# Samplemaking and short-run production tables

The Kongsberg XL-Series





# Kongsberg XL-Series Record-breaking productivity and versatility

The Kongsberg XL-Series of die-less cutting and creasing tables for packaging applications are the benchmark in their kind for reliability and productivity. They deliver record-breaking productivity and versatility, resulting from leading edge technology. They are the industry's most cost-effective machines, loaded with unique features that save time and boost sample quality.

Users of the Kongsberg XL-tables can choose from a complete tooling family that enables quality processing of materials ranging from thin cartons to the most demanding heavy-duty materials such as triple-wall corrugated, wood and acrylics. The comprehensive XL tooling family makes the machines configurable to virtually any imaginable need within samplemaking and short-run production.

Not only do the most prestigious names in the corrugated and folding carton industry use the Kongsberg table for their design and small run production work, but many smaller shops have also chosen the table for its magnificent quality and exceptional return on investment. The current Kongsberg XL-Series of cutting and creasing tables is the latest model that keeps with the legacy of record-breaking productivity and versatility.



Awarded by the Norwegian Design Council Award for Design Excellence



## Why the XL-Series is right for you

#### Versatility

The wide range of specialty tools offers speed, power and flexibility to automatically handle a wide variety of materials, such as corrugated, folding carton, solid board, foam, coating blankets, wood and a long list of plastics.

#### Unique functionality

Kongsberg tables are equipped with unique functionality such as:

- Backscore feature cuts and creases materials from both sides, in perfect registration
- Unique PowerHead crease performance: Its large diameter and 50kg of down-pressure provides superior crease quality to heavy-duty materials.

#### Time saving features

- The automatic bar code identification speeds up tool insert changeovers and prevents user error.
- The powerful system for memorizing job setups saves extensive time between jobs, because tooling requires no tuning and optimal run parameters are linked to different material grades.
- The tool head laser pointer ensures fast and accurate registration.
- Camera-based registration system available for fast register of print-to-cut (optional).

#### User-friendliness

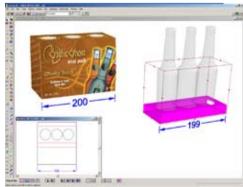
- Unobstructed tabletop access from all sides
- Low noise operation
- Very efficient advanced dynamic safety system complies with international regulations





# Integration with ArtiosCAD: unsurpassed CAD/CAM teamwork

Designers combining the power of ArtiosCAD, the leading choice in structural design software for packaging, with the Kongsberg XL table, will discover its uncompromising efficiency and quality output. This integrated CAD/CAM solution assures a minimum of time is spent on preparing table output. In the background the table runs ArtiosCAD, which makes more information instantly available to the table operator and ensures that line types and CAD functions are correctly handled by the table control software. Among several other strong features, the table can open and work directly on CAD files, without needing a special vector file for table output.



ArtiosCAD: the number 1 software for structural design

### Comprehensive tooling

In order to fulfill requirements from the full spectrum of customers and applications the Kongsberg XL-tables offer a broad selection of different tool heads and tool inserts, providing quality solutions to an unsurpassed range of cutting, creasing, milling and plotting tasks.

#### Heavy-duty material

The PowerHead option ensures superior performance on double wall, triple wall and recycled board. It features 150mm (6") diameter crease wheels and additional scoring pressure. For work with small-flute corrugated – or even folding cartons – 'normal' sized crease wheels can be used with an optional adapter in the heavy-duty crease position. This combination is especially helpful in eliminating the 'memory' of plastic material.





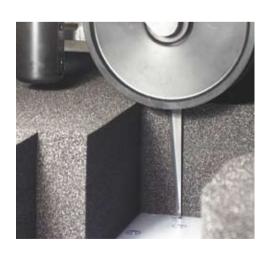
The crease wheel easily interchanges with a V-notch cutting tool, for miter cuts in triple wall corrugated.

#### Foam

The FoamHead handles many types of foam and honeycomb paperboard up to 86mm (3 3/8") thick, used for inner packaging and cushioning. Reasonably complicated foam designs can be completed in just a fraction of the time required for the job to be done manually.

Many Kongsberg tables with the foam cutting solution are even used in small-run production of foam pieces.

Foam up to about 30mm (1 1/4") thick can be cut with the reciprocating FoamKnife, an insert for the FlexiHead or PowerHead.

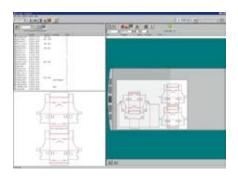


#### Folding carton

The Kongsberg XL-Series provides excellent functionality for high-quality folding carton work, just by loading the tool head with appropriate inserts. Specially designed knife and crease tool inserts are available to produce folding cartons with the same high throughput as corrugated jobs.

Making folding carton crease matrices out of wooden chipboard produces sharper creases and is faster, because the crease channels do not require manual peeling afterwards. To produce the chipboard matrices for folding carton samplemaking the FlexiHead-M offers a milling tool in addition to the three tools provided with the standard FlexiHead. The milling tool has an automatic dust suction system and a digital micrometer for fine-tuning of routing depth.

The FlexiHead-M is also efficient for light-duty routing and engraving, such as milling crease grooves in clear plastic samples.





#### Display and signage material

The MultiCUT toolhead combines all the tool insert options of the FlexiHead with a high-power milling spindle, effectively creating the most versatile solution for POP display makers and sign producers who need to process material ranging from corrugated and carton board to rigid materials such as plastics, wood and acrylics.

The MultiCUT milling spindle offers 1kW of milling power and adjustable spindle speeds up to 60,000 RPM. It allows for milling, contour cutting, routing, drilling and engraving directly from CAD designs. Matched with the heavy-duty construction and the sophisticated Z-axis control of the XL-tables, the spindle delivers high-quality output at an impressive throughput rate – making the MultiCUT a great tool for real production work. The MultiCUT toolhead comes with an efficient chip suction system, tool-free bit exchange, and milling bit air cooling for exceptional results on acrylics and other synthetic materials.



### The Control System: easy to use and service

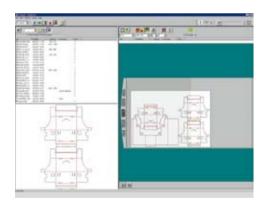
The XL control system consists of a PC for operator communication, plus several single-board computer control units. These control units are placed all along the machine, located close to components that need to be controlled – such as the toolhead, the servo system and the operator panel. Although the control units run different software modules, they are identical and interchangeable, simplifying replacement of spare parts. The use of control units enables the majority of the table's control signals to run over a single network cable, significantly reducing the amount of cabling, and minimizing the problem of cables that constantly flex – typically a weak spot in any moving machinery. The PC, installed on a height-adjustable table stand, runs the Kongsberg table's graphical user interface, XL-Guide.



# XL-Guide: simple and powerful user interface

XL-Guide is a highly intuitive graphical user interface that offers a long list of useful and time saving features:

- Superior job preview functions
- Job layout function to fill a large sheet with different designs
- Powerful system memorizes optimal operating parameters for each different material type.
- On-line help system offers assistance with context-sensitive searches.
- Simplified tuning and setup procedures, thanks to "wizard" dialogs and an exclusive laser pointer integrated in every tool head.
- The 1-2-3 Box: Direct access to the ArtiosCAD design library from the table front end, enabling simple resizing of a standard design and instant generation of a job file. Ideal for making a customized shipping box in a hurry! (Optional function)



XL-Guide: highly intuitive graphical user interface

# XL-Series: a table for every need

The Kongsberg XL-Series of tables is available in a wide range of sizes matching the broadest possible range of applications. Table sizes range from the XL20 (1680  $\times$  1270 mm or 66  $\times$  50'') up to the large XL48 (2210  $\times$  6650 mm or 87  $\times$  258'').

Thanks to the modular construction of the XL40 Series, this table can be extended in the field. This means that i.e. the XL42, XL44 and XL46 can be expanded to the next size just by adding another table section, if requirements change.

#### Technical specifications

		XL20	XL22	XL24 (M)	XL42	XL44	XL46	XL48
Work area	mm inch	1680 x 1270 66 x 50	1680 x 2190 66 x 86	1680 x 3050 66 x 120	2210 x 1270 87 x 50	2210 x 3050 87 x 120	2210 x 4800 87 x 189	2210 x 6550 87 x 258
Work area PowerHead (all 3 tools)	mm inch	1618 x 1270 63.7 x 50	1618 x 2190 63.7 x 86	1618 x 3050 63.7 x 120	2148 x 1270 84.6 x 50"	2148 x 3050 84.6 x 120	2148 x 4800 84.6 x 189"	2148 x 6550 84.6 x 258
Max. sheet size	mm inch	1750 x 1620 69 x 64	1750 x 2580 69 x 102	1750 x 3420 69 x 135	2280 x 1680 90 x 66	2280 x 3420 90 x 135	2280 x 5190 90 x 205	2280 x 6960 90 x 275
Overall dimensions (1)	mm inch	2250 x 1980 89 x 78	2250 x 2860 89 x 113	2250 x 3720 89 x 146	2780 x 1956 109 x 77	2780 x 3730 109 x 147	2780 x 5500 109 x 217	2780 x 7270 109 x 263
Weight	kg lbs.	405 890	475 1045	580 1276	440 968	765 1683	1100 2420	1435 3157
Position accuracy (2)		± 200 μm ± .0078"			± 250 µm ± .0098"	± 300 µm ± .178"	± 350 µm ± .014"	± 350 µm ± .014"
Repeatability		± 50 µm - ± .0019"			± 60 µm - ± .0023"			
Maximum speed		50 m/min - 33 IPS						
Max. acceleration (3)		5.6m/s² - 0.56G			5.4m/s² - 0.54G			
Field upgradeable to		XL24M	-	-	XL44, 46, 48	XL46, XL48	XL48	-
Standard material clearance (4)		30mm - 1 <sup>3</sup> / <sub>16</sub> "			50mm - 2"			
Optional material clearance (4)		50 mm - 2" or 95 mm - 3 ¾"			95 mm – 3 ¾"			
Vertical tool force		Standard tool stations: 220 N. PowerHead crease station: 500 N						
Material registration brackets		Included. Enables cut, crease and plot operations on both sides of the material.  The brackets are positioned at the front and rear right corner of the machine						
Operator safety		The DynaGuard Safety System protects the operator and bystanders from potential machine hazards. In addition the machine is equipped with an emergency stop button and a warning light, which is lit as long as the servos are powered.						

<sup>(1)</sup> Safety system may add to overall dimensions.

<sup>(2)</sup> Applies across total work area, with standard material clearance.

<sup>(3)</sup> May be less with certain tool- and configuration combinations.

<sup>(4)</sup> Measured without cutting underlay.

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