

Warnhinweise
Warnings
Recommandations
Avvertenze
Advertencias



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

Der Antrieb darf während der Montage nicht in Betrieb gesetzt werden.

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

The drive must not be put into operation during installation.

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

L'entraînement ne doit pas être mis en route pendant le montage.

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

L'azionamento non deve essere messo in funzione durante il montaggio.

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

El accionamiento no debe estar en marcha durante el montaje.



Achtung: Angegebene Wellentoleranzen müssen eingehalten werden.

Die Teilungstrommel ist mit allen vorgesehenen Schrauben und Scheiben zu befestigen.

Die Schrauben sind abwechselnd, kreuzweise mit dem angegebenen Anzugsdrehmoment festzuschrauben und gegen unbeabsichtigtes Lösen zu sichern.

Nur dann gelten die für die Teilungstrommeln spezifizierten Drehzahlwerte.

Note: *The specified shaft tolerances must be complied with.*

The grating drum is to be fastened with all provided screws and washers.

The screws must be tightened alternatingly (crosswise) with the tightening torque, and secured against unintentional loosening.

Only then are the speed values specified for the scale drums valid.

Attention: Les tolérances indiquées pour l'arbre doivent être respectées.

Le tambour gradué doit être fixé à l'aide des vis et rondelles prévues à cet effet.

Les vis doivent être serrées alternativement, en croix, en utilisant le couple de serrage et sécurisées pour ne pas être desserrées malencontreusement.

Les valeurs de vitesse de rotation spécifiées pour les tambours gradués ne sont valables qu'à cette condition.

Attenzione: *Le tolleranze di montaggio devono essere rispettate.*

Fissare il tamburo graduato con tutte le viti e le rondelle previste.

Le viti sono da stringere alternativamente a croce con chiave dinamometrica e da assicurare contro il rischio di allentamento.

Solo rispettando questi valori, Vale la velocità specificata per il tamburo.

Atención: Las tolerancias de eje indicadas deben ser respetadas.

El tambor graduado debe ser fijado con todos los tornillos y arandelas previstos para ello.

Fijar los tornillos alternativamente en cruz con el par de apriete y asegurarlos para que no se suelten involuntariamente.

Serán sólo válidos los valores de velocidad especificados para los tambores graduados.

ID 390925-xx
ID 591643-xx



TTR ERM 200

Teilungstrommel
Grating drum
Tambour gradué
Tamburo graduato
Tambor graduado

HEIDENHAIN

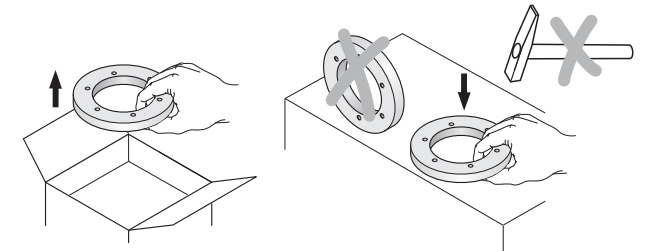
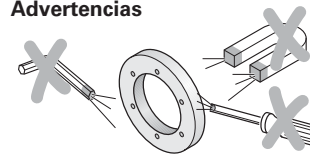
Montageanleitung
Mounting Instructions
Instructions de montage
Istruzioni di montaggio
Instrucciones de montaje

TTR ERM 200

1/2013



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Vorsicht: Bei nicht entmagnetisiertem Werkzeug Abstand von der Teilung halten (Trommelumfang).
Maximale Fremdfelder bei Lagerung und Einbau < 25 mT.

Caution: *If the tool is not demagnetized, keep it away from the graduation (drum circumference).*
Maximum external fields during storage and mounting < 25 mT.

Attention: avec un outil non démagnétisé, garder une distance avec la division (périphérie du tambour).
Champs parasites max. pour stockage et montage < 25 mT.

Attenzione: *in caso di utensile magnetizzato, mantenere la distanza dalla graduazione (tamburo).*
Massimo campo magnetico esterno durante immagazzinaggio e montaggio < 25 mT.

Cuidado: en una herramienta que no haya sido desmagnetizada, mantenerla a distancia de la graduación (perímetro del tambor).

Campos magnéticos máximos en almacenamiento y montaje < 25 mT.

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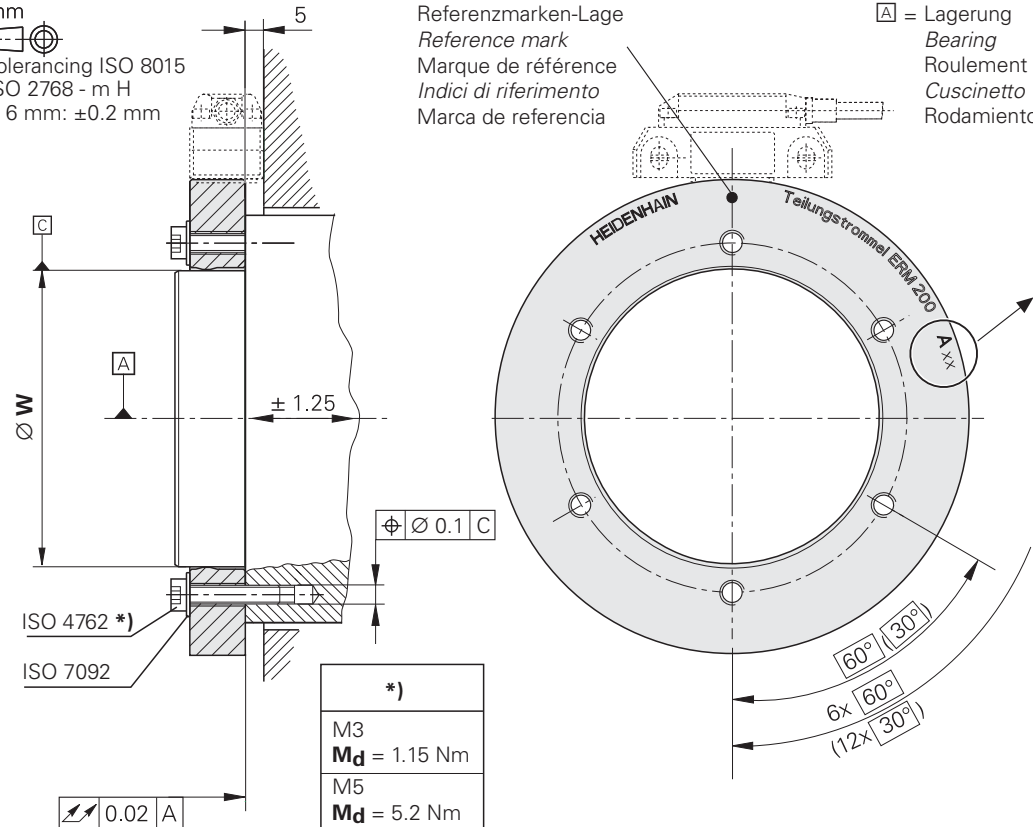
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mm
 Tolerancing ISO 8015
 ISO 2768 - m H
 < 6 mm: ±0.2 mm

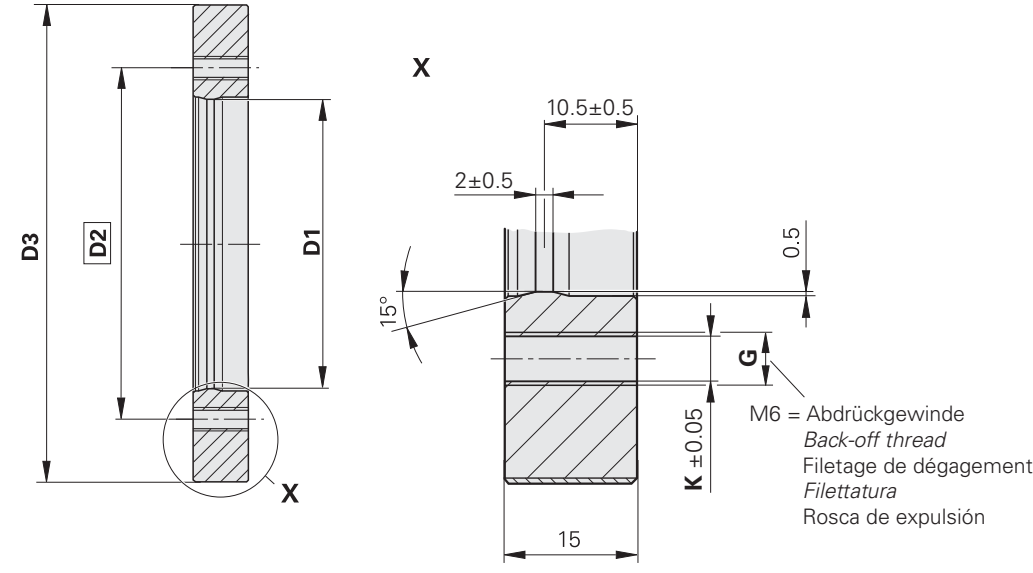
Referenzmarken-Lage
 Reference mark
 Marque de référence
 Indici di riferimento
 Marca de referencia

A = Lagerung
 Bearing
 Roulement
 Cuscinetto
 Rodamiento



*)

M3	$M_d = 1.15 \text{ Nm}$
M5	$M_d = 5.2 \text{ Nm}$
M6	$M_d = 8.9 \text{ Nm}$



	D1	W	D2	D3	K	G	*)	n ≤
A01	∅ 40 0/-0.007	∅ 40 +0.009/+0.002	∅ 50	∅ 75.44	∅ 5.2	6x M6	M5	19 000 min ⁻¹
A02	∅ 80 0/-0.008	∅ 80 +0.010/+0.002	∅ 95	∅ 128.75	∅ 5.2	6x M6	M5	13 000 min ⁻¹
A03	∅ 120 0/-0.010	∅ 120 +0.013/+0.003	∅ 135	∅ 150.88	∅ 5.2	6x M6	M5	10 500 min ⁻¹
A04	∅ 180 0/-0.012	∅ 180 +0.015/+0.003	∅ 195	∅ 257.50	∅ 5.2	6x M6	M5	6 000 min ⁻¹
A05	∅ 70 0/-0.008	∅ 70 +0.010/+0.002	∅ 85	∅ 113.16	∅ 5.2	6x M6	M5	14 500 min ⁻¹
A06	∅ 80 0/-0.008	∅ 80 +0.010/+0.002	∅ 95	∅ 150.88	∅ 5.2	6x M6	M5	11 000 min ⁻¹
A07	∅ 105 0/-0.010	∅ 105 +0.013/+0.003	∅ 120	∅ 150.88	∅ 5.2	6x M6	M5	10 500 min ⁻¹
A08	∅ 220 0/-0.014	∅ 220 +0.018/+0.004	∅ 235	∅ 257.50	∅ 5.2	6x M6	M5	6 000 min ⁻¹
A09	∅ 110 0/-0.010	∅ 110 +0.013/+0.003	∅ 152	∅ 257.50	∅ 5.2	6x M6	M5	7 500 min ⁻¹
A10	∅ 80 0/-0.008	∅ 80 +0.010/+0.002	∅ 95	∅ 128.75	/	6x ∅ 6.6	M6	12 000 min ⁻¹
A11	∅ 60 0/-0.008	∅ 60 +0.010/+0.002	∅ 75	∅ 128.75	∅ 5.2	6x M6	M5	13 000 min ⁻¹
A12	∅ 130 0/-0.012	∅ 130 +0.015/+0.003	∅ 145	∅ 176.03	∅ 5.2	6x M6	M5	9 000 min ⁻¹
A14	∅ 95 0/-0.010	∅ 95 +0.013/+0.003	∅ 110	∅ 128.75	∅ 5.2	6x M6	M5	12 500 min ⁻¹
A15	∅ 65 0/-0.008	∅ 65 +0.010/+0.002	∅ 80	∅ 128.75	∅ 5.2	6x M6	M5	13 000 min ⁻¹
A16	∅ 90 0/-0.010	∅ 90 +0.013/+0.003	∅ 105	∅ 128.75	∅ 5.2	6x M6	M5	12 500 min ⁻¹
A17	∅ 295 0/-0.016	∅ 295 +0.020/+0.004	∅ 310	∅ 326.90	∅ 5.2	6x M6	M5	4 500 min ⁻¹
A18	∅ 110 0/-0.010	∅ 110 +0.013/+0.003	∅ 125	∅ 150.88	∅ 5.2	6x M6	M5	10 500 min ⁻¹
A19	∅ 140 0/-0.012	∅ 140 +0.015/+0.003	∅ 155	∅ 257.50	∅ 5.2	6x M6	M5	6 500 min ⁻¹
A20	∅ 95 0/-0.010	∅ 95 +0.013/+0.003	∅ 110	∅ 150.88	∅ 5.2	6x M6	M5	11 000 min ⁻¹
A21	∅ 70 0/-0.008	∅ 70 +0.010/+0.002	∅ 95	∅ 128.75	∅ 5.2	6x M6	M5	14 000 min ⁻¹
A22	∅ 40 0/-0.007	∅ 40 +0.009/+0.002	∅ 50	∅ 75.44	/	12x ∅ 5.2	M5	19 000 min ⁻¹
A23	∅ 120 0/-0.010	∅ 120 +0.013/+0.003	∅ 135	∅ 257.50	∅ 5.2	6x M6	M5	6 500 min ⁻¹
A25	∅ 450 0/-0.020	∅ 450 +0.025/+0.005	∅ 465	∅ 484.07	∅ 5.2	6x M6	M5	3 000 min ⁻¹
A26	∅ 55 0/-0.008	∅ 55 +0.010/+0.002	∅ 70	∅ 90.53	∅ 5.2	6x M6	M5	18 500 min ⁻¹
A27	∅ 40 0/-0.007	∅ 40 +0.009/+0.002	/	∅ 64.37	/	/	/	42 000 min ⁻¹
A28	∅ 200 0/-0.014	∅ 200 +0.018/+0.004	∅ 215	∅ 257.50	∅ 5.2	6x M6	M5	6 000 min ⁻¹
A29	∅ 70 0/-0.008	∅ 70 +0.010/+0.002	∅ 85	∅ 150.88	∅ 5.2	6x M6	M5	11 000 min ⁻¹
A30	∅ 330 0/-0.018	∅ 330 +0.022/+0.004	∅ 345	∅ 362.11	∅ 5.2	12x M6	M5	4 000 min ⁻¹
A31	∅ 410 0/-0.020	∅ 410 +0.025/+0.005	∅ 425	∅ 452.64	∅ 5.2	12x M6	M5	3 000 min ⁻¹
A32	∅ 130 0/-0.012	∅ 130 +0.015/+0.003	∅ 145	∅ 257.50	∅ 5.2	6x M6	M5	6 500 min ⁻¹
A33	∅ 425 0/-0.020	∅ 425 +0.025/+0.005	∅ 445	∅ 484.07	∅ 5.2	12x M6	M5	3 000 min ⁻¹
A34	∅ 160 0/-0.012	∅ 160 +0.015/+0.003	∅ 175	∅ 257.50	∅ 5.2	6x M6	M5	6 000 min ⁻¹
A35	∅ 40 0/-0.007	∅ 40 +0.009/+0.002	∅ 50	∅ 64.37	∅ 3.3	6x M4	M3	26 000 min ⁻¹
A36	∅ 140 0/-0.012	∅ 140 +0.015/+0.003	∅ 155	∅ 176.03	∅ 5.2	6x M6	M5	8 500 min ⁻¹
A44	∅ 50 0/-0.007	∅ 50 +0.009/+0.002	/	∅ 64.37	/	/	/	18 000 min ⁻¹
A48	∅ 160 0/-0.012	∅ 160 +0.015/+0.003	∅ 170	∅ 257.50	∅ 5.2	6x M6	M5	5 000 min ⁻¹
A49	∅ 512 0/-0.022	∅ 512 +0.027/+0.005	∅ 528	∅ 603.52	∅ 5.2	12x M6	M5	1 600 min ⁻¹
A51	∅ 600 0/-0.022	∅ 600 +0.027/+0.005	∅ 615	∅ 704.10	∅ 5.2	12x M6	M5	1 400 min ⁻¹
A52	∅ 260 0/-0.016	∅ 260 +0.020/+0.004	∅ 275	∅ 326.90	∅ 5.2	6x M6	M5	4 500 min ⁻¹
A53	∅ 380 0/-0.018	∅ 380 +0.022/+0.005	∅ 395	∅ 452.64	∅ 5.2	12x M6	M5	3 000 min ⁻¹
A54	∅ 160 0/-0.012	∅ 160 +0.015/+0.003	∅ 175	∅ 213.24	∅ 5.2	6x M6	M5	7 000 min ⁻¹