



Components for Renewable Energy

KRACHT®

Your fluid solution partner

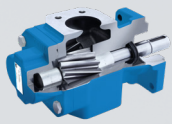
KRACHT®



Your fluid solution partner

Gear Pumps

KF
KP
DT



Displacement

0.5 ... 3150 cm³/rev

Temperature range

-50 ... 220 °C

Maximum pressure

... 315 bar

Flow Meters

VC
SVC



Measuring range

0.001 ... 3750 l/min

Temperature range

-60 ... 220 °C

Maximum pressure

... 480 bar

Valves

SPV



Max. flow volumes

... 800 l/min

Temperature range

-40 ... 220 °C

Pressure setting

... 30 bar

Gear pumps, flow meters and valves for the renewable energy sector – with an extremely high level of reliability and economy

KRACHT has more than 20 years of experience in the renewable energy sector. Maximum reliability in all climatic conditions characterizes our pumps, flow meters and valves. More than 250.000 units are in use worldwide.

Electrically or mechanically driven gear pumps, in combination with our valves, ensure lubrication under all climatic conditions. Rotor blades are manufactured and coated using gear pumps, gear and screw type flow meters.

In close cooperation with our customers, we have developed specific solutions for a wide range of fluid engineering challenges.

Benefit from our developments!
Talk to us, we are happy to help you.

Gear pumps and valves for wind turbines

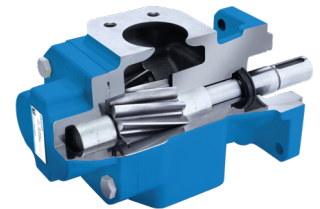
I Overview

- More than 20 years of experience in the renewable energy sector
- Over 250.000 units in the field
- Maximum reliability under any climate conditions
- External gear pumps are designed for long term use at low temperatures and high viscosities
- Cold climate version: -50 °C survival temperature with special low temperature rotary shaft lip-type seal
- Working pressure up to 25 bar
- Various pump options:
 - Noise optimized
 - Different port sizes
 - Prepared for heating jacket
 - Integrated pressure relief valve
 - Universal valve for constant flow directions independent from direction of rotation

I Electrically driven gear pumps and pressure relief valves

Gear pumps KF 2.5 ... 3150

Housing material	Grey cast iron EN-GJL-250 (GG 25) or spheroidal cast iron EN-GJS-400-15 (GGG 40)
Displacement	2.5 ... 3150 cm ³ /rev
Working pressure	... 25 bar
Speed	... 3600 1/min
Fluid temperature	-40 ... 150 °C
Ambient temperature	-50 ... 60°C



Pressure relief valves SPV / SPFV direct operated

Housing material	Grey cast iron EN-GJL-250 (GG 25) or spheroidal cast iron EN-GJS-400-15 (GGG 40)
Max. flow volumes	... 800 l/min
Pressure setting	... 30 bar
Fluid temperature	-40 ... 220 °C
Ambient temperature	-20 ... 60 °C
Applications	System protection of lubrication systems



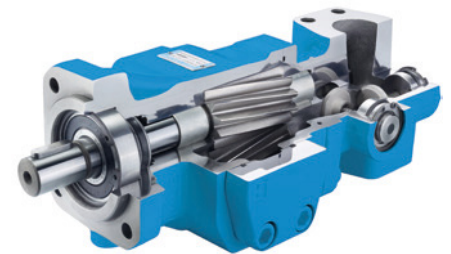
I Mechanically driven gear pumps

Gear pumps

KF 2.5 ... 630 with universal valve

for constant flow directions independent from direction of rotation

- Various versions available
- Pumps with universal valve for idling of turbine
- Outboard bearing for radial forces



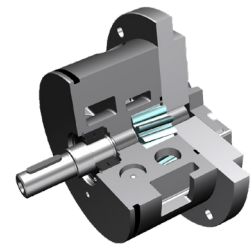
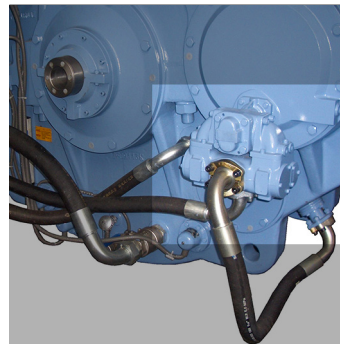
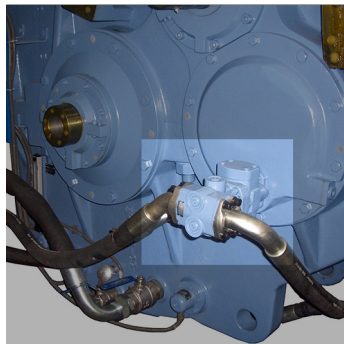
Housing material	Grey cast iron EN-GJL-250 (GG 25) or spheroidal cast iron EN-GJS-400-15 (GGG 40)
Displacement	2.5 ... 630 cm ³ /rev
Working pressure	... 25 bar
Speed	... 3600 1/min
Fluid temperature	-40 ... 150 °C
Ambient temperature	-50 ... 60 °C

Gear pump
KF
with universal valve U2

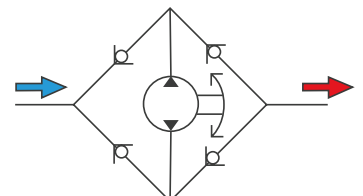
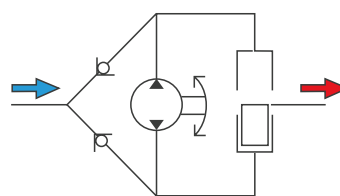
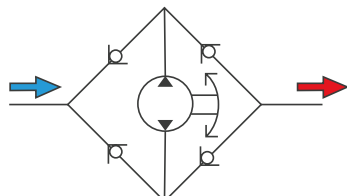
Gear pump
KF
with universal valve U

Gear pump
KF
as plug-in pump

Application

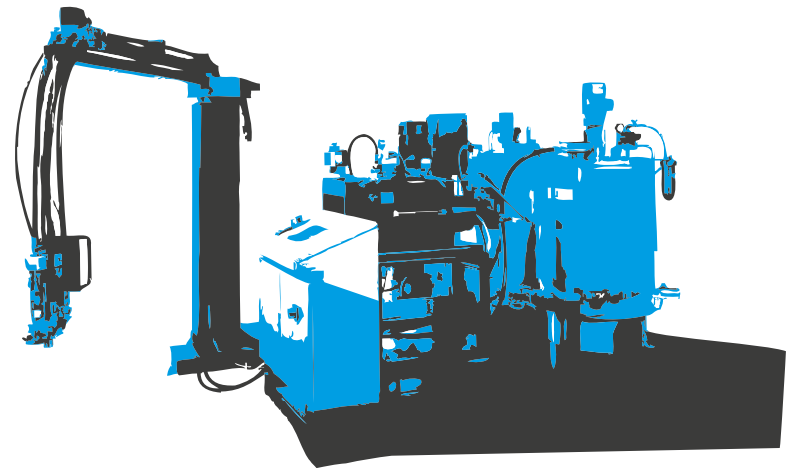


Schematic



Gear pumps and flow meters for wind blade coating plants

- | Gear type flow meters VC
- | Screw type flow meters SVC



Used as

- Gear pumps and flow meters in adhesive dosing machines and dispensing technology
- Gear pumps and flow meters for fibre component machines

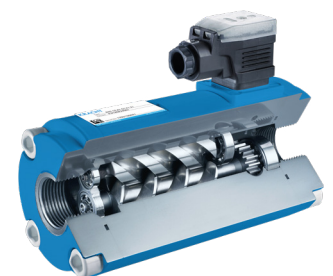
Gear type flow meters VC

Measuring range	0.008 ... 700 l/min
Measuring ratio	1 : 300
Working pressure	... 480 bar



Screw type flow meters SVC

Measuring range	0.4 ... 3 750 l/min
Measuring ratio	1 : 150
Working pressure	... 480 bar

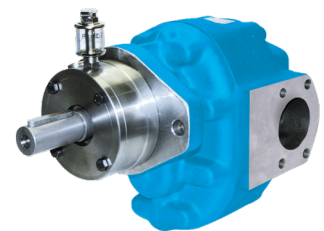


- | Gear pumps DT
- | Gear pumps KP 434
- | Gear pumps SOP
- | Gear pumps KF

Gear pumps

DT with high wear protection

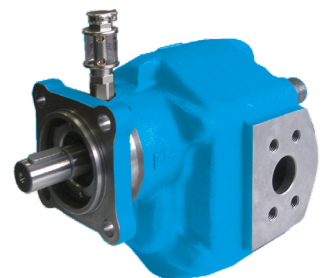
Displacement	5.5 ... 250 cm ³ /rev
Working pressure	... 150 bar
Speed	... 1 500 1/min



Gear pumps

KP 434 with light wear protection

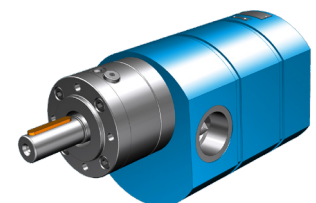
Displacement	28 ... 250 cm ³ /rev
Working pressure	... 150 bar
Speed	... 1500 1/min



Gear pumps

SOP with and without wear protection

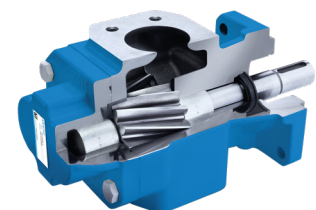
Displacement	74 ... 223 cm ³ /rev
Working pressure	... 120 bar
Speed	... 70 1/min



Gear pumps

KF without wear protection

Displacement	0.5 ... 3150 cm ³ /rev
Working pressure	... 25 bar
Speed	... 3600 1/min



Your partner since 1911

I More than 100 years of experience make us stand out as a reliable partner.

We are a leading German manufacturer of gear pumps, flow measurement, hydraulics and valves. Around 400 employees worldwide develop, produce and sell products in standard versions as well as special solutions tailor-made to customer wishes.

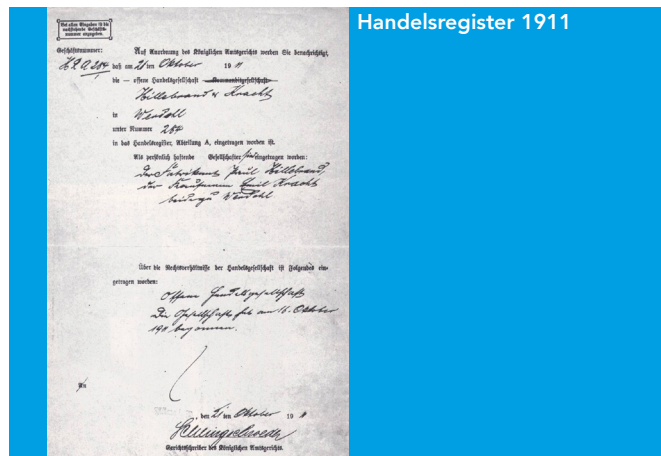
These high-quality components are used for gear lubrication, for instance in wind power plants and marine gearboxes, in dosing and mixing plants e.g. for manufacturing PU foams and in test bench technology.

Our hydraulic components are defined by their performance and economic efficiency in stationary and mobile plants.

Reliability and high-quality standards are just as important a part of the corporate philosophy as fairness to customers, suppliers and employees alike.

1911

Registration in the trade register under the name „Hillebrand & Kracht OHG“



1971

Construction of today's company premises on a total area of over 50.000 square meters

1992

Purchase of a gear manufacturer in Hungary, now KRACHT Hidraulik Kft.

1995

First certification according to DIN EN ISO 9001, KRACHT Hidraulik Kft., Budapest according to DIN EN ISO 9002 by Lloyd's Register Quality Company

1999

Mr. Peter Zahn becomes 100% proprietor of KRACHT GmbH

2000

First certification according to DIN EN ISO 14001

2002

Mr. Heiko Zahn is appointed as Managing Partner

2003

Certification based on the ATEX Directive 2014/34/EU

2008

Foundation KRACHT CORP., USA
Establishment of the subsidiary in Shanghai, China

2011

Opening of the in-house health centre

Oktober 2011

The company KRACHT has existed for 100 years

2012

In December, KRACHT was certified by the German Federal Department of Aviation (LBA) and now has the status „known consignor“

2015

KRACHT is certified according to AEOF

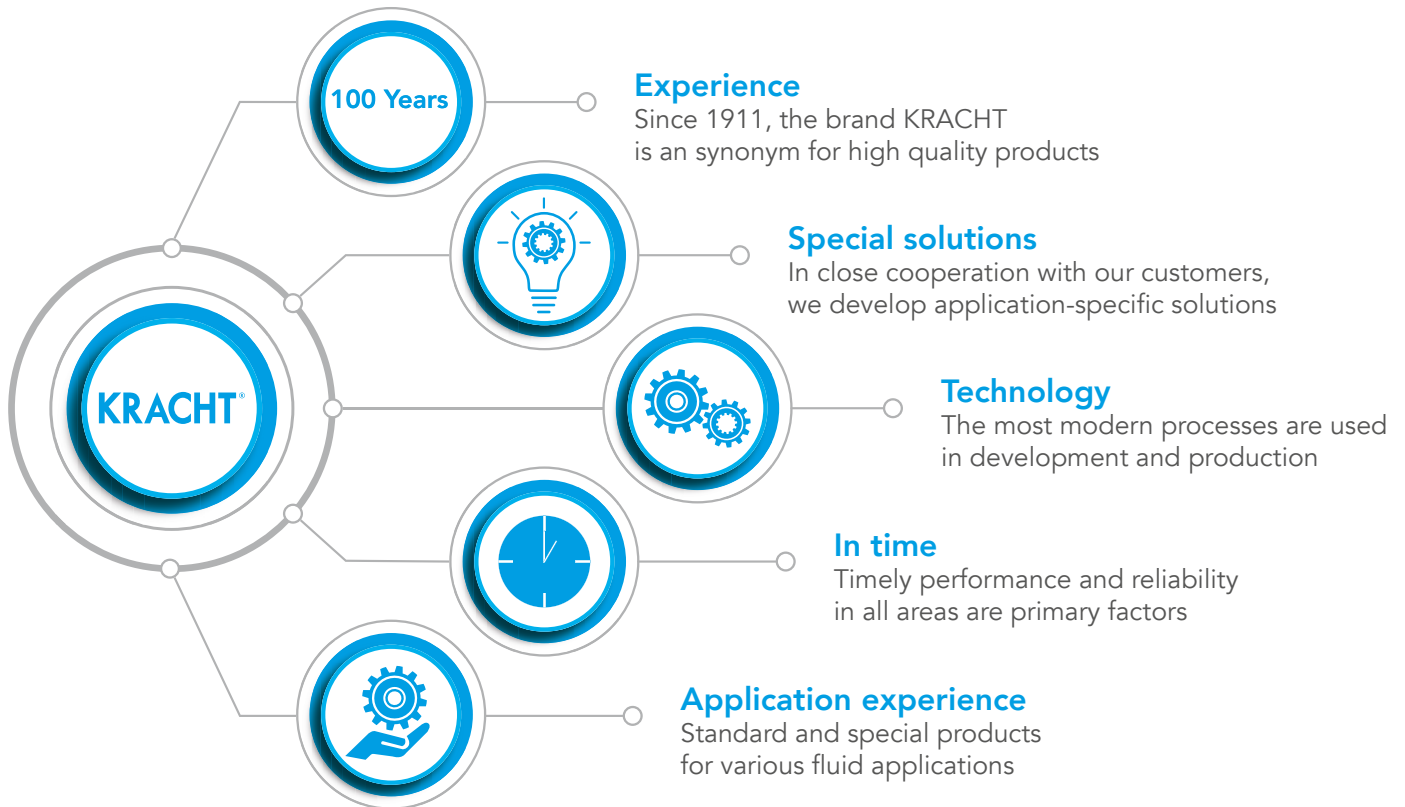
2016

Commissioning of the 3.500 square meter logistics center

Main ideas

I Fair – reliable – competent

We are developing, designing and manufacturing high-quality products for more than 100 years. Special solutions are implemented in close cooperation with our customers. On schedule performance and full comprehensive service are our top priorities.



Kracht guarantees the highest product quality. As part of the quality process, the function and working parameters are tested according to DIN EN 10204.

KRACHT GmbH, Werdohl
certified according to
DIN EN ISO 9001
DIN EN ISO 14001
ATEX 2014/34/EU



Sales

I International

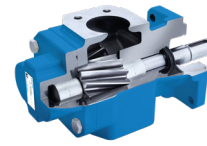


We are ready to support you around the world with the professional mastery of specific applications and complete solutions. A closely woven network of sales and customer specialists provide the right tools for national and international consulting and optimal customer service.

- | | |
|----------------|----------------------|
| Australia | Luxembourg |
| Austria | Malaysia |
| Belgium | New Zealand |
| Brazil | Norway |
| Canada | Poland |
| China | Portugal |
| Czech Republic | Russia |
| Denmark | Singapore |
| Finland | Slovakia |
| France | Slovenia |
| Germany | South Africa |
| Holland | Spain |
| Hong Kong | Sweden |
| Hungary | Switzerland |
| India | Taiwan |
| Indonesia | Turkey |
| Italy | United Arab Emirates |
| Japan | United Kingdom |
| Korea | USA |

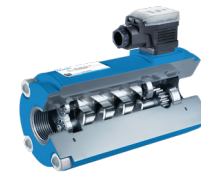
I Gear pumps

Low and high-pressure gear pumps for lubricating oil, hydraulic, process and test bench applications, fuel and metering systems.



I Flow measurement

Gear, turbine and screw type flow meters and electronics for volume and flow, metering and consumption in the chemical industry, hydraulic, process and test bench technology.



I Hydraulics

Single and multistage high-pressure gear pumps, gear motors and valves for construction machinery, municipal vehicles, agricultural vehicles, special vehicles and truck bodies.



I Valves

Pressure, quantity and flow valves in pipe and plate construction. Directional control and proportional valves according to Cetop. Hydraulic manifolds.



KRACHT®

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