MPAC - the next generation of gauzes

...the next generation of gauzes

ammonia oxidation solutions
A new gauze generation takes over catalytic ammonia oxidation

Multi-Combination Gauze Pack builds on the success story of the already unique multi-layer gauze systems that had been introduced more than a decade ago.

A much broader toolbox of new and improved features supported by a much better understanding of how to use these tools enables gauze designs that will match significantly better with defined performance criteria in ammonia oxidation processes.

The most striking difference compared to our established MKS systems is the fact that MPAC allows a distinctly bigger number of combinations, designs and functionalities.

Next to material and wire constitutions it is first and foremost the structural uniqueness that makes MPAC an even more effective system compared to MKS.

The first MPAC generation will focus on improving product yield, reducing PGM weight and increasing campaign times. For certain conditions it will also be able to lower greenhouse gas emissions.

Additional features & functionalities will be gradually added over the next 24 months, making MPAC a truly vital and dynamic gauze innovation.

Discover MPAC in more detail

Multi-Combination Gauze Pack

MPAC Example: Gauze types

1+2 Combinat
3 Separator
4 Combinat
5 Flusign®
6 Multinat®
7 Separator
8+9 Getter
MPAC is…

1. ...the biggest possible number of features a gauze system can contain...
2. ...intellectually refined...
3. ...to the ONE essential combination...
4. ...that perfectly fits with defined objectives.

HARDWARE

A much bigger toolbox than ever before

SOFTWARE

A much better understanding of how to use these tools

FUNCTIONALITY

Tailored effectiveness for defined objectives

OBJECTIVES

More and better benefits than ever before
Originating from a tradition of innovation

- Invention of gauze systems (2000)
- Further development of gauze systems (2009)
- Addition of system gauzes (2014)

Increased number of combinations, functionalities, designs

MULTITUDE within one gauze pack

Significantly increased number of designs

- HARDWARE
  - Material Species: MKS (2), MPAC (> 6)
  - Wire Classes: MKS (1), MPAC (> 5)
  - Pattern Types: MKS (3), MPAC (> 10)

- SOFTWARE
  - Calculations: MKS (Basic), MPAC (Sophisticated)

- DESIGNS
  - Configurations: MKS (< 2,500), MPAC (>> 500,000)

MPAC - the next generation of gauzes
New and Improved Hardware & Software Features

**MATERIAL**
- Tuned Features
  - Constitution
  - Purity
  - Doping

**TECHNOLOGY**
- Tuned Methods & Devices
  - Adapted Material Science
  - Adapted Manufacturing
  - Adapted Refining
  - Adapted Equipments

**WIRE**
- Tuned Features
  - Geometry
  - Stability
  - Surface
  - Diameter

**INTELLECTUAL PERFORMANCE**
- Tuned Utilities
  - Research & Development
  - Data Processing
  - Analysis

**STRUCTURE**
- Tuned Features
  - Multi-Layer Pattern
  - Grammage
  - Areal Density
  - Volume Density
  - Spatial Wire Configuration

**FUNCTIONALITY**
- Tuned Effectiveness
  - Amplified catalyst activity
  - Amplified getter effectivity
  - Adjustable gas flow
  - Adjustable emission level
  - Adjustable loss rates

**MULTITUDE of possible COMBINATIONS**
Your benefits through improved functionalities

- **Installation Weight**: Reduced PGM inventory
- **Gauze Durability**: Maximized process uptime
- **Product Yield**: Improved throughput & selectivity
- **Built-in Reserve Capacity**: Enabling additional load
- **Operational Losses**: Reduced PGM losses
- **N₂O Reduction**: Choked Emission Levels
- **Quick Yield**: Rapid selectivity level
- **Safety**: Reduced operational risk
- **Tear Resistance**: Superior mechanical gauze stability
- **Process Understanding**: Increased cause & effect awareness
- **Problem Solving**: Increase of competitiveness
- **Cost Saving**: Lower total costs
- **N₂O Reduction**: Choked Emission Levels
- **Problem Solving**: Increase of competitiveness
Contact us!

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