

VOITH

Voith Paper Coater Service

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Coater Service

Why? Here are some common issues



Major problems

- Wrong blade type
- Extensive dry blade time
- Misalignment
- Damaged flow strips
- Too much coating color in circulation
- Solid content & viscosity not optimized

Impact on

- Uneven CD profiles
- Reduced quality
- High blade wear
- Air bubbles in coating color
- Uncontrolled blade reaction
- Back flow, broken flow

Some of the most commonly observed problems during operation with blade coaters are listed on the left.

Voith Service technicians are able to solve these issues within the shortest downtime possible at reasonable prices.

Unsolved issues may lead to instable operating conditions and out-of-spec paper properties, resulting in down grading and scrap. Also, maintenance cost will increase over time, e.g. caused by an increased blade consumption.

Coater

Cross profile quality

Any cross profile defect detected by the reel scanner could have its origin in the coating unit.

Do not wait until it is too late – have us conduct a Coating Service regularly.

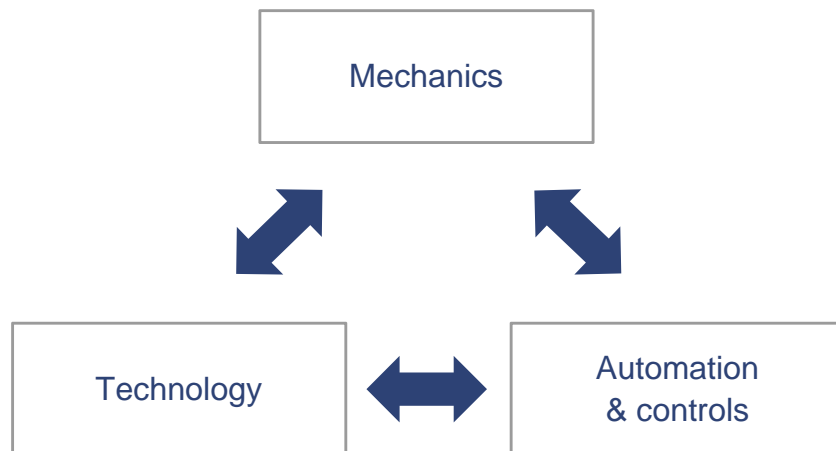
Let us take care:

- Ensuring stable coating unit conditions by professional services
- Avoiding production and quality loss
- Service contracts allow you to cross this off your to-do list – permanently!

Coater Service

A comprehensive service

Interacting influences impacting the coating unit performance



- Coating unit Service is available from the internal maintenance department to local machinery specialists.
- Most service providers however cover only a limited scope.
- Comprehensive service should consider all influences impacting the coating unit performance, since they interact with each other.

Voith Paper Coater Service

Our skills & experience in coating technology



- Since 1975, Voith produced more than 1000 coating units.
- These years of experience in design, manufacturing, assembly, start-up and service have acquired a unique competence
- Standardized service procedures developed from a knowledge base of many years experience allow us to service these components quickly, safely and thoroughly

We know where to look and how to look!

Voith Paper Coater Service

Your benefits



- Reliable inspections of all relevant areas avoid potential problems before they appear
- Periodic inspections and maintenance ensure a perfect technical condition continuously
- Comprehensive service packages from one supplier reduce coordination efforts
- Flexible bolt-on's allow you to customize the scope to your needs

All of this from one supplier for all relevant stock preparation and paper machine equipment increases your ability to plan and control downtimes

Voith Paper Coater Service Customer¹ case study



Major problems

- Uneven CD profiles
- Scratches
- Skip coating
- Jet streaks & back flow
- Flipping blade
- Contamination of dryer battery²

Typical impact

- | | |
|--------------------------------|-----------|
| • Scrap/ broke | 4% |
| • Complaints ³ | € 270.000 |
| • Production loss ² | 12 hours |

Without regular service intervals, a trouble-free operation of a blade coater is not ensured.

The major problems which occurred in this case are described left hand side.

Those problems led to lower production volume due to unplanned downtime and additional broke. Finally, the frequency of customer complaints increased.

1) This printing & writing (“p&w”) customer has three PMs with online coaters and two offline blade coaters, producing 1.100 kt per annum at speeds between 800 and 1.500 m/min.

2) Contamination of the dryer battery by coating color led to production loss of 12 hours (each incident)

3) The customer is calculating an average cost of €1.000,- per complaint

Voith Paper OEM Services Service packages

BASIC Inspection

- Complete functional test
- Technical condition check
- Consultation by service engineer
- Service report incl. recommendations for further measures

COMFORT Inspection & maintenance

- Incl. BASIC service package
- Maintenance according to OEM specification
- Required spare parts can be purchased directly from Voith
- Standard spare parts included
- Support staff & lubricants are provided by customer

PREMIUM Inspection & maintenance incl. spare / wear part

- Incl. COMFORT service package
 - Incl. spare parts discount
 - Complete service incl. service personnel & planning
- ⇒ Complete supply by Original Equipment Manufacturer (OEM)

customer benefit

Full transparency of mechanical performance, illustrated & quantified in a service report including a list with corrective measures & recommendations.

BASIC Service plus trouble free preventive maintenance executed by Voith, restoring your equipment's functional performance to OEM specification.

Let us take on the challenge to maintain your equipment's performance, extending its useful life, and supporting you with our expertise wherever possible.

Voith Paper OEM Coater Service Scope*

	BASIC Inspection	COMFORT Inspection & maintenance	PREMIUM Inspection & maintenance incl. spare / wear part
Service level description	<ul style="list-style-type: none"> inspection of complete coater area for deposits, damages and wear mechanical condition & basic alignment check condition check of ModuleCoat / ModuleSpeed inspection of <ul style="list-style-type: none"> heating and anti-deflection unit inlet & outlet tubes bearings gears and limit indicators adjustment units jet nozzle air suspension bellows metering rod / backing roll adjustment gap definition of necessary spares, repairs and overhaul activities 	<ul style="list-style-type: none"> inspection according to BASIC Service <p>Exchange (as-needed) of:</p> <ul style="list-style-type: none"> pressure strip (incl. alignment) clamping device flow strip & gap strip (incl. re-alignment) necessary spare parts <p><i>Please make sure to have the spare and wear parts available for the visit of our service technician. If you would like us to take care of your inventory, please ask for a service contract.</i></p> <ul style="list-style-type: none"> profiling check nip impression test start-up support 	<ul style="list-style-type: none"> incl. COMFORT service package optimization of <ul style="list-style-type: none"> cross profiles optimization of coating blades / metering elements start-up times of new blades blade lifetime calibration (DF Coater) complete service incl. service personnel & detail planning, tools supply of defined spare parts

*) Maximum scope shown. Individual scope depends on model & type of your coating unit – some measures might not be applicable.

Voith Paper OEM Coater Service Scope Coverage

	BASIC Inspection	COMFORT Inspection & maintenance	PREMIUM Inspection & maintenance incl. spare / wear part
Voith	<ul style="list-style-type: none"> • One service technician (labor & travel cost) • Definition of pre-conditions 	<ul style="list-style-type: none"> • One service technician per shift (day & night), labor & travel cost • Definition of pre-conditions • Rough planning of required customer resources 	<ul style="list-style-type: none"> • Two service technicians per shift (day & night), labor & travel cost • Complete service personnel & detail planning • Tools
Customer	<ul style="list-style-type: none"> • Preparation as defined by Voith • Support for service technician upon request • Tools 	<ul style="list-style-type: none"> • Preparation as defined by Voith • Support for service technician according to rough plan • Spare & wear parts • Tools 	<ul style="list-style-type: none"> • Preparation as defined by Voith

Voith Paper OEM Coater Service Summary

Summary – Your benefits with a Coater Service from Voith Paper

As-Is

Familiar issues:

- Extended dry blade time
- Deteriorating cross profiles
- Damages of flow strips
- Too much color in circulation
- Wrong blade type

The condition of your coater significantly impacts the level of success you can achieve.

Any issue appearing results directly in money you did not make!

Voith Paper Coater Service

Our Offer

Let us take care:

- inspection and maintenance according to OEM specifications
- skilled and experienced service technician and global expert network
- avoiding production loss, reducing quality issues

... allowing you to concentrate on what you do best: paper making!

VOITH

Engineered Reliability