19.1 General

All EPE accumulators are carefully inspected and tested at the factory and are exactly as designated by **the code** printed on the name plate fixed on gas valve side od each accumulator.
On the name plate are printed also the following data:
- The max working pressure PS expressed in bar;
- Temperatures TS, minimum and maximum, allowable (°C);
- The pre-charge value P_0 expressed in bar (glued label);
- Fabrication number of the accumulator;
- EC mark along with the number of the Notified Body (only when provided by the regulations);
- Fabrication date: month/year;
- Group of Fluids and some essential regulations for the safety;
- Name, logo, Country and phone number of the manufacturer.

ATTENTION: The max working pressure marked on the accumulator must be ≥ than the calibrated pressure of the relief valve mounted in the hydraulic circuit.

Before undertaking any work (repairs, replacement, etc.) on a hydraulic circuit mounting an accumulator, **it is mandatory to release completely the liquid pressure.**
Test certificates, if required, are supplied with the accumulator or forwarded by mail or in another way.

19.2 Preliminary checking

Upon receipt check:
- That there has been no damage in transit.
- The identification code indicated on the name plate is as ordered.

Before installation is also important to ensure that:
the gas pressure corresponds to the required value.
The initial gas pressure must be selected to meet the service requirement.
In general the design values are as follows:
$P_0 = 0{,}9\ P_1$ (energy reserve, line shock absorber, etc.)
$P_0 = 0{,}6 - 0{,}7\ P_1$ (pulsation damper).

Gas precharge pressure is of a crucial importance for the corrrect operation of the accumulator and for the durability of the bladder.
The gas pressure, when the accumulator is supplied precharged, **is related to a temperature of 20°C.**

In the case of accumulators supplied without pre-loading pressure, or after repair work, it is necessary to perform the inflation with nitrogen; must be also performed the check of the system using the equipment type PC... following the procedure provided on ch. 20 page 40.

19.3 Installation

To achieve a high degree of efficiency, the accumulator should be fitted **as close as possible** to the installation that it serves.

POSITION is possible from vertical one (gas valve on top) to the horizontal one.

It is recommended to leave:
- space necessary for testing and filling equipment.
- manufacturer name plate stating initial pressure visible.
- access to vent screw unobstructed.

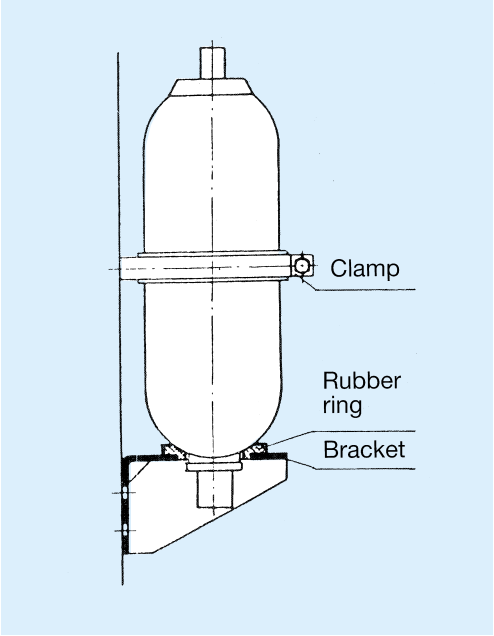
Correct **FASTENING** is given using clamps and brackets arranged as per figure.

Is absolutely forbidden welding of supports or machining on the accumulator shell.

THE CONNECTION to the fluid valve, directly or through an adapter or a flange, have to be done with the means of a spanner so that the **fluid valve can be not turned independently** of the accumulator shell.

- A **non-return valve** has to be fitted between pump and accumulator.
- To be sure that the pressure limiter valve of the circuit is directly connected with the accumulator and calibrated at a value lower than the working pressure marked on the name plate of the accumulator.
- Is often recommended foreseen a shut-off and discharge valve in order to isolate the accumulator (for periodic checks or repairs) also during the system operation.

All these functions are obtained with the application of connection block **EPE series B** or **BS** limiting encumbering joints (see pages 28 ÷ 31).



19.4 Initial operating

In order to avoid risk of damage to the bladder, make sure that the **accumulator has been precharged.**
Then place the circuit under pressure, check the connections for leaks and proceed to bleed the air.
Then **tighten the gas valve locknut carefully.**
Start up definitively the hydraulic system.
The accumulator completely works automatically.

19.5 Periodic checks

It has to be ensured the **maintenance** of gas pre-charge.
The first check have to be done **within the first week** after the start up of the system.
If has not been noticed any leakage, the following check should be carried out **after 3 months** and afterwards **every 6 months**.
For heavy uses the check have to be carried out monthly.