



## **GT100-C Express**

**WORK BY OTHERS**

**PROJECT #:** \_\_\_\_\_

**PROJECT NAME:** \_\_\_\_\_

**PROJECT MANAGER:** \_\_\_\_\_

**REFER TO THIS DOCUMENT BEFORE  
ANY INSTALLATION AND BEFORE  
APPROVING THE FOLLOWING DRAWINGS**

## 1. GENERAL

### 1.1 Scope

Furnish all labour, materials and equipment required to install an handicap hydraulic and cables (2:1) elevator model GT-100C-EXPRESS commercial type, manufactured by Global Tardif Elevator Manufacturing Group inc. (here after called the Manufacturer) as shown on the drawings and specifications.

The Manufacturer will supply shop drawings, materials and equipment to the installer company. Elevator construction works shall not start before drawings have been approved by owner or general contractor.

The Manufacturer is located at 120 de Naples, St-Augustin de Desmaures, Québec, Canada (T. 418 878 4116 or le 1.800.661.6316; Fax 418.878.1595).

### 1.2 Preparatory work by others

To complete the elevator installation, others works have to be done by others:

1. All masonry works, gyproc and paint.
2. A steel girder installed at hoistway ceiling to lift elevator equipment during installation.
3. Hoistway have to be built as per elevator shop drawings, (structural reinforcing, ventilation etc...) and follow all applicable codes and standards.
4. The pit depth standard minimum is **10'' (254 mm)** The pit shall be clean and built as per code regulations. Provide pit waterproofing or sumps pump if required. Provide adequate support for guide rail fastenings.
5. Provide level concrete pit floor to support loads impact. To be able to know the support load impact, do the following calculations:

**Gross load (capacity + cab weight) x 2, 5 = Support load impact (as per chapter 1 of construction code).**

**Support Load Impact = \_\_\_\_\_ lbs (Please Complete)**

N.B.: See at: <http://www.gtaccessibility.com/CabWeightChart.pdf> the Cabin weight Chart for each model.

6. Hoistway walls, to be built square and plumb all over height with a maximum tolerance within **1/4'' (6mm)**. Hoistway walls, with smooth interior surfaces without any bumps.

7. Provide a lockable room to store elevator parts and equipment before and during installation.
8. Machine room to meet or exceed Canadian **C.E.C. and CAN-CSA-B355-09** codes and others standards. Provide light and light switch 110 VAC with a minimum of 100 LUX luminosity at floor level as per regulations. A lockable, exterior opening fire rated door equipped with an automatic door closer, will secure the access of the machine room
9. Appropriate overhead from upper landing floor up to the hoistway ceiling or under the steel girder as per elevation drawing from Global/Tardif.
10. During installation, hoistway landings access, to be fully open at least 8 feet high.
11. Cab floor finishing and installation by others (Maximum load: 2 lbs/square foot).
12. Rough openings for landing floor call stations and signage, as per drawings.
13. Electric power for setting and test on first installation day by electrical contractor.
14. As per National U.S. electric code **or** Canadian electric code, a fuse disconnect switch for each elevator connected on a 30 amps circuit equipped with a normally open type contact.
15. As per the same codes, 15 amps 110 volts, 60 hertz disconnect switch for the cab light is install as indicated on shop drawings. Install 2 wires and one ground from disconnect box to controller connections.
16. Following section 38 of electric Canadian codes, install an auxiliary contact in the principal disconnect switch.
17. The disconnect switch is install 20 feet away maximum from the controller and is visible from there. If not, a second disconnect switch shall be install near the controller.
18. Electric power have to be plug to a fuse main disconnect box with a manual exterior lever **OR** to a non-fused disconnect box lockable at ON or OFF position. That disconnect box should be located as per our layout drawing.  
If a 208/230/1phase/60HZ motor is used, and if the building electric power available is 240/1phase/60HZ, 2 wires + 1 neutral +1 ground have to be connect from the disconnect box to the controller. Provides building disconnect box 30 amps with an auxiliary contact NC/NO fused 25 amps type D.  
If a 208/230/1phase/60HZ motor is used, and if the building electric power available is 208v/3phases/60HZ, 2 wires + 1 neutral +1 ground have to be connect from the disconnect box to the controller. Provides building disconnect box 30 amps with an auxiliary contact NC/NO fused 25 amps type D.  
If a 208/230/1phase/60HZ motor is used, and if the building electric power available is 600v/3phases/60HZ and if a transfo is supply with the job, 2 wires + 1 ground from building disconnect box to transfo and, 2 wires + 1 neutral + 1 ground from transfo to controller should be connected. Provide building disconnect box 15 amps with an auxiliary contact NC/NO fused 15 amps type D.

**N.B. It is owner &/or general contractor responsibility to validate final amperage as per elevator electric drawings**

19. If a 600v/3phases/60HZ motor is used, and if the building electric power available is 600v/3phases/60HZ, you will have to provide 3 wires + 1 ground from building disconnect box to controller. Provide building disconnect box 15 amps with auxiliary contact NC/NO fused 6 to 7 amps type D.  
Only elevator equipment and elevator electric pipes are allowed in machine room.

**N.B. It is owner &/or general contractor responsibility to validate final amperage as per elevator electric drawings**

20. Temperatures between 15 and 32 Celsius have to be constantly kept in the machine room.
20. Light, light switch and electric outlet in hoistway and machine room are required before starting elevator installation.

❖  
❖ **IMPORTANT**

1. The elevator drawings are made in accordance of CAN-CSA-B355-09 codes.
2. These drawings are not done for the building construction. It is to illustrate the relation between the elevator and the structure.
3. This drawing is only for installation. The landing doors details and cab details will be on separates pages.
4. Global/Tardif is not responsible for the exact details and dimensions of the hoistway structure and the machine room.
5. The owner/buyer/builder will provide suitable lintels over and under landing entrances.
6. The doorframes are not built to support the weight of the walls. The general contractor is responsible for any damages caused by masonry and finishing works around the landing doors.
7. The total distance between the lower and the upper floor as per elevation drawing have to be maintain within 1/4" (6mm).
8. Provide adequate support for guide rail fastenings or for towers supports as per shop drawings.

9. Provide finish grouting and masonry around doorframes only after the end of their installation.

### **1.3 Warranty**

The Manufacturer's acceptance is conditional on the understanding that their warranty covers defective material. The guarantee period shall not extend longer than one **year** from the date of completion or acceptance thereof by beneficial user whichever is earlier of each elevator. The guarantee excludes ordinary wear and tear of improper use, vandalism, abuse, misuse, or neglect or any other causes beyond the control of the Manufacturer and this express warranty is in lieu of all other warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose.

Labour is guaranteed for one year by the installer.

### **1.4 Maintenance**

Elevator Installation Company will provide a quality maintenance contract including verifications, adjustment and lubrication of the equipment regularly every 3 months after the elevator delivery day (we recommend a monthly maintenance for unit subject to extensive operation). The maintenance shall be done by skilled mechanicals during day work time. Urgent calls will be carried out during normal day time. Maintenance contract will not cover service calls caused by negligence, abusive use or accident due by others than elevator installer. Only originals elevator parts can be used for reparations.

### **1.5 'Corrostop-2000' Paint finish**

The elevator manufacturer will paint all exposed parts without finish with GT-CorroStop-2000 process.

### **1.6 Permit/ Inspections**

The elevator installer will attend to all inspections and verifications required by authorities. The owner will be responsible for the cost of any license issue by government inspectors.

### **1.7 Codes**

All works have to be done in accordance with Canadian Electrical Code, Provincial Elevator code and CAN/C.S.A.-B355-09 standard as well as any local code applicable. The manufacturer is not responsible for any changes in regulations or codes.

**2. PRODUCTS**

**2.1 Description**

Furnish and install:	One (1) hydraulic and cables (2:1) elevator model : GT100-C EXPRESS manufactured by Global Tardif inc.										
Operation:	Constant pressure										
Control type:	Simple relay controller model GT-EZ100										
Capacity:	<u>  1000  </u> lbs (454 KG)										
Normal speed:	30 fpm (0,15m/s)										
Travel:	<u>      </u> ft <u>      </u> in. <i>(Please Complete)</i> Maximum 23 feet (7 meters)										
Pit :	<u>      </u> in. <i>(Please Complete)</i> Absolute Minimum : 10'' (254 mm)										
Overhead :	<u>      </u> in. <i>(Please Complete)</i> Standard Minimum: 96'' (2438mm)										
Hoistway net dimensions:	Width : <u>      </u> ft <u>      </u> in. <i>(Please Complete)</i> Depth : <u>      </u> ft <u>      </u> in. <i>(Please Complete)</i> (Look for standard dimensions at <a href="http://www.gtaccessibility.com">www.gtaccessibility.com</a> )										
Platform dimensions :	<i>Look for standard dimensions at <a href="http://www.gtaccessibility.com">www.gtaccessibility.com</a></i>										
Net cab dimensions :	Width : <u>      </u> ft <u>      </u> in. <i>(Please Complete)</i> Depth : <u>      </u> ft <u>      </u> in. <i>(Please Complete)</i> (Look for standard dimensions at <a href="http://www.gtaccessibility.com">www.gtaccessibility.com</a> ) (maximum 21,5 sq.feet)										
Nbr. of Stops	<u>      </u> Stops <i>Please Complete)</i>										
Opening type for each Stops	(Please enter the <b>stop number</b> for each opening types ex.: Front Only: Stops #1-2-3, Front/Rear: Stop #4) <table border="1" style="margin-left: 20px;"> <thead> <tr> <th style="background-color: #ffffcc;">Opening</th> <th style="background-color: #ffffcc;">Stops (ex.: #1-2-3)</th> </tr> </thead> <tbody> <tr> <td>Front Only</td> <td></td> </tr> <tr> <td>Front &amp; Rear</td> <td></td> </tr> <tr> <td> </td> <td></td> </tr> <tr> <td> </td> <td></td> </tr> </tbody> </table>	Opening	Stops (ex.: #1-2-3)	Front Only		Front & Rear					
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Global Tardif Elevator Manufacturing Group inc. reserves the right to discontinue models or options at any time or change the specifications, warranty terms, materials, equipment or others without notice and without incurring obligation.

<b>SPECIFICATIONS</b> Project	<b>HANDICAP LIFT</b> <b>HYDRAULIC GT100-C EXPRESS</b> <b>COMMERCIAL TYPE</b>	<b>Section</b> <b>14 000</b> <b>Page 7 sur 12</b> <b>2011-05-20</b>
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Landing door net standard size:	36'' (914mm) width'' 80'' (2032'') height
Type of doors:	Hinged swing door model GT-Swing Door
Doors operation:	Manual opening (motorized opening in option)
Cab height :	80'' (2032mm)
Car operating panel:	Stainless steel plate (1/8'') Thickness
Landing call stations :	ABB Chrome framing raised push button
Power supply:	220Volts / 1 Ph /60Hz.

## 2.2 Mechanical Structure and hydraulic system

The one side cantilever mechanical structure shall include a steel corrosive proof mechanical system manufactured with high-tech machinery using numeric and laser technology. We found inside the structure, the hydraulic system, the guide rails, rails supports, guide shoes and the car sling.

1. The guide shoes shall easily slide along the 8 lbs/feet "T" steel guide rails. These rails shall be installed plumb all over the elevator hoistway height.
2. Adjustable "C" rails brackets will ensure rail plumb and stability in case of any bumps on the supporting wall.
3. Provide guide shoes with TIVAR inserts type UHMW.
4. The bolted and welded car sling shall be fabricated from paint steel members with adequate bracing to support the platform, the traction cables and the cab.( installation by one technician possible)

The hydraulic system shall include a cylinder, plunger, hydraulic hoses, and motor, pump, valve and traction cables.

1. The cylinder shall be manufactured from steel pipe of a sufficient thickness and suitable safety margin. The top of the cylinder shall be equipped with a cylinder head with an internal guide-ring and self-adjusting packing.
2. Provide a plunger, manufactured from a steel shaft of a proper diameter machined true and smooth. The plunger shall be provided with a stop electrically welded to the bottom to prevent it to leave the cylinder.

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3. Provide a 1/2'' (12,7mm) hydraulic rubber hoses with all equipments and fittings for good elevator operation.
4. Provide a 3 HP minimum submersible type motor and install it inside the oil tank in the machine room.
5. Provide a GT-100SB Power submersible type pump allowing enough oil flow to move the cab in UP direction easily and install it in the oil reservoir in the machine room. Use flexible fittings only.
6. Be sure to provide a valve good enough to ensure exact oil pressure to move the elevator up. Install it in the oil reservoir.
7. Provide a minimum of two (2) 3/8'' (9,5 mm) diameters 8x19 steel cables. They shall be fixed at cylinder base and at the car sling passing by a 10 3/4'' (273 mm) diameter pulley attached at the top of the cylinder.

### **2.3 Pump unit**

1. Pump unit shall include: the oil reservoir, the submersible motor and pump and the valve.
2. Provide a steel paint reservoir mounted on four (4) solid steel legs strong enough to support the weight of the oil, the motor, the pump and the valve with overflow edges on the cover.
3. The valve shall be equipped with an adjustable pressure relief system, a manually operating down system to lower elevator if emergency and a system to isolate the cylinder from the pump unit plus a check valve for down control operation.
4. Provide a negative pressure switch that will be activated when negative pressure is sensed in the hydraulic system. The check valve will close and stop the hydraulic jack from descending immediately on sensing negative pressure.

### **2.4 Flow control**

Provide a flow control system in case of hydraulic hoses rupture.

### **2.5 Thrust block (end of travel)**

Provide thrust blocks at the lower end of the rail to stop automatically the cab. Cylinder thrust block will stop the cab when going up.



## **2.6 Controller**

Controller shall consist of a micro-processor type GT-EZ100 from Global/Tardif.

The controller shall include an UPS system to lower the elevator in case of power failure.

## **2.7 Levelling Device**

1. The elevator shall be provided within 2 way-levelling device, which will maintain the car within ½'' (13 mm) of the landing, by mechanical switches.
2. Levelling device switches shall be located in a position to be inaccessible to unauthorized persons.

## **2.8 Platform**

The platform shall be built on a steel frame with 1 plywood sheeting (1 x ¾'' (19 mm) It shall be install on the car sling where the floor finish and the Cab walls will be mounted.

The Manufacturer will provide a platform satin coated toe guard.

## **2.9 Cab**

1. Walls: MCP melamine panels 5/8'' (16mm) choice of two (2) standard colours.  
**(Plastic laminated available in option)**
2. The wall installed on the car sling side shall be detachable to have easy access for maintenance.
3. Handrail: a single #4 stainless steel with both ends returned to the wall shall be located on the wall panel in front of the control station.
4. Floor finish: rubber flooring (diamond plate mat black) supply by the manufacturer or supply by others according to the architect choice.
5. Ceiling: Solid white melamine panel (5/8'' (16mm)) with two (2) recessed pot light and access for maintenance
6. Install an emergency buzzer in the cab control station.
7. A fixed cam for the landing door locks will be installed on the cab structure.

**(Retractable cam in option)**

## **2.10 Telephone cabinet or hand-free phone**

Install a stainless steel outside finish telephone cabinet in the cab.

Note: Telephone to be provide by others.

### **Or option**

**Provide a hand-free phone mounted in the car operating panel.**

The travelling cable between the cab and the controller shall include necessary wires for telephone connection. Allow a minimum of 10 % extra wires.

The owner should provide connection from a telephonic central or assistance headquarters to the machine room near the controller.

## **2.11 Car operating panel**

Car operating panel shall be #4 stainless steel finish flush mounted with constant pressure push button, emergency alarm, emergency light and a key operation switch. The key shall be removable when it's in OFF position only.

## **2.12 Hall stations**

Each hall station shall include constant pressure illuminated push buttons

## **2.13 Swing landing doors (including frame and interlock)**

1. Provide primed satin-like steel door frames at each landing.
3. Provide an anti-skid sill for each landing entrance.
4. Provide a GT Swing Door for each landing entrance, manufactured with a 3'' (77 mm) width x 23'' (589 mm) high wire mesh sight glass, hold by two (2) hidden hinges, built to fit 5 ¾'' masonry walls.
5. The elevator installer will take on full responsibility of the doors and door frames installation.
6. The door assembly shall be codes appliances UL/ULC labelled.
7. The door shall be equipped with a GAL Type N and a delay door closer (**Automatic door operator in option**).

### **3. INSTALLATION**

#### **3.1 Coordination**

Execute all works in accordance with others sub-contractors.

#### **3.2 Finish**

1. Remove all rust on elevator structure and coat with CorroStop-2000 paint finish process.
2. Also coat with steel enamel paint all other equipments like cylinder, rails supports, etc...
3. It is forbidden to use points welding assembly proceed because it could cause visible imperfections or damages on stainless steel finish.
4. Cover finishes materials with plastic protection covering.

#### **3.3 Touch up**

1. If any damage appears on materials at the end of installation, please make any touch up if necessary.
2. Remove all plastic protection covering and clean all surfaces to leave the job impeccable.

#### **3.4 Field test**

1. Make all the test following CAN/C.S.A. B355-09
2. Provide all equipments and instrumentations to do such tests.
3. Provide all certifications and test certifications for legal authorities.
4. Please advice one (1) week in advance for the date and time of field tests.
5. Keep one copy of job specifications on field for the chief elevator installer.

#### **3.5 Welding**

Any field bridge welding should be identifying with the name of the welder.

#### **3.6 Blowtorch use**

It is important to not using cutting blowtorch for any reasons. If any burned piece of work is detected, the job will be rejecting.

**THE END**

**SPECIFICATIONS**

**Project**

**HANDICAP LIFT**

**HYDRAULIC GT100-C EXPRESS**

**COMMERCIAL TYPE**

**Section**

**14 000**

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