

# THE RIGHT STICKS FOR ANY COURSE



Ø 175 mm



Ø 200 mm



Ø 250 mm



Ø 315 mm

Item No. Teeth Serration 60°	185060	185080	185081	185100	185120
Size / outside diameter	175	200	200	250	315
Jaw movement mm	4	5	5	6,2	6,2
Chuck height mm	106	110	110	130	143
Piston stroke mm	15	18,5	18,5	23	23
Through-hole mm	56	66	66	94	115
Connection thread mm	M65x1,5 <sup>(1)</sup>	M75x2 <sup>(1)</sup>	M72x1,5 <sup>(1)</sup>	max. M94x1,5 <sup>(2)</sup>	max. M120x1,5 <sup>(2)</sup>
Max. actuating force kN	40	48	48	65	80
Max. total clamping force ca. kN	95	110	110	150	180
Max. perm. speed per min.-1	7000	6500	6500	5000	4200
Moment of inertia J kgm <sup>2</sup>	0,06	0,11	0,11	0,35	0,62
Weight withouttop jaws ca. kg	14,9	19,5	19,5	35,3	62,7
Spindle connection mm	KK 5	KK 6	KK 6	KK 8	KK 11

<sup>(1)</sup> Thread available and ready to connect

<sup>(2)</sup> Threaded ring with oversize, can be turned to the end measure to cut-in the right connection thread.

## YOU NEED THE WHOLE SYSTEM ...

The DURO-A RC lathe chuck is an essential element when clamping on your machine tool. But precise clamping may require other components. There is also the complete system from us.



... automatically clamp power chucks with Röhmm's hydraulic full and hollow clamping cylinders.



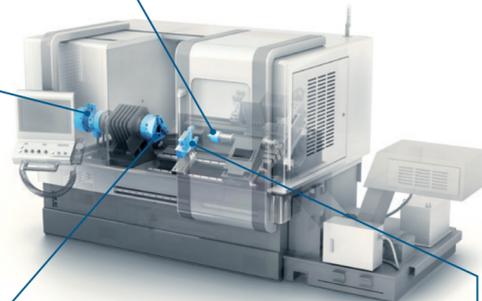
... center long rotating parts with Röhmm's live centers.



... measure clamping force with the Röhmm F-senso chuck. Simply clamp it into the lathe chucks and measure the clamping force.



... equip your material handling robots with one of Röhmm's grippers and swiveling units.



... support long rotating pieces with unparalleled precision using a Röhmm self-centering steadyrest.



... ensure your materials are properly clamped with Röhmm jaws.



You can conveniently buy clamping and gripping technology from Röhmm in our online shop 24/7: [eshop.roehm.biz](http://eshop.roehm.biz)

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THE DURO-A PLUS.  
FROM RÖHM.



## ENHANCE PRECISION SIMPLY WITH AN EXTRA-LARGE THROUGH-HOLE.

## PERHAPS YOU NEED SOMETHING A BIT DIFFERENT ...

Not an issue – with the DURO-A RC, we have developed a power chuck that forms a unique team with your machine tool. But perhaps you have requirements that can be covered better with a special solution.

Maybe because you have other requirements of the geometries to be machined. Or, there are other boundary conditions due to the number of units you have to manufacture. In any case, we at Röhmm have the right clamping solution.

... Do you do flexible processing with frequently changing component geometries? If so, the Röhmm DURO-A RC is the chuck for you. This power chuck features a quick jaw change system, where all jaws can be moved, turned, or changed in less than 60 seconds.



... because you will be manufacturing large quantities or have similar part geometries. There is the DURO-A from Röhmm for this. It provides even higher clamping forces.



... Do you run part family jobs? In this case, Röhmm offers clamping mandrels for internal clamping and collet chucks for external clamping. Our mandrels and collet chucks are ideal for the geometrical clamping of pieces with very similar diameters.



... Do you have cylindrical parts you would like to process end to end? In this scenario you can implement Röhmm face drivers and a live center. The face driver and live center engage the workpiece on the end face only, allowing you to machine the entire shaft.



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## DURO-A PLUS. FROM RÖHM.

The DURO-A Plus is a three-jaw chuck with an especially large through-hole, which can be actuated automatically, i.e. hydraulically or pneumatically, by a CNC machine via a cylinder. It is mainly used for turning cylindrical and disc-shaped blanks as well as for machining bars and pipes. It scores points by its very advantageous outer diameter / drill hole ratio, a reduced interference contour as well as high speeds. This makes it especially suited for efficient use in automated manufacturing.

The DURO-A Plus supplements the DURO-A series with a chuck with a very large through-hole. It replaces the Röhm chuck of the KFD-HS type. The jaws of the KFD-HS fit on all chucks of the DURO-A family (DURO-A and DURO-A Plus).

### DESIGNED FOR

Automatic machining equipment.

### APPLICATION

Machining of rods, tubes, flanges, washers

### BENEFITS

- Very large through-hole
- Reduced interference contour
- High speeds (up to 7,000 rpm in the 175-series version)

### WHY IT'S A WISE INVESTMENT

- Long-lasting
- Thanks to the large through-hole, the DURO-A Plus can be used to machine diameters for which the next chuck size is usually required.

## TEE OFF WITH THE HIGHEST SPEED

Unique design for the highest speeds up to 7,000 rpm

Like all the chucks in the DURO-A series, the DURO-A Plus also has the characteristic design with the three lenses. Not only does this look good, but it also shows the art of our Röhm engineers. At first look, it seems like they simply saved material. That is of course really good and saves weight. And it reduces the moment of inertia. This lets the chucks of the DURO-A family accelerate faster and enables a top speed of up to 7,000 rpm in the 175-series version. But the lenses in the design of the DURO-A family can do even more: the targeted material savings and placement of the lenses result in a considerably reduced interference contour. The DURO-A can be moved closer with tools, so grippers and automation devices have more space and therefore more freedom.

## EASIER THAN PUTTING—THE HOLE IS BIG ENOUGH

Large through-hole for hollow and partly-hollow clamping

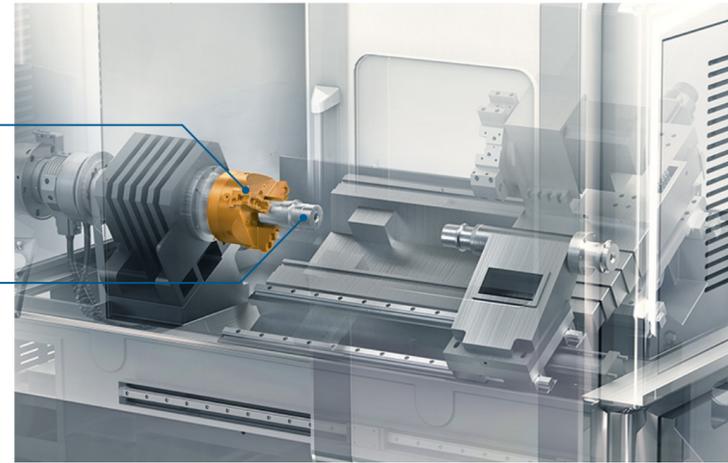
We at Röhm designed the DURO-A Plus for hollow and partly-hollow clamping of workpieces with a large diameter. Turning blanks can simply be inserted through the chuck. If the pressure cylinder is designed as a hollow clamping cylinder, then it can also process bar and pipe material. The large through-hole is the special feature: it lets workpieces be machined that would normally require the next chuck size.

## A GOLFER SAYS “HOLE IN ONE” — WE SAY: IT FITS

For turning workpieces with a very large diameter

(1) Chuck DURO-A Plus with stepped top jaws for external clamping

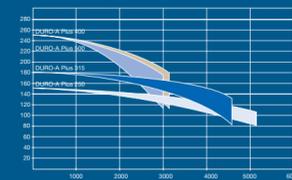
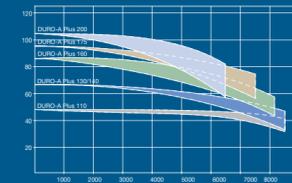
(2) Workpiece



## TURNS AND CLAMPS

High clamping forces at high speeds

The faster a chuck turns, the stronger the effects of the centrifugal forces. The dumb thing about this is that the centrifugal forces work in exactly the other direction as the clamping forces. This means that the faster a chuck turns, the lower its clamping force becomes. And even our Röhm engineers haven't managed a design to beat these laws of nature. But they have been able to develop a chuck in which this effect is as low as possible. This chuck is called DURO-A Plus.



We designed the DURO-A Plus in such a way that the clamping force is at a high level even at very high speeds.

## FIRMLY IN THEIR GRASP

Röhm jaws. For all cases.

Jaws are even closer to the workpiece than the lathe chuck. That is why they are so important to us. So much so that all our Röhm jaws are developed and produced in Germany. And because we have been manufacturing them for decades ourselves, there

are also all possibilities for individual jaws at Röhm. There is hardly any jaws geometry that we haven't already manufactured. If not, then we look forward to your geometry, which we have not made (yet).



Selected example for customer-specific custom jaws

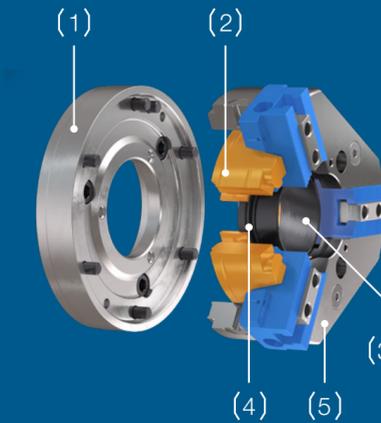


Did you know that you can also design a custom top jaw online? Our Industry 4.0 interface shares your configuration with our processing control center.

[roehm.biz/en/products/product-configurator](http://roehm.biz/en/products/product-configurator)



## TECHNOLOGY



- (1) Flange with short taper mount
- (2) Ring piston
- (3) Base jaws
- (4) Threaded ring
- (5) Base body

## HOW THE DURO-A FROM RÖHM WORKS

The base body (5) is made of steel and incorporates the components of the DURO-A Plus as well as protects them. The tightest tolerances ensure precision. The flange (1) closes the chuck towards the machine body. It uses screws as well as a short taper mount to ensure a friction and form-fitting connection. The clamping function is exercised by the three base jaws (3) in conjunction with the ring piston (2). It is firmly connected to the cylinder of the machine via a thread. If the cylinder is hydraulically (or pneumatically) actuated, it pushes the piston into the base body of the chuck. Via the wedge hook inserted in the base jaws—which accounts for the name “wedge hook chuck”—the jaws move radially outward and release the workpiece. To clamp a workpiece, the cylinder is moved in the opposite direction. The process is exactly reversed for internal clamping, i.e. clamping parts from the inside, as it is, for example, when clamping

rings that are to be machined on the outside. The protective sleeve (6) prevents the entry of chips into the chuck kinematics. The threaded ring (4) is used for the connection to the cylinder. The threads are already present and ready for connection in sizes 175 and 200. In sizes 250 and 315, the threaded ring can be turned to the end measure and the matching thread cut-in, in order to cover as many different machines as possible.

The connection to the machine spindle makes use of a short taper (1).

The base jaws (3) are equipped with 60° serration.

More information on the DURO-A Plus can be found on our website:

[ROEHM.BIZ](http://ROEHM.BIZ)