

MODULAR TRANSFER SYSTEM

8

CONVEYORS

NEW PRODUCTS 2014





FRENCH INDUSTRIAL LEADER

elcom has brought innovating solutions to the industry.

Our approach offers a complete freedom of design thanks to a unique range of flat belt conveyors and modular transfer system.



EXCLUSIVE item PARTNER

Our partnership with the German firm **item** since 1986 has opened a large expertise field and a worldwilde recognized network.

elcom's flat belt conveyor design, constructed from item's range of profiles, enables a great modularity.



Europe Scandinavia
France Denmark
Benelux Finland
Italy Norway
Germany Sweden

Spain

North America USA Canada South America

Australia

Asia India China Malaysia Singapore

COMPLETE RANGE AND NEW PRODUCTS

Our creations result from a wide range of products which is regurlarly enlarged by novelties. They offer unlimited possibilities in terms of industrial modularity.



SERVICES

- x Strong production capacity and very high reactivity
- x Important stock, fast delivery
- x Preparation for kit delivery
- x Assembly of complete sets

- x Quotations based on customers' plans and sketches
- x Technical advices
- x CAD files library
- x Fast prototype abilities



All services on our website

www.elcom-automation.com

NEW PRODUCTS

1	CONVEYING UNIT PUSHING MOTOR TLM 2000	P 8 to 9
	WORKPIECE CARRIERS, GRINDED TLM 1000 - TLM 2000	P 10 to 14
0.00	WORKPIECE CARRIER SENSOR TLM 2000	P 15
	RETURNS 180° TLM 1000 - TLM 2000	P 16 to 17
	HALF JUNCTIONS TLM 1000 - TLM 2000	P 18 to 20
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	INFLATABLE CONVEYOR HOLDER - FREQUENCY INVERTER	P 32 to 33











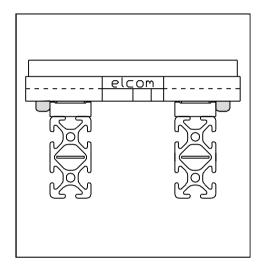
General principle

Workpiece carriers are conveyed on two parallel belts which leave necessary room for stoppers, positioning units...

Retractable pins, located under the workpiece carrier, allow:

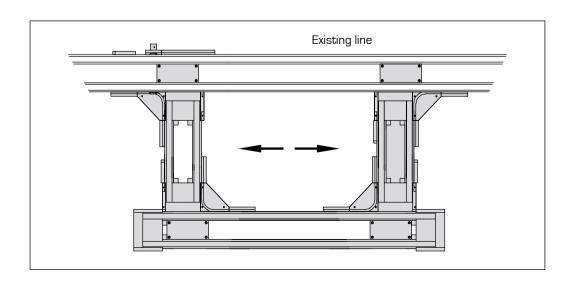
- > guiding the workpiece carrier with 4 pins on straight sections,
- > guiding the workpiece carrier round bends with 2 pins (the other being retracted).





The modular design of TLM 1000 transfer system as well as the use of standard elements allow a great flexibility in the conception of assembly lines and reduce the time necessary for survey and implementation.

Further extensions and modifications can be easily made.

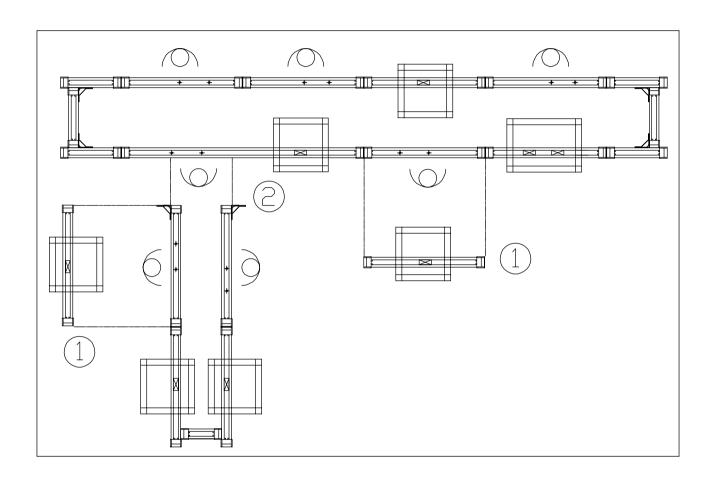




Elcomodularity

According to the requirements of the manufacturing process, different kinds of modular designs are possible.

The design of the line can evolve in several stages.



- 1. Interchangeability of a module
 - 4 fixing screws only
 - No machining
 - No adjusting
- 2. Adding a derivation
 - 6 fixing screws
 - No machining
 - No adjusting



TLM 2000

APPLICATIONS

Conveying unit - Pushing motor

Moving and accumulating of workpiece carriers 200x200 and 400x400 on a flat belt unit with pushing motor.

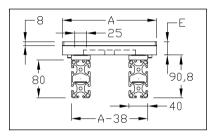
The motor can be fitted either vertically or horizontally.

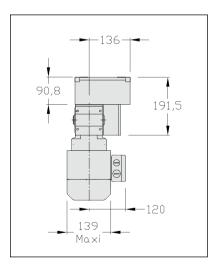
According to the load, longer spans can be joined end to end by straight joinings.

The cuttings of conveyors allow division of the lengths, making transport and installation of the lines easier.

Spacers have to be fitted between the profiles every 1 meter to ensure a perfect parallelism of the profiles.









Widths 200 - 300 - 400

Technical data

Mini length L = 500 mm

Maxi length L = 6 250 mm

For longer spans and according to the load, use several conveying units.

Conveying unit including:

- x 1 idling unit
- x 1 driving unit:

speed: 9, 15 or 19 m/min (other speeds on request)

x Motor: 230/400 V three-phase 0,25 KW (9 m/min) l: 0,7 A 0,37 KW (15 m/min) l: 1,2 A 0,55 KW (19 m/min) l: 1,4 A

Conveyor length:

- x 2 profiles 8 80x40, Al anodized
- x 2 belt guides, PA black
- x 2 belts width 25 mm

Maximum load / 6 m: 100 daN



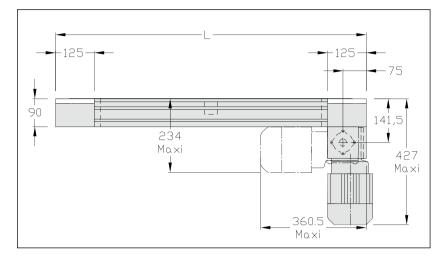
Maximum accumulation load maxi /6 m: 50 daN

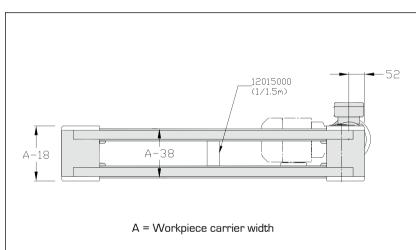
Belt length in mm:

L welded = $[(L-100) \times 2 + 173] \times 0,98$

Weight:

200: 15.7 kg + 6.7 kg/m300: 18.5 kg + 6.7 kg/m400: 21.1 kg + 6.7 kg/m





Antistatic option

Kit to be ordered before the initial assembly

- 2 shoulder screws
- 2 steel rollers

Designation / Dimensions	Order unit	Reference
Conveying unit 200 pushing motor	1 pce	120.02.000.P.**
Conveying unit 300 pushing motor	1 pce	130.02.000.P.**
Conveying unit 400 pushing motor	1 pce	140.02.000.P.**
Conveying length	m	120.02.000.A
Antistatic set	1 set	120.02.000.C

(** = speed of motor: 9 - 15 or 19 e.g.: 120.02.000.P.09)



APPLICATIONS

Workpiece carriers, grinded

Workpiece carriers are used to support and position the components during the process.

The upper grinded plate (made of aluminium) is used to fix the components and perform an accurate positioning of the workpiece carrier.

This upper grinded plate has a better flatness than a standard plate.

The PA base (which has a very low friction coefficient) is used to shelter the pins and to stop the workpiece carrier on the stopper.

Steel bushes ensure perfect accuracy and resistance to wear. On each side of the workpiece carriers, small metallic bars allow detection at different locations.

Unidirectional workpiece carriers (U)

They are fully compatible with a 180° swivelling.

Shock absorbers (T) can be added to reduce both shocks between the workpiece carriers and therefore noise.



If you use shock absorbers, a stopper must be set up before each positioning unit

Multidirectional workpiece carriers (M)

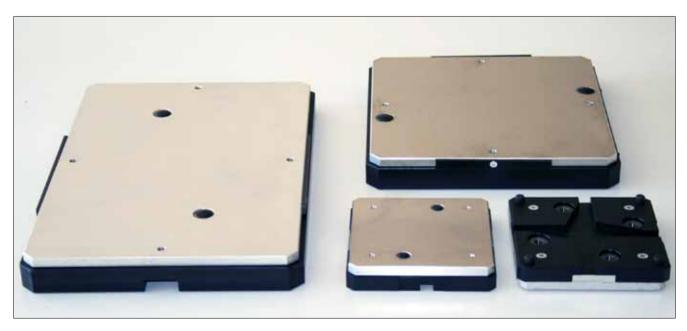
For square workpiece carriers only.

They are perfectly compatible with 90°, 180° and 270° swivellings, supplied with 2 bushes and 2 additional detection bars.



The use of shock absorbers is not possible.







Workpiece carriers U and M, grinded Width 100 Length 100

Technical data

Unidirectional workpiece carrier (U)

- x Grinded plate Al
- x Base. PA black
- x 2 steel bushes
- x 4 pins PA
- x 4 springs
- x 4 countersunk screws Fhc M4x16
- x 2 detection bars
- x 2 plugs

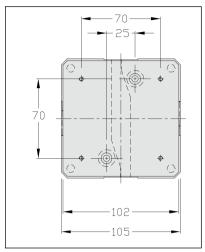
Add T in the workpiece carrier reference to indicate the option for shock absorbers.

Multidirectional workpiece carrier (M)

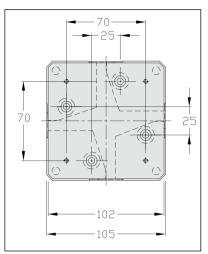
- x Grinded plate Al
- x Base, PA black
- x 4 steel bushes
- x 4 pins PA
- x 4 springs
- x 4 countersunk screws Fhc M4x16
- x 4 detection bars
- x 4 plugs

Maximum load: 2 daN

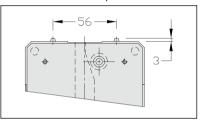
Weight: 0,41 kg

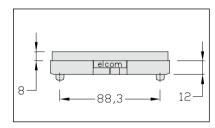


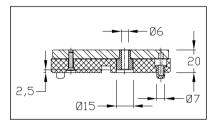
Unidirectional workpiece carrier

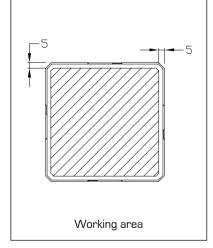


Multidirectional workpiece carrier









Designation / Dimensions	Order unit	Reference
Workpiece carrier U 100x100 grinded	1 pce	110.62.000.G
Workpiece carrier U 100x100 T grinded	1 pce	110.62.000.TG
Workpiece carrier M 100x100 grinded	1 pce	110.64.000.G



Workpiece carriers U, grinded Width 100 Length 150

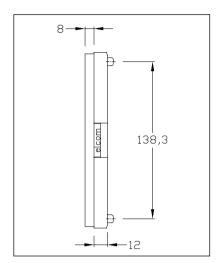
Technical data

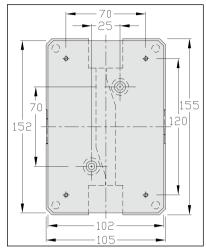
- x Grinded plate Al
- x Base, PA black
- x 2 steel bushes
- x 4 pins PA
- x 4 springs
- x 4 countersunk screws Fhc M4x16
- x 2 detection bars
- x 2 plugs

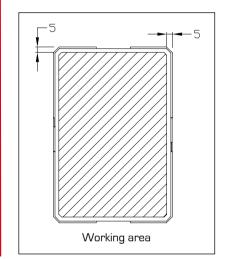


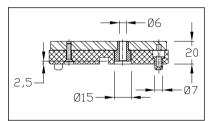
Maximum load: 2 daN

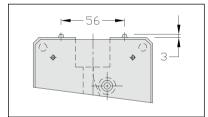
Weight: 0,53 kg











Designation / Dimensions	Order unit	Reference
Workpiece carrier U 100x150 grinded	1 pce	115.62.000.G
Workpiece carrier U 100x150 T grinded	1 pce	115.62.000.TG



Workpiece carriers U, grinded Width 200

Technical data

- x Grinded plate Al
- x Base, PA black
- x 2 steel bushes
- x 4 pins PA
- x 4 springs
- x 3 countersunk screws Fhc M6x25
- x 1 countersunk screw Fhc M6x16
- x 2 detection bars
- x 2 plugs

B = 200 C = 170

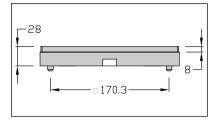
B = 250 C = 170

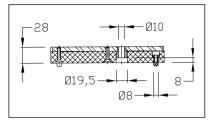
B = 300 C = 170

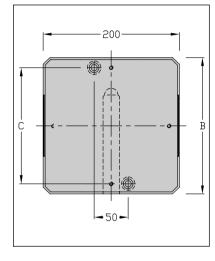


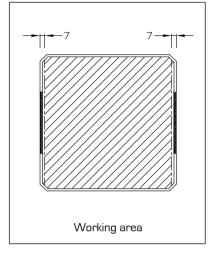
Maximum load: 10 daN

Weight: 200x200: 1,75 kg 200x250: 2,20 kg 200x300: 2,63 kg









Designation / Dimensions	Order unit	Reference
Workpiece carrier U 200x200 grinded	1 pce	120.61.000.G
Workpiece carrier U 200x250 grinded	1 pce	125.62.000.G
Workpiece carrier U 200x300 grinded	1 pce	123.62.000.G

Workpiece carriers U shock absorbers, grinded Width 200

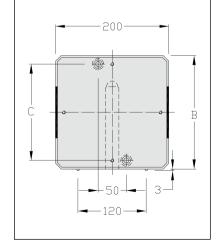
APPLICATIONS

The use of workpiece carriers with shock absorbers (workpiece carriers T) limits the shock between the workpiece carriers and reduces the noise.

For unidirectional workpiece carriers only. Set up a stopper before each positioning unit.

Weight: 200x200: 1,75 kg

200x250: 2,20 kg 200x300: 2,63 kg



Designation / Dimensions	Order unit	Reference
Workpiece carrier U 200x200 T grinded	1 pce	120.61.000.TG
Workpiece carrier U 200x250 T grinded	1 pce	125.62.000.TG
Workpiece carrier U 200x300 T grinded	1 pce	123.62.000.TG



Workpiece carriers M, grinded Width 200

Technical data

- x Grinded plate Al
- x Base, PA black
- x 2 steel bushes
- x 4 pins PA
- x 4 springs
- x 4 countersunk screws Fhc M6x25
- x 2 detection bars
- x 2 plugs

B = 200 C = 170

B = 250 C = 170

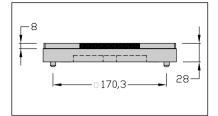
B = 300 C = 170

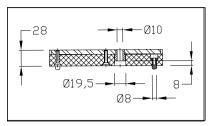


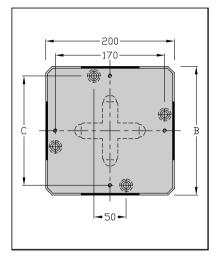
Maximum load: 10 daN

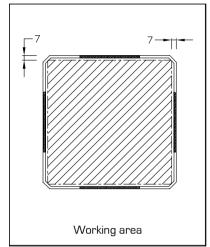
Weight: 200x200: 1,75 kg 200x250: 2,20 kg

200x300: 2,63 kg









Option: set 90°

- x 2 detection bars
- x 2 steel bushes
- x 2 plugs

Designation / Dimensions	Order unit	Reference
Workpiece carrier M 200x200 grinded	1 pce	120.63.000.G
Workpiece carrier M 200x250 grinded	1 pce	125.73.000.G
Workpiece carrier M 200x300 grinded	1 pce	123.73.000.G
Kit 90° 200x200	1 set	900.00.001



Workpiece carrier sensor

APPLICATIONS

Allows to detect the workpiece carrier's flow in a definite area of the transfer system and allows to know when the workpiece carrier leaves or enter into this area in order to manage accumulations.

Avoid the sensor change of state in this area.

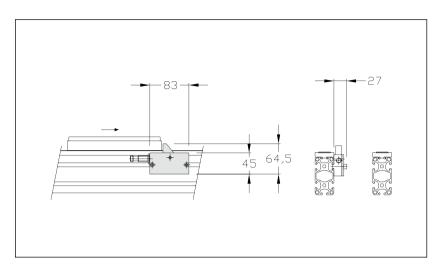
Technical data

- x Plastic body
- x Steel detection bar



Sensor M12x100, reach of 4 mm shielded sensor not supplied

Weight: 0,23 kg







Designation / Dimensions	Order unit	Reference
Workpiece carrier sensor	1 set	200.20.000



Return 180° Workpiece carrier Width 100 Length 150

APPLICATIONS

Allows the return of the workpiece carrier on a parallel conveyor with a reduced space between the two conveyors.

The workpiece carrier is conveyed always keeping the same side towards the outside of the line.

For rectangular workpiece carriers 100x150 only.

Technical data

x Aluminium housing

x 2 parallel belts driven by a bevel gear on a conveyor unit

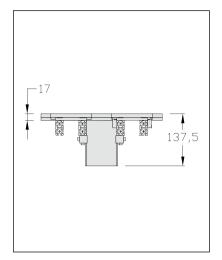
(No additional motor).

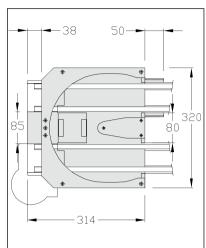


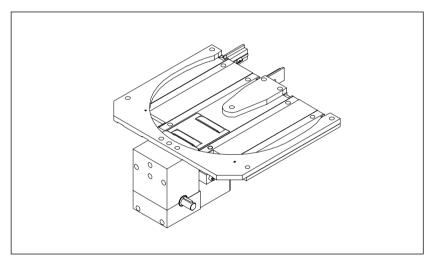
Minimum load on the workpiece carrier: 0,3 daN

Do not accumulate workpiece carriers in the returns

Weight: 8,3 kg







Designation / Dimensions	Order unit	Reference
Return 180° 100x150	1 pce	115.34.000



Return 180° Workpiece carrier Width 200 Length 250

APPLICATIONS

Allows the return of the workpiece carrier on a parallel conveyor with a reduced space between the two conveyors.

The workpiece carrier is conveyed always keeping the same side towards the outside of the line.

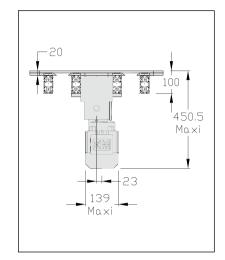
For rectangular workpiece carriers 200x250 only.

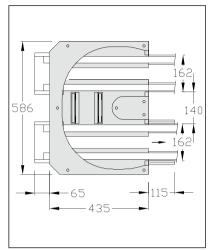
Technical data

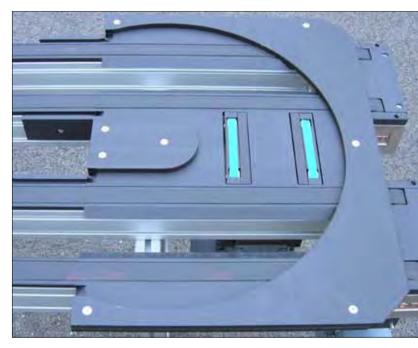
- x Motor plate, alu black
- x 2 parallel belts driven by a gear motor on a conveyor unit.
- x Plate and lateral guide, PA black
- x Screws

Do not accumulate workpiece carriers in the returns.

Weight: 16 kg







Designation / Dimensions	Order unit	Reference
Return 180° 200 x 250	1 pce	125.34.000.**

APPLICATIONS

Half junctions

elcom

For TLM 1000 and TLM 2000 with flat belt. Half junctions allow a workpiece carrier to go out at the end of the line either on the driving or the idling side in order to be taken up by a lift, a conveyor, etc...





Half junction driving unit flat belt Width 100

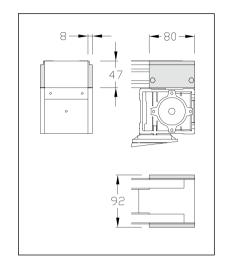
APPLICATIONS

For TLM 1000 width 100 flat belt unit, allows a workpiece carrier to go out of the transfer line on the driving side.

Technical data

- x 2 parts, PE black
 - + fastening parts

Weight: 0,08 kg



Designation / Dimensions	Order unit	Reference
Half junction driving unit flat belt 100	1 set	110.40.100

Half junction idling unit flat belt Width 100

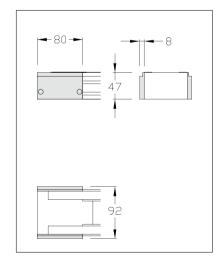
APPLICATIONS

For TLM 1000 width 100 flat belt unit, allows a workpiece carrier to go out of the transfer line on the idling side.

Technical data

- \mathbf{x} 2 parts, PE black
 - + fastening parts

Weight: 0,08 kg



Designation / Dimensions	Order unit	Reference
Half junction idling unit flat belt 100	1 set	110.40.200



Half junction flat belt Widths 200 - 300 - 400

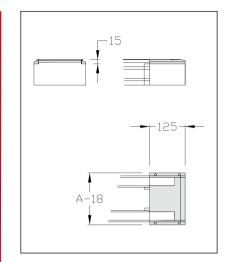
APPLICATIONS

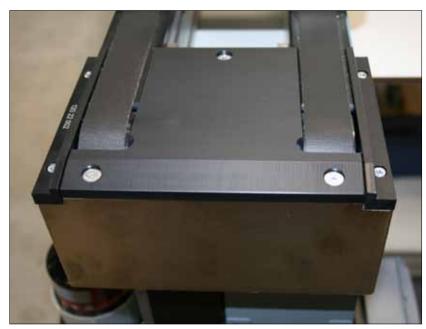
For TLM 2000, widths 200, 300 and 400, flat belt. Half junctions allow a workpiece carrier to go out at the end of the line either on the driving or the idling side.

Technical data

- x 2 parts, PA black
 - + fastening parts
- x Chain cover with slope

Weight: 200: 0,3 kg 300: 0,4 kg 400: 0,5 kg





Designation / Dimensions	Order unit	Reference
Half junction flat belt 200	1 set	120.22.000
Half junction flat belt 300	1 set	130.22.000
Half junction flat belt 400	1 set	140.22.000



Chain lubrication kit pushing motor

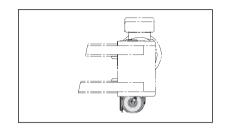
APPLICATIONS

Allows the automatic chain lubrication of the driving chain of the conveying unit TLM2000 pushing motor (120.02.000P - 130.02.000.P - 140.02.000P) for 12 months.

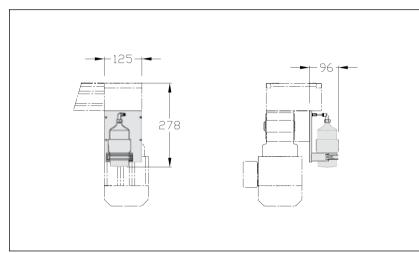
Technical data

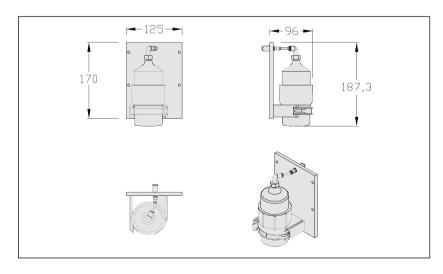
- x Oil cartridge ref. 900.00.106
- x Batteries (to be changed every 12 months)
 ref. 900.00.108
- x Oil for chain SO14. 0,13 cm³ by injection

Weight: 1,2 kg









Designation / Dimensions	Order unit	Reference
Chain lubrication kit pushing motor	1 set	900.00.100.P



Rotation damper kit

APPLICATIONS

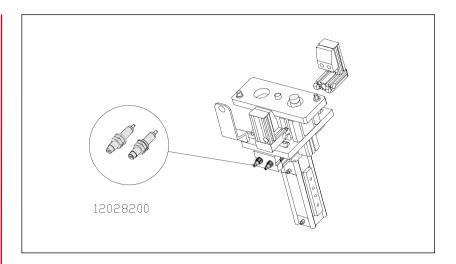
Allows dumping at the end of the stroke on a 180° return.

Technical data

x 2 dampers M8x100

To be mounted on 180° return, ref.: 120.28.000 130.28.000 140.28.000

Weight: 0,23 kg









Designation / Dimensions	Order unit	Reference
Rotation damper kit	1 set	120.28.200



Reinforcement for positioning unit Widths 300 - 400

APPLICATIONS

On positioning units and positioning units for station 300, 300x400 and 400, reinforcement bars allow a better force distribution applied on the workpiece carrier and therefore on all the positioning unit surface.

Technical data

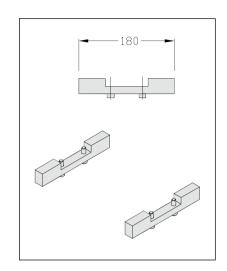
Width 300

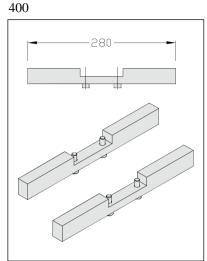
- x 2 steel bars 180x19 thickness 29
- x Fastening 2x2 Chc M8

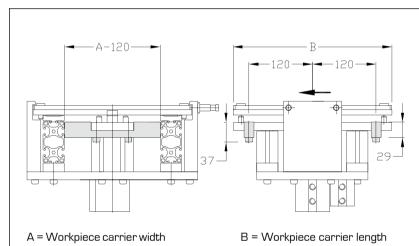
Width 400

- x 2 steel bars 280x20 thickness 29
- x Fastening 2x2 Chc M8

Weight: 300: 1,25 kg 400: 2,20 kg









Designation / Dimensions	Order unit	Reference
Reinforcement for positioning unit 300	1 set	130.64.100
Reinforcement for positioning unit 400	1 set	140.64.100





CONVEYORS





Roller conveyor, non-driven rollers

APPLICATIONS

Straight compact conveyor to convey all types of cardboard boxes, flat bottom boxes, etc...on zinc-plated steel rollers.

Technical data

- **x** Widths A (mm): 350 450 550 650
- x Rollers Ø 50
- x Pitch between rollers P (mm): 55 75 95
- x Maximum load per roller (kg): 6

Composed of modular elements, fully adaptable to the aluminium profiles range.

Aesthetic design.

Options

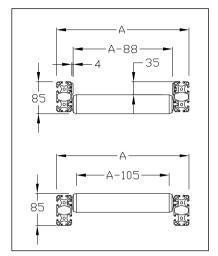
Feet or frame in aluminium.

Lateral guides.

Pitch between the rollers on request Fixed stopper.

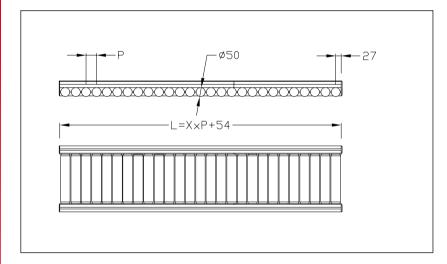
Weiaht:

According to widths, lengths and pitch between rollers



With lateral guides

Without lateral guides





Designation / Dimensions	Order unit	Reference
Roller conveyor, non-driven	1 pce	CR.***.52.000
Roller conveyor, non-driven with lateral guides	1 pce	CR.***.53.000

* * * = width of conveyor: 350-450-550-650 e.g.: CR.350.52.000)



Roller conveyor, motorized

APPLICATIONS

Straight compact and motorized conveyor to convey all types of cardboard boxes, flat bottom boxes, etc...on zinc-plated steel rollers.

Technical data

- x Widths A (mm): 350 450 550 650
- x Rollers Ø 50
- x Pitch between rollers P (mm): 55 75 95
- x Maximum load per roller (kg): 6
- x Speed (m/min): 6 7 9 12 18 24

Composed of modular elements, fully adaptable to the aluminium profiles range.

Aesthetic design.

Rollers motorization by round belt.

Options

Feet or frame in aluminium.

Lateral guides.

Pitch between the rollers on request

Fixed stopper.

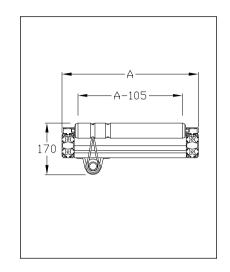
Distributing stopper.

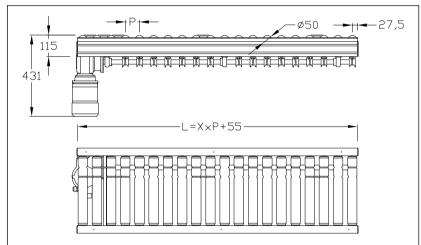
Acceleration zone:

Speed = conveyor speed x 1,25

Weight:

According to widths, lengths and pitch between rollers







Designation / Dimensions	Order unit	Reference
Roller conveyor, motorized	1 pce	CR.***.50.000

*** = width of conveyor: 350-450-550-650 e.g.: CR.350.50.000

Roller conveyor, curved.non-driven rollers

APPLICATIONS

Compact conveyor with a curve to convey all types of cardboard boxes, flat bottom boxes, etc...on truncated-cone shaped rollers.

Technical data

- x Widths A (mm): 350 450 550 650
- x Zinc-plated steel rollers with PVC coating
- x Pitch between rollers P (mm): 75 on R 820
- x Maximum load per roller (kg): 6
- x Inner radius of curvature: 780

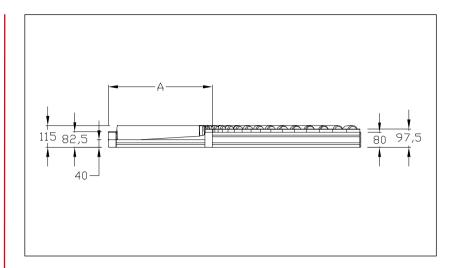
Composed of modular elements, fully adaptable to the aluminium profiles range.

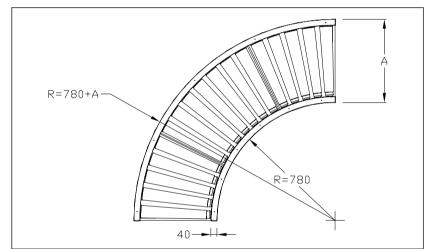
Aesthetic design.

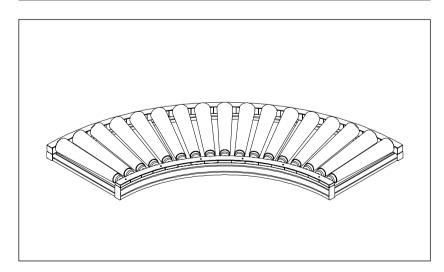
Options

Feet or frame in aluminium. Lateral guides.

Weight:
According to widths







Designation / Dimensions	Order unit	Reference
Roller conveyor, curved non-driven	1 pce	CRC.***.52.000

*** = width of conveyor: 350-450-550-650 e.g.: CRC.350.52.000



Roller conveyor, curved motorized

APPLICATIONS

Compact motorized conveyor with a curve to convey all types of cardboard boxes, flat bottom boxes, etc...on truncated-cone shaped rollers.

Technical data

- x Widths A (mm): 450 550 650
- x Zinc-plated steel rollers with PVC coating
- x Pitch between rollers P (mm): 65 on R 712
- x Maximum load per roller (kg): 6
- x Speed (m/min): 6 7 9 12 -18 24
- x Inner radius of curvature: 672

The curved conveyor can be driven by the straight conveyor associated or not.

Composed of modular components, fully adaptable to the aluminium profiles range.

Aesthetic design.

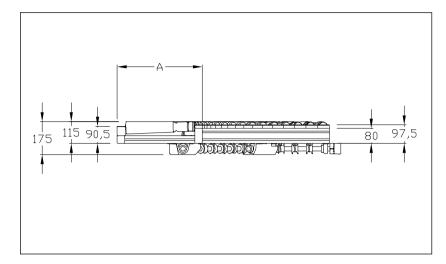
Rollers motorization by round belt.

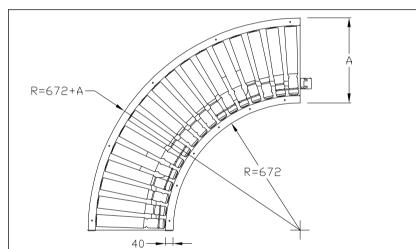
Options

Feet or frame in aluminium. Lateral guides.

Weight:

According to widths







Designation / Dimensions	Order unit	Reference
Roller conveyor, curved motorized	1 pce	CRC.***.50.000

[*** = width of conveyor: 450-550-650 e.g.: CRC.450.50.000]



APPLICATIONS

Conveyor with motorized drum

Compact conveyor for flat belt with an integrated motor in the driving roller. Driven by an aluminium pulley at the extremity.





Conveyor with motorized drum

Technical data

- x Driving diameter: 84
- x Width A (mm): 500, 600, 700, 800
- x Belt width: 490, 590, 690, 790
- x Maximum length: 4 000
- x Minimum length: A x1,2
- x Stainless steel or galvanized steel plate thickness: 2 mm
- x Motorization: 230/400 V three-phase 50 Hz
- **x** Speed: 5 6 7 9 11 14 m/min according to power
- x Minimum belt tensioning according to the

drum motor's chart

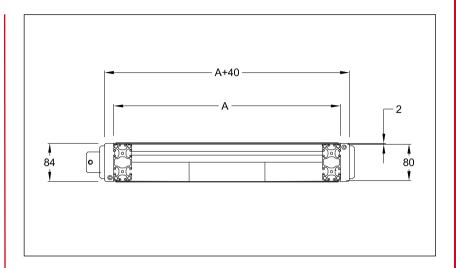
Adjustable cable outlet from 90° to 90°.

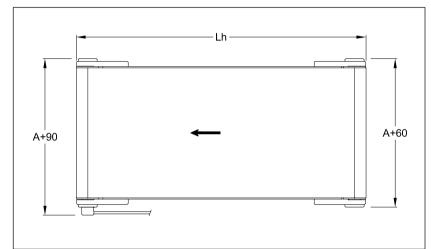
Lh = L + tensioning stroke + 84 + 2x belt thickness

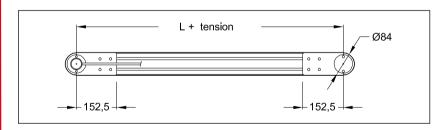
Space saving thanks to the drum motor.



Do not operate without belt since this may result in damage.









Designation / Dimensions	Order unit	Reference
Conveyor with motorized drum	1 pce	C.***.30.000



Inflatable conveyor holder

APPLICATIONS

Allow to easily fasten a driving unit with an inflatable belt on a frame.

Technical data

- x Aluminium holder
- x Conveyor fastening set: Chc 5x16

Nut 6 St M5

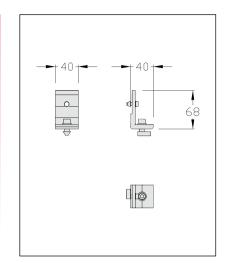
x Frame fastening set:

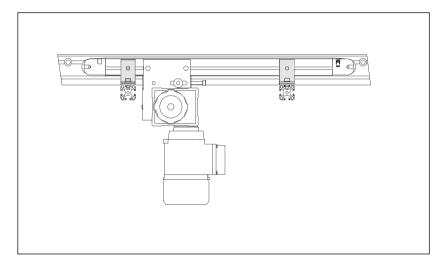
Chc 8x20

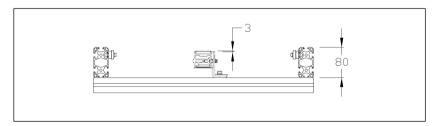
Nut 8 St M8

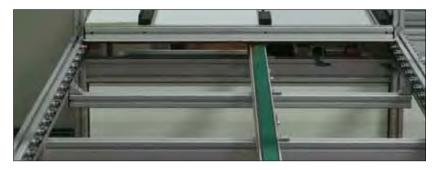
Maximum distance between axes: 500 mm

Weight: 0,11 kg









Designation / Dimensions	Order unit	Reference
Inflatable conveyor holder	1 set	5.00.00.81.000





Frequency inverter

APPLICATIONS

Allows to connect directly a conveyor on a 220 V plug and to adjust the variable speed drive.

The 335 version allows also to stop and restart the conveyor by controlling a photoelectric cell. This cell is directly controlled by the inverter with delay time adjustments.

Technical data

Version 100:

- x Frequency inverter
- x Motor cabling on the inverter via a supplied Harting plug

Version 335:

- x Frequency inverter
- x Motor cabling on the inverter via a supplied Harting plug
- x Photoelectric cell with reflector
- x Cell holders, reflector and inverter
- x Cell cabling on the inverter

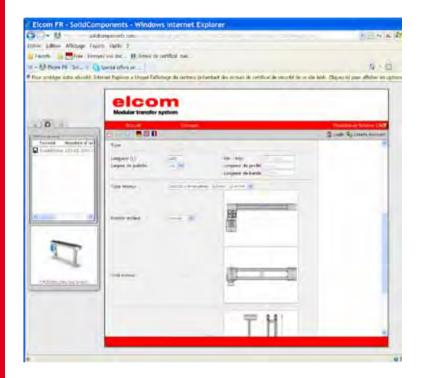


Weight: 4,5 kg

Designation / Dimensions	Order unit	Reference
Frequency inverter 100	1 set	CELE.01.000
Frequency inverter 335	1 set	CELE.02.000

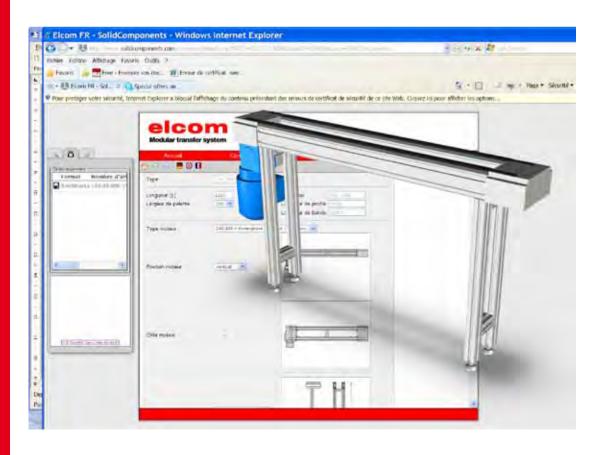


Our website www.elcom.fr offers the possibility of configuring yourself on-line the transfer corresponding to your needs.



Download the requested solution in CAD 2D-3D format.

All CAD 2D-3D files are downloadable from our website.





Lean Manufacturing is a method of continuous improvement which aims at reducing costs and production times, while improving product quality and safety of employees.

To achieve these objectives, a **Lean Manufacturing** approach consists in reducing or **eliminating the wastings**, **the rigidities and the variabilities** in order to concentrate on the activity of the company: **create value**.

The integration of conveyors in the production system allows, among other things, to:

- x reduce waiting times between various stages of the manufacturing process
- x simplify and secure the transport of materials, components, finished products
- x eliminate useless operations
- x control the stocks
- x decrease the movements and displacements of employees without added value
- x increase the level of product quality

The **elcom system concept**, arisen from the will of **elcom** to fight against the risks of musculoskeletal disorders (MSD), is an innovative concept combining all of our technologies :

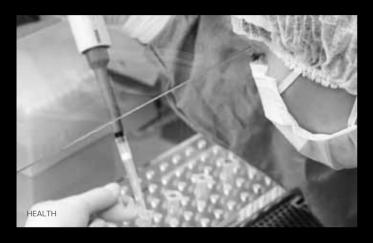
from work benches to modular transfer systems, via lifting boxes or modular elements such as line D30.

The modular transfer systems join perfectly into the **elcom system concept** which offers a complete, personalized, flexible and ready to use solution.

The integration of transfers, combined with our modular elements, in the environment and the production flow will enable to eliminate numerous wastings, reduce the risks of musculoskeletal MSD and improve the well-being of your employees at work.









Modular elements for industrialization



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