

---

# SCHORCH

Technology with drive

---

## INDEX

- The Company
- Product Portfolio
- Market Segments
- Maintenance & Service
- References
- Contact



## THE COMPANY

- Profile
- History
- Staff Structure
- SCHORCH and A-TEC
- Certification



## SCHORCH Profile

### Employees

492

### Year of foundation

1882

### Ownership

Member of  
ATB-Group (Austria)

### Main market segments

- Oil & Gas
- Petrochemicals & Chemicals
- Power Generation
- Steel & Metal
- Water Supply & Irrigation
- Shipbuilding
- Material Handling & Recycling
- Test Benches
- Tunnel

### Activities

- Three- Phase Asynchronous Machines -  
Low-voltage up to 4,000 kW
- Three- Phase Asynchronous Machines -  
High-voltage up to 25,000 kW
- Drive Systems and System Engineering
- Maintenance and repair service

**Schorch is one of the leading manufacturers in the field of electrical machines.**



## SCHORCH History

- 1882** Foundation of the company Max Schorch & Cie, Rheydt. Manufacturing of wiring accessories, arc lamps, dynamos, planning and delivery of electrical equipment.
- 1900** The company is converted into a joint stock company. SCHORCH specializes in the manufacture of electrical machines.
- 1925** Majority of shares Deutsche Continental-Gas Gesellschaft of Dessau.
- 1959** SCHORCH, together with other electrical firms, is merged into the Continental Elektroindustrie AG.
- 1990** SCHORCH - a subsidiary of AEG Aktiengesellschaft, Berlin and Frankfurt
- 1995** SCHORCH GmbH is separated into AEG-Schorch Transformatoren GmbH (legal successor) and Schorch Elektrische Maschinen und Antriebe GmbH
- 1996** SCHORCH Elektrische Maschinen und Antriebe GmbH becomes a subsidiary of Elexis Elektroholding GmbH, Frankfurt.
- 2001** SCHORCH Elektrische Maschinen und Antriebe GmbH is acquired by Lindeteves-Jacoberg Ltd., Singapore
- 2006** ATB Austria acquires the majority of shares in Lindeteves-Jacoberg Ltd., Singapore
- 2007** 125th anniversary of SCHORCH

## Staff Structure

Employees	
Management	1
Financial Accounting / Personnel / IT	26
Purchasing and Logistics	27
Production / Service	329
Engineering, Design and Research / Quality Assurance	57
Sales / Marketing	37
Trainees	15
<b>Total</b>	<b>492</b>





## Schorch Headquarters



Moenchengladbach / Germany


## Certification



## Certification

**Physikalisch-Technische Bundesanstalt**  
Braunschweig und Berlin

**PTB**



(1) **Production Quality Assessment Notification**

(Translation)

(2) Equipment or protective systems or components intended for use in potentially explosive atmospheres - **Directive 94/9/EC**

(3) Notification number: **PTB 99 ATEX Q008-4**

(4) Product group(s): Low- and high voltage asynchronous motors in the decisive types of protection Increased Safety "e", Flameproof Enclosure "d" as well as protection by enclosure "tD", connection system in the types of protection Increased Safety "e" and Flameproof Enclosure "d"

A list of the EC-Type Examination Certificates covered by this notification is held by the notified body.

(5) Manufacturer: Schorch Elektrische Maschinen und Antriebe GmbH  
Breite Straße 131, 41238 Mönchengladbach, Germany


(6) Production site(s): Schorch Elektrische Maschinen und Antriebe GmbH  
Breite Straße 131, 41238 Mönchengladbach, Germany


(7) The Physikalisch-Technische Bundesanstalt (PTB), Notified Body No. 0102 for Annex IV in accordance with Article 9 of the Council Directive 94/9/EC of March 23, 1994 notifies that the manufacturer has a production quality system in compliance with the Annex IV to the Directive.

(8) This notification is based on the confidential audit report No. 11-31002, issued on March 04, 2011. This notification is valid until March 18, 2014 and can be withdrawn if the manufacturer no longer satisfies the requirements of Annex IV.

**Results of periodical reassessments of the quality system are part of this notification.**

(9) According to Article 10 (1) of Directive 94/9/EC the CE marking shall be followed by the identification number 0102 of PTB as the Notified Body involved in the production control stage.

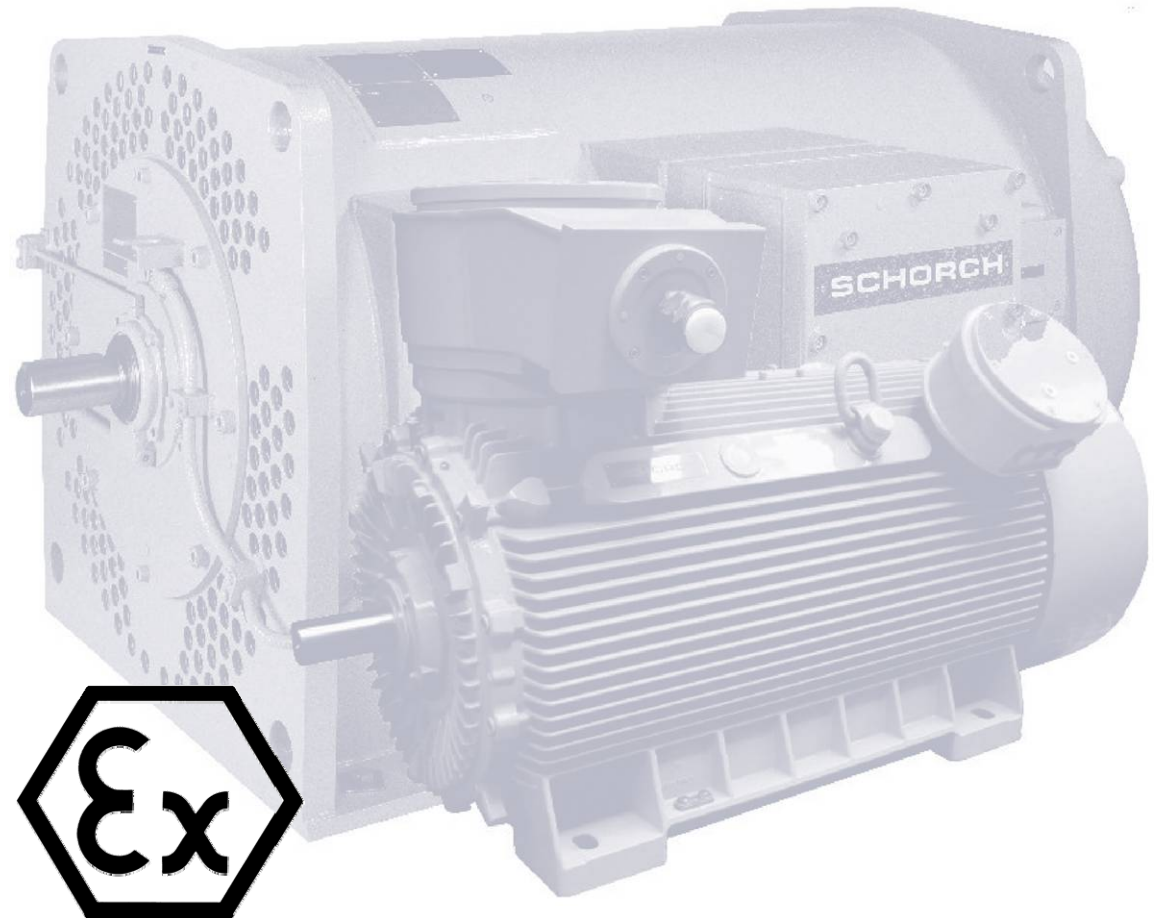
Zertifizierungsoffizier Explosionschutz  
On behalf of PTB:   
Dipl.-Ing. M. Grau



Braunschweig, March 07, 2011

Sheet 1/1

Notifications without signature and official stamp shall not be valid. The notification may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.  
Physikalisch-Technische Bundesanstalt • Bundesallee 100 • 38116 Braunschweig • GERMANY

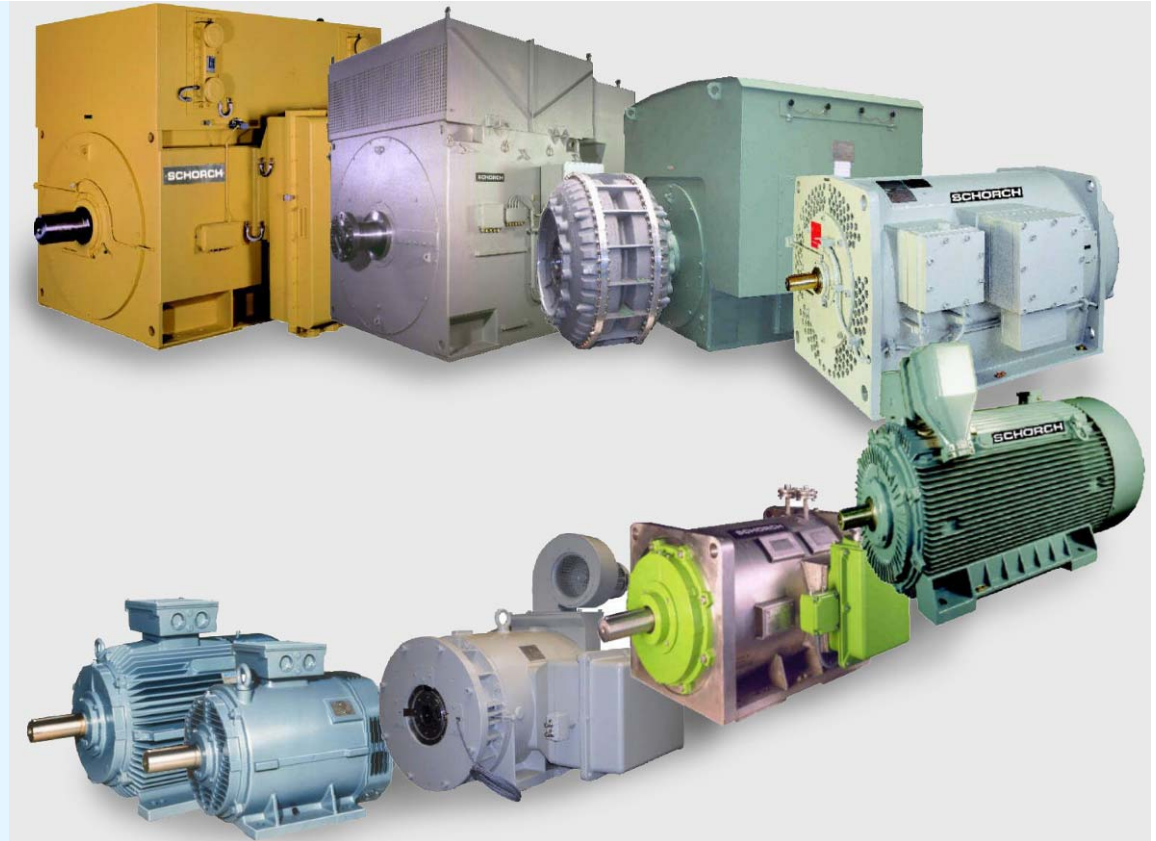


Production quality system  
explosion-protected machines



## PRODUCT PORTFOLIO

- Low-voltage asynchronous machines
- High-Speed Machines
- High-voltage asynchronous machines
- Explosion-protected machines
- Drive Systems and System Engineering



## Product portfolio low-voltage asynchronous machines

### Surface-ventilated machines

Basic design  
Explosion-protected Ex e, Ex n  
Frame sizes: 63 – 560  
Power Range: 0.18 – 1,800 kW

**Branches:**

- Oil & Gas
- Petrochemicals
- Industry

**Applications:**

- Pumps, Compressors, Fans

Explosion-protected Ex de, Ex d  
Frame sizes: 63 – 500  
Power Range: 0.18 – 1,200 kW

**Branches:**

- Oil & Gas
- Petrochemicals

**Applications:**

- Pumps, Compressors, Fans

Water-jacket-cooled machines  
Frame sizes: 250 – 500  
Power Range: 45 – 2,000 kW

**Branches:**

- Petrochemicals
- Shipbuilding

**Applications:**

- Plastic Machines, Pumps

### Internally ventilated machines

Frame sizes: 250 – 400  
Power Range: 75 – 1,300 kW

**Branches:**

- Shipbuilding
- Food Industry

**Applications:**

- Refrig. Compressors

## High-Speed Machines

**Test bench applications**  
(for Engines, Gear boxes, Power trains, Rolling roads)

**IP23  
Engine**

Frame sizes: 180-400  
Power range: 50 up to 1,000 kW  
Speed: up to 15,000 rpm

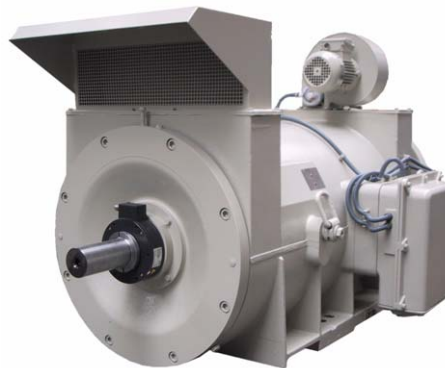
**IP23  
Gear box**

Frame sizes: 315-710  
Power range: 100 up to 4,000 kW  
Speed: up to 4,000 rpm

**Industrial applications**  
(for Compressors, Pumps)

**IP23**

Frame sizes 180-315  
Power range: 100 up to 400 kW  
Speed: up to 9,000 rpm



## Product portfolio high-voltage asynchronous machines

### Surface-ventilated machines

Basic design

Explosion-protected Ex e, Ex n

Power range: 180 – 17,000 kW



Explosion-protected Ex de, Ex d

Power range: 180 – 10,000 kW

Explosion-protected Ex p

Power range: 180 – 20,000 kW



### Internally ventilated machines

Power range: up to 25,000 kW

Option: Ex p – water-cooled

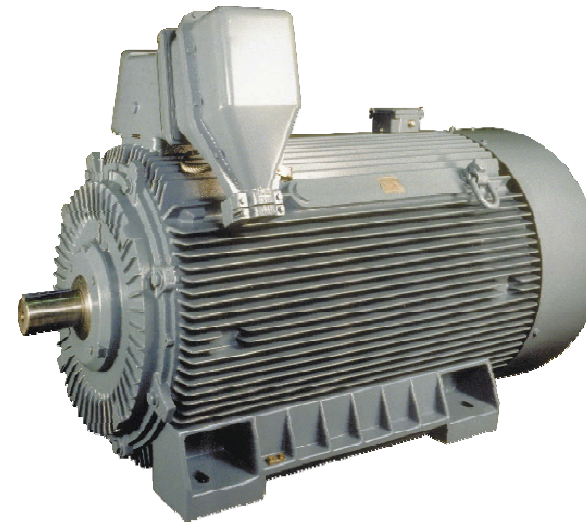




## High-voltage asynchronous machines



Pump drive, 800 kW, 6 kV  
1493 rpm



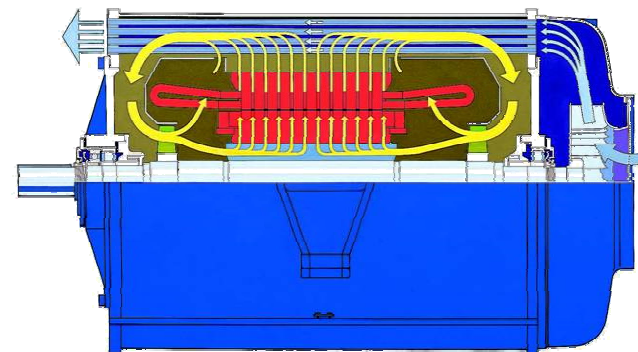
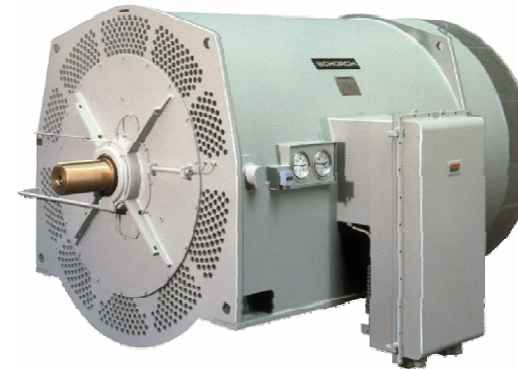
IP55, cast iron, shaft centre heights 355- 560;  
Outputs 180 to 2,000 KW



## High-voltage asynchronous machines



Pump drive, 2,250 kW, 6.3 kV  
and 1492 rpm

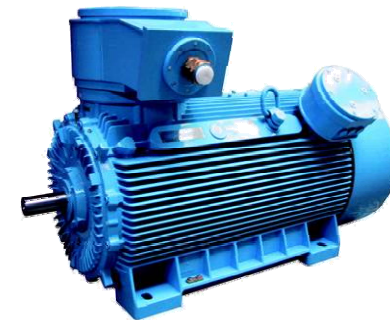


IP54, tube cooled  
Outputs from 1,900 to 17,000 kW

## High-voltage asynchronous machines



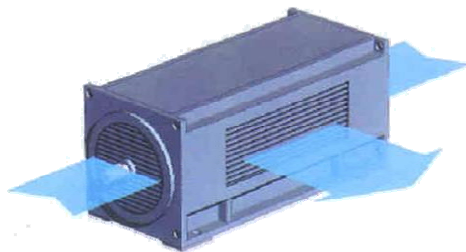
Drive for crude oil pumps, EExd(e) IIB T4, 1,500 kW, 10 kV, 1,490 rpm



IP55 Explosion-protected (flameproof),  
Outputs from 180 to 10,000 kW

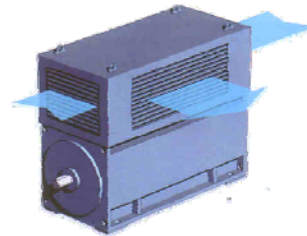
## High-voltage asynchronous machines

### Compact design (Outputs up to 1,500 kW)

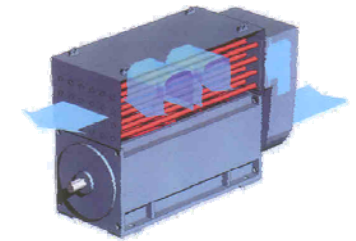


IP23, IC01

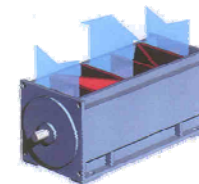
### Modular design (Outputs up to 25,000 kW)



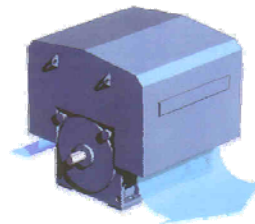
Top-mounted air guide cover,  
IP23, IC01, for outputs up  
to 7,000 kW



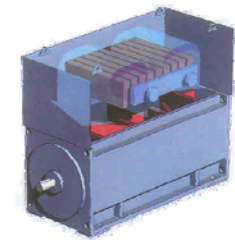
Top-mounted air/air tube-type  
heat exchanger, IP54/55, IC611,  
for outputs up to 17,000 kW



Standard frame



Top-mounted weather protection  
hood, IPW24, IC01, for outputs  
up to 15,000 kW



Top-mounted water/air heat  
exchanger, IP54/55, IC81W,  
for outputs up to 25,000 kW

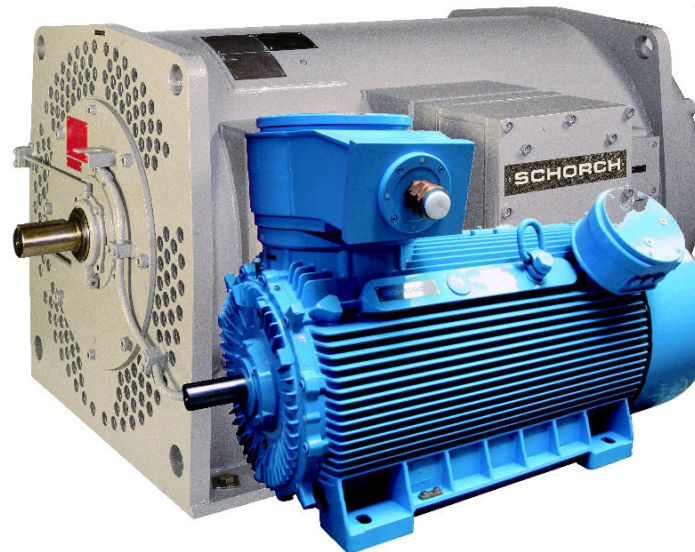


## Explosion-protected machines

### Typical hazardous areas

- Petrochemical Industry
- Chemical Industry
- Oil & Gas Industry
- Fertilizer Industry
- Mining Industry
- Sewage Treatment

### Schorch – specialist for explosion-protected machines



## Explosion-protected machines

### Certification of flameproof motors

#### Extension of the certified range

Type	IIB	IIC
54	-	☺
58	☺	☺
60	☺	☺
65	☺	☺
68	☺	☺
69	☺	☺





## Portfolio Drive Systems and System Engineering

### Engineered drive solutions tailored to your specific requirements

- Plug-in units and cabinets ready for connection
- for 1 Q and 4 Q operation
- 6 and 12-pulse versions
- for mains voltages from 380 V to 1,000 V and above

### Selected fields of application

- mechanical engineering (e.g. centrifuges, test benches)
- compressors, pumps, fans
- installations (e.g. cement, chemicals)
- utilities, electricity boards

### Tailor-made system engineering from one and the same supplier

- We offer tailor-made solutions for a wide variety of applications in the field of electrical drives.



## MAIN MARKET SEGMENTS

- Oil & Gas
- Petrochemicals & Chemicals
- Power Generation
- Steel & Metal
- Water Supply & Irrigation
- Shipbuilding
- Material Handling & Recycling
- Test Benches
- Tunnel



## Oil & Gas

- Oil Production ( On - & Offshore)
- Pipeline / Pumping Stations
- Refining
- Gas Processing (LNG, GTL, etc)
- Gas Storage





## Oil & Gas – Oil Production

**Customer:** Wirth Maschinen- und Bohrgeräte-Fabrik GmbH  
**Drive:** Mud pump for use on drilling platforms

### Technical data

Type: KL6035B-EN06  
 Output: 1,655 kW  
 Fed by: Water-cooled IGBT-frequency converter  
 Voltage: 690 V  
 Speed range: 40 - 1,200 rpm at constant load torque  
 Protection: IP56  
 Explosion-protected: EExe II T3  
 Power transmission: Via 2 shaft ends with sprocket wheel  
 Design in accordance with NORSOK and DNV

### References

**SNORRE B**  
Norsk Hydro

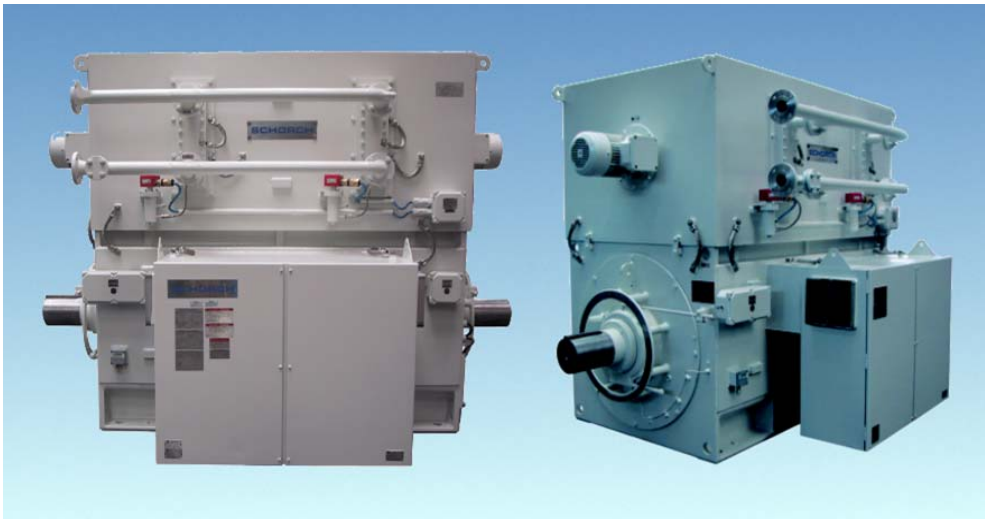
**VALHALL**  
BP Amoco

**RINGHORN**  
Esso

**KVITEBJØRN**  
Statoil

**MAERSK**  
A.P. Møller

**OSEBERG C**  
Norsk Hydro



## Oil & Gas – Oil Production

**Customer:** Flowserve B.V.  
**User:** Shell, Oil Platform  
**Location:** Malaysia  
**Project:** Gumusut-Kakap  
**Driven machine:** Pump

### Technical data:

**Type:** KU6938G-PK04  
**Output:** 5,200 kW  
**Voltage:** 11,000 V  
**Speed:** 1,483 rpm  
**Type of protec.** IP56  
**Construction:** IM B3  
**Mass:** 18.8 t



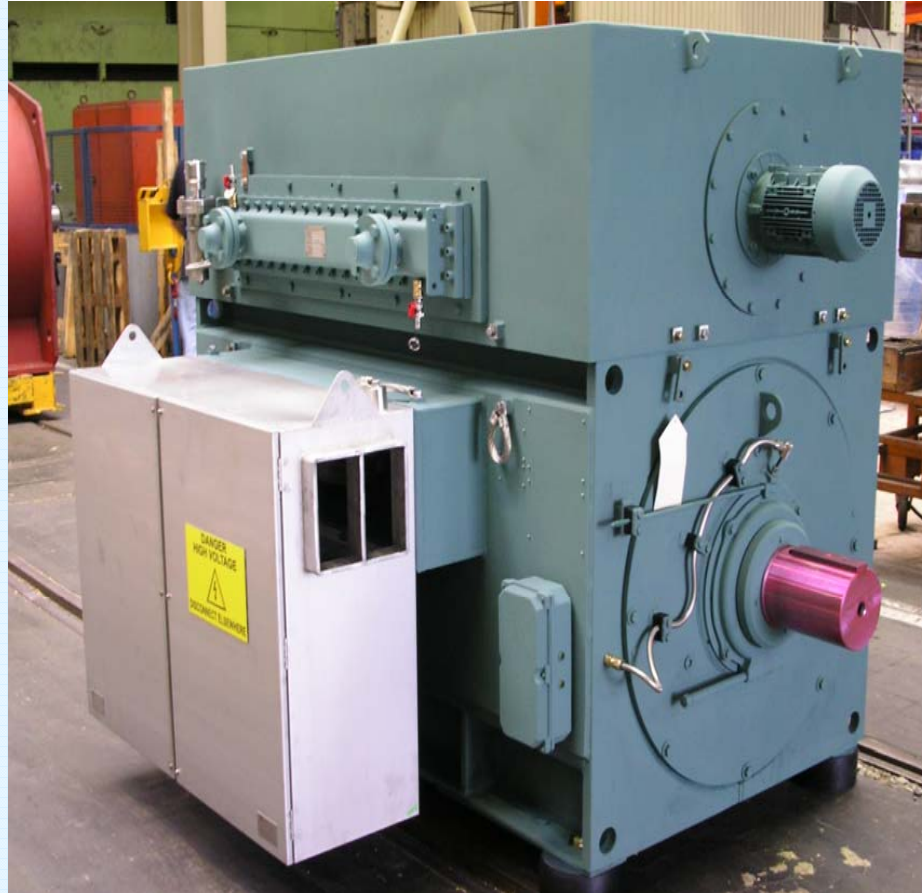


## Oil & Gas – Oil Production

**Customer:** Wirth GmbH  
**Project:** Mobile Oil Platform  
**Driven machine:** Pump

### Technical data:

**Type:** KL6035B-AT06  
**Output:** 1,655 kW  
**Voltage:** 690 V  
**Speed:** 994 rpm  
**Type of protect.** IP56  
**Construction:** IM B3



## Oil & Gas – Oil Pipeline

**Customer:** Ruhrpumpen GmbH  
**User:** PCK Schwedt  
**Project:** Pipeline  
**Location:** Germany  
**Driven machine:** Pump

### Technical data:

**Type:** KR6031G-DA02  
**Output:** 1,450 kW  
**Voltage:** 6,000 V  
**Speed:** 3,000 rpm  
**Type of protect.** IP55  
**Construction:** IM B3

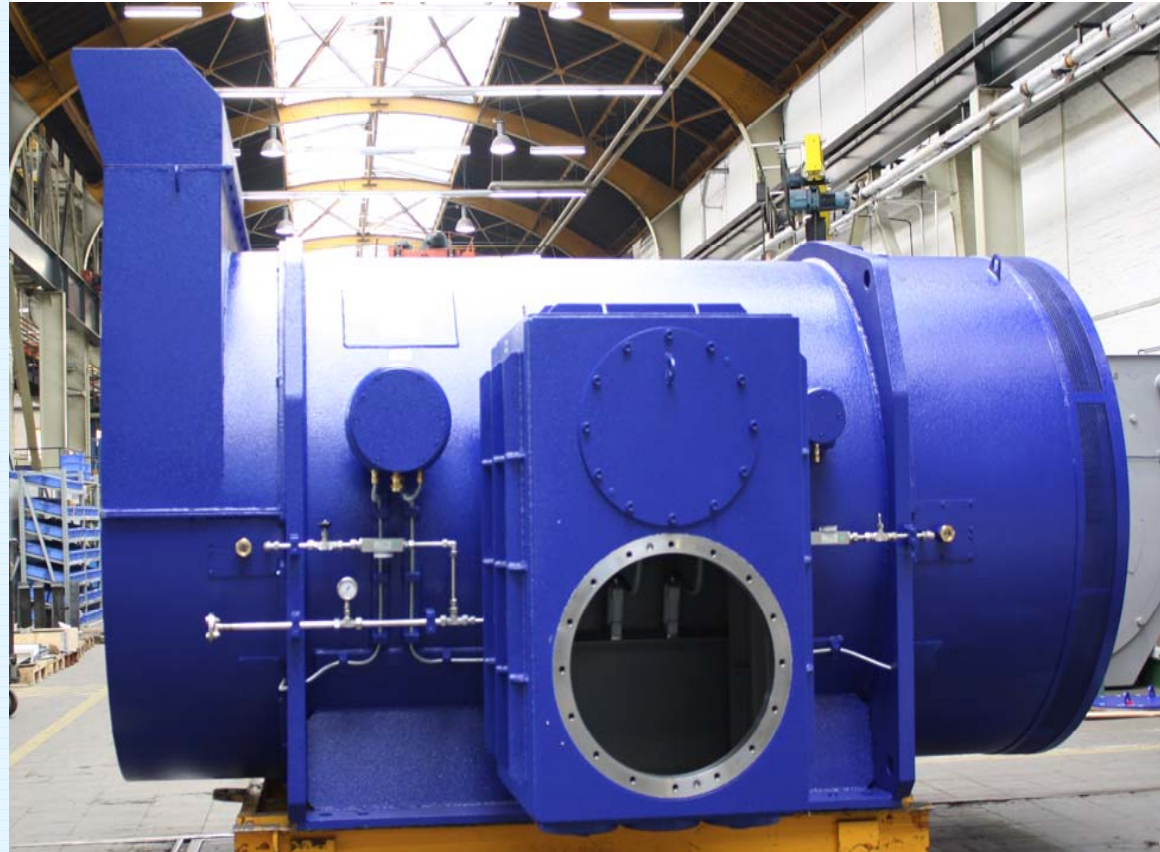


## Oil & Gas – Oil Pipeline

**Customer:** Ruhrpumpen GmbH  
**User:** Jadranski naftovod  
**Project:** Janaf Pipeline  
**Location:** Croatia  
**Driven machine:** Pump

### Technical data:

**Type:** KR6835G-DA02  
**Output:** 3,300 kW  
**Voltage:** 6,000 V  
**Speed:** 2,991 rpm  
**Type of protect.** IP55  
**Construction:** IM B3





## Oil & Gas – Oil Pipeline

**Customer:** Bornemann GmbH  
**User:** PDVSA  
**Location:** Venezuela  
**Project:** ERO Morichal  
**Driven Machine:** Pump

### Technical data:

**Type:** KR6538B-UC06  
**Output:** 2,200 kW  
**Voltage:** 4,160 V  
**Speed:** 1,195 rpm  
**Type of protec.** IP55  
**Construction:** IM B3

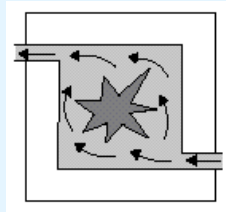




## Oil & Gas – Refining

### Type of Protection

Pressurized apparatus ,p‘



### Standards

DIN EN 50 016  
VDE 0170/0171 Teil 3.

### Philosophy

The entry of an explosive atmosphere into the enclosure of an electrical apparatus is prevented by maintaining a protective gas at a higher pressure than that of the surrounding atmosphere inside the enclosure.



**Customer:** MOL Hungarian Oil & Gas Co.  
**User:** Dresser-Rand S.A. France  
**Driven machine:** Reciprocating compressor

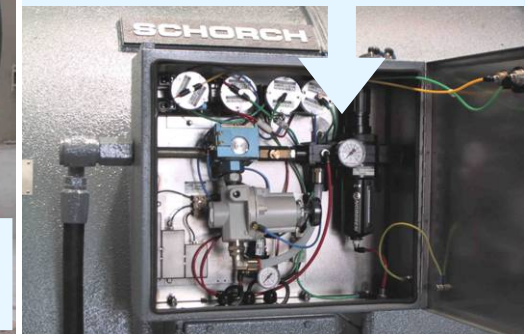
**Motor type:** KR7235K-PA16  
**Degree of protection:** IP55  
**Type of protection:** EEx pe II T4  
**Construction:** IM B2  
**Output:** 1,640 kW  
**Voltage:** 6,000 V  
**Speed:** 375 rpm  
**Mass:** 19 t



Safety and outlet valve for purging

### Automatic EExp pressurization system for the motor enclosure

Monitoring of purging with automatic leakage compensation



## Oil & Gas – Refining

**Customer:** Neuman & Esser Italiana  
**User:** PKN Orlen  
**Project:** Refinery Plotzk  
**Location:** Poland  
**Driven machine:** Compressor

### Technical data:

**Type:** KV6936A-PA14  
**Output:** 1,650 kW  
**Voltage:** 6,000 V  
**Speed:** 425 rpm  
**Type of protect.** IP55  
**Construction:** IM B2



## Oil & Gas – Refining

**Customer:** Burckhardt Compression  
**User:** Fujian Refinery  
**Location:** P.R. China  
**Driven machine:** Compressor

### Technical data:

**Type:** KR6938G-EA16  
**Output:** 1,150 kW  
**Voltage:** 6,000 V  
**Speed:** 372 rpm  
**Type of protect.** IP55  
**Construction:** IM B3





## Oil & Gas – Refining

**Customer:** Dresser-Rand S.A.  
**User:** CEPSA  
**Project:** La Rabida Refinery  
**Location:** Spain  
**Driven machine:** Compressor

### Technical data:

**Type:** KU7536A-PA18  
**Output:** 2,650 kW  
**Voltage:** 6,000 V  
**Speed:** 330 rpm  
**Type of protect.** IP55  
**Construction:** IM B2



## Oil & Gas – Refining

**Customer:** Ebara Corporation  
**User:** N.I.O.E.C.  
**Project:** Shazand Arak Refinery  
**Location:** Iran  
**Driven machine:** Pump

### Technical data:

**Type:** KR6836G-EA02  
**Output:** 2,500 kW  
**Voltage:** 6,000 V  
**Speed:** 2,994 rpm  
**Type of protect.** IP55  
**Construction:** IM B3



## Oil & Gas – Refining

**Customer:** Esso Italiana S.r.l.  
**User:** Esso  
**Project:** Refinery Augusta  
**Location:** Italy  
**Driven machine:** Compressor

### Technical data:

**Type:** KR6529G-DS02  
**Output:** 1,350 kW  
**Voltage:** 900 V  
**Speed:** 2,984 rpm  
**Type of protect.** IP55  
**Construction:** IM B3





## Oil & Gas – Refining

**Customer:** Neuman & Esser Deutschland  
**User:** MOL Danube  
**Location:** Hungary  
**Project:** MOL Refinery  
**Driven machine:** Compressor

### Technical data:

**Type:** KV6940A-EA12  
**Output:** 2,000 kW  
**Voltage:** 6,000 V  
**Speed:** 497 rpm  
**Type of protec.** IP55  
**Construction:** IM B2



## Oil & Gas – Refining

**Customer:** Neuman & Esser Deutschland  
**User:** Namvaran Engineering  
**Location:** Iran  
**Project:** Esfahan Refinery  
**Driven machine:** Compressor

### Technical data:

**Type:** KR6831B-DA14  
**Output:** 720 kW  
**Voltage:** 6,000 V  
**Speed:** 425 rpm  
**Type of protec.** IP55  
**Construction:** IM B3



## Oil & Gas – Refining

**Customer:** North Refineries  
**User:** North Refineries  
**Location:** Iraq  
**Project:** Refinery Salahuddin II  
**Driven machine:** Compressor

### Technical data:

**Type:** KR7834A-EA20  
**Output:** 1,700 kW  
**Voltage:** 6,600 V  
**Speed:** 298 rpm  
**Type of protec.** IP55  
**Construction:** IM B2





## Oil & Gas – Refining

**Customer:** Ruhrpumpen GmbH  
**User:** Shell  
**Location:** Singapore  
**Project:** Shell Refinery  
**Driven machine:** Pump

### Technical data:

**Type:** KF6532H-AA08  
**Output:** 1,250 kW  
**Voltage:** 6,600 V  
**Speed:** 744 rpm  
**Type of protect.** IP 23  
**Construction:** IM V1



## Oil & Gas – Refining

**Customer:** Ruhrpumpen GmbH  
**User:** North Oil Company  
**Location:** Iraq  
**Project:** Kirkuk Refinery  
**Driven machine:** Pump

### Technical data:

**Type:** KR6832G-DK02  
**Output:** 1,750 kW  
**Voltage:** 11,000 V  
**Speed:** 2,991 rpm  
**Type of protect.** IP 55  
**Construction:** IM B3



## Oil & Gas – Refining

**Customer:** Worthington S.p.A.  
**Plant:** Sumed for Refinery Midor, Alexandria  
**Driven machines:** Crude oil pumps  
**Type:** KR6834H-EK04  
**Output:** 2,160 kW  
**Service Factor:** 1.15  
**Voltage:** 11,000 V  
**Speed:** 1,490 r.p.m.  
**Degree of protect.:** IP55  
**Typ of protection:** EEx ed II T3  
**Construction:** IM V1

**Final assembly, preparation for shipment**



**Full-load test in horizontal position**



### Design features:

Motor EExe, terminal boxes EExd; neutral CT in separate box; DE with non-reverse backstop; NDE with cylindrical-roller thrust bearing and oil-lubricated self-aligning roller thrust bearing for taking up the pump load of 3 t.

**DE with non-reverse backstop**



**NDE with self-aligning roller thrust bearing**



**Assembly of the NDE cylindrical-roller thrust bearing**





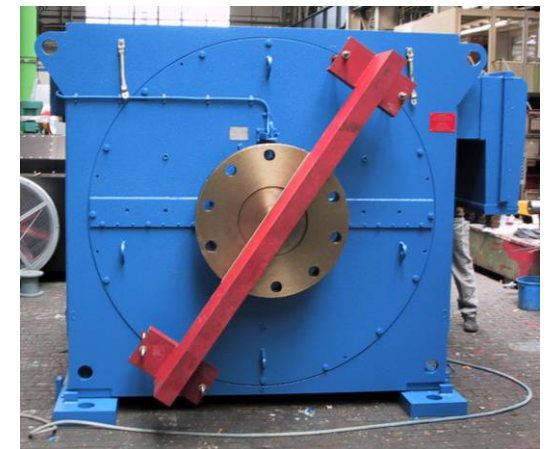
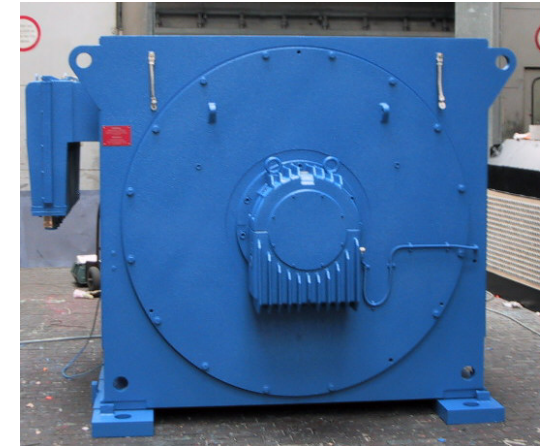
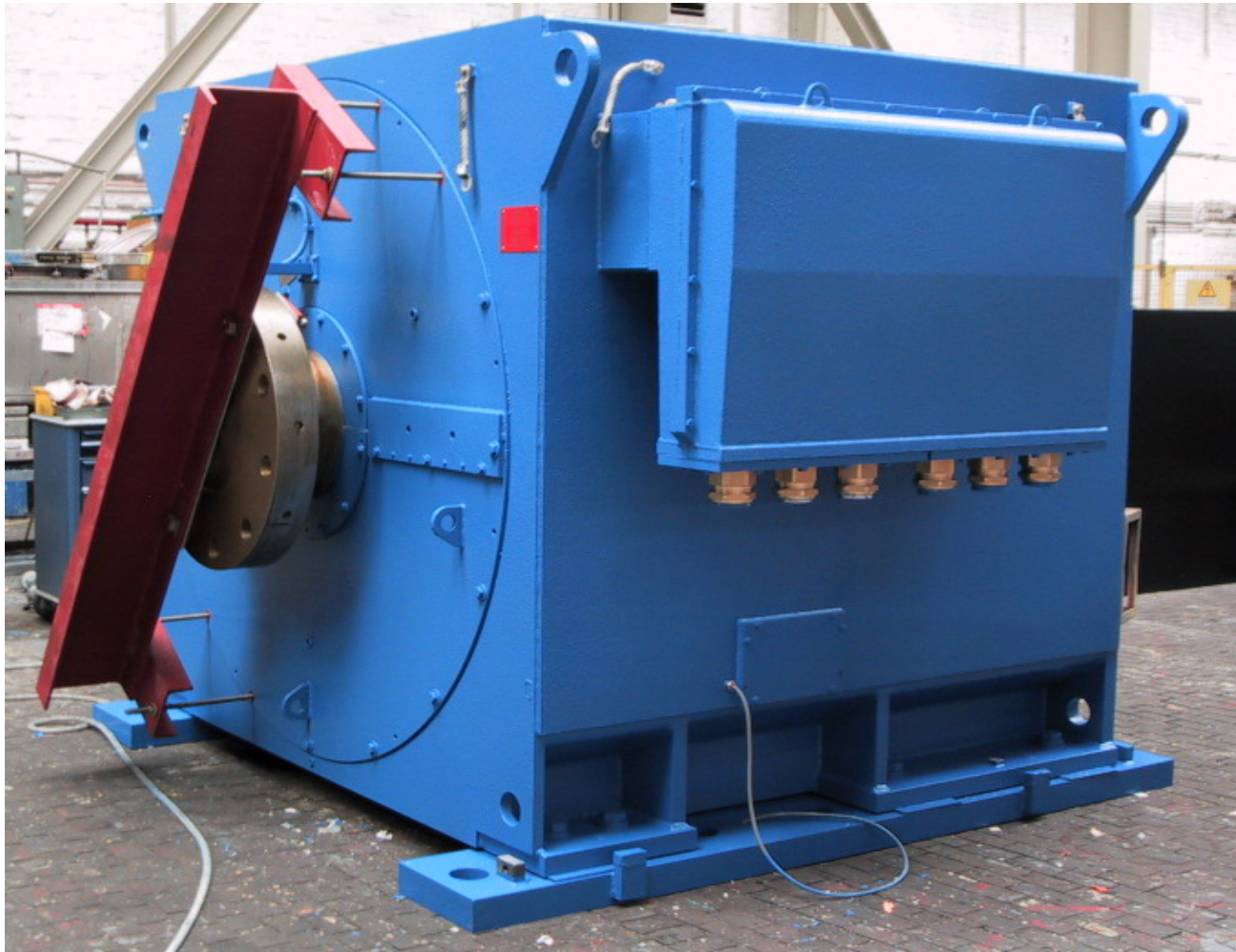
**Oil & Gas – Gas cavern storage (1)**

<b>Installation:</b>	Electrical equipment for cavern storage, Reckrod (Near Fulda, Germany)
<b>End user:</b>	Gasunion, Frankfurt
<b>Customer:</b>	PLE Pipeline Engineering, Essen
<b>Motor customer:</b>	Neuman & Esser
<b>Driven machine:</b>	Reciprocating compressor
<b>Short description:</b>	A cavern storage is a subterranean gas storage. Due to the weak power supply at site and to avoid current ripple caused by the reciprocating compressor, a converter-fed system was used.

**Scope of Supply**

<b>Drive</b>		<b>Frequency converter</b>	<b>Transformer</b>	<b>Additional services rendered</b>
2 converter-fed three-phase asynchronous motors		2 current source DC-link converters	2 cast-resin double-tier transformers	<ul style="list-style-type: none"> <li>▪ Delivery and erection of an intermediate space for the converter cables</li> <li>▪ Ventilation system to dissipate the frequency converter heat loss</li> <li>▪ Complete installation of cable system, erection and putting into operation</li> </ul>
Type:	KR 7531K-EZ14	Power: 2,962 kVA	Power: 2,800 kVA	
Protection:	IP55, EEx e II T2	Voltage: 2x950 V	Voltage: 20/1 kV	
Construction:	IM B2	Current: 2x900 A		
Output:	1,900 kW	Frequency: 0 to 58.4 Hz		
Voltage:	2x920 V			
Current:	2x770 A			
Frequency:	58.4 Hz			
Speed:	498 rpm			
Mass:	24 t			
Add.-J:	2,790 kgm <sup>2</sup>			

## Oil & Gas – Gas cavern storage (2)



## Oil & Gas – Gas cavern storage

**Customer:** PSE  
**Engineering:** UGS  
**User:** EEG Erdgas-Erdöl GmbH  
**Location:** Peckensen, Germany  
**Project:** Gasspeicher Peckensen  
**Driven machine:** Gas compressor  
**Special:** Converter-fed drive

### Technical data:

**Type:** KL7240G-ES06  
**Output:** 4,500 kW  
**Voltage:** 3,000 V  
**Speed:** 997 rpm  
**Type of protec.** IP55  
**Construction:** IM B3





## Petrochemicals & Chemicals

- Olefine
- Polyolefine (PE, PP)
- Plastics
- Chloride / VCM / PVC
- Fertilizers



## Petrochemicals & Chemicals

**Customer:** Kobelco, Japan  
**User:** ADNOC, Abu Dhabi  
**Driven machine:** Extruder

### Technical data:

**Type:** KU7844G-AK06  
**Output:** 9,300 kW  
**Voltage:** 11,000 V  
**Speed:** 985 rpm  
**Type of protect.:** IP55  
**Construction:** IM B3  
**Mass:** 44 t  
**L/W/H:** 4.7x4.3x3.2 m

### Special features:

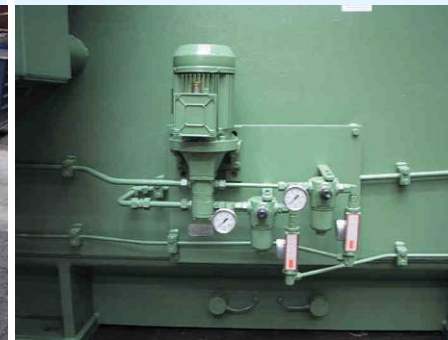
- Special terminal box, connection via cable plugs
- Permanent monitoring of stator winding insulation resistance (Rogowski coil)
- Start at 75%  $U_N$ ,  $I_A/I_N < 5.0$



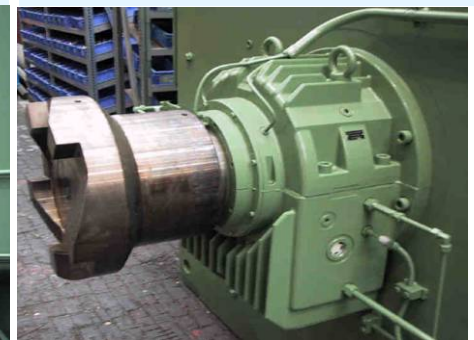
DE with gear coupling



Booster pump for force-feed bearing lubrication



NDE with square-tooth clutch for drive by pony motor (turning gear)





## Petrochemicals & Chemicals

**Customer:** Kobelco, Japan  
**User:** Borouge  
**Location:** Abu Dhabi  
**Driven machine:** Mixer

**Technical data:**

**Type:** KU7846G-AK06  
**Output:** 11,500 kW  
**Voltage:** 11,000 V  
**Speed:** 1,000 rpm  
**Type of protect.** IP55  
**Construction:** IM B3  
**Special:** 2nd Shaft extension  
**Mass:** 49.5 t



Polypropylene Plant



## Petrochemicals & Chemicals

**Customer:** Burckhardt Compression  
**User:** Sinopec Tianjin  
**Location:** P. R. China  
**Driven machine:** Compressor

### Technical Data:

**Type:** KR6538B-DA14  
**Output:** 765 kW  
**Voltage:** 6,000 V  
**Speed:** 425 rpm  
**Type of protect.** IP55  
**Construction:** IM B3



## Petrochemicals & Chemicals

**Customer:** Technip Italy  
**User:** PKN Orlen  
**Project:** Paraxylene Complex  
**Location:** Poland  
**Driven machine:** Compressor

### Technical Data:

**Type:** KR5831B-DA02  
**Output:** 700 kW  
**Voltage:** 6,000 V  
**Speed:** 2,983 rpm  
**Type of protect.** IP55  
**Construction:** IM B3



## Petrochemicals & Chemicals

**Customer:** Linde AG  
**User:** LIMES  
**Project:** Saint-Herblain  
**Location:** Saint Herblain (F)  
**Driven machine:** Compressor for air separation plant

### Technical Data:

**Type:** CU6938G-MA04  
**Output:** 6,200 kW  
**Voltage:** 6,000 V  
**Speed:** 1,490 rpm  
**Type of protec.** IP55  
**Construction:** IM B3  
**Special feature:** Slipring motor





## Petrochemicals & Chemicals

**Customer:** Linde-KCA-Dresden  
**User:** Elixier  
**Project:** Ruwais-C  
**Location:** U.A.E.  
**Driven machine:** Compressor for air separation plant

### Technical Data:

**Type:** KU6938G-AK04  
**Output:** 5,500 kW  
**Voltage:** 11,000 V  
**Speed:** 1,490 rpm  
**Type of protec.** IP55  
**Construction:** IM B3

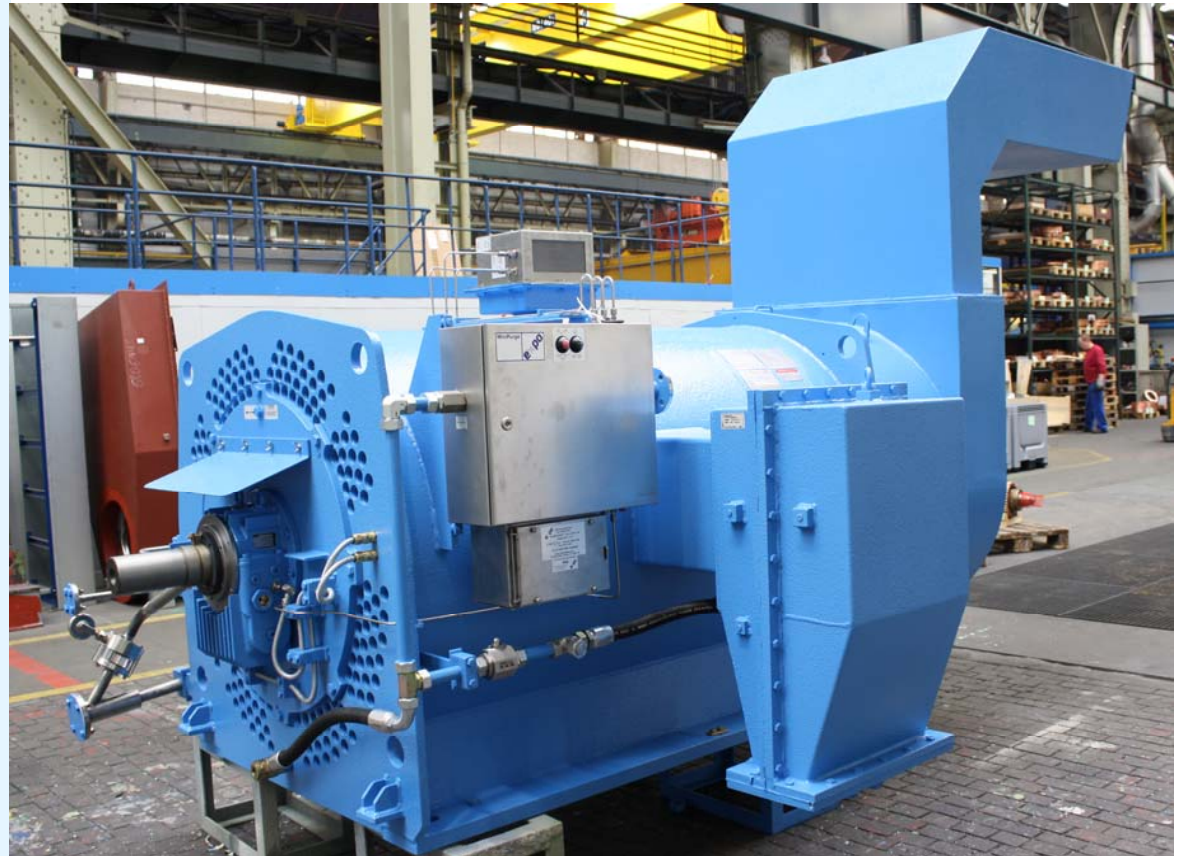


## Petrochemicals & Chemicals

**Customer:** BASF AG  
**User:** BASF AG  
**Project:** Plant Ludwigshafen  
**Location:** Ludwigshafen (D)  
**Driven machine:** Compressor

### Technical Data:

**Type:** KR5831G-PA02  
**Output:** 750 KW  
**Voltage:** 6,000 V  
**Speed:** 2,982 rpm  
**Type of protec.** IP55  
**Construction:** IM B3



## Petrochemicals & Chemicals

**Customer:** KSB AG  
**User:** Sichuan Petrochem. Comp.  
**Project:** Sichuan 300 KTA HDPE Plant  
**Location:** P. R. China  
**Driven machine:** Pump

### Technical Data:

**Type:** KD2354X-BJ41E  
**Output:** 200 kW  
**Voltage:** 6,000 V  
**Speed:** 1,489 rpm  
**Type of protect.** IP55  
**Construction:** IM B3





## Petrochemicals & Chemicals

**Customer:** Linde AG  
**User:** SABIC  
**Project:** Jubail VII  
**Location:** Saudi Arabia  
**Driven machine:** Compressor for air separation plant

### Technical Data:

**Type:** KU6035G-AB02  
**Output:** 2,600 KW  
**Voltage:** 4,160 V  
**Speed:** 3,573 rpm  
**Type of protect.** IP55  
**Construction:** IM B3



## Petrochemicals & Chemicals

**Customer:** Flowserve Pompes  
**User:** Methanol Holdings  
**Project:** UREA Plant  
**Location:** Trinidad & Tobago  
**Driven machine:** Pump

### Technical data:

**Type:** KR6940B-AB12  
**Output:** 2,600 KW  
**Voltage:** 4,000 V  
**Speed:** 597 rpm  
**Type of protec.** IP55  
**Construction:** IM B3



## Petrochemicals & Chemicals

**Customer:** Transresch  
**User:** BASF AG  
**Project:** Refrigerating Plant  
**Location:** Ludwigshafen, Germany  
**Driven machine:** Refrig. Compressor

### Technical data:

**Type:** KL6026G-AT04  
**Output:** 1,500 KW  
**Voltage:** 690 V  
**Speed:** 3,675 rpm  
**Type of protec.** IP55  
**Construction:** IM B3  
**Special:** Converter-fed drive





## Petrochemicals & Chemicals

**Customer:** Uhde GmbH  
**User:** Yara  
**Project:** Fertilizer Plant  
**Location:** The Netherlands  
**Driven machine:** Pump

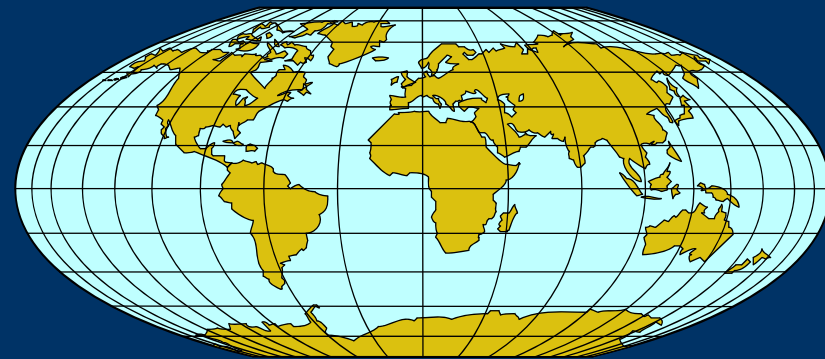
### Technical data:

**Type:** KR5835G-AA02  
**Output:** 1,350 KW  
**Voltage:** 6,000 V  
**Speed:** 2,980 min<sup>-1</sup>  
**Type of protec.** IP55  
**Construcion:** IM B3



## MAINTENANCE AND REPAIR SERVICE

- Round- the- clock service
- Qualified staff
- State-of-the-art production processes
- Accurate inspection reports
- Modern measuring methods
- Internationally available
- Short spare parts delivery time



## Maintenance and repair service

### Range of services

- Commissioning of machines and equipment delivered by us
- Preventive maintenance
- Shut-down service
- Fault analysis and repair procedures
- Vibration measurements and remedial actions
- Inspection and determining of scope of repair work
- Retrofit of old machines
- Operator training





## Enduser (Selected Clients)

**ADNOC  
ARAMCO  
BASELL  
BASF  
BAYER  
BMW  
BOROUGE  
BP  
DAIMLERCHRYSLER  
DEGUSSA  
DOW  
E.ON  
ENBW  
ENEL  
EXXONMOBIL  
FORD**

**FORTUM  
GASCO  
HYDRO  
MAERSK  
NOVOZYMES  
OMV  
POSCO  
RENAULT  
RWE  
SABIC  
SHELL  
STEAG  
THYSSENKRUPP  
TOTAL  
VATTENFALL  
VW**



## Contractors (Selected clients)

**AKER KVAERNER  
ALSTOM POWER  
CBI: LUMMUS  
CEGELEC  
CONVERTEAM  
FOSTER WHEELER  
HITACHI POWER  
IMTECH  
KOBELCO  
KÜTTNER**

**LINDE  
LURGI  
OUTOKUMPO  
SAM  
SNAMPROGETTI  
TECHNIP  
TECNIMONT  
TRACTEBEL  
UHDE  
VOEST-ALPINE**



**OEM (Selected clients)**

**ATELIERS FRANCOIS  
ATLAS COPCO  
AVL  
BURCKHARDT  
D2T  
DEMAG DELAVAL  
DRESSER  
ENSIVAL  
FLOWERVE  
HOFFMANN  
HOWDEN  
HV TURBO  
INGERSOLL RAND  
KAESER  
KLEEMANN  
KSB  
LEOBERSDORFER**

**MAN TURBO  
METSO LINDEMANN  
MÜLLER WEINGARTEN  
NEUMAN & ESSER  
NUOVO PIGNONE  
ROLLS ROYCE  
RUHRPUMPEN  
SCHULER  
SIEMENS  
SMS MEER  
SULZER  
TECHNOFRIGO  
THERMODYN  
THOMASSEN  
TLT TURBO  
WIRTH  
YORK**





## CONTACT

For further information please contact:

**SCHORCH**

Elektrische Maschinen und Antriebe GmbH

Breite Strasse 131

41238 Moenchengladbach

Germany

Phone: + 49 2166 925 – 0

Fax: + 49 2166 925 – 100

E-Mail: [mail@schorch.de](mailto:mail@schorch.de)

Internet: [www.schorch.de](http://www.schorch.de)



Thank you for your attention . . .