



...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 **M**PAC an even more effective system compared to MKS.

The first **M**PAC 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.

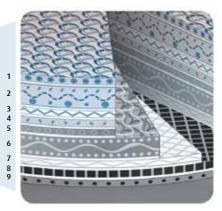
Additional features & functionalities will be gradually added over the next 24 months, making MPAC a truly vital and dynamic gauze innovation.





Discover MPAC in more detail





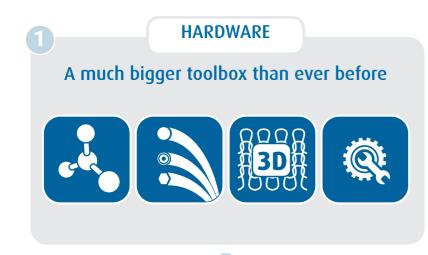
MPAC Example: Gauze types

1+2	Combinit	
3	Separator	
4	Combinit	
5	Platinit®	
6	Multinit®	
7	Separator	
8+9	Getter	

MPAC is...

- ...the biggest possible number of features a gauze system can contain...
- ...intellectually refined...

- ...to the ONE essential combination...
- ...that perfectly fits with defined objectives.



FUNCTIONALITY

Tailored effectiveness for defined objectives







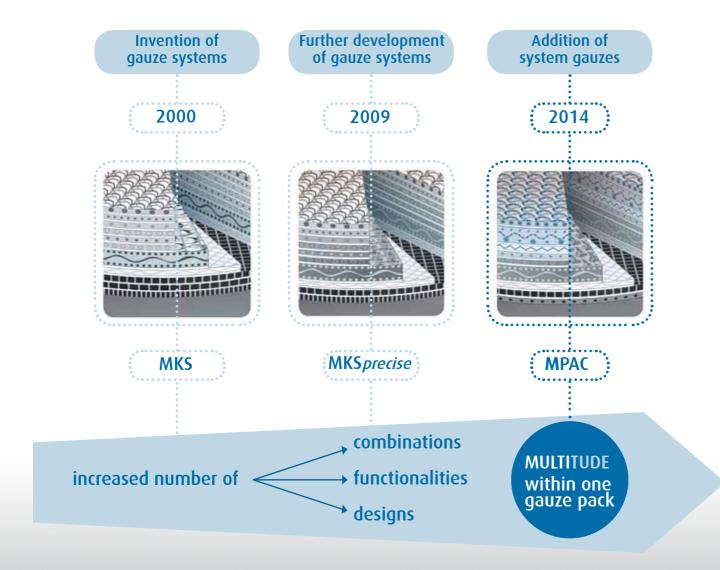


A much better understanding of how to use these tools

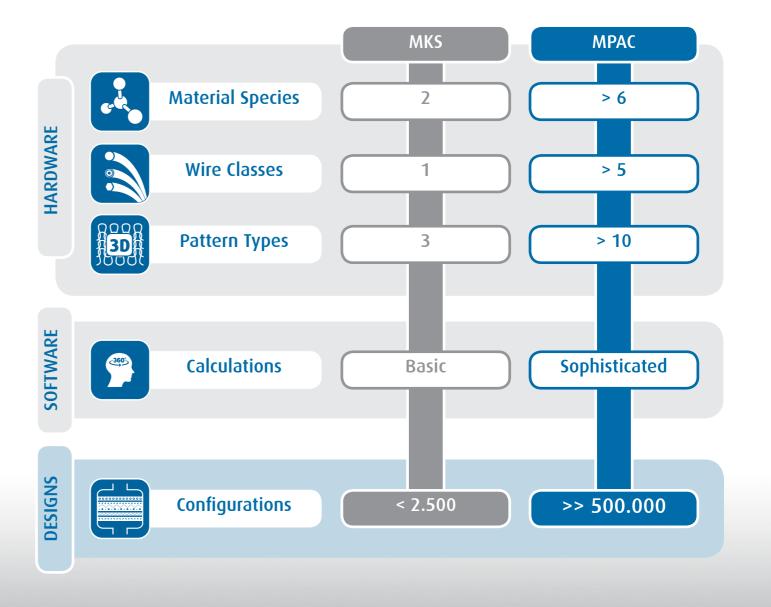




Originating from a tradition of innovation



Significantly increased number of designs



New and Improved Hardware & Software Features

MATERIAL Tuned Features ► Constitution ► Purity **MULT ITUDE** ▶ Doping o f **WIRE Tuned Features** 360° Geometry ► Stability ➤ Surface ► Analysis ▶ Diameter **STRUCTURE**

Tuned Features

- ► Multi-Layer Pattern
- ► Grammage
- ► Areal Density
- ► Volume Density
- ► Spatial Wire Configuration



poss ible **COMBINATIONS**



TECHNOLOGY

Tuned Methods & Devices

- ► Adapted Material Science
- ► Adapted Manufacturing
- ► Adapted Refining
- ► Adapted Equipments

INTELLECTUAL PERFORMANCE

Tuned Utilities

- ► Research & Development
- ▶ Data Processing

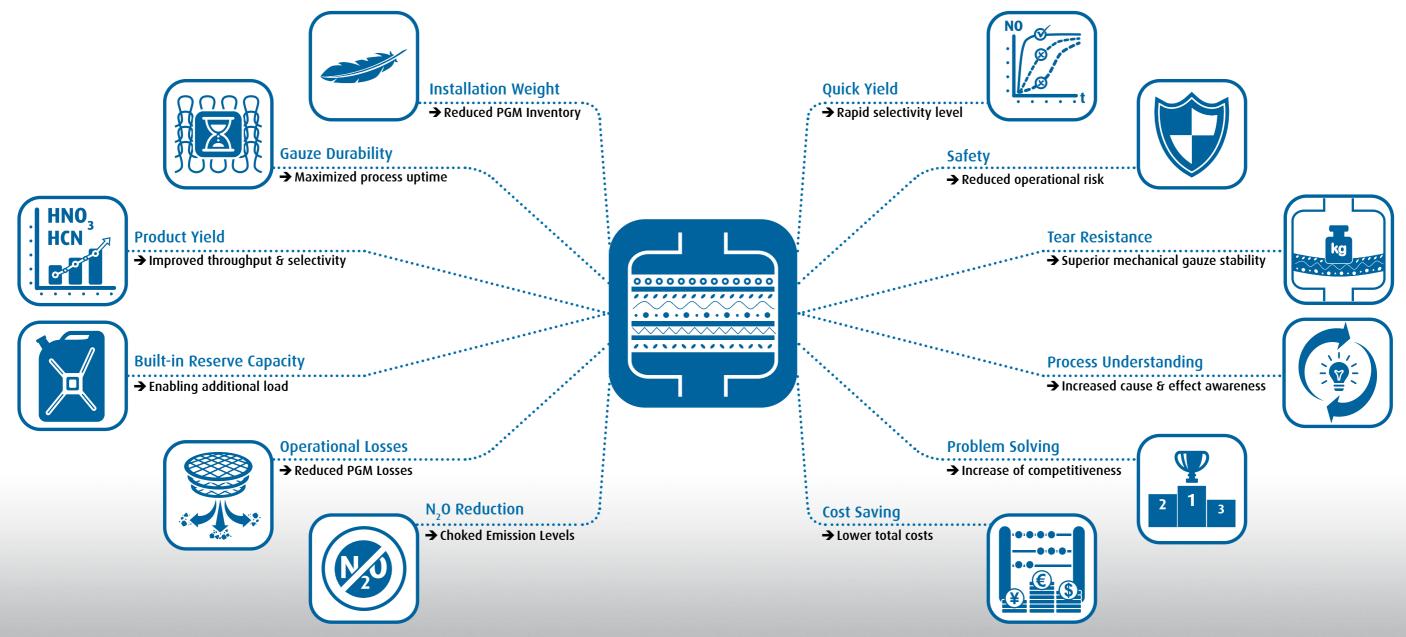
FUNCTIONALITY

Tuned Effectiveness

- ► Amplified catalyst activity
- ► Amplified getter effectivity
- ► Adjustable gas flow
- ► Adjustable emission level
- ► Adjustable loss rates

ammonia oxidation solutions '

Your benefits through improved functionalities



ammonia oxidation solutions "

Contact us!

Umicore AG & Co.KG Platinum Engineered Materials

Rodenbacher Chaussee 4 63457 Hanau-Wolfgang Germany

Tel. +49 (0) 6181 59 5287 Fax +49 (0) 6181 59 75287 E-Mail platinum@eu.umicore.com

Visit our website:



www.umicore.com www.platinum-engineered-materials.com

ammonia oxidation solutions