hunkeler

Excellence in Paper Processing

Digital Print Finishing

huncolor ready

From a white paper roll to finished products

Digital printing is much more than a new way of printing on paper. It's an on-demand mindset that disrupts conventional production models. The technology allows efficient short runs, lower labor costs and faster turnarounds. And it changes the way service bureaus, commercial printers, direct mailers and book publishers process paper. Today, print production is a completely flexible process that opens up entirely new, unimagined and exciting possibilities.

Powerful systems for digital paper processing

Hunkeler develops and supplies innovative solutions for continuous feed paper processing througout the digital print process: Modular, high-performance systems that present the paper to digital press and then further process the printed paper through to the end product. Completely integrated systems are produced in close partnership with the leading digital presser manufacturers. Centrally controlled, these systems guarantee the highest productivity, flexibility and process reliability.

Expert partnership

Success in paper processing applications requires knowledge and experience. We at Hunkeler have been continuously developing and refining this expertise together with our customers since 1922. With best-in-class engineering, machine components and control units, we have successfully mastered increasingly complex system integration.

So that everything runs perfectly

One reason for the reliability and efficiency of our systems is the high level of service support. Around the clock and worldwide. Individual service modules allow Hunkeler to ensure support that is exactly tailored to your wishes. Our service hotline with Hunkeler Remote Assist – plus our spare parts and after-sales service – guarantee the highest equipment availability. With comprehensive service and operating documentation to assure professional attention and the highest possible machine productivity.

Security becomes transparent

With the Hunkeler Control Platform we offer you hardware and software for quality control and document tracking throughout the printing process. Scalable design enables customized, user-specific solutions. Thanks to flawless web inspection and tracking, you will have good answers to these questions and more in the future. It's always better to be on the safe side, with Hunkeler as your trusted partner.

Global distribution network

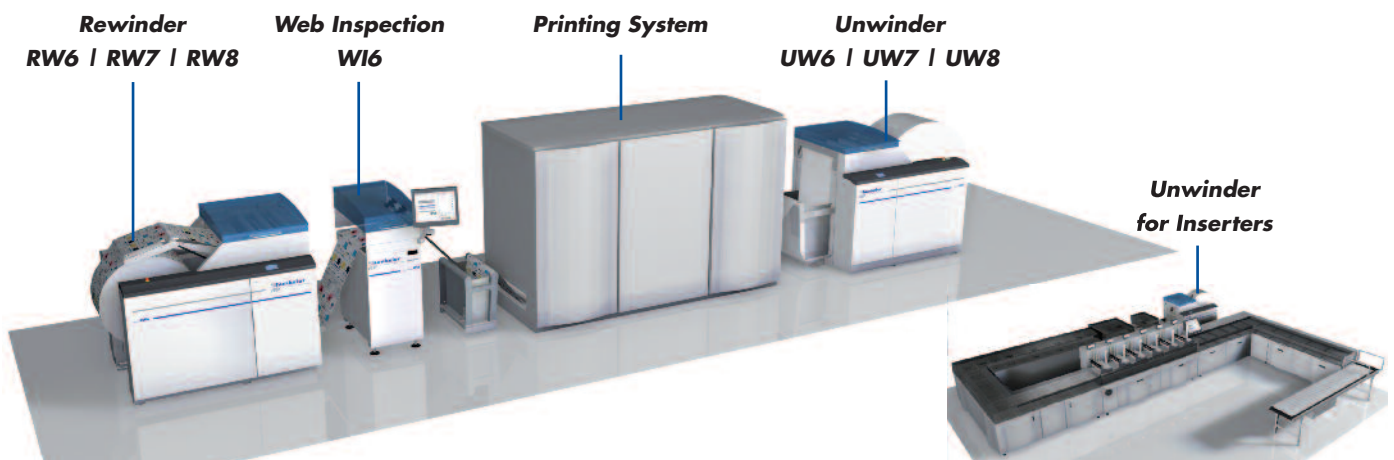*Worldwide service support*

Modular equipment

Security

Roll to Roll Solution

The Hunkeler roll to roll solution with different configurations for continuous feed digital presses. High-speed Hunkeler unwinders and rewinders ensure efficient, productive downstream processing in the transactional, direct mail, print-on-demand and packaging segments, coupled with inserters and other finishing systems.

Technical Data*	Roll to Roll		
	POPP6 (UW6-RW6)	POPP7 (UW7-RW7)	POPP8-Wide (UW8-RW8)
Max. roll diameter:	54" (1370 mm)	54" (1370 mm)	54" (1370 mm)
Web width:	6.5" – 20.5"	6.5" – 30"	8" – 30"
Production speed:	up to 220 m/min	up to 220 m/min	up to 305 m/min
	up to 720 ft/min	up to 720 ft/min	up to 1000 ft/min
Paper weights:	40 – 180** gsm	40 – 300 gsm	40 – 350 gsm
Roll weight max.:	800 Kg (1760 lbs)	800 Kg (1760 lbs)	1500 Kg (3360 lbs)
Options:			
**Heavy paper kit:	40 – 300 gsm		
	Decurler	Web Guide	Decurler, Slitter
	Slitter		Web Guide

Rewinder
RW6 | RW7 | RW8

Web Inspection
WI6

Printing System

Unwinder
UW6 | UW7 | UW8

Unwinder for Inserters

Roll production with center cut

Quality control with WI6

Loose leaf stacks with CS6, LS6

Hole punching with PP6

Roll to Fan-Fold Solution

The modular Hunkeler roll to fan-fold solution with optional Punching and Perforating for in-line tractor and file hole punching and fan-fold perforating. This efficient workflow solution can reduce paper and logistic costs in digital print and mail inserting environments. Reliable, inline high-speed operation with continuous feed printing systems in a space saving package with modular options that include a stack cart system, high capacity stacker, and web inspection.
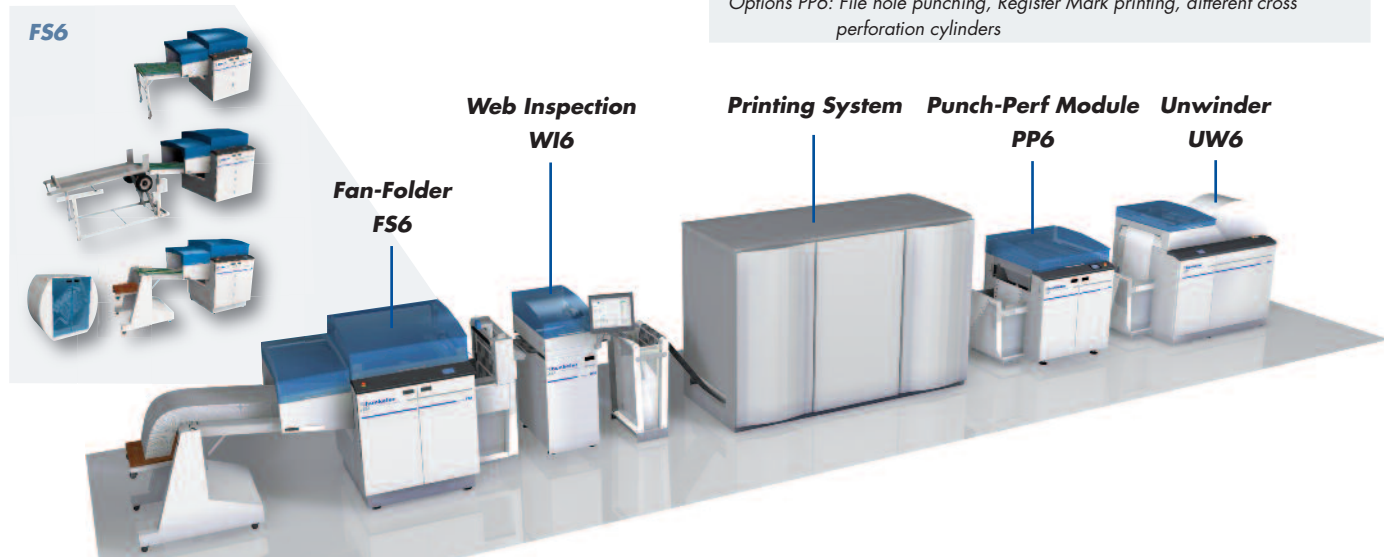
Technical Data* | Roll to Fan-Fold

Max. roll diameter:	54"	1370 mm
Web width:	8" – 20.5"	203 – 520 mm
Production speed:	up to 720 ft/min	up to 220 m/min
Paper weights:	56 – 160 gsm	16 – 40 lb bond
Stack height:	39.4"	1000 mm
Folding perforation:	7" – 14" (static)	178 – 355 mm (static)
Folding height:	7" – 17"	178 – 432 mm

Options FS6: Shingle Belt Delivery, Stack Cart System, High Capacity Stacker, Stack Turning

Options PP6: File hole punching, Register Mark printing, different cross perforation cylinders

FS6

Fan-Folder FS6 · Web Inspection WI6 · Printing System · Punch-Perf Module PP6 · Unwinder UW6
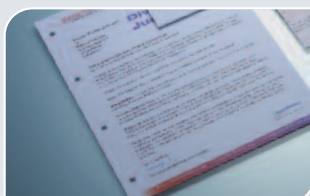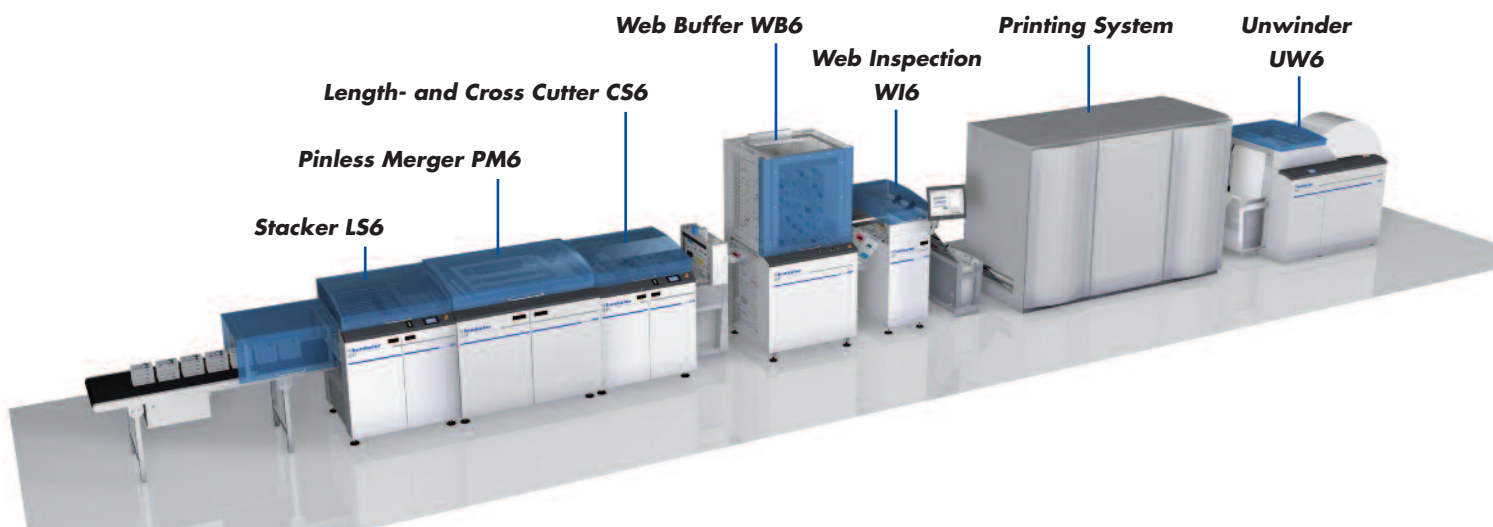
Roll to Stack Solution

Data center solution for 1-up / 2-up output. Roll-to-stack solution with pinless merger module PM6 for merging loose sheets. Following the longitudinal and cross cutting in the CS6 cutter, jobs with odd numbers of sheets are merged using the optional offset-on-the-fly function integrated in the PM6. Stack delivery from the LS6 for non-stop operation at a constant speed. Inline quality assurance with the WI6 Web Inspection System.

Technical Data* | Roll to Stack

Max. roll diameter:	54"	1370 mm
Web width:	16" – 18 $\frac{1}{3}$"	406 – 465 mm
Cut length:	8 – 14"	203 – 355 mm
Production speed:	up to 426 ft/min	up to 128 m/min
Paper weights:	70 – 120 gsm	18 – 32 lb bond
Stack height:	9 $\frac{7}{8}$"	250 mm
Variable chip-out:	$\frac{1}{8}$" – 2 $\frac{3}{4}$"	3.2 – 70 mm
Applications:	1-up – 2-up	

Options: Single sheet merger, Transfer station, Cross cut with chip-out, Gutter cut, Large stack delivery 28", Web Inspection, Web Merger
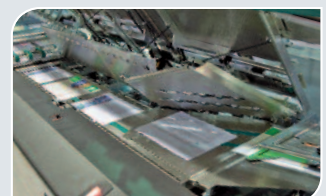
Stacker LS6 · Pinless Merger PM6 · Length- and Cross Cutter CS6 · Web Buffer WB6 · Web Inspection WI6 · Printing System · Unwinder UW6

File holes with PP6, DP6

Fan-folded stacks with FS6

Web merging with WM6

Sheet merging with PM6

Transpromotional

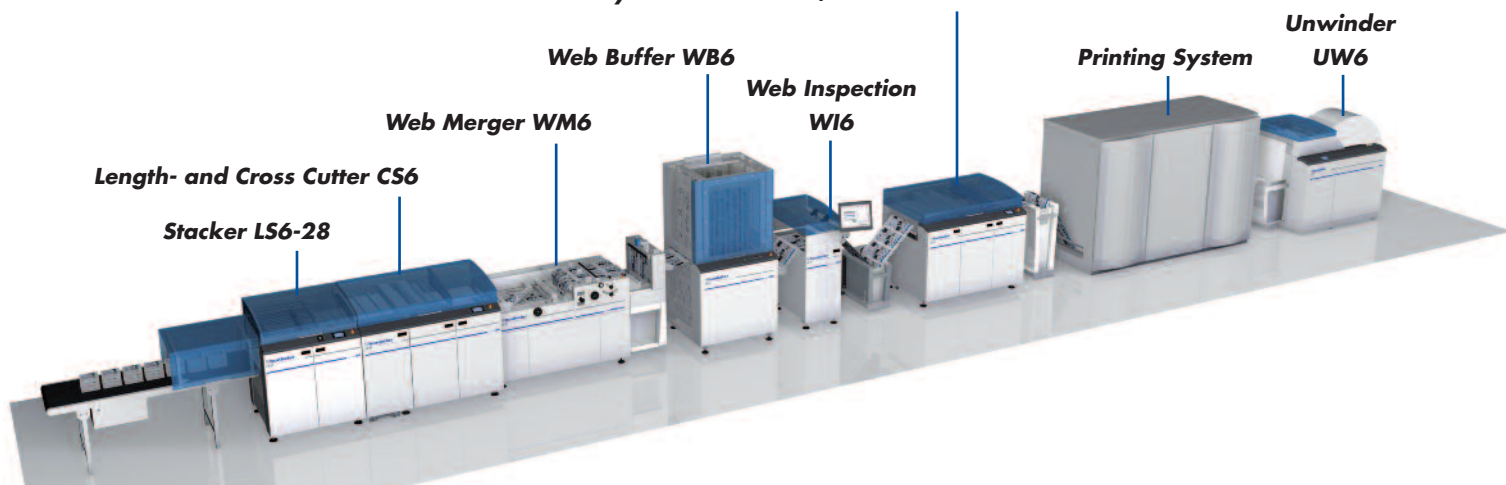## Roll to Stack Solution with dynamic perforation/punch and web merger

The DP6 dynamic perforation module is the first solution that combines perforation in the vertical and cross directions along with punching – all in one unit. "Dynamic" means the ability to change the punching, perforating or hole pattern from sheet to sheet. It is particularly interesting for transpromotional applications or personalized mailers. Coupons, payment slips and other elements can be integrated into practically any type of document, even those with forms that vary with each sheet.

Technical Data* | Roll to Stack with DP6 – WM6 – LS6-28

Max. roll diameter:	54"	1370 mm
Web width:	13" – 20.5"	330 – 520 mm
Production speed:	up to 433 ft/min	up to 130 m/min
Paper weights:	60 – 120 gsm	16 – 32 lb bond
Stack height:	4" – 10"	100 – 250 mm
Variable chip-out:	$1/4$" – 1"	6 – 26 mm
Format length:	5.5" – 28"	140 – 711 mm
File hole punching:	2-, 3-, 4 hole pattern Ø 5,5 – 8 mm	

Options: Stacker LS6, Offset separator SE6, Gutter cut, Transfer Station TS6

Dynamic Perforator/Puncher DP6

Unwinder UW6

Web Buffer WB6

Printing System

Web Merger WM6

Web Inspection WI6

Length- and Cross Cutter CS6

Stacker LS6-28

Vertical and cross perforations

Full bleed products with CS6-II

Quality control with WI6
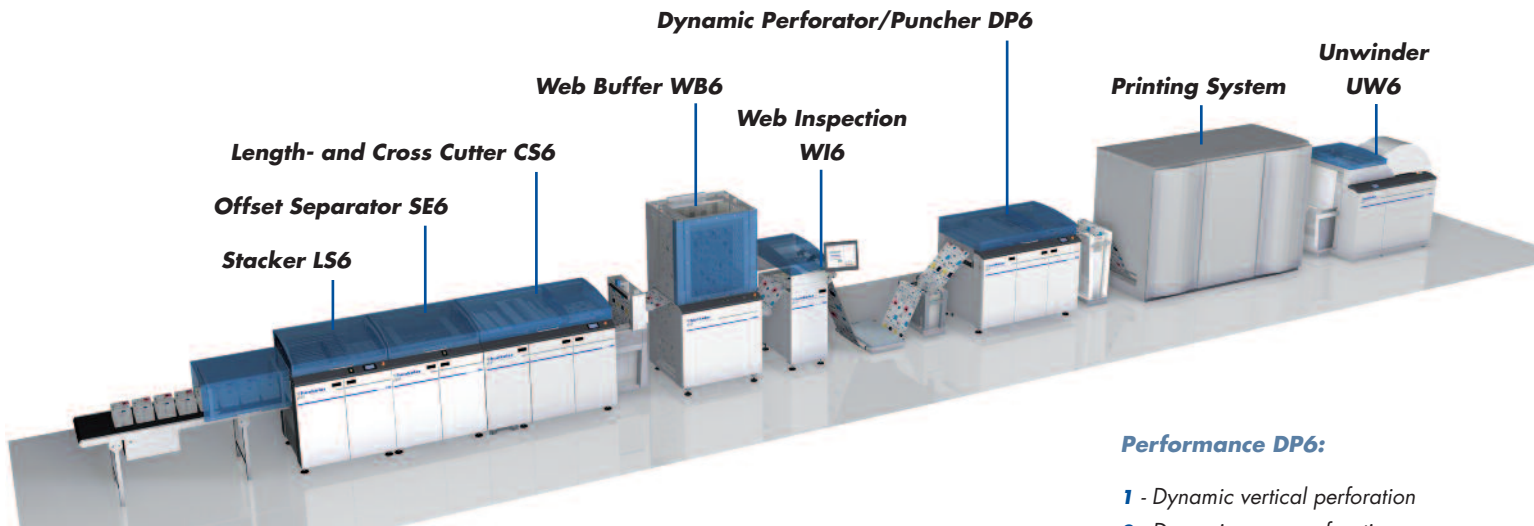
Web merging with WM6

Roll to Stack Solution with dynamic perforation/punch

Dynamic perforation and punching combined in a modular concept. In 2-up production individual processing of the two web halves is possible. Combined use of three different functions is possible in a single module (dynamic perforation in the vertical and cross direction, and dynamic file hole punching).

Dynamic Perforator/Puncher DP6

Web Buffer WB6

Web Inspection WI6

Printing System

Unwinder UW6

Length- and Cross Cutter CS6

Offset Separator SE6

Stacker LS6

Performance DP6:

1 - Dynamic vertical perforation
2 - Dynamic cross perforation
**3** - Dynamic file hole punching

DP6 Workflow Sample (2-up production)

Integrated solution for transactional and transpromotional in 2-Up mode, from the unprinted roll to the finished product. This White Paper Solution eliminates pre-converting and pre-printing rolls by using digital color print on ordinary mill rolls. Subsequent integrated, dynamic vertical / cross perforation and file hole punching in the dynamic perforating / punching module DP6. Individual and unique perforation patterns for trans-promotional products such as coupons, payment slips and response mailers controlled by the unique PerfEditor.

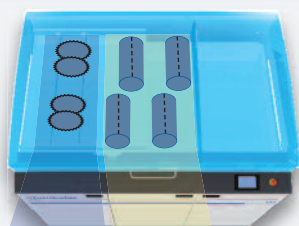## Dynamic Perforation and Punch Module DP6 – four different configurations are possible

DP6–I (Standard Perforator)
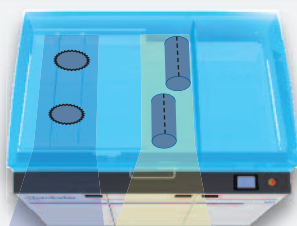
Vertical Perforation 2x Tools (up to 8 tools)	Cross Perforation 1x Unit for 2-up production

DP6–II (Perforation Pro)

Vertical Perforation 4x Tools (up to 8 tools)	Cross Perforation 2x Units for 2-up production

DP6–A (Allrounder)
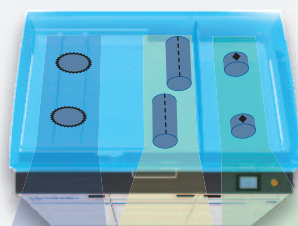
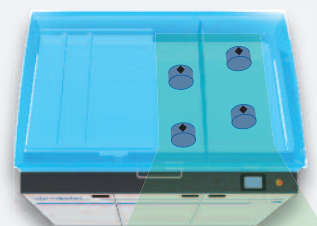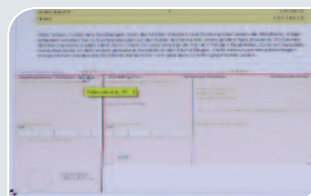| Vertical Perforation 2x Tools (up to 8 tools)	Cross Perforation 1x Unit for 2-up production	Die cut 1x Unit for 2-up production

DP6–PP (Punch Pro)

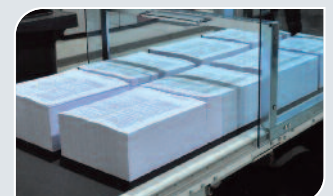| Die cut 2x Units for 2-up production (up to 8 punching tools) |
|---|
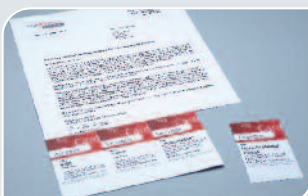
Coupon with safety features

PerfEditor: easy job setup

Perforating and Punching

Efficient 2-up production

Direct Mail

Roll to Sheet Solution with Folder/Merger

The modular Hunkeler roll to stack solution for sheeted stack output with continuous feed digital printing systems. Innovative variable chip-out, rotary double cutter for full bleed products in the Transpromotional and Direct Mail markets. The line can be expanded with combined plow fold and merge functions on the FM6 folder merger to create a universal high speed mailing system.

Technical Data*	Roll to Sheet with Folder/Merger FM6	
Max. roll diameter:	54"	1370 mm
Web width:	13" – 20.5"	330 – 520 mm
Production speed:	up to 500 ft/min	up to 150 m/min
Paper weights:	60 – 120 gsm	16 – 32 lb bond
Variable chip-out:	$\frac{1}{4}$" – 1"	6.3 – 25.4 mm

Options: Cross cut with chip-out, Gutter cut, Stacker LS6, Tear-off perforation after folding

Web Inspection WI6

Web Buffer WB6

Printing System

Unwinder UW6

Folder/Merger FM6

Length- and Cross Cutter CS6

Buckle Folder

Full bleed products with CS6-II
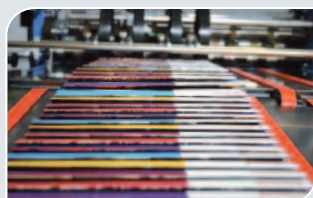
Efficient direct mail production

Cross folded direct mailers

Plow-fold or slit-merge function

Roll to Stack Solution with Coater

The PC7 primer coater module brings new value to printed documents by making sheets more inkjet receptive or adding post-press gloss. This innovative solution is designed for primer application (pre-coating) and varnishing (top-coating). Depending on the intended use, the PC7 is integrated either before or after the digital printing process. Offline configurations are also possible.

In top-coating applications, the PC7 module can be used for the full-surface varnishing of the paper web with a water based coating agent following the printing process. The web can be top-coated on one or both sides (simplex/duplex, depending on the application). Change-over is completed by the operator. The cleaning is done automatically (water).

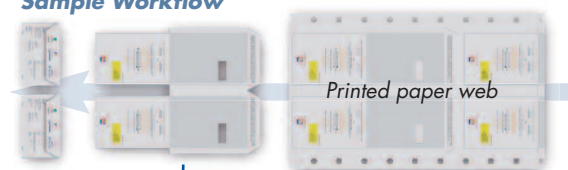| Technical Data*	Roll to Stack with Coater PC7	
Max. roll diameter:	54"	1370 mm
Web width:	8" – 20.5"	203 – 520 mm
Production speed:	up to 500 ft/min	up to 150 m/min
Paper weights:	40 – 300 gsm	27 lb offset/book – 110 lb cover
Applied quantity:	0.5 – 4.5 gsm	
Coating agent:	Water based	
Stack height:	$9^{7}/_{8}$"	250 mm
Variable chip-out:	$^{3}/_{16}$" – $2^{3}/_{4}$"	4.8 – 70 mm
Applications:	1up – 2up	

Options: Tank for washing water or direct connection for freshwater supply
Tank for drain water or connection for external tank

Unwinder UW6

Coater PC7

Length- and Cross Cutter CS6

Offset Separator SE6

Stacker LS6

Nearline
Finishing Solution
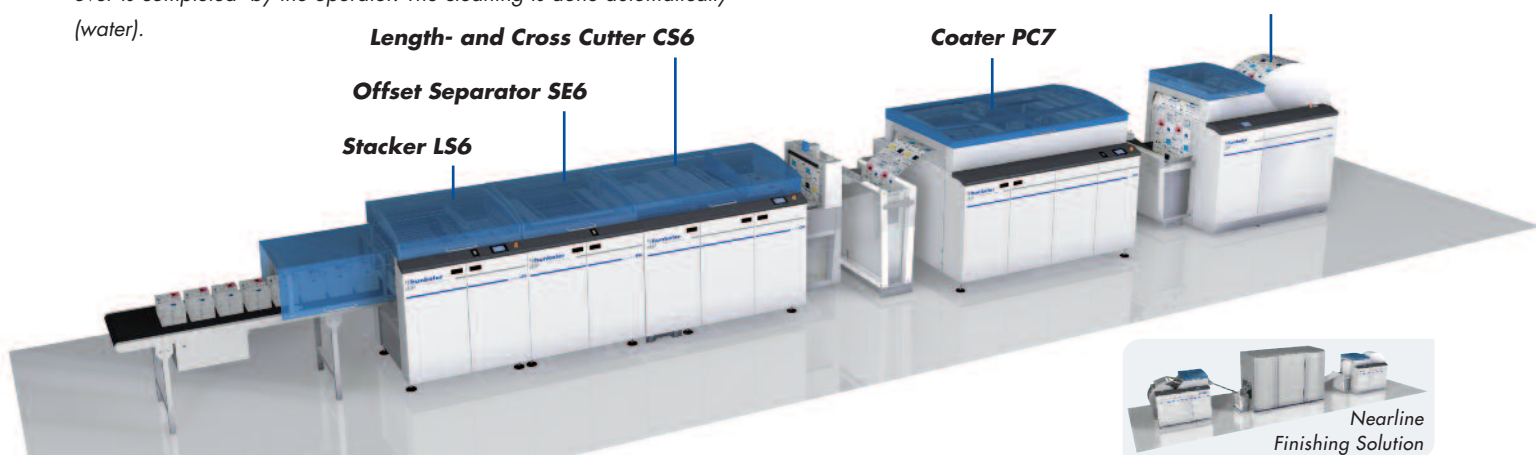
Roll to Sheet Solution with Universal Module

Working from a roll with the possibility of having almost no limitations in product design, with the high productivity of web finishing, is leading to clear advantages compared with single sheet processing. Combining the processes of die cutting, perforating, and cross cutting with variable cut-out in a single module provides unparalleled flexibility in product design and cost-effective production.

Technical Data*	Roll to Sheet with Universal Module	
Max. roll diameter:	54"	1370 mm
Web width:	6" – 20.5"	150 – 520 mm
Production speed:	up to 500 ft/min	up to 150 m/min
Paper weights:	60 – 160 gsm	16 – 40 lb bond
Final format length:	4" – 34"	101 – 863 mm
Variable cut-out:	$^{1}/_{4}$" – 2"	6.3 – 50 mm

Options: Gluing Module GM, Application Module AM

Sample Workflow

Printed paper web

Unwinder UW6

Universal Module UM

Buckle Folder

Closed Mailer

Performance UM:
Shape die cut
Window die cut
Perforations
Cross cut with variable cut-out

Nearline
Finishing Solution
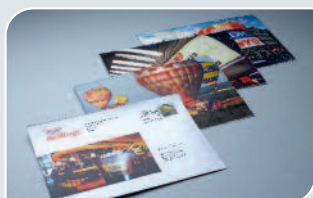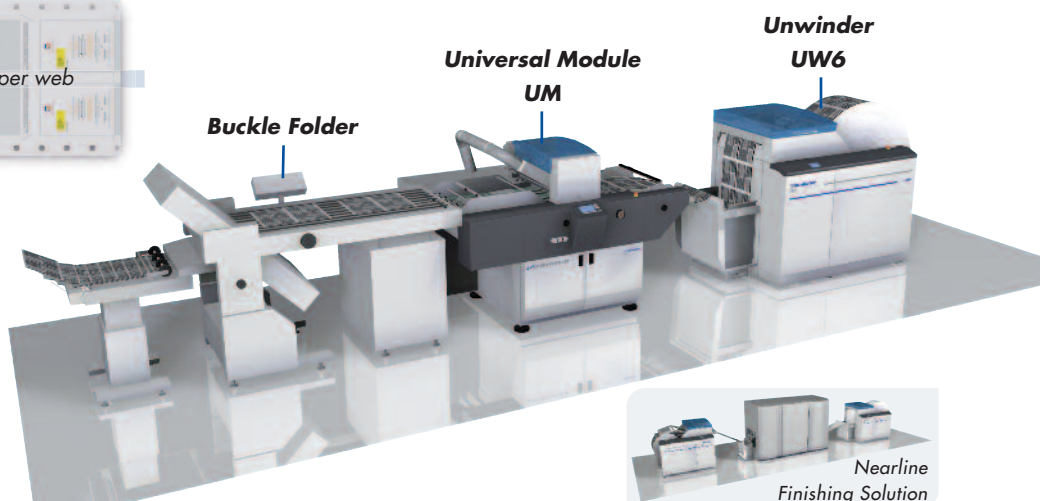
300 gsm post cards

Coated products

Form- and die cut in one step

Innovative endproduct design

Books

Loose leaf book block production with Roll to Stack line

The modular Hunkeler roll to stack solution for stacked sheet output with continuous feed digital printing systems. Innovative non-stop stacker with rotary single cut sheeter or variable chip-out double cutter for full bleed products. For example, cleanly offset-stacked sheets can be output for further downstream processing, such as perfect binding. Loose sheet offset stacks from 1-up to 4-up production.
When connected with the Transfer Station TS6 In-line finishing can be achieved, with up to

Technical Data*	Loose Leaf Book Block Production	
Max. roll diameter:	54″	1370 mm
Web width:	6.5″ – 20.5″	165 – 520 mm
Production speed:	up to 500 ft/min	up to 150 m/min
Paper weights:	40 – 300 gsm	27 lb offset/book – 110 lb cover
Stack height:	up to 9 $7/8$″	up to 250 mm
Format length:	5.5″ – 19″	140 – 482 mm
Variable chip-out:	$3/16$″ – 2 $3/4$″	4.8 – 70 mm
Applications:	1up – 4up	

Options: Front/Back Verification, Transfer Station TS6, Dyna-cut, Autoregister

Unwinder UW6

Printing System

Web Buffer WB6

Length- and Cross Cutter CS6

Offset Separator SE6

Stacker LS6
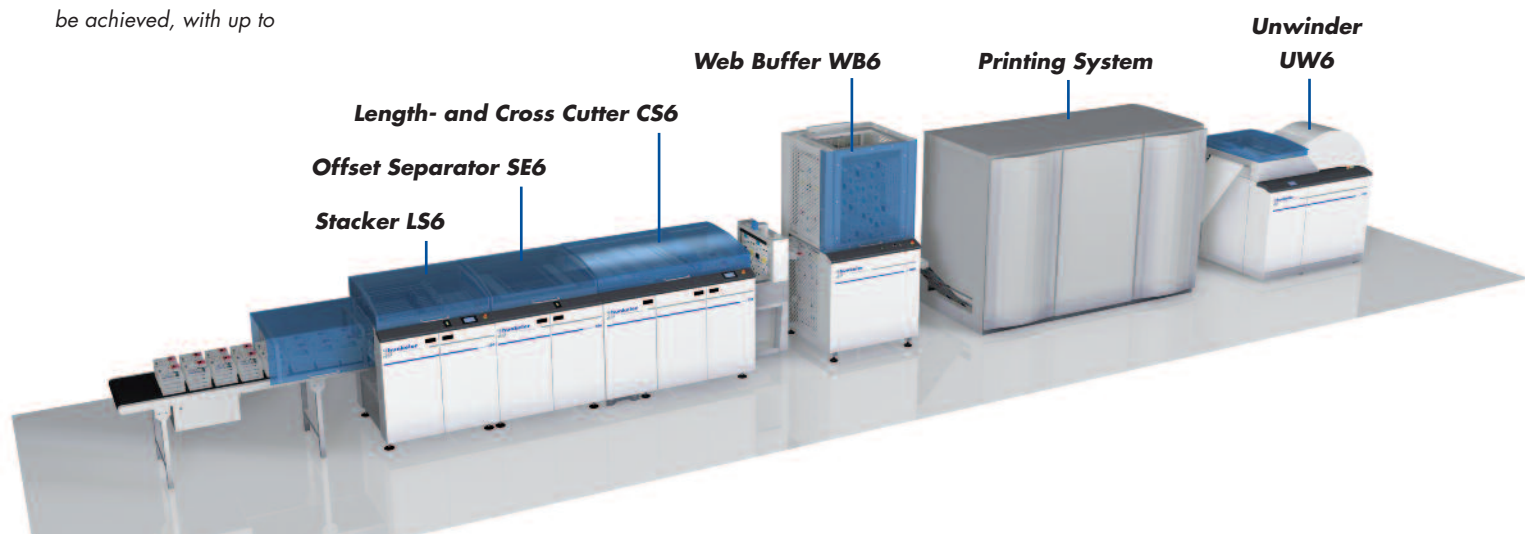
Premium photo book

Soft cover book

Hard cover book

Up to 4-up book production

Roll to Sheet – Book Signature Solution

Wide web roll to cut solution with integrated buckle folding systems allows different folding processes for a variety of stacked and folded signatures that are suit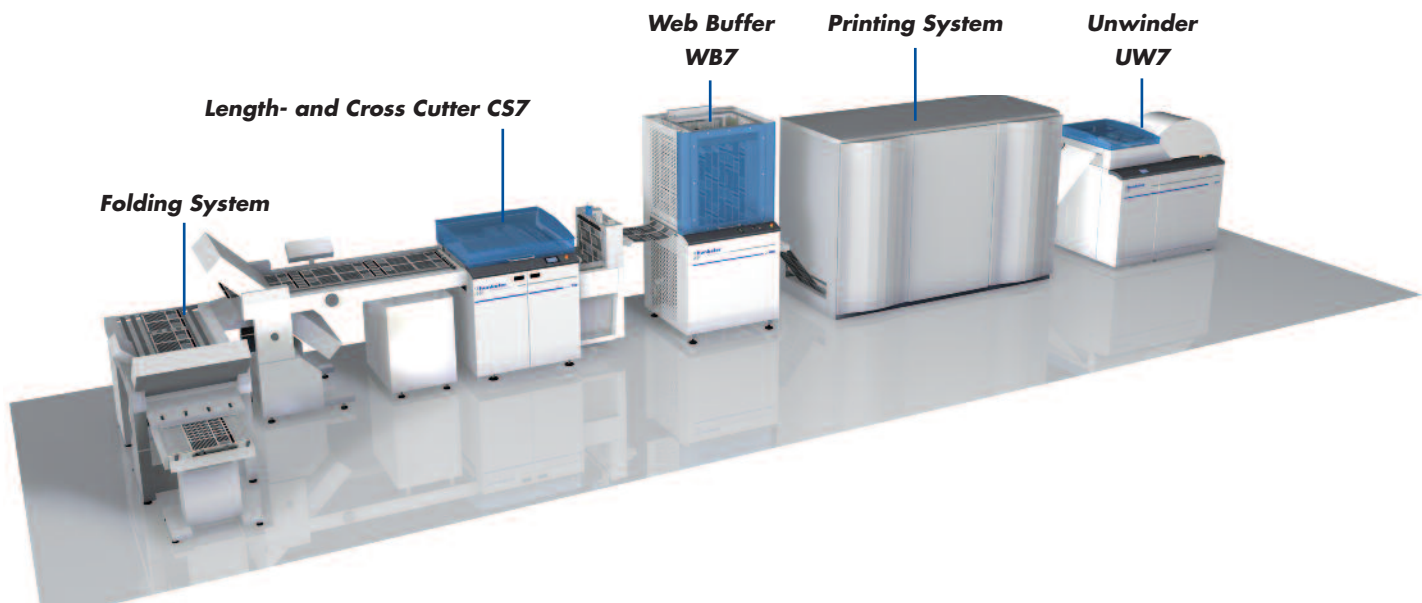able for perfect binding or thread stitching. Large format sheet stacking with the Large Format Sheet Stacker LS7 is also possible, for nearline folding and finishing workflows.

Technical Data*	Roll to Sheet, Book Signature Solution	
Max. roll diameter:	54"	1370 mm
Web width:	6.5" – 26"	165 – 660 mm
Production speed:	up to 600 ft/min	up to 180 m/min
Paper weights:	40 – *300 gsm	27 lb offset/book – *110 lb cover
Cut length:	5.5" – 62"	140 – 1575 mm
Options: Large format sheet stacker LS7		*(or max. folder capacity)

Folding System

Length- and Cross Cutter CS7

Web Buffer WB7

Printing System

Unwinder UW7

Flyfolder Book Solution

Sheets are folded into signatures by the Flyfolder. Automatic change over between 4-page and 6-page signatures is achieved on-the-fly, avoiding any interruption in the printing process. The excellent stack quality allows for efficient finishing, especially when connected inline with a perfect binder. All signatures can be offset on-the-fly while running through the Flyfolder module (option).

The **fully automated format change-over** is done on the fly, without manual intervention or interruption of the production process.

- Length perforation (single or double)
- Folding pattern (4- or 6-pages)
- Sheet length (6" to 13")
- Offset book stacking

Technical Data*	Flyfolder Book Solution	
Max. roll diameter:	54"	1370 mm
Web width:	17" – 19.5"	432 – 495 mm
Production speed:	up to 325 ft/min	up to 100 m/min
Paper weights:	60 – 120 gsm	40 – 80 lb offset/book
Cut length:	6" – 13"	152 – 330 mm
Performance:	up to 600 stacks per hour	
Options: Front/Back Verification, Offset unit, Book block gluing, Sheet bypass		

Stacker LS6

Flyfolder FB6

Length- and Cross Cutter CS6

Perforater LP6

Web Buffer WB6

Printing System

Unwinder UW6

Sample Workflow

Perforation for 4-page signatures

Cross cutting

Folding

Gluing

Stacking

Perforation for 6-page signatures
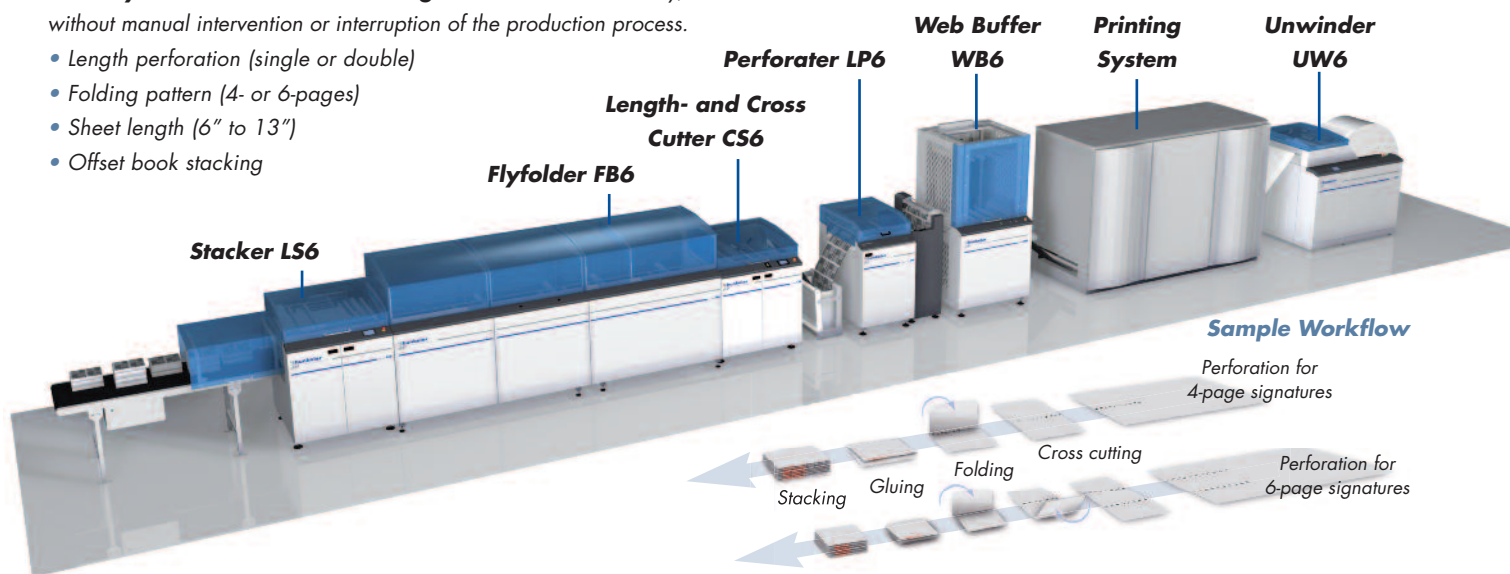
Folded/stacked book signatures
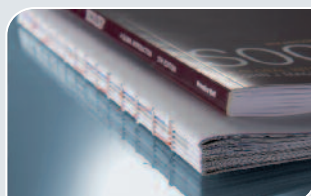
Thread sewn book binding
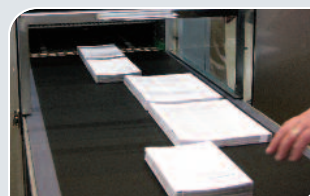
Fully automatic format changes

Optional inline perfect binding

Books

Loose sheet or signature book stack-production with Double Plow Folder

This book solution for 20" – 30" paper web widths offers more advantages because of its modular concept: the offline use of the proven Cross Cutter CS6, the Offset Separator SE6 and the Stacker LS6 give new possibilities in book and document production at speeds of up to 150 m/min (500 fpm). The delivered stacked sheets with optional offset and up to 4-up production are well suited for a wide variety of finishing processes such as booklets, books, banded stacks, Wire-O or perfect binding.

Technical Data* | Book Solution with PF7 and LS6

Max. roll diameter:	50"	1270 mm
Web width:	up to 30"	up to 762 mm
Production speed:	up to 500 ft/min	up to 150 m/min
Paper weights:	60 – 150 gsm	40 – 100 lb offset/book
Folds:	1 to 2 plow folds (2 to 3 layers)**	
Format length:	5.5 – 19"	140 – 483 mm
Book block thickness:	up to 2"	up to 50 mm
Stack height:	up to 9.8"*	up to 250 mm* (*format depend.)
**Folding types:	Parallel fold, roll fold, gate fold	

Unwinder UW7

Double Plow Folder PF7

Length- and Cross Cutter CS6

Offset Separator SE6

Stacker LS6

Nearline Finishing Solution
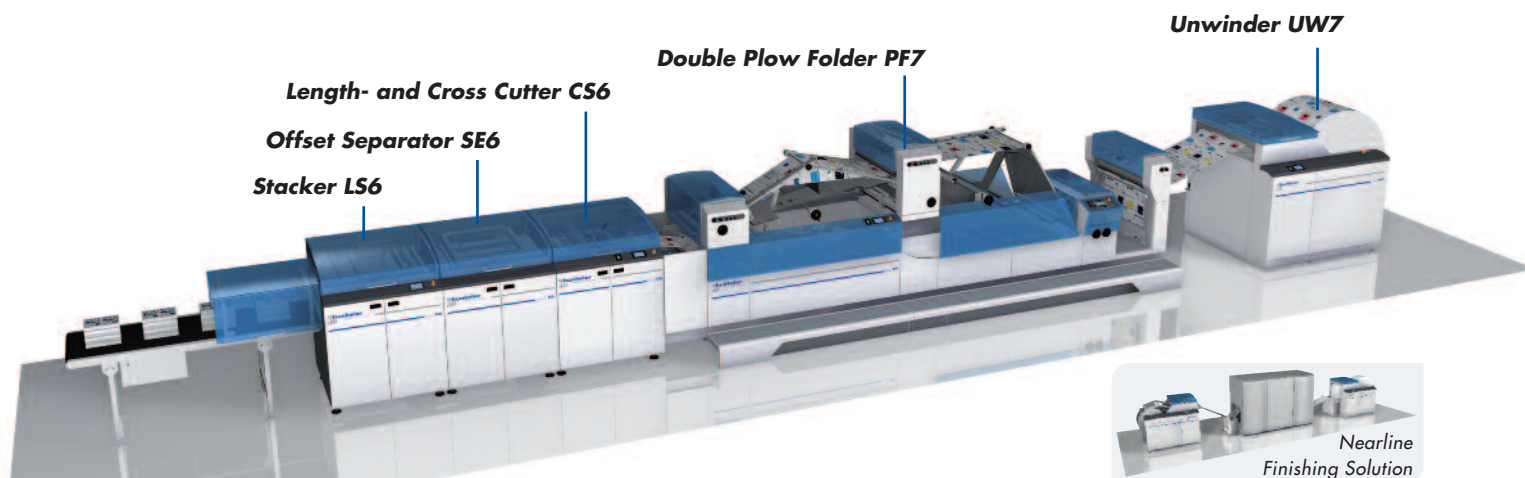
Loose leaf bookstack with LS6

Soft cover book

Front / Back print verification

Thread sewn book binding

Book Block Solution with star wheel delivery

The modular book solution for the production of glued book blocks in-line or off-line for continuous digital printing systems up to a paper web width of 30". Processing of 4, 6 or 8-page signatures with quick setups and format changes. The high-performance cross cutter 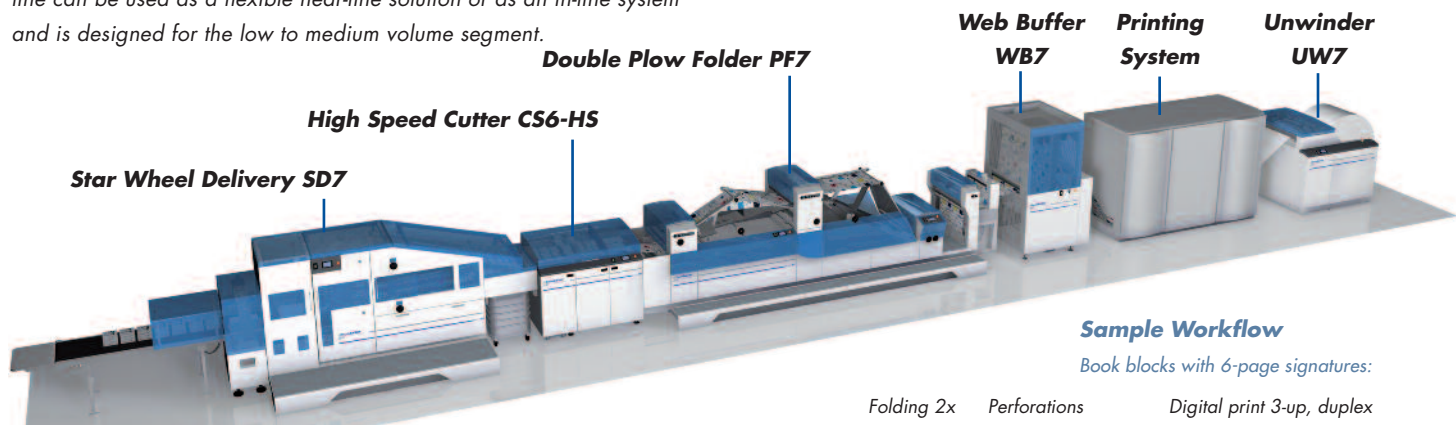CS6-HS and the new double star-wheel delivery SD7 guarantee non-stop production at 200 m/min (656 fpm) with over 450 output cycles per hour. In one stacking cycle, several book blocks are delivered. The system is characterized by modularity and flexibility coupled with simple and safe handling for further processing thanks to integrated book block gluing and perfectly flat book stacking. The book-on-demand line can be used as a flexible near-line solution or as an in-line system and is designed for the low to medium volume segment.

Technical Data* | Book Block Solution with SD7

Max. roll diameter:	50"	1270 mm
Web width:	up to 30"	up to 762 mm
Production speed:	up to 656 ft/min	up to 200 m/min
Paper weights:	60 – 150 gsm	40 – 100 lb offset/book
Folds:	1 to 2 plow folds (2 to 4 layers)	
Format length:	8 – 14"	203 – 355 mm
Book block thickness:	up to 2"	up to 50 mm
Stack height:	up to 4 3/4"	up to 120 mm
Productivity:	up to 450 delivery cylces per hour:	
- for format 6x9":	4140 book blocks with 96 pages	
- for format DINA5:	4500 book blocks with 96 pages	
- for format DINA4:	2420 book blocks with 96 pages	

Unwinder UW7

Printing System

Web Buffer WB7

Double Plow Folder PF7

High Speed Cutter CS6-HS

Star Wheel Delivery SD7

Sample Workflow

Book blocks with 6-page signatures:

Folding 2x   Perforations   Digital print 3-up, duplex

Stacking   Turning   Gluing   Cross cutting

Inline Solution with Perfect Binder / Trimmer:

Stack separator / Destacker

Trimmer

Perfect Binder
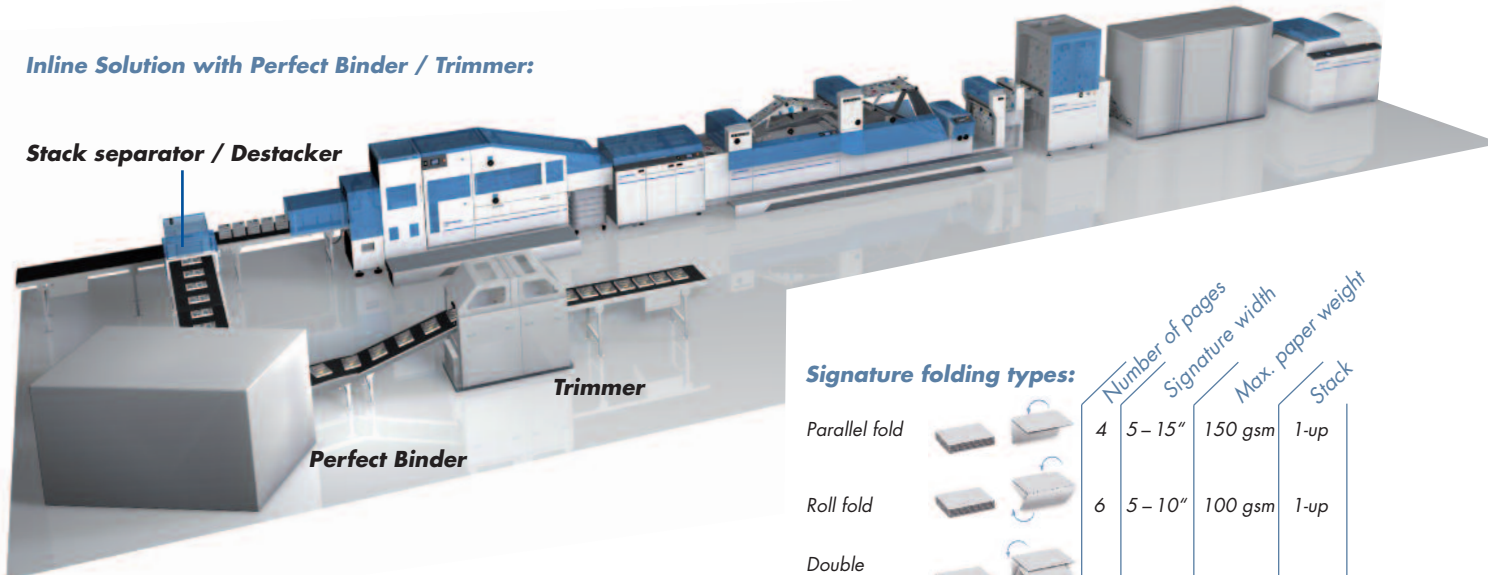
Signature folding types:

		Number of pages	Signature width	Max. paper weight	Stack
Parallel fold		4	5 – 15"	150 gsm	1-up
Roll fold		6	5 – 10"	100 gsm	1-up
Double parallel fold		8	5 – 7.5"	80 gsm	1-up
Gate fold		2x4	5 – 7.5"	150 gsm	2-up
Loose leaf		Loose sheet stacks for thread sewing or stitching			

Pre-glued book blocks with SD7

Budget Binding

High performance robot system

Stack separator / Destacker

Brochures

High performance booklet production

Full-color personalized brochures with a variable number of pages.
The solution for high speed production of educational booklets,
leaflets, manuals, direct mailers, and other saddlestitched products
from a roll. Optionally - the line can be equipped with the dynamic
and vertical perforater DP6, and cover and sheet inserting. Process
includes the paper web feeding from theUnwinder UW6, cross
cutting in the CS6-I and gathering, folding, stitching and trimming
in a saddlestitching system.

Technical Data* | UW6 - CS6 Booklet production line

Max. roll diameter:	54"	1370 mm
Web width:	11" – 19.6"	279.4 – 500 mm
Cut length:	8.3 – 13.7"	210 – 350 mm
Production speed:	up to 600 ft/min	up to 180 m/min
Paper weights:	52 – 210 gsm	35 – 120 lb offset/book
Productivity:	up to 6000 booklets per hour, format A4, 24 pages	

Options: Cover and Sheet inserting unit,
Dynamic vertical and cross perforater DP6

Trimmer **Stitcher** **Length- and Cross Cutter CS6** **Unwinder UW6**

*Nearline
Finishing Solution*
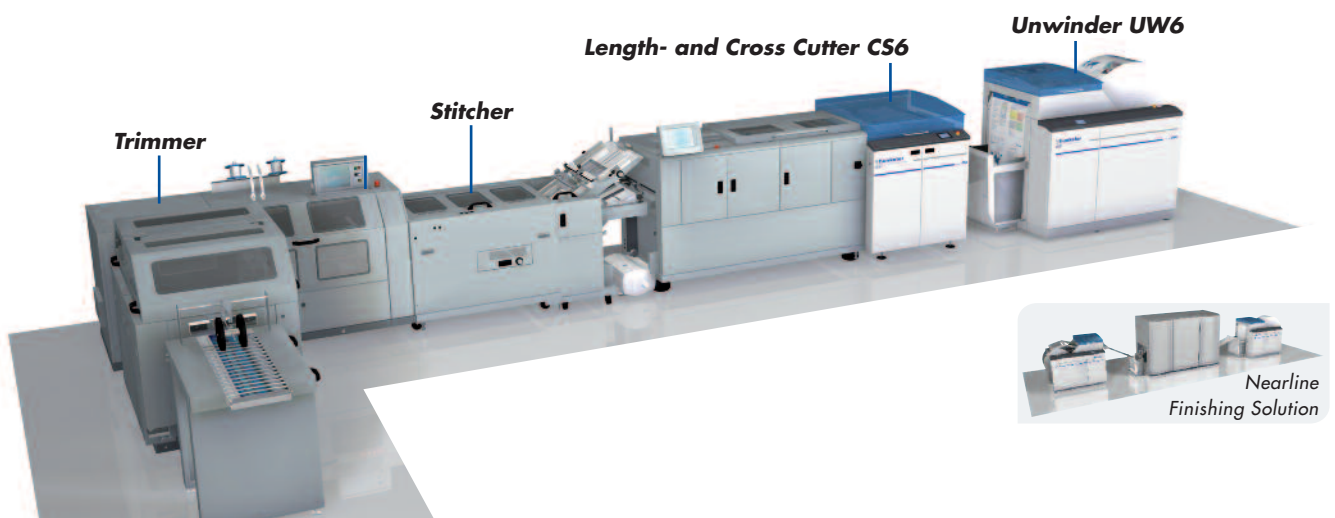
Stitched brochures *Dynamic glued brochures* *Brochure with integrated vouchers* *Inline saddle stiching / trimming*

Booklets and Books Combi-Solution

With this combined solution it becomes possible to produce perfect bound books as well as saddle stitched end products.

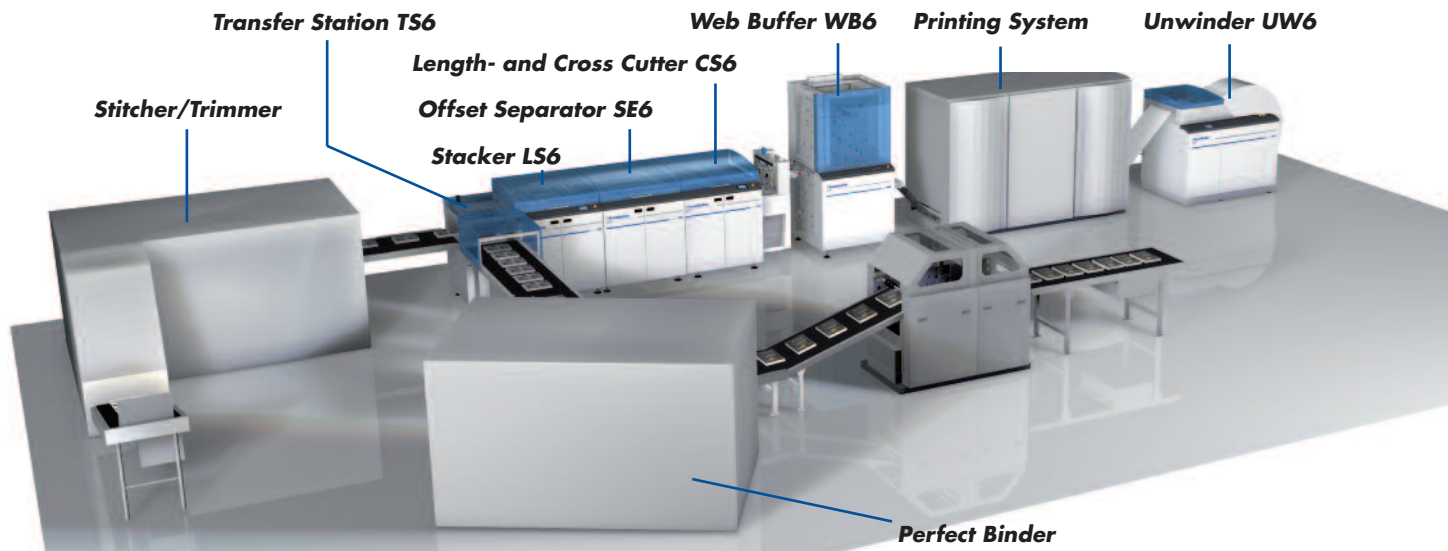The centerpieces of this digital production line are the CS6 Cross Cutter and the TS6 Transfer Station. The paper web is cut into single sheets by Hunkeler's precision rotary cutting system. The TS6 Transfer Station allows quick and easy diverting of the output to the inline saddlestitching system or book block stacks directed to a perfect binder.

Technical Data*	Combi-Solution Brochures/Books	
Max. roll diameter:	54"	1370 mm
Web width:	8" – 20.5"	203 – 520 mm
Production speed:	up to 500 ft/min	up to 150 m/min
Paper weights:	52 – 210 gsm	35 – 120 lb offset/book
Stack height:	9 $^7/_8$"	250 mm

Stitcher/Trimmer
Transfer Station TS6
Length- and Cross Cutter CS6
Offset Separator SE6
Stacker LS6
Web Buffer WB6
Printing System
Unwinder UW6
Perfect Binder

Glued Booklet Solution

The modular Hunkeler brochure solution for the production of variable on demand booklets offline or inline with continuous feed digital printing systems. Dynamic glue application in the Drum Collator DC7 enables flexible production options such as spine gluing of jobs printed in magazine and tabloid newspaper format, or producing products with several spine-glued and interlocking sections.

Technical Data*	Glued Booklet Solution with CS6-DC7	
Max. roll diameter:	54"	1370 mm
Web width:	11" – 20.5"	279 – 520 mm
Production speed:	up to 500 ft/min	up to 150 m/min
Paper weights:	40 – 100 gsm	30 – 70 lb offset/book
Cut length:	up to 32 $^1/_4$"	up to 820 mm
Number of pages:	4 – 48 Pages	
Productivity sample:	3500 ex/h, 24 pages cut length 13", 2-in 500 ft/min	

Options: Cross cut with chip-out, Knife folder

Web Buffer WB6
Printing System
Unwinder UW6
Web Dryer
Length- and Cross Cutter CS6
Drum Collator DC7
Buckle Folder

Sample Workflow

Collating
Gluing
Cross cutting
Folding
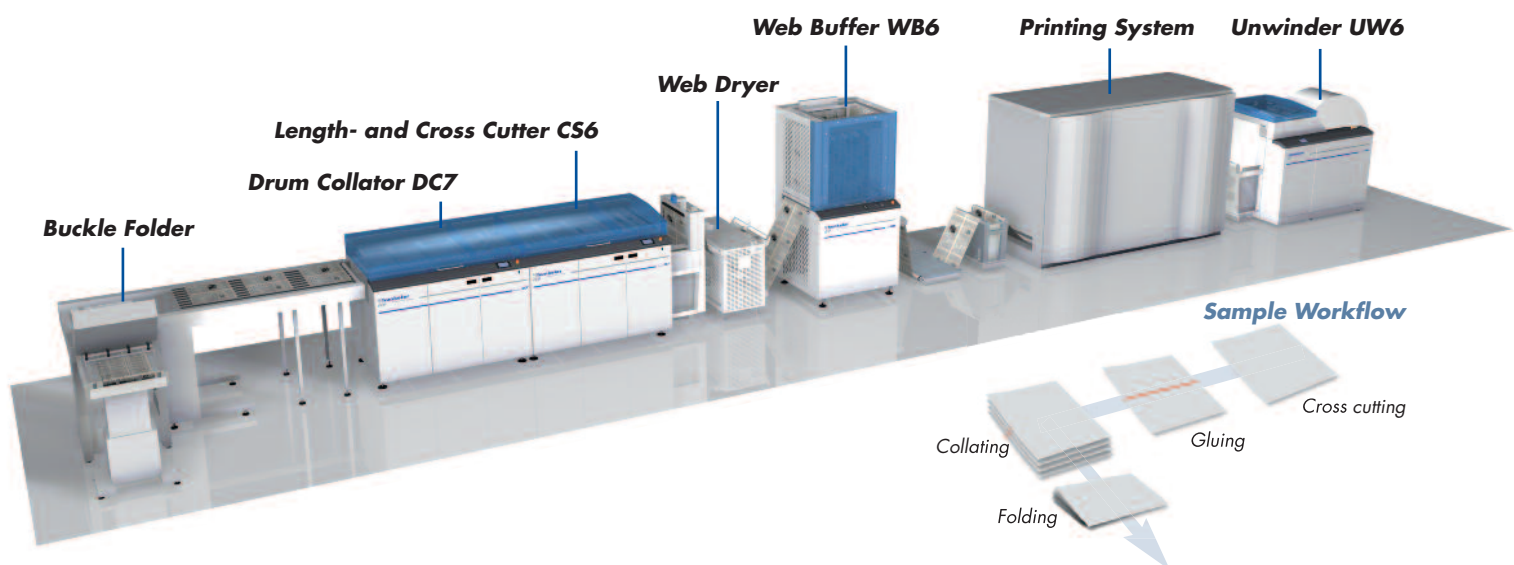
Additional books with Combi

Book signature production with DC7

Additional Newspaper production

Front / Back print verification

Newspaper

Newspaper Broadsheet Solution

This pioneering response to current industry challenges addresses a number of different issues, including decreased newspaper circulation, reduced advertising volume, greater competition, and a need for increasingly timely and localized news. The innovative concept underlying this technology allows the geographically independent production of up-to-date newspapers, digitally printed in the well established broadsheet format. The Drum Collator DC7 collates the duplex printed sheets of variable size. The papers leave the collating module as an electrostatically-fixed stack into the Buckle Folder.

Technical Data*	Newspaper, Broadsheet line	
	POPP6 (UW6-CS6-DC7)	POPP7 (UW7-CS7-DC7)
Max. roll diameter:	1370 mm (54")	1370 mm (54")
Web width:	11" – 20.5" (279 – 520 mm)	11" – 26" (279 – 660 mm)
Cut length:	up to 32.5" (820 mm)	up to 32.5" (820 mm)
Paper weight:	40 – 120 gsm 25 – 74 lb newsprint	40 – 120 gsm 25 – 74 lb newsprint
Speed:	up to 150 m/min up to 500 ft/min	up to 150 m/min up to 500 ft/min
Number of pages:	8 – 96 pages	8 – 96 pages
Productivity sample:	1800 ex/h Broadsheet (cut length 24.8") 24 pages, with printer speed 500 ft/min	

Boradsheet Workflow

Newspaper

Cross cutting

Collating

Folding

Buckle Folder

Drum Collator DC7

Length- and Cross Cutter CS6 | CS7

Web Dryer

Unwinder UW6 | UW7

Nearline Finishing Solution

Tabloid or Broadsheet format

Knife folding (optional)

Production of individual editions

Electrotstatic set fixing

Newspaper Tabloid Solution

The modular Hunkeler newspaper tabloid solution for the production of variable on demand newspapers and booklets offline or inline with continuous feed digital printing systems. Line gluing option for collated tabloid newspapers and booklets. This technology is revolutionary in that it offers an entirely novel approach to newspaper and booklet production.

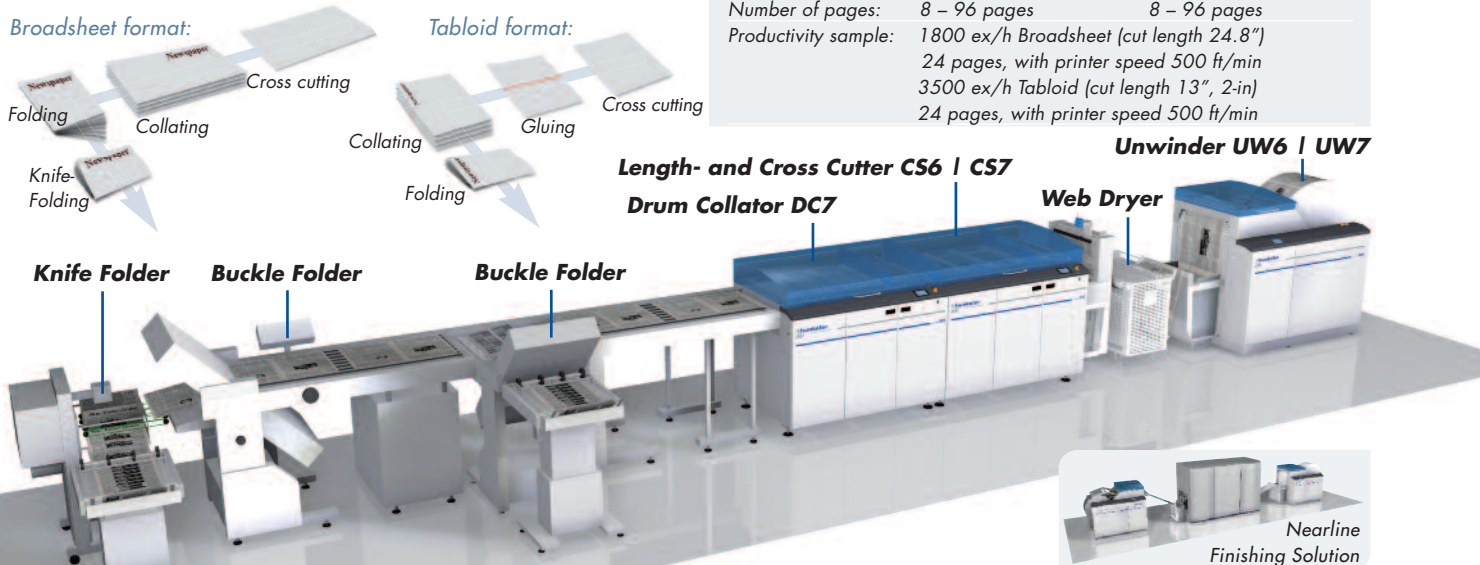| Technical Data*	Newspaper, Tabloid line	
	POPP6 (UW6-CS6-DC7)	POPP7 (UW7-CS7-DC7)
Max. roll diameter:	1370 mm (54")	1370 mm (54")
Web width:	11" – 20.5" (279 – 520 mm)	11" – 26" (279 – 660 mm)
Cut length:	up to 26" (660 mm)	up to 26" (660 mm)
Paper weight:	40 – 120 gsm 25 – 74 lb newsprint	40 – 120 gsm 25 – 74 lb newsprint
Speed:	up to 150 m/min (500 ft/min)	up to 150 m/min (500 ft/min)
Number of pages:	8 – 96 pages	8 – 96 pages
Productivity sample:	3500 ex/h Tabloid (cut length 13", 2-in) 24 pages, with printer speed 500 ft/min	

Tabloid Workflow

Cross cutting
Gluing
Collating
Folding

Length- and Cross Cutter CS6 | CS7
Drum Collator DC7
Web Dryer
Unwinder UW6 | UW7
Buckle Folder

Nearline Finishing Solution

Newspaper Combi-Solution

Newspaper line for broadsheet and tabloid products. Configuration for quickly shifting from broadsheet to tabloid, with the appropriate folding processes. Dynamic glue application in the Drum Collator DC7 enables versatile production options such as spine gluing of tabloid newspapers and job printing in magazine format or issuing tabloid products with several spine-glued and interlocking sections.

Technical Data*	Newspaper, Combinated line	
	POPP6 (UW6-CS6-DC7)	POPP7 (UW7-CS7-DC7)
Max. roll diameter:	1370 mm (54")	1370 mm (54")
Web width:	11" – 20.5" (279 – 520 mm)	11" – 26" (279 – 660 mm)
Cut length:	up to 32.5" (820 mm)	up to 32.5" (820 mm)
Paper weight:	40 – 120 gsm 25 – 74 lb newsprint	40 – 120 gsm 25 – 74 lb newsprint
Speed:	up to 150 m/min (500 ft/min)	up to 150 m/min (500 ft/min)
Number of pages:	8 – 96 pages	8 – 96 pages
Productivity sample:	1800 ex/h Broadsheet (cut length 24.8") 24 pages, with printer speed 500 ft/min 3500 ex/h Tabloid (cut length 13", 2-in) 24 pages, with printer speed 500 ft/min	

Combination Workflow

Broadsheet format:
Folding
Collating
Cross cutting
Knife-Folding

Tabloid format:
Collating
Folding
Gluing
Cross cutting

Knife Folder
Buckle Folder
Buckle Folder
Length- and Cross Cutter CS6 | CS7
Drum Collator DC7
Web Dryer
Unwinder UW6 | UW7

Nearline Finishing Solution

Glued tabloid sections

Book signature production

Dynamic glued brochures

Front / Back print verification

Security print finishing

Roll to Stack Solution with dynamic perforation/punch

Roll-to-stack processing including the unit for dynamic file hole punching. Individual hole and perforation patterns and shape punching as a security element in different end products. Full-color personalized direct mailers with integrated vouchers and coupons with a variable number of pages. Inline process with paper web feeding from the UW6, dynamic vertical and cross perforation in the dynamic perforation Module DP6, full bleed cutting in the CS6-II and stacking. Process control with product tracking and quality assurance.

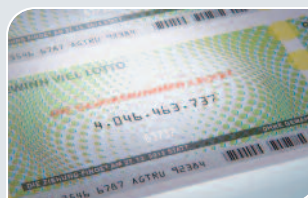| Technical Data*	Roll to Stack with dynamic Punch/Perf	
Max. roll diameter:	54"	1370 mm
Web width:	6.5" – 20.5"	165 – 520 mm
Production speed:	up to 500 ft/min	up to 150 m/min
Paper weights:	60 – 160 gsm	16 – 40 lb bond
Stack height:	$9\,^7/_8$"	250 mm
Variable chip-out:	$^3/_{16}$" – $2\,^3/_4$"	4.8 – 70 mm
Format length:	5.5" – 19"	140 – 482 mm
File hole punching:	2-, 3-, 4 hole pattern Ø 5,5 – 8 mm	
Shape punching:	5.5x5.5 – 8x10 mm	
Options:	Large sheet delivery LS6-28"	

Dynamic Perforator/Puncher DP6

Web Inspection WI6

Web Buffer WB6

Printing System

Unwinder UW6

Length- and Cross Cutter CS6

Stacker LS6

Coupons with shape punching

Checks with safety features

Ticket with numbers
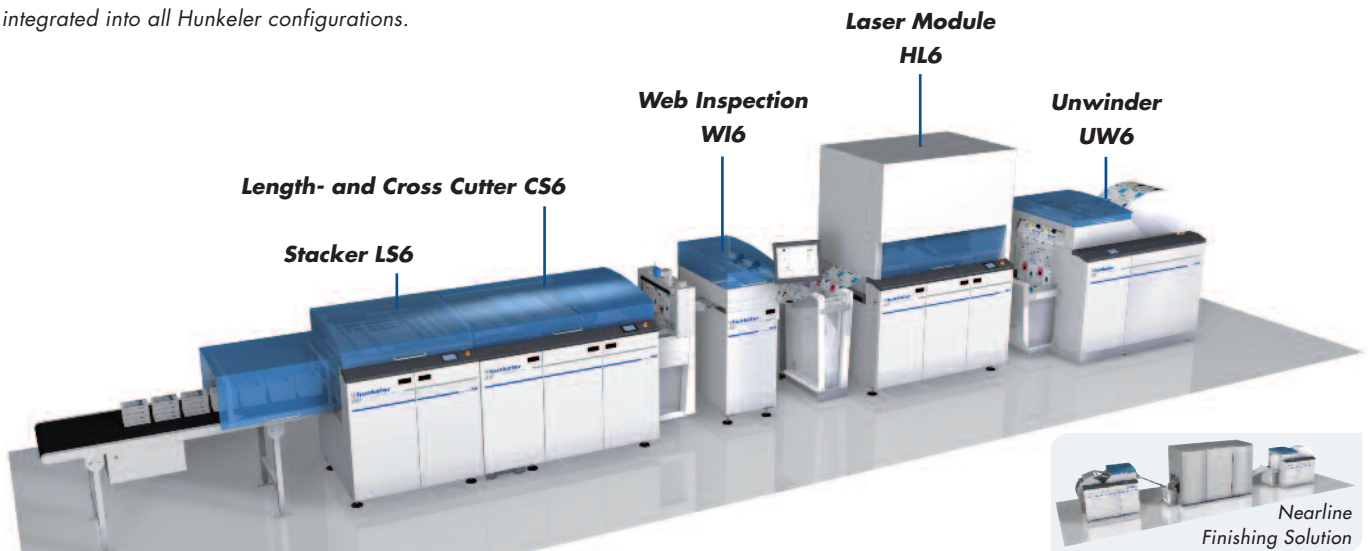
Ticket with safety features

Safety Features with Laser HL6

The HL6 laser module is certain to have a bright future in the production of checks, coupons and mail products. Patented laser technology allows the dynamic punching and engraving of customized forms, allowing simple to complex security features and an infinite variety of customized perforation patterns. The LaserEditor controller interprets native vector data and enables the simple entry of punching patterns. The laser module works at the unmatched speed of up to 150 meters per minute (500 fpm), in 1-up or 2-up mode and can be integrated into all Hunkeler configurations.

Technical Data*	Roll to Stack with Laser HL6	
Max. roll diameter:	54"	1370 mm
Web width:	6.5" – 20.5"	160 – 520 mm
Production speed:	up to 500 ft/min	up to 150 m/min
Paper weights:	40 – 200 gsm	27 – 120 lb offset/book
Laser power:	350 W, CO_2 Laser, Class 1 with Chiller	
Stack height:	$9\,7/8$"	250 mm
Variable chip-out:	$3/16$" – $2\,3/4$"	4.8 – 70 mm
Applications:	1up – 2up	

Options: Chip-out with CS6-II, Second Laser Head HL6-II, Offset Separator SE6

Laser Module HL6

Web Inspection WI6

Unwinder UW6

Length- and Cross Cutter CS6

Stacker LS6

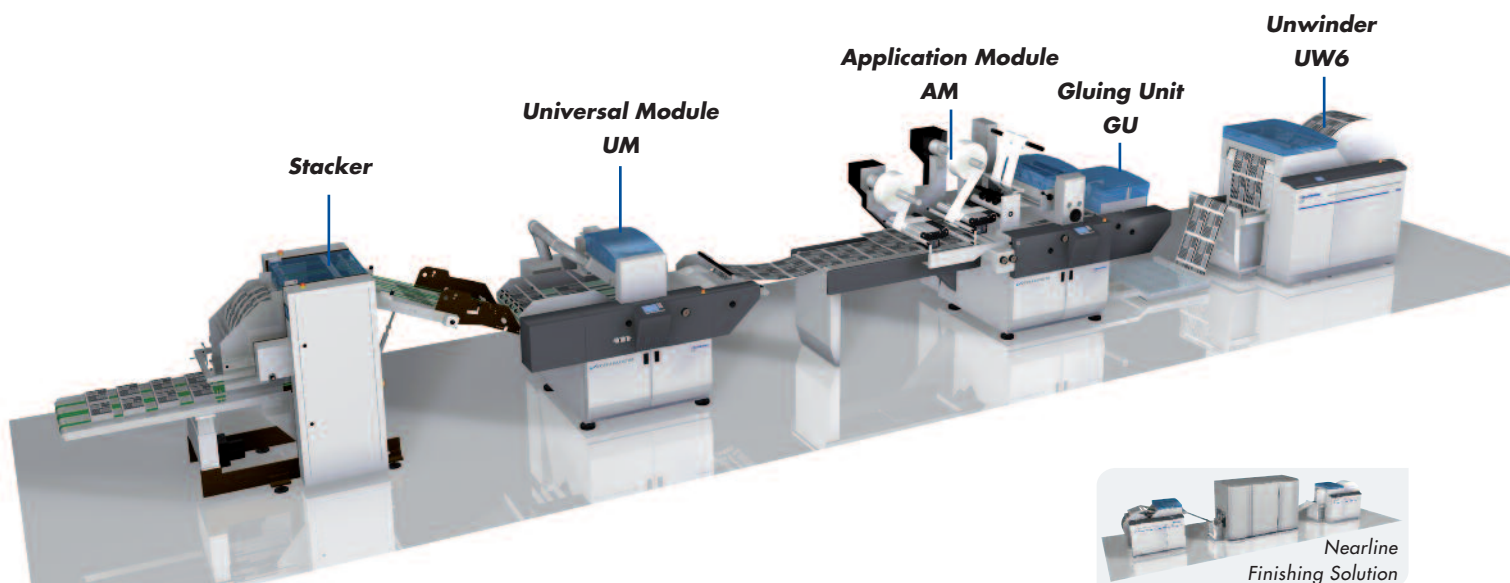*Nearline Finishing Solution*

Integrated Label and Card

Production with integrated butterfly card on the Hunkeler Variweb web finishing line. Front application of the plastic sheet for the card and gluing to the back the silicone paper in only one process step (double end) via the same application module. Die cutting the butterfly card as well as cross cut with chip-out in the Universal Module.
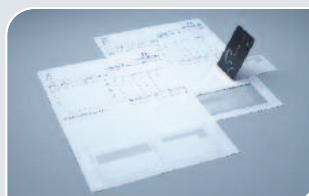
Technical Data*	Label & Card Solution with AM–UM	
Max. roll diameter:	54"	1370 mm
Web width:	6" – 20.5"	150 – 520 mm
Production speed:	up to 500 ft/min	up to 150 m/min
Paper weights:	60 – 160 gs	16 – 40 lb bond
Final format length:	4" – 34"	101 – 863 mm
Variable cut-out:	$1/4$" – 2"	6.4 – 50 mm
Options:	Hotmelt gluing	

Unwinder UW6

Application Module AM

Gluing Unit GU

Universal Module UM

Stacker

Nearline Finishing Solution

Creative security labels

Plastified member cards

Labels

Security inspection systems

Web Inspection System

A web inspection system checks the quality and content of the printed pages in terms of colors, positions, contours, smearing, jet-outs, etc. State-of-the-art digital camera technology scans the entire width of the paper web, creates high-resolution images of the printed image and compares these with the 'golden sample' to carry out many different kinds of quality and content checks. The system ensures consistently high print quality for a diverse range of applications.

Printing and content errors are identified at an early stage to trigger immediate action, reducing both downtime and paper waste.

Control Platform

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7 | **Red-Point Bank**
Victoria Street | 8000-Zurich | Switzerland | 062 745 6161

1

Red-Point Bank
Victoria Street | 8000-Zurich | Switzerland | 062 745 6161

3
Peter Lehmann
31, Mountain Road
6000 Lucerne
Switzerland

2

Account No.	48065745	
Statement:	1 Mar-31 Oct	
Page No.	1 of 3	
Credit Limit	€ 2000.00	
Balance	€ 4428.80	**6**

Account No.	48065745
Statement:	1 Mar-31 Oct
Page No.	2 of 3

Date	Description	Debit	Credits	Balance
02 Jul	Shoe Megastore	99.50		2772.55
06 Jul	Rudy's Accessories	112.75		2659.80
18 Jul	Super Petrol Station	70.05		2589.75
22 Jul	Payment receipt, ABC Corp.		810.30	3400.05
31 Jul	Palace Gift Shop Zurich	22.20		3377.85
11 Aug	Super Petrol Station	65.25		3312.60
17 Aug	Pazza Pizza	57.10		3255.50
23 Aug	Electric Installation Inc.	1021.40		2234.10
02 Sep	Science Museum	60.15		2173.95
09 Sep	Online Payment Received		1440.00	3613.25
24 Sep	Flower Power Corp.	30.10		3583.85
30 Sep	Pazza Pizza	45.30		3538.55
01 Oct	Online Ticket Shop	189.90		3348.65
15 Oct	Victoria Place Jewelry	399.75		2948.90
30 Oct	Payment receipt, ABC Corp.		799.90	3748.80

Date	Description	Debits	Credits	Balance
01 Mar	Freddie's Bike Store	224.30		€ 4204.50
04 Mar	Pazza Pizza	27.20		3795.50
21 Mar	Super Petrol Station	62.25		3733.25
30 Mar	Payment receipt, ABC Corp.		743.55	4476.80
04 Apr	My Fotobook com	66.30		4410.50
19 Apr	Super Petrol Station	59.90		4350.60
20 Apr	King Hotel Berlin	302.10		4048.50
25 Apr	Swiss Airline LX1212/1214	823.10		3225.40
29 Apr	Town Garage Lucerne	542.15		2683.25
04 May	Online Payment Received		1243.00	3926.25
17 May	Flower Power Corp.	33.70		3892.55
29 May	Swiss Driving Range	242.25		3650.30
01 Jun	Old Town Fitness Studio	120.00		3530.30
11 Jun	Pazza Pizza	35.75		3494.55
18 Jun	Freddie's Bike Store	1245.90		2248.65
27 Jun	Payment receipt, ABC Corp.		823.30	3071.95
30 Jun	Diving School Lucerne	199.90		2872.05

		Total Debits	6158.25		**8**
		Total Credits		5860.05	**9**
		Balance		3748.80	**11**

5 0123456789

>>>>> Continued on next page >>>>>

Voucher Show your card
Tony's *Pizza* — Picadilly Place 6000 Lucerne — Pizza Service!
Safe € 5.00 !

Voucher Show your card
Online Flowers
Voucher 6531   www.onlineflowers
Safe € 15.00 !

Voucher Show your card
Buy a new Mountain Bike !
Safe € 100.00 !   **10**

13
Voucher Show your card
Bitter pepper — Main Street 8000 Zurich — 7 Days open 5.00 – 24.00
Safe € 10.00 !

Voucher Show your card
A wide choice of wine ! South lane 44, 6000 Lucerne www.wine-9.ch
Safe € 12.00 !

Voucher Show your card
Special Offer — Free full ticket for one day ! Mountain-Express «Swiss Alps» Lucerne – Locarno – Chur
Free full-day ticket for 2 Person !   **4**

12

W16 Stand alone solution

20"   22"   30"   42"
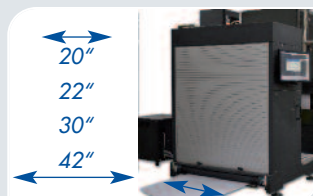
Different web width solutions

Integrated solution

Easy operation

Data package Software:

(1) Barcode reading and grading
Tests and validates the readability of fifteen bar code symbologies, including Code 128, Code 39, interleaved 2/5, EAN, UPC, RSS, PHARMACODE, Datamatrix, QR code, and PDF417. Grades barcodes following ANSI rules (ISO/IEC 15415 and 15416).

(2) Data matching
Reads and compares data from multiple locations to ensure a match. Capabilities include matching data anywhere within a form, including comparing data from the front-side of the form to data on the back side.

(3) Postal code verification
Verifies the integrity of the address Postal Barcode, supports several Postal Barcode standards including POSTNET, USPS IMB, RM4CC, Australian, etc.

(4) OCR verification
Provides human readable codes interpretation by OCR supported by Neural Networks interpretation, evaluates the quality of the codes providing a scoring of the field against a reference dictionary. Supports up to 4 independent scalable fonts per job and allows teaching of custom fonts at the job level.

(5) MICR verification
Provides MICR code line interpretation for both E13B and CMC7 standards, evaluates the quality of the code line by analyzing dimensions, shapes and distortions.

(6) Data validation
Read data (from any supported variable data field) and validate that it is accurate, by means of the provided matching functions. As an example: confirms that the payment amount on a check is correct. Also, validate that the data element is in the correct (expected) format and position.

Graphic package Software:

(7) Dimensions and position measurement
Verifies proper alignment and size of a graphical object against the page reference point.

(8) Color measurement
Match printed output colors to a color pattern sample by means of Delta-E relative color deviation measurement following L*a*b CIE 1997 standard for typographic environment.

(9) Density scale control
Verifies toner/ink densities to confirm their compliance with respect to a provided reference, and/or across the web to validate the consistency of color densities throughout the entire printable area.

(10) Print registration
Verifies the alignment of the different color planes by measuring an optimized pattern, and detecting the position error in both vertical and horizontal directions.

(11) Jet-out detection
Ensures printed lines and color blocks do not contain unwanted white space. The system checks the uniformity of the ink density on each color plane on a specifically optimized pattern to ensure inkjet heads are functioning as intended.

(12) Streak, spots and smearing detection
Look within an identified expected uniform zone (typically non-printed or in a solid homogeneous color) for streaks, spots and smearing.

(13) Image / Logo match
Verify that a stored image appears as required on a page, verifying and grading its shape and colors compared to the provided master. For example, confirm that a signature is properly in place on a check or that a logo has the proper shape, position and colors.

Site Manager server:
When the WI6 Web Inspection System is connected to the external Site Manager tracking server, it can provide additional functionality such as:

- **Full production tracking**
  The Site Manager uses the tracking information sent by the WI6 Web Inspection System to perform comprehensive production tracking on complex production sites.
- **Variable data matching / retrieval**
  The WI6 sends the Site Manager complete information on every control/verification performed on each inspected page.
- **Duplicates check**
  Check a job and document ID's against a database to ensure that any single document of any single job hasn't been printed twice.
- **Sequence verification**
  Verifies and ensures the proper pages / document sequencing.
- **Production integrity verification**
  Verifies and ensures the proper production integrity.
- **Production reporting**
  A wide range of production reports can be produced.
- **Interface to ADF platforms**
  – KERN MailFactory
  – PITNEY BOWES DFWorks
  – BOWE One
  – IRONSIDES Apt

Reporting

Immediate intervention

Tracking options

Site Manager Server

Site Manager
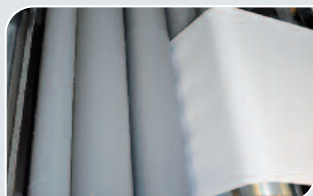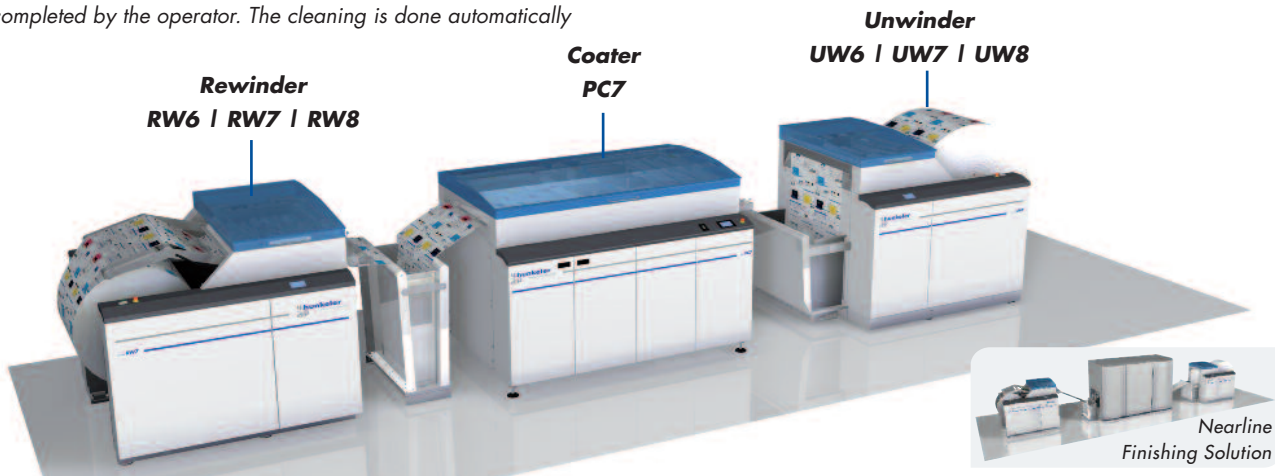
Special Solutions

Coating Solution

The PC7 primer coater module undoubtedly gives inkjet technology a new and interesting alternative to established printing processes. This innovative solution is designed for primer application (pre-coating) and varnishing (top-coating). Depending on the intended use, the PC7 is integrated either before or after the digital printing process. Offline configurations are also possible.

In top-coating applications, the PC7 module can be used for the full-surface varnishing of the paper web with a water based coating agent following the printing process. The web can be top-coated on one or both sides (simplex/duplex, depending on the application). Change-over is completed by the operator. The cleaning is done automatically (water).

Technical Data* | Roll to Roll with Coater PC7

	POPP6 (UW6-RW6)	POPP7 (UW7-RW7)	POPP8-Wide (UW8-RW8)
Max. roll diameter:	54" (1370 mm)	54" (1370 mm)	54" (1370 mm)
Web width:	8" – 20.5"	8" – 30"	8" – 30"
Production speed:	up to 150 m/min	up to 150 m/min	up to 150 m/min
Paper weights:	40 – 180** gsm	40 – 300 gsm	40 – 300 gsm
Roll weight max.:	800 Kg	800 Kg	1500 Kg
Applied quantity:	0.5 – 4.5 gsm	0.5 – 4.5 gsm	0.5 – 4.5 gsm
Coating agent:	Water based		
Options:			
**Heavy paper kit:	40 – 300 gsm		
	Decurler	Web Guide	Decurler, Slitter
	Slitter		Web Guide

Rewinder
RW6 | RW7 | RW8

Coater
PC7

Unwinder
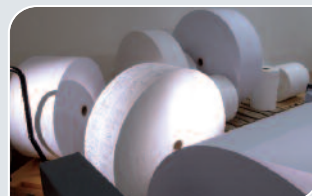**UW6 | UW7 | UW8**

Nearline
Finishing Solution

Patented 3-rollers coating-unit

Top-Coating for finished products

Different applications / effects

Primer: Use of non threaded offset paper

Bingo Solution

Specialty solution for customized bingo card booklets collated and glued together in the Hunkeler drum collator. A great example of the power of digital printing with individual coupons and advertisements.


Dyna-Cut

The versatile Dyna-Cut feature of the Hunkeler POPP cut sheet lines offers fully dynamic sheet length control on the fly, increasing the profitability by saving unwanted waste.
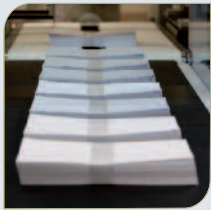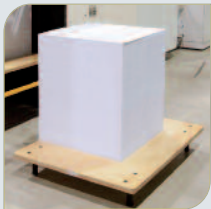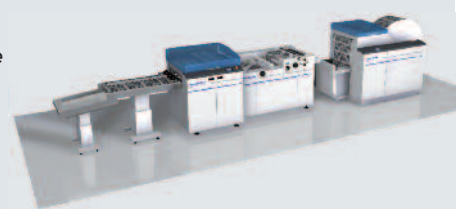

Banding Solution

Integration of economical banding solutions to hold cut sheet stacks or folded products together for further finishing or logistics reasons. A great example of Hunkeler engineering.
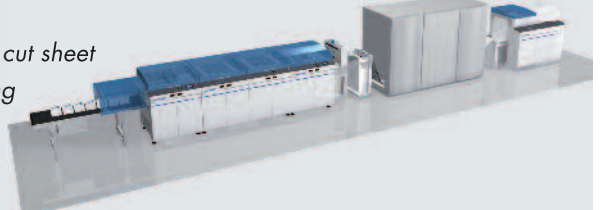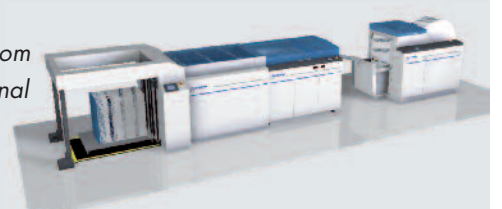

Long sheet delivery with jogger table

Jogger tables offer a very cost effective entry level solution for the occasional yet reliable production of large format sheets.


Large format solution with UW7-CS7-LS7

Mid-size format high pile stacking solution, roll to cut-sheet from DIN-A3 all the way to DIN-A1 sheets for finishing in conventional cut sheet workflows.

Pharma application: UW6-CS6-Folder

Roll to folded leaflet production lines with Hunkeler unwinder and cross cutter combine ease of use and reliable lightweight paper processing at high speeds. Almost any type of folder can be integrated into the line.
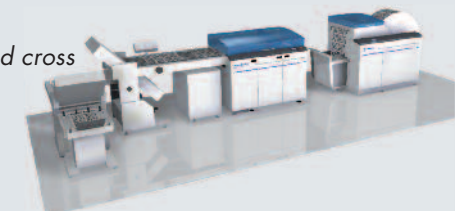
HKU Waste evacuation systems

Different Hunkeler waste evacuation solutions by Hunkeler Systeme AG. Portfolio for different applications and waste volumes all equipped with dust filter and low noise emissions.

Remote Assist

A "remote connection" allows the external Hunkeler Supporter a safe access to the line PC (HLI) of your Hunkeler line. The whole purpose of a remote connection are error analysis, troubleshooting, data backup or production support.

huncustomer
services

Reaching the summit together

Digital: developed to meet specific needs: *Solutions from Hunkeler for pre- and post-digital printing are available for almost any imaginable application. Publishing applications for small to medium runs, computer centers, transactional and transpromo, security printing or creative direct mailing: we have high quality solutions for all of these applications. A small sample of the largerange of our potential endproduct are shown in this brochure.*

Validated with all major printing presses.

*All solutions and technical data subject to change. Performance depends on running configuration, application, and substrates (paper). Technical data will change with different running configurations like bypassing a module, different non Hunkeler post-finishing solutions, etc.

Ⴛ hunkeler

Excellence in Paper Processing

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