


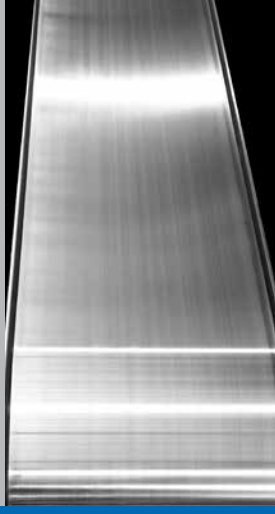

STEEL BELTS FOR CHEMICAL PROCESSING

Berndorf Band is a leading manufacturer of stainless steel belts used for chemical processing.

Customized solutions

Our focus is definitely on quality and customized solutions. At the beginning of the manufacturing and delivery process is a detailed consultation ensuring that all belts meet the requirements set by the customer. According to this, we choose the right material and define the specifications.

As a customer of Berndorf Band you can rely on getting a steel belt which is state of the art in regards to mechanical, physical and geometric properties. Continuous research and development, specially selected materials, as well as the latest production technologies contribute achieving these goals.

After stringent quality checks the belts are finally packed in rigid crates providing sufficient protection during transport and handling at the construction site.

Steel belts from Berndorf Band are known for high dynamic strength, perfect flatness and tracking. Furthermore, the materials we use offer high corrosion resistance. All these properties make steel belts from Berndorf Band the product of choice for continuous chemical processing.

Comprehensive technical customer service completes our product range. Berndorf Band has an international service network offering steel belt installation, repair and inspection. A wide variety of service activities are offered: from emergency repair to preventive maintenance as well as training courses for your in-house maintenance engineers.

Continuous Reliability

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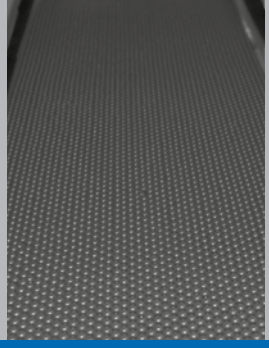
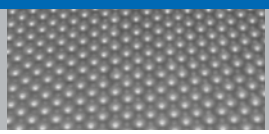
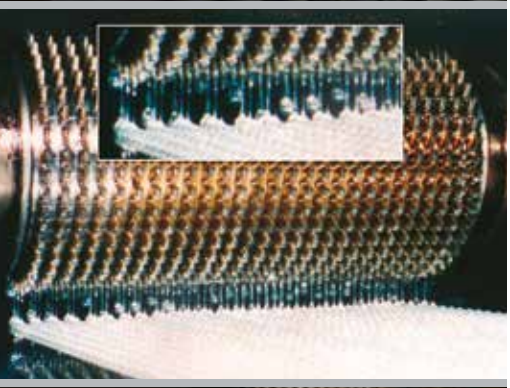


Pastillation devices & more ...

NICRO 85

NICRO 85 is a super duplex material, which is used for applications with a high corrosion risk. This material offers high static and dynamic strength as well as increased resistance against chlorid-induced stress corrosion.

AccuDrop®

The AccuDrop® is a sulphur forming system that produces products in pastille form and runs at high capacity within environmental and quality standards. The AccuDrop® does not use water nor air as the forming medium, thus avoiding the danger of major environmental hazards.

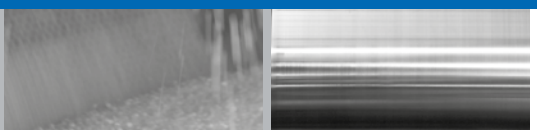
Rolldrop®

The Rolldrop® transforms molten products into pastilles with diameters in the range 5 – 10 mm. The technology can be used for almost any product with a melt viscosity of 5-10.000 mPas. Advantages of this system are easy cleaning for quick product changeover, low-cost gaskets, easy assembly, rapid and low-cost maintenance.

Partners of Berndorf Band

As a service and application driven group Berndorf Band and its partners offer numerous feeding devices to address all customers' production requirements. Due to the close cooperation with our partners worldwide, we are able to select the best technical and economically viable solution for you.

Steel belt accessories



Vee-ropes & product retaining strips

Berndorf Band guarantees perfect adhesion of vee-ropes and product retaining strips.

Material of vee-ropes
Nitrile rubber
for operating temperatures from -20°C to +100°C
Natural rubber
for operating temperatures from -60°C to +60°C
Spiral vee-rope made of stainless steel
for operating temperatures exceeding +100°C

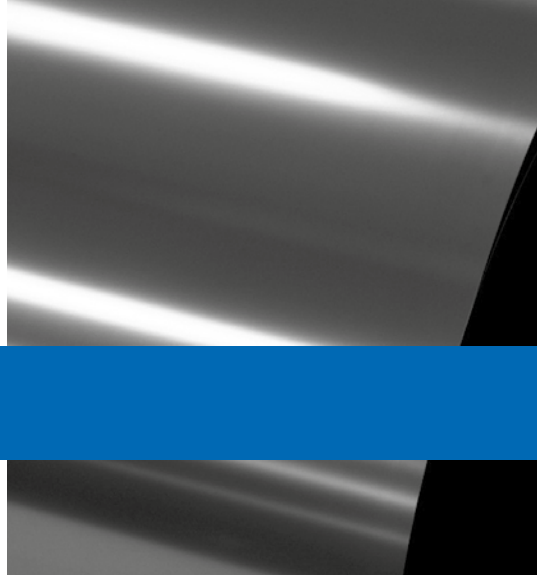
Material of product retaining strips
Nitrile rubber
for operating temperatures from -20°C to +100°C
Natural rubber
for operating temperatures from -60°C to +60°C
Silicone rubber
for operating temperatures from -80°C to +200°C

Guiding & supporting sheaves

Berndorf Band offers all prevalent executions of both guiding and supporting sheaves. For more detailed information please contact your local Berndorf Band representative.

Belt Tracking Systems

A reliable belt tracking system is critical to the trouble-free operation of a steel belt system. It must withstand widely varying conditions, such as pressure and temperature, and protect the steel belt from excessive stress. Berndorf Band offers well proven and safe tracking systems.



Technical data

Physical and mechanical properties. Typical values.

Material			NICRO 12.1	NICRO 22	NICRO 31	NICRO 52	NICRO 52.6	NICRO 85	TITANIUM
Type			CrNi 17 7	CrNiMo 17 12 2	CrNiTi 13 4	CrNiCuTi 15 7	CrNiCuTi 15 7	CrNiMoN 25 7 4	Grade 2
Similar material		DIN AISI	1.4310 301	1.4401 316	1.4313 -	- -	- -	1.4410 -	3.7035 -
Tensile strength	at 20 °C	N/mm²	1150	1100	1080	1150	1550	1350	390
0,2%-yield offset strength	at 20 °C	N/mm²	950	970	1050	1100	1500	1250	275
Hardness		Rockwell HRC Vickers HV 10	37,0 360	33,0 330	33,5 330	37,0 360	48,0 480	39,0 380	- 160
Elongation 50 mm		%	18	12	5	8	6	6	20
Welding factor			0,70	0,65	0,95	0,95	0,80	0,70	0,95
Fatigue strength under reversed bending stress*)	at 20 °C	N/mm²	480	440	480	500	700	385	250
Modulus of elasticity	at 20 °C at 200 °C	N/mm² N/mm²	200.000 180.000	200.000 180.000	205.000 -	200.000 188.000	200.000 188.000	200.000 186.000	106.000 -
Density		kg/dm³	7,90	7,95	7,70	7,74	7,74	7,80	4,53
Mean coefficient of thermal expansion	20-100 °C 20-200 °C 20-300 °C	10⁻⁶m/m°C 10⁻⁶m/m°C 10⁻⁶m/m°C	16,0 17,0 -	16,5 17,5 -	10,8 11,2 11,7	10,9 11,5 11,7	10,9 11,5 11,7	13,0 13,5 14,0	8,5 8,9 -
Specific heat		J/g°C	0,50	0,50	0,46	0,50	0,50	0,50	0,52
Thermal conductivity	at 20 °C	W/m°C	15	15	21	16	16	15	20
Specific electric resistance	at 20 °C	Ohm mm²/m	0,73	0,75	0,60	0,80	0,80	0,80	0,78
Max. permissible operating temperature		°C °F	250 480	250 480	350 660	350 660	350 660	250 480	250 480
Tensile strength at max. permissible operating temperature		N/mm²	940	870	970	900	1250	1070	225
0,2%-yield offset strength at max. permissible operating temperature		N/mm²	770	770	930	830	1180	1023	135

Further special materials upon request.

*) 50% of the test specimens withstand 2,000,000 load cycles.
If not otherwise specified, the values given apply at room temperature.
Subject to change due to technological progress. Errors and omissions excepted.

A 9/2015