

INTERSPIRO

THE CONCEPT OF THE DIVATOR FAMILY



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THE HISTORY OF INTERSPIRO RESPIRATORY PROTECTION

- >> As a part of AGA the development of breathing devices for firefighting began in the 20's
- >> First SCUBA equipment developed in early 50's
- >> In '83 AGA concentrated its company portfolio and AGA Spiro became Interspiro
- >> Divator MK II was developed in collaboration with physiologists, professional divers, the Royal Swedish Navy and naval authorities from around the world.
- >> Since 2004 Interspiro is owned by Ocenco Inc.



THE HISTORY OF DIVATOR MK I

- >> The use of positive pressure
- >> 300 bar gas cylinders was used the first time for diving
- >> Development of hand fitted O-ring connection for 300 bar cylinder
- >> Anti fog visor in full face masks

Resulted in DIVATOR MK I

THE HISTORY OF DIVATOR MK II

- >> Automatic switch ON of positive pressure in the mask
- >> Development of automatic reset of reserve air valve
- >> Quick attachment of harness
- >> Fully composite cylinders for diving was introduced

Resulted in DIVATOR MK II



INTERSPIRO

SCUBA



SCUBA

A System Approach to Core Components in the Diving Environment

- >> High level safety in all environments and under all conditions
- >> Complete control of the breathing circuit
- >> Diving equipment tightly integrated



**A System Approach to Core
Components in the Diving
Environment**

**STICK TO INTERSPIRO
EQUIPMENT IN ALL
PARTS OF THE DIVERS
BREATHING CIRCUIT**

A Selection of Government Customers

US Air Force

US Coast Guard

US Navy

NASA

UK Royal Navy

French Navy

German Navy

Netherlands Navy

Austrian Navy

Swedish Navy

Swedish Army

Swedish Air Force

Danish Navy

Danish Air Force

Finnish Navy

Norwegian Navy

Norwegian Air Force

Australian Navy

New Zealand Navy

New Zealand Army

Indian Navy

Indian Army

Pakistan Navy

Indonesian Navy

Singapore Navy

Malaysian Army

The DIVATOR MK II has been tested in accordance with EN 250 for types of use specified.

EC Type examination (Directive 89/686/EEC)
by SGS Yarsley ICS Ltd, UK (Notified body No 0120).

DIVATOR MKII

Divator MK II

- >> The complete SCUBA has a CE-approval (EN250)
- >> Interspiro has full control over integration of all parts of the SCUBA equipment
- >> Design based on real life experiences
- >> “Superior performance for cold water use” (NEDU)



DIVATOR MKII

- >> Minimized design,
no protruding parts
- >> Few grips, all easy to reach
- >> Simplified operating procedure
ensures focus on the mission
- >> The SCUBA is designed to
minimize the number of
failure modes, improving safety



DIVATOR MKII

- >> Developed to endure extreme temperatures, an out of the box MK II is proven for use from the arctic to the equator
- >> Finger tight fittings
- >> Extremely dirt resistant with double serial exhalation valves
- >> Outstanding low WOB
- >> Resistance warning



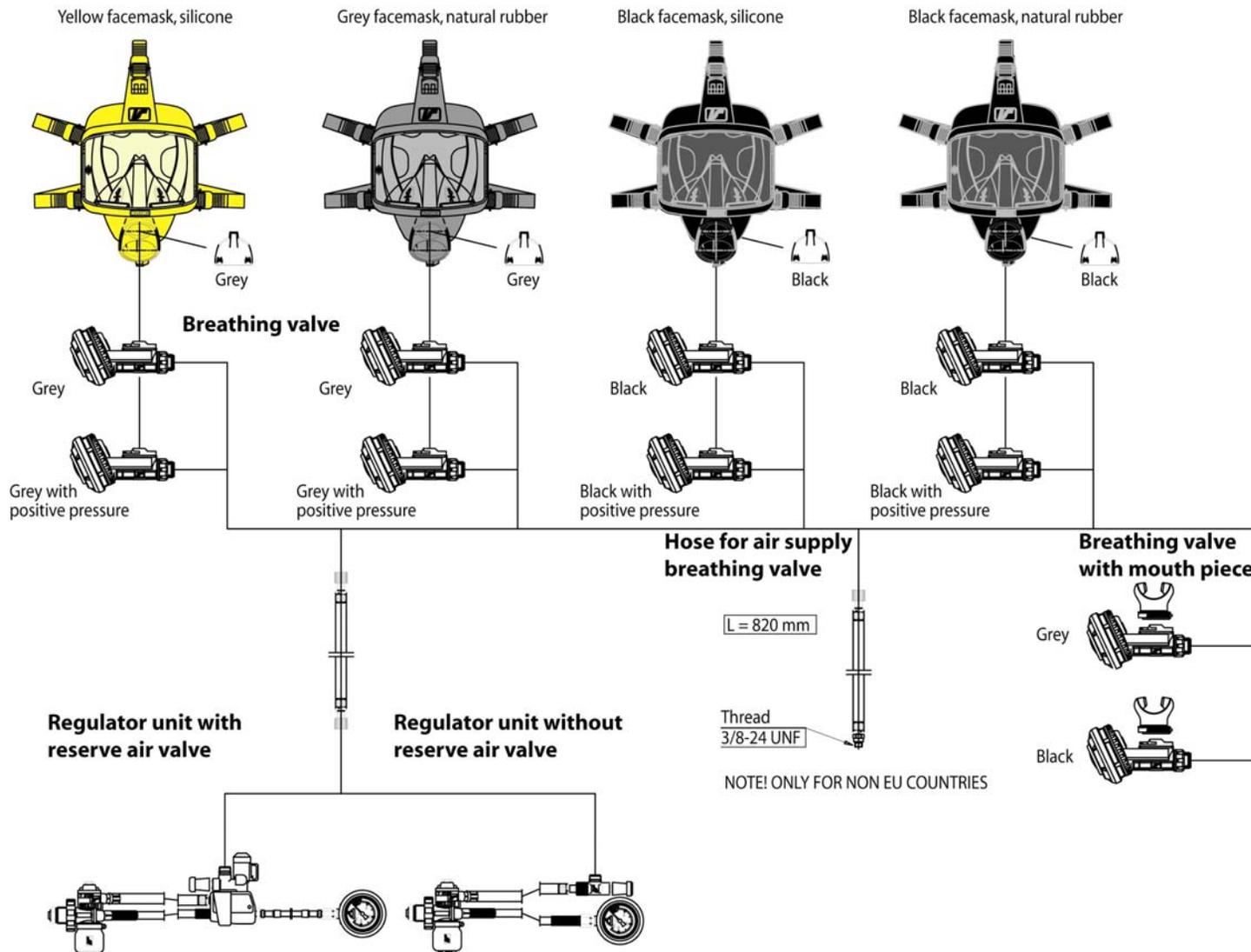
CONFIGURATION OVERVIEW

The Divator MK II is a self contained compressed air breathing apparatus designed for diving. The apparatus consists of:

- >> An air supply.
- >> A face mask with breathing valve and/or mouth piece
- >> A harness
- >> A regulator unit
- >> A warning device

AN OVERVIEW OF DIVATOR MK II, PART 1

Facemask



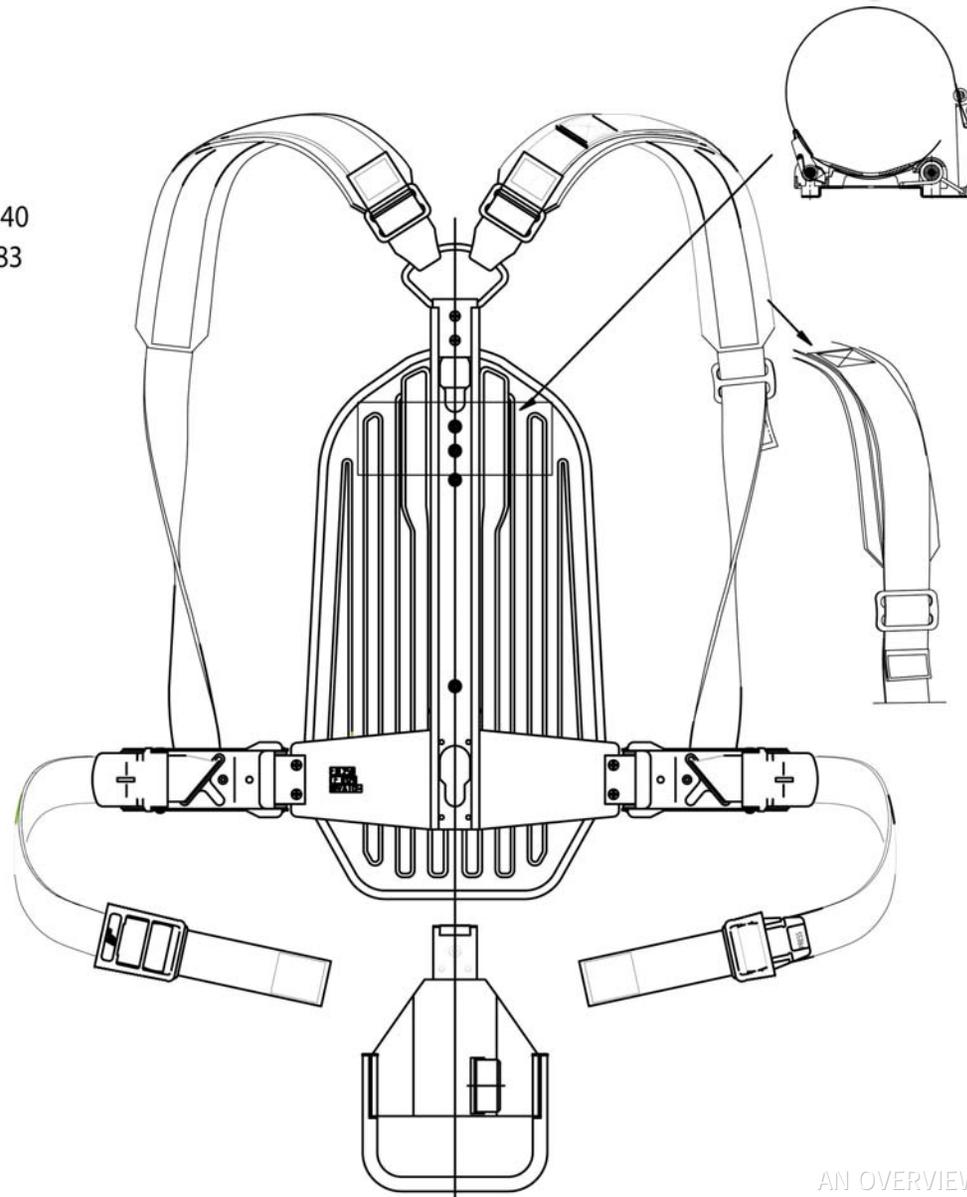
AN OVERVIEW OF DIVATOR MK II, PART 2

Harness

Harness for cyl. pack.

Harness for single cyl., Ø100-Ø140

Harness for single cyl., Ø140-Ø183



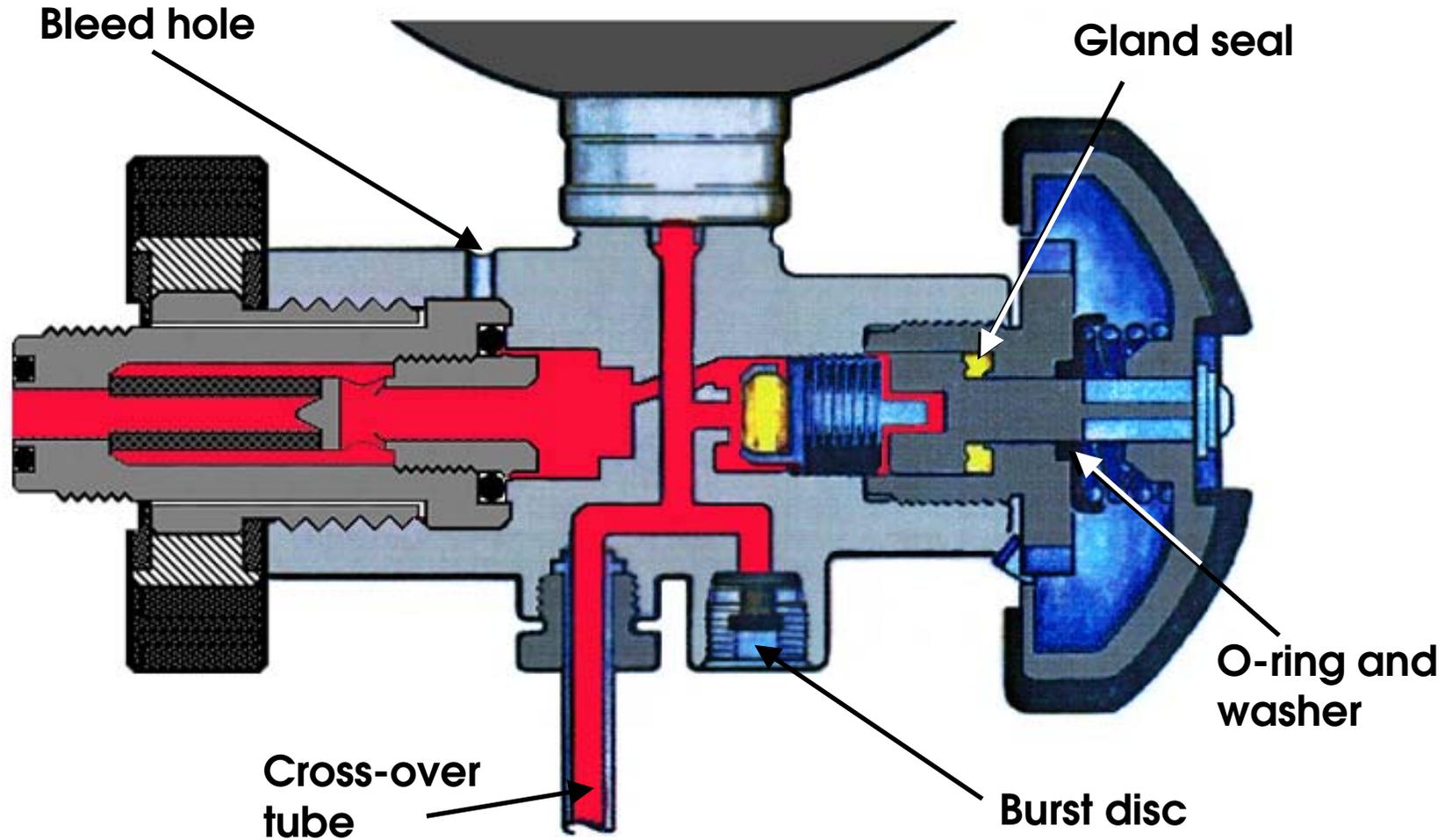
DIVATOR CYLINDERS

Available as:

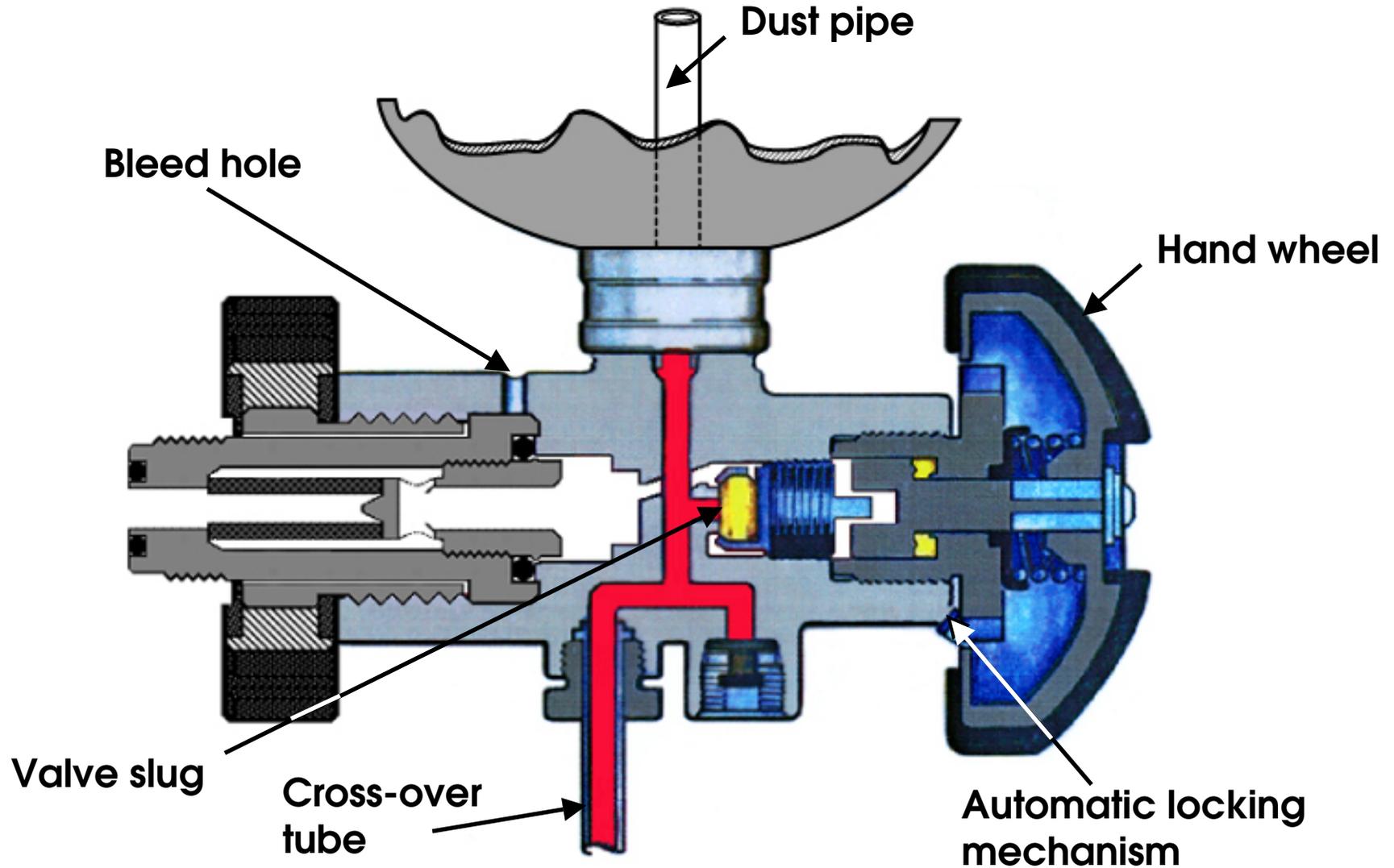
- >> 6.7 litre composite cylinder – Divator Lite
- >> 5 litre composite cylinder – Divator Lite
- >> 3.4 litre composite cylinder – Divator Lite
- >> 6.0 litre steel cylinder
- >> 4.0 litre steel cylinder



DIVATOR CYLINDER VALVE, OPEN



DIVATOR CYLINDER VALVE, CLOSED

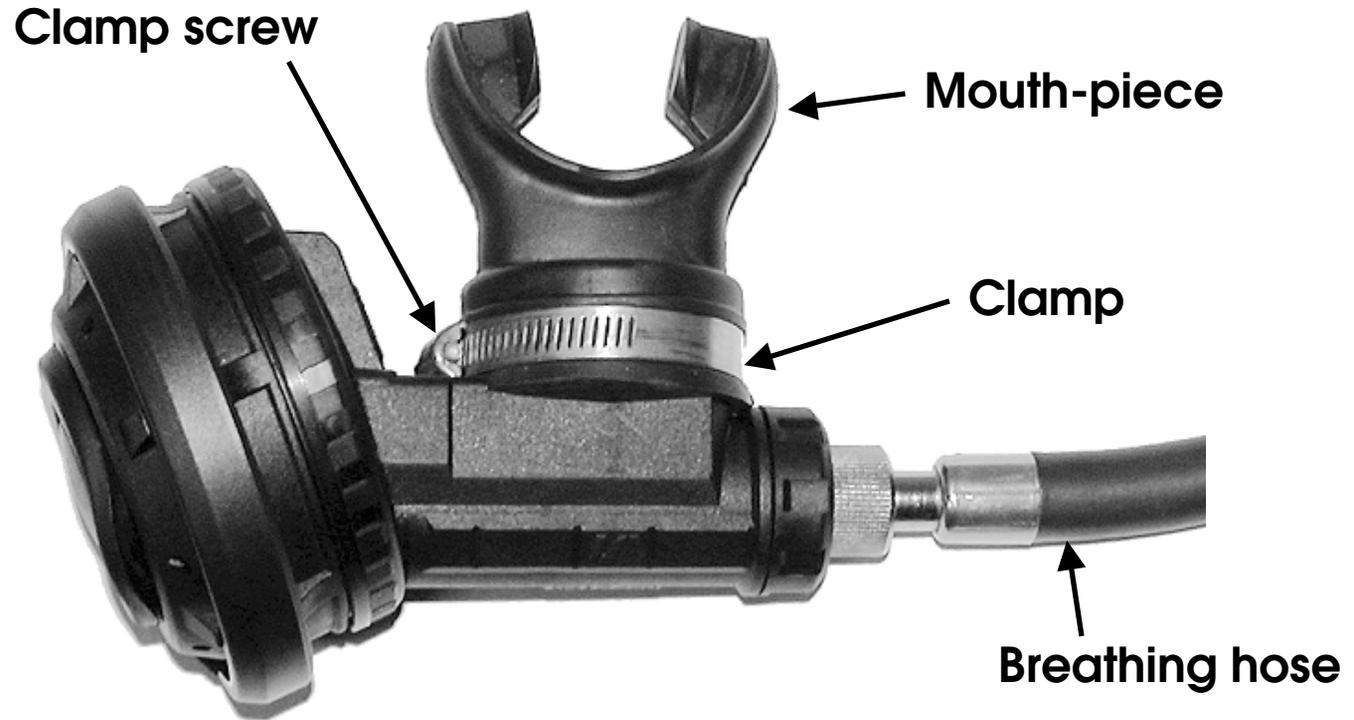


DIVATOR BREATHING VALVE

Full Face mask or Mouth-Piece



DIVATOR BREATHING VALVE



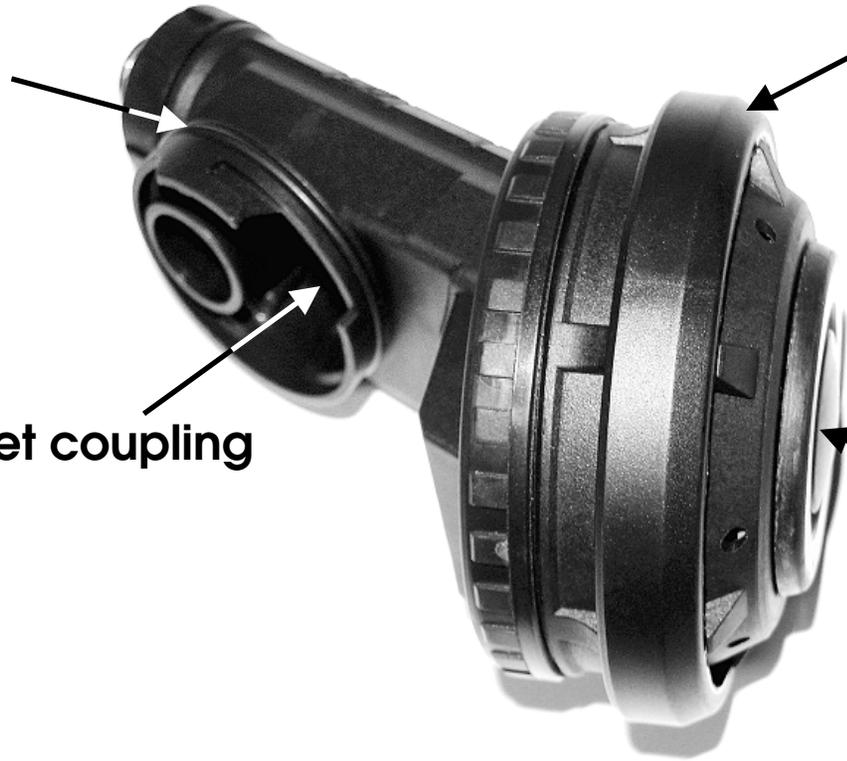
DIVATOR BREATHING VALVE

O-ring
(FFM only)

Bayonet coupling

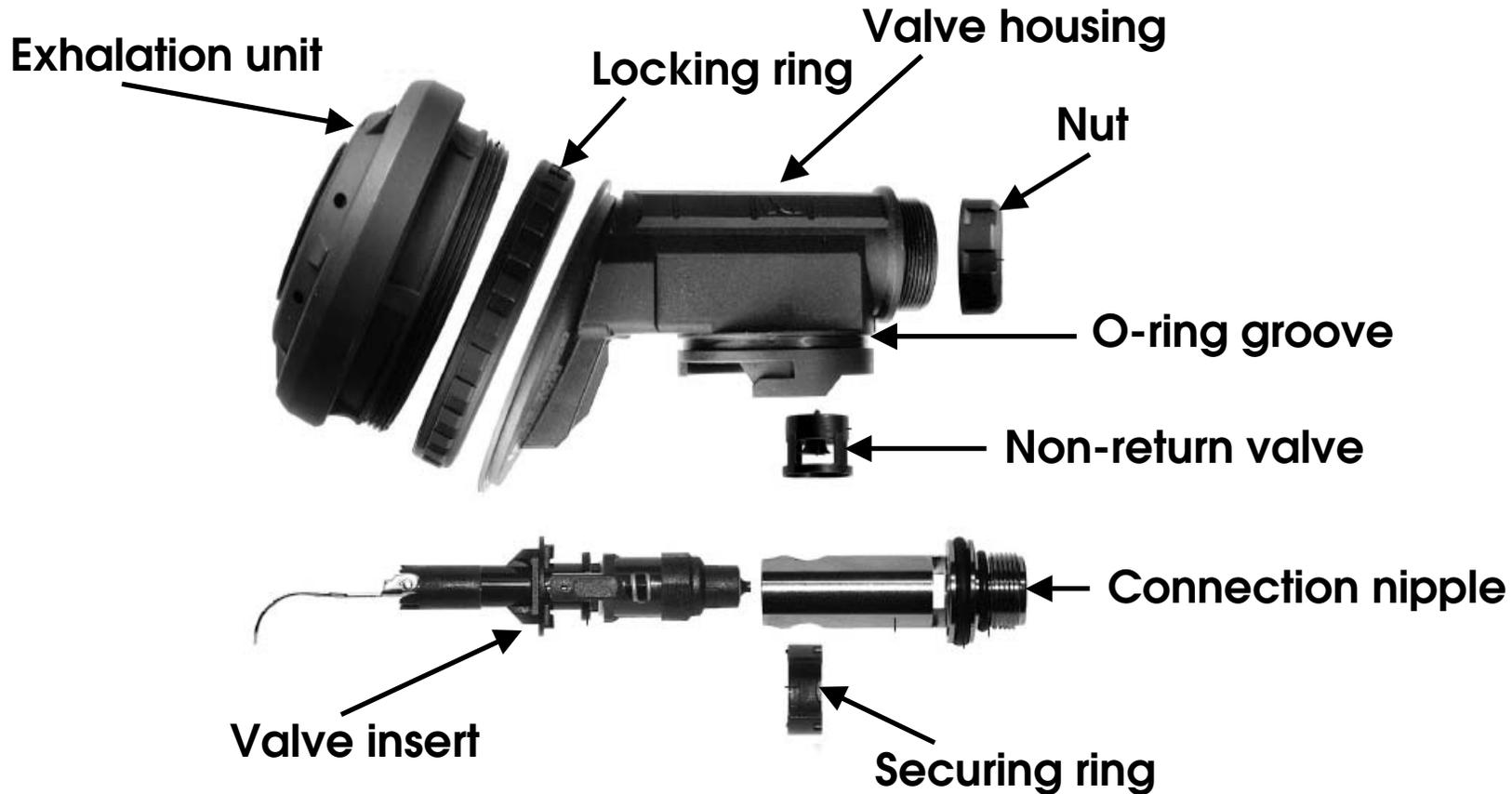
Shield ring

Drain button



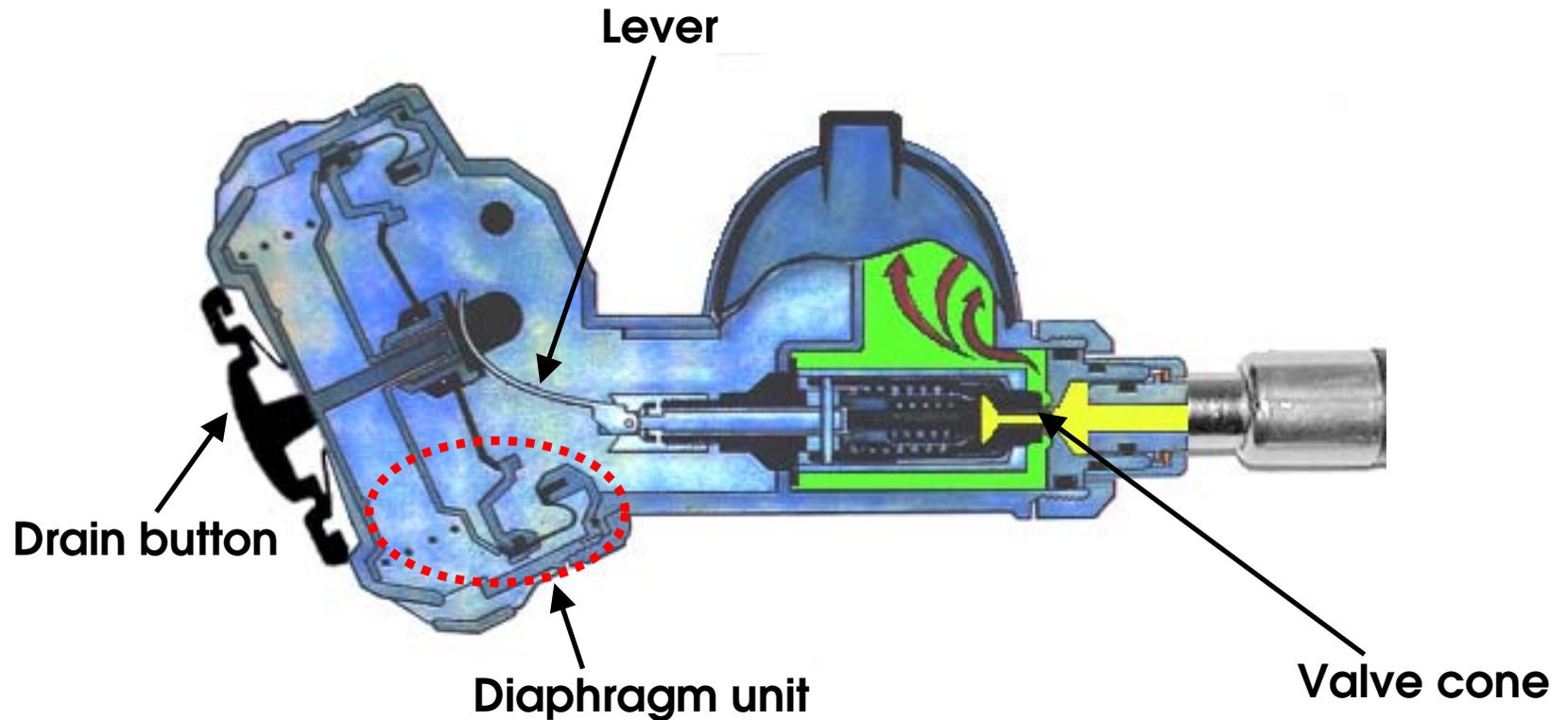
DIVATOR BREATHING VALVE

Parts



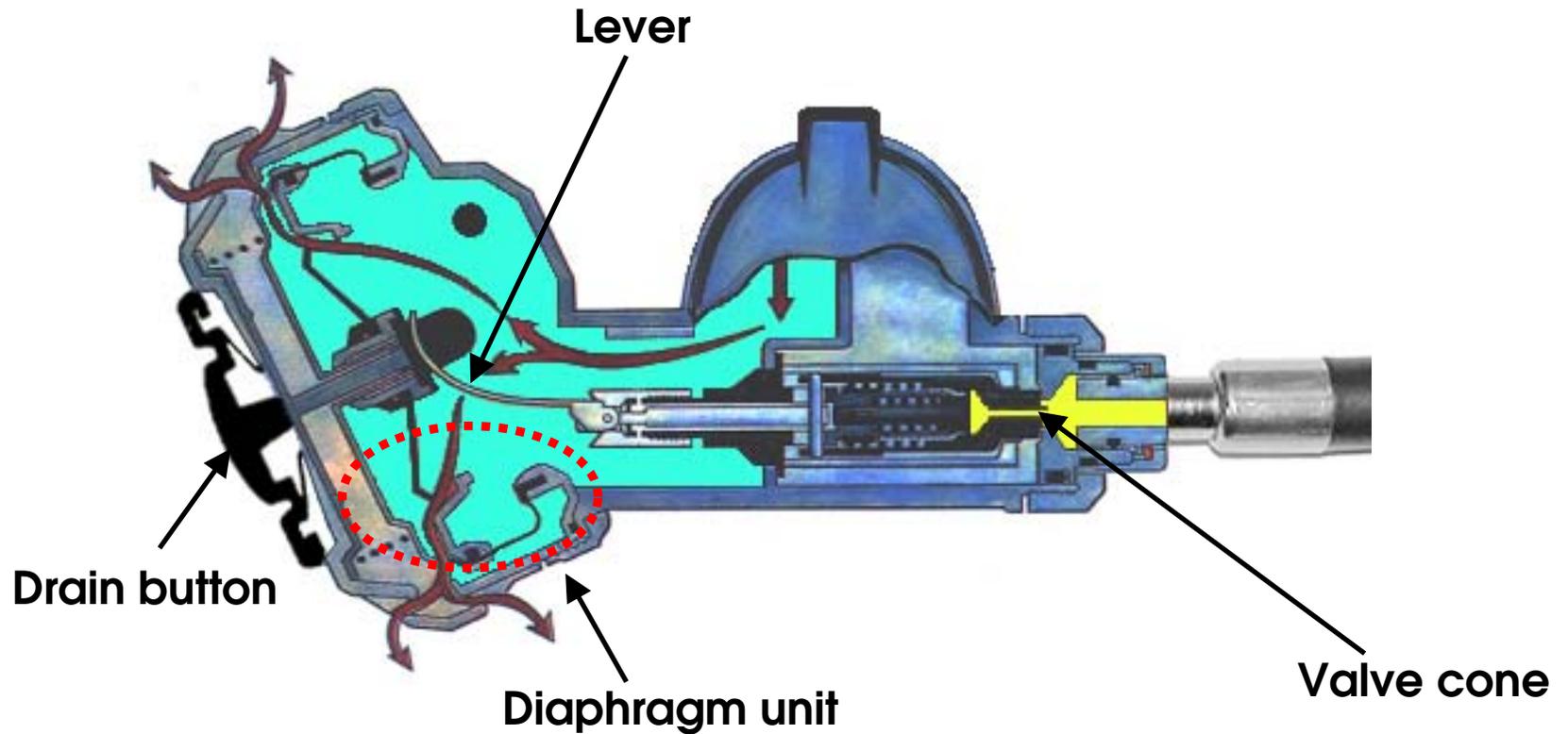
DIVATOR BREATHING VALVE

Inhalation



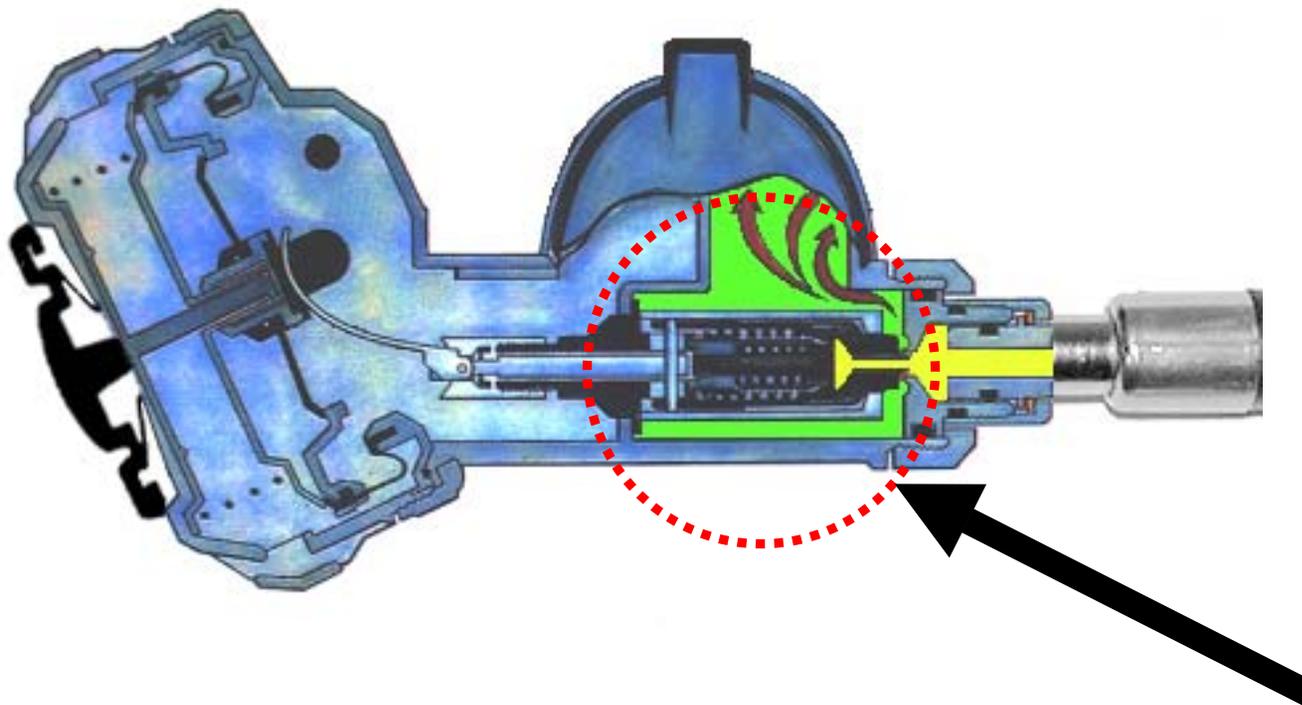
DIVATOR BREATHING VALVE

Exhalation



DIVATOR BREATHING VALVE

Balancing and relief valve, function A



DIVATOR BREATHING VALVE

Valve insert

Balancing and relief valve, function B

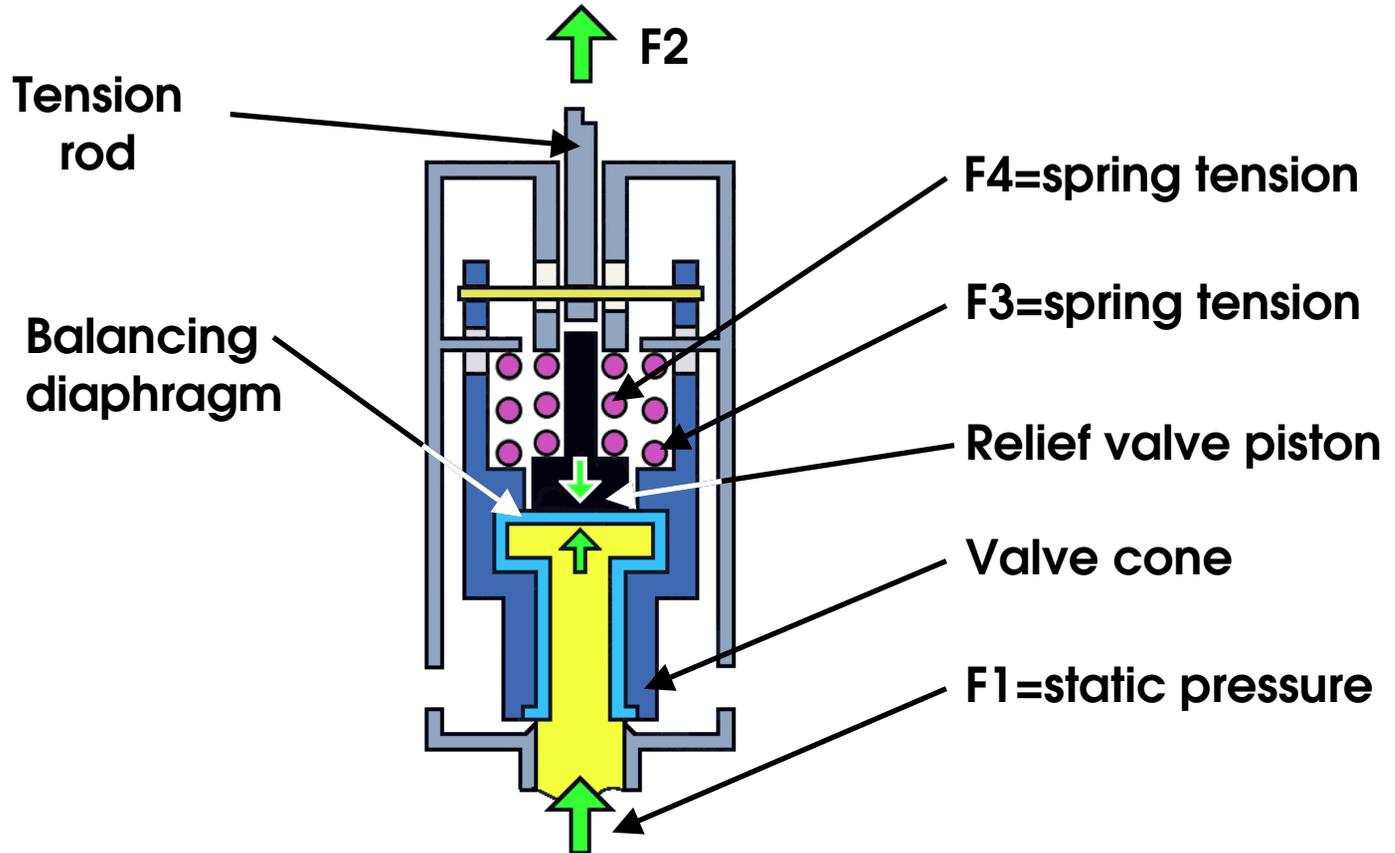


Figure 1

DIVATOR BREATHING VALVE

Balancing and relief valve, function C

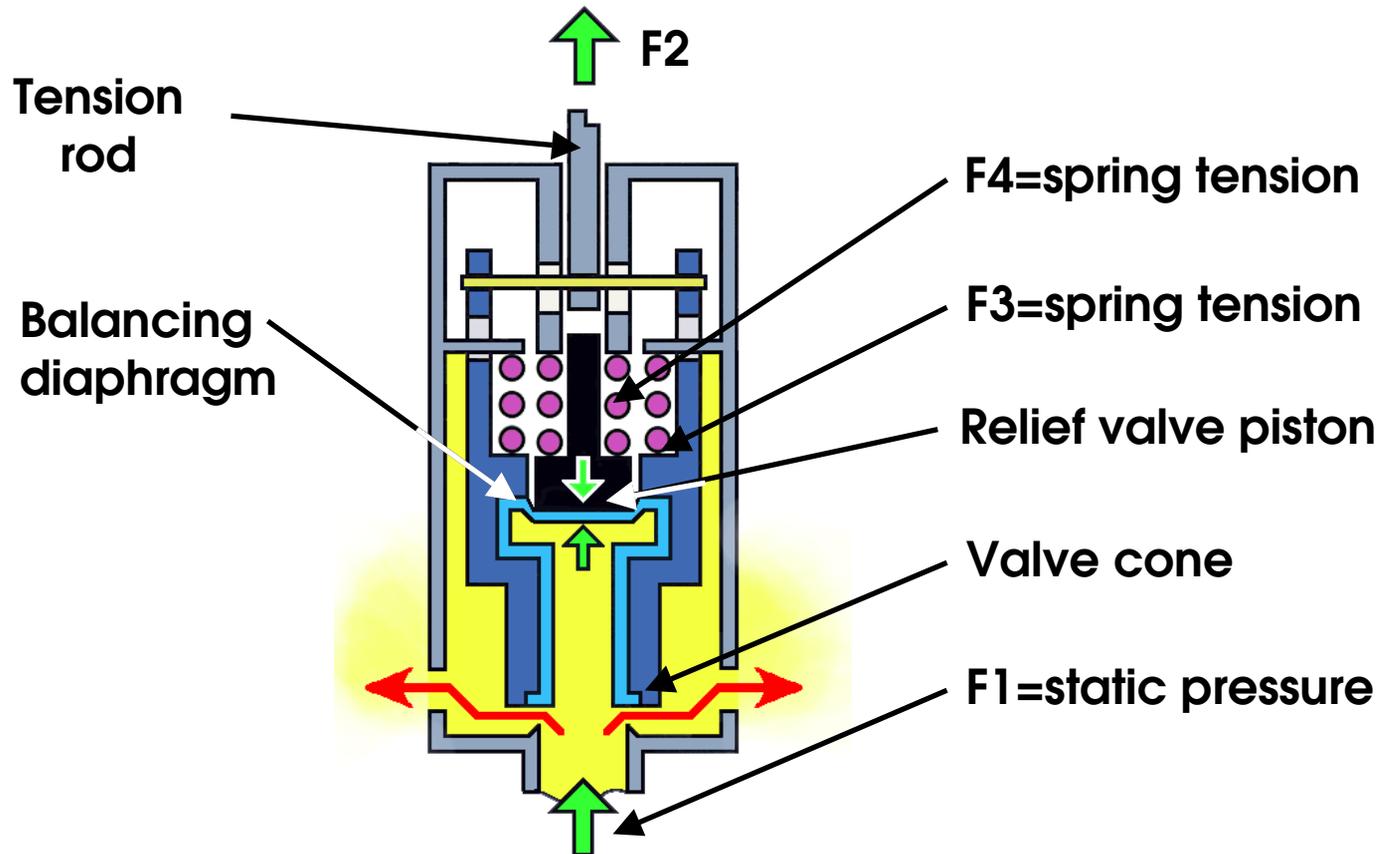


Figure 2

DIVATOR BREATHING VALVE

Balancing and relief valve, function D

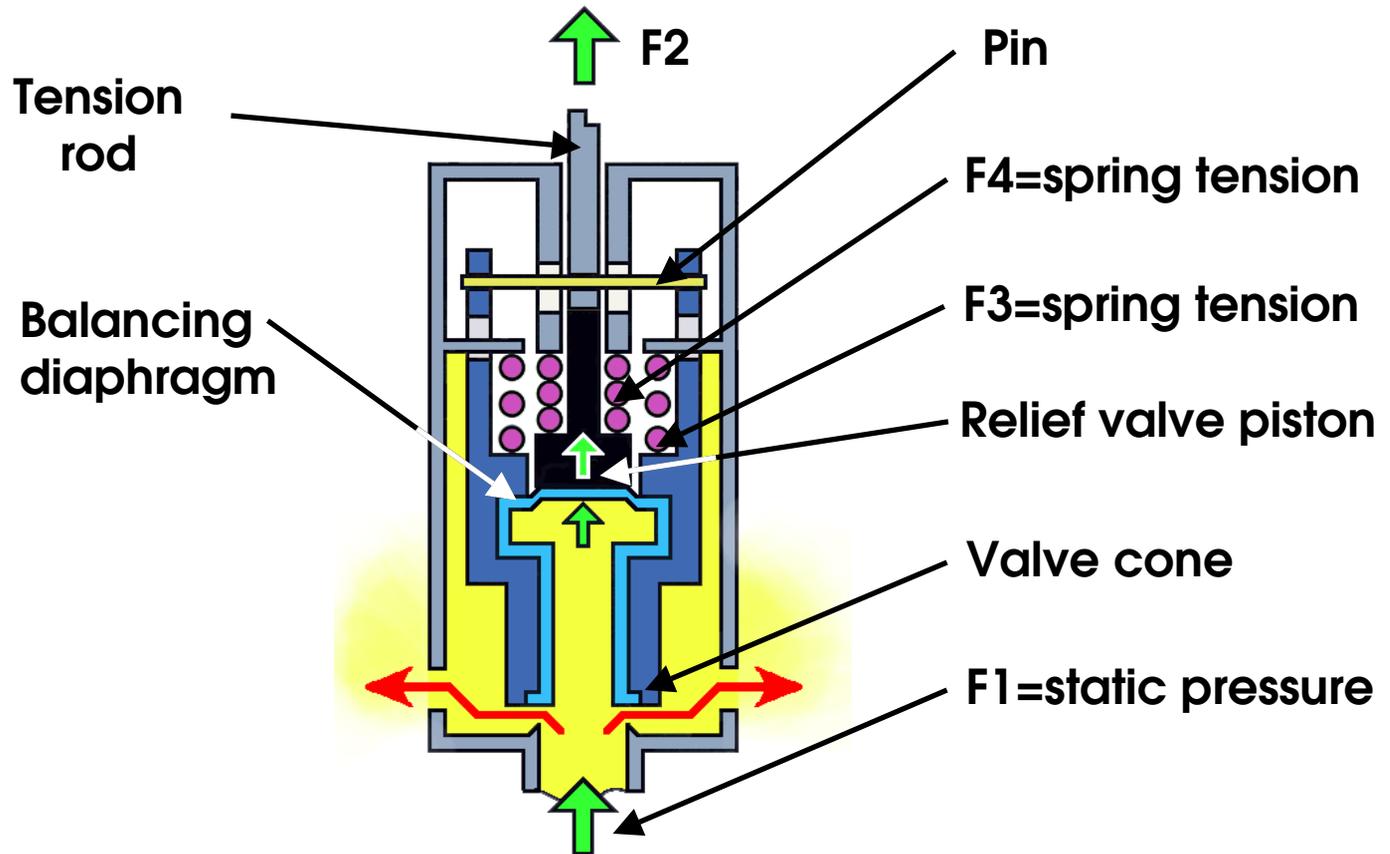
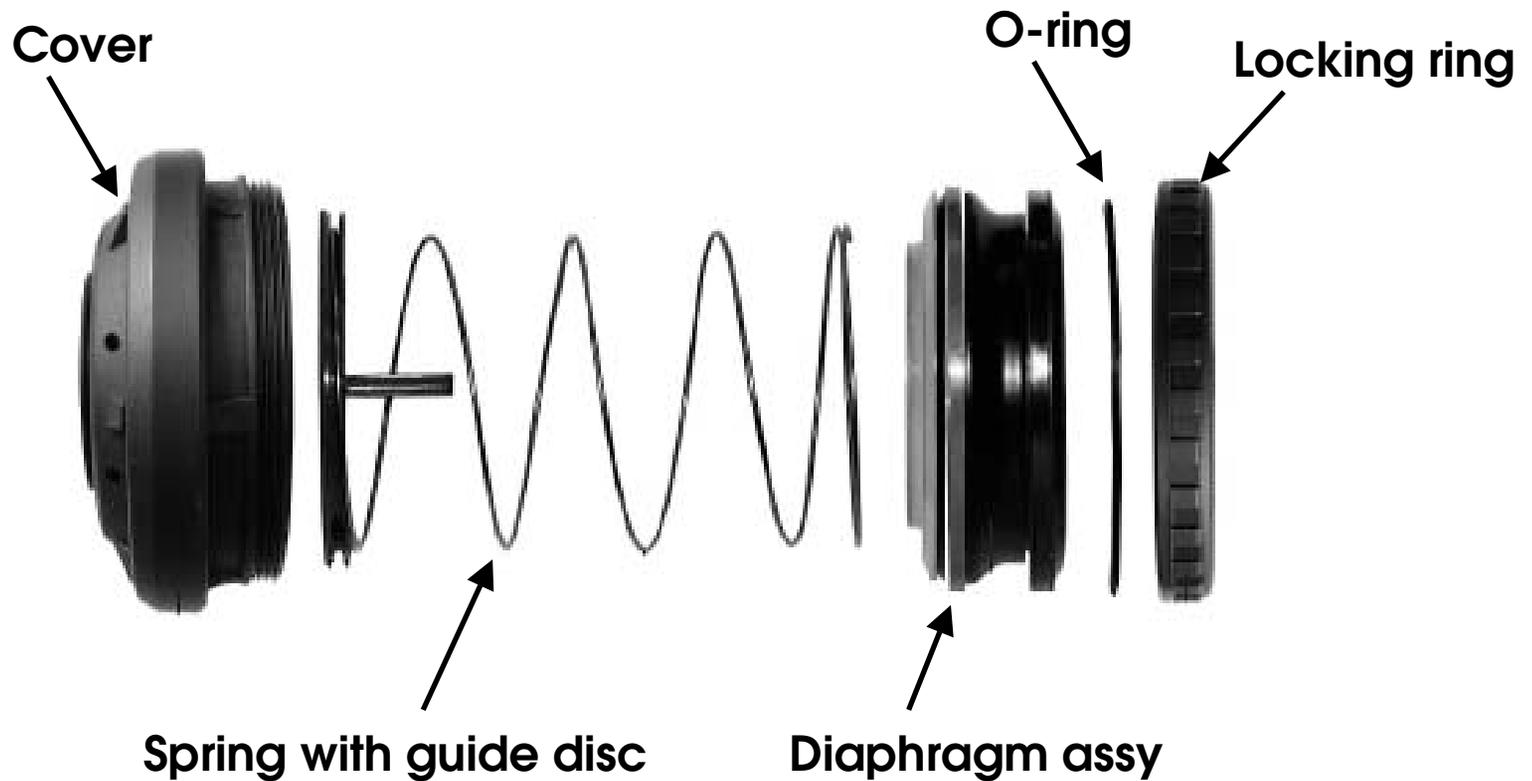


Figure 3

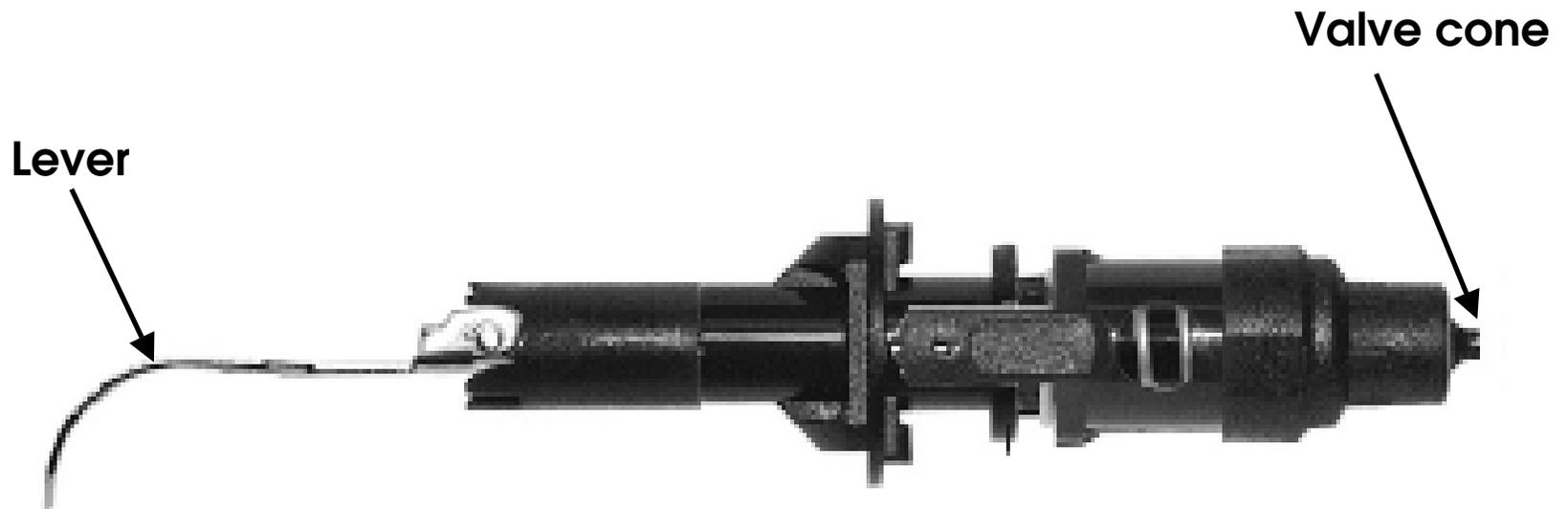
DIVATOR BREATHING VALVE

Exhalation valve



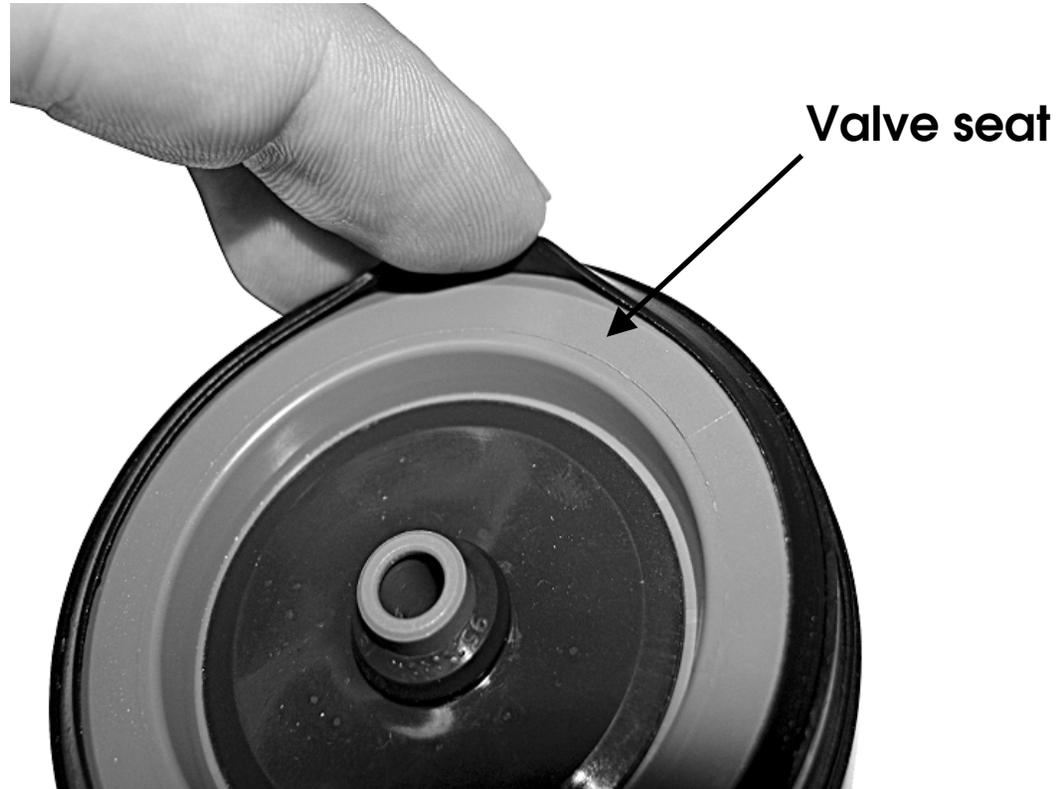
DIVATOR BREATHING VALVE

Valve insert



DIVATOR BREATHING VALVE

Exhalation diaphragm



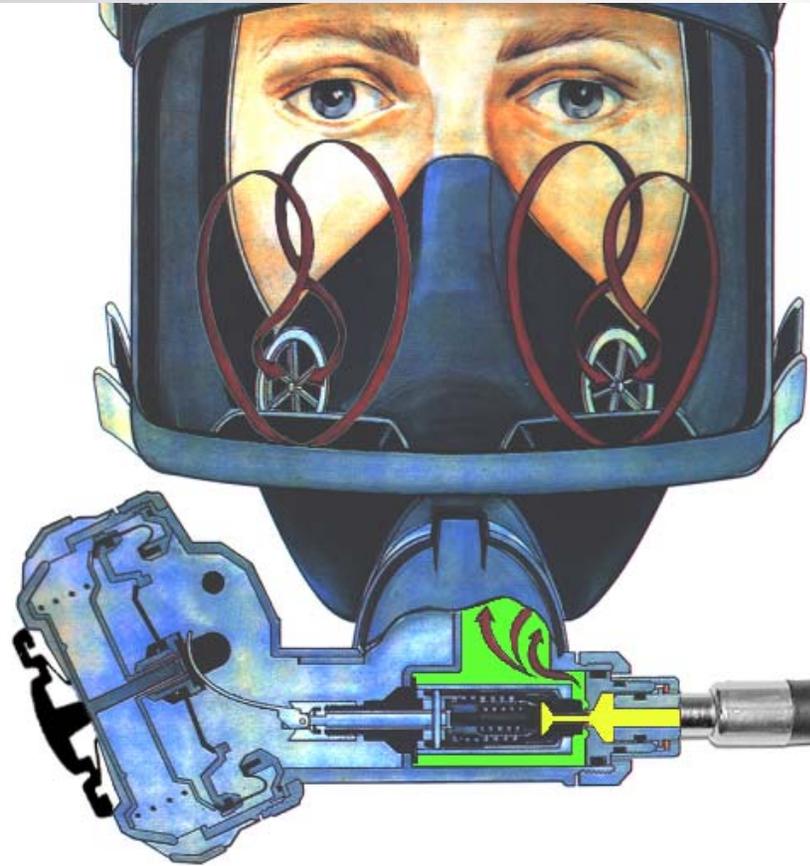
DIVATOR BREATHING VALVE

Exhalation valve, non-return valve



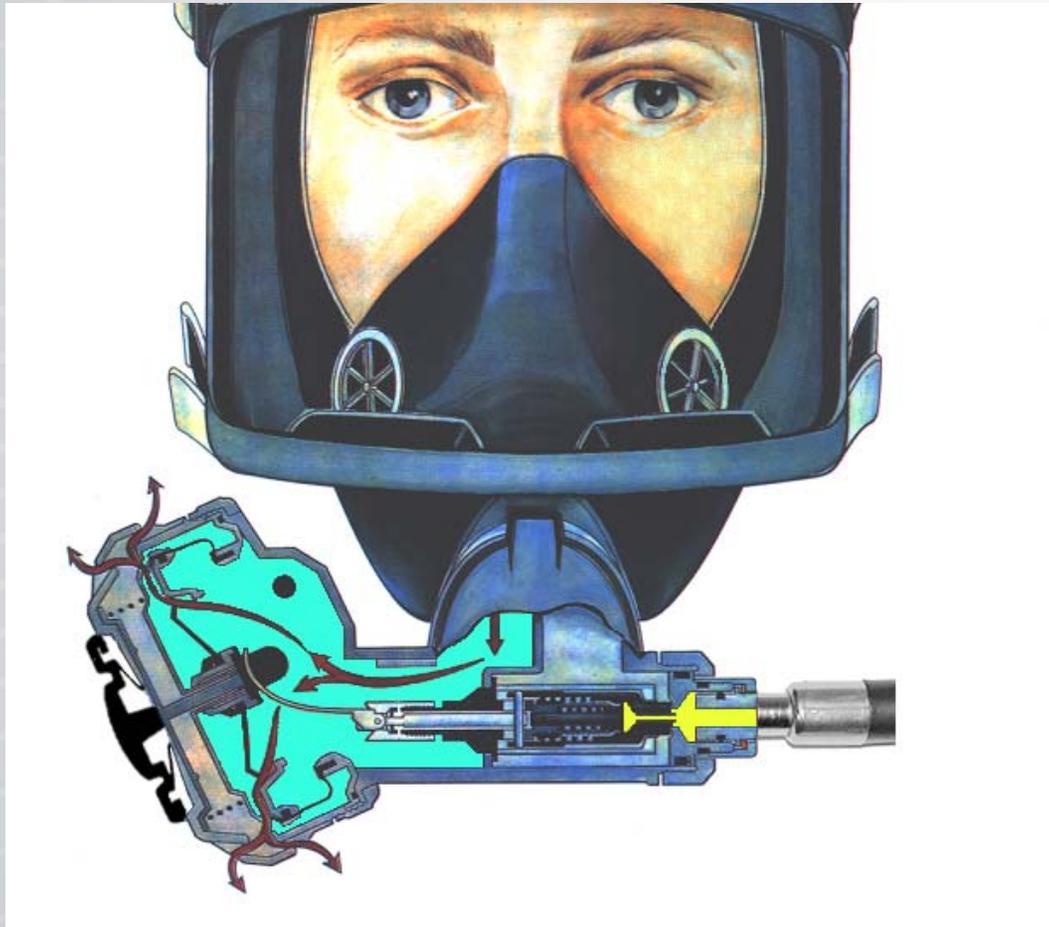
INTERSPIRO

FULL FACE MASK, INHALATION

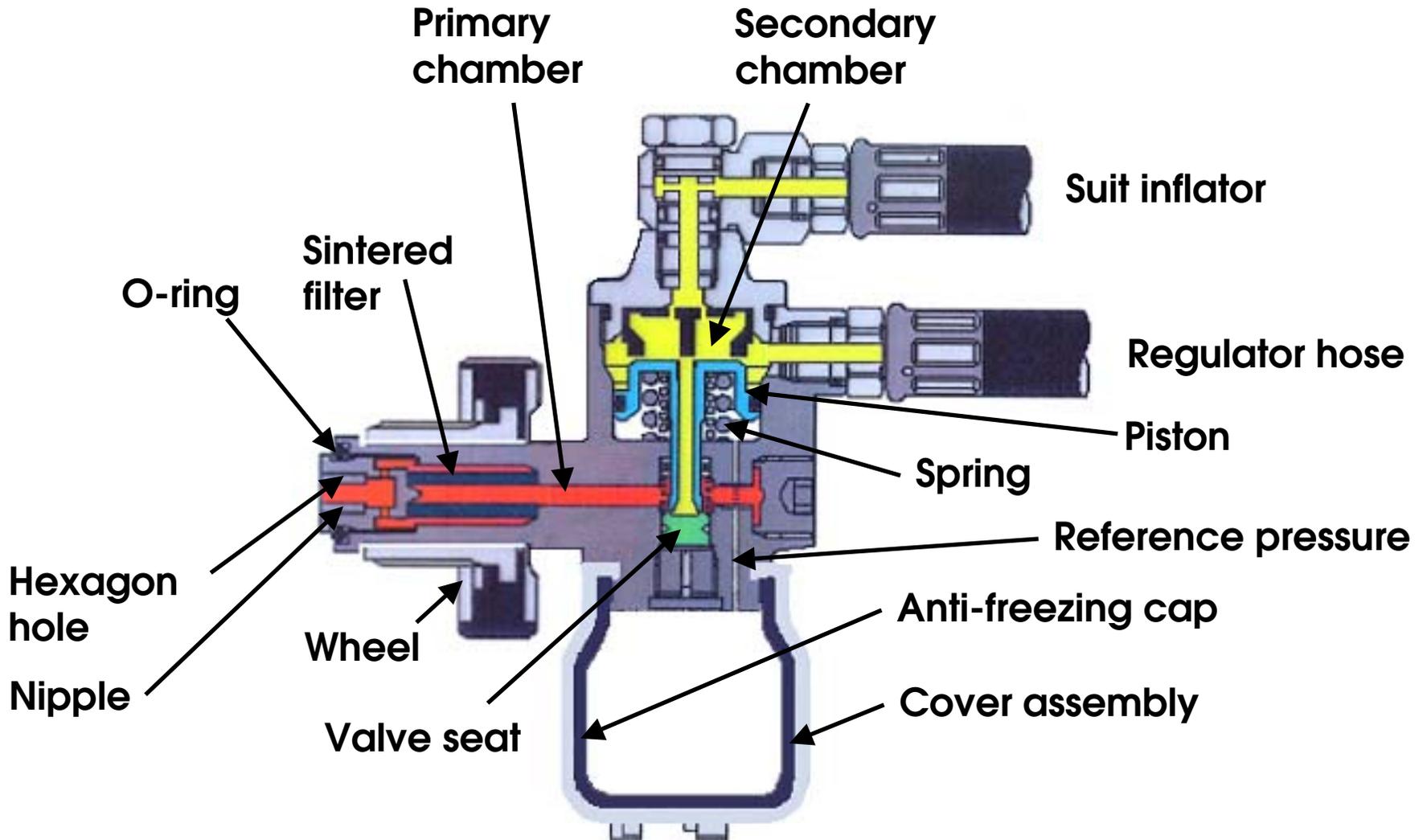


INTERSPIRO

FULL FACE MASK, EXHALATION

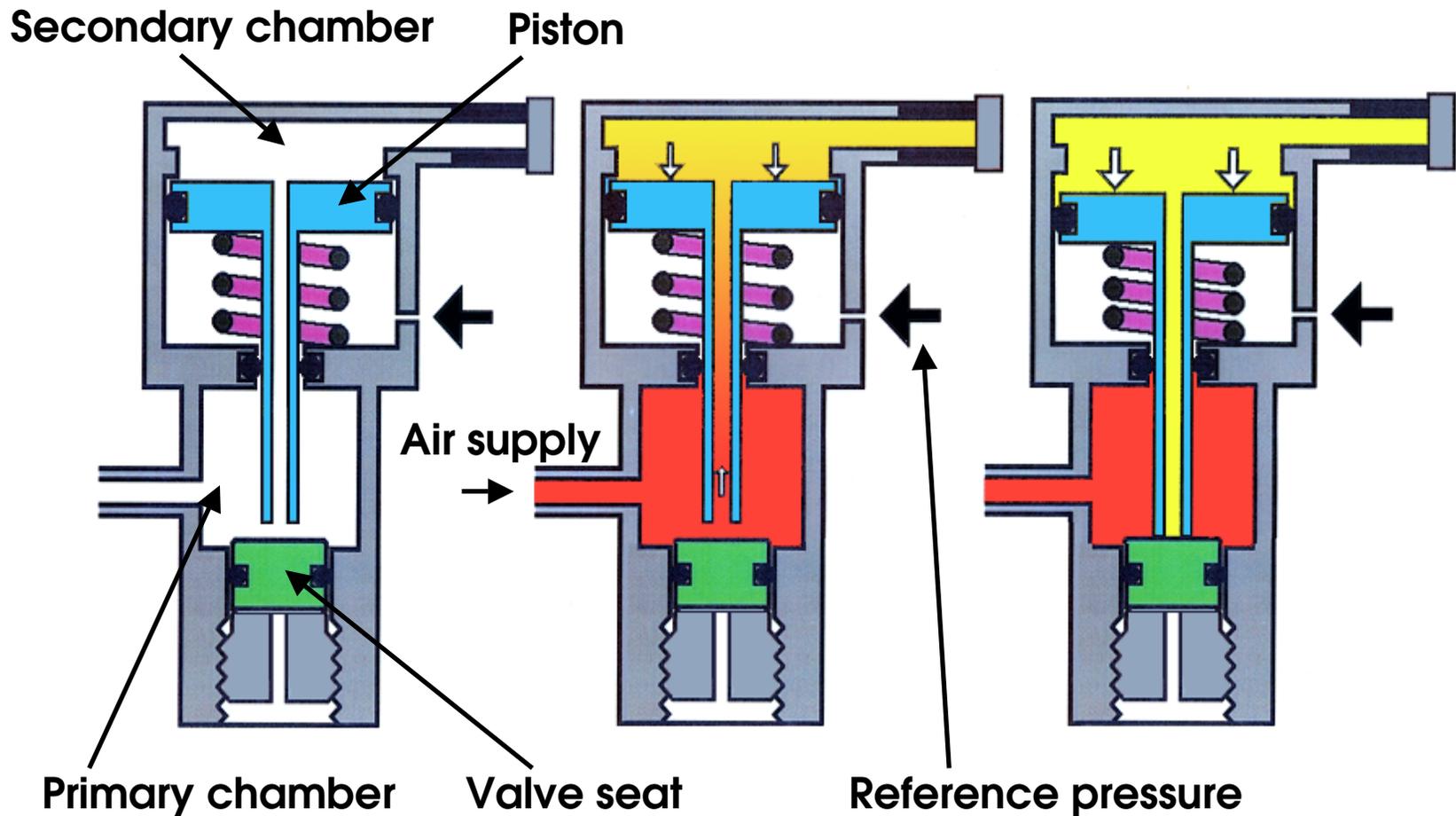


DIVATOR REGULATOR

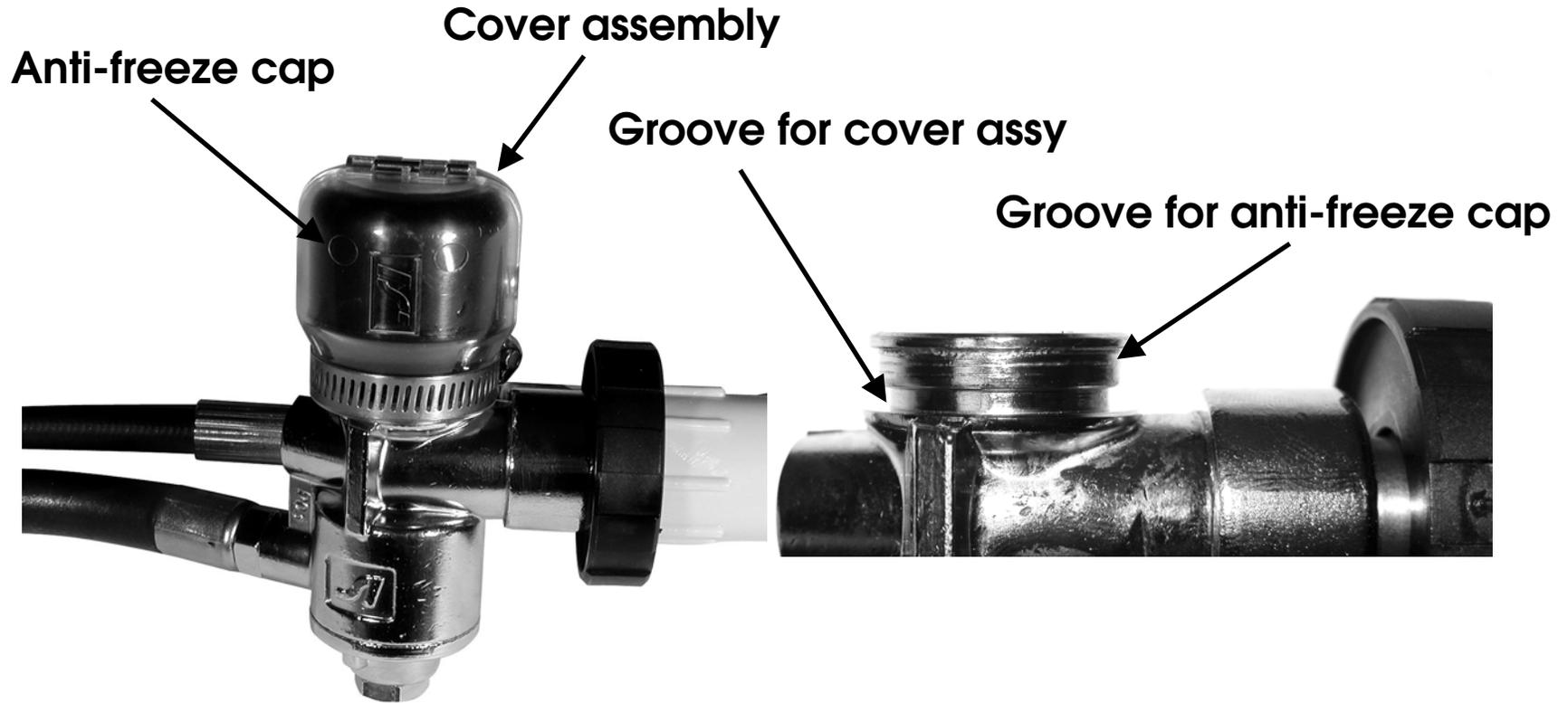


DIVATOR REGULATOR

Balanced Piston Regulator, function

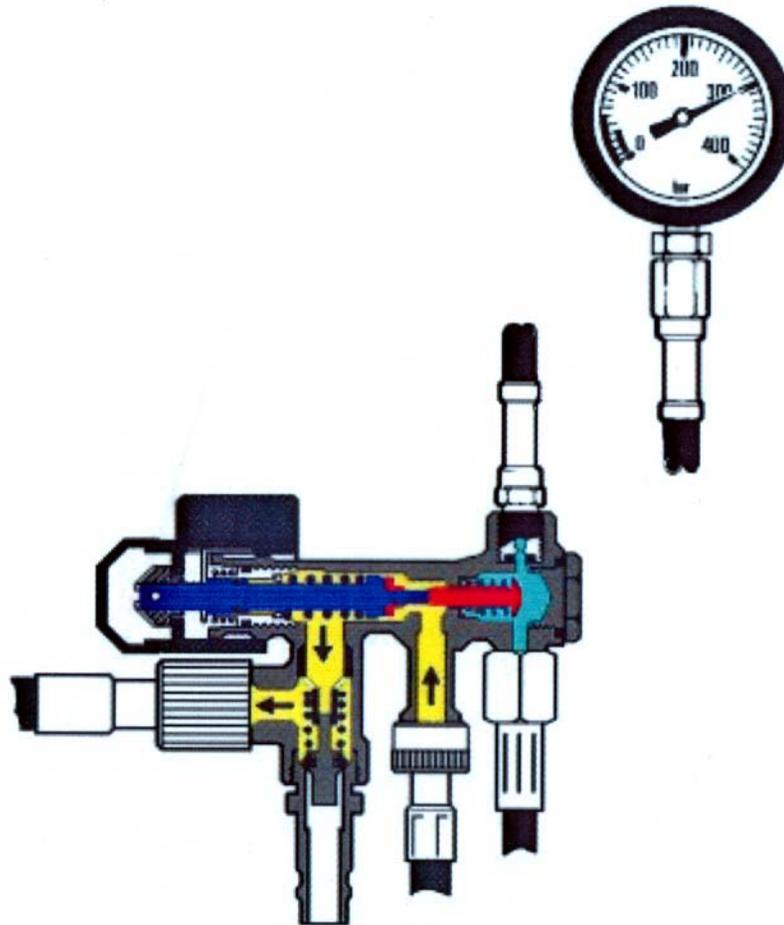


DIVATOR REGULATOR



INTERSPIRO

DIVATOR RESERVE AIR VALVE



DIVATOR MASK

Divator Mask, a.k.a “AGA Mask”

- >> **Balanced breathing valve with or w/o positive pressure**
- >> **Mutually centered inhalation and exhalation diaphragm eliminates WOB differences caused by divers attitude**
- >> **Many years of operations in freezing rapid currents**



DIVATOR MASK

- >> Low volume visor, reduces positive buoyancy
- >> Self-rinsing exhalation valve
- >> Very easy to drain, spoiler prevents fog
- >> Low volume dead space considerably reduces reinhalation of CO²
- >> Excellent for communication



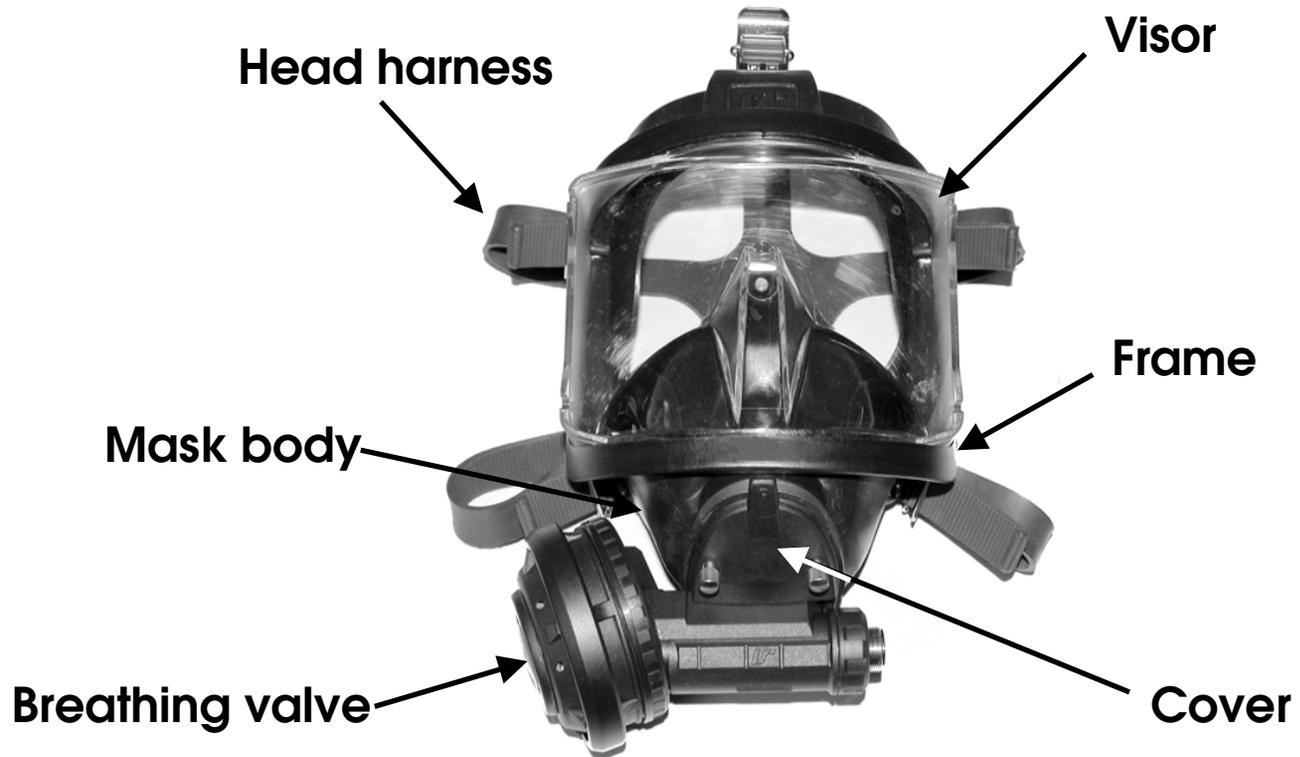
DIVATOR MASK

The Divator Mask is available in three different colours/materials:

- >> Bright yellow ('Gold')
- >> Classic Grey
- >> Black

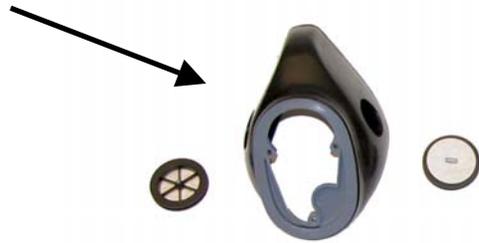


DIVATOR MASK



DIVATOR MASK

Inner mask w.
Non-return valves



Frame halves w. screws



Pressure
equalizer



Head harness



Visor



Mask body complete



DIVATOR MASK

Full face mask visor, closeup



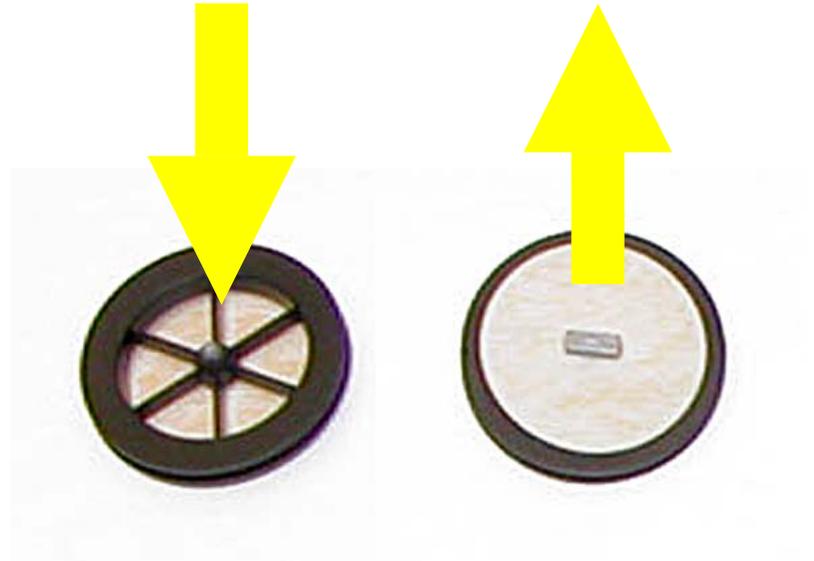
DIVATOR MASK

Breathing valve



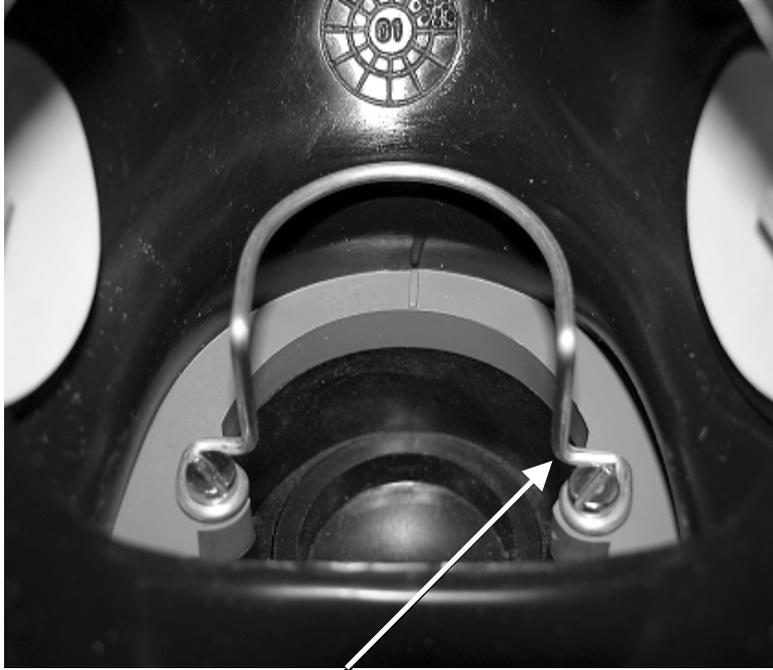
Valve seat

Flow direction



DIVATOR MASK

Pressure equalizer



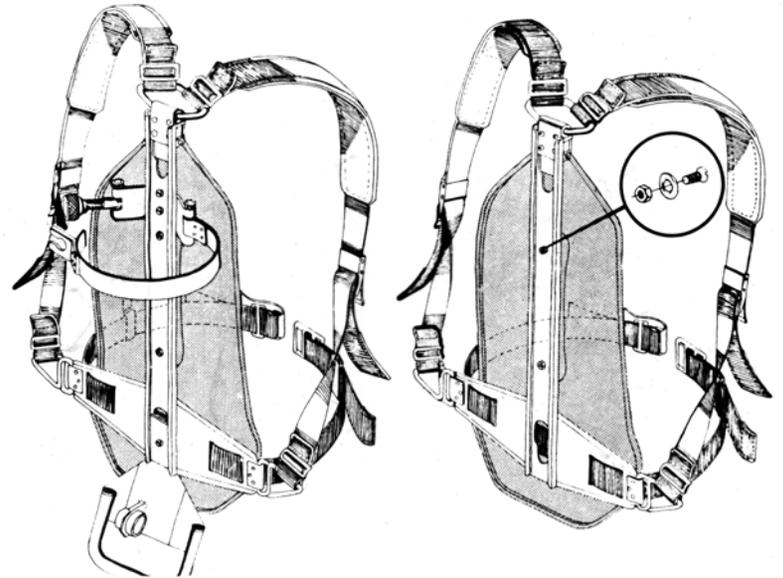
Holder for pressure equalizer



Pressure equalizer

DIVATOR HARNESS

- >> A stainless steel attachment with a quick coupling device is assembled with the back plate, harness or BC/life jacket
- >> A quick coupling attaches the cylinder or cylinder pack to the harness or the BC/life jacket



INTERSPIRO

DIVATOR HARNESS

Single cylinder



INTERSPIRO

DIVATOR HARNESS

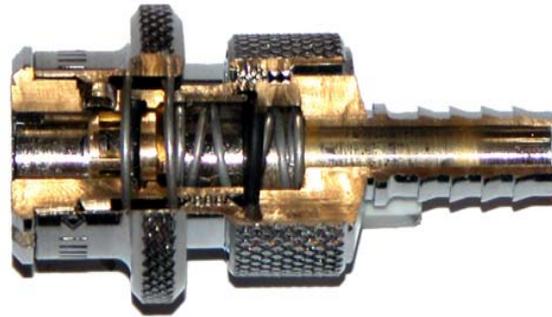
Cylinder pack



INTERSPIRO

DIVATOR ACCESSORIES

Suit inflation quick coupling



THE DIVATOR FAMILY

DIVATOR
DP1



DIVATOR
MASK



DIVATOR
MK II



DIVATOR MK II
BAIL-OUT SET



DIVATOR
LITE



DIVATOR
CPD



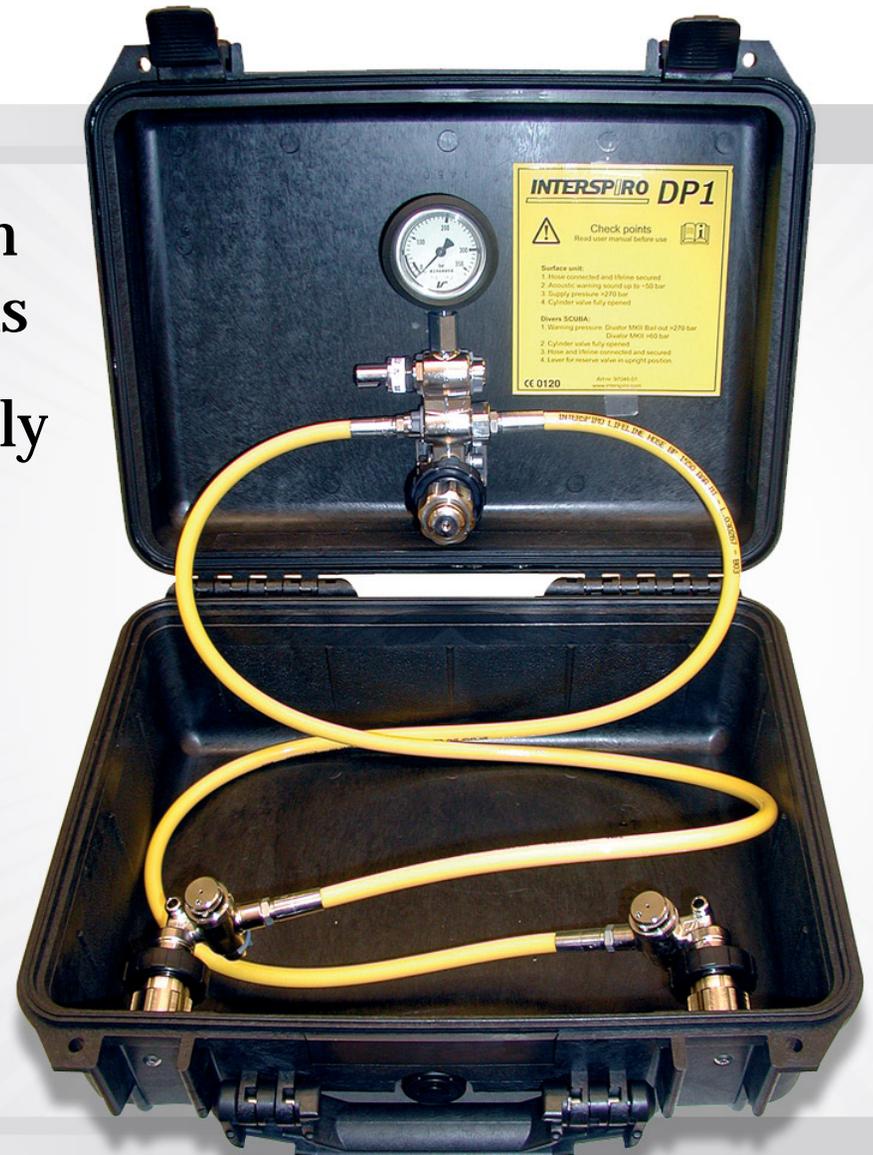
THE DIVATOR FAMILY

The Divator family also includes:

- >> MK II Bail-Out Set for surface supply diving
- >> Different communication applications available
- >> MK II Regulator w/o resistance warning
- >> Dry suit hose with swiveling coupling
- >> Different cylinder options: single-mount, cylinder package, steel and Divator Lite (full composite)
- >> Weights for Divator Mask and dry suits

DIVATOR DP1

- >> Light weight, mobile solution for diving in remote locations
- >> A unique high pressure supply hose solution with dual function as lifeline
- >> Easy to operate, attendant do not need to compensate for different diving depths



DIVATOR DP1

- >> Mobile and easy to handle
- >> Supply hose works as air supply and safety rope
- >> Smooth hose surface
- >> Automatic pressure settings for different depths
- >> Supply hose has a diameter of only 10 mm
- >> Must be used in combination with Divator MK II
- >> Automatic acoustic alarm



DIVATOR CPD

Divator CPD, Cylinder Pressure Device

- >> A mechanical pressure switch automatically activates the LED HUD when the cylinder pressure is below 870 psi (55 bar)
- >> Easily attached to a standard Divator MK II Full Face Mask
- >> Fits a wide range of regulators



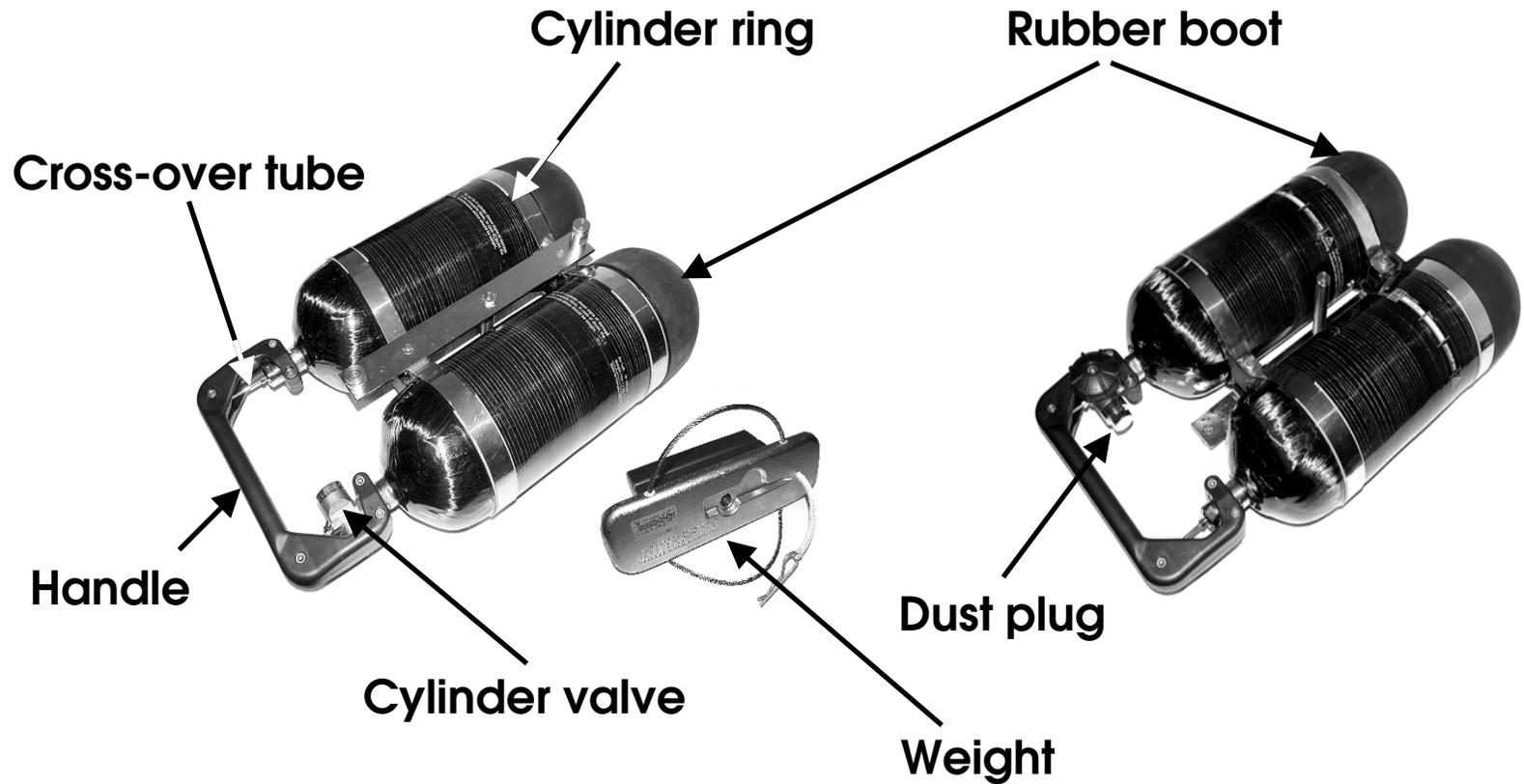
DIVATOR LITE

- >> Light cylinders with movable weight assembly
- >> Enhanced balance and reduced profile
- >> Quick-connect weight system
- >> Fatigue testing by 200 000 pressurizing cycles
- >> End fittings of stainless steel
- >> Close to 15 years of field experience
- >> Excellent results in periodic inspections



DIVATOR LITE

Cylinder pack



DIVATOR LITE WEIGHTS

Carrying handle

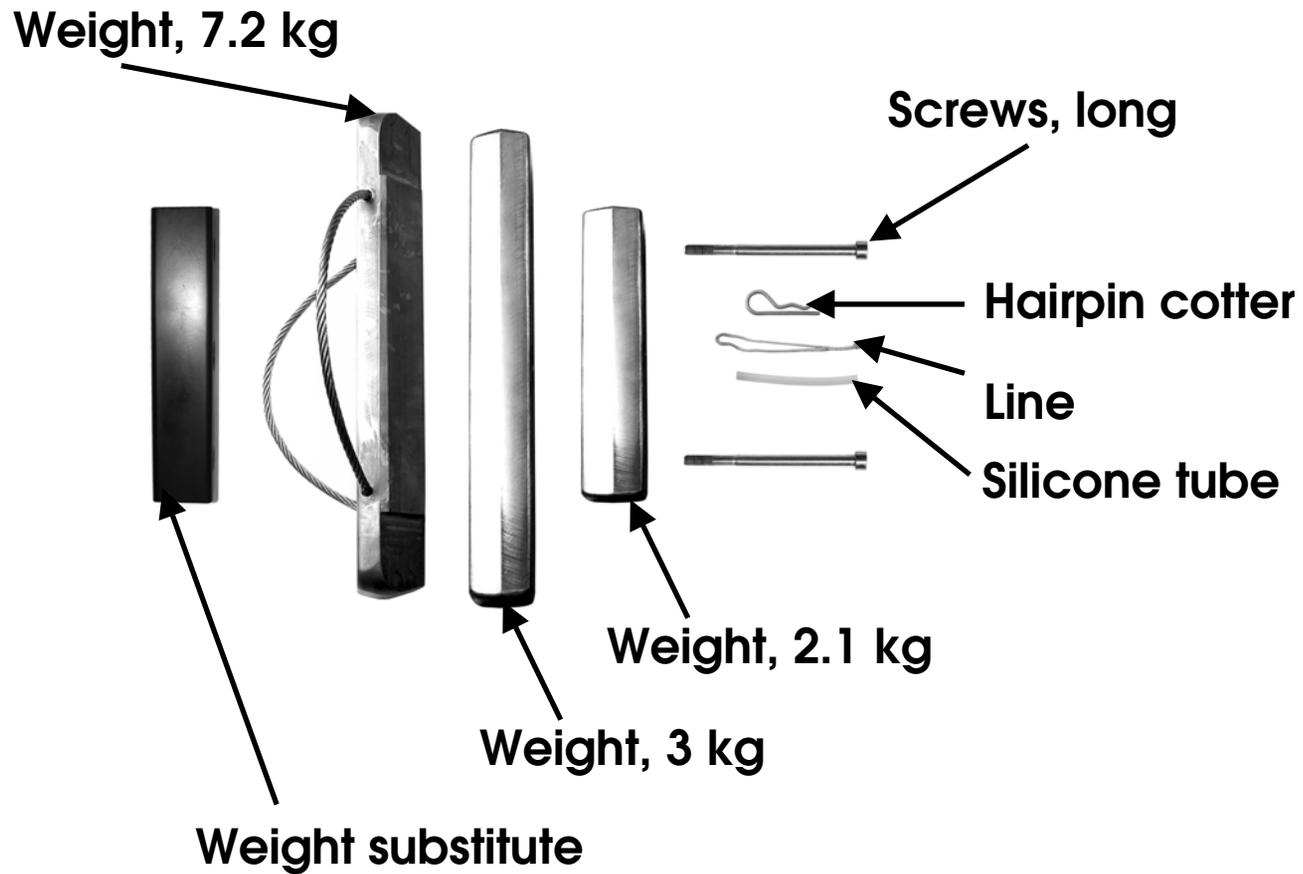
Toogle

Locking pin



Weight system

DIVATOR LITE WEIGHTS



INTERSPIRO

THE END

Thank you for your attention!

