GEOVENT

INSTRUCTION MANUAL

MINI ARM

Extraction arm ø80, ø100 and ø125 mm

Version 2.0 11.09.18

www.geovent.com

Contents

1.0 General safety precautions

IMPORTANT – Please study all the instructions before mounting and commissioning.

Please keep these instructions in a safe place and instruct all users in the function and operation of the product.

All electrical installations must be carried out by an authorized electrician.

1.1 Danger

It may be associated with clamping hazard of fingers / hand if the arm is folded together by grip around the arm.

1.2 Field of application

The GEOVENT MINI Arm is the ideal extraction arm for the extraction of fumes and vapors etc., where the well-being of the operator is in focus with regard to lightness, ergonomics and efficiency of the Arm.

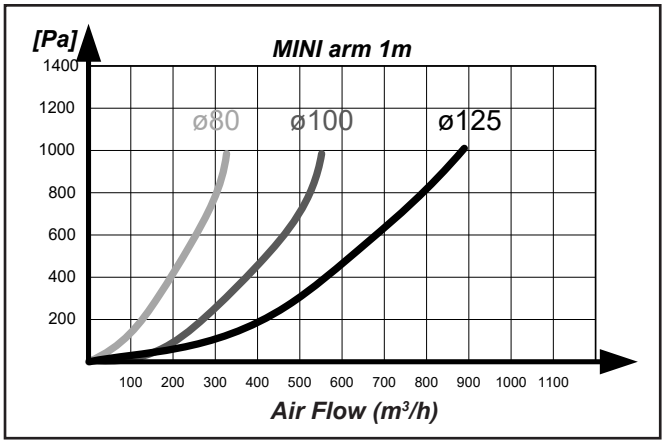
The extraction arm is as standard not suitable for the extraction of aluminum dust, flour, textile dust nor sawdust or other media, which are connected with danger of explosion, without specific approval from Geovent A/S. For ATEX application, the ATEX upgrade must be applied (See point 1,4 and 2.1).

The hose may be damaged and leaky via outer loads, e.g. by a screw driver. Avoid such load in order to safeguard a long life.

1.3 Technical data

Art. No.	Description	Weight:
MINI-01	1,0 m - ø 80 mm	2,3 kg
MINI-04	1,0 m - ø 80 mm, w. damper	2,5 kg
MINI-02	1,0 m - ø 100 mm	2,4 kg
MINI-05	1,0 m - ø 100 mm, w. damper	2,6 kg
MINI-03	1,0 m - ø 125 mm	2,5 kg
MINI-06	1,0 m - ø 125 mm, w. damper	2,7 kg
MINI-07	1,5 m - ø80 mm	2,7 kg
MINI-10	1,5 m - ø80 mm, w. damper	2,7 kg
MINI-08	1,5 m - ø100 mm	2,7 kg
MINI-11	1,5 m - ø100 mm, w. damper	2,7 kg
MINI-09	1,5 m - ø125 mm	2,7 kg
MINI-12	1,5 m -ø125 mm, w. damper	2,7 kg

Pressure drop:



Hose max. temp. (depends on the type) Up to 100°C

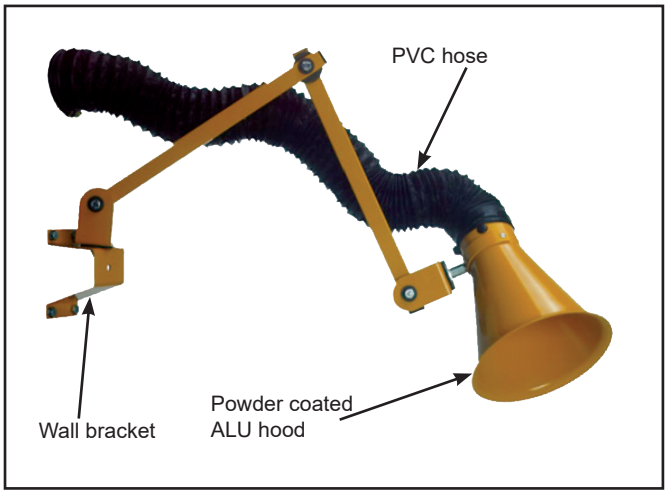
1.4 Construction

Wall/ceiling bracket: Steel bracket, powder enameled yellow in RAL 1007. The rotary joints can rotate 360°.

Funnel: Light-weight aluminum funnels ø80, ø100 and ø125. The funnel is powder enameled in RAL 1007. May be rotated in all possible positions.

Arms and friction joint: aluminum pipe, connected via knee joints with friction discs and disc springs.

Hose: PVC coated polyester fabric and a spring steel wire. NB: The hose is black.



2.0 Installation

The MINI Arm is supplied partly assembled. Depending on model, it may consist of 1 partly assembled carrying arm, 1 funnel and 1 set of hose with clamp.
Specification of any changes can be found in order confirmation / invoice.

Before mounting, consider the following:
• Sufficient space for satisfactory use of the arm.
• Optimal installation height for the task
• Connection options for piping and possibly. automation

Procedure:
1. The wall bracket is firmly attached to the wall, ceiling or table by means of 4 bolts.

IMPORTANT – see pictures below

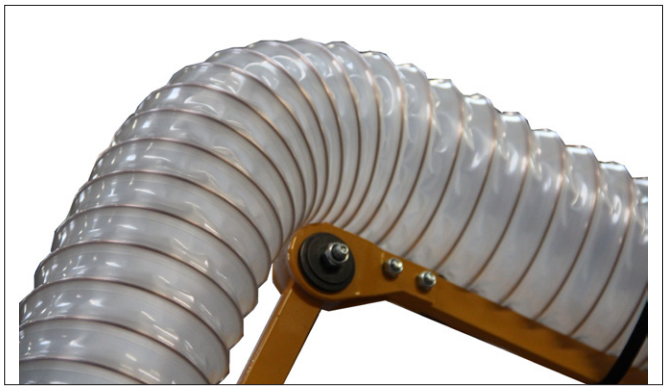
Wall mounted – VERTICAL

Table or Ceiling mounted - HORIZONTAL

2. The arm comes pre-assemble, but in case adjustments needs to be made, please follow the following steps.

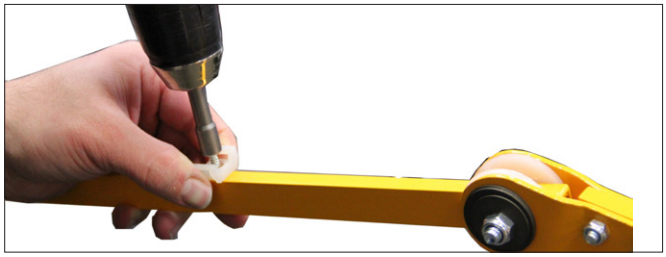
3. Mount the arm on the wall bracket/console with the bolt and bushings, arm part, discs and nuts. Make sure to fasten it in such way that the arm is easily rotated. If the inner joint/arm does not have the wanted friction, the bell washer can be loosen or tighten.

4. Mount the centre part by taking the supplied bolt through 3 disc springs, the alu profile, the friction disc, the other alu profile and 3 disc springs and fasten them with a lock nut. Tighten the joint so that the arm is easy to rotate, however, still so much that it is self-retentive in a lightly bent position.



5. Mount the funnel on the outer joint by taking the supplied M8 bolt through 3 disc springs, the alu half, the friction disc, the other alu half and the 3 disc springs and fasten them with an M8 lock nut.

6. The hose is mounted on the funnel by tightening the clamp around the funnel and the hose.



7. The hose is fixed to the arm by a small white plastic holder. It is to be fixed in the middle of each arm section, by means of the self cuttings screws, through the ALU profile.

8. Slide the strips through, and fixe the hose accordingly, so that you have enough room to maneuver the arm freely.

2.1 Installation - ATEX application

This is only necessary, when the ATEX upgrade package has been purchased.
The mini arm is based on the same components as the standard version, but there are some small alterations that needs to be followed correctly.

1) The hose that is applied is the transparent hose (P2 PU AS).
2) The wire on the hose, is to be freed from the hose construction, so that you have app. 10-15 cm of wire, that can be moved around.

3) Connect the loose end of the wire, as shown below.

4) Connect the other end of the hose to ground, in order to make the arm antistatic (R8 <10 Ohm).

2.2 Mounting of optional equipment

Installation of damper
The MINI arm can be supplied with a damper. The damper must be installed from the factory. Contact your dealer.

2.2 Trial run – exact adjustment

After the final mounting, the MINI Arm should be adjusted to the typical working area, for optimum utilization of the arm. Do so by adjusting the rotary joints mentioned in item 2 by means of 2 fixed spanners.

If there is a problem with the arms carrying ability, you can try to add more plate springs (black) to the joint, so that the arm can be tighten further.

The following guide gives you an idea about how tight each joint should be. Please note, this is only a guide, and may vary according to the actual installation and personal preferences.

Mini arm:		**M8**
1,5m	Wall bracket	7,5 NM
	Joint in the middle	7,5 NM
	Bracket at hood	7 NM
2,0m	Wall bracket	9 NM
	Joint in the middle	9 NM
	Bracket at hood	7 NM

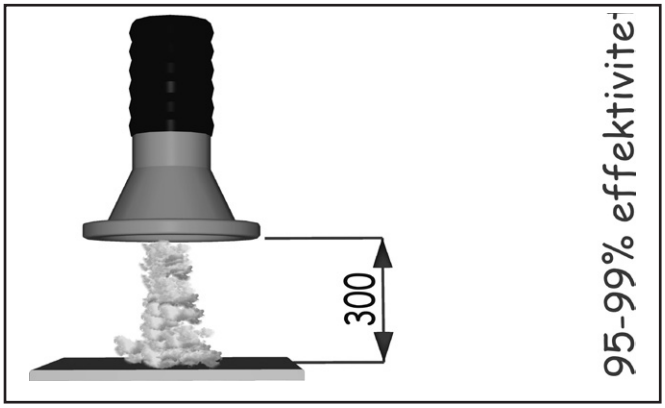
3.0 User instruction – application

For normal use, the arm is to be self-retentive in the required position within the working area. The bracket of the arm supplies a 360° rotary working area.

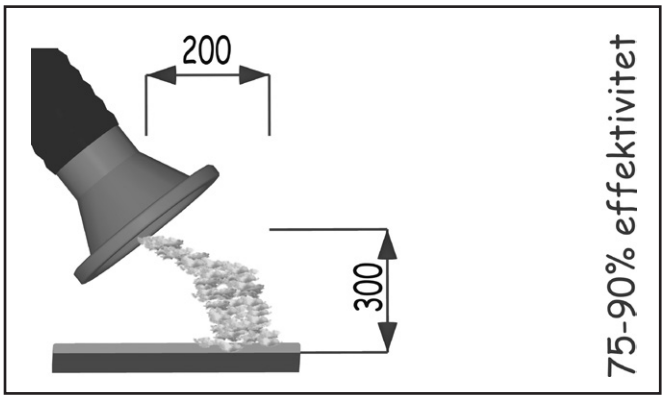
When moving the arm, remember to hold it in the required position for app. ½-1 second, so that the joint will lock up in the requested position (do not push the arm into position).

If the equipment has been correctly dimensioned, the funnel of the arm should be placed in vertical position 300-500 mm over the point of pollution.
Thus up to 99% of the polluting particles will be caught.

Optimal situation:



Less optimal situation:



Always check that the correct volume of air is extracted by the suction head/funnel.

The Arm does not work if …
- unauthorised parts have been mounted on the arm (e.g. power point on the funnel)
- The arm is pushed towards the required position. Instead, please move the arm to the required position and wait a moment until the friction discs have locked the arm. If this does not work, please tighten the loose joint with two 13 mm fixed spanners.
- Something has been hung on the extension arm. It is only meant to be capable of carrying the weight of the actual arm.

4.0 Maintenance

Periodic maintenance

- When it becomes difficult to position the arm, e.g. if it will not remain in the required position, please adjust the movable joints (please refer to item 2).

- Please check the condition of the hose, as well as the friction discs, and exchange them if necessary. Please contact your dealer in respect of spare parts.

At least once annually, the whole point extraction plant should be overhauled by an authorized serviceman.

5.0 Liability

Warranty
Geovent A/S grants a warranty for products, which are defective, when it can be proved that the defects are due to poor manufacture or materials on the part of Geovent. The warranty comprises remedial action (reparation or exchange) until one year after date of shipment. No claims can be made against Geovent A/S in relation to loss of earnings or consequential loss as a result of defects on products from Geovent.

Wear parts like hoses, etc. are not included in the warranty.

User liability
In order for Geovent to be capable of granting the declared warranty, the user/fitter must follow this Instruction Manual in all respects.

Under no circumstances may the products be changed in any way, without prior written agreement with Geovent A/S.

6.0 Declaration of conformity

GEOVENT
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Hereby declares that:

The products: Extraction Arms
Model: MINI arm

er i overensstemmelse med følgende direktiv og standarder:

Council Directive 2006/42/EC (May 17, 2006) of the European Parliament on machinery, and amending Directive 95/16/EC.

EN ISO 14121-1:2007
Safety of machinery - Risk assessment - Part 1: Principles

EN ISO 12100-1:2005
Safety of machinery - Basic concepts, general principles for design

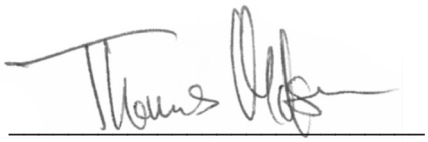
EN ISO 12100-1:2009
Construction and design
Part 1: Terminology, methodology

EN ISO 12100-2:2005
Basic concepts, general principles for design

EN ISO 12100-2:2009
Construction and design
Part 2: Technical principles

Date: 11/09-18

Position: Managing Director
Name: Thomas Molsen

Signature: 

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