Butterfly Tray
Assembly & Installation Manual
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RECOMMENDED BUTTERFLY SETUPS - HANDLE TRAY RETURN

1. Actuator Winch
   End Setup
   MAX: 40 M (130 FT)
   or
   50 Butterfly Trays

2. Actuator Winch
   Center Setup
   MAX: 80 M (260 FT)
   or
   100 Butterfly Trays

3. Double Actuator Winch
   Center Setup
   MAX: 40 M (130 FT)
   or
   50 Butterfly Trays
   MAX: 40 M (130 FT)
   or
   50 Butterfly Trays

4. Actuator Winch
   Location
   Actuator Winch
   Location
   MAX: 80 M (260 FT)
   or
   100 Butterfly Trays
   MAX: 80 M (260 FT)
   or
   100 Butterfly Trays

5. Double Actuator Winch
   Location
   Double Actuator Winch
   Location
   MAX: 40 M (130 FT)
   or
   50 Butterfly Trays
   MAX: 40 M (130 FT)
   or
   50 Butterfly Trays
   MAX: 40 M (130 FT)
   or
   50 Butterfly Trays
   MAX: 40 M (130 FT)
   or
   50 Butterfly Trays
RECOMMENDED BUTTERFLY SETUPS - SPRING TRAY RETURN

1. Actuator Winch End Setup
   - MAX: 25 m (82 ft)
   - or
   - 30 Butterfly Trays

2. Actuator Winch Center Setup
   - MAX: 50 m (164 ft)
   - or
   - 60 Butterfly Trays

3. Double Actuator Winch Center Setup
   - MAX: 25 m (82 ft)
   - or
   - 30 Butterfly Trays
   - MAX: 25 m (82 ft)
   - or
   - 30 Butterfly Trays

4. Actuator Winch Location
   - MAX: 50 m (164 ft)
   - or
   - 60 Butterfly Trays
   - MAX: 50 m (164 ft)
   - or
   - 60 Butterfly Trays

5. Double Actuator Winch Location
   - MAX: 25 m (82 ft)
   - or
   - 30 Butterfly Trays
   - MAX: 25 m (82 ft)
   - or
   - 30 Butterfly Trays
   - MAX: 25 m (82 ft)
   - or
   - 30 Butterfly Trays
   - MAX: 25 m (82 ft)
   - or
   - 30 Butterfly Trays
Apply a small amount of medium strength threadlocker as shown.

Apply a small amount of medium strength threadlocker as shown.

Start nuts as shown.

Do Not tighten at this time.
9

10

11

12

Bend legs and insert side A.

Bend legs and insert side B.
ACTUATOR ASSEMBLY

1

2

3

4

Torque: 0.6 Nm / 5 in lbs MAX

5

Torque: 0.6 Nm / 5 in lbs MAX

6

Torque: 0.6 Nm / 5 in lbs MAX
OPTIONAL ACTUATOR WINCH SETUPS

1 Option 1: Actuator winch setup

Install actuator winch as shown with cover.

2 Option 2: 2 actuator winch setup

Install actuator winches as shown with cover if needed.

3 Option 3: Actuator winch setup

Install actuator winch as shown with cover. Start fasteners, do not tighten at this time.

TRAY INSTALLATION
TRAY INSTALLATION

2. Bend legs and insert side A.

3. Bend legs and insert side B.

4. Use bubble level to ensure level orientation.

5. Bend legs and insert side A.

6. Bend legs and insert side B.

Maximum Torque: 1 Nm / 9 In lbs
1. Secure actuator winch to feed tube.

2. Secure tray return assembly to feed tube.

3. Starter Cable
   Three Windings

4. Attach the actuator cable to the tray return handle. Use 3.0 mm / 7/64 in 1X7 galvanized cable ONLY.

5. Minimum: 200 mm / 8 in

6. 

7. Position tray return handle and Insert pin into the center hole as shown.
Maintain the hand pressure and tighten bolt with a Nut Driver Only!
Do Not use wrench. (MAX. Torque 1 Nm / 9 in lbs).

Moving away from the actuator winch, repeat these procedures on the remaining Butterfly trays to the end of feeder line.
TRAY RETURN ASSEMBLY - SPRING VERSION

1. Use 3.0 mm / 7/64 in 1X7 galvanized cable.

3. Three Windings
Both Sides

4. Use 3.0 mm / 7/64 in 1X7 galvanized cable.

5. Starter Cables

6. Starter Cable

7. Clamp To Spacer
Starter Cable

Winch must be loose.

Crank winch to slightly tighten cable. Winch must be loose.

Continue to crank the winch to stretch the springs 50 mm / 2 in as shown in order to auto center between left and right sides.

Winch will auto center.
Secure actuator winch to feed tube.

Insert tray cable into slot and start bolt on all trays.

Insert tray cable into slot and start bolt on all trays.

Start tray closest to the actuator winch. Push actuator assembly away from the winch to close the tray.

Use just enough pressure to fully close the tray. Make sure to use the same amount of pressure on the remaining trays.

Maintaining light pressure, with trays in a fully closed position tighten bolts (MAX. Torque 1 Nm / 9 in lbs). Use a nut driver only. Do not use wrench.

Moving away from the winch, repeat procedure on tray 2, 3, 4, and so forth to the end of line. Move to the other side and repeat steps 16 - 19.
**END CONTROL TRAY TO ACTUATOR CABLE INSTALLATION - HANDLE VERSION**

1. Attach a 3.0 mm / 1/8 in solid wire to the end controls actuator cable clamp.

2. Attach the end control tray’s solid wire to the actuator cable with a cable clamp.

**END CONTROL TRAY TO ACTUATOR CABLE INSTALLATION - SPRING VERSION**

1. Insert the actuator cable into the return spring and attach it to the actuator cable clamp.

2. Attach the actuator cable with a cable clamp to the return spring as shown.

**FEED TUBE HANGER LOCATION**

1. Feed Tube Hanger Location

2. MINIMUM 15 cm / 6 in Feed Tube Hanger within this range.
IMPORTANT INSTRUCTIONS

1. The bottom of the butterfly tray should only touch the litter.

2. Do not put any weight or upward pressure on the feed tray.

3. Never adjust the trays wider than the position 8 during the production cycles.

4. Never turn the actuator winch more than two clicks per day when adjusting the tray opening.

5. The butterfly trays must remain fully open throughout the entire period between production cycles.
1. Disengage the actuator winch.

2. Pull handle back to fully close the feed trays. (See # 3.) Insert the locking pin.

3. Make sure the trays are fully closed.

4. Re engage the actuator winch.

5. Crank the actuator winch until line is taut.

6. Fill the feed system with feed.

7. Remove pin