

Outstandingly reliable and efficient pulping IntensaDrum and IntensaDrum Duo





IntensaDrum

IntensaDrum technology ensures quality and efficiency

An effective pulping process for recovered paper requires special machine technologies that meet the various requirements of the paper industry. IntensaDrum is a machine developed by Voith for efficient pulping of stock consistencies up to 20% and for gentle and effective separation of fibers and contaminants.

IntensaDrum is already set for current trends such as the clear increase in the reject portion of recovered paper and the constantly rising recycling rate. Thanks to the machine technology optimized by Voith, the quality of board and packaging paper, for example, is kept at the same high level here.

IntensaDrum makes the difference

The Voith IntensaDrum is practically free of maintenance, since the machine has a maintenance-free and wear-free inlet chute. The highest safety standards allow danger-free entry into the drum via the open reject outlet for maintenance or inspection.

The water input via an additional bundled water jet provides for immediate dilution of the suspension from 20% pulping stock consistency to 10–12% screening stock consistency. Fiber loss and flake content in the accepts are significantly reduced. In addition, specific energy consumption and the use of chemicals are substantially less due to the high stock consistency.

IntensaDrum portfolio overview

Installation size	ID25XL	ID30	ID33	ID33XL	ID35XL	ID38XL	ID40XL	ID43XL	ID45XL
Production [bdmtpd]*	200	275	350	450	600	810	1 000	1 200	1 700
Diameter [m]	2.5	3	3.25	3.25	3.5	3.75	4	4.25	4.5
Length [m]	22	19	20	26	31	35.5	38	40.5	48
Installed capacity [kW]	200	250	315	400	630	1 000	1 200	1 600	2 000

*only valid for ONP/OMP



- 1 IntensaDrum has proven at various installations
- 2 Robust and reliable pulping with IntensaDrum

Highlights of IntensaDrum

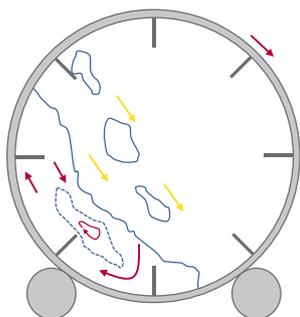
- + Flexibility
 - + Reliability
 - + Maintenance-free
 - + Efficiency
 - + Runability
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The principle of IntensaDrum

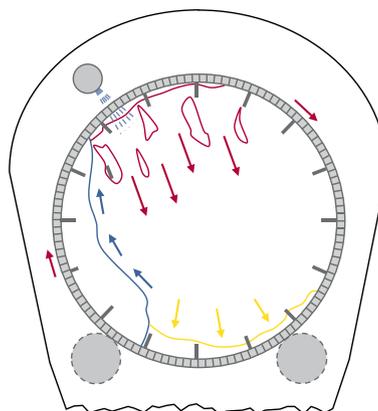
IntensaDrum consists of a pulping and a screening section. In the pulping section, special lifting bars lift the suspension and let it drop back onto the drum body. There is no rotor to crush the contaminants. Based on experience and trials, it was identified that the screening process is only efficient below 10% stock consistency. To reach this target as fast as possible, there are sometimes 2 shower pipes in the first half of the screening section, depending on the size and production.

In the screening section, the fiber suspension is lifted according to the same principle and dropped onto the perforated drum body. Water can get into the drum from the spray pipes through numerous holes so as to wash the fibers out separately from the contaminants. Thus clean separation takes place already in the pulping stage without damaging the contaminants.

Interior view of pulping drum principle



Interior view of sorting drum principle





IntensaDrum Duo

The world's largest drum pulper: Voith presents IntensaDrum Duo: 3000 tons of recycled paper per day

With a total length of 78 m and a pulping capacity of 3000 tonnes of recycled paper per day, the IntensaDrum Duo is the largest unit ever built for a stock preparation plant. The machine was constructed with a 48 m long pulper drum and a 23 m long sorter drum. The drum for recycled paper is suitable for very high production quantities and is characterized by its robustness, reliability and efficiency. The two-part modular design corresponds to the IntensaDrum ID45XL, which is designed for smaller production volumes, which is designed for smaller production volumes.

Maximum robustness for large production volumes

IntensaDrum Duo processes production volumes equivalent to two standard drum pulpers. Since only one pulper is required and the entire production is handled in one line, maintenance and service costs can be significantly reduced. At the same time, the IntensaDrum Duo impresses with its enormous robustness due to its modular design.



The IntensaDrum Duo reliably and efficiently processes 3 000 tonnes of paper per day.

Highlights of the IntensaDrum Duo

- + Very high production volumes
 - + Robustness
 - + Reliability
 - + Efficiency
 - + Runability
-

“The IntensaDrum Duo is based on the same drum design as the IntensaDrum ID45XL. Many customers have used these successfully for smaller production quantities. When developing the IntensaDrum Duo, we were therefore able to utilize the experience from this size. Standard machine components also ensure high engineering quality in the design of the IntensaDrum Duo. Compared to a one-piece design, the two-piece IntensaDrum Duo offers significant advantages with these dimensions in terms of transport and installation.”

Pierre-Haakon Berger

Global Product Manager for drum pulpers at Voith Paper



The modular design of the IntensaDrum Duo ensures high machine-building quality. In addition, the two-piece design offers decisive advantages in terms of operating efficiency and is thus more resource-efficient than comparable single-piece pulping drums.

Overview of the IntensaDrum Duo

Production [admtpd]	3 000
Diameter [m]	4.5
Length [m]	78
Installed capacity [kW]	3 800



Advantages of a two-piece design

In order to enable this high production volume with a one-piece drum pulper, the free hanging areas would have to be significantly enlarged. This would significantly increase the dynamic load in all directions and lead to extreme design challenges. With the two-piece design, Voith has successfully overcome these technical limitations of one-piece single drums. The ability to run very high production volumes over one drum pulper and thus also over one stock preparation line leads to a significant reduction in investment and operating costs.

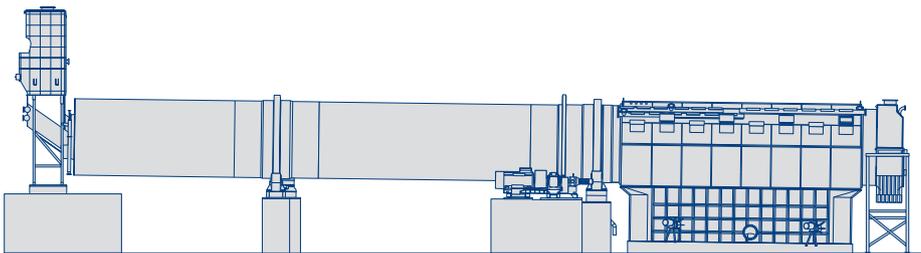
Resource-saving process

Special lifting bars guide the suspension in the pulping area from the bottom and almost to the top. Once at the top, the suspension falls back onto the drum body. Since there is no rotor to reduce the size of the reject, the process is extremely careful. The fibers and reject are also gently separated in the screening section. In addition, water from the shower pipes can enter the drum through the screening area so that the fibers can be efficiently washed away from the reject. Also, the absence of wear parts results in a constant accept quality of the stock as well as lower production and shutdown costs.



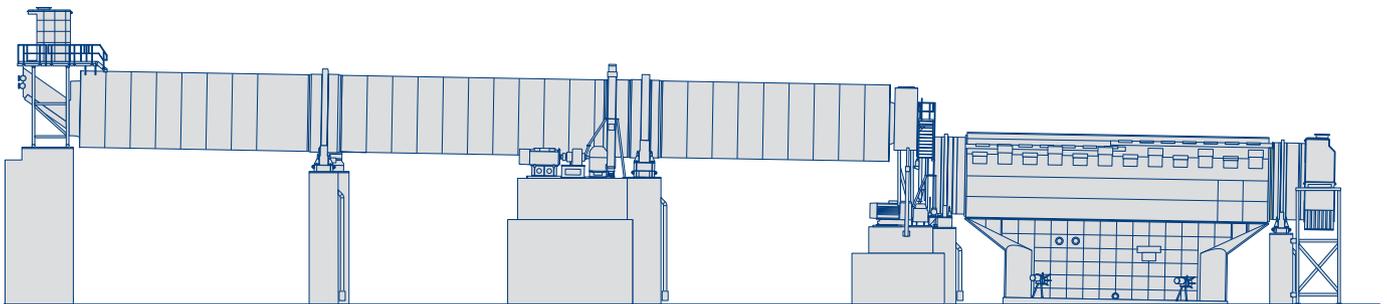
1–4 Supply of the IntensaDrum Duo

Comparison of the IntensaDrum and the IntensaDrum Duo



IntensaDrum – Technical data

Drum diameter	Production design	Total length	Hole size screen part
4500 mm	1 700 BDMPD	52 000 mm	12 mm



IntensaDrum Duo – Technical data

Drum diameter	Production design	Total length	Hole size screen part
4500 mm	3 000 ADMTPD	78 000 mm	12 mm

Download the interactive app IntensaDrum

You can experience the drum pulpers via augmented reality: for this, please download the IntensaDrum app onto your tablet or smartphone. Subsequently, experience the interactive functions by activating the AR mode in the lower right corner and following the instructions on the screen.



IntensaDrum and IntensaDrum Duo are part of the BlueLine stock preparation line



With the innovative stock preparation products of the BlueLine family, customers profit from proven Voith quality and at the same time lower costs for energy, fiber, water and maintenance as well as enhanced runability and safety.

Voith Group
St. Poeltener Str. 43
89522 Heidenheim, Germany

Contact:
Phone 49 7321 37-0
paper@voith.com
www.voith.com/blueline



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