粵風焊接器材有限公司
FORCE WELDING SUPPLY CO. LTD.
豐盛貿易公司
FUTURE TRADING COMPANY
（專營：氬焊機、離子機及配件、風煤器材）
電話：(+852) 2390 0135
地址：香港九龍大角嘴榆樹街1號
宏業工業大廈1507室
網址：www.forceweld.com.hk

INTRODUCTION: The range of Invincible Welding Visors are designed to give maximum wearer comfort whilst offering the highest degree of welding protection against the harmful radiation emanating from a welding arc. The Invincible Welding Visors are produced in modular form, enabling the wearer to select the combination of visor style and welding filter suitable to his/her requirements.

STORAGE: When not in use or during transportation the faceshield should be stored in a container such that it is out of direct sunlight, not in contact with solvents and cannot be damaged by physical contact with hard surfaces/items. Do not store outside the temperature range of -20°C or +50°C or with humidity above 90%RH.

BEFORE USE: Carefully remove the faceshield and the welding filter from the packaging, taking note of any extra instructions printed on or supplied with either product. The faceshield should be complete with two protective clear lenses and an inner securing frame. Do not use if items appear damaged or missing. Scratched or damaged lenses should be replaced before use.

TO INSERT WELDING FILTER: Remove the inner securing frame and one of the two protective clear lenses from the faceshield. Insert the welding filter, followed by the clear lens and securing frame, ensuring that the inner frame clicks firmly into place.

FITTING: For Harness Mounted Visors – JW001:
The head height and size can be adjusted as follows:
1. Slide left half of crown strap through loops on the right half to obtain correct height, engage retaining pin in correct hole.
2. Place faceshield on head and check height setting. Ensure headband is not too low on brow. If necessary repeat step 1 until correct height adjustment is achieved.
3. With faceshield on head turn adjuster knob to obtain a firm and comfortable fit.

For Helmet Mounted Visor – JW002:
The visor is designed to be fitted to most leading makes of industrial safety helmet with standard size peak. Slide helmet peak into slot in the faceshield. Stretch PVC covered retaining spring over the crown of the helmet until it fits securely around the helmet shell.

USE: The visor will only offer protection with a welding filter correctly inserted and when the faceshield is in the lowered position. The welding filter is marked with the appropriate shade grade. For proper selection of the filter grade please consult the chart. Ensure that the correct welding filter is fitted before commencing welding operations.

Susceptible individuals may experience an allergic reaction to those parts of the faceshield that come into contact with the wearer's skin. If this is the case, leave the hazard area, remove the faceshield and seek doctor's advice. None of the materials used in the manufacture of the faceshield are known to adversely affect user hygiene or health.

WARNING: Class 3 optical quality oculars are not designed for long term use. Filter screens carry the appropriate grade marking, see table for suitability of screen filter for the task to be performed.

MAINTENANCE: A range of replacement parts is available, including welding filters and clear protective lenses. Instructions for fitting spare parts will be supplied. It is likely that the Welding Visor will require a replacement of component parts or the complete unit after a period of 2 to 3 years.

MARKING	PROTECTION
S	Increased robustness
9	Molten metal
1	Optical quality (1 = high, 3 = low)

CLEANING/DISINFECTION: To maintain the faceshield in the best possible condition do not use abrasive materials to clean them. Rinse in 1% solution of "Tego" or other similar mild detergent in tap water and dry with a soft cloth.

The scale number, given in the table below, is to be used for arc welding, gas welding and arc gouging. The following abbreviations are used according to ISO4063:

- MIG corresponds to Metal Arc Welding with Inert Gas Shield.
- MAG corresponds to Metal Arc Welding with Non-inert Gas Shield.
- TIG corresponds to Tungsten Inert Gas.
- Arc-Air Gouging corresponds to the use of a carbon electrode and a compressed air jet to remove the molten metal.

The term 'heavy metals' applies to steels, alloy steels, copper and its alloys, etc. The hatched areas correspond to the ranges where the welding operations are not usually used in the current practice of manual welding.

Note: If the use of filters selected from the table produces a feeling of discomfort, the working environment and the eyesight of the operator should be examined. It can be harmful to use filters with too high a scale number (too dark) as this would force the operator to move too close to the radiation source and to inhale harmful fumes. For work carried out in the open air and strong natural light, it is possible to use a filter one scale number higher.

In the table the letter A corresponds to the current rating of the welding device in Amperes. The letters l/h correspond to the flow rate of the acetylene gas in litres per hour.

	Welding Process or Related Technique									
Scale Number	Covered Electrode	MIG on heavy metals	MIG light alloys	TIG on all metals/alloys	MAG	Air-arc gouging	Plasma jet cutting	Microlasma arc welding	Gas welding	Gas cutting
3								<0.3A		
4								0.4-0.6A	<70l/h	
5								0.7-1A	71-200l/h	900-2000l/h
6								1.1-2.5A	201-800l/h	2001-4000l/h
7								2.6-5A	>800l/h	4001-8000l/h
8								5.1-10A		
9	<40A			<20A				11-15A		
10	41-80A	<80A	<80A	21-40A	<80A	<175A		16-30A		
11	81-175A	81-175A	81-175A	41-100A	81-100A	176-200A	<175A	31-60A		
12	176-300A	176-300A	176-250A	101-175A	101-175A	201-250A	176-250A	61-125A		
13	301-500A	301-500A	251-350A	176-250A	176-300A	251-300A	251-400A	126-225A		

IMPORTANT NOTE: This table is for guidance only. It is the USERS responsibility to ensure that Protective Equipment is suitable and adequate for use in the intended hazardous enviroment.