

TECHNICAL DATASHEET

SIGMA ACSm- SELF CONTAINED BREATHING APPARATUS



DESCRIPTION

The Scott ACSm is an open circuit, self-contained, compressed air breathing apparatus. It consists of a back plate, carrying harness and pneumatic system, containing a cylinder connector, reducer, pressure gauge, whistle and demand valve.

The ACSm can be configured in a number of different ways with various size single cylinders. There are also a range of variants available including Airline (AC), and Split Demand Valve Coupling (SDC).

The ACSm is used in conjunction with a range of composite or steel cylinders and the choice of Vision 3, Panaseal, Panavisor or Promask PP facemask.

APPLICATIONS

The Sigma ACSm is specifically designed as a Marine / Industrial SCBA, but is also suitable for providing respiratory protection in any IDLH environment.

APPROVALS

CE marked in accordance with EN137:2006: Type I

AS1716

MED

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MATERIALS

| | |
|------------------------------|---|
| Pressure Reducing Valve | Nickel Plated Brass |
| Rust Tube (Cyls) | Brass |
| Reducing Valve Seat | Polyamide (Nylon) |
| O-Rings | Nitrile, Silicone, EPDM |
| Reducing Valve Springs | Stainless Steel |
| HP Pressure Gauge | Stainless Steel, Polycarbonate Lens |
| HP Pressure Gauge Cover | Neoprene |
| MP Air Supply Hose Fittings | Nickel Plated Brass |
| Facemask | Neoprene, Silicone or Procomp |
| Facemask Visor | Polycarbonate |
| MP Air Supply Hose | EPDM Cover, fabric braid reinforcement, EPDM liner |
| HP Air Hose | PTCFE liner, stainless steel braiding, Estane sleeve |
| Valve Handwheel (Sabre Cyls) | Glass filled Polyamide/ TPE |
| Harness | Flame retardant Polyester |
| Backplate | Fabric covered polyamide |
| Backpad | Flame retardant cross linked polyolefin closed cell foam covered in a Viscose aramid fabric |
| Cylinder Band | Flame retardant polyester with Velcro |
| Strap Buckles | Glass filled polyamide |
| Cylinder | Steel or Composite |
| Cylinder Valve | Nickel Plated Brass |
| Demand Valve Casing | Glass filled Polyamide |

MAINTENANCE/CLEANING/SERVICING

N.B. - Cleaning should only be carried out as specified in the user instructions. Maintenance and servicing must only be performed by trained personnel following the procedures in the Service and Maintenance manual. The ACS backplate is designed to be washed in a washing machine, please follow instruction on the care label.

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TECHNICAL SPECIFICATIONS

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 actuation and hands free bypass facility. Components injection moulded from Polyamide and Acetyl with rubber seals and diaphragms.

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|--------------------------|--------------------------------|
| 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 – 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 Uclips.

| | |
|--------------------------------------|-------------------|
| 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 |

Weight/ Dimensions

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|---|--------|
| Single configuration (less cylinder) | 2.08kg |
| Single configuration & facemask (less cylinder) | 2.70kg |
| Length | 565mm |
| Width | 260mm |
| Depth (with 6.0 litre 200 bar cylinder) | 230mm |