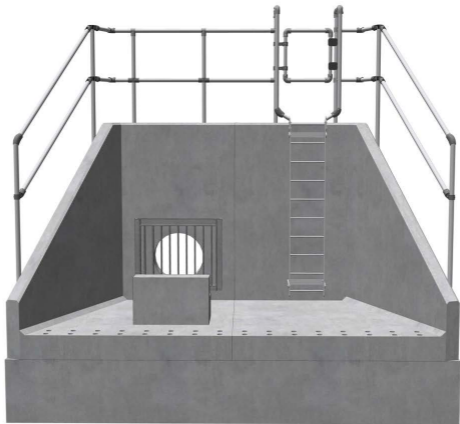




Sewers for Adoption (SFA) Precast Concrete Headwalls





Index

Althon Precast Concrete Headwalls Overview	02
SFA6 Headwall Range	03 - 04
SFA10 Headwall Range	05 - 06
SFA15 Headwall Range	07 - 08
SFA20 Headwall Range	09 - 10
SFA27 Headwall Range	11 - 12
Headwall Accessories	13 - 14
SFA Outfall Safety Grilles	15

Althon Precast Concrete Headwalls

Althon Headwalls offer a cost effective alternative to in-situ structures for connecting pipework discharging into open watercourse. All drainage pipes discharging into open watercourse, such as swales, ditches, ponds and rivers should be fitted with a suitable headwall. These units help to protect and locate outfall pipes and to minimise erosion at the point of discharge. Althon headwalls can accommodate pipework with an internal diameter of up to and including 1650mm ID and PCC box culverts up to 2400mm wide x 1500mm deep. Multiple pipe outlets can also be accommodated.

Headwall units can be fitted with or supplied with a range of accessories such as flap valves, penstocks, grates, hand railing etc.

Wherever water is to be fed from an open watercourse into a pipe outlet, an Althon Silt Trap Inlet should be provided. The sloped grating minimises the risk of blockage from floating material, and silt will be collected by the silt chamber prior to the outfall pipe. Althon manufacture a range of Silt Trap Inlets to cater for pipework with an internal diameter of up to and including 1200mm.

Althon Headwalls and Silt Traps have been used on contracts requiring approval from organisations such as the Environment Agency, Local Authorities and the Highways Agency. Althon Headwalls and Silt Traps are quick and simple to install and reduce the need for skilled labour.

Please note when reviewing this information openings shown on illustrations for pipe entry are indicative only. See tables for maximum opening sizes.

If a Penstock or Flap Valve is to be fitted to the Headwall, the frame size will determine the maximum pipe diameter that can be accommodated - please contact the Althon Sales office for details.



Standard Precast Concrete Headwalls



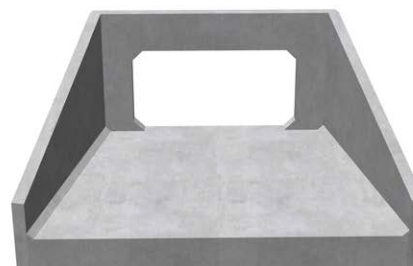
Sewers for Adoption Headwalls



Rectangular Precast Headwalls



Angled Precast Headwalls



Precast Headwalls for Culverts

SFA6 Headwall Range

Up to 500mm Pipework
750mm - 1470mm Backwall Height

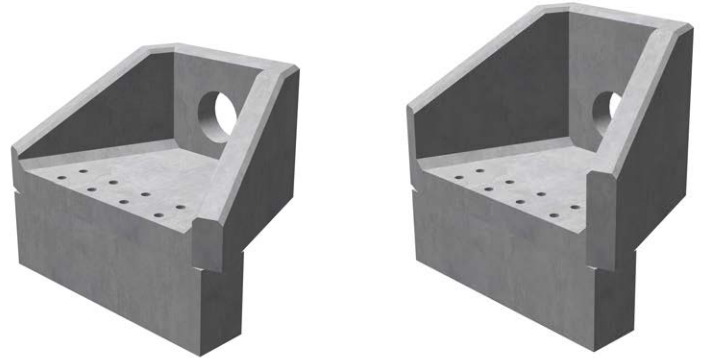
300 and 500mm Thick Toe

Althon Sewers for Adoption precast headwalls should be used when a concrete headwall is part of a Section 104 Agreement and the sewers are to be adopted once completed by the local Water Company. The materials used and installation must comply with the 'Sewers for Adoption' guidelines. Althon SFA precast concrete headwalls offer a cost effective alternative to in-situ structures for connecting pipework discharging into open watercourses.

There are five sizes of Sewers for Adoption concrete headwalls available catering for pipe sizes up to and including 1500mm. Each size of SFA precast concrete headwall comes with three depths of toe and four back wall heights offering wing wall profiles to suit most applications.

Althon Sewers for Adoption precast concrete headwalls are cast to suit the diameter and type of pipe being used and can be provided with fixings cast in at the time of manufacture to accommodate gratings, trash screens, flap valves, penstocks, ladders, Kee Klamp® handrails and flow and depth monitoring equipment.

Our Sewers for Adoption compliant precast headwalls are available with toe extensions either 300 or 500mm thick with depths ranging from 450 to 1000mm. We also manufacture Sewers for Adoption compliant outfall safety grilles to suit our concrete headwalls.



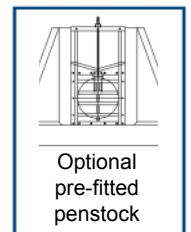
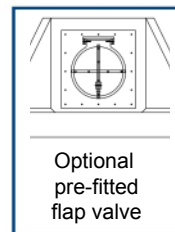
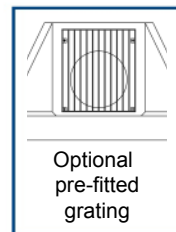
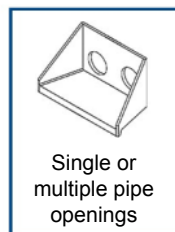
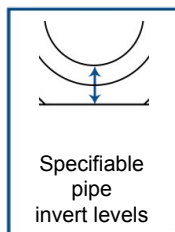
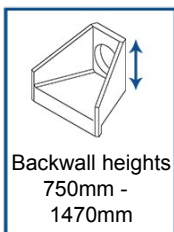
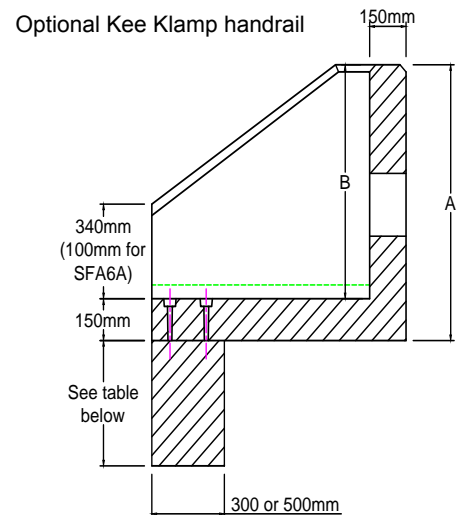
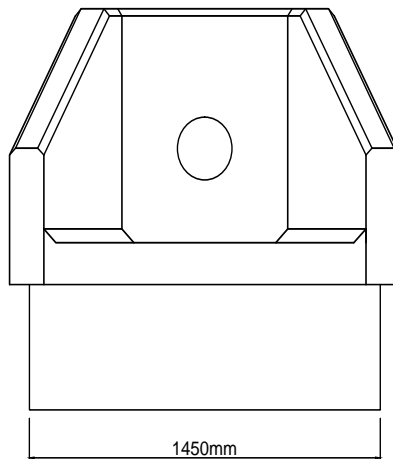
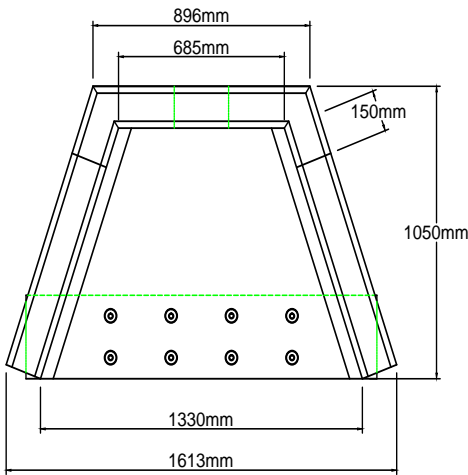
SFA6 A
750mm Backwall

SFA6 B
990mm Backwall



SFA6 C
1180mm Backwall

SFA6 D
1470mm Backwall

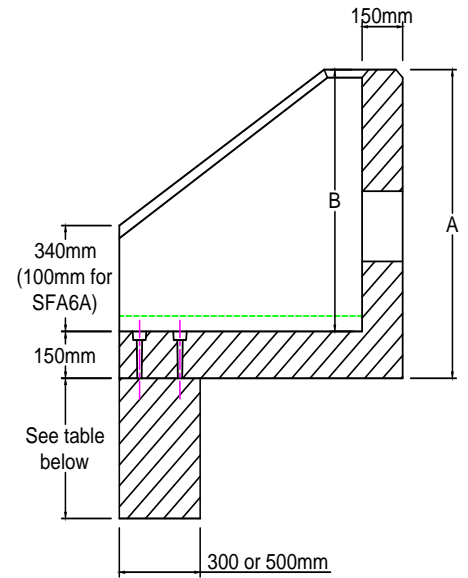




SFA6 Headwall Range

Up to 500mm Pipework
750mm - 1470mm Backwall Height

300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Wing Wall Profile	Weight	Weight with Toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					450mm	700mm	1000mm						
								Invert Level with Apron		100mm Invert Level		225mm Invert Level	
								TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
SFA6A	750	600	1 1.5	941	1413	1675	1989	400	375	300	300	150	N/A
SFA6B	990	840	1 1.5	1184	1656	1918	2232	500	450	500	450	450	375
SFA6C	1180	1030	1 1.1	1324	1796	2058	2372	500	450	500	450	500	450
SFA6D	1470	1320	1 0.75	1532	2004	2266	2580	500	450	500	450	500	450

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Wing Wall Profile	Weight	Weight with Toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					500mm	750mm	1000mm						
								Invert Level with Apron		100mm Invert Level		225mm Invert Level	
								TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
SFA6A	750	600	1 1.5	941	1814	2250	2687	400	375	300	300	150	N/A
SFA6B	990	840	1 1.5	1184	2057	2493	2930	500	450	500	450	450	375
SFA6C	1180	1030	1 1.1	1324	2197	2633	3070	500	450	500	450	500	450
SFA6D	1470	1320	1 0.75	1532	2405	2841	3278	500	450	500	450	500	450

SFA10 Headwall Range

Up to 750mm Pipework
800mm - 1520mm Backwall Height

300 and 500mm Thick Toe

Althon Sewers for Adoption precast headwalls should be used when a concrete headwall is part of a Section 104 Agreement and the sewers are to be adopted once completed by the local Water Company. The materials used and installation must comply with the 'Sewers for Adoption' guidelines. Althon SFA precast concrete headwalls offer a cost effective alternative to in-situ structures for connecting pipework discharging into open watercourses.

There are four sizes of Sewers for Adoption concrete headwalls available catering for pipe sizes up to and including 1500mm. Each size of SFA precast concrete headwall comes with three depths of toe and four back wall heights offering wing wall profiles to suit most applications.

Althon Sewers for Adoption precast concrete headwalls are cast to suit the diameter and type of pipe being used and can be provided with fixings cast in at the time of manufacture to accommodate gratings, trash screens, flap valves, penstocks, ladders, Kee Klamp® handrails and flow and depth monitoring equipment.

Our Sewers for Adoption compliant precast headwalls are available with toe extensions either 300 or 500mm thick with depths ranging from 450 to 1000mm. We also manufacture Sewers for Adoption compliant outfall safety grilles to suit our concrete headwalls.



SFA10 A
800mm Backwall

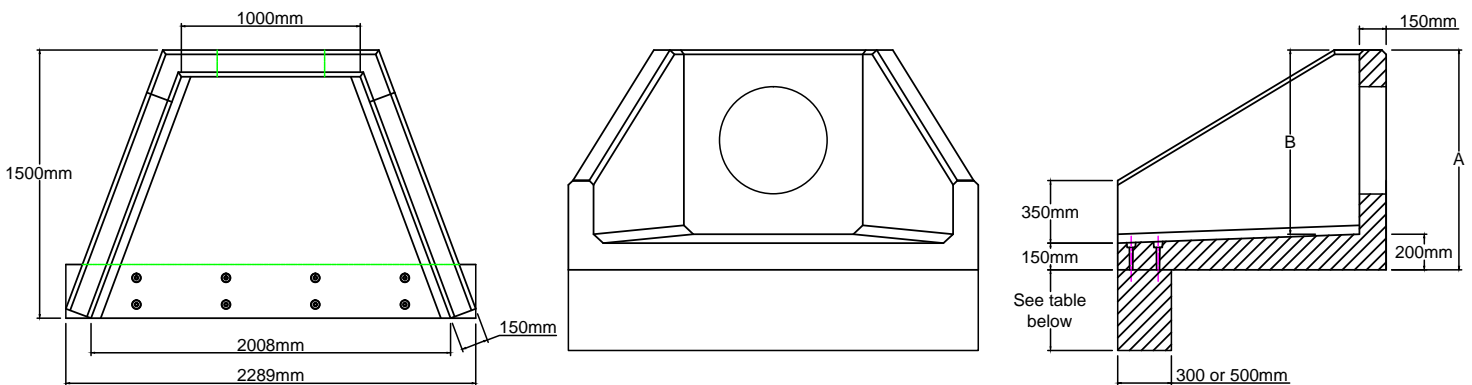
SFA10 B
1040mm Backwall



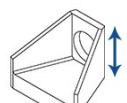
SFA10 C
1230mm Backwall

SFA10 D
1520mm Backwall

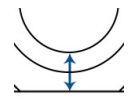
Optional Kee Klamp handrail





Maximum pipe size
750mm




Backwall heights
800mm - 1520mm



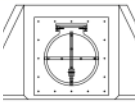
Specifiable pipe invert levels



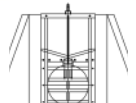
Single or multiple pipe openings



Optional pre-fitted grating



Optional pre-fitted flap valve



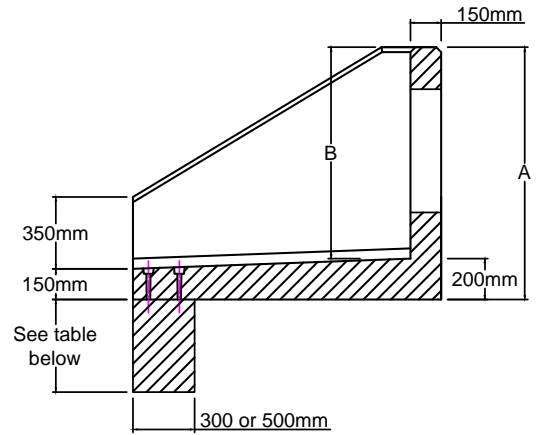
Optional pre-fitted penstock



SFA10 Headwall Range

Up to 750mm Pipework
800mm - 1520mm Backwall Height

300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Wing Wall Profile	Weight	Weight with Toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					450mm	700mm	1000mm						
					Invert Level with Apron			100mm Invert Level		225mm Invert Level			
								TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
SFA10A	800	600	1:4	1900	2645	3140	3560	400	375	300	300	150	N/A
SFA10B	1040	840	1:2	2140	2885	3380	3800	600	600	500	450	450	375
SFA10C	1230	1030	1:1.5	2380	3125	3620	4040	750	675	600	600	600	525
SFA10D	1520	1320	1:1	2630	3375	3870	4290	750	675	750	675	750	675

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Wing Wall Profile	Weight	Weight with Toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					500mm	750mm	1000mm						
					Invert Level with Apron			100mm Invert Level		225mm Invert Level			
								TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
SFA10A	800	600	1:4	1900	3280	3970	4660	400	375	300	300	150	N/A
SFA10B	1040	840	1:2	2140	3520	4210	4900	600	600	500	450	450	375
SFA10C	1230	1030	1:1.5	2380	3760	4450	5140	750	675	600	600	600	525
SFA10D	1520	1320	1:1	2630	4010	4700	5390	750	675	750	675	750	675

SFA15 Headwall Range

Up to 1200mm Pipework
1300mm - 2350mm Backwall Height

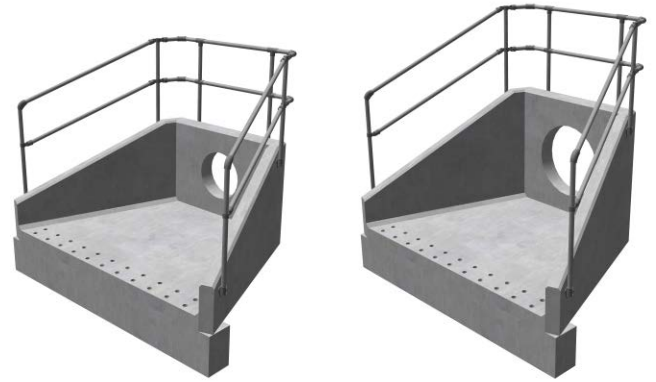
300 and 500mm Thick Toe

Althon Sewers for Adoption precast headwalls should be used when a concrete headwall is part of a Section 104 Agreement and the sewers are to be adopted once completed by the local Water Company. The materials used and installation must comply with the 'Sewers for Adoption' guidelines. Althon SFA precast concrete headwalls offer a cost effective alternative to in-situ structures for connecting pipework discharging into open watercourses.

There are four sizes of Sewers for Adoption concrete headwalls available catering for pipe sizes up to and including 1500mm. Each size of SFA precast concrete headwall comes with three depths of toe and four back wall heights offering wing wall profiles to suit most applications.

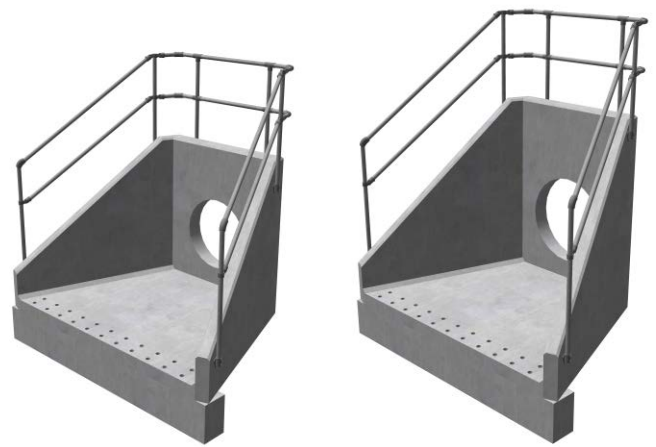
Althon Sewers for Adoption precast concrete headwalls are cast to suit the diameter and type of pipe being used and can be provided with fixings cast in at the time of manufacture to accommodate gratings, trash screens, flap valves, penstocks, ladders, Kee Klamp® handrails and flow and depth monitoring equipment.

Our Sewers for Adoption compliant precast headwalls are available with toe extensions either 300 or 500mm thick with depths ranging from 450 to 1000mm. We also manufacture Sewers for Adoption compliant outfall safety grilles to suit our concrete headwalls.



SFA15 A
1300mm Backwall

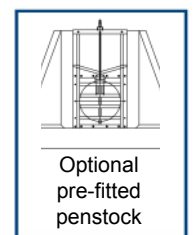
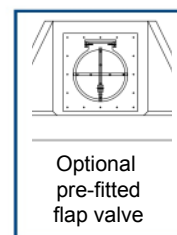
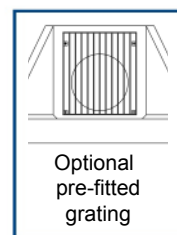
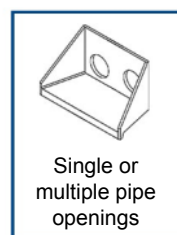
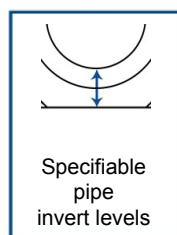
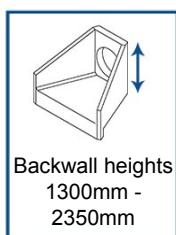
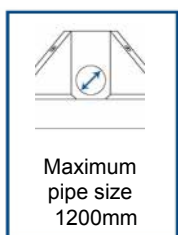
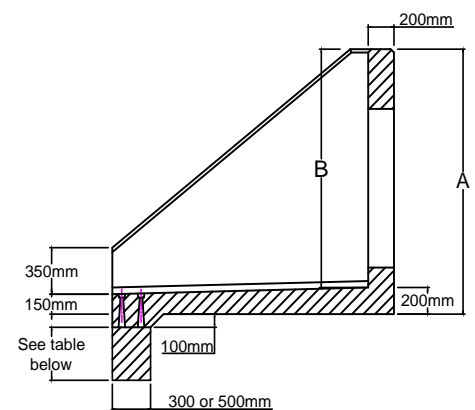
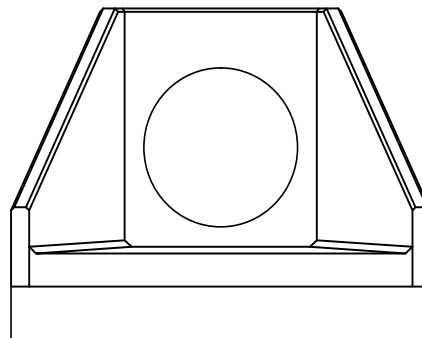
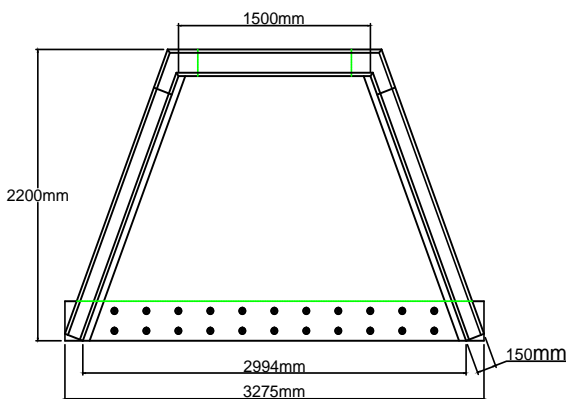
SFA15 B
1650mm Backwall



SFA15 C
2000mm Backwall

SFA15 D
2350mm Backwall

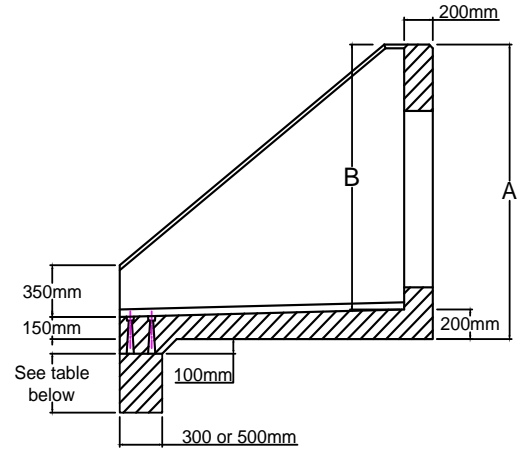
Optional Kee Klamp handrail



SFA15 Headwall Range

Up to 1200mm Pipework
1300mm - 2350mm Backwall Height

300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Wing Wall Profile	Weight	Weight with Toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					400mm	650mm	950mm						
	mm	mm		kg	kg	kg	kg						
SFA15A	1300	1100	1:2.3	4970	5920	6520	7100	750	825	750	675	600	600
SFA15B	1650	1450	1:1.6	5210	6160	6760	7340	1200	1050	1050	1050	900	900
SFA15C	2000	1800	1:1.24	5780	6730	7330	7910	1200	1050	1200	1050	1200	1050
SFA15D	2350	2150	1:1	6355	7305	7905	8485	1200	1050	1200	1050	1200	1050

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Wing Wall Profile	Weight	Weight with Toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					500mm	750mm	1000mm						
	mm	mm		kg	kg	kg	kg						
SFA15A	1300	1100	1:2.3	4970	6554	7542	8534	750	825	750	675	600	600
SFA15B	1650	1450	1:1.6	5210	6794	7782	8774	1200	1050	1050	1050	900	900
SFA15C	2000	1800	1:1.24	5780	7364	8352	9344	1200	1050	1200	1050	1200	1050
SFA15D	2350	2150	1:1	6355	7939	8927	9919	1200	1050	1200	1050	1200	1050

SFA20 Headwall Range

Up to 1500mm Pipework
1300mm - 2350mm Backwall Height

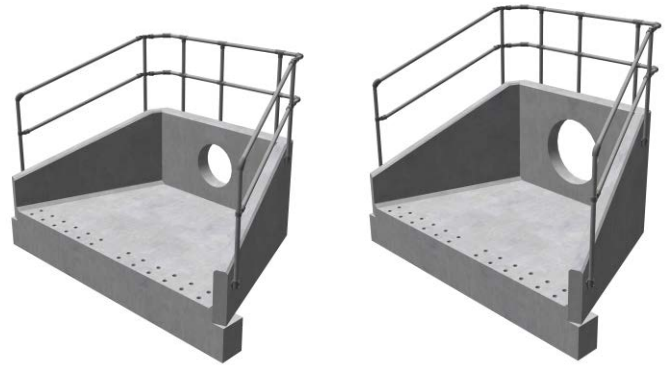
300 and 500mm Thick Toe

Althon Sewers for Adoption precast headwalls should be used when a concrete headwall is part of a Section 104 Agreement and the sewers are to be adopted once completed by the local Water Company. The materials used and installation must comply with the 'Sewers for Adoption' guidelines. Althon SFA precast concrete headwalls offer a cost effective alternative to in-situ structures for connecting pipework discharging into open watercourses.

There are four sizes of Sewers for Adoption concrete headwalls available catering for pipe sizes up to and including 1500mm. Each size of SFA precast concrete headwall comes with three depths of toe and four back wall heights offering wing wall profiles to suit most applications.

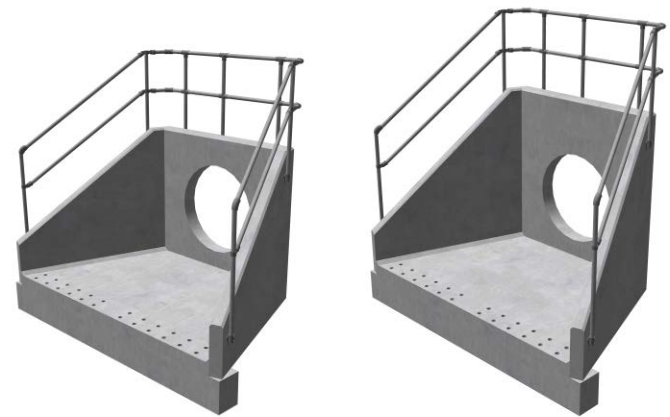
Althon Sewers for Adoption precast concrete headwalls are cast to suit the diameter and type of pipe being used and can be provided with fixings cast in at the time of manufacture to accommodate gratings, trash screens, flap valves, penstocks, ladders, Kee Klamp® handrails and flow and depth monitoring equipment.

Our Sewers for Adoption compliant precast headwalls are available with toe extensions either 300 or 500mm thick with depths ranging from 450 to 1000mm. We also manufacture Sewers for Adoption compliant outfall safety grilles to suit our concrete headwalls.



SFA20 A
1300mm Backwall
2 Piece Headwall

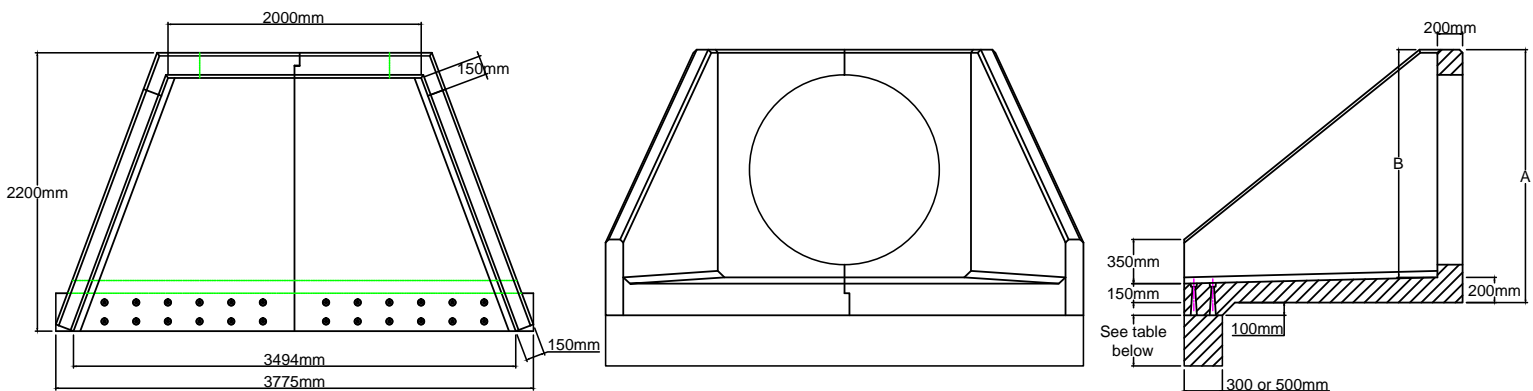
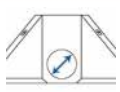
SFA20 B
1650mm Backwall
2 Piece Headwall



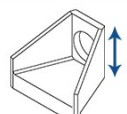
SFA20 C
2000mm Backwall
2 Piece Headwall

SFA20 D
2350mm Backwall
2 Piece Headwall

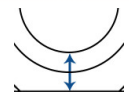
Optional Kee Klamp handrail

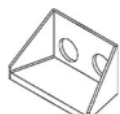
Maximum pipe size
1500mm




Backwall heights
1300mm -
2350mm



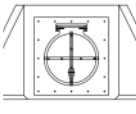
Specifiable pipe invert levels



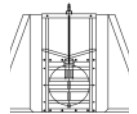
Single or multiple pipe openings



Optional pre-fitted grating



Optional pre-fitted flap valve

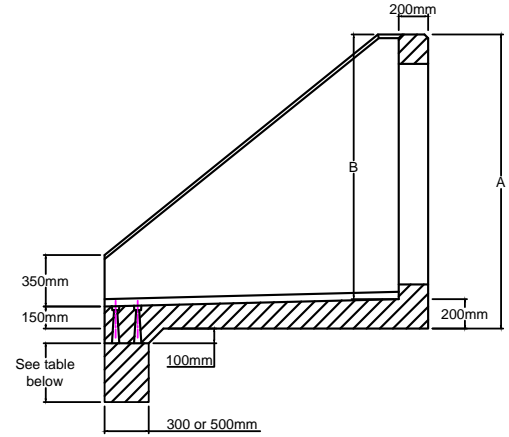


Optional pre-fitted penstock

SFA20 Headwall Range

Up to 1500mm Pipework
1300mm - 2350mm Backwall Height

300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Wing Wall Profile	Weight	Weight with Toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					400mm	650mm	950mm						
								Invert Level with Apron		100mm Invert Level		225mm Invert Level	
								TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
SFA20A	1300	1100	1:2.3	5660	6755	7410	8120	750	825	750	675	600	600
SFA20B	1650	1450	1:1.6	6070	7165	7820	8530	1200	1050	1050	1050	900	900
SFA20C	2000	1800	1:1.24	6730	7825	8480	9190	1500	1350	1200	1350	1200	1200
SFA20D	2350	2150	1:1	7390	8485	9140	9850	1500	1500	1500	1500	1500	1500

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Wing Wall Profile	Weight	Weight with Toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					500mm	750mm	1000mm						
								Invert Level with Apron		100mm Invert Level		225mm Invert Level	
								TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
SFA20A	1300	1100	1:2.3	5660	7484	8624	9764	750	825	750	675	600	600
SFA20B	1650	1450	1:1.6	6070	7894	9034	10174	1200	1050	1050	1050	900	900
SFA20C	2000	1800	1:1.24	6730	8554	9694	10834	1500	1350	1200	1350	1200	1200
SFA20D	2350	2150	1:1	7390	9214	10354	11494	1500	1500	1500	1500	1500	1500

SFA Grate, Ladder and Steps

Headwall Ref	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
	TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm	mm	mm	mm	mm
SFA20A	600	600	500	450	500	450
SFA20B	900	900	500	450	500	450
SFA20C	1050	1050	500	450	N/A	N/A
SFA20D	1200	1200	500	450	N/A	N/A

SFA27 Headwall Range

Up to 1800mm Pipework
1300mm - 2350mm Backwall Height

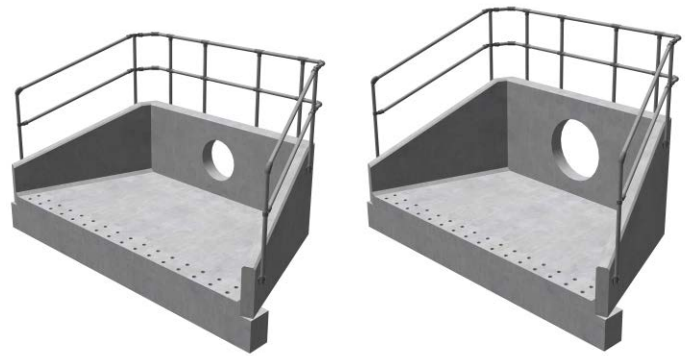
300 and 500mm Thick Toe

Althon Sewers for Adoption precast headwalls should be used when a concrete headwall is part of a Section 104 Agreement and the sewers are to be adopted once completed by the local Water Company. The materials used and installation must comply with the 'Sewers for Adoption' guidelines. Althon SFA precast concrete headwalls offer a cost effective alternative to in-situ structures for connecting pipework discharging into open watercourses.

There are four sizes of Sewers for Adoption concrete headwalls available catering for pipe sizes up to and including 1500mm. Each size of SFA precast concrete headwall comes with three depths of toe and four back wall heights offering wing wall profiles to suit most applications.

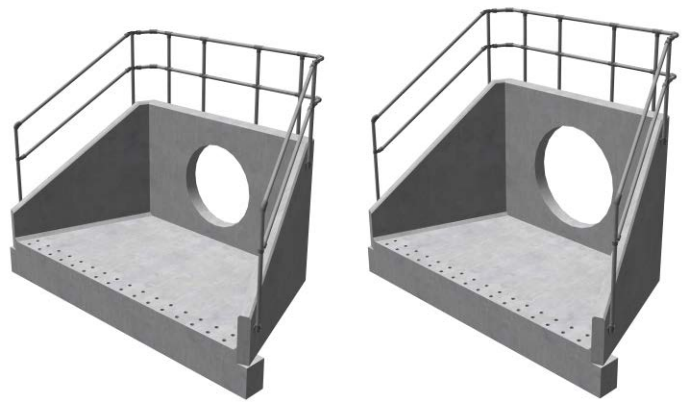
Althon Sewers for Adoption precast concrete headwalls are cast to suit the diameter and type of pipe being used and can be provided with fixings cast in at the time of manufacture to accommodate gratings, trash screens, flap valves, penstocks, ladders, Kee Klamp® handrails and flow and depth monitoring equipment.

Our Sewers for Adoption compliant precast headwalls are available with toe extensions either 300 or 500mm thick with depths ranging from 450 to 1000mm. We also manufacture Sewers for Adoption compliant outfall safety grilles to suit our concrete headwalls.



SFA27 A
1300mm Backwall
2 Piece Headwall

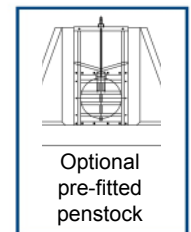
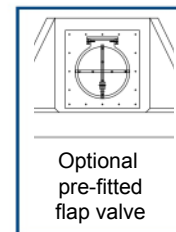
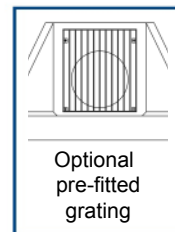
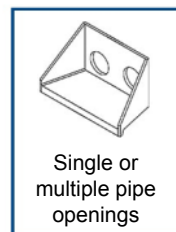
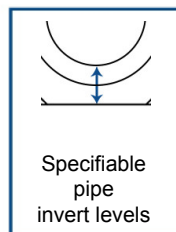
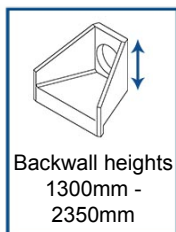
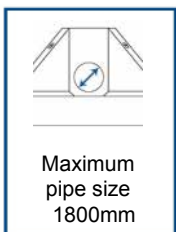
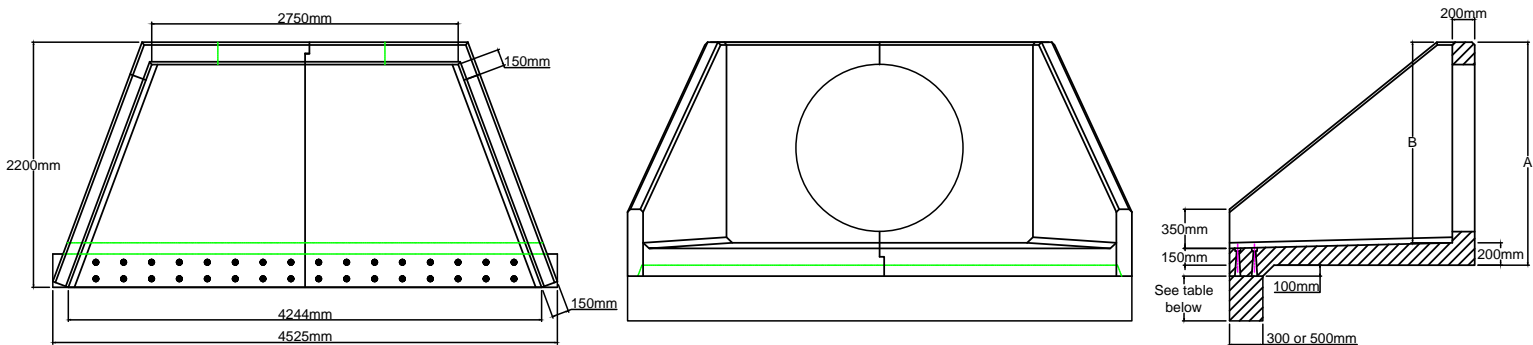
SFA27 B
1650mm Backwall
2 Piece Headwall



SFA27 C
2000mm Backwall
2 Piece Headwall

SFA27 D
2350mm Backwall
2 Piece Headwall

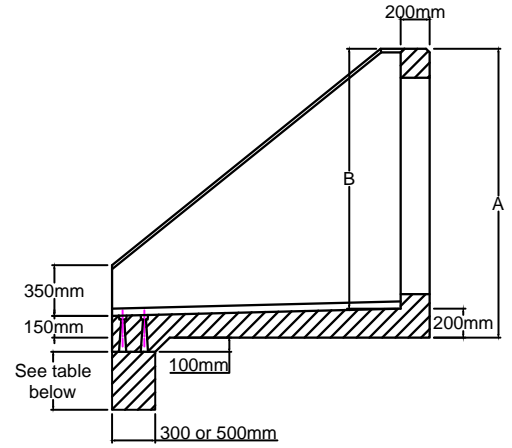
Optional Kee Klamp handrail



SFA27 Headwall Range

Up to 1800mm Pipework
1300mm - 2350mm Backwall Height

300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Wing Wall Profile	Weight	Weight with Toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					400mm	650mm	950mm						
								TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
SFA27A	1300	1100	1:2.3	6580	7890	8710	9530	750	825	750	675	600	600
SFA27B	1650	1450	1:1.6	7360	8670	9490	10310	1200	1050	1050	1050	900	900
SFA27C	2000	1800	1:1.24	8140	9450	10270	11090	1500	1350	1200	1350	1200	1200
SFA27D	2350	2150	1:1	8930	10240	11060	11880	1800	1600	1800	1600	1650	1500

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Wing Wall Profile	Weight	Weight with Toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					500mm	750mm	1000mm						
								TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
SFA27A	1300	1100	1:2.3	6580	8764	10132	11493	750	825	750	675	600	600
SFA27B	1650	1450	1:1.6	7360	9544	10912	12273	1200	1050	1050	1050	900	900
SFA27C	2000	1800	1:1.24	8140	10324	11692	13053	1500	1350	1200	1350	1200	1200
SFA27D	2350	2150	1:1	8930	11114	12482	13843	1800	1600	1800	1600	1650	1500

SFA Grate, Ladder and Steps

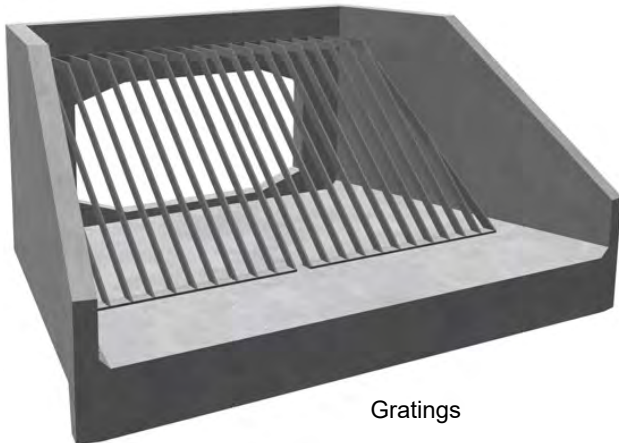
Headwall Ref	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
	TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm	mm	mm	mm	mm
SFA27A	600	600	600	600	600	525
SFA27B	900	900	900	900	750	750
SFA27C	1200	1200	1050	1050	N/A	N/A
SFA27D	1500	1500	1050	1050	N/A	N/A

Headwall Accessories

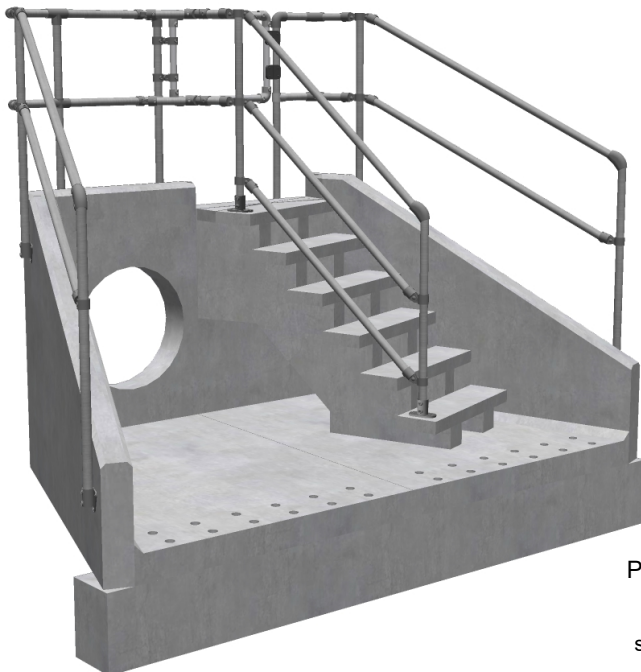
This page gives an overview of the alterations and additions that can be accommodated. For more specific information, please visit our website www.althon.co.uk If you can't see what you are looking for please contact our sales office on 01603 488700



Flap Valve



Gratings



PCC Steps



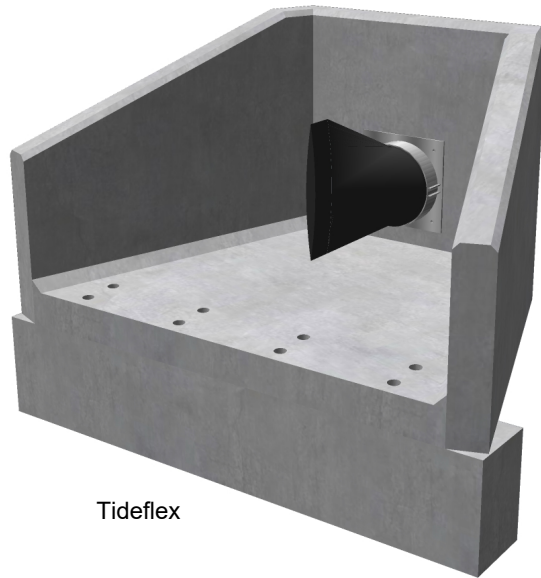
Penstock



Stepped Baffle Blocks



Catwalk Gratings



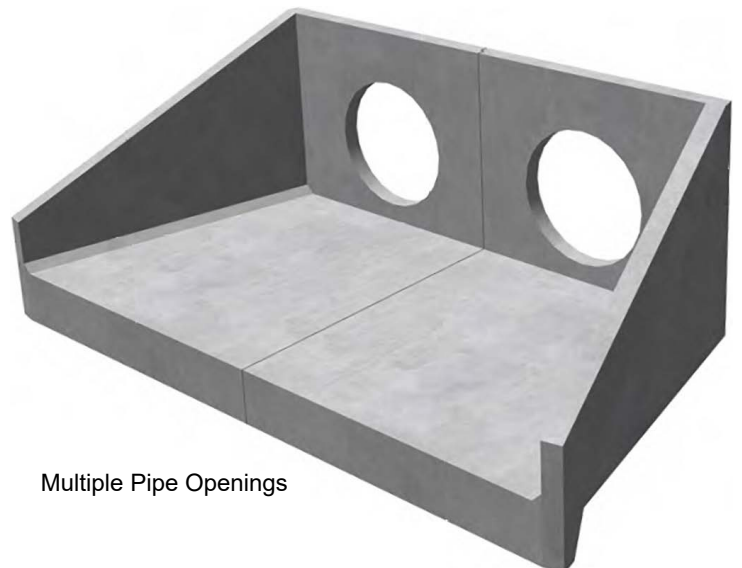
Tideflex



Kee Klamp Handrail and Ladders



Diffuser Blocks



Multiple Pipe Openings

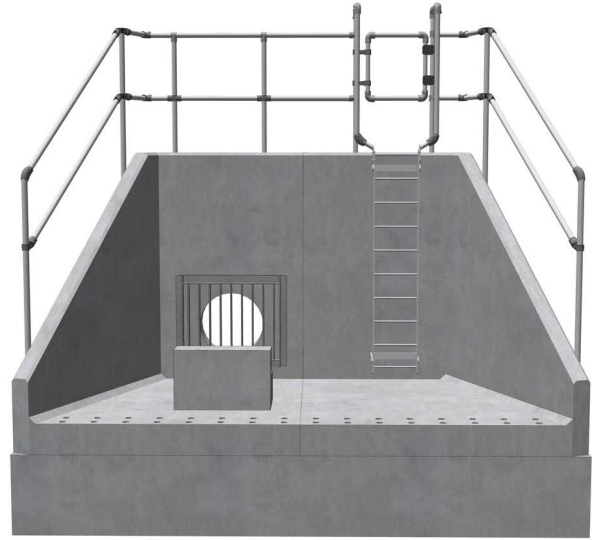
We can also factory fitted other accessories such as Orifice Plates, Extended spillways, Weir Walls, Extended Toes, Pipe openings in Wingwalls, Stop Logs, Dovetail Slots and more.

SFA Outfall Safety Grilles

Althon manufacture a comprehensive range of trash screens, gratings and safety grilles. Our range includes SFA compliant gratings, pipe mounted gratings, cage, cranked and sloped trash screens as well as raked trash screens and weed screens.

Our gratings and trash screens are available in galvanised steel as well as stainless steel. Althon gratings and trash screens can be pre-fitted to our precast headwall units, to in-situ headwalls or supplied as standalone items.

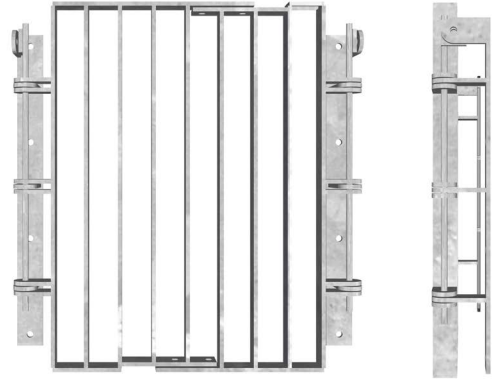
The Sewers for Adoption and Sewers for Scotland guidelines for gratings and trash screens call for an outfall safety grille to be fitted to any headwall with a pipe opening of 350mm or greater. The guidelines specify that the grille must be a minimum of 270mm wider than the outside diameter of the pipe, have bars at 100mm spacing, be hinged and have a padlock facility.



Standard gratings and trash screens are hot dip galvanised to BS EN 1461 after fabrication but are all available in Stainless Steel if required.



SFA 1 Outfall Safety Grille



SFA 2 Outfall Safety Grille



SFA 3 Outfall Safety Grille



SFA 4 Outfall Safety Grille



SFA 5 Outfall Safety Grille