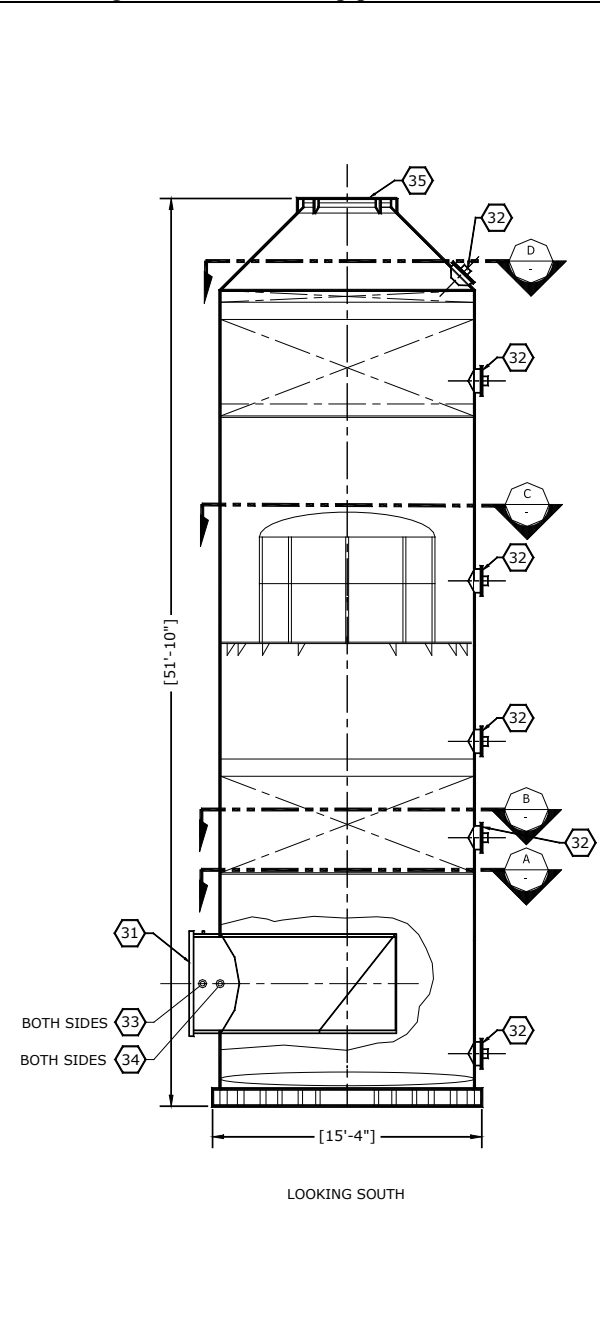


Service: (1) Remove HCl, SO<sub>2</sub>, trace particulate from incinerator flue gas;  
 (2) Condense water in gas stream and cool gas to stack outlet temperature  
 Size: 51' 10" tall x 14' 6" I.D.  
 Contacting Device: Two 6' deep packed beds of 3" Intalox Saddles – See remarks

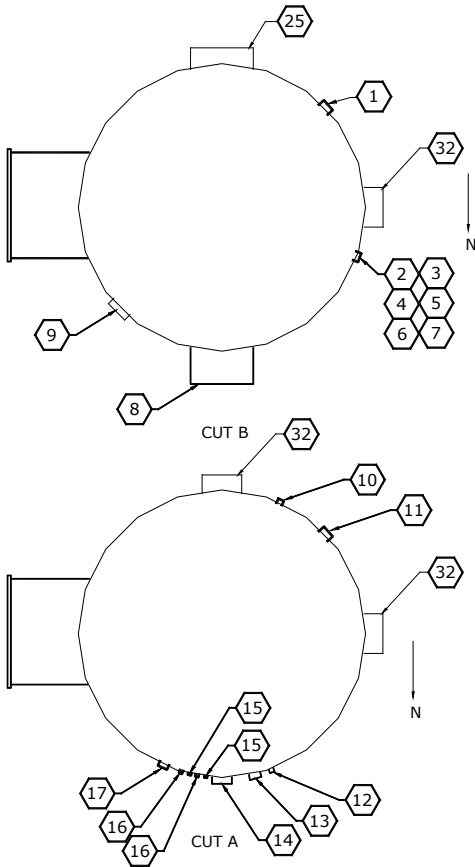


**Operating and Mechanical Conditions**

Design Press -13" W.C.  
 Design Temp 172 °F  
 Materials: Fiberglass reinforced vinylester with polyester inner veil as corrosion barrier

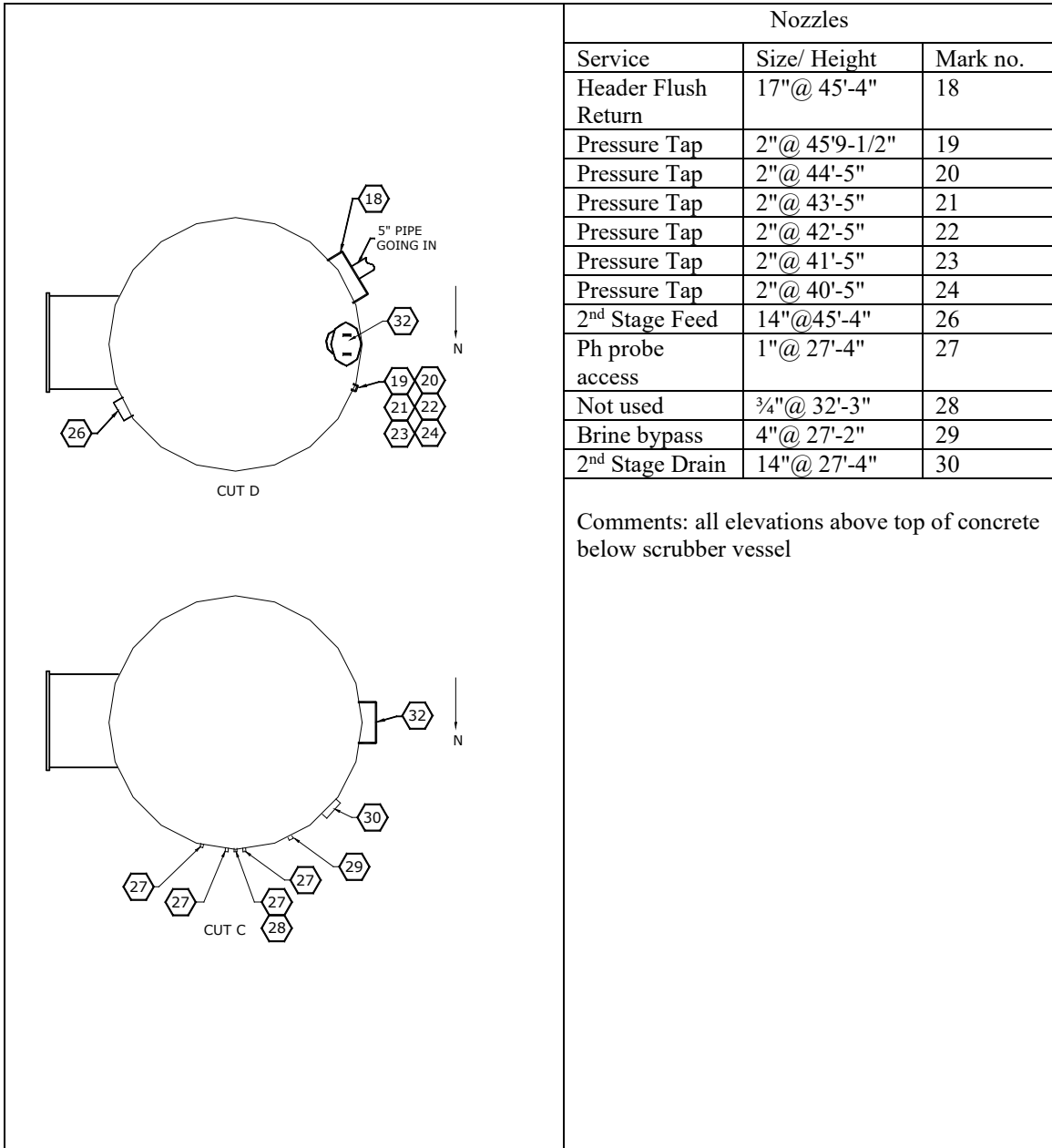
Nozzles		
Service	Size	Mark no.
Inlet Gas	64"	31
Access Ports	7 @ 24", see note 3 below	32
Pressure, N side	1"	33
Temperature, S side	1"	33
Temperature, N side	1"	34
Not used, S side	1"	34
Outlet Gas	60"	35

- Comments**
1. A Chimney tray is installed between the two packed beds so that drainage from the top bed will not mix with flow into the bottom packed bed.
  2. Bottom is sloped towards bottom drain.  
 Note: configuration of inlet nozzle allows liquid seal between saturator and scrubber.
  3. There are 7 Access Ports #32. One is shown on cut A. It is at the elevation of the bottommost port on the South side of the vessel.



Nozzles		
Service	Size/Height	Mark no.
1 <sup>st</sup> Stage Header Flush Return	4" @ 23'-5"	1
Pressure Tap	2" @ 19'-2"	2
Pressure Tap	2" @ 22'-4"	3
Pressure Tap	2" @ 23'-4"	4
Pressure Tap	2" @ 20'-4"	5
Pressure Tap	2" @ 19'-5"	6
Pressure Tap	2" @ 18'-4"	7
Packing Removal	38"x26" @ 21'-5"	8
First Stage Feed	14" @ 21'-5"	9
Pressure Tap	2" @ 18'-4"	10
Header Flush Drain	4" @ 16'-2"	11
Manual Drain	3" @ 16'-0"	12
Manual Drain	8" @ 15'-0"	13
1 <sup>st</sup> Stage Drain	12" @ 15'-0"	14
Ph probe Access	1" @ 15'-1"	15
Ph probe Access	1" @ 15'-2"	16
Level Gauge	3" @ 14'-9" 3" @ 23'-9"	17
Packing Removal	73" X 34" @ 29' 0" 38"x26" @ 34'7"	25

Comments: all elevations above top of concrete below scrubber vessel



Scrubber Internal Specifications	
<p><b>Packing:</b></p> <ul style="list-style-type: none"> <li>(a) Size, Type, &amp; Height: top &amp; bottom both 6 ft of 3" Intalox Saddles or mass transfer equivalent. See remarks.</li> <li>(b) Method of packing: Dump into dry tower</li> <li>(c) Packing Arrangement: Dumped</li> </ul> <p><b>Liquid Distributors:</b>                      Top: Pipe Manifold                      Bottom: Launder Manifold</p> <p><b>Packing Support:</b>                      Top: 1" thick FRP grating supported by FRP beams                      Bottom: 1" thick FRP grating supported by FRP beams</p> <p><b>Packing Removal Manways:</b> At top and bottom of each packed bed</p> <p><b>Entrainment Separator:</b> 1 to 2' of 3" Intalox Saddles dumped on top of top packed bed distributor</p> <p><b>Spray Nozzles:</b> None</p>	
	<p><b>Materials of Construction</b></p>
	<p><b>Packing:</b> Polypropylene</p>
	<p><b>Distributor Tray</b>                      Top: Polyvinylchloride                      Bottom: FRP</p> <p><b>Chimney Tray:</b> FRP</p> <p><b>Packing Support:</b> FRP</p>
	<p><b>Remarks</b></p> <p>Alternately, the 1<sup>st</sup> stage or bottom packing may be 40 inches of Intalox snowflake packing covered with at least 12 inches of 3 inch Intalox saddles.</p>