

# High speed CALANDER, WEB-COATERS and LINES using hot melt adhesives



HIP-MITSU, an Italian company headquartered 15 minutes from the international Venice and Treviso airports, is one of the most qualified producers of Web-coating and Laminating Equipment, in which field it has operated in for many years.

### Specialisation and steady research

In particular, the high specialisation in the production of coating heads and the steady research in the product innovation are well testified from many international patents belonging to the company.

### A complete range

HIP-MITSU offers a complete

range of calenders and Web-Coaters produced according to high standards, both for high process speed - described in the present brochure - and low speed.

### **Industrial application fields**

HIP-MITSU calenders and Web-Coaters are compatible with all kinds of winders and rewinders available on the market and find large application both in "OFF-LINE" as well as "IN-LINE" coating/laminating lines.

### Easy to be installed

The standard configuration of HIP-MITSU Calenders and Web-Coaters includes foundation plates made of steel, complete with anchor bolts and levelling screws, and hooks in order to always enable a safe handling and a quick and easy installation.

### **Motorizations and Plant Engineering**

HIP-MITSU calenders and Web-Coaters can be equipped with one or more independent motorizations.

According to the lay-out and the engineering of the line where they are installed, HIP-MITSU calenders and Web-Coaters can be used both in "master" as well as "slave" mode.

The independent machine control panel is positioned in order to facilitate the machines operations.

All air and electro-air devices are collected in a special fuse box from where starts all technical channelling to the machine facilities, in order to get particularly clean plant engineering.

### **High quality standards**

HIP-MITSU Calenders and Web-Coaters are built using the most advanced technologies and the most reliable components.

The systematic application of precise and detailed control plans ensures the realization of all machines according to the project standards.

They are always built with a

solid structure, in order to give no vibrations.

### Reliability and reduced maintenance

Moreover design and raw materials guarantee a high reliability in its lifetime in any working condition and a meaningful reduction of the line maintenance.

# Easy set up according to the materials and the threading

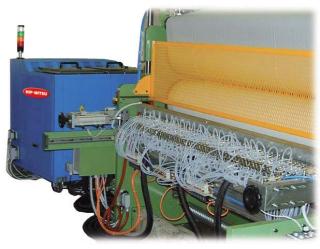
According to the conversion to be realized, all

HIP-MITSU calenders and webcoaters can be easily set up using the equipment and devices following described.

### Synchronized stands for HIP-MITSU devices

All HIP-MITSU calenders and web-coaters are pre-arranged for the installation of the slot die dedicated stands a/o HIP-MITSU "contact-less" devices.

The stands, equipped with independent precision mechanical adjusting devices, are also complete with the devices and electrical checks for setting the coating/laminating and the auxiliary operations and include a stand-by and a



Synchronized stands

working position that can be synchronized with the main line.

Finally the stands provide to a maintenance working position enabling an easy access to the coating heads or to the "Contact-Less" devices without removing them from the line.

# Interchangeability and quick rolls disassembly

All HIP-MITSU calenders and webcoaters for high process speeds are as standard equipped with a quick rolls disassembly system, in order to get handy and quick supplementary maintenance.

Furthermore that enables to get a quick interchangeability within the rolls to be used according to the specific materials to be processed.



Water-cooled/ Heated rolls

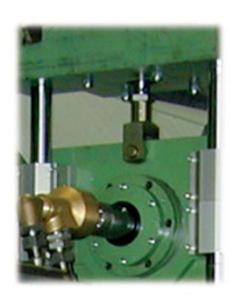


Rubberised rolls/special coating

# Standard calendering rolls available

- Water-cooled rolls with right or left injection of the refrigerating fluid and available in several models according to the specific

  USE
- Heated rolls with right or left injection of the heating fluid and available in several models according to the specific use.
- Rubberised rolls with dedicated materials for a long life.
- · Rolls with special coating



Rotary joint

## Calendering pressure and gap regulation

HIP-MITSU Calenders and Web-Coaters can be equipped with mechanical or servo-assisted devices for the gap regulation.

Furthermore they enable an easy regulation of the calendering/pinch pressure. If needed an additional module can be included to give a floating position of the roller.

### **Auxiliary nip rolls**

All HIP-MITSU Calenders and Web-Coaters can install on board a nip roll with independent motorization and adjustable gap.

### **Chill Rolls**

All HIP-MITSU Calenders and Web-Coaters can install on board chill rolls with independent motorization and adjustable gap.

The circulation of the cooling fluid is included in several configurations according to the specific production to be achieved.

Fluid input and output on one or more sides.

The roll surface depends on the material to be processed.

# "Hyper-Coater" and "Hyper-Laminator": customized solutions for new or existing lines integrations.

The HIP-MITSU "Hyper-Coater" and "Hyper-Laminator" models enable to easily integrate both existing as well new lines with the HIP-MITSU coating and laminating application technologies.

They are customized and planned each time ad-hoc, enabling to transfer to the final user well-tested solutions and to reduce plant integration times and costs.



### Hyper-Coater

### Easy to be integrated to the main line

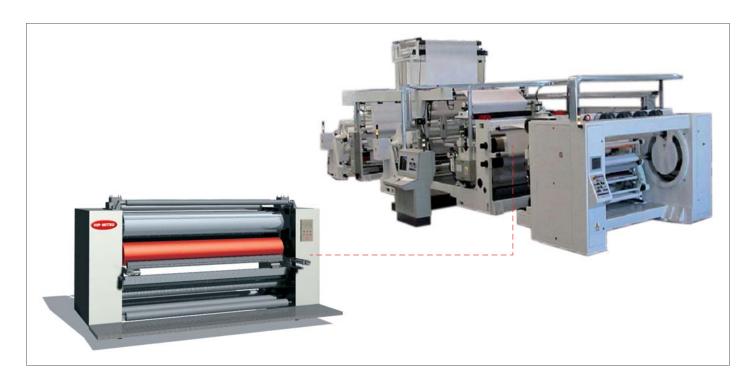
Thanks to building and plant engineering solutions based on international standards, HIP-MITSU calenders and webcoaters can be easily integrated to the other line equipment.

### **Electronics and communications**

The standard equipment of the HIP-MITSU calenders and Web-Coaters includes PLC with Profibus field bus.

Alternatively they can be equipped with Device-Net. The on-board software is already complete with standard communication protocols enabling the easy dialog with the line facilities and the process data exchange.

The same module allows teleassistance services.



### **Control systems**

The wide range of HIP-MITSU coating heads enables a User Friendly and integrated system management in different development levels, according to the operation needs.



### Main technical data

The operative ranges into which HIP-MITSU calenders and Web-Coaters are :

Min Working width	100 mm
Min. Working width :	100 11111
Max. Working width :	3.200 mm
Max. process speed :	up to 900 m/min
Threading speed:	2 m/min
Motor:	right or left side
Drive system :	AC motor
Motor:	IP 55, where required forced air circulation
Supply voltage:	380 V three-phase 50 Hz +neutral +round or according to the customer request
Auxiliary voltage :	24 V
Drive side :	left or right according to the product flow
Pneumatic source :	6 Bar – clean and dry compressed air
Structure painting:	standard MITSU or under customer's specifications



add value to your production