

BROTECH FFX

Brotech



Full Servo Full Sleeve Full Digital Flexographic Printing Machine Presentation



DESIGN GOALS:

FAST CHANGEOVER TIME
FLEXIBILITY

8 colours setup in just over 3 minutes
Labels – Flexible Packaging – Aluminum – Carton

HIGH PRINT QUALITY
HIGHLY PRECISE PRE REGISTER
HIGHLY PRECISE AUTO REGISTER

LOW START UP WASTE
OPERATOR FRIENDLY
HIGH AUTOMATIZATION
AUTOMATIC PRINT PRESSURE
AUTOMATIC INK PRESSURE
OPEN ACCESS

Full register in just 3 print frame
Low waste, low ink usage
AI implemented technology

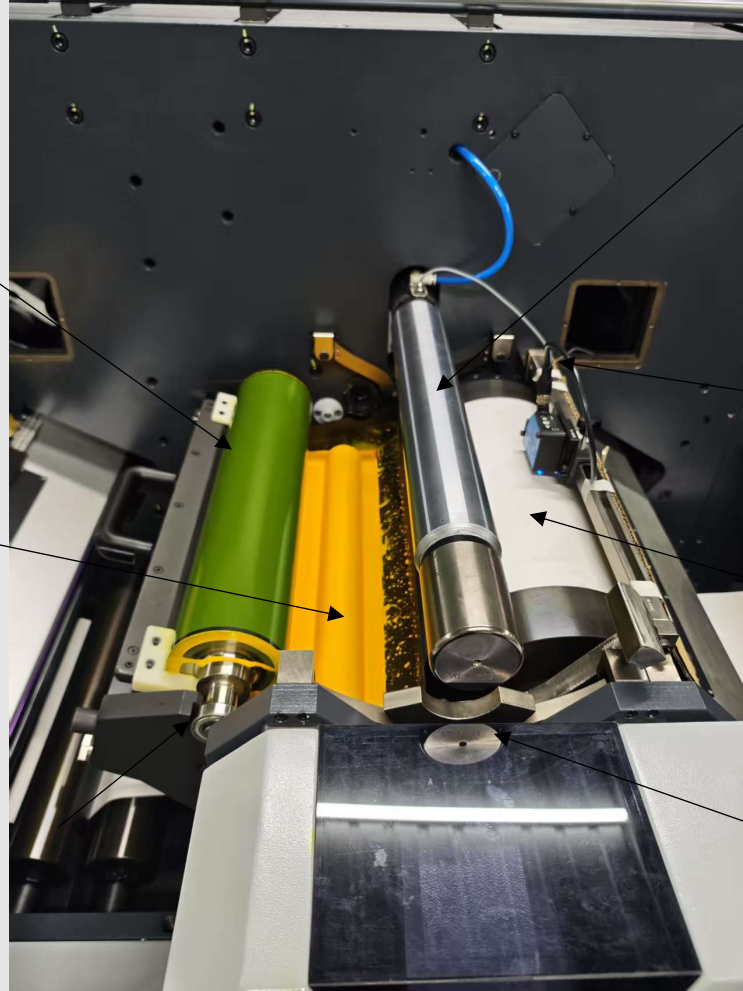
Motorized and recipe storage pressure
Easy adjust, easy access operator friendly

NEW FFX FLEXO MACHINE OPTIONS:

- UNWINDER
- **WEB CLEANER**
- CORONA TREATER
- **DELAM – RELAM**
- TURN BAR
- LAMINATION UNIT
- **COLD FOIL UNIT**
- DOUBLE TRIPLE LABEL UNIT
- **OVERLAP UNIT**
- DIE CUT
- **SEMI ROTARY DIE CUT**
- SUPER STRIP
- **FINAL SHEETER DIE CUT WITH DELIVERY TABLE**
- **UV SYSTEM**
- LED
- **UV SYSTEM WITH INTERCHANGEABLE HOT AIR DRYER**
- HOT AIR DRYING
- **EXTENDED HOT AIR DRYER**
- SLITTING WITH ROTARY BLADES RAZOR BLADES
- **AUTOMATIC SLITTING**
- EASY WASTE
- **BACK SCORER**
- GAP MASTER
- **GAP CONTROL**
- **SINGLE REWINDER**
- DOUBLE REWINDER

PRINTING STATION ELEMENTS

ANILOX
INK PAN
RUBBER ROLLER
MOTORIZED INK PRESSURE
REGULATION



SERVO MOTORIZED
PLATE SLEEVE SHAFT

FOTOCELL FOR REGISTER CONTROL

FREE SPINNING
PRINT CYLINDER

MOTORIZED PRINT PRESSURE
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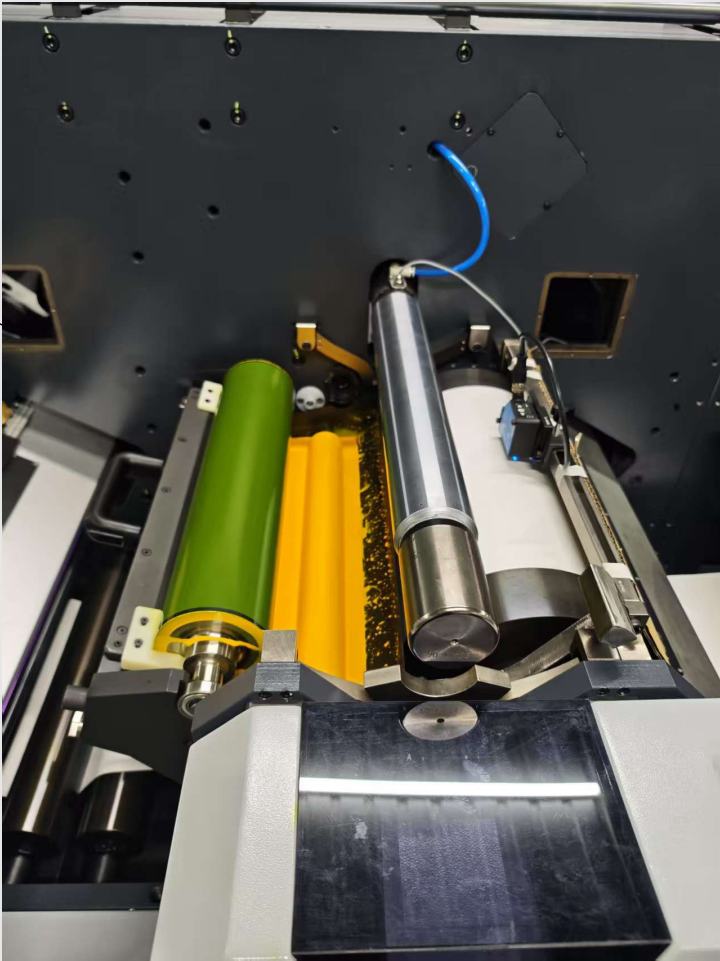
FREE SPINNING
PRINT CYLINDER

MOTORIZED PRINT PRESSURE
REGULATION

BROTECH FFX SERVO TRASMISSION

ANILOX SERVO MOTOR

PLATE SLEEVE SERVO MOTOR



CHILLED PRINT CYLINDER SERVO MOTOR

SIDE REGISTER SERVO MOTOR

PRINTING STATION PRINCIPALS

- UV /UVLED lamp mounted on chill roll
- Large size servo motorized chill roll
- Multisubstrate capability
- Low microns and thermo setting films capability
- Web stability and improved registration



PRINTING STATION CAPABILITIES

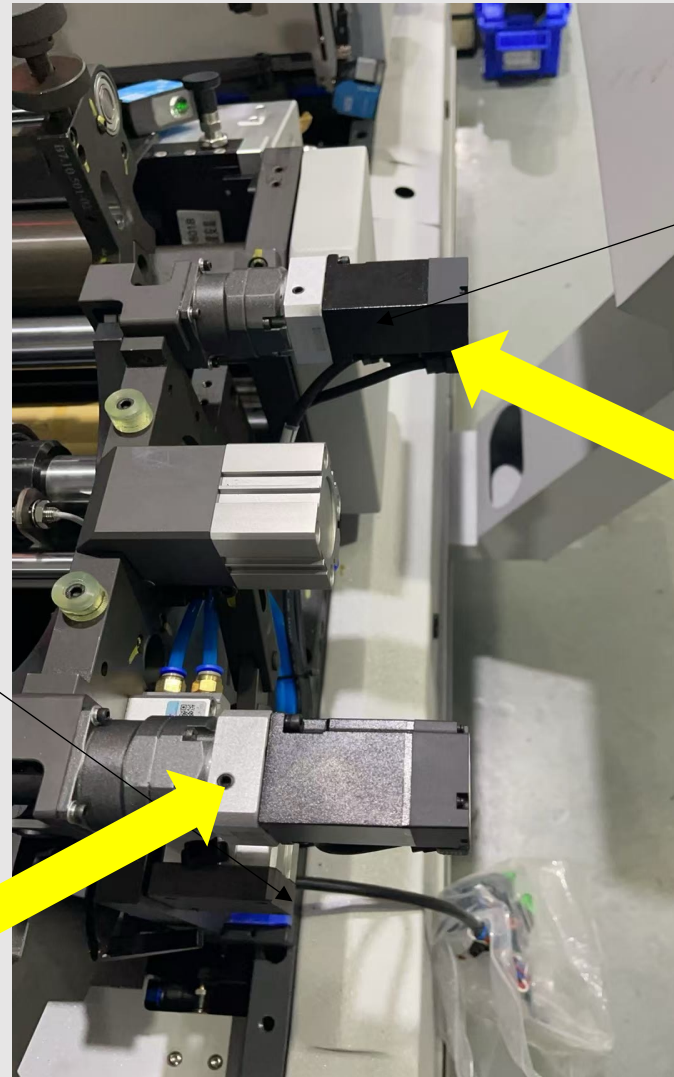
- Automatic Electronic Pre Register
- Automatic Electronic Register
- Second Pass Capability all Colours
- **MOTORIZED INKING PRESSURE**
- **AUTOMATIC INKING PRESSURE Option**
- **MOTORIZED PRINTING PRESSURE**
- **AUTOMATIC PRINTING PRESSURE Option**
- **Print length INCREASED**
- **Print length DECREASED**

- Multisubstrate Capability
- Plate Self cleaning procedure



FFX NEXT GENERATION FLEXO PRESS

INKING PRESSURE SERVO MOTOR



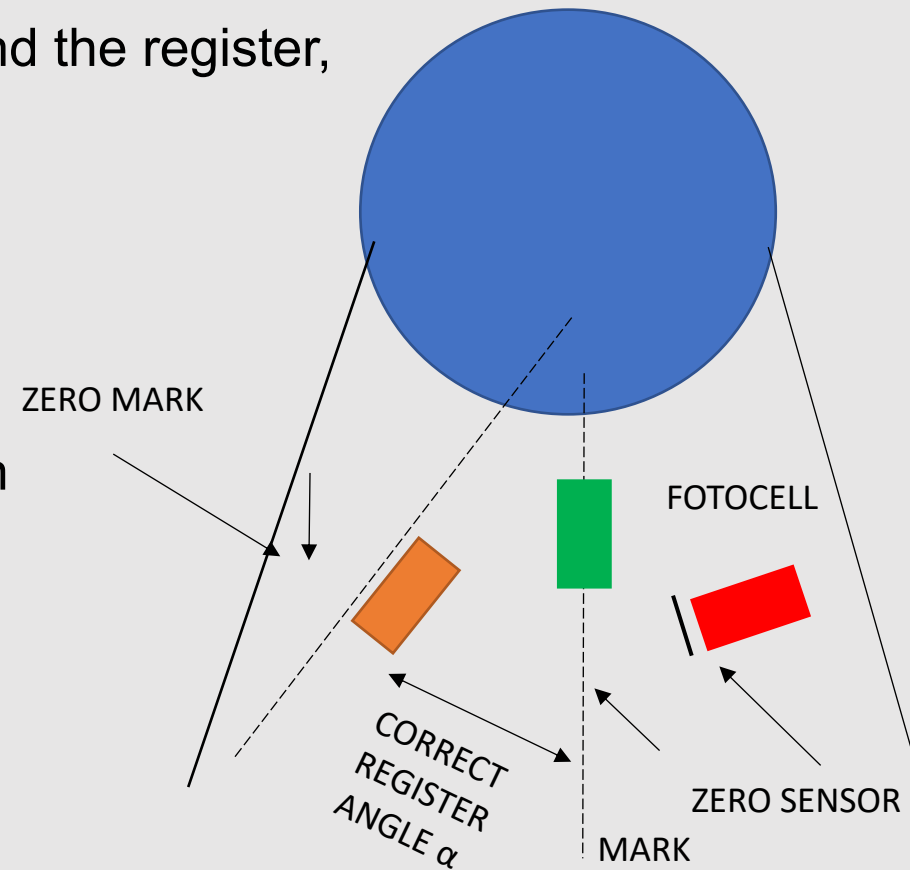
PRINTING PRESSURE SERVO MOTOR

PRE REGISTER & MARK TO CYLINDER

The register control keeps the α angle constant.

Because of the correspondence between α and the register, α control implies register control.

- High rejection of reading disturbances
- Automatic gain of the reading noise function
- Insetting
- Multi mark
- Mark recognition through its measure



AVT INSPECTION SYSTEM + COLOR CONTROL

100% AVT INSPECTION system for
Quality print 100%
Color control

in-line continuous color measurements at high speeds
shows color results and trends all through the run
measurements of color targets



Brotech

 x·rite PANTONE®


WE ARE PRINT INSPECTION

Brotech SmartColor AI

- Revolutionizing Flexo Printing with Intelligent Quality Control and Color Control
- Brotech + AVT + X-rite/PANTONE

What is Brotech SmartColor AI?

- World's first inline AI-driven closed-loop color control system for Flexo
- Real-time color measurement, prediction, and correction
- Integrated with Brotech FF-X 530 and AVT SpectraLab
- Ensures color consistency, reduces waste, and increases efficiency

2. How It Works

- Control engine automatically adjusts ink, speed, pressure, UV drying, temperature, viscosity, etc.
- AVT SpectraLab captures real-time Lab and ΔE values
- Feedback loop evaluates effectiveness and learns
- Brotech AI model predicts future color drift

Brotech AI Model work flow

- *Every product, every print job, and every operator action is fully recorded.*
- *All data is continuously learned by the Brotech AI model, which optimizes settings to achieve higher color consistency, shorter setup times and reduced waste.”*

Key Advantages

- Reduce color waste by >40%
- Shorten color calibration time by >50%
- Digitalize operator experience/skills;
Optimize data with history record
- Enable high-speed, consistent quality/color printing
- Scalable AI system that gets smarter over time&time

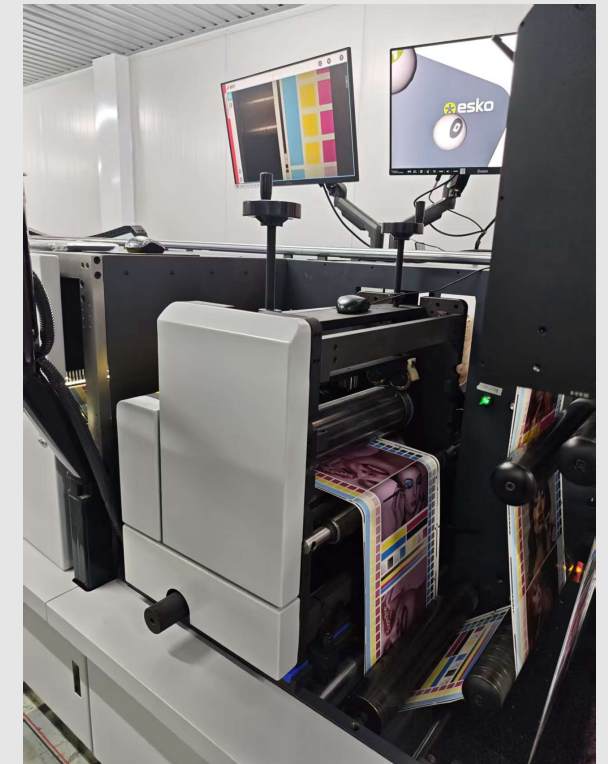
THE IMPORTANCE OF TECHNOLOGY INTEGRATION DIE CUTTING UNIT

Brotech die cutting units are available with following configurations

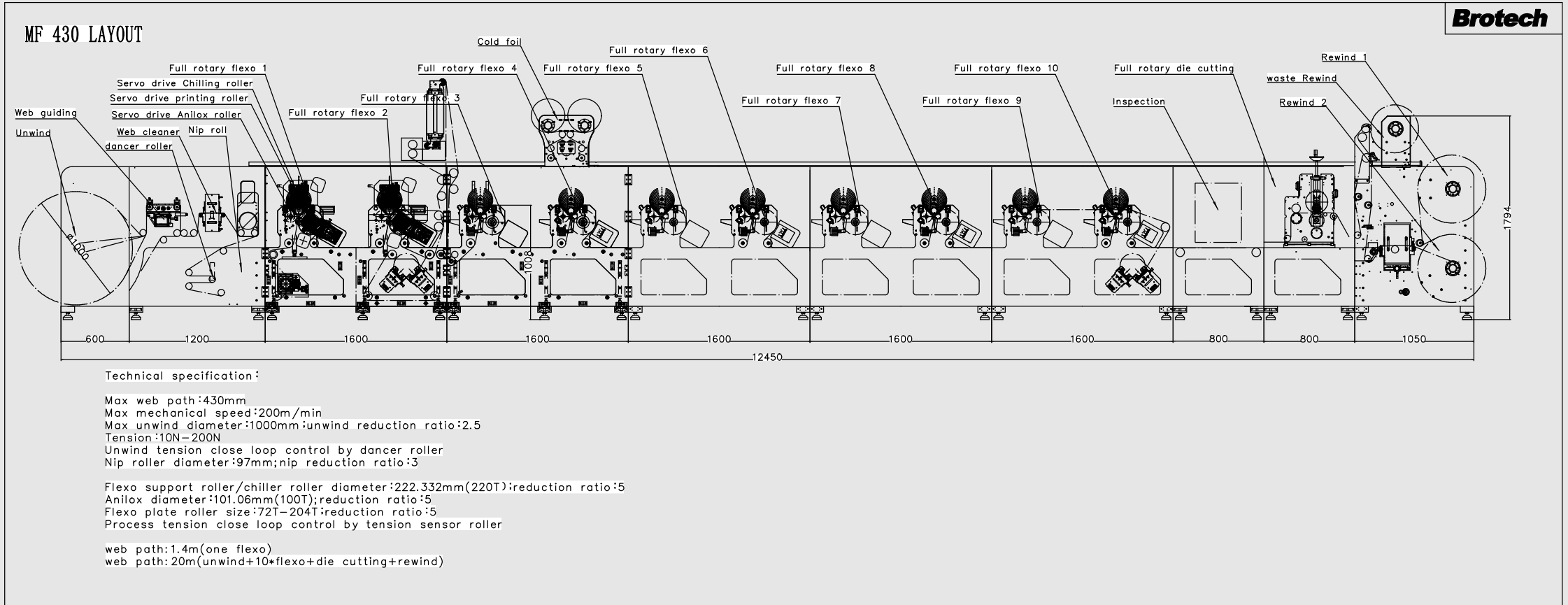
ROTARY DIE CUTTING UNIT

SEMIROTARY DIE CUTTING UNIT

SEMIROTARY DIE CUTTING UNIT HIGH SPEED 110 MTM



BROTECH CONFIGURATIONS

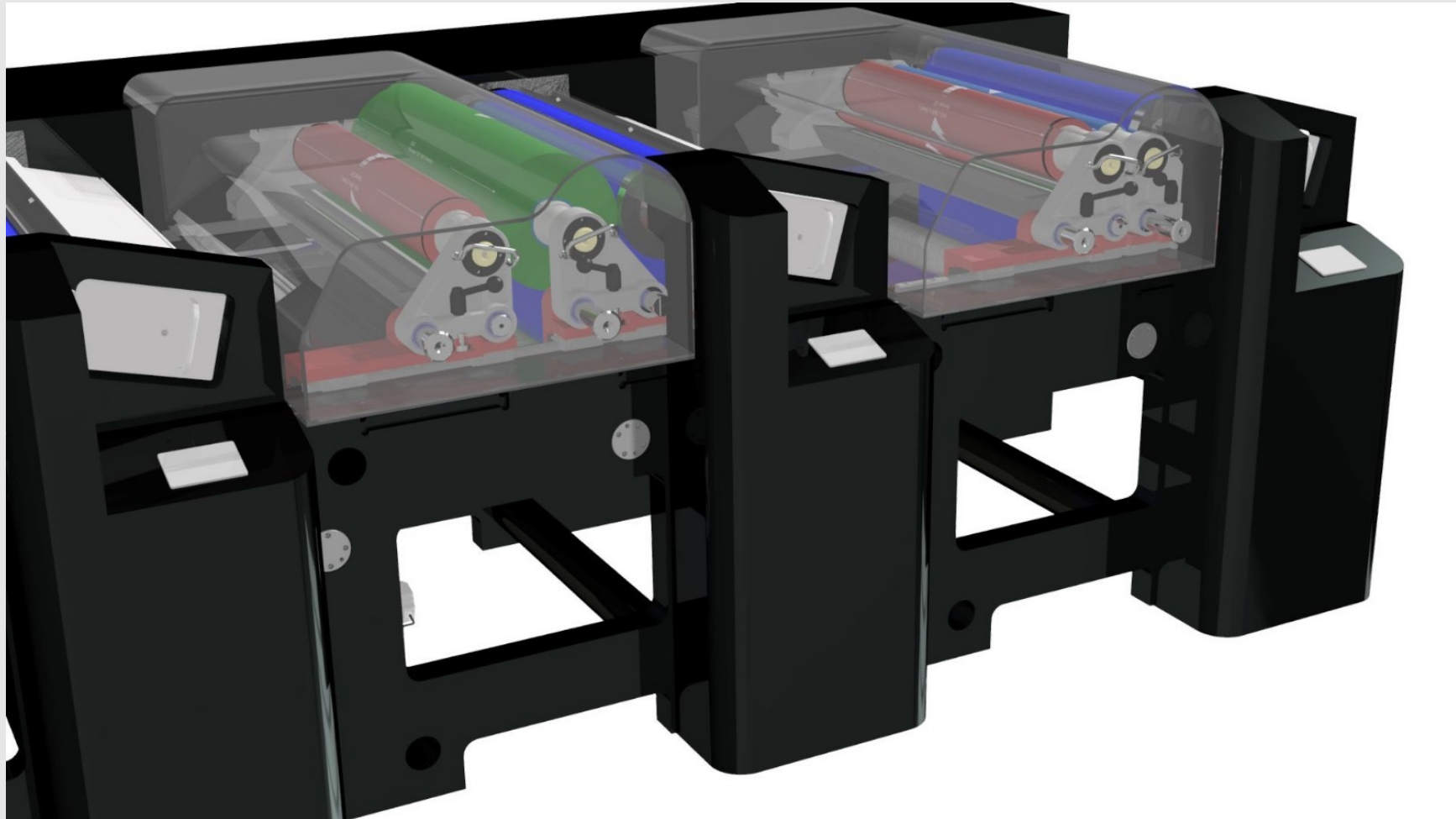


BROTECH FFX SIZES AND SPECS

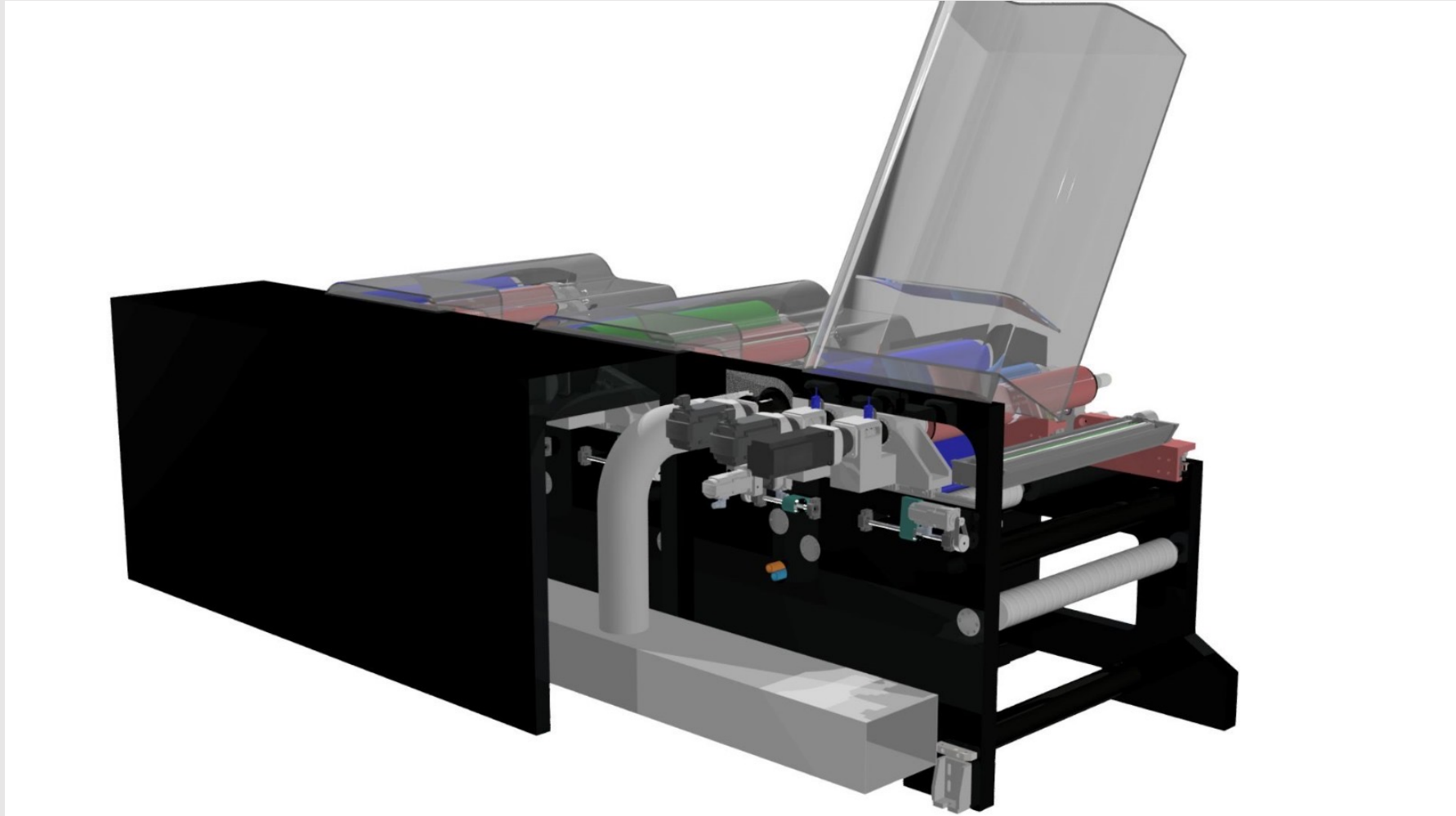
DESCRIPTION	UNITS	430	530	670	800
Paper width	mm	450	550	670	820
Print width	mm	430	530	650	800
No. print units	n	1 to unlimited	1 to unlimited	1 to unlimited	1 to unlimited
Unwinding diameter	mm	1000	1000	1000	1000
Rewinding diameter	mm	1000 – 600/600	1000 – 600/600	1000 – 600/600	1000
Max speed	m/min	220	220	250	300
Min print length	inches	8	8	8	12
Max print length	inches	24	24	24	36
Min length rotary die	inches	8	10	12	NO
Max length rotary die	inches	24	24	24	NO

Brotech

FFX 800 mm Brotech Front Side Colours Station



FFX 800 mm Brotech back Side -Colours Station



Thank you