

HACCP conveyor and process belts for bakery

CHIORINO manufactures conveyor and process belts that fully comply with the latest European and international Food Regulations, and are particularly recommended for the HACCP system.

The wide range of CHIORINO food belts is developed to satisfy all demanding applications in bread, biscuits, snacks processing and packaging, assuring safe and high quality baked products.



Certified Food Compliance

To protect Consumer's health, CHIORINO process and conveyor belts comply with the latest European and international Food Regulations:

REGULATION EC 1935/2004 and amendments

REGULATION EC 2023/2006 and amendments

REGULATION EU 10/2011 and amendments

FDA (Food and Drug Administration)

REGULATION NSF/ANSI 3-A 14159-3-2014 and amendments

USDA (United States Department of Agriculture)

HALAL (World Halal Authority)

The careful selection of raw materials, the constant adjustment by R&D Department to the legislative developments in food safety, the strict controls throughout the production process (Good Manufacturing Practices) guarantee total food compliance of CHIORINO belts.

Declarations of compliance as prescribed by law are available for every CHIORINO food belt.

Thus, the Customers are certain to use materials that fully comply with the HACCP system.



Leading brand for hygiene and food safety



The HP® conveyor and process belts are the benchmark in the food industry as far as **hygiene, performance** and **working life** are concerned.

The HP® belts fully support all the **HACCP procedures** through the whole food manufacturing process.

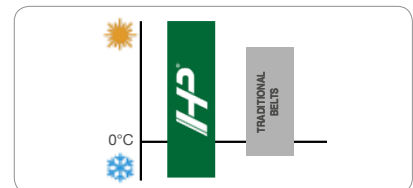


+ BENEFITS

- **Total respect of the HACCP system**
- **Non staining**
- **Easy to clean**
- **Time, water and energy saving**
- **Long service life**

Resistance to high/low temperatures

The HP® belts offer increased resistance to high temperatures compared to traditional polyurethane belts and maintain their characteristics even at lowest temperatures.



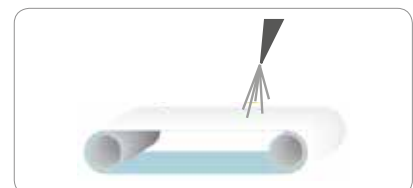
Resistance to oils and chemical agents

The HP® belts ensure an excellent resistance to the chemical agents, fats and aggressive oils, including sunflower, palm and coconut oil.



Resistance to hydrolysis

The HP® belts guarantee an excellent resistance to hydrolysis as well as the chemical and mechanical action of washing with hot water and steam, including in continuous systems.



Clean-in-place

HP® belts can be subjected to continuous washing systems with hot water and detergents without undergoing any deterioration.



Superior flexibility and mechanical resistance

The HP® belts offer a superior flexibility and are extremely resistant to abrasion and mechanical stress caused by knife edges, backflexing and scrapers.



Dehesive line - Excellent release properties



The Chiorino HP® dehesive belts offer excellent **release** of any kind of **sticky** product. The high release properties are guaranteed by both **low friction** and **high friction** HP® belts.

Excellent alternative to silicone belts.

Scrapers can be used.



+ BENEFITS

- Non marking
- Easy to clean
- Excellent product transfer
- Perfect product positioning

Ultimate positive drive belt - Accuracy and precision



HP COMPACT MINI DRIVE® is the ultimate solution for **food positive drive** belts featuring a **reduced teeth pitch**.

Ideal for running on small pulleys, it assures **smooth product transfer** and **increased production efficiency**.



+ BENEFITS

- Accurate product transfer
- No mistracking. No misalignements
- Suitable for bi-directional running
- Ideal for high speed
- Optimized cost of ownership

Detectable solutions - Contamination-free food



Chiorino DET™ is a full range of **food grade metal detectable** products.

The exclusive DET™ TPU belt is **recognized** in very **small particles** by the metal detectors used in food processing and packaging.

Chiorino DET™ line guarantees a **safest food production** and **prevents products recalls**.



+ BENEFITS

- **Guaranteed food safety**
- **No food contamination**
- **Waste reduction**
- **Prevents product recalls**
- **Long service life**

Superior detectability +300%

R&D comparison between Chiorino DET™ line and average competitors shows that the DET™ line is far more detectable: **+ 300%**.

A very small debris of DET™ belt is recognized by the metal detector.

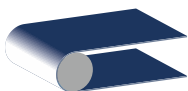
The **prompt identification** and removal of the contaminated product assures a **safest food** processing and packaging.



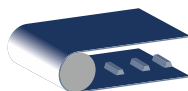
MINIMUM DETECTABLE PART

Based on R&D analysis run on the same metal detector. The Chiorino DET™ particle recognized by metal detector is three times smaller than competitor's.

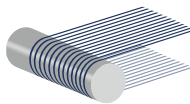
Unique & full range



Conveyor belts



Positive Drive



Round belts



Guides



Profiles

Bread



Thanks to its wide know-how and expertise, Chiorino offers a comprehensive range of high performance food belts for processing any kind of dough through the whole production line of bread, pizza, biscuits and crackers.

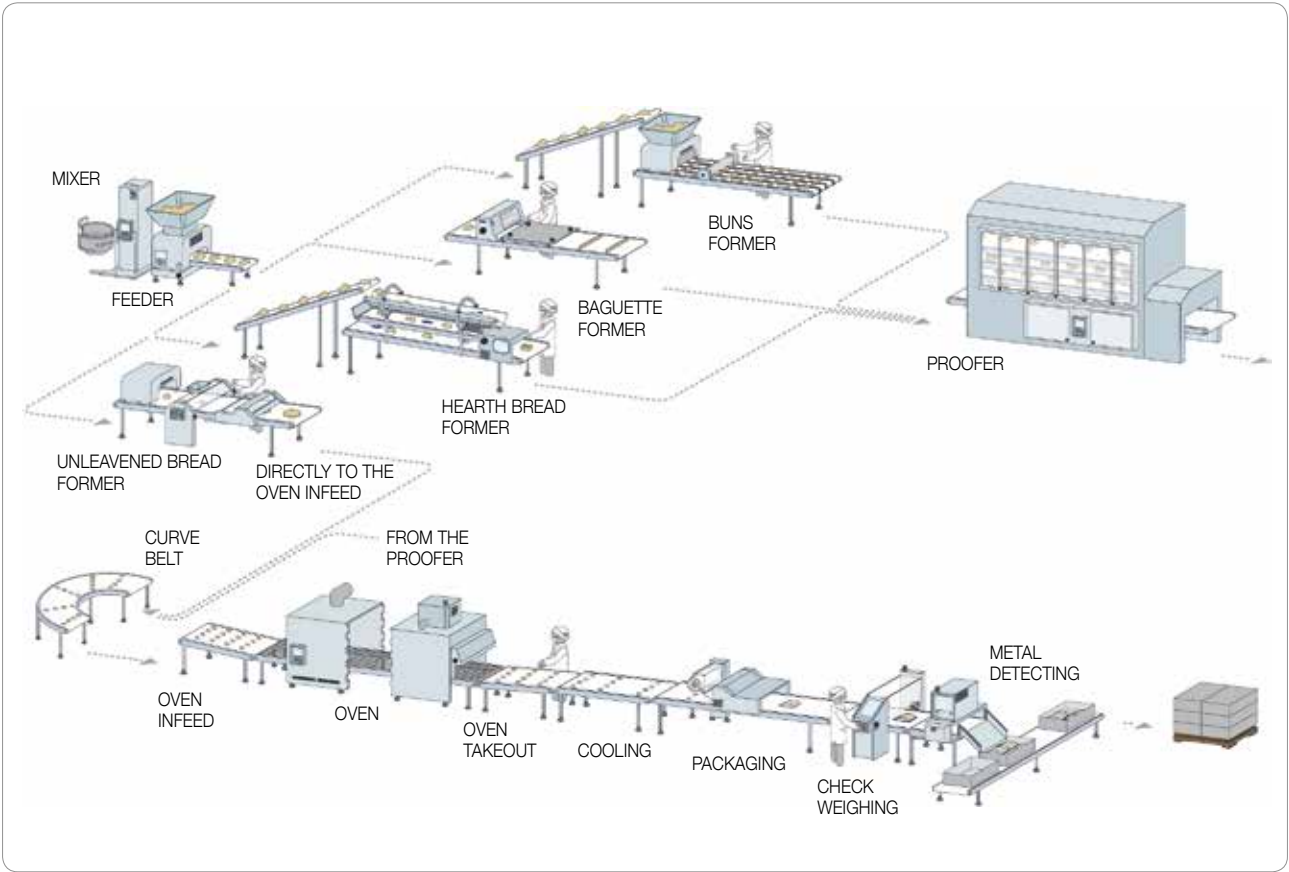


KEY FEATURES + BENEFITS

Fray-free edges	>	Product safety and no contamination
Superior resistance to aggressive fats and oils	>	Highest reliability even with scrapers
Excellent release properties	>	Product waste reduction and cost saving
Resistance to high temperature	>	Total flat running and long service life



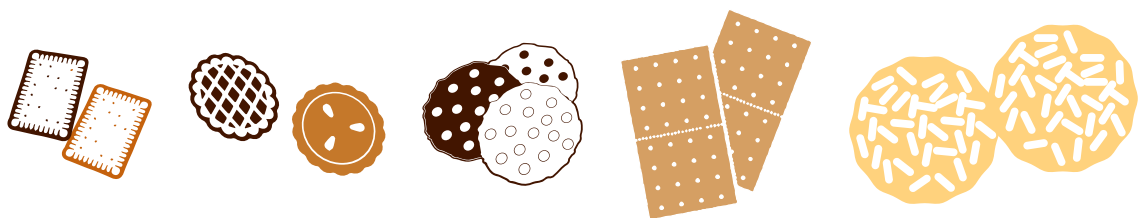
Industrial line for bread production



Biscuits and crackers



Thanks to its wide know-how and expertise, Chiorino offers a comprehensive range of high performance food belts for processing any kind of dough through the whole production line of bread, pizza, biscuits and crackers.

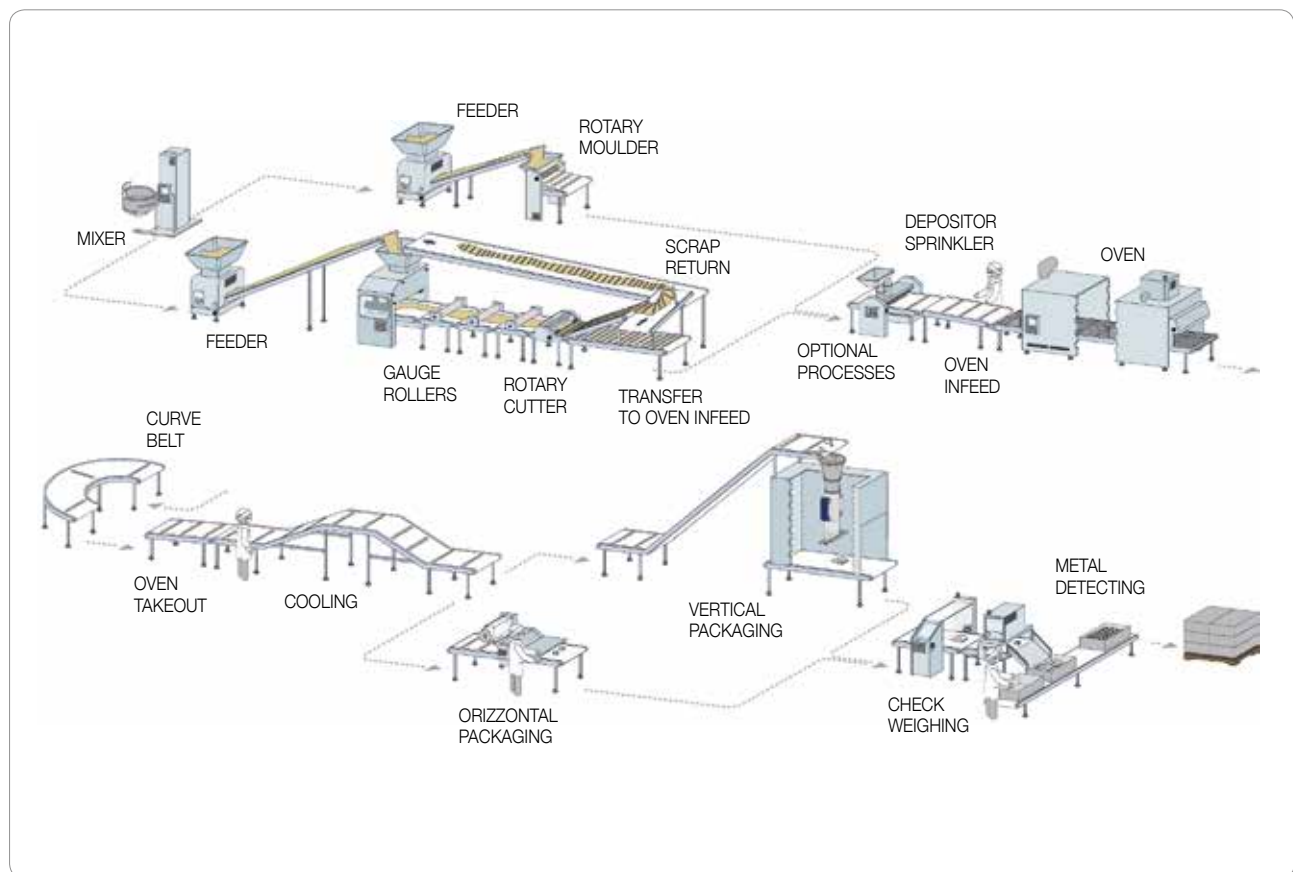


KEY FEATURES + BENEFITS

Fray-free edges	>	Product safety and no contamination
Excellent resistance to cut and abrasion	>	Highest reliability even with scrapers
Superior resistance to aggressive fats and oils	>	Increased service life
Resistance to high temperature	>	Total flat running and long service life



Industrial line for biscuits and crackers production



Specialized belts for Rotary Cutters



Chiorino offers specialized belts for rotary cutters assuring **optimal friction** and **release properties**.

The high mechanical properties guarantee **excellent resistance to cutting**, increasing **reliability** and **service life**.

+ BENEFITS

- Precise dough cutting
- Production efficiency
- Long service life

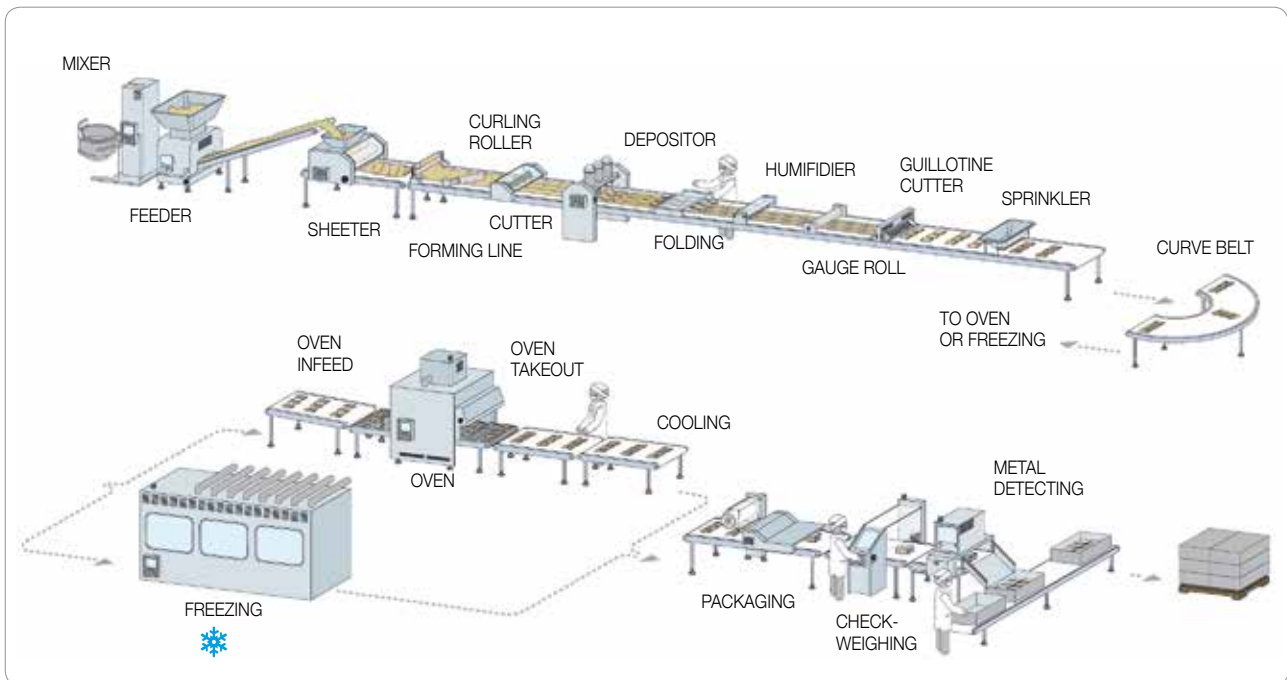
Pastry



KEY FEATURES + BENEFITS

Superior resistance to aggressive fats and oils	> Highest reliability even with scrapers
Fray-free edges	> Product safety and no contamination
Excellent release properties	> Product waste reduction and cost saving
Resistance to high and low temperatures	> Total flat running and long service life

Industrial line for pastry production



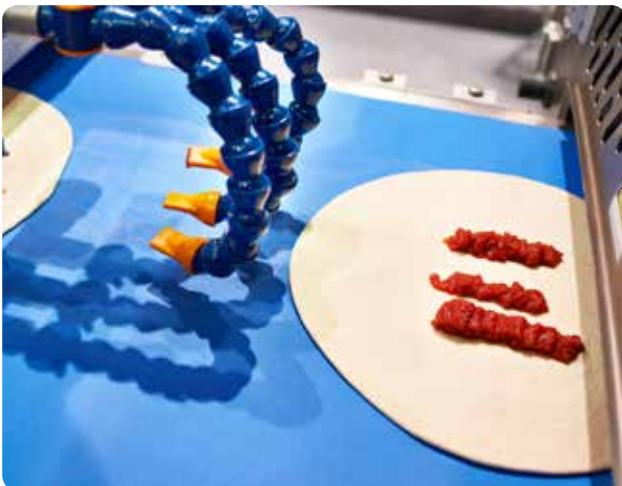
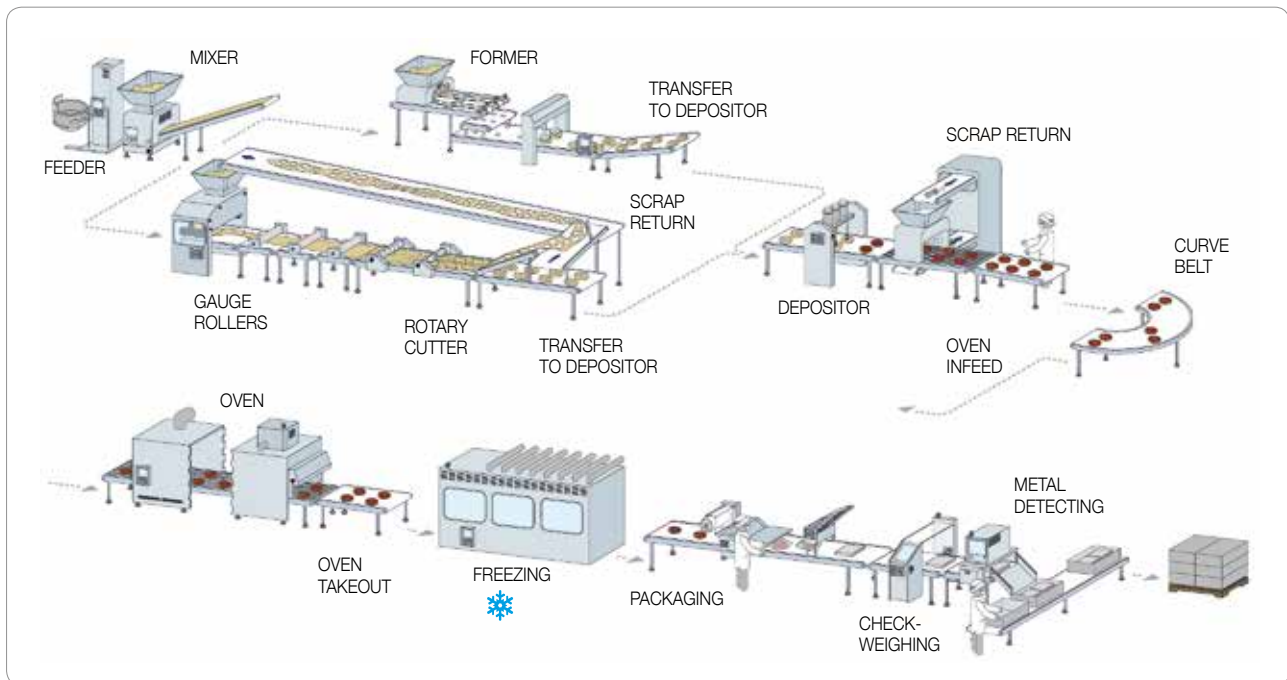
Pizza



KEY FEATURES + BENEFITS

Fray-free edges	> Product safety and no contamination
Superior resistance to aggressive fats and oils	> Highest reliability even with scrapers
Excellent resistance to cut and abrasion	> Highest reliability even with scrapers
Resistance to high and low temperatures	> Total flat running and long service life

Industrial line for pizza production



Snacks



The **versatile range** of Chiorino food belts is suitable for processing **any kind of snacks** like bretzels, bars, potato chips, frozen fries etc.

Release properties

The excellent release properties of the Chiorino belts assure **best performances** with the **most sticky** products, such as muesli bars etc.



KEY FEATURES

+

BENEFITS

High resistance to baking oils

> Long service life

Fray-free edges

> Product safety and no contamination

Suitable for high speed production

> Cost saving

Wide range of blue belts

> Easy impurities identification and low light reflection



Packaging



The wide range of Chiorino belts assures **safe and hygienic packaging** of all baked products or snacks.

HP[®] elastic belts

The **elastic HP[®] fibreless** and **highly resilient** food belts can be **easily fitted** on spreaders or electronic check-weighers.

Total feeding precision

Quick and easy to fit and replace without tensioning devices

Fully HACCP compliant thanks to their extraordinary resistance to cleaning systems

Blue surface and a wide range of patterns

MF[™] seamless belts

CHIORINO manufactures **truly endless** belts for vertical form-fill seal machines, with different coverings according to the type of packaging used.

Silicone blue: food grade belts ideal for aseptic packagings

HS W white: both for PVC and polyethylene films and abrasive packagings (paper, fabric, etc.)

R purple red: both for PVC and polyethylene films and abrasive packagings (paper, fabric, etc.)

B beige: for very abrasive packagings.

Available with **special executions:** countersunks, punched holes, diagonal slots, groovings, application of polyurethane or rubber timing belts.



Technical data

Code	Type	Conveying surface coating		Perm. antistatic	Total thickness	Knife edge min. radius ¹	Min. pulley diameter ¹	Pull for 1% elong. ²	Max. admiss. pull	Temperature resistance °C		Coeff. of friction ³
		Material	Colour							min.	max.	

HP Elastic belts

NA-790	EL2-U10 HP W	TPU HP®	white		1.0	-	10	2	2	-30	60	MF
NA-785	EL2-U10 HP blue	TPU HP®	blue		1.0	-	10	2	2	-30	60	MF
NA-1089	EL3-U15 HP PN blue	TPU HP®	blue		1.5	-	10	3	3	-30	60	MF
NA-899	EL4-U20 HP blue	TPU HP®	blue		2.0	-	10	4	4	-30	60	MF

HP Dehesive belts

NA-949	1M5 U0-U2 HP D W A	TPU HP®	white	•	0.7	3	6	5	5	-20	100	HF
NA-1235	1M5 U0-U2 HP D LF W A	TPU HP®	white	•	0.9	3	6	5	5	-20	100	LF
NA-1160	2M5 U0-U2 HP D W A	TPU HP®	white	•	1.3	4	8	6	12	-20	100	HF
NA-1234	2M5 U0-U2 HP D LF W A	TPU HP®	white	•	1.3	4	8	6	12	-20	100	LF

HP Premium line belts

NA-948	1M5 U0-U2 HP W A	TPU HP®	white	•	0.7	3	6	5	5	-30	110	MF
NA-946	1M5 U0-U2 HP W S A	TPU HP®	white	•	0.7	3	6	5	5	-30	110	HF
NA-1052	1M5 U0-U2 HP blue S A	TPU HP®	blue	•	0.7	3	6	5	5	-30	110	HF
NA-947	1M5 U0-U2 HP VL blue A	TPU HP®	blue	•	0.7	3	6	5	5	-30	110	MF
NA-983	1T6 U0-U2 HP W A	TPU HP®	white	•	0.8	4	8	6	6	-30	110	MF
NA-716	2M5 U0-U2 HP A	TPU HP®	white	•	1.0	3	6	6	12	-30	110	LF
NA-789	2M5 U0-U2 HP W A	TPU HP®	white	•	1.3	4	8	6	12	-30	110	MF
NA-1067	2M5 U0-U2 HP blue A	TPU HP®	blue	•	1.3	4	8	6	12	-30	110	MF
NA-913	2M5 U0-U2 HP W S A	TPU HP®	white	•	1.3	4	8	6	12	-30	110	HF
NA-1054	2M5 U0-U2 HP blue S A	TPU HP®	blue	•	1.3	4	8	6	12	-30	110	HF
NA-1410	2M5 U0-U2 HP VL blue	TPU HP®	blue	•	1.3	4	8	5	10	-30	110	MF
NA-786	2M5 U0-U2 HP VL blue A	TPU HP®	blue	•	1.3	4	8	6	12	-30	110	MF
NA-842	2M5 U0-U2 HP PN W A	TPU HP®	white	•	1.6	4	8	6	12	-30	110	MF
NA-811	2M5 U0-U2 HP PN blue A	TPU HP®	blue	•	1.6	4	8	6	12	-30	110	MF
NA-1087	2M5 U0-U15 HP ST W A	TPU HP®	white	•	3.5	-	50	5	10	-30	110	MF
NA-1041	2MT6 U0-0 HP	Cotton	natural		1.5	4	8	6	12	-30	110	LF
NA-1215	2MT6 U0-0 HP E/C	Cotton-PET	natural		1.5	4	8	6	12	-30	110	LF
NA-992	2T12 U0-U2 HP VL W A	TPU HP®	white	•	1.6	6	12	12	24	-30	110	MF
NA-1208	2T12 U3-U3 HP VL blue A	TPU HP®	blue	•	1.9	-	40	12	24	-30	110	MF

HP COMPACT® Homogeneous belts

NA-1366A	HP Compact 15 blue	TPU HP®	blue		1.5	-	25	5	10	-30	110	MF
NA-1359A	HP Compact 20 blue	TPU HP®	blue		2.0	-	50	8	16	-30	110	MF
NA-1207A	HP Compact 25 blue	TPU HP®	blue		2.5	-	50	8	16	-30	110	MF
NA-1294A	HP Compact 25 PN blue	TPU HP®	blue		2.5	-	50	8	16	-30	110	MF
NA-1328A	HP Compact 25 RG blue	TPU HP®	blue		2.5	-	50	8	16	-30	110	MF
NA-1328A RG	HP Compact RG 25 blue	TPU HP®	blue		2.5	-	50	8	16	-30	110	MF
NA-1257A	HP Compact 25 VL blue	TPU HP®	blue		2.5	-	50	8	16	-30	110	MF
NA-1307A	HP Compact 40 blue	TPU HP®	blue		4.0	-	80	15	30	-30	110	MF

HP COMPACT® Positive drive homogeneous belts

Code	Type	Material	Colour	Total thickness	Pitch	Tooth section	Tooth length	Min. diameter ¹	Pull for 1% elong. N/mm	Temperature resistance	
				mm						min. °C	max. °C
NA-1481F_D6	HP Compact Minidrive 15/20 A blue	TPU HP®	blue	1.5	20	6 x 4	72	20	10	-30	90
NA-1366F_D6	HP Compact Minidrive 15/20 blue	TPU HP®	blue	1.5	20	6 x 4	72	25	5	-30	90
NA-1359C_D13	HP Compact Drive 20/40 blue	TPU HP®	blue	2.0	40	13 x 8	72	80	8	-30	90
NA-1207C_D13	HP Compact Drive 25/40 blue	TPU HP®	blue	2.5	40	13 x 8	72	80	8	-30	90
NA-1294C_D13	HP Compact Drive 25/40 PN blue	TPU HP®	blue	2.5	40	13 x 8	72	80	8	-30	90
NA-1328C_D13	HP Compact Drive 25/40 RG blue	TPU HP®	blue	2.5	40	13 x 8	72	80	8	-30	90
NA-1257C_D13	HP Compact Drive 25/40 VL blue	TPU HP®	blue	2.5	40	13 x 8	72	80	8	-30	90
NA-1307C_D13	HP Compact Drive 40/40 blue	TPU HP®	blue	4.0	40	13 x 8	72	80	15	-30	90

HP Round belts

Code	Type	Material	Colour	Surface	Hardness	Diameter	Min. pulley diameter	Pull for 8% elongation	Temperature resistance	
					Sh.A				min. °C	max. °C
ES-603	RU-3 HP blue	TPU HP®	blue	smooth	85	3	20	15	-20	60
ES-604	RU-4 HP blue	TPU HP®	blue	smooth	85	4	35	26	-20	60
ES-605	RU-5 HP blue	TPU HP®	blue	smooth	85	5	45	42	-20	60
ES-606	RU-6 HP blue	TPU HP®	blue	smooth	85	6	50	60	-20	60
ES-607	RU-8 HP blue	TPU HP®	blue	smooth	85	8	70	110	-20	60
ES-719	RU-4 R HP blue	TPU HP®	blue	rough	85	4	35	26	-20	60
ES-720	RU-6 R HP blue	TPU HP®	blue	rough	85	6	50	60	-20	60

¹ Minimum radius / pulley diameter is dependent on the joint recommended by Chlorino.

² EL series: pull for 8% elongation.

³ Conveying surface coefficient of friction: LF low, MF medium, HF high

FEATURES

A Permanent antistatic (UNI EN 21179)
D Dehesive
DB Dark blue
E/C Cotton-PET
GS Glossy surface
HF Surface with high coeff. of friction

HP HP® product system
HR High release surface
LB Light blue
LF Low friction surface
LT Listel transversal
PN Pyramid negative
R High transversal stability

RG Rice grain
S Soft polyurethane cover (70 Sh.A)
SP Production width up to 3500/3600 mm
ST Saw tooth
VL Velvet finish
W White
XW-P Production width up to 3500 mm

Code	Type	Conveying surface coating		Perm. antistatic	Total thickness	Knife edge min. radius ¹	Min. pulley diameter ¹	Pull for 1% elong. ²	Max. admiss. pull	Temperature resistance		Coeff. of friction ³
		Material	Colour							min.	max.	

DET Detectable belts

NA-1379	EL4-U20 blue DET	TPU	dark blue	•	2.0	-	10	4	4	-30	60	MF
NA-1323	EL6-U30 blue DET	TPU	dark blue	•	3.0	-	20	6	6	-30	60	MF
NA-1373	2M5 U0-U2 blue DET	TPU	dark blue	•	1.3	4	8	5	10	-30	100	MF
NA-1427	2M5 U0-U2 PN blue DET	TPU	dark blue	•	1.6	4	8	5	10	-30	100	MF
NA-1474	2MT5 U0-U2 blue DET	TPU	dark blue	•	1.4	4	8	5	10	-30	100	MF
NA-1374	2T12 U0-U2 blue DET	TPU	dark blue	•	1.6	-	25	12	24	-30	100	MF
NA-1406	3M8 U0-U5 blue DET	TPU	dark blue	•	2.3	-	60	8	16	-30	100	MF

DET Detectable positive drive belts

Code	Type	Material	Colour	Total thickness	Pitch	Tooth section	Tooth length	Min. diameter ¹	Pull for 1% elongation	Temperature resistance	
										min. °C	max. °C
NA-1482F_D6	Compact Minidrive 15/20 A blue DET	TPU	dark blue	1.5	20	6 x 4	72	20	10	-30	90
NA-1461F_D6	Compact Minidrive 15/20 blue DET	TPU	dark blue	1.5	20	6 x 4	72	25	5	-30	90
NA-1460C_D13	Compact Drive 25/40 blue DET	TPU	dark blue	2.5	40	13 x 8	72	80	8	-30	90

DET Detectable round belts

Code	Type	Material	Colour	Surface	Hardness	Diameter	Min. pulley diam. mm	Pull for 8% elong. N	Temperature resistance	
									min. °C	max. °C
ES-790	RU-4 blue DET	TPU	dark blue	smooth	85	4	35	30	-20	60
ES-791	RU-6 blue DET	TPU	dark blue	smooth	85	6	50	70	-20	60
ES-792	RU-8 blue DET	TPU	dark blue	smooth	85	8	70	130	-20	60

XW-P Belts

Code	Type	Conveying surface coating		Perm. antistatic	Total thickness	Knife edge min. radius ¹	Min. pulley diameter ¹	Pull for 1% elong. ²	Max. admiss. pull	Temperature resistance		Coeff. of friction ³
		Material	Colour							min. °C	max. °C	
NA-1447	1T6 U0-U2 W A XW-P	TPU	white	•	0.8	4	8	6	6	-30	110	MF
NA-1448	2M5 U0-U2 W A XW-P	TPU	white	•	1.3	4	8	6	12	-30	110	MF
NA-1426	2M5 U0-U2 blue A XW-P	TPU	blue	•	1.3	4	8	6	12	-30	110	MF

Performance line belts

NA-945	1M5 U0-U2 W A	TPU	white	•	0.7	3	6	5	5	-20	100	LF
NA-738	1M5 U0-U2 W A LF VL	TPU	white	•	0.7	3	6	5	5	-20	100	LF
NA-162	1T8 U0-U2 HF W	TPU	white	•	1.1	6	12	8	8	-20	100	HF
NA-549	2M5 U0-U1 W S A	TPU	white	•	1.3	4	8	6	12	-20	100	HF
NA-1069	2M5 U0-U1 blue S A	TPU	blue	•	1.3	4	8	6	12	-20	100	HF
NA-170	2M5 U0-U2 W A	TPU	white	•	1.3	4	8	6	12	-20	100	MF
NA-1264	2M5 U0-U2 W A SP	TPU	white	•	1.3	4	8	6	12	-20	100	MF
NA-696	2M5 U0-U2 LF W A	TPU	white	•	1.3	4	8	6	12	-20	100	LF
NA-1231	2M5 U0-U2 LB A	TPU	light blue	•	1.3	4	8	6	12	-20	100	MF
NA-1290	2M6 U0-U2 GS W	TPU	white	•	1.3	6	12	6	12	-20	100	MF
NA-1451	2M6 U0-U2 GS DB	TPU	dark blue	•	1.3	6	12	6	12	-20	100	MF
NA-1405	2M6 U0-U2 HR W	TPU	white	•	1.3	6	12	6	12	-20	100	LF
NA-1452	2M6 U0-U2 HR DB	TPU	dark blue	•	1.3	6	12	6	12	-20	100	LF
NA-352	2M8 U0-U0	TPU	white	•	1.3	6	12	8	16	-20	100	LF
NA-160	2T8 U0-U0	TPU	white	•	1.3	6	12	8	16	-20	100	LF
NA-1335	2T12 U0-U2 W SP	TPU	white	•	1.6	-	30	12	24	-20	100	LF
NA-801	2M12 U0-U3 R W A	TPU	white	•	1.7	-	40	12	24	-20	100	LF
NA-1010	2M12 U0-U15 LT W A	TPU	white	•	6.0	-	50	12	24	-20	100	MF

Silicone

NA-126	1M6 U0-S0	Silicone	transparent	•	0.6	-	20	6	6	-30	100	HF
NA-1102	2M5 U0-U-S2 W	Silicone	white	•	1.3	4	8	6	12	-30	100	HF
NA-1288	2M5 U0-U-S2 blue	Silicone	blue	•	1.3	4	8	6	12	-30	100	HF
NA-130	2MT8 S0-S2	Silicone	transparent	•	1.3	-	30	8	16	-40	160	HF

Silon

NA-224	SILON 25 W	PET	white		2.5	-	30	10	10	-20	120	LF
--------	------------	-----	-------	--	-----	---	----	----	----	-----	-----	----

MF Seamless belts

Type	Traction core	Outer cover			Inner cover			Total thickness mm	Pull for 1% elong. N/mm	Temp. resistance °C	
		Material	Colour	Sh.A	Material	Colour	Sh.A			min.	max.
MF D-SIL blue Food Grade	PET	Silicone	blue	35	Elastomer	black	90	5÷10	10.0	-20	100
MF R-052	---	Elastomer	purple red	45	Elastomer	purple red	45	5÷15	0.1 ⁵	-20	100
MF R-053	---	Elastomer	purple red	45	Elastomer	black	65	5÷15	0.1 ⁵	-20	100
MF HS W-300	PET	Elastomer	white	40	---	black	---	6÷12	10.0	-20	100
MF R-300	PET	Elastomer	purple red	45	---	black	---	6÷12	10.0	-20	100
MF B-300	PET	Elastomer	beige	50	---	black	---	6÷12	10.0	-20	100

⁵ Strength in N/mm² at 10% elongation

The technical data are valid under normal environmental conditions and are subject to change without notice.