Missions
DCNS’ Vertical Launching System (VLS) allows for a large range of missiles to be fired from surface ships. DCNS began development work on its Sylver® VLS in the early 1980s.

The Sylver® family is currently made up of:
- Sylver® A43, for self-defence missiles,
- Sylver® A50, for tactical missiles,
- Sylver® A70, for deep-strike missiles.
Multimissile vertical launching systems
Sylver® vertical launching systems accommodate a wide range of missiles in standard canisters. Each module includes a plenum lined with thermal protection. Missiles gases are vented thanks to a gas exhaust system.

Safety features
The missile canisters are protected by the launcher’s mechanical structure which is lightweight and shock resistant. The upper plate, missile hatches and the centreline pressure-controlled uptake hatch form a watertight, RATTAM (Response to ATTack on AMmumition)-proof assembly. A local command and control panel for safety and maintenance also displays missile loading and status information.

Compact, modular and lightweight
Sylver® VLS launchers are compatible with various missile combinations and configurations. They are also ideal for small to medium-size multimission surface ships.

Special features
- High availability,
- Low maintenance,
- Highly reliable.

CHARACTERISTICS

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missile alignment accuracy</td>
<td>Better than 1 mrad</td>
</tr>
<tr>
<td>Firing rate</td>
<td>0.15 s</td>
</tr>
<tr>
<td>Firings/module</td>
<td>8/cell, including 1 restrained firing/module</td>
</tr>
<tr>
<td>Reloading time</td>
<td>&lt; 90 min/8 cell/module</td>
</tr>
</tbody>
</table>

MISSION AND MISSILE TYPES

<table>
<thead>
<tr>
<th>MISSILE TYPE</th>
<th>SELF-DEFENCE</th>
<th>TACTICAL</th>
<th>STRIKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYLVER® A43</td>
<td>ASTER 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYLVER® A50</td>
<td>CAMM ER*</td>
<td>ASTER 15</td>
<td>ASTER 30</td>
</tr>
<tr>
<td>SYLVER® A70</td>
<td>ASTER 15</td>
<td></td>
<td>NCM</td>
</tr>
</tbody>
</table>

MORE THAN
170 LAUNCHERS ORDERED
8 NAVIES EQUIPPED
**KEY POINTS**

**Sylver® family**

**Sylver® A43**
8 missiles ≤ 4.3 m

**Sylver® A50**
8 missiles ≤ 5 m

**Sylver® A70**
8 missiles ≤ 7 m

**Added value for navies all over the world**
To meet customers’ expectations and requirements, DCNS manufactures all Sylver® modules on an adapted production line. Dedicated integration and test facilities meet demanding factory and shipboard acceptance criteria. DCNS offers full training and logistic support to all customers, including worldwide spare parts supply and depot-level service.
Selected by major programmes

The Sylver® family was successively chosen for various major programmes:

- Sylver® A43, for self-defence missiles, was selected by the Franco-Italian FSAF programme,
- Sylver® A50, for tactical missiles, was selected by the European PAAMS programme,
- Sylver® A70, for deep-strike missiles, was selected by the French FREMM stealth frigate programme.