
ASPIRMIG
Welding&Safety
IQNet
CISQ CSQ
Web: www.aspirmig.com E-mail: aspirmig@aspirmig.com
.....la saldatura senza fumo
ECONWELD

IQNet®

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and its partner

CISQ/IMQ-CSQ

hereby certify that the organization

ASPIRMIG SRL

VIA PODI 10 - 10060 VIRLE P.TE (TO)

for the following field of activities

Manufacturing of fume-extracting welding torches, exhausters and balanced arms for welding stations

Refer to quality manual for details of applications to ISO 9001:2000 requirements

has implemented and maintains a

Quality Management System

which fulfills the requirements of the following standard

ISO 9001:2000

Issued on: 2007 - 04 - 10

Registration Number: IT - 20182

IQNet — *René Wasmer*, *President of IQNET*

CISQ — *Gianrenzo Prati*, *President of CISQ*

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CSQ
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IQNet, the association of the world's first class certification bodies, is the largest provider of management System Certification in the world. IQNet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

CERTIFICATO N.
CERTIFICATE N. **9105.ASPR**

SI CERTIFICA CHE IL SISTEMA QUALITA' DI
WE HEREBY CERTIFY THAT THE QUALITY SYSTEM OPERATED BY

ASPIRMIG SRL

VIA SANSOVINO 242 - 10151 TORINO (TO)

UNITA' OPERATIVE
OPERATIVE UNITS

VIA PODI 10 - 10060 VIRLE P.TE (TO)

E' CONFORME ALLA NORMA
IS IN COMPLIANCE WITH THE STANDARD

ISO 9001:2000

PER LE SEGUENTI ATTIVITA'
FOR THE FOLLOWING ACTIVITIES

Fabbricazione di torce aspiranti, aspiratori e bracci bilanciati per postazioni di saldatura
Manufacturing of fume-extracting welding torches, exhausters and balanced arms for welding stations

Riferirsi al manuale della qualità per l'applicabilità dei requisiti della norma ISO 9001:2000
Refer to quality manual for details of applications to ISO 9001:2000 requirements

IL PRESENTE CERTIFICATO E' SOGGETTO AL RISPETTO DEL REGOLAMENTO PER LA CERTIFICAZIONE DEI SISTEMI DI QUALITA' E DI GESTIONE DELLE AZIENDE

THE USE AND THE VALIDITY OF THE CERTIFICATE SHALL SATISFY THE REQUIREMENTS OF THE RULES FOR THE CERTIFICATION OF COMPANY QUALITY AND MANAGEMENT SYSTEM

PRIMA EMISSIONE	EMISSIONE CORRENTE	DATA SCADENZA
FIRST ISSUE	*CURRENT ISSUE*	*EXPIRY DATE*
2001-06-29	2007-04-10	2009-12-14

IMQ S.p.A.- VIA QUINTILIANO, 43 - 20138 MILANO ITALY

CISQ è la Federazione Italiana di Organismi di Certificazione dei sistemi di gestione aziendale

CISQ is the Italian Federation of management system Certification Bodies

SINCERT EA: 19

La validità del presente certificato è subordinata a sorveglianza annuale e al riesame completo del Sistema di Qualità con periodicità triennale secondo le procedure dell'IMQ

The validity of the certificate is submitted to annual audit and a reassessment of the entire Quality System within three years according to IMQ rules

FEDERAZIONE CISQ
www.cisq.com

AUTONOME PROVINZ BOZEN SÜDTIROL
PROVINCIA AUTONOMA DI BOLZANO ALTO ADIGE

ABTEILUNG VIII: CHEMISCHES LABORATORIUM
ABTEILUNG LUFT UND LÄRM

RIPARTIZIONE VIII^a: LABORATORIO CHIMICO
SEZIONE ARIA E RUMORI

ASSESSORAT FÜR SOZIAL- UND GESUNDHEITSWESEN
ASSESSORATO PER GLI AFFARI SOCIALI E SANITÀ

Prot. Nr. VIII/LC-145 /401/89/p.c.LZ/kp

Ihr Schreiben
Vs. scritto

Bozen,
Bolzano, 22.02.1989

PROVINCIA AUTONOMA DI BOLZANO
AUTONOME PROVINZ BOZEN
24. Feb. 1989
AMT FÜR LUFTREINHALTUNG
UFFICIO TUTELA ARIA
Prot. Nr. 661/...

- AL SIGNOR ASSESSORE PROVINCIALE
ALLA TUTELA DELL'AMBIENTE
39100 **B O L Z A N O**
- AL SIGNOR COMMISSARIO STRAORDINARIO
DEL COMUNE DI
39100 **B O L Z A N O**
- ALLO STABILIMENTO
IVECO-FIAT SpA
via Volta, 6
39100 **B O L Z A N O**

e;p.c. - MEDICINA PREVENTIVA DEL LAVORO
USL CENTRO-SUD
via L. Böhler, 5
39100 **B O L Z A N O**

OGGETTO: controllo reparto saldatura - IVECO-FIAT SpA - BOLZANO.

Il 16/02/89 é stato effettuato un sopralluogo presso il reparto in oggetto allo scopo di quantificare la presenza di fumi durante operazioni di saldatura.

Due campionatori personali sono stati posti rispettivamente sull'addetto alla formazione del pavimento e sull'addetto all'assemblaggio parete posteriore-ossatura in plancia e piantone guida, ottenendo nel primo caso una presenza di fumi di 2,36 mg/m^3 e nel secondo di 1,63 mg/m^3.

Durante i prelievi venivano eseguite operazioni di puntatura e saldatura utilizzando la tecnica del filo continuo. Il materiale trattato era ferro ed il filo é costituito da acciaio con rame nella parte superficiale. E' stata ricercata la presenza di rame che é risultato in ambedue i campionamenti inferiore a 0,01 mg/m^3.

IL DIRETTORE D'UFFICIO
SEZIONE ARIA E RUMORI
- Dott. Gian Rolando Trevisani -

LABORATORIO PROVINCIALE DI IGIENE E PROFILASSI
BOLZANO
BOZEN
Sezione chimica

I-39100 BOZEN
SPITALGASSE 6
TEL. (0471) 977031
STEUER-NR. 00390090215
PARTEIENVERKEHR 9.00–12.00
15.00–17.00

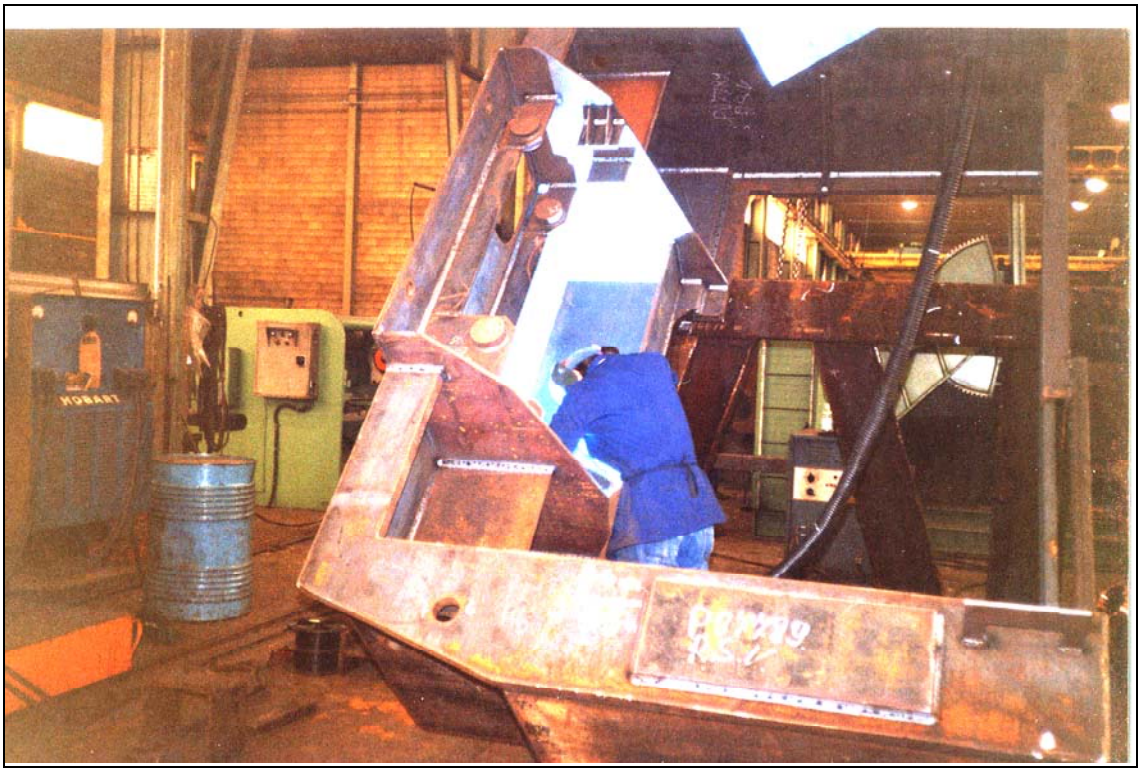
I-39100 BOLZANO
VIA OSPEDALE 6
TEL. (0472) 977031
COD. FISC. 00390090215
ORARIO PER IL PUBBLICO 9.00–12.00
15.00–17.00

ASPIRMIG ®
Welding & Safety

AZIENDE CHE CI HANNO ACCORDATO E CHE MANTENIAMO LA LORO FIDUCIA

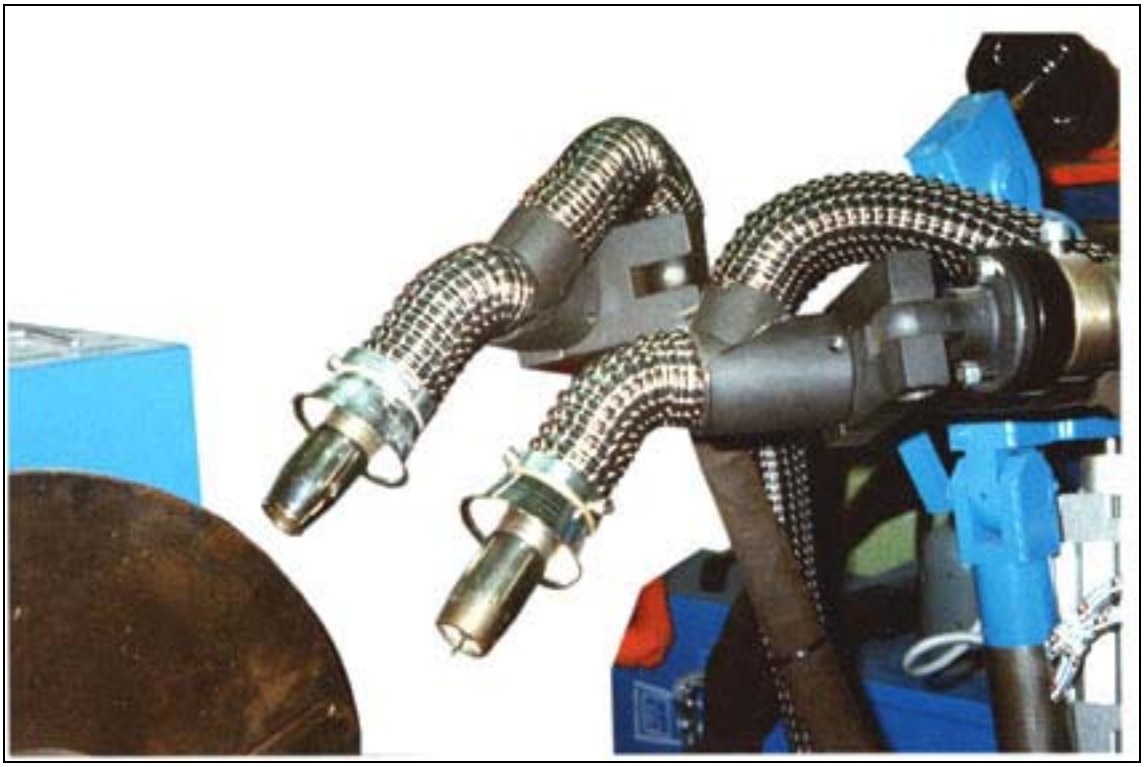
- IVECO FIAT	Torino - Brescia - Bolzano - Avellino - Suzzara
- IVECO ORLANDI - SICCA	Modena - Vittorio Veneto
- IVECO ASTRA	Piacenza
- IVECO PULMAN	Grottaminarda
- IVECO OM	Brescia
- IVECO PIMESPO	Luzzara (RE)
- FIAT AUTO	Arese (MI) ex Alfa Romeo - Torino Pomigliano (NA) ex Alfa Romeo
- FERRARI SCAGLIETTI	Modena
- FIAT HITACHI	Torino – Lecce – Modena
- NEW HOLLAND FIAT	Modena – Imola (BO) – Jesi
- FIAT FERROVIARIA	Savigliano (CN)
- OFF. MECCANICHE STANGA	Padova (gruppo Firema)
- ANSALDO INDUSTRIE	Milano
- COMAU	Torino
- FINCANTIERI	Ancona – Monfalcone (GO) – Marghera (VE) – Genova
- MERLONI GROUP	Fabriano (AN)
- FASE	Torino
- FIAMCA	Torino
- DIERRE GROUP	Poirino (TO) – Villanova d'Asti (AT)
- NUOVO PIGNONE	Vibo Valentia (CZ)
- ASTRA VEICOLI INDUSTRIALI	Piacenza
- ZONIN	Gambellara (VI)
- NESTLE'	Sansepolcro (AR)
- STAB. MILIT. DI MUNIZ. TERR.	Baiano Spoleto
- FAI KOMATSU INDUSTRIES	Noventa Vicentina (VI)
- ROLFO Veicoli industriali	Bra (CN)
- BARTOLETTI Veicoli industriali	Forlì
- MERITOR	Cameri (NO)
- ISOLI Veicoli industriali	Fontaniva (PD)
- ZANUSSI grandi impianti	Pordenone
- IST. ITALIANO SALDATURA	Genova
- LINCOLN	Celle Ligure (SV)

Equipping of two production units of heavy carpentry and reinforced concrete cages. In both companies have been installed; in the first case n° 25 BigErgoWeld, while in the second n° 27 BigErgoWeld with the following complete accessories: additional lighting lamp, electric socket 220V and socket for compressed air tools. In both cases, the aspiration system is centralized and all the welding workstations are connected to the collector by complete descents, to reduce air consumption, by open-close valves that automatically start up when the joined workstation arm is used. These companies have chosen our products, because any other traditional system, due to the high operating variability, was not able to solve security and operating problems.

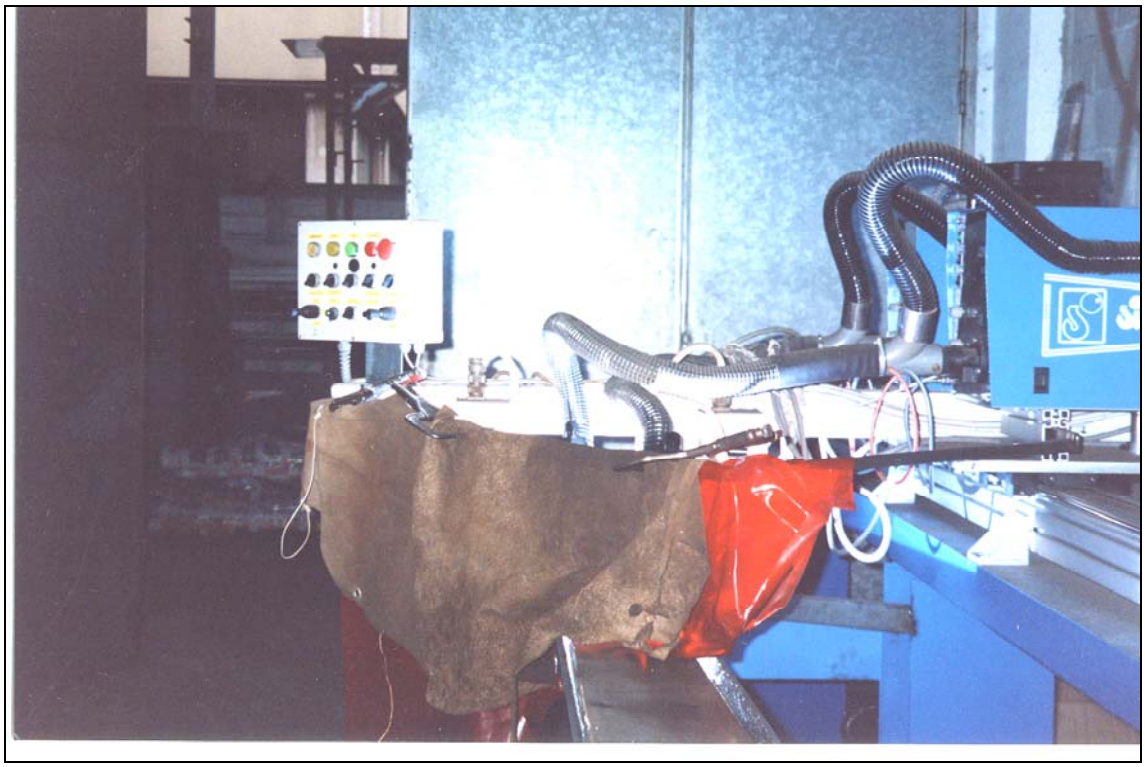


Suction of fumes before the breathing zone in all the workstations in accordance with **HYGIENE**, **SECURITY** and **ERGONIMICS** norms.

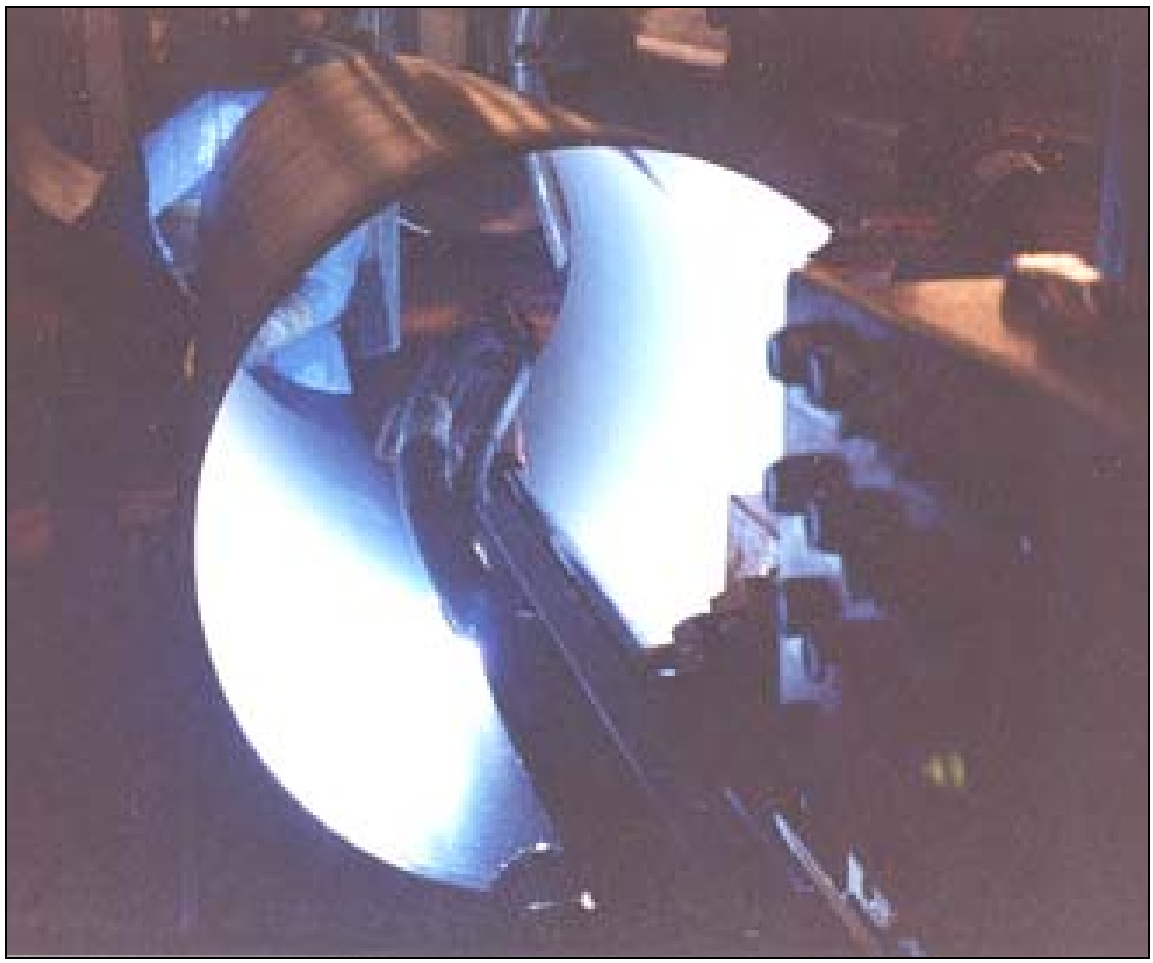
Equipping of a welding department for car bodyworks, where the equipment is fixed to a pillar and the wire feeder is installed on a monorail to follow the line skate feed to floor.



Modification, with the patented system ***ASPIRMIG*** , of a customer's welding turning automatic equipment.



Application of suction torches to an automatic light alloy welding process; below: for the longitudinal welding process of a tank skirt. It's essential to fix the attention, hereunder, to the importance of the suction of fumes with reduced air throw, where the operator, who supervises the process, in case of higher air throw (1000-2000 mc/h) could be struck on his back by detrimental air draughts.



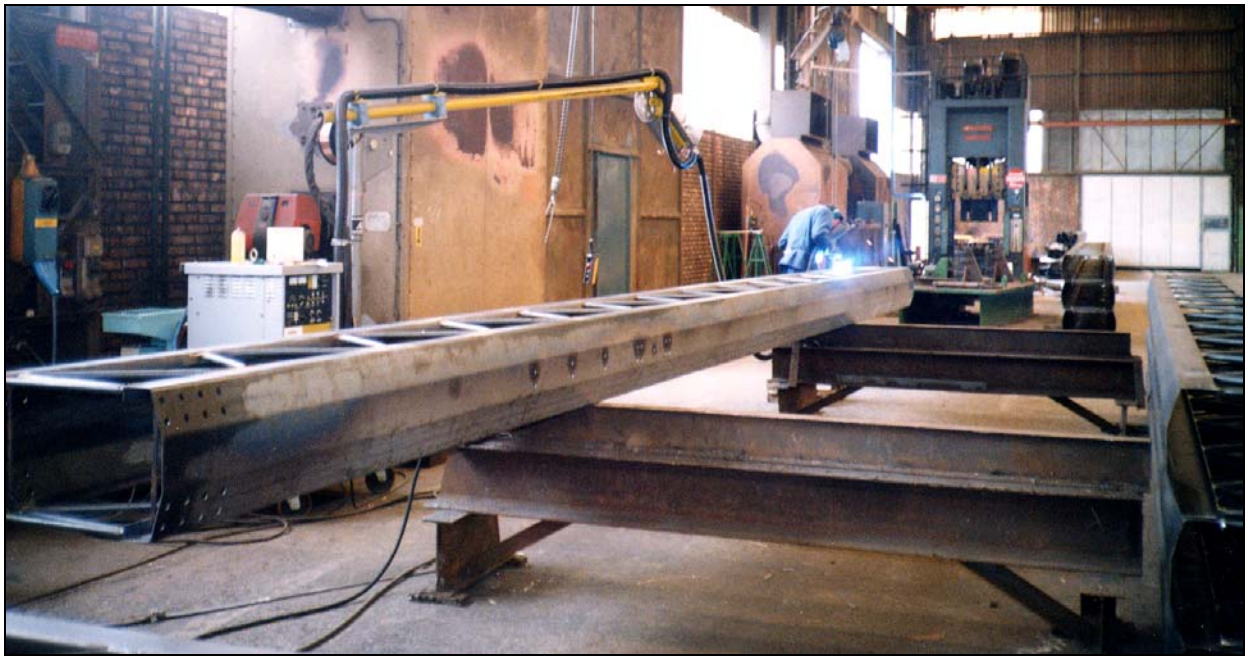
Some examples, of the easy installation of the torch with integrated suction of fumes on robotized welding processes of different brands: Motomann, Igm, Fanuc, Asea.

Comparison between the unused traditional suction system and the ergonomic system *ASPIRMIG*

Installation in a welding department for big trellis structures. In this case, Security is 100% guaranteed, thus giving benefits to an increased productivity and to a reduction of maintenance costs.

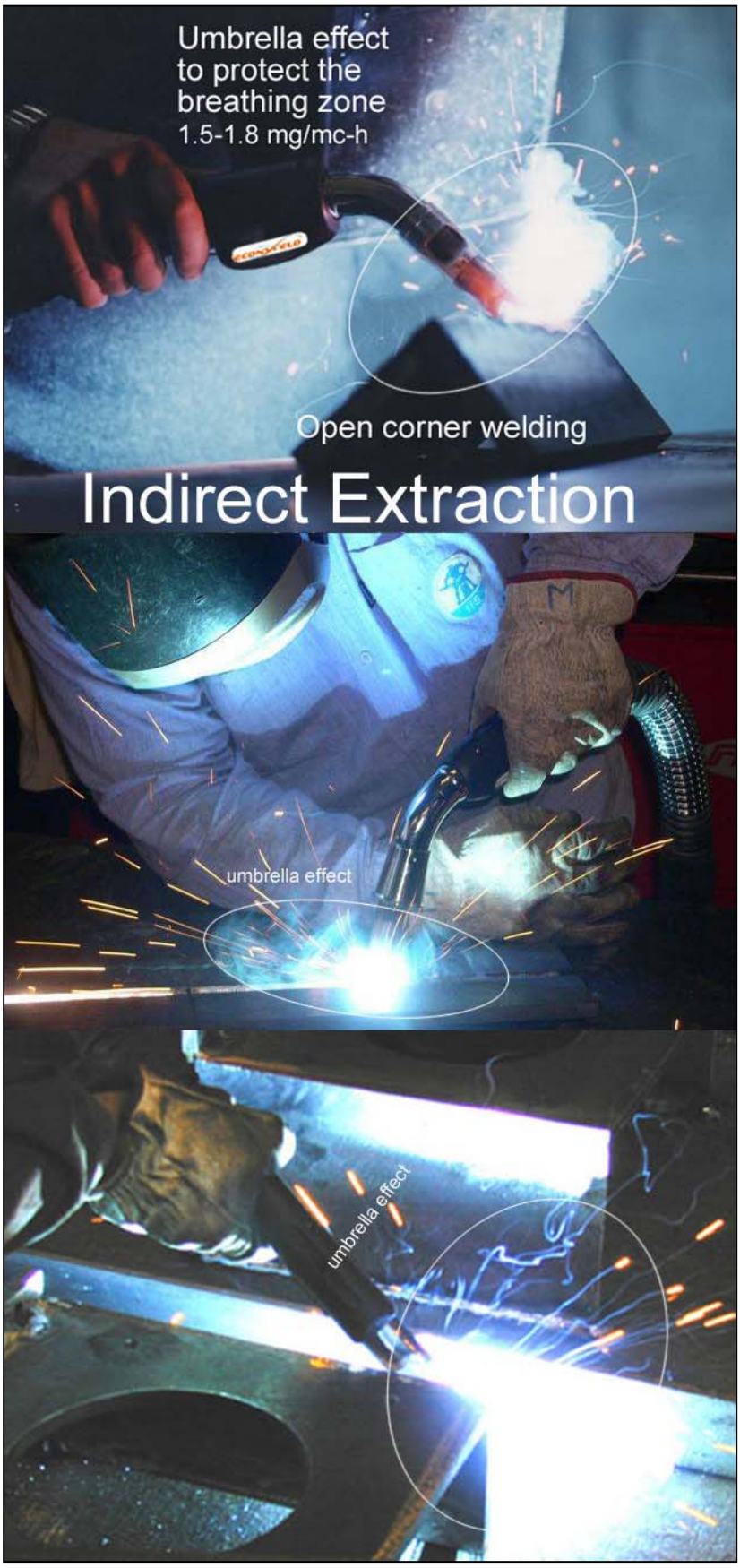
The real suction of fumes is only if their aspiration takes place at their very origin; this is the only way to protect the breathing zone in all the positions.

Traditional and bulky suction system where to continuous and correct repositioning of the suction component, during the welding process, highlights the installation and operational limits. In this particular case, due to technical and esthetic reasons, is not possible to interrupt the welding process. The inhalation and the dispersion of fumes in the environment is therefore inevitable. Otherwise the welder should be followed by a second operator attached to the suction operations.



Welding of a 15 mts structure for the building industry processed in complete security either for physical hygiene or security, where wire ropes, tubes and equipments are lifted from the floor.

The same welder operating in the same conditions before the installation of the BigErgoWeld system.



In the picture above we can prove the efficiency of fumes suction of ***ASPIRMIG*** torch in the most critic position – an open angle, without barriers of fumes restrain. Hereunder is highlighted the functional capacity of the torch even in restricted welding positions, where, the fumes, that otherwise would be spread in the environment, are perfectly captured.

METALS USED IN WELDING

Substance	Common use	Health Effects from Exposure to fumes or dusts
Beryllium	Hardening agent found in copper, magnesium and aluminium alloys	Metal fume fever; suspected carcinogen
Cadmium	Corrosion-resistant coating, solders and brazes	Pulmonary edema; suspected carcinogen
Chromium	Steel alloys	Irritant of skin, eyes and mucous membranes; some forms are carcinogens
Lead	Paints and alloys	Anaemia; abdominal pains; kidney and nerve damage
Nickel	Steel alloys	Pneumonitis; cyanosis; delirium; dermatitis; carcinogenic
Zinc	Aluminium and magnesium alloys, brass, corrosion-resistant coatings	Metal fume fever
Copper	-	Metal fume fever, damage to livery, kidneys, nose and spleen
Magnesium	-	Metal fume fever, irritation of eyes and nose
Manganese	-	Fatigue, nervous system disorders, respiratory disorders, liver damage
Mercury	Protective coating on metal	Systemic poisoning
Molybdenium	-	Uncertain in humans
Titanium	-	Respiratory irritation, slight fibrosis
Vanadium	Filler wire	Irritation of eyes and respiratory tract, possibly asthmatic reactions

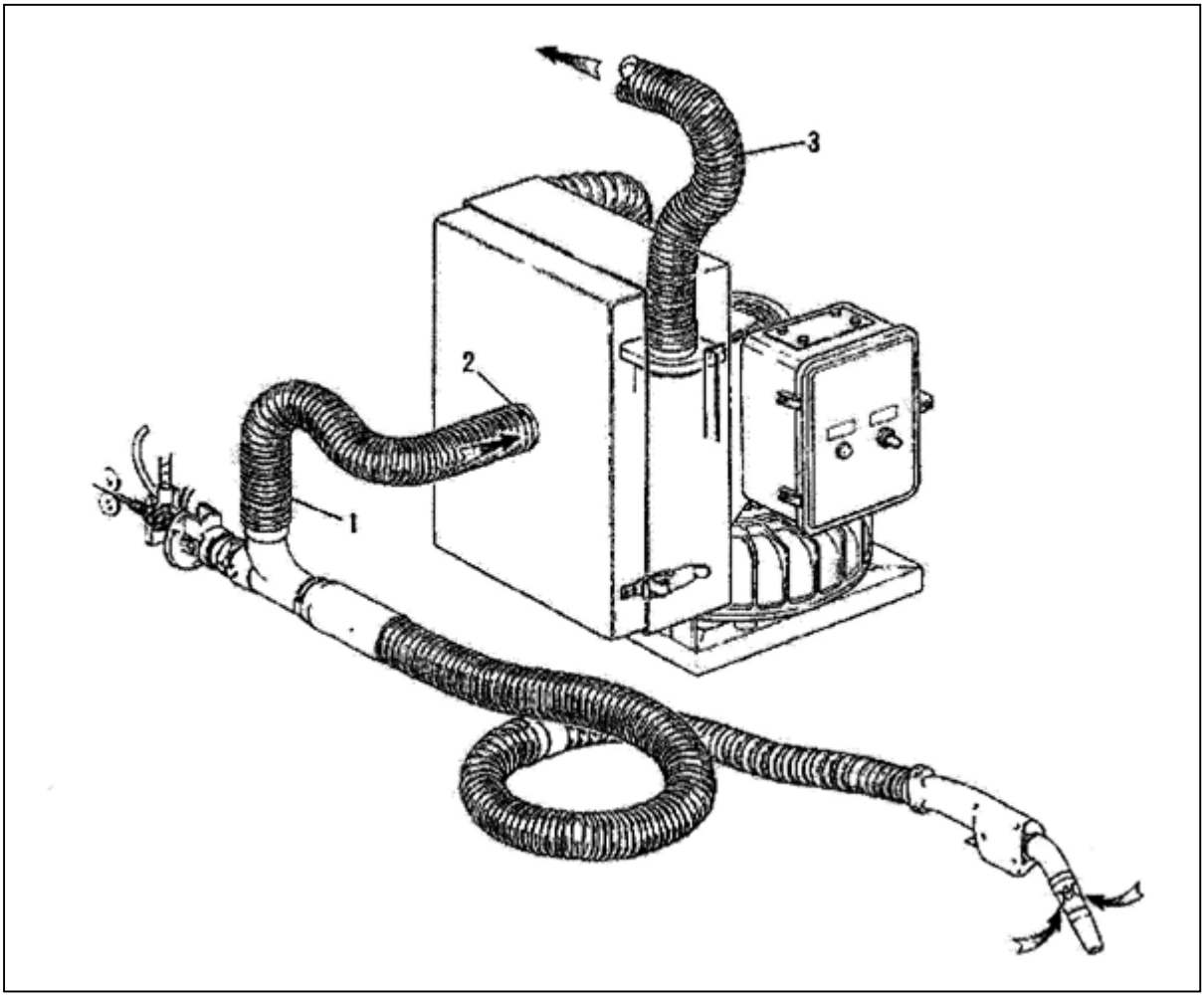
By-product Gases	Effect of By-product Gases in Human's health
Ozone	Excessive ozone levels can produce headaches, chest pains and shortage of breath. In high concentractions ozone can cause pulmonary edema (fluid in the lungs), which can be sometimes fatal. A characteristic odour will usually warn welders of the presence of ozone but prolonged exposure can interfere with the sense of smell.
Nitrogen Oxides	They can irritate the eyes and mucous membranes. High exposures can cause coughing and chest pains. Pulmonary edema can occur within 24 hours.
Carbon monoxide	Excessive concentrations of it can be found near the welding arc. Carbon monoxide attacks the nervous system and affects the heart, blood, lungs and kidneys and, in high concentrations can be fatal.
Carbon dioxide	Exposure to high concentrations can cause coma and convulsion within one minute of exposure.
Hydrogen chloride	It is strong irritant to the eyes, mucous membranes, and skin. It can have delayed effects on the upper respiratory tract causing cough, burning of the throat and a choking sensation. Excess fluid can collect in the lungs, causing pulmonary edema.
Phosgene	Inhalation in high concentrations can produce pulmonary edema, frequently after a delay of up to 72 hours. It also irritates the skin and the eyes.

GENERAL OUTLINE OF THE EQUIPMENT

The torches with integrated suction of fumes, grace to their dimensions, could be well fitted up to the welding generator to which are clamped to avoid any falling.

The suction/exhaust pipes are made up by a flexible, self-extinguishing, spiral tube. Connect the flexible pipe as follows:
to the torch (1) you have to connect the flexible tube and clamp it along the cables bundle, in case of a welding machine with separate cable-haulage. Connect then the pipe to the filter box (2). To complete the exhaust equipment, the flexible pipe must be connected to the position (3) outside the plant.

It's also possible to exhaust the fumes in the collection pipes already existing in the plant.
To obtain a better suction, we suggest you not to use suction pipes longer than **25 mts**; it's also recommended to verify the wear and tear condition of the flexible pipes in the parts of major abrasion or mechanical stress.

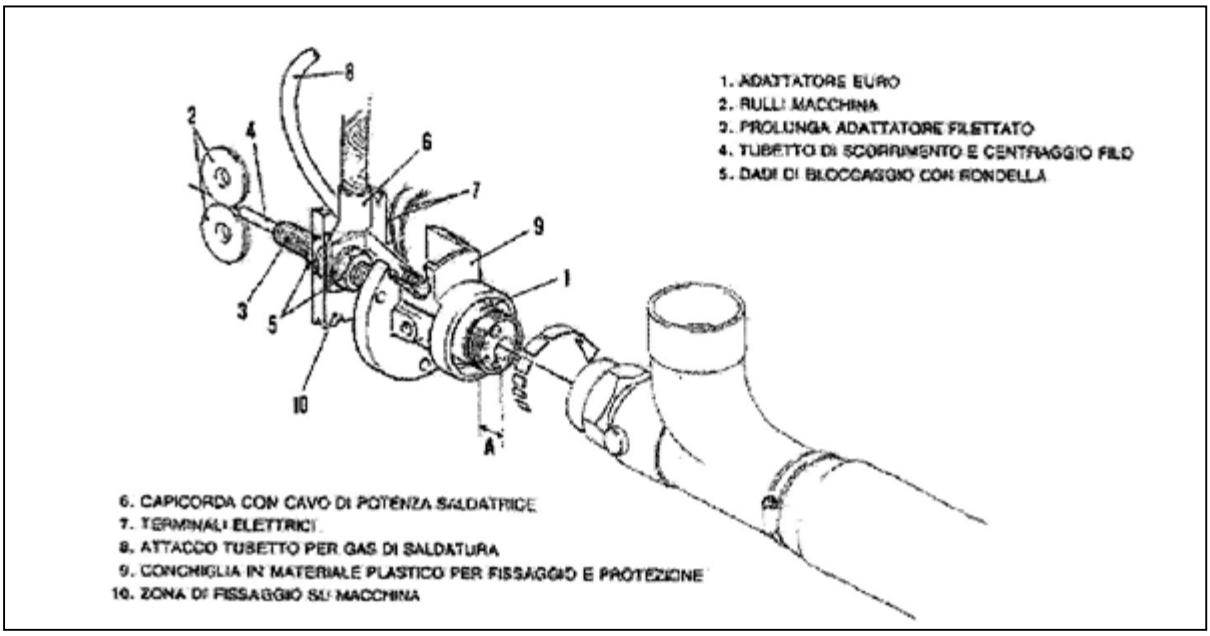


REPLACEMENT OF TORCH CONNECTION

This is the most important technical part, because the good slipping of the cable as well as the right functioning of the torch depend by a proper assembly of the connection.
Operate as follows:

1. Dismantle the existing torch. If the connection of the welding machine is not of **EURO** type, it's necessary to substitute it.

   Warning! If the torch previously connected, has a coolant circuit, jumper the entry and the exit of the coolant. In this way, the water circuit in the welding generator continues to work.

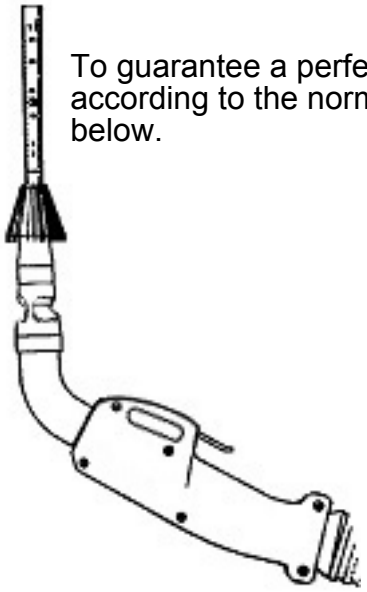


2. Test the **EURO** connection to the welding machine and, if necessary, make the necessary adjustments.
3. Once the socket is assembled and connected (see the picture above), aligne it perfectly to the drawing rollers, both in vertical and in horizontal position. For the electrical connection of the power cable to the adapter, use a lug (6) with a hole of **12mm** diam. to electrically connect it to the part (10) and lock then the adapter with two nuts (5).

Afterwards, connect the creeping pipe (4) inside the adapter extension (3) and, after having fixed the torch in its seat, shorten the pipe to a maximum distance of **1/2 mm** from the rollers, in order to avoid any exit of the cable from its sliding seat. Clamp with three screws the plastic flange (9) to the equipment. The distance between the adapter (1) and the protection (9) should permit to easily assemble the torch to a minimum distance of **15/20 mm.** Reconnect then the gas pipe (8) and, after having checked the guide sheathe of the cable, proceed with the assembling of the torch.

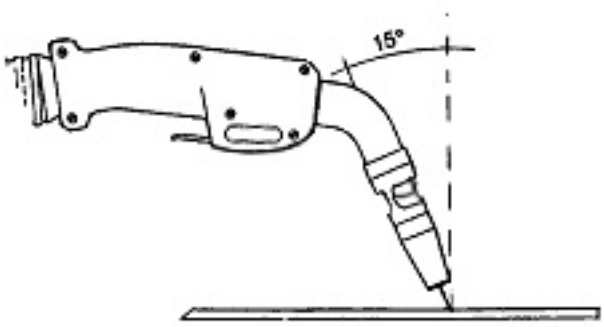
HOW TO USE THE TORCH WITH INTEGRATED SUCTION

Before using the torch it's recommended to set up the gas and to read carefully the following instructions.

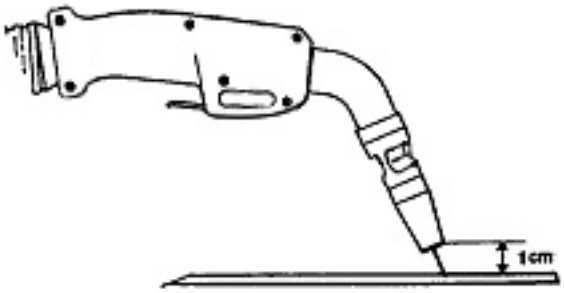


To guarantee a perfect suction of fumes the gas capacity (norm EN 60974-7) must be set according to the norms by a flow meter fixed to torch extremity and set up as per the form below.

Amper	Diam. Cable	L/m gas
Fino a 150	**0.6-0.8**	**10**
150-200	**1**	**12**
200-300	**1.2**	**13**
300-400	**1.6**	**14**



The torch must always maintain a dip of approx. >15° <45° (norm EN 60974-7) towards the fusion bath to obtain the better suction together with the better welding quality.



Keep the gas nozzle and the fusion bath to a maximum distance of less then 1 cm (norm EN 60974-7), in particular for the angle welding, to avoid any risk of porosity or oxidation in the welded parts.

This will guarantee you such unespected results:

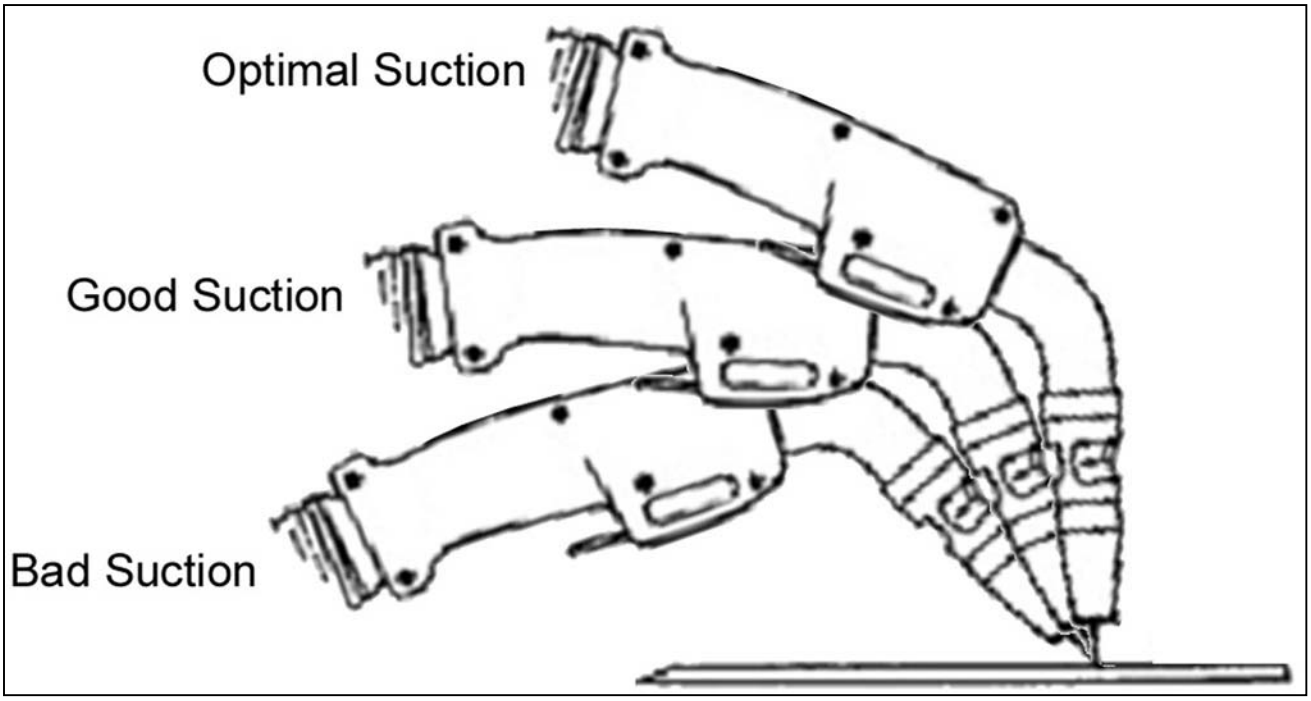
- more **productivity** (+10-15% lighted arc);
- more **security** (TLV 1,50-1,80 mg/m3 to the welder face);
- **gas saving** (20%);
- **heating saving** (1/25° ejected air)
- **investment recover after 20-36 months (**in accordance with the equipment typology)

USEFUL OUTLINES FOR A BETTER SUCTION OF THE FUMES

To obtain the best results in the suction of fumes and in the welding process, it's recommended to follows the instructions below.

Keep the torch mouth in a vertical position to suck the fumes in the most efficaciously way (in accordance to the welding characteristics)

1. Keep the torch close to the welding point to obtain a major suction and a better protection of the welding bath.

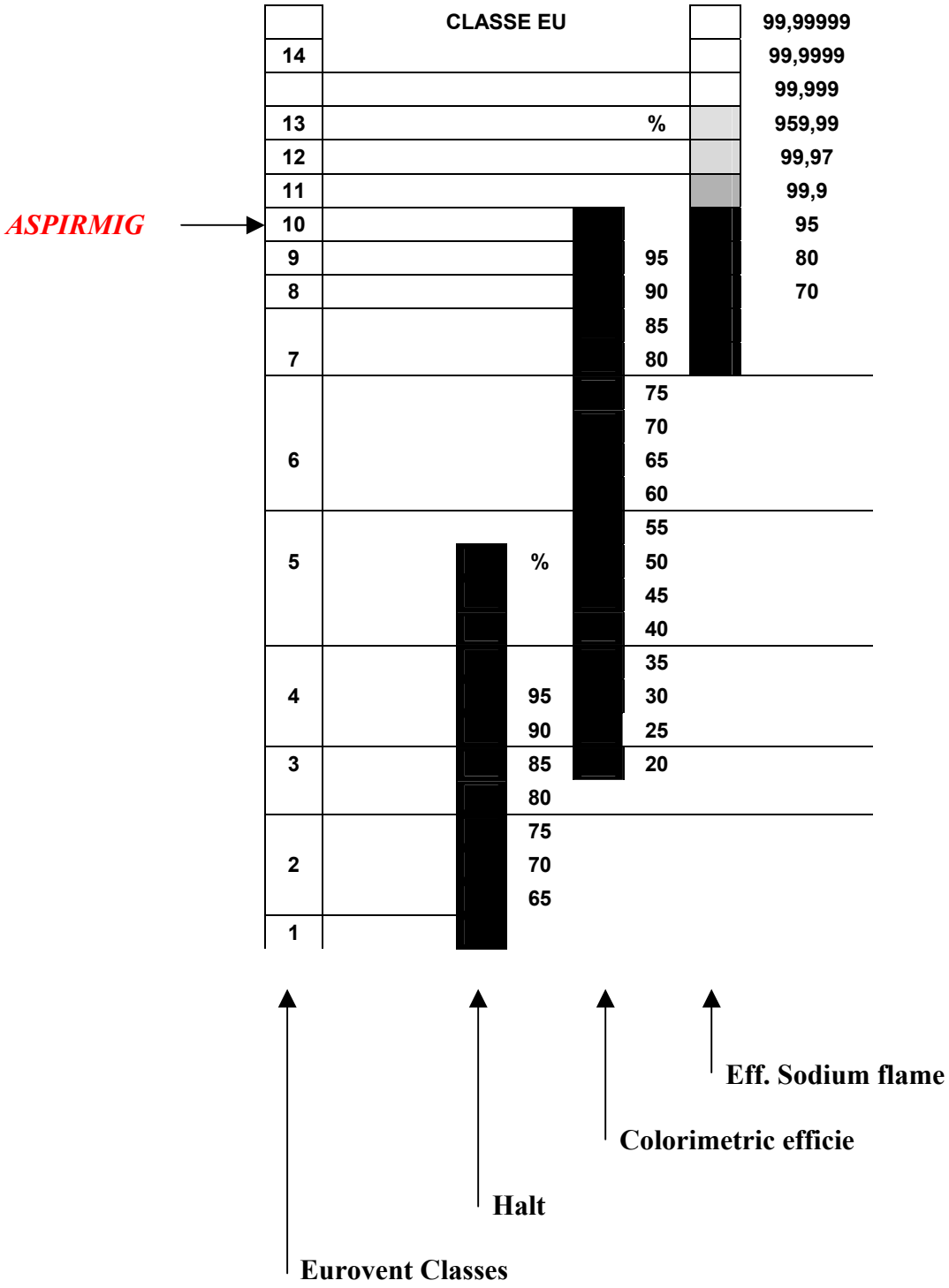


In case of fumes dispersion in the environment, verify if the protection gas capacity l/m is in accordante with the values indicated in the a/m form for the CO_2 level. If, notwithstanding these precautions the fumes suction is still not satisfactory, apply a conic or cylindrical catcher to the torch head. This guarantees the total suction of the fumes even in the most critical conditions.
If in some welded parts, in very closed angles, blowholes happen, operate as follows:

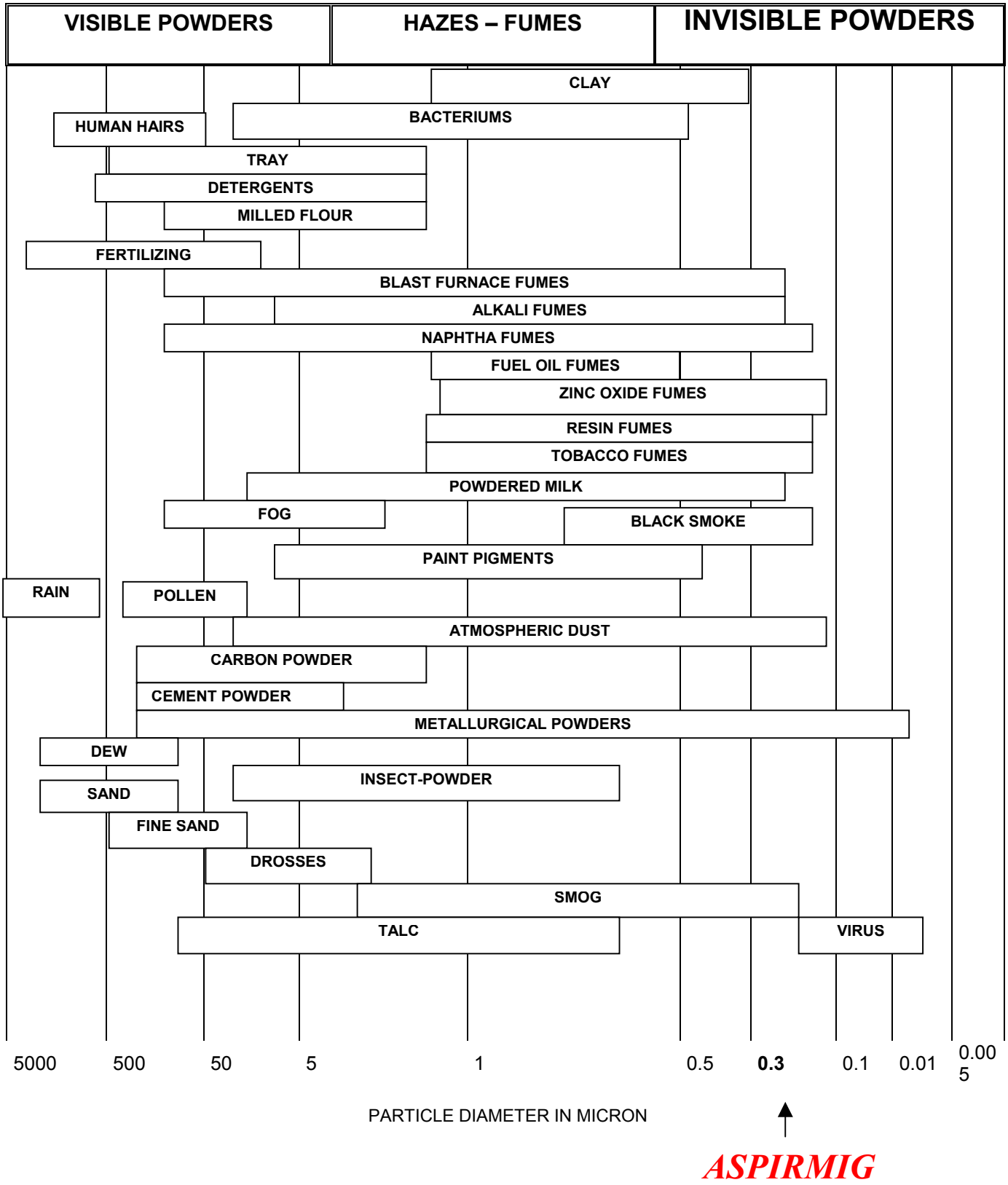
Operate on the slider, on the top of the handle, to reduce the suction capacity.

Bring the gas nozzle as near as possible to the fusion bath (stick-out 1 cm).
We also recommend to use the catcher with the adjustable suction mouth for side welding processes (for example on freight cars with horizontal slipping)

Filtration level of our purification equipments



Grunalometry Part Planner



ASPIRMIG®, whose aim, since its establishment, is to meet the **production** and **security** requirements by projecting and producing highly innovative technical solutions for fume extraction/depuration in welding process and for ergonomics in working place, is proud to introduce you this innovative, simple and economic equipment which combines together the welding and the suction process.

MinErgoWeld

This equipment, available for all kind of cable-kreep, is suitable for small carpentry factories and for those machine shops where the welding operations are different and occasional. The perfect balancement of the arm supporting the torch, totally neutral, gives to the welder the best effectiveness grace to the abatement of the majority of the suction torch weight and, since the torch is always outstretched, the cable runs perfectly. This equipment includes: 1) Aspirator and dry cleaner of welding fumes with automatic single phase motor 220V 900W (5 reducing levels from Class 10% to 98% at 0.3 micron); 2) Wheeled truck for Aspirator and wire feeder; 3) Balanced MinErgoWeld arm for torch 2,50m; 4) welding torch with integrated suction capability (Duty Cycle 100%) 350Amp equipped with 5 meters cable. This equipment permits to increase the productivity and to 100% follow the rules of **Hygiene**, **Security** and **Ergonomics** in welding process. The ratio **costs-performances** is totally optimized thanks to:

- 10-15% increasing of arc-on-time
- 40-60% reduction in maintenance costs for torches and analogous
- Reduction of 30-35% in energy annual costs (less air ejection 80-130mc/h)
- Return on investment in 20-24 months
- Extraordinary working range 8-9 mts at 360°
- Automatic starting up of the suction at arc strike
- Fume suction in all the positions
- Protection of the breathing zone (TLV 1,5/1,8 mg/m^3)
- Perfect cable kreep also with cable 0,8
- Abatement of the majority of the suction torch weight and
- Perfect arm stability
- No installation costs
- Connectable outside for external fume exhaust

MidErgoWeld

This equipment, available for all kind of cable-kreep, is suitable for medium-sized carpentry factories and for those machine shops where the welding operations are different and frequently. The perfect balancement of the arm supporting the torch, totally neutral, gives to the welder the best effectiveness grace to the abatement of the majority of the suction torch weight and, since the torch is always outstretched, the cable runs perfectly. This equipment includes: 1) Aspirator and dry cleaner of welding fumes with automatic three-phase motor 380V 1,5Kw (5 reducing levels from Class 10% to 98% at 0.3 micron); 2) Wheeled truck for Aspirator and wire feeder; 3) Balanced MidErgoWeld arm for torch 350-500; 4) welding torch with integrated suction capability (Duty Cycle 100%) 350-500Amp equipped with 5 meters cable. This equipment permits to increase the productivity and to 100% follow the rules of **Hygiene**, **Security** and **Ergonomics** in welding process. The ratio **costs-performances** is totally optimized thanks to:

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- Abatement of the majority of the suction torch weight and
- Perfect arm stability
- No installation costs
- Connectable outside for external fume exhaust

BigErgoWeld

This equipment, available for all kind of cable-kreep, is suitable for medium-sized carpentry factories and for those machine shops where the welding operations are different and frequently. The perfect balancement of the arm supporting the torch, totally neutral, gives to the welder the best effectiveness grace to the abatement of the majority of the suction torch weight and, since the torch is always outstretched, the cable runs perfectly.
This equipment includes: 1) Aspirator and dry cleaner of welding fumes with automatic three-phase motor 380V 2,2Kw (5 reducing levels from Class 10% to 98% at 0.3 micron); 2) This equipment, completely manual, can be fitted directly on the floor or on a wheeled truck for Aspirator and wire feeder; the customer can also realize its proper truck following our drawings 3) Balanced BigErgoWeld arm for torch 350-600Amp; 4) welding torch with integrated suction capability (Duty Cycle 100%) 350-600Amp equipped with 5-7 meters cable. This equipment permits to increase the productivity and to 100% follow the rules of **Hygiene**, **Security** and **Ergonomics** in welding process. The ratio **costs-performances** is totally optimized thanks to:

- 10-15% increasing of arc-on-time
- 40-60% reduction in maintenance costs for torches and analogous
- Reduction of 30-35% in energy annual costs (less air ejection 80-130mc/h)
- Return on investment in 24-36 months
- Extraordinary working range 16-19 mts at 320°
- Reduction of welding machines number (like 25%)
- Setting up with normal or sucking torches, masks or sucking feeds
- Can be fitted with electric or pneumatic sockets and light.
- Fume suction in all the positions
- Protection of the breathing zone (TLV 1,5/1,8 mg/m^3)
- Perfect cable creep also with cable 0,8
- Cables, pipes,etc far from the floor
- Perfect arm stability and functionality
- Connectable outside for external fume exhaust
- Arranged for drum of 250-500Kg

ASPIRMIG®, is proud to present its innovative line of torches with integrated suction of the fumes, that permits a real protection of the operator, directly exposed to gaseous and granulous effluents (even odourless and colourless) normally existing in the workshops. Our torches, thanks to their particular manufacture, better achieve the principle of the indirect suction. This system, with the application of high heads (negative pressure) permits the simultaneous execution of three important functions of the torch: **1°** the fume suction even in most difficult positions **2°** the cooling of all the active parts of the torch. **3°** the manteinance in suspension, inside the exhaust pipes, of the fumes dust. This to avoid an obstruction of the pipes, due to their small dimensions.
ASPIRMIG® torches from 150 to 350Amp, with their suction dynamic cooling, always active during the welding process, can guarantee a duty cycle of 100%. The torches from 350 to 600° are equipped also with a liquid-cooling form the cable to the body. This double cooling makes the torch extremely handy, less cumbersome and totally reliable in its use. ***ASPIRMIG®*** are certified by the Italian Institute of Welding and in terms of industrial Safety guarantee a TLV (threshold limit value) of 1.5-1.8mg/mc in the breathing zone.

ASPIRMIG®, presents also is line of torches compatible Bz. This line, always using ***ASPIRMIG®*** suction system, is compatible in the welding part to all the standard components on the market. This is, of course, a good benefit for companies that already use torches with this kind of components, because they can keep on to use the usual spare parts with, in addition, this reliable suction system efficacious in every working place. The compatible line Bz consists in the models 15-25-36, with dynamic air-cooling in the suction process and in the model 500 with standard liquid-cooling. All the torches are available in all standard lenghts of 4 and 5 mts.
On demand, we realize also torches with a lenght of 6-7-8 mts where the wire perfectly runs thanks to our arms ***BigErgoWeld***.

ASPIRMIG® presents the transformation of a standard welding flame blowpipe to a **blowpipe with the integrated suction** of gases and metallic fumes given off during the welding process, which are dangerous for the welder, directly exposed, if they're not captured straight from their very origin.
Today this is possible thanks to :

FUME EXTRACTION BLOWPIPE

This equipment is suitable for all the factories that make use of different brazing operations, like refrigerating industries, radiators etc. This equipment follows the rules of **Hygiene**, **Security** and **Ergonomics** in welding and brazing process and in the same time protects the welder from inhalation of dangerous gaseous fumes, especially those odourless and colourless. The ratio **costs-performances** is totally optimized thanks to:

- 7% increasing in productivity
- Reduction of 30-35% in energy annual costs (less air ejection 80-130mc/h)
- Return on investment in 18 months
- Elimination of the traditional hoods (less practical and efficacious)
- Extreme flexibility of the equipment
- Fume suction in all the positions
- Protection of the breathing zone (TLV 1,5/1,8 mg/m^3)
- Very economic installation
- External mixing of the comburents (no more backfire)
- Range from 150 to 1000 lts
- Mono-flame and double-fiamma
- Connectable outside for external fume exhaust

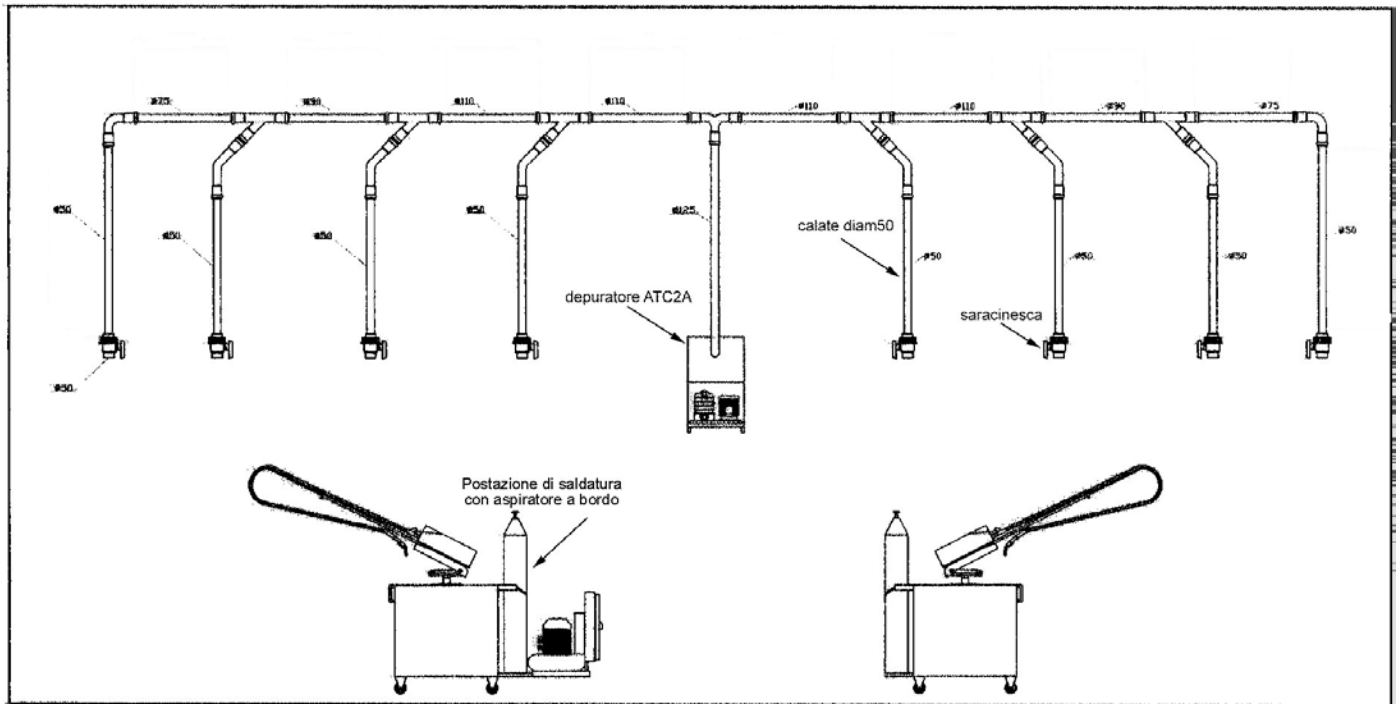
ASPIRMIG®, whose aim, since its establishment, is to meet the **production** and **security** requirements by projecting and producing highly innovative technical solutions for fume extraction/depuration in welding process and for ergonomics in working place, is proud to introduce you this innovative and reliable equipment for the electrode fume suction:

FUME EXTRACTION MASK

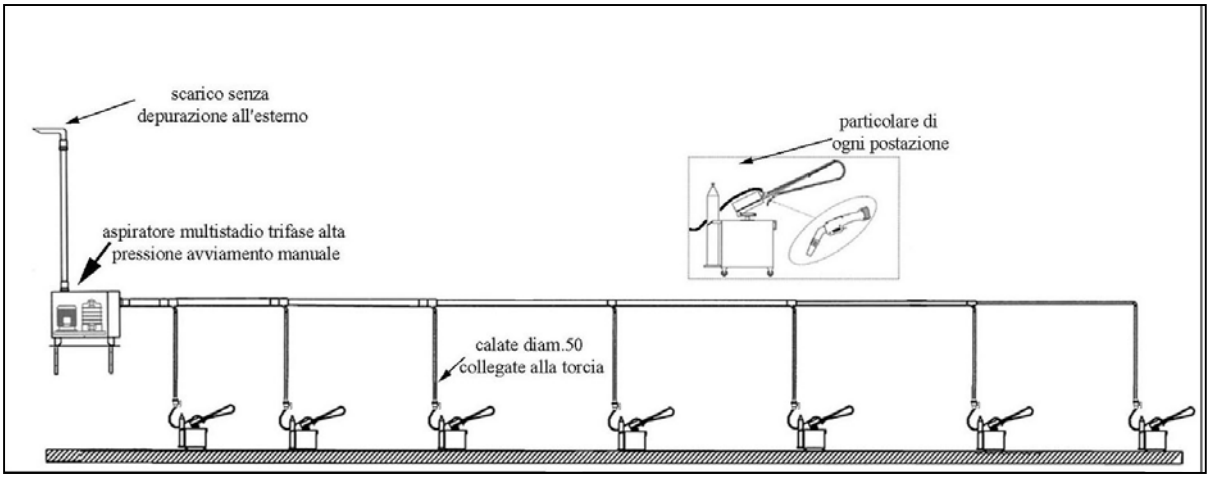
This solution suitable for all workshops and for all the welding processes (stick electrode, Mig-Mag with wire, other electric arc welds). The **fume extraction mask** is made by a common mask further equipped with a suction head, both right and left in accordance with the welder hand. The use of this mask for fume extraction is recommended when the balanced arms are not practical or suitable for your application field. The welder is then protected from the welding fumes in all the working positions up to 25 mts from the power source. The fumes are captured from their very origin thus protecting the welder from the risk of inhalation of dangerous gaseous fumes, especially those **odourless** and **colourless.** This equipment permits to follow the rules of **Hygiene**, **Security** and **Ergonomics** in welding process. The ratio **costs-performances** is totally optimized thanks to:

- Easy connection to the existing equipments (medium pressure)
- Connection of the device either to the mask or to the helmet
- 10-15% increasing in productivity
- Elimination of the traditional hoods (less practical and efficacious)
- Excellent equipment flexibility
- Reduction of 30-35% in energy annual costs (less air ejection 250mc/h)
- Extraordinary working range (pipe length up to 25 mts)
- Fume suction in all the positions
- Protection of the breathing zone (TLV 1,5/1,8 mg/m^3)
- No installation costs

Example of aspiration system with dry centralized depuration for 8 welding positions with 450 cbm/h arc on-time (25 times less than a traditional system). This system is arranged for the connection of suction torches and every position is provided with a tapping valve. The contemporaneity factor is of the 60%. You can also see two examples of moving welders equipped with an automatic exhaust fan, suction torch and balanced arm wire-feeder.



Example of a centralized aspiration system with 1 exhaust fan, without purification, high prevailing with outside exhaust.



Example of an aspiration system using the already existing centralized system. Here, we've connected a depressor of high prevalence with automatic start up and balanced arms with a working range of 14-15 mts.
The arms are equipped with: 1) a suction torch; 2) a socket for compressed air; 3) an electric socket; 4) a light, and can favourable mount the drum or maraton.