

Carrier-gas-discharging-unit TGD20a (for Simoloyer® CM08 and CM20)

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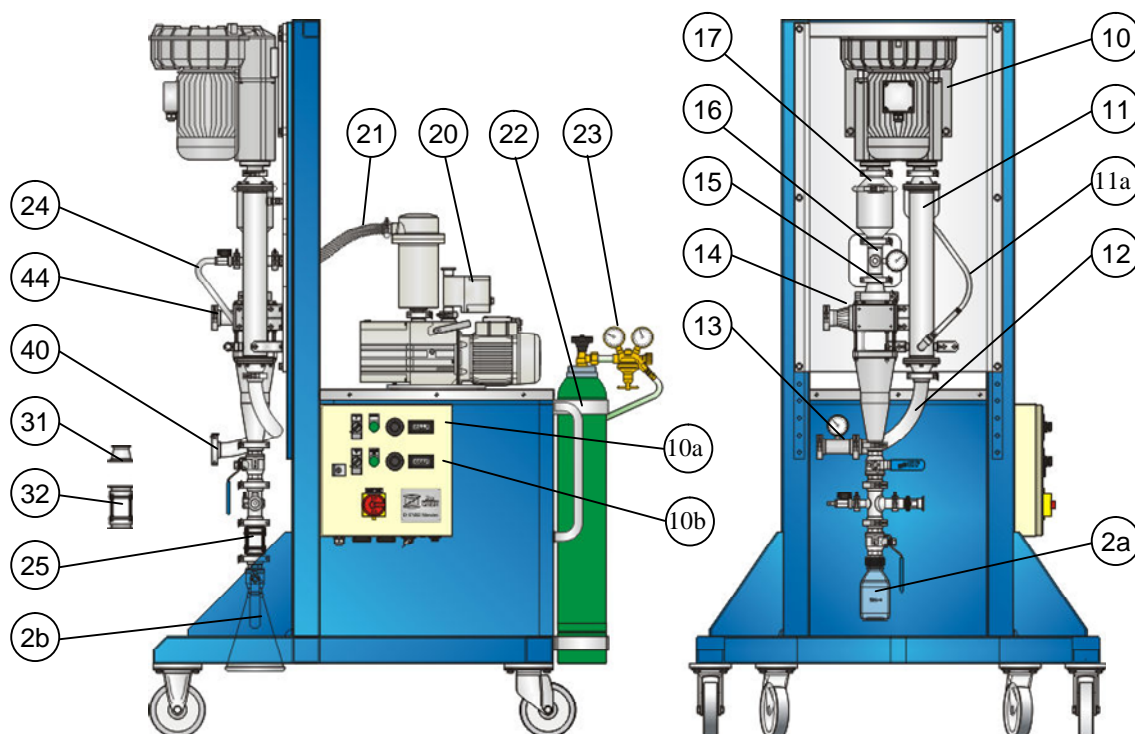
In general

- The carrier-gas-discharging-units represent the first commercialized result of ongoing development of the continuously compression mode for MA, HEM and RM resulting out of several years development in multi-phase flows and in-situ-separation/classification.

Application

Carrier-gas assisted discharging of Simoloyer® with standard (non-continuously) -grinding units after batch operation, here CM08 and CM20:

- higher powder yield in shorter time
- less kinetic impact during discharging by lower rotational speed
- less kinetic impact during discharging by shorter discharging time
- semi-automatic process:
 - controlled carrier gas flow;
 - pressure-measurement and gas-cooling;
 - carrier gas fully recycled;
 - closed or open system;
 - inert atmosphere;
 - standard air-lock DN40 can be adapted (with glass-container);
 - on a mobile cart;

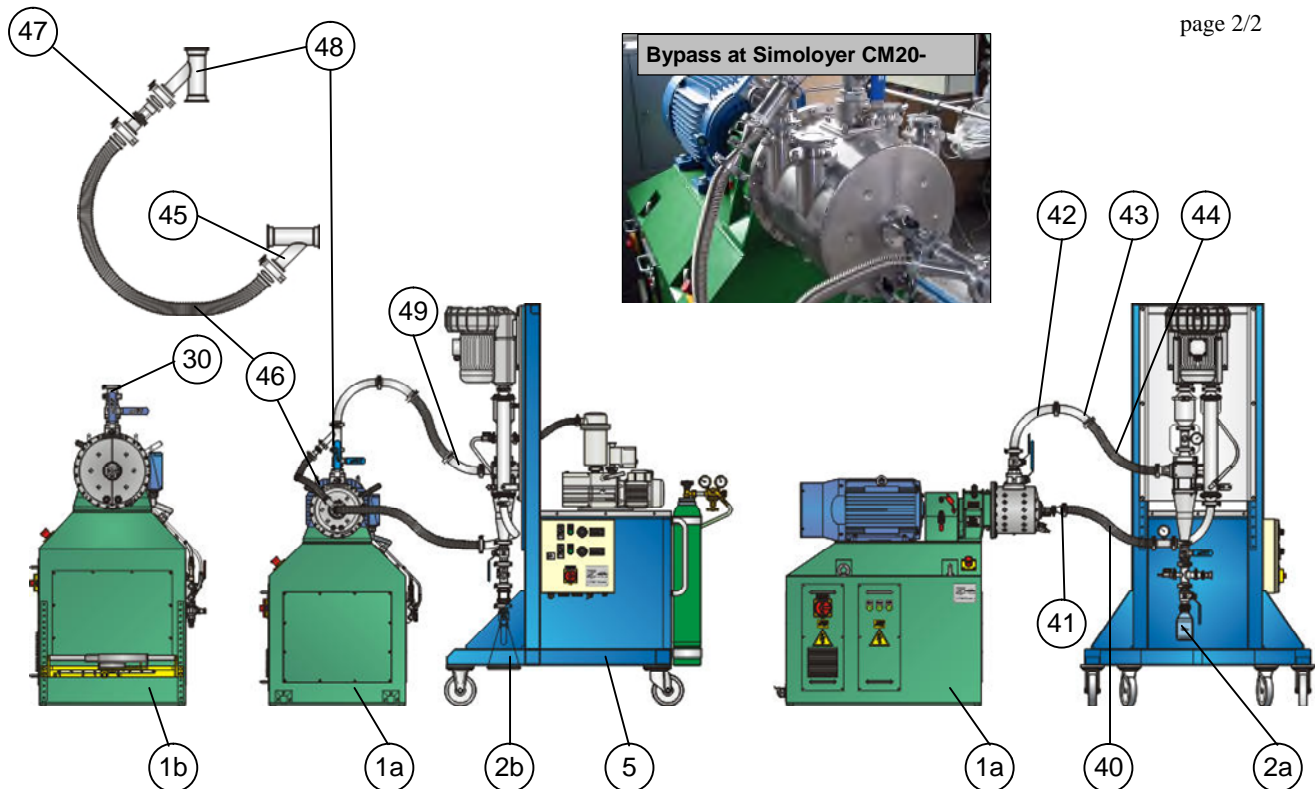


Options

- standard air-lock DN40 with valve container can be adapted (25) with option 25;
- standard air-lock DN50 can be adapted with option 30-31 (+32 for valve container);
- bypass (45-49) allows different gas flow in grinding unit and cyclone;
- extended Simoloyer cooling block for heat exchanger;
- rotary vane feeder extension for electrical control (10b)
- vacuum supply for preceding evacuation can be built upon the unit-plateau (20-21)
- gas supply for inert gas operation can be fixed at the end of the cart (22-23)
- communication of gas-drive by MALTOZ®-software;

Dimension

L x B x H [mm]	1235 x 1200 x 2065
net weight (cart only)	125 kg
net weight (incl. base components)	240 kg
nominal power (total)	2.2 kW
power supply	400V, 3 phase, 10A



ID	unit	function
01a/b	Simoloyer CM08/20	High Kinetic Processing (MA/HEM/RM)
02a/b	Simoloyer air-lock	adapted for powder-collection under controlled condition
05	TGD20a	mobile carrier-gas-discharging-unit
10	side-channel-turbine SKV180-DN40	carrier gas drive
10a/b	electronic cabinet	carrier gas drive as additional Maltoz-support, control of pump and rotary vane feeder (option)
11	heat exchanger WT40-500	cooling of gas flow (elevated temperature during de- and compression)
11a	piping WT*	can be connected to extended cooling block at Simoloyer CM08/20
12	pipe bend RBA-DN40-90°	transfer of multiphase-flow
13	pressure-gauge DMD16	record of flow-parameters, gas-flow-outlet
14	pilot cyclone ZK100-L	separation of powder material in multiphase-flow
15	adapter KF-A DN50-DN40x45	transfer of gas-flow
16	KF-calming pipe DN40-16-25-40-c	cross-tube for air-lock evacuation and gas-supply
16a	pressure-gauge DMD16	adapted at 16, record of flow-parameters
17	filter capsule FC-MF100	protection-filter for carrier gas drive
20	vacuum pump DUO 10	air-lock operation
21	flex-metal-tube DN25x500	piping vacuum-pump -//- air-lock

22	bottle-rack 10L	support for gas supply 10 liter
23	manometer 10l	control of gas supply at air-lock
24	adapter and piping DN16-G3/8-NW09k	piping gas-supply -//- air-lock
25	transparent pipe module GR-DN40x100	visual control of discharging process at air-lock in case of using valve container
30	adapter KF-A DN50-DN40x45	transfer of multiphase-flow out of Simoloyer in case of using air-lock DN50
31	adapter KF-A DN50-DN40x45	transfer of multiphase-flow out of cyclone in case of using air-lock DN50
32	transparent pipe module GR-DN50x125	visual control of discharging process at air-lock in case of using air-lock DN50
40	flex-metal-tube DN40x750	piping TGD20 -//- Simoloyer side-port P02
41	Adapter KF-A DN40-DN16x50	transfer of gas-flow into Simoloyer
42	pipe bend RBA-DN40-90°	transfer of multiphase-flow out of Simoloyer
43	pipe bend RBA-DN40-45°	transfer of multiphase-flow out of Simoloyer
44	flex-metal-tube DN40x500	piping Simoloyer main-port P01 - //-TGD20
45	KF-junction-tube DN40-25-40-45°	junction for bypass out of gas-flow
46	flex-metal-tube DN25x750	piping bypass
47	valve adapter DN25-G1/2-DN25	flow-control of bypass
48	KF-junction-tube DN40-25-40-45°	junction for bypass into multiphase-flow
49	pipe bend RBA-DN40-45°	transfer of multiphase-flow out of Simoloyer in case of using bypass

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

technical data subject to alterations