

Grinding units W100**

for Simoloyer[®] CM100

Types of grinding-units W100b**			
standard types (100 l)	approx. weight	comments	ports
W100b	(600kg)	standard (batch-) processing	1x main 1x side
W100bsu	(600kg)	standard (batch-) processing, auxiliary ports at side-wall (e. g. flanges for measurement devices)	1x main 1x side 2x auxiliary side
W100b-s2	(620kg)	for auto-batch & batch processing	2x main 1x side
W100b-s1	(630kg)	for semi-continuous processing	1x main 1x side 4x tangential
W100b-s12	(645kg)	project-vessel (for R&D-purposes) combination of W100-s1 and W100-s2	3x main 1x side 4x tangential
Further types:			
W100b-s5	(630kg)	improved discharging processing	1x main 2x discharging (main)
W100b-SiN	(620kg)	standard (batch-) processing	1x main
W100b-THM	(650kg)		1x side
W100b-50lm	standard (batch-) processing, smaller grinding-unit (volume 50 ltr.)		1x main
W100b-75lm	standard (batch-) processing, smaller grinding-unit (volume 75 ltr.)		1x side
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	500-650kg [depending on type of grinding-unit (grinding-media excluded)]		
nominal volume (nominal power)	W100b: 100 litres (1,1 kW/l)	W100b-50lm**: 50 litres (2,2 kW/l) W100b-75lm**: 75 litres (1,45 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 / side-walls / bearing-flange / bearing support / rotor: G½-G¾ (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 HTB	Medium - High Temperature Operation, Reactive Milling, Bonding (only for standard types of grinding-units)		
connections	air-lock DN63-DN100 (tangential ports W100b-s1: DN63)		
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, ZrO2, Si3N4, THM [Ø ≤ 3,5-5mm]	
amount of grinding-media ¹⁾	max. 40% of volume, usually:	W100b*: 100-200kg W100b-50lm*: 50-100kg	[max-values might be higher]
¹⁾ : depending on application			
examples:	(W100b)	(W100b-s12)	(W100b-s2)

technical data subject to alterations