APPLICATION WORKSHEET - BULK MATERIALS HANDLING
Motorized Pulleys

Complete this form and submit to Rulmeca for a power calculation and Motorized Pulley recommendation.

Contact Person _____ **Date** _____ **Ref #** _____

Company _____

Address _____

Phone _____ **Fax** _____ **Email** _____

Standard Loading Conditions:

Conveyor Length (ft) ____
Tonnage Rate (tph) ____
Belt Speed (fpm) ____
Material Lift Height (ft) ____
Ambient Temperature (ºF) Min ____
Ambient Temperature (ºF) Max ____
Initial Velocity of Material (fpm) ____
Number of Belt Cleaners ____
Number of Belt Plows ____
Length of Skirt Zone (ft) ____
Depth of Material in Skirt Zone (in) ____
Number of Non-driven Pulleys ____

Elevation (ft)		Idler Roll Diam. (in)		Type of Lagging	
☐	3,300	☐	3	☐	Full
☐	5,000	☐	4	☐	Partial
☐	6,600	☐	5	☐	None
		☐	6		

Belt Width (in)		CEMA Type		Type of Take-up	
☐	18	☐	A	☐	Automatic
☐	24	☐	B	☐	Manual
☐	30	☐	C		
☐	36	☐	D		
☐	42	☐	E		
☐	48				
☐	54				
☐	60				
☐	66				
☐	72				
☐	84				
☐	96				
☐	Other ____				

Troughing Idler Spacing (ft)		Angle of Wrap (deg)	
☐	3.0	☐	180
☐	3.5	☐	200
☐	4.0	☐	210
☐	4.5	☐	220
☐	5.0	☐	240
		☐	360

Type of Belt	
☐	1 ply, 160 piw
☐	2 ply, 225 piw
☐	3 ply, 330 piw
☐	4 ply, 440 piw

Belt Carcass	
☐	fabric
☐	steel cord

Material (frictional coefficient)		
☐	ashes, coal, dry	0.0571
☐	bauxite, ground	0.1881
☐	cement, Portland, dry	0.2120
☐	cement clinker	0.1228
☐	clay, ceramic, dry fines	0.0924
☐	coal, bituminous mined	0.0754
☐	coke, ground fine	0.0452
☐	cullet (broken glass)	0.0836
☐	grains, wheat, corn, rye	0.0433
☐	gravel, bank run	0.1145
☐	iron ore, 200 lbs/cu ft	0.2760
☐	limestone, pulverized dry	0.1280
☐	phosphate rock, dry	0.1086
☐	salt, common, dry fine	0.0814
☐	sand, dry, bank	0.1378
☐	wood chips	0.0095

Material Bulk Density (pcf)		
☐	ashes, coal, wet	50
☐	bagasse	10
☐	bark, wood	20
☐	bauxite, ground, dry	68
☐	bauxite, crushed	85
☐	beans, navy, dry	48
☐	beets, whole	48
☐	borax, 3" & under	70
☐	cement, portland	99
☐	clay, ceramic, dry, fines,	80
☐	clay, dry, fines	120
☐	coal, bituminous	55
☐	coal, lignite	45
☐	coke,	45
☐	corn, ear,	56
☐	cullet,	120
☐	gravel, bank run,	100
☐	iron ore,	200
☐	iron ore pellets	130
☐	limestone, crushed	90
☐	paper pulp stock	60
☐	phosphate rock	85
☐	potash salts	80
☐	rock, crushed,	145
☐	rock, soft,	110
☐	rye,	46
☐	sale, common dry, fine,	80
☐	sand, bank, damp,	130
☐	sand, bank, dry,	110
☐	sand, foundry,	100
☐	sawdust	13
☐	sewage sludge, moist,	55
☐	soybeans, whole,	50
☐	sugar, raw, cane,	65
☐	taconite pellets	130
☐	traprock, 2-3" lumps,	110
☐	wheat, cracked,	45
☐	wood chips	30

Operating Conditions:

Duty Cycle (Start/stops per hour) ____
Hours of Operation (hrs/day) ____
Days of Operation (days/week) ____
Is this a reversing belt? ____
Additional Comments: _____
_____
_____
_____

Special Loading Conditions:

Hopper Feeder Parameters:
Hopper Opening Width (in) ____
Hopper Opening Length (in) ____

Slider Bed Parameters:
Slider Bed Length (ft) ____

Slider Bed Material (frictional coefficient)		
☐	steel	0.90
☐	UHMW polyethylene	0.545
☐	urethane	0.88
☐	wood	1.00

Sidewall & Cleated Belt Parameters:
Sidewall & cleat height (in) ____
Thickness of sidewall (in) ____
Distance between cleats (in) ____
Thickness of cleats (in) ____

Tripper Design Parameters:
Tripper Length (ft) ____
Tripper Material Lift Height (ft) ____
Number of Tripper Belt Cleaners ____
Tripper Skirt Zone Length (ft) ____
Depth of Material in Skirt Zone (in) ____
No. of Tripper Non-driven Pulleys ____

For free "downloadable" power calculation program, complete with definitions of all terminology, go to www.rulmecacorp.com.