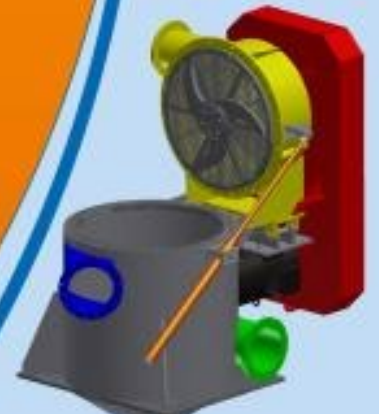


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Since 1999



GREBIEN QUALIFIBER - SIMPLY AND EFFICIENT

QUALIFIBER CUBE Pulper ...next Generation



Aim / Idea:

- In OCC lines the first process step = Pulping
- Pulping is the most energy intensive equipment

QUALIFIBER CUBE Pulper ...next Generation



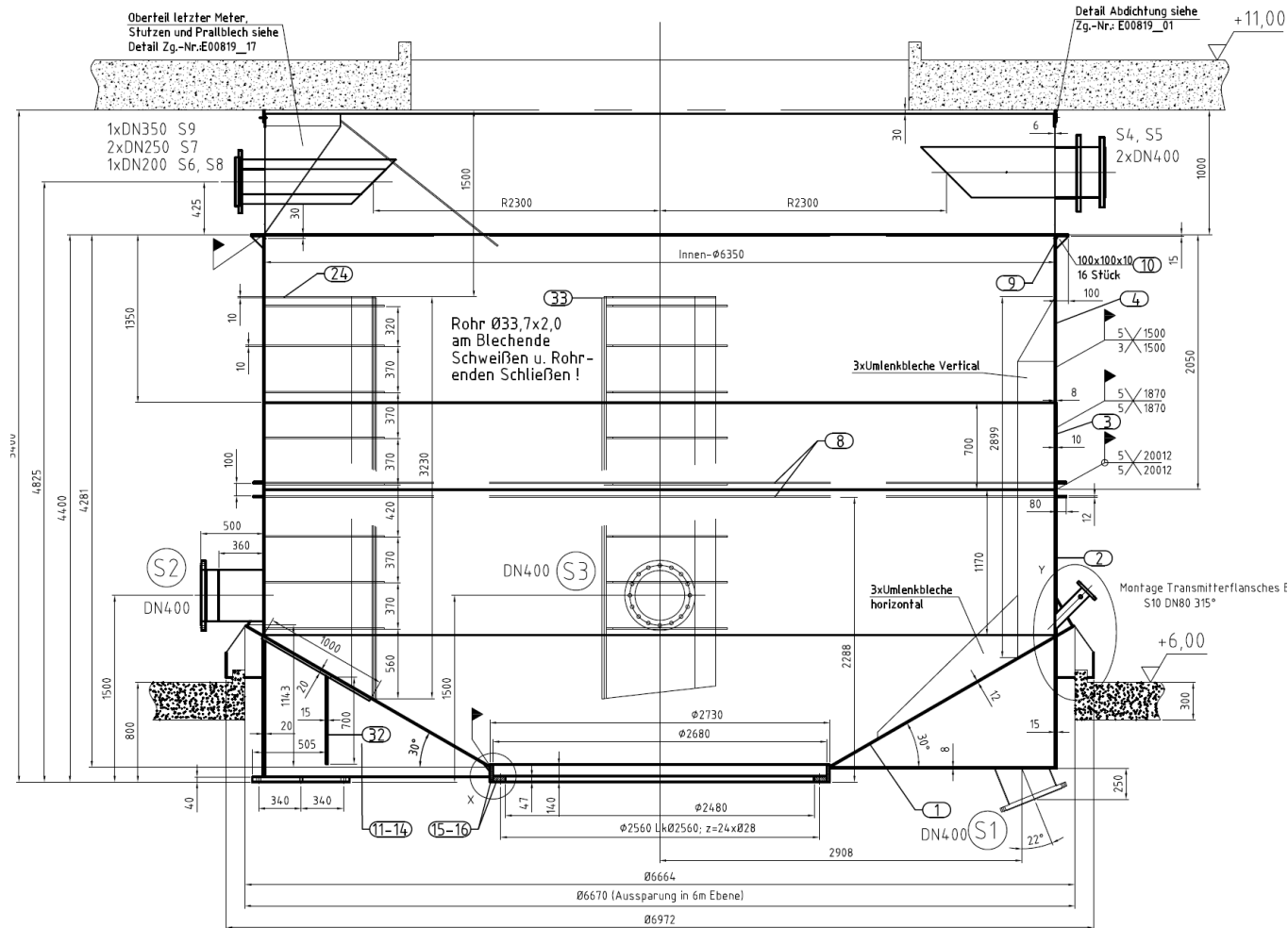
Aim / Idea for pulping:

- Reduction of energy consumption >20%
- Strong vortex WITHOUT baffles
- Space saving design

QUALIFIBER CUBE next generation...



Standard / actual Pulper:



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Used Pulper:



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Standard Stofflöser:



Need for Vortex:

- 8-10 kW/m³

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Qualifiber conic Pulper:

QFA Pulper 65 m³ conical

Power requirement P= approx. 500 kW

Rotor speed n= 135-180 rpm

with FC (customer provided)

Machine weight G1 = approx. 17.200 kg
(empty, without motor)

Volume = approx. 65 m³

Drive: Moventas 2KPC500PP

weight: 2750 kg

Dwg.-No.: GDR0004376

Pulper turns only counterclockwise

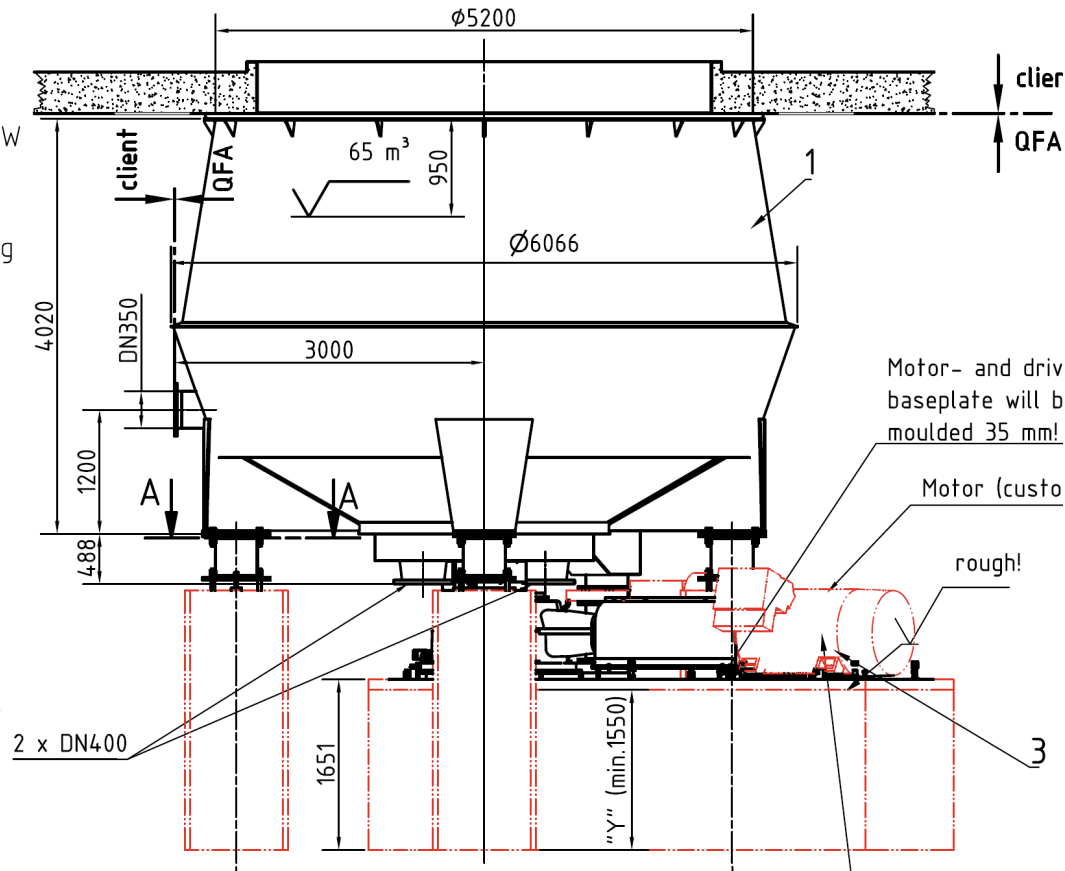
Flange connection dimensions
according to DIN 2632-ND10

1 safety guard for coupling

26x Stone bolts DIN 529- A- M36x800
complete with hexagonal nut

1x baseplate for drive and motor

Customer supply



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Conical Pulper:



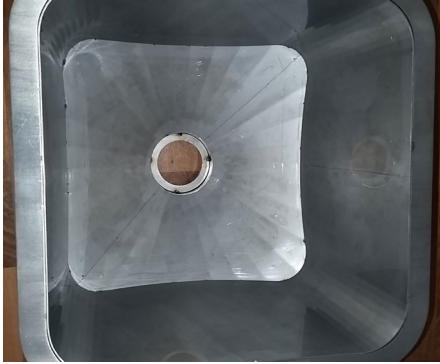
Need:

- 6-8 kW/m³



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The first construction...:



QUALIFIBER CUBE

next generation...



QUALIFIBER CUBE next generation...

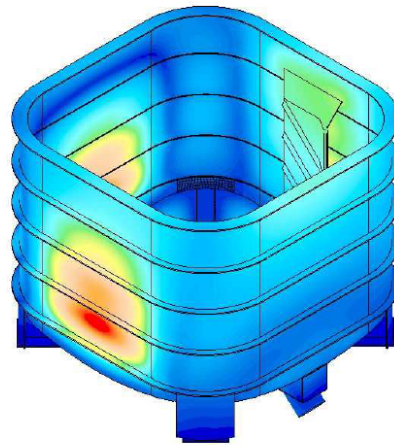
Erster Versuchs - CUBE:



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Berechnungen CUBE:

Autodesk Simulation



***Berechnung des Cube-Pulpers:
Statische Behälterfestigkeit, mit
Schockbelastung und Optimierung der
Antriebswelle***



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Berechnungen CUBE:

2.2.1. Simulationsmodell

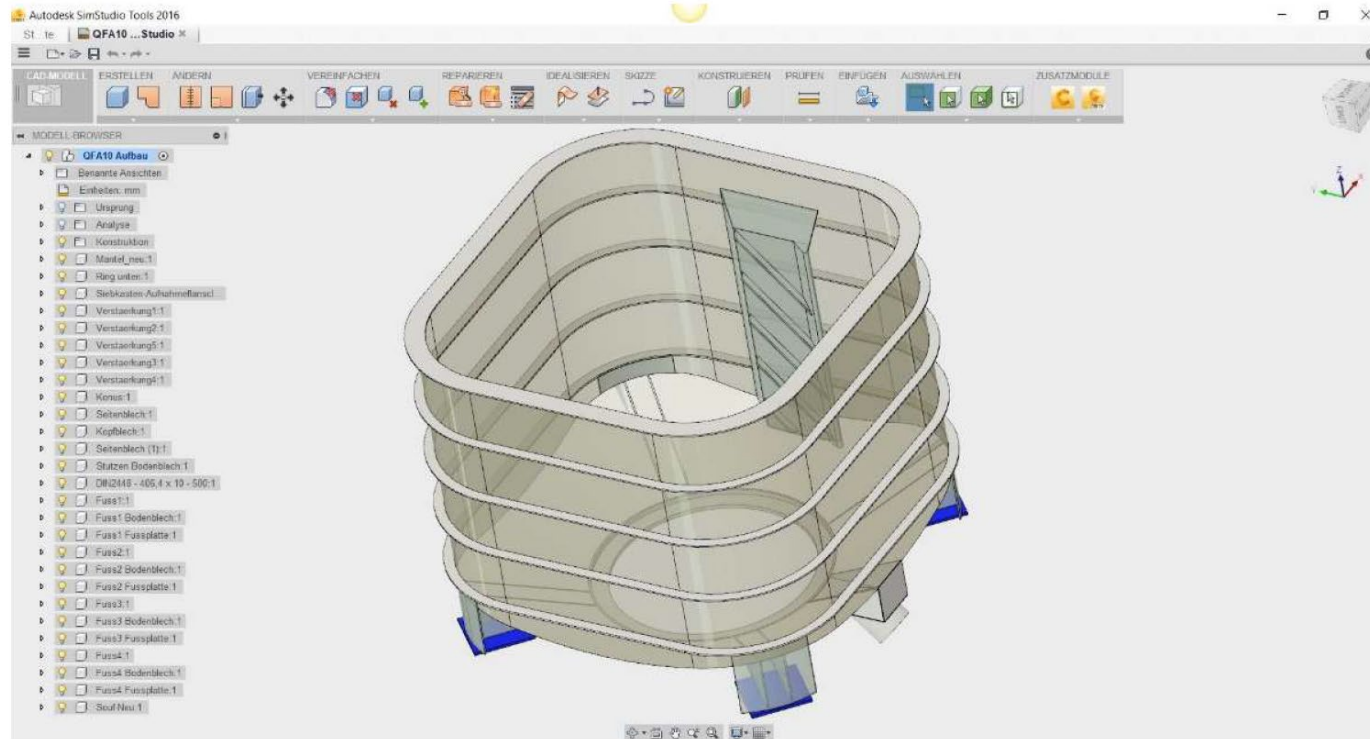


Abbildung 2-1: Simulationsmodell des Pulpers für die Festigkeitsberechnung

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Erster CUBE – August 2020 Kolb Kaufbeuren:



GREBIEN QUALIFIBER - YOUR SPECIALISTS FOR STOCK HANDLING

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Erster CUBE – August 2020 Kolb Kaufbeuren:



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First CUBE:



Bedarf: 5-6 kW/m³

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CUBE 32 - Leistungsdaten - Papierfabrik Vreden
 Leistungstest Stoff

Datum: **06.06.2024**

			Pulper NEU - CUBE 32				
Pos	Bezeichnung	Einheit	Test C 1	Test C 2	Test C 3	Test C 4	Test C 5
1	Nutzvolumen	m³	32	32	32	32	32
2	Arbeitsvolumen	m³	24	24	24	24	24

Leistungstest							
18	Niveau Wasser *	mm					
19	Leistung aufgenommen	kW	24	34	48	62	84
20	Drehzahl	% PLS	62	71	80	89	98
21	Drehzahl	Hz	35	40	45	50	55
22	Video		9				
23	Video			10			
24	Video				11		
25	Video					12	
26	Video						13
27	Bemerkungen		Einstellung 60 Hz nicht möglich Stoffdichte beim Abpumpen laut PLS 4,5 %				

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40 Hz - 34 kW = 1,4 kW/m³:

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45 Hz - 48 kW = 2 kW/m³:

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50 Hz - 62 kW = 2,6 kW/m³:

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55 Hz - 84 kW = 3,5 kW/m³:

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QUALIFIBER CUBE Pulper ...next Generation



Aim / Idea for pulping:

- Reduction of energy consumption >20%
- Strong vortex WITHOUT baffles
- Space saving design

QUALIFIBER CUBE Pulper ...next Generation



LD Pulping compare

Pos	equipment	kW/m ³	%	MWh/y	Cost
1	Cylindric Pulper	8	100	6900	483.000 €
2	Conical Pulper	6,5	81	5600	392.000 €
3	CUBE Pulper - direct drive	5	63	4300	301.000 €
	300.000 mtpy				
	70 €/MWh				

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Conclusion:

- The Qualifiber CUBE Pulper is a very good option for energy and space saving OCC lines
- Rebuilds of existing Pulpers possible by increasing the working volume ~20% at same motor

QUALIFIBER CUSTOMERS



	RenoDeMedici 					
	<i>Green Competence</i> 					

fragen Sie nach unserer kompletten Referenzliste

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