

TECLINE

DIR set  
V2

10 years  
warranty  
for first owner

The  
perfect  
configuration.

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# THE PERFECT CONFIGURATION - DIR SET V2



## DONUT'S 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.

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.

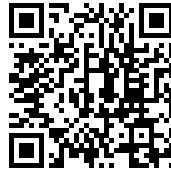
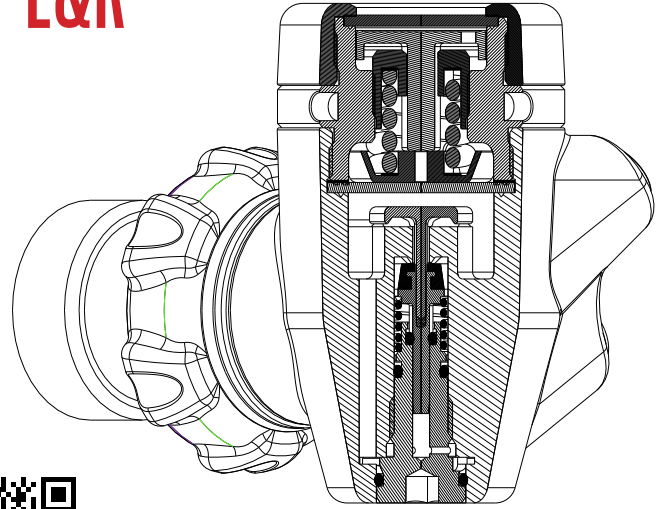
The tools needed for servicing do not differ from those used for the servicing of other popular regulators. Spare parts needed for servicing in the field are the same as in the most of the available 1st stages – V2 doesn't have in this respect any surprising solutions... maybe apart from one – this is V2 ICE – the only such regulator.

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.

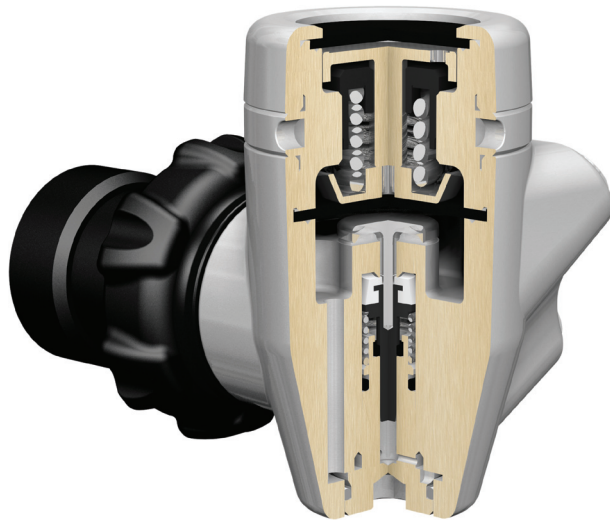


# V2 FIRST STAGE REGULATOR L&R

- 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%

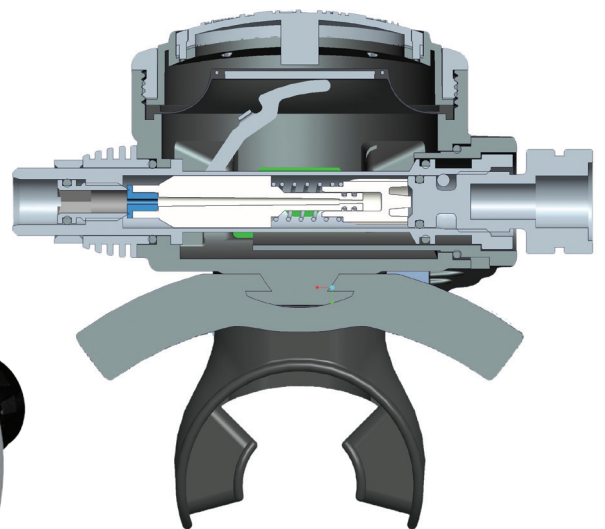


3D of I STAGE



# 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



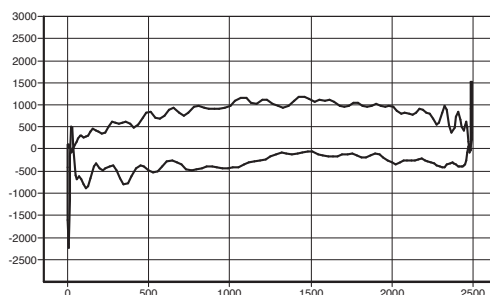


# V2 REGULATORS IN PRACTICE



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.

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 Polish, 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 wrecks 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.





# LED LIGHT US-15 GOODMAN



## Ideal as main light.

Thanks to a cooling radiator on the torch's housing, the product doesn't overheat on the surface. Its low weight without the batteries (4 x C celled) makes it perfect for traveling by air.

- Light source: LED „Cree“-XML T6, 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 celled
- Control of light's power: 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

# FRAMELESS MASKS



FRAMELESS II - DIVIDED SCREEN



FRAMELESS II - NOT DIVIDED SCREEN

# DONUT 17 SPECIAL EDITION

- Buoyancy compensator dedicated for double tanks 2 x 7L, 2 x 8,5L, 2 x 10L
- The same features as Donut 22 Special Edition
- Lift capacity 17 kg / 40 lbs
- Inside bladder: PU 420
- Outside bladder: Heavy Duty Nylon 1000 D non blade





# 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!

# DONUT 22 SPECIAL EDITION REBREATHER

FOR SENTINEL AND MANY OTHER REBREATHERS



YouTube Tecline TV:

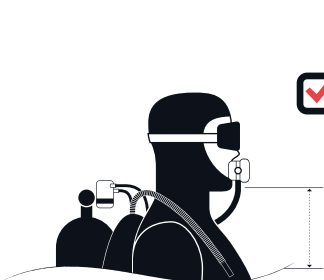
How is Donut 22SE built?



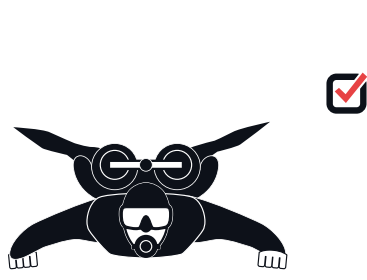
See Donut 22SE in action



Swimming pool test of Donut 22SE



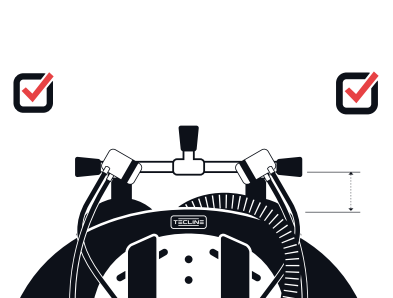
High surface position



Easy dump system



Compatible with all configurations



Easy valve access



# SIDE MOUNT BCD SIDE 16

- Cordura 2000
- Lift capacity 16 kg / 35 lbs
- 6 weight pockets max 16 kg
- Aluminum backplate
- Adjustable waist belt
- Edditional cheast 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

# JACKET BCD EXPLORER

- Cordura 2000
- Lift capacity 22 kg / 50 lbs
- Aluminum backplate
- Adjustable waist belt
- Edditional 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

