Project Name:

testing

Client Name:

t

Capacity:

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1. Manual Screen

Sec01: Inputs

Field	Value
Chanel Height (m)	1.2
Channel Width (m)	0.8
Water Level (m)	0.75
Water Level Margin (m)	0.1
Bar Spacing (m)	0.025
Bar Thickness (m)	0.01
Bar Width (m)	0.025
Angle	45

Sec02: Outputs

Field	Value
Weight (KG)	80.76

2. 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

3. 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

4. Circular Tanks

Sec01: Inputs

Field	Value
Tank Diameter (mm)	5000
Tank Height (mm)	5000

Sec02: Outputs

Field	Value
Tank Weight (KG)	4698.0
Tank Volume (m3)	98.0
Shell Th (mm)	4
Base Th (mm)	6
Shell Weight (KG)	2512.0
Base Weight (KG)	942.0
Base UPN Weight (KG)	302.0
Cover Weight (KG)	942.0

5. Basket screens

Sec01: Inputs

Field	Value
Bar Diameter (mm)	20
Bar Spacing (mm)	25
Screen Height (mm)	1100
Screen Width (mm)	700
Screen Length (mm)	500
Plate Thickness (mm)	16

Sec02: Outputs

Field	Value
Bars Weight (KG)	94.5
Plate Weight (KG)	41.86
Total Weight (KG)	178.22

6. Mechanical Screen

Sec01: Inputs

Field	Value
Channel Height (mm)	1000
Screen Width (mm)	1000
Belt Height (mm)	1000
Water Level (mm)	600
Bar Spacing (mm)	25
Bar Th (mm)	10
Bar Width (mm)	50
Inclination Degree (Deg)	70
Sprocket Diameter (mm)	320
Velocity (m/s)	0.06
Safety Factor	1.5

Sec02: Outputs

Field	Value
Weight of Screen (kg)	496.62
Power Required (Wat)	138.86
Speed of motor (RPM)	3.58 RPM.

7. 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

8. Primary Sedimentation Tank

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

9. Thickener

Sec01: Inputs

Field	Value
Diameter	10
N of Arms	3
Velocity (m/s)	0.05
FOS	1.5

Sec02: Outputs

Field	Value
Total Weight (kg)	2625.0
Power Required (kW)	421.875
Motor Speed (rpm)	0
Recommended Pipe Diameter	0
Pinion Teeth	0

10. Rectangular Tanks

Sec01: Inputs

Field	Value
Length (mm)	6000
Width (mm)	3000
Height (mm)	3000
Shell Th	6
Base Th	8
N of Splitters	2

Sec02: Outputs

Field	Value
Total Weight (kg)	7088.4

11. TESTING

12. 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

13. Rectangular Mixers

Sec01: Inputs

Field	Value
Length (m)	1.5
Width (m)	1.5
Water Depth (m)	1.5
Tank Depth (m)	2
Impeller Coefficient	1.36
Velocity Gradient	600
I D Factor	0.5
Safety Factor	1.5

Sec02: Outputs

Field	Value
Total Weight (kg)	0
Power Required (kW)	Power: 3206.25 Wat
Motor Speed (rpm)	Speed: 79.73 RPM
Impeller Diameter (mm)	ImpellerDiameter: 0.85 Meter
Shaft Length (M)	1.40
Shaft D (mm)	43.90
Type	Rec