



EmFlume 1.5



Description	
<p>The EmFlume 1.5 is a versatile tool for demonstrating open channel hydraulics and sediment transport to students of civil engineering, environmental fluid mechanics, fluvial geomorphology, sedimentology and stratigraphy. The compact and user-friendly design allows instructors and students to quickly set up experiments and visualize outcomes. It is easy to transition from working with sediment to working with a clean channel, and variables such as flow and slope are altered with simple controls.</p>	
Hydraulic Channel	Lab Cart
<ul style="list-style-type: none"> Channel dimensions: 1.52m x 93mm x 204mm (60" x 3.66" x 8") Anodized aluminum channel base Ultra scratch-resistant acrylic walls T-slot channel for instrument attachment Magnets at 30cm, 75cm, and 110cm for holding hydraulic models Adjustable slope from -0.6° to 5.7° (-1.0% to 10%) Digital inclinometer with 0.05° resolution 	<ul style="list-style-type: none"> Footprint: 82.5 cm x 157.5 cm (32.5" x 62") Full size with channel in position: 82.5 cm x 247.6 cm (32.5" x 97.5") Locking, pivot casters Heavy-duty welded steel construction Storage cabinet with shelves for all components Hydraulic channel pivots to store vertically within cart footprint
Pump and Flow	Instruments and Models
<ul style="list-style-type: none"> Silent, brushless, three-phase synchronous motor Digital control for 0-100% flow Flow capacity: 0-70 L/m (0-18.5 gpm) Oscillating flow capacity Accurate flow measurement from electromagnetic flow meter (no mechanical obstruction or parts) Fluid temperature reading through flow meter Flange and union fittings for easy setup and servicing 	<ul style="list-style-type: none"> Pitot tube Broad-crested weir Ogee-crested weir Sharp-crested weir Point depth gauge V-notch weir set (90°, 60°, 45°) Cylindrical bridge pier Rectangular bridge pier Tapered bridge pier Culvert kit Adjustable sluice gate Tailwater gate
Sediment	
<ul style="list-style-type: none"> Custom color-coded by size melamine sediment Three 4-gallon buckets for media Custom filters for media catchment and drying 	
Stilling Tank	Catchment Reservoir
<ul style="list-style-type: none"> Heavy duty acrylic walls for visibility Bottom supply for stilling flow before entering channel 	<ul style="list-style-type: none"> 22-gallon polyethylene tank Drain with ball valve and hose bib Catchment basin with removable 70-micron filter for use with sediment
Electrical Requirements	Weight
<ul style="list-style-type: none"> 110VAC, Max Load 9A 	<ul style="list-style-type: none"> Dry weight 227 kg (500 lbs) Max weight with water 295 kg (650 lbs)
Optional Upgrades	
<ul style="list-style-type: none"> Wave Generator Wind Generator Digital Depth Gauge 	<ul style="list-style-type: none"> UV/LED Light Kit Sediment Feeder