



HEIDENHAIN

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

SE 660

7/2013

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Warnhinweise
Warnings
Avertissement
Avvertenze
Notas de aviso



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

Die Steckverbindung darf nur spannungsfrei verbunden oder gelöst werden.

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

Do not engage or disengage any connections while under power.

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

Le connecteur ne doit être connecté ou déconnecté qu'hors potentiel.

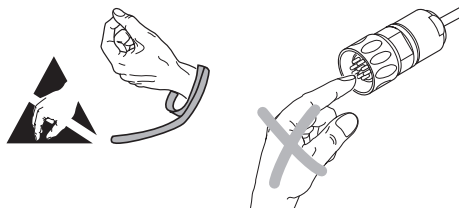
Attenzione: *Il montaggio e la messa in funzione devono essere eseguite da personale qualificato nel rispetto delle norme di sicurezza locali.*

I cavi posso essere collegati o scollegati solo in assenza di tensione.

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

Conectar o desconectar el conector sólo en ausencia de tensión.

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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 Positionsmessgeräte nur aus PELV-Systemen (EN 50178) speisen.
 Hochfrequent niederohmige Erdung (EN 60204-1 Kap. EMV) vorsehen.



Tastsystem nicht fallen lassen.
Do not drop the touch probe.
 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.

Do not engage or disengage any connections while under power.

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。

製品の取付けあるいは取外しは、給電されていないときに行ってください。

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。

带电时，严禁连接或断开任何接线。

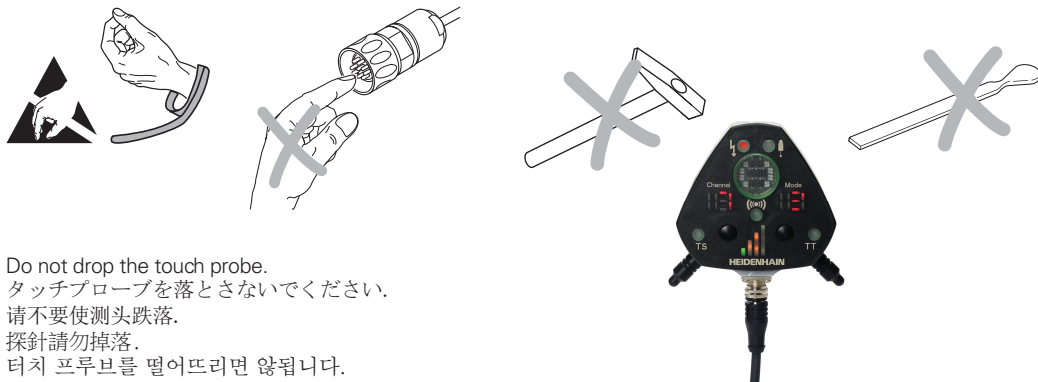
注意：安裝與調整要經由已認證的專業人員指導以符合當地安全規範要求。

當電源開啟時，請勿連接或拔除連接電纜。

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

전기가 공급된 상황에서는 절대로 연결 또는 분리를 하지 마세요.

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).



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 안됩니다.

Approval for radio transmission

Funkerlaubnis

Funkerlaubnis

Funkerlaubnis

Funkerlaubnis

For operation in radio mode

Für den Betrieb im Funkmodus

Für den Betrieb im Funkmodus

Für den Betrieb im Funkmodus

Für den Betrieb im Funkmodus

USA

FCC ID YJKSE6X

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 SE660 transmitter/receiver unit is 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 Sende-/Empfangseinheit SE660 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

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-SE6X

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
For operation in radio mode
For operation in radio mode
For operation in radio mode
For operation in radio mode

Japan TBD

China TBD

Taiwan TBD

Korea TBD

Specifications of the following pages are preliminary

Abmessungen

Dimensions

Dimensions

Dimensioni

Dimensiones

mm



Tolerancing ISO 8015

ISO 2768 - m H

< 6 mm: ± 0.2 mm

TBD

Dimensions

寸法
尺寸
尺寸
규격

mm



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

TBD

Montagezubehör
Mounting accessories
Accessoire de montage
Accessori di montaggio
Accesorio para el montaje

TBD

Mounting accessories

取付け用別売アクセサリ

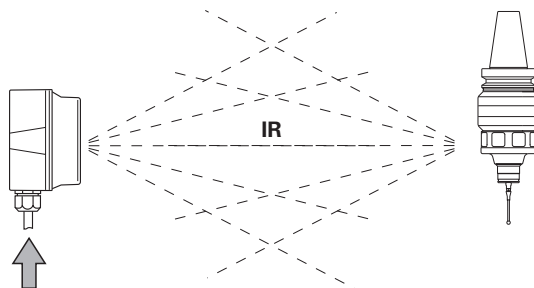
安裝附件

安裝零件

설치용 부속품

TBD

Spannungsversorgung
Power supply
Tension d'alimentation
Tensione di alimentazione
Tensión de alimentación



U_p: DC 15 V ... 30 V

Normalbetrieb: ≤ 250 mA

Senden (max. 3.5 s): ≤ 410 mA_{eff} (ohne Last)

Normal operation: ≤ 250 mA

Transmission (max. 3.5 s): ≤ 410 mA_{eff} (without load)

Fonctionnement normal: ≤ 250 mA

Emission (3.5 s max.): ≤ 410 mA_{eff} (sans charge)

Funzionamento normale: ≤ 250 mA

Trasmissione (max. 3.5 s): ≤ 410 mA_{eff} (in assenza di carico)

Funcionamiento normal: ≤ 250 mA

Emitir (máx. 3.5 s): ≤ 410 mA_{eff} (sin carga)

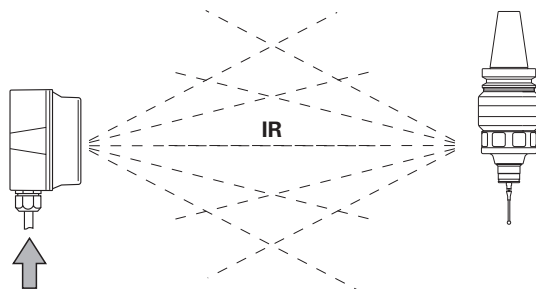
Power supply

電源

电源

供應電壓

전원 공급



Up: DC 15 V ... 30 V

Normal operation: ≤ 250 mA

Transmission (max. 3.5 s): ≤ 410 mA_{eff} (without load)

通常動作時: ≤ 250 mA

伝送時 (最大3.5秒): ≤ 410 mA_{eff} (負荷なし)

正常工作: ≤ 250 mA

傳輸 (最大3.5 s): ≤ 410 mA_{eff} (空載)

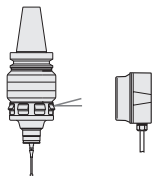
正常操作: ≤ 250 mA

傳輸 (max. 3.5 s): ≤ 410 mA_{eff} (無負載)

공칭 작업: ≤ 250 mA

전송(최대 3.5초): ≤ 410 mA_{eff}(부하 제외)

Signalübertragung
Signal transmission
Transmission du signal
Trasmissione del segnale
Transmisión de la señal



● grün green vert verde verde	in Ordnung <i>Proper function</i> correct <i>corretto</i> correcto
● gelb yellow jaune giallo amarillo	noch akzeptabel <i>Acceptable function</i> encore acceptable <i>accettabile</i> aún acceptable
● rot red rouge rosso rojo	nicht akzeptabel <i>Not acceptable function</i> non acceptable <i>non accettabile</i> no acceptable

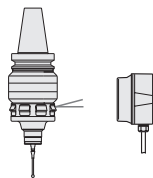
Signal transmission

信号伝送方式

信号传输

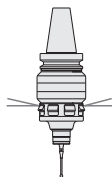
信號傳輸

신호 전송



● green 緑 绿色 綠色 녹색	Proper function 正常 正常工作 符合功能 정상 작동
● yellow 黄 黄色 黃色 황색	Acceptable function 使用可能 可接受工作 可接受功能 허용 가능한 기능
● red 赤 红色 紅色 적색	Not acceptable function 使用不可能 不可接受工作 無法接受的功能 허용 불가능한 기능

Zustand des Tastsystem
Status of the touch probe
Etat du palpeur
Stato del sistema di tastatura
Estado del palpador



● grün green vert verde verde	Tastsystem bereit, Taststift in Ruhelage <i>Touch probe ready, stylus at position of rest</i> Palpeur prêt, tige de palpation au repos <i>Sistema di tastatura pronto, stilo a riposo</i> Palpador preparado, vástago en posición de reposo
● gelb yellow jaune giallo amarillo	Tastsystem bereit, Taststift ausgelenkt <i>Touch probe ready, stylus deflected</i> Palpeur prêt, tige de palpation déviée <i>Sistema di tastatura pronto, stilo deflesso</i> Palpador preparado, vástago inclinado
● rot red rouge rosso rojo	Batteriewarnung, Batterie wechseln <i>Battery warning, change the battery</i> Alerte de pile, changer de pile <i>Allarme batteria, cambiare batteria</i> Aviso de batería, cambiar batería
○	Tastsystem nicht bereit <i>Touch probe not ready</i> Palpeur non prêt <i>Sistema di tastatura non pronto</i> Palpador no preparado

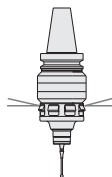
Status of the touch probe

タッチプローブの状態

测头状态

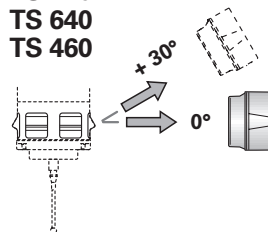
接觸式探針狀態

터치 프로브의 상태





● green 緑 绿色 綠色 녹색	Touch probe ready, stylus at position of 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 接觸式探針備妥，探針於復歸位置 터치 프로브 준비, 스타일러스 정지 위치
● yellow 黄 黄色 黃色 황색	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 接觸式探針備妥，探針已偏移 터치 프로브 준비, 스타일러스 굴절됨
● red 赤 红色 紅色 적색	Battery warning, change the battery バッテリー警告、バッテリー交換が必要 电池报警，换电池 電池警告，更換新電池 배터리 경고, 배터리 교환
○	Touch probe not ready タッチプローブ使用不可能 测头未就绪 接觸式探針未備妥 터치 프로브 준비 안 됨

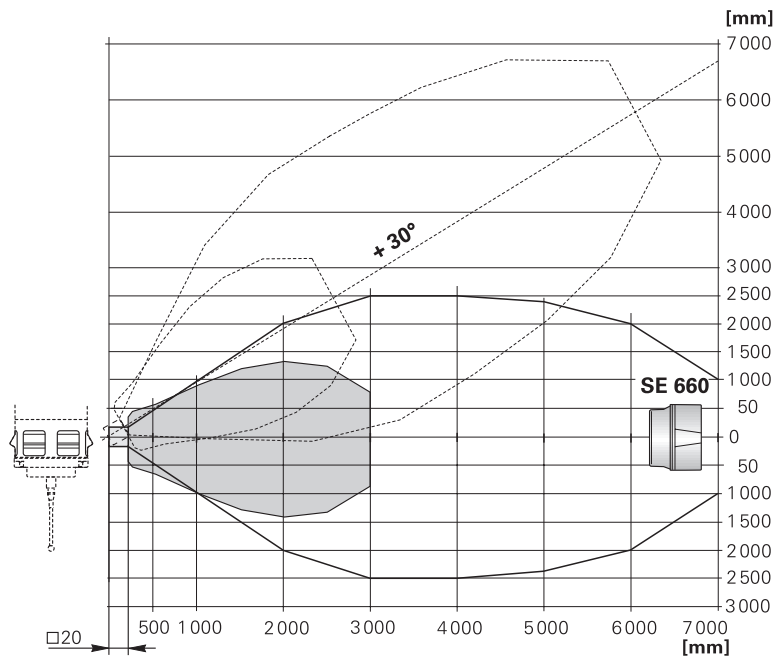
TS 440
TS 640
TS 460



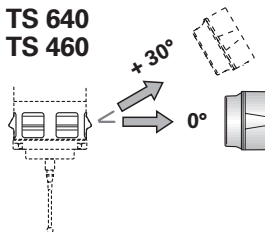
Rundumabstrahlung
360°-range transmission
Transmission sur 360°
Irradiazione a 360°
Radiación perimetral

Übertragungsbereich
Transmission area
Plage de transmission
Campo di trasmissione
Rango de transmisión

 **TS 440**
 **TS 640 / TS 460**



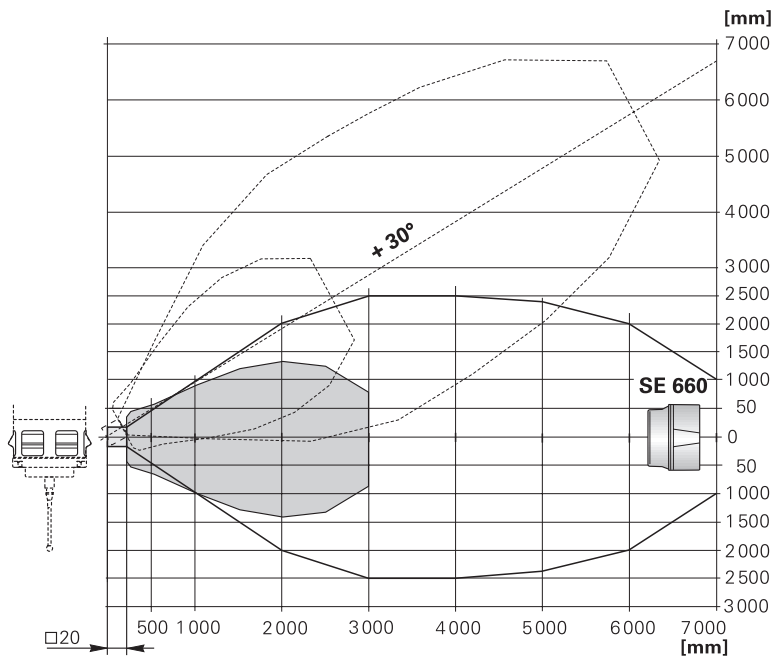
TS 440
TS 640
TS 460



360°-range transmission
伝送範囲 360°
360° 传输范围
360° - 傳輸範圍
360° 범위 전송

Transmission area
伝送範囲
传输范围
傳輸區域
전송 영역

 **TS 440**
 **TS 640 / TS 460**



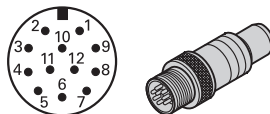
Anschlussbelegung

Pin Layout

Raccordements

Piedinatura

Distribución del conector



	1	12	11	5	2	10	3	4	6	9	7	8
	U _P	0 V	R(TS)	R(TT)	B(TS)	B(TT)	S	\overline{S}	\overline{W}	/	/	/
	BNGN	WHGN	BU	WH	GN	BN	GY	PK	VT	YE	RD	BK

R = Startsignal

Start signal

Signal départ

Segnale di accensione

Señal de arranque

Nichtverwendete Pins oder Litzen dürfen nicht belegt werden!

Vacant pins or wires must not be used!

Les plots ou fils non utilisés ne doivent pas être raccordés!

I pin o i fili inutilizzati non devono essere occupati!

¡No conectar los pins o hilos no utilizados!

\overline{W} = Batteriewarnung

Battery warning

Alerte de pile

Allarme batteria scarica

Aviso de batería

B = Bereitschaft

Ready signal

En service

Segnale di pronto

Preparación

\overline{S} = Schaltsignal

Trigger signal

Signal de commutation

Segnale di commutazione

Señal de conmutación

Außenschirm auf Gehäuse

External shield on housing

Blindage externe sur boîtier


Schermo esterno sulla carcassa

Blindaje externo a carcasa

Pin Layout

ピン配列
针脚编号
接脚配置
핀 레이아웃



	1	12	11	5	2	10	3	4	6	9	7	8
	U _P	0 V	R(TS)	R(TT)	B(TS)	B(TT)	S	\overline{S}	\overline{W}	/	/	/
	BNGN	WHGN	BU	WH	GN	BN	GY	PK	VT	YE	RD	BK

R = Start signal
スタート信号
开始信号
開始信號
시작 신호

Vacant pins or wires must not be used!
未使用のピンまたは線は使用しない事!
禁止使用空针脚或空线!
空接脚或電線不得使用!
비어 있는 핀이나 와이어는 사용하지 마십시오.

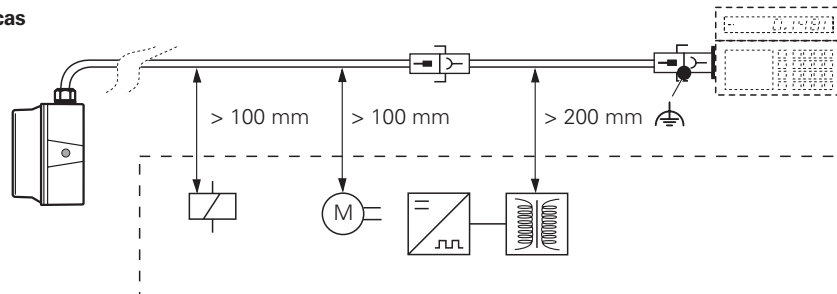
\overline{W} = Battery warning
バッテリー警告
電池报警
電池警告
배터리 경고

B = Ready signal
レディ信号
就绪信号
備妥信號
준비 신호

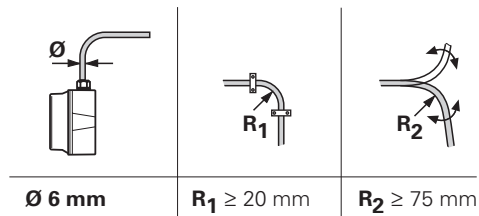
\overline{S} = Trigger signal
トリガー信号
触发信号
觸發信號
트리거 신호

External shield on housing
ハウジング上の外部シールド
外壳屏蔽
外部隔離位於外殼上
하우징의 외부 실드

Technische Kennwerte
Specifications
Caractéristiques techniques
Dati tecnici
Características técnicas



Biegeradius **R**
 Bending radius **R**
 Rayon de courbure **R**
 Piegatura **R**
 Radio de curvatura **R**



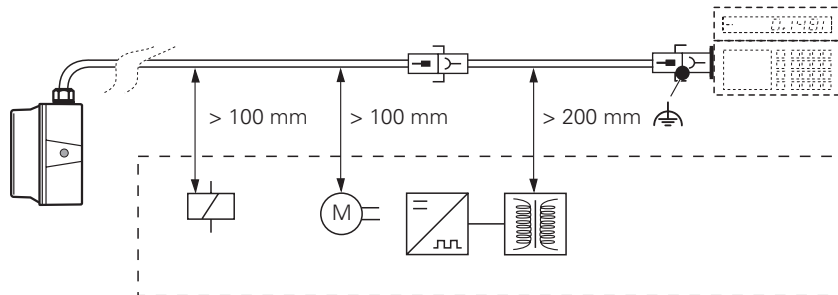
Specifications

仕様

技术参数

規格

사양



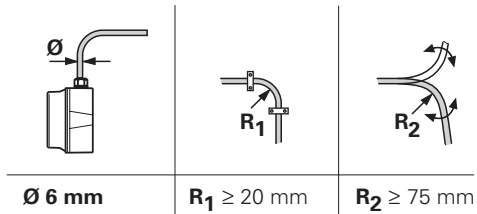
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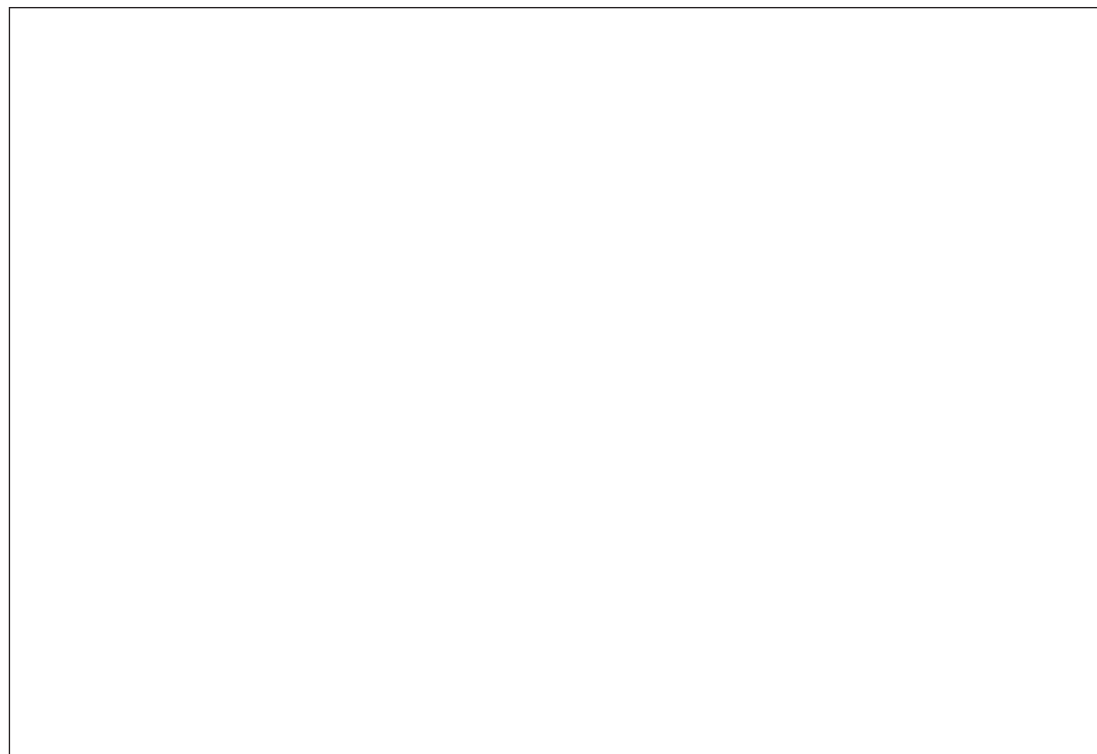
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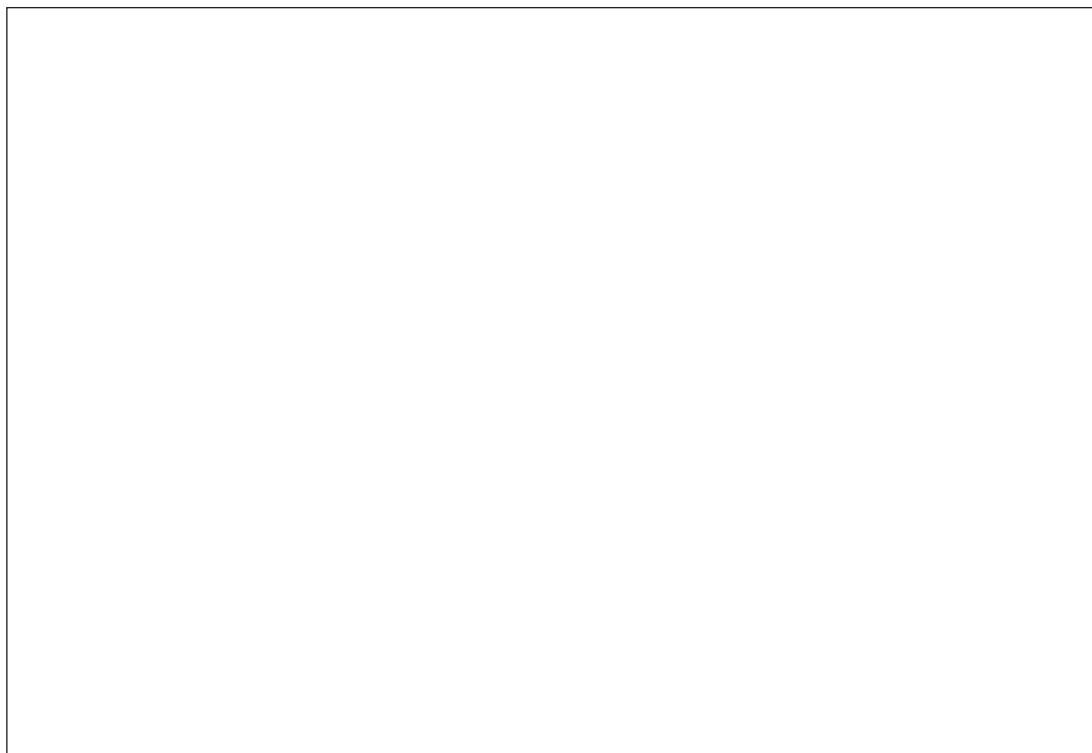
弯曲半径 **R**

彎曲半径 **R**

구부림 반경 **R**







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