Use and Maintenance Manual

Acid-proof extraction arms

ERGO-MINI

Contents:

810R53 ERGO-MINI-50/3-950 10.01.2019/EN
810R59 ERGO-MINI-75/3-1150 10.01.2019/EN

1. Introductory Remarks

The purpose of the present Use and Maintenance Manual is to supply User with directions within the range of application, installation, start-up and the use of the **ERGO-MINI acid-proof extraction arms**.

Installing, start up and operational use are exclusively admissible after getting acquainted with the contents of the Use and Maintenance Manual.

With regard to continuity of work carried on improvement of our products, we reserve for ourselves the revision possibility of the draft and technological changes improving their functional features and safety.

Construction of the **ERGO-MINI** acid-proof extraction arms meets the requirements of the current state of technology as well as the safety and health assurances included in:

– **2006/42/EC Machinery Directive** of the European Parliament and of the Council of May 17th, 2006 on machinery – amending the 95/16/EC (recast) /*Journal of Laws EC L157 of 09.06.2006, page 24*/

Additionally, the appliance meets following harmonized standard:

- **EN ISO-12100:2012** – "Safety of machinery – Basic concepts, general principles for design. Risk assessment and risk reduction"

2. Application

ERGO-MINI acid-proof extraction arms are designed for removal the dust- and gaseous contamination emitted at workplaces of not significant emissions. The arms are applied in chemical industry, electronic-, pharmaceutics branch, goldsmiths and jewellery processing.

The extraction arm can work with a suitable extraction fan cooperating with a system of several other extraction arms. Self-adjusting segment joints and the swivel provides convenient positioning and manoeuvring with the arm within the work field. The arm elements are of acid-proof materials (PVC, polyamide, stainless steel).

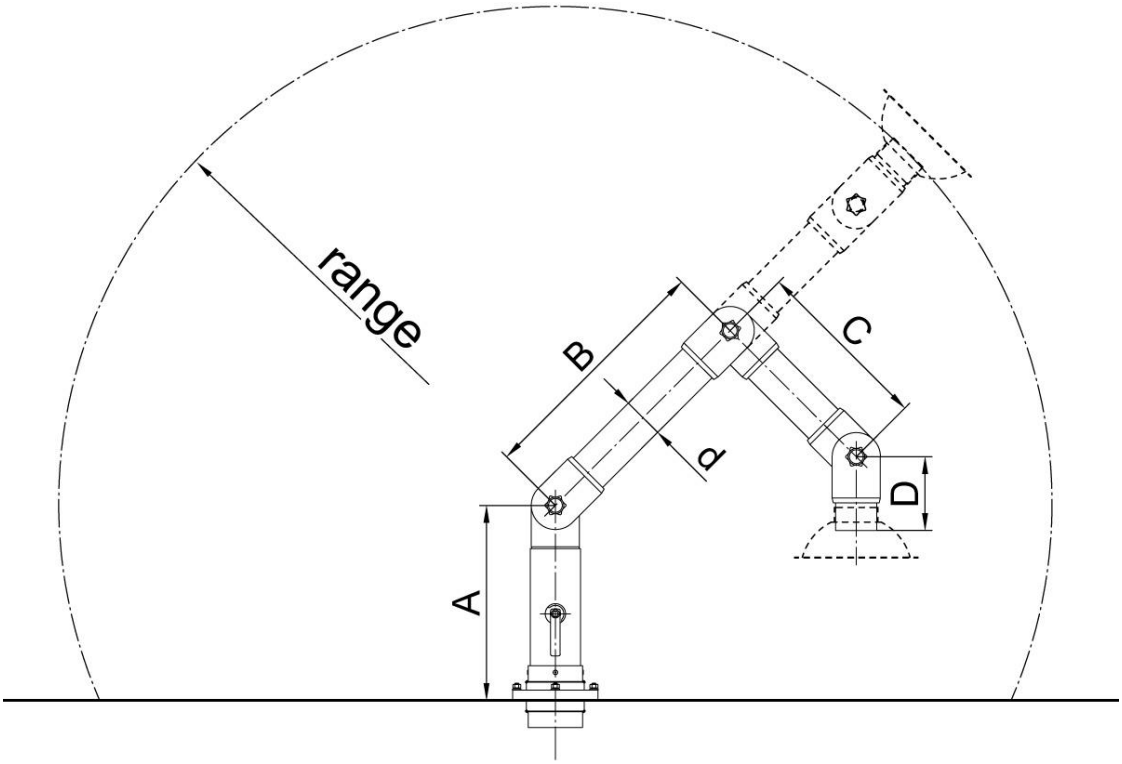
ERGO-MINI is manufactured in versions varying in:

- diameter (Ø50 mm and Ø75 mm)
- work range
- quantity of joints

3. Reservations of Producer

1. Manufacturer accepts no liability for any consequences following from the operational use that is in contradiction to the purpose of application.
2. Installing of any additional elements not belonging to the normal device structure (or accessory set) is not acceptable.
3. Do not undertake any structural changes or constructional modifications on the device on one's own.
4. Protect the extraction arms from mechanical damage.

4. Technical Data



ERGO-MINI/K-50/3, ERGO-MINI-75/3

Type	Part No.	Range [mm]	d (Ø) [mm]	A [mm]	B [mm]	C [mm]	D [mm]	Weight [kg]	Flow resistances at volume flow 120m³/h [Pa]
ERGO-MINI/K -50/3-950	810R53	720	60	280	360	260	100	2,5	490
ERGO-MINI/K-75/3-1150	810R59	950	80	265	460	360	130	3,0	220

Fig. No.1 – Workranges, Dimensions

5. Structure and Function

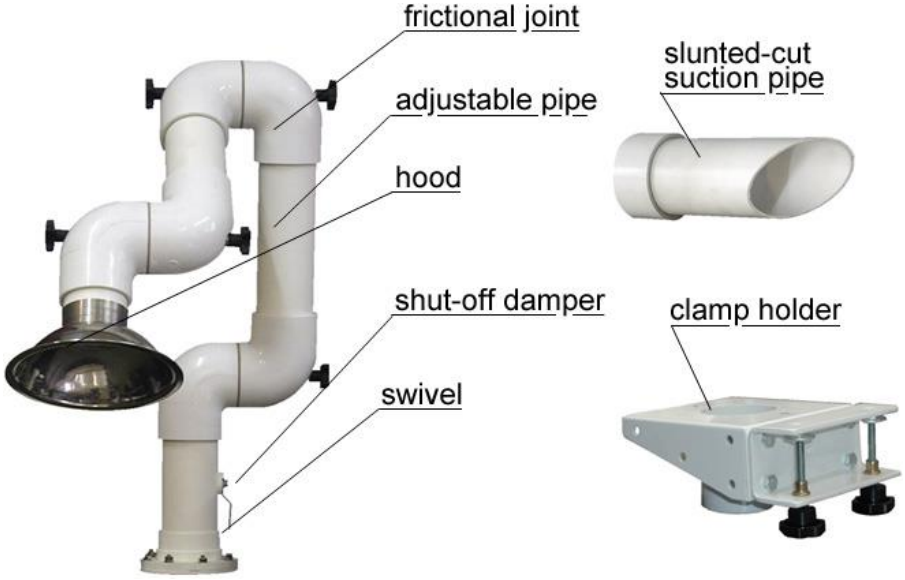


Fig. No.2 – ERGO-MINI – Structure

ERGO-MINI consists of subsequent elements:
- swivel with rotational pipe
- two or three adjustable pipes
- elbow joints with friction moment adjustment
- clamp holder (on demand)
- replaceable suction hoods (on demand)

The swivel pipe is equipped with a shut-off damper and provides full rotation upon its vertical axis. The extraction arm can be fastened in following way:

1. directly to the table top

2. by means of a clamp holder that has to be fastened to the table top or on the wall.

Pipe segments (integrated with frictional joints), along with the suction hood and swivel – form an efficient ventilation duct, through witch is extracted the dust-laden air. The arm configuration can be changed within the range of the given arm type. Additional flow adjustment is provided by the installed shut-off damper.

6. Assembly and Start-up

ERGO-MINI extraction arms can be configured in a free chosen way, depending on the needs. They can be mounted on a table top – through 6 holes in the swivel mounting flange. In case of need, they can be installed at the edge of the table top or at a wall by means of a clamp holder, whereby their mounting flange has to be screwed up to the clamp holder. The arm should be installed as illustrated in the Fig. No.2 (position “correct”).

The suction hood ought to be adjusted in such a distance, that would not cause barrier for the operator and, on the other hand, this would not reduce the fume extraction efficiency of the extraction arm. By means of the shut-off damper lever, adjust such a volume flow of the extracted air that eliminates the fume content (smokiness) and dustiness, and on the other hand do not create excessive draught.

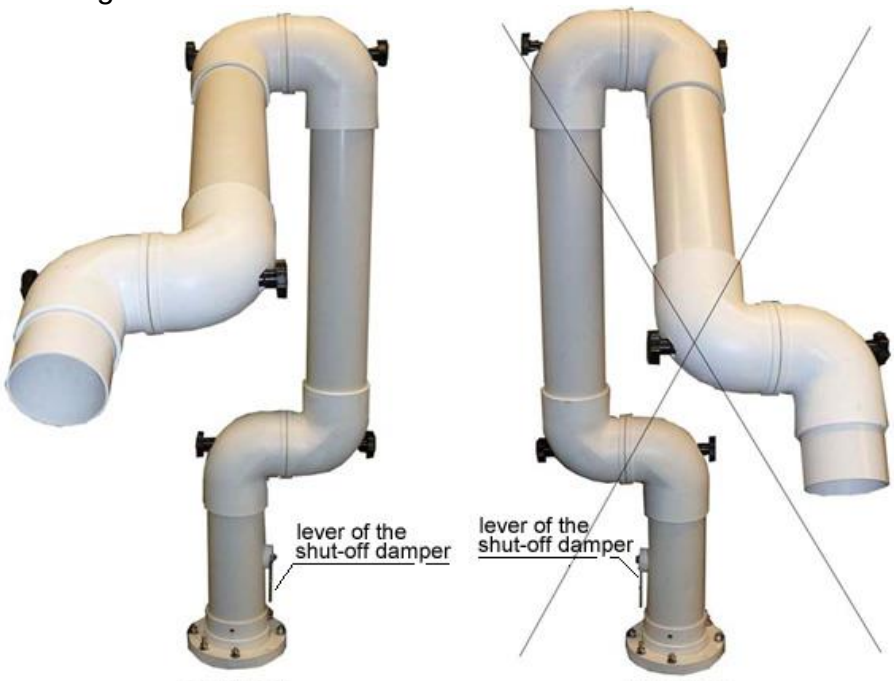


Fig. No.2

7. Operational Use

Construction of the device assures reliable function without continuous routine technical supervision. In each of the arm joints is introduced a friction ring to keep the required operational position during the work. Tightening the knurled nuts increases the friction moment, whereas, their releasing reduces the friction. Adjustment of the frictional brakes (in subsequent joints) provide self-supporting properties and position balance of the device during the function. On the other hand, the brakes should not be tightened to strong, as this would cause excessive friction / resistance while the operator changes the arm position.
During the work the position of the arm and the suction hood can be changed many times, to obtain to best arm configuration, according to the User's current needs.
After the work is completed, switch off the extraction fan or, if the device works with a stationary extraction system, close the shut-off damper on the suction hood.

8. Troubleshooting Guide

	Problem	Possible reason	Corrective action
1.	the extraction arm is falling	incorrectly adjusted joints	increase the tension onto the friction ring by tightening the knurled nuts
2.	decrease in the volume of the suction air	the shut-off damper is closed	open the shut-off damper
		in the extraction arm a barrier object got stack in the extraction arm	remove the barrier object / impurity

9. Maintenance

The construction of the device provides longevity and reliable function without the constant routine technical supervision. During the maintenance check the points of mechanical fastening, the joints and the swivel bearing. Systematically, remove the impurities from the suction hood / suction pipe.
After one year of operational use, carry out technical revision, replace or repair the faulty elements, in case when this has been noticed during the technical check.

Servicing is carried out by KLIMAWENT S.A. 81–571 Gdynia, ul. Chwaszczyńska 194 tel. 58 629 64 80.

10. Occupational Health and Safety

ERGO-MINI extraction arms will not cause any hazard under the condition that they are firmly and correctly installed. Operational use of the arm is easy and safe for the operators. During the use observe strictly the regulations of the Occupational Health and Safety.
Manufacturer is not responsible for defects / malfunctions resulting from the device application that is in contradiction with its purpose of use, or when changes have been introduced by user on one's own.

11. Transport and Storage

The devices ought to be stored in dry room and in areas of efficient ventilation. During the transport / reloading protect the device from mechanical damage, scratching, indents, package damage and pay attention that the surface markings do not get detached / obliterated.

12. Terms of warranty

The period of warranty for the purchased device is indicated in the "Card of Warranty". The warranty does not comprise:

- device failures caused during the use which is in contradiction with the purpose of application and with the present Use and Maintenance Manual,
- mechanical damages and malfunctions caused by User,
- changes / modifications introduced by User on one's own,
- damages caused during incorrect storage or improper maintenance
- malfunction resulting from normal operational wear.

Infringement of the Clause G Section 3 "Reservations of Producer" of the present Use and Maintenance Manual and especially modifications undertaken by User on one's own or use in contradiction with the purpose of application – shall result in the loss of warranty validity.

13. Sample of the Declaration of Conformity

Declaration of conformity EC No. ……..

Manufacturer (eventually the authorized representative / importer):
name: **KLIMAWENT S.A.**
address: **81-571 Gdynia, Chwaszczyńska 194**

A person, authorized for issuing the technical documentation: Teodor Świrbutowicz, KLIMAWENT S.A.
hereby declares that the appliance:
name: **extraction arm**

type/model: **ERGO-MINI**
serial number: …….. year of production: ……..

meets the requirements of the subsequent European Directives:

- **2006/42/EC Machinery Directive** of the European Parliament and of the Council of May 17th, 2006 on machinery – amending the 95/16/EC (recast) /*Journal of Laws EC L157 of 09.06.2006, page 24*/

The appliance meets following harmonized standard:

- **EN ISO-12100:2012** – "Safety of machinery – Basic concepts, general principles for design. Risk assessment and risk reduction"

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place, date	signature of authorised person	name, surname, function of the signatory
KLIMAWENT S.A. **Supported Employment Enterprise** 81-571 Gdynia, ul. Chwaszczyńska 194 phone: +49 58 829 64 80 email: klimawent@klimawent.com.pl www.klimawent.com.pl	District Court Gdańsk-Północ in Gdańsk, VII Wydział Gospodarczy of the National Register of Court KRS 0000308902 company stock 13.779.200 zł paid in total	NIP: 958 159 21 35 REGON: 220631262 Bank Account: **Santander Bank Polska S.A.** 56 1500 1025 1210 2007 8845 0000

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