



HSE BULLETIN

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Pressure Systems – Pneumatic & Hydraulic

Pressure systems tend to be either pneumatic (compressed air) or hydraulic (water or oil). Many types of pressure equipment can be hazardous. These include steam boilers and associated pipework, pressurized hot-water boilers, air compressors, air receivers and associated pipework, autoclaves, gas (eg LPG) storage tanks and chemical reaction vessels. When things go wrong, these types of equipment can cause serious injuries and even fatalities. However, assessing the risks and putting proper precautions in place will minimize the chances of any accidents occurring.

The principal causes of incidents are:

- Poor equipment and/or system design
- Poor maintenance of equipment
- An unsafe system of work
- Operator error and/or poor training/supervision
- Poor installation, and
- Inadequate repairs or modifications

Basic precautions

- ✓ To reduce the risks you need to know (and act on) some basic precautions:
- ✓ Ensure the system can be operated safely, for example without having to climb or struggle through gaps in pipework or structures.
- ✓ Be careful when repairing or modifying a pressure system. Following a major repair and/or modification, you may need to have the whole system re-examined before allowing the system to come back into use.
- ✓ Ensure there is a set of operating instructions for all of the equipment in the system and for the control of the system as a whole, including in emergencies.
- ✓ There should be a maintenance programme for the system as a whole. It should take into account the system and equipment age, its uses and the environment in which it is being used.



General Rules :-



- ❖ Only work on pressure systems if you are trained, competent and authorized to do so.
- ❖ Do not operate any pressure system unless you are sure it has been inspected and tested in accordance with all company procedures; if you are in any doubt contact your supervisor.
- ❖ Always visually inspect the equipment before use. Record the inspection and report any obvious defects to your supervisor.
- ❖ Always isolate the system and release the pressure before maintenance or equipment change is undertaken.
- ❖ Never use any air hoses which are provided with wire rope or chain couplings unless the couplings are securely connected.
- ❖ Compressed air should not be used for cleaning purposes unless the following control measures are in place:
 - The airline is fitted with a proprietary trigger valve.
 - All mandatory PPEs are worn at all times.
 - All available steps are taken to avoid air borne dust, i.e. dampening down if possible.

Please Send your answers by email to:

hse@aimsgt.com

What chemical property can tell you whether a liquid is flammable at room temperature?

- a) Lower Explosive Limit
- b) Flashpoint
- c) Upper Explosive Limit
- d) Auto ignition temperature

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Last Month HSE Quiz
Answer: Option A

- ✓ Vivish NV
- ✓ Muhammad PK
- ✓ Joe David
- ✓ Mohammed Majid

Congratulations!

