

## FIBERGLASS BAFFLE PANELS



- **Corrosion Resistant**
- **High Strength**
- **Lightweight**
- **Low in Maintenance**
- **UV Resistant**
- **Low Conductivity**
- **Dimensionally Stable**

Strongwell's lightweight, high strength fiberglass baffle panels are ideal for underwater flow control applications.

Fiberglass baffle panels are cost effective because they have a much longer life cycle than wood, concrete, steel and other traditional materials that are subject to rot and corrosion. The lightweight panels are easy to install and can be easily removed for cleaning and access.

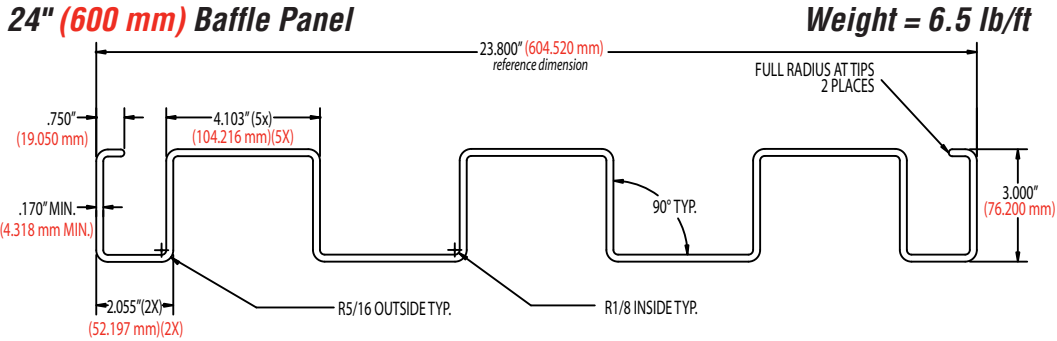
Baffle panels are available in 12" and 24" widths for easy fabrication and installation of new systems or the rehabilitation of existing systems. Baffles can be mounted to existing columns, attached to H-beams or attached to concrete walls with clip angles.

Typical applications include:

- Municipal & Industrial Water and Wastewater Systems
- Aeration Chambers
- Contact Chambers
- Retention Basins

## Materials of Construction

Baffle panels are available in 12" and 24" widths to offer flexibility in design and fabrication. Standard baffle panels are manufactured using a polyester resin. Optional resin systems offered include a fire retardant polyester resin system, a vinyl ester resin system for enhanced corrosion resistance, and a resin system that meets NSF 61 requirements. Panels include a UV inhibitor and a surfacing veil for additional corrosion resistance and UV protection.



### BAFFLE DEFLECTION

SPAN FT (M)	HEAD		L/100	L/150
	12" (300 mm)	6" (150 mm)		
3.28 (1)	0.011" (0.279 mm)	0.005" (0.127 mm)	0.393" (10 mm)	0.262" (6.67 mm)
6.56 (2)	0.182" (4.62 mm)	0.091" (2.31 mm)	0.79" (20 mm)	0.52" (13.33 mm)
9.84 (3)	0.925" (23.5 mm)	0.462" (11.7 mm)	1.18" (30 mm)	0.79" (20 mm)
13.13 (4)	2.92" (74.2 mm)	1.46" (37.1 mm)	1.57" (40 mm)	1.05" (26.67 mm)
16.41 (5)	*	3.55" (90.2 mm)	1.97" (50 mm)	1.31" (33.33 mm)

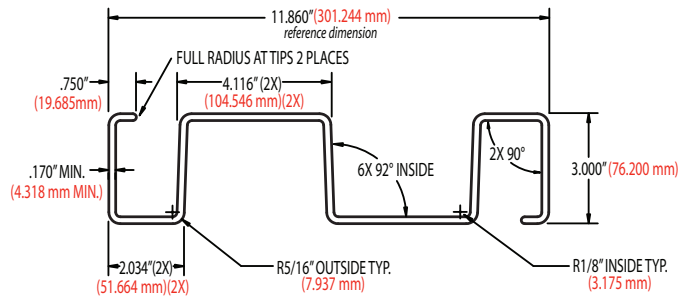
- NOTES: 1. Deflection based on simple spans under static differential head pressure.  
 2. Uniform load based on 62.4 lb/ft<sup>3</sup> (1,000 kg/m<sup>3</sup>).  
 3. Deflection based on 24" (600 mm) baffle from design properties below.  
 4. An asterisk (\*) denotes the baffle is controlled by the moment capacity identified in the 24" Baffle Design Properties table shown below.  
 5. For continuous 2 span panel, multiply above deflections by 0.54.

### Typical Coupon Properties

Tensile Strength	45,000 psi (3.10 x 10 <sup>4</sup> kPa)	ASTM D638
Flexural Strength	32,000 psi (2.20 x 10 <sup>4</sup> kPa)	ASTM D790
Flexural Modulus	1.69 x 10 <sup>6</sup> psi (1.03 x 10 <sup>7</sup> kPa)	ASTM D790
Water Absorption	.25%	ASTM D570
IZOD Impact (Notched)	25 ft. lbs./in. (1334 J/m)	ASTM D256
Compressive Strength	50,000 psi (3.44 x 10 <sup>8</sup> kPa)	ASTM D695

### 12" (300 mm) Baffle Panel

Weight = 3.7 lb/ft



### 24" Baffle Design Properties

$$I_{x-x} = 11.388 \text{ in}^4 (4.74 \text{ cm}^4)$$

$$\text{Moment Capacity} = 32,620 \text{ in-lb} (3,682 \text{ N-m})$$

$$\text{Modulus of Elasticity} = 2.5 \times 10^6 \text{ psi} (17.2 \times 10^6 \text{ kPa})$$

$$\text{Stiffness(EI)} = 28.47 \times 10^6 \text{ lb-in}^2$$



**STRONGWELL**  
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