



orion

High Performance Fire Protection

Product Overview

Orion Fire Engineering is based in Sydney, Australia, and specialises in the design and manufacture of fire fighting equipment used in petrochemical, gas and mining projects. Established in 1985, the company has developed into a market-leader in the fire industry and has supplied products to protect major assets all over the world.

Our particular expertise is in the design and manufacture of equipment for applying foam and water to fires in flammable liquid and gas plants, refineries, chemical processing plants, jetties and solvent extraction plants in the mining industry.

Our products have an enviable record of long term use and low maintenance operation in harsh environments that include hot and dry locations in Australia and the Middle East, hot and wet locations in Asia, and cold climates in Russia and Canada. These locations include both onshore and offshore facilities. Our success is due to our careful design, taking into consideration the unique requirements of each application.

Australian Design and Manufactured
Our products are designed and manufactured in our facility in Sydney, Australia.

30 Years in the fire fighting Industry
We have been designing products for the fire fighting industry for over 30 years, giving us a depth of product knowledge and understanding of your requirements that is second to none.

Corrosion Resistance
In many applications it is corrosion that compromises the fire fighting equipment. Our products are designed so that there are no components exposed to the environment which could be subject to corrosion in their designed environment, improving system reliability and reducing system down time.



Why Choose an Orion Product?



Robust and Fault Tolerant

Our equipment is designed and manufactured to ensure it can cope with unexpected events.

Easy Installation

Our products are designed to make installation as quick and easy as possible.

Low Cost of Ownership

With exemplary product development, our products have very low maintenance requirements, and therefore very high levels of system up time, allowing for years of trouble-free product use.

Ease of Use

Our products are designed so that the user can operate the equipment safely, easily and quickly.

For us, 'High Performance Fire Protection' means fire protection that works when it is needed, for many years after it has been installed. To do this we focus on the important principles shown above. In addition we do not ignore other important performance dimensions. Our monitors are highly efficient designs, our nozzles have excellent throw performance and our other products are also at the forefront of industry performance standards.

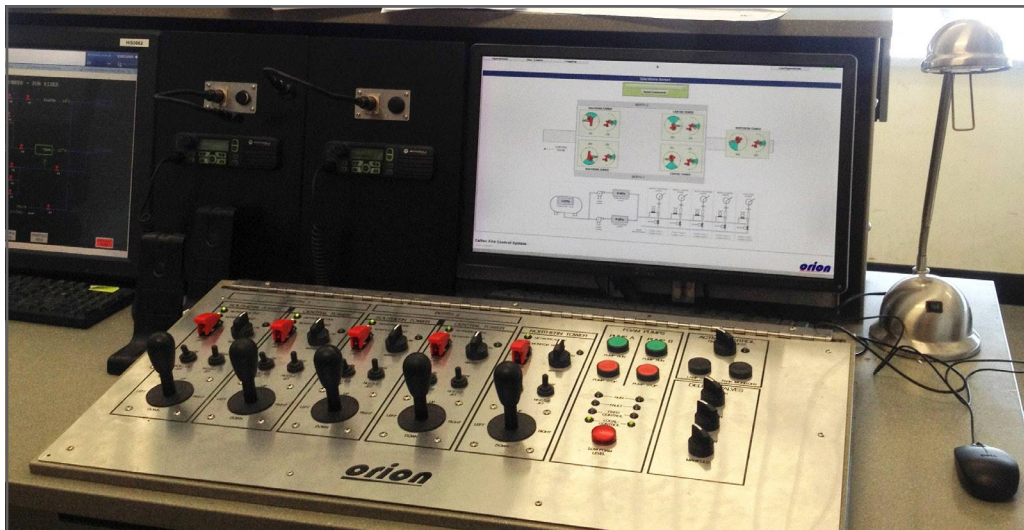
Orion monitors are renowned for being some of the most robust, corrosion resistant and user-friendly monitors on the market. Our core range of the Warden (LG2) and Commando (SS316L) monitors will suit almost any application, however Orion can custom engineer our products from other materials if required.

Our range includes manual monitors, water oscillating, hydraulic and remote controlled monitors. All of these are accompanied by our range of nozzles, including straight jet, fog nozzles and foam inducing nozzles. Our design allows the nozzles to be removed from the monitor to maximise flexibility and minimise maintenance.



(Top Left) Our Warden friction lock monitor accompanied with an adjustable spray/jet nozzle. **(Top Middle)** A foam inducing FLD nozzle with adjustable spray/jet. **(Top Right)** Orion Sentinel SS316 Monitors are a lightweight manual monitor with friction locks. They have a balanced design with no net reaction force and an even weight distribution for easy operation. **(Bottom Left)** Our premium hazardous area remote controlled nozzle. **(Bottom Middle)** Our water oscillating monitors use water power to oscillate the monitor in the horizontal axis up to 120 degrees. **(Bottom Right)** Our Warden handwheel operated monitor

(Top Left) A custom designed control panel and operating system to control 5 monitors and associated deluge valves, along with 2 foam pumps. **(Top Right)** A 4" (100mm) Commando IP66 monitor. **(Bottom Left)** A portable hazardous area certified controller. **(Bottom Right)** A 4" Warden hazardous area certified monitor.



Our market leading electric remote control monitors offer complete monitor control from local control panels, control rooms, remotely via portable wireless controllers, or from further afield via the internet. Our range consists of our standard IP66 versions and hazardous area certified versions (ATEX and IECEx Exd Class 1 Zone 1), and are available from 50mm through to 150mm. All monitors have an impressive $\pm 250^\circ$ horizontal movement, along with a $\pm 90^\circ$ vertical movement. They are capable of providing position feedback, and have remotely adjustable movement limits to suit each installation.

We can design custom control panels for you, as well as fully integrated computer control software.

With over 30 years in the fire fighting industry, our knowledge on fire fighting foam concentrates and their performance characteristics is market leading. As a result the performance of our foam proportioning products is also amongst the best in the world.

Our range includes Foam Tanks (atmospheric and bladder types), foam pump skids, foam proportioners (in-line inductors, balanced pressure, ILBP and turbine proportioners).

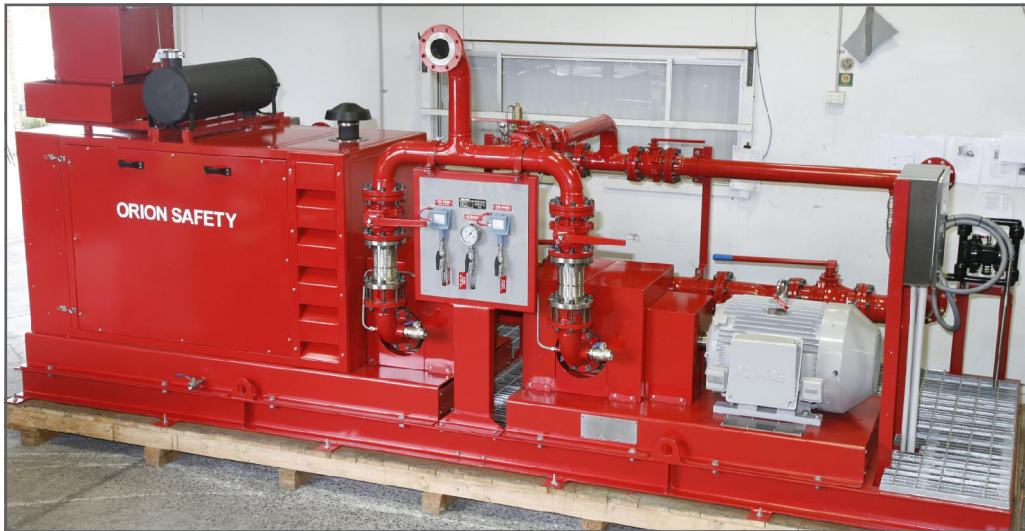
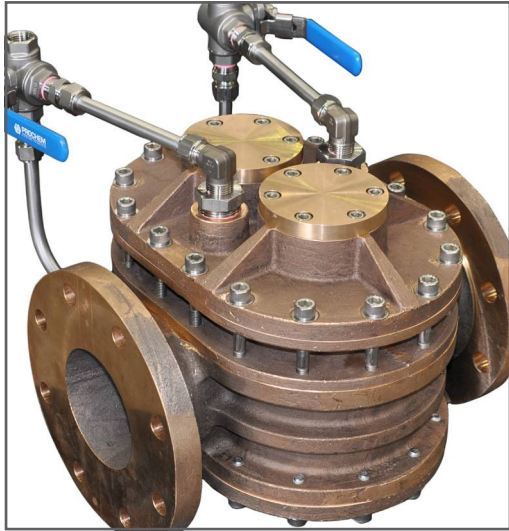
We can supply a comprehensive range of C6 compliant foam concentrates, including 1%, 3% & 6% AFFF, 3/3 & 3/6 ARAFFF, and 1/3 & 3/3 low viscosity ARAFF. Products may comply with a number of recognised standards, some are UL listed, ICAO B, Lastfire etc. Orion can also supply the latest in Fluorine Free technology, with a 3/6 AR product which has ICAO B certification.



(Top Middle) A selection of foam concentrates stocked by Orion. We can supply in containers from 20L through to 1,000L IBC's. **(Top Right)** A 4,500L bladder tank assembly with pneumatically operated control valves. **(Bottom Right)** A 20,000L atmospheric foam storage tank, with 2 x Foam pumps and a number of deluge valves.

Foam Concentrates & Proportioning

(Top Left) A 4" Turbine Proportioner (Top Middle) A 1,000L bladder tank with built in proportioner and associated pipework (Top Right) An inline balanced pressure proportioner (Bottom Left) An electric foam pump skid with integrated control panel. (Bottom Right) A large capacity dual pump foam pump module.



Deluge Skids

(Top Left) A single 100mm deluge valve with air receiver. **(Top Middle)** A deluge skid containing 4 x 150mm deluge valves. **(Top Right)** 2 x 4" deluge skid mounted inside a weatherproof cabinet. **(Bottom Left)** A 3 x 100mm, and 1 x 150mm deluge skid with air receiver. **(Bottom Right)** An H60 rated weatherproof skid with 2 x 100mm deluge valves.



Our deluge skids are a pre-packaged, pre-tested skid which simply needs connecting to your services on site and are ready to operate. Each skid is designed to meet your specific requirements, and can be configured in a variety of pipe sizes and pipe orientations.

Our skids can be custom-designed to suit your requirements, including:

- Pressure gauges/transmitters to your site specifications.
- Built in air receivers to ensure your fire system still works in case of failure of site air.
- Fire rated skids for placement in fire prone areas (e.g. H60).
- Heat tracing to ensure the system continues to be operational in particularly cold environments.

Fire Fighting Trailers

Orion design and manufacture a range of fire fighting trailers, including foam storage trailers, trailer mounted monitors, and highly specialised all-inclusive fire fighting trailers including a suction pump, dry chemical system and foam concentrate systems.

Our trailers are designed and built to the highest quality, ensuring that they will not let you down in an emergency.



(Top Left) A foam transfer trailer with 2 x foam IBC's and a diesel driven foam pump and hose reel. **(Top Right)** Our tote trailer incorporates a monitor and foam IBC, and can also include a hose reel. **(Bottom Left)** Our premium fire fighting trailers contain diesel driven pumps, on-board dry chemical and foam proportioning systems, a fire monitor and delivery points. They also include solar charging to ensure the trailer is ready whenever you need it. **(Bottom Right)** Our longreach trailers include an 8" monitor which can be connected to the fire hydrants to deliver impressive throw capabilities.

We also manufacture a range of application devices such as Foam Makers, Foam Chambers, as well as high back pressure foam makers and cooling nozzles. All of our products have enviable performance and quality which will outlast your expectations.

Our range of hose reels are designed for tropical and arctic environments, and are made from highly corrosion resistant materials for offshore service as well as more conventional materials for onshore plant. They can be standalone hose reels, or combined with an integral foam tank to provide foam solution to a local fire.



(Top Left) A 4" foam chamber **(Top Middle)** A portable high expansion foam system. **(Top Right)** A high back pressure foam maker, selection of cooling nozzles, and a foam pourer. **(Bottom Left)** A number of foam hose reels. **(Bottom Right)** A foam hose reel with 30m hose.





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