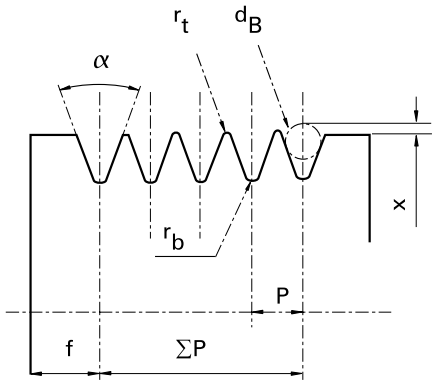
PolyDrive PLUS Installation and Tensioning

The following recommendations for installing a ribbed belt drive will help ensure correct working conditions and optimum service life.

RIBBED BELT PULLEY GROOVE DIMENSIONS

Pulleys are manufactured to ISO 9982 – Pulleys and V-Ribbed Belts for Industrial Applications

PULLEY SECTION		PJ	PK	PL	PM
α	(°)	40 ± 0.25	40 ± 0.25	40 ± 0.25	40 ± 0.25
P	(mm)	2.34 ± 0.03	3.56 ± 0.05	4.70 ± 0.05	9.40 ± 0.08
Tolerance for ΣP		± 0.3	± 0.3	± 0.3	± 0.3
rt min.	(mm)	0.20	0.25	0.40	0.75
rb max.	(mm)	0.40	0.50	0.40	0.75
f min.	(mm)	3.0	5.0	7.0	13.0
dB	(mm)	1.5 ± 0.01	2.5 ± 0.01	3.5 ± 0.01	7.0 ± 001
2X	(mm)	0.23	0.99	2.36	4.53



SHAFT ALIGNMENT

The maximum axial misalignment allowed is 3 mm per metre centre distance, to a maximum of 15 mm.

Make sure that angular misalignment is kept within 2°. With flat pulleys, acting as idlers for power take-off, do not exceed 1°.

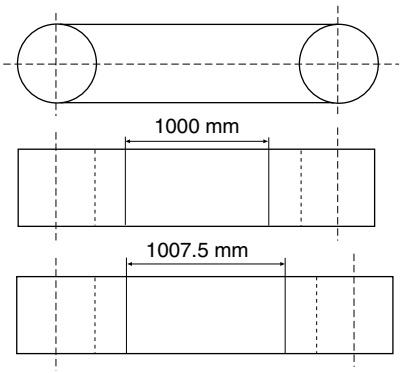
A laser alignment device is available, which facilitates quick, easy and accurate pulley alignment - consult your local Authorised Distributor.

TENSIONING THE BELT

Ribbed belts must be tensioned correctly and with great care. Under or over-tensioning can cause functional problems and lead to premature belt failure. We recommend the elongation method, which is simple and requires no special equipment, in most cases.

(For narrow belts - less than 40 mm wide - it is possible to use the Fenner Belt Tension Indicator).

1. Fit the belt on the pulleys with no tension,
2. Draw two lines perpendicularly across the belt back approx 80% of the belt span apart (or one metre apart for very long spans),
3. Increase the distance between the two lines by 0.5 to 0.75% i.e. by 5 to 7.5 mm for an initial spacing of 1000 mm.
4. Run the drive under load for about 10 minutes,
5. Check the tension of the belt (i.e. the spacing between the two lines) and readjust if necessary.



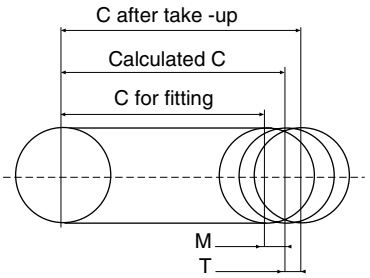
GENERAL

Pulleys should be mounted as close as possible to bearings, to reduce overhung load.

Pulley grooves should be in good condition, clean, and free from sharp edges.

Ensure that drive machinery is securely fastened after belt installation or adjustments.

Guards should be generously sized and well ventilated.



Belt Length (mm)	PJ		PK		PL		PM	
	M	T	M	T	M	T	M	T
> 750	-10	+10	-11	+13	-	-	-	-
750 to 1200	-10	+15	-12	+16	-15	+20	-	-
1200 to 2000	-15	+20	-16	+22	-20	+25	-	-
2000 to 3500	-20	+30	-23	+32	-30	+35	-40	+50
3500 to 6000	-	-	-	-	-40	+50	-50	+70
> 6000	-	-	-	-	-	-	-100	+130

TAPER LOCK

Ribbed belt pulleys are available using Taper Lock shaft fixing.

For detailed instructions on the fitting and dismounting of Taper Lock products see Shaft Fixings page 128-129