

### **BERMAD Fire Protection** Overview





As one of the leading global suppliers of control valves for fire protection systems, the BERMAD fire protection division leverages over 50 years of extensive experience and knowhow, cutting-edge technology and uncompromising R&D capabilities. All to create solutions that provide the highest level of reliability and endurance in the market, maintaining BERMAD's reputation as a leader in the field.

Proven with countless applications, BERMAD fire protection solutions incorporate renowned and patented technologies for fail-safe operation, zero flow obstruction, high and reliable flow rates with unrivalled robustness.

BERMAD valves are known for their low and easy maintenance backed by worldwide customer service from 12 subsidiaries on 5 continents. The company's globally-proven Fire Protection solutions can be found throughout the world as vital components of fire protection systems; and are frequently preferred for high-hazard installations due to their ability to quickly and effectively help prevent catastrophic damage.







Integrity



Commitment



Quality



Professionalism

### Leveraging over 50 years of experience

### Designed to meet the varied needs of multiple markets

With a widely diversified solution portfolio, we offer our customers deluge valves, pressure control valves, pressure relief valves, dry-pipe, pre-action and more, as well as a wide range of fire protection equipment for a variety of system applications.

BERMAD's reputation has led to its solutions being exclusively specified by engineers, consultants, and professional fire protection authorities around the world for a wide range of markets and applications including:

Π	FPSO Units	n	Refineries	n	Tu
n	Power Plants	n	LNG Terminals	n	Oi

### Dedicated Pre-Sale Service

Our team of experienced application engineers offers a pre-sale service second to none. By using this service, you can benefit from extensive knowledge in multiple fire protection fields and ensure that the optimal solution is selected for each application.



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### **Global Contribution**

Our global reach, combined with a strong local presence, enables us to successfully partake in many large scale international projects.

# Dedication to excellence

#### Precision engineering, innovation and cutting-edge technology

In line with our commitment to innovation, precision, quality and reliability, all our solutions are developed and manufactured in-house by a team of design and application engineers.

















### **Fire Protection Solutions**

#### BERMAD's innovative solutions adhere to the most stringent internationally recognized standards.

The entire process - from initiation to distribution and beyond - is monitored to ensure the highest level of quality, reliability and value.

Our quality assurance and control processes are ISO 9001-2000 certified and are maintained by a highly-trained and experienced staff, using the most advanced materials, production processes and sophisticated hydraulic testing facilities.

#### **Deluge solutions**

Whether for aggressive media, reducing high pressures, surge control, electric pneumatic remote or local activation, the wide range of BERMAD deluge valves with the accompaniment of our applications team are ready supply solutions for the toughest of challenges.

### **Pressure control solutions**

Our pressure-reducing solutions help control and balance high system pressures by reducing and stabilizing pressure throughout the system. BERMAD pressure relief and fire pump relief valves can also be tailored for specific conditions including extreme pressure spikes caused by aggressive pump start ups; Our differential pressure valves can be used to maintain optimal performance for foam and foam concentrate pump systems.

#### Harsh environment solutions

Offshore and onshore site conditions can be challenging due to corrosive media or environments. For this reason, our application team tailors each valve to the specific conditions in the field. With a deep understanding of the importance of coating, BERMAD combines a wide range of corrosion-resistant base materials with the most advanced coating methods and materials to meet the harshest anti-corrosion requirements.

### Hammer and surge control solutions

Surge and water hammer are very common problems in advanced fire protection systems that require extremely rapid fire pump activation and fast delivery of high water pressure and flow to the fire.

BERMAD supplies proven solutions to protect pumps, instrumentation and pipelines from dangerous surges and pressure waves formed by flow changes. For this purpose, the BERMAD line of control valves includes models that are especially adapted for use in aggressive fire protection systems. This prevents the system from damage caused by surge or water hammer whilst still retaining the immediacy of water delivery to the fire event source.



### **Fire Protection Deluge & Control Valves**

BERMAD valves are automatic elastomeric-type globe valves with a rolling-diaphragm and no mechanical friction for ultimate reliability.

They incorporate an integral, solid and resilient seal disc for long-term pressure holding characteristics. They are designed for vertical or horizontal installation, and are available in diameter sizes from 1.5" to 16"; DN40 to DN400.

### Deluge valves

The BERMAD deluge valve range includes valves that, from inception, were designed by our development engineers specifically for the unique requirements of fire protection systems. Recognized for their on-demand reliability, robustness, high flow and fast-opening for use in deluge, pre-action and on/off water spray or foam systems, our deluge valves set the standard in modern deluge valve design.

BERMAD deluge valves can be operated hydraulically, pneumatically or electropneumatically, with local or remote reset, and most options can include a built-in pressure reducing function together with the deluge valve function.

### Pressure control valves

BERMAD pressure control valves are autonomous line pressure driven, and do not require any external energy source for operation.

This group includes fire pump relief valves, pressure reducing, pressure-differential sustaining for dosing, proportioning systems, and pump suction control.

### Foam concentrate control valves

BERMAD foam concentrate control valves are built from high-grade corrosion resistant materials needed for reliable operation with the corrosive nature of foam concentrate. Our experienced engineering staff tailors each solution to the needs of your particular system.

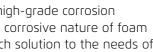
### Level control valves

BERMAD level control valves combine smooth and reliable operations with the simplicity of a float or level control pilot, maintaining correct water levels in firewater reservoirs or tanks. The option of installing the valve outside the tank or the reservoir streamlines maintenance, enabling easy access to the valve for scheduled servicing.

### Fire line strainers

BERMAD fire line strainers are designed for fire line installation, and help prevent the clogging of fire system nozzles, automatic sprinklers, deluge spray and foam systems.











## **Highlight Projects**



MMA Plant Thailand Deluge Valves with Local Reset



Ineos Gemini HDPE Storage Bunker

La Porte, Texas, USA Deluge Valves and Pressure Control Valves



Al Uqlah Refinery Yemen Foam Deluge Valves System



**De Djeno Terminal** CONGO Remote Control Deluge Valves System



**Euro-Tunnel** France - U.K. High Pressure Reducing Valves



**FPSOs** P-57, 63, 67, 68, 70, 71, 73, 74, 75, 76, 77 Offshore Brazil On-Off Deluge Valves



### Tempa Rosa Oil Field Phase 1 & 2 Italy

Seawater Pressure Control Deluge valves, Foam Concentrate Valves



Poliducto Pascuales Cuenca La Troncal Terminal

Ecuador Electro-Pneumatic Pressure Control, On-Off Deluge Valves



**Shell Stones FPSO** Gulf Of Mexico, USA Deluge Valves A60 Fire Rating, Blast Proof Cabinets



For more projects please scan



### Cidade de Mangaratiba FPSO

Offshore Brazil

On-Off Deluge Valves



### Martin Linge Fixed Production Platform

#### North Sea, Norway

Redundant Pressure Control Deluge Valves, Foam Concentrate Valves, Seawater Sprinkler Valves, SIL-2 rated



**ExxonMobil Sakhalin 1 Oil & Gas Production Field** Sakhalin Island, Russia Anti-Surge and Pump Start Control Valves

### About BERMAD

BERMAD is a leading, privately-owned global company that designs, develops and manufactures tailor-made water & flow management solutions that include state-of-the-art hydraulic control valves, air valves and advanced metering solutions.

Founded in 1965, BERMAD has spent over 50 years interacting with the world's major end users, and accumulating knowledge and experience in multiple markets and industries.



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