

HYDRAULIC ROTOR

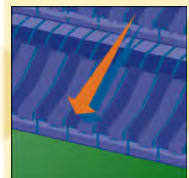
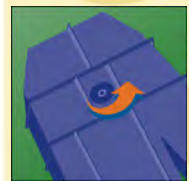
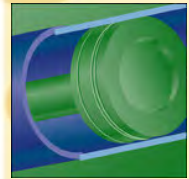
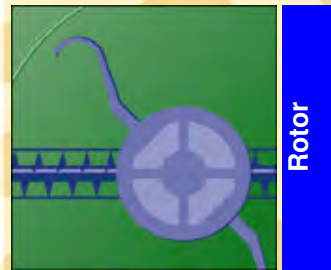
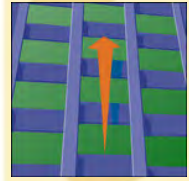
Optimum Discharge Machine for difficult non free flowing Light Bulk Materials

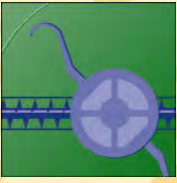


The rotor discharge system was invented by Saxlund and patented in 1955. Several hundreds of these systems are in operation world-wide and are characterised by their ability to provide unequalled performance and reliability in operation.

The Rotor discharge system offers the following advantages:

- space-saving assembly
- various options for the layout of the discharge screws
- also particularly suitable for light bulk materials such as MDF fibres
- in combination with the use of discharge wedges on the inside of the silo wall, the Rotor discharge system is well suited to all types of wood chips and other materials with comparable storage and flow characteristics





New Hydraulic Rotor System for difficult non free flowing bulk material with hydraulic adjustable working of the massive steel arms



Rotor house during mounting of the hydraulic systems of rotor arms

Advantages of this system:

- Working pressure (pre-tension) of arm activation is adjustable by varying the hydraulic pressure (dependent upon the bulk material). Pressure adjustment is possible at any time from the outside
- Rotor arms are made from solid steel with no special features. They provide reliable operation and are free of maintenance over the whole life time.
- Low maintenance of all parts inside silo. High reliability
- Creates 'mass flow' of material within the silo
Minimum power = low forces = low wear = low maintenance

Functional principle:

First the rotor is set rotating by a planetary gear drive unit (0,5–3 min⁻¹) whereby the rotor arms, in order to keep the starting moment low, first remain pressure-free.

After some seconds delay the rotor arms are driven out hydraulically and brought to the working pressure (50-120 bar) set on the pressure limit valve.

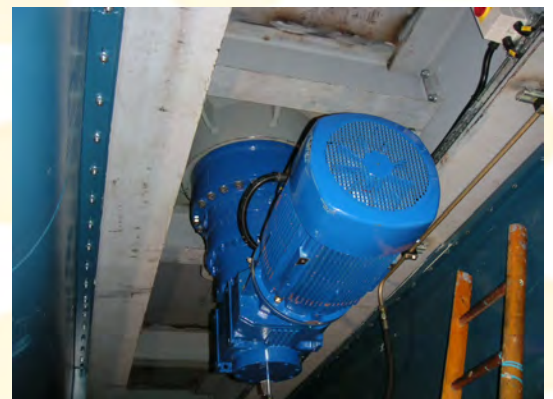
The rotor arms then cut their way through the material towards the bunker wall. They bring the loosened material over the discharge openings, fall chutes or other discharging devices in the bunker floor.

This action causes the column of material in the bunker to be broken down and slides through.

If the resistance of the material is temporarily greater than the set working pressure, the rotor arms can retract as necessary under the control of the pressure limit valve.

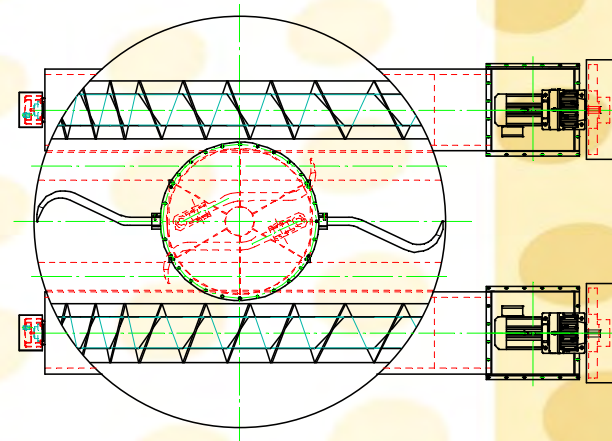
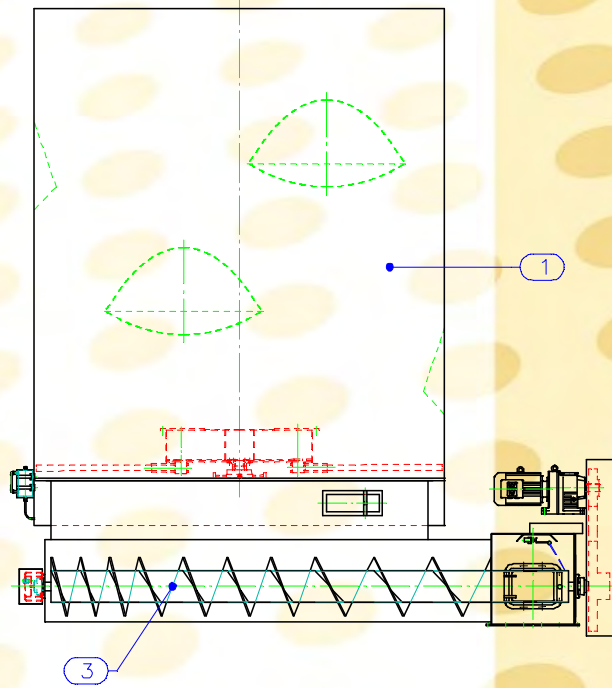
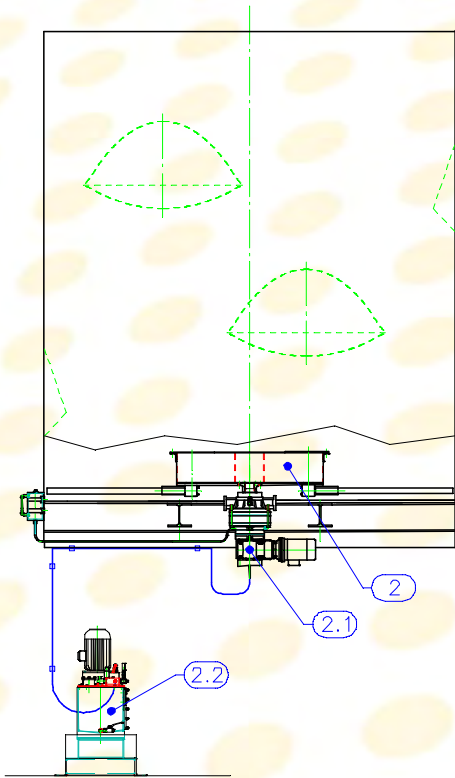
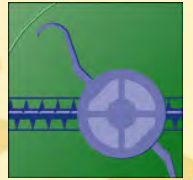


Hydraulic power pack for activation of rotor arms



**Rotor drive
- Saxlund planetary gear drive unit with hydraulic pipe connection**

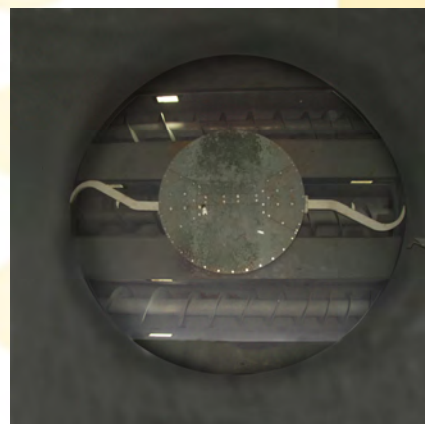
Silo System – Hydraulic Rotor



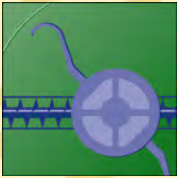
1. Silo
2. Rotor housing with hydraulic Arms
- 2.1 Planetary gear motor
- 2.2 Hydraulic unit
3. Discharge Screw



**Planetary gear motor
with integral hydraulic oil passage.
Up to 200,000 Nm torque can be installed.**



**Hydraulic rotor with arms driven out
and 4 discharge screws**



**Hydraulic Rotor System with Planetary gear motor
with gear box and screw
in star arrangement**

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Products for silo and conveying technology:

- **Saxlund Sliding Frames**
- **Saxlund Push Floors**
- **Tube Feeders®**
- **Saxlund Rotors**
- **Saxlund Solids Handling Pumps**
- **Troughed Chain Conveyors**
- **Screw Conveyors**
- **Elevators**
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