



MAXIMUM KNOCKDOWN ABILITY

Large Dry Chemical Fire Suppression Systems

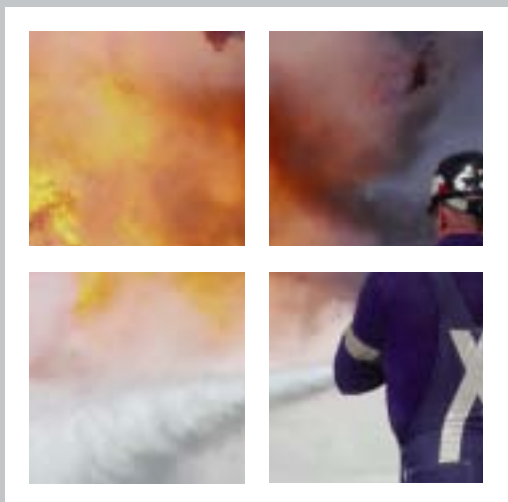


A Tyco International Company

ANSUL® DRY CHEMICAL FIRE PROTECTION WAS PIONEERED IN 1939, WHICH HELPED CREATE LARGE DRY CHEMICAL SYSTEMS WITH SUPERIOR FIREFIGHTING CAPABILITIES TO TAKE ON SOME OF THE MOST HAZARDOUS FIRES ON THE PLANET. FROM HAZARD ANALYSIS THROUGH SPECIFICATION, INSTALLATION, TESTING AND SERVICE, WE NEVER STOP BEING YOUR TRUSTED SOURCE FOR EVERYTHING YOU COULD POSSIBLY NEED TO FIGHT FIRES AND PROTECT YOUR STAFF, FACILITY, AND EQUIPMENT. ANSUL IS FIRE PROTECTION.



THE RISK IS GREAT, THE SOLUTION IS GREATER



Not all fires are created equal. Nor do they burn with equal ferocity. For the most hazardous fires you'll face, you need solutions up to the task. Tyco offers powerful ANSUL Dry Chemical fire suppression systems that use proven technology to fight the toughest flammable liquid and gas fires. Minimize your risk with maximum fire knockdown ability.

TWO OPTIONS — BOTH QUICK AND HEAVY-HITTING

Protecting your equipment and facility can be challenging, especially in extremely hazardous areas with the risk for large fires. It's vital to suppress the flames before they have a chance to spread or increase in size. The **manual** system effectively uses dry chemicals in situations not easily handled by hand portable and wheeled extinguishers. A customized **piped** system is the ultimate automatic, high-tech dry chemical solution.

MAXIMUM FIRE-STOPPING POWER ■ WORRY-FREE ASSET PROTECTION

EXTENSIVE TESTING ■ HIGH-QUALITY CONSTRUCTION

MEETS NFPA 17 STANDARDS ■ UL LISTED (HOSE LINE SYSTEM)

MANUAL—POWERFUL AND ADAPTABLE

The ideal dry chemical system should combine the flexibility of hand portable fire extinguishers with the power to knock down large Class B (flammable liquids and gases) and Class C (electrical) fires. Featuring large agent capacity and long discharge time, the **ANSUL Large Dry Chemical Manual System** offers the chance to use only the amount of agent necessary to suppress the fire. Plus, the tremendous dry chemical flow rate provides the confidence needed to fight three-dimensional fires and pressurized gas/liquid fires. In short, it's especially effective in areas where hand portable and wheeled extinguishers may not typically provide sufficient capacity.

HIGH-RISK FIRES DEMAND ANSUL LARGE DRY CHEMICAL SYSTEMS

Based on extensive experience in fire protection analysis, manual hose-line units are recommended when you face these conditions:

- **Large fires** — Class B and C fires are extremely hazardous and demand immediate knockdown ability; optional agents protect against Class A and D fires
- **Limited manpower** — Can be operated by one person
- **Remote location** — Self-contained units provide on-the-spot fire suppression capabilities without any pumps or external power source — plus they're easily recharged in the field.
- **Multiple hazards** — One system can be equipped with selector valves to supply multiple remote hose reels; protect multiple hazards from one central location

LARGE DRY CHEMICAL SYSTEM COMPONENTS AND OPERATION:

- 1 Manual system actuation** can be performed either remotely or by locally opening the nitrogen cylinder valve
- 2 Storage tank** filled with choice of dry chemical agents
- 3 Nitrogen cylinders** pressurize the tank and fluidize the dry chemical
- 4 Hose line and nozzle assembly** delivers the agent from the storage tank and directs the flow of dry chemical to the fire



MEETING YOUR SPECIFIC NEEDS

Another feature of an ANSUL Large Dry Chemical Manual System is custom adaptability, which allows the basic system to be designed to your requirements through the addition of one or more of the ANSUL options. What you get is a fire suppression system that meets your unique protection requirements.

- **Corrosion control package** — A special epoxy coating and corrosion-resistant brass protect against the effect of salt spray for offshore, marine, and coastline applications
- **Portability** — Several trailer assemblies are available; a special lift bar is available for remote locations that require airlifting of the system
- **Long-range nozzles** — Get increased range characteristics of a straight bore nozzle, plus added flow rate; with a range up to 40 ft (12.2 m), they're ideal for fighting pressurized-fuel fires
- **Remote actuation** — If the ANSUL system is located some distance from the actual fire hazard, piping can connect a hose reel to the system; simply pull the ring pin and push the lever on the remote actuator to bring dry chemical agent to the nozzle assembly
- **Selector valve assembly** — Protect up to six separate hazards with one system; a release mechanism opens the valve for the required area
- **Turret assembly** — Available in four sizes, the turret combines increased flow rate and long range for fires that may be too intense to approach with a hose line

LARGE DRY CHEMICAL SYSTEM OPTIONAL EQUIPMENT AVAILABILITY CHART

Base System	Purple-K Agent Class B:C		PLUS-FIFTY C Agent Class B:C		FORAY Agent Class A:B:C		Lift Bar	Floor-Mtd.	Skid-Mtd.	Trailer	Corrosion Control Package	Long-Range Nozzles	Remote Actuation	Remote Hose Reels	Turret	Selector Valves	Class D Agents
	lb	(kg)	lb	(kg)	lb	(kg)											
S-150	125	(57)	150	(68)	125	(57)		■			■	■					■
S-350	300	(136)	350	(159)	300	(136)		■		■	■	■					■
S-500	450	(204)	500	(227)	450	(204)	■	■	■	■	■	■	■	■			■
S-1000	900	(408)	1000	(454)	900	(408)	■	■	■	■	■	■	■	■		■	■
S-1500	1350	(612)	1500	(680)	1350	(612)	■	■	■	■	■	■	■	■	■	■	■
S-2000	1800	(816)	2000	(907)	1800	(816)	■	■	■	■	■	■	■	■	■	■	■
S-3000	2700	(1225)	3000	(1361)	2700	(1225)	■	■	■	■	■	■	■	■	■	■	■

■ = Available **Note:** Options shown are based on standard units. Consult Technical Services for additional options or combinations not shown.

PIPED SYSTEMS ARE COMPLETELY CUSTOMIZED

An **ANSUL Dry Chemical Piped System** provides automatic fixed-nozzle capabilities that include detection and alarm, electric or pneumatic manual actuation, and shutdown of any accessory equipment. Users appreciate system flexibility in employing a variety of detectors: thermal, photoelectric, rate-of-rise, ionization, and flame.

COVERING THE HAZARD — NOZZLE SELECTION

Engineered specifically for use with dry chemical piped systems, each nozzle in the ANSUL line is designed for a particular application method and discharge pattern. Most are available in various sizes and flow rates.

- **“D” Nozzle** — a widely dispersed and diffused discharge pattern; use for total flooding
- **“C” Nozzle** — elliptical or circular discharge pattern; local application overhead protection
- **“S” Nozzle** — similar discharge and protection as “C” nozzle but with a longer range; use where higher air velocities are encountered
- **“F” Nozzle** — discharges in a thin, flat, semi-circular pattern; local application tankside
- **“T” Nozzle** — flat discharge pattern covering 160° of arc; use for high flow rates and ranges of agents
- **“X” Nozzle** — discharges at a high velocity and flow rate in a conical pattern; local application or total flooding

LARGE DRY CHEMICAL PIPED SYSTEM COMPONENTS AND OPERATION:

- 1 AUTOPULSE Control System** detects the fire and provides alarms, remote annunciation, and shutdown of equipment
- 2 AUTOMAN Control System** provides pneumatic signal to open nitrogen cylinders
- 3 Storage tank** filled with choice of dry chemical agents
- 4 Nitrogen cylinders** pressurize the tank and fluidize the dry chemical
- 5 Piping** to deliver the agent from the storage tank to the discharge nozzles
- 6 Nozzle assembly** to control and direct the flow of dry chemical to the fire



TAILORING A SYSTEM TO YOUR REQUIREMENTS

ANSUL Large Dry Chemical Piped Systems are designed to be customized to your needs. You choose the detection system, what accessory equipment will be shut down, types of detectors, and remote electric or pneumatic manual actuation.

- **Total engineered system** — Selection of agent, detection system, nozzle types, and placement is made with your needs in mind
- **Detection and control flexibility** — Automatic, 24-hour protection, even in unattended areas; manual and remote actuation available
- **The right size** — Agent capacities ranging from 150 to 3000 lb (68-1350 kg) for a wide range of hazard sizes
- **Complete line of agents** — The industry's most complete line of dry chemical agents, each formulated for particular types of hazard and application methods
- **Full-scale testing** — Testing under actual fire conditions for the most reliable systems and agents

MORE THAN FIRE PROTECTION

From qualified installation to experienced service, your expertly trained, local ANSUL distributor can handle whatever fire protection needs you have. Training maximizes the effectiveness of your equipment, so Tyco offers a wide range of tools and hands-on training. The people, products, expertise, and dedication you expect are ready to handle your challenge — from start to finish. Tyco is your fire protection partner.

THESE INDUSTRIES BENEFIT MOST FROM AN ANSUL LARGE DRY CHEMICAL SYSTEM:

PETROLEUM/ PETROCHEMICAL

- Loading Racks
- Refinery Processing Equipment
- Product Transfer and Storage Areas
- Offshore Platforms
- Process Areas

MARINE

- Tanker Decks
- Machinery Spaces
- Loading Docks

MANUFACTURING

- Paint Spray Booths
- Dip and Quench Tanks
- Warehouses
- Steel Mills
- Paint and Solvent Mixing Areas
- Machinery Lubricating Systems
- Flammable Liquid Storage Areas

POWER GENERATION/ UTILITIES

- Transformers
- Generators
- Turbines
- Control Equipment
- Fuel Storage Areas

NATURAL GAS

- LNG Tankers
- Natural Gas Plants
- Process Piping
- Vaporizers
- Compressors
- Liquefaction Plants
- Sump Areas
- Truck Loading Areas



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