# Tool grinding chucks

## and supplies




grinding deserves SOLUTIONS

GDS® Made in Germany

## SHARK- Finally! A 5-Jaw chuck with high-precision GDS quality!




Tool grinding success requires achieving extreme precision and perfect quality while minimizing setup and tool-change times. The GDS SHARK multi-range chuck helps you meet those challenges.

Specially designed for situations in which the shank diameter changes frequently, the SHARK automatically clamp **s** directly onto the workpiece.You don‘t need collets or intermediate sleeves for any diameter within the chuck‘s range. Your set-up time is reduced to a minimum and you achieve set-up cost savings of up to 70% compared to regular chucks.

You can also swallow oversized shank features , like the driver on a surgical tool.

Plus, the SHARK is just as suitable for manufacturing new tools as it is for resharpening.

The SHARK‘s clamping jaws are in the same axial position at all times, making it easy to check interference and set-up auto-loading.

Due to its unique new solid jaw guide, axial runout (wobble) can be reduced to a minimum.

Thanks to the chuck‘s outstanding concentricity and repeatability...plus a profle that offers excellent wheel clearance...you achieve consistently excellent results, even with difficult processes.

During operation, the chuck is cleaned with an air purge (assuming your machine has this function). This prevents contamination and maintains absolute precision over the long term.




The **SHARK 5-Jaw Chuck** is designed exclusively for **automatic operation.**

As a result of continuous improvement and further development of our designs, the information and illustrations in this brochure are non-binding. All specifications are in mm.

## Your advantages:

- Clamp any diameter without collets or sleeves
- Runout ≤ 0.005 mm (≤ 2 tenths) at 2½xD
- Concentricity can be precisely aligned
- Cost reduction due to setup time savings
- Manufacturing or regrinding
- No auxiliary tools required



## 3 versions for 3 different diameter ranges:

| Clamping range (mm) | Number of jaws | Min. clamping depth |
|---|---|---|
| 1-16 mm | 5 | 2.5 x D |
| 3-20 mm | 5 | 2.5 x D |
| 20-40 mm | 5 | 2.5 x D |

## Suitable for virtually any ISO/SK50 tool grinder

- ANCA TX, MX, FX, & CPX
- Haas Multigrind
- Joerg S-tech
- Reinecker
- Saacke
- Schneeberger
- Schütte
- Star NXT
- Strausak
- TGT
- Vollmer VGrind
- WALTER Helitronic Vision, Power, etc

The color of the ring changes depending on the machine type. For example, blue for WALTER, red for ANCA, etc.

## The µGrind automatic super chuck will virtually eliminate runout in minutes, using two simple gauges.




The color of the ring depends on the machine type.

We developed the µGrind 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.

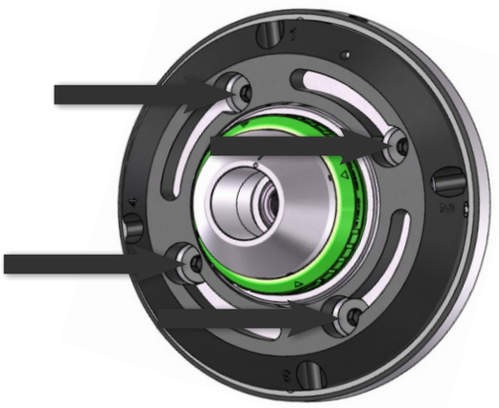
The chuck is “self-clamping,” (it clamps the tool without external force and releases upon activation of a push rod). The chuck is also isolated from the grinding machine except at the face of the workhead. A spring-like mechanism applies a constant pull on the collet to clamp the tool. Because that 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. You can even virtually eliminate axial runout (weeble-wobble) just by adjusting screws.

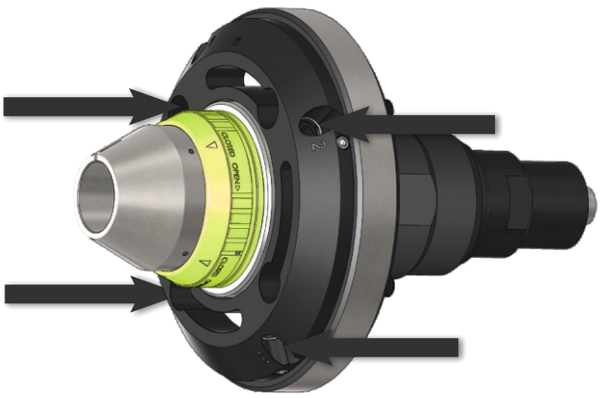



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Setup - Concentric with the machine



Setup - Parallel with the machine (eliminating axial runout)



It‘s quick and easy to eliminate both radial and axial runout (weeble wobble), and the chuck repeats! The µGrind super chuck yields a new dimension in grinding precision .

The world‘s most demanding tool manufacturers have proven that the µGrind offers highly productive and predictable performance with an unbeatable collection of benefits:




Lets you virtually eliminate both radial and axial runout (weeble-wobble) without special tools or skill

Lets you change diameters in seconds and repeats within two microns (under 1 tenth) at 2½ x D without adjustment

Maintains TIR within 5 microns (2 tenths) 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

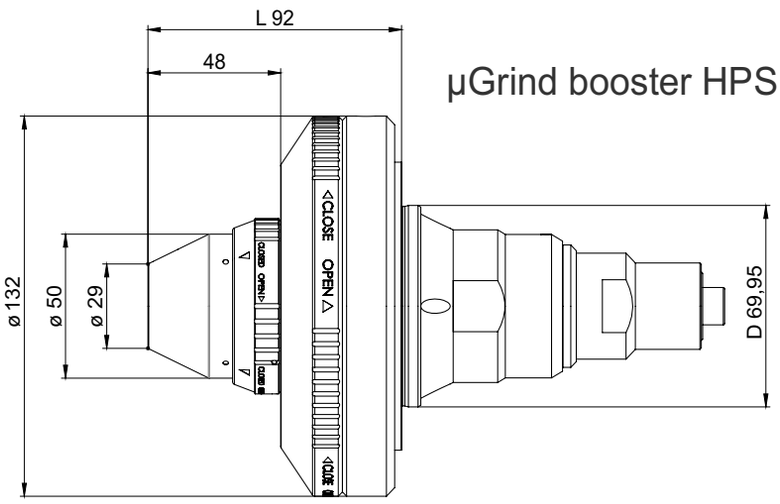
Offers excellent dampening properties for uniform material removal, optimized feed rates, excellent surface finish, and significantly reduced grinding wheel wear

Suitable for both high production and regrinding

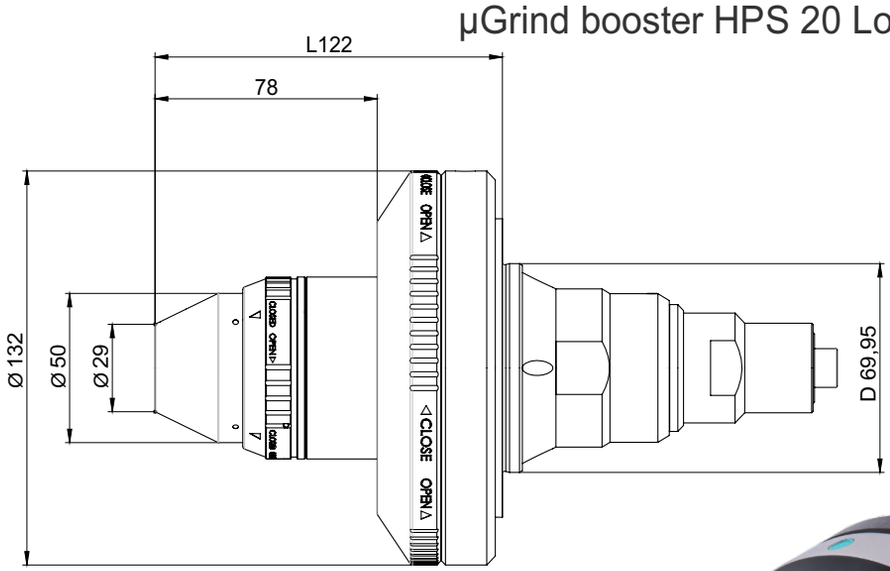
## For tools up to ø20 mm (¾") on these machines:

- Haas
- Joerg S-tech
- Reinecker
- Saacke
- Schneeberger
- Schütte
- Star NXT
- TGT
- WALTER Helitronic Vision, Power, etc

### µGrind booster HPS




### µGrind booster HPS 20 Long







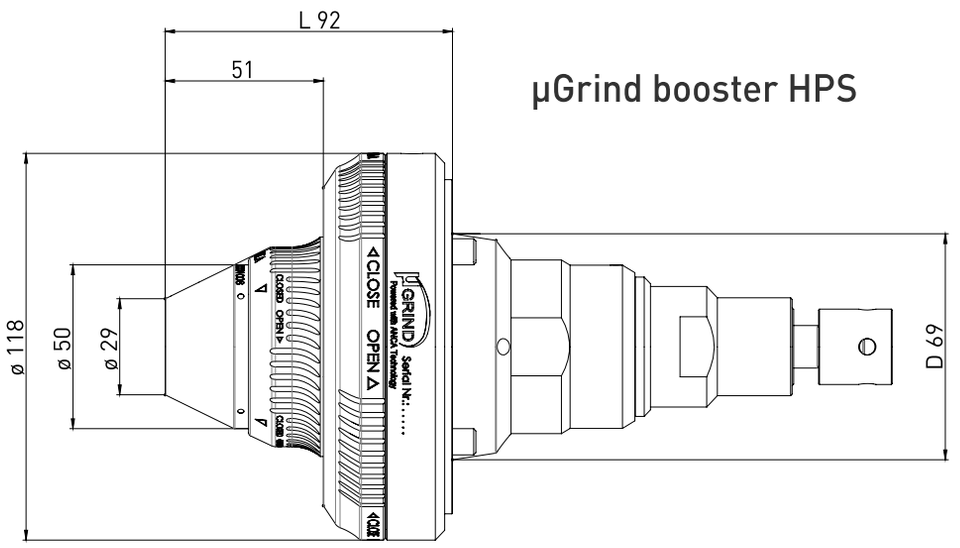
Delivery includes: push rod, alignment hammer, assembly tool, test certificate, operating instructions

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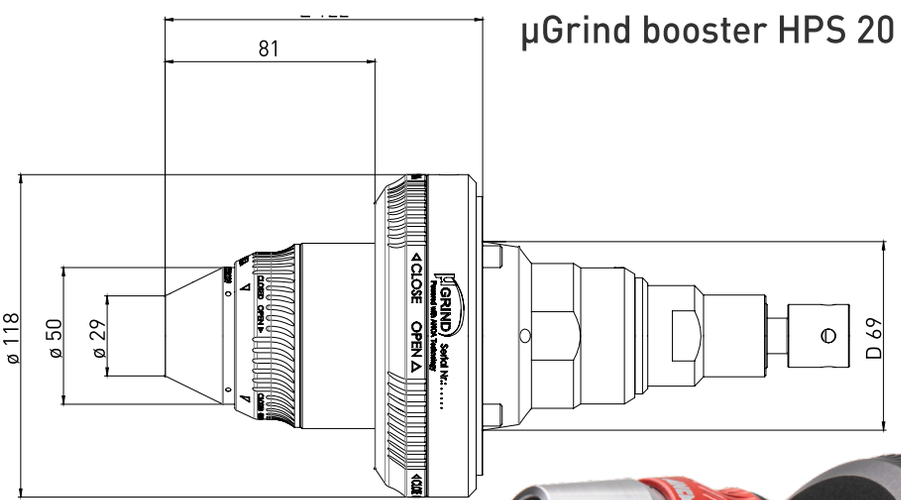
For tools up to ø20 mm (¾“) on these machines:

- ANCA TX, MX, & FX
- Strausak ONE
- Vollmer VGrind

## µGrind booster HPS




## µGrind booster HPS 20 Long





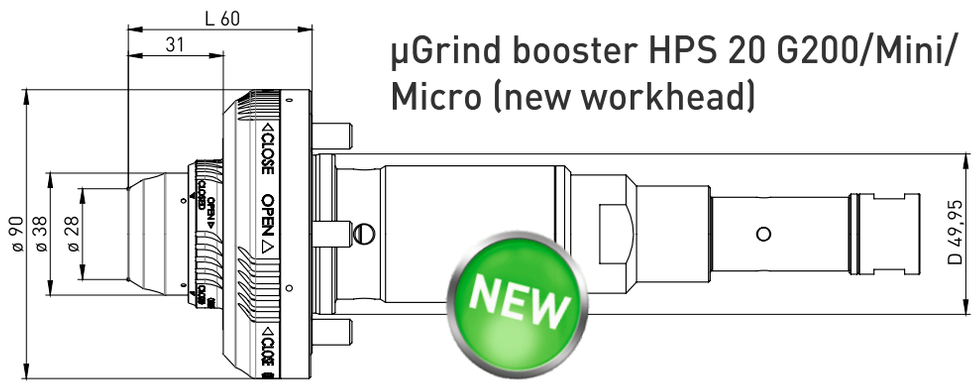


**Delivery includes:** push rod, alignment hammer, assembly tool, test certificate, operating instructions

For tools up to ø12 mm (½“) on these machines:

- WALTER Helitronic G200
- WALTER Helitronic Mini Automation
- WALTER Helitronic Micro (new blue-back workhead)

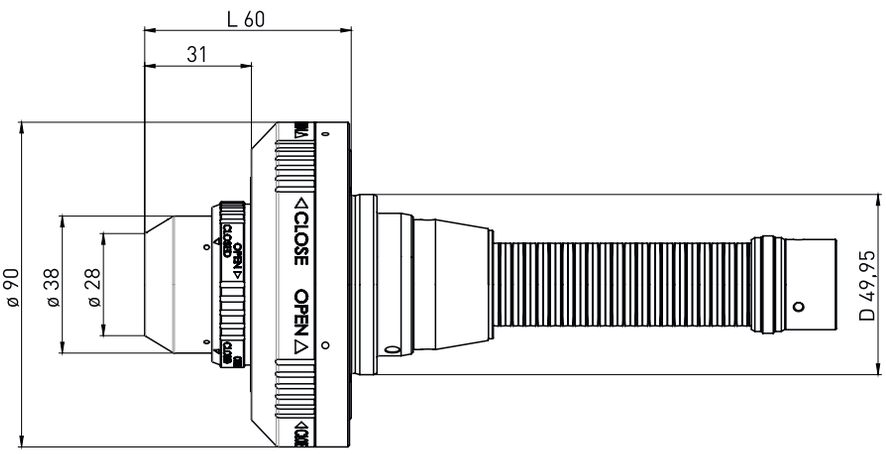
## µGrind booster HPS 20 G200/Mini/ Micro (new workhead)




Approved for clamping sleeves up to ø12 mm or ½ inch

## µGrind booster HPS Micro (original workhead)

- WALTER Helitronic Micro (original workhead)





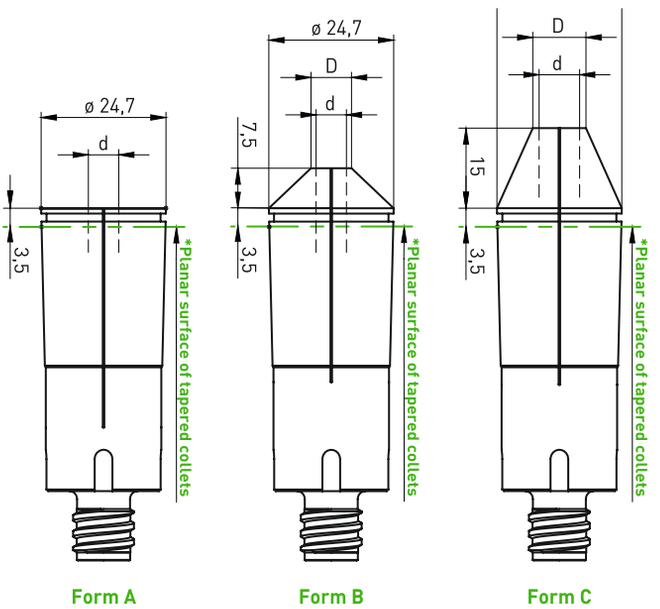


**Delivery includes:** Push rod, alignment hammer, assembly tool, test certificate, operating instructions

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## HPS 20: For tools up to ø20 mm (¾“)




## HPS 32: For tools up to ø32 mm (1¼“)




NEW

HPS collets feature a <1° taper, for **maximum clamping force**. They hold the tool to within **5 µm (2 tenths) runout throughout the grind**. (No other manufacturer makes any claims about what happens when you apply grinding forces.)

Plus HPS collets **can be changed in seconds without any tools or readjustment**, enabling quick diameter changes.

For tools up to ø32 mm (1¼“) on these machines:

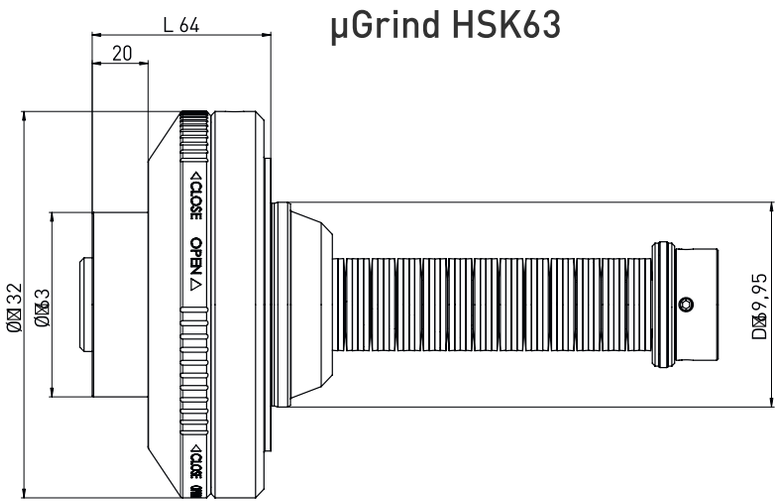
- ANCA TX, MX, & FX
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- Schütte
- Star NXT
- Strausak
- TGT
- Vollmer VGrind
- WALTER Helitronic Vision, Power, etc

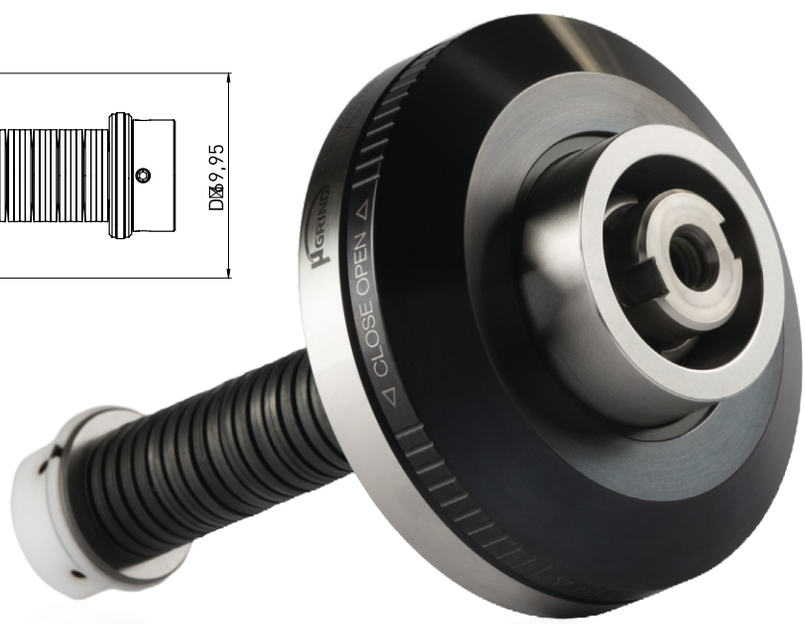
## µGrind booster HPS 32




For HSK 63 tool holders on 50 taper machines:

## µGrind HSK63




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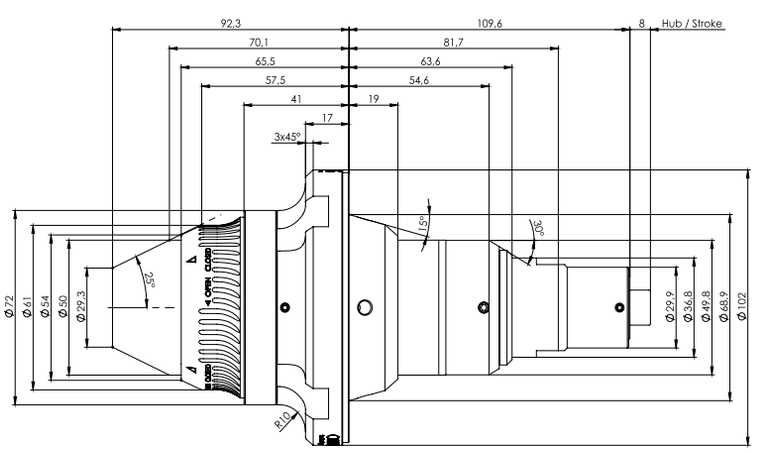
## For tools up to ø32 mm (1¼") on 50 taper machines



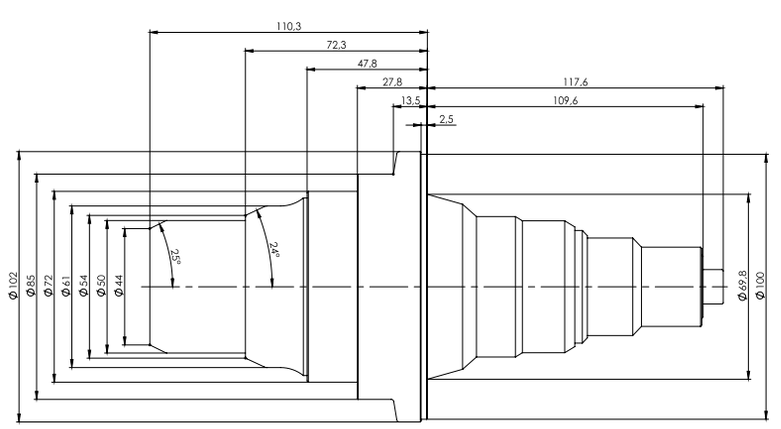

All the benefits of the µGrind super chuck—except for axial adjustment—with a thinner profile and a smaller investment:

- Lets you change diameters in seconds and **repeats within two microns** (under 1 tenth) at 2½ x D without adjustment
- **Maintains TIR within 5 microns** (2 tenths) 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 regrinding**

### Hornet HPS 20




### Hornet HPS 32



# NEW Scorpion W25

The NEW Scorpion chuck series was specially designed for using W25 collets and rated GDS technology was implemented for the axial adjustment (wobble)



The GDS Scorpion clamping device series is specially designed for use with the widely used W25 collets.
The Scorpion W25 can be aligned in 2 planes to the machine axis. The concentricity and also the axial wobble error can be actively influenced .The repeatability of diameter changes is well below 5µmm.
Unlike the standard W25 chucks on the market, the NEW Scorpion W25 chuck allows,with special geometric shape, the collet to be changed to a different diameter without re-alignment, well below 5µmm.
The price-performance ratio is unbeatable, and the optimization of setup costs is immediately noticeable.

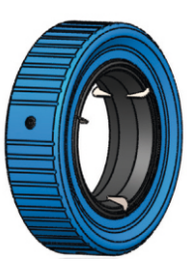





## Your advantages:

- Highest concentricity repeatability
- Runout ≤ 0.005 mm (≤ 2 tenths)
- Concentricity and wobble can be precisely aligned
- No adjustment necessary after changing collets
- Cost reduction due to setup time savings
- Setup requires just a few minutes without special skills

CoFix



- ANCA TX, MX, & FX
- Haas
- Joerg S-tech
- Reinecker
- Saacke
- Schneeberger
- Schütte
- Star NXT
- Strausak ONE
- TGT
- Vollmer VGrind
- WALTER Helitronic Vision, Power, etc

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## ALLIGATOR - The automatic hydraulic chuck with GDS precision and quality!




GDS designed the ALLIGATOR especially for tool grinding and it's an innovation in hydraulic clamping.

The outstanding dampening properties of the ALLIGATOR, in combination with its precise concentricity and repeatability, enable the production of the best surface finishes.

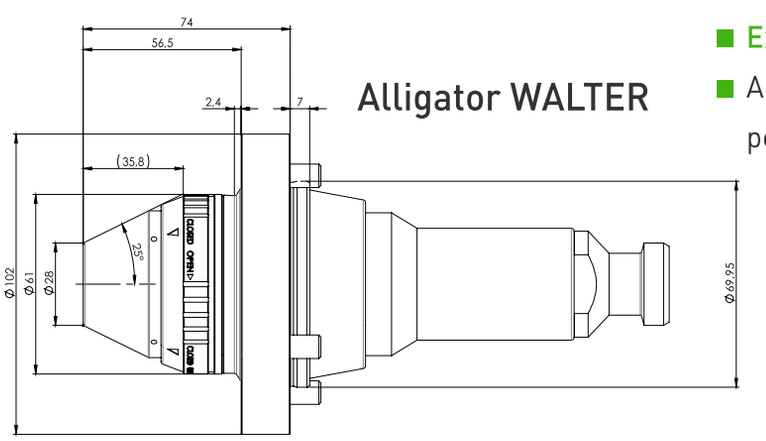
The ALLIGATOR delivers consistent cutting edge and surface quality, plus dimensional accuracy.

### For tools from ø3 mm to ø20 mm (¾")<br>on these machines:

- ANCA TX, MX, & FX
- Haas Multigrind
- Reinecker
- Saacke
- Vollmer VGrind
- WALTER Helitronic Vision, Power, etc

### Your advantages:

- Profile offers **excellent wheel clearance**
- **Flexible clamping range** due to readily available intermediate sleeves
- **Excellent concentricity** and repeatability
- Accommodates **automatic loading**, including the possibility to change the intermediate sleeve




Alligator WALTER

Intermediate sleeves for smaller diameters than 20 mm



## **COBRA** - The two-piece chuck in high-precision GDS quality



The COBRA two-part clamping system was especially developed for WALTER's 50 taper tool grinders. The COBRA offers excellent repeatability when changing blanks or collets, and collets can be changed quickly in just a few simple steps. And it's available for either Schaublin or Nann collets.

COBRA - the economical clamping system from GDS.

- Tapered profile for optimal wheel clearance
- Good concentricity and repeatability
- Adjustable radial concentricity
- Handles a range of diameters using widely available Nann and Schaublin collets
- Very durable






| Item no. | Name |
|---|---|
| 400007120 | Collet chuck SK50 W20 L98 mm |
| 350300120 | Drawbar for collet chuck |



| Item no. | Name |
|---|---|
| 400007130 | Collet chuck SK50 W25 L98 mm |
| 350300130 | Drawbar for collet chuck |

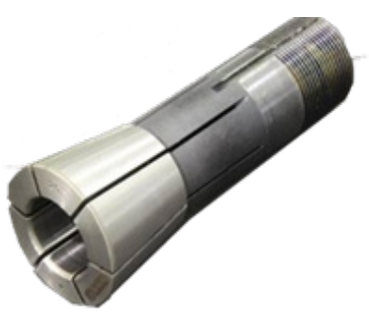


| Item no. | Name |
|---|---|
| 400007030 | Collet chuck SK50 3409E L68 mm |
| 350300030 | Drawbar for collet chuck |



| Item no. | Name |
|---|---|
| 400007050 | Collet chuck SK50 3718E L60 mm |
| 350300050 | Drawbar for collet chuck |

**All Nann & Schaublin collets are available**



**We also offer W15, 3148E, & 3851E chucks, plus a longer 3409E chuck**



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# GDS xGrind HPS & Hydro

## **xGrind** - A precision manual chuck in 2 versions, hydraulic, or with HPS 20 collets



- Excellent concentricity and repeatability
- Excellent dampening properties for uniform material removal, optimized feed rates, excellent surface finish, and significantly reduced grinding wheel wear
- A tapered profile and smaller nose diameter than other similar holders for better wheel clearance and freedom from interference
- Tougher construction than competing systems
- A clamping screw at a more ergonomic angle than competing systems, reducing the risk of injury
- Standard SK50 interface for nearly universal application

**xGrind HPS 20**:

- Uses the amazing HPS 20 collets for the ultimate in resistance to deflection during the grind
- Requires half the screw revolutions to clamp, versus other techniques, saving time
- Handles shanks from 3 to 20 mm (⅛ to ¾ inches)

**xGrind Hydro**:

- 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 chcuk: Sleeves for 3-18 mm
  - 32 mm chuck: Sleeves for 6-25 mm

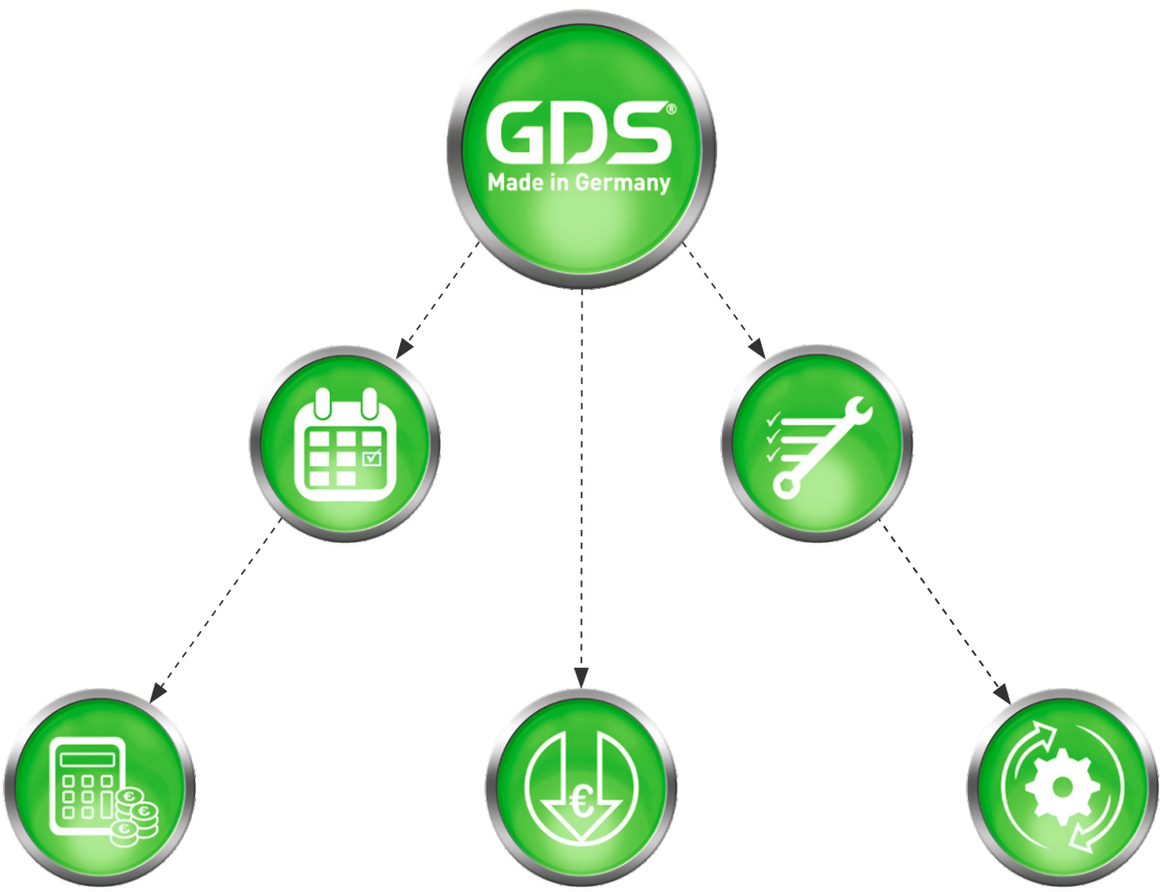
# GDS Clamp Stick



## A line of expanding mandrels for **clamping tools with an internal bore**

- Slim profile for optimal grinding wheel clearance and selection flexibility
- Excellent concentricity and runout properties
- Various clamping diameters available
- Available with cylindrical shank or with SK50 taper interface

# REVOLUTION IN TOOLGRINDING




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