

USEFUL INFORMATION

Many considerations of factors determine the selection of the best belt for the job. The following information will aid you in this process. Assistance is available for the asking.

Key to Symbols

C - Center to Center distance (In.)	G2 - Load per Hour (Lbs.)	RPM - Revolutions per Minute
D - Diameter of Drive Pulley (In.)	L - Belt Length (In.)	S - Speed, Ft. per Minute (FPM)
d - Diameter of Tail Pulley (In.)	P - Product Weight (Lbs.)	

Belt Length	Belt Speed in Feet per Minute	Maximum Product Weight on Belt at Any One Time
For a pulley system <i>with no snub pulley</i> : $L = \left(\frac{D+d}{2} \times 3.1416 \right) + 2C$	$S = D \times RPM \times .2618 \times 1.021$	When load is known by <i>pounds per hour or tons per hour</i> : $P = \frac{G2}{S \times 60 \text{ (minutes)}} \times C \text{ (Ft.)}$

Fabric Designation

Carcass	U.S.	Metric
Poly/Nylon	PN	EP
Nylon/Nylon	NN	PP
Ply/Poly	PP	EE

Coefficient of Friction (Belt to Slider Bed or Rollers)

Belt	Steel or Aluminum Slider Bed	Metal Rollers
FS Pulley Side	.30 to .35	.05 to .10
Bare Duck or BB Side	.20 to .25	.05 to .10
Cover on Pulley Side	.50 to .55	.05 to .10

Calculating Length of A Roll of Belting

Add together the diameter of the roll and diameter of the hole in inches and divide the result by 2. Multiply by 3.14 and by the number of coils in the roll. This gives the length in inches. Divide by 12, and you will have the approximate number of feet in the roll.

Determining Belt Length When Snub or Takeup Pulleys Are Present

Steel Tape Measurement - STM, also known as the I.C. or inside circumference, is a common method where the takeup is placed in a position that allows for easy installation and adequate takeup. The steel tape is run through the system on the same track the belt would run. Care must be taken to make sure the tape touches all pulleys. The belt may be tracked to one side or removed to accommodate this method as the tape must touch only the pulleys and not the belt for an accurate STM measurement.

Calculating Length of A Roll of Belting

Net Endless Length (NEL) - From an existing belt, this measurement is made by placing the ENDLESS belt to be measured on a table or floor. A mark is made on the cover and corresponding mark on the table or floor. The belt is rolled forward until the mark comes back. Place another corresponding mark on the table or floor. Move the belt aside and measure the distance between the two marks. This measurement represents the NEL measurement or Net Endless Length.