



paperProcessor VSP 25-12



paperProcessor VSP 50

**PURE PHOTO
QUALITY**

» **Processing**
photo paper processing without leaderbelt «

Photo products

purePhoto™ products

- paperProcessor VSP 25-12 is the optimum system for efficient processing of larger photo prints, to be used as well for value added photo products.
- paperProcessor VSP 50 is ideal for all photo products with a paper width of up to 12.7 cm (5")
- They are produced on real photographic paper to deliver purePhoto™ quality.



Calendars



Photo books



Panorama posters



Photo prints



Photo posters

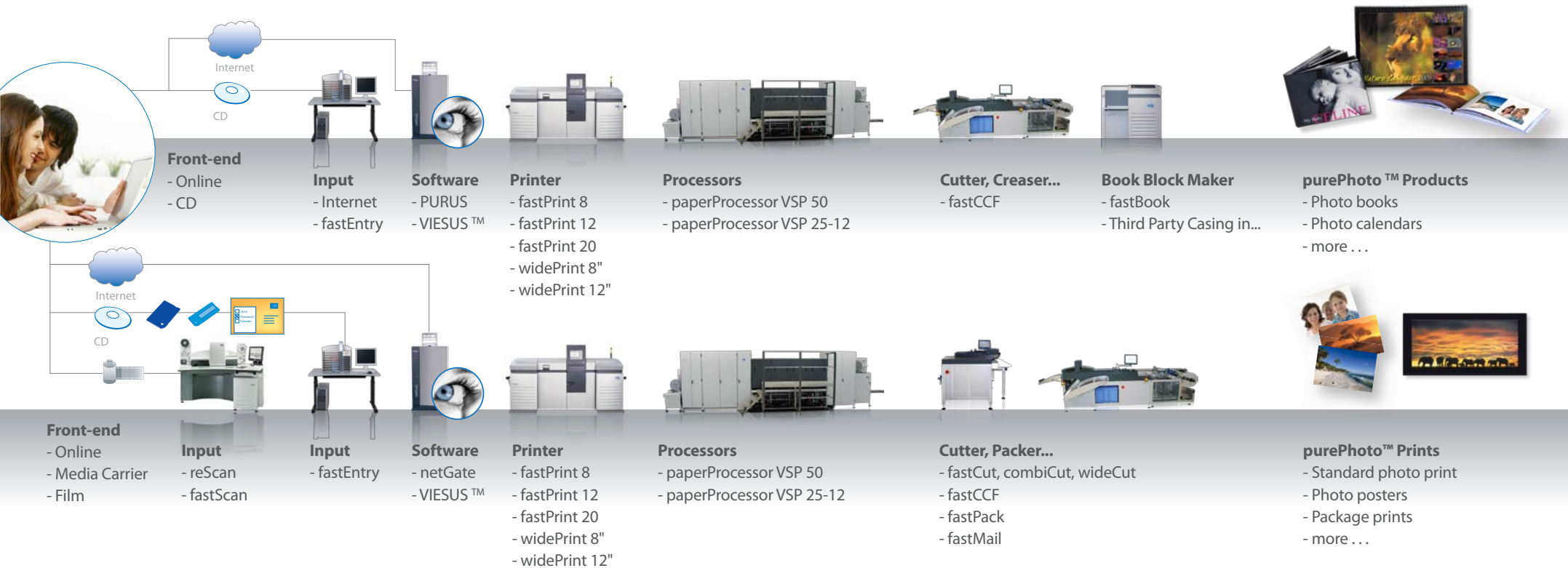


Package prints

PURE PHOTO
QUALITY



Workflow



VSP 25-12 - Key benefits

State-of-the-art

Based on paperProcessor VSP 50

- paperProcessor VSP 25-12 is a state-of-the-art paper processor based on the principles of the well established paperProcessor VSP 50
- VSP 25-12 can be directly connected in-line to widePrint
- Docking possibility for most common magazines are available
- Transport without leaderbelt
- One track from 8.9 cm up to 30.5 cm (3.5" up to 12")

Speed range

Flexible performance

- Speed range in compliance with RA4 specifications:
5 m/min to 22.8 m/min
(16.4 ft/min to 74.8 ft/min)
- Speed range with increased color developer temperature:
5 m/min to 25 m/min
(16.4 ft/min to 82 ft/min)



Ecology

Reduced replenishment

- Optimal squeegee system
- Lowest solution carry-over, 35 ml / sqm only
- Reduced replenishment required
- Wet section can be adapted to customers' needs due to modular tank construction
- VSP 25-12 meets worldwide environmental requirements

Efficiency

Reduced manpower

- Minor transit time
- Less manpower required
- No take-up magazines required for in-line connection
- Minor process costs (chemistry, water)
- Less maintenance costs compared to leaderbelt systems



VSP 25-12 - Key benefits

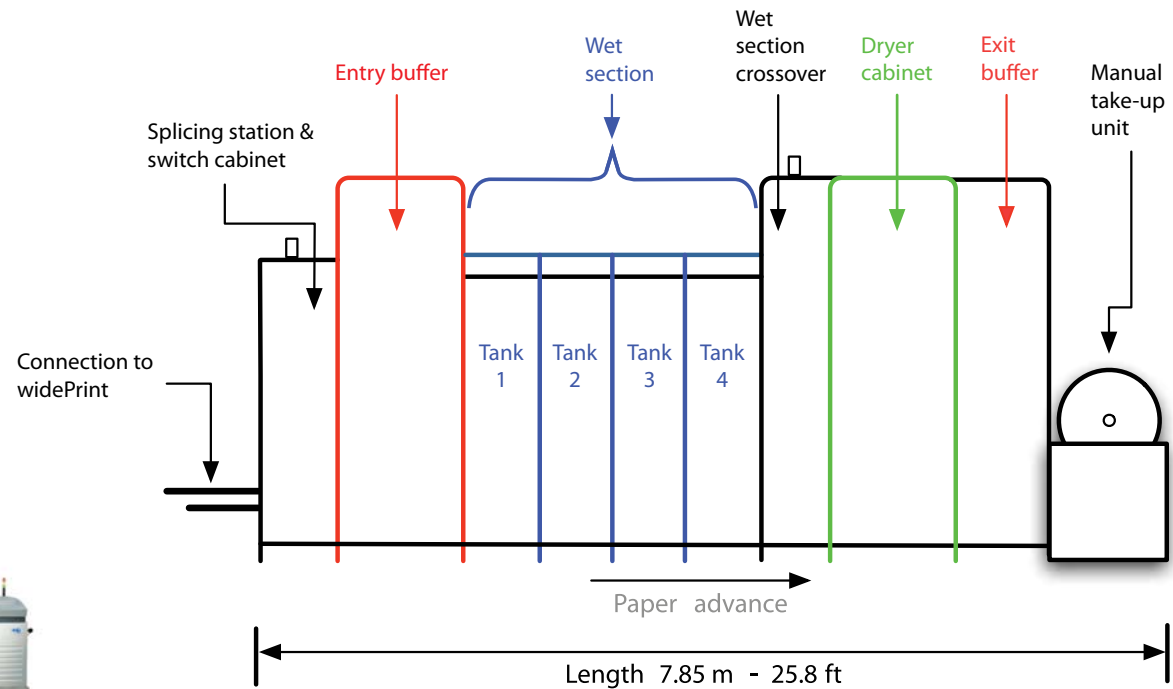
High capacity

for purePhoto™ products

- Capacity: 10,000 prints per hour
10 x 15 cm (4" x 6") *
5,000 posters per hour
20 x 30 cm (8" x 12") *
- Minimum requirements for operating personnel

* maximum capacity with 25 m/min (82 ft/min)

General overview



We reserve the right of changes in the technical specifications

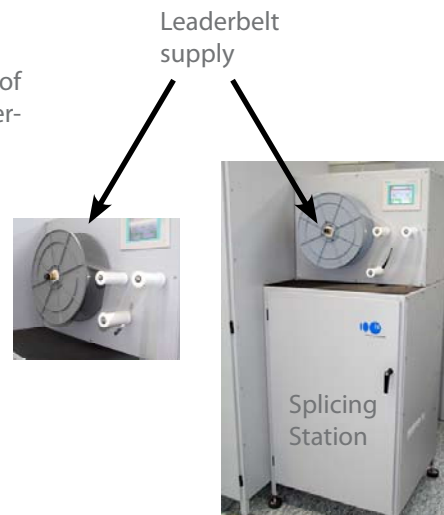


VSP 25-12 - entry of photo paper

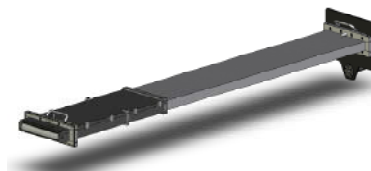
Splicing station

Customer can choose between two possibilities

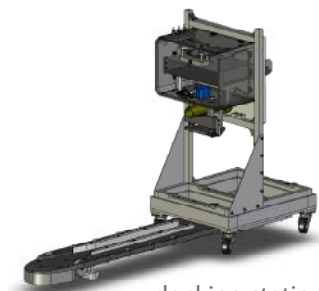
- VSP 25-12 offers an optional in-line connection to widePrint and a day light entrance for most common paper magazines (for widePrint, Zeta)
- Splicing station and handling of leaderbelt corresponds to paper-Processor VSP 50



- In-line connection
Length of channel: 2 m (6.6 ft)
Distance between widePrint and VSP: 1.81 m (5.9 ft)
Telescope construction with support frame
- Offline connection for magazines
Individual, mobile docking station for different magazine types
Can be used in combination with in-line connection



channel for in-line connection



docking station for offline connection

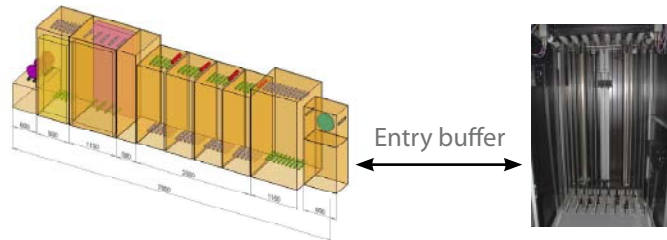


VSP 25-12 - paper handling

With advanced technology

Smooth transportation

- When shut down, VSP 25-12 contains a 100 mm (3.94") reusable plastic leaderbelt
- At start of production, paper is spliced to the belt and pulled into the machine
- Leaderbelt is wound up at the take-up unit and just needed for start and end of production
- Paper transport works without leaderbelt during normal production
- Smooth paper transportation is assured by drive rollers
- At the end of a roll, paper is spliced automatically by the printer
- At the end of production, the last strip of paper pulls the leaderbelt back into the machine



Advantages

- No more permanent leaderbelts and paper clips
- No cumbersome and time-consuming roll handling in the darkroom
- Low solution carry-over thanks to missing leaderbelt
- Wipers have a longer lifetime
- No water stains caused by paper clips
- Reduced maintenance costs



Entry buffer: Lower rollers

Entry buffer

- Entry buffer provides for a continuous production in case the printer stops, e.g. for a paper magazine change
- Buffer size is 29.7 m (97.4 ft)
- A capacity of 3 min 23 seconds is achieved by using an intelligent buffer control



VSP 25-12 - paper transport

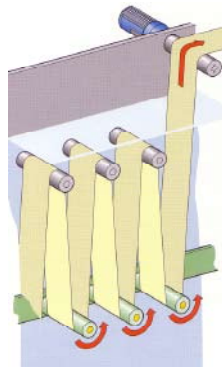
Driving system

Prevents slippage and scratches

- Continuous drive on the back of the paper → paper runs uniformly
- Carriage with lower rollers compensates for changes in the length of the wet paper → prevents slippage and scratches on the paper surface



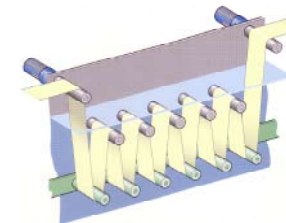
Water tank:
Upper rollers



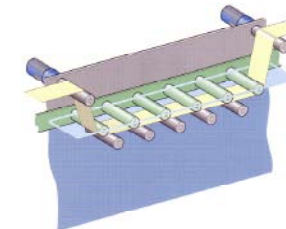
Paper transport system

Unique carriage system

- Unique carriage system allows variable speed while maintaining a constant processing time
- Resulting path length changes according to automatically determined speed
- No racks in the tanks
- Upper rollers are below solution surface
- Lower rollers can be raised above upper rollers for easy maintenance and simple leader threading
- Only few wearing parts, low maintenance costs
- Speed range in compliance with RA4 specifications: 5 m/min to 22.8 m/min (16.4 ft/min to 74.8 ft/min)
- Speed range with increased CD temperature: 5 m/min to 25 m/min (16.4 ft/min to 82 ft/min)



Carriage in
working position



Carriage in
maintenance
position

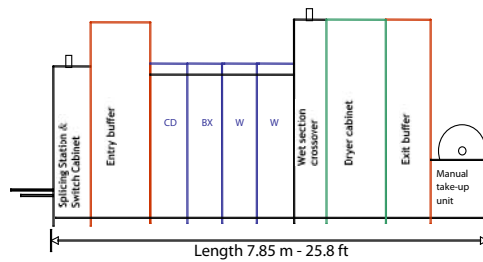


VSP 25-12 - tank configurations

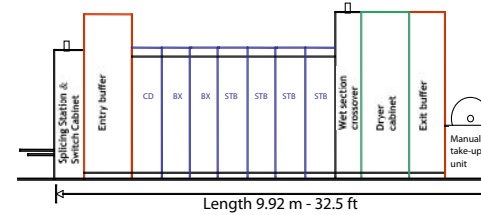
Various types

for different requirements

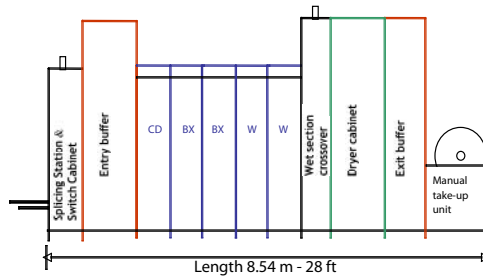
- Standard Version: CD, BX, W, W



- Stabilizer Version: CD, BX, BX, STB, STB, STB, STB



- Double BX Version: CD, BX, BX, W, W



- Standard version is ideal for labs with an existing effluent treatment and silver recovery infrastructure. The remaining silver in the waste water has to be recycled before discharging the water into the canalization.

- Double BX Version enables the lab to run the VSP without water treatment (depending on local environmental regulations). Most of the silver accumulates in the first BX-tank. Therefore the silver charge from the additional BX-tank into the water tank is minimal.

- In case a lab wants to avoid discharge at all, the Stabilizer Version is the best solution. Stabilizer effluent is collected and disposed by an external company. In order to keep the stabilizer replenishment rate low 4 STB-tanks are required.

- Thanks to the modular concept, VSP 25-12 meets environmental requirements worldwide.



- Additional tanks can be added easily (up to seven tanks in total). Our state-of-the-art SPC (stored program control) even allows a field upgrade.
- With every additional tank the machine length is extended by 70 cm (27.6").

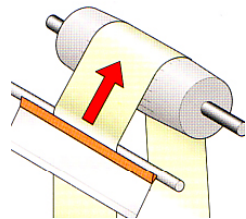


VSP 25-12 - special features

Squeegee system

Highly efficient

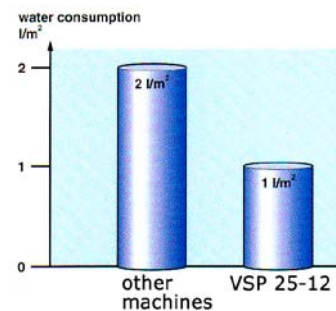
- Metal rods wipe the liquid from the back of the paper
- Delta-V wiper remove the liquid from the emulsion side
- Squeegee system is located in front of the drive rollers at the tank exits
- Highly efficient wiping system
- System with the lowest solution carry-over (35 ml/m^2) and therefore low replenishment needs



Water consumption

Far lower

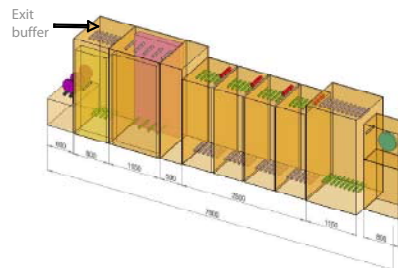
- Water consumption of VSP 25-12 is by far lower compared to other machines



Exit buffer

Easy handling of take-up rolls

- The exit buffer stores production during the time of a take-up roller change
- Buffer size is 18 m (59.1 ft), this corresponds to a capacity of 42 seconds when running at full speed



Take-up unit

Proper winding

- The machine is equipped with a manual take-up unit



VSP 25-12 - economical aspects

In-line connection

results in cost savings

- Assumption: 600,000 sqm of photo paper developed per year
- This corresponds to more than 12,000 magazines which have to be filled and emptied
- Huge economizing potential: paperProcessor VSP 25-12 with in-line connection saves over 12.000 time-consuming magazine changes per year and less paper magazines are needed
- Transport and loading of paper roll with other processors takes approx. 90 seconds
 - VSP 25-12 in-line connection saves 300 h per year
 - less manpower required
- The capacity of VSP 25-12 is up to 2,500 sqm or 50 magazines in a daily 8 hour shift (8" paper)



VSP 25-12 vs. other machines

	VSP 25-12	other machines
Inline connection with variable speed --> minor transit time, less manpower, less take-up magazines required	✓	⊘
Low solution carry-over --> reduced chemistry and water cost	✓	⊘
Meets worldwide environmental requirements	✓	⊘
Safe paper transport	✓	⊘
Low maintenance cost	✓	⊘



VSP 50 - key benefits

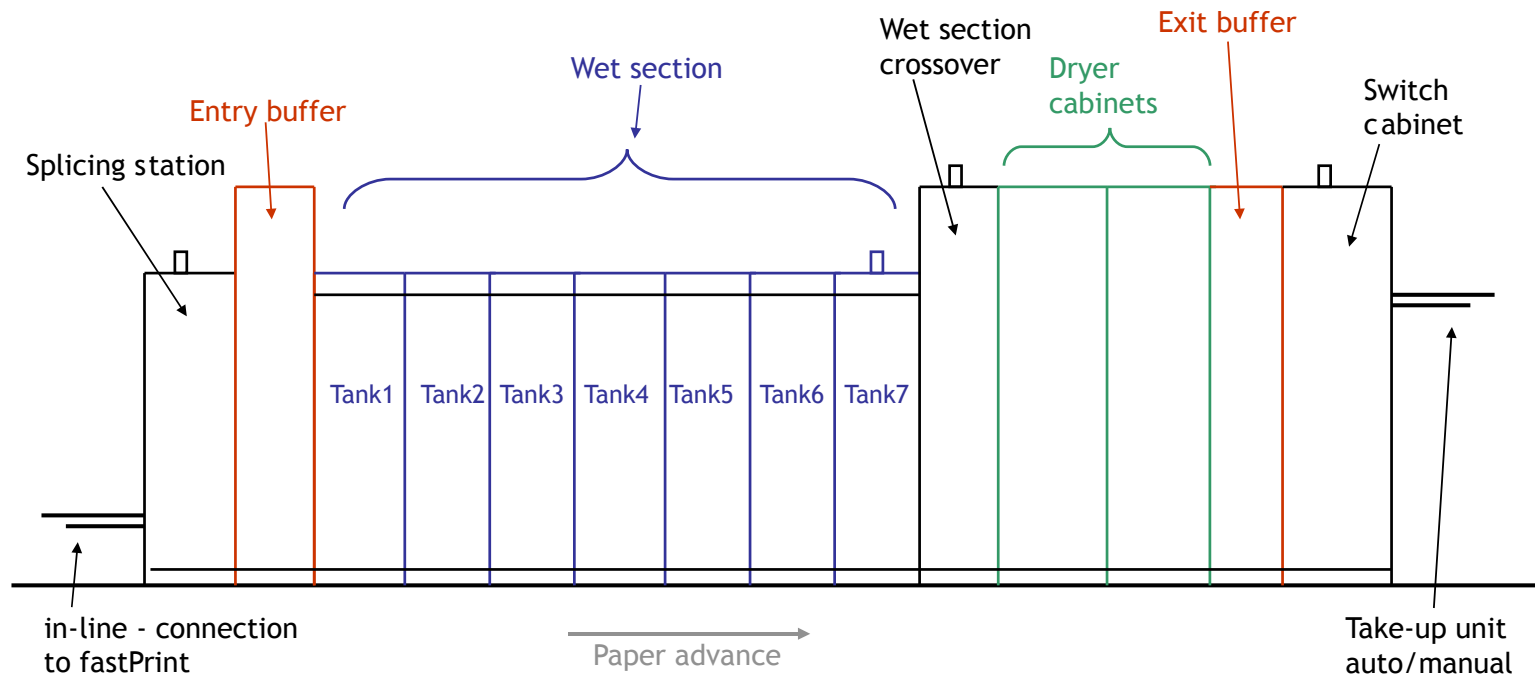


paperProcessor VSP 50

- Capacity: 40,000 prints per hour
- Synchronizing of capacity of VSP 50 and fastPrint
- Two independent production lines
- Minimum requirements for operating personnel



VSP 50: general overview



VSP 50 - paper transport system

Splicing station

Customer can choose between two possibilities:

- VSP 25-12 offers an optional in-line connection to widePrint and a daylight entrance for most common paper magazines (for widePrint, Zeta)
- Capacity of the entry buffer:
 - 3.5 min (standard)
 - 5 min (optional)



Smooth transportation

Advantages

- No more permanent leaderbelts and paper clips
- When shut down, VSP contains a 35 mm reusable plastic leader belt
- At start of production, paper is spliced to the belt and pulled into the machine
- At the end of production the last strip of paper pulls the leader belt back into the machine
- Low solution carry-over thanks to missing leaderbelt
- Wipers have a long lifetime
- No water stains caused by paper clips
- Reduced maintenance costs

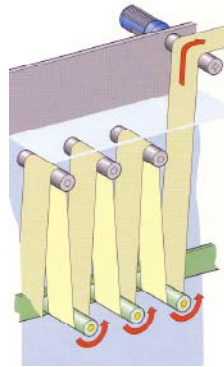


VSP 50 - paper transport system

Driving system

Prevents slippage and scratches

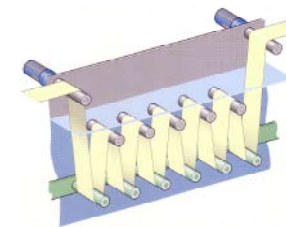
- Continuous drive on the back of the paper → paper runs uniformly
- Carriage with lower rollers compensates for changes in the length of the wet paper → prevents slippage and scratches on the paper surface
- Speed range 10 to 50 m/min (32.8 ft to 164 ft/min)



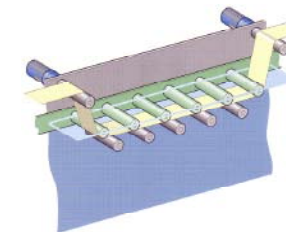
Paper transport system

Unique carriage system

- Unique carriage system allows variable speed while maintaining a constant processing time
- Resulting path length changes according to automatically determined speed
- No racks in the tanks
- Upper rollers are below solution surface
- Lower rollers can be raised above upper rollers for easy maintenance and simple leader threading
- Only few wearing parts, low maintenance costs



Carriage in working position



Carriage in maintenance position



VSP 50 - special features

Two independent paper tracks

for different requirements

- Paper widths from 89 mm (3.5") to 130 mm (5")
- Tracks are independently driven and controlled
- Tank is separated by a light-tight partition wall
- Highly efficient circulation provides for exceptionally good agitation and uniform temperature for both tracks
- Advantages:
 - One track can be run by 50 m/min (164ft/min) while the paper on the other track is being processed at much slower speed
 - One track operates normally while the other track is switched off for maintenance
- Due to the modular tank concept the VSP 50 can be adapted to customers' needs:
 - 2-/3-BX tank versions
 - Stabilizer versions with 4 or 6 stabilizer tanks
 - LowFlow versions
 - EcoWash versions



Take-up Unit

Construction

- Manual take-up unit with two take-up rollers for each track
- Automatic take-up unit with 3 rollers for each track
- Batches are recognized automatically and cut/wound-up without operator interference

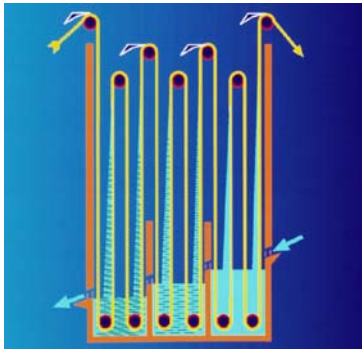


VSP 50 - special features

Eco-Tank

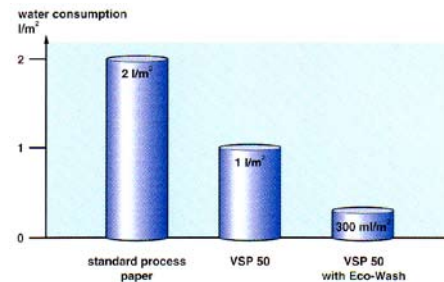
Construction

- 3 cascades per tank
- 9 cascades in the final washing
- 1 wiper per cascade
- Water flow is opposite to paper travel direction
- Reduction of tank volume is about 80%



Principle

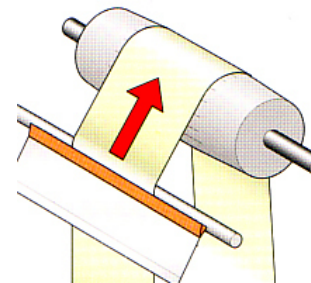
- As the paper runs through the cascade it entrains a thick film of liquid
- At the transition from one cascade stage to the next, the liquid is wiped off, runs along the vertical paper path and back into the tank
- This ensures a strong interaction between liquid and paper



Squeegee System

Easy handling of take-up rolls

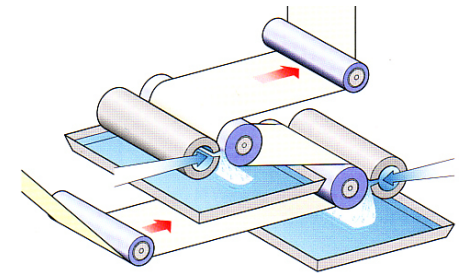
- Metal rods wipe the liquid from the back of the paper
- Delta-V wiper remove the liquid from the emulsion side
- Squeegee system is located in front of the drive rollers at the tank exits
- System with the lowest solution carry-over (35 ml/m²) and low replenishment needs



Air Knife System

Proper winding

- The air knife system uses air nozzles to remove the water film from the paper surface
- Less energy consumption in the dryer



VSP 50 - economical aspects

Calculation base

In-line connection with variable speed

→ **Less downtime saves 22,000 € per year**

- Speed of fastPrint is 50 m/min
- A 500 m roll takes 10 min → every 10 min the take-up magazine has to be changed
- This automated process takes around 45 s
- 6 magazine changes per hour add up to 4.5 min
- 4.5 min is equal to 7.5% → during these 4.5 min, the printer is down
- 4.5 min downtime correspond to 1,500 prints
- In 8 hours this accumulates to 12,000 prints → with 2 printers the loss is 24,000 prints in an 8h shift → this corresponds to 15% of fastPrint 20 capacity during 8 hours
- List price fastPrint 20 is 438,000 € → 15% = 65.700 € → Depreciation period 3 years
- savings approx. 22,000 € per year

In-line connection with variable speed

→ **Less downtime saves 15,000 € per year**

- Speed of fastPrint is 50 m/min
- A 500 m roll takes 10 min

- Every 10 min the take-up magazine has to be changed, transported to the darkroom and loaded into the leaderbelt machine
- This manual process takes at least 90 s
- Per fastPrint 6 take-up magazine changes per hour
- 2 printers x 8 hours x 250 workdays = 24,000 time-consuming magazine changes per year
- 24,000 x 90s = 600 h
- 1 hour is approx. 25 €
- Savings approx. 15,000 € per year

In-line connection with variable speed

→ **Less downtime saves 10,000 € per year**

- Every roll in a take-up magazine requires paper leader and paper tail
- at least 4 m
- 24,000 rolls per year
- 100,000 m
- 10,000 sqm
- 1 sqm photo paper is approx. 1 €
- Savings approx. 10,000 € per year

Low solution carry-over

→ **Reduced water and chemistry cost, Savings 10,000 € per year**

- Carry-over of leaderbelt machines approx. 60 ml/sqm
- VSP carry-over 35 ml/sqm
- Difference at least 20 ml/sqm
- 24,000 magazines à 500 m correspond to 1.2 Mio. Sqm
- Reduced carry-over = 24,000 liters
- Assumed replenishment rate of 70 ml/sqm
- 24,000 liters cover 340,000 sqm
- Assumed chemistry price of 0.03 € per sqm
- Savings approx. 10,000 €

VSP 50 vs. other machines

	VSP 50	Savings per year	Leaderbelt machine
In-line connection with variable speed → Less downtime	✓	22,000 €	⊘
In-line connection with variable speed → Less manpower	✓	15,000 €	⊘
In-line connection with variable speed → Less paper waste	✓	10,000 €	⊘
Low solution carry-over → Reduced chemistry and water cost	✓	10,000 €	⊘
Total savings per year	✓	57,000 €	⊘



Product portfolio

Input



Efficient processing of analog and digital input from film, CD, memory sticks etc

- fastScan
- reScan
- fastEntry

Software



Industry-leading image enhancement software and workflow systems for easy implementation, and frontend solutions without click rate

- netGate
- PURUS
- VIESUS™
- photoClient

Output



Fastest digital printers worldwide exposing up to 20,000 prints per hour from 8.9 - 30.5 cm (3.5"-12")

- fastPrint 8
- fastPrint 12
- fastPrint 20
- widePrint 8"
- widePrint 12"

Processing



High-performance paper processor with optimal integration both to analog and digital workflow

- paperProcessor VSP 25-12
- paperProcessor VSP 50

Post-Processing



Advanced systems for production of book blocks for purePhoto™ books and for cutting, packing and sorting

- fastBook
- fastCCF, fastCut*
- wideCut, combiCut*
- fastPack, fastMail*

*manufactured by our subsidiary
Imaging Postprocessing Solutions,
Germany

Imaging Solutions - Your system partner



SWISS MADE



purePhoto™

is for people with a vision
of the **future**, who love and enjoy
quality, and who believe in the
beauty of pure photo products.

PURE PHOTO
QUALITY

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