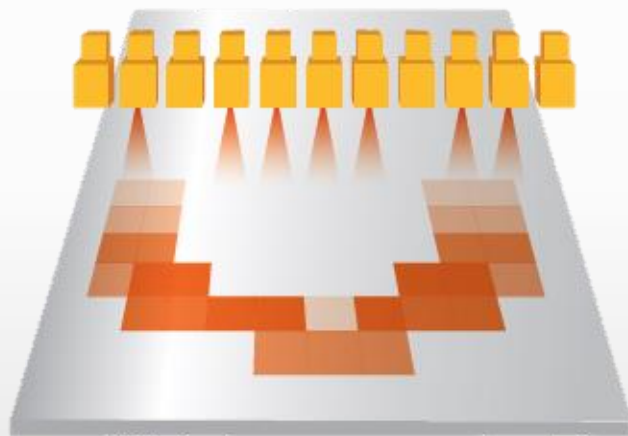


SAGOMA SLIM Sectorial machine for Blanks and Coils





*First DieTronic facility in Via Cavalier Angelo Manzoni
28, Sant'Angelo Lodigiano 26866 (LO) , Z.I. Maiano*



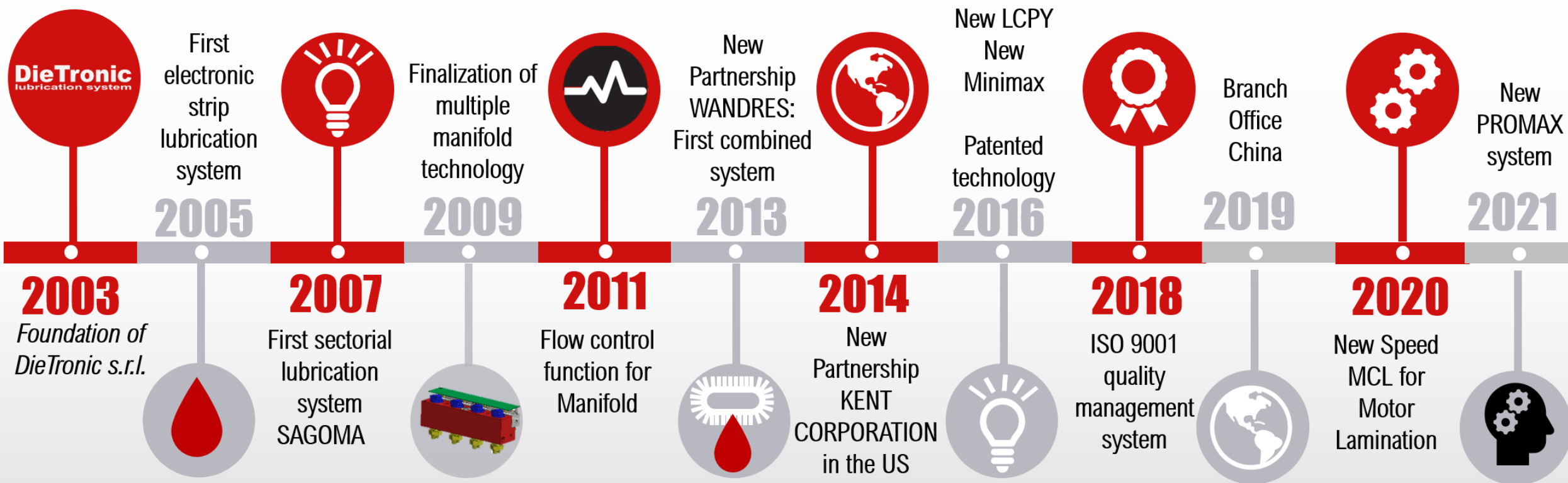
DieTronic consolidated technology is the result of years of research, development and improvement

OUR HISTORY

DieTronic was founded in 2003 thanks to the consolidated know-how and forward-looking vision of its founders, who desired to provide advanced automatic lubrication systems of the highest quality for different metal-forming applications.

Thanks to our over fifteen-years experience, we have been able to develop a consolidated and patented technology, with an internal efficient quality management system certified also by the achievement of ISO 9001:2015.

OUR HISTORY



ABOUT US

- 2000 m² plant
- +15 years experience
- 615 machines produced



*The new DieTronic plant in Via Madre Teresa di Calcutta 9-13,
Sant'Angelo Lodigiano 26866 (LO) , Z.I. Malpensata*

OFFICES



PRODUCTION



WAREHOUSE





DieTronic agents and distributors network

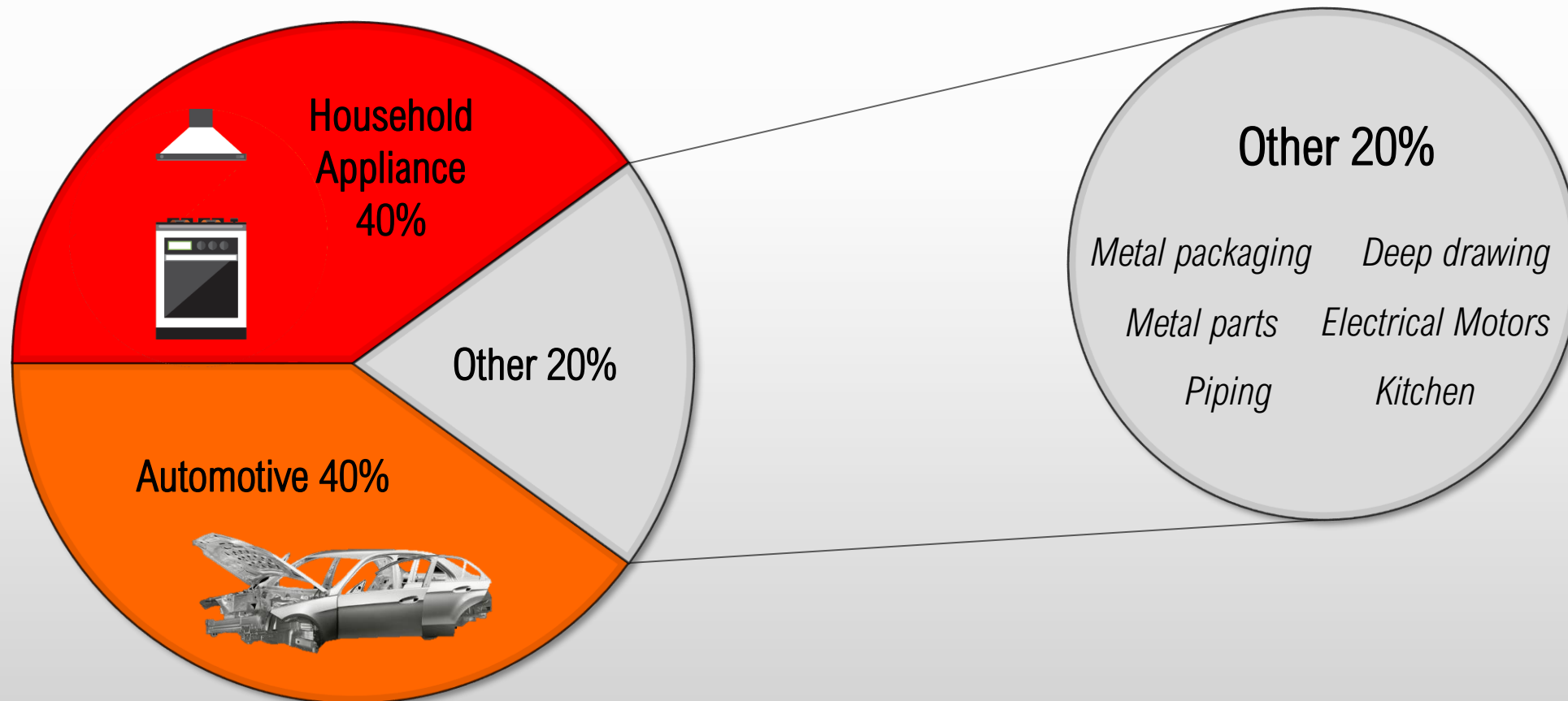
GLOBAL PRESENCE

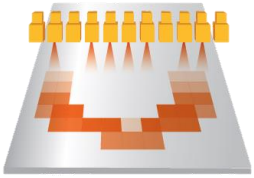
DieTronic boasts a long series of collaborations and partnerships with companies and well-known factories in Italy as well as in Europe and all over the world.

Our distribution network offers support to the customer starting from the consultancy to the assistance and maintenance, also through remote assistance.

APPLICATION FIELDS

We are suppliers of lubrication systems for different sheet metal-forming applications, mainly for the Automotive and Household Appliance.





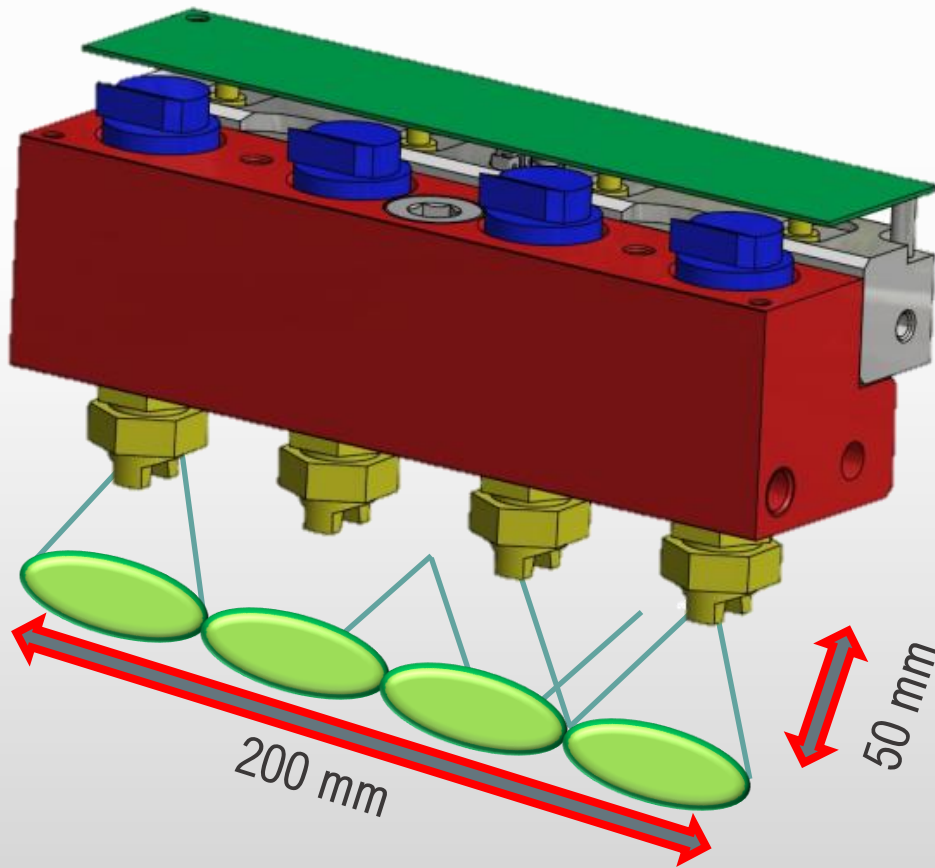
SAGOMA SECTORIAL LUBRICATION MACHINE

- Possibility to select specific lubrication areas in 50x50 mm patterns
- Oil quantity adjustment from 0,5 to 3 g/m²
- Up to 8 different oil quantities on the same surface
- Suitable for both blank and coil
- Available in different sizes:
 - ☐ for blank processing: from 800 to 3000 mm width
 - ☐ for coil: from 800 to 2000 mm width



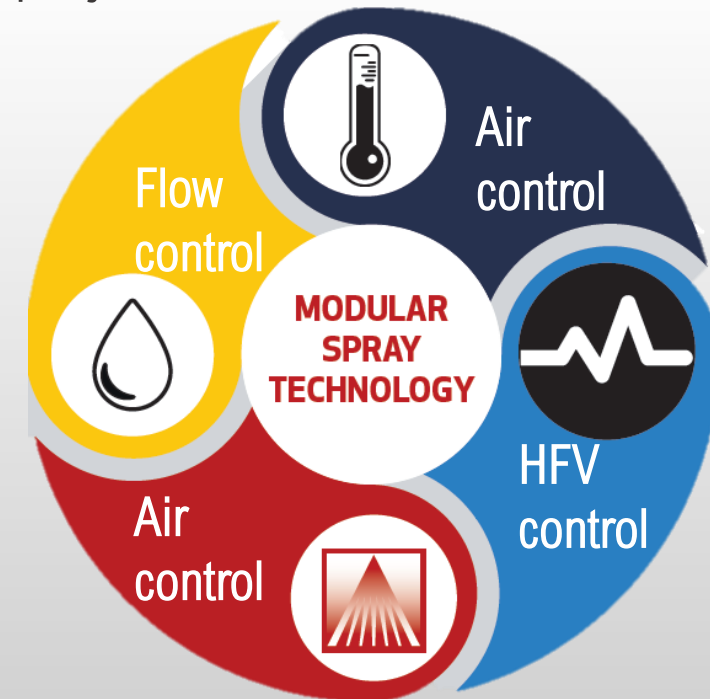
DIETRONIC ® MODULAR MANIFOLD TECHNOLOGY

DIETRONIC ® MODULAR MANIFOLD TECHNOLOGY

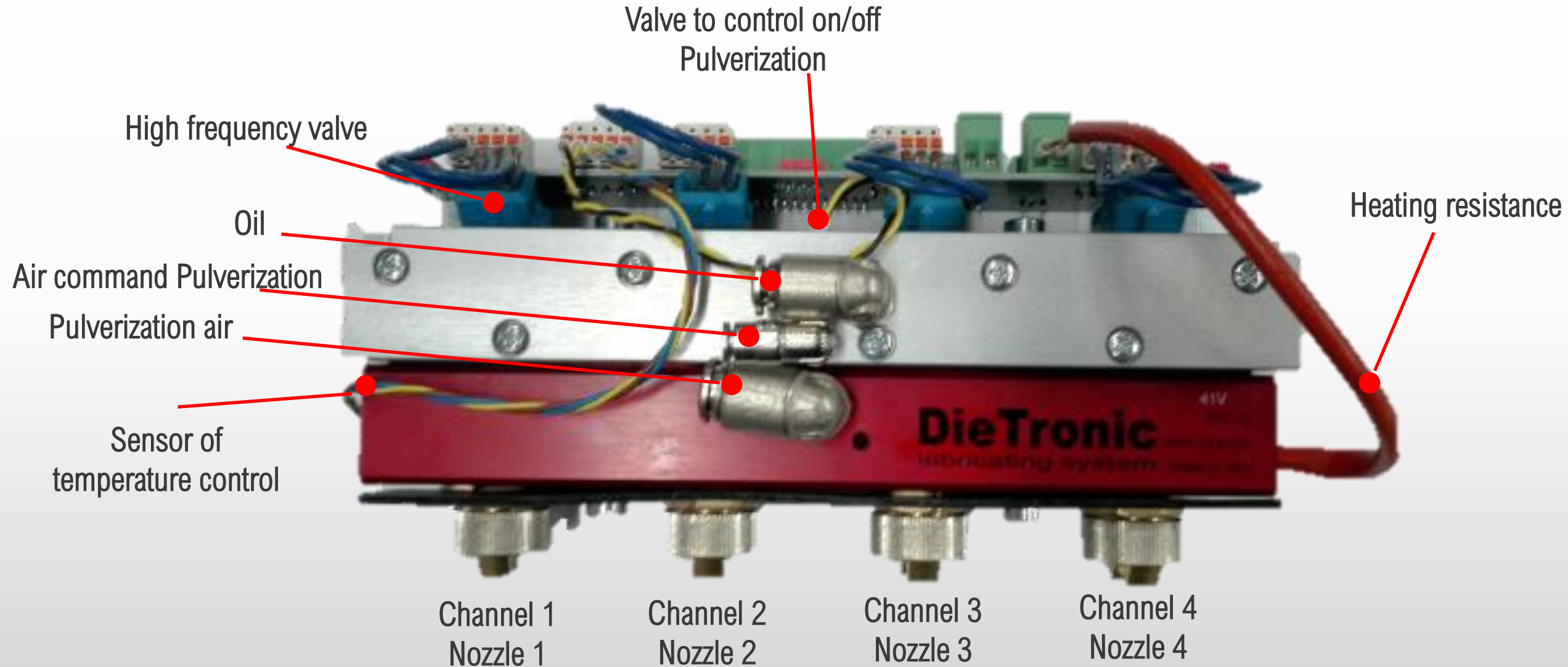


Due to the design of DieTronic solution (just 50 mm distance), instead of a conventional spray machine, there is a substantial reduction in spray-oil mist

- ✓ No overspray to control
- ✓ Less oil mist



MODULAR MANIFOLD

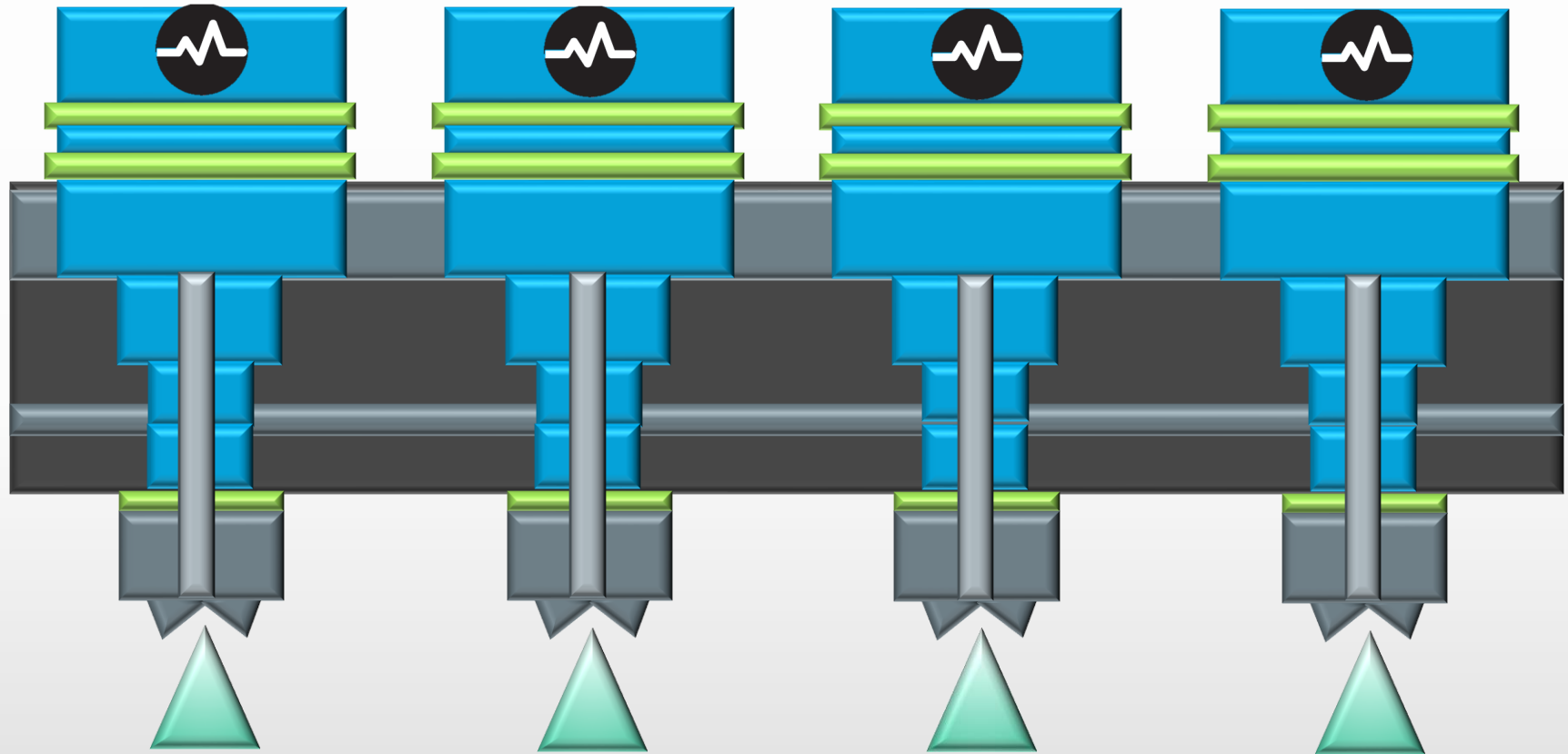


SAGOMA® HFV TECHNOLOGY

THE FUNCTIONS OF THE MANIFOLD



AUTOMATIC VOLUME
ADJUSTABLE THROUGH HFV
(HIGH FREQUENCY VALVE)



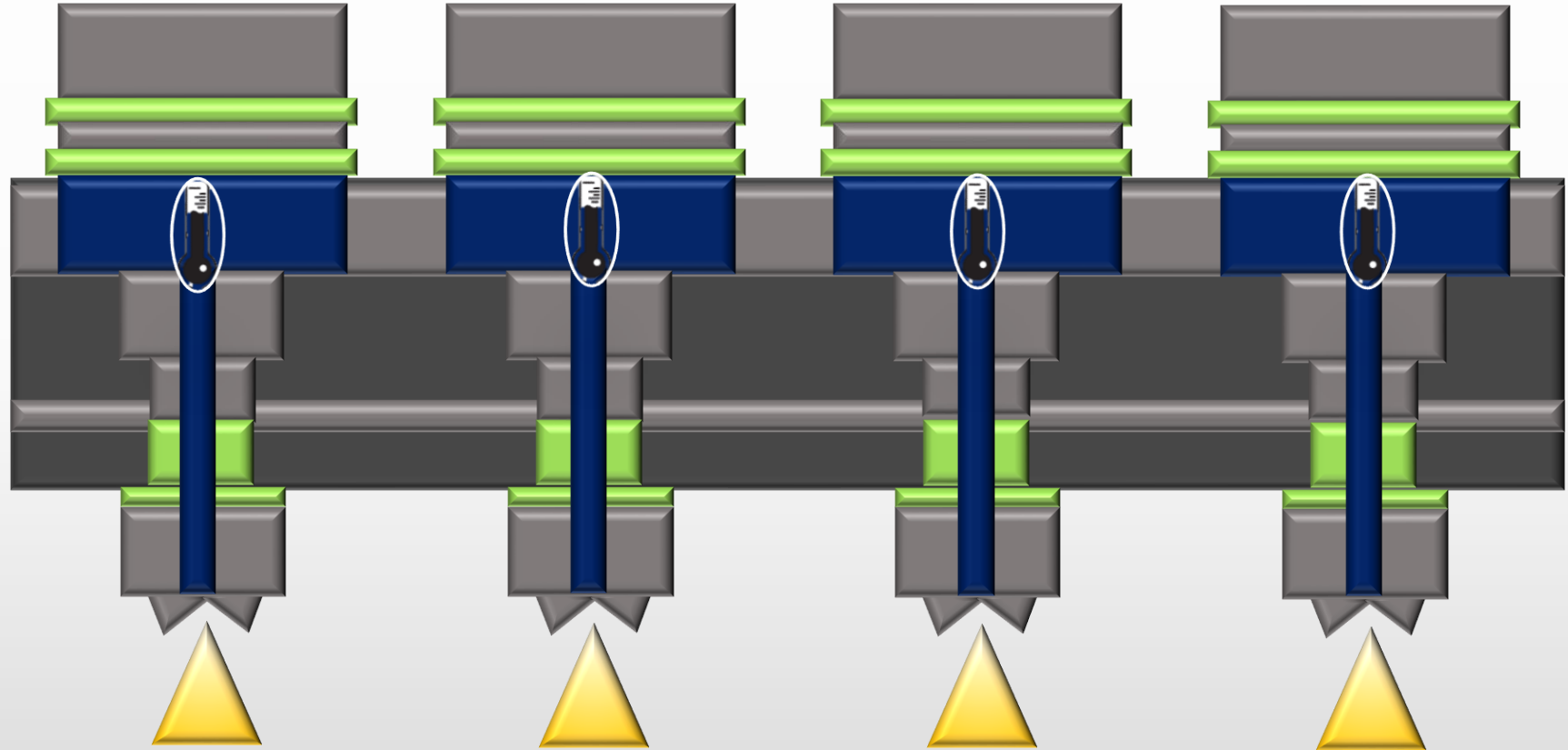
DT HFV ® OIL FLOW CONTROL

SAGOMA® HFV TECHNOLOGY

THE FUNCTIONS OF THE MANIFOLD



HEATING SYSTEM
INTEGRATED WITH
TEMPERATURE CONTROL
FOR EACH MANIFOLD



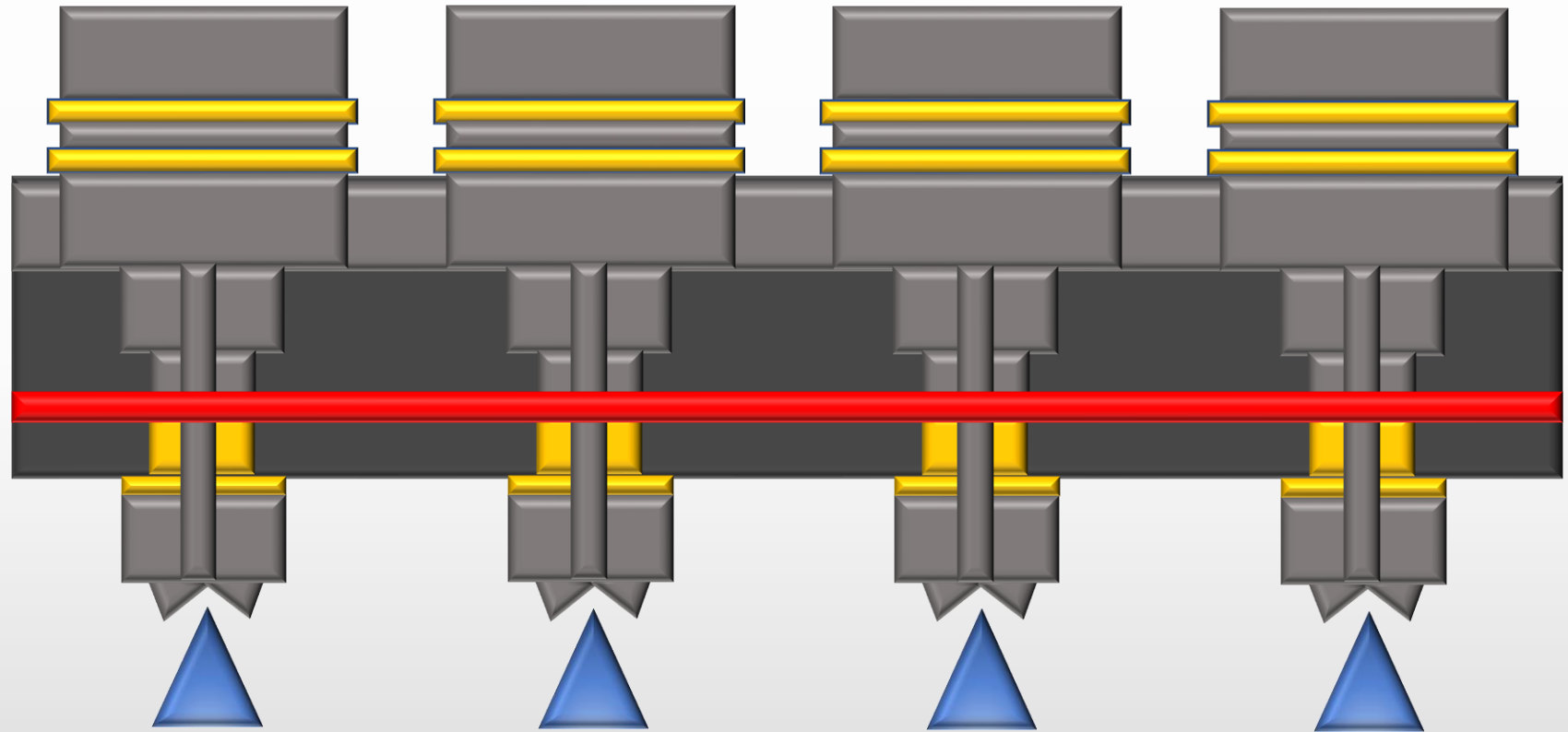
DT TEMP® CONTROL

SAGOMA® HFV TECHNOLOGY

THE FUNCTIONS OF THE MANIFOLD



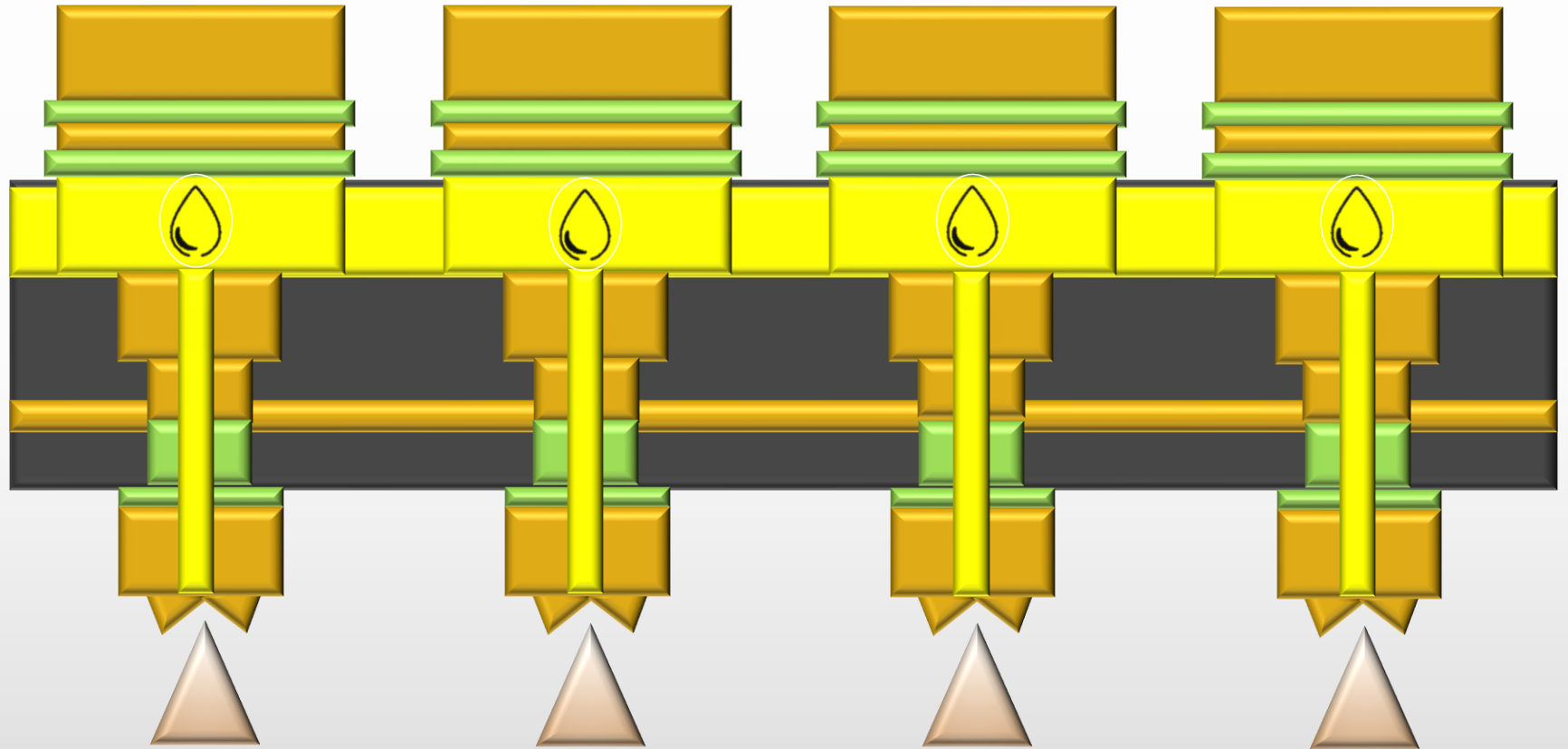
AIR SPRAY CONTROL VALVE
INTEGRATED IN EACH
MANIFOLD WITH ELECTRONIC
ADJUSTMENT



DT AIR® CONTROL

THE FUNCTIONS OF THE MANIFOLD

TEST FUNCTION TO ENSURE
THE PERFORMANCE OF EACH
NOZZLE

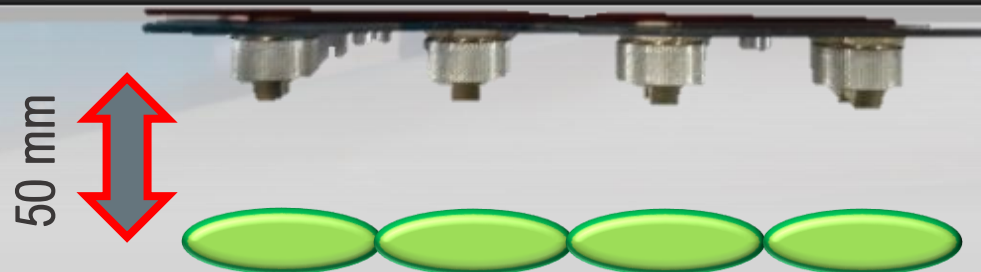
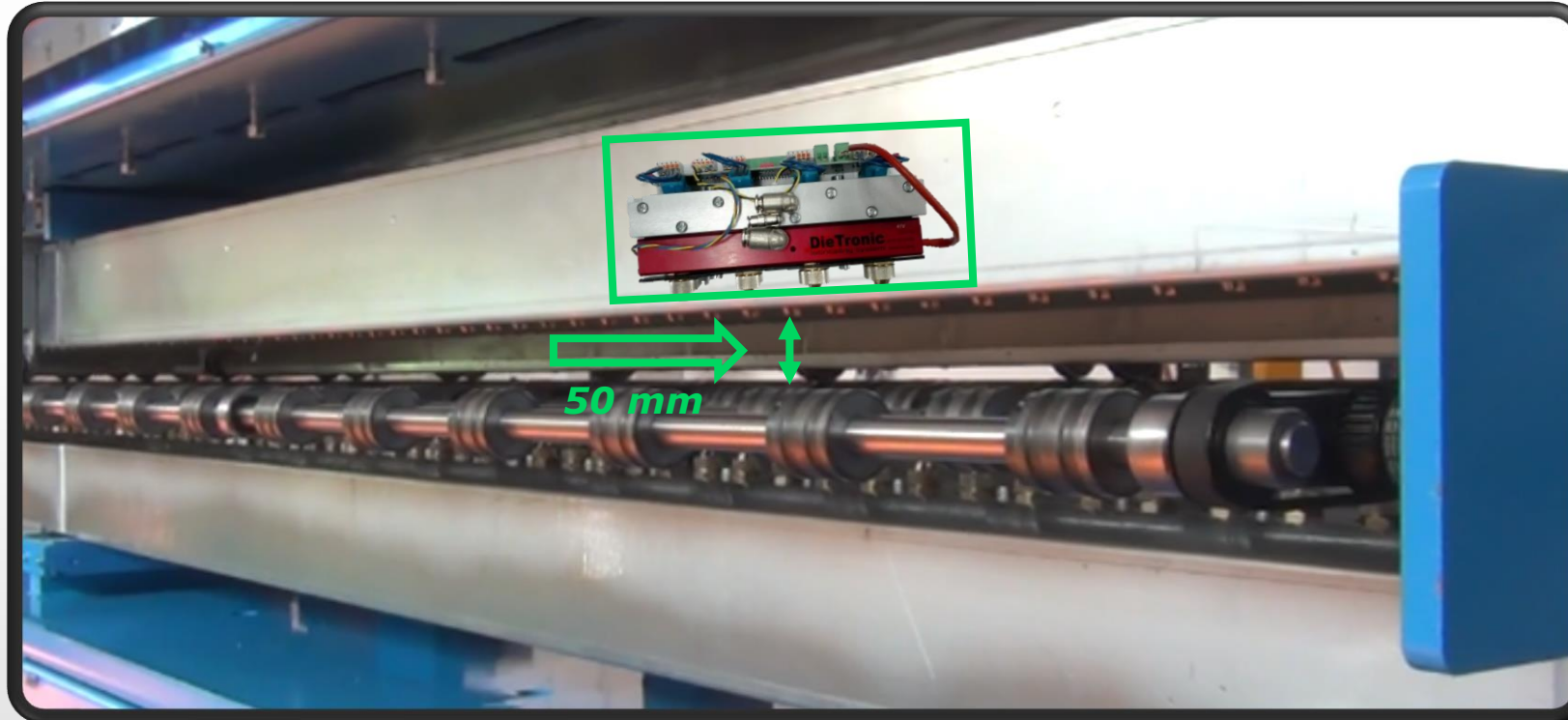


DT SENSOR® CONTROL

RESTRAIN CONTAMINATION

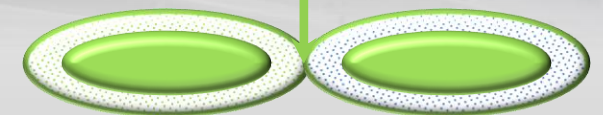
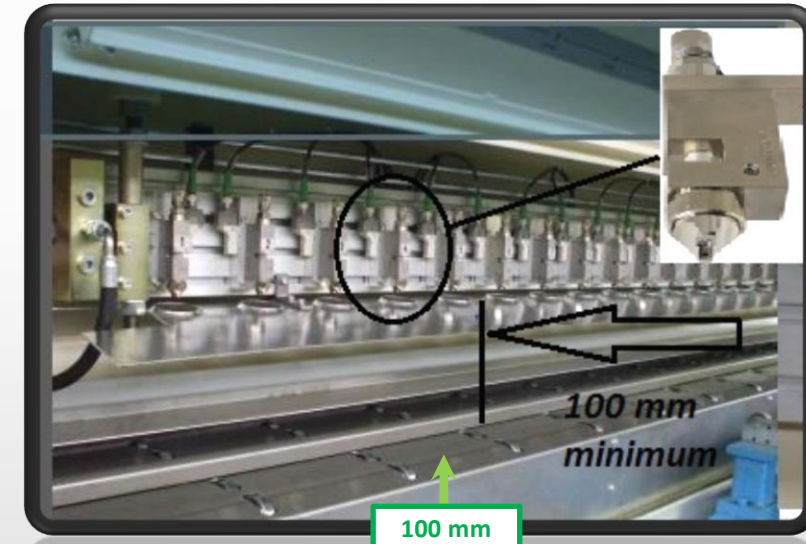
DIETRONIC CLOSED SYSTEM

to avoid any contamination of parts as tube pipe and electrical device



CONVENTIONAL OPEN SYSTEMS

Oil mist dispersion on all parts of the cabinet



Imprecise spray application with more overspray to control

Suitable for COIL

COILS



Suitable for BLANKS

BLANKS





MOTORIZED CONVEYOR

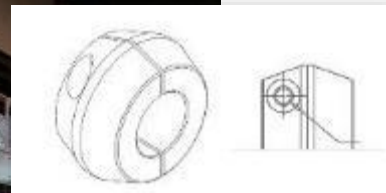


Smart Conveyor ensures 100% of sheet movement without slitting by upper Crushless wheels



DieTronic
lubrication system

NON-DRIVEN WHEELS



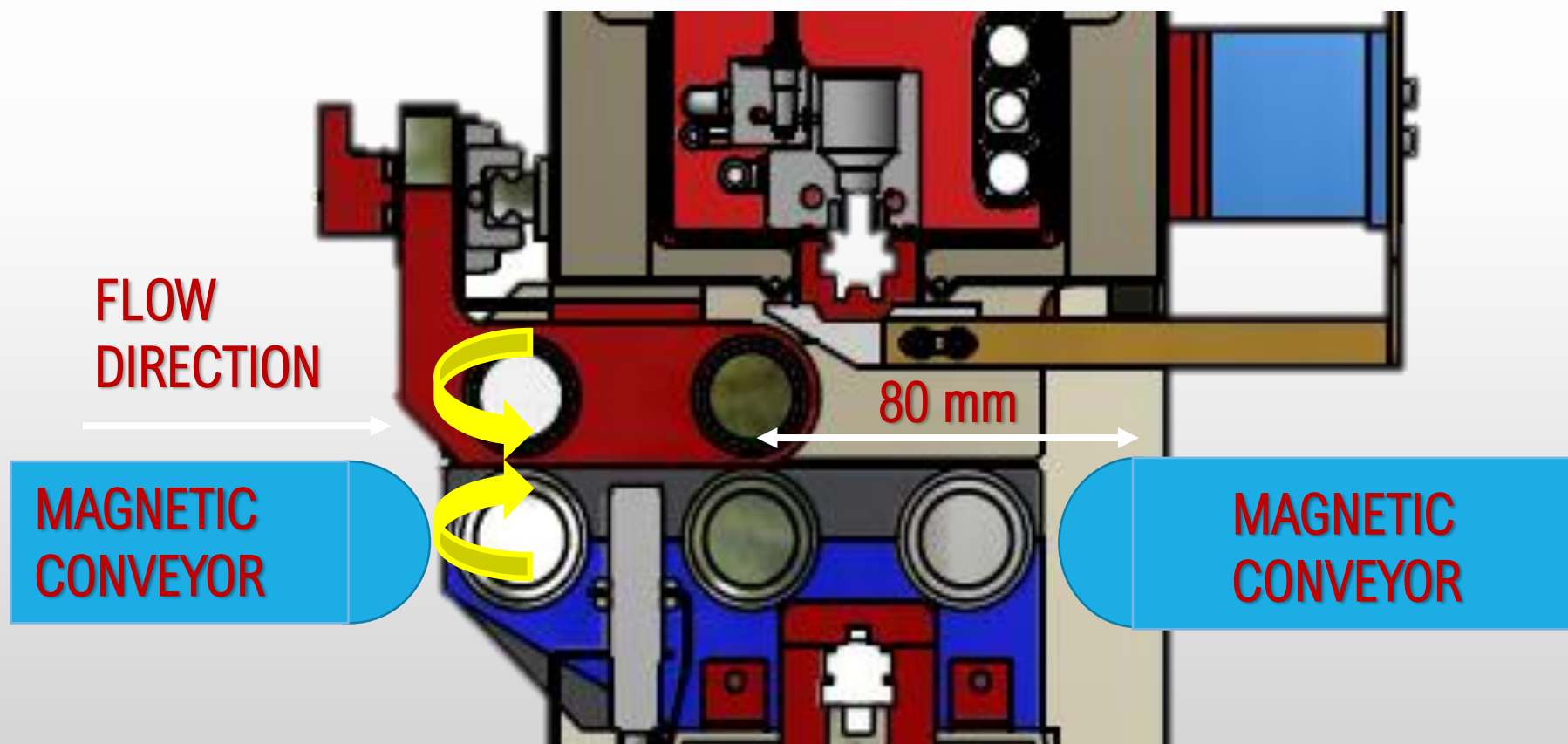
Non- motorized transport with minimum contact design of the wheels

MOTORIZED CONVEYOR

ONLY
BLANKS

SLIM DESIGN

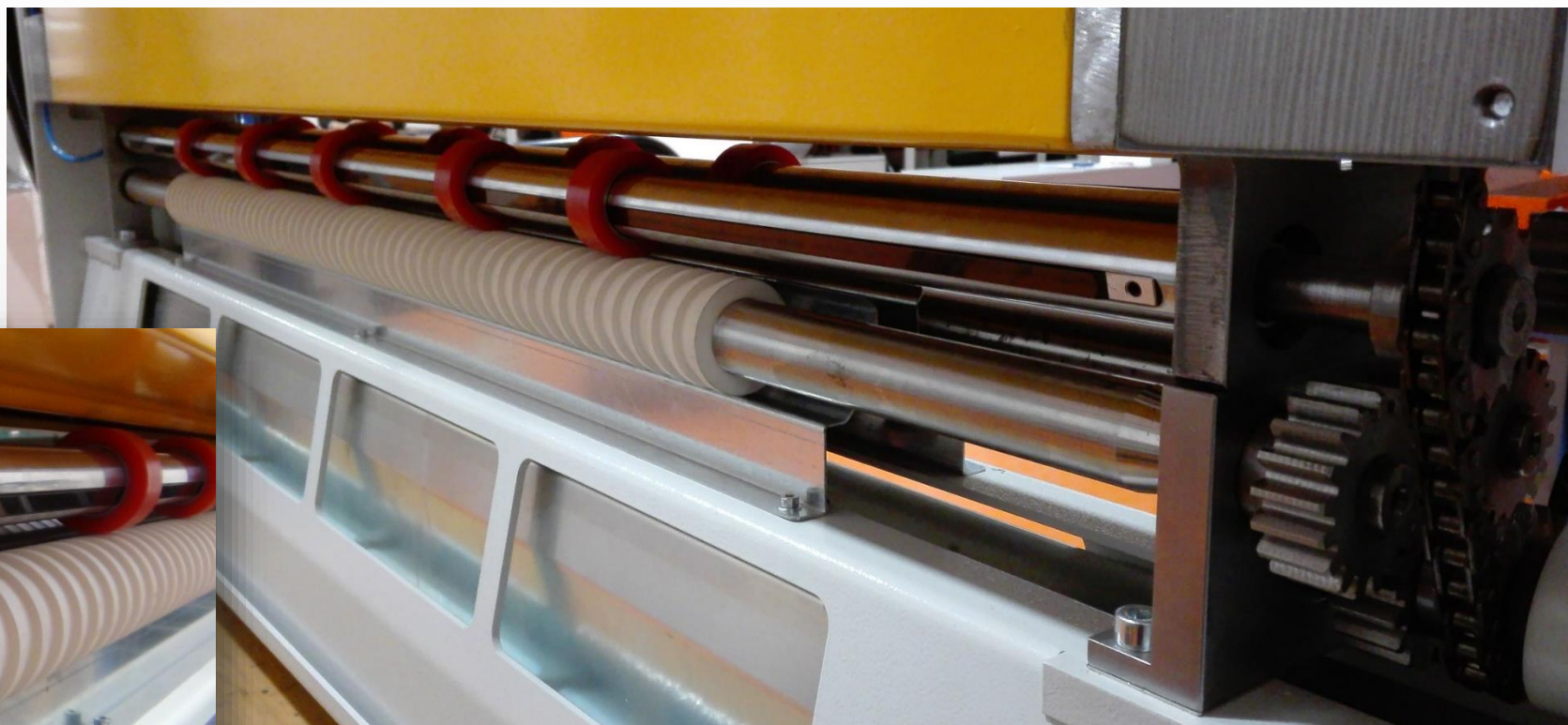
A blank of minimum 100 mm can pass through the machine without imprecise moving



MOTORIZED CONVEYOR

SLIM DESIGN

A blank of minimum 100 mm can pass through the machine without imprecise moving



ONLY
BLANKS

MOTORIZED CONVEYOR



ONLY
BLANKS

SLIM DESIGN

A blank of minimum 100 mm can pass through the machine without imprecise moving



← UPPER MOTORIZED WHEELS

← LOWER MOTORIZED WHEELS

- ✓ *THE SOLUTION TO TRANSFER SHORT BLANK THROUGH THE MACHINE*
- ✓ *MINIMUM SIZE 100 MM*
- ✓ *AUTOMATIC POSITIONAL SYSTEM FOR UPPER WHEELS ACCORDING TO THE THICKNESS OF THE BLANK*

CONVEYOR - TRANSFER CONVEYOR ANTI SLIPPERY

ONLY
BLANKS

- ✓ *THE SOLUTION TO TRANSFER SHORT BLANK THROUGH THE MACHINE*
- ✓ *MINIMUM SIZE 130 MM*
- ✓ *AUTOMATIC POSITIONAL SYSTEM FOR UPPER WHEELS ACCORDING TO THE THICKNESS OF THE BLANK*



← UPPER MOTORIZED WHEELS

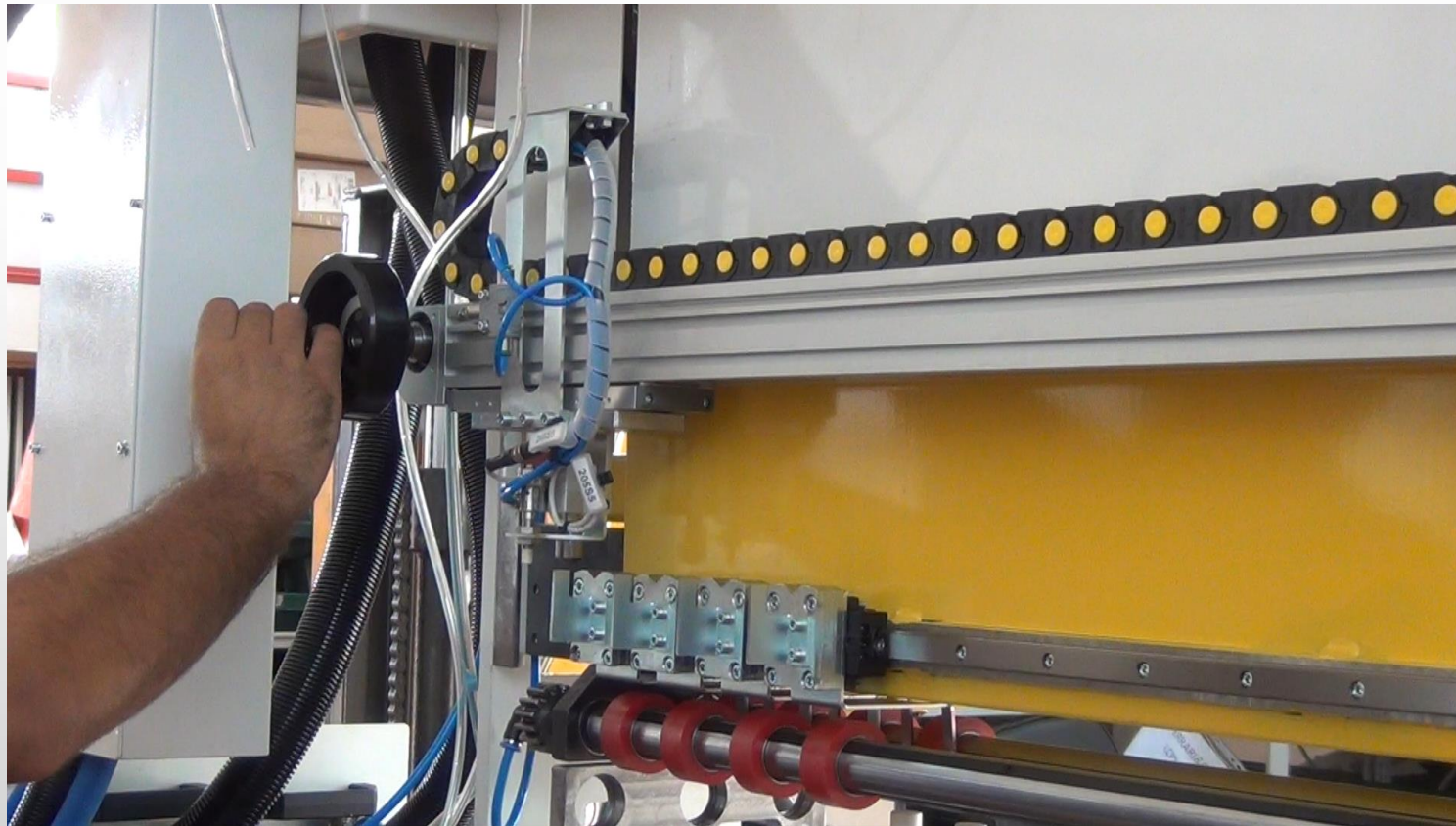
← LOWER MOTORIZED WHEELS



MOTORIZED CONVEYOR

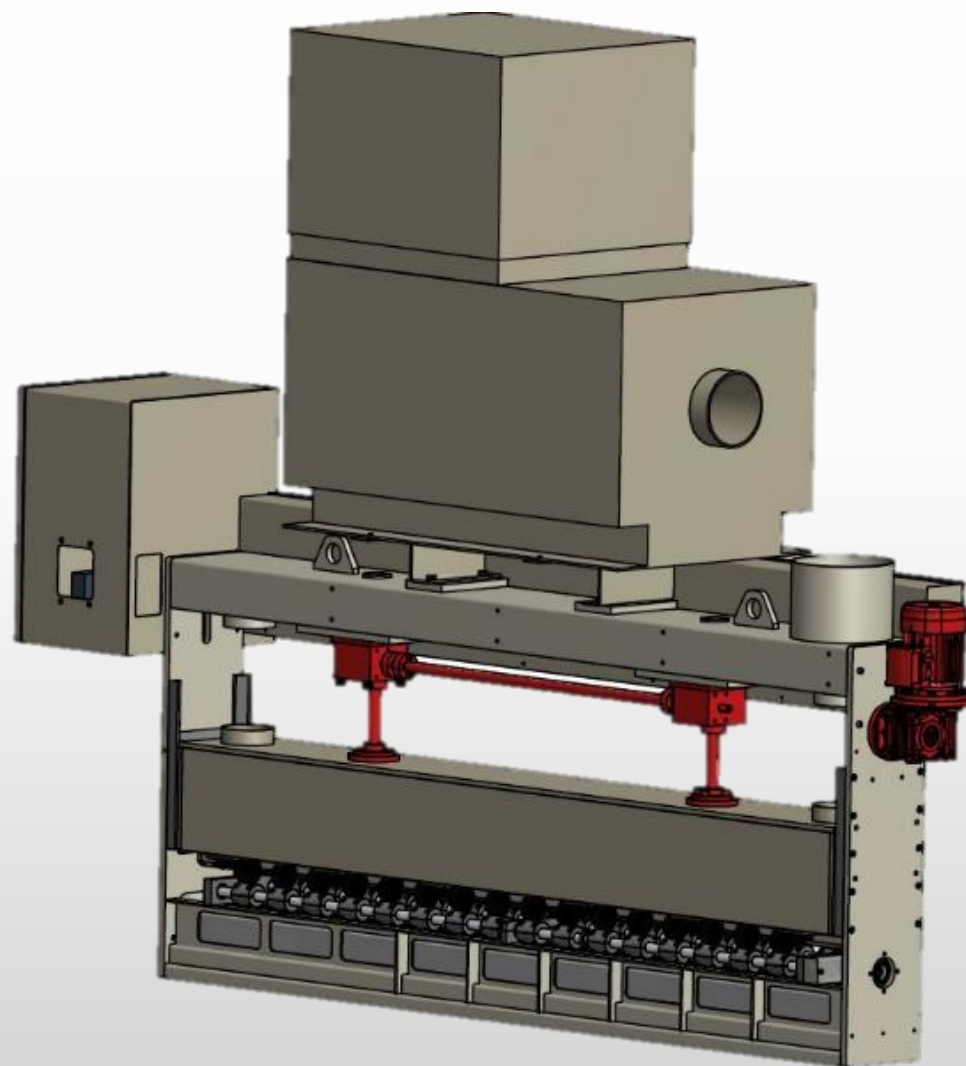
SLIM DESIGN

Position adjustment motorized upper wheels



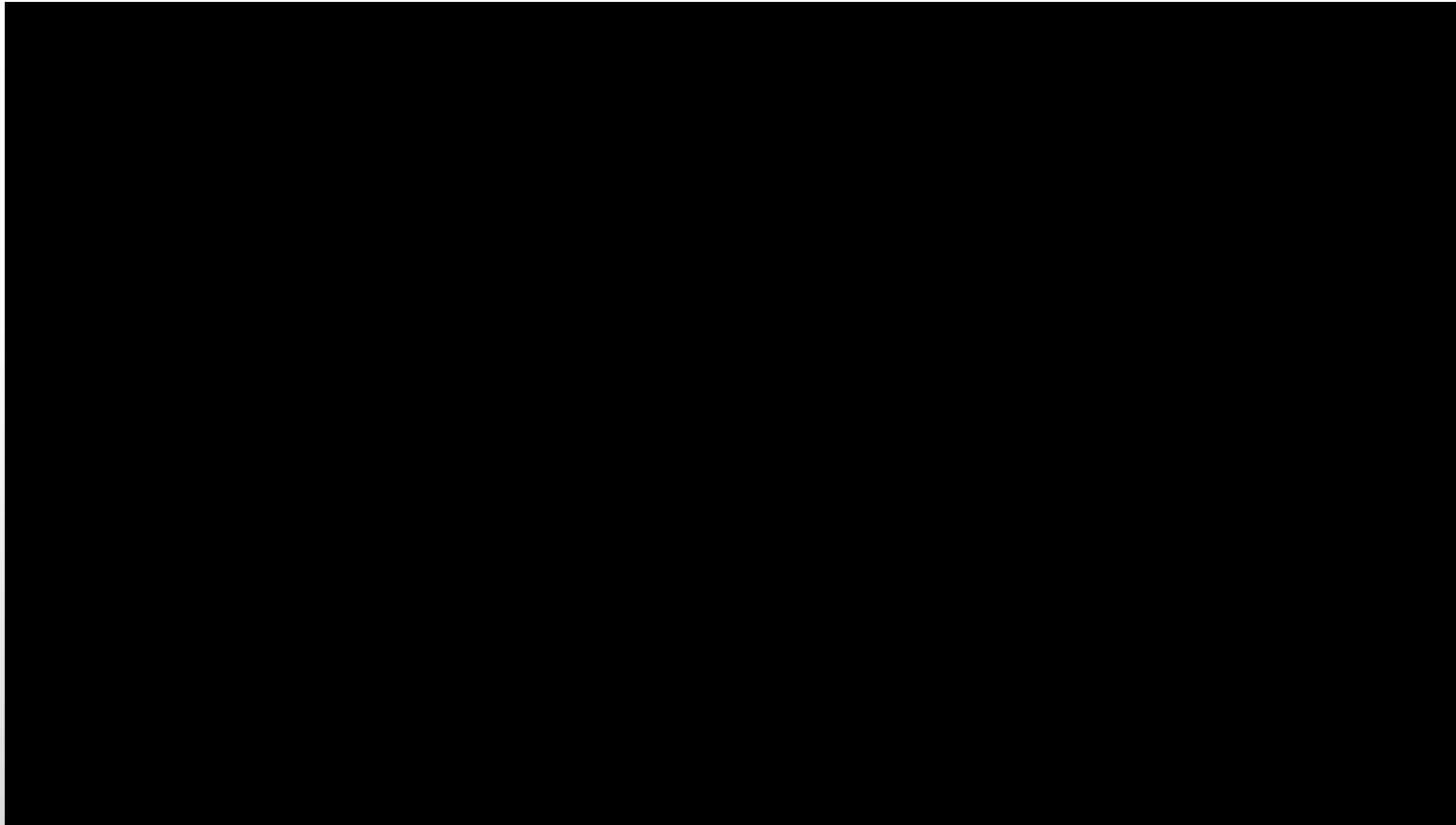


HEIGHT ADJUSTMENT SYSTEM



If the machine is inserted on a *coil processing line*, the system can be equipped with a ***height adjustment system*** of the upper spray head to ensure an *easier coil insertion operation* and avoid to damage the material and the machine

CLOSED AND EXTRACTABLE SPRAY HEADS

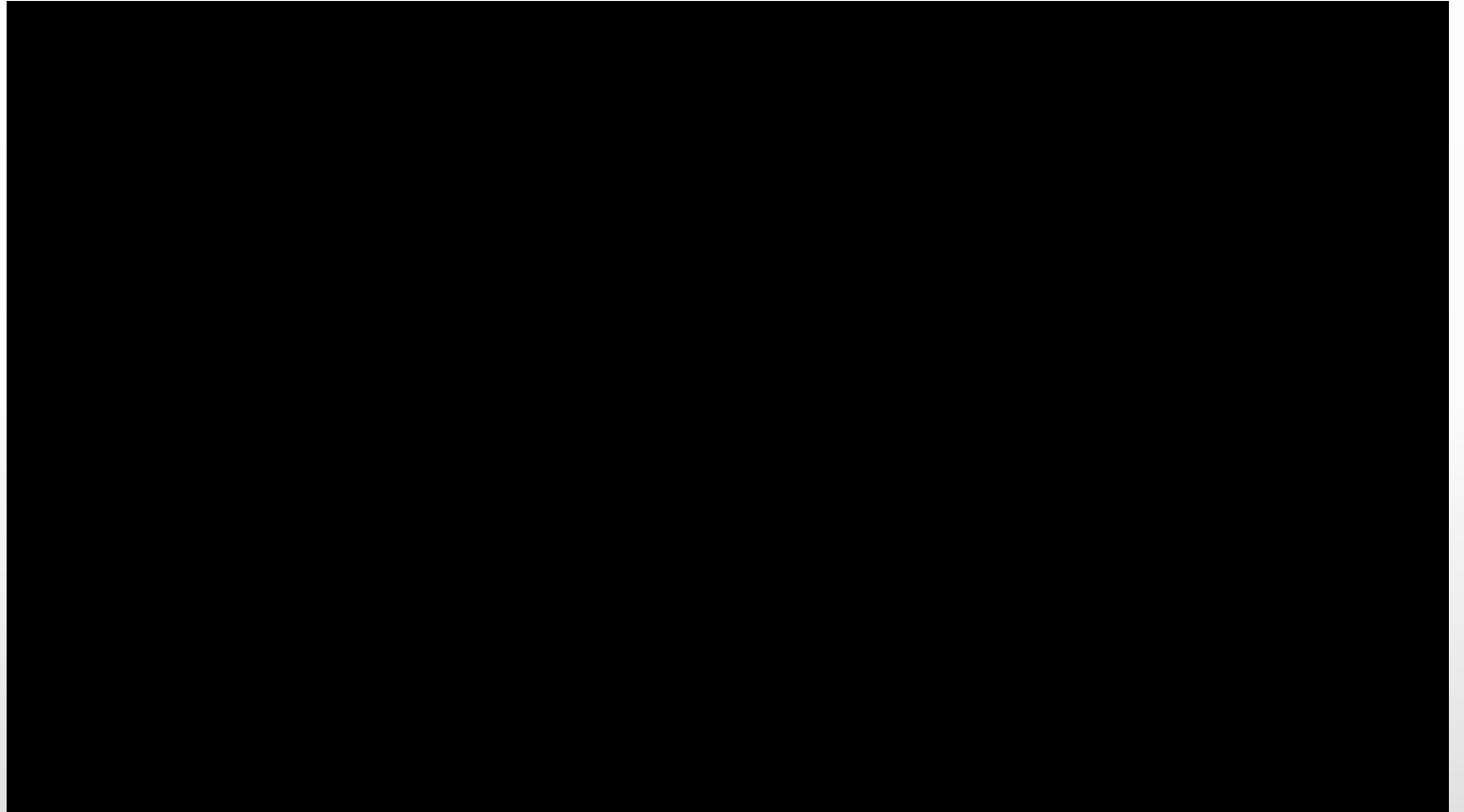


- Upper and a lower closed and extractable sprayheads
 - ✓ *Cleaner and safer working environment*
 - ✓ *Easier maintenance*
- Patented Modular Manifolds
 - ✓ *Quick replacement*

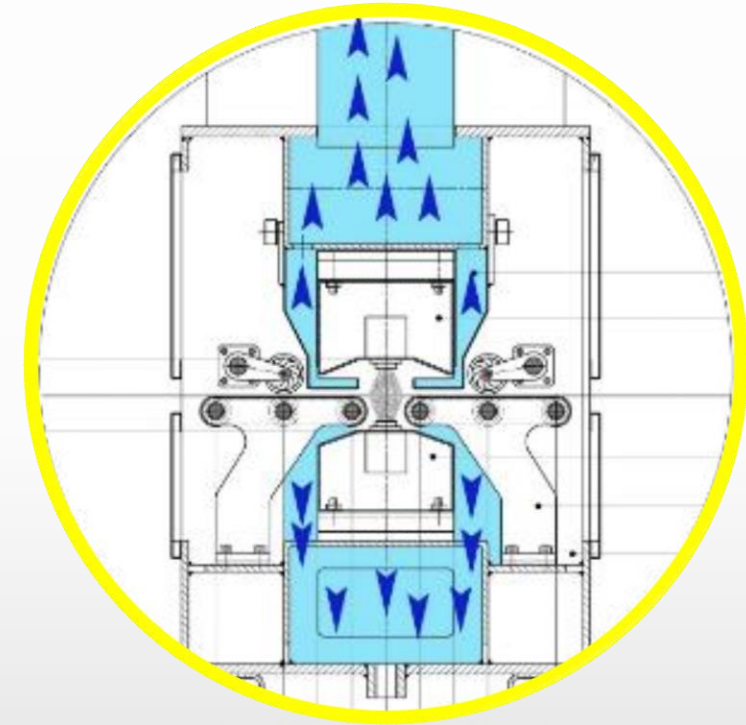
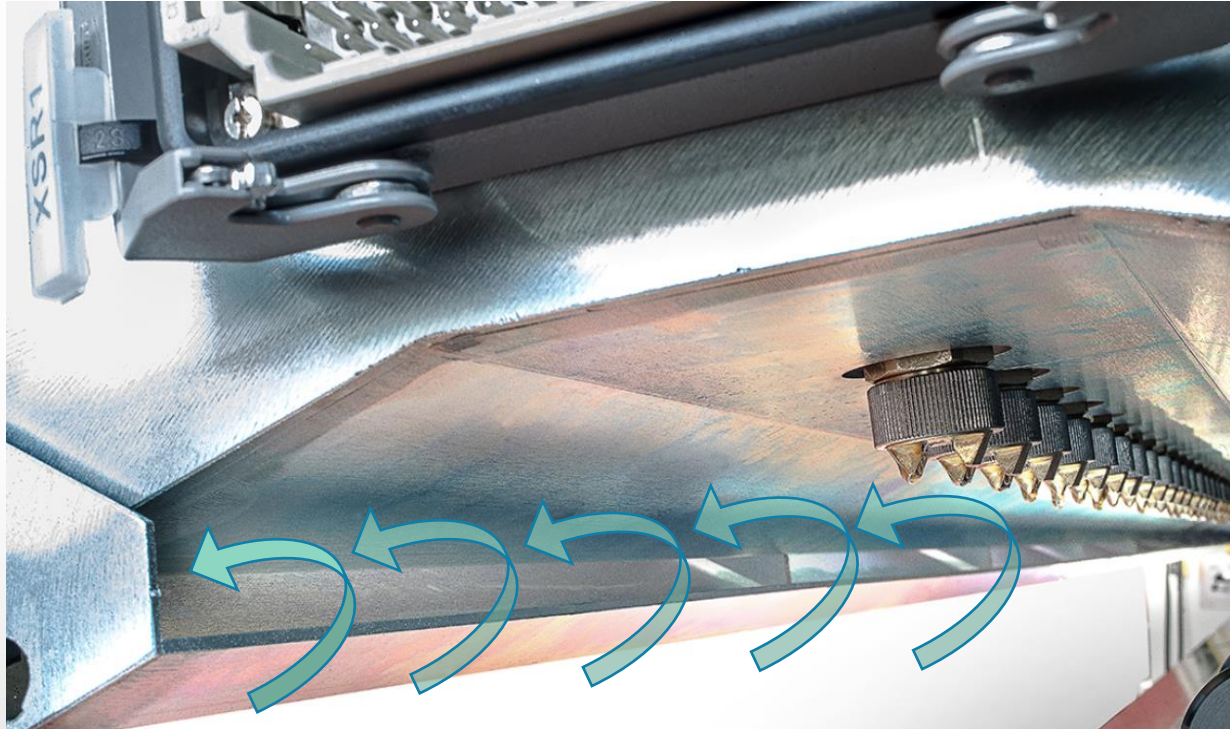
OIL MIST EXTRACTION SYSTEM

To minimize the presence of oil mists on the inside of the spray chamber, all of our Sagoma systems are provided with an *oil mist extraction system* with *high efficiency filter*.

An **analogic pressure gauge** ensures the monitoring of the filter lifetime.

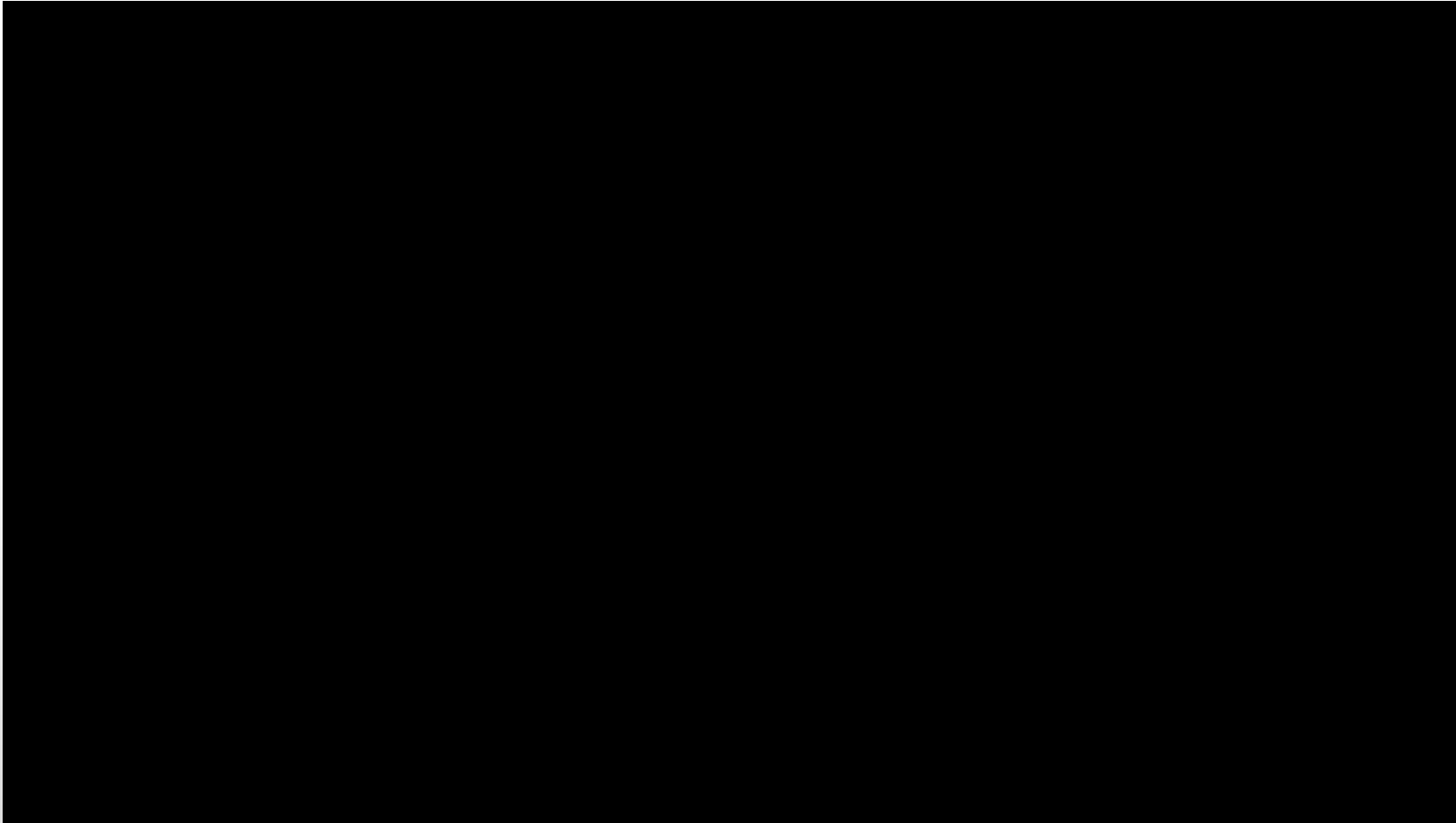


SPECIAL SPRAY CHAMBER DESIGN



The particular **shape of the spray chamber**, which **wraps** the spray area very closely, ensures a *better control of the overspray* and therefore a *better suction result*.

ANTI-DROP WIPER



Thanks to its
transversal movement,
the ***Wiper system***
collects the oil drops
in the inside walls of
the spray chamber
and prevents them
from falling onto the
passing blank.

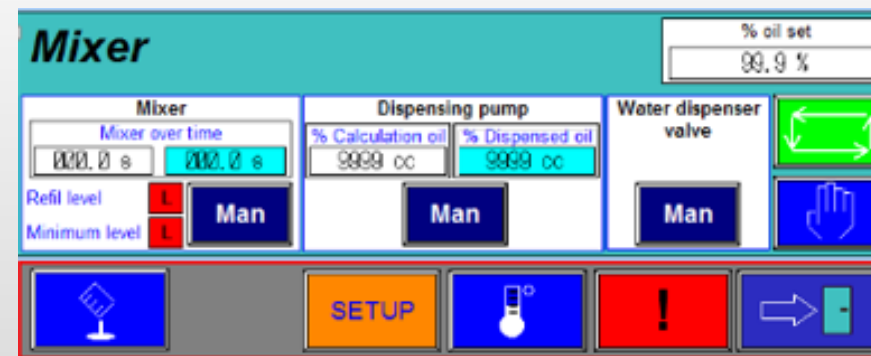
OIL MANAGEMENT

DieTronic systems are designed to work with most **oil-media** (pure oils with low, medium and high-viscosity, as well as water-based oils)

- In case of high-viscosity oils → integration with *heating system*
- In case of water-based oils → integration with *dosi-mixer system*

OIL TANK: DOSI MIXER

- In case of **water-based products**, the tank can be integrated with a *mixing system* that grants a *constant mixture of oil and water*
- The water quantity and the percentage of oil to mix are settable from operator panel



*to keep the right performance of the machine and good quality of mixed product, we suggest to use demi-water

MULTIPLE OIL MANAGEMENT

In order to manage multiple oil-media automatically and separately, to avoid contamination:

- our systems can be equipped with one or more tanks (each provided with a ***visual and an electric oil level indicator***, displayed also on the touch-screen panel.)
- additional tank for the cleaning product, to perform the ***cleaning of the whole circuit*** before the oil exchange



CLEANING PROCEDURE



PURGE

the lubricant from the channel manifold valves to the nozzles is pushed out by compressed air



CLEAN

the cleaning liquid flows from the channel valves to the nozzles



DRY

the cleaning product from the channel manifold valves to the nozzles is pushed out by compressed air



REFILL

The refill of the spray heads is really fast due to the previous steps

EXTERNAL CLEANING UNIT

- ✓ Quick cleaning maintenance of the spray heads
- ✓ Testing Unit of the nozzles



Solution 1 – External Cleaning Unit integrated on the side of the oil tanks with trolley



Solution 2 –Trolley with External Cleaning Unit



Solution 3 – External Cleaning Unit integrated on the tank with trolley and Waste tank

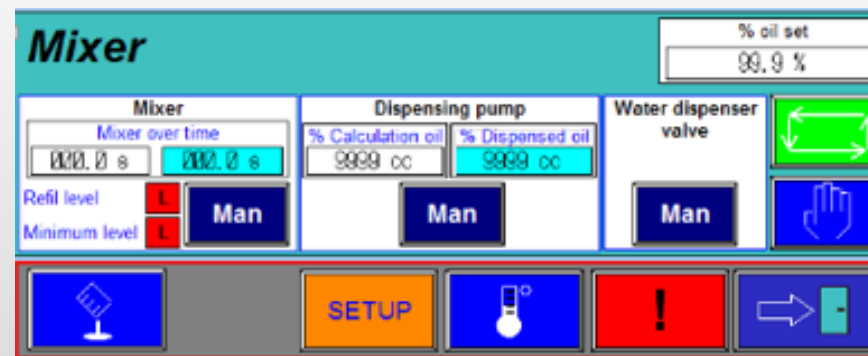
EXTERNAL QUICK CLEANING UNIT FOR SPRAYHEADS

- To **test the functionality** of the individual nozzles
- To **clean quickly and automatically** and **facilitate off-line maintenance operations** on the spray heads; **without having to stop production**, if you have additional spray heads
- Versatile and adaptable to new or existing lines
- For spray heads of various sizes
- (Possible addition on board the Waste recovery tank



OIL TANK: DOSI MIXER

- In case of **water-based products**, the tank can be integrated with a *mixing system* that grants a *constant mixture of oil and water*
- The water quantity and the percentage of oil to mix are settable from operator panel



*to keep the right performance of the machine and good quality of mixed product, we suggest to use demi-water



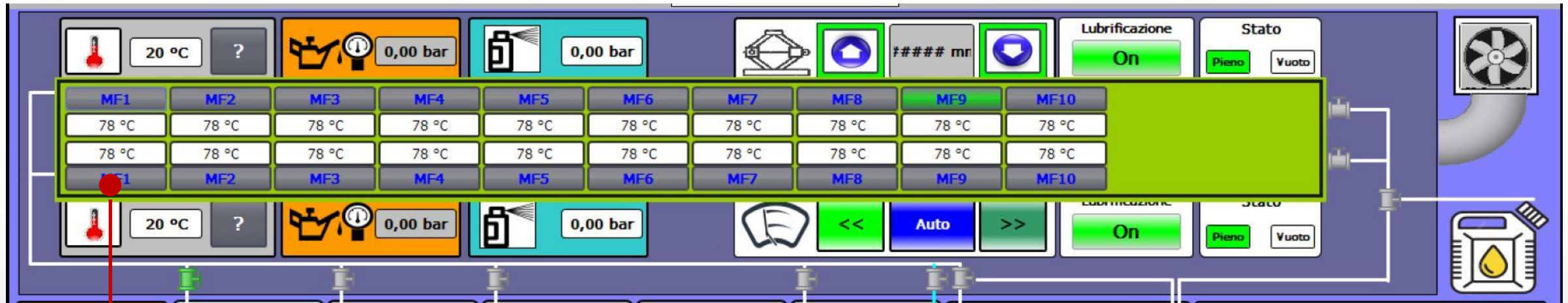
AUTOMATIC OIL REFILL

- *Automatic Oil Refill System* from 200 or 1000 lt barrel to the main oil tank
- ✓ No more lubricant manual movements
- ✓ Easier working operations
- ✓ No more environment contamination

USER-FRIENDLY OPERATOR PANEL

- 19" Siemens Control Panel
- *Adjustment of the oil quantity*, from 0,5 to 3 g/m²
- 8 different colors identify 8 different quantities
- Possibility to *save recipes and recall them*

SPRAYBOX DIAGNOSTICS



- Temperature Monitoring for each single Manifold

1	+0,000 A	13	+0,000 A	25	+0,000 A	37	+0,000 A
2	+0,000 A	14	+0,000 A	26	+0,000 A	38	+0,000 A
3	+0,000 A	15	+0,000 A	27	+0,000 A	39	+0,000 A
4	+0,000 A	16	+0,000 A	28	+0,000 A	40	+0,000 A
5	+0,000 A	17	+0,000 A	29	+0,000 A		
6	+0,000 A	18	+0,000 A	30	+0,000 A		
7	+0,000 A	19	+0,000 A	31	+0,000 A		
8	+0,000 A	20	+0,000 A	32	+0,000 A		
9	+0,000 A	21	+0,000 A	33	+0,000 A		
10	+0,000 A	22	+0,000 A	34	+0,000 A		
11	+0,000 A	23	+0,000 A	35	+0,000 A		
12	+0,000 A	24	+0,000 A	36	+0,000 A		

SPRAYBOX DIAGNOSTICS

- Test to check the correct functionality of every single spray nozzle

1	+0,000 A	13	+0,000 A	25	+0,000 A	37	+0,000 A
2	+0,000 A	14	+0,000 A	26	+0,000 A	38	+0,000 A
3	+0,000 A	15	+0,000 A	27	+0,000 A	39	+0,000 A
4	+0,000 A	16	+0,000 A	28	+0,000 A	40	+0,000 A
5	+0,000 A	17	+0,000 A	29	+0,000 A		
6	+0,000 A	18	+0,000 A	30	+0,000 A		
7	+0,000 A	19	+0,000 A	31	+0,000 A		
8	+0,000 A	20	+0,000 A	32	+0,000 A		
9	+0,000 A	21	+0,000 A	33	+0,000 A		
10	+0,000 A	22	+0,000 A	34	+0,000 A		
11	+0,000 A	23	+0,000 A	35	+0,000 A		
12	+0,000 A	24	+0,000 A	36	+0,000 A		

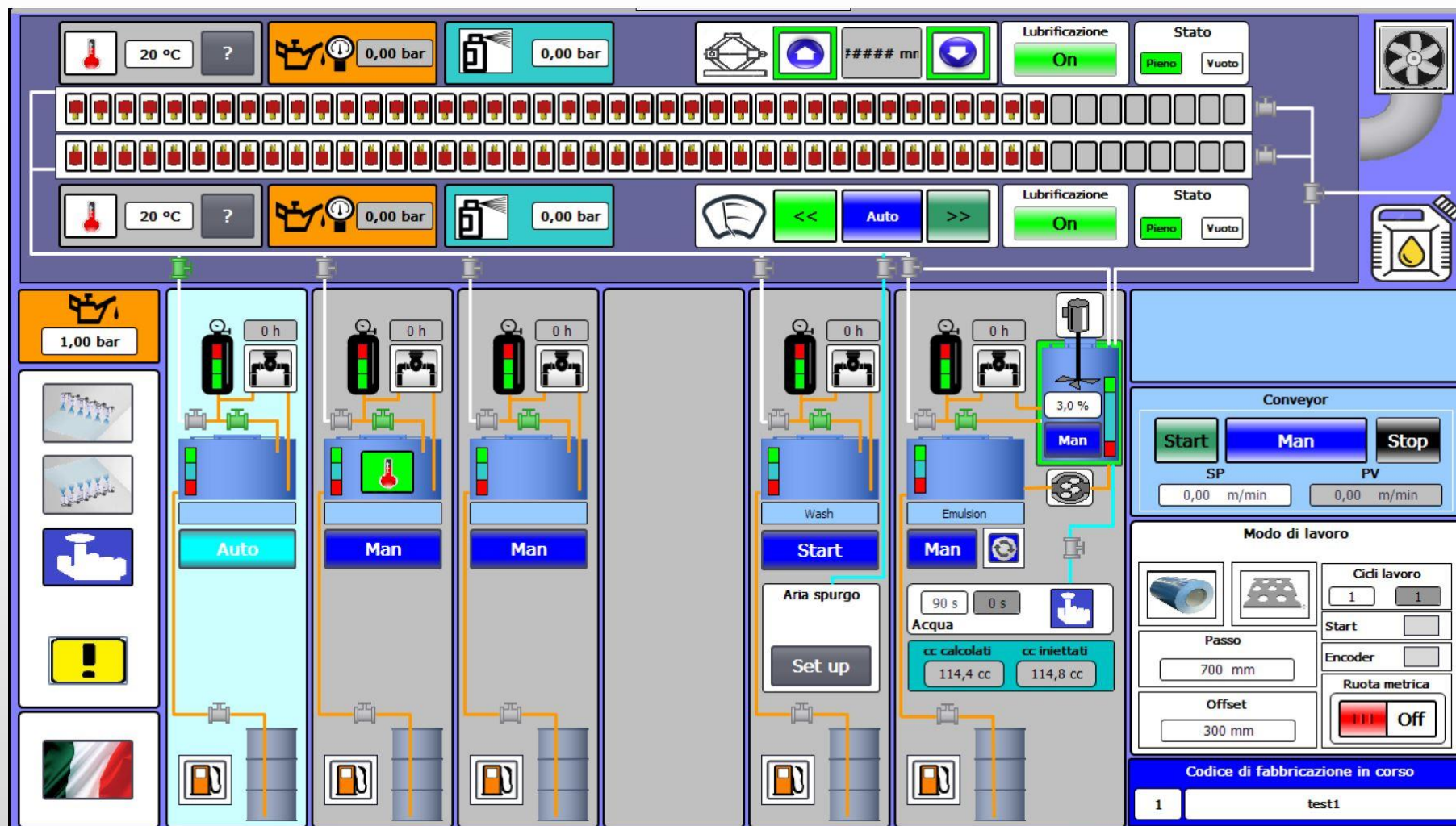




SPRAYBOX DIAGNOSTICS

- To check the working time of every single nozzle

FLUID MANAGEMENT DIAGNOSTICS



ALARMS

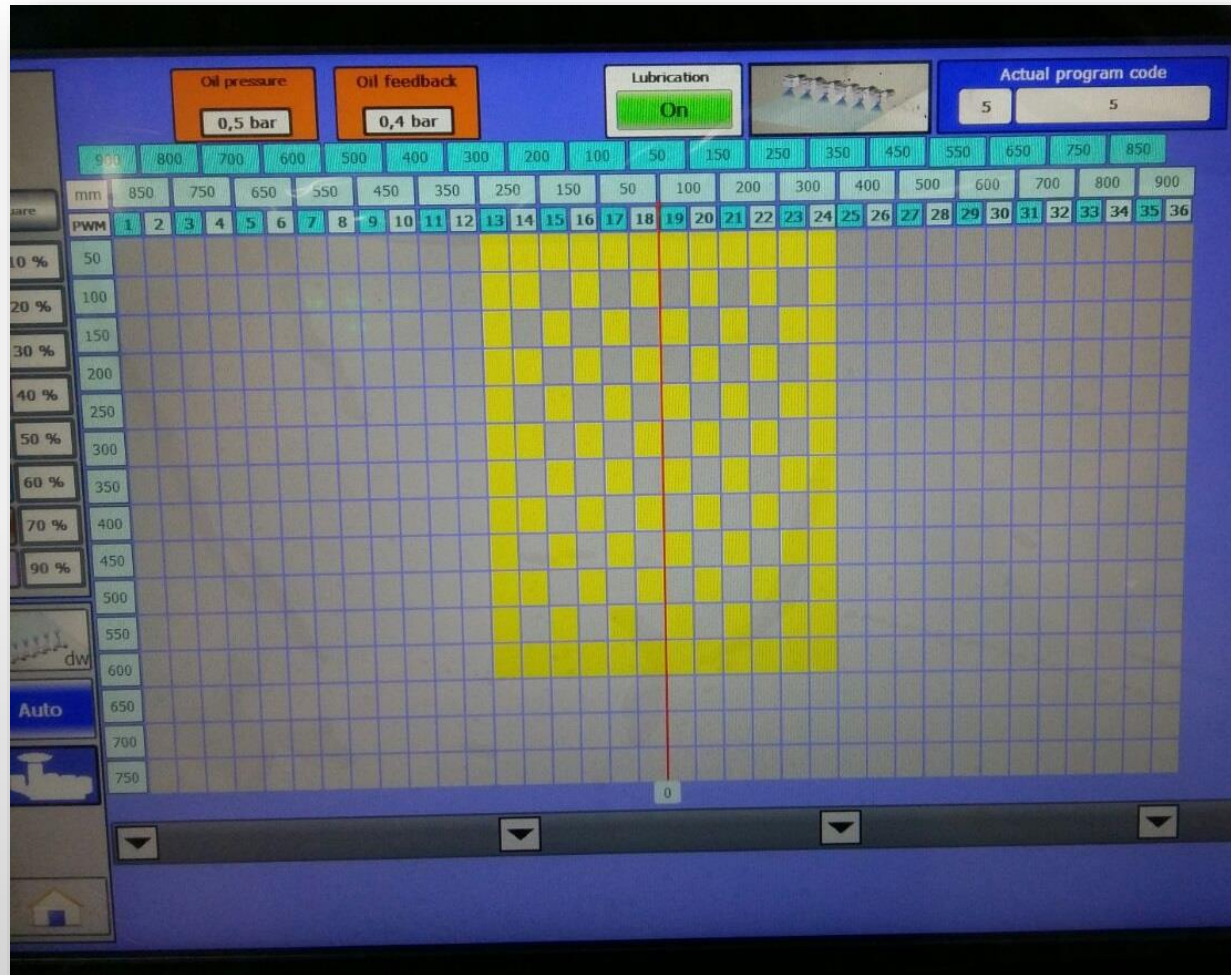
USCITA	N°.	Tempo	Data	Stato	Testo
	NA 4	17:20:44	18/01/2021	E	Livello massimo accumulatore olio1 superato
	NA 6	19:16:56	14/01/2021	E	Allarme comunicazione profinet
	NA 3	19:16:56	14/01/2021	E	Mancanza aria compressa Spray Box
	NA 14	19:16:56	14/01/2021	E	Protezione 48 Vac intervenuta
	NA 19	19:16:56	14/01/2021	E	Cassetta Spray Box aperta
	NA 28	19:16:56	14/01/2021	E	Intervento termico aspiratore
	NA 36	19:16:56	14/01/2021	E	Intervento termico riscaldamento serbatoio 2
	NA 34	19:16:56	14/01/2021	E	Intervento termico riscaldamento inferiore
	NA 33	19:16:56	14/01/2021	E	Intervento termico riscaldamento superiore
	NA 66	19:16:56	14/01/2021	E	Protezione alimentatore 12Vdc
	NA 65	19:16:56	14/01/2021	E	Protezione raffreddamento quadro
	NA 78	19:16:56	14/01/2021	E	Allarme mancanza aria serbatoio
	NA 77	19:16:56	14/01/2021	E	Allarme motore conveyor
	NA 76	19:16:56	14/01/2021	E	Intervento protezione motore pompa mixer
	NA 72	19:16:56	14/01/2021	E	Livello minimo serbatoio

USCITA	N°.	Tempo	Stato	Testo
	NA 4	17:20:44	E	Livello massimo accumulatore olio1 superato
	NA 4	17:20:43	(E)U	Livello massimo accumulatore olio1 superato
	NA 4	09:45:23	E	Livello massimo accumulatore olio1 superato
	NA 4	09:45:22	(E)U	Livello massimo accumulatore olio1 superato
	NA 42	09:45:22	(E)U	Livello massimo accumulatore Emulsion superato
	NA 80	09:45:22	(E)U	Allarme encoder conveyor
	NA 84	09:45:22	(E)U	Waste tank pieno o disabilitato
	NA 26	09:45:22	(E)U	Livello minimo serbatoio Emulsion
	NA 6	19:16:56	E	Allarme comunicazione profinet
	NA 4	19:16:56	E	Livello massimo accumulatore olio1 superato
	NA 3	19:16:56	E	Mancanza aria compressa Spray Box
	NA 14	19:16:56	E	Protezione 48 Vac intervenuta
	NA 19	19:16:56	E	Cassetta Spray Box aperta
	NA 42	19:16:56	E	Livello massimo accumulatore Emulsion superato
	NA 28	19:16:56	E	Intervento termico aspiratore
	NA 36	19:16:56	E	Intervento termico riscaldamento serbatoio 2
	NA 34	19:16:56	E	Intervento termico riscaldamento inferiore
	NA 33	19:16:56	E	Intervento termico riscaldamento superiore
	NA 66	19:16:56	E	Protezione alimentatore 12Vdc
	NA 65	19:16:56	E	Protezione raffreddamento quadro
	NA 80	19:16:56	E	Allarme encoder conveyor
	NA 78	19:16:56	E	Allarme mancanza aria serbatoio
	NA 77	19:16:56	E	Allarme motore conveyor
	NA 76	19:16:56	E	Intervento protezione motore pompa mixer
	NA 84	19:16:56	E	Waste tank pieno o disabilitato
	NA 72	19:16:56	E	Livello minimo serbatoio
	NA 26	19:16:56	E	Livello minimo serbatoio Emulsion

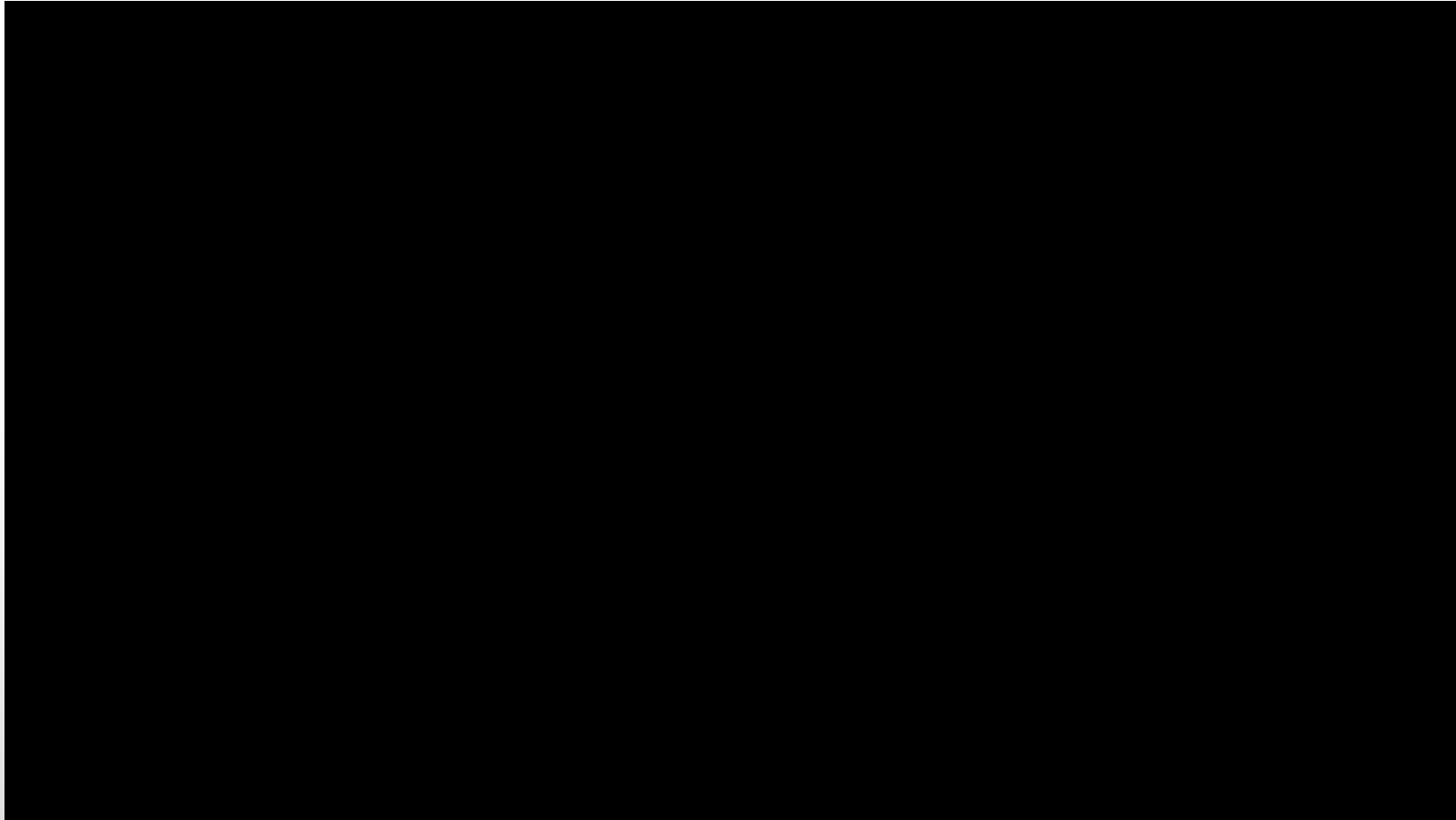
- Page of actual alarms on the machine

- Summary of previous alarms on the machine

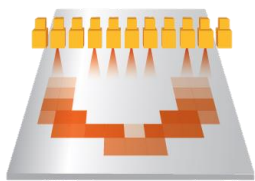
SPRAY AREA SELECTION



WASTE TANK



The oil scraps are collected and led to the ***Waste tank***, supplied as well with a **level sensor** that alerts when the tank must be emptied.



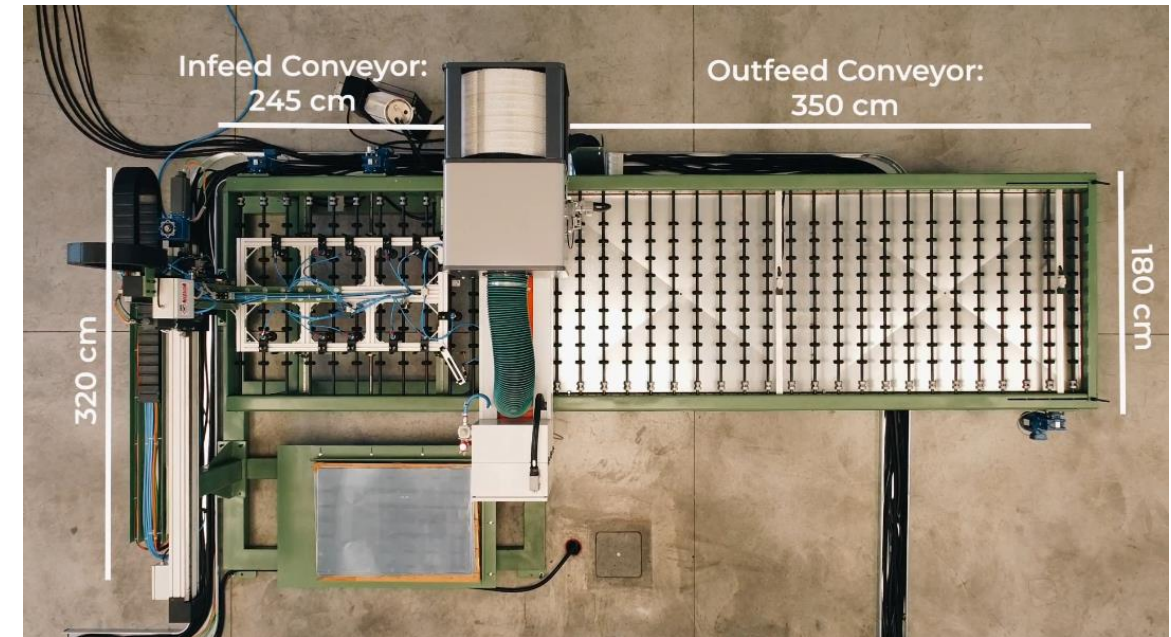
A FURTHER SOLUTION: SAGOMA SECTORIAL LUBRICATION MACHINE with CONVEYORS

- *Infeed and Outfeed conveyors*
- Central and Lateral *centering system*
- Integrability with *automated systems* (blank destackers, robots,...)





A FURTHER SOLUTION: SAGOMA SECTORIAL LUBRICATION MACHINE with BLANK DESTACKER and CONVEYORS



LOCAL TECHNICAL SUPPORT WORLDWIDE



Our Team is available worldwide for:

- Technical Support
- Periodical Maintenance Programs
- Possibility of remote assistance (h24)
- Spare Parts Stock, completely available in
 - ✓ Italy
 - ✓ US
 - ✓ China
 - ✓ Brazil



DieTronic



DieTronic



DieTronic



DieTronic



References Automotive OEM



General Motors



References Automotive T1 and T2



References Integrators



GÜDEL

SCHULER
Member of the ANDRITZ GROUP

FAGOR



HYUNDAI
Rotem

Nidec
ARISA

MECFOND S.p.A.

CAVENAGHI & RIDOLFI
PRESSE OLEODINAMICHE DAL 1922



SANGIACOMO
presse

 **MOSSINI**
PRESSE

OMERI
Nel mondo, nel tempo

ZANI
presse

GALDABINI
1890

NORDA

Hydraulico

CoilTech
Press Feeding Systems



qs group
Integrated Industrial Automation

saronni s.p.a.



ASSERVIMENTI
SAL PRESSE

NOVASTILMEC S.p.A.
Co-Processing Equipment

TIMAC
since 1975

References Appliance



B/S/H/



AGA RANGEmaster

gorenjegroup
Gorenje GALO, d.o.o.

Amica



VESTEL



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THANK YOU FOR YOUR ATTENTION