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EIZAHRAA FOR ENGINEERING CONTRACTING AND Supplying

شركة الزهراء
للمقاولات الهندسية
والتوريدات

Project Name:

test777b

Client Name:

t

Capacity:

t



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1. Belt Conveyor

Sec01: Inputs

Field	Value
Belt Length	1403
Belt Width	51635
Drum Diameter	51321
Friction	213
Velocity	516
Factor of Safety	21
Belt weight per meter	32

Sec02: Outputs

Field	Value
Weight	103.42
Power	89431034031.03
Speed	0



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2. Basket screens

Sec01: Inputs

Field	Value
Bar Diameter (mm)	50
Bar Spacing (mm)	45
Screen Height (mm)	53654
Screen Width (mm)	543
Screen Length (mm)	45
Plate Thickness (mm)	63

Sec02: Outputs

Field	Value
Bars Weight (KG)	3896.71
Plate Weight (KG)	-4.03
Total Weight (KG)	3888.66



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3. Circular Tanks□

Sec01: Inputs

Field	Value
Tank Diameter (mm)	543534
Tank Height (mm)	4634534

Sec02: Outputs

Field	Value
Tank Weight (KG)	33353061626598.0
Tank Volume (m3)	1074803721.0
Shell Th (mm)	512074
Base Th (mm)	512076
Shell Weight (KG)	32402994655727.0
Base Weight (KG)	950052264405.0
Base UPN Weight (KG)	3574693.0
Cover Weight (KG)	11131773.0



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4. Gritremoval

Sec01: Inputs

Field	Value
N of Channels	8
Channel Width	9
Civil Width	1
Bridge Length	3
Wheel Diameter	0.50
Friction	0.7
Velocity	0.5
Safety Factor	2

Sec02: Outputs

Field	Value
Weight Total (kg)	10928.00
Driving Power (kW)	109280.00
Driving Motor Speed (rpm)	19.11
Weight steel	848.00
Weight St.St	10080.00
Lifting Power (kW)	5425.92



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5. Mechanical Screen

Sec01: Inputs

Field	Value
Channel Height (mm)	452
Screen Width (mm)	452563
Belt Height (mm)	65346
Water Level (mm)	46
Bar Spacing (mm)	366
Bar Th (mm)	5485
Bar Width (mm)	25
Inclination Degree (Deg)	5436
Sprocket Diameter (mm)	643
Velocity (m/s)	1
Safety Factor	3

Sec02: Outputs

Field	Value
Weight of Screen (kg)	81908.62
Power Required (Wat)	160595.21
Speed of motor (RPM)	29.72 RPM.



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6. Primary Sedimentation

Sec01: Inputs

Field	Value
Walkway Length	60
Friction Coefficient	0.39
Velocity (m/s)	0.058
FOS	2

Sec02: Outputs

Field	Value
Total Weight (kg)	13280.0
Power Required (kW)	7509.84
Motor Speed (rpm)	0
Steel Weight (kg)	8600.0
St.St. Weight (kg)	4680.0



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7. Screw Conveyor

Sec01: Inputs

Field	Value
Density (Kg/m3)	852
Length (mm)	43563
Diameter (mm)	42345
RequiredFlow (m3/h)	45
FillingRatio	1
SafetyFactor	3
MotorEff	5
ShaftDiameter (mm)	834

Sec02: Outputs

Field	Value
Pitch (mm)	33876.0
Speed (RPM)	0.0
Motor Power (Wat)	2783.68
ScrewWeight (Kg)	175787.75
FrameWeight (Kg)	379575.18



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8. Sludge Thickener

Sec01: Inputs

Field	Value
Diameter	20
N of Arms	5
Velocity (m/s)	0.5
FOS	3

Sec02: Outputs

Field	Value
Total Weight (kg)	5685.0
Power Required (kW)	28125.0
Motor Speed (rpm)	0
Recommended Pipe Diameter	0
Pinion Teeth	0



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9. Rectangular Mixers

Sec01: Inputs

Field	Value
Length (m)	3
Width (m)	5
Water Depth (m)	8
Tank Depth (m)	7
Impeller Coefficient	9
Velocity Gradient	520
I D Factor	1
Safety Factor	3

Sec02: Outputs

Field	Value
Total Weight (kg)	0
Power Required (kW)	Power: 171253.33 Wat
Motor Speed (rpm)	Speed: 8.23 RPM
Impeller Diameter (mm)	ImpellerDiameter: 4.37 Meter
Shaft Length (M)	3.80
Shaft D (mm)	352.44
Type	Rec



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10. Channel Penstocks

Sec01: Inputs

Field	Value
Channel Height	365432
Frame Height Over Channel	542
Channel Width	452
Gate Margin Width	64
Water Level	525
Gate Margin Over Water Lv	5520
Gate Th	6
Gate Other PLs	10
HeadStock	15
Frame Weight Per M	12.5

Sec02: Outputs

Field	Value
Frame Perimeter	733304.0
Frame Weight (KG)	9166.3
Gate PL Weight	149.722560000000002
Gate Stiffener N	24.0
Gate Stiffener Weight	34.83648
Gate Weight (KG)	194.55904
Total Weight (KG)	10313.44



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11. Manual Screen

Sec01: Inputs

Field	Value
Chanel Height (m)	5
Channel Width (m)	2
Water Level (m)	3
Water Level Margin (m)	1
Bar Spacing (m)	0.5
Bar Thickness (m)	0.6
Bar Width (m)	0.9
Angle	100

Sec02: Outputs

Field	Value
Weight (KG)	35171.4