

3M™ Scott™ Flite COV Supplied Air Respirator



Description

The 3M™ Scott™ Flite COV is an open circuit, positive pressure airline breathing apparatus comprising bandolier harness, positive pressure airline apparatus consisting of automatic positive pressure demand valve, supply hose and coupling for airline supply hose.

The Flite COV is fitted with a coupling which attaches to the automatic Change Over Valve (COV) and allows the connection of an independent air supply with a duration of 10 to 15 minutes, dependent on cylinder size.

The apparatus can be used with the full range of EN approved 3M™ Scott™ Safety positive pressure facemasks even when used as an escape only apparatus.

Applications

The 3M™ Scott™ Flite COV is specifically designed as an airline working set and with its optional hip mounted cylinder as an airline escape set. It has many applications but is particularly suited to confined space entry and the oil and gas industry. It is also suitable for providing respiratory protection in any IDLH (Immediately Dangerous to Life and Health) environment.

Operation

The airline coupling is a male CEN type and is mounted on a pigtail assembly. It also incorporates a non-return valve so air from the attached cylinder cannot escape when the apparatus is detached from the airline supply. Optional Foster, Hansen HK and Staubli type fittings are available.

The escape cylinder utilises a locking hand wheel to remain in the open position and eliminate inadvertent shutting. If airline delivery pressure is reduced by an interruption of the main supply the automatic changeover valve switches the unit to cylinder air for safe egress. When there is a switch-over to cylinder air the user is alerted via activation of a whistle.

Maintenance/cleaning/servicing

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.

Specification

Approvals

CE marked in accordance with EN 14593-1:2005

CE marked in accordance with EN 402:2003 when fitted with an escape cylinder

Materials

Pressure reducing valve	Nickel plated brass
Rust tube (Scott Safety Cyls)	Brass
Reducing valve seat	Polyamide (nylon)
O-rings	Nitrile, silicone, EPDM
Reducing valve springs	Stainless steel
Changeover valve	Nickel plated brass, stainless steel
HP pressure gauge	Stainless steel, brass, 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	Demand valve - EPDM cover, fabric braid reinforcement, EPDM liner pigtail - chlorinated polyethylene, fabric braid reinforcement, nitrile liner
Cylinder bag	Flame retardant PVC coated nylon/polyester
Valve handwheel	Glass filled polyamide
Harness	Flame retardant polyester
Strap buckles	Stainless steel
Harness padding	Closed cell polyethylene foam
Cylinder	Steel or composite
Cylinder valve	Nickel plated brass
Demand valve casing	Glass filled polyacetal and polyamide

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.

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

Combined cylinder and pressure reducing valve

The valve is manufactured from nickel plated brass and has a pressure indicator and DIN type charging connection (stainless steel). There is a large locking handwheel, a low profile pressure gauge and burst disc assembly incorporated into the valve.

Neck thread for standard steel cylinders	M18 × 1.5mm parallel
Neck thread for composite cylinders	M18 × 1.5mm parallel
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

Automatic change over valve

The valve is manufactured from nickel plated brass with stainless steel spring and will automatically switch air supply to cylinder source if the main supply is interrupted. A whistle on the valve will sound continuously on cylinder air and silence when on line supply resumes.

Switchover pressure	-20 to -30 mbar
Warning whistle	90dB

Hoses

Stainless steel swivel hose fittings

Medium pressure hose

Maximum working pressure	16 bar
Minimum burst pressure	80 bar

Weight/dimensions

Flite (less cylinder)	1.9kg
Flite with 10 minute cylinder (3.5kg)	5.4kg
Flite with 10 minute superlight cylinder (2.3kg)	4.2kg
Flite with 15 minute cylinder (5.6kg)	7.5kg
Facemask (approximate)	0.7kg