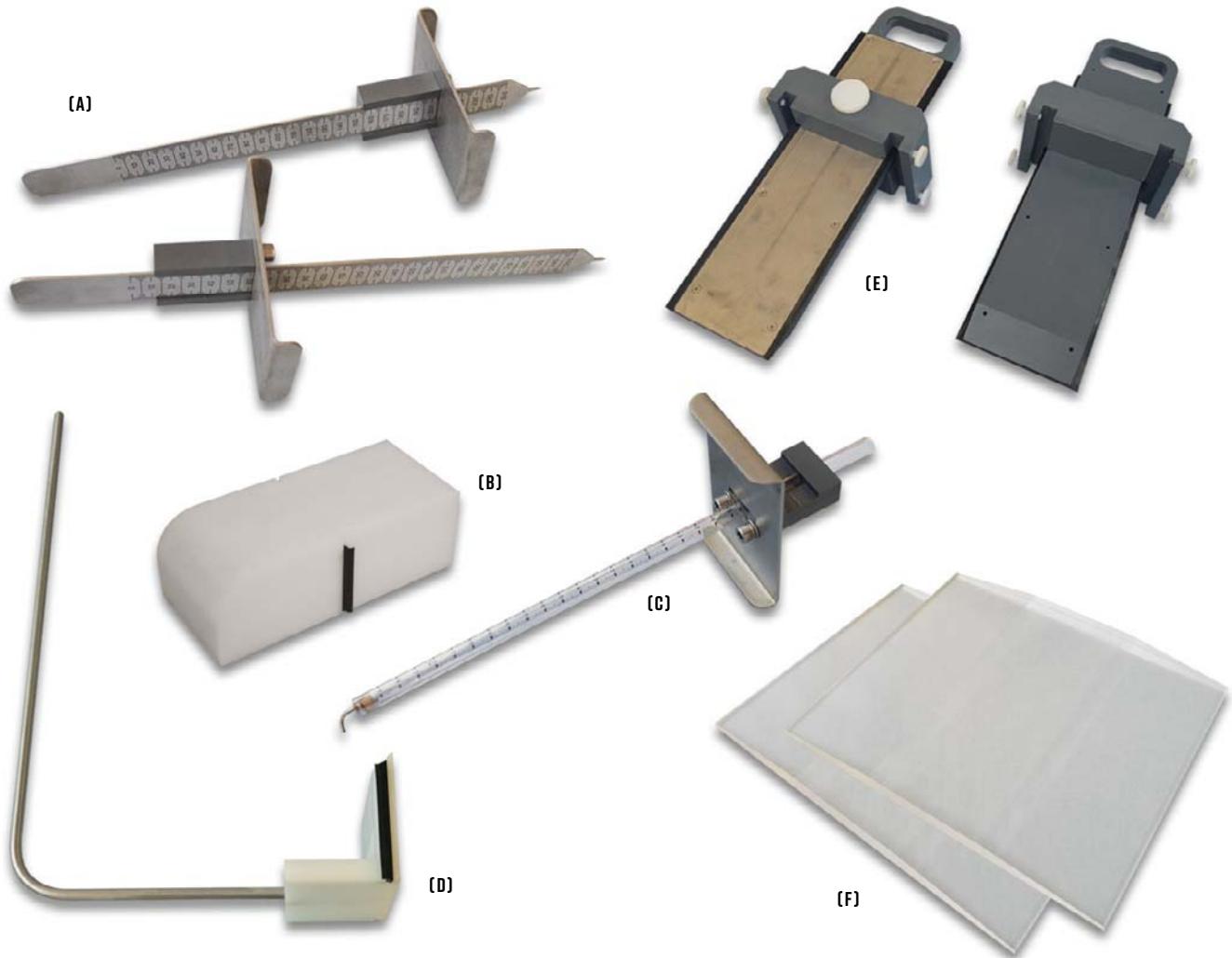




VDAS® FC80 (2.5 AND 5)

FC80 FLUME ANCILLARIES

A selection of basic and optional ancillaries for use with TecQuipment's 80 mm Flumes (FC80 range).



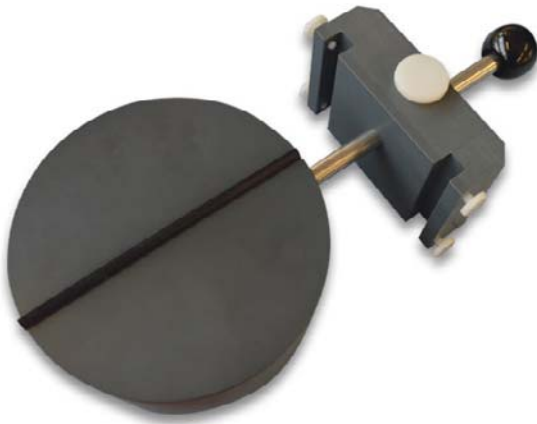
BASICS (SUPPLIED WITH THE FC80 FLUME)

- (A) 2 x level gauges used to measure the depth of the water in the flume
- (B) Broad-crested weir to allow demonstrations and investigations into how the flow in an open channel can be measured using a broad crested weir
- (C) Pitot tube used to measure the total head at a set height in the flume
- (D) Sharp-crested weir used to measure the volumetric flow rate
- (E) 2 x sluice gates used to control the flow rate of water for many of the experiments
- (F) Venturi flume to illustrate how flow in an open channel can be measured using the Venturi effect
- 2 x 25 kg bags of 'fine' grade sand and 2 x 25 kg bags of 'coarse' grade sand (not shown)

FC80 FLUME ANCILLARIES

CYLINDRICAL GATE (FC80A)

For studying discharge characteristics and flow through a cylindrical gate.



RADIAL SECTOR GATE (FC80B)

For studying discharge characteristics and flow through a radial sector gate. Similar to a sluice gate.



SLUICE GATE AND DYE KIT (FC80C)

An extra sluice gate, dye and accessories to enable further experimentation for example the study of gravity waves and ice melt.



CRUMP WEIR (FC80D)

A Crump weir to demonstrate how the flow in an open channel can be measured using a Crump weir.



FLOW VISUALISATION (FC80DI)

A dual-colour, gravity-fed dye injector to enable the visualisation of flow lines around obstacles in the channel.



DAM SPILLWAY (FC80E)

Ogee weir with interchangeable flat apron, ski jump and toe block for the comparison of different methods of dissipating energy downstream of an Ogee weir.



FC80 FLUME ANCILLARIES

STREAMLINED HUMP (FC80G)

A streamlined hump weir to demonstrate how the flow in an open channel can be measured using a streamlined hump.



PARSHALL FLUME (FC80H)

To be used with Venturi sides (supplied) to demonstrate how the flow in an open channel can be measured using a Parshall flume.



BRIDGE PIERS (FC80J)

For investigating flow around different shaped bridge piers. Also (if using sediment) for looking at sediment scour.



ROUGHENED BED: 2 GRADES (FC80K)

1.5 metre lengths as follows:



Allows students to determine and compare the losses in a smooth flow channel with those experienced in a channel with a roughened surface.



A roughened bed section to allow students to determine and compare the losses in a smooth flow channel with those experienced in a channel with a roughened surface.

SIPHON SPILLWAY (FC80L)

A siphon spillway for use with flow channels to demonstrate the flow over a siphon spillway.



FC80 FLUME ANCILLARIES

WAVE GENERATOR AND BEACH (FC80N)

A wave generator to allow investigations into the generation and motion of waves in an open channel.

The generator comes with two 'beach' sections, one permeable and one solid.

The supplied sand can be used with the wave generator for the study of dune and beach formations.

It is supplied with an ancillary cable.



CULVERT MODEL (FC80P)

A culvert model for use with flow channels to provide a clear visual demonstration of the flow in circular culverts.



FLOW SPLITTER (FC80U)

For observations and experiments on dividing water flow.



SEDIMENT FEEDER (FC80SF)

An ancillary to feed dry sediment directly into the channel flow from above. The apparatus sits on top of the channel, the hopper is filled with dry sediment (sand).

The below the hopper is a variable amplitude vibrating plate that causes the sand to move along the chute from which it drops into the flow in the channel.

The rate at which the sediment falls onto the chute from the hopper is adjustable.

ELECTRICAL SUPPLY: Single Phase, 230 VAC, 50 Hz, 0.1 A



FC80 FLUME ANCILLARIES

DIMENSIONS AND WEIGHTS FOR FC80 FLOW AND SEDIMENT CHANNEL ANCILLARIES

CODE	ANCILLARY	HEIGHT (MM)	WIDTH (MM)	DEPTH (MM)	WEIGHT (KG)
FC80a	Drum Gate	325	150	145	2.8
FC80b	Radial Sector Gate	160	30	145	1.8
FC80c	Sluice Gate and Dye Kit	325	90	130	1
FC80d	Crump Weir	60	420	89	1.6
FC80e	Spillway	125	80	80	3.5
	Flat Apron	12	80	80	0.5
	Toothed Block	16	80	80	0.5
	Ski Jump	31	80	80	0.8
FC80g	Streamlined Hump	60	250	89	1.2
FC80h	Parshall Flume	60	400	80	1.5
FC80j	Bridge Pier carrier (4 off)	25	80	145	0.3
	Square Nose Pier	236	40	15	0.2
	Round Nose Pier	236	43	15	0.2
	Sharp Nose Pier	236	52	15	0.2
	Cylindrical Pier	268	28 (diameter)		0.2
FC80k	Roughened Beds	7.5	80	2000	6
FC80l	Siphon Spillway and Self	268	160	85	3
FC80n	Wave Generator and Beach	330	150	145	2.8 (including beaches)
	Each beach (2 off)	960	250	104	
FC80p	Culvert	240	1000	80	1.5
FC80sf	Sediment Feeder	266	390	165	5
FC80u	Flow Splitter	270	100	145	0.8