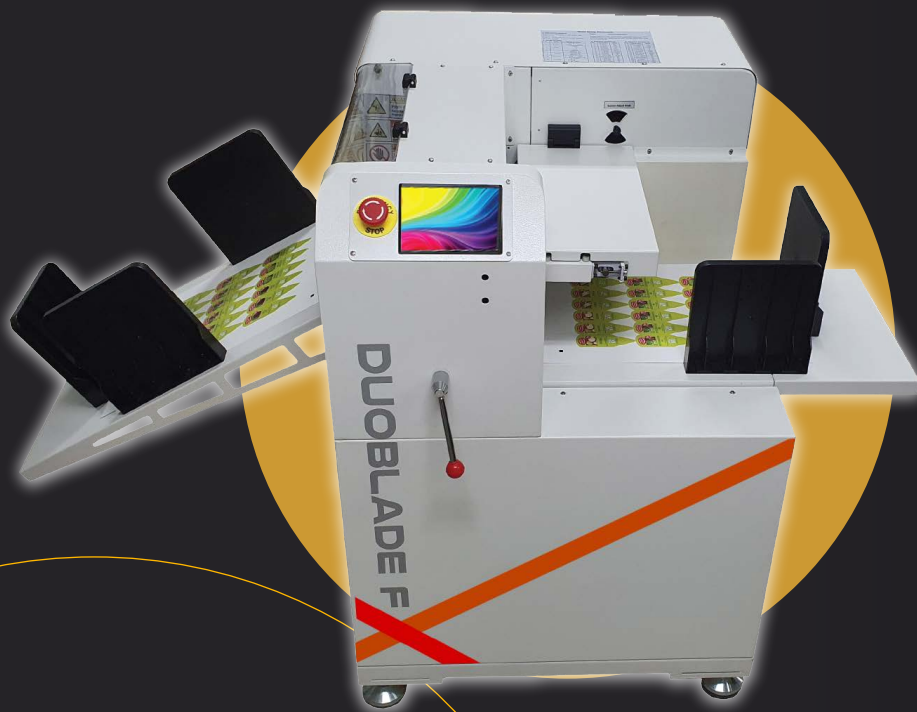# Digital Sheet-Craft Experiencer
DUOBLADE FX

Booting it up and feel dynamic motion in GUI with a sound.
Make your design to be printable with automatic inserting
of marks and QR codes - Cutting files will be synchronized
with the machine in real time, without limitation of numbers.
Hooray, just stack the sheets then it cuts and creases in auto!
It feeds, senses marks, identifies, selects tools, adjusts by itself.
Your stickers, tags, toppers and boxes will be instantly ready.

SHORTCUT FOR DESIGN TO PRODUCT

- ✓ RICH MULTIMEDIA
- ✓ AUTO JOB CHANGE
- ✓ AUTO OPTIMIZATION
- ✓ 1000+ JOB STORAGE
- ✓ FULL/HALF AT ONCE
- ✓ FULL/CREASE AT ONCE
- ✓ 2X SPEED DUAL-HEAD
- ✓ AUTO PREFLIGHT
- ✓ 1000 SHEETS STACK
- ✓ QR/MARK INSERT
- ✓ DASHES AND NICKS
- ✓ BLACK-CUT BACK-CUT
- ✓ WIFI CONNECTION
- ✓ PERFECT-CUT PATENT
- ✓ PREDICT KNIFE LIFE
- ✓ TUNE KNIFE ANGLE
- ✓ TRUE SIMULATION
- ✓ REMOTE CONTROL

Tiny stickers for nail, diary,
notebook or suitcases.
Folding boxes and tags
with creasing or perforation.
Toppers for travels or cakes.
Your creativity comes true...

PERFORMANCE		FUNCTION	
Paper Size	340mm x 630mm	Head	2 tools in double heads
Capacity	200mm thick stack (300KGS)	Tools	Half-cut, Full-cut, Creasing, Pen
Cut file format	Dynamic Velocity Bezier Curve	Full-cut	Yes
Max. Speed	1500mm/s	Cutting Pad	felt
Max. Thickness	350μm (09U knife), 450μm (15U)	Creasing	ball-point pen type
Mark scan time	7 sec	Half+Full cutting	Yes with self-driven 2nd head
Margin Loss	15mm top/bottom,5mm left/right	Full-cut + Crease	Yes
Operation mode	Auto/Manual	Dual Cut (full/half)	Yes with self-driven 2nd head
Job management	Task list (selected) & data list (all)	Dash line	Auto-convertable in S/W
AUTOMATION		Nick for full-cut	Independent setting in S/W
CCD camera	Yes	Dash/Nick driving	Dynamic pressure control
QR code	File name (no limitation)	**QUALITY**	
Variable job	Yes	Accuracy	±0.025mm
Calibration	Automatic by Camera	knife drag angle	forced angle adjustment
Connection	Lan / WIFI	Starting point	knife-angle addaptive position
Data sync with PC	Automatic Synchronization	Marks	4 rectangle marks (4x4mm)
Offline USB data	Yes	Mapping	3D distortion mapping
MECHANICS		Accelleration	Different curve in each segment
X motion	Double full-pressing rollers	Path Optimization	Sequence, Start pt., Orient., Acc.
Y motion	Thick Megadyne belt and pulley	**CONVENIENCE**	
Z motion	Elevator + Static vacuum belt	Preflight	Powerful pre-flight in editor S/W
Airblade blowing	adjustable	Time estimation	Yes
Feeder trigger	adjustable	Job separation	by layer
Vacuum power	adjustable	Lifetime estimation	Auto-tracing of knife lifetime
Paper Jogging	Yes	Embedded help	Embedded Help and Movie guide
Insert Mark/QR	Automatic in Editor program	Self Diagnosis	Yes
Max. Pressure	1000 gf	Correction tray	Foldable, angle adjustable
SPECIAL FEATURE		Camera light	Seamless brightness control
Blank cut	Registration by sensing 4 corners	**INTERFACE**	
Upside-down	N/A	Camera live view	No additional connection
Backside cut	Registration by sensing 4 corners	MMI	Touch Screen (7") + Stereo Sound
Remote control	by PC and Mobile	Movie Player	Movie guides and motion effect
Facing error	Try sensing corners before abort	Virtual Keyboard	Available on LCD
Anti-wrinkle	Belt-backward moving at cutting	GUI Themes	available

* Size and weight : 1080*900*1280mm 1.244 CBM   /   GW: 230 (Approx.) NW: 210 (Approx.)

Valloy's unique patent registered PERFECT-CUT algorithm is world first and best simulation for true path of dragging knife with handling huge data of each segmentized bezier curve and generating dynamic curves of pressure, speed and accelleration in each inflection point at 2048dpi resolution in virtual digital twin.
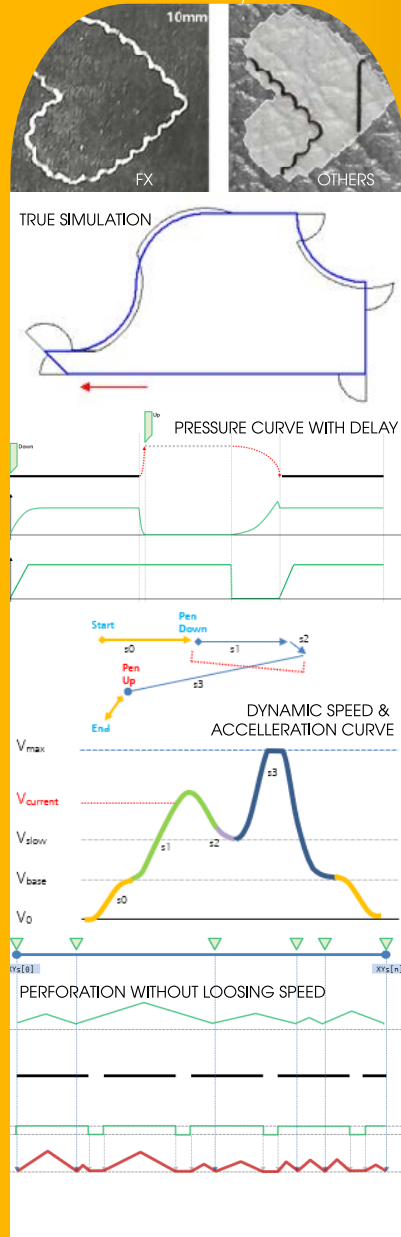
VALLOY

WE COLOR DIGITAL

PERFECTCUT®

Just bring your design PDF and DUOCONV™ software will map layers for different jobs linke fullcut, halfcut, creasing, perforation and pen. Preflight will correct source to generate error-free output.

Print PDF file is generated with QR and marks automatically and cut file is synchronized with the cutter in 50GB storage.

Optimize cutting sequence and it finds where to start cut by analysing current knife angle in each object. If there's no point of the same knife angle in next object, it jumps and drags in blank to adjust angle.

Simply stack your prints then it starts vacuum belt feeding with jogging to prevent jams. Camera scans marks and QR in 6 seconds to start production. Computer inside guarantees the best output by optimizing pressure, speed, knife angle...

There's no mark? Don't worry. It uses paper corners instead. Change tools following the guide message on the screen.

10mm

FX   OTHERS

TRUE SIMULATION

PRESSURE CURVE WITH DELAY

Up
Down

Start
Pen Down
s0
s1
s2
Pen Up
s3
End

DYNAMIC SPEED & ACCELLERATION CURVE

V_{max}
$V_{current}$
V_{slow}
V_{base}
V_0
s0   s1   s2   s3

XYs[0]   XYs[n]

PERFORATION WITHOUT LOOSING SPEED

DUAL HEAD FOR DOUBLE SPEED OR DIFFERENT PROCESSES AT ONCE

WIFI CONNECTION AND RICH GUI WITH MOTION GRAPHICS & SOUNDS

DUOBLADE FX

REMOTE ACCESS AND CONTROL FROM COMPUTER OR MOBILE ANYWHERE ON NET

DUOBLADE FX

Everytime correct, Anytime fast.
It calibrates registration in 3D mapping by 4 marks or corners.
It adjusts optimal setting for the best performance by dual-head.
Find difference in details and expand your expression.

Make your sticker with halfcut inside and fullcut outside without using additional die cut process. Make blank labels accurately without any printing. Make back-scoring for easy-peel labels. Crease deeper. Perforate denser. And feel how easy it can be...

DUOBLADE FX aims to give Fun eXperience in your craft

Contact *Us*