

Fiber

9.6.2008

Kyösti Ihalainen

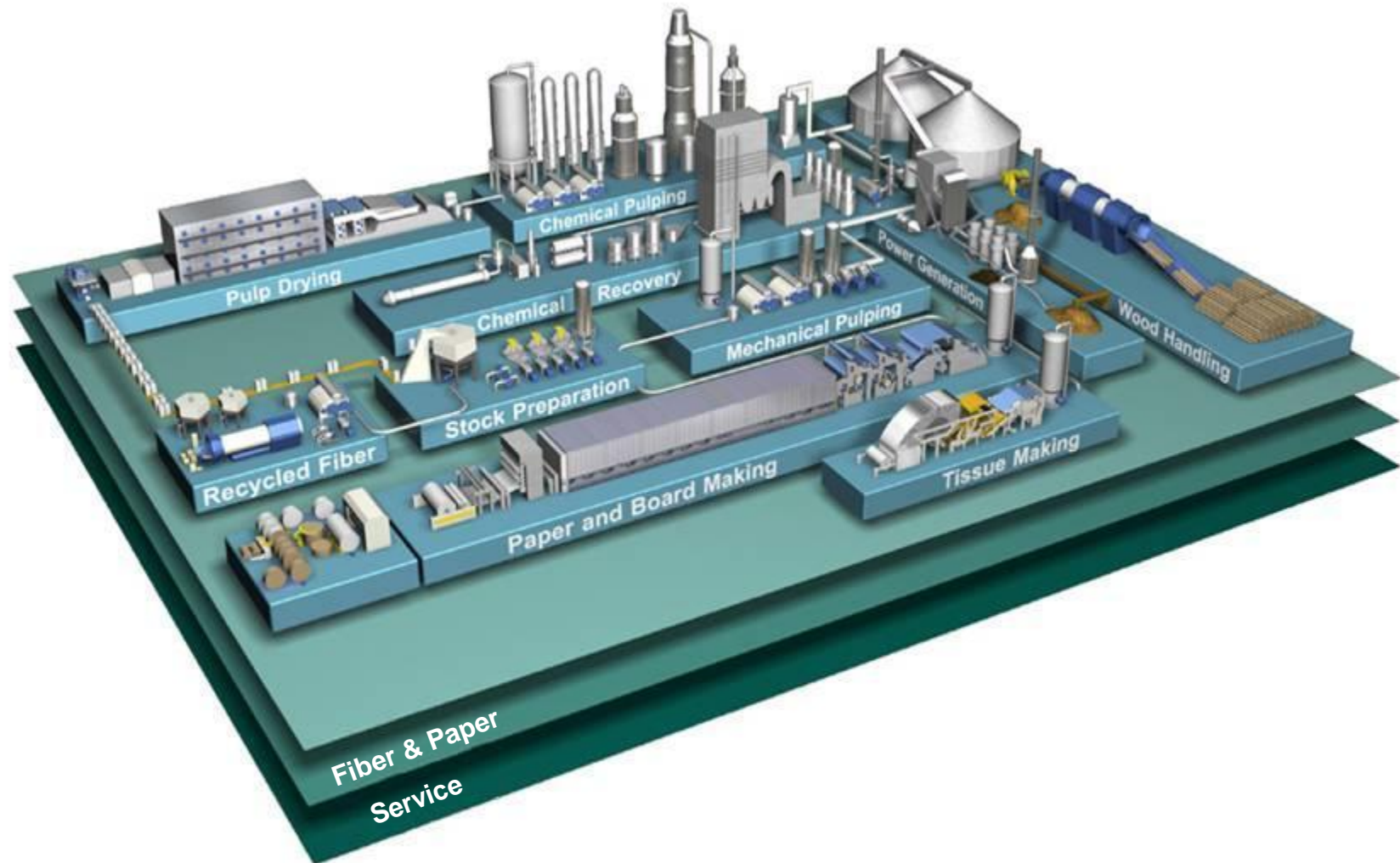
moventas



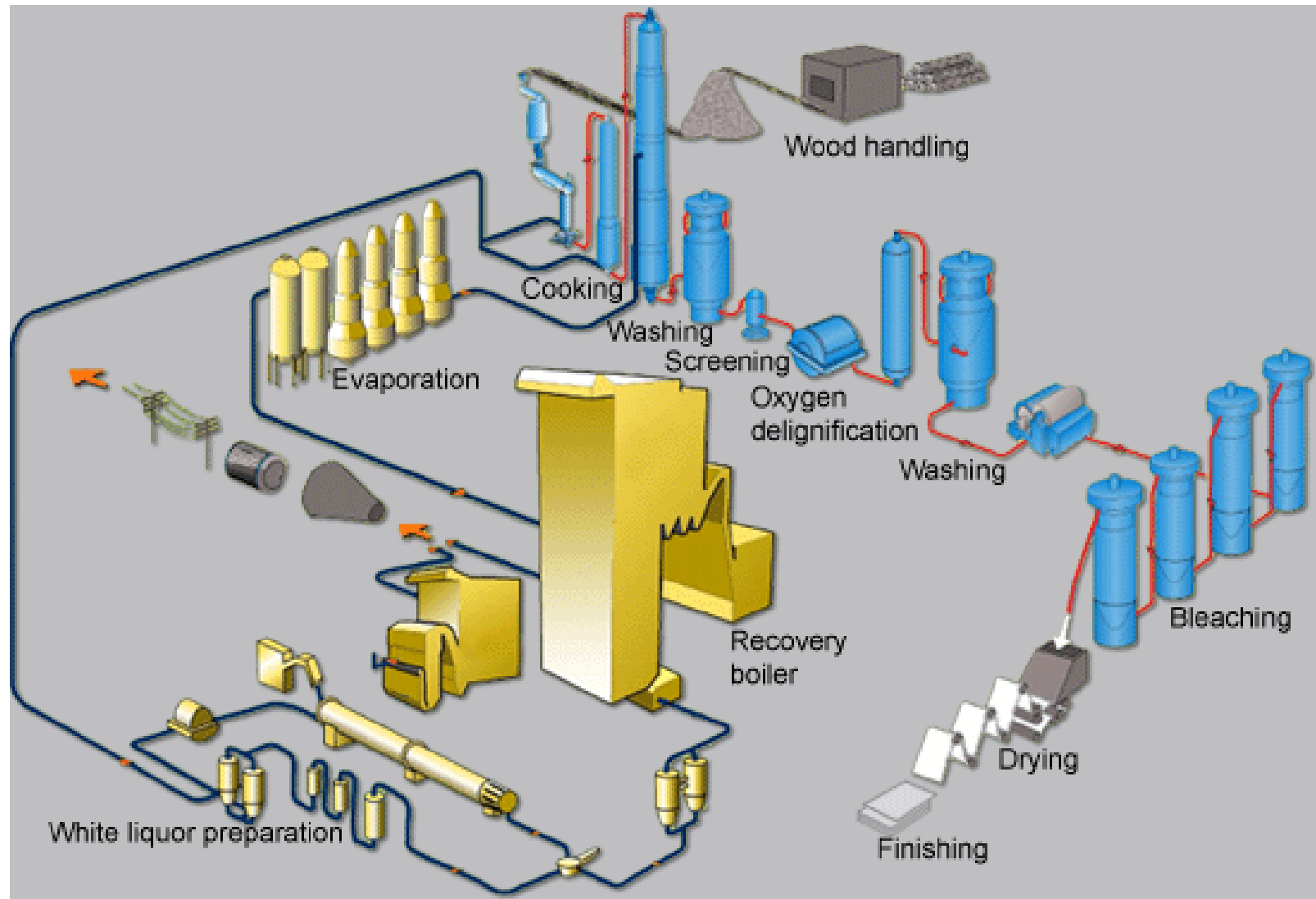
Table of context

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Fiber & Paper Concept Lay-out

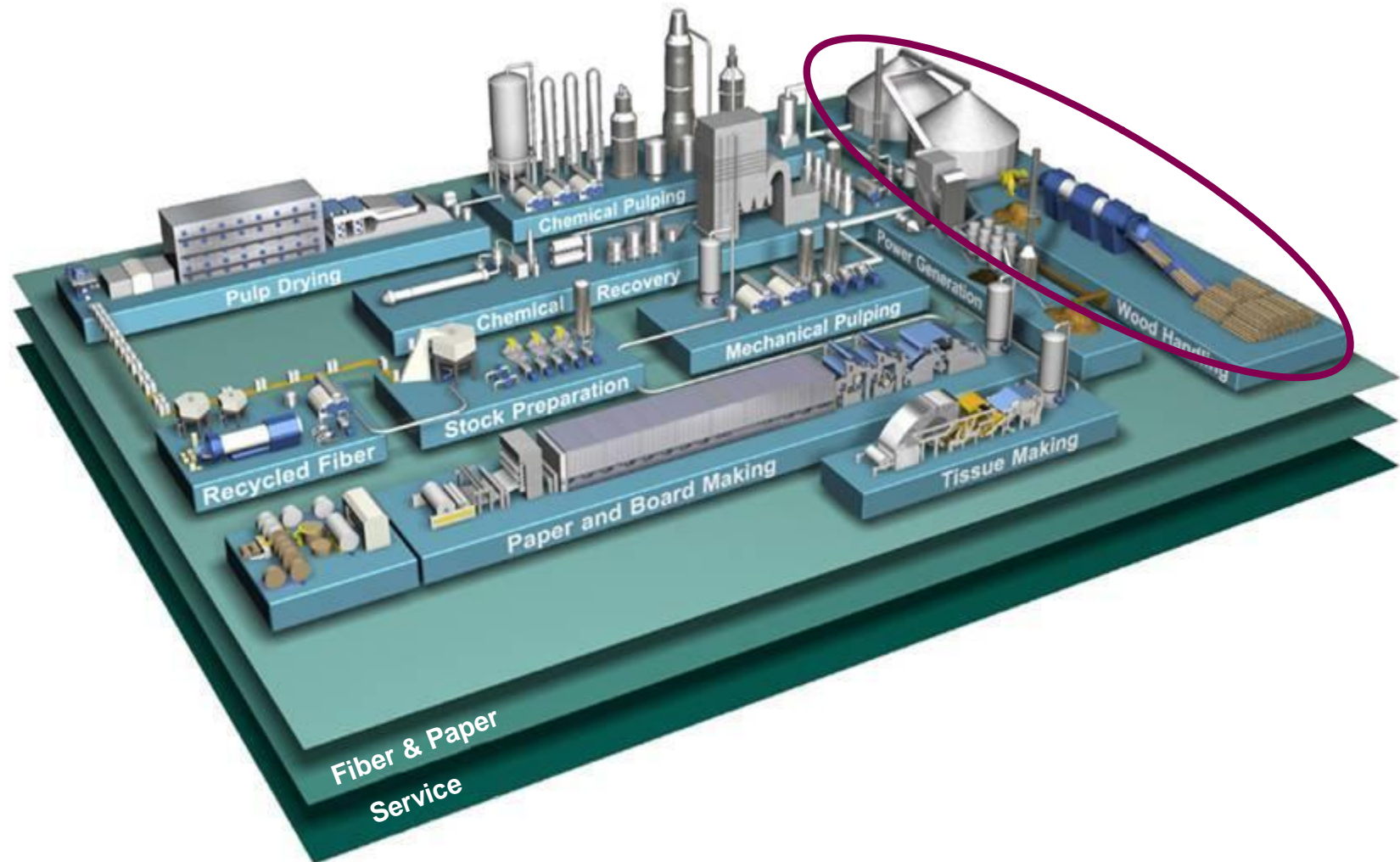


Chemical Pulp Process

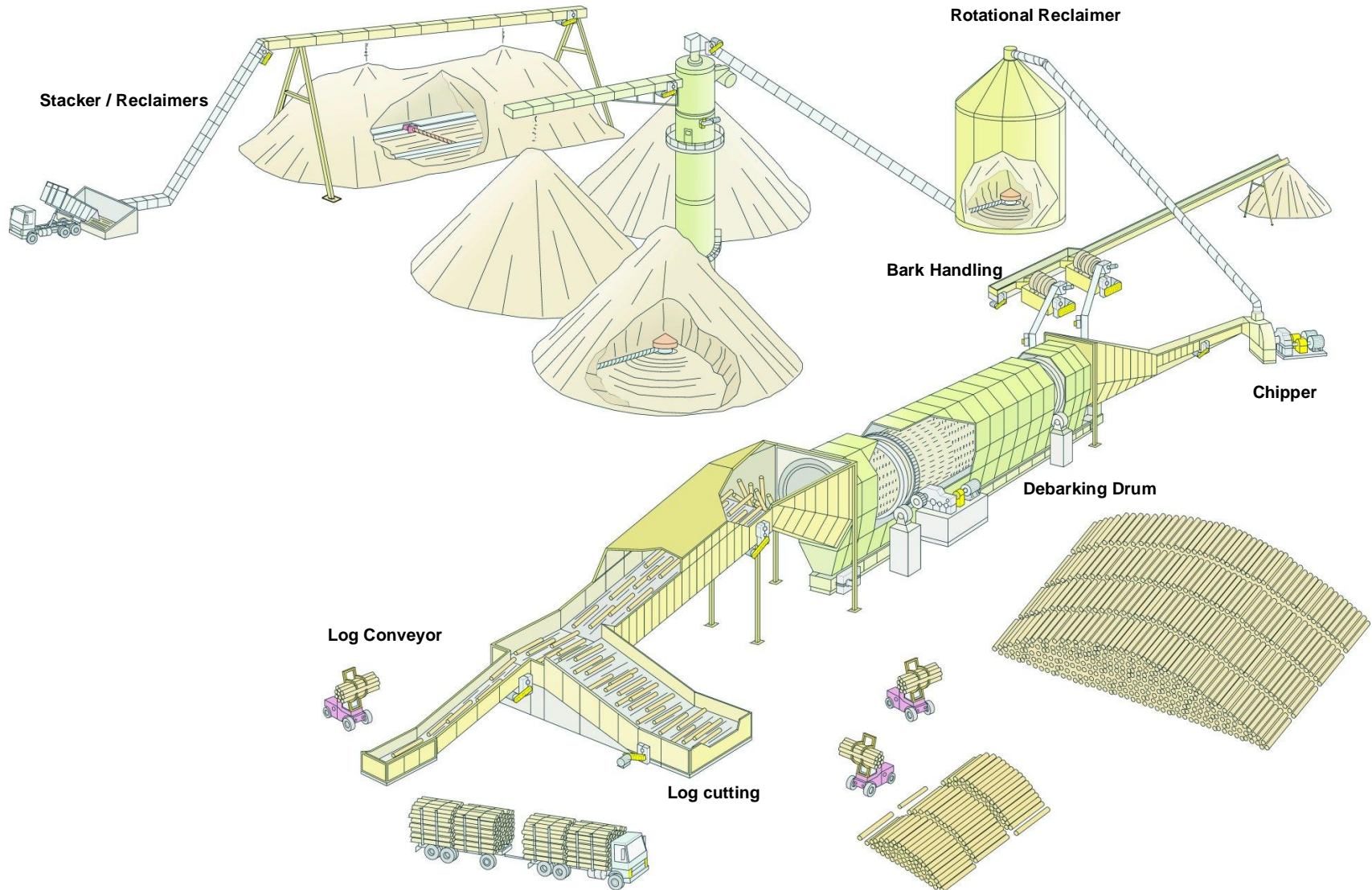




Wood Handling

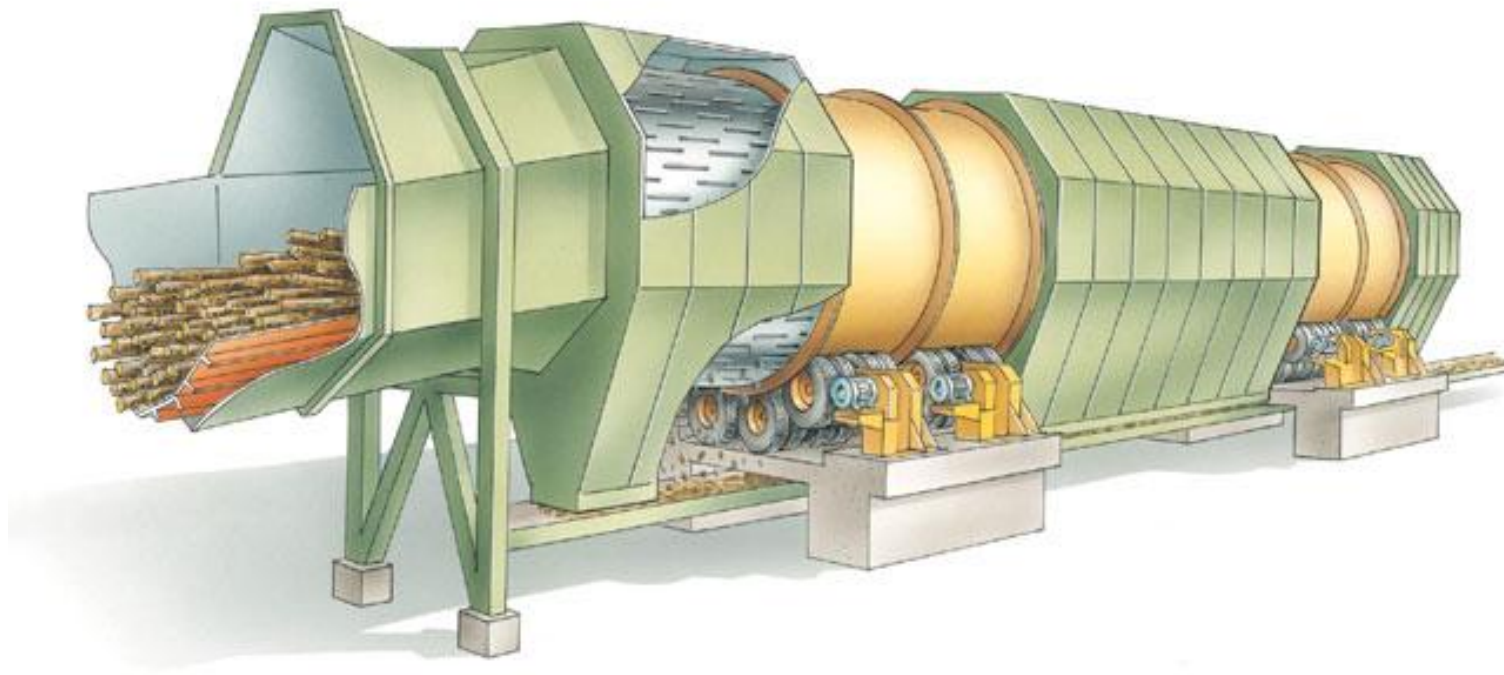


Wood Handling





Debarking Drum





Debarking Drum



Girth ring driven drum

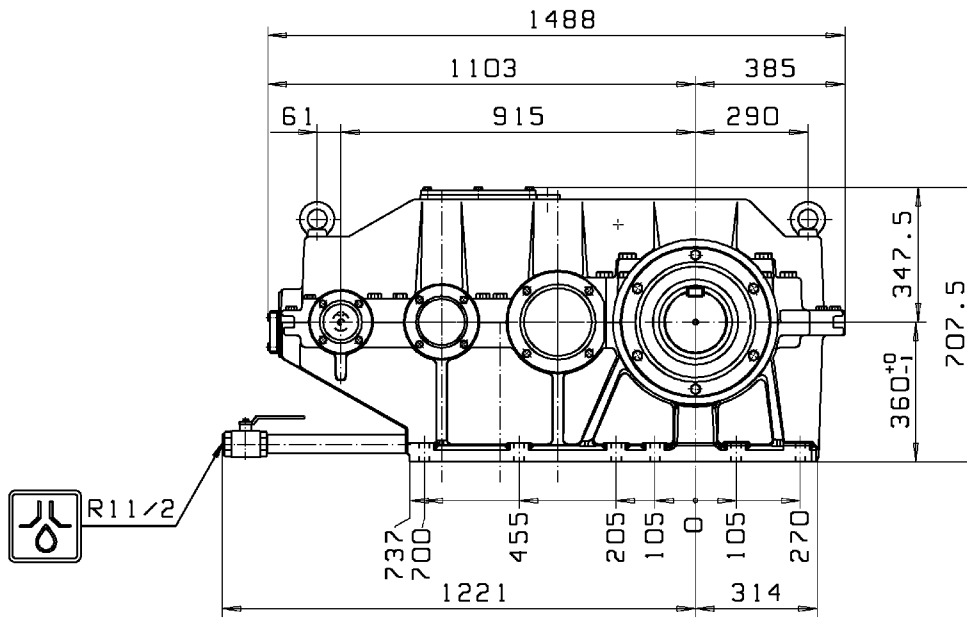


Rubber tyre driven drum



Rubber tyre driven drum

Rubber tyre driven drum Gear Unit

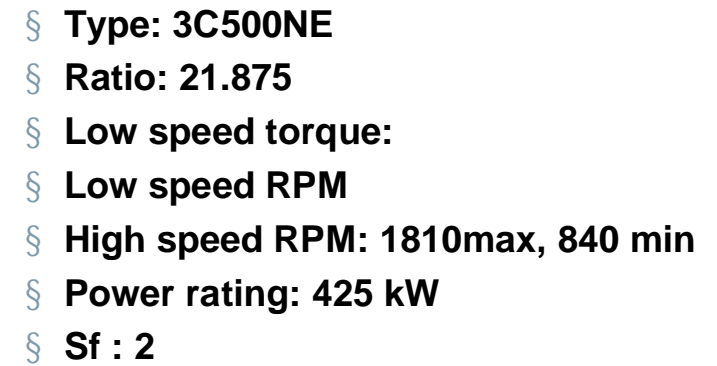


- § Type: D3PSF355BR
- § Ratio: 55,9972
- § Low speed torque:
- § Low speed RPM
- § High speed RPM: 1800max, 900 min
- § Power rating: 55 kW
- § Sf : 2

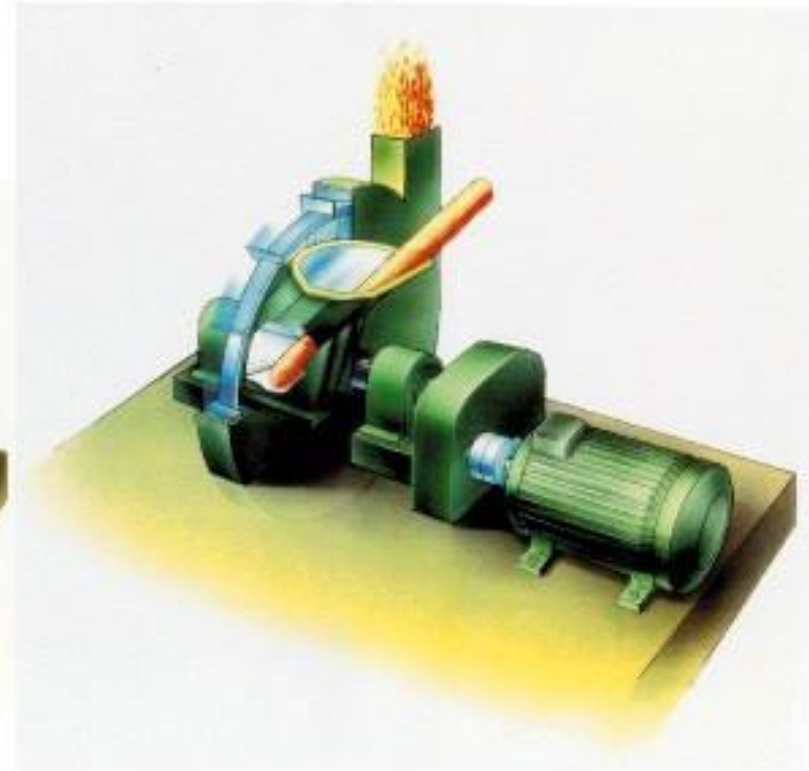
Segmented Girth Gear for Debarking Drum



- § Type: SG195/25/100+HP25/25/130
- § Ratio: 7,8
- § Low speed torque:
- § Low speed RPM: 7,35
- § High speed RPM: 57,4
- § Power rating: 215 kW
- § Sf : 2,5

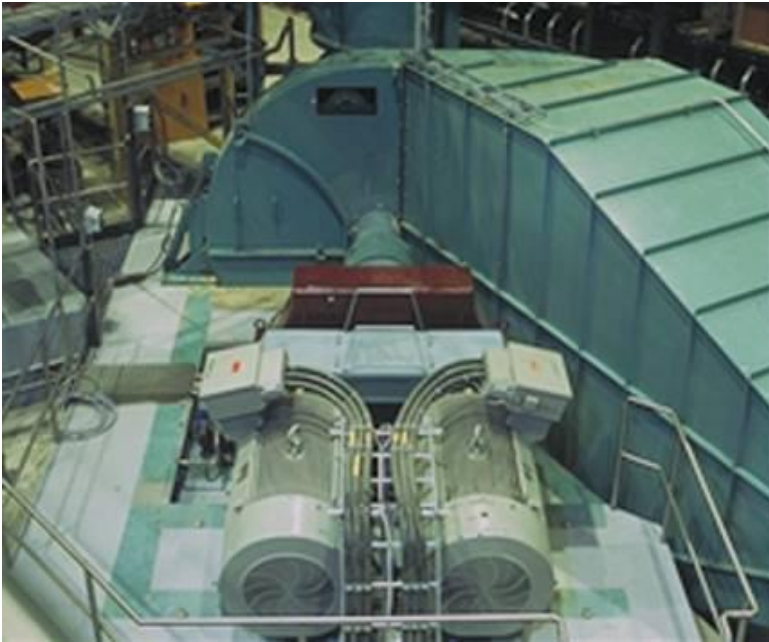


Chipper





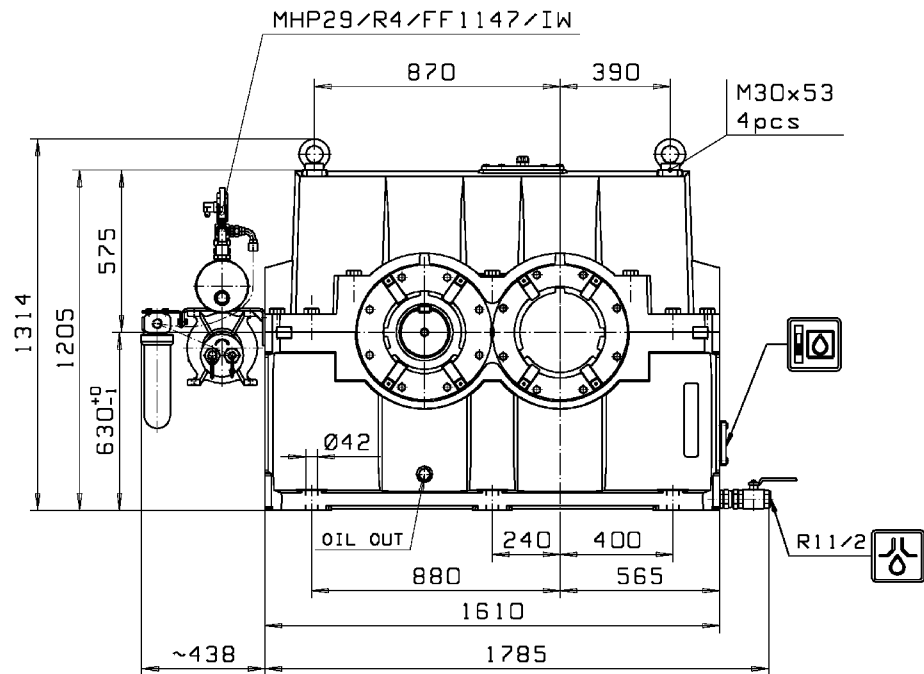
Chipper



Single, Dual and Quadro motor driven chippers

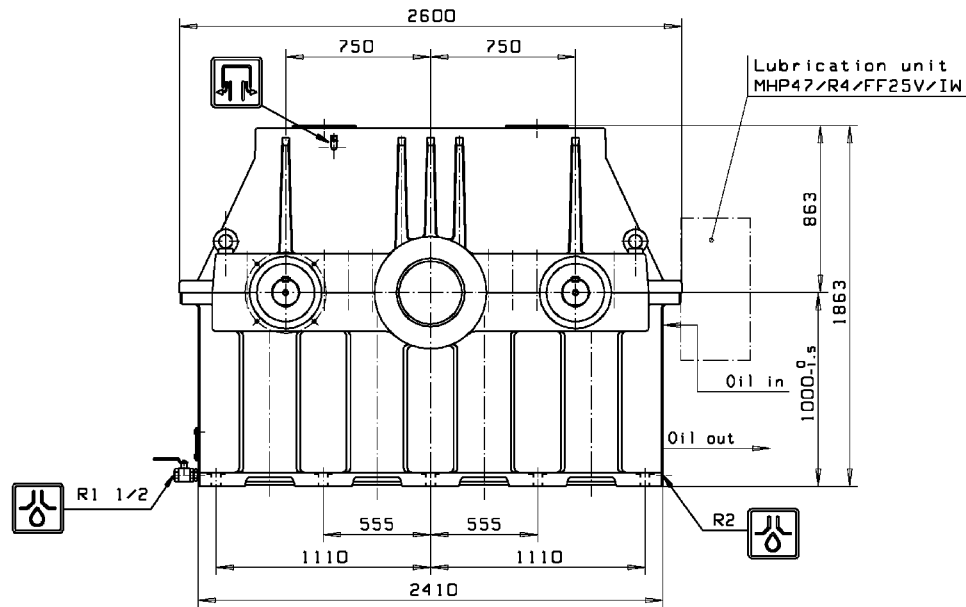


Chipper drive with single input



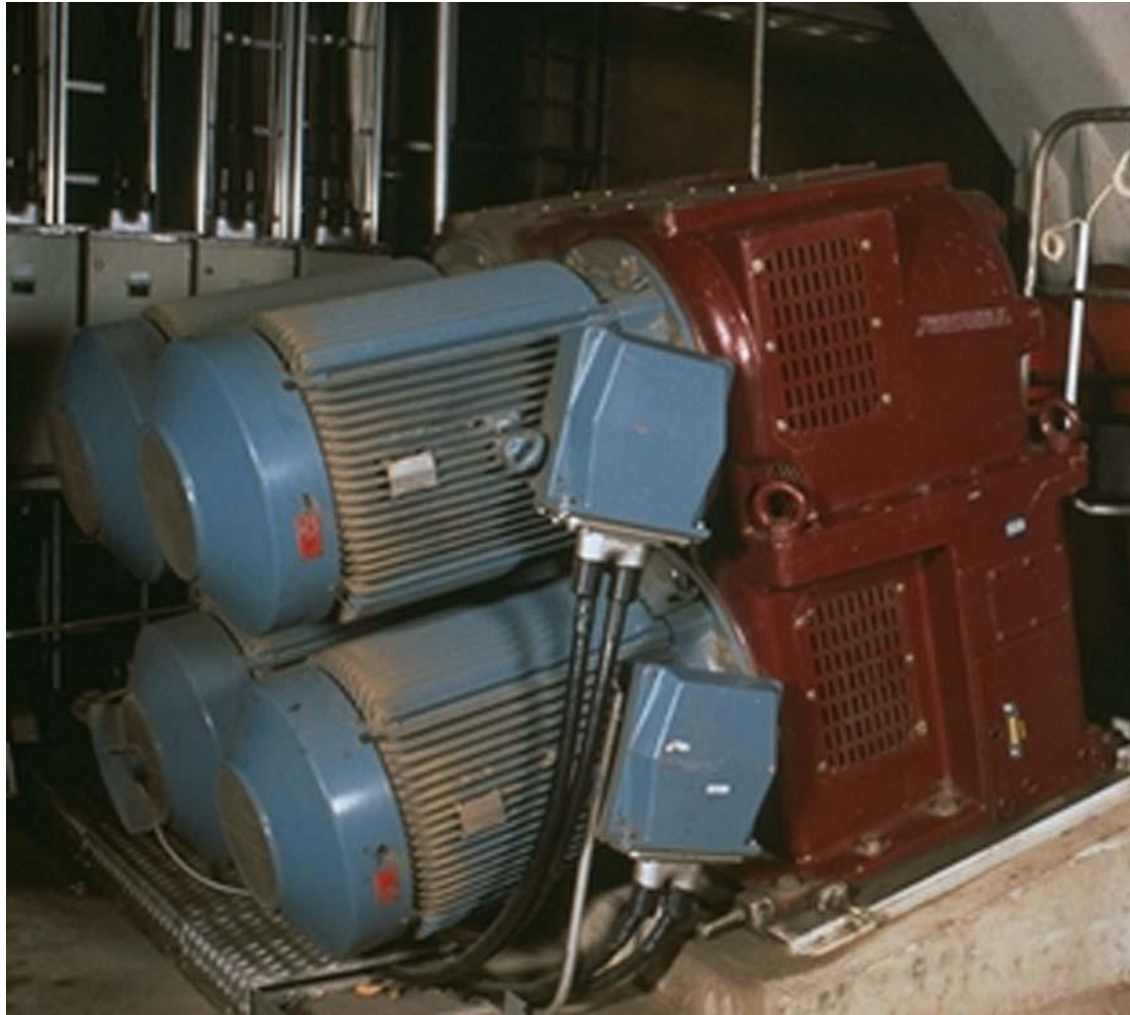
- § Type: D1PSF100CH
- § Ratio: 3.9524
- § Low speed torque: 32.9 kNm
- § Low speed RPM: 303
- § High speed RPM: 1200
- § Power rating: 1063 kW
- § Sf : 4.17

Chipper drive with dual input

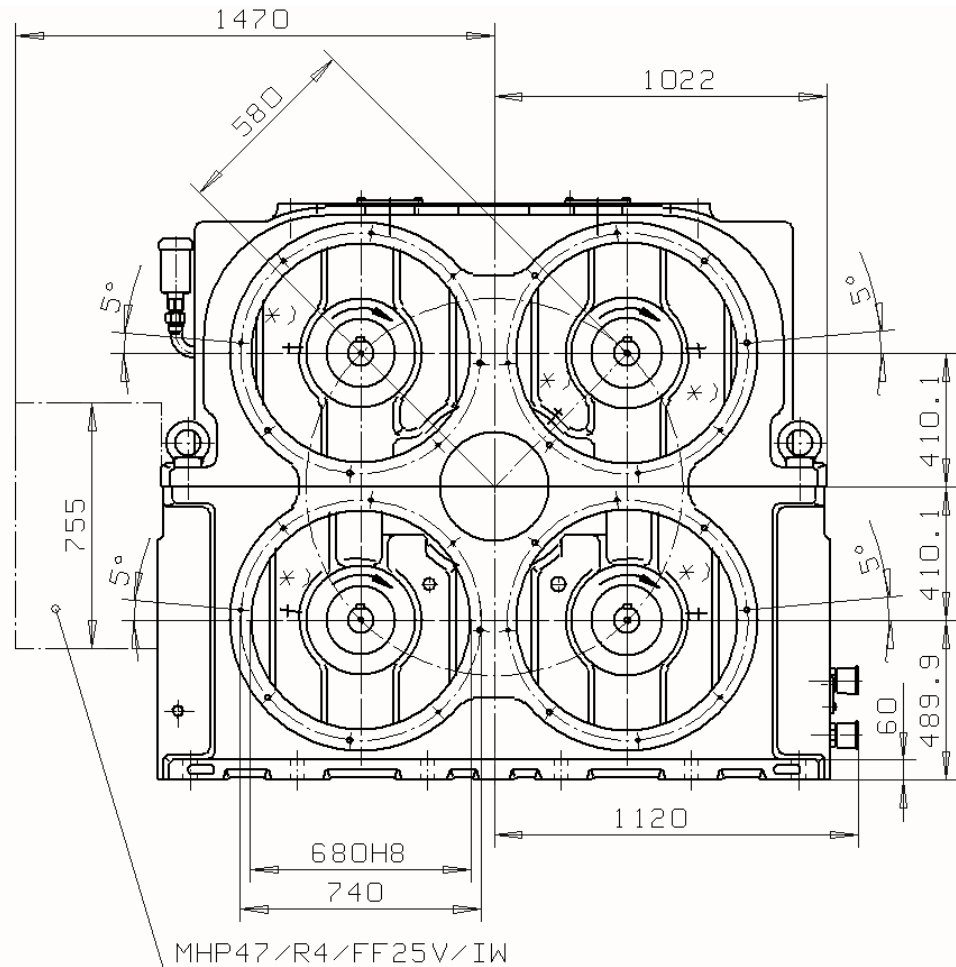


- § Type: 2D1CCH750
- § Ratio: 5.391
- § Low speed torque:
- § Low speed RPM: 329
- § High speed RPM: 1775
- § Power rating: 2237 kW (2 x 1119 kW)
- § Sf : 5.3

4 Motor Chipper



Chipper drive with 4 motor input



- § Type: 4D1CCH580
- § Ratio: 6.043
- § Low speed torque:
- § Low speed RPM: 246
- § High speed RPM: 1488
- § Power rating: 4 x 315 kW
- § Sf : 2.75

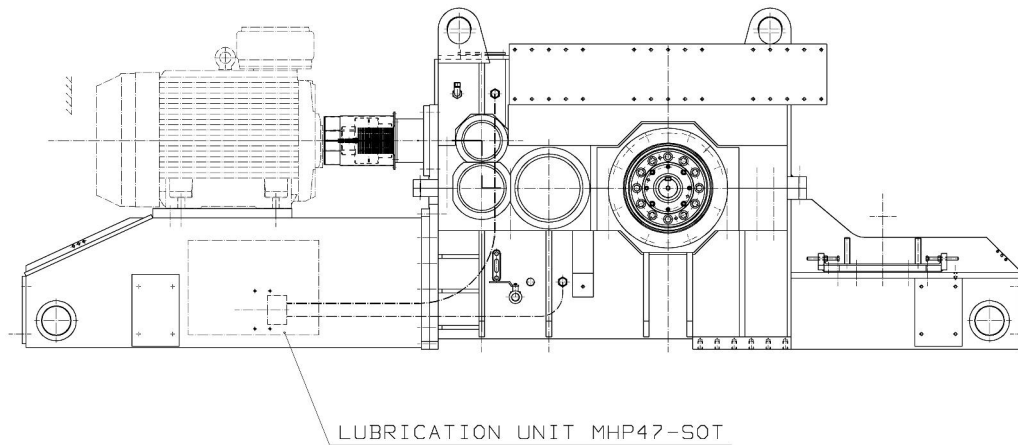
Reclaimer



Screw Reclaimer



Screw Reclaimer Gear Unit



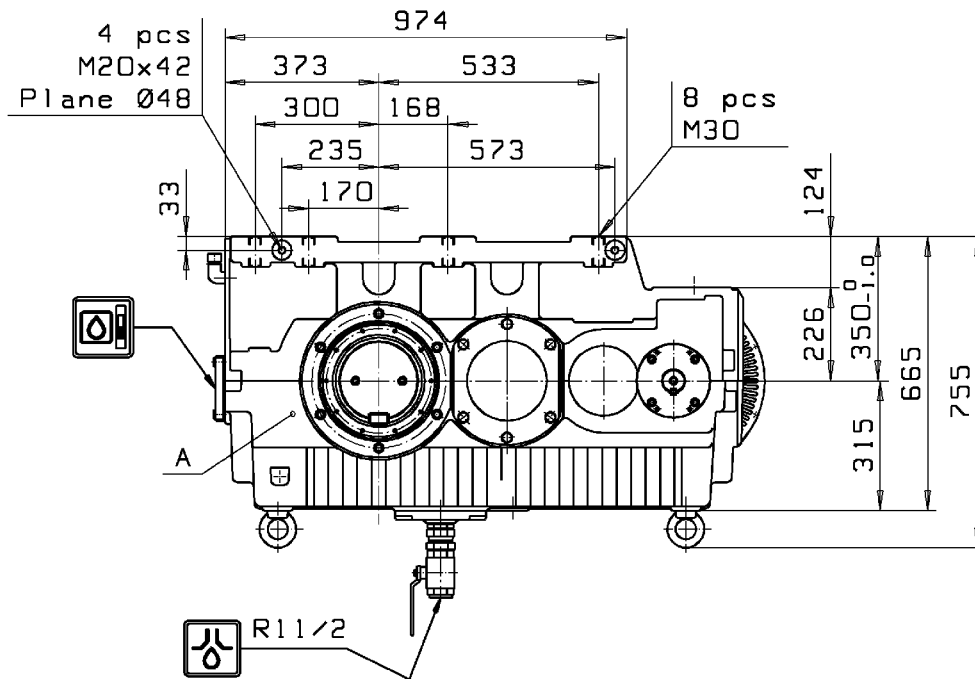
- § **Type: 4TKC630RP**
- § **Ratio:**
- § **Low speed torque:**
- § **Low speed RPM:**
- § **High speed RPM:**
- § **Power rating: kW**
- § **Sf :**



Rotational Reclaimer

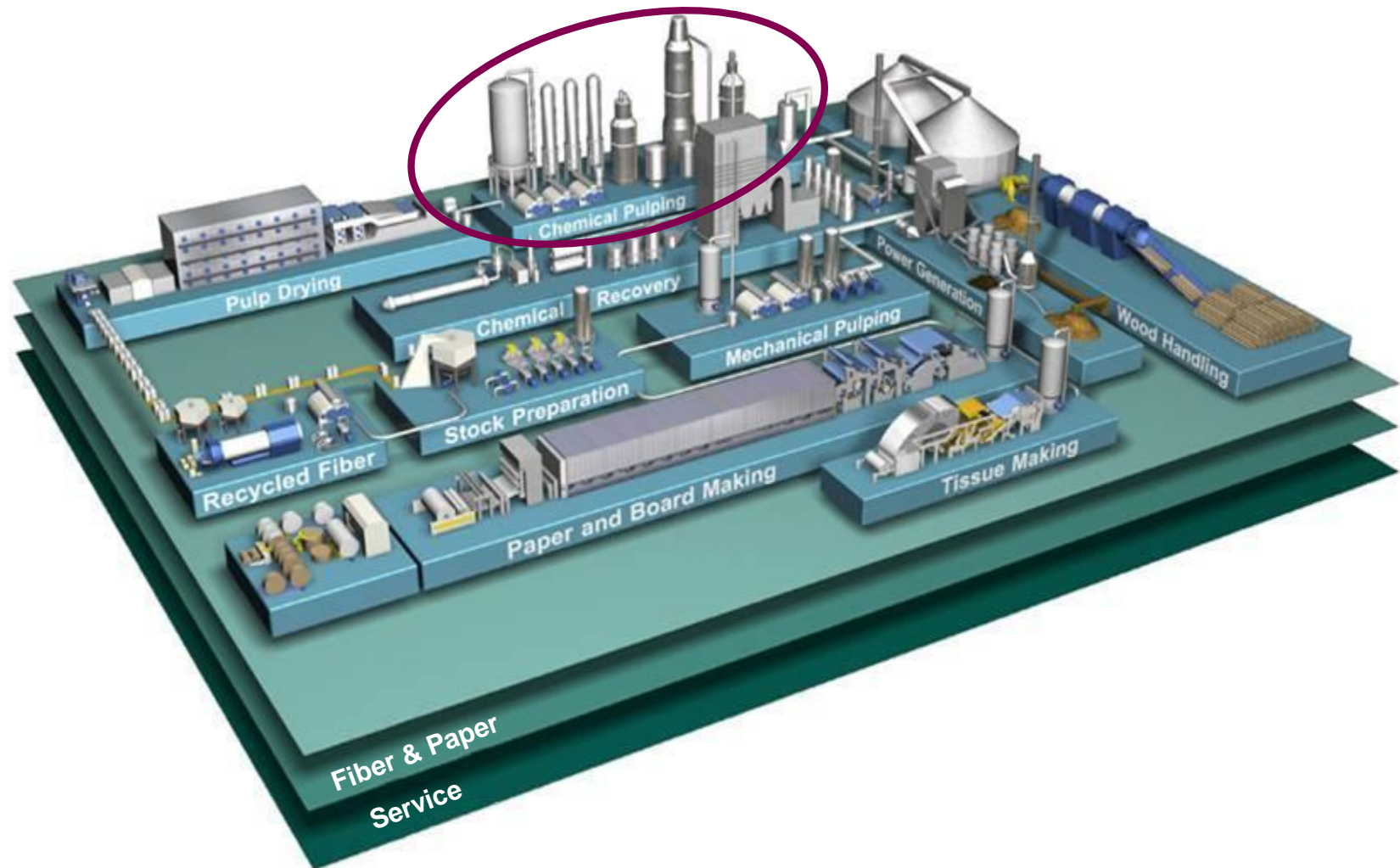


Rotational Reclaimer Gear Unit



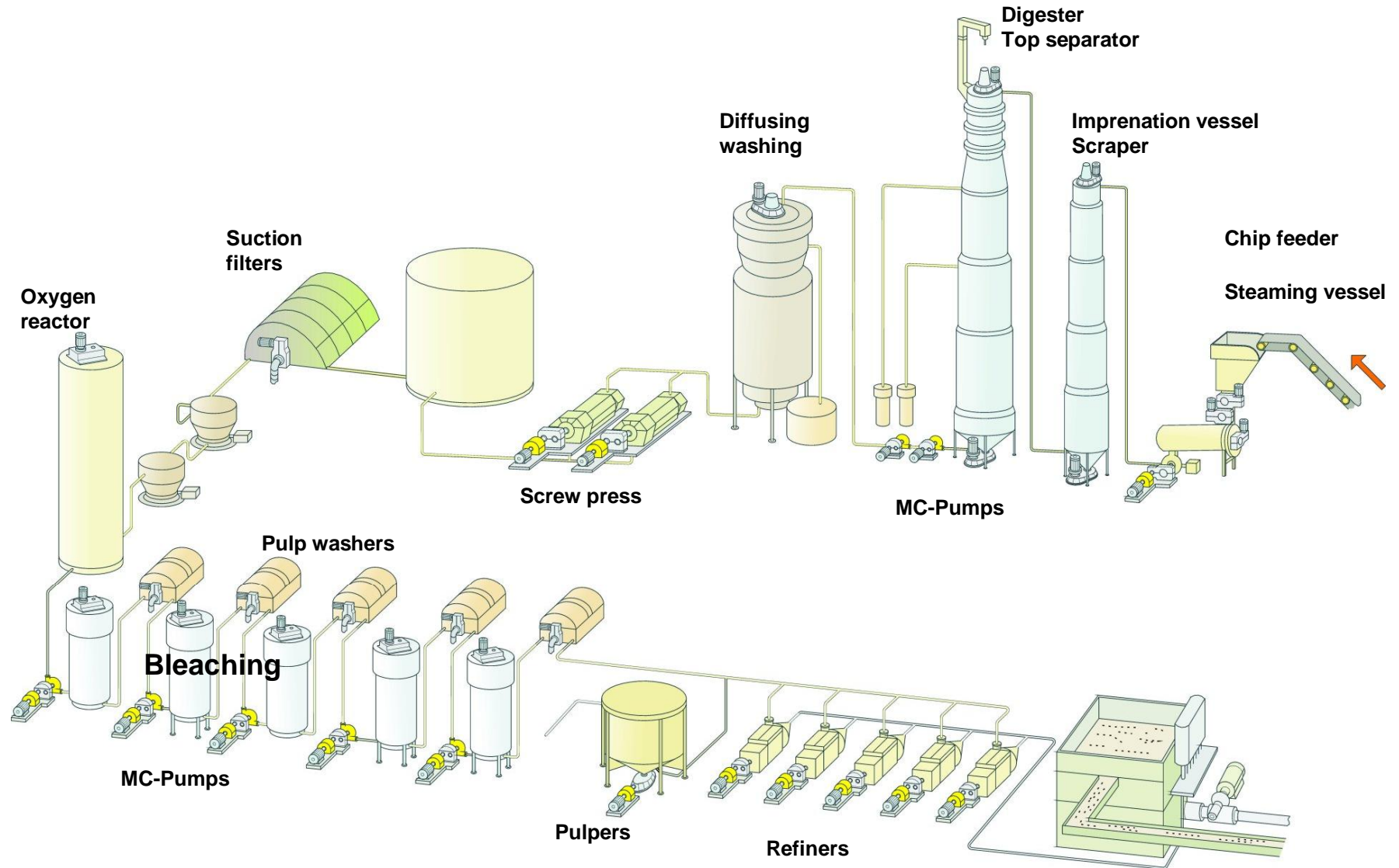
- § Type: D3PSF60RPL
- § Ratio: 31.251
- § Low speed torque: 51 kNm
- § Low speed RPM:
- § High speed RPM: 2400
- § Power rating: 132 kW (Motor)
- § Sf : 2

Chemical pulping



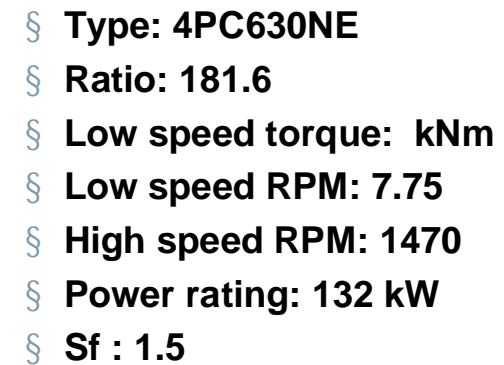


Chemical Pulping



Bottom Scraper



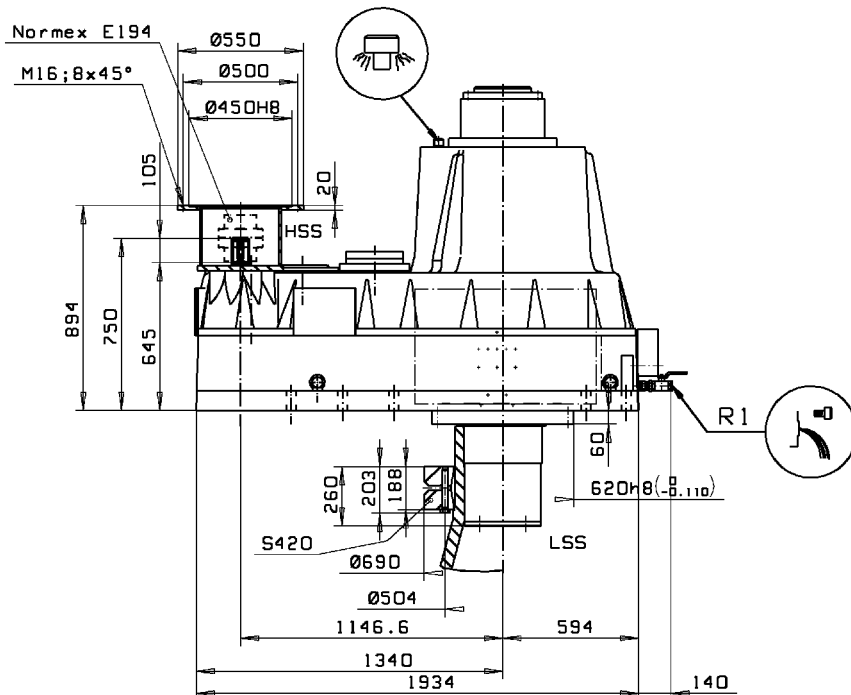


Diffuser



moventas

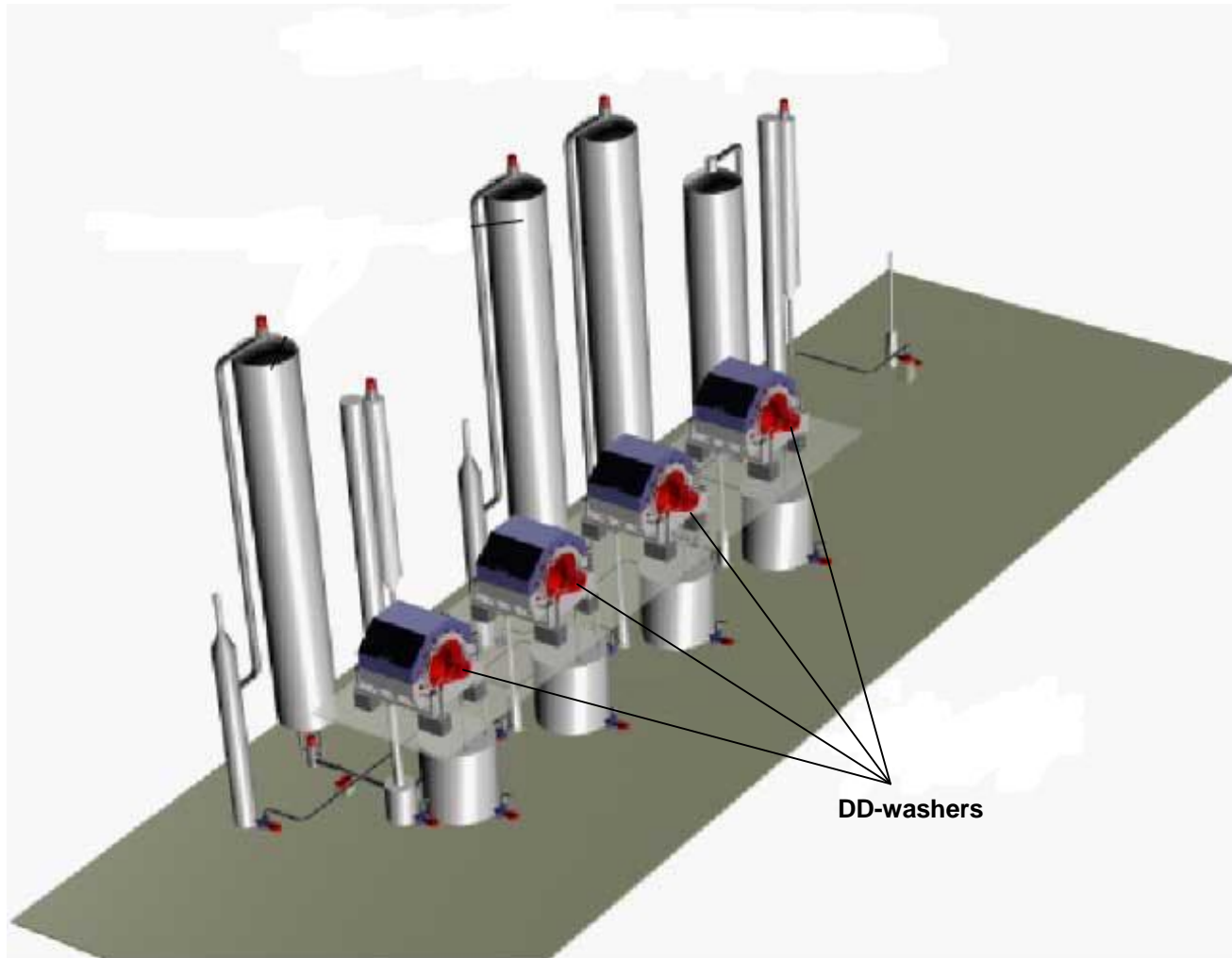
Diffuser Gear Unit



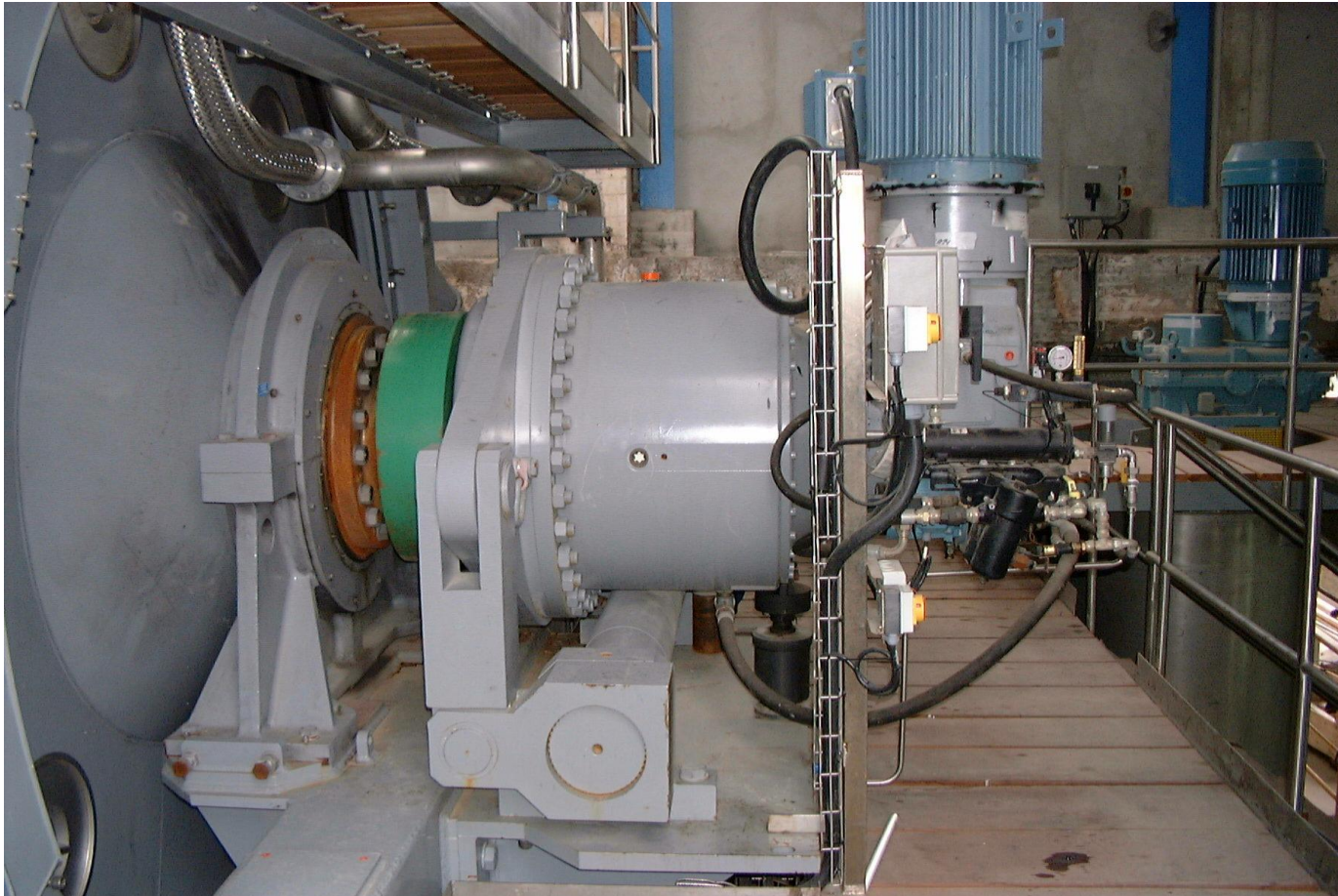
- § Type: 4PC560NED
- § Ratio: 275
- § Low speed torque: 124 kNm
- § Low speed RPM: 5,3
- § High speed RPM: 1500
- § Power rating: 70 kW (Motor)
- § Sf : 2,2



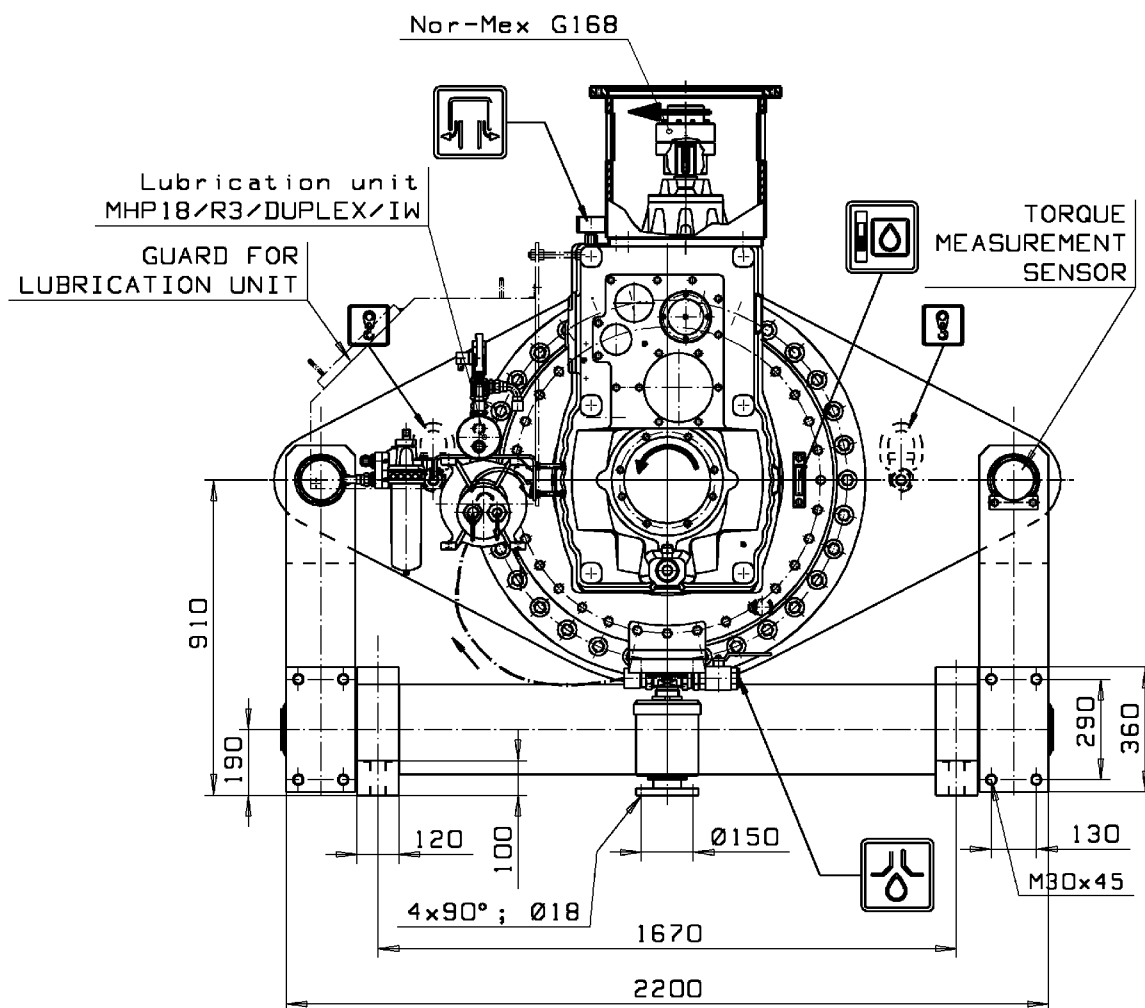
Washing



DD-Washer

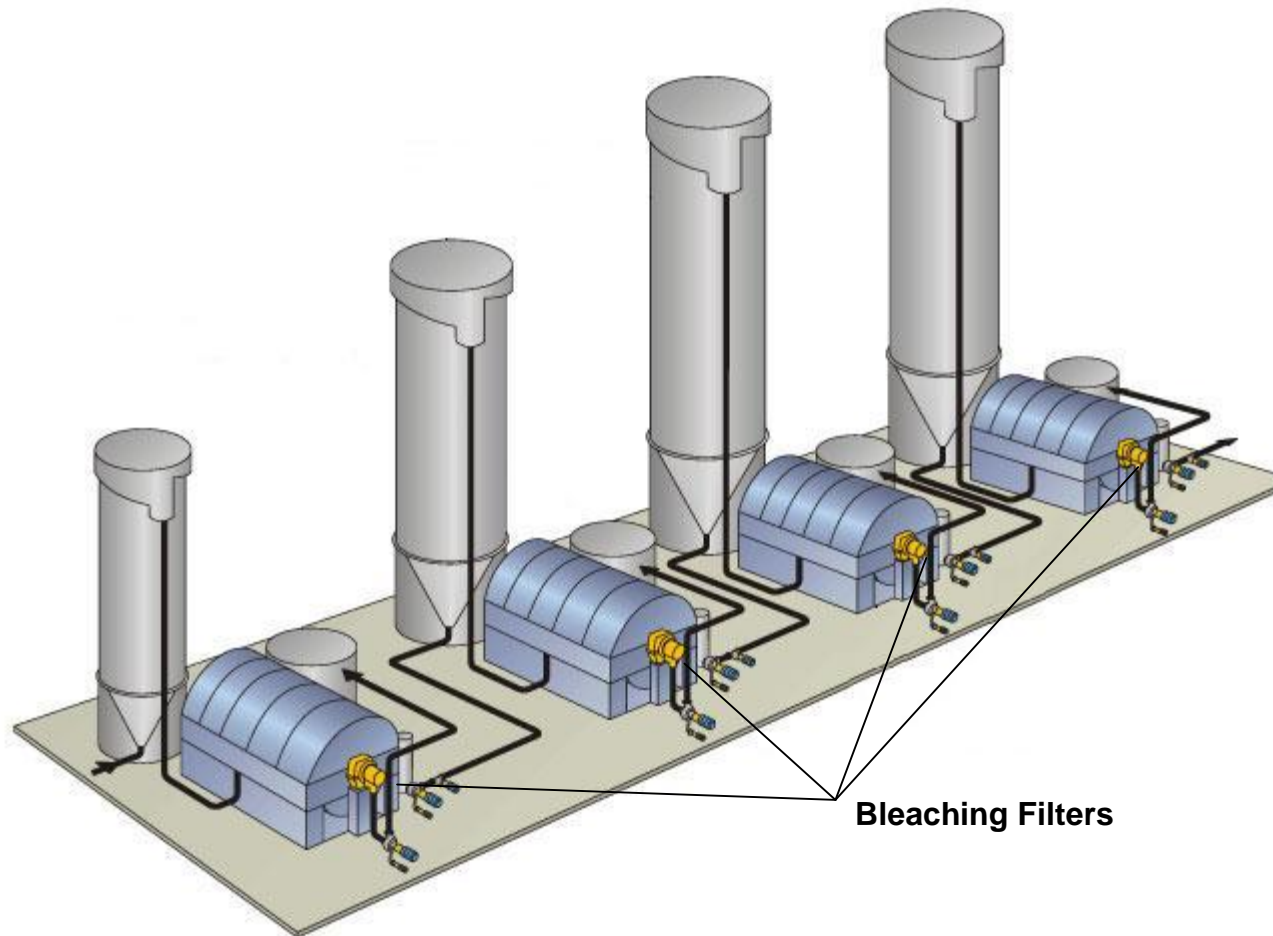


DD-Washer Gear unit



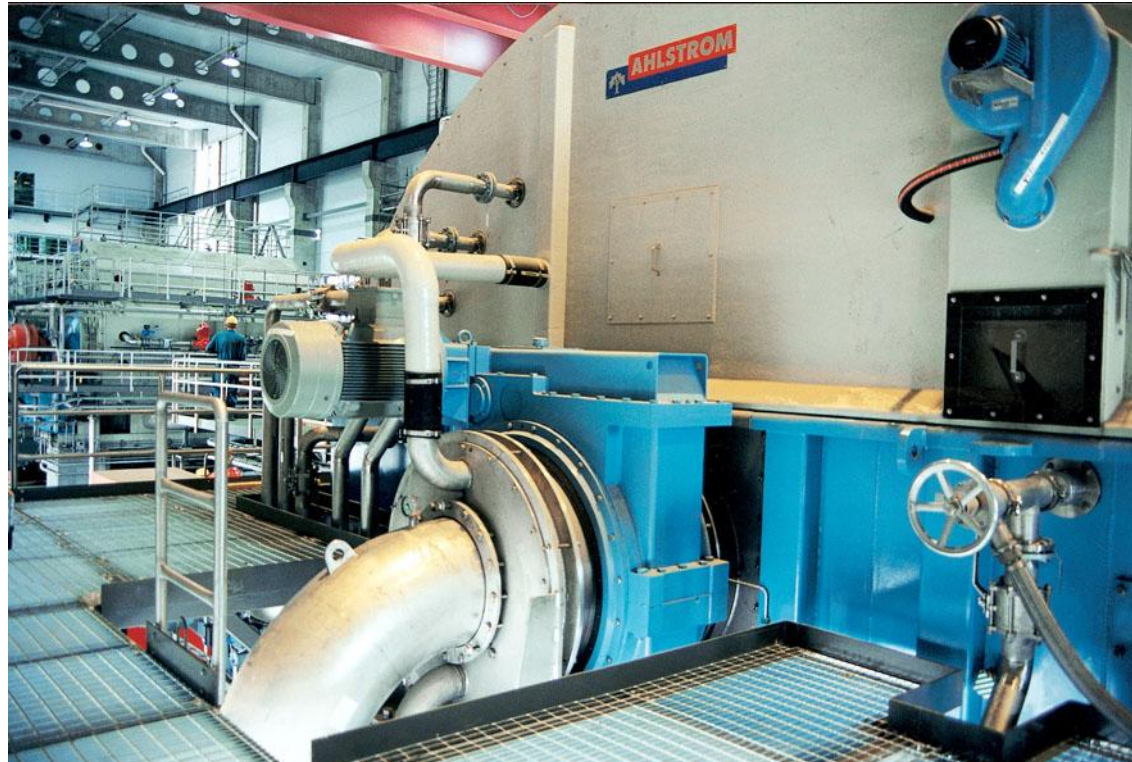
- § Type: P5K121N1600
- § Ratio: 1557,97
- § Low speed torque: 400 kNm
- § Low speed RPM: 0,88
- § High speed RPM: 1370
- § Power rating: 39 kW
- § Sf : 1,85

Bleaching

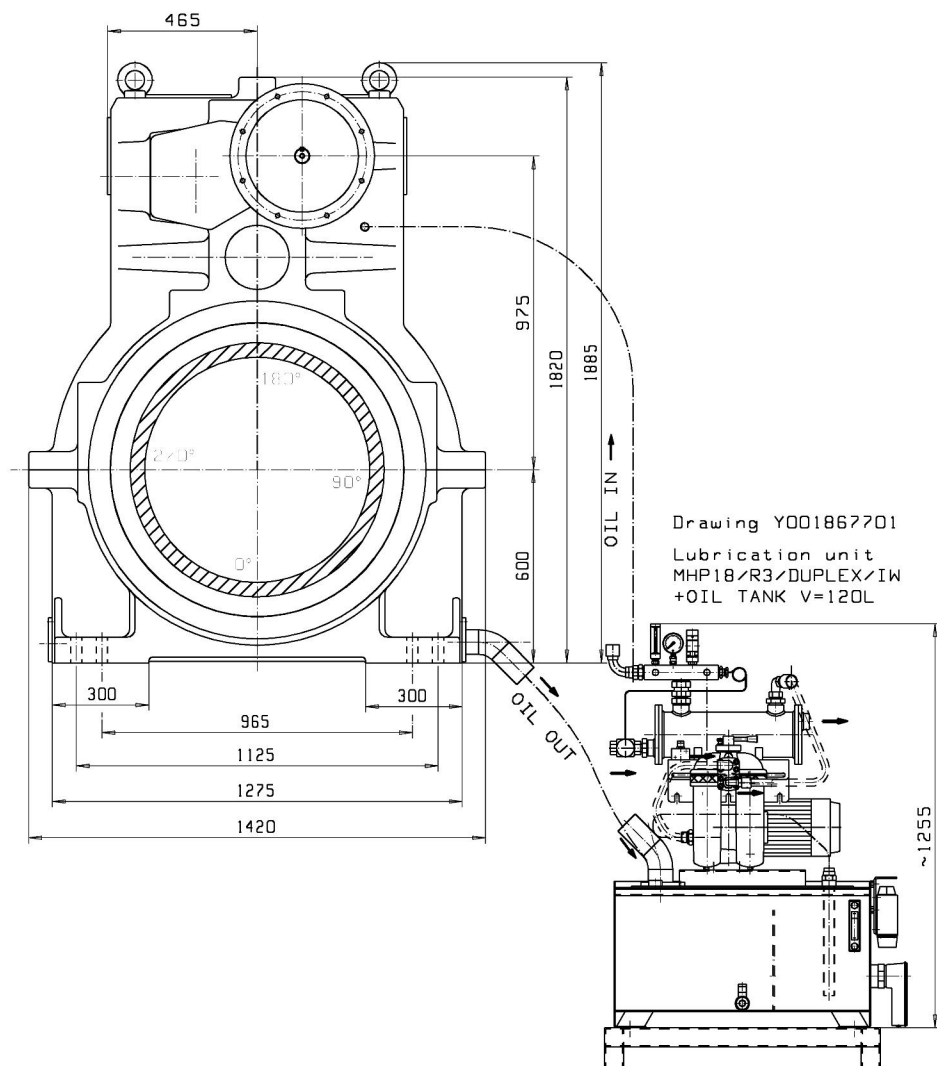




Bleaching Filters



Bleaching Filters Gear Unit

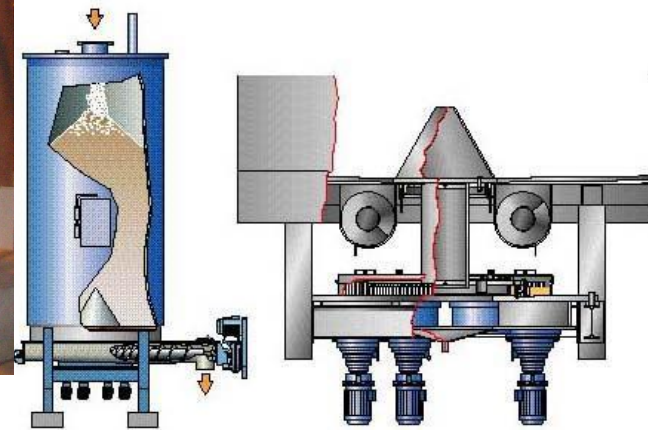


- § Type: 4CTV660
- § Ratio: 507,46
- § Low speed torque: 75 kNm
- § Low speed RPM: 2
- § High speed RPM: 1000
- § Power rating: 16 kW
- § Sf : 2,7

Bleaching Tower

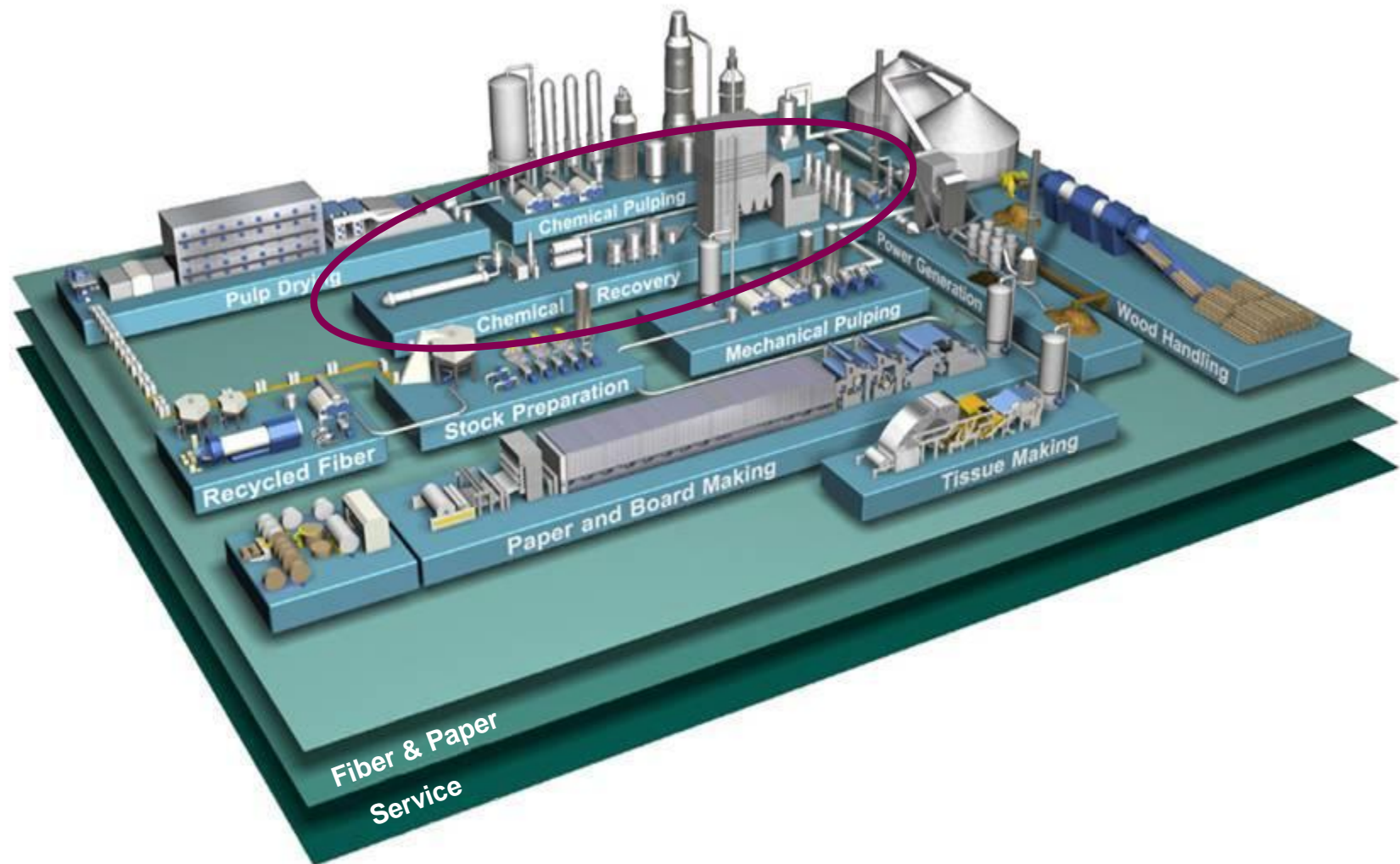


Driven with helical gear unit

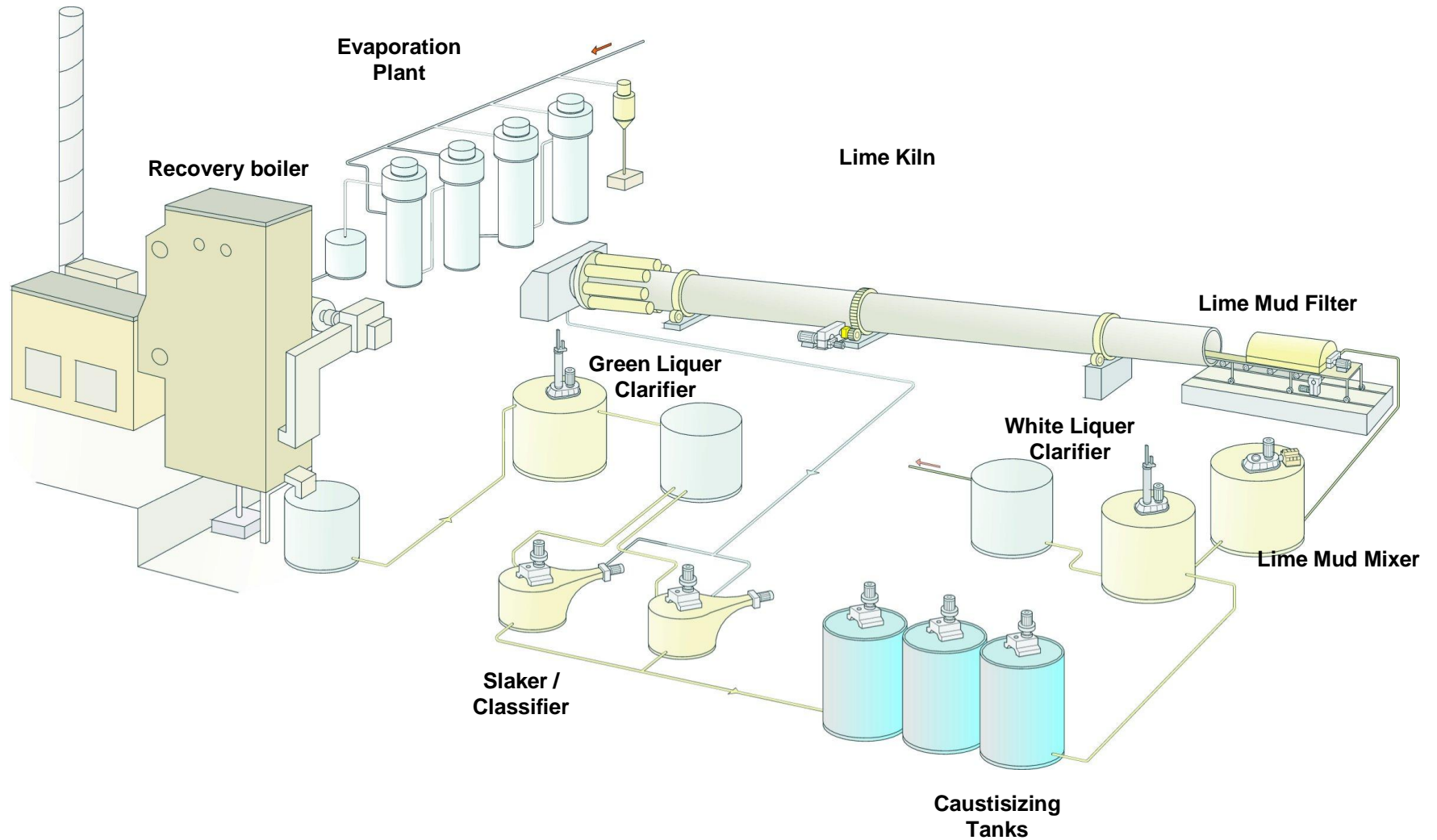


Driven with planetary gear units

Chemical Recovery



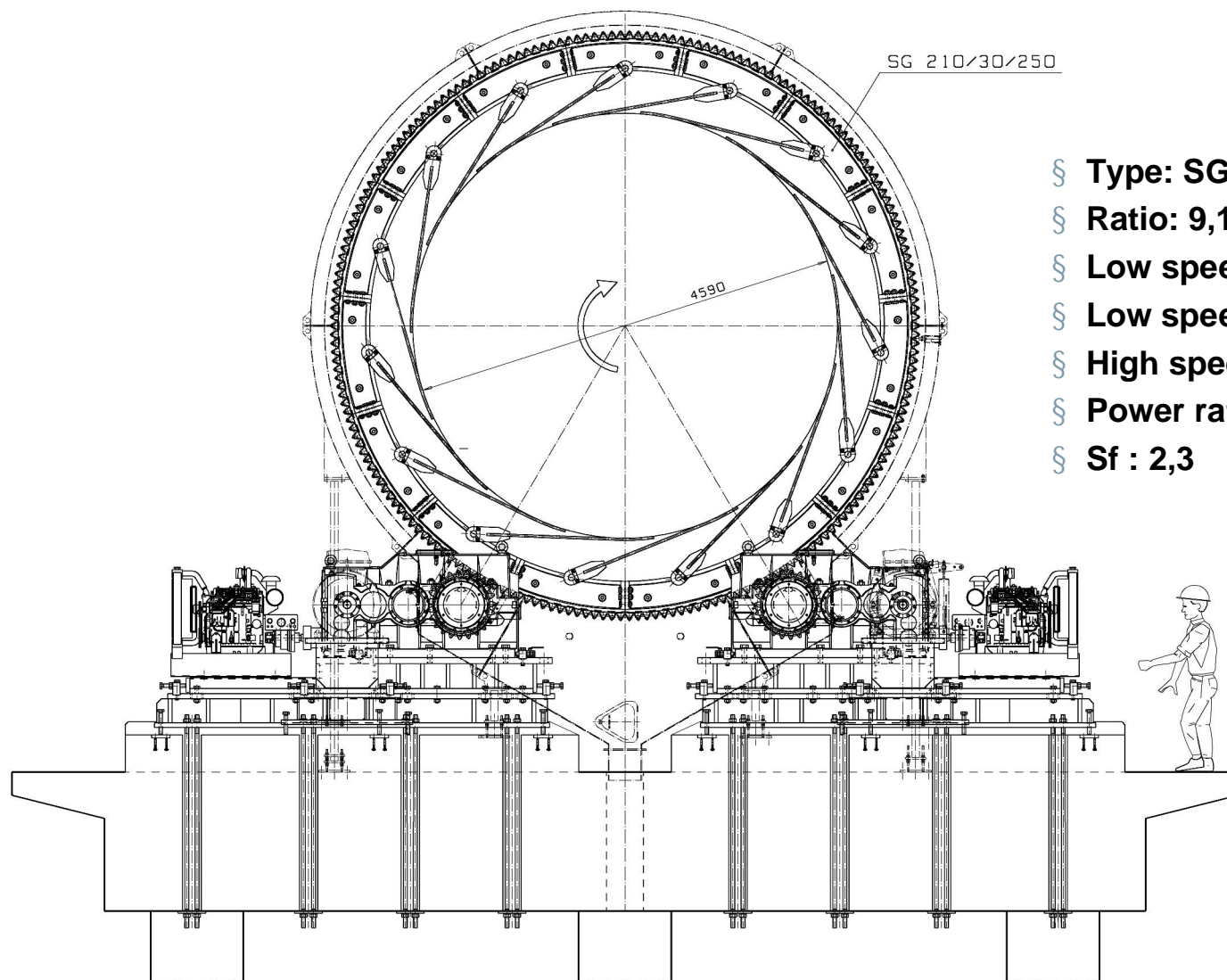
Chemical Recovery



Lime Reburning Kiln

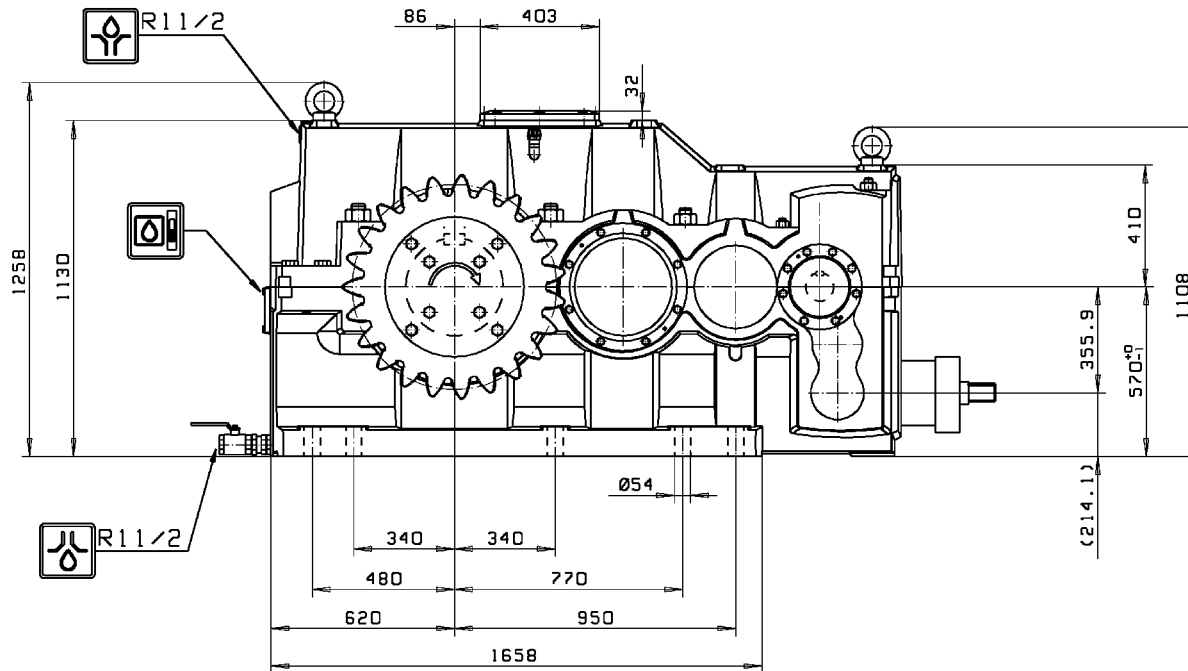


Moventas delivery for Lime Kiln



- § Type: SG 210/30/250
- § Ratio: 9,13
- § Low speed torque: kNm
- § Low speed RPM: 1,25
- § High speed RPM: 11,4
- § Power rating: 277 kW
- § Sf : 2,3

Lime Kiln Drive Gear Unit

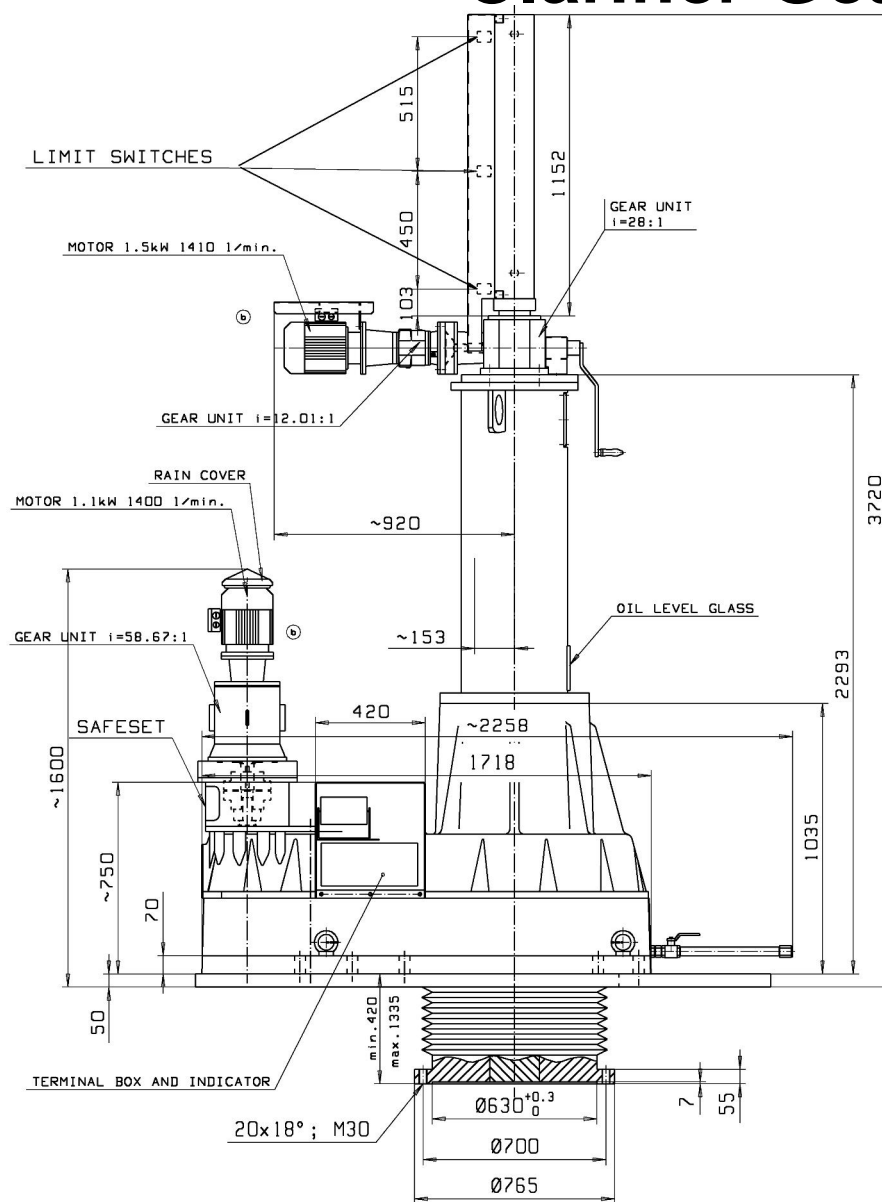


- § Type: D3PSF110KD
- § Ratio: 84,87
- § Low speed torque: 102 kNm
- § Low speed RPM: 12,9
- § High speed RPM: 1092
- § Power rating: 146 kW
- § Sf : 2,8

Clarifiers



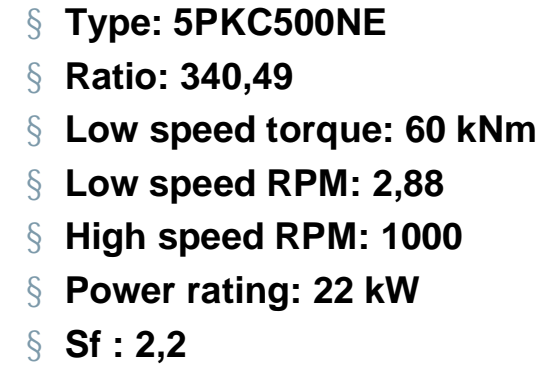
Clarifier Gear Unit



- § Type: 4PC500NK915
- § Ratio: $431 * 58,67 = 25286$
- § Low speed torque: 105 kNm
- § Low speed RPM: 0,06
- § High speed RPM: 1400
- § Power rating: 0,65 kW
- § Sf : 2

Mixers

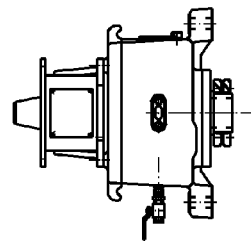
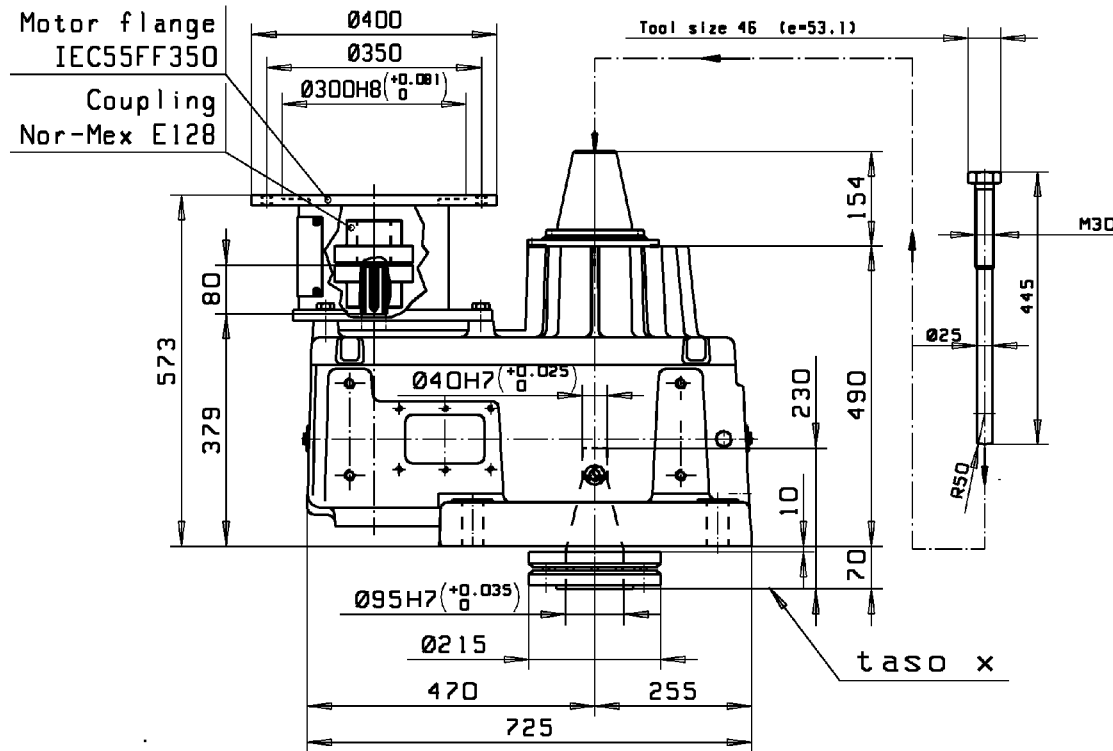




Feeder drive



Lime Feeder Gear Unit

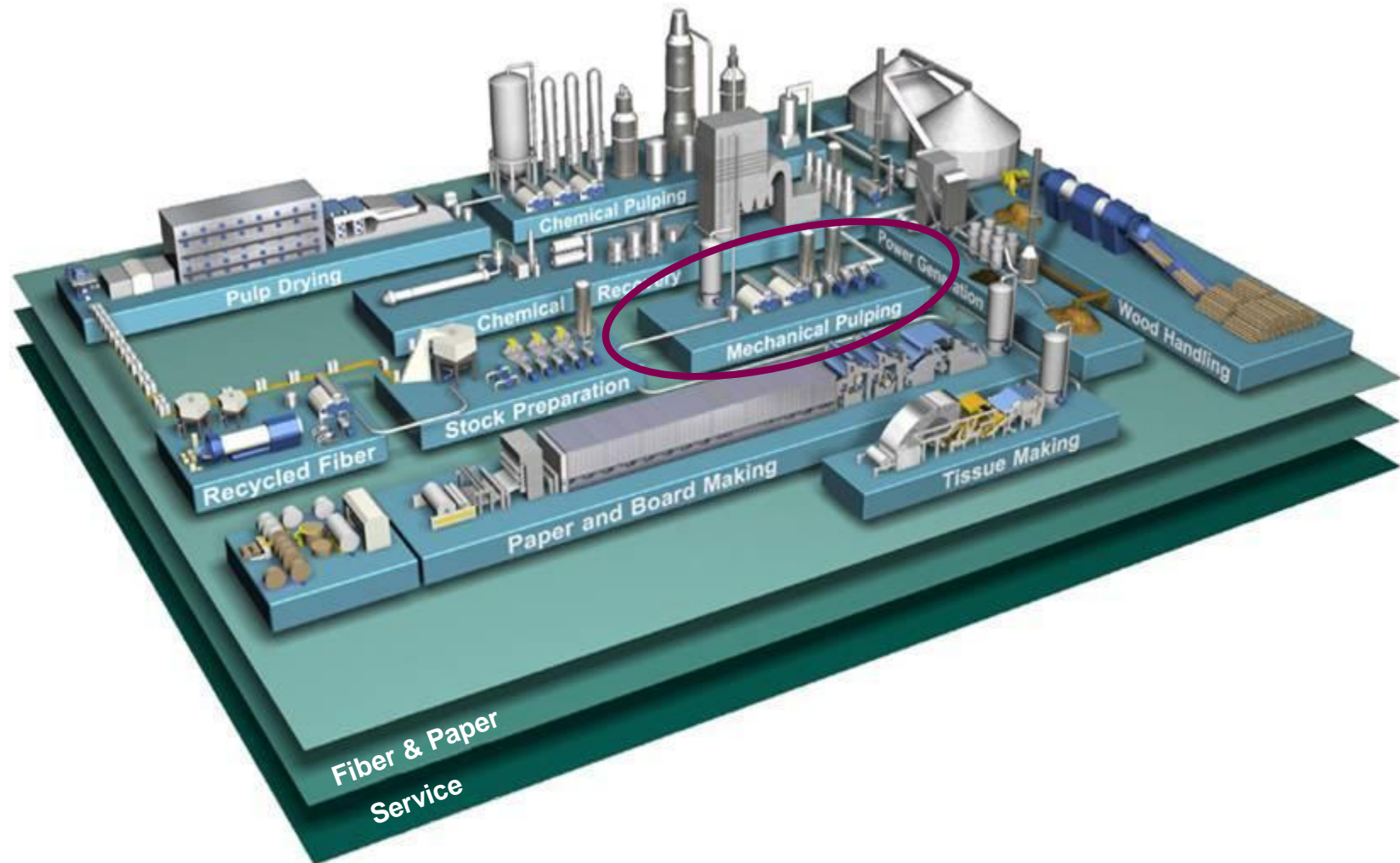


Mounting Position

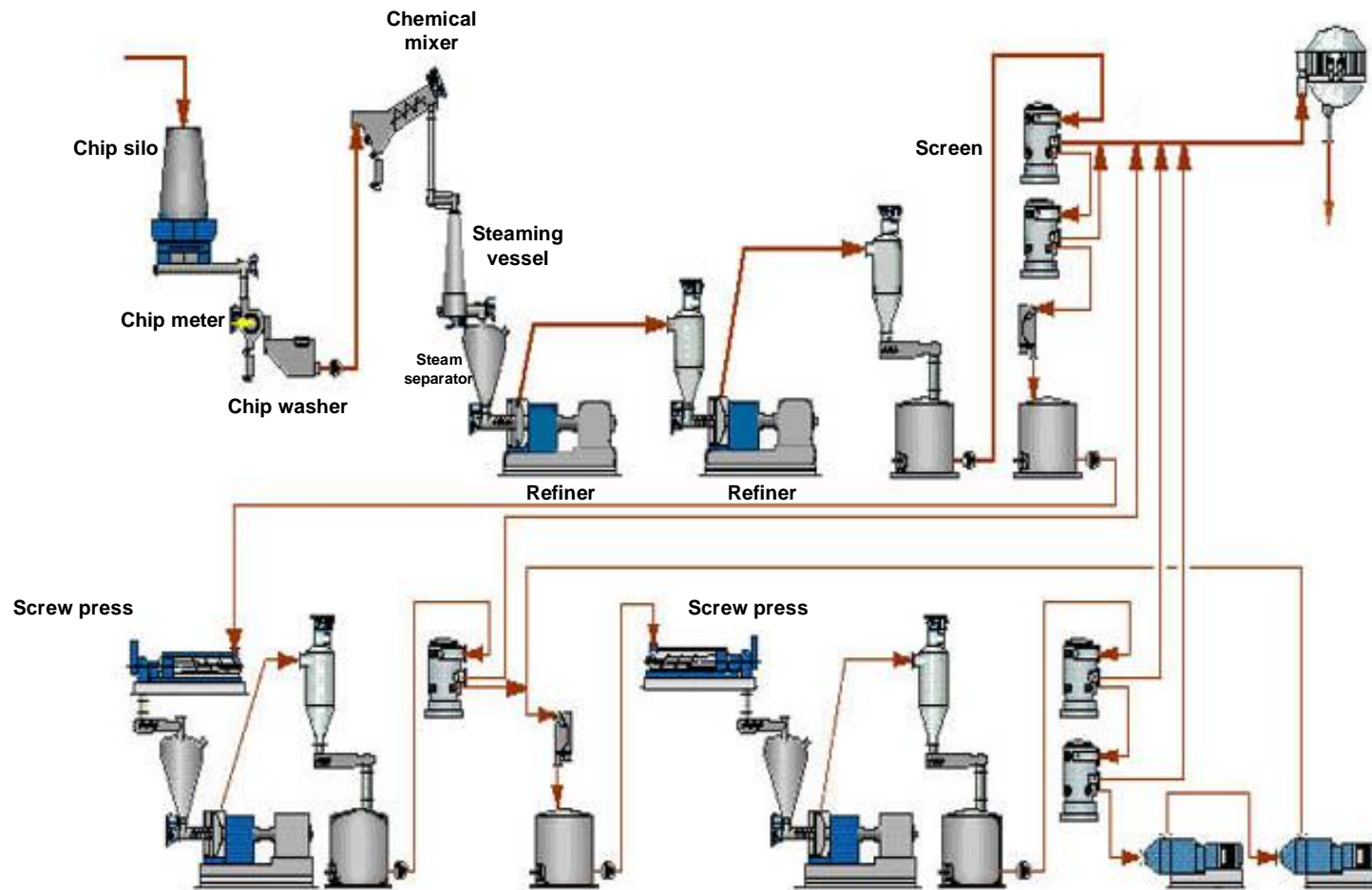
- § Type: 3PC200NSTE
- § Ratio: 31,156
- § Low speed torque: kNm
- § Low speed RPM: 32
- § High speed RPM: 1000
- § Power rating: 18,5 kW
- § Sf : 2



Mechanical Pulping



Thermo Mechanical Pulping

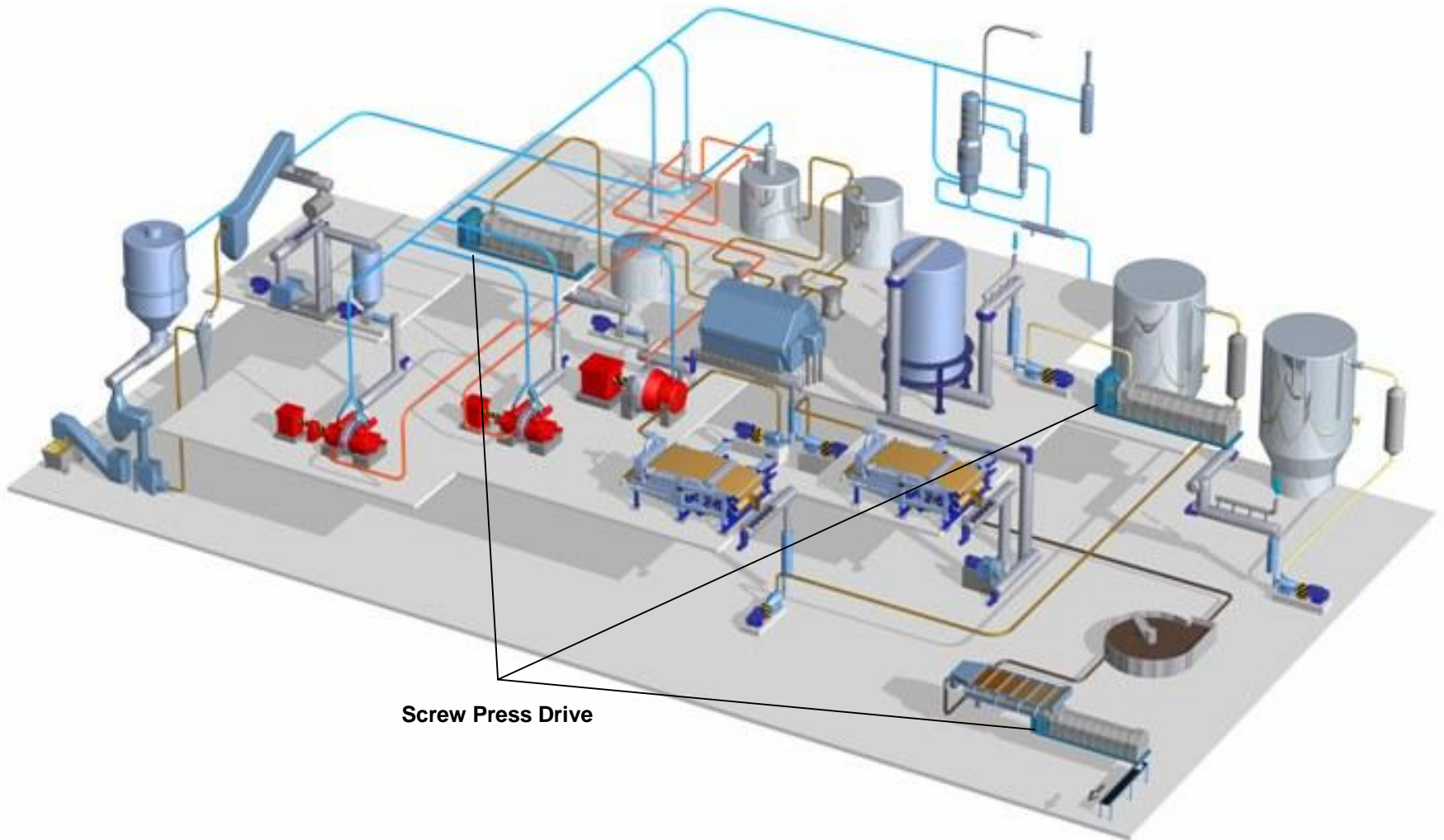


Refining



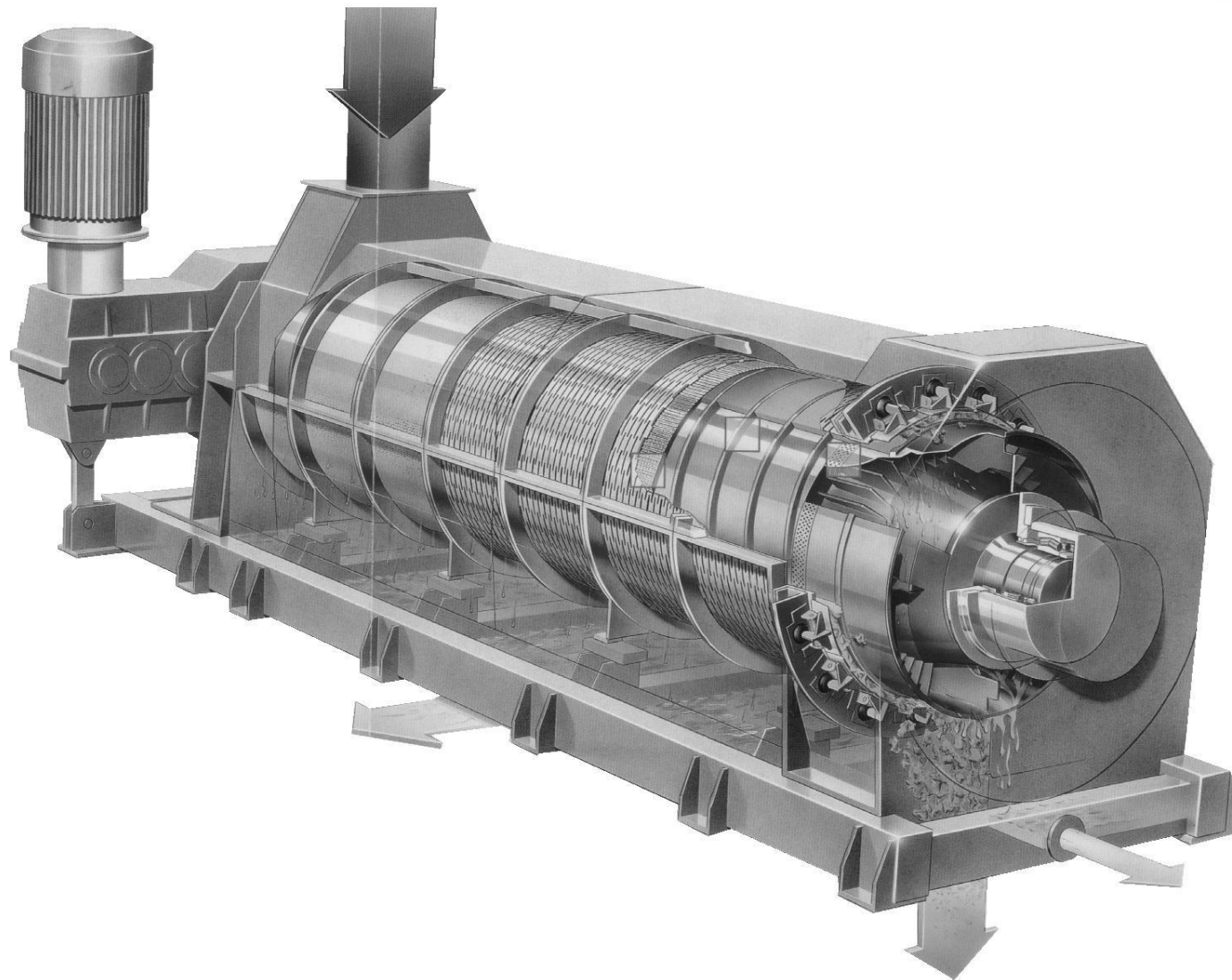
Single stage gear unit (increaser) 32 MW motor power

Screw Presses in Mechanical Pulp Washing





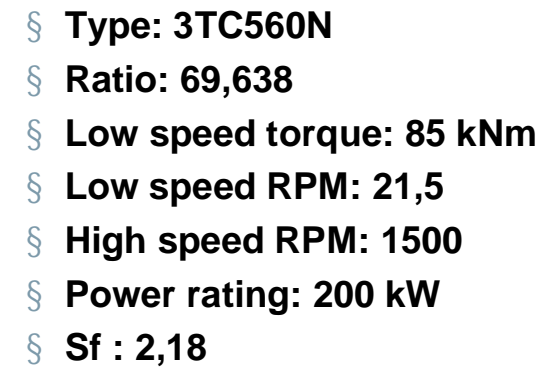
Screw Press



Screw Press Drive



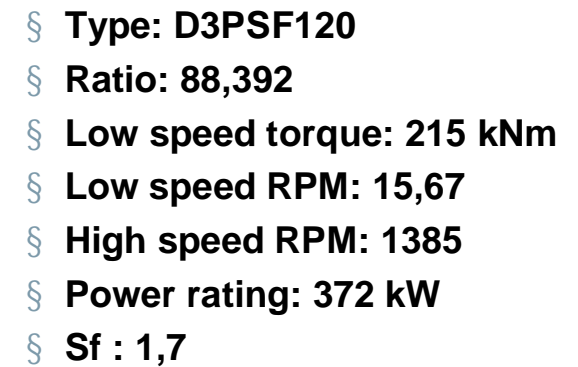
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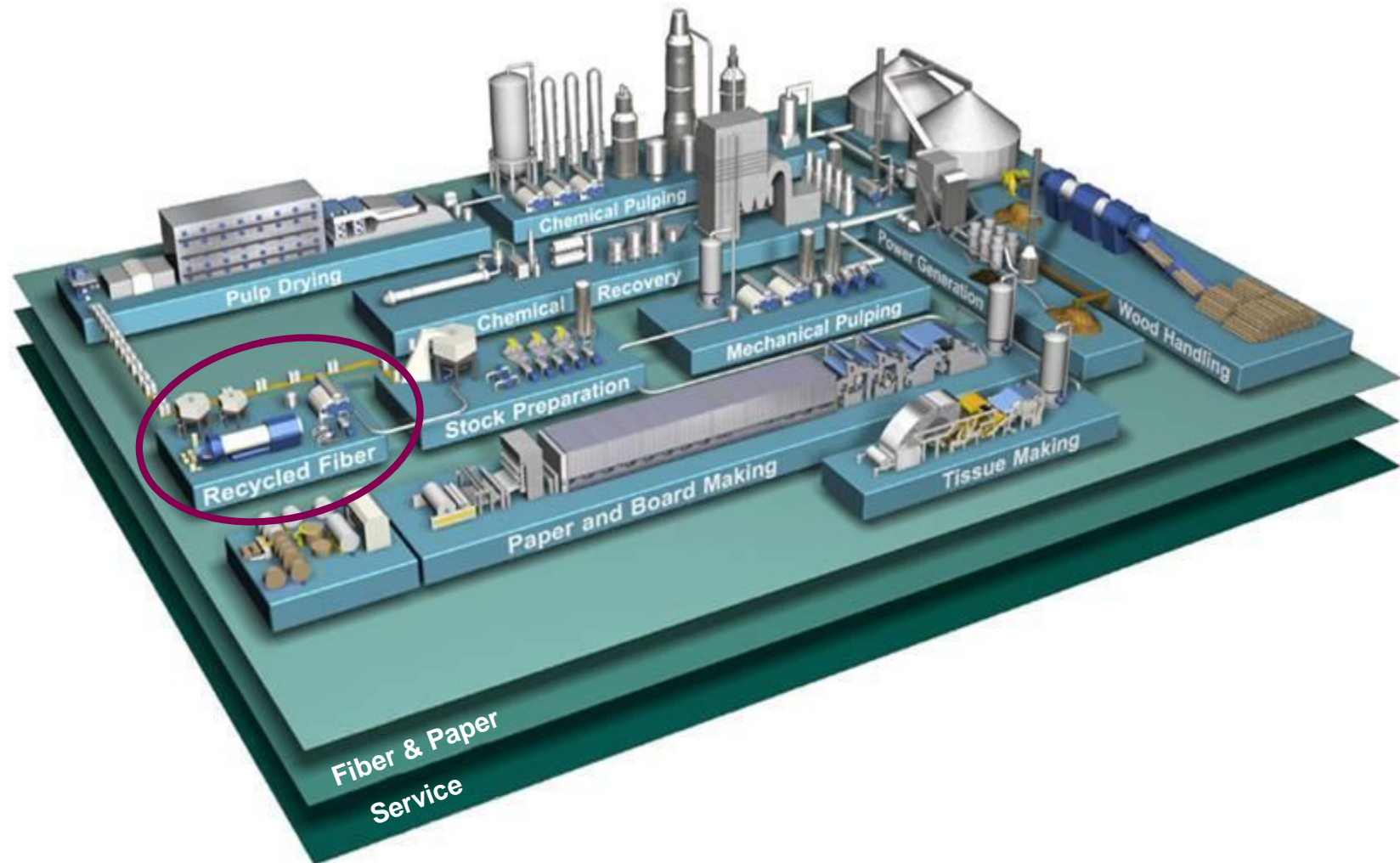
Screw Press Drive







Recycled Fiber



Drum Pulpers



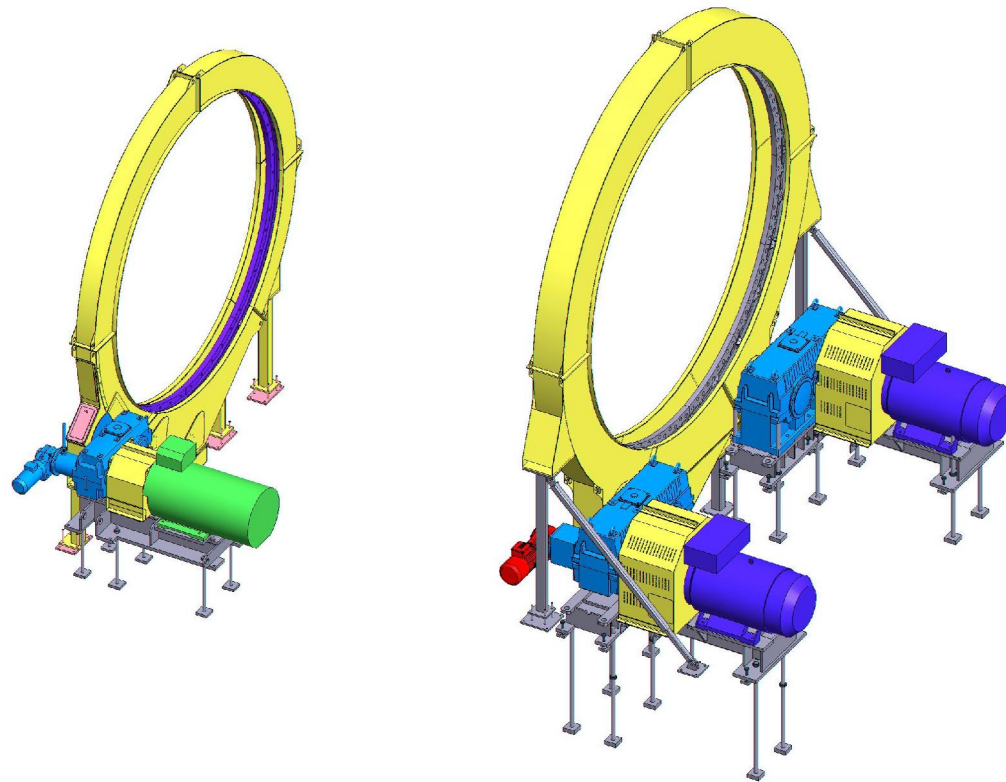
Fiber Flow Pulper

**Pulper drum follow by
sorting drum**



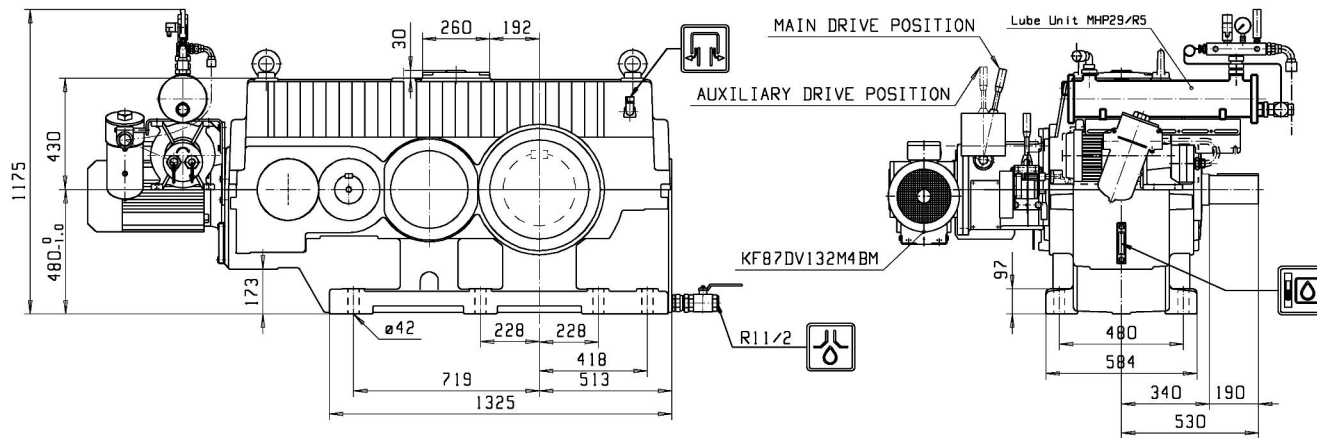


Moventas Delivery for Drum Pulpers



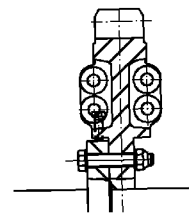
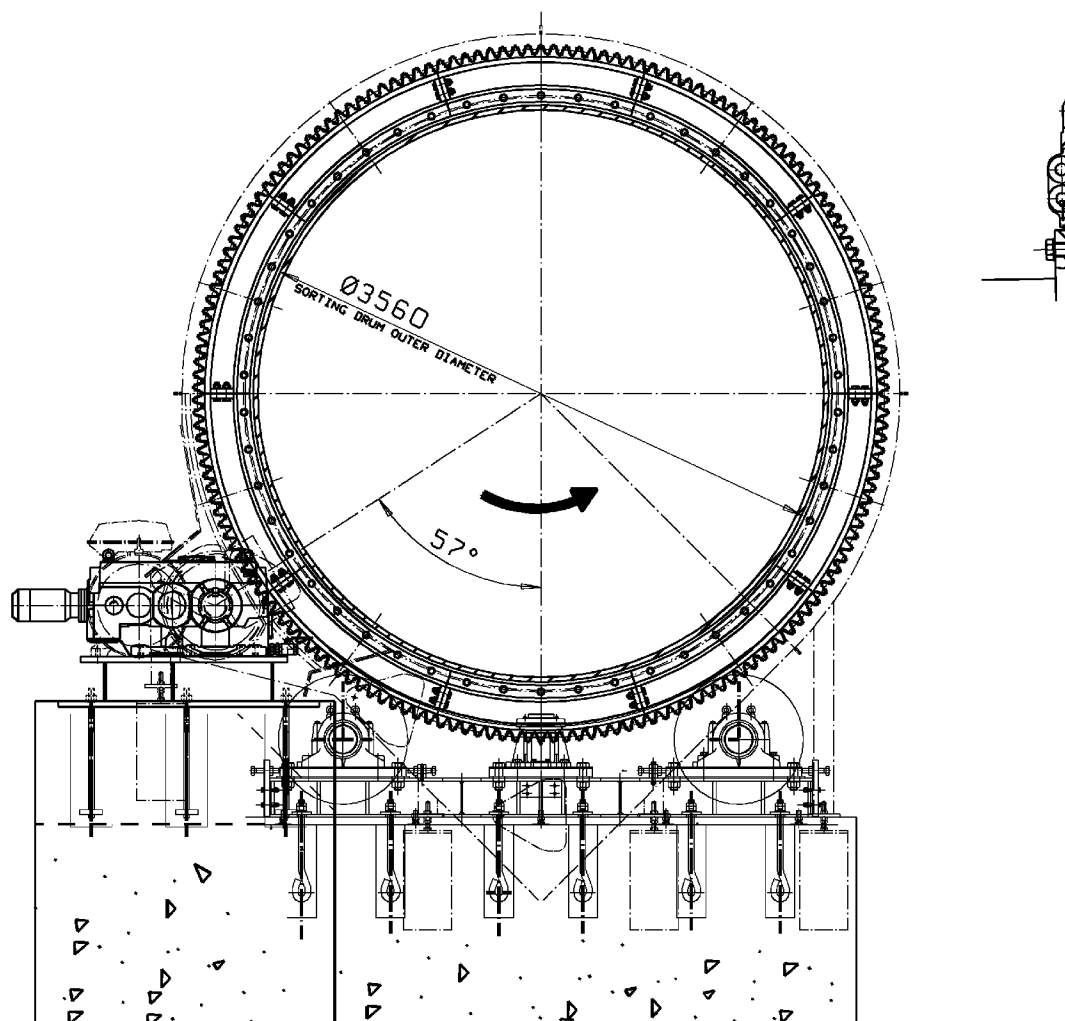


Fiber Flow Drum Gear Unit

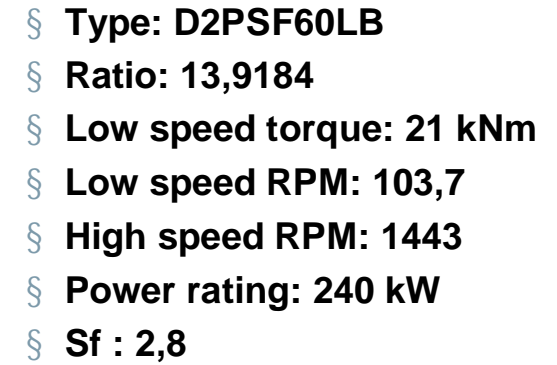


- § **Type: 2 x D2PSF90LB**
- § **Ratio: 18,056**
- § **Low speed torque: 61 kNm**
- § **Low speed RPM: 78,6**
- § **High speed RPM: 1420**
- § **Power rating: 500 kW**
- § **Sf : 2,3**

Segmented girth gear for sorting drum

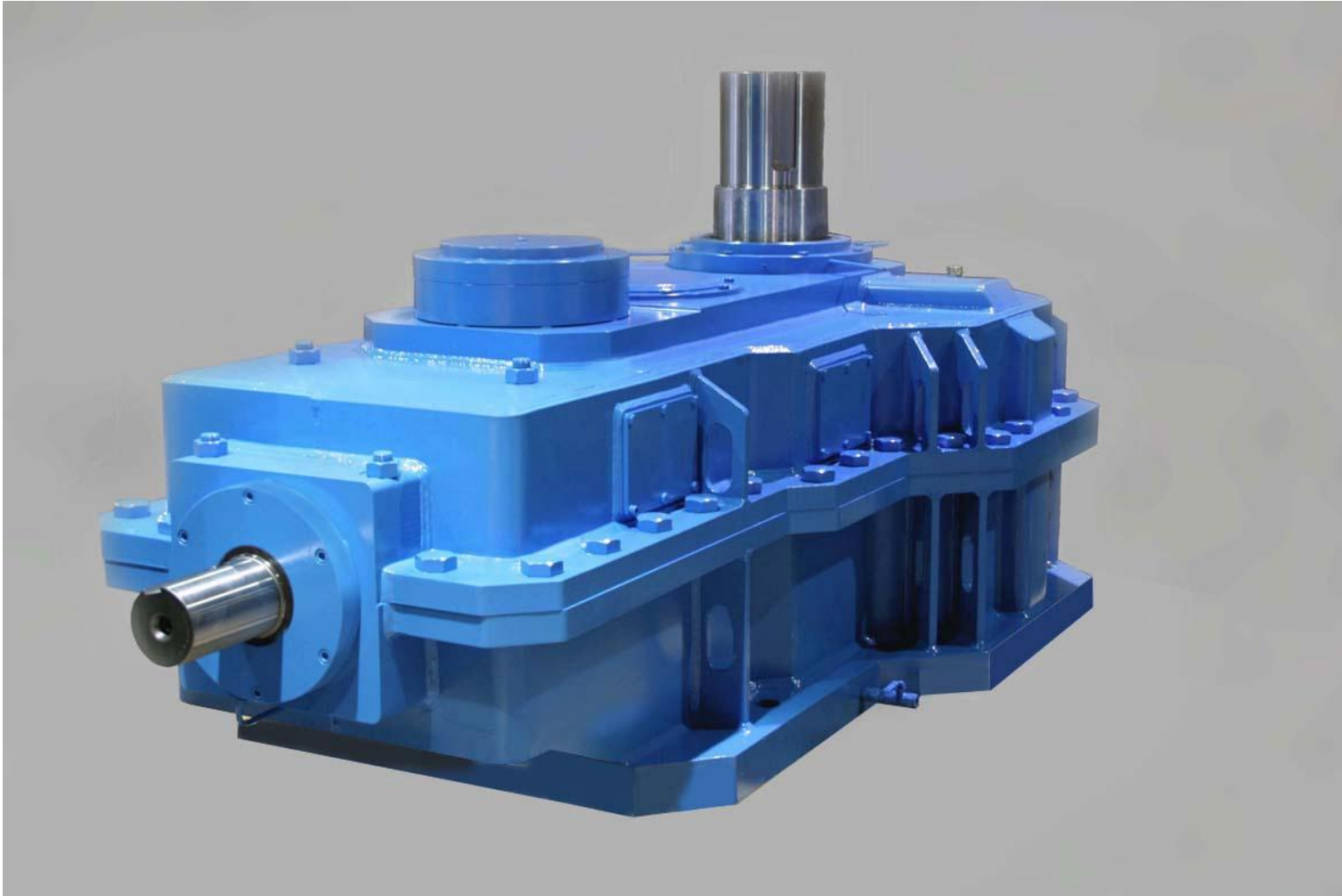


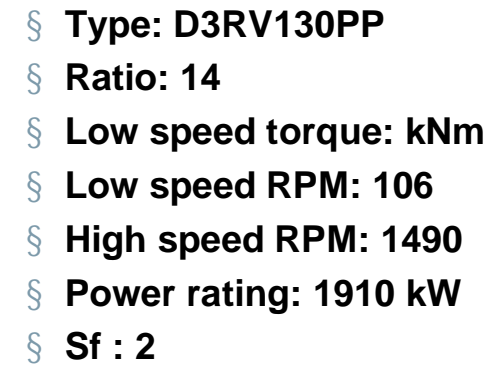
- § Type: SG 170/25/100
- § Ratio: 7,727
- § Low speed torque: 170 kNm
- § Low speed RPM: 13,42
- § High speed RPM: 103,7
- § Power rating: 240 kW
- § Sf : 3





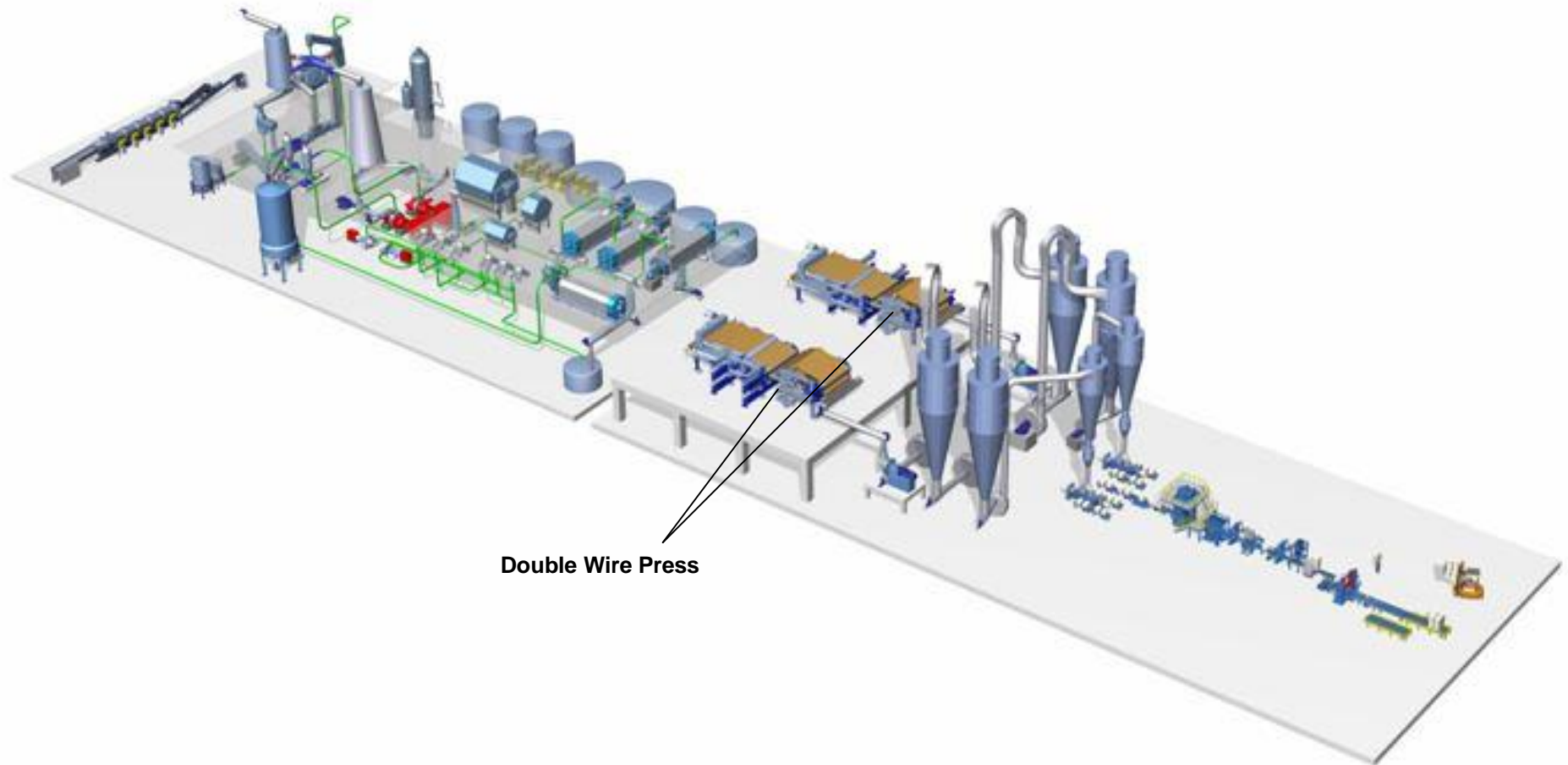
Pulper Gear Unit





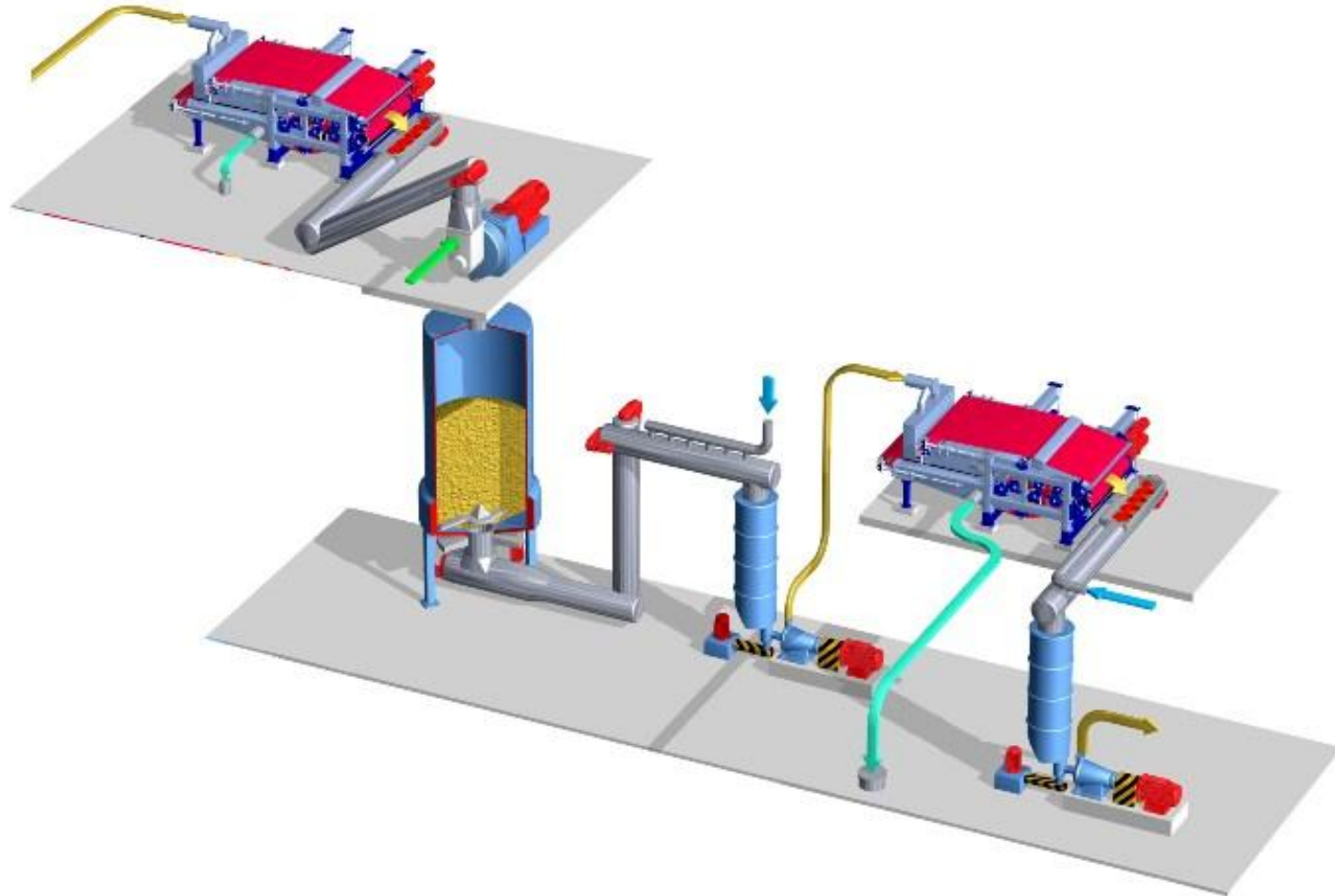


Double Wire Press in Market Pulp Process



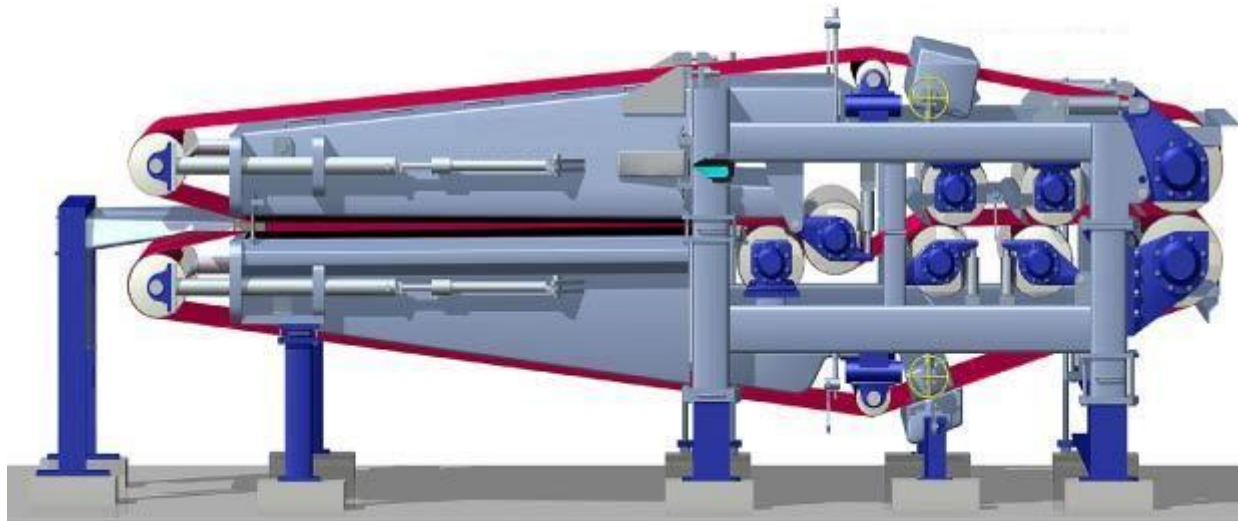


Double Wire Press in Process



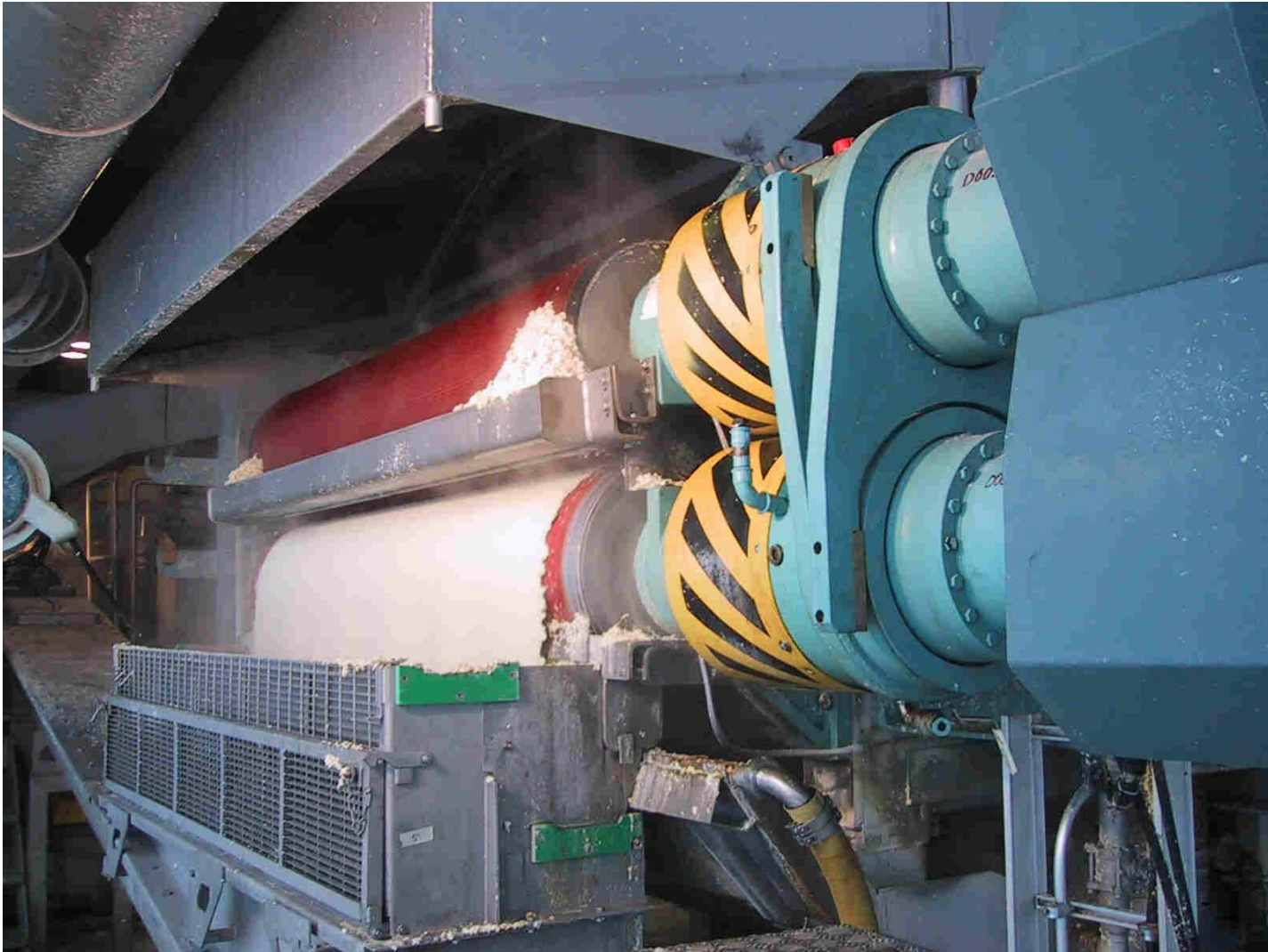


Double Wire Press

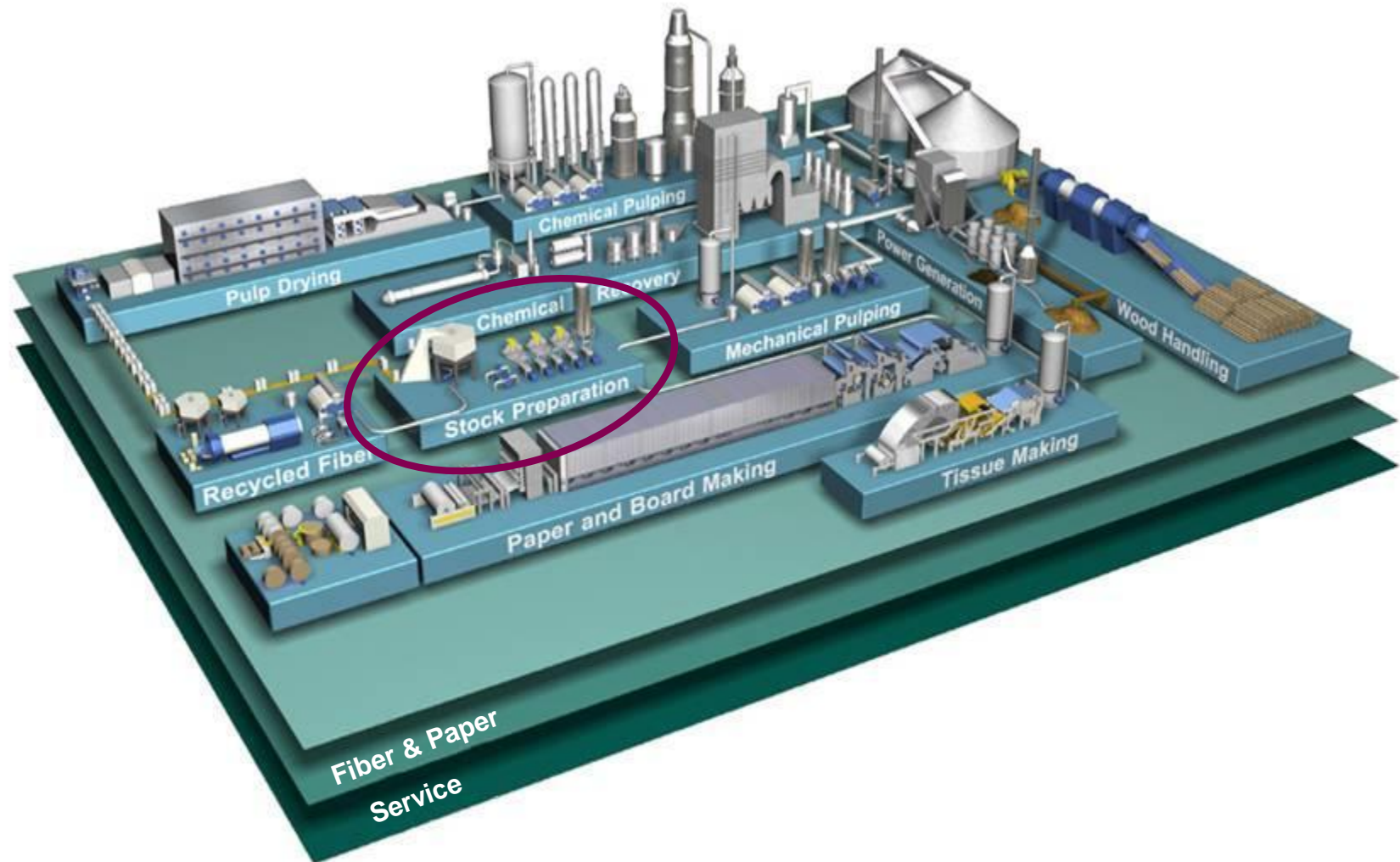




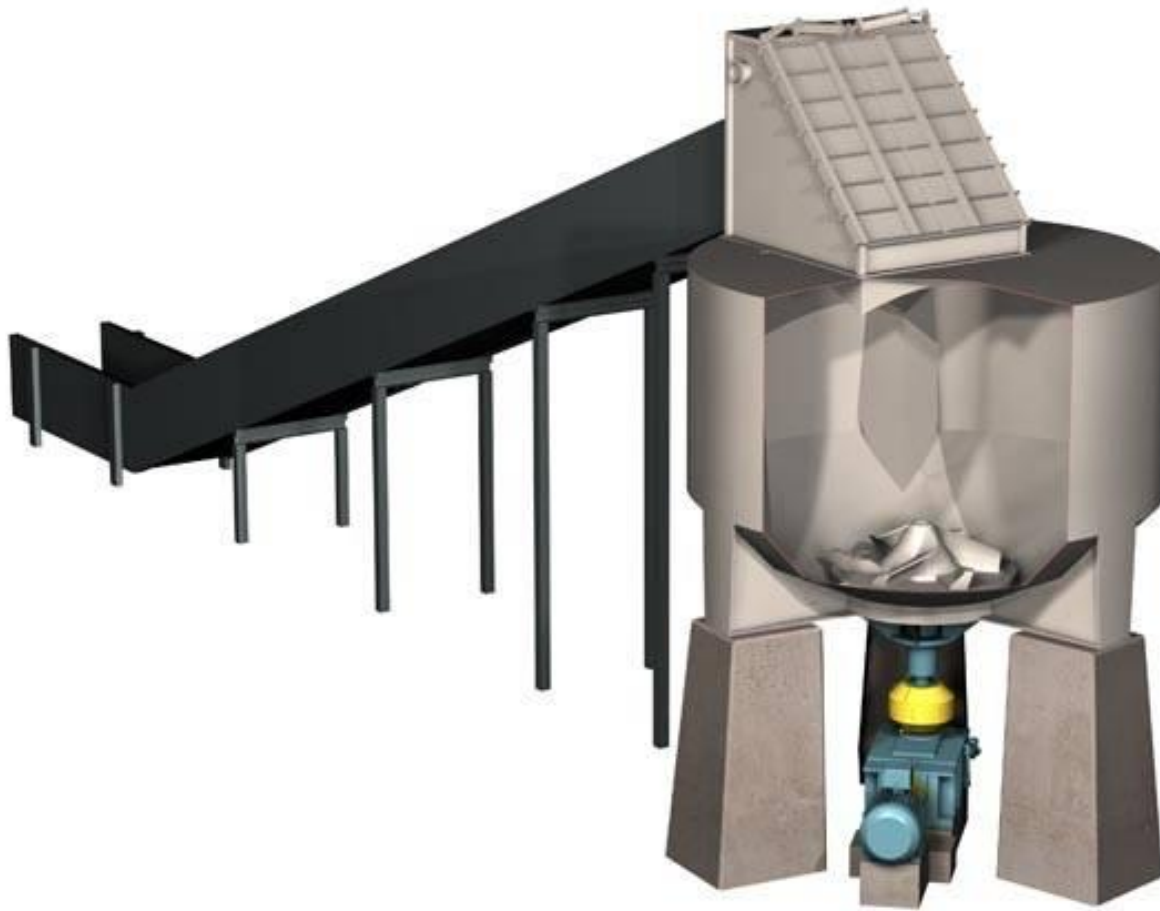
Double Wire Press



Stock Preparation



Bale Pulper

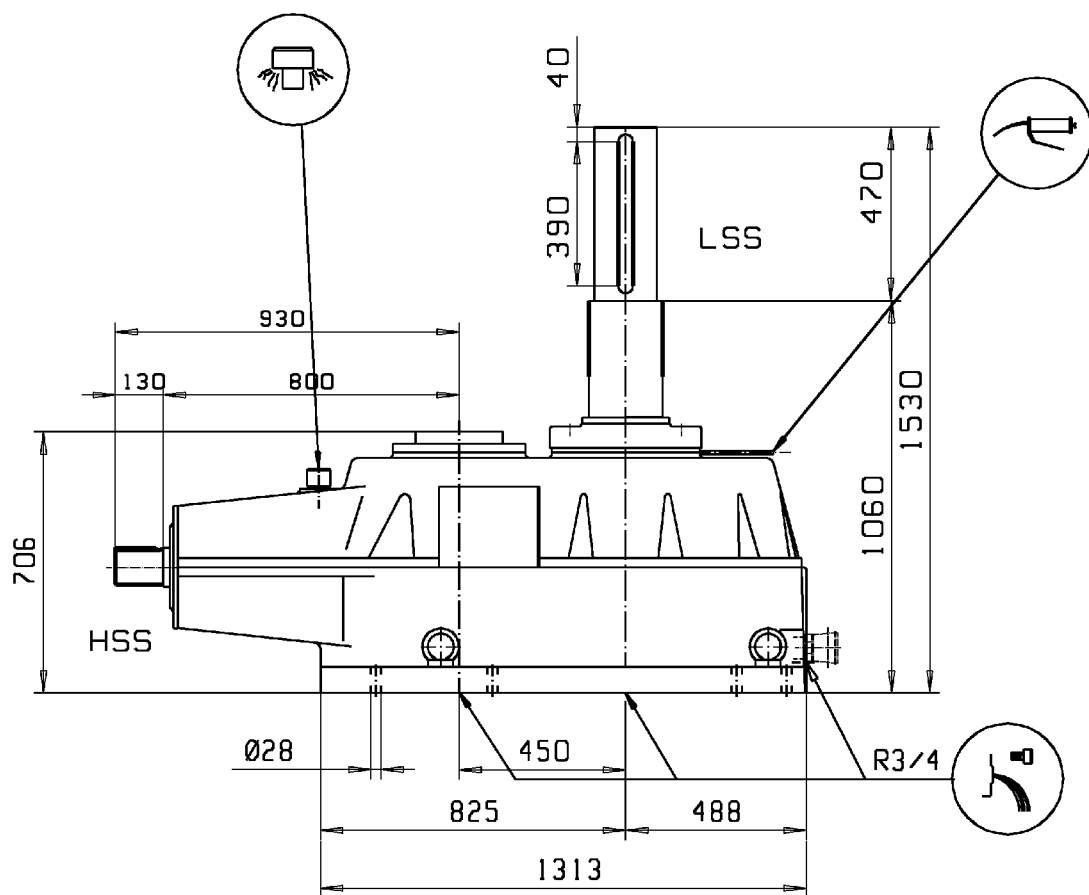




Vertical Pulper



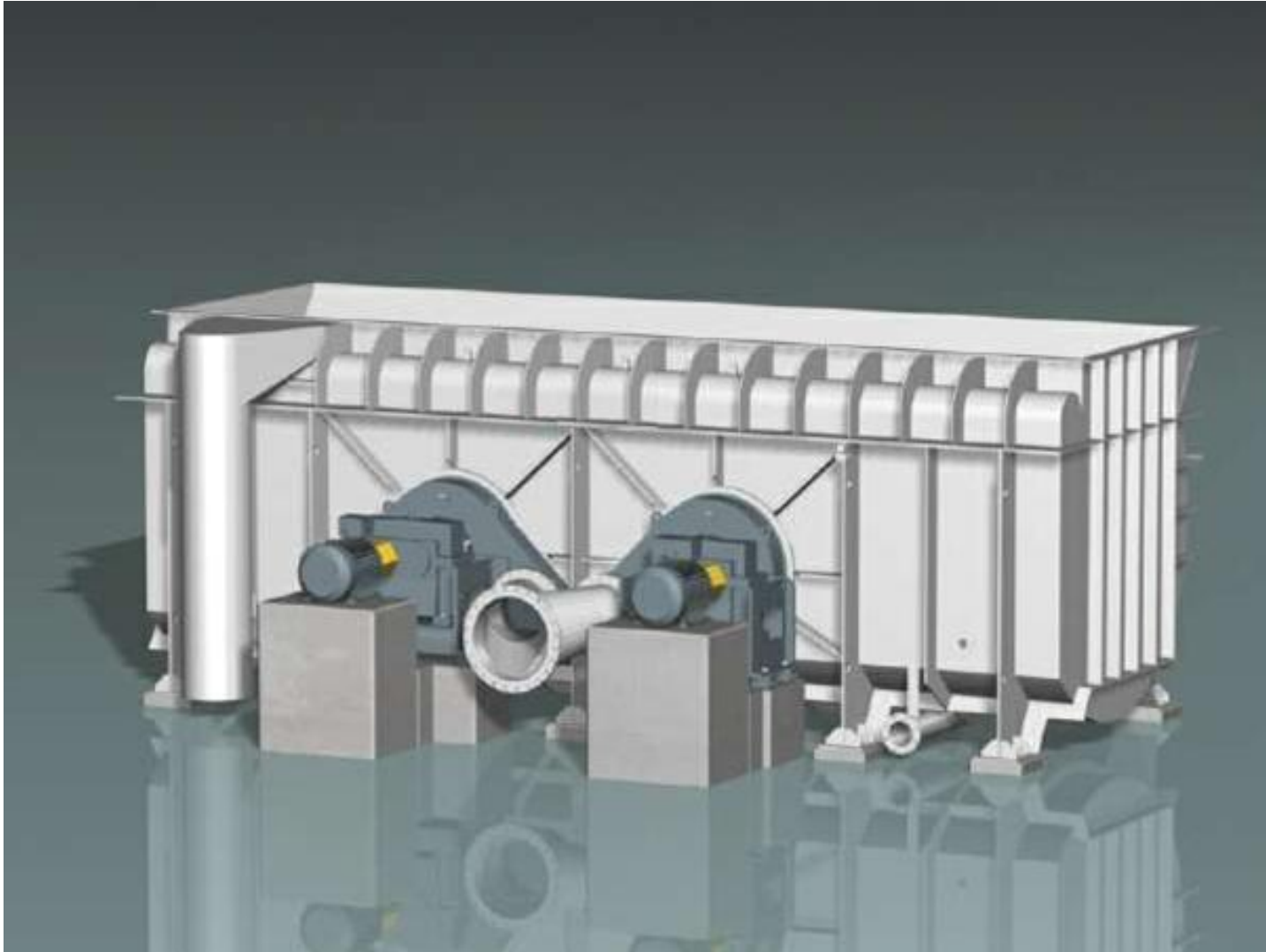
Vertical Pulper Gear Unit



- § **Type: 2PKC450PP**
- § **Ratio: 10,608**
- § **Low speed torque: 29,8 kNm**
- § **Low speed RPM: 140**
- § **High speed RPM: 1489**
- § **Power rating: 450 kW**
- § **Sf : 2,22**



Horizontal Pulper



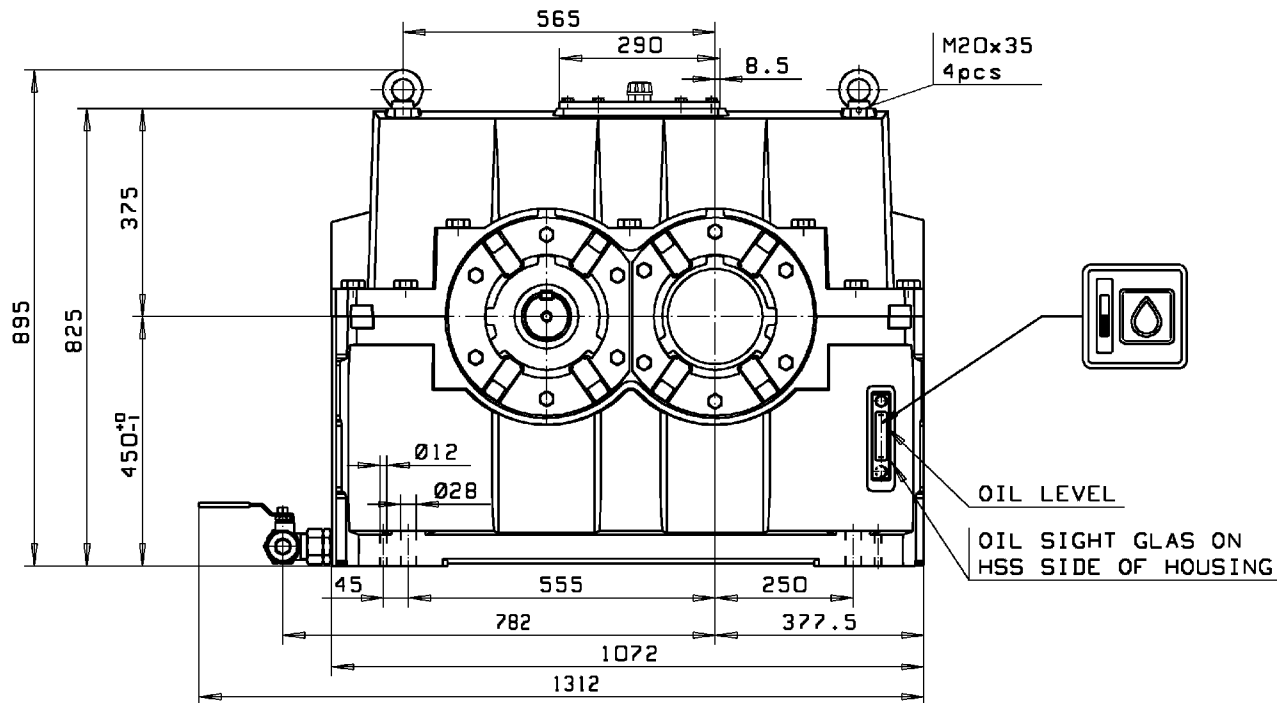


Horizontal Pulper





Horizontal Pulper Gear Unit



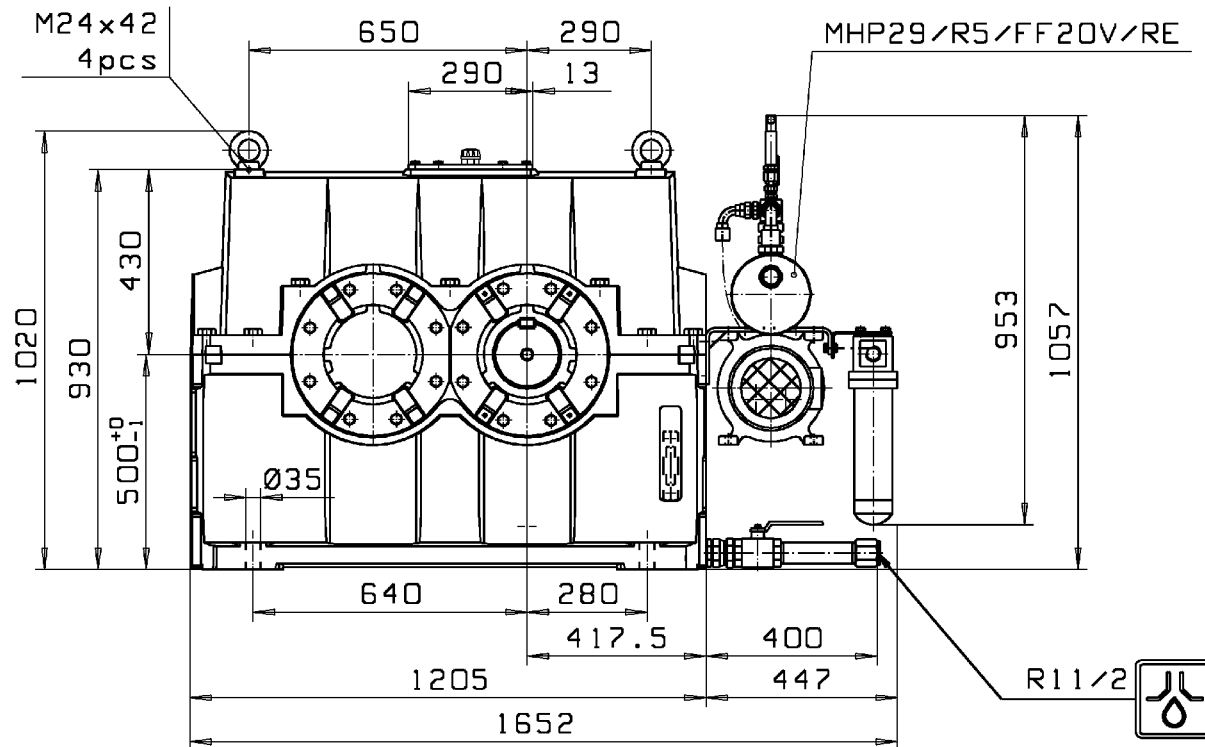
- § Type: D1PSF60HP-50
- § Ratio: 4,95
- § Low speed torque: 9,88 kNm
- § Low speed RPM: 238,4
- § High speed RPM: 1180
- § Power rating: 250 kW
- § Sf : 3,28

Refining





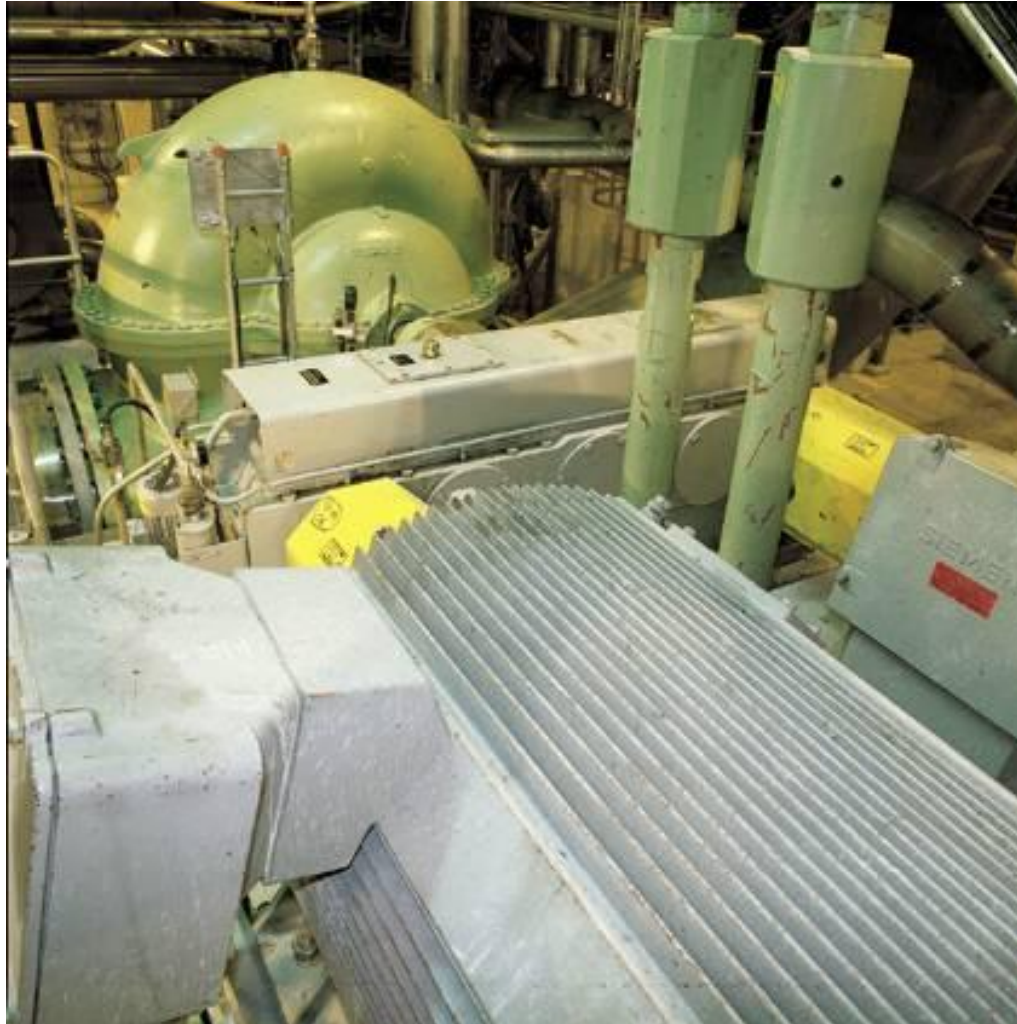
Refiner Gear Unit



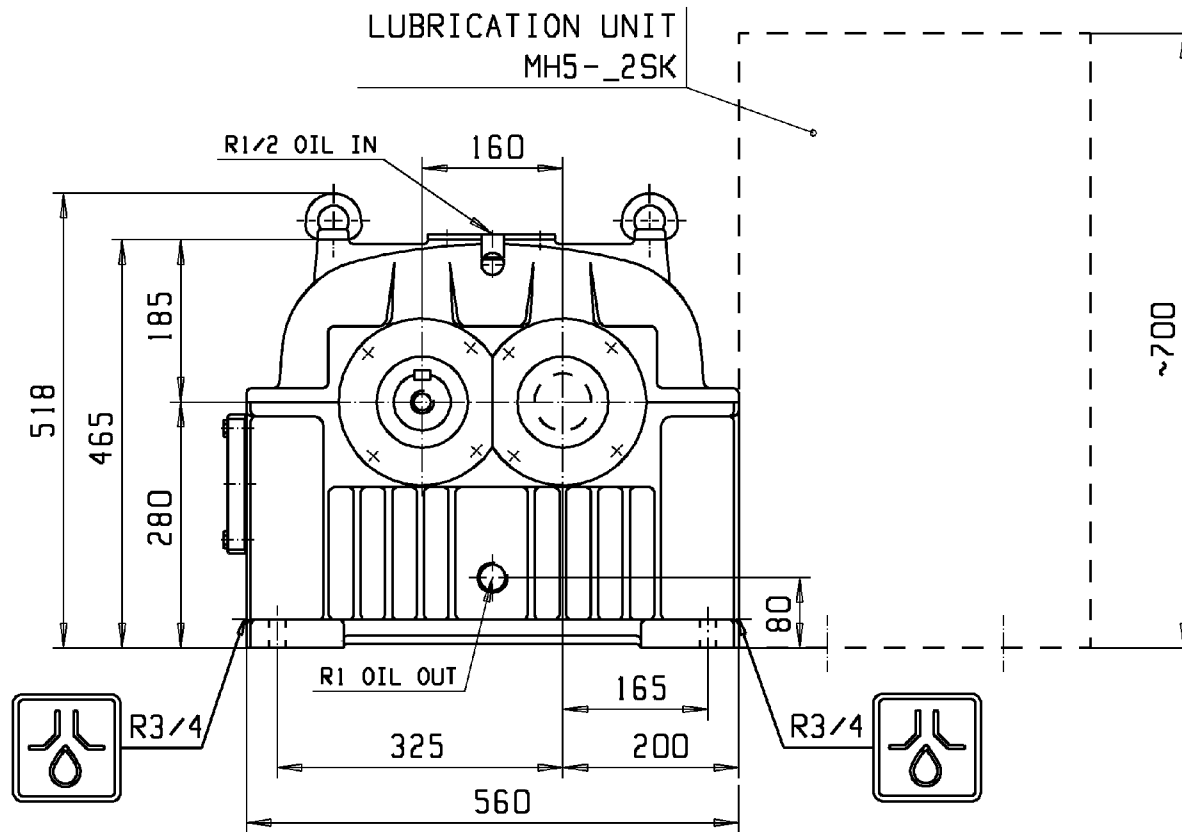
- § **Type: D1PSF70RE**
- § **Ratio: 3,7619**
- § **Low speed torque: kNm**
- § **Low speed RPM: 397**
- § **High speed RPM: 1495**
- § **Power rating: 1400 kW**
- § **Sf : 2**



Pumps

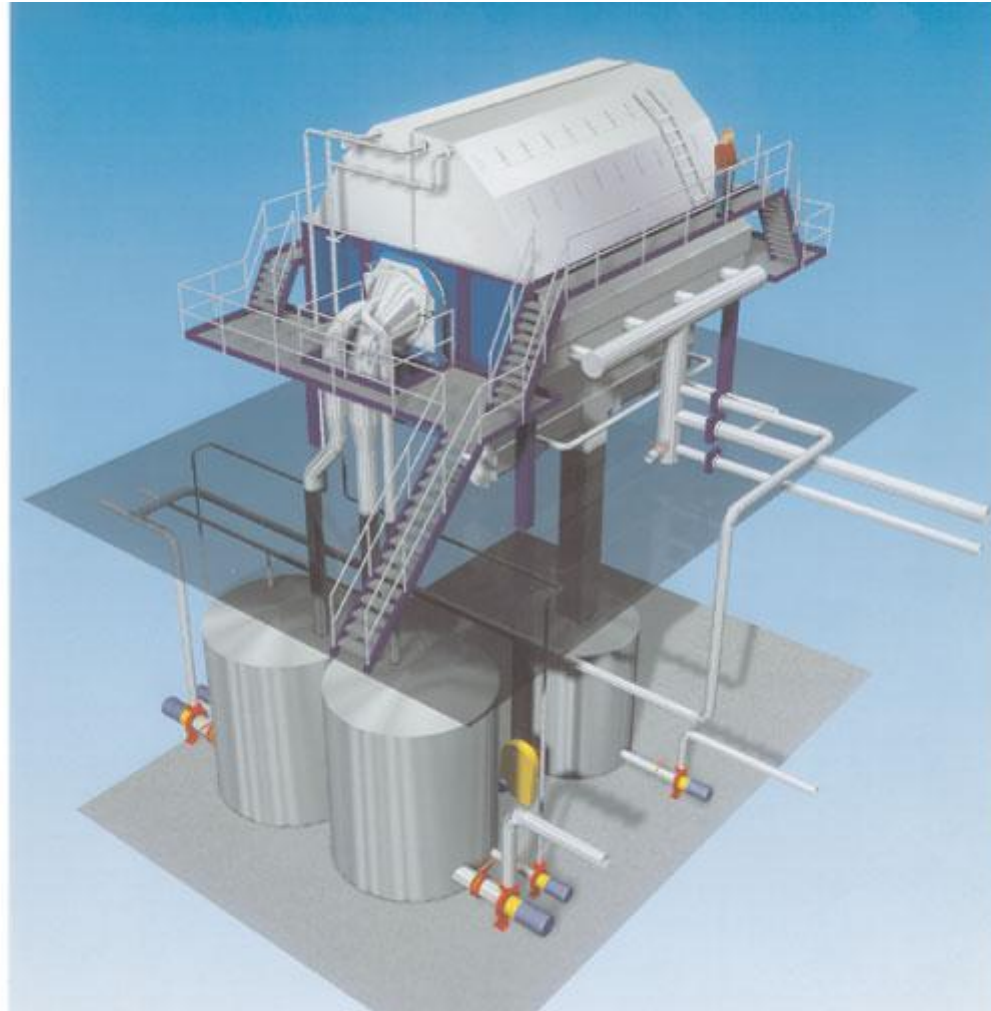


MC-pump Gear Unit



- § Type: 1C160N
- § Ratio: 1,7838 (increase)
- § Low speed torque: kNm
- § Low speed RPM: 1485
- § High speed RPM: 2649
- § Power rating: 132 kW
- § Sf : 5,50

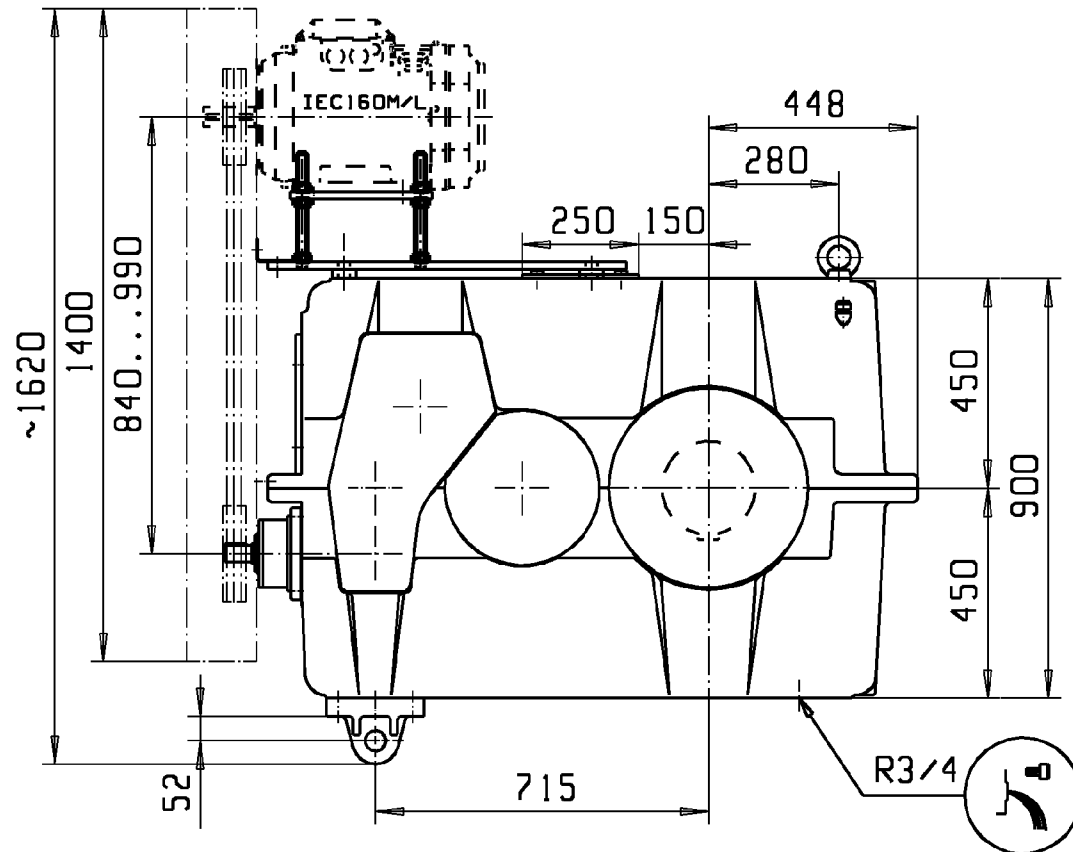
Disc Filter



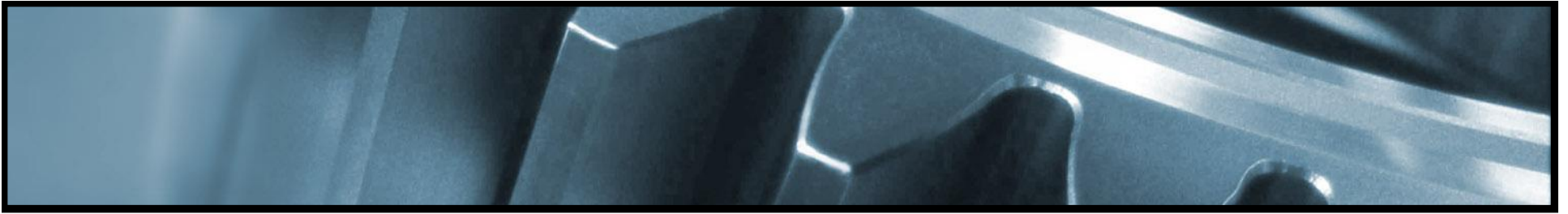
Disc Filter



Disc filter Gear Unit



- § Type: 5TKC400N
- § Ratio: 704,3
- § Low speed torque: kNm
- § Low speed RPM: 1,1
- § High speed RPM: 735
- § Power rating: 7,5 kW
- § Sf : 2



Key Account products

9.6.2008

Mikko Jernfors

moventas



Table of context

- 1) Dryer application
 - 1) Dryer gear unit
 - 1) TC-gear unit series
 - 2) RUHT-gear unit series
- 2) Water turbine application
 - 1) Water turbine gear units
 - 1) Horizontal
 - 2) Vertical



Dryer applications

Rendering

- § Meat meal
- § Bone meal
- § Poultry meal
- § Blood meal
- § Feather meal

Fish

- § Fish Meal
- § Fish oil
- § Fish Silage

Industrial

- § Brewers and distillery
- § Biomass
- § Municipal and industrial sludge

Food

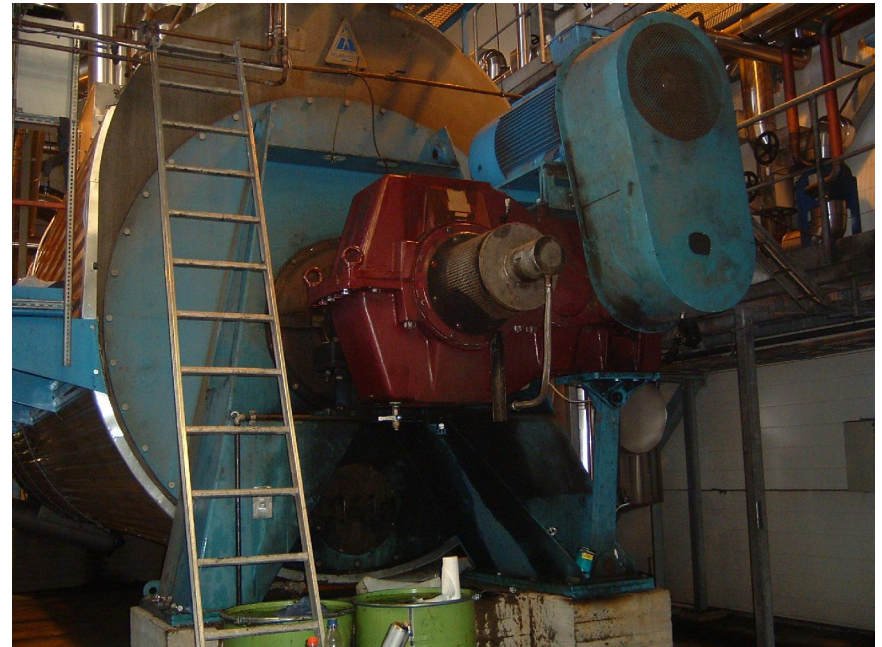
- § Minced products
- § Pre-processing products
- § Sausage
- § Wet pet food
- § Pet food preparation





Dryer Gear Unit

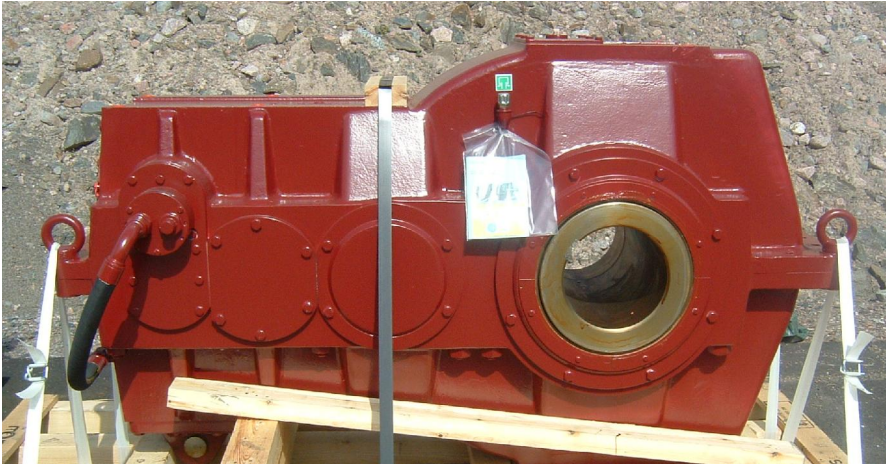
Disc dryer for pelletizer





Dryer Gear Unit

Typical dryer gear unit



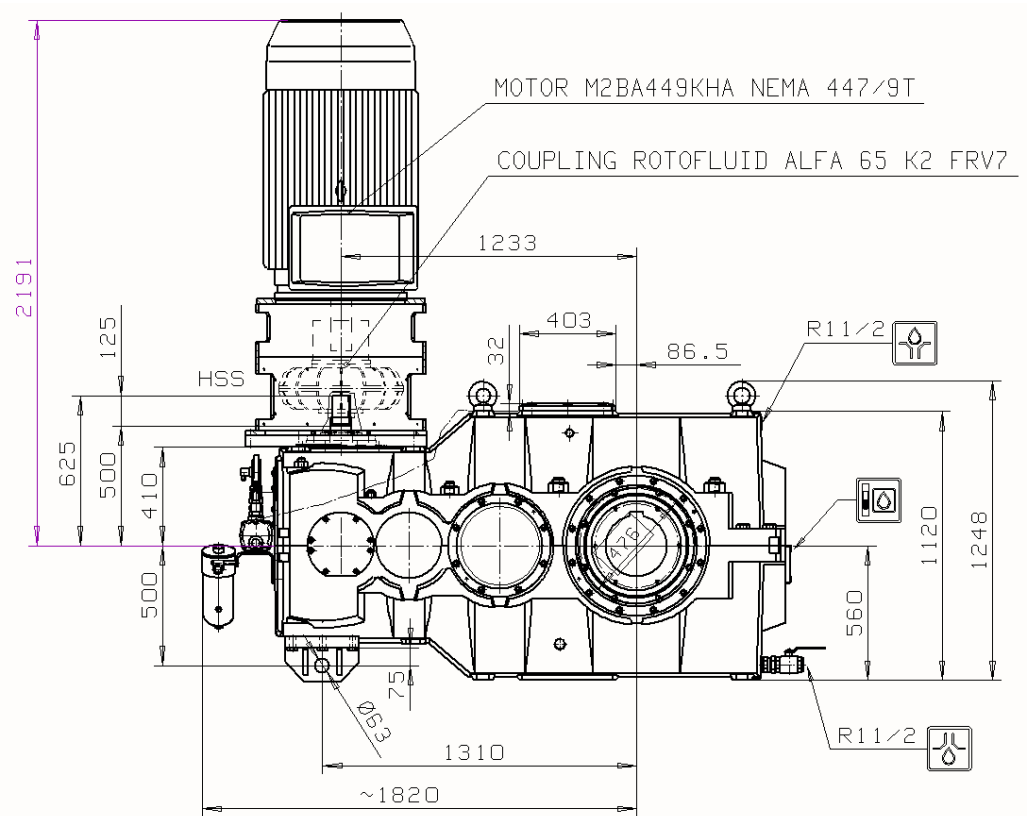
Direct drive dryer gear unit



With auxliary drive

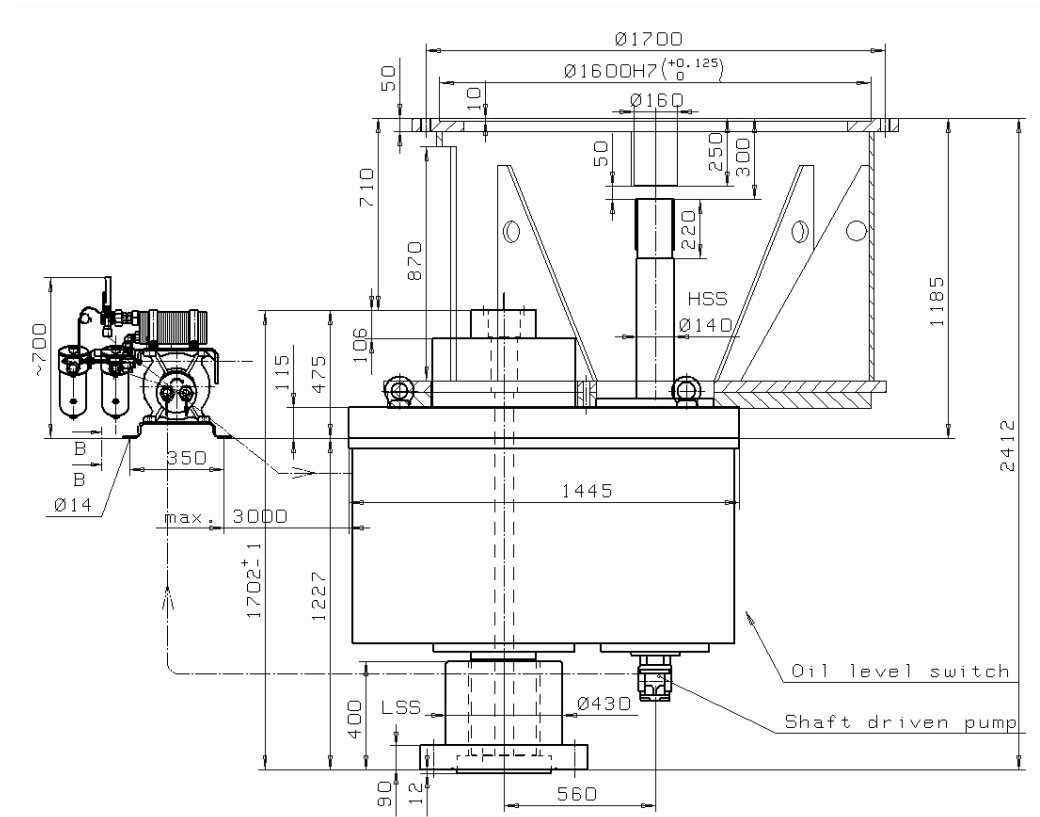


Dryer gear unit



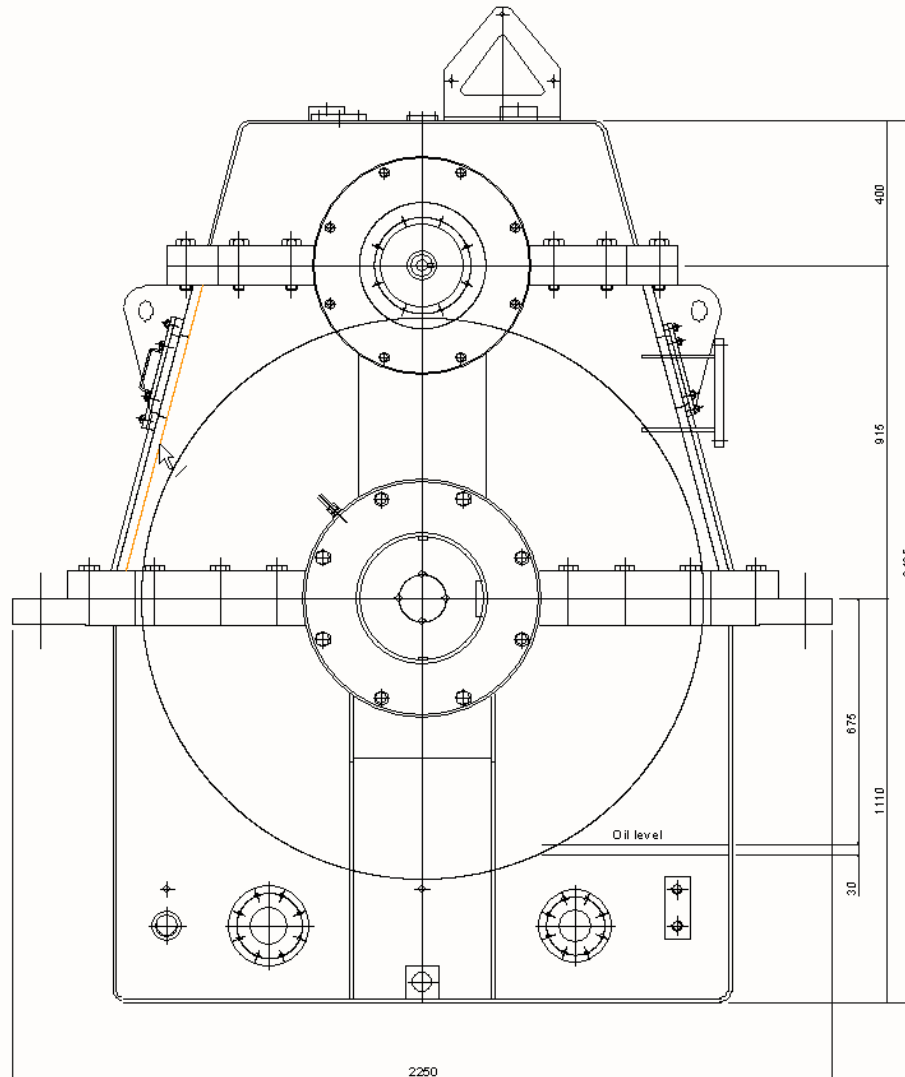
- § **Type: D4RUHT110**
- § **Ratio: 203.9812**
- § **Low speed torque: 153 kNm**
- § **Low speed RPM: 8.82**
- § **High speed RPM: 1800**
- § **Power rating: 150 kW**
- § **Sf : 1.92**

Vertical water turbine gear unit



- § Type: 1PCGE 560
- § Ratio: 5,667 (increaser)
- § Low speed torque:
- § Low speed RPM: 132
- § High speed RPM: 750
- § Runaway speed: 3 x 750
- § Power rating: 1675 kW
- § Sf : 1,91

Horizontal water turbine gear unit



- § Type: S1GU-915T
- § Ratio: 5 (increaser)
- § Low speed torque:
- § Low speed RPM: 150
- § High speed RPM: 750
- § Runaway speed: 3 x 750
- § Power rating: 4760 kW
- § Sf : 2