



**DTM 1710-PCD**

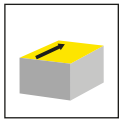
**多齿系列铣刀**

SYSTEM DTM 1710

**PCD MULTI-TOOTH**

**CUTTER**

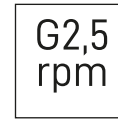
SYSTEM DTM 1710



面铣  
Face milling



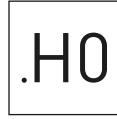
PCD-刀夹  
PCD tipped



动平衡值  
Balancing quality



内冷  
Intrenal coolant



槽型  
Geometry



同轴度 5 μm  
Concentricity 5 μm

Alle Abmessungen sind in mm angegeben, sofern nicht anders vermerkt.

All dimensions are in mm, unless otherwise stated.

Unsere Lieferzeiten: Einsatz für Werkstoffgruppen:

- ▲ ab Lager
- Δ 4 Wochen
- empfohlen
- o bedingt einsetzbar
- nicht geeignet

- Delivery times: Use for material groups:
- ▲ on stock
  - Δ 4 weeks
  - recommended
  - o alternative recommendation
  - not suitable

### HORN连接接口代码-它需要做什么?

连接接口代码确保您始终能够找到适当的刀具，并显示在刀柄和刀片上。如果编码匹配，则可以在相应的刀柄中使用刀片。这也适用于我们的模块化刀柄系统，其中连接代码表示刀柄和刀夹之间的接口。

#### The HORN connection interface code - what is it needed for?

The connection interface code ensures that you will always find the appropriate tools and is shown on toolholders and inserts. If the codes match, the insert can be used in the corresponding toolholder. This also applies to our modular holder system, where the connection code indicates the interface between the holder and the cassette.

#### HORN连接接口代码及可能的组合:

HORN connection interface codes and possible combinations:

- HIS** = 刀片座 / Insert seat
- HWS** = 工件侧接口 / Interface workpiece side
- HMS** = 机床侧接口 / Interface machine side

<b>HIS</b>	↔	<b>HWS</b>
<b>HMS</b>	↔	<b>HWS</b>

### 刀片范例

Example insert

产品型号 Part number	d <sub>2</sub>	γ	s	t <sub>max</sub>	r Wiper	(B)	r <sub>x</sub>	l	HIS	PD70	PD75
<b>DTS.1710.11.HO</b>	4	8°	5,99	2	12,5	0,9	0,4	17	171001	▲	▲

### 芯轴式铣刀

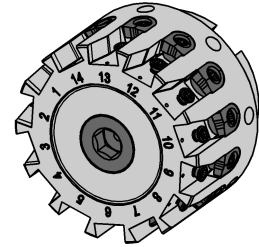
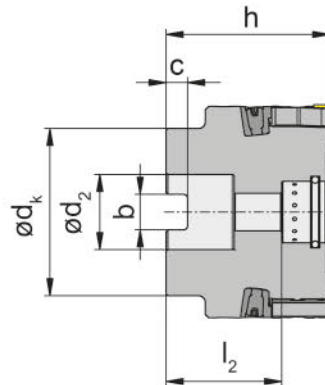
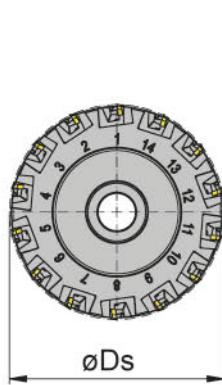
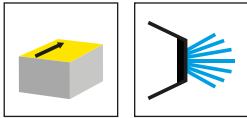
Example arbor mounted cutter

产品型号 Part number	Z	Ds	l <sub>1</sub>	d <sub>K</sub>	d <sub>2</sub>	l <sub>2</sub>	b	C	n <sub>max</sub>	HWS
<b>DTM.1710.050.A22.10.AL.F</b>	10	50	48	41	22	33,9	10,4	6,3	18000	171001

# 不同之处 更多可能

## THE DIFFERENCE: MORE POSSIBILITIES

- **搞经济型精加工**  
Highly economical finishing
- **高密度切削刃**  
Large number of effective cutting edges  
per diameter
- **μm-精密轴向调整**  
μm-accurate axial run-out adjustment



产品型号 Part number	Z	Ds	h	$d_k$	$d_2$	$l_2$	b	C	$n_{max}$	HWS
<b>DTM.1710.050.A22.10.AL.F</b>	10	50	48	41	22	33,9	10,4	6,3	18000	171001
<b>DTM.1710.063.A22.14.AL.F</b>	14	63	48	49	22	33,9	10,4	6,3	16000	171001
<b>DTM.1710.080.A27.18.AL.F</b>	18	80	50	59	27	33,9	12,4	7	14200	171001
<b>DTM.1710.100.A32.24.AL.F</b>	24	100	50	80	32	30,9	14,4	8	12700	171001
<b>DTM.1710.125.A40.30.AL.F</b>	30	125	63	89	40	38,9	16,4	9	11300	171001

### μ-级轴向调整

with μ-precise axial adjustment

芯轴标准DIN 8030, 刀体材料: 高强度涂层铝合金

Arbour mounted cutter as per DIN 8030, material: high-strength aluminium, coated

锁紧螺钉030.3576.T10P = 3,0 Nm.

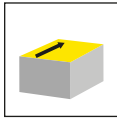
Tightening torque of the screw 030.3576.T10P = 3,0 Nm.

### 备件

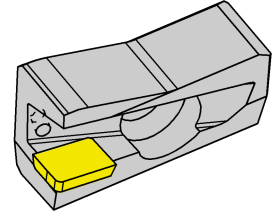
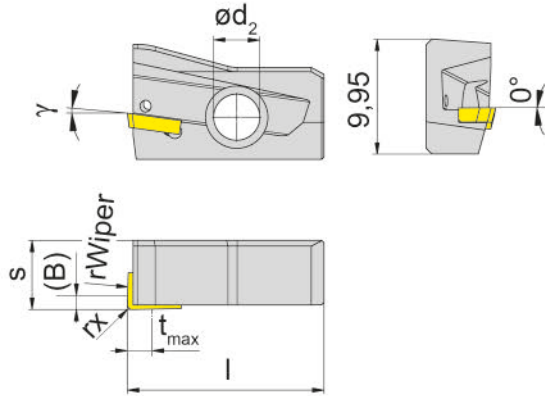
Spare Parts

芯轴式铣刀 Arbour Mounted Cutter	六角扳手 Allen Wrench	锁紧螺钉 Clamping Screw	TORX PLUS®-扳手 TORX PLUS® Wrench	锁紧螺栓 Tightening Bolt	调整楔块 Adjusting wedge
DTM.1710....	<b>SW8,0 DIN 911</b>	<b>030.3576.T10P</b>	<b>T10PL</b>	<b>030.1047.1254</b>	<b>070.5080.0180</b>
DTM.1710.080.A27.18.AL.F	<b>SW10,0 DIN 911</b>	<b>030.3576.T10P</b>	<b>T10PL</b>	<b>030.1249.1256</b>	<b>070.5080.0180</b>
DTM.1710.100.A32.24.AL.F	<b>SW10,0 DIN 911</b>	<b>030.3576.T10P</b>	<b>T10PL</b>	<b>030.1649.1257</b>	<b>070.5080.0180</b>
DTM.1710.125.A40.30.AL.F	<b>SW17,0 DIN 911</b>	<b>030.3576.T10P</b>	<b>T10PL</b>	<b>030.2062.1258</b>	<b>070.5080.0180</b>

PKD



.H0



硬质合金牌号  
Carbide grades

▲ 库存  
on stock

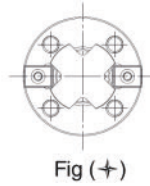
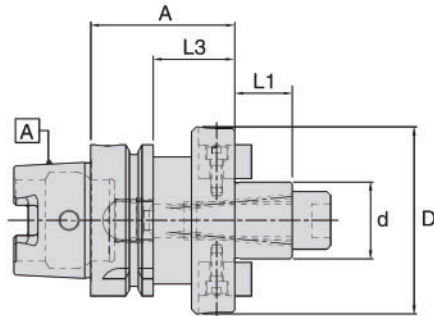
△ 4 周  
4 weeks

产品型号 Part number	$d_2$	$\gamma$	$s$	$t_{max}$	r Wiper	(B)	$r_x$	l	HIS		PD70	PD75
<b>DTS.1710.11.H0</b>	4	8°	5,99	2	12,5	0,9	0,4	17	171001	▲	▲	
										P	-	-
										M	-	-
										K	-	-
										N	●	●
										S	-	-
										H	-	-



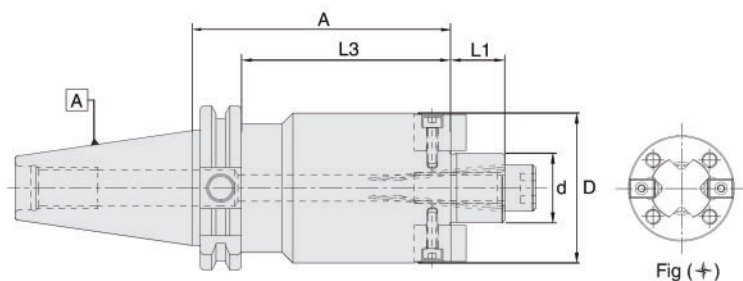
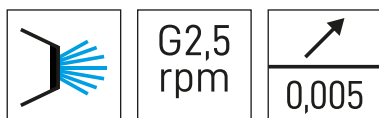
G2,5  
rpm

↗  
0,005



技术指导见页码8  
Technical instructions see page 8

产品型号 Part number	规格 Designation	d	D	A	L <sub>1</sub>	L <sub>2</sub>	冷却 Coolant supply	N/W kg
5103448	WSMH/16-50/HSK-A50	16	38	50	17	24	FORM AD	0,75
5103450	WSMH/22-60/HSK-A50	22	48	60	19	34	FORM AD	1,05
5103452	WSMH/27-60/HSK-A50	27	48	60	21	34	FORM AD	1,30
5103454	WSMH/32-60/HSK-A50	32	78	60	24	34	FORM AD	1,60
5103457	WSMH/16-100/HSK-A50	16	38	100	17	74	FORM AD	1,25
5103459	WSMH/22-100/HSK-A50	22	48	100	19	74	FORM AD	1,60
5103461	WSMH/27-100/HSK-A50	27	58	100	21	74	FORM AD	2,00
5103462	WSMH/32-100/HSK-A50	32	75	100	24	74	FORM AD	2,40
4601763	WSMH/16-50/HSK-A63	16	38	50	17	24	FORM AD	1,05
4601765	WSMH/22-50/HSK-A63	22	48	50	19	24	FORM AD	1,20
4601767	WSMH/27-60/HSK-A63	27	58	60	21	34	FORM AD	1,60
4601769	WSMH/32-60/HSK-A63	32	78	60	24	34	FORM AD	1,90
4601771	WSMH/40-60/HSK-A63 x*	40	88	60	27	34	FORM AD	2,40
4601764	WSMH/16-100/HSK-A63	16	38	100	17	74	FORM AD	1,50
4601766	WSMH/22-100/HSK-A63	22	48	100	19	74	FORM AD	1,90
4601768	WSMH/27-100/HSK-A63	27	58	100	21	74	FORM AD	2,40
4601770	WSMH/32-100/HSK-A63	32	78	100	24	74	FORM AD	3,30
4601772	WSMH/40-100/HSK-A63 x*	40	88	100	27	74	FORM AD	4,00
5056120	WSMH/16-50/HSK-A100	16	38	50	17	21	FORM AD	2,35
4601663	WSMH/22-50/HSK-A100	22	48	50	19	21	FORM AD	2,50
4601664	WSMH/27-50/HSK-A100	27	58	50	21	21	FORM AD	2,80
4601665	WSMH/32-50/HSK-A100	32	78	50	24	21	FORM AD	3,10
4601666	WSMH/40-60/HSK-A100 x*	40	88	60	27	31	FORM AD	4,00
5056122	WSMH/60-70/HSK-A100 x	60	129	70	40	41	FORM AD	6,15



技术指导见页码8  
Technical instructions see page 8

产品型号 Part number	型号 Designation	d	D	A	L <sub>1</sub>	L <sub>2</sub>	冷却 Coolant supply	N/W kg
4600822	WSMH/16-35/SK40	16	38	35	17	15,9	FORM A/D B	1,10
4600823	WSMH/22-35/SK40	22	48	35	19	15,9	FORM A/D B	1,25
4600824	WSMH/27-40/SK40	27	58	40	21	20,9	FORM A/D B	1,45
4600825	WSMH/32-50/SK40	32	78	50	24	30,9	FORM A/D B	2,00
4600826	WSMH/40-50/SK40 x*	40	88	50	27	30,9	FORM A/D B	2,30
5055095	WSMH/22-100/SK40	16	38	100	17	80,9	FORM A/D B	1,70
5055102	WSMH/22-100/SK40	22	48	100	19	80,9	FORM A/D B	2,20
5055104	WSMH/27-100/SK40	27	58	100	21	80,9	FORM A/D B	2,70
5055105	WSMH/32-100/SK40	32	78	100	24	80,9	FORM A/D B	3,80
5055106	WSMH/40-100/SK40 x*	40	88	100	27	80,9	FORM A/D B	4,50
5055107	WSMH/16-160/SK40	16	38	160	17	140,9	FORM A/D B	2,20
5055108	WSMH/22-160/SK40	22	48	160	19	140,9	FORM A/D B	3,00
5055109	WSMH/27-160/SK40	27	58	160	21	140,9	FORM A/D B	3,85
5055110	WSMH/32-160/SK40	32	78	160	24	140,9	FORM A/D B	5,90
5055111	WSMH/40-160/SK40 x*	40	88	160	27	140,9	FORM A/D B	7,30
5055112	WSMH/16-44/SK50	16	38	44	17	24,9	FORM A/D B	2,95
4601356	WSMH/22-44/SK50	22	48	44	19	24,9	FORM A/D B	3,10
4601357	WSMH/27-44/SK50	27	58	44	21	24,9	FORM A/D B	3,35
4601358	WSMH/32-40/SK50	32	78	40	24	20,9	FORM A/D B	3,65
4601359	WSMH/40-50/SK50 x*	40	88	50	27	30,9	FORM A/D B	5,70
4601360	WSMH/60-70/SK50 x	60	129	70	40	50,9	FORM A/D B	7,80
5055123	WSMH/16-100/SK50	16	38	100	17	80,9	FORM A/D B	3,50
5055125	WSMH/22-100/SK50	22	48	100	19	80,9	FORM A/D B	3,85
5055126	WSMH/27-100/SK50	27	58	100	21	80,9	FORM A/D B	4,90
5055127	WSMH/32-100/SK50	32	78	100	24	80,9	FORM A/D B	5,80
5055128	WSMH/40-100/SK50 x*	40	88	100	27	80,9	FORM A/D B	6,70
5055130	WSMH/16-160/SK50	16	38	160	17	140,9	FORM A/D B	3,95
5055131	WSMH/22-160/SK50	22	48	160	19	140,9	FORM A/D B	4,70
5055132	WSMH/27-160/SK50	27	58	160	21	140,9	FORM A/D B	5,85
5055133	WSMH/32-160/SK50	32	78	160	24	140,9	FORM A/D B	8,00
5055134	WSMH/40-160/SK50 x*	40	88	160	27	140,9	FORM A/D B	9,50

### 技术指导

- 孔(10毫米)标准适用所有刀柄
- 表面的冷却孔(带有“AD/B”刀柄)是所有刀柄的标准配置
- $d = \varnothing 40$ ,  $d = \varnothing 60$ , 附加4个螺纹孔, 符合DIN 2079
- 交付包括: 键, 拧紧螺钉和夹紧螺钉(DIN 912)
- 请单独订购夹紧螺钉(DIN 6367)
- 交货包括: 夹紧螺钉(DIN 912和DIN 6367)

### Technical Instructions:

- Bore (10 mm) standard for all holders
- Coolant hole on the face (holder with Form „AD/B“) as standard for all holders
- $d = \varnothing 40$ ,  $d = \varnothing 60$  with additional 4 threaded holes to DIN 2079
- Delivery includes: Drive blocks, tightening screw and clamping screw (DIN 912)
- Please order clamping screw (DIN 6367) separately
- Delivery includes: Clamping screw (both DIN 912 & DIN 6367)

### HSK卡盘上冷却管

#### Coolant tube for HSK chuck

产品型号 Part number	型号 Designation	规格 Size
5025376	UE4/HSK63	HSK63
5028428	UE4/HSK100	HSK100

### 冷却管扳手

#### Installation wrench for coolant pipe

产品型号 Part number	规格 Size
6738421	HSK63
6738303	HSK100

### 扳手 DIN 6368

#### Wrench to DIN 6368

产品型号 Part number	型号 Designation
5056946	DIN6368-16
6942963	DIN6368-22
6942916	DIN6368-27
6942917	DIN6368-32
6950689	DIN6368-40

### 扳手

#### Wrench

产品型号 Part number	型号 Designation
6737650	SW6
6737651	SW8
6737652	SW10
6737654	SW14
6737655	SW17

### 螺纹销 DIN913

#### Thread Pin to DIN 913

产品型号 Part number	型号 Designation	芯轴尺寸 Size
6914425	DIN913-M3x3	16
6951794	DIN913-M3x5	22,27,32
5056913	DIN913-M3x7	40



### 锁紧螺钉 DIN 6367

Tightening Screw to DIN 6367

产品型号 Part number	型号 Designation	芯轴尺寸 Size
6934073	DIN6367-M8	16
6940383	DIN6367-M10	22
6941541	DIN6367-M12	27
6942757	DIN6367-M16	32
6943111	DIN6367-M20	40

### 端面键 DIN 6885

Feather Key to DIN 6885

产品型号 Part number	型号 Designation	芯轴尺寸 Size
5056905	DIN6885-C4x4x20	16
5056909	DIN6885-C6x6x25	22
5056610	DIN6885-C7x7x25	27
5056911	DIN6885-C8x7x28	32
5056912	DIN6885-C10x8x32	40

### 端面键

Feather Key

产品型号 Part number	型号 Designation	芯轴尺寸 Size
5057289	Dia16-8x8x14	16
5057293	Dia22-10x10x17	22
5057293	Dia22-10x10x17	27
5057293	Dia22-10x10x17	32
5057294	Dia22-10x10x17	40

### 内六角螺栓 DIN 912

Hexagon Socket Screw to DIN 912

产品型号 Part number	型号 Designation	芯轴尺寸 Size
6914489	DIN912-M3x8	16
6918335	DIN912-M4x8	22
6941122	DIN912-M5x13	27
5056916	DIN912-M5x13	32
6900224	DIN912-M6x16	40

### 紧固螺栓 DIN 69872 A+B, 带通孔, 不带o形圈

Tightening Bolt DIN 69872 A+B, with through hole, without o-ring

产品型号 Part number	型号 Designation	øD1	øD2	øD3	L	L1	ø	尺寸 Size
6733614	BN 164-SK30	13	9	13	44	24	15°	M12
6733615	BN 164-SK40	19	14	17	54	26	15°	M16
6733616	BN 164-SK50	28	21	25	74	34	15°	M24

### 拉式螺柱 DIN 69872 A+B, 无通孔, 带o形环

Pull Stud DIN 69872 A+B, without through hole, with o-ring

产品型号 Part number	型号 Designation	øD1	øD2	øD3	L	L1	ø	尺寸 Size
6733614	BN 164-SK30	13	9	13	44	24	15°	M12
6733615	BN 164-SK40	19	14	17	54	26	15°	M16

材质 Material		槽型 Geometry	切削材质 Cutting material	切削速度 Cutting speed vc [m/min]	进给 Feed rate fz [mm]	最大切深 Max depth of cut ap [mm]	推荐冷却 Recommended coolant
<b>N</b>	Al-铝合金 Al alloys	Si < 12%	PD70	200-4000	0,02-0,10	2	油,乳化液 Oil, Emulsion
			PD75	150-3500			
		Si > 12%	PD70	180-1500			
			PD75	120-1000			

## 刀具对刀基本信息

- 为确保在面铣时获得理想加工表面，必须要求所有切削刃在轴向对齐。
- 当采用号恩楔形调节块结构，刀尖轴向可调至  $\mu\text{m}$  级精度。
- 该系统的特点是精度高，操作方便。
- 用清洁化合物清洁PCD切削刃口，以避免测量不准确。

## Basic information on tool setting:

- To achieve optimum surface quality during face milling, it is essential that all cutting edges are axially aligned with each other.
- By using the high-precision HORN wedge adjustment, the axial run-out can be set to the required  $\mu\text{m}$  range.
- The accuracy that can be achieved combined with easy handling distinguishes this system.
- For easy, convenient, quick and precise adjustment, the use of setting device is recommended.
- Clean all cutting edges of the PCD cassettes with cleaning compound to avoid measuring inaccuracies.

### 步骤1:

- 用TORX PLUS扳手10PL逆时针转动紧定螺钉一圈。  
注意:
- 将所有调节楔块与铣刀外径平齐。



### Step 1:

- Turn the differential set screw with a TORX PLUS wrench 10PL one turn counterclockwise.

#### Note:

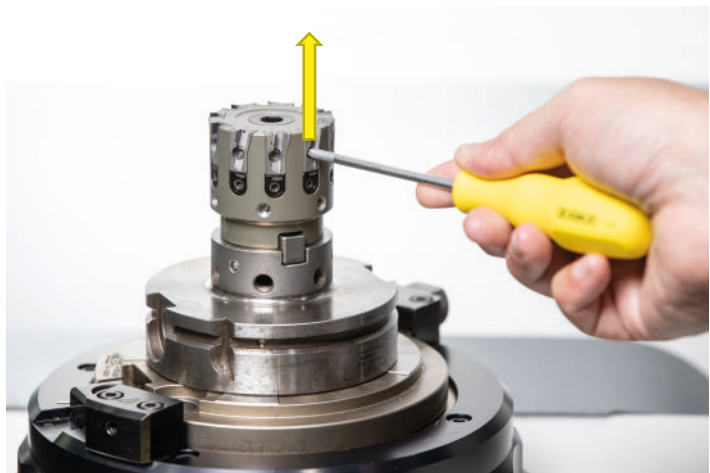
Position all adjusting wedges flush with the outside diameter of the mill.

### 步骤2:

- 松开PCD刀夹的夹紧螺钉，向上将其从套筒中取出。

### Step 2:

- Loosen the clamping screw of the PCD cassette and remove it upward out of the sleeve.



### 步骤 3:

- 用压缩空气清洁刀夹槽座。将新的PCD刀夹从上面插入套筒。

### Step 3:

- Clean the cassette seat with compressed air. Insert the new PCD cassette into the sleeve from above.



### 步骤 4:

- 插入PCD刀夹的夹紧螺钉，拧紧至1.5 Nm。  
注意:
- 拧紧时，轻轻按压PCD刀夹，使其固定在调节楔上。

### Step 4:

- Insert the clamping screw of the PCD cassette and tighten it to 1.5 Nm.

#### Note:

When tightening, press the PCD cassette lightly so that it rests on the adjusting wedge.



### 步骤5:

- 用TORX PLUS扳手10PL顺时针旋转紧定螺钉半圈。  
目标:
- 预加载PCD刀夹



### Step 5:

- Turn the differential set screw with a TORX PLUS wrench 10PL half a turn clockwise.

Goal:

To preload the PCD cassette.

### 步骤6:

使用设置装置，将PCD刀夹光学调节至设置尺寸EM以下-0.01 mm。使用测量装置捕捉住切削刃，使用TORX PLUS扳手10PL顺时针旋转设置螺钉，直到EM达到-0.01 mm。

### 注意:

用清洁化合物清洁PCD刀夹的所有切削刃，以避免测量不准确。



### Step 6:

- Using the setting device, optically adjust a PCD cassette -0.01 mm below setting dimension EM. To do this, grasp the cutting edge with the measuring device and turn the differential set screw clockwise with TORX PLUS wrench 10PL until EM -0.01 mm is reached.

Note:

Clean all cutting edges of the PCD cassettes with cleaning compound to avoid measuring inaccuracies.

### 步骤 7:

- 用力矩扳手拧紧PCD刀夹的夹紧螺钉至 3.0 Nm.

### Step 7:

- Tighten the clamping screw of the PCD cassette with a torque wrench to 3.0 Nm.



### 步骤8:

- 使用设置装置光学确定具有最高切削刃的PCD刀夹，并将测量程序设置为零。  
调整所有PCD至最高切削刃：  
为此，使用TORX PLUS扳手10PL顺时针旋转压紧螺钉，直到达到零(公差  $\pm 2\mu\text{m}$ )。

### Step 8:

- Use the setting device to optically determine the PCD cassette with the highest cutting edge and set the measuring program to zero.  
Adjust all PCD cassettes to the highest cutting edge:  
To achieve this, turn the differential set screw clockwise with the TORX PLUS wrench 10PL until zero is reached (tolerance  $\pm 2\mu\text{m}$ ).









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