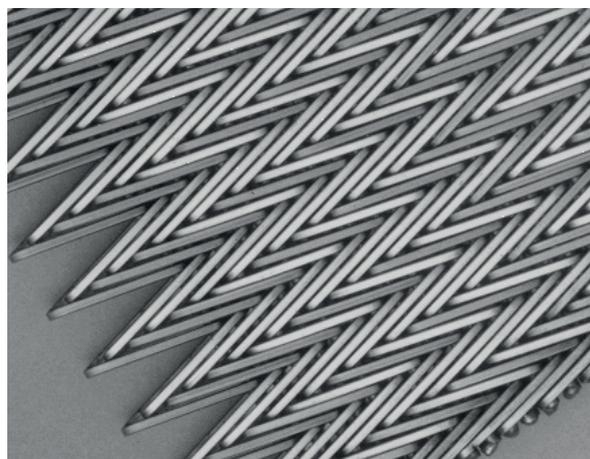


**BS-KK:** Wide Spiral belt with welded edges



**BS-KK-MV** Multiple woven wide spiral belt with welded edges

**BS** wide spiral conveyor belts have been successfully used in e.g. the food industry, the steel industry, the chemical industry and the glass industry for many years. Its simple design, the big range of dimensions (wire diameters and pitches) and the various ranges of belt materials are the main reason for its success.

The **BS** wide spiral conveyor belt is a balanced woven belt with left and right hand wound spirals, connected by crimped cross wires. At the sides of the belt the cross wire is welded (**BS-KK**) to the spiral wire.

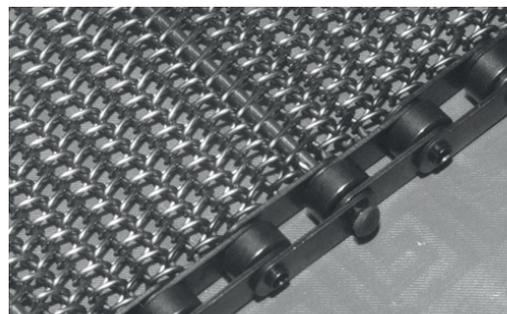
The opening ('drain') of the **BS** wide spiral belt is determined by the pitch of the spirals and the pitch of the cross rods. The range of **BS** belts starts with a pitch of the spirals and pitch of the cross rods of 4 mm and goes up to pitches of 50 mm. The wire diameters can be chosen from 0,8 mm up to 5 mm but are in a way determined by the belt pitches too. Normally the **BS** belt has round wires, but can be executed with flattened wire as well.

**BS** wide spiral belts can be used in a temperature range of  $-50^{\circ}$  up to  $+1100^{\circ}$  C, and can be delivered in every length and belt width up to 4 metres or more.

For a very tight mesh the belt can be multiple woven or compound balanced. In this belt **BS-KK-MV** the spirals are nested and one spiral has 3 or 4 or 5 cross rods instead of 2.

**BS** wide spiral belts can be executed with chains at both sides, **BS-HK** (with hollow pin chains) or **BS-VK** (with solid pin chains). The connection between the chains and the belt is mostly by means of extra cross rods going through the (spiral of the) belt and trough the chains.

The spiral part of the belt will carry the product. The chains will drive and guide the spiral part. Driving this belt is easy by means of chain sprockets.



**BS-HK:** Spiral belt with side chain

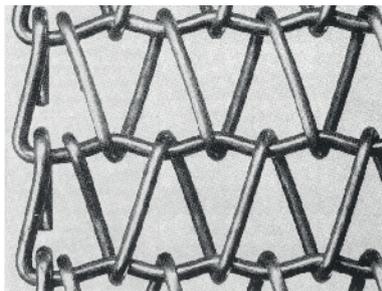


**BS-KK** wide spiral belts normally have to be driven, tensioned and guided by means of plain rollers. In many cases the position of the belt has to be controlled and one or more rollers are executed as dynamic steering rollers. Belt speeds from 0,5 m/min up to 60 m/min are possible.

Driving the **BS-KK** with sprockets is possible in case of light products on small conveyor belts and a normal belt speed.

**BS-KK** wide spiral belts can on occasion be equipped with flights.

**BS-KK** wide spiral belts can be easily made endless by placing a crimped cross wire between a left hand wound and a right hand wound spiral and welding this crimped wire ends together with the spiral wire ends.



Some wide spiral belts **BS-ZK** can be made with selfedges or so called S-Hooks instead of welded edges.

***BS-KK wide spiral belts are used in:***

-Baking ovens  
-Biscuit ovens  
-Glass ovens

-Decoration ovens  
-Hardening ovens  
-Take over conveyors

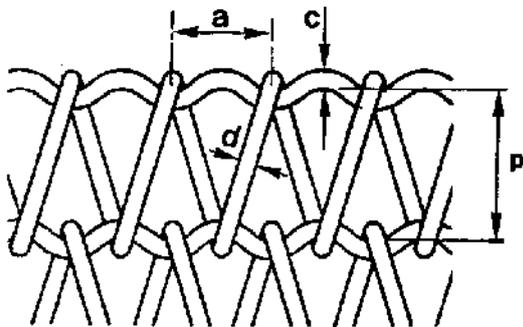
-Cooling conveyors  
-Drying conveyors  
-Washing conveyors

Belt Type	Edge Type	Spiral Pitch	Cross Wire Pitch	Diam. Spiral Wire		Diam. Cross Wire	
				a: (mm)	p: (mm)	d min.: (mm)	d max.: (mm)
BS - KK	- 4	- 4	/ 0,9	- 1,2	--	1,2	- 1,6
BS - KK	- 5	- 6	/ 0,9	- 1,6	--	1,2	- 1,6
BS - KK	- 5	- 6	/ 0,9	- 1,6	--	1,2	- 1,6
BS - KK	- 5	- 7	/ 0,9	- 1,6	--	1,2	- 1,6
BS - KK	- 5,08	- 6,35	/ 0,9	--	--	1,2	--
BS - KK	- 6	- 6	/ 0,9	- 1,6	--	1,2	- 1,6
BS - KK	- 6	- 8	/ 0,9	- 1,6	--	1,2	- 1,6
BS - KK	- 6	- 10	/ 0,9	- 1,6	--	1,2	- 1,6
BS - KK	- 8	- 12	/ 1,2	- 2,0	--	1,2	- 2,5
BS - KK	- 8	- 13	/ 1,2	- 2,0	--	1,2	- 2,5
BS - KK	- 8	- 15	/ 1,2	- 2,0	--	1,2	- 2,5
BS - KK	- 11	- 15	/ 1,2	- 2,0	--	1,2	- 2,5
BS - KK	- 11	- 20	/ 1,6	- 3,0	--	1,6	- 3,0
BS - KK	- 11	- 25	/ 1,6	- 3,0	--	1,6	- 3,0
BS - KK	- 11	- 27	/ 1,6	- 3,0	--	1,6	- 3,0
BS - KK	- 15	- 20	/ 1,6	- 3,0	--	1,6	- 3,0
BS - KK	- 15	- 25	/ 1,6	- 3,0	--	1,6	- 3,0
BS - KK	- 22	- 23	/ 1,6	- 3,0	--	1,6	- 3,0
BS - KK	- 22	- 33	/ 1,6	- 3,0	--	2,0	- 4,0

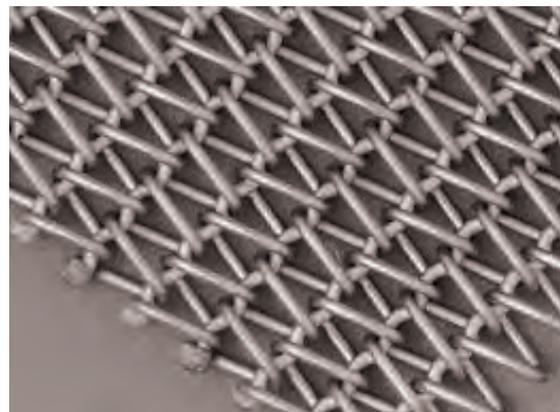
**Belt Materials:**

Steel, galvanized steel, Stainless steel AISI 304 and AISI 316, heat resistant steel, or other materials

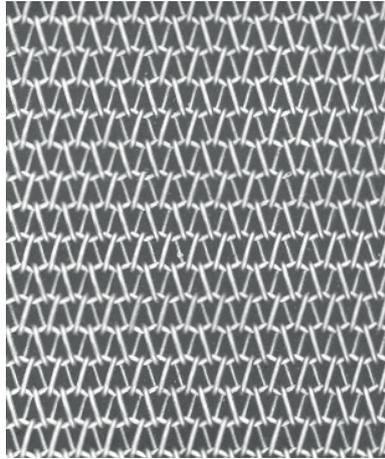
The data mentioned above are a broad selection of the many possible varieties. Please contact our specialists for deviating sizes, designs and materials to enable us to make an appropriate design for you



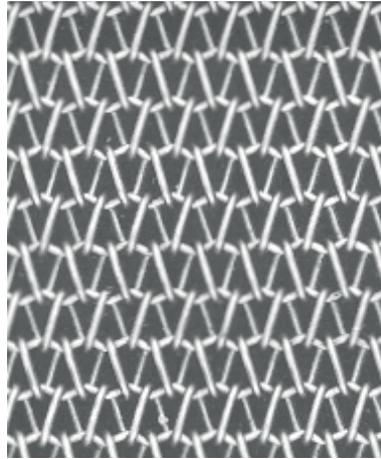
Principle sketch for belt dimensions



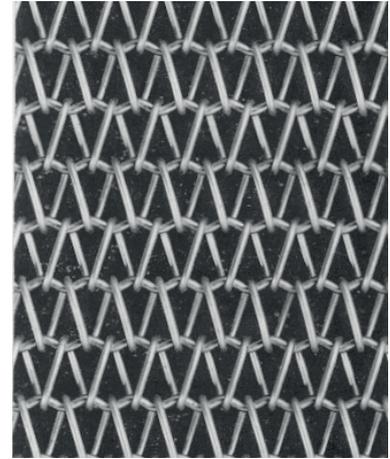
BS-KK example



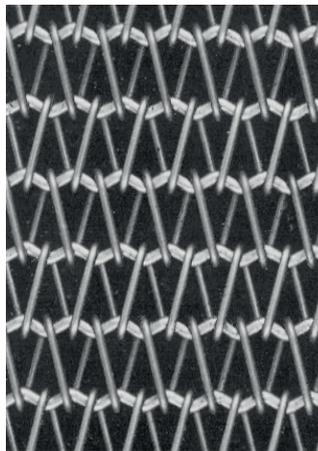
**BS-KK: 4 - 4 / 1 - 1**



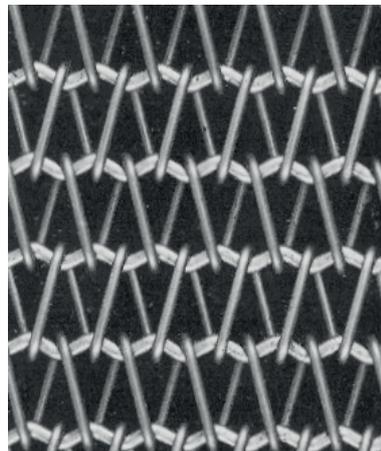
**BS-KK: 6 - 6 / 1,4 - 1,6**



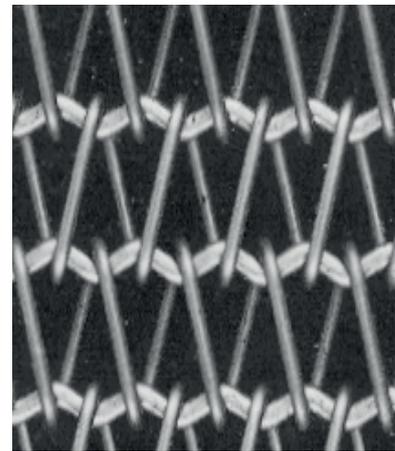
**BS-KK 6 - 8 / 1,4 - 1,6**



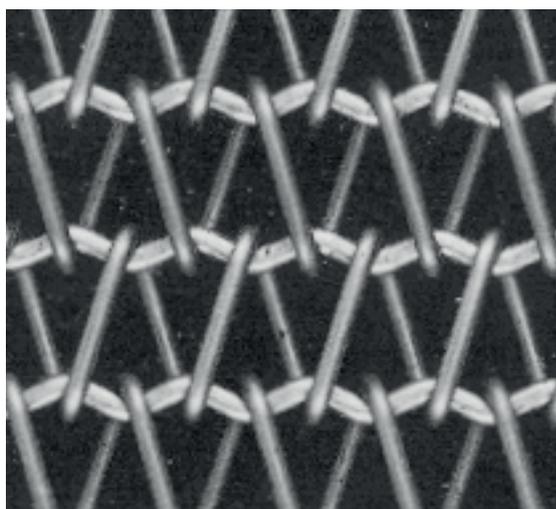
**BS-KK: 6 - 10 / 1,6 - 1,6**



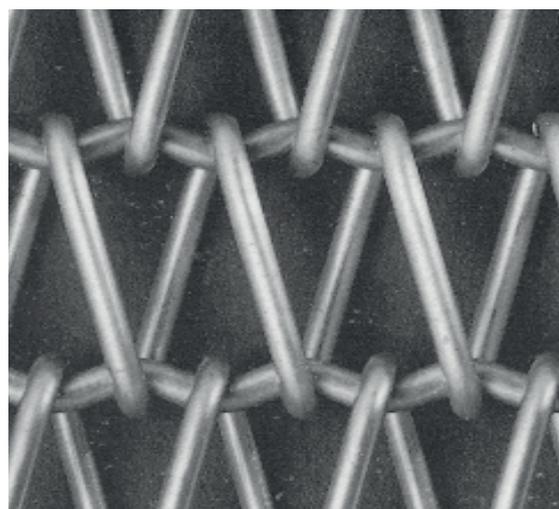
**BS-KK: 8 - 12 / 1,6 - 2**



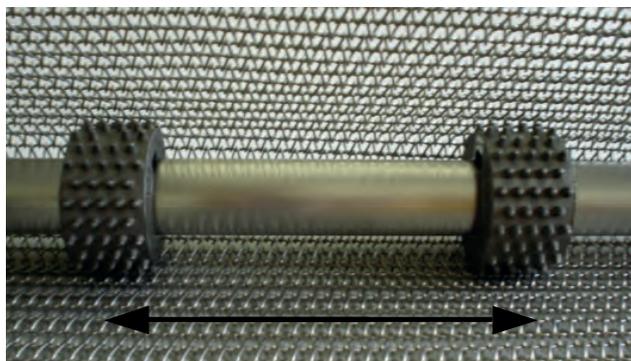
**BS-KK 11 - 20 / 2 - 2,5**



**BS-KK: 15 - 20 / 2,5 - 3**



**BS-KK: 22 - 33 / 3 - 4**



**BS-KK 5,08 – 6,35 / 0,9 – 1,2 :**  
Adjusting the sprockets to the belt



**BS-KK 5,08 – 6,35 / 0,9 – 1,2 :**  
sprockets in line by keyway

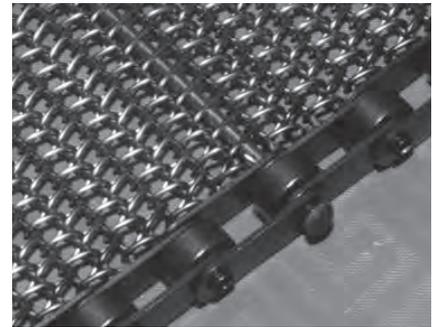
Normally the **BS** wide spiral belt is driven by a plain roller. For light conveying the BS 5,05-6,35 / 0,9-1,2 has the possibility to be driven by little pin rollers. These rollers normally have a diameter of ca 50 mm outside and fit exactly in the belt. The distance of the rollers on the shaft is recommended at approx. 100 mm. The exact mounting distance on the shaft between the rollers will always be determined by the belt itself because it fits tight but may not be forced. Not only for new belts in new machinery (mounting the first time) but especially also for spare belts on existing pin rollers.

Although the tolerances in the belt are very small every belt is unique. In the length of the belt (pitch of 6,35 mm) the pin rollers have to be mounted 'in line' and the little number of teeth will handle with these tolerances. In the width of the belt (pitch of 5 mm) the great number of windings (a belt of e.g. 1000 mm has already 200 windings) it is necessary to adjust the pin rollers exactly to the belt by moving the rollers a little to the left or right (see photo) on the shaft to fit (again) in to the (new) belt.

For wide or heavy loaded **BS** spiral belts who have to be positively driven it is recommended to use special side chains. These side chains (in many sizes) give the belt a better control, more stability and a better life time. These side chains can be driven by standard (DIN/ASA) sprockets. For the execution of these belts see page 2.1

An often used execution of the traditional **BS-KK** is the wide spiral belt executed with chains at both sides, **BS-HK** (with hollow pin chains) or **BS-VK** (with solid pin chains). The connection between the chains and the belt is mostly by means of (extra) cross rods going through the (spiral of the) belt and trough the chains.

The spiral part of the belt will carry the product. The chains will drive and guide the spiral part. Driving this belt is easy by means of chain sprockets. No extra belt tensioning or steering rollers is necessary.

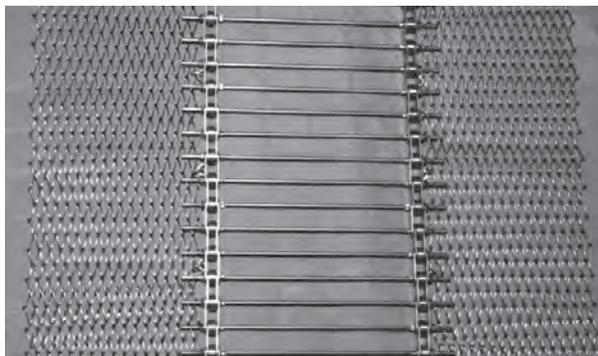


These belts are often used in freezing, cooling, frying or cooking machinery. Or in conveyors where the belt is wide and the length is short. Because this belt has a chain, strong cross rods, side plates and flights are easy to mount on. There are many possibilities in the execution of the chains and the meshes.

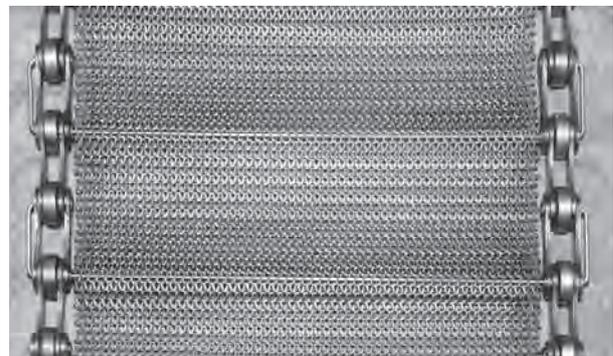
Often used are the 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2" en 2" and 3" chains in the different ISO, ASA and DIN standardization

The next pages show some examples of spiral belts with side chains. The pictures give only a small selection of possibilities.

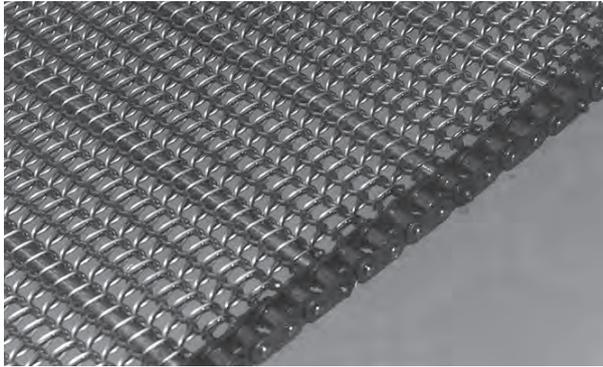
The pictures at the end of this page give 2 special executions because of their function.



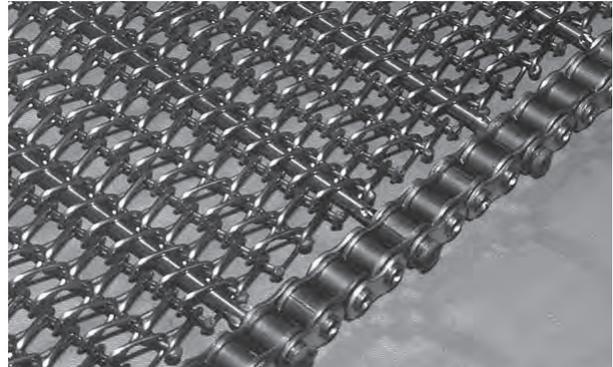
*Ladder belt with chains, executed with spiral belting at the side. Mostly this belt supports filtration paper. Because the spiral belt is linked to the ladder belt, the total belt can run in a V-shape and the product which has to be filtrated can not fall of the belt. At the infeed and at the outfeed of the installation the end rollers will flatten the belt.*



*This tight spiral belt is equipped with a 2" hollow pin roller chain. It is often used in (bottle)washing machines, filtrating the water and carrying paper or broken glass out of the installation.*



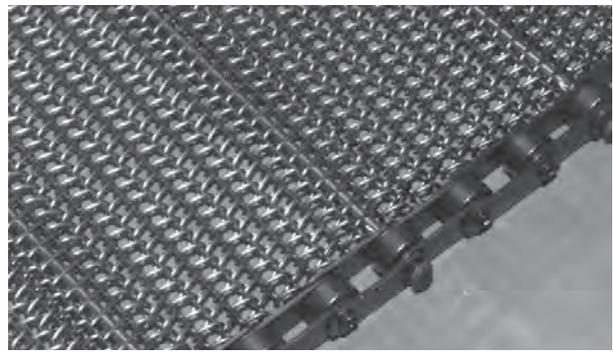
**BS-VK** Wide Spiral Belt with 3/8" chain



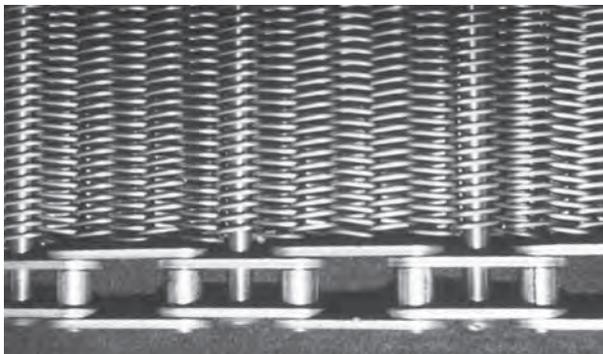
**BS-HK** Wide Spiral Belt with 1/2" chain



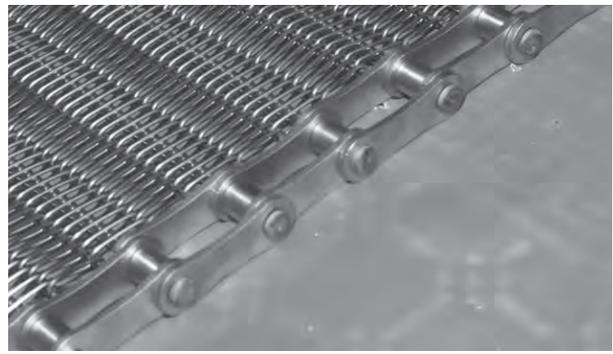
**BS-HK** Wide Spiral Belt with 1" chain



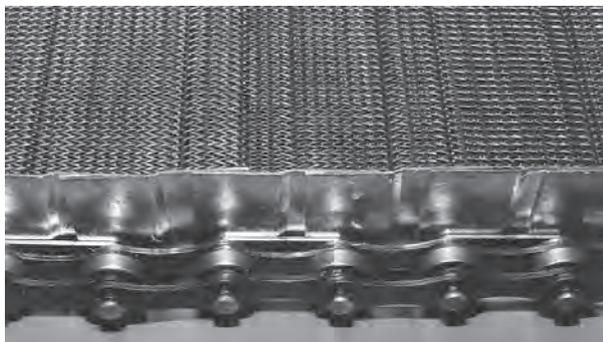
**BS-HK** Wide Spiral Belt with 1" chain



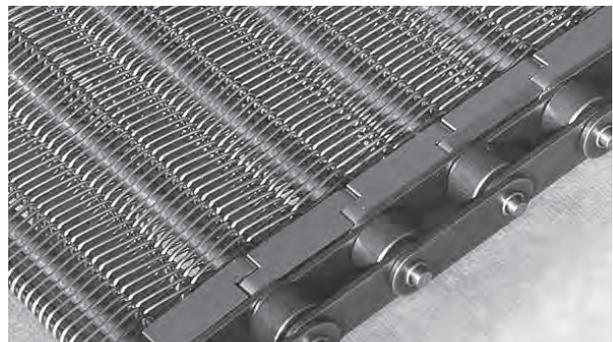
**BS-VK** Wide Spiral Belt with 1,5" or 2" chain



**BS-HK** Wide Spiral Belt with 1,5" chain



**BS-HK** Wide Spiral Belt with 2" chain



**BS-HK** Wide Spiral Belt with 2" chain