



OnyxOMNIA

THE UNIQUE FLEXO-DIGITAL
PRINTING PRESS



OnyxOMNIA - The unique FlexoDigital Printing Press in the market

Best fit for a mix of Short & Medium Runs.



OnyxOMNIA - Key Technical Features

Combine the **best attributes** of **Flexo** and **Digital Printing Technologies**.

Printing Colors

Up to 10 Colors + Finishing

Max. Printing Speed

Up to 400 mpm

Max. Printing Width

Up to 1320 mm

Ink Type

- **Water**
- **Solvent**
- **Water+Solvent**

ONYXOMNIA COMBINES
THE BEST ATTRIBUTES
OF **FLEXO** AND **DIGITAL**
TECHNOLOGIES



BEST FIT FOR MIX OF **SHORT &**
MEDIUM RUNS



OnyxOMNIA

OnyxOMNIA combines the **best attributes** of **Flexo** and **Digital Techs.**

OnyxOMNIA is the best printing press, ever!

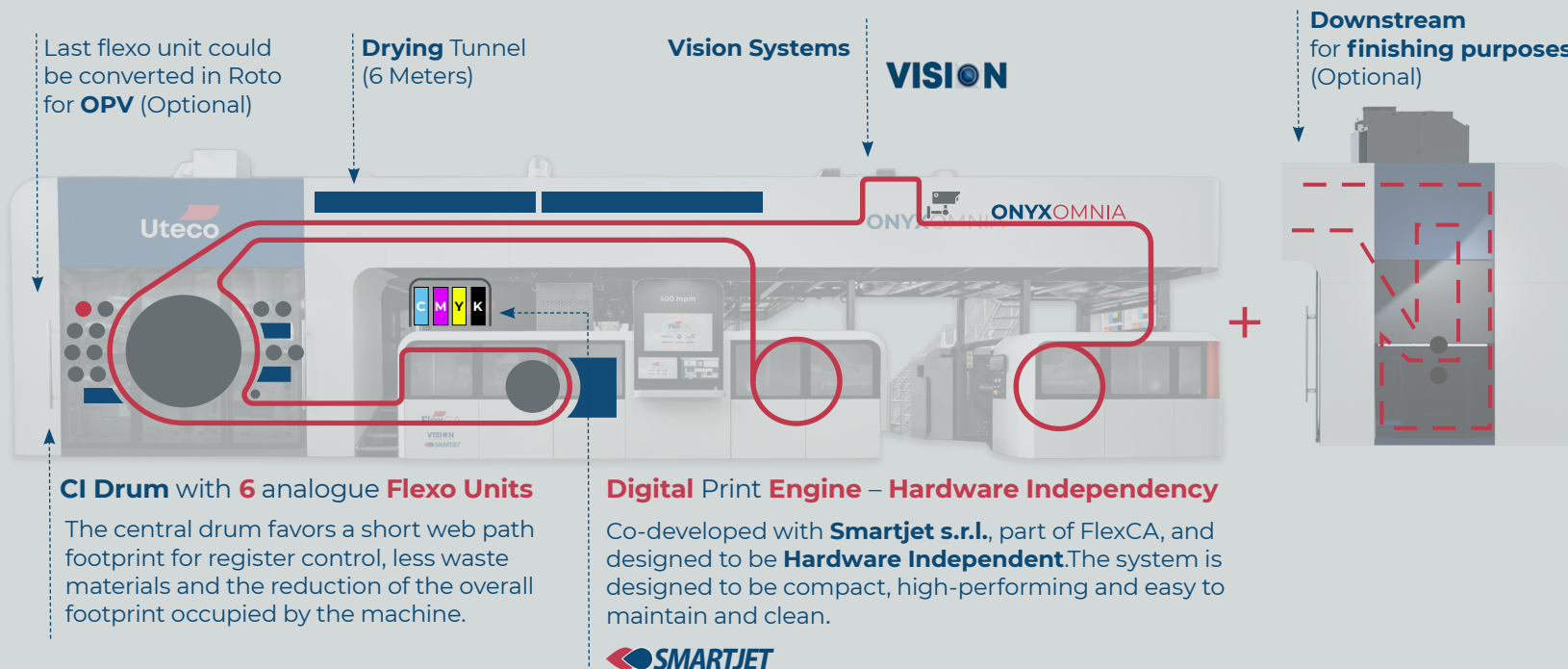
VS FLEXO

- **Faster Changeover**
- **Lower Operating Costs** (e.g. printing plates)
- **Higher Productivity** due to **Faster Changeover**
- **Faster Time to Market**

VS DIGITAL

- **Lower Digital Inks** Consumption & Costs
- **More Robust** & Reliable Process
- **Faster** Printing Speed
- **Digital Print-heads** enhanced lifetime
- **Extended Color Gamut**
- **Possibility to print special inks** (e.g. metalized)

Machine configuration overview.



OnyxOMNIA - Focus on Digital Print Engine

Our **Digital Engine** has unique characteristics.



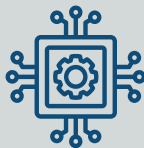
4 modules
CMYK



Max Resolution
1200x1200 dpi
with **1320 mm**
printing width



Max printing
speed
150 mpm



**Hardware
Independent:**
interchangeable digital
printing engine

FlexCA

SMARTJET

The system is designed in collaboration with **SmartJet s.r.l** company, part of FlexCA. The Print Engine prints 4 colors CMYK with a maximum resolution of **1200x1200 Dpi** and a maximum printing speed of **150 mpm**.

Our digital printheads can guarantee:

- High resolution
- High fire frequency
- Compatibly with all Ink Types (UV, EB, Water-Based, Solvent-Based)
- Digital engine is modular and scalable in width
- Automatic missing Nozzles Control

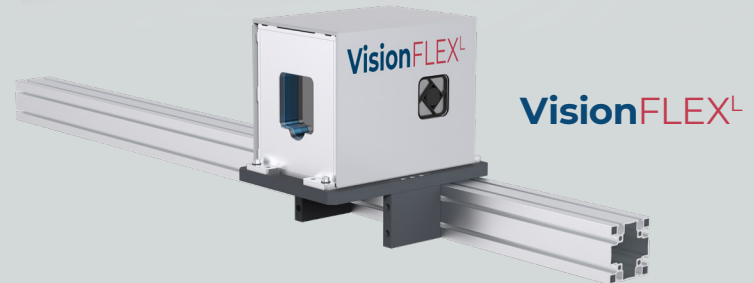
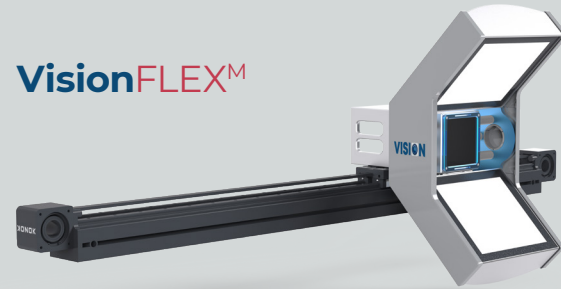
OnyxOMNIA - VisionFLEX quality control system

Our **Vision System Solutions** equipping OnyxOMNIA.



VisionFLEX

- **Matrix and 100% Linear Vision Systems**
- **Fast Startup** of the Printing Job
- **Higher Sustainability** of the Printing Process due to low energy consumption
- **Ready-2-Report** System
- **Easy Troubleshooting**



OnyxOMNIA - Processes Overview

Everything you ever needed for **Printing. All in One.**



**3 Processes in One with
the Greatest Robustness
& Reliability:**

1. FlexoDigital

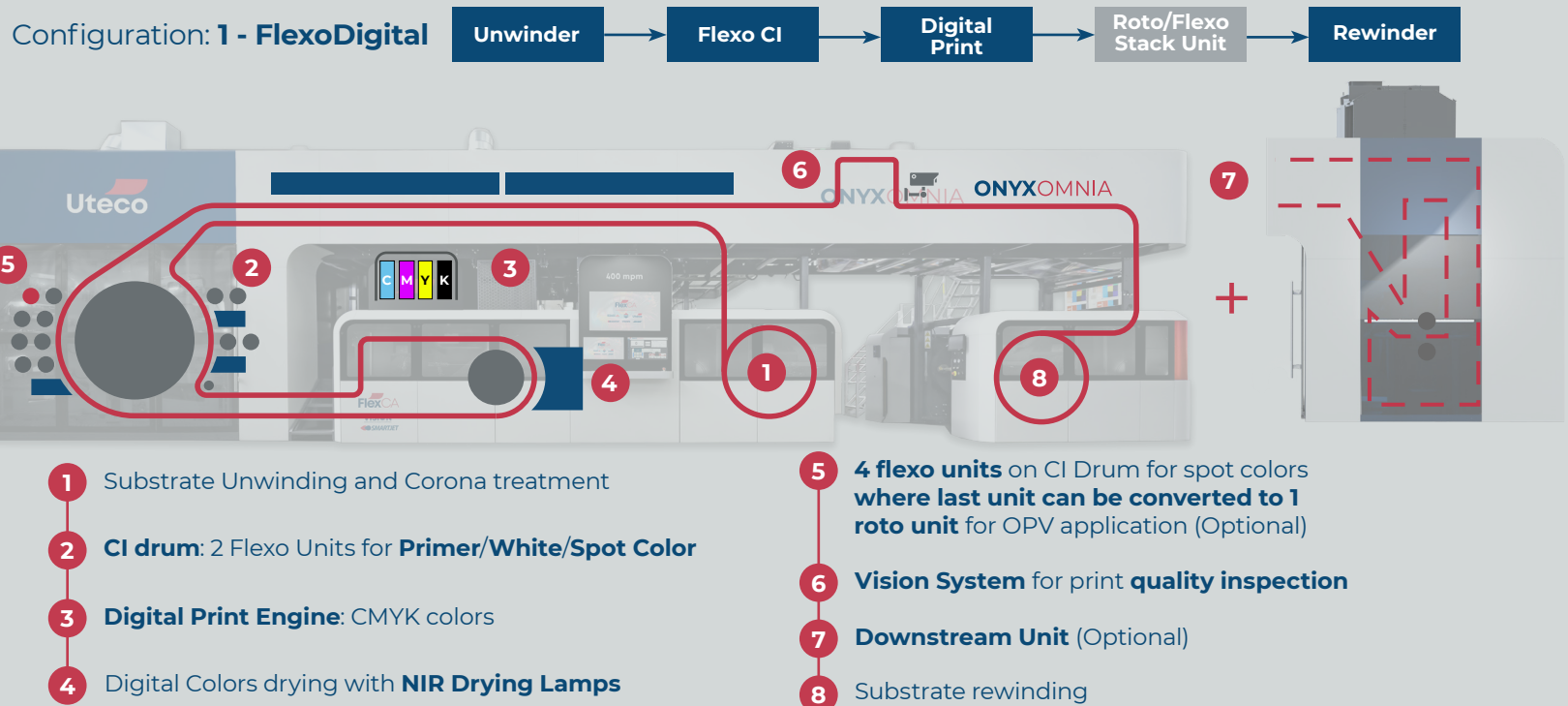
2. Flexo

3. Digital Hybrid

OnyxOMNIA - FlexoDigital Printing Process

1. FlexoDigital Printing Process.

Max Process Speed
300 mpm



OnyxOMNIA - Flexo Printing Process

2. Flexo Printing Process.

Max Process Speed
400 mpm

Configuration: **2 - Flexo**

Unwinder

Flexo CI

Digital
Print

Roto/Flexo
Stack Unit

Rewinder



1 Substrate Unwinding and Corona treatment

2 **CI drum:** 6 Flexo Units for **White/Spot colors** where last Unit can be converted to roto unit for OPV application (Optional)

3 **Vision System** for print **quality inspection**

4 **Downstream Unit** (Optional)

5 Substrate rewinding

OnyxOMNIA - Digital Printing Process

3. Digital Printing Process.

Max Process Speed
150 mpm

Configuration: **3 - Digital**



- 1 Substrate Unwinding and Corona treatment
- 2 CI drum: 2 Flexo Units for **Primer/White**
- 3 **Digital Print Engine**: CMYK colors
- 4 Digital Colors drying with **NIR Drying lamps**

- 5 **1 roto unit** on CI Drum for **OPV or White** application (Optional)
- 6 **Vision System** for print **quality inspection**
- 7 **Downstream Unit** (Optional)
- 8 Substrate rewinding



OnyxOMNIA - Value Proposition

ONYXOMNIA

- 
- 1 The Most **Versatile**
 - 2 The Lowest **Operating Costs**
 - 3 The Most **Productive**
 - 4 The Best **Printing Quality**
 - 5 The Most **Sustainable**
 - 6 The Most **Compact**
 - 7 The Most **Ergonomic**



1. The Most Versatile – Our DSU Units (1/3)

Expand **Printing Finishing possibilities** with our **DSU**.

OnyxOMNIA can be equipped with 1 or more **Down-Stream Units (DSU)** for **Functional or Embellishment Purposes**



1. The Most Versatile - Our DSU Units (2/3)

Expand **Printing Finishing possibilities** with our **DSU**.

**Our Down-Stream Units (DSU) for
Functional or Embellishment Purposes**



DSU Types

DSU^R

Roto

DSU^F

Flexo

DSU^X

Hybrid Roto-Flexo

DSU^K

*Stack
(2 Printing Units)*

1. The Most Versatile - Our DSU Units (3/3)

Expand **Printing Finishing possibilities** with our **DSU**.

Our **Down Stream Unit** (DSU) is a fundamental part of the printing process to handle finishing applications after printing.

We offer a complete range of Solutions in line with Market demand for a **wide range of finishing applications** such as Varnish, coating and printing (es. Cold Seal, heat seal, functional coating, matte varnish, soft touch, lamination, Solvent or WB).

DSU Technology

- **Flexo**
- **Roto**
- **Hybrid/Flexo/Roto**
- **Stack**



Applications

- **Functional**
- **Embellishment** (es. Soft Touch, Matt, Varnish)
- **Adhesive**
- **Printing**
- **Cold-Seal/Heat Seal**



1. The Most Versatile – Inks

OnyxOMNIA widens the **types of printing Inks** that can be used.

The Flexo CI Drum can print with:

- **Water-based** Ink/Primer
- **Solvent-based** Ink/Primer
- **Water + Solvent-based** combined
- **UV** (only)
- **EB** (only)

**Uteco Digital Inks are fully compliant
for indirect food contact**



2. The Lowest Operating Costs

OnyxOMNIA optimizes the **printing running costs**.

1 Lower Printing Plates Costs

Less usage of Flexo CI colors since process colors (CMYK) are printed on the Digital Unit

2 Shorter Downtime / Higher OEE

Faster Changeover since Digital changeover is instantaneous and less Flexo Colors to change / Job

3 Lower Digital Inks Costs

4 Lower Digital Printheads Maintenance/Cleaning Costs

Lower stress and usage of digital printheads (and inks) since solid colors are print on the CI Flexo while digital is mainly used for variable data

5 Longer Digital Printheads lifetime



3. The Most Productive - Our Printing Technology

Boost your productivity thanks to **the gratest Printing Technology.**



1 Fastest Printing Speed in the Market

for a FlexoDigital Press up to
300 mpm

2 Up to 33% Faster Complete Changeover Vs Flexo (including color matching)

Thanks to combination of Digital and
Flexo Technology

<3 minutes for Job Changeover
<20m material waste at each Job Changeover

4. The Best Printing Quality

The **Quality of Flexo Tech** combined with the **Flexibility of Digital**.

The quality of Flexo Tech for **Spot Colors**

To print **solid** or **special colors** (like **Metalized** ones) with the **Best Flexo Quality**

The Flexibility of Digital Tech for **Variable Data**

To print details and variable data/graphics



5. The Most Sustainable - ACTIVE PACK

Active Pack allows to equip our new **FlexoDigital OnyxOMNIA** with top-notch technologies for **Sustainability**.



ACTIVE PACK

Active Start

Active Dry®

Active Ink

OnyxOMNIA can
be equipped with
Active Pack

Active Pack allows to equip our **New Flexo CI Machines** with **top-notch technologies**.

Our **Active Pack techs** are unique in the flexographic industry, enabling the lowest **consumption of energy and consumable material**.

ACTIVE PACK

enables saving up to **300 k€** each year on energy and material consumption!



5. The Most Sustainable – ACTIVE START for CI FLEXO

The **Lowest Material Waste at each Startup.**

Active Start – CI Flexo

- **Automatic Adjustment of Printing Pressure** among the cylinder, cliché and substrate thanks to Recognition of the 3D Cliché's Characteristics (e.g. ink coverage)
- **Material Waste is Minimum**, thanks to very **Fast Setup**

< 20 METERS

**of material waste at each startup
in perfect register!**



ACTIVE PACK

Active Start
Active Dry®
Active Ink

**UP TO 80% LOWER
MATERIAL WASTE (*)**

(*) Vs comparable press on the market without Active Pack

5. The Most Sustainable – ACTIVE DRY® for CI FLEXO

The **Most Sustainable** Drying System.

ACTIVE PACK

Active Start

Active Dry®

Active Ink

SAVE UP TO 50%/ YEAR OF
ENERGY CONSUMPTION (*)

Active Dry® - CI FLEXO

New **Patented Smart & Intelligence System** to optimize Energy Consumption on Drying.

Drying Power is **optimized** according to the printing characteristics and Ink coverage detected by Active Start System.

PATENT BY UTECO



(*) Vs comparable press on the market without Active Dry®

5. The Most Sustainable – ACTIVE INK

The **Most Sustainable** Inking System.

Smart Ink Pumping according to Printing Characteristics detected by Active Start System.

CI Flexo Inks' Pumps cycles are optimized, as well as the use of compressed air.



SAVE UP TO 60% / YEAR OF ENERGY CONSUMPTION (*)

(*) Vs comparable press on the market without Active Ink



5. The Most Sustainable – Active Pack Benefits

Valuable ESG Technology.



Valuable ESG Technology

Avg. No. of Jobs Changeover/Day	10
Avg. Production Hours per Day (h)	24
Avg. Production Days/Year	240
Natural Gas Utility Cost (€/KwH)	0,09
Electricity Utility Cost (€/KwH)	0,2
Ink Type	Water based
Solvents Recovery (%)	-
Solvents Price (€/L)	-
Main Material Printed	Plastic Film
Avg. Profit Margin on Printed Reels (%)	20 %

Saving enabled by Active Pack

YEARLY SAVING:

≈ € 210K

MACHINE LIFETIME

SAVING (*):

≈ € 3.1M

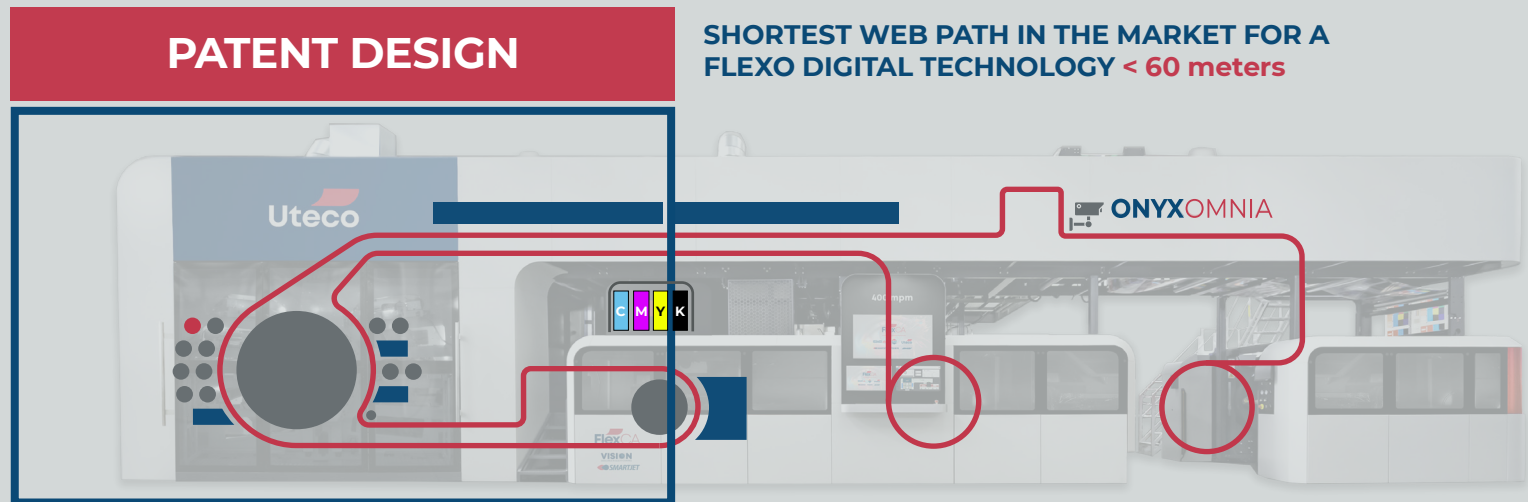


Illustrative Simulation

(*) Considering 15 years avg machine lifetime

6. The Most Compact - Our Patent Design

Our Design of **Flexo CI** and **Digital Technologies** is **Patent** and **Unique** in the market.



Our New Configuration of **CI Drum + Digital Printing Engine** is Patented allowing the **Shortest Web Path** and the **Easiest Maintenance & Cleaning Operations**.



6. The Most Compact - The Shortest Web Path

2.5x Shorter than Comparable **In-line Printing Solutions** on the Market.



Lenght
- 30 m → **Minimized floor plant utilization**
vs **existing comparable In-line** printing press solution

Web Path
- 75 m → **Lower waste during startup**
vs **existing comparable In-line** printing press solution

7. The Most Ergonomic – Easiest Access to Digital Engine Unit

The **Most Ergonomic Flexo and Digital Solution** in the market.



Digital Print Engine

- **Easy to access**, just **1,5 meter** above the ground
- **Easy to maintain** and clean

Dynamic Cockpit

- **The Most Ergonomic Cockpit** in the market thanks to the floating HMI, adapting to operators' height
- **Single Integrated Control Panel**, controlling both **Flexo** and **Digital Printing Techs** from a single spot



Technical Specifications

Parameter	Unit of Measurement	Value
Max Printing Width	[mm]	1320
Print Repeat Range	[mm]	350 ÷ 760
Max Printing speed (Flexo/FlexoDigital/Digital)	[mpm]	400/300/150
Color Units (Flexo + Digital)	-	10
Film Tension	[daN]	2 ÷ 40
Max Reel Diameter	[Kg]	1000



Best fit for mix of
**Short &
Medium Runs**

Equippable with Optional
Down-Stream Units (DSU)



DSU^R DSU^X
DSU^F DSU^K

Max. Digital
Resolution

**1200 x
1200 dpi**

ONYXOMNIA
COMBINES THE BEST
ATTRIBUTES OF
FLEXO AND **DIGITAL**
TECHNOLOGIES

OnyxOMNIA



Printing Colors

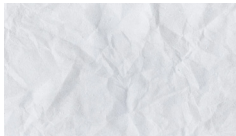
**Up to 10 Colors +
Finishing**

Max. Printing
Width

**1320
mm**

Max. Printing
Speed

**400
mpm**



**Digital Technology
Hardware
Independent:**
interchangeable
digital printing
engine



**Solvent based
Inks**




**Water based
Inks**



Our Company

Printing and Converting: All Round **High Tech Innovation.**



We provide innovative and flexible solutions from a wide range of **flexographic, rotogravure, digital printing, laminating and coating machines** and a corollary of comprehensive training and support services.

We develop **special and customized configurations** of high technological value, with an ongoing commitment to research and **innovation, organizational flexibility, engineering capabilities for final solutions**, optimization of production processes, and a fast and efficient worldwide service network.

Our Customer Service

Our Customer Service has **Everything You Need.**

Our expert **Customer Service teams** are **available 24/7** to respond quickly and effectively to requests for maintenance, repairs and operational renovations to machinery and systems, **both on-site and remotely (My Portal).**

Ready for your
new machine?
Don't forget about
our customer service



Find out more!

On Field Assistance

We provide complete **life-cycle support services and printing processes** to ensure maximum performance throughout the entire lifespan of the machine.

Remote Assistance

Thanks to the newest technologies available on the market we guarantee **the best real-time support.**

Upgrades Service

We provide improvements of the efficiency and performances of your machine's processes, aligning them to the **latest technological market trends.**

Spare Parts

We have a series of spare parts checked and guaranteed by us.

Equipment

We offer equipment solutions to be added to your specific machine to **boost its performance and efficiency.**





Release Date:
14/05/2025

Uteco Converting SpA
Viale del Lavoro, 25
37030 Colognola ai Colli (VR)
Ph: +39 045 6174555
utecovr@uteco.com
www.uteco.com



Data, features and photos shown are not binding.
Uteco Group reserves the right to make any changes without prior notice.