



Skid bars

Applications with steel belts working at high environmental temperature, i.e. bake ovens and frying ovens, the belt is supported normally by skid bars. Exception are when the belt speed is higher than 20 m/min and/or when the conveyor length exceeds 100 m, when supporting idlers are used.

The skid bars are made of grey cast-iron by hand moulding and casting or continuous casting. It is very important that the chemical constitution and structure is according to given recommendations, to avoid damages on the belt. The content of graphite in the cast-iron reduces the friction between skid bar and belt.

After moulding it is important that the skid bar is machined on surfaces in contact with the belt. To be sure that there is no casting skin left, at least 3 mm of the material must be removed.

The shape of the skid bar is also very important. To minimize the bending stress when the belt passes a skid bar and to avoid wearing of the belt, the edges should be well taken off. See fig. 1.

Figure 1



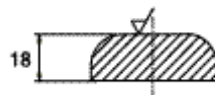
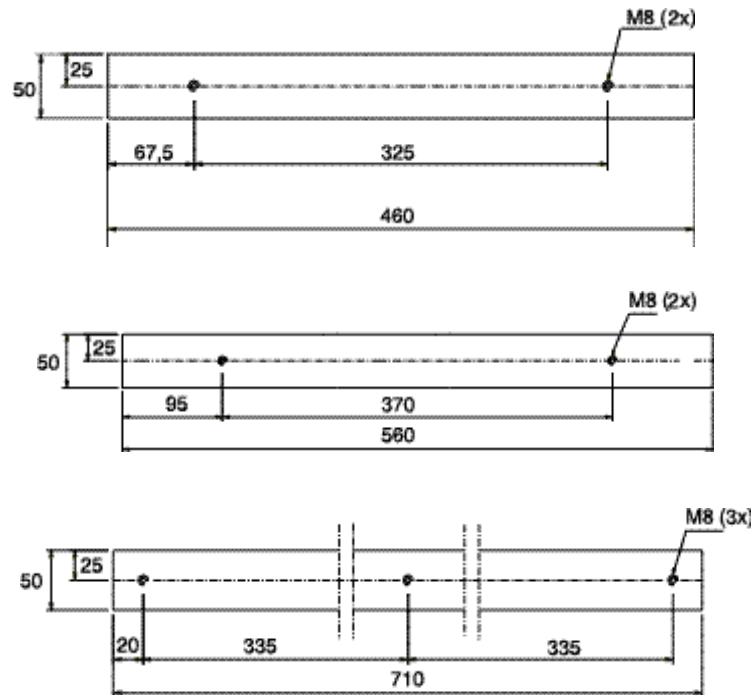
The total surface pressure on the skid bar should not exceed 0,5 N/cm². The skid bars are placed transversally underneath the belt.

1. The length of the skid bars should be 70-100 mm narrower than the belt width.
2. When using wider belts where two or more skid bars are mounted in width, there must be free space for expansion between the skid bars. The size of the free space is depending on the maximum environmental temperature. Normally 5 mm should be enough.
3. At a new installation the skid bars should be "levelled" by instrument, horizontally and transversely. Different height positions of the skid bars, can cause high surface pressure and by this belt damages.
4. The number of skid bars depends on the surface pressure and how big the "belt sag" can be allowed between the bars. The normal distance for bake ovens is 0,8 – 1,0 m.
5. Skid bars are exclusively used for carbon steel belts.

Overleaf the standard lengths of the skid bars manufactured and used for different belt widths are described.



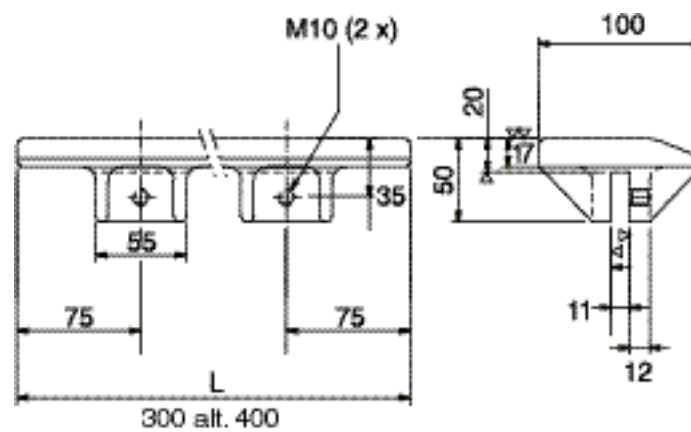
Cast iron skid bars – BT



Cross section

Belt width	No of CI skids type BT
800	1 x 710
1000	2 x 460
1200	2 x 560
1500	2 x 710

Cast iron skid bars – NL



Belt width	No of CI skids type NL
800	1 x 300 + 1 x 400
1000	3 x 300
1200	1 x 300 + 2 x 400
1500	2 x 300 + 2 x 400