



Crane Gearboxes and Drives



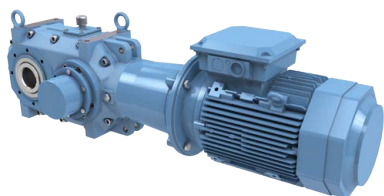
**Innovative Solutions
Creating Efficiency**

Comprehensive Gearbox Programs for Crane Applications

KUMERA manufactures gearboxes and power transmission components with more than 70 years of experience. The gearbox portfolio for crane applications has been divided into three main gearbox categories, which are listed below.

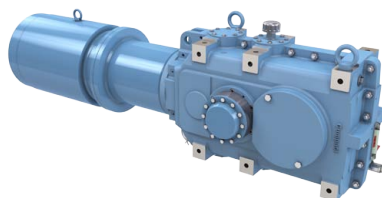
CRANE GEARBOX FACTS

Feature	Benefits & Values
Wide range of different gearbox sizes	Gives an opportunity to choose the most cost effective solution
Wide range of different gearbox ratios	Possible to meet the requirements of different rotation speeds in process
Long lasting product series with proven technology	Increases reliability and decreases lead times from inquiry to delivery
Optimized thermal power	Optimizing the gearbox by thermal power makes the standard gearbox more suitable to various applications
Optimized tooth profiles using latest calculation tools	Better load distribution and lower dynamic forces reduce stresses and increase gear life
Customizable surface treatment	Various color shades and painting systems ensure customizability and maximum surface resistance to demanding surroundings



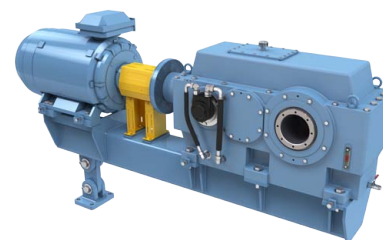
CUMPACT™ F gearboxes

- Shaft distance 80 mm – 200 mm
- Output torque 0,53 kNm – 12,2 kNm
- Gearbox ratios 5,6:1 – 1600:1
- Nominal power up to 195 kW
- Helical and helical-bevel gear configurations
- Equipped with lip seals



CUMPACT™ G gearboxes

- Shaft distance 225 mm – 400 mm
- Output torque 17,5 kNm – 100 kNm
- Gearbox ratios 5,6:1 – 3550:1
- Nominal power up to 2850 kW
- Helical and helical-bevel configurations available
- Can be equipped with standard lip seals or Taconite- type seals



CUMERA D gearboxes

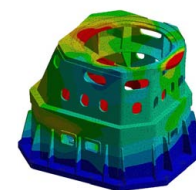
- Shaft distance 450 mm – 710 mm
- Output torque 155 kNm – 610 kNm
- Gearbox ratios 5,6:1 – 630:1
- Nominal power up to 11 MW
- Helical and helical-bevel gear configurations
- Can be equipped with standard lip seals or Taconite- type seals

CRANE DRIVE REFERENCES

BM Titan, Figeo, Imenosa, Kalmar/Nelcon, Konecranes, Nieuwe Boomse, NKM, Samsung Heavy Industries, Ulstein Verft

Calculation and sizing standards

- Gearbox selection and design meets requirements for crane applications
- The dimensioning of gearboxes complies with requirements of heavy lifting and handling equipment guidance FEM 1.001
- The gearboxes conform to the requirements of standard series EN 13001
- The gear teeth calculations are based on ISO standards. Calculation based on other standards such as DIN and AGMA are available on request.
- Optimum dimensions for the housing are determined using finite element analysis (FEA)
- Certifications of classification societies are available



Gearbox Health Monitoring

Guard Gear 4.0

Guard Gear 4.0 is the 4th generation of Kumera Health Monitoring services for essential process applications.

By choosing Guard Gear 4.0 together with Kumera gearboxes, it is possible to predict possible failures in critical processes. This is an additional advantage in safety and long-lasting operations of Kumera Gearboxes.

HEALTH MONITORING

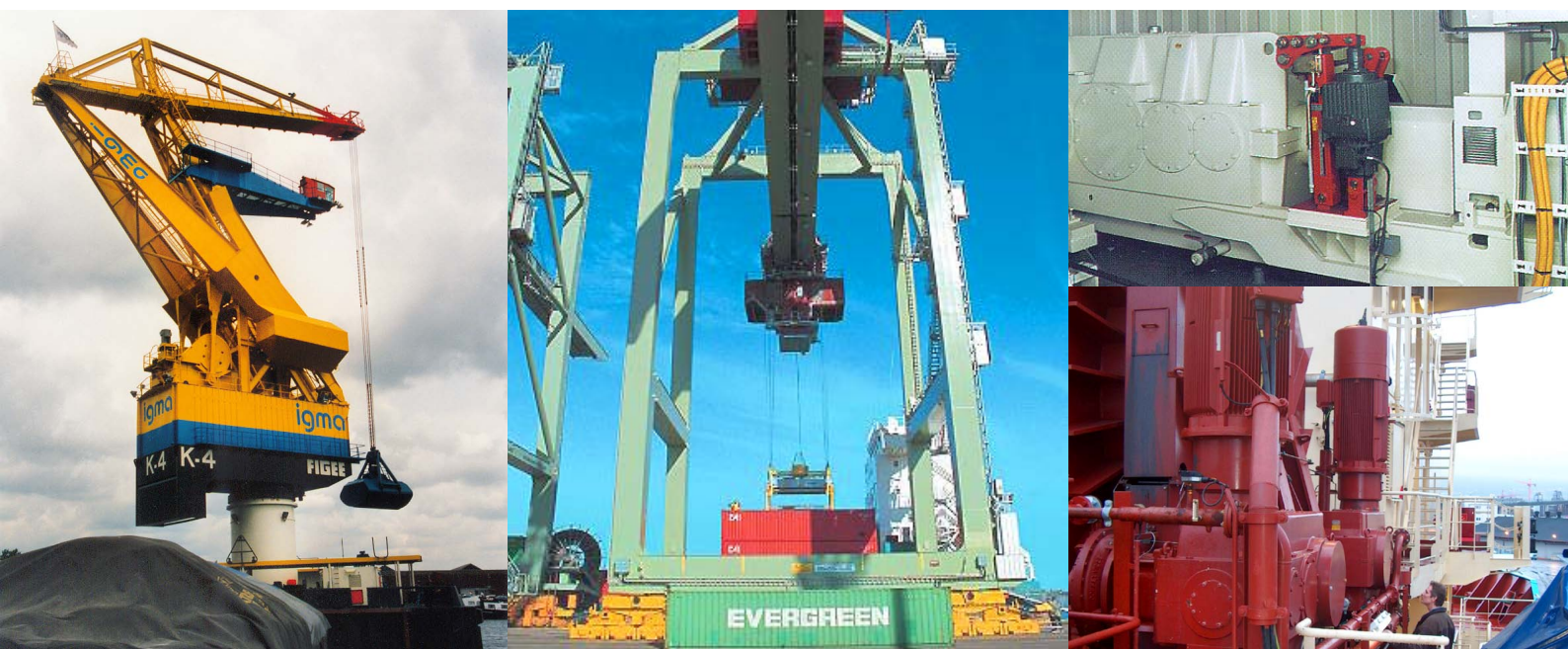


Guard Gear 4.0

- Guards Your Gear 24/7 -

REAL TIME MONITORING

- Early-stage detection of upcoming failure or changes in oil condition
- Easy access via your personal computer or mobile device regardless of gearbox's physical location
- Data is transferred automatically in real time to a cloud service via mobile data



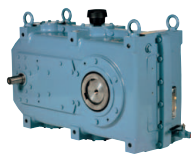
POWER-PLAZA.COM

Kumera Power-Plaza is a portal for our customers to make gearbox selections by informing the requirements for application. The 2D and 3D drawings on selected gearboxes are available as well as possibility to make purchases. Spare parts ordering through Power-Plaza is easy. Bill of Materials (BOM) and Assembly drawing is available for every gearbox delivered by Kumera.

KUMERA provides a comprehensive range of products for a wide variety of applications in all the major process industries. Kumera has more than 70 years of experience as manufacturer of mechanical power transmissions for industrial and marine applications. There are more than 200.000 Kumera gear units in operation in about 40 countries.



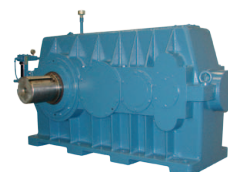
HELICAL GEAR UNITS,
CUMPACT F-RANGE



HELICAL GEAR UNITS,
CUMPACT G-RANGE



ONE STAGE HELICAL
GEAR UNITS
KUMERA LX-RANGE



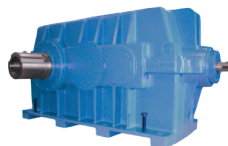
HEAVY DUTY HELICAL
GEAR UNITS,
CUMERA D-RANGE



BEVEL GEAR UNITS,
CUMPACT F-RANGE



BEVEL GEAR UNITS,
CUMPACT G-RANGE



HEAVY DUTY BEVEL
GEAR UNITS,
CUMERA D-RANGE



AGITATOR GEAR UNITS,
SG-RANGE



HEAVY DUTY AGITATOR
GEAR UNITS,
E-RANGE



WORM GEAR UNITS,
COVERA RANGE



COMBINATION HELICAL
AND WORM GEAR UNITS,
COVERA RANGE



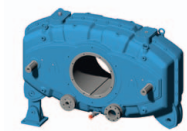
HEAVY DUTY AGITATOR
GEAR UNIT WITH
FILTERING UNIT, E-RANGE



WIND UP AND UNWIND
GEAR UNITS,
LP-RANGE



ONE STAGE HELICAL
GEAR UNITS,
CUMERA LH-RANGE



YANKEE CYLINDER
GEAR UNITS



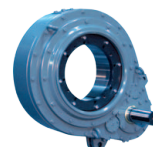
SPECIAL GEAR UNITS



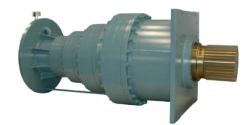
BEVEL GEAR UNITS,
KA-RANGE



FRONT END GEAR UNITS,
NORGEAR-RANGE



INTEGRATED ROLL
GEAR UNITS,
TP-RANGE



PLANETARY
GEAR UNITS,
P-RANGE

KUMERA POWER TRANSMISSION GROUP

www.kumera.com



KUMERA DRIVES OY

Kumerankatu 2
FI-11100 Riihimäki
FINLAND
Tel. +358 20 755 4200
Fax: +358 20 755 4220
E-mail: drives@kumera.com

KUMERA AS

P.O. Box 2043
N-3202 Sandefjord
NORWAY
Tel. +47 33 48 54 54
Fax: +47 33 48 54 55
E-mail: sales@kumera.no

KUMERA ANTRIEBSTECHNIK GMBH

Raiffeisenstrasse 38-40
A-8010 Graz
AUSTRIA
Tel. +43 316 471 524-0
Fax: +43 316 462 550
E-mail: kumera.graz@kumera.com

KUMERA (CHINA) CO, LTD.

168 Meifeng Road
Kunshan 215300, Jiangsu
CHINA
Tel. +86 512 503 61701
Fax: +86 512 503 61710
E-mail: kumerachina@kumera.com

Kumera Corporation

Kumera Corporation is a worldwide manufacturer of industrial machinery and engineering services. The corporation consists of four major operating divisions:

Power Transmission Group provides a comprehensive range of industrial and marine gearboxes for all major process industries. Kumera has more than 50 years of experience as manufacturer of mechanical power transmissions. There are more than 200.000 Kumera gear units in operation world-wide.

Technology Division specializes in state-of-the-art engineering and heavy process equipment for metallurgical and environmental industries. Kumera has successfully performed several modernization projects for metals industry and is a leading manufacturer of industrial steam dryers for copper and nickel smelters and lignite.

Foundry Division with **Peiron Oy** as the leading company produces all types of steel and iron castings, forming a link in the vertical refining chain of Kumera Corporation.

Marine Division produces propulsion gearboxes and propellers including control systems for any seafaring vessels.

Kumera Corporation Ltd.

Kumerankatu 2
FI-11100 Riihimäki, Finland
Tel: +358 20 755 4200
Email: kumera@kumera.com

Sales

Please feel free to send your offer request to:
sales@kumera.com
Your message will be answered within the next business day.

Technology Division

HEADQUATERS

Kumera Technology Center (KTC)
Kumerankatu 2
FI-11100 Riihimäki, Finland
Tel: +358 20 755 4200
Email: technology@kumera.com

MACHINERY

Kumera Machinery Oy
Kylmäkoskentie 18
FI-37910 Akaa, Finland
Tel: +358 20 755 4340
Email: machinery@kumera.com

FOUNDRY DIVISION

Peiron Oy - Steel Foundry
P.O. Box 88
FI-32801 Kokemäki, Finland
Tel: +358 20 750 9400
E-mail: info@peiron.com

Power Transmissions Group

FINLAND

Kumera Drives Oy
Kumerankatu 2
FI-11100 Riihimäki, Finland
Tel: +358 20 755 4200
Email: drives@kumera.com

AUSTRIA

Kumera Antriebstechnik GmbH
Raiffeisenstraße 38-40
A-8010 Graz, Austria
Tel: +43 316 471524-0
E-mail: kumera.graz@kumera.com

GERMANY

Kumera Getriebe GmbH
Bonner Straße 38
D-53842 Troisdorf, Germany
Tel: +49 2241 988 - 0
E-mail: kumera.getriebe@kumera.com

Sales Office

Ludwig-Richter-Straße 7
D-42329 Wuppertal, Germany
Tel: +49 202 3177 5787

Sales Office

Tritschler Straße 9
D-66606 St. Wendel, Germany
Tel: +49 202 3177 5786

NORWAY

Kumera AS
P.O. Box 2043, Gneisveien 11
N-3202 Sandefjord, Norway
Tel: +47 33 485 454
E-mail: sales.kumeraas@kumera.com

Helseth AS

Baklivegen 11-13
N-6450 Hjelset, Norway
Tel: +47 71 20 29 00
E-mail: helseth@kumera.com

SWEDEN

Katrinédalsgatan 13A
S-50451 Borås, Sweden
Tel: +49 739 999 188
E-mail: drives@kumera.com

CHINA

Kumera (China) Co.,Ltd.
Meifen Road 168
Wusongjiang Development Zone
Kunshan, China
Tel: +86 (0) 512 503 617 01
E-mail: kumerachina@kumera.com

Emergency Repair Service & Maintenance 24/7

- All major brands and manufacturers

EMERGENCY REPAIR SERVICE FOR INDUSTRIAL GEARBOXES

AUSTRIA

Phone: +43 316 47 15 24 - 0
E-mail: service.graz@kumera.com

FINLAND

Phone: +358 400 300 644
E-mail: service@kumera.com

GERMANY

Phone: +49 2241 988 - 0
E-mail: service.germany@kumera.com

EMERGENCY REPAIR SERVICE FOR MARINE GEARBOXES AND PROPELLERS

NORWAY

Marine Gearbox Service
Phone: +47 952 46 460
E-mail: service@kumera.no

Marine Propeller Service

Phone: +47 900 53418
E-mail: helseth@kumera.com

EMERGENCY REPAIR SERVICE FOR INDUSTRIAL AND MARINE GEARBOXES IN ASIA

CHINA

Phone: +86 137 7196 9428
E-mail: kumerachina@kumera.com