# KREISEL

# KREISEL ROTARY VALVE VS. SCREW PUMP

### KREISEL CERAMIC ROTARY FEEDER FOR PNEUMATIC CONVEYANCE

The KREISEL rotary feeder is one of the most popular feeder for pneumatic conveyance. Depending on the bulk material, its hardness and the conveying pressure, the right type of rotary feeder is chosen.

#### There are mainly 3 executions :

#### 1 KREISEL-WPS (Wear Protection Standard) Housing: St 37-2 Rotor: St 37-2 with hardened wearing strips

2 KREISEL-WPH (Wear Protection High) Housing: St 37-2 with tungsten carbide-lining (WC) Rotor: chromated C45





**3 KREISEL-WPU (Wear Protection Ultra)** Housing: St 37-2 with ceramic-lining Rotor: St 37-2 with tungsten carbide-lining (WC)

ADVANTAGES OF THE KREISEL CERAMIC ROTARY FEEDER (WPU) Most of our customers prefer the significant reduction of energy consumption by the KREISEL ceramic rotary feeder in comparison with other pneumatic conveying systems, especially the pneumatic screw pump.

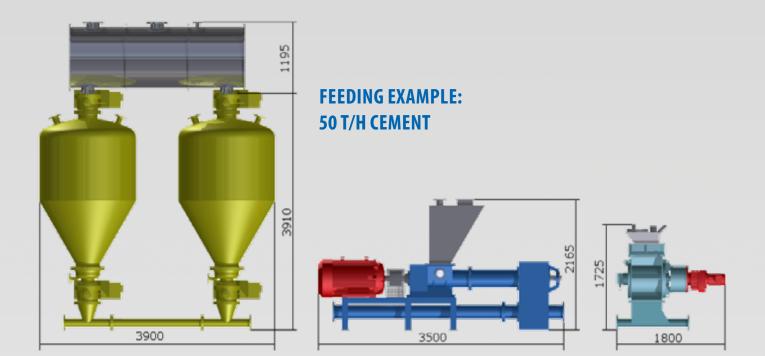
The following example shows the enormous reduction of energy and energy costs. The reduction of power consumption is realized due to the replacement of the big screw pump motor by a small motor at the ceramic rotary feeder.

Additionally, there is no internal pressure drop as it is for the screw pump so that there is a pressure reduction at the pressure generator.

DATA for 150t/h cement	SCREW PUMP	ZSV 700X700
Operating hours [h/a]	7500	7500
Energy costs [\$/kWh]	0.08	0.08
Coupling power of feeding device [kW]	155	5
Coupling power of pressure generator [kW]	336	294
Total energy consumption [kW]	491	299
Total energy consumption per year [kWh/a]	3.682.500	2.242.500
Energy costs per year [\$/a]	294.600	179.400
Saving of kW per year	1.440.000 kWh	
Energy costs savings	115.200, (-39%)	

## FURTHER ADVANTAGES

A further advantage of the KREISEL ceramic rotary feeder is the lower installation height as shown in the following picture for a feeding capacity of 50 t/h of cement:



A simple installation as well as unbeatable low maintenance works and costs complete the advantages of the KREISEL ceramic rotary feeders in comparison with other pneumatic conveying systems.

#### THE ADVANTAGES OF THE KEISEL-CERAMIC ROTARY FEEDER:

- lowest possible energy consumption
- insensitive to foreign bodies
- insensitive to changing bulk characteristics like Blaine or particle grain size distribution
- insensitive to grinding aid
- insensitive to overfilling of the inlet area
- no influence of the back pressure on the drive engine
- small size of motor control cabinet (MCC)
- shortest commissioning time
- smallest space requirements
- performance increase
- highest reliability

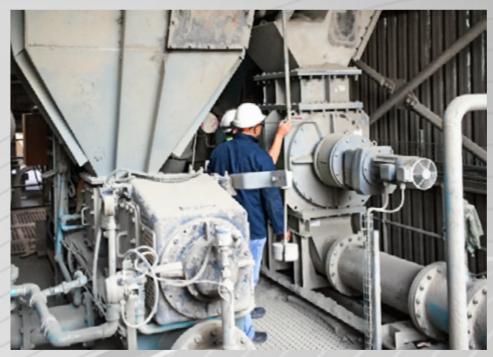
### THE REPLACEMENT OF A SCREW PUMP AGAINST THE KREISEL CERAMIC ROTARY FEEDER

The replacement of the screw pump against the KREISEL ceramic rotary feeder is very simple and time-saving.

The picture below shows the exchange of a screw pump against a KREISEL ceramic rotary feeder. The exchange can be done without any modifications on the feeding system. By the adaption of the pump surge bin, the ceramic rotary feeder can be easily installed.

Our customers only have to exchange the screw pump against the rotary feeder and have to modify the existing dedusting hopper.

The conveying air compressor or blower as well as the conveying pipe remeans the same and is unchanged. KREISEL Engineering supplies all required informations for the modifciation and is at our customer's disposal from the very beginning until the end of operation.



Exchange of Screw pump against KREISEL ceramic rotary feeder



Typical installation of a KREISEL-ceramic rotary feeder



#### **KREISEL IMAGE**



KREISEL GmbH & Co. KG Mühlenstraße 38 02957 Krauschwitz Germany

Phone: +49 35771 98-0 Fax: +49 35771 60798 E-Mail: info@kreisel.eu **Branch Office Hamburg** Tempowerkring 6 21079 Hamburg Germany

Phone: +49 40 790 12 870 Fax: +49 40 790 12 870 E-Mail: hamburg@kreisel.eu



THE WORLD-WIDE ACTIVITIES ARE MAINLY IN THE FOLLOWING INDUSTRIES

- Cement-/ Limestone- and Gypsum industry
- Power plants
- Aluminium industry
- Potash & fertiliser industry
- Minerals
- Chemical industry
- Food industry
- Ceramical industry
- Glass industry
- Wood industry
- Recycling industry



Certified according DIN EN ISO 9001:2008

# WWW.KREISEL.EU