

## OSC 77FD530HF Tilting Flow Channel, 300mm wide



### <Features>

-The channel is designed for studying the hydraulic flow phenomena

#### Under Frame

- The channel bed is an invert which rests on an H-beam under frame
- The invert has screws at interval for vertical and side adjustment of the invert to ensure that the channel bed is strictly straight and level through out the full length
- The length of the H-beam is about 6m
- This simplifies site installation as there is only one joint and is easier to ensure alignment of the channel
- The H-beam is supported by a fulcrum at one end and an adjustable height support at the other end

#### Slope Adjustment

- The adjustable height supports use twin screw
- Each screw is driven by a worm and wheel gear box with a common motor
- A slope scale is provided at one end of the flume

#### Side Walls

- For safety reasons, the side walls are made of tempered glass or clear acrylic
- The walls are supported at interval by brackets with screw adjustment to ensure that the channel wall is straight and vertical
- Further, a set of small adjusting screws along the edge of each glass plate for fine adjustment is also provided to ensure that the walls are vertical, parallel and straight throughout the channel length

#### Instrument Carriage

- Top rails made of stainless steel tubes are attached to the top angle on each wall of the channel
- Screws supporting the rails can be adjusted to ensure uniform height and in a straight line
- A scale graduated in mm is attached along the full length of one top angle of the walls
- The instrument carriage is motorized
- Power out is available on the carriage

#### Head Tank

- The head tank is made of stainless steel and its sides and bottom are curved to ensure smooth flow into the channel
- Perforated plates are also provided in the head tank to further smoothen the flow

#### Head Tank

- The storage tank has adequate water to fill the full channel
- The standard storage tank is a stainless steel tank with mobile ladder for model installation

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### Circulating Pump

- The pump seal is mechanical
- A geared butterfly valves is provided for accurate flow control

### Flow Measurement

- A paddle wheel type flow sensor with two indicators, front and rear of the channel, is used for easy observation on flow adjustment
- A water meter is available as an option and may be used as reference for flow indicator setting later

### Model and Accessories

- All accessories and models have side seals to ensure no water seepage or leakage through the side of the models
- A wide variety of models and accessories are available as an option

### <Specifications>

Model	OSC 77FD 530HF
Flume dimensions	30cm wide, 45cm high and 12m long
Tilting adjustment	-1% to +3%
Side walls	6mmmm tempered glass or 10mm clear acrylic
channel bed	Stainless steel
Instrument trolley	Motorized
Storage tank	Stainless steel
Head tank	Stainless steel with stilling baffles
Sluice gate	Stainless steel, rack and pinion type, built-in at both ends of flume
Circulating pump	5.5kW with a maximum flow rate over 30 lps
Flow measurement	Flow sensor and indicators
Power supplu	380V, 3Ph 50Hz or as required
Size	Approx. 250 x 1400 x 200 cm

\*Maximum bed deflection at full load less than 0.6mm

## OSC 77FD530HF Optional Accessories and Models

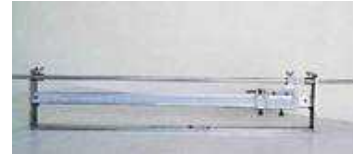
### Optional Accessories and Models

#### 530HF-015 Flow measuring tank

The graduated tank is on a steel frame on wheels with a trough to take up water from the flume and a pump to return water to the storage tank

#### 530HF-016 Water meter

#### 530HF-019 Stainless steel hook and point gauge 0 - 450mm with 0.05mm reading or 1 mm graduation



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#### 530HF-020 V-notch weir

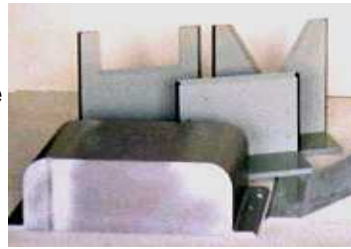
#### 530HF-021 Rectangular notch weir

#### 530HF-022 Sharp crested weir

#### 530HF-023 Broad crested weir, round or shape edge

#### 530HF-024 Crump weir

#### 530HF-025 Trapezoidal weir



020 - 025

#### 530HF-030 Ogee weir with both upstream and downstream pressure tapings and manometer board

#### 530HF-031 Dam spillway with different interchangeable downstream sections:

Toe, ski jump, piers and pegs, gravel box, or stop logs



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#### 530HF-032 USBR type 2, 4 or 4 energy dissipator

#### 530HF-033 Syphon spillway made from clear acrylic and PVC



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## OSC 77FD530HF Optional Accessories and Models

530HF-034 Bridge pier, round or square edge

530HF-035 Culvert fitting, round or square, horizontal or drop inlet with or without entrance flare  
Tube is made from clear acrylic



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530HF-036 Vibration pile

530HF-040 Venturi flume made from clear acrylic with stainless steel attachment

530HF-041 Parshall flume made from clear acrylic with stainless steel attachment



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530HF-042 Submerged orifice made from brass fitted on an acrylic weir

530HF-043 Trapezoidal flume made from clear acrylic

530HF-050 Sluice gate, rack and pinion drive with stainless steel attachment



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## OSC 77FD530HF Optional Accessories and Models

530HF-052 Radial gate, rack and pinion drive with stainless steel attachment

530HF-070 Roughened bed, gravel, sand or corrugated, 2.5m

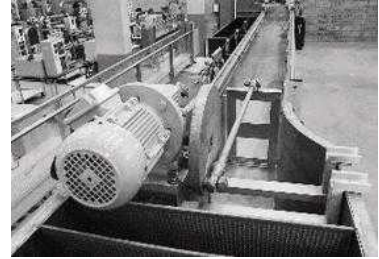
530HF-080 Wave generator with 1 HP variable speed geared motor, maximum stroke 20cm



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530HF-082 Absorbing beach, plain, roughened or permeable

530HF-088 Dye injection system



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