

MOTT FILTERS FOR FCC/RFCC SLURRY

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Mott Corporation HyPulse® LSI filters excel at removing alumina-silica catalyst and other solid contaminants from FCC/RFCC main column bottom slurry feeds. With online clean-in-place backwashing and automated process control, Mott slurry oil filters achieve less than 100 ppm total suspended solids filtrate quality, ensuring the filtered oil can be used for blending or sold as valuable product into other applications.

Backwashed slurry can be recycled back to the riser, decanted and concentrated, or sent directly to disposal or reprocessing, depending on the individual refiner's needs. Mott's installation list includes 20+ filters on five continents in both FCC and RFCC applications. References are available upon request.



MOTT PROJECT INSTALLATION SPECIFICATIONS

Specification	Minimum	Maximum
Barrels per Day	1,000	20,000
Filter Diameter	24"	66" (multiple vessels)
Solid Weight %	0.1	1.0
Operating Temperature	350°F (177°C)	650°F (343°C)
Particulate Size	< 1 µm	80 µm



3 REASONS TO USE A MOTT FILTER FOR FCC/RFCC SLURRY

1. UPGRADE SLURRY OIL FOR USE AS A MARINE (OR OTHER) FUEL

Mott porous metal filters can achieve higher quality filtrate (< 50 ppm in most cases) than settling tanks or other technologies while occupying only a fraction of the footprint.

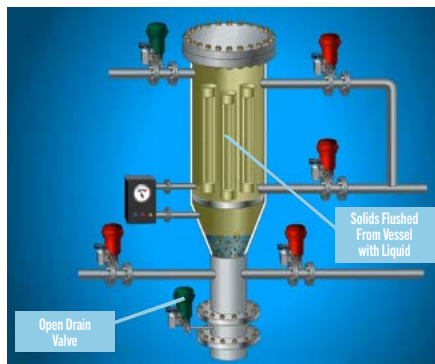
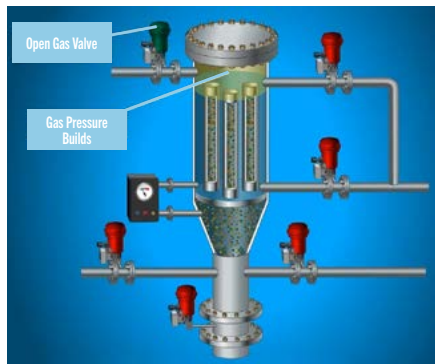
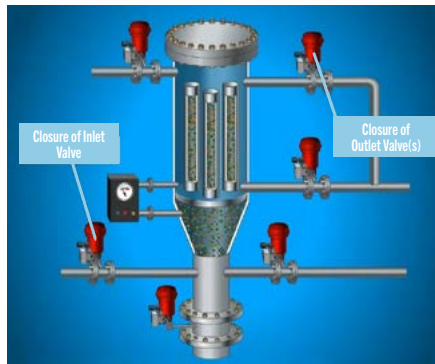
2. UPGRADE SLURRY OIL TO NEEDLE COKE (HIGH-GRADE PETROLEUM COKE)

The quality of the filtered slurry oil easily meets the feedstock requirements for the production of needle coke used to manufacture graphite electrodes.

3. ELIMINATE LARGE STORAGE ISSUES AND SLOP TANK CLEANING

With the ability to recycle slurry back to the riser, or concentrate and dispose, the Mott HyPulse LSI eliminates the need to clean out slop tanks, thereby saving money and reducing environmental impact.

LSI FULL SHELL BACKWASH CYCLE



MOTT FILTER INSTALLATIONS

Country	Startup	Size (inches)	Flow (gpm)	Solids (ppm)	Temperature (°F/°C)	Filtrate Use
USA	2019	46	200	1,500	455 / 235	Coker Feed
India	2016	48	70	6,000	626 / 330	Fuel
USA	2016	54	300	2,500	527 / 275	Hydrotreater Feed
China	2014	48	125	6,000	527 / 275	Fuel
Saudi Arabia	2013	32	30	3,000	518 / 270	Fuel
China	2013	48	125	5,000	536 / 280	Fuel
USA	2013	48	200	4,000	500 / 260	Fuel
Chad	2012	30	35	10,000	527 / 275	Fuel
Niger	2011	30	35	10,000	527 / 275	Fuel
China	2010	30	60	6,000	644 / 340	Coker feed
Algeria	2007	24	15	6,000	626 / 330	Fuel
China	2007	30	45	5,000	536 / 280	Fuel
China	2006	24	120	100	491 / 255	Hydrotreater Feed
China	2006	44	110	3,000	572 / 300	Coker Feed
South Africa	2005	40	200	2,000	365 / 185	Fuel
China	2005	44	125	10,000	518 / 270	Coker feed
Hungary	2004	24	50	6,000	491 / 255	Carbon Black Feed
China	2003	30	65	3,500	608 / 320	Aromatics Extraction Feed
China	2002	30	50	6,000	626 / 330	Fuel
USA	2002	44	200	1,500	446 / 230	Coker Feed
China	2000	24	27	10,000	572 / 300	Carbon Black Feed
China	2000	24	25	5,000	644 / 340	Coker feed
China	1998	20	25	5,000	617 / 325	Fuel
USA	1992	42	100	2,000	455 / 235	Fuel
USA	1990	36	100	2,500	302 / 150	Fuel

HyPulse 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.

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