KĀDANT

FIBER PROCESSING

Perivac™ Deaerator

Efficiently removes air and other gases from stock suspensions

Space-saving, high-performance system for an optimally deaerated stock in paper, board, and tissue production

Perivac
Deaerator

Perivac installation

Efficient Deaeration - for All Stock Types

The Perivac deaerator is a space-saving, high-performance system for efficient removal of entrained and dissolved air as well as other gases from paper, board, and tissue stock suspensions. An optimally deaerated stock is the basis for high quality paper, board, and tissue production as well as machine efficiency. This compact unit is known for its reliable operation and low power consumption and can either be installed as a new system or as a complement to an existing installation.

The Importance of Deaeration

High air and gas contents in pulp suspensions create a number of problems in paper, board, and tissue manufacturing, such as foaming, pin holes, web breaks, pulsations, MD variations as well as reduced drainage and cleanliness. High air and gas contents also affect the paper quality negatively in regard to printability and formation.

Therefore, an optimally deaerated stock flow is required for today's modern, high-speed paper and board machines in order to ensure stable operating conditions.

Modifications to the existing system and wet-end, such as changes in machine speed, capacity increases, and grade or furnish changes may lead to an overload of the white water system. As a result, entrained and dissolved air as well as other gases are built-up and may cause a number of operating problems. Common practice is to add expensive defoaming chemicals to overcome these problems in the short-term.

The installation of a Perivac deaeration system enhances the overall production performance in the long-run.

Benefits

Low Power Consumption

- Optimised and functional design ensures low energy consumption at high operational reliability

Stable Operation

- Pulsation-free operation
- Smooth performance

Short Response Time

- Minimises time needed for grade or furnish changes

Compact Design

- Minimised total investment cost
- Minimised required floor space
- Minimised overall footprint

Smart Deaeration

- Ensures compact system design

Reduce Costs

- Reduced need for defoaming chemicals leads to considerable savings

For high quality paper, board, and tissue

Perivac installation

Efficient Deaeration - How It Works

The stock to be deaerated enters the Perivac deaerator through the central pipe and is sprayed through a nozzle against the inside of the top dome. A thin stock film is formed and given a rotational movement by guiding vanes upon encountering the upper section's vertical wall. The highly turbulent stock film rotates down the wall of the deaerating compartment. The turbulence and large active surface area in the deaerating zone ensure complete deaeration of the stock.

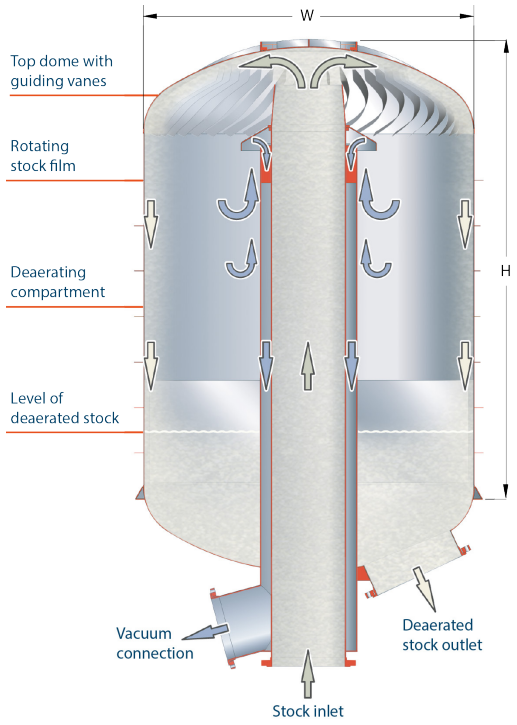
Due to the vacuum in the deaerating compartment, the stock starts boiling at the prevailing stock temperature, and thus the stock gets completely deaerated.

When the deaerated stock film reaches the pond level, the rotational movement is interrupted and the deaerated stock flows at low velocity down to the deaerated stock outlet.

Flexible Installations

Due to the Perivac's small footprint, there is no need for expensive platforms or construction. This keeps the total installation cost for a Perivac deaeration system much lower than other comparable systems. The Perivac deaerator can be installed on the upper floor, the mezzanine floor, or outdoors.

Specifications



This easily installed, compact unit is available in different models

Model Size	Height H		Width W		Capacity	Stock inlet		Vacuum connection		Deaerated stock outlet	
	mm	in	mm	in	l/min	mm	in	mm	in	mm	in
1000B	2,160	85	1000	39	10,000	250	10	150	6	300	12
1250B	2,280	90	1,250	49	16,000	300	12	200	8	350	14
1600B	2,710	107	1,600	63	25,000	350	14	200	8	500	20
2000B	3,200	126	2,000	79	40,000	500	20	250	10	600	24
2500B	3,840	151	2,500	98	63,000	600	24	300	12	700	28
2800B	4,175	164	2,800	110	80,000	700	28	350	14	800	32
3150B	4,585	181	3,150	124	100,000	700	28	400	16	900	36
3550B	5,065	199	3,550	140	125,000	800	32	400	16	1000	40
4000B	5,555	219	4,000	157	160,000	900	36	500	20	1200	48
4500B	6,155	242	4,500	177	200,000	1000	40	600	24	1400	56

Specifications and information subject to change without notice. General dimensions and not certified for construction or installation.

Complete or smart partial deaeration

Targeted Deaeration in Approach Flow Systems

The Perivac deaerator provides a flexible process solution and can either be installed for complete dearation of all flows, or for smart partial deaeration of the thick stock and white water.

Complement to Existing Equipment

Due to its compact design, the Perivac deaerator can easily be installed in almost any deaeration application alongside your existing equipment.

Complete Deaeration

For high-speed paper and board machines, complete deaeration is often required to achieve optimal wet-end conditions.

A fully deaerated stock is the basis for outstanding machine and wet-end performance in order to achieve a high-quality end-product with excellent sheet properties.

Smart Partial Deaeration

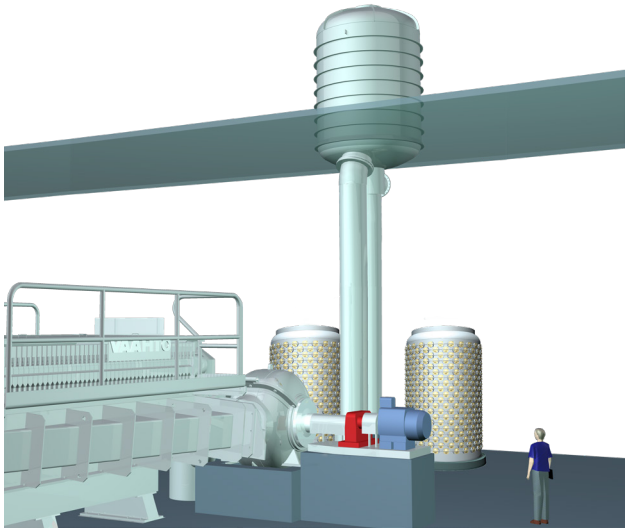
For many applications, depending on the requirements of the wet-end and the properties of the final product, only partial flow deaeration is needed.

This keeps the size of the Perivac deaeration system down and leads to substantially reduced installation and operating costs.

The Perivac deaerator is installed to deaerate just the right amount of thick stock and white water to achieve stable production conditions and improved sheet quality.

Your final product is valuable

Get the most out of your product. We help you to get the most out of your stock.



Certified Parts and Service 24 Hour Hotline for North America: 1-800-448-5422

Efficient deaeration for high-quality paper, board, and tissue.

For patent information about this and other Kadant products visit https://kadant.com/en/patents

KADANT

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