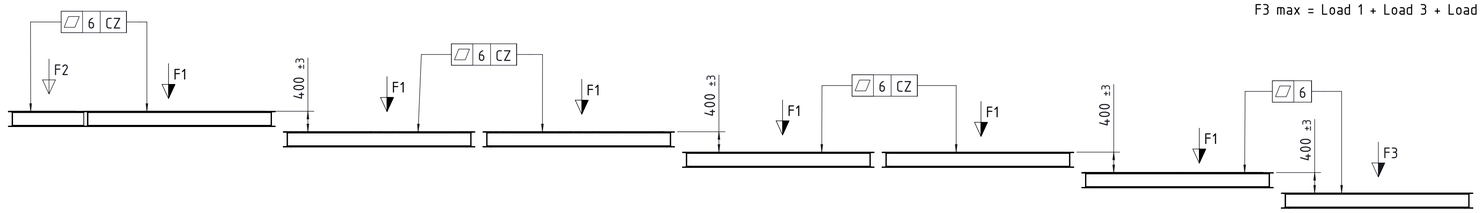
F1 max = Load 1 + Load 3 + Load 4

F2 max = Load 5 + Load 7

F3 max = Load 1 + Load 3 + Load 4 + Load 5 + Load 8



Footing Load Table TankCell® e30				
Load	Description	Vertical (kN)	Horizontal (kN)	Moment (kNm)
1	TANK DEAD LOAD	103	0,0	0,0
2	NORMAL OPERATING FLUID LOAD SG_{app}= 1,40 t/m³	504	0,0	0,0
3	MAX FLUID LOAD SG_{sanded}= 1,82 t/m³	656	0,0	0,0
4	PLATFORM LIVE LOAD 5 kPa	61	0,0	0,0
5	FEED/DISCHARGE BOX DEAD LOAD	10	0,0	0,0
6	FEED/DISCHARGEBOX OP'G FLUID LOAD SG_{app} = 1,40 t/m³	156	0,0	0,0
7	FEEDBOX MAX FLUID LOAD SG_{sanded} = 3,50 t/m³	391	0,0	0,0
8	DISCHARGEBOX MAX FLUID LOAD SG_{sanded} = 1,82 t/m³	203	0,0	0,0
9	SEISMIC LOAD (+/-) Sp= 0,40	0,0	355	682
10	WIND LOAD (+/-) q_S= 1,00 kPa	0,0	27	77
11	SNOW LOAD p_s= 1,3 kN/m²	8	0,0	0,0
*	NORMAL OPERATING SPEED (RPM)	142,0		

Seismic data

Site Class:	D		
Seismic Use Group:	I		
Occupancy Category:	II		
Design Category:	D		

Wind data

Wind speed:	40	m/s
q_s:	1,00	kPa
Exposure:	C	
Max Ground Clearance:	2,1	m

LOADING NOTES:

1. ALL LOADS LISTED ARE PRIMARY LOADS SUITABLE FOR STRENGTH LIMIT STATE COMBINATIONS TO ASCE 7
2. SEISMIC LOADS ARE CALCULATED IN ACCORDANCE WITH ASCE 7 RULES CONSIDERING DYNAMIC SLOSHING EFFECTS OF NORMAL OPERATING SG LIQUIDS
3. COMBINATIONS INCLUDING SEISMIC LOAD TO USE NORMAL OPERATING FLUID LOAD AS LIVE LOAD
4. WIND LOADS LISTED ARE TO ASCE 7 FOR THE NOMINATED WIND SPEED
5. WIND AND SEISMIC LOAD MAY BE APPLIED IN ANY DIRECTION
6. TOTAL LOADS AND MOMENTS ARE CALCULATED AT THE UNDERSIDE OF TANK BOTTOM
7. ALL LOADS ARE PER TANK OR FEED/DISCHARGE BOX
8. THE LOWEST NATURAL FREQUENCY OF COMBINED MACHINE, FLUID LOAD, AND SUPPORT SYSTEM IN ANY DIRECTION MUST EXCEED 1.5 TIMES THE ROTOR ROTATIONAL FREQUENCY (REFER NORMAL OPERATING SPEED*)
9. ALL LOADS ASSUME UNIFORM SUPPORT OF TANK BASE AND FEEDBOX/DISCHARGE BOX. (TANK LOCATED ON GROUND OR CONCRETE SLAB)

FOUNDATION AND SUPPORT TOLERANCES

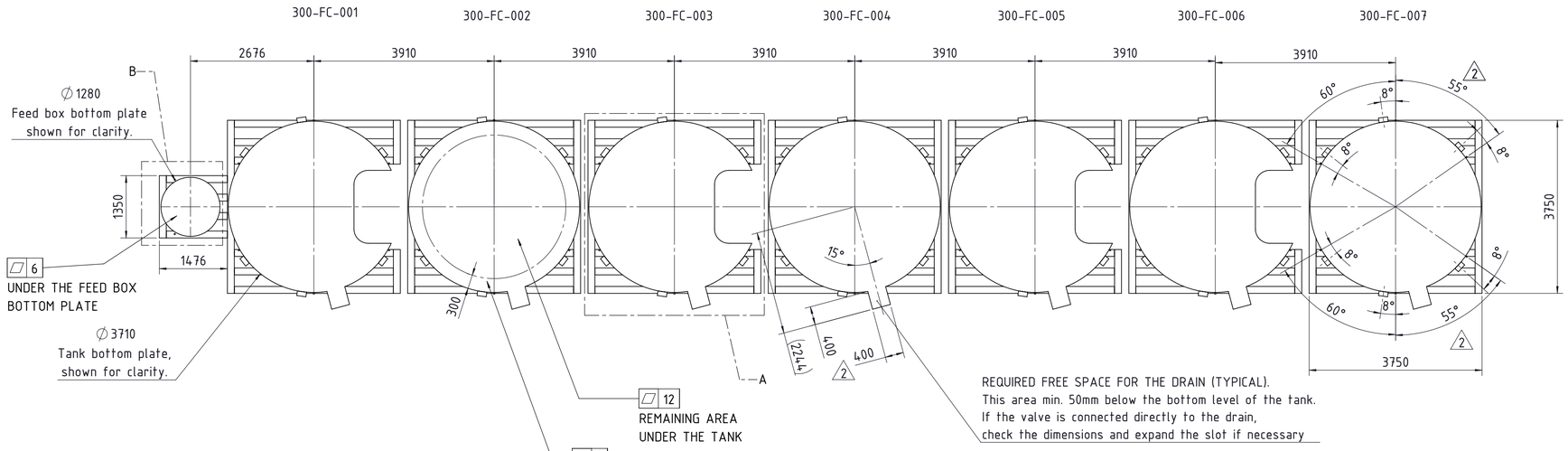
1. THE FIRST 300mm WIDTH OF AN ANNULAR RING MEASURED FROM THE OUTSIDE OF THE TANK RADIALLY TOWARDS THE CENTRE SHALL BE WITHIN +/-3mm OF THE DESIGN LEVEL
2. THE REMAINDER OF THE FOUNDATION SHALL BE WITHIN +/-6mm OF THE DESIGN LEVEL
3. THE DESIGN LEVEL BETWEEN THE FOUNDATIONS OF TWO ADJACENT CELLS SHALL BE WITHIN +/-2mm (REFER TO DETAILS)

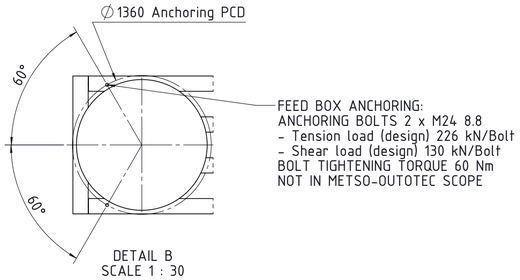
CONCRETE NOTES: (WHERE CELLS ARE INSTALLED ON CONCRETE)

1. CONCRETE FOUNDATION OUTLINE SHOWN GIVES NOMINAL EDGE DISTANCE FOR HOLD-DOWN BOLT TO EDGE OF FOUNDATION AT 110mm
2. FINAL OVERALL CONCRETE FOUNDATION DIMENSION AND REQUIRED HOLD-DOWN BOLT EDGE DISTANCE TO BE DETERMINED BY CLIENT

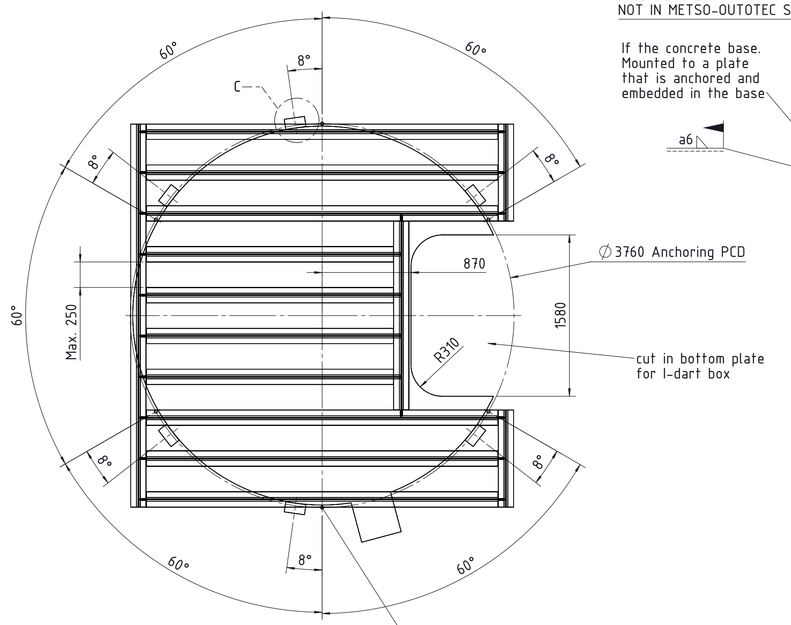
Note!
With feedbox/discharge box effect:

Load	Description	Vertical (kN)	Horizontal (kN)	Moment (kNm)
9	SEISMIC LOAD (+/-) Sp= 0,40	0,0	448	940
10	WIND LOAD (+/-) q_S= 1,00 kPa	0,0	40	71

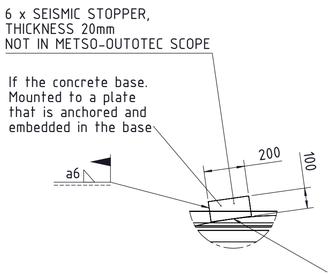




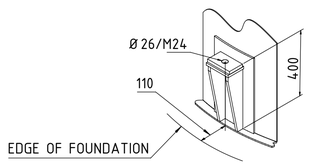
DETAIL B
SCALE 1 : 30



DETAIL A
SCALE 1 : 30



DETAIL C
SCALE 1 : 15



TYPICAL ANCHOR CHAIR

NOTE!
STEEL ARRANGEMENT IS ONLY INDICATIVE!
NOT IN METSO-OUTOTEC SCOPE

SUPPORT STRUCTURE IS NOT BY Metso-Outotec!
NON-FULLY SUPPORTED TANK BOTTOM SUPPORT ACCORDING TO EN 14015:2004

Tank bottoms which are not fully supported by a continuous foundation can be supported on structural supports manufactured from structural steel sections or reinforced concrete beams.

It is recommended to support the bottom of the tank completely when possible.

This drawing contains an example of steel grillage arrangement constructed from IPE beams according to EN 10034

Standard tanks are designed for slurry specific gravity of 1,4, solids specific gravity of 3,5 with 20% of tank volume sanded.

Flatness tolerance overall +/- 6 mm
Between beams side by side +/- 3 mm

Recommended beam IPE 300.

STATUS						EQUIPMENT NO.	
CUSTOMER: RMG Auramine LLC					PROJECT PHASE		SITE NO.
PROJECT NAME: RMG Beqtaqari Flotation						CUSTOMER DOCUMENT NO.	
PROJECT ID: 903006	PLANT CODE	PLANT UNIT CODE	DOCUMENT TYPE	COUNTING NO.	REVISION: 2	SHEET OF SHEETS: 1 / 1	

REV.	PREPARED NAME	PREPARED DATE	CHECKED NAME	CHECKED DATE	APPROVED NAME	APPROVED DATE	REVISION TEXT
0	pekkall	23.11.2021	pasraj	23.11.2021	anthay2	23.11.2021	APPROVED
1	pekkall	02.12.2021	JorLeh	02.12.2021	kallau	02.12.2021	CERTIFIED FOR CONSTRUCTION
2	JorLeh	15.02.2022	pekkall	17.02.2022	AntEte	17.02.2022	CERTIFIED FOR CONSTRUCTION

Metso:Outotec

REPLACED BY

REPLACES

DOCUMENT TITLE
GUIDE DRAWING
FOUNDATION
FB+1+1+1+1
TankCell® e30

LANGUAGE	UNITS	SCALE	SIZE	SHEET OF SHEETS
EN	mm	1:60	A1	1 / 1

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