**GA1 HFC-227ea ENGINE ROOM WORKSHEET**

Fireboy-Xintex will certify the volume of the engine room from manufacturer CAD drawing including volume calculations, or from a completed Engine Room Volume Worksheet.

### Gross Engine Room Volume

\[
\begin{align*}
A &+ B = \frac{C}{2} = \frac{AB}{2} = \frac{A}{2} \times \frac{B}{2} \\
D &- C = \frac{B}{2} = \frac{D}{2} \times \frac{C}{2} \quad \text{MODEL REQUIRED:} \\
\end{align*}
\]

\[
\text{GA1 Maximum Protected Volume} = 1500 \text{ cu.ft.}
\]

\[
\text{Gross Engine Room Volume} = \frac{\text{ft}^3}{1728}
\]

### Fixed Tank Deductions - Fuel - Water - Waste

\[
\begin{align*}
\text{Tank Description} &\quad \text{Length} \times \text{Width} \times \text{Depth} = \text{in}^3 \\
&\quad \div 1728 = \text{ft}^3 \\
\end{align*}
\]

\[
\text{Gross Engine Room Volume} - \text{Gross Tank Volume} = \text{Net Engine Room Volume}
\]

USCG & ABYC ALLOWS DEDUCTIONS FOR FIXED TANKS BY BOAT MANUFACTURERS ONLY. NOTE: ENGINE VOLUME CANNOT BE DEDUCTED.
Engine Room Area

\[
\frac{\text{in} \times \text{in}}{D \times E} = \text{in}^2 \div 144 = \text{ft}^2
\]

Models 600-1500 Maximum Approved Area: 303 ft²

Engine Room Height

\[
\frac{\text{in}}{A} \div 12 = \text{ft}
\]

Models 600-1500 Approved Ceiling Height: 4.0 ft to 9.0 ft

Discharge Nozzle Height

Distance from ceiling to discharge nozzle \( \text{in} \)

Maximum Approved distance: 24 in

Location of Cylinders & Nozzle Configuration

Indicate Cylinder Location in blank diagram above

\( F = \text{Distance to nearest wall (Informational Only)} \)

Models 600-1500 Maximum Approved Radial Reach: 19.4 ft

Entire Area must be covered by the Radial Reach of the Nozzle

Area Covered (Y/N?)

Discharge Piping Lengths

\[
\text{H} = \text{Pipe Length between GA1 Valve and Elbow} \quad \text{in}
\]

\[
\text{J} = \text{Pipe Length between Elbow and Discharge Nozzle} \quad \text{in}
\]

\[
\text{Total} = \text{in}
\]

Minimum Approved Length: 4 in

Maximum Approved Length: 52 in

Maximum Approved Total Length: 56 in