Zoz GmbH
Maltoz®-Strasse
D-57482 Wenden

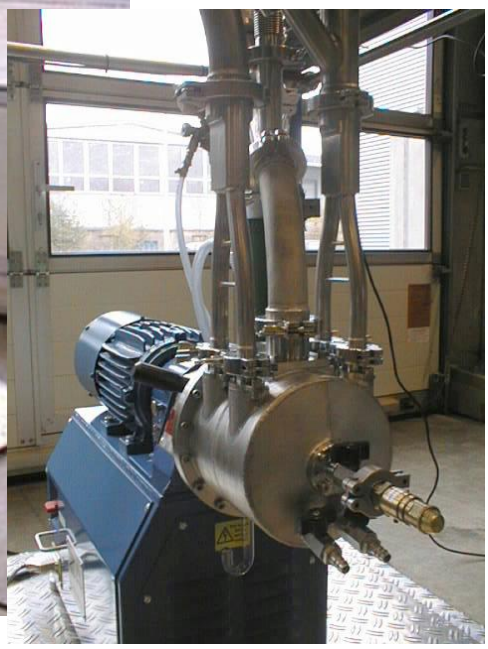
T +49-2762-9756-0
F +49-2762-9756-7
E info@zoz.de

Experimental unit VS01a

(Simoloyer CM01-s1, semi-continuously in compression mode)

In General
➢VS01a represents experimental units for various testing methods and procedures in PM.Tech., Materials Design and Process Technology

general targets:
• ductile metal flakes
• rapid PSR of brittle solids
• compression-mode
• continuously carrier-gas
• closed system
• in-situ separation
• in-situ classification



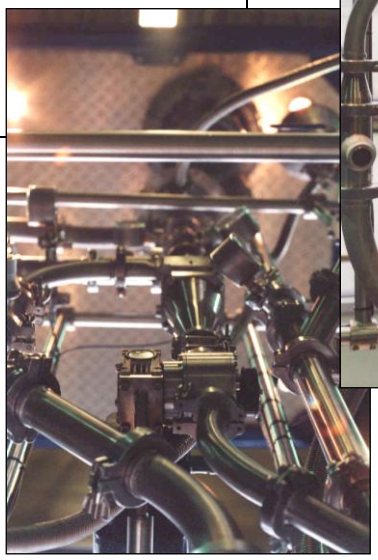
Zoz GmbH
Maltoz®-Strasse
D-57482 Wenden

T +49-2762-9756-0
F +49-2762-9756-7
E info@zoz.de

Application

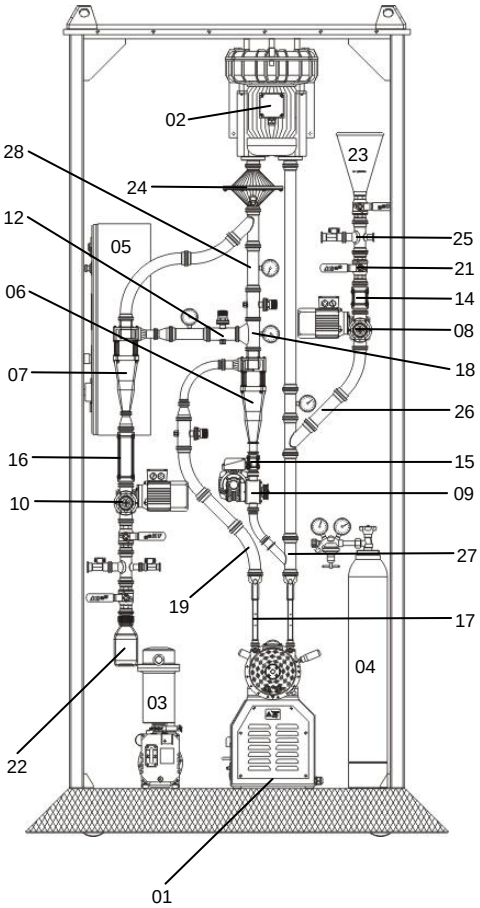
Test-facility for two different automatic but non-competing powder production processes based on a high kinetic and continuously milling process with aerodynamic separation and in-situ classification:

- ➢ continuously and monitored production of ductile metal flakes;
- ➢ rapid particle size reduction of brittle solids (e.g. enamel);
  - closed system, controlled atmosphere;
  - carrier gas fully recycled;
  - separation/classification over particle shape;
  - separation/classification over particle mass;
  - communication of all drives by MALTOZ®-software



Dimensions	
L x B x H	1520 x 1520 x 2920 mm
net weight	695 kg
nominal power (total)	7.5 kW
power supply	400 V, 3 phase, 20 A

ID	unit	function
01	Simoloyer CM01-s1	High Kinetic Processing
02	side-channel-turbine SKV180-DN40	carrier gas drive
03	vacuum pump DUO 10	air-lock operation
04	gas-bottle 10 liter	Gas supply internal & air-lock
05	electronic cabinet	additional Maltoz-support, control of pump, rotary vane feeders & carrier gas drive
06	pilot cyclone ZK70-L (a)	separation of to heavy particles in primary circuit
07	pilot cyclone ZK70-L (b)	separation of all particles in secondary circuit
08	rotary vane feeder ZS40m (a)	pressure compensation supply in injection device
09	rotary vane feeder ZS25m	pressure compensation supply in bypass cyclone (a)
10	rotary vane feeder ZS40m (b)	pressure compensation supply at product port
11	butterfly valve KV-DN40 (a*)	velocity control of multiphase-flow in primary- and secondary circuit
12	butterfly valve KV-DN40 (b*)	velocity control of multiphase-flow in primary- and secondary circuit
13	butterfly valve KV-DN40 (c*)	velocity control of multiphase-flow in primary- and secondary circuit
14	transparent pipe module GR-DN40x100	visual control of injection process of starting powder
15	transparent pipe module GR-DN25x75	visual control of separation process at cyclone (a)
16	transparent pipe module GR-DN40x200	visual control of feed-rate at ZS40m (b) at product port
17	pipe switch RW40-16-A	transfer of multiphase-flow in and out of grinding unit W01-s1
18	KF-space-switch RW40-B	separation in multiphase-flow
19	pipe bends RBA-DN40 & DN25	transfer of multiphase-flow in primary- and secondary circuit
20	adapter KF-A	transfer of multiphase-flow in primary- and secondary circuit
21	valve adapter DN*G*DN*	transfer of multiphase-flow in primary- and secondary circuit
22	KF-glass-container DN40-G1-500 cc	display-container for product after air-lock out
23	KF-valve-container DN40-G1-2l	container for starting powder or granules before air-lock in
24	vacuum screen unit VSK28	protection-filter for carrier gas drive
25	KF-calming pipes	
26	KF-tubes, straight	adaptation of measurement sensors and gas-supply
27	KF-junction-tubes	flow switch, bypass and injection
28	pressure-gauge DMD16	record of flow-parameters
		* to be exchanged by aero-dynamic valve BV-DN40 later on



related patents: see chapter national and international patents of Zoz GmbH in general information

technical data subject to alterations