE 64x
Support de SE 64x
Supporto per SE 64x
Soporte para SE 64x

ID 744677-01



Holder for SE 660
Halter für SE 660
Support de SE 660
Supporto per SE 660
Soporte para SE 660

ID 1034244-01



Wrench for taper mounting
Schlüssel für Kegelmontage
Clef pour le montage du cône
Chiavi per il montaggio dei coni
Llave para el montaje del cono

SE 640

ID 631225-xx



SE 642

ID 652792-xx



SE 660

ID 744719-01



SE 540

ID 626001-xx



Items supplied

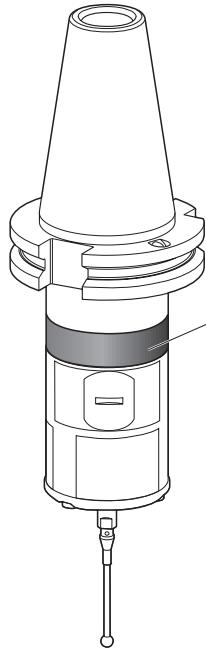
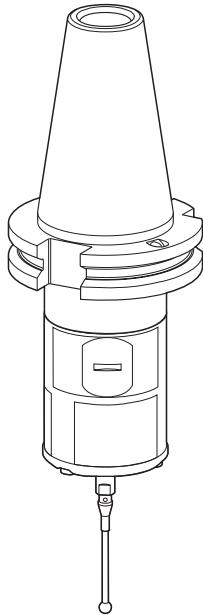
梱包品

零部件

供應的項目

제공 품목

TS 46x

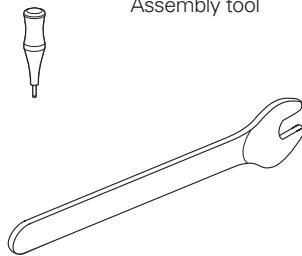


Items supplied depend on product variant
Items supplied depend on product variant

Collision protection
Collision protection
Collision protection
Collision protection
Collision protection

Replacement stylus
Replacement stylus
Replacement stylus
Replacement stylus
Replacement stylus

Assembly tool
Assembly tool
Assembly tool
Assembly tool
Assembly tool



To be ordered separately:

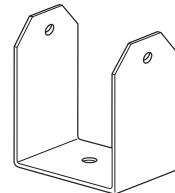
別売品:

需单独订购:

須另外訂購的項目:

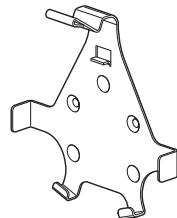
별도로 주문하려면:

ID 370827-01



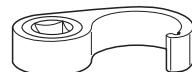
Holder for SE 64x
SE 64x用ホルダー¹
SE 64x支架
SE 64x 安裝支架
SE 64x용 홀더

ID 744677-01



Holder for SE 660
SE 660用ホルダー¹
SE 660支架
SE 660 安裝支架
SE 660용 홀더

ID 1034244-01



Wrench for taper mounting
シャンクへの取付け用レンチ¹
用于锥柄安装的扳手
使用板手固鎖螺牙
홀더를 설치하기 위한 렌치

SE 640

ID 631225-xx



SE 642

ID 652792-xx



SE 660

ID 744719-01



SE 540

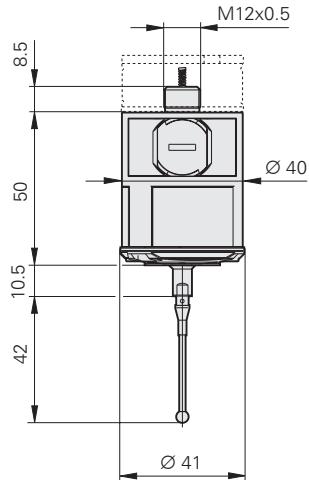
ID 626001-xx



Dimensions
Abmessungen
Dimensions
Dimensioni
Dimensiones

mm


Tolerancing ISO 8015
ISO 2768 - m H
 $< 6 \text{ mm}: \pm 0.2 \text{ mm}$



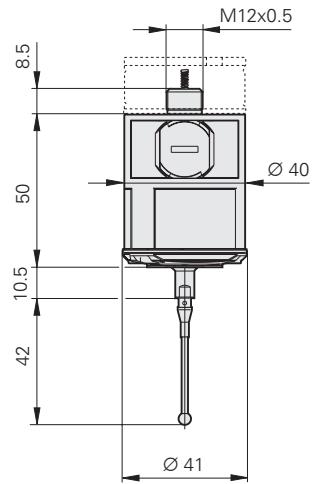
Dimensions

寸法
尺寸
尺寸
규격

mm



Tolerancing ISO 8015
ISO 2768 - m H
< 6 mm: ± 0.2 mm



Protocol of log

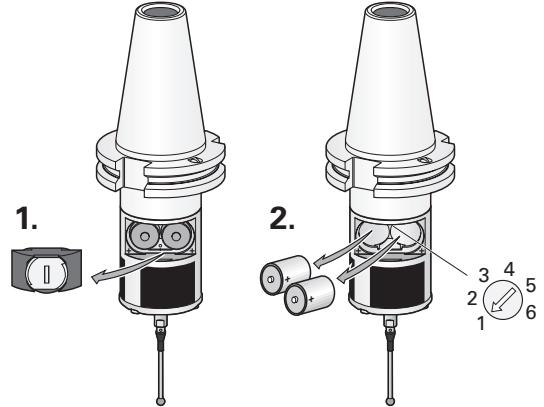
Darstellung des Protokolls

Darstellung des Protokolls

Darstellung des Protokolls

Darstellung des Protokolls

Darstellung des Protokolls



Rotary switch
Drehschalter
Commutateur rotatif
Interruttore
Comutador giratorio



Caution: Conduct electronic recentering after switching between IR and RF modes, page 30.

Achtung: Bei Änderung der Betriebsart IR -> RF, RF -> IR elektronisch neu zentrieren, S.30.

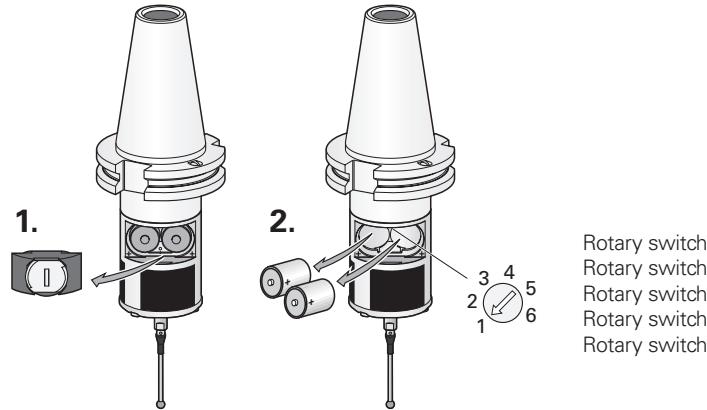
Achtung: Bei Änderung der Betriebsart IR -> RF, RF -> IR elektronisch neu zentrieren, S.30.

Achtung: Bei Änderung der Betriebsart IR -> RF, RF -> IR elektronisch neu zentrieren, S.30.

Achtung: Bei Änderung der Betriebsart IR -> RF, RF -> IR elektronisch neu zentrieren, S.30.

Switch position <i>Schalterstellung</i>	Activation <i>Aktivierung</i>	Transmission <i>Übertragung</i>	Transmission unit <i>Sendeeinheit</i>	
Schalterstellung <i>Schalterstellung</i>	Aktivierung <i>Aktivierung</i>	Übertragung <i>Übertragung</i>	Sendeeinheit <i>Sendeeinheit</i>	
Schalterstellung <i>Schalterstellung</i>	Aktivierung <i>Aktivierung</i>	Übertragung <i>Übertragung</i>	Sendeeinheit <i>Sendeeinheit</i>	
Schalterstellung <i>Schalterstellung</i>	Aktivierung <i>Aktivierung</i>	Übertragung <i>Übertragung</i>	Sendeeinheit <i>Sendeeinheit</i>	
1	IR ¹⁾	IR	SE540 ³⁾ , SE64x ³⁾ , SE 660 ⁴⁾	
2	RF ²⁾	IR, RF	SE 660 ⁴⁾	
3	IR	IR	SE 540 ³⁾ , SE 64x ³⁾	
4	Shank switch <i>Kegelschalter</i> Kegelschalter <i>Kegelschalter</i> Kegelschalter <i>Kegelschalter</i>	TS 642	IR	
5	–	–	–	
6	Shank switch <i>Kegelschalter</i> Kegelschalter <i>Kegelschalter</i> Kegelschalter <i>Kegelschalter</i>	TS 642	IR	
1) Infrared <i>Infrarot</i>	2) Radio <i>Funk</i>	3) SE 540: as of ID 626001-xx <i>SE 540: ab ID 626001-xx</i>	SE 640: as of ID 631225-xx <i>SE 640: ab ID 631225-xx</i>	SE 642: as of ID 652792-01 <i>SE 642: ab ID 652792-01</i>
Infrarot <i>Infrarot</i>	Funk <i>Funk</i>	SE 540: ab ID 626001-xx <i>SE 540: ab ID 626001-xx</i>	SE 640: ab ID 631225-xx <i>SE 640: ab ID 631225-xx</i>	SE 642: ab ID 652792-01 <i>SE 642: ab ID 652792-01</i>
Infrarot <i>Infrarot</i>	Funk <i>Funk</i>	SE 540: ab ID 626001-xx <i>SE 540: ab ID 626001-xx</i>	SE 640: ab ID 631225-xx <i>SE 640: ab ID 631225-xx</i>	SE 642: ab ID 652792-01 <i>SE 642: ab ID 652792-01</i>
Infrarot <i>Infrarot</i>	Funk <i>Funk</i>	SE 540: ab ID 626001-xx <i>SE 540: ab ID 626001-xx</i>	SE 640: ab ID 631225-xx <i>SE 640: ab ID 631225-xx</i>	SE 642: ab ID 652792-01 <i>SE 642: ab ID 652792-01</i>
4) For transmission unit settings, please refer to the SE 660 operating instructions. <i>Einstellungen an der Sendeeinheit entnehmen Sie bitte der Betriebsanleitung SE 660</i> Einstellungen an der Sendeeinheit entnehmen Sie bitte der Betriebsanleitung SE 660 <i>Einstellungen an der Sendeeinheit entnehmen Sie bitte der Betriebsanleitung SE 660</i> Einstellungen an der Sendeeinheit entnehmen Sie bitte der Betriebsanleitung SE 660				

Protocol of log
Protocol of log
Protocol of log
Protocol of log
Protocol of log



Rotary switch
Rotary switch
Rotary switch
Rotary switch
Rotary switch
Rotary switch



Caution: Conduct electronic recentering after switching between IR and RF modes, page 32.

Caution: Conduct electronic recentering after switching between IR and RF modes, page 32.

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Caution: Conduct electronic recentering after switching between IR and RF modes, page 32.

Switch position	Activation	Transmission	Transmission unit	
Switch position	Activation	Transmission	Transmission unit	
Switch position	Activation	Transmission	Transmission unit	
Switch position	Activation	Transmission	Transmission unit	
Switch position	Activation	Transmission	Transmission unit	
1	IR ¹⁾	IR	SE540 ³⁾ , SE64x ³⁾ , SE 660 ⁴⁾	
2	RF ²⁾	IR, RF	SE 660 ⁴⁾	
3	IR	IR	SE 540 ³⁾ , SE 64x ³⁾	
4	Shank switch Shank switch Shank switch Shank switch Shank switch	IR	SE540 ³⁾ , SE64x ³⁾ , SE 660 ⁴⁾	
TS 642				
5	-	-	-	
6	Shank switch Shank switch Shank switch Shank switch Shank switch	IR	SE 540 ³⁾ , SE 64x ³⁾	
TS 642				
1) Infrared	2) Radio	3) SE 540: as of ID 626001-xx	SE 640: as of ID 631225-xx	SE 642: as of ID 652792-01
Infrared	Radio	SE 540: as of ID 626001-xx	SE 640: as of ID 631225-xx	SE 642: as of ID 652792-01
Infrared	Radio	SE 540: as of ID 626001-xx	SE 640: as of ID 631225-xx	SE 642: as of ID 652792-01
Infrared	Radio	SE 540: as of ID 626001-xx	SE 640: as of ID 631225-xx	SE 642: as of ID 652792-01
Infrared	Radio	SE 540: as of ID 626001-xx	SE 640: as of ID 631225-xx	SE 642: as of ID 652792-01
4) For transmission unit settings, please refer to the SE 660 operating instructions.				
For transmission unit settings, please refer to the SE 660 operating instructions.				
For transmission unit settings, please refer to the SE 660 operating instructions.				
For transmission unit settings, please refer to the SE 660 operating instructions.				
For transmission unit settings, please refer to the SE 660 operating instructions.				

Taper mounting

Kegelmontage

Montage du cône

Montaggio del cono

Montaje del cono

Attach TS 460 with torque wrench

TS 460 mit Drehmomentschlüssel anschrauben

Visser le TS 460 avec une clé dynamométrique

Avvitare il TS 460 con chiave dinamometrica

Atornillar el TS 460 con una llave dinamométrica

M30 x 0.5

Secure the thread with Loctite 222/S8

Gewinde mit Loctite 222/S8 sichern

Freinage des filetages avec Loctite 222/S8

Bloccare il filetto con Loctite 222/S8

Asegurar la rosca con Loctite 222/S8

Remove the protective cover

Schutzkappe entfernen

Schutzkappe entfernen

Schutzkappe entfernen

Schutzkappe entfernen

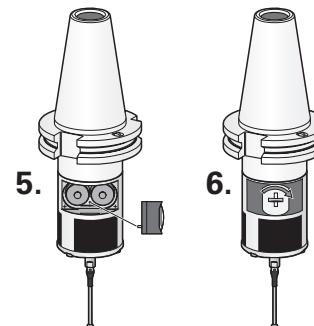
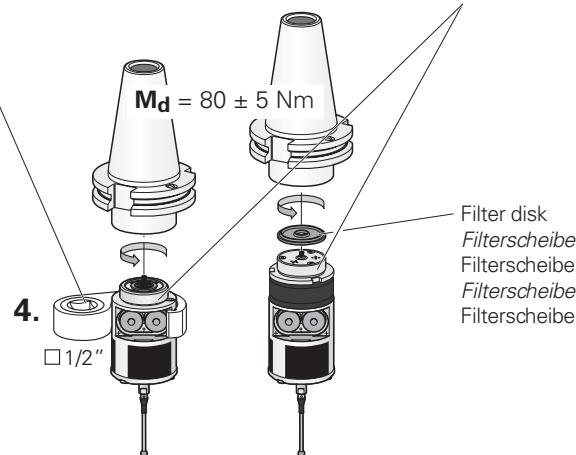
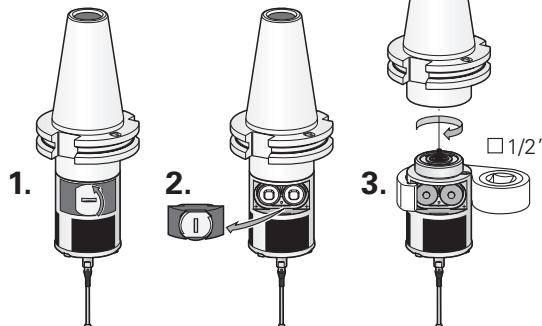
Remove TS 460

TS 460 lösen

Dévisser le TS 460

Allentare il TS 460

Soltar el TS 460



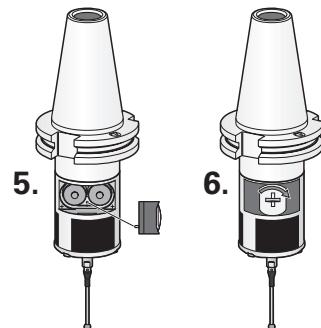
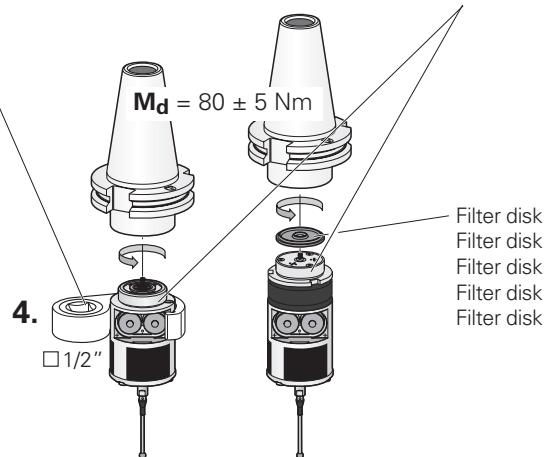
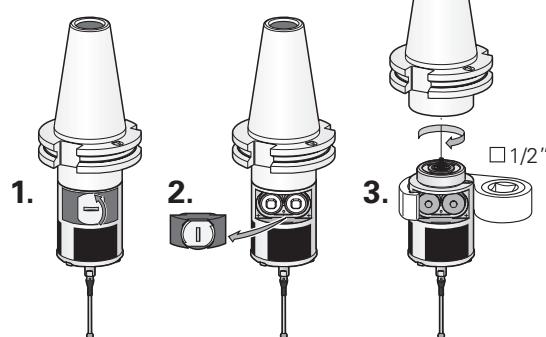
Taper mounting
シャンクへの取付け
安装锥柄
安装刀把
테이퍼 설치

Attach TS 460 with torque wrench
トルクレンチでTS 460を取り付けてください。
用扭矩扳手安装TS 460
使用扭力板手固鎖 TS 460
토크 렌치로 TS 460를 연결합니다.

M30 x 0.5
Secure the thread with Loctite 222/S8
Loctite 222/S8でネジを固定してください。
用Loctite 222/S8固定螺紋
使用螺絲固定劑 Loctite 222/S8 固定螺牙
Loctite 222/S8로 나사를 고정합니다.

Remove the protective cover
Remove the protective cover
Remove the protective cover
Remove the protective cover
Remove the protective cover

Remove TS 460
TS 460を取り外してください。
拆下TS 460
移除 TS 460
TS 460를 제거합니다.



Stylus exchange

Taststiftwechsel

Changement de la tige de palpage

Sostituzione dello stilo

Cambio del vástago



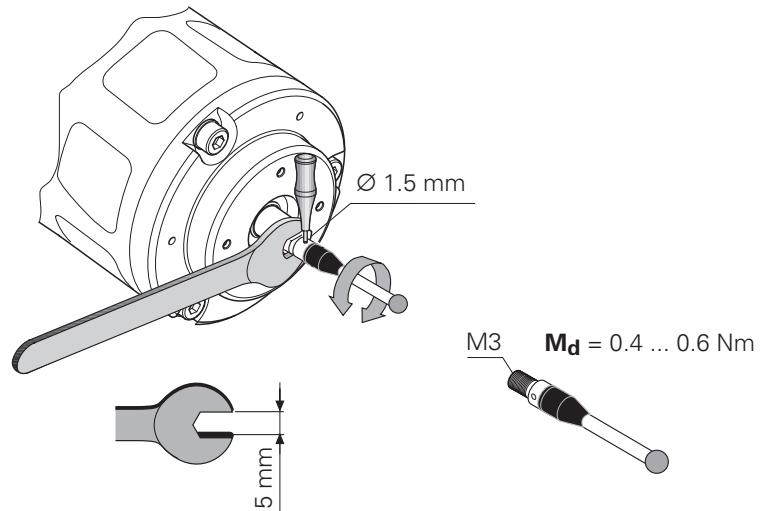
Note: Recenter, see pages 30 and 31

Achtung: Neu zentrieren, siehe Seite 30 und 31

Attention: recentrage, voir pages 30 et 31

Attenzione: ripetere il centraggio, vedere pagina 30 e 31

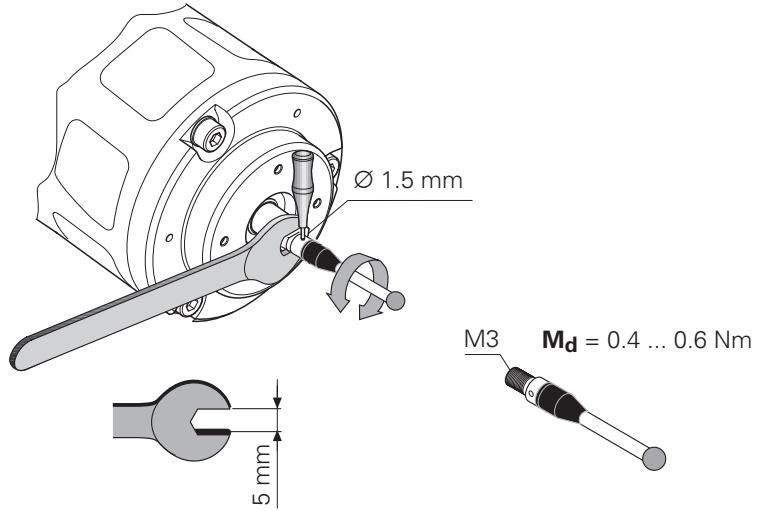
Atención: centrar de nuevo, ver pág. 30 y 31



Stylus exchange
スタイルスの交換
测针更换
探針交換
스타일러스 교체



Note: Recenter, see pages 32 and 33
注意: 再センタリング。32および33ページを参照ください。
注意: 重新定心时, 参见第32和33页
附註: 重校中心, 請参考頁碼 32 及 33
유의사항: 재센터링은 32, 33페이지를 참조하십시오.



Battery exchange

Batterienwechsel

Changement des batteries

Sostituzione delle batterie

Cambio de batería

Included in the delivery: 2 LITHIUM batteries, 3.6 V, 1/2 AA

ID 332775-05. (Batteries not rechargeable)

Im Lieferumfang enthalten: 2 Stück Batterien LITHIUM 3.6 V 1/2 AA

ID 332775-05. (Batterien nicht aufladbar)

Inclus dans la fourniture: 2 x batteries LITHIUM 3.6 V 1/2 AA

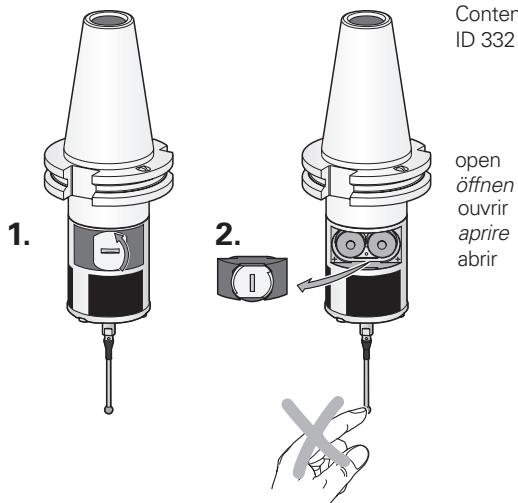
ID 332775-05. (Batteries non rechargeables)

Lo standard di fornitura comprende: 2x batterie LITHIUM 3,6 V 1/2 AA

ID 332775-05. (batterie non ricaricabili)

Contenido entre los elementos suministrados: 2x baterías LITHIUM 3.6 V 1/2 AA

ID 332 775-04. (baterías no recargables)



open
öffnen
ouvrir
aprire
abrir

The stylus must hang loose for the self-calibration

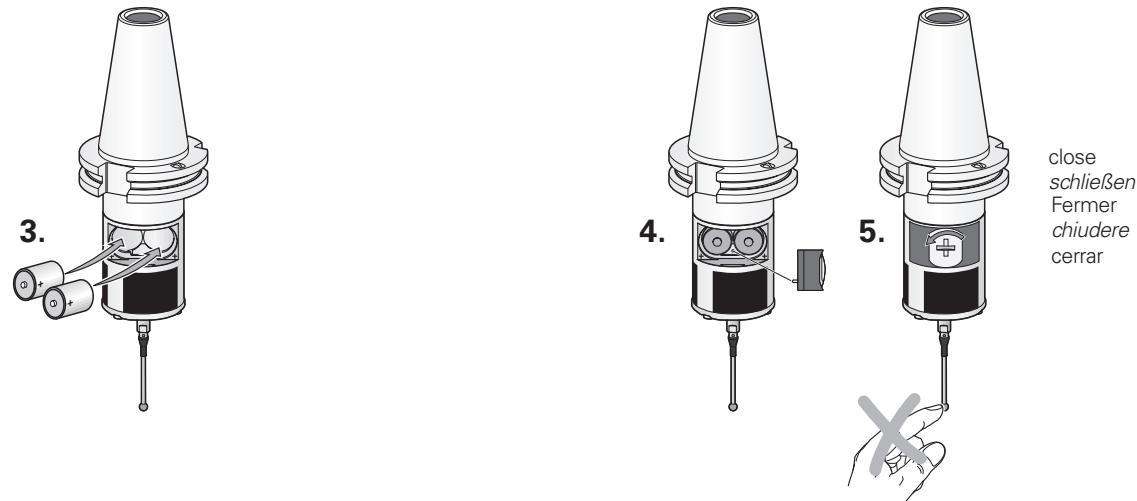
Wegen Selbstkalibrierung muss Taststift frei sein

La tige de palpage doit être libre à cause de l'auto-calibration

Lo stilo deve essere libero per autocalibrazione

Por motivo de la autocalibración, el vástago debe estar suelto

Alkaline batteries or NiMH accumulators with 1 to 4 V can also be used.
Alkaline-Batterien oder NiMH-Akkus mit 1 bis 4 V sind ebenfalls verwendbar.
Utilisation possible des batteries alcalines ou accus NIMH de 1 à 4 V.
Possono essere impiegate batterie alcaline o NIMH da 1 a 4 V.
Asimismo pueden utilizarse baterías o acumuladores NIMH de 1 hasta 4 V.



Battery exchange

電池交換

更换电池

更换电池

배터리 교체

Included in the delivery: 2 LITHIUM batteries, 3.6 V, 1/2 AA
ID 332775-05. (Batteries not rechargeable)

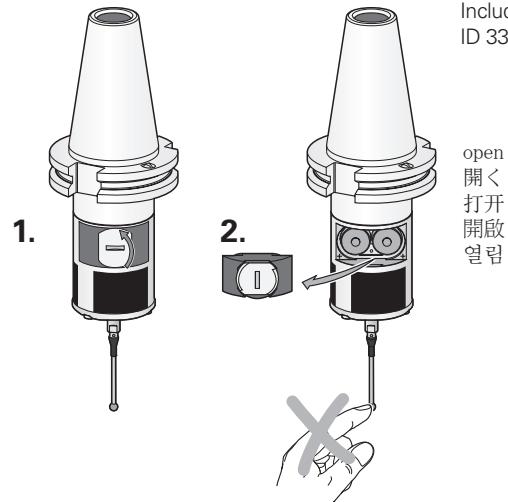
Included in the delivery: 2 LITHIUM batteries, 3.6 V, 1/2 AA
ID 332775-05. (Batteries not rechargeable)

Included in the delivery: 2 LITHIUM batteries, 3.6 V, 1/2 AA
ID 332775-05. (Batteries not rechargeable)

Included in the delivery: 2 LITHIUM batteries, 3.6 V, 1/2 AA
ID 332775-05. (Batteries not rechargeable)

Included in the delivery: 2 LITHIUM batteries, 3.6 V, 1/2 AA
ID 332775-05. (Batteries not rechargeable)

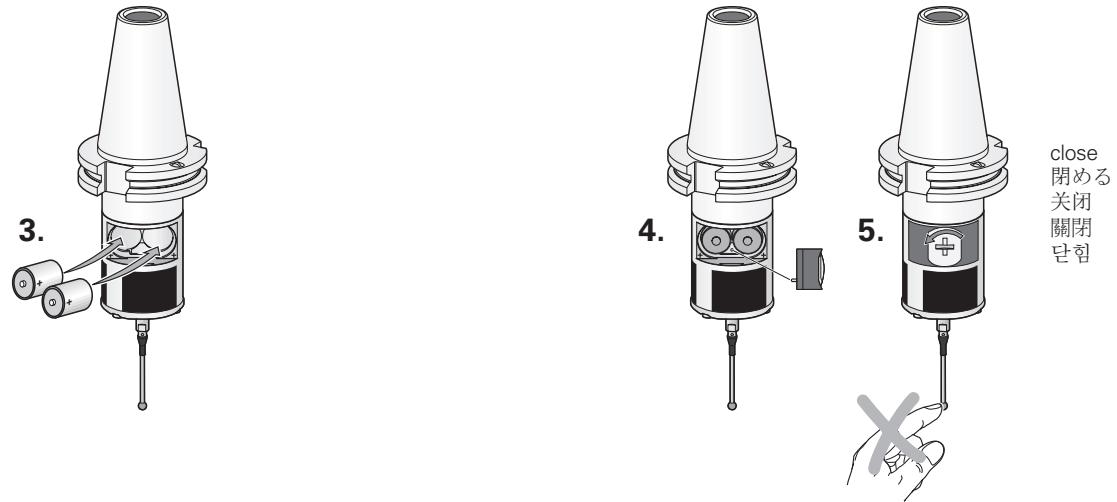
Included in the delivery: 2 LITHIUM batteries, 3.6 V, 1/2 AA
ID 332775-05. (Batteries not rechargeable)



open
開く
打开
開啟
열림

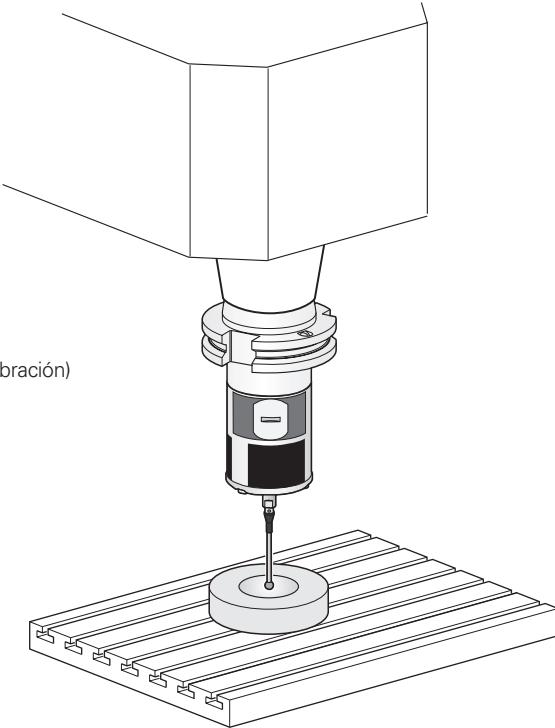
The stylus must hang loose for the self-calibration
自己校正時にスタイラスへ力を加えないでください
测针必须在自然下垂状态进行自我校准
自動校正時探針必須無碰觸
자체 교정 중에는 스타일러스를 느슨히 해야 합니다.

Alkaline batteries or NiMH accumulators with 1 to 4 V can also be used.
アルカリ電池もしくはニッケル水素電池（1～4V）も使用可能です。
也可用电压在1至4 V之间的碱性电池或NiMH镍氢电池。
任何 1 至 4 伏特鹼性電池或鎳氫電池皆可使用。
1~4V의 알칼리 배터리 또는 NiMH 축전지를 사용할 수도 있습니다.



Centering
Zentrieren
Centrage
Centraggio
Centrado

Electronic centering: In NC through probing from opposite directions (calibration ring)
Elektronisch Zentrieren: in NC durch Umschlagmessung (Kalibrierring)
Centrage électronique: dans la CN via rotation à 180° (bague d'étalonnage)
Centraggio elettronico: tramite NC eseguire la tastatura su due punti
diametralmente opposti (anello di calibrazione)
Centrado electrónico: en NC a través del palpado en direcciones opuestas (anillo de calibración)



Spindle or tool-setting device

Spindel oder Werkzeugeinstellgerät

Broche ou banc de pré réglage d'outils

Mandrino o apparecchio di serraggio dell'utensile

Sistema de ajuste de la herramienta o del cabezal

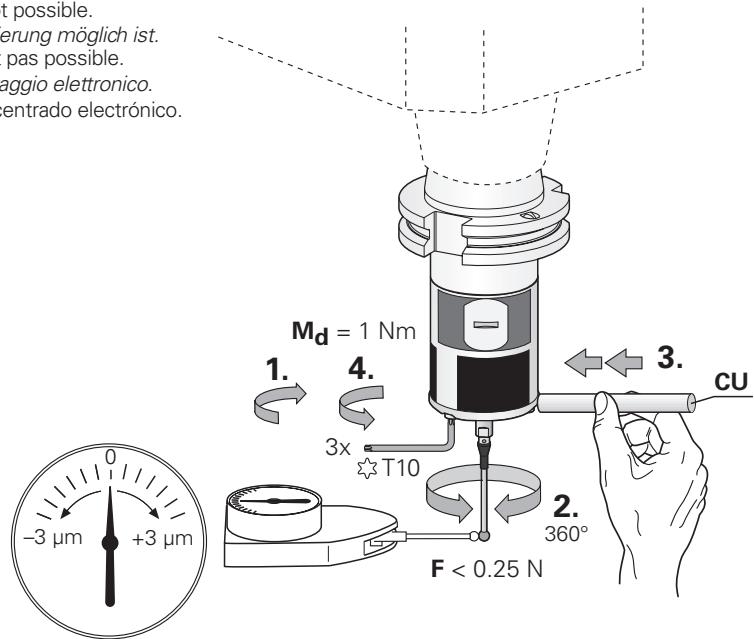
Mechanical centering. Only necessary if electronic centering is not possible.

Mechanisch Zentrieren, nur nötig wenn keine elektronische Zentrierung möglich ist.

Centrage mécanique, seulement si le centrage électronique n'est pas possible.

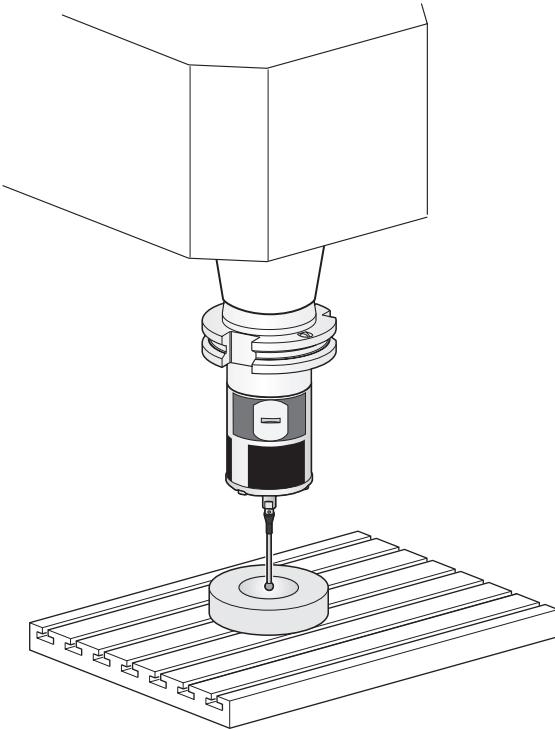
Centraggio meccanico: necessario solo se non è possibile il centraggio elettronico.

Centrado mecánico, sólo requerido si no existe la posibilidad del centrado electrónico.



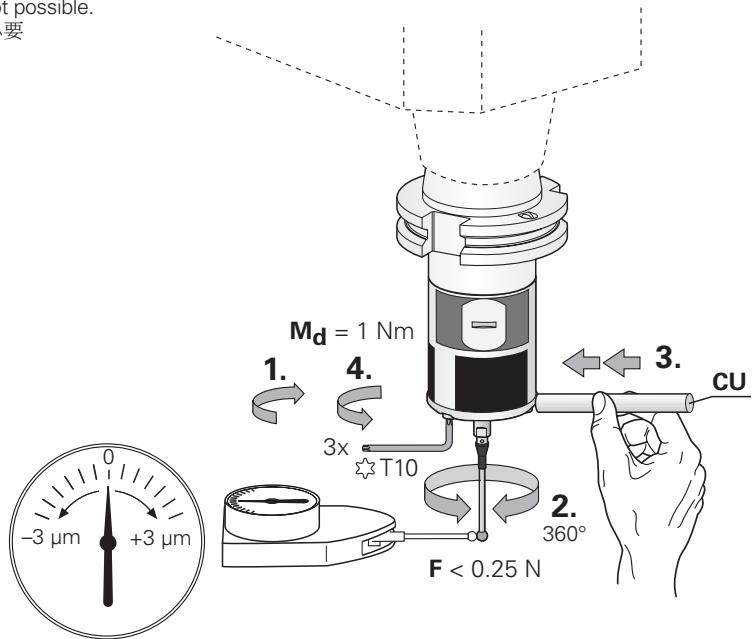
Centering
センタリング（校正）
定心
中心定位
센터링

Electronic centering: In NC through probing from opposite directions (calibration ring)
電気的センタリング: 反対方向からプローブしてNCに（校正リング）
电子定心: 用NC程序的探测功能进行相向探测（标准环规）
電子對心: 於 NC 機台上探測對應方向（校正環規）
자동 센터링: NC의 반대 방향에서 프로빙(교정 링)



Spindle or tool-setting device
スピンドルもしくは工具設定機器
主轴或对刀仪设备
主軸或刀具設定設備
스핀들 또는 공구 설정 장치

Mechanical centering. Only necessary if electronic centering is not possible.
機械的センタリング 電気的センタリングが不可能のときのみ必要
机械定心。只适用于不能进行电子定心时。
機械對心。只有電子對心無效才需要。
기계식 센터링. 자동 센터링이 불가능한 경우에만 필요합니다.



Functional principle of collision protection

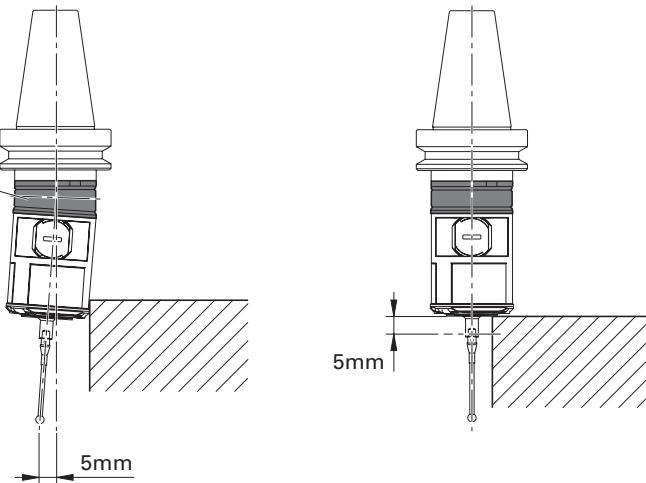
Funktionsweise des Kollisionsschutzes

Funktionsweise des Kollisionsschutzes

Funktionsweise des Kollisionsschutzes

Funktionsweise des Kollisionsschutzes

Collision protection adapter
Kollisionsschutzadapter
Kollisionsschutzadapter
Kollisionsschutzadapter
Kollisionsschutzadapter
Kollisionsschutzadapter



The ready status switches off and the NC stops (the NC must monitor the readiness!).

After a collision, be sure to start the automatic NC calibration cycle, see p. 30.

Das Bereitschaftssignal fällt weg, die NC stoppt (die NC muss die Bereitschaft abfragen!).

Nach Kollision, automatischen Tastsystem-Kalibrierzyklus der NC durchführen, siehe S. 30.

Bereitschaft fällt weg, NC stoppt. Nach Kollision automatischer NC-Kalibrierzyklus, siehe S.30.

Bereitschaft fällt weg, NC stoppt.

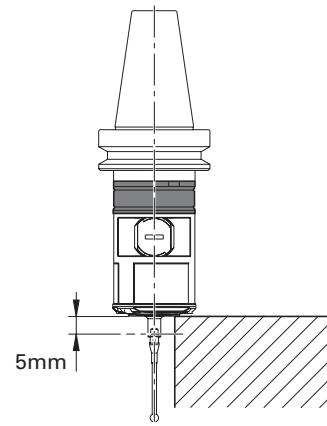
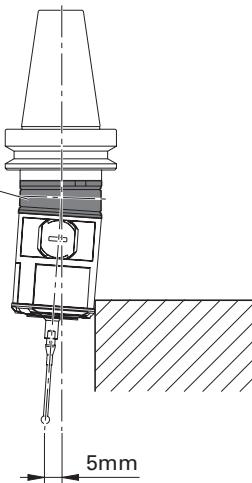
Nach Kollision automatischer NC-Kalibrierzyklus, siehe S.30.

Bereitschaft fällt weg, NC stoppt.

Nach Kollision automatischer NC-Kalibrierzyklus, siehe S.30.

Functional principle of collision protection
Functional principle of collision protection

Collision protection adapter
Collision protection adapter
Collision protection adapter
Collision protection adapter
Collision protection adapter



The ready status switches off and the NC stops (the NC must monitor the readiness!).
After a collision, be sure to start the automatic NC calibration cycle, see p. 32.
The ready status switches off and the NC stops (the NC must monitor the readiness!).
After a collision, be sure to start the automatic NC calibration cycle, see p. 32.
The ready status switches off and the NC stops (the NC must monitor the readiness!).
After a collision, be sure to start the automatic NC calibration cycle, see p. 32.
The ready status switches off and the NC stops (the NC must monitor the readiness!).
After a collision, be sure to start the automatic NC calibration cycle, see p. 32.

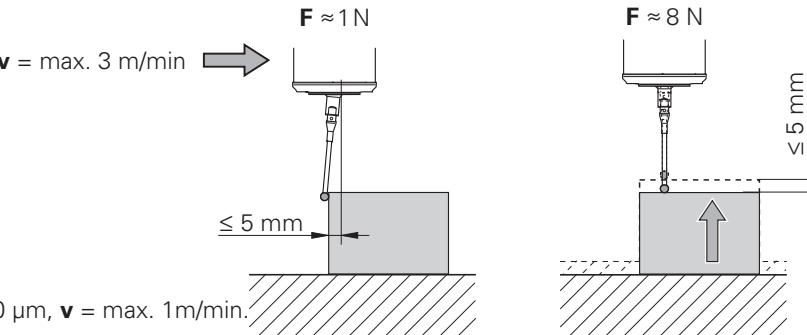
Specifications

Technische Kennwerte

Caractéristiques techniques

Dati tecnici

Características técnicas



Status of the touch probe
Zustand des Tastsystems
Etat du palpeur
Stato del sistema di tastatura
Estado del sistema de palpación



Blue blinking
blau blinkend
blau blinkend
blau blinkend
blau blinkend

Touch probe ready, stylus at rest
Tastsystem bereit, Taststift in Ruhelage
Palpeur prêt, tige de palpation au repos
sistema pronto, stilo in posizione di riposo
Palpador preparado; vástago en posición de reposo

Blue continuous
blau Dauerleuchten
blau Dauerleuchten
blau Dauerleuchten
blau Dauerleuchten

Touch probe ready, stylus deflected
Tastsystem bereit, Taststift ausgelenkt
Palpeur prêt, tige de palpation déviée
sistema pronto, stilo deflesso
Palpador preparado; vástago deflexionado

Red LED, fast blinking
rote LED, schnell blinkend
rote LED, schnell blinkend
rote LED, schnell blinkend
rote LED, schnell blinkend

Possible error. Contact HEIDENHAIN service agency
evt. Fehler, HEIDENHAIN - Service kontaktieren
evt. Fehler, HEIDENHAIN - Service kontaktieren
evt. Fehler, HEIDENHAIN - Service kontaktieren
evt. Fehler, HEIDENHAIN - Service kontaktieren

Specifications

仕様

技術参数

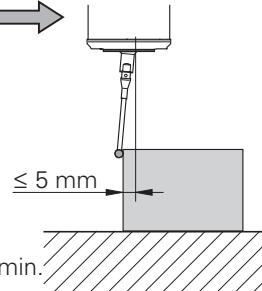
規格

規格

サ양

$v = \text{max. } 3 \text{ m/min}$ 

$F \approx 1 \text{ N}$



$F \approx 8 \text{ N}$

$\leq 5 \text{ mm}$

$2\sigma \leq 1.0 \mu\text{m}$, $v = \text{max. } 1 \text{ m/min.}$

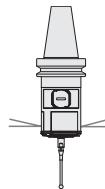
Status of the touch probe

タッチプローブの状態

测头状态

接触式探針状态

터치 프로브의 상태



 Blue blinking
Blue blinking
Blue blinking
Blue blinking
Blue blinking

Touch probe ready, stylus at rest
タッチプローブ使用可能、スタイラスはフリーの状態
测头就绪，测针在自由位置
接触式探針備妥，探針已偏移
터치 프로브 준비, 스타일러스 정지됨

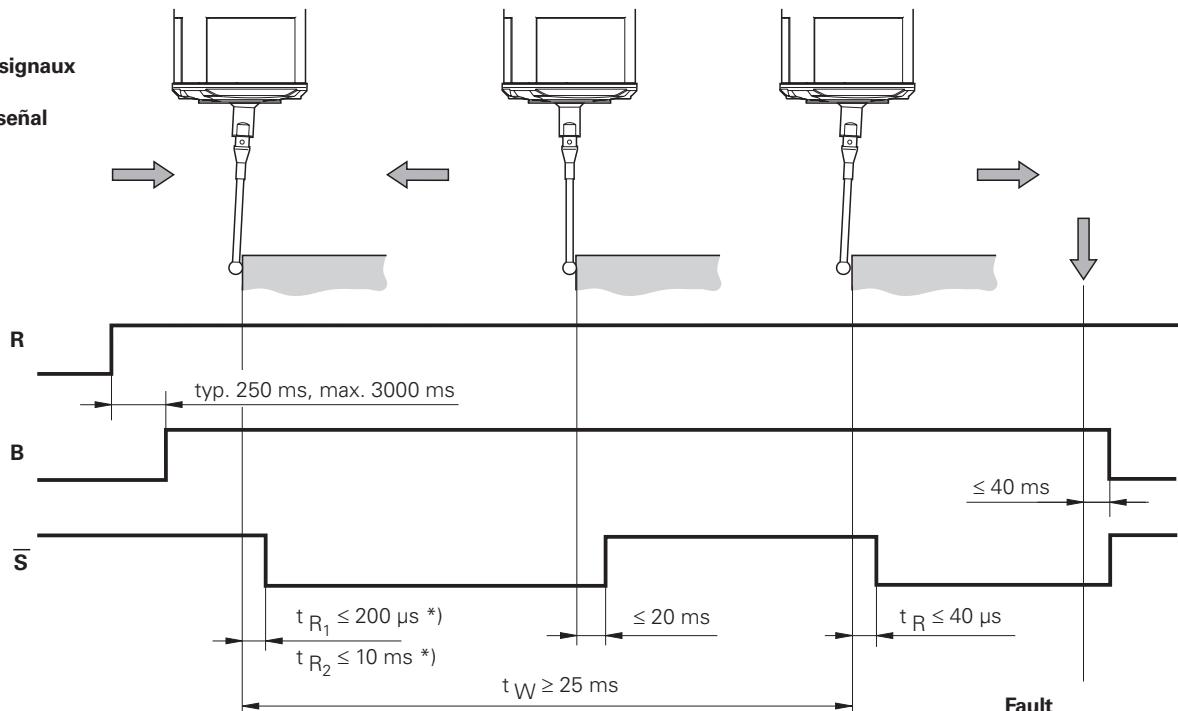
 Blue continuous
Blue continuous
Blue continuous
Blue continuous
blue Blue continuous

Touch probe ready, stylus deflected
タッチプローブ使用可能、スタイラスはワークを検知
测头就绪，测针偏离自由位置
接触式探針備妥，探針已偏移
터치 프로브 준비, 스타일러스 굴절됨

 Red LED, fast blinking
Red LED, fast blinking
Red LED, fast blinking
Red LED, fast blinking
Red LED, fast blinking

Possible error. Contact HEIDENHAIN service agency
Possible error. Contact HEIDENHAIN service agency

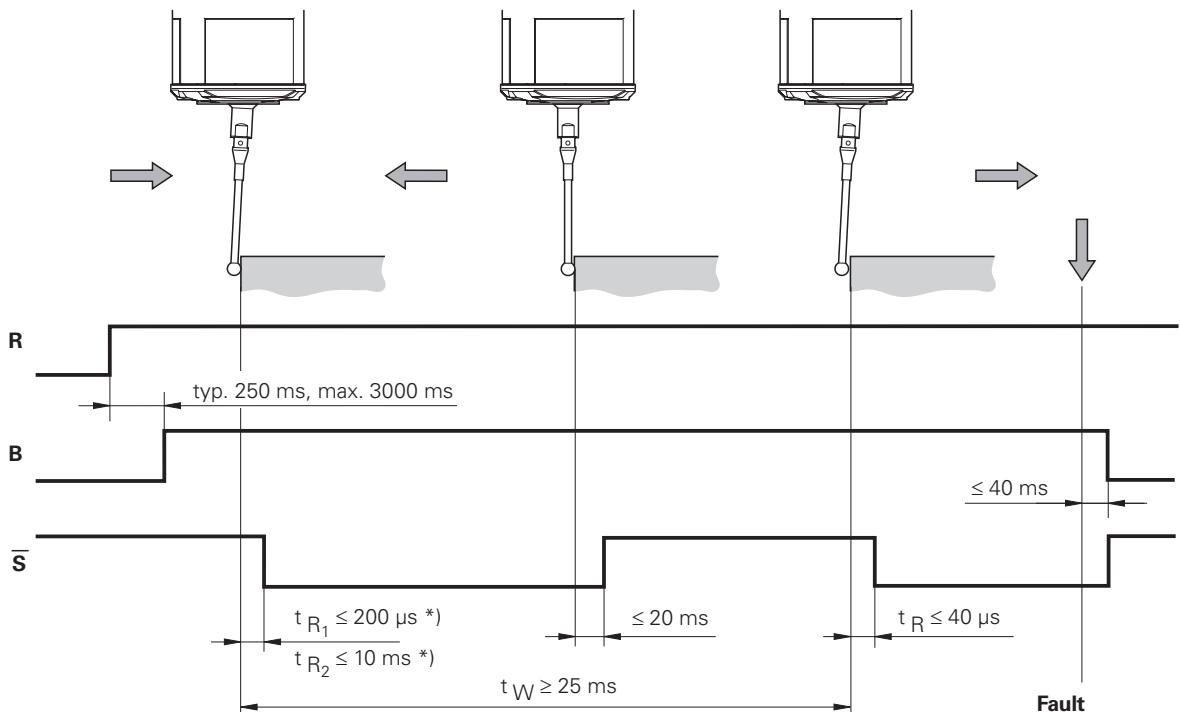
Signal sequence
Signalfolge
Diagramme des signaux
Treno di segnali
Secuencia de la señal



Fault
Störung
Perturbation
Guasto
Interferencia

*) t_{R_1} = Infrared
Infrarot
 t_{R_2} = Radio
Funk
Funk
Funk
Funk

Signal sequence
信号シーケンス
信号顺序
信號程序
신호 순서



*) t_{R1} = Infrared t_{R2} = Radio
 Infrared Radio
 Infrared Radio
 Infrared Radio
 Infrared Radio

Fault
異常発生時
故障
故障
장애

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PLC programming  +49 8669 31-3102

E-mail: service.plc@heidenhain.de

Lathe controls  +49 8669 31-3105

E-mail: service.lathe-support@heidenhain.de

www.heidenhain.de



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