



Rectangular Precast Concrete Headwalls





Index

Althon Precast Concrete Headwalls Overview	02
R10C Headwall Range	03
RSFA11 Headwall Range	04
RSFA12 Headwall Range	05 - 06
R18A Headwall Range	07 - 08
R18B Headwall Range	09 - 10
R20B Headwall Range	11 - 12
Accessories	13 - 14
Gratings	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



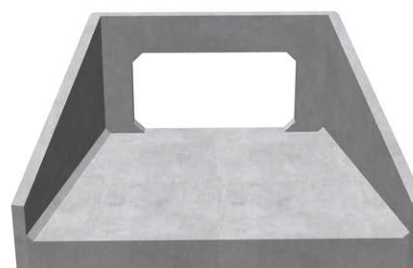
Sewers for Adoption Headwalls



Rectangular Precast Headwalls



Angled Precast Headwalls



Precast Headwalls for Culverts

R10C Headwall Range

Up to 750mm Pipework
1025mm - 1275mm Backwall Height

300 and 500mm Thick Toe

The R10C can accommodate twinwall, uPVC or clay pipes up to 750mm ID. or concrete pipes up to 675mm ID.

Openings in our rectangular concrete headwalls are cast to suit the pipe material and diameter being used on site. We can also cast the opening to a specified invert level if required. Our rectangular precast headwalls can be factory fitted with a range of accessories such as flap valves, penstocks, Kee Klamp® handrails as well as trash screens and outfall safety grilles.

Rectangular headwalls have the wingwalls projecting at 90 degrees to the backwall. We offer a range of different wingwall profiles with our rectangular headwalls to suit the bank profile on your project. We offer toe extensions for our rectangular precast headwalls either 300 or 500mm thick and up to 1000mm deep.



R10CA
1025mm Backwall

R10CB
1275mm Backwall

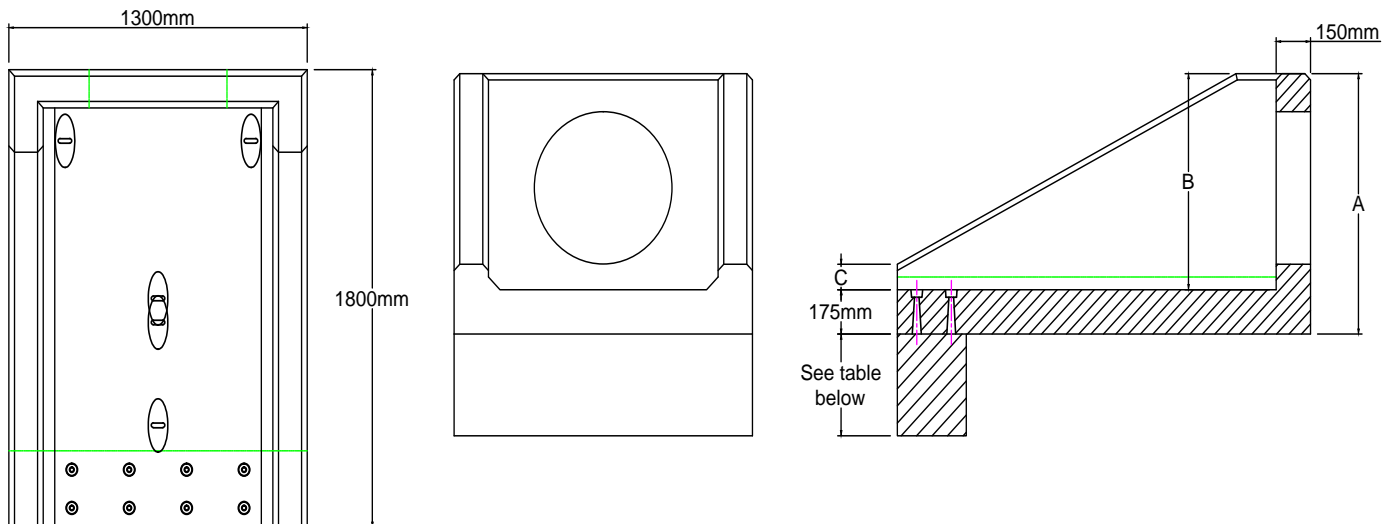


R10CF
1025mm Backwall

R10CH
1275mm Backwall

Optional Kee Klamp Handrail

Headwall Ref	Max Pipe Opening Plastic/C/ware	Max Pipe Opening PCC	A mm	B mm	C mm	Approx Weight kg	Weight with 300mm thick toe kg			Weight with 500mm thick toe kg		
							400mm	650mm	950mm	500mm	750mm	1000mm
R10C A	600	525	1025	850	100	2000	2375	2610	2890	2780	3170	3560
R10C B	750	675	1275	1100	350	2400	2775	3010	3290	3180	3570	3960
R10C F	600	525	1025	850	850	2440	2815	3050	3330	3220	3610	4000
R10C H	750	675	1275	1100	1100	2870	3245	3480	3760	3650	4040	4430



- Maximum pipe size 750mm
- Backwall heights 1025mm - 1275mm
- Specifiable pipe invert levels
- Single or multiple pipe openings
- Optional pre-fitted grating
- Optional pre-fitted flap valve
- Optional pre-fitted penstock

RSFA11 Headwall Range

Up to 400mm Pipework
775mm Backwall Height



RSFA11A



RSFA11F

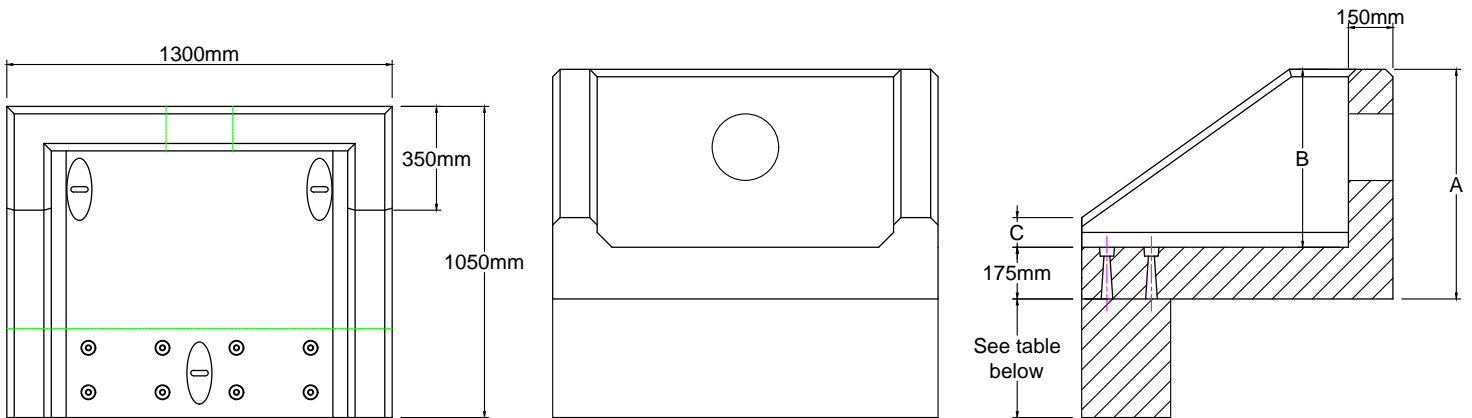

Optional Kee Klamp handrail

The RSFA11 Headwall is a single piece structure available with a wing wall profile of (A) 1:1.35 or (F) Horizontal. It has an internal back wall height of 600mm, suitable for pipes with a maximum internal diameter of 225mm and supplied with a separate toe beam.

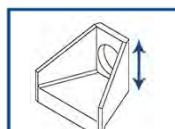
There are two thicknesses of toe beam available each in three depths to suit site conditions.

The RSFA11 Headwall is in accordance with Severn Trent Water Drawing No STD6001 Rev 02

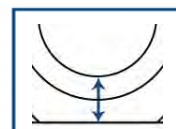
Headwall Ref	A	B	C	Approx Weight kg	Weight with 300mm thick toe kg			Weight with 500mm thick toe kg			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					400mm	650mm	950mm	500mm	750mm	1000mm						
	mm	mm	mm													
RSFA11A	775	600	100	1120	1495	1730	2010	1900	2290	2680	400	375	300	300	225	N/A
RSFA11F	775	600	600	1245	1620	1855	2135	2025	2415	2805	400	375	300	300	225	N/A

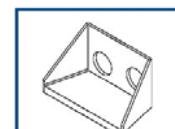
Maximum pipe size 400mm



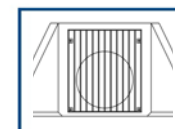
Backwall heights 775mm



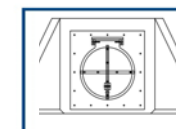
Specifiable pipe invert levels



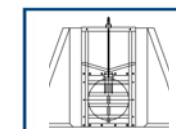
Single or multiple pipe openings



Optional pre-fitted grating



Optional pre-fitted flap valve



Optional pre-fitted penstock



RSFA12A

RSFA12D

RSFA12 Headwall Range

Up to 400mm Pipework
775mm Backwall Height

The RSFA12 Headwall is a single piece structure available with a wing wall profile of (A) 1:2.85 or (F) Horizontal. It has an internal back wall height of 600mm, suitable for pipes with a maximum internal diameter of 225mm and supplied with a separate toe beam.

There are two thicknesses of toe beam available each in three depths to suit site conditions.

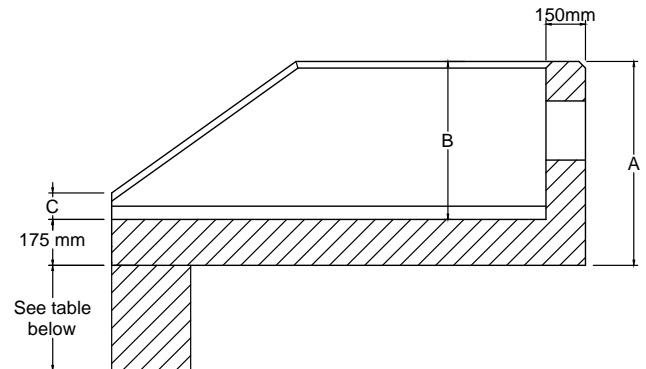
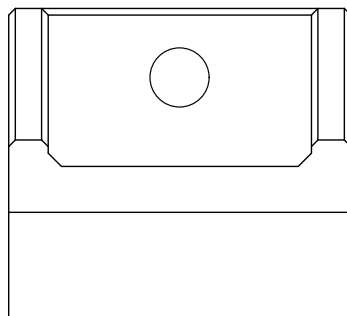
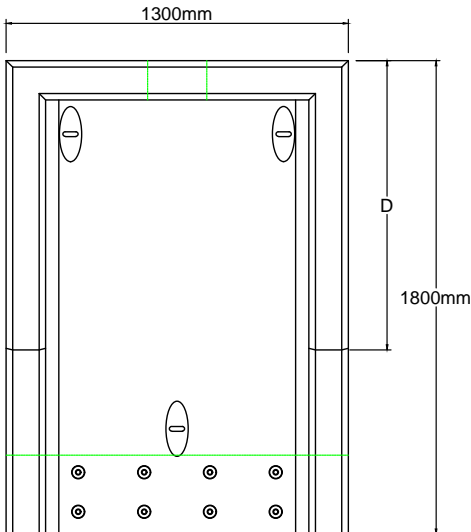
The RSFA12 Headwall is in accordance with Severn Trent Water Drawing No STD6001 Rev 02



RSFA12F

Optional Kee Klamp handrail

Headwall Ref	A	B	C	D	Approx Weight kg	Weight with 300mm thick toe kg			Weight with 500mm thick toe kg			Max Pipe Opening mm	Max Pipe Opening mm	Max Pipe Opening mm	Max Pipe Opening mm	Max Pipe Opening mm	Max Pipe Opening mm
						400mm	650mm	950mm	500mm	750mm	1000mm						
	mm	mm	mm	mm													
RSFA12A	775	600	100	350	1715	2090	2325	2605	2495	2885	3275	400	375	300	300	225	N/A
RSFA12D	775	600	100	1100	1855	2230	2465	2745	2635	3025	3415	400	375	300	300	225	N/A
RSFA12F	775	600	600	1800	1980	2355	2590	2870	2760	3150	3540	400	375	300	300	225	N/A



Maximum pipe size 400mm

Backwall heights 775mm

Specifiable pipe invert levels

Single or multiple pipe openings

Optional pre-fitted grating

Optional pre-fitted flap valve

Optional pre-fitted penstock

RSFA12 Angled Headwall Range

Up to 400mm Pipework
775mm Backwall Height

The RSFA12 Headwall is a single piece structure available with a wing wall profile of (A) 1:2.85 or (F) Horizontal. It has an internal back wall height of 600mm, suitable for pipes with a maximum internal diameter of 225mm and supplied with a separate toe beam.

There are two thicknesses of toe beam available each in three depths to suit site conditions.

The RSFA12 Headwall is in accordance with Severn Trent Water Drawing No STD6001 Rev 02



RSFA12A LH



RSFA12A RH

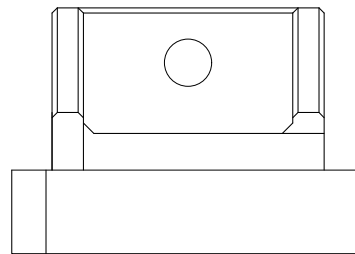
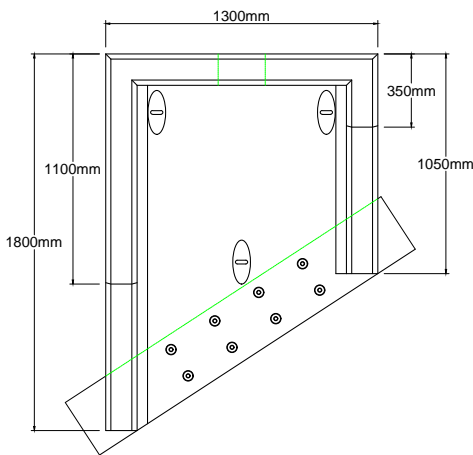


RSFA12F RH

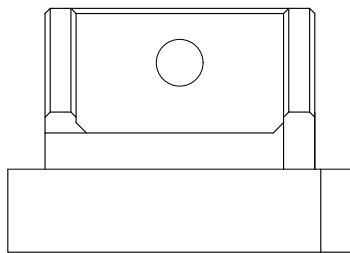
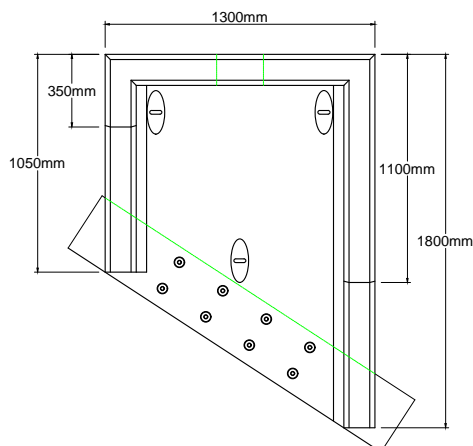
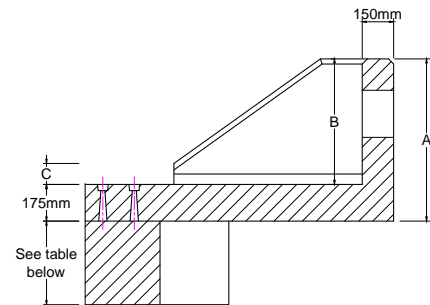


RSFA12F LH

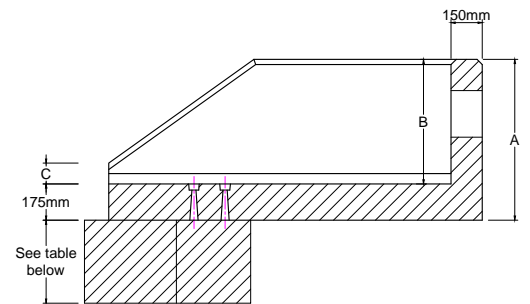
Headwall Ref	A	B	C	Approx Weight kg	Weight with 300mm thick toe			Weight with 500mm thick toe			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					400mm	650mm	950mm	500mm	750mm	1000mm						
	mm	mm	mm													
RSFA12A LH	775	600	100	1530	2000	2295	2645	2610	3150	3690	400	375	300	300	225	N/A
RSFA12A RH	775	600	100	1530	2000	2295	2645	2610	3150	3690	400	375	300	300	225	N/A
RSFA12F LH	775	600	600	1650	2120	2415	2765	2730	3270	3810	400	375	300	300	225	N/A
RSFA12F RH	775	600	600	1650	2120	2415	2765	2730	3270	3810	400	375	300	300	225	N/A



Left Hand Headwall



Right Hand Headwall





R18A 01 1150
1:1 Wing Wall

R18A 01 1810
1:1 Wing Wall

R18A 01 2270
1:1 Wing Wall

R18A Headwall Range

Up to 600mm Pipework
1080mm Backwall Height

300 and 500mm Thick Toe

R18A Rectangular Headwalls are single piece concrete headwall structures with a separate toe can extensions. The R18A Rectangular Headwalls can accommodate twin wall, uPVC or clay pipes up to 600mm or concrete pipes up to 525mm.

The R18A Rectangular Headwalls are available with 1080mm back wall heights and there are three depths of toe available in both 300 and 500mm thickness, they are fixed to the Headwall using threaded rod, nuts and washers, and high strength non-shrink grout.

All our precast concrete headwalls can be factory fitted with gratings, flap valves, penstocks, handrails and other factory fitted accessories such as baffle blocks and orifice plates.

Openings are cast into the headwalls to suit the pipe diameter and material being used and can be set to a specified invert level. We can also accommodate multiple pipe openings in the back wall or wingwalls.



R18A 05 1810
1:2 Wing Wall

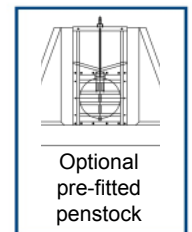
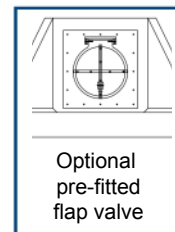
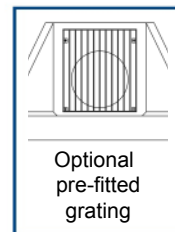
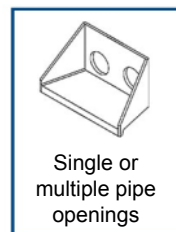
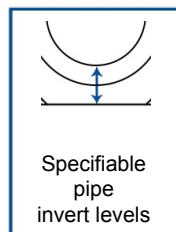
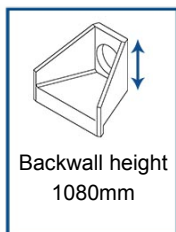
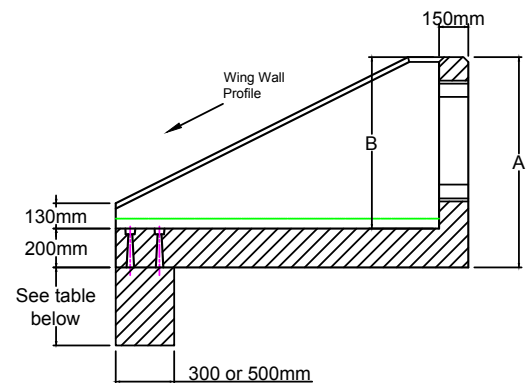
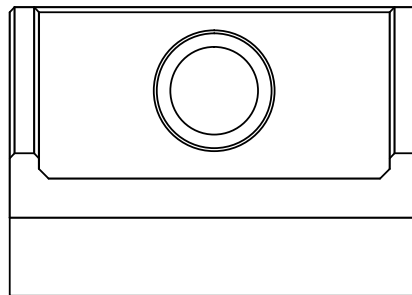
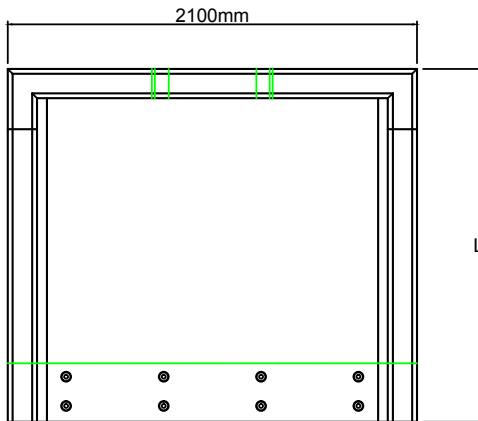


R18A 05 2330
1:2 Wing Wall



R18A 10 2450
1:3 Wing Wall

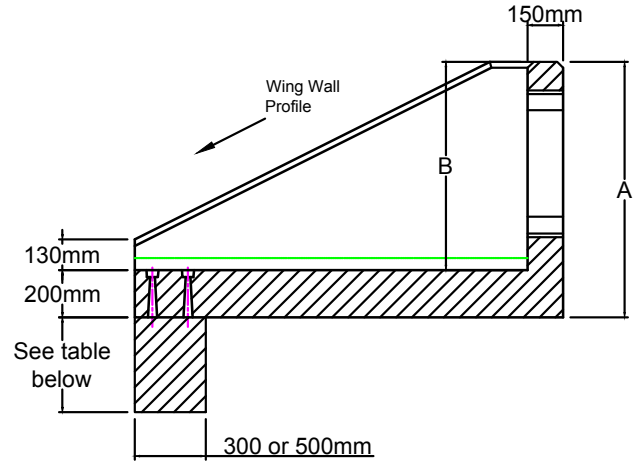
Optional Kee Klamp handrail



R18A Headwall Range

Up to 600mm Pipework
1080mm Backwall Height

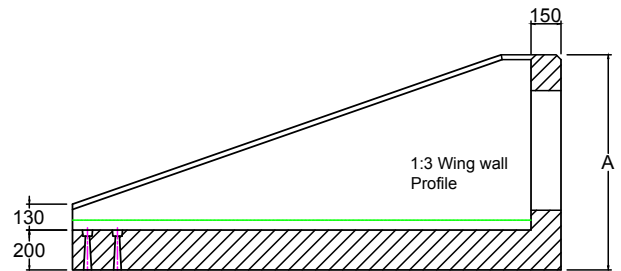
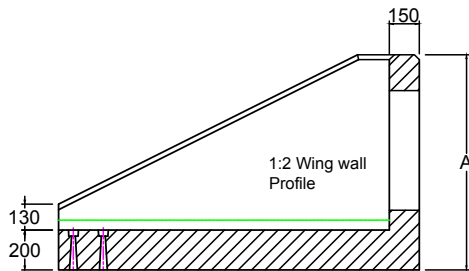
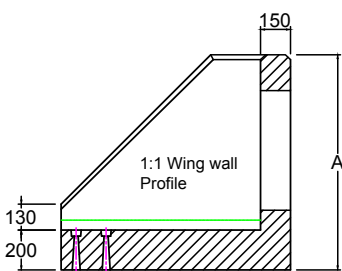
300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Length L	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	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
R18A 01 1150	1080	880	1150	1:1	2250	2850	3230	3680	600	600	600	525	450	450
R18A 01 1810	1080	880	1810	1:1	3330	3930	4310	4760	600	600	600	525	450	450
R18A 01 2270	1080	880	2270	1:1	4100	4700	5080	5530	600	600	600	525	450	450
R18A 05 1810	1080	880	1810	1:2	3120	3720	4100	4550	600	600	600	525	450	450
R18A 05 2330	1080	880	2330	1:2	3950	4550	4930	5380	600	600	600	525	450	450
R18A 10 2450	1080	880	2450	1:3	4000	4600	4980	5430	600	600	600	525	450	450

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Length L	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	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
R18A 01 1150	1080	880	1150	1:1	2250	3510	4140	4770	600	600	600	525	450	450
R18A 01 1810	1080	880	1810	1:1	3330	4590	5220	5850	600	600	600	525	450	450
R18A 01 2270	1080	880	2270	1:1	4100	5360	5990	6620	600	600	600	525	450	450
R18A 05 1810	1080	880	1810	1:2	3120	4380	5010	5640	600	600	600	525	450	450
R18A 05 2330	1080	880	2330	1:2	3950	5210	5840	6470	600	600	600	525	450	450
R18A 10 2450	1080	880	2450	1:3	4000	5260	5890	6520	600	600	600	525	450	450





R18B Headwall Range

Up to 825mm Pipework
1300mm Backwall Height

300 and 500mm Thick Toe

R18B Rectangular Headwalls are single piece concrete headwall structures with a separate toe extensions. The R18B Rectangular Headwalls can accommodate twin wall, uPVC or clay pipes up to 750mm or concrete pipes up to 750mm

The R18B Rectangular Headwalls are available with 1300mm back wall heights and there are three depths of toe available in both 300 and 500mm thickness, they are fixed to the Headwall using threaded rod, nuts and washers, and high strength non-shrink grout

All our precast concrete headwalls can be factory fitted with gratings, flap valves, penstocks, handrails and other factory fitted accessories such as baffle blocks and orifice plates.

Openings are cast into the headwalls to suit the pipe diameter and material being used and can be set to a specified invert level. We can also accommodate multiple pipe openings in the back wall or wingwalls.

R18B 01 1150
1:1 Wing Wall

R18B 01 1810
1:1 Wing Wall

R18B 01 2270
1:1 Wing Wall



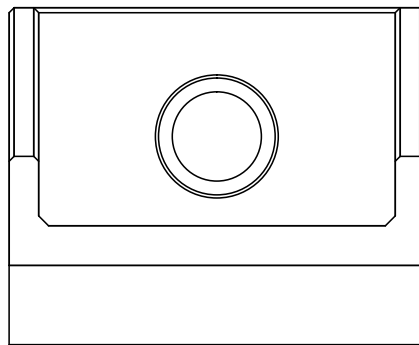
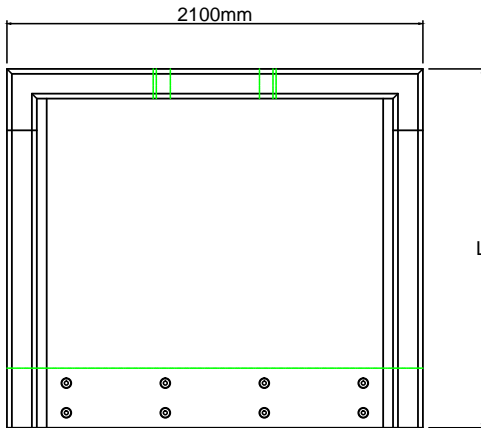
R18B 05 1810
1:2 Wing Wall



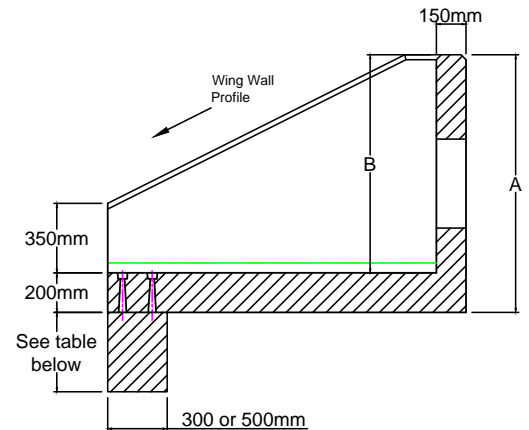
R18B 05 2330
1:2 Wing Wall



R18B 10 2450
1:3 Wing Wall



Optional Kee Klamp handrail



Maximum pipe size 825mm

Backwall height 1300mm

Specifiable pipe invert levels

Single or multiple pipe openings

Optional pre-fitted grating

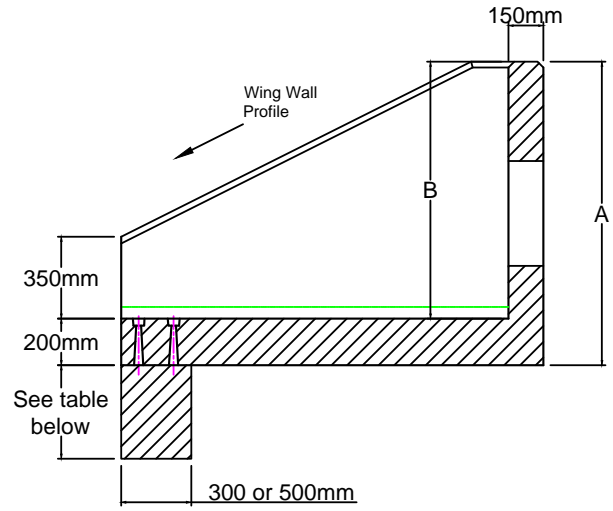
Optional pre-fitted flap valve

Optional pre-fitted penstock

R18B Headwall Range

Up to 825mm Pipework
1300mm Backwall Height

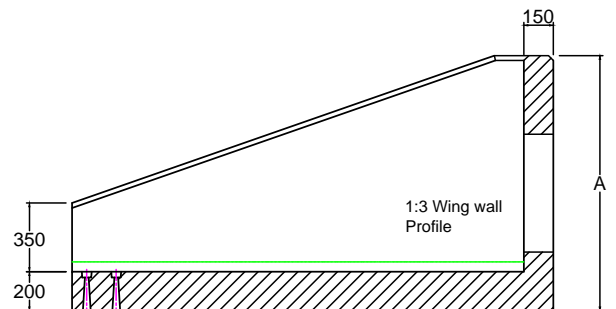
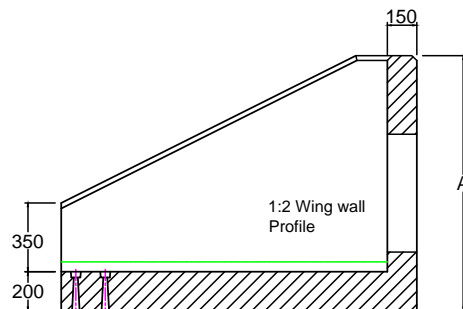
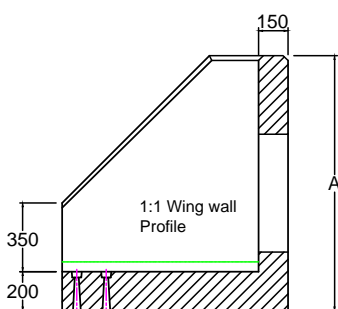
300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Length L	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						
						kg	kg	kg						
	mm	mm	mm		kg	kg	kg	kg						
R18B 01 1150	1300	1100	1150	1:1	2580	3180	3560	4010	750	825	750	750	600	600
R18B 01 1810	1300	1100	1810	1:1	3750	4350	4730	5180	750	825	750	750	600	600
R18B 01 2270	1300	1100	2270	1:1	4580	5180	5560	6010	750	825	750	750	600	600
R18B 05 1810	1300	1100	1810	1:2	3550	4150	4530	4980	750	825	750	750	600	600
R18B 05 2330	1300	1100	2330	1:2	4500	5100	5480	5930	750	825	750	750	600	600
R18B 10 2450	1300	1100	2450	1:3	4000	5100	5480	5930	750	825	750	750	600	600

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Length L	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						
						kg	kg	kg						
	mm	mm	mm		kg	kg	kg	kg						
R18B 01 1150	1300	1100	1150	1:1	2580	3840	4470	5100	750	825	750	750	600	600
R18B 01 1810	1300	1100	1810	1:1	3750	5010	5640	6270	750	825	750	750	600	600
R18B 01 2270	1300	1100	2270	1:1	4580	5840	6470	7100	750	825	750	750	600	600
R18B 05 1810	1300	1100	1810	1:2	3550	4810	5440	6070	750	825	750	750	600	600
R18B 05 2330	1300	1100	2330	1:2	4500	5760	6390	7020	750	825	750	750	600	600
R18B 10 2450	1300	1100	2450	1:3	4000	5760	6390	7020	750	825	750	750	600	600





R20B Headwall Range

Up to 825mm Pipework
1300mm Backwall Height

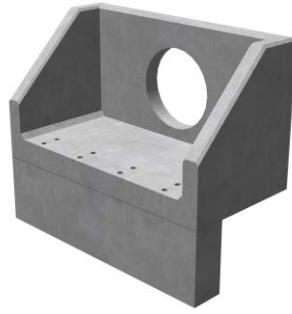
300 and 500mm Thick Toe

R20B Rectangular Headwalls are single piece concrete headwall structures with a separate toe extensions. The R20B Rectangular Headwalls can accommodate twin wall, uPVC or clay pipes up to 750mm or concrete pipes up to 750mm.

The R20B Rectangular Headwalls are available with 1300mm back wall heights and there are three depths of toe available in both 300 and 500mm thickness, they are fixed to the Headwall using threaded rod, nuts and washers, and high strength non-shrink grout.

All our precast concrete headwalls can be factory fitted with gratings, flap valves, penstocks, handrails and other factory fitted accessories such as baffle blocks and orifice plates.

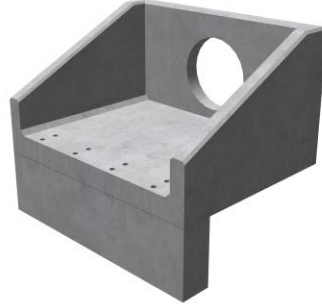
Openings are cast into the headwalls to suit the pipe diameter and material being used and can be set to a specified invert level. We can also accommodate multiple pipe openings in the back wall or wingwalls.



R18B 01 1150
1:1 Wing Wall



R18B 01 1810
1:1 Wing Wall



R18B 05 1810
1:2 Wing Wall

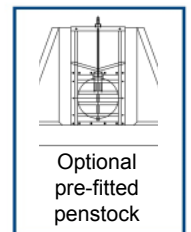
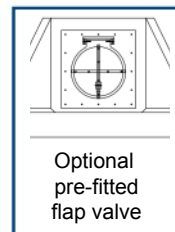
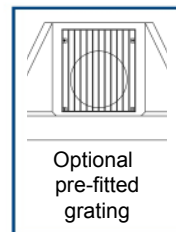
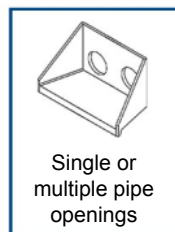
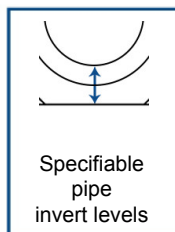
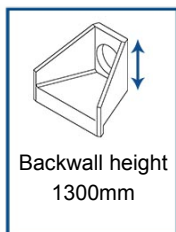
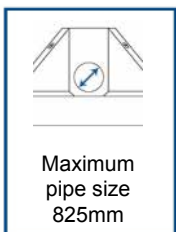
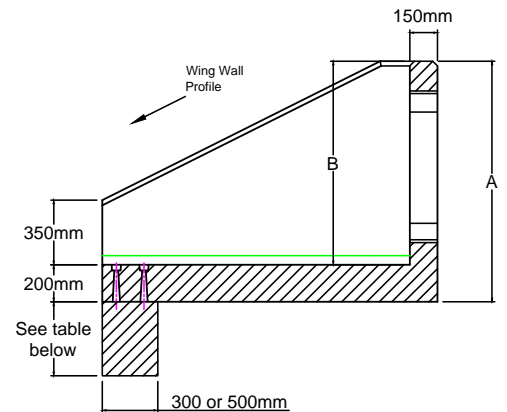
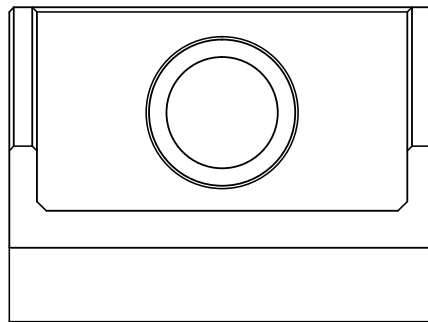
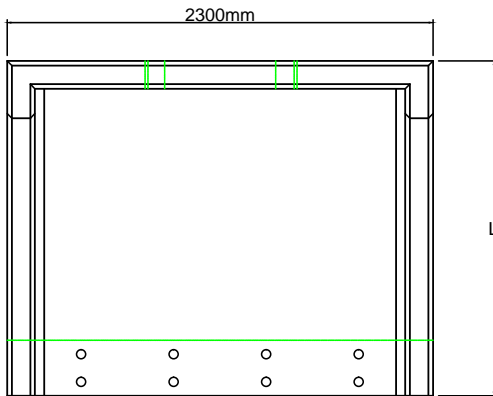


R18B 05 2330
1:2 Wing Wall



R18B 10 2450
1:3 Wing Wall

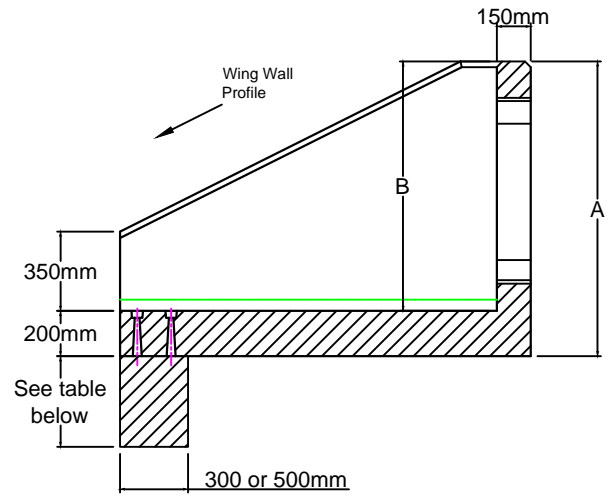
Optional Kee Klamp handrail



R20B Headwall Range

Up to 825mm Pipework
1300mm Backwall Height

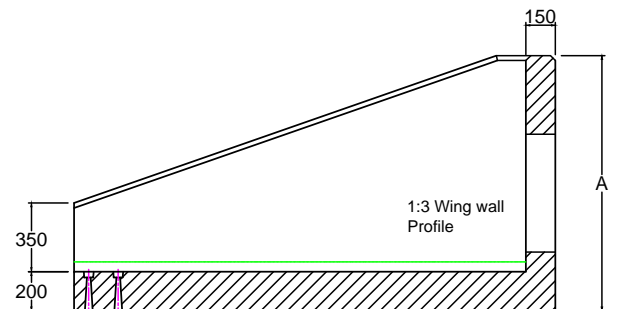
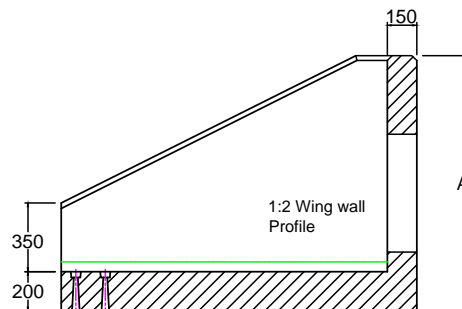
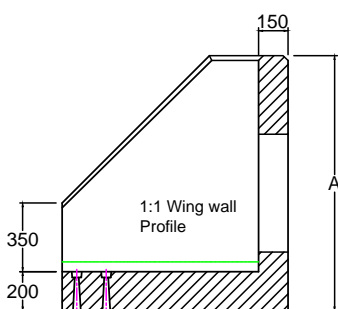
300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Length L	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	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
R20B 01 1150	1300	1100	1150	1:1	3980	4640	5050	5550	750	825	750	750	600	600
R20B 01 2000	1300	1100	2000	1:1	4390	5050	5460	5960	750	825	750	750	600	600
R20B 05 1810	1300	1100	1810	1:2	3790	4450	4860	5360	750	825	750	750	600	600
R20B 05 2150	1300	1100	2150	1:2	4460	5120	5530	6030	750	825	750	750	600	600
R20B 10 2450	1300	1100	2450	1:3	4850	5510	5920	6420	750	825	750	750	600	600

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Length L	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	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
R20B 01 1150	1300	1100	1150	1:1	3980	5360	6050	6740	750	825	750	750	600	600
R20B 01 2000	1300	1100	2000	1:1	4390	5770	6460	7150	750	825	750	750	600	600
R20B 05 1810	1300	1100	1810	1:2	3790	5170	5860	6550	750	825	750	750	600	600
R20B 05 2150	1300	1100	2150	1:2	4460	5840	6530	7220	750	825	750	750	600	600
R20B 10 2450	1300	1100	2450	1:3	4850	6230	6920	7610	750	825	750	750	600	600

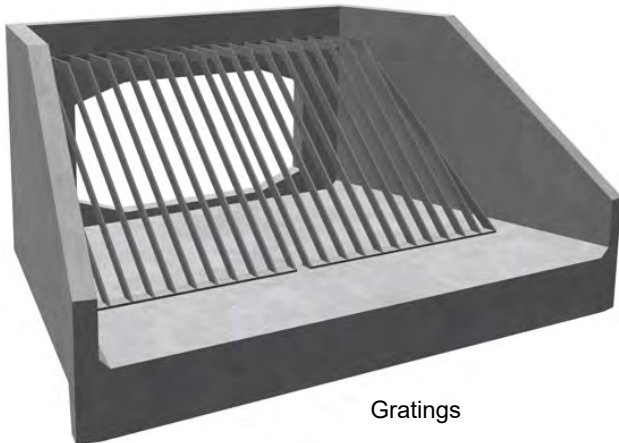


Headwall Accessories

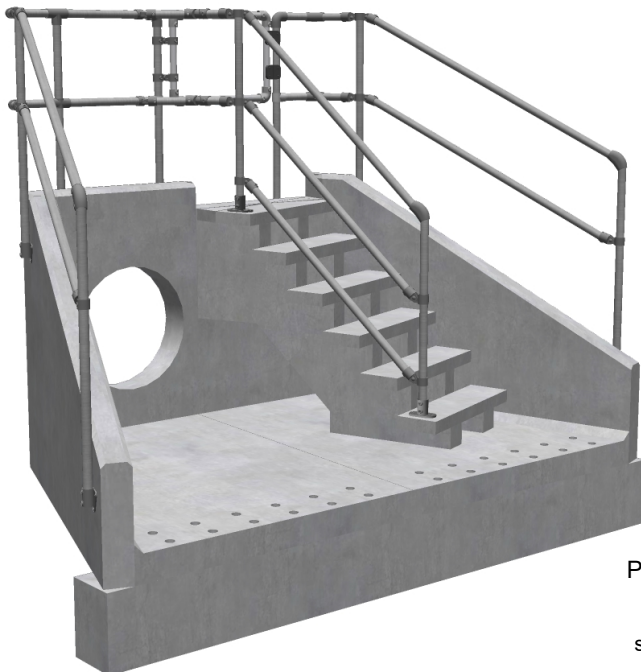
This page gives an overview of the alterations and additions that can be accommodated. For more specific information, please visit our website www.althon.co.uk If you can't see what you are looking for please contact our sales office on 01603 488700



Flap Valve



Gratings



PCC Steps



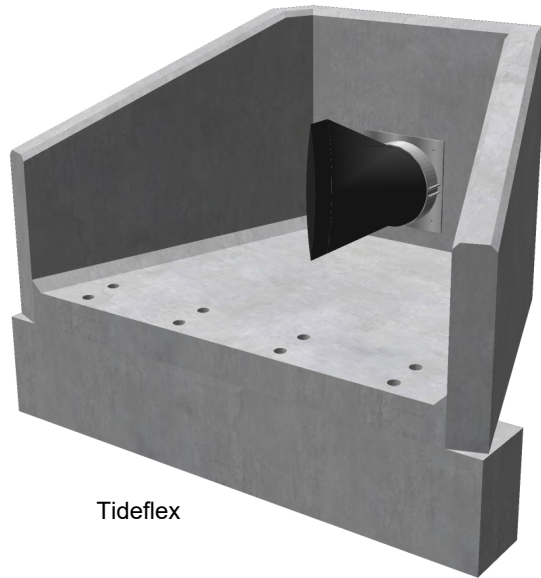
Penstock



Stepped Baffle Blocks



Catwalk Gratings



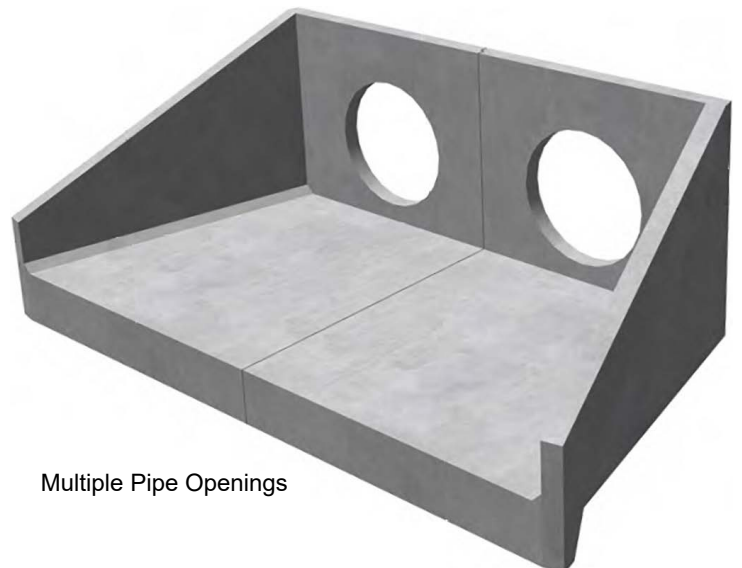
Tideflex



Kee Klamp Handrail and Ladders



Diffuser Blocks



Multiple Pipe Openings

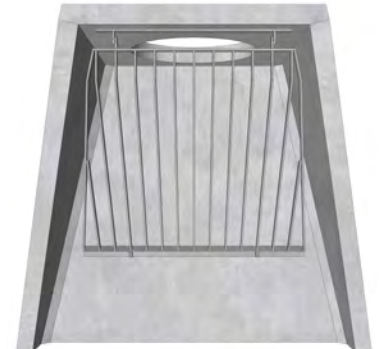
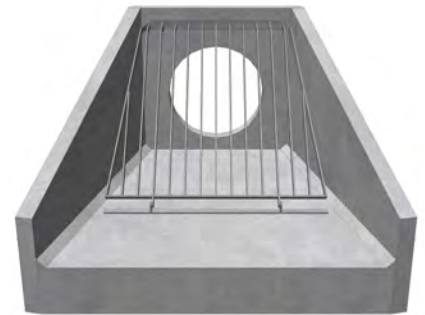
We can also factory fitted other accessories such as Orifice Plates, Extended spillways, Weir Walls, Extended Toes, Pipe openings in Wingwalls, Stop Logs, Dovetail Slots and more.

Grating Configurations for Althon Headwalls

Althon Headwalls can be supplied fitted with either mild steel (unit fully welded then hot dip galvanised or stainless steel gratings. Three different configurations are available. Gratings provide safety against persons entering the pipe or culvert and protection against the ingress of debris. Bespoke gratings can be manufactured to suit customer requirements, please contact the Althon Sales Office for further details.

The sloped Grating is normally used where a flap valve is fitted, it allows the flap valve to operate efficiently and offers better protection against blockage as it allows debris to be pushed up the grating as the water level rises, minimising build up and potential blockage.

The cranked grating is normally used where a large flap valve or penstock is fitted. This type of grating allows the flap valve or penstock to operate efficiently. Special access points can be made available with the grating to allow access to operating gear for penstocks etc.



Close Coupled Grating

Sloped Grating

Cranked Grating