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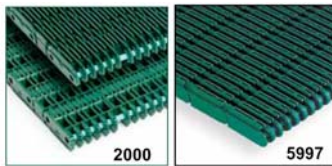
To : Ektam  
Attn. : **Mr. Ufuk Aygun**  
E-mail address : rexnord@ektam.com.tr  
From : **Application Engineering / Paul van der Meer**  
Date : 12-10-2010  
Reference : 20101012 Ektam  
Subject : 2000 series  
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Dear Mr. Aygun,

Referring to your e-mail in which you ask for a comparison between Rexnord 2000 series pasteuriser belts, to replace the 5997 belt series, for tunnel pasteuriser applications, we hereby send you this e-mail.

In this e-mail we will inform you on the similarities and differences between the two belt series and required changes to the conveyor construction.

**1. Belt selection table**



Rexnord MatTop Chain Options					
Chain Series		RR2000	RRHD2000	SR2000	USP5997
Chain Construction		Raised Rib	Raised Rib Heavy Duty	Solid Rib Heavy Duty	Raised Rib
Link Material		XP	USP	USP	HT / USP
Beverage Applications - General Guidelines Only					
Container					
Bottle	Petaloid Bottom PET/PEN	NR	NR	●	NR
	Returnable Glass	NR	NR	●	NR
	Non-Returnable Glass	NR	●	●	●
	Ring Bottom PET/PEN	●	●	●	●
	Aluminum	●	●	●	●
Can	Aluminum or Steel	●	●	●	●
Food Applications - General Guidelines Only					
Glass Jars				●	
PET/PEN Jars		●	●	●	●
Aluminum or Steel Cans		●	●	●	●

● Preferred      ● Second Choice      NR = Generally Not Recommended

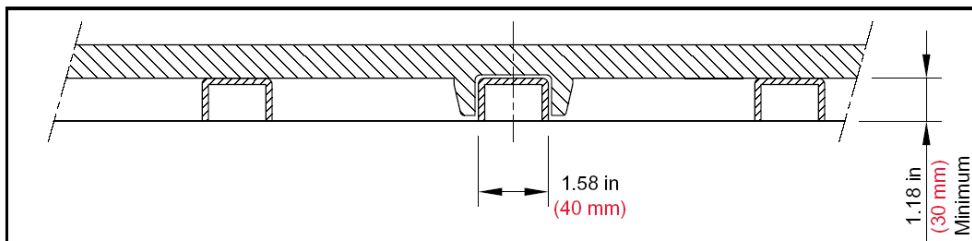




## 2. Belt properties

Chain Series	2000	5997
Surface Style	Raised Rib (RR), Raised Rib Heavy Duty (RRHD) Super Rib (SR)	Raised Rib
Link Material / Construction	USP Material	USP Material
Chain Pitch	2.00 in (50.8 mm)	2.25 in (57.2 mm)
Chain Thickness	0.95 in (24.1 mm)	0.97 in (24.6 mm)
Open Area	27%	22%
Chain Strength	2000 lbs/ft (29781 N/m)	2400 lbs/ft (35016 N/m)
Pin Retention	Clips	Blind Eye/Plug
PosiTrack™ Tracking Guides Options	Yes	No
Transfer Options		
Static Transfer Combs	Yes	Yes
DTS-C	Yes	Yes
DTS Only	No	No
Applications		
Pasteurizer	Yes	Yes
Warmers / Coolers	Yes	Yes

Important: the 2000 series belt has advantage to have Positrack system for optimal tracking of the belt through the machine over the entire length. See drawing below.



PosiTrack™ Tracking Guide

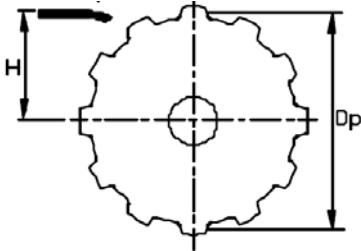
## 3. Belt widths

Pasteurizer Rexnord Chain Series	Nominal Chain Widths							
	Minimum Chain Width		Maximum Chain Width		Standard (Uncut)		Non-Standard (Cut)	
	in	mm	in	mm	in	mm	in	mm
RR2000	9	229	216	5486	3	76.2	1.50	38.1
RRHD2000	9	229	216	5486	3	76.2	1.50	38.1
SR2000	9	229	216	5486	3	76.2	1.50	38.1
5997	36	914	216	5486	3	76.2	0.5	12.7



#### 4. Recommended shaft centre heights

The pitch for the 2000 series belts is 2" (50.8 mm) and for the 5997 series belt the pitch is 2.25" (57.15 mm). This means there is a slight adjustment necessary for the height of the shaft in relation to the height of the top of the wear strips. In the tables below these dimensions are shown for both belt series for the available sprocket executions.



2000-series

No. of teeth	Pitch diameter (Dp) [mm]	Shaft position (H) [mm]
10	164.4	73.7
12	194.3	89.8
13	212.3	97.9
16	260.4	122.0

5997-series

No. of teeth	Pitch diameter (Dp) [mm]	Shaft position (H) [mm]
9	166.9	74.4
12	220.7	101.3
14	256.8	119.1

#### 5. Other recommendations regarding conveyor construction

For the complete recommendations for all Rexnord belts for pasteurisers, we refer to the Design Manual for pasteurisers, warmers and coolers, which had been attached to this e-mail.

In general we would like to point out the following design guidelines are basically the same for the 2000 and 5997 Series:

- Recommended wear strip spacing: 6" (152.4 mm)
- Recommended diameter for return rollers: 150 mm
- Recommended radius for return shoes: 75 mm
- Recommended clearance in the machine for thermal expansion of the belt



### Specific benefits of the 2000-series

Both the 2000 and 5997 series belts have proven for many years in numerous pasteuriser, warmer and cooler applications to ensure optimal product handling and high reliability against relatively low costs of ownership.

The 2000 series belt program has some specific advantages over the 5997 series:

- Available in different executions for specific product types. Recently the 2000 series belt program has been extended with the SR(P) 2000 belt which is suitable for PET bottles with Petaloid bottom, cans and glass.
- Option for Positrack system to ensure optimal tracking of the belt over the machine length.
- Pitch of 2" instead of 2.25", which means less chordal action.

The 2000 series pasteuriser belts have been successfully applied for numerous applications throughout the world. Many machine builders have standardized on the 2000 belt series for their pasteuriser, warmer and cooler applications.

In the appendix of this e-mail we have included a reference list for the 2000 series in pasteuriser, warmer and cooler applications.

We trust to have served you with this. If you have got anymore questions, please do not hesitate to contact us.

Best regards,

#### **Rexnord FlatTop Europe**

A handwritten signature in black ink, appearing to read "Paul van der Meer", written over a light grey rectangular background.

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*Appendix*

*Reference list 2000 series*



## *References for 2000 series belts in pasteuriser, warmer and cooler applications*

We are rapidly building up references with our Raised Rib 2000 series belts. At this moment a number of projects already successfully have been built and a number of projects are being constructed now.

<i>End-user</i>	<i>Country</i>	<i>Belt type</i>	<i>OEM</i>	<i>Product type</i>
Abbeydale Foods	United Kingdom	RR 2000 XP	BMS	Plastic Container
Albani	Denmark	RR 2000 XP	Sander Hansen	Cans / Glass Bottles
AmBev	Brasil	RR 2000 XP	SIG Simonazzi	Cans
AmBev	Brasil	RRHDP2000USP	KHS	Cans
Asahi	Japan	RR 2000 XP	Sander Hansen	Glass bottles
Asahi Ibaraki	Japan	RRP 2000 XP & DTS-C	KHS	330 & 500 ml cans
Athenian Brewery S.A.	Greece	RRHD 2000 YP	Sander Hansen	Cans
Bass	United Kingdom	RRHD 2000 YP	Brewpack	Cans
Bavaria Breweries	Netherlands	RRHD 2000 YP	KHS	cans
Bavaria Breweries	Netherlands	RRHDP2000USP	KHS	Cans
Beck & Co	Germany	RR 2000 XP	KHS	Cans
Brasserie Meteor	France	RR 2000 XP	Sander Hansen	Glass bottles
Britvic	United Kingdom	RRHDP 2000 YP	Brewpack	Juice Bottles
Bulmers	Ireland	RR 2000 XP	Sander Hansen	Glass Bottles
Cambodja Brewery	Cambodia	RR 2000 XP	Sander Hansen	Cans
Carlsberg	Denmark	RR 2000 XP	Sander Hansen	Cans
Castlemaine Perkins	Australia	SRP2000USP	KHS	Cans
Cellier Associé	France	RR 2000 XP	Sander Hansen	Glass Cider Bottles
Coca Cola	Philippines	RR 2000 XP	Sidel Packaging	0,33 L Aluminium
Coca Cola	Spain	RRHD 2000 YP	KHS	Cans / Glass bottles

<i><b>End-user</b></i>	<i><b>Country</b></i>	<i><b>Belt type</b></i>	<i><b>OEM</b></i>	<i><b>Product type</b></i>
Coca Cola Amatil	Hungary	RR 2000 XP	Krones Zierk	Cans / Glass bottles
Conserves France	France	RRHDP 2000 YP & DTS-C	MCTM	Glass jars
Coors	United Kingdom	RR 2000 XP	Sander Hansen	Cans
Coors	United Kingdom	RRHDP 2000 YP	BMS	bottles
Coors	United Kingdom	SRP2000USP	Sander Hansen	Cans
CUB	Australia	RR 2000 XP	Sander Hansen	Glass bottles
Daniel Thwaites PLC	United Kingdom	RRHDP 2000 YP	Brewpack	bottles
Dranken Industrie Sittard	Netherlands	RR 2000 XP	KHS	Cans
Falken Bryggeri	Sweden	RR 2000 XP	Sander Hansen	Cans
Feldschlösschen	Germany	RRHDP 2000 YP	KHS	bottles
Frisdranken Industrie Winters B.V.	Netherlands	RRP 2000 XP	KHS	Cans
Fuji Coca-Cola	Japan	RR 2000 XP	Sander Hansen	Glass bottles
Granarolo	Italy	RRHD 2000 YP & DTS-C	SIG Simonazzi	PET bottles (flat Base, To Be Installed)
Grolsche Bierbrouwerijen	Netherlands	RRHD 2000 YP & DTS-C	SIG Simonazzi	Oneway glass bottles
Grolsche Bierbrouwerijen	Netherlands	SRP2000USP	SIG Simonazzi	Cans
Guinness	United Kingdom	RRHD 2000 YP	Sander Hansen	Glass bottles
Hainan APB	China	RR 2000 XP	Sander Hansen	Glass bottles
Heineken Bergamo	Italy	RR 2000 XP	Sander Hansen	oneway glass bottles
Heineken Breweries 's-Hertogenbosch	Netherlands	RR 2000 XP	Sander Hansen	Cans
Heineken Breweries 's-Hertogenbosch	Netherlands	RRP 2000 XP	De Dieze	Cans
Heineken Breweries Zoeterwoude	Netherlands	RR 2000 XP*	Sander Hansen	Cans
InBev	United Kingdom	RRHD 2000 YP	Sander Hansen	Oneway-glass bottles
InBev	United Kingdom	RRHD 2000 YP & DTS-C	SIG Simonazzi	Cans

<i><b>End-user</b></i>	<i><b>Country</b></i>	<i><b>Belt type</b></i>	<i><b>OEM</b></i>	<i><b>Product type</b></i>
InBev	United Kingdom	RRHDP 2000 YP	KHS	cans
Kaiser	Brasil	RR 2000 XP	SIG Simonazzi	Cans
Karlsberg	Germany	RR 2000 XP	Sander Hansen	0,33 / 0,5 L cans
Labatt's	Canada	RR 2000 XP & DTS-C	SIG Simonazzi	Cans (To be Installed)
Labatt's	Canada	RRHD 2000 YP	KHS	Glass bottles
Labatt's	Canada	RRHD 2000 YP & DTS-C	SIG Simonazzi	Oneway Glass Bottes (To Be Installed)
Leona Cervecería	Colombia	RR 2000 XP	Krones Zierk	Glass bottles
Loewenbraeu	Germany	RR 2000 XP	Sander Hansen	cans
Mahou Cervezeria	Spain	RR 2000 XP	Sander Hansen	Cans
Martens	Belgium	RR 2000 XP	QFE	Cans
Martens	Belgium	RRP 2000 XP	KP	Cans
Materne	Belgium	RRHDP 2000 YP & DTS-C	NTS-Legendre N.V.	glass jars
Matthew Clark	United Kingdom	RR 2000 XP	Sander Hansen	33 Cl Cans
Mecklenburgische Brauerei Lübz	Germany	RR 2000 XP	KHS	Cans
Obolon brewery	Ukraine	RR 2000 XP	KHS	Cans
Oettinger Brauerei	Germany	RR 2000 XP	Sander Hansen	Cans
Ottakringer Brauerei AG	Austria	RR 2000 XP*	Sander Hansen	Bottles
PAGO Fruchtsäfte	Spain	RRHD 2000 YP	KHS	Glass
Pepsi (Polar)	Venezuela	RR 2000 XP	KHS	202 Cans
Pepsi Cola	Libanon	RRHD 2000 YP	Warmer GMM	PET-bottles
Pepsi Cola	Turkey	RRHDP 2000 YP & DTS-C	KHS	250 & 330 ml Cans
Pepsi GmbH	Germany	RR 2000 XP	Sander Hansen	Cans
PNN Beverages	Australia	RR 2000 XP & DTS-C	--	1.5 Ltr PET bottles

<i><b>End-user</b></i>	<i><b>Country</b></i>	<i><b>Belt type</b></i>	<i><b>OEM</b></i>	<i><b>Product type</b></i>
Quacker Sorocaba	Brasil	RR 2000 XP	KHS (Ziemann Liess)	Glass bottles
Quilmes	Argentina	RR 2000 XP	Sander Hansen	Glass bottles
Rapp Brauerei	Germany	RRHD 2000 YP	KHS	Glass bottles
Rauch Fruchtsäfte	Austria	RR 2000 XP	Sander Hansen	250ml cans
Rauch Trading AG	Switzerland	RRHDP 2000 YP & DTS-C	KHS	0,25 & 0,35L cans
Raynal & Roquelare	France	RR 2000 XP & DTS-C	Cempa	Cans
Rich.Hengstenberg GmbH & Co.	Germany	RRP 2000 XP & DTS-C	ESV Spennes	Glass jars
Sahabeco	Vietnam	RRHDP2000USP	KHS	Cans
Scana Noliko	Belgium	RR 2000 XP	Radenska & Steinle	Preserve cans
Scottish Courage	United Kingdom	RR 2000 XP	Sander Hansen	Cans
Scottish Courage	UK	RRHD 2000 YP	Sander Hansen	cans
Shenmei	China	RR 2000 XP	KHS	Cans
South Pacific Brewery	New Guinea	RRHD 2000 YP	Sander Hansen	Glass bottles
Sun Pac Foods Ltd	Canada	RRHD 2000 YP & DTS-C	SIG Simonazzi	PET bottles (flat base)
Thai APB	Thailand	RR 2000 XP	Sander Hansen	Glass bottles + cans
Unilever	Czech Republic	RRHD 2000 YP & DTS-C	KHS	100 ml PP bottles
United Distillers	Italy	RRHD 2000 YP	Rivi Bottling Service S.r.l.	Glass bottles
Wahaha	China	RR 2000 XP & DTS-C	SIG Simonazzi	PET (To Be Installed)
Zuccato	Italy	RR 2000 XP	ACMI	glass ánd cans