CanPa®

Canadian Paper-making Instruments

Original
Auto-Dynamic Sheet Former (ADSF)

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CanPa® Instruments is a leading Canadian manufacturer of instruments used in the evaluation of Pulp and Paper properties in order to assess product characteristics and final quality.

We supply quality testing instruments to the pulp and paper industry, being the standard of reference dominated by expertise and service.

In addition to our manufactured items, we also have an ADSF service department where our technicians perform repairs, calibrations and maintenance.

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"We strive to maintain good relationships with our users and are always ready to accommodate their ideas and suggestions about newly desired features“

Cvetan Petrov, ing.

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Auto-Dynamic Sheet Former®

"The ADSF® is the most sophisticated laboratory hand-sheet paper former on the market today!"

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Specifications:

- Pulp consistency: 0.1-3.0% (Even Higher)
- Sheet size: 320mm x 950mm
- Sheet basis weight range: 10-1200 g/m2
- Wet sheet dryness: 20%
- CD/MD fiber orientation ratio: 0.2 to 0.9
- Fiber retention: approx. 95%
- Wire speed during sheet making: 700 to 1900 m/min
- Stock flow volume: 0.75 to 4.0 liters/min

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Specifications:

- Three 50-liter stock tanks, on-board
- One 10-liter stock tank, attached to the machine
- Computerized control with simple entry of operating parameters
- Automatic collection and reuse of white water
- Electrical: 200 to 240 Volts ac, 15 Amps, 50/60Hz
- Compressed air: 550 kPa (80 PSI)
- Dimension: 125 cm x 150 cm x 85 cm
- Weight: 580 kg

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Latest Development

Sheet size: 320mm x 950mm

Pulp Consistency : 0.1- > 3.0%

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During **operation**, water introduced into the spinning centrifuge builds up a wall until the wire is completely submerged. A traversing nozzle then sprays stock against the fabric to build up a fibre layer. When the required amount of stock has been deposited, the white water is removed, thus forming a wet paper web on the wire.

Desired physical, optical and printing properties of test sheets can be obtained by varying the grammage, MD/CD fibre orientation and the distribution of fibre and filler in the Z-direction. Test sheet properties can also be affected by the addition of chemicals to the furnish stream.

The ADSF produces large rectangular paper sheets with controlled fiber orientation, which are similar to the paper made on a commercial paper machine. Completely automatic operation of ADSF ensures superior quality and reproducibility of the test sheets, production of multi-layer sheets, white water collection and reuse.

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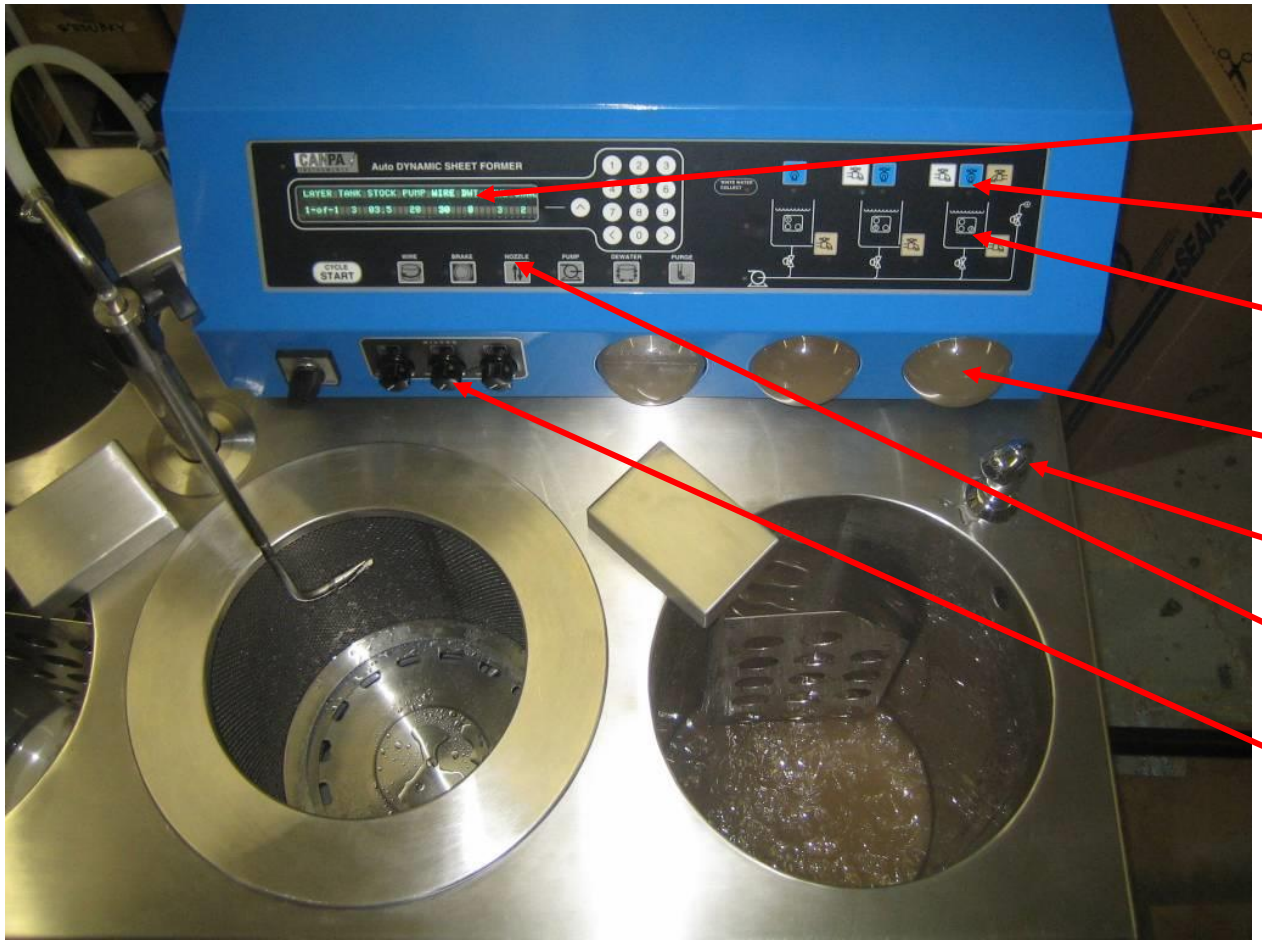

Fluorescent display of paper-making program

Tank fill controls

Tank drain valves

Stock Recirculation & Viewing Bubbles

Built-in Faucet

Main Process Controls

Tank paddle controls

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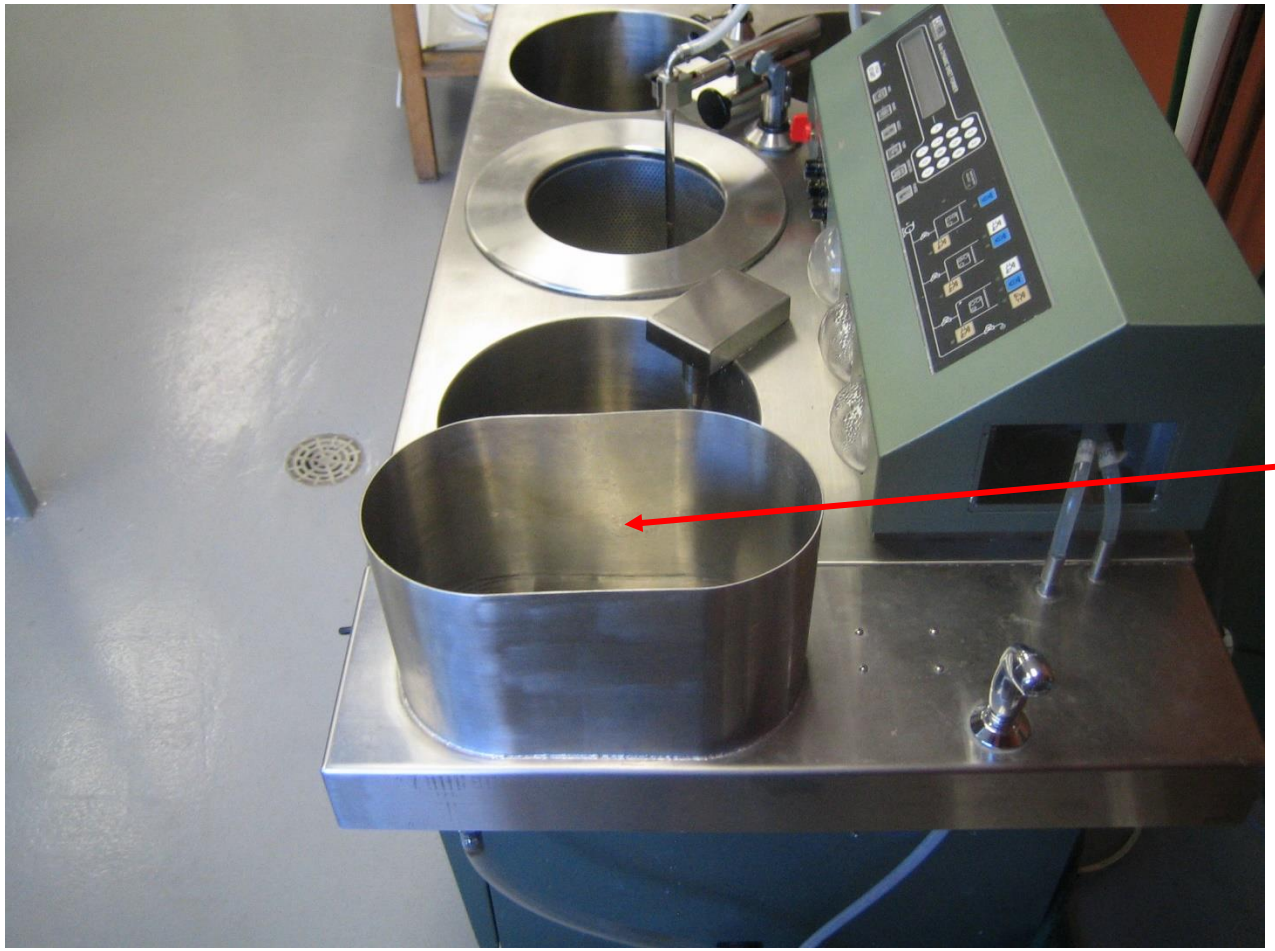

10-liter Stock Tank # 4

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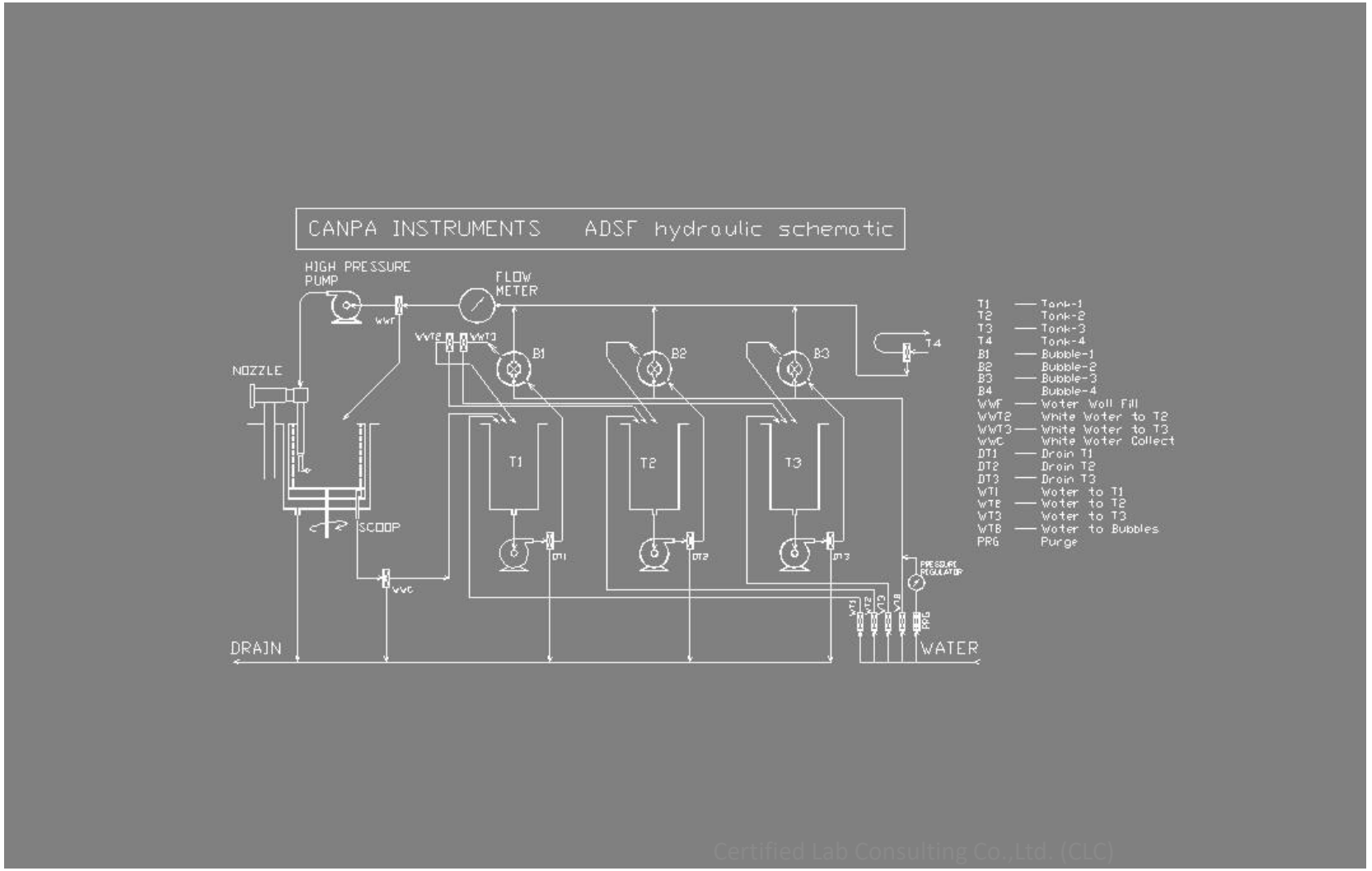

Symbolic Hydraulic Schematic of ADSF

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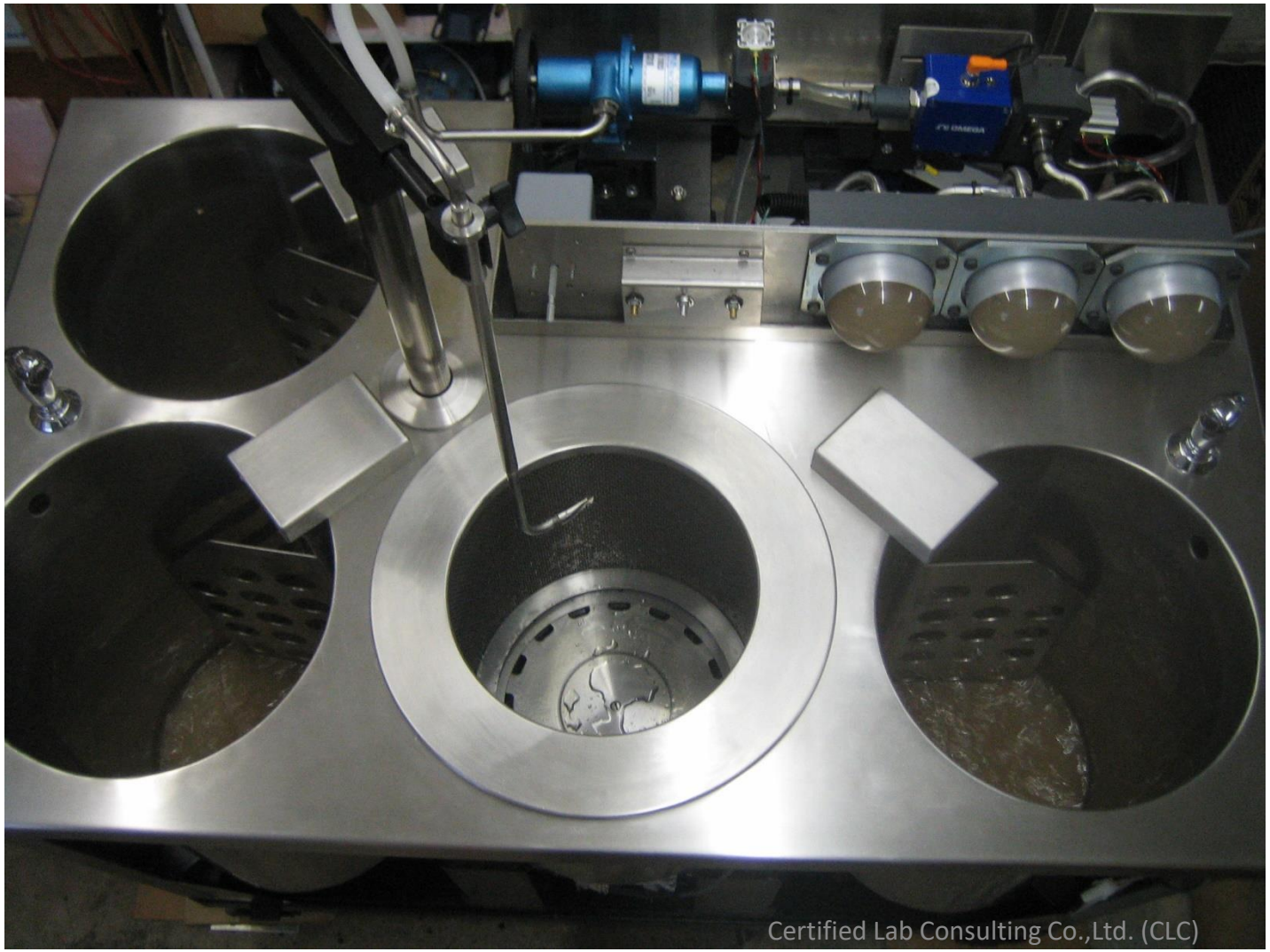

Top-View
Interior Components

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ADSF Overview Video

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Videos From Real Customer's Site

Multiple Units of ADSF in One Lab
Wire Insertion
Removing Sheet and Couch Rolling
Rolling Sheet, Removing Wire and Marking Size
Sheet Cutting
Drying of Small Sheet 1
Drying of Small Sheet 2
Drying of Small Sheet 3
Finished Small Sheet
Drying of Large Sheet 1
Drying of Large Sheet 2
Drying of Large Sheet 3
Cleaning Centrifuge Chamber

Cleaning ADSF Bench Top
CanPa Dynamic Sheet Former
Tank # 4 (Stock Preparation)
Paddle Agitator and Tank # 4 in Operation
Nozzle and Water Wall in Operation 1
Nozzle and Water Wall in Operation 2

Stainless Steel Construction

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Example of Grammage Distribution # 1

Example of Grammage Distribution # 2

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Partial Customers List

Specialty Minerals, Bethlehem, PA
Omya, Cincinnati, OH
MacMillan Bloedel, Vancouver, BC
Paprican (Pulp and Paper Research Canada), Vancouver, BC
Champion International Paper, West Nyack, NY
International Paper, Cincinnati, OH
Alberta Research Council, Edmonton, AL
Universite du Quebec CIPP, Trois Rivieres, QC
Waikato University, Hamilton, NZ
National Research Council Canada, Ottawa, On
And others …

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Dynamic Sheet Former Users

Korea
Iran
Australia
Brazil
New Zealand …

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Rough Fiber

Sheet From Rough Fiber

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Comparison

Thank You