Instruction manual

Scorpion

W25 auto Chuck

To be used in conjunction with "GDS Scorpion W25 chuck setup video."
See more at https://toolroom.solutions/resources/

grinding deserves SOLUTIONS

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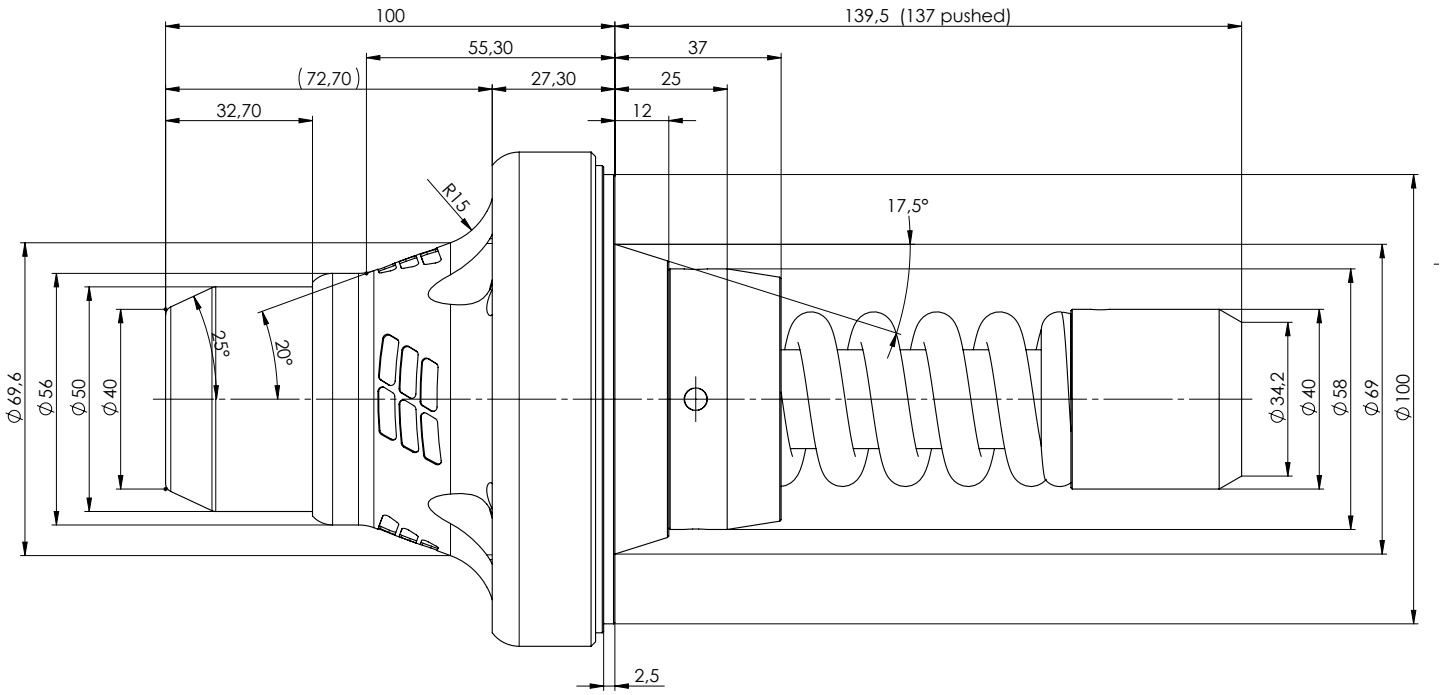
Step 1: Install the appropriate push rod in the A-axis.

For WALTER machines, the push rod is included with the chuck and requires a 27 mm hex wrench. Tighten it fully.

For ANCA machines, the push rod is ordinarily #350290011 (#990-1-05-2001) for the MX, GDS #350290013/350290010 (ANCA #930-0-00-2021) for the FX, or #350290012 (#952-2-05-2002) for the TX. It is also the same pushrod used for the Premier Plus. If in doubt please provide the machine's serial # and we will advise. Confirm that the distance from the face of the A-axis to the face of the pushrod is at least 139.5 mm when in the rear position and 137 mm or slightly closer from the face of A when foreward. The machine must compress the spring pack in the back of the chuck at least 2.5 mm to open the collet. (The length of the chuck from the mounting surface to the end is 139.5 mm, as shown below.)



Step 2: Use the machine control to move the clamping cylinder back (into "clamped" position)

Step 3: Ensure the face of the A-axis is clean and flat

Step 4: Ensure the chuck is at room temperature

Step 5: Clean all contact surfaces of the chuck

Step 6: Mount the chuck with the bolts "finger tight"

Step 7: Using the supplied tapping tool and a dial gauge touching the inside of the chuck's nose, center the chuck to within a few microns

Step 8: Use the machine control to move the clamping cylinder foreward. This opens the chuck.

Step 9: Select a good setup collet and a good setup blank. Screw in the collet and adjust its position so that it clears your blank, rotating about a quarter turn counterclockwise beyond contact. Clamp and unclamp a few times to ensure you have the right position.

Step 10: Mount dial gauges touching the blank at the face of the collet and the end of the tool.

Step 11: Rotate the tool, finding the high spot on the gauge at the nose of the chuck, and use the tapping tool to center the chuck as perfectly as possible. The toghten the face mopujnt bolts

Step 12: Rotate to tool to find the high spot on the end gauge and use the closest axial adjustment screw to dial out the runout. Since it's likely that a single axial adjustment screw will not not align perfectly with the high spot, it is usually necessary to use several screws to "average out" the adjustment.

Step 13: Repeat until satisfied and snug down the remaining adjustment screws. Unclamp/clamp a few times to ensure your setup is good and grind!

Changing collets

Step 1: Move the actuating pushrod forward to “open” the chuck and remove the last tool from the first run.

Step 2: Screw in the new collet and secure it as per Step 9 above.

Step 3: Insert a new blank and clamp it as per Step 9 above. You do NOT have to re-measure the chuck. It will repeat within 5 microns from collet to collet.

Removing the chuck

Step 1: Move the actuating pushrod forward to “open” the chuck and remove the last tool.

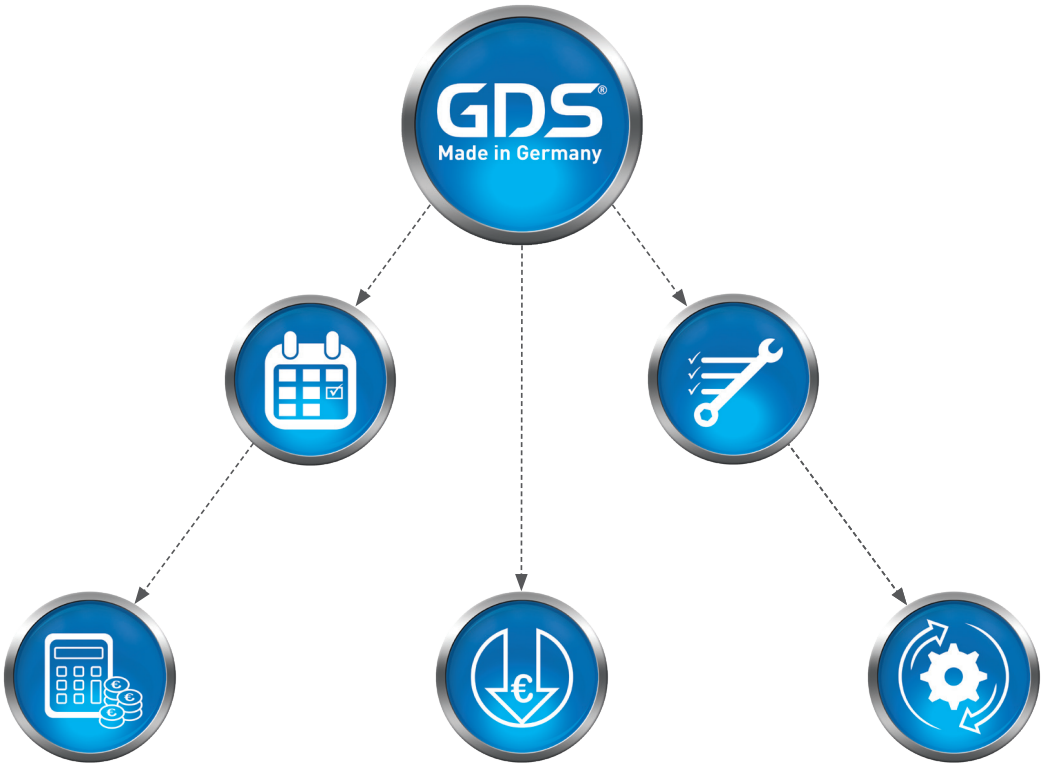
Step 2: Remove the collet. Never leave a collet in the chuck when not in use!

Step 3: Loosen the four axial adjustment (“weeble-wobble”) jack screws.

Step 4: Move the actuating pushrod to the back position

Step 5: Loosen the four mounting bolts, remove the chuck, and secure the chuck in its case. Remove and pack the actuating pushrod, if not needed for the next chuck.

Revolution in tool grinding



In North America contact:

Toolroom Solutions Inc.
8824 Old Block House Ln
Spotsylvania, VA 22551 USA

Tel: +1 (540) 940-5977
Email: info@toolroom.solutions
Web: www.toolroom.solutions

GDS Made in Germany

GDS Präzisionszerspanungs GmbH
Endelbergstrasse 8
D - 72131 Ofterdingen

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