QUAD-STACK



FOUR OVER FOUR COLOR PRINTING UNIT

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QUAD-STACK / UPM ATTRIBUTES

The Quad-Stack is a low profile, single width, single circumference modularly constructed 4-color web-offset printing unit with a vertical web lead. It is designed for newspapers, magazines, tabloids, brochures, books and other commercial printing. The Quad-Stack is very compact and versatile. It produces quality printing, very low waste, and is simple to operate.

The basic component of the Quad-Stack is the Universal Printing Module (UPM), a compact web-fed offset printing unit that prints a single color on both sides of the web of paper. The UPM contains four solid stainless steel printing cylinders: tow plate and two blanket cylinders.



The Universal Printing Modules are shaped so they can be placed one on top of the other with each added module enabling the printing of one additional color on each side of the web. These "stackable" modules are either mounted above a reel stand or a base frame.



paper path

The **inking system** is a motorized feed system. Each ink fountain roll has a motor with speed control located at the printing unit or the control console. Ink supply is further controlled in zones by the adjustment of the (hand adjustable or motorized) ink leers or metering screws located across the width of the module. The NYLON covered oscillating roller has a fixed 1-inch stroke. The steel metering roller has a knurled surface to accept ink across the clearance between it and the ink fountain roller.



The dampener system is a motorized brush spray system. Speed variation of each dampener fountain roller changes the amount of dampener solution supplied across the entire width of the plate. The drive to each dampener fountain roller is motorized, with its speed variation controller located at the printing unit or the control console. Dampener supply is further controlled in zones 1-1/4 inch wide by means of adjustable spray blocking shields. The amount of dampener solution in the pan is maintained by a remote one-way feed system that allows no ink of other contaminants back into each unit's main dampener recirculating supply tank.

FEATURES

STANDARD

- Pneumatic drive line clutch
- Solid stainless steel plate and blanket cylinders
- Rubber covered ink and dampener rollers
- Brush dampening
- Compressible blankets with bars attached
- Drop down ink fountain assembly
- Safety guards totally covering ink and dampening rollers
- Oil bath main helical drive gears
- Pneumatic form rollers
- Motorized compensator
- Pneumatic impression
- Pneumatic web tension (roll under unit only)
- Motor driven ink fountain rollers
- Motor driven dampener pan rollers
- Motor driven spiral brush dampener
- One-way (non-contaminating) water system
- Bearers on blanket cylinders
- Running sidelay register control all plates
- Running circumferential register control all plates
- Running plate skewing register control all plates
- Air circulation cooling system including blower
- Dampener volume (zone) control adjustments every 1-1/4" across the plate

OPTIONAL

- Quick lock reel shaft chucks or air shafts
- Spray bar systems
- Mechanical & electrical spare parts kits
- Narrow gap blanket lockups
- Double ended plate bender
- Pin register system
- Motorized ink keys
- 40 Hp independent or digital drive
- Jack shaft assembly
- Connecting parts for UV curing lamps
- Double oscillators



DOUBLE OSCILLATORS



DRIVE



INK LEVERS



(253) 620-4747





Complete Press Lines





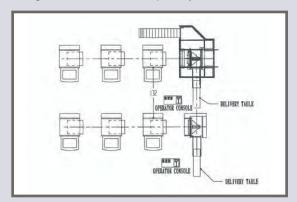








Quad-Stack and UPM units combined with WPC folder technology provide a modern answer for small to medium newspaper printers. Combined with UV lamps, commercial printers can also take advantage of Quad-Stack quality and color.



FOR SPEED WITH FLEXIBILITY

TWINNED / DUAL QUAD-STACK LINES

WHEN "TWINNED"

- 30,000 IPH
- Larger publications
- Section flexibility (when more units are in each line)
- Lines can be used

Advantage:

Ability to accept print jobs from a wider variety of publications

WHEN "DUAL"

- 60,000 IPH (both lines running)
- Smaller publications / inserts
- Peace of mind due to greatly reduced risk of total down time.
 (2nd line available during maintenance periods)

Advantage:

Faster production with greater flexibility at much less cost than a competitive higher speed press



With the help of either AC vector

drives (which allow for shaftless

connections), or specifically

designed connecting parts, over

currently in production are

presslines. Print shops with low

ceiling height can now expand their color capacity without the

extra expense of relocation or

on

50%

running

of

building remodel.

the Quad-Stacks

"competitive"

Add-On Color Units







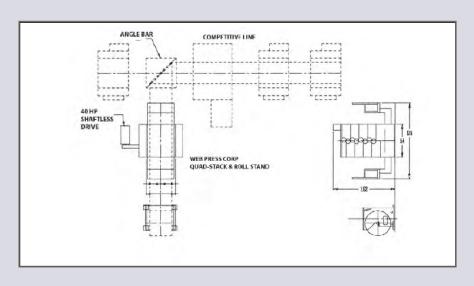




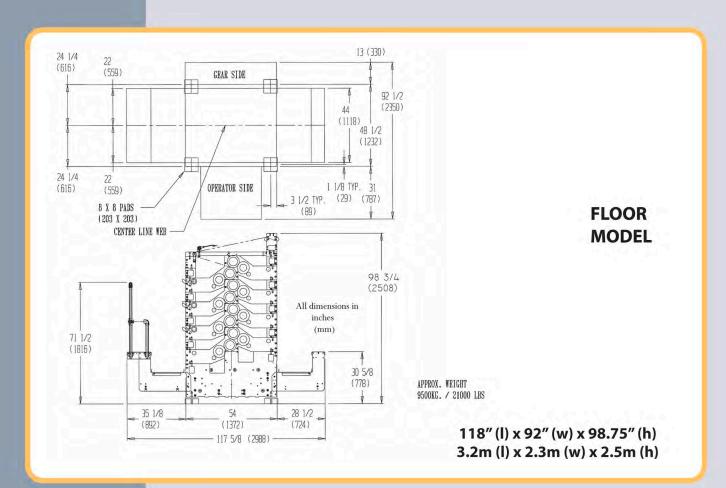
EASILY MERGES WITH MOST SINGLE WIDTH ONE AROUND:

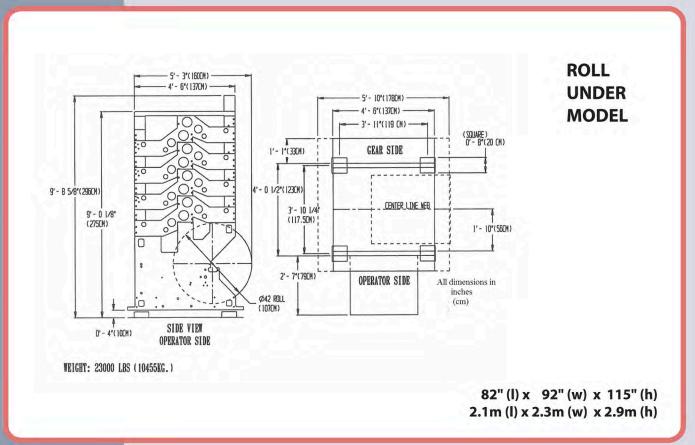
GOSS HARRIS KING DGM SOLNA

CHECK WITH A SALES REPRESENTATIVE TO CONFIRM COMPATIBILITY WITH YOUR MAKE & MODEL



The Quad-Stack is most commonly placed at the end of a pressline or next to the folder. But it can also be added perpendicular to the folder using angle bars to bring the webs in line with the folder.





SPECIFICATIONS

Standard specifications below are for two common cut-off sizes for this category of press. Other cut-offs may be available. Contact the corporate office for details.

	22 ¾" / 578mm (Nomi		lominal cut-off) 21	inal cut-off) 21 ½" / 548mm	
	Imperial	Metric	: Imperial	Metric	
Max. fu ll width web	36"	914mm	36"	914mm	
Min. fu ll width web	18"	457mm	18"	457mm	
Nominal cutoff	22-3/4"	578.5mm		548mm	
Image Length**	21-3/4"	552mm	20-1/2"	523mm	
**Optional narrow gap	22-1/4"	568mm		533mm	
Plate gap	3/16"	4.76mm		4.76mm	
Plate size	24" x 36"	610 x 914mm	22-3/4" x 36"	578 x 914mm	
Plate thickness	.009"	0.22mm		0.22mm	
Blanket size	24-1/2 x 36"	622 x 914mm	23-1/4" x 36"	590 x 914mm	
Blanket thickness	.065"	1.65mm		1.65mm	
1 st Ink form roll	2-1/2"	63mm	2-1/2"	63mm	
2 nd Ink form roll	2-7/8"	73mm		73mm	
Ink Fountain Capacity	12 l b.	5.5 kg	12 l b.	5.5 kg	
Running register ranges					
Side lay both sides	+/150"	+/-3.8mm	•	+/-3.8mm	
Circumferential both sides	+/100"	+/-2.54mm	+/100"	+/-2.54mm	
Skewing both sides	+/012"	+/304mm		+/304mm	
Paper roll sidelay both sides	+/5"	+/-13mm		+/-13mm	
Weight standard	21,000 l b.	10,000 kg		. •	
Weight Ro ll under	23,000 lb.	10,900 kg	23,000 lb.	10,900 kg	



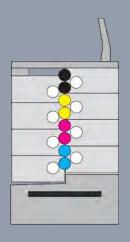
2-WEB QUAD-STACK MODELS:

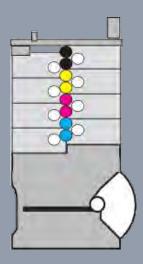
The basic Quad-Stack model is designed to run ONE (1) web from bottom to top leaving up to four color impressions on each side of the web. It is possible to order a model with a spacer between two of the UPM decks which allows TWO (2) webs to run through the Quad-Stack giving 2 over 2 color on each of 2 webs.

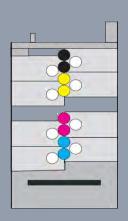
Please contact us for more information if you are interested in running 2 webs through a Quad-Stack.

UNIVERSAL PRINTING MODULES

UPM's, available in a variety of configurations, use the same specifications as listed, dependent upon cut-off size.







TM

HISTORY OF THE QUAD-STACK

The history of the printing press began with Gutenberg's invention and remained pretty much the same continuing through the letter presses of the 1950s. Then (thanks to the advent of "offsetting") newspaper, magazine and book printers began switching to single color web offset printing presses that used photographic methods for preparing the print image.

Thus began the industry of manufacturing web offset printing press, of which WebPress is proud to be one of the leaders.

By putting four of these single color units in succession and printing a different color on each unit, the printer was able to achieve marginally acceptable full color printing, but only at a high cost in paper waste, pressroom space and manpower. And still (because of lateral paper stretch between colors, known as "fan out" in the printing industry) this method has been unable to accurately register all four colors.

In the early 1970s WebPress saw a solution to this register accuracy / space / man power problem and developed a four-color satellite unit that printed four colors on one side of the paper. During the last 30 years, WebPress has sold its "Quadra Color" unit through out the world, partially satisfying the printer's need for quality four-color print with unchanging, accurate color register.

Today the market is once again undergoing a major change. The readers, advertisers and newspaper publishers are demanding full color on more pages. Previously, four-color printing was a marginally cost effective endeavor. Now, however, with recent improvements in desktop computer typesetting, page make-up and full-color pictures, the pre-press costs of quality four-color have precipitously fallen to the point of being less costly than was previously possible with black and white. The only missing piece was an economical four-color printing unit.

Once again WebPress used innovation to meet the challenge of this changing four color demand. The design parameters were quite clear; their new design must embrace quality printing, extremely accurate color register without paper stretch between colors, and it must print simultaneously on both sides of the paper. Thus came about the development of a unique back-to-back four color web offset printing unit which had been field tested for over five years that WebPress has named the "Quad-Stack'™. This name sets the Quad-Stack'™ apart from the other manufacturer's "4-highs", which are simply four separate single color units placed one on top of the other. 4-highs stand some fifteen to eighteen feet tall, require elevated operator walkways, built in stairways and require electronic image position sensing and repositioning devices in order to maintain only mediocre color register.

By contrast, the Quad-Stack™ is one single printing unit that prints four colors on both sides of the paper in one pass. It owes its extraordinary color register abilities to the fact that once it captures the paper in the print train, the paper is not released until the full color printing cycle is totally completed. The Quad-Stack™ configuration precludes register change due to paper stretch between color units.

Because of the Quad-Stack's low profile (less than half the height of a 4-high), elevated walkways and remote controlled registering devices are not needed. When these savings are added with the savings of not needing electronic register compensating devices and the probable cost of a new building with 20 ft. high ceilings, it is easy to see why the Quad-Stack has a considerable price advantage over 4-highs.

The Quad-Stack™ style printing unit is predicted to become the design standard of the future for the printing of newspapers, magazines and books. It is the plan of Web Press's management to use its established world wide distribution network to take the Quad-Stack™ to the world market. If the current customer reaction is any indication of what will be, within the near future WebPress will become a world leader in four-color web offset printing press manufacturing.



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