



PREPRESS

PRESS

POSTPRESS

# Speedmaster SM 74

An Investment in Innovation

**HEIDELBERG**



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# The Speedmaster SM 74 – An Investment in Innovation • The new design of the Speedmaster SM 74 underscores the innovations of the new drupa 2000 Generation. It targets printers who seek flexibility and productivity for putting their ideas into practice.

The Speedmaster SM 74 is a modern, flexible press for commercial work.



The demands placed on commercial print shops are heading in one direction only: up. Your chances of success are best if you consistently make a strong impression on your customers. For example, by showing them that you can handle almost every job at a very reasonable price. Or that you have a firm command of digital data, letting you turn jobs around more quickly. It goes without saying that the print quality also has to be right. Every print shop has its special strengths. To leverage them, you need a flexible press. The Speedmaster SM 74™ meets all of the prerequisites for letting you respond nimbly to future market requirements. Because the press is extensively automated, you can even print very short runs on it profitably, and you also reap benefits from large jobs thanks to fast, stable production. Together, these two capabilities translate into additional capacity for new jobs and greater flexibility for meeting customer wishes. And the broad range of models, stretching from single- and two-color presses all the way to ten-color machines, offers appropriate solutions for dealing with most requirements in the field of commercial printing, for instance One Pass Productivity with Heidelberg's perfecting technology.

And the SM 74 of the drupa 2000 Generation has become even more productive. The CP2000 Center™ makes it easy for you to control the entire press using a touchscreen, in addition to providing a host of new functions. Online transfer of presetting data with PresetLink is another component that helps seamlessly integrate the

SM 74 into digital workflows. Heidelberg's perfecting technology has been made even more user-friendly, with fully automatic switchover between straight-printing and perfecting modes for longer presses. Automatic lateral pile adjustment in the feeder and the Alcolor® Vario dampening system are further options that ease the operator's workload during the pressrun.

It is ultimately up to you how you deploy the flexible productivity offered by the Speedmaster SM 74. You'll be pleasantly surprised by its outstanding cost-effectiveness. And you can count on getting the legendary reliability of Heidelberg® equipment and Heidelberg's broad competence in all parts of the printflow, from prepress across printing to finishing.

# The CP2000 Center – The Intelligent Press Control System • The CP2000 Center makes it easy to operate the innovative technology of the SM 74. It is an open interface for greater productivity and cost-effectiveness in digital workflows. New functionality permits even faster job changes.

With the CP2000 Center, you have the press firmly under control. The clearly organized menus of the user interface continually inform the operator of the status of the press and the progress of operations. The pivotable touchscreen is used to centrally control the entire press – simply, precisely, and fast.

Symbols, text, and color codes guide the user. Right on-screen, the operator has access to online help and a user manual.

The CP2000 Center offers numerous new functions. The Color Fast Solution package accelerates the response of the inking systems, thus cutting down on waste in conjunction with frequent job changes. Intelligent pre- and postdampening, automatic adjustment of the dampening solution feed rate when the inking changes, and display of the state of the press reduce waste further.

You can store up to 250 jobs for fast presetting of repeat jobs. And while a job is still being printed, the next one can be completely prepared for production.

## **Add-on software modules let you extend the system's functionality further whenever you like:**

- PresetLink™ enables downloading of area coverage values from prepress via PrepressInterface, which is based on the open CIP3 standard.
- ManagementGate™ captures press data such as the run counter status, speed, and the number and duration of washup operations. It can be connected to industry software, your own IT system, or DataControl™. You can also use ManagementGate to transfer job data to the press.
- MemoryPlus™ extends the system's storage capacity from 250 to several thousand jobs.
- OnlineAssistance, which comes with a service contract, transmits service data from the press via modem to your Heidelberg agency for fast, systematic diagnosis and troubleshooting.
- All system components, such as ImageControl™ and PrepressInterface™, can be connected at any time.



The CP2000 Center makes it easy to use complex technology.

#### CP2000 Center

- Color Fast Solution: New functions for getting the press inked up faster and reducing waste
- Intuitive touchscreen user interface with integrated help function
- Storage of up to 250 jobs
- Software modules for flexible extending functionality
- Integration in the networked print shop: downloading of prepress data, interfacing with industry software and DataControl

# The Feeder and Delivery – Reliable Production on Different Stocks • From thin papers to light-weight board – the suction-tape feeder and venturi sheet guidance in the delivery handle the full range of stocks for commercial jobs with minimal adjustment work.

The suction-tape feeder lets you start producing fast after stock changes.



## The Feeder

The suction-tape feeder is equipped with the proven Heidelberg suction head with separate pickup and forwarding suckers. The advantages are minimal setting work, reliable sheet transport, and simple maintenance.

When changing stocks, many otherwise time consuming settings are automatically performed. This generates a substantial time saving. The side guides travel to the set sheet width, the front guide clearance is set automatically motor-driven, and an inductive double-sheet detector operates on the basis of stock parameters received from the CP2000 Center.

Sensors in the feeder continuously monitor the lateral alignment of each sheet, its time of arrival at the front guides, and its position in the stream. The operator is visually and audible alerted to problems. The automatic sheet arrival control function automatically compensates for incorrect arrival times. This cuts down on unproductive downtimes and ensures precise registration. In addition, the feeder is optionally available with the new automatic lateral pile adjustment function in conjunction with the pile plate.



The venturi sheet guide plates carry the sheets onto the delivery pile on an air cushion, without any marking.

It is no longer necessary to manually adjust the pile plate, because it is kept at a constant distance from the side guide. The lateral stops automatically travel to the right positions for the format being printed.

The feeder can be equipped with either a pile trolley or a pile plate. In addition, a built-on device is available for preloading outside the press.

### The Delivery

The high-pile delivery is equipped with venturi sheet guidance: Each press sheet glides through the delivery on an air cushion. This minimizes the risk of marking, even on difficult double-sided jobs. The optimized shape of the decurler yields stronger suction for an improved decurling effect. The sheet brake combines effective operation with simple setting and minimal space requirements.

Depending on needs, three different delivery versions are available:

The standard delivery supplied with single-, two- and four-color models is space-saving and attractively priced. It can also be equipped with optional accessories for numbering, perforating, and imprinting.

The high-pile delivery makes it easy to integrate a dryer, and also permits greater pile heights for longer runs.

The extended delivery has enough space to accommodate up to three dryer modules. In connection with a coating unit, this lets you boost productivity even when applying heavy coatings.

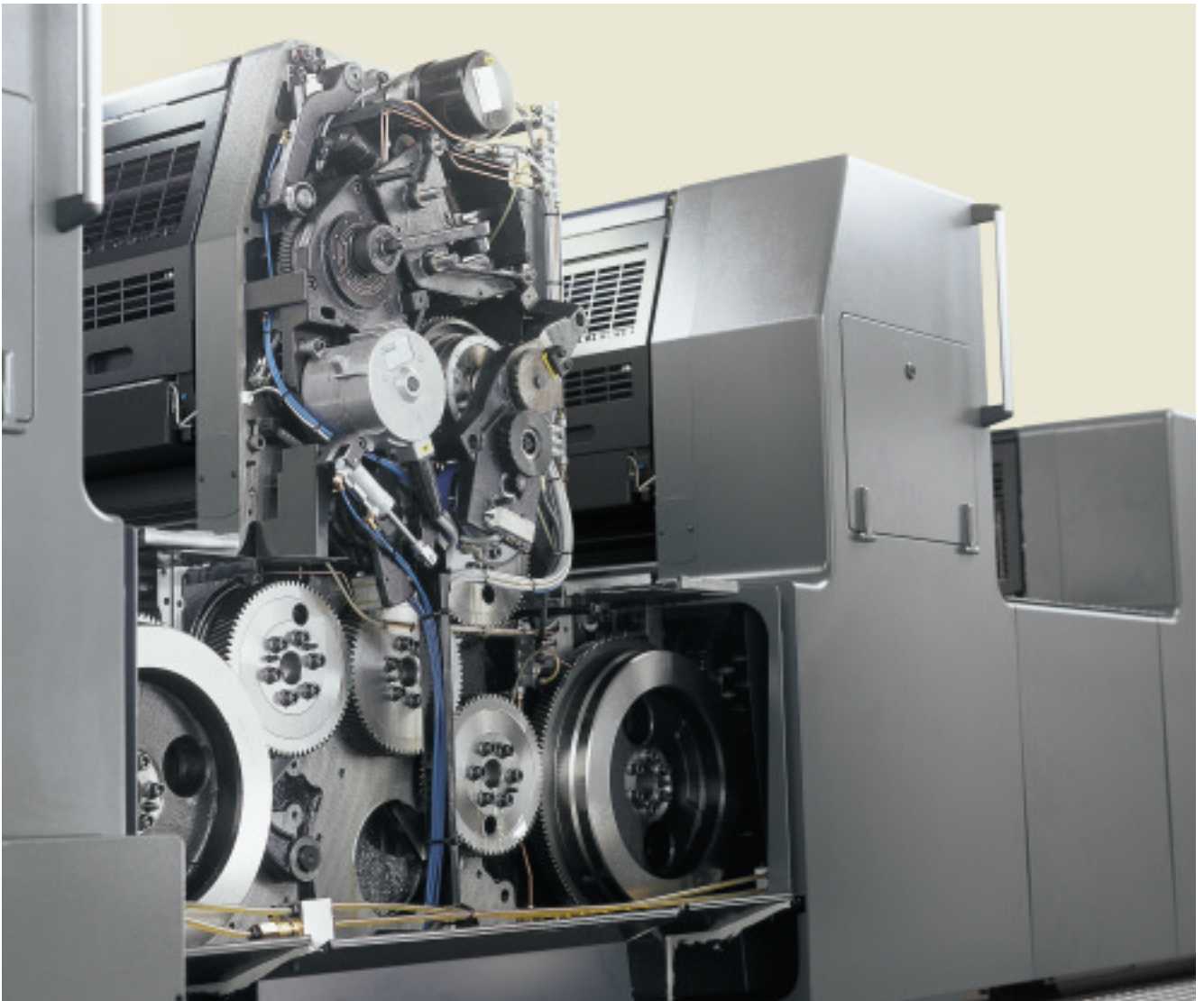
DryStar 2000™ dryers for ink and coating are available for all high-pile deliveries. They are specially harmonized with the sheet guidance system.

#### Feeder and delivery

- Suction-tape feeder, automated for frequent stock and sheet-size changes
- Automatic sheet-arrival control
- Venturi sheet guidance in high-pile delivery
- Sheet brake with narrow suction tapes
- Flexibly configurable
- Harmonized DryStar 2000 dryers available

# The Printing Units – Precision Down to the Tiniest Detail • The future-oriented technology and robust design of the printing units of the SM 74 guarantee lastingly excellent print results to safeguard your investment.

Robust engineering for a long service life.





InkLine ensures automatic, cost-saving ink fountain replenishment.

### Printing Units

The printing units of the Speedmaster SM 74 stand for precision and durability. Their robust design, helical gears and bearer-on-bearer running are among the central attributes that help ensure a lastingly high standard of printing quality to preserve the resale value of the press.

The SM 74 is also fast. Circumferential, lateral, and diagonal register are remotely controlled via the CP2000 Center, and so is the automatic washup system for the blanket and impression cylinders which is included as a standard feature. AutoPlate clamps the plates in less than a minute per printing unit. The outstanding accuracy of this plate-changing system yields major benefits, particularly in conjunction with CtP plates imaged in precise register. The bottom line: You get perfect register more quickly.

### Inking and Dampening Systems

In today's commercial printing market, your competitiveness depends on your ability to deliver top quality. The Speedmaster SM 74 makes it easy to achieve the required level of quality. The standard Alcolor continuous-film dampening system applies a thin, even film of dampening solution to the plate, thus enhancing the brilliance of printed images. A new feature is the Vario option, which removes hickeys from the plate on-the-fly, thus helping to cut down on waste.

The inking system of the SM 74 is known for its highly constant inking and reliability. The new CP2000 Color Fast Solution package accelerates responses to changes in the ink profile. The inking and dampening systems are

both speed-compensated. The Speedmaster 74's hallmark is thus superb print quality that is quickly achieved and easily maintained. Thanks to the new, optional InkLine™ cartridge system, operation of it is now even easier than ever before. For single- and two-color presses without remote inking control, the laser-slit blade-type ink fountain is an attractive alternative for cost-conscious buyers.

If you are planning on running the press continuously in multishift operation, the inking system temperature control option cools the inking rollers to keep printing conditions stable. This optimally meets the prerequisites for standardized printing. To make sure you start producing fast every time, the temperature control system involving three hollow oscillators and the ink fountain roller can also be used to preheat the inking system. Inking system refrigeration is especially important when working with reduced alcohol or waterless offset, as well as in UV printing. The heat exchanger is accommodated in the space-saving CombiStar™ combination cabinet together with the central dampening system supply unit.

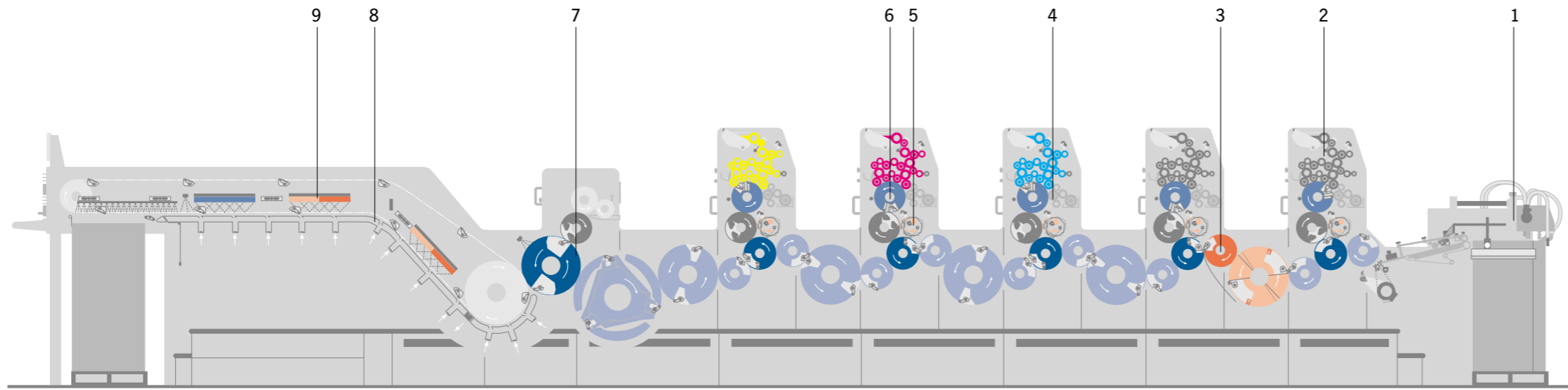
#### Printing unit

- Fully automated for fast job changes

#### Inking and dampening systems

- Highly stable
- Alcolor Vario optionally available
- Additional options for industrial operation:  
InkLine and inking system temperature control

# Inside View of a Speedmaster SM 74



- 1 Suction-tape feeder: Many functions are automated for fast stock changes. New: the optional lateral pile adjustment feature and the stream monitor.
- 2 Inking system: Highly constant inking and presetting of the ink zones via the CP2000 Center and Prepress-Interface. Automatic inking roller washup.
- 3 Sheet reversal: In-register sheet transport and monitored sheet transfer enable highly reliable production in perfecting mode. Exchangeable impression cylinder jackets and structured chrome surfaces ensure lastingly high print quality on both sides of the sheet.
- 4 Dampening system: The speed-compensated Alcolor continuous-film dampening system is now also available with the Vario option for removing hickeys.
- 5 Blanket and impression cylinder washup: Simultaneous program-controlled washing of all printing units.
- 6 AutoPlate: In-register, automated plate changing in less than one minute per printing unit.
- 7 Coating system: Easy changing between the two-roller system and the optional chamber doctor blade system.
- 8 Sheet guide plate: the venturi sheet guide plate generates an air cushion beneath the sheet for sheet travel without marking.
- 9 DryStar 2000 dryers: Various versions for different applications, harmonized with sheet travel.

## Speedmaster SM 74 Press Configurations

	SM 74-1	SM 74-2 SM 74-2-P	SM 74-2-H SM 74-2-P-H	SM 74-4 SM 74-4-P	SM 74-4-H SM 74-4-P-H	SM 74-5 SM 74-5-P	SM 74-6 SM 74-6-P	SM 74-8 SM 74-8-P	SM 74-10 SM 74-10-P
<b>Equipment</b>									
CP2000 Center with remote inking control		◦	◦	•	•	•	•	•	•
PrepressInterface		◦	◦	◦	◦	◦	◦	◦	◦
Suction-tape feeder	•	•	•	•	•	•	•	•	•
Speed-compensated blast air at suction head			◦	◦	◦	•	•	•	•
Automatic lateral pile adjustment			◦	◦	◦	◦	◦	◦	◦
Alcolor continuous-film dampening system	•	•	•	•	•	•	•	•	•
Alcolor Vario continuous-film dampening system		◦	◦	◦	◦	◦	◦	◦	◦
InkLine				◦	◦	◦	◦	◦	◦
Inking system temperature control	◦	◦	◦	◦	◦	◦	◦	•	•
AutoPlate	•	•	•	•	•	•	•	•	•
Heidelberg Perfecting		◦	◦		◦	◦	◦	◦	◦
Fully automatic convertible sheet reversal*		◦	◦	◦	◦	•	•	•	•
Exchangeable impression cylinder jacket after sheet reversal*		•	•	•	•	•	•	•	•
Heidelberg coating system			◦		◦	◦	◦	◦	
Exchangeable chamber doctor blade			◦		◦	◦	◦	◦	
Standard delivery	•	•		•					
High-pile delivery with venturi sheet guidance			•		•	•	•	•	•
DryStar dryer			◦		◦	◦	◦	◦	◦
Central air supply cabinet			◦		◦	◦	◦	•	•

◦ Option • Standard \*In perfectors

## Technical Data

### Press sheets

Gripper margin	8–10 mm
Stock thicknesses	From thin papers (approx. 0.03 mm) to 0.6 mm
Largest sheet	530 x 740 mm
Smallest sheet (straight printing) with standard feeder	210 x 280 mm
Smallest sheet (straight printing) with pile plate feeder	280 x 280 mm
Smallest sheet (straight printing) with pile plate feeder and automatic lateral pile adjustment	295 x 280 mm
Smallest sheet (perfecting)	300 x 280 mm
Largest printable area, also when perfecting	510 x 740 mm

### Plate cylinder

Plate cylinder undercut	0.15 mm
Distance from leading edge of plate to start of printing	59.5 mm
Coating blanket cylinder undercut	3.2 mm
Distance from leading edge of coating plate to start of printing	47.6 mm

### Blanket cylinders

Blanket cylinder undercut	2.3 mm
Length x width of metal-edged blanket	627 x 772 mm
Blanket thickness	1.95 mm
Underlay sheets	550 x 750 mm

### Pile heights

Standard feeder	945 mm
Standard delivery	500 mm
High-pile delivery	1,000 mm

### Printing plates

Length x width	605 x 745 mm
Thickness	0.25–0.30 mm

### Maximum production speed (job-dependent)

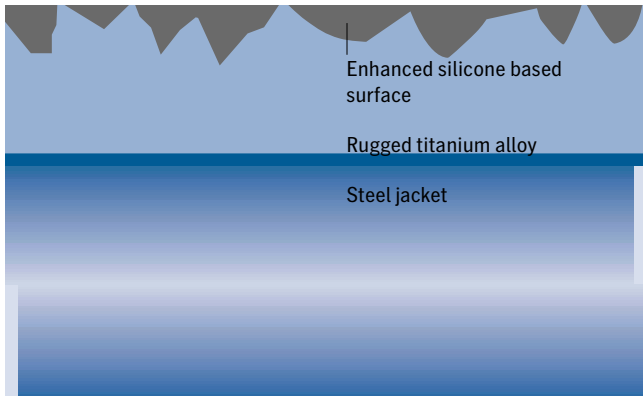
1–8 colors, also when perfecting	15,000 sph
SM 74-8+L	15,000 sph
SM 74-8-P+L	
SM 74-10	
SM 74-10-P	13,000 sph



**Heidelberg Perfecting – Uncompromising Quality on Both Sides** • One Pass Productivity stands for cost-effective production of finished sheets in one pass through the press. Heidelberg Perfecting sets standards in commercial printing by delivering virtually identical print quality on both sides – now up to five over five colors.

Fully automated conversion between straight-printing and perfecting modes at the CP2000 Center makes operation even easier.





The PerfectJacket is an exchangeable impression cylinder jacket that meets highly demanding requirements when perfecting.

Fast and absolutely precise: Heidelberg Perfecting lets you produce double-sided sheets in a single pass. While providing maximum perfecting quality, One Pass Productivity reduces your throughput times by outputting up to 15,000 sheets printed front and back per hour, thus boosting productivity and profits. A new function is fully automated conversion between straight-printing and perfecting modes, controlled by the operator at the touchscreen of the CP2000 Center.

Exchangeable impression cylinder jackets after sheet reversal ensure virtually identical print quality on both sides of the sheet. And to meet the special requirements of long eight- and ten-color perfectors, the new PerfectJacket™ is available. These have a special surface featuring an additional, ink-repellent silicone layer for high print quality, productivity, and fast cleaning.

Also new are the structured chrome surfaces of the transfer drum jackets which pass each sheet gently between printing units and make for easier cleaning.

The three-drum sheet-reversing unit of the SM 74 transfers each sheet in precise register with a single grip-per closure. This means highly reliable handling of different stocks, with considerable built-in tolerance for sheet-size deviations. To achieve highly accurate inter-image fit, the trailing edge of each sheet is held on the storage drum by suction and circumferentially and laterally aligned.

When printing sheets on both sides, in order to achieve outstanding print quality it is indispensable for them to be conveyed onto the delivery pile as contactlessly as possible. The sheet guide plates with venturi nozzles in the high-pile delivery of the SM 74 enable this in everyday practice, even on demanding applications such as perfecting jobs with heavy inking.

Perfect interplay of all of these technologies result in uncomplicated, user-friendly perfecting with blue-ribbon results.

#### Heidelberg Perfecting

- Precise three-drum sheet reversal
- Lateral and circumferential tautening of the sheet
- Fully automatic conversion between straight-printing and perfecting modes at the CP2000 Center (standard in presses with five or more colors)
- Exchangeable impression cylinder jackets or PerfectJacket
- New structured chrome surfaces on transfer drum jackets
- Contactless venturi sheet guidance in the high-pile delivery
- High-performance system for printing up to five over five colors

# Inline Coating and Drying – Brilliant Solutions and Fast Finishing • Protective or glossy coatings and infrared drying: a successful combination for fast finishing or Inline Effects.

The coating system permits economical, fast inline production.

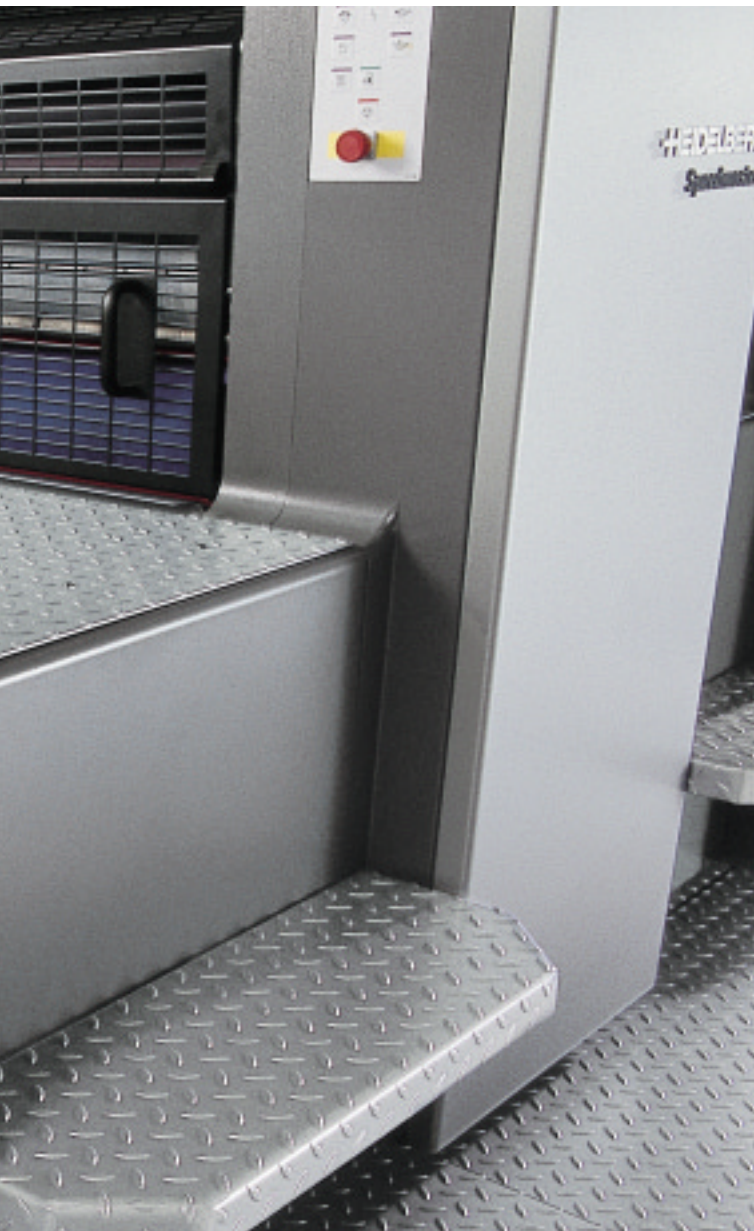


More and more printing companies are deriving benefits from inline coating: faster drying so finishing can take place sooner, plus more possibilities for designing and adding value to items for customers. The coating system of the SM 74 makes it easy: it is integrated into the CP2000-based operating concept, and lets you choose between two different processes.

The standard two-roller system can be used to apply normal to heavy overprint, spot, and pattern coatings. The amount of coating is easy to adjust steplessly. Achieving a good fit with photopolymer coating plates or metal-edged blankets is facilitated by remote control of circumferential and lateral register via the CP2000 Center.

An optional chamber doctor blade system ensures a high degree of replicability and stability at all coating rates, for both fine lines and difficult spot coatings. This lets you evenly and consistently apply coatings throughout long runs. The combination clamping bars also accept relief plates. And it is easy to switch between the chamber doctor blade and two-roller systems.

DryStar 2000 dryers are optimally harmonized with sheet travel. For different applications, you can select an IR ink dryer, a coating dryer with additional hot air, or a dryer combination for the extended delivery.



#### Coating system and DryStar 2000 drying

- Two-roller system for normal to heavy, easily adjusted coating rates
- Chamber doctor blade system optionally available
- Extended delivery optionally available with DryStar 2000 dryer combination
- UV preparation available

## The Versatile Savings Concept – One to Four Colors with Standard Delivery • Economical, space-saving and versatile – a genuine alternative. The Speedmaster SM 74 models with standard delivery also stand for productivity and reliability.

The single- to four-color presses with standard delivery offer you an opportunity to realize significant savings when investing. They are designed for smaller piles and therefore require up to 20% less space. They are ideal if you predominantly print short runs – entirely in keeping with market trends. These presses can also be optionally equipped with numbering, perforating, and imprinting capabilities.

The pile trolleys can be used at both the feeder and the delivery. This makes it easier to execute a second pass.

Another cost-effective solution is manual ink-zone setting using levers on the laser-slit blade-type ink fountain of the single- and two-color models. The positions of the levers let you take in the ink zone profile at a glance. The settings are also free of side effects, i.e. adjacent zones remain unaffected by changes. These presses are equipped with a clearly organized, compact control console at the delivery that uses the same symbols as the CP2000 Center. The operator always has the pile and the control console in view.

The single- to four-color presses with standard delivery are a genuine alternative that is worth thinking about investing in.

The SM 74 presses with standard delivery are a space-saving, cost-effective alternative.



The compact control console at the standard delivery places all important press functions and remote register control within the operator's view.

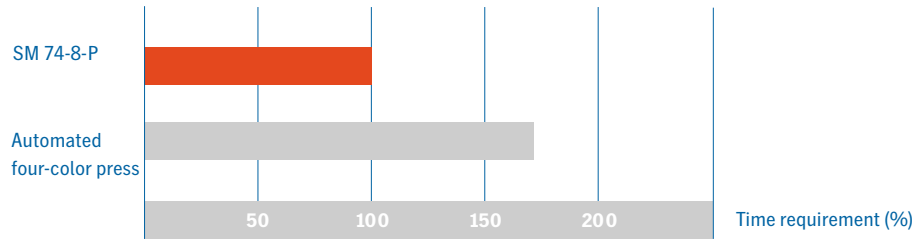


## Cost-Effectiveness Is the Sum of All Benefits •

By investing in a Speedmaster SM 74, you get a press with excellent price/performance. At the same time, the SM 74 offers versatility for meeting today's diverse commercial printing needs.

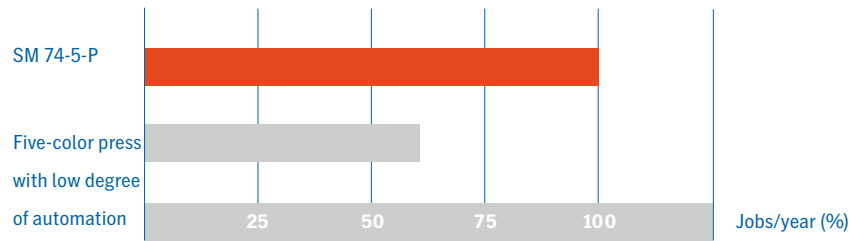
It is no coincidence that the Speedmaster SM 74 leads the market in the 28-inch format class. State-of-the-art technology in combination with proven design attributes and Heidelberg's high standard of quality are persuading increasing numbers of customers around the world. Available in a broad range of models, the Speedmaster SM 74 series offers a tailored press for you, geared to your particular needs in terms of throughput and job mix. Its high degree of user-friendliness and comprehensive automation make it easy to work with this high-tech machine. Of course, cost-effectiveness does not depend exclusively on automation. Other prime benefits of the SM 74 include stable print quality, even when the press is continuously used to capacity – day after day, week after week, year after year. Its outstanding flexibility makes it the ideal press for nearly all jobs. Fast makeready, fast production, inline coating and drying for fast finishing – all of which save you time you can take advantage of to serve your clients more quickly.

## Production Times\*

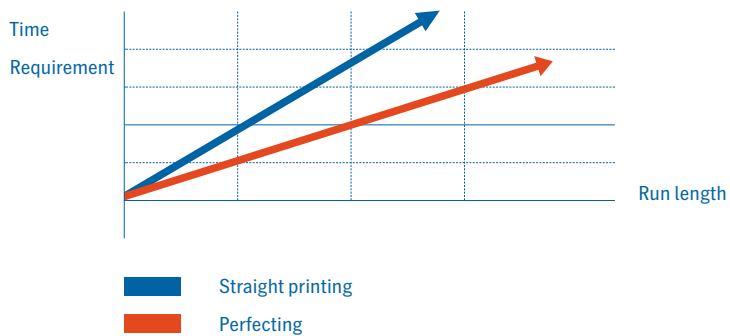


\*Example: Inside pages of catalog, 4/4, process colors, 20,000 sheets

## Productivity

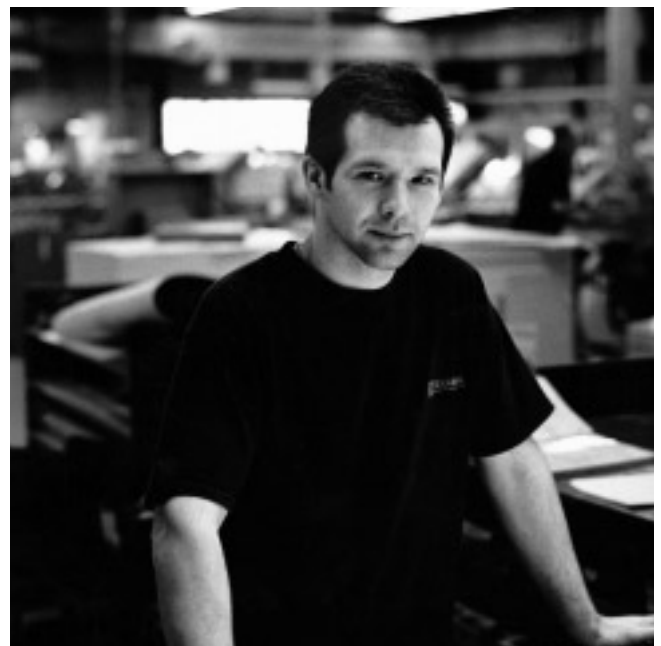


## One Pass Productivity



# Heidelberg – Solutions for the Entire Printing and Publishing Business • Our commitment is to being the best partner to the graphic arts industry, offering forward-looking solutions. Worldwide – Heidelberg is where your needs are met.

Our focus: the customer. Heidelberg provides custom-designed printing solutions for large and small companies.



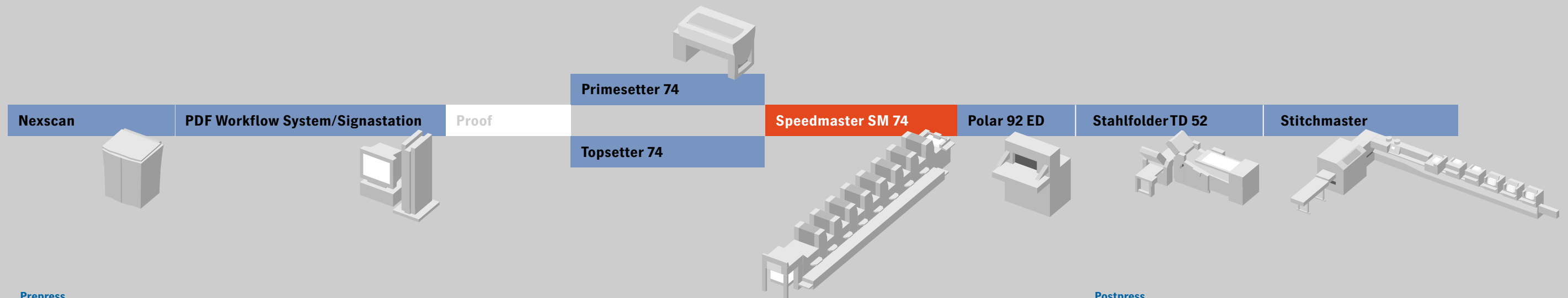
# Modular Solutions from Heidelberg

Production routines are growing more complex and demanding. No two jobs are alike anymore. Customers are demanding better quality and more value. These are the reasons Heidelberg is committed to a modular solutions concept: from prepress to finishing, and from individual products to complex workflows.

The goal is to deliver solutions tailored to each customer's unique challenges and markets. Solutions are the concept, and customer focus is the guiding principle.

## Press

The CP2000 Center is the open interface to prepress. It enables the PresetLink software module to transfer ink-zone presetting data online from PrepressInterface, thus paving the way for integrated production. The spectrophotometric color measurement systems ImageControl and QualityControl enable a waste-reducing control loop that reports changes made back to the CP2000 Center.



## Prepress

Heidelberg's PDF Workflow System lets you organize your prepress operation on the basis of PDF. It automates tasks including file optimization, trapping, and imposition for maximum productivity and flexibility. Last-minute changes become a simple matter.

## Postpress

Heidelberg's computer-controlled finishing machines have open CIP3 interfaces. This lets data generated during imposition be applied for presetting, thus speeding makereadies and boosting productivity.

Borders are dissolving. And that is why the Heidelberg Group has evolved into a global player for modern print solutions. But also within the world of printing, borders are rapidly vanishing. The previously separate realms of prepress, press and postpress are increasingly merging within the scope of integrated solutions. Heidelberg has played a central role in driving this dynamic process. And our goal is still to play a leading part in shaping the future of the graphic arts industry.

Customer focus is our policy. No matter whether we are dealing with family-run operations or large corporations – our modular components offer them tailored solutions ranging from individual products to entire workflows. Heidelberg covers every stage of the print process chain with products and services that define the future of the graphic arts. Our customers can count on having a competent, reliable partner ready to support them in all areas – 365 days a year, from 250 sales and service centers worldwide.

By establishing the Print Media Academy, we have created an international center for innovation, communication and training that not only covers classical training of printers and mechanics, but also blazes new trails by offering an advanced course for print managers.



By establishing the Print Media Academy, Heidelberg is providing the global graphic arts community with a unique center for sharing knowledge.

Heidelberg provides complete solutions covering the entire printflow, from prepress across press to postpress.





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