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Grinding units W20**
for Simoloyer® CM20

Types of grinding-units W20**			
standard type (20 l)	smaller unit (10 l)	comments	ports
W20-20lm	W20-10lm	standard (batch-) processing	1x main port 1x side port
W20-20lm-SiN	W20-10lm-SiN		
W20-20lm-THM	W20-10lm-THM		
W20-20lm-s1	---	for semi-continuous processing	1x main port 1x side 4x tangential
W20-20lm-s2	W20-10lm-s2	for auto-batch & batch processing	2x main ports 1x side port
W20-20lm-s2-SiN	---		
W20-20lm-s2-THM	---		
Special types:			
W20-20lm-Stl	standard (batch-) processing vessel and rotor coated with CoCr-based wear-resistant coating		1x main port
W20-20lm-Ni[2)]	standard (batch-) processing vessel and rotor coated with Ni-based wear-resistant coating		[2)]: scheduled
W20-20lm-d2	standard (batch-) processing additional discharging-ports		1x main ports 1x side ports 2x discharging ports

applications / features		
applications	HEM, MA, RM, processing under vacuum, inert-gas, air	
operation pressure[1)]	$1x10^{-4}$mbar...0,5 bar (overpressure; option: up to 2 bar overpressure)	
net weight	80-110kg [depending on type of grinding-unit (grinding-media excluded)]	
nominal volume (nominal power)	W20-20lm**: 20 litres (1,1 kW/l)	W20-10lm**: 10 litres (2,2 kW/l)
operation temperature	process temperature usually 20-50°C	
type THM	chamber-lining with WC-Co; rotor blades THM , shaft covered with THM-coated bushes for Fe-contamination free processing, in particular carbide-, oxide-, and nitride- based hard-phased materials	
type SiN	chamber lined with Si3N4 plates, rotor blades Si3N4 , shaft covered with ceramic-coated bushes for Fe-contamination free processing, in particular ceramic and composite materials	
cooling system	vessel / bearing-flange / bearing support, connections vessel G½, connection bearing-flange/support: G3/8 cooling media: usually water/glycol-mixture (possible as well: oil) Separated cooling system of pre-seal unit from flange & vessel allows non-cooling (<80°C)or use of hot or cooled medium (HTB/TTB) in the double-jackets of flange & vessel (only for standard grinding-units)	
type TTB / HTB	Medium - High Temperature Operation, Reactive Milling, Bonding as well as Low Temperature Operation (only for standard types of grinding-units; TTB for W20**-THM/SiN upon inquiry)	
connections	air-lock DN50 (tangential ports W20-20lm-s1: DN40)	
material vessel[1)]	stainless steel 1.4301 (in case of lining: see above)	
material rotor[1)]	stainless steel 1.4301/Stellite®/THM/WC-Co/SiN	
product [1)]	as-milled usually <150µm, depending on application < 3mm	
PBR[1)]	usually 1:10 ... 1:20 [PBR = powder to ball ratio]	
grinding media[1)]	100Cr6 (standard) options: stainless-steel, ZrO_2, Si_3N_4, THM [Ø ≤ 3,5-5mm]	
amount of grinding-media[1)]	max. 40% of volume, usually: W20-20lm*: 20-30kg W20-10lm*: 10-15kg [max-values might be higher]	
[1)]: depending on application		

examples:


(W20-20lm)


(W20-20lm-s2)


(W20-20lm-s1)

technical data subject to alterations