

QUANTUM

IDEAL FOR THE FOLLOWING APPLICATIONS:

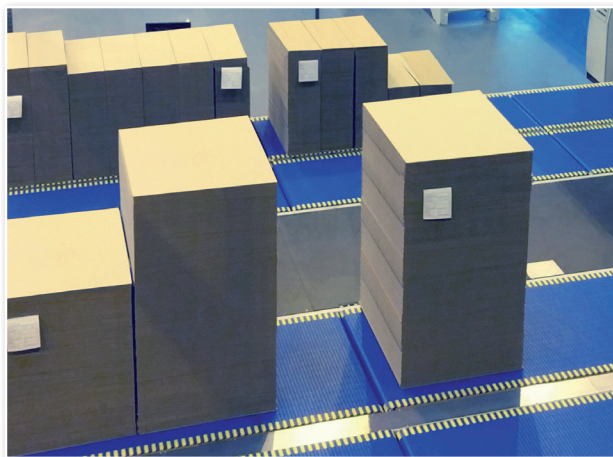
- Corrugated board for highest post-print digital, flexo and lithographic applications, in every flute type
- Corrugated board with the highest strength characteristics for any given combination of papers
- Production of corrugated board with very low paper weights
- PrePrint - Quality is preserved via low temperature and pressure processes
- Production of corrugated board with coated liners (eg. PE, PET, clay coated, silver - gold coatings)
- Fine flute sheets for direct offset printing applications
- High quality fine flute boards can substitute for solid fiber products (with 25-30% less paper)



QUANTUM

Flat stacks created with only 3 operators
running at speeds up to 1148 ft/min (350 m/min).

B-flute



N-flute

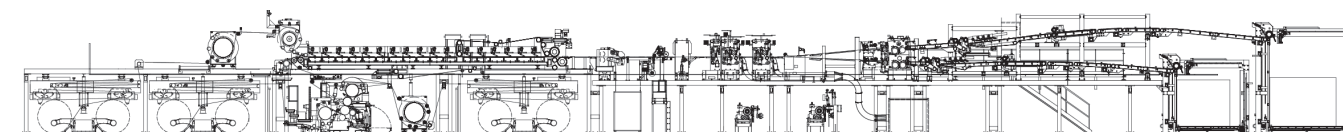


QUANTUM - IDEAL MACHINE FOR THE FOLLOWING USERS:

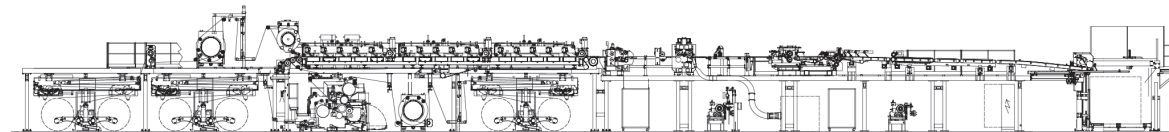
- Print houses - diversification/completeness of product ranges
- Sheet feeders - high quality sheets in all flutes and paper combinations
- Corrugated plants - a more diverse mix of high quality products
- Converting plants - become independent of sheet suppliers

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QUANTUM TECHNICAL SPECIFICATIONS



Single wall corrugating line / double stacker



Single wall corrugating line / single stacker

QUANTUM

Design speed :	1148 ft/min	350 m/min
Working width :	51-98 in	1300-2500 mm
Total length of the machine :	from 164 ft	from 50 mt
Maximum sheet length :	to order	to order
Minimum sheet length :	21.7 in	550 mm
Minimum working width :	27.6 in	700 mm
Maximum paper roll diameter :	59.8 in	1520 mm
Minimum paper roll diameter :	13.8 in	350 mm
Core diameter :	3 or 4 in (to order)	75 or 100 mm (to order)
Number of out :	tbd	tbd
Type of slitting :	no lip / clean cut	no lip / clean cut
Number of scorers :	tbd	tbd
Maximum stack height :	78.7 in	2000 mm
Medium paper :	8 – 32 lbs/mfs	40 – 160 gr/m ²
Inner liner :	8 – 41 lbs/mfs	40 – 200 gr/m ²
Outer liner :	8 – 41 lbs/mfs	40 – 200 gr/m ²
Glue type :	starch based	starch based
Steam boiler required :	from 4,409 lbs/hour	from 2000 kg/hour
Steam consumption :	397-441 lbs steam/ton of board	180-200 kg steam/metric ton of board
Installed electrical power :	from 300 KVA	from 300 KVA
Average power consumption :	from 140 KW	from 140 KW
Color :	RAL 7035 white grey	RAL 7035 white grey

We reserve the right to change the technical data and illustrations

QUANTUM
CORRUGATING, LLC

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BRIVIO PIERINO GROUP
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CORRUGATING MACHINERY

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REPRESENTED BY QUANTUM CORRUGATING, LLC



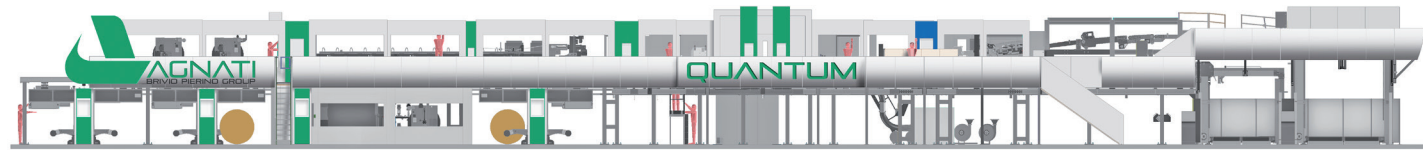
- HIGHEST MAINTAINED BOARD QUALITY
- OPTIMUM BOARD FLATNESS WITH ALL FLUTES
- BEST BOARD FOR OFFSET AND DIGITAL PRINT
- PERFECT BOARD QUALITY EVEN WITH LIGHT PAPERS



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GREAT FLEXIBILITY



QUANTUM corrugator can be used for all kinds of corrugated board production, including options for, single face and double wall.

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QUANTUM excels particularly in applications where traditional corrugators have limitations in productivity, quality and waste (eg. production of micro-flute sheets, direct offset printing on corrugated and the use of light papers).

Other fields of application include the production of corrugated board with the highest strength, when using recycled papers, for direct print flexography, high print fidelity with all flute types, and with preprinted and coated liners (PE, PET, clay coated, silver or gold coatings).

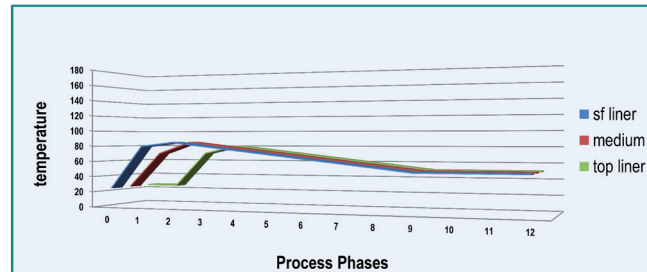
To achieve the above, Agnati has completely redesigned the corrugator.

In the **QUANTUM** machine, formation of the single face web and the application of the external liner are achieved virtually at the same time, in only one thermal cycle.

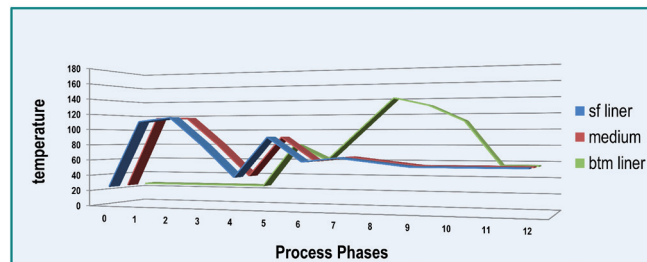
Uniform cross-machine caliper is achieved with optimized corrugator roll labyrinth and a non metallic pressure roll. Criticality important in micro-flute post printing.

QUANTUM corrugating is a unique single application, low temperature, combining process. Formation of the single face web and application of the outer liner are achieved in one thermal cycle.

Quantum Thermal Cycle



Conventional Corrugator Thermal Cycle



QUANTUM, with its low temperature single thermal cycle, does not stress papers in the combining process, resulting in far superior board quality.

- Higher rigidity and mechanical strength
- Flat without typical washboarding
- No-lip cut edges
- Superior printing surface, both sides, suitable for Lithography, Flexography and Digital

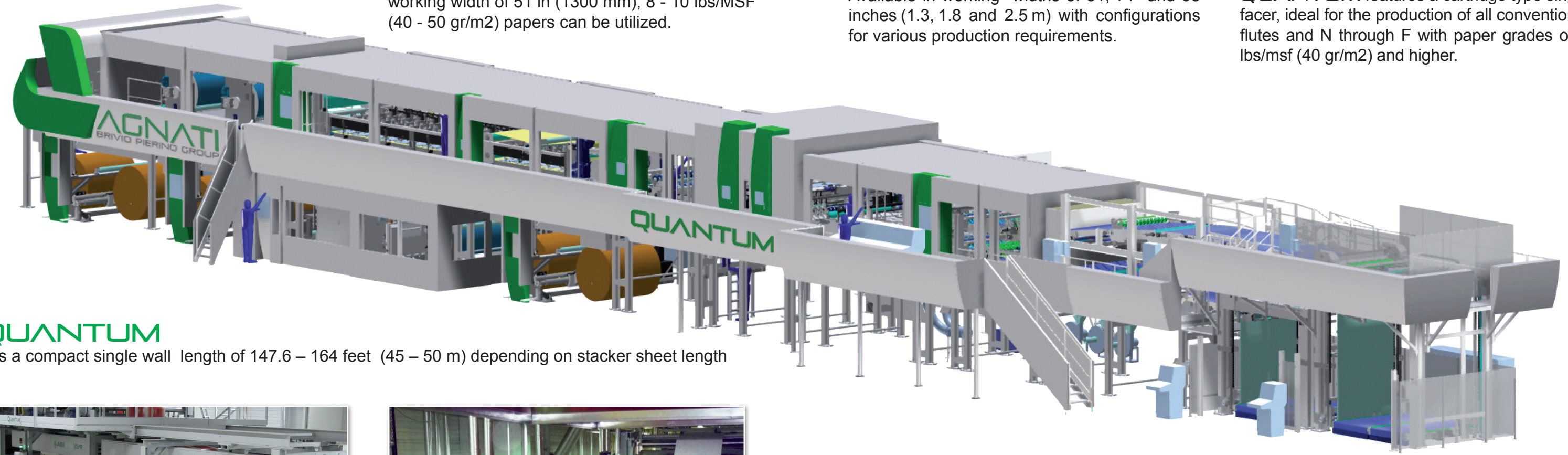
QUANTUM

A SIGNIFICANT DEVELOPMENT IN CORRUGATING

Thanks to its unique technical features and compact dimensions, **QUANTUM** can be used advantageously for all standard single wall corrugated board applications.

QUANTUM Requires Less: Space, Energy, Civil Engineering and Manpower than a Conventional Corrugator.

QUANTUM will run 12 lbs/MSF (60 gr/m²) grade paper. 'Note-When' configured to run N-flute with a different double facer, dry end and a working width of 51 in (1300 mm), 8 - 10 lbs/MSF (40 - 50 gr/m²) papers can be utilized.

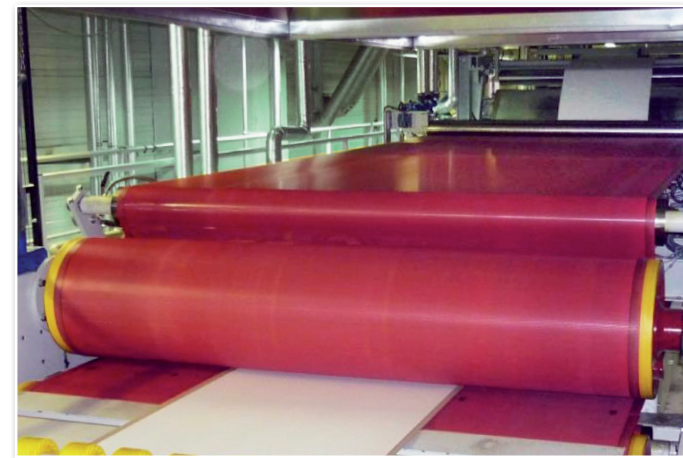


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has a compact single wall length of 147.6 – 164 feet (45 – 50 m) depending on stacker sheet length



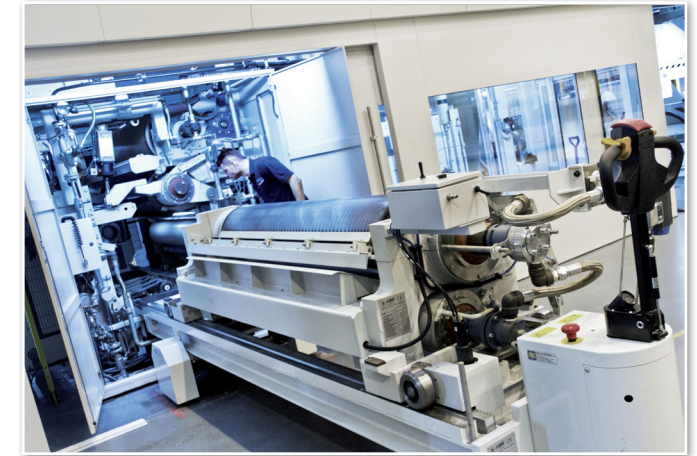
The double back liner is applied to the flutes-up singleface web, eliminating moving contact with stationary hot plates.



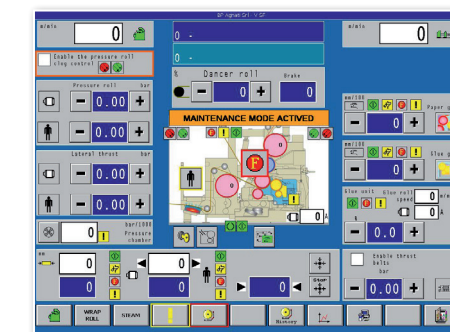
Board is transported and cured between top and bottom belts and upper and lower heating sections.



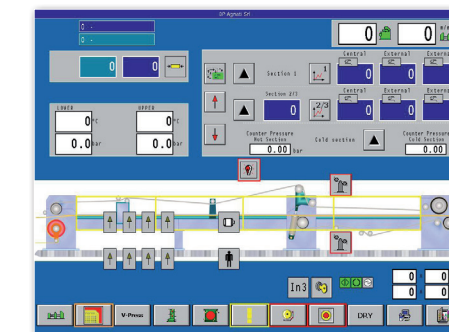
Available in working widths of 51, 71 and 98 inches (1.3, 1.8 and 2.5 m) with configurations for various production requirements.



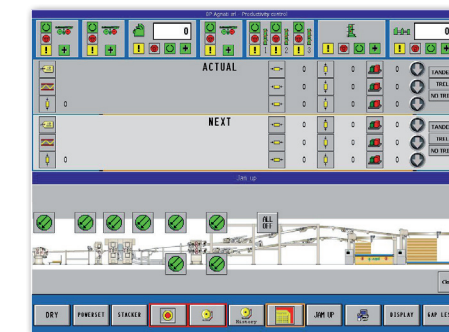
QUANTUM features a cartridge type single facer, ideal for the production of all conventional flutes and N through F with paper grades of 8 lbs/msf (40 gr/m²) and higher.



Control systems cover the entire production process and increase profitability by achieving significant energy savings, greater efficiency, and productivity.



QUANTUM operating systems were created for precise control through every stage of the corrugating process.



State of the art hardware and software were developed in concert to ensure the **QUANTUM** remains in the forefront of corrugating.

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