Data Sheet
CMS 2000/50

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The IKA CMS 2000 is an in-line mixer that creates a strong vacuum to feed powders at high flow rates and disperse them into a liquid stream. This extremely high suction capacity is ideal for wetting out difficult-to-mix powders. The CMS is typically installed in a batch (re-circulation) arrangement.

The machine CMS offers a functional and cost-efficient method of incorporation of solids into liquids in a simple way - without additional dosing systems. Additionally, this method of incorporation eliminates the disadvantages associated with traditional batch processes with a stirrer in a vessel.

The IKA CMS has two horizontal liquid connections and a vertical solids connection. The liquids connections (liquid inlet and mixture outlet) are attached to a vessel. The solids are aspirated over the vertical connection (solids inlet).

A liquid phase is filled into a vessel. A negative pressure is created inside the machine by displacement of the liquid in connection with high flow speeds. This enables suction of the solids directly from a packing (bag, barrel, big bag empty station or similar) by means of a suction pipe or from a run-down funnel. Solids and liquids are conveyed in two separate rotor stages and are only combined in the area with the highest turbulence, which guarantees an agglomeration-free dispersion of the product.

The IKA CMS 2000 is available in eight different sizes. The possible suction rates vary from 20 to 28.000 kg/h. All sizes of the machine work with the same circumferential speed of the rotor which ensures a reliable scale-up.

Advantages of the IKA CMS 2000:

- Efficient suction system with high throughput performances
- Simple, yet robust design
- Self-adjusting supply of solids and liquids
- No additional dosing systems necessary
- Closed system, preventing dust and solvent emissions
- Wetting particle to particle, thus preventing the agglomerate formation
- No loss of raw materials by bundle handling
- Impressive reduction of production times
- Reduced raw material insertion by better disintegration of the raw materials
- Compact manufacturing method
- Easy scale-up processes developed with the laboratory machine CMS onto production machines CMS

Technical Data	
Total capacity	200000 l/h
Powder incorporation to	28000 kg/h
Motor power	160 kW
Motor speed	1500 rpm
Tip speed	30 m/s
Powder incorporation from	700 kg/h
Single mechanical seal	yes
Double mechanical seal	yes
Speed regulation possible	yes
Mixing tools	rotor
Cleaning	yes CIP
Flame proof possible	yes
Sterilisation	yes SIP
Inlet solid	DN 125
Inlet liquid	DN 150
Outlet	DN 150
Ident. No.	**000CMS200050**

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Manufactured according to EHEDG guidelines (European Hygienic Engineering and Design Group)
Machine is self-draining and CIP resp. SIP capable
All wetted parts are 316L or 316 Ti stainless steel
Fully automatable
3A-Sanitary conformed and certified
Pharmaceutical execution available upon request
Explosion protected executions according to ATEX 95 guidelines deliverable

IKA engineers and application experts are available to assist you with questions regarding installation of the machine CMS into your existing process system or regarding expansion of the scope of supply for a new complete production plant.

Technical data for the IKA machine CMS:

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