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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.

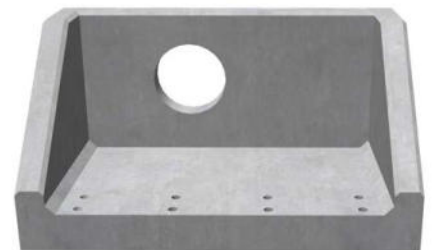
If a Penstock or Flap Valve is to be fitted to the Headwall, the frame size will determine the maximum pipe diameter that can be accommodated - please contact the Althon Sales office for details.



Standard Precast Concrete Headwalls



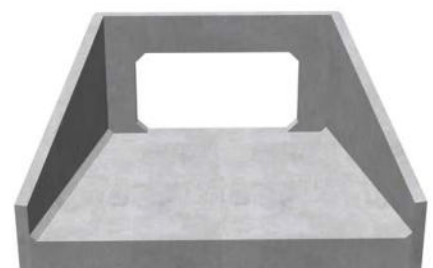
Sewers for Adoption Headwalls



Rectangular Precast Headwalls



Angled Precast Headwalls



Precast Headwalls for Culverts

AH4C LH Headwall Range

Up to 300mm Pipework
600mm - 950mm Backwall Height

The AH4C Headwall is a two part Pcc Headwall that allows water to discharge at a 45 Deg. angle, the Environment Agency's preferred method when discharging into a watercourse. The AH4C headwall fully meets the Environment Agency's 'Standard rules SR2015 No 27 – Constructing an outfall pipe of 300mm diameter through a headwall into a main river' & Exempt flood risk activities: environmental permits section FRA12 'Outfall pipes less than 300mm diameter through a headwall'.

The AH4C is available with three different back wall heights and three different toe depths for Twin Wall or Clay Pipes up to & including 300mm ID. Having a separate toe makes it easier to handle and more importantly ensures the foundation around the toe and beneath the Headwall structure can be well compacted.



AH4CA LH
600mm Backwall



AH4CB LH
800mm Backwall



AH4CC LH
950mm Backwall



AH4CD LH
600mm Backwall

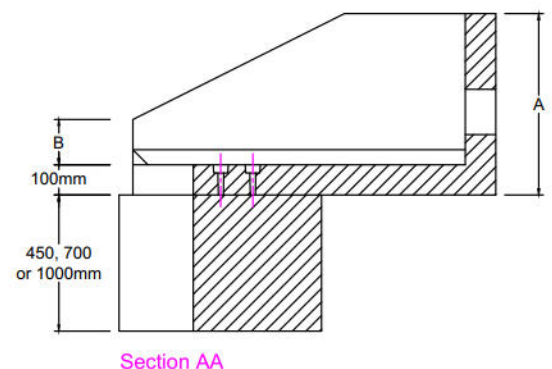
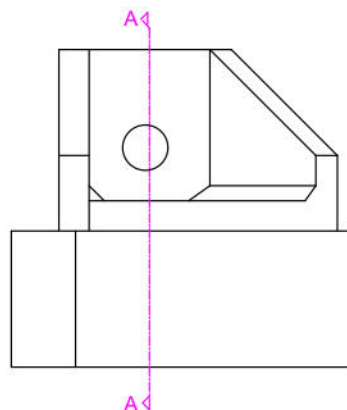
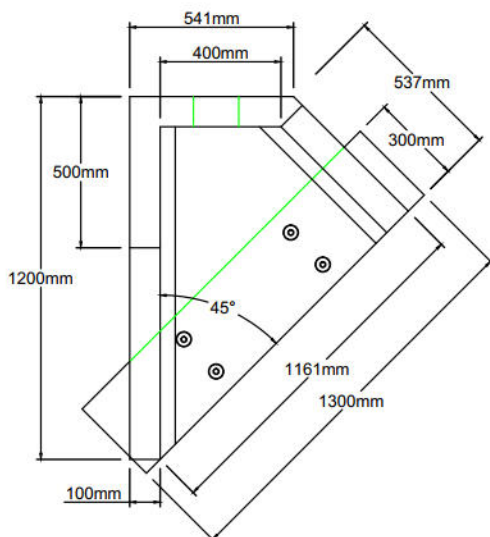


AH4CE LH
800mm Backwall



AH4CF LH
950mm Backwall

Headwall	Max Pipe Opening Plastic/Clay	A	B	Approx Weight kg	Weight with toe kg		
					450mm	700mm	1000mm
AH4CA LH	300	600	150	375	795	1030	1310
AH4CB LH	300	800	350	475	895	1130	1410
AH4CC LH	300	950	500	550	970	1205	1485
AH4CD LH	300	600	500	428	795	1030	1310
AH4CE LH	300	800	700	530	895	1130	1410
AH4CF LH	300	950	850	608	970	1205	1485



AH12C Headwall Range

Up to 900mm Pipework
1300mm - 1550mm Backwall Height

The AH12C Headwall is a two part PCC Headwall that allows water to discharge at 45 Deg. angle, the Environment Agency's preferred method when discharging into a watercourse. The AH12C Headwall also complies with 'Sewers for Adoption' guidelines.

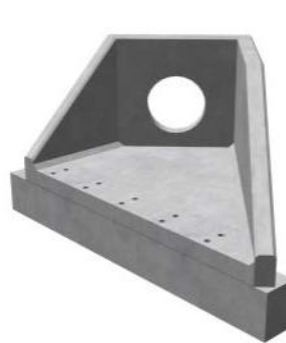
The AH12C is available with two back wall height options, two toe thickness options both available in three depths. The AH12C A option can accommodate Twin Wall or PCC pipes up to and including 750mm ID and the Ah12C B option can accommodate Twin Wall or PCC pipe up to and including 900mm ID.



AH12CA LH



AH12CB LH



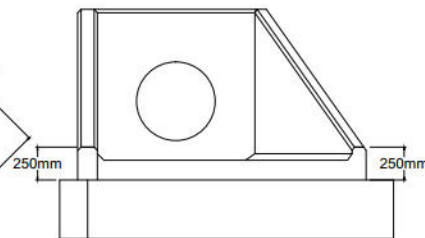
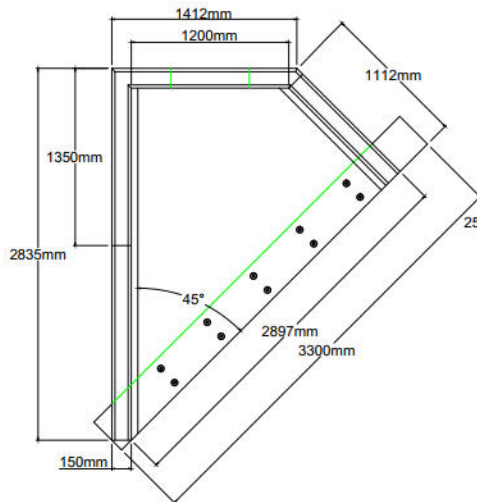
AH12CA RH



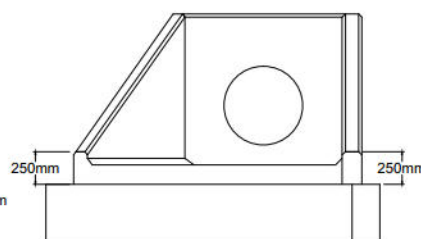
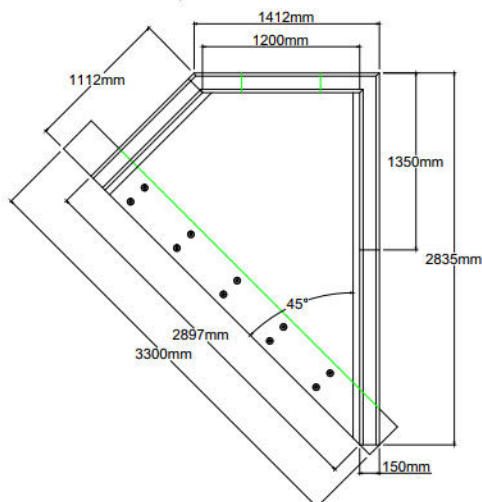
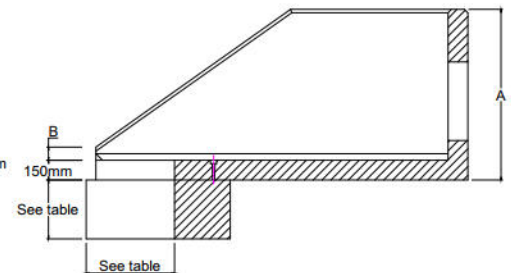
AH12CB RH

Headwall	Max Pipe Opening Twin Wall	Max Pipe Opening Concrete	A	B	Approx Weight kg	Weight with 300mm thick toe kg			Weight with 500mm thick toe kg		
						400mm	650mm	950mm	500mm	750mm	1000mm
AH12CA LH	750	750	1300	100	3025	3975	4575	5285	4405	5095	5785
AH12CA RH	750	750	1300	100	3025	3975	4575	5285	4405	5095	5785
AH12CB LH	900	900	1550	350	3490	4440	5040	5750	4870	5560	6250
AH12CB RH	900	900	1550	350	3490	4440	5040	5750	4870	5560	6250

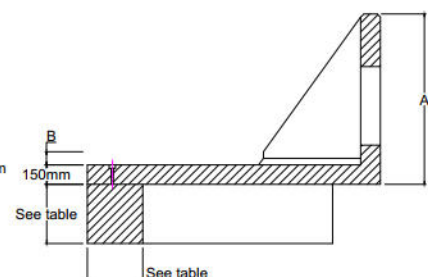
*All figures based on a invert level of 100mm. If invert level of less or greater than 100mm is required max pipe size might vary.



AH12C Left Hand Angled Headwall



AH12C Right Hand Angled Headwall



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

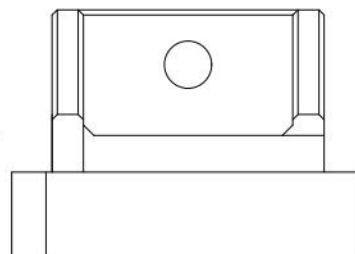
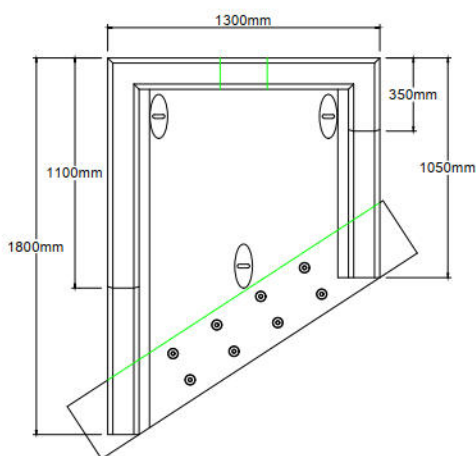


RSFA12F RH

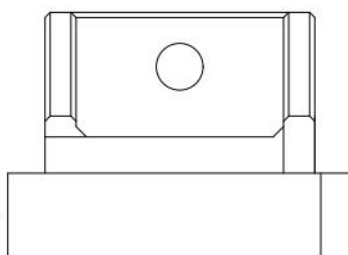
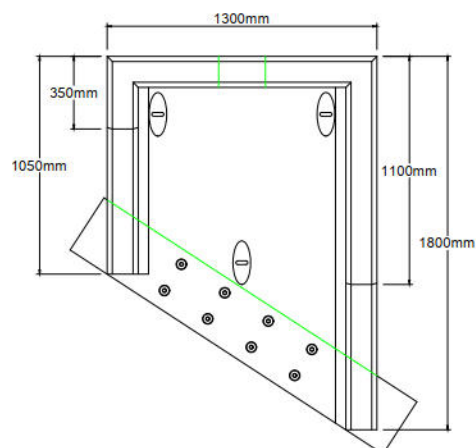
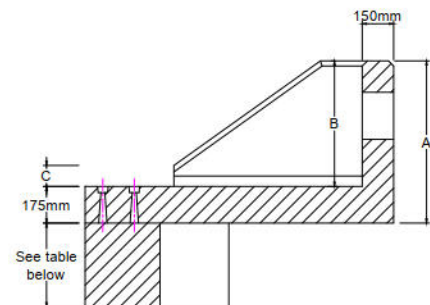


RSFA12F LH

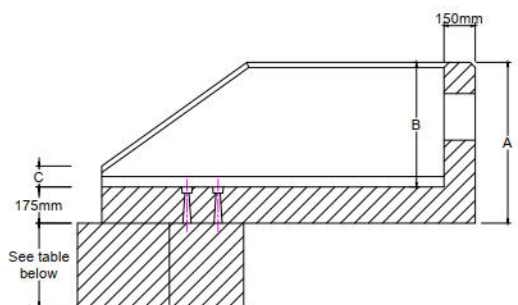
Headwall Ref	A	B	C	Approx Weight kg	Weight with 300mm thick toe kg			Weight with 500mm thick toe kg			Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening	Max Pipe Opening
					400mm	650mm	950mm	500mm	750mm	1000mm	Invert Level	with Apron	100mm Invert Level	225mm Invert Level		
											TW / Clay	Concrete	TW / Clay	Concrete	TW / Clay	Concrete
	mm	mm	mm								mm	mm	mm	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 Left Hand Angled Headwall Range

Up to 600mm Pipework
1080mm Backwall Height

300 and 500mm Thick Toe

Althon R18 Rectangular Angled Precast Headwalls are for outfalls discharging into ponds, swales, ditches beaches and rivers. Rectangular precast headwalls come with the option of two thicknesses of toe, 300mm and 500mm, each of which is available in three depths.

Althon manufacture R18 precast headwalls with three different wall profiles to suit the gradient of the bank as follows 1 : 1 slope, 1 : 2 slope and 1 : 3 slope.

All Rectangular Headwalls are cast with the opening in the back wall to suit the size and type of pipe being used at the invert level required.



R18A 01 2270 LH
1:1 Wing Wall
1 Piece Headwall



R18A 01 2940 LH
1:1 Wing Wall
1 Piece Headwall



R18A 05 2940 LH
1:2 Wing Wall
2 Piece Headwall

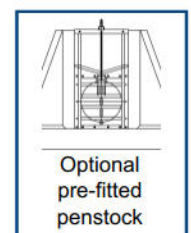
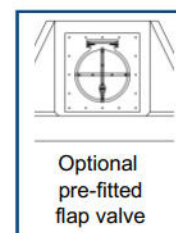
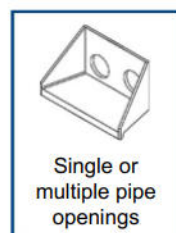
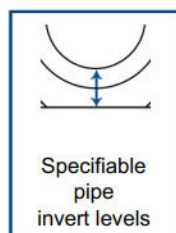
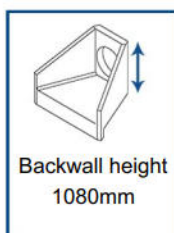
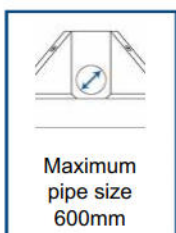
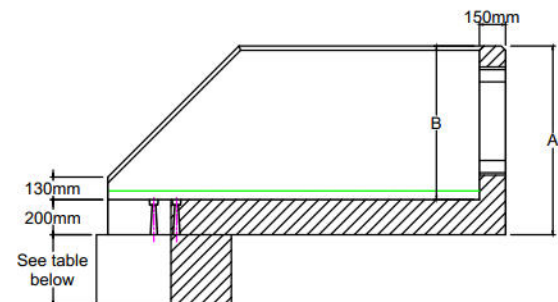
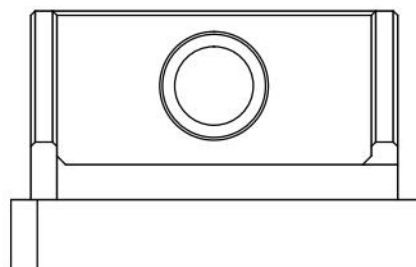
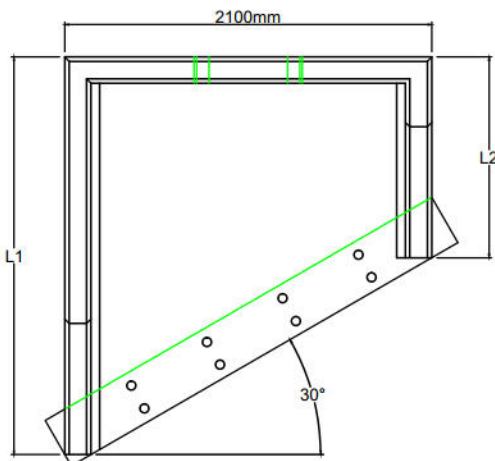


R18A 05 3210 LH
1:2 Wing Wall
2 Piece Headwall



R18A 10 3570 LH
1:3 Wing Wall
2 Piece Headwall

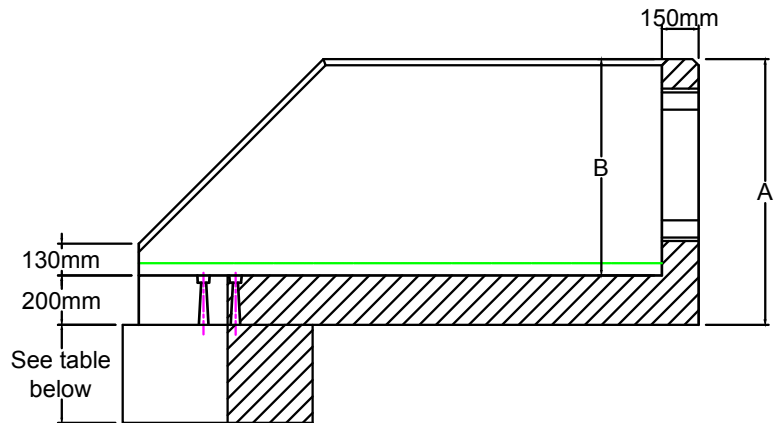
Optional Kee Klamp handrail



R18A Left Hand Angled Headwall Range

Up to 600mm Pipework
1080mm Backwall Height

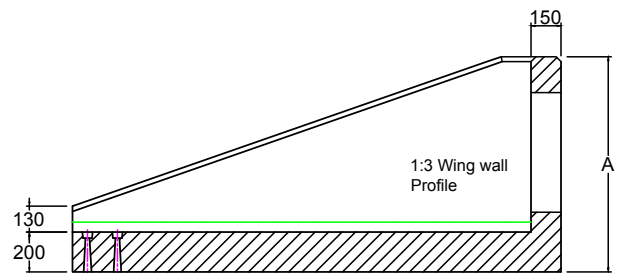
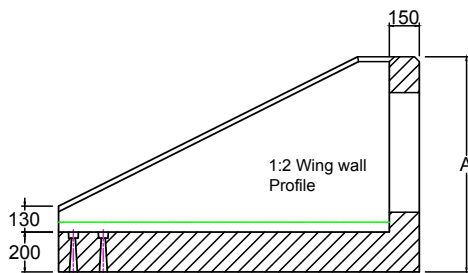
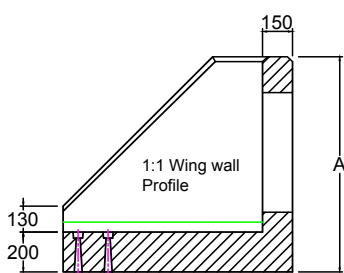
300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Length L1	Length L2	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	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
R18A 01 2270 LH	1080	880	2276	1150	1:1	3210	3960	4420	4980	600	600	600	525	450	450
R18A 01 2940 LH	1080	880	2946	1820	1:1	4290	5040	5500	6060	600	600	600	525	450	450
R18A 05 2940 LH	1080	880	2946	1820	1:2	4080	4830	5290	5850	600	600	600	525	450	450
R18A 05 3210 LH	1080	880	3216	2090	1:2	4500	5250	5710	6270	600	600	600	525	450	450
R18A 10 3570 LH	1080	880	3576	2450	1:3	4950	5700	6160	6720	600	600	600	525	450	450

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Length L1	Length L2	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	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
R18A 01 2270 LH	1080	880	2276	1150	1:1	3210	4830	5640	6450	600	600	600	525	450	450
R18A 01 2940 LH	1080	880	2946	1820	1:1	4290	5910	6720	7530	600	600	600	525	450	450
R18A 05 2940 LH	1080	880	2946	1820	1:2	4080	5700	6510	7320	600	600	600	525	450	450
R18A 05 3210 LH	1080	880	3216	2090	1:2	4500	6120	6930	7740	600	600	600	525	450	450
R18A 10 3570 LH	1080	880	3576	2450	1:3	4950	6570	7380	8190	600	600	600	525	450	450



R20B Left Hand Angled Headwall Range

Up to 825mm Pipework
1300mm Backwall Height

300 and 500mm Thick Toe

Althon R18 Rectangular Angled Precast Headwalls are for outfalls discharging into ponds, swales, ditches beaches and rivers. Rectangular precast headwalls come with the option of two thicknesses of toe, 300mm and 500mm, each of which is available in three depths.

Althon manufacture R18 precast headwalls with three different wall profiles to suit the gradient of the bank as follows 1 : 1 slope, 1 : 2 slope and 1 : 3 slope.

All Rectangular Headwalls are cast with the opening in the back wall to suit the size and type of pipe being used at the invert level required.



R20B 01 2390 LH
1:1 Wing Wall
1 Piece Headwall



R20B 01 3330 LH
1:1 Wing Wall
2 Piece Headwall



R20B 05 3050 LH
1:2 Wing Wall
2 Piece Headwall

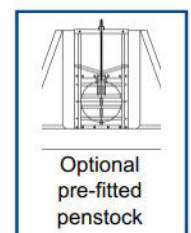
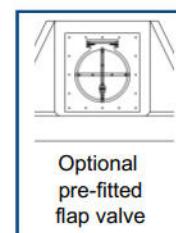
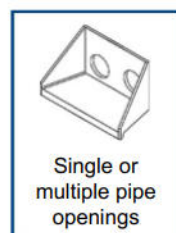
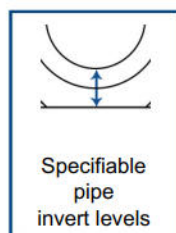
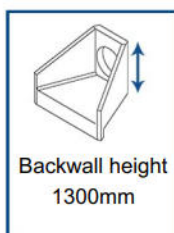
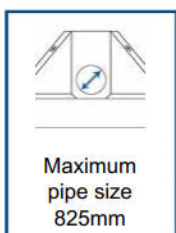
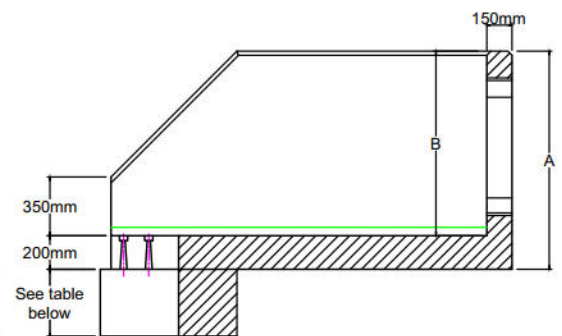
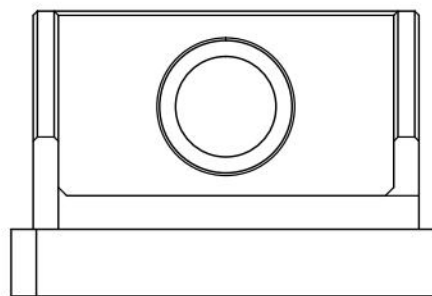
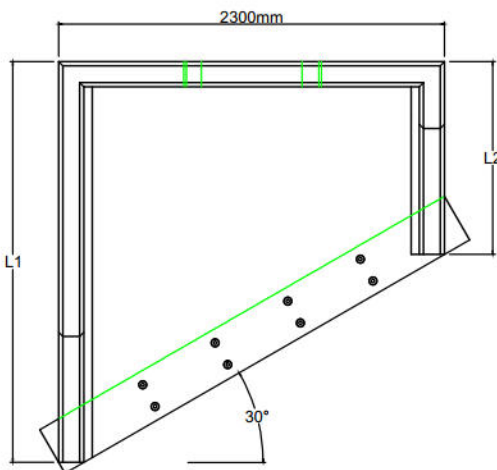


R20B 05 3390 LH
1:2 Wing Wall
2 Piece Headwall



R20B 10 3690 LH
1:3 Wing Wall
2 Piece Headwall

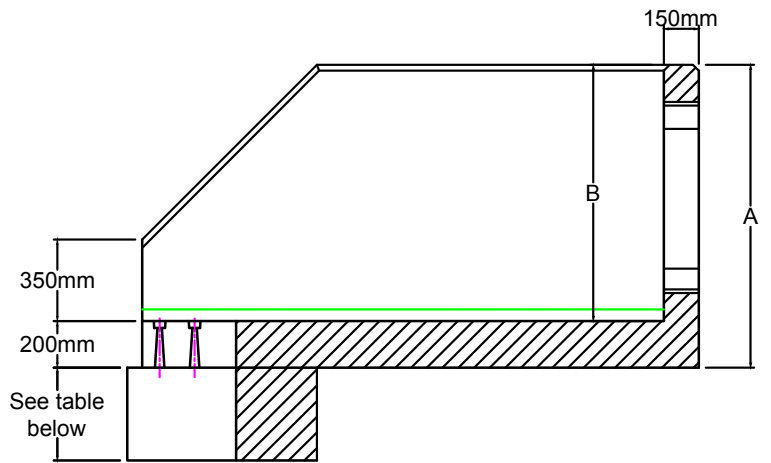
Optional Kee Klamp handrail



R20B Left Hand Angled Headwall Range

Up to 825mm Pipework
1300mm Backwall Height

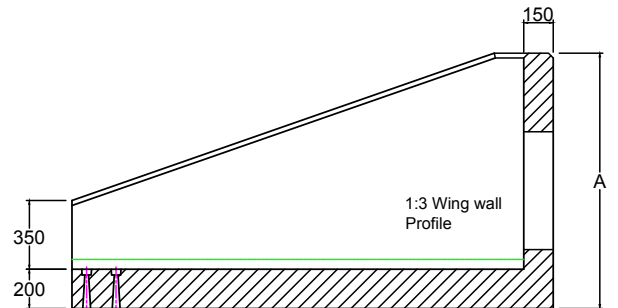
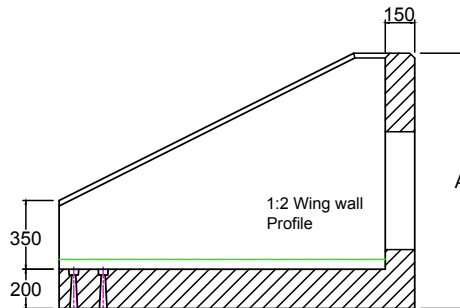
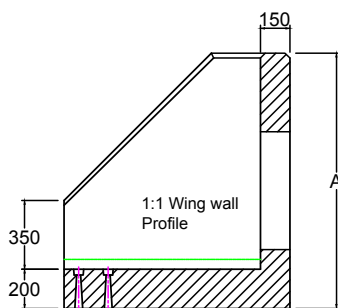
300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Length L1	Length L2	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	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
R20B 01 2390 LH	1300	1100	2390	1150	1:1	3950	4750	5250	5850	750	825	750	750	600	600
R20B 01 3330 LH	1300	1100	3330	2090	1:1	5590	6390	6890	7490	750	825	750	750	600	600
R20B 05 3050 LH	1300	1100	3050	1810	1:2	5010	5810	6310	6910	750	825	750	750	600	600
R20B 05 3390 LH	1300	1100	3390	2150	1:2	5680	6480	6980	7580	750	825	750	750	600	600
R20B 10 3690 LH	1300	1100	3690	2450	1:3	6080	6880	7380	7980	750	825	750	750	600	600

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Length L1	Length L2	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	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
R20B 01 2390 LH	1300	1100	2390	1150	1:1	3950	5570	6380	7190	750	825	750	750	600	600
R20B 01 3330 LH	1300	1100	3330	2090	1:1	5590	7210	8020	8830	750	825	750	750	600	600
R20B 05 3050 LH	1300	1100	3050	1810	1:2	5010	6630	7440	8250	750	825	750	750	600	600
R20B 05 3390 LH	1300	1100	3390	2150	1:2	5680	7300	8110	8920	750	825	750	750	600	600
R20B 10 3690 LH	1300	1100	3690	2450	1:3	6080	7700	8510	9320	750	825	750	750	600	600



R20B Right Hand Angled Headwall Range

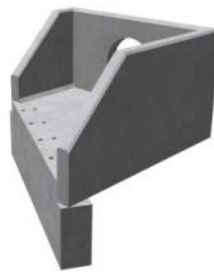
Up to 825mm Pipework
1300mm Backwall Height

300 and 500mm Thick Toe

Althon R18 Rectangular Angled Precast Headwalls are for outfalls discharging into ponds, swales, ditches beaches and rivers. Rectangular precast headwalls come with the option of two thicknesses of toe, 300mm and 500mm, each of which is available in three depths.

Althon manufacture R18 precast headwalls with three different wall profiles to suit the gradient of the bank as follows 1 : 1 slope, 1 : 2 slope and 1 : 3 slope.

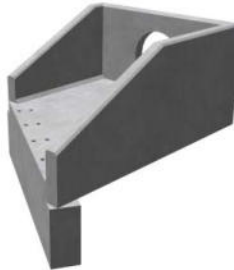
All Rectangular Headwalls are cast with the opening in the back wall to suit the size and type of pipe being used at the invert level required.



R20B 01 2390 RH
1:1 Wing Wall
1 Piece Headwall



R20B 01 3330 RH
1:1 Wing Wall
2 Piece Headwall



R20B 05 3050 RH
1:2 Wing Wall
2 Piece Headwall

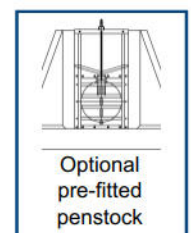
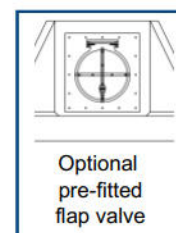
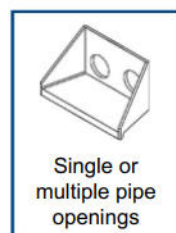
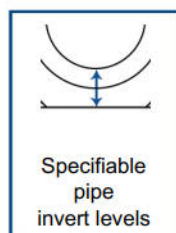
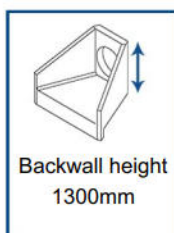
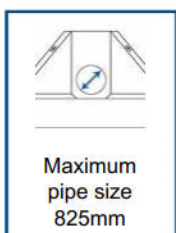
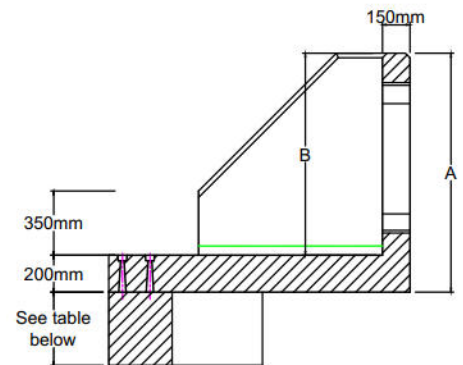
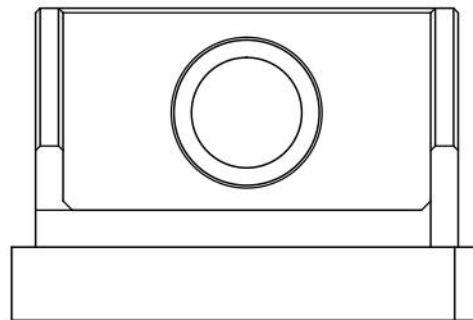
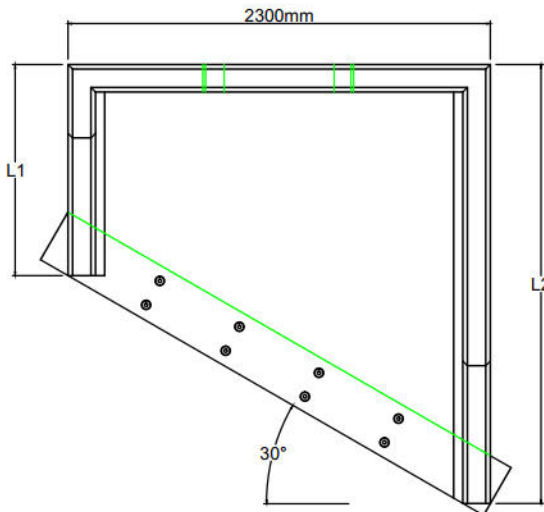


R20B 05 3390 RH
1:2 Wing Wall
2 Piece Headwall



R20B 10 3690 RH
1:3 Wing Wall
2 Piece Headwall

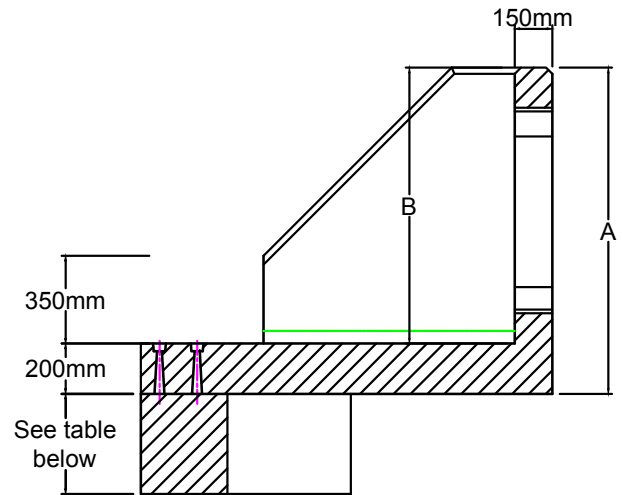
Optional Kee Klamp handrail



R20B Right Hand Angled Headwall Range

Up to 825mm Pipework
1300mm Backwall Height

300mm Thick Toe



Headwall Ref	Back Wall Height A	Back Wall Height B	Length L1	Length L2	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	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
R20B 01 2390 RH	1300	1100	1150	2390	1:1	3950	4750	5250	5850	750	825	750	750	600	600
R20B 01 3330 RH	1300	1100	2090	3330	1:1	5590	6390	6890	7490	750	825	750	750	600	600
R20B 05 3050 RH	1300	1100	1810	3050	1:2	5010	5810	6310	6910	750	825	750	750	600	600
R20B 05 3390 RH	1300	1100	2150	3390	1:2	5680	6480	6980	7580	750	825	750	750	600	600
R20B 10 3690 RH	1300	1100	2450	3690	1:3	6080	6880	7380	7980	750	825	750	750	600	600

500mm Thick Toe

Headwall Ref	Back Wall Height A	Back Wall Height B	Length L1	Length L2	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	mm		kg	kg	kg	kg	mm	mm	mm	mm	mm	mm
R20B 01 2390 RH	1300	1100	1150	2390	1:1	3950	5570	6380	7190	750	825	750	750	600	600
R20B 01 3330 RH	1300	1100	2090	3330	1:1	5590	7210	8020	8830	750	825	750	750	600	600
R20B 05 3050 RH	1300	1100	1810	3050	1:2	5010	6630	7440	8250	750	825	750	750	600	600
R20B 05 3390 RH	1300	1100	2150	3390	1:2	5680	7300	8110	8920	750	825	750	750	600	600
R20B 10 3690 RH	1300	1100	2450	3690	1:3	6080	7700	8510	9320	750	825	750	750	600	600

