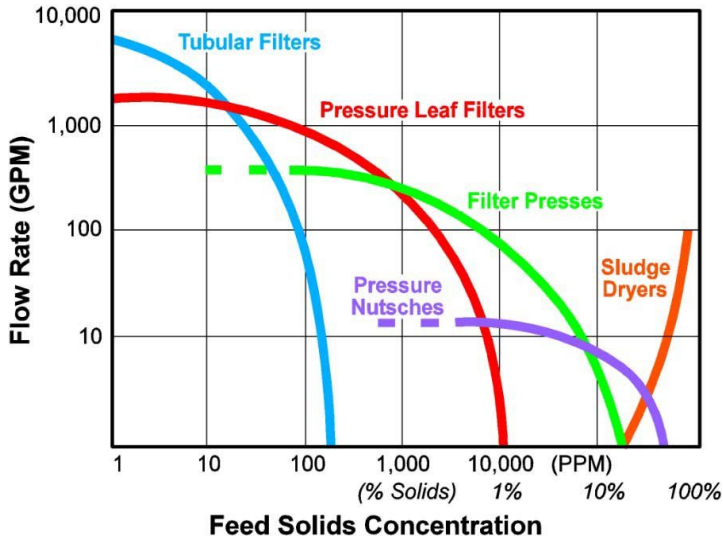


**Durco Pressure Leaf Filter Brine Polishing Systems Are Specifically Designed For:**



- **Pre-Filtration To Protect Expensive Ion Exchange Systems In Chlor-Alkali Production**
- **Sub-Micron Particle Removal Capability**
- **Supreme Durability With Low Maintenance Operation, Handling 'Bridging' Between Filter Leaves**
- **Exclusive Durco Caulked Pressure Leaf Media Enhances Performance In Brine Polishing Application**

**Durco T-Section Gasket Prevents Damage To Rubber Filter Vessel Lining**

**Durco Pressure Leaf Filter Brine Polishing Systems Guide:**



1. Durco Pressure Leaf Filter Brine Polishing Expertise & Solution
2. Durco Brine Polishing Systems Technical & Filtration Data
3. Durco Brine Filtration Systems Exclusive Features & Benefits
4. Durco Filtration Product Lines

**Durco's Exclusive Filter Leaf Media Design Enhances Filter Performance In Brine Polishing Application**

**Sub-Micron Particle Retention Capability**

**Ascension Industries** has purchased & owns all records, drawings, bills of materials and support data for existing: **Duriron (DURCO), Aquacare, FSD Filter Presses, Pressure Leaf Filters & Pressure Nutsches, Tubular Filters & Enviro-Dri Sludge Dryers.** Ascension is the only authorized supplier of certified DURCO OEM Filters & Filter Parts.

**Contact Durco Filtrations Experienced Engineers For Help In Optimizing Your Brine Polishing Process:**



# 1. Durco Pressure Leaf Filter Brine Polishing Expertise & Solution

## Brine Polishing Expertise

Durco has installed many successful brine filtration systems. Durco combines its 60+ years of filtration experience with modern design, state of the art manufacturing and proprietary methodology to create the finest brine filtration systems available.

## Application

Brine is used in the production of chlorine and caustic soda, two basic chemicals used in many industries. In chlor-alkali plants, brine is introduced into clarifiers. Salts are removed and the over-flow is sent to pressure leaf filters known as 'polishing filters'. Ion exchangers are then used downstream of the polishing filters.

## Challenge

Ion exchange systems are very expensive to maintain and repair. Chlor-alkali producers rely on the upstream pressure leaf filters to protect them. If solids bypass these polishing filters, the ion exchangers quickly become plugged and must be repaired or replaced at great expense.

Additionally, bridging between filter leaves due to variations in the process stream is a common problem. These filters must handle the potentially damaging effects of bridging to avoid down-time for repair.

Finally, as ion exchange technology evolves there is an increasing need for sub-micron particle removal.

## Solution – Durco Pressure Leaf Filter Brine Polishing Systems

Durco enable you to overcome the difficult challenges of brine filtration with its Pressure Leaf Filter Brine Polishing Systems, which feature the exclusive Durco Caulked Filter Leaf.

The proprietary Durco caulked polypropylene leaf resists bending, breaking and bypassing even in the most difficult brine filtration applications.

A polypropylene filter media or membrane laminate is held in place on the surface of the leaf by means of a caulked groove. This method of media attachment assures zero bypass and efficient cake discharge.

(See Diagram & details on page 3).

### Durco Pressure Leaf Filter Information

[Durco Horizontal Pressure Leaf Filters Info Online](#)

[Durco Horizontal Pressure Leaf Filters PDF File](#)

[Durco Vertical Pressure Leaf Filters Info Online](#)

[Durco Vertical Pressure Leaf Filters PDF File](#)

[Durco Pressure Leaf Media Information Online](#)

**Ascension Industries Is the Only Authorized Source Of OEM Filter Parts For Durco, Duriron, FSD and Aquacare Pressure Leaf Filters & Filter Presses**

## 2. Durco Pressure Leaf Filter Brine Polishing Systems Technical & Filtration Data

### Technical Data

Application .....	Overflow from brine clarifiers. Polishing filters upstream of ion exchange systems
Equipment .....	Custom engineered horizontal pressure leaf filter system with exclusive caulked filter leaf
Materials of Construction .....	Rubber lined pressure vessel. Polypropylene filter leaves with caulked filter media

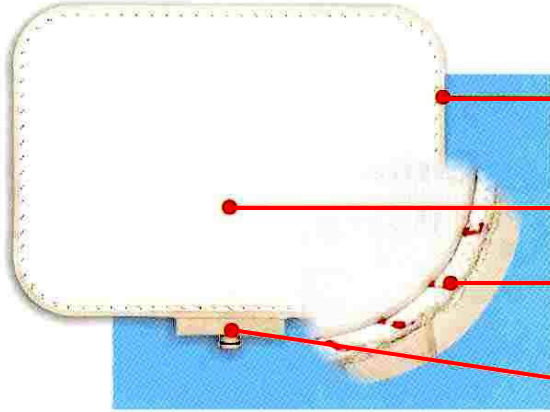
### Filtration Data

Liquid .....	Clarified brine
Suspended Solids .....	Magnesium hydroxide and calcium carbonate
Attainable Flow Rate .....	1 Gal/min/ft <sup>2</sup>
Cycle Length .....	8-24 hours typical (Dependent on overall solids concentration and ratio of magnesium hydroxide to calcium carbonate)
Filteraid .....	Cellulose precoat and body feed



### 3. Durco Pressure Leaf Filter Brine Filtration Systems, Exclusive Features & Benefits

Durco's pressure leaf filter brine filtration systems incorporate many proprietary design features:



**Proprietary Durco Caulked Filter Leaf**  
Provides enhanced performance in brine filtration applications

**Polypropylene Construction** - Compatible with brine, the leaf resists bending and distortion from bridging

**Polypropylene Filter Media** - Eases cake discharge and encourages even cake formation

**Exclusive Cloth Attachment Method** - Caulking groove and rope eliminate bypass. Permits simple, on-site replacement of filter media

**Leak-Free Nozzle** - a-Ring design eliminates by-pass and permits easy leaf replacement

**Durco Pressure Leaf Filter Brine Polishing System** Incorporates state-of-the art filtration technologies:

**Highly Efficient Sluice System** - Alternating pulse sluicer assures thorough removal of contaminants while conserving wash fluid

**FRP Piping** - Provides corrosion resistance for lower cost

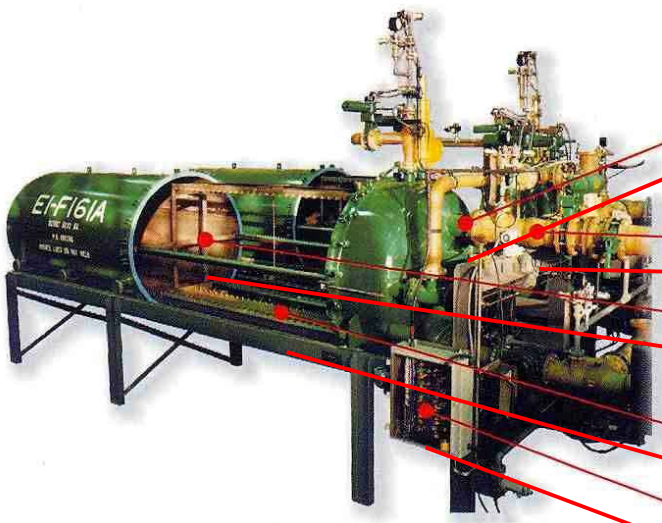
**Titanium Internals** - Offers a long service life with maximum corrosion resistance and minimal maintenance

**Removable Filtrate Manifold** - Easy field replacement

**Fully Automated and Integrated Controls** - A wide range of control options are available to match any application

**Rubber Lined Vessel**- Complete rubber lining provides superior corrosion resistance

**Exclusive T-Section Gasket** - Unique T-section gasket design prevents damage to rubber lining



### 4. Durco Filtration Product Lines

[Pressure Leaf Filters](#)

[Tubular Backwashing Filters](#)

[Pressure Nutsches](#)

[Filter Presses](#)

[Sludge Dryers](#)