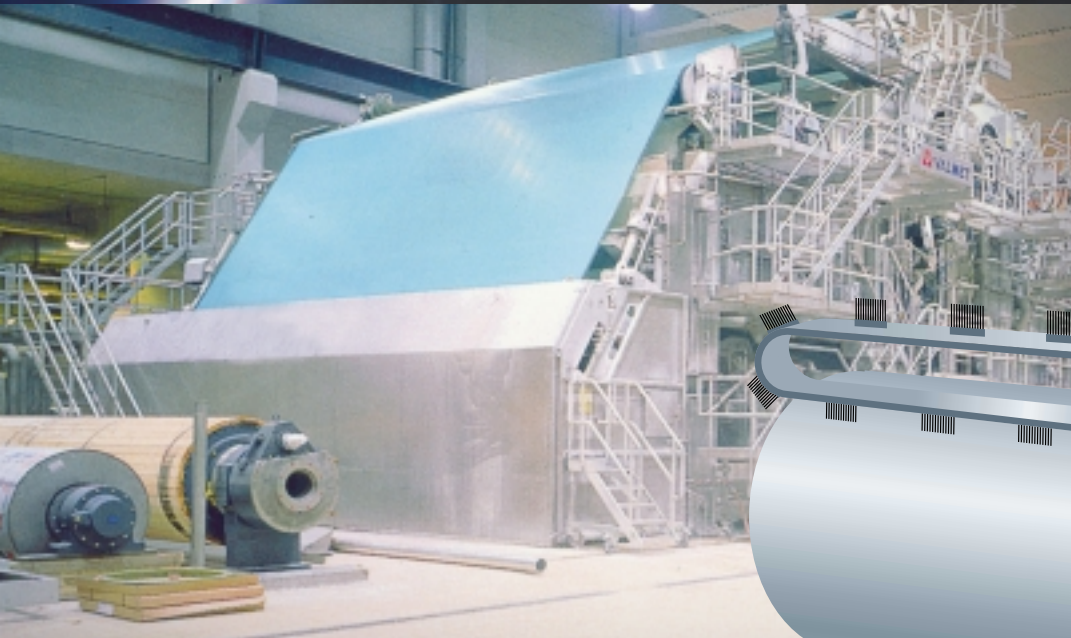


Mechanical Power Transmissions Worldwide

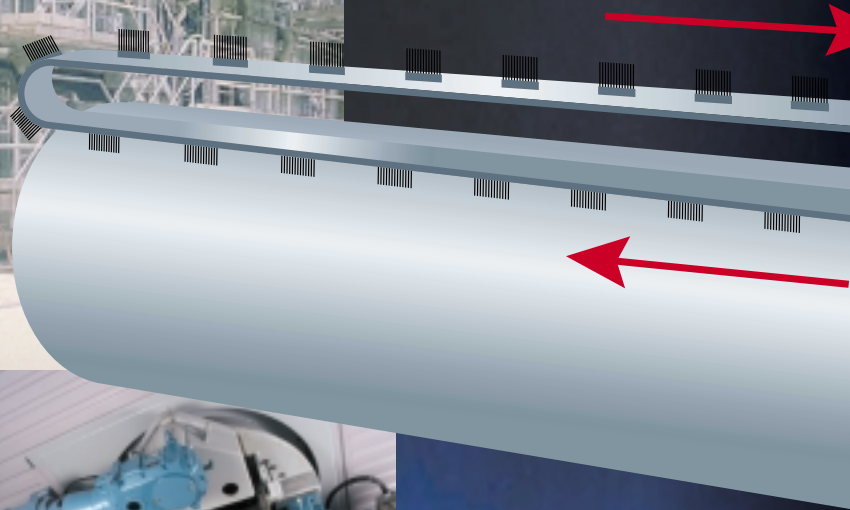


KUMERA

www.kumera.no



ReDoc is a new continuous maintenance system for cleaning the surface on cylinder rolls for paper and board making machines.



CUMPACT BEVEL GEAR MOUNTED TO A CONVEYOR



CUMERA GEAR FOR ROTATING DRIVE OF A SCREW UNLOADER

Kumera

Kumera Drives Oy and Kumera AS are members of the Kumera Corporation.

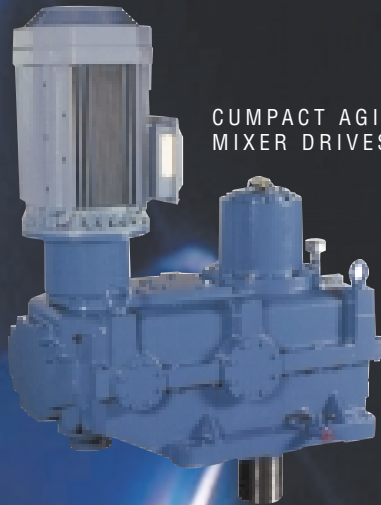
The former specialises in the manufacture of industrial mechanical power transmissions for onshore applications. Marine transmissions and special applications are designed at the Kumera AS plant in Sandefjord.

The Design and Applications team has been particularly successful with "tailor made" solutions for specific mechanical transmission requirements of customers, worldwide.



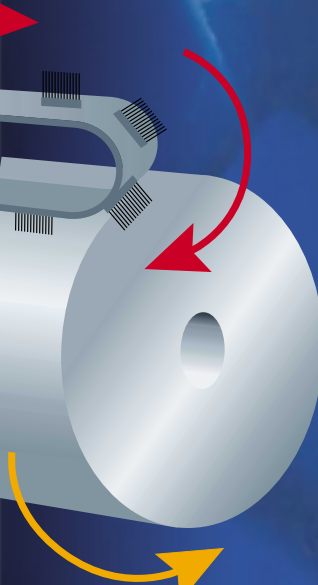
CUMERA GEAR DRIVE ON A WOOD CHIPPER

CUMPACT AGITATOR/
MIXER DRIVES

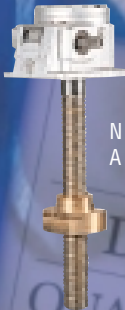


An essential requirement for any production process is the reliability and usability of the plant. Mechanical drive units are important components of a production line. A failure in a drive unit will cause immediate problems in loss of production. This is a major consideration for Kumera. Being a manufacturer of power transmission equipment, Kumera has actively developed its standard gear units to meet these needs and in co-operation with customers, drive units for their products and customised gear units for new applications.

CUMPACT BEVEL GEARS WITH
MOTOR AND HOLLOW SHAFT



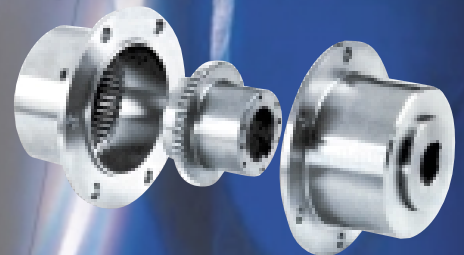
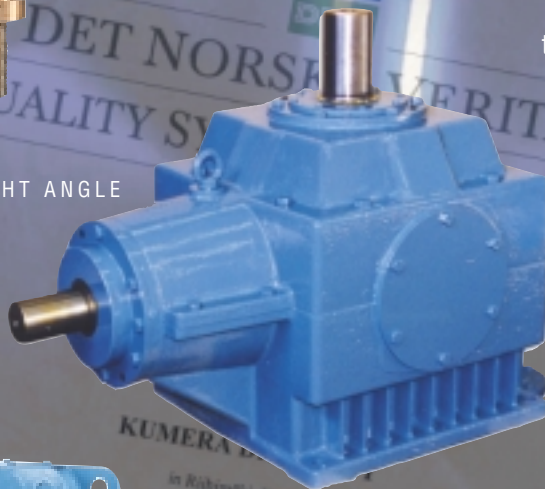
NORGEAR ANODE JACKS FOR
ALUMINIUM INDUSTRY



www.powerplaza.biz

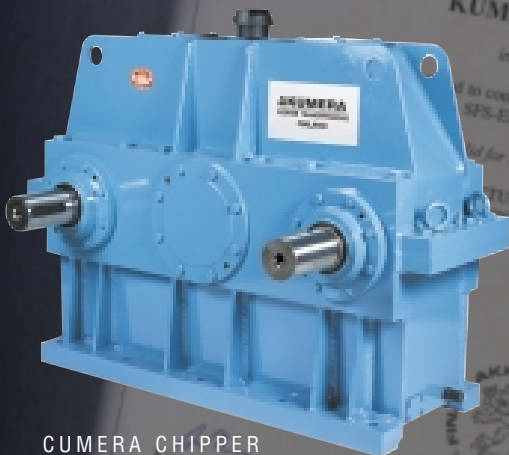
A new world wide source for power transmissions including a gear selection program for customer assistance.

CUMERA RIGHT ANGLE
GEAR UNITS

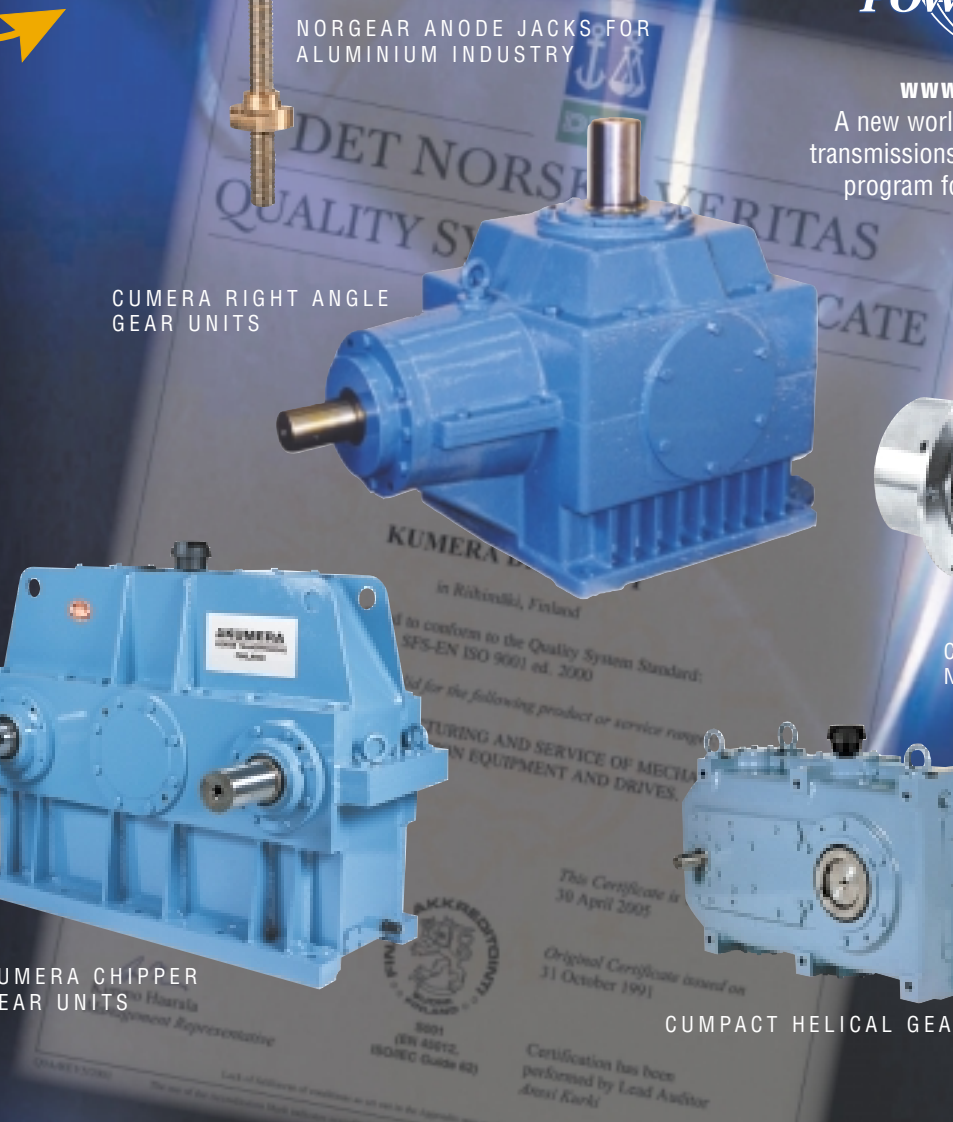
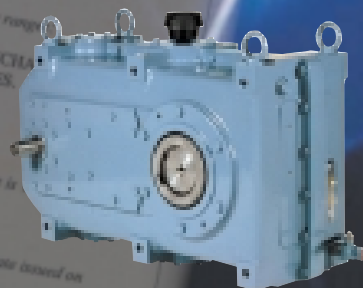


CUMEX COUPLINGS AND
NORGEAR HYDRAULIC CLUTCHES

CUMERA CHIPPER
GEAR UNITS



CUMPACT HELICAL GEAR UNITS





NORGEAR MULTISHAFT GEARBOX



STANDARD DESIGNS FOR FI-FI APPLICATIONS

The most economical solution to provide power to a fire pump of Fi-Fi I, II or III class is to utilise the main engine free-end PTO when the propulsion loading is light.

Kumera AS has a standard range of compact single input/single output gearboxes with built-in oil operated clutch. The gearboxes are offered with horizontal- and vertical offset shafts.

On vessels with a towing capability, a combination gearbox with two clutched output shafts permits individual control of a fire pump and towing winch hydraulic pump. This solution can have additional benefits in the overall machinery installation as it can reduce the auxiliary load.

When engine speed and fire pump speed are compatible, a simple clutch unit can provide the drive to the fire pump. Our NKHU oil operated multi-disc clutch offers a compact transmission, capable of engagement at all engine speeds.

Some integrated fire pump and gearbox designs are available.



NORGEAR STANDARD FI-FI I GEARBOX

GEARBOX AND CLUTCH UNITS FOR PROPULSION AND AUXILIARY THRUST

The principal application is the drive to a steerable propulsion unit. This most commonly takes the form of a right angle gearbox (horizontal input/vertical down output) type KVIV with or without a built-on hydraulic clutch.

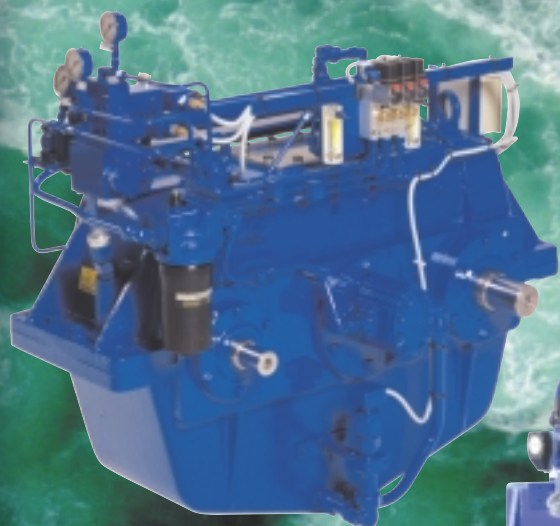
On vessels with a high electrical load, a single input twin output parallel shaft gearbox offers a clutched drive to an azimuth unit and a continuous running drive to a ship service alternator.

Parallel shaft reduction gearboxes type FV permit high speed engines to drive cycloidal propellers at optimum speed and by use of a vertical offset can eliminate the need for cardan shafts and simplify the propeller shaft line.

Tunnel thrusters with diesel drive incorporate a bevel gearbox with horizontal in/vertical down arrangement. Alternative shaft positions can facilitate the siting of an electric drive motor in a restricted thruster-room space.

A free standing hydraulic clutch unit type NKHU in the shaft line to an auxiliary thruster can permit the engine to have a secondary function e.g. an alternator drive. The same unit would provide isolation on a water jet drive for maintenance and safety.

Kumera AS delivers gearboxes with a dual clutch, two speed arrangement for PTO/PTI operation.



NORGEAR MULTISHAFT GEARBOXES



NORGEAR RIGHT ANGLE GEARBOXES



NORGEAR PARALLEL SHAFT GEARBOXES





CUMERA RIGHT
ANGLE GEARBOX

Offshore and onshore installations offer many applications for right angle gearboxes ranging from standard reduction units for water supply or irrigation pumps to more complex types such as Kumera RA designed to meet the standards of the oil industry. These gearboxes incorporate a hollow output shaft to accommodate vertical adjustment of the pump shaft, thrust bearing sized to take the axial thrust and weight of the pump rotor and a back stop on the output shaft.

Being a specialist gearbox manufacturer – our gearboxes are easily adapted into dredge vessel applications. From only driving the dredge pump to combined duty such as dredge pump plus jet pump, direct mechanical drive or via an interposed hydraulic system.



NORGEAR GEARBOX
FOR DREDGER



Kumera AS is ready to assist you anywhere you may be in the world:

- with a great service minded team that is ready to provide you with parts, engineering skills and technical advice
- being part of your preventative maintenance ensuring optimal operation of the gears by regular inspections and planned service
- serving the shipping and offshore industries world wide and industrial installations in Norway
- having a well stocked spares department of original parts in Sandefjord, Norway. Utilising air-freight from our nearby feeder airport to ensure fast deliveries to any location in the world
- offering:
 - extended service, vibration and alignment control
 - training in our factory
 - service on other mechanical products
 - 24 hour service

All services are coordinated through our head office in Sandefjord, Norway. Service partners all around the world ensures provision of spare parts and service at short notice.





Kumera AS can trace the history of Norgear transmissions back to its earliest format in the 1930's. The company has been a member of the Kumera Corporation since 1979 bringing together more than 70 years experience serving the mechanical transmissions industry with the latest advances in R&D, product design and production technology.

Kumera in-house capabilities include three foundries, a steel fabrication plant and two specialist gear-cutting and case hardening facilities.

A Quality System conforming to ISO 9001 allows our international customers to be certain of our commitment to quality workmanship. For marine products, building to class rules and under survey ensures acceptance by all Classification Societies.



Kumera AS
 P.O.box 2043
 N-3202 Sandefjord
 NORWAY
 Tel. +47 3348 5454
 Telefax +47 3348 5455
 E-mail: sales@kumera.no

Kumera Drives Oy
 Kumerankatu 2
 Fin-11100 Riihimäki
 FINLAND
 Tel. +358 19 749 1
 Telefax +358 19 734 699
 E-mail: drives@kumera.com

Cumel Oy
 Karoliinankatu 4
 FIN-11100 Riihimäki
 FINLAND
 Tel. +358 19 831 9511
 Telefax +358 19 831 9515
 E-mail: cumel@cumel.com

Kumera Antriebstechnik GmbH
 Raiffeisenstrasse 38-40
 A-8010 Graz
 AUSTRIA
 Tel. +43 316 471524-0
 Telefax +43 316 462550
 E-mail: kumera.graz@kumera.com