A General Guide to Respiratory Protection

3M™ Speedglas™ offers a wide range of personal respiratory protection, providing unequalled comfort and protection in the toughest conditions.

P Powered air respirator with particle filter
A Powered air respirator with A1gas filter
S Supplied air regulator

How to use this guide:

Identify the material to be welded and the welding process to be used. The concentration levels of the pollutants are affected by the ventilation conditions in the workplace. Choose the appropriate description of the working environment to determine a suitable type of respiratory protection.*

Material to be welded	Welding method	Ventilation conditions of your working environment			
		Good environment, with forced ventilation	Limited ventilation	Restricted space - Note: Not suitable for Confined Spaces as defined by AS2865.	Classified as IDLH
Aluminium	MIG	P	P / P + A	S	Powered and supplied air respirators must never be used in atmospheres Immediately Dangerous to Life or Health (IDLH). Always consult your Safety Engineer or Occupational Hygienist.
	TIG	P	P / P + A	S	
	STICK WELDING	P	P / P + A	S	
Stainless steel	MIG	P	P / P + A	S	
	TIG	P	P / P + A	S	
	STICK WELDING	P	P / P + A	S	
	PLASMA (Welding and Cutting)	P	P + A / S	S	
Steel not coated or painted	MIG/MAG	P	P	S	
	STICK WELDING	P	P	S	
	PLASMA (Welding and Cutting)	P	P / S	S	
Steel painted (lead based paints)	MIG/MAG	P	P	S	
	STICK WELDING	P	P	S	
	PLASMA (Welding and Cutting)	P	P / S	S	
Steel galvanised	MIG/MAG	P	P	S	
	STICK WELDING	P	P	S	
	PLASMA (Welding and Cutting)	P	P / S	S	
Steel coated with 2-component paints or insulated with 2-part polyurethanes (risk of isocyanates)	MIG/MAG	P	S	S	
	STICK WELDING	P	S	S	
	PLASMA (Welding and Cutting)	P	S	S	
Material cleaned with trichloroethylene	MIG	S	S	S	
	TIG	S	S	S	
	STICK WELDING	S	S	S	
	PLASMA (Welding and Cutting)	S	S	S	

* 3M accepts no liability for the incorrect choice of respiratory protective equipment. This chart is only an outline. It is designed to help focus on the most appropriate respirators in the 3M range for particular applications. It should not be used as the only means of selecting a respirator. Details regarding performance and limitations are set out on the respirator packaging and user instructions.