

MANUFLEX TYPE „PT“

INSTALLATION INSTRUCTIONS

400 – 2,000 mm belt width



DESCRIPTION

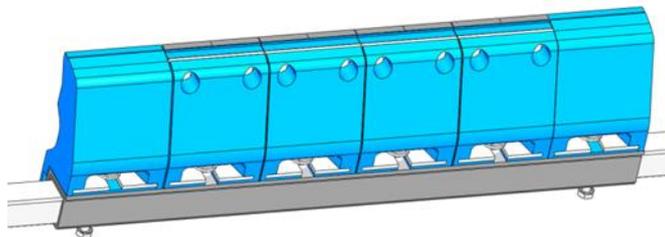
The manuflex PT drum scraper is fitted with 3 mm or 5 mm thick hard-metal blades.



Blades made of pure polyurethane are also available.

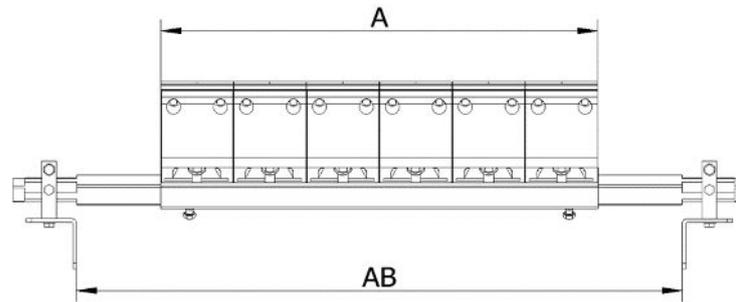


The two types of blade can also be combined if necessary. It is sometimes useful, for example, to use polyurethane scrapers at the sides.



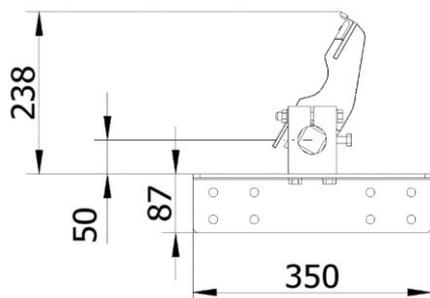
The manuflex PT is supplied as standard with hard-metal scrapers screwed onto polyurethane segments.

DIMENSIONS AND WEIGHTS

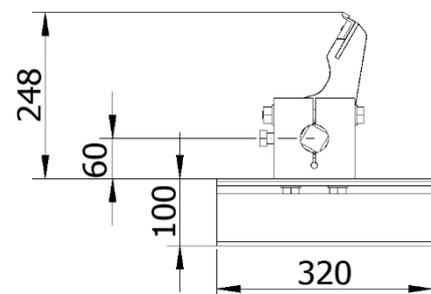


Belt width / mm	Segments	A / mm	AB / mm	Weight / kg
400	3	375	340 – 800	31.3
500	4	500	440 – 900	33.8
650	5	625	590 – 1,050	36.2
800	6	750	740 – 1,200	42.3
1,000	8	1,000	940 – 1,750	55.7
1,200	9	1,125	1,140 – 1,950	65.2
1,400	11	1,375	1,340 – 2,150	75.1
1,600	12	1,500	1,540 – 2,350	75.6
1,800	14	1,750	1,740 – 2,550	82.6
2,000	16	2,000	1,940 – 2,750	90.6

400 – 1200 mm belt width



1400 – 2000 mm belt width



POSITIONING

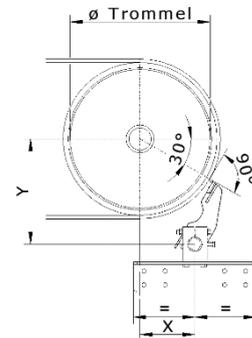
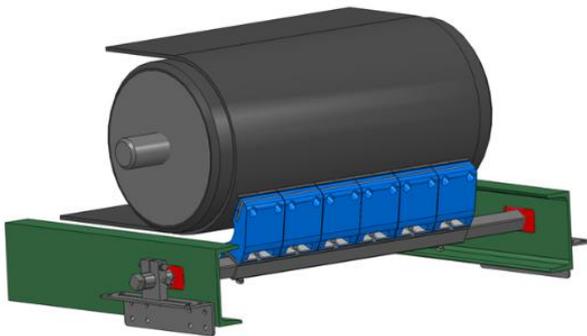
Installation angle: The optimum installation angle of 30° may be increased or reduced, depending on the installation situation. It is important to minimise the amount of material dropping onto the top of the scraper, as this prevents unwanted build-ups of material on the blades.

Ensure also that the backs of the segments are angled as steeply as possible, likewise to prevent such build-ups of material.

Angle of attack: The angle may be adjusted to more than, but never less than, 90°.

If the angle is set to less than 90°, there is a danger of the scraper segments being pulled into the belt.

Axle configuration: Openings (marked in red) are sometimes required in the sidewalls or supports of conveyor lines to allow the fitting of mounting brackets outside the transfer area.



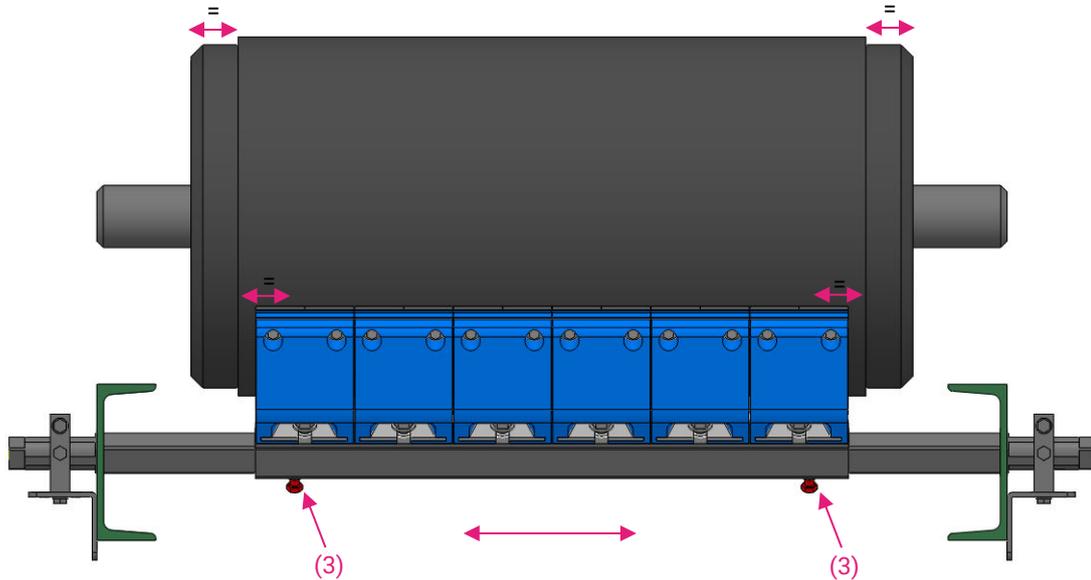
The positions of the openings for the axle penetrations can be defined with the dimensions X and Y. Guiding values can be taken from the table and depend on the respective drum diameter. The exact position must be determined on the system.

When fitting the mounting brackets, note that the axle brackets must be centred up as accurately as possible relative to the slots.

Drum diameter*	X	Y
200	61	248
250	83	261
315	111	277
400	148	298
500	191	323
630	247	356
800	321	398
1,000	408	448
* + 10 mm friction lining and 10 mm belt		

POSITION RELATIVE TO THE BELT

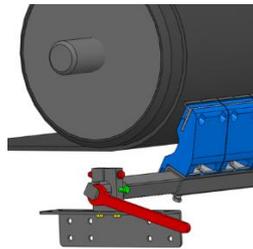
The telescopic axles allow the manuflex PT to be centred up relative to the belt. Ensure when doing this that the belt is running centrally with respect to the drum.



This involves loosening the clamping screws on the axles (marked in red).
The scraper can now be centred up relative to the belt.
Retighten the clamping screws.

PRE-TENSIONING

To allow pretension to be applied, loosen the clamping screws (red) and fixing screws (green) on the axle brackets. Tighten the axle-bracket fixing screws (yellow) and centre up each axle bracket relative to the slots in the mounting brackets.

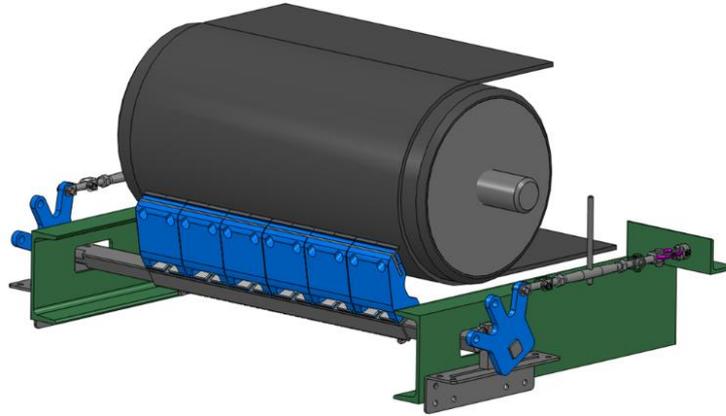


You can now use an open-ended SW32 spanner (for example) to adjust the correct tension. As you adjust the tension with the spanner, tighten the clamping screws (red). Now tighten the fixing screws (green).

Repeat the same procedure on the other side.

ADJUSTING THE TENSIONING MECHANISM

Tensioning devices for drum scrapers are available as accessories in the manuflex range.



The tensioning device consists of a pair of cams (1), which are pushed onto the axles.

A pair of weld-on attachment points (2), which are attached to the conveyor system.

A pair of threaded tensioners (3) between the cams and attachment points.

The cams and threaded tensioners can be removed when the tensioning procedure is complete and used on other manuflex drum scrapers.

The advantages of this clamping device are:

- > It can be applied to both sides with almost identical clamping force.
- > One fitter can perform the task without assistance.
- > The pre-tensioning force can be determined by counting the number of turns of the threaded tensioner.

TENSION FORCE

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

TEST RUN

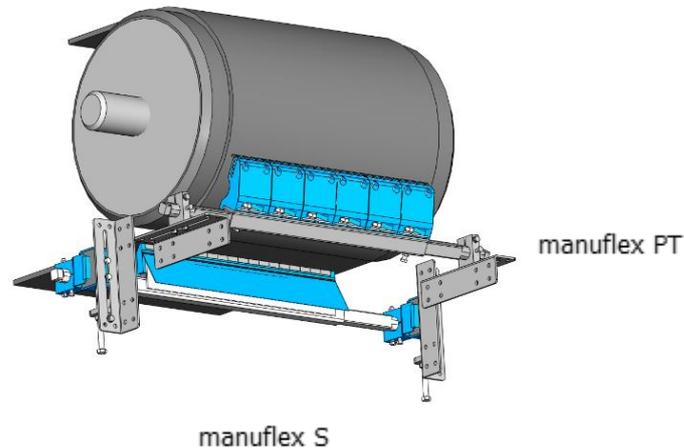
Once all the screws, nuts and bolts have been tightened, the test run can be started.

The manuflex PT should run quietly and without vibration as it thoroughly cleans the belt.

CLEANING PERFORMANCE

You may have to use an additional scraper on the underside of the belt if you are handling highly adhesive bulk materials.

Suitable items from the manuflex range include the manuflex S.

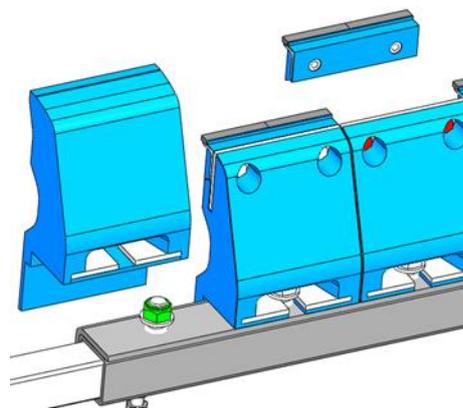


REPLACING THE SEGMENTS AND SCRAPERS

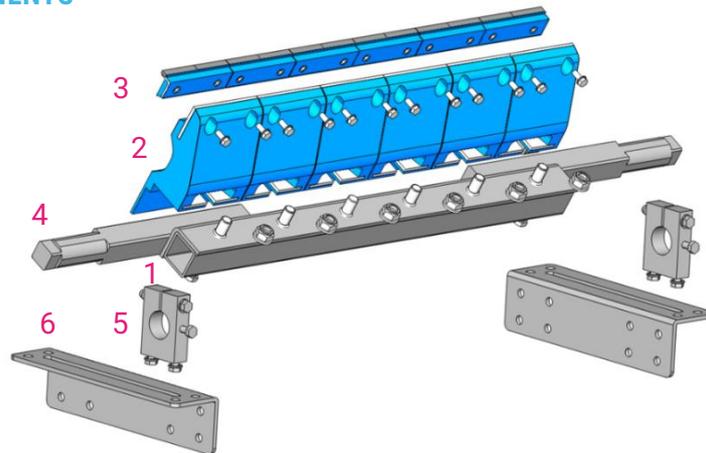
- When replacing the polyurethane scrapers or PT segments, use an open-ended spanner to loosen the M16 self-locking nuts (green). The scrapers/segments can now be removed and replaced.

When replacing the hard-metal scrapers, remove the M8 screws (red) from the backs of the PT segments.

When fitting the new segments, adjust their positions relative to the slots in the PT segments to create a continuous alignment.



INDIVIDUAL COMPONENTS



Item	Designation	Art. no. / Qty
1	Substructure	Belt width 400 – 2,000 13442, 13443, 13444, 13445, 13446, 13447, 13448, 13450, 13451, 13452 / 1
2	PUR segment PT 90	11647 / 3, 4, 5, 6, 8, 9, 11, 12, 14, 16
3	PT scraper 3 mm	11911 / 3, 4, 5, 6, 8, 9, 11, 12, 14, 16
3	PT scraper 5 mm	11912 / 3, 4, 5, 6, 8, 9, 11, 12, 14, 16
	PUR scraper	11698 / 3, 4, 5, 6, 8, 9, 11, 12, 14, 16
4	Axle up to 650 mm belt width	11555 / 2
4	Axle for 800 mm belt width	13378 / 2
4	Axle for a belt width of $\geq 1,000$ mm	11556 / 2
5	Axle bracket up to 800 mm belt width	11552 / 2
5	Axle bracket for 1,000 and 1,200 mm belt width	11553 / 2
5	Axle bracket for a belt width of $\geq 1,400$ mm	11554 / 2
6	Mounting bracket	14131 / 2 (Belt width 400 – 1,200)
6	Mounting bracket	12165 / 2 (Belt width 1,400 – 2,000)

INSTALLATION SEQUENCE

1. Ensure that the belt conveyor is switched off and blocked to prevent accidental operation.
2. Establish the position of the manuflex PT 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 PT relative to the centre of the belt.
6. Adjust the scraper to an installation angle of 30° and an angle of attack of 90°.
7. Adjust the pretension.
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 pretension as required.