

Take off with a
NEW DIMENSION
in tool grinding accuracy



- μGrind Automatic Chucks
- xGrind Manual Chucks

GDS
Made in Germany

GDS μ Grind HPS 20 // GDS μ Grind HPS 20 L

The μ Grind HPS 20 **automatic chuck** can be setup to virtually eliminate runout in just a few minutes, using two simple gauges.



We developed the μ Grind in close cooperation with leading tool grinding professionals specifically to achieve high precision clamping in that field.

The chuck uses specialized shallow taper (1°) collets for outstanding clamping force. Plus the collets can be changed in seconds without any tools or readjustment, enabling quick diameter changes.

The chuck is “self-clamping,” (it clamps the tool without external force and releases upon activation of a pneumatic push rod). The chuck is also isolated from the grinding machine except at the face of the workhead. A spring-like mechanism applies a constant pull on the collet to clamp the tool. Because that linkage is not rigid and not connected to the machine, the collet (and therefore the tool blank) cannot be pulled crooked.

Setup requires just a few minutes and neither special skills nor tools. Even weeble-wobble can be virtually eliminated just by adjusting screws.

Extensive testing at demanding European tool manufacturers shows that the chuck offers highly productive and predictable performance with an unbeatable collection of benefits:



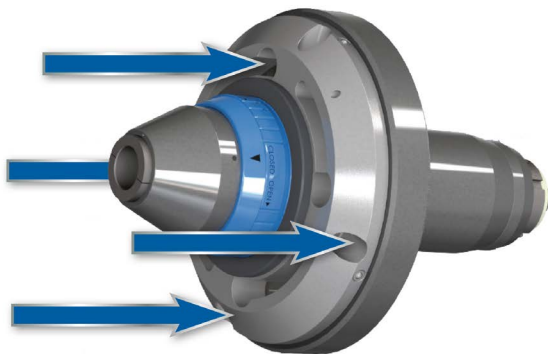
Adjust **concentricity** // Eliminate **runout**

GDS - the precision maker

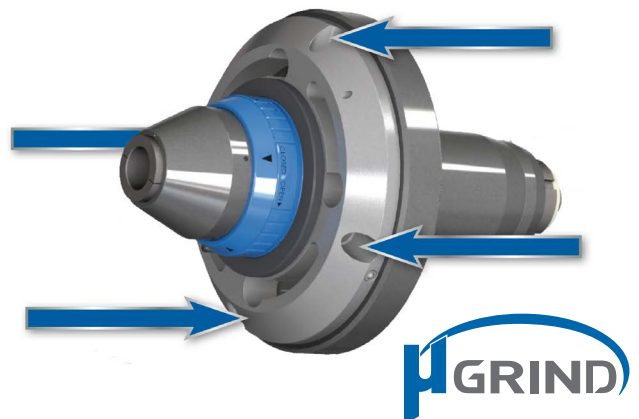


- Lets you virtually eliminate both radial and axial runout (weeble-wobble) without special tools or skill
- Lets you change diameters in seconds and maintains its precision to within two microns at $2\frac{1}{2} \times D$ without adjustment
- Maintains TIR to within 5 microns throughout the grind (assuming normal grinding forces)
- Performs like this over tens of thousands of clampings
- Requires a relatively short clamping length on the blank to achieve constant holding force and concentricity
- Features a tapered profile and smaller nose diameter than hydraulic holders for better wheel clearance and freedom from interference
- Offers excellent dampening properties for uniform material removal, optimized feed rates, excellent surface finish, and significantly reduced grinding wheel wear
- Suitable for both high production and regrounding
- Handles shanks from 3 to 20 mm ($\frac{1}{8}$ to $\frac{3}{4}$ inches)

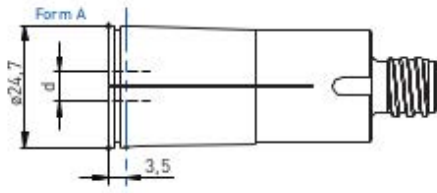
Setup - **Concentric with the machine**



Setup - **Parallel with the machine**

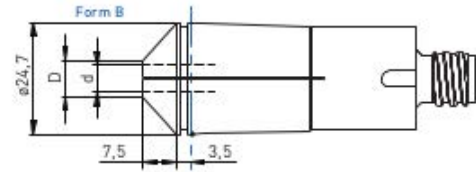


HPS 20 collets



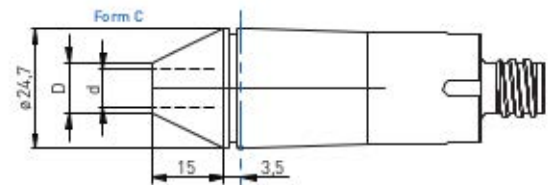
Flat face collets:

Item No.	Description -ø
350260003	HPS Collet 20 - ø 3 mm
350260004	HPS Collet 20 - ø 4 mm
350260005	HPS Collet 20 - ø 5 mm
350260006	HPS Collet 20 - ø 6 mm
350260007	HPS Collet 20 - ø 7 mm
350260008	HPS Collet 20 - ø 8 mm
350260009	HPS Collet 20 - ø 9 mm
350260010	HPS Collet 20 - ø 10 mm
350260011	HPS Collet 20 - ø 11 mm
350260012	HPS Collet 20 - ø 12 mm
350260013	HPS Collet 20 - ø 13 mm
350260014	HPS Collet 20 - ø 14 mm
350260015	HPS Collet 20 - ø 15 mm
350260016	HPS Collet 20 - ø 16 mm
350260017	HPS Collet 20 - ø 17 mm
350260018	HPS Collet 20 - ø 18 mm
350260019	HPS Collet 20 - ø 19 mm
350260020	HPS Collet 20 - ø 20 mm
350260201	HPS Collet 20 - ø 1/8 inch
350260202	HPS Collet 20 - ø 3/16 inch
350260203	HPS Collet 20 - ø 1/4 inch
350260204	HPS Collet 20 - ø 5/16
350260205	HPS Collet 20 - ø 3/8 inch
350260206	HPS Collet 20 - ø 7/16 inch
350260207	HPS Collet 20 - ø 1/2 inch
350260208	HPS Collet 20 - ø 9/16 inch
350260209	HPS Collet 20 - ø 5/8 inch
350260210	HPS Collet 20 - ø 11/16 inch
350260211	HPS Collet 20 - ø 3/4 inch



Short tapered collets:

Item No.	Description -ø
350260130	HPS Collet 20 - ø 2.35 mm
350260103	HPS Collet 20 - ø 3 mm
350260104	HPS Collet 20 - ø 4 mm
350260105	HPS Collet 20 - ø 5 mm
350260106	HPS Collet 20 - ø 6 mm
350260301	HPS Collet 20 - ø 1/8 inch
350260302	HPS Collet 20 - ø 3/16 inch
350260303	HPS Collet 20 - ø 1/4 inch



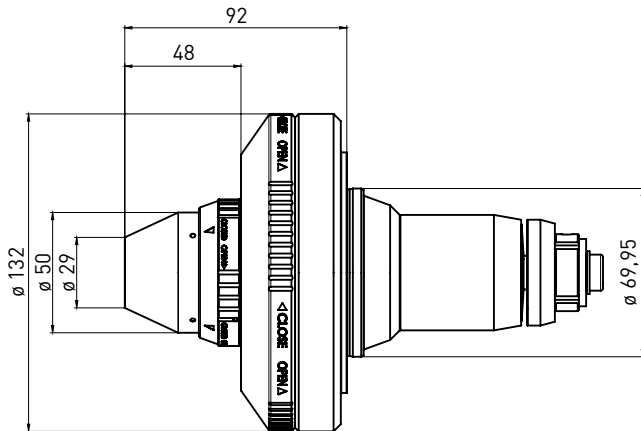
Tapered collets:

Item No.	Description -ø
350260107	HPS Collet 20 - ø 7 mm
350260108	HPS Collet 20 - ø 8 mm
350260109	HPS Collet 20 - ø 9 mm
350260110	HPS Collet 20 - ø 10 mm
350260111	HPS Collet 20 - ø 11 mm
350260112	HPS Collet 20 - ø 12 mm
350260304	HPS Collet 20 - ø 5/16
350260305	HPS Collet 20 - ø 3/8 inch
350260306	HPS Collet 20 - ø 7/16 inch
350260307	HPS Collet 20 - ø 1/2 inch

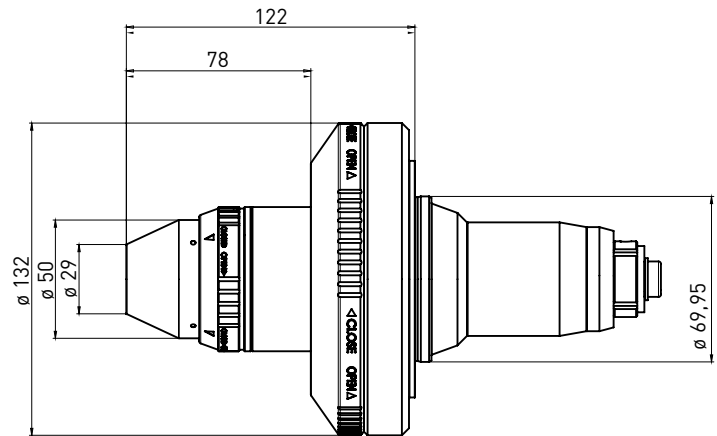
Custom diameter collets also available. Visit www.toolroom.solutions/gds-super-chuck

GDS μ Grind **HPS 20** // GDS μ Grind **HPS 20 L**

μ Grind **HPS20**



μ Grind **HPS20L**



Delivery includes:

Case, actuating pushrod, plastic tipped hammer, wrench, USB stick with instructions

Item No.	Name	D (mm)	L
400001000	μ Grind HPS 20	69.95	92
400001001	μ Grind HPS 20 L	69.95	122

Available for the following machines



Helitronic Mini Power
Helitronic Power
Helitronic Vision
Helicheck measuring machine



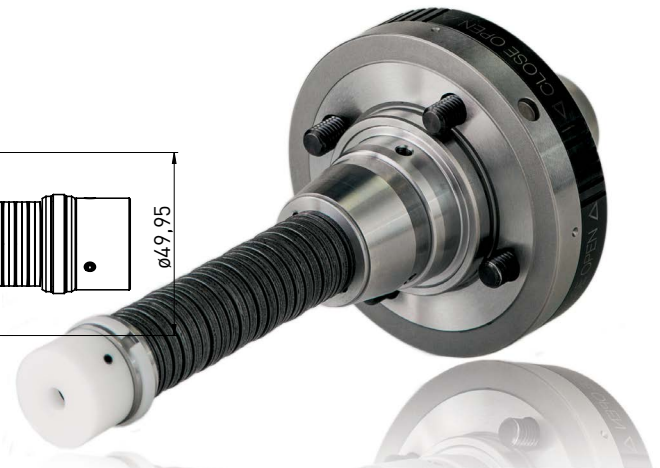
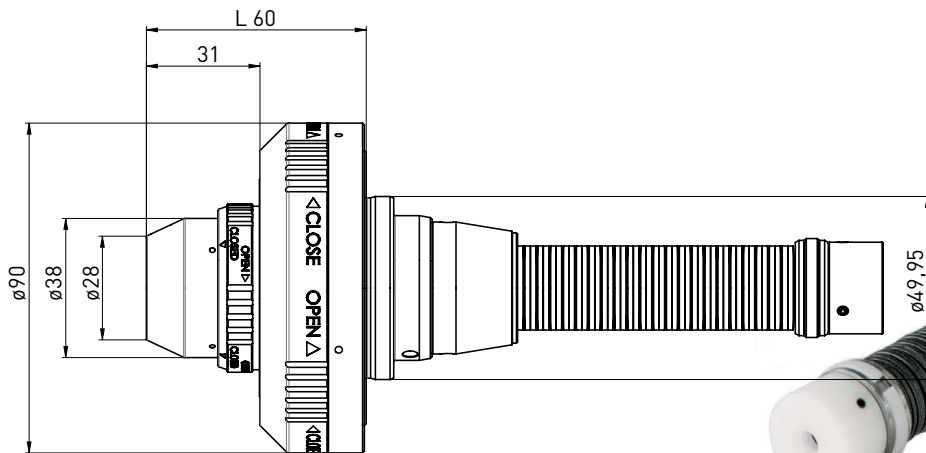
MX7
MX7 Linear
MX5
MX5 Linear

See the next page for the

Helitronic Micro
Helitronic Mini Automation



HPS collets have a specialized design and shallow taper ($<1^\circ$) for outstanding clamping force, wear resistance, and repeatability



Delivery includes:

Case, actuating pushrod, plastic tipped hammer, wrench, USB stick with instructions

Item No.	Name	D	L
400001006	μ Grind HPS Micro	49.95	60

For machine model:

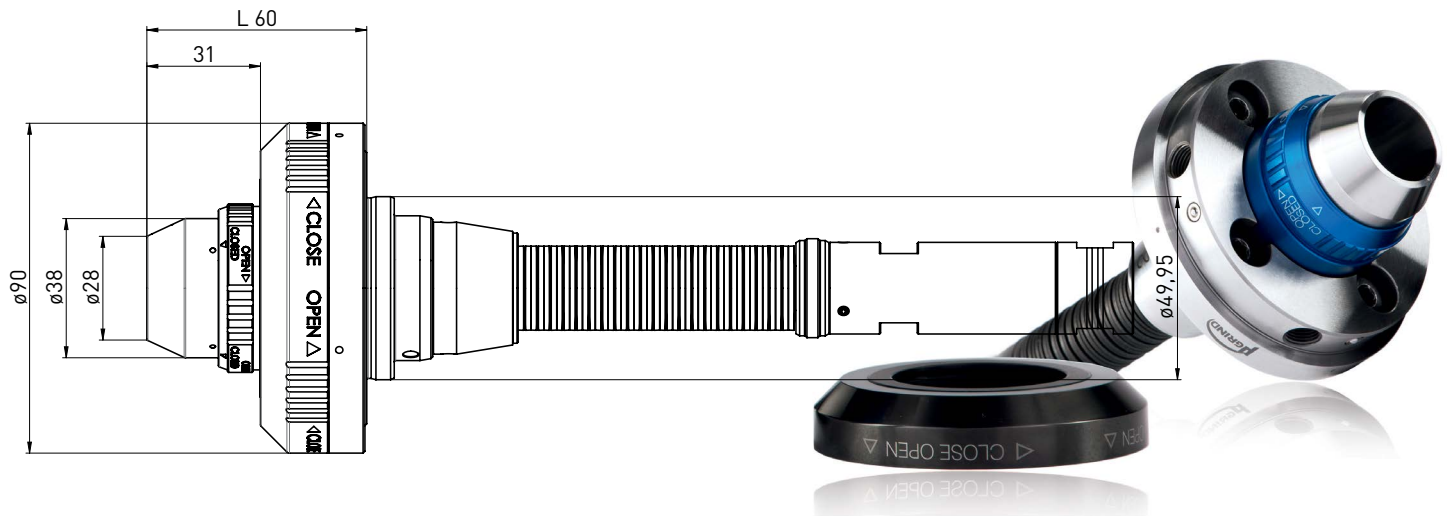


Helitronic Micro

Same benefits as the larger μ Grind:

- Lets you virtually eliminate both radial and axial runout (weeble-wobble) without special tools or skill
- Lets you change diameters in seconds and maintains its precision to within two microns at $2\frac{1}{2} \times D$ without adjustment
- Maintains TIR to within 5 microns throughout the grind (assuming normal grinding forces)
- Handles shanks from 3 to 12 mm ($\frac{1}{8}$ to $\frac{1}{2}$ inches)
- And more...





Delivery includes:

Case, adaptable actuator, plastic tipped hammer, wrench, USB stick with instructions

Item No.	Name	D	L
400001002	μ Grind HPS Mini	49.95	60

For machine model:

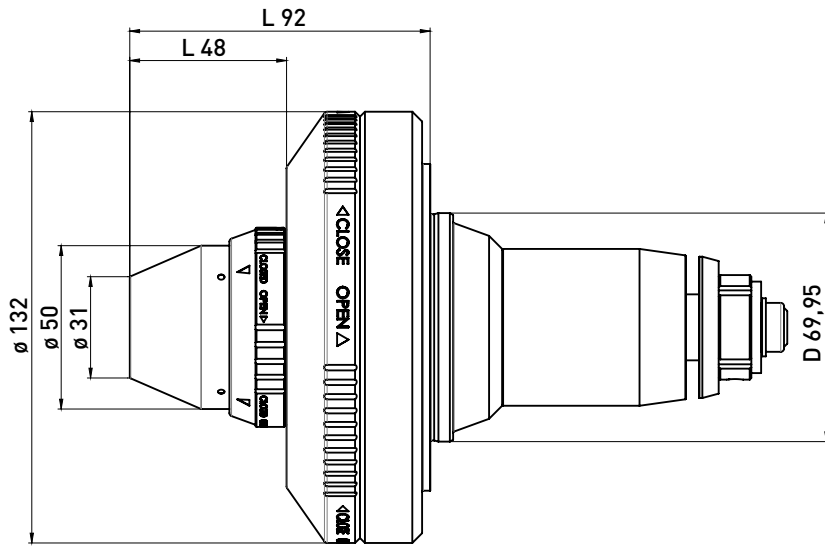


Helitronic Mini Automation

Much easier than the standard Mini Automation clamping system, the μ Grind Mini:

- Lets you change diameters in seconds and maintains its precision to within two microns at $2\frac{1}{2} \times D$ without adjustment
- Lets you virtually eliminate both radial and axial runout (weeble-wobble) without special tools or skill
- Maintains TIR to within 5 microns throughout the grind (assuming normal grinding forces)
- Handles shanks from 3 to 12 mm ($\frac{1}{8}$ to $\frac{1}{2}$ inches)
- And more...





μ Grind W20

We developed the μ Grind W20 for companies that want to use W20 collets (generally because they already have a large investment in that system). The μ Grind W20 has the same easy setup and adjustment capabilities as the HPS version, but the accuracy and repeatability depends largely on collet quality, which varies widely. The W20 system also has lower clamping force.



Delivery includes:

Case, actuating pushrod, plastic tipped hammer, wrench, USB stick with instructions

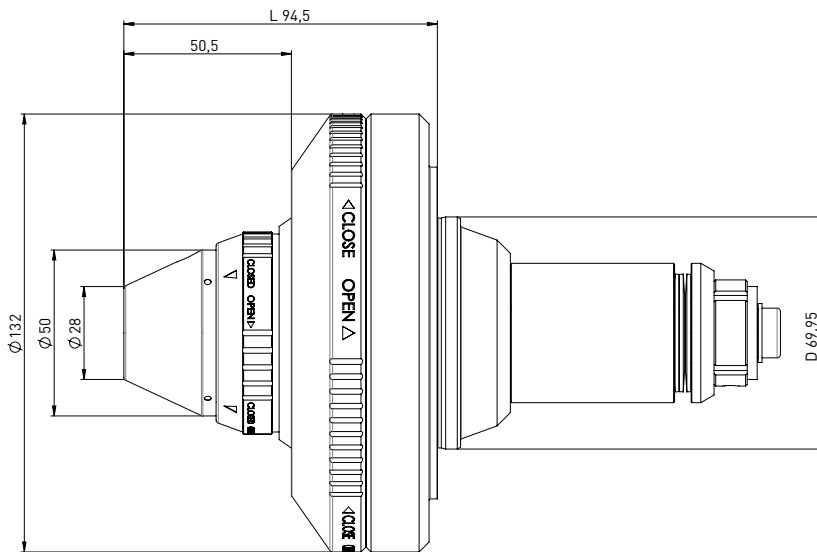
Item No.	Name	D	L
400003000	μ Grind W20	69.95	92

Available for the following machines



Helitronic Mini Power
(except Mini Automation))
Helitronic Power
Helitronic Vision
Helichack measuring machine





μ Grind Hydro

The μ Grind Hydro has the same easy setup and adjustment capabilities as the HPS version, but uses hydraulic clamping force and standard Schunk sleeves. The Hydro has roughly the same repeatable accuracy when changing sleeves as the HPS system does when changing collets. But like any hydraulic system, the μ Grind Hydro requires a longer clamping length than the HPS and tool features like a Weldon flat are problematic.



Delivery includes:

Case, actuating pushrod, plastic tipped hammer, wrench, USB stick with instructions

Item No.	Name	D	L
400002000	μ Grind Hydro	69.95	94.5

Available for the following machines:



Helitronic Mini Power
(except Mini Automation))
Helitronic Power
Helitronic Vision
Helicheck measuring machine





High precision manual collet chuck

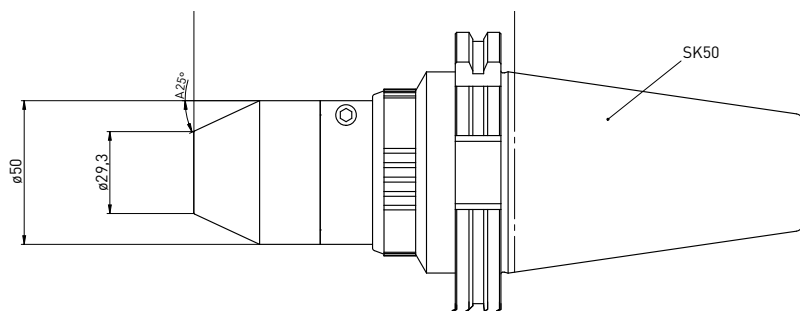
Developed specifically for high precision tool grinding, the xGrind HPS uses the same innovative collets as the amazing μ Grind HPS. The xGrind HPS:

- Delivers excellent concentricity and repeatability
- Offers excellent dampening properties for uniform material removal, optimized feed rates, excellent surface finish, and significantly reduced grinding wheel wear
- Requires a relatively short clamping length on the blank to achieve constant holding force and concentricity
- Features a tapered profile and smaller nose diameter than hydraulic holders for better wheel clearance and freedom from interference
- Extremely durable, with very low wear over thousands of clampings, for economical performance
- The clamping screw is at a more ergonomic angle than competing systems, reducing the risk of injury
- Requires half the screw revolutions to clamp, versus other techniques, saving time
- Handles shanks from 3 to 20 mm ($\frac{1}{8}$ to $\frac{3}{4}$ inches)
- Standard SK50 interface for nearly universal application

Delivery includes:

Actuating wrench

Item No.	Name	D	L
400005000	xGrind HPS SK50	29.3	110



xGrind **Hydro**

High precision manual hydraulic chuck

The xGrind Hydro is a new, manually activated hydraulic chuck developed by GDS specifically for high precision tool grinding. The xGrind Hydro:

- Delivers excellent concentricity and repeatability
- Offers excellent dampening properties for uniform material removal, optimized feed rates, excellent surface finish, and significantly reduced grinding wheel wear

- Features a tapered profile and smaller nose diameter than other hydraulic holders for better wheel clearance and freedom from interference
- Tougher than competing systems and can be rebuilt economically for long term use
- The clamping screw is at a more ergonomic angle than competing systems, reducing the risk of injury
- NEW SafeGrip protects against slipping, for safe and easy handling
- Available in three diameters (12, 20 and 32 mm). Each chuck clamps its native diameter plus smaller diameters using standard intermediate sleeves:

- 12 mm chuck: Sleeves for 3-8 mm
- 20 mm chuck: Sleeves for 3-18 mm
- 32 mm chuck: Sleeves for 6-25 mm

- Standard SK50 interface for nearly universal application



Delivery includes:

Actuating wrench

Item No.	Name	D	L
400005001	xGrind Hydro SK50 ø12	21.5	110
400005002	xGrind Hydro SK50 ø20	28	110
400005003	xGrind Hydro SK50 ø32	40	110

Your **local** partner

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See a video and more at
www.toolroom.solutions/gds-super-chuck

