

MSA Safety Solutions

for the Oil, Gas and Petrochemical Industry



*Because every life has a **purpose...***

The Changing Face **of the Oil, Gas and Petrochemical Industry**



As the global leader in personal protective equipment, MSA understands that oil, gas and petrochemical (OGP) industry safety considerations continually change as technology advances to feed an energy-hungry world. Increases in energy development projects such as natural gas shale deposit and deep-water drilling underscore the growing need for reliable gas detection and associated safety solutions.

In response to these particular challenges and risks, MSA designs and manufactures a comprehensive line of world-class safety products for oil, gas and petrochemical applications to protect workers and firefighters dedicated to these sites. MSA's expertise is showcased through globally-approved products ranging from respiratory protection, head, eye and face protection, fall protection, and fixed flame and gas detection instruments to reliable, durable and easy-to-use portable single- and multigas detectors.

MSA's manufacturing plants across the globe means that MSA can support your needs wherever you are. Contact MSA for further information regarding our products offered for oil, gas and petrochemical safety applications.



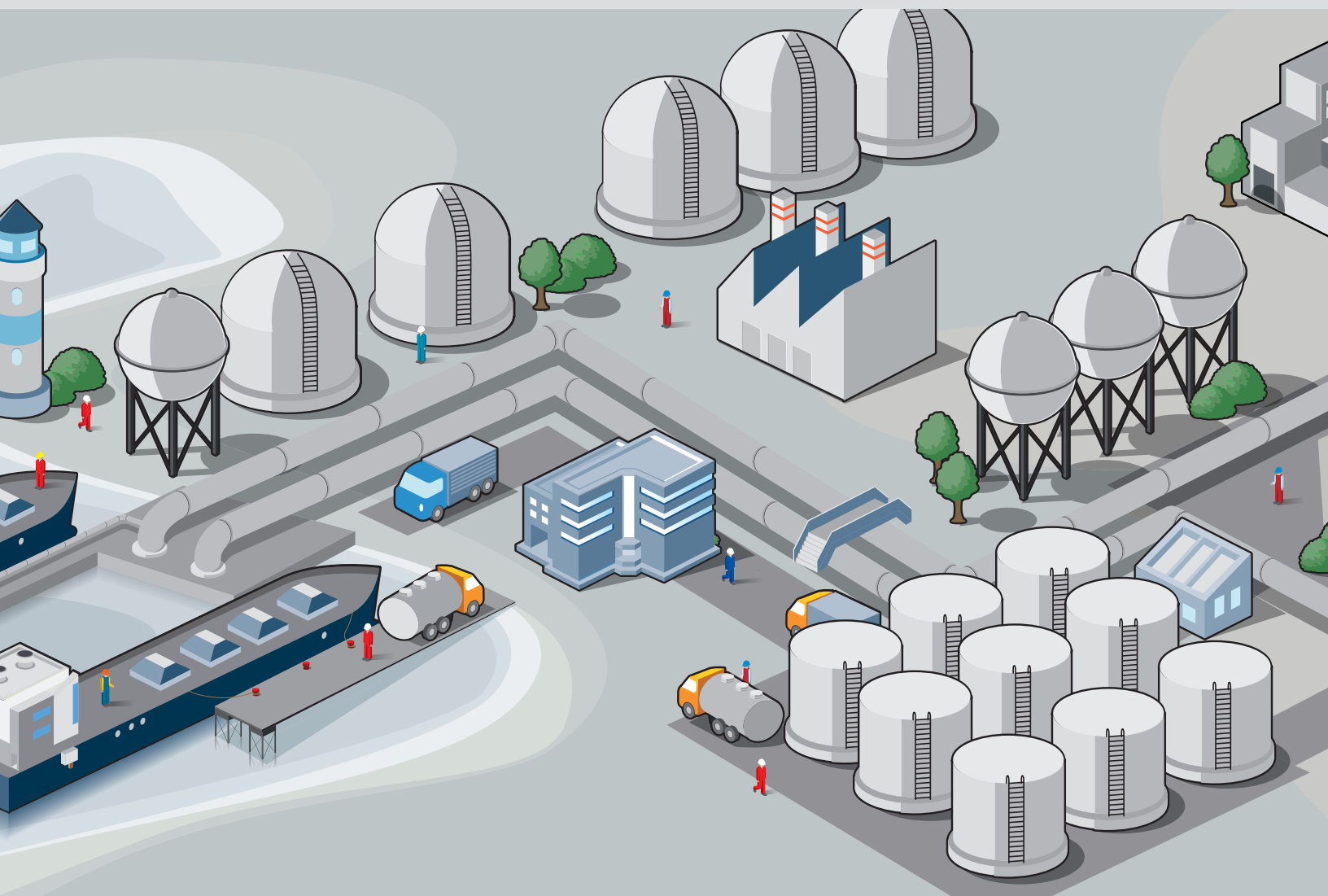
Drilling and Exploration



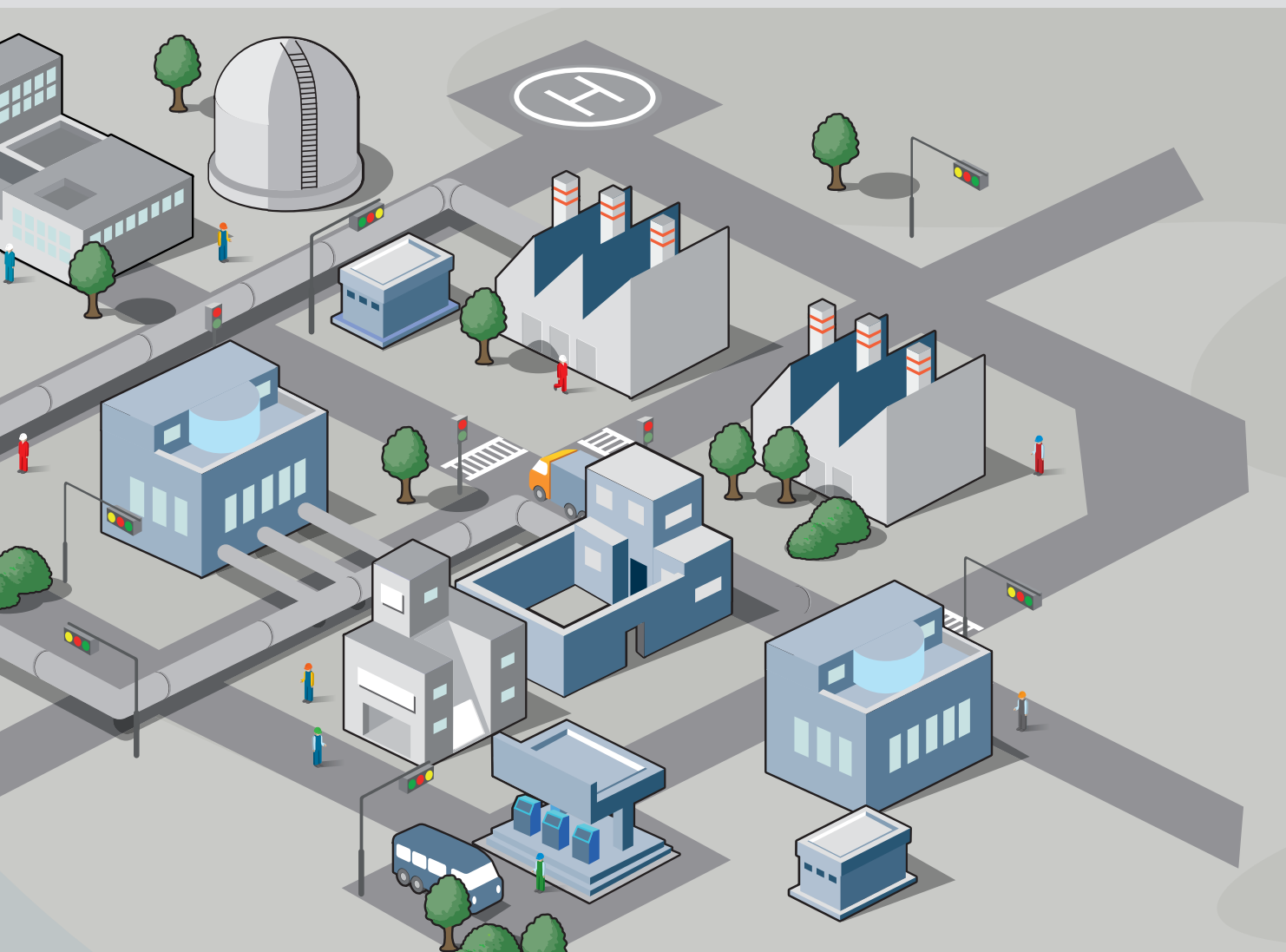
Applications	Risks	MSA Solutions
Geophysical, seismographic and geological research operations	Extreme weather conditions: hot and cold temperatures, sand, salt water	HEFH* protection, respirators
Appraisal and production drilling	Potential hazards related to drilling through rocks, noise, and chemicals	HEFH protection, respirators
Site preparation	Falling objects, shocks, falls, and slips	HEFH protection, fall protection
Wire line operation	Receiving burns, potential respiratory hazards due to fire	HEFH protection, respirators
Well logging	Potential radiation exposure	Eye protection, portable gas detection, respirators
Cementing	Potential ignition exposure and respiratory hazards	Respirators, portable gas detection
Pumping	Potential chemical hazard exposure, high noise levels, slips, trips and falls, combustible toxic gas presence	Respirators, head protection, hearing protection, fall protection, permanent gas detection systems
Rigging up and down	Potential ignition exposure, respiratory hazards, fall from heights	Respirators, fall protection, portable gas detection
Drilling site restoration upon work completion	Falling objects, shocks, falls, and slips	HEFH protection, fall protection

*HEFH: head, eye, face, hearing

Refining and Distribution



Applications	Risks	MSA Solutions
Purification of crude oil and natural gas	Toxic gas and oxygen deficiency	Respirators, permanent gas detection systems
Converting crude into petroleum and gas products	Potential chemical and toxic gas hazards, risk of explosions and fire	Respirators, permanent flame and gas detection systems
Transportation via pipelines or ships	Risk of explosions and fire	Respirators, permanent gas detection, portable gas detection
Fuel loading	Risk of explosions (gas leaks) and fire	Permanent gas detection, portable gas detection, respirators
Work at pipelines, oil and gas terminals	Combustible gas leaks	Respirators, portable and permanent gas detection
Storing of oil and natural gases	Leaks, risk of fire	Portable gas detection, permanent flame and gas detection systems
Maintenance jobs	Eye injuries caused by mechanical impact, liquid splash, UV radiation and potential chemical and toxic gas hazards	HEFH protection, respirators, fall protection, portable gas detection
Tank cleaning	Potential toxic gas exposure and oxygen deficiency	Portable gas detection, respirators
Confined space	Oxygen deficiency, potential chemical and toxic gas hazards	Respirators, head protection, portable gas detection, entry/retrieval systems
Emergency escape situations	Explosions	Escape respirators



Applications	Risks	MSA Solutions
Petroleum and natural gas processing	Combustible gases	Permanent flame and gas detection systems, portable gas detection
Aromatic compounds and lubricants production	Potential chemical hazards	Permanent gas detection, respirators
Dipping/coating operations	Potential chemical hazards, eye injuries	Respirators, head, eye and face protection
Sampling of oil	Potential toxic gas and chemical hazards	Respirators
Maintenance, servicing and minor repairs	Noise and smoke hazards, potential toxic substance exposure, oxygen deficiency	Respirators, head protection, hearing protection, portable gas detection, fall protection
Chemical waste management	Potentially harmful fumes	Respirators, portable gas detection
Escape situations	Oxygen deficiency, risk of explosions and fire	Escape respirators

Drilling and Exploration	Refining and Distribution	Petrochemicals	MSA Product Description
Respiratory Protection			
•	•	•	PremAire® Cadet with Escape Cylinder
•	•	•	AirHawk® II Air Mask
•	•	•	Breathing Air Distribution System
	•	•	OptimAir® TL PAPR
•	•	•	Advantage® 420 Half-Mask Respirator
Escape Devices			
	•	•	TransAire® 5 Escape Respirator
	•	•	TransAire 10 Escape Respirator
•	•	•	Custom Air V® Escape Respirator
•	•	•	S-Cap™ Fire Escape Hood
Portable Instruments			
•	•	•	ALTAIR® 5X Multigas Detector
•	•	•	ALTAIR 4X Multigas Detector
•	•	•	ALTAIR and ALTAIR Pro Single-Gas Detectors
•	•	•	ALTAIR QuickCheck® Station
•	•	•	GALAXY® GX2 Automated Test System
Permanent Instruments			
•	•	•	UltraSonic™ EX-5 Gas Leak Detector
•	•	•	Model 10K Integrated Fire and Gas System
•	•	•	Chemgard® Photoacoustic Infrared Gas Monitor Series
•	•	•	Ultima® X IR Gas Monitor
•	•	•	Ultima X Series Gas Monitors with X3® Technology
•	•	•	Suprema® Gas Monitor
•	•	•	FlameGard® 5 MSIR Flame Detector
•	•	•	FlameGard 5 Test Lamp
•	•	•	Ultima MOS-5 Gas Detector
•	•	•	Ultima MOS-5E Gas Detector
•	•	•	Ultima OPIR-5 Infrared Gas Detector
Head, Eye, Face, and Hearing Protection			
•	•	•	V-Gard® Cap
•	•	•	V-Gard Hat
•	•	•	V-Gard Accessories
•	•	•	Sightgard® Protective Eyewear
•		•	left/RIGHT® Hearing Protection Ear Muffs
•	•	•	Sound Control SH® Ear Muffs for V-Gard Slotted Hats
Fall Protection			
•	•	•	Workman® Construction Harness
•	•	•	Workman Utility Harness
•	•	•	Workman Energy-Absorbing Lanyards
•	•	•	Anchorage connector strap
•	•	•	Dyna-Lock® SRL (30' and 95') - cable
•	•	•	Workman Tripod kit w/ hoist and rescuer
•	•	•	SureLine™ Horizontal Lifeline System
•	•	•	SureClimb™ Ladder Climbing System

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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