UNIVERSAL FEEDERS

ULTIMATE SERIES

Building Instructions Oct 2022

Step 1

- Bolt 4 upright posts to base using 60mm long 12mm bolts.
- Put washer and nut on inside to cover oval shaped hole
- Tighten bolts so that legs can still move at this stage
- Rest end sheets for feeders against posts and unstack base sheets on top of RHS base

Step 2

- Make sure that each feeder has the holes for the lid hinge on the same side of the feeder
- Lift side sheet so that it sits on the RHS base
- Pull the upright RHS leg hard against the end sheet
- Put the 4 tek screws in on the side of the sheet (next to the U-bolt) starting from the top and working downwards

Step 3

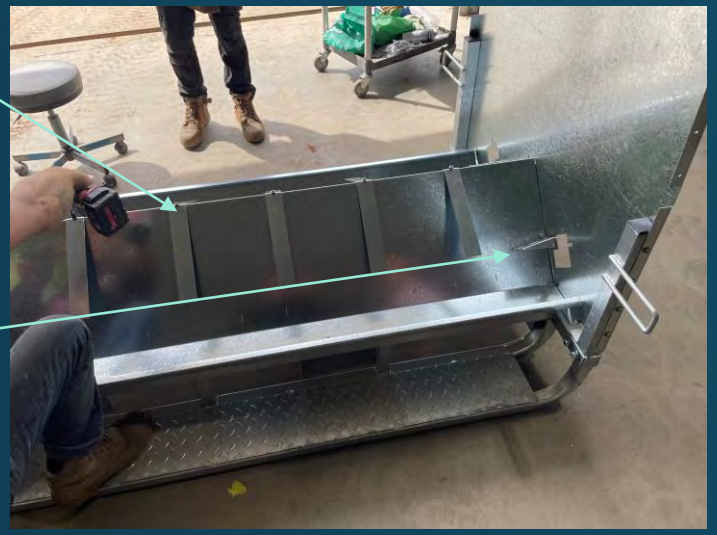
- Lower the base sheet of the feeder into place

Step 4

- Put the two tek on the outside of the feeder in first, these are the bottom two of the 6 available holes
- This will centralise the base sheet. The remaining 4 outside tek screws can then be put in
- Now put all of the tek screws into the pre-drilled holes that connect the base sheet to the RHS base
- There are 12 tek screws connecting the base to the feeder and one next to each upright post connecting the end sheet to the base

Step 5

- Tek screw the 7 straps into the top of the base sheet.
- Leave these slightly loose so that the strap can still be moved
- Tek screw the 4 deflection plats into the base



Step 6

- Apply roof and gutter silicone from the deflection plate to the top of the base
- Don't go any lower that the deflection plate otherwise the trough will hold water

Step 7

- Bolt the longest 25mm RHS brace between the ends
- Use plate washer on the outside of the end sheet (Shown in step 8)

Step 8

- Bolt the acrylic sight windows to the inside of the end sheet
- Put the nuts for the bolts on the inside of the feeder

Step 9

- Put the measurement sticker on the inside of the feeder using a window cleaner
- Start the sticker 50mm from the top of the end sheet

Step 10

- Slide the hopper sheets into the cut-out slots in the end sheets
- The 90 degree bend goes at the bottom and the lip faces outwards at the bottom

Step 11

- Tek screw the hopper sheets to the end sheets
- Put the top top tek screw in first and then the bottom one of 5.
- Leave the middle tek screw out
- 16 screws per feeder

Step 12

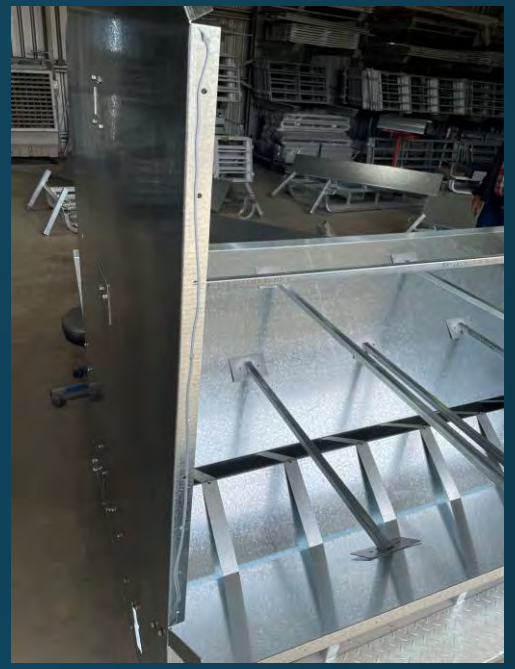
- Tek screw the bottom of the hopper to the internal straps
- 14 screws each side

Step 13

- Tighten the 7 tek screws on top of the base sheet to connecting the straps to the base

Step 14

- Run silicon down the end sheet where it will join to the end sheet as pictured



Step 15

- Tek screw the extension pieces to the end sheets
- Tek screw heads go on the inside of the feeder

Step 16

- Bolt the 25mm RHS supports in for the hopper area
- Use washer plates as shown on outside of hopper
- 3 short supports and 2

  longer supports in total

Step 17

- Split the stack of triangle RHS lid ends in half and stack as shown (each feeder has a left and right lid hinge)
- Push the triangle sheet hard against RHS hinge and tek screw the two outside holes
- The remaining tek screws can now be put in this line, leave out the two either end on the flaps

Step 18

- Pictured here is the alternate left and right lid hinges

Step 19

- Lay out the lid hinges so that once they are bolted to the hinge hole and swung to the top of the feeder, the triangle piece will sit in the middle

Step 20

- Bolt the lid hinge to the feeder
- Use two washers supplied between the hinge and the end sheets and one washer between the nut and end sheet
- Tighten firm but still allow hinge to swing freely

Step 21

- Silicon a vertical line over the holes where the side sheet will connect to the end sheets and extensions
- No silicon required over the horizontal line at the top of the hopper sheet
- Make sure to fill holes where the bent flaps meet

Step 22

- Lift side sheets into place
- One side sheet has holes for the lid handle stoppers
- This sheet needs to go on the same side as the lid hinge hole

Step 23

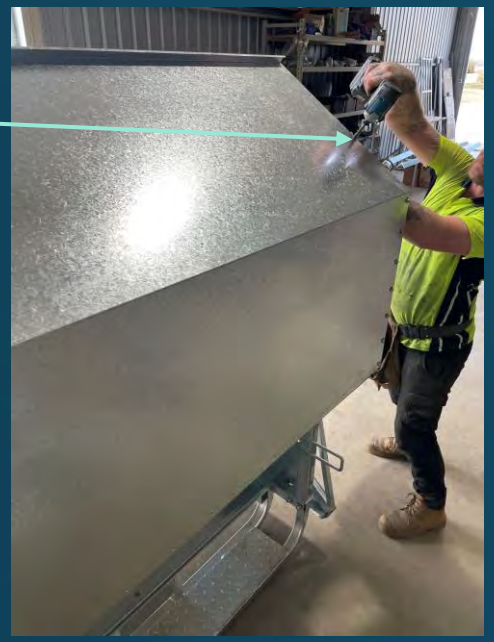
- Pin the sheet with the top side holes either side

Step 24

- Pin the bottom corner each side to align the side

Step 25

- Pin the 3rd hole up to start aligning the end sheet



Step 26

- Pin the top hole (6th) to finishing aligning the sheet

Step 27

- Put the remainder of tek screws in the side sheet
- Do the top horizontal line before the bottom horizontal line

Step 28

- Hammer the steel covers on the upright posts to close the gap exposed

Step 29

- Tighten the upright posts

Step 30

- Silicon the exposed gap around the upright posts to stop water entering the skid

Step 31

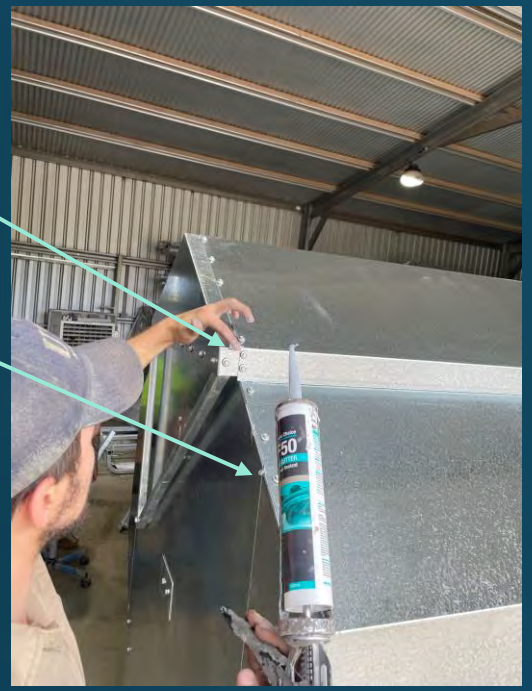
- The silicon should cover the these two side

Step 32

- Lay the roof sheet on top of the feeder making sure the holes for the handles are on the same side as the lid hinge hole
- Swing the lid hinge up and align underneath the roof
- Start with the two outside tek screws and work towards the middle

Step 33

- Silicon the 3 exposed joins either side of the roof
- Check that there are no exposed holes on the side sheets



Step 34

- Tek screw the top piece of angle using the two holes that were left out from the hopper (longest out of the 75x75mm angle pieces)

Step 35

- Bolt the two outside piece of angle on
- Leave the bolts loose

Step 36

- Tek screw the angle pieces to the end sheets (4 in total)

Step 37

- Repeat step 35 and 36 with the middle angle pieces (these have a slot for the cover to sit in at the bottom)
- There is a left and a right for the middle pieces, make sure the distance either side is the same to work out the left and the right side

Step 38

- Tek screw the bottom of the rain guards on first

Step 39

- Tek screw the 3 holes on the outside of the rain guard

Step 40

- Use the longer 8mm bolts to bolt the ratchet holders to the 75mm angle

Step 41

- Tighten all the 8mm bolts

Step 42

- Take the bottom tek screw out of the base sheet and use for the ‘W’ hole

Step 43

- Put the tek screw in on the ‘H’ side lining up the guide with the base of the feeder

Step 44

- Replace the ‘W’ hole with a pot-rivet

Step 45

- Tek screw the lid handles on and lid stoppers
- The upright part of the stopper sits against the handle as pictured

Step 46

- Tek screw the lid hinge stopper on either side

Step 47

- Laying the adjusters out on stands makes this assembly easier

Step 48

- Bolt the extension piece and smaller angle piece to either end
- The smaller angle piece is for the tongue restrictor

Step 49

- Laying the angle pieces with half facing one way and the other half facing the other way means that they can be slid in form the one side once assembled

Step 50

- Tighten the 3 bolts either side
- The smaller angle piece needs to be tightened in-line with the main piece as pictured
- The bolt that holds the smaller angle piece should be tighten firm but allow the angle piece to be hammered 90 degrees if a tongue restrictor option is used

Step 51

- Bolt the ratchet holders and plates used to calibrate the feeder
- Important that only one side of the adjuster is done at this stage. The other side has to be assembled once the adjuster is slid into the feeder
- The pieces must be bolted on the same as what is displayed for the calibration to be correct

Step 52

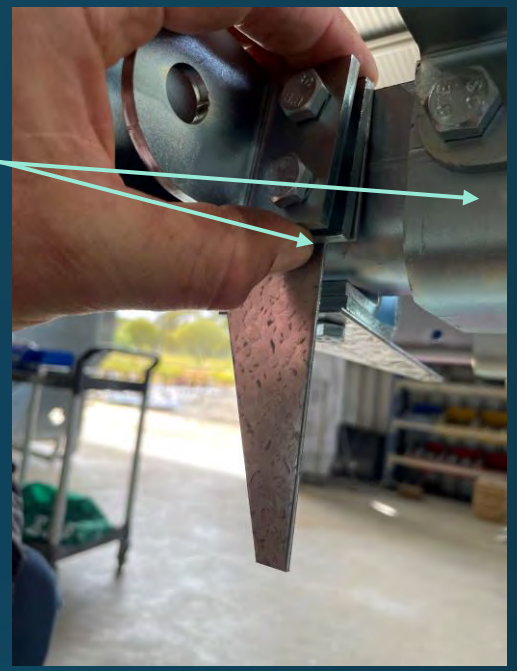
- There are two different shaped plates for calibration. The one pictured below without a straight edge is assembled on the right of the adjuster pictured
- The smaller ratchet holder goes on top of the larger one so that the ratchet bolt will fit through

Step 53

- This is the top view of the adjuster
- The angle piece for the tongue restrictor is on the right

Step 54

- This picture shows the calibration plate without a straight edge next to the angle piece for the tongue restrictor



Step 55

- Tighten all the bolts on the adjuster
- By eye make sure that all pieces are sitting square with the main adjuster as they are being tightened, each piece has a small amount of movement

Step 56

- Final view of the adjuster ready to be slid into the feeder

Step 57

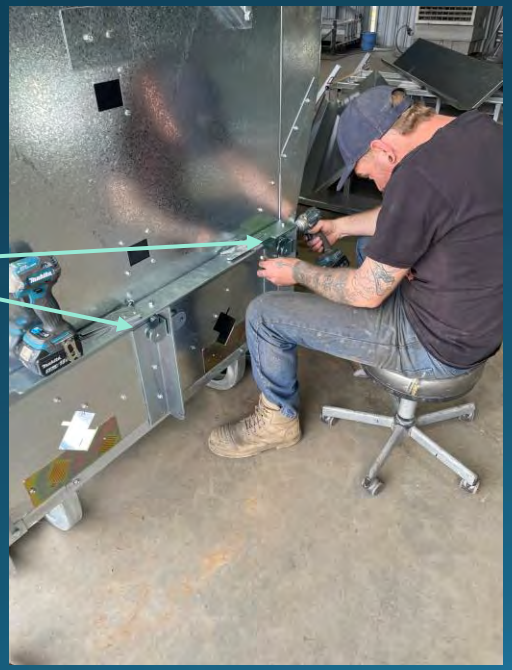
- Sweep all the metal pieces to one side of the trough of the feeder on both sides
- If available a vacuum is the easiest way to remove the piles

Step 58

- Put the pieces of bent sheet metal with 4 holes in the trough and tek screw these to the pre-drilled holes in the base (four pieces per feeder)
- The vertical side of the pieces needs to sit towards the middle of the feeder

Step 59

- Bolt the ratchet holders to the 75mm angle on both ends of the feeder
- There are 4 holders on the feeder at each end

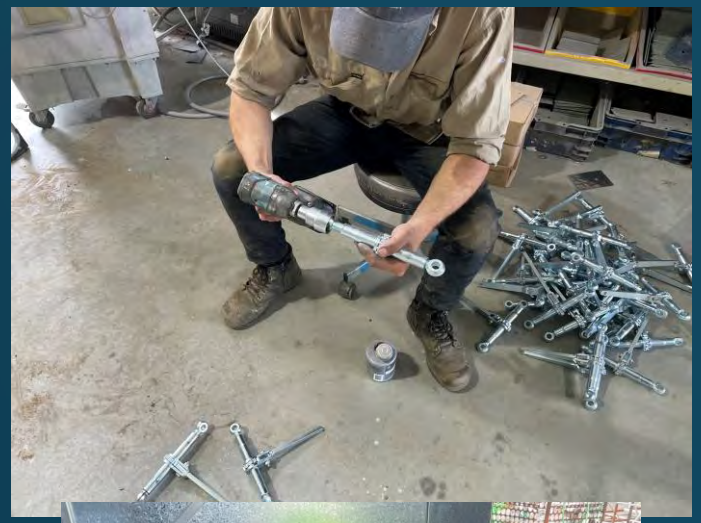


Step 60

- Bolt the ratchet holders to the 75mm angle on both ends of the feeder
- There are 4 holders on the feeder at each end

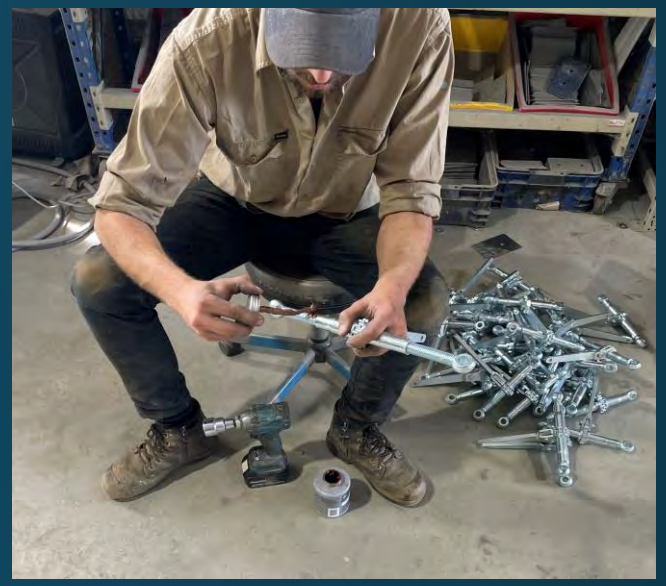
Step 61

- Wind out the thread of the ratchets
- A large socket on an impact driver makes this job quicker



Step 62

- Cover the thread with copper coat anti-seize



Step 63

- Slide the main adjusters into the feeder through the holes in the end sheets
- The end of the adjuster with no ratchet holders goes in first
- There is a small slot for the angle tongue restrictor attachment to fit through

Step 64

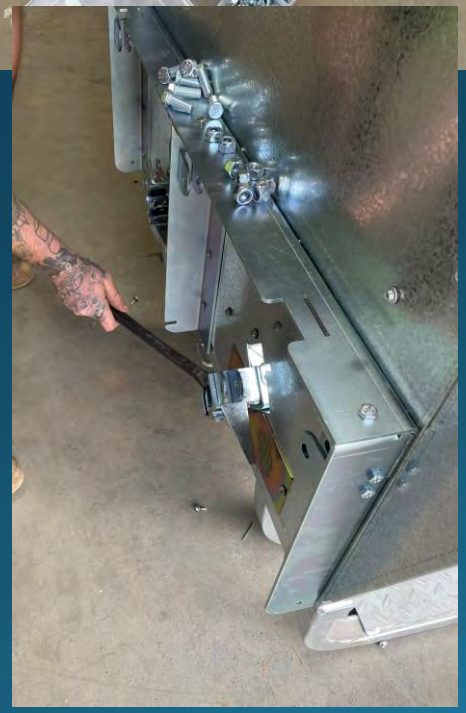
- This is the way the main adjuster should sit one its slid in
- This picture shows the angle piece for the tongue restrictor sitting at the top of the adjuster and the slot for it that it slid through

Step 65

- Repeat steps 47 to 56 on the side of the adjuster with no ratchet holders attached

Step 66

- Spread all the ratchet holders on the main adjusters and 75mm angle pieces on the feeder (16 total) to their most open position
- The holes are slightly bigger than the bolts so they all have a small amount of movement



Step 67

- Bolt the ratchets into the ratchet holders
- Make sure the bolts are facing inwards and that there is an equal amount of thread either side of the ratchet

Step 68

- When tightening the bolts that hold the ratchets the bolts should be firm but not overtightened
- The one bolt that can be firmer that the others is the lowest one, this holds the angle of the main adjuster

Step 69

- Paint the Universal Stencil on both sides
- Use the tek screws at the bottom of the side sheet to sit the stencil on
- Count the tek screws in from each side to find the center of the feeder
- Use magnets to hold the stencil firm against the sheet
- A pole to push against the stencil helps to hold it firm against the sheet

Step 70

- The Ultimate Series Stencil goes on the left hand side of both side sheets
- Use the left hand side and bottom row of tek screws to position the stencil

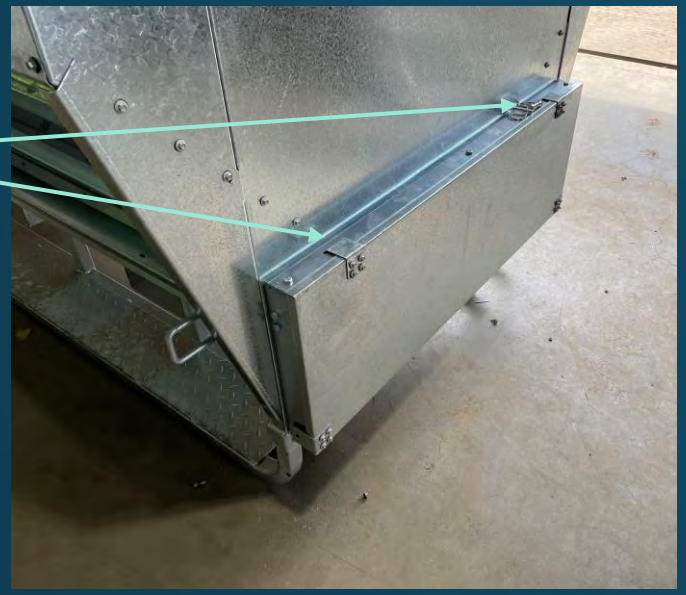
Use the same technique as step 69

Step 71

- Assemble the covers for the ratchet area
- The angle pieces with holes go on the two bottom corners and the U-shaped pieces go at the top slightly in from the sides

Step 72

- Hook the covers into the slots cut into the top of the 75mm angle



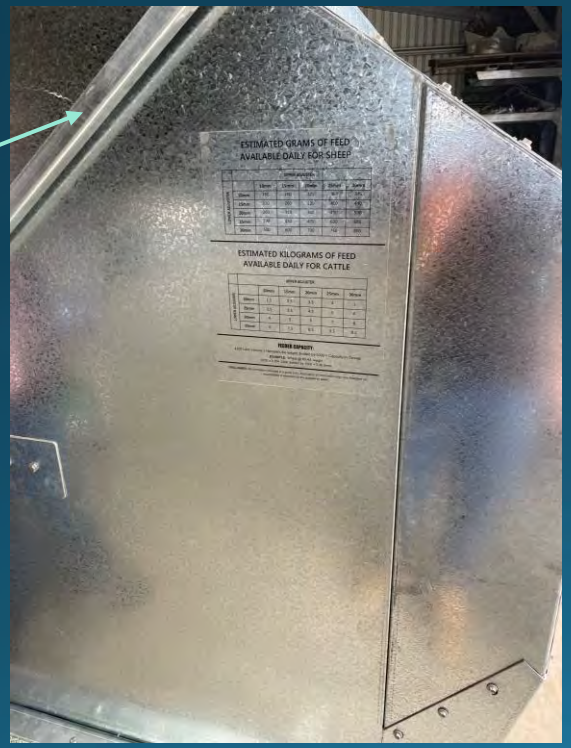
Step 73

- The pins secure the bottom of the covers

Step 74

- The calibration and how to use sticker are put on the top right hand corner of the end sheet with this lid hinge

  orientation



Completed Universal Ultimate Feeder!