

ATV GRIT CHAMBER DESIGN

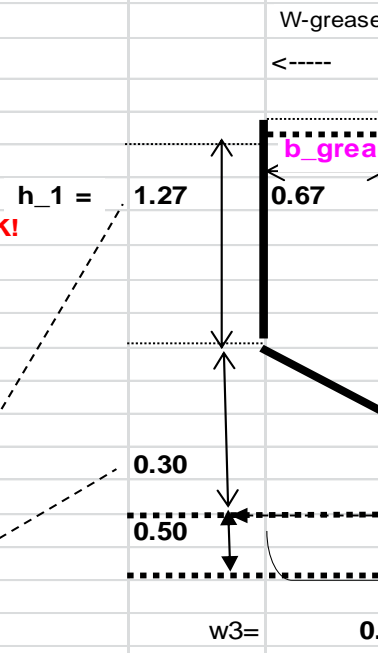
Input Yellow Cells

Try not to change brown cells

INPUTS

Q _{av,d} =	8,000	m ³ /d
Q _{max}	16,000	m ³ /d
No of Grit Chambers	2	
(b _{grease} /b _{grit}) (0.2-0.5)	0.5	OK!
W= W _{grease} + W _{grit} (2.5 - 7.0 m)	2	OK!
Bottom Angle (35- 45 o) =	45	OK!
(b _{grit} / H <1.0) =	0.85	OK!
L = 10 * W	20.0	m
Chosen L (10 - 50 m) =	20.0	=< 50m, OK!
Q _{design} /No of Grit Chamber	8,000	m ³ /d

Side wall depth beneath diffuser=	0.3	m
Hopper Depth=	0.5	
Hopper Angle=	55	
Bottom Width=	0.7	
Bottom Depth=	0.5	
bottom width w1	0.3	
bottom width w2	0.35	
bottom width w3	0.30	
side wall depth beneath grease part	0.30	
side wall depth grease	1.27	
check	2.07	2.07
hopper top width	1.40	



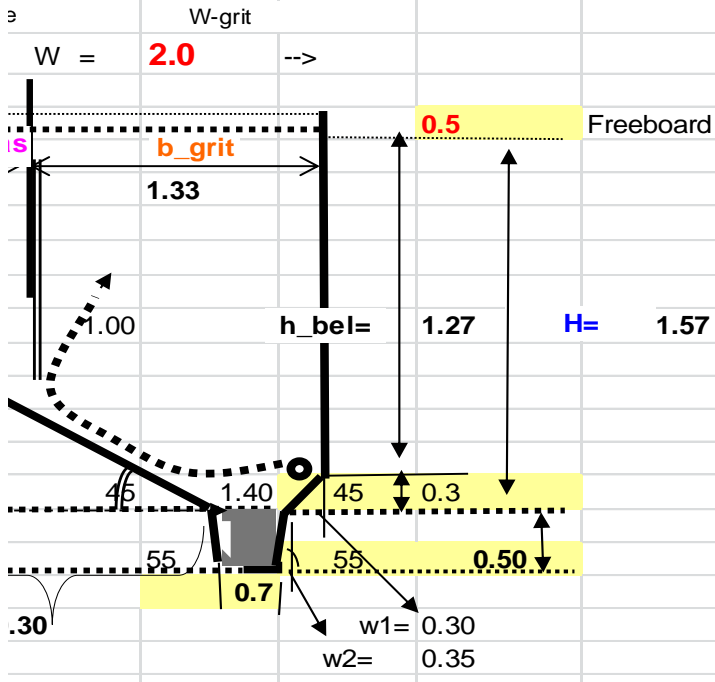
RESULTS

(b _{grease}) =	0.67	m
(b _{grit}) =	1.33	m
Depth H (b _{grit} / H <1.0) =	1.57	m
SurfLoadGrease m/h	25.0	<25 m/h, OK
A _{flow} =	3.0	m ²
Vol (excluding grit hopper)=	60.9	m ³
t _R = Vol/Q (10 - 20 min)	11.0	< 20, OK!
v _{horiz} (0.2 m/s) =	0.030	m/s

AIR

Q _{air} =	1.3	Nm ³ /h/m ³ vol
Q _{air} =	79	Nm ³ /h

1.57



--	--	--	--	--	--