SAFETY BULLETIN	No 12/031
	Date March 12

Safety Information: Service valves Manufacturer AWA Germany

As standard AWA-service valves type S 12 to S 28 have been installed on Screw Compressor packages and Chillers by GEA Grasso for many years. AWA manufacture many thousands of these valve types per annum which are in use in the entire refrigeration market worldwide

In 2010 the installation of GEA AWP GmbH valves who developed a range of 63 bar service valves in a forged full steel valve body design - have been launched at GEA Refrigeration Germany GmbH in order to get one solution for all packages, including heat pump and CO 2 applications. Consequently, last AWA-service valves have been installed by GEA in February 2011.

Recently, we have been informed about some **broken AWA-service valves** with a destroyed brazed connection on the valve

To our knowledge, the breakage of these valves was predominantly caused by **mistreatment** through an extreme mechanical overload not in line with the recommendations given by the manufacturer AWA. In single cases breakage had been supported by additional corrosion of the brazed joint.

In one case the breakage of a AWA-service valve in the UK market lead to an incident in which a refrigeration engineer was injured at an Ammonia chill store installation.(for details please see www.ior.org.uk, Guidance note 22, “Valve Failure Safety Alert”). In light of this, there is **serious risk of damage or injury** which may be caused by a broken valve.

Therefore, and for preventive reasons and as a manufacturer to whom safety is of utmost importance, we consider it **strictly necessary** that the handling of the said valves is done in line with the recommendations of the manufacturer AWA as well as the documentation and the additional advice given in this safety information. Please also **urgently pass on this safety information** to anyone – in particular your customers – who may be operating AWA-service valves.

Even though only a minimal rate of failures of the installed valves **please note** our **recommendations** and **preventive measures.**

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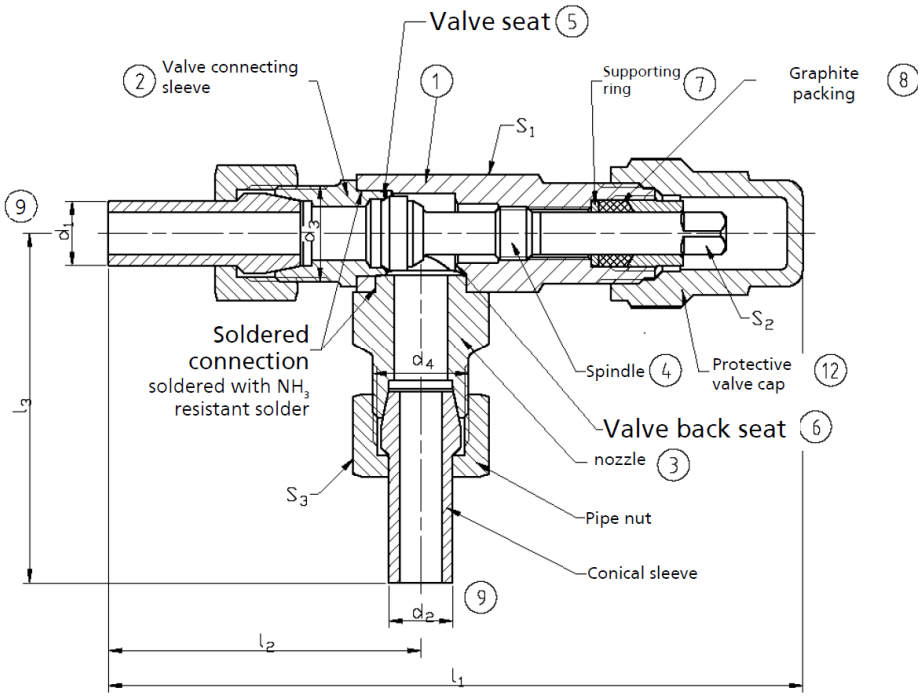
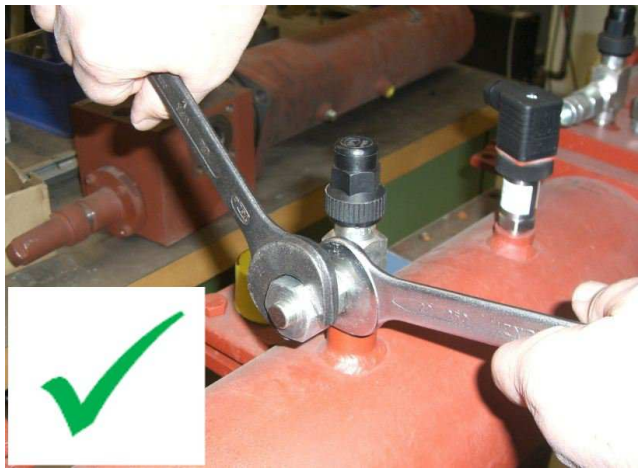


Instructions:

1. Before commencing work on any Refrigerating system wear PPE as required by your employers' Risk and COSHH assessments for the refrigerant within the system **PLUS** in the case of Ammonia have wear the required breathing apparatus.

2. When working on any type of valve with screwed connections **always use a check spanner to hold the body of the valve whilst undoing connections**, caps, plugs, etc, with another spanner.



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3. Identify all refrigeration plants containing these types of valves installed in parts of the system susceptible to corrosion e.g. regular cycling from sub-zero to above zero temperatures or frequent operation in a wet condition. Then **DO NOT ATTEMPT** to use the valves until an appropriate risk assessment is carried out for either the replacement or the continued operation of the valves.

4. When working on refrigeration plants with these types of valves installed and operating in dry conditions such as in oil or HP liquid pipe lines etc, **DO NOT ATTEMPT** to work on the valves without firstly isolating upstream and downstream of the valve in order to limit potential gas loss.

5. Ammonia is not considered to be a risk factor in the failure performance, so the engineer should be aware of the risk of refrigerant burn injury regardless of refrigerant type.

6. Clean and apply refrigeration oil to threads before replacing screwed connections.

7. The maximum tightening torque angle for this screwed connections is a 90° turn after hand tightness – **never over tighten the connections**
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8. Check for corrosion and potential cracks in the painting at every standard maintenance intervention (every 5.000 running hours, described in the service manual) and at all service interventions when these valves will be operated. **Valves with bended studs, corrosion or cracks must be exchanged, with for instance GEA AWP type valves.**

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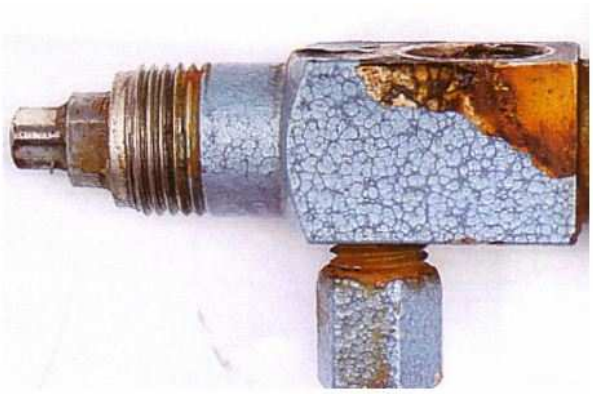

× Corrosion! Don't use!

☝ Valve is to be replaced!

9. Consider if insulation is required to prevent ice from building up around the valve and exerting forces on the pipe stubs and nuts.

This document is available on the J&E Hall web site/My J&E Hall/HSQE area/Health & Safety/Safe Work Instructions.

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Regards

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