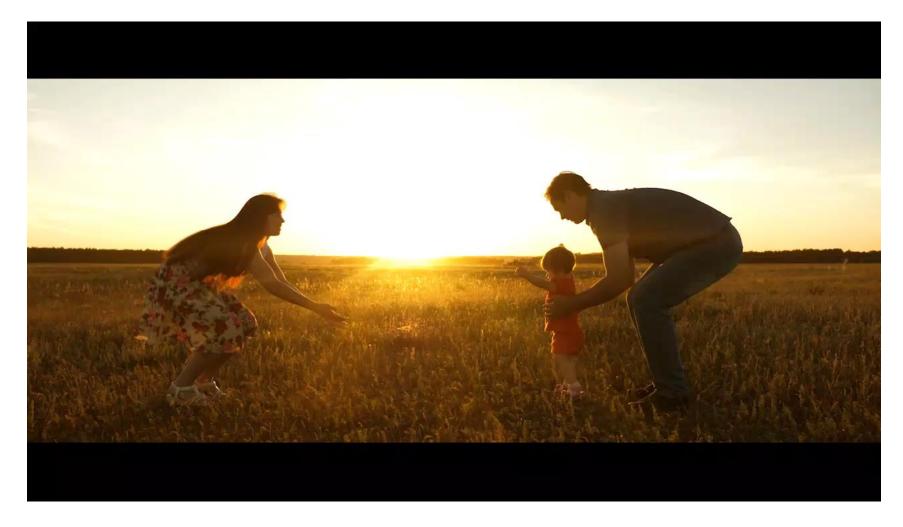


# SPAPPERI SYSTEM

TOBACCO: evolution of the market, technology and systems







Spapperi, innovation made in Italy



## .....storytelling.....

... I was young but I had a very clear project in mind: to preserve and develop the knowledge received in my life in the world of agriculture.

With the support of my brothers Dino, Carlo and Filippo we have grown in the area helping all our "friends" to find solutions and machines for their needs.

We have grown in the territory of our origins until we reach many international markets and have more and more "friends" even from distant countries ...

Of course,... we have built special machines, always found solutions, offered advice, exchanged opinions, and, always with the enthusiasm of when we were young, we had the joy of seeing "our old and new friends" happy and satisfied with our work.

Yes, ...a beautiful story ... a beautiful life ... .. "

#### ALDO SPAPPERI - CEO AND FOUNDER























1964: SPAPPERI NT was established

9% of the TURNOVER invested in the R&D

15% new staff dedicated to technological and marketing research.

57 years specialized in the AGRICULTURE MACHINERIES

45 years specialized in the mechanization process of tobacco cultivation

32 countries present all over the world





#### **TOBACCO CULTIVATION**

A complete line of equipment for tobacco cultivation • Transplanters, • Hoeing and earthing up machines • Trimmers

• Machineries to treat and pinch plants • Harvesters • Assembly systems • Ovens for drying • sorting and packaging systems.



#### **AGRICULTURAL MACHINERIES**

- Pneumatic and mechanic seed drills combined to mulching ones;
- Transplanters new and complete line to transplant in row spacing plantation layouts or in open field quincunx or mulching of seedlings in seed cells, with conical, cylindrical, pyramidal also pressed, plugs, bare-root seedlings, cuttings, rootlings and in a pot fruit trees, seeds, bulbs and garlics;
- Inter row and inter plant cultivator machines;
- Manual and mechanic ridging machines;
- Fertilizer and sub fertilizer placers, and hose collectors;
- Towed harvesters for medical plants;
- Single, double or on equipped tank crops conveyor belts.

SPAPPERI NT a MARKET ORIENTED COMPANY



# -

# **TOBACCO CULTIVATION AND MECHANIZATION**





# TOBACCO TECHNICAL SOLUTIONS PROPOSAL

#### **MARKET REQUESTS**



Reduction of production costs (fixed costs) difficulty in finding specialised staff/operator

Requests of technological innovation and control at every stage of production

Increasing demand for high quality products

Research technology reliability for a short duration of seasonality.

Generational change: from traditional operator with medium/low to young/manager producers with medium/high technological knowledge

Sustainability and ecological coherence at every stage of production

#### Mechanisation research by:

- Top market: the trend is towards a reduction of small producers and a concentration of medium/ large producers
  - Middle market: trend towards corporation

#### SPAPPERI SYSTEM PROPOSAL

Mechanization of all production processes throughout the supply chain to improve productivity and reduce fixed costs.

Continuous quality controls in production processes (total quality), use of raw materials and first-class components

Introduction of new control systems applied to machines for standardization of the production process and the final product

Investment in technical training with continuous training and certification SPAPPERI NT service and after-sales service

Consultancy on production facilities and transmission of know-how

Demand for new technologies for use of tobacco for other purposes



# stages of tobacco production SPAPPERI solutions

- Growing area preparation
- Soil preparation
- Transplanting (IR: 900/1300 mm; IP: 330/400 mm)
- Soil maintenance: weed control

- TOPPING
- SPRAYER
- HARVESTING
- DRYERS and CURE





# **TRANSPLANTING**



#### **MARKET TREND and REQUESTS**

Easy adaptability of transplanting machines on the basis of inter-row and inter-plant required

Accessories and and integrated systems for sprayers, watering and fertilizing systems.

Synchronized transplant timing and study of new automated transplants







#### **MARKET TREND and REQUESTS**

- Oxygenation of the soil
- weeding control
- uniform growth of plants in soil
- Fortify the plants (reposition the earth from the bottom of the ridg around the stem of the plant).
- Uniform growth of plants that allows smooth action of the following phases of the supply chain.
- Reduction of process time and increment of the productivity





# Rigder-weeder with rotating cones **SC**

Equipment to use after transplantation and sowing in crops with distance inter-rows from 90 to 120 cm. Multifunction machine for weeding, ridging and localized distribution of fertilizer and pesticides and scarify between the rows for proper soil drainage





SC 200 - 1 ELEMENT WITH WHOLE CENTRAL ELEMENT AND 2 SIDE HALF-ELEMENTS		
Rows	Nr	2
Fixed chassis TF width	cm	270
Inter-row min/max	cm	90 / 120
Weight	kg	740
Min. required power	Нр	50 ÷ 75

SC 400 - 3 ELEMENTS WITH WHOLE CENTRAL ELEMENT AND 2 SIDE HALF-ELEMENTS		
Rows	Nr	4
Fixed chassis TF width	cm	320 / 507
Inter-row min/max	cm	100 / 120
Weight	kg	1,240
Min. required power	Нр	80 ÷ 100









# Inter-rows spring weeder cultivator ST

Use: independent module (max. up to eight) carried tool for weeding all kinds of row crops, such as tobacco, corn, sunflowers, potatoes, etc. Adjustment to soil and weeding: each module or element consists of 3 or 5 weeding springs (32x12) and a parallelogram arm that allows for a constant adjustment to the terrain while remaining parallel to the surface. Weeding is performed by weeding springs, dragged by the tractor as it advances. For special requirements, it is also possible to attach two half side elements, with just two weeding springs, to one or more. Working depth and inter row spacing: manually adjustable.

#### **ACCESSORIES ON DEMAND**

Renforcement for spring

Seedling protection sheet

Steering + hydraulic control

Rear furrower + hitches

Fertilizer spreader



3 TINE UNIT - INTER-ROW 45 / 55 cm				
Technical features	3	ST 500-3	ST 700-3	ST 1300-3
Nr of elements		5	7	13
Chassis	cm	250	400	750
Width	cm	110	110	110
Height	cm	100	100	100
Total weight	Kg	475	665	1.240
Minimum power	Нр	50	60	80

5 TINE UNIT - INTER-ROW 75 / 85 cm					
Technical features	S	ST 150-5	ST 350-5	ST 550-5	ST 750-5
Nr of elements		1 + 2/2	3 + 2/2	5 + 2/2	7 + 2/2
Chassis	cm	200	350	500	650
Width	cm	110	110	110	110
Height	cm	100	100	100	100
Total weight	Kg	340	475	660	870
Minimum power	Нр	20	50	70	90





# **SPRAYING - TOPPING**



#### TOPPING:

- Process ensuring uniphomity in plant height
- Promotes leaf development
- inhibits the growth of new buds that block the development and maturation of existing leaves

#### **SPAYER**

Treat the tobacco with an oily substance to downfall of the bud dry

Mechanization of the AUTOMATIC TOPPING allows a drastic reduction of costs





## Topping machine JS122 - JS124

- From 2 to 4 topping rows
- 3 wheels





Cutting system with double blade



#### **TECHNICAL FEATURES**

Engine	Diesel FPT / LOMBARDINI 46 kW (62 Hp) (TIER 3A)
Drive	hydrostatic – 3 driving wheels
Parking brake	multiple disks on rear wheels
Steering	Hydraulic
Speed	20 km/h
Variable track gauge	from 2200 to 2340 mm
Front tires	10.5/80 - R18.3
Rear tires	380/70 - R 20
Topping height	from 120 to 190 cm
Weight in operation	2.100 kg JS122 - 2.720 Kg JS124
Length / width / height	420 / 270 / 310 cm

Self-Propelled tobacco trimmer and topping machine 2 or 4 lines. useful for small, medium and big sized crops. The trimming and topping system is composed by double rotating blades that cut only the tobacco flower makes them falling down the ground and by fan that pushing down the leaves makes them safe from damages. Again, the machine has an independent lifting system that allow the driver to adapt to any kind of tobacco. On request, only for 4 topping rows machine, it would be provided the automatic independent cutting device on each row





#### Combined sprayer and topping machine model JS15 - JS20 - JS25

- 8 spraying rows
- 3 wheels
- 4 Topping rows (on request)





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TECHNICAL FEATURES	
Hydraulic bar:	from 10 mt with two pistons
Irroration pump:	400 L multistage centrifugal pump
Control unit :	irroration automatic monitoring and check

Nr. Spraying rows 8

MOD JC15 FPT 59 kW (80 Hp) (TIER 3A) **Engine: MOD JC20 - JC25** FPT 74 kW (100 Hp) (TIER 3A)

**Drive:** Hydrostatic - three driving wheels

22 Km/h

Parking brake: Multiple disks on rear wheels

Servo control Steering:

Speed: "GRANLUX" Cab: with conditioning air

Variable track gauge: from 115 to 225 cm

400/70 R20 ont tires:

ar tires: 15.5 /80 R24

eight in operation: 5.500 Kg

mensions

7 m - 3 m - 4 mnght – width – height )

#### **STAINLESS STEEL TANK CAPACITY**

MOD JS15 1.500 L

MOD JS20 2.000 L

MOD JS25 2.500 L

#### **ACCESSORIES TOPPING**

Topping height:	From 120 to 190 cm
Nr. Topping rows	4 ( 2+2 indipendent)





# TOBACCO HARVESTER WITH ELECTRO HYDRAULIC SENSORS



HARVESTING STAGE:
BOTTOM leaves stage (1° TIME)
MEDIUM leaves stage (2°-3° TIME)
TOP leaves sage (4° TIME)

Engineering: personalized machinery designed for PMI



• 1 rows

4 wheels

#### • Electro hydraulic sensors for bottom and medium leaves

 Harvesting rows	Inter-row	Defoliators alignment	<b>Defoliators standard</b>	Maximum speed
1	115 cm	feeler with electro hydraulic sensors	rubber for bottom and medium leaves	20 km/h



TECHNICAL FEATURES	
Engine:	VM D754 TE3 (TIER 3A)
• cycle / stokes / cylinders	diesel / 4 / 4 in linea
• total displacement	2.970 cm <sup>3</sup>
• maximum power	59,8 Kw a 2600 rpm
• maximum torque	274 Nm a 1800 rpm
Total empty weight:	4400 kg
Steering:	hydraulic
Brakes:	hydrostatic
Wheels:	4 drive wheels with 18" rims – 2 front steering wheel 10,5 R18
Tires (1st and 2nd axle):	10,5 R18
Drive:	reversible hydrostatic drive with forward/reverse lever
Battery:	N°1 - 12 V 145 Ah
Fuel Tank	110 lt





4 wheels

#### • Electro hydraulic sensors for bottom and medium leaves

_	Harvesting rows	Inter-row	Defoliators alignment	Defoliators standard	Maximum speed
	2	from 110 to 140 cm	feeler with electro hydraulic sensors	rubber for bottom and medium leaves	25 km/h



TECHNICAL FEATURES	
Engine:	FPT (TIER 3A)
• cycle / stokes / cylinders	diesel / 4 / 4 in line
• total displacement	4.485 cm <sup>3</sup>
• maximum power	74 Kw to 2.300 rpm
maximum torque	435 Nm to 1.250 rpm
Total empty ewight:	6.300 kg
Steering:	hydraulic
Brakes:	hydrostatic
Wheels:	4 drive wheels with 20" rims 2 front steering wheel
Tires (1st and 2nd axle):	14,5 R20
Drive:	Reversible Hydrostatic Drive With Forward/Reverse Lever
Battery:	N°1 - 12 V 145 Ah
Fuel Tank	Capacity 210 lt





# TOBACCO HARVESTERS WITH PENDULUM SYSTEM



• 2 rows

3 wheels

#### • Pendulum system for bottom and medium leaves

_	Harvesting rows	Inter-row	Defoliators alignment	Defoliators standard	Maximum speed
	2	from 110 to 140 cm	mechanical pendulum system	rubber for bottom and medium leaves	22 km/h



TECHNICAL FEATURES	
Engine:	FPT (TIER 3A)
• cycle / stokes / cylinders	diesel / 4 / 4 in line
• total displacement	4.485 cm <sup>3</sup>
maximum power	74 Kw to 2.300 rpm
maximum torque	435 Nm to 1.250 rpm
Total empty ewight:	6.000 kg
Steering:	hydraulic
Brakes:	hydrostatic
Wheels:	3 drive wheels with 20" rims 1 front steering wheel
Tires (1st and 2nd axle) :	14,5 R20
Drive:	Reversible Hydrostatic Drive With Forward/Reverse Lever
Battery:	N°1 - 12 V 145 Ah
Fuel Tank	Capacity 210 lt



• 2 rows

4 wheels

#### • Pendulum system for bottom and medium leaves

_	Harvesting rows	Inter-row	Defoliators alignment	Defoliators standard	Maximum speed
	2	from 110 to 140 cm	mechanical pendulum system	rubber for bottom and medium leaves	22 km/h



TECHNICAL FEATURES	
Engine:	FPT (TIER 3A)
• cycle / stokes / cylinders	diesel / 4 / 4 in line
• total displacement	4.485 cm³
• maximum power	74 Kw to 2.300 rpm
maximum torque	435 Nm to 1.250 rpm
Total empty ewight:	6.300 kg
Steering:	hydraulic
Brakes:	hydrostatic
Wheels:	4 drive wheels with 20" rims 2 front steering wheel
Tires (1st and 2nd axle):	14,5 R20
Drive:	Reversible Hydrostatic Drive With Forward/Reverse Lever
Battery:	N°1 - 12 V 145 Ah
Fuel Tank	Capacity 210 It



• 4 rows

4 wheels

#### • Pendulum system for bottom and medium leaves

_	Harvesting rows	Inter-row	Defoliators alignment	Defoliators standard	Maximum speed
	2	from 115 to 120 cm	mechanical pendulum system	rubber for bottom and medium leaves	20 km/h



TECHNICAL FEATURES	
Engine:	FPT (TIER 3A)
• cycle / stokes / cylinders	diesel / 4 / 4 in line
• total displacement	4.500 cm <sup>3</sup>
• maximum power	129 Kw to 2.400 rpm
maximum torque	645 Nm to 1.400 rpm
Total empty ewight:	125.000 kg
Steering:	hydraulic
Brakes:	hydrostatic
Wheels:	4 drive wheels with 20" rims 2 front steering wheel
Tires (1st and 2nd axle):	16 70 R20"/ 16.5 85 24"
Drive:	Reversible Hydrostatic Drive With Forward/Reverse Lever
Battery:	N°1 - 12 V 145 Ah
Fuel Tank	Capacity 300 lt



## **Tobacco harvester RA832 ALL IN ONE**

- 2 rows
  - 3 wheels

- Pendulum system for bottom and medium leaves
- Top Leaves

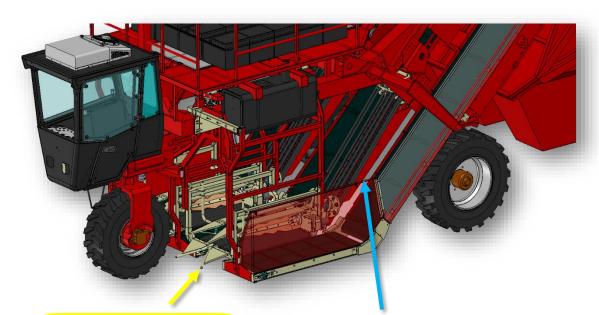
_	Harvesting rows	Inter-row	Defoliators alignment	Defoliators standard	Maximum speed
	2	from 110 to 120 cm	mechanical pendulum system	rubber for bottom and medium leaves blade-type defoliators	25 km/h



Engine:	JD/FPT (TIER 3A)
• cycle / stokes / cylinders	diesel / 4 / 4 in line
• total displacement	4.485 cm <sup>3</sup>
• maximum power	74 Kw to 2.300 rpm
• maximum torque	435 Nm to 1.250 rpm
Total empty ewight:	7.000 kg
Steering:	hydraulic
Brakes:	hydrostatic
Wheels:	3 drive wheels with 20" rims 1 front steering wheel
Tires (1st and 2nd axle) :	14,5 R20
Drive:	Reversible Hydrostatic Drive With Forward/Reverse Lever
Battery:	N°1 - 12 V 145 Ah
Fuel Tank	Capacity 210 lt



- 2 rows
- 3 wheels

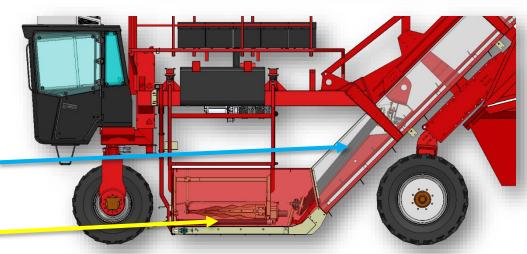




► pendulum system for bottom and medium leaves









- 2 rows
- 3 wheels











- 2 rows
- 3 wheels

















• 2 rows

3 wheels

• Pendulum system for bottom and medium leaves

• Top Leaves

_	Harvesting rows	Inter-row	Defoliators alignment	Defoliators standard	Maximum speed
	2	from 110 to 120 cm	mechanical pendulum system	rubber for bottom and medium leaves blade-type defoliators	25 km/h



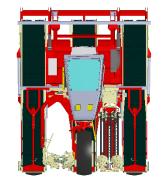
TECHNICAL FEATURES	
Engine:	JD/FPT (TIER 3A)
• cycle / stokes / cylinders	diesel / 4 / 4 in line
• total displacement	4.485 cm <sup>3</sup>
• maximum power	74 Kw to 2.300 rpm
maximum torque	435 Nm to 1.250 rpm
Total empty ewight:	7.000 kg
Steering:	hydraulic
Brakes:	hydrostatic
Wheels:	3 drive wheels with 20" rims 1 front steering wheel
Tires (1st and 2nd axle) :	14,5 R20
Drive:	Reversible Hydrostatic Drive With Forward/Reverse Lever
Battery:	N°1 - 12 V 145 Ah
Fuel Tank	Capacity 210 lt

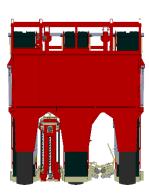


- 2 rows
- 3 wheels















# UPPER STALK TOBACCO HARVESTERS



• 2 rows

3 wheels

Harvesting rows	Inter-row	Defoliators standard	Maximum speed
2	from 110 to 140 cm	blade-type defoliators	22 km/h



#### **TECHNICAL FEATURES**

Engine:	FPT (TIER 3A)
• cycle / stokes / cylinders	diesel / 4 / 4 in line
• total displacement	4.485 cm <sup>3</sup>
• maximum power	74 Kw to 2.300 rpm
• maximum torque	435 Nm to 1.250 rpm
Total empty ewight:	6.000 kg
Steering:	hydraulic
Brakes:	hydrostatic
Wheels:	3 drive wheels with 20" rims 1 front steering wheel
Tires (1st and 2nd axle):	14,5 R20
Drive:	Reversible Hydrostatic Drive With Forward/Reverse Lever
Battery:	N°1 - 12 V 145 Ah
Fuel Tank	Capacity 210 lt



• 2 rows

4 wheels

Harvesting rows	Inter-row	Defoliators standard	Maximum speed	
2	from 110 to 140 cm	blade-type defoliators	22 km/h	



#### **TECHNICAL FEATURES**

Engine:	FPT (TIER 3A)			
• cycle / stokes / cylinders	diesel / 4 / 4 in line			
• total displacement	4.485 cm <sup>3</sup>			
• maximum power	74 Kw to 2.300 rpm			
• maximum torque	435 Nm to 1.250 rpm			
Total empty ewight:	6.000 kg			
Steering:	hydraulic			
Brakes:	hydrostatic			
Wheels:	4 drive wheels with 20" rims 2 front steering wheel			
Tires (1st and 2nd axle):	14,5 R20			
Drive:	Reversible Hydrostatic Drive With Forward/Reverse Lever			
Battery:	N°1 - 12 V 145 Ah			
Fuel Tank	Capacity 210 lt			



• 2 rows

4 wheels

Harvesting rows	Inter-row	Defoliators standard	Maximum speed	
4	from 115 to 120 cm	blade-type defoliators	22 km/h	



#### **TECHNICAL FEATURES**

Engine:	FPT (TIER 3A)		
• cycle / stokes / cylinders	diesel / 4 / 4 in line		
• total displacement	4.500 cm <sup>3</sup>		
• maximum power	129 Kw to 2.400 rpm		
maximum torque	645 Nm to 1.400 rpm		
Total empty ewight:	125.000 kg		
Steering:	hydraulic		
Brakes:	hydrostatic		
Wheels:	4 drive wheels with 20" rims 2 front steering wheel		
Tires (1st and 2nd axle):	16.5 85 24"		
Drive:	Reversible Hydrostatic Drive With Forward/Reverse Lever		
Battery:	N°1 - 12 V 145 Ah		
Fuel Tank	Capacity 300 lt		





# Cure: TOBACCO DRYER MOD FE

stage of extreme importance as it is the final stage of the process

- Green tobacco put inside a basket (about 650 kg per basket)
- Put the basket inside the curing barn (12, 15 or 18 baskets)
- Timing: 6/6,5 days
- SPAPPERI special basket
- Automatic control



#### Tobacco Dryer FE112 - FE115 - FE118 L / XL Single Burns

The dryer **FE TABACCO** is powered conventional fuels and it's characterized by functioning with input of warm air into the cell from the bottom to the top.

- Hot air generator with high efficiency exchanger
- Natural Gas, LPG or Diesel burner by primary national company with electronic flame control
- 2 gravitational valves for the humidity expulsion
- Bearing structure made of profiles of sendzimir galvanized sheet
- Galvanized thermo-walls and prepainted on the entire perimeter (50 mm thick)
- Channel for rainwater drainage in galvanized sheet









TECHNICAL DATA	FE112L	FE112XL	FE115L	FE115XL	FE118L	FE118XL	
Type of burner		Single-stage					
Heat exchange chamber		Stainless steel AISI 430					
Type of fans		High centrifugal press					
Fuel		Diesel, Natural Gas, Lpg					
Elettric panel		Elettronic control					
Thermal power	83 ÷ 178 kw						
Elettric power required	7,5 kw	7,5 kw	9,2 kw	9,2 kw	11 kw	11 kw	
Capacity 'medium-duty	75 q.li	83 q.li	93 q.li	105 q.li	112 q.li	125 q.li	
Length x Width x Height cm	1206 x 295 x 314	1206 x 328 x 314	1450 x 295 x 314	1450 x 328 x 314	1695 x 295 x 314	1695 x 328 x 314	



# Tobacco Dryer FE112ML - FE115ML - FE118ML L / XL • Modular Burns

The dryer **FE TABACCO** is powered conventional fuels and it's characterized by functioning with input of warm air into the cell from the bottom to the top.

- Hot air generator with high efficiency exchanger
- Natural Gas, LPG or Diesel burner by primary national company with electronic flame control
- 2 gravitational valves for the humidity expulsion
- Bearing structure made of profiles of sendzimir galvanized sheet
- Galvanized thermo-walls and prepainted on the entire perimeter (50 mm thick)
- Channel for rainwater drainage in galvanized sheet









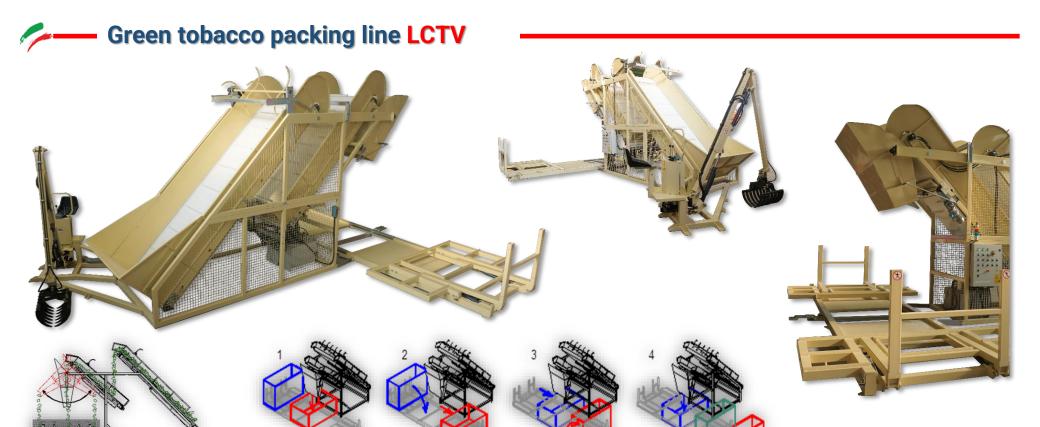
TECHNICAL DATA	FE112ML L	FE112ML XL	FE115ML L	FE115ML XL	FE118ML L	FE118ML XL
Type of burner		Single-stage				
Heat exchange chamber		Stainless steel AISI 430				
Type of fans		High centrifugal press				
Fuel		Diesel, Natural Gas, Lpg				
Elettric panel		Elettronic control				
Thermal power	83 ÷ 178 kw					
Elettric power required	7,5 kw	7,5 kw	9,2 kw	9,2 kw	11 kw	11 kw
Capacity 'medium-duty	75 q.li	83 q.li	93 q.li	105 q.li	112 q.li	125 q.li
Length x Width x Height cm	1206 x 295 x 314	1206 x 328 x 314	1450 x 295 x 314	1450 x 328 x 314	1695 x 295 x 314	1695 x 328 x 314





# -GREEN TOBACCO PACKING LINE LCTV -DRIED TOBACCO SORTING BELT NC -TOBACCO PRESSED DRIED PT





The line is composed of a first **inclined belt**, on which is downloaded the green tobacco, provides to carry it on the second. During the passage between the first and the second belt the tobacco is divided; a second **inclined belt**, shorter than the first but fastest one, which in turn provides both a more careful operation dissolution of tobacco which, thanks to a special rake, to a controlled and gradual disposal of the leaves in the hopper; a **loading hopper** whose oscillation allows to distribute the tobacco leaves, in a uniform way throughout its length, in a special drying container, on the underlying platform; a **platform** with three operating stations (of which two lateral ones of work, alternately of packaging and of overturning, and loading central one with or without electronic control of the weight). When the container, on the central station, will result full (or reaches the programmed weight), it will be move on the overturning one and, at the same time the empty container on the packaging station will be moved to the central one. The container full will be over-turned to be carried into a drying oven, while another empty will be positioned on the packaging station. - A different platform model is composed of one operating station with or without electronic balance. **Advantages:** elements of contained dimensions such to adapt them to any productive requirement. - The three station assure to the working cycle a reliable and secure operating continuity. - the mobile mats of the belts ensure a transfer of the leaves without damage so as to maintain the high quality of the product. - A lower employ of manpower, as compared to other alternative methods still in use, causes a greater saving on the final costs.

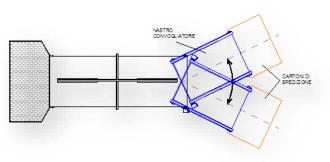


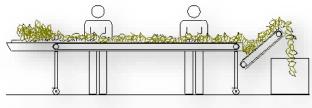
## **Dried tobacco sorting belt NC**

**Use:** used after the drying process of the tobacco, the belt is used for the selection of the product to send to machining centers. This important step is to select the leaves, thus cleaning from those burned or moldy, depriving them from their fragments and by soil, before that the same end up in the containers (usually cartons) of shipping.









TECHNICAL FEATURES	
Cm	150
Cm	618
Cm	210
Kg	340
V	220 / 380
	Cm Cm





# **Tobacco pressed dried PT**

**Use:** used in tobacco packaging the press serves to compress the leaves inside the cartons or shipping bales to reduce their volume and increase its field attachable quantity. This process reduces the number of cartons to pack and, consequently, the cost of shipping. Models with 1 or 2 workstations

TECHNICAL FEATURES		PT001	PT002
workstation	Nr	1	2
width	Cm	125	125
lenght	Cm	150	216
height	Cm	280	280
total weight	Kg	540	660
hydraulic tank capacity	L	40	40
electrical power supply	V	380 *	380 *













# NEW TOBACCO TECHNICAL SOLUTIONS

#### **PRODUCTIVITY**

Continuous research in simplifying the use of machines

adapt the machines more and more to the various needs of customers for a standardization of the production process

Continuous research of new solutions, materials, components and production processes to ensure a high quality standard

Continuous production phase control systems and connections to external control systems

#### **ECOLOGY**

Study, design and construction of hybrid harvesting machines and replacement of hydraulic motors with electric with the consequent elimination of oils and greases to avoid the pollution of the harvested products

#### **SECURITY**

Always pay attention to introduce new solutions for the safety of the use of the machine

#### FI FXIBILITY

Search for COMBO solutions (topping and spraying) that allow technology adaptation and machine innovation for greater flexibility

Topping machines with optical plant height detection and cutting adjustment systems.

#### **SERVICE**

Investments in continuous technical training and transmission of know-how for the training of operators



# TECHNICAL SOLUTIONS PROPOSED IN OTHER SECTORS (AGRICULTURAL MACHINERY)

ON THE BASIS OF REQUESTS IN THE AGRICULTURAL SECTOR

we note a strong increase (about 21%) in the demand for machines for the supply chain of herbs and organic products

Good increase (about 19%) also recorded in the demand for machinery for the supply chain of plants

Encouraging prospects (+14%) also recorded for machines for the transplantation of tree plants such as vines, olive trees, hazel orchards, ....

Hemp market, from positive increases recorded in the last period, now we record stable increments on the machines requested.

Application and adaptation of existing technologies in other sectors, such as, for example, the DRYERS for hops, medicinal herbs, dried fruit, ....

Launch of new solutions for specific transplantation for vegetables, harvesting facilitators, inter-row weeders, medium-sized plant transplants, automatic transplanters, automated collection of medicinal plants, machines interconnected with satellite guidance systems....













# **AGRICULTURAL MACHINERY**

www.spapperi.com