

# Shaping

## Perske Shaping Motors Flexibility for a diverse array of configurations.

In the fields of lumber and materials processing, there is an ever-increasing need for productivity and adaptability. Perske shaping motors rise to the challenge, with features that allow for a variety of shaping operations and a range of tooling options. Designed to handle light-duty or heavy-duty production, these motors increase efficiency in shaping applications for woodworking, plastics, composites, and sheet metals.

### Features for versatility:

- A variety of direct tool mounting options including the popular HSK-C and HSK-F tooling interface, which results in excellent radial and axial precision cutting
- Ease of changing out custom tool templates for the profile design of a wide range of woodworking and material shaping jobs
- Optional shaft designs include an outside tool shank and inside bore, a special shaft for hydro-clamping systems, as well as a collet and covernut to allow for flexible shaping tool options

### Features for performance:

- Low profile motors allow for deep woodcutting within tight and precise tolerances to contour arches and scale radius tops on wood, glass, or plastic surfaces
- A variety of machine bits and collet capacities on KNS motor types allows for shaping and profiling V-grooves, dovetails, beaded corners, and rounded edges
- Speeds range from 3,600 RPM to 30,000 RPM, and output levels vary from 0.2 HP to 17 HP to handle almost any production requirement
- KNS motors have an outside rib design and labyrinth seals for problem-free operation, even in dusty environments
- Low maintenance motors are equipped with lifetime lubricated bearings
- Precision balanced to ensure micron-quality run-out tolerances



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MOTOR SERIES TYPE	POWER OPTIONS (HP)	MAX. SPEED AVAILABLE (RPM)	MAX. SHAFT DIAMETER SINGLE BEARING	MAX. SHAFT DIAMETER DOUBLE BEARING	COLLET & COVERNUT	HSK-C/ HSK-F	HYDRO-CLAMP	CUSTOM DESIGN
KN 20	0.5 to 1	30,000	25 mm	20mm	Y	N	N	Y
KR 35	1.3 to 3	24,000	25 mm	25mm	Y	N	N	Y
KN 50	4 to 6.5	18,000	30 mm	30mm	Y	Y	Y	Y
KN 60	9.0	18,000	35 mm	50mm	Y	Y	Y	Y
KN 70	10 to 17	18,000	50 mm	50mm	Y	Y	Y	Y

<b>TOOL SYSTEMS:</b>	<ul style="list-style-type: none"> <li>• Collet &amp; covernut</li> <li>• HSK-C</li> <li>• Hydro-clamp chuck system (ETP HydroGrip)</li> <li>• Quick clamping systems</li> <li>• Cylindrical shaft with or without key</li> <li>• Cylindrical shaft with or without key and outside thread</li> <li>• Cylindrical shaft with or without key and inside thread</li> <li>• Saw blade flanges and nut available</li> <li>• Custom shaft design available to suit customer application</li> </ul>
<b>FREQUENCY:</b>	<ul style="list-style-type: none"> <li>• 60 to 500 HZ (3,600 to 30,000 RPM)</li> <li>• Electrical performance data (HP) are only valid for the stated constant frequency</li> </ul>
<b>VOLTAGE:</b>	<ul style="list-style-type: none"> <li>• 230/400V standard according to DIN/VDE regulations; however, other voltage options are available</li> <li>• Insulation class F standard</li> <li>• If using a static frequency converter, it is necessary to use line reactors or filters to smooth out the sine wave</li> </ul>
<b>BEARINGS:</b>	<ul style="list-style-type: none"> <li>• Lifetime lubricated, high precision hybrid bearings (where required)</li> <li>• Drive end bearing is fixed and non-drive end bearing is self-aligning</li> <li>• With heavy tooling, double bearing arrangements are recommended for front bearing position to eliminate axial shaft play</li> </ul>
<b>FEATURES:</b>	<ul style="list-style-type: none"> <li>• TEFC motors are self-ventilated with a built in fan which works most effectively at the motor's maximum operating speed</li> <li>• Labyrinth seals at both ends of the motor to protect against dust or particle penetration into the motor when under power</li> <li>• Motors are balanced to a vibration speed of <math>V_{eff} = 1.8</math> mm/sec at zero load and rated operating speed</li> <li>• Most motors are available according to NEMA or CSA standards (L.R. 16 865)</li> </ul>

**Don't see what you need? Ask about Perske custom motors built to your unique requirements.**

