

## EU – Directives

### CE - Labelling on Wandfluh Hydraulic Products

#### 1. General

In its handling of the CE marking of hydraulic components, WAG follows the Cetop - position papers. These have been agreed by the Cetop (European Committee Oil Hydraulics + Pneumatics) with the European Commission.

Grey areas present in the various guidelines and also differing interpretations can lead to some uncertainty.

In order to be allowed to affix the CE label, the product has to fall within the application range of one or of several Directives. In addition, there has to be a declaration of conformity, the handling of which, however, is foreseen differently in various Directives. The declaration of conformity has to include a reference to the Directive concerned. For individual Directives (or parts of them), type tests have to be carried out.

#### 2. Directives concerned

With the following EU-Directives Wandfluh products are concerned:

- RoHS Directive (2002/95/EC) Electric - and Electronic Devices
- ATEX Directive (94/9/EC) Explosion Protection
- Machines Directive (98/37/EC) Machine Safety
- EMC Directive (89/336/EEC) Electromagnetic compatibility
- Pressure Equipm. Dir. (97/23/EC) PED (Pressure Equipment Directive)

#### 3. WAG - Handling in Detail

##### 3.1 RoHS Directive

###### Objective

Avoidance or reduction of Pb, Hg, Cd, Cr VI, PBP, PBDE.

###### Scope

The affected electric and electronic devices are listed in the WEEE Directive (annex 1B). Wandfluh products are only installed in consumer goods in exceptional cases. Nonetheless, WAG has been concerned with this Directive for some time already and we have established a procedural plan for dealing with it.

###### Deadline

Currently the transition period is in force. As from 1.7.2006, no electric or electronic devices, which fall within the scope of the RoHS Directive and are not conforming to the Directive, must be brought into circulation.

## Wandfluh Products

### Electronics:

The electronics production has already in part been changed over to lead-free soldering. In the case of some products, the change-over will still be specially validated.

In the case of the electronics components, the change-over of RoHS-conforming parts takes place before the end of the transition period.

### Valves:

- Solenoids will be changed over to lead-free soldering during the transition period.
- Sandwich plates made out of lead-alloyed machining steel, contain not more than 0,35 % Pb, which is RoHS-conforming.
- A general change-over of the expanders (yellow passivated, not free of Cr VI). is not possible by the 1.7.2006.
- Individual valve components still have to be analysed in more detail.
- The standard WAG surface protection (zinc-coated, blue passivated) is free of CR VI.
- The improved surface protection zinc-coated, olive passivated contains Cr VI (it is provided with the additional designation K1).
- It is not possible to change-over all existing products to be Directive - conforming. If required, a special version (Spec. Type) has to be planned.

### Labelling

A CE - labelling is not foreseen in accordance with the Directive.

## 3.2 ATEX Directive

### Objective

Prevention of accidents when using equipment in areas subject to explosion hazards.

### Scope

In case of the valves, one differentiates between an electric (solenoid) and a non-electric part. The type tested solenoid coils correspond to the ATEX Directive. The non-electric part does not have any potential ignition sources of its own and therefore does not generally fall within the Directive. No new potential ignition sources are created by the assembly, which is confirmed by a manufacturer's declaration.

In the case of the hydraulic units, the electric components are Directive conforming and for the non-electrical part a risk consideration has been carried out.

### Deadline

Since 2003 the Directive is definitely in force.

### Wandfluh Products

Solenoid valves are equipped with type tested coils, the coils are CE labelled. The type testing certificates of the respective mentioned bodies are available.

In case of the hydraulic units, WAG develops a hydraulic unit range conforming to ATEX. As a basis, one hydraulic unit is exemplarily type tested.

### Labelling / Documentation

ATEX solenoid valves and hydraulic units are provided with a CE - label and a declaration of conformity.

### 3.3 Machines Directive

#### Objective

To promote machine safety. To prevent accidents and fires (to protect human beings).

#### Scope

Complete machines and safety components, which are offered as safety components. In accordance with the Cetop position paper PP01, hydraulic components in general do not fall within it.

#### Wandfluh Products

- Valves, hydraulic control units and devices do not fall within the Directive, but they are developed in accordance with EN 982 (safety relevant standard for the Directive).
- Wandfluh does not offer any safety components (these would have to be type tested).
- Hydraulic test banks are considered as machines and have to conform to the Directive.

#### Labelling / Documentation

- For valves in accordance with the WAG product catalogue a general manufacturer's declaration is available (safety conforming to EN 982).
- Together with the hydraulic units a manufacturer's declaration and operating instructions are provided.
- Hydraulic test banks are supplied together with a declaration of conformity and they are provided with a CE label.

### 3.4 EMC Directive

#### Objective

To keep electromagnetic compatibility, i.e. the emission of interference and the reception of interference within prescribed limits.

#### Scope

Concerned are electronic cards and valves with integrated electronics. According to the Cetop position paper PP 02, solenoids (coils) do not fall within it.

#### Wandfluh Products

Electronic cards and "DSV" valves are externally checked for EMC, and in the case of analogue products, the EMC conformity is derived.

#### Labelling / Documentation

The EMC conforming electronic cards are provided with the CE label. As of new, the "DSV" valves have the CE label (in a transition phase because of stock inventory).

The declaration of conformity is available, but in accordance with the Directive it is not provided with the product.

### 3.5 Pressure Equipment Directive „PED“

#### **Objective**

To reduce pressure risks in the system.

#### **Scope**

According to Cetop position paper PP04, hydraulic components are excluded from the Directive:

- Valves, pumps, motors and cylinders: because they are not operated with dangerous fluids of the group 1 according to article 9 of the Directive (explosion danger, flammable, poisonous, ...).
- Screw connections and piping: when the nominal diameter is smaller than 200 mm.
- When the components fall under another Directive (e.g. ATEX Directive).
- Pressure accumulators when  $V < 1\text{l}$  and  $p.V < 50$ .

#### **Wandfluh Products**

WAG products are not concerned, unless they are operated with dangerous fluids or utilised as safety valves.

#### **Labelling**

There is no general labelling of the WAG - products.

Devices: With pressure accumulators ( $V > 1\text{l}$  and  $p.V > 50$  (l.bar)), a declaration of conformity by the accumulator manufacturer is provided. Otherwise a works certification (test confirmation) of the accumulator manufacturer. If type tested pressure relief devices are installed, the corresponding declaration of conformity is provided.