



MECHANICAL EQUIPMENT SPECIFICATIONS

Motor Driven Roller Conveyor (MDR):

Motorized-roller conveyor sets the standard in material handling flexibility. Its key is the use of a motorized roller that powers each zone or segment of the conveyor. A truly modular system that can be completely customized to meet your current requirements

Wecon will supply New MDR conveyor

- 18" nominal width Roller zone accumulation, approx. 45' linear feet.
- 1 x 90 degree curves

This equipment will be used inside the cold room to manage the flow of processed orders into the automatic case sealer and accumulate the cases after the case sealer prior to palletizing. Having accumulation conveyor in this areas of the process is required to allow your workers time to locate and place the completed orders onto the pallet in the correct order. This equipment will not provide any back pressure on the orders and we can easily control the zones to tailor the performance as needed.

Wecon Slider Bed Belt Conveyors:

Modular Design.

- Belt – Friction, 14" wide.
- 5.25" frame height with 3" fixed guards both sides, full length
- 575V 3PH gear motors (engineered to suit individual belt pull calculations)

Wecon will supply new belt conveyors as follows:

:

- 1 x 12' long Slider bed incline
- 1 x 19' long Slider Bed Incline
- 1 x 19' long Slider Bed Decline
- 2 x 60' long low friction top slider bed

This conveyor is used to change the elevation of the empty cases from floor level where the workers are putting in the liners, bags and VAD to the overhead elevation.

Wecon Live Roller Conveyors:

Rollers are driven by pre-tensioned polyurethane belts which pull the drive spools against the line-shaft. This conveyor allows unequalled versatility with high speed, complete reversibility and minimum pressure accumulation when required. Auxiliary



PROPOSAL: Q19377-004

July 9, 2018

equipment can include: transfers, spurs, adjoining parallel sections, merges, switches, sortation devices, powered guard rails, etc.

Specifications:

- Overall width: 18"
- Width between frames: 16"
- 1.9" dia. rollers on 3" c/c
- Overall Linear Feet (System): ~ 300'
- Number of Curves: 2 x 90 degree, 2 x 45 Degree
- Drives: 9 drive units, 575V- 90 FPM

This equipment is very versatile and flexible and can be implemented inside the cold room. We will use this equipment to convey the formed cases out of the case erector. We will create gravity roller zones along the first lane to allow workers space to install the case liner, bag and place in the Value Added Documents (VAD) into the case. We will use this conveyor type to transport the empty cases to each of the 10 processing tables inside the cold room.

Miscellaneous Equipment/Services:

- Standard 1" to 3" fixed galvanized side guards (as defined)
- 18" x 24" ball transfer table with dust cover, 1" balls on 2" c/c
- W24P6E Flexible conveyor – Gravity 7'-6" collapsed. 27' expanded.
- Photo eye mounting brackets (enclosed type)
- Safety finger guards, fully enclosed chain guards and end caps on exposed conveyor ends
- Floor Anchors and related hardware

Mechanical layout drawings, installation and shop drawings

Spare Parts list with pricing, a recommended parts on hand list with pricing.

System training for both workers and maintenance staff



ELECTRICAL EQUIPMENT SPECIFICATIONS

One new main panel to control motors and devices. Panel will be located near the incline belt inside the cold room with ease of access for system start and re-set. 575V 3 Phase 60 Hertz.

Wecon Systems will provide the following:

Pre-wired, pre-tested NEMA 12 control cabinet(s) containing

- Main panel, door-mounted disconnect for 3-phase power feed
- Programmable logic controller complete with coprocessor module
- 120 V AC control voltage transformer
- Fusing or circuit breakers for all branch circuits (short circuit protection)
- Motor starters and overload relays for motor running overload protection
- Control relays and timers necessary for system operation (plug-in type or base mounted type)
- Point-to-point wiring within the panel will be enclosed in plastic wire-ways. End point connection of control wires for remote devices will be brought out to terminal strips for ease of field connections. All control wires will be identified at each end with numbered tags (adhesive tape type or computer-generated)
- Pushbutton and/or pilot light units in cabinet door.

Field components include

- Non-fused motor isolations switches
- Safety Pull Cords where required
- Beacon Lights- start up warning horn
- Photo eyes with reflectors.

Sets of electrical drawings to include

- Schematic wiring diagrams (motors and controls)
- Field device layout
- Panel layout and parts list
- PLC Programming

Controls, motors, and other Wecon Systems supplied equipment will be designed to operate from a nominal supply of 575 volts, 3 phase power at 60 hertz, with a voltage variation not exceeding plus or minus 5% of nominal.

Power supply of adequate capacity must be provided by Chefs Plate to the disconnect switch within Wecon's control panel. Final panel location to be discussed during project implementation and confirmed in writing with Wecon's Project Manager.



Mechanical Installation Standards

Proper mechanical installation is vital for the equipment to operate as described in this proposal. These installation standards show the importance that Wecon places on quality installation.

Installation Standards

1. General:

Wecon installation superintendents and Wecon Systems subcontractors, where applicable, will use the following standards, as guidelines.

2. Dimensional Reference Points

The location of each conveyor in the system will be determined by establishing a reference point to the center of each conveyor from the fixed building column lines as indicated on approved general arrangement drawings

3. Level and Elevations:

- a) Conveyors will be installed in accordance with the elevations shown on the layout drawing(s).
- b) After the first elevation is established, the elevation of all other points will be related to this first point. The practice of dimensioning elevations from the floor at each point of support will not be followed. When the floor level changes significantly, such as the system going to an upper or lower floor, or into another building or room, a new elevation will be established from the first floor at that point. This new elevation will then become the reference point for subsequent elevations.

4. Standards For Floor Mounting:

- a) Anchoring will be accomplished by drilling into the floor and inserting a suitable anchor bolt.
- b) Drive and intermediate stands will be anchored with 3/8" diameter minimum bolts, one in each.
- c) Explosive type anchors will not be used. Adhesive, rubberized belt mounting pads will be used only when specified.



Electrical Installation Standards

Proper electrical installation is vital for the equipment to operate as described in this proposal. The Installation will be in accordance with the latest electrical codes and applicable regulations, Hydro codes, bylaws, etc. These installation standards show the importance that Wecon places on quality installation.

Installation Standards

1. Scope of Work

- a) Anchoring will be accomplished by drilling into the floor and inserting a suitable anchor bolt.
- b) All electrical installation work carried out on this project is to be in accordance with this specification and in accordance with related specifications and/or drawings, which are considered part of this specification.
- c) Electrical installation will be in accordance with the attached schedule.
- d) All work is to be carried out during normal working hours.
- e) Any changes or addendum's requested subsequent to presentation of a contract for Electrical installation will be performed in accordance with these specifications.
- f) Any additional work, which is not part of the Electrical Installation Contract, must be approved by signature of the project manager before proceeding.
- g) Power feed to the control panels by **Others**.
- h) Final connection by Wecon.

2. Related Specifications and Drawings

- a) All electrical work shall be in accordance with the Canadian Electrical Code and applicable local codes.
- b) Where there is conflict between this specification, the Canadian Electrical Code or applicable local codes, then the most stringent shall apply unless written permission is obtained from the project manager.
- c) Wecon Systems Drawings: to be presented upon completion of installation.
- d) Other Related Drawings and Specifications: Local Hydro Code.

3. Wiring Specifications

- a) All wiring is to be stranded.
- b) All motor and power wiring is to be rated for 600 volts, a minimum of #14 AWG with THHN, TWH, or R90 X link insulation unless specified otherwise.
- c) All control wiring (120 V and less) is to be #14 AWG strand THHN rated for 600 volts unless otherwise specified.
- d) All wiring is to be in accordance with the following color code:
 - Black - motor and power wiring, transformer primaries above 120V.
 - White - neutral - grounded side of AC circuits.
 - Yellow - control circuits supplied from power supply external to a control cabinet.



- Blue - DC wiring
 - Green - equipment ground.
 - Red - AC control circuit
- e) All field wiring entering a control cabinet or control console shall be connected directly to a terminal strip. No connections may be made directly to internal components unless noted otherwise on the drawings.
- f) Wire markers at each end shall identify each wire except ground. The wire markers shall carry the same identification as shown for the wire on the drawings. If only one single neutral (white) wire is used and is indicated as such on the drawings, no wire marker need be applied to it.
- g) All shielded and DC wiring shall be run separately from power wiring both inside and outside the control cabinet. Shielded wires should be grounded at one end only as specified on the drawings.
- h) Cab-tire shall be used for the following.
- Feeding a portable device (including footswitches)
 - Wiring to a component that travels or may move in the course of operation.
 - To air valves requiring two or four wires + ground
 - When specified by Wecon Systems.
- i) Cab-tire and multi-conductor cable cables shall pass through a liquid tight strain relief connector or equivalent whenever they enter a component terminal box of fitting. This does not apply to cables totally enclosed within a conduit or duct at that point.
- j) Terminals shall be neatly marked with the wire number (or as indicated on the drawings) in black indelible ink.
- k) BX cable shall not be used.

4. Conduit Specifications

Conduit and fittings used in this electrical installation shall conform to the installation types below.

TYPE 1 INSTALLATION

- All conduits shall be thin wall EMT galvanized steel with reamed ends.
 - All fittings shall be setscrew type.
 - All junction and termination boxes shall be general purpose CSA Enclosure 1 (EEMAC)
 - All flexible conduits shall be of the liquid-tight type complete with threaded liquid-tight flexible conduit fittings.
- a) All conduits will run exposed on the building structure or on conveyor equipment.
- b) Conduit shall not be installed in a position where it will be subject to mechanical damage, and all conduits will be installed in a good workmanship like manner. Cutting of floors for conduit shall only be done when specified or