Transfer Options

The design of Flat-Flex wire belts provides one of the tightest possible transfers... with some meshes bending around end-rolls the diameter of a pencil. Various types of end-rolls and nosebars are used to facilitate the transfer of product between conveyors.

End-rolls can be rotating or non-rotating. Rotating end-rolls are preferred because they create less belt wear. Rotating end-rolls are usually supported only by the ends, and rotate at the same speed as the belt to reduce wear on the belt and the rolls. Types of rotating end-rolls include blanks, blanks and sprockets, grooved end-rolls, and free-turning plastic rollers.

However, the placement of the blanks and sprockets differs from that of the rollers. Blanks and sprockets are used in pairs within the odd spaces, similar to the drive shaft set-up shown. These are placed inside the Z-bends with 1/8" to 3/16" clearance allowed. Transfer rollers are placed with the groove under the Z-bend, so that the Z-bend rolls around and over the roller.

Grooved nosebars remain stationary. To prevent the Z-bends from "slicing" through either the metal or plastic (HDPE is recommended) of these stationary components from constant friction, nosebars should be grooved to a depth appropriate for the belt mesh according to the chart below.
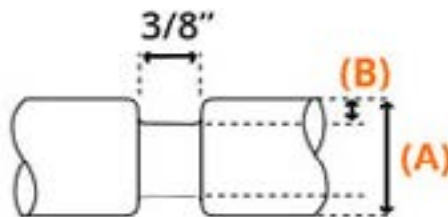
General Best Practices Minimum Grooved End Roll Dimensions*

End Roll Grooves - Typical Section

For 15 or 24 SPF (strands per foot) mesh — 1/2"
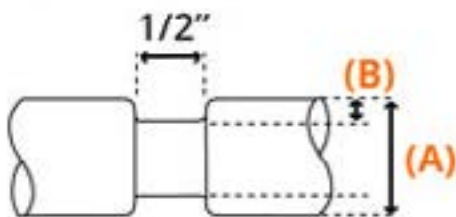
All other meshes — 3/8"

Note: shaft deflection must be less than 1/16"

wire*belt*

Mesh	Minimum Diameter (A) above	Groove Depth (B) above	Solid Shaft
72 x .035	.375	.063	.188
72 x .050	.438	.079	.250
54 x .035	.500	.075	.250
48 x .050	.563	.106	.313
42 x .050	.625	.093	.375
42 x .062	.750	.100	.500
32 x .082	.875	.188	.563
32 x .072	1.000	.188	.750
27 x .050	1.000	.110	.625
24 x .072	1.125	.138	.625
24 x .092	1.250	.250	.750
15 x .092	1.500	.300	1.000

*Using non-grooved shafts for transfer rolls is NOT recommended. Without grooves, the Z-bends moving over the shaft produce excessive wear on both the shaft and the belt.