Technical features

	C250/LG	C600	C600hp	C600denim	C800
Power supply	19kw	20kw	22kw	22kw	22kw
Average consumption	6-7kw	7-8kw	7-8kw	8-9kw	8-9kw

	FLEXO 180x175	FLEXO 180x210	FLEXO 210x175	FLEXO 210x210	FLEXO 225x175	FLEXO 225x210	FLEXO 240x175
Effective cutting width	1,80 m	1,80 m	2,10 m	2,10 m	2,25 m	2,25 m	2,40 m
Effective cutting length	1,75 m	2,10 m	1,75 m	2,10 m	1,75 m	2,10 m	1,75 m
Overall width A	2,80 m	2,80 m	3,00 m	3,00 m	3,15 m	3,15 m	3,30 m
Overall length B ①	3,90 m	4,40 m	3,90 m	4,40 m	3,90 m	4,40 m	3,90 m
Overall lenght B ②	4,40 m	4,80 m	4,40 m	4,80 m	4,40 m	4,80 m	4,40 m

① Unloading table 150

② Unloading table 200

Electric requirements: three phases+Neutral 400V 50Hz+/- 10%
Compressed air: Consumption 150 l/m 6BAR
Working temperature: from +10°C to +45°C | **Humidity:** from 30% to 80%.
Rumorosity: <75dbA | **Accelerations:** 0,5g | **Cutting speed (maximum):** 60m/min

SPEED: drastic reduction of production time and costs per part cut.
QUALITY: high precision and accuracy for cutting with zero buffer.
ADVANTAGES: maximum productivity, lowest running costs, increase of the profits and quick return of investment.
FLEXIBILITY: powerful software for easy and direct reading of any cut file ISO6983AAMA and fast and dynamic parameters editing during cutting process.
RELIABILITY: after sales, qualified and dedicated technical service support with long time experience.

ROBOT FLEXO: A COMBINATION OF INNOVATIVE TECHNOLOGY PATENT NR. 405878, 2527104
The full stand-alone cutting beam Robot FLEXO, built in strong and light mechanics, is equipped with an innovative cutting head and a powerful CNC control for the fastest response of all advanced electronic devices and an accurate control of the brushless servo motors of last generation. While beam moves along longitudinal axe, cutting head moves simultaneously along transversal axe: software and electronic hardware interact with mechanics creating a fast dynamic concordant and precise movement. High frequency oscillating knife plunges and moves inside the fabric for best accurate cutting. The Robot FLEXO is provided with 2 touch screen control panels (one on each side - 2° is optional) to make very easy and intuitive the use of the cutter machine and give full control at the operator ■

INTEGRATED TECHNOLOGY
The Robot FLEXO is installed over the Conveyor Cutting Machine, a stand-alone cutting unit with intelligent management of all the servo motors and electronic devices. The electronic control of Robot FLEXO adjusts cutting speed and knife trajectory according to the shape of patterns for the most accurate cutting precision at high speed even with zero buffer between figures. Using the latest electronic and mechanical technologies makes the Orox iCut a versatile machine, the ideal choice for apparel industry, upholstery furniture, automotive interiors, nautical and any other application for fabric cutting with mechanical knife ■

A PERFECT SEALING OF THE FABRIC
The cutting conveyor surface is made of a multitude of flexible and compact long-life bristles QUAD MULTIAGHI, designed to strongly sustain the layer and, at the same time, to let the knife goes easily through them. A patented vacuum canalization distributes the level of vacuum suction through all the cutting table, the porosity of the special bristles QUAD MULTIAGHI allows the vacuum to be much stronger in the cutting area. The technologically advanced device «EVAS» (Electronic Vacuum Sensor) controls the suction by using a sophisticated sensor for detecting and compensating any vacuum loss during the cutting process. «EVAS» continuously and automatically adjusts the power of the vacuum pump to get the proper and perfect suction pressure and firmly sealing the layer over the cutting area. Operator can also control and adjust the amount of suction pressure in every moment of the cutting process, in a very easy way by using the Robot FLEXO touch screen control panel or setting the required vacuum values in the cutting profiles parameters ■

POWER SAFE CONSUMPTION
Having the target to reduce the machine's running and maintenance costs, Orox invested efforts to design an auto-cutter that requires very less energy for operating. On iCut auto-cutter machine, all brushless servo motors are controlled by inverters that guarantee speed, prompt response and efficiency with very less power demand. Moreover, the smart EVAS system uses inverter to digitally control the vacuum suction, modulating the speed of vacuum turbine for using just the necessary electrical power during the cutting process. COVE.D. device helps to reduce after-cutting vacuum leaks by resealing the cutting area for a less vacuum motor power demand ■

SELF-SHARPENING KNIFE
The knife is always perfectly sharpened thanks to an innovative electronically system that controls the knife sharpening angle position and that uses only one grindstone. Operator can also easily modify the sharpening angle for better suits the knife tip with different kind of fabric: resinous fabrics or treated with trimmings and particular dyes, fabrics with inserts of metallic threads, etc. The knife wear is automatically calculated, the knife lasts for a longer time and the cut is always precise ■

ACCURATE AND CLEAN ZERO BUFFER CUTTING
The orthogonality of the knife to the cutting table is guaranteed by strong roller guides on each side of the knife, by reinforced bowl and by multi-points knife guide. The cutting speed and knife trajectory is software full controlled to ensure an uniformity of dimensional precision between top and bottom ply even with hard materials as Denim. As a powerful add-on, the electronic device «FLESE» (flexion sensor) can sense the knife deflection and quickly compensate the knife angle, for making possible the cut of high ply hard fabric mattress at high speed with no compromise on quality ■

A STYLISH AND PRACTICAL UNLOADING TABLE
The unloading conveyor is made of a clean and stylish rubber belt that facilitates the picking up and bundling of the cut pieces, leaving the selvedge to fall in proper collecting bin. The unloading conveyor is automatically synchronized with the cutting conveyor, but operator can also move it separately even during cutting process for quickly collecting all the cut pieces ■

CUTTING TIME SAVING
iCut is one of the fastest multi-ply auto-cutters moving at 2 m/s (maximum speed). As a standard equipment, iCut have the «RIVER CUT SYSTEM»: while conveyor moves for biting the fabric, the FLEXO Robot cuts without interruption. «RIVER CUT SYSTEM» reduces the cutting time up to 15%, increasing the overall productivity of the iCut auto-cutter machine ■

ALARMS DETECTION AND AUTO-DIAGNOSIS SYSTEM
Every device of iCut is continuously monitored and when any anomaly is detected, a message is displayed on computer screen and on operator control panel, for a prompt solution and a quick resume of the cutting process. Remote connection with Orox customer service is also always available ■

AllCut X18

The integrated software to run the automatic cutter

DEVELOPED IN «WINDOWS» ENVIRONMENT, IT ALLOWS TO MANAGE **ALL CUT DATA**.
A **USER-FRIENDLY** GRAPHIC INTERFACE AND **EASY-TO-USE CONCEPT**
MAKE POSSIBLE ALSO **NON-SKILLED OPERATORS** TO RUN THE ICUT AUTO-CUTTER

Features

- Optimization of cut files, pattern start point, cut sequence and common lines management
- Change of notches size and type: «I »notch, internal «V», external «V»
- Zero buffer cutting
- Dynamic speed control and best knife direction on nearby lines
- Automatic overspeed on easy patterns
- Preview of the cutting sequences and cutting simulation by laser spot of any figure
- Automatic generation of selvedge cuts to facilitate the collecting and bundling procedure
- Start cutting from any pattern of the cut file
- Joint of multiple cut files
- Automatic calculation of layer's slope
- Easy recovering and resuming of cutting process after power blackout
- Automatic speed control and priority cut on small figures
- Real time display of knife life, with warning for knife replacement
- Automatic symmetrical figures detection for «butterfly» cut
- «VASH» : Intelligent self-sharpening knife system with variable sharpening angle
- On screen display of every cut file information and details, including text for size detection
- Predictive Maintenance table with duties and elapsed time from last service, designed to drive down the risk of machine downtime and stoppage
- Alarms self-detection and proactive data-driven diagnostics and recommendation on the appropriate course of action
- Detailed cutting report with MS Excel and Open Office output file format
- Cut of a selected single figure
- Collimation point given on a selected figure
- Remove selected figures from cutting sequence
- Repeat cut on selected figure
- 3 families of customizable parameters profiles (up to 20 for each one)
  • Cut elaboration • Cut execution • Cutdata geometry

Optional

«Q-CUT» CREATE AND EDIT A CUT QUEUE, FEATURING:

- Customizable parameters for every cut file
- Select and change the cutting order at any time

TOOLBOX FOR CUT FILE EDITING (BEFORE STARTING AND EVEN DURING CUTTING), FEATURING:

- Delete figure / Move figure
- Copy figure
- Delete drill mark
- Delete slit notch
- Delete cut lines
- Change figure cutting direction
- Selecting of figure start point
- Figure points elaboration for curves smoothing
- Selecting forced Lift & Plunge on a point

OROX
CUTTING SOLUTIONS

THE FUTURE IS...

iCut

robot / cutting machine
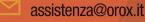CAD/CAM systems

High technology on cutting fabrics
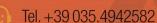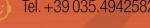
iCut robot / cutting machine

STANDARD
RIVER
Continuous cut ststem
The new era of fabric-cutting solution gives a boost to overall productivity, reducing cutting times up to 15% ■

STANDARD
SPEED = 2m/s!
The most advanced driving motors combined with an innovative axes control system brings to speed and acceleration never seen before ■

STANDARD
DIGITAL PLATE
Electronically controlled plate pressure for easy setting and customizable for each cutting profile ■

STANDARD
VACUUM
Customizable suction settings in multiple cutting profiles to get the perfect sealing of the layer in every situation ■

OPTIONAL
ADDITIONAL TOUCH-SCREEN CONTROL PANEL
possibility to install 2° Touch Screen operator panels to control/move/send instruction to the machine from both sides of cutting beam ■

STANDARD
TOUCH SCREEN CONTROL PANEL
The multifunction keypad Operator panel with immediate and intuitive commands which save time and greatly improve the working efficiency ■

OPTIONAL
T.MOV
Lateral movement motorized travel kit
Motorized translation system to move sideways the cutting machine on more spreading tables: the machine keeps cutting even when moving to another spreading table ■

STANDARD
ROBOT FLEXO
The beating heart of the machine
High frequency Oscillating knife, intelligent knife sharpening system with digital control of knife angle, multi-points knife guiding system for extremely accurate cut on zero buffer nestings, electronic control of digital brushless motors for dynamic and quick response and very high reliability
PATENT N° 405878, 2527104 ■

OPTIONAL
AUTOMOTIVE PUNCHING DEVICE
supplementary drill tool to punch holes having up to 25mm diameter ■

iCut

ONOX
CUTTING SOLUTIONS

• ROBOT • MACHINES • CAD/CAM SYSTEMS

Features
Conveyor machine

C250	CUT FROM SINGLE PLY TO 2,5CM COMPRESSED LAYERS
C600	CUT FROM SINGLE PLY TO 6CM COMPRESSED LAYERS
C800	CUT FROM SINGLE PLY TO 8CM COMPRESSED LAYERS
C1000	CUTTING MACHINE DESIGNED FOR KNITTING, TO CUT UP TO 10CM COMPRESSED LAYER
C600 DENIM	HEAVY DUTY CUTTING MACHINE DESIGNED FOR DENIM AND STRONG MATERIALS, TO CUT UP TO 6 CM COMPRESSED LAYERS

- Auto-diagnosis system to identify and give prompt warning in case of alarms
- «EVAS»: electronic Vacuum Sensor system to optimize the suction for firmly sealing the layers using the correct pressure and reducing electric power consumption
- air exhaust with easy removable and cleanable vacuum filter and silencer for low dust emission in the air

High technology on cutting fabrics

- Knife oscillation speed automatically and dynamically controlled according to shape of patterns, for avoiding fabric sticking when cutting material bound with resin
- Digital brushless motors
- Shaft less cutting Robot bridge with two servo motors digitally linked with electric axis - PATENT N°405878, 2527104
- «CLED»: automatic cleaning system of the cutting conveyor bristles
- Drill device with interchangeable drill bits of different size
- Dynamic and automatic knife deflection control (optional)

- Cutting Conveyor and Unloading conveyor automatically synchronized and software controlled with forward and reverse movement
- Unloading conveyor with operator-controlled advance
- «RCS»: River continuous cutting System to cut without interruption as material automatically advance, increasing productivity by up to 15%
- Computer and interactive multi-functions «Touch Screen» on board with graphic user-friendly interface
- 2 Touch screen operator control panels on board (optional)

Optional

EDITCUT	The software to Edit ISO cut files
POST PRINT	Integrated system for printing and sticking labels over the patterns
FLESE	Flexion Sensor knife control device in real time
COLDE	Knife cooling system by frozen air

The attention to the environment and the continuous research on new technologies, brought us to develop innovative solutions for the optimization and reduction of the power consumption ■

ONOX ecology