THE ENVIRONMENT

Always dispose of unwanted tools, accessories and packaging materials in an environmentally friendly manner.

For further information, please contact your local authority or the retailer from whom you purchased the product.

DECLARATION OF CONFORMITY

We hereby certify that KENNEDY SINGLE STAGE OXYGEN REGULATOR

(ORDER CODE: KEN-884-4120K)

complies with all the relevant provisions of the

European Pressure Equipment Directive 2014/68/EU

Gas Equipment conforms to the following relevant standard
Pressure Regulators EN 2503:2009

CE

HSQE Manager.

KENNEDY TOOLS

QUALITY GUARANTEE & WARRANTY

KENNEDY TOOLS carry a one year manufacturer's warranty.

KENNEDY TOOLS are designed & manufactured to the highest standards & specifications.
Assuring the quality and performance required by all sectors of industry.

KENNEDY TOOLS are fully guaranteed against faulty materials & workmanship.
Should they be found to be defective, they will either be repaired or replaced free of charge (fair wear and tear and/or misuse excepted).

Please retain supplier invoice as proof of purchase.

KENNEDY

QUALITY INDUSTRIAL TOOLING

SINGLE STAGE OXYGEN REGULATOR

MODEL:
SSR300-OXY

ORDER CODE:
KEN-884-4120K

- **Easy read gauges for 300 bar inlet and 0-10 bar outlet pressures**
- **Pressure adjusting knob for control of outlet pressure**
- **Safety relief valve vents excess pressure from regulator**
- **Bottom entry design for use on top outlet cylinder valves**
- **Fitted with 1/4 BSP threaded gauges**
- **Standard 3/8 BSP outlet and 5/8 BSP inlet connections**
- **Right hand out thread for Oxygen only**
- **Date stamped to show when regulator needs replacing or refurbishing**



WARNING: THE SAFETY INFORMATION GIVEN INSIDE MUST BE READ AND UNDERSTOOD BY ANY PERSON USING, INSTALLING, REPAIRING OR MAINTAINING THESE PRODUCTS.

OPERATOR'S MANUAL

Please retain this information for future reference.

SAFETY INSTRUCTIONS

You have purchased a quality product that is designed for high performance and long service life. If correct use, safety and maintenance procedures are observed this machine will last for many years.

- Always follow the instructions or you may suffer physical injury or damage to property as a result.
- Always be aware of health and safety regulations regarding welding.
- Always wear correct eye and body protection.
- Always remove ill fitting clothing, ties, watches, rings, other loose jewellery and contain long hair.
- Always ensure only trained personnel should use pressure regulators and cylinders
- Always ensure gas cylinders are safely secured.
- Always ensure hoses are kept tidy on the floor to reduce the risk of tripping on them.
- Always ensure the working area is clear of flammable materials as sparks from the process can travel long distances.
- Always ensure the working area is well ventilated to ensure there is no risk of asphyxiation.
- Always keep a fire extinguisher nearby.
- Always ensure no oil or grease is present on any of the parts used in the system
- Always immediately turn off the oxygen flow followed by the fuel gas in the event of a flashback and switch off the cylinder valves checking all equipment for overheating.
- Always ensure Acetylene cylinders are safe after a flashback, check for hot spots or vibration; there is a risk of explosion.
- Never modify or use the regulator for any application other than for which it is designed.
- Never use Oxygen to blow off work pieces or clothing. Oxygen is an accelerant and carries a high risk of explosion or fire.
- Never operate the regulator if it appears to be damaged.
- Never snift Hydrogen cylinders.
- Never operate when you are tired, under the influence of alcohol, drugs or intoxicating medication.
- Never drop.
- Never cut or weld containers or vessels that are used for storage of combustible materials such as fuel and oil drums.
- **Important:** For hoses greater than 6.3mm bore or longer than 3m the following is recommended: Non-return valves fitted to the blowpipe ends of the hose and a flash back arrester connected to the regulator outlet that has the following functions: - Flame arrester, Temperature activated cut-off and Pressure activated cut off.

Snifting: - The practice of opening and closing cylinder valves quickly to remove debris before fitting regulators. Never snift hydrogen cylinders because spontaneous combustion can occur.
Cutter: - A piece of equipment that facilitates the mixing and control of the gases to perform a welding or cutting operation.
Regulator: - A device fitted to the cylinder outlet to reduce the cylinder pressure to that required by the cutter.
Hose Assemblies: Used to connect the regulator to the cutter. Hoses are colour coded to match the gas type.
Non Return Valve: - A valve that prevents reverse gas flow (Hose check valve).
Flashback Arrester: - Quenches a flame front and prevents it reaching the Cylinder.
Pressure Relief Valve: - Vents excess pressure from the regulator when the system pressure exceeds a predetermined level.
Backfire: - Return of the flame into the cutter usually accompanied by a hissing sound or a bang.

NOTES

Gas Consumption and setting for ANM, AMNE, PNM, PMNE Cutting Nozzles										
Nozzle size	Plate Thickness	Acetylene Pressure	Heating Propane Pressure	Cutting Oxygen Pressure	Oxygen Pressure	Preheat Gas Consumption		Preheat Gas Consumption		Cutting Oxygen Consumption
	mm	Bar	Bar	Bar	Bar	Oxy 1/m	Act	Oxy 1/m	Prop	L/m
1/32	3 - 6	0.14	0.2	1.5	1.5 - 2.0	8.7	8.0	23	6	20 - 25
3/64	5 - 12	0.14	0.2	2.0	2.0 - 3.0	10.0	9.5	30	8	40 - 50
1/16	10 - 75	0.15	0.2	2.5	3.0 - 4.0	13.0	11.5	41	10	80 - 110
5/64	70 - 100	0.14	0.3	2.5	3.5 - 4.5	14.5	13.0	50	12	130 - 160
3/32	90 - 150	0.21	0.4	3.0	4.0 - 5.0	20.0	18.0	68	17	170 - 200
1/8	190 - 300	0.28	0.6	4.0	6.0 - 7.0	27.0	24.0	96	24	350 - 400

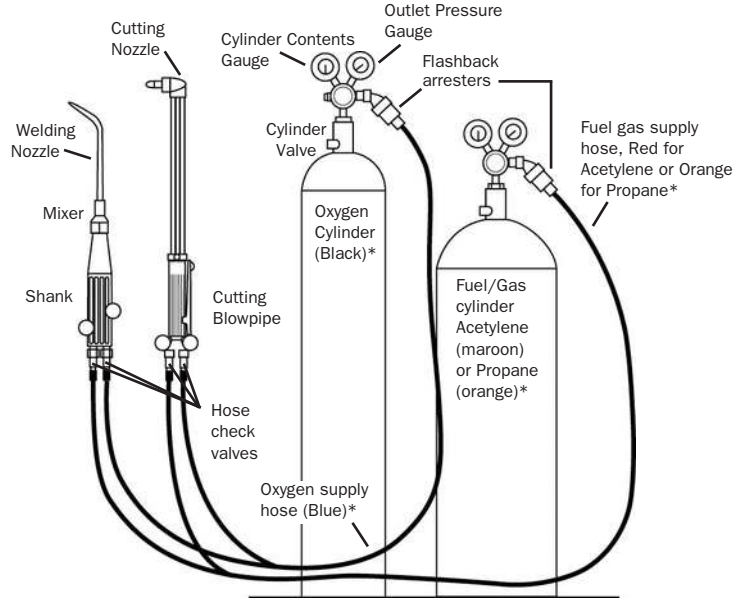
Gas Consumption and setting pressures for VVC cutting nozzles							
Nozzle size	Plate Thickness	Propane Pressure	Heating Oxygen Pressure	Cutting Oxygen Pressure	Preheat Gas Consumption		Cutting Oxygen Consumption
	mm	Bar	Bar	Bar	Oxy l/m	Prop	L/m
5/0	1.5	0.1	0.55 - 1.00	2.75	14.0	2.8	7.0
4/0	6	0.1	0.70 - 1.00	3.45	16.5	3.3	18.8
3/0	9	0.1	0.70 - 2.41	5.17	16.5	3.3	37.8
2/0	12	0.1	0.70 - 2.41	5.17	16.5	3.3	42.5
0	18	0.1	0.70 - 2.41	6.42	16.5	3.3	59.0
1/2	32	0.1	0.82 - 2.41	6.90	18.8	3.7	80.0
1	64	0.1	0.82 - 2.41	6.90	18.8	3.7	94.4
1 1/2	75	0.1	0.82 - 2.41	6.90	18.8	3.7	118.0
2	127	0.1	0.82 - 2.41	6.90	18.8	3.7	153.0
2 1/2	150	0.1	0.82 - 2.41	6.90	18.8	3.7	186.0
3	178	0.1	0.82 - 2.75	6.90	18.8	3.7	200.0
4	203	0.1	0.82 - 2.75	6.90	18.8	3.7	248.0
5	225	0.1	0.90 - 2.75	6.42	47.0	9.4	274.0

Swaged Welding Nozzles					
Nozzle Size	Plate Thickness	Actylene Pressure	Oxygen Pressure	Gas Consumption	
	mm	Bar	Bar	Oxy l/m	Act
1	0.9	0.14	0.14	0.47	0.47
2	1.2	0.14	0.14	0.94	0.94
3	2.0	0.14	0.14	1.40	1.40
5	2.6	0.14	0.14	2.40	2.40
7	3.2	0.14	0.14	3.30	3.30
10	4.0	0.21	0.21	4.70	4.70
13	5.0	0.28	0.28	6.00	6.00
18	6.5	0.28	0.28	8.50	8.50
25	8.2	0.42	0.42	12.00	12.00

Super Heating Nozzles				
Nozzle Size	Propane Pressure	Oxygen Pressure	Gas Consumption	
	Bar	Bar	Oxy l/m	Prop
2H	0.21 - 0.56	1.1 - 2.5	145	35
3H	0.28 - 1.10	1.8 - 5.0	275	68
4H	0.35 - 1.30	2.5 - 5.7	310	77
5H	0.85 - 2.10	3.5 - 8.7	467	117

CONNECTION OF THE SYSTEM

- Check the cylinder valves are clean and the threads are in good condition. Snift the valve to remove debris from the valve seat. Never Snift Hydrogen cylinders because spontaneous combustion can occur.
- Connect the pressure regulator to the cylinder, ensure the regulator is the correct type for the gas and cylinder pressure.
- Ensure the regulator knob is fully unscrewed
- Connect the flashback arrester to the outlet of the regulator
- **Important:** For hoses greater than 6.3mm bore or longer than 3m the following is recommended: Non-return valves fitted to the blowpipe ends of the hose and a flashback arrester connected to the regulator outlet that has the following functions: - Flame arrester, Temperature activated cut-off and Pressure activated cut off.
- Connect the gas hoses to the flashback arrester outlet, ensure the non return valve is fitted to the blowpipe end of the hose, connect the blowpipe to the hose connections and fit the correct nozzle and mixer (welding/heating) and ensure all control valves are closed.
- Slowly open each cylinder valve (only open acetylene cylinder valves 1 turn) and adjust the regulator to the correct operating pressure for the operation (turn clockwise to increase pressure). **Never stand in front of the regulator when opening the cylinder valve.**
- Check the system for leaks using a suitable leak detection fluid. Recheck the pressures with the gas flowing.
- Purge each hose to ensure the hoses and blowpipe are primed with gas. Ensure this is conducted in a well-ventilated place away from sources of ignition. Purging should be carried out after each period of non-use.



*** IDENTIFICATION OF GAS CYLINDERS**
Gas cylinders are colour-coded. In the UK oxygen cylinders are black with a white/grey shoulder, acetylene cylinders are maroon and propane cylinders are orange. Cylinders should also carry a label that gives details of the type of gas. This label should be used for positive identification of the gas type. Colour codes may vary in other countries. For further advice please contact your local Kennedy distributor.

OPERATING PROCEDURES

TYPE NM 250 BLOWPIPE FOR CUTTING

Lighting up

- Check all valves on the blowpipe are closed.
- Open the fuel gas knob and light the gas using a spark lighter, adjust the gas flow until the flame stops smoking.
- Open the Oxygen valve and adjust the flame to a neutral condition
- Press the cutting lever and adjust the flame as necessary.



Shutting down

- Close the fuel gas control valve on the blowpipe.
- Close the oxygen gas control valve on the blowpipe.
- Close both cylinder valves.
- Reopen the control valves on the blowpipe to vent the gas in the system.
- Unscrew the pressure adjusting knobs on the regulators, and when the system is fully relieved of pressure, close the gas control knobs on the blowpipe.

LIGHTWEIGHT AND TYPE 5 WITH WELDING OR HEATING NOZZLE

Lighting up

- Check all valves on the blowpipe are closed.
- Open the fuel gas knob and light the gas using a spark lighter, adjust the gas flow until the flame ceases to smoke.
- Open the Oxygen valve and adjust the flame to a neutral condition. Note some operations may require a different flame type as detailed on the next page.



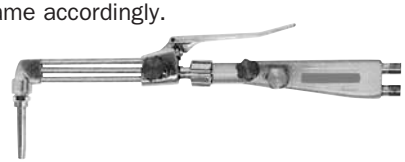
Shutting down

- Close the fuel gas control valve on the blowpipe
- Close the oxygen gas control valve on the blowpipe
- Close both cylinder valves
- Reopen the control valves on the blowpipe to vent the gas in the system
- Unscrew the pressure adjusting knobs on the regulators and when the system is fully relieved of pressure, close the gas control knobs on the blowpipe.

LIGHTWEIGHT AND TYPE 5 WITH CUTTING ATTACHMENT AND NOZZLE

Lighting up

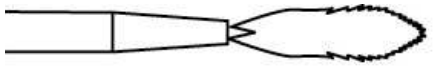
- Check all valves on the blowpipe are closed.
- Open the fuel gas knob and light the gas using a spark lighter, adjust the gas flow until the flame ceases to smoke.
- Open the Oxygen valve on the shank fully, and adjust the flame to a neutral condition using the oxygen valve on the cutting attachment.
- Press the cutting lever and readjust the flame accordingly.



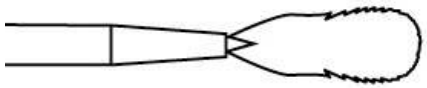
Shutting down

- Close the fuel gas control valve on the blowpipe.
- Close the oxygen gas control valve on the blowpipe.
- Close both cylinder valves.
- Reopen the control valves on the blowpipe to vent the gas in the system.
- Unscrew the pressure adjusting knobs on the regulators and when the system is fully relieved of pressure close the gas control knobs on the blowpipe.

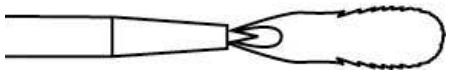
FLAME TYPES



Oxidising flame: Sharp centre cone, roaring flame for Brazing and welding brass



Neutral flame: Rounded centre cone, for Welding and heating



Carbonising flame: Double centre cone, for Hardfacing

FLASH BACK ARRESTERS

- Ensure the flash back arrester is fitted in the direction of gas flow arrow on the unit.
- Ensure the flashback arrestor is the correct type for the gas in use.

TROUBLE SHOOTING

- Torch bangs or snaps out during ignition
  - A -Ensure hoses are purged correctly
  - B -Increase fuel gas flow before lighting
  - C -Check torch for leaks
  - D -Check nozzle is properly seated
  - E -Ensure sufficient flow of Acetylene for the nozzle size in use (see page 6)
- Torch bangs or snaps during use
  - **A** - Check gas flow and pressure is correct for the nozzle size
  - **B** - Check the nozzle is not blocked, clean with nozzle cleaners
  - **C** - Replace nozzle
- Torch bangs when switching off. Ensure the fuel gas supply is switched off first

MAINTENANCE

Daily
Check the condition of all equipment checking for damage, especially hose sets

Weekly
Pressure test the system and check the system for leaks using a suitable 0.5% detergent solution in water (or other oil free leak detection fluid)

Every Five Years
We recommend that this product is refurbished by a qualified person or replaced. (Refer to the date stamp on the equipment for details)