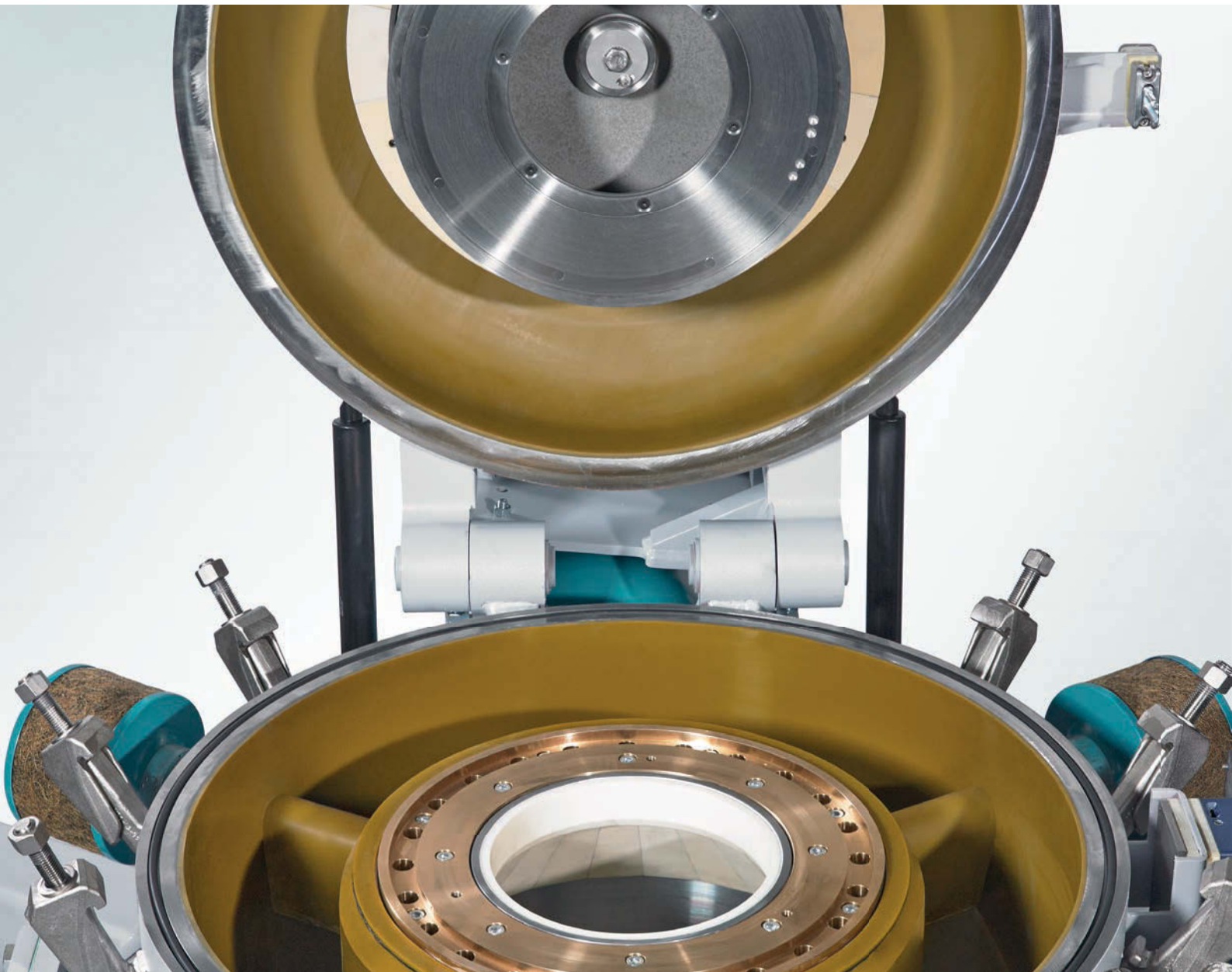


NETZSCH



NETZSCH Fine Classifier CFS

Optimal Sharpness of Cut with Highest Finenesses

Business Unit
GRINDING & DISPERSING

Classifying of Fine Powder

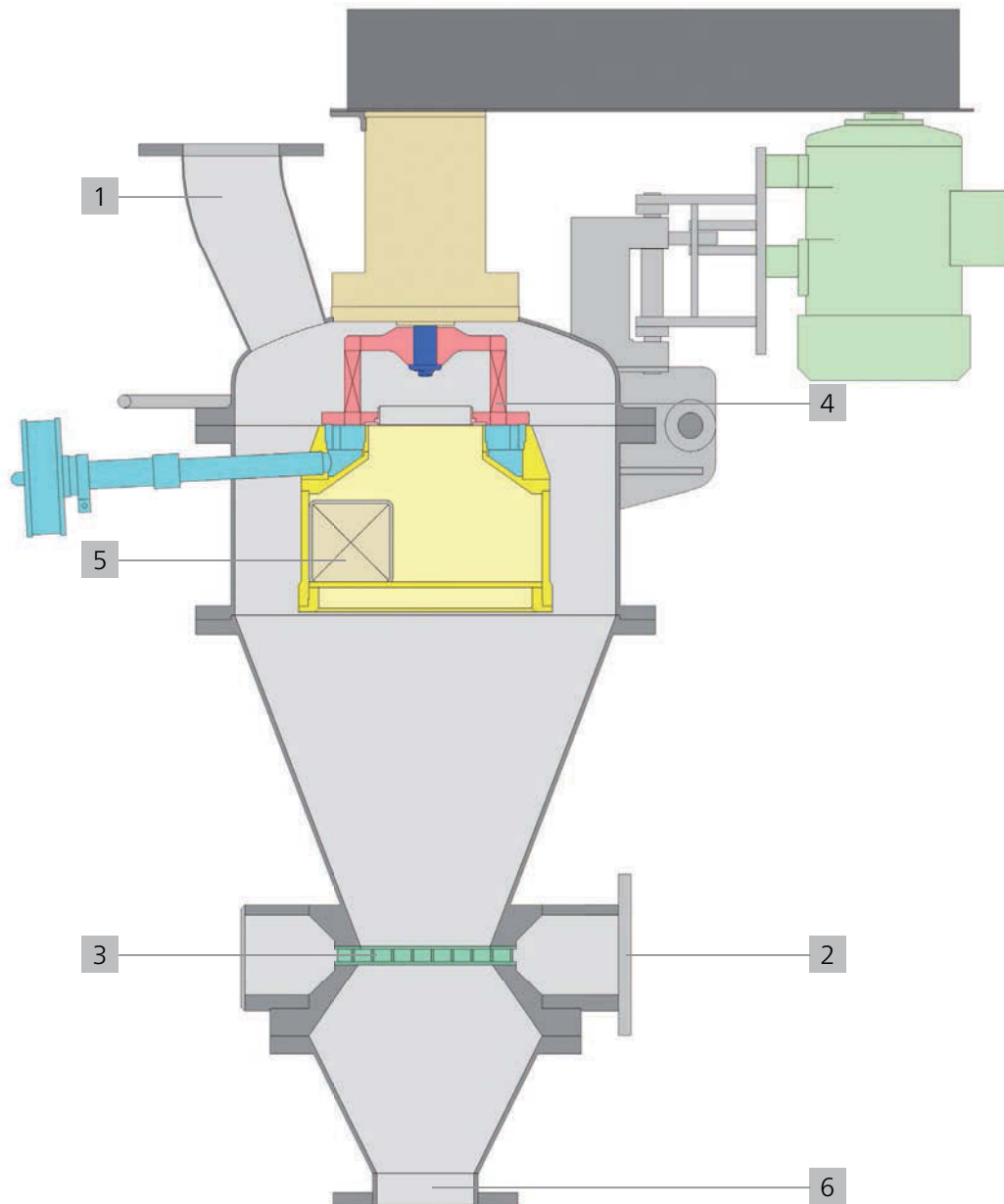
The NETZSCH Fine Classifier CFS is used when a screening machine cannot be used because of the desired separation limit. Optimal sharpness of cut with highest throughput rates for the separation of coarse particles, as well as fines, can be obtained in the usual operative range of approx. 30 μm to 150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

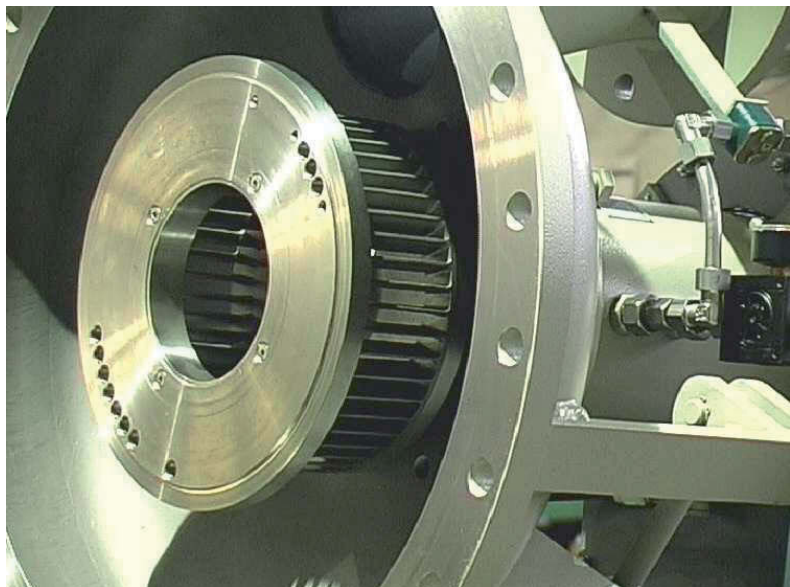
Wear Protection

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

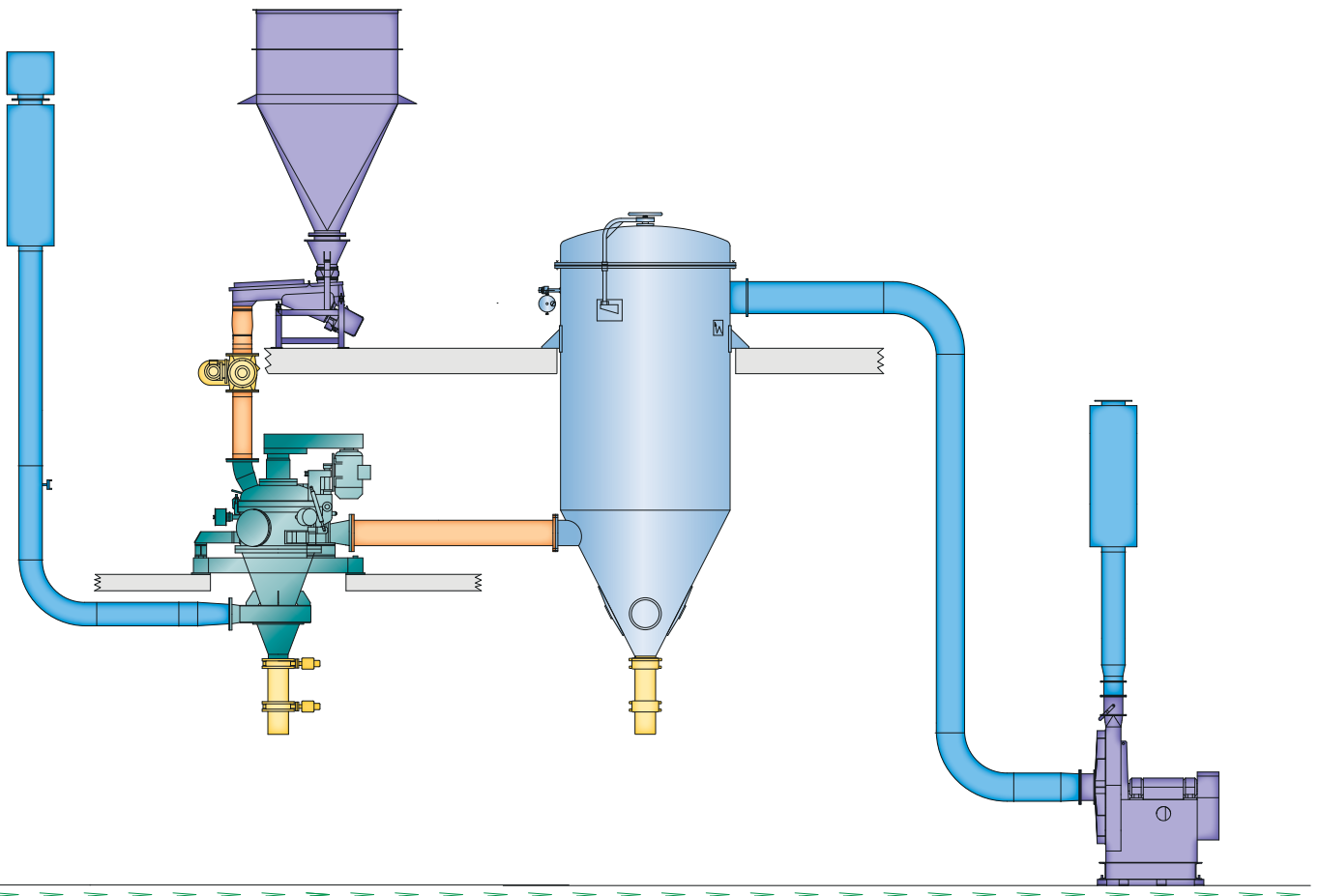
The classifier plant can be designed in various executions to especially suit the product requirements. In particular, the processing of dust-explosive hazardous products, to which group practically all organic products with a sufficient fineness belong, makes special demands. Machine- and plant executions 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

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



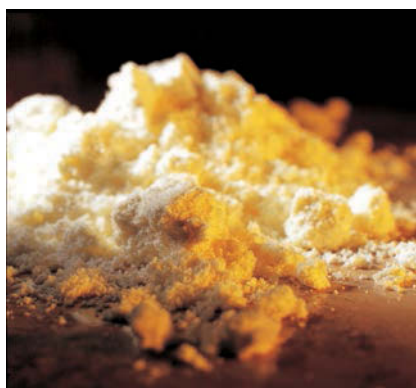
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Complete Classifier-Plant with NETZSCH Fine Classifier CFS

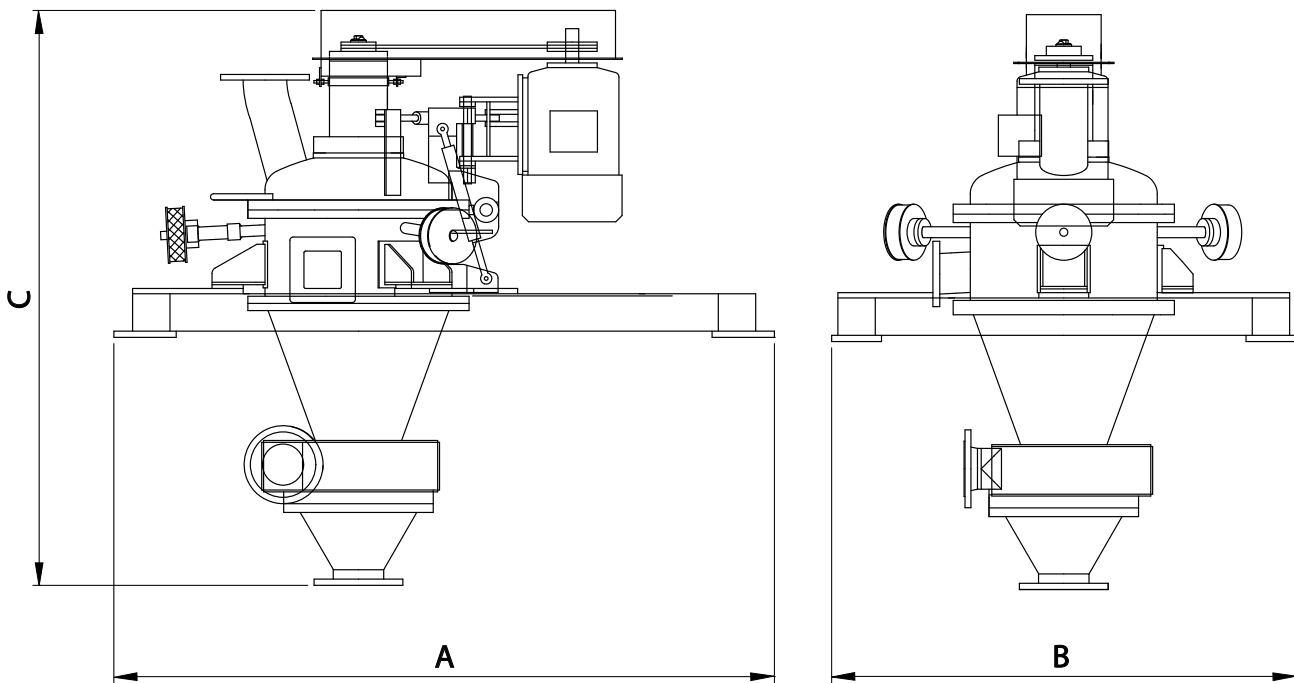
Applications and Technical Data

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



Technical Data	CFS	5	8	30	85	170	340	510	750	1000
Capacity factor		-	-	0,35	1	2	4	6	9	12
Air volume min.	m ³ h ⁻¹	25	40	210	600	1200	2400	3600	5400	7200
Air volume max.	m ³ h ⁻¹	55	85	455	1300	2600	5200	7800	11700	15600
Fineness d ₉₇ *	μm	3.5 - 200	3.5 - 200	3.5 - 200	4 - 200	4,5 - 200	5 - 200	6 - 200	7 - 200	8 - 200
Feed product flow min.	kg h ⁻¹	-	-	35	100	200	400	600	900	1200
Feed product flow max.	kg h ⁻¹	-	-	420	1200	2400	4800	7200	10800	14400
max. Speed	min ⁻¹	18 000	12 000	7 000	5 100	3 600	2 300	2 200	1 800	1 400
Power classifier	kW	0.55	1.1	4	7.5	15	30	45	75	90
Length (A)	mm	360	500	900	1550	1925	2200	2680	2550	3650
Width (B)	mm	300	400	650	1150	1780	1600	2360	2200	2450
Height (C)	mm	850	1 000	1210	1825	2500	3280	5000	5500	5600
Weight (approx.)	kg	50	80	350	980	1900	3680	5500	8100	10800

* based on limestone (density 2.7 kg/l)



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