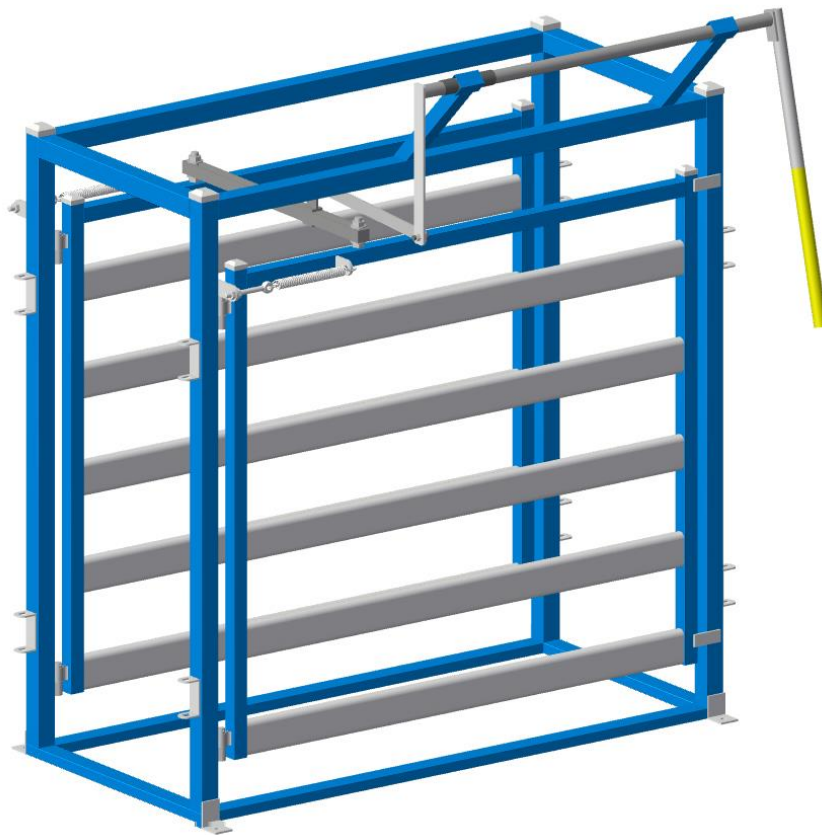


# Cattle Drafting Gate Plans 3 Way



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## Cattle Drafting Gates Three Way

To draft or sort cattle a heavy duty drafting or sorting gate is a necessity. These simple plans will allow you to build your own. These 3 way drafting gates can be installed in the race either after or before the crush or squeeze chute.

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

The following steel and materials are required to build the 3 way cattle drafting gate:

65x35x2.0 RHS – 6 metres	32nb medium wall pipe – 2.5 metres
65x65x2.0 SHS – 2 lengths of 8 metre	40nb extra light wall pipe – 100mm
50x50x2.0 SHS – 3.5 metres	20mm weld on hinges – 4
40x8 flat bar – 4 metres	Extension springs – 2
50x8 flat bar – 1 metre	65x65 square caps – 4
115x42 oval cattle rail – 4 lengths of 6.1 metre	50x50 square caps – 4
50x10 flat bar – 500mm	Eye bolt M16 diameter – 2
M24x80 zinc plates bolts and nyloc nuts – 2	M16x40 zinc plates bolts and nyloc nuts – 2
M24 zinc plated flat washers – 4	50x50x2.5 SHS – 1.2 metres

Cutting List for the 3 way cattle drafting gate				
Item No	Quantity	Material	Size (mm)	Notes
1	2	65x35x2.0 RHS	2000	45 degree mitre both ends
2	2	65x35x2.0 RHS	930	45 degree mitre both ends
3	4	65x65x2.0 SHS	2000	
4	2	65x65x2.0 SHS	1870	
5	2	65x65x2.0 SHS	800	
6	4	50x50x2.0 SHS	1600	
7	10	115x42 oval cattle rail	1675	
8	2	50x50x2.0 SHS	1675	45 degree mitre both ends
9	4	40x8 flat bar	100	
10	2	50x10 flat bar	150	
11	2	50x10 flat bar	80	
12	2	40x8 flat bar	930	
13	2	40x8 flat bar	28	
14	2	40x8 flat bar	50	
15	1	50x8 flat bar	100	
16	1	50x8 flat bar	520	
17	1	40x8 flat bar	610	See note 1
18	2	50x50x2.5 SHS	450	45 degree mitre one end
19	2	50x50x2.5 SHS	90	
20	1	50x8 flat bar	100	
21	1	32nb med wall pipe	1335	
22	2	40nb xl wall pipe	50	
23	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.
2. Tack weld the main floor frame together as shown in diagram 1. Check that the frame is square and fully weld.

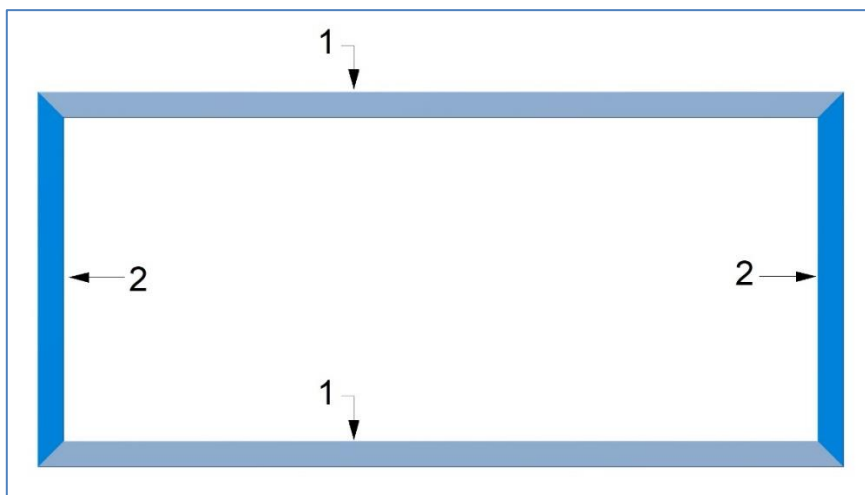


Diagram 1

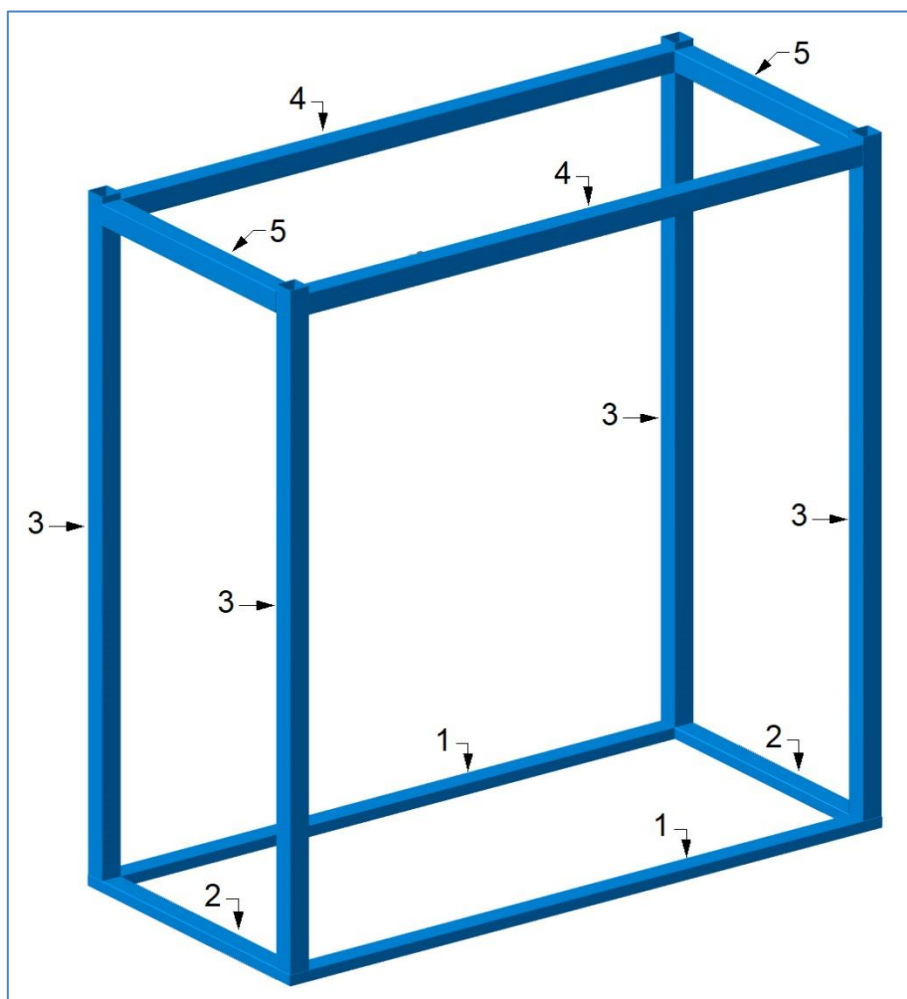


Diagram 2

3. Tack weld items 3, 4, and 5 in position as shown in diagram 2. The top of items 4 are located 30mm down from the tops of items 3. Check that the frame is square and fully weld.

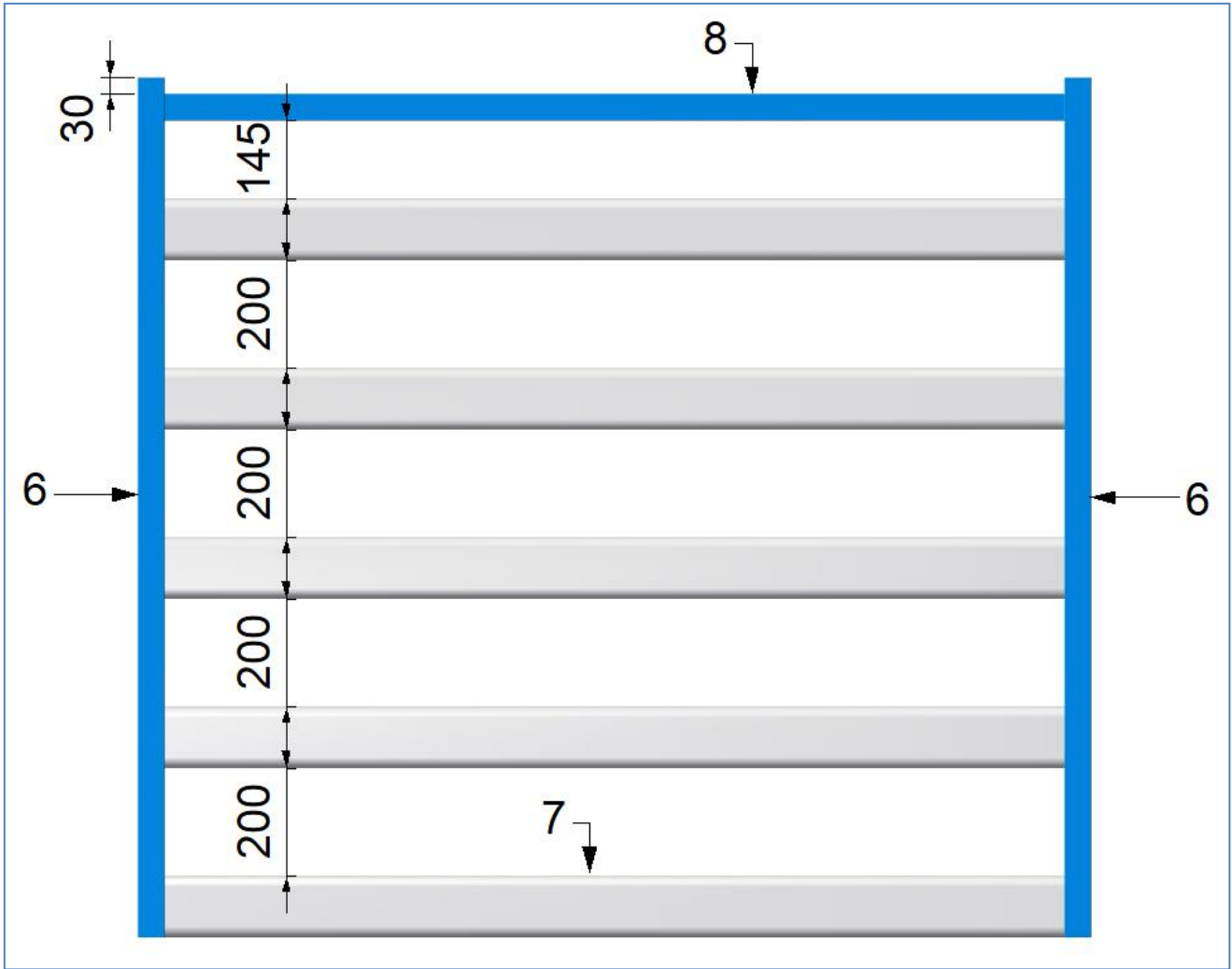


Diagram 3

4. Tack weld items 6, 7 and 8 as shown in diagram 3. Recheck that the gate is square and fully weld.

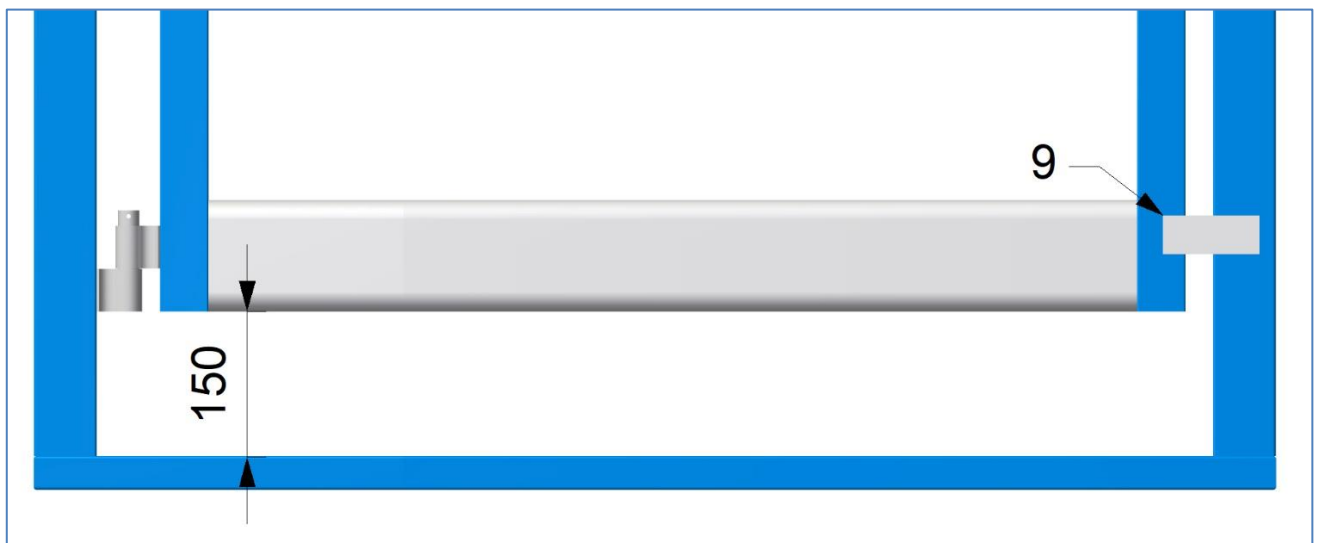


Diagram 4

5. Weld the hinges in place. Locate the top hinge approximately 100mm down from the top of the gate. Refer to diagram 4.
6. Install the top and lower gate stops as shown in diagram 4.

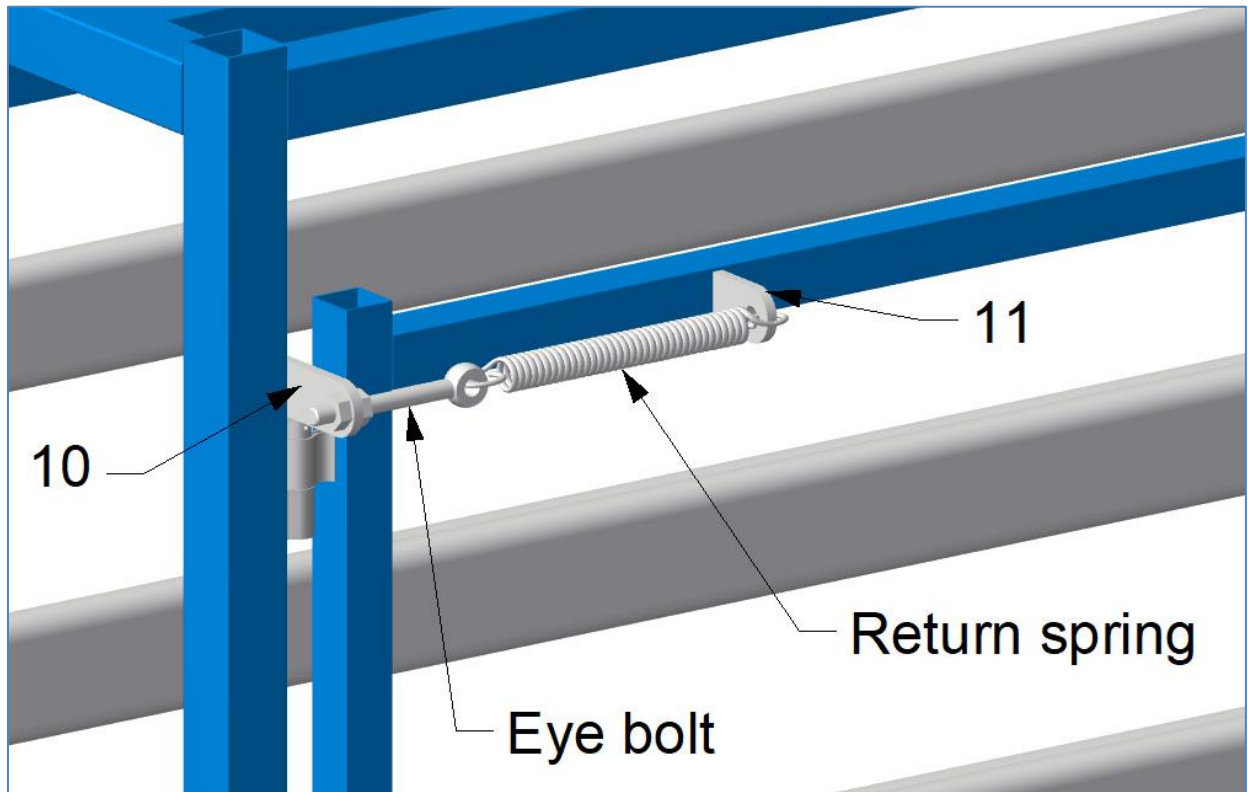


Diagram 5

7. Two heavy duty springs are required to return the gates to the closed position. The springs used will depend on what you can find in your local store, online or already have available which is why we have not specified exact locations of items 10 and 11. The eye bolts and nuts are so that it will make installation of the spring easier and for tension adjustment. Refer to diagram 5.

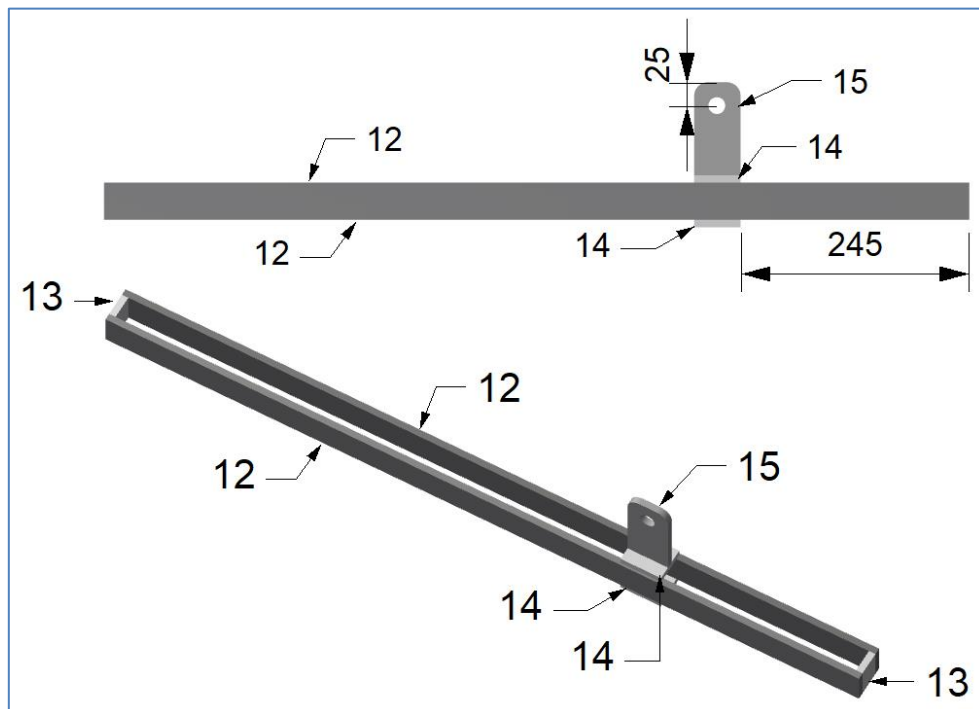


Diagram 6

8. Drill a 18mm hole in item 15 as shown in diagram 6. Assemble items 12, 13, 14 and 15 and weld as shown in diagram 6.

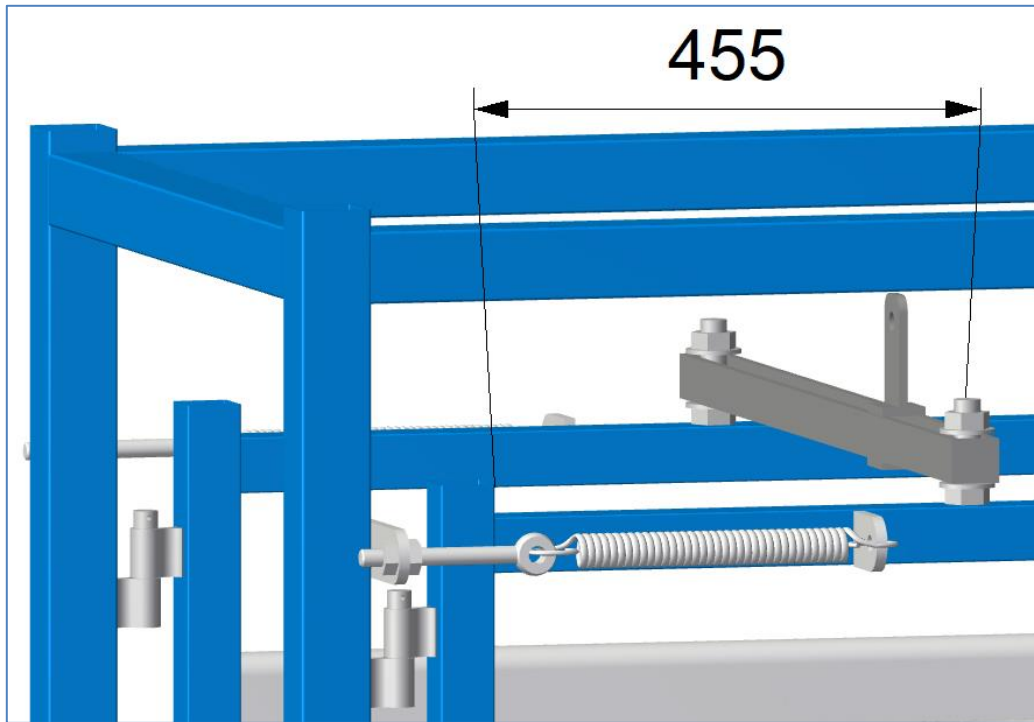


Diagram 7

9. Weld an M24 x 80mm bolt to the top rail of the gates. The centre of the bolt should be 455mm from the inside edge of the gate upright. Ensure that gate linkage assembled in the previous step is able to be installed onto the bolts as shown in diagram 7. An M24 flat washer is installed onto the bolts, followed by the gate linkage, followed by another flat washer and then secured with an M24 nyloc nut.

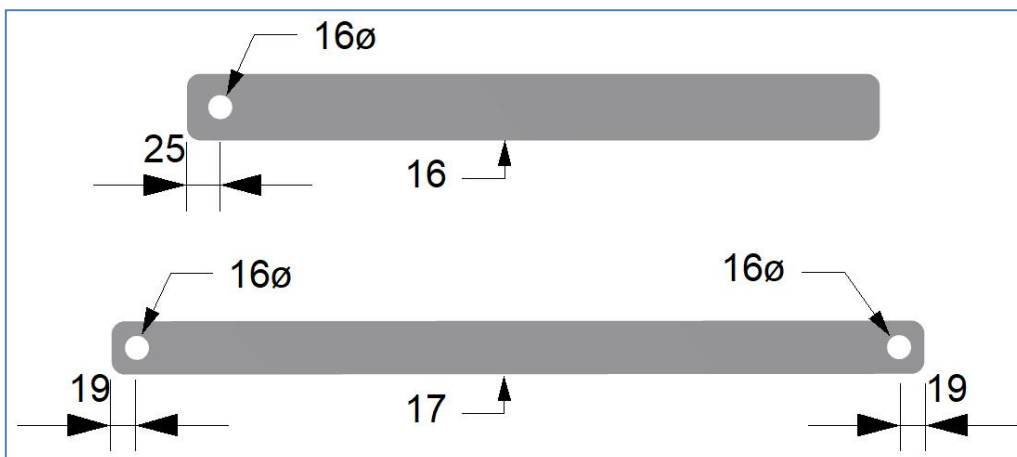


Diagram 8

10. Drill 18mm holes in items 16 and 17 as shown in diagram 8.

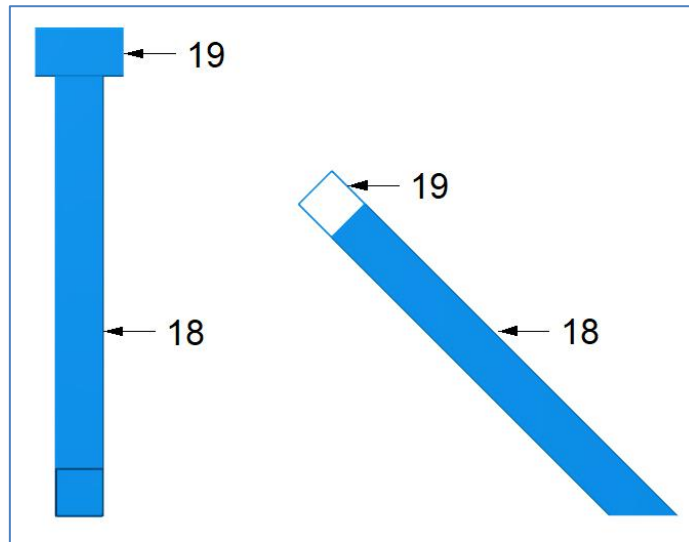


Diagram 9

11. Weld items 18 and 19 as shown in diagram 9.

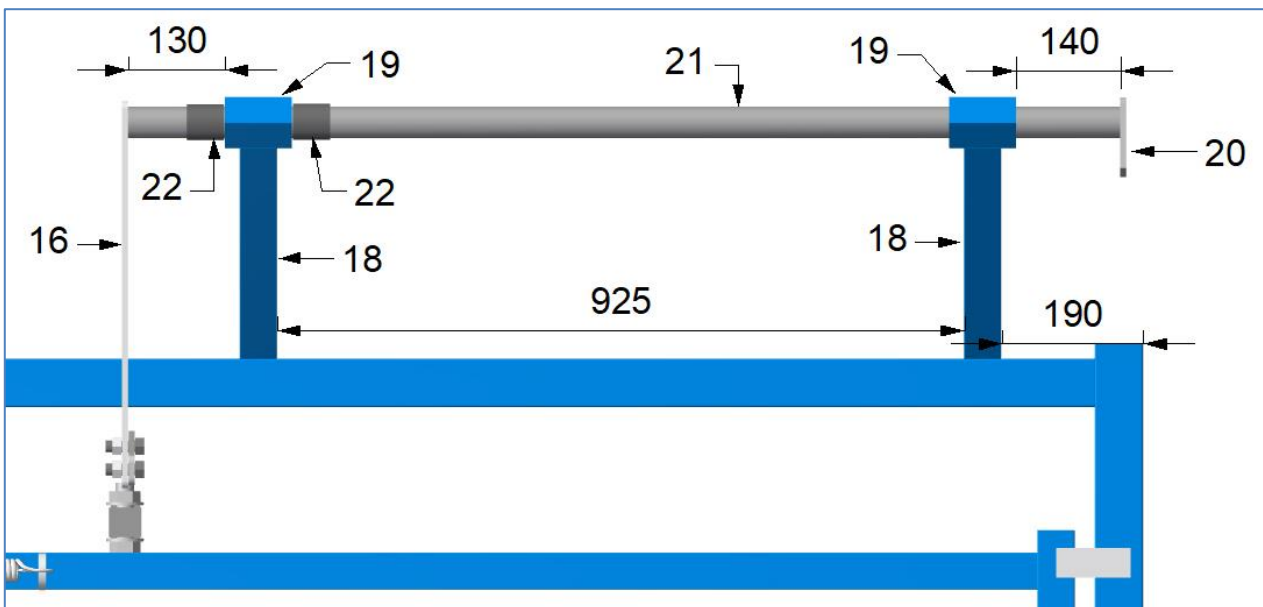


Diagram 10

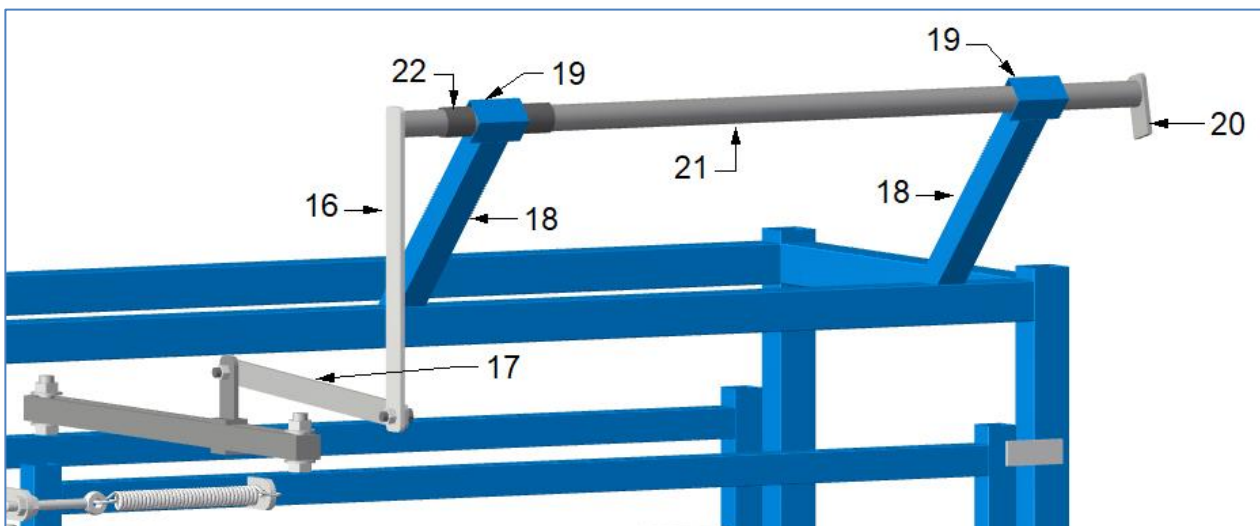


Diagram 11



12. Weld items 18 and 19 in place. Refer to diagrams 10 and 11.
13. Insert item 21 into the right hand item 19 and slide one of item 22 over item 21. Continue inserting item 21 into the left hand item 19 and slide the remaining item 22 over item 21.
14. Weld items 22 onto item 21 as shown in diagram 10 and 11.
15. Secure item 17 to the gate link assembly using an M16x40mm bolt and nyloc nut. Secure item 16 to item 17 using an M16x40mm bolt and nyloc nut. Weld the top of item 16 to the end of item 21. Ensure that the two bolts are not overtightened as the linkages need to be able to pivot up and down as well as sideways when the gates are opened and closed.
16. Weld item 20 onto one end of item 23 so that the ends are flush. This assembly is for the handle.

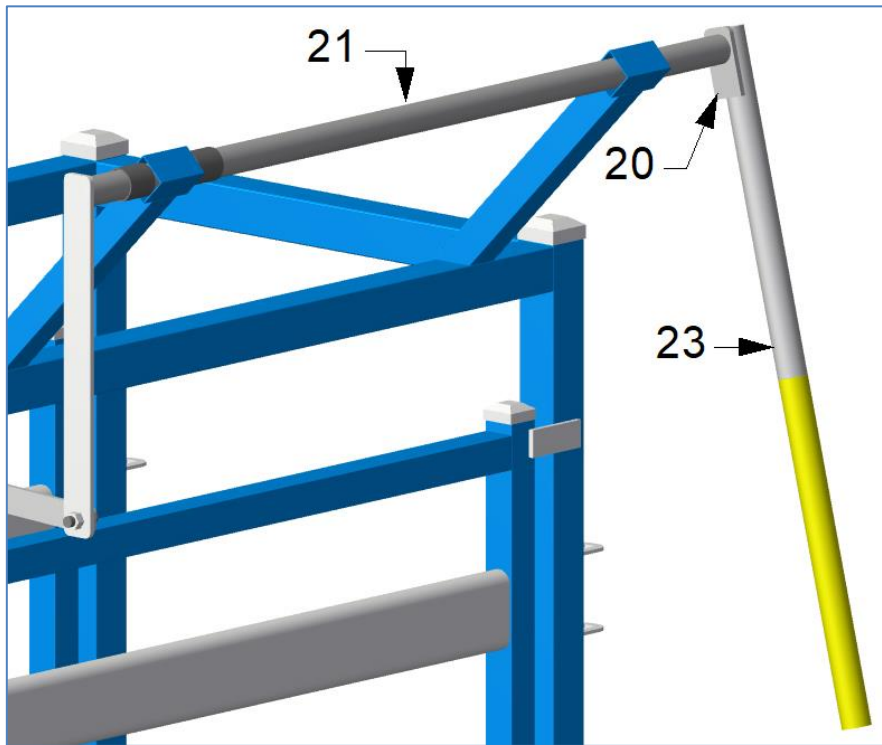


Diagram 12

17. Tack weld the flat bar of the handle to the end of item 21. The bottom of the handle should be installed approximately 15 degrees from vertical. Before full welding, ensure that the gates can be operated without the bottom of the handle making contact with the frame. Refer to diagram 12.
18. Install square caps to SHS as required.
19. Clean any welds using a grinding disc or flap disc and paint as required.

Proud of your project? Email us the photos of your equipment or yards that you have made from our books and we will put them up on our website for others to admire. You can even be in the photo if you would like to be. Be sure that you include your name, where you are from and a brief description. Please make sure that the photos are of good quality, in jpg (jpeg) or png format, at least 72 dpi and at least 900 pixels by 600 pixels. Email your photos to: [projects@kurraglenindustries.com.au](mailto:projects@kurraglenindustries.com.au)