

Friction Belt Drives



The take-up allowance given in the same table should be added on to the calculated centre distance to allow for belt stretch/bedding in.

GUARDS

Where guards are necessary it is desirable to use mesh materials to permit adequate ventilation. Guards should be generously sized to allow for incidental belt flap.

TENSIONING PULLEYS

If tensioning (jockey) pulleys are to be used on wedge belt drives, they must be grooved pulleys working on the inside of the drive, preferably on the slack side.

The pulley should be positioned as close as possible to the large pulley. Flat tensioning pulleys, bearing on the outside of the drive are permissible only with V and not with wedge belts. They should be positioned within one third of the centre distance from the small pulley.

The tensioning pulley must have at least the same diameter as the small pulley of the drive. Tensioning pulley movement must allow for passing the belts over the outside diameter of one of the drive pulleys on installation, and should also allow for belt stretch/bedding in.

Although comparatively old in principle today's belt drive is an extremely efficient method of transmitting power between prime mover and machinery.

It owes its present high performance standards to many years of research and development by engineers and technologists, leading to significant refinements in materials and processes.

To derive maximum benefit from such advances it is important that the simple installation and operation procedures set out here are closely followed. Making these routines standard practice will ensure optimum performance and long, trouble-free life from Fenner belt drives. An electronic, sonic tension indicator is also available.

PULLEYS

Before assembling the drive, check the pulley grooves are free from scores or sharp edges, and all dimensions conform to the relevant standard.

Drive installation is straightforward with Taper Lock – but follow all steps on the installation leaflet provided with every Taper Lock bush.

ALIGNMENT

Good alignment of pulleys is important to avoid belt flank wear. The diagrams opposite show some of the common alignment faults.

Pulley misalignment should not exceed 1/2° angular and 10mm / metre drive centre distance, axial.

A laser alignment device is available, which facilitates quick, easy and accurate pulley alignment.

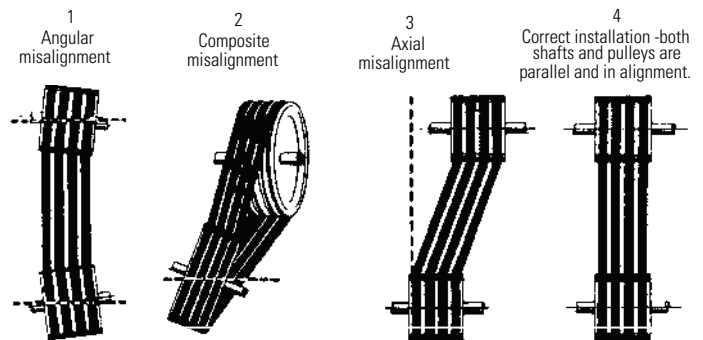
BELT INSTALLATION

When the pulleys have been correctly positioned on the shafts, the belts can be installed to complete the drive.

The drive centre distance should be reduced prior to the installation of the belts so that they may be fitted without the use of force.

Under no circumstances must belts be prised into the grooves. Belts and pulley grooves can easily be damaged by using sharp tools to stretch the belts over the pulley rim.

The installation allowance given in the table opposite is the minimum recommended reduction in centre distance for the various belt sections and lengths to allow for correct fitting.



The modern wedge belt drive is a highly efficient power transmission medium, but optimum performance will not be achieved without correct tension and alignment.

INSTALLATION AND TAKE-UP ALLOWANCE						
Belt Pitch Length (mm)	Installation Allowances					Take-up (mm)
	SPZ Z	SPA A	SPB B	SPC C	8V D	
410 to 530	20	25	30	50	65	5
530 to 840						10
850 to 1160						15
1170 to 1500						20
1510 to 1830						25
1840 to 2170						30
2180 to 2830						40
2840 to 3500						50
3520 to 4160						60
4170 to 5140						70
5220 to 6150	65	75	85	95	105	85
6180 to 7500						105
7600 to 8500						125
8880 to 10170						145
10600 to 12500						175

Taper Lock

All Fenner V and wedge belt pulleys use Taper Lock shaft fixing. Detailed instructions for fitting and dismantling Taper Lock products are included with Taper Lock bushes.