

Every detail guaranteed™



SUMMARY

| | ALUMINUM | SMOOTH FINISH STEEL | FULL VISION | POLYURETH | ANE SANDWICH | POLYSTYRENE SANDWICH | PAN DOOR |
|----------------------------|--|--|--|-------------------------------|--|-------------------------------|----------------------------------|
| | G-1000 | G-2020 G-2023 G-2323 | G-4400 | G-5000 | G-5138 G-5200 | TG-6200 | TG-8024 TG-8524 |
| Page | 6 and 7 | 8 and 9 | 10 and 11 | 12 and 13 | 12 and 13 | 14 and 15 | 16 and 17 |
| Metal | Aluminum Thickness 0.023"/0.023" | Steel Steel Steel Gauge: Gauge: Gauge: 20/20 20/23 23/23 | | Steel Gauge: 26/26 | Steel Gauge: 26/26 | Steel Gauge: 26/26 | Steel Gauge: 24 |
| Finish | Rustic woodgrain | Textured | Aluminum extrusion | Light woodgrain | Light woodgrain | Light woodgrain | Light woodgrain |
| Models | 4 Grooves 2 Grooves | 4 Grooves 2 Grooves | Clear Clear Anodized Anodized with Kick Proof with Silver G-5000 panel | Grooved | Grooved | Flush | Grooved |
| | White | Tex White | White | Ice White | Available for G-5138 | Ice White | Ice White |
| | Universal Brown Heron Blue | | Black Anodized | Desert Sand Claystone | Desert Sand Claystone | Desert Sand Claystone | |
| Colors | | | | Dark Sand Moka Brown | Dark Sand Moka Brown | Dark Sand Moka Brown | |
| | | | | Silver Black | Black Charcoal | | |
| | | | | Evergreen Charcoal | Available for G-5200 | | |
| Thickness | 1 3/4" | 1 3/4" | 1 3/4" | 1 ¾" | 1 %" 2" | 2" | 2" |
| Insulation | Polyurethane R-16 | Polyurethane R-16 | Not applicable | Polyurethane R-16 | Polyurethane Polyurethane R-12 R-18 | Polystyrene R-10 | Non- Polystyrene insulated R-6.6 |
| Inter- section Joint | 180 | | | M | Te leading to the second secon | | |
| Wa: | InterLok™ | InterLok™ 3.35 3.15 2.85 | Variable weight depending | InterLok™ | InterLok™ 1.75 lb/ft² 1.95 lb/ft² | InterStop™ | Tongue & groove |
| Weight | 1.55 lb/ft² | lb/ft² lb/ft² lb/ft² | upon window selection 1" increments, | 1.90 lb/ft² | | 1.80 lb/ft² | lb/ft² lb/ft² |
| Widths | 1" increments, 4' to 29'6" | 1" increments, 5' to 24'2" | increments, 4' to 24' | 1" increments, 4' to 29'6" | 1" increments, 1" increments, 4' to 18'2" 4' to 24' | 1" increments, 5' to 18'2" | 1" increments, 5' to 24'2" |
| Heights | 3" increments, 6' to 24' | 3" increments, 6' to 24' | 1" increments, 6' to 18' | 3" increments, 6' to 24' | 3" increments, 3" increments, 6' to 18' 6' to 24' | 3" increments, 6' to 18' | 3" increments, 8' to 18' |

Note: 1 inch = 25.4 mm $\stackrel{?}{=} 1 \text{ lb/ft}^2 = 4.88 \text{ kg/m}^2$ 1 Not available in 75", 78" and 81" high.

SELECTION OF A GARAGE DOOR

DETERMINE YOUR NEEDS

OPERATION CYCLES

How many operation cycles are planned? A cycle means one opening and closing of the door. Determine how many times a day, a month, or a year the sectional doors will be used.

TRAFFIC

What is the type of traffic? The risk of damage to the door may vary according to the type of vehicles going through the garage doors (ex.: forklifts).

INSULATION AND SOUNDPROOFING

What are the building's real needs in terms of insulation and soundproofing? Polyurethane is more efficient than polystyrene. Thus, the thicker the door, (polyurethane and gauge of the steel), the more efficient the door will be.

LIGHTING

Should the door play a role in interior lighting? The door may provide natural light if it is a full vision door, but the more windows it has, the more heat loss there will be. Just a few windows in a door section may often be enough to have adequate light.

WEATHER

Are there any special weather concerns? Unusual conditions, like strong winds, salt air (excessive corrosion) or negative pressure are some factors to be considered.

SECURITY

What is the level of security required? Protection against vandalism, as well as the security of the people and vehicles using the door, have to be evaluated.

DFTERMINE THE SIZE OF THE OPENINGS

The size of the openings (width and height) must be determined according to customer specifications. By keeping the garage door components as far away as possible from traffic, the less damage there will be. The "floor to ceiling" (or to the first obstruction) height is a key measurement. In addition, particular attention must be paid if there is an overhead crane.

The required distance between 2 or more side-by-side doors is 18" (46 cm).

If the doors are electrically operated, it is important to consult the project engineer to know which voltages are available. Using the highest voltage available is recommended.

LEED PROJECTS

Garaga can provide the required information to obtain a LEED project.
Recycled material content of our steel is:

- 25% post industrial
- 20% post consumption



TECHNICAL ASSISTANCE

Our Technical Department answers requests for information quickly and can provide budgetary pricing for your customers' projects. Contact us at 1-866-960-2828 or visit the Professionals section on our website: www.garaga.com/professionals

THE RIGHT CHOICE IN 4 EASY STEPS

Paying more may not be beneficial. Not paying enough may result in annoying and expensive repairs. Therefore, the right choice is the one that really corresponds to the way the door will be used.



APPLICATION

Garaga offers a complete range of doors adapted to all sorts of environments.

| | ALUMINUM | SMOOTH FINISH STEEL | | FULL VISION | FULL VISION POLYURETHANE SANDWICH | | | POLYSTYRENE SANDWICH | PAN | DOOR | |
|--|-------------------------------------|---|---|---|-----------------------------------|--|--|--------------------------------------|--------------------------------------|--|--|
| | G-1000 | G-2020 | G-2023 | G-2323 | G-4400 | G-5000 | G-5138 | G-5200 | TG-6200 | TG-8024 | TG-8524 |
| APPLICATION | Polyurethane R-16 Thickness 1 ¾" | Gauge: 20/20 Polyurethane R-16 Thickness 1 ¾" | Gauge: 20/23 Polyurethane R-16 Thickness 1 ¾" | Gauge: 23/23 Polyurethane R-16 Thickness 1 ¾" | Thickness 1 ¾" | Gauge: 26/26 R-16 Thickness 1 ¾" | Gauge: 26/26 R-12 Thickness 1 %" | Gauge: 26/26 R-18 Thickness 2" | Gauge: 26/26 R-10 Thickness 2" | Gauge: 24 Non-insulated Thickness 2" | Gauge: 24 Polystyrene R-6.0 Thickness 2" |
| Fire/ambulance stations | | | | | | | | | | ı | |
| Commercial buildings (heated warehouses) | | | | | | | | | | ı | |
| Municipal garages | | | | | | | | | | ı | |
| Car/truck washes | | | | | | | | | | I | |
| Agricultural buildings | | | | | | | | | | I | |
| High security facilities | | | | | | | | | | ı | |
| Trucking/transport | | | | | | | | | | ı | |
| Unloading dock (heavy traffic) | | | | | | | | | | ı | |
| Manufacturing facilities | | | | | | | | | | ı | |
| Primary industries | | | | | | | | | | ı | |
| Chemical products industries | | | | | | | | | | ı | |
| Condo/apartment | | | | | | | | | | ı | |
| Underground parking garages | _ | | | | | | | | | ı | |
| Unheated warehouses | | | | | | | | | | ı | |
| Mini-storage facilities | _ | | | | | | | | | | |
| Car dealerships/auto repair shops | | | | | | | | | | | |



Recommended door

HARDWARE AND SPRINGS

Suitable door

The quality of **Garaga hardware** is exceptional. Its selection must be made based on the degree of sturdiness required by the desired door as well as the door's daily number of open/close cycles. Here are the systems typically recommended:

Not recommended

Springs act as a counterweight to facilitate the opening of the door. Their choice depends mainly on the daily number of open/close cycles your door will undergo



14-gauge* steel tracks and mounting brackets

Single hinges



10,000-cycle springs



13-gauge* steel tracks and mounting brackets

Single or double hinges



springs 25,000 to 100,000 -cycle springs



12-gauge* steel tracks, mounting brackets or mounting angles

Single or double hinges Reinforcement struts



Springs for more than 100,000 cycles

 $[\]ensuremath{^{\star}}$ The lower the gauge number, the thicker the steel.



ELECTRIC OPENER

There are two types of door openers: trolley-type and jackshaft. What you select depends on the weight of the door and the number of open/close cycles that it will undergo.

| DUTY | XEAVY DUTY | SUPER MEAVY DUTY | |
|-------------------------|---------------------|------------------------|--|
| Trolley-Type Opener | | | |
| Less than 50 cycles/day | 50 to 80 cycles/day | 80 cycles and more/day | |
| MT Model | T Model | GT, HCT or APT Models | |
| Jackshaft Opener | | | |
| Less than 50 cycles/day | 50 to 80 cycles/day | 80 cycles and more/day | |
| MH Model | H Model | GH or RBH Models | |

WHAT ARE YOUR YEARLY OPEN/CLOSE CYCLES?

Less than 3,000 cycles

Examples: municipal garage, fire station, storage facility

From 3,000 to 7,500 cycles

Examples: vehicle repair shop, car dealership product distribution center

More than 7.500 cycles

Examples: apartment or condominium building



WINDOWS

| Standard Windows | Thermopane Windows | Single glass (3 mm) | | | | |
|---------------------|--|--------------------------------|----------------------|--|--|--|
| | Clear, Satin, Wired, Tempered, Laminated, Tinted, Tempered 2 sides, Low-E or Low-E Tempered 2 sides Clear or Satin | | | | | |
| | Single Pane | Fluted Polycarbonate | Single Polycarbonate | | | |
| Full vision | Clear, Satin, Tempered or Tinted | Clear or Bronze | Clear | | | |
| windows | Sealed Windows | Sealed Polycarbonate (thermal) | | | | |
| | Clear, Satin, Glue Chip, Low-E, Tempered, Laminated or Tinted | Clear | | | | |

OPTIONS TO ADD TO DURABILITY

- \bullet C-shaped bumper or pusher springs
- Flanged bearings

• Track guards

• Steel end caps

• Aluminum weatherstripping on exterior frame

THE COST OF BEING STRONGER

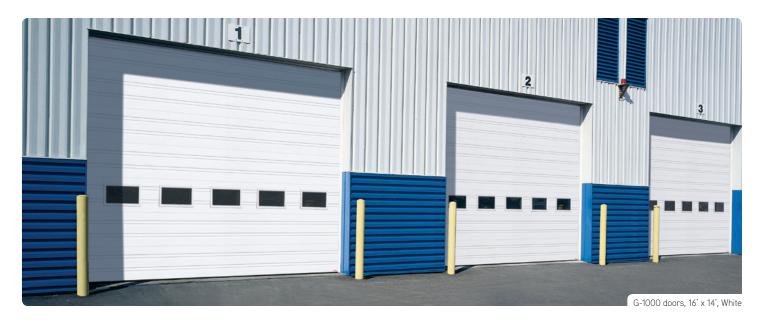
By choosing a door and its components adapted to your application, and by following a regular maintenance program, you can cut your annual maintenance and repair bills down to size, and the indirect costs related to malfunctioning doors (ex.: a door out of order at peak periods of the day). A relatively minimal price differential can result in a significantly higher degree of durability. Here are two examples:

| | 8' x 8' door fo | 8' x 8' door for loading dock | | agricultural building |
|-----------------------|---|--|---|---|
| Door model | G-5000 | G-5000 | G-5000 | G-5000 |
| Usage | 5 cycles/day | 35 cycles/day | 5 cycles/day | 12 cycles/day |
| Sturdiness Harware | Hardware 2" 13-gauge tracks Full vertical movement Single hinges Vertical tracks fixed with mounting brackets Pull rope | Hardware 3" 12-gauge tracks Full vertical movement Single hinges Vertical tracks fixed with mounting brackets Pull chain C-shaped bumper springs | Hardware 3" 12-gauge tracks Standard movement Vertical tracks fixed with mounting brackets Double hinges Reinforcement struts Chain hoist | Hardware 3" 12-gauge tracks Standard movement Vertical tracks fixed with continuous angle Double hinges Reinforcement struts Chain hoist Pusher springs Tension cable bridge reinforcement Precision end bearing plates |
| Sturdiness Springs | 10,000-cycle torsion springs | EAVY DUTY 50,000-cycle torsion springs | 10,000-cycle torsion springs | 30,000-cycle torsion springs |
| Price difference | | only 27% more | | only 8% more |

G-1000

ALUMINUM POLYURETHANE SANDWICH DOOR

THICKNESS: 1 3/4" R-16 INSULATION



FEATURES AND BENEFITS

A HIGH-PRESSURE INJECTED POLYURETHANE

- · Stronger and more energy-efficient insulation
- Solidly bonded to the aluminum sheets providing a section that is resistant to flexion.

B ALUMINUM

• Pre-painted (5 coats), 0.60 mm thick aluminum is ideal for large-sized doors. Being very lightweight helps to extend the life of the components for doors with a large number of operation cycles.

© INTERLOK™ TRIPLE-CONTACT JOINTS

- Sections are **strengthened** by 2 aluminum walls joined together with mechanical interlocking joints which are more solid than just two bonded walls.
- Their mechanical thermal breaks are more efficient compared to thermal breaks made with glue.
- Triple-contact joints **provide 2** times more weathertightness than those of the competition.

D METAL REINFORCEMENT **PLATES**

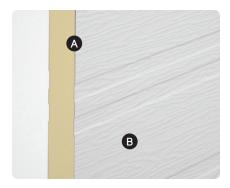
• Provide **stronger fastening** for hinges and struts. These 14-gauge plates are 2 times thicker than 20-gauge plates used by other manufacturers.

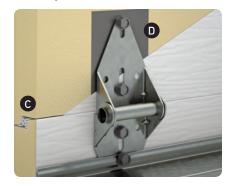
E WOOD END BLOCKS

- Provide a thermal break that is more effective than steel end caps which form a thermal bridge.
- As structural elements of the sections, the kiln-dried pine wood end blocks are installed at the outer ends of the section. They are stronger than insulation covered with a steel cap.



• Provides much better fastening of the end hinges. The lag screws engage 8 threads into the wood, compared to a self-tapping screw going through a steel end cap engaging only about 2 or 3 threads.







- 1 Aluminum walls
 - Thickness of 0.023" (0.60 mm)
 - **Pre-painted** aluminum with five coats of protective finish. Baked-on **polyester paint.** Can be repainted and is corrosion-resistant.
 - Woodgrain finish on both sides of the door.
- 2 1 34" (44.5 mm) insulated door with high-pressure injected polyurethane foam ensuring a high thermal-resistance rating of R-16 (RSI 2.8 or k= 0.357 W/m²K) and the solidity of a composite material.
- 3 InterLok™ joints between each section:
 - Mechanical joints ensure stronger sections with walls of each panel mechanically interlocked (not only bonded by the polyurethane).
 - **Mechanical thermal break** avoids heat transfer between the interior and exterior walls of each section.
 - Triple-contact joint prevents air infiltration.
- **4 U-shaped tubular bottom weatherstripping** made of thermoplastic elastomer (TPE) ensures the weathertightness of the threshold. Remains flexible and watertight during cold weather, to -62°F (-52°C).
- **5** Flexible top weatherstripping 2 ½" (64 mm) and aluminum extrusion for aluminum doors of 10' (3048 mm) wide and over.
- **Wood end blocks** made of kiln-dried pine (grade 4). With our lag screw system, ensure better fastening of the end hinges. They also provide a thermal break which prevents thermal bridging.
- 14-gauge steel **reinforcement plates** placed inside the door for solidly attaching hinges and struts.

Door weight: 1.55 lb/ft² (7.6 kg/m²)





COLORS



Colors may slightly vary from image

MODELS





SIZES

| Widths | From 4' to 29'6" |
|--------------------------|-------------------|
| In 1" (25 mm) increments | (1.2 m to 9 m) |
| Heights | From 6' to 24' |
| In 3" (76 mm) increments | (1.8 m to 7. 3 m) |

WINDOWS



21" x 13" (533 mm x 330 mm) Thermopane: Clear, Satin, Wired, Tempered, Laminated or Tinted Single glass (3 mm): Clear Colors: White, Brown, Claystone,

Desert Sand, Black and Dark Sand

Standard Windows

Oval Windows
Polycarbonate only
26" x 13" (660 mm x 330 mm)
Color: Black

G-4400 Sections (Full Vision)

Colors: White, Black and Anodized Glass: see details on page 5

HARDWARE

Steel tracks: • 2" (50 mm), 13-gauge or 14-gauge

• 3" (76 mm), 12-gauge

See details on page 20.

WARRANTIES (LIMITED)

10 years against any perforation of aluminum due to corrosion

10 years on the wood end blocks against cracking and rot

 $10\ {\rm year}$ against delamination of the aluminum skin from the polyurethane foam 1 year on other door components

10 years against seal defects on Standard windows

G-2020 | G-2023 | G-2323

SMOOTH FINISH STEEL

POLYURETHANE SANDWICH DOOR

THICKNESS: 1 3/4"

R-16 INSULATION



FEATURES AND BENEFITS

A HIGH-PRESSURE INJECTED POLYURETHANE

- Stronger and more energy-efficient insulation
- Solidly bonded to the steel sheets providing a section that is resistant to flexion.

B SMOOTH STEEL FINISH

- 23-gauge or 20-gauge steel, provides a bending resistance 15% greater than 26-gauge steel, for better resistance to impact and vandalism.
- **Highly corrosion-resistant** with galvanized steel having a minimum of G60 zinc coating (180 g/m²).

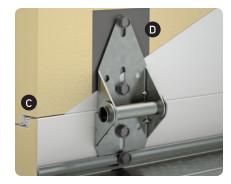


© INTERLOK™ TRIPLE-CONTACT JOINTS

- Sections are strengthened by 2 steel
 walls joined together with mechanical
 interlocking joints which are more solid
 than just two bonded walls.
- Their mechanical thermal breaks are more efficient compared to thermal breaks made with glue.
- Triple-contact joints provide 2 times more weathertightness than those of the competition.

METAL REINFORCEMENT PLATES

 Provide stronger fastening for hinges and struts. These 14-gauge plates are 2 times thicker than 20-gauge plates used by other manufacturers.

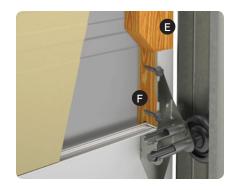


B WOOD END BLOCKS

- Provide a thermal break that is more effective than steel end caps which form a thermal bridge.
- As structural elements of the sections, the kiln-dried pine wood end blocks are installed at the outer ends of the section. They are stronger than insulation covered with a steel cap.

F LAG SCREW SYSTEM

 Provides much better fastening of the end hinges. The lag screws engage 8 threads into the wood, compared to a self-tapping screw going through a steel end cap engaging only about 2 or 3 threads.



- 1 Steel walls
 - G60 hot-dipped galvanized steel with five coats of protective finish.

G-2020: 20-gauge exterior and interior steel skin

G-2023: 20-gauge exterior and 23-gauge interior steel skin

G-2323: 23-gauge exterior and interior steel skin

- Baked-on polyester paint. Can be repainted.
- Smooth finish on both sides of the door.
- Same quality of corrosion-resistant steel for interior and exterior faces
- 2 1 34" (44.5 mm) insulated door with high-pressure injected polyurethane foam ensuring a high thermal-resistance rating of R-16 (RSI 2.8 or k= 0.357 W/m²K) and the solidity of a composite material.
- 3 InterLok™ joints between each section:
 - Mechanical joints ensure stronger sections with walls of each panel mechanically interlocked (not only bonded by the polyurethane).
 - Mechanical thermal break avoids heat transfer between the interior and exterior walls of each section.
 - Triple-contact joint prevents air infiltration.
- 4 U-shaped tubular bottom weatherstripping made of thermoplastic elastomer (TPE) ensures the weathertightness of the threshold. Remains flexible and watertight during cold weather, to -62°F (-52°C).
- **5 Wood end blocks** made of kiln-dried pine (grade 4). With our lag screw system, they ensure better fastening of end hinges. They also provide a thermal break which prevents thermal bridging.
- **6** 14-gauge steel **reinforcement plates** placed inside the door for solidly attaching hinges and struts.

Door weight: G-2020: 3.35 lb/ft² (16.3 kg/m²)

G-2023: 3.15 lb/ft² (15.4 kg/m²) **G-2323:** 2.85 lb/ft² (13.9 kg/m²)





COLOR

Color may slightly vary from image

SIZES

| Widths In 1" (25 mm) increments | From 5' to 24'2" (1.5 m to 7.4 m) | |
|--|--------------------------------------|--|
| Heights ¹ In 3" (76 mm) increments | From 6' to 24' (1.8 m to 7.3 m) | ¹ G-2023: Not available in 75", 78" and 81" high. |

WINDOWS



Standard Windows

21" x 13" (533 mm x 330 mm) Thermopane: Clear, Satin, Wired, Tempered, Laminated or Tinted Single glass (3 mm): Clear or Satin Colors: White

Oval Windows

Polycarbonate only 26" x 13" (660 mm x 330 mm) Color: Black

G-4400 Sections (Full Vision) Colors: White, Black and Anodized

Glass: see details on page 5

MODELS



HARDWARE

Steel tracks: • 2" (50 mm), 13-gauge or 14-gauge

• 3" (76 mm), 12-gauge

See details on page 20.

WARRANTIES (LIMITED)

10 years against any perforation of steel due to rust

10 years on the wood end blocks against cracking and rot

10 years against delamination of the steel skin from the polyurethane foam

2 Grooves

1 year on other door components

10 years against seal defects on Standard windows

G-4400

FULL VISION DOOR ALUMINUM FRAME THICKNESS: 1 3/4"



FEATURES AND BENEFITS

A 6 1/4" TUBULAR EXTRUSIONS

- Built with 6 1/4" extrusion at perimeter (top, bottom and double hinge end) for more structural strength.
- Less quantity of extrusions provide a more aesthetic and modern look.
 Thus, the windows are bigger to let in maximum light.

B CHOICE OF WINDOWS

- More then 20 types of glass are available for a look that blends beautifully with the architectural style of the building.
- Meets all **safety requirements** since most types of glass are offered tempered or non-tempered.

C FLAWLESS FINISH

- **Highly precise finish** of the assembly joints for a more attractive structure.
- Built with thermo windows that completely cover up the spacer and the silicone glazing.







- 1 34" (44.5 mm) thick door
 - Tubular aluminum extrusion (6063 T5), 1/16" (1.6 mm) thick
 - Thicker extrusion 1/8" (3.2 mm) at fastening points for more strength
 - 6 1/4" (159 mm) perimeter extrusion (top, bottom and double hinge end)
 - Rigid vinyl (PVC) pane molding
- 2 Weatherstripping between sections efficiently prevents air infiltration.
- 3 U-shaped tubular bottom weatherstripping made of thermoplastic elastomer (TPE) ensures the weathertightness of the threshold Remains flexible and watertight during cold weather, to -62°F (-52°C).
- 4 Perimeter weatherstripping (jambs and lintel) Aluminum extrusion base with double-edge weatherstripping in arctic vinyl.
- 5 Hinges equally spaced on the door for a better look.
- Integral reinforcement strut for doors 14' (4267 mm) wide and over.

IMPORTANT: The full vision door should not be used for insulation properties.

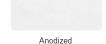


Interior view



COLORS







Widths

96" to 111"

112" to 147

to 3734 mm)

Colors may slightly vary from image.

WINDOWS

Sealed thermopanes are %" (22 mm) thick.





Chinchilla Graylite, SuperGrey, Mirropane Flutex (horizontal ou vertical)



Glue Chip Cathedral Niagara



Other types of glass are available upon request. Contact your Garaga dealer.

SIZES

| In 1" (25 mm) | From 4' to 24' |
|--|------------------------------------|
| increments | (1.2 m to 7.3 m) |
| Heights In 1" (25 mm) increments | From 6' to 18' (1.8 m to 5.5 m) |

^{148&}quot; to 194" 4 195" to 230" 5 231" to 264" 67 mm to 6706 mm) 6 ¹Contact our Technical Department for the possibility 265" to 288" (6731 mm to 7315 mm)

Number of

2

3

TYPES OF PANELS







HARDWARE

Steel tracks: • 2" (50 mm), 13-gauge or 14-gauge

• 3" (76 mm), 12-gauge

See details on page 20.

WARRANTIES (LIMITED)

10 years against seal defects on Standard windows 10 years against any perforation of aluminum due to rust 1 year on other door components

of modifying the number of units per section

G-5000

STEEL POLYURETHANE SANDWICH DOOR

THICKNESS: 1 3/4" R-16 INSULATION

INSULATION OPTIONS

G-5138

THICKNESS: 1 %"

R-12 INSULATION

THICKNESS: 2"

R-18 INSULATION



FEATURES AND BENEFITS

A HIGH-PRESSURE INJECTED POLYURETHANE

- · Stronger and more energy-efficient insulation.
- Solidly bonded to the steel sheets providing a section that is resistant to flexion.

B SEALED THERMO-PANE **WINDOWS**

- Optimize insulation and reduce seal failures with galvanized steel spacer technology.
- Ensure a long lasting and refined appearance with one-piece molded polypropylene window frame.



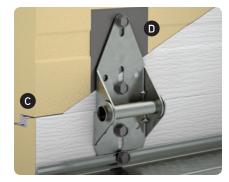
© INTERLOK™ TRIPLE-CONTACT JOINTS

- Sections are **strengthened** by 2 steel walls joined together with mechanical interlocking joints which are more solid than just two bonded walls.
- Mechanical thermal breaks which are more efficient compared to thermal breaks made with glue.
- Triple-contact joints provide 2 times more weathertightness than those of the competition.



D METAL REINFORCEMENT **PLATES**

• Provide stronger fastening for hinges and struts. These 14-gauge plates are 2 times thicker than 20-gauge plates used by other manufacturers.



E WOOD END BLOCKS

• Provide a thermal break that is more effective than steel end caps which form a thermal bridge.



• Structural elements of the sections, the kiln-dried pine wood end blocks are installed at the outer ends of the section. They are stronger than insulation covered with a steel cap.

F LAG SCREW SYSTEM

• Provides much better fastening of the end hinges. The lag screws engage 8 threads into the wood, compared to a self-tapping screw going through a steel end cap engaging only about 2 or 3 threads.



- 1 Steel walls
 - 26/26-gauge, G60 hot-dipped galvanized steel with five coats of protective finish.
 - Baked-on polyester paint. Can be repainted.
 - Woodgrain finish on both sides of the door.
 - Same quality of corrosion-resistant steel for interior and exterior faces.
- 2 Insulated door with high-pressure injected **polyurethane foam** ensuring a high thermal-resistance rating and the solidity of a composite material.
 - G-5000: 1 3/4" (44.5 mm), R-16 (RSI 2.8 or k= 0.357 W/m²K)
 - **G-5138:** 1 %" (35 mm), R-12 (RSI 2.1 or k=0.476 W/m²K)
 - G-5200: 2" (50 mm), R-18 (RSI 3.2 or k= 0.313 W/m²K)
- 3 InterLok™ joints between each section:
 - **Mechanical joints** ensure stronger sections with walls of each panel mechanically interlocked (not only bonded by the polyurethane).
 - **Mechanical thermal break** avoids heat transfer between the interior and exterior walls of each section.
 - Triple-contact joint prevents air infiltration.
- 4 U-shaped tubular bottom weatherstripping made of thermoplastic elastomer (TPE) ensures the weathertightness of the threshold.

 Remains flexible and watertight during cold weather, until -62°F (-52°C).
- **5 Wood end blocks** made of kiln-dried pine (grade 4). With our lag screw system, ensure better fastening of the end hinges. They also provide a thermal break which prevents thermal bridging.
- **6** 14-gauge steel **reinforcement plates** placed inside the door for solidly attaching hinges and struts.

Door weight: G-5000: 1.90 lb/ft² (9.3 kg/m²) **G-5138:** 1.75 lb/ft² (8.5 kg/m²) **G-5200:** 1.95 lb/ft² (9.5 kg/m²)





5

2

COLORS



= PREMIUM colors: small additional fees apply. Colors may slightly vary from image.
 G-5200 White only

MODEL



SIZES

| | G-5000 | G-5138 | G-5200 |
|--------------------------------------|------------------------------------|------------------------------------|----------------------------------|
| Widths In 1" (25 mm) increments | From 4' to 29'6" (1.2 m to 9 m) | | From 4' to 24' (1.2 m to 9 m) |
| Heights In 3" (76 mm) increments) | | From 6' to 18' (1.8 m to 5.5 m) | |

WINDOWS



Available for G-5000, G-5138 and G-5200

Standard Windows

21" x 13" (533 mm x 330 mm) Thermopane:

- G-5000: Clear, Satin, Wired, Tempered, Laminated or Tinted
- G-5138: Clear or Satin
- G-5200: Clear, Tempered 2 sides, Low-E or Low-E tempered 2 sides

Single glass (3 mm):

• G-5000 and G-5138: Clear or Satin Colors: see Color chart

Oval Windows

Polycarbonate only 26" x 13" (660 mm x 330 mm) Color: Black

G-4400 Sections (Full Vision)

Colors: White, Black and Anodized Glass: see details on page 5

HARDWARE

Steel tracks: • 2" (50 mm), 13-gauge or 14-gauge

• 3" (76 mm), 12-gauge

See details on page 20.

WARRANTIES (LIMITED)

10 years against any perforation of steel due to rust

10 years on the wood end blocks against cracking and rot

10 years against delamination of the steel skin from the polyurethane foam 1 year on other door components

10 years against seal defects on Standard windows



Available for G-5000

Available for G-5000

TG-6200

STEEL POLYSTYRENE SANDWICH DOOR

THICKNESS: 2" R-10 INSULATION



FEATURES AND BENEFITS

A BONDED STEEL AND POLYSTYRENE

- Stronger corrosion resistance with its 26-gauge galvanized steel on both sides of the door, having a G60 coating (zinc galvanized with a minimum of 180 g/m²).
- 2" polystyrene insulation bonded to two steel walls for more strength.

■ INTERSTOP™ JOINTS

- ullet InterStopTM joints between sections prevent air infiltration.
- Efficient thermal break on the upper side of the sections stops cold and heat transfers.

© WOOD END BLOCKS

• Kiln-dried pine structural elements provide thermal break that is more effective than steel end caps which form a thermal bridge.



• Lag screw system provides much **better** fastening of the end hinges. The lag screws engage 8 threads into the wood, compared to a self-tapping screw going through a steel end cap engaging only about 2 or 3 threads.







- 1 Steel walls
 - 26/26-gauge, G60 hot-dipped galvanized steel with five coats of protective finish
 - Baked-on **polyester paint**. Can be repainted
 - Woodgrain finish on both sides of the door
 - Same quality of corrosion-resistant steel for interior and exterior faces
- 2 2" (50 mm) CFC-free **polystyrene** ensures a thermal-resistance rating of **R-10** (RSI 1.8 or k=0.556 W/m²K).
- 3 InterStop™ joints between each section **prevent air infiltration** and provide an efficient **thermal break** on the top side of the sections.
- 4 Continuous PVC **bottom weatherstripping** made of a U-shape and a semi-circular flexible.
- **5** Wood end blocks made of kiln-dried pine (grade 4). With our lag screw system, ensure a better fastening of the end hinges. They also provide a **thermal break** which prevents thermal bridging.
- **6** 20-gauge steel **reinforcement plates** placed inside the door for solidly attaching hinges and struts.

Door weight: 1.80 lb/ft² (8.8 kg/m²)





1

2

5

COLORS



MODEL



SIZES

| Widths | From 5' to 18'2" |
|----------------------------------|------------------------------------|
| In 1" (25 mm) increments | (1.5 m to 5.5 m) |
| Heights In 3" (76 mm) increments | From 6' to 18' (1.8 m to 5.5 m) |

HARDWARE

Steel tracks: • 2" (50 mm), 13-gauge or 14-gauge • 3" (76 mm), 12-gauge

See details on page 20.

WINDOWS



Standard Windows

Thermopane: Clear Single glass (3 mm): Clear 21" x 13" (533 mm x 330 mm) Colors: see Color chart

WARRANTIES (LIMITED)

10 years against any perforation of steel due to rust 10 years on the wood end blocks against cracking and rot 1 year on other door components

10 years against seal defects on Standard windows

TG-8024

STEEL
THICKNESS: 2"

PAN DOOR NON-INSULATED

INSULATION OPTION

TG-8524 R-6.6 INSULATION POLYSTYRENE



FEATURES AND BENEFITS

A STEEL WALL WITH ½" DEEP GROOVES

- Providing more strength and additional bending resistance, our sections are made of two ½" deep, horizontal grooves with alternating smaller grooves.
- Very high corrosion-resistance due to its 24-gauge galvanized steel exterior, with a G40 coating (zinc galvanized with a minimum of 120 g/m²).

B VERTICAL STILES

- Structural elements of the sections are attached to the exterior skin by a Tog-L-Lock® joining system to ensure a more rigid section.
- Made of 20-gauge galvanized steel, they provide **more secure fastening** for hinges and struts.

© MOLDED WINDOW FRAMES

 Clear single-pane glass windows, inserted in a molded PVC frame without a welded joint, will not fade over time.







- 1 Steel wall
 - 24-gauge, G40 hot-dipped galvanized steel with six coats of protective finish
 - Baked-on polyester paint. Can be repainted
 - Woodgrain finish
 - Corrosion-resistant
- 2" (50 mm) door
 - TG-8024: non-insulated
 - TG-8524: CFC-free polystyrene insulation, ensuring a thermal-resistance rating of R-6.6 (RSI 1.2 or k=0.860 W/m²K). The insulation is protected with a PVC backing.
- 3 Sections are made of ½" (13 mm) deep grooves providing more strength to the door.
- 4 Tongue & groove joints between sections that fit seamlessly.
- 5 Continuous PVC **bottom weatherstripping** made of a U-shape and a semi-circular flexible.
- 6 20-gauge **vertical stiles** in galvanized steel attached by a Tog-L-Loc® joining system, with no welding and rivets, at hinge placement locations.

Door weight: TG-8024: 1.28 lb/ft² (6.2 kg/m²)

TG-8524: 1.42 lb/ft² (6.9 kg/m²)



COLOR



Ice White

Color may slightly varies from image.

MODEL



SIZES

| Widths | From 5' to 24'2" |
|--------------------------|------------------|
| In 1" (25 mm) increments | (1,5 m to 7,3 m) |
| Heights | From 8' to 18' |
| In 3" (76 mm) increments | (2,4 m to 5,5 m) |

HARDWARE

Steel tracks: • 2" (50 mm), 13-gauge or 14-gauge • 3" (76 mm), 12-gauge

See details on page 20.

WINDOWS



Standard Windows
Single glass (3 mm): Clear or Satin
21" x 13" (533 mm x 330 mm)
Color: White

WARRANTY (LIMITED)

1 year against structural failures



ELECTRIC DOOR OPENERS

Lift MasterGarage Access Systems

FEATURES

| Model | Reverse feature | Chain hoist | Number of cycles recommended | Horsepower | Voltage/phase | Back clearance | Headroom | Side clearance |
|------------------|--------------------|----------------|---|--|---|-------------------|---|-------------------|
| Trolley op | erator¹ for apa | rtment bui | ldings | | | | | |
| AP' | Yes | No | 100 cycles/day | 1/2 HP | 115 v/1 ph | 4" (102 mm) | Height of door + 48" (1220 mm) | N/A |
| Trolley op | erators¹ for co | mmercial | buildings | | I | | | |
| MT | Yes | No | Less than 50 cycles/day or 12 cycles or less/hour | 1/2 HP | 115 v/1 ph - 60 Hz | 4" (102 mm) | Height of door + 48" (1220 mm) Max 14' height | N/A |
| T | Yes | No | Less than 80 cycles/day or 13 cycles or more/hour | 1/2 HP 3/4 HP 1 HP | 115 & 230 v/1 ph 208, 460 & 575 v/3 ph | 4" (102 mm) | Height of door + 48" (1220 mm) | N/A |
| GT | Yes | No | Less than 80 cycles/day or 13 cycles or more/hour | 1/2 HP 3/4 HP 1 HP 1 1/2 HP | 115 & 230 v/1 ph 208, 460 & 575 v/3 ph | 4" (102 mm) | Height of door + 48" (1220 mm) | N/A |
| HCTDCU | No | No | More than 80 cycles/day or 13 cycles or more/hour | 1/2 HP | 115 v/1 ph | 4" (102 mm) | Height of door + 45" (1143 mm) Max 22' wide | N/A |
| Jackshaft | operators² | | | | | | | |
| MH ³ | Yes | Yes | Less than 50 cycles/day or 12 cycles or less/hour | 1/2 HP | 115 v/1 ph | N/A | N/A Max 14' height | 16" (406 mm) |
| H ⁴ | Yes | Yes | Less than 80 cycles/day or 13 cycles or more/hour | 1/ ₂ HP 3/ ₄ HP 1 HP | 115 & 230 v/1 ph 208, 460, & 575 v/3 ph | N/A | N/A | 16" (406 mm) |
| GH ³ | Yes | Yes | More than 80 cycles/day or 13 cycles or more/hour | 1/2 HP 3/4 HP 1 HP 1 1/2 HP | 115 & 230 v/1 ph 208, 460 & 575 v/3 ph | N/A | N/A | 14" (360 mm) |
| RBH ³ | Yes | Yes | More than 80 cycles/day or 13 cycles or more/hour | 1/2 HP 3/4 HP | 115 & 230 v/1 ph 208, 460 & 575 v/3 ph | N/A | N/A | 16" (406 mm) |

One cycle = one opening and one closing

¹ Recommended for Standard lift, Inclined lift and Low headroom.

2 Recommended for High lift and Full vertical lift.

3 The MH, GH and RBH models come equipped with a standard electro-mechanical brake.

4 The H model come equipped with a standard mechanical brake and electro-mechanical brake optional with ½ HP and included with ¾ HP and more.

HORSEPOWER OF MOTOR TO USE DEPENDING ON THE SIZE OF THE DOOR

| Horse power of motor | G-1000 | G-2323 | G-2020 G-2023 | G-4400 | G-5000 G-5138 G-5200 TG-6200 | TG-8024 TG-8025 |
|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------------------|--------------------|
| 1/2 HP | 260 ft ² | 170 ft ² | 155 ft² | 100 ft ² | 240 ft ² | 280 ft² |
| 3/4 HP | 330 ft ² | 240 ft ² | 230 ft ² | 200 ft ² | 320 ft² | 350 ft² |
| 1 HP | 480 ft ² | 290 ft ² | 300 ft ² | 260 ft ² | 430 ft ² | 435 ft² |

RECOMMENDED OPENERS AND ACCESSORIES BY TYPE OF BUILDING

| Building | Openers | Included accessories | Important accessories | Optional accessories |
|---|---|--|---|--|
| Fire Station | H or RBH Jackshaft operator | NEMA 1 photo-electric security system Timer to close Built-in Receiver MyQ Technology | NEMA 4 photo-electric security system, water resistant Pneumatic Edge Kit | Radio transmitter Panic button Control Panel for all doors from one location Traffic lights |
| Municipal Garage | H or GH or RBH Jackshaft operator | NEMA 1 photo-electric security system Timer to close Built-in Receiver MyQ Technology | NEMA 4 photo-electric security system, water resistant Pneumatic Edge Kit | Radio transmitter Control Panel for all doors from one location 3-Button Outdoor Station with Single Key Control |
| Car Dealer | H or RBH Jackshaft operator | NEMA 1 photo-electric security system Timer to close Built-in Receiver Mid-Stop MyQ Technology | NEMA 4 photo-electric security system, water resistant Pneumatic Edge Kit | Radio transmitter Control Panel for all doors from one location 3-Button Outdoor Station with Single Key Control Loop detector |
| Apartment Building or Condominium | APT or HCTDCU Trolley operator | NEMA 1 photo-electric security system Timer to close Built-in Receiver MyQ Technology | Receiver Star 1000 (up to 1000 transmitters) NEMA 4 photo-electric security system, water resistant Pneumatic Edge Kit Red/Green warning light | Radio transmitter |
| Car Wash, Wash Bay | CH* for damp environment Jackshaft operator * Its 3-Button Wall Station is designed to resist humidity. | NEMA 4 photo-electric security system, water resistant Timer to close Built-in Receiver MyQ Technology | Pneumatic Edge Kit | Radio transmitter 3-Button Outdoor Station with Single Key Control |
| Distribution Center | MH or H or RBH Jackshaft operator | NEMA 1 photo-electric security system Built-in Receiver | Pneumatic Edge Kit | Interlock Switch |

 $^{^{\}mbox{\scriptsize 1}}$ Many more accessories are available. This list is only a summary of the most popular ones.

WARNING: Electrical connections (wiring, conduit and connections) must be done by a qualified electrician. Do not forget to mention it in your specifications, in the Related Work section.

HARDWARE SYSTEMS

| | 2" Commercial Duty | 2" Commercial Heavy Duty | 3" Industrial | |
|--|--|--|--|--|
| | BUTY | MEAVY DUTY | SUPER-HEAVY DUTY | |
| Tracks Welded, made of galvanized steel and secured with mounting brackets | 2" (50 mm), 14-gauge | 2" (50 mm), 13-gauge | 3" (76 mm), 12-gauge | |
| Reinforcement for horizontal tracks 2" x 2" (50 mm x 50 mm) steel bracket | 13-gauge | Door weight: - under 500 lb (225 kg) = 13-gauge | Door weight: - under 650 lb (250 kg) = 13-gauge - over 650 lb (250 kg) = 8-gauge | |
| Hinges Galvanized steel | 13-gauge | 13-gauge | 13-gauge | |
| Rollers Industrial type | With ball bearings | | | |
| Springs Torsion type | 10,000-cycle spring supported by a 1" (25 mm) 14-gauge steel tube | 10,000-cycle spring supported by a 1" (25 mm) 2 solid zinc-plated keyway shaft | 10,000-cycle spring supported by a 1" (25 mm) 2 solid zinc-plated keyway shaft | |
| Struts In galvanized steel, installed | - From 12'4" (3.8 m) to 16'3" (4.9 m): 2 ¼" (57 mm), 22-gauge struts | | | |

- From 16'4" (5 m) and more: 3" (76 mm), 22-gauge struts

| Hardware options | 2 | | | |
|-------------------------------|---|--|--|--|
| Precision end bearing plate 3 | For 650 lb (250 kg) doors and over, to provide stronger support for the opening system of the door. | | | |
| Double hinges | Recommended for doors 14' and wider, for a more stable mounting system. | | | |
| 11-gauge hinges | For very wide and very heavy doors, 1 000 lb (453 kg) and over | | | |
| 12-gauge continuous angle | Provides stronger attachment of the tracks on the wall. | | | |
| 1 1/4" (30 mm) solid shaft | Provides more strength to the spring system. | | | |
| Bridge strut | Ensures better resistance to wind load (see drawing on page 23). | | | |
| Safety bottom brackets | For a safer door system. If the lifting cables break, these brackets stop the fall of the door. | | | |
| Tension bridge reinforcement | For very wide doors (18' 3" wide and over), prevent warping of the steel door sections, meaning the curving of sections which can be caused by indoor and outdoor temperature differences. | | | |
| Precision rollers | Machined steel: recommended for heavy doors and dusty environments. Black nylon: made of rigid plastic, they reduce the noise of the door in motion. Rubber: ensure smooth rolling and are recommended to reduce the noise of the door in motion (ideal for condo or apartment). NB-SS: with a stainless stem, ideal for car washes. | | | |
| C-shaped or bumper springs | For a softer stop, they are recommended for all manually-operated doors with a high-lift track or a full vertical track (see drawings on pages 21 and 22). | | | |
| Pusher springs | Highly recommended for large size doors with a standard lift (see drawing on page 21) with a Jackshaft opener installed beside the door. They ensure the good tautness of the lifting cables when the door is operating. | | | |
| Chain hoist | For easier closing and opening of a door operated manually. | | | |

Protect the tracks in high-traffic areas (ex.: forklifts). (see drawings on page 22)

Recommended for intense uses of more then 50 operation cycles per day. Vary from 25,000 to 200,000 cycles.

DOOR OPTIONS

"Z" or "L" style track guards

High-cycle springs

In galvanized steel, installed

on door sections

End caps:18-gauge steel, they are installed on the ends of the sections and are used to have a stronger attachment for the hinges.

Top weatherstripping: flexible, it is installed on the top of the section for better sealing. For very wide doors, it keeps the watertightness of the door when warping of the top steel door section occurs (warping is the curving of sections which can caused by indoor and outdoor temperature differences).

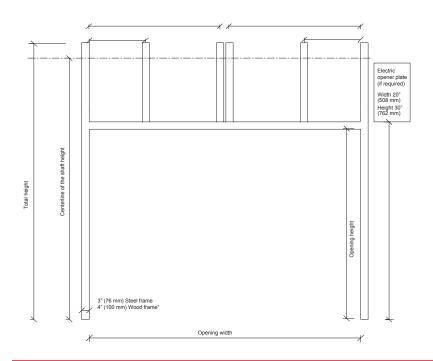
Exhaust ports: made to ensure a good air circulation in the garage. 3" (76 mm) and 4" (100 mm) diameter sizes are available.

WIND LOAD

The sections and the tracks are designed to meet or exceed the industry standard (DASMA) for wind load. If your door is exposed to a high wind situation, additional struts may be added. Consult our Engineering Department for more details.

TECHNICAL INFORMATION

SPACE REQUIREMENTS

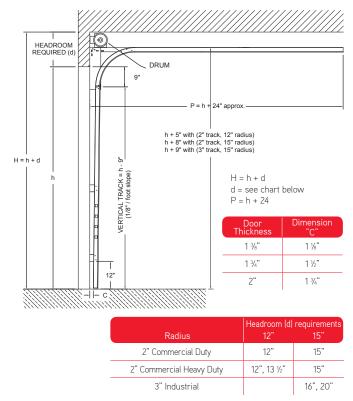


Recommendations

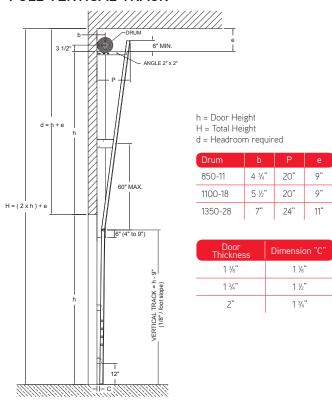
- 1 Frames, their extensions and anchor plates should be supplied by the general contractor and installed steady and straight for adequate support. All interior sides must be flush together.
- 2 All indicated clearances must be free of obstruction.
- 3 Frames:
 - steel frames may be manufactured with a "U" shaped beam or an assembly of corner, showing an interior facade of at least 3" (76 mm) width.
 - wood frames may be made by 2" x 6" (50 mm x 150 mm) parts, showing an interior facade of at least 4" (100 mm) width.

TYPES OF LIFT

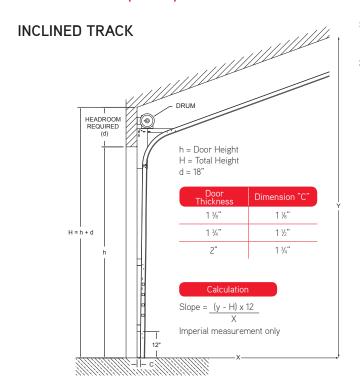
STANDARD LIFT

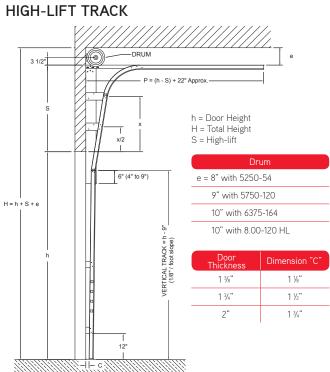


FULL VERTICAL TRACK

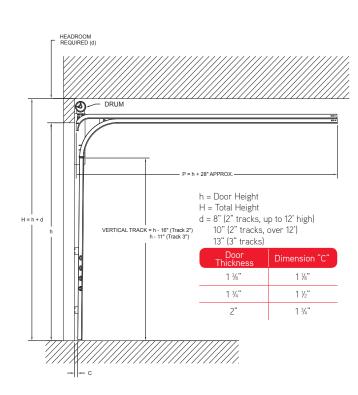


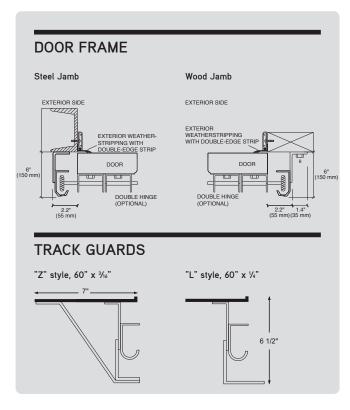
TYPES OF LIFT (SUITE)



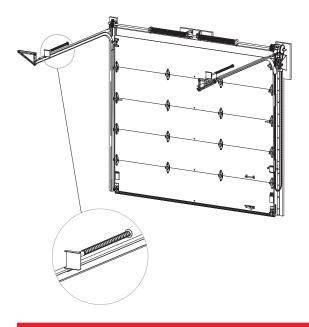


FRONT LOW HEADROOM

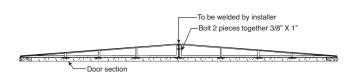




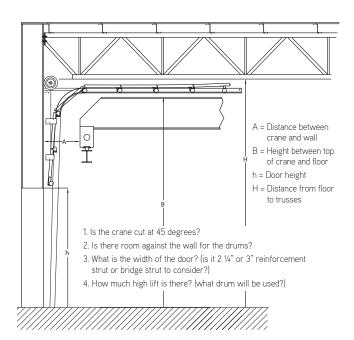
PUSHER SPRINGS



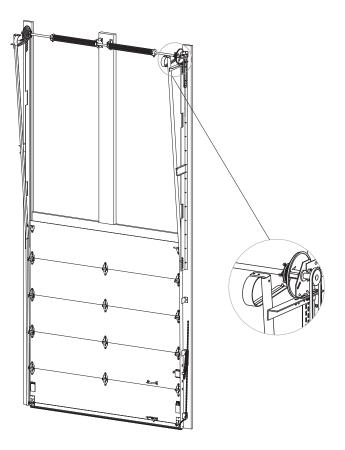
BRIDGE STRUTS FOR LARGE SIZE DOORS



OVERHEAD CRANE



C-SHAPED BUMPER SPRINGS



MAINTENANCE

For all information on the general maintenance and benefits to regularly perform a preventive maintenance are available on www.garaga.com/commercialmaintenance

GARAGA LAB

To see for yourself what makes the Garaga doors outstanding in terms of look and performance, you can watch 4 videos explaining the tests conducted to benchmark our doors against other brands at www.garaga.com/lab



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GARAGA INDUSTRIAL Stronger for longer



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To ensure you receive a perfect installation and a beneficial preventive maintenance service.



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