



PRODUCTION
TECHNOLOGIES.
FULL SERVICE.

MERCURY REMOVAL ADSORBENTS

Effective purification for optimal protection



Schlumberger



SELECT A FIRST-CLASS MERCURY REMOVAL SOLUTION

Firmly established as a global innovator, Schlumberger sets the industry standard for the highly effective removal of toxic elemental mercury from gas, providing an unrivaled cure for potentially catastrophic threats to operations, assets, health, and the environment.

The forefront of fixed-bed technology

Versatile Schlumberger SELECT Hg mixed metal sulfide-based mercury adsorbent for elemental mercury removal are part of the pioneering CURE suite of chemical-based technologies that remove production impurities and reduce risks, rapidly restoring optimal production.

SELECT Hg mixed metal sulfide-based mercury adsorbents are used in fixed-bed processes that are easy to operate and require minimal operator attention, thereby reducing toxicity and protecting plant equipment and processes.

Alongside customized support, proprietary software modeling delivers treatment system designs that are tailored to operators' specific requirements and are technically robust, reliable, and effective at reducing mercury to extremely low levels.


PIONEERING HIGH-PERFORMANCE CHEMISTRY

The suite of SELECT FAMILY adsorbents uses metal sulfide chemistry to reduce elemental mercury in natural gas to extremely low levels. A mixed metal oxide-based mercury adsorbent is used when there is enough H_2S for in situ sulfiding. When no H_2S is present, a presulfided adsorbent is used.

The most suitable product is selected according to each operator's process conditions and operating parameters. These products react with elemental mercury to form a stable mercuric sulfide, and the spent product is handled through established metals recycling routes.

All mercury adsorbents are nonpyrophoric, straightforward to handle in both unreacted and ready-for-disposal forms, and are backed by an industry-leading performance warranty.





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FEATURES

- Reliable, predictable performance
- Customized, flexible purification systems
- Cost-effective mercury removal
- Low pressure drop
- Effective purification to ppb levels
- Straightforward vessel changeouts
- Simple media disposal
- Mobile removal units

BENEFITS

- Proven plant, equipment, and process protection
- Environmental compliance
- Reduced toxicity and risk
- Minimized environmental risks
- Simple, reliable, and predictable operation requiring minimal operator attention
- Technical support throughout operation
- Industry-leading performance warranty

CUSTOMIZED PURIFICATION SOLUTIONS TO CURE PRODUCTION THREATS

Years of experience across diverse applications and markets give Schlumberger unrivaled resources and expertise to design a purification treatment solution to suit any operator's specific requirements.

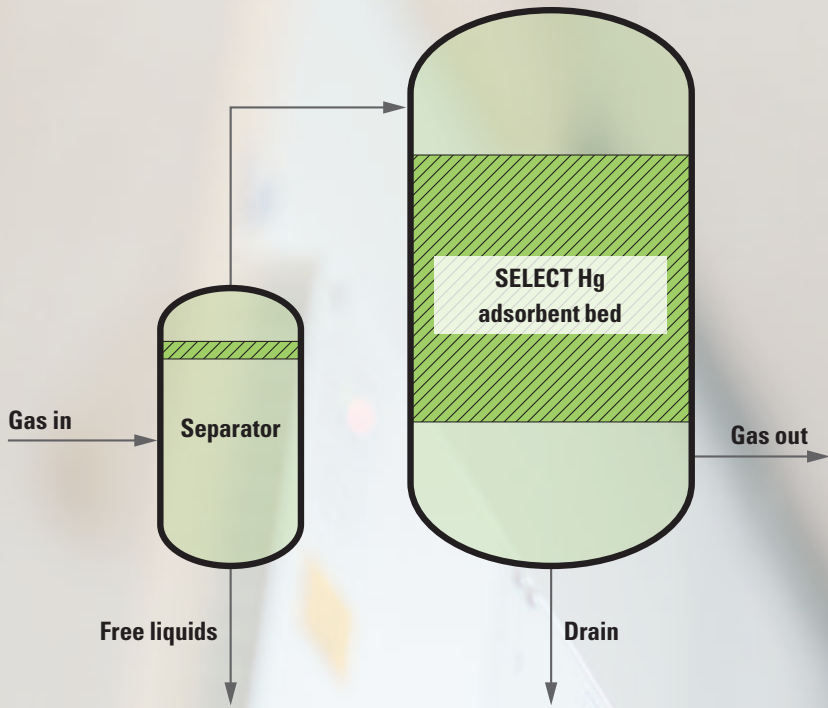
Treatment system design

Schlumberger designs treatment systems that address specific process conditions. Gas or vapor moves through the bed in a downflow design. Contaminants chemically react with the product, forming a stable by-product. The flexibility of the treatment process enables the system to adapt to changes in operating conditions, often without additional capital, equipment, or system retrofitting.

Customized support

Customized support ranges from basic media provision through to a fully engineered technical solution comprising standard system design, media supply, detailed engineering, equipment supply, and spent-media handling.

Irrespective of the vessel configuration, an inlet separator or coalescing filter should be placed upstream to remove free liquids from the gas stream, optimizing system performance.



Mercury removal unit process flow diagram.



Modeling to optimize performance

Computer modeling provides information on predicted performance parameters, with bed loading determined by flow and contaminant levels.

Optional monitoring around the treatment system envelope can include gas temperature and differential pressure measurement. These measurements are used to confirm anticipated design operating conditions and the impact of changes over time.

Specialist changeout and disposal support

It is recommended that changeouts are handled by catalyst handling specialists. Assistance is available in determining the best option for the recycling or disposal of spent material. Disposal routes are well established, and personnel are available for onsite installation and removal support as needed.

The most suitable product is selected dependent upon the process conditions and the operational parameters specified by the customer.





QUALITY ASSURANCE AND GLOBAL EXPERTISE

As part of the Schlumberger extensive portfolio of technologies that ensures customers reliably and efficiently maximize production, SELECT FAMILY adsorbents are ISO 9000 certified.

All products are manufactured to stringent quality specifications. Bespoke software modeling and performance predictability enable the development of best-fit system design and operation for each site supported by production technology specialists at every stage.

Schlumberger has dedicated specialist laboratories for the research, development, and testing of fixed-bed adsorbent media and alternative purification systems. As part of a global network of advanced oilfield research and development laboratories, these world-class facilities offer customers fast access to new product developments for the removal of mercury from gas.

UNLOCK POTENTIAL **OPTIMIZE PRODUCTION**

A full service offering to maintain and restore full production.

Schlumberger production technology specialists deliver targeted, integrated strategies that help to decisively remediate production issues such as deposit formation and naturally occurring gases, enabling customers to restore and improve flow performance and revenue while avoiding costly repairs and shutdowns.

Firmly established at the forefront of technology, Schlumberger has a full service offering that integrates pioneering chemical and process solutions, equipment, and software with unrivaled technical expertise.

Working with the world's largest oilfield services provider, customers benefit from a truly unique combination of outstanding technological capabilities and improve their understanding of how to successfully address production challenges in an increasingly competitive marketplace.

The team's global footprint and extensive suite of technologies helps customers to reliably and efficiently maximize production—regardless of system complexities or geography.

**MAXIMIZE PRODUCTION
FROM RESERVOIR TO REFINERY**



UNLOCK POTENTIAL

OPTIMIZE PRODUCTION



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