



# CYKLON X™

## USER MANUAL 1.7





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## Conventions Used in this Guide

This User's Guide is NOT intended for use as a training manual, or in any way as a substitute for proper training through a legitimate training agency approved by Poseidon AB. It is only intended to provide basic information concerning the Poseidon Cyklon X Regulators.

Throughout this Guide, special alert boxes have been inserted to draw attention to critical information. Two levels of alerts are used in conjunction with color-coded symbols, as follows:



### **DANGER:**

Alert boxes that are **RED** contain extremely critical information related to the safety and well-being of the diver. Failure to comply with information contained in these boxes could lead to serious injury or death.



### **WARNING:**

Alert boxes that are **YELLOW** contain vital information that may impact a diver's safety and/or proper function of the Poseidon Cyklon X. Though generally not life-threatening, information contained in these boxes should not be ignored.



### **IMPORTANT!**

Alert boxes that are **BLUE** contain important information about the proper care and maintenance of the Poseidon Cyklon X, and that may increase diver comfort or enhance enjoyment during dives.



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### **DANGER:**

Do not attempt to use the Poseidon Cyklon X without proper professional instruction from an authorized Poseidon Cyklon X dealer, or without a thorough and complete working knowledge of the material contained in this manual. Careless can cause serious injury or death. It is the user's responsibility to attentively monitor the Poseidon Cyklon X and to have a working knowledge of the procedures if a problem should arise.



## Introduction

**Welcome, to the world of Poseidon divers. Here at POSEIDON we are very pleased that you have chosen one of the world's foremost diving regulators.**

**POSEIDON has been developing regulators for divers since 1958. Professional divers, military divers, and techdivers choose POSEIDON equipment because of the high demands they place on our products - the same demands you have!**

Your new regulator has been designed to provide you with a life time of pleasure as a POSEIDON diver. Our objective is that the equipment you use should not be noticeable, instead it should be at one with the experience and give you total freedom to achieve what every diver dreams about, the ultimate dive. To be at one with the water. To have full control and at the same time feel the weightlessness when, meter by meter you descent into a world of your own.

Nothing shall disturb your concentration. No wheels or knobs that need adjusting. No regulators that resist your breathing when you have reached your target depth. No suits that limit your freedom of movement or get damaged at the slightest encounter. This vision has accompanied Poseidon since the legendary diving enthusiast and engineer, Ingvar Elfström started the company in the late 50's. The same ideas motivate us now.

The name Poseidon represents constant development and improvement of diving equipment where everything is positioned correctly and everything functions, even in the most extreme situations.

Products developed in cold Scandinavian waters that are among the toughest you can dive in. If they work here, they will work anywhere. Poseidon's devoted followers are convincing proof of that. Thank you for your confidence.

**Yours faithfully**



## Approvals/Certifications

Cyklon X / Cyklon X Metal is approved according to PPE Regulation 2016/425 (see Technical Data for full detail).

EN 250:2014 for cold water diving

CE certificate of conformity  
No. FI21/968950.

SGS Fimko OY,  
Takomotie 8,  
FI-00380 Helsinki,  
Finland  
Notified body number 0598

Production quality assessment  
according to regulation  
Module D is assessed by:

SGS Fimko OY,  
Takomotie 8,  
FI-00380 Helsinki,  
Finland  
Notified body number 0598

Type approvement certificate  
GB19/964597 is issued by:

SGS United Kingdom Limited,  
Rossmore Business Park,  
Ellesmere Port,  
Cheshire CH65 3EN, UK  
Approved body number 0120

Production quality assessment  
according to regulation  
Module D is assessed by:

SGS United Kingdom Limited,  
Rossmore Business Park,  
Ellesmere Port,  
Cheshire CH65 3EN, UK  
Approved body number 0120



Poseidon Diving Systems AB is certified according to ISO 9001







## Definitions/Abbreviations

**Trimix:** a gaseous mix containing Oxygen, Nitrogen and Helium.

**EAN 40:** any gas mixture containing greater than 21% oxygen up to 40%.  
**Enriched Air Nitrox.**

**IP:** Interstage pressure; the pressure existing between the 1st stage and the 2nd stage valve.

**HP:** High pressure; the pressure inside the SCUBA cylinders, normally ranging between 300 bar (4351 psi) to 10 bar (145 psi)

**Scfm:** standard cubic feet per minute.

**l/min STPD:** standard temperature and pressure dry gas.

**T.D.A:** Thermo Dynamic Anti-Freeze.



## Cyklon X

### POSEIDON CYKLON X (ART. NR 0100-100 / CYKLON X METAL (ART. NR 0100-101)

The first thing you should do, when you've bought a new Cyklon X / Cyklon X Metal regulator, is to check and make sure that all parts are included in the package.

Save all receipts, as you will need those for any future warranty claim.



#### **Cyklon X (art. nr 0100-100)**

- 1 pcs first stage (art. nr 0110-006)
- 1 pcs second stage (art. nr 3354)
- 1 pcs low pressure hose, 70 cm/27,5 inch (art. nr 2946)
- 1 pcs user guide



#### **Cyklon X Metal (art. nr 0100-101)**

- 1 pcs first stage (art. nr 0110-006)
- 1 pcs second stage (art. nr 3354 M)
- 1 pcs low pressure hose, 70 cm/27,5 inch (art. nr 2946)
- 1 pcs user guide



#### **Cyklon X Octopus (art. nr 2981)**

- 1 pcs second stage (art. nr 3536)
- 1 pcs low pressure hose, 90 cm/35,4 inch (art. nr 2947)



#### **Cyklon X Octopus (art. nr 2981 M)**

- 1 pcs second stage (art. nr 3536 M)
- 1 pcs low pressure hose, 90 cm/35,4 inch (art. nr 2947)



## General Safety Instructions

Poseidon only warrants the regulator performance as specified herein, and cannot be held responsible for improper preparations, incorrect gas mixing and planning, or diving beyond individual medical, psychological and physical limitations.

### LIMITATIONS OF USAGE:

Cyklon X / Cyklon X Metal / Cyklon X Octopus / Cyklon X Metal are only for use with air.

The oxygen partial pressure must normally not exceed 1.4 bar (20.3 psi), under the foreseeable maximum diving depth. Only if established oxygen exposure tables are strictly adhered to, and a responsible organisation is planning dives with increased exposures, elevated levels can be accepted for a shorter period of time. The oxygen partial pressure must never be lower than 0.2bar (2.9 psi), under the foreseeable minimum diving depth.

The nitrogen partial pressure must not exceed 3.2 bar (46.4 psi), under the foreseeable maximum diving depth.

Inhaling cold gas and exhaling warmed gas, represents energy losses of the human body (thermal imbalance, hypothermia). This effect increases with increasing depth and can result in a sudden unconsciousness. Diving to extreme depths this effect must be considered, calculated and planned for and preventive actions must be taken, such as proper thermal protection and pre-heated gas.

Cyklon X / Cyklon X Metal / Cyklon Octopus / Cyklon Metal Octopus is for unlimited use in water temperatures from water freezing temperature +4°C to +50°C (122°F). The freezing temperature depends on salt content.

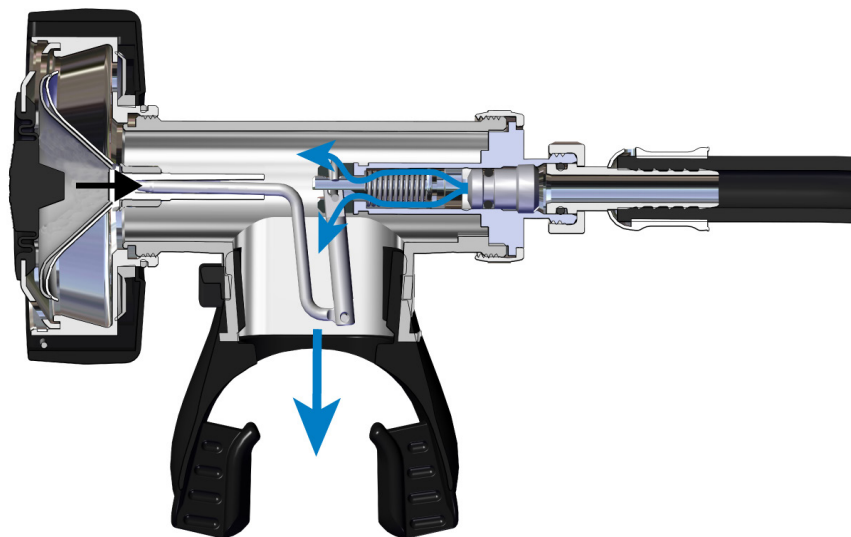
Diving with gas blends other than air, or deeper than 18 m (59 ft), or in overhead environment, requires special training regarding practices, equipment, physical



and medical understanding. This manual assumes the reader has some basic knowledge in those respects.

Diving is a strenuous physical activity. Its difficulty may be increased by conditions such as cold water, poor visibility, hard work, and increased depth. Always try to exercise prudent judgement when determining whether or not to dive. Never dive when tired or in poor health.

Diving deeper than 50m (164 ft) using gasses other than air is more demanding on the equipment. Most equipment on the market is only approved for use within EN 250 limits.





## Preparations

Your regulator is life support equipment and it should be handled with care and maintained and checked regularly.

Before each dive, we recommend that you check the following things on your regulator:

- Perform a visual inspection of your equipment to make sure there are no damage or defects. If damage or defects are detected, or you suspect that the equipment is damaged or defective, do NOT use the equipment until it has been checked, and if needed, repaired by a service technician certified to service/repair Poseidon equipment.
- The Poseidon Low pressure hoses are equipped with an inspection hole, allowing you to verify that the hose and connection are properly assembled. Before each use, verify that you can see the rubber hose in the inspection hole. If you do not see any rubber in the inspection hole, the hose should be discarded IMMEDIATELY and NOT used, as it will pose an immediate risk of a hose failure/ accident. Diving with a hose where rubber isn't visible in the inspection hole can be life threatening!



- We recommend that you regularly replace your low pressure hoses to avoid situations where your safety is jeopardized by using worn out hoses. It is often difficult/impossible to tell from the outside of a hose, if it is about to fail. Rubber, the material the hose is made out of, ages over time and do not last forever. Replacing your LP hoses every 5 - 6 years is advisable.
- Make sure all visible o-rings (hose connections and ISO 12029 connection) are properly assembled and without any damage. To minimize the number of times where you have to abort a dive due to bad o-rings, we recommend that you always keep a spare set of o-rings in your dive bag. Note that o-rings over time dry out and their functionality is reduced, thus these should be replaced periodically.



## Regular maintenance service on your regulator

**Your regulator is life support equipment and it should regularly undergo maintenance service to minimize the risk of failure, accidents and injury.**

**We recommend that maintenance service should be performed about once every 100 dives or biannual, whatever comes first. Maintenance service should be performed by a service technician that is certified to service Poseidon equipment and only Poseidon original parts should be used.**

**It's recommended that you keep a record of the dates when service has been performed, in the Notes section of this user manual, so that you can keep track of when the next service is due.**



## Assembly

Before you assemble your Cyklon X regulator, please pay attention to the following:



*Low- and high pressure ports*



*Hose connections*

- The first stage has five (5) low pressure ports and two (2) high pressure ports. These different types of ports are marked with IP for the low pressure ports and HP for the high pressure ports.
- Low and high pressure ports have different thread size to avoid accidentally mounting components in the wrong port. If a hose connection does NOT fit in a port, do not use force/violence to connect the hose to the port. This could lead to accidents and injury.
- The connection thread on the Cyklon X second stage, where the low pressure hose connects to the second stage, is not the same sizes as on many other brand/model second stages. That's why it's important that you use an original Poseidon low pressure hose to your Cyklon X second stage and do not use force or modifications to attach other brand's low pressure hoses to a Cyklon X second stage. This could lead to accidents and injuries.



## MOUNTING THE REGULATOR ON A TANK

The procedure below only describes the way you mount the regulator and it does not replace all the steps you've learnt during your dive training.

- Carefully open the tank valve and clear any dirt/debris/water in the valve connection. Then close the valve.
- Remove the protective cap from the first stage ISO 12029 connection.
- Make sure the o-ring on the first stage ISO 12029 connection is mounted and without any damage. Then mount the first stage on the valve. Turn the connection wheel until you can feel that the first stage is firmly attached to the valve.
- Carefully open the tank valve completely and then turn the valve knob half a turn in reverse.
- Purge the second stage a couple of times, to clear the second stage of any debris left from the previous dive.
- Check the pressure gauge to make sure the tank is full.
- Breathe on the primary second stage and the octopus to make sure they work (provide air). If the inhalation air smells or tastes bad, the air in the tank should be replaced.
- The regulator is now ready to dive with.





## During a Dive

What is most distinctive about the Cyklon X is that they are easy to use – there aren't any valves or switches to change the flow of air, breathing resistance, etc. You can leave the function and performance of the regulator in our hands and concentrate on what you want to do - dive.

The Cyklon X allows for ease of breathing and supplies air in a reliable manner.

A few things worth noticing:

- There's no "up or down" on the Cyklon X second stage. Regardless of which way you place the mouthpiece in your mouth, the second stage will always work and provide all the air you need.
- There are no functionality- or construction differences between a primary second stage and an Octopus. The only difference is the color.
- Water in the tank is the most common cause of freezing regulators.



## After Diving

The regulator should always be rinsed while it is still mounted on the tank. The regulator should be under pressure, otherwise water can enter either the first or the second stage and cause the build up of ice during your next dive!

If water enters your first stage, corrosion could form inside the first stage leading to loss in performance and/or failure. If you suspect water has entered the first stage we recommend that you let a service technician, certified to service/repair Poseidon equipment, disassemble your first stage to dry and clean it.

- The regulator should be rinsed in fresh water after every dive so as to avoid salt crystal formation around the functional parts. Purge the second stage while you rinse it, to allow fresh water to access all parts of the second stage.
- Blow the equipment dry by using air pressure.
- After rinsing, close the cylinder valve and purge the regulator.
- Unscrew the regulator from the tank and mount the protective cap onto the connection.
- Pack and store your regulator in your regulator bag. This protects the regulator from damage. It is especially important to protect the connection areas.

The regulator should not be stored in direct sunlight and/or at high temperatures.



### **WARNING:**

Never use the 1st stage housing to unscrew the regulator from the tank. This can fully or partly unscrew the connection stem from the housing, and create a future hazard. Always use the handwheel.



## WHAT YOU DO YOUR SELF

What is most distinctive about the After every dive the equipment should be cleaned according to the instructions in "After diving." The regulator does not have to be lubricated beyond what is done by Poseidon or when serviced.

It is, however, recommended that you regularly lubricate the o-rings located on the low- and high pressure hoses and the first stage ISO 12029 connection. This will reduce the risk of leakage and prolong the lifetime of the o-rings.

### IMPORTANT

When opening the cylinder valve, do not direct the stream of air at anyone. It can cause serious injury. Always exercise caution with diving equipment. Remember that pressure at 200 bar on a surface the size of a fingernail has the power of approximately 350 kg/770 lb.

Diving is a strenuous physical activity. Its difficulty may be increased by conditions such as cold water, poor visibility, hard work, and increased depth. Always try to exercise prudent judgement when determining whether or not to dive. Never dive when tired or in poor health.



## Regular maintenance service on your regulator

**Your regulator is life support equipment and it should regularly undergo maintenance service to minimize the risk of failure, accidents and injury.**

**We recommend that maintenance service should be performed about once every 100 dives or biannual, whatever comes first. Maintenance service should be performed by a service technician that is certified to service Poseidon equipment and only Poseidon original parts should be used.**

**It's recommended that you keep a record of the dates when service has been performed, in the Notes section of this user manual, so that you can keep track of when the next service is due.**



## Product Markings

Cyklon X och Cyklon X Octopus are marked with CE 0120 and EN 250. The markings show that the product meets or exceeds the requirements of PPE Regulation 425/2016 and the harmonized standard EN 250:2014 for SCUBA equipment.

## Other

- A regulator is primarily constructed of brass and recyclable plastic, both of which can be recycled.
- Do not use cleaning chemicals of any kind to clean the regulator. Neither may silicone or any other lubricant be poured or sprayed into the regulator.
- Interstage pressure (IP) and safety valve opening pressure is preset by Poseidon and readjustment is prohibited. Readjustment of IP will never boost performance.
- The use of accessories which have not been recommended can seriously impair the function of your equipment.
- Pressure-gauge hoses without a restriction in the connection can, if the hose is punctured, allow a powerful jet of air to escape.
- Self-made and/or by Poseidon unauthorized changes/modifications to the product may lead to reduced functionality and failure, resulting in personal injury or death. Poseidon are NOT responsible for equipment where modifications beyond product specifications have been made and any/all warranty claims will be turned down.
- Poseidon is NOT responsible for any parts/components manufactured by any party/company other than Poseidon, mounted on Poseidon equipment.
- The air supply used shall meet the requirements for breathable air in accordance with EN 12021



### **WARNING:**

The use of accessories which have not been recommended, can seriously impair the function of your equipment.  
Pressure-gauge hoses without a restriction in the connection can, if the hose is punctured, allow a powerful jet of gas to escape.



## Accessories

Cyklon X (art. nr 0100-100) / Cyklon X Metal (art. nr 0100-101) can be used with the following accessories:

- All Cyklon X Octopus (art. nr 2981 and 2981 M).
- Yoke connections.
- Swiveling connection 90° 3/8" for low pressure hoses.
- Banjo connection 90° 7/16" for pressure gauges.
- All EN250 approved pressure gauge hoses.
- Pressure gauges and dive computers, as long as they are connected using an EN250 approved pressure gauge hose.
- EN250 approved low pressure hoses.
- Poseidon original connections for adapting to different thread sizes.
- EN250 approved inflator hoses.

## Support

When you purchase a POSEIDON product you receive access to thousands of authorized service outlets world wide. More information can be found and the latest manual is available for download on POSEIDON's homepage [www.poseidon.com](http://www.poseidon.com).

Poseidon's goal is to resolve errors/problems, covered by our warranty terms, as close to the end consumers as possible, thus resolving these issues as quickly and easy as possible. Thus Poseidon has created a working infrastructure for warranty case handling,

If you have a warranty claim on a Poseidon product, please contact the dive shop where you purchased your product. If this isn't possible, contact the Poseidon representative in the country/market where you reside. When claiming warranty, proof of purchase must be submitted.

Contact information to our partners around the world can be found at [www.poseidon.com](http://www.poseidon.com).



## Technical data



### Regulator 0100-100/101

Approved to depth (m/ft):	50 m / 164 ft
Intermediate pressure (bar / psi):	11,5 bar / 166,7 psi
Nitrox:	No
100% oxygen:	No
Trimix (max 21% oxygen):	Yes
Compressed air:	Yes
Working pressure 300 bar / 4350 psi:	Yes
EN250 approved:	Yes
CE approved:	Yes
LP hose length standard (cm / inch):	70 cm 27,5 inch



### First stage 0110-006

Flowrate (l/min)	>4000 l/min (>141 scfm)
Nominal inter-stage pres.	8.5 bar (123 psi)
Anti-Freeze protection	Built in T.D.A
Technique	Rolling diaphragm
Valve technique	Ball valve
Seat material	Zytel
Test pressure	450 bar (6526 psi)
Ports	5 IP (UNF 3/8") / 2 HP (UNF 7/16")
Material	Brass, plastics, stainless steel

### Second stage 3354 / 3354 M

Color:	Black / Black Black / metal
Material:	ASA, Stainless steel, Brass
Weight (gram/oz):	200 gr / 7,0 Oz 250 gr / 8,8 Oz
Vvolyne (ml / fl. oz)	60 ml / 2,0 fl. oz
Valve technology:	Downstream
Flow rate (l / min / cft/min):	1250 l/min 44 cft/min



*Cyklon X Octopus (art. nr 2981)*

### Cyklon X Octopus 2981

Color:	Yellow
Material:	ASA, Stainless steel, Brass
Weight (gram/oz):	200 gr / 7,0 Oz
Wolym (ml / fl. oz)	60 ml / 2,0 fl. oz
Valve technology:	Downstream
Flow rate (l / min / cft/min):	1250 l/min 44 cft/min
Oxygen clean:	No
LP hose length standard (cm / inch):	90 cm 35,4 inch



*Cyklon X Metal Octopus (art. nr 2981 M)*

### Cyklon X Metal Octopus 2981M

Color:	Yellow / Metal
Material:	ASA, Stainless steel, Brass
Weight (gram/oz):	250 gr / 8,8 Oz
Wolym (ml / fl. oz)	60 ml / 2,0 fl. oz
Valve technology:	Downstream
Flow rate (l / min / cft/min):	1250 l/min 44 cft/min
Oxygen clean:	No
LP hose length standard (cm / inch):	90 cm 35,4 inch





## Product and components

Product	Article Number
<b><u>Breathing Regulator (box marking)</u></b>	
Poseidon Cyklon X	0100-100
Poseidon Cyklon X Metal	0100-101
Poseidon Cyklon Octopus	2981
Poseidon Cyklon Octopus Metal	2981M
<b><u>1st stages (item marking)</u></b>	
Poseidon Cyklon X	0110-006
<b><u>2nd stages (item marking)</u></b>	
Poseidon Cyklon Black	3354
Poseidon Cyklon Black Metal	3354M
Poseidon Cyklon Octopus	3536
Poseidon Cyklon Octopus Metal	3536M
<b><u>Cyklon hoses</u></b>	
Cyklon hose 70cm	2946
Cyklon hose 90cm	2947
Cyklon hose 120cm	2948
Cyklon hose 150cm	3146
Cyklon hose 215cm	3147
<b>Mouthpiece AIR</b>	4532



Declaration of conformity:

<https://poseidon.com/docs>

This PPE protects the user from the following risks:

- Drowning
- Various nuisance factors
- Usage of materials that can affect the human body
- Design defects
- Incorrect use

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