

POSTEK OX Series

MULTI-DIMENSIONAL INTERACTIVE SMART PRINTER



THE FLAGSHIP OF SMART PRINTING

The OX Series stands at the top of POSTEK's product family — a full-size, heavy-duty industrial printer built for maximum durability and precision.

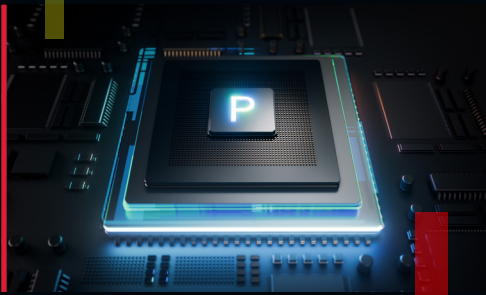
As the flagship of POSTEK's Multi-Interactive Smart Printer concept, the OX connects seamlessly to networks and cloud systems, offering deep customization and intelligent automation.

Engineered for high-intensity production lines, it delivers unmatched precision, structural strength, and system intelligence.

MULTI-INTERACTIVE & SMART PRINTING

Overview

Across every model, POSTEK's Multi-Interactive Smart Printer architecture connects intelligence with industrial strength. These printers don't just execute print jobs — they communicate, coordinate, and even automate. From Python-based OX Script customization to cloud database access, POSTEK printers evolve from peripherals to intelligent hubs — becoming the brains of the operation in the connected manufacturing world.



Power at Its Core

Equipped with a quad-core 1.8 GHz MPU and a GPU supporting 2D and 3D hardware acceleration, offering unparalleled power and graphics processing capabilities.

Ultra-large memory (2GB + 8GB) for storing all your data: graphics, fonts, pictures, custom programs, data sheets, and more. Whatever you need, the OX has you covered.

OX Script: Open Architecture Engine

A powerful tool for building customized, interactive apps that runs directly on the printer, allowing for features specific to your application.



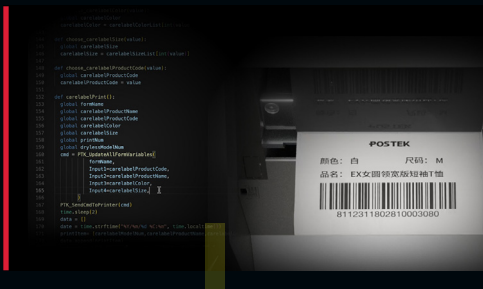
VisualGuard™

A visual verification system directly on the device, providing fast and accurate real-time analysis of the printout. Ensuring every label on every roll meets your standard.

* This advanced module is optional

Cloud Connectivity & Offline Operation

OX Series provides cloud connectivity and offline operation with advanced stand-alone capability, enabling direct communication with cloud documents, broad device compatibility, and seamless control of peripheral devices.

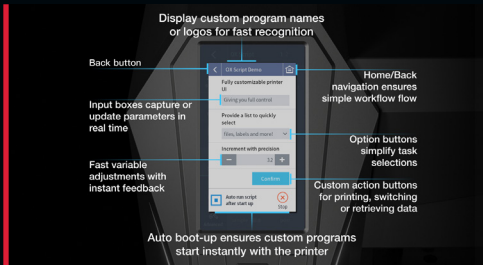
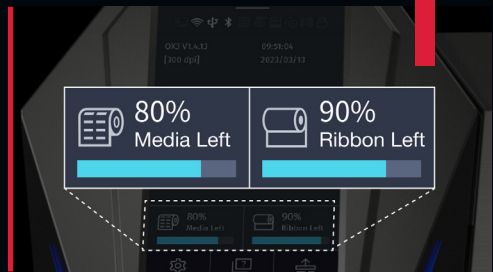


MES/ERP Integration

OX Script introduces a new way of connecting with MES/ERP systems by making the printer the operational hub. This allows for flexible handling of complex tasks. Whether adding new variables or adjusting formatting, you can do it directly on the printer, making required updates independent of complex MES/ERP system upgrades.

Device Management Features

A streamlined system that lets you check consumables instantly, manage accounts securely, switch label sizes quickly, maintain precise printing, and adjust label positioning with ease.



An Intuitive, Personalized User Interface

With a drastically simplified development process, OX Script provides unprecedented user-friendliness by enabling the creation of intuitive, personalized interfaces specific to each user's application.

Smart Assistant AVA

Powered by the latest DeepSeek model, AVA offers clear, real-time guidance for your printing tasks, quickly identifies issues, and connects you to POSTEK tech support when needed.



PERFORMANCE



HEAT™ Technology

Powered by one of the most advanced quad-core applications processors, the POSTEK TX Exp series printer takes full advantage of the cutting-edge HEAT™ printing technology, providing the best in class printout qualities. Intelligent thermal control ensures pixel-perfect consistency and sharpness in every print.



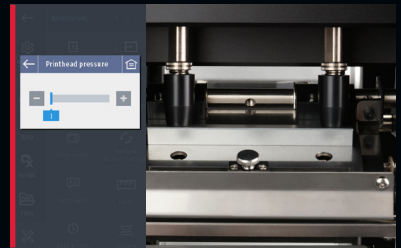
Advanced Dynamic Adaptive Precision Tuning

Ensures vertical printing accuracy with a calibration precision of $\pm 0.3\text{mm}$ over a 200mm print length, achieving up to $\pm 0.1\text{mm}$ under optimal conditions. It effectively eliminates printing distortion caused by platen wear, paper thickness changes, or surface friction differences. This significantly enhances component durability and reduces the frequency of platen roller replacements.



Automatic Precision Printhead Pressure Adjustment

Aside from soft close, this system can also automatically control printhead pressure. What used to be a labor-intensive task for only the most skilled technician can now be done through a few taps on the LCD screen.



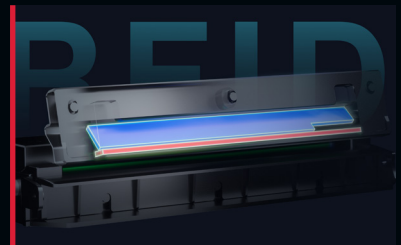
Smart Printer that Saves Ribbon

When equipped with the Ribbon Saving Kit, the OX series printer automatically lifts the printhead during the empty portions of the media under predefined conditions and locks down to print again when needed. Eliminating the consumption of ribbon without printing and extends printhead life span by putting an end to unnecessary wear and tear.



The New Standard in RFID Printing: Fast and Precise

POSTEK's innovative dual-antenna RFID design enables simultaneous reading and printing, eliminating pauses and errors common in traditional RFID printing. With the proprietary SmartTagVerify Pro system, data and errors are monitored in real time, ensuring every print is reliable and accurate.



* Available for OXr



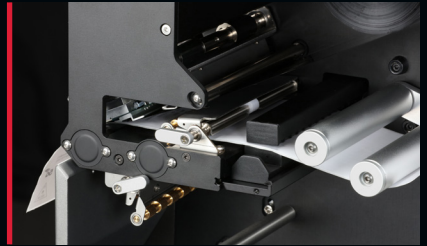
■ Fixed Print Engine Frame Design

Engineered for heavy-duty, 24/7 industrial environments. POSTEK's fixed print engine frame adopts a fully enclosed, double-side-supported structure that fundamentally reinforces structural integrity. Its superior fatigue resistance effectively withstands long-term cyclic stress, ensuring consistent print accuracy and operational reliability.



■ Horizontal Paper-Feeding Design

Combining minimalist aesthetics with operational efficiency. Its clean layout offers an elegant appearance while making consumable loading intuitive and effortless.



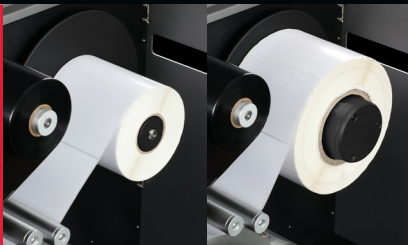
■ Synchronized Parallel Roller Set

Guides labels through the peeling channel, adapts to a wide range of label sizes, and ensures smooth, accurate peeling at all times.



■ Quick-Set Ribbon Tension System

A user-friendly mechanism that enables fast, precise, and hassle-free tensioning.



■ Dual-Size Media Core Adapter

Enables quick switching between 1.5-inch and 3-inch cores, providing the flexibility to handle a variety of printing tasks.

SPECIFICATIONS

| Model | OX2 | OX3 | OX6 | OX318 |
|--|---|---------------------|--|---------------------|
| Model with RFID | OX2r | OX3r | OX6r | OX318r |
| Print Mode | Direct Thermal and Thermal Transfer | | | |
| Print Resolution | 203 dpi | 300 dpi | 600 dpi | 300 dpi |
| Max Print Speed | 18 ips (457.2 mm/s) | 14 ips (355.6 mm/s) | 7 ips (177.8 mm/s) | 12 ips (304.8 mm/s) |
| Max Print Width | 4.09" (104 mm) | 4.16" (105.7 mm) | 4.16" (105.6 mm) | 6.6" (168 mm) |
| Max Print Length | 196" (5000 mm) | | | 118" (3000 mm) |
| MPU | 64-bit, quad core, maximum operating frequency 1.8 GHz | | | |
| Memory | 2GB DDR RAM, 8GB Flash ROM | | | |
| Wireless Module | WiFi IEEE 802.11a/b/g/n/ac/ax, 2.4/5.8GHz, Bluetooth 5.0 | | | |
| HEAT™ Level ③ | I | | | |
| Open Architecture Engine | OX Script: A Python-based automation engine for industrial printers - enabling direct device control, smart MES/ERP integration, and cloud-ready workflows. | | | |
| Signature Features & Configuration Method | Signature Features: Account Management, Label Formats Management, Remaining Amount of Media & Ribbon Monitor, Media Feed Calibration. Configuration Method: UI and POSTEK APP | | | |
| RFID Encoder | Supports UHF EPC Gen 2, ISO 18000-6C protocols (Only available for RFID models) | | | |
| Media Roll | Media Width: 0.39" ~ 4.72" (10 mm ~ 120 mm) Maximum Outer Diameter: 9" (228.6 mm) Inner Diameter: 3" (76.2 mm) | | Media Width: 1.18" ~ 7.09" (30 mm ~ 180 mm) Maximum Outer Diameter: 9" (228.6 mm) Inner Diameter: 3" (76.2 mm) | |
| Minimum Label Length | Tear-off: 0.2" (5 mm) | | Tear-off: 0.59" (15 mm) | |
| | Peel-off : 0.47" (12 mm), with label peeled-off sensor 0.2" (5 mm), w/o label peeled-off sensor | | Peel-off : 0.47" (12 mm), with label peeled-off sensor | |
| | Cutter: A150S/A400S/A400P: 0.79" (20 mm) HG400S: 0.59" (15 mm) | | N/A | |
| | Rewind: 0.2" (5 mm) | | | |
| Media Thickness (including liner) | Regular Barcode Label/ RFID Label: 0.0024" ~ 0.012" (0.06 ~ 0.305 mm) Mount-on-Metal RFID Label: 0.063" (1.6 mm) max. | | | |
| Ribbon | Maximum Ribbon Length: 1968' (600 m) Maximum Outer Diameter: 3.31" (84 mm) Inner Diameter: 1" (25.4 mm) Ink side: both In and Out | | | |
| | Width: 0.79" ~ 4.33" (20 mm ~ 110 mm) | | Width: 1.18" ~ 6.93" (30 mm ~ 176 mm) | |
| Media Sensor | Upper reflective: detects black marks on print side Lower reflective: detects black marks on back side Transmissive: detects gaps, notches, holes | | | |
| Fonts | Five built-in dot matrix fonts, which include Basic Latin and Latin-1 Supplement character sets. Two built-in scalable fonts. One supports Latin, Greek and Cyrillic scripts, and the other is a GB2312 Chinese character set specifically. User downloadable TrueType fonts. | | | |
| Barcode Types | 1D Barcodes: Code 39, Code 93, Code 128/subset A,B,C, Codabar, Interleave 2 of 5, UPC A/E 2 and 5 add-on, EAN-13/8/128, UCC-128, GS1-128, etc. 2D Barcodes: MaxiCode, PDF417, Data Matrix, QR Code, GS1 DataMatrix, GS1 QR Code, CS Code, etc. | | | |

| | | |
|------------------------------|---|--|
| Interfaces | RS-232 Serial, 10/100/1000Mbps Ethernet, USB DEVICE 2.0, USB HOST, General I/O Signal Interface (Optional), Applicator Peripheral Logic Control I/O Signal Wiring Terminal Block (Optional) | |
| LCD Display | 4.5" LCD Capacitive Touchscreen | |
| Power Source | 100 ~ 240 VAC, 50/60 Hz | |
| Weight | 47.08 lbs (21.4 kgs) | 54.23lbs (24.6kgs) |
| Dimensions | W 12" (305 mm) × D 22.05" (560 mm) × H 16.06" (408 mm) | W 14.45" (367 mm) × D 22.05" (560 mm) × H 16.06" (408 mm) |
| Operating Environment | Temperature: 32°F ~ +104°F (0°C ~ 40°C) Relative humidity: 5% ~ 90% non-condensing Maximum Altitude: 5000 m | |
| Storage Environment | Temperature: -40°F ~ +140°F (-40°C ~ 60°C) Relative humidity: 5% ~ 90% non-condensing | |

① HEAT™, or Heating Equilibrium Adaptive Tuning, is a POSTEK designed and developed cutting-edge technology that sets the benchmark for heat management in thermal printing. Printers equipped with HEAT™ have significant improvements in their printout clarity and print speed. The HEAT™ level represents the fineness of the heating uniformity with level I being the finest.

② For Mount-on-Metal RFID tags, the flexibility of the tag and whether or not to use fillings to bridge the gaps between tags can affect print quality and even encoding success rate. It is strongly recommended to test the tags on this POSTEK printer before purchasing.

Optional Configuration

| | | | | | |
|---|--|---------------|-------------|--------------|-------------------|
| SmartTagVerify* | External-mount module (Only available for RFID models) | | | | |
| VisualGuard* | <p>The visual verifier is available in the following configurations, which can be selected based on needs and budget:</p> <p>For 4-inch Printers:</p> <ul style="list-style-type: none"> · VG4 Scan: CIS camera continuous scanning, barcode data verification. · VG4 Static: Industrial camera static capture, label height up to 3 inches, barcode data verification, label integrity inspection. · VG4 Pro: Industrial camera continuous capture, unlimited label height, barcode data verification, label integrity inspection. <p>For 6-inch Printers:</p> <ul style="list-style-type: none"> · VG6 Scan: CIS camera continuous scanning, barcode data verification. · VG6 Pro: Industrial camera continuous capture, unlimited label height, barcode data verification, label integrity inspection. | | | | |
| Automatic Peeler* | A dedicated set of peeling rollers, an internal liner rewinder, and a label peeled-off sensor | | | | |
| Internal Rewinder* | <p>Rewind Roll:</p> <p>Maximum Outer Diameter: 8" (203 mm) Inner Diameter: 3" (76.2mm)</p> | | | | |
| Ribbon Saving Kit* | <p>Includes the following items:</p> <ol style="list-style-type: none"> 1. Automatic Brake on the ribbon take-up spindle. 2. External Media Feed Assembly (not required when equipped with an Automatic Peeler and in Peeler Mode). <p>Note: After purchasing the Ribbon Saving feature, a product key will be provided for activation.</p> | | | | |
| Cutters (Only available for OX2/OX2r/OX3/OX3r/OX6/OX6r) | Type | Rotary Cutter | | | Guillotine Cutter |
| | Model | A150S | A400S | A400P | HG400S |
| | Max. Cut Width | 120 mm | 120 mm | 120 mm | 120 mm |
| | Min. Cut Length | 20 mm | 20 mm | 20 mm | 20 mm |
| | Cut Speed | 0.8 sec/cut | 0.8 sec/cut | 0.15 sec/cut | 0.15 sec/cut |
| | Cut Thickness (white cardboard paper) | 0.20 mm | 0.2~0.35 mm | 0.35 mm | 0.40 mm |
| | Cuts Guaranteed | 600,000 | 600,000 | 600,000 | 600,000 |

* Factory dependent.



POSTEK

RUGGED PARTS DURABLE MACHINES

POSTEK ELECTRONICS CO., LTD.

Wisdom Plaza, Block B, Tower 2, 18 Floor
Qiaoxiang Road, Nanshan District
518052 Shenzhen, Guangdong, China

Hotline: (+86) 755 83240988 ext.818
Email: overseas@postek.com.cn
Website: www.postekchina.com

POSTEK US INC.

13809 Research Blvd, STE 500
Austin Texas 78750
United States

Email: Jarvis.lu@postekus.com
Website: www.postekus.com