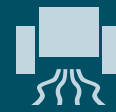


Chains and Sprockets for
Dams and Locks



Industry Solutions



The Global KettenWulf Group



The core factory in Kückelheim, corporate headquarters and KettenWulf competence centre

- 02 The global KettenWulf Group
- 04 Standard link chains
- 05 Corrosion-protected link chains
- 06 Sprockets, shafts and pinions
- 07 Quality and service

Figure top left:
Warehouse in
Kückelheim, Germany



Figure top right:
Production and sales
site in Ferlach, Austria



Figure bottom left:
Production and sales
site in Hangzhou, China



Figure bottom right:
Warehouse and sales
site near Atlanta, USA



As an internationally expanding company, KettenWulf represents quality, reliability and flexibility for more than 90 years. Since its foundation by the brothers Josef and Johannes Wulf in 1925 the company has been managed by the Wulf family.

Starting out as a manufacturer of articulated chains, it developed over nine decades into a modern global company whose heart and roots remain in the Sauerland region. More than 1400 employees develop, produce and distribute individual solutions in conveying and drive technology at ten locations in Europe, America, Asia and Australia.

The core factory at Kückelheim not only houses the corporate headquarters but also the KettenWulf competence centre. This looks after customers worldwide regarding technical queries.

With a production area of 30,000 m² and approx. 550 employees, Kückelheim is the largest production site of the KettenWulf Group worldwide.

Offering top product quality, KettenWulf is your local strategic partner anywhere in the world. Whether in the Sauerland, in Hangzhou, Sydney or Atlanta: With our global network we support you internationally. With global technical support and personal contact our employees support you all the way.

Trust, commitment and loyalty – those are the values KettenWulf lives as a family-run company. As a medium-sized enterprise our corporate structure is based on trust with strong personal relationships with both our customers and suppliers.

Standard link chains

In the hydropower industry, standard link chains are used on dams to operate the tainter gates or on water gates to move the gates of the lock-chambers, allowing vessels to pass through.

In the majority of cases, custom installation is required for the project. Our customized products are perfectly engineered to satisfy the technical requirements.

Illustration 1:
Link chain with pear-shaped end-link and hump link plates, breaking load: 1950 kN



Illustration 2:
Link chain with three bearings inside and axial lock by splitted discs and securing link, breaking load: 7400 kN



Illustration 3:
Link chain with anti-corrosion coating, breaking load: 3300 kN



Illustration 4:
Link chains with three bearings inside and wear bushings, breaking load: 1500 kN



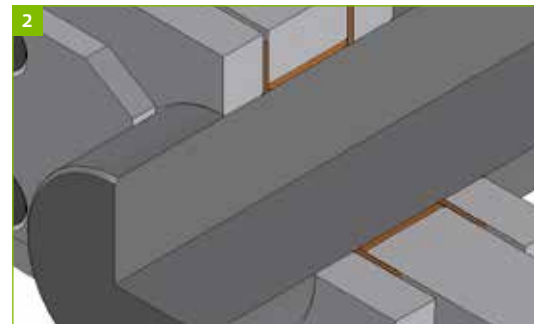
Corrosion-protected link chains with self-lubricating slide bearings

Protecting the environment has come to the forefront in the design and modernization of installations. Our customers are increasingly using "maintenance-free" chain technology. KettenWulf is the undisputed leader in this sector and offers two types of chains:

Chains with fixed pins and chains with floating pins.

Both are produced from stainless steel and their link plates are fitted with self-lubricating bushings. These chains do not need to be relubricated and do not require additional maintenance work. Their use allows product service life to be extended and contributes to a reduction of maintenance costs as well as a reduction in pollution caused by lubricants.

Illustrations 1 + 2:
Link chain with pins locked by a screwed-on plate



Fixed pin chain technology: Pitch holes of the inner link plates are bushed with self-lubricating slide bearings. The pin turns in the inner link plates.

A horn plate protects the pin in the outer link plates against turning and locks them against axial movement with a screwed link plate package. Assembling and disassembling can be implemented easily.

Illustrations 3 + 4:
Link chain with floating pin



Floating pin chain technology: Pitch holes of the inner and outer link plates are bushed with self-lubricating slide-bearings.

The pin can turn in the inner and outer link plates which affects the wear properties positively when the chain arrives the sprocket. The axial lock of the link plates is provided by splitted discs and a screwed link plate package.

Kettenräder und weitere Antriebskomponenten

Kettenräder sind ein entscheidender Faktor für die Leistungsfähigkeit und Lebensdauer eines jeden Kettensystems. Um die gleichbleibende Qualität aller Produkte zu gewährleisten, setzt KettenWulf daher auf die Herstellung eigener Kettenräder und Antriebskomponenten wie Wellen und Triebstöcke. Alle Produkte werden aus hochwertigem Material und mit Hilfe von modernsten Maschinen gefertigt. Korrosionsschutz wird durch die Verwendung von Edelstahl oder speziellen Beschichtungen gewähr-

leistet. Durch individuell abgestimmte Wärmebehandlung einzelner Bauteile ist eine hohe Verschleißfestigkeit und damit eine optimierte Lebensdauer des jeweiligen Produkts garantiert. Alle Spezialkomponenten werden komplett montiert ausgeliefert und können ohne großen Aufwand installiert werden.

Abbildung 1:
Kettenrad mit
Bronzebuchse



Abbildung 2:
Dreifach- Kettenrad



Abbildung 3:
Antriebswelle, aus
dem Vollen gefertigt



Abbildung 4:
Ritzelwelle



Abbildung 5:
Triebstockrad



Abbildung 6:
Triebstock



Qualitätssicherung und Service

Die Zufriedenheit und das Vertrauen unserer Kunden bilden die Grundsteine unserer Unternehmensphilosophie. Damit alle Produkte zu jeder Zeit unseren hohen Qualitätsanforderungen gerecht werden, unterliegen alle Produktions- und Managementprozesse den strengen Qualitätsrichtlinien der DIN EN ISO 9001:2008.

Vom Wareneingang bis zur Endkontrolle setzen wir alles daran, ein technisch ausgereiftes und absolut zuverlässiges Produkt herzustellen. Über die Qualitätssicherung hinaus bietet KettenWulf zusätzlich ein breites Spektrum an Serviceleistungen:

- » Berechnung nach der deutschen Norm DIN 19704-1
- » Abnahme in unseren Räumlichkeiten
- » Prüfen von Kundenzeichnungen
- » Zeugnisse von 2.1, 2.2, 3.1 bis 3.2 einschließlich Maßabnahme und Kontrolle von Härtewerten und Rohmaterialien
- » Kerbschlagbiegeversuche (zwischen -20 °C & 20 °C)
- » Dauerfestigkeitsprüfungen unterschiedlicher Kettenbauteile

Abbildung 1:
ZerreiBversuch
bis 3000 kN



Abbildung 2:
Konservierung
durch Spezialöl



Abbildung 3:
Technische
Unterstützung
während der
Installation



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