Overview
Vogt Power International Inc., a Babcock Power Inc. company, provides the most constructable HRSG unit for every customer’s site-specific application. Our modular designs focus on reducing overall erection cost and schedule to save our customers time and money. The level of pre-fabrication can be varied depending on the size of the HRSG desired and the transport alternatives to the job site.

Four Designs to Meet Your Needs

1. **Enhanced Constructability SMART (ECS)**
   For HRSGs where transport and weight limitations allow, the main steel support structure is integrated and pre-fabricated with the boxes in a design that is the ultimate in constructability.

   **Feature:** Main support columns, top, side, and bottom casing attached to module box
   **Benefit:** No field installed insulation is required between "cold" boxes

   **Feature:** Stub column provided to stabilize module when erected
   **Benefit:** No lifting frames required, only two moment connections per column line

   **Feature:** Heating surface
   **Benefit:** Installed in module boxes

   **Feature:** Module harps
   **Benefit:** Shop hydro tested

   **Shop Installed:**
   - Gas baffles (except center gas baffles)
   - Interconnecting piping between harps
   - Most vent and drain piping
   - Stainless steel metal bellows
   - Expansion joints or seal plates
   - Bumpers and guides (except in “hot” boxes)
   - Cover plates at all ECS penetrations in top and bottom casings

   **Vogt Constructability Designs**

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<tr>
<th>Features</th>
<th>Benefits</th>
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<tr>
<td><strong>ECS</strong></td>
<td>Ultimate in constructability and stability</td>
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<td>Prefabricated module boxes with integrated support</td>
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<td><strong>SMART Box</strong></td>
<td>Makes construction possible where shipping constraints prevent the use of ECS design</td>
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<td>Higher level of pre-assembly: modules, casing, interconnecting piping, and some of the structural steel all contained in each module box</td>
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<td><strong>MSG</strong></td>
<td>The ultimate in pre-fabrication; dramatically reduces the erection schedule dramatically</td>
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<td>Specially designed for HRSGs gas turbines between 30 and 70 MW that allow a single gas path width</td>
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<td><strong>Loose Harp</strong></td>
<td>Allows construction where access is limited and allows shipping using conventional road transportation, resulting in earlier deliver; lowers equipment price and lightens heavy equipment needs</td>
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<td>Less pre-assembly; harps are transported individually</td>
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2. The SMART-Box
Semi-Modular Accelerated Delivery Reduced Cost Top Supported is used when shipping constraints prevent the use of the ECS design. Our SMART-Box design is highly pre-assembled; modules, casing, interconnecting piping, and some of the structural steel are all contained in each module box.

Feature: Top, side, and bottom casing attached to module box
Benefit: No field installed insulation required between "cold" boxes

Feature: Stub column provided to stabilize module when erected
Benefit: No lifting frames required

3. Modular Steam Generator (MSG)
The MSG is designed for HRSGs behind gas turbines between 30 and 70 MW that allow a single gas path width. This design incorporates the ultimate in pre-fabrication and dramatically reduces the erection schedule.

Feature: Designed for HRSGs behind 30-70 MW gas turbines that allow a single gas path width
Benefit: Dramatically reduces erection schedule road transport to site

4. Loose Harp
In cases where site access is limited, Vogt Power will reduce the pre-assembly and supply a Loose Harp design. Individual module harps are transported to the site using normal road transportation.

Feature: Loose Harp
Benefit:
• Easier to ship and handle
• Lower equipment price
• Earlier delivery
• Reduced pre-assembly can allow normal road transport to site

Feature: Installation of:
• Module harps
• All interconnecting vent and drain piping
• Gas baffles
• SS metal bellows expansion joints

Benefit:
• Smaller crane required
• Use of trolley crane for harp installation