



GEOVENT

INSTRUCTION MANUAL



WING ARM

ø160 og 200 mm

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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.

Do not dismantle any factory-mounted parts, since it impedes the commissioning of the equipment.

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

1.1 Danger

Explosive media – The Extraction Arm is not suitable for the extraction of aluminium dust, flour, textile dust nor for sawdust or other media, which are connected with danger of explosion, without specific approval from Geovent A/S.

Placing the hand between the spring and the carrying arm could involve a risk of mutilation.

Demounting the spring is **deadly dangerous**.

1.2 Field of application

The GEOVENT Wing Arm is the classical Extraction Arm for the extraction of welding smoke, grinding dust, fumes, etc. Through the years, the Arm has been refined in such a way that now it belongs to the very best Arms with regard to lightness and ergonomics.

The Extraction Arm is not suitable for the extraction of aluminium dust, flour, textile dust nor sawdust or other media, which are connected with danger of explosion, without specific approval from Geovent A/S.

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.

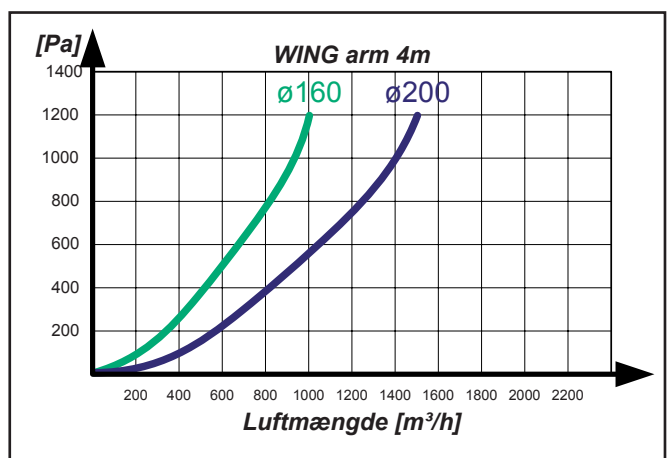
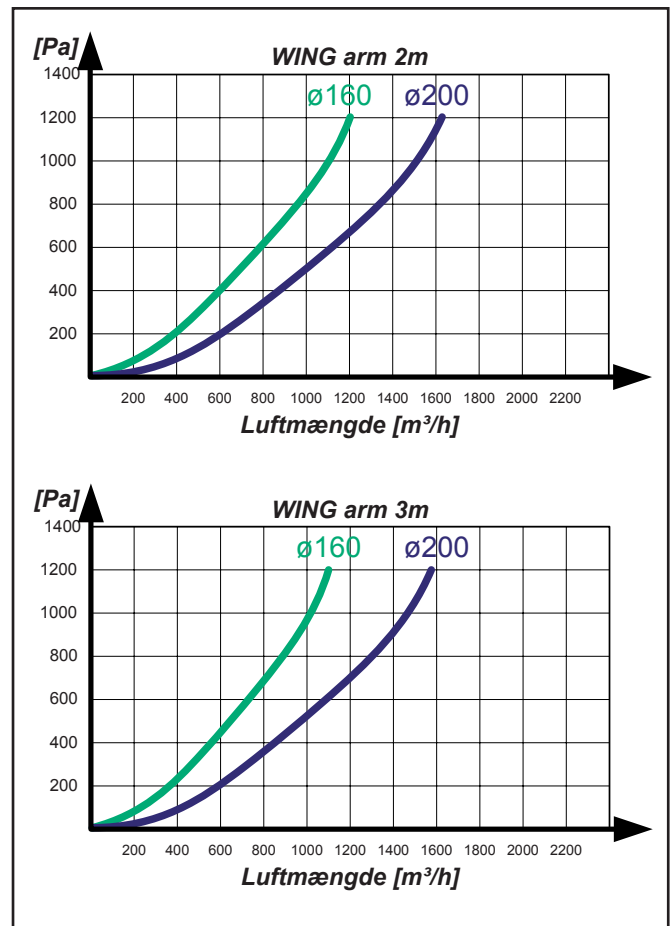
1.3 Technical data

Recommended flow area

Hose dimension:
Ø160 800-1000 m³/h
Ø200 1000-1500 m³/h

Length: 2, 3 or 4 m
By means of an extension arm up to: 8 m

Hose max. temp. (depends on the type) Up to 150°C



1.4 Construction

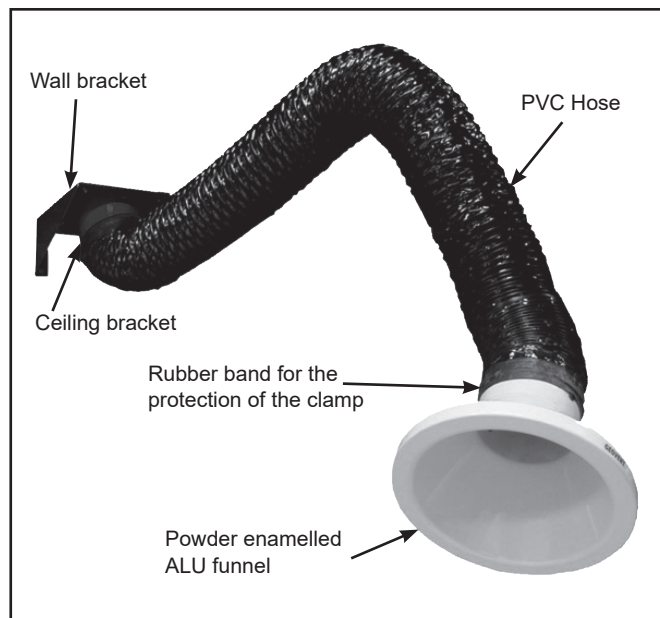
Ceiling bracket: Steel bracket, powder enamelled black in RAL 9005. The rotary joints of the bracket can rotate 360°.

Funnel: The light-weight aluminium funnel $\varnothing 160$ or $\varnothing 200$ mm is supplied with an integrated handle. The funnel is powder enamelled in RAL 1007. May be rotated in all possible positions.

Arms and friction joint: The inner carrying arm is executed in 35x35 mm aluminium profile, equipped with an adjustable fitting, with which the power of the spring may be adjusted. The outer joint is a 25x25 mm aluminium pipe, which is connected via knee joints with friction discs, bell disc and centre internal part.

2.0 Installation

The WING 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. As standard, the Arm is prepared for ceiling mounting, however, in most situations it will be mounted on the wall by means of a wall bracket (to be ordered separately).



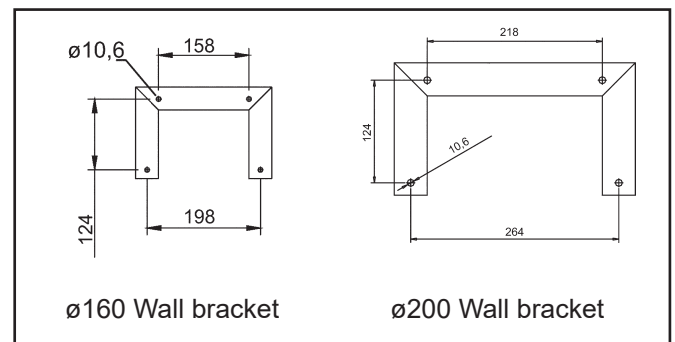
Before mounting the Arm, please make sure that the optimum working area is selected. Is there space enough for the satisfactory utilisation of the Arm? What about connection possibilities for piping and auto-matics? The optimum installation height is then to be selected in accordance with the table below:

Recommended installation height WING Arm:

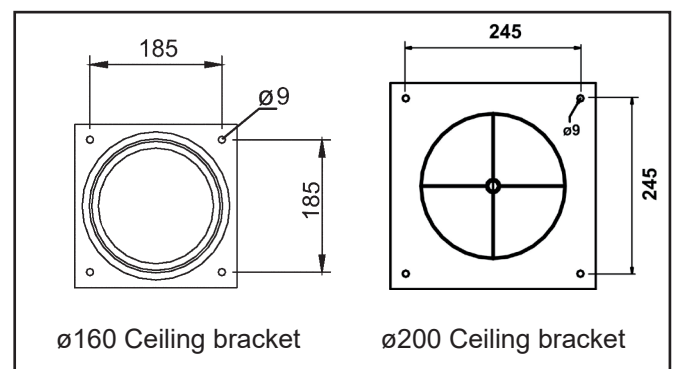
2 m	2500 mm
3 m	2500 mm
4 m	2500 mm
4.5 to 8.0 m (incl. extension arm)	2500 mm

Procedure:

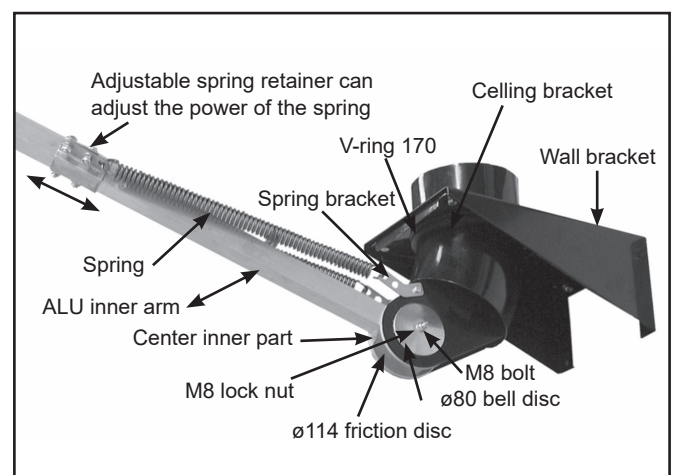
1. For mounting on the wall, please attach the wall bracket firmly on the wall with 4 of 10mm bolts (When using the extension arm, please fix this bracket first – refer to item 2.1)



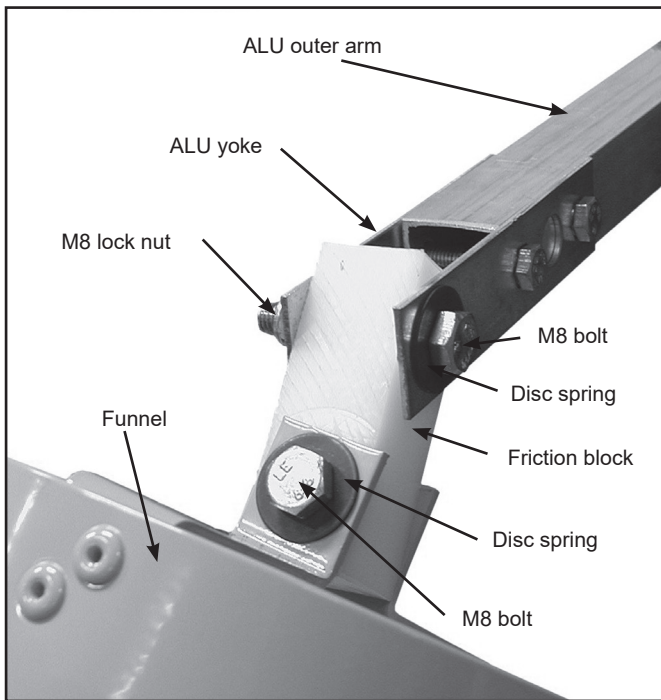
2. Then the ceiling bracket is mounted, either in the ceiling or in the wall bracket (refer to the drawing below). The bracket is fixed via attaching the 4 of 8 mm bolts with 4 of bevel-edged washers and lock nuts.



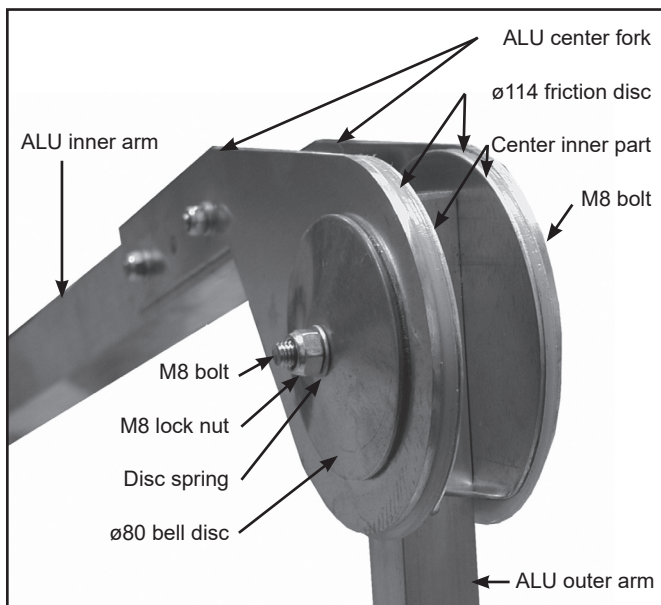
3. Then the Arm looks like the one shown on the picture below. The functionality of the Arm is tested and the inner joint is tightened up, if necessary.



4. Now the funnel is mounted on the outer joint by taking the supplied M8 bolt through 3 disc springs, the funnel, the friction block and the disc springs and fix them with an M8 lock nut.



5. Test and tighten up the centre part, if necessary. Tighten the joint so much that the Arm still runs smoothly, however also so much that it remains self-retentive in a lightly bent position.



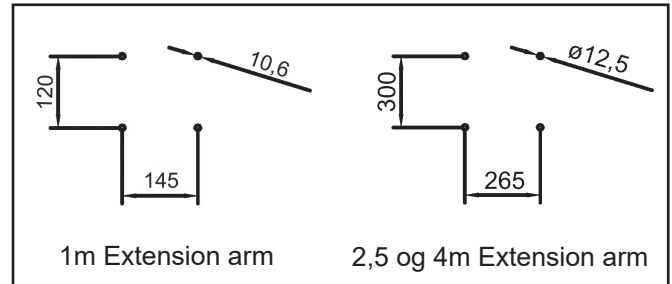
6. Subsequently, the hose is mounted on the ceiling bracket. The rubber band is taken out over the ceiling bracket, after which the hose is fixed by means of a clamp. Bending the edge of the hose is the best way of doing this, so that the steel spiral is pulled/twisted up on the bracket. When the hose has been properly fixed, the rubber band is finally pulled over the clamp.
7. The hose is mounted on the funnel by tightening the clamp around the funnel and the hose. (NB. Remember first to pull the rubber band over the

funnel). When the hose has been fixed properly, the rubber band is pulled over the clamp. Subsequently, the Arm is connected to the complete piping system.

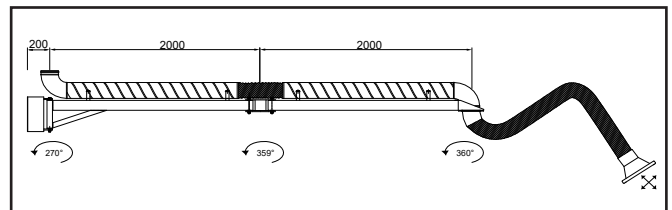
2.1 Mounting of optional equipment

Mounting of the extension arm

Start by fixing the extension arm to a solid wall, e.g. a concrete wall (applies to 1.0, 2.5 and 4.0 m). (Please refer to the hole dimensions).



At 4 meters, every joint is assembled and then the Arm is mounted. Next, the spiro pipe is fastened to the extension arm by means of the enclosed self-cutting screws. The part between the spiro pipes is assembled by means of clamps and the supplied hose. Subsequently, the Arm is attached to the extension arm.



Mounting of the damper

Is factory-mounted. Contact your dealer.

Mounting of light

The mounting of light and net should have been taken care of by the factory. The connection is made by extending the power cord, which is attached inside the Arm, where it is to be fixed. Next, the power cord is connected to the transformer (24V → 220V) which again is connected to the mains.

Light specifications:

Type:	Halogen
Power:	50 W 60°
Voltage:	12 V
Recommended Trafo-power:	70 W

2.2 Power connection

For connection of various electrical components (e.g. light sensor), please refer to the enclosed documentation for the actual product.

The electrical installation is to be carried out by a certified electrician.

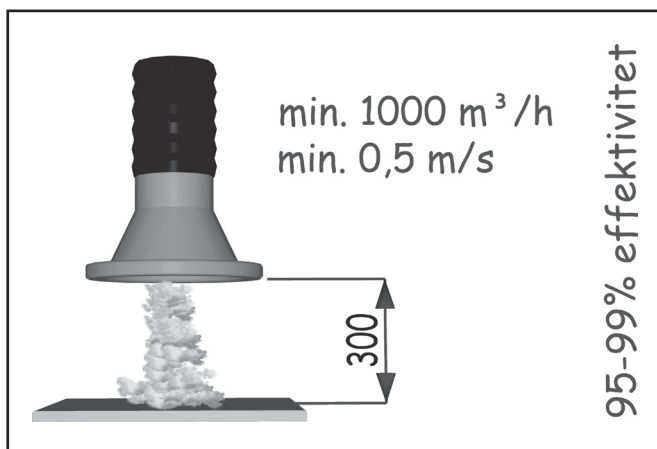
2.3 Trial run – exact adjustment

After the final mounting, the WING Arm should be adjusted to the typical working area, for optimum utilisation of the Arm. Do this by fine adjusting the rotary joints, mentioned in item 2, with 2 off 13 mm fixed spanners.

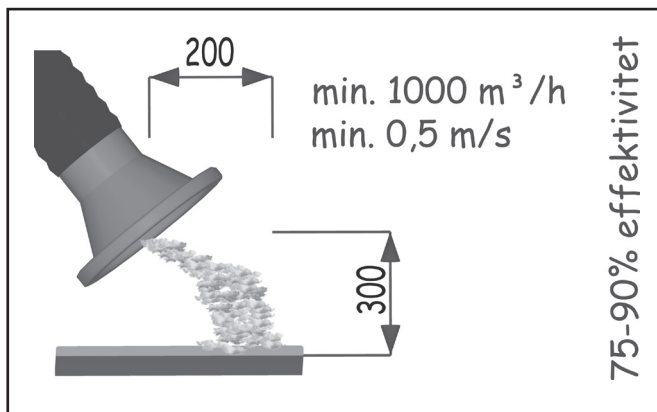
3.0 User instruction – application

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.

If the equipment has been correctly dimensioned, the funnel of the Arm should be placed in vertical position 300-500 mm over the blanks to be welded. That is just above the pollutant. Thus up to 99% of the polluting particles will be caught.



Less optimal welding 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.
- 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, the spring 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 authorised 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 (repair 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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The manufacturer: GEOVENT A/S
HOVEDGADEN 86
DK-8831 LØGSTRUP

hereby declares that:

The products: Extraction Arms
Model: WING (ø160 to ø200)

have been manufactured in compliance with the directions of the Directive Council of 14 June 1989 in common approximation to the legislation of the member states regarding machine safety (89/392/EEC amended by the directive 91/368/EEC) with special reference to appendix 1 in the Directive regarding basic health and safety requirements in connection with the construction and manufacturing of machinery.

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

Dato: 16/08-16

Position: Managing Director
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Underskrift :



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