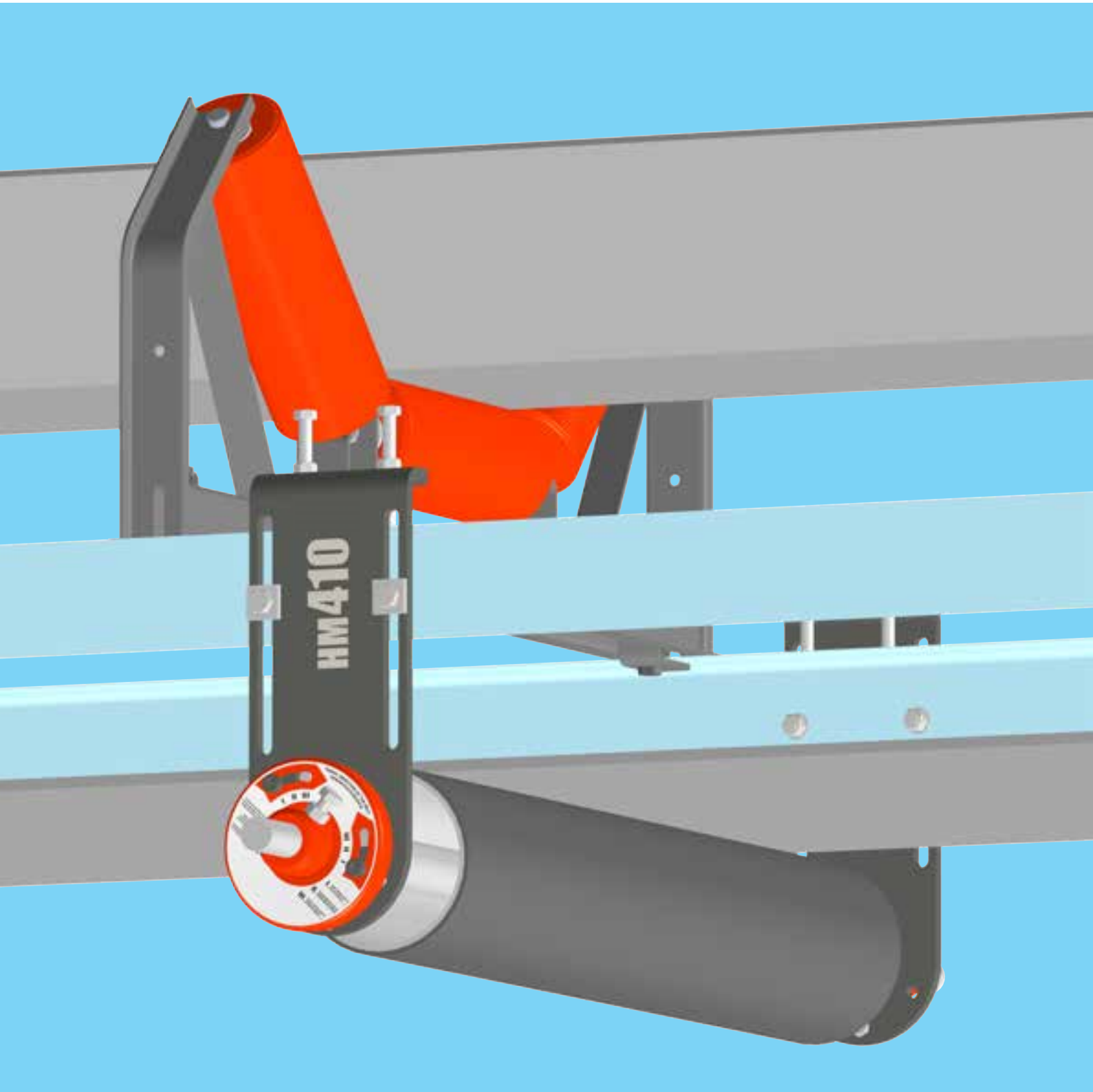
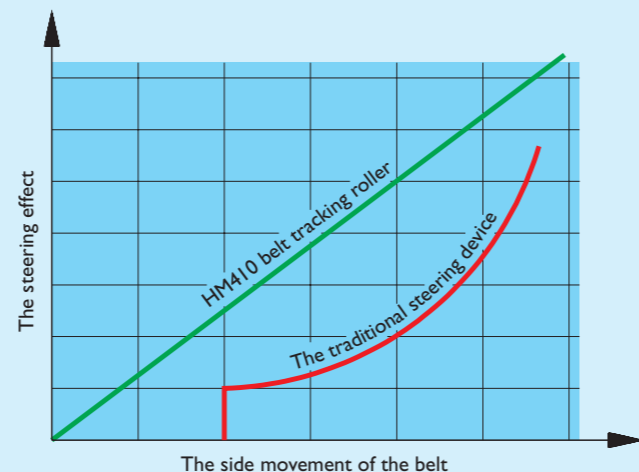
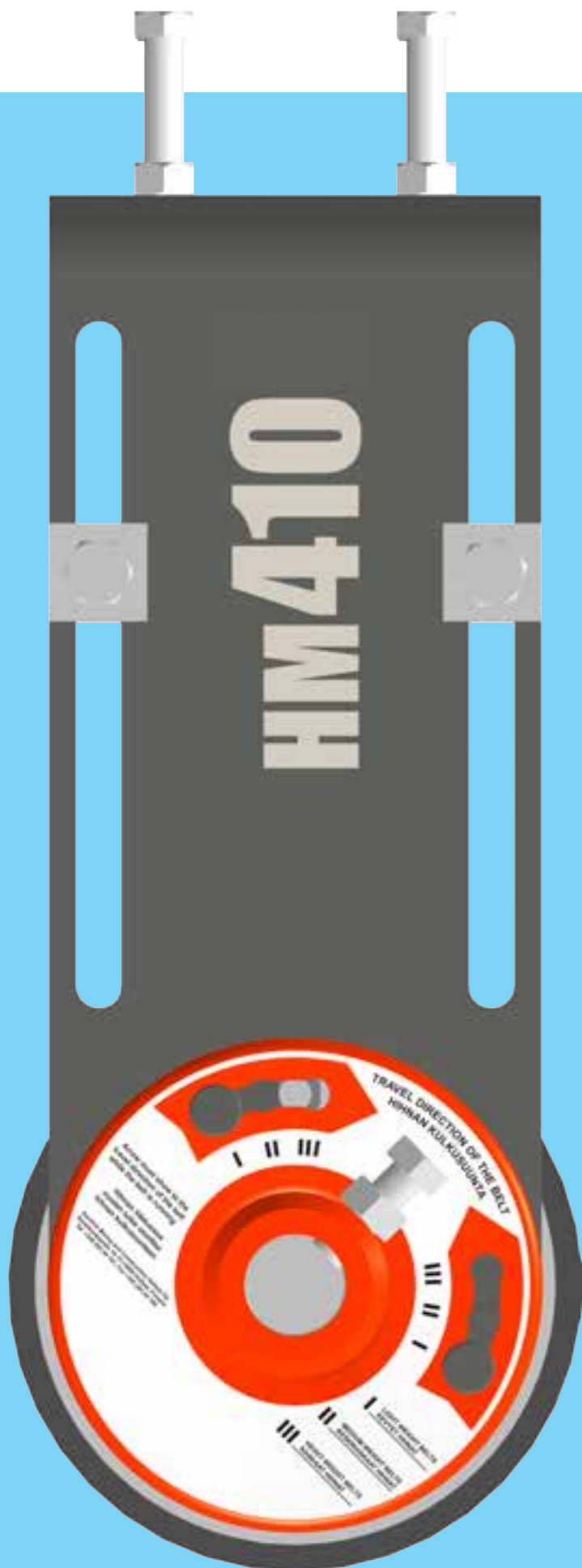


# Conveyor components

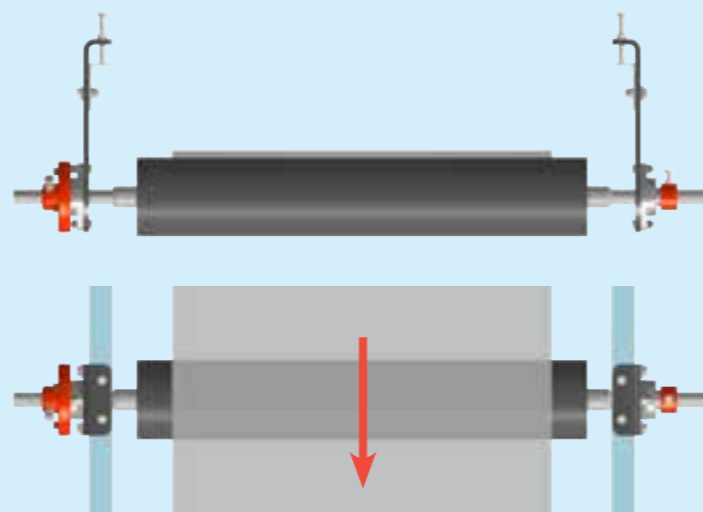
## HM410 belt tracking roller

Applicable for single direction and reversible belt conveyors

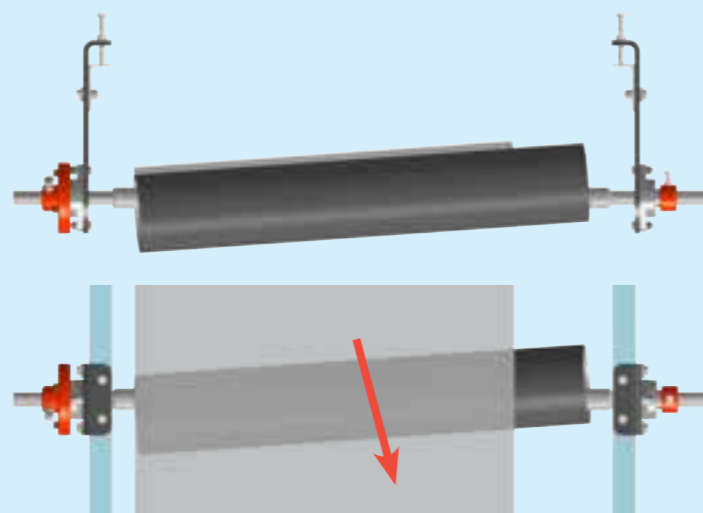




The centering of the return belt starts immediately



The function of HM410 belt tracking roller – Normal belt travel



The function of HM410 belt tracking roller – Correcting misalignment

## Belt tracking on a conveyor

One of the most common challenges when operating a belt conveyor is to maintain the alignment of the belt. When installing a conveyor, it is good practice to make sure that both pulleys and idlers are aligned together with the structure and each other. Poor belt tracking, caused by misalignment of a conveyor, can be fixed either by forcing the belt over to one side or by installing a tracking device.

### Efficient tracking solution

The HM410 belt tracking roller is a better way to keep the belt aligned. The HM410 is a return belt tracker that helps align the belt without causing any additional wear to the belt or the structure. The HM410 brings results instantaneously so that the belt will not travel sideways as it would with a traditional tracking device.

- Models for single direction and reversible belts
- Fast automatic tracking response at the very first sign of deviation
- Adjustable steering strength
- Easy to install on existing and new conveyors; no extra space or extensive modification to structure
- Belt widths from 450 mm to 2400 mm (18" - 96")
- Roller diameters 159 mm and 219 mm (6.3", 8.6")

## Function of belt tracking roller

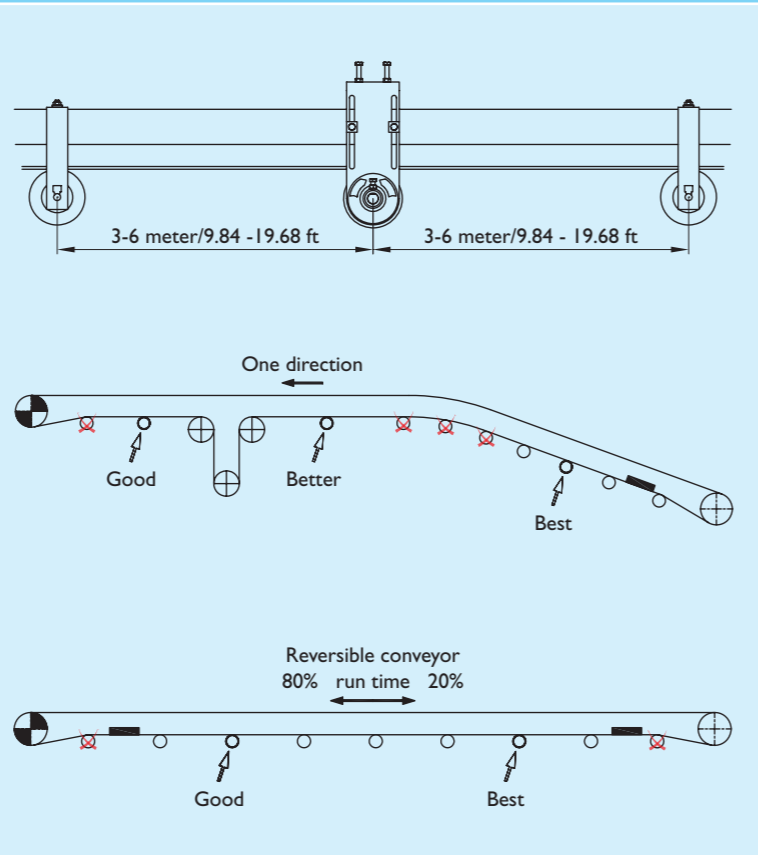
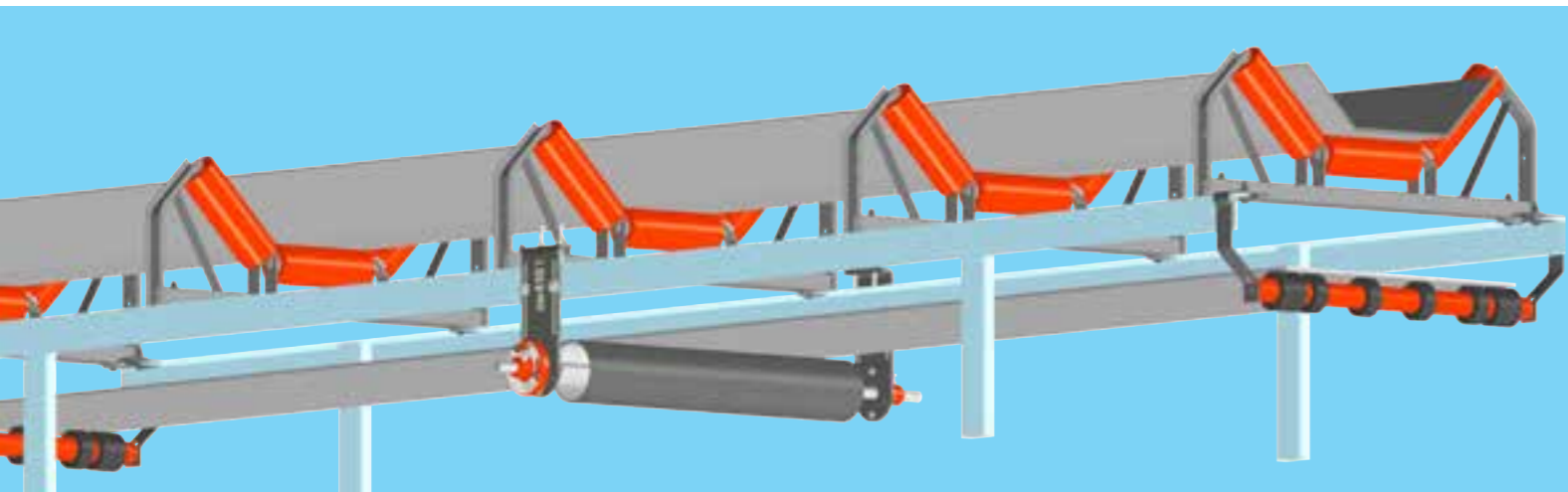
The HM410 is installed underneath the return belt, and due to its automatic response to misalignment, results are achieved immediately. There is no need to wait for the belt to make contact with the side rollers, which is the case for traditional tracking devices. The HM410 belt tracking roller is easy to install onto an existing or a new conveyor, since it does not require extra space or extensive modification to existing structure. The mounting brackets can be moved along the shaft very easily, which allows simple installation to different frame widths.

### Normal belt travel

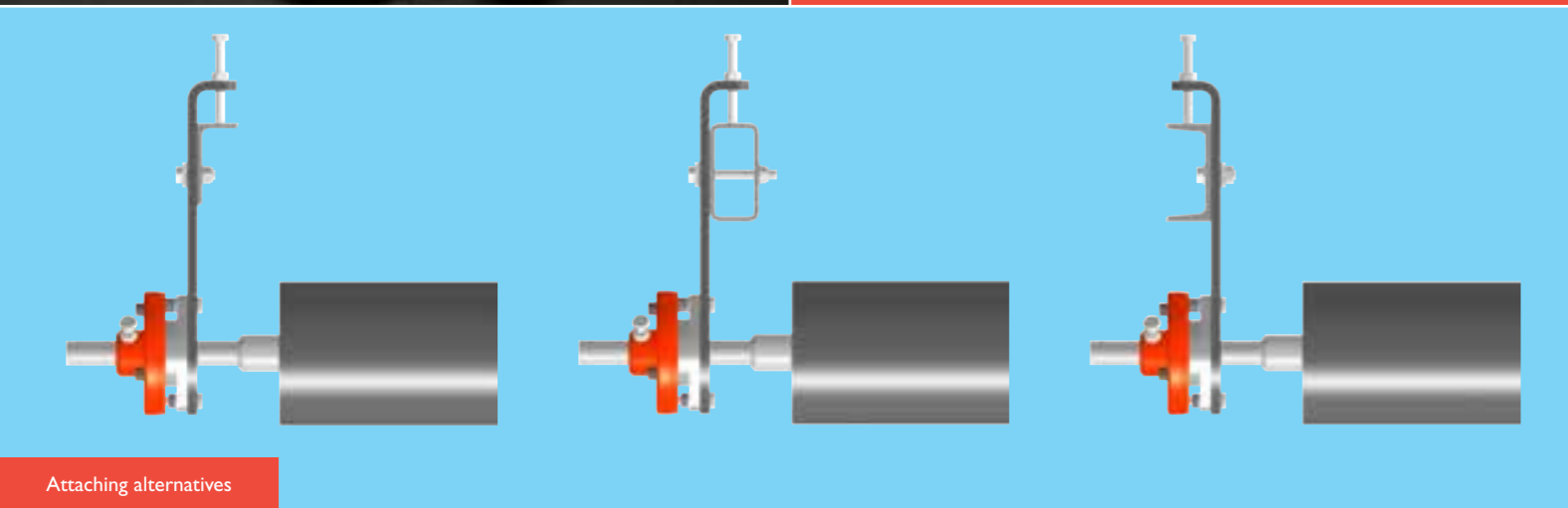
Center of gravity of the belt and roller are in the middle. The roller is both level horizontally and square to the direction of the belt.

### Correcting misalignment

When the center of the belt is offset from the center of the conveyor, the weight of the belt forces the end of the roller downwards, which in turn tilts the roller diagonally in the direction of the belt travel. The tilted HM410 roller will then help "train" the belt back to the middle of the conveyor. When the weight of the belt is centralised, the roller will immediately return to its original position.



Placing on the conveyor



Attaching alternatives

## Positioning of belt tracking roller

The HM410 belt tracking roller replaces one of the return rollers. The distance of the belt tracking roller to the next return roller must not be less than 3 meters (9.8 ft). The belt tracking roller is installed at the same level with the other return rollers.

The HM410 belt tracking roller must not be installed at a point where the belt is bending or there are excessive forces on the roller. Avoid locations that are marked with an X as shown on the drawing on the preceding page.

The most efficient point to install the HM410 belt tracking roller is before the tail pulley. In the case of a reversible conveyor it is preferable to install at least two devices – one near each end. If the conveyor is too short for more than one unit, then locate the HM410 belt tracking roller before the pulley that will be the tail pulley for the majority of the time.

For improved performance on longer conveyors, several HM410 belt tracking rollers should be installed. Spacing between rollers should be about 35-40 meters (114-131 ft).

**Applicable on reversible and single direction belt conveyors**  
Through advanced engineering, the HM410 belt tracking roller D-range is designed specially for reversible conveyors. Type S can be used only for one direction conveyors.

**Adjustable steering effect**  
The steering effect from the HM410 tracking roller can be easily adjusted to meet the requirements for light, medium and heavy weight belts.



**Attaching alternatives**  
Moveable attaching parts in the direction of the roller shaft enable the easy and quick attaching to the different frame types and widths.

# Technical tables of belt tracking roller

The loading capacity of the tracking roller must be equal with the weight of the belt on the roller.

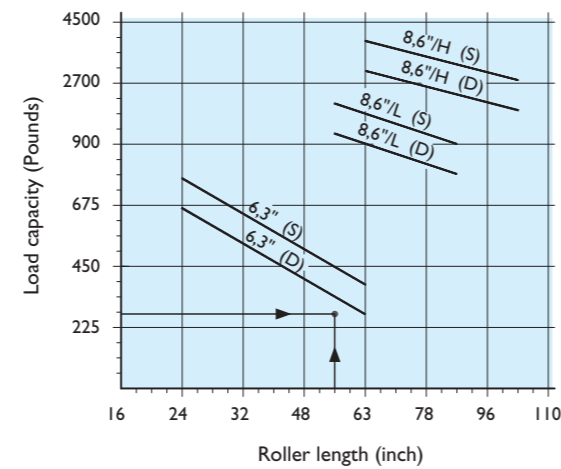
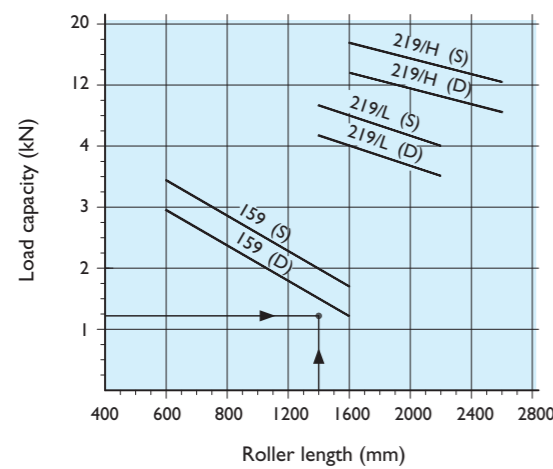
Example:

Roller load 1,2 kN (281.3 Pounds)

Roller length 1400 mm (55.5")

Determine the roller diameter 159 mm (6.26")

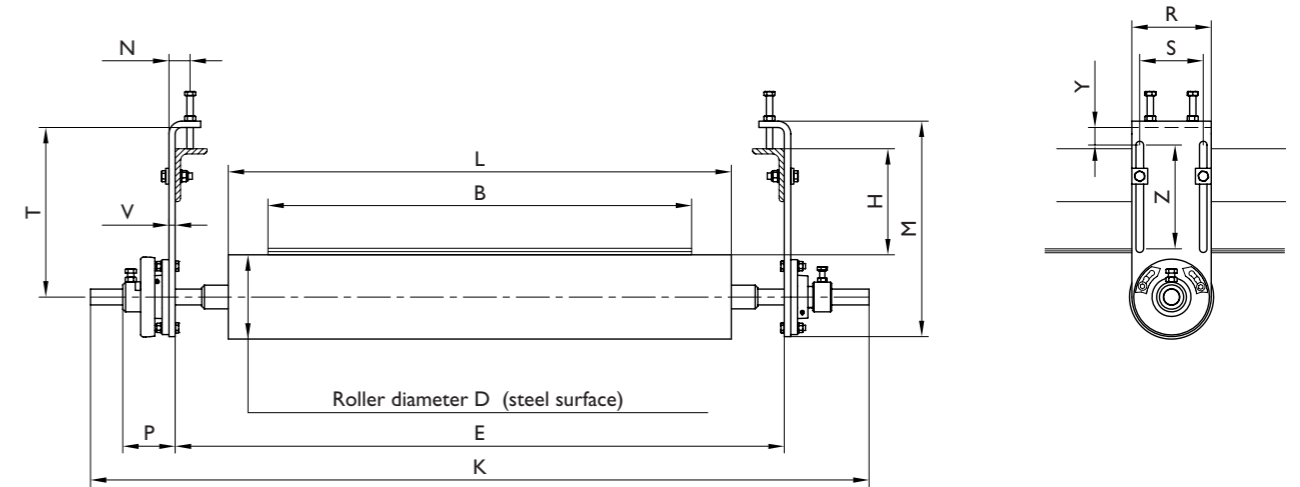
The charts show loading capacity of both single direction (S) and reversible (D) tracking roller types (metric and Imperial).



## Ordering codes

Face length L mm inch		Belt width B mm inch		D159 Single	D159 Reversible	D219 Single Light-duty	D219 Reversible Light-duty	D219 Single Heavy-duty
600	24	450/500	18/20	BP00012621	BP00012622			
750	30	600/650	24/26	BP00004144	BP00004143			
950	37	750/800	30/32	BP00004145	BP00004147			
1150	45	900/1000	36/39	BP00004137	BP00004148			
1400	55	1050/1200	42/47	BP00004139	BP00004138	BP00004731	BP00004730	
1600	63	1350/1400	54/55		BP00004734	BP00004735	BP00004734	BP00004723
1800	71	1500/1600	60/63			BP00004737	BP00004736	BP00004724
2000	79	1800	71			BP00004739	BP00004738	BP00004726
2200	87	2000	79			BP00004741	BP00004740	BP00004727
2400	95	2200	87					BP00004728
2600	102	2400	95					BP00004729

## Dimensions



Roller diameter D (steel surface) mm inch	H		M	N	R	S	Y	Z	V	T	Thickness of the rubber coating	
	min mm inch	max mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch
159	6.26	120 4.7 240 9.4	407 16	40 1.6	150 5.9	120 4.7	32 1.2	196 7.7	12 0.4	320 12.6	5 0.2	0.2
219/L	8.62	120 4.7 260 10.2	470 18.5	45 1.8	165 6.5	135 5.3	31 1.2	226 8.9	16 0.6	371.5 14.6	8 0.3	0.3
219/H	8.62	120 4.7 275 10.8	480 18.9	45 1.8	200 7.9	160 6.3	50 1.9	250 9.8	20 0.8	385 15.1	8 0.3	0.3

\*) When H<sub>min</sub> is smaller than given value, gap between the roller and belt must be protected with separate mesh protector (we consult if needed).

Roller diameter D (steel surface) mm inch	K	Single direction (S)				Reversible (D)									
		E		P		E		P							
		min mm inch	max mm inch	mm inch		min mm inch	max mm inch	mm inch							
159	6.26	L+520	L+20.5	L+100	L+3.9	L+440	L+17.3	55	2.2	L+100	L+3.9	L+320	L+12.6	100	3.9
219/L	8.62	L+520	L+20.5	L+100	L+3.9	L+430	L+16.9	60	2.4	L+100	L+3.9	L+310	L+12.2	105	4.1
219/H	8.62	L+600	L+23.6	L+60	L+2.4	L+540	L+21.2	40	1.6	L+110	L+4.3	L+400	L+15.7	100	3.9

Roller length L mm inch	Belt width B mm inch	Total weight					
		Diameter 159 (6.26")		Diameter 219/L (8.62")		Diameter 219/H (8.62")	
		kg	lb	kg	lb	kg	lb
600	24	450/500	18/20	48	106		
750	30	600/650	24/26	53	117		
950	37	750/800	30/32	59	130		
1150	45	900/1000	36/39	66	146		
1400	55	1050/1200	42/47	75	165	132	291
1600	63	1350/1400	54/55	81	179	143	315
1800	71	1500/1600	60/63			155	342
2000	79	1800	72			166	366
2200	87	2000	79			178	392
2400	95	2200	87				248
2600	102	2400	96				270
							292
							644

**GURTEC**