

# Duro-M - 3-Jaws, Base and top jaws, Camlock (ISO 702-2/ DIN 55029)

## APPLICATION

Conventional clamping horizontal and vertical turning machines, as well as milling machines, rotary tables and dividing attachments. Predominantly for use in single or small batch production or in repair shops. Clamping of rotationally symmetrical parts for turning and milling.

## TYPE

The Duro-M is a manually geared scroll chuck with through-hole, drilling and turning jaws with cylindrical mount. It is mainly used on conventional turning machines for machining turned parts.

## CUSTOMER BENEFITS

- High concentricity up to 0.02 mm
- Jaws with gunmetal finish
- Minimal interference contour
- Optimum force transmission
- Drip edge for coolant

## TECHNICAL FEATURES

- Chuck body (and all other components) made of steel
- Centric clamping via scroll ring
- Scroll plate drop forged and highly tempered, the thread flanks are ground on both sides.
- Jaws in chuck ground out for concentricity
- Zero drive determined in the factory as precision drive
- The maximum permissible speed has been fixed so that 1/3 of the gripping force is still available as residual gripping force if the maximum gripping is applied and the chuck is fitted with its heaviest jaws. The jaws may not project beyond the outside diameter of the chuck. The chuck must be in perfect condition. The specification DIN 6386 Part 1 shall be observed.
- Clamping force to DIN 6350: The gripping force is the sum total of all jaw forces acting radially on the stationary workpiece. The specified gripping forces are approximate values. They apply to chucks in a perfect condition which have been lubricated with RöhM F80 grease.
- Scope of supply: chuck, operating key, jaws. The DURO-M chucks are available as 2-, 3- and 4-jaw chucks up to and including Ø315mm size with the machined scallops. All 4-jaw chucks with front mounting have no scallops. All 6-jaw chucks also have no scallops.

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| Size                                      | 125    | 125    | 160    | 160    | 200    | 200    | 250    | 250    | 315    | 315    | 315    | 400    | 400    | 500    | 500    | 500    | 630    | 630    |
|-------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Short taper                               | 3      | 4      | 4      | 5      | 5      | 6      | 6      | 8      | 6      | 8      | 11     | 8      | 11     | 8      | 11     | 15     | 11     | 15     |
| A [mm] outer diameter                     | 125    | 125    | 160    | 160    | 200    | 200    | 250    | 250    | 315    | 315    | 315    | 400    | 400    | 500    | 500    | 500    | 630    | 630    |
| B Spindle mount                           | 53,9   | 63,5   | 63,5   | 82,5   | 82,5   | 106,4  | 106,4  | 139,7  | 106,4  | 139,7  | 196,9  | 139,7  | 196,6  | 139,7  | 196,9  | 285,8  | 196,9  | 285,8  |
| D [mm] Chuck height                       | 69     | 69     | 66     | 66     | 74,5   | 74,5   | 83     | 83     | 96     | 96     | 104    | 106    | 106    | 122    | 122    | 122    | 137    | 137    |
| E [mm] Bore (max.)                        | 32     | 32     | 42     | 42     | 55     | 55     | 76     | 76     | 103    | 103    | 103    | 136    | 136    | 136    | 190    | 190    | 192,7  | 240    |
| F [mm] Diameter pitch circle fixing screw | 75     | 85     | 85     | 104,8  | 104,8  | 133,4  | 133,4  | 171,4  | 133,4  | 171,4  | 235    | 171,4  | 235    | 171,4  | 235    | 330,2  | 235    | 330,2  |
| K [mm] Size chuck key                     | 9      | 9      | 10     | 10     | 11     | 11     | 12     | 12     | 14     | 14     | 14     | 17     | 17     | 19     | 19     | 19     | 19     | 19     |
| M [mm] Base jaw length                    | 56     | 56     | 66,7   | 66,7   | 79,5   | 79,5   | 95     | 95     | 109,5  | 109,5  | 109,5  | 127    | 127    | 127    | 127    | 127    | 127    | 127    |
| Actuation (torque wrench) [Nm]            | 80     | 80     | 110    | 110    | 140    | 140    | 150    | 150    | 180    | 180    | 180    | 240    | 240    | 260    | 260    | 260    | 280    | 280    |
| Clamping force [kN] max., total           | 31     | 31     | 47     | 47     | 55     | 55     | 63     | 63     | 69     | 69     | 69     | 92     | 92     | 100    | 100    | 100    | 105    | 105    |
| Speed [min-1], max. perm.                 | 5500   | 5500   | 4600   | 4600   | 4000   | 4000   | 3000   | 3000   | 2300   | 2300   | 2300   | 1800   | 1800   | 1300   | 1300   | 1300   | 850    | 850    |
| Item no.                                  | 185450 | 185451 | 185452 | 185453 | 185454 | 185455 | 185456 | 185457 | 185458 | 185459 | 185460 | 185461 | 185462 | 185463 | 185464 | 185465 | 185466 | 185467 |

