HIDRACAR ACCUMULATOR
REFERENCE CODE IDENTIFICATION

This is the standard *HIDRACAR S.A.* accumulator reference code layout (without colour; here only for code section identification purposes):

\[ X \# \# \# \times \# \# \times \times \times \times / \times \times \]

♦ The first letter (X) indicates the type of accumulator:

- U for bladder
- M for membrane
- F for bellows
- P for piston

♦ The following three digits (###) identify the volume of the accumulator:

<table>
<thead>
<tr>
<th>Code</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>U001</td>
<td>0.09 litres</td>
</tr>
<tr>
<td>P001</td>
<td>0.14 litres</td>
</tr>
<tr>
<td>U002</td>
<td>0.18 litres</td>
</tr>
<tr>
<td>M002</td>
<td>0.20 litres</td>
</tr>
<tr>
<td>F002</td>
<td>0.15 litres</td>
</tr>
<tr>
<td>P002</td>
<td>0.20 litres</td>
</tr>
<tr>
<td>U003</td>
<td>0.35 litres</td>
</tr>
<tr>
<td>F003</td>
<td>0.30 litres</td>
</tr>
<tr>
<td>P003</td>
<td>0.35 litres</td>
</tr>
<tr>
<td>M004</td>
<td>0.40 litres</td>
</tr>
<tr>
<td>P005</td>
<td>0.50 litres</td>
</tr>
<tr>
<td>U007</td>
<td>0.65 litres</td>
</tr>
<tr>
<td>F007</td>
<td>0.70 litres</td>
</tr>
<tr>
<td>F007i</td>
<td>0.70 litres</td>
</tr>
<tr>
<td>P007</td>
<td>0.70 litres</td>
</tr>
</tbody>
</table>

♦ The second letter (X) refers to the type of gas charging valve: A for a ¼” BSP valve

♦ The second set of two digits (##) refers to the design pressure of the accumulator (number to be multiplied by 10 to give the actual pressure in bar units):

Examples:

\[ 02 \quad (0)2 \times 10 = 20 \text{ bar} \quad 18 \quad 18 \times 10 = 180 \text{ bar} \quad 41 \quad 41 \times 10 = 410 \text{ bar} \]

♦ The third letter (X) identifies the material of the separator element between the charging gas (\(N_2\) or air) and the liquid in the circuit (except for the piston accumulators, for which it identifies the material of “o”-rings):

- N Nitrile rubber (NBR)
- E EPDM rubber
- V FKM rubber
- B Butyl rubber
- S Silicone rubber
- G Hydrogenated NBR
- R Low temperature Nitrile rubber
- T TFM y PTFE
- F FKM (70% Fluorine)
- C Neoprene rubber
- A Aflas
- H Hypalon
- I Stainless steel
Followed by a last digit (#) which refers to the number of connecting ports (see the standard thread size available on each technical note; these are referenced at the very end of the code as such if different from our standard thread size):

1 One connection port  2 Two connection ports

Finally, the last set of two to four letters (XXXX) (or its absence) identifies the raw material of the accumulator body and bladder or membrane inserts:

- **AI**: AISI 316L Stainless steel
- **DU**: Duplex
- **SDU**: Super Duplex
- **TI**: Titanium
- **HAST**: Hastelloy
- **AC**: Carbon steel
- **ALLY**: Special alloy
- **SA**: Carbon steel – internal nickel coating accumulator for water service
- **PP**: Polypropylene
- **PC**: PVC
- **PCC**: Chlorinated PVC
- **PD**: PVDF

In some instances an extra codification for one or more special characteristics is added, separated by a slash after the basic part of the reference code:

- **E**: Special manufacture
- **DR**: Quick dismantling design
- **CR**: Reinforcing jacket
- **IN**: Indicator rod attachment
- **BA**: With a connection for an additional cylinder
- **NS**: Apparatus without welded seams
- **IC**: Internal HALAR® coating
- **SB**: No insert bladder
- **TF**: PTFE connecting port
- **TFG**: Graphite-PTFE connecting port
- **PE**: Polyethylene connection port
- **PD**: PVDF connecting port
- **HC**: Hastelloy connecting port
- **CC**: Heating jacket
- **(90º)**: Connection port at 90º
- **(LINIA)**: In-line accumulator

Let's see an overall example:

**F007A11I1-AI/CC**

**F007A11I1-AI/CC**

- **F**: Bellows type
- **A**: fitted with a ¼" BSP valve
- **I**: Stainless steel bellows
- **Al**: Stainless steel body
- **007**: 0.65 litres volume
- **11**: 110 bar design pressure
- **1**: One connection port
- **CC**: Heating jacket

So this reference corresponds to a stainless steel, bellows type, accumulator with an internal volume of 0.65 litres, designed for working at a pressure of 110 bar, fitted with a stainless steel bellows, one standard connection port, a ¼" BSP gas charging valve and heating jacket.