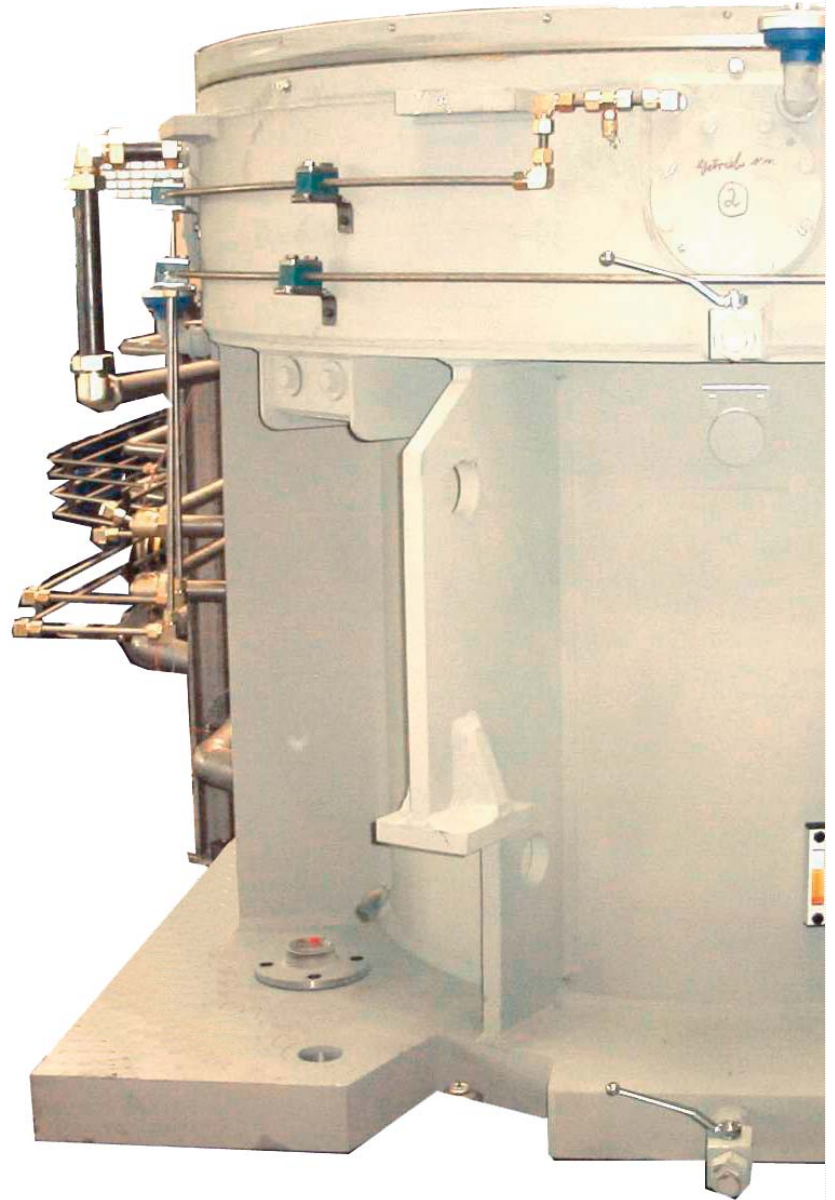


HIGH-PERFORMANCE GEARBOXES FROM KELLER FOR THE CEMENT INDUSTRY
POWER WITH A SYSTEM



Revision 1 11.07.2007

C. u. W. Keller GmbH & Co. KG
Zahnräderfabrik-Getriebebau
Bonner Straße 38
D-53842 Troisdorf-Spich

Tel: +49 (0) 2241 – 988-0
Fax: +49 (0) 2241 – 988-200
E-Mail: keller@keller-getriebe.de
Web: www.keller-getriebe.de

HISTORY

- In 1901 the Keller metalworking shop began manufacturing gear wheels in a shed with an area of 50 square meters in Troisdorf
- In 1921, the procurement of gear wheels was nearly impossible. Consequently, the brothers Carl & Wilhelm Keller decided to start manufacturing gears themselves.
- In 1936, production was expanded to include gearboxes for the steel industry.
- In 1968, gears for mining
- In 1971, gears for the sugar industry
- In 1983, mixer gears
- In 1985, the company began manufacturing gears for the cement, chemical and aluminum industries
- In 2000, the production of gears for dredging began.

COMPETENCE

On the one hand, we benefit from our wealth of experience gathered over the years, and on the other hand from the production and calculation methods implemented at our company.

In view of this, we invest significantly and continuously in production and design, with the goal of always keeping up with the state of the art.

Our competence in the area of research and development is greatly enhanced by our membership in the FVA Research Association for Power Transmission Engineering, in addition to active contacts with institutes of higher learning.

HOW DO WE OPERATE?

Customer-oriented:	We offer solutions at reasonable prices.
Quality-conscious:	Certified according to DIN EN ISO 9001:2000
Experienced:	It is not the first time for us
Fast:	Cross-sector project teams

WHAT WE ARE PROUD OF:

- We are among the most competitive German manufacturers of special gears with a weight of up to 160 tons.
- We are fast and flexible, while maintaining high standards of quality.
- We equally challenge and support our employees. Continued and advanced training programs are not out of the ordinary for us.
- Our processes and structures allow us to keep learning and to share our experience with our colleagues.

CEMENT INDUSTRY

For the cement industry we can provide gearboxes for several applications, like e.g. vertical- and horizontal mills, kiln drives and conveyor drives. Another products we supply are e.g. pinions for the gear rims of the mills or kilns. We have gathered experiences for this products, so we have manufactured for well-known costumers:

Bevel planetary vertical gearboxes

Helical gearbox in horizontal design for mill, kiln, and belt gearboxes

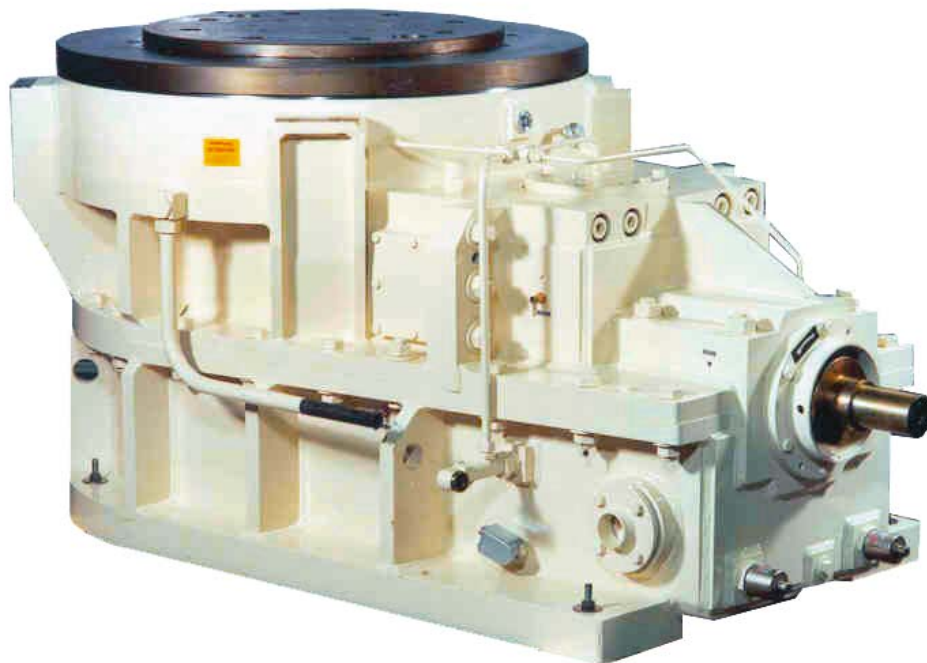
Modernization and reinforcement of a helical gearbox

Pinions for mills and kilns

various gear elements

100 kW BEVEL HELICAL VERTICAL MILL GEAR UNIT

Weight
5.250 kg



PLANETARY GEARBOX FOR VERTICAL ROLLER MILL

Nominal Power

$P = 1630 \text{ kW}$

Speed

$n = 990 / 27,8 \text{ rpm}$

Ratio

$i = 35,6 : 1$

Nominal torque

$T_2 = 550000 \text{ Nm}$

Weight

43.000 kg



KILN DRIVE GEARBOX IN FRANCE

Nominal Power

$P = 565 \text{ kW}$

Speed

$n_1 = 0 - 1.500 \text{ rpm}; n_2 = 21,13 \text{ rpm}$

Ratio

$i = 70,99 : 1$

Torque

$T_2 = 255.572 \text{ Nm / shaft}$

Weight

15.600 kg



ROLLER MILL GEARBOX

Nominal Power

$P = 90 \text{ kW}$

Speed

$n_1 = 1.490 \text{ rpm}; n_2 = 52,32 \text{ rpm}$

Ratio

$i = 28,476$

Torque

$T_2 = 16.424 \text{ Nm / shaft}$

Weight

3.275 kg

