

# THE DURO-A. FROM RÖHM.

The DURO-A is a three-jaw chuck with through-hole. It is most commonly used for turning of cylindrical and disc-shaped unfinished parts, and can be activated automatically (e.g. hydraulically). The DURO-A effortlessly handles high speeds, has formidable clamping force, and was designed with a reduced interference contour, making it ideal for automated machining. The DURO-A replaces the Röhm KFD-HE power chuck, as well as the majority of the KFD-HS sizes. This chuck comes at a reduced purchase price and is backed by a 36-month warranty. The jaws of the KFD-HE and KFD-HS fit on the DURO-A.

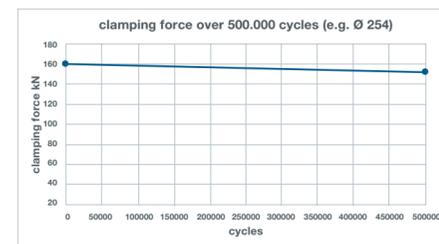
# STRENGTH AND DURABILITY DOWN TO A SCIENCE.

A smart design that accommodates up to 250 kN

The 400 mm chucks of the DURO-A family have a clamping force of up to 250 kN. There is no comparable chuck on the market that matches the DURO-A's clamping force or gives you the same level of cutting performance. The DURO-A's world-class engineering also saves you valuable machine time, essentially putting money back in your pocket.

Go 500,000 cycles and beyond

The DURO-A not only offers high clamping force, it's also made to go the distance. Even after 500,000 cycles the chuck keeps the 250 kN clamp force almost unchanged on the jaws. Give it a try and you'll see that the DURO-A is the best option out there.



## DESIGNED FOR

Automated machine tools

## APPLICATION

Machining bars, tools, flanges, and discs

## BENEFITS

- High clamping forces (up to 250 kN, in the 400-version)
- High speeds (up to 8,000 turns per min. in the 165-version)
- Reduced interference contour
- Big through-hole

## WHY IT'S A WISE INVESTMENT

- Superior durability
- Backed by a 36-month warranty
- Competitive pricing



Always know how hard you're clamping:

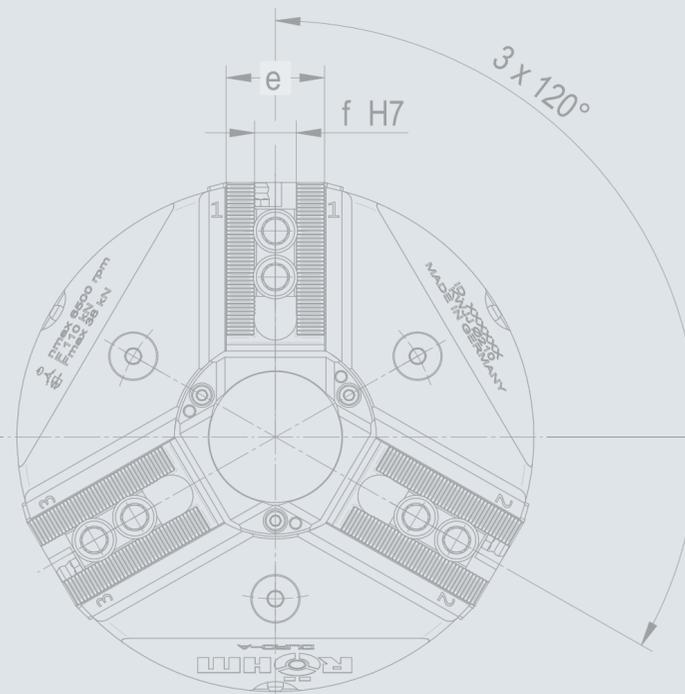
Precision matters in modern manufacturing, and that's why we developed the Röhm F-senso chuck to measure clamping force. The F-senso chuck is completely stable and simple to use - all you have to do is switch it on, clamp it in, and check your reading.

# STREAMLINED FOR SPEED

Get up to 8,000 rpms

The elegant, scalloped design of the DURO-A reduces the mass moment of inertia, allowing the chuck to reach speeds up to 8,000 turns per minute in the 165 mm version. The DURO-A delivers up to 10% weight reduction, improved interference contours for easier live tool access. When your grippers, automatization devices, and power-driven tools have a smaller interference contour, they have more space to do their work.

With a Röhm chuck you actually have to talk about precision? Not really. But maybe it is good for you to know that the repeat clamping accuracy is just  $\pm 0.02$  mm. Or the concentricity: two hundredths, that's a whole 20  $\mu$ m. Even in the design of the chuck body of the DURO-A there are many aspects to be discovered. There is a grind band on the OD of the body to indicate the chuck precisely to the centerline of the spindle. This was done so you can measure the radial run-out of the chuck on the machine. They say the devil is in the details, and this is one detail we couldn't overlook.



# SIZE MATTERS

The through-hole accommodates hollow and partially hollow clamping

The DURO-A is designed for hollow and partially hollow clamping, which means that the blanks can be pushed through the chuck. The bigger through-hole allows you to process bar and large-diameter raw materials. If you need this functionality, then look no further.

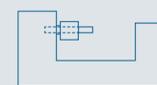


Image 1:  
the large through-hole lets you process raw material with big diameters via partially hollow clamping ...

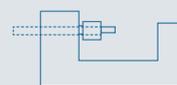


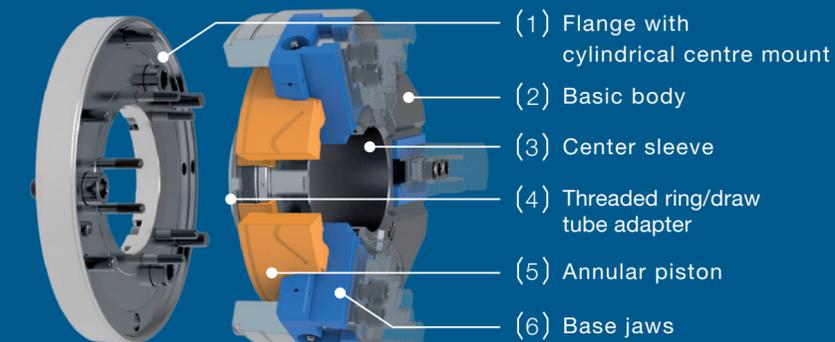
Image 2:  
... when used with a hollow clamping cylinder the large through-hole supports completely hollow clamping, allowing you to process the bar materials.

# WHEN RÖHM HOLDS FOREVER, 36 MONTHS IS NO BIG DEAL

36-month warranty

Our production process is informed by a simple maxim. It goes "Röhm holds forever". That's why a 36-month warranty is something we're happy to offer. We only have one request: every 12 months you have to schedule fee-based maintenance with one of our support specialists.

# TECHNOLOGY



# HOW THE DURO-A BY RÖHM WORKS

The DURO-A has a steel base body (2) to receive and protect its components. Toward the machine body, the cylindrical centre mount (1) closes the chuck using screws and a cylindrical opening. The clamping function is exercised by the three base jaws (6) in connection with the piston (5). The piston is tightly connected with the cylinder of the machine through a thread. If the cylinder is hydraulically activated, it pushes the piston into the base body of the chuck. Via the wedge hook inserted in the base jaws - this component is called a "wedge hook system" - the jaws radially move outward and release the material. To clamp material the cylinder moves in the opposite direction. For internal clamping, where the parts are clamped from the inside, the process is reversed. The center



sleeve (3) seals the chuck and protects it from chips. The threaded ring (4) ensures a stable connection with the cylinder. Röhm also offers a threaded blank (draw tube adapter). Here, the unit uses fitted adapter rings to connect to a machine shaft with a short cone. The base jaws (6) are optionally equipped with a teeth serration of 60° or 90°.

For further information about DURO-A visit our website:

**ROEHM.BIZ**

# FEWER LEAKS, CLEANER HANDS

Our lubrication system gets the job done

The DURO-A utilizes a smart system consisting of lubrication nipples, lubrication drilling and lubrication bags, giving you seamless operation and a longer life cycle. Every slot and drilling to the lubrication system is designed to remain tight when the chuck is under pressure. The DURO-A wastes less lubricant, creates fewer spills, and doesn't get your service technician's hands as dirty when it's time to do disassembly work on the machine.



## DURO-A SIZES AND SPECS

Size / outside diameter	110	135	165	210	254	254	315	315	400	400
Jaw movement mm	3,2	3,2	3,5	4,5	5,5	5,5	6,2	6,2	7,5	7,5
Chuck height mm	78	88	97	107	121	123,5	132,5	137	159,5	159,5
Piston stroke mm	12	12	13	17	20,5	20,5	23	23	28	28
Through-hole mm	27	34	46	54	79	79	98,5	98,5	133	133
Connection thread mm	M34x1,5	M38x1,5	M54x1,5	M74x1,5	M94x1,5	M94x1,5	M114x2	M114x2	M148x2	M148x2
Max. actuating force kN	17	25	30	38	53	53	62	62	90	90
Max. total clamping force ca. kN	48	70	86	110	150	150	180	180	250	250
Max. perm. speed per min.-1	8500	8000	8000	6500	5000	5000	4200	4200	3150	3150
Moment of inertia J kgm2	0,007	0,018	0,04	0,12	0,3	0,3	0,82	0,82	2,5	2,5

### Cylindrical centre mount

Item No. serration 90°	183700	183701	183702	183703	183704	183705	183706	183707	183708	
Item No. serration 60°	183722	183723	183724	183725	183726	183727	183728	183729	183730	
Item No. serration 3x60°										183731
Weight without top jaws ca. kg4	4,3	6,9	11,5	19,6	33	33	56,8	56,8	108,6	108,6
Spindle connection mm	ZA 60	Z 115	ZA 140	ZA 170	ZA 170	ZA 220	ZA 220	ZA 300	ZA 380	ZA 380

### Short taper mount

Item No. serration 90°	183711	183712	183713	183714	183715	183716	183717	183718	183719	
Item No. serration 60°	183734	183735	183736	183737	183738	183739	183740	183741	183742	
Item No. serration 3x60°										183743
Weight without top jaws ca. kg4	4,5	7,5	12,9	20,9	35,6	36,7	60,8	62,6	116,6	116,6
Spindle connection mm	KK 4	KK 4	KK 5	KK 6	KK 6	KK 8	KK 8	KK 11	KK 15	KK 15

## YOU CAN HAVE IT ALL ...

The DURO-A chuck is a real powerhouse. Why stop there though, when you can bring in the whole system? You can...

- ... automatically clamp power chucks with Röhms hydraulic full and hollow clamping cylinders.
- ... center long rotating parts with Röhms live centers.
- ... measure clamping force with the Röhms F-senso chuck. Simply clamp it into the lathe chucks and measure the clamping force.
- ... equip your material handling robots with one of Röhms grippers and swiveling units.
- ... support long rotating pieces with unparalleled precision using a Röhms self-centering steadyrest.
- ... ensure your materials are properly clamped with Röhms 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)



## GIVE YOUR MACHINE TOOL SOMETHING TO BITE. NOT JUST SOMETHING TO CHEW ON.



## MAYBE YOU NEED SOMETHING DIFFERENT...

We designed the DURO-A power chuck to give you the most out of your machine tool. We realize, however, that you may have unique requirements. Here are a few alternative Röhms clamping solutions that might just fit your needs.

... Do you do flexible processing with frequently changing component geometries? If so, the Röhms 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.



... Do you need a particularly big through-hole? If this sounds right, check out the Röhms KFD-HS. The KFD-HS is also available as a precision chuck with polished jaws.



Diameter	110	140	175	200	250	315	400
Through-hole	26	37	56	66	86	115	172

... Do you run part family jobs? In this case, Röhms 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 Röhms 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.



Id-Nr. 1242486 / 0220 WDS



Röhms GmbH • Heinrich-Roehm-Straße 50 • 89567 Sontheim/Brenz • Germany  
 TEL +49 7325 16 0 • FAX +49 7325 16 510 • [info@roehm.biz](mailto:info@roehm.biz) • [roehm.biz](http://roehm.biz)