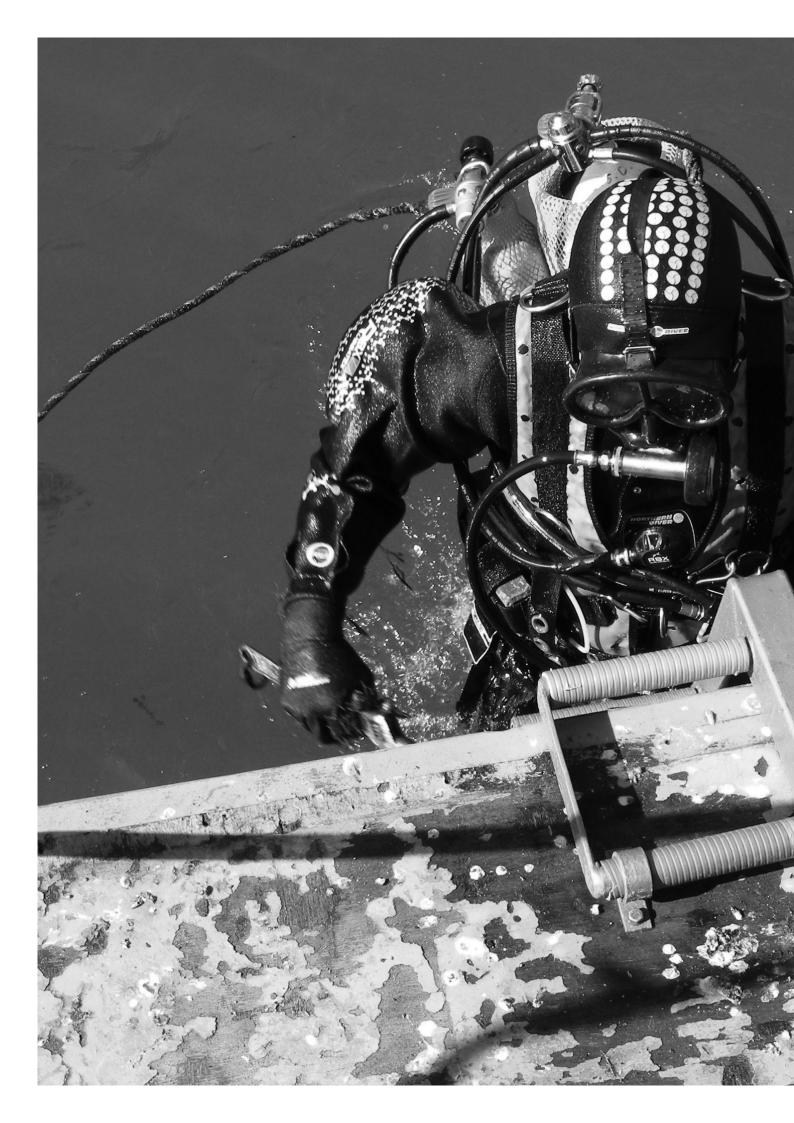
## Northern Diver. Commercial Catalogue

## Northern Diver 40 Years Of Innovation



## Northern Divers range provides versatile solutions for Commercial Divers.

Northern Diver has been designing and manufacturing drysuits and diving products for the Commercial Diving industry for more than three decades, employing cutting-edge designs and technology.

We also offer a personalized online system which can be tailored to your requirements. This allows you to use our online sizing system which will calculate the correct size of suit required by entering measurements (mainly just the height and weight). For a working example of this system visit www.ndiver-commercial.com

Our range is available with a substantial off-the-peg size range plus we offer custom fits.

We can also change neck and wrist seals and boots - This includes a full range of options such as lightweight swimming boots, wide-fitting boots for static commercial diver operations where additional insulation is required, and safety boots with steel toe-caps and mid-sole which conform to EN 345 SAFETY FOOTWEAR STANDARD. There are also additional drysuit custom fit options such as added Kevlar® and Dyneema® protection, additional pockets, hood options, etc. In the event that we need to make an alteration to the suit, this can normally be accomplished for next day delivery.

We can build any drysuit or undersuit to your exact requirements.

Additionally, as part of our commercial diving range we have our own hotwater suits, hotwater boots and hotwater gloves plus our R-Vest, all designed in close consultation with experienced commercial divers and commercial diving organisations.

With our broad range of equipment and excellent customer service we are proud to be supplying various commercial outfits across the globe.



## Specialist Suit. Thor

Our Thor drysuit is manufactured from vulcanised rubber and features vulcanised laminated polymers, carried on a multidirectional 4-way-stretch knitted polyester, which provides superior strength and durability.

Thor is suitable for commercial diving applications but is also an excellent option for military and rescue purposes, as well as sport diving.

Northern Diver only use high grade rubber and EPDM to achieve a superior polymer mix which out-performs the competition.

Thor is built to the usual high standards that divers expect from Northern Diver drysuits with our Quality Control Management to BS EN ISO 9001:2008 ensuring that all Northern Diver products are of the highest quality and manufacturing standards.

Thor has been thoroughly tested at the Austin Institute, Texas USA. All Thor drysuits are CE approved and conform to the latest EEC PPE Directive regarding drysuits.

Independent tests show that the Thor drysuit is resistant to chemical permeation. Full details available on request.

Thor drysuits can be manufactured to any personal specifications, including reflective overprinting, extra reinforcement or protection and pockets.

Website. www.northern-diver-thor.com









Suitable for toxic incidents where non-chemical or biological permeability is essential or for toxic body recovery.

The suit can easily be washed down after an incident.

CUFF

#### **THOR 1000G**

1000 - THOR - SIZE S, M, ML, MLR, L, LR, XL, XLR, XXL, XXLR

#### **THOR 1600G**

1600G - THOR - SIZE

Thor suit shown without valves fitted Left : THOR 1000G Right : THOR 1600G

## Specialist Suit. Thor - Options Available

Thor drysuit neck/wrist seals and boots can be changed - this includes a full range of options such as lightweight swimming boots, wide-fitting boots for static commercial diver operations where additional insulation is required, and safety boots with steel toe-caps and mid-sole. There are also drysuit custom fit Neck Yokes, additional pockets, dry glove systems and convenience zips.



NECK YOKES

The Thor range of rubber drysuits is compatible with industry standard neck yokes including Desco, KMB, AH & Genesis models.



#### BEANIE HOOD

The Beanie Hood offers protection from the cold when wearing with a Latex Hood. Complete with comfortable chin strap.



LATEX HOOD Available as a separate item or can be attached to the suit with an optional Beanie Hood. Hood is close fitting which ensures there is no water ingress whilst diving.



SKIN / SKIN HOOD Ensures there is a smooth neoprene skin around the face which will seal when using a full face mask. Skin / Skin Hood works in conjunction with the AGA mask.



DRY GLOVE SYSTEM For use with both latex and neoprene wrist seals. The unique double-safety locking mechanism allows simple and fast engagement or release, without assistance.



**CUFF SYSTEM** The Hot Crabber Cuff / Glove System has excellent resistance to acids, alkalis, abrasion, chemicals, cutting oils, petrol and gasoline.



#### VALVES

Inflation and Exhaust Valves. These contaminated water valves are specially designed to be chemical, impact and heat resistant.



#### LEAD INSOLES Insoles made from solid lead. For use with the Northern Diver commercial underwater 'safety' over-boots. Each Insole Weighs - 2.6 kg

## Thor Boot Options.

## **Reinforced Safety Boots**

Ergonomically designed underwater safety boots offering chemical and biological penetration protection, plus added impact and sharps penetration resistance.

- EPDM Rubber Mix Pique Lining
- Extra EPDM Rubber Layer
- 3 Neoprene Insulation
- Composite Toecap
- 5 Rubber Sole
- Flexible Stainless Steel Mid Sole Foil
- 7 EPDM Rubber Mix

SAFETY OVER BOOTS

One Size Fits All. Composite Toe Caps

Toe Cap Tested To EN 12568: 2010

CODE : THOR - OVERBOOT



SAFETY BOOTS

CODE : THOR - BOOT

SIZES : 7, 8, 9, 10, 11, 12, 13, 14 Toe Cap Tested To EN 12568: 2010



RUBBER BOOTS

CODE : THOR - SOFT - BOOT SIZES : 7, 8, 9, 10, 11, 12, 13, 14 Toe Cap Tested To EN 12568: 2010



## Boots Supplied.

## All toe cap tested to EN 12568 : 2010

Rubber boots come as standard with the 1000G Thor.

Safety Boots come as standard with the 1600G Thor.

You can also opt for our Overboots designed to be worn on top of standard boots and are intended to offer further protection.

Lead Insoles can be added for extra weight and buoyancy control.

#### Thor.

Independent test results show the Thor drysuit is resistant to chemical permeation.



	ASTM F739 – 99a			
PERMEAT	AVERAGE NORMALISED			
TEAT DEA	BREAKTHROUGH TIME ( MIN )			
TEST RES	0.1 g/cm2*min			
			NORTHERN DIVER T	HOR
CHEMICAL	% CON	% MAX	MATERIAL ONLY	MATERIAL SEAM
		WATER		
		SOL.		
ACETONE	10	100	> 480	> 480
ACETONLTRILE	10	100	> 480	> 480
AMMONIA SOLUTION	10	100	> 480	> 480
CARBON DISULFIDE	99	0.2	11	6
DICHLOROMETHANE	100	1.3	13	8
DIETHYLAMINE	10	82	> 480	> 480
DIMETHYLFORMAMIDE	10	100	> 480	> 480
ETHYL ACETATE	8.7	8.7	> 480	> 480
HEXANE	0.014	0.014	> 480	> 480
METHANOL	10	100	> 480	> 480
NITROBENZENE	100		7	5
SODIUM HYDROXIDE	10	50	> 480	> 480
SULFURIC ACID	10	100	> 480	> 480
TETRACHLOROETHYLENE	0.015	0.015	246	164
TETRAHYDROFURAN	10	100	127	77
TOLUENE	0.05	0.05	> 480	> 480
ASTM OIL NO.1	10	Not Sol.	> 480	> 480
ASTM OIL NO - 3	10	Not Sol.	> 480	> 480
LIQUID B 70% LSOOCTANE 30%	100	Not Sol.	71	59
LIQUID C 50% LSOOCTANE 50%	100	Not Sol.	59	34

#### CHEMICAL PENETRATION TESTS

The majority of divers using Thor drysuits in contaminated water requires information regarding the suit's protective qualities to be made available. Thor suits underwent permeation testing under worst case scenario conditions – 100% chemical exposure for the entire length of the test.

Although these test conditions are unlikely in any chemical diving environment the results demonstrate the protection offered under most normal circumstances.

#### PERMEATION TEST RESULTS

The permeation values are based on the time it takes for the chemical to permeate the suit material. The permeation test is performed up to 480 minutes. The reports that indicate greater than 480 minutes means that no chemical was detected above 0.1 mg/ min/cm2 for 8 hours duration.

#### ACTUAL BREAKTHROUGH VS NORMALIZED BREAKTHROUGH

Actual breakthrough is reported in minutes and occurs when initial breakthrough is detected. Each chemical tested has unique characteristics and minimal detectable limits. For example: if a chemical has a minimum detectable limit of 0.059 mg/ min/cm2, actual breakthrough is reported when challenge chemical concentrations reach 0.059 mg/ min/ cm2 or greater. Normalized breakthrough occurs when challenge chemical breakthrough concentrations reach 0.1 mg/ min/ cm2 or greater (AaSTMm Ff739).

## MAXIMUM AND MINIMAL DETECTABLE RATES

This indicates the maximum level of chemical detection using the permeation test system. Minimal detectable rate is the lowest rate of permeation that is detectable with the permeation system.

#### STEADY STATE PERMEATION

The constant rate of permeation that occurs after breakthrough when the chemical contact is continuous and all forces affecting permeation has reached equilibrium.

#### WHEN DIVING IN POLLUTED, CONTAMINATED OR GENERALLY ABNORMAL ENVIRONMENTS

Northern Diver's Thor drysuit has been developed and tested for use in these conditions and as such should be regarded as an integral component of your diving plans. Diving in contaminated environments is potentially extremely dangerous with risks of potential loss of life. All information supplied within this brochure intended purely for informative purposes only. It is not a substitute for proper training and should not be regarded as so. The information in the brochure is not a substitute for applicable regulations or standards and is not published as legal advice or opinion in any way. Thor drysuits have been tested to standard ASTM F 739.

#### DECONTAMINATION

After exposure to a contaminated environment, the Thor drysuit must be decontaminated ensuring that all contaminates have been removed from the drysuit.

Diving in contaminated environments should not be undertaken by those without the highest level of training. All risks should be understood prior to any contaminated environment diving with all risks carefully planned for and the utmost care taken.



## Hotwater Diving Suit. Evolution 8

Our hotwater suit has been developed over the past 20 years. The suit is based around a unique heavy anodized aluminium water distribution valve, with its unique 360 degree stainless steel quickconnector. The water flows along an anti-kink rubber pipe profile, designed by, and unique to, Northern Diver.

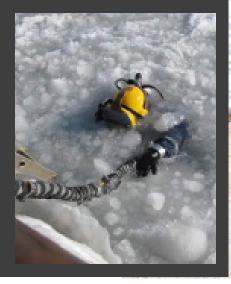
The pipes are held in place by a padded neoprene cover for comfort. All pipe runs are directed for comfort during those long bell runs.

The arms and legs can be trimmed to length and the pipe passed backwards through the ladder hole adjusters. There is the facility on the pipe, for the front chest and back neck, to take a hot water feed to the mask to heat the faceplate.

The suit is supplied with a 1/4" inline double-barb plastic connector.

The shell body is constructed from high grade non-shrink neoprene with a high rubber solids content, lined on the outside with a durable Swiss pique canvas fabric.

## Also Available. Denim Hotwater





Helmet photographed supplied by Kirby Morgan Dive Systems, Inc.

hotwater







**Our Hotwater Suit** System is in conformity with the provisions of Council Directive 89/686/EEC and BS EN 14225 - 3 - 2005

## Features.

## **CE Approved Diving Suit**

- Tested under the Balmoral UK platform, North Sea at 355 metres depth
- Diver climate control system
- Polymer reinforced knee and shin pads. This and the adjacent polymer reinforced embossing which circles the legs in the calf area is ideal for duct taping boots or socks to the suit.
- Two deep pockets with drain holes and equipment attachment eyelets.

Right pocket has a small safety knife 80mm blade in a webbing sheath with bungie cord retaining lanyard.

- Knife is not supplied if shipping overseas.
- Suit closure is by a heavy-duty Vislon YKK zip
- Wrap-over neoprene neck with fleece lining
- Supplied with one ID badge which is secured to the suit with velcro. Spare tags are available on request.
- Neoprene shoulder epaulettes can be used as shoulder harness retainers which prevent your harness from slipping off your shoulders.
- Light reflective strips on upper arms
- Plastic embossed elbow area which continues round the arm, which is ideal for duct taping gloves to the suit. Wrist area has two pieces of diagonal velcro for glove attachment.
- Anodised aluminium water distribution valve with 360° stainless steel swivel connector. When valve is not feeding the suit it dumps to the rear via control knob.
- Featuring new flat pipe technology for additional comfort and a improved flow rate of 20%.
- CE approved suit for use in excess of 50 metres depth

## **Options** :

A range of Hotwater products can be used in conjunction with our Evolution 8 Hotwater Suit, see below -







**Hotwater Gloves** 

**Hot Crabbers** 



**Hotwater Boots** 



## Heavy Duty. **Denim Hotwater**

Our denim version of our neoprene hotwater suit uses the same anodized manifold which gives a high water flow to the diver.

Constructed from a heavy duty denim with double stitched seams our denim hotwater suit features large bellows pockets on each leg.

Velcro straps closures are at both the ankles and wrists. The pipe circuit covers the legs, arms and back of the suit.





- Heavy duty denim
- Double stitched seams
- Large bellows pockets
- Wrist and ankle velcro closure
- Pipe circuit covers the back, legs and arms of the suit
- Reflective bands on the arms

#### **DENIM HOTWATER SUIT**

CODE : HWS - DENIM - SIZE S, M, ML, L, LT, XL, XXL

# **Hotwater Boots**



Made specifically for use with the Hotwater suit our boots are manufactured from high quality





## Hotwater Diving. Neoprene Undersuit

Our hotwater undersuit has proved itself to be an incredibly versatile product. It is not only used by the diving community but in many other walks of life were keeping warm is essential.

Many divers are now using their hotwater undersuit as an additional layer of insulation beneath their wetsuits. This is proving to be very successful for those who want to preform deeper dives or in cooler waters.

## Another Option. Bodyline Undersuit

This Northern Diver undersuit is manufactured from a 1mm superstretch neoprene, this will ensure warmth and comfort throughout the duration of your dive.

Constructed from moisturewicking fleece and super-stretch Lycra for additional comfort. It can be worn on its own, under your hotwater suit in temperate conditions or as a first layer in conjunction with our range of Metalux® undersuits for colder conditions.

However it is used, this undersuit offers a comfortable and lightweight solution to combating the cold.

This suit can be worn in conjunction with both our neoprene and denim hotwater suits.

## Also Available. Service Kit

A hotwater manifold service kit. The manifold should be serviced every 3-6 months of diving or if used on a less regularly then every 12 months.





SERVICE KIT CODE : HWS - SERVICE KIT ONE SIZE



#### HOTWATER UNDERSUIT

CODE : HWS - WETSUIT - SIZE
S, M, L, XL, XXL

#### BODYLINE UNDERSUIT

MOD - BODYLINE - U/SUIT - SIZE S, M, ML, L, XL, XXL

#### Accessories. Hotwater Gloves

Specific integration and use with only the Northern Diver Hotwater suit. Manufactured from a 5mm neoprene with though Kevlar reinforced palms and fingers.

## Other Gloves. Hot Crabbers

Our Hot Crabber glove is ideal for divers who are looking for a cut resistant, hard wearing glove.

Whilst this glove is designed for use in conjunction with our hotwater system, for deep diving commercial operations, it is also an ideal hard wearing glove for divers who need a cut resistant glove with supreme hand protection.

The Hot Crabber offers excellent resistance to abrasion and strong resistance to chemicals, acids, alkalis, cutting oils, petrol and gasoline. Colored over-dip acting as a wear indicator.

In compliance with the standards EN420 (General requirements), EN388 (Mechanical hazards) and EN374 (Chemical and Microorganims hazards) by the Institut Français Textile-Habillement.

Manufactured under EC quality assurance system carried out by the BSI body.

#### Footwear.

#### **Hotwater Boots**

Made specifically for use with the Hotwater suit our Hotwater boots are manufactured from high quality 5mm neoprene. The high cut of the boot will ensure the hot water is trapped within the suit and the boot which will in turn keep the diver warm and comfortable.



## R - Vest Harness.

#### **XL Sizes Only**

The Northern Diver R-Vest harness is manufactured from ultra-durable materials which give maximum comfort and is able to withstand the rigours of commercial diving. The R-Vest distributes loads evenly over the body and features quick release weight pockets.

There are three recovery points (one on each shoulder, and one centre back this ensures that the diver may be rescued in the event of an injury. The R-Vest complies with the relevant requirements of EN 250 2000.

The photo (left) shows an a R-Vest with optional lace-up cylinder bag and attached lead weights. The photo below it shows a R-Vest with optional cylinder back pack. Our standard size fits a 36"-46" chest and our extra large size fits a 48"-64" chest.

## 1000kg R - Vest.

#### Standard & XL Sizes

With a phenomenal overall breaking strength of 1000kg, the All New Northern Diver R-Vest has surpassed the requirements set by the 'Association of Diving Contractors International' Standards.

The durability and functionality of the Northern Diver R-Vest is built for the most demanding of conditions and has been constructed in line with the International Consensus Standards for Commercial Diving and Underwater Operations.

- Manufactured and tested in accordance to ADCI
- Each of the 9 d-rings has been independently tested to a breaking strength of 1000kg
- Quick release sat bag for carrying tools
- Loop on the left/right side for carrying hammer
- Back pack with cam band for attaching cylinders
- Adjustable waist and crotch straps
- Quick release weight pocket

## Bell / Safety.

#### Harness

A diver recovery harness utilising heavy duty webbing and large stainless steel D-rings, ergonomically designed for comfort and safety.

There is a lifting point at the back of the divers neck and chest mounted D-rings for tool and umbilical attachments.

The yellow harness features a waist strap adjustment with a cam type buckle and adjustable leg straps. The shoulder and chest straps are also fully adjustable.

## Neoprene Drysuit. Origin

Origin Commercial is the developed version of our original Northern Diver neoprene drysuit. This is still incredibly popular with experienced divers around the world & remains the preferred choice for Commercial divers.

This drysuit is also ideal for the more advanced 'non-commercial' divers who regularly plan dives with little physical movement, long duration or extended deco-stop diving.

This suit is available in range of commercial sizes. These are a wider fit than our standard drysuit sizes, allowing any combination of our undersuits to be used covering all diving conditions.

Manufactured from 6.5mm XO grade neoprene. Featuring an extremely tough Armourtex® outer shell, for added durability and our Ti-Ax® Thermacote® heat reflective system to increase thermal insulation.

Available off-the-shelf with widefitting boots or the optional steel toe cap, mid-sole foil safety boots. These steel toecap, mid-sole foil safety boots conform to Safety Boot Standard EN12568/98.

The Origin Commercial features RockFabric® elbow, shoulder & knee protection with heavy-duty rubber kneepads, making sure our Origin drysuit is durable enough to withstand years of action.

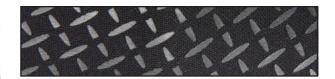
## The Origin is a proven no - nonsense Commercial Drysuit

ORIGIN

## Suit Features.

- Origin comes as standard with rubbatex neck and wrist seals Alternatively, it can be modified with an attached hood, latex seals or many other personal preferences
- Cutting rod pocket on right thigh with knife attachment loops and a transporter pocket with 2" external D-ring on left thigh as standard. Your own choice of pockets can also be fitted, if required
- Supplied with rubber reinforcing valve patches fitted in the centre of the chest and on the left shoulder
- High performance inflation and variable exhaust valves, or an additional auto cuff dump, fitted wherever required
- Optional reinforced toe & mid-sole foil safety boot
- Other options include an attached dry hood combined with latex neck seal, internal braces, latex cuff ring system or dry glove ring system
- Heavy duty metal dry zipper
- Elbows & shoulders are reinforced with Rockfabric® for added durability
- Super heavy duty Rockfabric® knee patches for extra protection, with additional rubber reinforcement
- Dacor Boot Sizes 4 13





ORIGIN CODE : ORIGINCG - SIZE UNISEX: M, ML, L, XL, XLT, XXL, XXXL









## Divemaster Drysuit. Commercial Edition

Northern Diver's Divemaster Commercial is flexible but also hard-wearing. It is the first choice of active sport divers and the UK's major commercial diving schools.

Manufactured from a specially formulated 5mm hyper-compressed neoprene, the Divemaster Commercial allows freedom of movement and real diving flexibility.

Hyper-compressed is not just a name to increase product appeal, this is a full commercial process requiring the use of a 500 ton heated press. Although this may sound excessive, this is a necessary process to achieve the highest possible standards in neoprene manufacturing.

The versatility of our Divemaster Commercial used in conjunction with any of our range of undersuits. (For example, Thermalux in mild European waters or Metalux Temperate for more extreme diving conditions).

The Divemaster Commercial provides a comfortable environment during recreational diving, ice diving and long duration cold water diving.

Durability is increased by the heavy-duty pique nylon outer shell. Thermal properties are also improved using our unique Ti-Ax® Thermacote® heat-reflecting system under the inner lining. Even in the most testing diving conditions, with a whole host of premium features as standard, this drysuit really is a leader in reliability.

Available as a perfectly fitting made-to-measure suit but with standard off-the-peg sizes, most divers will be able to make an instant splash.

**DIVEMASTER COMMERCIAL** 

CODE : DIVE - COM - SIZE UNISEX: S, M, ML, MLR, MLT, MR, L, LR, LT, XL, XLR, XLT, XXL, XXLR, XXLT, XXXL, XXXLR

## "The DIVEMASTER has been the perfect suit for our students in every way."

Dive Commercial International Inc - USA

## Suit Features.

o Vee

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- 100% CR Hyper
   Compressed Neoprene
- Rock-Fabric
   Protective Panels
- BDM Dry Zipper with Protective Overcover
- Updated Reinforcement & Styling
- Kevlar Protection as Standard
- Extensive Custom Options Available
- 17 Standard Suit Sizes Available Plus MTM
- Drysuit Boot Sizes 4 13 ( Safety Boot Option )

#### Website.

www.divemaster-drysuit.com









## Membrane Drysuit. Cortex Black

The first choice for Army and Navy recruits, enabling them to carry out their training in many countries throughout the world. NATO Codified the Cortex is a quality drysuit renowned for its long life and comfort.

Cortex material was chosen by the Ministry of Defence for their diver selection course, reiterating the quality of it's hard-wearing, trilaminate properties.

We observe daily the trails these organisations put our suits through and it is a superb endorsement of the Cortex fabric and our suit construction.

## Quote. What The Press Say

The Cortex is manufactured from Cordura which is specially woven for Northern Diver in Switzerland.

The seams - the parts of a suit that are most vunerable - are triple glued, rubber taped and then vulcanised. The latex wrist and neck seals are adjustable by cutting to size. Moreover, the neck seal is fitted with an outer flap, which reduces flushing in the seperately supplied, vented neoprene hood.

Standard items include internal braces, a bellows pocket with knife attachment loops, drysuit bag which opens out to form a changing mat, maintenance kit and drysuit manual.

This suit would appeal to someone diving in varying conditions, as underclothes provide most of the insulation. It is nice and flexible, appears well made and certainly looks up to the rigours of UK diving.

Conclusion : One for the heavy-duty diver













## Customers. [DDS] Defence Diving School



## Suit Features.

- Drysuit built from ultra durable cordura
- Rubber taped, bonded for life seams
- Neoprene neck and wrist seals which can be used in conjunction with our easy fit dry glove system
- Unique cut combined with internal braces ensures optimum fit
- Bellows pockets with knife attachment on right
- Dacor Boot Sizes 4 13

#### CORTEX BLACK

CORTEX - BLACK - SIZE	
UNISEX: S, M, ML, MLR, MLT, MR, L, LR, XL, XLR, XLT, XXL, XXLR, XXXL	

## Technical Drysuit. HID

The most technical drysuit, in our Tri-Laminate suit range, its sleek design and super close fitting style, featuring Northern Diver's unique 'Constant Fit' Torso-Flex system, has been very well received within the technical diving and wreck diving community.

This unique system, unlike most membrane drysuits, enables the mid section of the drysuit to constantly adjust and flex, during the dive, allowing freedom of movement but without the need for excess drysuit material.

In addition, the 'ballistic nylon' outer fabric of Northern Divers HID drysuit includes ten coats of butyl rubber, bonded to a super comfortable polyester inner fabric. This produces the ultimate hard wearing heavy-duty drysuit material and with the addition of super high-visibility 3M style light reflective overprinting, featuring microspheres which reflect 95% of all visible light, this really is a High Intensity Drysuit.

Our 'Constant Fit' Torso-Flex system allows the body of the suit to extend, when fitting but also retracts to its original position, once fitted. This results in a closer fitting drysuit, without having excess suit material during a dive but with the additional flexibility, during the fitting and removing of the suit.

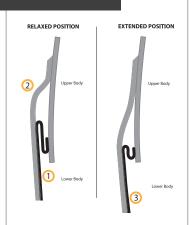
Northern Divers 'Constant Fit' Torso-Flex system also permits the user to easily perform all the required movements, when diving in the HID drysuit. Kneeling down, reaching high, reaching back or merely bending forwards, is far easier, thanks to this unique system, as it works with the diver, allowing a previously unprecedented level of Tri-Laminate drysuit movement.





TÜV Rheink

## Constant Fit. Torso Flex System



CFS is retracted (1) & retains any surplus suit material (2). CFS is extended (3) allowing freedom of movement when required.

## Suit Features.

- Ballistic Nylon Tri-Laminate Material
- Sealed For Life Vulcanised Rubber Taped Seams
- Self Loading Front -Entry Dry Zip System
- Ultra Heavy-Duty Hard Sole Boots
- Super-Stretch Neoprene Neck and Heavy Duty Latex Wrist Seals
- High-Vis 3M Style Light Reflective Overprinting
- High Performance Inflation and Variable Exhaust Valves
- HID Boot Sizes 7 11 or Dacor Style Sizes 4 - 13

#### HID

HID - SIZE UNISEX: S, M, ML, MLT, L, LR, XL, XLR, XLT, XXL, XXLR, XXLT

## Drysuit Accessories. Valves

Our engineers discovered 5 years ago, after discussions with Military Mine Clearance Divers, that there was a request for super low profile inflation valves, with a slightly angled inlet spigot to prevent the quick connector from the low pressure hose catching their suits. They wanted a low profile automatic & variable exhaust valve as their current one had a slab side which snagged on equipment.

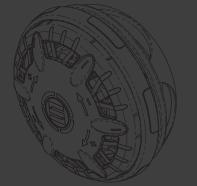
MOST IMPORTANTLY they specified that the end product must have a magnetic signature of less than 5 Nano Teslers.

From this meeting came our very own unique ultra low profile valves which have an average magnetic signature of 2.5 Nano Teslers. Vigorous testing by the Military, even in combat conditions in Afganistan, has helped to improve this design.

The feedback was exceptional, superb quality, unrelenting performance & dependability.

All Northern Diver Drysuit Valves passed extreme testing at the most highly skilled test house in the world, TUV - RHEINLAND with 100% rating & have been awarded full CE Approval.

But it certainly doesn't stop there, every valve set is tested after manufacture to ensure they meet the upmost quality standards & each individual valve is wet tested before being dispatched to every individual customer.



Many years in the making, the Northern Diver Drysuit Valve range has been developed by our skilled engineers, substantial investment in computer & manufacturing technologies & sheer determination to create the best drysuit valves on the planet.



## V-Tech Evolution IV

#### **Inflation & Exhaust Valves**

Our low profile valves are available with a choice of spiggots and therefore are suitable for Recreational, Commercial and Military diving.



## Non Magnetic

#### Inflation & Exhaust Valves

For special use by the Military, ournon magnetic inflation valves are available in black only.



## Double Mushroom

#### Exhaust Valves

Contaminated water valves are chemical, impact and heat resistant. Contains an extra diaphragm and is moulded using PC / PBT material.



**Standard Hose** 



V-Tech Hose

Hoses are available with 3 styles of coupling (Cien, Standard & V-Tech)

Standard is available in 2 lengths, making them suitable for use with any Northern Diver drysuit and most other popular models of suits.

100% Tested **CE** Approved **TÜV Rheinland** 

## Repairs. Custom Options

Available for stock size Drysuits

We will happily repair any make of suit but priority will be given to Northern Diver customers.

Need an instant repair?

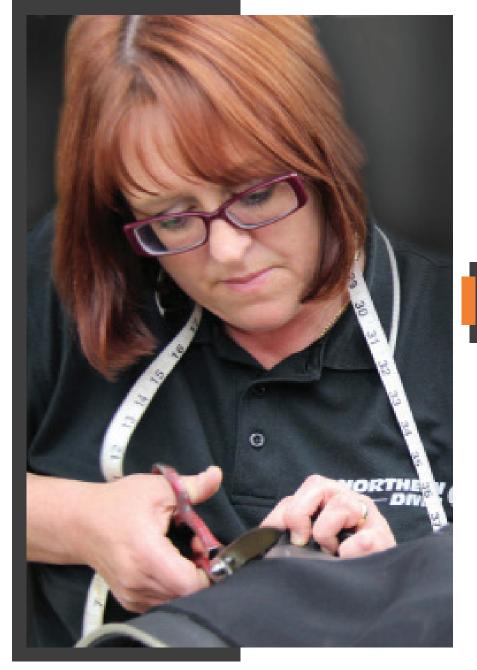
Our repair staff are determined to help you so they work overtime to provide a fast track service.

Waiting time can vary dependant on our workload . . . sometimes as fast as a one day turn around.

Repairs Department +44 (0) 1257 25 69 37

# With over 25 years of experience, our highly skilled repairs staff can provide you with the reassurance that your drysuit is in extremely capable hands.

- Inflation valves can be located on either left or right chest (centre is standard)
- Exhaust valves can be moved from left shoulder to right shoulder or replaced with a cuff-dump
- Boots are available in a variety of sizes and styles
- Arms can be shortened by removing material or lengthened by adding longer seals to the suit. Legs can be lengthened or shortened by adding tall or short boots
- Neoprene neck and wrist seals can be replaced with latex seals
- Latex neck and wrist seals can also be replaced with neoprene seals
- Neoprene stock size suits can be tapered to fit



#### Other Suit Options :

Kevlar Seat Pad	Stainless D-Ring
Hood Attached	Convenience Zip
External Zip Flap	Internal Braces
<b>Reflective Tape</b>	Fly / Relief Zip

Check availability on specific suits. Most options are subject to additional charge.

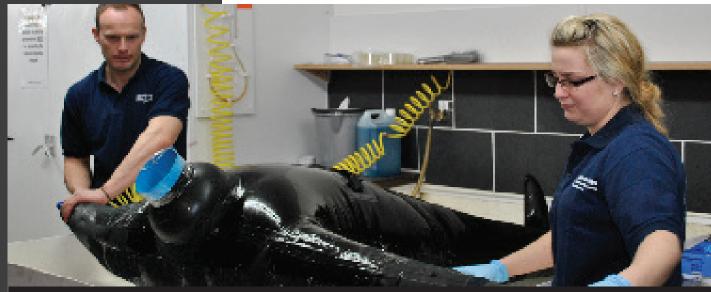
#### Design Your Own. Made To Measure System

# Northern Diver is eager to help you purchase a drysuit that is perfect for every individual person.

To achieve this you can design a number of elements on your own suit.

Choose material, pockets, boots, zipper and seals that fit your unique specification. To complete your drysuit personalise with your company logo.

If you cannot find what you are looking for we always enjoy a challenge, contact us to discuss how we can help you.



All suits are tested to the highest standards before leaving Northern Diver

#### Custom.

## **Boot Options**

Northern Diver has spent considerable time & effort developing boot technology in relation to materials & construction techniques.

All Northern Diver drysuit boots are handmade, individually vulcanised & fully tested prior to fitting to your drysuit.

Boots are available in a range of sizes, from 4 - 13. Boots beyond size 13 can be custom built.

## Drysuit Additions. **Pockets**



Neoprene transporter pocket with 2" stainless steel D-ring

Pocket Dimensions: H 29cm // W 13cm // D 4cm



Neoprene transporter with knife pocket

Pocket Dimensions: H 22cm // W 14cm // D 5cm **Dry Socks -**Fitted to the bottom of drysuit legs, instead of boots, used in conjunction with our Rock boots.

#### Wide Calf Boot - Available in sizes 6 - 13. A tall, wide fitting boot is also available, which allows a drysuit leg length to be increased.





Safety Boot - Steel toe cap & mid-sole foil, conforming to EN 12568/98 safety footwear standard.

- Standard Boot Available in sizes 4 13.



Neoprene knife pocket with velcro flap

**Pocket Dimensions:** H 28cm // W 15cm // D N/A

> Neoprene bellows pocket with velcro flap

Pocket Dimensions: H 22cm // W 17cm // D 4cm



Trilaminate zipped cargo pocket with knife loops

**Pocket Dimensions:** H 25cm // W 18cm // D 6cm

Neoprene zipped cargo pocket with 16" opening

Pocket Dimensions: H 26cm // W 16cm // D 6cm

Trilaminate knife pocket with velcro flap

Pocket Dimensions: H 28cm // W 15cm // D N/A



Trilaminate zipped transporter pocket

**Pocket Dimensions:** H 29cm // W 16cm // D 4cm



## Northern Diver.

## Accessories

Northern Diver has a range of products to help with your drysuit maintenance needs. Should you require an item you that is not listed please call a member of staff who will be happy to help with your enquiry.





#### SEAL LUBRICANT 200ml

CODE : SEAL-LUBRICANT The seal lubricant will extend the life of your drysuit's seals.



#### LATEX NECK/WRIST SEALS

SEAL-N-SIZE & SEAL-W-C-SIZE Can be fitted by our talented repairs team. Available to buy individually.



#### SILICONE SPRAY

CODE : SILICONE-SPRAY A water repellant, protectant & lubricant for rubber, plastic & metal parts.



TALC 100g

CODE : SEAL SAVER Used on suit seals to assist in donning drysuit. Can be used prior to storage.



#### **ZIP WAX**

CODE : ZIP LUBE

Easy, effective drysuit zip lubrication. Apply to dry, clean drysuit zips to ensure smooth action & enhanced life of zip.



SUIT SEAL 21g

CODE : SUIT SEAL REPAIR SET Used for repairs to holes/tears in drysuits & for use when sealing the Dryglove Ring System to neoprene cuffs.



#### **NEOPRENE SHEET**

CODE : NEOPRENE - SHEET If you have a requirement for a sheet of neoprene we can supply it.



**INTERNAL BRACES** 

CODE : BRACES SIZE : N / A



**DRYSUIT HANGER** CODE : HANGER-DRYSUIT SIZE : N / A



WETSUIT HANGER

CODE : HANGER-WETSUIT SIZE : N / A

Ensure you drysuit is completely clean and dry before storing. Once the suit is completely dry it can be stored on a hanger, in a dry place and away from direct sunlight.

Northern Diver offer a specially designed drysuit hanger which allows the suit to be hung upside down by the boots for drying purposes.

## Thermal Layers. Metalux Undersuit

Metalux® has the enviable reputation of being one of the most effective lightweight, high performance insulating materials available, designed to reduce air movement and reflect thermal radiation.

Metalux® retains its impressive insulative qualities when wet or compressed and the quilt construction retains it's thermal integrity, throughout the life of the garment.

Metalux® is hard-wearing, long lasting and machine washable. Available exclusively from Northern Diver Metalux® undersuits bring diver insulation into the 21st century.

## Metalux Arctic. 200 to 300 gsm

This model is suited to more extreme diving conditions and / or for under drysuits without thermal properties.

## Metalux Temperate. 100 to 200 gsm

This model is commonly used for UK summer diving conditions and/or under drysuits with thermal properties.

## Review \* \* \*

#### Daryl Townsend - Flood Team

Although we thought we had good undersuits, boy were we wrong....

Numb leg, frozen feet etc... This year we had the Northern Diver Metalux Temperate undersuit and I could actually feel my legs at the end of a long day in the north Wales water. 1 degree C temp, at best and I was almost sweating...

The suits are fantastic.

Many thanks to Craig and the Northern Diver team.







## Suit Features.

- Undersuit reflects body heat back to the diver
- Quick-drying
- Bacteria & fungus resistant
- Fleece lined
- Elastic foot stirrups
- Ultra lightweight
- Pockets on the hips

#### **METALUX ARCTIC**

METALUX- ARCTIC or METALUX 330g ARCTIC
S, M, ML, MLR, MR, MLT, L, LR, LT, XL, XLR, XLT, XXL, XXLR, XXXL, XXLR

#### METALUX TEMPERATE

METALUX - TEMP - SIZE S, M, ML, MLR, MR, MLT, L, LR, LT, XL, XLR, XLT, XXL

Left you can see the layers of the Metalux. Working from the top down:

- 1. 3mm "X-otherm" fleece / fleece pile lining, sits next to the skin & circulates warm air
- 2. Metalux multi facet film strips reflects heat back to the body and shield from the cold
- 3. Soft holofibre acts as an insulator
- 4. Outer teflon coated nylon shell

## Warmth & Comfort. **Thermalux**

High Tech Fleece / Lycra Mix Provides Superb Insulation & Incredible Flexibility.

Thermalux® undersuits offer a lightweight solution to keeping warm.

The microfibre and fleece layers help retain body heat without excessive bulk.

Flexible panels in the lower back, shoulders, cuffs and feet provide additional flexibility, allowing exceptional freedom of movement without sacrificing warmth.

Ergonomically designed stretch leg and foot stirrups ensure the garment stays in position during use, keeping material movement to a minimum and avoiding uncomfortable creasing between the outer garment and your skin.

#### Review \* \* \*

#### **Perfect - Chris Higgins**

I use Northern Divers Divemaster Evolution 12 drysuit and found the addition of their Metalux Temperate far too warm for me, in water warmer than 10 degrees.

Equally, in water warmer than 15 degrees I only need to use a t-shirt and a pair of joggers.

When the water is between 10 and 15 degrees Northern Divers Thermalux undersuits is perfect for me and the one piece design is very simple and comfortable to use.

Northern Diver specialises in layer system undergarments for all conditions.

We recommend a Thermalskin and Thermalux undersuit for diving in average UK weather conditions.



"We are exceptionally pleased with the Thermalux undersuit and have no hesitation in recommending N.Diver and this suit to any diver or SAR unit."

David O'Mahony Derrynane Inshore Rescue unit

#### Suit Features.

- Manufactured From Fleece & Microfibre
- 100% Breathable Microfibre Outer Shell
- Super Absorbant Micro Fleece Inner Lining
- Ultra Lightweight
   & Quick Drying
- Bacteria & Fungas Resistant
- Elasticated Lycra Fleece Comfort Panels
- Thermal Skin Cuffs
- Thermal Skin Foot Stirrups
- Pockets On The Hips
- Two Way Zipper

#### THERMALUX

THERMALUX - SIZE XS, S, M, ML, MLR, L, LR, XL, XLR, XXL, XXLR



## Thermal Skin. Bodyline Undersuit

Can Be Worn As A First Layer In Conjunction With The Northern Diver Range Of Metalux Undersuits For More Extreme Environments.

Thermalskin has proved itself to be an incredibly versatile product. It is not only used by the diving community but in many other walks of life were keeping warm is essential.

Many divers are now using their Bodyline / Thermal Skin undersuit as an additional layer of insulation beneath their wetsuits.

This is proving to be very successful for those who want to wear their semi-dry for longer durations, deeper dives or in cooler waters.

Cavers have also adopted the Northern Diver Bodyline / Thermalskin for use beneath wetsuits or caving suits for comfort and warmth on long trips underground.

Even members of some Mountain Rescue teams wear this undersuit for cold nights on the hills.

#### **BODY LINE**

MOD - BODYLINE - U/SUIT - SIZE

S, M, ML, L, XL, XXL



#### Suit Features.

- Close Fitting Under Garmet
- Fits Like A "Second Skin"
- Constructed From Moisture Wicking Fleece & Super Stretch Lycra For Extreme Comfort
- Ideal Base Layer For Surface Use
- Breathable Fabric
- All Black Colour

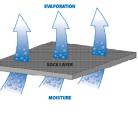
Extra's. Hotsox

These are made from moisture-wicking fleece, which means that your feet remain warm and comfortable.

The socks are double-sided flat-locked stitched which means that there are no raised seams to cause discomfort.

They have a special heel protector and are cut to fit perfectly. Moisture is always present inside any diving drysuit, often produced by the diver's body.

WICKING FLEECE



Hotsox wick this moisture away from the skin to provide extreme comfort.

HOTSOX - SIZE

M L XL XXL XXXL

## Three Piece System. **Arctic Base**

**Consisting of : 1. Fleece Thermal Top** 2. Thermal Trousers 3. Thermal Socks.

Arctic Base is manufactured from thick ultra-thermic fleece and thicker fleece is present, where extra insulation is needed.

Crafted seams ensure the undersuit and socks provide maximum comfort.

The trousers feature a wide, comfortable elasticated waist band with draw string and ergonomic foot pockets, which ensure optimum leg fit and overall comfort.

The fleece sock incorporates a flexible comfort panel on the front and is tailored to the shape of the feet, making them snug and a pleasure to wear.

- Thicker Fleece For More Efficient Insulation
- Crafted Seams For Maximum Comfort
- Trousers Feature a Wide, Comfortable, Elasticated Waist, with Draw String
- Ergonomic Foot Pockets Ensure Optimum Leg Fit and Comfort
- Fleece Socks With Flexible Comfort Panel On The Front

**ARCTIC BASE** 



**X - TREME THERMAL PROTECTION** 



/ww.ndiver-commercial.com



## Commercial 2 Piece. Delta Flex Black

This is the most popular wetsuit for the commercial and oil industries. It is also supplied to the Military world wide.

The hard-wearing properties do not detract from the ultimate comfort offered by the superstretch DFN-Ultragrade<sup>™</sup> neoprene. The internal lining offers superb warmth and insulation with its Ti-Ax® Thermacote® Titanium Terry lining, now with anti-bacterial coating.

The build quality is exactly what divers have come to expect from Northern Diver wetsuits offering tough water-tight seams, high quality materials and components and exceptional quality control.

The DeltaFlex Black will fit everyone, no matter what their size. The ergonomic cut of the suit plus the preformed and shaped arms and legs offer maximum inwater comfort.

## 2 Piece Beaver Tail. Commercial Wetsuit

The neoprene trousers and jacket will form a combination but they can also be obtained and separate items. As supplied to the Military world wide.

The wetsuit Long-John features flat-locked stitching and integrates with the rest of the range including overjacket, thermal underwear, socks, boots and hoods.

All ends are edged and double stitched, the seams are both glued and double stitched.







## Suit Features.

- Unique Ti-Ax® Thermacote® Titanium lining for warmth and comfort
- 5mm neoprene jacket, nylon outer and plush Ti-Ax® Titanium Terry lining
- All seams : triple - glued and blind stitched
- Step-through crotch jacket
- Single lined smooth skin neoprene face & wrist seals with zips
- Front entry with full length zip and short sleeves
- Single lined smooth skin neoprene ankles / arm seals on the Long John

#### DELTA FLEX BLACK

DELTA - FLEX - SIZE

 M, ML, MLT, L, LT, XL, XXL

## Suit Features.

- Superstretch panels
- Kevlar knee protection, which is glued and stitched to the trousers
- Can be made to customers specification including logos/ labels
- Durable pad lining in the shoulders
- Cuff seals have zipped closure
- 7mm Ti-Ax® thermacote lined
- All seams : triple - glued and blind stitched
- Single lined smooth skin neoprene ankles / arm seals on the Long John

#### **BEAVER TAIL BLACK**

CODE : WETSUIT - BELGIUM 7MM - SIZE	
S, M, L, XL, XXL	

# www.ndiver-commercial.com

## 2 Piece Wetsuits.

#### **Tropical & Temperate**

#### **Tropical Shortie Over Jacket**

3mm superstretch neoprene one piece suit with short arms / legs YKK non mag zip Suitable for use in tropical and similar conditions above +18c Non-chafe collar Flat locked stitched

#### **Tropical Long John**

5mm superstretch neoprene one piece suit with long arms and legs Knee & elbow pads for protection YKK non mag zip Suitable for use in tropical and similar conditions above +18c Smooth skin floating collar Glued and blind stitched

#### **Temperate Shortie Over Jacket**

5mm superstretch neoprene one piece with short sleeves and legs YKK non mag zip Suitable for use in temperate and similar conditions above +18c Non-chafe collar Flat locked stitched

#### **Temperate Long John**

5mm superstretch neoprene one piece suit with long arms / legs Knee & elbow pads for protection YKK non mag zip Suitable for use in tropical and similar conditions above +18c Smooth skin floating collar Glued and blind stitched

## SAR 2 Piece Wetsuit.

#### Search & Rescue

One-piece wetsuit with chest zipper and a short sleeves and legs 'Shortie' over jacket, plus a separate wet hood.

Manufactured in a high visibility red 4mm neoprene. Frequently used for helicopter Search & Rescue operations & training.

Consists of both a 'Long John' and 'Shortie' which both have a protective Kevlar coated seat area. 2 piece semi-dry wetsuit with a separate hood. Normally used with a rash vest & neoprene socks. Wetsuits conform to non-magnetic requirements and will be labelled accordingly.



#### **TROPICAL & TEMPERATE WETSUITS**

MOD-TROP-LONG-SIZE MOD-TROP-SHORT-SIZE MOD-TEMP-SHORT-SIZE MOD-TEMP-SLEEVED-SIZE

S, M, ML, L, XL, XXL,

Features torch pockets that house lighting equipment used by Search and Rescue and Military divers.

In terms of design it is a 4mm 'Long John' that can be worn together with 'Shortie'.

**SEARCH & RESCUE WETSUIT** 

CODE : MOD-SAR S, SW, M, MW, MEW, L, LW, XL, XLS, XXL, XXLS, XXLES (W = WIDE, E = EXTRA, S = SHORT)

#### CE Approved.

## **Dry Glove System**

- Quick release and re-fit Dry Glove System
- Revolutionary twin-safe locking ring mechanism
- Super easy to use without additional assistance
- Drysuit wrists stay sealed when Drygloves removed
- 3 sets of inner rings for variable drysuit thickness

Choose from Durable PVC or the Chemical Resistant Ansell Gloves

#### [ Durable PVC Gloves ]

- Blue ultra durable anatomically formed PVC
- Super heavy duty outer gloves
- Resistant to contaminating agents, such as oil, hydrocarbons and acid
- Features an internal
   <u>anti</u>-bacterial treatment
- Textured fingers and palms for enhanced grip underwater

#### [Ansell Glove]

- Cut, Tear & Puncture Resistant
- Black chemical resistant glove with industry leading grip & superior dexterity
- Lightweight Nitrile shell with seamless nylon liner offers users excellent flexibility
- Wherever chemicals, oils & grease are present these gloves still provide excellent grip

#### [Thermal Fleece Inner Glove]

- Thermal 4-way stretch fleece
- Flat-lock stitched seams for improved comfort
- Additional wrist zone with thermal protection
- Removable for warmer waters or for use post dive

#### [Package Includes]

- Either PVC or Chemical Resistant Ansell Gloves
- Thermal Fleece Inner Gloves
- 2 Dryglove Modules
- 3 Sets Of Sealing Rings
- Locking tool
- Adhesive sealant
- Instructional Video Online





**Locking Tool** 



systems.



Suit Seal Dry Glove Rings

Inner Fleece Gloves

Drygloves can be easily &

chemical & hydrocarbon

Gloves conform to the

contamination.

quickly fitted to any drysuit to

give protection from biological,

requirements of European Directive

standards EN420 (Dexterity) EN374

(Cut, tear and puncture resistance).

Integrates perfectly with neoprene

& latex cuffs and warm cuff

89/686/EEC and to the European

(Liquid proof gloves, chemical resistant data upon request) EN388

#### Northern Divers Dry Glove System is suitable for both Arctic Conditions & Contaminated Water Environments.



#### DRYGLOVE RING SYSTEM

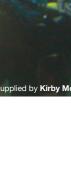
GLDRY - SYSTEM - V3 - SIZE **S, M, L, XL** 2nd Gen. Black Ansell Gloves

#### DRYGLOVE RING SYSTEM

GLDRY - SYSTEM - V2 - SIZE **S, M, L, XL** Heavy Duty Blue PVC Gloves

## Accessories. Gloves







## **SUPERSTRETCH**

These gloves are manufactured from our unique '4-way superstretch' neoprene, reported to be the easiest of all our gloves to put on and take off. Due to their extreme comfort, performance and ease of use, they rapidly became our top sellers.

Available in 2mm, 5mm and 7mm neoprene. For warmer water or surface use the 2mm option gives additional protection without compromising dexterity. Our 5mm & 7mm options are ideal for cooler conditions, where thicker gloves are essential but again, without compromising dexterity.

2MM SUPERSTRETCH	5MM SUPERSTRETCH	7MM SUPERSTRETCH	
CODE : GL2-S/S - 07 - SIZE	CODE : GL5-S/S - 07 - SIZE	CODE : GL7-S/S - 07 - SIZE	
S, M, L, XL	XS, S, M, L, XL	M, L, XL	



#### **7MM KEVLAR MITT**

Ideal for cold water diving, these mitts are constructed from 7mm superstretch neoprene, which will keep your hands super warm and protected.

The protection of this mitt is additionally enhanced with Kevlar from the tips of the fingers right down to the palm and has polymer reinforced seams.

#### **7MM KEVLAR MITTS**

S, M, L, XL, XXL	-	S, M, L, XL	
CODE : GL7 - K - S	IZE	CODE : GL2-K-SIZE	



#### **KEVLAR SUPERSTRETCH**

The ultimate combination of luxurious super-stretch neoprene comfort combined with a tough Kevlar palm and finger tips protection enhanced with Polymer coating at the finger tips.

When diving in more extreme conditions, these Kevlar enhanced gloves give extra strength and protection when it counts without compromising on comfort.

**3MM KEVLAR SUPERSTETCH** 

#### **5MM NEOPRENE GLOVES**

fastening wrist strap.

**NEOPRENE GLOVES** 

Suitable for diving and many

watersports, these 5mm neoprene

flexibility with affordable quality.

gloves combine comfort, warmth and

The palm, fingers and thumb feature

a harder wearing protective coating,

Water migration is minimised with

the addition of an elasticated velcro

which does not compromise flexibility.

CODE : GL5-08 - SIZE	
S, M, L, XL	



## **OPTIMUM GLOVES**

Available in 3mm and 5mm options, featuring our unique Ti-Ax $\mbox{\ensuremath{\mathbb{R}}}$  heat-reflecting lining.

These outstanding gloves are manufactured from premium polymer, featuring DiamondFlex for superb protection and our Super-Tack embossed palms and fingers to improve control and grip.

A tight-fitting wrist seal is essential to minimise water migration but can make the glove difficult to pull on over your hand. Our Optimum gloves feature a wrist zip to allow the necessary expansion when required.

5MM	OPTIMUM	GLOVES	ЗММ

MM OPTIMUM GLOVES

CODE : GL5 - OPTIMUM - SIZE	CODE : GL3 - OPTIMUM - SIZE		
S, M, L, XL, XXL	S, M, L, XL, XXL		



**5MM KEVLAR GLOVES** 

CODE : GL-5-K-SIZE

XS, S, M, L, XL, XXL



#### **ARCTIC SURVIVOR GLOVES**

GL01 - SIZE S, M, L, XL, XXL



## **5MM KEVLAR GLOVES**

When diving incorporates more extreme conditions, these Kevlar™ enhanced gloves give extra strength and protection, without compromising on hand comfort or ease of use.

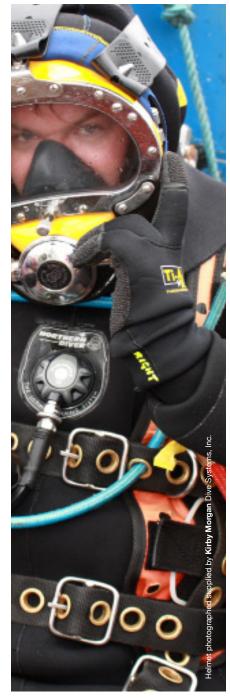
The 5mm thickness, designed for more extreme diving conditions or colder waters, are ideal when additional thermal protection is also required, resulting in the ultimate hard-wearing dive glove.

## **SEMI DRY GLOVES**

- 5mm Super Stretch Neoprene
- 'Water Lock' Wrist Seal System
- Reinforced Strobel Stiched Seams
- 'Supa Grip' Textured Palms

#### THERMAL DRY GLOVES

Polymer gloves with separate thermal fleece liners. Ideal for use with latex seals, ensuring completely dry hands whilst diving. A simple alternative to our full dryglove system. The durable textured synthetic outer is chemical, cut and puncture resistant. The Isotherm fleece lining improves warmth and maintains comfort.



## Accessories. Footwear & Fins



#### **FREESTYLE SAFETY BOOTS**

Composite toe and mid-sole foil Tested to EN ISO 20345 standard Super-Grip rubber sole Neoprene insoles for extra comfort Generous opening with velcro fastening Boots are made from diamond texture rubber Drain Holes

Two positive stainless steel buckles

							- SIZE	
6	7	8	9	10	11	12	13	



#### **DELTA NEOPRENE WETBOOTS**

Manufactured from 5mm Neoprene Titanium Lined for Extra Warmth and Comfort Rugged Anti-Slip Rubber Sole Heavy-Duty Durable Side Zip Additional Heel and Toe Protection

CODE : WETBOOT07-DT-SIZE						
34	56	78	9 .	10 1	1 12	13

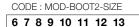


CODE : FIN - CODA - SIZE



#### **ROCK SWIM BOOTS**

Composite toe and mid-sole foil Tested to EN ISO 20345 standard Three velcro securing straps Fitted internal neoprene socks Extra zip securement Oil & chemical resistant sole External ankle protection Over-cladding protection on heel, toe & sides





#### **NEOPRENE BLACK WETBOOTS**

Manufactured from 5mm Neoprene Titanium Lined for Extra Warmth and Comfort Rugged Anti-Slip Rubber Sole Heavy-Duty Durable Side Zip Additional Heel and Toe Protection

CODE : WETBOOT -ALL - BLACK - SIZE			
5 6 7 8 9 10 11 12 13			

#### **DUAL CODA FINS**

Patented dual-fin design Indestructible feel to the build-quality Very efficient finning on both the up and down stroke

Unbeatable price for a fin in this class

The unique patented design allows water flow to interact with each fin blade producing independent thrust from each fin. The fins also produce thrust on each up and down stroke which improves the diver's finning efficiency whilst diving.

The polymer was developed to ensure a stronger fin action in strong currents and the elastomar has a soft feel, with good spring and retains its unique shape, even in Arctic waters.



#### SAFETY ROCK SWIM BOOTS

Composite Toe & Mid-Sole Foil Tested to EN ISO 20345 Rugged Hi-Grip Heavy-Duty Outer Sole Suitable for use In and Out of Water Multi-Point 'Velcro' Securing Straps Additional Ankle Strap to Ensure a Secure Fit Over-Cladding Protection on Heel, Toe & Sides

CODE : BOOT-COMPOSITE - SIZE			
567	8 9 10 11 12 13		



#### **SPRING FIN STRAPS**

A robust fin strap designed to make it easier to put on and remove your fins. Will fit most major brands of fins.

#### PLASTIC

S, M, L	M, L, XL
FIN - SPRING - SIZE	FINSTRAP-SPRING-SIZE



CODE : FIN - JETFIN

L, XL, XXL, XXXL

#### JET FINS

METAL

Manufactured From High Quality Rubber Robust and Superb Endurance Exceptional Finning Power Available with Two Buckle Styles Tested in Extreme Commercial Diving Conditions Preferred Choice of Divers Around the Globe

www.ndiver-commercial.com

## Aluminium Torches. Varilux Family

After the huge success of our Varilux 1200 diving torch Northern Diver brings you the Varilux Travel and Varilux Micro.

Each of the 3 torches are constructed from Aircraft Grade Aluminium with a magnetic external 'slide' switch, depth tested to 100 meters.

Each Varilux is supplied with :

- Wrist lanyard
- Instructions
- Carry case









#### **SNAP - LIGHT STICKS**

Easily attached to clothing & equipment or for marking paths / hazards etc at night Bend, snap and shake to activate Full glow may take a few minutes Non-toxic



#### Varilux 1200

#### Single Ultra White LED Wireless Charging System Fully Charged In Under 12 Hrs Incredibly Powerful Beam Variable 50 - 1200 Lumens Length - 210mm Head Diameter - 59.5mm Body Diameter - 39.5mm Dry Weight - 548g

CODE : TORCH - VL12 - UWL

#### UNDERWATER FUSION X3+

Supplied With 4x AA Batteries 8.5 Hour Total (Continuous) Burn Time New Optically Enhanced Reflector Ultra High-Spec Phillips Rebel 3W LED Super-Life 50,000+ Hours Ultra-Bright LED Natural 'Daylight' Colour Temperature 5300K

#### **MINI QUEST**

230 Lumens of Pure Power 3.5 Hours Burn Time Tough Polycarbonate Body Magnetic Switch Depth Tested to 95m Aluminium Bezel New Philips Lumileds 3W Luxion LED



#### FLEXI - LIGHT STICKS

Powerful high efficiency LED with 80 lumens Optical grade polymer for a consistent luminosity spread 32hrs flashing, 16hrs constant 25 meters depth rating Available in 6 Separate Colours

CODE : GLOWSTICK - LED - COLOUR

#### Varilux Travel

CREE XM-L T6 White LED Rechargeable Battery Fully Charged In 6 Hrs Mains and 12V Car Charger Variable Up To 800 Lumens Length - 140mm Head Diameter - 49.5mm Body Diameter - 34.0mm Dry Weight (Inc Batteries) - 290g

#### Varilux Micro

CREE XPG-R5 LED LED Life 50,000+ Hrs Beam Angle 4.6 Degrees 24Hrs Continuous Burn Time Variable Up To 300 Lumens Length - 122mm Head Diameter - 44.5mm Body Diameter - 29.5mm Dry Weight (Inc Batteries) - 169g

CODE : TORCH - VL3 - UWL

New Magnetic Reed Switch for Superior Durability Impact Resistant Silicone Outer Shell Aluminium Torch Head for Maximum Heat

Dissipation Depth Tested to 95 Metres

CODE : TORCH - LUXEON - X3 + G



Mini Quests shown on adjustable quick release brackets attached to ND diving & swift water rescue helmet. Red & white light diffusers are available as an optional extra.

CODE : TORCH - MINI - LUX - ND



#### AGA RAIL

High quality rail system for attachment to an AGA mask. Makes it possible to mount various equipment by adding additional universal slides. Above shows ND torches mounted either side - Right : Mini Quest. Left : Fusion X3+

CODE : MOD-0280-AGA-RAIL



## Accessories. Knives





## LDK RESCUE

The fully adjustable sheath fits the position of choice on the diver's BCD. A snap closure ensures the knife is securely held while providing an easy press button release. The titanium blade offers a serrated top edge and a sharp lower blade. Finished in fluorescent yellow for high visibility.



## **GK ELITE**

Our GK Elite knife has a 75mm stainless steel serrated blade.

This knife is supplied complete with a bright plastic sheath and BCD attachment.



## ALPHA TITANIUM

Our GK Elite knife has a 75mm stainless steel serrated blade.

This knife is supplied complete with a bright plastic sheath and BCD attachment.

CODE : KNIFE - LDK040



**BCD KNIFE** 

Our KN166 BCD knife features a 80mm stainless steel serrated blade and comes complete with a plastic sheath and BCD attachment.

CODE : KNIFE - KN166P - COLOUR



CODE : KNIFE - GK - ELITE

#### **KN65**

The KN65 features a stainless steel 4 3/8 blade with serrated edge and line cutter in snap lock sheath. The black soft grip handle makes this knife a pleasure to use.

CODE : KNIFE - KN65 - COLOUR

#### KN68

A 110mm stainless steel knife with a serrated blade and blunt chisel end. The KN68 features a comfort fit handle and a solid butt with O-ring holder.

CODE : KNIFE - KN68 - COLOUR

CODE : MOD - ITEM - 53 - KNIFE



#### **KN75**

A 110mm stainless steel drop point blade with a serrated edge and net-cutter. This knife benefits from a comfy grip handle and stainless steel solid butt with O-ring holder. Supplied complete with rubber knife straps.

CODE : KNIFE - KN75 - COLOUR

## Accessories. Weights



## LEAD COATED WEIGHT

Our plastic coated, fluorescent lead weight blocks. Colour will vary dependant on weight required.

CODE : LEAD - BLOCK - KG - COLOUR				
1KG	2KG	3KG	4KG	

MILITARY LEAD SINKER

A 3kg bag of lead shot, using number

3 ungraphited lead shot.

3KG

CODE : MOD - ITEM - 127 - LEAD - SIZE



## LEAD SHOT (PER KG)

We sell shot weight by the kilo. We can also supply mesh bags to contain your shot weight.

CODE : LEAD - SHOT				
1KG	2KG	3KG	4KG	



#### WEIGHTED LINE REEL

Manufactured from a high quality 304 grade stainless steel. It is supplied with large, heavy duty snap hook, spring loaded retracting winder handle and mounting point for a LED torch.

CODE : MOD - UWSB - REEL - WEIGHTED

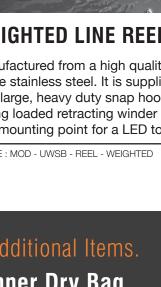
## Additional Items. **Inner Dry Bag**



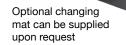
All NDB5 / NDB5 - S Holdalls are supplied with an internal bag suitable for clothes, towels, etc. Inner bag is lightweight with a zipped closure.

NDB5 Holdalls are also available in a shorter version with a volume of 110L.









## Accessories. **Military Holdall**

- Inner nylon zipped bag included
- Originally designed for & supplied to the UK MoD for all **Military Divers**
- Highly suitable for all divers
- Constructed from PVC top span material
- Completely washable inside and out
- Available in blue, black & red
- Length 97 cm, Width - 45 cm, Height - 37 cm







CODE : NDB10 VOLUME : 74 L

### SCUBA HOLDALL

- Ultra Hard-Wearing Cordura
- Large Internal Capacity
- Separate End Pocket
- Additional Fin Pocket
- Heavy-Duty Top Mounted Carry Handles
- Detachable Padded Shoulder Strap
- Designed for Military Use
- Corrosion resistant zips
- Length 73 cm, Width 30 cm, Height 34 cm





R101 wheels above

### **R101 WHEELED HOLDALL**

- Large 130L main compartment
- Manufactured from ultra heavy-duty PVC
- Rugged wheels for easy transportation
- Completely washable internally & externally
- Black with subtle red detailing
- Lightweight ideal for travelling

CODE : NDB23/R101 VOLUME : 130 L



### **ROLL TOP DRYBAG**

- Manufactured from Heavy-Duty 'Top Span' PVC
- Roll-Top System with Quick Release 'Fastex' Buckle
- Multi Carry Options
   (Extra Shoulder Strap with M & L)

SMALL CODE : DRYBAG - S - COLOUR VOLUME : 12.5 L

CODE : DRYBAG - M - COLOUR VOLUME : 51 L

MEDIUM

- Keeps water out and your personal belongings dry

- Alternatively can keep water in when carrying wet items
- Available in 3 sizes and 2 different colours

LARGE

#### CODE : DRYBAG - L - COLOUR VOLUME : 117 L



### **DRYSUIT CARRY BAG**

We have ensured our drysuit bags are large enough for any Northern Diver drysuit. The bag is water resistant and doubles as a handy changing mat, simpley unzip the bag all the way round and open up flat.

- Manufactured from
- standard heavy weight fabric
- Velcro closing comfort grip handle
- YKK Aquaseal zip fitted
- Reflective piping sewn in seams
- Available in various colour
- combinations upon request
  - Personalised printing

# Regulators. Cosmos Plus

Cosmos, balanced & environmentally sealed first stage, is suitable for cold water and more extreme diving. Supplied in a padded regulator case complete with first & second stage, octopus second stage, first service kit and owners manual, this offers exceptional convenience and value for money.

#### ENVIRONMENTAL PROTECTION

As well as enjoying first stage protection for normal diving conditions, the Cosmos is also suitable for dirty water or cold water diving conditions. The Cosmos first stage employs an environment sealling system - an end cap diaphragm seals the ambient chamber from the water.

#### SECOND STAGE

The Cosmos second stage allows the diver to adjust its sensitivity. By rotating the adjustment control, the valve can work at a maximum performance during a dive and can be set to a reduced sensitivity for other times when the valve is not being used for breathing, such as surface swimming. Includes LP Hose and silicone mouth piece.

#### OCTOPUS

Cosmos is supplied complete with a yellow octopus hose and second stage.

ANSTI Tested. Yoke A Clamp & DIN Fitting compatible.

### Also Available.

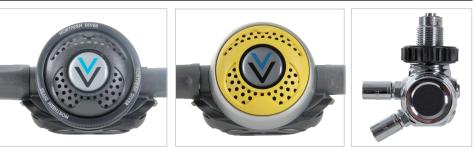
# Service Kit

first service kit meaning that when the time comes for the regulator's first service you are prepared for an authorized service agent to carry out the task.

### EN250 cold water tested and fully CE approved



#### COSMOS PLUS REGULATOR PACKAGE



INCLUDES - REG: REG-ND-2ND-P, 1ST: REG-ND-M50-DIN(or)ACLAMP, OCTOPUS: REG-ND-2ND-O



REGS SERVICE KIT



**REG 1ST STAGE CONVERTOR** 

CODE : REG-ND-M50 DIN (or) ACLAMP

# Accessories. Gauges



**INST 1 - GAUGE** 

Classic Contents CODE : INST 1

### CLASSIC Contents Gauge

A 450 bar content guage complete with built in thermometer and 7/16 high pressure swivel hose



INST 3 - GAUGE Classic Contents & Depth CODE : INST 3

### CLASSIC CONTENTS AND DEPTH GAUGE

A two hole console including a 450 bar contents gauge with built in thermometer and 80 metre MDI depth gauge.



INST 4 - GAUGE

Classic Contents, Depth & Compass CODE : INST 4

### CLASSIC CONTENTS, DEPTH, COMPASS GAUGE

2+1 console incorporating 450 bar contents gauge with built in thermometer and 80 metre MDI depth gauge and rotating bezel.



High Pressure Hose CODE : INST 15

### HP HOSE HIGH PRESSURE

Northern Divers high pressure hose to be used in conjunction with our classic gauges only.



INST 10 - GAUGE

#### Compact Contents CODE : INST 10

COMPACT CONTENTS GAUGE

A 400 bar compact contents gauge with 7/16 high pressure swivel hose.



INST 12 - GAUGE Compact Contents & Depth CODE : INST 12

### COMPACT CONTENTS AND DEPTH GAUGE

A two hole compact console complete with a 400 bar swivel hose content gauge and 70 metre MDI depth gauge.

# Accessories. Gauges



INST 11 - GAUGE Compact Contents & Compass CODE : INST 11



#### **INST 6 - GAUGE**

Wrist Depth 80 Mt Full Scale CODE : INST 6

### COMPACT CONTENTS AND COMPASS GAUGE

A two hole compact instrument console with a 400 bar swivel hose contents gauge and compass.

WRIST

**DEPTH GAUGE** 

Copper Beryllium

diaphgram. Rack/pinion

movement for smooth

precise operation. 340°

the first half. Adjustable

screw for diving in

scale with wide reading in

altitude. Luminous easy to

read dial. Max depth (red)

indicator easy to reset.



INST 13 - GAUGE Compact Contents, Depth & Compass CODE : INST 13

INST 5 - GAUGE Wrist Compass CODE : INST 5

### COMPACT CONTENTS, DEPTH, COMPASS GAUGE

2+1 console incorporating 400 bar contents gauge and 70 metre MDI depth gauge and compass.

#### WRIST COMPASS GAUGE

Classic style wrist compass with rubber strap and stainless steel buckle. Featuring a rotating bezel and sturdy housing.



**INST 22 - GAUGE** 

Pressure Gauge Checker - A Clamp CODE : INST 22

### ACLAMP PRESSURE GAUGE CHECKER

232 Bar high pressure contents indicator with push button relief valve. Attaches to cross flow valve to determine cylinder pressure. For use with A-clamp fitting valves. For surface use only.



INST 22A - GAUGE Pressure Gauge Checker - DIN CODE : INST 22A

#### DIN PRESSURE GAUGE CHECKER

300 Bar DIN fitting high pressure contents indicator with push button pressure relief valve. Attaches to cross flow valve to determine cylinder pressure. For use with DIN fitting valves. For surface use only.



#### Having the right air tank when diving is essential to your safety.

The tank provides you with you main source of air whilst in the water allowing you to breathe for a substantial amount of time without having to surface.

We have a fantastic range of diving tanks available from 3ltr's to 15ltr's in 232 bars.

Our tanks will provide you with much needed air when diving so that you can thoroughly enjoy the experience.

# Cylinders.

### Faber

Faber lightweight steel diving cylinders.

All our Faber steel diving cylinders are all supplied complete with a standard DIN convertibl Cross-Flow valve, compatible with all scuba diving regulators using the DIN or A-Clamp (International) 1st stage fitting.

These Faber cylinders can also be supplied O2 Clean (O2 Serviced, with an O2 Clean Cross-Flow valve), suitable for use with enriched air.

### **\***\*Review

Great Cylinders ..! Marten on 13th Aug 2012

I purchased 4 12L cylinders (2 dumpy, 2 tall). I have made numerous dives with them and I am satisfied with the purchase. Great product for the right price. I will probably buy one more, to use as a deco cylinder. I had them delivered to Sweden, took some time, but well worth the wait.



For easily carrying and moving diving cylinders. Fits around the neck of 10,

SIZE : N / A

#### **3L 232 BAR CYLINDER**

**7L 232 BAR CYLINDER** 

CODE : 7LTR - CYLINDER - 232 - BAR

**10L 232 BAR CYLINDER** 

#### 12L TALL 232 BAR CYLINDER

CODE : 12.2LTR - CYLINDER - 232 - BAR

CODE : 12.5LTR - CYLINDER

**15L 232 BAR CYLINDER** 

# Additional Items. Cylinder Accessories





4": CYLINDER-BOOT-15820 7": CYLINDER-BOOT-15827 6": CYLINDER-BOOT-15822 8": CYLINDER-BOOT-15829

# **CYLINDER BOOTS**

Manufactured from a high grade rubber compound. These boots are designed fit perfectly over the bottom of your steel cylinder, providing superb impact protection and improved stability.

# **CYLINDER MESH**

Mesh cylinder protector, covering the body of the cylinder. 7" - 10 Ltr, 12 Ltr Tall 8" - 12 Ltr Dumpy & 15 Ltr Cylinders.

CODE : TANK-MESH-SIZE-COLOUR SIZE : 7" OR 8"



## BACK PACK ASSEMBLY

Allows you to carry your cylinders like a back pack. The heavy duty nylon straps create a harness and two shoulder straps to spread the weight across your back

CODE : BACKPACK HARNESS SIZE : N / A



### **CYLINDER CLAMP SYSTEM**

One of the best Pony Clamp systems on the market. Superbly engineered from anodised aluminium, with stainless steel jubilee clips, all with (replaceable) rubber inserts, to protect the cylinders and provide a solid fit.

> The two-part 'quick release' system is simple to use, securely clamping your pony cylinder to your main diving cylinder.

CODE : PONYCLAMP - ND SIZE : N / A



## **CYLINDER CHARGING ASSEMBLY**

- G 1/4 Hose Connector to fit most UK compressors hoses
- Screw Type Purge Valve to release pressure once charging is complete
- Availible in 5/8" DIN 240 bar and 350 bar versions
- Manufactured in accordance with PED 97/23/EC Category of sound
- Engineering Practice (SEP) & QMS ISO 9001
- Working pressure 350 bar max
- Test pressure 525 bar





SINGLE DIVER HP-LP AIR DISTRIBUTION PANEL Fully Engraved Fascia With 0 - 70 Metre / 230 FSW 0.25% ACC Mirror Scale Depth Gauge

- 2 X HP 300 Bar Inlet 1 X 30 Bar Inlet
- 1 X 30 Bar Inie 1 X Pneumo
- 1 X 0 400 Bar
- 1 X 400 PSI Indicator
- 1 X Needle Valve
- 2 X LP ¼ Turn Valve
- 1 X 300 Bar Reducing Regulator
- Supplied in a Peli or Wall Mounted Case

**OTHER SIZES AVAILABLE UPON REQUEST** 

# Panels. Air Distribution Panel

# Full Face.

### **Bio Mask**

Material for body : Silicon rubber

Mask frame : SUS316

2nd Stage : bio-2nd modified

Demister : With valve for adjustable air flow

L.P. Hose : 60cm with automatic safety lock coupler

Other device : Snorkel valve, Drain valve, Microphone port

Weight: 1500g

Applicable range of low pressure : Standard: 0.7~1.0MPa (7~10 bar) Hookah: 0.5~0.8MPa (5~8 bar)



Patented fixing system which secures the second stage ensuring the safety of the diver is improved.

Ability to attach various accessories and different lenses for the mask.

Demister clears fog in an instant, and can also supply a small amount of air continuously to stop fog from forming.

Hose connects to the mask with an automatic safety lock coupler

NRB compound in the rubber part of the second stage supports harsh environments, it is oil and chemical resistant, and will even withstand petrol and aviation fuel.

Fresh air can be taken when out of the water, which is regulated by the snorkel valve.

Microphone can be used for telecommunications purposes.

### Accessories.

## **Inline Gas Analyser**

The analyser has the capability within the PCB to monitor Helium, Carbon Monoxide and Carbon Dioxide. There is also the provision to download the stored data by means of a USB.

#### **INCLUDES :**

- Power supply / battery charger with adaptors
- Hand priming pump for calibration
- Factory-set gas flow regulator for SSD systems
- Connection tube (flow regulator to analyser)
- The unit is self-calibrating by means of a humidity sensor and gas conditioning circuit.
- There is no requirement for a separate look up table.

# POMA.

# Portable Oxygen Monitoring Analyser

- A bull nose or din fitting Swivel 0-275 bar gauge
- Outlet pressure 1.6 bar (23 PSI) 5 year in use service life.
- In line with MoD practice the oxygen sensor should be changed after 12 months from date of delivery by a competent technician or returned to ND.
- Non PVC oxygen tube 1.8 metres in length
- Push fit connectors at either end
- Anti kink internal filament to allow continuous flow
- With high density foam inserts for protection
- High visibility with dual lock clips
- Easily changeable O2 sensor
- Easy to calibrate from ambient air
- User changeable battery
- Auto off function
- Battery low level warning indicator
- NATO codified
- Working temperature range
   0 to +45 degrees
- Comes complete with flow adaptor





# Technical Features.

- IP 65 rated enclosure
- Operating temperature range: -20C to +50C
- Oxygen concentration range: 0.1% to 100% accuracy +/-1%
- Operating time using internal battery: >8 hours at 20C, >4 hours at -20C
- Automatic compensation for temperature and humidity
- Calibrated using ambient air
- Hi-Lo oxygen concentration alarm, factory set to Lo=19.9% and Hi=21.9%
- Audio and visual alarm
- Option for user-adjustable settings, including: Oxygen concentration alarm levels Calibration using any oxygen
  - concentration, by calibrated sample LCD Display brightness
- Audible alarm mute button, resets after 30 seconds
- Powered by a rechargeable battery 100V~240V AC Power supply / battery charger with 3-pin & 2-pin adaptors inc.
   Battery protection circuit
- Battery protection circuit for increased battery life
- Suitable for pre-use checks on compressed air cylinders and continuous monitoring for surface supplied breathing gas
- The unit can be adapted to moniter aditional gasses as well as oxygen, hellium, carbon minoxide, carbon dioxide and propayne
- The analyser has a built in memory stick download port which can be used to monitor the equipment performance



The oxygen monitor is designed to measure oxygen levels in the range 0.1 - 100% O2 for tank oxygen level verification.

Oxygen monitor is designed and equipped with several features to ensure ease of use and reliability. It is fitted with a large digital display and operates from an internal temperature compensated electrochemical oxygen sensor.

Power is provided by a 9V battery, which will last for approximately 1 year before replacement is necessary. The oxygen monitor will automatically switch off after 10 minutes to ensure battery life is not compromised if the instrument is accidently turned on.

### Accessories.

### **Pressure Pots**

Test items to a depth of 90 meters Internal Dimensions : Diameter 250 mm x depth 285 mm Capacity: 14 litres Removable Plastic Liner : Yes Max Inlet Pressure : 9bar (130.5 PSI) Pressure Relief Valves : 10.35 bar (150 PSI) x 2 Maximum Depth Reading : 90 m Weight: 46.5 kg's Inlet Connection : Hansen Quick Coupling Locking Device : 6 Point Locking Mechanism, **Quick Release Action** 

# Air Compressor.

# CTP 150 - 200

Petrol/Diesel power. Approx 5.5hp Able to fill 3kg cylinder in 15 mins Weight 100 kgs 2 year warranty 5.5 FAD at 6.6 Scfm charging Intake air filter Disposable tri-chem breathing air purification system Pressure maintenance valve inc. Pressure relief valve on all stages Power rating: not be less than 5.5 HP

# Air Compressor. CTP F 300 MOBILE

Output acc. bottle filling standard in lit / min : 300 Speed : 1850 rpm Max pressure : 350 bar Operating Pressure : 225/330 bar No. of stages / cylinder : 3 / 3 No. of filling connections : 4 Filling ramp with 4 outlets, one pressure range (225 or 330 bar) Central pressure gauge Condensate drain manifold on filling ramp Thermal motor protection Manual star delta contactor

Manual star delta contactor 3 m power cord with EEC-plug Filter cartridges transparent (T) D 70-500 T







THE ULTIMATE TOOL TO FIND MINES & OTHER ITEMS UNDERWATER . . .

# Handheld Devices. Artemis - Handheld Diver Sonar

ARTEMIS is a modular handheld console that can be configured as a diver target detection sonar and GPS underwater navigation aid.

Primarily developed for use by EOD mine clearance divers, Artemis helps to quickly and safely relocate items of ordnance on the seabed in all states of visibility or when conducting night diving operations.

### Features

- Intuitive and easy to use
- The user can quickly interpret information presented via the simple menu interface and graphical display
- Sonar, Navigation and other apps are selected and controlled via a simple 5 button interface
- Artemis is neutrally buoyant
- The lanyard supplied can be attached to a D Ring or other securing point on the diver, enabling the unit to hang free during descent / ascent
- Artemis is a modular system
- Features a tilted 3.5" colour LCD & 5 button interface
- Easily swappable rechargeable battery located at the bottom of the unit can be changed during the dive
- Internal 16GB storage memory for data logging fitted
- Pressure sensor





- Digital & mechanical compasses

# ALB. Air Lifting Bags

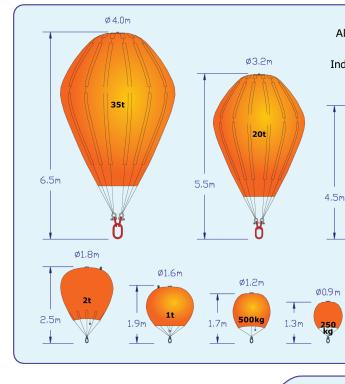
.al. 3 3

We can supply and service or rent a full range of IMCA approved lifting bags, parachute style, totally enclosed or gel filled for precision control.

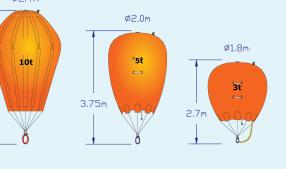
Bags and lifting systems are available worldwide to either purchase or lease.



### AIR LIFT BAGS (ALB)

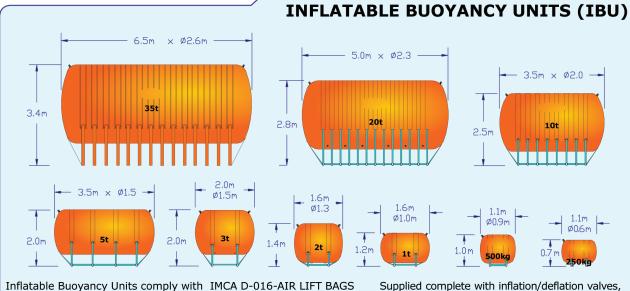


All Air Lift Bags comply with IMCA D-016-AIR LIFT BAGS Manufacturing procedures to - BS EN ISO 9001:2008 Independently certified by - Lloyds Register Quality Assurance Type tested at the TUV NEL Glasgow Scotland



Supplied complete with inflation/deflation valves, single point steel lifting rings and Bottom Operated Dump Valves (BODVs) as standard.

Minimum reserve factor 5:1 as required by IMCA D-016



#### Inflatable Buoyancy Units comply with IMCA D-016-AIR LIFT BAGS Manufacturing procedures to - BS EN ISO9001:2008 Independently certified by - Lloyds Register Quality Assurance

Supplied complete with inflation/deflation valves, multiple steel lifting rings and Pressure Release Valves (PRVs) as standard.

Minimum reserve factor 5:1 as required by IMCA D016

# DTI - 300 A. Diver Acoustic Receiver

The DTI-300A is a small, battery operated , acoustic receiver that tracks and locates underwater acoustic beacons, and a unique family of acoustic transponders. It is ergonomically designed for operation by a diver and uses an LCD display to provide navigation data. Sealed switches allow the diver to access the control and utility functions of the receiver.

When operating in passive mode, the DTI-300A can locate standard acoustic beacons that operate from 25-40Khz. The DTI-300A display provides the operator with signal strength and bearing to the selected acoustic beacon. A built-in electronics compass provides additional directional support in keeping the diver on course.

The DTI-300A can also track and locate transponders designed to work with the receiver. These transponders, the ATT-400, allow divers to mark targets underwater and relocate them up to 1000 metres (3330 feet) away. Once an ATT-400 has been interrogated, the DTI-350FN provides accurate range and bearing to the transponder to within 1 metre (3 feet). Because the ATT-400 can be programmed to operate on eight different channels, the DTI-300A can relocate eight different locations simultaneously.

Passive Mode	05 1 (0)//	Display	- LCD
Receiver Bandwidth		Graphic User	
	in 1Khz Increments	Interface	<ul> <li>Range or signal strength</li> </ul>
			Compass Bearing
Active Mode			Bearing Indicator to Target
Transmit Frequency	- 26 Khz		Channel Indicator
Receive Frequency	- 27,28,29,30,31,32,33,34 Khz		Low battery
Acoustic Output	- 180db	Battery	- Rechargeable
Acoustic Signal	- Coded	Operational Life	- 6 Hours
System Range	- 1000 metres (3330 feet)	Control Switches	- Sealed Piezo-ceramic
	· · · · ·	Depth Rating	- 100 metres (330 feet)
Electronic Compass		Housing	- Delrin
Accuracy	- <0.5° to 1.5° RMS	Size	- 30cm (L) x 16 cm (W)
Repeatability	- ± 0.3°		x 9.5 cm (H)
		Weight	- In Air: 2.9 KG)
		-	- In Water: -0.185 KG

# TAC 300. Combat Swim Board

The TAC-300 is the latest in the "TAC-Series" of diver navigation boards. Smaller and lighter than the TAC-100 and TAC-200 models, the TAC-300 integrates a highly accurate compass and a digital depth gauge/timer on to a rugged plastic board.



To maintain bearing position and accuracy, the TAC-300 uses the BENS C1150 underwater compass . The large compass dial with advanced luminous properties makes navigating easy, even in the poorest visibility. In addition, an electronic "V-Lite" illuminates the compass to ensure high visibility of the compass heading.

Diver's depth, total dive and surface intervals are tracked in the DG100 digital depth gauge and timer. This rugged digital depth gauge has an easy to read OLE display and a leg timer function for combat swimmer ops. An adjustable max-depth alarm with memory ensures the divers do not exceed their depth limit.

#### TAC-300 Combat Swim Board

Size of board: 10"L (25.5cm) 6.75" W (17 cm) 2.5" H (6.3 cm) Total weight in air: 2.7 lbs (1.2 KG) Board Material: PEP Compass Illumination: Electronic "V-Lite"

#### C1150 Underwater Compass

Compass Card Bearings: 10 degrees markings Compass Card Illumination: Luminous bearings marks Illumination: Up to 8 hours Compass Card Tilt: 40° Size: 4.8" Dia (122mm) 2.9" H (72.5mm) Weight in Air: 14oz (400g) Depth Rated: 230tt (70m)

#### DG100

Depth Range: 0-330ft (0-100m) Depth Tolerance: +/-1% of full scale Depth Resolution: 0.1ft/0.1m Altitude Compensation: 6000ft (1,828m) Display: Red LED Diver Timer Tolerance:  $\pm 1\%$ Leg Timer Functions: Start/ Pause/ Reset LED Timer Duration: 99 hours max Battery: Rechargeable lithium Battery Life: 300 charges Operational Life: 35 hours Operating Temperature: 29°F – 95°F (-2°C – 42 °C) Housing: Anodised aluminium Depth Rated: 330 ft (100m) Dimension: 2.0" x 2.0" x 1.0"

#### **Dive Chronnometer**

Casio G-Shock watch with lap timer

# Seeker Acoustic. Directional Receiver

The SEEKER acoustic directional receiver is a small but rugged passive pinger receiver used to assist operators of ROV's and AUV's in tracking acoustic sound sources from 25Khz to 40Khz.





In addition, the SEEKER receivers can function as an "acoustic transponder interrogator" and provide accurate range and bearing to targets marked with a line of custom acoustic transponders. There are two different models of SEEKER receivers. The VADR1000M operates to depths of 1000 metres and the VADR6000M can withstand depths of 6000 metres.

#### Pinger Receiver Mode:

Receive Bandwidth: 25 TO 40Khz in 100hz Increments Receiver Sensitivity: -100Db ref 1Upa @ 1 meter

#### Transporter Mode:

Receive Frequencies: 27, 28, 29, 30, 31, 32, 33, 34Khz Interrogation Frequency: 26Khz Acoustic Output: 180db re 1uPa @ 1m Acoustic Signal: Coded System Range: up to 1000m

#### **Directional Hydrophone:**

Beam Width: 40 + 5 degrees Conical Bearing Indication: 4 BINS: Left or right, 3, 8, 20 or >20 degrees Bearing Accuracy: 5 degrees nominal in BINS 1 and 2 Bearing Resolution: 2 degrees

#### Control Interface: RS232:

9600 Baud, No Parity, 8 Data Nits and 1 Stop Bit Connector: 5 pin Underwater Pluggable Interface Software: Microsoft OS, Provided Input Voltage: 18 to 32VDC, 24VDC nominal

#### Mechanical / Environmental:

Housing: Aluminium Hard Coat Anodized Depth Rating:

VADR1000M.....1000m (3280ft) VADR6000M.....6000m (19,685ft) Weight:

VADR-1000M.....3.8KG (8.5lbs) in air/3.2kg (7.0lbs) in water VADR-6000M.....6.8KG (15lbs) in air/5.5kg (12lbs) in water

#### Dimensions:

VADR-1000M...11.4cm x L26.0cm VADR-6000M...12.7cm x L28.0cm Operating Temperature Range: -18 degrees Celsius to 43 degrees Celsius

# DPR - 275. Pinger Receiver Location Systems





The DPR-275 Diver Operated Pinger Receiver is extremely rugged, reliable, and intended for use in the hostile marine environment. Used by both military and commercial customers worldwide, the DPR-275 can track and locate any underwater acoustic beacons operating between 5 to 80 Khz.

The DPR-275 Diver Pinger Receiver can be converted to operate from the surface quickly by removing the hydrophone for the DPR-275 and attaching it to the adjustable surface hydrophone assembly. The hydrophone's sensitivity and directionality allows the operator to swiftly and effectively navigate a vessel to any beacon source. Converting the DPR-275 back to a diver configuration completes the recovery operation.

The PRS-275 Pinger Receiver System consists of the DPR-275 Diver Pinger Receiver, Surface Hydrophone Housing, Staff Assembly, Underwater Headset and Carrying Case.

Frequency Range - 5 to 80 KHZ Bandwidth - 1KHZ Sensitivity - 80db Hydrophone Directivity -Typically 30 Degrees at 3db Limits Transducer Beam Pattern -30 degrees @ 27KHZ, 25 degrees @ 37.5KHZ LCD Display -Frequency and Low Battery Indication LED Display - Signal Strength Meter Power Source - Two Alkaline "C" Cells Battery Life - 30 Hours Hydrophone Staff Assembly -PVC, Length 5ft, (152cm) Hydrophone Cable Length - 20ft (6m) Operating Depth - 660ft (200 m) Weight in Air - 6.5 lbs (2.9 kg) Weight in Water - 12 oz. (190 gr) Housing Material -Corrosion Resist Aluminium Housing Dimension -Length 9.75 in. (24.8cm) Diameter 4.5 in. (11.4cm)

# ULB - 364 Series. **Underwater Location Beacons**



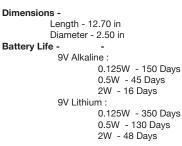
The ULB-364 Series Underwater Location Beacon is a cost effective acoustic relocation pinger designed for rigorous offshore use. Using off-the-shelf 9V alkaline or lithium batteries, the ULB-364 is ideal for making underwater sites or equipmnent where cost is a factor.

Flexibility is a key factor in the design of the ULB-364 series beacons. The ULB-364 can be ordered to meet unique needs with options for different frequiencies, acoustic outputs and different activation methods.

The ULB-364EL Extended Beacon is the right choice when deployment lengths are longer than 5 months. A longer housing which holds four additional 9 volt batteries extends the operational life of the ULB-364EL to 11.5 months.

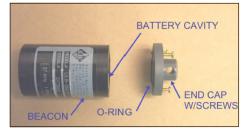


Frequencies\* - 27, 37, 45khz Acoustic Output\* -0.125. 0.5. 2 Watts Pulse Length - 5ms Pulse Repetition - 1 Pulse/Sec Activation - Battery Installation Power Source -2 9V Alkaline / 2 9V Lithium **Operating Depth -**4,125 feet (1,250m) Housing Material - Aluminium



# ULB - 350 Series. **Underwater Beacon**





The ULB-350 Underwater Beacon is a small, rugged and reliable acoustic signalling device used for marking equipment and underwater sites. Ideal for applications where size and weight are an issue, the ULB-350 offers flexible features that allow you to tailor it to your requirement.

Factory selectable acoustic power outputs, frequencies, and time delays give you the ability to order the ULB-350 in many configurations. The ability of using an off-the-shelf 9 volt battery adds the advantage of cost effective maintenance. The ULB-350 continuously sends out an acoustic signal for up to 40 davs.

*Operating frequency :	9 or 45KHz +/- 1khz		
Acoustic Output :	163dB at 1 meter		
Pulse Repetition Rate :	1 pulse per second		
Pulse Length :	10 ms		
Activation :	Water switch (other options available)		
Power Source :	9v alkaline or lithium battery		
Operating Life :	20 days with alkaline battery 40 days with lithium battery		
Operating Depth :	4000 feet (1,216m)		
Weight :	7.0 oz (217g)		
Housing Dimensions : Length : Diameter :	3.1 in (7.9 cm) 1.7 in (4.3 cm)		

# Options.

Factory set frequencies from 9 to 45 KHz

Time delays from 1 minute to 3 months

Extended operational life

\* Specify at time of order NOTE: Non-standard frequencies and acoustic power outputs available

# Peace Of Mind. Why ?

# It's simply really, because we are trusted by the best.

The ability to supply absolutely anything diving related has resulted in Northern Diver equipment being used by Commercial, Fire & Rescue and Military teams including over 30 countries and more than 1,000 businesses worldwide.

Despite our current extensive product range, the main catalyst to our success has derived from our ability to manufacture bespoke products to each individual customer's specific requirements.

This has been the result of working closely with the end user in order to understand requirements for their unique working conditions. All our equipment is manufactured to appropriate **CE approval** or the required industry standards.

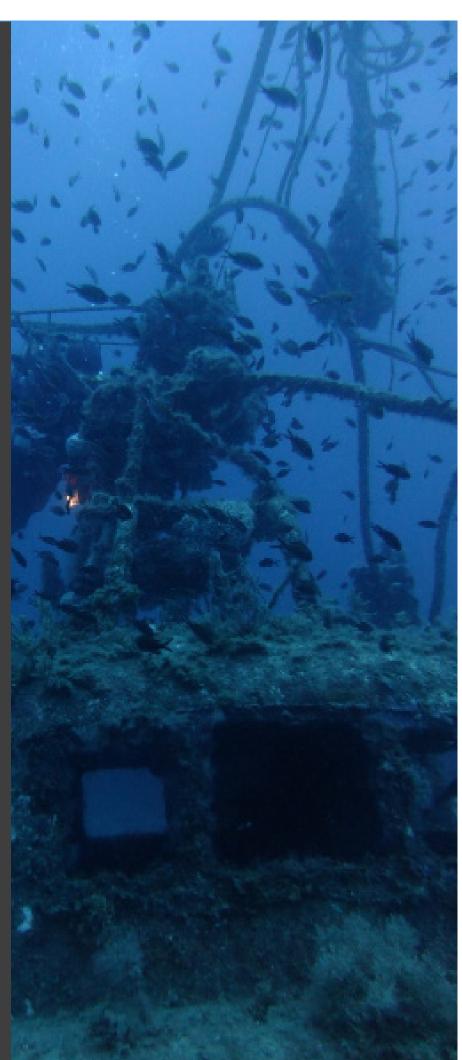
Northern Diver adopts an environmentally responsible attitude, focusing attention upon key principals such as Environmental Legislation, Management System, Communication, Resources and Materials and the Operation of the Business as well as being approved by ISOQAR to perform in house.

In the unlikely event you encounter any issues with the equipment we supply to you, we will have a representative sent out immediately, without any hesitation.

This kind of service, along with our impeccable quality, great fitting and comfortable dry diving equipment has helped with the acquisition of our 7 ongoing Military contracts worldwide.

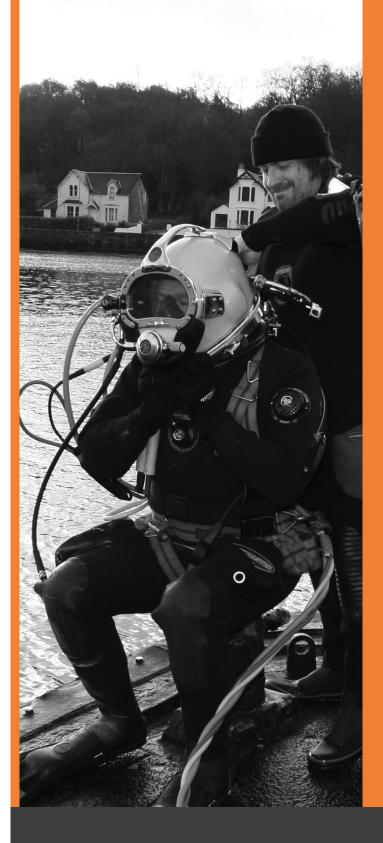
We have designed and manufactured a range of products to the M.O.D for 8 years, constantly being welcomed with the news that we are the most reliable suppliers to date.







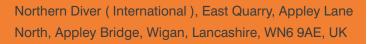
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Helmet photographed supplied by Kirby Morgan Dive Sys

ns. Inc