

FOR USE AND MAINTENANCE







CONTENTS

Par	Description
0	Contents of maintenance guide

CONTENTS	2
Contents of maintenance guide	2
INTRODUCTION	3
Scope of the operating and maintenance manual	3
Storage of the instruction manual	4
Updating of the Instruction Manual	4
Glossary and pictograms	5
GENERAL INFORMATION	9
Manufacturer's identification data	9
Machine identification and data plates (if it is present)	10
Declarations	10
Guarantee activation form (with repairs by authorised centres)	12
THE IBSA ARMOTECH ARM	13
General equipment and its field of use	13
Dimensional and functional data	15
INSTALLATION OF THE IBSA ARMOTECH ARM	17
Installation	17
BRACKET ASSEMBLY	19
Description of the bracket assembly	19
PUTTING TO USE	21
Indications for use, recommendations	21
Normal use	22
MAINTENACE	23
Routine and extraordinary maintenance	23
DECOMMISSIONING	24
dismantling and demolition	24
OPERATOR'S NOTES	
Details of maintenance operations	

INTRODUCTION

Par I	Description	
1 :	Scope of the operating and maintenance manual	

This instruction manual is an integral part of the machine and has the purpose of providing all the necessary information for the following purposes:

- Raise the awareness of operators as regards safety matters;
- Safe handling of the machine when packaged and unpackaged;
- Correct installation of the machine;
- Thorough knowledge of the machine's operations and limits;
- · Correct use in total safety;
- Correct and safe maintenance;
- Dismantling of the machine in total safety, in compliance with the regulations in force on the health and safety of workers and the environment.



The people in charge of the company's departments in which this machine will be installed must, according to the regulations in force, carefully read the content of this Operating Manual and ensure that operators and maintenance staff operating and working on the machine read the relevant parts.

The time dedicated to this will be fully rewarded by the correct and safe operation of the machine.

This document is based on the assumption that the systems in which the machine is to be installed are in compliance with the health and safety at work regulations in force.

The instructions, drawings and documentation contained in this Manual are of a technical confidential nature and are property of the manufacturer; they may not be reproduced in any way, in part of fully.

If this manual is amended by the manufacturer, the Customer has the responsibility of ensuring that only the updated versions are available in the points of use.

INTRODUCTION

Par	r Description	
2	Storage of the instruction manual	

The instruction manual must be kept safely and must be handed over to new owners in case of sale throughout the lifecycle of the machine.

To help preserve the manual in good condition it must be handled with care and with clean hands, and it must not be placed on dirty surfaces.

It is forbidden to remove, tear out or arbitrarily modify any parts of the manual.

The manual must be stored in an environment away from humidity and heat, in a position near the machines to which it refers.

Upon the User's request the Manufacturer shall supply other copies of the machine's instruction manual.

INTRODUCTION

Par [r Description		
2 1	Updating of the Instruction Manual		

The manufacturer reserves the right to modify the project and improve the machine without informing customers and without updating the manual already delivered to the User.

If modifications are made to a machine installed at the customer's premises, in agreement with the manufacturer, and which entail the amendment of one or more chapters of the manual, the manufacturer shall send the amended chapters to the holders of the Instruction Manual and its new overall revision.

According to the instructions that will accompany the updated documentation, the User shall replace the old chapters in the copies held with the new ones, as well as the first page and table of contents with the new revision level.



ot be thoroughly ; if this should occur

INTRODUCTION

Par	Description	
4	Glossary and pictograms	

This paragraph lists some terms which are not commonly used or with a meaning different from the common one. The meaning of the abbreviations and pictograms used is described below. The abbreviations and pictograms are used to indicate operator qualifications and state of the machine; they provide, in a quick and univocal manner, the information necessary for the correct and safe use of the machine.

GLOSSARY (Annex I point. 1.1.1 Dir. 2006/42/EC)

HAZARD

A potential source of injury or damage to health;

DANGER ZONE

Any zone within and/or around machinery in which a person is subject to a risk to his health or safety;

EXPOSED PERSON

Any person wholly or partially in a danger zone;

OPERATOR

The person or persons installing, operating, adjusting, maintaining, cleaning, repairing or moving machinery;

RISK

A combination of the probability and the degree of an injury or damage to health that can arise in a hazardous situation;

GUARD

A part of the machinery used specifically to provide protection by means of a physical barrier;

PROTECTIVE DEVICE

A device (other than a guard) which reduces the risk, either alone or in conjunction with a guard;

INTENDED USE

The use of machinery in accordance with the information provided in the instructions for use;

REASONABLY FORESEEABLE MISUSE

The use of the machinery in a way not intended in the instructions for use, but which may result from readily predictable human behaviour.

OTHER DEFINITIONS

MAN-MACHINERY INTERACTION

Any situation in which the operator interacts with machinery in any of the operating phases during the lifecycle of the machinery.

OPERATOR QUALIFICATIONS

Minimum level of skill that an operator must have to carry out the described operation.

NUMBER OF OPERATORS

The suitable number of operators, able to carry out the operation described in an optimal way, as established by a careful manufacturer analysis, whereby a different number of operators might not make it possible to obtain the expected result or might endanger the safety of the personnel involved.

STATE OF THE MACHINE

The state of the machine includes operating modes, for example automatic running mode, jog command, stop, etc., the condition of the safety devices on the machines such as protection devices provided (or not provided), pressed emergency button, type of isolation from energy sources, etc.

RESIDUAL RISK

Risks that persist despite the adoption of the protective measures included in the design of the machine and despite the additional protective devices and measures adopted.

SAFETY DEVICE

Device:

- That carries out a safety function;
- which, when faulty and/or broken, endangers the safety of people.

(e.g. lifting equipment; fixed, mobile, adjustable protective device, etc., electric, electronic, optical, pneumatic, hydraulic device interlocking a protection device, etc.).

PICTOGRAMS

The descriptions that follow this pictogram contain:

very important information/instructions, in particular as regards safety.

Failure to respect them may lead to:

- danger for the safety of the operators;
- loss of contractual guarantee;
- waiver of the manufacturer's liabilities.

PICTOGRAMS CONCERNING OPERATOR QUALIFICATIONS

Symbol

Description



Unskilled worker: operator without specific skills that can only carry out simple tasks following the instructions of qualified technicians.



Driver of lifting and handling means: operator qualified to use machines and material handling and lifting equipment (strictly following the manufacturer's instructions), according to the laws in force in the country of use of the machine.



Mechanical service man: a qualified technician that can manage the machine in normal conditions, operate in jog mode with the protection devices disabled and work on its mechanical parts to make the necessary adjustments, repairs and maintenance. **Usually he is not qualified to work on live electrical systems.**



Electrical service man: a qualified technician that can use the machine in normal conditions, operate in jog mode with the protection devices disabled and work on electrical parts to make the necessary adjustments, repairs and maintenance. **He can work on live cabinets and junction boxes.**



Manufacturer's technician: qualified technician provided by the manufacturer to carry out complex operations in particular situations, or in any case as agreed with the user. According to the situation the technician will have mechanical and/or electrical and/or electronic and/or software skills.

Tab. 0 - 4.1

PICTOGRAMS CONCERNING THE STATE OF THE MACHINE

Pictograms inside a square/rectangle provide INFORMATION.

Symbol	Descriptio
C y i i i i i i	Docompac



Machine off: with hydraulic or electric power supply disconnected.



Machine on: with hydraulic or electric power supply connected and in safe stop condition with open mobile protective devices (specifying which); JOG disabled; fixed protection devices closed.



Machine on: with hydraulic or electric power supply connected and in safe stop condition with emergency mushroom button pressed or other control with the same function activated, positioned near the intervention area (specifying the mushroom button or the device to be used).



Machine moving: in automatic mode, with mobile protection devices closed, the relevant interlocking devices activated, and the fixed protection devices closed.



Machine moving: in JOG mode, with mobile protection devices closed, the relevant interlocking devices activated, and the fixed protection devices closed.



Machine moving: in JOG mode, with one or more mobile protection devices, that can be disabled, open (specifying which) with the relevant interlocking devices activated and fixed protection devices closed.



Machine on: in stand-by and waiting for functional consent to start (e.g. presence of product), mobile protection devices closed with safety device closed, and fixed protection devices closed.

Tab. 0 - 4.2

SAFETY SIGNS

- The pictograms inside a triangle indicate DANGER;
- The pictograms inside a circle mean PROHIBITION/OBLIGATION.



Dangerous electrical voltage



Danger of crushing of upper limbs



Danger of entanglement



Danger of being dragged by machine parts



General hazard



Danger of entanglement in transmission belt



Hot surfaces; danger of burning



Danger of being dragged by impellers or rotating parts



No access to unauthorised people



Do not remove safety devices



Do not manually clean, oil, grease, repair of adjust moving parts



Do not carry out any work without disconnecting the power



Protective gloves must be worn



Safety footwear must be worn



Safety helmets must be worn

GENERAL INFORMATION

Par Description

1 Manufacturer's identification data

MANUFACTURER

Aerservice S.r.l.



REGISTERED OFFICE - ADMINISTRATIVE OFFICE

Via Marconi, 1 Z.I. – 35020 – Legnaro – (PD) – Italy

AFTER SALES/SPARE PARTS SERVICE

Tel. +39 049 641 200

Fax. +39 049 825 2310

E-mail: postvendita@aerservice.it

CALL CENTER

Tel. +39 049 641 200

CONTACTS

Tel. +39 049 641 200

Fax. +39 049 825 2310

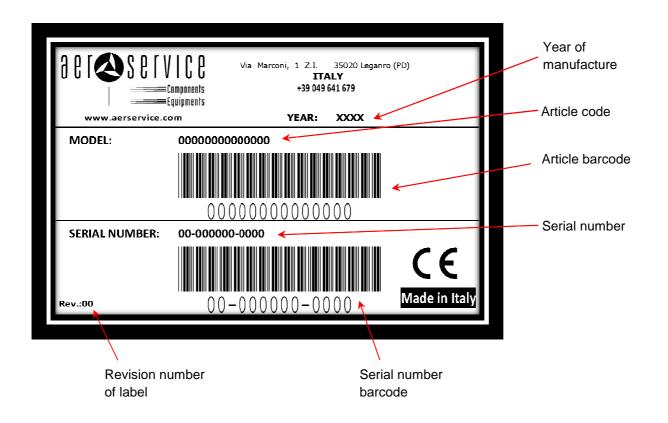
E-mail:

info@aerequipments.it

GENERAL INFORMATION

Par	ar Description	
2	Machine identification and data plates (if they are present)	

Each machine is fitted with a CE plate with indelible identification data. All communications with the manufacturer or technical assistance centres must refer to the said data.



The position of the plate on the machine may vary.

GENERAL INFORMATION

Par Description		
3	Declarations	

The machine is manufactured in conformity with relevant EC Directives, applicable when the machine is put on the market.

ANNEX IV Directive 2006/42/EC

The machine does not belong to the category of machines mentioned in Annex IV to directive 2006/42/EC

Rev 00.00

The reproduction of this manual, even partial, is strictly forbidden

Page 11 of 28

EC DECLARATION OF CONFORMITY

(Annex IIA DIR. 2006/42/CE)

THE MANUFACTURER

Aerservice S.r.l.		
Company		
Via Marconi, 1 Z.I.	35020	Padua
Address	Postcode	Province
	le - l	
egnaro ity	Country	
	,	
DECLARES THAT THE MACHINE		
Articulated suction arm with internal supporting structure and external		
lexible hose	IBSA ARMO	TECH
escription	Model	
erial number	Year of manufacture	
BSA ARMOTECH Commercial name	_	
omneroamane		
Fumes and micro-dust extraction deriving from welding or industrial process.	ess for wall ins	tallation or in an
nternal pipes circuit.		
illerided dige		
IS IN COMPLIANCE WITH THE FOLLOWING D	IRECTIVES	
Directive 2006/42/EC of the European Parliament and Council of 17 may 2006 05/16/EC.	on machinery	and amending directive
Directive 2004/10/8/EC of the European Parliament and Council of 15 December of the member States relating to electromagnetic compatibility.	2004 on the app	proximation of the laws
Directive 2006/95/EC of the European Parliament and Council of 12 December 2 Member States relating to electrical equipment designed for use within certain vo		oximation of the laws of
Reference to harmonised standards:		
EN 349:1993+A1:2008, EN 614-1:2006+A1:2009, EN 614-2:2000+A1:2008, EN 626-1:1 842:1996+A1:2008, EN 894-1:1997+A1:2008, EN 894-2:1997+A1:2008, EN 894-3:2000+		
2:2003+A1:2008, EN 1037:1995+A1:2008, EN 1037:1995+A1:2008, EN 1093-1:2008, EN 1093-4:1996+A1:2008, EN 13478:2001+A1:2008, EN ISC		
13849-1:2008, EN ISO 13849-2:2008, EN ISO 13850:2008, EN ISO 13857:2008, EN ISO 14121-1:2007, E	EN ISO 14159:200	8
AND DECLARES THAT THE TECHNICAL	. FILE	
Has been compiled by the manufacturer and is	kept at:	
Aerservice S.r.l. in Via Marconi,1 Z.l. – 35020 – Legna	ro – PD – Italy	
Place and date of document		The manufacturer
Legnaro,//		//
Legialo,//		Legal representative

D.C.: DC N-001/00001

© Aerservice S.r.l. | 2013 all rights reserved

GENERAL INFORMATION

Par	Description		
4	Guarantee activation for	m (with repairs by author	ised centres)
_	R'S DETAILS:		Section to be filled in and returned in a sealed envelope to:
BUSINES	SS/PROFESSION/DEPARTMENT ▼		Aerservice S.r.l. Via Marconi, 1 Z.I. 35020 Legnaro (PD) Italy
USER DA	ATA (Surname and Name) ▼		Please enclose also a copy of the purchase
PLACE O	FINSTALLATION ADDRESS ▼		document (delivery note, invoice, receipt) showing the date of purchase. Or send a fax to +39 049 825 2310.
POSTCO	DE ▼ CITY ▼		
Telephone	e ▼ Fax ▼		
e-mail ▼			
Data di ad	cquisto ▼		
Model ▼			
Serial nur	mber ▼	acces	sory/ies ▼
must be p		e contractual relationship established by the	ted electronic supports and shall be treated using computerised systems; data as Guarantee. Data may be used by Aerservice and by specialised companies
	in part to the use of the data for the purposes		nd obtain the rectification or erasure of the data; you also have the right to object r.l. – via Marconi 1 – 35020 Legnaro (PD), Italy , for the attention of the Data
Check this	s box if you do not consent to the use of the da	ta provided for purposes other than the mana	gement of the Guarantee
the rig	oviding Aerservice S.r.l. with personal data ght to a <u>further six months GUARANTEE</u> om the twelve month normally guaranteed	· •	Customer's Signature

12 MONTH GUARANTEE ACTIVATION REQUEST FORM



This GUARANTEE gives the right to telephone assistance and to interventions by qualified Aerservice personnel to restore the equipment following problems caused by manufacturing faults; this guarantee is valid for 12 months from the date of purchase.

The guarantee does not cover any damage to the outer enclosures or faults caused by natural events (lightening, flooding, etc), intent, improper use or use of incompatible consumables.

The Guarantee does not cover consumable parts such as filters, flexible hose, lamps, etc. Any assistance carried out by unauthorised personnel shall invalidate the guarantee,

By providing Aerservice S.r.l. with personal data you have the right to a <u>further six months</u> GUARANTEE following on from the twelve month normally guaranteed

To benefit from the Guarantee please fill in the upper section of this card and send it in a sealed envelope, within 10 days from the date of purchase of the equipment, to the following address: Aerservice S.r.I - Via Marconi, 1 Z.I. - 35020 Legnaro (PD) Italy.

Please attach a copy of the purchase document, or send all documents via fax to +39 049 825 2310, or to the website www.aerservice.it. Keep this section of the card together with the original purchase document to certify your right to the Guarantee.

For telephone support or technical assistance please call: +39 049 641 200

THE IBSA ARMOTECH ARM

Par	Description
1	General equipment and its field of use



The new IBSA ARMOTECH series thanks to used materials and to his innovative project allows to operator to have an high maneuverability and a stable positioning, an exceptional strength guaranteed by pantograph structure which sustains the arm.

The articulated arm of the ARMOTECH series is the ideal solution to suction the fumes produced during different work operations, in the field of metal industry, chemical industry, the goldsmiths, the electronics industry etc... They capture the fumes which are nearest to the polluting source as provided for by community regulation and in line with international orders.

The reduced air flow, which is optimized by the possibility to choose the type of ARMOTECH more suitable for the customer's needs, the ease installation and the reduced maintenances, make sure that this product is appreciated by operators in the field.

Rev 00.00 Page 14 of 28

INFORMATION SHEET:



- While opening, please follow the waste disposal in accordance with law prescription.
- lack For a major simplicity and a better comprehension of the present guide, some images have been made not exactly corresponding to reality (es. removed protection).
- The setup operations (hoisting, fixing etc.) must be executed by appropriate devices and means, according to the D.L 626/94
- At the end of the setup operation, please check if there is no exhaust gas leak to work ambient. Please follow the rules in force concerning the emissions to the atmosphere.
- Aerservice decline any responsibility for damages to persons or things, which might be caused by un impropriate machine use or non-observing of what mentioned above.

THE IBSA ARMOTECH ARM

Par	Description
2	Dimensional and functional data

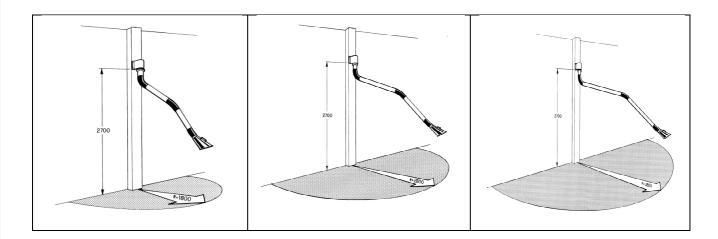
AVAILABLE VERSIONS:

IBSA	Ø	LENGTH	AIRFLOW	PRESSURE DROP	TOT. WEIGHT
	mm	mm	m³/h	Pa	Kg
160/2		2000			18
160/3	160	3000	from 1000 to 1200	average 700	26
160/4		4000			30

IBSAV	Ø	LENGTH	SUCTION FAN	POWER	SUCTION CAPACITY	RESIDUAL PRESSURE	NOISE LEVEL	TOT. WEIGHT
	mm	mm	mod.	KW	m³/h	Pa	dBA	Kg
160/2		2000						34
160/3	160	3000	EV 18	1,5	1200	250	74	42
160/4		4000						46

IBSAC	Ø	LENGTH	SUCTION CAPACITY	PRESSURE DROP	TOT. WEIGHT
	mm	mm	m³/h	Pa	Kg
160/2		2000			13
160/3	160	3000	from 1000 to 1200	average 700	21
160/4		4000			25

The table below shows for arms with a length of 2, 3, 4 m: working range (corresponding to the maximum extension of the arm), height of installation, the figure and the scheme.



Mod.	Installation height (m)	Working range (m)
IBSA L = 2000	2,40	1,80
IBSA L = 3000	2,40	2,80
IBSA L = 4000	2,70 - 3,80	3,80

INSTALLATION OF THE IBSA ARMOTECH ARM

Par	Description
1	Installation

The arm is packed in cardboard boxes No. 3:

- Body arm
- hood
- Turning plate



1) Unpack your arm.



2) Take the leverage in the box of ARMOTECH.



3) Put the leverage between the plates and tighten the screws.



4) Insert the hose on the turning plate.



5) Tighten the clamp.



6) Take the hood.



7) Remove the central screw from the junction of the hood.



8) Place both the joints together and put the screw, making sure to tighten the screws with a 8 [N] torque wrench.



9-10) Place the clamp cover on it.



To install the arm on the trolley or on the wall bracket follow the instruction of the above items.

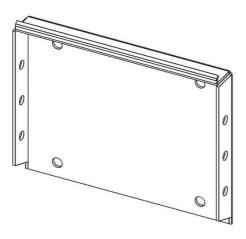
BRACKET ASSEMBLY

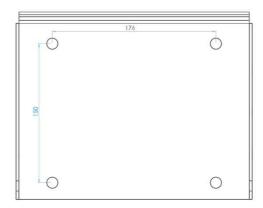
Par	Description
1	Description of the bracket assembly



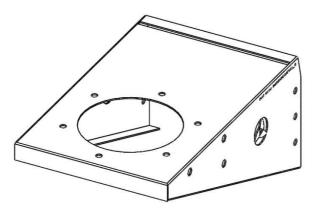
The bracket is composed of two pieces:

1) Back side. It is used also as template for positioning of fixing holes Ø12

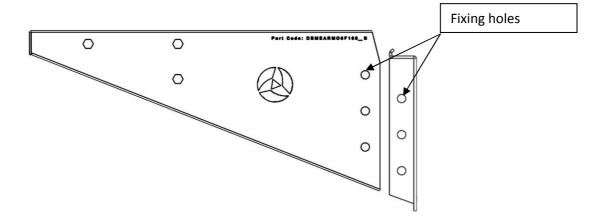




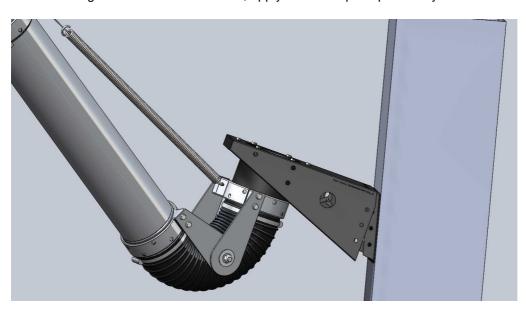




The bracket (complete with arm) is assembled by inserting the bracket into the support which is fixed previously at the wall and by fixing 4/6 bolts supplied with.



After the fixing of the bracket to the arm, apply to the template previously fixed to the wall



PUTTING TO USE

Par	Description
1	Indications for use, recommendations

Ambient conditions allowed

- The environment temperature for the operating of the machine is between -10 °C and 60 °C.
- The humidity of the interior in which the work is carried out must be between 0% and 90%.
- THE APPLIANCE CAN NOT BE USED IN EXPLOSIVE ENVIROMENT.

Information about the removal / disposal of waste materials

The elimination of such material should be made in compliance with current regulations.

Recommendations on prevention measures to be taken by the user

For the replacement operation of damaged parts, it is necessary to consult the manufacturer.

Testing machine

It is carried out by the manufacturer at its headquarters, before shipping

After having done the above described check, turn on the suction arm with the switch on the panel and adjust the position of the suction arm.

PUTTING TO USE

Par	Description
2	Normal use

The equipment should only be used for suction of dusty air of low and average particle size resulting from industrial processing through the suction arm or flexible hose whose ends are threaded into the mount place on a suction arm, the other close to the location where the fumes are generated (e.g. welding fumes).

For any other use that is not described, the manufacturer is not liable.

Rules of Use

- In general, do not dismantle or remove any part of the suction arm when it is in use or connected to power.
- Do not insert the power cord in the joints of the arm.
- Do not tamper with the components of the electrical panel.
- Do not run the vacuum cleaner along with the nozzle arm closed.
- Do not pick up liquids.

IMPORTANT NOTE!

THE EQUIPMENT MUST NOT BE USED IN EXPLOSIVE ENVIRONMENT

Most frequent problems: causes and remedies

Given that most of the malfunctions occur for improper use of the system, the table below shows the some possible malfunctions that may occur, and the measures to be taken to address them.

PROBLEM	POSSIBLE CAUSE	REMEDY
The suction arm is not able to support itself, to the point of compromising the handling and positioning of the hood.	The clutches are loosened to new clutches that need to grasp the support material consumption of the same	Serrare le viti gradualmente e non troppo per non compromettere la maneggevolezza.
The pipes break in the proximity of the junction	The bolts of the clutches are tightened too much, to the point of overcoming the resistance of the junctions	Loosen the bolts of the clutches, and replace the pipes: • forearm tube of connection hood (the replacement can be done by the customer) • the part of the pipe where is the spring (must be replaced by the manufacturer for safety reasons)
Breakage of flexible couplings.	Wear, abrasion, drilling etc caused by incandescent material extracted by the arm.	Remove and replace the hose clamps
	Block of electric current	Reactivate the power source of the current
	The fuse has blown	Replace the fuse.
The fan's suction arm stops suddendly	The thermal switch has tripped.	Open the control panel and reset the switch. Check out the reasons that the termic is released.
	The engine has blown	Repair or replace if it is possible. Read the concerning manual.

Switching off

Switch off the suction arm, pressing the button OFF the electrical panel.

Description of dangers and specific protections

The manufacturer has, however, taken steps to reduce the dangers that can arise due to incorrect use of the machine by installing on the machine itself of the protection devices.

Description of dangers cannot be eliminated by the security measures adopted

The dangers cannot be eliminated by the security measures taken by the manufacturer are caused by incorrect use of the machine or from a breach by the user of the safety instructions in this manual.

INSTRUCTIONS FOR EMERGENCY SITUATIONS

In case of fire, use dry powder extinguishers meet regulatory requirements.

Never use liquid fire extinguishers.

in case of fire, watch out for combustion gases (plastic system).

MAINTENACE

Par I	Description
1	Routine and extraordinary maintenance

CLEANSING AND ROUTINE MAINTANANCE

It is recommended a proper cleansing for optimum operation, for this reason it should be made following regular checks and cleansing of the fan impeller.

For normal cleansing it can be used cleaners available on the market.

A regular system maintenance increases the lifetime and safety of operation, the joint of the inner hood must be greased periodically.

EXTRAORDINARY MAINTENANCE, REPAIRS AND REPLACEMENTS

Extraordinary operations are those operations of repair and replacement of one or more system components that normally are necessary only after years of good operation, which does not alter the characteristics of the machine.

The equipment requires no special replacements except in cases in which is forecasted a possible filtration of the fluid downstream of the system.

The parts most subject to wear and to replace in time may be the hose, the joint, the nozzles, and centrifugal impeller of the fan.

In case of substantial changes, the manufacturer cannot be held responsible for any dangers that might arise.



DECOMMISSIONING

Par	Description
1	dismantling and demolition

DISMANTLING - PUTTING OUT OF SERVICE

Should you decide not to use the equipment, or replace it with another, you must proceed with dismantling and putting out of service.

This operation should always be made in compliance with current regulations.

DEMOLITION, DECONTAMINATION, SEPARATE DIVISON OF THE MATERIALS AND DISMANTLING

If the equipment, or part of it, has been put out of service, its parts must be made innocuous do not cause any danger.

The materials making up the machine, to subject to a separate division, are:

- steel
- plastic
- rubber
- conductors of electrical system
- aluminium

All these operations and final disposal, should always be made in compliance with applicable provisions of law.

OPERATOR'S NOTES

Par	Description		
1	Details of maintenance operations		

The following table must be filled in by a qualified technician authorised by Aerservice S.r.l..

It is important keeping up to date these notes in order to have a history of previous problems and maintenances; in this way future malfunctioning could be solved in a shorter time with cost savings.

DATE	COMPANY NAME	CONTACT PERSON	OPERATION CARRIED OUT
	_		
			<u>First start-up</u>

BSA ARMOTEC	R ev 00.0	0 Page 26 of 28

BSA ARMOTECH [Quipments] IBSA ARMOTECH	Rev 00.00	Page 27 of 28



Aerservice S.r.l.

Via Marconi,1 Z.I. 35020 - Legnaro (PD) Italy Tel. +39 049 641 200

Fax. +39 049 825 23 10

E-mail: info@aerequipments.it

www.aerequipments.it