



55014 MARLIA (LUCCA)
VIA DEL FANUCCIO, 77

TEL. (0583) 407788
TELEX 500481 TOSCHI
TELEFAX (0583) 959100

OFFICINE MECCANICHE TOSCHI SPA
CAPITALE SOCIALE INT. VERS. LIT. 1.500.000.000

COMUNE DI CAPANNORI
COD. FISC. E PART. IVA 00134130467
C.C.I.A.A. LUCCA 64496 - M. LU 000357
ISCRITTA AL TRIBUNALE DI LUCCA AL N. SOC. 3776
AL FASC. N. 7628
C.C. POST. 13590559

APPENDIX No. 4
Optional goods as defined at point 2.5

1) Wire drive roll

- Quantity : No. 1
- Outside diam. : 590 mm.

Manufactured in carbon steel pipe with forged steel journals, covered with rubber and complete with housings and bearings.

Itl. 27.500.000

2) Stator for MOHNO pump

Manufactured in Perbunan SB, suitable for the Mohno pump type NEMO NES 80.A described in Appendix No. 2, point 6.

Itl. 800.000 each

3) Motoreduction unit for MOHNO pump

Motoreduction unit type MAS 45/P R. 1/6,07 complete with flanged electric motor 7,5 Kw/4 poles.

Itl. 1.200.000

Note: all the above prices are for goods delivered ex-works our factory, without packing.



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APPENDIX No. 3
Spare parts

1) Suction forming board

Quantity : No. 1

Box manufactured in AISI 304 stainless steel with slotted cover in high density polyethylene.

The box is divided in 3 compartments: the first one for the free drainage of water, the second and third are connected to the vacuum plant with different vacuum levels to increase the drainage of water.

2) Blind drilled press roll

Quantity : No. 1
Outside diam. : 650 mm.

Manufactured in carbon steel pipe with forged steel journals, covered with blind drilled rubber and complete with housings and bearings.

3) Felt/wire roll

Quantity : No. 1
Outside diam. : 210 mm.

Manufactured in carbon steel pipe with forged steel journals, covered with rubber and complete with housings and bearings.

4) Propeller group (for agitators)

Group type AST 800 complete with special steel shaft on grease lubricated bearings, seals and accessories.

This unit is suitable to be used as spare for all the agitators included in the scope of supply and described in Appendix 2.

Blades, belts, pulleys and guard are not included.

Date 14/06/1993

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APPENDIX No. 6
Technical performance guarantee

Production table

- Max production at 94% dryness at pope reel (untrimmed and with 100% efficiency)	TPD	30.5	28.3	26.3
- Basis weight on wire	b.d. g/sqm	20.7	16	12.5
- Paper width on Yankee	mm	2750	2750	2750
- Machine speed	m/min	350	420	500
- Dryness inlet	%	38	38	37
- Dryness outlet	%	94	94	94

Tissue paper quality

- The grammage profile across the sheet on five conditioned samples of 4 plies per sample taken at 125 mm. from the edge 500 mm. wide by 500 mm. long shall not vary by more than 5%.
- The sheet shall be uniform and free from defects caused by poor pick-up and hydraulic disturbance from the head-box.



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Basic running conditions for reaching the calculated gross production:

- at a stock temperature of 35 - 40 °C
 - at a nip pressure of 90 N/mm
 - at a Yankee steam pressure of 5,8 bar
-
- Basic requirements for obtaining the calculated gross production: as shown on the production table.
 - Suitable quality of raw materials and chemicals.
 - Suitable quantity of raw materials and chemicals.
 - Use of suitable wires and felts.
 - The machine personnel shall be experienced in paper making.
 - No interruption or restriction of production due to changes of paper grades (utilisation factor of machine 100%).
 - Availability of steam, fresh water compressed air and electric energy in the required constant balanced operating conditions (pressure, temperature and voltage) in suitable quality and sufficient quantity.
 - Installation of a suitable high efficiency hood.
 - Installation of a suitable steam distribution plant and condensate recovery system.
 - Installation of a suitable variable speed drive system.
 - Installation of a suitable vacuum plant.
 - Throat opening is uniform across the full width.
 - The forming board is flat and has no indentation and the lip gap is adjusted properly to give a parallel slice opening.



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APPENDIX No. 2

Description of stock preparation plant equipments of Toschi supply

1) Agitator

Suitable for a 40 CM chest, type AST/900 (Propeller group size 800), with fixed blades in cast AISI 304 stainless steel, special steel shaft on grease lubricated bearings, complete with the necessary set of belts, pulleys and guard.
Electric motor (18,5 Kw / 6 Poles) not included.

2) Vibrating screen

Type : V1
Filtering surface : 1 m²
Installed power : 1.2 Kw

Manufactured in AISI 304 stainless steel, equipped with a perforated plate (with drilled holes diam. 5 mm), steel springs, an electro-vibrator unit with the possibility of intensity of vibration adjustment, dampening blocks.

3) High density cleaner

Capacity : 500 lt/min.

Head manufactured in AISI 304 stainless steel, cone in plexiglass, heavy reject box in cast iron with manual discharge device.

4) High density cleaner

Capacity : 800 lt/min.

Head manufactured in AISI 304 stainless steel, cone in plexiglass, heavy reject box in cast iron with manual discharge device.



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5) Agitator

Suitable for a 20 CM chest, type AST/800, with fixed blades in cast AISI 304 stainless steel, special steel shaft on grease lubricated bearings, complete with the necessary set of belts, pulleys and guard.
Electric motor (11 Kw / 6 Poles) not included.

6) Mohno pump

Working consistency	: 7 - 8%
Capacity	: up to 300 lt/min.
Head	: 4 bar
Required power	: 7.5 Kw (A.C. motor with inverter)
Design rpm	: up to 272

Mohno pump type NEMO NES 80.A with body in cast iron, hardened steel rotor, stator in perbunan SB, complete with base, joint and guard (Standard supply).

7) Thickening screw

Type	: 400/1
Required power	: 15 Kw

Completely manufactured in AISI 304 stainless steel with filtering basket with conical holes, diam. 1.5 mm.
Complete with drive system with shaft mounted gearbox (connected to the A.C. motor by V-belts and pulleys) and painted steel supporting structure.

8) Heating screw

The flanges are welded on tubing and the heads are in carbon steel. The heads are covered with AISI 304 stainless steel on the internal side (in contact with the stock).

The lateral and central supporting legs are in carbon steel. The shaft and the journals of the screw are in carbon steel.

All the parts in contact with the stock are in AISI 304 stainless steel. All the parts in carbon steel are epoxy painted.

Mechanical drive with gearmotor 7.5 Kw / 4 Poles and a pair of toothed wheels.
Chain drive.



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9) Agitator

Suitable for a 10 CM chest, type AST/600 (Propeller group size 800), with fixed blades in cast AISI 304 stainless steel, special steel shaft on grease lubricated bearings, complete with the necessary set of belts, pulleys and guard.
Electric motor (7.5 Kw) not included.

10) Agitator

Suitable for a 10 CM chest, type AST/600 (Propeller group size 800), with fixed blades in cast AISI 304 stainless steel, special steel shaft on grease lubricated bearings, complete with the necessary set of belts, pulleys and guard.
Electric motor (7.5 Kw) not included.

11) Agitator

Suitable for a high density chest, type AST/700 (Propeller group size 800), with fixed blades in cast AISI 304 stainless steel, special steel shaft on grease lubricated bearings, complete with the necessary set of belts, pulleys and guard.
Electric motor (11 Kw) not included.

12) Agitator

Suitable for a 25 CM chest, type AST/800, with fixed blades in cast AISI 304 stainless steel, special steel shaft on grease lubricated bearings, complete with the necessary set of belts, pulleys and guard.
Electric motor (11 Kw) not included.

13) Agitator

Suitable for a 25 CM chest, type AST/800, with fixed blades in cast AISI 304 stainless steel, special steel shaft on grease lubricated bearings, complete with the necessary set of belts, pulleys and guard.
Electric motor (11 Kw) not included.



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14) Agitator

Suitable for a 15 CM chest, type AST/700, (Propeller group size 800), with fixed blades in cast AISI 304 stainless steel, special steel shaft on grease lubricated bearings, complete with the necessary set of belts, pulleys and guard.
Electric motor (11 Kw) not included.

15) Pulper

Type	: TM 5
Vat capacity	: 5 cm
Production	: up to 15 TPD
Working consistency	: up to 6%
Required power	: 75 Kw

Vat manufactured in AISI 304 stainless steel.

Impeller in special carbon steel with hard facings on the wear surfaces.

Filter plate in AISI 304 stainless steel with punched holes: base plate with holes 20 mm, wear plate with holes 8 mm.

Complete with propeller group with main shaft on grease lubricated bearings, drive system with V-belts and pulleys, supporting structure for the A.C. motor and vat in painted carbon steel, foundation rails.

16) Low density cleaner (1st stage)

Capacity : 3000 lt/min.

Type Celleco - Albia 3000 T-DLR, with head and main body in stainless steel, cone in synthetic material, suitable for stock deaeration, complete with accessories.

17) Low density cleaner (2nd stage)

Capacity : 500 lt/min.

Type Celleco - Albia 500 T-FRB, with head and main body in stainless steel, cone in synthetic material, suitable for stock deaeration, complete with reject box with pneumatic valves and accessories, operated manually.



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18) Fiber recovery plant

- Type : Deltafloat 23
- Capacity : 3000 lt/min.
- Diameter : 6300 mm.
- Temperature : 30 °C
- PH : 6 - 7
- Concentration of suspended solids : 1500 mg/lt max.

Completely manufactured in AISI 304 stainless steel with the exception of the bottom supporting structure that is in carbon steel.
Circular tank with a small receiver for collecting sludge.
Electronic level control.
System for the extraction of the clarified water.
Central distribution system of the water to be treated.
Self-cleaning system for the tank bottom and walls.
Pressurization tank in AISI 304 stainless steel tested according to Italian standards ISPESL for a maximum air pressure of 6 bar.
Air inlet group complete with air compressor.
Safety valve according to Italian standards ISPESL.
Electric panel for drive system and accessories.
Set of gearmotors for bridge and skimmer rotation complete with inverters for speed control.

19) AF 3000 Sharpening machine

- Grinding length : 3000 mm.

Equipped with rotating knife holding chuck (adjustable from 0° to 90°) having two sides for magnetic and mechanical clamping.
With a wheel diameter of 178 mm, the head is equipped with a 6 HP A.C. motor (2 poles).
Gearmotor HP 0.5 for carriage movement suitable for a fixed speed of 15 m/1' equipped with electromechanical change of direction and regulation of the carriage longitudinal motion.
Automatic lowering of the wheel with electronic infinitesimal adjustment and with programming of the total increase, programming of the spark-out time or idle-traverses, adjustable head from 0° to 10° in longitudinal direction to the knife holding chuck, wheel dressing tool built in diamond, crowns holding 6 abrasive wheel segments, tank for coolant collection and decantation, electropump with flexible pipe, 2 valves and relative diffusers located in the peripheral area of the wheel for the forced cooling of the blades, thermal overload for each motor, low voltage electric equipment located in a suitable space inside the basement.
Complete with No. 6 sets of wheel segments, No. 1 grinding wheel, No. 2 magnetic cleaners.



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*Equipment and components not included in the
stock preparation plant equipments*

- Sea transport and insurance.
- Erection tools and consumables.
- Erection and all relevant costs.
- Movable crane assistance during erection.
- Civil and foundation works.
- A.C. electrical plant including transformer station and power factor correction panels.
- Cables for A.C. electrical plant with all necessary accessories.
- A.C. motors (with inverter where applicable).
- Water supply to the plant.
- Stainless steel tanks and chests.
- Piping, valves and accessories.
- Instrumentation.
- Spare parts.
- Supporting frames for cleaners.
- Board and lodging, air return tickets, pocket money, local transportation, interpreter assistance for our technicians during erection.
- Anything else not listed in this document.