

Chains and sprockets used in the bulk material handling industry



Essential basic information related
to products necessary for bulk
material conveying in the bulk
material handling industry



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The KettenWulf Group



The company headquarters in Kückelheim

For over 85 years, KettenWulf, as an expanding global company, has stood for quality, reliability and flexibility. More than 1200 employees develop, produce and market customized solutions in the field of conveying and drive technology at ten locations across Europe, America and Asia. All around the globe, KettenWulf is your strategic partner when it comes to delivering optimal product quality.

Trust, loyalty and commitment – these values are what KettenWulf stands for. As a medium-sized, family-run company, cultivating a strong, personalized partnership with both our customers and suppliers is our highest priority.

Be it the Sauerland, Hangzhou, Atlanta or Pune – as an international company with worldwide operations, our employees are always at your service to meet your unique business needs and to provide you with industry leading technical support.



Top Right: Our central European storage facility in Ghent, Belgium

Second Depicted: KettenWulf in Ferlach, Österreich

Center: KettenWulf in the USA

Bottom Right: The Chinese production and sales facility in Hangzhou



Kettenwulf is known and trusted through the Bulk Material Handling Industry as a leading manufacturer of conveyor chain and sprockets. With many of our customers spread across the globe, KettenWulf utilizes our diverse team and many international production and branch offices to work in close cooperation with our customers to support their individual needs.

KettenWulf supplies only the highest quality products for almost every conveying application in the Bulk Material Handling Industry. Whether it concerns transport of rough or fine grained materials, corrosive or abrasive materials, we work in conjunction with our customers to devise the best solution.

- » Clinker, gypsum and clay for cement production
- » Granulates in fertilizer production
- » Coal, coarse-grained ore, crushed stone, limestone and slate in the mining industry
- » Biomass, coal, slag and quartzite in power stations
- » Polymers of basic materials in plastic production
- » Wood chips in the wood and paper industry
- » Steel chips in the automobile and metalworking industry
- » Recycling materials in waste sorting facilities

KettenWulf Group as an effective partner of the bulk material handling industry

KettenWulf offers innovative chain technology for various conveyor systems in the bulk material handling industry.





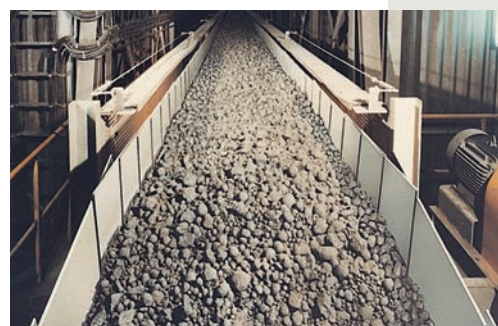
Genuine solutions for steel conveyors, reclaimer systems and bucket elevators

The transport of bulk materials by special chains ranks among the most efficient of transportation solutions. For many applications in the bulk material handling industry, KettenWulf offers leading edge chain technology.

Some example applications are pan conveyors, hinged conveyors, drag chain conveyors, scraper reclaimers and bucket elevators.

Moreover, KettenWulf provides technical support to select the best combination of chain and sprockets based on the specific working conditions of the particular application.

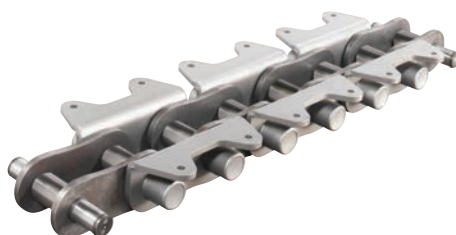
**Non back-bending
chain for apron
conveyors**



**Scraper Reclaimer
chain with life-
time lubricated
support rollers**



**Central chain for high
speed bucket elevators**





High flow rates of material with temperatures of up to 500 °C, axle distances of up to 250 meters, complicated conveyor design lines, high lifting elevations and conveyor capacities of over 1000 m³/h are challenges to the conveyor systems in the bulk material handling industry.

KettenWulf fulfills these requirements with high precision and accuracy in machining our individual parts, optimum press-fits and fatigue resistant materials with very high surface quality.

Chains for apron conveyors

KettenWulf supplies special chains for various conveyor systems, e.g. for hot sinter conveying in sintering plants.

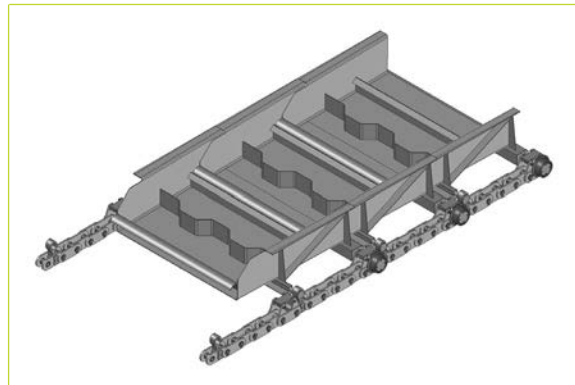




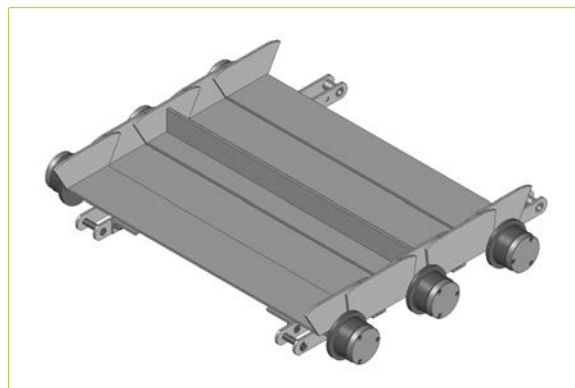
Chains tailor fit for pan conveyors

KettenWulf is able to provide a large range of chains adapted to match your conveyor systems. We supply customized chain technology for all conveyor systems, e.g. apron conveyors, hinge apron conveyors, bucket conveyors or deep drawn pan conveyors.

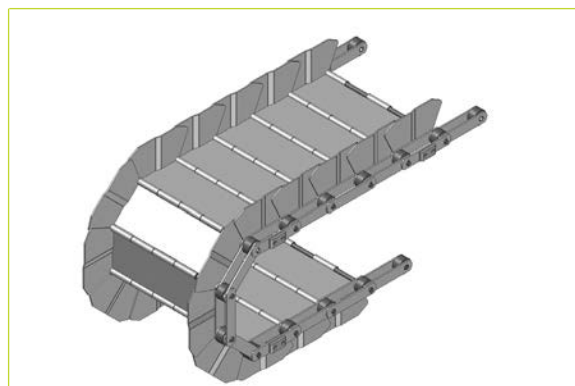
**Apron conveyor
with a baffle plate.**



**Short plate conveyor
with pressed pans.**



**Hinged short plate con-
veyor for the transport
of recycling material
and other coarse-
grained bulk materials.**





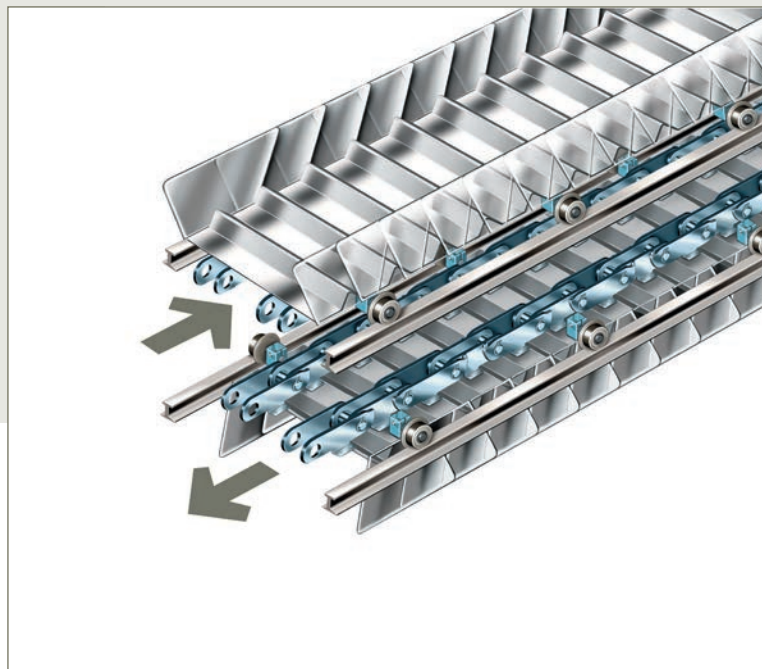
Chain technology for apron conveyors

Apron conveyors are equipped with attachment angles, dependent on whether the application is single or double strand. Using KettenWulf chain lends a distinct advantage over the competitors as we customize our products to individual requirements and applications.



Back locked conveyor chain with bent link plates.

The aprons are carried by double strand bush conveyor chains with either flanged inboard or outboard support rollers.





Conveyor chains with pitches of 160 mm, 250 mm, 315 mm or bigger and breaking loads of 200 to 3,000 kN offer the possibility of properly addressing a variety of different customer's requirements.

Illustration 1:
Rigid back type belt chain with attachment angle bent to one side

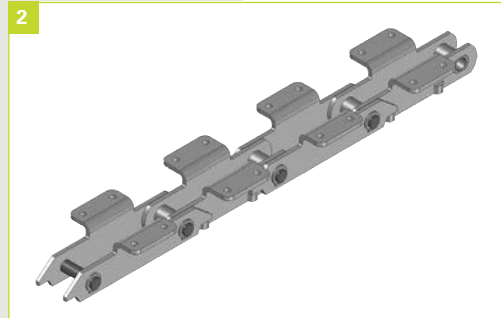
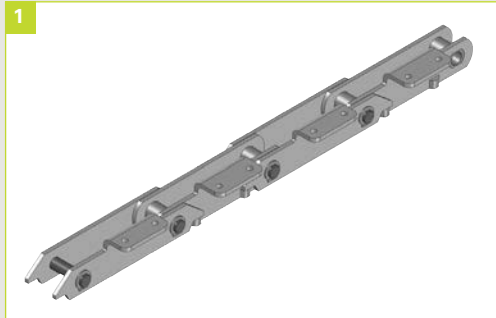


Illustration 2:
Rigid back type apron belt chain with angle bent to both sides

Illustration 3:
Double-strand apron belt chain with exterior flanged roller

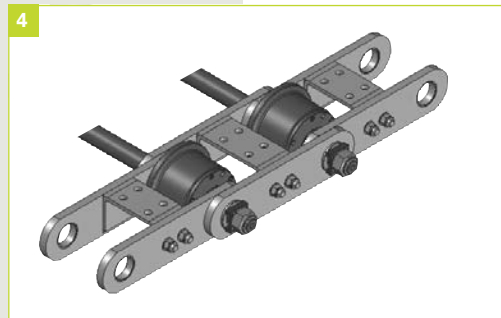
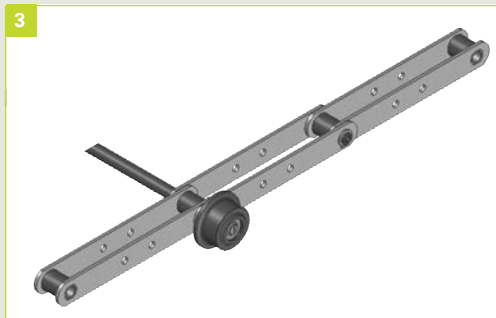


Illustration 4:
Double-strand apron belt chain with interior flanged roller

Illustration 5:
Double-strand apron belt chain with exterior flanged roller and bent attachment angles

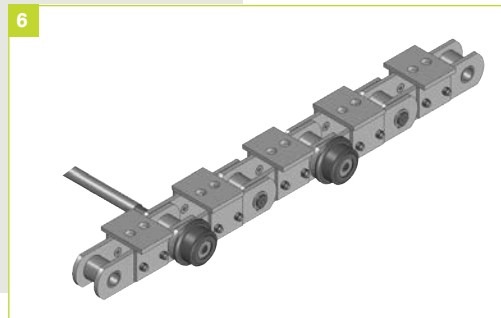
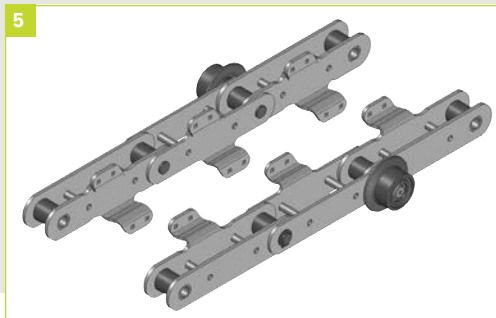


Illustration 6:
Double-strand apron belt chain with exterior flanged roller and bolted apron mount



KettenWulf understands the wide variety of methods implemented in the stacking and reclaiming of bulk materials. Through our diverse product portfolio we offer many solutions, designed per the application specifications, to withstand the most demanding of conditions; be they corrosive or abrasive materials, extreme temperatures or other abrasive environments and materials we have the answer.

Chains for reclaimer systems

Circular bridge type scraper reclaimer in a limestone storage hall





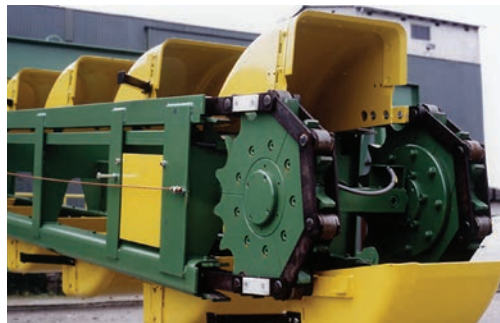
Specific designs for different stockpile equipment

KettenWulf offers special chains and sprockets to ensure trouble-free, heavy-duty operation under severe conditions. Our chain is used in storage equipment such as portal scraper reclaimers, side scrapers and circular bridge reclaimers.

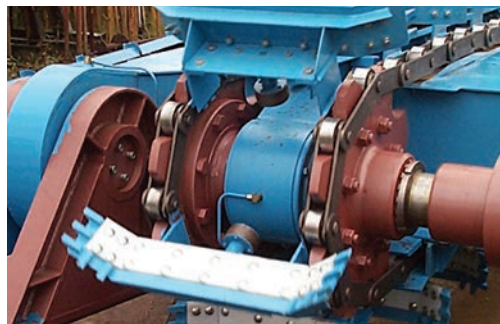
Side scraper with double strand chain



Boom of a bucket reclaimer with double strand conveyor chain



Reclaimer boom with double strand conveyor chain and bucket guiding rollers



Bucket reclaimer in a biomass stockyard





Chain technology for reclaimer systems

For use with abrasive or corrosive media, KettenWulf has developed different sealing systems geared to the respective chain application. These sealing systems protect the chain joint against any penetration of dirt, humidity and other media and thus allow for an extended service life with less maintenance effort and costs.

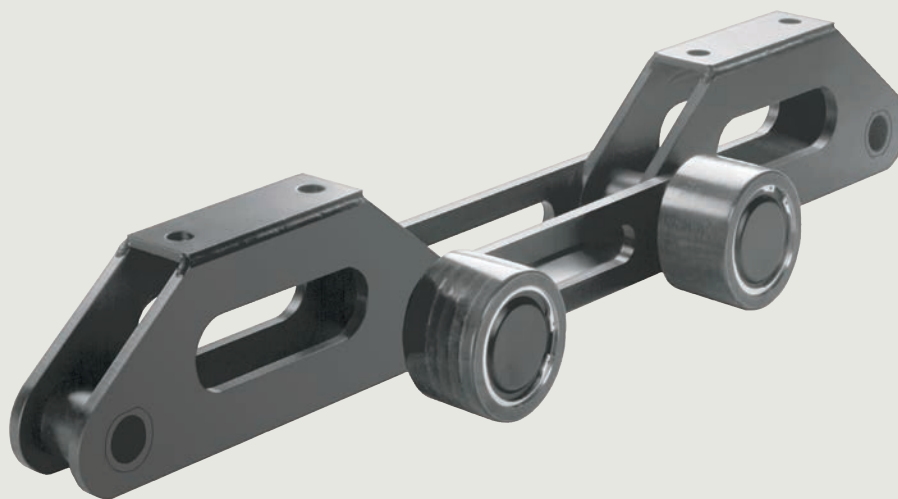
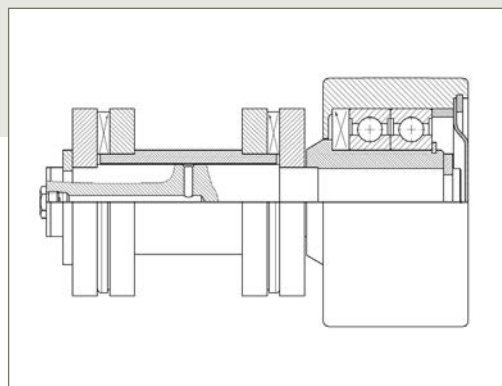
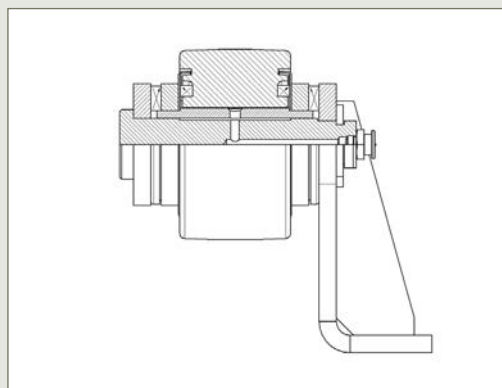


Illustration above:
Cross section through
a reclaimer chain
with completely
sealed chain joint.

Illustration below:
Cross section of scraper
reclaimer chain joint
with sealed chain joint
and lifetime lubricated
exterior support roller.





Our engineering capabilities in reclaimer technology enable us to offer our customers a high degree of individual solutions. The following illustrations show a selection of different mounting options for scraper buckets.

Illustration 1:
Drag chain with block link and welded angle

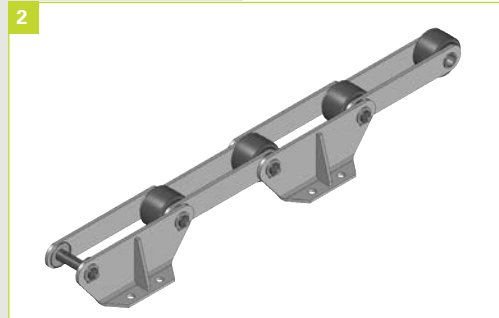
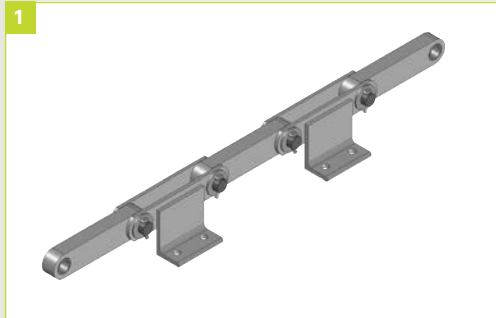


Illustration 2:
Drag chain with bent angle and roller

Illustration 3:
Drag chain with welded angle and roller

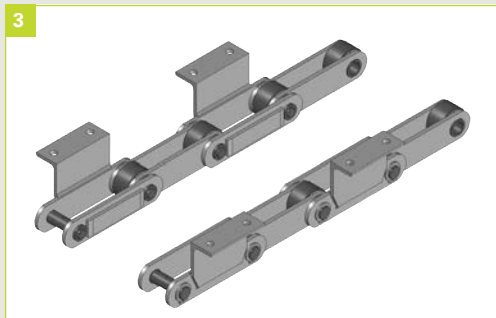


Illustration 4:
Drag chain with fastening lug and roller

Illustration 5:
Drag chain with welded scraper fastening and exterior, maintenance free roller

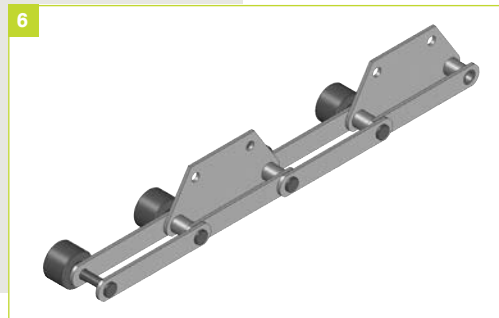
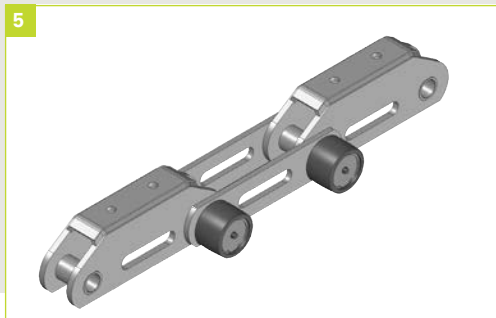


Illustration 6:
Drag chain with straight lug link plate raised on one side and exterior, maintenance-free roller

Today's high-performance bucket elevators call for both reliable and pioneering chain technology. Conveying heights of up to 75 m and capacities of more than 990 m³ require a maximum degree of operational safety.

KettenWulf double strand chains as well as central bucket elevator chains have been developed based on an in-depth level of engineering expertise. Be it high-speed elevator applications or other extreme operating conditions - KettenWulf chains have proven their outstanding reliability around the globe.

Chains for bucket elevators

Partial view of a cement plant with a variety of different chain applications.



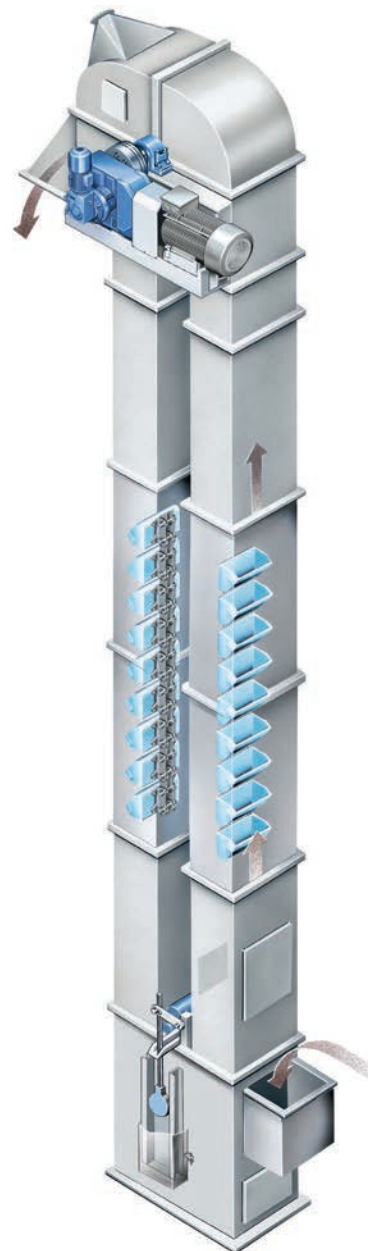


Perfectly prepared for your specific applications



Silo feeding by means of high-performance bucket elevator with central chain.

High performance bucket elevators are primarily used for vertical conveying of bulk material, for silo feeding and in clinker milling. KettenWulf bucket elevator chains fulfill the highest requirements when it comes to wear resistance, dynamic loads and the conveying of abrasive media.



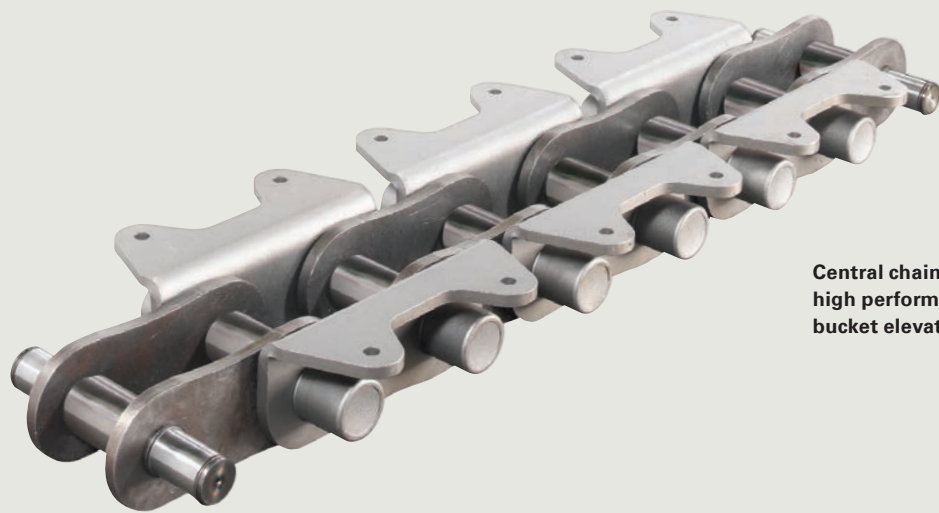
High speed bucket elevator with a central chain.





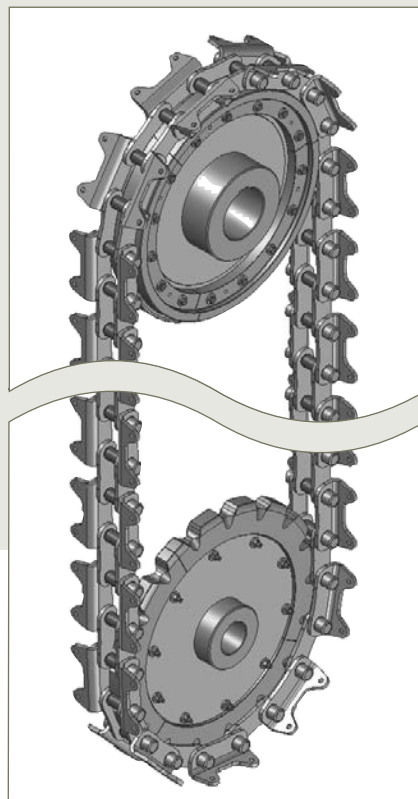
Chain technology for bucket elevators

By using high grade materials and ensuring highest manufacturing tolerances, KettenWulf offers individual solutions for high-performance bucket elevator applications in single or double strand units.



**Central chain for
high performance
bucket elevators.**

Chain system for high-performance bucket elevators consisting of an un-toothed drive wheel and a return sprocket. All chain wheels are induction hardened.





Given the high technical requirements for this particular chain application, KettenWulf works in close collaboration with their customers to develop bucket elevator chains for the most demanding applications.

Illustration 1:
Bucket elevator chain
for double-strand
application with
bent fastening lug

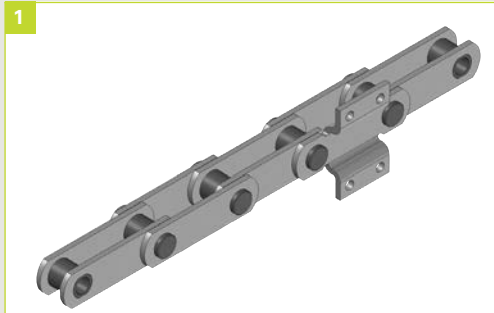


Illustration 2:
Bucket elevator chain
for double-strand
application with
straight fastening lug

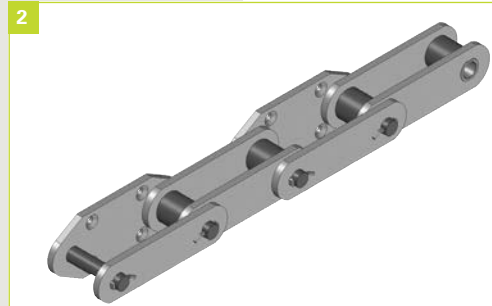


Illustration 3:
Bucket elevator chain
for double-strand
application with one-
sided fastening lug

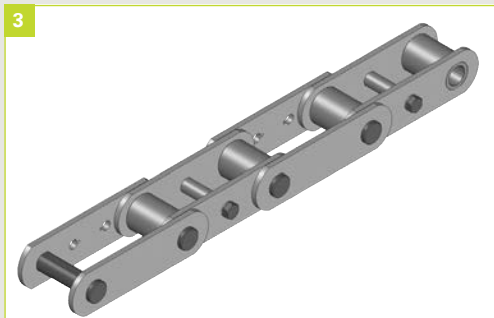


Illustration 4:
Bucket elevator chain
for double-strand appli-
cation with one-sided
fastening lug and weld-
ed reinforcing bracket

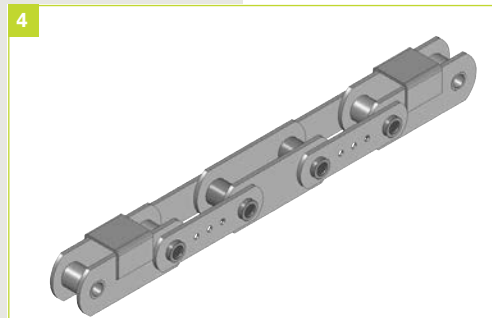


Illustration 5:
Central bucket eleva-
tor chain with angles
bent on both sides
and lightening holes

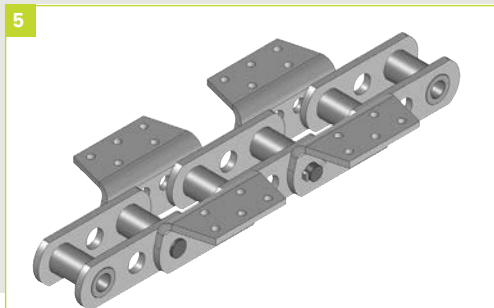
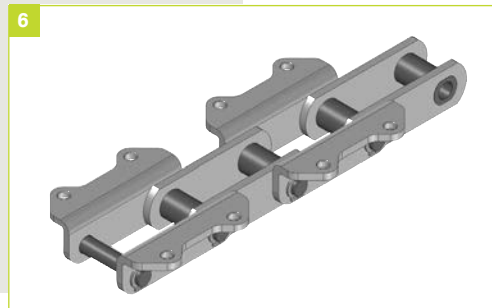


Illustration 6:
Central bucket eleva-
tor chain with angles
bent on both sides



Sprockets for complete drive systems

Sprockets are a crucial factor in the efficiency and lifetime of each chain system. In order to ensure the high quality of all products, KettenWulf places an emphasis on in-house production of its own sprockets. In addition to sprockets with DIN/ISO/ANSI gearing, our product range also covers individual solutions with optimized tooth profiles and wheel sizes.

By using high-quality, heat treated steels, we set the standard when it comes to the quality of abrasion resistant sprockets and drive components.

Bucket elevator tail shaft unit assembly process.

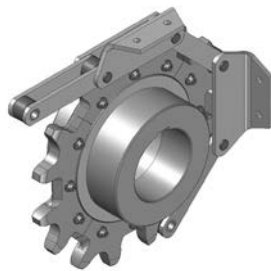


Illustration 1:
Special sprocket for
scraper reclaimer
chains

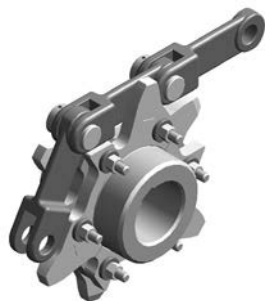
Illustration 2:
Fork link sprocket for
drag chain conveyors

Illustration 3:
Paired sprockets,
segmented and induction
hardened, used
in bucket elevators

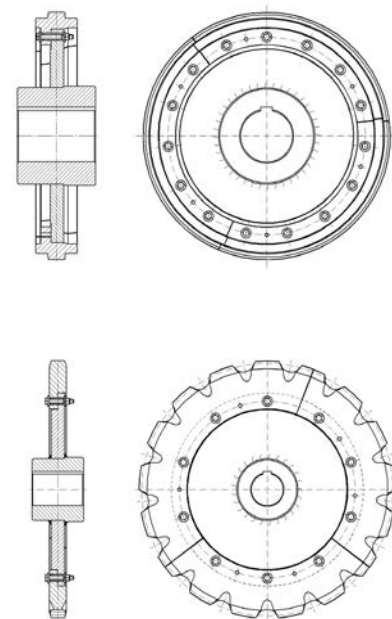
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For further information, please visit our website www.kettenwulf.com





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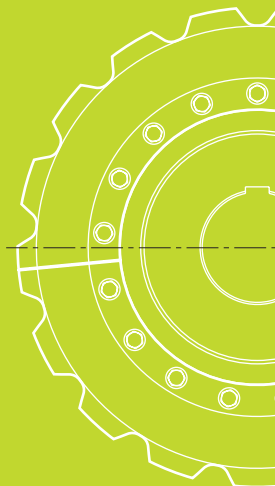
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