

## TAKE A SCIENTIFIC APPROACH TO FILTRATION DESIGN

When it comes to process filtration — whether separating solids from liquids, or particulates from gas, there are multiple ways to go about it. Over the past three decades, we have designed and installed more than 600 high-performance filtration systems in chemical processing, petroleum refining, and power generation plants throughout the world.

These systems operate under extreme conditions and require superior filtration performance for challenging applications.

**CHEMICAL PROCESSING** — You will find Mott filters in applications involving precious metal catalyst recovery, resins, fatty alcohols, PTA and hydrogenation processes as well as in other corrosive and high-temperature environments

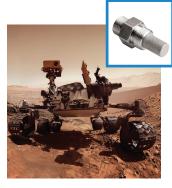
**REFINING** — For decades, some of the world's largest refining companies have relied on Mott to filter FCC/RFCC catalyst fines from slurry oil and to filter gases across a variety of processes including catalyst hopper vents

**POWER GENERATION** — Steam filtering and gasification plants are just two of the applications where our metal filtration solutions deliver superior results

PHARMACEUTICAL — API manufacturers have used Mott filters to capture 99.9%+ of their precious metal catalysts, thereby achieving substantial savings



### MORE ADVANCED THAN YOUR AVERAGE FILTRATION COMPANY



Our specially-designed dust filters helped sustain the mission of the Mars Rover for 15 years.



Our precision filter helped save 155 lives during the Miracle on the Hudson flight landing.



Our high purity filters help make next-generation technology possible by filtering down to 1 PPB in semiconductor manufacturing.



Our low-dose drug delivery components advance patient treatment by enabling implantable drug delivery devices.

# FILTER OUT PROJECT RISK RELY ON THE MOTT PROCESS

At Mott, we have developed a process to not only ensure your project stays on time and on budget, but also to ensure your filtration system is designed and engineered to operate at peak efficiency.

The Mott process is founded on close collaboration with our customers — beginning early in the planning and design stage.

Filter Feasibility Testing

Pilot Testing

Front-End Engineering Design

# THE MOTT PROCESS





Filter Feasibility Testing

In our Customer Innovation Center, we will replicate, or very closely correlate, your process conditions to determine the appropriate media grade and material for your application. We will provide you with a comprehensive, in-depth analysis to prove the feasibility of using porous metal in your process and furnish you with a comprehensive ROI justification.

- » Determine the suitability of porous metal for your application
- » Refine design specifications to reduce cost and complexity
- » Gain a clear understanding of the project's fiscal considerations

Pilot Testing As an option, we can install a pilot unit in your facility enabling you to witness, first-hand, how our filters will perform in your process stream and under your actual operating temperatures and pressure conditions.

- » Minimize project risk by simulating porous metal filtration under your specific operating parameters
- » Gather feedback from operators on system performance and maintenance
- » Witness results that directly correlate to commercial scale operations

Front-End Engineering Design Our Front-End Engineering Design (FEED) process provides you with a complete process engineering package, including vessel drawings, a preliminary equipment layout drawing, piping and instrumentation diagram, process flow diagram, valve and instrument list, and a detailed process functional description.

- » Receive accurate project cost and timeline estimates prior to fabrication
- » Streamline the project timeline by addressing issues upfront

Filter System Fabrication

When it comes to fabricating your system, we can handle as much or as little as you need — from fabricating only the filter vessel, to providing a complete turnkey skid system.

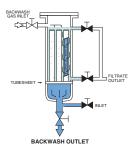
- » Delegate all or part of your project work to our experienced project management team
- » Receive regular communication and project updates from your engineering liaison

Operational Support When your filtration system is complete, our professionals can provide equipment commissioning and startup services, training, ongoing technical support and quality assurance testing for the life of your system.

- » Take advantage of our advanced lab for quality assurance testing
- » Perform destructive testing on elements to project replacement intervals
- » Troubleshoot filtration issues before they present problems

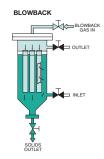
### WE HAVE PROVEN SOLUTIONS TO REMOVE PARTICULATES FROM ALL PROCESS APPLICATIONS

### **LIQUID FILTERS**



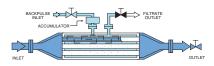
LSI FILTERS incorporate inside-out filtration, a method and design unique to Mott Corporation. At the end of each filter cycle, solids are backwashed off the inside of the elements and discharged as a concentrated slurry or wet cake.

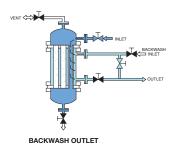
#### **GAS FILTERS**



GSV FILTERS are the ideal alternative for applications requiring continuous filter operation. Porous elements, which are manifolded together, are sequentially pulsed and cleaned while the unit remains on-line.

LSX PROCESS FILTERS provide uninterrupted filter cycle performance through crossflow filtration. Slurries flow through the open-ended filter elements, allowing filtrate to exit the system on a continuous basis while particulate remains in the circulating stream.





LSM FILTERS utilize inside-out filtration within a double open-ended design. High density solids are allowed to settle directly into the bottom of the filter.

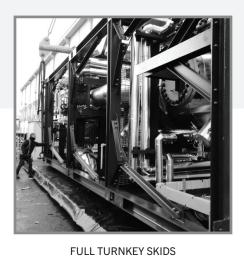
### RELY ON US FOR AS MUCH OR AS LITTLE AS YOU NEED

Depending on your needs, we can supply just the filter elements, the elements and vessel, or a complete turnkey system, including the filter vessel and frame, piping, valves, instrumentation and controls.

Whatever your choice, you have access to Mott's expertise and the experience amassed during hundreds of installations around the world.







ELEMENTS AND ENGINEERING VESSEL AND INTERNALS

