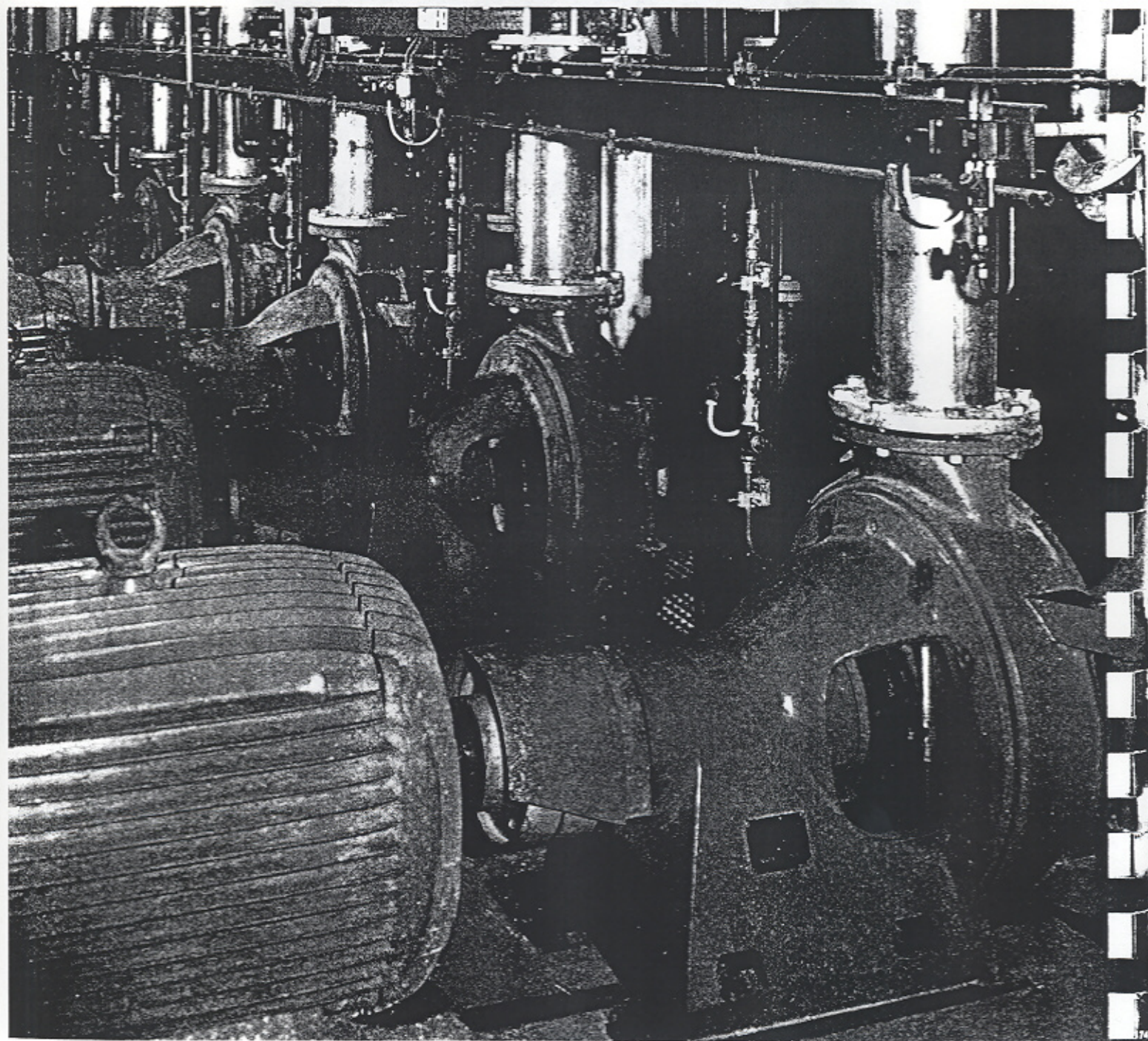


Photo, bottom:
Double disc deflakers 2E in the stock
preparation system of a paper machine
for LWC base paper



In pulp preparation

To obtain a perfect product of uniform quality and strength properties, the pulp must be deflaked prior to refining. As it usually requires too much power to continue the slushing process in the pulper until specks have been removed, this work is done by special deflaking equipment. The deflakers open up the stock into individual fibres and so prevent the fibre bundles from being cut up the refining stage. This treatment ensures uniform fibre development and improves the technological properties of the paper sheet.

In secondary fibre preparation

Secondary fibres that contain specks will produce a paper of inadequate strength. Moreover, undeflaked stock obtained from mixed or sorted secondary fibre will yield a paper sheet of speckled appearance. Therefore, secondary fibre stock should be thoroughly deflaked. While the freeness of the stock is but slightly increased, deflaking contributes to the uniformity of the sheet and substantially improves its strength.

Optimum efficiency through the use of a high-speed rotor to which stock is admitted from two sides.

In spite of the high speed (3000 rpm with size 1 and 1500 rpm with size 2), the ingenious disc design renders the deflaker insensitive to foreign matter.

The disc shape permits the use of extremely hard and wear-resistant materials. Whereas large foreign matter may block the machine, it will not ruin the deflaker discs.

The use of discs with different diameters and disc patterns as well as disc clearance variators permits optimum adaptation of the power requirements to each individual deflaking application.

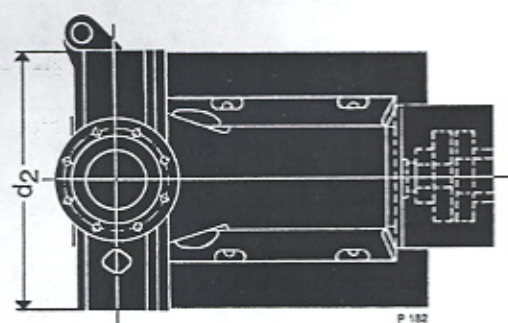
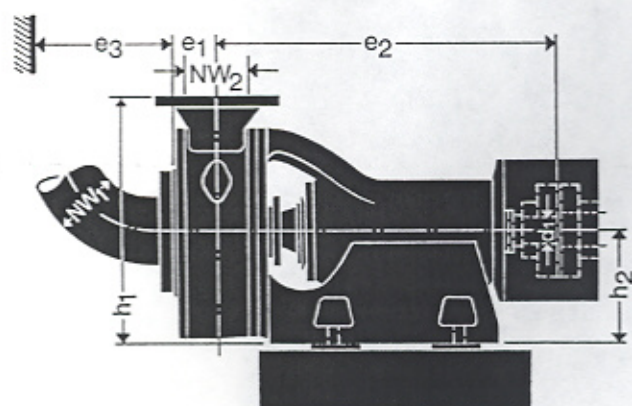
The power requirements of the double disc deflaker vary with the character of stock throughput, disc diameter and disc clearance, and are indicated by us on the basis of the operating conditions. The deflaker is not self-priming. However, a supply head of 2 to 3 m will often be adequate. With high stock consistencies and large throughputs, the stock must be pumped to the deflaker. Several deflakers may also be connected in series.

The deflaking of all grades of pulp and half stuff prior to refining.

The deflaking of machine broke and any grade of secondary fibre.

To obtain speck-free pulp suspensions a single pass is usually all that is needed. Such stock as is difficult to slush normally requires two passes.

Non-choking deflaker discs of special design are available for the pre-deflaking of secondary fibres ahead of vibration screens.



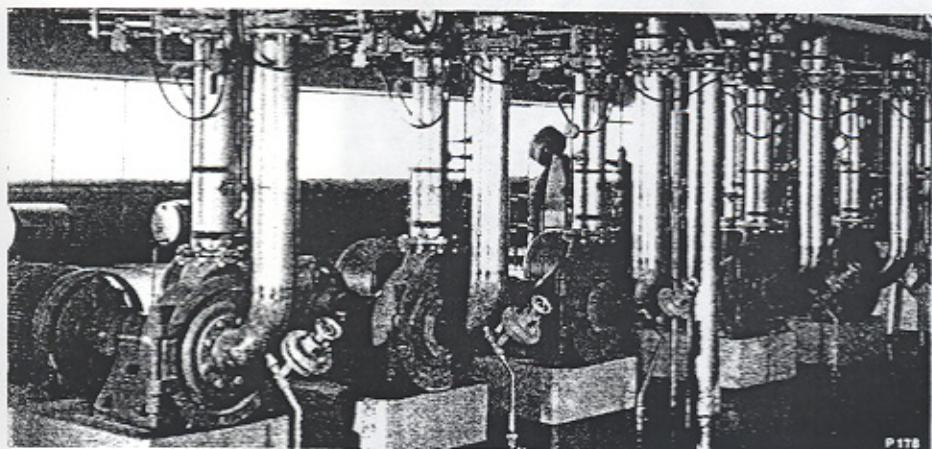
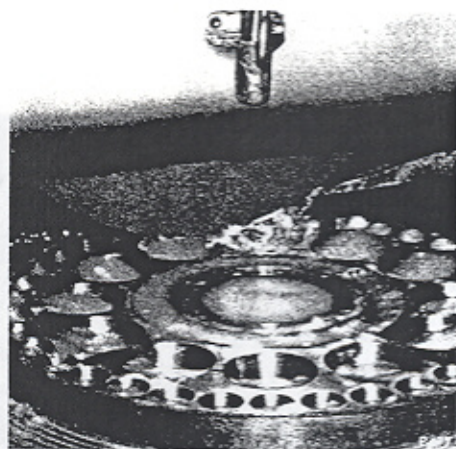
Dimensions [mm]

Size	NW ₁	NW ₂	d ₁	d ₂	e ₁	e ₂	e ₃	h ₁	h ₂
1 E	125	125	55	430	83	677	1000	506	225
2 E	200	200	75	700	105	735	1000	795	350

Operating data

Size		1 E		1 E		2 E	2 E	
Application		Pre-deflaker		Final Deflaker		Pre-defl.	Final Deflaker	
Tackle No.	[Ø mm]	230 V	250 V	270	275	450 V	510	575
Throughput	[t BD/day]	max. 80	max. 100	10–40	15–55	150–200	40–80	50–120
Stock consistency max.	[%]	6	6	6	6	6	6	6
Speed	[1/min]	3000	3000	3000	3000	1500	1500	1500
Power requirements* max.	[kW]	45	70	60	80	130	120	180
Motor rating	[kW]	55	90	75	90	160	132	200

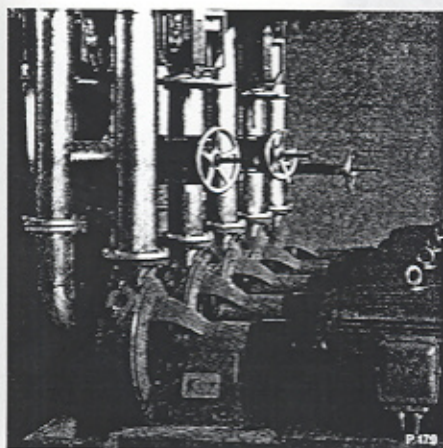
* The power requirements vary with the character of stock, throughput, deflaker tackle and disc clearance.



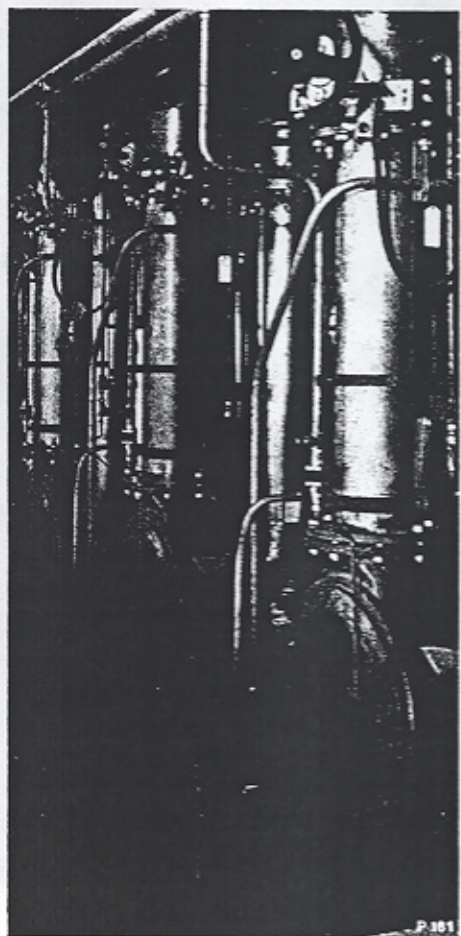
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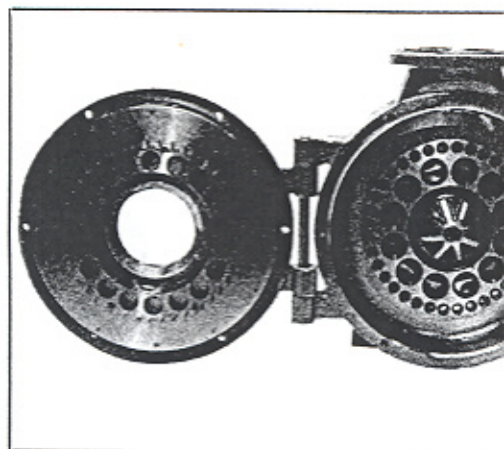
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Ruggedness, high efficiency and excellent adaptability render the Voith double disc deflaker highly economical for a wide range of applications. More than 3000 units installed in stock preparation systems all over the world provide convincing evidence of the popularity this machine enjoys in the paper industry.

Features and Operation



Optimum deflaking

The deflaker tackle consists of three robust perforated discs of extreme hardness; while the two outer discs are stationary, the inner disc rotates at high speed. Stock flowing towards the centre of the disc passes through the perforations and is uniformly distributed

on either side of the rotor disc. On its way to the edge of the disc the stock is subjected to intense turbulence and deflaked by internal fibre friction without shortening the fibres or increasing the SR° freeness.

Rugged design

The wear-resistant deflaker discs of specially alloyed stainless steel are unaffected by foreign matter and stand up to the toughest operating condi-

tions. All internal parts of the deflaker case exposed to stock are either stainless or faced with stainless material.

Low maintenance cost

The deflaker shaft runs in grease-lubricated roller bearings which require practically no maintenance. Highly wear-resistant shaft-protective sleeve of chrome cast steel.

Deflaker case with inspection hole permits convenient observation of the disc clearance. Water-cooled, water-lubricated and pressure-relieved stuffing box.

Simple maintenance

Worn deflaker discs can be replaced within a few minutes. The disc clearance is adjusted by means of spacers which come in different sizes. Even heavily

worn discs can be reground on any lathe fitted with a surface-grinding attachment and used again for many thousand hours of operation.

1

2

3

4

*inlet
stock* →

Components

- 1 Deflaker case
- 2 Case cover
- 3 Stator disc
- 4 Rotor disc
- 5 Shaft

- 6 Stuffing box with seal water connection
- 7 Bearing pedestal
- 8 Angular ball bearing
- 9 Cylindrical roller bearing
- 10 Coupling

