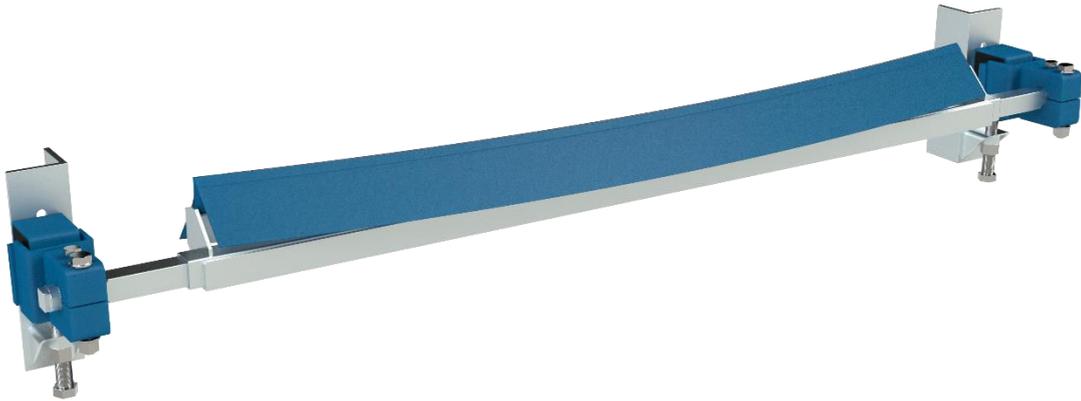


MANUFLEX TYPE „SC“

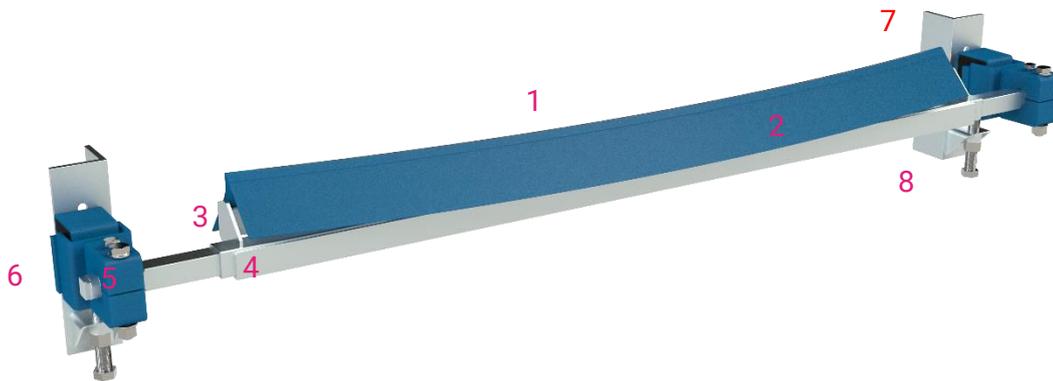
INSTALLATION INSTRUCTIONS

1,000 – 2,200 mm belt width



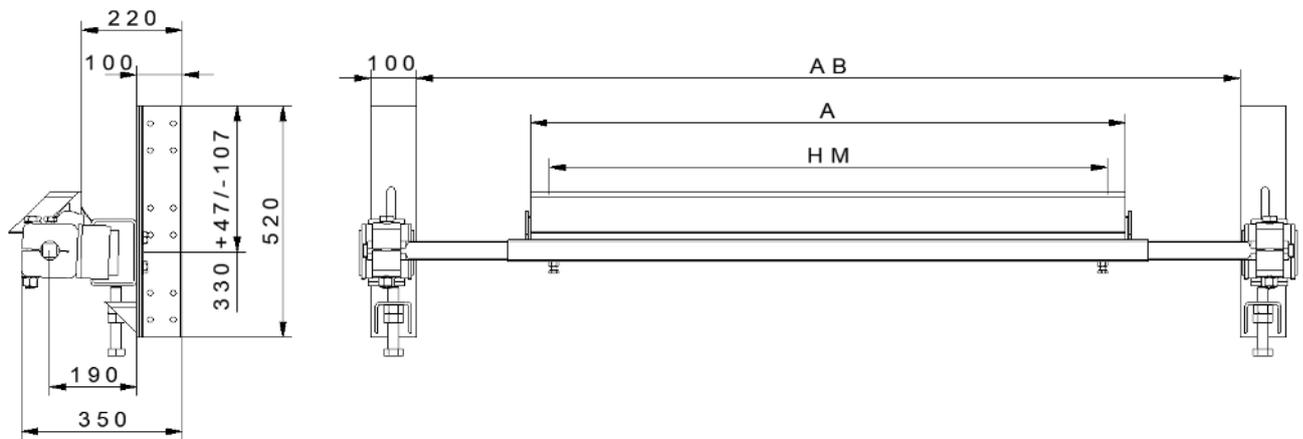
DESCRIPTION

The manuflex SC is a secondary scraper fitted with carbide blades. Alternatively, blades made of pure polyurethane are also available. It is not suitable for belt conveyors that operate in two directions. A manuflex REV or manuflex N unit can be selected from the manuflex range for reversing operation.



The carbide scrapers (1) are 40 mm wide, 5 mm thick and 20 mm high. Optional carbide scrapers (15 mm thick and 3 mm high) are available for use with belt widths of 1,000 to 1,600 mm. They are soldered onto support plates and linearly arranged in a mould for the polyurethane to be poured in. The special design of the scraper strip (2) and the segmented arrangement of the carbide scrapers allow the scraper strip to adapt to the contour of the belt. Each scraper strip is subject to wear during its service life that mainly affects the middle section of the carbide scrapers. The above-mentioned special design of the scraper strip allows it to adapt to the contour of the belt, even if the scraper strip is noticeably worn. The scraper strip is fitted with special deflector flaps (3) that are designed to slide away the scraped-off material. The scraper strip is supported by a substructure (4). The substructure of the manuflex SC has a slightly curved shape. In the case of the larger belt widths covered by the manuflex SC, the curved shape ensures very smooth, vibration-free operation of the scraper. The substructure is attached to telescopic axles (5), which are in turn supported on shock absorbers (6). These shock absorbers are buffers absorbing the impact generated by the endless splicing 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.

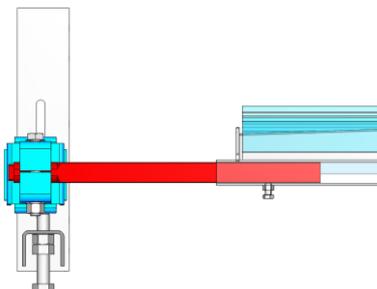
DIMENSIONS AND WEIGHTS



Belt width in mm	Strip width A in mm	Scraping width HM in mm	System width AB in mm	Weight in kg
1,000	950	840	1,080 – 1,760	50.9
1,200	1,150	1,040	1,280 – 1,960	54.8
1,400	1,300	1,200	1,380 – 1,960	57.4
1,600	1,500	1,400	1,550 – 2,170	88.9
1,800	1,700	1,600	1,750 – 2,370	98.6
2,000	1,900	1,800	1,950 – 2,570	102.7
2,200	2,100	2,000	2,150 – 2,770	107.8

AXLE INSERTION DEPTH

The “AB” dimensions in the table denote the minimum insertion depths of the axles in the square tubes of the substructure.

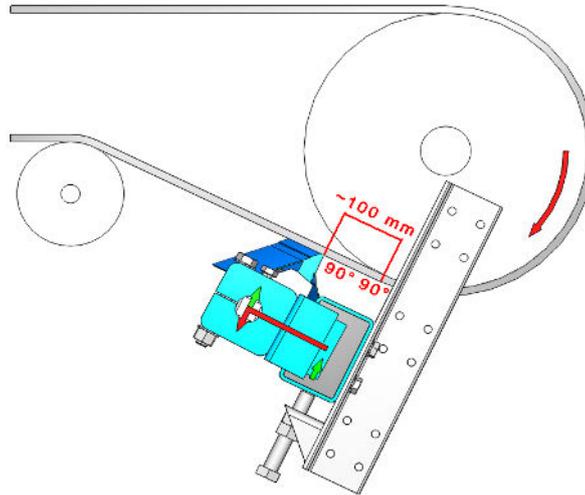


Minimum insertion depth:

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

LOCATION

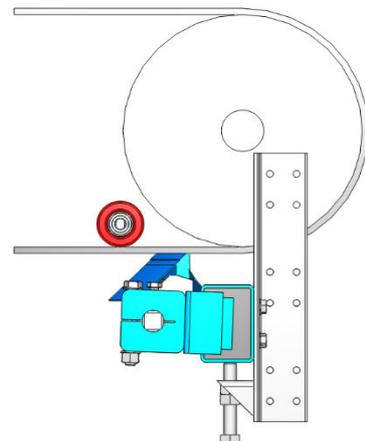
Distance from the discharge pulley: The manuflex SC is fitted behind the discharge pulley to perform its role as a secondary scraper. A distance of approximately 50 - 100 mm from the pulley is recommended for this purpose.



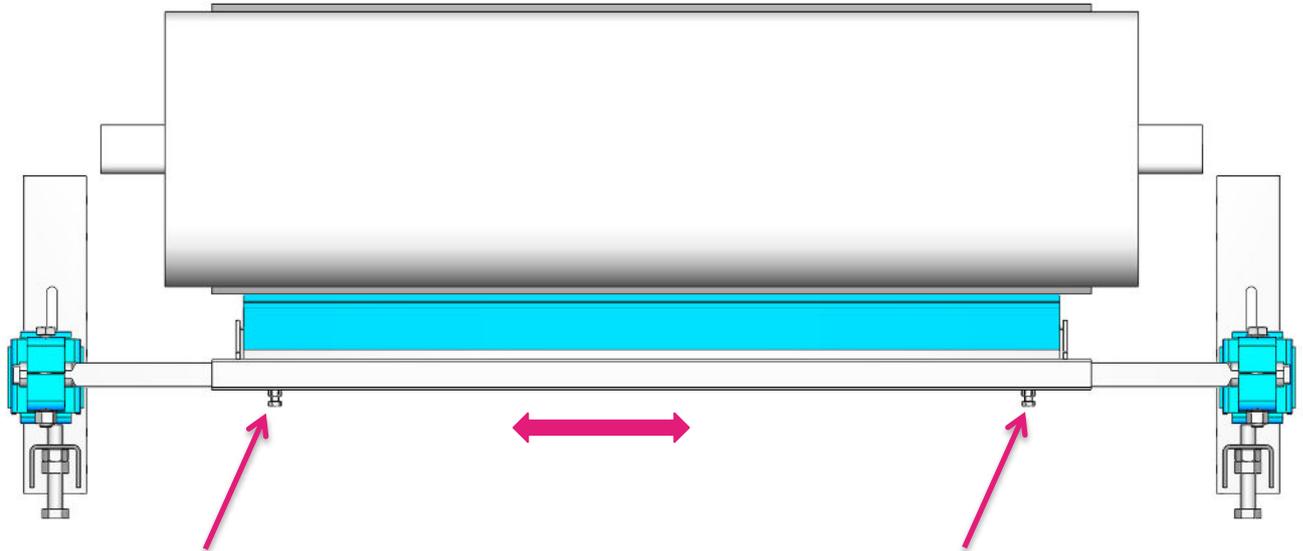
Component layout: The correct arrangement of components is an important prerequisite to ensure the optimum functioning of the manuflex SC system. To this aim, the operation of the shock absorbers must be guaranteed. The shock absorbers, which are configured as a kind of pivoting arm, protect the scraper from shocks resulting from thickening of splices or imperfections in the belt. It is therefore important that the layout of the components should be as shown in the figure above. Shock absorbers that are incorrectly positioned to face backwards cannot function as buffers.

Installation angle: The complete manuflex SC 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.

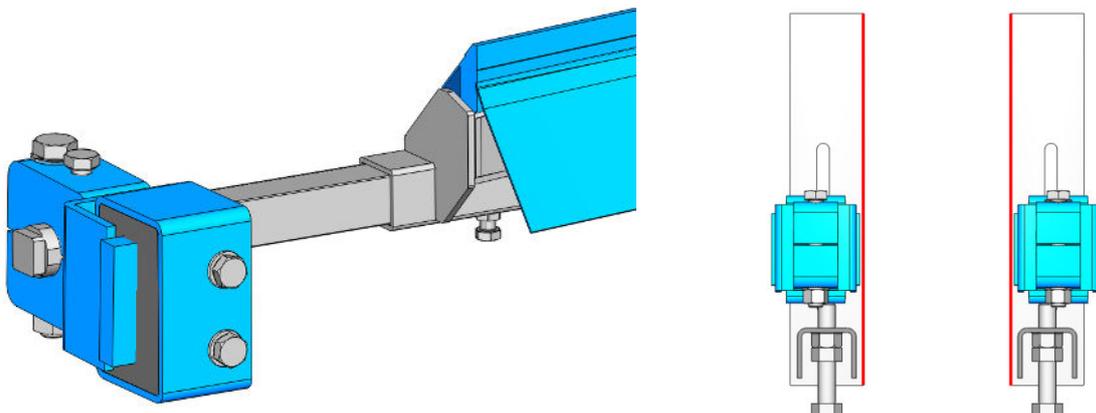
Counter-pressure roller: The use of a counter-pressure roller is recommended if the belt tends to curl up behind the drum or lacks tension.



Position relative to the belt: If the scraper is mounted as described, the position of the substructure holding the scraper strip can be adjusted relative to the width of the belt. To this aim, the clamping screws on the telescopic arms need to be loosened. The substructure with the scraper strip can now be pushed under the centre of the belt. Finally, the clamping screws are tightened again.



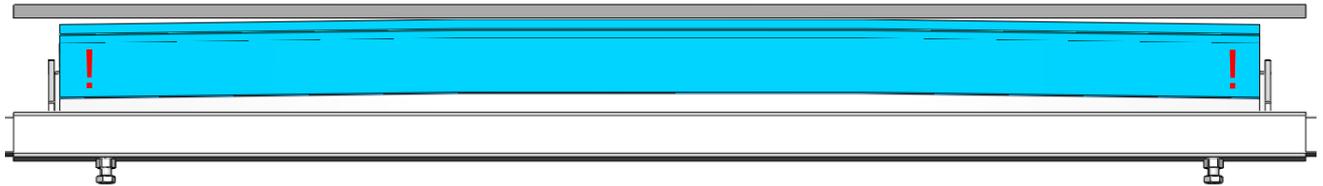
Notes regarding the shock absorbers: The rear female threads of the shock absorbers are positioned off-centre for their respective fixing screws. This ensures that the shock absorbers do not protrude beyond the inner edges of the mounting brackets, as these are often attached to the conveyor system structure.



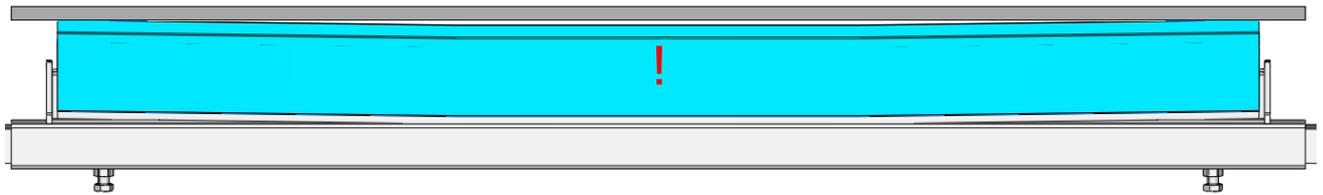
ADJUSTMENT

Contact with the belt: Ensure that the scraper strip is in contact with the belt across its entire width.

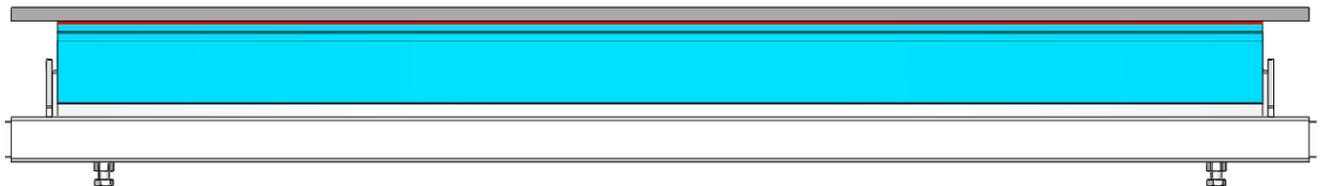
Contact here is with the centre of the belt. There is no belt contact at the ends of the scraper strip.



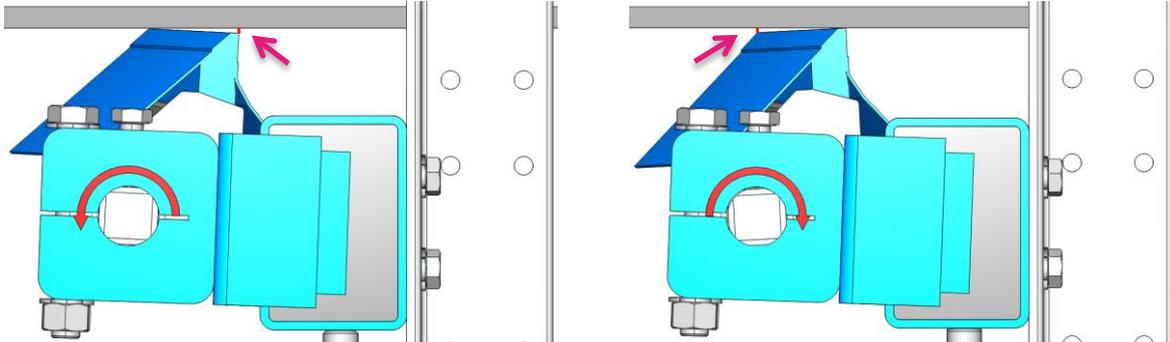
Here the ends of the scraper strip are in contact with belt. There is no contact with the centre of the belt in this case.



In this case, there is uniform contact with the scraper strip across the entire width of the belt.

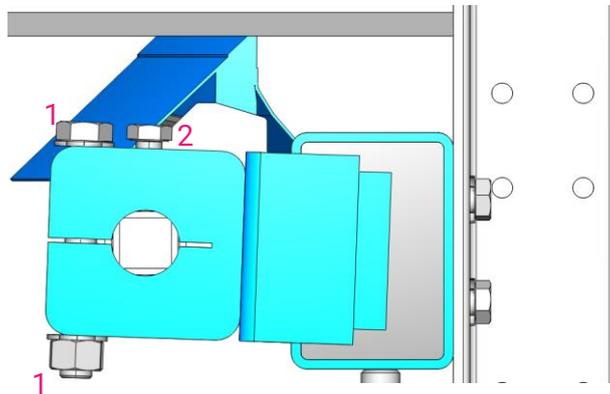


Using an open-ended SW32 wrench, rotate the scraper strip on the axle ends relative to the substructure until you achieve uniform belt contact across the entire width of the scraper strip.



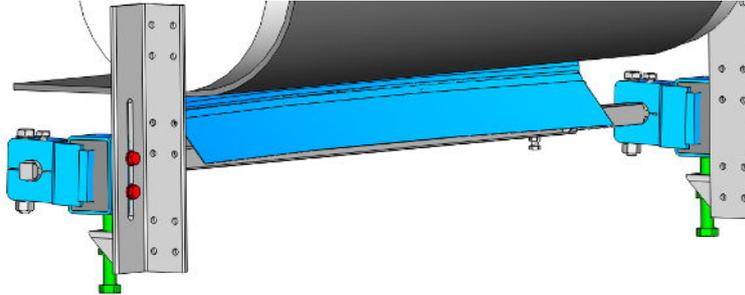
Clamping the axles: In order to ensure that the axle holders of the shock absorbers are able to clamp the axles as much as possible and without twisting, it is important to tighten the axle support bolts in the correct sequence.

Start by tightening the continuous-thread M20 bolt and nut (1) as securely as possible. Now tighten the M16 fixing bolt (2).



PRETENSION

Pretension can be applied if the manuflex SC 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.



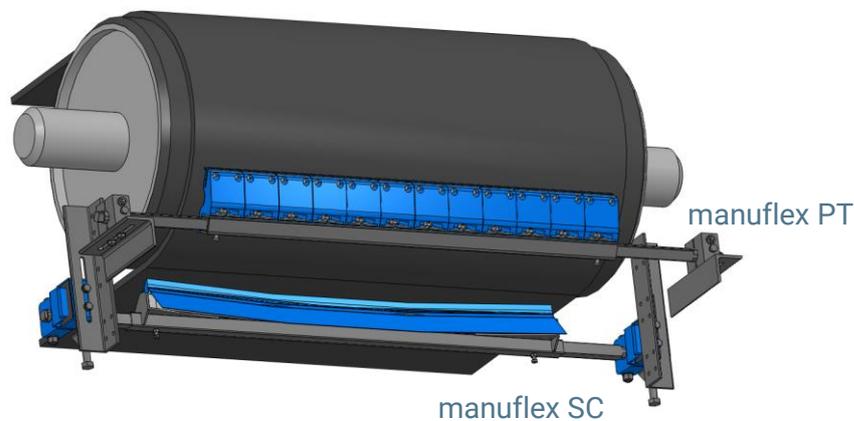
Tension force: The fitter responsible for adjusting tension should ensure that the proper tension force is applied. It is recommendable to adjust the tension carefully, and then to readjust it after a suitable running-in period.

TEST RUN

Once all the screws, nuts and bolts have been tightened, a test run can be started. The manuflex SC should run quietly and without vibration while it thoroughly cleans the belt.

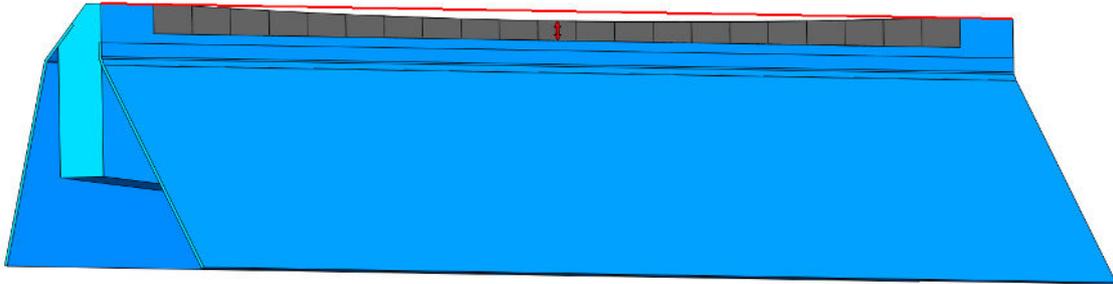
LEANING PERFORMANCE

An additional drum scraper may be necessary for belt pre-cleaning if you are handling highly adhesive bulk materials. Suitable items from the manuflex range include the manuflex PT.



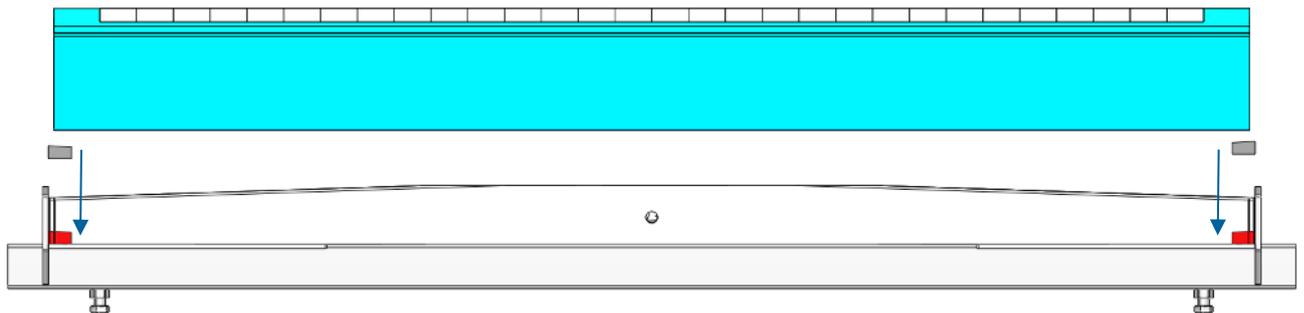
CHANGING THE SCRAPER STRIP

The amount of wear and tear on the scraper strip depends on the abrasiveness of the material being handled, the operating speed of the belt and the operating hours. Wear on the belt and scraper strip tends to be greater in the middle than at the edges. As described on page 2, the manuflex SC is able to compensate for wear at the centre of the scraper strip. The scraper strip must however be replaced once the carbide element has worn down to about 1 mm in height.

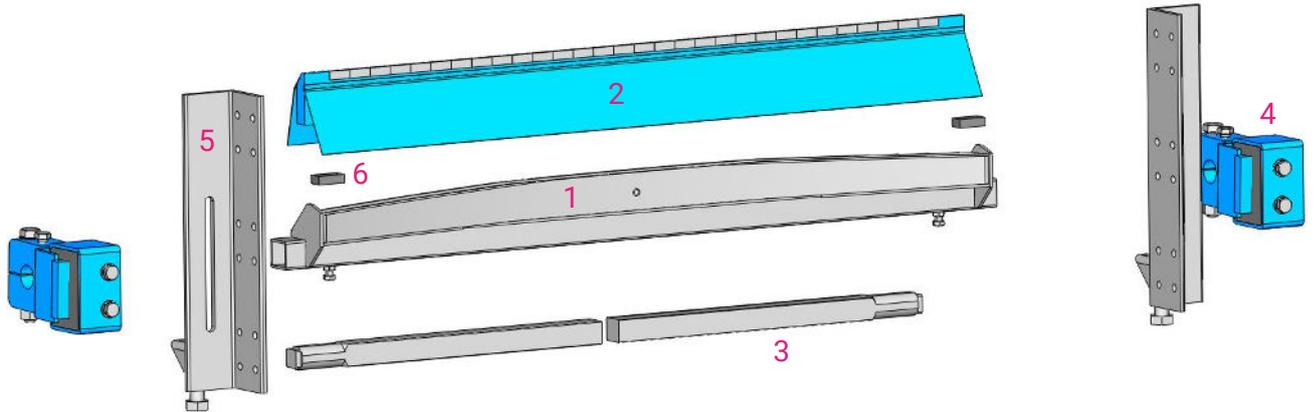


To change the scraper strip, loosen the fixing screws of the shock absorbers. The substructure and scraper strip are removed from the belt by means of the adjusting screws. You can now use a large screwdriver or similar to lever the scraper strip out of the substructure. The new strip is placed in the centre of the substructure. The strip is centred up relative to the middle fixing clip. Push the strip into the substructure until you hear the “click” indicating that the clip has engaged.

Please observe the following important point when changing the scraper strip:
Foam-rubber inserts are stuck to both sides of the substructure to ensure that operation of the manuflex SC continues, as described above, in spite of wear. These inserts must be replaced immediately if they are lost or damaged during the replacement of the scraper strip. Each manuflex SC replacement strip is supplied with a pair of foam-rubber inserts.



INDIVIDUAL COMPONENTS



Item	Designation	Belt width / Art. no.	
1	Substructure	BB1,000 / 13720 BB1,200 / 14011 BB1,400 / 11434 BB1,600 / 11433	BB1,800 / 14012 BB2,000 / 14013 BB2,200 / 14014
2	Scraper strip 3 mm	BB1,000 / 11463-S BB1,200 / 11464-S	BB1,400 / 11465-S BB1,600 / 11466-S
2	Scraper strip 5 mm	BB1,000 / 11483-S BB1,200 / 11484-S BB1,400 / 11485-S BB1,600 / 11486-S	BB1,800 / 11487-S BB2,000 / 14020-S BB2,200 / 14021-S
3	Axle from BB1000	11556	
4	Shock absorber up to BB1400	BB1,000 – BB1,400 / 17000	
4	Shock absorber BB1600	BB1,600 – BB2,200 / 11805	
5	Mounting bracket up to BB1400	BB1,000 – BB1,400 / 14198	
	Threaded block up to BB1400	BB1,000 – BB1,400 / 14132	
5	Mounting bracket BB1600	BB1,600 – BB2,200 / 11569	
6	Cellular rubber 15 x 25 x 50		

INSTALLATION SEQUENCE

1. Ensure that the belt conveyor is switched off and blocked to prevent accidental operation.
2. Determine the position of the manuflex SC behind the drum.
3. Weld or bolt the mounting brackets to the system structure.
4. Check the belt for straight running over the drum.
5. Adjust the manuflex SC 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.