



PAPCEL®

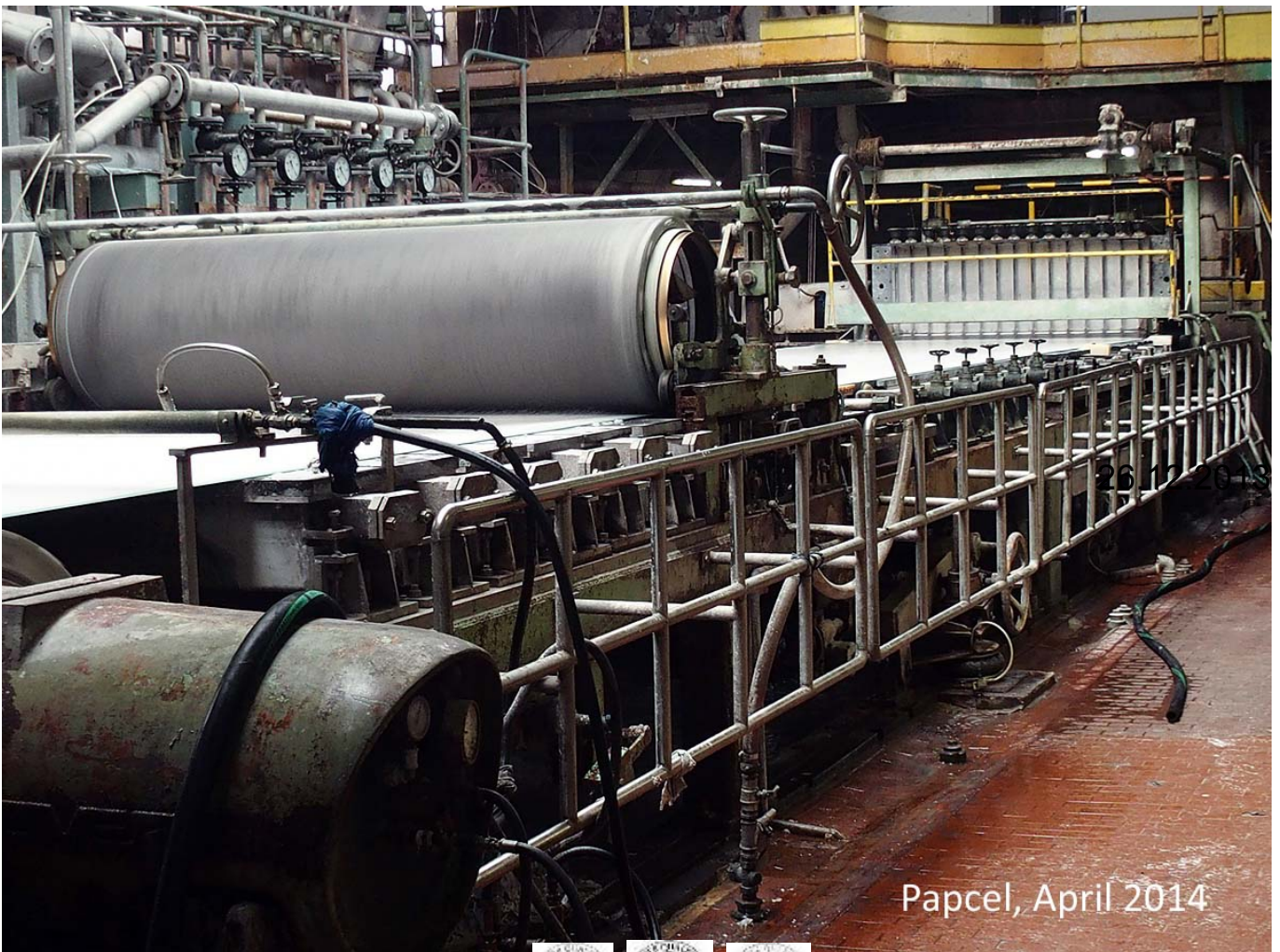
TRADITION • STRENGTH • EXPERIENCE

since 1950

USED PAPER MACHINERY FOR PACKAGING PAPERS

(wrapping recycled papers, wrapping woodfree papers,
colored boards)

- Item 17 -



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Společnost zapsána u Krajského soudu v Ostravě, oddíl B, vložka 1356. Den zápisu: 15.5.1996.

Incorporated Company (Business Registered by Regional Court of Justice in Ostrava, Section B, Insert 1356. Date of register: 15th May 1996.

**PAPER MILL MANUFACTURER OF SEVERAL TYPES OF BOARDS AND
PACKAGING GRADES
DESCR. MOD. INGL. VERS. 2**

The paper mill produces papers and boards made with wood pulp and with recycled fibers. Production includes file folder grades and colored paperboard like manila board and cover board and packaging papers .

Main Characteristics:

Continuous Fourdrinier type P.M.
Production: 55 Tons/Day
Basis Weights: From 60 GSM to 400 GSM
Maximum Speed: 200 m/min
Wire Width Single Layer : 2050 mm
Dryer Dimension: 1750 mm
Rewinder -Width: 2100 mm
Sheeter - Maximum Width: 1600 mm
Paper Roll Finished Maximum Outside Diameter: 1400 mm

Description of various sections-departments and of the main machinery.

1. Raw Material Warehouse

- Conveyor Belt type Gipponi. 2000 mm width 15 meters length with loading capacity of 15 MT for continuous transport of wood pulp or waste paper bales to the pulper,

2. Stock Preparation

This department, whose **project has been created and implemented by VOITH**, consists of lines to work with raw materials, wood pulp and cellulose. The cycle is **managed** via a **PLC ALLEN BRADLEY** by flow-meters, by pressure, level and consistency controllers (**CIC** Consistency indicator controls, **LIC** level indicator control **PIC** pressure indicator control)

There is a Voith heat system to eliminate glues and various impurities from the fibers of waste paper. The main machines utilized are:

2.1 WASTE PAPER LINE:

- **PLC ALLEN BRADLEY** to manage the cycle;
- Waste Paper Pulper Tipe Voith
- Voith Contaminex to maintain clean the pulper
- Voith Jun'Komat
- S.T.M. Trommel Fiber Recovery System
- S.T.M. Compactor for pulper waste
- Turbo-Separator type Voith Capacity of 60 Tons/day
- Centrifugal Vertical Cleaner Depurator for dense pulp
- Centrifugal Vertical Cleaner Depurator for the heavy impurities
- 3 Vibrating Sorters
- Steel Water Chest to supply pulper

- High Density Treatment System – (Heat Shredder tipe Voith – 110 Kw capacity for ink dispersion and polluting)
- Mini-Pulper type Voith
- Vertical Centrifugal Cleaner Screen
- Vibro- Sorter type Aga Pompe.
- 3 Voith Defibrators
- 1 Voith Refiner
- 1 Fiber Recovered to Disk and Sector System type Vargo
- White Water Chest
- 2 Fresh Water Filters
- Various Chests for water storage and distribution
- Thickener for depuration system and for recovery secondary waters.

2.2 SIZING POWDER MIXTURE PREPARATION SYSTEM:

Storing Silos

Extraction Screw with motor-reducer with several mixing Vats

Vibrating Sieves for depuration of the obtained stock mixture.

3. Continuous Paper Machine (PM) Department

3.1 SHORT CIRCULATION SYSTEM:

Constant Level Mini Vat

Mixing Pump (Fan Pump)

First Centrifugal Cleaning Stage with 12 Vertical cleaners type Voith

Second Centrifugal Cleaning Stage with 2 Vertical cleaners Type Voith

Vibro Sorters

Color dosage System and various chemical additives with dosing pumps

3.2 VACUUM SYSTEM:

3 Nash VacuumPumps and Centrifugal Fan

3.3 CONTINUOUS MACHINE (PM)

— The continuous Foudrinier PM is of a single layer type with one wire.

Open **Head Box type Voith** with a Slice width of 1900 mm equipped with a breast roll type Voith

N. 5 Drainage Boxes with single Foil Blade elements

N. 7 Wet Low Vacuum Suction boxes

N. 6 High Vacuum Suction boxes

Various Rolls for transportation and support of the screen

Dandy Roll 600 mm. diameter

Suction Roll 800 mm diameter

Press Section type Carcano (now Metso-Paper) with 3 felts and 3 nip pressure including first Bi-nip Press with 3 rolls and Suction Press Roll,

Second Press with 2 smooth and drilled rolls continuous electrical

Pre-Drying Section type Carcano equipped with 12 double felted Drying Cylinders with diameter 1250 mm and width 1750 mm

MG Yankee Cylinder diameter 3600 mm and width 1750 mm with mini press on bottom felt, mini steam system included in the Hood drying chimneys

A second Yankee Cylinder diameter 2500 mm

Size Press type Beloit with 2 rolls gummed covered diameter 450/420 mm

Post Drying Section comprising 2 Chromed Drying Cylinders diameter 1250 mm and width 1750 mm, 5 Cylinders diameter 1250 mm and width 1750 mm, 3 Drying Cylinders width 1750 mm, 2 Water Coolers Cylinders diameter 1000 mm and width 1750 mm

Smooth Calender with 2 rolls 100Kg/cm linear pressure. Diameter 500/360 mm with variable crown roll shell system type Freiria, width 2350 mm.

Winder type Freiria.

NOVAN system sectional control to manage the speed and drive the motors of all the cylinders

3.4 SIZING AND COLOURING SYSTEM:

Beloit Size Press (as described above)

Chests for heating and mixing

automatic cycle control

2 Mono Pumps type Netsch

Vibro Sorters

Coloring and Sizing System in size-press, with color tanks and dosing pumps

3.5 STEAM PRODUCTION DEPARTMENT

Steam for paper production is generated from 2 CCT-Caldareria / Carpenteria Ticinese type Boilers with 3000 Kg/h of steam potential at 15 BAR pressure.

A system for reduction of steam pressure to the drying cylinders and to MG cylinder with possibility to differentiate the pressure of the higher drying cylinders and lower.

3.6 STEAM MANAGEMENT SYSTEM AND CONDENSATION RECOVERY

It is a system LANG created, to recover condensation coming from drying cylinders to reduce energy costs, including tanks for the recovery of condensation water and vacuum Pumps with exchange condensers.

3.7 AERO-THERMAL SYSTEM FROM BRIUNSCWEILR FOR EXTRACTION OF CONDENSATION AND CLIMATE CONTROL OF PM DEPARTMENT

The system is equipped with:

6 Axial Fans for the Moisture extraction, room air climate control and air aspiration

1 Centrifugal Drying Fan for incoming air flow of 30000 m³/hour

1 Centrifugal Fan for Moisture extraction from one-side calender flow of 15000 m³/hour

4 Axial Fans for heating of one-side calender chimney

5 Axial Fans for PM room ventilation

1 Centrifugal Fan for continuous power motors

3.8 COMPRESSED AIR PRODUCTION SYSTEM

Including:

2 Pneumofore Compressors

1 Pneumofore dryer with automatic air filtering systems, and 1 oil-dryer filter

4. Discharge Water Treatment

4.1 HOMOGENIZING CHEST FOR DISCHARGE WATERS

4.2 CHEMICAL-PHYSICAL TREATMENT STATION

equipped with chemical reactors preparation vats, chemical reactors dosing vats, and discharge water treatment through automatic control of flow and pH. All dosages are carried out through dosing pumps under the PLC management system

4.3 PRIMARY SEDIMENTATION SYSTEM FOR DISCHARGE WATERS

with rotating sludge collecting blades device for accumulation of sludge at the bottom of the vat, and sludge extraction through a Netsch mono pump geared to send flow back into the working area through aerial piping

4.4 BIOLOGICAL TREATMENT STATION

equipped with 2 Rolling Bio-disks for the biological treatment of the discharge waters

4.5 SECONDARY SEDIMENTATION SYSTEM FOR DISCHARGE WATERS

with rotating sludge collecting blades device for sludge accumulation at the bottom of the vat, and sludge extraction through a Netsch mono pump geared to send flow back into the working area through aerial piping

4.5 THICKENING OF THE SLUDGE SYSTEM:

Press type Ecomacchine

5. Parts for maintenance and technical documentation

In stock are electrical motors, pumps, bearings, bolts, nuts, transmission belts, washers, electronic boards for electronic equipment , pressure gauges, vacuum gauges, etcetera.

The company has in its possession a comprehensive technical documentation like designs, outlines, projects, and various literatures indispensable for the management and maintenance of the plant.

Concluding remark:

- **The paper mill is fully operating and it is possible to visit the plant under appointment.**
- **Technical support for installation and start up of the production can be supplied under specific agreement.**