

ATEX certified power tools = Safety in hazardous atmospheres

CS Unitec Inc.

Working in explosive atmospheres carries many challenges, the most important of which is the safety of the workers. An explosive atmosphere is defined as one in which enough flammable gas, mist, vapor or dust is mixed with air to cause an explosion if ignition (electrical or mechanical) occurs. The requirements for controlling explosive atmospheres, as well as the standards for equipment and protective systems used in them, are outlined in ATEX directive 94/9/EC.

ATEX is a directive outlining a number of technical and quality objectives that must be complied with to the satisfaction of a third-party certification association. This directive is addressed to those who design, manufacture or sell any equipment intended for use in potentially explosive atmospheres. Once the objectives have been met, the certified product is marked with the appropriate ATEX classification label and Ex symbol.

Compliance with the ATEX directive has been a legal requirement in all European United States since July 2003. The ATEX symbol is recognized internationally, assuring users worldwide the product was manufactured to high levels of safety.

CS Unitec Inc., a company specializing in pneumatic, hydraulic and electric power tools, offers a line of power tools for the oil, gas and energy industries. ATEX certified air and hydraulic power tools from the company include reciprocating saws, hacksaws, rotary hammer drills, impact wrenches, portable band saws, nut runners, magnetic drills, axial fans, ventilators and more.

"Naturally, it is important to follow the operating instructions for each tool. In addition, it is critical to use the correct safety equipment required when working in hazardous areas and Ex zones," said CS Unitec President Tom Carroll. "The ATEX directive, while not a requirement in the United States, is a practical, professional guideline for working safely in hazardous areas. When choosing the right tool for an explosive zone, each user is responsible for following all safety regulations, including knowing the correct tools for use."

Ex Zones are defined for gas, mists or vapors as an atmosphere where a mixture of air and flammable substances in the form of gas, vapor or mist is:

- Present frequently, continuously or for long periods = Zone 0.

- Likely to occur in normal operation occasionally = Zone 1.

- Not likely to occur in normal operation but, if it does occur, will persist for only a short period = Zone 2.

Ex zones are defined for dusts as an atmosphere where a cloud of combustible dust in the air is:

- Present frequently, continuously or for long periods = Zone 20.

- Likely to occur in normal operation occasionally = Zone 21.

- Not likely to occur in normal operation but, if it does occur, will persist for only a short period = Zone 22.

Four ATEX classification elements are used to ensure a specific piece of equipment is appropriate for its intended purpose and can be safely used in a particular application. These four elements are: 1. Industrial or mining application, 2. Equipment category, 3. Atmosphere and 4. Temperature (see ATEX

ATEX Classification Chart

Group	Equipment Category	Atmosphere	Safety Design	Temperature (surface does not exceed)
II Surface Industry IM Mining Applications	1 Very High Level of Protection [Zone 0, 1, 2 or 20, 21, 22]	G Atmosphere Containing Gas, Vapors or Mist	c (previously known as "machine norms")	T1 842°F/450°C
	2 High Level of Protection [Zone 1, 2 or 21, 22]	D Atmosphere Containing Dust		T2 572°F/300°C
	3 Normal Level of Protection [Zone 2 or 22]			T3 392°F/200°C
				T4 275°F/135°C
				T5 212°F/100°C
				T6 185°F/85°C

Classification Chart for more information).

For example, CS Unitec's Pneumatic Reciprocating Saw, model number 5 1217 0020, is certified for Ex II 2 GcT5, making it appropriate for industrial Ex zones 1, 2 and 21, 22.


For more information and product specifications on CS Unitec's ATEX approved industrial power tools or for a free poster explaining Ex zones, visit www.csunitec.com/bic, call (800) 700-5919, (203) 853-9522 internationally, or email info@csunitec.com.

INDUSTRIAL POWER TOOLS

CS Unitec has the right tools for working in ATEX and Ex zones, as well as in Subsea applications...

Non-Sparking & Non-Magnetic Safety Tools
AlBr or CuBe Alloy

- For Ex zones where hazardous, flammable or combustible materials may be present
- Hammers, wrenches, sockets and more




Portable Air Band Saws

Ex II 2 GcT6 (Model No. 5 6003 0010)

Ex IM 2 cT6 (Model No. 5 6031 0010)


- Fast cutting up to 9" OD
- Underwater hydraulic models also available



Portable Air Hacksaws

Ex II 2 GcT5


- On-site cutting of pipe up to 30" OD and structural steel
- Underwater hydraulic models also available



Air & Hydraulic Reciprocating Saws

Ex II 2 GcT5


- Cut steel and pipe up to 6" dia.
- Underwater hydraulic models also available



Air Nut Runners

Ex IM 2 cT6


- High torque for turning valves, tightening, tapping, beveling and more
- Underwater hydraulic models available




Portable Magnetic Drills - Air and Hydraulic

HB-4400 Hydraulic Drill - ideal for subsea and marine applications

- Drill up to 2 1/16" (52mm) dia. holes
- Coolant system reduces risk of sparking
- Lightweight and portable
- Electric models to cut holes up to 5 1/8" dia. and tap up to 1 5/8" dia.





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1-800-700-5919
www.csunitec.com/bic

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