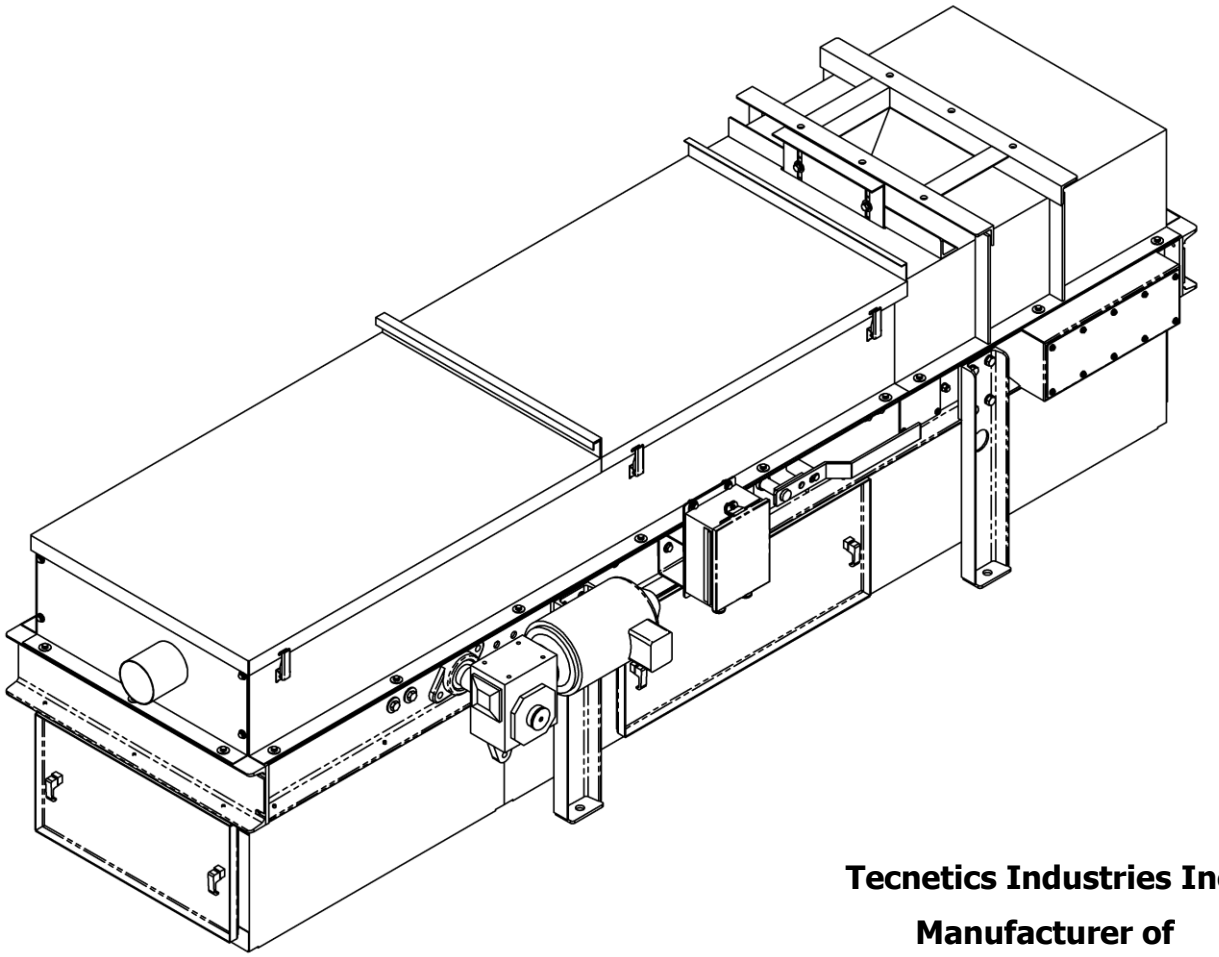
TECWEIGH®
Tecnetics Industries, Inc.

OPERATION MANUAL

Weigh Belt Feeder

Single Weigh Idler Models: WF10, WF14, WF16

Multiple Weigh Idler Models: WF11, WF15, WF17



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P/N 21119012 [Last Update, November 3rd 2015]

CHAPTER 1 - SAFETY

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

This symbol is intended to alert the user of the presence of dangerous voltages within the electrical enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

1.01 The Manual

This entire manual should be read thoroughly to gain the proper knowledge of how the system works and how to operate it safely. Also be sure to read the safety instructions and warnings. Failure to heed these safety instructions and warnings could result in serious personal injury or death.

1.02 Lifting Equipment

The weigh belt feeder includes a minimum of four holes usually located in a minimum of four legs that are bolted to the main C-channel frame. It is recommended that these holes be used when lifting the equipment. The use of a crane or forklift with a spreader bar is recommended. Use caution at all times when rigging or hoisting the weigh belt feeder. Mishandling can damage the equipment and/or cause injury to personnel.

1.03 Transporting Equipment

Tecweigh weigh belt feeders can be used in conjunction with portable belt conveyors. Use caution at all times when transporting, rigging, or hoisting a weigh belt feeder. Mishandling can cause scale damage and/or injury to personnel. Remove the calibration weights during transport to prevent damage to the scale and also to prevent the weights from falling out. Re-install any shipping bolts or fixtures intended to take the load of the load cells during transit.

1.04 Electrical Codes

WARNING! – DANGER! Follow all local electrical and safety codes as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA). Improper wiring or

improper grounding could cause serious personal injury or death. Disconnect and lock out all power from the scale before servicing. Only authorized service technicians should have access to the inside of the electrical enclosures. This includes the signal conditioner enclosure on the weigh belt feeder and the accompanying scale processor enclosure. Even with the equipment's power disconnected, live voltage can be present inside the scale processor enclosure. Refer to the scale processor manual for more information.

1.05 Hazardous Environments

WARNING! The standard scale is not "explosion-proof". The standard scale must not be operated in an environment where conditions exist that could cause an explosion of dust or gas. Specially built explosion proof scales, signal conditioner enclosures, and speed sensors are available from **Tecnetics** for use in hazardous environments.

1.06 Load Cell Over-Loading

WARNING! Excessive loading on the belt could result in damage to the load cells, conveyor, or cause injury to personnel. Information that applies to your specific application is available in the back of this manual. An increase in maximum RATE and/or a reduction of BELT SPEED could result in overloading the load cell.

1.07 Environment

The equipment is designed to operate in wet or dry environments, within a temperature range of 32-104 degrees Fahrenheit (0-40 degrees Celsius), and a relative humidity less than 80%. Although the equipment will operate outside this temperature range, the accuracy of the equipment could be affected.

1.08 Printed Circuit Board (PCB) Precautions

Disconnect and lock out all power to the scale before servicing. When handling PCBs, always use a commercially available grounding wrist strap to prevent electrostatic discharge, which can destroy electronic components. Store unused PCBs in electrostatic protection bags made for that purpose.

1.09 Welding Precautions

Do not do electrical welding on or near the weigh belt feeder frame or signal wiring. Electrical current passing through the PCBs will destroy them, as can electromagnetic radiation. If welding near the weigh belt feeder is absolutely necessary then place the ground clamp as close to the welding area as possible.

CHAPTER 2 – EQUIPMENT STORAGE

2.01 Mechanical Storage on Receipt of Factory

If equipment will be installed within the next 30 days keep all equipment dry and store well above the ground. An enclosed warehouse is preferred. No other precautions apply.

2.02 Mechanical Storage for 1 to 12 Months

1. Grease-lubricated Gear Boxes: No special requirements.
2. Oil-lubricated Gear Boxes: Fill the Gear Box completely with recommended lubricant and plug the Breathers.
3. Fill the Gear Boxes to operating level with a rust-preventative oil (NP-20 or equivalent). Plug the Breathers. At approximately one-month intervals, rotate the Input Shaft a sufficient number of times to insure that all internal components remain coated with oil.
4. Remove tension from drive belt (timing).
5. Protect the Shafts and other exposed ferrous metal parts with a heavy-consistency grease and inspect or renew coating every six months.
6. Slacken the Conveyor Belt fully.
7. Install adequate amounts of desiccant in Feeders. A minimum of ten pounds is recommended. The more, the better.
8. Remove all pressure from belt Scraper Blades (If furnished}.
9. Locate the Suspension in the raised (shipping) position.

2.03 Mechanical Storage Longer than 12 Months

1. Change oil in Gear Boxes yearly.
2. Remove all Conveyor Belts and store indoors out of the sunlight on a large-diameter core to prevent the belt from taking a "set" or attaining “memory”.

2.04 Mechanical Storage Following Use

1. Observe all of the instructions for storage prior to use plus these additional instructions
2. Empty the machine completely of conveyed material.
3. Neutralize units. Flush all surfaces with clean water and dry thoroughly.

4. Remove rust as necessary. Touch-up all painted surfaces where necessary to cover all bare metal surfaces.

2.05 Mechanical Operation after Storage

Grease-lubricated Gear Boxes: Add half of the recommended quantity of new grease as shown in Lubrication Section of this manual.

1. Oil-lubricated Gear Boxes:
    a. Drain the rust-preventative or operating oil completely.
    b. Flush unit with the recommended operating oil as shown in the Lubrication Section of this manual.
    c. When flushed clear, fill the unit to the proper oil level with the recommended lubricating oil.
2. Reinstall and re-tension the Conveyor Belt.
3. Re-grease all bearings.
4. Remove desiccant.
5. Reposition belt scrapers.

2.06 Electrical Storage on Receipt of Factory

Storage Up to Six Months: Keep all equipment dry and well above the ground. A warehouse is preferred. The use of Evaporative Corrosion-Inhibitors is recommended but not required.

2.07 Electrical Storage Longer than Six Months

1. In a heated warehouse with temperatures ABOVE FREEZING.
    a. All equipment must be kept dry. Vaporizing Corrosion-Inhibitors MUST be used inside all electrical enclosures and panels.
    b. Replace all desiccants in the Spring and Fall, when the humidity is low.
    c. Operate all electrical and electronic equipment at least once a year for a minimum of two to three hours, preferably during a low humidity season. Operate all switches at least ten times. Operate transformers and motors at least once a year and allow them to rise 20 degrees C (36 degrees F) above the ambient temperature. it is preferable to do this in the low humidity season.
2. In a warehouse with temperatures BELOW FREEZING.
    a. Prior to storage, remove all pen and ink elements from Recording Instruments, and thoroughly clean all inking mechanisms.
    b. Operate all electrical and electronic equipment for a minimum of two to three hours, preferably during a low humidity season. Operate all switches at least ten times. Operate transformers and motors at least once a year and allow them to rise 20 degrees C (36 degrees F) above the ambient temperature. It is preferable to do this during the low humidity season

3. Outside Storage IS NOT RECOMMENDED. If it is unavoidable, then damage from dampness must be prevented. The use of Vaporizing Corrosion Inhibitors and Desiccants affords some protection. Equipment must be operated periodically as above.

2.08 Electrical Storage Following Use

1. Clean all equipment and enclosures thoroughly inside and out.
2. Remove rust as necessary. Touch up all painted surfaces as necessary to cover all bare metal surfaces.
3. Observe instructions for storage and care of electrical equipment prior to use.
4. Keep panels dry with anti-condensation heaters if possible.

2.09 Electrical Operation After Storage

1. When equipment has been stored at either high humidity and/or low temperatures, DO NOT APPLY POWER until the equipment has been allowed to stand at ambient conditions for a minimum of three hours.
2. Remove all packing and protective materials.
3. Remove all desiccants. Vaporizing Corrosion-Inhibitors may be left in the equipment only if this is permitted by local fire regulations.

CHAPTER 3 - INTRODUCTION

3.00 Tecnetics Industries, Inc. and Tecweigh.

Tecnetics Industries, Inc., is the legal name for Tecnetics. Tecweigh is the product brand name. They are frequently used interchangeably in this manual and within the company.

3.01 Contacting Tecnetics Industries, Inc.

When contacting Tecweigh service about any piece of equipment or electronics please have the serial number and model number available. Their location and how they are identified is as follows:

Inside the signal enclosure on the printed circuit board (PCB) there are two hand printed numbers, a serial number and model number. The model number indicates the basic piece of equipment whether it is the mechanical weigh belt feeder or the scale processor paired with it. See the processor manual for more information on identifying the electronics supplied with your equipment.

Be sure to disconnect and lock out all power before opening any enclosures.

Examples of a weigh belt feeder model number:

WF10-24-6

This is a WF10 weigh belt feeder with a 24” wide belt and is 6’ long from center of inlet to center of outlet.

WF##-BW-L

It can be looked at as this:

WF = weigh belt feeder.

= the series of the feeder, this indicates the duty of the feeder (capacity range) and whether it has a single weigh idler or multiple weighing idlers.

BW = the belt width in inchs.

L = the length in feet from center on inlet to center of discharge openings.

Tecnetics (Tecweigh) Service Department contact information:

Phone: 651-777-4780 (General number).

651-233-1946 (Service Department)

651-233-1976 (Parts)

FAX: 651-777-5582

Get all current contact information from the **Tecweigh** web site: www.tecweigh.com

3.02 Wording Conventions in this Manual

This manual uses two specific wording conventions to help identify the two most important components of the processor; the Parameter table and the faceplate KEYS.

First Letter **C**apitalized	In this manual, a Parameter will always appear with its first letter **C**apitalized and will also be spelled as it appears in the processor's Parameter table. That is, if a Parameter is truncated in the processor's display, it will also be truncated in the manual.
ALL CAPITALIZED	When referring to the pushbutton KEYS and other features on the face of the processor, all the letters are CAPATIALIZED. Examples: AUTO ZERO, AUTO SPAN, or MODE window.

3.03 Weigh Belt Feeder (WF10/WF14/WF16)

A weigh belt feeder (WBF) is a complete weighing and conveying mechanism that consists of the head and tail pulleys, CEMA flat idlers, return belt rollers, a drive motor, a belt tensioner, a belt speed sensor, the belt, one or more weighing idlers and load cells. A **Tecweigh** WBF is also normally equipped with a self storing calibration weight(s) and a mechanism for easy operation.

3.04 Signal Conditioner (SC300 or SC500)

Material weight and belt speed signals are sent to the signal conditioner (SC) that normally is mounted on the weigh belt feeder frame. The SC has two functions; first, it collects and electronically conditions the material weight and belt speed signals; and secondly, it detects problems at the scale such as a faulty weight or speed sensor.

The scale processor (WP20, FC20, MS20 or custom controller) constantly polls the SCs for load and speed raw data. During each poll, the weight, speed, and scale status, are sent to the processor via the RS485 communications link.

CHAPTER 4 - INSTALLATION

4.01 General Description

Proper weigh belt feeder (WBF) installation is critical for attaining high scale accuracy and repeatability. To properly mount a WBF it should be located on a rigid, horizontal mounting surface. All WBFs are assumed to be conveying material horizontally unless the specific application at hand is non-horizontal and which has been taken into account. If the WBF is at an incline, assure it is not so steep that material rolls back on itself causing it to be weighed twice. The belt and idlers should operate smoothly and the scale should be mounted in an area free of temperature, wind, and vibration extremes.

The mounting surface of the WBF should be level and strong enough to support both the weigh of the equipment and the material being conveyed. When initially placing the equipment, it will be necessary to level the conveyor by shimming the mounting feet. Place a level across the side rails, from side to side, and insure the WBF frame is true. If not, shim the appropriate mounting feet. On WBFs that are over 10' long (with 6 or more mounting legs) it might be necessary to run a string-line down the length of the side channels and take a number of level checks, side to side, down the length of the unit.

Every WBF is equipped with idler adjustments built into the carrying idlers mounting pocket. They are provided on the weigh idler and the adjacent (+/- 1) idlers. These three idlers, the weigh idler(s) and the two adjacent idlers, are the most critical idlers on the WBF. They should be slightly (1/32" to 1/8") above any other idler on the carrying side of the WBF. The weigh idler(s) should be in line with the +/-1 idlers. By placing a fish line on the outside edges of the critical idlers, this alignment should be maintained to within +/- 1/16".

Avoid the following!

- Poor belt training or alignment.
- Wind, temperature, or vibration extremes.
- Material build-up on the belt, idlers, or calibration weights.
- A loosely mounted or unstable weigh belt feeder.
- High belt tension.
- Steep conveyors that allow material to roll back upon itself.
- Poorly adjusted belt skirting or other interference near the scale.

4.02 Un-Crating Feeder

The weigh belt feeder is normally shipping on skids that the feeder is lag bolted to. Only move the skidded weigh belt feeder by pushing on the skids – never push or pull on the feeder itself. Carefully unwrap the feeder and remove any loose components. The feeder's electronics are typically in the inlet or discharge area of the feeder, remove them and safely store them until they are installed. The calibration weight is normally mounted to the shipping skid, use a claw hammer

of pry bar to remove the cylindrical weight and store it until the feeder is fully installed and ready to operate. The calibration weight should not be installed while rigging the unit.

4.03 Mechanical Installation

NOTE: During shipment the Load Cell is protected by a red shipping bolt that supports the Weigh Deck and relieves the load and/or impact. This shipping Bolt must be left in place during installation and removed only when the machine is ready to be started up and placed in operation.

The Feeder must be properly supported and positioned plumb and on level flooring or on a platform free from significant movement or vibration. The standard Model 970 or 971 is typically equipped with vibration isolation mounting pads at the four corners of the enclosure. These vibration isolators are adjustable to allow for compensation for minor irregularities in the floor support.

Any loads such as Storage Hoppers or Bins must not be imposed on the machine or its supports. Connections to the machine should be made in such a way that no torque or twist is imposed.

Use flexible connections to connect any automatic fill devices or discharge spouts to the feeder.

Field wiring connections should be made only at the connection boxes provided, never make field wiring connections at any point on the floating frame of the feeder.

CAUTION: Never weld on the Feeder without taking proper precautions as severe damage to the load cell and/or electronics could result. Contact the Merrick Support Department prior to any such activity.

4.04 Belt Tensioning

The timing belt drive is factory preset to provide proper belt tension. To take-off the belt, merely depress the elastic preloaded tensioner and remove the belt. **Do not loosen the tensioner bolt** to remove the belt. If the belt is replaced and retensioning is required, adjust the elastic tensioner to 15 degrees on the scale at the base of the tensioner. **Do not overtension.** Overtension can cause belt breakage and bearing failure.

4.05 Electrical Installation

Study the customer connection drawing that has been provided in the rear of the scale processor manual. Proper precautions and principles of electrical installation must be followed to ensure a safe and reliable operating piece of equipment.

Follow instructions on the connection drawings for wire size and type. Improper wiring could cause un- reliable operation due to electrical noise, ground-loops, etc.

For information regarding the Micro-Processor Controller please see separate processor manual, if supplied.

4.06 Start Up Procedure

1. Before starting make sure all connections are correct and machine is level.
2. Check for correct rotation of the conveyor. Belt should move over weighdeck from infeed to discharge. Reverse armature leads (A1-A2) if incorrect.
3. Remove the RED or TAGGED shipping bracket or bolts secured to the weigh deck.

4. Proceed to Calibration.

4.07 Calibration

On Closed Models: A door is provided on the drive side to permit slackening for belt changes, or initial tension adjustments.

Set initial tension visually by observing the sag on the return side of the belt. The belt should sag about 1/4-inch and must be in firm contact with the Return Belt Scraper at the Tail Pulley. The belt should feel equally taut on both sides and the Lock Nuts on the Take-up Arms should be tight enough to keep the Tail Pulley from drooping.

Adjust Take-up Nuts one or two "flats" at a time. If the belt moves even with the end of the pulley, stop the machine. Reposition the belt and start tracking again. Tighten the Take-ups of the side the belt moves TOWARDS. This should stabilize the movement.

4.08 Weighing Idler Adjustment

1. The Weigh Deck is supported on a three point suspension which consists of three adjustable alignment screws. Start the alignment by using the three alignment screws to lower the Weigh Deck to a point slightly below the two adjacent machined reference bars welded to the Conveyor Stringer Weldment. Use a precision straight edge laid across the two reference bars to position the Weight Deck.
2. Using a 36 inches long precision straight edge, bridge the two reference bars with one end of the straight edge suspended over the entire length of the infeed slide pan (work around the infeed as can be accomplished). Then, slide the straight edge from one side of the conveyor weldment tothe other making sure that the straight edge is snug against the two reference bars. During this procedure, the straight edge can not touch any part of the infeed slide pan. The infeed slide pan should never be higher than the two reference bars. However, in some instances stainless steel can relieve stresses causing structural movement. If the infeed slide pan should become higher than the reference bars, it must be forged lower. If the reference bars are not higher than the infeed slide pan, the feeder will not be repeatable.
3. Using a precision straight edge, place the straight edge across the two reference bars at the near (to you) end of the Weight Deck. Using the three alignment screws, raise the Weigh Deck until it touches the straight edge. Move the straight edge to the opposite end of the Weight Deck and repeat the procedure. Move back to the original starting point and fine tune the alignment making sure that the Weigh Deck touches the straight edge but does not lift it. Again, move to the opposite end and repeat the procedure. Now, move the straight edge laterally across the reference bars from one end of the Weigh Deck to the other. Fine tune the elevation of theWeigh Deck until no part of the Weigh Deck surface is higher than the reference bars. If a precision alignment can not be achieved, it is better for the center of the weigh deck to be aligned to the reference bars and the ends of the Weigh Deck slightly lower (a few thousands of an inch) than the reference bars. In no circumstances is it permissible for the ends of the Weigh Deck to be higher than the reference bars.
4. Using a feeler gauge, adjust the gap between the end of the overload screw and the mating flange on the Weigh Deck. The gap should be adjusted as follows: 6 KG load cell, 0.016" +/- 0.001"; 15 KG load cell, 0.010" +/- 0.001".

4.09 Shear Gate Adjustment

The shear gate is adjusted simply by loosening two lock nuts and positioning. The gate should be positioned so that the bottom edge is the height up from the belt indicated on the specification sheet. The gate can also be used to gain some turn down, but always should provide a depth that is 3X the max material lump size.

4.10 Side Skirting Adjustment

The skirtboards should be adjusted so that there is a minimum clearance between the bottom edge and the belt. This is typically around 1/16" or slightly higher at the infeed and should rise to approximately 3/16" at the head pulley.

CHAPTER 5 - SYSTEM WIRING

5.01 Wiring Precautions

The following is a list of important precautions that should be observed during field wiring.

- Only apply input power after assuring all wiring is correct.
- Wiring should be compliant with all applicable electrical codes.
- Input power must be 100 to 240 VAC, 47-63 HZ, 60 watts minimum.
- The electrical power source must be of utility quality and specification.
- Never splice wires. Replace short wires with one continuous length.
- **Always** run power wiring and signal wiring in **separate** conduits.
- Ground shield wires at only one location, usually the processor.
- To prevent possible shorts, tape all shielded wire ends and keep the wiring neat.
- Use properly sized water tight compression fittings on cables entering the enclosure.
- **Do not** connect any wires to terminals designated as unused.
- Pay particular attention to proper grounding as depicted in the wiring diagrams.

5.02 Wiring to Scale Processor (if included)

Communications between the signal conditioner (SC) on the scale carriages and the processor is accomplished using the industry standard RS485 communications protocol. At both ends, terminal 10 is signal common, terminal 29 is 30 VDC power, and terminals 20 and 22 are A and B channels of the communications signal. Use 18 gauge, two twisted pair, shielded cable between the processor and the signal conditioners. Belden #1063A cable or equivalent is recommended (25 ft. is normally provided by **Tecweigh** on new installations, additional cable can be obtained through **Tecweigh**). If ordered direct from a Belden distributor, #1063A cable has a standard color code of black and white for each twisted pair; one pair marked "1" the other pair marked "2". The two numbers are difficult to see in the field, so **Tecweigh** instead stocks #1063A cable with red/black and blue/yellow twisted pairs, which helps eliminate errors when field wiring the scale. **Tecweigh's** field wiring diagram uses this color code, but if the #1063A is not ordered through **Tecweigh,** it will be the dual black and white pairs.

IMPORTANT – Regardless of the brand of the two twisted pairs cable used, it is very critical that one twisted pair be used for power (+DC & COM (also designated 29 and 10)) and the other twisted pair be used for communications (RS485 A & B (also designated 20 and 22)).

5.03 Load Cell Wiring

The **Tecweigh** "standard" color code for wiring strain gauge load cells has changed from time to time because of load cell availability. The following is a cross reference for the different load cell manufacturers that have been used and their color codes.

Load Cell Model	CI-LC22	SB1 or LC	CB6-XX-T

Signal -	red	white	white
Signal +	white	green	green
Excitation -	black	black	black
Excitation +	green	red	red

Load Cell Wiring (Other)

Load Cell Model	SP4	C1-40
Signal -	red	red
Signal +	white	white
Excitation -	black	black
Excitation +	green	green
Vref (sense) -	blue	brown
Vref (sense) +	orange	blue
Shield	yellow	yellow

NOTE 1: Remove jumpers J7, and J8 from the SC300 PCB when using any six wire load cell.

NOTE 2: All load cell cables have a shield that needs to be connected to the shield terminal.

CHAPTER 6 - CALIBRATION

6.01 Apply Power to the System

Assuming that all the entered Parameters are correct and all the equipment is properly installed, the scale must now be calibrated.

Now refer to the scale processor or controller manual included with your equipment. Below is a summary of the calibration procedure.

6.02 Scale Calibration

Assuming all entered Parameters are correct, the scale is installed properly, and scales with LVDTs are in alignment, the scale can now be calibrated. Without calibration, the scale will only approximate the RATE. Also assure that the belt is empty and clean**. Note that an AUTO ZERO must always be done before an AUTO SPAN**.

6.03 Auto Zero

AUTO ZERO is the first calibration step to perform. This is defined as the processor displaying zero RATE when the belt is empty. With the conveyor running, press and hold the AUTO ZERO button for five seconds. First, the message "HOLD TO ZERO" appears in the MODE window, then the message "AUTO ZERO WAIT". The processor will now do an AUTO ZERO for as many belt revolutions as are specified in the Zero Revs Parameter. A proper AUTO ZERO should take a minimum of two minutes to complete, because the processor must "learn" what an empty belt and zero-RATE "feels like". When finished, the MODE window should revert back to Units of Measure (typically Tons/Hour), and the RATE should go to zero and remain there. An AUTO ZERO can be cancelled at any time by pressing EXIT. If the message "AUTO ZERO ERROR" appears during an AUTO ZERO, refer to processor manual for troubleshooting tips. Note that the RATE might wander above and below zero to some extent.

6.04 Auto Span

AUTO SPAN is the second calibration step to perform. This procedure calibrates the scale using a known weight, so the processor can accurately determine the material weight as it passes over the weigh idler. With the conveyor running, press and hold the AUTO SPAN button for five seconds. First, the message "HOLD TO SPAN" appears in the MODE window, then the message "LOWER CAL WEIGHT". At this time lower the calibration weight(s). The AUTO SPAN procedure will begin when the calibration weight is sensed by the processor. The display in the MODE window should then change to "AUTO SPAN WAIT". A proper AUTO SPAN should take a minimum of two minutes to complete. If, after lowering the cal weight(s), the "AUTO SPAN WAIT" message does not appear, press and hold the AUTO SPAN button again for a few seconds. This action will override the previous attempt and manually start the AUTO SPAN.

When the AUTO SPAN is complete, the message "RAISE CAL WEIGHT" will appear. **Before raising the cal weight(s) allow the RATE settle to a steady value.** When the cal weight(s) are then raised, the RATE display should return to ZERO and the calibration is complete. Totalizing will not resume until the calibration weight is raised or EXIT is pressed. An AUTO SPAN can be cancelled at any time by pressing EXIT.

Note 1: An AUTO ZERO can be performed without doing another AUTO SPAN, so as to re-zero the belt due to zero drift. Zero drift can be caused by material build-up, variation of belt tension, or changes in the environment surrounding the scale.

Note 2: If the AUTO SPAN had to be started manually, the Span Detect Parameter (Section 7.06.24) needs to be changed so the next AUTO SPAN request proceeds to completion. Change this Parameter **after** the calibration has been completed. To determine the new Span Detect value, subtract the Zero Count from the Span Count, and calculate 70% (multiply by 0.7) of the difference and enter it as the new Span Detect value.

CHAPTER 7 - TROUBLESHOOTING

7.01 Operation Troubleshooting

If the system is electrically functional, but it does not seem to be calculating the correct RATE or TOTAL, first verify that all the Parameters are correct. Leaving Weigh Spn = 0 or Belt Len = 0, for example, will cause an erroneous calibration and the displayed RATE will be incorrect. The following are some other problems that might exist and possible solutions:

RATE is unsteady…

If there are large swings in the RATE during relatively constant material flow, several causes are possible. First, check the belt SPEED and make sure that it is constant, or at least does not deviate by more than about 1%. If the belt SPEED is not constant, consult processor manual for speed sensor options. Second, turn off the belt and look at the Load Count Parameter. Assure that the load counts are higher with the calibration weight down than with the cal weight up. Additionally, the load counts should not be negative and should remain relatively steady with the belt not running and no vibration. Replace the load cell(s) if the load counts are inconsistent. If the SPEED and load counts are steady, the RATE should also be steady unless the AUTO ZERO and AUTO SPAN procedures were not successful. Try doing an AUTO ZERO and AUTO SPAN again and be sure to do the AUTO ZERO first. Other things to consider are the AZT setting and RATE damping. First try disabling the AZT Parameter, and then try increasing the Rate Damp Parameter.

Ultimately the processor should calculate the Rate as follows:

Rate(TPH) = (Cal Factor) x (Scale Load (lbs)) x (Belt Speed (fpm)) / (Weigh Span (in))

Since the Cal Factor and Weigh Span do not change, the only possible problems with RATE will originate from the scale load and belt SPEED. By using the calibration weight to load the scale and by simulating the belt speed, the RATE should be steady. If the rate is still unsteady, it is most likely caused by vibration or excessive electrical “noise”.

Scale is inaccurate…

It is important to understand that no conveyor scale is 100% accurate. Every detail from installation through calibration contributes to overall accuracy. A very good installation on a new conveyor in a noise and vibration free environment can attain an accuracy of +/- 0.5%. A poor installation on an older and much used portable conveyor might only attain +/- 3% accuracy. Based on that range of accuracy, estimate a realistic potential accuracy for the weighing system and then proceed with searching for sources of error. Try to eliminate as many undesirable conditions as possible. If it can be verified that the RATE is consistently high or low, for finer tuning adjust the ASC Parameter up or down accordingly.

The following are a number of other potential problems that can contribute to scale inaccuracy:

- The weigh idler(s) are not aligned properly.
- The weigh idler rollers do not spin freely.
- The speed sensor does not spin freely.

- The scale is subject to high vibration near a crusher or screen.
- The scale is incline mounted causing material to roll back and be weighed twice.
- The load cells are damaged.
- The conveyor belt has many splices, repairs and irregularities.
- High temperature fluctuations are causing scale, conveyor, and belt deformation.
- High winds are causing fluctuations in weighing.
- Rain water increases the weight after the scale weighs it and before the truck is weighed.
- There are incorrect or invalid Parameter settings (see processor manual).
- There was material on the belt during calibration.
- The belt speed was not calibrated properly.
- A material test was not performed.
- Electrical interference is causing a false speed or load signal.

7.02 Load Cell Testing / Replacement

The following explains how to test a load cell(s). First stop the conveyor and disconnect power from the processor. Then disconnect the green connector from the SC300 signal conditioner (SC) that the load cell wires are connected to. If more than one load cell is connected to the green connector, to get an accurate reading, the wires of the load cell to be tested will have to be removed from the connector. Next, using an ohmmeter, verify the following resistance values. If even one resistance value varies by more than +/- 10%, replace the load cell.

Model	CI-LC22	SB1 or LC	CB6-XX-T
Red-Black	310 Ohms	350 Ohms	400 Ohms
Red-Green	290 Ohms	280 Ohms	290 Ohms
Red-White	360 Ohms	280 Ohms	290 Ohms
Black-White	290 Ohms	280 Ohms	290 Ohms
Black-Green	390 Ohms	280 Ohms	290 Ohms
Green-White	290 Ohms	350 Ohms	350 Ohms

If it is necessary to replace a load cell, be sure to re-assemble the new load cell exactly the same way it was disassembled. Take special note of the swivel washers. The contoured faces of these washers fit together and the flat faces are on top and bottom. The safety latch is only used during transportation and installation. It should not be in place during normal use. Refer to the following figure.

CHAPTER 8 – DIMENSIONS & DRAWINGS

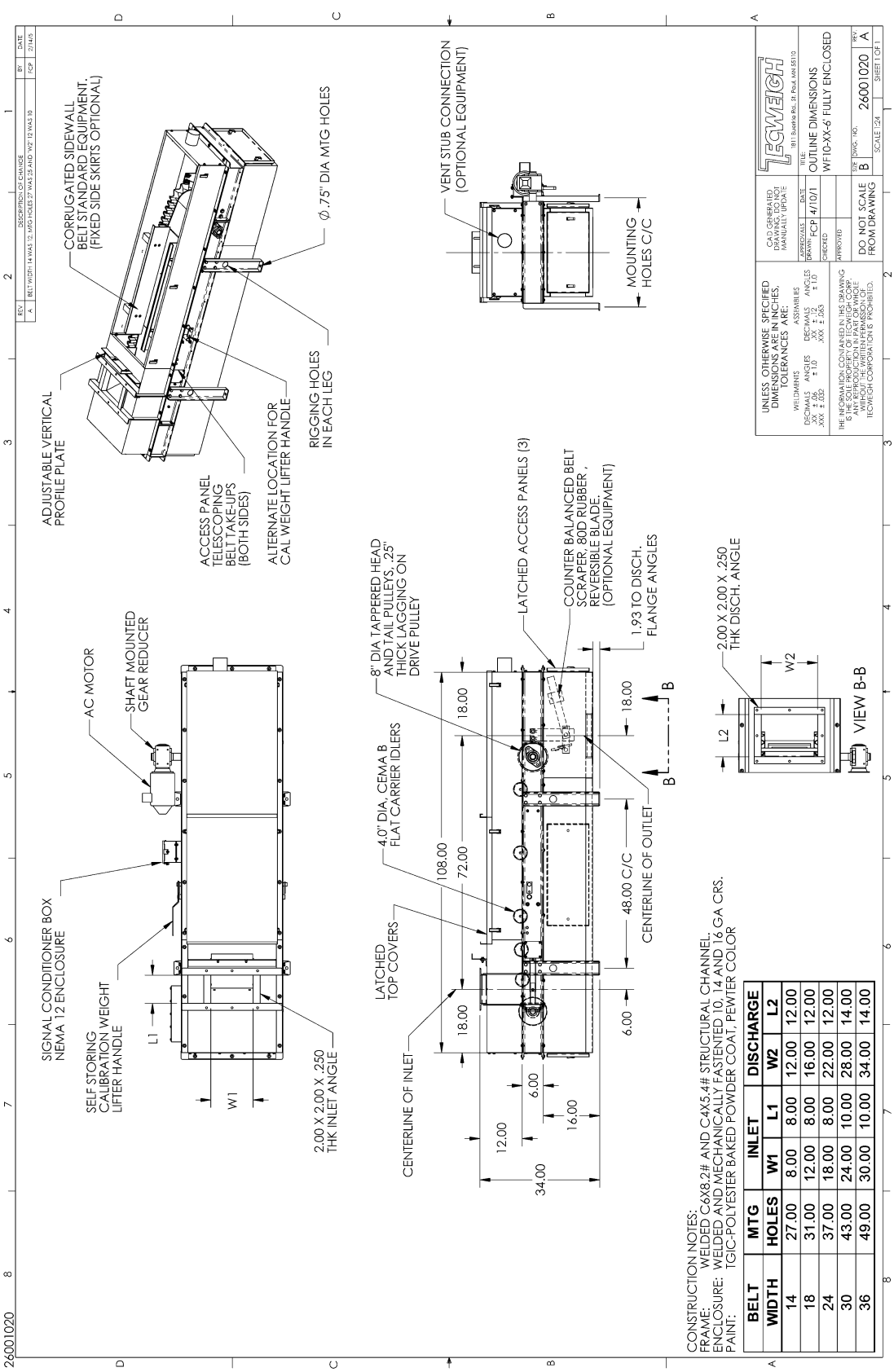
8.01 General Information

Tecweigh's WF10 single idler weigh belt feeder starts from a standard, but almost always is customized to suit the specific application for which it's intended. The following tabulated dimension drawings for the WF10 open construction unit, top cover only and fully enclosed units are to serve as a reference only. See your Outline Dimension drawings supplied for your approval.

Note that the dimension drawing of the weigh belt feeders that follow are typical of the single idler models. Multiple idler models will require additional length.

Note that the sub-assembly drawings that follow are generic and may not reflect the exact parts or assemblies within your weigh belt feeder.

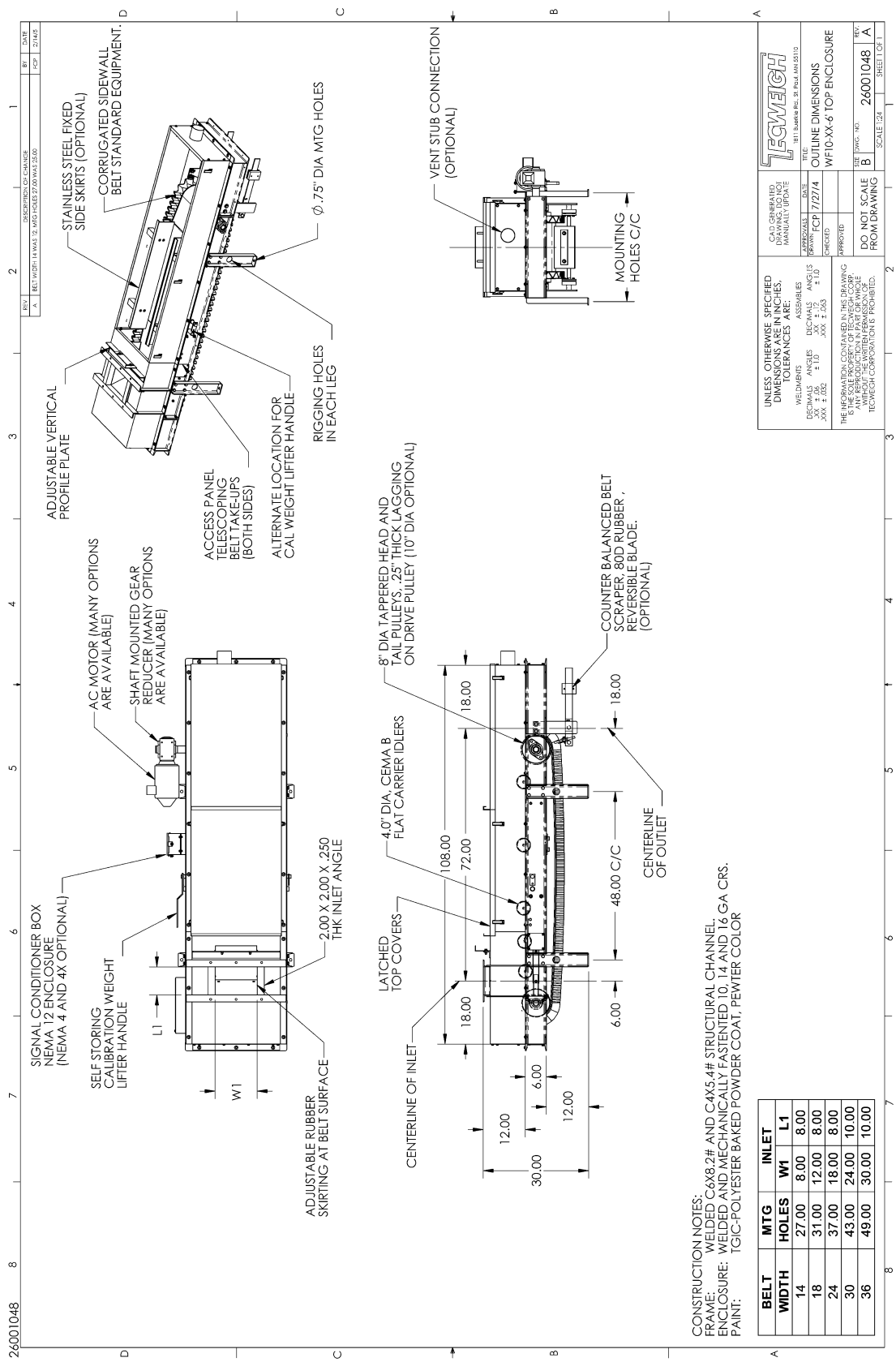
8.02 Standard Open WF10/11 Dimensions



CONSTRUCTION NOTES:
FRAME: WELDED C6X8.2# AND C4X5.4# STRUCTURAL CHANNEL.
ENCLOSURE: WELDED AND MECHANICALLY FASTENED 10, 14 AND 16 GA CRS.
PAINT: TGIC-POLYESTER BAKED POWDER COAT, PEWTER COLOR

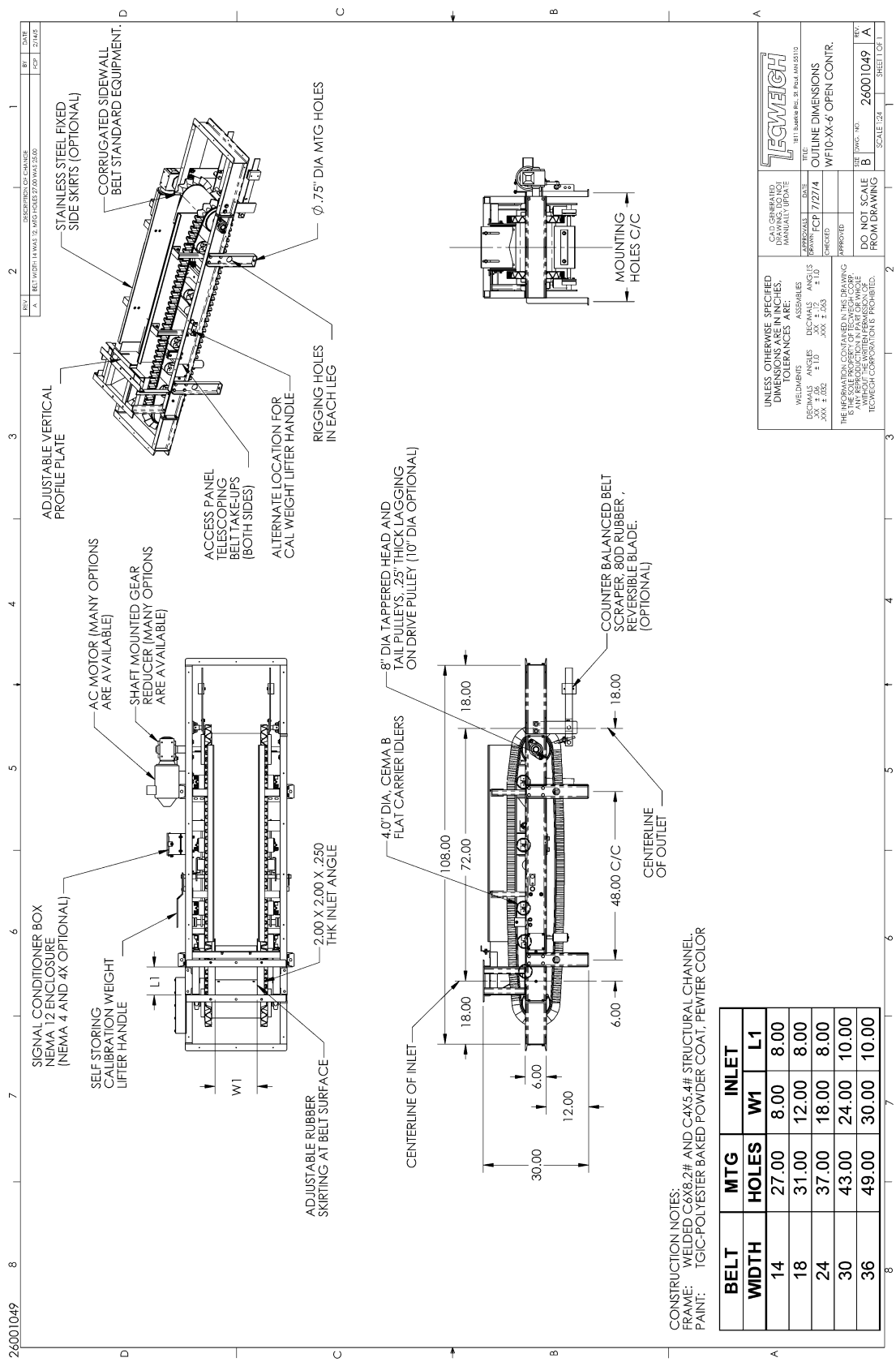
BELT WIDTH	MTG HOLES	INLET W1	INLET L1	DISCHARGE W2	DISCHARGE L2
14	27.00	8.00	8.00	12.00	12.00
18	31.00	12.00	8.00	16.00	12.00
24	37.00	18.00	8.00	22.00	12.00
30	43.00	24.00	10.00	28.00	14.00
36	49.00	30.00	10.00	34.00	14.00

8.03 Top Enclosure WF10/11 Dimensions



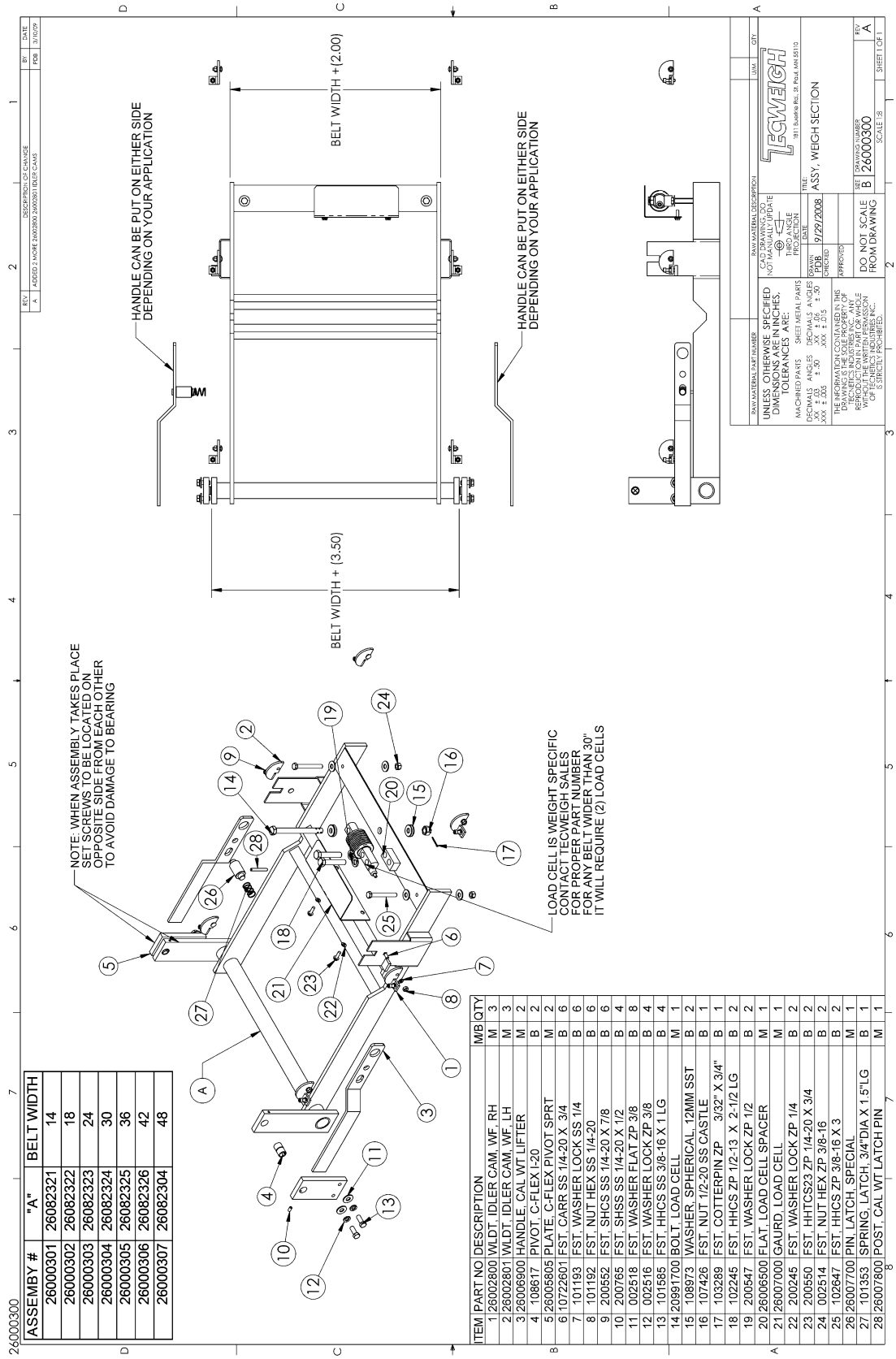
BELT WDTH	MTG HOLES	INLET W1	INLET L1
14	27.00	8.00	8.00
18	31.00	12.00	8.00
24	37.00	18.00	8.00
30	43.00	24.00	10.00
36	49.00	30.00	10.00

8.04 Full Enclosure WF10/11 Dimensions

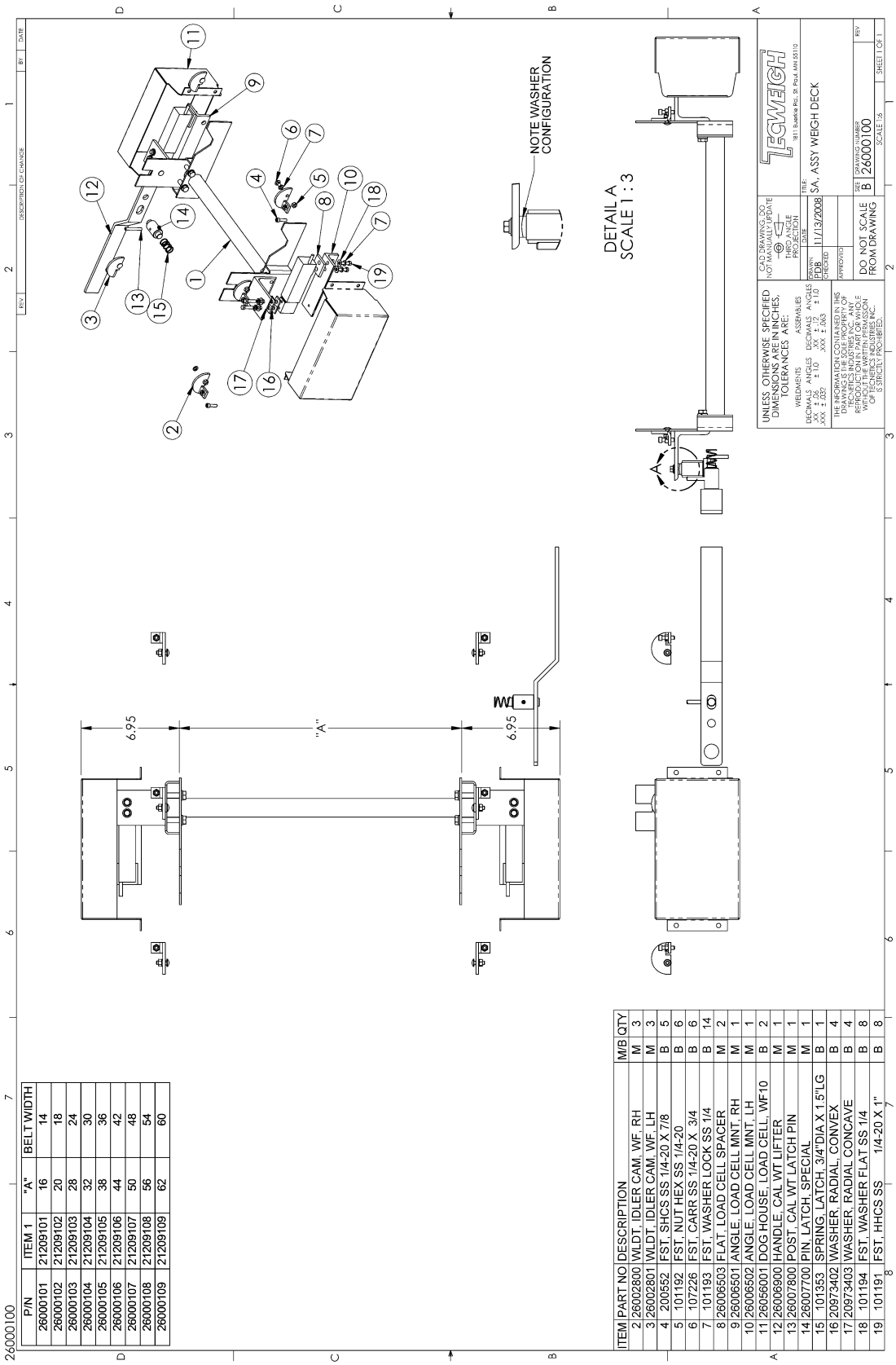


BELT	MTG	INLET	
WIDTH	HOLES	W1	L1
14	27.00	8.00	8.00
18	31.00	12.00	8.00
24	37.00	18.00	8.00
30	43.00	24.00	10.00
36	49.00	30.00	10.00

8.05 Typical Pivot Arm Weighing Idler



8.06 Typical Direct Mount Weighing Idler



P/N	ITEM 1	"A"	BELT WIDTH
26000101	21209101	16	14
26000102	21209102	20	18
26000103	21209103	28	24
26000104	21209104	32	30
26000105	21209105	38	36
26000106	21209106	44	42
26000107	21209107	50	48
26000108	21209108	56	54
26000109	21209109	62	60

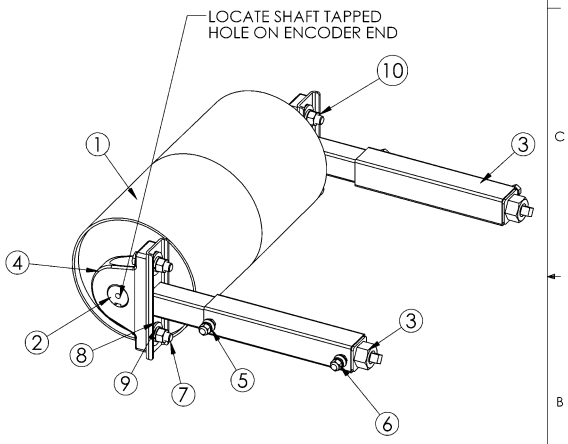
ITEM	PART NO	DESCRIPTION	M/B	QTY
2	26002800	WLDT, IDLER CAM, WF, RH	M	3
3	26002801	WLDT, IDLER CAM, WF, LH	M	3
4	200552	FST, SHCS SS 1/4-20 X 7/8	B	5
5	101192	FST, NUT HEX SS 1/4-20	B	6
6	107226	FST, CARR SS 1/4-20 X 3/4	B	6
7	101193	FST, WASHER LOCK SS 1/4	B	14
8	26006503	FLAT, LOAD CELL SPACER	M	2
9	26006501	ANGLE, LOAD CELL MNT, RH	M	1
10	26006502	ANGLE, LOAD CELL MNT, LH	M	1
11	26056001	DOG HOUSE, LOAD CELL, WF10	B	2
12	26006900	HANDLE, CAL WT LIFTER	M	1
13	26007800	POST, CAL WT LATCH PIN	M	1
14	26007700	PIN, LATCH, SPECIAL	M	1
15	101353	SPRING, LATCH, 3/4"DIA X 1.5"LG	B	1
16	20973402	WASHER, RADIAL, CONVEX	B	4
17	20973403	WASHER, RADIAL CONCAVE	B	4
18	101194	FST, WASHER FLAT SS 1/4	B	8
19	101191	FST, HHCS SS 1/4-20 X 1"	B	8

8.07 Typical Tail Pulley Assembly

26000200

P/N	PULLEY DIA	BELT WIDTH	SHAFT DIA	ITEM 1 PULLEY	ITEM 2 SHAFT	ITEM 3 TAKE-UP	ITEM 4 BEARING	DESCRIPTION	
26000201	6	14	1.4375	26010027	26010201	107188	102854	SA, TAIL PULLEY, WF10 6DIA X 14WIDE 1.4375 SHAFT	6" TAKE-UP
26000202	6	18	1.4375	26010034	26010202	107188	102854	SA, TAIL PULLEY, WF10 6DIA X 18WIDE 1.4375 SHAFT	6" TAKE-UP
26000203	6	24	1.4375	26010025	26010203	107188	102854	SA, TAIL PULLEY, WF10 6DIA X 24WIDE 1.4375 SHAFT	6" TAKE-UP
26000204	6	30	1.4375	26010035	26010204	107188	102854	SA, TAIL PULLEY, WF10 6DIA X 30WIDE 1.4375 SHAFT	6" TAKE-UP
26000205	6	36	1.4375	26010036	26010205	107188	102854	SA, TAIL PULLEY, WF10 6DIA X 36WIDE 1.4375 SHAFT	6" TAKE-UP
26000206	6	42	1.4375	26010037	26010206	107188	102854	SA, TAIL PULLEY, WF10 6DIA X 42WIDE 1.4375 SHAFT	6" TAKE-UP
26000207	8	14	1.4375	26010001	26010201	107188	102854	SA, TAIL PULLEY, WF10 8DIA X 14WIDE 1.4375 SHAFT	6" TAKE-UP
26000208	8	18	1.4375	26010002	26010202	107188	102854	SA, TAIL PULLEY, WF10 8DIA X 18WIDE 1.4375 SHAFT	6" TAKE-UP
26000209	8	24	1.4375	26010003	26010203	107188	102854	SA, TAIL PULLEY, WF10 8DIA X 24WIDE 1.4375 SHAFT	6" TAKE-UP
26000210	8	30	1.4375	26010004	26010204	107188	102854	SA, TAIL PULLEY, WF10 8DIA X 30WIDE 1.4375 SHAFT	6" TAKE-UP
26000211	8	36	1.4375	26010005	26010205	107188	102854	SA, TAIL PULLEY, WF10 8DIA X 36WIDE 1.4375 SHAFT	6" TAKE-UP
26000212	8	42	1.4375	26010006	26010206	107188	102854	SA, TAIL PULLEY, WF10 8DIA X 42WIDE 1.4375 SHAFT	6" TAKE-UP
26000213	10	14	1.4375	26010020	26010201	107188	102854	SA, TAIL PULLEY, WF10 10DIA X 14WIDE 1.4375 SHAFT	6" TAKE-UP
26000214	10	18	1.4375	26010016	26010202	107188	102854	SA, TAIL PULLEY, WF10 10DIA X 18WIDE 1.4375 SHAFT	6" TAKE-UP
26000215	10	24	1.4375	26010018	26010203	107188	102854	SA, TAIL PULLEY, WF10 10DIA X 24WIDE 1.4375 SHAFT	6" TAKE-UP
26000216	10	30	1.4375	26010021	26010204	107188	102854	SA, TAIL PULLEY, WF10 10DIA X 30WIDE 1.4375 SHAFT	6" TAKE-UP
26000217	10	36	1.4375	26010028	26010205	107188	102854	SA, TAIL PULLEY, WF10 10DIA X 36WIDE 1.4375 SHAFT	6" TAKE-UP
26000218	10	42	1.4375	26010029	26010206	107188	102854	SA, TAIL PULLEY, WF10 10DIA X 42WIDE 1.4375 SHAFT	6" TAKE-UP
26000219	10	14	1.6875	26010030	21208901	107188	108990	SA, TAIL PULLEY, WF10 10DIA X 14WIDE 1.6875 SHAFT	6" TAKE-UP
26000220	10	18	1.6875	26010031	21208902	107188	108990	SA, TAIL PULLEY, WF10 10DIA X 18WIDE 1.6875 SHAFT	6" TAKE-UP
26000221	10	24	1.6875	26010026	21208903	107188	108990	SA, TAIL PULLEY, WF10 10DIA X 24WIDE 1.6875 SHAFT	6" TAKE-UP
26000222	10	30	1.6875	26010032	21208904	107188	108990	SA, TAIL PULLEY, WF10 10DIA X 30WIDE 1.6875 SHAFT	6" TAKE-UP
26000223	10	36	1.6875	26010017	21208905	107188	108990	SA, TAIL PULLEY, WF10 10DIA X 36WIDE 1.6875 SHAFT	6" TAKE-UP
26000224	10	42	1.6875	26010033	21208906	107188	108990	SA, TAIL PULLEY, WF10 10DIA X 42WIDE 1.6875 SHAFT	6" TAKE-UP
26000225	8	14	1.4375	26010001	26010201	108341	102854	SA, TAIL PULLEY, WF10 8DIA X 14WIDE 1.4375 SHAFT	9" TAKE-UP
26000226	8	18	1.4375	26010002	26010202	108341	102854	SA, TAIL PULLEY, WF10 8DIA X 18WIDE 1.4375 SHAFT	9" TAKE-UP
26000227	8	24	1.4375	26010003	26010203	108341	102854	SA, TAIL PULLEY, WF10 8DIA X 24WIDE 1.4375 SHAFT	9" TAKE-UP
26000228	8	30	1.4375	26010004	26010204	108341	102854	SA, TAIL PULLEY, WF10 8DIA X 30WIDE 1.4375 SHAFT	9" TAKE-UP
26000229	8	36	1.4375	26010005	26010205	108341	102854	SA, TAIL PULLEY, WF10 8DIA X 36WIDE 1.4375 SHAFT	9" TAKE-UP
26000230	8	42	1.4375	26010006	26010206	108341	102854	SA, TAIL PULLEY, WF10 8DIA X 42WIDE 1.4375 SHAFT	9" TAKE-UP
26000231	10	14	1.4375	26010020	26010201	108341	102854	SA, TAIL PULLEY, WF10 10DIA X 14WIDE 1.4375 SHAFT	9" TAKE-UP
26000232	10	18	1.4375	26010016	26010202	108341	102854	SA, TAIL PULLEY, WF10 10DIA X 18WIDE 1.4375 SHAFT	9" TAKE-UP
26000233	10	24	1.4375	26010018	26010203	108341	102854	SA, TAIL PULLEY, WF10 10DIA X 24WIDE 1.4375 SHAFT	9" TAKE-UP
26000234	10	30	1.4375	26010021	26010204	108341	102854	SA, TAIL PULLEY, WF10 10DIA X 30WIDE 1.4375 SHAFT	9" TAKE-UP
26000235	10	36	1.4375	26010028	26010205	108341	102854	SA, TAIL PULLEY, WF10 10DIA X 36WIDE 1.4375 SHAFT	9" TAKE-UP
26000236	10	42	1.4375	26010029	26010206	108341	102854	SA, TAIL PULLEY, WF10 10DIA X 42WIDE 1.4375 SHAFT	9" TAKE-UP
26000237	10	14	1.6875	26010030	21208901	108341	108990	SA, TAIL PULLEY, WF10 10DIA X 14WIDE 1.6875 SHAFT	9" TAKE-UP
26000238	10	18	1.6875	26010031	21208902	108341	108990	SA, TAIL PULLEY, WF10 10DIA X 18WIDE 1.6875 SHAFT	9" TAKE-UP
26000239	10	24	1.6875	26010026	21208903	108341	108990	SA, TAIL PULLEY, WF10 10DIA X 24WIDE 1.6875 SHAFT	9" TAKE-UP
26000240	10	30	1.6875	26010032	21208904	108341	108990	SA, TAIL PULLEY, WF10 10DIA X 30WIDE 1.6875 SHAFT	9" TAKE-UP
26000241	10	36	1.6875	26010017	21208905	108341	108990	SA, TAIL PULLEY, WF10 10DIA X 36WIDE 1.6875 SHAFT	9" TAKE-UP
26000242	10	42	1.6875	26010033	21208906	108341	108990	SA, TAIL PULLEY, WF10 10DIA X 42WIDE 1.6875 SHAFT	9" TAKE-UP
26000243	10	14	1.4375	26010020	26010201	110611	102854	SA, TAIL PULLEY, WF10 10DIA X 14WIDE 1.4375 SHAFT	12" TAKE-UP
26000244	10	18	1.4375	26010016	26010202	110611	102854	SA, TAIL PULLEY, WF10 10DIA X 18WIDE 1.4375 SHAFT	12" TAKE-UP
26000245	10	24	1.4375	26010018	26010203	110611	102854	SA, TAIL PULLEY, WF10 10DIA X 24WIDE 1.4375 SHAFT	12" TAKE-UP
26000246	10	30	1.4375	26010021	26010204	110611	102854	SA, TAIL PULLEY, WF10 10DIA X 30WIDE 1.4375 SHAFT	12" TAKE-UP
26000247	10	36	1.4375	26010028	26010205	110611	102854	SA, TAIL PULLEY, WF10 10DIA X 36WIDE 1.4375 SHAFT	12" TAKE-UP
26000248	10	42	1.4375	26010029	26010206	110611	102854	SA, TAIL PULLEY, WF10 10DIA X 42WIDE 1.4375 SHAFT	12" TAKE-UP

ITEM	PART NO	DESCRIPTION	M/B	QTY
5	002516	FST, WASHER LOCK ZP 3/8	B	4
6	002514	FST, NUT HEX ZP 3/8-16	B	4
7	002672	FST, HHCS ZP 1/2-13 X 2	B	4
8	200543	FST, WASHER FLAT ZP 1/2	B	8
9	200547	FST, WASHER LOCK ZP 1/2	B	4
10	200544	FST, NUT HEX ZP 1/2-13	B	4
11	20706204	KEY, CRS .375X X 1.25	M	2



REV	DESCRIPTION OF CHANGE	BY	DATE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES ARE:
WELDMENTS ASSEMBLIES
DECIMALS ANGLES DECIMALS ANGLES
.XX ± .06 ± 1.0 .XX ± .12 ± 1.0
.XXX ± .032 .XXX ± .063

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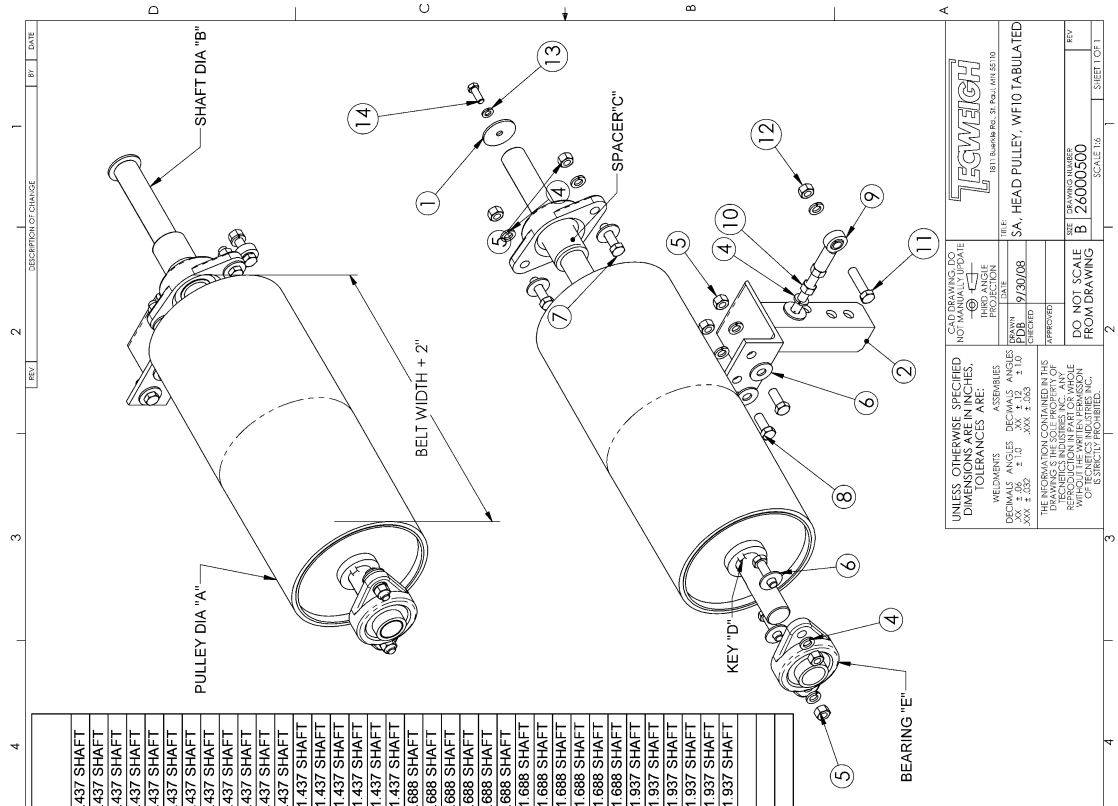
THIRD ANGLE PROJECTION
DRAWN RSD 9/3/2008
CHECKED
APPROVED
DO NOT SCALE FROM DRAWING

TECWEIGH
1811 Buerkle Rd., St. Paul, MN 55110
TITLE: SA, TAIL PULLEY, WF10 TABULATED
SIZE B | DRAWING NUMBER 26000200 | REV
SCALE 1:6 | SHEET 1 OF 1

8.07 Typical Head Pulley Assembly



P/N	PULLEY DIA "A"	BELT WIDTH	PULLEY "A"	SHAFT DIA "B"	SPACER "C"	KEY "D"	BEARING "E"	DESCRIPTION
26000501	6	14	26010136	1.437	26052500	20706204	105973	HEAD PULLEY WF10 6DIA X 14WIDE 1.437 SHAFT
26000502	6	18	26010140	1.437	26052500	20706204	105973	HEAD PULLEY WF10 6DIA X 18WIDE 1.437 SHAFT
26000503	6	24	26010114	1.437	26052500	20706204	105973	HEAD PULLEY WF10 6DIA X 24WIDE 1.437 SHAFT
26000504	6	30	26010141	1.437	26052500	20706204	105973	HEAD PULLEY WF10 6DIA X 30WIDE 1.437 SHAFT
26000505	6	36	26010142	1.437	26052500	20706204	105973	HEAD PULLEY WF10 6DIA X 36WIDE 1.437 SHAFT
26000506	6	42	26010143	1.437	26052500	20706204	105973	HEAD PULLEY WF10 6DIA X 42WIDE 1.437 SHAFT
26000507	8	14	26010101	1.437	26052500	20706204	105973	HEAD PULLEY WF10 8DIA X 14WIDE 1.437 SHAFT
26000508	8	18	26010102	1.437	26052500	20706204	105973	HEAD PULLEY WF10 8DIA X 18WIDE 1.437 SHAFT
26000509	8	24	26010103	1.437	26052500	20706204	105973	HEAD PULLEY WF10 8DIA X 24WIDE 1.437 SHAFT
26000510	8	30	26010104	1.437	26052500	20706204	105973	HEAD PULLEY WF10 8DIA X 30WIDE 1.437 SHAFT
26000511	8	36	26010105	1.437	26052500	20706204	105973	HEAD PULLEY WF10 8DIA X 36WIDE 1.437 SHAFT
26000512	8	42	26010106	1.437	26052500	20706204	105973	HEAD PULLEY WF10 8DIA X 42WIDE 1.437 SHAFT
26000513	10	14	26010139	1.437	26052500	20706204	105973	HEAD PULLEY WF10 10DIA X 14WIDE 1.437 SHAFT
26000514	10	18	26010117	1.437	26052500	20706204	105973	HEAD PULLEY WF10 10DIA X 18WIDE 1.437 SHAFT
26000515	10	24	26010132	1.437	26052500	20706204	105973	HEAD PULLEY WF10 10DIA X 24WIDE 1.437 SHAFT
26000516	10	30	26010118	1.437	26052500	20706204	105973	HEAD PULLEY WF10 10DIA X 30WIDE 1.437 SHAFT
26000517	10	36	26010137	1.437	26052500	20706204	105973	HEAD PULLEY WF10 10DIA X 36WIDE 1.437 SHAFT
26000518	10	42	26010138	1.437	26052500	20706204	105973	HEAD PULLEY WF10 10DIA X 42WIDE 1.437 SHAFT
26000519	8	14	26010147	1.688	26052501	20706204	108052	HEAD PULLEY WF10 8DIA X 14WIDE 1.688 SHAFT
26000520	8	18	26010148	1.688	26052501	20706204	108052	HEAD PULLEY WF10 8DIA X 18WIDE 1.688 SHAFT
26000521	8	24	26010109	1.688	26052501	20706204	108052	HEAD PULLEY WF10 8DIA X 24WIDE 1.688 SHAFT
26000522	8	30	26010149	1.688	26052501	20706204	108052	HEAD PULLEY WF10 8DIA X 30WIDE 1.688 SHAFT
26000523	8	36	26010150	1.688	26052501	20706204	108052	HEAD PULLEY WF10 8DIA X 36WIDE 1.688 SHAFT
26000524	8	42	26010151	1.688	26052501	20706204	108052	HEAD PULLEY WF10 8DIA X 42WIDE 1.688 SHAFT
26000525	10	14	26010144	1.688	26052501	20706204	108052	HEAD PULLEY WF10 10DIA X 14WIDE 1.688 SHAFT
26000526	10	18	26010125	1.688	26052501	20706204	108052	HEAD PULLEY WF10 10DIA X 18WIDE 1.688 SHAFT
26000527	10	24	26010126	1.688	26052501	20706204	108052	HEAD PULLEY WF10 10DIA X 24WIDE 1.688 SHAFT
26000528	10	30	26010123	1.688	26052501	20706204	108052	HEAD PULLEY WF10 10DIA X 30WIDE 1.688 SHAFT
26000529	10	36	26010145	1.688	26052501	20706204	108052	HEAD PULLEY WF10 10DIA X 36WIDE 1.688 SHAFT
26000530	10	42	26010146	1.688	26052501	20706204	108052	HEAD PULLEY WF10 10DIA X 42WIDE 1.688 SHAFT
26000531	10	14	26010152	1.937	21017800	21207601	108614	HEAD PULLEY WF10 10DIA X 14WIDE 1.937 SHAFT
26000532	10	18	26010153	1.937	21017800	21207601	108614	HEAD PULLEY WF10 10DIA X 18WIDE 1.937 SHAFT
26000533	10	24	26010154	1.937	21017800	21207601	108614	HEAD PULLEY WF10 10DIA X 24WIDE 1.937 SHAFT
26000534	10	30	26010128	1.937	21017800	21207601	108614	HEAD PULLEY WF10 10DIA X 30WIDE 1.937 SHAFT
26000535	10	36	26010129	1.937	21017800	21207601	108614	HEAD PULLEY WF10 10DIA X 36WIDE 1.937 SHAFT
26000536	10	42	26010155	1.937	21017800	21207601	108614	HEAD PULLEY WF10 10DIA X 42WIDE 1.937 SHAFT
26000537	-	-	-	1.437	26052500	20706204	105973	WITHOUT HEAD PULLEY
26000538	-	-	-	1.688	26052501	20706204	108052	WITHOUT HEAD PULLEY
26000539	-	-	-	1.937	21017800	21207601	108614	WITHOUT HEAD PULLEY

ITEM	PART NO	DESCRIPTION	M/B	QTY
1	20601100	WASHER 304SS .380ID .2.002OD	B	1
2	26002701	WLDT, TORQUE STOP	M	1
3	20915402	THR ROD SS 1/2-20 X 10.5	M	1
4	200547	FST, WASHER LOCK ZP 1/2	B	9
5	200544	FST, NUT HEX ZP 1/2-13	B	6
6	200543	FST, WASHER FLAT ZP 1/2	B	8
7	104171	FST, HHCS ZP 1/2-13 X 1-3/4 LG	B	4
8	200767	FST, HHCS ZP 1/2-13 X 1-1/4	B	2
9	106794	BRG, ROD END FEMALE 1/2-20	B	1
10	106796	FST, NUT HEX ZP 1/2-20	B	3
11	002672	FST, HHCS ZP 1/2-13 X 2	B	1
12	200762	FST, NUT HEX SS 1/2-13	B	1
13	002516	FST, WASHER LOCK ZP 3/8	B	1
14	200769	FST, HHCS ZP 3/8-16 X 1 LG	B	1
15	26052501	SPACER, DELRIN, 1-11/16 X 2.06	M	1
20	26010402	SHAFT, DRIVE, WF10	M	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:
WELDMENTS ASSEMBLIES
DECIMALS ANGLES DECIMALS ANGLES
XX ± .06 ± 1.0 XX ± .03 ± 1.0
XXX ± .030 XXX ± .003

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CHECKED:
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TEWEGH
1811 Buerkle Rd., St. Paul, MN 55110

TITLE: SA, HEAD PULLEY, WF10 TABULATED

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SIZE: B
DRAWING NUMBER: 26000500
REV:
SCALE: 1:6
SHEET 1 OF 1

- CHAPTER 9 -WARRANTY AND SERVICE POLICIES

TECWEIGH®
Tecnetics Industries, Inc.

WARRANTY & SERVICE POLICY

WEIGH BELT FEEDERS

Statement of Limited Warranty – Tecnetics Industries, Inc.

Tecnetics Industries, Inc., Warrants this equipment against faulty components or factory defects, for a period of five (5) years beginning on the date of shipment/invoice. (Speed sensors and load cells) shall have a warranty of one (1) year. During the warranty period, any defect will be repaired or replaced without charge, providing that the equipment is returned, pre-paid and undamaged to **TECNETICS'** factory. When on site repair or replacement is required, a **Tecnetics** authorized distributor or technician can be hired to diagnose and make necessary repairs. The Warranty will cover affected parts but exclude travel and labor expenses.

Terms and Conditions of Limited Warranty

Accuracy of the device may be limited by poor installation, faulty or improper conveyor equipment on which the scale is to be placed, or improper calibration methods. Warranty is therefore limited to those installations having the approval of **TECNETICS** or an authorized **TECNETICS REPRESENTATIVE**. This exclusive warranty is limited to the original user, and no other express or implied warranties shall apply. Excluded from the warranty are normal wear and tear, removal or installation of warranty parts, freight, physical abuse, or buyer caused damage including, but not limited to, such things as overloading of the system, change in belt speed, or damage resulting from over-voltage, lightning, or water entry.

WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Tecnetics Industries, Inc., shall not be liable for damage to equipment, property or person due to improper installation or through attempts to utilize the goods under conditions that exceed the designated capabilities. It is the user's responsibility to determine the suitability of the equipment to his needs. Various State and Local agencies may require certain certification procedures relative to the use of this equipment. **Tecnetics** makes no assurance that this device fulfills those criteria beyond this warranty based on data sheets received from the buyer. **Tecnetics** Industries, Inc. specifically disclaims any consequential liability arising from the use of this product; maximum liability is limited to the original purchase price.