

# **THE ENVIROMAC™ MOBILE AIR CLEANER**

## **MAC1 (107.1020)**

### **OWNER'S MANUAL**

**In Canada:**

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## **ABOUT THE PRODUCT**

### **PRINCIPLE OF OPERATION**

The ENVIROMAC™ Portable Air Cleaner is a media type Air Cleaner operating on a two-stage filtration principle. After the contaminant is picked up at the hood of the Flexible Arm it is then drawn through the arm and through the fan assembly and discharged to the inside part of the high efficient washable filter. The filtered air is discharged out the 2 doors. The 2 doors contain charcoal, which eliminates most gases that might be in the filtered air stream. The high efficient washable filter collects particulate only and does not filter gases, which is the sole purpose of the charcoal door filters.

### **MAJOR COMPONENTS**

The ENVIROMAC™ Portable Air Cleaner is a self-contained unit comprised of a flexible arm (for source capture), fan and motor assembly, high efficient washable filter, (2) carbon door filters, complete cabinet housing and an electrical compartment which also includes a contactor overload.

#### **A) HIGH EFFICIENCY HIGH EFFICIENT WASHABLE FILTER**

This filter is a high efficiency high efficient washable filter. The suction will deteriorate at the hood as the filter loads up with particulate. Eventually the filter will have to be cleaned. To commence cleaning the filter, you must remove the door at the front of the machine which is where the switch and nameplate are located. This door is removed by removing the (2) plastic knobs near the bottom of the door and then pulling the door out on an angle so the door is free from the (2) welded bolts. Then pull down on the door to let it slide down from the top of the door. You then remove the filter by lowering the scissor jack with a ratchet. Then slide out the cartridge filter. You then invert the filter upside down and utilize the existing gasket on the filter

to make a seal and take an air hose with about 80 P.S.I. and blow the filter from the outside to remove all of the particulate that is on the inside of the filter. You can now put the cleaned filter back into the machine and tighten the filter by raising the scissor jack. Make sure the filter is resting on the back of the filter cradle butted up against the tab locators. Make sure that the top of the filter fits inside the top plate that has a 1" lip on it. Make sure the scissor jack is high enough to allow an airtight seal on the top of the filter gasket. Caution should be taken not to apply too much pressure to the filter or you could squash the filter if too much pressure is applied. Always blow the outside of the filter with the gasket of the filter either on the floor or a container to give you a good seal so that the dirt does not escape under the seal. Never blow from the inside as the contaminant will blow all over the surrounding area and will also force the very fine particulate into the media. Once the filter is installed you should start up the machine and feed 2 cups of Precoat in a fine mist at the intake of the hood. The Precoat increases the filter efficiency of the washable filter and acts as a prefilter. Once you complete the Precoat process you can now commence welding.

#### **B) CHARCOAL FILTERS**

Both doors contain the charcoal filters. They should be replaced 1 or twice a year in a normal welding environment.

#### **C) ELECTRICAL COMPARTMENT**

The unit operates off 120 volts single phase utilizing a 20-amp service outlet. The motor draws about 17.5 amps under full load conditions. There is a contactor and an overload inside this compartment and the overload is set at about 20% above the 17.5 amps. This will automatically shut off power to the motor in the event of an overload. This gives full protection to the motor. The unit has a spring activated on/off dual switch on the front of the panel. There are facilities to put in an optional halogen light in the hood of the arm. This requires a 120 Volt to 24-

volt step down transformer for this option. The halogen light will run off of 24 volts AC.

### **C) CABINET**

The cabinet is built of 14-gauge steel. There are 2 doors on the unit and the discharge of the clean air is through these 2 doors.

### **D) BLOWER AND MOTOR SECTION**

The motor is a 1.5 HP TEFC, 120/1/60, 3600 RPM. The fan is a high-pressure fan fabricated out of 14 gauge metal.

### **E) ADDITIONAL EQUIPMENT FEATURES**

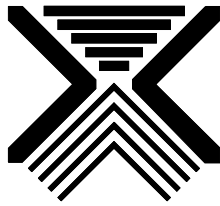
The standard unit comes equipped with the Snorkvac™ 10 Ft. flexible arm. The 3 articulated joint sections could be adjusted to suit the operator as to the ease of movement of the 4 different articulations. There is an optional 14 Ft. Snorkvac™ flexible fume arm.

## **MAINTENANCE SCHEDULE**

The filter should be cleaned or replaced when there is inadequate suction at the hood. The charcoal door filters should be replaced once or twice a year. The arm has friction discs with washers, which can be adjusted to suit the operator. The unique design of the arm minimizes any problems related to sagging, burn holes in the hose and ease of arm movement. This is a major problem with conventional less expensive arms.

Thank you for purchasing your new ENVIROMAC™ Portable Air Cleaner. The air in your work area will be much healthier to breathe.

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## **ENVIROMAC™ WARRANTY**

The **ENVIROMAC™ PORTABLE AIR CLEANER** carries a 1-year warranty.

-Parts are replaced at no cost. Labor charges are extra.

The Cartridge filter and carbon filters are guaranteed for a period of (30) days. The Company's responsibility and obligation under the guarantee is limited to the repair or exchange of any defective parts, which have been returned prepaid, to the factory or an authorized service depot, and which prove to be defective through normal use. **Only prepaid returns will be accepted unless previously authorized to be returned freight collect.** Goods repaired under warranty will be returned prepaid. If in the company's judgment the repair is not covered by the warranty, parts will be billed with a small labor charge and returned collect.

The conditions of the Guarantee are:

- 1) The unit must have been operated within its listed capacity.
- 2) The unit must not have been moved from the site of its original installation.
- 3) The **WARRANTY CARD** must be returned within (10) days of installation. (Failing this, the company will guarantee the unit for a period of 12 months from the date of manufacture according to the Company's records.)

Please return warranty card to one of the following addresses:

### **In Canada:**

Enviroflex International Inc.  
17 Brownridge Road, Unit 8,  
Halton Hills, Ontario  
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Phone: 905-636-1177  
Fax: 905-636-1178

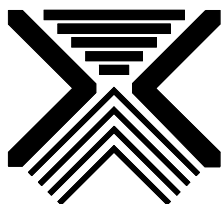
### **In U.S.A.:**

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FOR A HEALTHIER WORK ENVIRONMENT



**ENVIROFLEX®**

**ENVIROMAC™**

**Return Business Reply Card. Retain Warranty Card.**

Owner's Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State/Province \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_

Contact Name \_\_\_\_\_ Contact Email Address \_\_\_\_\_

Installing Contractor's Name \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_ Date of Installation \_\_\_\_\_

Reasons for Buying:

- 1) Improved Air Quality
- 2) Welding Smoke Removal
- 3) Other \_\_\_\_\_

Where did you hear about this unit?

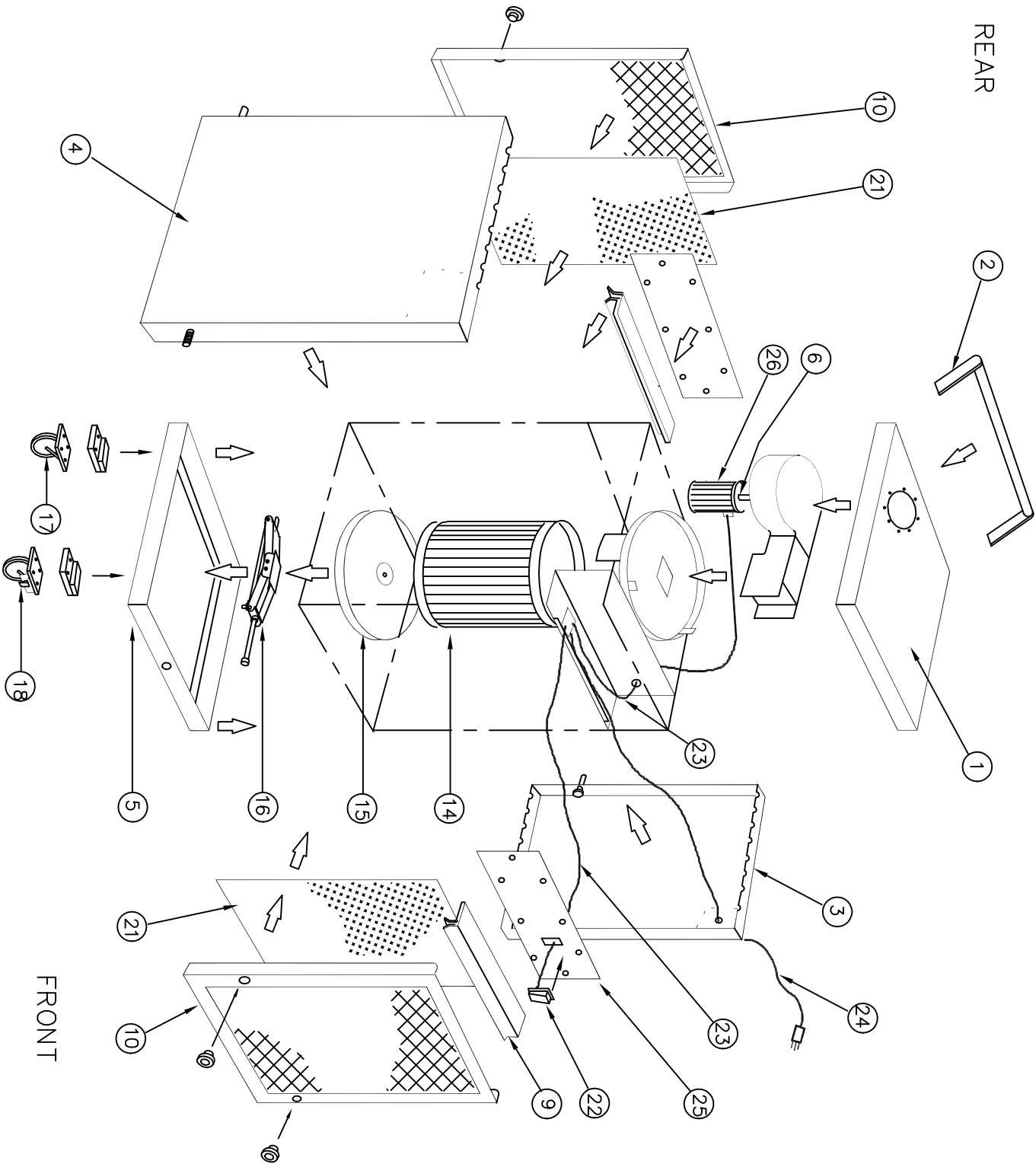
- 1) Newspaper or Magazine?
- 2) Telephone Directory
- 3) Trade Directory
- 3) Enviroflex® Distributor
- 4) Friend
- 5) Another company
- 6) Trade Show
- 7) Other \_\_\_\_\_

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# MAC 1 - C/W SNORKVAC FUME ARM

REAR



ITEM PART No. DESCRIPTION

ITEM	PART No.	DESCRIPTION
1		TOP PANEL
2		TOP PANEL HANDLE
3	14-104	SIDE PANEL (LEFT)
4		OUTER ASS'Y
4		
4		
5		SIDE PANEL (RIGHT)
5		BOTTOM PANEL
6	11-153	IMPELLER
7	-	-
8	-	-
9	14-104	DOOR HOLDER
10	14-105E	VENTILATION DOOR
11	-	-
12	-	-
13	-	-
14	10-169W	WASHABLE FILTER
15	14-105	FILTER HOLDER
16	14-105F	SCISSOR JACK
17	14-109	CASTERS FIXED
18	14-110	CASTER SWIVEL WITH FRONT LOCK
19	-	-
20	-	-
21	14-128	CHARCOAL MEDIA
22		ON/OFF CONTROL SWITCH
22	14-117	C/W POWER CABLE
23		POWER CABLE CORD
24	14-113	90C RATING INSIDE BOX
25	14-113A	FROM MOTOR TO CONTROL PANEL
26	11-181C	FAN MOTOR

NOTE:  
 DESCRIPTIONS ARE LOOKING FROM "REAR"





# MATERIAL SAFETY DATA SHEET

## I. PRODUCT IDENTIFICATION

**Trade Name:** Envirocoat™ **Chemical Name:** Amorphous siliceous mineral-silicate **Formula:** Sodium-potassium-aluminum-silicate of variable composition

## II. PRODUCT INGREDIENTS

**Ingredient Name:** Perlite, Expanded milled may contain Crystalline Silica Quartz less than 1.0% %: 100  
**Permissible Exposure:** 5mg/m<sup>3</sup> TWA Respirable dust re: OSHA PEL

## III. PHYSICAL DATA

**Appearance and Odor:** White/off white powder; odorless **Boiling Point:** N/A **Evaporation Rate:** N/A **Vapor Pressure:** N/A  
**Specific Gravity (water=1):** 2.35 **Water Solubility (%):** Slight **Melting Point:** N/A **Vapor Density: (Aim1):** N/A; %  
**% Volatile by Volume:** N/A

## IV. FIRE AND EXPLOSION DATA

**Flash Point (Method):** Nonflammable **Unusual Fire or Explosion Hazards:** None **Flammable Limits:** N/A  
**Extinguishing Media:** N/A **Special Fire-Fighting Procedures:** None **Auto-ignition Temperature:** N/A  
**NFPA Flammable/Combustible Liquid Classification:** N/A

## V. HEALTH HAZARDS A. Summary/Risks

**Summary:** OSHA considers Perlite a nuisance dust and recommends a PEL of 5 mg/m<sup>3</sup> TWA respirable dust. Inhalation over long periods of high amounts of any nuisance dust may overload lung clearance mechanism and make the lungs more vulnerable to respiratory disease.

**Medical Conditions Which May Be Aggravated:** Pre-existing upper respiratory and lung disease (such as bronchitis, emphysema, asthma, or others).

**Target Organ(s):** Lungs **Primary Entry Route(s):** Inhalation **Acute Health Effect:** Transitory upper respiratory irritant.  
**Chronic Health Effects:** See Summary. Follow the safe handling practices shown on the product bag label.

## V. HEALTH HAZARDS B. Signs/Symptoms of Overexposure

**Inhalation:** Coughing, irritation of nose and throat; congestion may occur upon overexposure **Skin Absorption:** N/A  
**Skin Contact:** N/A **Ingestion:** Not hazardous. Generally regarded as safe by the FDA. **Eyes:** Temporary irritation and/or inflammation.

## V. HEALTH HAZARDS C. First Aid/Emergency Procedures

**Inhalation:** Remove from dusty area; drink water to clear throat; blow nose to evacuate dust. **Skin Contact:** N/A  
**Skin Absorption:** N/A **Ingestion:** Not hazardous, generally recognized as safe by the FDA **Eyes:** Do not rub eyes. Flush eyes with copious amounts of water to remove any dust particles. Consult a physician if irritation persists.

## VI. REACTIVITY DATA

**Stability:** Material is stable. Hazardous polymerization will not occur. **Chemical Incompatibilities:** Hydrofluoric acid  
**Conditions to Avoid:** None in designed use. Avoid contact with hydrofluoric acid. **Hazardous Decomposition Products:** Reacts with Hydrofluoric acid to form toxic silicon tetra fluoride gas.

## VII. SPILL OR LEAK PROCEDURES

**Procedures for Spill/Leak:** Vacuum clean or wet sweep; avoid dusting; use a dust suppressant when sweeping.  
**Waste Management:** Not considered as hazardous waste by RCRA (40 CFR Part 261). Place waste and spillage in closed containers. Dispose in approved landfill. RQ-N/A

## VIII. SPECIAL PROTECTION INFORMATION

**Goggles:** Normally not required. You may use safety eyewear to protect from dusts. **Gloves:** Normally not required. You may use gloves to protect overly sensitive skin. **Respirator:** Even though Perlite is a nuisance dust, we recommend the use of NIOSH approved respirators to protect against silicosis producing dusts. **Ventilation:** Use adequate exhaust ventilation and/or dust collection to keep dust levels below PEL.

**Special Considerations for Repair/Maintenance of Contaminated Equipment:** Insure proper respiratory protection.

## IX. SPECIAL PRECAUTIONS

**Storage Segregation Hazard Classes:** N/A

**\*\*\*ALWAYS SEGREGATE MATERIALS BY MAJOR HAZARD CLASS\*\*\***

**Special Handling/Storage:** Store in dry place. Repair all broken bags immediately. Avoid creating dust. Maintain good housekeeping practice. **Special Workplace Engineering Controls:** Adequate ventilation and appropriate local exhaust where needed to keep dust levels below PEL. **Other:** Comply with all Federal, State and local regulations.

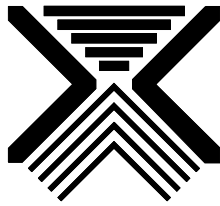
As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable Federal and State law(s). However, no warranty or representation with respect to such information is intended or given.

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**Effective:** November 14, 2008  
**Country:** Canada

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## ***Precoat Instructions for ENVIROMAC™ Filter***

### ***Prior To Initial Use***

The cartridge filter has to be pre-coated with 2 cups of Precoat prior to initial use. The precoat should be fed into the pickup hood at the end of the Snorkvac™ Arm. After pre-coating the filter let the fan operate for two (2) minutes to allow the Precoat to settle on the inside of the filter.

### ***After Initial Precoat***

The suction will deteriorate as the filter loads up with particulate. When it is time to clean the filter you remove the filter, turn it upside down, blow it out on the outside with compressed air then insert back into the machine and precoat the unit the same as the initial precoat instructions.

The filter can be cleaned with water as the media does not retain any moisture. However, getting rid of the water and particulate could be a problem as people are concerned with dumping hazardous particulate down a drain.

You can dispose of the particulate in a bag if the filter was cleaned with compressed air.

Date: November 14, 2008

Section 2B

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## **Washable Filters**

**Field Applications:** Filtration of welding fumes, plasma & laser cutting, dump stations, product recovery & general pollution control problem applications.

The material is 100% polyester, which is especially suitable for the extraction of welding smoke.

This material is characterised by uniform parallel pleats on the dust side. This gives the filter the maximum square footage with a uniform pleat distance. Conventional pleating doesn't have this uniform pleating thus increasing the pressure drop due to overlapping the pleats and minimizing the square footage of the filter. The end result is that the washable filter does not plug up as quick and there is more airflow through the washable filter.

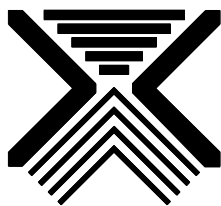
The material has a thickness of 0.022" and is used in filter cartridges and can be automatically cleaned by pulsing the filter with compressed air. The filter can also be washed with a detergent, as it does not retain any moisture.

### **Specifications:**

<b>Colour:</b>	Available in black and white.
<b>Weight:</b> square yard)	Approximately 275 grams per square meter(8oz. per
<b>BIA Classification::</b>	U.S.G. (see pages 3 and 4)
<b>Air Permeability:</b>	650 m <sup>3</sup> /hr. at 20MM W.G. (25cfm @ ½" W.G.)
<b>Temperature Resistance:</b>	Standard 80° C (176° F). Please note when ordering to state a higher temperature if it exceeds the standard temperature rating.
<b>Efficiency:</b>	99.2%
<b>Clean Off Behaviour:</b>	Good

Date: November 14, 2008

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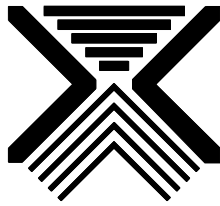


## Test Results

1. **Test Basis:** ZH1/487 ABS 2 is a European test regarding filter efficiencies of filter fabrics for dust extraction installations.
2. **Test Sample** *Filter Fabric*
  - 2.1 Built-up: Filter Fabric, single Layer
  - 2.2 Type Name: Open pleat washable
  - 2.3 Material Name: Polyester washable
  - 2.4 Approved Category: U.S.G.
3. **Manufacturer's Data of the Filter Fabric**
  - 3.1 Materials and Type Polyester Fabric
  - 3.2 Surface Weight: 280 gr/m<sup>2</sup>(8.25 oz./sq. yd.)
  - 3.3 Air Permeability: 700 m<sup>3</sup>/m<sup>2</sup>/ hr at 200 Pascal (38 CFM @ 0.8" W.G.)
  - 3.4 Dust Side: Parallel Lined (25 CFM per square foot @ 0.5" W.G.)
  - 3.5 Colour: Black or White
4. **Penetration Test of the Filter Fabric**
  - 4.1 Filtration Speed: 0.056 m/s (11 ft./min)
  - 4.2 Quartz dust Concentration: 200 +/- 20 mg/m<sup>3</sup> (.087 grains/ft<sup>3</sup>)
  - 4.3 Requirements Category-G-Maximum Penetration Degree is 0.5%

Date: November 14, 2008

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4.4 **Test Results**

Average Penetration Degree 0.13% (tests)

Standard aberration: 0.05%

At a filtration speed of 0.056 m/s the average penetration degree is 0.5%. The test requirements for the filter fabric efficiency for the category U.S.G. are successful.

**Pressure Drop**

5.1 Filtration Speed: 0.056 m/s (11 ft./min.)

5.2 Filter Load 200 m<sup>3</sup>/m<sup>2</sup>/hr. (10.9 ft<sup>3</sup>/ft<sup>2</sup>/min.)

5.3 **Test Results**

Average Pressure Drop: 79 pa (6 tests on clean material) (0.3" W.G.)

6 **Air Permeability Test:** 506 m<sup>3</sup>/m<sup>2</sup>/hr (27.66 ft<sup>3</sup>/ft<sup>2</sup>/min.)

The air permeability of the filter material is ascertained at a differential pressure of 200 Pa. (0.8" W.G)

7. **Surface Weight Test:** 273 g/m<sup>2</sup> (8.05 oz.yd.<sup>2</sup>)

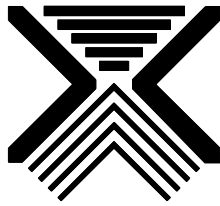
8. **Notes:** The requirements are fulfilled.

**CLARIFICATION OF EUROPEAN STANDARD ZH1/487**

The BIA is a government agency, which directs the setting up of rules and standards in order to meet certain safety and quality standards in Europe. One of those is the AH1/487 ABS 2 test procedure for different filtering media used in dust collection equipment. The test is carried out on small media samples, and the test dust is standardized. The approach velocity on the media during the test is standardized on 11 F.P.M. (11:1 A/C ratio). During the test, a quantity of approximately 0.078 Gr/cu.ft. of dust is fed to the media, and the penetration is measured. In this way a certain penetration is determined which rates the media in preclassified levels, the so called U.S.G. or C. The U media's are the lowest efficiency medias; the C medias are the highest efficiencies. The maximum allowable penetration degrees for the different classifications are:

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U: 5%    S: 1%    G: 0.5%    C: 0.1%

In point 4.3 the applications categories are described above are specified for the media tested. In case of the "open pleat washable" this media has obtained the G (U&S automatically) level by performing with a penetration degree less than 0.5%. In Europe, there are certain listings, which prescribes certain classified filter medias for certain types of dust. Outside Europe, such listings are not available yet. In point 5.4 the air permeability is mentioned as value provided by the manufacturer of the media. The value is given in  $m^3/m^2/hr.$  at a pressure drop of 20MM W.G. (approximately 0.8 inches of water). The actual measured air permeability during the test was  $506 m^3/m^2/hr.$  (27.66 CFM/Sq.Ft./Min.) point 8 in the test results.

For Welding fume, generally the "open pleat washable" can be used very successfully. However, special treatment on the media utilizing a Precoat should be applied during commissioning of the filter unit. By using this special silicone based Precoat a much better reverse jet-pulse cleanability of the media is obtained.

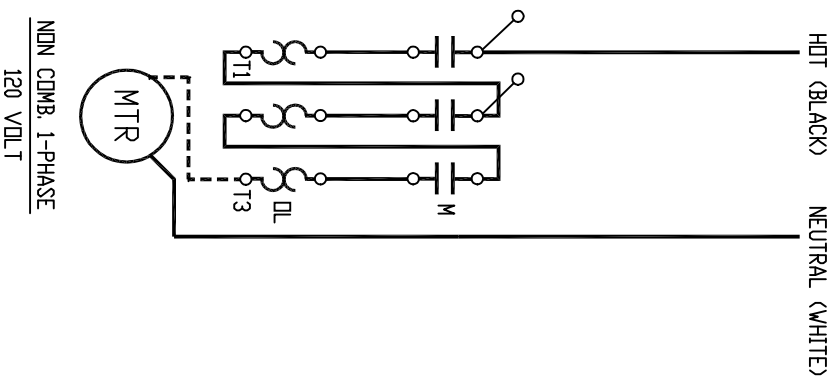
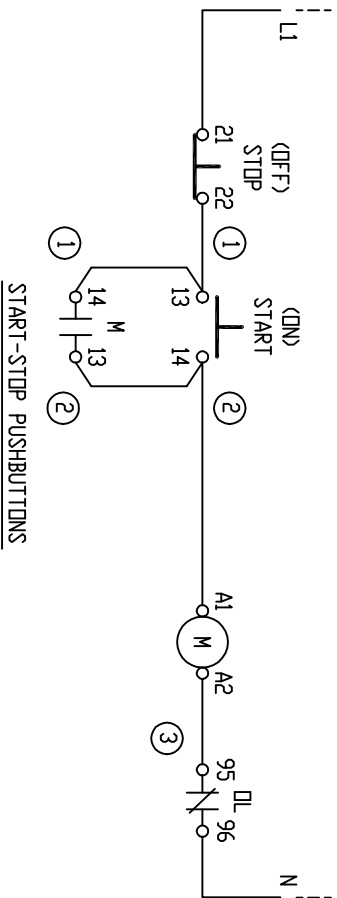
Regarding washing of the "open pleat washable" polyester medias, we recommend a medium pressure cleaner using warm water (max.60 deg. C) with Precipiclean™. The nozzle of the cleaner should be approximately 20 inches away from the filter in order not to damage the media.

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DESIGNED

DRAWN

J.D.

APPROVED

G.L.

DATE

12/30/2009



ENVIRO FLEX®  
International Inc.

STANDARD MOTOR STARTER

DWG. NO.

14-117

SHEET 1 OF 1

**φ6” Bench Mount Model**

No	Description	Qty	Arm model
			<b>103.1028 (10ft. Arm)</b>
			<b>Part Number</b>
1	Joint 1	1	103.1028.1
2	Joint 2	1	103.1028.2
3	Joint 3	1	103.1028.3
4	Joint 4	1	103.1028.4
5	Joint 5	1	103.1028.5
6	Joint 6	1	103.1028.6
7	Joint 7	1	103.1028.7
8	Joint 8	1	103.1028.8
9	Friction insert I 70	2	103.1028.9
10	Friction insert II 60	2	103.1028.10
12	Tube I 160	1	103.1028.11
13	Tube II 160	1	103.1028.12
14	Reinforcing element I 160	2	103.1028.13
15	Reinforcing element II 160	1	103.1028.14
21	Spring II, l=190	2	103.1028.15
22	Outer sleeve 160	1	103.1028.16
23	Inner sleeve 160	1	103.1028.17
25	Orifice 160	1	103.1028.18
26	Axis I	1	103.1028.19
27	Axis II	1	103.1028.20
28	Lever	1	103.1028.21
29	Sleeve	2	103.1028.22
30	Support plate	1	103.1028.23
31	Screw with mushroom head M10x30-4.8	8	103.1028.24
32	Nut M10-5-C	8	103.1028.25
33a	Regular washer 10.5	10	103.1028.26
34	Spring washer Z10.2	8	103.1028.27
35	Screw with mushroom head M8x30-4.8	8	103.1028.28
36	Nut M8-5-C	9	103.1028.29
37	Regular washer 8.2	1	103.1028.30
38	Spring washer Z8.2	9	103.1028.31
41	Spring washer Z6.1	2	103.1028.32

42	Nut M6-5-C	2	103.1028.33
46	Self-locking nut M14x1.5-5-B	4	103.1028.34
47	Disk spring DI 60x14.5x3	4	103.1028.35
48	Disk spring DI 50x14.5x2.2	4	103.1028.36
51	Steel cable □3.5, l=450	1	103.1028.37
52	Bow rope clamp 5	1	103.1028.38
53	Screw M8x25- 3.6-C	1	103.1028.39
54	Self-locking nut M8-5-B	1	103.1028.40
55	Clamping eye □10.5	1	103.1028.41
57	Screw M14x1.5x60- 8.8-B	2	103.1028.42
58	Screw M14x1.5x55- 8.8-B	2	103.1028.43
60	Hood φ315/160	1	103.1028.44
61	Handle 160	1	103.1028.45
62	Light kit dome	1	103.1028.46
63	Shutter of inlet 160	1	103.1028.47
64	Wire seal GH6	1	103.1028.48
65	Protecting plate	1	103.1028.49
66	Screw WP M4x16	2	103.1028.50
67	Plug I	1	103.1028.51
68	Plug II	1	103.1028.52
69	Regular washer 15 (for wood construction)	6	103.1028.53
70	Screw with mushroom head M6x16-4.8	2	103.1028.54
73	Lubricating nipple C M8x1	1	103.1028.55
74	Wing nut M6	1	103.1028.56
75	Internal wrenching screw M8x20- 8.8	1	103.1028.57
79	Steel rivet □3.2x8	4	103.1028.58
79b	Steel rivet □3.2x8	4	103.1028.59
80	Handle	1	103.1028.60

81	Flexible hose ST-160, l=535mm (21")	1	103.1028.61
82	Gear clamp OST-160	6	103.1028.62
84	Flexible hose ST-160 l=640mm (25")	1	103.1028.63
85	Flexible hose ST-160 l=430mm (17")	1	103.1028.64
P1	Joint's wheel 160	1	103.1028.65
P2	Connector I	4	103.1028.66
P3	Screw M8x20	12	103.1028.67
P4	Self-locking nut M8	12	103.1028.68
P5	Regular washer 8.4 C	12	103.1028.69
P7	Friction insert φ30x8x6	4	103.1028.70
P8	Reinforcing element IV	1	103.1028.71
P9	Disk spring 12.5x6.2x1	8	103.1028.72

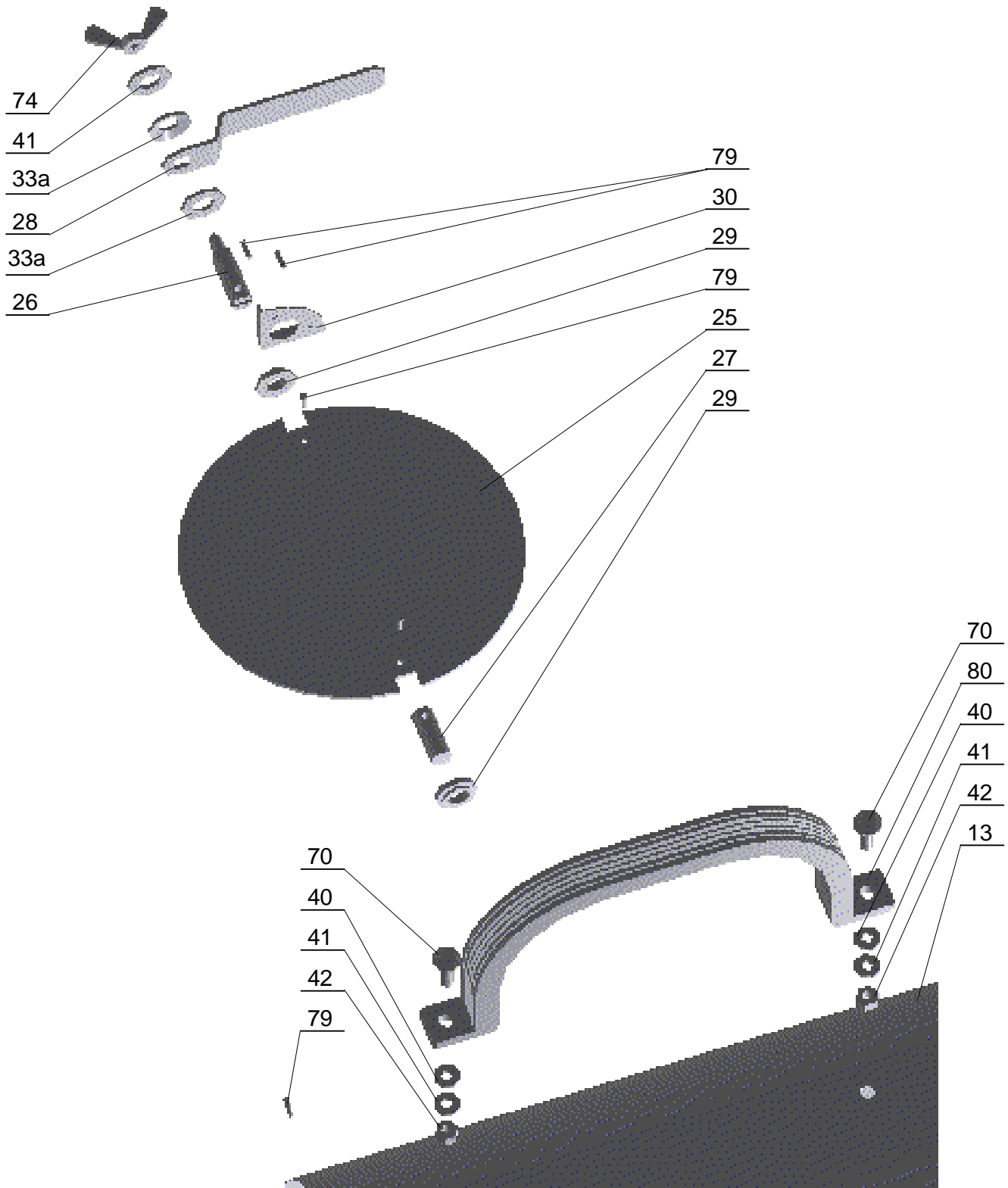


**φ6” Bench Mount Model**

No	Description	Qty	Arm model
			<b>103.1028 (10ft. Arm)</b>
			<b>Part Number</b>
1	Joint 1	1	103.1028.1
2	Joint 2	1	103.1028.2
3	Joint 3	1	103.1028.3
4	Joint 4	1	103.1028.4
5	Joint 5	1	103.1028.5
6	Joint 6	1	103.1028.6
7	Joint 7	1	103.1028.7
8	Joint 8	1	103.1028.8
9	Friction insert I 70	2	103.1028.9
10	Friction insert II 60	2	103.1028.10
12	Tube I 160	1	103.1028.12
13	Tube II 160	1	103.1028.13
14	Reinforcing element I 160	2	103.1028.14
15	Reinforcing element II 160	1	103.1028.15
21	Spring II, l=190	2	103.1028.21
22	Outer sleeve 160	1	103.1028.22
23	Inner sleeve 160	1	103.1028.23
25	Orifice 160	1	103.1028.25
26	Axis I	1	103.1028.26
27	Axis II	1	103.1028.27
28	Lever	1	103.1028.28
29	Sleeve	2	103.1028.29
30	Support plate	1	103.1028.30
31	Screw with mushroom head M10x30-4.8	8	103.1028.31
32	Nut M10-5-C	8	103.1028.32
33a	Regular washer 10.5	10	103.1028.33a
34	Spring washer Z10.2	8	103.1028.34
35	Screw with mushroom head M8x30-4.8	8	103.1028.35
36	Nut M8-5-C	9	103.1028.36
37	Regular washer 8.2	1	103.1028.37
38	Spring washer Z8.2	9	103.1028.38
41	Spring washer Z6.1	2	103.1028.41
42	Nut M6-5-C	2	103.1028.42

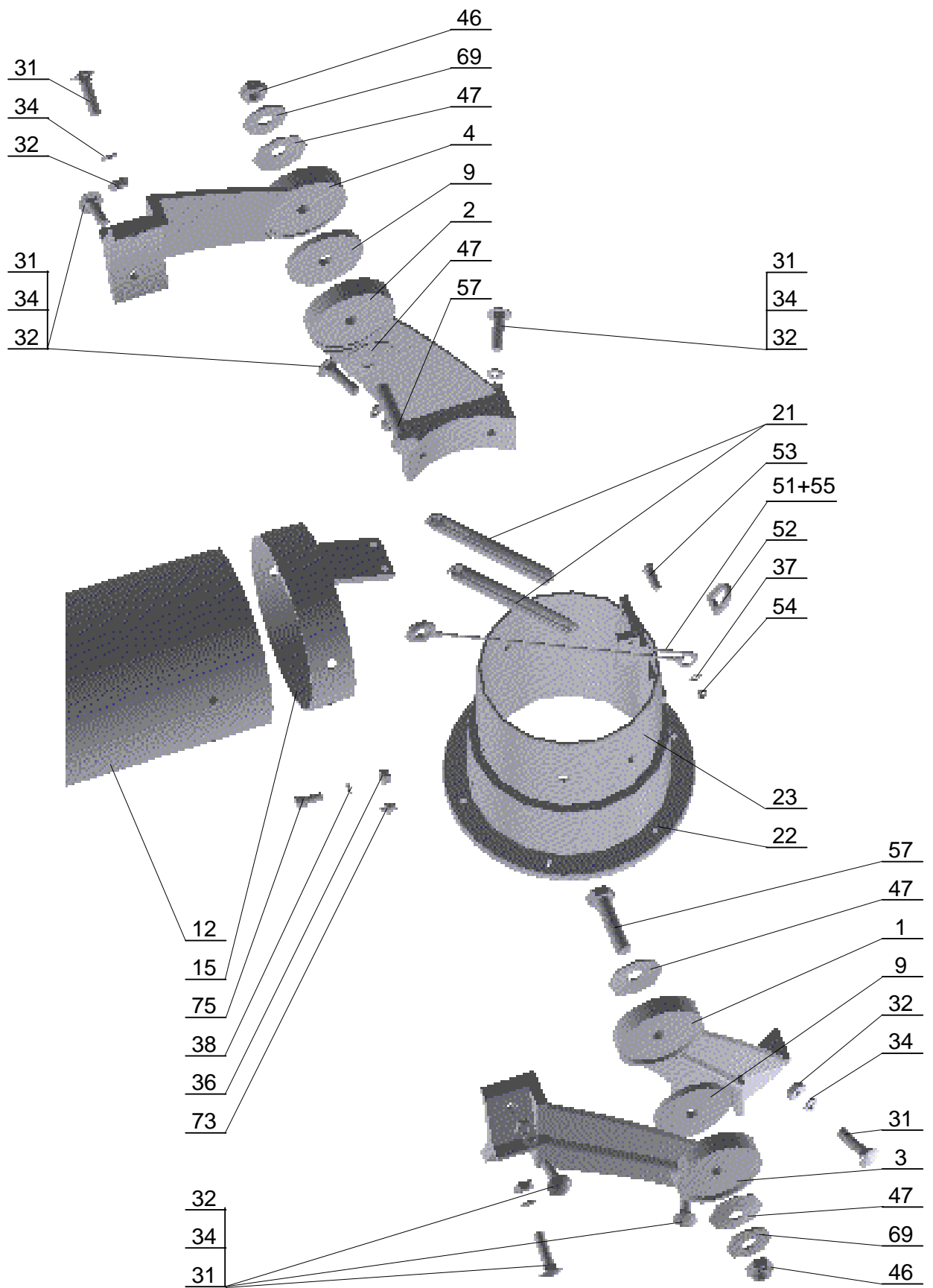
46	Self-locking nut M14x1.5-5-B	4	103.1028.46
47	Disk spring DI 60x14.5x3	4	103.1028.47
48	Disk spring DI 50x14.5x2.2	4	103.1028.48
51	Steel cable □3.5, l=450	1	103.1028.51
52	Bow rope clamp 5	1	103.1028.52
53	Screw M8x25- 3.6-C	1	103.1028.53
54	Self-locking nut M8-5-B	1	103.1028.54
55	Clamping eye □10.5	1	103.1028.55
57	Screw M14x1.5x60- 8.8-B	2	103.1028.57
58	Screw M14x1.5x55- 8.8-B	2	103.1028.58
60	Hood $\phi$ 315/160	1	103.1028.60
61	Handle 160	1	103.1028.61
62	Light kit dome	1	103.1028.62
63	Shutter of inlet 160	1	103.1028.63
64	Wire seal GH6	1	103.1028.64
65	Protecting plate	1	103.1028.65
66	Screw WP M4x16	2	103.1028.66
67	Plug I	1	103.1028.67
68	Plug II	1	103.1028.68
69	Regular washer 15 (for wood construction)	6	103.1028.69
70	Screw with mushroom head M6x16-4.8	2	103.1028.70
73	Lubricating nipple C M8x1	1	103.1028.73
74	Wing nut M6	1	103.1028.74
75	Internal wrenching screw M8x20- 8.8	1	103.1028.75
79	Steel rivet □3.2x8	4	103.1028.79
79b	Steel rivet □3.2x8	4	103.1028.79b
80	Handle	1	103.1028.80
81	Flexible hose ST-160, l=535mm (21")	1	103.1028.81

82	Gear clamp OST-160	6	103.1028.82
84	Flexible hose ST-160 l=640mm (25")	1	103.1028.84
85	Flexible hose ST-160 l=430mm (17")	1	103.1028.85
P1	Joint's wheel 160	1	103.1028.P1
P2	Connector I	4	103.1028.P2
P3	Screw M8x20	12	103.1028.P3
P4	Self-locking nut M8	12	103.1028.P4
P5	Regular washer 8.4 C	12	103.1028.P5
P7	Friction insert φ30x8x6	4	103.1028.P7
P8	Reinforcing element IV	1	103.1028.P8
P9	Disk spring 12.5x6.2x1	8	103.1028.P9



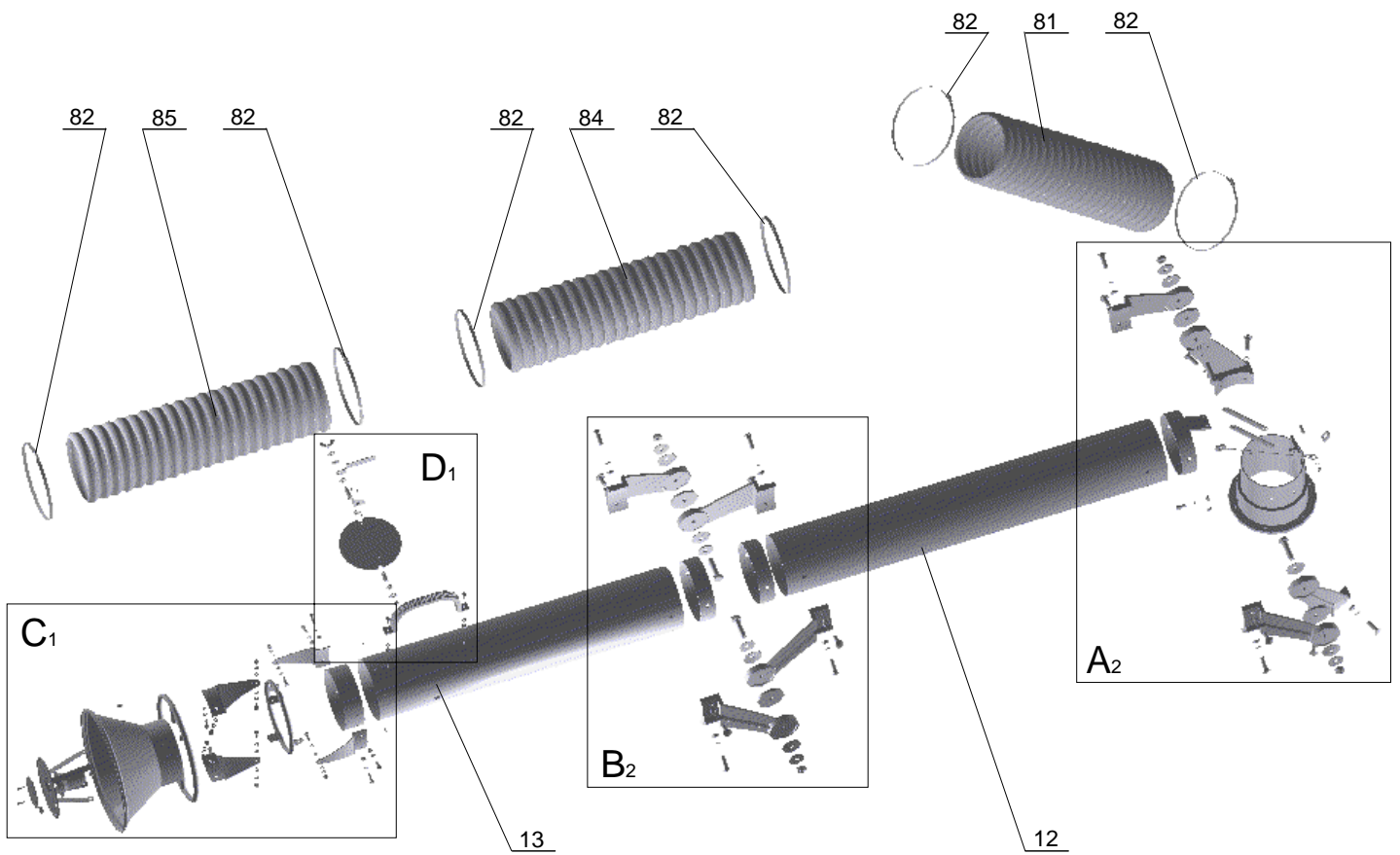
D<sub>2</sub>

**Drawing 19. (6" arm) Damper – both Wall Mounted and bench mount.**

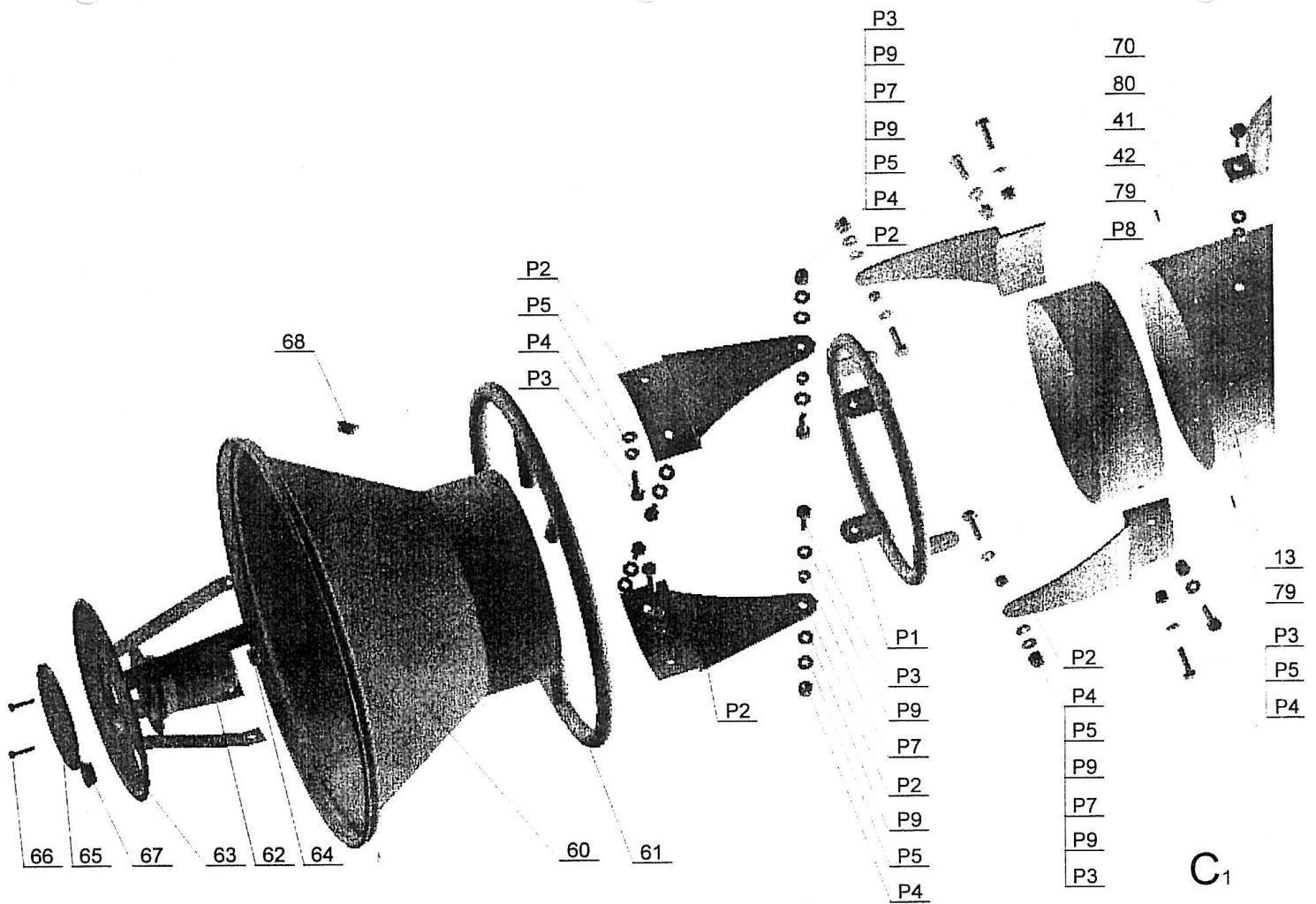


A<sub>2</sub>

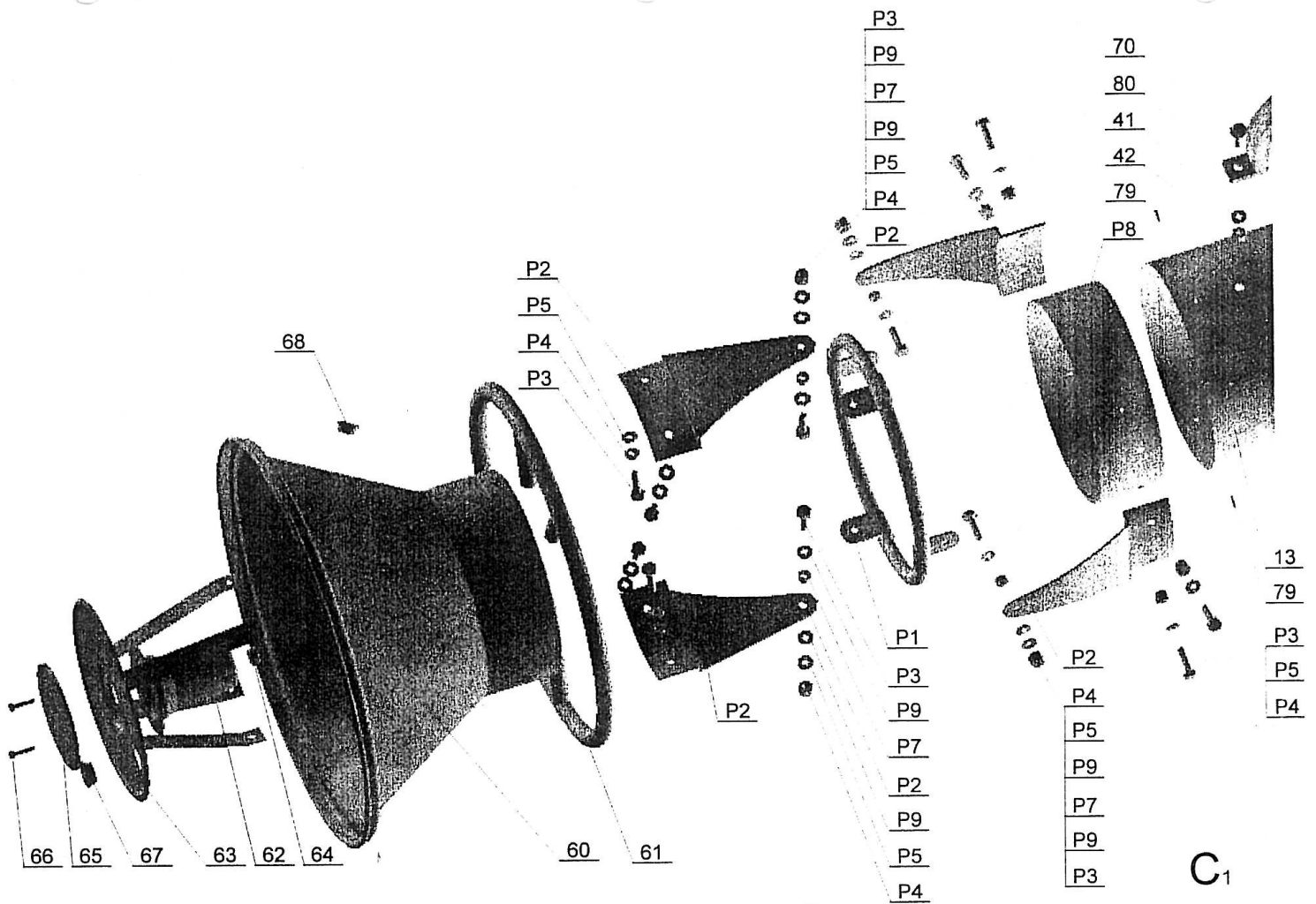
**Drawing 13. (6" arm) Socket of SNORKVAC™ arm – Bench Mount.**



**Drawing 12. (6" arm) SNORKVAC™ bench mount arm**



**Drawing 9. (6" and 8" arm) Hood joint and hood - both wall Mounted and standing versions.**



**Drawing 9. (6" and 8" arm) Hood joint and hood - both wall Mounted and standing versions.**