TECLINE

TECHNICAL DIVING EQUIPMENT CATALOGUE

photo by Andrei Gorbunov

TECLINE

TECHNICAL DIVING EQUIPMENT

Scubatech Co. Ltd. was established in 2002 by experienced instructors, Trimix and rebreather divers. Our company manufactures the whole range of high quality regulators dedicated for diving in difficult weather conditions which prevail in northern part of Europe.

Our regulators have been successfully used for almost 13 years by professional divers, marines, the fire department and recreational divers. Answering the needs of the developing technical market, we created a new line of equipment called TECLINE. This line consists of wings, harnesses, regulators, SPGs, valves, thermal undergarment, lights & others. This equipment is dedicated to both divers who have just began their adventure with recreational diving and the most demanding technical divers who explore undiscovered places. Each piece of equipment which we want to introduce on the market is previously carefully tested by our team. All of the products fulfill the high requirements of European norms and they are CE certified.

Our perfection has been also appreciated by many famous brands of diving equipment and we are also proud to be distributor of them:
Sitech, Ocean Reef, Pinacle, DUI, Faber, Eurocylinder, Luxfer, McNett, Innobeam, Saekodive.

For more information about the products, please visit:

www.tecline.com.pl

or don't hesitate to contact us directly at:
scubatech@scubatech.pl

Tomasz Stopyra
President

- WHEREVER YOU DIVE -

photo by Tomasz Płociński

THE PERFECT CONFIGURATION
DIR SET V2

DONUTS SPECIAL EDITION SERIES + DIR SET V2 ICE REGULATORS

„V" SHAPE ALLOWS FOR KEEPING HEAD IN HIGH POSITION, WHICH MAKES TRIM AND SAFETY MUCH BETTER.

VERTICAL PORTS' SETTING RESULTS IN PERFECT HOSES ARRANGEMENT.

UNIQUE CONSTRUCTION OF REGULATORS ALLOWS FOR EASY VALVE ACCESS.

CE1463
EN250

DIR SET V2

- 2 x first stage left & right
- 2 x second stages
- LP hose PROFLEX 2,00m
- LP hose PROFLEX 0,61m
- HP hose PROFLEX 0,61m
- SPG 52mm TECLINE
- 1 x SS swivel bolt snap 76mm
- 1 x SS swivel bolt snap 88mm
- 0,75 M bungee necklace
- Silicone necklace
- Regulator bag

Joining the wings from Special Edition series (D17SE, D22SE, D30SE) with V2 ICE regulators is the ideal solution for the "tech" instructors' teaching, apart from the other skills, the proper trim and valves' maneuvering. This means quicker way for mastering these techniques for the students and the warranty of incredible comfort while diving with the doubles for the technical divers. The regulators are covered by a 10-year warranty for the first owner.

V2 ICE first stage cooperates with most of the second stages of other brands without the loss of warranty, so if you have your favorite 2nd stage, you can simply use it with V2 ICE. The tools needed for servicing do not differ from those used for the servicing of other popular regulators. Spare parts needed for servicing in the field are the same as in the most of the available 1st stages – V2 doesn't have in this respect any surprising solutions... maybe apart from one – this is V2 ICE – the only such regulator.

REGULATORS V2 ICE

CE1463
EN250

V2 FIRST STAGE REGULATOR L&R

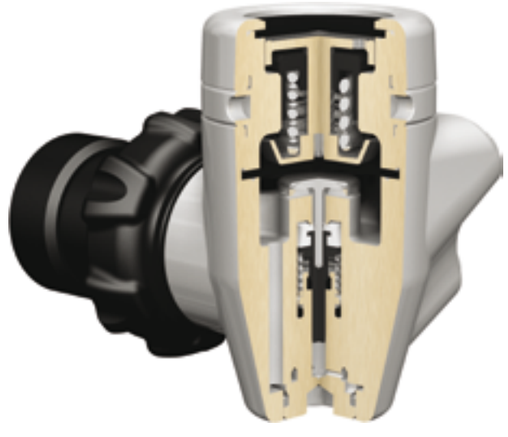
- Diaphragm
- Additional dry chamber: COLD KIT
- Balanced
- 2 LP ports / 1 HP ports
- Maximum operational pressure: 300 bar
- Maximum flow by 20 MPa pressure: 3823 l/min
- Intermediate pressure: 8,5 bar
- Material: maritime bronze
- Weight: 790g
- Can be used with Nitrox up to 40%

3D OF I STAGE

V2 SECOND STAGE REGULATOR

- Balanced
- Regulation of breathing underpressure
- Regulation of breathing resistance
- Breathing resistance : 0,983 – 1,004 J/l
- Maximum flow by 20MPa pressure: 850l/m
- Can be used with Nitrox up to 40%
- Material: polyamide
- Weight: 210g

3D OF II STAGE



V2 ICE MONO

A new regulator by Tecline, V2 ICE MONO, can be used by both beginner and experienced divers, who like safe diving with single tank in cold water.

We invite all those, who conduct classes for future technical divers, to carefully get acquainted with Semi Tec configuration, which allows for combining V2 ICE MONO with a single tank in a way which reflects the twin configuration.

CE1463
EN250

ESSENTIAL FEATURES:

- intuitive work with the regulator by beginners
- safe layout of hoses without loops standing out from the diver
- easy change of configuration from recreational to technical DIR
- comfortable knob allowing for easy installation of the regulator on valve
- safe arrangement of the 2nd stage of regulator (“always in front of the diver”)
- configuration “Semi Tec 2” (2 regulators V2 ICE MONO+ “T” valve) sets the hoses in an exactly the same way as in the twin set, making diving under ice even safer
- a large heat exchanger allowing for safe diving in low temperatures.

THE SET V2 ICE MONO SEMI TEC 1

FOR TANKS WITH A SINGLE VALVE

- 1 x first stage V 2 ICE MONO, diaphragm with Cold Kit,
- 4 x LP ports
- 2 x HP ports
- 2 x second stage V2, balanced with Venturi regulation and breathing resistance regulation
- 1 x hose LP 61 cm
- 1 x hose LP 193 cm
- 1 x hose HP 61 cm
- 1 x manometer Tecline 300 bar
- 2 x SS swivel bolt snap
- 1 x bungee for hanging the second stage
- 1 x Tecline regulator’s bag

THE SET V2 ICE MONO SEMI TEC 2

FOR SINGLE TANK WITH DOUBLE VALVE

- 2 x first stage V 2 ICE MONO, diaphragm with Cold Kit,
- 4 x LP ports
- 2 x HP ports
- 2 x second stage V2, balanced with Venturi regulation and breathing resistance regulation
- 1 x hose LP 61 cm
- 1 x hose LP 193 cm
- 1 x hose HP 61 cm
- 1 x manometer Tecline 300 bar
- 2 x SS swivel bolt snap
- 1 x necklace
- 1 x Tecline regulator’s bag

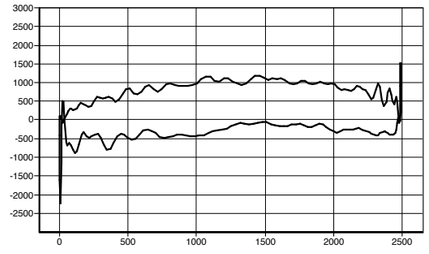
For sets of double tanks we recommend the regulator V2 ICE in DIR-sets with dedicated left and right first stage .

10 YEARS WARRANTY FOR THE FIRST OWNER

Photo taken in Aquadrome, Ruda Śląska

photo by Wojtek A. Filip

A demand regulator V2 is a scuba regulator, which supplies air only when the diver inhales it (or “demands” it). It consists of 2 stages (first stage of pressure reduction and second stage of pressure reduction), and intermediate hose dividing the stages of pressure reduction. The trusted and newest solutions in regulators’ design were implemented while creating this device. The leading companies producing diving equipment also use these solutions and they contribute to excellent parameters of V2. While describing this regulator we can use technical terms like: dry chamber, downstream setup of pressure reduction, reduced pressure 0,95 MPa, twisted connections of hoses, high quality low pressure hose with operational pressure 1,7MPa, adjustable inhalation knob, deflector properly directing the flow of breathing gas in connection with Venturi vane.
A graphic account of breathing parameters lets us read out the values of breathing resistance as well as the value of total performance. The norm specifies maximum underpressure of inhalation and overpressure of exhalation as follows: +2500Pa,-2500Pa and the total performance on the level of 3,0J/l. On the basis of presented chart and average values of all of the several inspections, which the regulators underwent, it was established that the values lie within the norms and they still have a big margin. Average values, which characterize this regulator, are: 1,35J/l for breathing performance and +1500Pa and -1000Pa for underpressure of inhalation and overpressure of exhalation respectively. The effort put into breathing is similar to the work that necessitates other regulators currently available on the market.



In many cases V2 is competitive in comparison with them. Additional benefit is the ergonomic design and the configuration of fixed AO components such as: standard (5/8”) two intermediate pressure ports as well as standard one high-pressure port (7/16”). The advantage of using standard solutions in case of pressure joints is that the user does not have to bear the cost of additional reductions for configuring the regulator with other elements of diving equipment. Compatibility of this regulator is a very practical feature.

photo by Tomasz Płociński

Equipping the first stage of the regulator with the so-called dry chamber (use of isolating membrane) proved to be beneficial during the test of the regulator in cold water (so water which temperature is lower than 10°C). Taking into consideration the geographical position of Poland as well as the thermal conditions in our lakes and the Baltic Sea, the increased resistance to freezing is a big advantage of a regulator. V2 is not prone to freezing in cold water during hard work (consumption of air more than 62l/min). In case of V2, laboratory and functional tests conducted in Laboratory of Polish Marine Academy in Gdynia on commission of the Polish Register of Shipping confirm that the regulator is safe for use. The result of this test as far as the values of breathing parameters are concerned places this regulator in a comparable position to regulators currently available on the market. The demand regulator (breathing apparatus) V2 is air diving regulator perfect for use both in recreational and commercial dives. It is intended for use with any set of air tanks with operation pressure up to 30MPa. It is compatible with all ranges of operation pressure of tanks currently present on the market. This regulator can be successfully used in dives in cold waters as well as in expeditions into warm tropical waters.

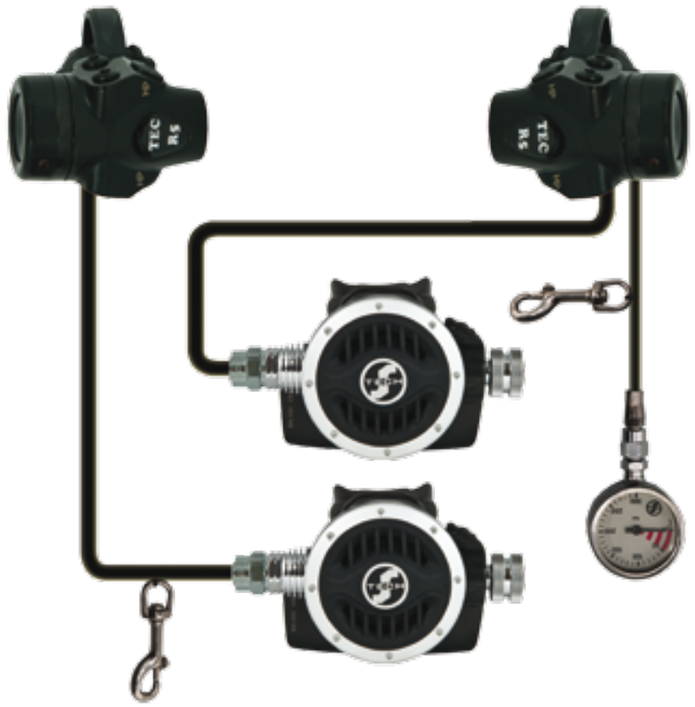
Apart from the tests conducted for us by the Polish Navy, we try to bring our regulators under new-challenges all the time. Our recent test: Depth 110 m, water temperature 8°C, bottom time 30 min, total dive time 180 min. Dive place: a cave in Croatia.

Result of the test: high comfort in keeping the position by a diver, stable flow of gas during the whole dive. V2 ICE regulators have been successfully used during the dives in closed spaces like caves, flooded mines as well as wracks in Europe for the recent 6 months. The most frequent operation temperature was 4-6 °C and the depth – 40-60 m. Gases used during the dives: air, nitrox, trimix.

R5 TEC

DESIGNED FOR COLD WATER DIVING.

CE1463
EN250



DIR SET R 5 TEC
CONSISTS OF:

- 2 x first stage R 5 TEC, diaphragm with Cold Kit, 4 x LP, 2 x HP
- 2 x second stage R 5 TEC, balanced with Venturi regulation and breathing resistance regulation
- 1 x hose LP 61 cm
- 1 x hose LP 200 cm or 210 CM
- 1 x hose HP 61 cm
- 1 x SPG 300 bar
- 2 x SS swivel bolt snap
- 1 x necklace
- 1 x regulator's bag

10 YEARS WARRANTY FOR THE FIRST OWNER

R2 ICE

The regulators from series 2, with excellent parameters, proved very well both in practice and in laboratory tests of Polish Marine Academy in Gdynia. On the basis of tests, all of SCUBATECH regulators obtained the certificates CE 1463 from Polish Register of Shipping. These certificates state that our regulators fulfill the requirements of EN250: 2000 norm, which defines strict technical parameters for regulators designed for cold waters. Regulators from series 2 have incredibly low breathing resistance, which contributes to minimizing air consumption.

CE1463 EN250

OUR REGULATORS WERE TESTED IN LABORATORY OF POLISH MARINE ACADEMY IN GDYNIA

FIRST STAGE OF REDUCTION
R2 ICE

- Diaphragm
- Additional dry chamber (COLD KIT)
- Balanced
- 4 LP ports, 2 HP ports
- Maximum operational pressure: 300 bar
- Intermediate pressure: 9,5 bar
- Material: maritime bronze
- Weight: 730g
- Can be used with Nitrox up to 40%

+

SECOND STAGE OF REDUCTION
R2 ICE

Made from maritime bronze with high heat capacity ability to collect heat resulting in increased resistance to freezing.

Diaphragm environment of work of high pressure valve as well as the rest of outer elements separated from the impact of outside environment.

Additional heat protection of a dry chamber "ICE" air chamber separated by main diaphragm and diaphragm of additional Cold Kit.

4 LP ports in rotating head – ideal solution for 1-tank, recreational configurations as well as for technical configurations with the use of 2 tank sets.

2 HP ports allowing for the use of both classical manometer and a transmitter for computer.

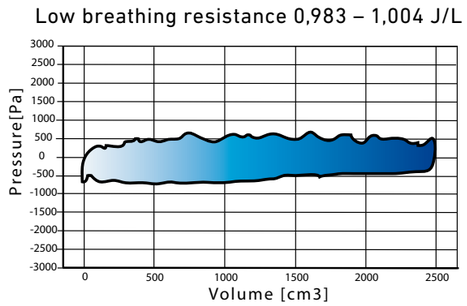
Brass cover of valve seat functions as additional protection against freezing of 2nd stage.

FIRST STAGE OF REDUCTION
R2 ICE SPECIAL

Fixed head

Regulation of breathing resistance

Made of high quality polymers



R1

Simple and reliable design of the first stage RG 1001 ensures high safety of scuba diving. Despite the fact that it is a piston construction with open chamber, it fulfills the demands of EN250: 2000 norm for cold water regulators. On the basis of the users' experience and the results of the tests conducted by laboratories of Polish Marine Academy in Gdynia, we recommend these regulators for those diving in cold waters from early spring until late autumn as well as for teaching. Very good price, simple construction which results in low cost of servicing as well as resistance to bad treatment cause that these regulators are used in diving centers in Poland, the Czech Republic, Croatia, Egypt as well as the Crimea and Lithuania.

CE1463 EN250

SECOND STAGE OF REDUCTION
R1 PRO

- Regulation of breathing under pressure
- Maximum flow by 20 MPa pressure: 850 l/m
- Intermediate hose: black, 70cm
- Material: polyamide
- Weight: 180g
- Can be used with Nitrox up to 40%

FIRST STAGE OF REDUCTION
R1 PRO

- Piston
- 3 LP ports, 1 HP port
- Maximum operational pressure: 300 bar
- Maximum flow by 20 MPa pressure: 3823 l/m
- Intermediate pressure: 9,5 bar
- Material: maritime bronze
- Weight: 515 g
- Can be used with Nitrox up to 40%

+

OCTOPUS R 3TEC

OCTOPUS R3

EACH OCTOPUS IS OFFERED WITH 90CM, YELLOW LP HOSE

COMPARISON TABLE OF REGULATORS

	R 1 PRO R 1 PRO O2	R 2 ICE	R 2 ICE Special	R 5 ICE Special
TECLINE				
First stage	**R 1 PRO / R 1 PRO O2**	**R 2 ICE**	**R 2 ICE Special**	**R 2 ICE Special**
Water chamber protected against freezing (ICE)		●	●	●
Rotating head		●		
Quantity of LP/HP ports	4 / 1	4 / 2	4 / 2	4 / 2
Type	piston	diaphragm	diaphragm	diaphragm
Maximum pressure	300 bar	300 bar	300 bar	300 bar
Intermediate pressure (working)	9,5 bar	9,0 bar	9,0 bar	9,0 bar
Maximum flow at 20 MPa	3823 l/min	3823 l/min	3823 l/min	3823 l/min
Ports at an angle				
Nitrox up to 40%	R 1 PRO	●	●	●
Nitrox from 40% to 100%	R 1 PRO O2			
Weight	515 g	800 g	650 g	650 g
Material	maritime bronze	maritime bronze	maritime bronze	maritime bronze
Second stage	**R 1 PRO / R 1 PRO O2**	**R 2 ICE**	**R 2 ICE Special**	**R 5 TEC**
Venturi regulation	R 1 PRO	●	●	●
Regulation of breathing resistance		●	●	●
Flow	935 l/min	950 l/min	950 l/min	950 l/min
Breathing resistance	0,983 – 1,004 J/l	0,983 – 1,004 J/l	0,983 – 1,004 J/l	0,983 – 1,004 J/l
Inspiration under pressure	35 – 42 mm/H_2O	32 – 42 mm/H_2O	32 – 42 mm/H_2O	20 – 38 mm/H_2O
Balanced				●
Nitrox up to 40%	R 1 PRO	●	●	●
Nitrox from 40% to 100%	R 1 PRO O2			
Radiator				●
Weight	220 g	275 g	255 g	280 g
Material	polyamide	polyamide	polyamide	polyamide

	R 2 TEC R 2 TEC O2	R 5 TEC	V2 ICE V2 ICE MONO	R 3 OCTO	R 3 TEC OCTO
					
First stage	**R 2 ICE R 2 ICE O2**	**R 5 TEC Black**	**V2 ICE V2 ICE MONO**		
Water chamber protected against freezing (ICE)	●	●	●		
Rotating head	●				
Quantity of LP/HP ports	4 / 2	4 / 2	2 / 1 4 / 2		
Type	diaphragm	diaphragm	diaphragm		
Maximum pressure	300 bar	300 bar	300 bar		
Intermediate pressure (working)	9bar	9,0 bar	9,0 bar		
Maximum flow at 20 MPa	3823 l/min	3823 l/min	3823 l/min		
Ports at an angle		●	●		
Nitrox up to 40%	R 2 TEC	●	●		
Nitrox from 40% to 100%	R 2 TEC O2				
Weight	800 g	805 g	795 g		
Material	maritime bronze	maritime bronze	maritime bronze		
Second stage	**R 2 TEC / R 2 TEC O2**	**R 5 TEC**	**V2 ICE**	**R 3 OCTO**	**R 3 TEC OCTO**
Venturi regulation	●	●	●		
Regulation of breathing resistance	●	●	●		
Flow	950 l/min	950 l/min	950 l/min	935 l/min	935 l/min
Breathing resistance	0,983 – 1,004 J/l	0,983 – 1,004 J/l	0,983 – 1,004 J/l	0,983 – 1,004 J/l	0,983 – 1,004 J/l
Inspiration under-pressure	20 – 38 mm/H_2O	20 – 38 mm/H_2O	20 – 38 mm/H_2O	37 – 47 mm/H_2O	37 – 47 mm/H_2O
Balanced	●	●	●		
Nitrox up to 40%	R 2 TEC	●	●	●	●
Nitrox from 40% to 100%	R 2 TEC O2				
Radiator	●	●	●		
Weight	280 g	275 g	270 g	220 g	225 g
Material	polyamide	polyamide	polyamide	polyamide	polyamide

STAGE SET R1 PRO O2

- 1 x I-st stage R 1 PRO O2
- 1 x II-nd stage R 1 PRO O2
- 1 x LP hose green 1 m
- 1 x HP hose 0,15 cm
- 1 x SPG O2

STAGE SET R2 TEC O2

- 1 x I-st stage R 2 TEC O2
- 1 x II-nd stage R 2 TEC O2
- 1 x LP hose green 1 m
- 1 x HP hose 0,15 cm
- 1 x SPG O2

CE1463 EN250

O2 BAG FOR STAGE REGULATORS

10 YEARS WARRANTY FOR THE FIRST OWNER

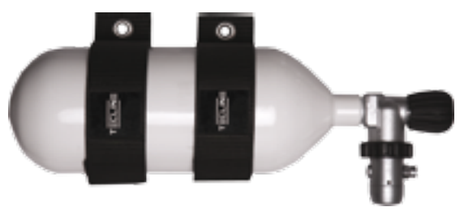
R 2 TEC SIDEMOUNT SET CONSISTS OF:

CE1463 EN250

- 2 x first stage R 2 TEC, diaphragm with Cold Kit
- 2 x second stage R 2 TEC, balanced with Venturi regulation and breathing resistance regulation
- 1 x hose LP 65 cm
- 1 x hose LP 210 cm swivel 90 degrees
- 2 x inflator hose LP 20 cm
- 2 x hose HP 20 cm
- 2 x SPG 400 bar
- 1 x SS bolt snap 88mm
- 1 x necklace
- 1 x regulator's bag

ARGON SETS

1st stage with integrated over pressure valve



0,85L, 1,5L & 3L aluminum Luxfer tanks

10 YEARS WARRANTY FOR THE FIRST OWNER

PEANUT 21

A SMALL WING WITH THE LARGEST POTENTIAL ON THE MARKET!

PEANUT 21 ASYMMETRIC WILL SURPRISE YOU IN AT LEAST **4 WAYS:**

1. **A VERY DIFFERENT LOOK** – THE WORLD'S FIRST ASYMMETRIC WING
2. **DOUBLE DURABILITY** – TWO EXTREMELY DURABLE LAYERS:
   EXTERNAL LAYER IS 1000D CORDURA, INTERNAL IS PU240
3. **EASY BUOYANCY CONTROL**
   AND THE LARGEST CAPACITY IN ITS CLASS – 21 LITRES
4. **ULTRA LIGHT** – ONLY 950g!

TECLINE PEANUT 21 ASYMMETRIC, A SERIES OF WINGS WITH EXCEPTIONAL FEATURES:

- easy buoyancy control
- large 21 liter capacity
- weighs only 950g **(less than 1 kg!)**
- extreme durability guaranteed by 1000D Cordura
- 3D construction
- plenty of head space
- permits a variety of hose configurations
- large capacity means even excellent surface support, even for heavy equipment
- asymmetric shape allows for fast deflation in an emergency
- combines perfectly with the V2 ICE Mono regulator

The innovative design of the PEANUT 21 series allows free head movement and easy hose placement in a variety of configurations.

Is having the perfect equipment configuration important to you? If you are a diver using a single cylinder, choose a Peanut 21 wing and a V2 ICE Mono regulator.

V2 ICE MONO + PEANUT 21
=
THE PERFECT CONFIGURATION

CE CERTIFIED CE1463 EN1809

LADIES SET
TOTAL WEIGHT ONLY **4 KG**

BE A WOMAN UNDER WATER AS WELL!

The Ladies Edition Peanut 21, with its distinctive purple highlights, is specially designed for women. Softer, adjustable shoulder straps cut away from the torso for greater comfort. The use of 1000D Cordura for the wing ensures exceptional durability.

- perfectly suited to the female figure
- easy buoyancy control
- small in size, light in weight but large in capacity (21 litres)
- lightweight aluminum backplate and aluminum mono tank adapter
- easy to use weight pockets

ARCTIC SET
TOTAL WEIGHT ONLY **4.95 KG**

THE ADVENTURE STARTS RIGHT HERE!

Wreck diving? Or maybe a dive under ice? You need equipment that you can trust unconditionally. When you slip into your Arctic Edition PEANUT 21, with its distinctive blue highlights, it feels just right! Comfortable, the inflator right where it should be and easy buoyancy control to enable you to deal with all conditions.

Use two V2 ICE Mono regulators in a SEMI TECH configuration tested in the toughest conditions especially for divers just like you.

- 21 liter capacity
- fully adjustable harness with stainless steel d-rings
- polished stainless steel backplate made of acid resistant steel
- stainless steel mono tank adapter with 2 single cylinder bands and strong clips
- easy buoyancy control
- keeps the diver high in the water on the surface
- strong 1000D Cordura

TRAVEL SET
TOTAL WEIGHT ONLY **2.95 KG**

ARE YOU A TRAVELLER?

AIRLINE BAGGAGE WEIGHT LIMITS ARE NO LONGER A PROBLEM!

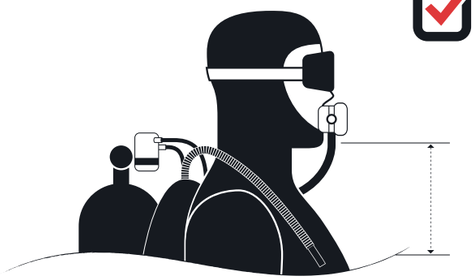
Take the Travel Edition Peanut 21 with you and don't worry about airline baggage weight limits. It's very durable but very light.

- lightweight construction
- no unnecessary features
- ultra-light backplate with no need for a mono tank adapter
- two single tank bands
- 21 liter capacity

DONUT 22 SPECIAL EDITION

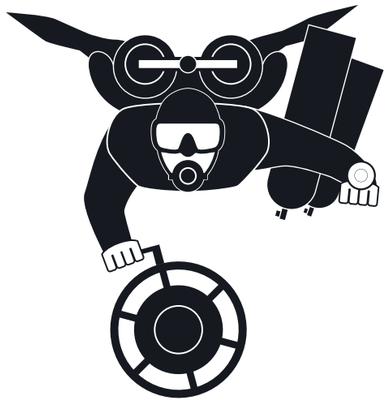
DEDICATED FOR PERFECT BUOYANCY

HIGH SURFACE POSITION



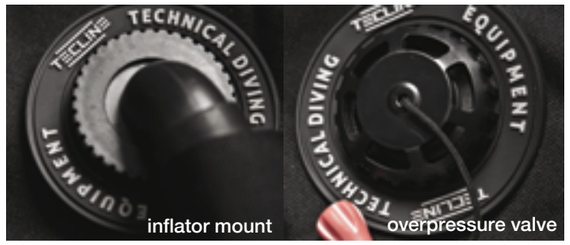
EASY DUMP SYSTEM

EASY VALVE ACCESS



COMPATIBLE WITH ALL CONFIGURATIONS

CE CERTIFIED CE1463 EN1809



This wing would be an ideal tool for both recreational divers starting their adventure with twin sets and for advanced explorers diving each day with side tanks, scooters and other additional equipment... this wing is called Donut 22 Special Edition.The first Polish wing for twin set 2 x 12l was created based on the expectations of divers, instructors and thousands of hours spent underwater in different equipment configurations. The wing has a shape of uneven circle which allows for an efficient spread of gas in any direction and, in the same way, for keeping the chosen position under the water. Making the wing wider and a special pad sewn in the outline of the wing resulted in a good positioning of the diver even when diving with additional tanks. The pad has additionally increased the wing's capacity without making its outline bigger – the result is a small wing with big capacity. A wide strip in the lower part of the wing allows for the use of this additional capacity giving the diver a "high" position on the surface. A stable position under water can also be kept due to easy release of gas. The back valve was placed in an intuitive position. We simply find it when we place our hand on the dump valve. The inflator is placed centrally so that its port is positioned exactly between the tanks. This allows for gas release through the inflator without the need for strong leaning backwards. The wing is also sold with additional, shorter inflator's hose allowing the diver to choose the size according to his/her preferences. The wing is very narrow in the upper part allowing in this way for virtually unlimited possibilities of hoses and regulators' configurations. It also ensures easy access to the valves. Positioning of the wing against the set and plate can be established by choosing one of the two sets of holes for screws mounting the wing on the tanks. The prototype of the wing was carefully checked – before the mass production began our tester had done about 200 dives with it, in the Baltic Sea, lakes, quarries, Florida caves, flooded underground and... pools with chlorinated water. The tests have shown that the wing's materials are really resistant and that the equipment is extremely comfortable to use.

WHAT IS THE IDEAL WING FOR THE 2X12L SET?

BELOW IS THE LIST OF THE CRUCIAL CRITERIA:

- Small size that goes with proper capacity and simple, safe construction
- Stable position underwater with doubles and several stages
- Streamlined shape allowing for entering the narrow spaces
- Durable material – UV resistant and tough
- Capacity big enough to keep a diver with doubles and 1 stage in high position above water
- Quick release of gas in each position with the use of both inflator and a dump valve
- Separated placement of the hoses regardless the type of regulators being used and the configuration
- Safe and easy access to valves both under the water and on the surface with the wing fully filled

More information on how the wing was being created can be found on the internet forum Divetrek Group: **https://www.facebook.com/groups/166781186689889/** A film showing how easy it is to use the Donut 22 Special Edition can also be found there.

TECLINE TV:

How is Donut 22SE built?

See Donut 22SE in action

Swimming pool test

TECLINE DONUT 17 SPECIAL EDITION

Safer dives under ice with double set 2 x 7 and a wing Donut 17SE as well as with V2 ICE regulators. Recreational divers are more frequently turning to double sets. The set 2 x 7l is far more functional than a single tank and, at the same time, it can be lighter than this. It is safer, while also helping to maintain the correct position under the water, which can be crucial during dives under ice. D 17 SE design not only allows you to easily control the buoyancy, but also provides a stable and high position of a diver on the surface of the water. Beginners are most afraid of losing control of buoyancy - Donut 17 Special Edition simplifies perfecting this skill. The biggest surprise for recreational divers is much greater sense of comfort when you change the configuration from a single tank to a double set. The reason is the use of 2 elements: Donut 17 SE wing prepared especially for those diving in double set 2 x 7l and the set of V2 ICE regulators.

Do you have any doubts? See for yourself!
Find out how Donut 17 SE will improve the comfort of your dive. Try the set: a wing + double set 2x7 + V2 ICE regulators. Become an aware recreational diver- get ready for the dives under ice right now!*
Instructors conducting intensive training in double sets appreciate the advantages of set D17SE + V2 ICE as an exact copy of the larger double sets, allowing them to use these kits to any presentations. 5-year warranty on Donut 17 SE gives a sense of security also for the professionals.
* Using double sets requires knowledge of the principles of safe diving in such a configuration. Ask your instructor how to safely dive in double sets.

SAFER DIVES UNDER ICE WITH DOUBLE SET 2 X 7 AND A WING DONUT 17 SE AS WELL AS WITH V2 ICE REGULATORS.

CE CERTIFIED CE1463 EN1809

„I know that well-made, reliable equipment can save your life”

PHIL SHORT REVIEW **WWW.PHILSHORTTECHNICAL.CO.UK**

Phil Short has been diving for over 20 years. During this time he has logged over 6000 dives with over 3000 hours on rebreathers. Phil deals with preparing and testing rebreather systems; he is also a trainer preparing both new divers and other instructors for CCR diving. He has been taking part in many diving expeditions in places never visited before. Phil has also cooperated with many scientific organizations in the field of underwater research. He acts as a dive industry consultant for many diving equipment manufacturers.

As an Instructor Trainer, scientific diver and Explorer quality, well-made reliable equipment is quite simply ‚life support'. I have worked with Tecline over the last few years, teaching CCR classes for their customers, presenting on product at dive shows and consulting on Tecline product and when offered the opportunity to work with Tecline in the design of a CCR specific wing/BC was excited at the prospect. Through various prototype phases of development and design we arrived at the Tecline Donut 22 SE'. The aim was to make a tough, functional, reliable and long lasting product that specifically met the needs of the Technical CCR Diver. Many CCR have a lot of weight in the lower section with 1st stages and cylinder valves in this position and are buoyant in the upper section due to the counter-lung/lungs. The Donut 22 SE was designed to offer a larger buoyancy chamber at the base and smaller at the top to specifically meet the trim requirements of CCR Diving. The fitting of the inflate mechanism and dump to rubber plates add strength and longevity to the design and, as with all Tecline product I have personally used to date, build quality and materials are exceptional.

PHIL SHORT

TECLINE SPECIAL EDITION RB

REBREATHER BUOYANCY COMPENSATORS

FOR SENTINEL AND MANY OTHER REBREATHERS

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DONUT 30 SPECIAL EDITION

DEDICATED FOR PERFECT BUOYANCY

Donut 30 Special Edition is a wing for divers with the highest expectations as far as equipment is concerned. Prepared for explorers and divers using big double tank sets and advanced multistage techniques. Made from advanced materials which allows swimming through cave restrictions or narrow passages inside wrecks with no impact on the wing condition. Intuitive gas dumping with no need for changing the position while DPV diving. The wing's shape enables desired hoses and regulators configuration and leaves a lot of free space behind the diver's head at the same time. This wing keeps the diver equipped in 2 x 20 liters twin together with 6 big stages on the surface with ease. Asymmetric construction of the lower part of the wing supports rescue action when unconscious diver on the surface involved. The wing works perfectly with the sets 2 x 18l and American 2 x 125cf.

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YouTube Tecline TV: Donut 30SE swimming pool test

DONUT'S FEATURES:

- Easy buoyancy control even when using multistage and DPV
- Capacity which keeps a diver high on the surface even with full set and many stages
- Enough space for hoses in any configuration
- Easy putting on and removing
- Possibility to apply many batteries on the harness
- Made for easy stages rotation and DPV diving
- Comfortable position on the surface makes conducting a rescue operation easy
- The possibility to apply a big tank with argon without losing the wing's geometry

Donut 30 SE in action

Donut 30 SE & Donut 22 SE

Easy valve access

DONUTS:

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DONUT 13

DONUT 15

DONUT 17

DONUT 22

BUILT-IN MONO TANK ADAPTOR

ULTRA LIGHT TRAVEL SET

Set weight: 3,2 kg!

The set consists of the wing Donut 13,15 or Donut 17 (chosen by the buyer), harness DIR on aluminum backplate Combo 3mm, belt for a mono tank as well as 2 trim pockets and 2 weight pockets. Due to the usage of Combo type backplate there is no need for a separate mono tank adapter.

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TECLINE ACCESORIES SYSTEM

DIR STYLE HARNESSES

COMFORT HARNESSES

ADJUSTABLE
SHOULDER PADS
ALUMINIUM & STAINLESS STEEL BACKPLATES 3MM & 6MM
2X SHOULDER D-RINGS
2X CROTCH STRAP D-RINGS
1X WAIST D-RING

We asked a couple of people who deal with scuba diving in a professional way which BCD they use and why.

HERE ARE THEIR ANSWERS

MICHAŁ KOSUT

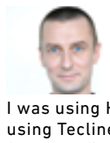
PADI Platinum Course Director
DSAT Tec Trimix Instructor Trainer

I use TECLINE Donut 22 for technical dives and trainings. This wing is ideal for me on the depth 50-90m with a set 2 x 12l and with a set of 2 to 4 stages. The wing's shape of a donut, like a tire, makes it easy to adjust the buoyancy without the need of changing the trim. Such shape also helps in coming back to the surface in a horizontal position. Although I have been using this wing for over a year now, I evaluate its performance and construction very highly. Despite using the product quite regularly, it has virtually no signs of wear.

KRZYSZTOF WNOROWSKI

Instructor Trainer SSI, Instructor PADI, CMAS, IANTD, DAN, HSA. Cofounder of BalticTech conference and BalticExplorers group

I have known the Tec Line products for a long time. Running the company Centrum Nurkowe Tryton (diving centre "Tryton"), I have a pleasure in testing and checking most of the products available on the market. I like the wing Donut 22SE because of its construction and affordable price. It matches ideally to the set and it doesn't collide with hoses and manifold from double-tank set. In my view, everyone who dives in this wing even once will never want to replace it with any other product.



JACEK TREMBOWELSKI

IANTD Instructor, www.trembowel.pl

I was using Halcyon Explorer 55lbs for a long time. But I've been using Tecline Donut 22SE since recently and I really appreciate it for: easy flow of gas inside the wing which results in easy disposal of gas; ideally positioned back valve, for which I reach in an intuitive way without having to search for it; for its shape giving me a very good trim underwater and keeping my head high above water when I'm on the surface. This wing also doesn't give you the feeling of squeezing your body when it's fully pumped on the surface. I really recommend it!

MICHAEL GERHARTZ

Instructor & SI Explorer

After diving several different Wing-Systems from different manufacturers, I am now using only the Tecline 22 Special Edition Donut Wing. The system works perfectly with a different range of double tanks for both recreational and technical diving and it's design always allows it to be as streamlined as possible.
Even the harsh conditions of the Canadian winters on our east coast have no effect on this great wing. I am really satisfied with it's performance.

JOHN SHAW

PADI/IANTD instructor
Shawtek equipment sales and training

I have been using the Tecline special edition wing for the last 6 months. I have found it to be one of the best I have ever used. It trims out perfectly and when either under the water or on the surface is extremely comfortable. When the wing is fully inflated I have found that my suit inflation cylinder nor my canister from my torch are pushed uncomfortably into my back un like many other wings on the market. Despite the constant use it has had it still looks as good as new.

SEBASTIAN POPEK

IANTD Instructor Trainer Normoxic Trimix
IANTD Trimix Instructor
IANTD Technical Wreck Instructor

I use this wing during my dives together with a set 2x 12l or PSCR TresPreseidentes 2x8,5l. It's the best wing I have dived in for the last 15 years. I use this wing for both recreational dives and dives during the courses when I give it to my students.
It helps them to learn to control their buoyancy and proper position underwater in a quicker way. As a user I mainly appreciate this wing for its shape in the upper part which makes it easy to properly position the inflator hoses. It is possible thanks to a small amount of fabric in the wing's upper part. Properly positioned exhaust valve allows for the release of gas without the need to change the position underwater. Apart from that, the well chosen inflator valve lets me add even the small amounts of gas. Now I am waiting for a bigger brother of this version so that I can use it with sets 2x20 and PSCR 2x12 and 2x20.

TYMEK PODGÓRCZYK

IANTD Technical Wreck Instructor

Excellent and well thought out wing. Efficiency and positioning of back valve (flush) and the inflator makes the release of gas very simple both from the upper and lower valves. Low profile in the upper part of the wing results in the fact that there is no problem in placing the hoses in a proper way, even if the tank is lowered on the tank band. I successfully use the wing with 2x12l set as well as for the rebreather with a frame 2x8,5l. I am looking forward for the bigger brother of Donut 22 SE dedicated to sets 2x18 and 2x20l, which, I hope, will soon be available.

MITCHELL LEPINE

TDI Instructor Trainer

I have been using a variety of wing and backplate configurations from just about every major manufacturer, over the years to accommodate my needs for wreck diving. The Tecline D 22SE has got it right. The compact design provides excellent trim characteristics and streamlining. I was also quite impressed with the ease of gas flow through the bladder. Retaining a horizontal position in the water column, even with a heavy load of steel cylinders at the end of the dive, is that much easier. I look forward to putting this bladder to a lot more use.

IVAR ‚THOR' KLERKS

GUE Cave1/Tech1

I have used different wing concepts, from dualbladder, bungee to plain simple both horseshoe and donutstyle. The Tecline Special Edition is the best of them all.A sturdy and well thought out design, loads of room on the topside for hoses and valve management. The bottomside creates a lot of lift when on the surface but not too much bouyancy when diving. Whether I'm cleaning North Sea wrecks, diving river based archeological sites, caves, GUE Project Baseline: The Netherlands or just for fun I trust this wing completely.

WOJTEK A. FILIP

Wreck and cave diver, Instructor of GUE, IANTD, PADI, CMAS, professional tester of diving equipment

I spend about 800 hours underwater each year in different weather conditions. I use Tecline Donut 22 Special Edition which was designed by me. I consider this wing to be an optimal solution for dives with 2 tanks with many side tanks and additional equipment.

Converted! A Sport Diver's Path to Enlightenment.

SOFIE HOSTYN IANTD SOUTH EAST ASIA

TECLINE DONUT 17 WING & HARNESS

I am a sport diver, a recreational diver. I dive with a single cylinder and have no technical ambitions at all. These I leave to my husband. I appreciate that he has a thing about caves and deep shipwrecks but I do not share this obsession. I also understand how important it is that he has the right equipment for this type of extreme diving and how essential it is that the equipment should be set up correctly.

In my 15 years of diving, all my BCDs have been bought off the shelf. I choose the make and model, try it on, take it home and go diving – as simple as that. If it later turns out that there is something I don't like about it, I just say "oh well!" to myself and carry on. One of the elements of technical diving that has piqued my interest over the years is how much effort is spent on getting the "gear / rig / kit" customised to suit each diver's needs and personal preferences. This means that the equipment needs to be extremely versatile, especially the wing and harness style BCDs that technical divers use. I have always found this flexibility to be an attractive concept.

So when I saw that Tecline had developed a wing and harness specifically for single cylinder divers I was intrigued by the idea. Then, when I read further and saw that they had a version that weighed only 3.2 kgs, I was sold. I travel a lot on small aircraft to remote places for a lot of my diving so keeping baggage weight and excess charges down is a major priority. So I put in my order for an ultra-light travel kit of Donut 17 wing with DIR harness and aluminium backplate.

First Impressions

Having been accustomed to just using my dive gear "out of the box," I felt a little daunted by the mass of webbing that greeted me when I opened the package. Of course, it makes complete sense that enough webbing should be included for even the largest of divers and I swiftly started adapting the straps to my size. The webbing moved smoothly through the grooves in the backplate, it was easy to adjust the belt slides and D rings and within a few minutes I had a well-fitting harness. All I had to do then was cut off the excess, leaving a fairly long tongue for when I need to adjust the fit for diving with my drysuit.

I was impressed with the provision of two cylinder bands instead of one. This is a safety feature that makes so much sense. I wonder why the manufacturers of conventional BCDs do not use two bands. You so often see divers in trouble because their cylinder has dropped through a single band. I also noticed how well made everything was: all the edges on the backplate were smoothed off, the webbing was strong yet soft and pliable and the sewing on the wing was almost invisible, so close were the stitches.

Storage

The absence of pockets was initially disconcerting but my husband showed me how my dive light fit snugly underneath the two rubber loops provided at the bottom of the left shoulder strap and my safety sausage slotted easily under the loops on the other side. There was plenty of space on the waist harness to add a zippered pouch if I needed to carry other things but for now I had nothing else I needed.

Diving

This was the first time I had dived with a wing and harness and also the first time I had used a crotch strap. I thought I would find it strange but I did not even notice it. The whole set up felt immediately comfortable and the absence of bulky BCD panels and pockets under my arms meant that I could move my arms much more freely than ever before on a dive.

Trim weight pockets had been provided as standard, attached to one of the cylinder bands and I spread my weight between these instead of wearing a weight belt. This was not a huge success as I felt that the additional weight gave the cylinder a tendency to try to roll me onto my back. So for my second dive, I moved the pockets to my waistband, threading them on and holding them in place with a belt slide. This was much more successful and the exercise was a perfect demonstration of how flexible the system is. If you find something that is not to your taste, you can just change it.

After only a couple of dives I was converted! I was diving with a device that, when inflated, gave me more buoyancy on the surface than my previous BCD but, when deflated during my dive, was less buoyant because of the absence of unnecessary bulk. Therefore I needed less weight: a major bonus that I had not anticipated! I had chosen the Donut 17 wing; with an aluminium cylinder and in warm water I would have been fine with the smaller 15kg wing too.

I was more comfortable, had more freedom of movement and easier access to my torch and safety sausage, as all I had to do to deploy them was pull them out of the rubber bands, rather than unzip a pocket. I had a heavy duty D ring half way up each shoulder strap to clip my gauge and alternate second stage off to and I had been able to adjust these to exactly the height I wanted them at.

Then, when I came to place my bag on the airline scales before our dive trip to West Papua last month, I found that my luggage was underweight for the first time ever! I felt truly enlightened – in all senses of the word!

SOFIE HOSTYN

"Sometimes you need to step back to move forward!"

SIMON PRIDMORE

REGIONAL TRAINING DIRECTOR
IANTD SOUTH EAST ASIA
AUTHOR SCUBA CONFIDENTIAL

BALI INDONESIA, JUNE 2013

INDEPENDENT TEST OF DONUT 22 SPECIAL EDITION

Tecline redefines the state of the art in wing and harness design with a return to the roots of technical diving Technological evolution often tends to move users from simple tools to more complex machines, but, paradoxically, development in the opposite direction can sometimes be more effective. This has certainly been the case in respect of buoyancy devices for technical divers and the new simple harness / stainless steel backplate and Donut 22 Special Edition Wing combination from Tecline raises the bar in terms of quality, simplicity and effectiveness of design.

An Historical Perspective

I first encountered these guys ten years ago in their early days. Then they were developing gear for technical divers in Central Europe who were demanding equipment that matched high quality with low cost. This seems to have been the company's unofficial slogan over the years and, as it has taken its business worldwide, Scubatech / Tecline has kept faith with its business model of building excellent products and selling them at reasonable prices. In the early days of technical diving, small companies and talented individuals created simple wings and harnesses for the relatively small number of people that needed them. Then, sensing the arrival of a promising new income stream, the major manufacturers moved into the technical market place and built complex, cantilevered systems designed by engineers rather than divers. Nobody wanted them!

So the equipment began to evolve in another direction, with products that retained the simplicity of the original concepts but added quality of materials, finishing and versatility. This Tecline offering is the latest evolutionary step.

The State of the Art

As you will see, I am a big fan of the system. Why do I like it so much? First, the Tecline folk have intelligently designed the Donut 22 Special Edition wing specifically for divers using double aluminium 12 litre (80 cu ft) cylinders, by far the most commonly available set up in the world for travelling divers like me. You know you have a good piece of kit from the moment you open the box. The steely, solid shine of the backplate with its bevelled edges, the strength of the webbing with the ends sealed to prevent fraying, a choice of short and long corrugated hoses, pre-bent stainless steel D rings on the shoulders, a selection of other D rings elsewhere, including two on the crotch strap: the signs of a meticulous attention to detail are evident everywhere. The harness and backplate fulfil their primary function perfectly, i.e. to keep the diver permanently attached to his gas supply and help him remain as stable as possible in the water while he breathes from that gas supply.

The 2" webbing used is extremely strong and comfortable and the harness allows the diver to fit attachment points, pouches, sleeves and pockets according to his personal configuration preferences. It does not dictate where these should go but allows the diver complete freedom.
To be useful, a wing must not introduce complexity to the diver's set up. Again, it just has to do what it is supposed to do with no fuss. Its principal function is to offer sufficient positive buoyancy to keep a diver comfortable on the surface with his head well clear of surface chop: and the expansion panels built into the fabric of the Donut 22 Special Edition wing for exactly this purpose do an excellent job.

Underwater, a wing must create minimal drag and have as little integral positive buoyancy as possible to avoid the need for a diver to carry additional weight in compensation. The Special Edition is astonishingly slim-line considering its 22 kg lift capacity. With the stainless steel backplate, wearing a 3mm wetsuit and carrying double aluminium 12l (80 cu ft) cylinders and an aluminium 3l (30 cu ft) stage cylinder I need no additional weight at all. And even when swimming against a current, I feel no additional drag at all, even with the cell partially inflated at depth.

A wing must also not disrupt a diver's trim and, cleverly, the circular "Donut" shape of the air cell ensures even distribution of buoyancy over the diver's back to help keep him flat with butt and legs horizontal. This is a welcome return to the original concept of a cave diver's wing. All I need to do is add a couple of spurts of air, wriggle around a little so the air can circulate around the cell, then set off. I have perfect trim instantly!
I really like the central position of the inflator hose elbow, which keeps it completely out of the way of valves and regulator first stages and allows greater flexibility with hose placement. Another indicator of the level of thought that has gone into the design of the wing is the fact that the upper panel has been deliberately made slimmer and less bulky to facilitate hose and regulator configuration and make it easier for a diver to reach back and manipulate his valves, even when the wing is fully inflated. The butt pull release is on the left and easy to find. This kit is just so straightforward to use!

Going Back to Move On
It seems strange to write of evolution when describing equipment that owes its design to the early days of technical diving but progress does not always involve forward movement. Sometimes you have to retrace your path in order to find the right road!

THE PERFECT CONFIGURATION: DONUT 22 SE + DIR SET V2 ICE REGULATORS

SIDE 16 AVENGER PERFECT FOR BOTH

THE RECREATIONAL DIVERS AND HARDCORE CAVE DIVERS

CE CERTIFIED CE1463 EN1809

CLEAN, DIR-STYLE HARNESS

SIDEMOUNT DIVING MADE EASY:
SIMPLE AND CLEAN.
KAREL & MICHAËL – AVENGER DESIGNERS

- Easy to configure and adjust
- Harness shoulder straps or waist belt can be separately adjusted
- Straight forward adjustments make this an ideal set-up for teaching
- Integrated wing and harness
- 16kg lift capacity
- Add up to 19kg of weights
- Extra weight pockets available in 2 sizes (2kg and 4.5kg)
- 4 integrated weight pockets (10kg in total), putting the bulk of the weight in the ideal position on the diver's back. These pockets are positioned lower and slightly outwards, allowing a more streamlined profile and better trim
- The weight pockets on the waist belt also help dry suit divers maintain perfect trim by positioning the extra weight towards the lower part of the body
- Rear dump valve in a strategic and protected position on the lower side of the wing, to make it easy to release gas when the diver is horizontal or upside down
- Low profile bladder to reduce drag and lower the risk of getting stuck in restrictions
- Inflator can be placed on either the left or right side
- Detachable beavertail to attach heavier steel cylinders or accessories

SIDEMOUNT BCD SIDE 16 AVENGER

- Cordura 2000
- Lift capacity 16 kg / 35 lbs
- 6 weight pockets max 16 kg
- Aluminum backplate
- Adjustable waist belt
- Additional chest belt
- Crotch strap
- 7 stainless steel d-rings
- Inflator 13" / 33 cm
- 1 x release valve
- Free size

POSSIBILITY TO MOUNT INFLATOR ON LEFT OR RIGHT SIDE

SIDEMOUNT BCD SIDE 16 AVENGER

Sidemount configuration was used by the early cave explorers, looking for a way to transport their tanks comfortable in the dry cave sections and being able to pass through narrow restrictions under water and if necessary to completely remove and replace the tanks under water. In those early pioneer days there were no commercial sidemount sets available, so self-constructed harnesses were used to hang the tanks more or less on the side and a couple of regulators in a recreational configuration to complete the setup. That was it and it worked, most of the times.

Things evolved a lot since those pioneer days. Materials and designs got much better. The general diving philosophy emphasized a lot more on safety, resulting in more specialized and thorough dive training. But most importantly, many of those DIY sets, be it backmount, sidemount etc. were crystallized by the dive gear manufacturers into commercial available kits.

The last 5 years, diving with side mounted tanks changed from being a necessity for cave explorers into a well appreciated and comfortable way of diving for the mainstream diving (recreational and technical) population.

Many brands jumped on this new phenomenon and created SM sets just to have a SM set in their product range. Some were successful, many others not.

Tecline took another approach and listened to the needs, experiences and wishes of SM divers (both rec, tec and cave) and used this as a guideline to create the ultimate SM set.
The main goal with this approach was not to create another new sidemount system just for the sake of it. No, this was all about creating a robust, clean and simple to use sidemount set both for recreational and technical SM divers.

The base for the Avenger was Tecline's sidemount set, SIDE 16. The SIDE 16 is a good SM set but still left enough room for improvement. And so it happened. Michaël Doumont (XperienceDiving / MDSTechnology) and Karel Levrau (Narcotec) disassembled the SIDE 16 and rebuilt it with a fair deal of improvements. After a lot of testing and fine tuning the details and improvements, they claimed this remodeled Tecline SM set to be the ultimate in SM diving. So this is how Tecline's SIDE 16 AVENGER was born.

WHY IS THE AVENGER YOUR CHOICE ?

The AVENGER has a clean and simple DIR harness with the necessary D-rings and crotch strap evidently. This harness can easily be adjusted both on the attachment points on the back as on the waist, without the complexity of many other SM sets. This makes the AVENGER an excellent set for e.g. teaching as it is the easiest and fastest adjustable SM on the market. The AVENGER is a real "plug and play" system. Because the webbing for shoulders and waist are separate, they can be different in thickness, flexibility in this way offering a lot of possibilities to customize your comfort level. The harness and bladder act as 1 unit when assembled. This allows for super easy getting in and out of the set.

Under the bladder of the AVENGER there are 4 fixed weight pockets which can hold up to a total of 10 kg. The position of this weight pockets, slightly more downwards and outwards, offers a more streamlined profile compared to sets which have the weights on top of the spine. Putting these fixed weight pockets more downwards also gives a much better trim as the weight of the tank valves are compensated better in that way. A little more weight downwards will also help a lot of dry suit divers getting the perfect trim. If 10 kg is not enough, 2 more trim pockets can be added, left and right, to the waist belt. These pockets come in 2 sizes: 2 kg each or 4.5 kg each. So no more need to attach weights with tie-wraps on pieces of the harness everywhere.

The AVENGER's bladder went through a few changes, too. The inflator corrugated hose on the bladder can be repositioned coming from either the right or the left. The other port then can be used as dump valve or OPV. On the lower part of the bladder an extra dump valve is added. The position of this extra dump valve is in the arched, thus lowest, part of the back and doesn't hinder while going through restrictions, etc. The highest section of the bladder has been cut a bit so as not to increase the divers profile. The trim pocket in this section has also been removed for the same reason.

The waist belt is also separately adjustable from the shoulder straps. Again, this allows for quick adjustments when needed. The waist belt comes standard with the extra hard webbing, allowing for easy adjustment of the sliding D-rings while diving in order to maintain the perfect trim for the tanks. The waist belt attaches to the bladder much more to the inside, allowing to move the sliding D-ring much more backwards. This can come in handy when diving with heavier steel tanks for example. This way of attaching the waist belt to the bladder allows the bladder to better wrap around the diver and as a result is more streamlined than most other SM sets.

The AVENGER comes with a beaver tail which can be removed. The beaver tail with the 3 sectioned fixed D-rings is preferred by many SM divers diving with steel tanks, but is also a handy storage point for your extra gear, pony bottle, battery pack, ... With the beaver tail detached, the holes can be used to attach a battery pack, your pouch with extra gear, etc.

Attaching the cylinders depends on your personal choice and sometimes also on the tanks used (heavy steel vs aluminum) and can be done either with a floating bungee or fixed bungee with bolt snap. Both items come with the kit.

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TECLINE SIDE 16

PHOTO FROM TECLINE BELGIUM

EQUIPMENT TEST

TECLINE SIDE 16

BY

DOMINIK "KESSER" KESSELRING

PADI OWSI / PADI SIDEMOUNT INSTRUKTOR / EFR INSTRUKTOR

WWW.NURKOWANIEREKREACYJNE.PL

TECHNICAL SPECIFICATIONS:

- Buoyancy: 16 kg/35 lbs
- Integrated weight pockets and external weight pockets on the waist belt
- Max. weight pocket capacity: 16 kg
- Aluminum back plate
- Adjustable waist and chest belt
- Adjustable crotch strap
- 5 D-Rings (stainless steel)
- Quick release valve
- K-type inflator (33 cm/13'')
- Inflator can be mounted left or right
- Integrated shoulder pads
- Material: Cordura 2000
- Ready to use with all hardware and bungees needed

By courtesy of Tecline, last weekend I tested the new edition of Tecline Side 16 harness for a side mount. It is another edition of this product. Tecline clearly listens to the market and quite rapidly adapts to its needs. Given that the side mount is a relatively fresh branch of recreational diving, responding to needs that arise in the "battle" is essential here. It should be noted that Tecline has a lot to offer in the Sidemount category. In addition to several harnesses there are also regulators, torches and accessories dedicated for side mount. It is worth mentioning that there are two variants of the Side 16 Avenger harness on offer with one piece of band, including one coated with kevlar. The harness that we tested is the Side 16 with harness Comfort, well known from Tecline wings.

Tecline thus solved the main problem of instructors and course participants on side mount courses with a long process of harness configuration and customization for the course participants.

FIRST IMPRESSIONS

The BCD and harness offer a solid and compact construction. Everything looks well thought out and suited. The first benefit is that the letters are embroidered so are rather tough (in a harness from another manufacturer there are some letters missing because they were wiped out after a year of diving).

The BCD itself is triangular with permanently fixed, relatively wide butt-plate. All this creates a "turtle shell", streamlined design that best highlights on the loins. It is covered from the outside by a rough Cordura, which is quite pleasant to the touch and feels very durable. In this version an additional dump valve is mounted on the back of the neck, with a typical red ball in the left shoulder strap, well known on the jacket. This solution can be worrying about hooking up underwater etc. The manufacturer, however, in this way wanted to facilitate the change into the side mount. On the other hand a blind plug is included in the set, thanks to which we can eliminate the valve and enjoy a fully pro bag. In my opinion, the idea hits the jackpot and honestly speaking people diving recreationally will simply appreciate having this valve, and the purists have a plug :-).

The crotch strap passes through the butt-plate. It is equipped with a folding d-ring. The butt-plate merits attention, because since the beginning of the Side, quite massive rings divided into three parts are mounted to it. I think that this is a better solution than one long piece of wire. This allows for easier management of equipment and easiness in operating the carabiners. It is worth mentioning about the bungee mounting system. Tecline has abandoned a single bungee mounted on the carabiners which I think is a good strategy.

The manufacturer has chosen a loop system, which is fixed to the d-ring of the chest with bungee rails. On the one hand there is no d-ring, on the other there are supporters of mounting on the hook on the grounds that theyv will easily find the bungees. Anyway, it is impossible to make everyone happy and there are over a dozen systems guiding the bungees, so it is difficult to consider this matter in terms of pluses and minuses.

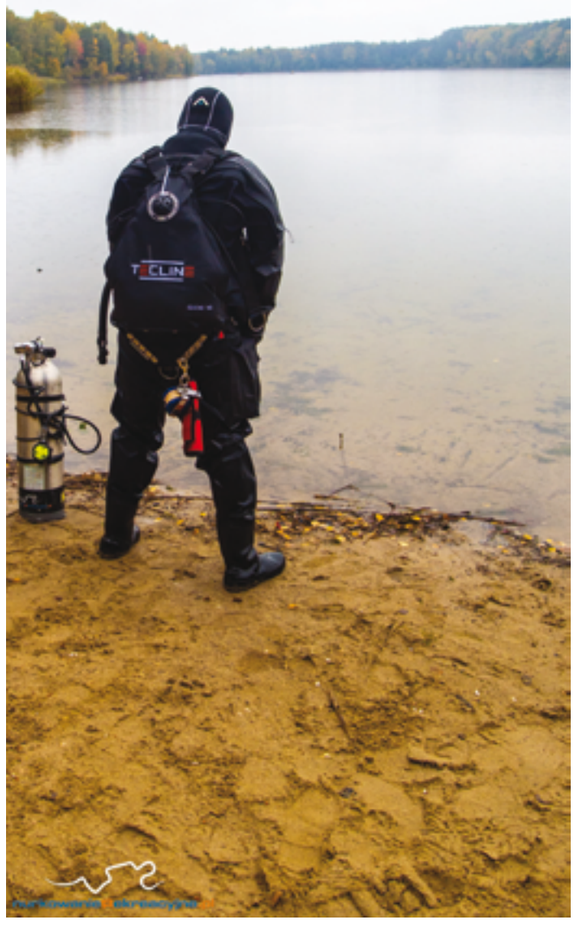
The BCD is equipped with a standard inflator known from other Tecline products. In summary, the harness makes a very good impression. Tecline produces tested structures, so there is no doubt that this is also robust and durable.

CONFIGURATION AND FIT

I still remember my side - mount course and 3 hours lost on adjusting the harness. And still after classes at the pool you had to adjust the whole equipment to the dry suit. The Side 16 setting was actually reduced to adjusting the waist belt. The shoulder straps are adjusted as in the jacket. In my case, the bungee seemed ideally suited.

From my experience of diving with aluminum tanks I know I have to put the weights as low as possible to compensate for the displacement of the bottom of the tank. It turned out that the 2kg weights fit ideally on the crotch belt under the butt - plate. Important information for the aesthetes - it is mounted on the inside, so it's not visible from the outside.

So, the initial setup took a moment and the harness was ready for use. It is also worth saying more about the weight system. The BCD has 4 solid pockets inside, which can easily accommodate 16 or even 20 kg of weight. There is a small zippered pocket that can accommodate 1 kg of ballast in the upper part of the neck, and car keys, etc. ideal for trimming.
Additionally, 2x5kg weight pockets have been assembled on the belt, which in my opinion are not necessary for 2 x 11.1l alu set. As you can see, the Side 16 configuration does not differ from the configuration of a jacket. Hence, this is a great solution for instructors, course participants and all those who appreciate comfort, especially travelling and diving in the dry suit and wet suit in exchange.



GOING UNDER WATER

Putting on the harness was something.
Immediately after putting it on and fastening the belt, I got the impression that the harness was clinging to my back. My approach was a little skeptical about the issue of the adjustable harness that it would not loosen under the weight. Nothing like this happened.

Throughout the dive the harness was in place. Attaching the tanks did not cause any problems. The rubber guiding system was also a success. The BCD worked flawlessly in the water. I immediately got used to this additional dump valve and I must admit that it was simply convenient. As mentioned, the gear was stable throughout the dive and there was no change in the body position, rotation, swimming sideways or upside down and unfastening the tank did not cause any changes. I had the impression that the harness was glued to my back. Immediately after immersing, I felt that the harness with the butt-plate formed a rigid structure and enforced the proper position under the water, which should be considered as an advantage. In the upper part, the harness does not restrict movement, and thanks to the easy adjustment system it allows you to make corrections and adjustments during the dive. The moving d-rings deserve praise and they work without any question with the band and allow you to easily manage your aluminum tanks during the dive. The butt plate with its three-section rings proved its superiority over the one-piece. Attaching the equipment is carried out smoothly, there is no risk of anything sticking out that shouldn't and, most importantly, there is no risk of the carabiners jamming, which happens especially when diving with steel tanks.
I had a little more fun with the lower dump valve but, as always, it is a matter of practice in uncovering it. Positioning the central dump valve in the lower part of the side mount seems to be the best solution because there are tanks at the side and equipment for the butt-plate, etc. which significantly hinders locating the ball and the dump valve is outside. Here, of course, the task is easier because there is the previously mentioned extra dump valve on the back of the neck.

Under the water when attempting to attach the "long" regulator, I found that the d-rings on the shoulder straps were too low, but it is a question of adjustment.

Another pleasant surprise was the position on the surface. I did not feel the effect of lying on the face, which is often the domain of a typical side mount harness. The only thing that could be criticized was that with a full BCD the compression effect occurs because the BCD is attached to the waist belt. On the other hand, buoyancy jackets also have this effect and the need to fully pump the BCD is rather occasional :-). Anyway, after diving and visual inspection, it turned out that you can easily convert the harness in order to compensate for this effect, e.g. you disentangle the belt while fixing the BCD to rubber bands with the carabiners to the d-rings.

To sum up, under the water everything is as it should be; nothing bothers you; everything is where it should be.

SUMMING UP...

The harness with the BCD is a well-arranged structure, easy on the eye, where nothing has been left to chance. It works fine in the water giving the impression of unity with the diver. The technical solutions to the type of dump valve on the back of the neck, the divided rings on the butt plate and the fully adjustable shoulder belts deserve to be called a thoughtful design that meets the requirements of everyone:

- instructors and centres will appreciate the ease of adjusting the harness for each customer
- people who value the comfort of donning the harness or diving in different suits will also appreciate the adjustable harness
- the BCD, with the possibility of removing the upper dump valve, can develop with the diver and the environment in which he/she dives.
- a compact one-piece design
- the construction imposes the correct position under water
- spacious weight pockets
- the pockets are rather set low - convenient for aluminum cylinders
- good position on the surface
- split ring on the butt plate (sensational)
- movable d-rings on the belt
- with the addition of the weight pockets which I got there is no problem of taking 26-30 kg without the need of putting the weights on the belt
- a good fit

DOMINIK "KESSER" KESSELRING

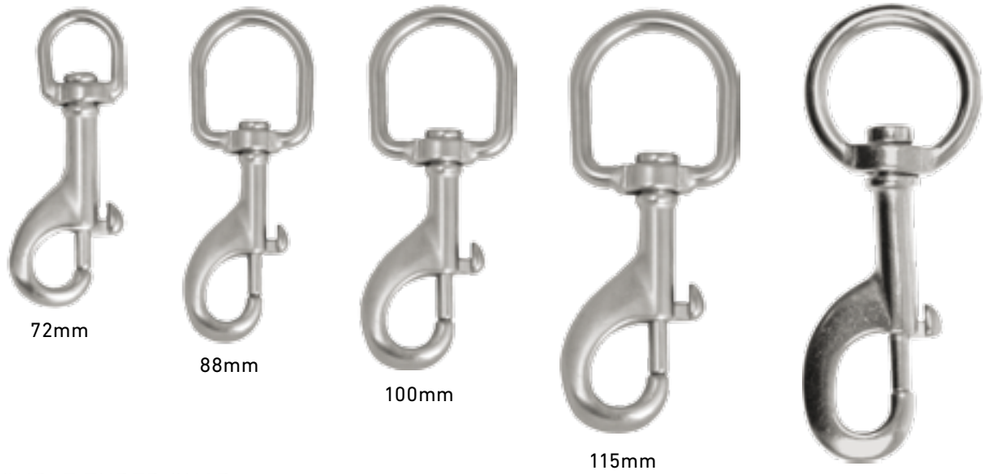
JACKET BCD EXPLORER

- Cordura 2000
- Lift capacity 22 kg / 50 lbs
- Aluminum backplate
- Adjustable waist belt
- Additional chest belt
- Crotch strap
- 8 stainaless steel d-rings
- Inflator with release valve
- 1 x release valve in the back
- 1 x release valve on the shoulder
- Sizes: S/M, L/XL
- Small front pocket
- 2 x cargo pockets
- Integrated weight system max 16 kg

CE CERTIFIED
CE1463 EN1809

SS BOLT SNAP - „D" TYPE EYE

„O" TYPE EYE



72mm

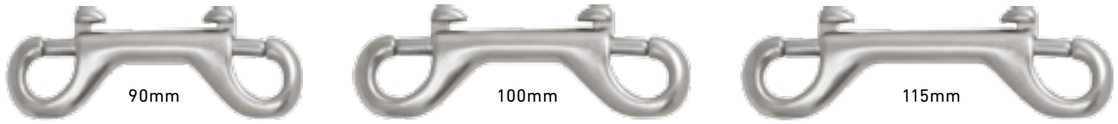
88mm

100mm

115mm

120mm

SS DOUBLE ENDER SNAP



90mm

100mm

115mm

BRASS DOUBLE ENDERS

L= 90/100/115/120mm

BRASS BOLT SNAPS

L= 76/86/88/100/120mm

B-RINGS

56mm x72mm/ Ø 6mm
base 22mm x 60mm

D-RINGS

56mm x72mm/ Ø 6mm

SS BUCKLES

50mm x 60mm x 91mm

SS BUCKLES

50mm x 60mm x 80mm

45° 90°

46mm x62mm/ Ø 6mm
base 32mm x 62mm

OVAL

50mm/ Ø 6mm

SS SLAM SNAPS

OVAL

60mm/ Ø 6mm

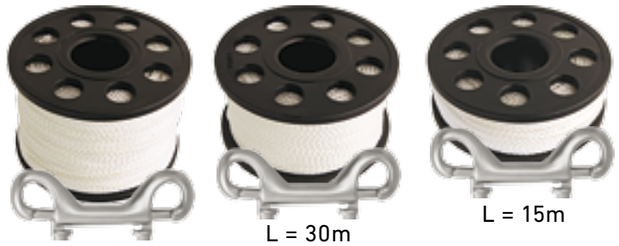
L= 60/70/80/100/110/120mm

TRIGLIDERS

22mm x 60mm x 50mm

L=80mm/100mm

SPOOLS WITH SS SNAPS



L = 45m

L = 30m

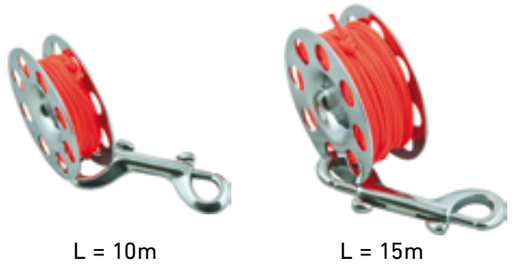
L = 15m

COLD WATER SPOOLS WITH SS SNAPS

L = 40m

L = 30m

STAINLESS STEEL SPOOLS WITH SS SNAPS



L = 10m

L = 15m

L = 30m

L = 45m

TECLINE REELS

L = 130m/400ft

SPOOL WITH WINCH

L = 15m

TECLINE REEL EXPLORER CAVE

L = 260m/800ft

L = 115m/380ft

CLOSED BUOYS

SEMI-CLOSED BUOYS

Metal oral valve for buoy

OPEN BUOYS

Closed buoys orange/yellow 11/117 cm, OPR valve

Closed buoy 22/180cm OPR Valve

Semi-closed buoy 18/122m OPR Valve

Dual-Color OPR valve orange/yellow

Open buoy 25/122

FRAMELESS - SUPER VIEW

The widest view from all of the frameless masks available on the market. It fits ideally to the face and requires small quantity of gas to clear it from water. Hydrodynamic shape allowing for direct draining of exhaled air away from the diver's view.

- Exceptional view of 170 degrees thanks to a short distance between glass and eyes
- Enlarged angle of view downwards
- Very small capacity
- Metal strap buckles
- Small size and weight
- Ultra light
- Soft, black silicone glued directly to the mask's glass
- Perfectly adhering to face
- Neoprene strap with Velcro optional

Neoprene strap - optional

Brightening glass

White version

FRAMELESS VIEW

FRAMELESS WHITE

FRAMELESS CLASSIC MAT

FRAMELESS II

FRAMELESS II - DIVIDED SCREEN

FRAMELESS II - UNDIVIDED SCREEN

TIARA

Brightening glass

„EXCELLENT MANOEUVERING CHARACTERISTICS: EFFECTIVE FOR LONG DISTANCE SWIMMING USING MODIFIED TECHNIQUE."

WOJTEK A.FILIP
Wreck diver and cave diver: GUE, IANTD, PADI, CMAS instructor.
Technical diving equipment designer. Inventor of Tecline POWERJET fins.

1. EASY AND PRECISE MANOEUVERABILITY
2. IDEAL FOR MODIFIED FLUTTER AND FROG KICKS
3. FIT STANDARD BOOTS, FLEX/TURBO SOLES AND ROCK BOOTS PERFECTLY
4. SAVE ENERGY AND REDUCE GAS CONSUMPTION

THREE OPTIONS OF HARDNESS TO CHOOSE FROM:

SOFT: for beginners
(a great alternative to any soft fins plus all the benefits of a jet fin)

MEDIUM: the standard choice
(ideal for cave, wreck and dives over a long distance)

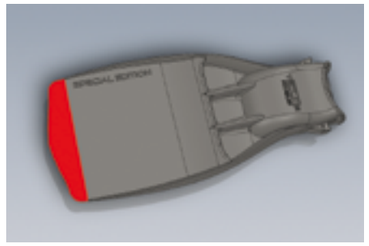
HARD: for demanding users*
(e.g. photographers, survey divers, instructors)

*WARNING! YOU NEED TO BE GENUINELY FIT TO SELECT THIS OPTION!

HOW ARE TECLINE POWERJET FINS DIFFERENT?

WHAT HAVE WE CHANGED?

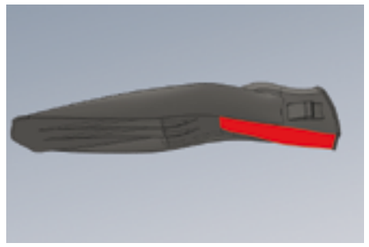
The MEDIUM and SOFT versions of our fins are best for swimming for long distances using modified techniques to reduce the diver's effort while maintaining a constant pace.



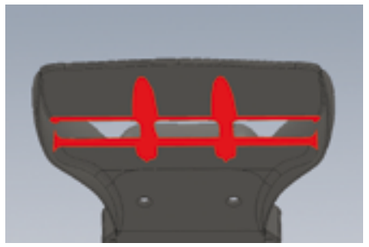
The longer blade helps make modified flutter and frog kicks more effective.

Higher edges and additional stabilizing ribs along the blade make it easier to swim backwards. They also limit the need for a frog kick to be "closed" and thus minimize the risk of silting caused by water movement.

The much greater angle of the blade allows the diver to swim close to a silty bottom while under a low ceiling and, again, reduces the need for a frog- kick to be closed to create forward propulsion.

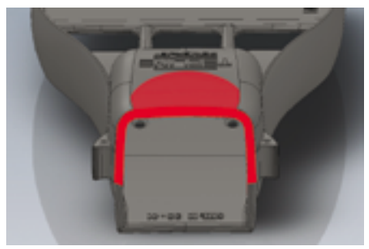


The modified angle of the bottom of the foot-pocket allows a diver to descend narrow shafts, move down a slope easily and quickly change trim by lifting the fin blades with a foot movement similar to what you do when you accelerate while driving.

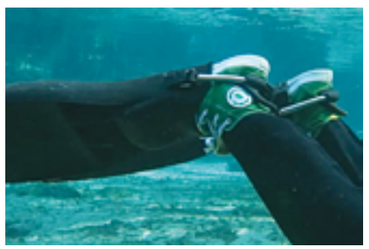


Much larger water vents allow greater stability and prevent the fins "rocking" when the diver swims faster. The vents also mean that less power, and therefore energy, is required when a diver swims slowly.

The fins' composition, using 2 different types of rubber of various hardness, and the rigid stabilizers act like a spring assisting propulsion, reducing diver effort, gas consumption and CO2 build-up.



The use of a softer rubber for the sole of the foot pocket makes the fins more comfortable for divers with a high instep and those diving in classic rubber boots. It also reduces the chance of a diver slipping on a wet dive deck.



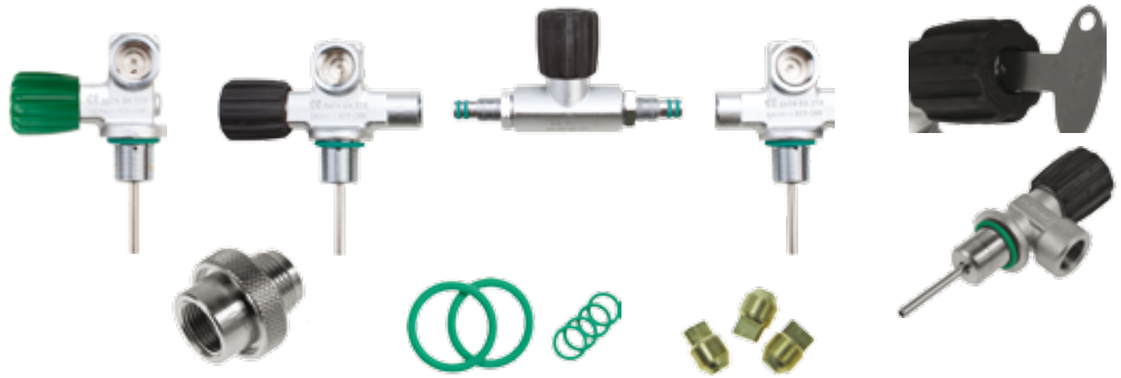
The spring fitting is attached to the fin above the heel. This means that it acts to hold the diver's foot in the pocket from the side as well as from the rear. This stops the foot moving from side to side and keeps the diver more stable.

Special thanks to test divers: Marcin Gala, Piotr Głoskowski & Andrzej Piekarski.

JETSTREAM FINS

SS SPRING STRAPS

VALVES & MANIFOLDS



TANKS AND DOUBLE TANKS

Eurocylinder, Faber, Luxfer & Catalina

Delrin Thumbwheels

STAGES AND STAGE RIGGING KITS

SS tank bands

INSTRUMENTS, SPGS

NYLON BRAIDED „PROFLEX" HOSES

STANDARD RUBBER HOSES

Available colors:

ELASTOMERIC MOUNTS

LINE MARKERS

COOKIES

PIG TAIL

SS bolt snap
with bungee 6mm

WETNOTES IN CORDURA

WRIST SLATE

COMPASSES

with
elastomeric
bungee mount

X7

X7 with strap

LED-17 HEAD LIGHT

Dive mask light (Dive headlight) is a state of the art, ultra compact and super light weight aluminum dive mask light, possibly the most powerful dive mask light on the dive market with such tiny dimensions. Tecline LED -17 No. 1 Dive mask light provides you with the much necessary illumination of instruments and gear during night dives. It is depth rated to 120m, so you don't have to worry about your instruments in low light situations. The dive light provides just enough light without blinding your dive buddy when he/she is looking at you. This little fantastic dive mask light is perfect for attaching to your mask strap and provides an intense convenient ray of light. Comes supplied with an innovative mask attachment clip for secure fastening to mask straps, enabling improved light for the user and displaying your position to your buddies during diving. The powerful lumen LED is perfect for reading gauges, slates and computers, etc. Patent: PAT. M409223

- Location: Clip on mask strap or your pockets.
- Material: Aluminum with anodized & sandblasted in black.
- Weight: 39 g (1 x AAA Alkaline battery & SUS Clip included.)
- Brightness: 120 lumens.
- Overall length: 10 cm.
- Waterproof: 120 meter.
- Burning time: 3 Hours (100% ~ 50%), 8 Hours (100% ~ 10%).
- Bright Dia. / Distance: 25 cm / 1 Meter. 50 cm / 2 Meter. 75 cm / 3 Meter. 100 cm / 4 Meter.
- Accessories: Lanyard, 1 x AAA Alkaline Battery & Mask Strap Clip included.

LED LIGHT US-13

This handheld dive light utilizes the USA CREE XML U2 LED, max 800 lumens output, Powered by 1*18650 lithium rechargeable battery, 2 hours runtime in high output, twist on/off switch at head, very easy for you to operate, plus 8 degree beam angle.

TECHNICAL PARAMETERS

- Output: 800 Lumens
- Runtime: 2h
- Intensity: 18000cd
- Distance: 270m
- Drop resistant: 1,5m
- Water resistance: IP68 (underwater 150m)

PRODUCT SPECIFICATION

- Utilize Cree XM U2 LED, lifespan is 50 000 hours
- Regulated power supply can maintain constant output
- Overheat protection function
- Reverse polarity protection to protect from wrong battery installation
- Super big lanyard hole design for bolt snap mount
- Twist on/off switch, very easy to operate
- Three O-rings design increases water resistance to 150 meters
- The casing is made of durable Aircraft-grade aluminum
- Premium type III military hard-anodized finish for abrasion and corrosion resistance
- Alloy aluminum reflector
- Dimensions: 40mm (head dia.)*26mm (body dis.)*32mm (tail dis.)*142mm (length)
- Standard accessories: 3 spare O-rings, lubricant, lanyard, user manual
- Other accessories (optional): wrist strap

TECLINE MINI

TECHNICAL PARAMETERS

- Light source: LED „Cree"-XML U2, light color: white
- Power: 550 lm
- Brightness: 450cd
- Power supply: 1 x AA 1,5V
- Material: anodized aluminum
- Water-resistance: 200 m (IP 68)
- Working time: about 25 min
- Size: 132mm x 42mm (head) x 33 mm (body)
- Weight: 47,6 g (without battery)
- Weight with battery: 67,4 g
- Operating voltage: 08 – 4,2 V
- Coverage area: 134m

LED LIGHT US-15 COMPACT

PRODUCT SPECIFICATION

- Light source: LED „Cree" - XML U2,
- Light color: white
- LED's lifespan: about 100 000h
- Power: 10W, 1500 lm
- Beam angle: 10 degrees
- Color temperature: 6000 K - 7000 K
- Power supply: 3 x AA batteries
- Material: anodized aluminum
- Head: lens made of ultra-clear, tempered glass and aluminum reflector keeping ideal angle of 10˚
- Water resistance: 200 m (IP 68)
- Working time: about 3h
- Size: 130mm x 50mm (head) x 40 mm (body)

LED LIGHT US-16

Ideal both as main and backup light.
Thanks to a cooling radiator on the torch's housing, the product doesn't overheat on the surface and, therefore, it is also ideal as a handheld torch at home or in the car. Its low weight without the batteries (3 x C cells) makes it perfect for traveling by air.

10W, 1500 LM

- Light source: LED „Cree"-XML U2, light color: white
- LED's lifespan: about 100 000h
- Power: 10W, 1500 lm
- Beam angle: 10 degrees
- Color temperature: 6000 K - 7000 K
- Power supply: 3 x C cells
- Material: anodized aluminum
- Head: lens made of ultra clear, tempered glass and aluminum reflector keeping ideal angle of 10˚
- Water resistance: 200 m (IP 68)
- Working time: about 4,4 h
- Size: 220 mm x 50 mm (head) x 33 mm (body)
- Weight: 185 g (without batteries)

LED LIGHT US-16 GOODMAN

- Light source: LED „Cree"- XML U2, light color: white
- LED's lifespan: about 100 000h
- Power: 10W, 1500 lm
- Beam angle: 10 degrees
- Color temperature: 6000 K - 7000 K
- Power supply: 4 x C cells
- Power control:100%, 50%
- Material: anodized aluminum
- Head: lens made of ultra clear, tempered glass and aluminum reflector keeping ideal angle of 10˚
- Water resistance: 200 m (IP 68)
- Working time: about 2,5 h with 100% power (total time to switching off≈8h)
- Size: 80 mm x 48 mm (head), 33 mm x 244mm (body)
- Weight: 780 g (without batteries) with Goodman handle

LED LIGHT US-3000

- 3 x CreeXM-L2 (U 4), max 3000 lumens output
- Powered by 3 x 26650 rechargeable lithium batteries, the max runtime up to 3,2h (batteries included)
- Regulated power supply can maintain constant current output
- Reverse polarity protection is to prevent from installing the battery wrong
- Magnetic switch for easy switching on /off and changing modes
- The design of three O-rings is to ensure its waterproof function to 200 meters underwater
- The casing is made of Al T6061-T6 Aircraft-grade aluminum
- Premium type III military hard-anodized finish is for abrasion and corrosion resistance
- 5mm toughened glass lens can withstand higher water pressure resistance
- Standard accessories: spare O-rings, lanyard, user manual, charger and batteries

TECHNICAL PARAMETERS

- Lumen Output: 3000 Lumens(High), 1800 Lumens(Medium), 300 Lumens(Strobe)
- Runtime (3 x 26650): 2.2h(High), 3.2h(Medium)
- Luminous Intensity: 26000cd
- Beam Distance: 300m
- Drop Resistance:1.5m
- Waterproof Grade: IPX-8, (underwater 200m)
- Dimension: Head:66(Dia) *75,5Lmm; Canister:35(Dia)*258(L)mm
- Net Weight: 960g (excluding battery)
- Underwater weight: 645g (including battery)

UNDERGARMENTS

Undergarments TECLINE 3D MOBILITY Series 290 and 490 are designed for demanding divers diving in cold waters. The best materials and the most advanced technologies have been used by its manufacturing.

Well thought-out and carefully designed construction ensure maximum motion comfort and warmth. Fleece, which has been used as inside lining, has been compressed in order not to take too much space under the drysuit. Fleece is soft and comfortable.

TECLINE 3D MOBILITY UNDERGARMENTS KEY FEATURES:

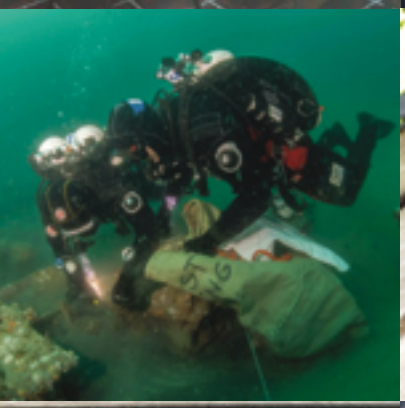
- Outer shell made of Pertex 40g/m2: thin, smooth and extremely durable material
- 250g/m2 layer of Fleece inside: advanced technical fleece with extra thermal properties
- Additional inner layer of micro fleece 200g/m2 in Undergarment Series 490
- Three pockets; one of them is zippered breast pocket
- Neoprene ankle cuffs
- Comfortable collar adding warmth
- Two-way convenience main zipper sealed with a band inside
- Wind stopping flexible waist panel, flexible armpit panels
- Both kinds of undergarment are equipped with suspenders which can be regulated in a standard way
- Wrist cuffs which allow easy drysuit donning and let the air flow to the gloves
- Machine and chemically washable





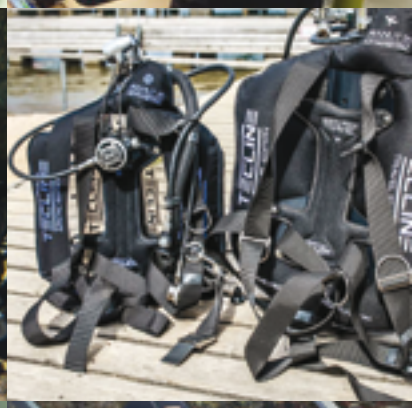
TECLINE

Find us on

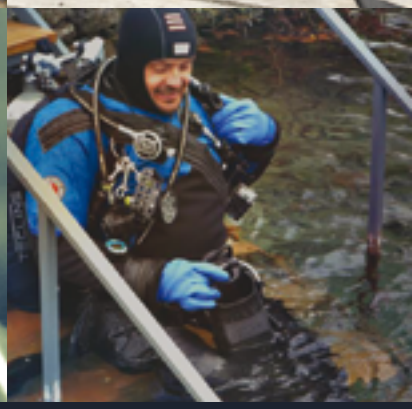











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THE PERFECT CONFIGURATION

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