

## INDUCED GAS FLOTATION (IGF) SEPARATORS

**INTEGRATED DESIGN ENGINEERED AND MANUFACTURED EXCLUSIVELY BY EXTOL HYDRO TECHNOLOGIES FOR BOTH OILFIELD AND INDUSTRIAL OIL & WATER SEPARATION APPLICATIONS.**

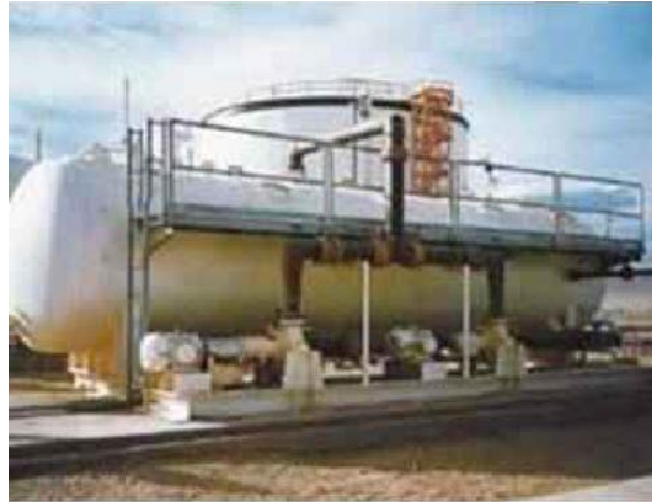
- Standard Models to 2,000 GPM
- Fully Customizable Design
- High Performance and Reliability
- ASME Code & None Code Designs Available
- Complete Skid Mounted Packages Available

### A ROBUST SEPARATION TECHNOLOGY:

Our IGF is a top-notch technology and experienced solution to your water problems. Select the performance packed Induced Gas Flotation Systems (IGF) engineered and manufactured by EHT. Accomplish water discharge or re-use goals, customize your IGF to improve facility or field integration, and optimize your IGF with performance options and tightly integrated auxiliary equipment. One of the most effective and efficient technologies available for removing oil and suspended solids from large volumes of produced water or wastewater streams is the Induced Gas Flotation (IGF) Systems. EHT offers an advanced flotation system, which utilizes our special eductor technology design to induce a rich micro-bubbles into a stream. EHT micro-bubbles massive surface area creates exponential contacting potential, producing superior separation performance of oil and suspended solids from the process water. Available on skid packages or standalone configurations, we routinely builds to our US industrial standards or customer specifications.

### APPLICATIONS:

- Food industries (e.g. brewing, bakery)
- Food processing (e.g. dairy, meat, vegetables)
- Restaurants
- Automobile repair & service centers
- Oil/Water Separation in Petroleum Refineries
- Injection Well Oil/Produced Water Separation
- Treating Ship/Terminal Bilge & Ballast Water
- Oil Separation from Industrial Wastewaters
- Oil/Water Separation: Power & Chemical Plants
- Oil Removal From Environmental Remediation



Typical IGF Unit

IGF system, being developed refined by a group of engineers and scientists, is a state-of-the-art DAF water treatment facility with unprecedented compactness and efficiency in the market. Contaminants are removed through the micro-size gas bubbles released from a solution resulting in flotation of suspended solids and scratched away by a surface skimmer.



15 GPM unit

Commercial Unit

### OPERATION OF IGF SEPARATOR (Circular Design):

Operation of the IGF Separator is simple and efficient.

(1) Liquid flow is introduced into the IGF Separator via gravity or at a specific process pressure.



(2) The IGF Separator distributes flow and creates “plug flow” via four (4) separate and distinct flotation zones. These four (4) flotation zones provide the necessary area for micro bubbles, created from a special Eductor technology, to contact oil and/or suspended solids, making them buoyant, and raising them to the surface for skimming.

(3) The IGF Separator has an unique oil skimming trough and skimming system which is automatically set and is adjustable external from the unit.

(4) Clean water is maintained via level transmitters and discharged for disposal or additional treatment.

(5) A percentage of the collected clean water is recycled and used by a unique eductor manifold to mix with the IGF’s blanket gas to form a myriad of micro-bubbles. As with all our products, our IGF Separator is designed to many U.S. industrial codes and incorporates advanced features such as a unique packaging design to enhance space and maintainability, long lasting materials of construction to extend the life of the system, and a flexible design providing an array of sizes, connections, and ancillary choices to meet individual client needs and requirements.

**GENERAL SPECIFICATIONS**

**FUNCTIONAL:**

**SERVICE**

- Oil Production
- Refining
- Chemical Processing
- Wastewater Treatment

- Hazardous Waste Remediation

**DESIGN TEMPERATURES**

- Up to 200F (93C) Standard
- Custom Available

**DESIGN FLOW RATES**

- 2,000 GPM Standard
- Larger Flow Rates Available.

**DESIGN PRESSURES**

- Standard
- Atmospheric/ Vessel per Code
  - Custom Available

**MATERIAL OF CONSTRUCTION**

<b>VESSEL:</b>	<b>Blasting &amp; Coating</b>
<ul style="list-style-type: none"> <li>• A-36 or 516 Gr. 70</li> <li>• 304 or 316 SS</li> <li>• Custom Available</li> </ul>	<ul style="list-style-type: none"> <li>• SSPC-SP-10 Standard</li> <li>• In/Out 6-8 Mills C.T.E.</li> <li>• Custom Available</li> </ul>
<b>Hardware</b>	<b>Gasket</b>
<ul style="list-style-type: none"> <li>• 304 or 316 SS</li> <li>• Teflon Coated Available</li> <li>• Custom Available</li> </ul>	<ul style="list-style-type: none"> <li>• Neoprene</li> <li>• Viton</li> <li>• Custom Available</li> </ul>
<b>Saturation Vessel – ASME Code</b>	<b>Eductors</b>
<ul style="list-style-type: none"> <li>• 516 Gr. 70</li> </ul>	<ul style="list-style-type: none"> <li>• 304 or 316 SS</li> <li>• Custom Available</li> </ul>

