
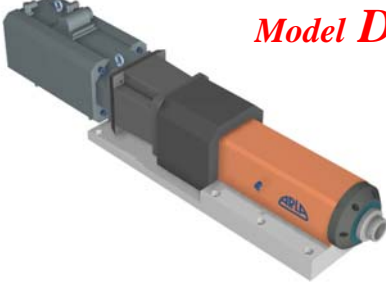
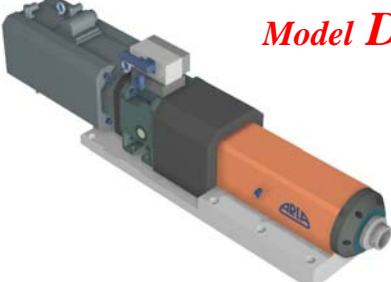
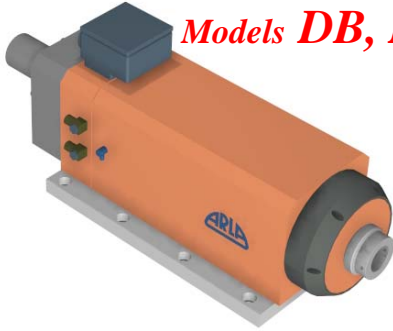


ARLA® Spindle Units

Precision Units with Servo Drives

- spindle units for boring, drilling, threading, facing, turning, milling, center drilling, chamfering, deburring, internal and external machining also in high-performance operations (endworking)
- direct servo drive concept without belt to avoid vibrations and other inaccuracies
- spindle concentricity < 2 µm; unit may be assembled either in horizontal or vertical direction
- high-precision spindle bearings; reliable air sealing
- coolant supply (spray) directly at the spindle head; also models with internal coolant through the tool
- tool clamp: HSK adapter (manual clamp, also automatic tool clamp available)
- options: protection hood, numerical control, spindle units in combination with ARLA® Slide Units
- special customer versions with higher torques or speeds (also where retrofitting is required) used in various applications: special-purpose machine tools, automotive industry, aviation industry

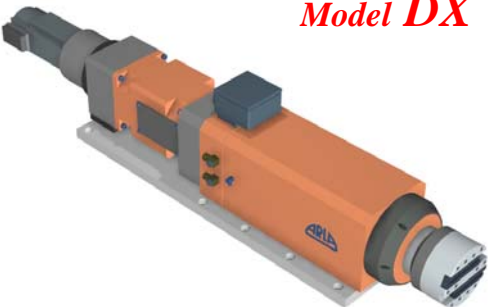
 <p>Model DA</p>	<p>Drive technology: direct servo drive</p> <p>Motor power: 14 ... 24 kW (max. 6,000 rpm)</p> <p>Spindle torque: 21 ... 116 Nm (max.)</p> <p>Tool clamp: HSK-A/C 50, 63, 80, 100, 125</p> <p><i>various applications with preset tools; universal unit; manual tool clamp</i></p>
 <p>Model DAG</p>	<p>Drive technology: servo drive with a constant ratio (gear ratio) i=4:1</p> <p>Motor power: 15 ... 24 kW (max. 1,125 rpm)</p> <p>Spindle torque: 216 ... 464 Nm (max.)</p> <p>Tool clamp: HSK-A/C 63, 80, 100, 125</p> <p><i>various applications with preset tools; particularly used in heavy-loaded machining applications; manual tool clamp</i></p>
 <p>Model DAS</p>	<p>Drive technology: servo drive with a shift gear to realize i=1:1 and i=4:1</p> <p>Motor power: 15 ... 24 kW (max. 4,500 rpm)</p> <p>Spindle torque: 216 ... 464 Nm (max.)</p> <p>Tool clamp: HSK-A/C 63, 80, 100, 125</p> <p><i>various applications with preset tools; particularly used to realize a wide speed domain; gear with electro-mechanical shift; manual tool clamp</i></p>

 <p>Models DB, DC</p>	<p>Drive technology: motor spindle (water cooling)</p> <p>Motor power: 28 ... 37 kW (max. 7,000 rpm)</p> <p>Spindle torque: 120 ... 400 Nm (max.)</p> <p>Tool clamp: HSK-A/C 63, 80, 100, 125</p> <p><i>very precise and stiff design (small space) with coolant spray at the spindle head and an internal coolant supply (through the tool); manual tool clamp (automatic tool clamp as an option); various applications (like deep hole drilling, boring of pipes and hollow shafts, etc.)</i></p>
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The **ARLA® Spindle Units DX with facing head** are innovative models with an integrated motor spindle and **KOMET** tool system. The facing heads are – according to customer's requirements – available as single slide, or double slide heads optionally counterweighted to support higher spindle speeds. The facing head concept enables the machining of a fixed workpiece which could only be done by turning machines. Due to the new ARLA technology this concept is much better, more accurate and flexible so that the machining process becomes significantly more productive.

Please note the following typical **applications**: contour machining, facing and grooving, taper drilling and boring with a single tool, taper threading, further complex cutting applications (combined tool systems), etc.

It is necessary to combine the ARLA® Spindle Units DX with ARLA® Slide Units. The facing head technology does only work correctly, if spindle unit and slide unit cooperate properly based on the same concept.

 <p>Model DX</p>	<p>Drive technology: motor spindle (water cooling) with facing head and a separately controlled drawbar system</p> <p>Motor power: 28 ... 37 kW (max. 3,500 rpm)</p> <p>Spindle torque: 120 ... 400 Nm (max.)</p> <p>Facing head: d=100, 125, 160, 200, 250, 320 mm</p> <p><i>facing head concept with horizontally moving drawbar to realize the motion of the tool nose; quality: IT 8</i></p>
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Ask for our catalog and separately available data sheets.

Special options like higher torques and higher speeds are available on request.