

# Technical sheet

## Heavy duty pallet transfer TM



**elcom**  
by hellomoov



# / MONORAIL TRANSFER TM SYSTEM

## **Transfert TM**

For tough environments and ultra-heavy loads.



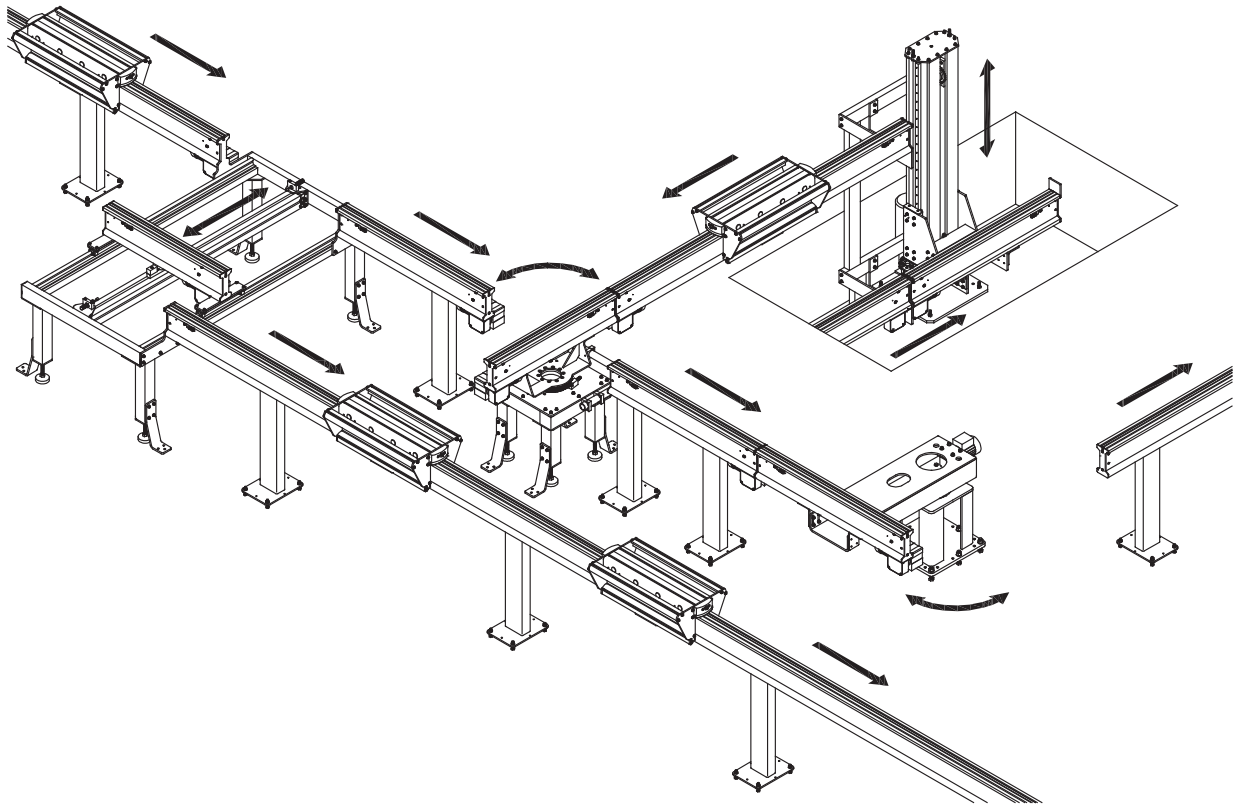
TM

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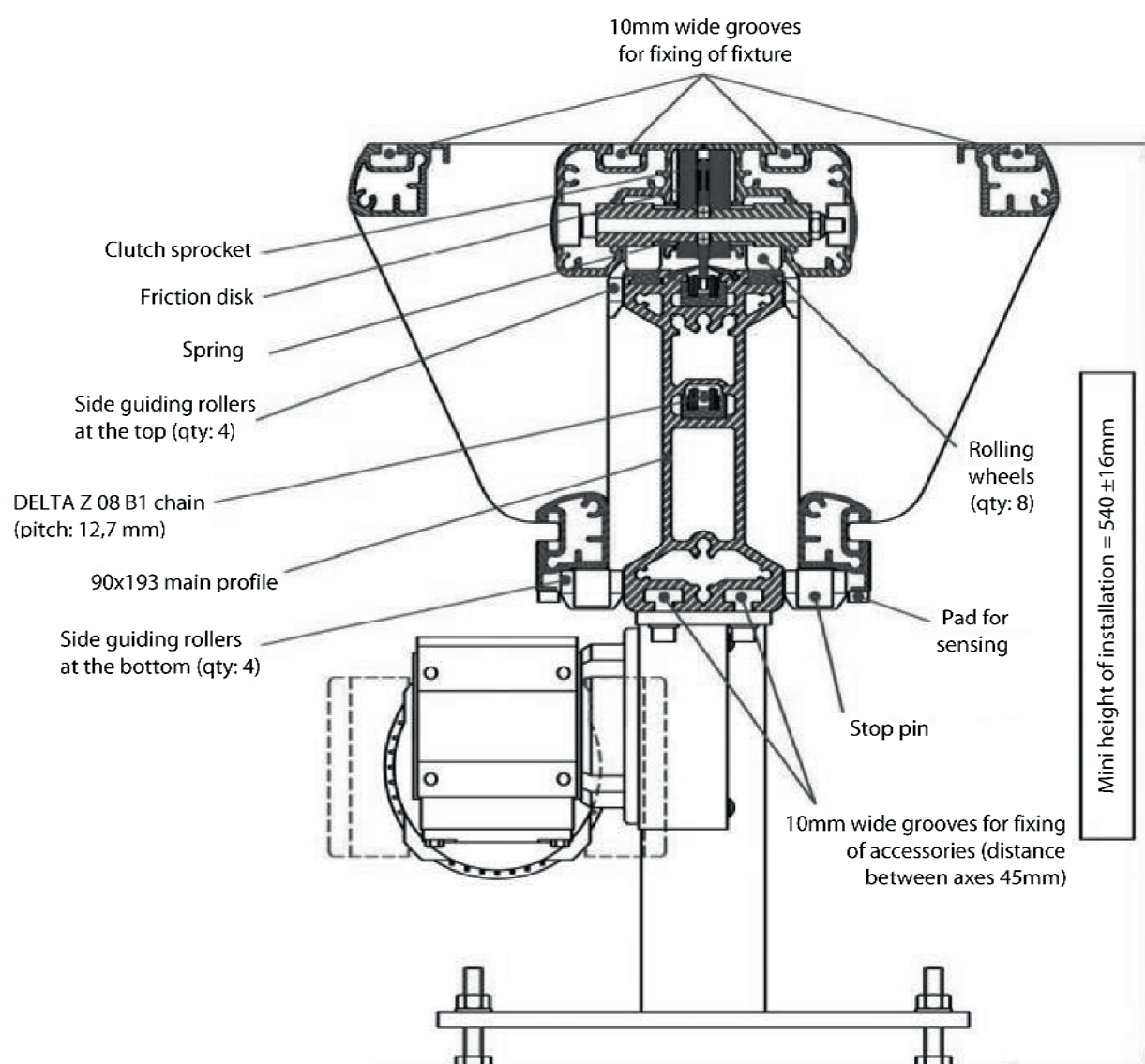
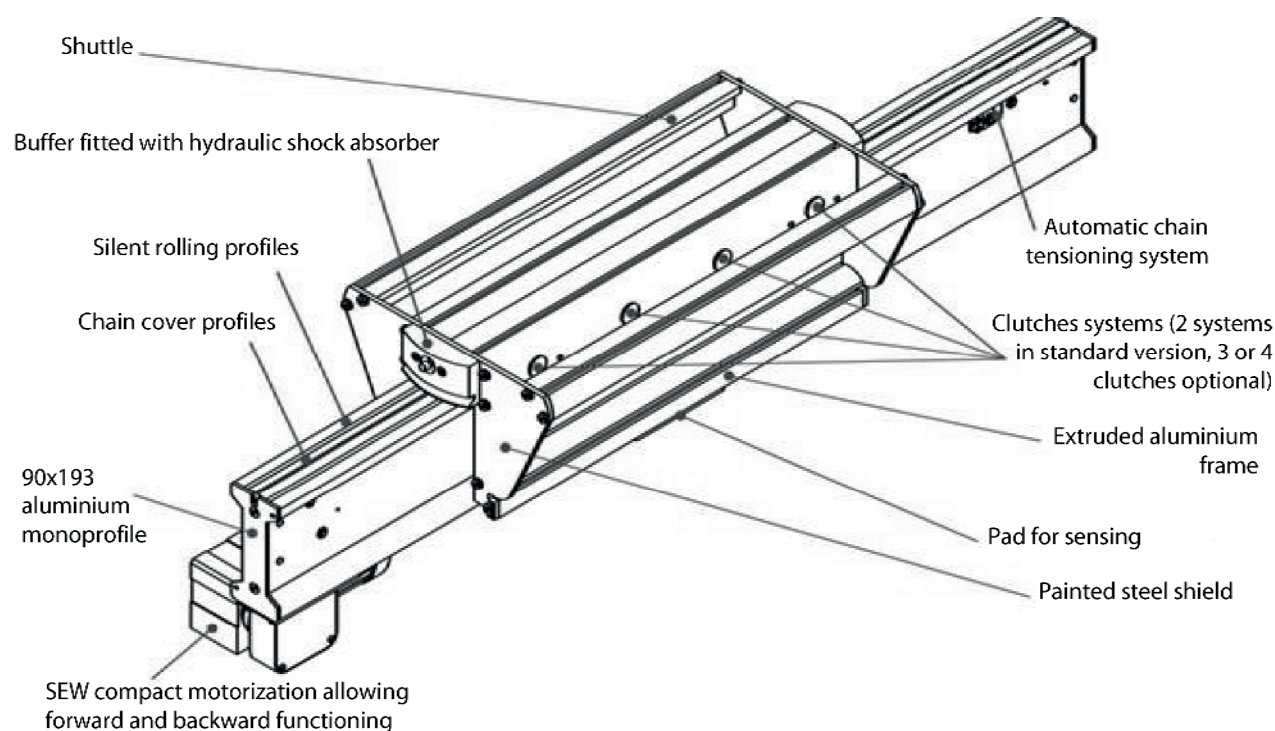
## Monorail TM system

### Ergonomics at the assembly workstation

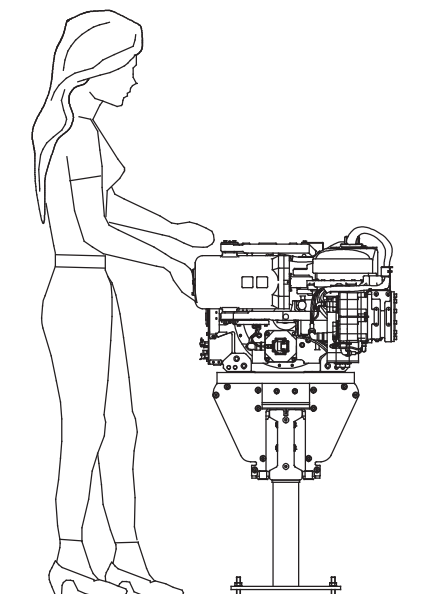




## Main features

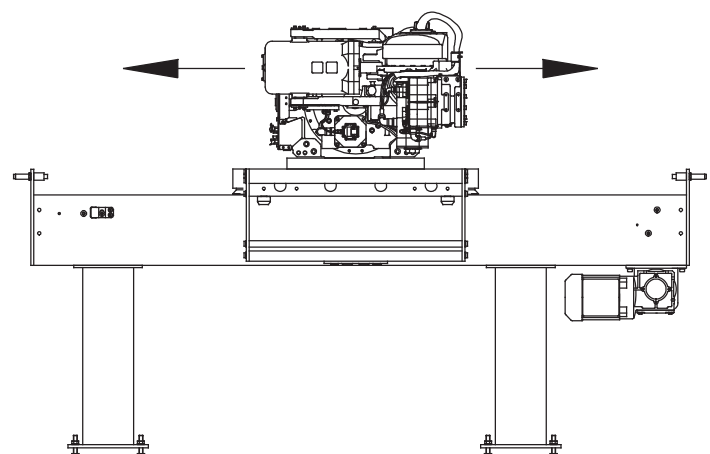


## Applications

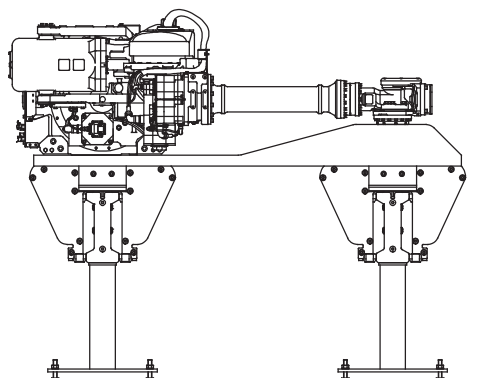


Its compact overall dimensions and the optimal ergonomies provided by the system facilitate the arrangement of the du workstation.

Sections are motorized and shuttles are driven by a passive and progressive and clutch system. The operator can anytime safely stop the soft and smooth flow.



The forward and backward functioning of the system allows specific applications such as loading and unloading.



Transportation of voluminous and/or heavy products is also possible thanks to a twin arrangement of the sections.

# Motorized section

## Technical data

- ✗ Nominal speed of the line  
15m / min (standard speed)  
On request: 3 to 35 m/min
- ✗ Automatic chain tensioning
- ✗ Possible forward and backward functioning
- ✗ W20 type SEW motor reducer 180w  
230/400V 3-phase

The loading capacity of the section will depend on the quantity of shuttles stopped in accumulation.

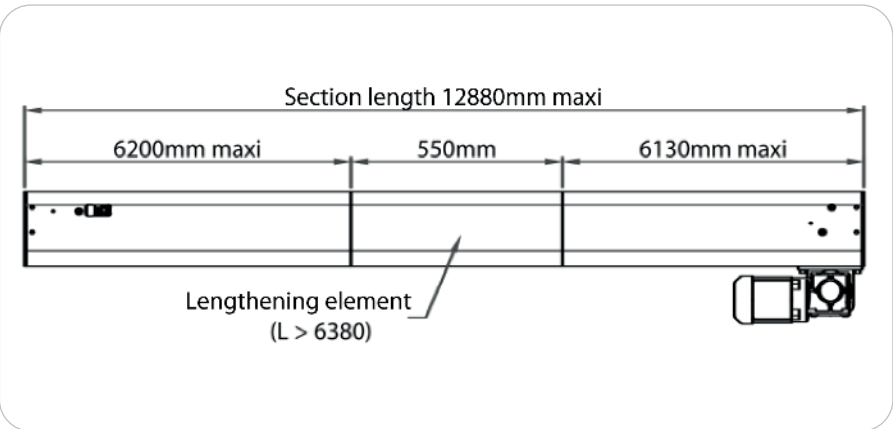
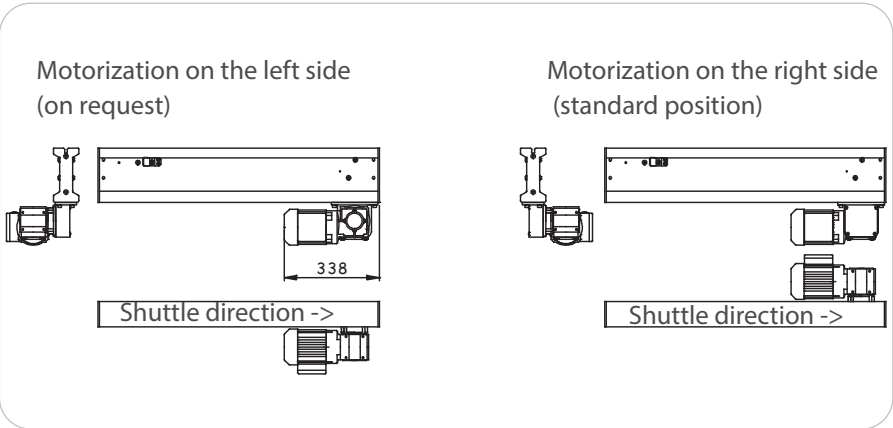
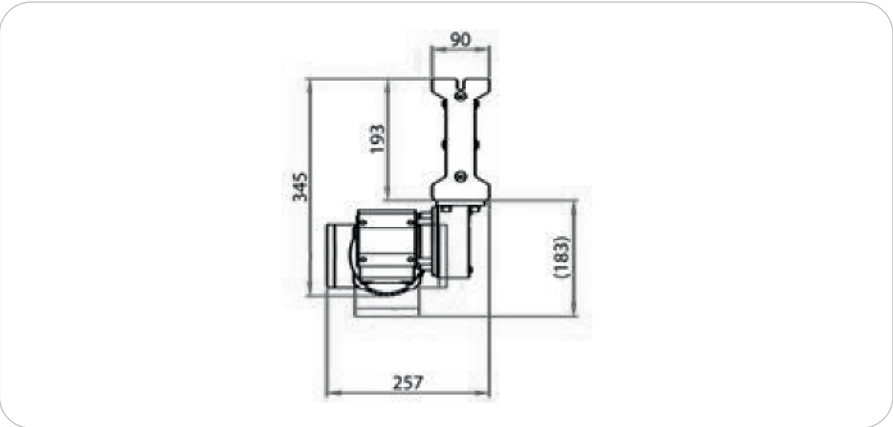
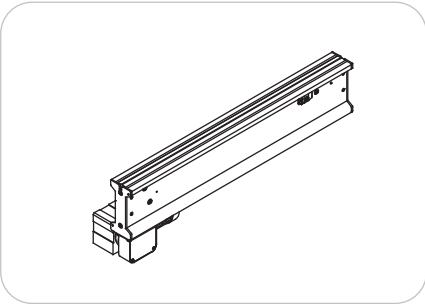
## Speed and capacity

- 10 m/min: 40 shuttle clutches
- 15 m/min: 30 shuttle clutches
- 20 m/min: 25 shuttle clutches
- 24 m/min: 20 shuttle clutches

Mini section length: **600 mm**  
Maxi section length: **12 880 mm**

## Reference to be ordered:

Example of a section length 3500 mm:  
Motorization on the left side, standard speed, standard position of the terminal.  
Ref. 2288 Left - 3500

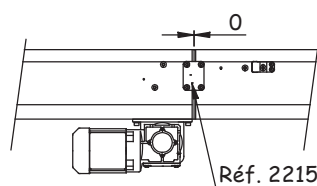


Designation / Dimensions	Order unit	Reference
Motorized section not fitted with lengthening element (L ≤6 380 mm)	1 set	2288
Motorized section fitted with lengthening element (L >6 380 mm)	1 set	2298

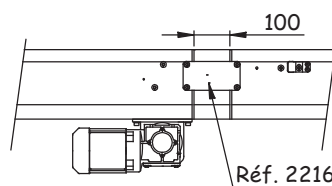
## Fixing kits for alignment of sections

By assembly of sections in series (aligned), fixing kits ref. 2215 and 2216 ensure perfect alignment of the sections.

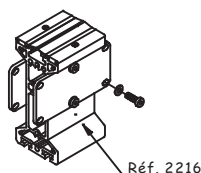
Fixing kit ref. 2216 eases access to the sections ends (maintenance).



Réf. 2215



Réf. 2216



Réf. 2216

## / Leg sets

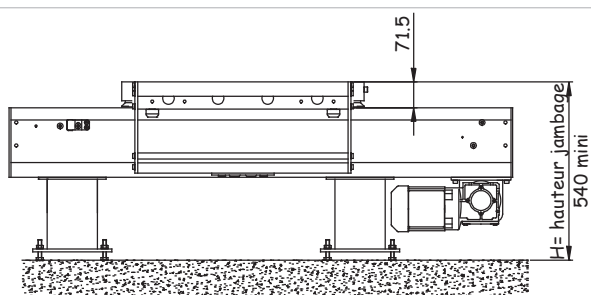
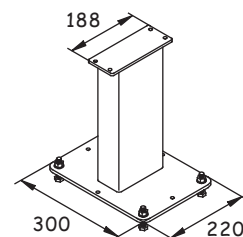
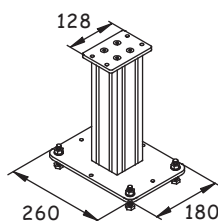
The leg sets are supporting the sections (section fixing bolting is supplied).

Aluminium leg set (80x80)

Ref. 2100

Coated steel leg set (140x70)

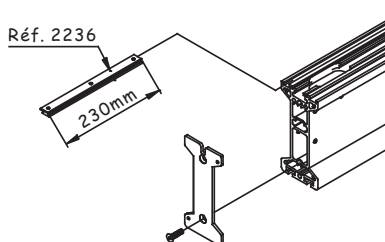
Ref. 2110



## / Hardened steel rolling profiles

In standard version, the motorized sections of rotary, transfer, sliding tables and lifts are fitted with hardened steel rolling profiles.

These profiles can also be set at working stations on the motorized sections of the main line in order to reduce wear generated by external efforts.



Réf. 2236



# Electrically operated rotary table

Rotation by means of a SEW motor reducer 120w 230V or 400V 3-phase (monovoltage).

Hydraulic shock absorber (2) and M12x100 (2) end travel sensors (2) (supplied).

Rotation position: 90° and 180°.

Other position on request

## Reference 2013 :

(section to be ordered separately)

(stop unit to be ordered separately)

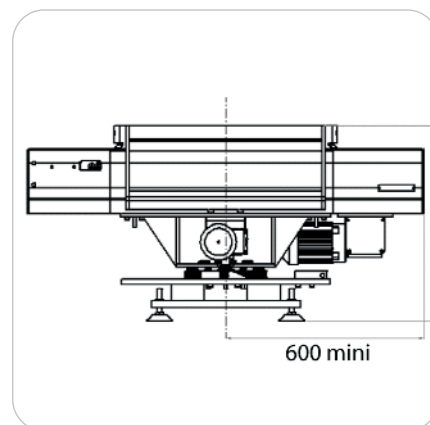
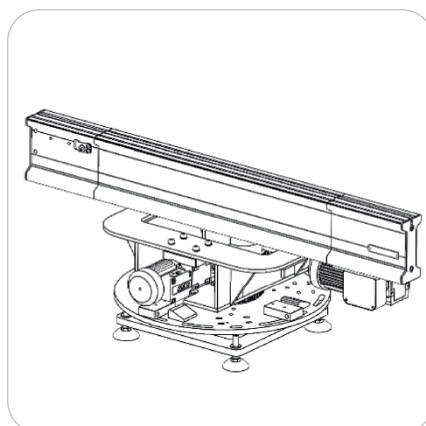
(sensor support to be ordered separately)



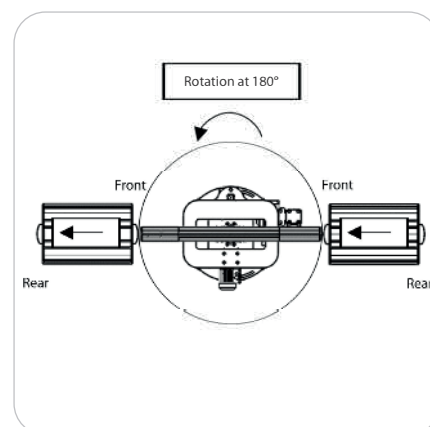
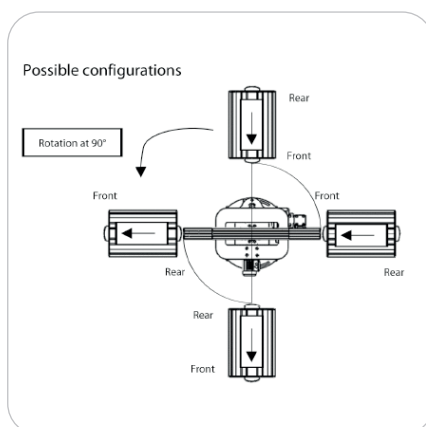
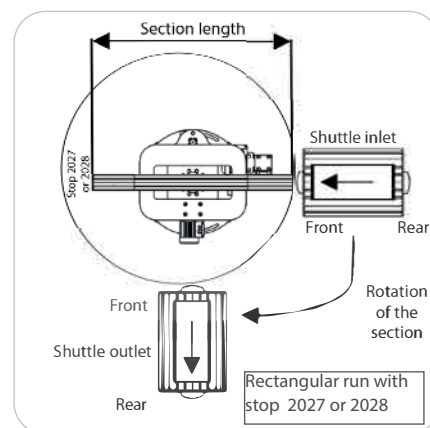
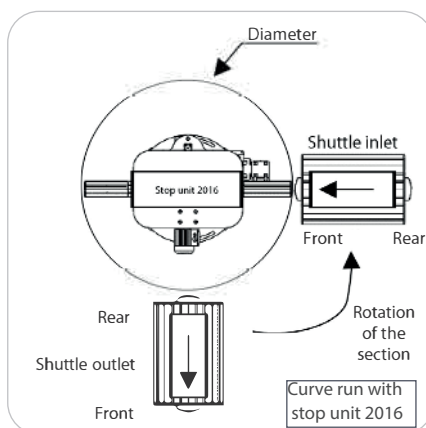
### IMPORTANT

Foresee a protection around the table.

Note: the motorized section is delivered fitted with hardened steel rolling profiles



Shuttle	Section length	
	With stop unit 2070	With stop 2027 or 2028
500mm	1050mm Diameter: 1055mm	830mm Diameter: 1055mm
600mm	1050mm Diameter: 1055mm	880mm Diameter: 1055mm
800mm	1050mm Diameter: 1055mm	980mm Diameter: 1055mm
1000mm	1110mm Diameter: 1155mm	1110mm Diameter: 1115mm
1200mm	1310mm Diameter: 1315mm	1310mm Diameter: 1315mm



## Pneumatically operated sliding table

Movement by means of a rodless pneumatic cylinder Ø50 mm.

Flow limiters connections Ø8 mm (supplied).

2 sensors located on the cylinder (supplied).

End travel hydraulic shock absorbers (supplied).

Example of reference of shuttle 800 mm, section 1050 mm, travel (distance between axes) 1500 mm :

**Ref: 2014 - 800 - 1050 - 1500**

(section to be ordered separately)

(stop unit to be ordered separately)

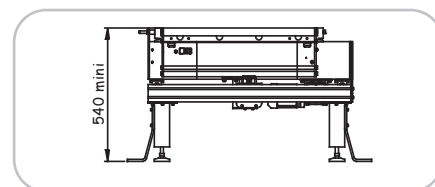
(sensor support to be ordered separately)

### IMPORTANT

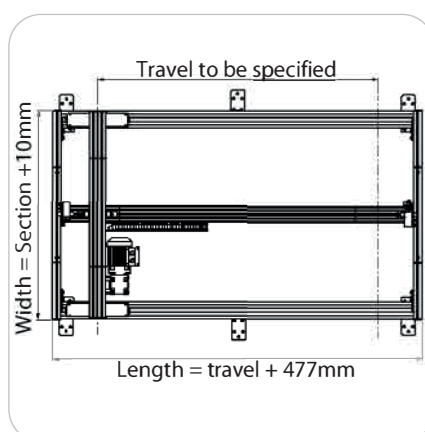


**Foresee a protection around the table.**

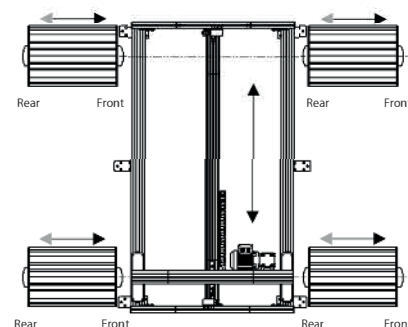
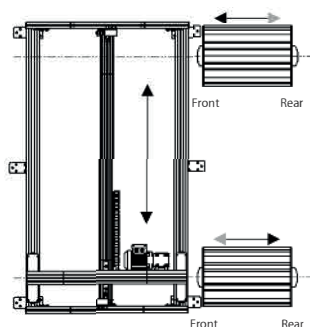
Note: the motorized section is delivered fitted with hardened steel rolling profiles



Shuttle	Section length	
	With stop unit 2070	With stop 2027 or 2028
500mm	950	900
600mm	1000	950
800mm	1100	1050
1000mm	1200	1200
1200mm	1400	1400



Possible configurations



# Electrically operated lift

Movement by motor SEW 550W motor  
brake 230/400V 3-phase.

Nominale speed: 13 m/min.

4 end travel sensors (supplied).

The use of a frequency inverter is  
advisable.

## Reference to be ordered:

(section to be ordered separately)

(stop unit to be ordered separately)

(sensor support to be ordered separately)

## Reference 2030

indicating:

The height of installation (distance  
from the ground to the top of the  
shuttle)

Lift travel

Fixture width

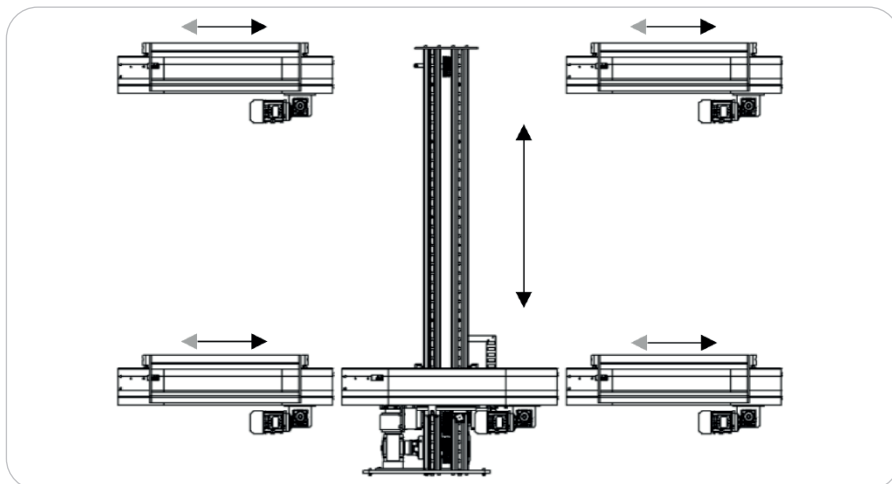
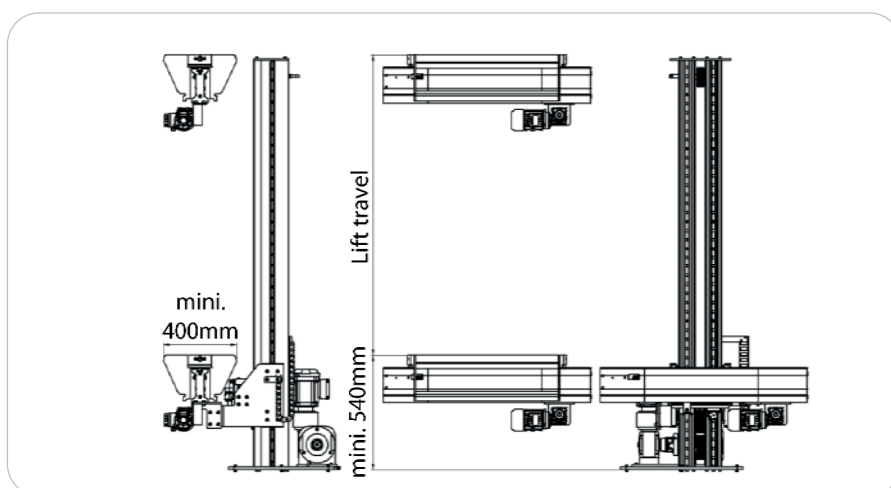
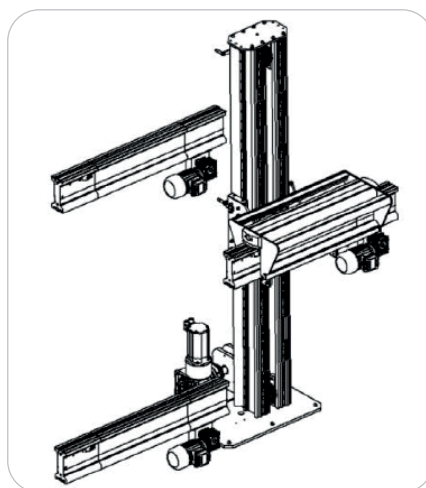
## IMPORTANT



**Foresee a protection around  
the table.**

Note: the motorized section is  
delivered fitted with hardened steel  
profiles

Possible configurations:





# Electrically operated rotary transfer table

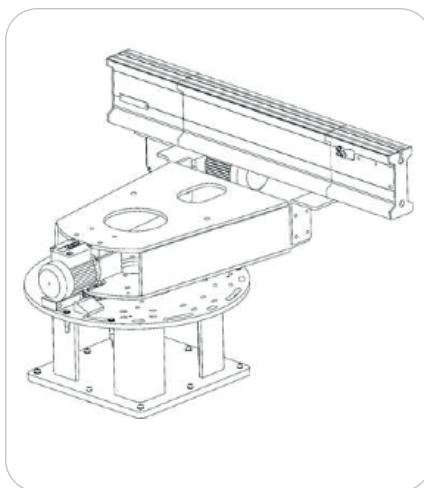
Rotation by means of a SEW motor reducer 180w 230/400V 3-phase.

Rotation position 180° (other position on request).

4 end travel sensors (supplied on request).

2 end travel hydraulic shock absorbers (supplied).

The use of a frequency inverter is advisable



## Reference to be ordered:

(section to be ordered separately)

(stop unit to be ordered separately)

(sensor support to be ordered separately)

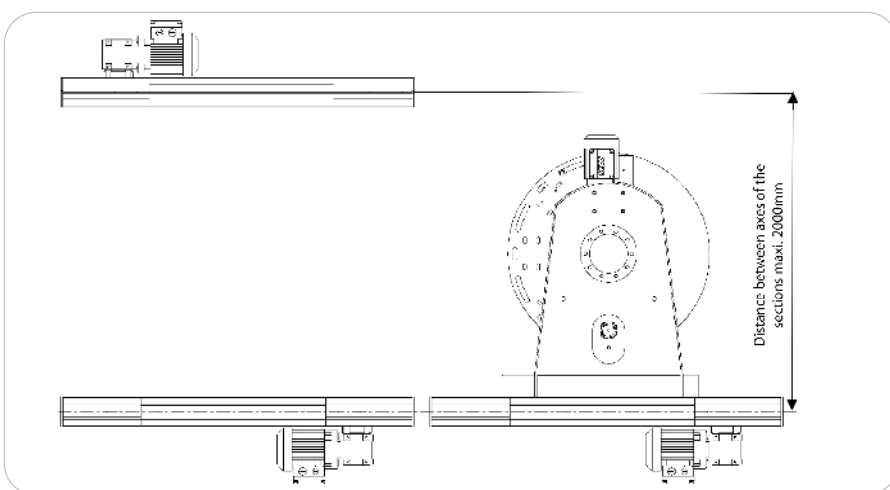
## Reference 2032

### indicating:

The height of installation (distance from the ground to the top of the shuttle).

Distance between axes of the sections.

Length of the shuttle.

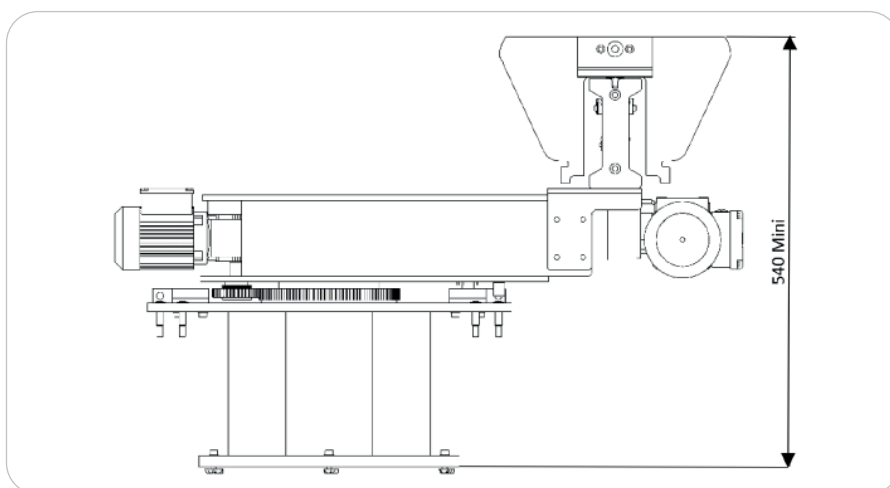


## IMPORTANT



**Foresee a protection around the table.**

Note: the motorized section is delivered fitted with hardened steel profiles.



# Shuttle

Maxi. payload 100kg (above, on request).

Available lengths:  
500 , 600, 800, 1000, 1200 mm.

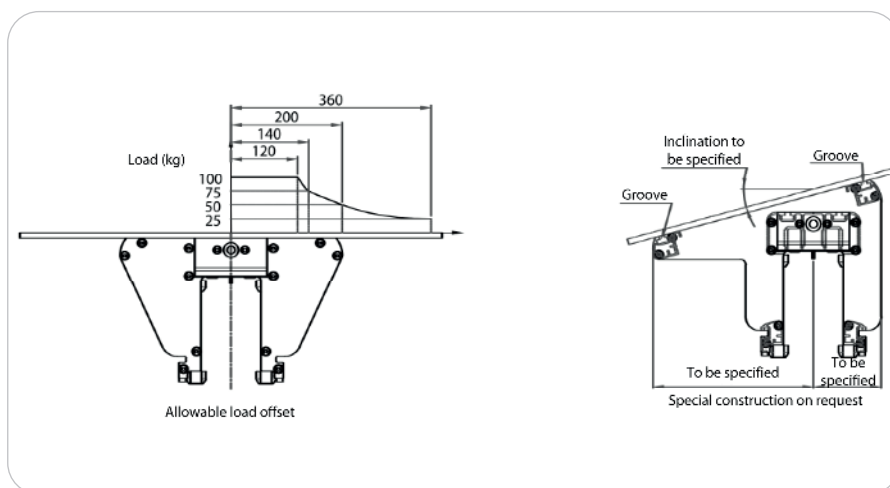
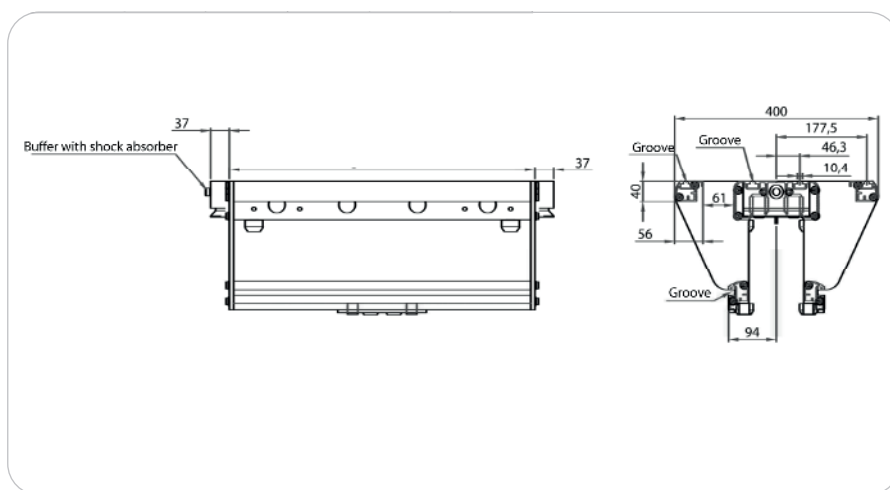
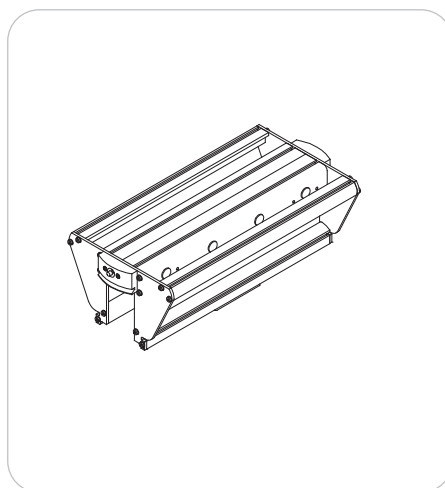
Adjustment and maintenance-free friction clutch.

2 clutches are set in standard version.

Extra clutches, offset or inclined shuttles.

Specific length: on request.

Note: empty shuttle weight=  
14 kg/m + 10 kg.



Designation / Dimensions	Order unit	Reference
Shuttle length 500 mm	1 kit	2000
Shuttle length 600 mm	1 kit	2001
Shuttle length 800 mm	1 kit	2002
Shuttle length 1000 mm	1 kit	2003
Shuttle length 1200 mm	1 kit	2004

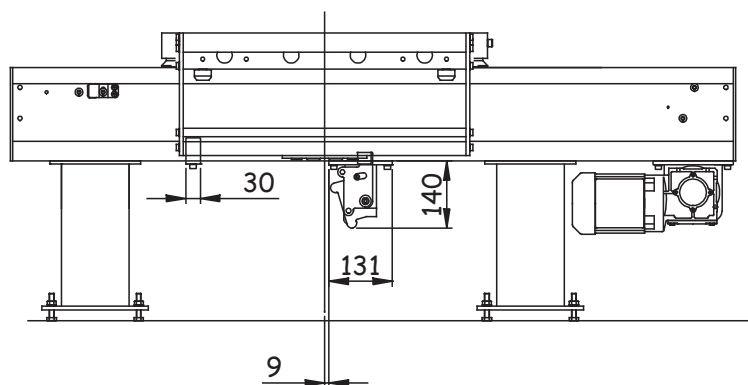
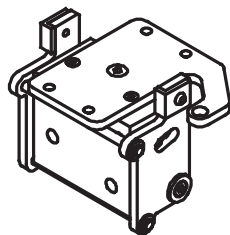
## Dampened stop unit

Stop unit provides shuttle stop and detection at the workstations and when approaching tables or lifts. A swinging mechanism dampens the shuttles stop by acting on a hydraulic shock absorber which is incorporated and protected in the stop unit body. This mechanism will be re-armed as soon as the shuttle has been released by the stop unit.

Simple effect pneumatically actuated stop unit (load capacity: 5 shuttles). Lubricated or not lubricated, cleaned air, 5 to 6 bars.

Connection for Ø6mm pipe (supplied). Shuttle detection by means of M12x100 sensor (not supplied). Advisable swept area 4mm.

Detection of stop unit high and low positions by means of M8x100 sensors (not supplied).



Designation / Dimensions

Dampened stop unit

Order unit

1 pce

Reference

2070



## Shuttle positioning at the workstation

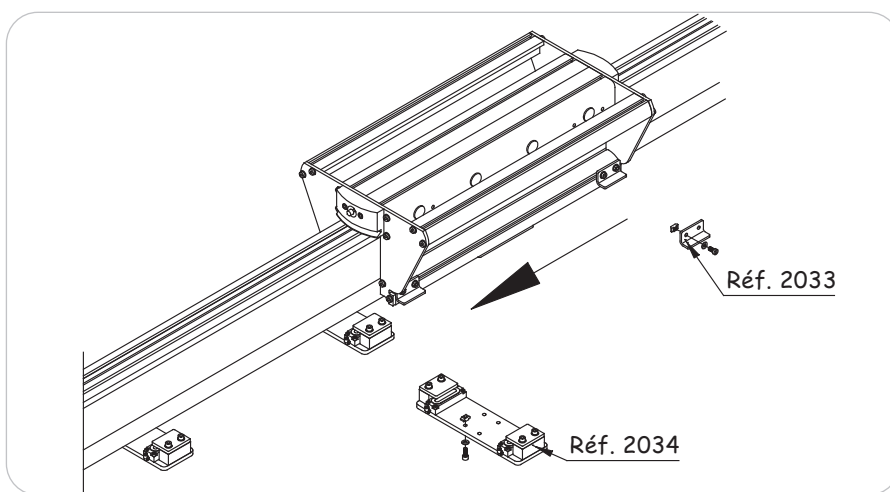
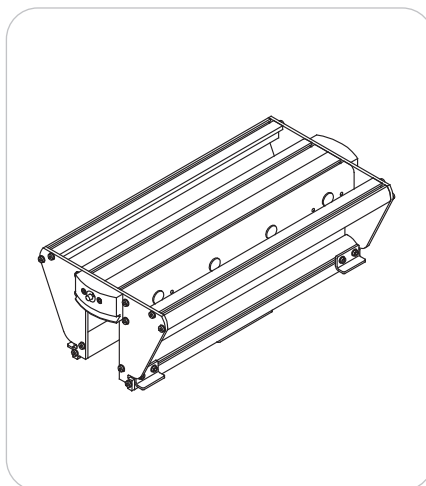
This system keeps the shuttle in position at the working place. The shuttle is stopped by stop unit 2016 (not supplied).

Positioning links ref. 2033 located on the shuttle get inserted inside rising devices ref. 2034.

The membrane cylinders of these devices rise the shuttle above the section (4mm) and allow a vertical effort of 240daN (including shuttle) at an accuracy of  $\pm 3\text{mm}$ .

Ref. 2033 : suitable for one shuttle (4 positioning links)

Ref. 2034 : suitable for one working place (supply of 2 rising devices)

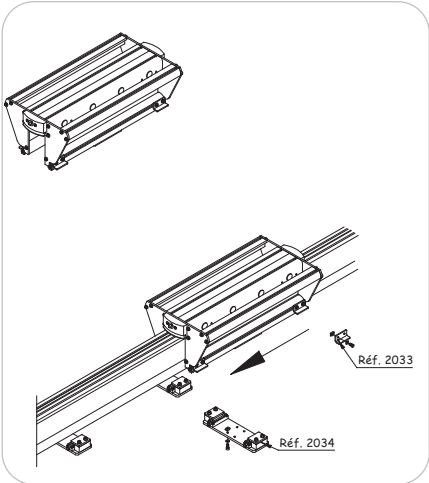


# Stop at the end section

Stop unit ref. 2016 is necessary for «curve run» (rotary or transfer table) and for «sliding run» (sliding table or lift) because the shuttle direction remains unchanged.

But for «rectangular run» (rotary, sliding table or lift) stop unit ref. 2016 can be replaced by a stop at the section end ref. 2027 (without shockabsorber) or ref.2 028 (with shock absorber) because the shuttle direction is reversed after passing through the tables or lift.

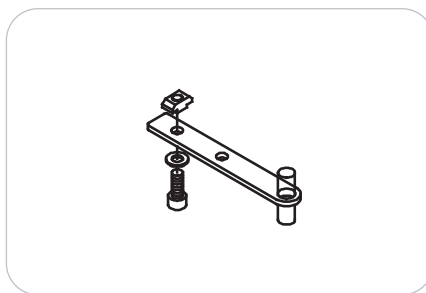
Shuttle detection is provided by sensor support ref. 2017.



Designation / Dimensions	Order unit	Reference
Stop at the end section without shock absorber	1 pce	2027
Stop at the end section with shock absorber	1 pce	2028

## Sensor support

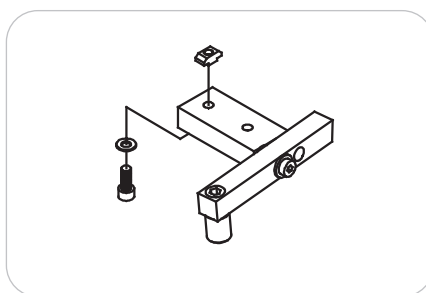
Suitable for M12x100 sensor (not supplied).  
Advisable swept area 4 mm.



Designation / Dimensions	Order unit	Reference
Sensor support	1 pce	2017

## Mechanical anti-return device

This device is located between stop unit ref.2 016 and the anti-lift device. It avoids unexpected movements of shuttle when operating at the working place.

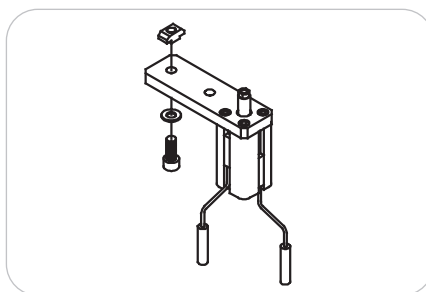


Designation / Dimensions	Order unit	Reference
Mechanical anti-return device	1 pce	2015

## Pneumatical anti-return device

This device is located between stop unit ref. 2016 and the anti-lift device. It avoids unexpected movements of shuttle during lift rising and lowering.

Simple effect pneumatic cylinder.  
Lubricated or not lubricated, cleaned air, 5 to 6 bars.  
Connection for Ø6 mm pipe (supplied).  
Detection of high and low positions by means of sensors located on the cylinder (supplied).



Designation / Dimensions	Order unit	Reference
Pneumatical anti-return device	1 pce	2036