
perske

# You Make It.
## We Make It Happen.

CRP PERSKE

**Routing · Drilling · Sawing · Shaping · Cutting · Boring · Grinding**

CRP Industries is the exclusive representative for Walter Perske GmbH in North America — this brochure details the line of Perske motors we carry. We invite you to read and learn more!

Perske Motors

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# Perske Motors. Designed for Performance. Built to Last.

We understand that your business is built on the quality of your machining tools and the motors that drive them. That's why at Perske, our business is built on a commitment to making motors that deliver the highest possible quality, performance, and reliability.

Perske's solid values are based on our celebrated history of industry leadership in research and development. Our experience allows us to continually innovate high frequency motor design and consistently bring you a superior product that's crafted with German precision.

What's more, Perske's products have the support of CRP Industries behind them. CRP is the exclusive North American representative of Perske motors, and has offered service that goes above and beyond for more than half a century. You can count CRP's team of Application Engineers and Customer Service Representatives to support you before, during, and after you purchase a Perske motor.

Routing

# Perske High Frequency Routing Motors

## Built for especially demanding applications.

Perske motors have long been recognized as the first choice of the woodworking industry for routing, finishing, and shaping, as well as cutaways, holes, and contours. Our high frequency routing motors also excel in the applications of cutting, trimming, and shaping a variety of materials including metal, plastic, stone, glass, and composites.

Perske's complete line of routing motors offers tremendous flexibility to meet almost any production requirement. A variety of mounting options and configurations can be suited to tasks like cabinet making and finishing, sign manufacturing, and cutting and forming doors and staircases. Our routing motors are designed for superior performance and offer the features and benefits listed below.

### Overall benefits:

- High frequency offering speeds up to 24,000 RPM
- High-speed performance to reduce man hours and achieve labor savings
- Heavy-duty design and construction for a reliable workhorse that won't break down in production cycles
- Direct tool mounting achieves precise and accurate cutting within very small tolerances, as well as prolonged tool life expectancy and efficient cutting performance
- Various tool holding options enable cost effective methods for tool changeover
- Range of collet capabilities to support machine bit sizes as small as ¼ inch and as large as 1 inch
- Long service life performance with low maintenance needs due to special lifetime lubricated angular contact bearings
- 100% continuous duty rated with heavy duty production performance and high overload capacity

### Overall features for versatility:

- Motors can be placed in either a horizontal or vertical position
- Can be mounted on a router table or bench for light production requirements
- Can also be mounted on CNC industrial routers to meet heavy production levels

| MOTOR SERIES TYPE | POWER OPTIONS (HP) | MAX. SPEED AVAILABLE (RPM) | MAX. TOOL CAPACITY | SPECIAL FEATURES | COLLET & COVERNUT | HSK-C | HYDRO-CLAMP | SPECIAL DESIGN |
|---|---|---|---|---|---|---|---|---|
| KRS35 | 1 to 3 | 18,000 | 1/2″ | | Y | N | N | Y |
| KRS50 | 4 to 6.5 | 18,000 | 5/8″ | | Y | Y | Y | Y |
| KRSV51 | 6.5 | 18,000 | 1″ | | Y | Y | Y | Y |
| KRS60 | 9.0 | 18,000 | 3/4″ | | Y | Y | Y | Y |
| KRSV61 | 9.0 | 18,000 | 1″ | | Y | Y | Y | Y |
| KNO70 | 10 to 17 | 18,000 | 1″ | | Y | Y | Y | Y |
| VS50/60 | 2 to 7 | 24,000 | 1/2″ | | Y | N | N | Y |
| VUS50/60 | 1 to 3.5 | 24,000 | 1/2″ | Non-ventilated | Y | N | N | Y |

| | |
|---|---|
| **TOOL OPTIONS:** | • Collet & covernut<br>• HSK-C<br>• Hyrdo-clamp chuck system<br>• Quick clamping systems (e.g. Leuco PS or ETP HydroGrip)<br>• Cylindrical shaft with or without key<br>• Cylindrical shaft with or without key and outside thread<br>• Cylindrical shaft with or without key and inside thread<br>• Saw blade flanges and nut<br>• External or internal taper |
| **FREQUENCY:** | • 60 to 400 HZ (3,600 to 24,000 RPM)<br>• Electrical peformance data (HP) are only valid for the stated constant frequency |
| **VOLTAGE:** | • 230/400V standard according to DIN/VDE regulations; however, other voltage options are available<br>• Insulation class F standard<br>• If using a static frequency converter, it is necessary to use line reactors or filters to smooth out the sine wave.<br>• Most motors are available according to CSA standards (L.R. 16 865) |
| **BEARINGS:** | • Lifetime lubricated, high precision hybrid bearings<br>• Drive end bearing is fixed and non-drive end bearing is self aligning<br>• With heavy tooling, double bearing arrangements are recommended for front bearing position to improve axial shaft play |
| **FEATURES:** | • TEFC motors are self-ventilated with a built in fan which works most effectively at the motor's maximimum operating speed<br>• Labyrinth seals at both ends of the motor to protect against dust or paticile penetration into the motor when under power<br>• Motors are balanced to a vibration speed of Veff = 1.8 mm/sec |

Sawing

# Perske Saw Arbor Motors

## Ideal for high volume, heavy duty wood cutting.

Those in the field of lumber processing are facing many new demands to be safer and more efficient in order to stay competitive. The industry has moved in the direction of mill waste and saw dust being processed into particle board and the like, and larger pieces are a source of raw materials for paper mills.

In environments that demand high-volume production and high-efficiency, Perske® saw arbor motors really shine. Our saw arbor motors are specifically designed for heavy duty wood cutting and offer the features listed below.

### Features for durability:

- Rugged cast iron construction
- Weather-enclosed and open drip-proof for partially enclosed environments
- Rated for continuous duty

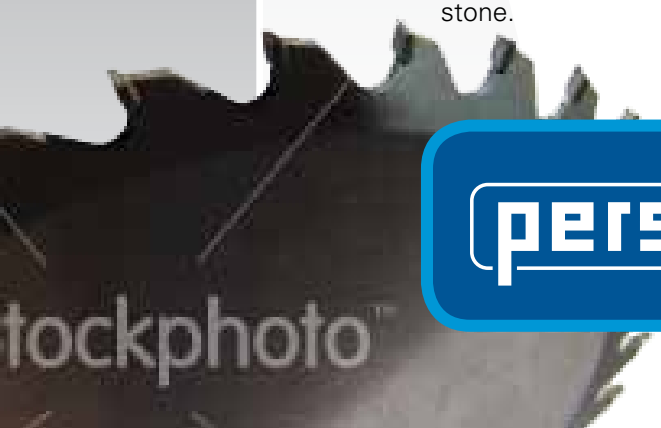
### Features for efficiency:

- Extremely high overload capacity
- Totally enclosed and fan cooled to handle heavy volume without overheating
- Equipped with saw collars for direct mounting of blades, circular saws, pendulum saws, and tools for heavy duty woodworking applications

### Features for performance:

- Slim, low profile design; allows for deeper cutting depth than standard motors
- High-speed three phase motors for more efficiency and precision than standard motors (KCS and KNS series motors can reach speeds of up to 3,600 RPM)
- Specially lubricated bearings for less noise
- Low vibration ensures uniform cutting and shaping patterns

Perske® saw arbor motors offer special features for enhanced operator safety, including squirrel caged design. Special ventilator-cooled electromagnetic and high pressure braking action are available. Also ideal for heavy duty cutting and shaping of metals, plastics, and stone.



| MOTOR SERIES TYPE | POWER OPTIONS (HP) | MAX. SPEED AVAILABLE (RPM) | SAW COLLARS DIAMETER | SHAFT NUT |
|---|---|---|---|---|
| KNS50 | 1 to 1.6 | 3,600 | 80mm | M20 |
| KNS60 | 2.5 to 4.7 | 3,600 | 100mm | M20 |
| KCS70 | 4 to 10 | 3,600 | 120mm | M30 |
| KS80 | 8.8 to 20 | 3,600 | 160mm | M30 |
| KS90 | 25 | 3,600 | 180mm | M36 |
| KS110 | 30 to 60 | 3,600 | 200mm | M56 |
| KS140 | 60 to 85 | 3,600 | 300mm | M76 |
| KS160 | 85 to 133 | 3,600 | Special | Special |
| KS200 | 160 | 3,600 | Special | Special |

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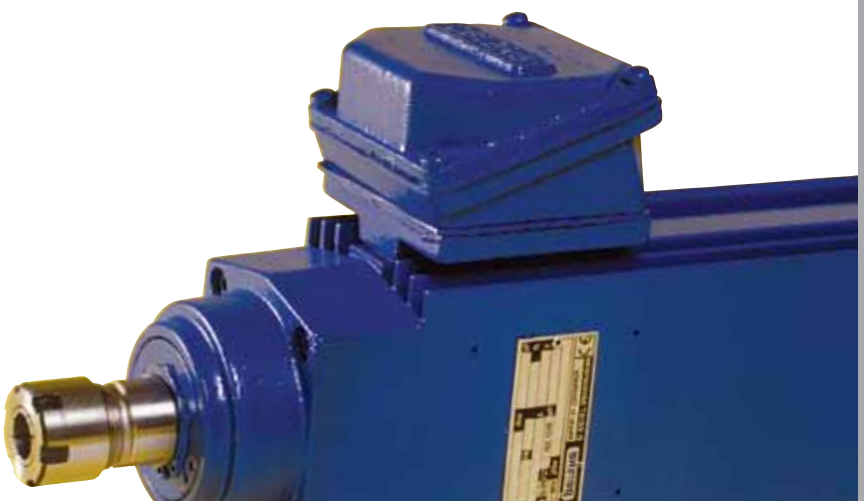
|---|---|
| **TOOL OPTIONS:** | • Saw collars/flanges with threaded nut (RH or LH)<br>• HSK-C<br>• Hyrdo-clamp chuck system<br>• Quick clamping systems (e.g. Leuco PS or ETP HydroGrip)<br>• Cylindrical shaft with or without key<br>• Cylindrical shaft with or without key and outside thread<br>• Cylindrical shaft with or without key and inside thread<br>• Saw blade flanges and nut<br>• External or internal taper |
| **FREQUENCY:** | • 60 HZ (3,600 RPM) standard<br>• Electrical peformance data (HP) are only valid for the stated constant frequency |
| **VOLTAGE:** | • 230/460V standard according to DIN/VDE regulations; however, other voltage options are available<br>• Motors are available according to CSA standards (L.R. 16 865) |
| **BEARINGS:** | • Lifetime lubricated, high precision bearings<br>• Drive end bearing is fixed and non-drive end bearing is self aligning<br>• With heavy tooling, double bearing arrangements are recommended for front bearing position to improve axial shaft play |
| **FEATURES:** | • TEFC motors are self-ventilated with a built in fan which works most effectively at the motor's maximimum operating speed.<br>• Labyrinth seals at both ends of the motor to protect against dust or paticile penetration into the motor when under power<br>• Motors are balanced to a vibration speed of Veff = 1.8 mm/sec<br>• Terminal box can be suited on right or left side pending customers preference<br>An electromechanical brake can be integrated as an option |



Shaping

# Perske Shaping Motors

## Flexibility for a diverse array of configurations.

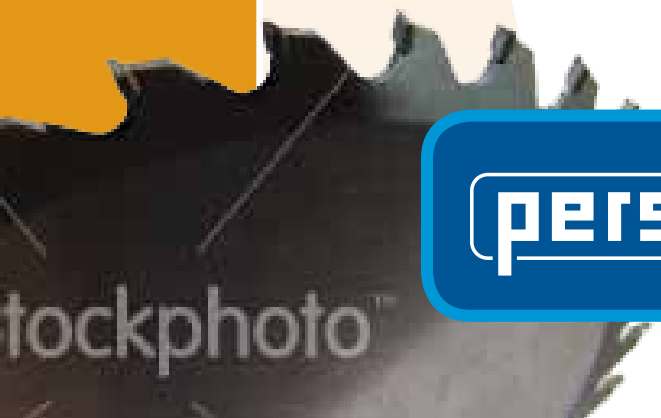
In the fields of lumber and materials processing, there is an ever-increasing need for productivity and adaptability. Perske shaping motors rise to the challenge, with features that allow for a variety of shaping operations and a range of tooling options. Designed to handle light-duty or heavy-duty production, 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 tooling interface, which results in excellent radial and axial precision cutting
- Ease of changing out custom 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, as well as a collet and cover nut to allow for flexible shaping options
- Switches easily between different shaping applications including door profiles and designs, beveling and shaping of wood and floor panels, forming windows and frames, and contouring cabinet designs

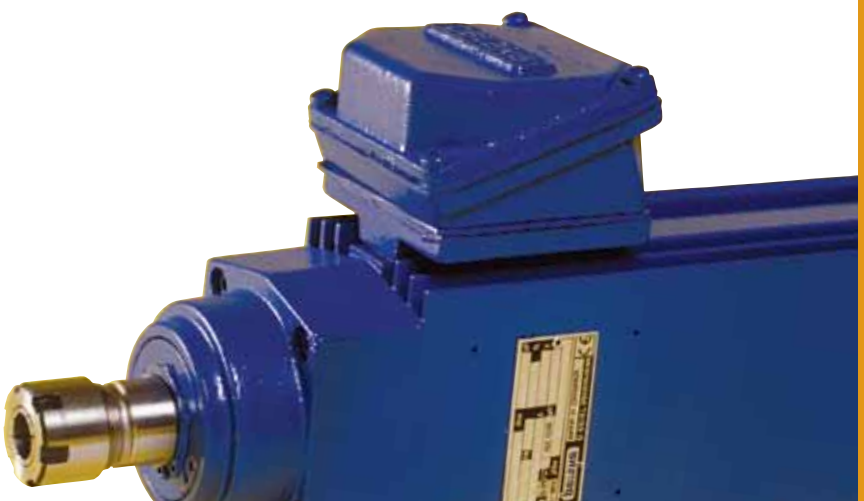
### Features for performance:

- 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 24,000 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



| MOTOR SERIES TYPE | POWER OPTIONS (HP) | MAX. SPEED AVAILABLE (RPM) | MAX. SHAFT CAPACITY SINGLE BEARING | MAX. SHAFT CAPACITY DOUBLE BEARING | COLLET & COVERNUT | HSK-C | HYDRO-CLAMP | SPECIAL DESIGN |
|---|---|---|---|---|---|---|---|---|
| KN20 | 0.5 to 1 | 24,000 | 25 mm | 20mm | Y | N | N | Y |
| KR35 | 1.3 to 3 | 24,000 | 25 mm | 25mm | Y | N | N | Y |
| KN50 | 4 to 6.5 | 18,000 | 30 mm | 30mm | Y | Y | Y | Y |
| KN60 | 9.00 | 18,000 | 35 mm | 50mm | Y | Y | Y | Y |
| KN70 | 10 to 17 | 18,000 | 50 mm | 50mm | Y | Y | Y | Y |

| | |
|---|---|
| **TOOL OPTIONS:** | • Collet & covernut<br>• HSK-C<br>• Hyrdo-clamp chuck system<br>• Quick clamping systems (e.g. Leuco PS or ETP HydroGrip)<br>• Cylindrical shaft with or without key<br>• Cylindrical shaft with or without key and outside thread<br>• Cylindrical shaft with or without key and inside thread<br>• Saw blade flanges and nut<br>• External or internal taper |
| **FREQUENCY:** | • 60 to 400 HZ (3,600 to 24,000 RPM)<br>• Electrical peformance data (HP) are only valid for the stated constant frequency |
| **VOLTAGE:** | • 230/400V standard according to DIN/VDE regulations; however, other voltage options are available<br>• Insulation class F standard<br>• If using a static frequency converter, it is necessary to use line reactors or filters to smooth out the sine wave<br>• Most motors are available according to CSA standards (L.R. 16 865) |
| **BEARINGS:** | • Lifetime lubricated, high precision hybrid bearings<br>• Drive end bearing is fixed and non-drive end bearing is self aligning<br>• With heavy tooling, double bearing arrangements are recommended for front bearing position to improve axial shaft play |
| **FEATURES:** | • TEFC motors are self-ventilated with a built in fan which works most effectively at the motor's maximimum operating speed<br>• Labyrinth seals at both ends of the motor to protect against dust or paticile penetration into the motor when under power<br>• Motors are balanced to a vibration speed of Veff = 1.8 mm/sec |



Drilling/Boring

# Perske Motors for Drilling and Boring

## Versatile and durable for a variety of applications.

Whether you're in the woodworking, metal fabrication, or plastic industry, you can count on Perske KNS series multi-purpose flat motors for peak performance.

### Features for performance:

- Low profile for maximum cutting, drilling, and boring of holes and sizing/enlargement of the hole diameter
- Shaft design with an outside taper, inside bore, and outside thread or a collet and covernut
- Speeds ranging from 3,600 to 24,000 RPM for use in high-speed manufacturing, routing, drilling, and boring operations

### Features for durability:

- Strong mechanical and electrical design for long life and low maintenance
- Lifetime lubricated bearings for continuous duty
- Special labyrinth seals on end seals can be provided on request for further protection of the bearings

| MOTOR SERIES TYPE | POWER OPTIONS (HP) | MAX. SPEED AVAILABLE (RPM) | MAX. TOOL CAPACITY | SPECIAL FEATURES | COLLET & COVERNUT | HSK-C | HYDRO-CLAMP | SPECIAL DESIGN |
|---|---|---|---|---|---|---|---|---|
| KN20 | 0.5 to 1 | 24,000 | 25mm | 20mm | Y | N | N | Y |
| KRS35 | 1 to 3 | 18,000 | 1/2″ | | Y | N | N | Y |
| KRS50 | 4 to 6.5 | 18,000 | 5/8″ | | Y | Y | Y | Y |
| KRSV51 | 6.5 | 18,000 | 1″ | | Y | Y | Y | Y |
| KRS60 | 9.0 | 18,000 | 3/4″ | | Y | Y | Y | Y |
| KRSV61 | 9.0 | 18,000 | 1″ | | Y | Y | Y | Y |
| KNO70 | 10 to 17 | 18,000 | 1″ | | Y | Y | Y | Y |
| VS50/60 | 2 to 7 | 24,000 | 1/2″ | | Y | N | N | Y |
| VUS50/60 | 1 to 3.5 | 24,000 | 1/2″ | Non-ventilated | Y | N | N | Y |

| | |
|---|---|
| **TOOL OPTIONS:** | • Collet & covernut<br>• HSK-C<br>• Hyrdo-clamp chuck system<br>• Quick clamping systems (e.g. Leuco PS or ETP HydroGrip)<br>• Cylindrical shaft with or without key<br>• Cylindrical shaft with or without key and outside thread<br>• Cylindrical shaft with or without key and inside thread<br>• Saw blade flanges and nut<br>• External or internal taper |
| **FREQUENCY:** | • 60 to 400 HZ (3,600 to 24,000 RPM)<br>• Electrical peformance data (HP) are only valid for the stated constant frequency |
| **VOLTAGE:** | • 230/400V standard according to DIN/VDE regulations; however, other voltage options are available<br>• Insulation class F standard<br>• If using a static frequency converter, it is necessary to use line reactors or filters to smooth out the sine wave.<br>• Most motors are available according to CSA standards (L.R. 16 865) |
| **BEARINGS:** | • Lifetime lubricated, high precision hybrid bearings<br>• Drive end bearing is fixed and non-drive end bearing is self aligning<br>• With heavy tooling, double bearing arrangements are recommended for front bearing position to improve axial shaft play |
| **FEATURES:** | • TEFC motors are self-ventilated with a built in fan which works most effectively at the motor's maximimum operating speed<br>• Labyrinth seals at both ends of the motor to protect against dust or paticile penetration into the motor when under power<br>• Motors are balanced to a vibration speed of Veff = 1.8 mm/sec |

Special Applications

# Perske Motors for Special Applications including Grinding and Machining

## Maximum precision for a range of critical functions.

When the difference between success and failure can be measured by microns, you need Perske motors. Perske offers a line of multipurpose motors that meet the demand for smooth and polished surfaces with extremely fine tolerances.

### Industry applications that require precision grinding include:

- Medical and dental equipment
- Aerospace manufacturing
- Renewable energy products such as wind power systems, turbines, and solar panels
- Woodworking finishing
- Automotive industry metalworking and finishing

### Overall features for precision and performance:

- Narrow motor design allows for small axial distances between the grinding wheel and machine shaft for ultimate precision when attaining extremely small tolerances
- High-speed performance motors reach speeds ranging from 3,600 RPM to 24,000 RPM for extra efficiency to eliminate manual labor
- Motor power ratings are S1 for continuous duty
- Motors are designed for exacting and precise grinding applications on materials including wood, metals, and composites for the finishing of geometrically shaped components
- Varying collet capabilities and types accommodate different grinding wheel sizes with a maximum tool shank up to 1 inch
- Direct tool mounting options include outside tool shank with inside bore, collet and covernut, and HSK-C
- Careful dynamic balancing to ensure precision cutting performance

perske

**Perske Tough for 50 years**
**www.crpindustries.com**

| MOTOR SERIES TYPE | POWER OPTIONS (HP) | MAX. SPEED AVAILABLE (RPM) | MAX. TOOL CAPACITY | SPECIAL FEATURES | COLLET & COVERNUT | HSK-C | HYDRO-CLAMP | SPECIAL DESIGN |
|---|---|---|---|---|---|---|---|---|
| KRS35 | 1 to 3 | 18,000 | 1/2″ | | Y | N | N | Y |
| KRS50 | 4 to 6.5 | 18,000 | 5/8″ | | Y | Y | Y | Y |
| KRSV51 | 6.5 | 18,000 | 1″ | | Y | Y | Y | Y |
| KRS60 | 9.0 | 18,000 | 3/4″ | | Y | Y | Y | Y |
| KRSV61 | 9.0 | 18,000 | 1″ | | Y | Y | Y | Y |
| KN50 | 4 to 6.5 | 18,000 | 5/8″ | | Y | Y | Y | Y |
| KN60 | 9.00 | 18,000 | 5/8″ | | Y | Y | Y | Y |
| KNO70 | 10 to 17 | 18,000 | 1″ | | Y | Y | Y | Y |
| VS50/60 | 2 to 7 | 24,000 | 1/2″ | | Y | N | N | Y |
| VUS50/60 | 1 to 3.5 | 24,000 | 1/2″ | Non-ventilated | Y | N | N | Y |

| | |
|---|---|
| **TOOL OPTIONS:** | • Collet & covernut<br>• HSK-C<br>• Hyrdo-clamp chuck system<br>• Quick clamping systems (e.g. Leuco PS or ETP HydroGrip)<br>• Cylindrical shaft with or without key<br>• Cylindrical shaft with or without key and outside thread<br>• Cylindrical shaft with or without key and inside thread<br>• Saw blade flanges and nut<br>• External or internal taper |
| **FREQUENCY:** | • 60 to 400 HZ (3,600 to 24,000 RPM)<br>• Electrical peformance data (HP) are only valid for the stated constant frequency |
| **VOLTAGE:** | • 230/400V standard according to DIN/VDE regulations; however, other voltage options are available<br>• Insulation class F standard<br>• If using a static frequency converter, it is necessary to use line reactors or filters to smooth out the sine wave<br>• Most motors are available according to CSA standards (L.R. 16 865) |
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# Repair Service That Exceeds Your Expectations

CRP's large inventory of genuine Perske parts means we can ship you exactly what you need, right away. And should your Perske ever need repairs or adjustments, our factory-trained technicians already have everything they need to get your job done quickly.

CRP is a long established, yet forward thinking, industrial products company. We've been Perskse's official North American representative for more than 30 years, and we're proud to be the only factory authorized shop for warranty repairs in North America.

When you send your Perske part to the Perske/CRP Performance Team, you'll get more than exact-match parts and factory-trained technicians. You'll get a fast turnaround time, an experienced customer service team, and a state-of-the-art repair facility. Oh, and did we mention the free inspection?

## THE PERSKE PERFORMANCE TEAM GUARANTEES:

- **Quick turnaround on all repairs**
- **Experienced customer service team**
- **Expert repair by Perske trained technicians**
- **All repairs are made with genuine Perske parts**
- **The largest selection of Perske parts in North America**

**To get your Perske motor repaired by the experts or to order original Perske parts, call 800-526-4066 today.**

email: **perske@crpindustries.com** web: **www.crpindustries.com/perskeservice.htm**

## Customer Service

Mike Palm
Sales Team
Phone: 888.888.888
email: mike@crpindustries.com

Ullrich von Seckendorff
Sales Team
Phone: 888.888.888
email: ulrich@crpindustries.com

Mike Palm
Sales Team
Phone: 888.888.888
email: mike@crpindustries.com

Ullrich von Seckendorff
Sales Team
Phone: 888.888.888
email: ulrich@crpindustries.com

Mike Palm
Sales Team
Phone: 888.888.888
email: mike@crpindustries.com

Ullrich von Seckendorff
Sales Team
Phone: 888.888.888
email: ulrich@crpindustries.com

Mike Palm
Sales Team
Phone: 888.888.888
email: mike@crpindustries.com

Ullrich von Seckendorff
Sales Team
Phone: 888.888.888
email: ulrich@crpindustries.com

# Sales Team

Mike Palm
Sales Team
Phone: 888.888.888
email: mike@crpindustries.com

Ullrich von Seckendorff
Sales Team
Phone: 888.888.888
email: ullrich@crpindustries.com

# Notes

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