



# DuaLam

THE MOST INNOVATIVE  
SOLVENTLESS LAMINATOR

## DuaLam Overview

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DuaLam Laminator has the most **Innovative Process for Solventless Laminating** which allows fastest Curing Time in the Market.



## Innovative Process Description

DuaLam has **two coating heads** for bonding agents' application: solventless for adhesive on the left side and semi-flexo for hardener on the right side.

### Solventless Coating Unit

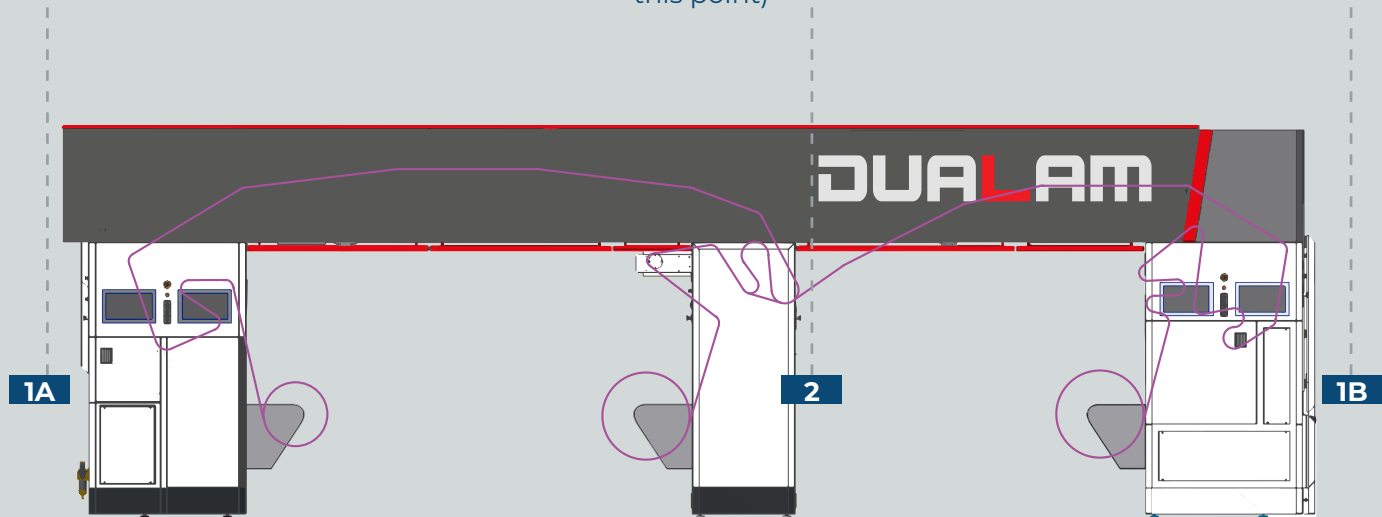
Coating of Component "A"  
(Adhesive)

### Laminating Unit

Curing starts here (adhesive components not mixed before this point)

### Semi-flexo Coating Unit

Coating of Component "B"  
(Hardener)



## What's new in the Process?

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Discover Uteco's newest **Laminating Machine**.



**Unique Process in the Market  
for Solventless Lamination**

### **Two Coating Steps**

DuaLam process has **two units** that simultaneously coat **two different bonding agents for lamination**: adhesive and hardener.

### **Semi-flexo Coating Technology**

This unique technology in the solventless lamination context guarantees a **precise** adhesive grammage **dosing** over time, even when changing machine setup conditions (e.g. speed).

### **Fast Curing Time**

The DuaLam process enables the use of a **two-component** bonding agent that has almost Instant Curing Properties (max 3 hours).

### **No External Pre-Mixing of Agents**

**No need to pre-mix** the two bonding agents - adhesive and hardener - by means of an external mixer.

## Why DuaLam?

### Newest Solventless Technology for Lamination, boosting Productivity while Reducing Costs and Curing Time



#### Productive

Short Changeovers due to elimination of cleaning operations to be performed on the coating units.

**Longer time available** for production.



#### Differentiated

Minimized curing time satisfies brand owners requesting **Just in Time Productions**. In a fast-evolving business scenario, **Supply Chain** can be significantly shortened.



#### Efficient

Saving on **washing-related materials**.

No curing means less stocking space usage and no need for heating rooms: savings in utilities, personnel, rent and inventory costs.



#### Sustainable

**Emissions reduction** thanks to elimination of heating rooms and reduced adhesive consumption during changeovers (no need to perform washing cycles for the coating units).



## Productive

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**DuaLam** is up to **35% more Productive** than a Traditional Solventless Machine.



**Boost your  
Productivity**



### Fast Changeovers

At each job changeover, when adhesives are motionless, they are not solidifying, and machine **does not require cleaning operations.**

This happens because bonding agents are coated separately and not reacting during the process.



### Productivity Boost

Production interruptions are consequently shorter **boosting productivity.**



## Efficient

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**DuaLam** reduces your **Operating Costs** up to **50k € per Year** versus Traditional Solventless.



### Adhesive Saving

Reduce adhesive consumption since no need to perform washing procedures on **Semi-flexo Coating Technology**.



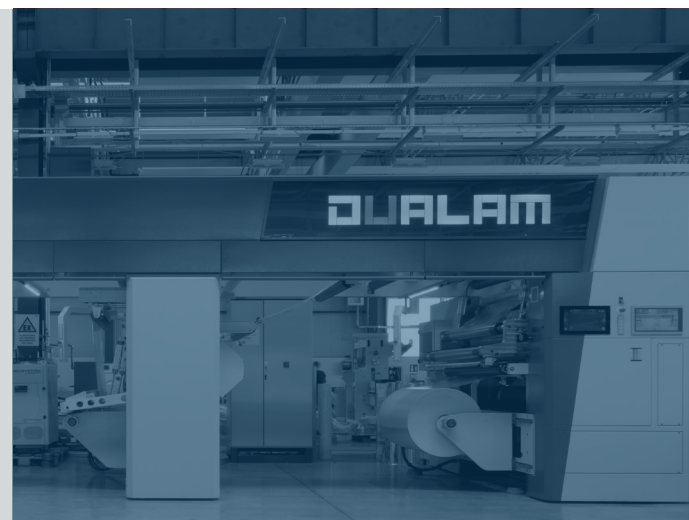
### Simple Operations

The innovative process guarantees a **perfect dosage of bonding agents**, drastically reducing the operator involvement in machine setup activities; moreover, effort consuming washing cycles are reduced in frequency.



### No need for Curing

Eliminate heating rooms for reels curing means **reducing inventory, utilities** and **reels management related costs**.



**Reduce your  
Operating Costs**



## Differentiated

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DuaLam guarantees the **fastest** supply of high quality laminating in the market.



**Fast Supply of High Quality Laminate**



### Fast Supply of Laminate

Instant curing satisfies brand owners requirements for **Just-in-Time** productions or limited production scheduling.



### Shorten the Supply Chain

**Shorten** the supply chain of your Brand Owners.



### High Quality Laminate

DuaLam process and technology guarantees **high quality coating** of adhesive, resulting in great laminate superficial quality. Reduce your risk of output non-conformity.



## Sustainable

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DuaLam reduces your emissions up to **10 Tons/year of CO<sub>2</sub>** versus Traditional Solventless.



### Reduced Utilities Usage

No need to store the laminated reels in heating rooms at 40°C for long hours has a significant impact on **lower energy consumption**.



### Wastes Reduction

Significant **reduction of material** consumption related to washing cycles (e.g. adhesives, water).



**Reduce your  
Carbon Footprint**



## Main End-Use Applications

DuaLam enables a wide range of end-use application for **Duplex Laminating** material structure.

### Food Packaging

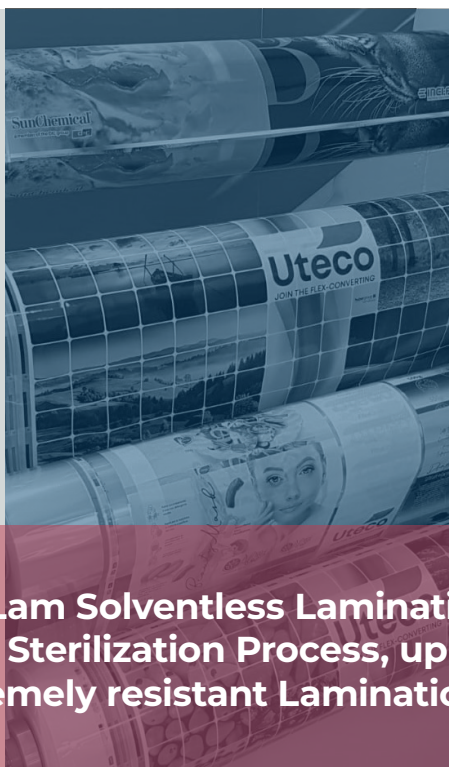
Most of flexible packaging food is suitable for **DuaLam** process and technology: Dry, Snack, Pre-cooked, Frozen and Refrigerated, Pet Dry, Fresh.



**DuaLam Solventless Lamination enables the Boiling Heat Sterilization Process, up to 95°C, thanks to its extremely resistant Lamination Structure.**

### Personal Care Packaging

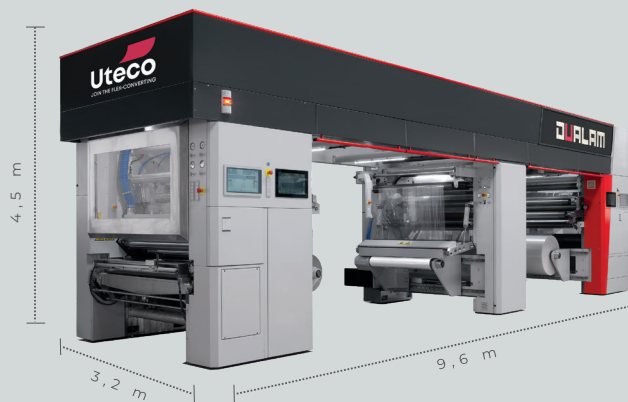
Most of Refillable flexible packaging for personal care/healthcare fits **DuaLam** process and technology: Cosmetics, Wipes, Pharma and Medical.



## Machine Design and Tech Overview

Compact and robust machine design for **exceptional performances**.

### DuaLam Technical Specifications



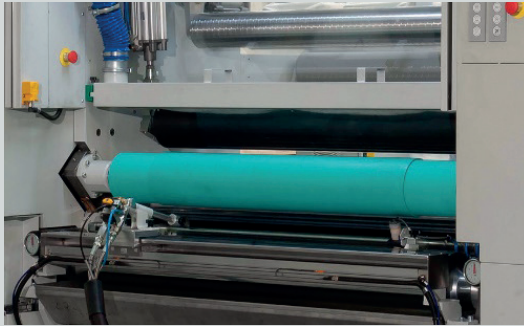
Parameter	Unit of Measure	Value
Min/Max Material Width	[mm]	750 ÷ 1550
Min/Max coating width	[mm]	730 ÷ 1500
Max coating speed	[m/min]	500
Unwin./rewin. max diameter	[mm]	1000
Film Tension	[daN]	3 ÷ 40
Max Reel Weight	[Kg]	1500



## DuaLam Laminator Key Features (1/3)

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Our technologies for Coating Unit: **Solventless and Semi-flexo.**



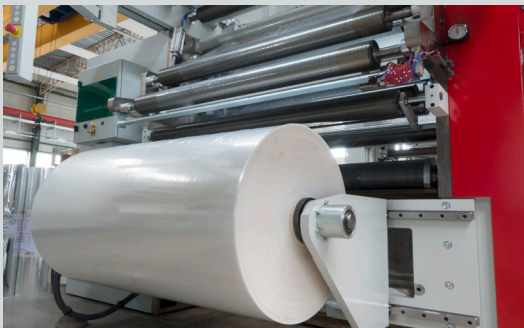
### **Solventless Coating Unit**

*Equipped with Transfer Roll for Automatic Sleeve Change*

Coating unit for the **solventless adhesive component**.

The rubber transfer roller is sleeve type and shaped according to the coating width.

It guarantees **quick changeover** thanks to the sleeved roll, **easy to be removed** and **replaced**.



### **Semi-flexo Coating unit**

*Most Precise Coating Technology for the Hardener Component*

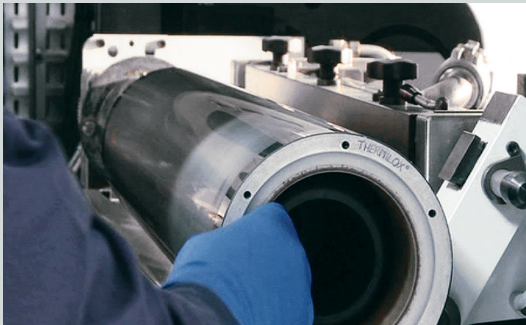
The engraved sleeve guarantees **better precision** on adhesive

dosage than traditional rubber sleeve. Gravure roller is equipped with "**Thermilox**" sleeve system and closed chamber doctor blade.

## DuaLam Laminator Key Features (2/3)

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Our **Semi-flexo Coating Unit** is equipped with best in class technologies.



### **“Thermilox” Patented Technology** *Equipping the Semi-flexo Coating Unit*

“Thermilox” System is Uteco’s patent and is a cooling system based on **water pumps and flows**, which guarantees constant temperatures of the cylinder and of the coating adhesive. This, in turn, keeps constant the adhesive viscosity and the thickness of the layer deposited into the substrate.



### **Closed Chamber Doctor Blade** *Equipping the Semi-flexo Coating Unit*

The closed-chamber doctor blade guarantees that **no excess adhesive** is transported into the rolls, therefore ensuring proper adhesive thickness. Traditional semi-flexo technology available in the market is not equipped with this feature.



## DuaLam Laminator Key Features (3/3)

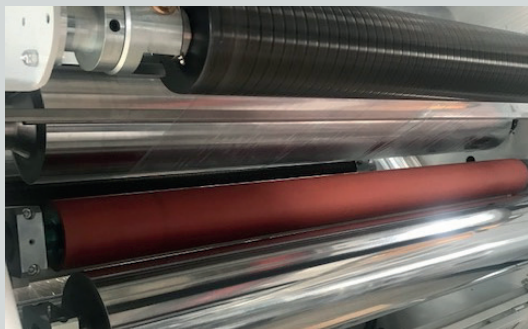
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Our Laminator is equipped with **Automatic Washing System** and **three Rollers Laminating Nip**.



### **Automatic Washing System** *for quick changeovers*

The coating unit is equipped as standard with an **automatic washing system** for all rollers. It **optimizes** the **changeover time** and allows significant **saving of solvent** during washing operations.



### **Three Rollers Laminating Nip** *to run even most stretchable materials*

The **three-roller Laminating Nip** allows for accurate control of the **laminating** avoiding visual defects such as **bubbling** or **curling**, even with the most stretchable films.

Moreover, web tension is **constantly controlled** on all zones via highly sensitive dancing rollers and vectorial motors.



## DuaLam - Dual Configuration

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Dual Configuration means that DuaLam can run also with **traditional solventless laminating process**.

A

Solventless  
Coating Unit

+

Semi-flexo  
Coating Unit



Suitable for Coating **2 different Agents**, mixing them only at the lamination unit.

This is main **DuaLam** configuration and it brings out the best of the laminate output due to a **higher control** on the adhesive **quality** and **thickness**.

Dual possibilities for your shorter and most cost-effective runs

B

Solventless  
Coating Unit

+

External Mixer  
for Adhesive



Suitable for **Coating Traditional Solventless adhesives** (pre-mixed externally) on the **Solventless Unit**.

Suitable for coating paper-based materials at **high temperatures**.



## DuaLam Add-Ons

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DuaLam features exceptional Add-Ons **to boost your performance** even more.

### Adhesive thickness Control System

Continuous monitoring of coating layer thickness and consumption during the run.

In case of mistakes, the operator is promptly alerted.

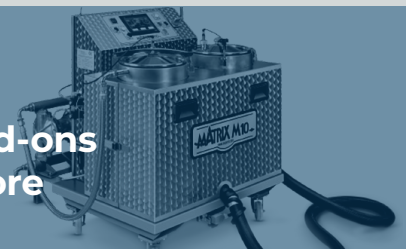
This enhancement fits customer looking for **automation controls** and **extreme attention** to laminate quality.



### External Mixer

Bi-component and solventless adhesives mixer, equipped with automated filling, catalyst and pump system.

For customers willing to laminate with **Traditional Solventless Adhesive**.



Want to accessorize?

DuaLam features two incredible add-ons to boost your performance even more

## Our Customer Service

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Our Customer Service has **everything you need.**

### 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.

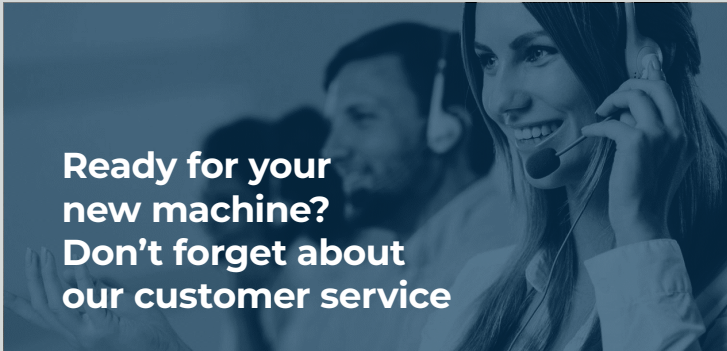
### Spare Parts

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.

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**





**JOIN THE FLEX-CONVERTING**





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