

Your

addition



PREMIUM STEPHAN



Premium Stephan Hameln
Branch office of Premium Stephan B.V.
Ohsener Str. 79 - 83
D - 31789 Hameln

Telephone: +49 51 51 780-0
Fax: +49 51 51 780-441
E-mail: info@premium-stephan.com
Internet: www.premium-stephan.com

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in

transmission.

Industrial Gearboxes

Our Industrial Gearboxes offer a high number of possibilities for meeting application-specific requirements, designed for operation in demanding process related applications and harsh environmental conditions.

Your addition:

- + Housing design optimised for high stiffness and a superior thermal performance
- + Innovative all-round concept guarantees "best fit" and reduced total cost of ownership
- + High efficiency design – reduced power consumption



Helical/Bevel Helical Gearbox

| | |
|--------------|----------------------------------|
| Torque range | 50,000 to 750,000 Nm |
| Ratio | up to 650 : 1 |
| Sizes | 125 mm to 900 mm centre distance |



Parallel Shaft Gear Unit

| | |
|--------------|--------------------------------|
| Torque range | 6,200 to 175,000 Nm |
| Ratio | 1.25 to 450 : 1 |
| Sizes | 13 sizes; 1 / 2 / 3 + 4 stages |



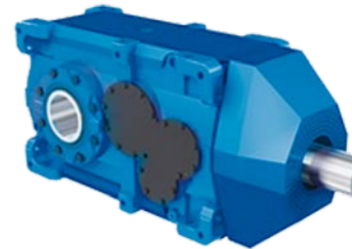
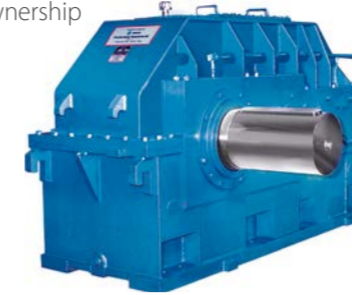
Bevel Gear Unit

| | |
|--------------|----------------------------|
| Torque range | 6,200 to 175,000 Nm |
| Ratio | 5 to 450 : 1 |
| Sizes | 13 sizes; 2 / 3 + 4 stages |



Industrial Gearbox range

| | |
|--------------|--|
| Applications | Agitators and mixers, conveyors, crushers, cranes, ball mills, fans, aerators, extruders, cooler drives, kneaders, thickeners |
| Industries | Sugar, cement, paper, rubber, steel and chemical industry, power plants, environmental and process engineering, mines and materials handling |



Geared Motors

Our innovative and extensive range of Geared Motors offers not only high reliability and quick availability, but also adaptable performance features for gearbox and motor as well as a high degree of flexibility in customer-specific applications.

Your addition:

- + Powerful thanks to an optimised design and the use of high load-bearing capacity components
- + Low noise level due to high gearing quality and refined tooth engagement
- + Quick and easy installation due to standardisation to dimensions normally found in the market and our EASY-FIT assembly system
- + Long lasting performance even under the toughest working conditions
- + ATEX design also available for hazardous environments



Helical Geared Motor

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|--------------|------------------|
| Torque range | 200 to 25,000 Nm |
| Ratio | 3.15 to 315 : 1 |
| Sizes | 1–9 |



Parallel Shaft Helical Geared Motor

| | |
|--------------|------------------|
| Torque range | 200 to 15,000 Nm |
| Ratio | 2.8 to 224 : 1 |
| Sizes | 1–8 |



Helical Bevel Geared Motor

| | |
|--------------|------------------|
| Torque range | 440 to 20,000 Nm |
| Ratio | 7,1 to 100 : 1 |
| Sizes | 2–9 |



Geared Motors range

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|--------------|---|
| Applications | Packaging, conveying, mixing, cranes, pumps |
| Industries | Food industry, agriculture, materials handling, paper, sugar, cement and pharmaceutical industry, amongst many others |



Special Industrial Gearboxes

Our modular design system with a wide range of ratios and a compact design offers an optimised stiffness of the housing and a high wear resistance with market leading power-to-weight ratio.

Your addition:

- + Low noise level due to high gearing quality
- + High efficiency thanks to refined tooth engagement
- + Long lasting performance due to high shock load capacity
- + Long maintenance-free periods



Planetary Gearbox

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|--------------|--|
| Torque range | 17,000 to 3,600,000 Nm |
| Applications | Slewing, winding, mining operations, wheel drives, concrete mixing |
| Industries | Construction equipment, cranes, materials handling, steel industry |
| Sizes | 16 sizes |



Planetary Mill Gearbox

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|--------------|---|
| Torque range | up to 4,000,000 Nm |
| Applications | Sugar, coal and cement mills |
| Industries | Sugar and cement industry, power plants |



Cooling Tower Gearbox

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|--------------|--|
| Torque range | up to 75,000 Nm |
| Ratio | up to 20 : 1 |
| Sizes | 140 mm to 450 mm centre distance |
| Applications | Cooling tower and heat exchanger applications |
| Industries | Plastic and steel industry, power plants, mineral processing |



Precision Gearboxes

High performance solutions in drive technology come from Hamelin / Germany: with almost 30 years experience in the development and production of highly precise, backlash-free customised gearboxes, Premium Stephan is a well-known supplier to leading robotic manufacturers. Based on this experience, we now launch another innovation to the market. The new MELIOR MOTION® series offers a unique level of precision, lifetime and energy efficiency.

Your addition:

- + A self regulating tooth contact system allows a backlash < 0.6 arcmin, which guarantees a constant precision throughout the whole lifetime
- + High torques in output, acceleration and emergency stops offer more safety for your application. An efficiency > 95 % allows the use of motors/systems with less energy consumption
- + positioning straight-to-the point is possible by superior tilting and torsion stiffness
- + Use of a standard mineral oil leads to reduced costs in lubrication and – under normal conditions – there is no need to change oil.



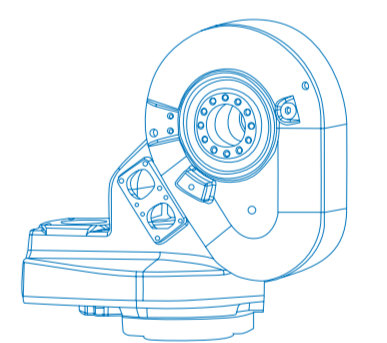
Precision Gearboxes (Standard) – MELIOR MOTION® series

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|-----------------|--|
| Torque range | 500 – 4,000 Nm |
| Scope of ratios | 45 to 200 : 1 |
| Sizes | PSC056 – PSC400 (7 sizes) |
| Execution | Full shaft version, hollow shaft version |
| Features | Backlash < 0.6 arcmin Lifetime 20,000 h Efficiency > 95 % |
| Applications | Robotics, automation, machine tools, printing machines, medical industry |



Precision Gearboxes (Customised)

| | |
|------------------|--|
| Torque range | 105 – 4,000 Nm |
| Scope of ratios | 53 to 132 : 1 |
| Sizes | Customer-specific solutions according to your demands and ambient conditions |
| Special features | Backlash < 0.1 arcmin Hollow shafts up to Ø 95 mm Positioning accuracy up to +/- 0.03 mm |
| Applications | Robotics, positioning systems, solar tracker |



PREMIUM STEPHAN
Precision Drives
MELIOR MOTION®

Fluid Couplings

We offer a wide product range of Fluid Couplings – from simple starting clutches to Fluid Couplings with variable speed transmission.

Your addition:

- + Protection against continuous overloads and absorbing of heavy shocks
- + Energy saving due to use of smaller motors
- + Soft-start – improves lifetime of equipment
- + Automatic distribution of the load in case of multiple drive by several motors
- + Favourable and highly reliable solution for most applications
- + Long lasting performance and long maintenance-free periods



Constant Speed Fluid Coupling

Design with and without delayed fill chamber or with steel housing, version with V-belt pulley and with water filling available.

| | |
|-------------|---|
| Power range | up to 1,840 kW |
| Accessory | metable fuses, disc / drum brakes, flexible couplings |



Variable Speed Fluid Coupling

Continuous control of the transmission between input and output at a ratio up to 1 : 5.

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|--------------|--|
| Power range: | up to 10,000 kW |
| Accessory | signal transmitter of the temperature, oil pressure oil, flow and speed, oil cooling, remote control, flexible couplings |



Fluid Coupling range

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|--------------|--|
| Applications | Conveyors, fans, ball and roller mills, crushers, pumps, diesel engines, marine applications |
| Industries | Thermal power plants, steel and cement industry, mining operations, chemical, oil and sugar industry |

