

## Cattle Drafting Gate Plans 2 Way



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## Cattle Drafting Gates 2 Way

To draft or sort cattle into two different races or lanes, a heavy duty drafting or sorting gate is a necessity. These simple plans show you how to build your own.

To make the best use out of your lengths of steel, we have a free-to-use Cutting List Optimiser on our website. Visit <a href="https://www.kurraglenindustries.com.au/linear-cutting-list-calculator.htm">https://www.kurraglenindustries.com.au/linear-cutting-list-calculator.htm</a>

The following steel and materials are required to build the cattle drafting gate:

65x35x2.0 RHS – 5.5 metres	32nb medium wall pipe – 2 metres	
65x65x2.0 SHS – 10 metres	40nb extra light wall pipe – 100mm	
50x50x2.0 SHS – 2 lengths of 8 metre	20mm weld on hinges – 2	
40x8 flat bar – 500mm	65x65 square caps – 5	
50x8 flat bar – 1 metre	50x50 square caps – 2	
115x42 oval cattle rail – 10 metres	M16x40 zinc plates bolts and nyloc nuts – 2	
50x50x2.5 SHS – 1.2 metres	2mm sheet for gate – 1435mm x 1185mm	

Cutting List for the cattle 2 way drafting gate					
Item No	Quantity	Material	Size	Notes	
			(mm)		
1	2	65x35x2.0 RHS	1020	Refer to diagram 1 for mitre cut details	
2	2	65x35x2.0 RHS	1100	Refer to diagram 1 for mitre cut details	
3	1	65x35x2.0 RHS	900	Refer to diagram 1 for mitre cut details	
4	5	65x65x2.0 SHS	2000		
5	2	50x50x2.0 SHS	920	26° mitre cut one end. Refer diagram 3	
6	2	50x50x2.0 SHS	1000	26° mitre cut one end. Refer diagram 3	
7	1	50x50x2.0 SHS	770		
8	1	50x50x2.0 SHS	1420	26° mitre cut both ends. Refer diagram 3	
9	1	50x50x2.0 SHS	600		
10	10	115x42 oval cattle rail	998	26° mitre cut one end. Refer diagram 5	
11	2	50x50x2.0 SHS	1495		
12	5	50x50x2.0 SHS	1115		
13	1	50x8 flat bar	100		
14	2	50x50x2.5 SHS	90		
15	2	50x50x2.5 SHS	450	45 degree mitre one end	
16	1	32nb med wall pipe	790		
17	2	40nb xl wall pipe	50		
18	1	50x8 flat bar	520		
19	1	40x8 flat bar	500	See Note 1 below	
20	1	50x8 flat bar	100	_	
21	1	32nb med wall pipe	1000		

Note 1: As an alternative to using flat bar as the link, a pair of rose joints (ball joints) of a suitable size, can be used which will provide smoother operation of the gates.

1. Begin by cutting all of the steel as indicated in the cutting list. Label each with the item number on it using a marking pen and set aside. Take note of the mitre cuts for the RHS to ensure that they are cut the correct way. Refer to diagrams 1 and 2.

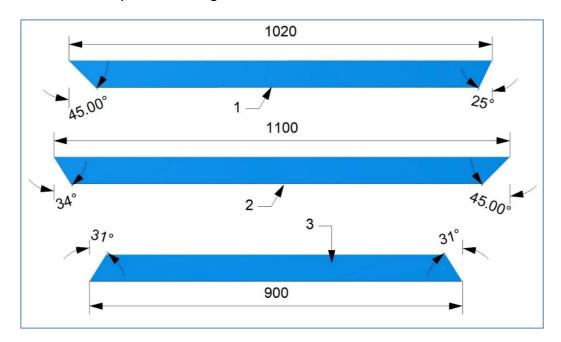


Diagram 1

2. Tack weld the main floor frame together as shown in diagram 2. Recheck for correct dimensions are fully weld.

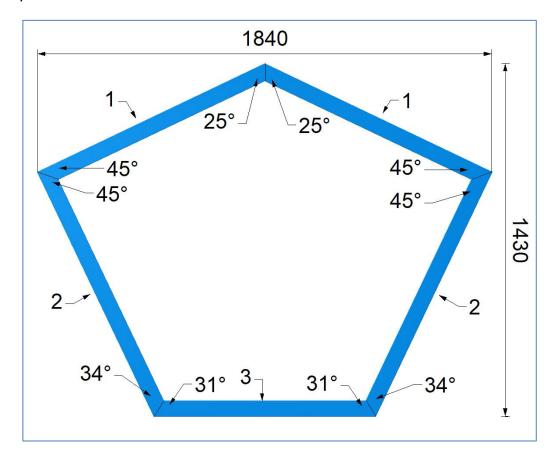


Diagram 2

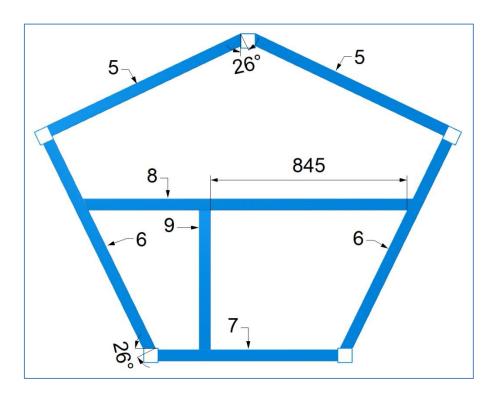


Diagram 3

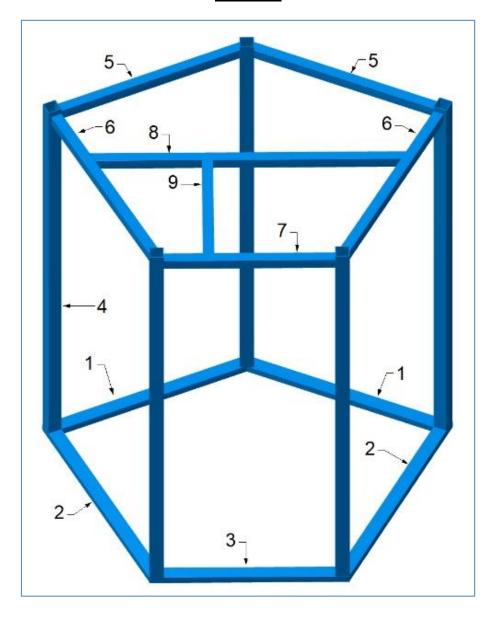


Diagram 4

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- 3. Tack weld the main frame together as shown in diagrams 3 and 4. The tops of items 5, 6 and 7 should be position 30mm down from the tops of items 4. Recheck that the frame is within the required measurements and fully weld.
- 4. Items 10 need to have a 26 degree mitre cut on one end where they are positioned (marked with an X), against the posts as shown diagram 5.

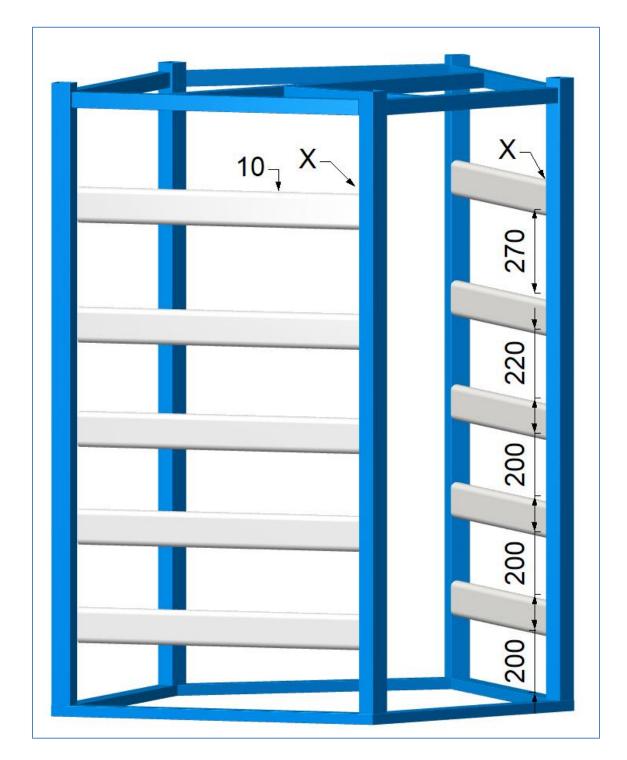


Diagram 5

5. Drill an 18mm hole in item 13 as shown in diagram 6.

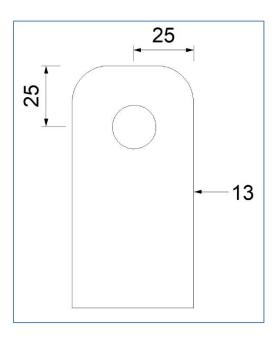


Diagram 6

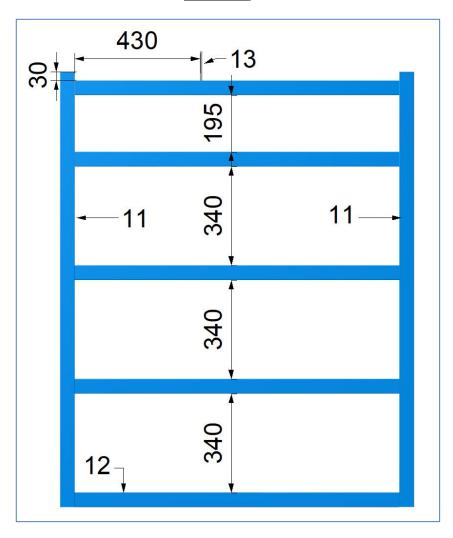


Diagram 7

- 6. Tack weld items 11 and 12 together to form the gate. Recheck that the gate is square and fully weld. Refer to diagram 6. Weld item 13 onto the top rail of the gate as shown in diagram 7.
- 7. Install the gate as shown in diagram 8. The lower edge of the gate should be 200mm up from the top face of the lower frame.

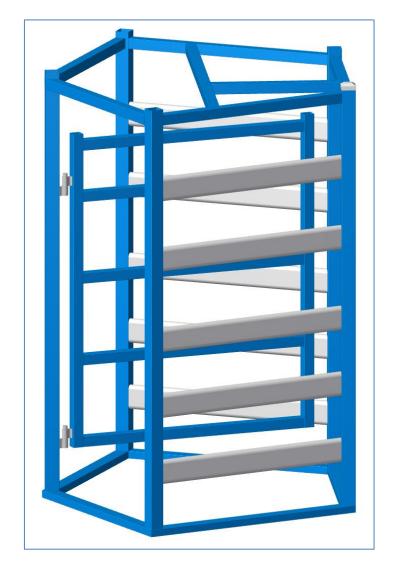


Diagram 8

8. Weld items 14 and 15 as shown in diagram 9.

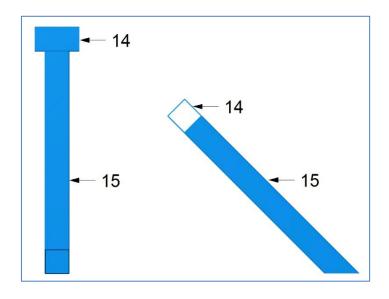


Diagram 9

9. Weld items 14 and 15 in place as shown in diagram 10.

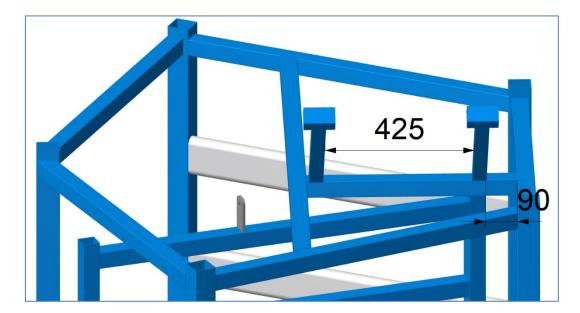


Diagram 10

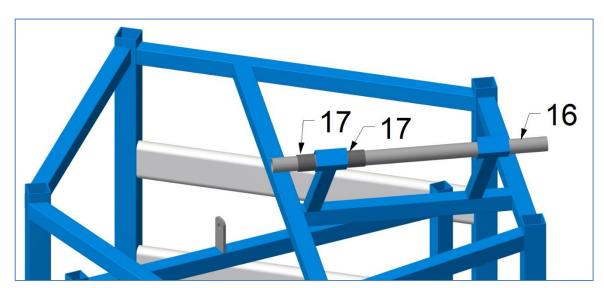


Diagram 11

10. Install item 16 into the right hand item 14 and slide one of item 17 onto item 16. Continue inserting item 16 into the left hand item 14 and slide the remaining item 17 over item 16. The end of item 16 should protrude approx. 70mm past the end of item 17.

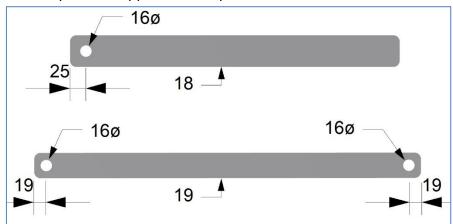


Diagram 12

- 11. Drill 18mm holes in items 18 and 19 as shown in diagram 12.
- 12. With the gate in the position as shown in diagram 13, install items 18 and 19 using M16x40mm bolts and nyloc nuts.
- 13. Check that items 18 and 19 are positioned correctly and weld items 17 to item 16.

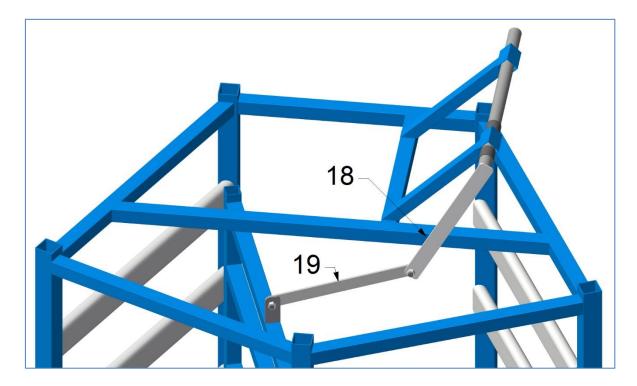


Diagram 13

14. With the gate in position as shown in diagram 14, tack weld items 20 and 21 in place. Check that the gate opens and closes smoothly and fully weld items 20 and 21.

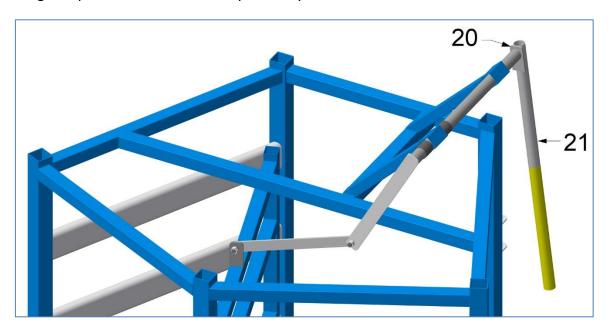


Diagram 14

15. Cut the sheet for the gate. The dimensions are 1185mm wide x 1435mm high. The sheet can be secured to the gate using a number of small welds or a better solution which will result in quieter operation of the gate, is to secure the sheet using either self-drilling tek screws or rivets and using an exterior grade sealer between the gate frame and the sheet.

- 16. Fit the caps to the gate and frame as required as well as the cleats to join it to your existing equipment.
- 17. Clean any welds using a grinding disc or flap disc and paint as required.

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