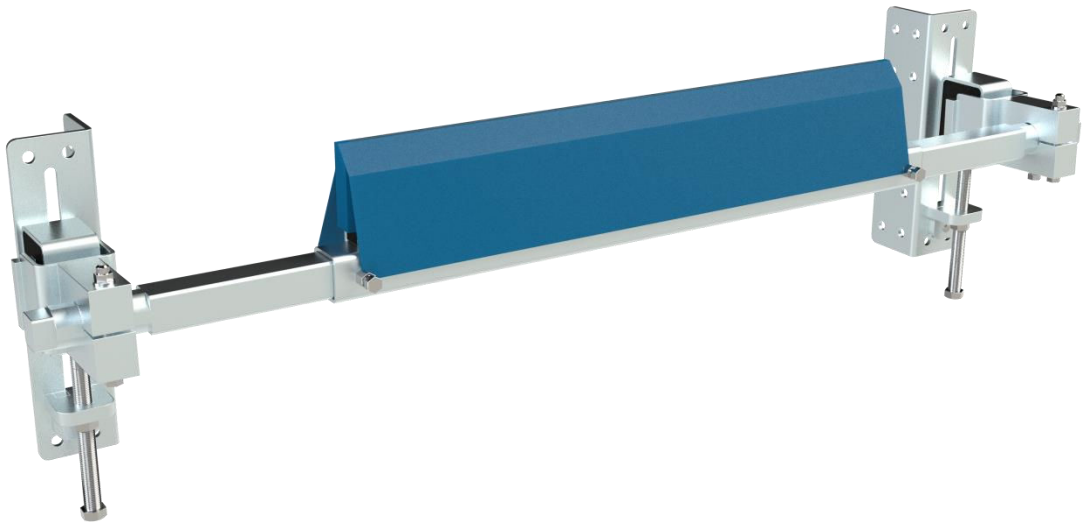
GUMMI STRICKER

Issue Date
Febuary 2018

MANUFLEX TYPE „S“

INSTALLATION INSTRUCTIONS

400 – 1,600 mm belt width



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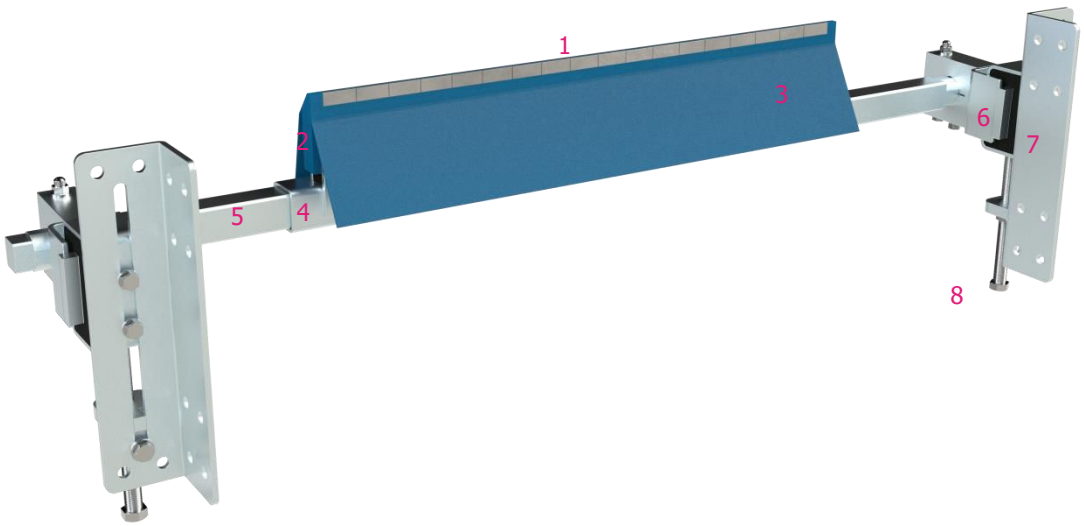
RUBBER IS OUR COMMON CORE

DESCRIPTION

The manuflex S is a secondary scraper equipped with carbide blades inside the scraper strip.



Strips made of pure polyurethane are also available.

The carbide blades (1), which are 40 mm wide, 3 mm thick and 15 mm high, are also available with 5 mm thickness and a height of 20 mm. They are soldered onto support plates and arranged in line inside a mould for the polyurethane to be poured in.

The special shape of the scraper strip (2) and the segmented arrangement of the carbide blades allows the scraper strip to adapt to the contour of the belt. Each scraper strip is subject to wear during operation. This mainly affects the middle section of the scraper blade. The above-mentioned moulding of the strip allows it to adapt to the contour of the belt, even if the scraper strip is noticeably worn. The scraper strip is equipped with special skirts (3) designed to push away the scraped-off material and prevent even highly adhesive substances becoming stuck to the scraper components.

The scraper strip sits on a substructure (4) containing telescopic axles (5), which are in turn secured by rubber-buffer shock absorbers (6). These buffers absorb the impact generated by the splicing joints and surface imperfections in the conveyor belt, while also retain the tension force to the belt. 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.

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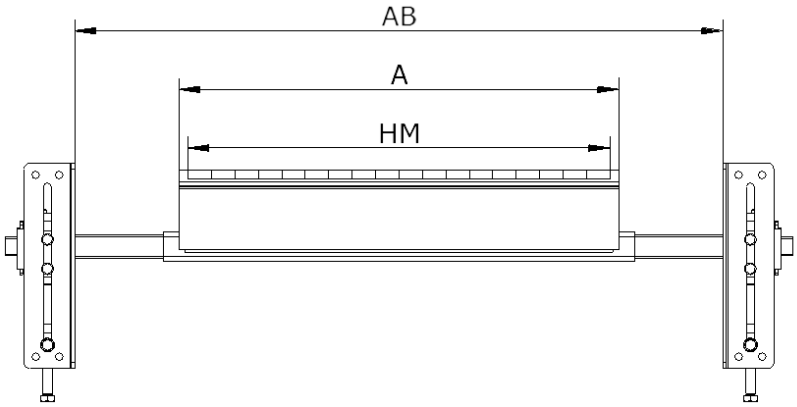
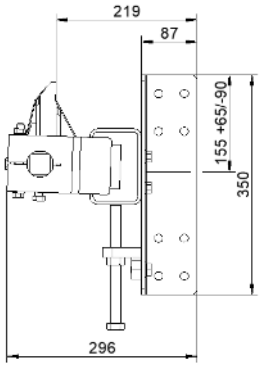
DIMENSIONS AND WEIGHTS

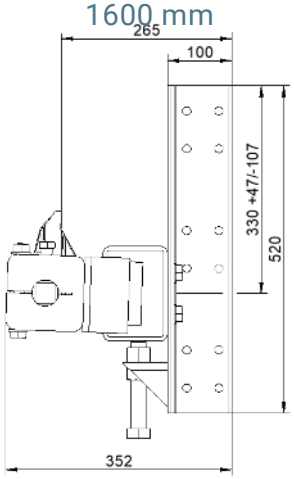


Belt width / mm	Strip width A / mm	Scraping width HM /mm	System width AB / mm	Weight / kg
400	400	280	380 – 590	21.5
500	500	400	480 – 690	24.5
650	625	600	620 – 840	27.5
800	750	720	780 – 1,160	40.0
1,000	950	840	950 – 1,670	44.0
1,200	1,150	1,040	1,175 – 1,890	53.5
1,400	1,300	1,200	1,325 – 1,940	57.5
1,600	1,500	1,400	1,520 – 2,120	64.5

400 – 1400 mm



1600 mm



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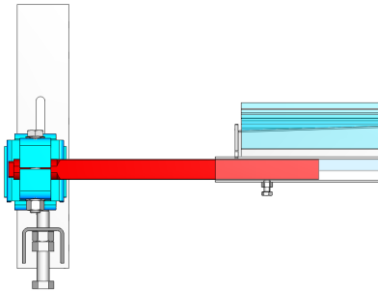
AXLE INSERTION DEPTH

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



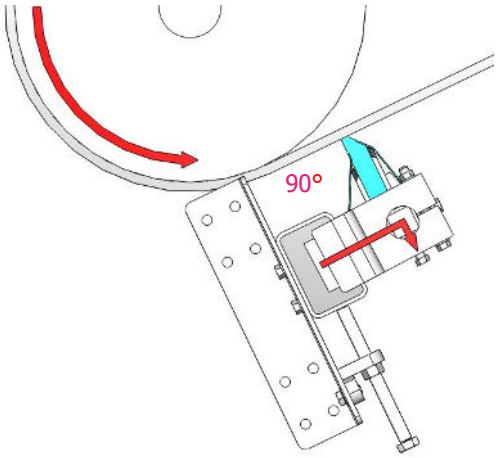
Minimum insertion depth:

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

POSITIONING

Distance from the discharge pulley: The manuflex S is fitted 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



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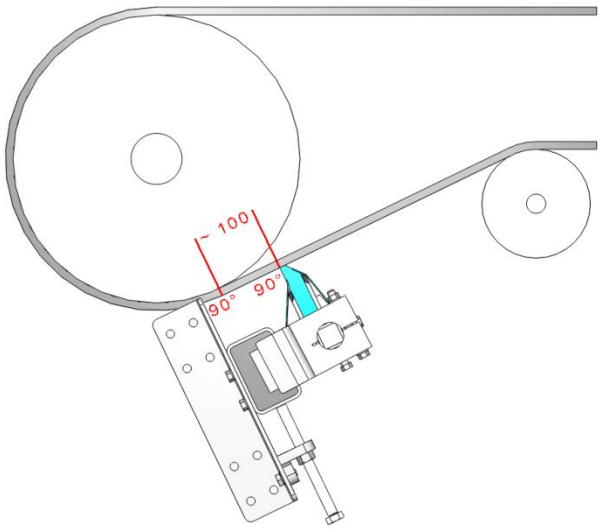
The proper layout of components is important for the optimum functioning of the manuflex S system.

This includes guaranteeing the operation of the shock absorbers. The rubber-buffer shock absorbers, which are configured as a kind of pivoting arm, protect the scraper from shocks due to thickening of splices or imperfections in the belt. It is therefore important that the layout of the components should be as shown in the above diagram. If the shock absorbers are incorrectly positioned to face backwards, they cease to function as buffers.

INSTALLATION ANGLE

The complete manuflex S 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 rattle of the scraper.



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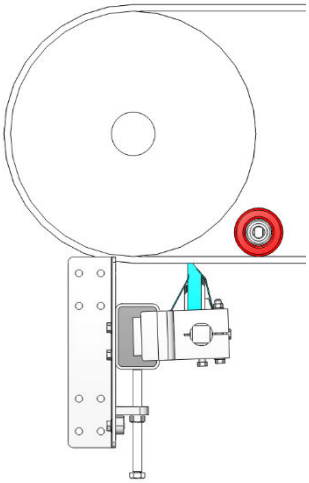
COUNTER – PRESSURE ROLLER

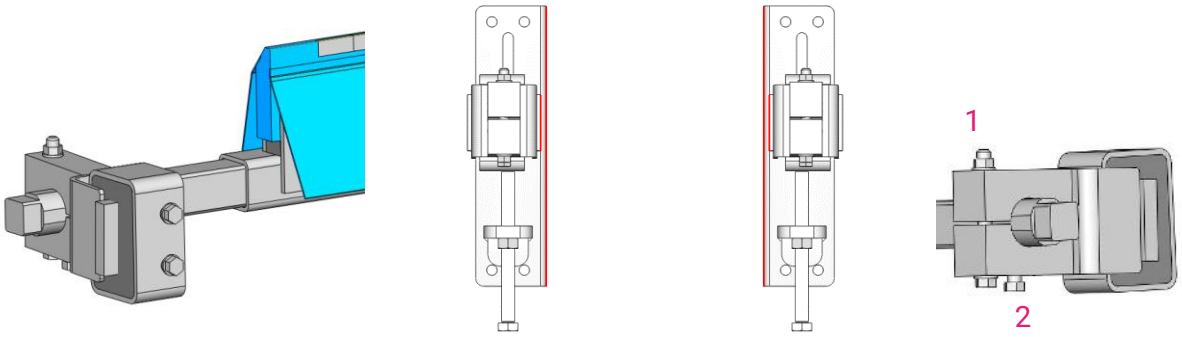
The use of a counter-pressure roller is recommended if the belt tends to curl up behind the drum or lacks tension.



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.

Observe the following sequence whenever shock-absorber pistons become jammed: Start by tightening the continuous long screws (1), followed by the short pressure screws (2).



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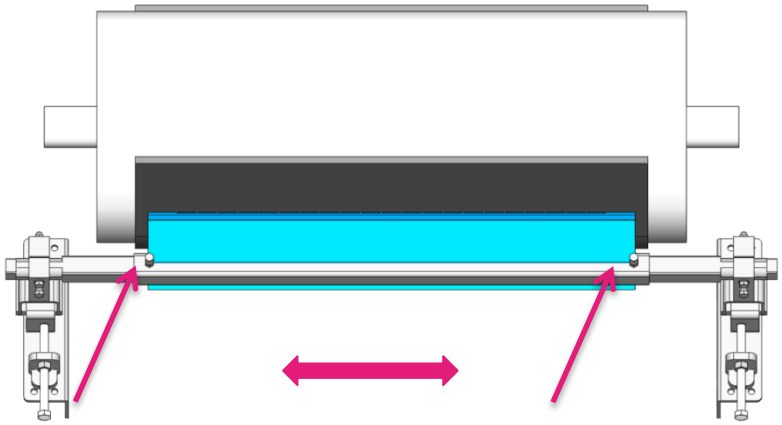
POSITION RELATIVE TO THE BELT

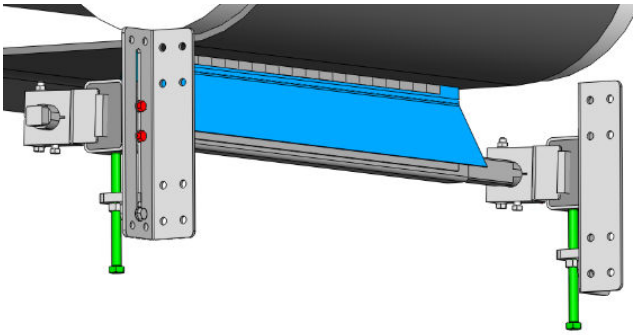
If the scraper is mounted as described, its position can be adjusted relative to the width of the belt. This involves loosening the clamping screws for the telescopic axles.

The substructure on which the cleaning strip is mounted can now be pushed under the centre of the belt.



PRETENSION

Pretension can be applied if the manuflex S 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.

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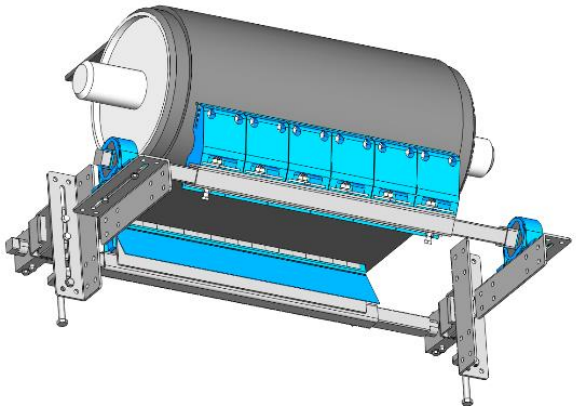
TEST-RUN

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

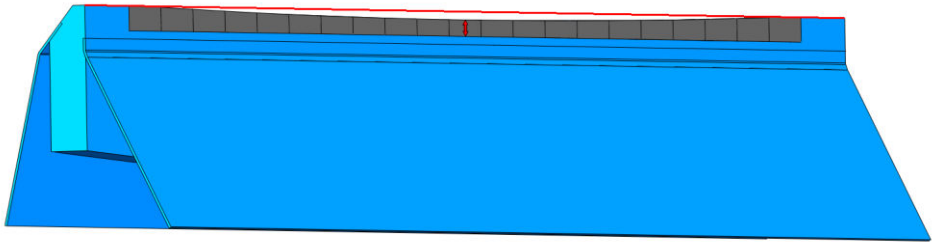
CLEANING PERFORMANCE

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 the manuflex PT.



CHANGING THE CLEANING STRIP

The amount and rate of wear on the cleaning strip depend on the abrasiveness of the material being handled, the operating speed of the belt and the length of operating times. 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 S is able to compensate for wear at the centre of the cleaning strip. The cleaning strip must however be replaced once the carbide blades has worn down to about 1 mm in height.



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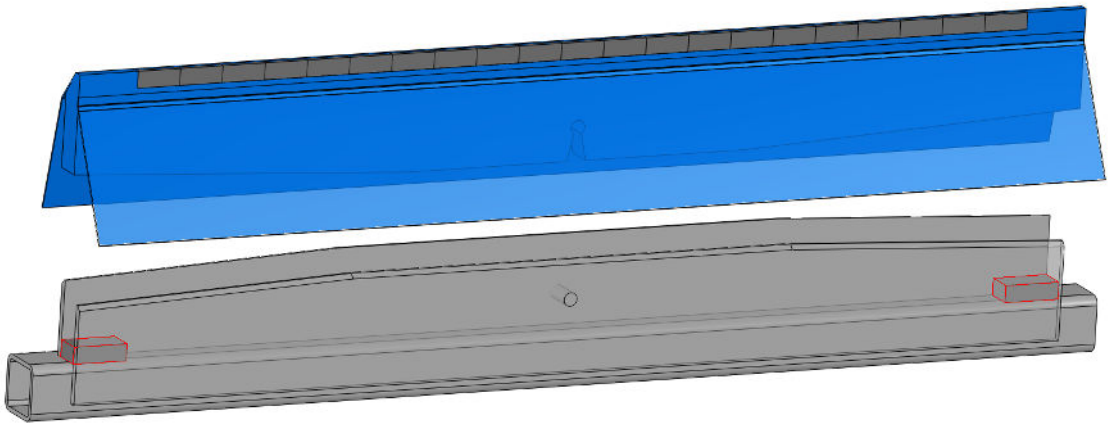
To change the cleaning strip, loosen the fixing screws on the shock absorbers. The substructure and cleaning strip are removed from the belt along with the adjusting screws. You can now use a large screwdriver or similar to lever the cleaning strip out of the substructure.

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

Foam-rubber inserts are stuck to both sides of the substructure to ensure that operation of the manuflex S continues, as described above, in spite of wear. These inserts must be replaced immediately if they are lost or damaged during replacement of the cleaning strip.

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



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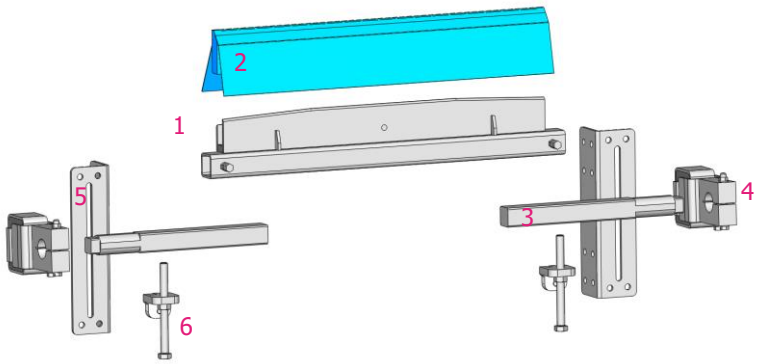
INDIVIDUAL COMPONENTS



Item	Designation	Art. no.
1	Substructure	BB 400 – 1,600 11780; 11781; 11782; 11783; 11784; 11785; 11786; 11787
2	Cleaning strip, 3 mm	BB 400 – 1,600 11459-S; 11460-S; 11461-S; 11462-S; 11463-S; 11464-S; 11465-S; 11466-S
2	Cleaning strip, 5 mm	BB 400 – 1,600 11479-S; 11480-S; 11481-S; 11482-S; 11483-S; 11484-S; 11485-S; 11486-S
3	Axle up to BB 650	11555
3	Axle BB 800	13378
3	Axle from BB 1,000	11556
4	Shock absorber up to BB 1,400	17000
4	Shock absorber BB 1,600	11805
5	Mounting bracket up to BB 1,400	14198
5	Mounting bracket BB 1,600	11569
6	Threaded block	14132

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FITTING SEQUENCE

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

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