

## 6 Golden Rules to maintain the Highest Performance of your Donaldson Self-Cleaning Air Filter System for Turbo Machinery

### 1. Availability of Compressed Air

Compressed air at 7 barg (100 psig) nominal at the required flow must be available at the filter house connection point at all times.

**Check points**

- ⇒ Visual: Pressure gauge on the filter house compressed air line. Compressed air pressure should reach 7barg (100psig) before each new pulse.
- ⇒ Electric: Signal from the low pressure alarm switch on the compressed air line.

**Maintenance tip**

- ⇒ Replace compressed air filter annually to avoid restriction on compressed air line and dirt carry-over.

### 2. No Water / Liquids in Compressed Air

Compressed air should be clean and free of any oil and water at all times to avoid damage to the cleaning valves and filter elements.

**Control Methods**

- ⇒ Drain pressure regulator/filter assembly.
- ⇒ Drain low point on compressed air line.

**Maintenance tip**

- ⇒ Replace or maintain properly the draining mechanism annually to avoid liquid carry over.

### 3. Pulse Cleaning System Set-up

Filter elements should be pulse-cleaned as frequently as possible, and even on a continuous basis for best performances and longest life.

**Control point**

- ⇒ Cleaning start/stop settings value on the control pressure switch.
- ⇒ ON-time/Off-time on each sequencer card.
- ⇒ Pulsing cycle is initiated by Start/Stop signal from control pressure switch and clock timer.
- ⇒ Each valve should pulse once during the full cleaning cycle.

**Operation tip**

- ⇒ For harsh and dusty environment it is recommended that the system is switched to MANUAL mode for continuous pulsing

### 4. Pulse Solenoid valves operation

**Control point**

- ⇒ The cleaning sequence should be a continuous sequence of pulses, each spaced with the same interval.
- ⇒ The valve pulse noise should be audible, sharp and brief.
- ⇒ Any discontinuity in the sequence or slow/low valve pulse noise would indicate a failure in the pulsing system.
- ⇒ A single and full cleaning cycle, manually actuated on the control cabinet allows for a rapid check-up.

### 5. Filter elements installation

Filter elements must be correctly installed to reach the expected performance.

**Maintenance tips**

- ⇒ Before installing new filters, clean mating surface on the tube sheet
- ⇒ If hardware is damaged or corroded, always replace with new hardware.
- ⇒ Ensure all element supports are in good shape and good condition.
- ⇒ Install new filter elements.
- ⇒ Before locking the filter element, check its perpendicular alignment with the tube sheet with care.
- ⇒ After locking, one should not be able to rotate by hand the filter element around its axis.
- ⇒ All filter elements should be of the same type.
- ⇒ When replacing filters, all filter elements should be replaced at the same time;
- ⇒ Do not use any extension to push down the quick lock system.
- ⇒ Check that all clamps are in lock position. (towards down).

### 6. Donaldson genuine filter elements with proprietary Spider-Web® technology

Donaldson's unique Spider-Web® technology with nano fibers provides ultimate surface filtration for optimal clean ability and unmatched filtration efficiency throughout the life of the filter elements.

Accept no substitutes! Use only genuine Donaldson replacement filter elements in your Donaldson Air Filter System.

Additional information on the Spider-Web® technology is available with your nearest Donaldson Sales Representative.

The above Golden Rules are given for information only. For more details, please refer to the Operations and Maintenance Manuals for procedures, settings and other maintenance recommendations. Alternatively, contact your nearest Donaldson Sales Representative for additional information.