



**DR. B. PITTALUGA & C. s.r.l.**

Via Ludovico Muratori, 18 – 24030 MOZZO (BG) - ITALIA

Fax (0039) 035/618710 - ☎ (0039) 035/466246

E-MAIL info@pittamix.it



## MIXER APPLICATION SHEET no. 4:

### **Nitric Acid production and Gas phase reactions: the need of a uniform loading of the catalytic bed**

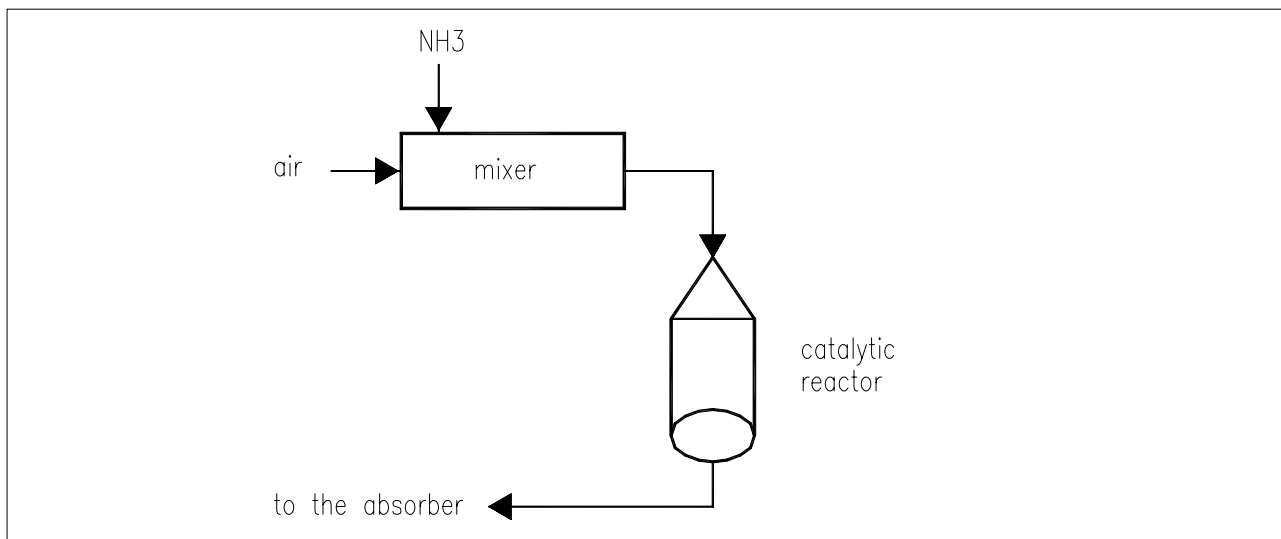
Nitric Acid production plants can be optimized in different ways, one of which is to streamline the operative costs.

Among these an important item is the catalyst life cycle, strongly depending on an even loading of  $\text{NH}_3$  on the entire bed.

The so called "hot spots" are not only responsible of reducing the catalyst operating life, but do also reduce the conversion efficiency, since the increased spot temperature enhances unwanted secondary reactions.

**All the above is valid and applicable to all catalytic reactions in gaseous phase, such as Cyanidric Acid, Formaldehyde and Phtalic and Maleic Anhydride Production.**

The use of a **Pittaluga Static Mixer** right before the catalytic bed, enables gaseous phases to be perfectly homogeneous.



#### **Pittaluga Static Mixers main features :**

- ✓ No moving parts
- ✓ Exact determination of the mixing efficiency
- ✓ Minimum Pressure Drop : a few millibars
- ✓ Available in either stainless steel or different alloys.