

Specifications:**Commercial Winding Drum Dumbwaiter - Model C-Waiter****1.0 GENERAL:****1.1 SCOPE:**

- 1.1.1 To furnish and provide all labour, materials and equipment necessary or required to fully complete the installation of one commercial winding drum dumbwaiter. The specification is intended to cover the complete installation of a Matot Commercial Winding Drum Dumbwaiter.
- 1.1.2 Obtain information on conditions affecting work at job site. Including verification of dimensions, field material for anchoring, accessibility and storage space.

1.2 SYSTEM DESCRIPTION:

The dumbwaiter shall consist of a power unit, car, rail guide system, hoistway doors, control systems, signals and alarms, electrical wiring and parts and accessories deemed necessary to provide the required performance, operation code and safety requirements.

1.3 QUALITY ASSURANCE:

- 1.3.1 The dumbwaiter shall meet or exceed the applicable regulations of all governing institutions and be in compliance with the applicable sections of the following codes and standards:
 - a) CAN/CSA B44-00 "Dumbwaiters and Material Lifts".
 - b) Ontario Electrical Code consisting of CSA C22.1-02 and the Canadian Electrical Code Part 1.
 - c) Local codes and regulations as required.
- 1.3.2 Requirements of the Regulatory Agencies:
 - a) Fabricate and install work in compliance with all jurisdictional authorities.
 - b) File drawings and submissions with local authorities as they are made available. Company and jurisdictional authority inspections are to be made on a timely basis.
 - c) Work will also include inspections by local authorities.
- 1.3.3 Subcontractor Qualifications:
 - a) Work of this specification to be done by a contractor/company who has adequate product and public liability insurance.
 - b) All work to be handled by skilled tradesmen and is to be performed on a timely basis.
- 1.3.4 Substitutions:

No substitutions will be considered unless a written request for approval has been submitted by the bidder and is received by the architect 10 days before the bid closing date. Each request shall include all data required by the architect to fairly evaluate the product offered.

2.0 PREPARATORY WORK BY OTHERS:

- 2.1 The following is a list of preparatory work to be performed by others to prepare for the lift installation.
 - 2.1.1 Suitable, legal, two-hour fire rated hoistway, consistent with building construction.
 - 2.1.2 Permanent power to operate the dumbwaiter to be provided to a lockable fused/cartridge type disconnect immediately adjoining the controller cabinet.
 - 2.1.3 Provide a machine cabinet lighting with GFI duplex receptacle, guarded light and light switch located to comply with local codes and regulations.
 - 2.1.4 Provide enclosed plumb and square hoistway with smooth interior surfaces. Include for fascias or furring of hoistway interior surfaces where applicable. Hoistway door walls must not be erected until doors are set in place.
 - 2.1.5 Suitable lintels over landing entrances are to be provided over rough openings sized as per the dumbwaiter companies shop drawings.
 - 2.1.6 Provide a dry level pit floor slab to support the loads specified on the shop drawings and include a guarded light, switch and GFI receptacle to comply with local codes.
 - 2.1.7 Provide all bracket fastening inserts and other steel required for support of guide rails and fastenings..
 - 2.1.8 Provide finish grouting and masonry around door frames.
 - 2.1.9 Provide finish painting of exterior walls, and prime finish components that are exposed to view, including inside of car gates and doors.

Specifications:**3.0 SUBMITTALS:**

- 3.1 The shop drawings shall show a complete layout of the dumbwaiter equipment detailing dimensions, clearances and location of machinery. Including but not limited to the following:
 - 3.1.1 Drawings showing the dimensions including plans, elevations sections and equipment locations.
 - 3.1.2 Load and reaction calculations shall be provided on the drawings.
 - 3.1.3 Provide samples as required for metal finishes.

4.0 PRODUCT DATA:

- 4.1 The Dumbwaiter shall be the Commercial Winding Drum Type as manufactured by:
Matot Inc.
2501 Van Buren
Bellwood, IL U.S.A. 60104

Dealer: *Canada Custom Elevator Inc. 2660 Meadowvale Blvd., Mississauga, Ontario L5N 6M6*
Ph:905.286.4444 Fx:905.286.4355 Toll Free 888.283.1112

- 1. Rated Load: 100 lbs. (45 Kg) Up To 500 lbs. (227 Kg.)
- 2. Rated Speed: 0.25m/s (50fpm)
- 3. Car Dim.: 24"H x 18"W x 18"D (H 610mm x W 457mm x L 457mm) Minimum
- 4. Operation: Automatic Call/Send
- 5. Power Req.: 208/3/60 20A
- 6. Travel Dist.: 50 ft. (15240 mm)
- 7. Levels Served: 4
- 8. Cab Openings: 2
- 9. Lighting Req.: 120/1/60 15A
- 10. Door Opening: Refer To Drawings
- 11. Motor Type: Single Speed AC Motor of ample horsepower to lift the rated load.
- 12. Hoistway Door: Vertical Sliding or Bi-parting or Slide up Design.

4.2 SIGNAGE:

- 4.2.1 As per national codes and standards the dumbwaiter shall have all necessary signs, capacity plates and data signs.
- 4.2.2 A capacity plate indicating the rated load in both kilograms and pounds with operating instructions shall be furnished by the manufacturer and fastened in a prominent place at each landing and in the cab. The capacity plate and operating instructions will be on a self adhesive style label that will fasten to the cab by a self adhesive backing.

4.3 AUTOMATIC OPERATION:

- 4.3.1 The operation shall be automatic call and send. A pushbutton station with one button for each level served shall be furnished at each door. It shall be possible at each level to call or send the car to any other level. Pushbuttons shall be inoperative while the car is in transit and for a few seconds after arrival at the selected level. Pushbuttons shall have stainless steel faceplates.

4.4 SIGNAL DEVICES:

- 4.4.1 "Door Open" call buzzer shall sound when a pushbutton is pressed and a hoistway door or car gate is open.
- 4.4.2 "Car Here" light and chime shall be located at each pushbutton station. The chime shall indicate the car arrival. The light shall indicate car presence.
- 4.4.3 Combination "Door Open" and "In Use" light shall be located in each pushbutton station. The light will illuminate when the car is in transit and when a pushbutton is pressed and a hoistway door or gate is open.

Specifications:**4.4 CAR ENCLOSURE:**

- 4.4.1 The car enclosure shall be constructed of 16 gauge () #4 satin polished stainless steel or () carbon steel with prime finish. The car shall have a removable shelf. An electrical light fixture shall be recessed in the ceiling. Floor landing models shall have a reinforced floor.
- 4.4.2 The car shall be equipped on each open side with a gate matching the car construction and finish. The gate shall be vertical () bi-parting or () slide up design. Car gate(s) shall be manually operated unless power operation is specified.
- 4.4.3 The car shall have clear inside dimensions of ___mm H x ___mm W x ___mm D (___"H x ___"W x ___"D). Capacity to be ___kg. ___lbs. serving ___ stops and ___ openings, located on () same, () opposite, () adjacent side(s) of the hoistway. The car shall stop at () counter height or () floor level.

4.5 LEVELING DEVICE:

- 4.5.1 If the car stops above the floor level, the car floor shall be no more than 12mm (1/2") above or below the level of the hoistway door sill.
- 4.5.2 If the car stops at floor level, the car floor will be no more than 6mm (1/4") above or below the level of the hoistway door sill.

4.6 LANDING ENTRANCE DOORS:

- 4.6.1 Doors shall be vertical sliding () bi-parting or () slide up design.
- 4.6.2 Each door shall bear the Underwriters "B" label and shall be rated for application in masonry shaft or metal stud drywall shaft.
- 4.6.3 Hollow metal door panels shall be 16 gauge () stainless steel with satin polish & #4 finish or () carbon steel with prime finish.
- 4.6.4 Welded unit wall frame, including jambs, trim and sill shall be 16 gauge () stainless steel with satin #4 finish or () carbon steel with prime finish.
- 4.6.5 Doors shall be manually operated unless power operation is specified.
- 4.6.6 A door lock and contact shall be provided on each door.

4.7 POWER UNIT:

- 4.7.1 Single speed electric motor shall be of ample horsepower to lift the rated load at the rated speed, with a high starting torque and low starting current.
- 4.7.2 The motor shall be equipped with a spring applied and electrically released brake.
- 4.7.3 The machine shall be located at the () top or () bottom of the hoistway and mounted on a structural steel base.
- 4.7.4 A hinged machine access door shall be 610mm x 610mm (24" x 24") and shall be furnished at the machine location for service and maintenance. The access door shall be 16 gauge () stainless steel with satin polish & #4 finish or () carbon steel with prime finish.
- 4.7.5 The controller shall be wall mounted type with lockable door, located on the hoistway outer wall in sight of the machine access door. The controller shall be the solid state programmable type.

4.11 CABLE:

One 5mm (.1875") x 7 x 19 galvanized aircraft cable with safety factor per code.

4.12 TERMINAL STOPPING DEVICES:

Shall be sensed at the top and bottom of the runway to stop the car automatically.

4.13 GUIDE RAILS:

- 4.13.1 Steel "TEE" rails shall be furnished to guide the car.
- 4.13.2 Brackets shall hold guides in a plumb and true position regardless of car loading.
- 4.13.3 Guides shall be bolted to the hoistway enclosure and floor subject to the architectural approval.

Specifications:

4.14 WIRING:

All wiring and electrical connections shall comply with applicable codes. Wire shall have an insulated, flame retardant and moisture proof covering and shall be run in electrical conduit or wire ways. Travelling cables to be suitably suspended to relieve strain.

4.14 FINISH:

All carbon steel surfaces to be suitably prime coat painted for protection.

4.15 OPTIONS:

- 4.15.1 "Drawbridge" Floor loading models with bi-parting door and car gates shall be equipped with a drawbridge to provide smooth entrance for wheeled carts. The drawbridge shall be raised and lowered by the opening and closing of the car gate.
- 4.15.2 "Self Supporting Tower" will be self contained, rigidly braced, structural steel angle tower. The tower must be braced by the building structure.
- 4.15.3 " Power Operated Hoistway Doors and Car Gates" The car gates will be motorized and shall be equipped with a magnetic clutch assembly that shall also power operate the hoistway doors.

5.1 EXAMINATION:

All site dimensions shall be taken to ensure tolerances and clearances are maintained to meet local codes.

5.2 PREPARATION:

Pre-inspect construction and service requirements of "Work by Others" which is included on the drawings, diagrams, engineering data sheets and special instructions.

6.0 WARRANTY:

The entire elevator shall carry a LIMITED WARRANTY for a period of one (1) year. The warranty shall be for the replacement at no cost of defective but shall not include labour costs to replace the defective part or parts.

7.0 OWNER'S INSTRUCTION AND MANUAL:

After installation is complete, the contractor shall instruct the owner in the proper use, operation, emergency procedures, safety rules, precautions and maintenance requirements of the dumbwaiter . After instruction, the contractor will leave an "Owners Manual" detailing the above procedures.

END OF SECTION.