

## FLUIDIZING with PE-porös from KIK

Many dry bulk materials can be put into a fluid-like state by "fluidization", in other words, passing air through them. This motile state can be used for

- homogenizing or mixing
- discharging or flow-conveying
- drying or cooling
- fluidized-bed sintering

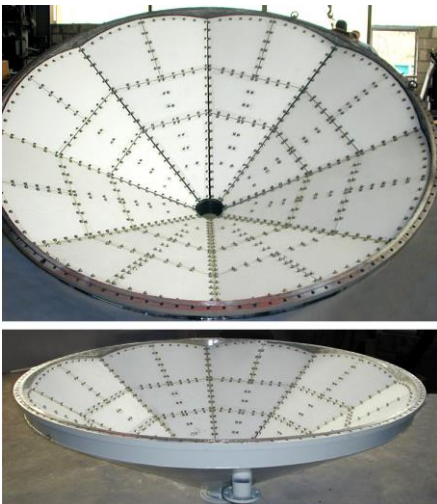
of powdered materials.



Aeration trays and hoppers



Aeration strips



PE-porös segments in large diameter silos

KIK offers for these tasks **aeration systems** in the form of **plates, aeration trays** and **hoppers** made to measure, and **aeration strips**.

**PE-porös** has a low coefficient of sliding friction, and the products made from it have smooth surfaces, so that it has less sliding friction to start with than steel sheeting or woven fabrics, for example. The aeration reduces this still further, and loosens up the bulk material in addition.

**Pneumatic discharge hoppers** by KIK are aids for discharging fluidizable dry bulk materials that are not free-flowing.

Aeration that is gentle to the product prevents

- bridging
- pit formation
- core flow

For higher mechanical stresses, materials with perforated plates sintered into them are employed. Steel flanges and spouts are then welded to these plates.

If full-surface aeration is not necessary, **aeration strips** can be employed. The standard sizes of aeration strip offered by KIK are 125 mm wide, in lengths of 250 mm, 500 mm, and 1,000 mm.

For use at higher temperatures, strips from sintered high-grade steel are available as well as PE-porös, in the same sizes.

**Aeration trays** with gradients ranging from 15 to 30 degrees permit rapid mixing that is gentle to the product even of large batches.

Even large silos with diameters up to 12 metres can be fitted with segments manufactured from plates.

Fluidized-bed homogenization is an energy-saving process for fluidizable dry bulk materials which features particularly gentle circulation of the material.

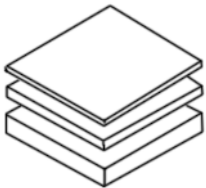

The **recognized physiological safety** permits the use of products made of PE-porös also in the food and pharma industry.

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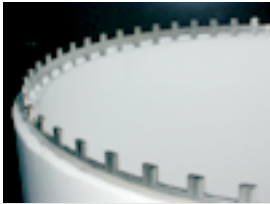
### HOMOGENIZING – DISCHARGING – FLOW-CONVEYING – FLUIDIZED-BED SINTERING

- Uniform fluidization due to homogeneous pore distribution
- Long service life due to smooth surface and high abrasion resistance
- Low energy consumption due to low drag
- Recognized physiological safety permits a multitude of applications

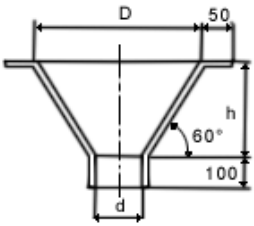

### AERATION PLATES

	Length x Width in mm	Thickness in mm	Item number	Price EUR/piece	Product image 
	1000 x 1000 Items cut to size available on request	4	A10D000	149.00	
5		A10E000	158.00		
6		A10F000	166.00		
8		A10H000	184.00		
10		A10K000	205.00		
20		A10U000	329.00		

### AERATION PLATES, REINFORCED

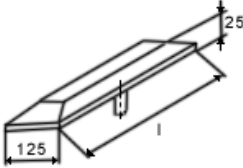

	Length x Width in mm	Thickness in mm	Item number	Price EUR/piece	Product image 
	1000 x 1000	12	A70M000	458.00	
15		A70P000	509.00		
20		A70U000	554.00		
Perforated sheet QG 10/15, thickness 2 mm stainless steel 1.4301					

### AERATION HOPPERS

	Diameter D in mm	Diameter d in mm	Height h in mm	Item number	Price EUR/piece	Product image 
	500	150	303	A40H100	753.00	
600	150	390	A40H200	915.00		
900	250	563	A40H300	1,457.00		
1200	250	823	A40H400	2,225.00		
1600	300	1126	A40H500	3,510.00		
1900	300	1386	A40H600	4,990.00		

Other dimensions and reinforced hoppers available.

### AERATION TRAYS

	Length	mm	250	500	1000	Product image 
	Base plate	material		1.4301; 1.5 mm		
Air supply	--		¾" x 40 mm			
Extra fastening	--		M6 x 40 mm M6 x 40 mm			
Aeration unit	material		PE-porös, 8 mm			
Aeration area	m <sup>2</sup>	0.03	0.06	0.12		
Air requirement	m <sup>3</sup> /h	5	10	20		
Pressure requirement	mbar	50	50	50		
Item number.	--	A50A000	A50B000	A50C000		
Price	EUR /piece	158.00	209.00	249.00		

**Prices:** Ex works, unpacked. Quantity discounts available on request.