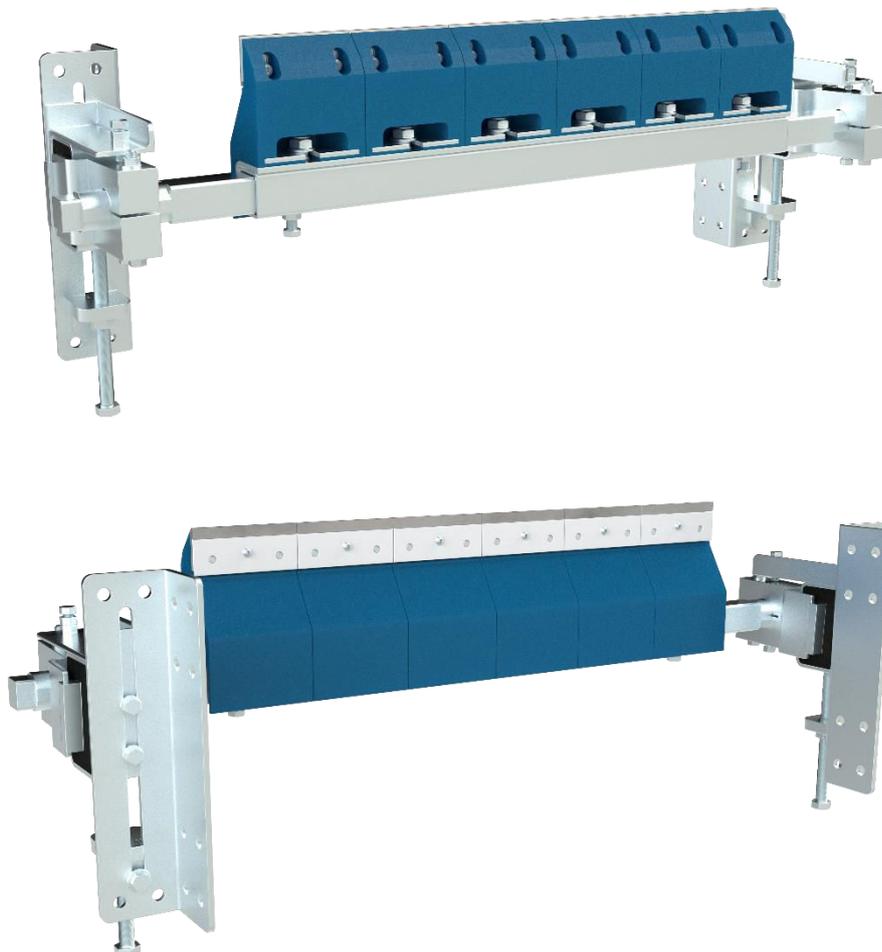


## MANUFLEX TYPE „REV“

### INSTALLATION INSTRUCTIONS

400-2,000mm belt width

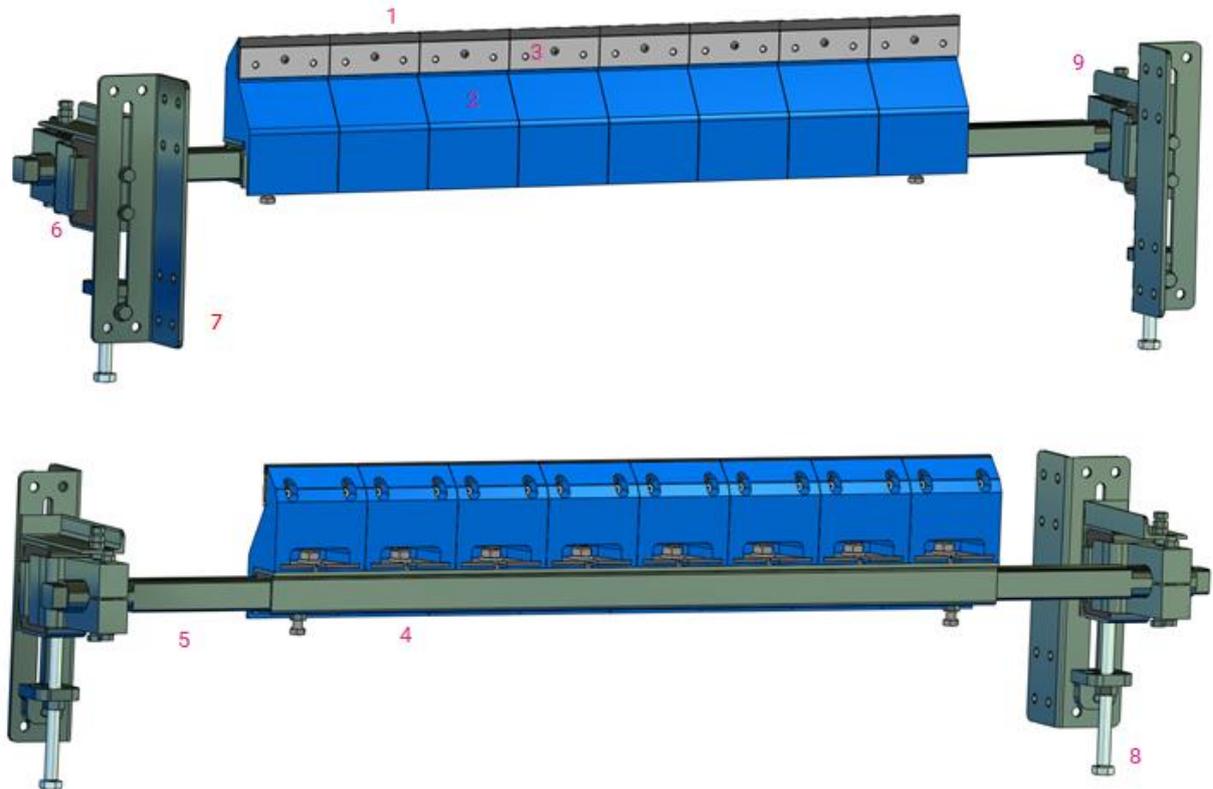


## DESCRIPTION

The manuflex REV is a secondary scraper equipped with carbide blades.

It is particularly suitable for use with reversible belt conveyors.

A reversible manuflex REV unit should be fitted to both the drive and guide pulleys whenever the conveyor is operating in both directions.

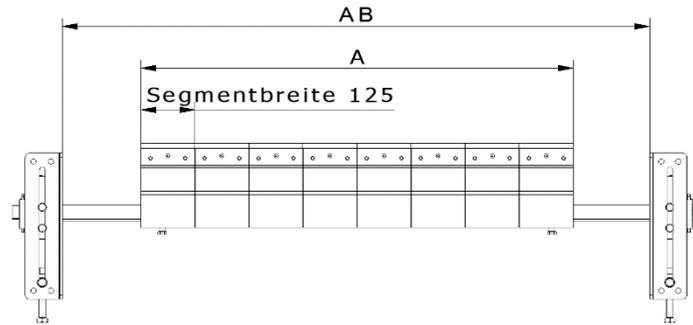


The carbide scrapers (1) are 125 mm wide, 5 mm thick and 20 mm high.

They are soldered onto support plates and screwed to the polyurethane segments (2) of the manuflex REV. PE deflector plates (3) help to ensure an efficient material flow. The support plates and carbide scrapers should at the same time be protected from wear.

The polyurethane segments are screwed to a substructure (4) containing telescopic axles (5), which are in turn secured by shock absorbers (6). These shock absorbers, in the form of rubber buffers, absorb the impact generated by the splice joins and surface imperfections in the conveyor belt, while also taking up any belt pretension. The shock absorbers are bolted to mounting brackets (7) which are in turn fitted with adjustment screws (8). The mounting brackets are bolted or welded to the structure of the conveyor system. Clamping devices hold the shock absorbers in their raised position (9) to prevent the scraper from digging into the belt when it is running against the cleaning direction.

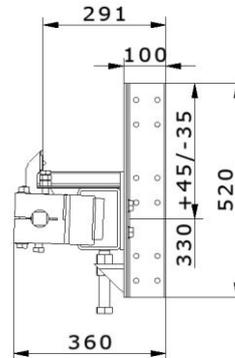
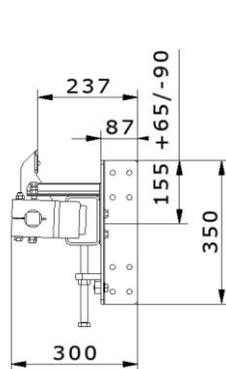
## WEIGHTS AND DIMENSIONS



Belt width/ mm	Segments	Scraping width A / mm	Installation width AB/ mm	Weight/ kg
400	3	375	340-800	39.3
500	4	500	440-900	41.8
650	5	625	590-1,050	44.2
800	6	750	740-1,200	50.3
1,000	8	1,000	940-1,750	61.3
1,200	9	1,125	1,140-1,950	70.8
1,400	11	1,375	1,340-2,150	74.1
1,600	12	1,500	1,540-2,350	85.6
1,800	14	1,750	1,740-2,550	92.6
2,000	16	2,000	1,940-2,750	100.6

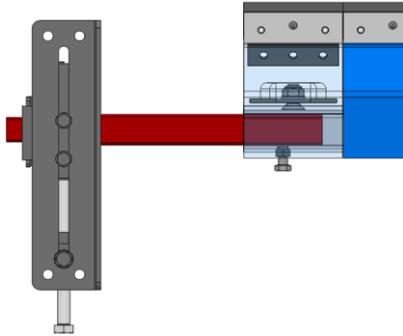
Belt width 400-1,400 mm

Belt width 1,600-2,000 mm



## AXLE INSERTION DEPTH

The "AB" dimensions in the table denote the minimum insertion depths of the axles in the square tubes.



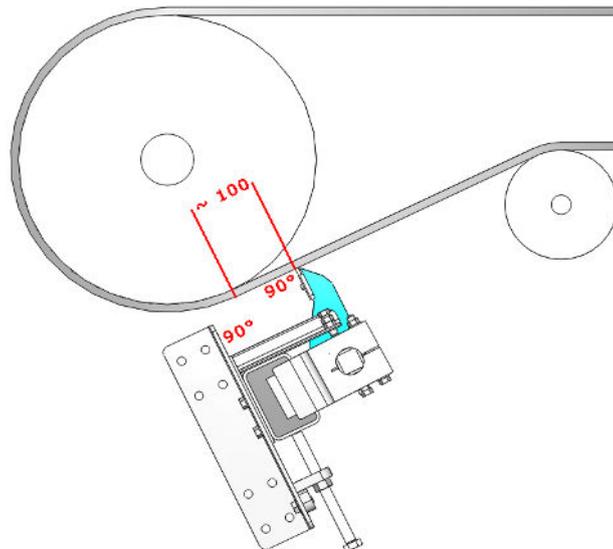
### Minimum insertion depth:

Belt width 400 – 800 mm	=	100 mm
Belt width 1,000 – 1,200 mm	=	150 mm
Belt width 1,400 – 2,000 mm	=	200 mm

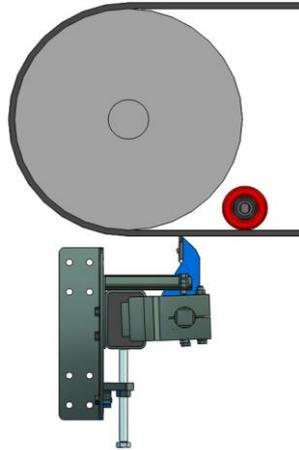
## POSITIONING

**Distance from the discharge pulley:** The manuflex REV is fitted behind the discharge pulley to perform its role as a secondary scraper. A distance of approximately 100 mm from the pulley is recommended for this purpose.

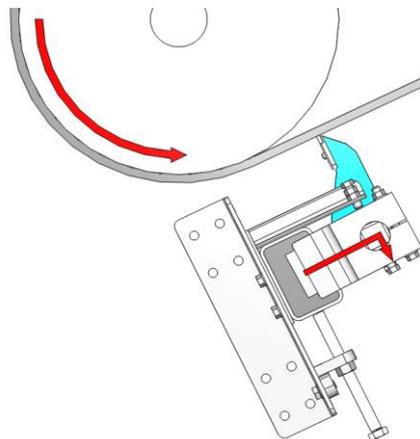
**Installation angle:** The complete manuflex REV assembly must be fitted at right angles to the belt. Even if the belt is deflected (e.g. by a snub roller) the scraper must remain at an angle of 90° to the belt. The angle of installation between the belt and the carbide blades must never exceed 90°, as this can lead to vibration rattle of the scraper.



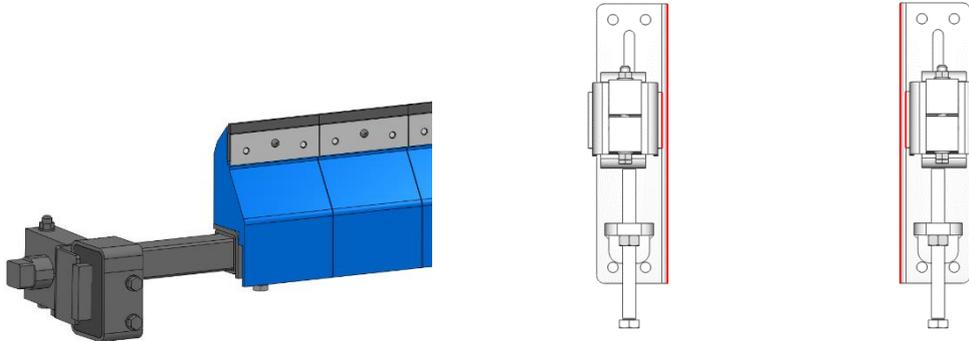
**Counter-pressure roller:** The use of a counter-pressure roller is recommended if the belt tends to curl up behind the drum or lacks tension.



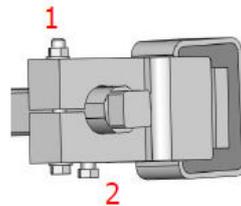
**Component layout:** The proper layout of components is important for the optimum functioning of the manuflex REV system. This includes guaranteeing the operation of the shock absorbers. The shock absorbers, which are configured as a kind of pivoting arm, protect the scraper from shocks due to thickening of or imperfections in the belt. It is therefore important that the layout of the components should be as shown in the diagram. If the shock absorbers are incorrectly positioned to face backwards, they cease to function as buffers.



**Notes regarding shock absorbers:** The rear female threads of the shock absorbers are positioned off-centre for their respective fixing screws. This ensures that the shock absorbers do not protrude beyond the inner edges of the mounting brackets, as these are often attached to the conveyor-system structure.

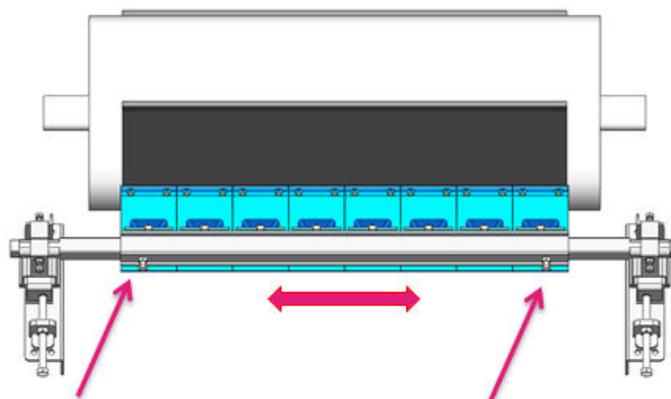


Observe the following screw-tightening sequence when securing the axles in the shock absorbers: Start by tightening the continuous long screws (1), followed by the short pressure screws (2).



**Position relative to the belt:** If the scraper is mounted as described, its position can be adjusted relative to the width of the belt. This involves loosening the clamping screws on the telescopic axles.

The substructure on which the segments are mounted can now be pushed under the centre of the belt.

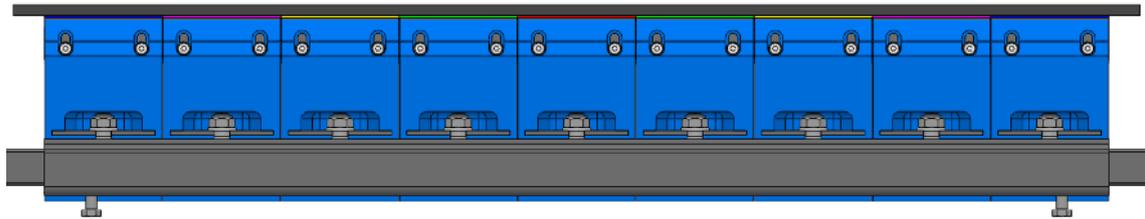


## ADJUSTING THE SCRAPERS

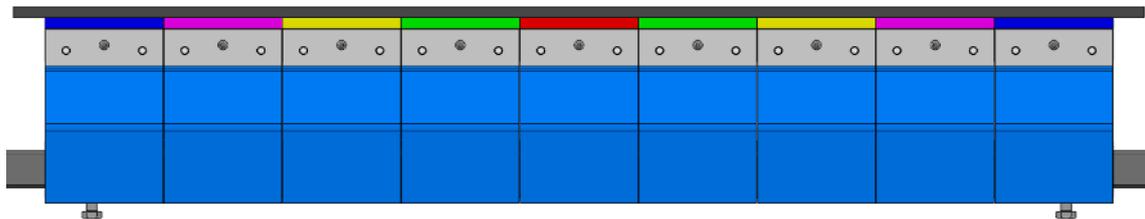
Adjustment of the individual scrapers is a very important step. Their contact with the belt must be precisely adjusted to ensure even cleaning of its surface. Exact adjustment is also necessary to ensure that the polyurethane segments evenly bear the load of each scraper.

To adjust the scrapers, proceed as follows:

1: Loosen the two M8 hexagon-socket screws on each scraper until the scrapers can move along the slots.



2: Slide the middle scraper (shown in red) along its slot until it comes into contact with the belt.  
3: Repeat the process with the adjacent scrapers (shown in green). Proceed alternately until the outer scrapers (shown in blue) are adjusted.

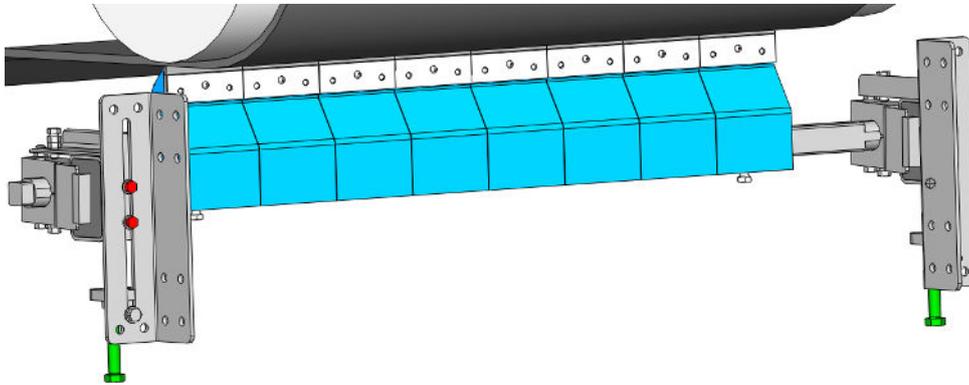


4: Use a hand torch to inspect the area behind the scrapers and ensure that they are all in proper contact with the belt. If adjustment is correct, no light will shine through.

5: Tighten all screw fittings.

## PRETENSIONING

Pretension can be applied if the manuflex REV is fitted as described and the scraper strip is in contact with the belt. Loosen the (red) fixing screws on the shock absorbers for this purpose. The pretension can now be set by means of the (green) adjusting screws.



## TENSION FORCE

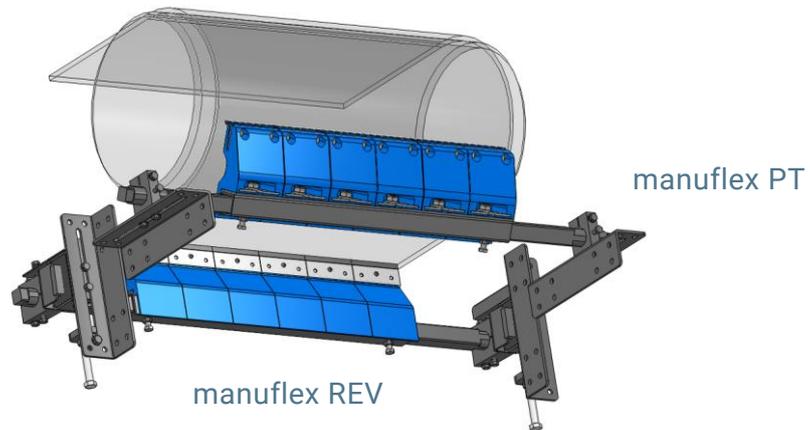
The fitter responsible for adjusting tension should ensure that the proper tension force is applied. It is recommendable to adjust the tension carefully, and then to readjust it after a suitable running-in period.

## TEST-RUN

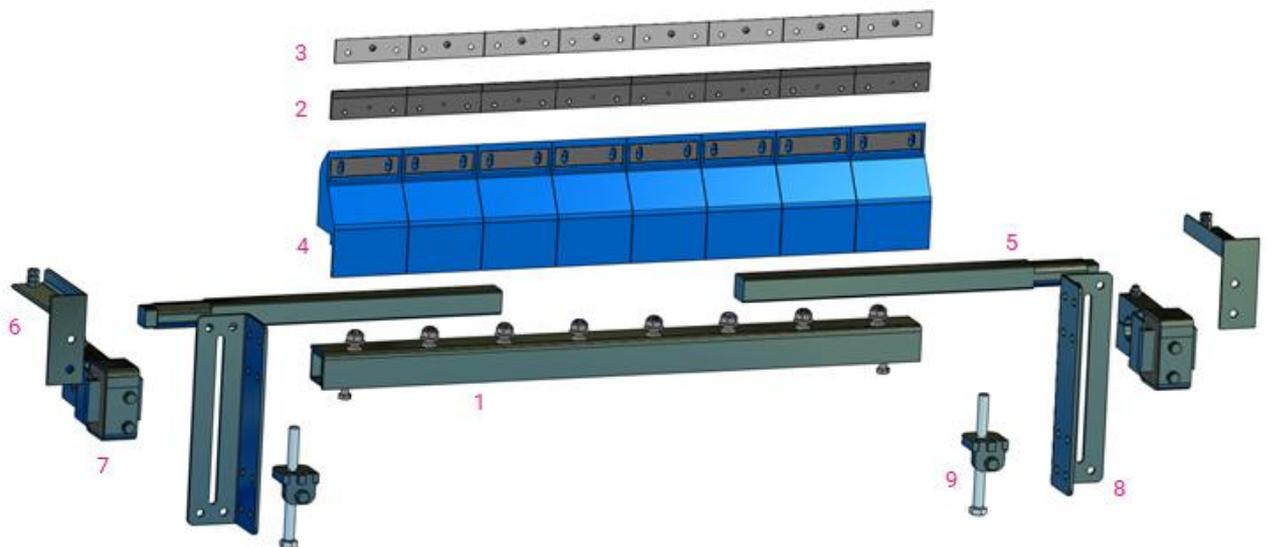
Once all the screws, nuts and bolts have been tightened, the test-run can begin. The manuflex REV should run quietly and without vibration as it thoroughly cleans the belt.

## CLEANING PERFORMANCE

You may have to pre-clean with an additional drum scraper if you are handling highly adhesive bulk materials. Suitable items from the manuflex range include, for example, the manuflex PT.



## INDIVIDUAL COMPONENTS



Item	Designation	Art. No.
1.	Substructure, PN-PT Belt width – article number	400 – 13442; 500 – 13443; 650 – 13444; 800 – 13445; 1,000 – 13446; 1,200 – 13447; 1,400 – 13448; 1,600 – 13450, 1,800 – 13451; 2,000 – 13452
2.	Carbide scraper REV Belt width – number of items	14608 400 – 3; 500 – 4; 650 – 5; 800 – 6; 1,000 – 8; 1,200 – 9; 1,400 – 11; 1,600 – 12; 1,800 – 14; 2,000 – 16
3.	PE deflector plate REV Belt width – number of items	14609 400 – 3; 500 – 4; 650 – 5; 800 – 6; 1,000 – 8; 1,200 – 9; 1,400 – 11; 1,600 – 12; 1,800 – 14; 2,000 – 16
4.	PUR segment REV Belt width – number of items	11679 400 – 3; 500 – 4; 650 – 5; 800 – 6; 1,000 – 8; 1,200 – 9; 1,400 – 11; 1,600 – 12; 1,800 – 14; 2,000 – 16
5.	Axle for a belt width of up to 650 mm	11555 / 2x
5.	Axle for 800 mm belt width	13378 / 2x
5.	Axle for a belt width of $\geq 1,000$ mm	11556 / 2x
6.	Shock absorber for a belt width of up to 1,400 mm	17000 / 1 pair
6.	Shock absorber for 1,600 mm belt width	11805 / 1 pair
7.	Clamping device SR, 400 – 1,400	12118 / 1 pair
7.	Clamping device SR, 1,600 – 1,600	11572 / 1 pair
8.	Mounting bracket for a belt width of up to 1,400 mm	14198
8.	Mounting bracket for 1,600 mm belt width	11569
9.	Threaded bock for a belt width of up to 1,400 mm	14132

## INSTALLATION SEQUENCE

1. Ensure that the belt conveyor is switched off and blocked to prevent accidental operation.
2. Determine the position of the manuflex REV behind the drum.
3. Weld or bolt the mounting bracket to the system structure.
4. Check the belt for straight running over the drum.
5. Adjust the manuflex REV relative to the centre of the belt.
6. Adjust the mounting bracket to an angle of 90°.
7. Adjust the pretension.
8. Tighten all screw fittings.
9. Apply suitable corrosion protection to welded joints.
10. Remove all tools and items of equipment.
11. Carry out a test run.
12. Readjust the pretension as required.