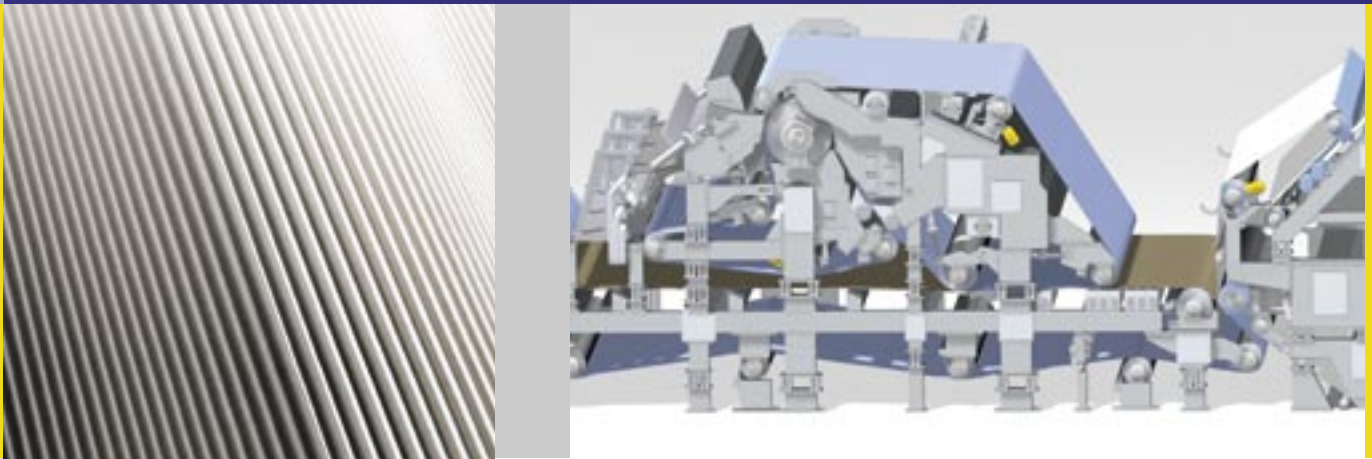


DuoFormer™ Top Board und Packaging Papers



Concept

At the beginning of the production process in the paper machine, sheet formation in the former is particularly important with regard to the quality of the end product.

This is the reason why using reliable technologies for sheet formation in the forming section is of crucial importance for optimising the sheet properties to achieve an excellent product at the end of the process.

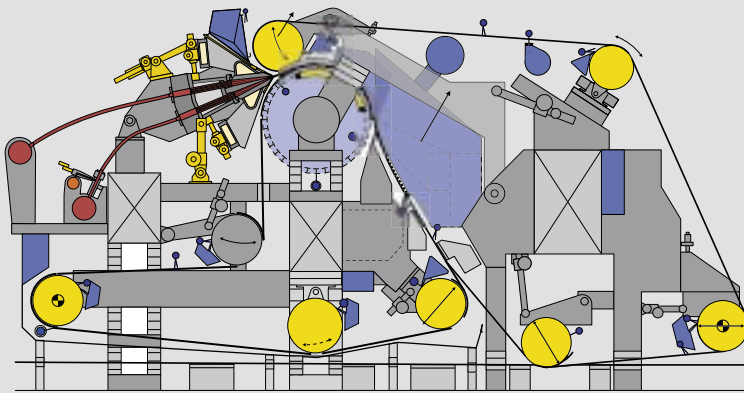
These technologies must also ensure efficient drainage, thus resulting in a highly economic production process.

To meet the technological demands of this decisive phase in sheet formation, Voith has developed the DuoFormer™ Top for board and packaging papers. Besides the technical aspects, the advantages of multi-ply sheet formation are obvious: Improved strength properties

of the end product and optimum quality of products with white top plies.

Another benefit of the development of the DuoFormer™ Top is that the speed limits of conventional concepts have been eliminated. In addition, this advanced former concept allows space requirements to be kept at a minimum, even at high production rates.

DuoFormer™ Top – Gap former for the production of separately formed plies of board and packaging papers



Standard concept for DuoFormer™ Top.

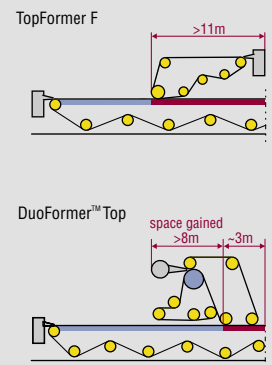
Performance

Operation of the DuoFormer™ Top is very similar to the DuoFormer™ Base. The headbox (single- or multi-layer) faces the press section. This means that the web runs in the same direction as the base ply.

Initial drainage takes place over an open forming roll with a high water storage capacity. The portion of the jet going through the outer wire is

captured very quickly in the jet discharge channel. The web is further drained on the vacuum-augmented top wire suction box. A transfer suction box is arranged at the point where the outer and inner wires diverge. The web is transferred by the outer wire to the couch roll, where it is couched onto the base ply.

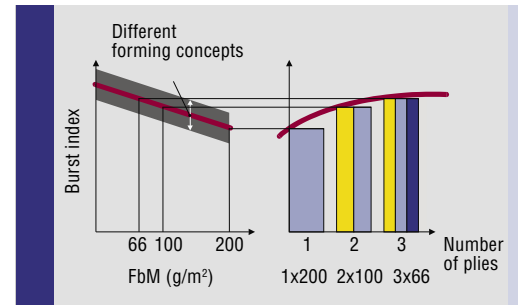
Existing fourdrinier wire



Space requirements of different former concepts. Dimensions for 5 m wide PM/BM with identical drainage capacity.

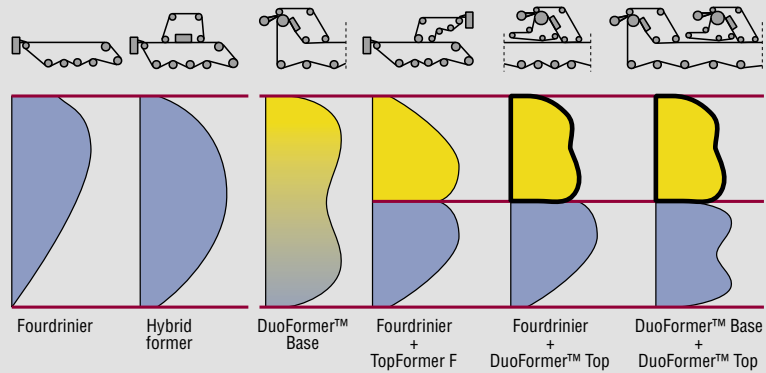
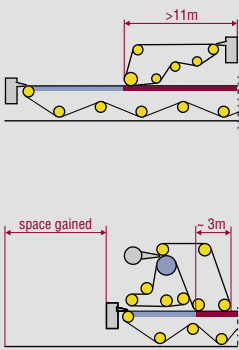
Special service

Voith Paper and Voith Fabrics offer a special service: On our pilot paper machine, which can be run with variable forming roll wrap angles, we optimize drainage and product quality.



Influence of multi-ply sheet forming on burst.

New wire section



Fines distribution on different former designs.

Product benefits

- High strength values through gentle two-sided drainage and multi-ply sheet formation
- Selective distribution of fines for high bond strength
- Excellent coverage at reduced basis weight of top ply
- Uniform formation, even at low MD/CD ratio
- Wide range of MD/CD ratios, adjustable

Performance benefits

- Compact design, short overall length
- Elimination of the speed limit of conventional solutions
- High runnability even at high speeds (>1,000 m/min)
- Optimum water flow and high drainage capacity
- Easy handling

Main performance figures

- Max. basis weight: 180 (270)* g/m²
- Speed: 300–1,600 m/min

*DuoFormer™ Base + DuoFormer™ Top

Voith Paper GmbH
Linzer Str. 55, P.O. Box 168
3100 St. Poelten, Austria
Tel. +43 (2742) 806 0
Fax +43 (2742) 806 771 73

Voith Paper Inc.
2200 N. Roemer Road
54912 Appleton (WI), USA
Tel. +1 (920) 731 77 24
Fax +1 (920) 731 02 40

Voith Paper
Máquinas e Equipamentos Ltda.
Rua Friedrich von Voith, 825
02995-000 São Paulo (SP), Brazil
Tel. +55 (11) 39 44 40 00
Fax +55 (11) 39 41 39 79

Voith Paper S.r.L.
Via Daniele Manin 16/18
36015 Schio (Vicenza), Italy
Tel. +39 (0445) 69 05 00
Fax +39 (0445) 69 05 10

Voith Paper S.A.
P. Larramendi 8
20400 Tolosa (Guipúzcoa), Spain
Tel. +34 (943) 67 37 99
Fax +34 (943) 67 28 48

www.voithpaper.com

Voith IHI Paper Technology Co., Ltd.
Kyobashi Bldg. (3rd Floor)
2-9-14 Yaesu, Chuo-ku
104-0028 Tokyo, Japan
Tel. +81 (3) 32 77 41 00
Fax +81 (3) 32 77 41 30

Voith Paper
Regional Representative Office Shanghai
Floor 25, Maxdo Center
No. 8 Xing Yi Road, Changning District
200336 Shanghai, China
Tel. +86 (21) 52 08 03 88
Fax +86 (21) 52 08 03 55

Voith Paper
Regional Representative Office Jakarta
Perkantoran Hijau Arkadia, Menara B
Suite 1501, J1 Letjen TB Simatupang
Kav.88
12520 Jakarta, Indonesia
Tel. +62 (21) 78 84 59 22
Fax +62 (21) 78 84 59 85

Voith Paper
Regional Representative Office Moscow
Sadovaya-Triumfalnya 4/10
127006 Moscow, Russian Federation
Tel. +7 (495) 995 21 52
Fax +7 (495) 995 21 53

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