

Is safety of Compressed Air Systems really just about safety?



More and more companies are finding that to be competitive in this global economy they need to do more with few resources. So when budgets and schedules are tight, safety might not be the first priority that comes into mind when making decisions on the purchase or maintenance of a compressed air system. But is safety really just about safety? Here are ten health & safety tips shared by Mr. Imtiaz Rastgar that end users should consider throughout the lifecycle of their compressed air systems.

Designed to be Safe

The compressed air systems should be designed as Safe Air compressors, their components and accessories need to meet a number of design codes and standards; machines need to be clearly CE marked and vendors should be able to provide full documentation on compliance. Proper design prevents accidental exposure to moving parts, live voltage, high pressure or chemicals that could cause injury.

Safe Access

The end users often have only limited space available to place an air compressor, yet a machine that is difficult, unsafe or impossible to access can cause serious disruption in the future when there is a need for a routine or unplanned maintenance and as a consequence down time.

Experienced Installation Team

The experienced installation team and reliable provider should design, install and commission air compressors and its associated civil work, piping, etc. with the selection of the most suitable materials, safety and bleed valves, that will prevent future leaks and other undesirable events that could result in injury to customer staff or down times.

Trained Service Staff

The air compressor service personnel that are regularly trained, better understand and comply with safety procedures. There is a proven record for fewer injuries, in addition to the higher quality and greater efficiency resulting in a more reliable compressed air system.

Personal Protection Equipment

The service personnel wearing personal protection equipment such as safety boots, gloves and safety glasses are probably the best indicator that the compressed air system provider handles all other aspects of its business with the same due diligence and care.

Hazardous Energy Sources

The lockout of Hazardous Energy Sources before any work, routine or unplanned, should be initiated on a compressor. All energy sources (compressed air, electricity and in some cases water) should be isolated. With this important step, the vast majority of maintenance related disruption to other operations and injuries can be prevented easily.

Electrical Safety

The air compressors can be often running on up to 600-700 volts, which means special care needs to be taken from design through installation to main-

tenance. A major risk of compressed air service activities is Arc Flash; the risk of this extremely high temperature electrical flash can be mitigated if service personnel follow a rigorous safety procedure and are dressed in the correct protective clothing.

Road Safety

The compressed air system providers with a dedicated, maintained and regularly inspected fleet will arrive in time and will deliver the products in time, saving the customer money and keeping the process lean.

Regular Maintenance

To ensure the safe operation of an air compressor, regular maintenance intervals should be kept even if the machine is up and running without any issues. A well-scheduled visit from the service provider will also prevent or minimise disruption to the connecting plant operations. As an alternative, the investment of a backup unit can also be considered. This is particularly important, where compressed air is critical to production and where any loss of air would cause expensive downtime.

Sustainable Operation

The air compressors with an extended product life, lower energy consumption and longer maintenance periods will certainly act positively on mid and long-term capital and operational expenditure but also result in less waste generated from the replacement of fluids, filters and other consumable parts for a more sustainable operation.

So is the safety of compressed air systems really just about safety? Safety means better quality of services, less down time of air compressors and lean operations at the end user side. ♦

