

Ideas in motion

CHIORINO[®]
1906

Conveyor and process belts
for airports, materials handling
and post office automation



Conveyor and process belts for airports, materials handling and post office automation

CHIORINO, a leading company in the materials handling and power transmission field produces a wide range of

- ▶ Conveyor and process belts
- ▶ Flat power transmission belts
- ▶ Endless rubber belts

The CHIORINO products are capable of satisfying the increasing demands of reliability and higher sorting speeds in AIRPORTS, WAREHOUSES, DISTRIBUTION and POST OFFICE CENTRES, ensuring quality and high levels of performance.

Through close cooperation with the most important OEM's in the world, the CHIORINO R&D laboratories have developed innovative and customized solutions to meet customer demands.

CHIORINO operates throughout the world with 15 Associated Companies and more than 60 partners, if one includes exclusive distributors, and highly qualified assistance centres capable of guaranteeing a speedy assistance and installation service, 24 hours a day. For more information on the Distribution Network see www.chiorino.com.

Quality and environment certified

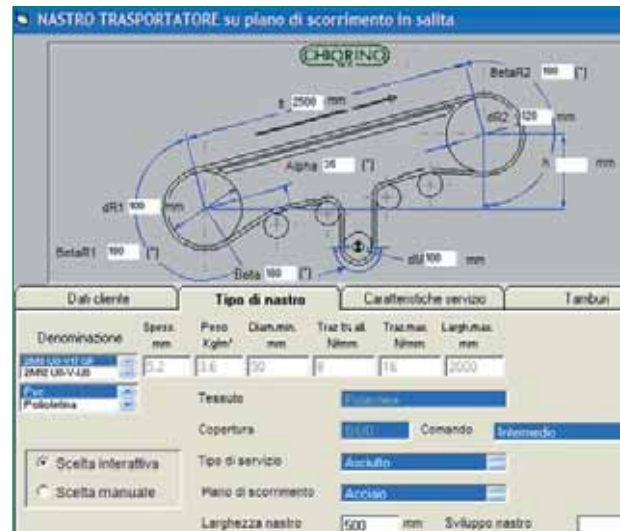
EMAS - UNI EN ISO 9001:2000 - UNI EN ISO 14001:2004



CHIORINO offers full technical assistance and service to its customers, from the project design to the fitting stage. Sophisticated calculation programs developed by CHIORINO allow correct belt type selection and give the correct technical design data for any conveyor or transmission belt allowing CHIORINO to work in full technical partnership with its customers.

Features and benefits

- ▶ Low energy absorption
- ▶ Flame retardant according to EN20340-ISO 340
- ▶ Quiet running
- ▶ Absolute working safety
- ▶ Long life
- ▶ Very high resistance to abrasion and impacts
- ▶ Wide range of surface patterns to satisfy any conveying requirement
- ▶ Technical assistance from the project design
- ▶ Worldwide 24-hours prompt response for installations



Airports baggage handling

- ▶ Check-in
- ▶ X-ray baggage control systems
- ▶ Explosives detectors
- ▶ Diverters Flipper and Pusher
- ▶ Aircraft loading and unloading

CHIORINO supplies to the most important international airports conveyor and process belts able to satisfy the growing demand for reliability and sorting speed for the handling of all types of baggage, from check-in through to loading into the luggage hold.

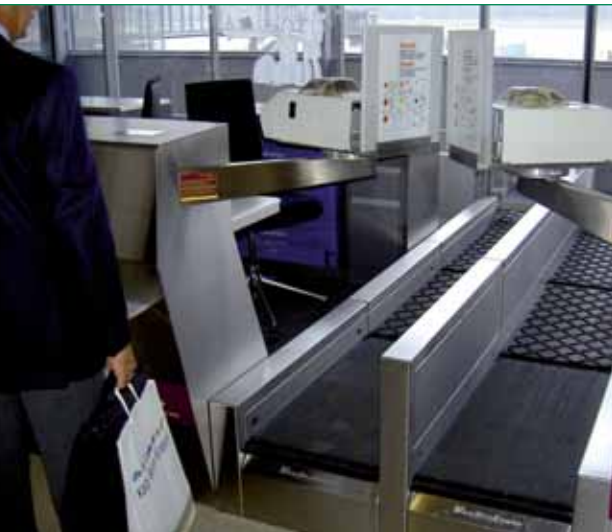
The wide range of CHIORINO belts, developed together with the leading airport handling system manufacturers, is able to satisfy any need, ensuring quality and high performance levels whilst at the same time fully complying with international safety standards.

Thanks to its distribution network CHIORINO is able to give an efficient rapid response service 24 hours a day in the airports throughout the world.

INTERNATIONAL AIRPORTS EQUIPPED WITH CHIORINO CONVEYOR BELTS

Europe

<i>Amsterdam, Netherlands</i>	<i>Glasgow, Scotland</i>	<i>Milan Linate, Italy</i>
<i>Athens, Greece</i>	<i>Leeds Bradford, U.K.</i>	<i>Milan Malpensa, Italy</i>
<i>Barcelona, Spain</i>	<i>Lyon, France</i>	<i>Nice, France</i>
<i>Bergamo, Italy</i>	<i>London Gatwick, U.K.</i>	<i>Oporto, Portugal</i>
<i>Birmingham, U.K.</i>	<i>London Heathrow, U.K.</i>	<i>Palm of Majorca, Spain</i>
<i>Bologna, Italy</i>	<i>London Stanstead, U.K.</i>	<i>Paris, France</i>
<i>Bruxelles, Belgium</i>	<i>Lugano, Switzerland</i>	<i>Rome Ciampino, Italy</i>
<i>Dresda, Germany</i>	<i>Luxembourg</i>	<i>Rome Fiumicino, Italy</i>
<i>Düsseldorf, Germany</i>	<i>Madrid, Spain</i>	<i>Stockholm, Sweden</i>
<i>Frankfurt, Germany</i>	<i>Manchester, U.K.</i>	<i>Tampere, Finland</i>
<i>Geneva, Switzerland</i>	<i>Marseilles, France</i>	<i>Turin Caselle, Italy</i>



Features and benefits

- ▶ Flame retardant according to EN20340-ISO 340
- ▶ Suitable for X-ray control systems
- ▶ Suitable for explosives detectors
- ▶ Low energy absorption
- ▶ Quiet running
- ▶ Antistatic
- ▶ Wide range of surface patterns to satisfy any conveying requirement
- ▶ Very high resistance to abrasion and impacts
- ▶ Long life
- ▶ Worldwide 24-hours prompt response for installations



America
Dallas Texas, U.S.A.
Fargo North Dakota, U.S.A.
Gaia, Barbados
Idaho Boise, U.S.A.
Lima, Peru
Los Angeles California, U.S.A.
Nassau, Bahamas
New York, U.S.A.
Portland Oregon, U.S.A.
San Francisco California, U.S.A.
Toronto, Canada

Tucson Arizona, U.S.A.
Vancouver, Canada
Richmond Virginia, U.S.A.

Asia / Africa / Australia
Adelaide, Australia
Ashgabat, Turkmenistan
Brisbane, Australia
Cairns, Australia
Canberra, Australia
CapeTown, South Africa

Darwin, Australia
Dubai, United Arab Emirates
Durban, South Africa
Johannesburg, South Africa
Marowa Salak, Camerun
Melbourne, Australia
Newcastle, Australia
Perth, Australia
Shenzhen, China
Singapore Changi
Sydney, Australia

Materials handling

- ▶ Horizontal and inclined conveying
- ▶ Cross belt sorters
- ▶ 30-45° Mergers
- ▶ Telescopic belts
- ▶ Separators

Together with the leading manufacturers of warehouse handling installations, CHIORINO has developed a range of conveyor and transmission belts, which are able to satisfy the growing demand for reliability of high speed sorting in warehouse and distribution centres.

The wide range of CHIORINO conveyor belt coatings (polyurethane, PVC, elastomer etc.) allows to select the best belt suitable for specific handling requirements.

CHIORINO offers to the OEM full technical assistance from the project design.

The CHIORINO R&D Laboratories develop innovative solutions to satisfy the higher market demands concerning reliability, quiet running and energy saving of the conveyor and process belts.

Thanks to its distribution network CHIORINO is able to give an efficient rapid response service 24 hours a day throughout the world.



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Features and benefits

- ▶ Low energy absorption
- ▶ High capacity of conveying
- ▶ Very high resistance to abrasion and impacts
- ▶ Wide range of surface patterns
- ▶ Safety and reliability
- ▶ Quiet running
- ▶ Long life



▶ Live roller drives



CHIORINO manufacture a complete range of products in thermoplastic materials suitable for live roller drives. CHIORINO thermoplastic belts can be fitted on site using the FAST JOINT system and equipment, which require only few minutes and no adhesives.

Elastic EL belts

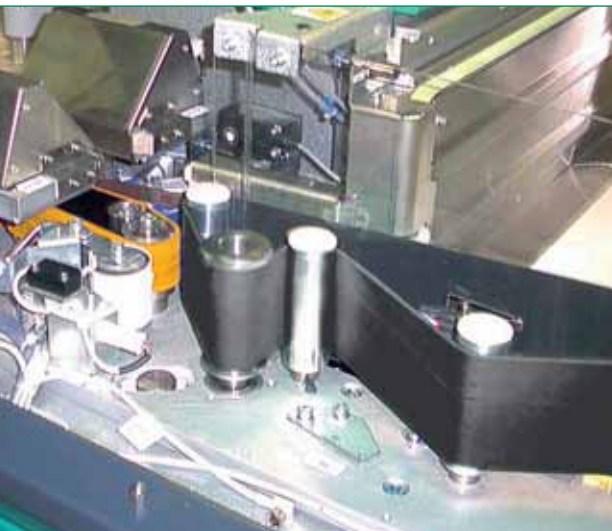
Thermoplastic power transmission belts in polyester
Polyurethane round and V-belts (see general catalogue)



Post Office Automation

- ▶ OCR (optical code reader)
- ▶ VCR (video code reader)
- ▶ CFC (culler facer canceller)

CHIORINO offers the complete range of conveyor, transmission and mandrel made belts used in the mail sorting process machines adopting optical reading technology.



Features and benefits

- ▶ High capacity of conveying and constant coefficient of friction
- ▶ Anti-glazing
- ▶ Excellent resistance to abrasion and wearing
- ▶ Long life
- ▶ Dimensional stability
- ▶ Perforated belts can be supplied to Customer design

CHIORINO manufactures curve belts suitable for installation on any type of powered curve conveyor existing in the market. Through a sophisticated totally computer-based (CAD controlled) cutting table, CHIORINO belts can be manufactured without any limitation in the external radius and angle, from a few degrees up to a complete circle (360°). Thanks to this innovative cutting system, CHIORINO curve belts can be supplied on demand for any dimensional requirement and in accordance with customized drawings, ensuring absolute precision and correct working on the conveyor. The wide range of CHIORINO belts suitable for powered curve conveyors (see column 10 page 11) satisfies any application request in airport handling and sorting systems.

On request the curve belts can be fabricated with special finishing such as:

- perforations
- application of buttons
- application of eyelets.

Features and benefits

- ▶ Absolute precision
- ▶ Excellent flatness and superb flexibility
- ▶ Suitable for small pulley diameters
- ▶ Wide range of surface patterns
- ▶ Flame retardant version also available, according to EN20340-ISO 340
- ▶ Long life

Curve belts



Drawing no.	Check-in	Baggage control	Explosives detectors	Horizontal take-away	Inclined take-away	Separators	Cross belt sorter	Diverters - Flipper	Diverters - Pusher	30/45° mergers	Accumulator conveyor belts	Telescopic belts	Curve belts	Live roller belt drives	POSTAL AUTOMATION	Type
1-2	1	1	1	2	3	4	5	6	7	8	9	10	11			
										✓					✓	2M5 U0-U2 A
										✓					✓	2M8 U0-U2 SP
										✓						2M8 U0-U2 N SP
									✓	✓						2T12 U0-U2 VL N A
									✓	✓			✓			2T12 U0-U2 PN N
	✓	✓								✓						2M12 U0-U3 R A
			✓							✓						2M12 U0-U3 R N A
			✓					✓		✓						2M12 U0-V-U5 SP
			✓							✓						3M18 U0-V-U10 SP
			✓							✓						1M6 U0-V5 N
			✓	✓												2M8 U0-V5 A
			✓													2M8 U0-V17 GP
			✓													2M10 U0-V10
			✓							✓						2M12 U0-V-U0 GR
			✓							✓			✓			2T12 U0-V0
			✓							✓	✓					2M12 U0-V3
			✓							✓	✓					2M12 U0-V3 N
			✓	✓												2M12 U0-V7 LG
			✓													2M12 U0-V8 RT
			✓													2M12 U0-V10 A
			✓							✓	✓					2M12 U0-V10 N
			✓													2M12 U0-V10 RT
			✓											✓		2T12 U0-V10
			✓													2M12 U0-V15 GPL N
			✓	✓					✓							2M12 U0-V20 GP
			✓					✓		✓				✓		3T18 U0-V0
			✓							✓						3M18 U0-V15 A
			✓											✓		3T18 U0-V15
	✓	✓												✓	✓	2T12 U0-U2 FM FR
	✓	✓														2M12 U0-U3 R A FR
			✓	✓		✓									✓	1M12 U0-V5 PN FR
			✓	✓		✓			✓						✓	2M5 U0-V5 PN FR
			✓	✓				✓		✓						2M12 U0-V-U0 FR
			✓	✓				✓			✓					2M12 U0-V7 LG FR
✓	✓		✓	✓	✓											2M12 U0-V10 FR
			✓	✓						✓	✓					2T12 U0-V10 FM FR
			✓	✓						✓						2M12 U0-V10 RT FR
✓			✓	✓						✓						2M12 U0-V20 FB FR
✓			✓	✓												2M12 U0-V20 GP FR
✓			✓	✓												2M12 U0-V30 RL FR
			✓													2M8 U0-U-G10TP LG
			✓					✓								2M8 U0-U-G15 FL
			✓												✓	2T12 U0-U-G10 FH
			✓													2T12 U0-G25 GP
										✓						SILON 40 HC
										✓						SILON 60 HC
										✓						SILON 60 NA
													✓			EL2-U10 FL
													✓			EL3-U15 FL
													✓			EL3-U17 HP N
													✓			1M6 U0-U5 FL
													✓			1M6 U3-U3 FL
													✓			1M6 U5-U5 FL
														✓		T-E 10/20
														✓		T-E 30/30
														✓		DG-E 10/30
														✓		DG-E 10/40
														✓		T0
														✓		T1 ⁽⁶⁾
														✓		T2 ⁽⁶⁾
														✓		T3 ⁽⁶⁾
														✓		DG1/30 HS
														✓		DG2/40 HS
															✓	MF-L200
															✓	MF-R200
															✓	MF-HS 200G

**CONVEYOR AND PROCESS BELTS
EXPLANATION OF TYPE DESIGNATION**

2	Number of plies
M	Textile carcass
8	Pull for 1% elongation [N/mm]
U	Bottom cover
0	Thickness (mm/10)
U	Possible interply
G	Top cover
15	Thickness (mm/10)
FL	Surface pattern / Other characteristics
EL	Elastic belt without textile carcass
2	Pull for 8% elongation [N/mm]
U	Material
10	Thickness (mm/10)
FL	Surface pattern / Other characteristics
SILON	Non woven
40	Thickness (mm/10)
HC	Other characteristics

TEXTILE CARCASS

M	Rigid polyester
MT	Combined polyester
T	Flexible polyester
EL	Belt without textile carcass

COATING AND INTERPLY MATERIALS

G	Elastomer
TPG	thermoplastic elastomer
NBR	synthetic rubber
NR	natural rubber
XNBR	carboxilated rubber
U	Polyurethane
V	Polyvinyl chloride (PVC)

OTHER CHARACTERISTICS

FR	Flame retardant (EN20340 - ISO340)
GR	Grey colour top cover
HC	Static conductivity (ISO 284)
HP	High performance
N	Black colour top cover
R	High transversal stability
SP	Polyurethane belt 3000-3500 mm wide
VL	Velvet finish

The technical data of this table have been formulated under normal environment conditions. They are subject to alteration without notice.

SURFACE PATTERNS



FL



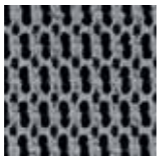
FM



FH



RT



GP



GPL



RL



PN



LG



FB

Transmission belts Explanation of type designation

TRACTION CORE

T-E - DG-E Polyester fabric

T - DG Mono ply polyamide

SURFACE MATERIALS

T-E - DG-E NBR synthetic rubber

T - DG

OTHER CHARACTERISTICS

HS Very high resistance to abrasion

Endless belts Explanation of type designation

MF Endless belt (mandrel made)

L Outer cover

L raspberry (35 Sh.A)

R purple red (45 Sh.A)

HS ochre (40 Sh.A)

200 2 ply polyester fabrics

G Synthetic rubber, green colour
65 Sh.A inner cover



1



2



3



4



5



6



7



8



9



10



11

■ Chiorino Veneto
■ Chiorino Parma
■ United Kingdom
■ France
■ Spain
■ Deutschland
■ Netherlands

WORLDWIDE CHIORINO

■ Poland
■ Byelorussia
■ Hungary
■ Romania
■ U.S.A.
■ South Africa
■ Singapore
■ Australia

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