Edlon, Inc. type IS, SS, and VS spargers are fabricated from high strength steel and isostatically molded PTFE. In addition, these spargers have a solid PTFE diffusion head and an extra-heavy jacket to withstand mechanical abuse and high velocity sparging forces.

Type IS and SS spargers are designed to distribute gas or liquid through holes drilled in the solid PTFE diffusion pipe. Drilling patterns are customized for specific flow rates and service conditions.

Type VS spargers feature a solid PTFE venturi type mixing head for improved gas or liquid distribution. Units for steam service operate silently with no “steam hammering.” Venturi spargers are custom designed for specific flow rates with normal turn down ratios of 2:1. Liquid-liquid mixing ratios up to 2 or 3 gallons of contained fluid per each gallon of motive fluid are normally achieved.

Type HDIS spargers feature extended metal support and are used when high temperature horizontal position or stilling is required.

**Benefits**
- PTFE liner and jacket
  - prevents corrosion
  - eliminates product contamination
- Steel core provides strength and rigidity for agitated service
- Withstands operating temperatures from 450°F to -20°F

**Design Options**
- Mounting flange may be any size, eliminating the need for separate reducing flange
- Extra long (up to 45’) designs available
- Alternate metal substrates (SS, hastelloy, etc.)
- Flange drilling to your specification
- Bends
- Syphon breaks
- Custom length between tank mount and connecting flanges

**Dimensional Data for Lined and Jacketed Spargers (inches)**

<table>
<thead>
<tr>
<th>A</th>
<th>Nominal Size</th>
<th>B</th>
<th>Nozzle Flange Size “N”</th>
<th>C</th>
<th>D</th>
<th>Maximum O.D.*</th>
<th>G</th>
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<td>11 1/8</td>
<td>3 1/4</td>
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</tr>
</tbody>
</table>

*Refer to drawings on back. Please check factory with HDIS design.
Sparger (PTFE Lined and Covered Steel) Approval Drawing Template

Ordering Information:
Quantity: ___________ ea. Type: ______________ (IS, SS, VS, HDIS)
Construction: PTFE Lined and Covered Steel
Steel: ___________ (carbon, stainless with grade, alloy, etc.) Schedule: ___________ (S40, S80, S160, double reinforced)
Size: Nominal Pipe (A): ___________ inches Tank mount flange (B): ___________ inches
Drilling: ___________ (150#, 300#, DIN steel) Drilling: ___________ (150#, 300#, DIN steel)
Flange material: ___________ (A395 - std, A105, etc.) Wet length (L): ___________ inches
Sparge Pattern: (sketch pattern using drawing at right)
Holes: size _______, number _______ ea., length of sparge area: _______ inches
Options: (please check if required)
_______ 1/4” vent coupling
_______ Syphon break (integral only on 3” and above. Consult factory on designs for smaller sizes)
_______ Bends (attach sketch showing centerline dimensions)
Agitation Parameters: Single flange (SF) style is not recommended for agitated service.
Thicker steel is not necessarily better! (If not a direct replacement, we suggest our computerized stress analysis.)
Stress Analysis: (additional questions)
Liquid density: _______ lbs/ft³ Max. agitator speed: _______ rpm
Liquid viscosity: _______ centipoise Reactor size: _______ gal.
Agitator blade span: _______ inches Max. operating temperature: _______ °F
Chemical service: ________________________________________________________________

Approved by: __________________________ Company: __________________________ Date: ___________

www.edlon.com

Edlon, Inc.
150 Pomeroy Ave.
P.O. Box 667
Avondale, PA 19311 USA
Phone: 610-268-3101 800-753-3566
Fax: 610-268-8898
Email: Sales-Edlon@pfaudler.com

Edlon UK
Riverside
Leven, Fife
Scotland, KY8 4RW UK
Phone: 011-44-1-333-4-32225
Fax: 011-44-1-333-4-27432
Email: Sales-UK@pfaudler.com

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Note: S dimension of the venturi section will be sized to fit operating parameters.