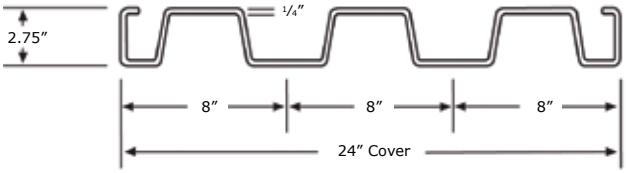
Enduro "H" Structural Baffle & Partition Wall

System Overview

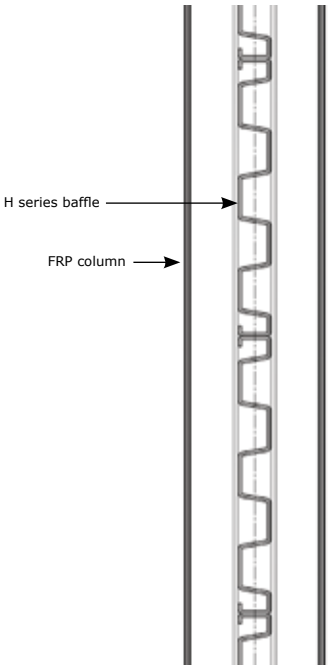
As a global leader for FRP structural systems, Enduro developed the "H" Series baffle panel and the innovative SlideGuide assembly system.

The ¼" thick, Enduro "H" series are the strongest FRP baffle panels available and are utilized in both bolted and non-bolted installations. In the SlideGuide system, the "H" baffle panels, which do not require fastening, are inserted between and held in place by FRP angles. With a long and proven track record of outstanding performance, the Enduro "H" series and SlideGuide assembly has led a movement away from concrete and wood to the Enduro FRP baffle system.

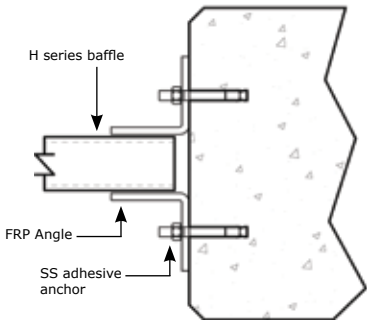


Enduro "H" slotted flow-thru baffle wall system
Settling Basin

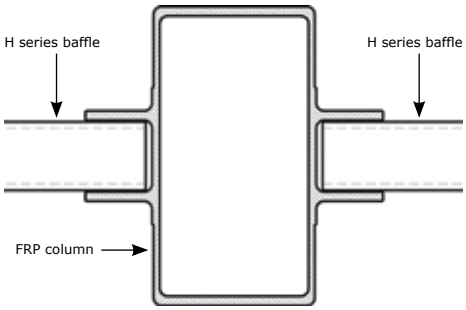
Typical Details



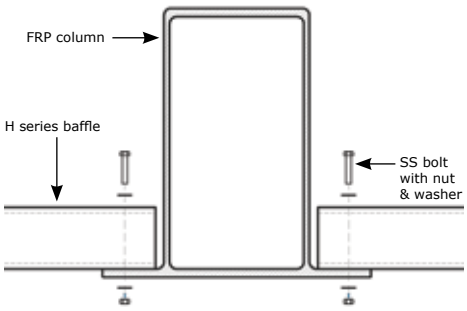
Baffle Panel Stacking



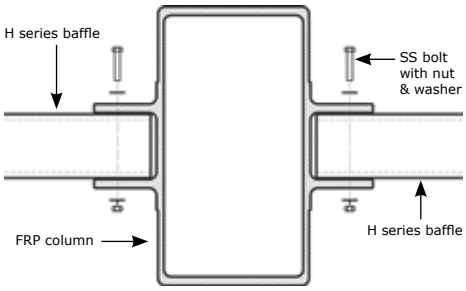
SlideGuide Concrete Wall



SlideGuide 12S12 FRP Column



Bolted 12F12 FRP Column



Bolted 12S12 FRP Column

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Load Span Table

Water Differential	2"		3"		4"		5"		6"		8"		10"		12"	
Uniform Load	10.4 psf		15.6 psf		20.8 psf		26.0 psf		31.2 psf		41.6 psf		52.0 psf		62.4 psf	
Span (Ft)	L/D	FOS	L/D	FOS	L/D	FOS	L/D	FOS	L/D	FOS	L/D	FOS	L/D	FOS	L/D	FOS
9	>360	>6	>360	>6	>360	>6	>360	>6	>360	>6	309	>6	247	>6	206	5.2
10	>360	>6	>360	>6	>360	>6	>360	>6	300	>6	225	>6	180	5.0	150	4.2
11	>360	>6	>360	>6	339	>6	271	>6	226	>6	169	5.2	135	4.2	113	3.5
12	>360	>6	348	>6	261	>6	209	>6	174	5.8	130	4.4	104	3.5		
13	>360	>6	273	>6	205	>6	164	5.9	137	5.1	103	3.7				
14	328	>6	219	>6	164	>6	131	5.1	109	4.5						
15	267	>6	178	>6	134	5.6	107	4.5								
16	220	>6	147	>6	110	4.9										
17	183	>6	122	5.8	92	4.3										
18	155	>6	103	5.2												
19	131	>6														
20	113	>6														
21	97	5.7														

Maximum spans are based on non-fixed connection with panels being restrained by SlideGuide angles on each side.
Please contact Enduro for Load/Span data with a bolted H Series installation.

Specification: Fiberglass Reinforced Plastic Baffle Wall - H Series

Part 1 – General
1.01 Description of Work
The scope of this specification shall include materials for the fiberglass reinforced plastic (FRP) Baffle Wall System including FRP baffle wall panels; FRP columns; FRP angles; column base plates/angles; fasteners and connections.
1.02 Design Criteria
A. Design Load (greater of water differential or wind load)
1. Water Differential: _____ in. (uniform load over wall)
2. Wind Load: _____ lbs./SF uniform load
B. Deflection Limit and Factor of Safety
1. Baffle Panels: L/D=_____; Max Defl=Panel Depth; FOS = 2.0
2. Columns: L/D=100; FOS=2.5

Part 2 – Products
2.01 Manufacturer
Standard for design, characteristics, and performance is Enduro H Series Baffle Wall manufactured by Enduro Composites, Inc.
2.02 Materials
A. FRP Baffle Panels, Columns, and Angles
1. FRP baffle panels, columns, angles, and associated components shall be ANSI/NSF Standard 61 certified for potable water application (as required).
2. FRP Baffle Panels shall exhibit these minimum properties:
Stiffness (EI) 17,500,000 lb-in^2/ft
Moment Capacity 99,000 lb-in/ft
3. FRP structural materials shall exhibit these minimum properties:

Tensile Strength	48,000 psi	ASTM D 638
Flexural Strength	58,000 psi	ASTM D 790
Flexural Modulus	3,210,000 psi	ASTM D 790
Izod Impact (Notched)	25	ASTM D 256
Water Absorption	.20% maximum	ASTM D 570

4. FRP Materials shall include UV stabilized polyester resin; surfacing veil at top and bottom sides; gray color.
5. Factory cut edges and drilled holes shall be sealed with ANSI/NSF approved material.
6. FRP baffle panels shall be Enduro Series H, 2.75 x .25 profile; 2.75" depth; ¼" nominal thickness; 50% glass fiber reinforcing (by wt.); with top, horizontal ribs sloped downward not less than 10 degrees to minimize sediment build-up.
7. FRP Columns shall be Enduro Type _____ with 50% glass fiber reinforcing (by wt.). Column base plates or angles shall be 304/316 Stainless Steel.
8. FRP Angles shall be ⅜" thick and 90 degrees.
B. Hardware
1. Fasteners, anchors, and other structural hardware shall be 304/316 Stainless Steel.
2. Submerged anchors shall be epoxy adhesive type.

For expanded specification, please contact us.