

# ACSm ADVANCED CARRIER SYSTEM

THE LIGHTEST CARRYING SYSTEM IN ITS CLASS

Developed after considerable research and investment the new Advanced Carrying System, ACS, is set to become the industry standard carrier for SCBA in the marine, industrial and fire environments.

The Sigma **ACSm** combines all the benefits of Sigma with the new technology behind ACS and is designed specifically for use as a Class 1 compliance set for use in **marine, industrial** environments.

Scott's ACS represents a major advancement in SCBA carrying systems. It is significantly lighter than any other carrying system and offers the wearer the ultimate in comfort and flexibility, combined with the highest standards of performance.



## ACSm

MARINE

INDUSTRIAL

PETROCHEMICAL

OIL & GAS

Softer, more flexible backplate  
for greater comfort

Ergonomically moulded to fit  
the spine & back muscles



**SCOTT**  
HEALTH & SAFETY



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## Reduced user Burden

- Sigma ACSm is the lightest carrying system in its class. It is significantly lighter than competitor products, increasing comfort, ease of movement and reducing wearer fatigue.
- Sigma ACSm features a sculptured, soft, back plate, which has been developed following research with osteopaths, fabric and industrial technologists to provide greater comfort and flexibility of movement.
- The ACS range is the first carrying system in the world to feature this new Thermoflex™ technology. Thermoflex™ is thermoformed cross linked Polyolefin foam covered with flame retardant polyester with velcro.

## Lower Through Life Costs

- Corrosion resistant Nickel plated components.
- Flame retardant webbing and cylinder brand.
- All components are user serviceable, low cost and easy to maintain.

## Easy Decontamination

- Both the back plate and harness can be washed with your turnout gear.
- The new material used is approved to maintain its flame retardant qualities when washed following the care instructions at 300°C.

## High Performance Pneumatics

- High performance, reliable pneumatics with compact first breath activated demand valve with bypass.
- No tools are necessary to remove the pneumatics, simply rotate the pneumatics 90 degrees mounting.
- Can be used with 200 and 300 bar cylinders.

## Wide Range Of Specifications

- Wide choice of facemasks including Promask and Vision 3.
- Sigma ACSm is approved with 200 and 300 bar cylinders.
- Sigma ACSm is approved with a variety of valve styles.

## Pneumatic System

At the heart of the ACS set is a simple and reliable two-stage pneumatic system. A first breath activated positive pressure demand valve provides low breathing resistance and excellent dynamic performance – particularly at high flow rates. A first stage pressure reducing valve features only two moving parts and accepts cylinder pressures of up to 300 bar without adjustment. A cylinder connector assembly with standard breathing air is fitted, with an easily removed bronze filter to protect the pneumatics. This system includes a shoulder mounted pressure indicator with photoluminescent face markings for low-light legibility and a robust stainless steel and polycarbonate case with a protective rubber shroud. A warning whistle has an operating pressure of 55 bar.

## Major Components

### Tempest Demand Valve

Compact positive pressure demand valve featuring servo-assisted, tilting diaphragm mechanism with low inspiratory resistance and responsive dynamic performance, automatic first breath actuate and hands free bypass facility. Components injection moulded from polyamide and acetyl with rubber seals and diaphragms,.

First breath activation -20 to -30 mbar  
Peak flow performance in excess of 500 litres/minute  
Bypass flow 150 litres/minute nominal  
Static positive pressure 1.0 to 4.0 mbar

### Reducing Valve

First stage pressure reducing valve featuring non-adjustable, spring loaded piston mechanism and outlet supply protected by pressure relief valve.

Valve body and cap machined from nickel plated brass with stainless steel spring and hose retainer U-clips.

### Outlet Pressure

200 bar inlet 5.5 to 9.5 bar  
300 bar inlet 6.0 to 11.0 bar  
Pressure relief valve protected approx 13.5 bar  
Flow restrictor to gauge supply hose < 25 litres minute

### Pressure Indicator & Warning Whistle

Bourdon tube type dial indicator  
Heat and impact resistant polycarbonate lens  
Safety blow-out vent in rear of gauge  
Accuracy: +/- 10 bar between 40-300 bar

### Hoses

Stainless steel swivel hose fittings  
*Medium pressure hose*  
Maximum working pressure 16 bar  
Minimum burst pressure 80 bar  
*High pressure hose*  
Maximum working pressure 450 bar  
Minimum burst pressure 800 bar

### Communications

Sabre-Com is a unique radio communications interface that fully integrates with your existing radio and preferred choice of Scott facemask. Sabre-Com is intrinsically safe and approved to EN136 Class 3.

### Options

Scott ACS can be specified in many configurations including Duo, Split Demand Valve Coupling (SDC) and attachments for Airline, which can also be used for Rescue Second Man (RSM) and Decontamination.

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### Pneumatic System

No tools are necessary to remove the pneumatics, simply rotate 90 degrees.



Rapid connect cylinder band allows adjustment or change out of cylinder in seconds





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TECHNICAL DATA		
Weight	Single Configuration (less cylinder)	2.08 kg
	Single Configuration & Facemask (less cylinder)	2.70 kg
Dimensions	Length	565mm
	Width	260mm
	Depth	230mm (with 6.8 litre 300 bar Cylinder)
Approvals	AS/NZS 1716:2003 Approved MED Marine Equipment Directive (Shipwheel)	
ORDERING INFORMATION		
2018412	Sigma ACSm - Backplate, Harness, Pneumatics	
013190	Promask PP Left Quick Fit (LQF) Full Face Mask	
1071671	Vision 3 Left Quick Fit (LQF) Full Face Mask	
1118245	Cylinder 6.8L 300 Bar Carton Fibre	
1107573	Cylinder 9L 207 Bar Glass Fibre Wrapped	
2014810	SCBA Moulded Carry Case	

Note: Face Mask and Cylinders are purchased separately.  
Cylinders are supplied uncharged/empty.

Promask PP





Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



**UK Office**

**Keison Products,**

**P.O. Box 2124, Chelmsford, Essex, CM1 3UP, England.**

**Tel: +44 (0)330 088 0560**

**Fax: +44 (0)1245 808399**

**Email: [sales@keison.co.uk](mailto:sales@keison.co.uk)**

Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.