



RESOURCES

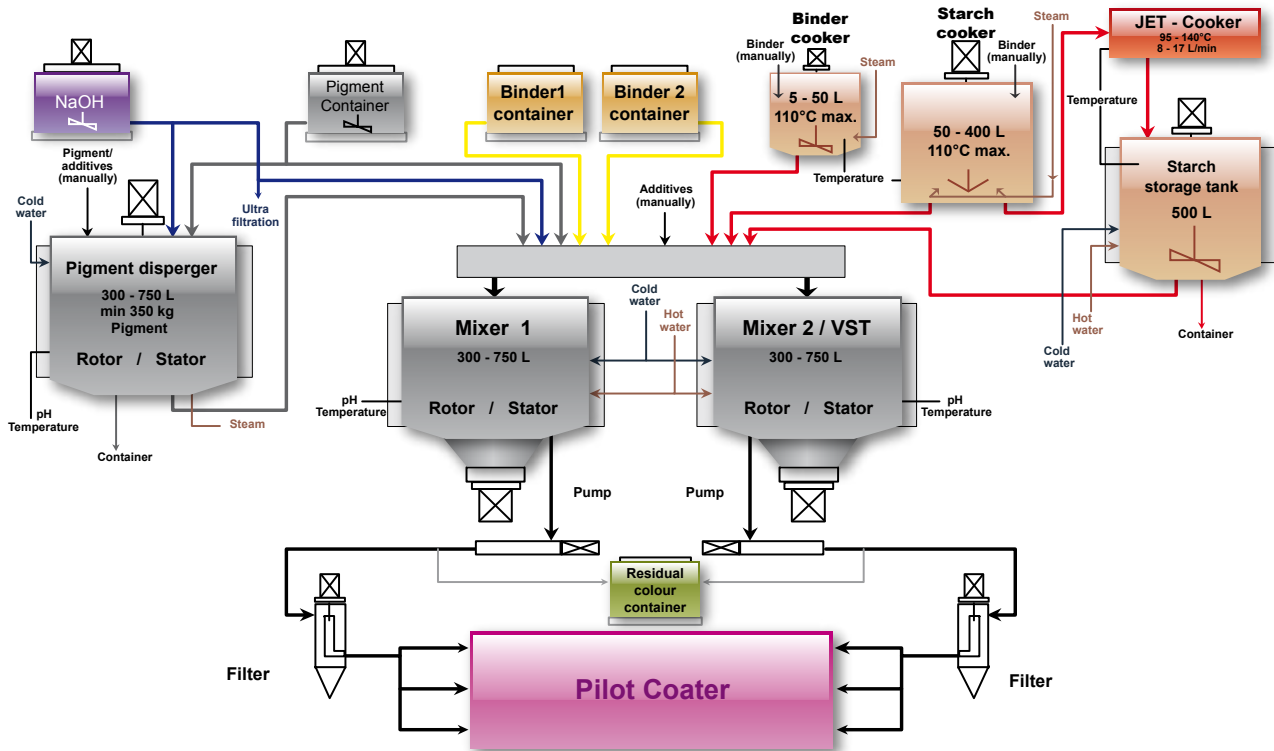
FIBRE COMPOUNDS

SURFACES

ECO-RELEVANCE

## **VESTRA PILOT COATER AT PTS INDEPENDENT R&D CENTRE FOR PAPER COATING**

# COATING COLOUR PREPARATION

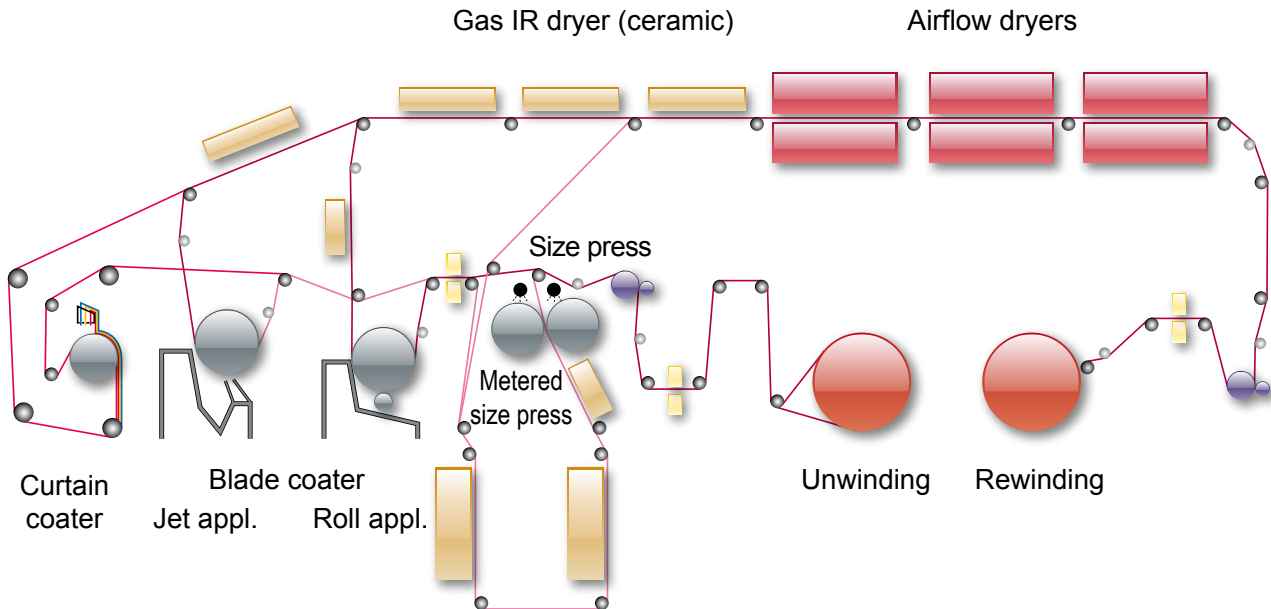


GAW rotor/stator & GAW-VST dispersion mixers  
 Additive & binder preparation  
 Cooker 1  
 Cooker 2  
 Jet cooker

180 - 750 l  
 10 - 50 l  
 80 - 400 l  
 500-1000 l/h

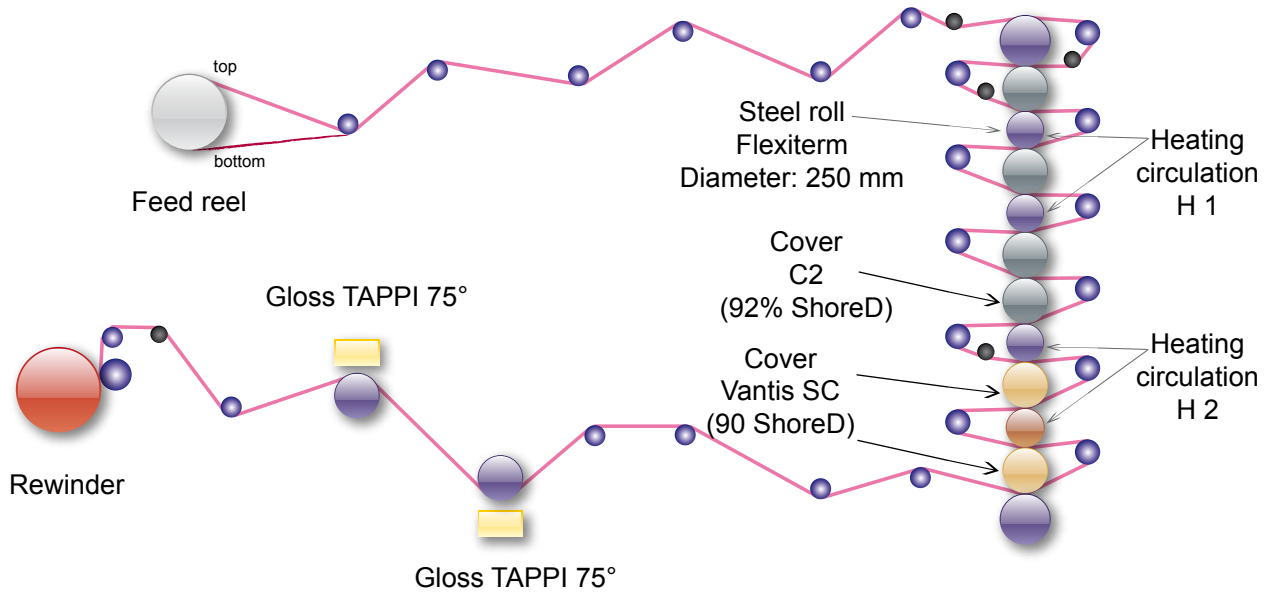


# GENERAL DATA



<b>Width of coater</b>		600 mm
<b>Speed</b>		50 - 2500 m/min
<b>Paper roll diameter</b>		max. 1500 mm
<b>Core diameter</b>		76 /150 mm
<b>Size press</b>		
Roll hardness		15, 30 P&J
<b>Metered Size Press</b>		
Roll hardness	rubber	15, 30, 50 P&J
Roll hardness	PU	30 P&J
Profiled rods		12, 15 mm
Smooth rods		12, 15, 18, 20, 25, 38 mm
<b>Blade Coater</b>	<b>Combi Blade</b>	
Roll Applicator		Bent blade Stiff blade VARI-BAR with Combisystem
<b>Jet applicator</b>	<b>JetFlow F</b>	
<b>Curtain Coater</b>		
Gap opening		0,58 mm
Flow rate		max 450 l/h
<b>Dryers: Krieger ceramic gas IR and gas CB air dryers</b>		
<b>Data acquisition and analysis</b>		
„DaVinci“ Quality control system by Honeywell		
Online profiler by Epos C		

# CALENDERING



PTS regards calendering as one of the most important finishing processes that is greatly influenced by all paper and coating parameters. The equipment of the pilot coater has been designed especially to allow different papers coated with different coating colours to be examined in order to evaluate optimum coating and calendering conditions. The targets are clear: less calendering to achieve the same gloss whilst saving energy and, thus, costs, and to enhance paper quality (more bulk, higher stiffness/whiteness/opacity) with fewer negative effects.

### Voith Sulzer 12-roll supercalender

Usable width (max.)	600 mm
Speed (max.)	600 m/min
Linear load:	110 - 320 kN/m
Temperature range	40 - 95°C
Roll diameter feed reel (max.)	1500 mm
Roll diameter collection reel (max.)	1400 mm
Roll core diameter (feed/collection reels)	76 / 150 mm



### Slitter-winder: Jagenberg VARI-ROLL

Usable width min./max.	560 / 600 mm
Speed max.	1500 m/min
Feed and collection reels:	
Roll diameter max.	1500 mm
Roll core diameter	76 / 150mm
Edge trimm	both sides



## UNIQUE FEATURES OF THE VESTRA PILOT COATER

- Five applicators including a 3-layer slide curtain coater with a speed range from 50 to 2,500 m/min
- Independence, neutral status, no product- /additive-related sales interests
- Access to research programmes (public-funded, multiclient or bilateral) where paper mills and suppliers are co-operating with PTS in joint research projects in order to improve their cost situation and product quality
- Increased reliability in field tests, avoiding operation interruptions, minimising the risk of complaints
- Significantly reduces costs compared to field tests
- Availability of all laboratory and analytical possibilities of PTS incl. SEM (scanning electron microscope) and AFM (atomic force microscope) as well as many standard methods such as those for analysing rheology, water retention, surface tension, contact angle, Cobb value, kit test, whiteness, gloss, porosity, smoothness, thickness, IGT and Pruefbau testers

## WHAT PTS CAN DO FOR YOU

- Market analysis
- Supporting product development and research
- Process optimisation
- Increasing efficiency
- Testing and pre-demonstration of process conditions to minimise the risk of changing products or developing new products
- Production of pre-production run
- Making up samples
- Fast and cost-efficient „Troubleshooting“
- Supervision of field tests
- Support during commissioning



VESTRA was founded in 1994 by a consortium comprising plant and equipment manufacturers, pigment producers, suppliers of binding agents and the paper technology institute PTS. In 2006 VESTRA was incorporated into PTS, the independent research company. This brings together a wide spectrum of industrial know-how from all key areas of coating technology - something which so far is unique throughout the world. VESTRA pilot coater customers enjoy the double benefits of:

- independent advice aimed exclusively at fulfilling the customer's needs (no hidden sales interest), and
- the very latest research results which may be used to develop innovative products and processes.

**Tram H**

Linie 20/21: tram stop Lothstrasse  
 Linie 12: tram stop Barbarastrasse

**Buses H**

Linie 53: bus stop Barbarastrasse  
 Linie 154: bus stop Görrestrasse

**Underground U2**

Hohenzollernplatz (tram 12, bus 53)  
 Josephsplatz (bus 154)

**Hotel H**

Hotel Vitalis

**Arrival by car**

From Salzburg take Mittlerer Ring (middle ringroad) at the end of the highway (exit „Ramersdorf“) towards „Nürnberg“, then further towards „Stuttgart“ and „Stadtmitte“ (Munich centre). Turn left into Dachauer Strasse.

From Nürnberg take exit „Schwabing“, then Mittlerer Ring (middle ringroad) heading towards „Stuttgart“, exit at „Stadtmitte“ (Munich centre). Turn left into Dachauer Strasse.

From Stuttgart drive to the end of the highway, then follow the signs to „Nürnberg“. On Wintrich-Ring proceed to Dachauer Strasse and turn right heading for „Stadtmitte“ (Munich Centre).

When you reach „Leonrodplatz“ proceed as shown in the Inset. A parking lot is available outside PTS at the end of Hess-Strasse.

**Arrival by air or rail**

At Munich airport, board the S8 or S1 railway shuttle to main station (departure every 20 min.), Travel time about 45 min. Outside main station transfer to the # 20 or 21 tramway bound for Moosach or Westfriedhof and exit at Lothstrasse (5th stop).

