

## **Fournier Industries Products Overview**



#### Hydroelectricity:

Gates, Stator Frames, Servomotors



#### **Industrial & Institutional:**

Ship Loading, **Custom Equipment**, **Biomass Furnace**, **Rotary Press** Filter Press



#### **Specialists in Complete Turnkey projects**

#### Mining:

Leach Tanks Process Tanks Plate Works Hoppers ...



### Improve dewatering quality and reduce your cost





Mining Application - Filtration processes - Industrial sludge - Slude from WWTP - Septic sludge - Paper sludge - Biomethanisation sludge

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### **Fournier Rotary Press – How does it work ?**





#### **Fournier Rotary Press – Typical Installation**





## Advantages of operation

- Continuous process
- Equipment totally enclosed reducing airborne contaminants & odor
- Easy start-up and shutdown procedures
- Simple to operate
- Minimal supervision required
- Wide range of sludge concentration from 0.7 to 10 % TS and self adjustment
- Completely automated and can be remotely operated
- Expandability for your future dewatering needs...

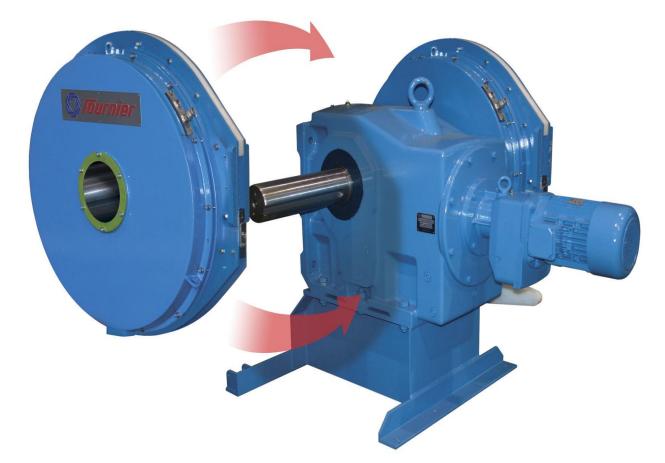






#### **Fournier Rotary Press - Expandable units**





To better suit tomorrow's needs! - All configurations are possible from 1 to 8 channels

## **Available in different configurations**



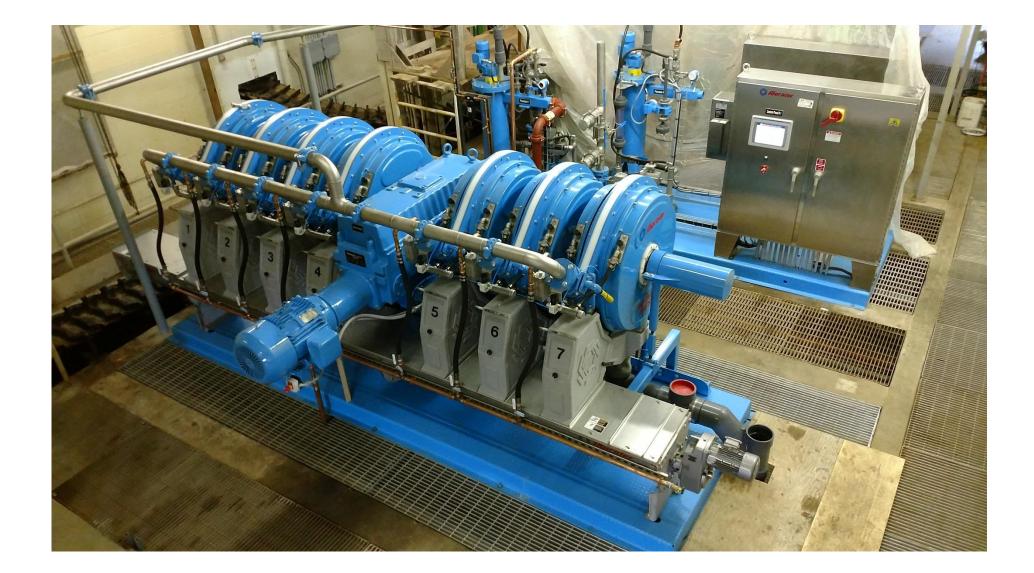






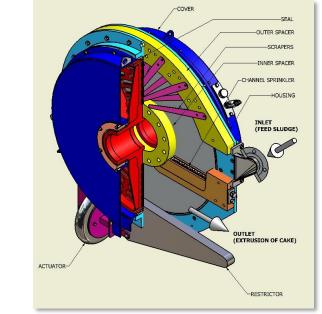
## Up to 8-channel unit





## Maintenance

- Simple maintenance can be performed by your operator
- Robust construction
- Few mechanical parts
- Slow rotation speed (0.2 to 2 rpm)
- Completely enclosed unit reducing corrosive exposure to nearby equipment
- Automated self-cleaning cycle
- Affordable to operate and maintain







**Economy** 

- Savings on final disposal costs (High Cake Dryness)
- Minimal space requirements (Small Footprint)
- Low maintenance costs
- Reduced labour costs
- Low energy consumption
- Low water usage (1 m<sup>3</sup>/channel per 24 hours of operation)
- High capture rate minimizing return of biosolids to head of the plan









## **Municipal Applications**

- Primary Sludge
- Biological Sludge and Activated Sludge
  - Aerobically digested sludge
  - Anaerobically digested sludge
  - Oxidation Ditch
  - SBR
  - MBR and MBBR
  - And other Ask for your application to our experienced team !
- Mixed Sludge
- Biogas plant effluent sludge (Biomethanisation Digestate)
- Septage Sludge (directly from vacuum trucks)







## **Industrial Applications**

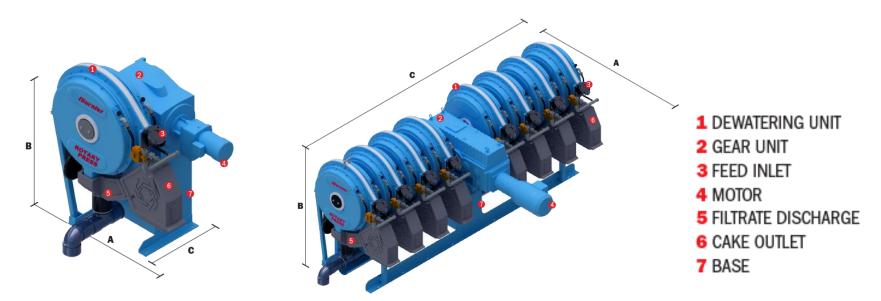
- Pulp and Paper Effluent Sludge
- Brewery Effluent Sludge
- Agricultural Manure (Pig, Cow, etc.)
- Food Process Effluent (Slaughterhouse, Milk process)
- Biofuel plant
- Bagasse plant
- Plastic recycling plant effluent
- Tannery Effluent Sludge
- And more Contact us with your application!







#### **Rotary Press Specifications**



Model No.	Model	Dimensions (inches / mm)			Weight	Motor
	Channel	Α	В	С	lb (kg)	HP (kW)
1-900/1000CV	1	70.3" (1785 mm)	72.0" (1830 mm)	40.5" (1028 mm)	3966 lb (1799 kg)	5 HP (3.7 kW)
2-900/2000CV	2	77.5" (1969 mm)	72.0" (1830 mm)	64.8" (1646 mm)	6854 lb (3109 kg)	7.5 HP (5.6 kW)
3-900/3000CV	3	79.0" (2007 mm)	72.0" (1830 mm)	85.8" (2180 mm)	8498 lb (3855 kg)	10 HP (7.5 kW)
4-900/4000CV	4	91.3" (2320 mm)	75.4" (1915 mm)	101.6" (2580 mm)	10280 lb (4663 kg)	15 HP (11.1 kW)
5-900/5000CV	5	92.8" (2358 mm)	75.4" (1915 mm)	123.0" (3124 mm)	12235 lb (5550 kg)	20 HP (15.0 kW)
6-900/6000CV	6	92.8" (2358 mm)	75.4" (1915 mm)	144.4" (3668 mm)	13649 lb (6191 kg)	20 HP (15.0 kW)
7-900/7000CV	7	94" (2388 mm)	79" (2007 mm)	176" (4471 mm)	17409 lb (7913 kg)	25 HP (22.5 kW)
8-900/8000CV	8	94" (2388 mm)	79" (2007 mm)	187" (4750 mm)	18820 lb (8555 kg)	25 HP (22.5 kW)
* Varies as per installation layout						

























## Case Study #1 – Municipal WTTP with Biogas plant City of Repentigny WWTP, QC, Canada

- Process: Primary anaerobically digested sludge (25-30 days)
- Plant capacity: 25 ML/day or 6,7 MGD
- Rotary Press: 2 units

**Model:** 4-900/4000CV

**Commissioned:** 1995 & 2015

- Performances:
  - Feed concentration: 2-4 % TS
  - Throughput: 6.7 t/d/press (24 hrs)
  - Capture rate: 96 % TSS
  - Cake dryness: 32 % TS

Special features: Night operations completely automated (without operators)



## Case Study #2 – Biogaz plant Rivière-du-Loup Biogaz plant, QC, Canada

- Process: Anaerobic digestion of Organic Residual Material (ORM) (Biomethanisation Digestate)
- Rotary Press: 1 Unit

**Model:** 6-900/6000CV

Commissioned: 2015

- Performances:
  - Feed concentration: 5 % TS
  - Throughput: 9.6 dry t/d (8hrs)
  - Cake dryness: 28 to 36 % TS
  - Capture rate: 97 % TSS





Two of the largest Biogas plants in construction in Québec will be equipped with the Fournier Rotary Press. Contact us for additional details !



## Case Study #3 – Septage sludge station Neuville, QC, Canada

- Process: Septic sludge (directly from vacuum truck)
- Rotary Press: 1 Unit

Model: 3-900/3000CV

- Performances:
  - Feed concentration: 2-3 % TS
  - Throughput: 4.8 dry t/d (8hrs)
  - Cake dryness: 38 to 42 % TS
  - Capture rate: 96 % TSS





## Case Study #4 – Municipal WWTP Mixed sludge Glasgow, KY, USA

- Process: Two treatment sources from aerobic and anaerobic digesters
- Rotary Press: 1 Unit

Model: 6-900/6000CV Commissioned: 2011

- Performances:
  - Feed concentration: 2 % TS
  - Throughput: 2 to 4 dry t/d (8hrs)
  - Cake dryness: 18-30 % TS
  - Capture rate: 97 % TSS
- **Special Features:** Progressive cavity pump is used for pumping cake

after shaftless conveyor





- Process: Brewery sludge (WAS and DAF)
- Rotary Press: 1 Unit

**Model:** 6-900/6000CV

- Performances:
  - Feed concentration: 4.6 % TS
  - Throughput: 3.3 dry t/d (8hrs)
  - Cake dryness: 22 % TS
  - Capture rate: 96.4 % TSS





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- Process: Pulp and Paper Deinking/recycle plant
- Rotary Press: 1 Unit
  Model: 6-900/3000CVP-304SS
  Commissioned: 2017
- Performances:
  - Feed concentration: 1-3 % TS
  - Throughput: 28 t/d
  - Cake dryness: 48-52 % TS
  - Capture rate: 98 % TSS







## Case Study #7 – Municipal WWTP 100% Biological Alexandria Borough, PA - USA

- Process: Aerobic digested sludge
- Rotary Press: 1 Unit

Model: 2-900/2000CV

- Performances:
  - Feed concentration: 3 % TS
  - Throughput: 1 dry t/d (8hrs)
  - Cake dryness: 16-21 % TS
  - Capture rate: 95 % TSS





## Case Study #8 – Car manufacturing Effluent Flint, MI - USA

- Process: Car processing residual waste
- Rotary Press: 1 Unit

**Model:** 2(3)-900/3000CV

- Performances:
  - Feed concentration: 4 % TS
  - Throughput: 1.5 dry t/d (8hrs)
  - Cake dryness: 18% TS
  - Capture rate: 98% TSS





## Case Study #9 – Municipal WTTP with Industrial Effluent Becker, MN - USA

- Process: Industrial and Domestic sludge WAS
- Rotary Press: 2 Units

**Model:** 7(8)-900/8000CV

- Performances:
  - Feed concentration: 1.20 % TS
  - **Throughput:** 4.4 dry t/d (8hrs)
  - **Cake dryness:** 39 % TS
  - Capture rate: 99 % TSS





## THE UNIQUE 100% AUTOMATED FILTER PRESS

 Fournier Industries is proud to partner with :





- a European leader in Filter press
- We are the only company to offer this 100% automated technology on the market





#### THE UNIQUE 100% AUTOMATED FILTER PRESS





Auto control cake discharge by means of plate weighing









#### The Highest Cake Dryness Possible from 30% to 85%





Examples of performance (cake dryness):

Mining and quarries: 85% Metal hydroxide: 40% Drinking water: 35-50% Waster water plant (biological sludge): 28-38% Dairy: 30-35%

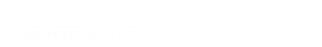




#### Full scale mobile piloting units to test your application



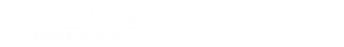
Containerised units are also available for sale | These types of units are Plug & Go mobile unit





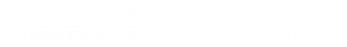




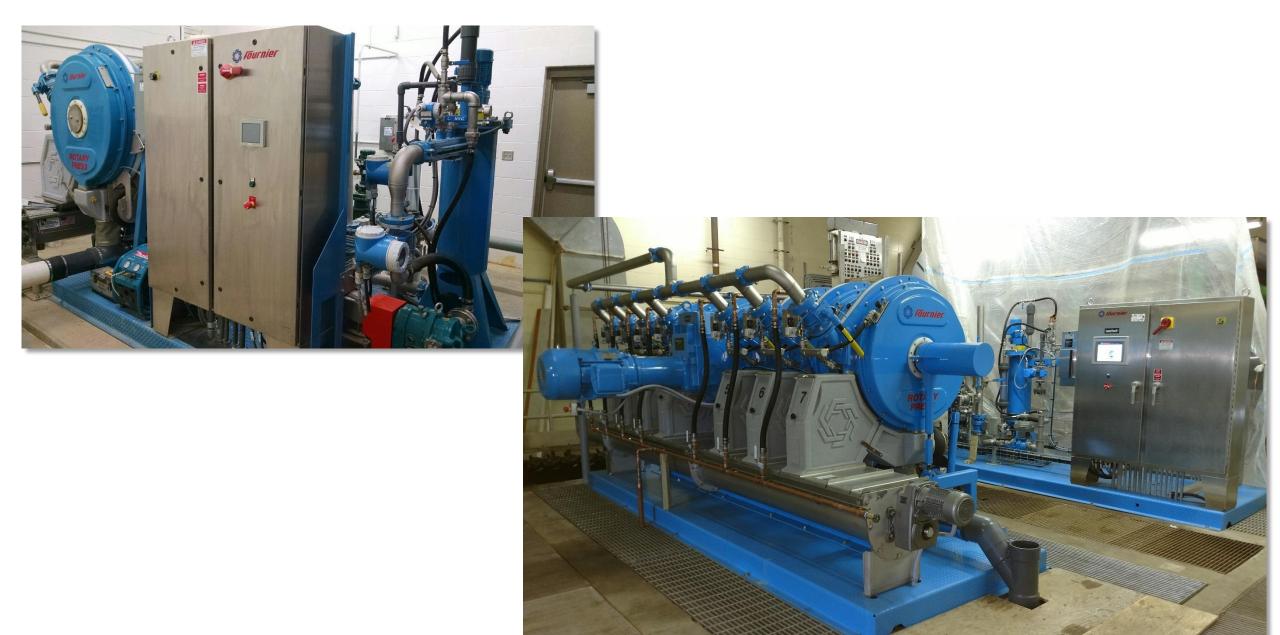












# Sizing and Guaranteed results with our laboratory analyses and trials

#### **Every project starts in our laboratory**

**Laboratory Trials** 





<u>On Site Trials</u>





What happens in the lab will happen on site!

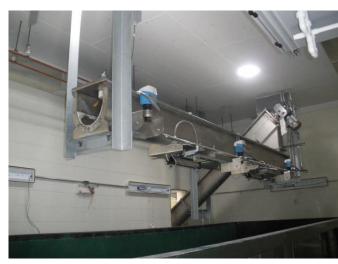


## **Auxiliary equipment**



#### **Shaftless Conveyor system**





Midwest City, OK

Saco, ME



Campor Environnement, QC



Neuville, QC



Mont-Laurier, QC

## Liquid and dry polymer system





