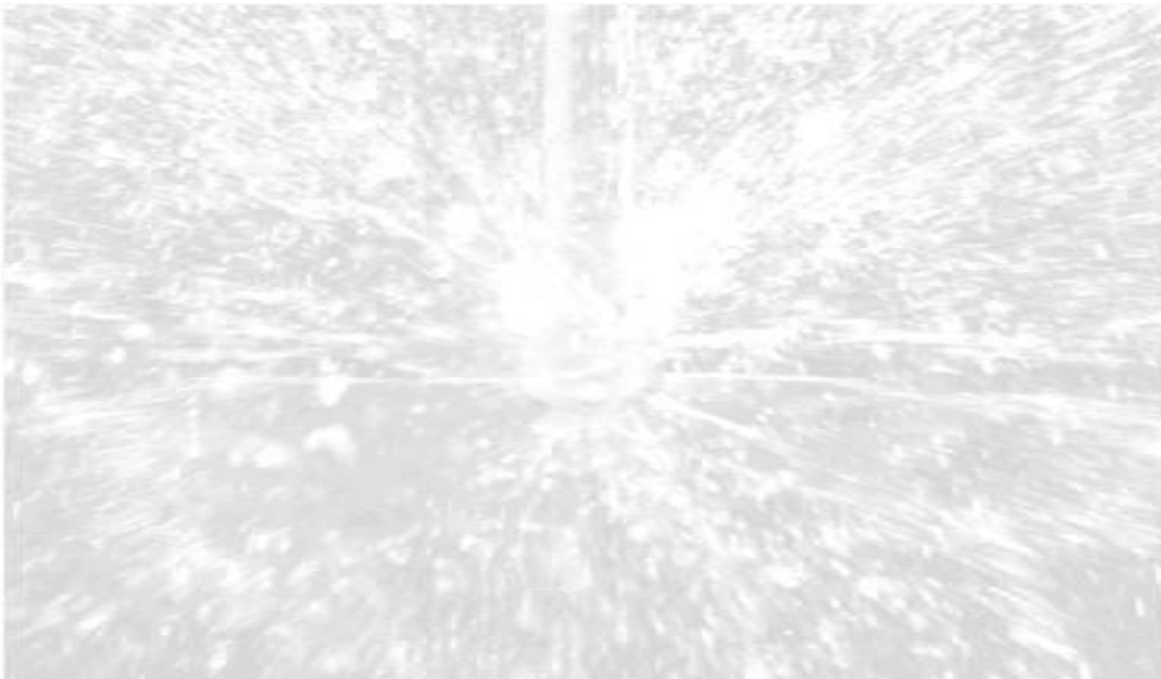




***The Repair & Re-  
certification of IBCs to  
UN regulations***



**Pensteel Limited** is the oldest supplier of IBCs in the UK and as such we are committed to ensuring that the containers we have supplied your company remain legal and safe, to assist you in maintaining your container fleet, we can provide the following services to keep your IBCs fleet active and up to date.

## Repairs

The repair of IBCs is best performed at our site, all IBCs received are inspected, then a full report is issued to the IBC owner, only upon receipt of your official order will repairs commence, so you know exactly how much the repair will cost. All IBCs which are repaired will automatically require a full UN Re-certification test, the cost of which will be included in the report. Pensteel will then issue a new certificate, but will also retain a copy for future reference should a copy be required, we will also send a reminder when the container again requires re-testing.

## Spare Parts

We maintain spares for the Finncont range of IBCs, including the MC, CF, RF, PD, PC, PF, WF & CS containers, together with a range of spares for the Schütz IBCs. We are also able to provide single and twin bunds manufacture from stainless, mild steel and MDPE for IBCs and drums, we also carry spares for Shafer, Kaucon, Ucon/thielmann, Blefa and Schutz IBCs.



## INSPECTION & TESTING OF INTERMEDIATE BULK CONTAINERS (IBCs)

### SERVICE

Pensteel Limited provides a useful and cost effective service to operators of UN certified IBCs.

Whilst the UK guidelines laid down by the Department of Transport allow the IBC operator to carry out their own inspection and testing, those of our European partners are often more stringent. For example, the Finnish guidelines demand that the Tester be trained by the IBC manufacturer who in turn has been trained and certified by the Finnish Government testing house, and that the tester is independent of the IBC owners production pressures and costs.

Therefore many users believe, that an Independent Test will remove any suspicion that the test was carried out competently.

In addition, Time and Cost pressures on the operator's productive workers, does not allow time for necessary inspections, at an average cost of £14.95 per week, when in service, the cost of delay in inspections can quickly be greater than the cost of Testing.

Pensteel Limited provide an inspection service for all types of composite and metallic IBCs, and carry spares for most designs; however, any spares we do not hold may be taken from your company's own stock.

Our normal service is provided from our Basildon site; where containers may be delivered and collected, with an approximate turnaround of three (3) days, but will also depend upon any structural repairs. There is no minimum quantity, although a small premium may be charged for small numbers.

Often our site service can be more cost effective; it is cheaper to send a test engineer in a vehicle than it is to ship containers around the country. However, to be economical we would normally recommend a minimum quantity of ten (10) containers. The cost will depend on the type of container to be tested, and the location.

In addition, we can hold records of your fleet and issue reminders, but would initially need the basic fleet information from yourselves, ie a copy of the original containers test certificate (from the manufacturers country of test, together with a GA drawing so as we know how the container was supplied).

## LEGAL REQUIREMENTS

The most important fact to remember is that all UN approved containers must be inspected and pressure tested at intervals not exceeded two and a half (2.5) years. In addition a more thorough test of metallic IBCs is required every five (5) years.

The responsibility for carrying out this test and ensuring that untested containers are not used is firmly with the operator, the test can be delegated but the responsibility cannot. Therefore accurate records and a “safety net” for out of date containers should be in place.

The UK requirements are laid down in the following regulations:

*Carriage of Dangerous goods (classification, Packaging and Labelling) and use of Transportable Pressure Receptacles Regulations 1996.*

*Approved requirements and test methods for the classification and packaging of Dangerous goods for carriage.*

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- 16.2.6. Initial and periodic testing of individual IBCs.
  - 16.2.6.1 These tests to be carried out as required by the competent authority.
  - 16.2.6.2 Each IBC should correspond in all respects to its design type, IBCs for liquids or for solids which are loaded or discharged under pressure should be subjected to the leakproofness test.
  - 16.2.6.3 The leakproofness test in 16.2.8.4 should be repeated at intervals of not more than two and a half (2.5) years.
  - 16.2.6.4 The results of the test should be recorded in test reports to be kept by the owner of the IBC.
- 16.5.7 Inspection

- 16.5.7.1 Every IBC should be inspected to the satisfaction of the Competent Authority before it is put into service and thereafter at intervals not Exceeding five (5) years with regard to:  
Conformity to design type, including marking:  
Internal and External condition:  
Proper functioning of service equipment.
- 16.5.72 Every IBC should be visually inspected to the satisfaction of the Competent Authority at intervals of not more than two and a half (2.5) years with respect to:  
External condition;  
Proper functioning of service equipment.
- 16.5.7.3 A report of each inspection should be kept at least until the date of the next inspection.
- 16.5.7.4 When the structure of an IBC is impaired, as a result of impact e.g. accident or any other cause, it should be subjected to the full testing and inspection, as set out in 16.5.6.1 and 16.5.6.2.

## TEST METHOD

### Inspection

The basic principle of the test is to ensure that the container is basically “as manufactured” therefore all aspect of the container including the top, sides and base are visually examined.

Both the inner and plastic container and the outer supporting structure are examined, wherever possible. Should damage to the outer infer that the inner could be damaged, but cannot be seen, then the inner should be removed from the outer.

It is expected that any container will not be “as new” after two and a half (2.5) years in service. Any deviations from the original construction are carefully considered using the following criteria.

1. Would the container in its revised condition, perform equally well in all aspects of the test procedure laid down in the regulations ?
2. Would the container in its revised condition, perform any less in normal handling ?
3. Is the container likely to deteriorate any further during normal handling ?

If the answer to any of the above questions is yes, then we will attempt to repair the unit to an acceptable condition, if this cannot be achieved then the container will fail the test.

The cost of the inspection includes a small allowance for repairs, if faults can be repaired within this allowance, then they will be done without further notification to the client. Repairs likely to exceed the allowance will be agreed with the client, before proceeding.

There are certain repairs to the container that are not needed to meet the UN requirements but may be needed for the 'In Service' performance, for example, chains on lids. Such repairs would normally be agreed in principle with the client before commencing the testing.

There is one aspect to the requirements that we can assist the client with in some cases, but not always, and cannot accept responsibility for. This is with regard to Chemical compatibility, where we are aware of the container contents we will notify the client of incompatible seals, and question these, before replacement.

## LEAKPROOFNESS TEST (Pressure Test)

### 16.5.9.4 Leakproofness Test

#### 16.5.9.4.1 Applicability:

For those types of IBCs used for liquids or for solids loaded or discharged by pressure, as mentioned in the table of 16.5.5.1 as a design type test, and periodic test

#### 16.5.9.4.2 Preparation:

Vented closures should either be replaced by similar non-vented closures, or the vent should be sealed.

#### 16.5.9.4.3 Method of testing and pressure to be applied:

The test should be carried out for a period of at least ten (10) minutes at a constant gauge pressure of not less than 20kPa (0.2 bar). The air tightness of the IBC should be determined by a suitable method, such as by an air pressure differential test, or by immersing the IBC in water. In the later case a correction factor should be applied; for the hydrostatic Pressure. Other methods equally effective may be used.

#### 16.5.9.4.4 Criterion for passing the test:

No leakage.

A portable compressor is used to apply the pressure. Using a large faced pressure gauge reading up to approximately 0.4 bar, the pressure is applied, and the differential during the test is observed.

Pensteel Limited do not charge vessels using a “slave” lid the pressure connection is made through the bottom discharge outlet, using only compatible couplings.

Air pressure variation is used to detect any leaks, and then soapy water or a similar technique used to locate the leak. Some initial drop in the pressure reading is normal as the container stretches under the pressure applied.

As for the inspection wherever possible any container that initially fails this test will be repaired to a condition where it will ‘PASS’. If this cannot be achieved then the container will ‘FAIL’.

## NOTE

The above procedures quote the regulations for composite containers, where applicable the metallic regulations will apply.

## VALIDITY

It is important to note that Pensteel Limited offer no warranty or guarantee of performance given or implied with this test. All aspects of the containers performance are only as tested until the next time the container enters service.

All equipment used during testing is regularly calibrated to ensure that all aspects of the test criteria are met.

## CLIENT OBLIGATIONS

Before commencing inspection and testing containers should be presented to us in a condition that is safe for us to work on. We should be supplied with a relevant MSDS for last material contained in the unit.

This means that they must be clean and free from residual liquid and fumes and a certificate issued by a senior person at the operators to confirm this. Any containers found to be contaminated will be returned with all costs to the operator. The operator will be held responsible for any spillage accident or injury as a result of contaminated containers.

When working on the client’s site the working area provided should be safe and free from risk of contamination and have a plentiful supply of water or an absorbent material available in case of spillage.