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WHY SHOULD I CHANGE FILTER ELEMENTS EVERY YEAR?



Element in service. Should be inspected regularly and replaced on time.



Clogged element but not replaced as recommended



New Filter Element

A. Air dryer filters need periodic replacement for a couple of key reasons:

Maintaining Air Quality: As the filter element traps contaminants like dirt, dust, and oil particles, it gradually clogs. A clogged filter can't effectively remove these impurities, allowing them to pass through and potentially damage equipment or processes relying on clean air.

Ensuring Efficiency: A clogged filter element restricts airflow, forcing the air compressor to work harder to maintain pressure. This reduces efficiency and increases energy consumption. Replacing the filter at recommended intervals helps the system run smoothly and efficiently.

Increased Pressure Drop: As the filter gets clogged, the pressure drop across it increases. This can lead to a decrease in the available pressure of the dry air at the outlet, potentially affecting downstream equipment that relies on a specific pressure range.

Damage to Refrigerated Dryer: In some cases, heavy contamination due to neglected filters can even lead to contaminants entering the heat exchangers of the dryer. This can potentially coat the heat exchanger there by preventing effective functioning.

Desiccant Dryer: Contaminants like oil and dust can coat the desiccant beads, reducing their moisture absorption capacity.

Reduced Drying Performance: A compromised desiccant bed leads to less effective moisture removal, resulting in higher dew points in the dried air. This can negatively impact applications where very dry air is critical.

Increased Regeneration Needs: As the desiccant becomes overloaded with contaminants, it loses its efficiency. This necessitates more frequent regeneration cycles to maintain the desired dew point, leading to higher energy consumption.

Desiccant Bed Failure: Heavy contamination can completely plug the desiccant bed, rendering it inoperable. This can be a costly situation requiring desiccant replacement.

Membrane Dryer: These dryers are sensitive to particles in compressed air. Particles may tear or block the membrane rendering the dryer non-operational.

B. Benefits of replacing air filter elements regularly:

Safer Equipment Operation: Clean air protects equipment downstream from wear and tear caused by contaminants.

Reduced Operational Costs: Regular replacement prevents inefficiencies and costly repairs caused by clogged filters.

Increased Productivity and Profitability: Maintaining a healthy system avoids downtime and keeps things running smoothly.

Protection of Other Components: In compressed air dryers with desiccant beds, clogged filters prevent them from getting overloaded with contaminants.

C. Recommended replacement Cycle:

Replacement cycle depends on the application and surrounding. A general recommendation is to inspect the element every six months and replace once a year.

Use Genuine filter elements to avoid costly repairs!!