

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..... E-mail.....

What is the application? (Describe type of application, material and ambient condition)

☐ Abrasive ☐ Corrosive ☐ Very dirty ☐ Wet ☐ Wash Down ☐ Humid ☐ Dry ☐ Dusty ☐ Other

Standard Loading Conditions:

Conveyor Length (m)

Belt Speed (m/s)

Throughput (tph)

Material Lift Height (m)

Ambient Temperature (°C) Min

Ambient Temperature (°C) Max

Initial Velocity of Material (m/s)

Number of Belt Cleaners

Number of Belt Plows

Length of Skirt Zone (m)

Depth of Material in Skirt Zone (mm)

Number of Nondriven Pulleys

Elevation (km)	Idler Roll Diam. (mm)	Type of Lagging
☐ 1.0	☐ 108	☐ Full
☐ 1.5	☐ 133	☐ Partial
☐ 2.0	☐ 159	☐ None
☐ 3.0		
☐ 4.0		
☐ 5.0		
☐ Other		

Belt Width (mm)	CEMA Type	Type of Take-up
☐ 500	☐ A	☐ Automatic
☐ 650	☐ B	☐ Manual
☐ 800	☐ C	☐ None
☐ 900	☐ D	
☐ 1000	☐ E	
☐ 1200	Troughing Idler Spacing (m)	Angle of Wrap (deg)
☐ 1400		
☐ 1600	☐ 0.8	☐ 180
☐ 1800	☐ 1.0	☐ 200
☐ 2000	☐ 1.2	☐ 210
	☐ 1.4	☐ 220
	☐ 1.6	☐ 240
		☐ 360
		☐ 420

Type of Belt	Belt Carcass
☐ 1 ply, 160 piw	☐ fabric
☐ 2 ply, 225 piw	☐ steel cord
☐ 3 ply, 330 piw	
☐ 4 ply, 440 piw	

Frequency Hz 50/60

OPTIONS:

- ☐ Lagging? ☐ Rubber? ☐ Black? ☐ White? ☐ Smooth? ☐ Diamond?
☐ Ceramic? ☐ Oil, fat & grease? ☐ Thickness? (mm) ☐ Dust explosion proof - ATEX - Zone 22
☐ Matching terminal box ☐ Dualdrive ☐ Non-regreasable ☐ Total in stainless steel labyrinth seals
☐ With cable ☐ Straight connector ☐ Elbow connector 90° ☐ Re-greaseable labyrinth seals
☐ Food application ☐ Re-greaseable labyrinth seals ☐ Parallel shell (cylindrical)
☐ Reversible belt ☐ Electromagnetic brake ☐ Anti-clockwise direction
☐ Mechanical backstop ☐ Clockwise direction ☐ Mounting bracket Qty:

NOTES: special options

Please attach a photo, drawing or sketch of the application

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 (kg/m³)

☐ ashes, coal, wet	800
☐ bagasse	160
☐ bark, wood	320
☐ bauxite, ground, dry	1090
☐ bauxite, crushed	1370
☐ beans, navy, dry	770
☐ beets, whole	770
☐ borax, 3" & under	1120
☐ cement, portland	1590
☐ clay, ceramic, dry, fines	1280
☐ clay, dry, fines	1920
☐ coal, bituminous	880
☐ coal, lignite	720
☐ coke	720
☐ corn, ear	900
☐ cullet	1920
☐ gravel, bank run	1600
☐ iron ore	3200
☐ iron ore pellets	2080
☐ limestone, crushed	1440
☐ paper pulp stock	960
☐ phosphate rock	1360
☐ potash salts	1280
☐ rock, crushed	2320
☐ rock, soft	1760
☐ rye	740
☐ salt, common dry, fine	1280
☐ sand, bank, damp	2080
☐ sand, bank, dry	1760
☐ sand, foundry	1600
☐ sawdust	210
☐ sewage sludge, moist	880
☐ soybeans, whole	800
☐ sugar, raw, cane	1040
☐ taconite pellets	2080
☐ traprock, 23" lumps	1760
☐ wheat, cracked	720
☐ wood chips	480

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 (mm)

Hopper Opening Length (mm)

Slider Bed Parameters:

Slider Bed Length (m)

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 (mm)

Thickness of sidewall (mm)

Distance between cleats (mm)

Thickness of cleats (mm)

Tripper Design Parameters:

Tripper Length (m)

Tripper Material Lift Height (m)

Number of Tripper Belt Cleaners

Tripper Skirt Zone Length (m)

Depth of Material in Skirt Zone (mm)

No. of Tripper Nondriven Pulleys

No. of Vploughs

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