

# NETZSCH

Proven Excellence.



## NETZSCH Fine Classifier CFS

Optimal Sharpness of Cut with Highest Finenesses

Business Unit  
GRINDING & DISPERSING

# Classifying of Fine Powder

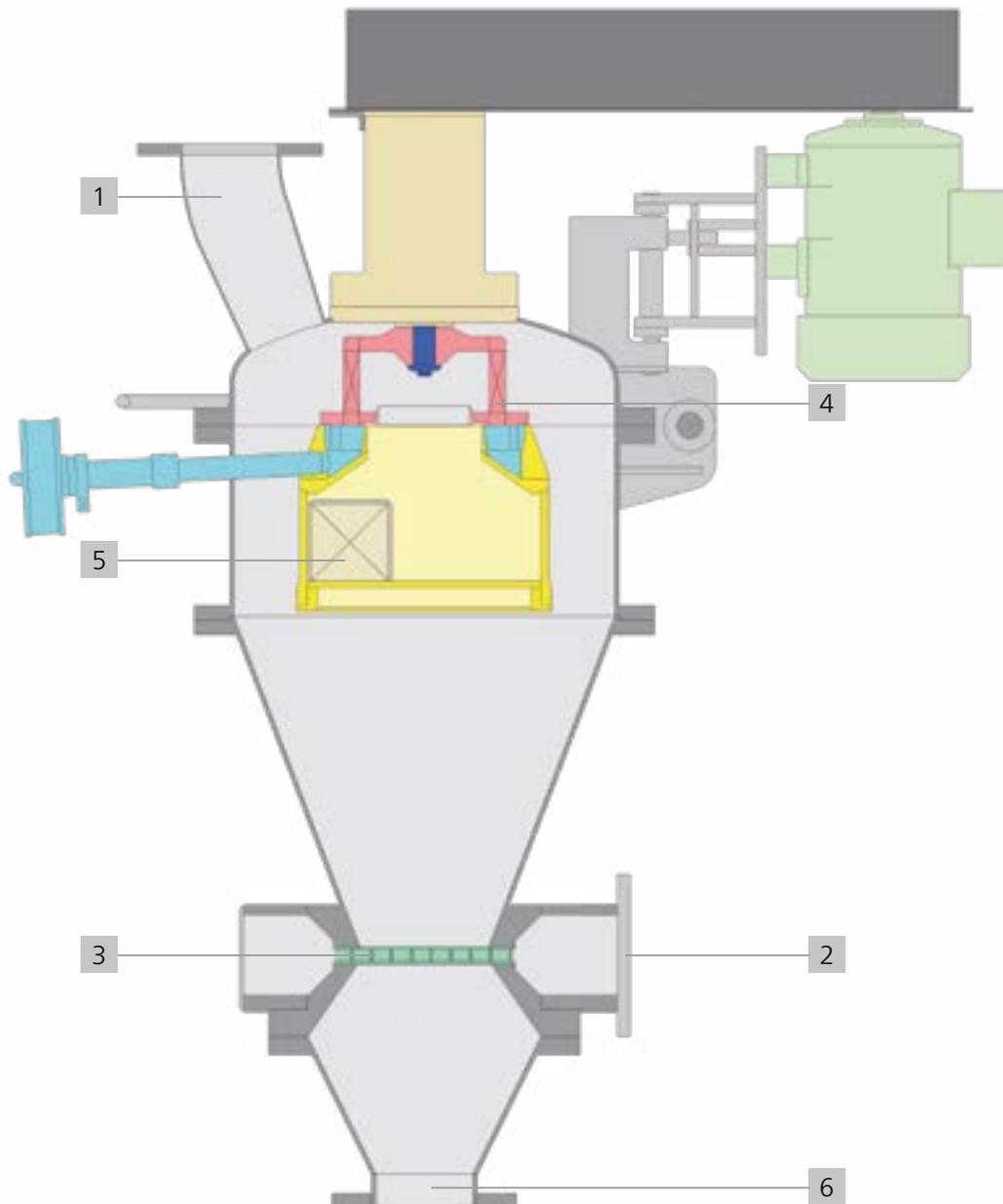
The NETZSCH Fine Classifier CFS is used when a screening machine cannot be used because of the desired separation limit. Optimal sharpness of cut with highest throughput rates for the separation of coarse particles, as well as fines, can be obtained in the usual operative range of approx. 30  $\mu\text{m}$  to 150  $\mu\text{m}$  ( $d_{99}$ ).



NETZSCH Fine Classifier CFS 85

## Functional Description

The feeding of the product to be classified is carried out via a feeding connection piece (1) or together with the classifying gas. The dispersing of the product is carried out at the lower end of the machine via the gas which streams into the classifier at high speed via a spiral housing (2) and a beater ring (3). The separation of the feed product stream into a fines stream and a coarse particle stream is carried out via a classifier wheel (4) with infinitely variable speed. The fines leave the machine via the classifier wheel through the fines outlet (5). Coarse particles are rejected by the classifier wheel and discharged at the bottom of the housing (6).



# Machine and Plant Variants

## Materials

The choice of material is made to suit the requirements of the product to be processed. Mild steel as well as rust-proof stainless steel are our standards. Special materials are available upon request.

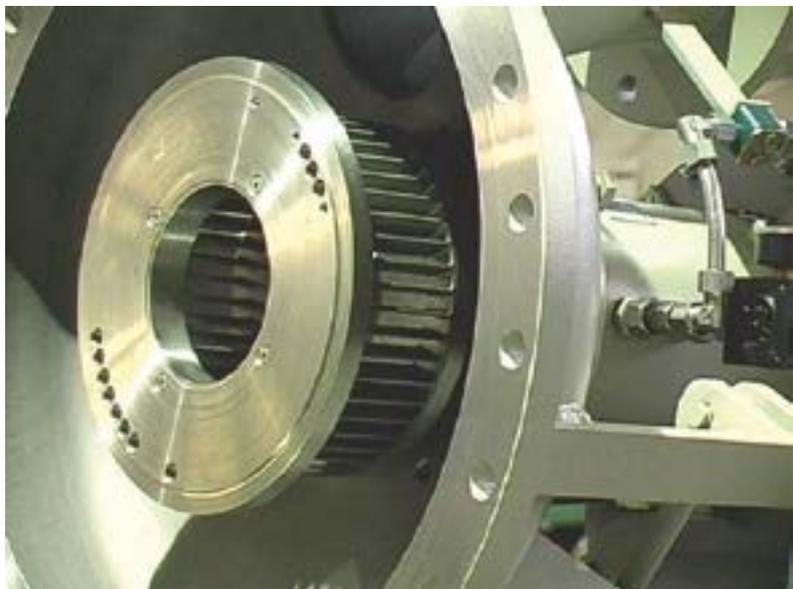
## Wear Protection

For processing very hard and abrasive products wear-protected machine variants with e.g. Vulkollan-lining in the machine housing, a ceramic-lined fines outlet as well as a classifier wheel in ceramic- or hard-metal execution are available.



## Your Advantage is our Focus

- Sharp cut classifying
- No oversized particles
- High operating safety
- Patented classifying wheel design
- Hinged opening
- Low wear
- Easy to maintain



Integrated classifier wheel

## Assembly Variants

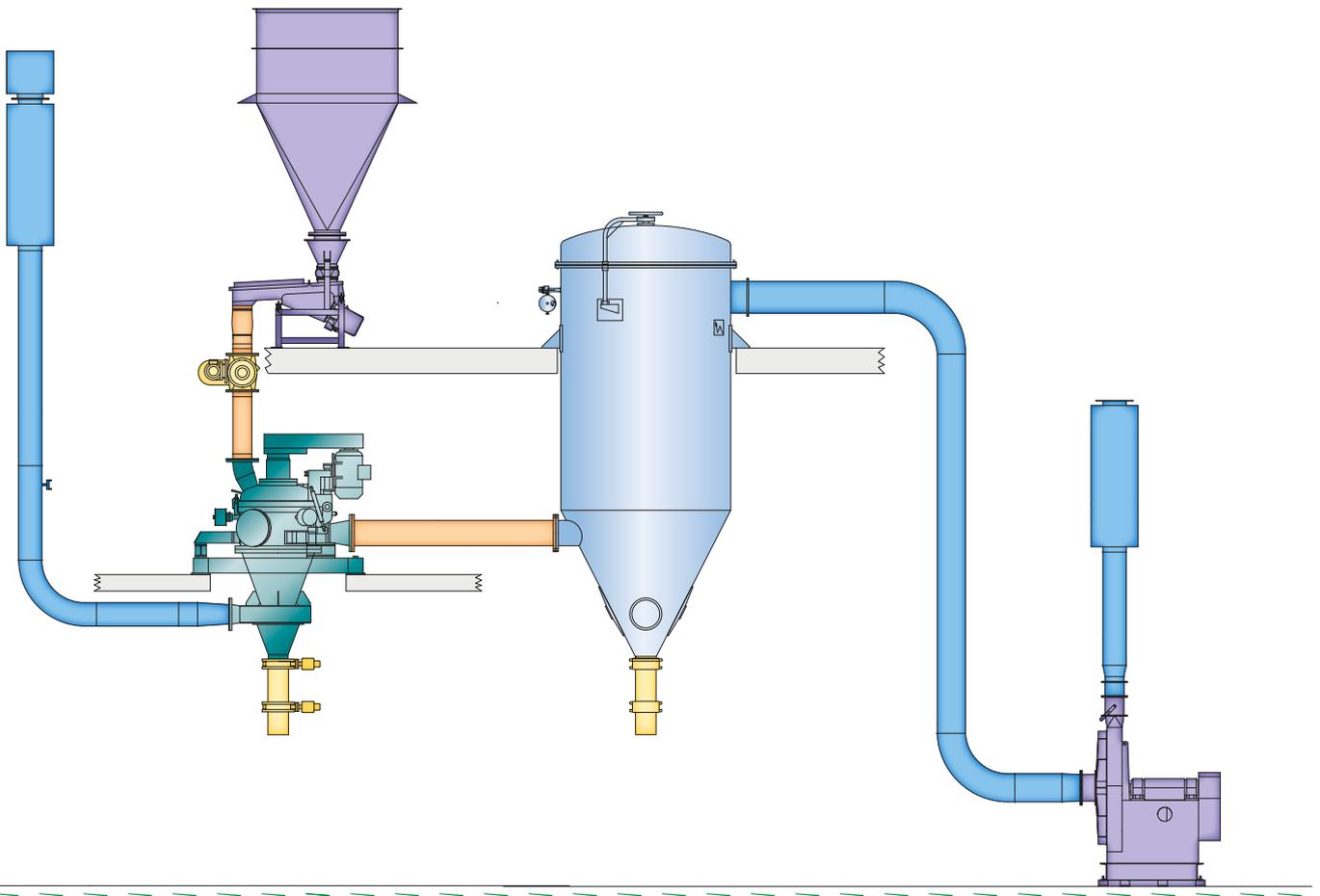
The classifier plant can be designed in various executions to especially suit the product requirements. In particular, the processing of dust-explosive hazardous products, to which group practically all organic products with a sufficient fineness belong, makes special demands. Machine- and plant executions in pressure-shock resistant design as well as for gas-tight inert gas operation are required in this case and are planned and realized reliably by our experienced engineering team taking into account your special requirements.

### ATEX conformity

EU-TYPE EXAMINATION CERTIFICATE  
acc. to directive 2014/34/EU



 II 1/2 D Ex h III C T110 °C Da/Db  
IBExU07ATEX1112X



Complete Classifier-Plant with NETZSCH Fine Classifier CFS

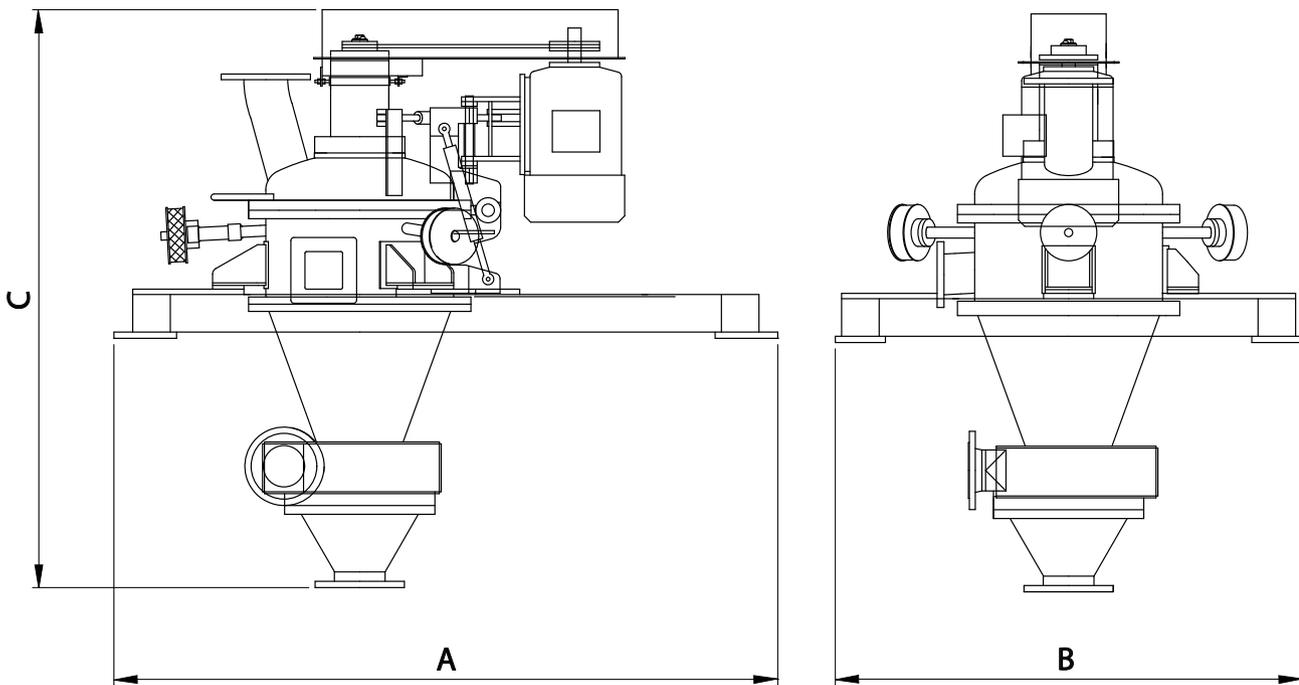
# Applications and Technical Data

Product Examples	Applications	Fines [µm]	Coarse Particles [µm]	Classifier Size	Feed rate [kg h <sup>-1</sup> ]
Activated carbon	dedusting		d <sub>10</sub> = 49; d <sub>50</sub> = 90	CFS 8	20
Aluminum oxide	production of fines	d <sub>99</sub> = 25		CFS 30	400
Aluminum powder	dedusting		d <sub>10</sub> = 53; d <sub>99</sub> = 151	CFS 340	400
Bronze powder	production of fines	d <sub>99</sub> = 20		CFS 170	100
Calcium carbonate	production of fines	d <sub>99</sub> = 3		CFS 8	8
Cellulose derivative (EHEC)	production of fines	d <sub>97</sub> = 200		CFS 510	1 250
Cellulose derivative (HPMC)	production of fines	d <sub>99</sub> = 150		CFS 85	200
Coating powder	dedusting		d <sub>10</sub> = 17; d <sub>97</sub> = 86	CFS 85	275
Coating powder (epoxy polyester)	dedusting		d <sub>10</sub> = 16; d <sub>97</sub> = 91	CFS 30	120
Cobalt oxide	dedusting		d <sub>10</sub> = 6; d <sub>99</sub> = 32	CFS 170	1 200
Copper	dedusting		d <sub>97</sub> = 630	CFS 85	765
Feldspar	dedusting	98% < 75	8% < 75	CFS 85	1 000
Fly ash	production of fines	d <sub>97</sub> = 6 - 30		CFS 510	1 180 - 6 350
Graphite	production of fines	d <sub>99</sub> = 145		CFS 8	8
Hydroxylapatite	production of fines	2.5% > 45		CFS 5	5
Lactose	dedusting		d <sub>10</sub> = 32; d <sub>90</sub> = 185	CFS 8	11
Maize gluten	dedusting		d <sub>10</sub> = 4; d <sub>99</sub> = 165	CFS 8	12
Methyl cellulose	production of fines	d <sub>97</sub> = 150		CFS 340	420
Mica	production of fines	d <sub>99,9</sub> = 99		CFS 85	510
Milk powder	production of fines	d <sub>97</sub> = 25		CFS 8	13
Molybdenum powder	production of fines	d <sub>99,9</sub> = 18		CFS 8	48
Rice ash	production of fines	d <sub>99</sub> = 55		CFS 85	985
Silica	production of fines	< 45		CFS 85	100 - 160
Silica	production of fines	< 45		CFS 510	600 - 960
Silver powder	production of fines	d <sub>97</sub> = 40		CFS 8	20
Talcum	dedusting		d <sub>10</sub> = 12; d <sub>90</sub> = 57	CFS 8	5
Tungsten carbide	production of fines	d <sub>97</sub> = 6.5		CFS 8	8
Wheat flour	production of fines	d <sub>99</sub> = 28		CFS 8	7
Wood flour	production of fines	d <sub>99</sub> = 90		CFS 170	120



Technical Data	CFS	5	8	30	85	170	340	510
Capacity factor		-	-	0.35	1	2	4	6
Air volume min.	m <sup>3</sup> h <sup>-1</sup>	25	40	150	425	850	1 700	2 550
Air volume max.	m <sup>3</sup> h <sup>-1</sup>	65	104	388	1 100	2 200	4 400	6 600
Fineness d <sub>97</sub> *	μm	3.5 - 200	3.5 - 200	3.5 - 200	4 - 200	4.5 - 200	5 - 200	6 - 200
Feed product flow min.	kg h <sup>-1</sup>	-	-	35	100	200	400	600
Feed product flow max.	kg h <sup>-1</sup>	-	-	420	1 200	2 400	4 800	7 200
max. Speed	min <sup>-1</sup>	18 000	12 000	7 000	5 100	3 600	2 300	2 200
Power classifier	kW	0.55	1.1	4	7.5	15	30	45
Length (A)	mm	360	500	900	1 550	1 925	2 200	2 680
Width (B)	mm	300	400	650	1 150	1 780	1 600	2 360
Height (C)	mm	850	1 000	1 210	1 825	2 500	3 280	5 000
Weight (approx.)	kg	50	80	350	980	1 900	3 680	5 500

\* based on limestone (density 2.7 kg/l)



The owner-managed NETZSCH Group is a leading global technology company specializing in mechanical, plant and instrument engineering.

Under the management of Erich NETZSCH B.V. & Co. Holding KG, the company consists of the three business units Analyzing & Testing, Grinding & Dispersing and Pumps & Systems, which are geared towards specific industries and products. A worldwide sales and service network has guaranteed customer proximity and competent service since 1873.

# Proven Excellence.

## Business Unit Grinding & Dispersing – The World’s Leading Grinding Technology

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NETZSCH Trockenmahltechnik | Germany  
NETZSCH Vakumix | Germany  
NETZSCH Lohnmahltechnik | Germany  
NETZSCH Feinmahltechnik Polska | Poland  
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