



ТОВ "ФРАКТАЛЬНІСТЬ"

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**TSCHORN**<sup>®</sup>

Mess- und Spannmittel

**Precision is measurable.  
- Child poverty is not!**



**KINDERREICH  
REMS-MURR**

Eine Initiative des Deutschen Kinderschutzbunds KV Schorndorf/Waiblingen e.V.

With each sold 3D Tester, we donate one Euro to the project „Kinderreich“!

**The idea of „Kinderreich“ (translation: „Child-rich“):**

Especially children of one-parent families, children with a migrant background and children with many siblings are often affected by poverty. In many cases, growing up in poverty also has negative consequences for their later life. For example, in addition to the everyday things such as clothing and toys, also memberships in sports clubs or musical education and private lessons are difficult to finance. The consequences are often a low self-esteem of these children and teenagers and related to that, a personal retreat and social demarcation. However, cultural participation in everyday life and constant contact with peers often provides important educational content and social skills that are otherwise withheld from these children and teenagers. Poverty is therefore more than the lack of funds. In addition to the structural and tax requirements, which can only be regulated by the legislature, there is also an obligation on our society to counteract the poverty of children and teenagers.

This is where the initiative „Kinderreich Rems-Murr“ takes its lead. At the societal level, it provides fast and unbureaucratic assistance to needy children and teenagers; according to the principle of neighborly relief.

**precise. pioneering. worldwide.**



# TSCHORN®

Mess- und Spannmittel

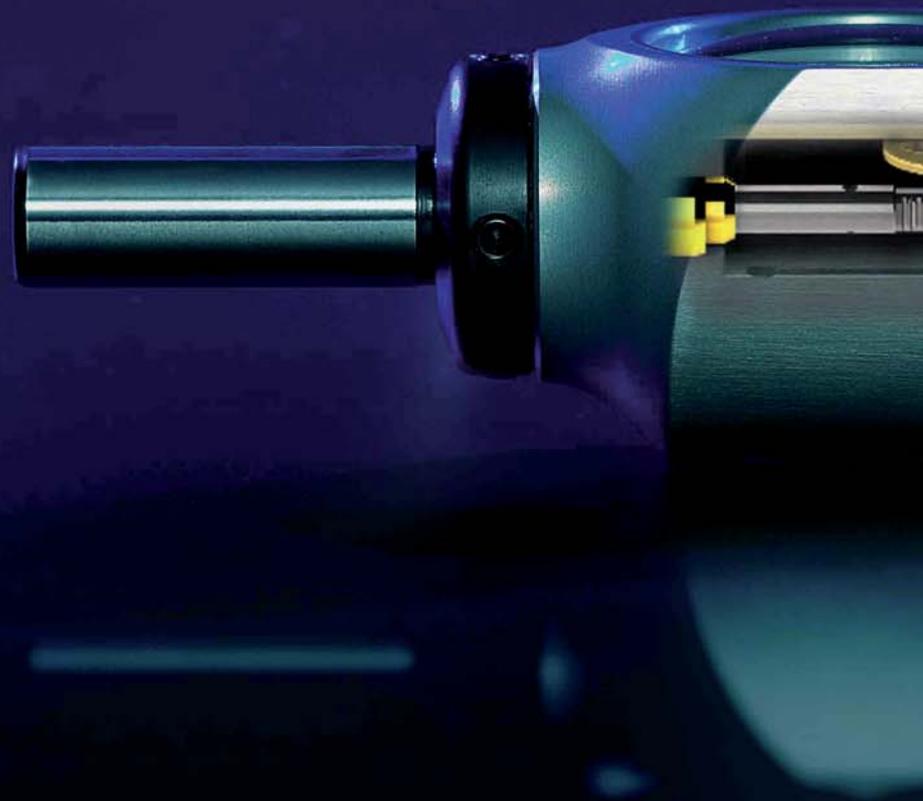


**IP67**

Cause better.

**V2**

**56 component parts,  
= highest**



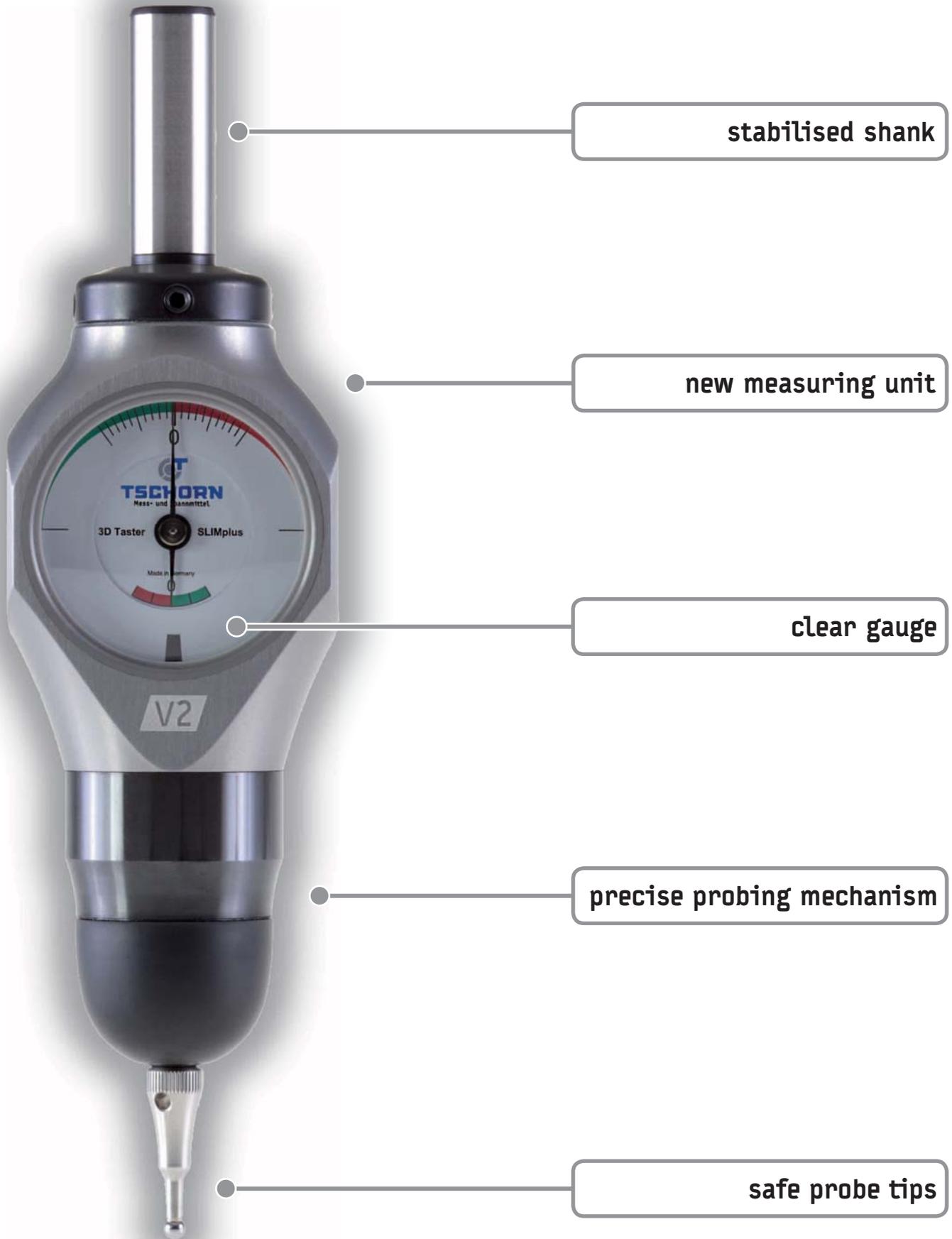
one expert, one laboratory  
precision!



Cause better.



## V2: what is optimized?



# Our promise:

Every single 3D Tester is manually assembled by our experienced experts in a complex process in our laboratory and carefully checked.

the components



the accuracy



the precision



Cause better. **V2**

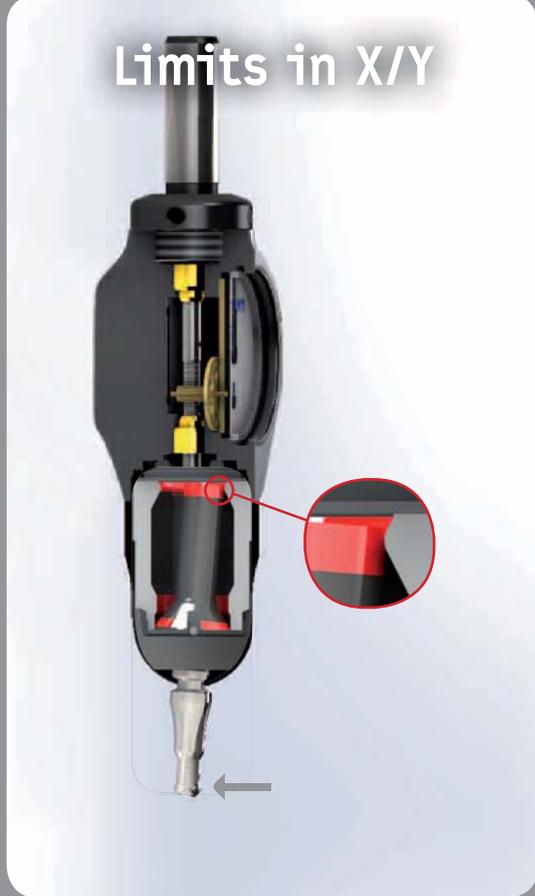
Slim  
the motivation



**Good overview**  
compared to others

Cause better. **V2**

**Probe tips**  
robust & antimagnetical



**Your 3D Tester's airbag:**

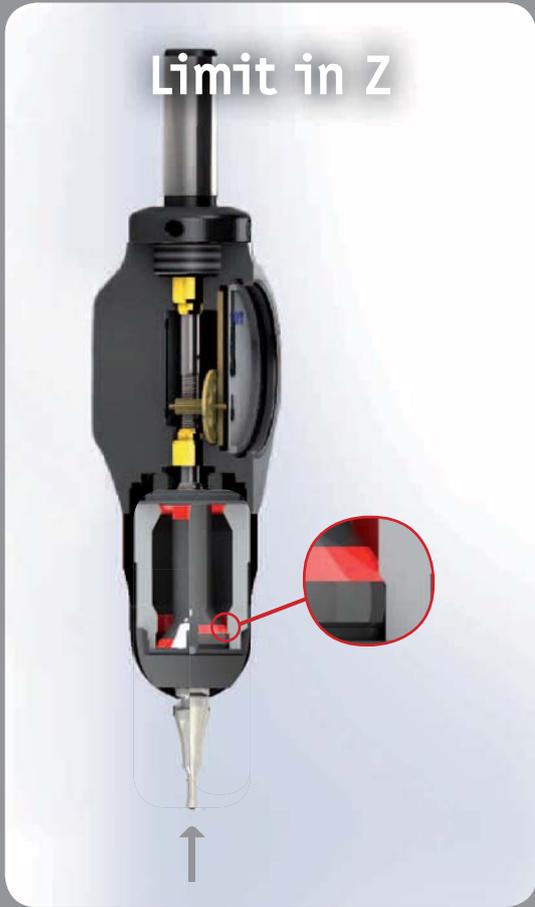
Your 3D Tester has the best possible stops within the probing unit. In the event of destructive forces before the measuring unit of your 3D Tester



breaking point

safely tightened

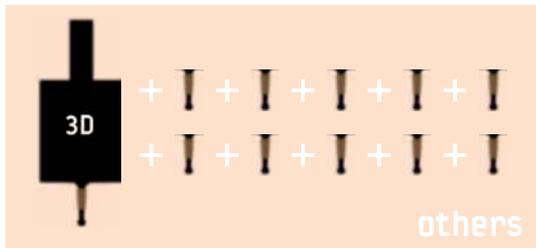
# Unbreakable 3D System



protection through mechanical end  
 the event of a crash, they absorb all  
 suring unit and prevent damage in  
 er.



... they only break  
 when it matters!



With our 3D Tester, you only need about 2  
 probe tips per year.  
 With conventional 3D Testers, this can be up  
 to 10 pieces per year.



Convince yourself with  
 our Crash Video!

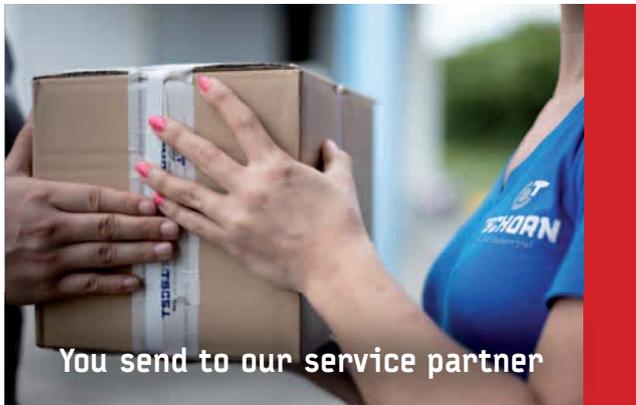


<http://downloads.3dtaster.com/3D-Crash.mp4>

## Our worldwide service network



- Headquarters
- Service partner
- Authorised service location



You send to our service partner



He exchanges\*



You receive it back

**48 h**

### Order our Repair service

simple - quick - cheap

- You send to our service partner
- He exchanges\*
- You receive it back  
and this for a fixed price!

\* exchange 3D Testers are already repaired units which are on stock. The accuracy is the same as a new 3D Tester, the optical appearance is used but nearly as good as new.

### Accuracy check with factory certificate

We also check your 3D Tester. When doing this, we completely check your 3D Tester and readjust it if necessary. When we send the 3D Tester back, you also receive a new factory certificate.

## Parallel running in X, Y and Z

### Determine parallelism safely and reliably:

The measuring system of your 3D Tester remains stable from the beginning and when changing direction. This is why you can read the indicator movement without any doubt and align your vice (or workpiece) quickly and accurately.



# DREHplus

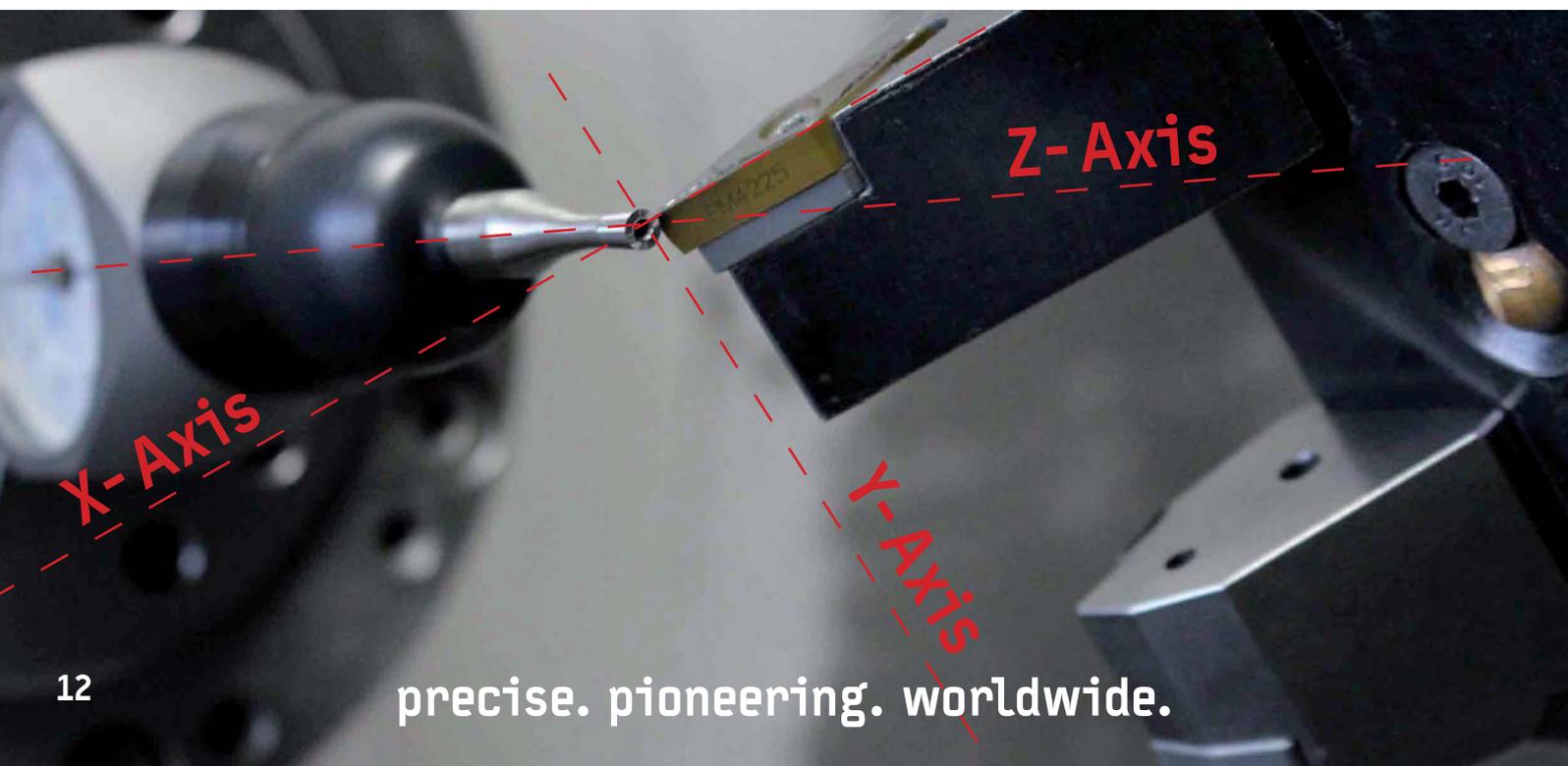


## Measure your tools in all axes especially in Y

No other measuring equipment gives you the possibility to measure your tool to the rotating centre simply, precisely and directly in your lathe.

This is made possible by our unique probing technology which we have developed specifically for the use in your lathe.

On a ball, it is impossible to precisely measure sharp turning tools. This is why the 3D Tester DREHplus has a patented conical probing corpus. With this, you directly probe the centre of the spindle, both in X axis and in Y axis. No need for further calculations, since  $X = 0$  and  $Y = 0$ .

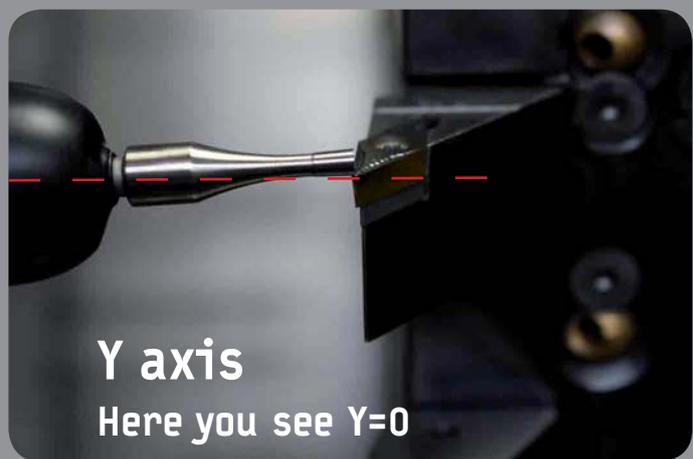


## Innovative probing technology

The conical probing corpus allows you to measure any possible cutting insert with various radii and / or angles at any point of the probing corpus. You probe until both indicators show „0“. In this position, the outline of the conical probing corpus is exactly on the symmetry axis.

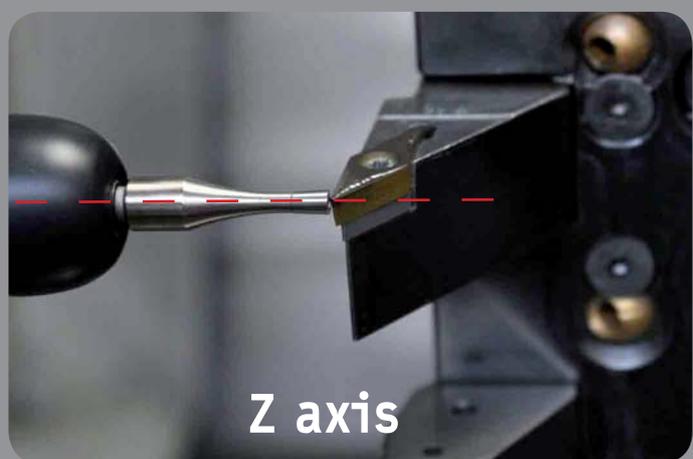
No other measuring equipment gives you the possibility to measure the rotating centre so simply, precisely and directly in your lathe.

$Y=0$  corresponds to the rotating centre. As a result, you ensure the best possible processing, achieve long lifetime and preserve best surfaces.



Without any further calculation, you measure your tools to the centre of the spindle, respectively  $X=0$ .

Also in Z, you can measure all tools, taking into account the length offset in your machine.



## 3D Tester SLIMplus

the slim Plus

with uniquely overview

**Delivery contains:**

3D Tester, adjusting key, factory certificate



Art.-No.	Description	Shank	Length	Tester
001V2D008*	3D Tester SLIMplus	Ø8	approx. 132,5	Ø3
001V2D010*	3D Tester SLIMplus	Ø10	approx. 132,5	Ø3
001V2D012	3D Tester SLIMplus	Ø12	approx. 132,5	Ø3

*\*not deliverable from stock*



## 3D Tester VIplus

the visual Plus

easier to read, also on big machines -  
but nevertheless slim

**Delivery contains:**

3D Tester, adjusting key, factory certificate



Art.-No.	Description	Shank	Length	Tester
001V2V008*	3D Tester VIplus	Ø8	approx. 150	Ø3
001V2V010*	3D Tester VIplus	Ø10	approx. 150	Ø3
001V2V012	3D Tester VIplus	Ø12	approx. 150	Ø3

*\*not deliverable from stock*



## 3D-Tester DREHplus

the Plus for your lathe

Tool measurement in all axes  
also in the rotating center (Y)

**Delivery contains:**

3D Tester, adjusting key, factory certificate



Art.-No.	Description	Shank	Length	Tester
001V2T020	3D Tester DREHplus	Ø20	approx. 138	Ø3,6/Ø3,2



# 3D Tester - Spare parts

**Probe tip  
standard**



**Delivery contains:**  
Probe tip with screw

**Probe tip  
DREHplus**



**Delivery contains:**  
Probe tip with screw



**Probe tip  
long**



**Delivery contains:**  
Probe tip with screw

**Seal**



**Delivery contains:**  
Seal



Art.-No.	Description	Shank	Length	Tester
00163D003	Probe tip standard	-	27	Ø3
00163D006	Probe tip long	-	62	Ø6
00163T036	Probe tip DREHplus	-	approx. 34	Ø3,6 / Ø3,2
00163D099	Seal for 3D Tester	-	-	-
001V2D0R0	Repair service 3D Tester	-	-	-

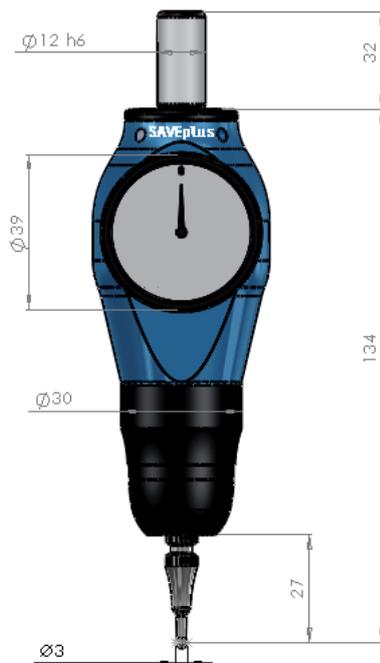


Adjustable  
scale

NON-MAGNETIC

Stainless steel

Solid carbide



*3D-Tester SAVEplus*  
Art-No. 00163B012



*Probe tip long*  
Art-No. 00163D006



*Probe tip standard*  
Art-No. 00163D003

Art.-No.	Description	Shank	Length	Probe
00163B012	3D-Tester SAVEplus	$\varnothing 12$	approx. 134	$\varnothing 3$
00163D003	Probe tip standard	-	approx. 27	$\varnothing 3$
00163D006	Probe tip long	-	approx. 62	$\varnothing 6$



**TSCHORN®**  
Mess- und Spannmittel

# Edge finders mechanical



— precise. pioneering. worldwide. —



Scan me  
product video

## The origin of all testers!

To approach reference surfaces or edges with a highly precise repeatability. We deliver all standard version edge finders with probe head Ø6 mm, Ø10 mm as well as the popular probe head Ø10/4 mm. Shanks are available with Ø6 mm, Ø10 mm and also Ø8 mm.

Special versions are our TIN edge finders. These are made out of antimagnetical stainless steel and are coated with a wear-resistant TIN layer.

We deliver all our edge finders in a plastic case. We also offer a wooden case for storage.



Probing  
step 1

1. The edge finder body can be tilted out from the axis' centre by a gentle tip of the finger and is out-of-the-round.



Probing  
step 2

2. By slowly and carefully approaching the rotating edge finder to the respective reference surface, the oscillation movement steadies successively.



Probing  
step 3

3. When reaching the final position, the edge finder body passes along the edge. Now, the position corresponds to the radius of the tracer.

Edge finders mechanical



001001000	001010400	001081000	001081400	001000600
-----------	-----------	-----------	-----------	-----------

**Standard version:**

(Made in India)

The standard version is manufactured by our long-term supplier in India according to our quality standards. Here in Germany, we check the edge finders in details in our quality laboratory so that we can guarantee the unique quality of our edge finders.

Article-No.	Description	Shank	Tracer
001000600	Edge finder mech.	Ø6	Ø6
001001000	Edge finder mech.	Ø10	Ø10
001010400	Edge finder mech.	Ø10	Ø10 / Ø4
001081000	Edge finder mech.	Ø8 (Ø10)	Ø10
001081400	Edge finder mech..	Ø8 (Ø10)	Ø10



**In wooden case**

**Standard version:**

(Made in India)

Identical to the articles above but in a high-quality wooden case.

Article-No.	Description	Shank	Tracer
001000699	Edge finder (in wooden case)	Ø6	Ø6
001001099	Edge finder (in wooden case)	Ø10	Ø10
001010499	Edge finder (in wooden case)	Ø10	Ø10 / Ø4
001081099	Edge finder (in wooden case)	Ø8 (Ø10)	Ø10
001081499	Edge finder (in wooden case)	Ø8 (Ø10)	Ø10 / Ø4



**TIN version:**

(Made in Germany)

The TIN version is **antimagnetical** and the probe head is made out of stainless steel. The probe head is covered with a wear-resistant TIN layer.



Article-No.	Description	Shank	Tracer
001TIN010	Edge finder TIN	Ø10	Ø10
001TIN104	Edge finder TIN	Ø10	Ø10 - Ø4

Edge finders mech. spare parts

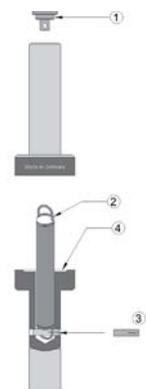
Article-No.	Description	Shank	Tracer
001Z01000	Spare spring Ø4,6 x 40 (package: 10 pc.)	Ø10 / Ø8	Ø10 / Ø10-Ø4
001Z00600	Spare spring Ø2,6 x 25 (package: 10 pc.)	Ø6	Ø6



**Repair Kit:**

- 1 - Cover
- 2 - Spring
- 3 - Pin
- 4 - Mounting paste

Article-No.	Description	Shank	Tracer
001K01000	Repair Kit	Ø10 / Ø8	Ø10 / Ø10-Ø4
001K00600	Repair Kit	Ø6	Ø6



**Version ECO**

- *low-cost*
- *Made in India*

Article-No.	Description	Shank	Tracer
0010010EP	Edge finder mech.	Ø10	Ø10
0010104EP	Edge finder mech.	Ø10	Ø10 / Ø4





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Mess- und Spannmittel

## Edge finders optical



— precise. pioneering. worldwide. —

Edge finder 3D: developed by us -  
- sold only by us.



Scan me  
Product video



**Function:**

If a conductive workpiece and the tracer touch (within the axis X, Y and Z), the electrical circuit gets closed and a LED signal appears.

When the LED signal appears, the workpiece's edge is reached with a distance of 5 mm (= tracer radius  $\varnothing 10$ ).

In Z axis, the reference length has to be measured and taken into account respectively.

Probing X/Y axis

Probing X/Y axis

Pass over

Probing Z axis



Edge finders optical 3D



**Quality**  
with certificate

Probing accuracy  $\leq 0.010$  mm !

3D version:  
Probing in X, Y and Z !

**Application:**

For accurate zero point determination and bore centers to the spindle with an accuracy of probing smaller than 0.010 mm.

**Please note:**

Protection against humidity is essential for the edge finder due to the built-in electronic components.

**Delivery includes:**

Edge finder with serial number and test certificate in a plastic case.

Article-No.	Description	Shank	Length	Ball	Battery
001031200	Edge finder 3D	Ø12	approx. 111 mm	Ø10	12V-Type 27A
001031600	Edge finder 3D	Ø16	approx. 111 mm	Ø10	12V-Type 23A
001032000	Edge finder 3D	Ø20	approx. 106 mm	Ø10	12V-Type 23A
001032500	Edge finder 3D	Ø25	approx. 116 mm	Ø10	12V-Type 23A
00103M200	Edge finder 3D	MK2	approx. 146 mm	Ø10	12V-Type 27A



Edge finder optical 3D in wooden case

Article-No.	Description	Shank	Length	Ball	Battery
001031299	Edge finder 3D	Ø12	approx. 111 mm	Ø10	12V-Type 27A
001031699	Edge finder 3D	Ø16	approx. 111 mm	Ø10	12V-Type 23A
001032099	Edge finder 3D	Ø20	approx. 106 mm	Ø10	12V-Type 23A
001032599	Edge finder 3D	Ø25	approx. 116 mm	Ø10	12V-Type 23A



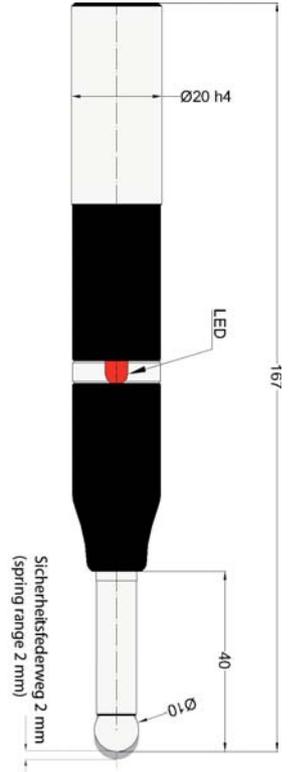
**Quality**  
with certificate

Probing accuracy  $\leq 0.005$  mm !

3D version:  
Probing in X, Y and Z !



Scan me  
Product video



**Application:**

Our 3D precision probe is a highly precise measuring device which gives out highly precise three dimensional probing results on metal-cutting machines.

**Accuracy:**

Within all three axis, the accuracy of probing is smaller than  $0.005 \mu\text{m}$ .

**Please note:**

Protection against humidity is essential for the edge finder due to the built-in electrical components.

**Delivery includes:**

3D precision probe with serial number and test certificate in a plastic case (for clean storage).

Article-No.	Description	Shank	Length	Ball	Battery
001532000	3D precision probe	Ø20	approx. 167 mm	Ø10	12V-Type 23A

**Quality**  
with certificate



Probing accuracy  $\leq 0.010$  mm !

3D version:  
Probing in X, Y and Z !

2D version:  
Probing in X and Y !

**Application:**

For accurate zero point determination and bore centers to the spindle with an accuracy of probing smaller than 0.010 mm.

When you reach the position, you hear an additional acoustic signal.

**Please note:**

Protection against humidity is essential for the edge finder due to the built-in electronical components.

**Delivery includes:**

Edge finder with serial number and test certificate in a plastic case.

Article-No.	Description	Shank	Length	Ball	Battery
001122000	Edge finder 2D	Ø20	approx. 119 mm	Ø10	12V-Type 23A
001132000	Edge finder 3D	Ø20	approx. 131 mm	Ø10	12V-Type 23A



**Quality**  
with certificate

**Probing accuracy  $\leq 0.010$  mm** !

**2D version:** !  
**Probing in X and Y**

**Application:**

For accurate zero point determination and bore centers to the spindle with an accuracy of probing smaller than 0.010 mm.

**Please note:**

Protection against humidity is essential for the edge finder due to the built-in electrical components.

**Delivery includes:**

Edge finder with serial number and test certificate in a plastic case.



Article-No.	Description	Shank	Length	Ball	Battery
001021200	Edge finder 2D	Ø12	approx. 99 mm	Ø10	12V-Type 27A
001021600	Edge finder 2D	Ø16	approx. 99 mm	Ø10	12V-Type 23A
001022000	Edge finder 2D	Ø20	approx. 94 mm	Ø10	12V-Type 23A
001022500	Edge finder 2D	Ø25	approx. 104 mm	Ø10	12V-Type 23A
00102M200	Edge finder 2D	MK2	approx. 133 mm	Ø10	12V-Type 27A

**Edge finder optical 2D in wooden case**

Article-No.	Description	Shank	Length	Ball	Battery
001021299	Edge finder 2D	Ø12	approx. 99 mm	Ø10	12V-Type 27A
001021699	Edge finder 2D	Ø16	approx. 99 mm	Ø10	12V-Type 23A
001022099	Edge finder 2D	Ø20	approx. 94 mm	Ø10	12V-Type 23A
001022599	Edge finder 2D	Ø25	approx. 104 mm	Ø10	12V-Type 23A



**Version ECO**

- low-cost
- Made in Germany
- no serial number
- no test certificate



Article-No.	Description	Shank	Length	Ball	Battery
0010216EP	Edge finder 2D	Ø16	approx. 99 mm	Ø10	12V-Type 23A
0010220EP	Edge finder 2D	Ø20	approx. 94 mm	Ø10	12V-Type 23A

**Spare parts**

Article-No.	Description	Volt
0011Z6000	Spare battery 23A	12V
0012Z6000	Spare battery 27A	12V





**TSCHORN**<sup>®</sup>  
Mess- und Spannmittel

## Coaxial indicator : CENTREplus



— precise. pioneering. worldwide. —

**CENTREplus:** for simple centering of boreholes and spindles



**Application:**

To determine centres of a circle to the spindle with a probing accuracy < 0.010 mm. The dial gauge shows 1/100 mm sub-steps.

**Design:**

Thanks to the horizontal arrangement of the dial gauge, you can always see the dial gauge.



**Fine adjustment:**

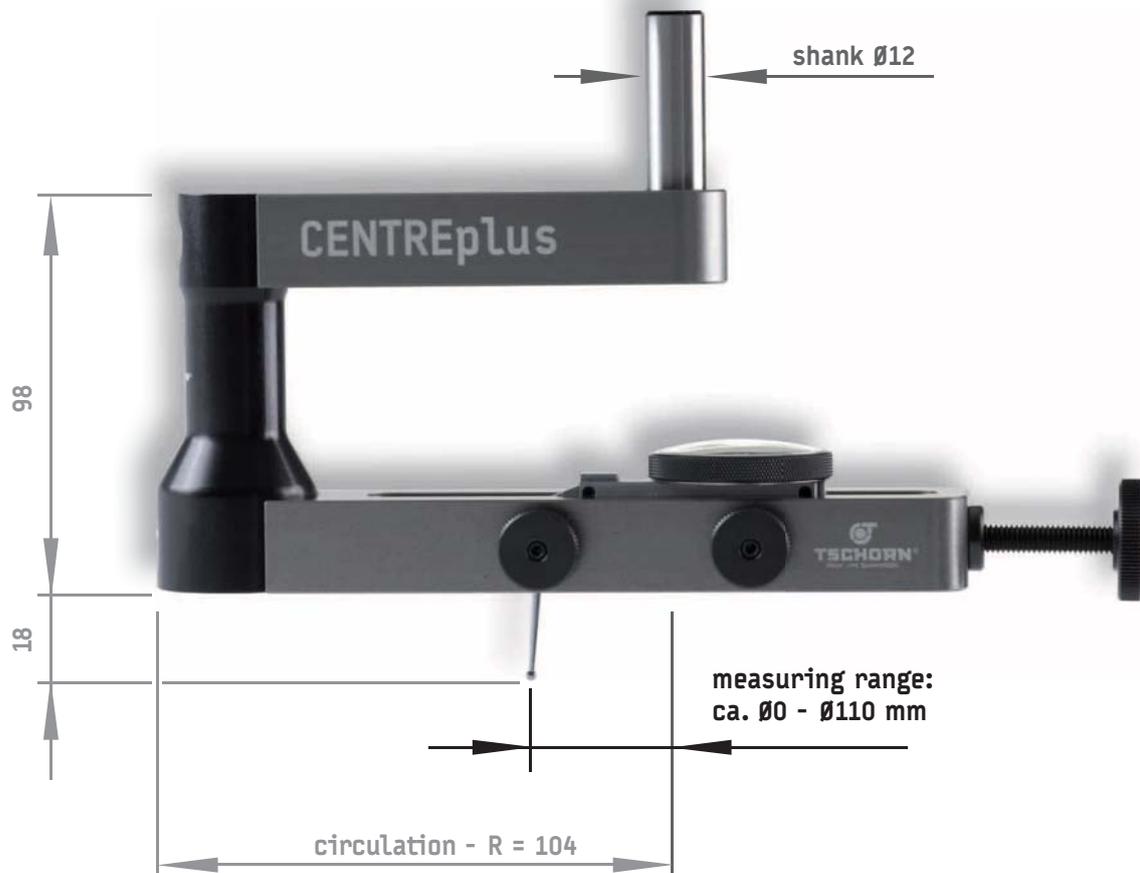
With the fine adjustment, you can position the dial gauge precisely.



**Clamping:**

With the two knurled screws, you can clamp the dial gauge quickly and precisely.

Coaxial indicator: CENTREplus



**Optional spare part:**

You can order separately a short-arm which increases the measuring range up to  $\varnothing 200$  mm.

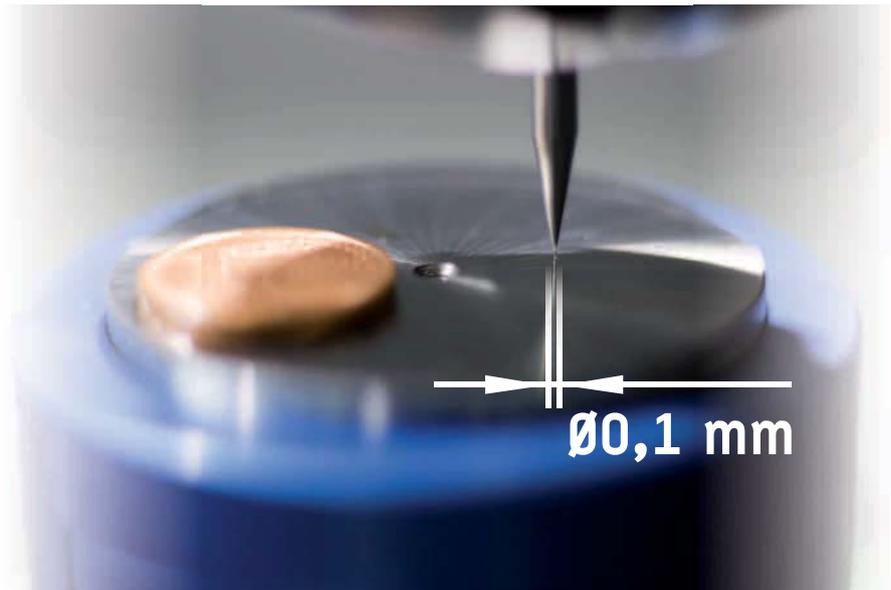
Article-No.	Description	Shank
0017C1012	Coaxial indicator CENTREplus $\varnothing 0$ - $\varnothing 110$	$\varnothing 12$
0017C1098	Spare dial gauge	
0017C1099	Short-arm (measuring range up to $\varnothing 200$ )	





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Mess- und Spannmittel

## Zero setters



— precise. pioneering. worldwide. —

**NEW!**

**New development:  
100 mm - handy - Micro**

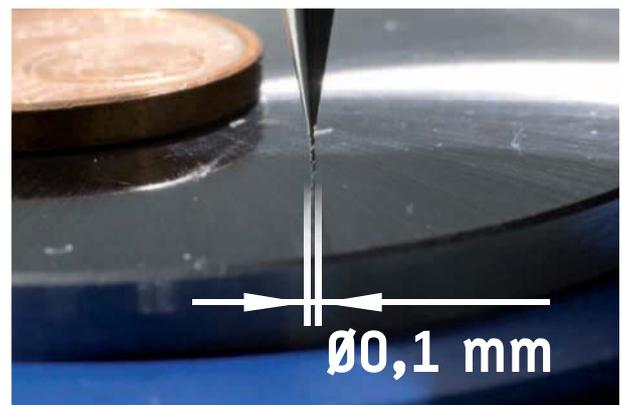
**Simple adjustment:**

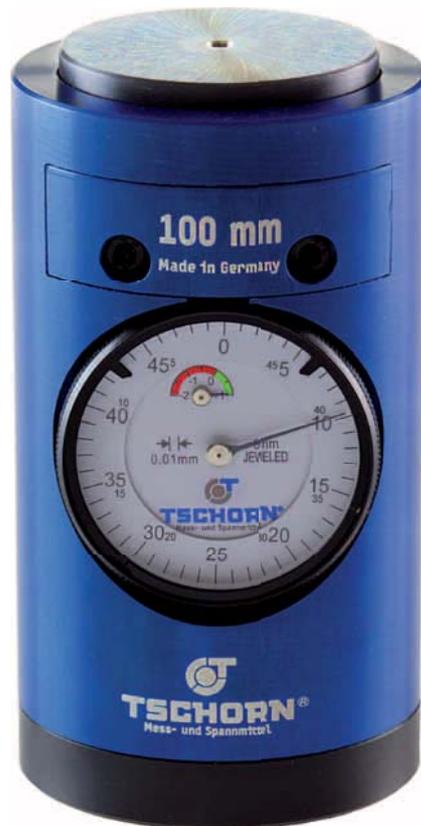
- Push tester
- Small indicator at -2 mm
- Turn scale for large indicator to 0
- Ready!



**Micro tools:**

We even measured milling tools with  $\varnothing 0,1$  mm without any problems.





**Quality**  
with certificate



Scan me  
Product video

### Application:

To determine the position of workpiece surfaces or tool lengths in Z-direction at milling machines or lathes. The zero setter is placed on the workpiece. The spindle has to be moved carefully onto the tracer until the dial gauge indicates „0“. The reference dimension 100 mm to the workpiece has been reached. A safety spring range of max. 2 mm is included.

### Type:

To allow lateral mounting, a zero setter with built-in magnets is also available.

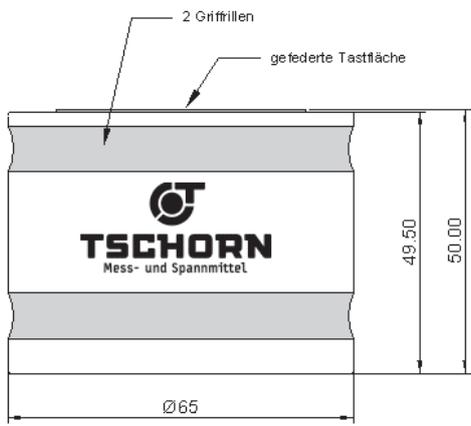
### Delivery includes:

Zero setter with serial number and test certificate in a wooden case.

Article-No.	Description	Body	Tester
002400100	Zero setter Micro 100 mm	Ø54,5	Ø42
002402100	Zero setter Micro 100 mm (Magnet)	Ø54,5	Ø42
002UM0100	Spare dial gauge for zero setter Micro 100 mm		



**Quality**  
with certificate



**Application:**

To determine the position of workpiece surfaces or tool lengths in Z-direction at milling machines or turning lathes. The zero setter is placed on the workpiece. The spindle has to be moved carefully onto the tracer until the dial gauge indicates „0“. The reference dimension 50 mm to the workpiece has been reached. A safety spring range of max. 2 mm is included.

**Type:**

To allow lateral mounting, a zero setter with built-in magnets is also available.

**Delivery includes:**

Zero setter with serial number and test certificate in a wooden case.

Article-No.	Description	Body	Tester
002101000	Zero setter 50 mm	$\varnothing 65$	$\varnothing 47$
002102000	Zero setter 50 mm (Magnet)	$\varnothing 65$	$\varnothing 47$



**Version ECO**

- *low-cost*
- *Made in Germany*
- *no serial number*
- *no test certificate*



Article-No.	Description	Body	Tester
0021010EP	Zero setter ECO 50 mm	Ø39	Ø20
0021020EP	Zero setter ECO 50 mm (Magnet)	Ø39	Ø20

**Quality**  
with certificate



**Application:**

To determine the position of workpiece surfaces or tool lengths in Z-direction at milling machines or turning lathes. The zero setter is placed on the workpiece. The spindle has to be moved carefully onto the tracer until the dial gauge indicates „0“. The reference dimension 50 mm to the workpiece has been reached. A safety spring range of max. 2 mm is included.

**Type:**

To allow lateral mounting, a zero setter with built-in magnets is also available.

**Delivery includes:**

Zero setter with serial number and test certificate in a wooden case.

Article-No.	Description	Body	Tester
002050000	Zero setter opt. 50 mm	Ø39	Ø19
002050200	Zero setter opt. 50 mm (Magnet)	Ø39	Ø19



Zero setter TURNING

**NEW!**



New development:  
quickly measure lengths at lathes

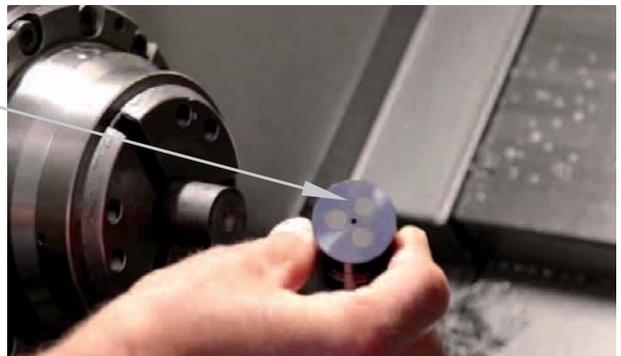


Scan me  
Product video



Perfectly thought-out in detail

Secure horizontal grip  
already at  $\varnothing 8$   
thanks to 3 powerful magnets



Tolerance for the turning scrap,  
avoids measuring faults

**Quality**  
with certificate



**Application:**

To determine the position of workpiece surfaces or tool lengths in Z-direction at milling machines or lathes. The zero setter is placed on the workpiece. The spindle has to be moved carefully onto the tracer until the dial gauge indicates „0“. The reference dimension 60 mm to the workpiece has been reached. A safety spring range of max. 2 mm is included.

**Type:**

To allow lateral mounting, a zero setter with built-in magnets is also available.

**Delivery includes:**

Zero setter with serial number and test certificate in a wooden case.

Article-No.	Description	Body	Tester
002060200	Zero setter TURNING 60 mm	Ø32	Ø19



Article-No.	Description	Volt	Size
0013Z4400	Spare battery SR44	1,5V	Ø11,6 x 5,4



Article-No.	Description	Body	Reading
002U01000	Spare dial gauge	Ø40	0,01 mm



Представництво в Україні:  
 ТОВ "ФРАКТАЛЬНІСТЬ"

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тел.: +38 044 227-57-73

факс: +38 044 394-80-94

e-mail: office@fractalnost.com.ua

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