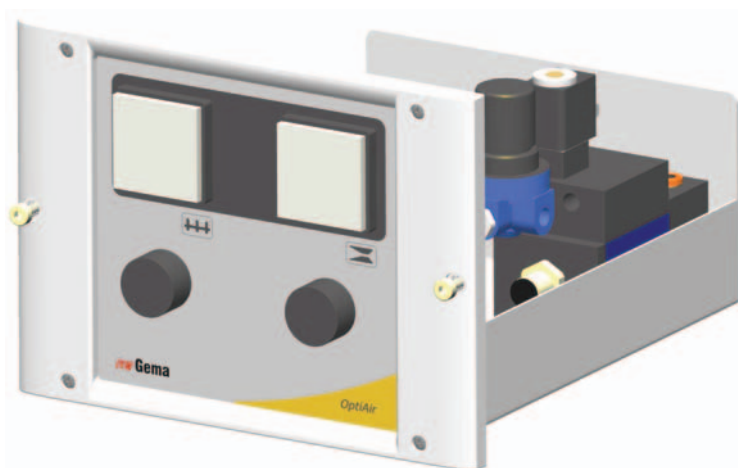

Operating instructions and spare parts list

OptiAir CA06

Pneumatic-fluidizing unit

TW
Gema



Documentation OptiAir CA06 Pneumatic-fluidizing unit

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General safety regulations

This chapter sets out the fundamental safety regulations that must be followed by the user and third parties using the OptiAir CA06 Pneumatic-fluidizing unit.

These safety regulations must be read and understood before the OptiAir CA06 Pneumatic-fluidizing unit is used.

Safety symbols (pictograms)

The following warnings with their meanings can be found in the ITW Gema operating instructions. The general safety precautions must also be followed as well as the regulations in the operating instructions.

**DANGER!**

Danger due to live electricity or moving parts. Possible consequences: Death or serious injury

**WARNING!**

Improper use of the equipment could damage the machine or cause it to malfunction. Possible consequences: minor injuries or damage to equipment



**INFORMATION!**

Useful tips and other information

Conformity of use

1. The OptiAir CA06 Pneumatic-fluidizing unit is built to the latest specification and conforms to the recognized technical safety regulations. It is designed for the normal application of powder coating.
2. Any other use is considered as non-conform. The manufacturer is not responsible for damage resulting from improper use of this equipment; the end-user alone is responsible. If the OptiAir CA06 Pneumatic-fluidizing unit is to be used for other purposes or other substances outside of our guidelines then ITW Gema AG should be consulted.

3. Observance of the operating, service and maintenance instructions specified by the manufacturer is also part of conformity of use. The OptiAir CA06 Pneumatic-fluidizing unit should only be used, maintained and started up by trained personnel, who are informed about and are familiar with the possible hazards involved.
4. Start-up (i.e. the execution of a particular operation) is forbidden until it has been established that the OptiAir CA06 Pneumatic-fluidizing unit has been set up and wired according to the guidelines for machinery (98/37 EG). EN 60204-1 (machine safety) must also be observed.
5. Unauthorized modifications to OptiAir CA06 Pneumatic-fluidizing unit exempts the manufacturer from any liability from resulting damage.
6. The relevant accident prevention regulations, as well as other generally recognized safety regulations, occupational health and structural regulations are to be observed.
7. Furthermore the country-specific safety regulations must be observed.

Explosion protection	Protection type	Temperature class
  II (2) D	IP54	T6 (zone 21) T4 (zone 22)

Product specific security measures

OptiAir CA06 Pneumatic-fluidizing unit

The OptiAir CA06 Pneumatic-fluidizing unit is a constituent part of the system and is thus integrated into the safety system of the plant.

For the use outside of the safety concept, corresponding measures must be taken!



Note:

For further information see the more detailed ITW Gema safety regulations!

About this manual

General information

This operating manual contains all the important information which you require for the working with the OptiAir CA06 Pneumatic-fluidizing unit. It will safely guide you through the start-up process and give you references and tips for the optimal use of your new powder coating system.

Information about the function mode of the individual system components - reciprocators, booths, powder gun controls, powder guns etc. - should be referenced to their corresponding documents.

Function description

Field of application

The OptiAir CA06 Pneumatic-fluidizing unit distributes the compressed air to the gun control units and regulates the fluidizing air and Airmover pressure.

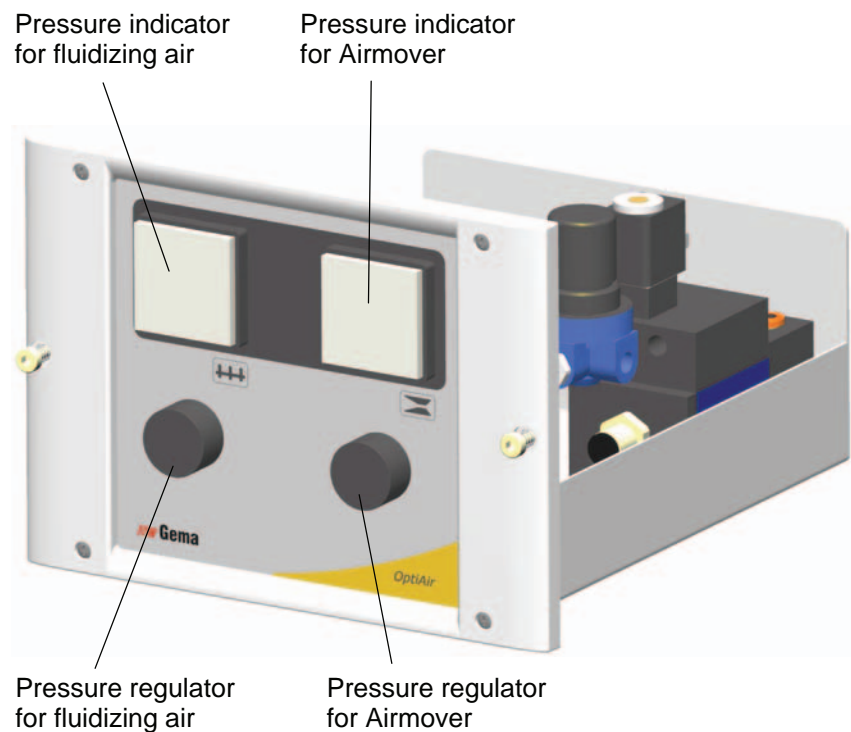
The prefluidization is switched on manually by pressing the **Prefluidization** key. The fluidization operates directly by connecting the OptiAir CA06 Pneumatic-fluidizing unit to the compressed air.

With the OptiAir CA06 Pneumatic-fluidizing unit, the fluidizing air and the air to the Airmover will be regulated separately. The prefluidization is controlled automatically by the inserted solenoid valve (the signal comes from the PLC, OptiControl CM-20 etc.). The exact prefluidization pressure can be set with the pressure regulator in the OptiAir CA06 Pneumatic-fluidizing housing. The prefluidization starts immediately by switching on the interlocking control unit.

The OptiAir CA06 control unit is suitable particularly in combination with the ITW Gema OptiFlex A2 series.

OptiAir CA06 Pneumatic-fluidizing unit - structure

Overview



OptiAir CA06 Pneumatic-fluidizing unit - structure

Technical data

OptiAir CA06 Pneumatic-fluidizing unit

Pneumatic data

OptiAir CA06	
Input pressure	7-10 bar
Compressed air consumption	depending on the powder hopper size
Water vapor content	max. 1,3 g/m ³
Oil content	max. 0,1 mg/m ³

Electrical data

OptiAir CA06	
Input voltage (according to the valve coil)	24 VDC 24 VAC / 50/60Hz 230 VAC / 50/60Hz

Dimensions

OptiAir CA06	
Width	244 mm
Depth	177 mm
Height	290 mm
Weight	4,2 kg

Start-up and operation

Setting the fluidization

The powder fluidization depends on the powder type, the air humidity and the ambient temperature.

The OptiAir CA06 Pneumatic-fluidizing unit contains a push button for the prefluidization, as well as a pressure regulator and a manometer for fluidizing air and Airmover.

The OptiAir CA06 Pneumatic-fluidizing unit is connected to a 7-10 bar compressed air circuit.

The fluidization is set as follows:

1. Connect the main compressed air supply and open it. The compressed air flows now through the OptiAir CA06 Pneumatic-fluidizing unit. The fluidization operates immediately by connecting the OptiAir CA06 Pneumatic-fluidizing unit to the compressed air
2. Adjust the compressed air to 7 bar on the pressure reducing valve
3. Check the powder fluidization in the powder hopper. If the powder does not "cook" regularly, push the prefluidization button several times briefly. The compressed air of the prefluidization will loosen the powder. If the powder begins to "cook", adjust the fluidizing air with the corresponding pressure regulator in such a way that the "cooking" spreads evenly on the powder surface. The fluidizing air pressure is monitored on the manometer

Connect the powder hopper Airmover

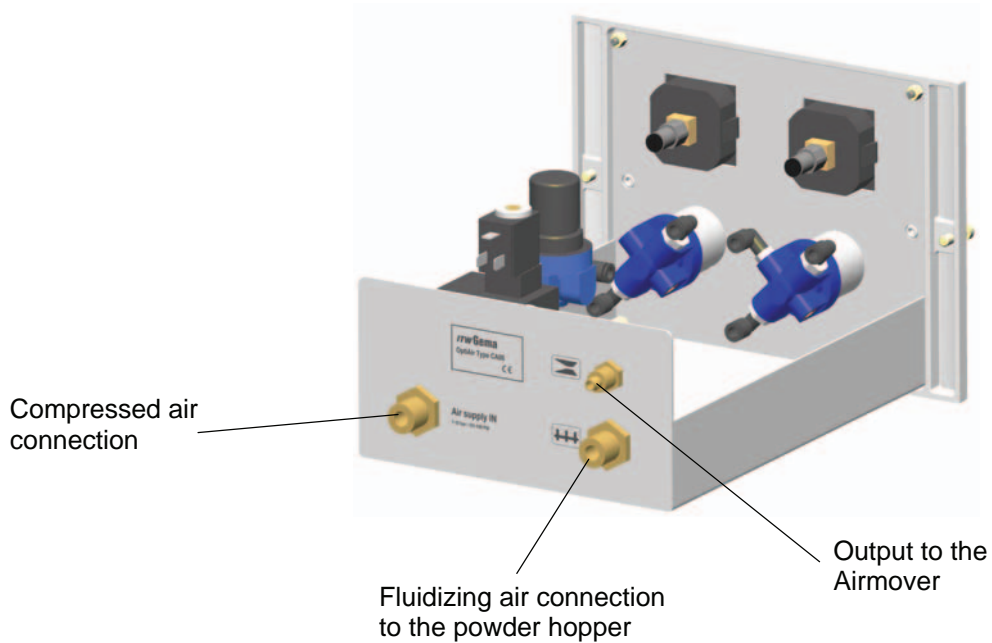
The fluidizing air produces an overpressure in the powder hopper. This overpressure prevents the powder supply and must be eliminated. For this purpose an Airmover is installed on the powder hopper, which extracts, similarly as an injector, the overpressure and the powder mixed with air.

Therefore, the Airmover produces a depression in the powder hopper. The air volume, which can be extracted by the Airmover, depends on the powder hopper size and the fluidizing air volume.

The Airmover air is to be set, when a powder cloud rises over the powder surface and flows out through the powder hopper openings. The Airmover pressure is set with the corresponding adjusting button and moni-

tored on the manometer. The pressure will be increased so far, until no more powder flows out of the powder hopper.

If these settings are once fixed, they can be left also when work interruptions take place. A reset of the adjusted values is thereby not necessary. The main switch of the OptiFlex A2 (AS04) control system can be switched on now, and the guns can be set and/or operated (see therefore the powder gun and gun control unit manuals).



OptiAir CA06 - Airmover connection (rear view)

Spare parts list

Ordering spare parts

When ordering spare parts for powder coating equipment, please indicate the following specifications:

- Type and serial number of your powder coating equipment
- Order number, quantity and description of each spare part

Example:

- **Type** OptiAir CA06 Pneumatic-fluidizing unit,
Serial number 1234 5678
- **Order no.** 203 386, 1 piece, Clamp - Ø 18/15 mm

When ordering cable or hose material, the required length must also be given. The spare part numbers of this yard/meter ware is always marked with an *.

The wear parts are always marked with a #.

All dimensions of plastic hoses are specified with the external and internal diameter:

Example:

Ø 8/6 mm, 8 mm outside diameter (o/d) / 6 mm inside diameter (i/d)



WARNING!

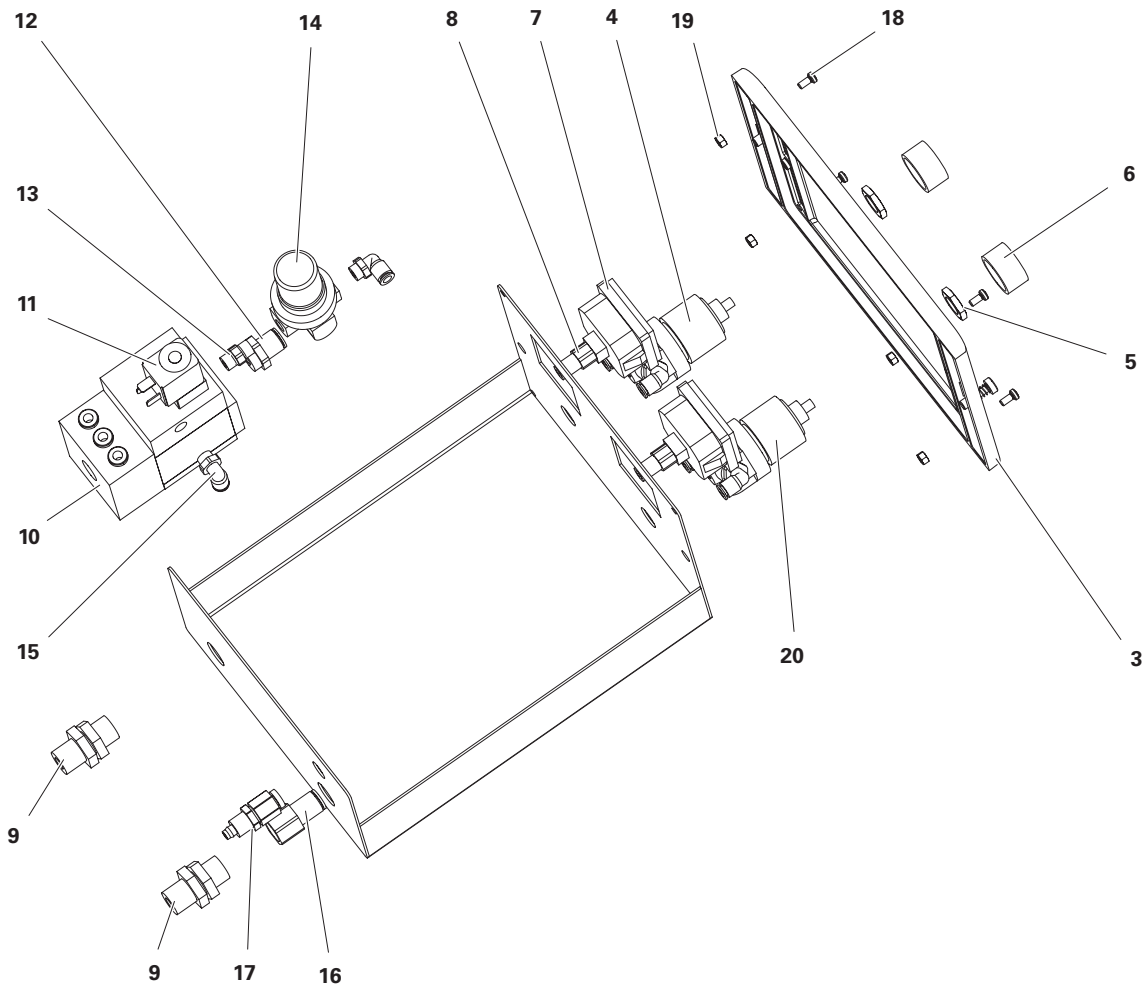
Only original ITW-Gema spare parts should be used, because the hazardous location approval will be preserved that way! The use of spare parts from other manufacturers will invalidate the ITW Gema guarantee conditions!

OptiAir CA06 Pneumatic-fluidizing unit - spare parts

	OptiAir CA06 Pneumatic-fluidizing unit - complete	1002 970
3	Front frame - complete	1000 393
4	Pressure regulator - 359b101-1/4"-6-6	239 852
5	Nut - M14x1 mm	302 163
6	Button - Ø 28 mm	200 069
7	Manometer - 1/8"a, 0-4 bar	235 814
8	Connection sleeve - 1/8"i, Ø 6 mm	233 412
9	Connection fitting - 3/8"a-3/8"a	202 975
10	Booster - 0-8 bar, 24 VAC, 50/60 Hz	371 157
11	Valve coil for pos. 10 - 24 VAC, 50/60 Hz	258 008
	Valve coil for pos. 10 - 24 VAC, (for controlling by CM-20, PLC etc.)	257 990
	Valve coil for pos. 10 - 230 VAC, 50/60 Hz	258 016
12	Screw-in nipple - 3/8"a, Ø 10 mm	242 268
13	Double nipple - 1/8"a-1/8"a	202 258
14	Pressure regulator - 332a002-1/8", 0-8 bar	239 623
15	Elbow joint - 1/8"a, Ø 6 mm	254 061
16	Connection sleeve - 3/8"i, Ø 10 mm	259 349
17	Schott lead-through - Ø 6 mm, Rapid	241 792
18	Cover screw - M4x18/7 mm	1000 192
19	Hexagon nut - M4x6/16 mm	1002 967
20	Pressure regulator - 359b101-1/4-6-6-6	241 369
	Connecting cable for pos. 11 - 5 m (not shown)	371 173
	Nut with kink protection for pos. 17 (not shown)	201 316
	Plastic tube - Ø 8/6 mm, for pos. 17 (not shown)	103 756*

* Please indicate length

OptiAir CA06 Pneumatic-fluidizing unit - spare parts

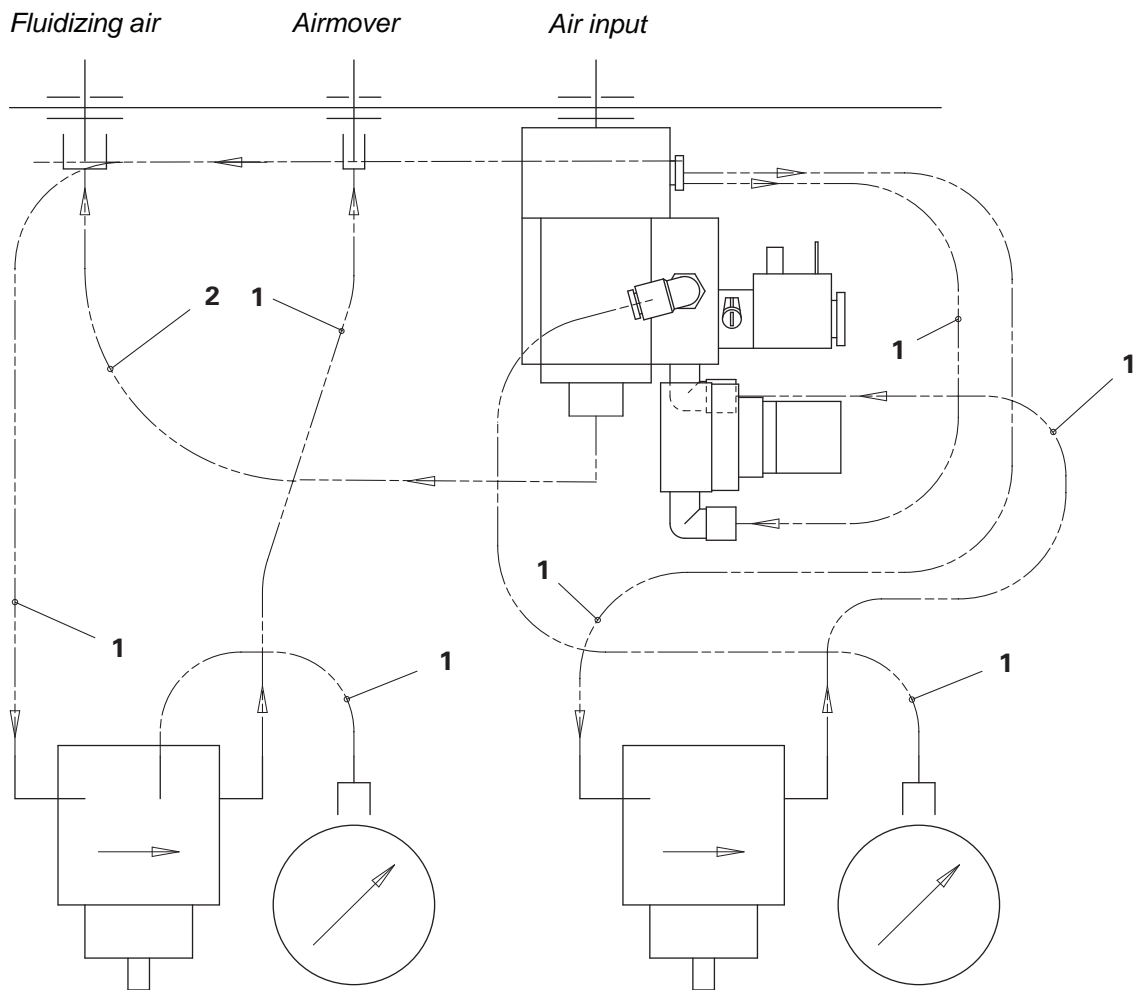


OptiAir CA06 Pneumatic-fluidizing unit - spare parts

Hose connections

1	Plastic hose - Ø 6/4 mm (black)	103 144*
2	Plastic hose - Ø 10/8 mm (black)	103 250*

* Please indicate length



Hose connections

