

**Example of Layout**



**SERIES M00IT Grinding System**



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Model	M10-01/2	M20-01/2	M30-01/2	M40-01/2	M50-01/2
Capacity (Kg/h)	50÷120	150÷250	300÷400	500÷700	800÷1000
Grinding motor ATEX 22	5 kW 3 phase, 400V 50HZ, 2 poles, IP55	11 kW 3 phase, 400V 50HZ, 2 poles, IP55	22 kW 3 phase, 400V 50HZ, 2 poles, IP55	30 kW 3 phase, 400V 50HZ, 2 poles, IP55	45 kW 3 phase, 400V 50HZ, 2 poles, IP55
Classifier motor ATEX 22	1.5 kW 3 phase, 400V 50HZ, 2 poles, IP55	3 kW 3 phase, 400V 50HZ, 2 poles, IP55	4 kW 3 phase, 400V 50HZ, 2 poles, IP55	5.5 kW 3 phase, 400V 50HZ, 2 poles, IP55	6 kW 3 phase, 400V 50HZ, 2 poles, IP55
Filtering BAG Surface m <sup>2</sup>	7	30	40	60	90

**The Grinding System M00IT SERIES has been designed according to the ATEX directives 2014/34/UE and equipped with anti-explosion valves in order to minimize the explosion risk.**

### Main features:

- Product discharging system through rotary valve
- Product dosing system through rotary valve in mill suction pipe
- Grinding chamber optimized to reach the particle sizes required for your products (105 micron) and for the required productive capacities
- Machine designed with oversized steel thicknesses in order to resist to possible explosions PEX max
- Many internal parts of the mill in stainless steel
- Fineness also adjustable by acting on the speed of the classifier and the grinding disc, which are driven by frequency converter in the electrical control board
- Stainless steel cyclone for product collection
- Mill designed according to the ATEX directives 2014/34/UE and equipped with anti-explosion valves, in order to minimize the explosion risk
- n° 2 Self-activating safety non return compartment valves
- n° 1 Anti-explosion safety valve
- Electrical control board with PLC system (Siemens)
- Two options for Outdoor area classified:
  - 1) Outdoor area classified Atex 22 (type MXX-01)
  - 2) Outdoor not classified area Atex 22 (type MXX-02)
 non ATEX Electromechanical equipment:
  - Centrifugal blower;
  - Electro-valves - 24 V DC - time control (Filter bags)

### Mill with vertical axis and with air selector

#### Composed by:

- Opening for pneumatic feeding of the material, for process air inlet and for product discharge, complete of special rapid release flanges for piping coupling
- Stainless steel AISI 304 peripheral cladding grinding chamber, with pins and feed port of the product
- Opening for product feeding, for the inlet of the process air and discharge of the products
- Mechanical group with nr. 2 coaxial shafts, for the grinding disc and for the classifier, having appropriate bearing lubrication with special grease, specific for the application
- n° 2 Bearing temperature sensors
- n° 1 Vibration Sensor Ex(I)
- Basement to support the grinder and the motors with their safety protection
- Grinding Motor: 3 Phase 400 V. - 50 Hz. - 2 poles - IP 55 ATEX Category 3
- Classifier motor: 3 phase 400 V. - 50 Hz. - 4 poles - IP 55 ATEX Category 3



### High efficiency cyclone

#### Composed by:

- Materials: Stainless Steel AISI 304
- Decantation cone for dust separation at high efficiency
- Radial inlet air / dust

### Filter bags

#### Composed by:

- Material: Carbon Steel
- Filtering surface
- Bag washing: compressed air
- Electro valves - 24 V DC - time control
- Bags in antistatic polypropylene and anti-adhering material
- Rotary valve
- Motor ATEX Category 2
- Differential Pressure sensor



### Safety valves certified by "FIKE" for classified areas

#### Composed by:

- n° 1 FIKE - VENTEX ESI-E prior to inlet
- n° 1 FIKE - VENTEX ESI-E after the filter bag, prior to the ventilator
- ATEX Equipment II 1GD Ins. /II 2GD Out
- n° 1 FIKE - FLAM Quench installed on the filter bag
- ATEX Equipment II 1GD Ins. /II 2GD Out

### Feeder (additives)

A gravimetric or volumetric feeder is foreseen for all types of Grinding Systems

