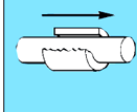




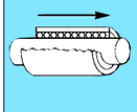
(a)



### GENERAL INFORMATION

Linear motion devices find application in many designs related to machines in general and mechanisms in particular. The simplest known sliding pair used consists of a bushing and shaft. Due to friction and the resulting wear, loss of alignment will occur which will, in turn, cause binding and chatter. Because of vertical loading, the lubricant will accumulate where it is not needed and will not be available where it could do some good. The presence of lubrication may also cause accumulation of dust and dirt and create gumming and grit.

(b)

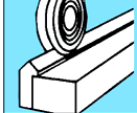


The above disadvantages led to the development of Ball Bushings with recirculating balls. These have the disadvantage that they are captive on the shafts or have complicated mounting arrangements if they are of the "open type".

The wheel and track components offered in this catalog have the following advantages:

- Easy mounting** to machined surfaces which are in most cases part of the existing structure.
- Self-cleaning** feature due to the circumference being greater at the edge than it is on the bottom of the "V" groove, and there is a constant wiping action present.
- Eccentric bushings** provide means to take out "slack" and compensate for any inaccuracy or accumulation of tolerances.
- Low cost** in comparison with other alternatives, in particular, for low speeds and loads where the "economy series" guide wheels can be used.
- Available Selection** of different guide wheel and track sizes and materials enables economical choice depending on loads and other requirements.

(c)



The accuracy of the system depends on the parallelism of the mounting surfaces; therefore, it cannot be stressed too strongly that reasonable care should be taken when bolting track to the mounting surfaces to assure proper alignment. And, as a matter of good engineering practice, the wheels should be so spaced that leverage from overhanging loads does not cause stresses exceeding the load capacity of the wheel.

(d)



(e)



(f)



(g)

