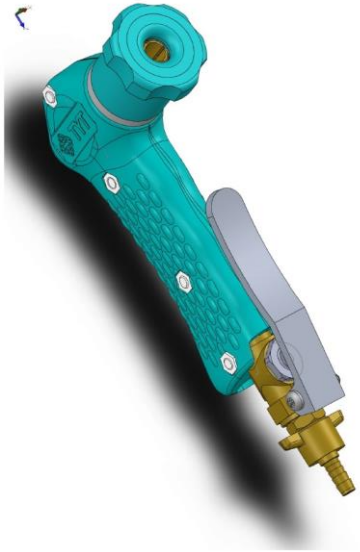
TYT UNDERWATER CUTTING & WELDING EQUIPMENTS

TYT-EEKT USER & MAINTENANCE MANUEL



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WARNING! For safe operation, users must read and fully understand the instructions in this manual and follow all procedures while using the TYT-EEKT underwater cutting torch. Underwater cutting and welding equipment can be potentially hazardous, and improper use may result in serious injury or death. This equipment must be used strictly in accordance with the provided instructions. The information contained in this manual includes essential guidelines for users and distributors. TYT accepts no responsibility for any misuse of the equipment!

Underwater cutting and welding operations must only be performed by trained commercial divers and in accordance with recognized safe diving practices. Always apply the accepted safe diving procedures for commercial diving while performing cutting operations.

All divers and dive supervisors performing underwater cutting must comply with these instructions, ensure the correct use of underwater cutting equipment, and adhere to recognized safe commercial diving practices.

If you have any questions regarding the safe operation of TYT underwater cutting systems, please contact TYT for technical assistance.Tel: +90 212 226 1898

TYT shall not be held responsible for any loss or damage incurred by any party due to any error or omission in this manual, whether such error arises from negligence, accident, or any other cause.

WARNING! To avoid serious injury or accidents, follow the safety warnings in this section and all other warning sections.

Incorrect replacement of parts in this equipment may cause oxygen leaks, which could lead to an explosion. Replace parts with extreme caution and do not use the equipment in any way not specified in these instructions. Only use genuine TYT replacement parts.

To prevent molten parts from contacting your hands and body Do not use a damaged electrode. Always insert the correct end of the electrode (the yellow-marked side) into the torch. Use the cutting electrode until it reaches the yellow-marked section, then stop by releasing the oxygen flow lever. Wear an insulated diving suit and gloves.

Do not use rust removers, oily cleaners, solvents, or acidic substances to clean the inside and outside of the torch, as this may cause internal burning or an explosion in the torch or oxygen hose. Always keep oil and grease away from oxygen cylinders, valves and regulators, hoses, and fittings. Maintenance and repairs on TYT-EEKT parts should be carried out by a qualified and knowledgeable technician.

Using the torch without a particulate filter may cause sudden flame-ups and explosions in the torch. Do not use the torch without a particulate filter.

Using a torch or electrode designed for terrestrial use in underwater cutting may cause electric shock to the diver. Always use the TYT-EEKT exothermic cutting torch and TYT-EKE1050 underwater electrodes.

To prevent electric shock to the diver or damage to the equipment being used, always use the TYT-KAIRA UWKS knife switch before changing electrodes.

Do not use "empty steel pipes" for underwater cutting operations. Steel pipes can cause excessive gas buildup and oxygen explosions.

The use of underwater cutting electrodes from other manufacturers may cause flame backflash, internal burning, or injury to the diver. Always use TYT-EKE1050 exothermic cutting electrodes with the TYT-EEKT exothermic cutting torch.

Note: When cutting or melting non-conductive materials such as concrete, rock, coral, mastic, rope, or keystone (shellfish), an ignition plate (a steel or copper plate connected to the chassis cable) is required to initiate the spark and ignite the electrode. After the electrode is ignited, maintain the oxygen flow and make contact between the electrode and the target material.

Recommended Oxygen Pressure Adjustment Table by Depth.

Depth		Oxygen Regulator Output Pressure	
Meter	Feet	Bar	Psig
10	33	6	72
12	40	6	72
18	60	7	86
24	78	8	101
30	98	10	130
40	131	10	130

Set the output pressure on the regulator gauge as shown above.

Recommended Amperage Adjustment Table by Cable Length and Diameter.

Cable Length		Amperage Adjustment According to Cable Diameter		
Meter	Feet	$50mm^2$	$70mm^2$	$85mm^2$
50	165	60	60	60
75	250	65	65	65
100	330	70	70	70

For cables longer than 100 metres, add 3 amps to the amperage settings for every 16 metres, as increases in cable length cause amperage losses.

TYT-EEKT FEATURES

1) Ergonomic Design

2) Easy to Use Collet Nut

3) Hardened Metal Parts

4) Stainless Steel Screws

5) Quick Gas Connection

6) Unbreakable Body

BEFORE USE

Before using the TYT-EEKT Exothermic cutting torch, make sure that all connections have been made correctly

a) Connect the torch to the Oxygen supply (regulator) and bring the oxygen pressure to the recommended pressure level for the working depth

b) Connect the torch to the negative (-) pole of the welding machine or knife switch and adjust the recommended amperage setting according to the cable length via the welding machine

c) Connect the earth clamp to the positive (+) pole of the Welding Machine or Knife Switch

d) Before starting the cutting operation, only check that there is no oxygen leakage by placing the torch in a bucket filled with water.

e) If you see an oxygen leak on the torch, do not use the torch and have the necessary parts or seals replaced by a technician.

WHEN USING

Observe the following instructions when using the TYT-EEKT Exothermic cutting torch

a) Lower the torch and earth clamp to the area to be welded and fix the earth clamp to the target material to be cut or leave them close to it

b) Insert the cutting electrode into the collet on the torch, clamp the electrode and instruct the personnel on the surface to switch on the current via the knife switch (you will see bubbles coming out of the cutting electrode when the current is switched on)

c) Press the oxygen flow handle by bringing the cutting electrode into contact with the target material to be cut at a sufficient angle. When the cutting electrode burns out, instruct the personnel on the surface to switch off the current via the knife switch

d) The cutting electrode will melt while burning TYT-EKE1050 When the yellow warning sign on the exothermic cutting electrode is reached, stop the burning by releasing the oxygen flow handle and repeat the process by installing a new electrode

AFTER USE

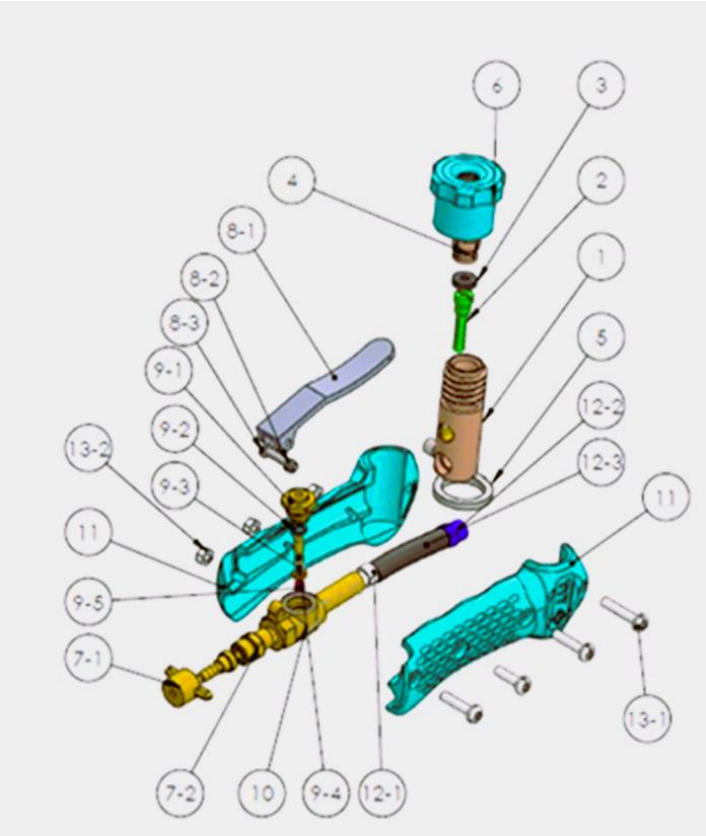
a) The Collet and Collet nut on the TYT-EEKT cutting torch may suffer from galvanic corrosion due to the electrolysis effect during cutting, in this case, you should gently clean the corroded parts with a wire brush and fine sandpaper when the cutting process is finished.

b) Wash the torch with liquid soap and fresh water, never clean the torch with rust remover or petroleum based cleaning fluids, these fluids may ignite when in contact with oxygen and damage the torch

c) Check the electrical cables and cable connectors connected to the TYT-EEKT cutting torch, clean or replace any corroded parts

NOTES:

TYT-EEKT EXOTHERMIC CUTTING TORCH PARTS



Cutting Torch Body with 1,5m 50mm2 Cable Part No:1
Cutting Torch Particule Filter Part No:2
Cutting Torch Collet Part No:3-4
Cutting Torch Collet Nut & Washer Part No:5-6
Cutting Torch Oxygene Fitting Set Part No:7 (1-2)
Cutting Torch Oxygene Flow Handle Set Part No:8 (1-2-3)
Cutting Torch Oxygene Control Valve Set Part No:9 (1-2-3)
Cutting Torch Oxygene Control Valve Pin & Spring Part No:9 (4-5)
Cutting Torch Oxygene Control Valve Body Part No:10
Cutting Torch Handle (Left, Right) Part No:11
Cutting Torch Body Oxygene Hose Part No: 12 (1-2-3)
Cutting Torch Handle Screw Assembly (4pcs) Part No:13 (1-2)