

SEM

**Cartridge Collectors
Parts / Instructions
Supplement**



Parts: Pro-Finish® Dust Collectors, SEM-2

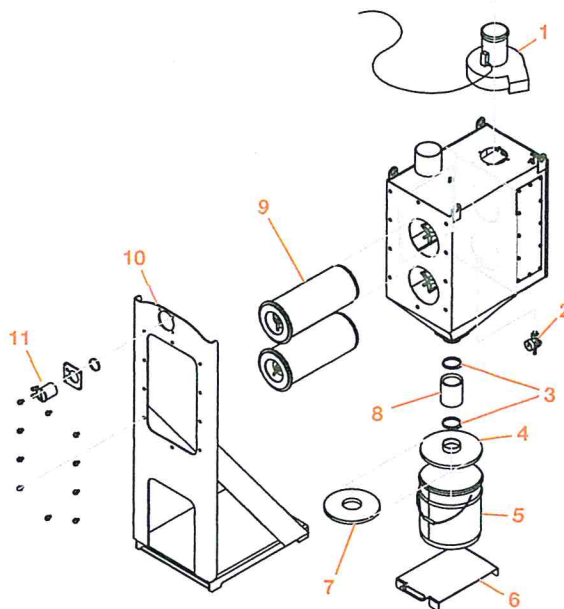
Guide to Part Numbers

| SEM-2 COMPONENTS | | |
|------------------|---|---------------------------------|
| Item | Description | PART # |
| 1 | Blower assembly (<i>See page A45.</i>) | — |
| | Collector assembly | 113036 |
| 2 | Air supply assembly | 140851 |
| | Regulator/gauge | 517612 |
| 3 | Clamps | 520531 |
| 4 | Cover | 516106 |
| 5 | Waste pail | 509611 |
| 6 | Dust-drum platform | 756682 |
| 7 † | Gasket, Neoprene, 9½" ID x 12" OD | 515710 |
| 8 ** | Gum rubber tube | 523749 |
| 9 * | Filter assembly (2 required) | 523523 |
| 10 | Stand | 770105 |
| | Mini-helic package | 550450 |
| 11 | Gauge only | 504201 |
| | Push button valve only | 520393 |
| | Diaphragm valve, 2 required (not shown) | 516326 516343 |
| | Rebuild kit, diaphragm valve (not shown) | 516326 |

* Recommended spare part—Consumable wear item

† Essential component to prevent downtime

****NOTE:** If the SEM dust outlet uses a 7" hose, contact Empire's Customer Service Department for replacement parts. If it uses a 4" hose, Part # 523749 is a direct replacement.



SEM-2 Dust Collector Options

Photohelic cartridge cleaning (*See page A66.*)

PART #

140810

SEM Filter Efficiency Guidelines

Proper Operation of Empire Cartridge Dust Collectors.

When the dust collector is shipped from the factory, the filters are new and clean. The filters do not reach their maximum filtering efficiency until they develop a dust cake on the dirty side of the filters, bag or cartridge, this is called seasoning. The filters pass greater volumes of air when new and unseasoned.

We know that when the filters reach 2 inches (water column) that they are seasoned and at the rated efficiency for filtration. Empire systems are designed to permit the filters to build up additional dust until the pressure drop across the filters is 4 inches (water column). At 4 inches the filters should be cleaned back to the 2 inch pressure to ensure that the highest filtration efficiency is maintained.

When cartridge filters are seasoned, at 2 inches, their weight can increase to 50 - 70 lbs. depending on the type of dust. There is more damage done to filters by removing them from the collector and dropping them and damaging the paper filter media by blowing the filters off or by hitting them to remove dust.

"Rules for Cartridge Filters"

Watch the dust collector gauge for the condition of the filters and **never** remove filters unless installing new Empire filters. Do not substitute brands of filters, they may be less expensive but they do not function with the same efficiency as Empire filters.

SEM MANUAL FILTER CLEANING

Manual Pulse Jet Cleaning: (Standard)

Filter elements are cleaned manually and should be done sequentially so that only one filter cartridge is off-line for cleaning at any given time.

To Activate Pulse:

1. Confirm ¼" airline from pipe string to pressure regulator (located at the bottom rear of unit) is connected.
2. Adjust pressure regulator to 40-50 psi max.
3. Press and release the left (top) button, wait 5 seconds and press and release right (bottom) button.
4. Filters require cleaning only when the Minihelic gauge reads 4 inches water gauge. Continue cleaning until gauge reads 2 inches water gauge

During the filter element cleaning process, a diaphragm valve opens and sends a pulse of compressed air through the filter element from the inside outward. Excess collected dust and contaminants are forced away from the filter's surface and fall into the storage container.

SEM Photohelic Controlled Filter Cleaning

Automatic Pulse Jet Cleaning: (Optional)

Filter elements are cleaned automatically and will be cleaned sequentially so that only one filter cartridge is off-line for cleaning at any given time. During the filter element cleaning process, a diaphragm valve opens and sends a pulse of compressed air through the filter element from the inside outward. Excess collected dust and contaminants are forced away from the filter's surface and fall into the storage container.

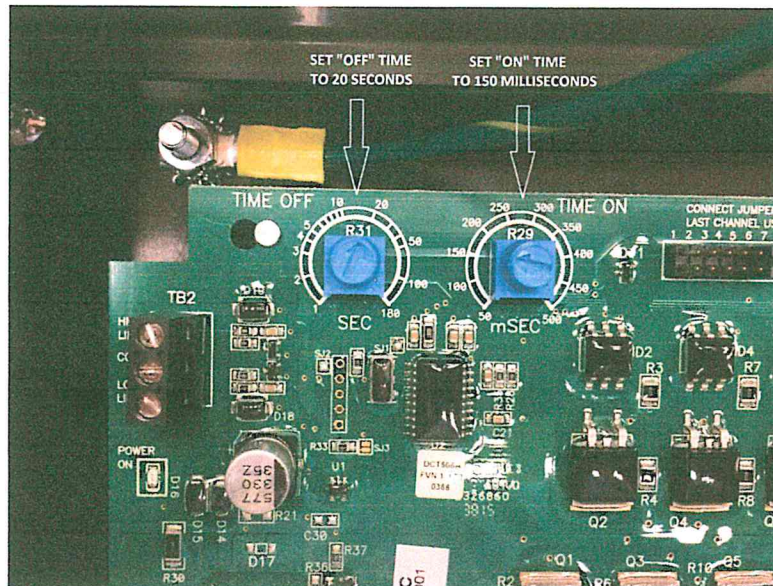
To Activate Automatic Pulse Cleaning:

1. Supply 115 volt AC to Control Box Timer.
2. Connect compressed air line to regulator on side of collector.
3. Adjust pressure regulator to 40-50 psi max.
4. Adjust photohelic "low" set point to 2" on photohelic gauge
5. Adjust photohelic "high" set point to 4" on photohelic gauge

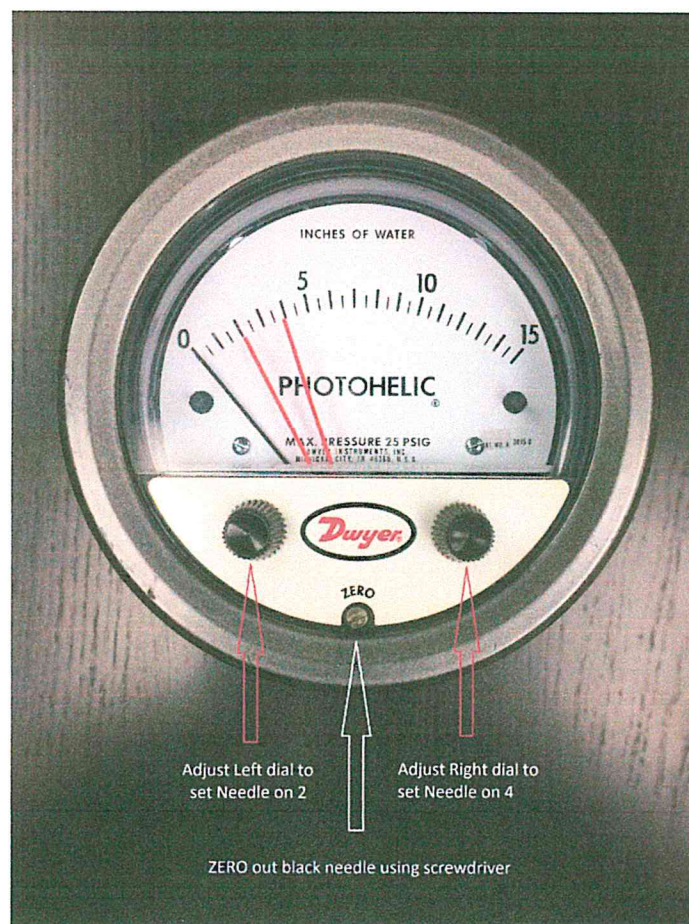
Timer Board Warning:

Do not adjust "ON" time, it has been factory set. Too much "ON" time or too little "ON" time can cause shortened filter element life.

- Pulse "ON" Time: Factory set at 150 milliseconds
- Pulse "OFF" Time: Factory set at 20 seconds
- Operating Temp. Range: -40 to +150 degrees Fahrenheit
- Solenoid Valves 115 VAC at 19.7 watts each



Jet Pulse On / Off Timer Settings
(newer model board shown)



Photohelic Gauge Needle Adjustments