

MANUFLEX TYPE „SFR“

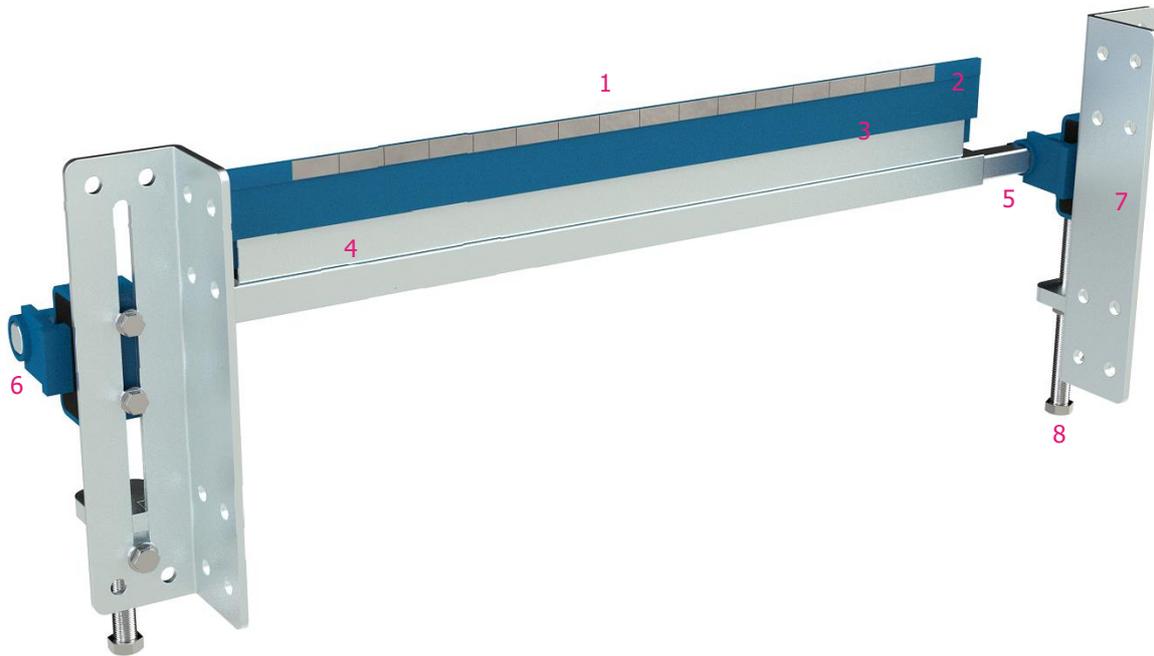
INSTALLATION INSTRUCTIONS

400 – 1,200 mm belt width



DESCRIPTION

The manuflex SFR is a secondary scraper fitted with carbide blades.

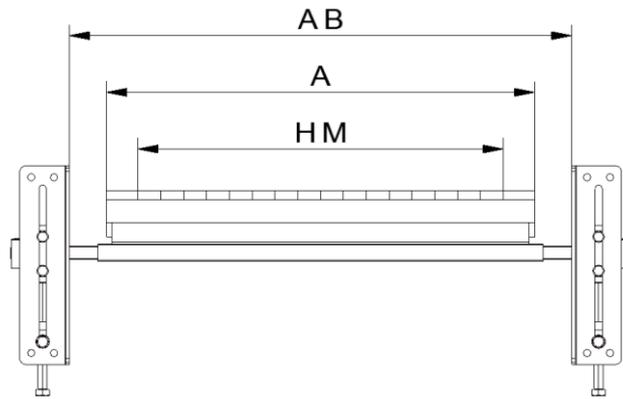


Alternatively, blades made of pure polyurethane are also available.

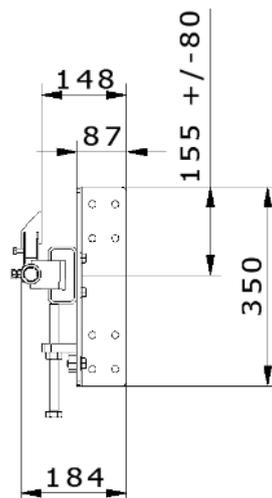
The carbide scrapers (1) are 40 mm wide, 2 mm thick and 15 mm high. They are soldered onto support plates and linearly arranged in a mould for the polyurethane (2) to be poured in.

The special design of the substructure (4) 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 substructure 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 push away the scraped-off material. The scraper strip is located on a substructure (4) containing telescopic arms (5), which are in turn secured by so-called 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). They are bolted or welded to the structure of the conveyor system.

DIMENSIONS AND WEIGHTS



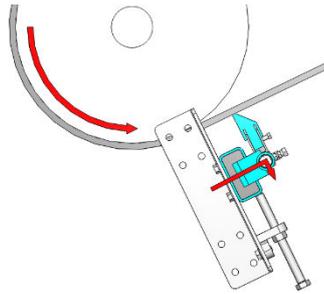
Belt width BB / mm	Strip width A / mm	Scraping width HM / mm	System width AB / mm	Weight / kg
400	400	360	410 - 670	12.0
500	500	400	510 - 770	14.5
650	625	600	660 - 1,050	17.0
800	750	640	810 - 1,200	19.5
1,000	950	760	1,010 - 1,775	22.0
1,200	1,150	960	1,210 - 1,975	24.5
1,400	1,350	1,160	1,410 - 2,175	27.0



LOCATION

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

COMPONENT LAYOUT

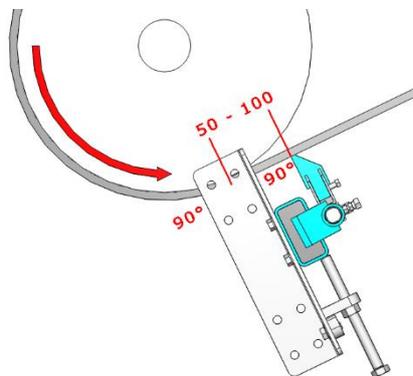


The correct arrangement of components is an important prerequisite to ensure the optimum functioning of the manuflex SFR system.

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.

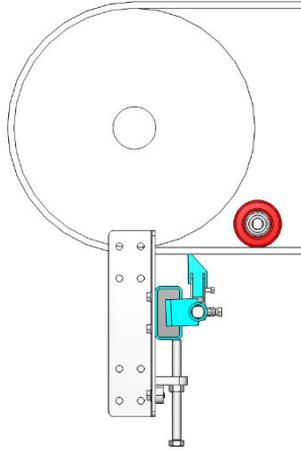
INSTALLATION ANGLE

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



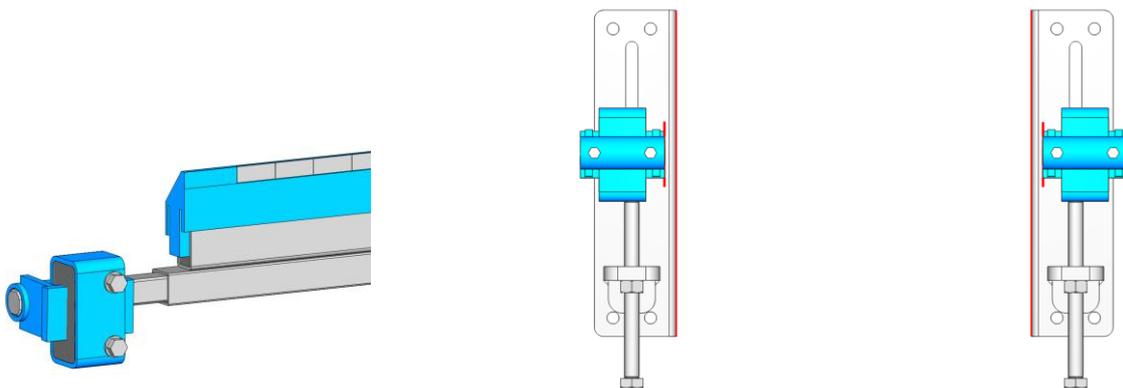
COUNTER-PRESSURE ROLLER

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



NOTES REGARDING SHOCK ABSORBERS

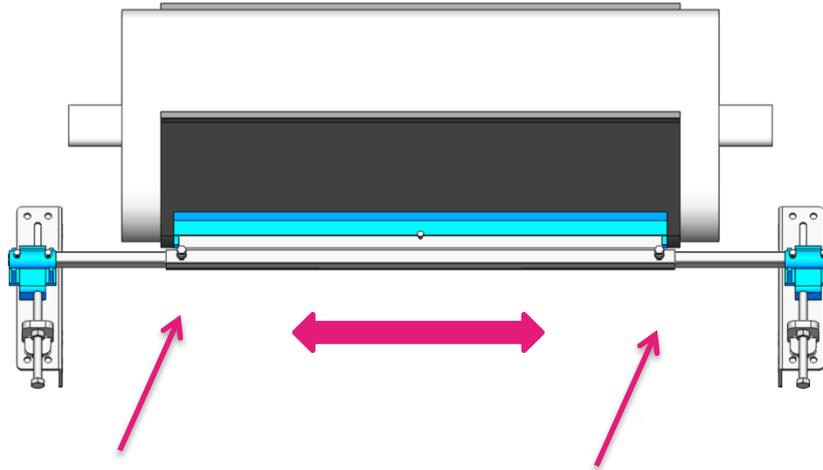
The rear female threads of the shock absorbers are positioned off-centre for their respective fixing screws. This ensures that the shock absorbers do not protrude beyond the inner edges of the mounting brackets, as these are often attached to the conveyor system structure.



POSITION RELATIVE TO THE BELT

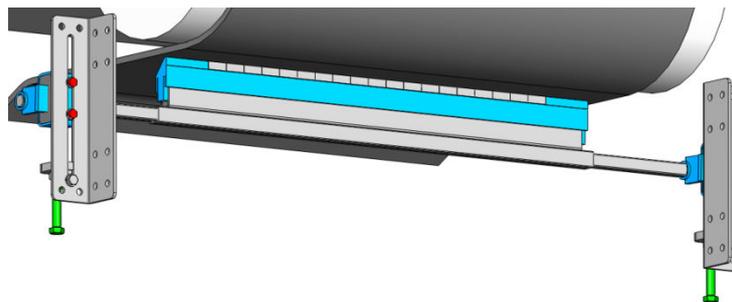
If the scraper is mounted as described, its position can be adjusted relative to the width of the belt. To this aim, the clamping screws on the telescopic arms need to be loosened.

The substructure with the cleaning strip can now be pushed under the centre of the belt.



PRETENSION

Pretension can be applied if the manuflex SFR 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.

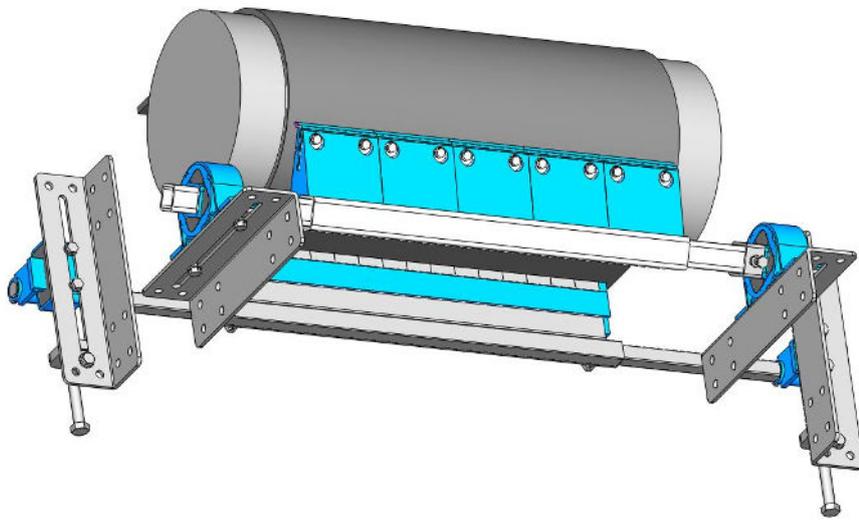
It is recommendable to adjust the tension carefully, and then to readjust it after a suitable running-in period.

TEST RUN

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

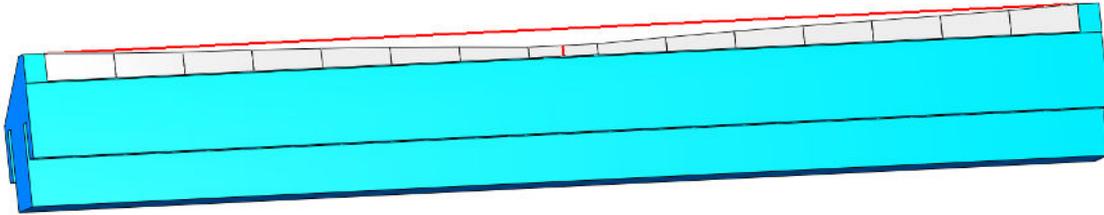
CLEANING PERFORMANCE

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 V-PUR.



CHANGING THE CLEANING STRIP

The amount of wear and tear on the cleaning 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 cleaning strip tends to be greater in the middle than at the edges. As described on page 2, the manuflex SFR is able to compensate for wear at the centre of the cleaning strip. The cleaning strip must however be replaced once the carbide element has worn down to about 1 mm in height.



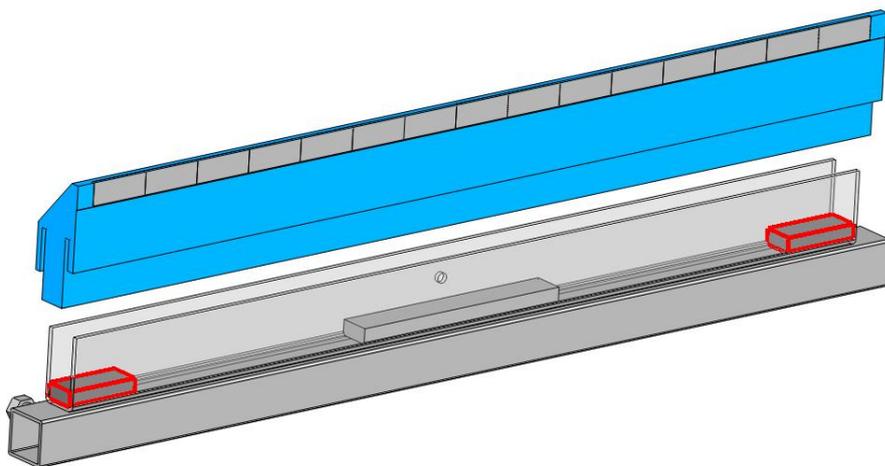
To change the cleaning strip, loosen the fixing screws of the shock absorbers. The substructure and cleaning strip are removed from the belt by means of the adjusting screws. You can now use a large screwdriver or similar to lever the cleaning strip out of the substructure.

The new strip is placed in the centre of the substructure.

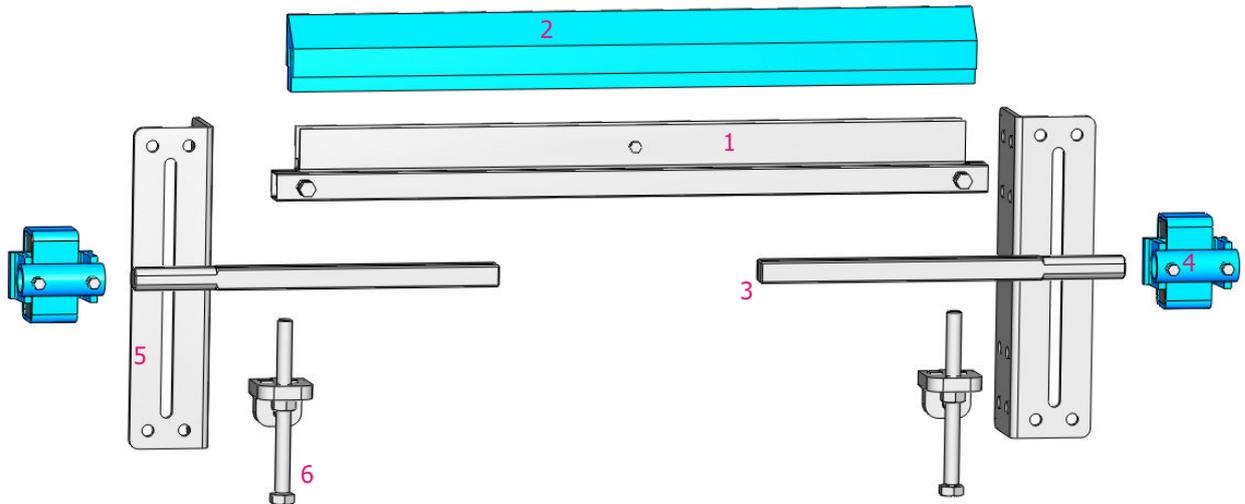
Please observe the following important point when changing the cleaning strip:

Foam-rubber inserts are stuck to both sides of the substructure to ensure that operation of the manuflex SFR 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 cleaning strip.

Each manuflex SFR replacement strip is supplied with a pair of foam-rubber inserts.



INDIVIDUAL COMPONENTS



Item	Designation	Art. no.
1	Substructure	BB 400 – 1,200 12127; 12128; 11427; 11424; 11426; 11429
2	Cleaning strip 2 mm	BB 400 – 1,200 11862; 11863; 11864; 11865; 11866; 11986
3	Axle BB 400 – 500	12119
3	Axle BB 650 – 800	12115
3	Axle BB 1,000 – 1,200	12116
4	Shock absorber	12121
4	Shock absorber, reversable	12126
5	Mounting bracket	14198
6	Threaded block	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 SFR 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 SFR 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.