



Z.C.E

EIZAHRAA FOR ENGINEERING CONTRACTING AND Supplying

شركة الزهراء
للمقاولات الهندسية
والتوريدات

Project Name:

ProjQQQQQQQQQ

Client Name:

qq

Capacity:

qq



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1. Belt Conveyor

Sec01: Inputs

Field	Value
Belt Length	7000
Belt Width	800
Drum Diameter	250
Friction	0.3
Velocity	0.4
Factor of Safety	1.5
Belt weight per meter	15

Sec02: Outputs

Field	Value
Weight	396.33
Power	539.14
Speed	0



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2. Gritremoval

Sec01: Inputs

Field	Value
N of Channels	2
Channel Width	2.5
Civil Width	0.4
Bridge Length	6
Wheel Diameter	0.25
Friction	0.3
Velocity	0.05
Safety Factor	1.5

Sec02: Outputs

Field	Value
Weight Total (kg)	1956.00
Driving Power (kW)	628.71
Driving Motor Speed (rpm)	3.82
Weight steel	1256.00
Weight St.St	700.00
Lifting Power (kW)	282.60



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3. Primary Sedimentation

Sec01: Inputs

Field	Value
Walkway Length	10
Friction Coefficient	0.3
Velocity (m/s)	0.05
FOS	1.5

Sec02: Outputs

Field	Value
Total Weight (kg)	2580.0
Power Required (kW)	725.625
Motor Speed (rpm)	0
Steel Weight (kg)	1800.0
St.St. Weight (kg)	780.0



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4. Screw Conveyor

Sec01: Inputs

Field	Value
Density (Kg/m3)	1600
Length (mm)	5000
Diameter (mm)	300
RequiredFlow (m3/h)	5
FillingRatio	0.4
SafetyFactor	1.5
MotorEff	0.7
ShaftDiameter (mm)	50

Sec02: Outputs

Field	Value
Pitch (mm)	240.0
Speed (RPM)	12.64
Motor Power (Wat)	238.1
ScrewWeight (Kg)	121.51
FrameWeight (Kg)	337.25



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5. Channel Penstocks

Sec01: Inputs

Field	Value
Channel Height	1700
Frame Height Over Channel	900
Channel Width	650
Gate Margin Width	150
Water Level	475
Gate Margin Over Water Lv	200
Gate Th	6
Gate Other PLs	10
HeadStock	15
Frame Weight Per M	12.5

Sec02: Outputs

Field	Value
Frame Perimeter	7150.0
Frame Weight (KG)	89.375
Gate PL Weight	25.92
Gate Stiffener N	3.0
Gate Stiffener Weight	7.776
Gate Weight (KG)	43.696
Total Weight (KG)	162.88