

BRINK® Pt FILTERS

PLATINUM RECOVERY FILTERS FOR NITRIC ACID PLANTS



A new Brink® Pt Filter in a concentric design, features an internal cage type structure and robust construction.

BRINK Pt FILTER, UP TO 60% PLATINUM RECOVERY

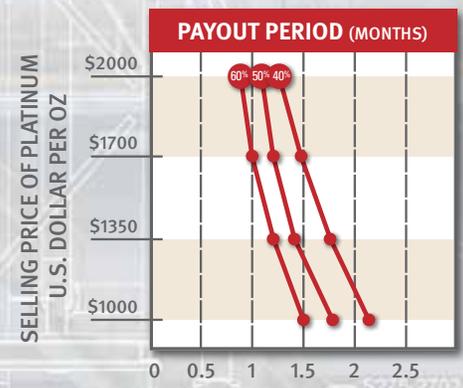
In the nitric acid plant, the Brink® Pt Filter by MECS® is housed in a separate vessel and installed in a horizontal orientation following the waste heat boiler. As air and ammonia are burned at the platinum catalyst gauze, within the converter vessel, a gradual catalyst breakdown occurs and the resulting platinum dust is carried downstream to the Brink® Pt Filter and is captured. The Pt Filter has an estimated platinum collection efficiency of nearly 100% of contactable and collectable Pt dust.

When the Pt Filter has been in service for one or two production campaigns, it is taken from service and the outer screens are removed so that the special ceramic fiber embedded with the platinum dust may be accessed. The platinum embedded ceramic fiber media is removed and returned to a precious metal processor for reclamation. A spare Brink® Pt Filter is placed in the filter vessel and the empty Pt Filter cage is then returned to MECS to be repacked.

Based on reports from existing MECS® customers, the Brink® Pt Filter collects up to 60% of the platinum catalyst burn off. This overall recovery is based on credits secured from the precious metal processor compared with the platinum lost from the gauzes.

FEATURES AND BENEFITS:

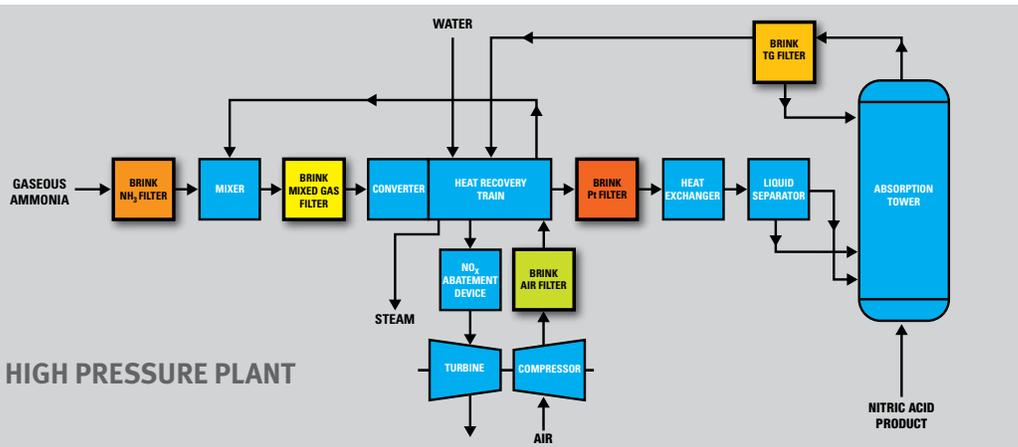
- Internal cross brace supports added for structural strength.
- High temperature engineered ceramic fiber used for collection media.
- Filters are re-packable by MECS® for cost savings.
- Eliminates unnecessary loss of costly platinum catalyst.
- Collection efficiency approaches 100% of contactable and collectable platinum dust
- No moving parts – continuous operation with low maintenance
- Low pressure drop – typically 0.5 psi (350mm/wc) when clean
- Return on investment is very fast with pay out as short as 1.5 months.



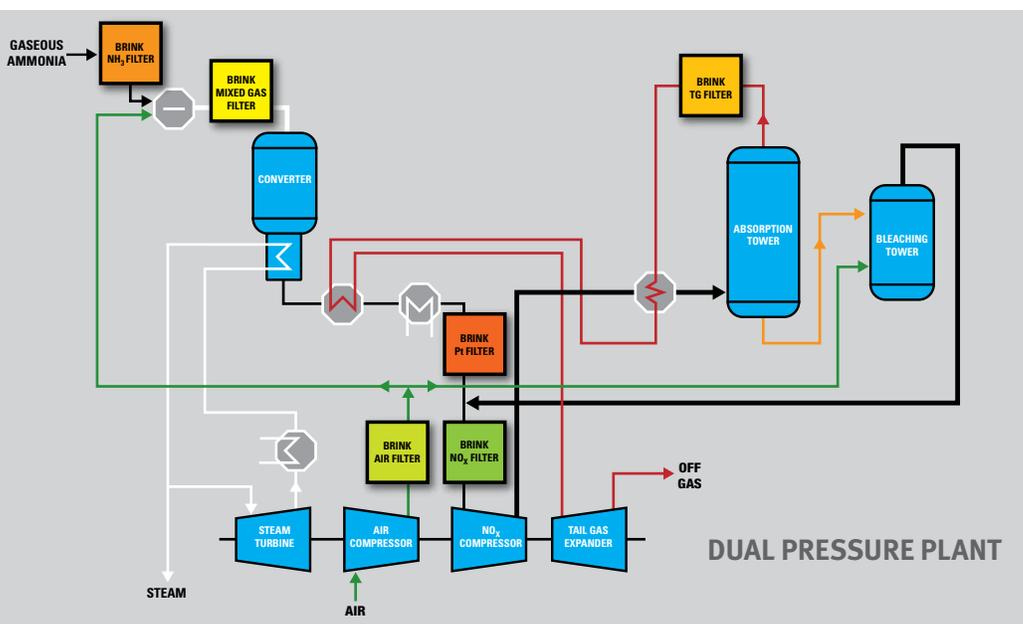
Learn more at www.mecsglobal.com

BRINK® FILTERS FOR NITRIC ACID PLANTS

MECS® PROVIDES BRINK® HIGH PERFORMANCE FILTERS FOR THE ENTIRE GAS STREAM IN A NITRIC ACID PLANT.



HIGH PRESSURE PLANT



DUAL PRESSURE PLANT



www.mecsglobal.com

North America

MECS Headquarters

Chesterfield, Missouri, USA

Tel: +1-314-275 5700

northamerica@mecsglobal.com

Europe/Africa

Brussels, Belgium

Tel: +32-2-658 2620

europafrica@mecsglobal.com

Milan, Italy

Phone: +39-02-8969 0658

italy@mecsglobal.com

Johannesburg, South Africa

Tel: +27-11-708 9860

southafrica@mecsglobal.com

Asia/Pacific

Hong Kong, China

MECS Far East Limited

Tel: +852-2734 5388

hongkong@mecsglobal.com

Shanghai, China

MECS Chemical Plants

Equipment (Shanghai) Co., Ltd

Tel: +86-21-6182 1111

shanghai@mecsglobal.com

Mumbai, India

MECS India Private Ltd.

Tel: +91-22-6774 9500

india@mecsglobal.com

South America

Barueri, Sao Paulo, Brazil

Tel: +27-11-218 8618

brazil@mecsglobal.com

BRINK AIR FILTER

This filter removes line scale and oil mist from the air stream which cause decomposition of the ammonia and contamination of the platinum gauze. Effective use of this filter provides higher ammonia conversion efficiency.

BRINK NH₃ FILTER

This filter removes iron contaminants and oil particles that cause decomposition of the ammonia and poisoning of the platinum gauze. Effective use of this filter also provides a higher ammonia conversion efficiency and longer production campaigns.

MIXED GAS FILTER

This optional second stage polishing filter further removes line scale and oil mist from the air stream which cause decomposition of the ammonia and contamination of the platinum gauze. Effective use of this filter provides more operating efficiency assuring higher ammonia conversion and longer service campaigns.

BRINK Pt FILTER

This filter captures up to 60% of the platinum burned off the absorption tower tail gas. Effective use of this filter reduces or eliminates the need for replacing down stream equipment (re-heater bundles) and collects HNO₃ that would normally be lost.

BRINK TG FILTER

This filter collects nitric acid mist carried over from the absorption tower tail gas. Effective use of this filter reduces or eliminates the need for replacing down stream equipment (re-heater bundles) and collects HNO₃ that would normally be lost.

NO_x COMPRESSOR FILTER

This bi-component cylindrical filter with baffle screen pre-separator helps prevent fouling of compressor to reduce maintenance and increase campaign service life.