

Grinding & Dispersing

NETZSCH Fine Cutting Mills CS-Z

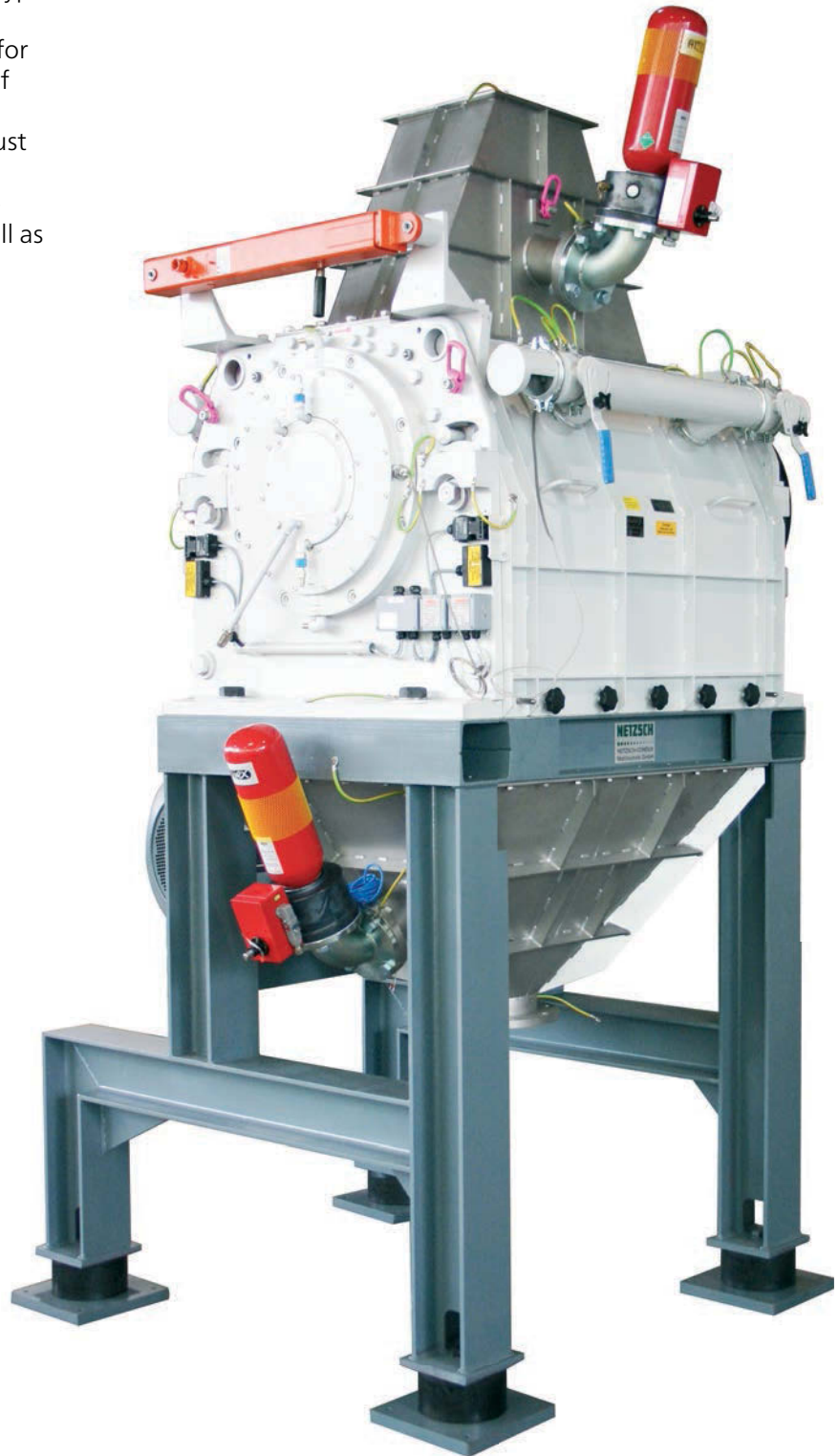
Fine grinding through high-frequency cutting strokes



our technology
YOUR SUCCESS

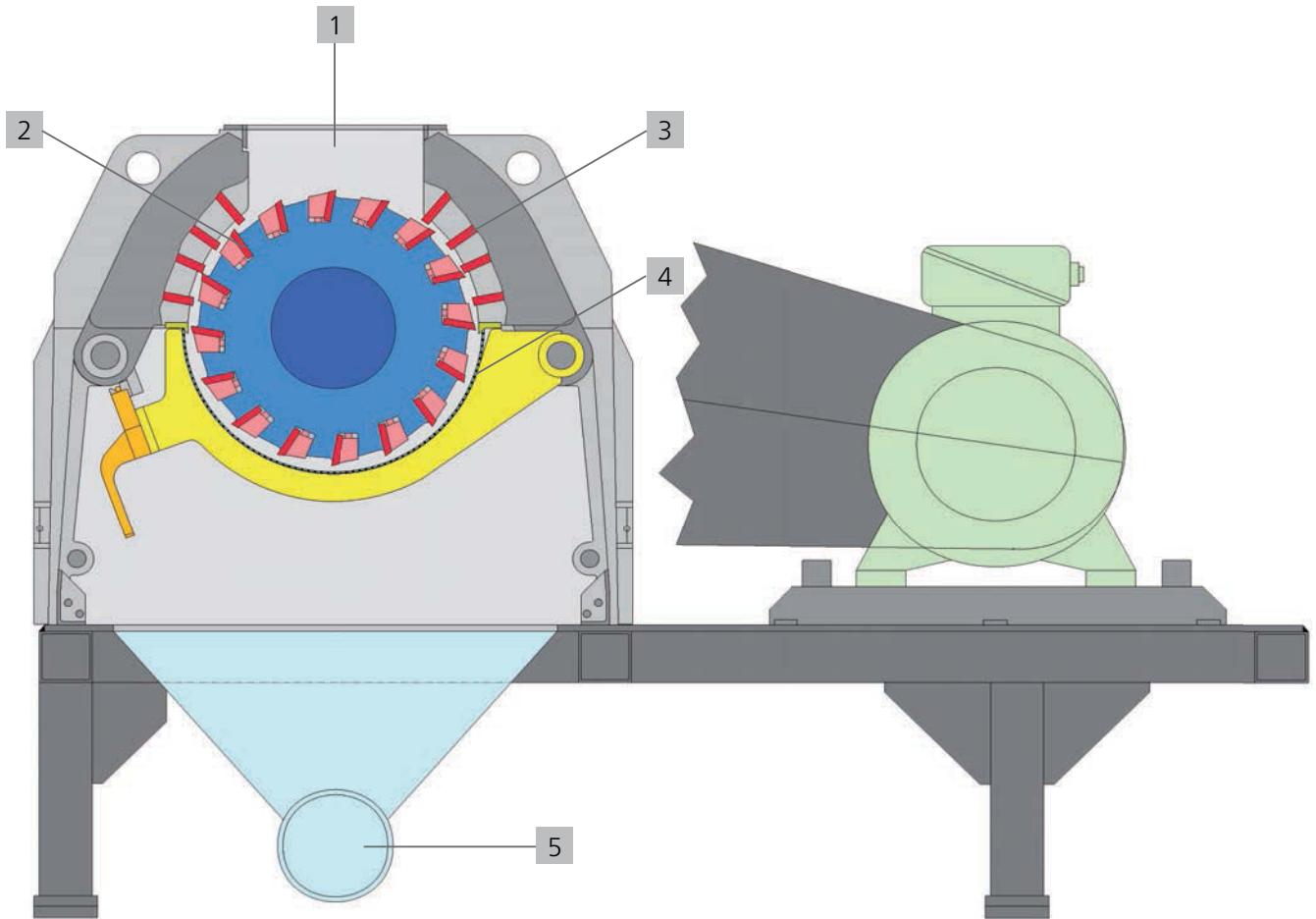
Size-reduction and pulverizing with high speed cutting mills

NETZSCH Fine Cutting Mills of type CS-Z are high speed mills with high frequency cutting strokes for the coarse- and fine grinding of cuttable materials. Application areas include materials that must be finely ground by means of cutting action, such as temperature sensitive materials, as well as materials for which good flowability, high density and gentle grinding are required.



NETZSCH Fine Cutting Mill CS 500/1000-7Z

be productive



Functional description

The feed material is fed into the cutting chamber (1) either by gravity or via a nip roll system. The material is cut repeatedly between the rotor knives (2) and stator knives (3) working against each other at a high-frequency and with a narrow gap, until the material can pass through the screen insert (4) which closes off the bottom of the cutting chamber. The rotor is supported by precision bearings that are separated from the chamber by special seals. The product is discharged pneumatically via a suction trough (5). This simultaneously cools the product and the cutting chamber.

Precise and robust

Details and Options

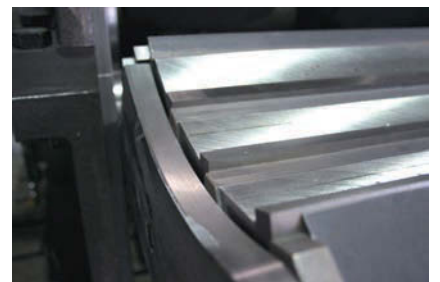
The fundamental feature of the NETZSCH Fine Cutting Mills CS-Z is the open rotor design. This increases the flow of air, as the rotor does not create a barrier. Higher throughputs and a good quality of the powder produced are the results of this feature. Options include water-cooled machine parts, special bearing seals, temperature monitoring, special screen inserts, hard metal knives as well as pneumatically operated screen cages.

Focus on Your Advantages

- Narrow particle size distribution
- Low temperatures
- Smoothly cut edges
- High throughput
- High efficiency
- Long life expectancy
- Long lifetime for wear parts
- Robust construction
- Product specific executions



16-knife-disk rotor

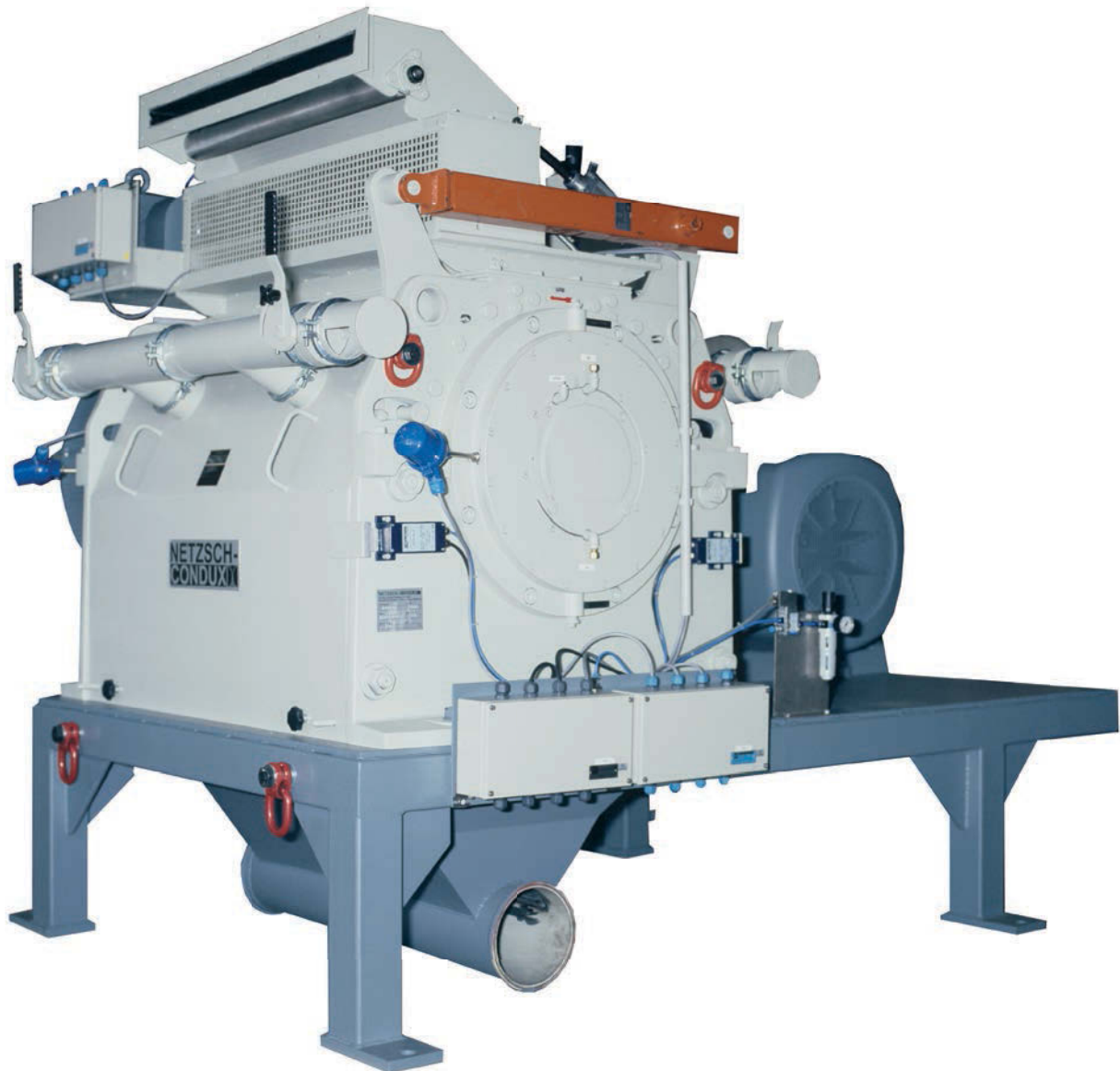


Stator knife assembly in housing side part



Special Sandwich-Screen insert

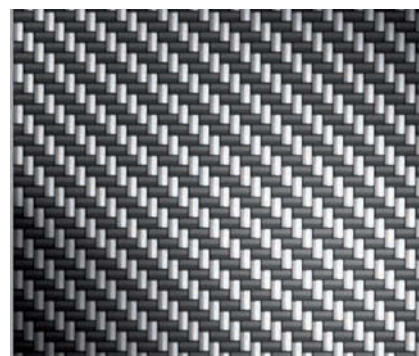
Die Ausführung der Maschine und Aufstellung der entsprechend geeigneten Mahlanlage richtet sich an den Produkteigenschaften aus. Für die Aufstellung als komplette Mahlanlage stehen außer Rolleneinziehvorrückungen, Absaugungen mit Staubfilter sowie Schallschutz auch zusätzliche Explosionsschutz-Komponenten zur Verfügung. Mit einer gasdichten Konstruktionsvariante ist eine Inertisierung möglich. Eine ATEX-konforme Installation für staubexplosible Produkte ist somit sichergestellt.



NETZSCH Fine Cutting Mill CS 500/1000-7Z with nip-roll system

Applications and Technical Data

Product examples	Feed shape	Fineness	Size	Capacity [kg h ⁻¹]
Aramide fibers	Pieces < 30 mm	< 1.5 mm	CS 500/1000-Z	150 - 200
Brake lining mass	Lumps < 15 mm	< 2 mm	CS 300/600-Z	400
Brake lining mass	Lumps < 50 mm	< 2 mm	CS 500/1000-Z	1 200
Brake lining mass	Lumps < 50 mm	< 4 mm	CS 300/600-Z	400
Caoutchouc	Lumps < 50 mm	< 1.5 mm	CS 300/600-Z	150
Carbon fibers	Pieces < 50 mm	d ₉₇ = 100 µm	CS 500/1000-Z	200 - 300
Carpets	Pieces < 25 mm	d ₉₀ = 250 µm	CS 500/1000-Z	250
Cellular foam	Pieces waste	< 6 mm	CS 500/1000-Z	600
Cellulose	Sheet goods	< 25 mm	CS 500/1000-Z	1 500 - 2 000
Cellulose	Sheet goods	< 6 mm	CS 500/1000-Z	800 - 1 200
Cellulose (linters)	Rolls	d ₉₀ = 100 µm	CS 500/1000-Z	190 - 230
Cellulose (linters)	Rolls	d ₉₀ = 200 µm	CS 500/1000-Z	240 - 280
Cellulose (linters)	Pre-cut from bales	d ₉₀ = 200 µm	CS 500/1000-Z	180 - 250
Cellulose (linters)	Rolls	d ₉₀ = 350 µm	CS 500/1000-Z	300 - 420
Cellulose (wood)	Rolls	d ₉₀ = 100 µm	CS 500/1000-Z	240 - 290
Cellulose (wood)	Rolls	d ₉₀ = 200 µm	CS 500/1000-Z	280 - 330
Cellulose (wood)	Rolls	d ₉₀ = 250 µm	CS 300/600-Z	130
Cellulose (wood)	Chips < 15 mm	d ₉₀ = 250 µm	CS 500/1000-Z	320 - 450
Cellulose (wood)	Rolls	d ₉₀ = 350 µm	CS 500/1000-Z	350 - 550
Cellulose derivatives	Granulate < 8 mm	< 500 µm	CS 500/1000-Z	300 - 500
Leather	Granulate	< 500 µm	CS 500/1000-Z	150 - 250
Leather	Skeletons	< 6 mm	CS 500/1000-Z	800
PES film	Film layers	< 4 mm	CS 500/1000-Z	800
Recovered paper	Chips < 30 mm	d ₉₇ = 150 µm	CS 500/1000-Z	250
Recovered paper	Chips < 30 mm	d ₉₇ = 500 µm	CS 500/1000-Z	400 - 500
Rubber	Granulate < 25 mm	< 2.5 mm	CS 500/1000-Z	500 - 600
Textiles	Chips < 30 mm	< 250 µm	CS 500/1000-Z	250 - 350
TPU	Sheets	< 6 mm	CS 300/600-Z	150
UHMWPE	Turnings-/and millings	< 500 µm	CS 500/1000-Z	500
Wood fibers	Fluffy material < 200 mm	< 500 µm	CS 500/1000-Z	800 - 1 000



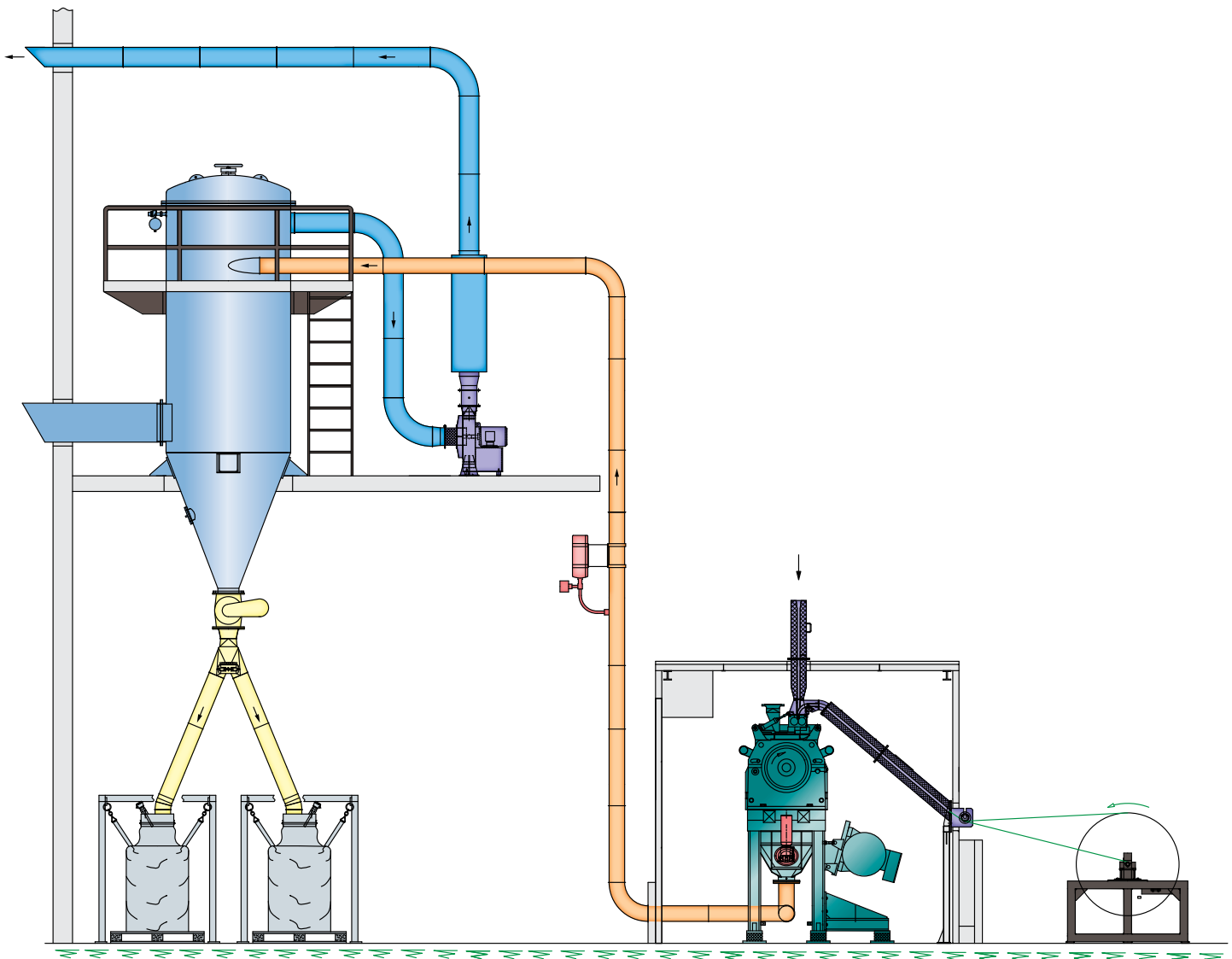
Technical Data	CS	300/600-Z	500/1000-Z
Rotor diameter	mm	300	500
Working width	mm	300	1 000
Max speed	min ⁻¹	1 300	1 070
Rotor knife rows	pcs.	3/5	9/16
Stator knife rows	pcs.	4	6 - 9
Drive power	kW	22 - 30	55 - 110
Inlet opening	mm	190 x 650	300 x 1 000
Air volume (nom)	m ³ h ⁻¹	1 080	2 800
Weight (approx.)	kg	2 200	6 500

ATEX conformity

EG-TYPE INSPECTION DOCUMENT
acc. to directive 94/9/EG, annex III



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IBExU04ATEX1097 X



Schematic layout of an explosion protected installation with Fine Cutting Mill CS 500/1000-7Z

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