



# USER'S MANUAL DTEK DRYSUIT



MADE IN ITALY  

## INTRODUCTION

### Congratulations on purchasing a DTEK drysuit

Like every DTEK suit, this too has been rigorously designed and manufactured entirely in Italy, with the utmost care, using high quality materials, following precise standards.

Its use will guarantee you safer, more comfortable and more enjoyable dives.

All materials used (adhesives, sealants, etc.) are certified, all in compliance with the protection of the health of the user, workers and the environment.

Each drysuit is individually tested to verify the pressure tightness, the functionality of the valves and the connection hose.

DTEK drysuits are designed for certified divers, trained in the use of this type of suit; or for individuals using it under the direct supervision of a qualified instructor.

**Our dry suits covered by this instruction manual have been subjected to type tests and certified in accordance with Regulation UE2016/425 and in accordance with the standard: UNI EN 14225-2:2017 by Notified Body No 0474 RINA, via Corsica 12, 16128 GENOVA**

Reading this manual is also strongly recommended for those who are already experienced divers in the use of drysuits.

It includes important safety procedures and information that can help extend the life of the drysuit.

If the user manual is not available or has been lost, a copy can be requested by contacting us by email at **info@dtekgroup.net** or can be downloaded from our website **www.dtekgroup.net**

Or request directly to the following address:

### DTEK s.r.l.

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## IMPORTANT WORDS USED IN THIS MANUAL

In this manual some words are used to call your attention to practical conditions, or techniques that may directly affect your safety. Please pay attention to the following words:

### **DANGER**

Indicates immediate hazardous situations, which if not avoided, will result in death or serious injuries.

### **WARNING**

Indicates a potentially hazardous situation, which if not avoided, could result in a danger and cause serious injuries.

### **ATTENTION**

Indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injuries. It may also be used to alert against unsafe practices.

## TECHNICAL SUPPORT

In case any or more portions of this manual is unclear or if you are unable to obtain satisfactory answers from your dive store and/or instructor, do not hesitate to directly contact DTEK to the following phone numbers and email addresses:

Tel: +39 045 8521046

E-mail: [info@dtekgroup.net](mailto:info@dtekgroup.net)

## IMPORTANT INFORMATION

The use of this drysuit is appropriate for certified divers who have successfully completed a course in the use of drysuit or divers in training under the supervision of a qualified instructor.



**Follow all instructions and safety precautions.  
Improper use or misuse of this drysuit could result  
in serious injuries or death.**



**This manual is NOT a substitute of the necessary and  
specific training by a qualified instructor.  
DO NOT USE a drysuit until you have  
practiced and mastered the necessary drysuit diving skills,  
including the emergency skill, in a controlled environment under  
supervision of an instructor, certified by a  
recognized training agency and competent in the use of drysuit.**



**Improper use or misuse of this DRYsuit could result in  
loss of buoyancy control, including uncontrolled  
descents and uncontrolled rapid ascents.  
These may result in decompression sickness, air embolism or drowning.**



**Improper use or misuse of this DRYsuit could result in  
exposure to the thermal hazards, including  
rapid body overheating (hyperthermia) or  
cooling (hypothermia) convulsion.**



**Do not use this drysuit as a lift bag. If you use it as a lift bag, you could suddenly lose your grip on the object. This could result in a rapid uncontrolled ascent.**



**Rapid ascents are dangerous and may result in air embolism or decompression sickness, conditions that can cause serious injuries or death**



**Diving in an environment chemically, biologically, or radiologically contaminated is extremely dangerous. Although some DTEK equipment can be adapted for use in some contaminated environments, special training, equipment and procedures are required. Do not dive in contaminated environments unless you are completely trained and specifically equipped for such environments**



**Ice diving (diving in water less than 5°C) is extremely dangerous. Do not dive in such conditions unless you have been completely trained and specifically equipped.**



**In diving operations in contaminated waters only specifically configured equipment must be used. Such configuration depends also but not only from the kind of contamination, the duration of the exposure, as well as the training, experience level and the operator's exercise rate.**



### **MAXIMUM RECOMMENDED DEPTH**

**The maximum depth for the use of the dry suit is conditioned by many factors:**

- the qualifications and experience of the diver,
- physiological conditions before immersion,
  - the respirable gas mixture,
  - thermal protection
- proper maintenance of dry suits

Read entirely the manual before using the drysuit, even if you have experience in the use of drysuits. Keep the manual for future reference.

If you resell, loan or rent the equipment to someone, be sure that this manual accompanies the drysuit and is read and understood before the drysuit is used.

Failure to follow all warnings and instructions for use and maintenance of the drysuit may result in serious injuries or, in extreme situations, death.

This manual is supplied to the original purchaser of a DTEK drysuit. If you have any question about the use of the maintenance of your drysuit, do not hesitate to contact DTEK:

For the legal purpose the English manual is a translation from the original manufactory language (Italian) therefore the present manual must not be considered as a legal translation

Tel: +39 045 8521046

E-mail: [info@dtekgroup.net](mailto:info@dtekgroup.net)

## **IMPORTANT PRECAUTIONS AND DRYsuit GUIDELINES**

The following DRYsuit GUIDELINES have been adopted and endorsed by several manufacturers of drysuits, including DTEK:

- Complete a drysuit diving course from a qualified instructor and stay current by practicing your learnt skills often.
- Use always a second buoyancy compensation system for surface floating and back up during diving.
- Familiarise with your equipment and emergency procedures.
- Practice your drysuit diving skills under controlled conditions until you do not reach a sufficient control.

- Dive with a dive partner who understands your drysuit operation system.
- Use the correct amount of insulation for the water temperature you are diving and exercise rate.
- Do not weight yourself heavier than neutral buoyancy with empty tank. Your weighting should allow you to make a safety stop at three meters upon completion of your dive with a tank almost empty.
- Check integrity of valves, zipper, wrists and neck before each dive.
- Perform preventive maintenance and required repairs on your drysuit regularly, or have them checked by qualified people.
- Know your limitations and do not exceed them.
- Water or air temperatures below 21°C constitute cold water diving.
- Water or air temperatures below 5°C constitute ice diving. Ice diving is very dangerous and requires specific training, equipment, preparation and special procedures.

# 1- DTEK DRYSUIT

DTEK drysuits have the purpose to keep the diver dry providing a minimal thermal protection. The drysuits are designed to be used in combination with thermal divewear and protective garments for hands and head. The drysuit keeps a dry air layer around the covered portion of body. A similar example is a raincoat: the raincoat keeps you dry while what you wear under it keeps you warm. This approach guarantees to the diver a versatile drysuit, which can be used in a wide range of diving conditions changing the thermal divewear and the accessories according to personal needs.

When selecting the size of a drysuit, we suggest you to start with the size chart for the specific drysuit style. The size given will represent a starting point.



## TABELLA MISURE / SIZE CHART



UOMO/MAN   MUTE/SUIT		Misure in cm / Measure in cm										T = Lungo / Tall		S = Corto / Short		
MISURA / SIZE	XS	S	S (T)	M	M (T)	ML (T)	L (S)	L	L (T)	LL (T)	XL (S)	XL	XL (T)	XXL (S)	XXL	XXXL
Altezza / Height	162-166	168-172	174-178	172-176	176-180	182-186	172-176	180-184	184-188	190-194	174-178	184-188	192-196	176-182	190-194	192-196
Torace / Chest	84-88	90-94	92-96	96-100	96-100	100-104	106-110	106-110	106-110	110-114	112-116	112-116	112-116	118-122	118-122	130-134
Vita / Waist	70-74	76-80	78-82	82-86	82-86	84-88	92-96	92-96	92-96	98-102	100-104	100-104	100-104	108-112	108-112	116-120
Bacino / Hips	84-88	90-94	92-96	96-100	96-100	100-104	106-110	106-110	106-110	110-114	112-116	112-116	112-116	118-122	118-122	124-128
Interno braccio / Inner Arm	51	52	53	53	55	57	52	54	56	58	54	56	58	55	57	58
Avambraccio / Forearm	26	27	27	28	29	29	30	29	30	30	31	30	30	31	31	32
Bicipite / Biceps	28	29	30	32	32	33	35	35	36	37	38	37	38	40	40	42
Infocatura Totale / Body Trunk	155	160	165	165	170	175	165	170	175	180	170	175	180	175	185	195
Interno gamba / Inner Leg	74	76	80	79	84	88	79	83	86	89	80	85	89	83	87	89
Coscia / Thigh	50	52	52	55	55	55	62	60	61	61	65	65	65	68	68	72
Polpaccio / Calf	34	36	38	39	40	40	43	41	42	42	44	44	44	46	46	47

### DONNA / WOMAN | MUTE/SUIT

MISURA / SIZE	XS	S	S (T)	M	M (T)	ML (T)	L (S)	L	L (T)	XL (S)	XL	XXL
Altezza / Height	156-160	156-160	162-166	162-166	168-172	174-178	162-166	168-172	174-178	168-172	174-178	180-184
Torace / Chest	80-84	86-90	86-90	92-96	92-96	98-102	92-96	98-102	98-102	98-102	104-108	110-114
Vita / Waist	66-70	72-76	72-76	78-82	78-82	78-82	84-88	84-88	84-88	90-94	90-94	96-100
Bacino / Hips	86-90	92-96	92-96	98-102	98-102	98-102	104-108	104-108	104-108	110-114	110-114	116-120
Interno braccio / Inner Arm	48	48	50	50	52	54	50	52	54	52	54	56
Avambraccio / Forearm	23	24	24	25	25	25	26	26	26	27	27	28
Bicipite / Biceps	26,5	28	28	29,5	29,5	29,5	31	31	31	32,5	32,5	34
Infocatura Totale / Body Trunk	137	139	143	145	149	153	148	152	156	154	158	165
Interno gamba / Inner Leg	76	76	79	79	82	86	78,5	82	85	81,5	85	88
Coscia / Thigh	52	55	55	58	58	58	61	61	61	64	64	67
Polpaccio / Calf	36,5	36,5	36,5	37,5	37,5	37,5	39	39	39	40	40	41,5
Lunghezza schiena / Back Length	39	39	40,5	40,5	42	43,5	40,5	42	43,5	42	43,5	45

### UOMO/MAN | SOTTOMUTA / DIVEWEAR

Misure in cm / Measure in cm

### DONNA / WOMAN | SOTTOMUTA / DIVEWEAR

MISURA / SIZE	XS	S	M	L	XL	XXL	XXXL
Altezza / Height	165-167	168-170	171-175	176-182	183-185	186-188	189-192
Torace / Chest	88-91	92-96	97-102	103-109	110-116	117-121	122-125
Vita / Waist	75-79	80-83	84-89	90-95	96-104	105-111	112-118
Bacino / Hips	85-90	92-95	96-107	102-106	107-113	114-118	119-125
Braccio / Arm	56,5	57	58,5	60	61,5	63	64,5
Interno gamba / Inner Leg	69-71	72-74	75-78	79-82	83-85	86-88	89-91
Infocatura totale / Body Trunk	170	173	176	179	182	184	186

MISURA / SIZE	XS	S	M	L	XL
Altezza / Height	155-160	157-163	160-165	163-168	166-170
Torace / Chest	79-85	84-88	87-91	92-96	95-99
Vita / Waist	65-69	68-74	73-77	76-80	79-84
Bacino / Hips	85-89	89-94	94-99	99-104	104-109
Braccio / Arm	56	56,5	58	59	60,5
Interno gamba / Inner Leg	70	73	76	78	80
Infocatura totale / Body Trunk	156	160	164	168	172

### UOMO/MAN | FIRST SKIN

MISURA / SIZE	XS	S	M	L	XL	XXL	XXXL
Altezza / Height	166-170	168-172	172-178	176-182	180-186	184-190	186-192
Torace / Chest	82-88	88-94	94-100	100-108	108-116	116-124	124-132
Vita / Waist	76-82	82-88	88-94	94-102	102-110	110-118	118-126
Bacino / Hips	84-90	90-96	96-102	102-110	110-118	118-126	126-134
Interno gamba / Inguine- terra Inner leg- Groin-ground	72-77	75-80	78-83	82-86	84-88	86-90	88-92

### DONNA / WOMAN | FIRST SKIN

MISURA / SIZE	XXS	XS	S	M	L	XL
Altezza / Height	154-159	157-162	160-165	163-168	166-171	169-174
Torace / Chest	74-78	78-82	82-87	87-94	94-102	102-110
Vita / Waist	60-64	64-68	68-74	74-81	81-88	88-96
Bacino / Hips	84-88	88-92	92-97	97-104	104-111	111-119
Interno gamba / Inguine- terra Inner leg / Groin-ground	66-70	70-74	74-78	76-80	80-82	80-82

CALZATURE /BOOTS						
Misura in cm / Measure in cm						
MISURA	EUROPE	CM	UK	USA Uomo / Man	USA Donna / Woman	INC
2XS	36	22	3	4	6	8,66
XS	37	23	4	5	7	9
S	38	24	5	6	8	9,44
M	39	25	6-7	7	9	9,84
L	40-41	26	8	8	10	10,23
XL	42-43	27	9	9	11-11,5	10,62
2XL	44	28	10	10	12-12,5	11
3XL	45-46	29	11	11-11,5	-	11,41
4XL	47-48	30	11-12	12-12,5	-	11,81-12
5XL	49-50	31	12-13	13	-	12,5

La misura tiene conto che venga usata una calza leggera ed una calza imbottita da sottotuta oppure una calza spessa, nel caso si usasse una calza molto leggera si consiglia di usare una misura in meno.

Sizing table assumes wearing a normal socks and the drierwear socks, in case you would use only a normal socks, move down one size.

CAPPUCCI / HOODS						
Misura in cm / Measure in cm						
MISURA / SIZE	XXS	XS	S	M	L	XL
TESTA / HEAD	54-55	56-57	58-59	60-61	62-63	64-65

La misura tiene conto che venga usato un solo sotto guanto, nel caso se ne usassero due, usare una misura superiore.

Per prendere la misura del guanto in cm, misurare la parte più larga intorno alle nocche facendo il pugno senza il pollice.

GUANTI STAGNI / DRY GLOVES				
Misura in cm / Measure in cm				
MISURA / SIZE	S	M	L	XL
CIRCONFERENZA PALMO PALM CIRCUMFERENCE	15,2-17,8	17,8-21,6	21,6-25,4	25,4-27,9

Sizing table assumes only one lines are worn if two lines are worn, move up one size.  
To find your glove size, measure around the largest part of the hand over the knuckles while making a fist, excluding the thumb.

## 1.1 Underwear fit for drysuits

Dtek undersuits are designed specifically for drysuit dive, they are available in different models with different weights.

The thermal insulation required during immersion is determined by the following factors:

- Water temperature at the time of the dive
- Duration of the dive
- Depth of the dive
- Drysuit material
- Personal predisposition to temperature

The right drysuit undersuit must cover the arms, legs and torso, it must be cut in order to allow all the movements necessary for the dive with particular attention to those who perform technical immersions that require different movements.

The same must also be proportionate to the size of the suit (a undersuit too often worn under a suit without the correct fit will result in a deficit of movement due to the narrowness of the same)

It must be accompanied by socks and under gloves (if watertight gloves are used) in order to keep the ends warm.

Remember that the ends are the part that cools first



**WARNING**

**It is essential to adjust the insulation according to the environmental conditions of immersion. Cooling or Overheating is extremely dangerous cause exhaustion, fainting and, in some cases, death.**



**WARNING**

**The type of insulation used under the drysuit affects the ballast. In most cases, the more insulation you wear, the more ballast is needed to dive. Always check the correct weighing if you change the type of undersuit**

## 1.2 Before putting a drysuit on

- Verify the fit of the divewear. Inappropriate divewear size or not optimal fit may affect the fit of the drysuit.
- Verify the correct regulation of wrists and neck – see the chapter of this manual dedicated to regulation of wrists and neck.
- Review the instructions of this manual on how to put on the drysuit.

Put on the drysuit on over your divewear and complete the following fit and mobility evaluation:

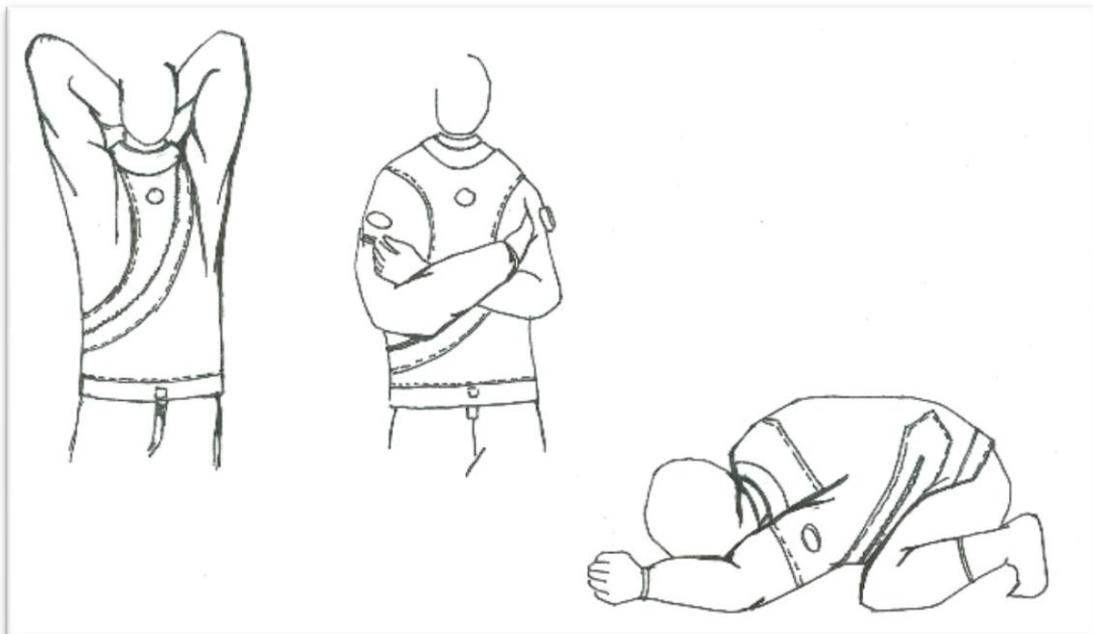
The drysuit should not affect breathing and should not cause restrictions when you take a deep breath.

Feet should not be cramped or have restrictions on fingers' moves.

Reach the shoulders: try to touch the shoulders with both hands like you were trying to reach the valve on your tank. You should be able to do this without the drysuit pulling up tight in the crotch.

Cross the arms: reach across the chest with both arms (like if you were hugging yourself). You should be able to reach and operate the exhaust valve on the left shoulder.

Crouch and reach out: kneel down, seat back over your heels and lean forward. This position helps to verify the leg length and torso length at the same time. The drysuit should not restricting or limiting the moves.



The fit of a drysuit is important and, if you are uncertain between two sizes, the larger size is the better choice. If you note problems in any of these evaluation areas you should choose a different size or a special production drysuit (tailor-made).

## 2 - DTEK DRYSUIT FEATURES

### 2.1 The valves

Your drysuit is equipped with an inflation and deflation valve for controlling the air volume inside your drysuit. The inlet valve allows you to put air into your drysuit during descent, or to inflate the drysuit while at surface for additional floatation. The external body of the inlet valve rotates and allows the drysuit inflation hose to be connected either to the right or to the left of the diver.

The exhaust valve is used to vent unnecessary air from the drysuit. The exhaust valve can be used to release air automatically or manually. During diving and above all during ascent, we suggest keeping the exhaust valve in automatic mode at the lowest opening pressure, which keeps the smallest amount of air in the drysuit. Set the valve to the lowest opening pressure by rotating the valve body completely counter clockwise until you reach its stop (refer to the section MAINTAINING BUOYANCY CONTROL DURING THE DIVE of this manual for further information). To vent air from the drysuit in the automatic mode make the valve the highest point in the drysuit. To do this, lift your left elbow up so that the valve is at the highest point on your arm and the whole body.

The manual exhaust mode is used primarily on surface, when more floatation is needed. In the manual mode, the valve is set at the highest opening pressure by rotating the valve body clockwise until a stop is reached. To vent air from the drysuit, position the valve at the highest point and press down the valve. The valve can operate manually to vent air from the drysuit even in the automatic or partially closed mode.

### 2.2 Neck and wrist

The neck and the wrists provide a watertight seal around the neck and the wrists. Sizing adjustments must be made to get a proper fit and seal. Latex neck and wrists are commonly used, however neoprene neck and wrists are available.

### 2.3 Boots, socks and rockboot

Each drysuit comes either with boots or with socks attached to keep dry your feet. They have different sizes and must assure internal space to wear insulation socks. RockBoots have to be put on over the socks to provide protection, support to ankles and better traction.

### 2.4 Watertight zipper

The watertight zipper provides a watertight closure and allows for putting the drysuit on and removing it. The watertight zipper is one of the most important of the drysuit. Read carefully the instructions on the use and maintenance of the watertight zipper before using it. Improper use may result in permanently damaging of the zipper.

### 2.5 Suspenders

Suspenders hold the crotch of the drysuit improving the leg movement. Suspenders also allow the upper half of the drysuit hanging or down around the waist before or after dives.

### 2.6 Telescopic torso

The telescopic torso of the drysuit provides additional space for putting the drysuit on or removing it. The extra material then folds around the waist when is not needed.

### 2.7 Crotch strap

The crotch strap holds the telescopic torso section in place when the drysuit is in use.

## 2.8 Warm neck collar

The warm neck collar is used in combination with the warm neck hood. The collar on the hood neck is tucked under the warm neck collar. The system minimizes water circulation around the neck and help to keep it warm.

## 2.9 Zipper cover

The zipper cover provides a protective covering for the watertight zipper.

# 3 - ACCESSORIES FOR DTEK DRYSUITS

DTEK offers a complete line of insulation garments specifically designed for the diving environment. You can see the guidelines for DTEK thermal protection for help in selecting the best combination of garments for your diving needs.

## 3.1 Hood

- Warm neck hood: the warm neck hood provides additional thermal protection on the neck area and is designed to work in combination with the warm neck collar available on all DTEK drysuits.
- Standard hood: this is used with drysuit not equipped with warm neck collar.

## 3.2 Wrist and dry gloves

Interchangeable silicon/latex wrists and dry gloves.

On all our drysuits it's possible to install during production or later the best kits on sale, so the user can utilise the interchangeable silicone or latex wrists.

Some of these kits also allow the direct use of dry gloves keeping however the seal of the wrist.

The wrists guarantee the seal during diving, even if the dry glove is damaged or taken off.

All the kits are provided with their original user and maintenance manuals.

## 3.3 Physiological valve (Pee- valve)

On request the drysuits can be equipped with pee valve installed by choice on the right or left side.

The valves are always balanced in order to simplify their use and guarantee a perfect seal even if not connected. They are provided with specific user and maintenance manual.

# 4 - USER INSTRUCTIONS AND MAINTENANCE

## 4.1 Watertight zippers

### Brass zipper

Be careful, before putting on the drysuit, to make sure that the zipper is completely open with the slider at the end and sufficiently lubricated in order to smoothly slide. While putting on the drysuit, make sure not to excessively force the zipper strip to avoid damage or tear between brass teeth. When taking off the drysuit, before pulling out neck and shoulders, make sure that the zipper is completely open and at the end.

### **Maintenance and storage**

Rinse completely the zipper with sweet clean water after each dive, above all if done in salty or contaminated water.

Lubricated the zipper with clean, dry and totally closed strip. Use solid wax or solid paraffin, making the flow lubricating material with a light pressure, on the external part of the zipper over the brass teeth of both sides. When lubrication is correctly done, some traces of wax should be seen between the brass teeth and this does not have to be removed.

Never use silicon lubricants, spray or silicon grease: this could compromise the life of the zipper and further works for its replacement.

With the passing of time and prolonged use, shrinkages may occur on the outside of the strip.

These must be removed with extreme care and attention, using sharp scissors, in order to avoid premature consumption of the zipper.

Do not use lighters or other flames, the rubber strip can be set on fire or further damaged, compromising the Drysuit.

For short-term storage, between close dives in the same day, it is not necessary to lubricate the zipper after each dive, however it must be kept closed if the drysuit is hanging or open if the drysuit will be folded and stored in the bag.

For long-term storage, for example a month or more, the zipper must be clean, lubricated and kept completely closed if the drysuit is hanging or open if the drysuit will be folded and stored in the bag.

## **Plastic zipper**

Be careful, before putting on the drysuit, to make sure that the zipper is completely open with the slider at the end and sufficiently lubricated in order to smoothly slide.

While putting on the drysuit, make sure to do not excessively force the zipper strip to avoid damage or tear between teeth. When taking off the drysuit, before pulling out neck and shoulders, make sure that the zipper is completely open and at the end.

### **Maintenance and storage**

Rinse completely the zipper with sweet clean water after each dive, above all if done in salty or contaminated water.

Be careful as strongly alkaline or strongly acidic sweet waters, often present in caves or isolated lakes (i.e. the Mexico Cenotes), must be considered as contaminated environments and therefore the drysuit has to be washed immediately after each dive.

Lubricate the zipper with clean and dry strip, completely open and using silicon grease, applying little drops at distance of 5 cm of both sides of the strip.

Close and open the strip for 3 or 4 times in order to spread further the lubricant.

When lubrication is correctly done, the strip should appear externally shiny.

Never use solid lubricants like wax or paraffin: this could compromise the seal and the life of the zipper.

For short-term storage, between close dives in the same day, it is not necessary to lubricate the zipper after each dive, however it must be kept closed.

For long-term storage, for example a month or more, the zipper must be clean, lubricated and absolutely closed.

Leaving the slider in intermediate positions could result in temporary loss of seal during the following dives.

If accidentally it happens, lubricate again the zipper and let the drysuit hang up with the zipper completely closed for at least 1 day before using it.

This should restore the seal of the drysuit.

## 4.2 Adjustment, use and maintenance of the collar and cuff



**LATEX, NEOPRENE and SILICONE based components and additives, they can cause skin irritation and allergic reactions, even severe in sensitive individuals.  
If in doubt, consult a doctor.**



**A drysuit neck that is too tight can restrict flow blood to the brain and cause severe damage or death.**



**A cuff that is too tight can limit the blood circulation to the hand causing problems with loss of feeling on extremity.**



**Remove jewelry, bracelets, watches and anything that could damage or get caught in the neck or cuffs**

### Latex collar and cuffs

Latex neck and wrists should be adjusted to ensure a comfortable watertight seal. The latex neck and cuffs are tapered and have a series of adjustment lines (small raised lines along the inner surface). The adjustment lines begin at the opening of the neck or cuff and each line becomes progressively larger. These lines can be used as a guide when cutting the neck or cuff to keep a straight line. To make a clean and well-made cut you need a good pair of well-sharpened scissors.

If a person wrist have a different size from each other, the two cuffs can be adjusted differently in order to adapt them to each of the wrists.

Try the collar and cuffs by wearing them. We recommend wearing the entire drysuit, even if it is not mandatory, to check the size of the collar and cuffs. The Neck should be placed as low on the neck as possible. It should be fully snug, but not too tight. If you are new to diving with a Drysuit, a tight neck may appear a bit uncomfortable when you are out of the water. Once in the water, a properly adjusted neck is comfortable and does not give any sealing problems.

The cuffs should be worn just above the wrist bone. They should be snug but not tight and should not restrict blood flow to the hands. If you feel tingling in your hands you will need to further adjust the cuff.

If this is your first time adjusting your neck and cuffs and you're worried about cutting too much, start with one size smaller and proceed by cutting one line at a time. It is difficult to cut too much if you adjust yourself by taking small steps.

### **Cuff, how to wear it**

To prevent the undersuit slide into the sleeve of the suit while wearing the cuff, put the cloth thumb loop of the undersuit sleeve around your thumb or hold the edge of the undersuit with your fingertips .

Pull the sleeve to the point where your fingers exit the cuff by 3-5 cm.

Bring the fingertips together to form a single point.

With two fingers of the other hand, spread the cuff sideways and pass your hand through the cuff.

The latex cuff should sit flat on the skin and there should be no creases on the sealing surface. Make sure that the thumb ring and / or the material of the undersuit are not under the sealing surface.

Lubrication of seals: The most common lubricants include mineral talc and soapy water. Do not use oily or silicone lubricants, they can damage the latex very quickly and remain on the suit causing problems when it needs repairs.

Useful tip: soapy water is an excellent lubricant for putting on and taking off cuffs. Use one part of dish soap to ten parts of water and put in a sprayer. Spray a small amount of soapy water on the inside and outside of the cuff before inserting your hand into the sleeve.

### **Cuff, how to take it off**

Insert the index and middle fingers of the left hand into the right cuff. Slide your fingers along the wrist, keeping the nails against the wrist and away from the cuff.

Grasp the sleeve material between your fingers, pull and pull the arm out of the cuff but not out of the sleeve. Slide the right shoulder out of the suit.

Put your right arm behind and, with your left hand, grasp the material of the right sleeve. Pull the sleeve out of the right shoulder and arm. Remove the left cuff in the same way and pull the left arm out of the sleeve.

### **Latex neck, how to wear it**

After putting on the drysuit, pass the neck over your head.

From the outside of the suit, grasp the neck by placing both hands inside the neck opening.

Spread the neck generously with flat hands (do not press with nails into the neck). The thumbs should remain on the outside of the neck.

Pass the head inside and lower the neck onto the neck.

The neck should sit flat on the skin. There should be no folds, folds or any objects under the Neck, eg. the neck of the undersuit.

### **Latex neck, how to take it off**

From the outside of the suit, insert both hands inside the neck.

Spread the latex neck as much as possible by keeping your hands flat (do not press the nails on the neck)

As you widen your Neck, raise your hands and fold your head over your chest. Pull the head out of the neck and the suit.

If you need assistance, ask your dive buddy to insert their hands inside the zipper opening under the inflation valve. Gently lift the front of the suit until it is above your head. Do not force the zipper of the drysuit.

## **Neoprene collar and cuffs**

The neoprene seals are made from the same material used to build drysuits. This material normally has a thickness between 3 and 5 mm. Although the Neoprene collar and cuffs are supplied in various sizes; some

adjustments may still be necessary (keep in mind that the neoprene seals will widen slightly with use). If your seals are too tight, you can loosen them by pulling the seal over an object slightly wider than your or wrist. In the case of a neck, a cylinder could represent the suitable object and a bottle or a jar is often used for the cuffs. Once the seals have been pulled over the object, leave them on for about 12 hours. If they are still too tight after this treatment, then they need to be adjusted.

To adjust the seals, use a good pair of scissors and cut only 3mm in length at a time, checking the adjustment on each cut. As in the case of latex seals, even the neoprene seals must not be too tight enough to interfere with blood circulation.

### **Conical neoprene cuff (smooth sealing surface inside the cuff), how to wear it**

Wear using the same method described for latex cuffs.

### **Conical neoprene cuff how to take it off**

Pull the sleeve up as far as possible on the arm.

Pull the sleeve down to reverse the side of the cuff so that the nylon surface adheres to the forearm.

Insert the fingers of the other hand, grasp the sleeve where the cuff meets the sleeve, pull and extract the arm.

### **Neoprene collar, how to wear it**

Put the drysuit on your head.

From the outside of the suit, place your hands flat on the outer surface of the neck.

Push your head into the neck using your hands to slide it over your head. Stop when the top edge of the neck reaches the chin.

To achieve the seal, fold the upper edge of the neck inwards when the neck is still on the chin. Fold the top of the neck all the way around the neck. About 5 cm of smooth surface of the Neck should fit evenly and without creases on the neck.

The neck should sit flat on the skin. There should be no creases, folds or any objects under the neck, eg. the neck of the undersuit.

### **Neoprene collar how to take it off**

Unroll the neck so that the smooth part is no longer in contact with the skin.

Grasp the neck with your hands on both sides of the head and pull it up until the edge is level with the chin.

Insert your fingers inside the neck up to the edge and grasp with your fingers and thumb. Fold the chin on the chest and pull the neck upwards by moving the head slightly to the sides at the same time.

## 5- PREPARATION

### 5.1 Connection of the drysuit inflation hose to the regulator

The drysuit requires a low pressure hose (LP), necessary to supply low pressure air, from the regulator to the filling valve. The hose must be installed by qualified personnel or experienced divers at one of your regulator's 3/8" LP ports. The swiveling filling valve allows the hose to be passed under the right or left arm indifferently.

**Notes for the installer:**



**Never connect the low inflation hose pressure at a high pressure outlet of the dispenser. If the hose is connected to a high pressure outlet, it could break and explode without warning causing serious injury.**

The first stages of the regulators have LP ports measuring 3/8", smaller in diameter than the high pressure (HP) ports which have a diameter of 7/16". However, care should be taken with older regulators where the LP and HP outputs are all the same 3/8" size. In most cases the HP outputs are marked with the

abbreviation HP. However, if in doubt about the pressure range of an outlet it should be tested before connecting the hose. The maximum pressure of an LP outlet should be 13.8 bar. Once you have determined an LP output and removed the cap, check that the O-ring is present on the whip and in good condition. Also check the whip seat and make sure the thread and o-rings are clean and free of dirt. Install the threaded part of the hose in the first stage outlet hole using a 14 wrench. Do not overtighten or the threads of both the dispenser and the whip may be damaged.

Note: LP = low pressure, HP = high pressure



**Do not use a whip that is too short. If the whip when connected is kinked or pinched, the filling valve of the drysuit may malfunction or be damaged.**



**Use only low pressure hose whip with quick connection upler, supplied with your drywatertight suit that is designed in accordance with the standard defined in European Standard EN 14225-2:2017 Other hose whips from other manufacturers may not work correctly with the valves described in this manual.**

## 5.2 Before the first dive with the Drysuit

Before using the drysuit for the first time:  
Complete a training course for diving with a drysuit.  
Read the manual completely and become familiar with dive and emergency procedures.  
Complete the fit check.

Adjust the cuffs and neck to ensure a correct fit.  
Select a suitable undersuit and accessories for the planned dive.  
Make sure you have the inflation hose connected to your regulator.  
Check the correct fit of all the rest of the equipment, such as fins, weight system, BCD, etc.

# 6- PREPARING FOR DIVING WITH A DRYSUIT

## 6.1 Pre - dive inspection with a drysuit

Inspect the seals on your drysuit before diving. If a seal is cracked, sticky, or worn, replace it before diving.  
Check the zipper of your drysuit before diving. If you cannot close the zipper with two fingers, lubricate it. To do this, follow the guidelines in the manual, use and maintenance section of watertight Zip. Inspect the zipper for damaged teeth, misaligned teeth, or damaged plastic tape. These marks are indicative of a damaged zipper. If such signs are evident, take your drysuit to the nearest DTEK dealer for inspection and possible repair.



**Do not use spray silicon on the waterproof zipper.  
A buildup of silicon can make your watertight zipper  
difficult to repair.**

If your drysuit has been stored for more than a month, carry out these inspections well in advance of the scheduled dive. Make sure you have enough time to obtain any necessary materials and repairs. Before each dive, check the inflation and deflation valves. The filling valve should be tested by connecting the regulator to a cylinder full of air and pressing the inflation button.  
To check the exhaust valve, close the cuffs and neck with elastic strips and inflate the drysuit until air comes out of the exhaust valve. Then grab the drain valve and press it to check the manual drain function.

## 6.2 Put on the drysuit

**Note:** Make sure the outer zip and the dry zip are fully open all the way when putting on or taking off the drysuit.  
Remove all objects, such as bracelets, necklaces and watches, that could damage or get stuck in the drysuit or watertight seals.  
Review the wearing neck and cuffs chapter. The fit of the cuffs and neck should have been checked and the seals adjusted as necessary.



### Version with sideback to shoulder zip

1. Open the Zip completely.
2. Open the drysuit by folding it at waist level by removing the suspenders. The suspenders should be completely extracted and lie outside the drysuit.
3. Take the drysuit as if it were a pair of pants
4. Enter the bottom of the suit as if it were a pair of pants. If the surface is not stable, such as a boat, it is best to sit down to start wearing it.
5. Pull the drysuit all the way up around the waist. Be sure to pull the suit by the material and not from the suspenders. Pull the suspenders over your shoulders. Adjust the length of it using the buckles on the front. The suspenders have the function of keeping the crotch in position and do not need to be pulled more.
6. Pull the additional length of the drysuit up under your arms (this will give you plenty of material to pull the drysuit over your head).
7. Carefully insert the left arm into the left sleeve using the method described for wearing the cuff, depending on the type of cuff on the suit. Adjust the cuff so that it fits properly.
8. Bring the sleeve no higher than the middle of the upper arm.
9. Repeat the process with the right arm and adjust the cuff.
10. Carry the drysuit on your shoulders.
11. Bring the shoulders of the drysuit over your head and tuck your head into the neck using the appropriate method of wearing depending on the type of neck on the drysuit.
12. Fold the excess length of the drysuit to the hips and hook the crotch.

13. The zipper is now correctly positioned around the body; check that there is nothing hanging outside it and that there are no folds along the zipper itself.
14. With your left hand, grab the drysuit in the middle of the back on the fold back and, with your right hand, grab the handle of the waterproof zipper; pull it by closing the zipper around the side.
15. Closing the watertight zipper should require minimal force. If the resistance is high or increases, stop, go back with the slider and check the zipper. The Zip rail should be flat with no kinks and nothing should be stuck in it. After correcting the problem, proceed. The dry zipper is one of the most important parts of the drysuit. Don't force it.
16. Pull the waterproof zipper up to the stop on the end of the zipper.
17. Once the waterproof zipper is closed, grab the protective zipper slider on the left shoulder and pull it down until the zipper closes.

## Version with shoulder to hip zipper

Complete steps 1-13 shown on the previous page in addition

14. Grab the waterproof zipper slider on the left shoulder and close the zipper. If the resistance is high or increases, stop, go back with the slider and check the zipper. The Zip rail should be flat with no kinks and nothing should be stuck in it. After correcting the problem, proceed. The dry zipper is one of the most important parts of the drysuit. Don't force it.
15. Pull the waterproof zipper down to the stop at the bottom of the zipper. Note: It is easier to close the zipper if you pull the slider with your right hand and at the same time hold the closed part of the zipper on the chest with your left hand to provide resistance.
16. Once the waterproof zipper is closed, grab the protective zipper slider on the left shoulder and pull it down until the zipper closes.

## 6.3 RockBoot

**Important Note:** It is recommended to select the maximum thermal insulation required for the colder conditions of your dives and to wear this for every dive. This will ensure that the boots, sock, Rock Boot and fins always have the same grip.

To properly wear the DTEK Rock Boot, it is important to keep the socks of the drysuit and the thermal insulation pushed completely into the tip of the DTEK Rock Boot.

If this is not done correctly, the pressure exerted by both the sock and the thermal insulation could be felt. To ensure maximum comfort, use the following procedure:

1. after putting on the drysuit, insert your foot (wearing maximum insulation) into the Rock Boot
2. Push the tips into the Rock Boot as far as possible. If you are unable to insert your foot completely into the boot, grab the sole of the boot with one hand and, while pushing the Rock Boot onto the foot, pull the tab on the heel. Using this method, you will be able to place the Rock Boot on the foot. The tips may feel pressure at this point
3. pull the laces up to make the boot reasonably snug to the foot
4. Raise your foot and tap the back of your heel on the ground. This maneuver moves the foot from the toe of the Drysuit sock and from the insulation, back into the boot. This will alleviate any pressure felt on the points

## 7- DIVING WITH YOUR DTEK DRYSUIT



**WARNING**



**This manual does NOT replace a course for use  
drysuit held by a qualified instructor.  
NOT USE a drysuit until you have  
practiced and obtained efficiency in the skills of diving with drysuit,  
including maneuvers of emergency, in a controlled environment  
under the supervised by a certified diving instructor  
by a recognized training agency e who is experienced  
in the use of drysuits.**

Diving with a drysuit is a specific skill, which requires special training under controlled conditions, with adequate learning time before the diver is suitable for diving in open water.

Complete the fit checks and the adjustment of the collar and cuffs before preparing for the dive. Practice putting on and removing the drysuit and gaskets so that they become natural operations.

### 7.1 Preparation for diving



**WARNING**



**Maximum exercise levels vary depending on the individual tolerance of the  
diver in combination with the water temperature, exposure to high  
temperatures air environment and personal metabolic rate.**

Assemble all diving equipment and prepare it for diving.

Wear drysuit and eventually Rock Boots

Fully open the drain valve by turning it counter-clockwise.

Drain the excess air from the drysuit: insert a finger under the neck and bend over your legs, letting all the air out of the drysuit. Remove your finger from under the neck and stand up.

Put on the rest of the equipment.

### 7.2 Entry into the water



**WARNING**



**Do not jump into the water with too much air in the suit watertight.  
Excess air in the drysuit is forced upwards in the suit when you enter the water.  
This excess can build up around the neck or on top sleeves where  
he has no way out. Jumping from heights significant with excess air  
inside the suit it can cause a blow to the chin enough  
to make you lose knowledge to the diver.**

Partially inflate the BC before entering the water.

The giant's strike entrance is the most commonly used for boat diving. When you enter the water with your feet forward, the excess air in the drysuit will be forced towards the top of the suit. Make sure the drain valve is fully open before jumping into the water.

### 7.3 Establish the neutral buoyancy on the surface

Diving safety requires the ability to maintain a safety or decompression stop at 3 to 5 meters before resurfacing. Adjusting the amount of weight is necessary to allow neutral buoyancy with only 30 bar or less of residual air in the cylinder. After verifying that you can stay in neutral position on the surface with the cylinder full of air, add an amount of weight equal to the weight of the air in the full cylinder. Use the following procedure to check your buoyancy when using a single or double cylinder.



**The weight needed will vary between fresh and salt water.**



**The weight needed will be different with cylinders of different type or size and combinations of the two elements and a check of the structure should be performed with the configuration with which you plan to dive.**

To check your weight, enter the controlled water fully equipped with the SCUBA unit, the drysuit and the undersuit.

Deflate all the air from the drysuit by assuming a vertical position in the water and opening the exhaust valve completely by turning it counter-clockwise until it stops. Lift your left elbow to make the exhaust valve the highest point of the drysuit.

Discharge the air from the BCD and correct the amount of weights until you reach the neutral position with the lungs full of air.

As you exhale, you should begin to descend. When you are in neutral buoyancy on the surface, only the upper part of the head remains out of the water.

If the buoyancy is not neutral and you continue to descend, adjust the weight until it is possible to maintain the neutral buoyancy on the surface with the BCD completely deflated.

Once you have reached the neutral position with the full cylinder and the BCD completely deflated, add additional weight to compensate for an almost completely empty cylinder.

### 7.4 Descent

As you descend more than three meters, you will begin to descend faster. Leave the exhaust valve fully open. Do not close the valve. Add air to the drysuit in small increments, a little at a time. By compensating in small increments, you will be able to control the volume of air entering the drysuit, also better preventing the risk of freezing the valve when opening, when the air or water temperature is below 5 ° C.

Add only the air necessary to eliminate any annoying crushing. If you add too much air, the descent will stop. To compensate for any crushing of the foot, it is necessary to allow air to reach the boot. Air can enter the boot only if you are in a horizontal position, parallel to the surface or with your feet slightly upwards.

## 7.5 Maintain buoyancy control during the dive

Diving with a drysuit requires both buoyancy and trim control. Both of these parameters require the control of the air volumes in the drysuit. The volume of air in the drysuit is the air bubble that can freely move from one side to the other inside the drysuit. This volume of air is not part of that trapped in the undersuit. This volume of free air contributes little or no to the overall thermal insulation value. However, this air always tends to move towards the highest point of the drysuit, when changing posture in the water. If this bubble is too bulky, it can cause trim control problems, such as the feeling that your feet are floating upward. The diver can measure the volume of this excess of air by rotating the body to a vertical position and holding one arm up over the head, thereby causing the bubble in this arm to move. The drysuit will have collapsed around the arm to the bottom of the bubble. When the bubble is larger than half of the forearm, it can be considered excessive and potentially problematic. It is best to keep the bubble small and, if it starts to grow, discharge the excess volume.

When you are on the surface in a vertical position, with your head above the water, you will notice that there is more pressure on the legs than on the chest. This is normal when you are in the water and your head is higher than your feet. The sensation that you should normally experience during the dive is that the suit is gently squeezing everything around the body. Although this sensation is quite different from that experienced with a drysuit, it will no longer be evident after a few dives or when in a horizontal position.

### Ankle Weight

Many new drysuit users find that ankle weights help manage their trim and posture while in the water. Divers experienced in the use of drysuits often consider the ankle weights as "teaching aids" that should be removed as soon as possible due to the increased effort required to swim. It is recommended that divers in any case wear no more than one kg per ankle.



**The diver must adjust the amount of air in the drysuit in order to ensure that the undersuit works correctly. Insufficient amount of air can cause inefficiency of the undersuit and consequent cooling down.**



**Different size and different type cylinders they will require different amounts of weights to compensate your buoyancy.**



**Don't wear fins that are too tight. If it reduces blood circulation in the feet, one can lead into thermal regulation issue and severe cramps.**



**Some drysuit materials may vary trim with varying depth.**



**Do not close the exhaust valve completely while you are diving. The valve is designed to discharge automatically whenever it is found at the highest point of the body. By closing the valve it will cause an increase in the amount of air trapped in the drysuit and this could lead to a loss of buoyancy control. A rapid ascent is dangerous and can cause air embolism or decompression sickness, two conditions that they can cause serious injury or death.**

## **7.6 Get a neutral trim in depth**

When you have reached the desired depth, add enough air to your drysuit and / or BCD to make your buoyancy neutral. Remember to add only small amounts of air. Check the result before adding more. One of the keys to diving with a drysuit is to immerse yourself in the minimum volume of air in your drysuit, i.e. what is necessary to compensate for it and let the undersuit material work correctly. To dive is important to keep the minimum air volume in the drysuit and for this is essential that the amount of weight is correct and not excessive.

Use your drysuit and / or BCD to adjust your buoyancy. If you pick up material during your dive (for play, training, or recovery) use a lifting bag to lift and carry the additional weight to the surface. A small lifting bag can be easily attached and carried in a pocket or other place on your equipment. If the lifting balloon becomes too buoyant to the point that you are no longer able to control it, you can always let it go.



**Any mixture or gas other than air, such as eg argon and hyper-oxygenated air, to be used to inflate the drysuit, it requires instructions and specific training.**



**Don't use your drysuit like a balloon lifting. If you do it and you lose your grip on the object you are carrying you may float excessively. This could cause a rapid ascent and uncontrolled.**



**The maximum operating depth is determined  
the user's training and level of experience.**

## 7.7 Ascending with the Drysuit

At the end of your dive, take a moment to check the exhaust valve of your drysuit, before starting the ascent. Make sure the valve is fully open by turning it counter-clockwise until it reaches the stop. Your ascent should be slow and controlled. As soon as you begin to rise to the surface, you will float more due to the expansion of the air in your drysuit and BCD. Discharge the air from the exhaust valve of the drysuit / or BCD, as necessary to maintain a neutral buoyancy at any time. You should be able to stop your ascent by simply exhaling.



**Your first drysuit ascents should  
be done in the immediate vicinity of a  
weighted or fixed to the bottom rope that can be used in  
case of uncontrolled ascent, if necessary.**

Check your ascent rate using the depth gauge and timer, or dive computer. Stay within the ascent rate limits of your dive table or computer.



**Ascend at a controlled speed and within  
maximum ascent rate specified by the table of  
decompression or from the dive computer that  
is used.**

Control the ascent by exhaling the air from the drysuit by raising or lowering your left arm. If you are ascending too quickly, raise your left arm higher to allow the valve to release more air. If raising the left arm still does not slow the ascent sufficiently, press the dump valve to activate the manual dump.

If you are in negative buoyancy and have difficulty getting back up, lower your left arm and add some air to the drysuit to increase buoyancy. Once you begin to ascend, get ready to vent the air through the exhaust valve.

Be prepared to interrupt your ascent at any time. Monitor your ascent rate so that you are able to stop and make the recommended safety or decompression stops. Once you reach the surface, inflate the BCD for a more comfortable and safer float.

## 7.8 Surface swimming

Inflating the BCD at the surface will allow you to swim comfortably without inflating the drysuit. Inflating the drysuit on the surface will cause some pressure on the neck. Many divers find this pressure uncomfortable. Some divers like to close the exhaust valve completely while swimming to the surface to ensure positive buoyancy and prevent collapse of the drysuit. Although closing the valve completely on the surface is acceptable, be sure to reopen it before starting the dive.

## 7.9 Tips with the Drysuit between multiple dives on the same day

In hot weather, you can open the zipper of the drysuit when you are out of the water between dives. If you are still too hot, you can remove the top of the drysuit or remove it completely.

# 8 - REMOVE YOUR DTEK DRYSUIT

Remove all SCUBA equipment, including the hood, before removing the drysuit.

If the exterior of your drysuit got dirty during the dive, wash off the dirt before removing the drysuit. Pay particular attention to the waterproof zipper. Open the zipper completely. If you have a protective zipper, make sure that both zippers are fully open.



**If the Zippers are not fully open could be damaged.**

## 8.1 Drysuits versions with back / shoulder and shoulder / hip zipper



Unhook the crochets that hold the torso of the drysuit in place. Pull up the suit so that the excess torso length of the drysuit moves as high as possible on the chest.

Remove the latex or neoprene neck

Review the Remove the Drysuit Neck section of this manual

Remove the latex or neoprene cuff

Review the Remove the Drysuit Cuffs section of this manual

Grab the sleeve material between your fingers and thumb and pull your arm out of the cuff but not the sleeve and pull your right shoulder out.

Put your right arm behind your back and, with your left hand, grasp the material of the right sleeve. Pull the sleeve out of the right shoulder and arm. Remove the left cuff in the same way and take your left arm out of the sleeve.

## 8.2 Remove the Drysuit from your body

Remove the Rock Boot, in the case of boots, loosen the velcro at the ankles.

Remove the suspenders and fold the suit over the waist.

Sit down to remove the legs.

## 9 - SKILLS AND EMERGENCY PROCEDURES



**The following emergency procedures should be practiced in a controlled environment (such as a swimming pool) under the supervision of an instructor certified by a training agency recognized before use the drysuit in open water.**

**This manual CAN NOT replace practical training and development of diving skills. KNOWING the procedures is NOT enough. You should be able to actually RUN them exercises related to emergency procedures. Like every skills, these too are acquired by PRACTICING them, not just reading them.**

Become proficient in the following emergency procedures (except as noted) before using the drysuit in open water:

### 9.1 Inverted position (air in the feet)

If you find yourself in positive buoyancy and turned upside down, you will be ascending to the surface with feet up and head down. It is very important to immediately regain control, as the air cannot be discharged from the drysuit if you stay upside down in this position.

**If you find yourself upside down when you are near the bottom:**

- swim firmly to the bottom
- push yourself to the bottom with your hands
- turn around in a regular position
- immediately vent the air from the drysuit through the exhaust valve

**If you find yourself upside down in half water:**

- swim firmly to the bottom
- lean forward at the waist
- turn around in a regular position
- immediately vent the air from the drysuit

If you are unable to regain a regular position and are ascending uncontrollably, stretch your body to reduce the ascent rate and pay particular attention to breathing continuously, leaving the airways open. Spread your arms and legs, place your fins parallel to the surface of the water and try to slow down the ascent by creating as much friction as possible. Continue to exhale as you rise.



**Enlarging the body is an extreme maneuver to use only in an emergency. Do not practice this exercise unless under the direct supervision of an instructor certified by a recognized training agency. Rapid ascent is dangerous and can cause air embolism or decompression sickness, both conditions that can result in serious injury or death.**

## 9.2 Inlet valve stuck open

If the inlet valve gets stuck open, it is necessary to disconnect the hose. The most effective way to disconnect the hose is to push the hose forward, in the direction of the inflation valve while pulling the quick disconnect ring back. Practice this exercise with gloves on, until you are able to disconnect the hose quickly and easily.

If you forget the direction in which to turn the exhaust valve open (counter-clockwise), you can manually drain through the automatic valve. Raise the left arm until it becomes the highest point of the body and press the valve. The air will be discharged from the valve.

If you are unable to discharge enough air from the valve, open the neck or cuff to allow air to escape. Water will most likely enter the drysuit.

If you still can't get enough air out and you are ascending uncontrollably, stretch your body to reduce the ascent rate. Spread your arms and legs, place your fins parallel to the surface, and try to slow down the ascent by creating friction. Make sure you continue to exhale as you rise.



**If you keep pressing the exhaust valve after that all the air has come out of the drysuit, water could enter in the suit.**

## 9.3 Inlet valve blocked in closing

If the inlet valve is stuck in the closed position, stop your descent and end your dive immediately. Use the buoyancy compensator to check the buoyancy and return to the surface by discharging the expanding air from the drysuit.

## 9.4 Leaking from the exhaust valve

If the exhaust valve gets stuck open, the suit will no longer hold air in it on a regular basis. It is also likely that water enters the suit from the open valve.

If the exhaust valve is stuck open, end your dive immediately, lifting the buoyancy compensator and return to the surface.

## 9.5 Exhaust valve stuck closed

If the exhaust valve is stuck in the closed position, the air will not be able to be discharged regularly from the drysuit. This could cause an uncontrolled ascent.

If the exhaust valve is stuck in the closed position, you must open the neck or a cuff to release the air from the suit. When following this emergency procedure, water will enter the suit.

If you are still unable to exhaust enough air and are ascending uncontrollably, stretch your body to reduce the ascent rate. Spread your arms and legs, place your fins parallel to the surface of the water, and try to slow down the ascent by creating friction. Make sure you continue to exhale throughout the ascent.

## 9.6 Slow infiltration of air into the inlet valve

If you notice a slow infiltration of water into the fill valve, disconnect the low pressure hose and end the dive immediately. Go up again by discharging the expanding air from the drysuit through the exhaust valve.

## 9.7 Loss / interruption of air

If your air supply to the inlet valve is interrupted or lost, stop your dive immediately. Control your ascent rate by exhausting air from the suit through the exhaust valve.

## 9.8 Flooded suit

In the event of a zipper break or other serious drysuit breakage, the suit could flood completely. If the drysuit floods:

- inflate the BC to establish positive buoyancy
- Position the tear point as low as possible to minimize air loss
- ascend in a controlled manner
- End the dive



**The emergency exercise mentioned above can be practiced in a heated swimming pool under the direct supervision by a qualified instructor certified by a recognized training agency.  
Use a suitable undersuit not to overheat in water.**

If you are unable to establish positive buoyancy by inflating the BCD, only at that point should you consider the idea of releasing the weight. Even a small amount of cold water entering the suit can appear as a catastrophic break. It is extremely important to try to ascend using the BCD before releasing the weight. If the drysuit appears to be flooded, but in fact it isn't, inflating the BCD in addition to releasing the weight can generate an extremely positive buoyancy. Depending on the volume of air in the BCD and the amount of weight worn, some divers can become very positive. Such a positive attitude would be impossible to control and would lead to a very rapid and uncontrolled ascent.



**Unhook the weight belt after inflating the BCD can pose an imminent danger and cause serious injury or death. Do not release the weight system except in case which an immediate, rapid and uncontrolled ascent on the surface is necessary to avoid imminent death.**

## **9.9 Weight system released or loose**



**The emergency procedure for weight system dropped / slipped should be read and understood. Not practice this exercise except in a controlled environment under the direct supervision of a qualified instructor, certified by a recognized training agency.**

If the weight system is released or lost, an attempt should be made to recover the weights. If you are unable to recover the weights:

- grab and hold on to whatever is at hand (climbing line, anchor line, rocks) and deflate the drysuit
- if you are not yet able to control your ascent, assume the extended body position for maximum friction
- remember to keep exhaling during the ascent

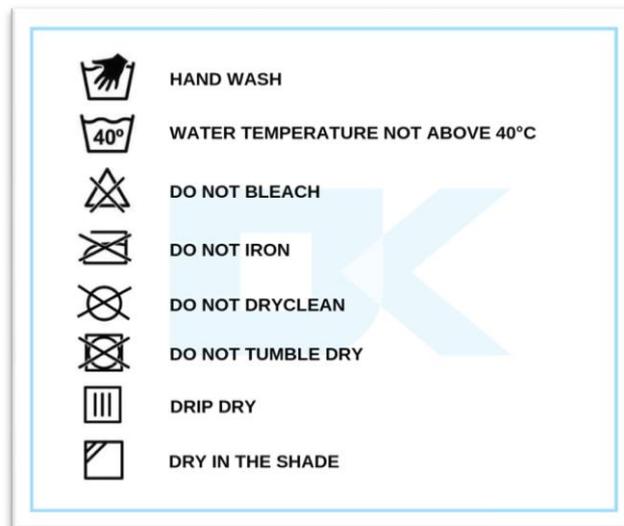
## 10 - IDENTIFICATION OF PROBLEMS

### 10.1 Common problems

The most common areas to check if you have water infiltration in the drysuit:

- Watertight zipper not completely closed.
- Check that the zipper is completely closed before removing the suit.
- Cuffs or Neck not properly worn around the wrist or neck.
- The sealing surface is not smooth against the skin or there is something between the sealing surface and the skin, for example parts of the undersuit.
- Dirt or objects in the sealing area of the exhaust valve orings.
- Rinse the drain valve with fresh water.
- Holes or wear in the drysuit material or seals.
- Visually examine the area in which infiltration was felt. If no holes or wear are visible, a drysuit should be tested for tightness.

## 11 - CARE AND MAINTENANCE OF THE DTEK DRYSUIT



Proper care and maintenance of your drysuit will significantly extend its useful life.

### 11.1 Dtek watertight rinse

After the day's dives, rinse the outside of the Drysuit thoroughly with fresh water. Pay particular attention to the zip and valves.

Rinse the exhaust valve and the inlet valve gently with running water

### 11.2 Neck and wrist rinse

Wash the seals with a mild soap and water solution after about ten dives or before storing the suit for prolonged periods. The accumulation of body fats will shorten the useful life of latex seals.



**WARNING**



**The valves of the drysuit should be cleaned afterwards use as well as your regulator.  
The inlet valve can block due to the accumulation of salt.  
The exhaust valve can block or have infiltrations due to internal dirt.**

If the inside of your suit has got wet, rinse the inside of the suit as well.



**CATION**



**Do not leave the drysuit hanging for long periods and never leave your drysuit in the sun or in an environment with the presence of chlorine (e.g. swimming pools) or where an appropriate recirculation of fresh air and not contaminated is not present**

## 11.3 Drysuit drying

When the drysuit is completely dry on the outside, touch the inside (to the bottom of the socks / shoes). If there is condensation or humidity inside the suit, turn the suit upside down and let the inside dry as well. After rinsing the suit, open the zipper, hang the suit from the socks / shoes on a line or on a towel in the shade and let it dry.

## 11.4 Neck and cuff maintenance

When your suit is completely dry, apply Mineral talcum powder to the latex and / or Neoprene seals.

## 11.5 Zip maintenance

### Brass Zip

Thoroughly rinse the zipper with clean fresh water after each dive, especially if done in salt or contaminated water.

- Lubricate the zipper with clean, dry and fully closed tape. Use solid wax or solid paraffin, sliding the lubricating material with light pressure on the outside of the Zip over the "brass teeth" on both sides. Once the lubrication has taken place correctly, small traces of wax should be seen between the "teeth in brass" and should not be removed.
- Never use silicone lubricants, sprays or silicone grease in paste: this could compromise both the life of the Zip and subsequent operations for its replacement. Over time and prolonged use, fraying may form on the edges of the tape.
- These must be removed with extreme care and attention, using a sharp scissors, in order to avoid premature wear of the Zip itself. Do not use lighters or other flames, the rubber tape may catch fire or be damaged in any case further, compromising the watertight seal.

- For short term storage of the suit, between close dives within the day, it is not necessary to lubricate the zipper with each dive, but it must be kept closed if the suit will hang or open if the suit is folded and stored in the bag. For long-term storage, e.g. monthly or longer, the zipper must be clean, lubricated and kept closed if the suit will remain hanging or open if the suit is folded e placed in the bag.

## Plastic Zip

- Thoroughly rinse the zipper with clean fresh water after each dive, especially if done in salt or contaminated water. Attention, strongly alkaline or strongly acidic fresh water, often present in isolated caves or lakes (e.g. the cenotes), are to be considered as contaminated environments and therefore the entire suit must be washed thoroughly immediately after each dive.

- Lubricate the zipper with the clean and dry tape, completely open and using silicone grease paste, applying small drops about 5 cm apart on both sides of the tape. Then proceed to close and reopen the belt about 3-4 times, in order to spread evenly the lubricant. After successful lubrication, the zip should appear shiny on the outside. Never use solid lubricants such as wax or paraffin: this could compromise both the seal watertight that the duration of the zipper itself.

- For short term storage of the suit, between close dives within the day, it is not necessary to lubricate the zipper with each dive, but it must still be kept closed. For long-term storage, e.g. monthly or longer, the zipper must be clean, lubricated and kept absolutely in closed position.
- Leaving the slider in intermediate positions could cause temporary leaks in subsequent dives. If this happens accidentally, re-lubricate the zipper and leave the suit hung fully zipped closed for at least 1 day before using it again. This should restore the watertight integrity of the suit.

If you have any doubts or questions regarding the care and maintenance of your DTEK drysuit, please contact us at [info@dtekgroup.net](mailto:info@dtekgroup.net)

## 11.6 Storing the drysuit

Storing your drysuit properly will extend the life of your drysuit. Store the drysuit in a cool and dry place, with the Plastic zipper closed and lubricated or Metal zip open and lubricated. The area where you store it should not have ozone generators such as electronic or gas devices.

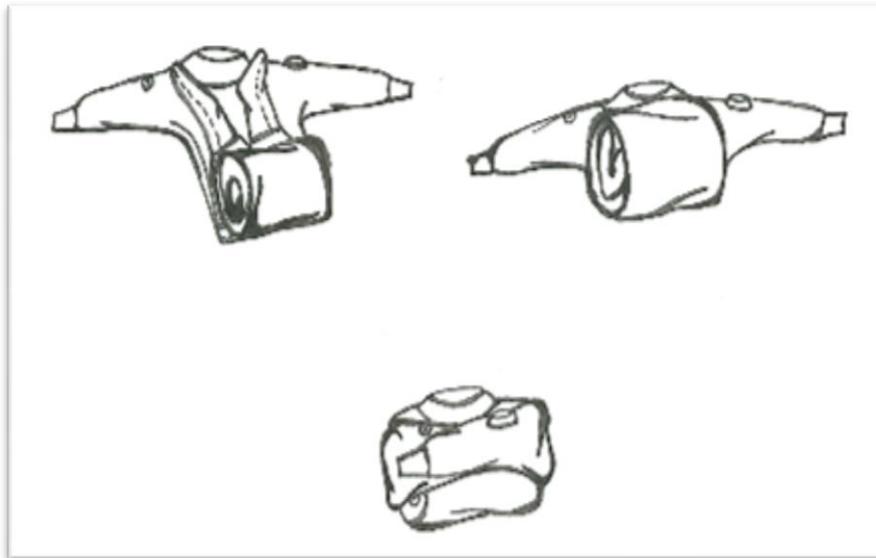
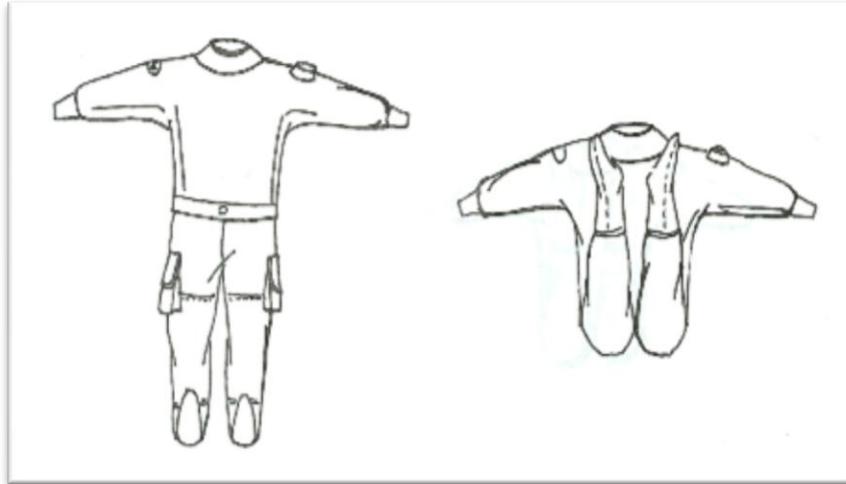
## 11.7 Hanging the suit (Short periods and for drying)

To store your drysuit between dives it is best to hang it in a cool, dry area away from ozone generators, i.e. electric motors, gas lights and sunlight.

- The suit should be hung on a quality hanger specifically for dry or wet suits.
- The zipper should be left closed.
- Put the drysuit on the hanger, taking care not to damage the neck with the hook of the hanger.

## 11.8 Long-term storage

After completing the procedures for cleaning and maintenance of the parts as described above, follow the instructions to fold the suit (described below) with the plastic zipper closed and lubricated or Metal zip open and lubricated, the seals must be sprinkled with unscented mineral talc ; put it in the carrying bag. Store the drysuit in a cool, dry place. The area where you store it should not have ozone generators such as electronic or gas devices to reduce the aging effect of the seals and fabric of the suit. The suit must be carefully folded without pressing it and placed in its carrying bag. Take care not to place any other material on top.



- 1- Unfold the suit with the zipper lined up without creases, face down, on a clean, flat surface with your arms spread out to the sides. Pull the shoulders up so that the neck lies flat.
- 2- Bend your legs so that the toes of the drysuit socks are just below the shoulder line.
- 3- Fold the bottom of the drysuit towards the top, making a fold of the section about 30 cm.
- 4- Fold further so that the bottom of the last fold now remains level with the shoulder line.

5- Fold the cuffs inside the sleeves and fold the sleeves crossing them through the entire package. Insert the drysuit into the DTEK bag.

6- Larger drysuits may require to be folded in half to fit into the DTEK carry bag.

## 11.9 Drysuit Disposal

To dispose of your drysuit at the end of its useful life, use the appropriate container according to your local laws for non-recyclable materials

**The Declaration of Conformity drawn up in accordance with  
EU Regulation 2016/425 Annex IX can be downloaded from the website  
[www.dtekgroup.net/declaration](http://www.dtekgroup.net/declaration)**



## DTEK WARRANTY

The technical assistance of a Dtek products will be handled directly from the head office, at our factory located in Verona or from an authorized center.

DTEK warrants that your drysuit (with the exception of accessories: neck, cuffs, zipper and valves) will be free from defects of materials and workmanship for a period of TWO (2) years from the original purchase date. The dry suit warranty includes construction materials, craftsmanship and seam sealing.

DTEK warrants Zip, inflating and deflating valves against defects in materials or workmanship for a period of one (1) year from the date of the original purchase.

DTEK guarantees the neck and cuffs watertight against defects in materials or workmanship for a period of 6 months from the date of original purchase.

DTEK warrants undersuits and other accessories to be used with the dry suit against defects in materials or workmanship for a period of one (1) year from the date of original purchase.

Any product that DTEK determines to be defective, in materials or workmanship, in accordance with the guarantees mentioned above will be repaired or replaced by a choice of DTEK free of charge. Any taxes or duties that may be required in case of import or export are entirely the responsibility of the buyer.

This warranty is a direct consumer warranty retained by the original purchaser only and does not apply to drysuits used for commercial purposes.

The management of defective material or material to be sent / repaired / replaced must be agreed in advance with the customer assistance service by sending a message to the following E-Mail address [assistenza@dtekgroup.net](mailto:assistenza@dtekgroup.net)

This warranty expressly replaces any other warranty.



## DAMAGE NOT COVERED BY THE WARRANTY

- Damage from normal use and wear
- Damage from intensive, exceptional, incorrect use or in abnormal conditions (bumps, tears, falls, blows, etc.).
- Damage caused by insufficient or incorrect maintenance or negligence.
- Damage to the zip, caused by the use of lubricating products  
NOT APPROVED BY Dtek
- Damage from cleaning products or other substances containing aggressive chemicals (solvents, surfactants, aggressive detergents, etc.).
- Damage resulting from alterations or modifications made to the product without explicit authorization.
- Damage caused by incorrect assembly of components after maintenance work.
- Damage caused by not following the product information.
- Damage caused by the use of the product in water contaminated by aggressive chemicals (chlorine, hydrocarbons, etc.) or water with a strongly acidic or basic pH.
- Damage caused by exposing the product to excessive temperature, fire or prolonged exposure to direct sunlight.
- This Warranty does not cover products intended for rental, commercial or military use.

## LIMITATIONS OF MANUFACTURER'S LIABILITY

DTEK declines all responsibility for any damage that may, directly or indirectly, derive to people, things or animals, as a consequence of the failure to comply with all the prescriptions indicated in the specific

Instruction Manual, especially those regarding the use and maintenance of the Product.

DTEK will not be liable for any written or oral agreements outside of this Warranty.

The sole responsibility of DTEK will be, at its sole discretion, the repair or replacement of the product.

DTEK will not compensate in any way for any inconvenience resulting from the inability to use the product or any expenses incurred while the product is being repaired or replaced.

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