



ELECTROMECHANICAL

Product Overview



ABOUT US

Established in 1974 as a single bearing shop in Durban, South Africa; BMG's aggressive growth strategy has included acquisitions, supplemented by a steady organic growth discipline. BMG attracts best-of-breed talent resulting in technical expertise that differentiates BMG in the industry. Staff are truly part of the BMG family and its success.

BMG boasts an accredited in-house technical and commercial training academy which fosters a culture of staff development and career advancement; it's all about sustainability.

The net result, is a company that reliably supplies and supports 70 000 customers in 15 countries with the widest range of industrial engineered products and expert services in Africa via 105 branches.

BMG is positioned to deliver bespoke 360 degree solutions to its customers, and subsequently return on investment to its investors and shareholders. BMG plays a pivotal role in supporting the productivity and production targets of all Industrial, Manufacturing, Mining and Agricultural sectors of the economies in the countries it serves. With an enviable reputation as Africa's largest distributor, manufacturer and service provider of the highest quality engineering consumables and components; including

- Bearings & Seals
- Power Transmission Components
- Drives, Motors and Controllers
- Hydraulics, Pneumatics and Filtration
- Heavy and Light Duty Materials Handling
- Valves and Lubrication
- Fasteners, Gaskets and Tools

BMG is a level 4 BEE contributor with ISO 9001 Quality Assurance certification. Health and safety of its employees and customers is a paramount focus and the company adheres to ISO 45001. BMG is also committed to environmental care and sustainability and strictly follows the ISO 14001 charter.

As a key contributor to the Invicta Holdings stable, BMG has played a major part in Invicta's unique achievement of being rated in South Africa's Top 100 Companies for 21 consecutive years.



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NORD PRODUCT RANGE



SI Worm Gear Units



Nm	21-427	Kw	0.12-4.0	i	5-10000
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- Modular
- Universal mounting
- IEC versions
- Die-cast Aluminium housing

SMI Worm Gear Units



Nm	21-427	Kw	0.12-4.0	i	5-10000
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- Smooth surfaces
- Shaft, foot or flange mounted

Helical Worm Gear Units



Nm	46-3090	Kw	0.12-15	i	4.4-7095.12
-----------	----------------	-----------	----------------	----------	--------------------

- Shaft, foot or flange mounted
- Hollow or solid shaft
- UNICASE housing

3-Stage Bevel Gear Units



Nm	180-50000	Kw	0.12-200	i	8.04-13432.68
-----------	------------------	-----------	-----------------	----------	----------------------

- Up to 95% efficiency
- Shaft, foot or flange mounted
- Hollow or solid shaft
- UNICASE housing

Parallel Shaft Gear Units



Nm	65-90000	Kw	0.12-200	i	4.03-6616.79
-----------	-----------------	-----------	-----------------	----------	---------------------

- Shaft, foot or flange mounted
- Hollow or solid shaft
- Compact design
- UNICASE housing

2-Stage Bevel Gear Units



Nm	90-660	Kw	0.12-9.2	i	3.55-70
-----------	---------------	-----------	-----------------	----------	----------------

- Up to 97% efficiency
- Shaft, foot or flange mounted
- Hollow or solid shaft
- UNICASE housing
- Die-cast Aluminium housing

2-Stage Bevel Gear Units



Nm	45-650	Kw	0.12-9.2	i	3.85-72.31
-----------	---------------	-----------	-----------------	----------	-------------------

- Up to 97% efficiency
- Shaft, foot or flange mounted
- Hollow or solid shaft
- Alternative to worm gear motors
- UNICASE housing

Helical Gear Units



Nm	23-23160	Kw	0.12-160	i	1.24-14340.31
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- Foot or flange mounted
- UNICASE housing

Single Stage Helical Gear Units



Nm	55-3300	Kw	0.12-37	i	2.10-456.77
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- Foot or flange mounted
- Die-cast Aluminium housing (Available in 5 sizes)
- UNICASE housing

Industrial Gear Units



kNm	25/31/42/51/74/101/141/242	Kw	2.2-1000	i	5.54-1600
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- All the bearing points and sealing surfaces are machined in one operation.
- No separating joints in the housing, no sealing surfaces subject to torque.
- High precision alignment on the axis.
- Long life with a low maintenance.
- Gear ratios from 5.54 to 1.600:1 with the same foot dimensions.
- Parallel axis and right-angled gear units.

IE1 / IE2 / IE3 Motors & Components



- Single and 3-phase electric motors
- Additional range of starters and components for decentralized drive control

SK 200E Frequency Inverters



- "Safe Stop" function
- Commissioning via integrated DIP switches and potentiometer are possible
- Has an energy-saving function
- Ethernet-based BUS system
- Decentralized modules, combined as one system
- Integrated "Posicon" (Positioning Control)

SK 500E Frequency Inverters



- A compact design
- Has an energy-saving function
- Performance grading according to the application (e.g. "Posicon")
- Plug-in modules for control and communication (field bus)
- Ethernet-based BUS system



Nord Adaptors - IEC



Nord Adaptors - W

VARVEL WORM SPEED REDUCERS



RS Series



Nm	20-1680	Kw	0.18-15	i	7-100
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- **Leading Applications:** General purpose, medium and fractional power drives.
- **Design:** 9 sizes; housings and covers of Aluminium Die-Cast of up to size 85, Cast Iron from size 110; Single Worm / Wheel units. Ratios up to $i=100$.

RT Series



Nm	20-691	Kw	0.18-7.50	i	7-100
-----------	---------------	-----------	------------------	----------	--------------

- **Leading Applications:** General purpose, medium and fractional power drives.
- **Design:** 7 sizes; housings and covers of Aluminium Die-Cast of up to size 85, Cast Iron for size 110. Single Worm / Wheel units. Ratios up to $i=100$.

RA Series



Nm	280-2860	Kw	0.18-1.5	i	25-800
-----------	-----------------	-----------	-----------------	----------	---------------

- **Leading Applications:** General purpose, medium and fractional power drives. Reduction ratios and efficiencies are higher than other similar drives. Obtained with Two-stage Worm / Wheel units.
- **Design:** 9 sizes; housings and covers of Aluminium Die-Cast of up to size 85, Cast Iron from size 110. Single Helical stage and Worm / Wheel units. Ratios up to $i=800$.

RS / RS Series



Nm	260-3020	Kw	0.18-3	i	4205-10000
-----------	-----------------	-----------	---------------	----------	-------------------

- **Leading Applications:** General purpose, medium and fractional power drives. High reduction ratios.
- **Design:** 9 sizes; housings and covers of Aluminium Die-Cast of up to size 85, Cast Iron from size 110. Ratios up to $i=10000$.

TA Series



Nm	280-1180	Kw	0.18-0.75	i	25-800
-----------	-----------------	-----------	------------------	----------	---------------

- **Leading Applications:** General purpose, medium and fractional power drives. Reduction ratios and efficiencies higher than those of similar drives with Two-stage Worm / Wheel units.
- **Design:** 7 sizes; housings and covers of Aluminium Die-Cast of up to size 85, Cast Iron for size 110, Helical stage and Single Worm / Wheel units. Ratios up to $i=800$.

RT / RT Series



Nm	260-1350	Kw	0.18-0.55	i	4205-10000
-----------	-----------------	-----------	------------------	----------	-------------------

- **Leading Applications:** General purpose, medium and fractional power drives. High reduction ratios.
- **Design:** 7 sizes; housings and covers of Aluminium Die-Cast of up to size 85, Cast Iron for size 110. Ratios up to $i=10000$.

Helical Speed Reducers

RD Series



Nm	50-2300	Kw	0.55-22	i	2.3-630
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- **Leading Applications:** General purpose, medium and fractional power drives.
- **Design:** Design: 7 sizes; housings and covers of Aluminium Die-Cast of up to size 4, Cast Iron from size 5. Two- and three-gear trains.

XA Series



Nm	12-170	Kw	0.18-4	i	3.8-8
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- **Leading Applications:** General purpose flange mounting B14 and independent helical stage, for fitting to FRS and FRT input.
- **Design:** 4 sizes; Aluminium Die-Cast housings and covers. One-gear train.

Planetary Speed Reducers

RG Series



Nm	12-480	i	3-100
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- **Leading Applications:** DC, brushless and stepper motor drives.
- **Design:** 4 sizes; 1 and 2 stages.

Mechanical Speed Variators

VR Series

Dry Friction Speed Variators



Nm	3-2015	Kw	0.09-1.50	i	1-5
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- **Leading Applications:** General purpose, medium and fractional power drives. Dry friction with a fully sealed enclosure, allows for reliable, service-free and safe installation.
- **Design:** 4 sizes; housings and covers of Aluminium Die-Cast for sizes 63 to standard IEC sizes, to plug in the various Helical and Worm / Wheel units.

VS Series

Planetary Speed Variators



Nm	2-84	Kw	0.12-4	i	1.5-7.5
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- **Leading Applications:** General purpose, medium and fractional power drives. Dry friction with a fully sealed enclosure, allows for reliable, service-free and safe installation.
- **Design:** 6 sizes; a combination of independent drives. Variators (VR) with Speed Reducers (RD).

VARVfarm - Gearboxes For Feeding Systems

RP90 Series

One-stage Helical Gearboxes



Nm	4-32	Kw	0.25-1.50	i	2.7-7.9
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- **Leading Applications:** Animal livestock systems for linear-feeder driving (screw conveyors).
- **Design:** Only one size Aluminium Pressure Die-Cast body.
- **Input:** Elastic coupling and long-life lubrication.

Product Description

Paramax 9000 series drives are built on 60 years of Sumitomo excellence from a company with over 400 years of history. Some of the largest, and most durable power transmission systems operating in the world were designed and manufactured by Sumitomo. BMG Drives is proud to be the sole provider for Sumitomo. BMG Drives is proud to be the sole service provider for Sumitomo Paramax in sub Saharan Africa.

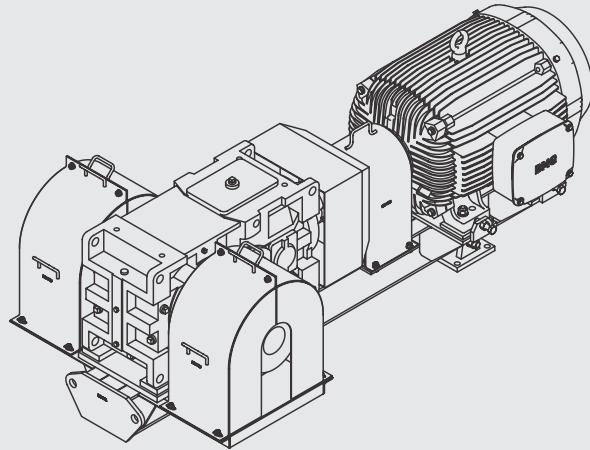
Outstanding Features

With 26 standard sizes, the selection of a Paramax gear unit can be optimized to the exact power, torque, speed and duty, ensuring cost effective initial outlay, long life and efficient operation.

- Backed by the BMG branch network 365/24/7
- Higher mechanical ratings with 25° pressure angle and wider gear tooth face.
- Universal housing for horizontal, vertical & upright installations.
- New fan & shroud design increases thermal capacity by up to 87%.
- Optimised gear tooth profile for gearing accuracy, low wear and quiet operation.
- Complete drive solutions engineered by BMG Drives with optional SABS Fenner motor & low speed couplings, Transfluid couplings and CAD designed fabricated baseplates.

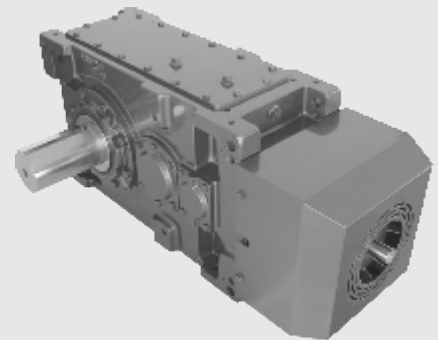
Applications

- Materials Handling
- Water Treatment
- Chemical Processing
- Agitators & Mixers
- Pumps
- Kiln Drives
- Forestry Pulp & Paper
- Cranes
- Sugar
- Automotive Manufacturing



Reduction Gear Unit

- Parallel and right angle configurations
- Solid and hollow output shaft versions
- 26 Sizes for best fit, most economic selection
- Output torque capacities up to 552 kNm
- Ratios up to 500:1
- Highest thermal capacity, optimised cooling fan
- Exceptionally high shock load capacity
- Integral backstop, horizontally split case
- Replaceable shaft wear sleeves
- Static & dynamic oil level indication
- One to four reduction stages



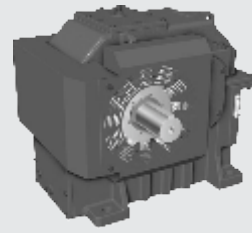
Agitator & Aerator Drives

- Parallel & right angle configurations
- High radial & thrust load capacities
- Integral oil pump
- Drywell option guarantees no oil leakage
- High shock load capacity
- High reliability for 24 hours continuous use

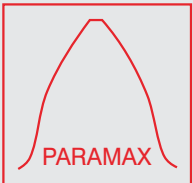


SPA Series

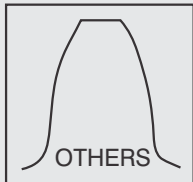
- Varied reduction ratios
- Long-life bearing for minimum maintenance
- Dedicated housing with large capacity
- Various cooling systems with high cooling performance
- Ease of maintenance



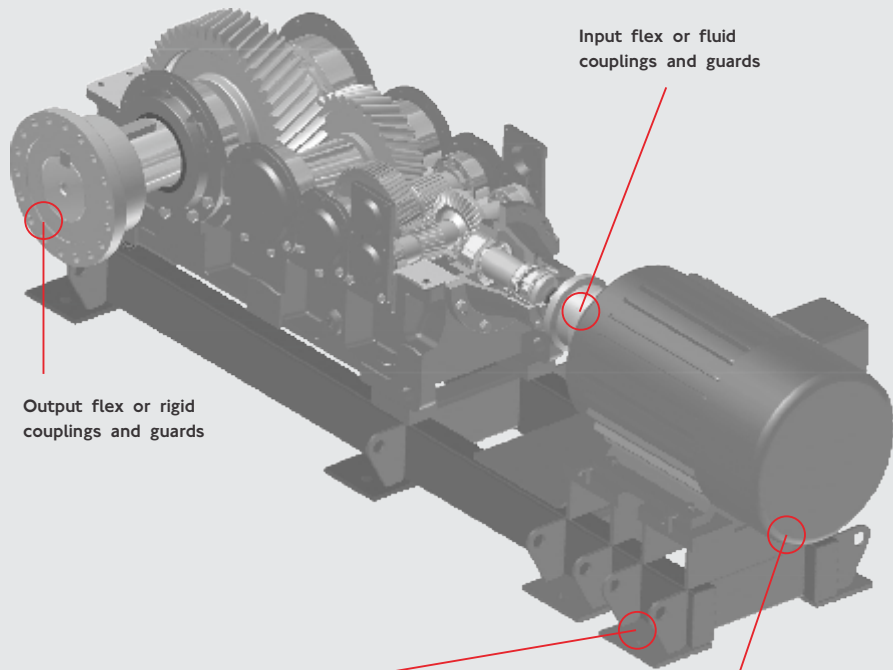
Unique Tooth Design



25 degree
pressure angle



20 degree
pressure angle

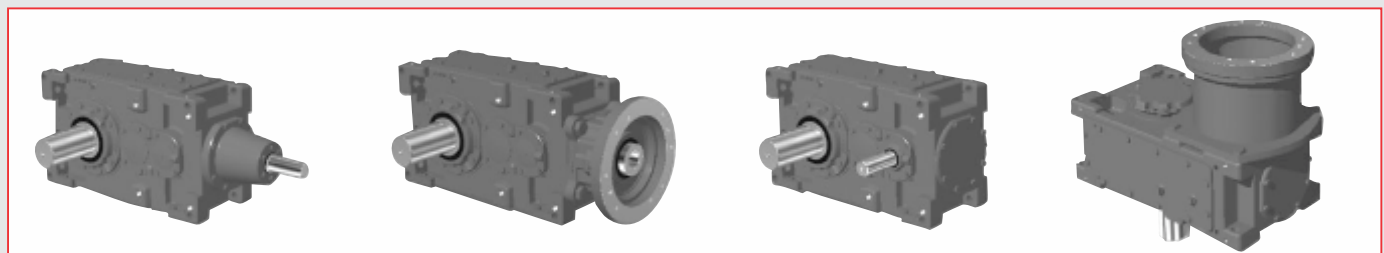
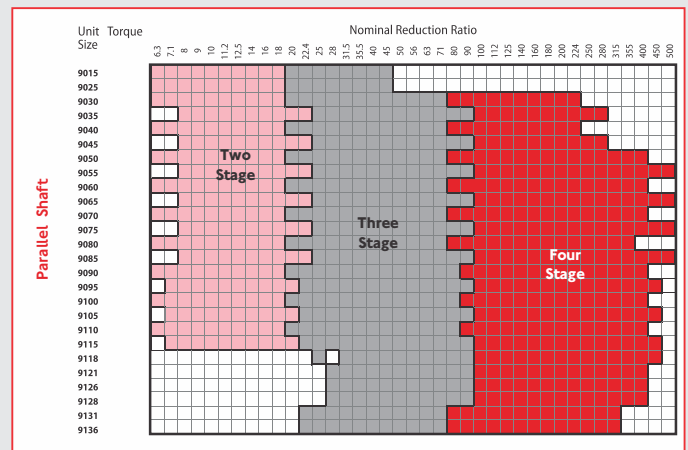
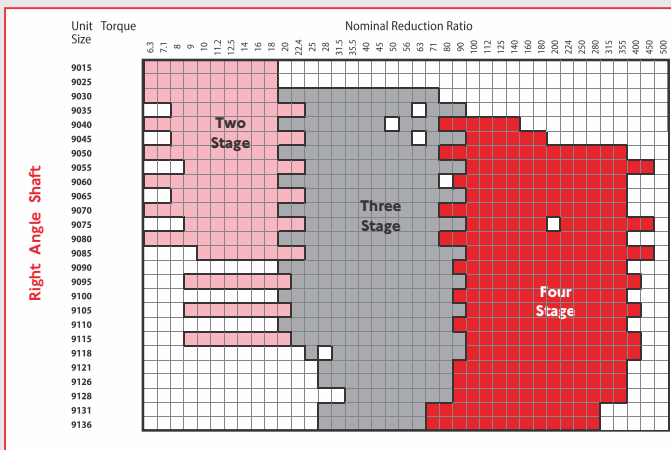


Input flex or fluid
couplings and guards

Output flex or rigid
couplings and guards

Variety of motor
options

Common welded steel
baseplates, swing bases,
and transition plates





Fitness for Use

With the Hansen P4 product line, you can easily select your requirements, thereby optimising your investment.

Features

- Specific housings, for horizontal and vertical applications.
- Standard, higher bearing span, for vertical applications.
- Simple, standard systems for cooling and lubrication.
- Accessories and instrumentation are also offered.
- Improved component standardisation.
- Special ratios of up to 1% of the requested ratio, at a moderate cost.

Your Benefits

- Easy to select the optimal gear unit for specific applications.
- Stronger shaft support, for surface aerators and mixers.
- Shorter delivery times.
- Cost-efficient tailor-made solutions.

Installation

Even the larger Hansen P4 models are easy to transport, manoeuvre and install.

Features

- Provisions were made for a crowbar or adjusting screws, oval transport slots or hoist eyes. Standard fixation points for accessories.
- Internal construction ensures an oil supply to all the bearings on the first oil filling.
- Large mounting pads can accommodate extra dowel pins.

Your Benefits

- An easy installation procedure. Easy to handle, install and mount accessories such as protection caps.
- The bearings are safely lubricated from the beginning.
- Easy realignment.

Power and Reliability

The excellent constructional rigidity of Hansen P4, together with the commitment to apply state-of-the-art gear technology, leads to remarkable power and performance.

Features

- Rigid, standardised pinion shafts and housings
- Easy realignment
- Full-scale application of:
 - High torque geometry in low speed gear sets
 - Low noise geometry in high speed gear sets
 - Profile-controlled gas carburising
 - Precision grinding, with sophisticated tooth contact analysis
- Assured oil circulation through the bearings

Your Benefits

- Better lateral load distribution with lower noise and vibration levels
 - Better strength and surface, durability rating balance
 - Lower noise and vibration levels
 - Optimal load capacity
 - Optimal transverse and lateral load distribution
 - Lower noise and vibration levels
- Long, trouble-free work life solution

Parts, Services & Maintenance

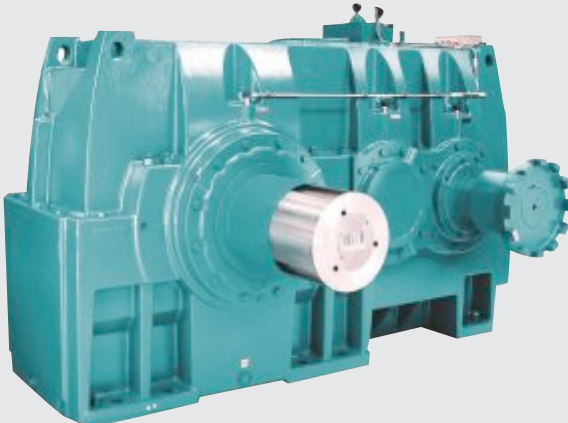
The Hansen P4's maintenance operation has been simplified and shortened.

Features

- Housings for horizontal and vertical applications, both with a horizontal split.
- Maintenance-free Oil-Lock seal, as a standard on the high speed shaft extensions.
- Drywell standard for a vertically down-shaft.
- Easy to remove inspection cover with O-seal above the oil level.
- Provision for easy removal of the covers.
- Specific housings for the horizontal and vertical applications.
- Rounded external design.

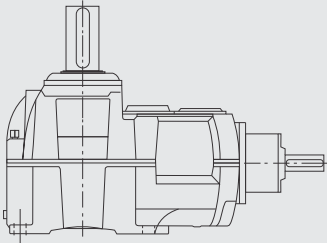
Your Benefits

- Easy to open for inspection and service.
- Oil-tight for life.
- No maintenance required.
- Easy and quick inspection, without oil drainage.
- Total oil evacuation is possible.
- Smooth surface without dirt-retaining cavities.

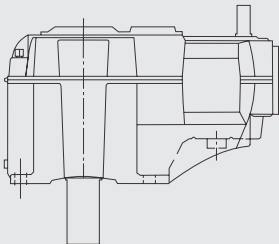
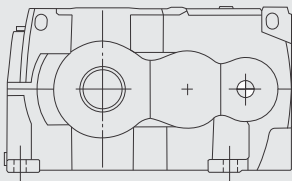


Vertical Applications

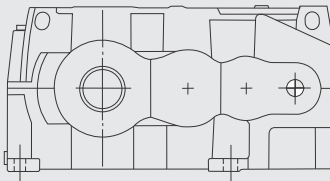
Horizontal Applications



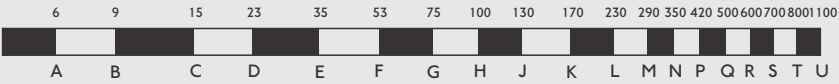
2
Stage



3
4
Stage



Size	Centre distance																				kNm	
	y	z	a	b	c	d	e	f	g	h	j	k	l	m	n	p	q	r	s	t		u
A	•		•																			6
B	•	•	•																			9
C	•	•	•	•																		15
D	•	•	•	•	•																	23
E	•	•	•	•	•	•																35
F	•	•	•	•	•	•	•															53
G		•	•	•	•	•	•	•														75
H		•	•	•	•	•	•	•	•													100
J			•	•	•	•	•	•	•	•												130
K			•	•	•	•	•	•	•	•	•											170
L				•	•	•	•	•	•	•	•	•										230
M				•	•	•	•	•	•	•	•	•	•									290
N					•	•	•	•	•	•	•	•	•	•								350
P						•	•	•	•	•	•	•	•	•	•							420
Q							•	•	•	•	•	•	•	•	•	•						500
R								•	•	•	•	•	•	•	•	•	•					600
S									•	•	•	•	•	•	•	•	•	•				700
T										•	•	•	•	•	•	•	•	•	•			800
U											•	•	•	•	•	•	•	•	•	•	•	1100



For more information, please contact BMG.



Fitness for Use, Installation, Service & Maintenance

Features

- Invertability allows for either right or left hand speed shafts.
- The drive unit is self-aligning from the rigid coupling to the gearbox, the lantern housing and the motor.
- The drive unit is compact, robust and rigid.
- Common internal gearing, using the standard P4 range of gears.
- The housing has a large surface area.
- Labyrinth seals are available on low speed shafts.
- The housing and bearing construction are designed to bear overhung loads.
- The housings have a horizontal split.
- Easy to remove the inspection covers.
- Identical housing casting for the top and bottom half, two and three stage units for a particular size.
- The Drive unit may be mounted onto a skid.

Your Benefits

- Eliminates the double extended low speed shaft and reduces the cost for spare units where dual handling is required.
- Easy installation and maintenance of the drive unit components.
- Strong, reliable and long lasting, for arduous conditions.
- All standard gear components are available.
- Allows for good heat transfer and easy cooling of the gearbox.
- Prevents the ingress of dirt and moisture, and protects the lip seal.

- The gear unit supports the complete drive load.
- Easy to open for inspection and service.
- Quick and easy inspection without oil drainage.
- Reduces costs.
- Allows for easy transportation on-site.

Power and Reliability

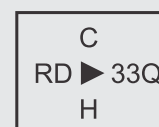
Features

- Rigid, standardised pinion shafts and housings
- Full-scale application of:
 - High torque geometry in the low speed gear sets
 - Low noise geometry in the high speed gear sets
 - Profile-controlled gas carburising
 - Protuberance hobbing of the helicals and root filled grinding of the bevels.
 - Precision grinding with sophisticated tooth contact analysis.
- Assured oil circulation through the bearings.

Your Benefits

- Better lateral load distribution, lower noise and vibration levels
 - Better strength and surface durability rating balance
 - Lower noise and vibration levels
 - Optimal load capacity
 - Improved tooth strength
 - Optimal transverse and lateral load distribution
- Long, trouble-free work life solution

The Product Range Consists of Two Models:



Overview

Noise at A Minimum

The minimal noise, contributes to the comfort of the workplace and is therefore an important criteria when selecting your industrial gear units. The Hansen P4 is designed to generate as little noise as possible. The basic design rules, guarantee maximum stiffness of all gear unit components under the load. Together with the most rigid pinion shaft and housings, the gear unit transmits exceptionally high power, with minimal noise.

Standard manufacturing processes help to minimise the noise. Precise machining of the housing on advanced CNC machines, guarantee that the bores of the gear units are exact. An imperative for optimal gear mesh. Precision grinding of the gears and adapted gear geometry in high-speed gears, diminish vibration levels. This 'low noise geometry' is applied to both the bevel and helical gear units.

Firm on its Feet

The rigid gear casing design of the Hansen P4, maintains the correct gear-alignment. The vertical P4 housing, has been designed to ensure smooth transition of forces, from the centre bore to the mounting feet. Which are positioned concentric to the low speed shaft, an important feature for mixers, agitators and surface aerators.

Integrated Drywell

The integrated drywell is a standard feature for the vertical Hansen P4 gear unit (output shaft). It guarantees oil-tightness for life. A highly appreciated feature in many industries, including food processing and water treatment.

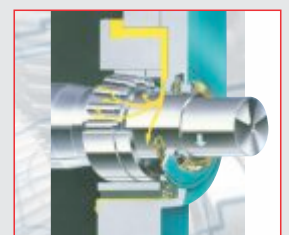
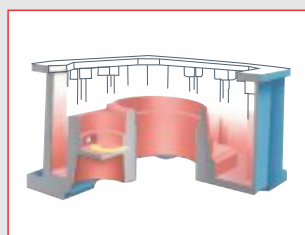
Never A Dry Start-up

The centralised oil filling in the Hansen P4 gear units, guarantee initial oil lubrication and circulation through all the bearings. Thus avoiding any risk of a dry start-up, which results in minimised wear on the bearings, simplified overall maintenance and longer bearing life.

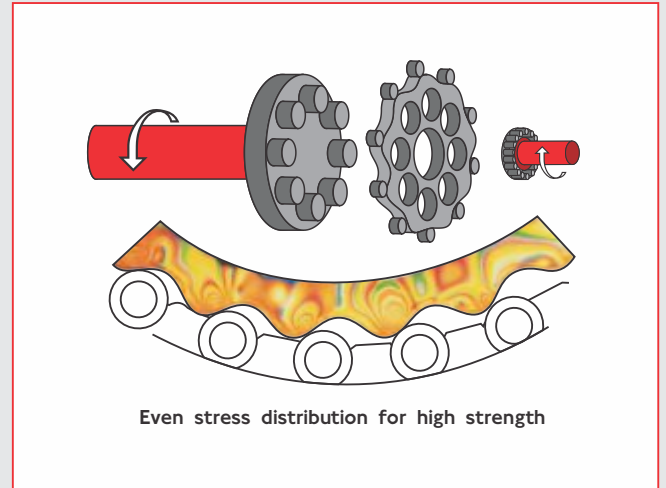
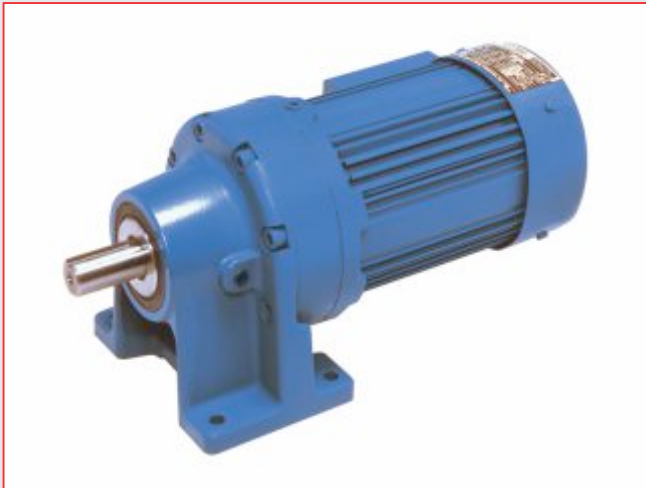
100% Oil-tight

Our unique Oil-Lock™ system, offers a maintenance-free seal on high speed shaft extensions and is standard on all Hansen P4 units. It is designed to keep the oil in and the dirt out. It is the most secure, high speed shaft sealing solution available, which has proven its effectiveness on thousands the of Hansen P4 gear units.

For tilted or inclined operation, we provide a unique Oil-Guard™. It consists of a tapered ring, rotating close to the machined housing, functioning as a centrifugal pump. It is located between the oil and the radial seal. During operation, even in submerged conditions, our Oil-Guard™ ensures leak-free running conditions.



CYCLO SPEED REDUCERS



Size for size, Sumitomo Cyclo 6000 Series Speed Reducers deliver substantially more torque than conventional Helical Gear Units, with a wider range of ratios and models available. The output improvements in Sumitomo Cyclo Speed Reducers, are made possible by the advances in cycloidal gearing proportions that are considerably more efficient than involute gear systems.

The Cyclo system is warranted to withstand 500% shock overloads without damage, making it unnecessary to select an over-sized reducer, in order to cope with shock overloads. Housings have been made more compact, without sacrificing strength and rigidity. Use of high-capacity bearings and large-diameter forged, output shafts gives the new reducer a higher overhung load capacity.

The Sumitomo Cyclo 6000 Series Speed Reducers are available with reduction ratios from 6:1 to 119:1, in single stage and 102:1 to 7569:1 in 2 stages. It reduces the ratings range from 0.12kW to 55.00kW with output torques up to 68200Nm.

Benefits and Features

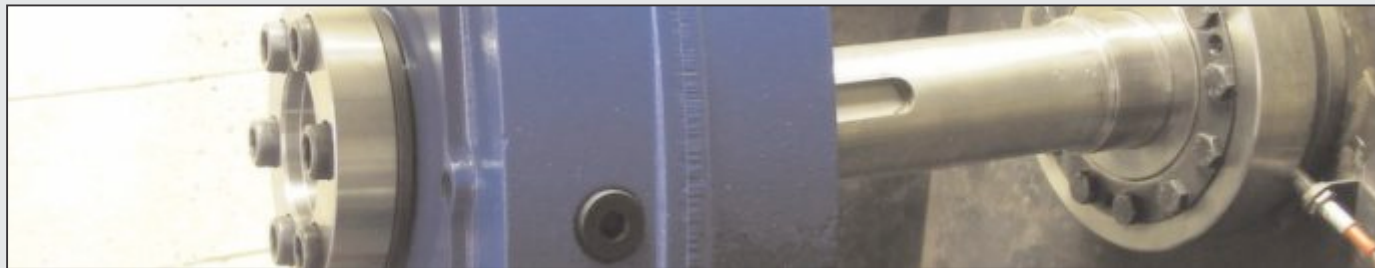
- **High Overload Capacity of 500%** - $\frac{2}{3}$ of teeth, shared load at all times.
- **High Efficiency** - 93.5% average efficiency from 6:1 to 87:1.
- **Smooth Quiet Operation** - Rolling torque multiplication vs clatter and sliding friction of other gears.
- **Vibration Free** - All reduction stages operate at low speeds.
- **High Reduction Ratios** - Up to 87:1 in a single stage.
- **Reliable Service** - Catastrophic failure will not occur, as teeth cannot break-off or prevent rotation.
- **Care Free Lubrication** - Grease vs Oil (Splash Lubrication).
- **High Quality Components:**
 - Cycloidal Disc's - Nickel Chrome Bearing Steel (57-63Rc)
 - Output Shaft - 1045 Forging
 - Stainless Steel Shaft / Ring Gear Rollers - Nickel Chrome Bearing Steel (57-63Rc)
 - Ring Gear Housing - Cast Iron SAE Grade 20-30
 - Oil Seals - Twin-Lipped Spring Loaded (20-120C)
- **Low Service Factor Required** - The high capacity design, eliminates the need for costly high service factors.
- **Low Inertia Design** - There is no gear train in the design to obtain speed reduction.
- **No Costly Shafts to Replace** - Input / output shafts have wear sleeves under the seals, to eliminate the cutting of the shafts.
- **Low Oil Level Indication** - The external sight gauge provides oil readings, without disassembly.
- **Low Maintenance:**
 - No special tools, gauges or training required.
 - Replace oil every 2500 - 4500 hours.
- **Re-greasable Bearings** - Grease fittings eliminate the need to disassemble the drive units to re-grease the bearings.
- **Two Year Warranty** - Fully warranted - not limited by hours of operation.

Areas of Application

- Conveyor Equipment
- Construction Machinery
- Paper Industry
- Pumps
- Water Treatment Plants
- Roller Mills
- Bending & Straightening Machines
- Sawmills & Timber Processing Machines
- Metal Working Machines
- Mixers & Agitators
- Recycling Plants
- Food & Sugar Industry



SHAFT MOUNTED SPEED REDUCERS



Fenner Shaft Mounted Speed Reducers are compact, helical gear reducers which mount directly onto the machine shaft. They utilise V-belt drives between the motor and the gearbox, allowing virtually infinite choice of final output speed.

Range

- 12 sizes, 4 ratios (5, 13, 20 and 25)
- Capable of handling powers of up to 250kW.

Identical Case Halves

A standard casing design which allows for various mounting positions and ratios.

Additional Case Lugs

- Eliminates the need for critical tightening of the torque arm bolts.
- Controls the position of the standard torque arm mounting within the recommended limit.

Standard Series Bearings

The standard series bearings are adequately proportioned and they conform to the ISO dimension plan, when it's time for maintenance.

Oil Seals

Oil Seals are double lipped, garter spring type seals, ensuring effective oil sealing with taconite seals. Available on special order.

Gears

Helical Involute cut gears, manufactured from alloy steel, which are gas carburised and hardened, shaved and honed (profile ground on selected sizes) to ensure low noise emission.

The hunting tooth principle adopted, ensures maximum working life, with further improvements giving increased power ratings.

Rubberised End Caps

Self-sealing intermediate cover plates to standard ISO housing dimensions, are now standard on all gearboxes.

Breather Plug and Filler Plugs

Both the breather and filler plugs now incorporate an integral sealing washer, which improves sealing properties on the machined casing surface. For improved efficiency, the breather plug incorporates a new built-in, non-return valve.

Taper-grip® Bushes

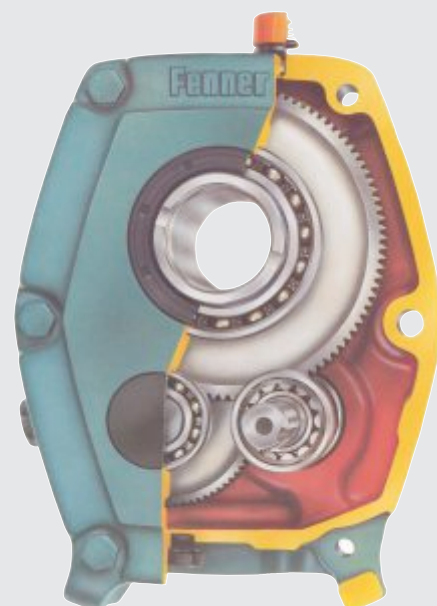
The Taper-Grip® is capable of transmitting gear unit loads, without a key. The bush was designed with an optimum friction angle within the minimum radial space. This is to maintain the gearbox's maximum bore capacity and give maximum support to the gear units. Taper-Grip® bushes simplify installation and removal of choice of materials. Taper-Grip® bushes are designed to reduce fretting and withstand atmospheric corrosion.

Output Hubs

Output hubs are standard. Taper-Grip bushes with Metric and Imperial bores are available to suit standard shaft diameters. Bushes are also available to further increase the hub bore range.

Adaptability

- Motor Mounting
- Flange Mounting
- Screw Conveyor Drives
- Hydraulic Motor Drives





ZOLLERN Winch Gearboxes have proved highly successful under extreme operating conditions. Their principal features and most significant advantages are:

- Compact Dimensions
- Easy Maintenance
- Long Operation Life
- High Performance Capabilities
- Modular Gear Unit Design
- Functional Design



With these characteristics, the machine designer will get a ready-to-install unit and will achieve economic solutions, even in confined space conditions, i.e Sugar industry drives:

- Custom Built Gear Units
- Latest Design Helical Planetary Stages
- Capacity of up to 62 tons
- Output Torque of up to 6 000 000 Nm
- Latest Design Technology

Applications

- Cane Sugar Mills
- Diffuser Plants
- Extraction Towers
- Mixers
- Scalding Drums
- Sugar Beet Presses
- Beet Washers
- Sugar Beet Slicer Machines
- Conveying Systems



PLANETARY GEARBOXES



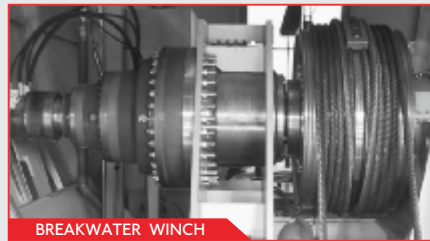
Description

- Simple, flexible and dynamic planetary gearboxes, to satisfy the needs of the modern market.
- From 45 Nm to 3,600,000 Nm T2 Max.
- A wide range of reduction ratios from 3,5 to over 15000:1 positioning drives.
- Foot mount supports.
- Keyed, cylindrical or splined female and male output shafts.
- Hexagonal male output shafts.
- Torque arms.
- Inline and right angled available.
- A range of hydraulic motor inputs for SAI, Staffa and Danfoss.
- The output options include coupling flanges and splined hexagonal bushes.
- The input options include supports, bevel gears and a new concept braking system.
- The hydraulic winches and pulley winches that conform with UNI ISO 4301/1 standards are also available.
- These winches are available with or without axial or radial piston hydraulic motors.
- IEC input sections, for all electric motors.
- Hydraulic impact, for all hydraulic motors.

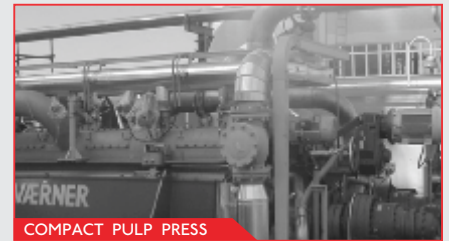


Typical Industries

- Manufacturing
- Mineral Processing
- Sugar
- Timber
- Transport
- Iron & Steel
- Non-ferrous Metals
- Chemical
- Construction



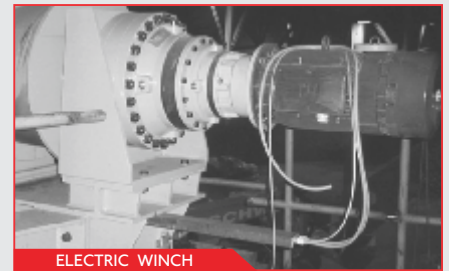
BREAKWATER WINCH



COMPACT PULP PRESS



SLEWING DRIVE



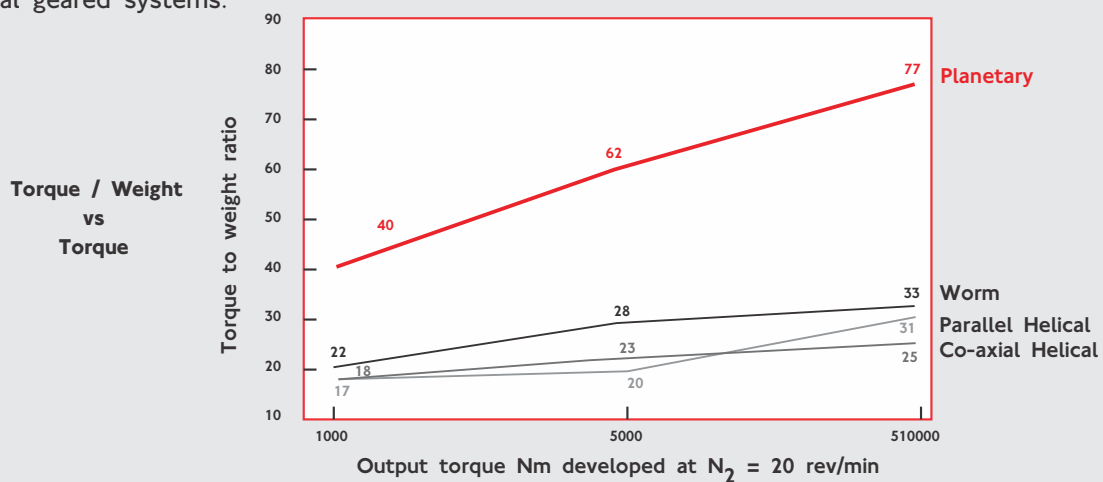
ELECTRIC WINCH

Applications

- Apron Feeder Conveyors
- Agitators & Thickeners
- Crystallisers
- Conveyors
- Mobile Equipment
- Hoists & Winches
- Slewing & Positioning Drives
- General Process Machinery

Comparison between Planetary and Other Geared Systems

The below graph demonstrates the weight savings achieved by the planetary geared units over the conventional geared systems.



Typical Savings with Planetary Gear Technology

- 50% on Size - More efficient use of factory space.
- 60% on Weight - Less costly support structures.
- 30% on Power - Less energy consumption.

Ultimately, this leads to significant cost savings.

Product Introduction

The MOTOLINE range of frequency converters, are an economical, high performance vector controller, that can be used across many applications and industry types. The drive is compact and user friendly across the range, with a minimum amount of fuss required to run the application.

The Range

The MOTOLINE VSD range is available from 0.37 - 550 KW 220-525V AC

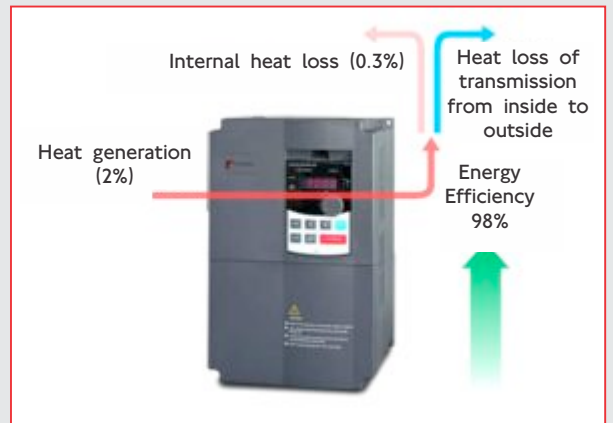


Efficiency of Your Equipment

Any loss realised by your equipment, is a loss in production costs and hits your bottom line directly. The MOTOLINE drives keep heat loss to a maximum of 2%, meaning a very efficient drive system.

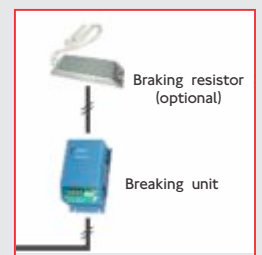
Protection of Your Investment?

The MOTOLINE drive is available in IP20 and IP54 depending on the model and size chosen. Conformal coating on the printed circuit boards is available on selected units.



Options

A long list of options, mean that you can approach most applications with confidence. Add braking, pump controller, chokes or a number of other ancillary items to your drive, to improve its overall performance.



Soft Starters

The MOTOLINE range of Soft Starters are used to reduce mechanical stress on equipment during the starting sequence. The starting current is also reduced to an acceptable level, which reduces stress on the power grid, while saving you money on maximum demand. The PR5200 Soft Starter range is available from 5.5 - 400 KW, 380V AC



Backup and Support

Our highly trained technicians are able to offer support for your product 24/7/365



Product Introduction

The Danfoss Frequency Converter range is world renowned for its high performance levels, exceptional quality and for being user friendly. The Danfoss range includes industry specific drives that are tailor made to suit the requirements within certain sectors. For example, the Aqua Drive is suited to all water and wastewater installations. You name the application and we will supply the right product.



We Have the Power

The Danfoss range is available from 0.25 - 1200 KW 220-690V AC.

Efficiency is A Hot Topic

With 98% VSD efficiency, there is no better way to save energy than with the Danfoss range of drives. Why use expensive airconditioning systems to cool your MCC rooms, when you can use the unique Danfoss back channel system, which removes most of the drives' dissipated heat, directly from the room or panel.



Moisture Ingress

The Danfoss drive is available in a variety of IP ratings to counteract the effects of dust, water and vapour ingress. IP00, IP20, IP21, IP54, IP55 and IP66. There is also the option of conformal coated PC boards, to ensure that condensation never cause an unwanted stoppage to your production line.



Enhancing Capabilities

The standard Danfoss drive can become more intelligent than you would think. The building block design, allows you to customise the product to your exact needs, by adding plug-and-play options.

Some of the options, to mention a few, are:
 ProfiBus, ProfiNet, EtherNet, DeviceNet, Encoder, PTC Thermistor, Synchronising and Positioning.



Soft Starters

The Danfoss range of Soft Starters are available in analogue and digital ranges. Both perfect for the most demanding applications. Packed with powerful features and internal protection for the motor, there is no starting or stopping application that we cannot handle.



Backup and Support

Our highly trained technicians are able to offer support for your product 24/7/365



ENERGY EFFICIENT ELECTRIC MOTORS



- SABS Certified
- Brake Motors AC and DC
- External Fan Cooled Motors
- Thermistor and Encoder Options
- 2-speed and Increased Protection

Oversized terminal box
Can be rotated at 90 degree increments
L box arrangement available for side mounting from 250 frame & above

IP66 degree of protection

Epoxy paint

SPM ready

Anti-brinelling shaft locking clamp

Through flush grease system
160 frame & above



Removable gland plate
132 Frame & above

Regreasing facilities
132 Frame & above

PTC thermistor
Available on all frames

Stainless steel rating plates

Class H insulation with a temperature rise of class B

Detachable feet available
From 160 to 280 frame

External earthing studs



- Cast Iron IE1 motors from 0.37 kW to 400 kW ex stock.
- Standard Aluminium IE1 motors from 0.09 kW to 7.5 kW ex stock (IE2 available on request).
- Aluminium single phase motors from 0.18 kW to 3 kW ex stock.
- Pad mounted motors for fans.
- Pool pumps 0.75 kW and 1.10 kW
- HV motors from 260 kW to 4 mW in 3.3 kV, 6.6 kV and 11 kV.
- Wide range of Vibrator Motors.

BRINGING THE WORLD'S BEST BRANDS TO YOU

In the bid to procure cutting-edge components at competitive prices, BMG is able to capitalise on long-standing relationships with leading manufacturers dedicated to excellence in design and production.

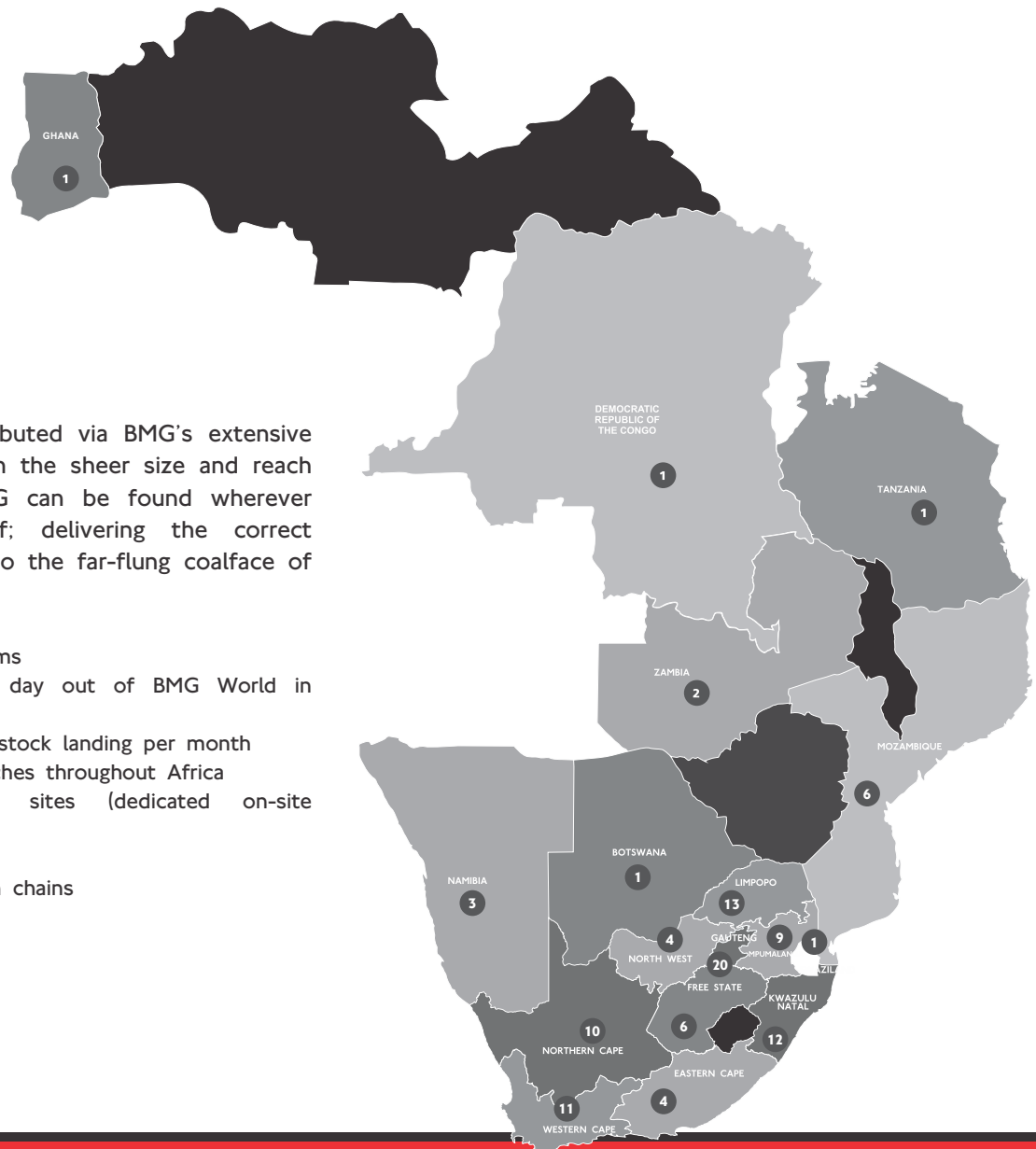
Products are imported from around the globe and brought to BMG's strategically located distribution facilities and regional service centres via the main distribution hub in Johannesburg - BMG World. A world-class facility boasting 308 000m³ of fully stocked warehouse space, an accredited training facility and unlimited engineering capabilities.

Preferred Brands:



Our Extensive Coverage Throughout Africa

105
BRANCHES



Products and services are distributed via BMG's extensive distribution network. It's through the sheer size and reach of our infrastructure, that BMG can be found wherever industry has established itself; delivering the correct components at the right time, to the far-flung coalface of our customers' operations.

- Over 300 000 product line items
- Around 4 500 transfers per day out of BMG World in Johannesburg
- Over 1 000 tons of imported stock landing per month
- 105 strategically situated branches throughout Africa
- Vendor Managed Inventory sites (dedicated on-site stockholding)
- International exports
- Locally empowered distribution chains

Be PART

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WEBSITE:

www.bmgworld.net



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PNEUMATICS • FILTRATION • LUBRICATION • VALVES
TECHNICAL RESOURCES • FIELD SERVICES

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ISO 14001	Certified
ISO 45001	Certified