USEFUL FORMULAS

REQUIRED	DATA	FORMULA
RATIO	HIGH & LOW RPM	RATIO = HIGH RPM / LOW RPM
FPM	DIA (inches) & RPM	FPM = .262 X DIA X RPM
RPM	FPM & DIA (inches)	RPM = FPM / (.262 X DIA)
DIAMETER (inches)	FPM & RPM	DIA = FPM / (.262 x RPM)
BELT LENGTH	SHEAVE DIAMETERS & CENTER DISTANCE	(D + d) 1.57 + 2CD
TORQUE FT. LB.	HORSEPOWER & RPM	T = (HP X 5250) / RPM
TORQUE IN. LB.	HORSEPOWER & RPM	T = (HP x 63,025) / RPM
HORSEPOWER	TORQUE FT. LB. & RPM	HP = (T X RPM) / 5250
HORSEPOWER	TORQUE IN. LB. & RPM	HP = (T x RPM) / 63,025
HORSEPOWER	FORCE (LBS) & FPM	HP = (F X FPM) / 33,000
OUTSIDE DIAMETER	PITCH DIA. & ADDENDUM	OD = PD + 2 X ADD
CIRCUMFERENCE OF CIRCLE	DIAMETER	C = 3.1416 x D
PITCH DIAMETER	NUMBER OF TEETH (N) & DIAMETRICAL PITCH (DP)	PD = N / DP
PITCH DIAMETER	OUTSIDE DIAMETER (OD) & DIAMETRICAL PITCH	PD = OD - (2 / DP)
CIRCULAR PITCH	DIAMETRICAL PITCH (DP)	CP = 3.1416 / DP
DIAMETRICAL PITCH	NUMBER OF TEETH (N) & PITCH DIA	DP = N / PD
LENGTH OF CONVEYOR BELT ON A ROLL	DIA. OF ROLL, DIA. OF CORE, LAPS OF BELT	FEET ON ROLL = (DR + DC) X LAPS X .131
KILOWATTS / .75 = HORSEPOWER		
DEGREES FARENHEIT = 1.8 X C + 32		
INCHES x 25.4 = MILLIMETERS		
AT 1800 RPM A MOTOR DEVELOPS 3 FT. LBS. OF TORQUE PER HP		
AT 230V A 3 PHASE MOTOR DRAWS 2.5 AMPS PER HP		
AT 230V A 1 PHASE MOTOR DRAWS 5 AMPS PER HP		