USA CATALOG
EDITION 1

COMUNELLO GATE

MADE IN ITALY

a premier brand of AIDI

ACCESSORIES FOR GATES AND INDUSTRIAL DOORS

ABOUT COMUNELLO

It's been more than 50 years since founder, Vittorio Comunello, started on his pioneering adventure to build a company for the production of components for sliding gates. The company was an instant success and has maintained its reputation and market position based on innovative solutions and an unrivaled reputation for absolute quality.

For over 50 years, Comunello has been manufacturing precision components, maintaining pace with the evolution of the most advanced technologies while guaranteeing complete security and safety.

An engineering company founded in 1965 by Vittorio Comunello based in Bassano del Grappa. Now run by the second generation: Franco, Silvia and Luca.

The Comunello Group of companies is built on a solid, reliable, well-structured manufacturing base. The Group comprises of 4 Divisions with all products from each Division 100% designed and manufactured at the company premises in Italy. This total control over manufacturing processes guarantees the highest levels of quality. Comunello exports to more than 105 countries worldwide.

COMUNELLOGATE COMUNELLO AUTOMATION COMUNELLOFRAME COMUNELLO MOWIN

AIDI is proud to represent Comunello exclusively in the United States and Canada.

MADE IN ITALY
FROM CONCEPT TO PRODUCT

The historical Comunello Gate Division has built a reputation in Italy and across the world for providing the widest range of components for sliding gates and industrial doors of all weights and all sizes.

Comunello's vast range of solutions and use of high quality materials including stainless steel and aluminum bring real value to a product offering which is truly unique and which delivers solutions for all gate types, whatever the size.

Components are available for sliding, cantilever and swing gates, as well as industrial doors and gates: bolts, pins, wheels, racks, rails, hinges.

Visit **archirondesign.com/comunello** OR **duragates.com** to search products, download CAD files, spec sheets, and a Duragates installation guide/product manual.

Our websites also offer an architects corner that offers links to professional sites and CSI specifications.

CADdetails

The CADdetails program is developed specifically for design professionals with the goal of getting manufacturer-specific product information into their working plans. Files including cad drawings, specifications, videos and related documents are available for download. duragates.caddetails.com

ARCAT

ARCAT is an architects or design team complete source for finding, detailing, specifying and selecting products to incorporatee their working designs. Choose from specifications, cad drawings and other documents; all of which are available for download. **arcat.com**

@AECDAILY

DuraGates now offers a course for Architects and those in the trade that would like to learn more about how sliding gates are built, operated and how to make them safe and reliable. aecdaily.com

TERMS AND CONDITIONS

MINIMUM ORDERS: No minimum order policy. No handling charges.

BACK ORDERS: Any item out of stock at time of shipment will be automatically back ordered and shipped as soon as available. If you prefer, cancel same immediately and reorder later.

NON-STOCK ITEMS: Items that are not stocked may require a non-refundable deposit and are not cancelable nor returnable. Drop shipments require payment in full.

PRICING: Prices are subject to change without advance notice. All shipments will be made at prices prevailing at the time of shipment. You will be notified if there is any change.

SALES TAX: All orders will be charged applicable sales tax unless you provide us your tax exempt number.

TERMS OF PAYMENT: We accept VISA, Mastercard, American Express, and Discover. ACH and check payments preferred. Returned checks are subject to a $35.00 charge.

OPEN ACCOUNTS: To establish NET30 terms a credit application must be completed and approved. Timeliness of an approval depends on your references. No further credit will be extended to accounts which are over 15 Days Past Due. If you do not purchase for 9 months or have ownership changes, you may need to re-establish your account.

SHIPPING: Orders are shipped first come, first served. Orders are shipped F.O.B. our facility Bridgewater, NJ via UPS GroundTrac, FedEx or common carrier. Please refer to tracking numbers for your shipment on your invoice. Once order has been shipped there are no cancellations. You may also collect your order from our warehouse.

Please call to verify pick-up. Next day express service is available. Lightweight track stock may be cut to size for a charge of $5.00 per cut. Heavy duty Duragates track may be cut to size for $10 per cut.

DAMAGE: In case of damage, shortage or other discrepancy, we must be notified within three working days of receipt of order, otherwise we cannot be held responsible. Please refer to your invoice number and customer number.

RETURNS: Returns are allowed on a case by case basis depending on the product. Returns must be made within 30 days of purchase. Special order or non-stock items cannot be returned. There is a 20% restocking fee. Credit will be issued when the item is accepted back into our facility. If you refuse a shipment your account will absorb the freight charge and any restocking charge.

SPECIAL NOTE: Many items are manufactured from metric sized steel and the nominal size is quoted. Because of the nature of forged metal, some variation in parts is possible. Please contact us if you need a critical dimension. For best results do not assemble your work until you have received your entire order.

HOURS: MONDAY-FRIDAY 8:30AM TO 5:00PM EST

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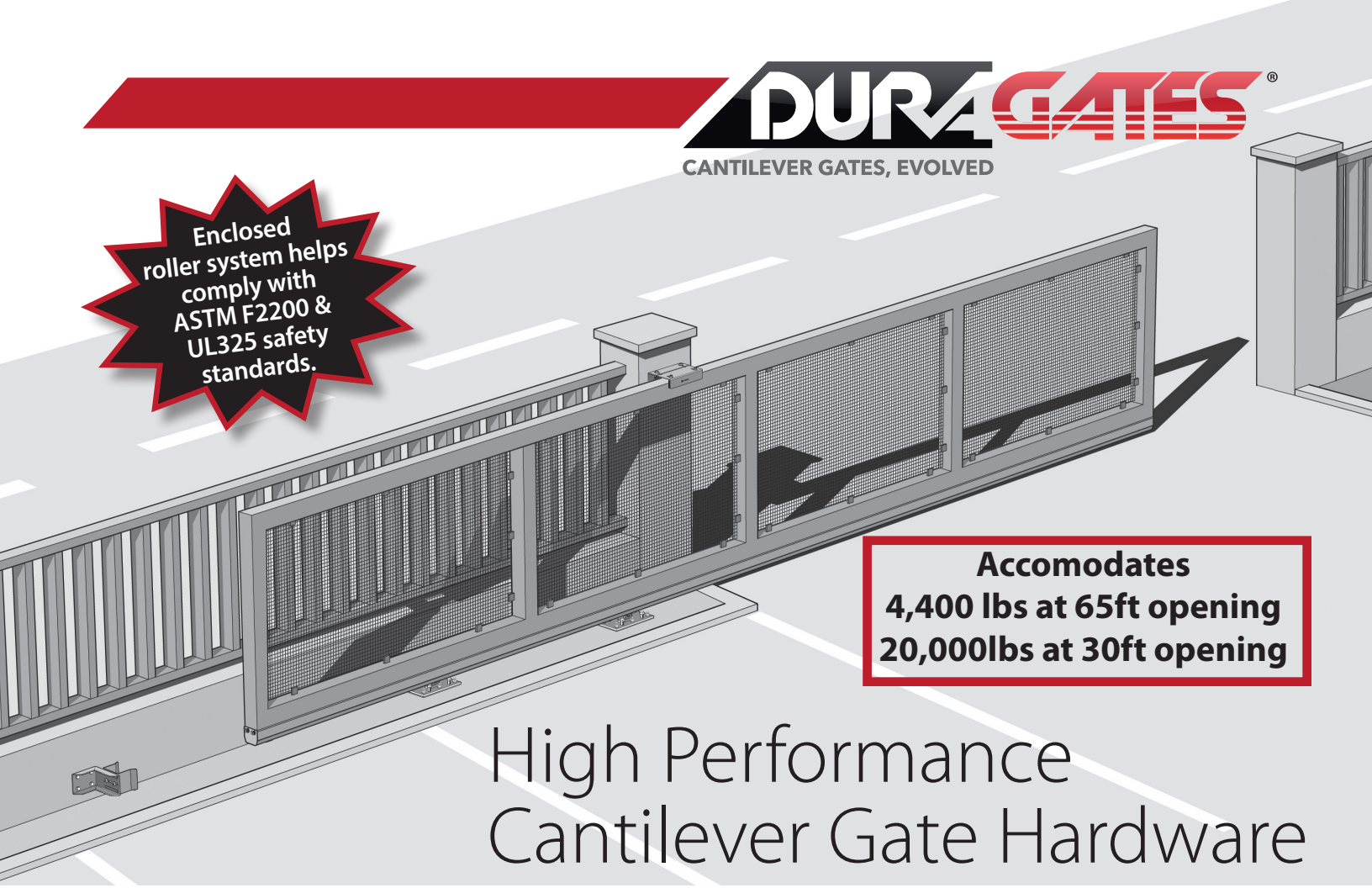
DURAGATES®

CANTILEVER GATES, EVOLVED

Enclosed roller system helps comply with ASTM F2200 & UL325 safety standards.

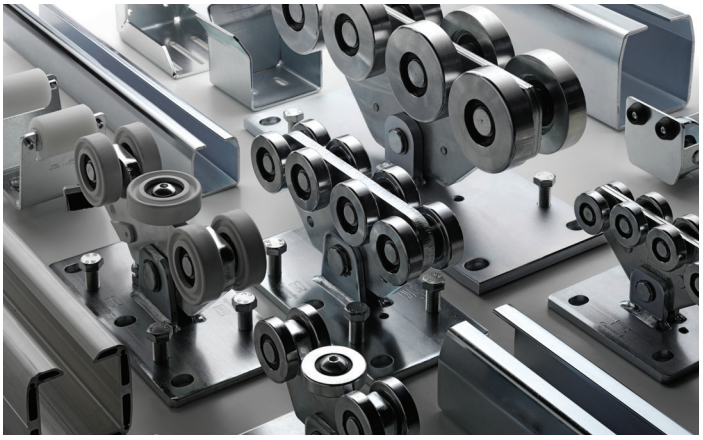


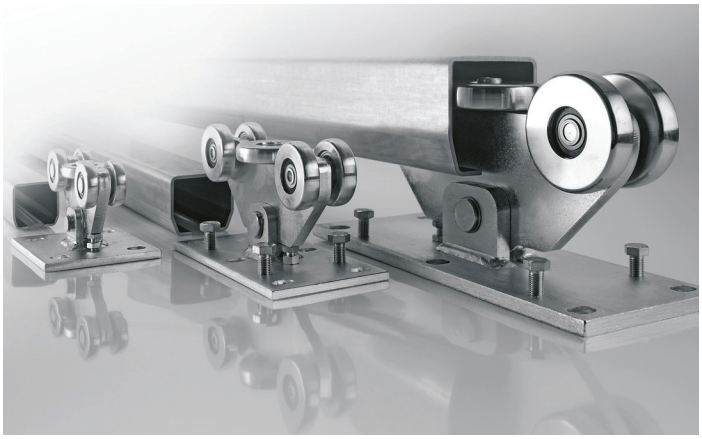
Accomodates
4,400 lbs at 65ft opening
20,000lbs at 30ft opening

High Performance Cantilever Gate Hardware

Manufactured by

COMUNELLOGATE





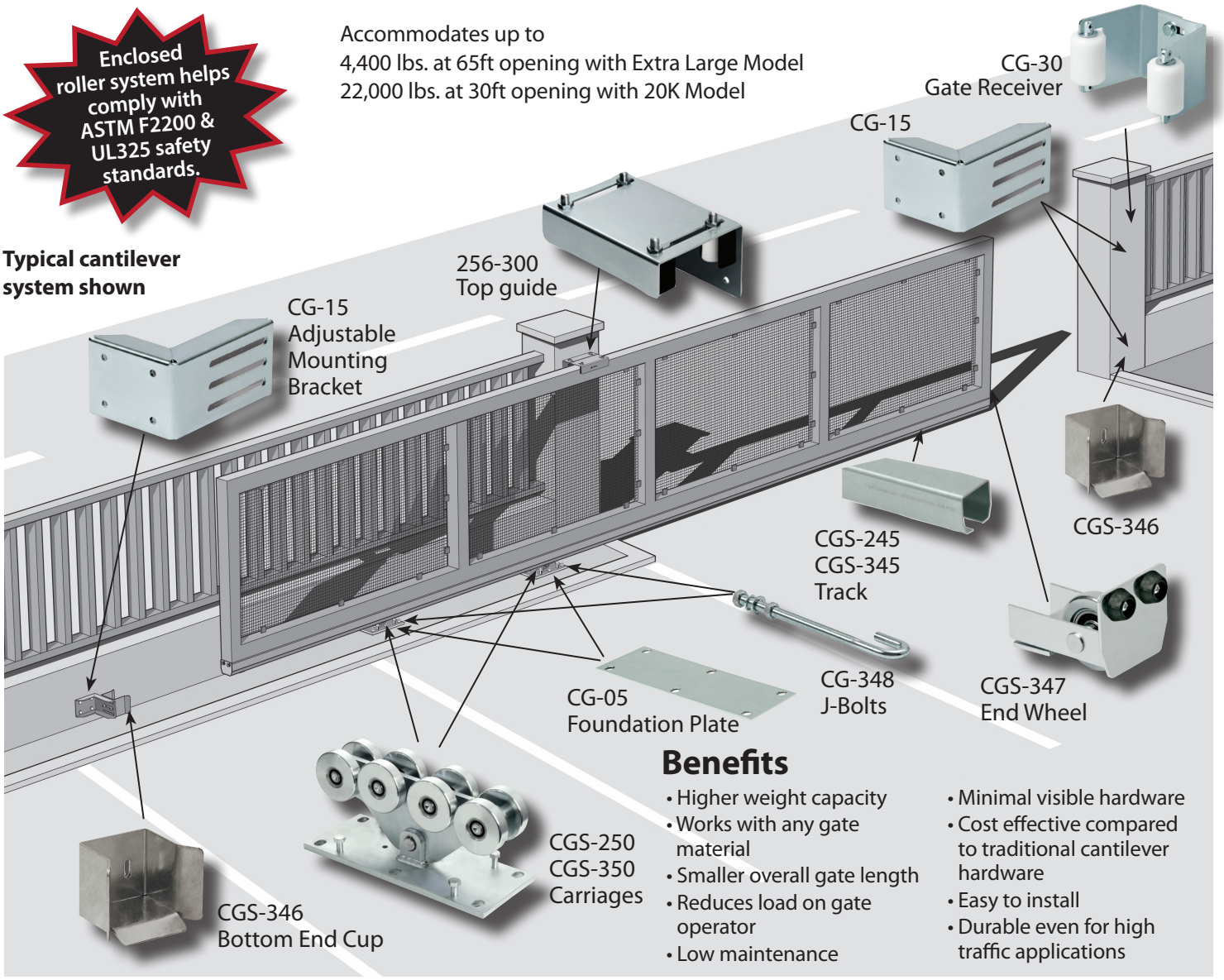
Scan code to watch video

The COMUNELLO Cantilever gate hardware offers a professional solution that satisfies your requirements for installing a cantilever gate, even with complicated applications or large dimensions. It is the perfect choice, with its complete line of accessories and a product configurator to calculate the correct dimensions for the gate. The bottom track covered carriages avoids many of the maintenance problems with traditional sliding gates. Moreover, the hardware can be used on any gate material. **Steel / Aluminum / Stainless Steel / Wood / Chain Link / Vinyl.**

Enclosed roller system helps comply with ASTM F2200 & UL325 safety standards.

Accommodates up to
4,400 lbs. at 65ft opening with Extra Large Model
22,000 lbs. at 30ft opening with 20K Model

Typical cantilever system shown



Benefits

- Higher weight capacity
- Works with any gate material
- Smaller overall gate length
- Reduces load on gate operator
- Low maintenance
- Minimal visible hardware
- Cost effective compared to traditional cantilever hardware
- Easy to install
- Durable even for high traffic applications

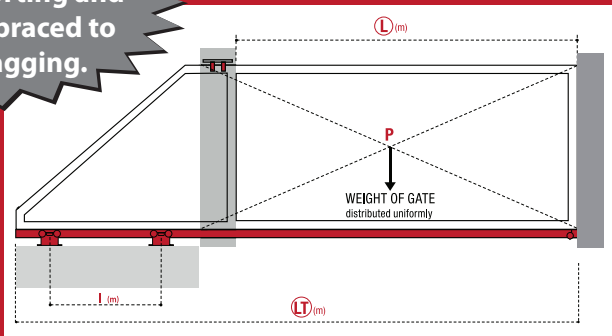
NOTE: WE ONLY SUPPLY THE HARDWARE, NOT THE GATE ITSELF

The gate itself must be self supporting and adequately braced to prevent sagging.

Call us at :
908-757-2323
for **FREE** assistance in configuring the specifications for your cantilever gate project.

Based on the gate dimensions, we can supply you with:

- Length of counter balance
- Load calculations
- Bill of materials
- Installation instructions



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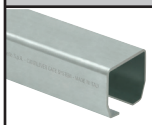
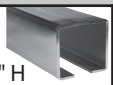
	GALVANIZED STEEL TRACK					
MODEL	**CGS-350.5XL**	**CGS-350.8G**	**CGS-350.8P**	**CGS-250.8P**	**CGS-250.8M**	**CGS-KIT150**
Opening & Weight Range	**30 ft. up to 7700 lbs. 65 ft. up to 4400 lbs.**	**16 ft. up to 4000 lbs. 60 ft. up to 1800 lbs.**	**10 ft. up to 1700 lbs. 26 ft. up to 1000 lbs.**	**8 ft. up to 1300 lbs. 19 ft. up to 800 lbs.**	**8 ft. up to 900 lbs. 14 ft. up to 500 lbs.**	**8 ft. up to 660 lbs. 13 ft. up to 330 lbs.**
Carriages						
	CGS-350.5XL Extra Large Carriage Monobloc Body 	CGS-350.8G Grande Carriage Monobloc Body	CGS-350.8P Large Carriage Monobloc Body	CGS-250.8P Large Carriage Multiplate Body	CGS-250.8M Small Carriage Multiplate Body	
Tracks available in 9'10" or 19'8" lengths						
	CGS-345XL Extra Large 7¼" W x 6½" H **Raw Track** Available 9'10" only 	CGS-345G Grande Galvanized Track 5½" W x 5½" H	CGS-345P Large Galvanized Track 4" W x 3½" H	CGS-245P Large Galvanized Track 4" W x 3½" H	CGS-245M Small Galvanized Track 2¾" W x 2¾" H	
Accessories						
2x 	CGS-347XL End Wheel for UL325 Compliance	CGS-347G End Wheel for UL325 Compliance	CGS-347P End Wheel for UL325 Compliance	CGS-347P End Wheel for UL325 Compliance	CGS-347M End Wheel for UL325 Compliance	
2x 	Not Available	CG-21G End Stopper without wheel for UL325 Compliance	CG-21P End Stopper without wheel for UL325 Compliance	CG-21P End Stopper without wheel for UL325 Compliance	CG-21M End Stopper without wheel for UL325 Compliance	
1x 	CGS-346XL Bottom End Cup	CGS-346G Bottom End Cup	CGS-346P Bottom End Cup	CGS-346P Bottom End Cup	CGS-346M Bottom End Cup	
1x 	CG-30G Gate Receiver 4" to 6"	CG-30G Gate Receiver 4" to 6"	CG-30P Gate Receiver 3-3/8" to 4-1/2"	CG-30P Gate Receiver 3-3/8" to 4-1/2"	CG-30M Gate Receiver 2" to 3"	
2x 	CG-15G Adjustable Mounting Bracket	CG-15G Adjustable Mounting Bracket	CG-15P Adjustable Mounting Bracket	CG-15P Adjustable Mounting Bracket	CG-15M Adjustable Mounting Bracket	
Anchoring and Installation Accessories						
12x 	CG-348-M20 J-Bolt, Galvanized M20 x 15"	CG-348-M20 J-Bolt, Galvanized M20 x 15"	CG-348-M16 J-Bolt, Galvanized M16 x 15"	CG-348-M16 J-Bolt, Galvanized M16 x 15"	CG-348-M16 J-Bolt, Galvanized M16 x 15" **8x**	
2x 	CG-05G Foundation Plate	CG-05G Foundation Plate	CG-05P Foundation Plate	CG-05P Foundation Plate	CG-05P Foundation Plate	

Included in Kit:

2x CGS-150.5M
Mini Carriage
Multiplate Body

CGS-245M Small Galvanized Track:
1x 19'8"
OR
3x 6'6"

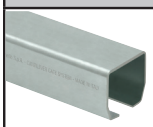
1x CGS-347M
End wheel

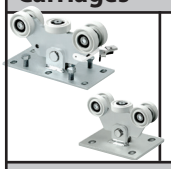
1x CGS-346M
Bottom end cup

1x 255-220-C
Top Guide with roller covers

Aberdeen Gates, Weatherford, TX installed a security gate at a local Ford dealer. Model CGS-350.8P was used since the gate opening was large and the gate itself was quite heavy. The gate is fully automated.

This sliding gate, fabricated by Peter at Red Star Ironworks, is the epitome of a gate from a fairytale. The gate provides a grand entrance to the wooded drive leading to the resident's home. The Duragates hardware is virtually invisible drawing the eye to the beautiful stained glass floral design on the main gate. The gate was not heavy so model CGS-250.8M was used. Since the flowers of the gate extend past the frame, an ordinary top guide could not be used. Instead the monorail and a small roller keep the gate steady. This monorail can be seen if one looks closely toward the bottom of the gate.

	STAINLESS TRACK
Model	**CGI-350.5P**
Opening & Weight Range	**13 ft. up to 700 lbs. 26 ft. up to 400 lbs.**
Carriages	
	CGI-350.5P Large Carriage Monobloc Body
Tracks available in 9'10" or 19'8" lengths	
	CGI-345P Large Stainless Steel Track 4" W x 3½" H
Accessories	
2x 	CGI-347P End Wheel for UL325 Compliance
1x 	CGI-346P Bottom End Cup
1x 	CG-30P Gate Receiver 3-3/8" to 4-1/2"
2x 	CG-15P Adjustable Mounting Bracket
Anchoring and Installation Accessories	
12x 	CGI-348-M16 J-Bolt, Stainless Steel M16 x 15"
2x 	CGI-05P Foundation Plate

	ALUMINUM TRACK		
MODEL	**CGA-350.5P**	**CGA-350.5M**	**CGA-KIT150**
Opening & Weight Range	**20 ft. up to 700 lbs. 30 ft. up to 400 lbs.**	**10 ft. up to 550 lbs. 16 ft. up to 300 lbs.**	**8 ft. up to 440 lbs. 13 ft. up to 220 lbs.**
Carriages			
	CGA-350.5P Large Carriage Monobloc Body Nylon Wheels	CGA-350.5M Small Carriage Monobloc Body Nylon Wheels	
Tracks available in 9'10" or 19'8" lengths			
	CGA-345P Large Aluminum Track $4\,^{3}/_{16}$" W x $4\,^{1}/_{32}$" H	CGA-345M Small Aluminum Track 3¼" W x 3⅛" H	
Accessories			
2x 	CGA-347P End Wheel for UL325 Compliance	CGA-347M End Wheel for UL325 Compliance	
2x 	CGA-20P End Stopper without wheel for UL325 Compliance	CGA-20M End Stopper without wheel for UL325 Compliance	
1x 	CGS-346P Bottom End Cup	CGA-346M Bottom End Cup	
1x 	CG-30P Gate Receiver 3-3/8" to 4-1/2"	CG-30M Gate Receiver 2" to 3"	
2x 	CG-15P Adjustable Mounting Bracket	CG-15M Adjustable Mounting Bracket	
Anchoring and Installation Accessories			
12x 	CG-348-M16 J-Bolt, Galvanized M16 x 15"	CG-348-M16 J-Bolt, Galvanized M16 x 15" **8x**	
2x 	CG-05P or CGI-05P Foundation Plate	CG-05P or CGI-05P Foundation Plate	

Included in Kit:

2x CGA-150.5M
Mini Carriage
Multiplate Body

CGA-345M Small Aluminum Track:
1x 19'8"
OR
3x 6'6"

1x CGA-347M
End wheel

1x CGA-346M
Bottom end cup

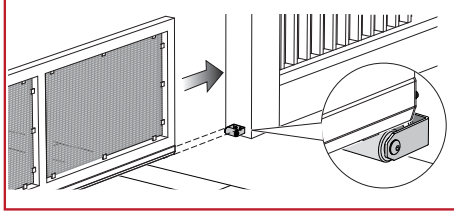
1x 255-220-C
Top Guide with roller covers

VISIT **duragates.com**

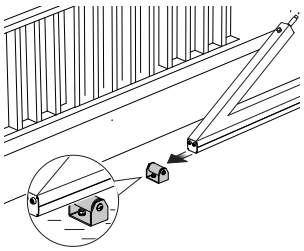
- **Browse models**
- **Read FAQs**
- **View the project gallery**
- **Request a quote**
- **Download**
  - **CAD drawings**
  - **Spec sheets**
  - **Installation Instructions**

OPTIONAL RECEIVING AND SUPPORT OPTIONS

Lower gate receiver with nylon roller
CG-25M - 3⅛" wide
CG-25P - 4⅞" wide
CG-25G - 6⅜" wide



Support roller for back end of gate
CG-35P - 4⅞" wide
CG-35G - 6⅜" wide



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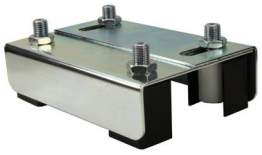
TOP GUIDE OPTIONS

Adjustable Guiding Plate with roller covers to avoid pinch points.

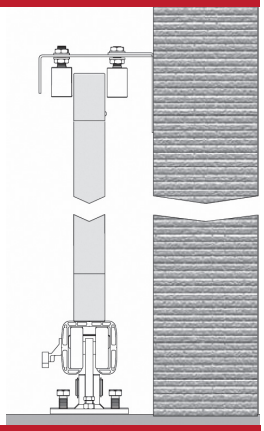


255-220-C
For up to 2⅜" frame

256-220
For up to 3" frames

256-300
For up to 4½" frames

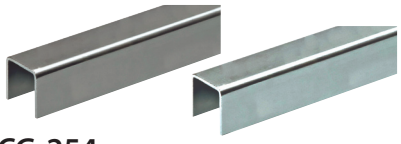
CGI-251
Stainless steel
For up to 2½ - 4" frames



SIDE MOUNT GUIDE OPTIONS

Use for gates with an arched top or protruding pickets.

Galvanized & Aluminum Guide Rail



CG-254
Galvanized 1½" I.D. U-Channel, 9'10"

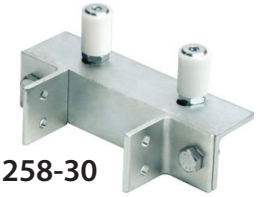
RG-387-19.68FT
RG-387-9.84FT
Galvanized 1¼" I.D. U-Channel

CG-237-20FT
CG-237-10FT
Aluminum 1¼" I.D. U-Channel

253-40
10" Side Roller
1-1/4" dia.
2" clearance
Use 2 per gate min.

CG-252-30
Single Roller
1¼" dia.

CG-252
Single Roller
1½" dia.
(Use with CG-254)



258-30
Double Roller
1¼" dia.

Non Marring Rubber Rollers
2-1/4" dia.
NR3 - 3" Roller
NR6 - 6" Roller

Rubber Rollers
2-3/8" dia.
RR3 - 3" Roller
RR6 - 6" Roller
RR12 - 12" Roller

NYLON REPLACEMENT ROLLERS

230-30
1-1/4" dia. (30mm)

230-40
1-1/2" dia. (39mm)

GATE STOPS

201
Gate stop with triple function. Mounted via screws. 5-3/16" high.

202
Runaway gate stop. Mounted via screws. 4-3/4" high.

202F-A
Damped runaway gate stop. Mounted via screws. 4-3/16" high.

202F-B
Adjustable gate stop. Slot to accommodate up to a 2-1/2" gate frame. mounted via screws. 5-1/8" high.

CGI-40-2IN - Tension Bar

The tension bar is used for minor adjustment of gate sag and for vertical alignment in the closed position

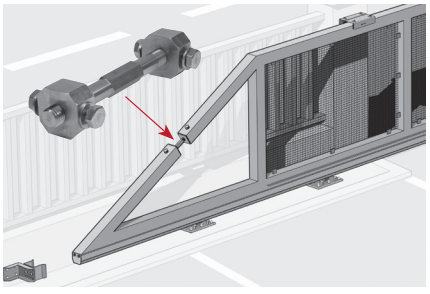
The tension bar is machined from stainless steel and fits 2" square tubing and 2-3/8" round pipe. The tension bar's turnbuckle action allows you to raise and lower the nose of the gate easily by turning the tension bar on the installed gate.

The tension bar is recommended for all cantilever gates: bottom track, top track, and those using gate rollers.

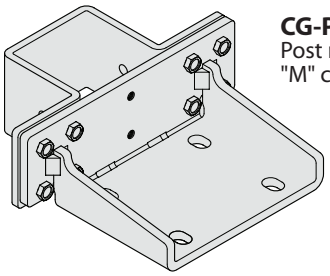
For double gates it simplifies aligning the tops of the gates where they meet in the center.

For long gates where gate sag becomes exaggerated it provides an easy method to compensate for the sag.

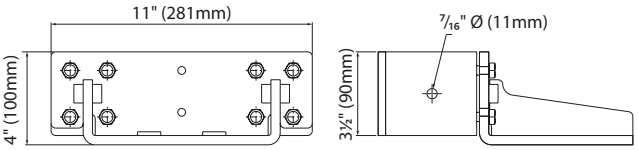
For all gates the tension bar gives the gate adjustability for sag and alignment over the life span of the gate.

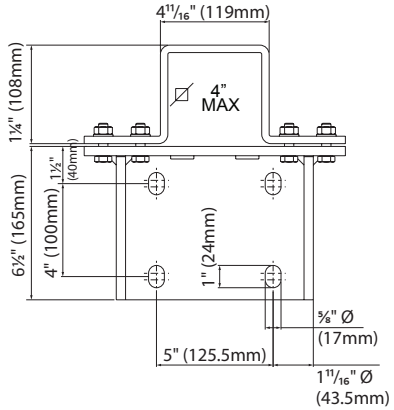


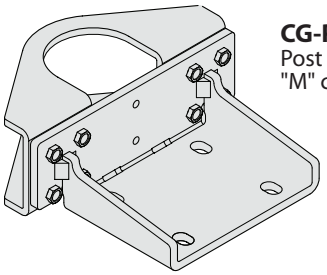
POST MOUNT BRACKETS FOR MINI AND SMALL "M" CARRIAGES



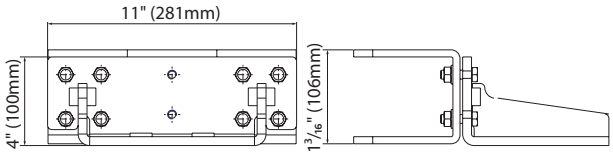
CG-PBSM
Post mount bracket for the mini and small "M" carriages. Use with 4" square tubing.

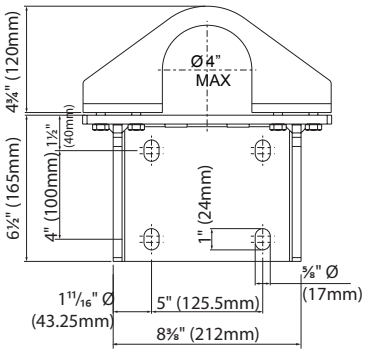


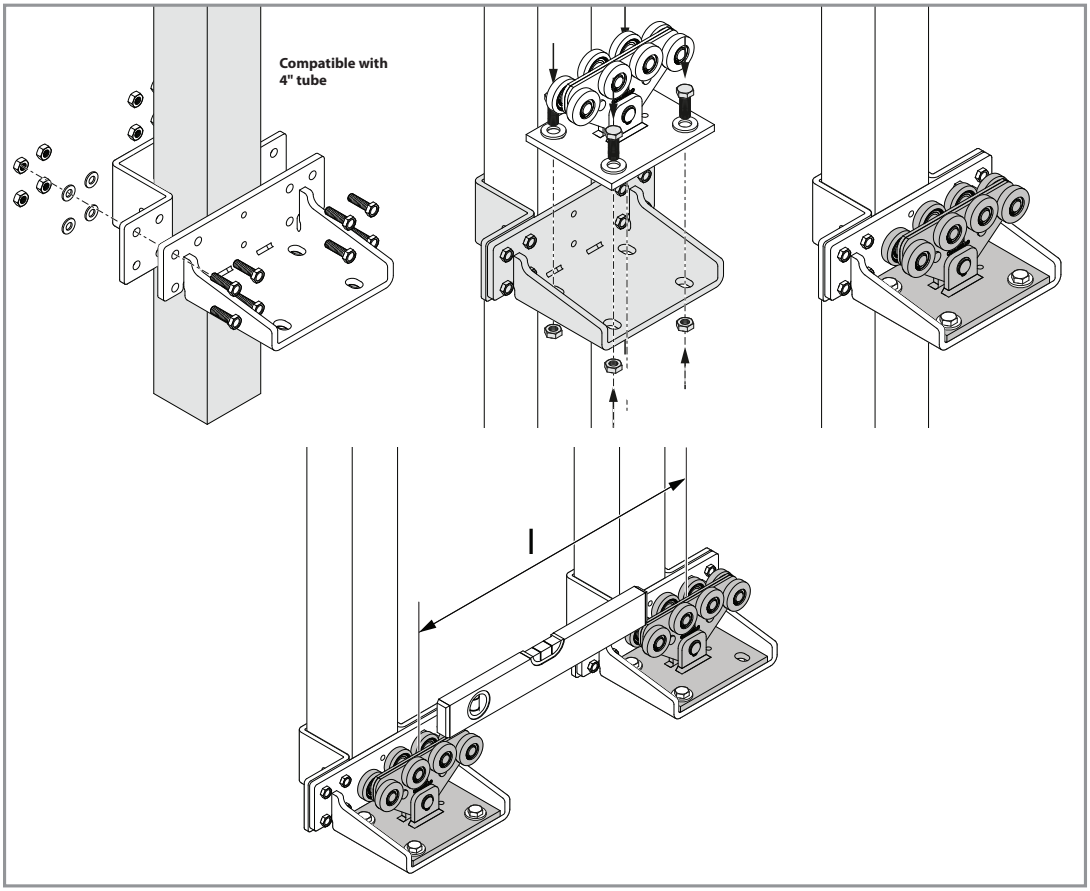




CG-PBRM
Post mount bracket for the mini and small "M" carriages. Use with 4" round tubing.







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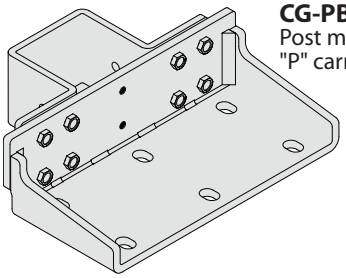
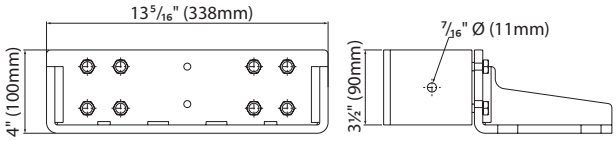
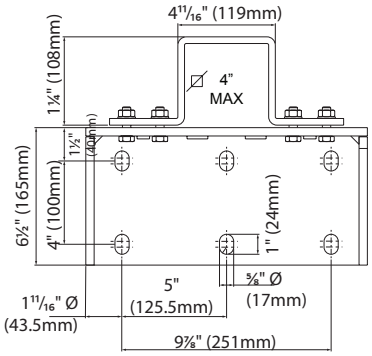
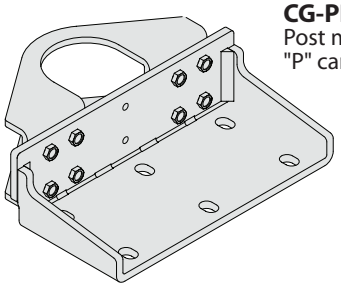
POST MOUNT BRACKETS FOR LARGE "P" CARRIAGES



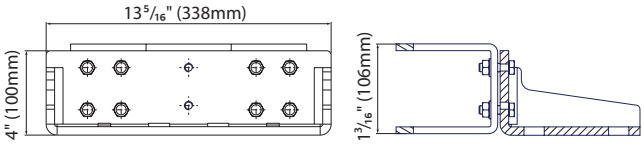
CG-PBSP
Post mount bracket for the large
"P" carriages. Use with 4" square tubing.

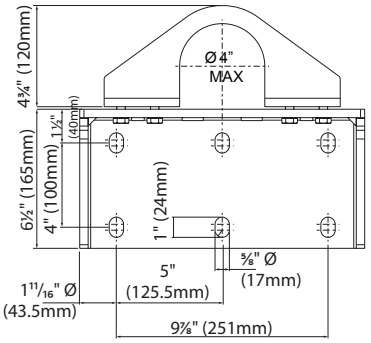


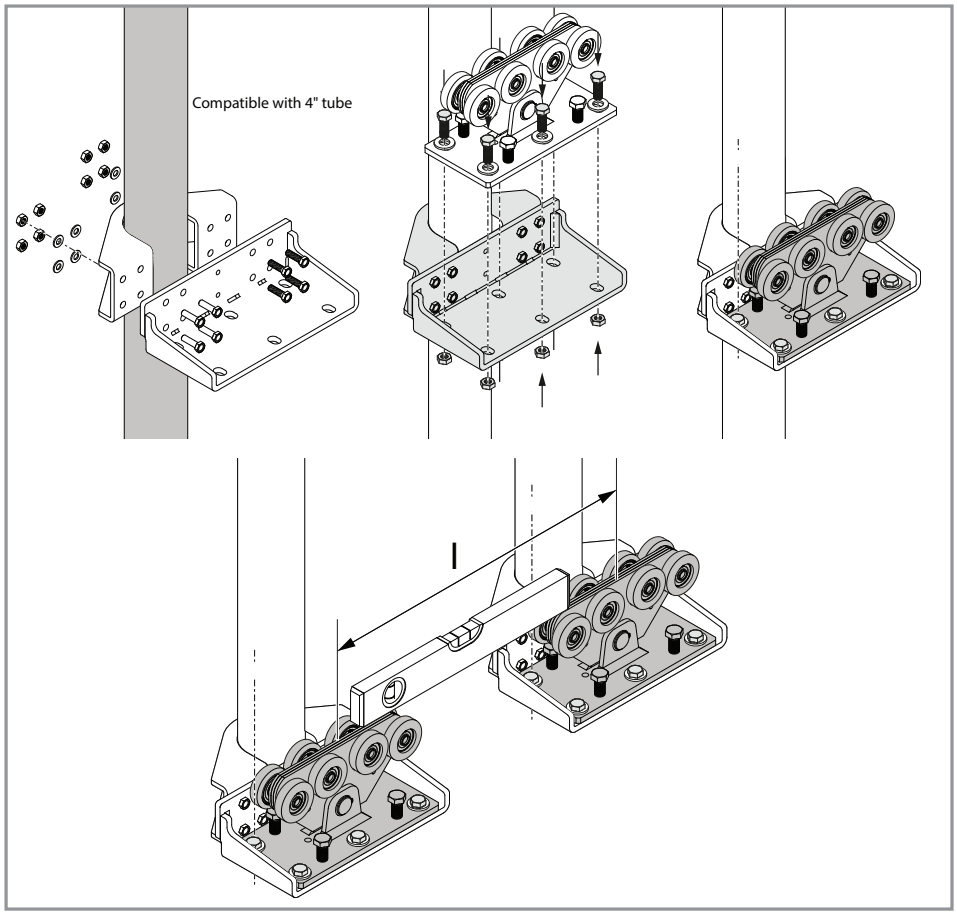




CG-PBRP
Post mount bracket for the large
"P" carriages. Use with 4" round tubing.







CGS-450.9-20K

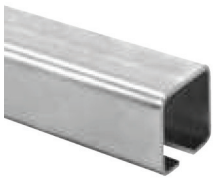
Carriage with 44,000 lbs. capacity for heavy cantilever gates

Up to 100 ft opening width

Target Application Examples:
30 ft gate opening weighing 20,000 lbs
50 ft gate opening weighing 18,000 lbs
65 ft gate opening weighing 17,000 lbs

Features:
- 1-3/8" (35 mm) thick monoblock steel body
- High capacity shielded bearing to ensure high load performance
- All components are made of high quality steel
- Center alignment wheel to ensure stability during movement
- Adjustment screws for vertical alignment

Designed for high security applications:
- Data Centers
- Power Stations
- Secure Industrial Facilities
- Military



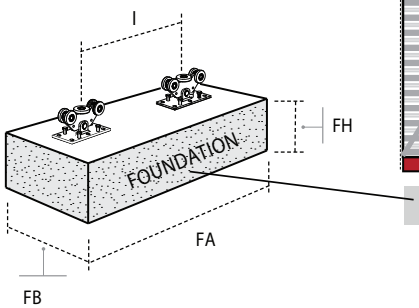
CGS-495-20K
Raw steel track
8" x 8" x 1/2" thick

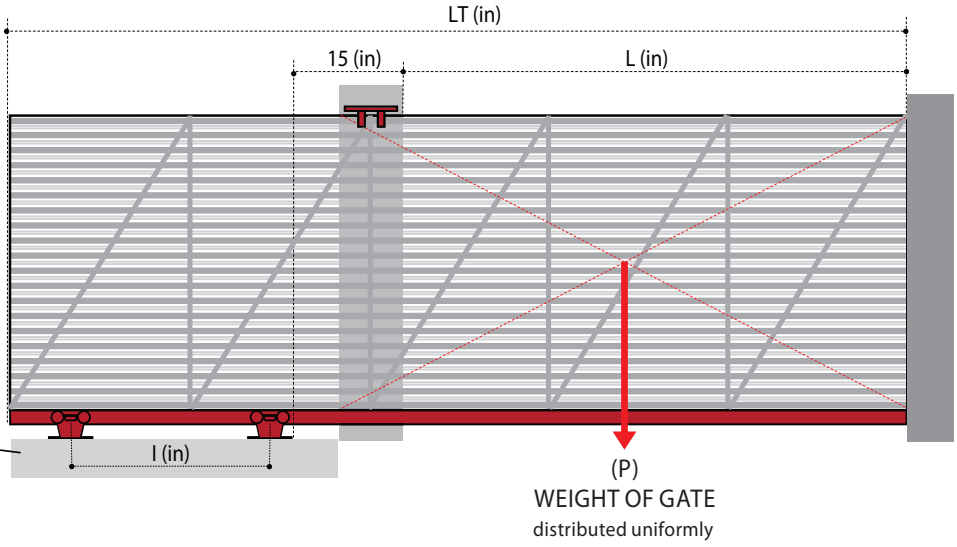
CGS-496-20K
Galvanized
bottom end cup

CGS-497-20K
Galvanized
end wheel for track

CGS-499
1100 lb load capacity
guide roller
(use in pairs)

The structural calculations of the cement foundation **(FA x FB x FH),** the carriage spacing (l), and the type of anchoring, should all be determined by a structural engineer.





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GALVANIZED STEEL TRACK

MODEL	TYPICAL GATE		INCLUDES	GATE RANGE
CGS-KIT150	GATE OPENING: WEIGHT OF OPENING: TOTAL GATE LENGTH:	12FT 300LB 18FT	20ft of track, 2 carriages, 1 end cup, 1 end wheel, and 1 top guide plate	*8 ft at 660 lbs* *13 ft at 330 lbs*
CGS-250.8M	GATE OPENING: WEIGHT OF OPENING: TOTAL GATE LENGTH:	16FT 600LB 22FT	30ft of track, 2 carriages, 2 end cups, 2 end wheels, 1 top guide plate and 8 J-bolts	*8 ft at 900 lbs* *14 ft at 500 lbs*
CGS-250.8P	GATE OPENING: WEIGHT OF OPENING: TOTAL GATE LENGTH:	18FT 800LB 24FT	30ft of track, 2 carriages, 2 foundation plates, 2 end cups, 2 end wheels, 1 top guide plate and 12 J-bolts	*8 ft at 1300 lbs* *19 ft at 800 lbs*
CGS-350.8P	GATE OPENING: WEIGHT OF OPENING: TOTAL GATE LENGTH:	24FT 1200LB 33FT	40ft of track, 2 carriages, 2 foundation plates, 2 end cups, 2 end wheels, 1 top guide plate and 12 J-bolts	*10 ft at 1700 lbs* *26 ft at 1000 lbs*
CGS-350.8G	GATE OPENING: WEIGHT OF OPENING: TOTAL GATE LENGTH:	30FT 1800LB 39FT	40ft of track, 2 carriages, 2 foundation plates, 2 end cups, 2 end wheels, 1 top guide plate and 12 J-bolts	*16 ft at 4000 lbs* *60 ft at 1800 lbs*
CGS-350.5XL	GATE OPENING: WEIGHT OF OPENING: TOTAL GATE LENGTH:	30FT 3800LB 40FT	40ft of track, 2 carriages, 1 top guide plate and 12 J-bolts	*30 ft at 7700 lbs* *65 ft at 4400 lbs*

ALUMINUM TRACK

MODEL	TYPICAL GATE		INCLUDES	GATE RANGE
CGA-KIT150	GATE OPENING: WEIGHT OF OPENING: TOTAL GATE LENGTH:	13FT 220LB 17FT	20ft of track, 2 carriages, 1 end cups, 1 end wheels, 1 top guide plate	*8 ft at 400 lbs* *13 ft at 220 lbs*
CGA-350.5M	GATE OPENING: WEIGHT OF OPENING: TOTAL GATE LENGTH:	16FT 300LB 21FT	30ft of track, 2 carriages, 2 end cups, 2 end wheels, 1 top guide plate and 8 J-bolts	*10 ft at 550 lbs* *16 ft at 300 lbs*
CGA-350.5P	GATE OPENING: WEIGHT OF OPENING: TOTAL GATE LENGTH:	24FT 600LB 32FT	40ft of track, 2 carriages, 2 foundation plates, 2 end cups, 2 end wheels, 1 top guide plate and 12 J-bolts	*20 ft at 700 lbs* *30 ft at 400 lbs*

STAINLESS TRACK

MODEL	TYPICAL GATE		INCLUDES	GATE RANGE
CGI-350.5P	GATE OPENING: WEIGHT OF OPENING: TOTAL GATE LENGTH:	20FT 300LB 26FT	30ft of track, 2 carriages, 2 foundation plates, 2 end cups, 2 end wheels, 1 top guide plate and 12 J-bolts	*13 ft at 700 lbs* *26 ft at 400 lbs*

CALL 908-757-2323 FOR DETAILED GATE CONFIGURATION
OR VISIT DURAGATES.COM

Company: _____ Contact:_____ Phone:_____

Email:_____Job Name:_____

DuraGates cantilever hardware is an application specific engineered product. Each gate application should be configured based on the opening width of the gate (L) and the weight (P) "over the opening" to determine the total gate length (LT), carriage spacing (I) , and the concrete foundation dimensions.

Please provide the following information for an application specific configuration, parts list, and pricing.

IS THIS PROJECT?
☐ A new gate
☐ Existing Gate / Retrofit

Approx. date hardware need_____

1 MATERIAL OF THE GATE (OR FRAME)
☐ Steel ☐ Wood
☐ Aluminum ☐ PVC
☐ Chain Link
☐ Stainless Steel

DURAGATES TRACK MATERIAL REQUIRED
☐ Galvanized Steel
☐ Aluminum
☐ Stainless Steel

GATE FRAME SIZE
☐ 1-1/2" ☐ Square
☐ 2" ☐ Round
☐ 2-1/2"
☐ Other
_____

2 OPENING WIDTH
Typically the post to post measurement L = _____ ft. / in.

3 WEIGHT OF THE GATE "over the opening"
If the weight is given for the full gate, specify the assumed gate length and label it as full gate weight

P = _____ lbs.
Full gate weight_____ lbs.
Assumed gate length_____ ft. / in.

4 OPTIMIZE FOR MINIMUM TAIL LENGTH OR COST?
- Often two or more models will carry the load, so knowing which is more important for the application guides us to the best result.
- Space available in "Open" position.

OPTIMIZE FOR:
☐ Minimum tail length
☐ Lowest hardware cost

_____ ft. / in.

5 IS GATE FLAT ON TOP?
☐ Yes
☐ No_____

6 GUIDE PREFERENCE
☐ Upper Top Guide
☐ U-Channel w/ Guide Rollers

7 IS GATE AUTOMATION NEEDED?
☐ Yes
☐ No_____

8 GATE LOCK OPTIONS
Manually Operated Gate
☐ Key Operated Lock
☐ Mechanical Code Lock

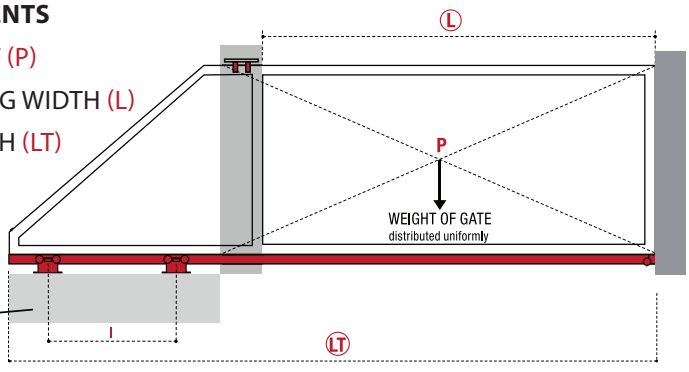
Automated Gate
☐ Mag Lock

☐ NO LOCK

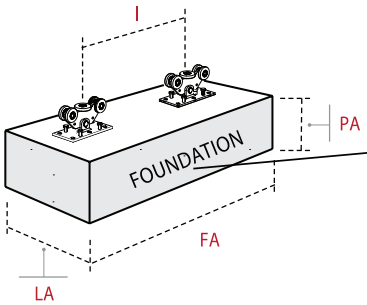
9 GATE AUTOMATION / DRIVE SYSTEM
☐ Standard Duragates Carriages

☐ Integrator (internal drive) Carriages

MEASUREMENTS
GATE WEIGHT (P)
GATE OPENING WIDTH (L)
TOTAL LENGTH (LT)



FOUNDATION
LENGTH (LA)
WIDTH (FA)
DEPTH (PA)
INTERAXIS (I)



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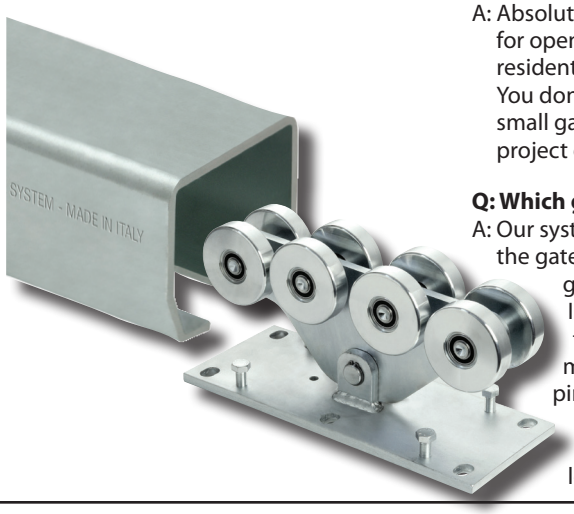
Frequently Asked Questions

Q: Where do I start?
A: The first step is to think about what kind of gate design and gate material you want. The advantage of using our hardware is that you can use practically any gate design with any gate material. Then, let us know the size of the opening and the approximate weight of just the opening part of the gate. We will then come back to you with the suggested model, overall length of gate including counterbalance and size of the foundation required. Armed with that information you can then complete your gate design.

Q: I have seen most cantilever track with a top track system. What are the advantages of the Duragates system over the top track system?
A: There are several advantages actually.
- First of all, the weight of the gate is transferred to the ground, hence it can bear a lot more load than a top track. Besides there are less chances of the track bending/buckling
- You can use any gate material versus mainly steel/aluminum for the top track system
- You can design any gate shape versus only a straight gate for the top track
- Performs better in the snow
- Looks much better versus the industrial look of the top track system
- Our system needs a smaller counterbalance versus the top track thus reducing the overall gate length
- You don't need an elaborate system of posts to mount the gate to. Posts tend to shift over time causing problems in the future. Our system only needs a top guide plate that can be installed even on masonry columns



Q: Can I use any gate material?
A: Yes, you can use practically any gate material as long as you can mechanically attach the gate to the bottom track. In case of a steel or aluminum gate you can just weld the gate to the track, or even use the track itself as the bottom frame of the gate.

Q: The system looks very simple. What am I missing?
A: You are not missing anything ! The system is actually very simple. Just a track, 2 wheels and some related accessories. Not just that, it is also very aesthetically appealing with minimal visible hardware.

Q: I live in very heavy snow conditions. How does it perform in these conditions?
A: The product actually works better in the snow than most traditional sliding gate hardware systems.
- The wheels are always covered with the track, hence you never have to clean the wheels.
- There are no exposed rollers unlike some other cantilever systems
- The path of the gate travel has to be cleared of snow, which would have to be done for any gate
- You may have to adjust the foundation depth based on the frost line in your local area

Q: I don't know the weight of my gate. Where do I go from here?
A: We urge you to at least roughly estimate the weight of the gate based on the materials and design used. It is an important starting point in order for us to help you configure the overall gate dimensions.

Q: My gate is very small. Can I use your system?
A: Absolutely. Our system can be used for openings as small as 2 to 3 ft in residential and even indoor applications. You don't need to pour a foundation for small gates/doors such as these. See our project gallery for examples.

Q: Which gate operator can I use?
A: Our system is totally independent of the gate operator. You can use a gate operator of your choice. In fact the face of the bottom track provides a nice surface to mount the gear rack to (for rack/pinion type operators). The track slides very smoothly on the carriages thereby reducing the load on the operator.

Q: What kind of maintenance does it require?
A: None really. The carriages have sealed bearings. Depending on usage, the bearings may wear out eventually and it is then advisable to replace the entire carriage. If you ever want to service the gate, simply remove the end caps and slide the gate off the track.

Q: How much effort will I need to operate the gate?
A: The track slides very smoothly on the carriages and you can operate the gate with just one hand. Of course, depending on the weight of the gate and the application you may want to install a gate operator. Due to the smooth operation, the load on the operator is also reduced.

Q: Can the gate travel at an incline?
A: Unfortunately that is one application where the gate won't work. The carriages have to be installed horizontally and in one line. However, since it is cantilevered off the ground, the ground itself can be at an incline. You just have to install the gate high enough to clear the highest point on the ground.

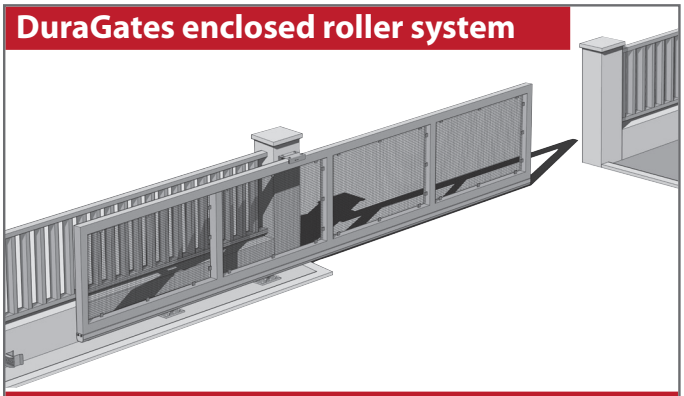
Q: Can I install the carriages on a post instead of on the ground?
A: We highly discourage installing the carriages on the post as it will not be able to bear a high load and will also cause problems once the post starts to shift. In fact the system is designed to avoid all the problems associated with mounting the carriages to a post. We realize that there is an added cost involved in making a foundation. However, for light duty applications, many of our customers have been able to post mount the carriages or not pour a foundation. Once you understand how the system works, please use your judgment to determine what could work in your application.

Q: I have an arch top on my gate. What do I use for the top guide?
A: For arched and other gate shapes we recommend using the monorail CG-254 and the roller CG-252. This galvanized steel monorail can be installed horizontally somewhere along the full length of the gate and will provide adequate support.

duragates.com

WHY CHOOSE DURAGATES® CANTILEVER GATES, EVOLVED OVER OTHER SLIDING/ROLLING GATE SYSTEMS?

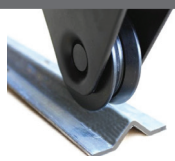
DuraGates enclosed roller system



Benefits of using DuraGates Hardware!

- **Higher Weight Capacity**
  With the weight of the gate transferred to the ground, gate openings of up to 65 ft.& 17,000 lbs. or 30-feet & 20,000 lbs. can be accommodated.
- **Enclosed Track**
  Enclosed track system helps comply with ASTM F2200 & UL325 safety standards. DuraGates hardware is perfect for snowy, icy, rainy… any environment as the rollers are enclosed inside the track and not affected by precipitation, eliminating the need for constant cleaning and maintenance.
- **Use with any Gate Material**
  The gate can be welded, bolted, or mechanically attached to the bottom track.
- **Smaller Overall Gate Length**
  The counterbalance is shorter than traditional cantilever hardware which works especially well when space is restricted.
- **Easy Installation**
  Once the 2 carriages are mounted on the concrete pad, simply slide the gate on the carriages and add the end wheels.
- **Durability**
  High quality rollers and track result in years of trouble-free operation.
- **Reduced Load on Gate Motor**
  The gate will roll smoothly and can be operated with one hand. This reduces the load on the gate motor resulting in a longer life and reduced maintenance on the motor.
- **Low Maintenance**
  Enclosed, sealed bearing equipped roller construction requires NO lubrication. The sealed bearings stand up to dusty environments where grit would eat up non-sealed bearing designs.
- **Minimal Visible Hardware**
  DuraGates requires no wires or overhead track and makes for a more aesthetically pleasing gate system. DuraGates bottom track hardware can be used with arched top rolling gates and allows for greater flexibility in gate design. Automated gates can also have the gear racked mounted inside the bottom track.
- **Unobstructed Driveway**
  No track on the ground to trip over and will also work with sloping driveways as the gate travels off the ground.

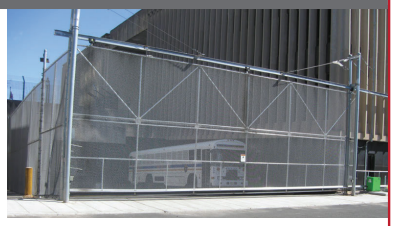
V-track systems



Pros:
- Nice slide action if there is nothing in the way of the rollers like a garden hose, rock, or other obstruction.

Cons:
- Needs digging of trench along length of driveway for proper installation.
- Ground track can be obstructed by objects laying over it.
- Rollers can possibly be derailed.
- In freezing weather: snow and ice can obstruct the track. When open, the track has potential to be in the way of snow plowing. Rollers can freeze up and no longer slide smoothly.

Overhead track systems



Pros:
- A closed roller system can sometimes prevent snow and ice from impeding the rolling action of the gate.

Cons:
- Bearings in these systems are not typically sealed, requiring more maintenance and grease to keep the bearings within the trucks running smoothly. Grease will accumulate grit, especially in dusty environments and requires constant cleaning to maintain smooth gate action.
- Overhead systems do not usually work well with ornamental gates as the required track looks very industrial if not hidden by the gate.
- Arched top gates are not an option.
- Gate weight is constantly pulling down on the track resulting in limited weight capacity.

Chainlink exposed-roller systems

Pros:
- Economical: As this system uses the bottom pipe of the chainlink gate there is no track to purchase, only the rollers to support and guide the gate.

Cons:
- These gate have little aesthetic appeal, and typically only used in industrial applications.
- The gate can get very dirty from the wheel lubrication spreading along the gate frame.
- These gates typically have the least smooth action.
- The rollers are exposed and require constant cleaning.
- Gate requires a minimum 50% counter balance (tail section).

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An office building in Pennsylvania wanted a fence and small gate to allow access to their building. Ebinger Ironworks suggested our cantilever sliding gate hardware since there was no room for a swinging gate.

You will see in the pictures that the carriages are secured to a long steel plate since the carriages could not be fastened to the patio blocks. The plate is then fastened to the posts that make the frame of the gate.

Duragates hardware complies with ASTM F2200 & UL325 safety standards as the carriages are inside the track so there are no pinch points. The upper guide also has roller covers to protect fingers from getting trapped in the rollers.

This residential gate in Seattle, Washington uses our CGS-KIT150. This cantilever kit was perfect for the 12 foot opening since the gate weighed only 300 pounds. The wooden framed gate is used to close off a backyard patio that is close to a road.

Scan the QR code to view more Duragates projects.

A swing gate on this porch was not feasible. If the gate were to swing either in or out it would interfere with the porch and steps making it difficult to move around.

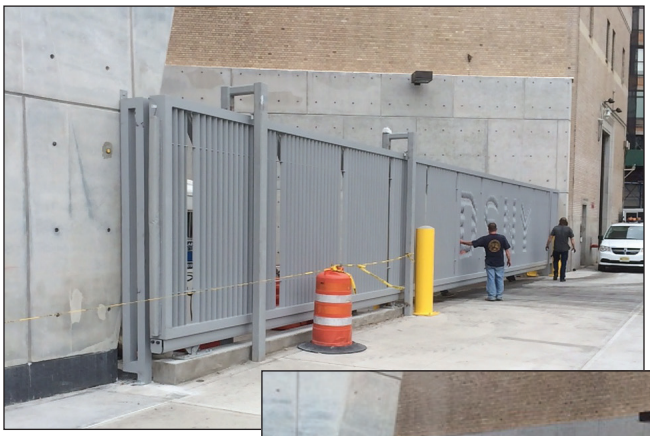
Duragates, galvanized steel track model CGS-250.8M, was the perfect choice as the tail end is short and the carriages are off to the side allowing the focus to be on the decorative gate itself. To secure the gate, a mechanical code sliding gate lock by Locinox has been used. Another added convenience...no keys for the homeowner to worry about.

Thank you to John, at Signature Quality Landscape in Seattle, Washington, for sharing his sliding gate project with us.

This highly ornamental steel gate spans an opening of over 30ft. and was fabricated by Emerald Ironworks, Inc. The short fence along the property made it challenging to use traditional sliding gate hardware as it would be visible from the front.

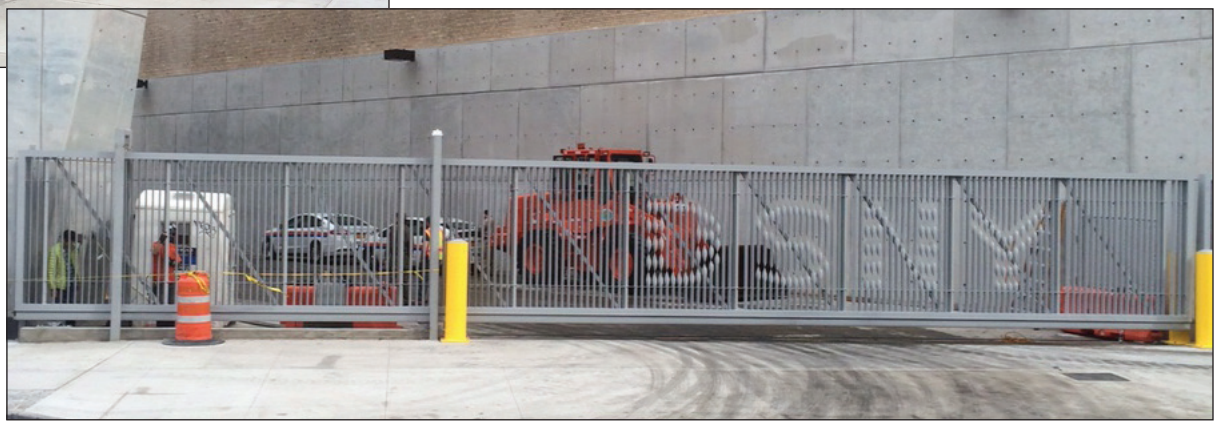
With Duragates hardware you don't need any weight on the counterbalance as the carriages take the entire load.

Hence, the fabricator was able to build a short tail to the gate so that it is not visible from the front of the property.



Island Steel & Detailing Corporation did a fantastic job fabricating and installing two large gates using our DuraGates sliding gate hardware at the Spring Street Salt Shed on the Manhattan waterfront.

The two rollings gates, 40 feet/3200 pounds and 26 feet/2200 pounds, use our largest steel model, the CGS-350.8G, which can accommodate an opening up to 59 feet and a weight of 4000 pounds. Even though the gate hardware is large, it is barely visible making the gate an attractive addition to the outside of the building.



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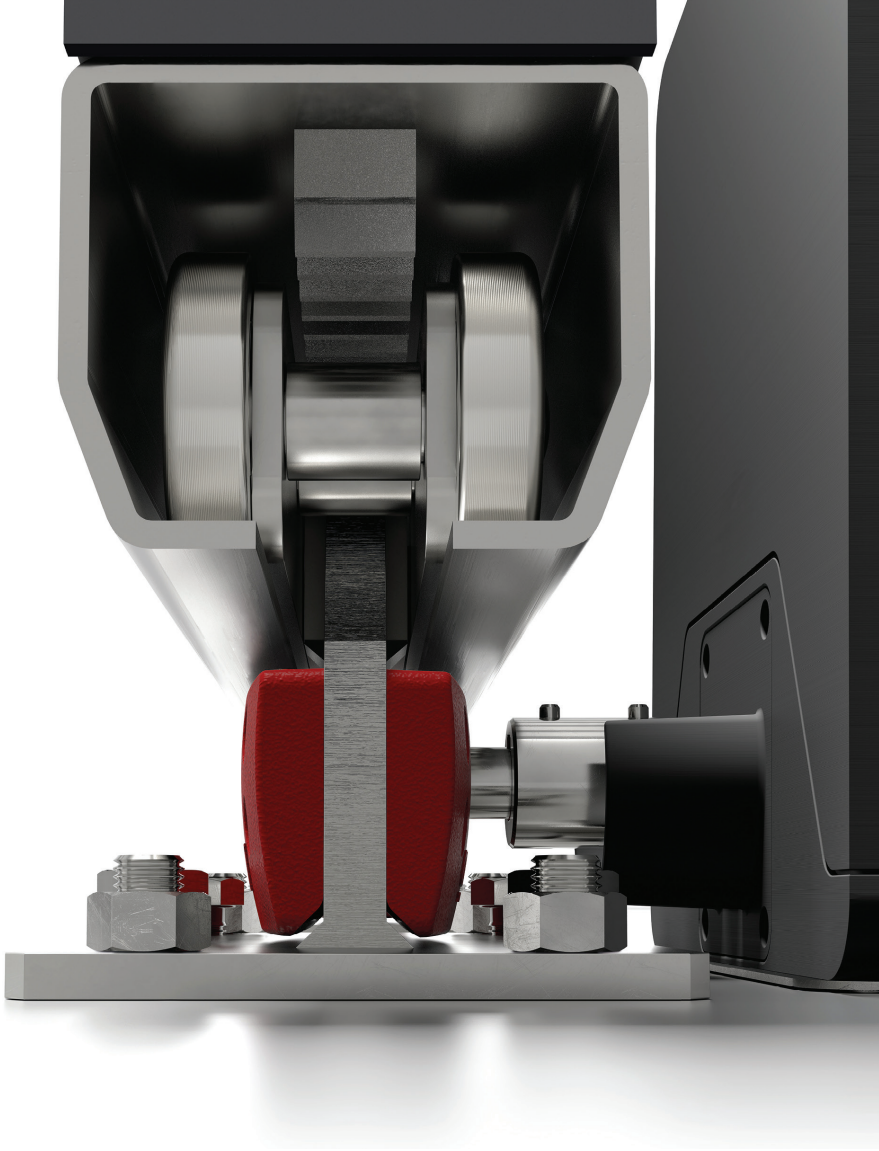
The Integrator



A galvanized steel cantilever system with internal gear-rack drive system.

Integrated protection:

- ...from the weather
- ...from tampering
- ...from personal injury
- ...from unsighty chains

Automation ready.

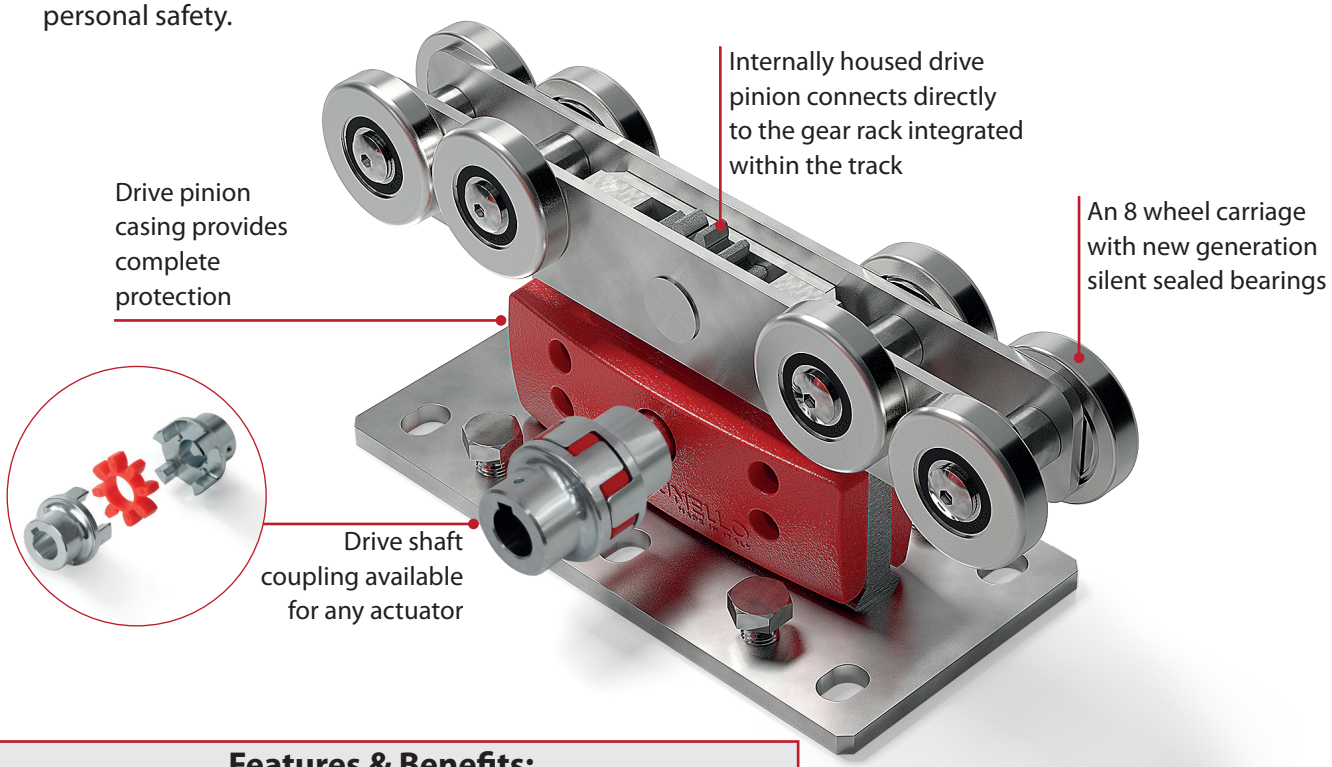
Makes the mechanics disappear for a clean simple look.

COMUNELLOGATE

Watch a video for more information.

The Integrator hides the drive gear in the carriage and the gear rack inside the track and couples the gate operator directly to the carriage for a unique integrated system that completely hides the drive mechanics.

- The drive pinion and gear rack are completely protected inside the carriage and track, which guarantees excellent protection from ice blockages and other weather related problems.
- Carriage with integrated pinion provides for an easy installation: simply connect the carriage directly to the gate operator using the drive shaft coupling
- Suitable for temperatures ranging from -22°F to 176°F.
- The integrated drive system protects the moving parts and gives a clean, elegant look while increasing personal safety.



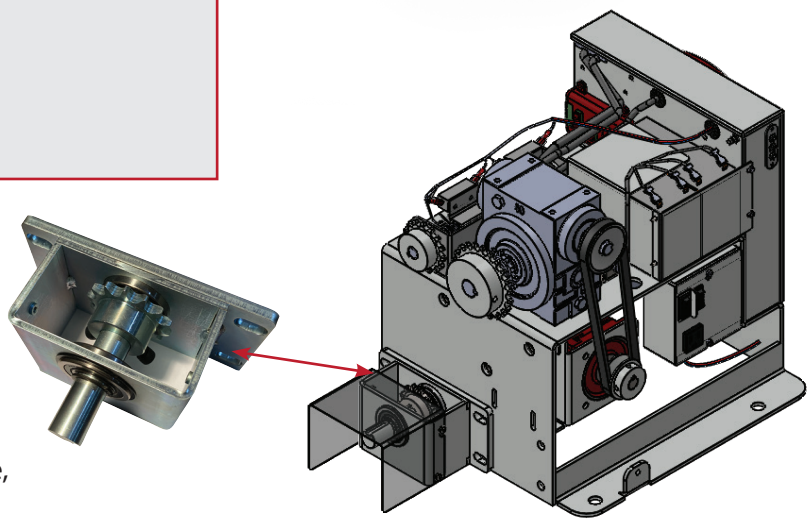
Features & Benefits:

- Noiseless bearings of new generation shielded to protect against dust suitable for temperatures from -22°F to 176°F
- Self-balancing
- 8 support wheels for each carriage
- Quiet operation
- Increased personal safety
- Next Gen technology

CGS-MP-ADP

Jack Shaft Chain Drive Adaptor

When used in conjunction with the CG-58 coupling, this allows a typical chain drive gate operator to be used to drive the DuraGates Integrator carriage to open, close, and control a cantilever slide gate.



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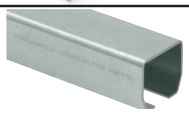
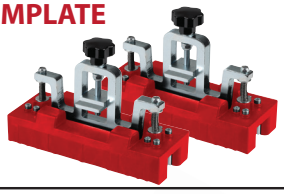
Model	CGS-500.8M	CGS-500.8P	CGS-500.8G
Opening range: Weight:	10 ft. up to 840 lbs. 24 ft. up to 830 lbs.	12 ft. up to 1400 lbs. 35 ft. up to 1300 lbs.	16 ft. up to 2700 lbs. 52 ft. up to 2350 lbs.
CARRIAGES 	**CGS-500.8M** Small Primary/Secondary 8-Wheel Carriage Set • Driven Primary Carriage • Secondary Carriage	**CGS-500.8P** Large Primary/Secondary 8-Wheel Carriage Set • Driven Primary Carriage • Secondary Carriage	**CGS-500.8G** Grande Primary/Secondary 8-Wheel Carriage Set • Driven Primary Carriage • Secondary Carriage
TRACK 	**CGS-345M** Small, galvanized steel 19'8" or 9'10" lengths	**CGS-345P** Large, galvanized steel 19'8" or 9'10" lengths	**CGS-345G** Grande, galvanized steel 19'8" or 9'10" lengths
RACK 	**CG-50M** 4'11" Gear Rack w/Mounting Screws	**CG-50P** 4'11" Gear Rack w/Mounting Screws	**CG-50G** 3'4" Gear Rack w/Mounting Screws
TEMPLATE 	**CG-55M** Gear rack centering device Set of 2 pieces Installation tool to center and align gear rack in track	**CG-55P** Gear rack centering device Set of 2 pieces Installation tool to center and align gear rack in track	**CG-55G** Gear rack centering device Set of 2 pieces Installation tool to center and align gear rack in track
ADAPTER 	**CG-58** Drive Shaft Coupling	**CG-58** Drive Shaft Coupling	**CG-58G** Drive Shaft Coupling
TYPICAL ACCESSORIES			
 **2x**	**CGS-347M** End Wheel for UL325 Compliance	**CGS-347P** End Wheel for UL325 Compliance	**CGS-347G** End Wheel for UL325 Compliance
 **2x**	**CG-21M** End Stopper w/o wheel for UL325 Compliance	**CG-21P** End Stopper w/o wheel for UL325 Compliance	**CG-21G** End Stopper w/o wheel for UL325 Compliance
 **1x**	**CGS-346M** Bottom End Cup	**CGS-346P** Bottom End Cup	**CGS-346G** Bottom End Cup
 **2x**	**CG-15M** Adjustable mounting bracket	**CG-15P** Adjustable mounting bracket	**CG-15G** Adjustable mounting bracket
 **1x**	**CG-30M** Gate receiver, 2" - 3" frame	**CG-30P** Gate receiver, 3-3/8" - 4-1/2" frame	**CG-30G** Gate receiver, 4" - 6" frame
 **12x**	**CG-348-M16** Threaded J-bolt for mounting carriages.	**CG-348-M16** Threaded J-bolt for mounting carriages.	**CG-348-M20** Threaded J-bolt for mounting carriages.
 **2x**	**CG-05P** Foundation plate for carriage	**CG-05P** Foundation plate for carriage	**CG-05G** Foundation plate for carriage

TOP GUIDE OPTIONS

Adjustable Guiding Plate with roller covers to avoid pinch points.

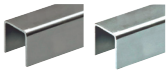
255-220-C
For up to 2⅜" frame

256-220
For up to 3" frames

256-300
For up to 4½" frames

SIDE MOUNT GUIDE OPTIONS

Galvanized & Aluminum Guide Rail



CG-254
Galvanized 1½" I.D. U-Channel, 9'10"

RG-387-19.68FT
RG-387-9.84FT
Galvanized 1¼" I.D. U-Channel

CG-237-20FT
CG-237-10FT
Aluminum 1¼" I.D. U-Channel

CG-252 *(Use with CG-254)*
Single Roller, 1½" dia.

CG-252-30
Single Roller, 1¼" dia.

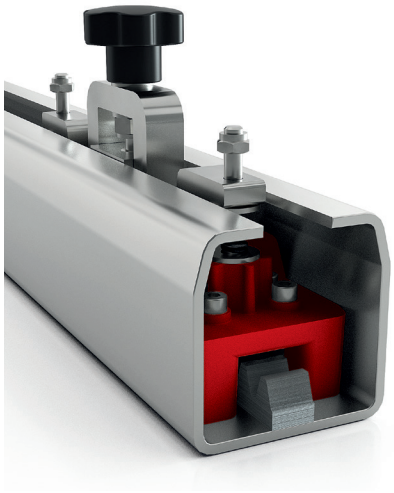
Nylon Replacement Rollers
230-30, 1¼" dia.
230-40, 1½" dia.

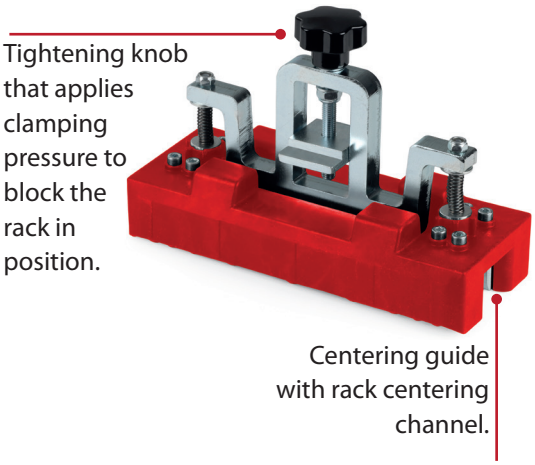
258-30
Double Roller
1¼" dia.

253-40
10" Side Roller
1¼" dia.
2" clearance
Use 2 per gate min.

USE FOR GATES WITH AN ARCHED TOP OR PROTRUDING PICKETS

The Integrator Gear Rack Installation Tool

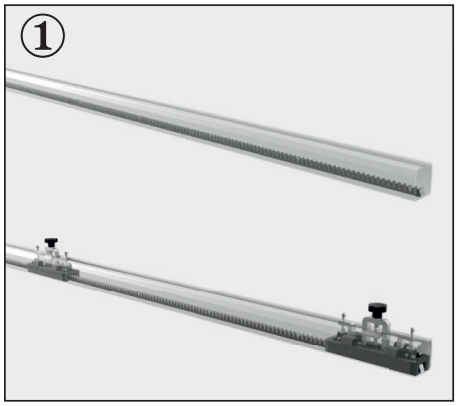


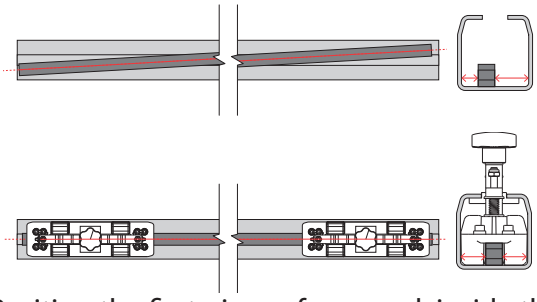


The integrator installation tool is a centering and alignment guide. It quickly and simply centers the gear rack along its length by sliding into position inside the track. The central slot in the guide base holds the gear rack centered in the track. The screw adjustment locks the tool in position so that the pre-drilled holes on the gear rack can be used as a template for drilling into the track. When a second piece of gear rack is required, just position the guide between the two gear racks and tighten the locking screw. This will perfectly align the teeth between the two gear racks.

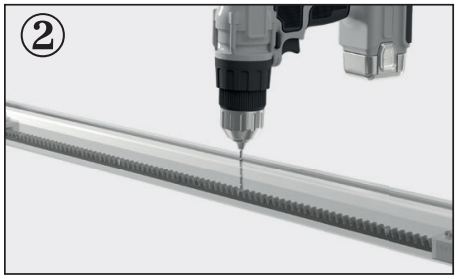
Drill Bit Sizes:

CG-50M	5.2mm
CG-50P	6.2mm
CG-50G	10.2mm

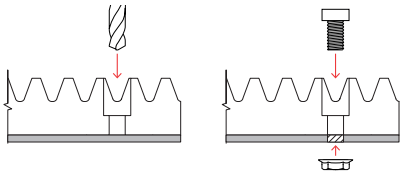


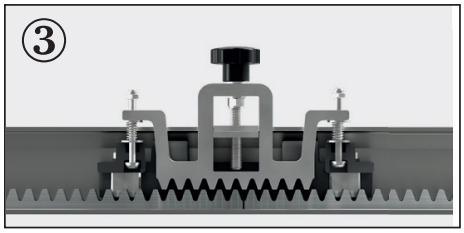


Position the first piece of gear rack inside the track. Use two template guides, one positioned at each end of the gear rack to center the gear rack lengthways within the track.

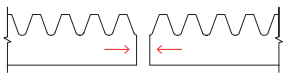


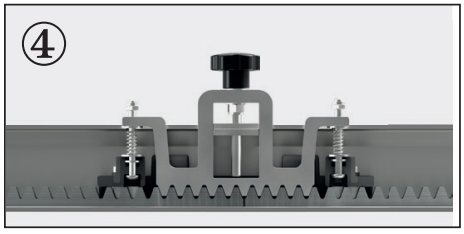
Using the pre-drilled gear rack as a guide, drill mounting holes in the track. Screw the gear rack to the track.





Insert the second piece of gear rack.





Position the template guide between two pieces of gear rack and tighten the locking screw. The gear rack teeth are registered and spaced correctly as the guide is tightened into place. After locking the second guide at the far end of the gear rack, use the pre-drilled gear rack as a guide to continue drilling mounting holes in the track.

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COMUNELLOGATE

Rolling Gate System

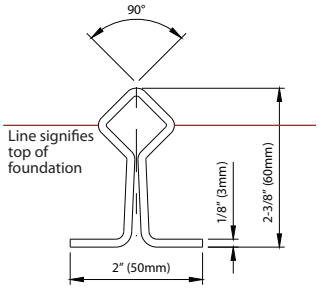
This galvanized ground rolling gate hardware is a high quality system for residential and commercial applications. The V-groove and Round track can either be cemented in the ground or bolted in place. A wide variety of wheels are available with weight capacities ranging from 485lbs - 4200lbs based on size and method for attaching to the gate.

V-GROOVE TRACK - GALVANIZED AND STAINLESS STEEL

To be recessed into the concrete foundation.

Galvanized

292-9.84FT
292-19.8FT



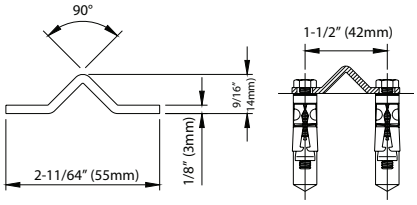
To be bolted in place.

Galvanized

293-9.84FT
293-19.8FT

Stainless Steel

293i-9.84FT
293i-19.8FT



Hole size: 1/4" x 5/16"

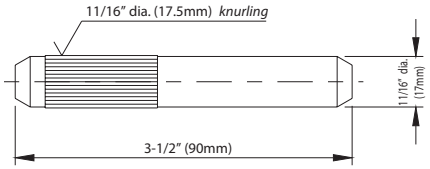
Spacing: 19-5/8" offset each side

V-GROOVE CONNECTION PINS - GALVANIZED AND STAINLESS STEEL

Connection pin to be used with track item 292

Galvanized

294



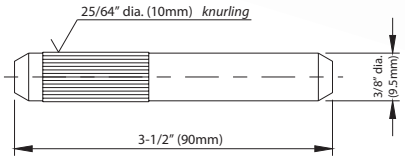
Connection pin to be used with track item 293

Galvanized

295

Stainless Steel

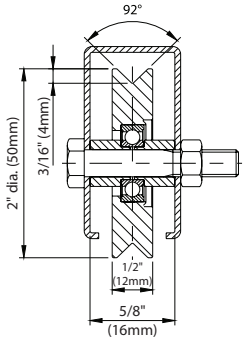
295i



STANDARD V-GROOVE WHEELS - GALVANIZED AND STAINLESS STEEL

300V-50

- 2" wheel with **single bearing**
- M8 x 30mm wheel pin
- 154lb capacity per wheel



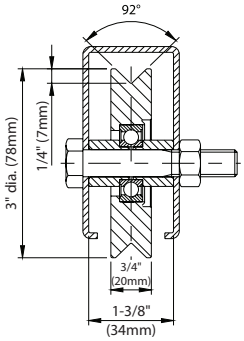
Galvanized

300V-80

Stainless Steel

300iV-80

- 3" wheel with **single bearing**
- M14 x 70mm wheel pin
- 440lb capacity per wheel



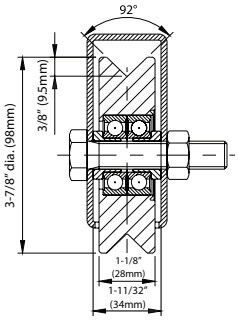
Galvanized

300V-100

Stainless Steel

300iV-100

- 4" wheel with **single bearing**
- M14 x 70mm wheel pin
- 485lb capacity per wheel



Galvanized

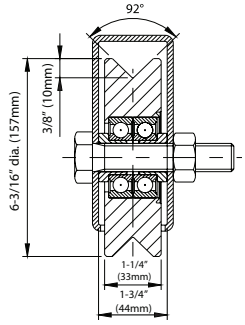
300V-160

- 640lb capacity per wheel

Stainless Steel

300iV-160

- 815lb capacity per wheel
- 6" wheel with **single bearing**
- M16 x 70mm wheel pin



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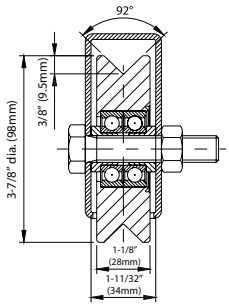
STANDARD V-GROOVE WHEELS - GALVANIZED AND STAINLESS STEEL

Galvanized
305V-100
- 940lb capacity per wheel

Stainless Steel
305iV-100
- 880lb capacity per wheel

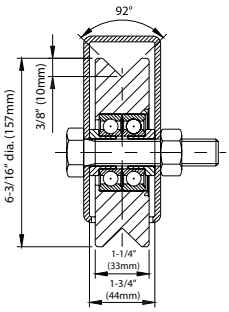
- 4" wheel with **double bearing**
- M14 x 70mm wheel pin



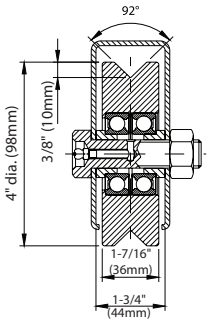
Galvanized
305V-160
- 1270lb capacity per wheel

Stainless Steel
305iV-160
- 1697lb capacity per wheel

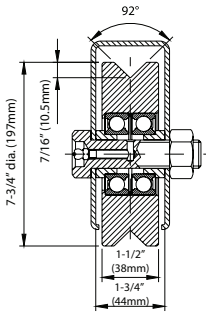
- 6" wheel with **double bearing**
- M16 x 70mm wheel pin

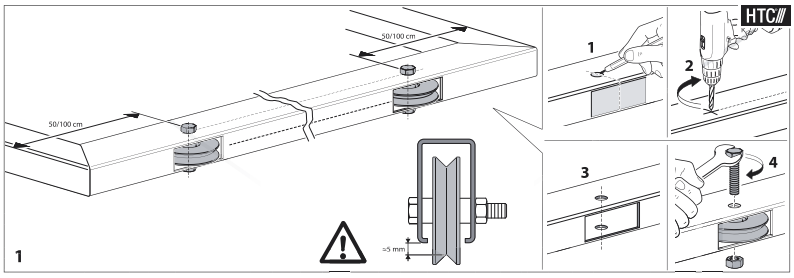


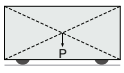
322V-100
- 4" heavy duty wheel with **double bearing**
- M18 x 70mm wheel pin
- 1278lb capacity per wheel
- grease zerk fittings in axle



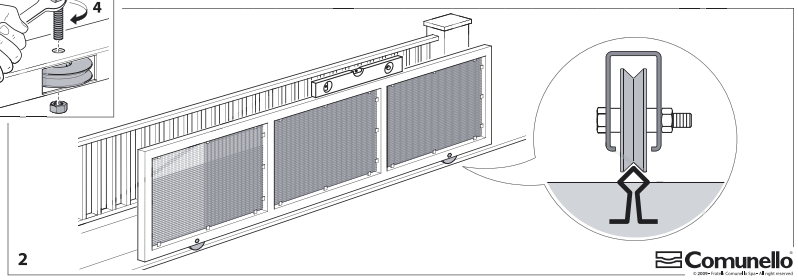
322V-200
- 8" heavy duty wheel with **double bearing**
- M18 x 70mm wheel pin
- 2205lb capacity per wheel
- grease zerk fittings in axle







Equally distributed weight



Deadbeach Brewery was looking for a gate option for the entry to their brewery. The steel gate the brewery was envisioning was going to be heavy. The rolling gate needed sturdy track and wheels to support the weight of the gate.

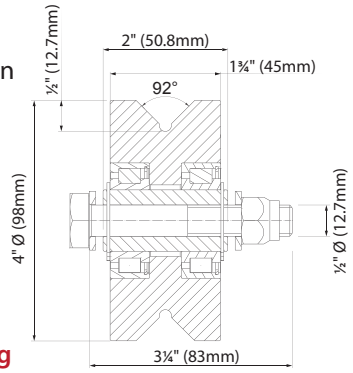
Black Knuckle Metals suggested the V-groove profile ground track and heavy duty wheels to roll the gate. The final gate works flawlessly and incorporates the Brewery's logo and features a laser cut hops design at the bottom of the gate.

Items used:
293 and 305V-160

HEAVY DUTY Y-GROOVE WHEELS WITH GATE BOXES - GALVANIZED

304Y-4

- 4" wheel with **double bearing**
- 1/2" x 3-1/4" wheel pin
- 2200lb capacity per wheel

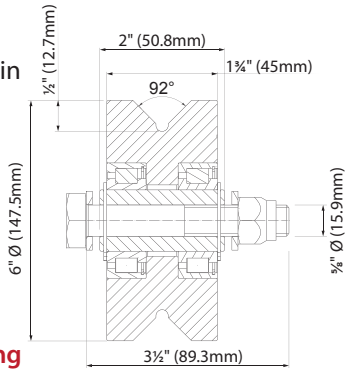


304Y-4HD

- 4" wheel with **double rolling bearing**
- 1/2" x 3-1/4" wheel pin
- 4500lb capacity per wheel

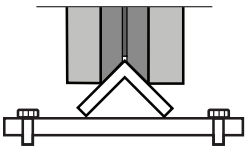
307Y-6

- 6" wheel with **double bearing**
- 5/8" x 3-1/2" wheel pin
- 2640lb capacity per wheel

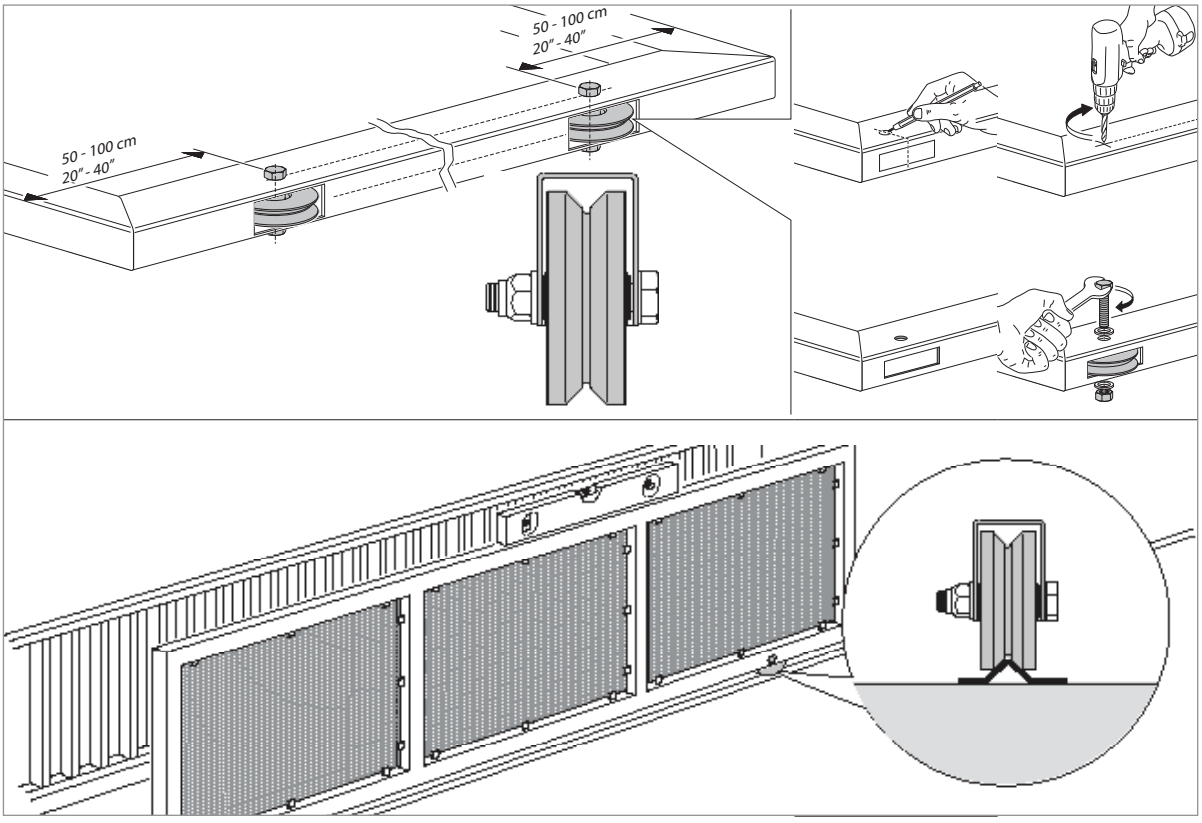


307Y-6HD

- 6" wheel with **double rolling bearing**
- 5/8" x 3-1/2" wheel pin
- 7500lb capacity per wheel



These heavy duty high performance wheels are an upgrade replacement for Power Wheel users, and are designed for 1" or larger angle stitch welded to 4" or wider flat bar tracks.



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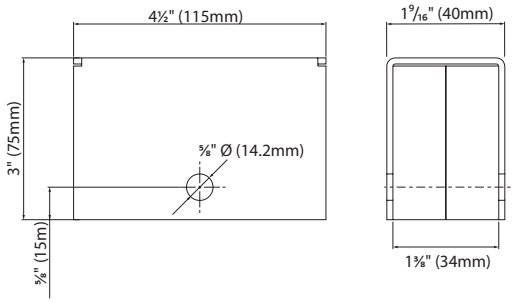
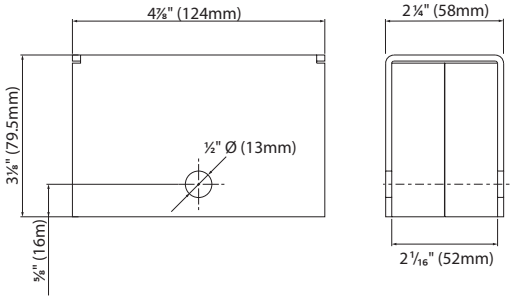
SUPPORT BOXES FOR WHEELS - GALVANIZED OR RAW STEEL

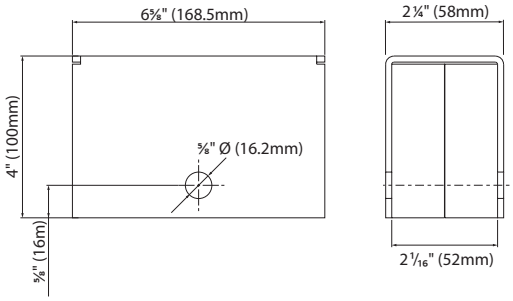
GATE BOX-4-G
GATE BOX-4-R
4" wheel support box
for wheels less than
34mm wide. Available
"G" Galvanized or "R" Raw

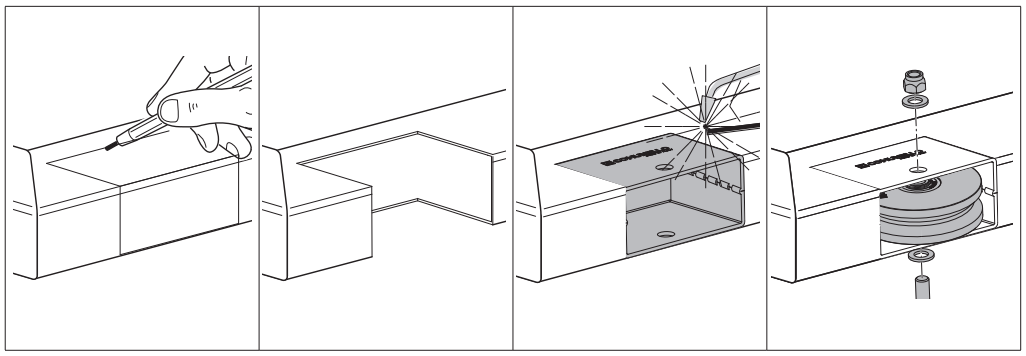


GATE BOX-4HD-G
GATE BOX-4HD-R
4" wheel support box
for wheels less than
45mm wide. Available
"G" Galvanized or "R" Raw

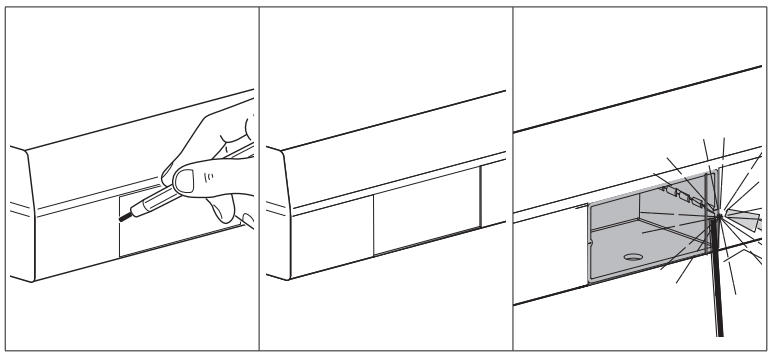


GATE BOX-6HD-G
GATE BOX-6HD-R
6" wheel support box /
for wheels less than
45mm wide. Available
"G" Galvanized or "R" Raw





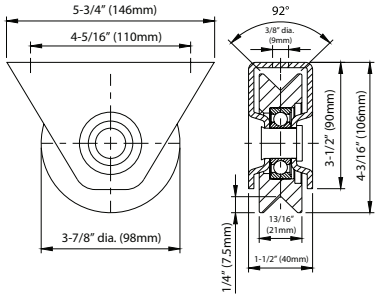
OR



SURFACE MOUNTED V-GROOVE WHEELS - GALVANIZED

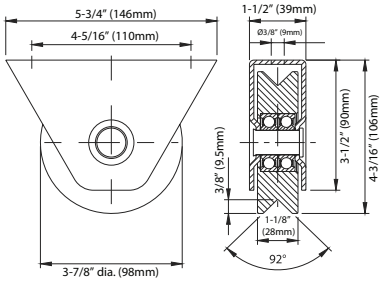
325V-100

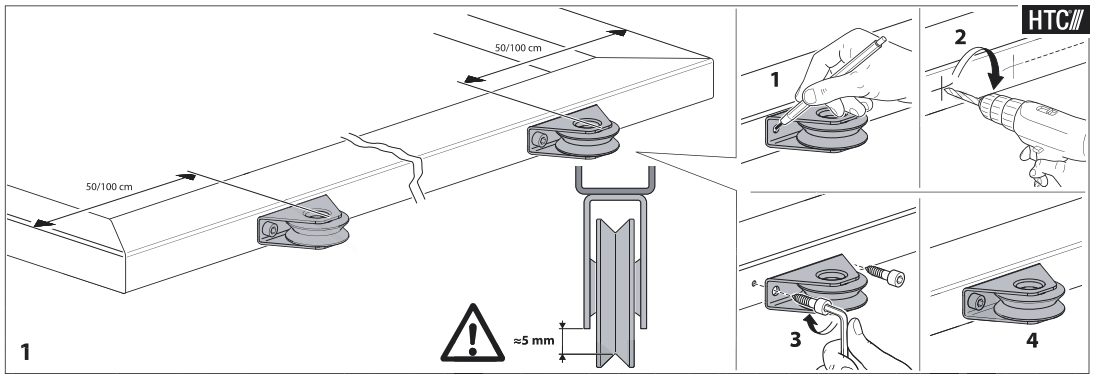
- 4" wheel with **single bearing** and external surface mount support
- 485lb capacity per wheel

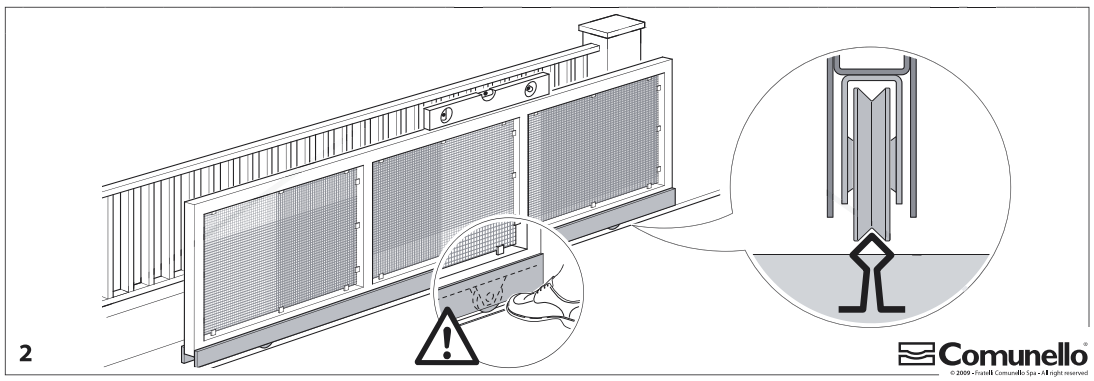


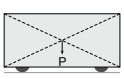
326V-100

- 4" wheel with **double bearing** and external surface mount support
- 890lb capacity per wheel









Equally distributed weight

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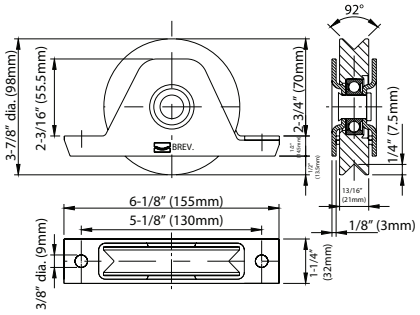
RECESSED MOUNT V-GROOVE WHEELS - GALVANIZED AND STAINLESS STEEL

Galvanized
335V-100

Stainless Steel
335iV-100

- 4" wheel with **single bearing** and recessed mounting plate
- 440lb capacity per wheel



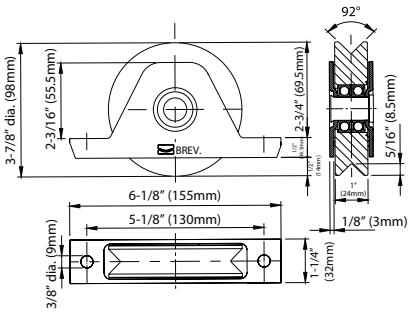
Galvanized
336V-100

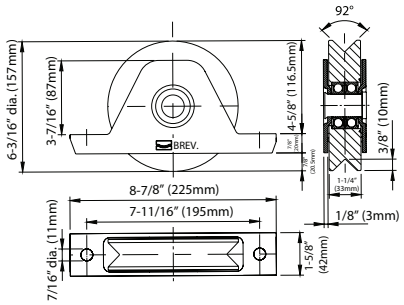
Stainless Steel
336iV-100

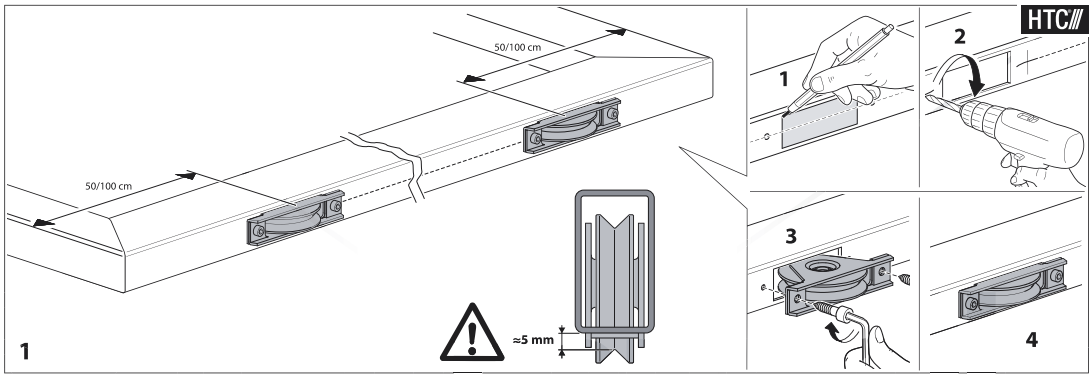
- 4" wheel with **double bearing** and recessed mounting plate
- 837lb capacity per wheel

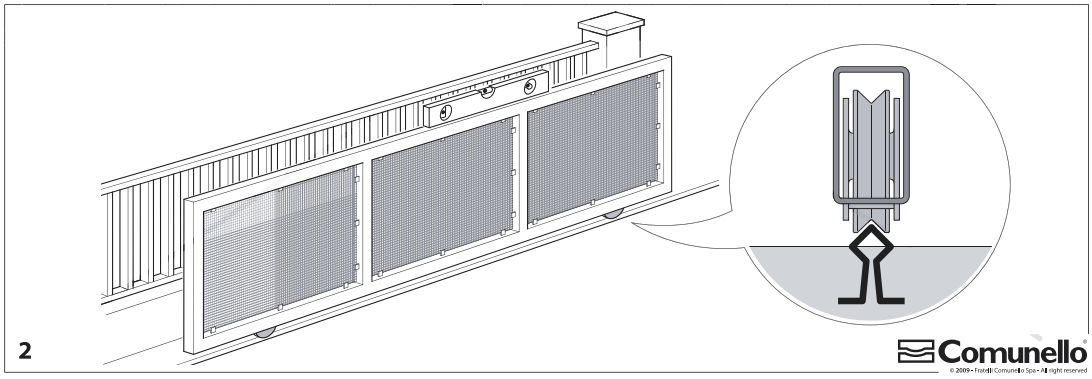
336V-160

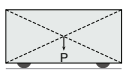
- 6" wheel with **double bearing** and recessed mounting plate
- 1410lb capacity per wheel









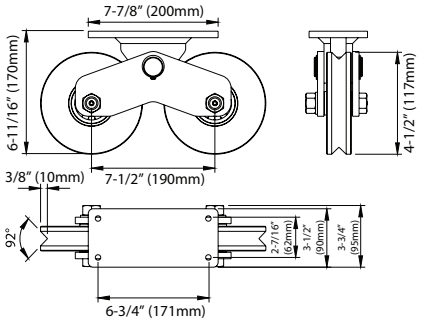


Equally distributed weight

HD TWIN WHEEL V-GROOVE - GALVANIZED

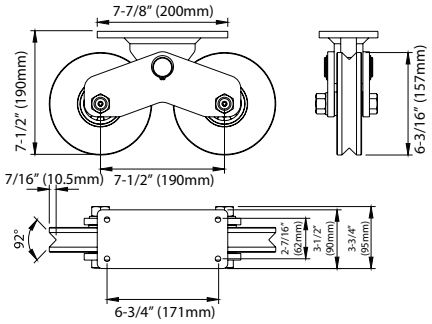
339V-120

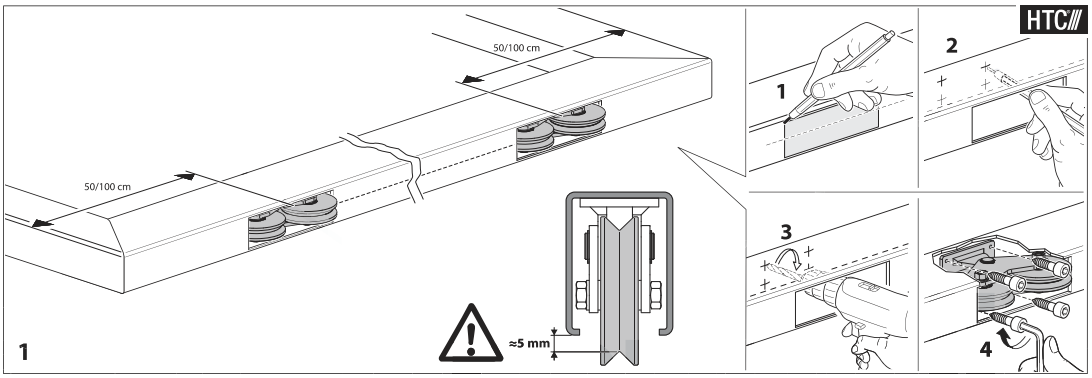
- 4-3/4" heavy duty surface mounted twin wheels with **double bearing**
- M18 x 80mm wheel pin
- 2645lb capacity per wheel
- grease zerk fittings in axle

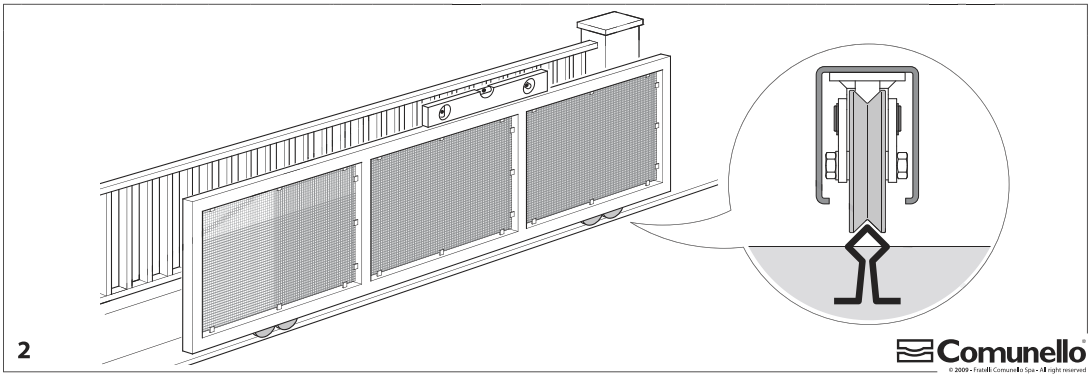


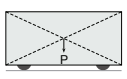
339V-160

- 6" heavy duty surface mounted twin wheels with **double bearing**
- M18 x 80mm wheel pin
- 4230lb capacity per wheel
- grease zerk fittings in axle









Equally distributed weight

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WHY ROUND?

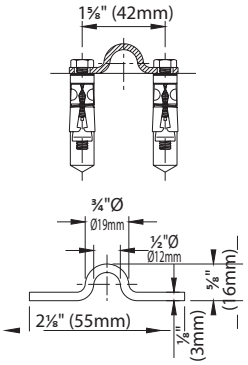
- Improved rolling performance over time
- The weight of the gate does not ride on the top of a "V", but across the top of the round surface
- Rolls easier
- Lasts longer

ROUND TRACK - GALVANIZED AND STAINLESS STEEL

To be bolted in place.

Galvanized
289G-19.68FT
289G-9.84FT

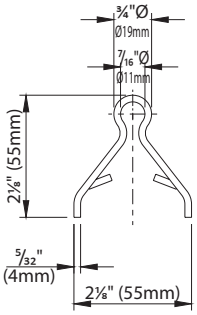
Stainless Steel
289iG-19.68FT
289iG-9.84FT

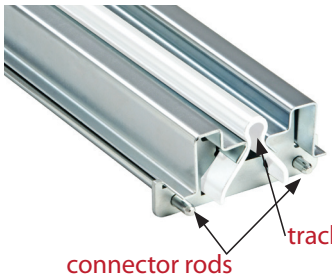


To be recessed into the concrete foundation.

Galvanized
287G-19.68FT
287G-9.84FT

Stainless Steel
287iG-19.68FT
287iG-9.84FT

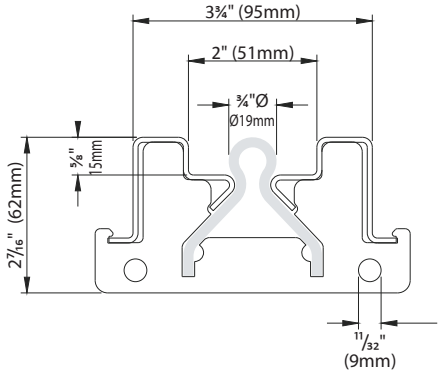




The connector rods are 9mm dia. (approx 11/32" dia.)

287FP-G-19.68FT
287FP-G-9.84FT
Galvanized, recessed guide so track is mounted at floor level.

Track and connector rods sold separately.

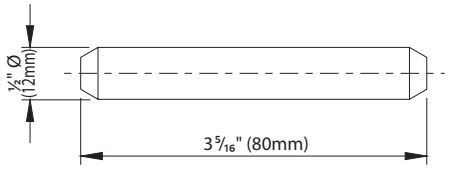


CONNECTION PINS - GALVANIZED AND STAINLESS STEEL

Connection pin to be used with track item 289G

Galvanized
291

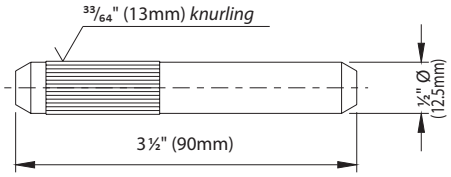
Stainless Steel
291i



Connection pin to be used with track item 287G

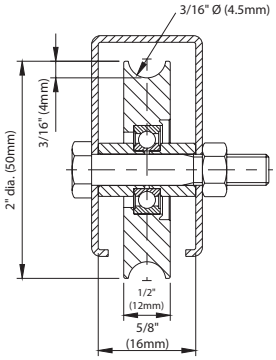
Galvanized
297

Stainless Steel
297i

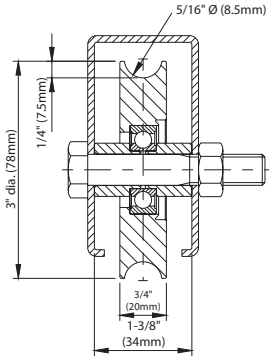


STANDARD ROUND PROFILE WHEELS - GALVANIZED AND STAINLESS STEEL

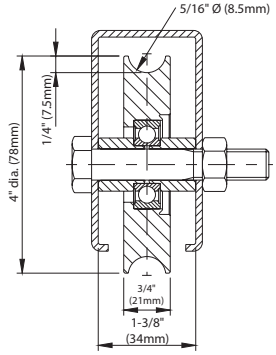
310-50
- 2" wheel with **single bearing**
- M8 x 30mm wheel pin
- 154lb capacity per wheel



310-80
- 3" wheel with **single bearing**
- M14 x 70mm wheel pin
- 440lb capacity per wheel



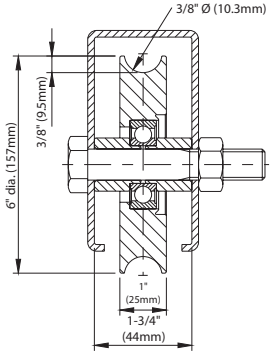
310-100
- 4" wheel with **single bearing**
- M14 x 70mm wheel pin
- 485lb capacity per wheel



Galvanized
310-160
- 640lb capacity per wheel

Stainless Steel
310i-160
- 815lb capacity per wheel

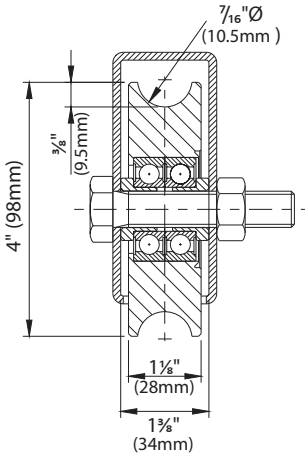
- 6" wheel with **single bearing**
- M16 x 70mm wheel pin



Galvanized
315-100
- 935lb capacity per wheel

Stainless Steel
315i-100
- 880lb capacity per wheel

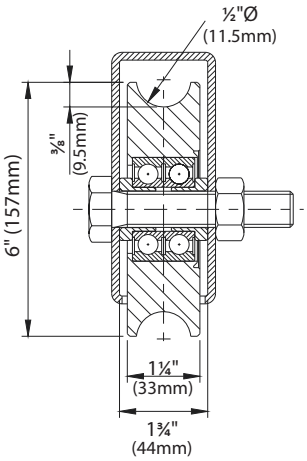
- 4" heavy duty wheel with **double bearing**
- M14 x 70mm wheel pin



Galvanized
315-160
- 1267lb capacity per wheel

Stainless Steel
315i-160
- 1697lb capacity per wheel

- 6" heavy duty wheel with **double bearing**
- M16 x 70mm wheel pin



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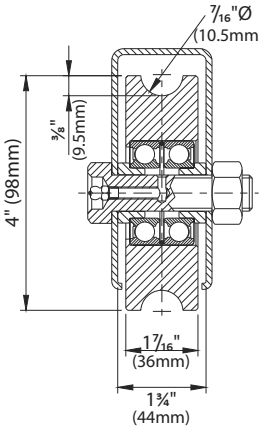
STANDARD ROUND PROFILE WHEELS - GALVANIZED

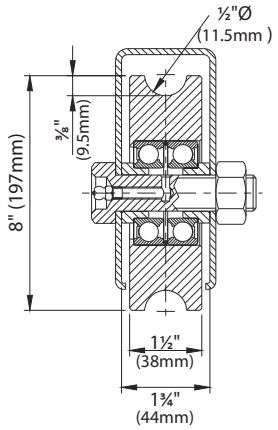
324-100 (C-44)

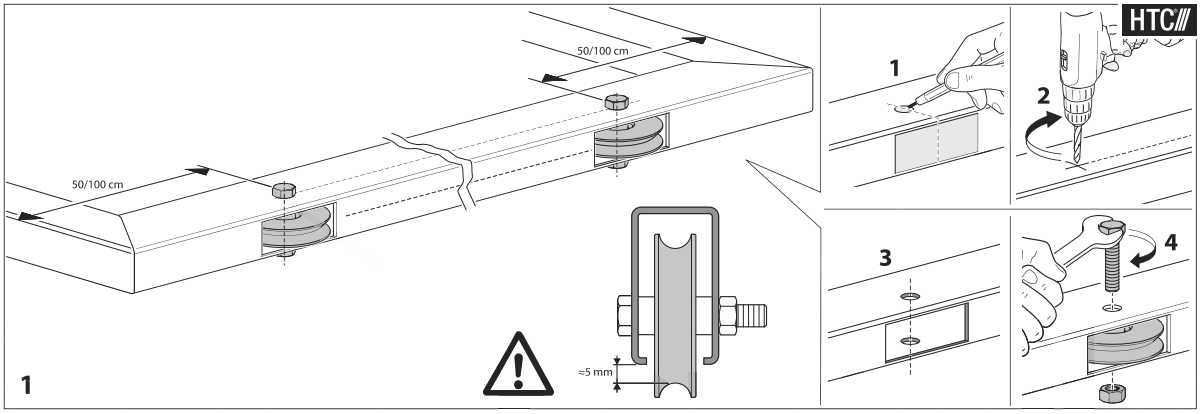
- 4" heavy duty wheel with **double bearing**
- M18 x 70mm wheel pin
- 1278 lb. capacity per wheel
- grease zerk fittings in axle

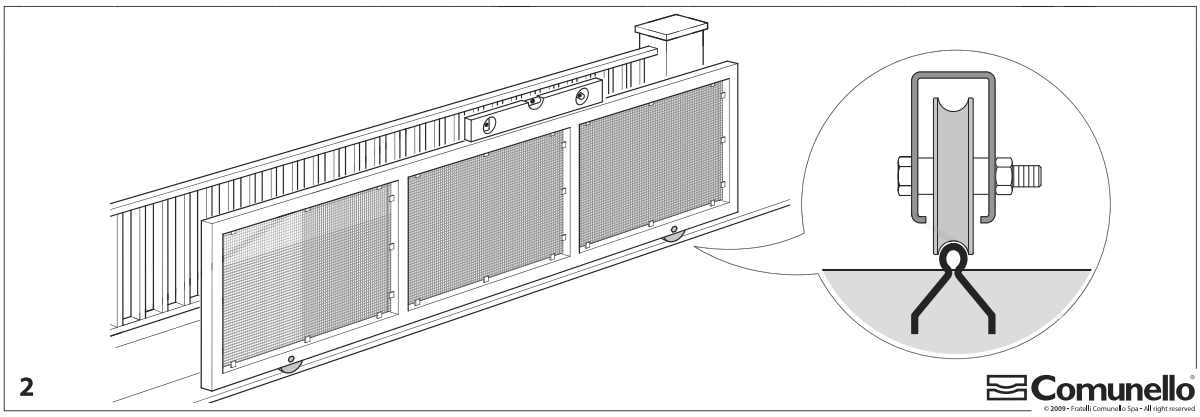


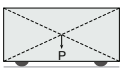
324-200 (C-44)

- 8" heavy duty wheel with **double bearing**
- M18 x 70mm wheel pin
- 2200 lb. capacity per wheel
- grease zerk fittings in axle







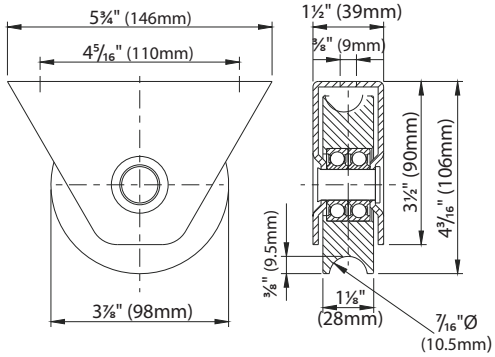


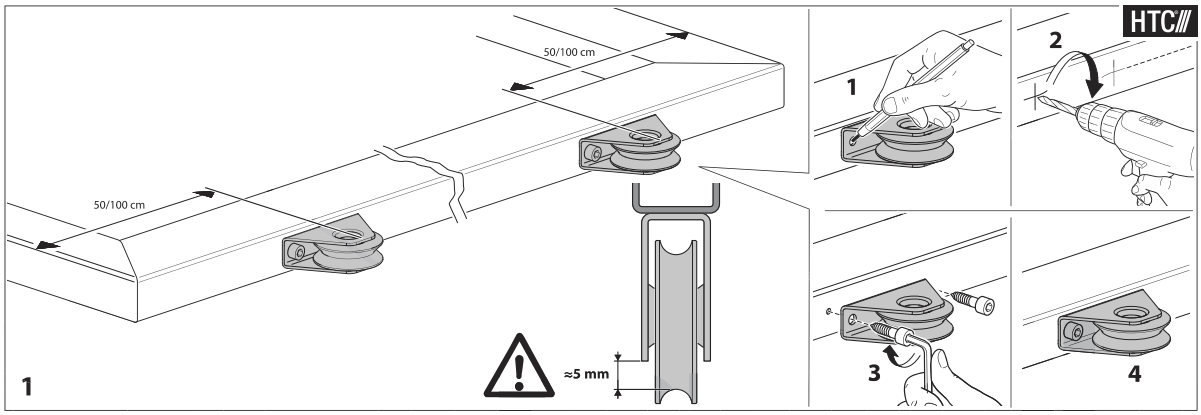
Equally distributed weight

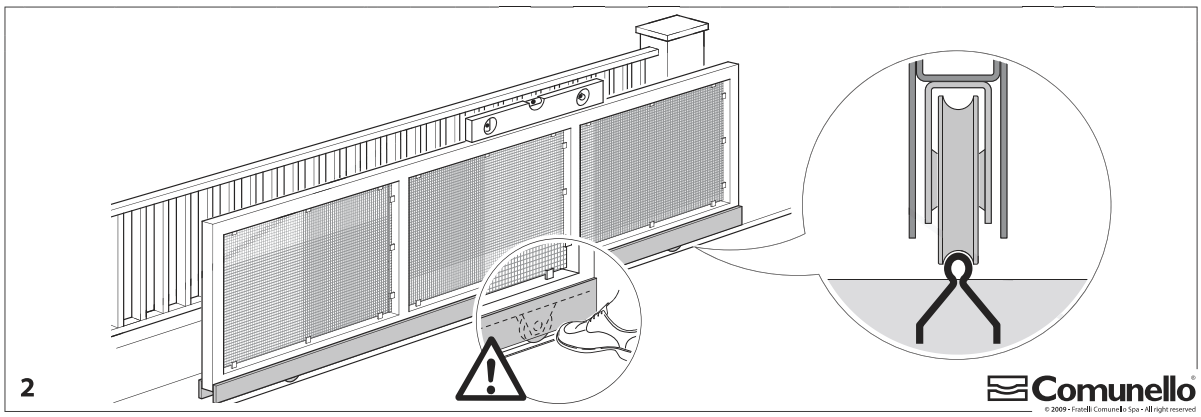
SURFACE MOUNTED ROUND PROFILE WHEEL - GALVANIZED

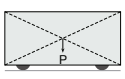
328-100

- 4" wheel with **double bearing** and external surface mount support
- 880 lb. capacity per wheel









Equally distributed weight

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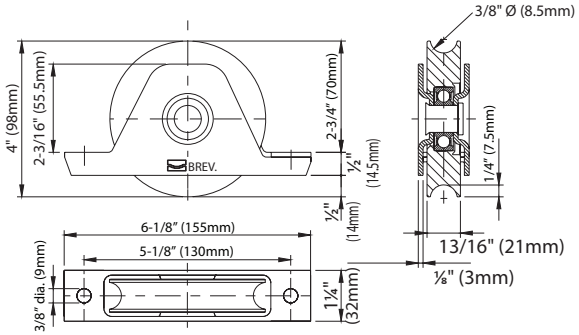
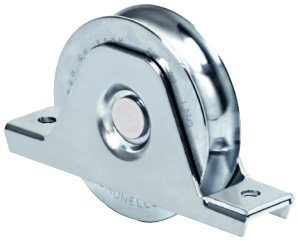
RECESSED MOUNTED ROUND PROFILE WHEELS - GALVANIZED AND STAINLESS STEEL

337-100

- 4" wheel with **single bearing** and recessed mounting plate
- 440lb capacity per wheel





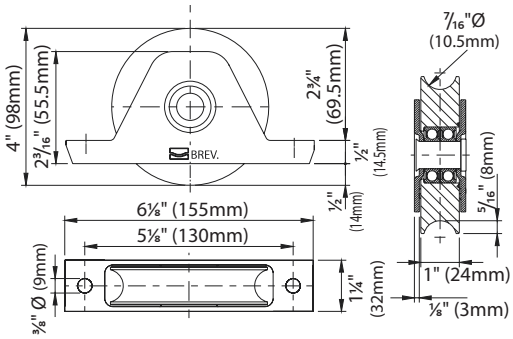
Galvanized
338-100

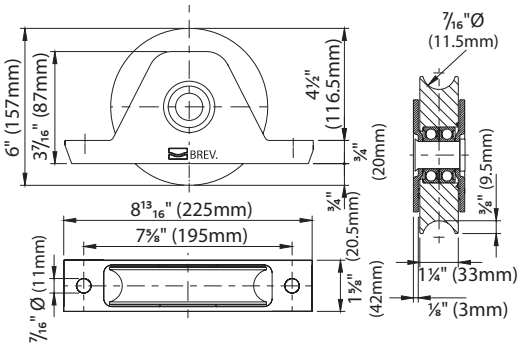
Stainless Steel
338i-100

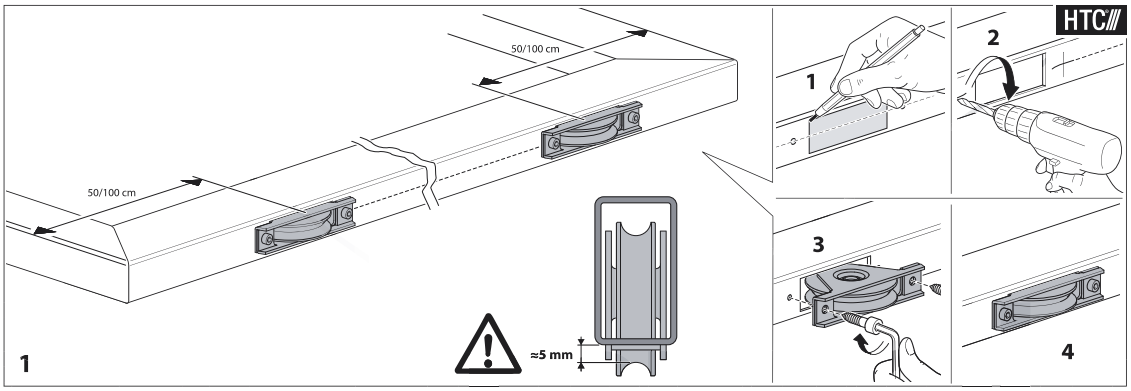
- 4" wheel with **double bearing** and recessed mounting plate
- 837 lb. capacity per wheel

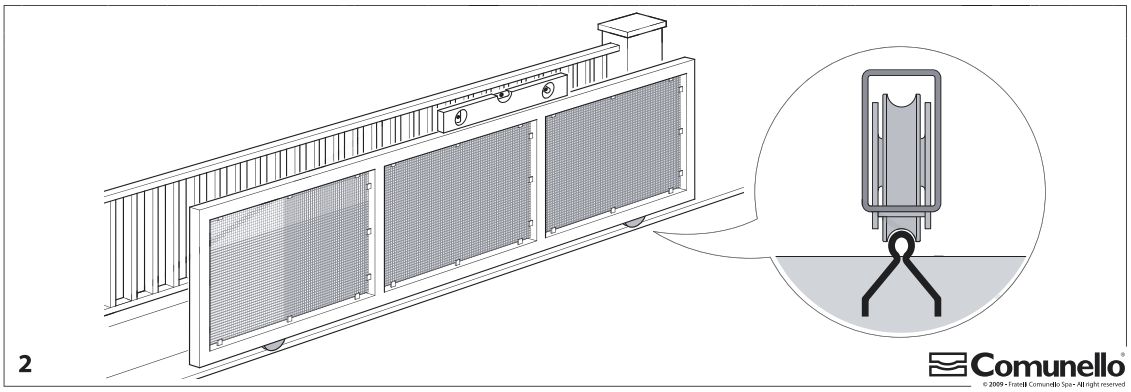
338-160

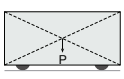
- 6" wheel with **double bearing** and recessed mounting plate
- 1410 lb. capacity per wheel







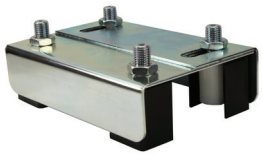




Equally distributed weight

TOP GUIDE OPTIONS - GALVANIZED

Adjustable Guiding Plate with roller covers to avoid pinch points.



255-220-C
For up to 2⅜" frame

256-220
For up to 3" frames

256-300
For up to 4½" frames

247
For 1¼" to 2" Frames

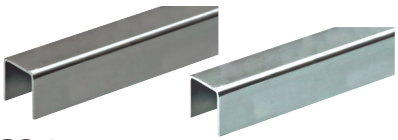
247F
For up to 3⅜" frames

249-30
Wall mount top guide

SIDE MOUNT GUIDE OPTIONS - GALVANIZED

USE FOR GATES WITH AN ARCHED TOP OR PROTRUDING PICKETS

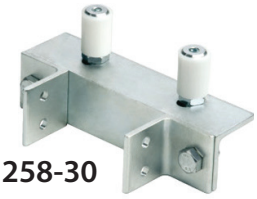
Galvanized & Aluminum Guide Rail



CG-254
Galvanized 1½" I.D. U-Channel, 9'10"

RG-387-19.68FT
RG-387-9.84FT
Galvanized 1¼" I.D. U-Channel

CG-237-20FT
CG-237-10FT
Aluminum 1¼" I.D. U-Channel



258-30
Double Roller
1¼" dia.

CG-252-30
Single Roller
1¼" dia.

CG-252
Single Roller
1½" dia.
(Use with CG-254)

253-40
10" Side Roller
1-1/4" dia.
2" clearance
Use 2 per gate min.

Non Marring
Rubber Rollers
2-1/4" dia.
NR3
3" Roller
NR6
6" Roller

Rubber Rollers
2-3/8" dia.
RR3
3" Roller
RR6
6" Roller
RR12
12" Roller

GATE STOPS - GALVANIZED

201
Gate stop with triple function. Mounted via screws. 5-3/16" high.

202
Runaway gate stop. Mounted via screws. 4-3/4" high.

202F-A
Damped runaway gate stop. Mounted via screws. 4-3/16" high.

202F-B
Adjustable gate stop. Slot to accommodate up to a 2-1/2" gate frame. mounted via screws. 5-1/8" high.

NYLON REPLACEMENT ROLLERS

230-30
1-1/4" dia.
(30mm)

230-40
1-1/2" dia.
(39mm)

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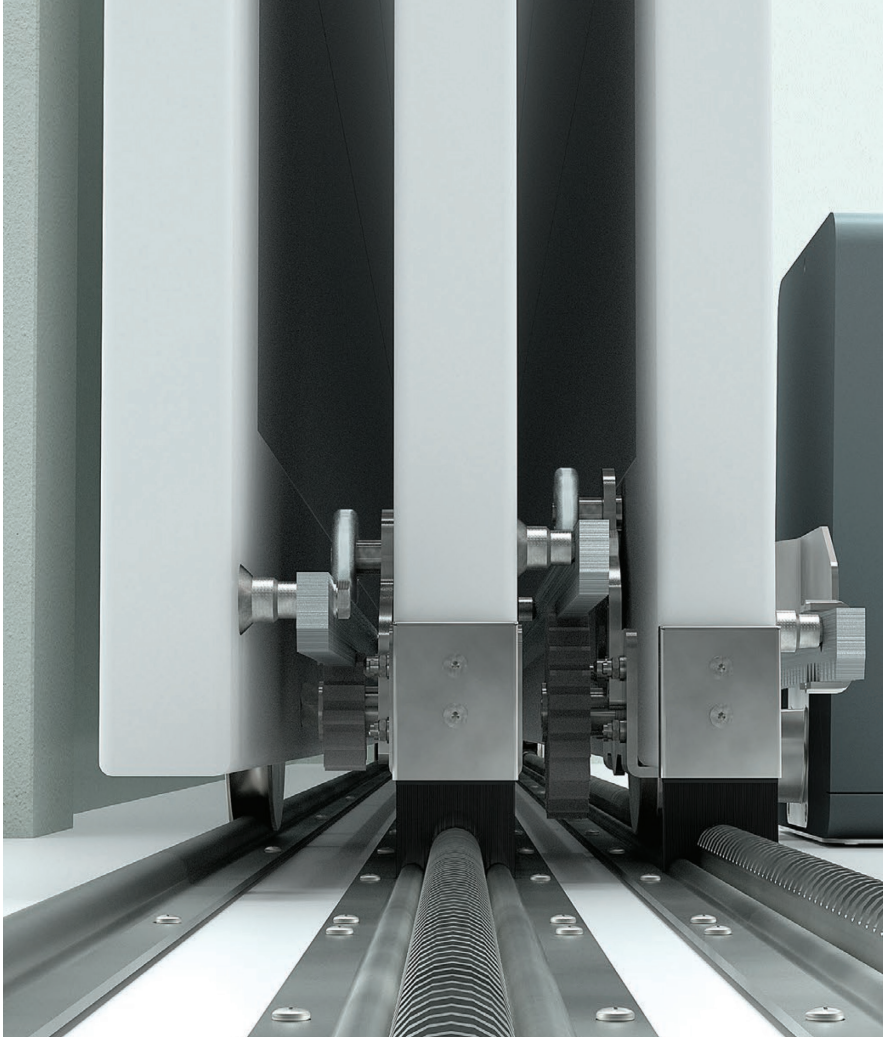
Ranger

Telescoping gate system

- Up to 40ft opening requiring only 15ft of space to slide into
- Low maintenance
- Maintains precision
- No unsightly cables

Telescoping Gate Configurator available at archirondesign.com/comunello



COMUNELLOGATE

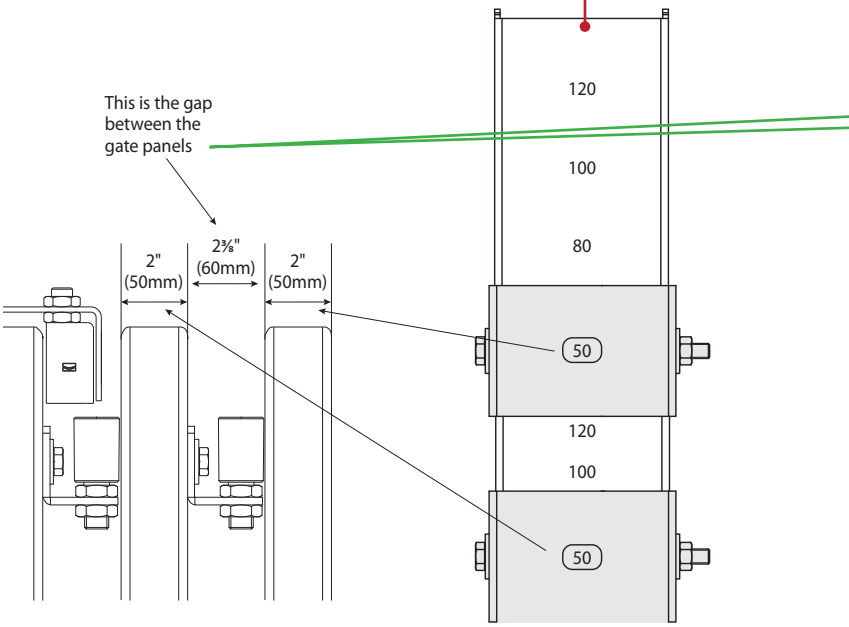
The Ranger telescoping system uses an innovative ground mounted rack track to drive a second leaf from the first. This track transmits movement using a system of hidden pinions that connect to the side gear rack, driving the next leaf. The simplicity of the Ranger system ensures that it is easy to install, performs reliably, and requires little maintenance. No cables are used so there is no stretching and no regular adjustments are needed. The rack track is brushed clean on every opening by the two cleaning brushes installed on the front and back of each gate leaf.

Watch a video for more information.

Ranger features:

- 2 leaf telescoping system
  —Max Gate Leaf 14'4" and 880 lbs.
- 3 leaf telescoping system
  —Max Gate Leaf of 14'7" and 440 lbs.
- Durable galvanized and zinc coated steel hardware
- Large gate opening possible for compact spaces
- Precise, high quality, ground-mounted rack driven track system
- Cableless rack and pinion transmission of movement between the leaves

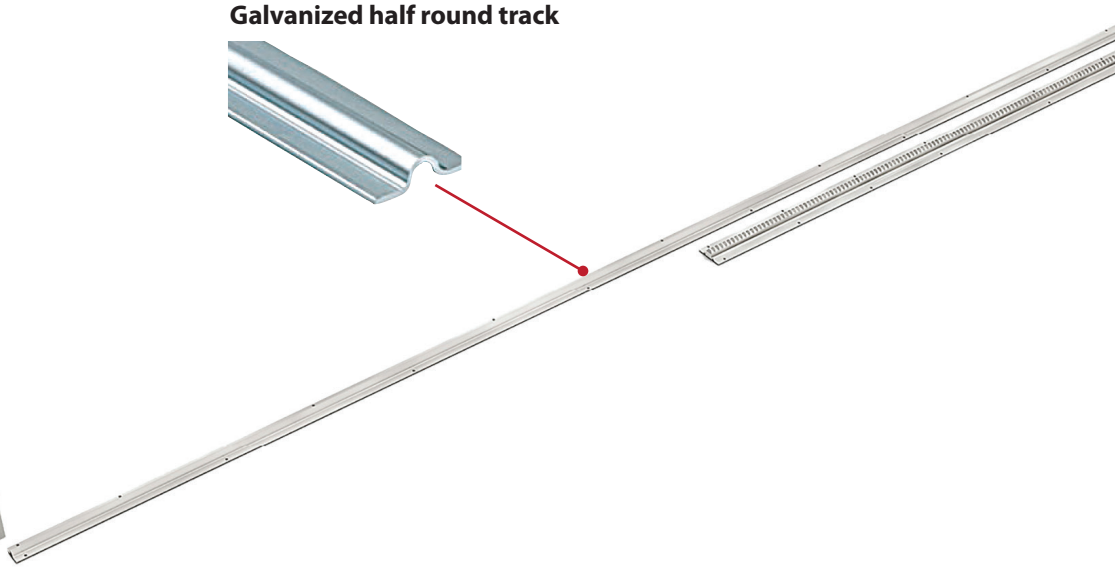
The **RG-10 template guide** sets the spacing between the gate panels at 2-3/8" (60mm) for proper spacing alignment for the top guide wheels and drive rack and pinion combination. Set the template guide to 50 for 2" gate profiles as shown.



CG-15M
Adjustable mounting bracket

CG-30M
Gate receiver

289G
Galvanized half round track



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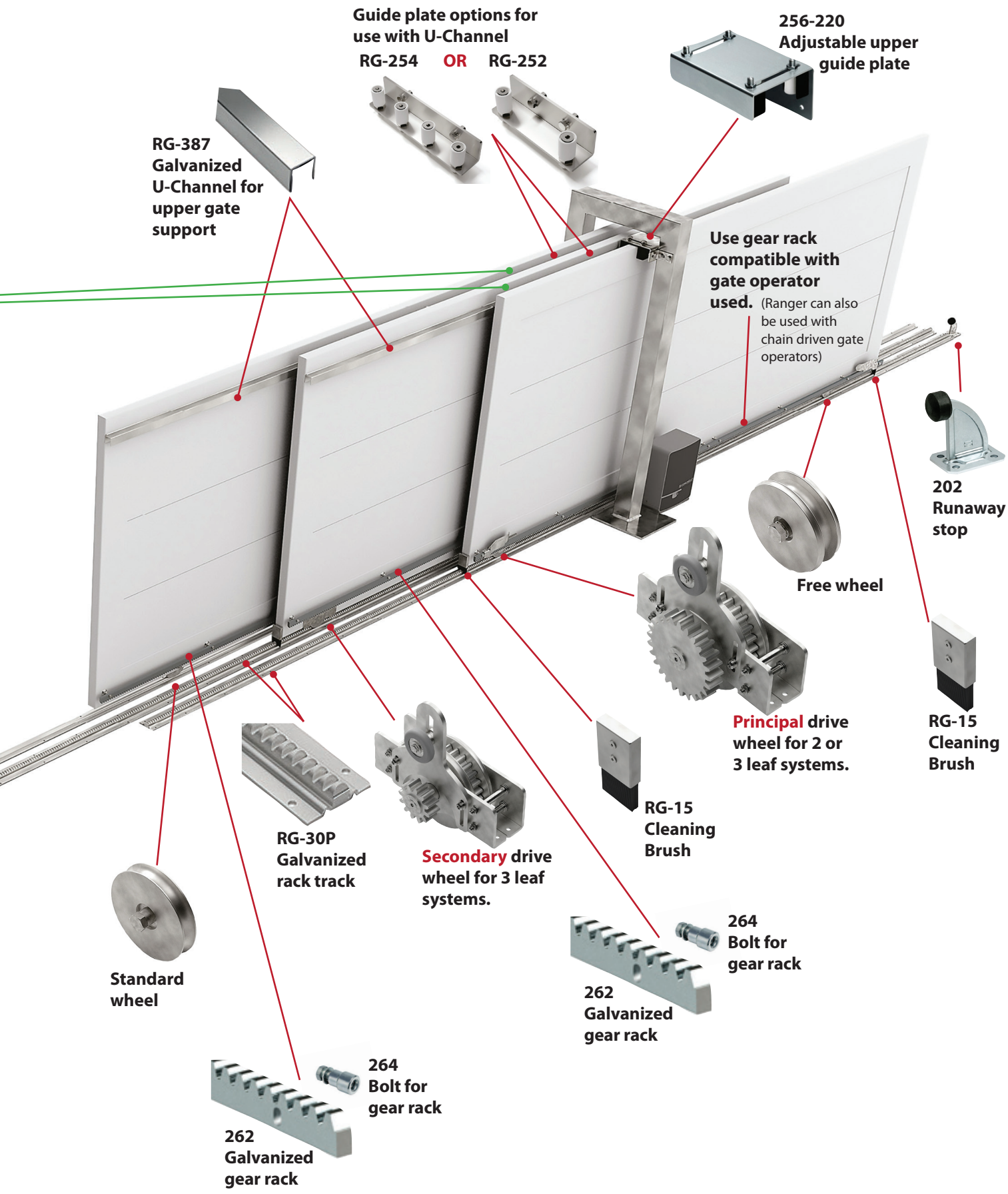
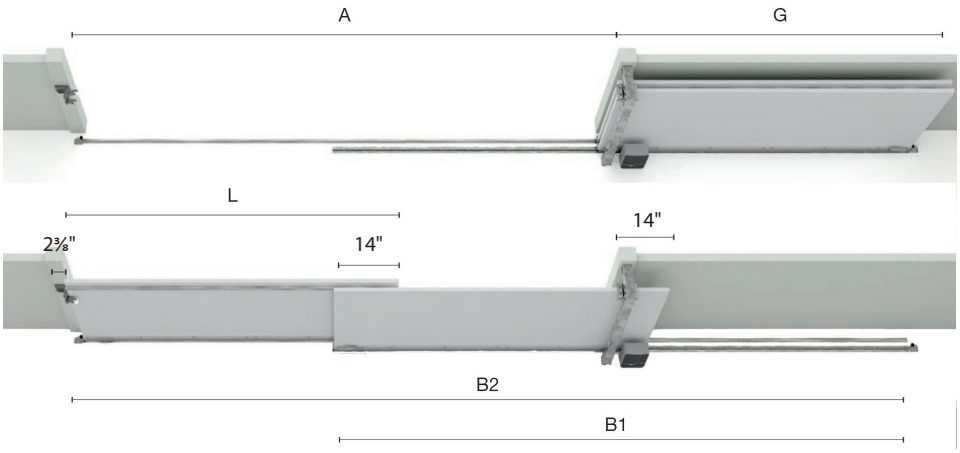

Guide plate options for use with U-Channel
RG-254 OR RG-252
256-220 Adjustable upper guide plate
RG-387 Galvanized U-Channel for upper gate support
Use gear rack compatible with gate operator used. (Ranger can also be used with chain driven gate operators)
202 Runaway stop
Free wheel
Principal drive wheel for 2 or 3 leaf systems.
RG-15 Cleaning Brush
RG-15 Cleaning Brush
RG-30P Galvanized rack track
Secondary drive wheel for 3 leaf systems.
Standard wheel
264 Bolt for gear rack
262 Galvanized gear rack
264 Bolt for gear rack
262 Galvanized gear rack

Ranger Kit RG2-120-50

Configurator for
2 leaf gates
- **Fits 2" x 4" (or taller frame)**
- 880 pounds per leaf maximum
- 26ft maximum opening



GATE FORMULAS

Gate Leaf Length
L (in) = (A + **2.5**) ÷ 2 + **14**

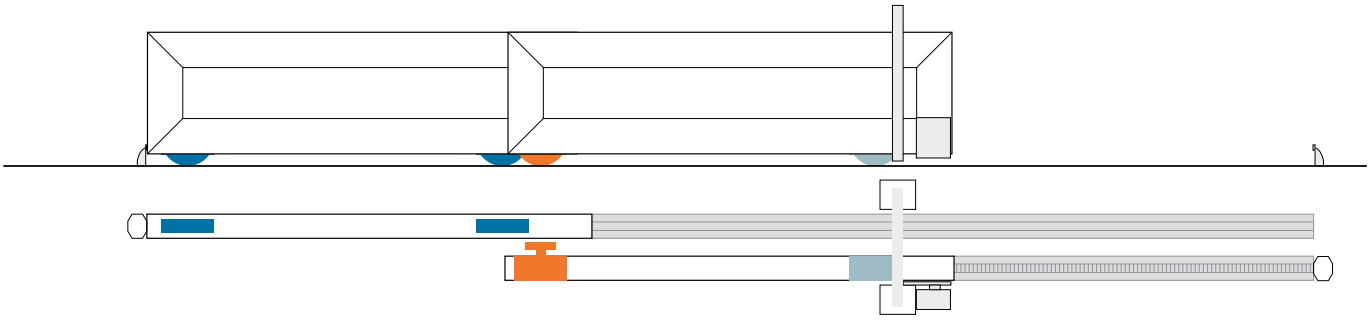
Min Space when Open
G (in) = L + **8**

Rack Drive Track Length
B1 (in) = L x 2 - **14**

Half Round Track Length
B2 (in) = L x 3 - **28**

Note: The parameters in **BOLD** in the formulas above are inches.

Opening Width A (ft)	Gate Leaf Length L (ft)	Minimum Clear Space on Open Side G (ft)	Rack Track Length Item RG-30 B1 (ft)	Half Round Track Length Item 289 B2 (ft)
6	4'4"	5'	7'6"	10'8"
8	5'4"	6'	9'6"	13'9"
10	6'4"	7'	11'6"	16'9"
12	7'4"	8'	13'6"	19'9"
14	8'4"	9'	15'6"	22'9"
16	9'4"	10'	17'6"	25'9"
18	10'4"	11'	19'6"	28'9"
20	11'4"	12'	21'6"	31'9"
22	12'4"	13'	23'6"	34'9"
24	13'4"	14'	25'6"	37'9"
26	14'4"	15'	27'6"	40'9"



2 LEAF KIT | **Opening Range: 26ft max • Weight: 880lbs per leaf max**

WHEELS



RG2-120-50
1 drive wheel
1 free wheel
2 standard wheels with half-round groove

TRACK

RG-30P
Galvanized Rack Track
6'6" sections
Use table above to calculate track needed by using (B1)

289G-19.68FT
289G-9.84FT
Galvanized Half Round Track
Use table above to calculate track needed by using (B2)

291
Connection Pin

RACK

262
Galvanized Gear Rack
3'3" sections

266
Gear rack connection to screw rack to gate

264
Gear rack connection to weld rack to steel gate

(3 connectors are needed per 3'3" section of gear rack)

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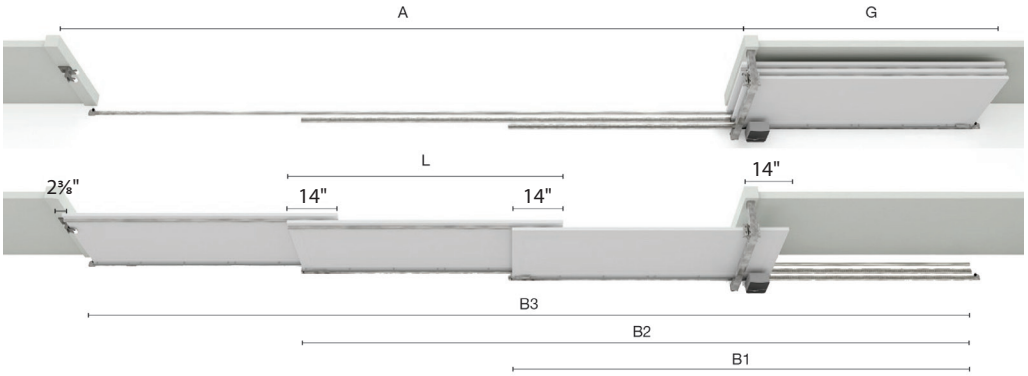
Ranger Kit RG3-120-50

Configurator for
3 leaf gates
• **Fits 2" x 4"** (or taller frame)



- 440 pounds per leaf maximum
- 40ft maximum opening

GATE FORMULAS

Gate Leaf Length
L (in) = (A + **2.5**) ÷ 3 + **14**

Min Space when Open
G (in) = L + **8**

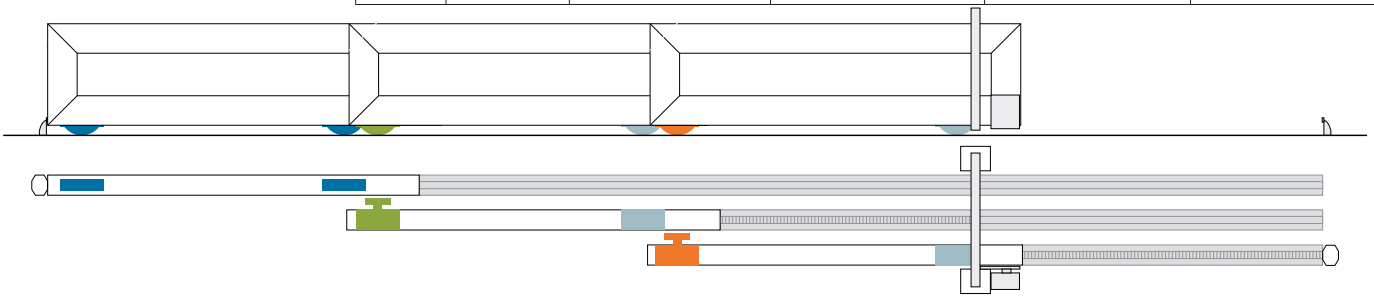
Rack Drive Track Length
B1 (in) = L x 2 - **14**

Rack Drive Track Length
B2 (in) = L x 3 - **28**

Half Round Track Length
B3 (in) = L x 4 - **39**

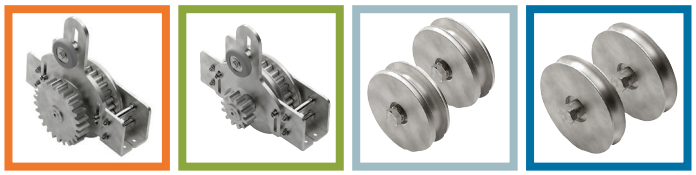
Note: The parameters in **BOLD** in the formulas above are inches.

Opening Width A (ft)	Gate Leaf Length L (ft)	Minimum Clear Space on Open Side G (ft)	Rack Track Length Item RG-30 B1 (ft)	Rack Track Length Item RG-30 B2 (ft)	Half Round Track Length Item 289 B3 (ft)
6	3'3"	3'11"	5'4"	7'5"	9'9"
8	3'11"	4'7"	6'8"	9'5"	12'5"
10	4'7"	5'3"	8'	11'5"	15'1"
12	5'3"	5'11"	9'4"	13'5"	17'9"
14	5'11"	6'7"	10'8"	15'5"	20'5"
16	6'7"	7'3"	12'	17'5"	23'1"
18	7'3"	7'11"	13'4"	19'5"	25'9"
20	7'11"	8'7"	14'8"	21'5"	28'5"
22	8'7"	9'3"	16'	23'5"	31'1"
24	9'3"	9'11"	17'4"	25'5"	33'9"
26	9'11"	10'7"	18'8"	27'5"	36'5"
28	10'7"	11'3"	20'	29'5"	39'1"
30	11'3"	11'11"	21'4"	31'5"	41'9"
32	11'11"	12'7"	22'8"	33'5"	44'5"
34	12'7"	13'3"	24'	35'5"	47'1"
36	13'3"	13'11"	25'4"	37'5"	49'9"
38	13'11"	14'7"	26'8"	39'5"	52'5"
40	14'7"	15'3"	28'	41'5"	55'1"



3 LEAF KIT | **Opening Range: 40ft max • Weight: 440lbs per leaf max**

WHEELS



RG3-120-50
1 drive wheel
1 drive wheel with low gear ratio
2 free wheels
2 standard wheels with half-round groove

TRACK

RG-30P
Galvanized Rack Track 6'6" sections
Use table above to calculate track needed by adding (B1) and (B2)

289G-19.68FT / 289G-9.84FT
Galvanized Half Round Track
Use table above to calculate track needed by using (B3)

291
Connection Pin

RACK

262
Galvanized Gear Rack
3'3" sections

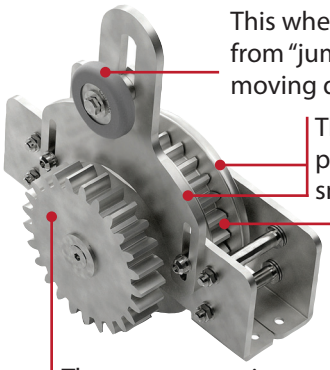
266
Gear rack connection to screw rack to gate

264
Gear rack connection to weld rack to steel gate

(3 connectors are needed per 3'3" section of gear rack)

KIT COMPONENTS

Principal drive wheel for 2 or 3 leaf systems

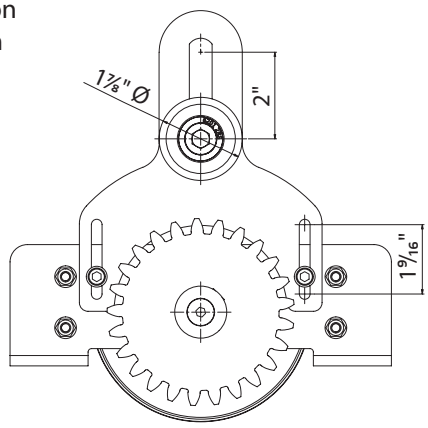


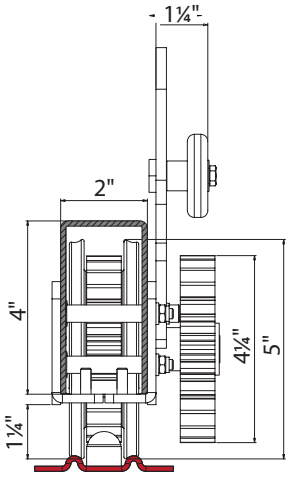
This wheel helps to keep the drive pinion from "jumping" out of the rack rail when moving down the track.

The wheel sits on two external profiles of the rack track for a smoother movement.

Wheel unit is made up of a principal pinion drive wheel, that when rolling on the rack track, generates the rotation of the external secondary pinion.

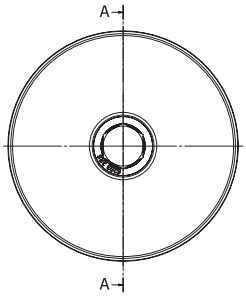
The movement via the second external pinion is transmitted to the rack mounted onto the side of the second gate leaf.

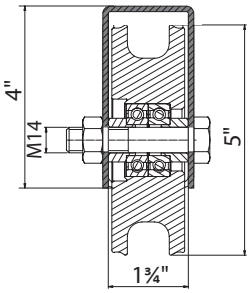




Free wheel

The wheel rides on two external profiles of the track for so the gears in the track and pinion do not bind for a smoother movement.

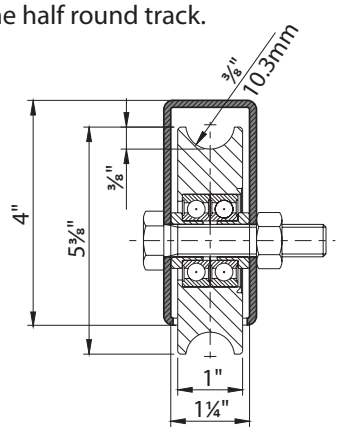


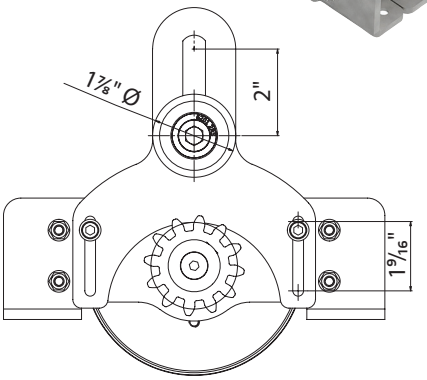


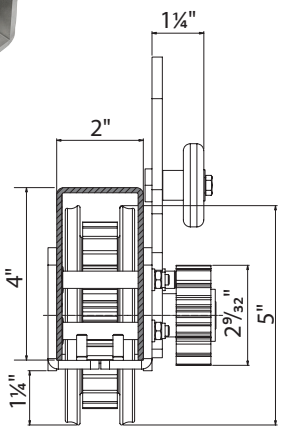
Secondary drive wheel for 3 leaf systems.

Standard wheel with half round groove

The wheel rides on the half round track.







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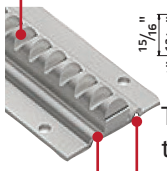
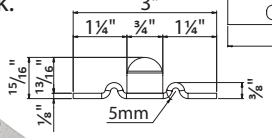
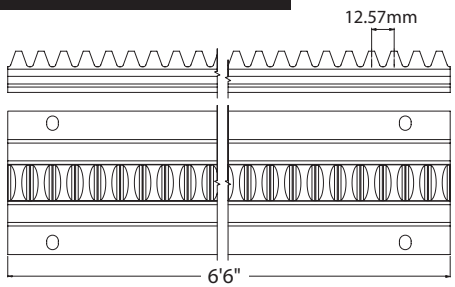
GROUND TRACK - CONNECTOR PIN - BRUSHES

RG-30P
Galvanized rack track
6'6" sections

Movement is generated by the ground mounted rack that also functions as a track.

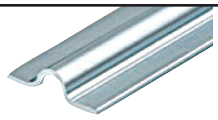


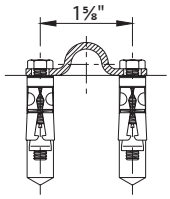


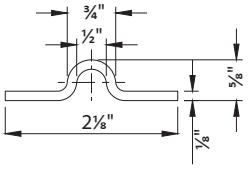


The rack track is equipped with two side guides on which the drive and free wheel sits. This is to ensure that the weight of the gate is not loaded on the rack and/or pinion teeth.

289G-19.68FT
289G-9.84FT
Galvanized half round track





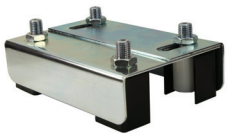


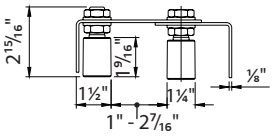
291
Connection Pin

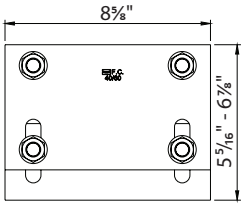
RG-15
Cleaning Brush,
2 per gate.
To be used with Rack Track (RG-30P)

UPPER GUIDES FOR 1ST LEAF

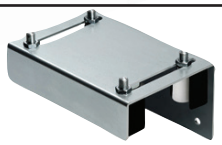
255-220-C - For 1¼" - 2⅜" frames

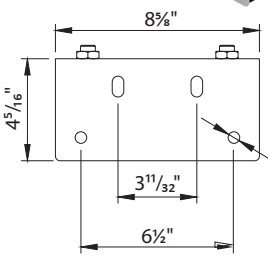


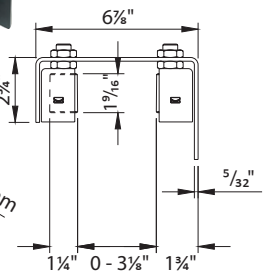




256-220
For up to - 3⅛" frames

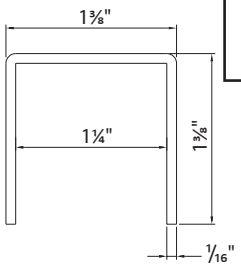






UPPER GUIDES FOR 2ND & 3RD LEAVES

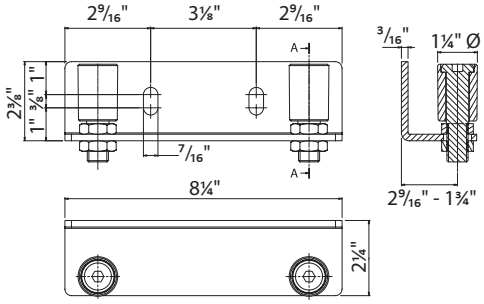
RG-387-19.68FT
Galvanized 1¼" I.D. U-Channel, 19'8"
RG-387-9.84FT
Galvanized 1¼" I.D. U-Channel, 9'10"
CG-237-20FT
Aluminum 1¼" I.D. U-Channel, 20'
CG-237-10FT
Aluminum 1¼" I.D. U-Channel, 10'

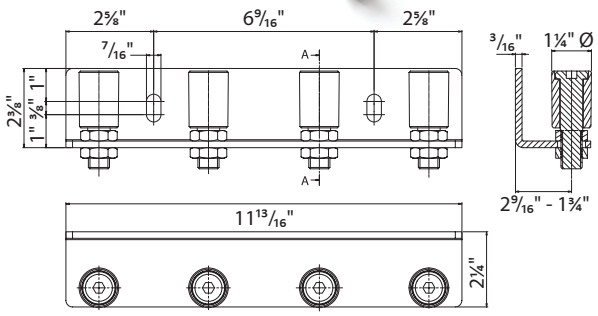


RG-254
Guide plate
for use with
U-Channel

Comunello recommends this guide for added stability with changing wind speeds and smoother rolling gates.

RG-252
Guide plate
for use with
U-Channel





RECEIVER BRACKETS

CG-15M
Adjustable
mounting bracket

CG-30M
Gate receiver,
2" - 3" frame

Top cup gate receiver
w/shock absorber
199-50 - 2" ID
199-60 - 2⅜" ID

GATE STOPS

202
Runaway stop
Mounted via screws

202F-A
Damped runaway
stop. Mounted via
screws.

ADAPTER

CG-58
Drive Shaft Coupling. Use when connecting a gate operator to the principal drive wheel.

GATE AUTOMATION SPEED REDUCTION

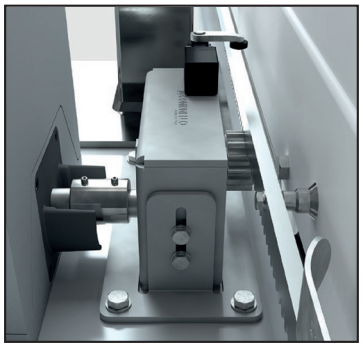
RG-40
Ranger speed reduction system

Highly recommended for 3 leaf systems

The RG-40 speed reducer cuts the speed of the first panel by 50%, to reduce the speed of 2 or 3 leaf Ranger telescoping gates. The gear box is mounted to the pad and connected directly to the rack on the first leaf. The motor is then coupled using the CG-58 adapter, directly to the speed reduction system drive shaft. Telescoping systems move twice or three times the speed of single gates, so reducing the speed of the leading edge is critical for safety.

RG-45
Electromechanical limit switch

The RG-45 switches replace the limit switches that come with the gate operator. As the gate operator is moved back from the gate by several inches to fit the RG-40, the typical limit switches may not attach or work easily.



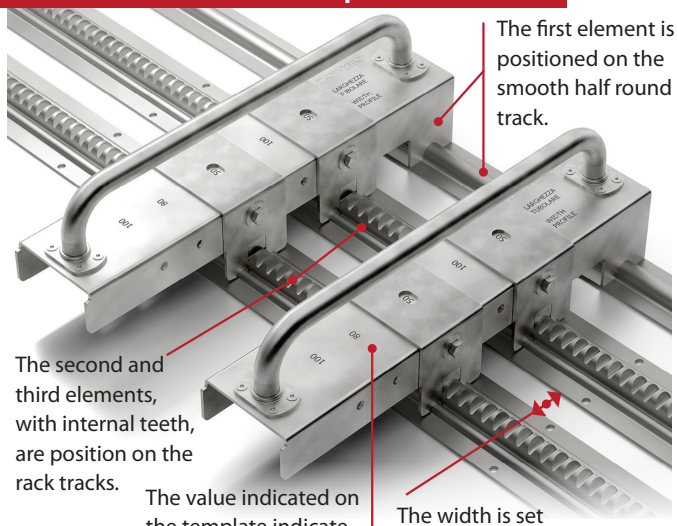
Specs:
- NC Normally Closed contact
- IP 67 Rated Enclosure
- 12/24V DC

INSTALLATION TOOLS

Templates are purchased once and can be reused for subsequent installations.

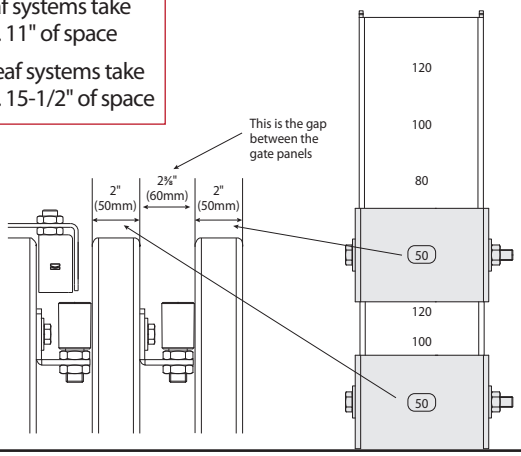
RG-10
2 template guide kit for Rack Track installation

These alignment guide tools ensure a rapid and precise installation of the rack tracks that make up the 2 and 3 leaf telescoping systems. The smooth half round track (#289) is installed first, and is used as the reference for the proper parallel placement and alignment of the rack tracks. The two alignment guide tools are used to maintain the correct spacing between the tracks, according to the gate frame width value selected on the tools. These guides also ensure that the rack teeth are aligned and in sync when connecting additional rack track sections together.

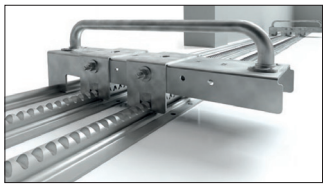


GATE FOOTPRINT:
Two leaf systems take approx. 11" of space

Three leaf systems take approx. 15-1/2" of space

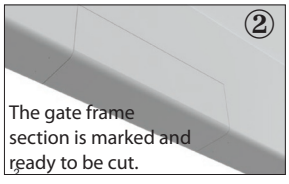


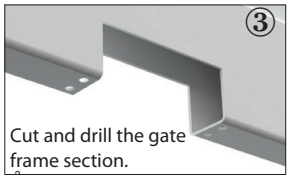
The rack track installation templates are used to ensure a precise and parallel alignment of the ground tracks, and can be width-regulated depending on the profile width of the gate frame tubing used in the construction of the gate. When joining two pieces of rack track, the precise position for the teeth can be achieved using the toothed element of the template guide, positioning it directly on the joint where the two pieces of track meet.



RG-20
2 template kit for wheel installation

Steps for installing the gate wheels in the frame.





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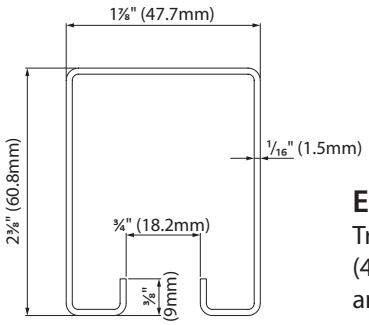
Industrial Sliding Door Hardware

Sliding solution for light to heavy duty industrial doors. Trolleys and tracks for sliding doors for all applications, even when guides cannot be installed in the floor. The trolleys feature shielded bearings that provide greater load capacity and are quieter than ball bearings. All accessories are galvanized.

HARDWARE FOR LIGHT WEIGHT SLIDING DOORS

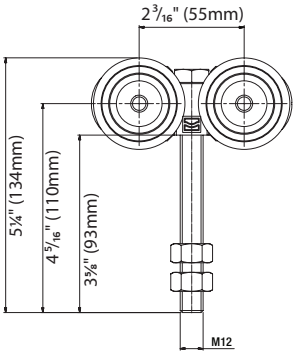


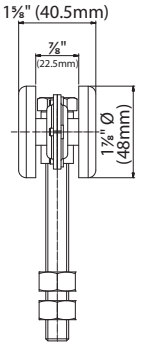
ECOKIT 24-M-19.68FT
ECOKIT 24-M-9.84FT

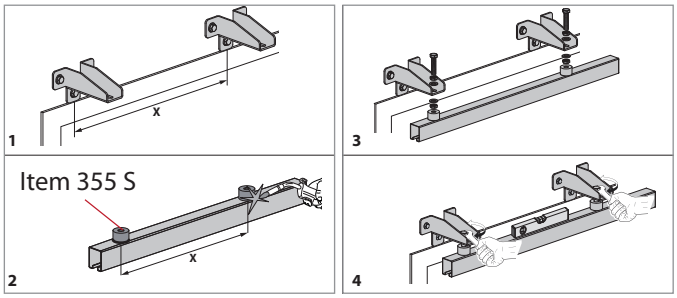
Track for the trolleys.
Maximum door weight 450 lbs.

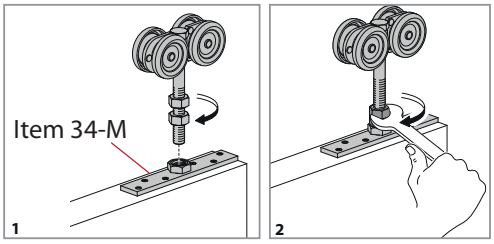
ECO KIT 4C-M

Trolley with four 1⅞" dia. (48mm) steel wheels and bearing. Weight capacity 150 lbs. per trolley.



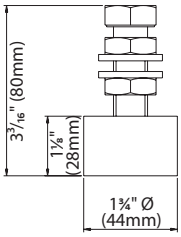


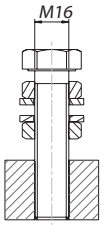


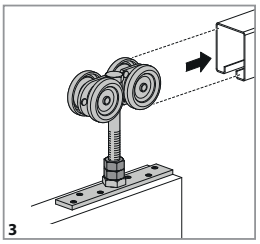


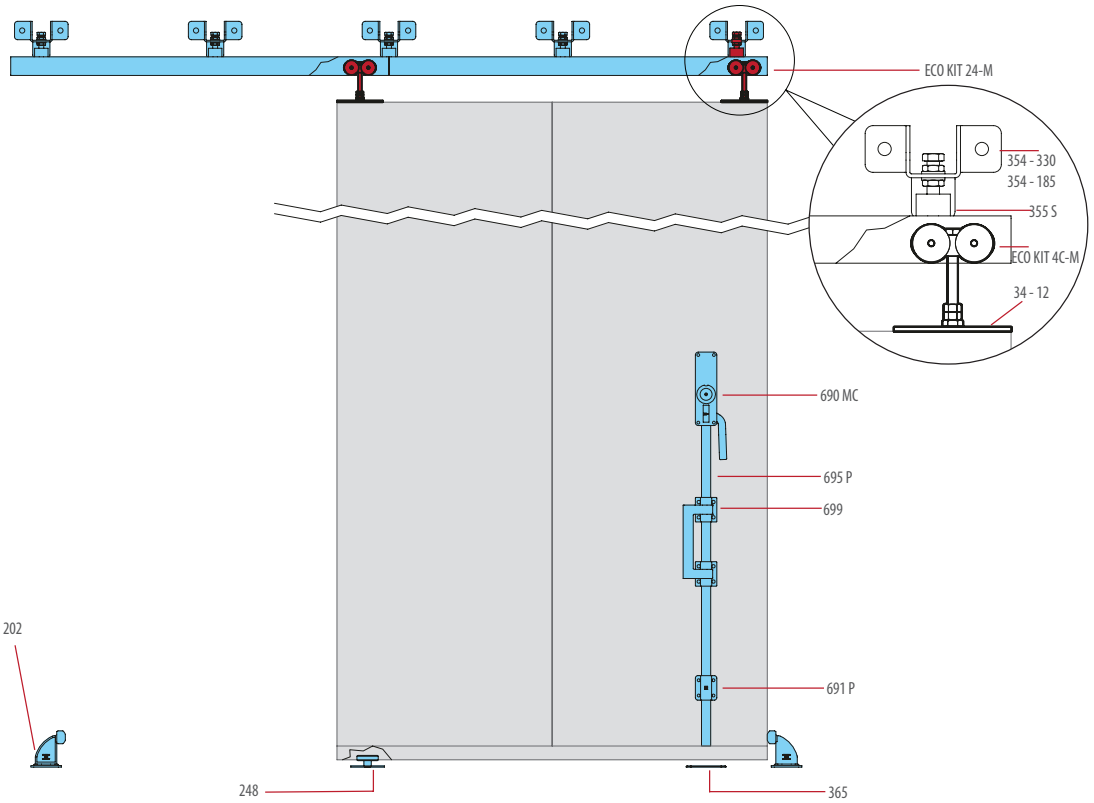
355-S

Adjustable switcher to be welded on top of the track and then fastened to an adjustable wall support.
Galvanized









ITEM NUMBER

TRACK

ECO KIT 24-M 

TROLLEY

ECO KIT 4C-M 

SUPPORTS

354-185
OR
354-330 

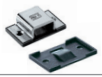
34-M 

355-S 

DROP BOLTS / HANDLES

690 MC 

695 P 

691 P 

699 

365 

STOPS

248 

202 

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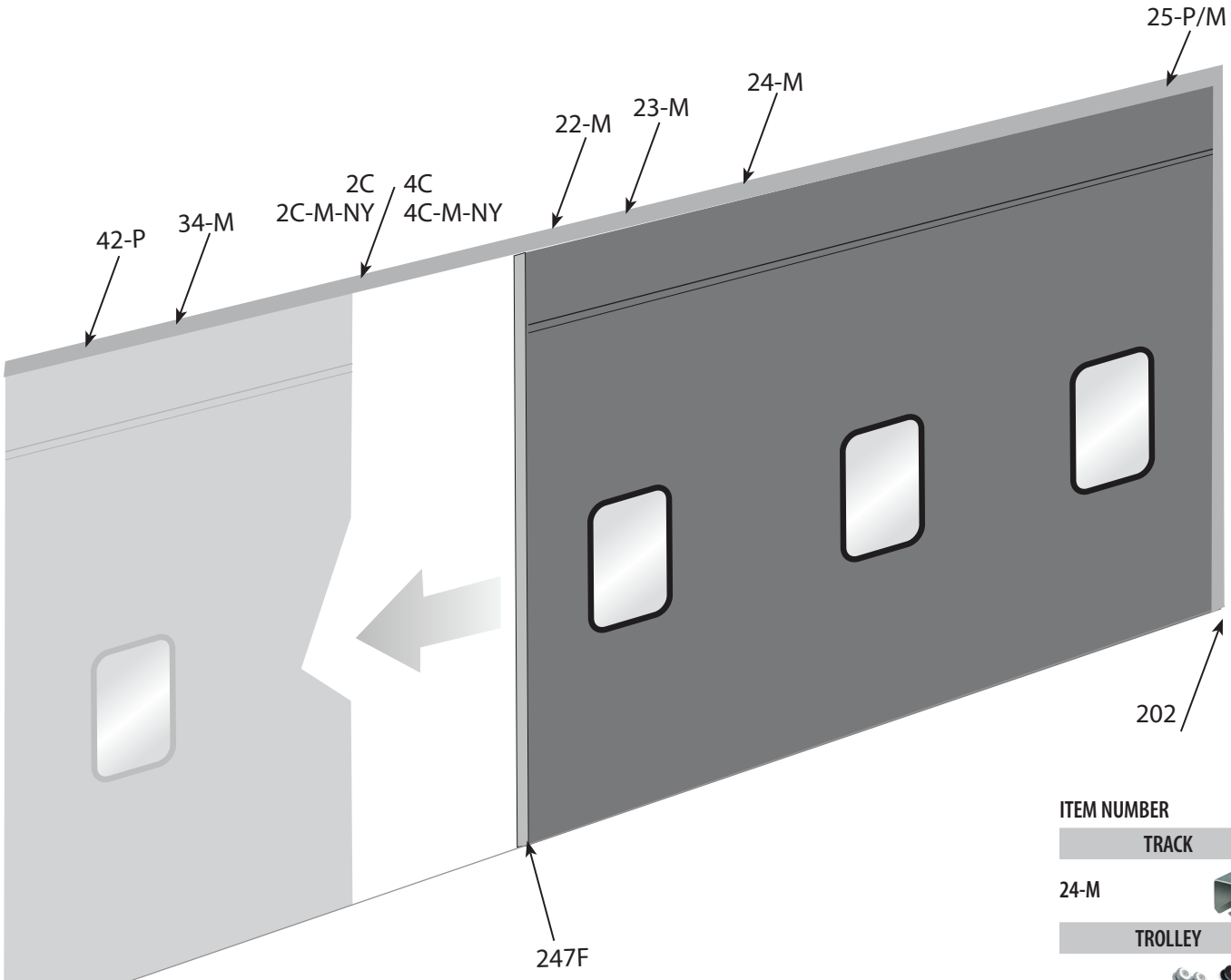
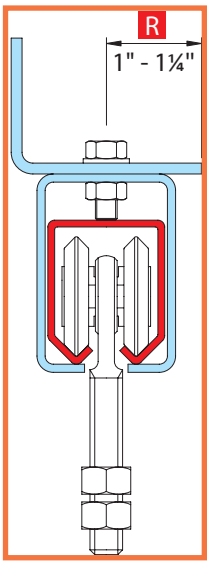
HARDWARE FOR MEDIUM WEIGHT SLIDING DOORS

Weight capacity range is up to 617 lbs. per trolley, recommended spacing between brackets 24 inches.





ITEM NUMBER

TRACK

24-M 

TROLLEY

4C / 4C-M-NY
2C / 2C-M-NY 

SUPPORTS

22-M
OR
23-M 

34-M 

42-P 

STOPS

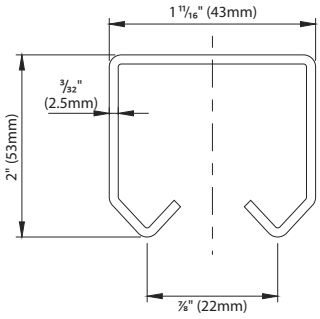
25-P/M 

202 

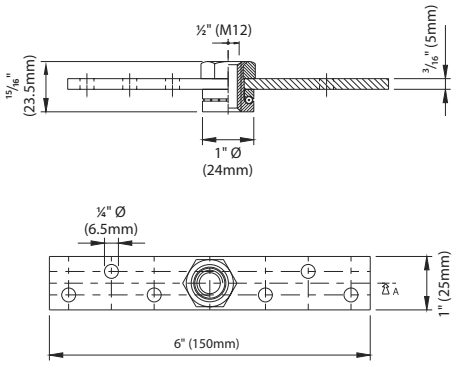
247F 

TRACK AND TROLLEYS

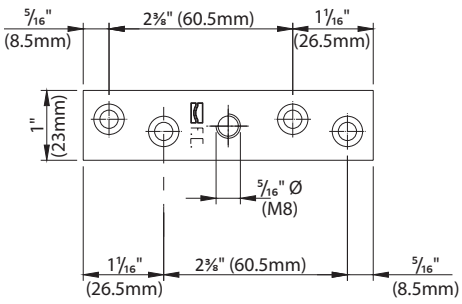
24-MEDIO
Track for the trolleys



34-M (requires M12 pin)
Mounting plate with bearing for trolleys. Galvanized



42-P
Mounting plate for trolleys

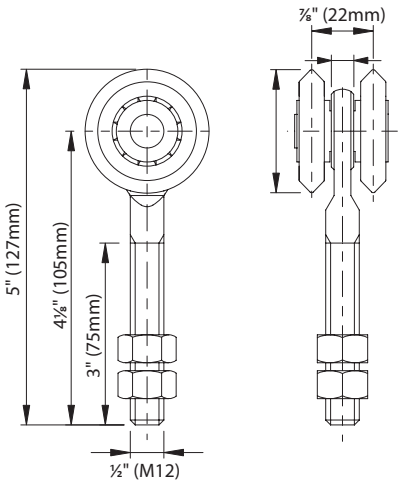


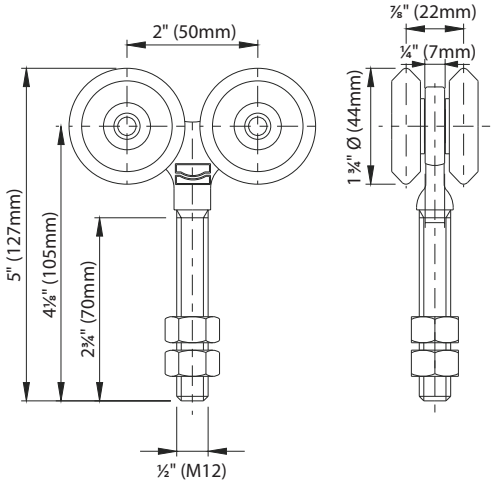
2C
Trolley with two 1¾" dia. (44mm) steel wheels and bearing. Weight capacity 550 lbs.

2C-M-NY
Trolley with two 1¾" dia. (44mm) nylon wheels and bearing. Weight capacity 550 lbs.

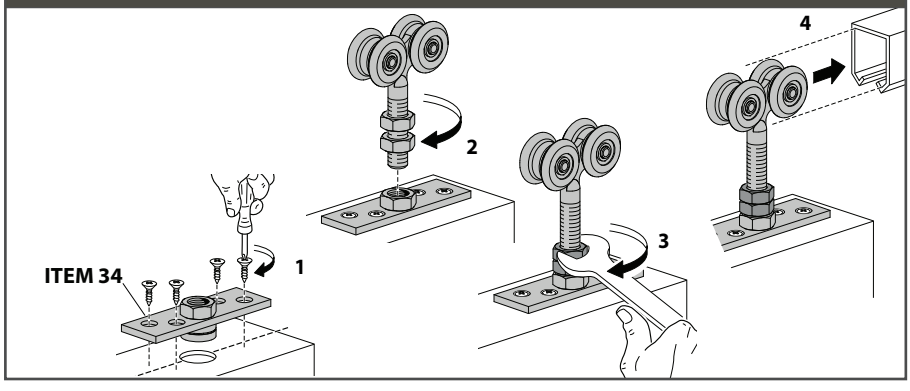
4C
Trolley with four 1¾" dia. (44mm) steel wheels and bearing. Weight capacity 617 lbs.

4C-M-NY
Trolley with four 1¾" dia. (44mm) nylon wheels and bearing. Weight capacity 617 lbs.





MOUNTING INSTRUCTIONS FOR TROLLEYS. EXAMPLE BELOW SHOWS ITEM 4C



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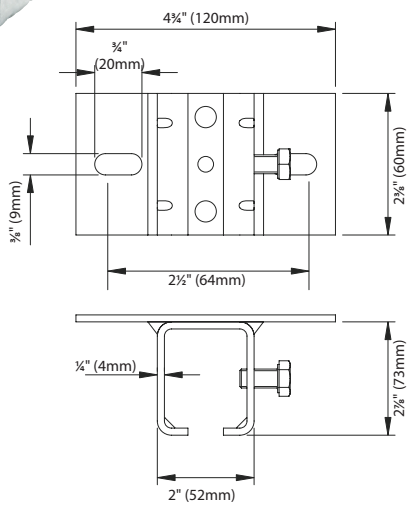
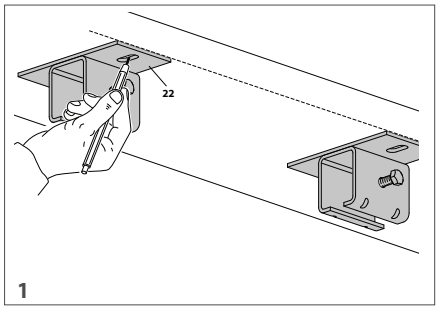
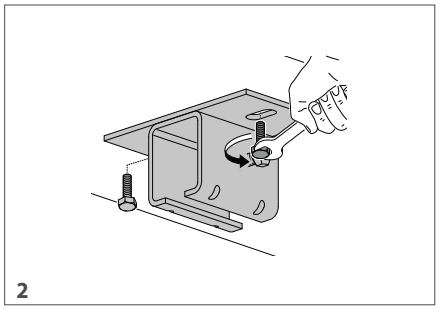
TRACK SUPPORTS & GATE STOP

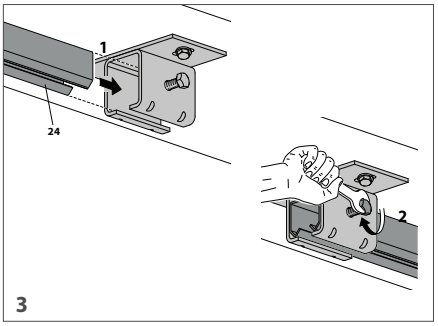
The recommended space between brackets is 24"

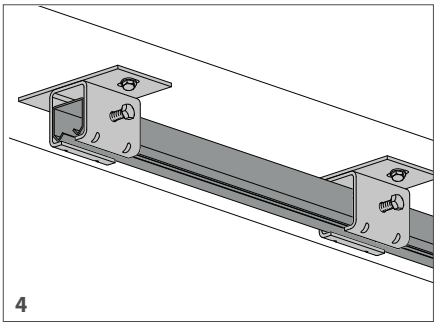
22-MEDIO
Ceiling support for 24 track



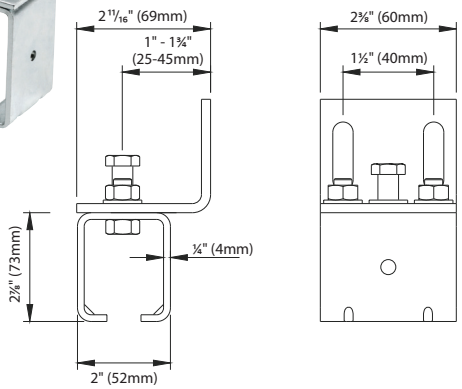


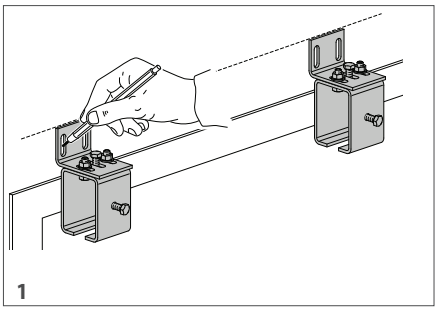


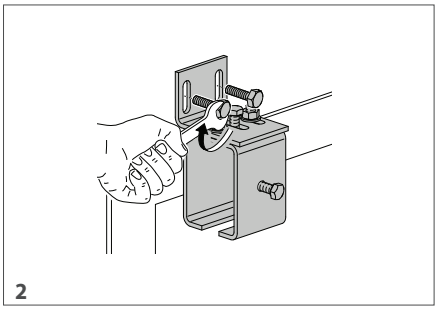


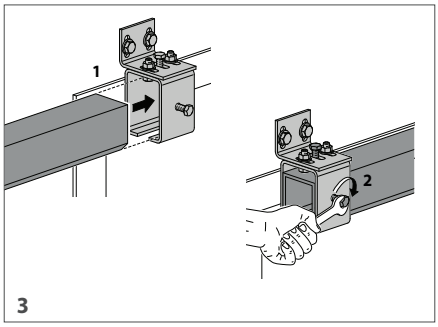


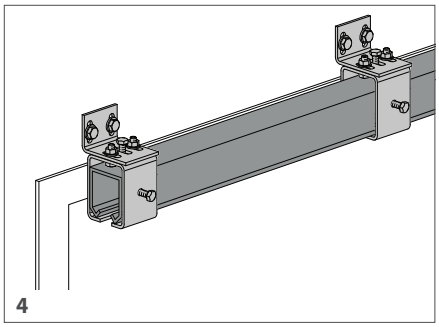
23-MEDIO
Wall support for 24 track



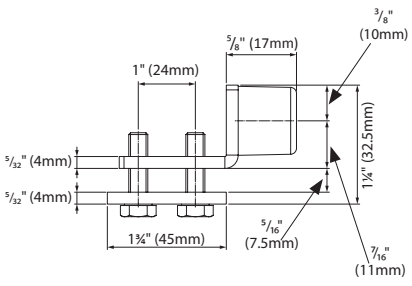






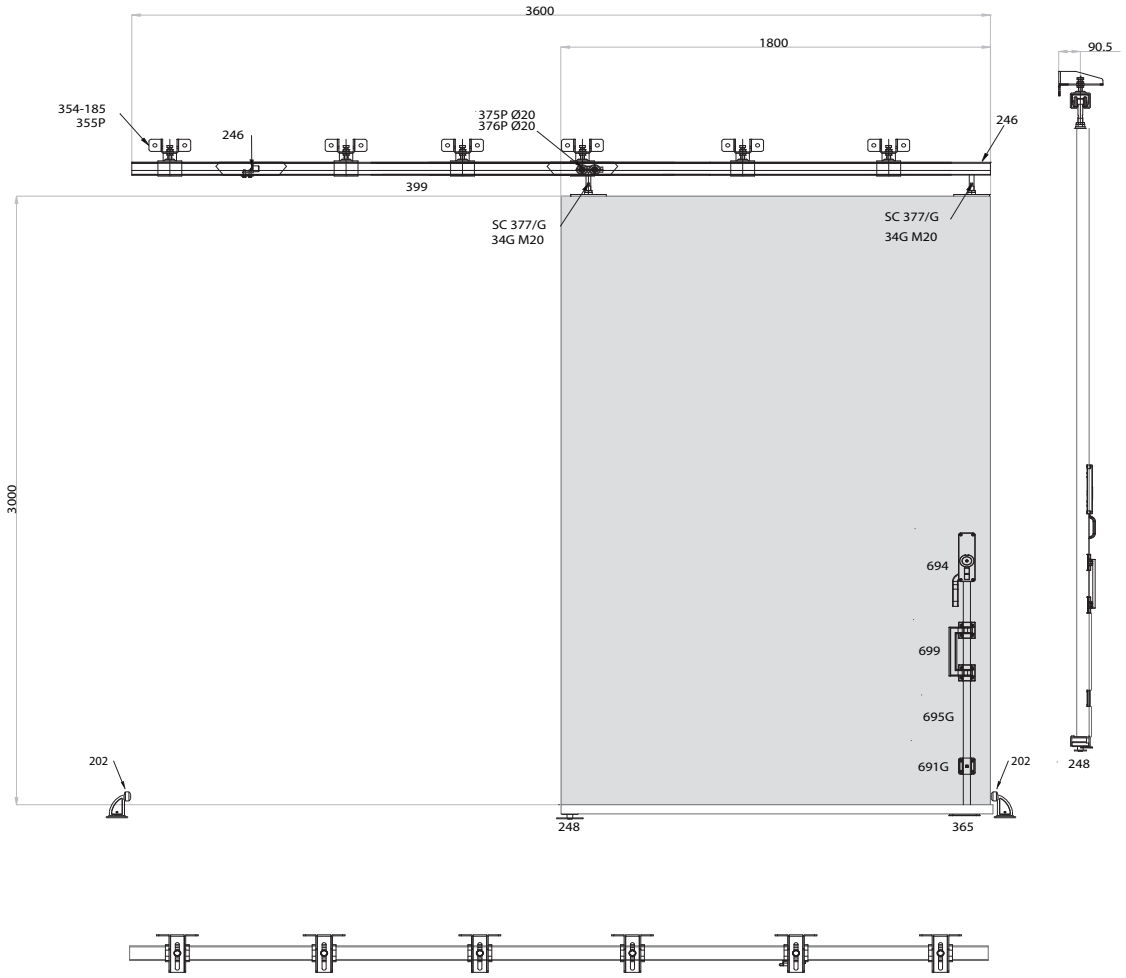


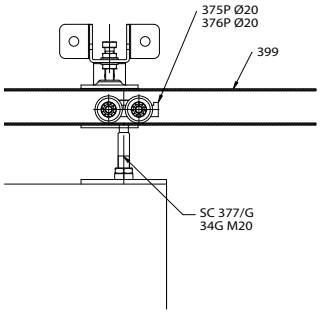
25-P/M
Gate Stop for use inside of 24 track
Galvanized

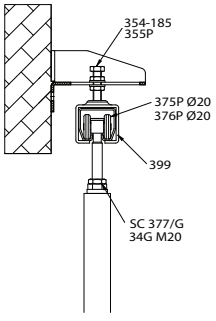


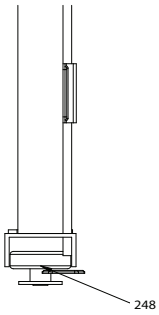
HARDWARE FOR HEAVY DUTY SLIDING DOORS

Weight capacity range is up to 1764 lbs. per trolley, recommended spacing between brackets 27-1/2 inches.



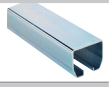




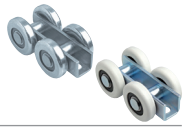


ITEM NUMBER

TRACK

399 

TROLLEYS / PIN

375 P20
OR
376 P20 

377 G-SC 

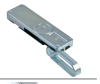
34-G 

SUPPORTS

354-185 

355 P 

DROP BOLTS / HANDLES

694 MC 

695 G 

691 G 

699 

365 

STOPS

248-60 

246 

202 

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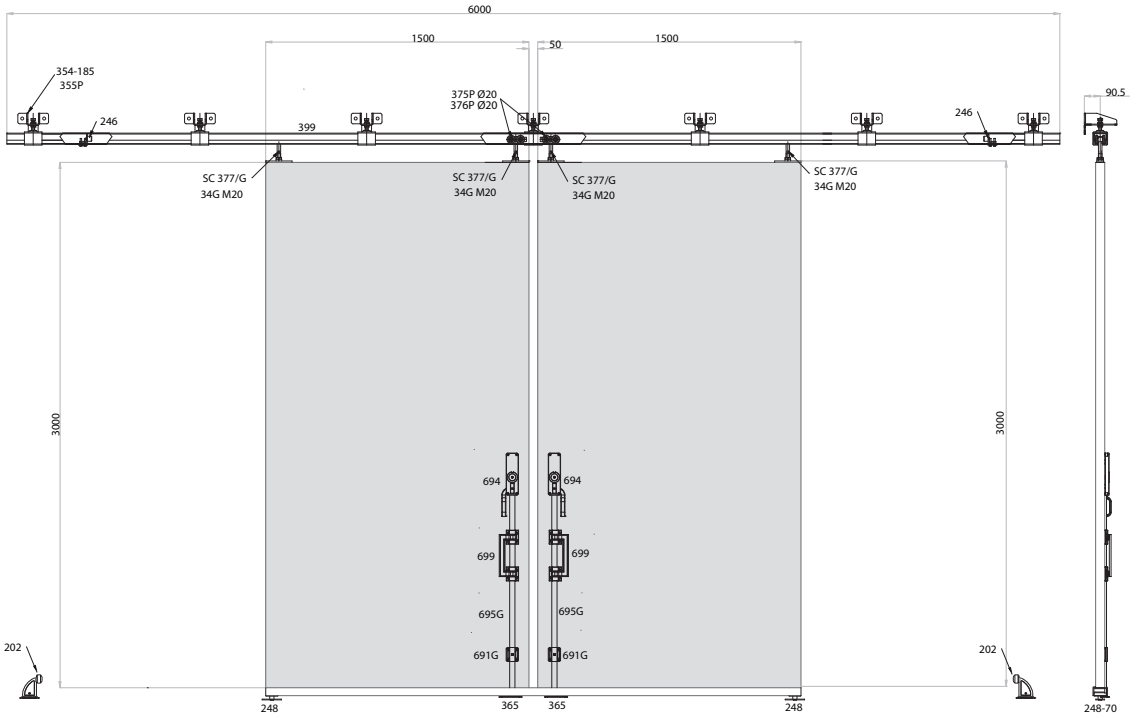
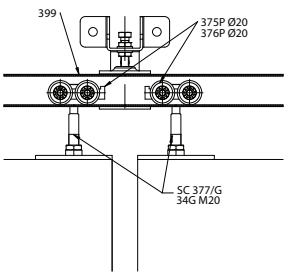
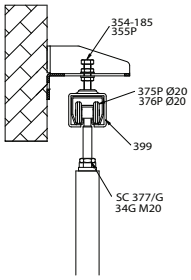
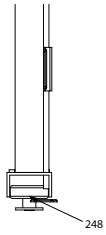
HARDWARE FOR HEAVY DUTY SLIDING DOORS



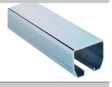




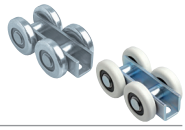


ITEM NUMBER

TRACK

399 

TROLLEYS / PIN

375 P20
OR
376 P20 

377 G-SC 

34-G 

SUPPORTS

354-185 

355 PG 

DROP BOLTS / HANDLES

694 MC 

695 G 

691 G 

699 

365 

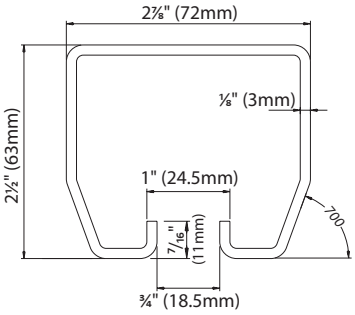
STOPS

248-60 

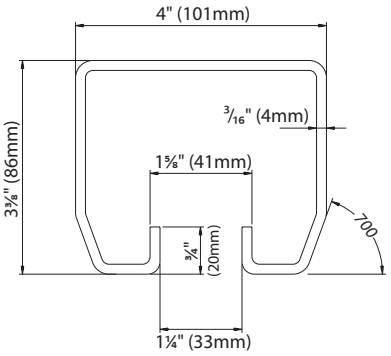
246 

202 

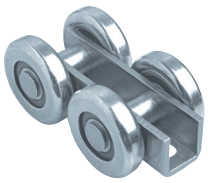
TRACK AND TROLLEYS



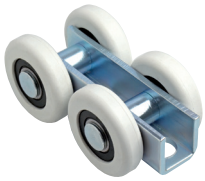
399-19.68FT
399-9.84FT
Small track for trolleys with 4 wheels.
Galvanized



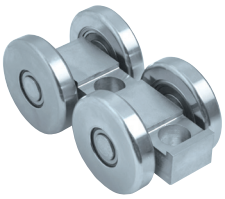
398-19.68FT
398-9.84FT
Large track for trolleys with 4 wheels.
Galvanized



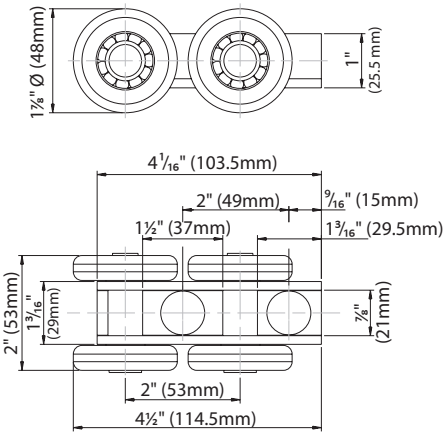
375-P20 (requires M20 pin)
Small steel trolley with 4 wheels.
880 lbs. per trolley.
Galvanized

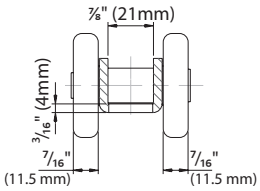


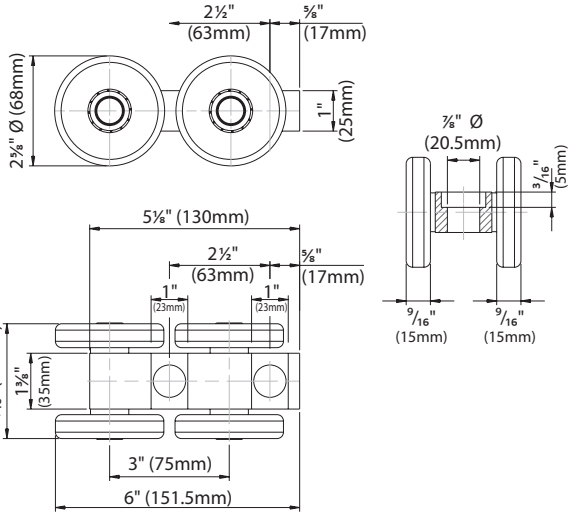
376-P20 (requires M20 pin)
Small steel trolley with 4 nylon wheels.
880 lbs. per trolley.
Galvanized



375G (requires M20 pin)
Large steel trolley with 4 wheels.
1764 lbs. per trolley.
Galvanized

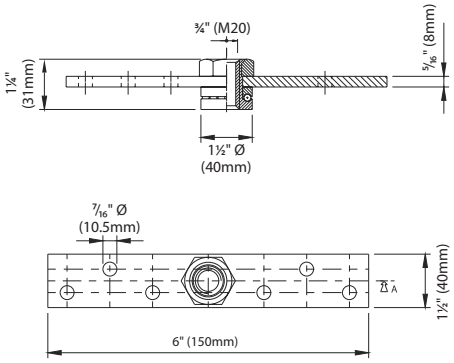






377G-SC
Upper pin for sliding doors.
6" (150mm) long x M20)
Use with trolley and 34G mounting plate.
Galvanized

34-G (requires M20 pin)
Mounting plate with bearing for trolleys. Galvanized



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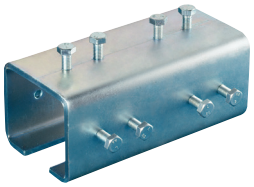
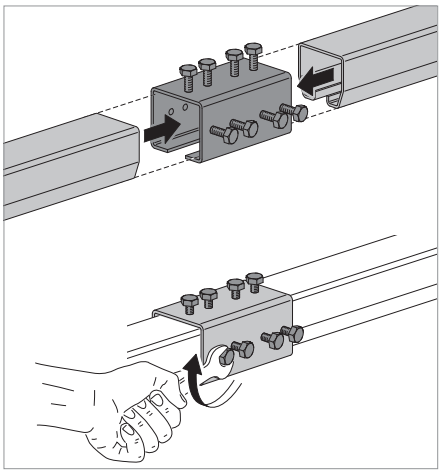
TRACK SUPPORTS & TROLLEY MOUNTING PLATES

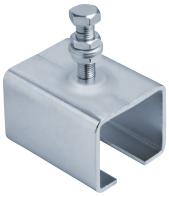


Track connection guide support. Galvanized

352P (for 399 track)
Width: 3⅜" (86mm)
Height: 3" (75mm)
Length: 3" (75mm)

352G (for 398 track)
Width: 4$^{7}/_{16}$" (113mm)
Height: 4" (101mm))
Length: 7⅞" (200mm)

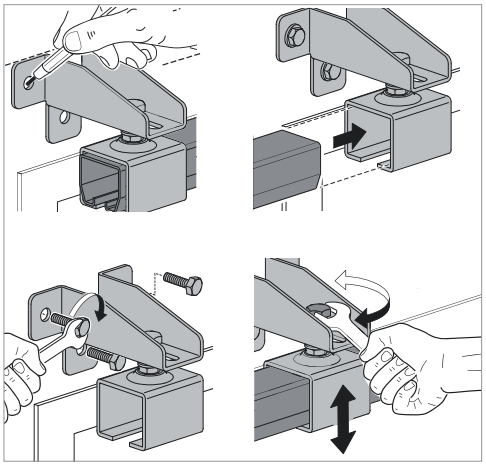




Adjustable track support. Galvanized

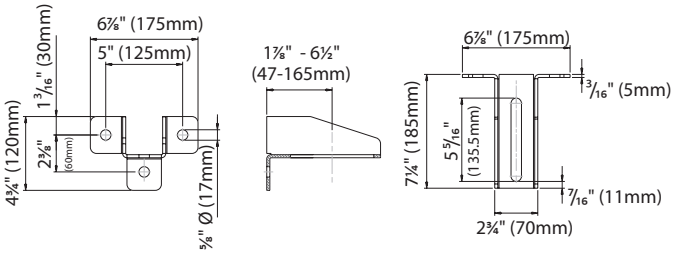
355P (for 399 track)
Width: 3⅜" (86mm)
Height: 3" (75mm)
Length: 4" (100mm)

355G (for 398 track)
Width: 4$^{7}/_{16}$" (113mm)
Height: 4" (101mm))
Length: 4" (100mm)

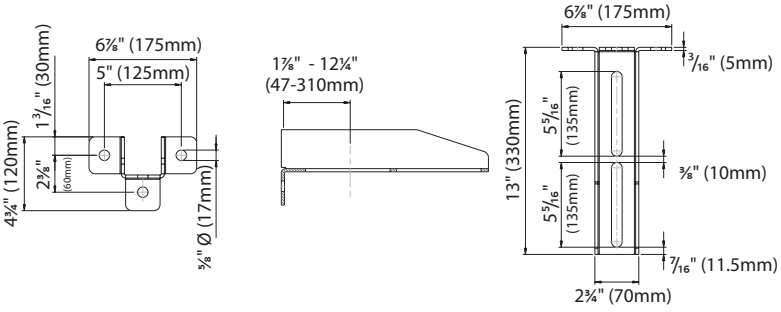


Items 355 and 354 shown.

354-185
Adjustable wall support. 7-1/4" long.
Recommended spacing 27-1/2" apart.
Galvanized



354-330
Adjustable wall support. 13" long.
Recommended spacing 27-1/2" apart.
Galvanized

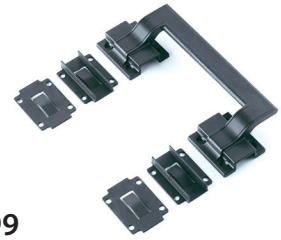


DROP BOLTS AND HANDLES

694-MC-DX (right operating)
694-MC-SX (left operating)
Large lever used to operate the drop bolt. Galvanized

695G-9.84FT
Tubular drop bolt for use with the large lever.
Size 30mm x 10mm
Galvanized

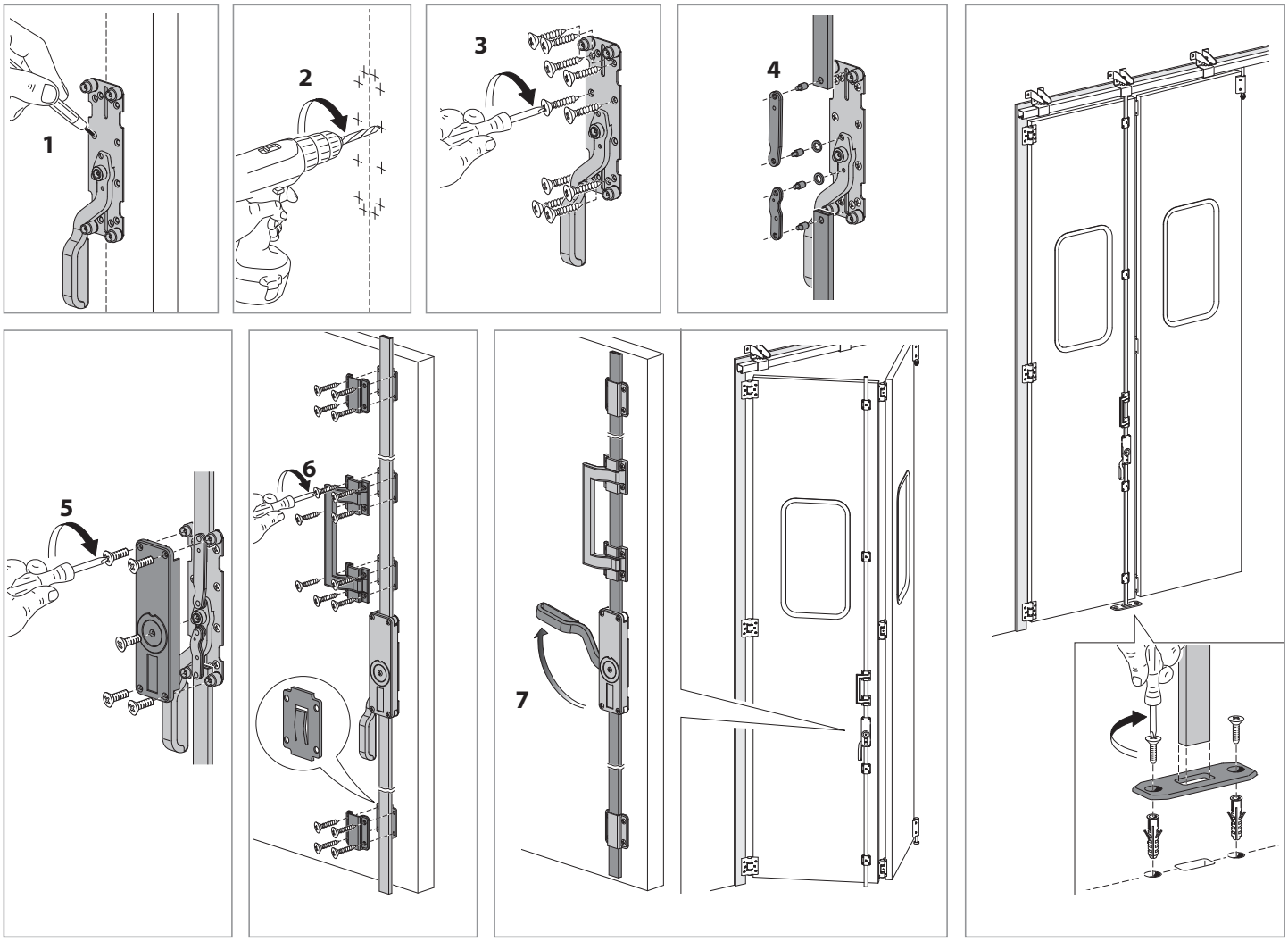
691G
Drop bolt guide.
Use with item 695G.
Galvanized



699
Black nylon pull handle with guides. Use with drop bolt item 695G.
From top of bracket to bottom of bracket 11-7/16" high. From top of handle to bottom of handle 9-1/2" high.

365 (galvanized)
Ground strike plate to receive drop bolt item 695G.

LEVER INSTALLATION GUIDE



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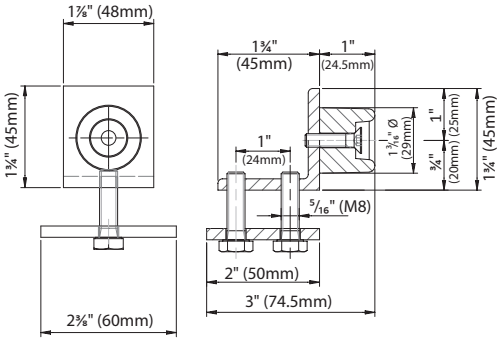
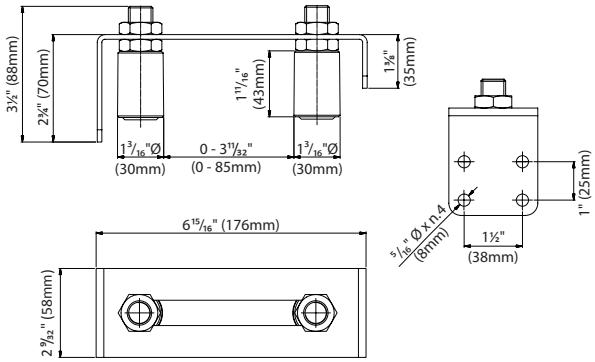
ACCESSORIES

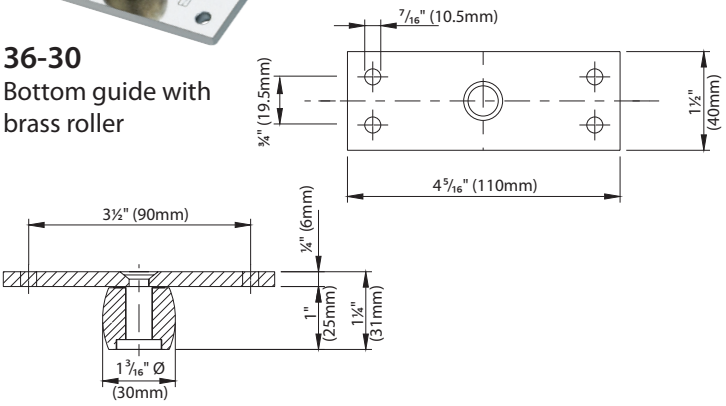


246
End stop for use inside of 398 and 399 track. Galvanized

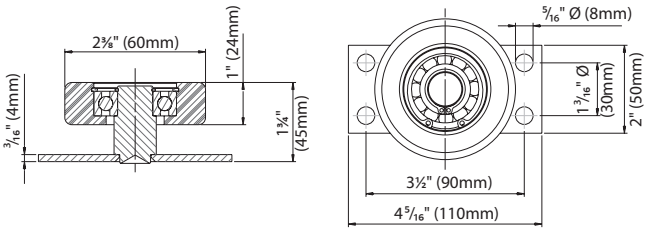
247F
Wall mounted adjustable guide roller



36-30
Bottom guide with brass roller



248-60 (requires 2-3/8" wide U-channel) Bottom guide roller to be placed inside U-channel. Nylon roller with galvanized mounting plate.



201
Gate stop with triple function. Mounted via screws. 5-3/16" high.

202
Runaway gate stop. Mounted via screws. 4-3/4" high.

202F-A
Damped runaway gate stop. Mounted via screws. 4-3/16" high.

202F-B
Adjustable gate stop. Slot to accommodate up to a 2-1/2" gate frame. mounted via screws. 5-1/8" high.

PULL HANDLES

674
Die-cast alloy pull handle in black.
6-3/8" Long

675G
Decorative curved pull handle in black.
10-7/16" Long
5/8" dia.

677G
Decorative pull handle in black.
10-7/16" Long
5/8" dia.

678P
Decorative curved pull handle in black.
9-1/4" Long
3/4" dia.

270G
Flush mounted handle.
3-1/2" wide x 7-7/8" tall

272
Flush mounted handle with lever.
3-1/2" wide x 7-7/8" tall

EcoLogic Landscapes, Red Bank, NJ share his completed trash enclosure and bike storage area. Both of these enclosures use the Comunello Gate medium duty sliding door hardware.

Overhead sliding doors, like these, are designed with narrow track that is mounted on the ceiling or header, allowing the door to slide smoothly along its path. The slim track minimizes the space required for the door's operation, as in this example, to allow for a double sliding door option for these enclosures.

The sleek appearance allows for an aesthetically pleasing structure on the property on the property with minimal visible hardware.

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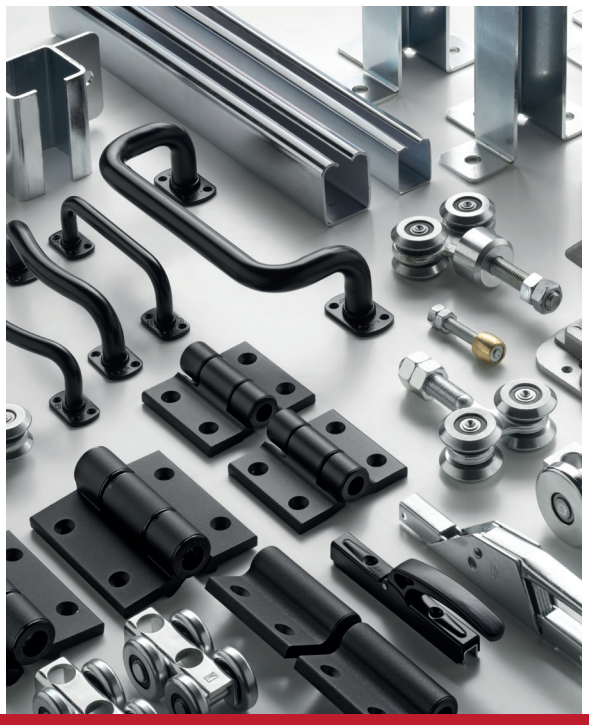
COMUNELLOGATE

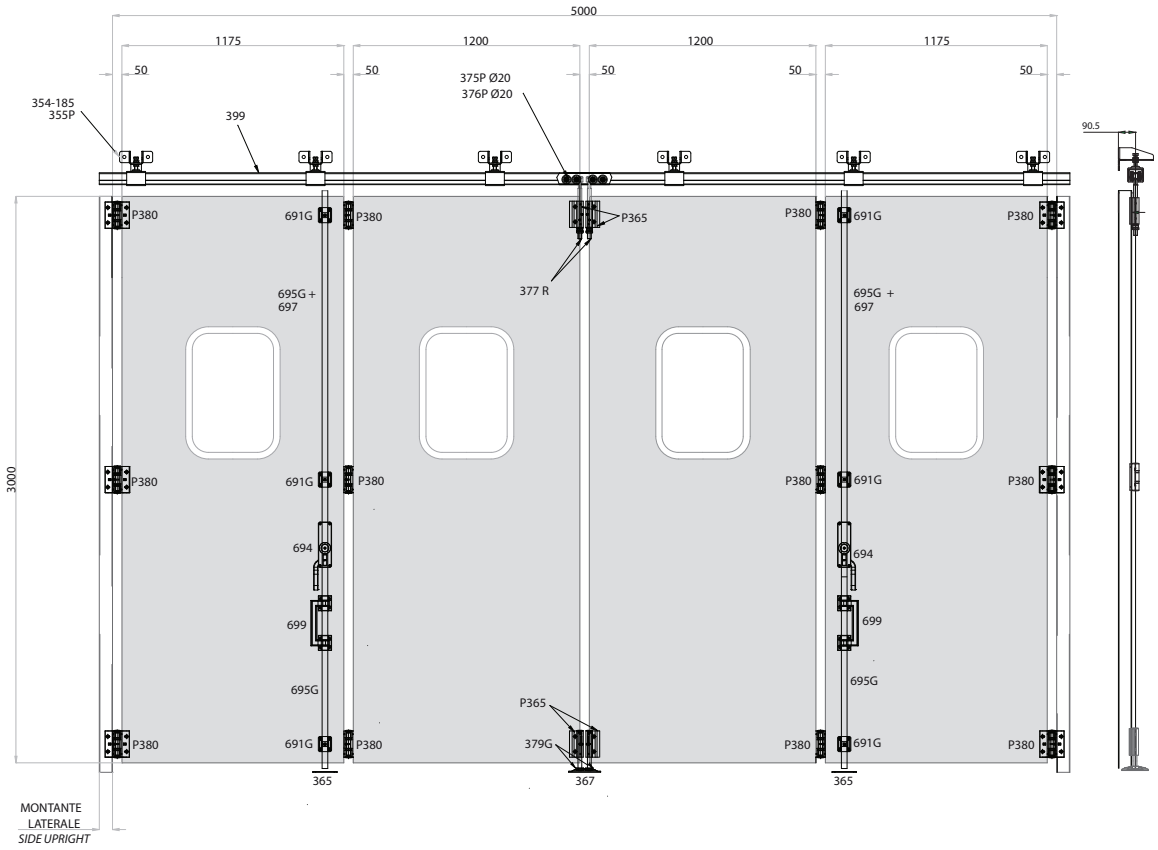
Industrial Folding Door Hardware

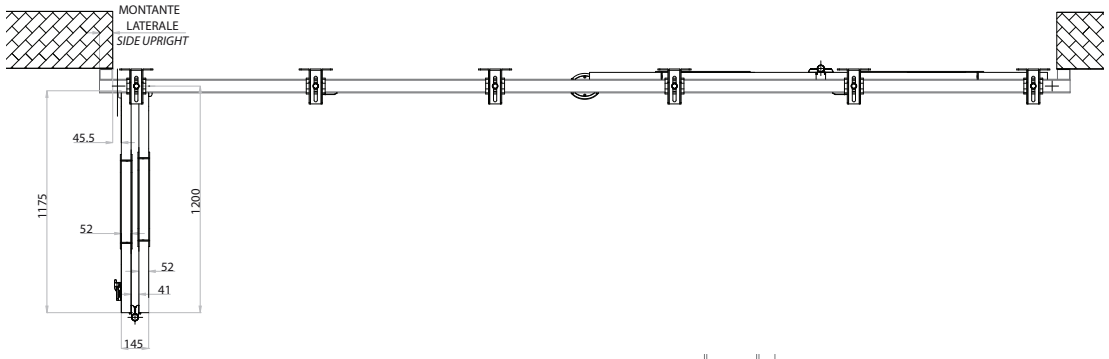


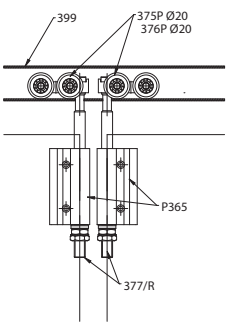
Industrial folding door hardware from Comunello is available with a variety of configurations. Track, trolley and hinge options cover the full range of lightweight to heavy duty industrial doors. Folding door hinge options allow for doors to swing open to either 90° side-folding, or 180° fully open.

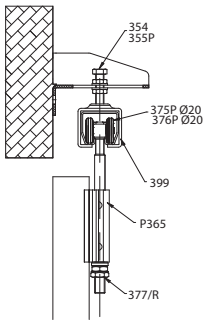
Door configuration:

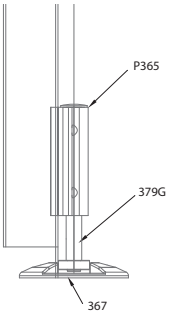
- **medium weight**
- **2 folding doors that meet in the center**







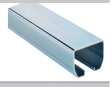




ITEM NUMBER

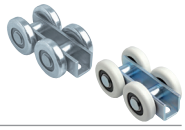
TRACK

399



TROLLEYS / PIN

375 P20
OR
376 P20



377 R

SUPPORTS

354-185

355 P

DROP BOLTS / HANDLES

694 MC

695 G

691 G

699

365

HINGES

P380

P365

GROUND CATCH / LEAF STOP

367

379 G 135

239

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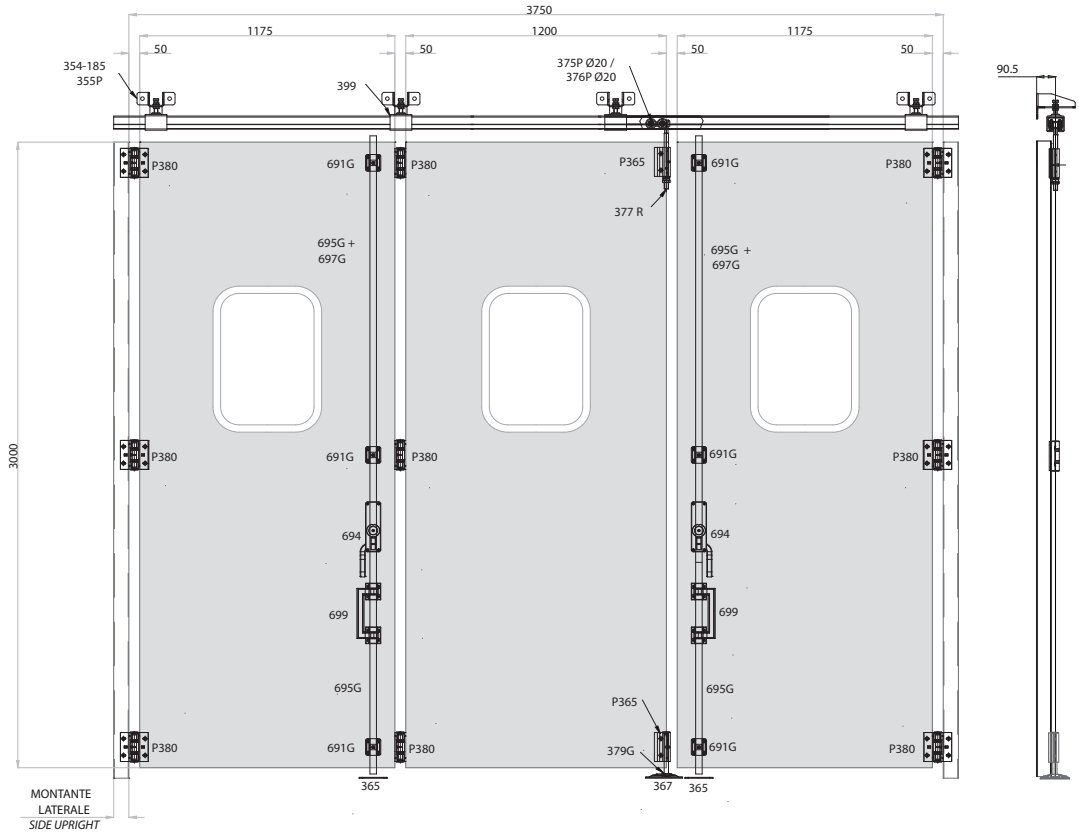
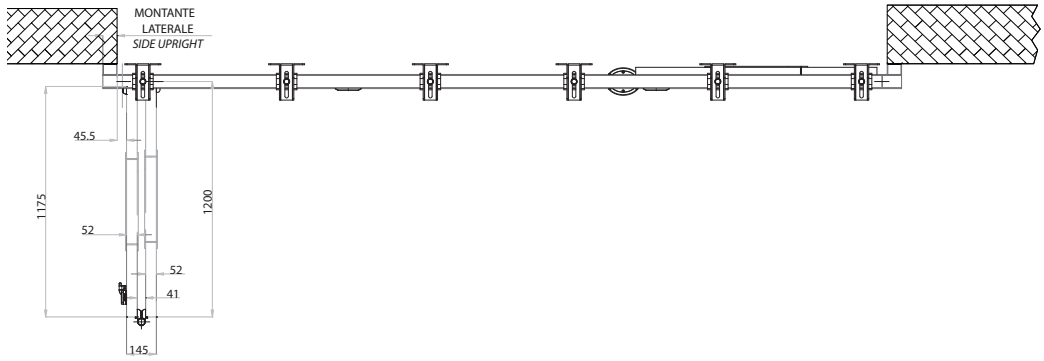
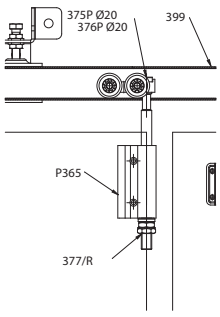
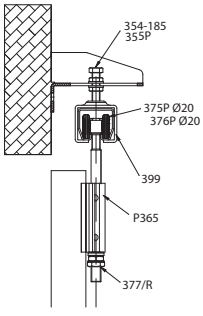
Door configuration:

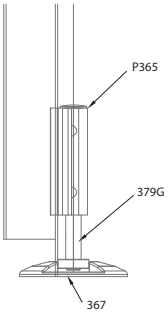
- **medium weight**
- **1 folding door on the left**
- **1 pull door on the right**





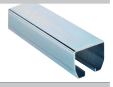




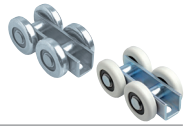


ITEM NUMBER

TRACK

399 

TROLLEYS / PIN

375 P20
OR
376 P20 

377 R 

SUPPORTS

354-185 

355 P 

DROP BOLTS / HANDLES

694 MC 

695 G 

691 G 

699 

365 

HINGES

P380 

P365 

GROUND CATCH / LEAF STOP

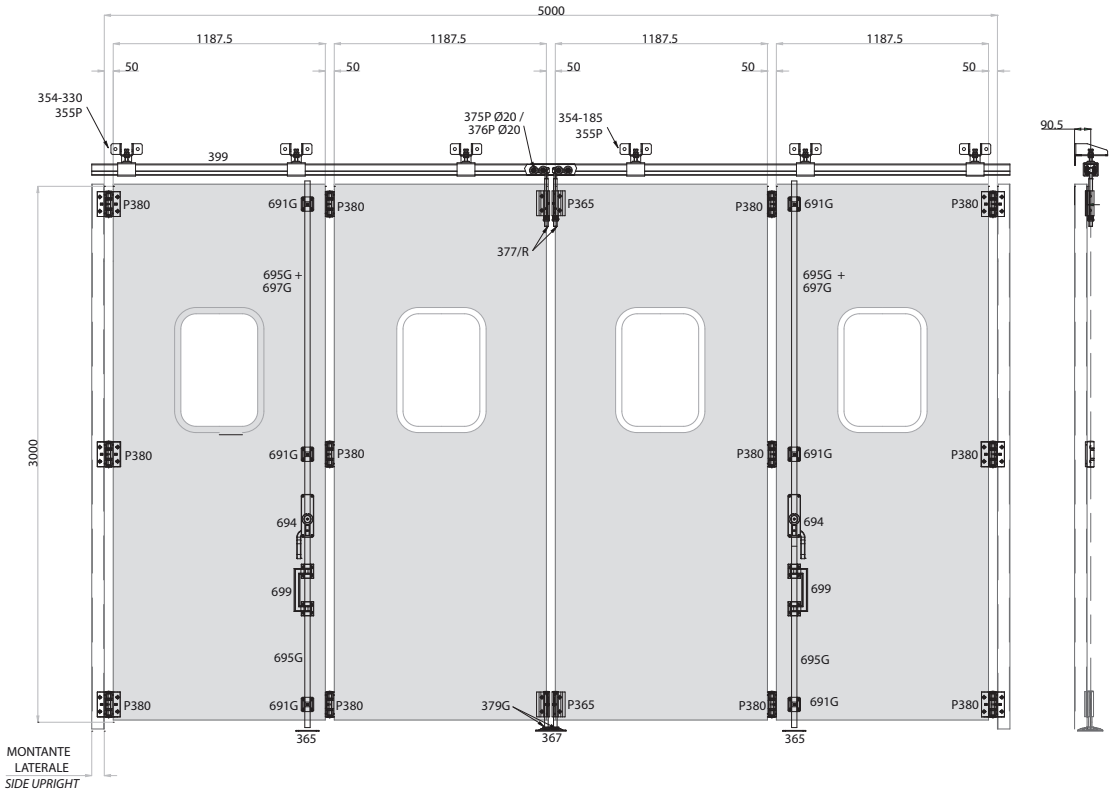
367 

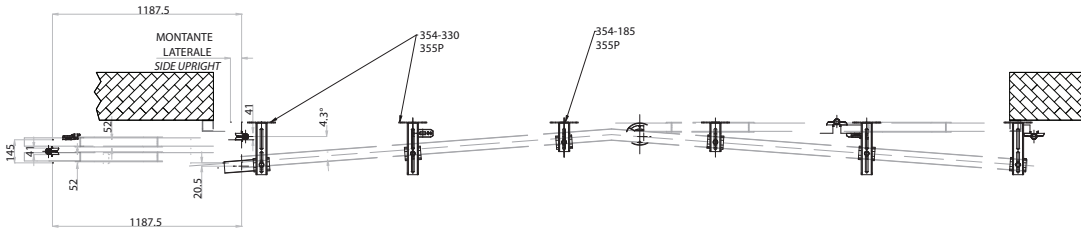
379 G 135 

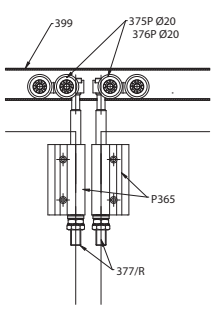
239 

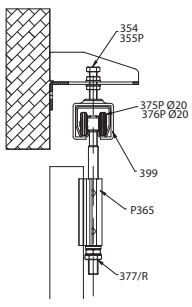
Door configuration:

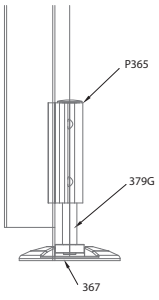
- **medium weight**
- **2 180° folding doors that meet in the center**







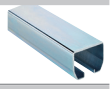




ITEM NUMBER

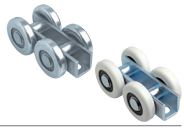
TRACK

399



TROLLEYS / PIN

375 P20
OR
376 P20



377 R

SUPPORTS

354-185

354-330

355 P

DROP BOLTS / HANDLES

694 MC

695 G

691 G

699

365

HINGES

P380

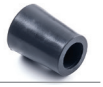
P365

GROUND CATCH / LEAF STOP

367

379 G 135

239



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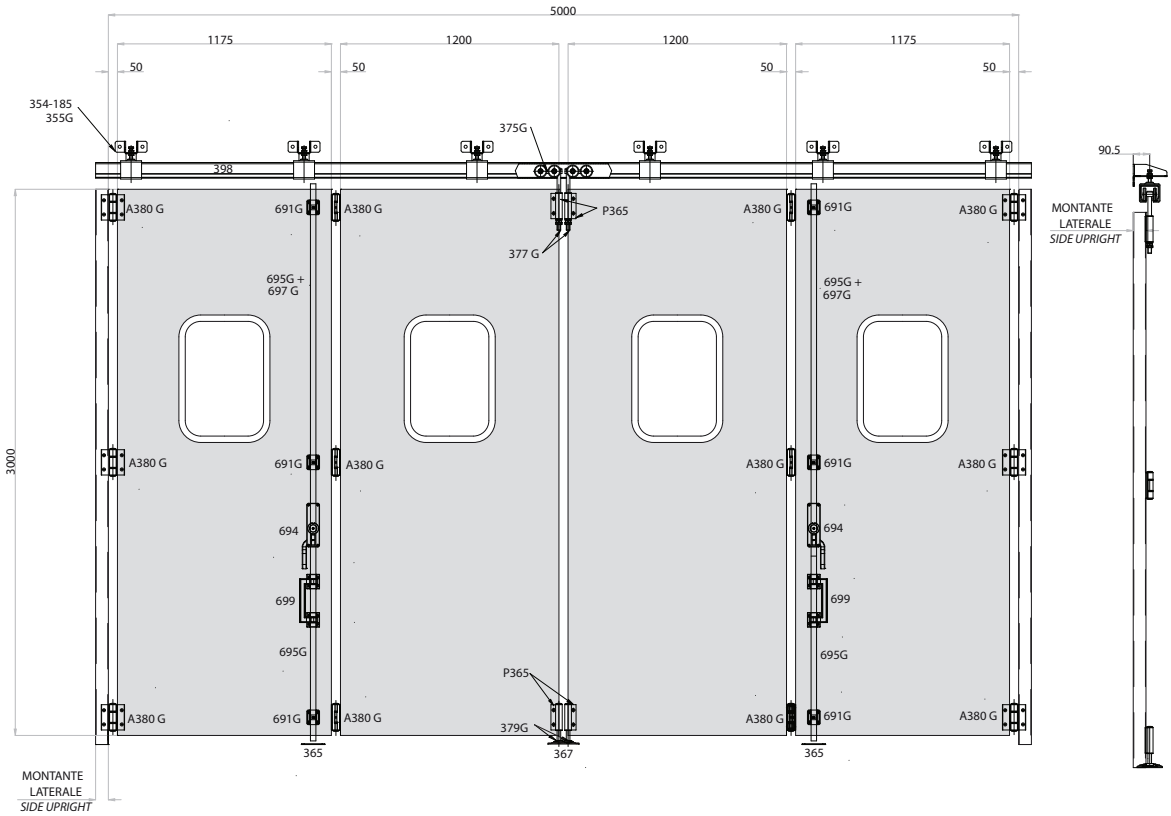
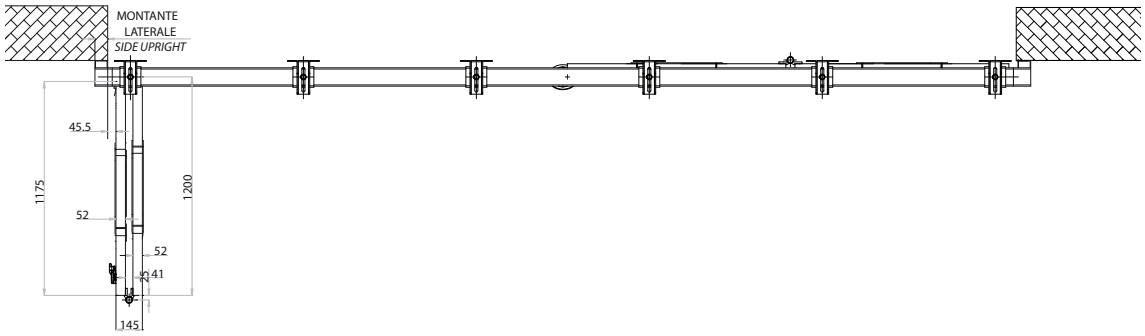
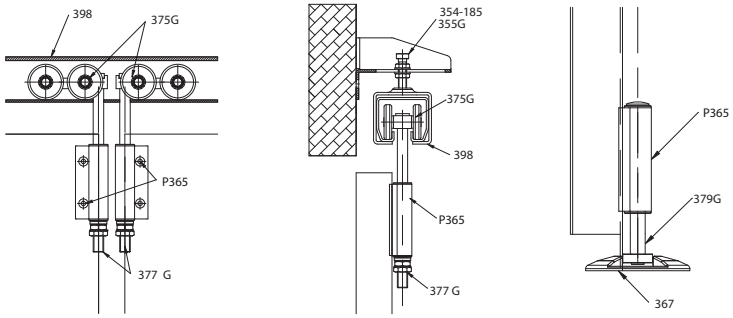
Door configuration:

- **heavy duty**
- **2 folding doors that meet in the center**

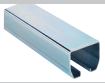






ITEM NUMBER

TRACK

398 

TROLLEYS / PIN

375 G 

377 G 330 

SUPPORTS

354-185 

355 G 

DROP BOLTS / HANDLES

694 MC 

695 G 

691 G 

699 

365 

HINGES

A380 G 

P365 

GROUND CATCH / LEAF STOP

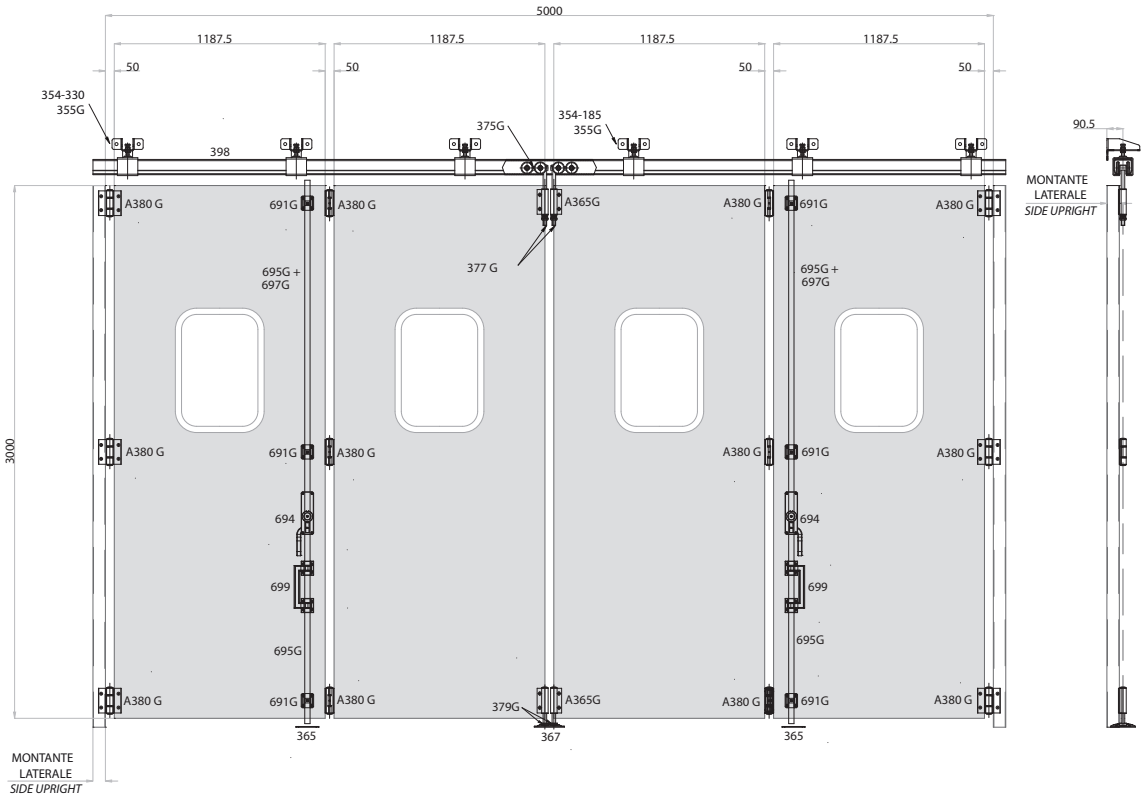
367 

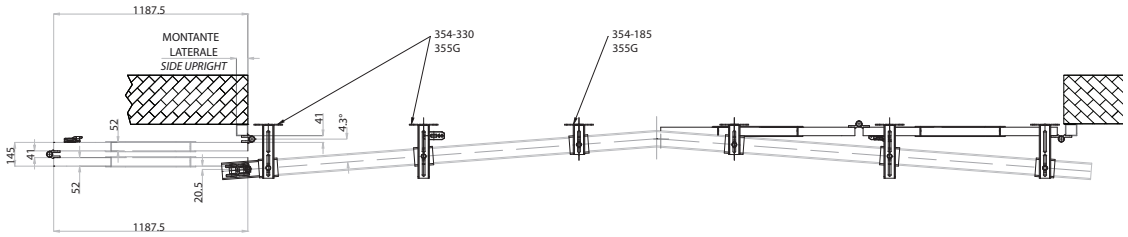
379 G 135 

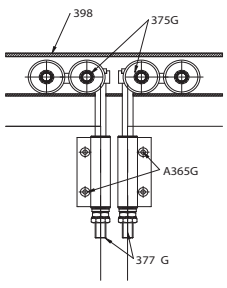
239 

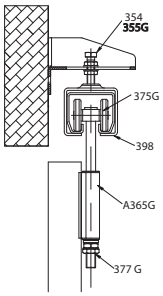
Door configuration:

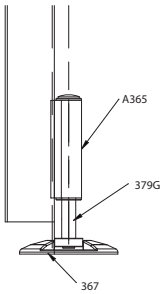
- **heavy duty**
- **2 180° folding doors that meet in the center**





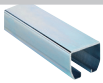






ITEM NUMBER

TRACK

398 

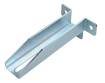
TROLLEYS / PIN

375 G 

377 G 330 

SUPPORTS

354-185 

354-330 

355 G 

DROP BOLTS / HANDLES

694 MC 

695 G 

691 G 

699 

365 

HINGES

A380 G 

P365 

GROUND CATCH / LEAF STOP

367 

379 G 135 

239 

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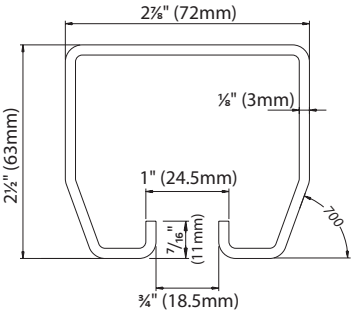
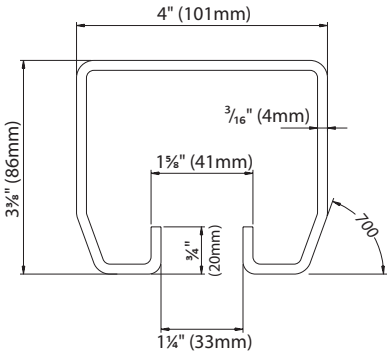
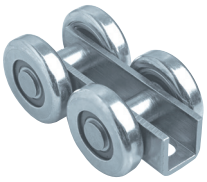
TRACK AND TROLLEYS



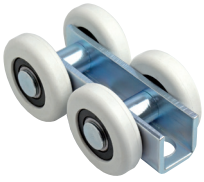
399-19.68FT
399-9.84FT
Small track for trolleys with 4 wheels.
Galvanized



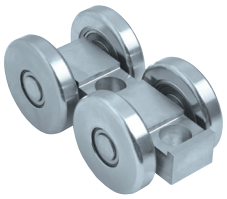
398-19.68FT
398-9.84FT
Large track for trolleys with 4 wheels.
Galvanized



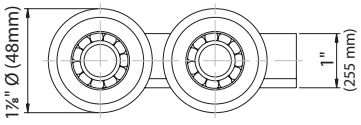
375-P20 (requires M20 pin)
Small steel trolley with 4 wheels.
880 lbs. per trolley.
Galvanized

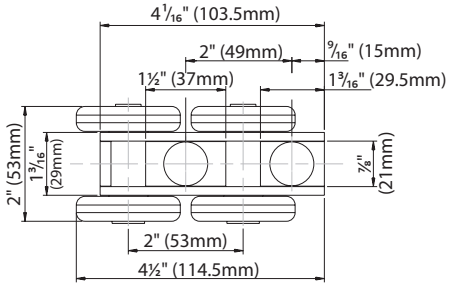


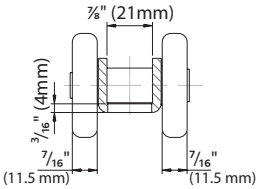
376-P20 (requires M20 pin)
Small steel trolley with 4 nylon wheels.
880 lbs. per trolley.
Galvanized

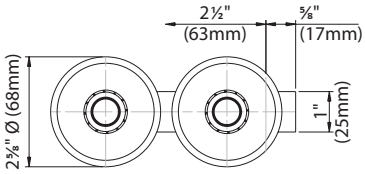


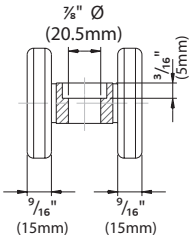
375G (requires M20 pin)
Large steel trolley with 4 wheels.
1764 lbs. per trolley.
Galvanized

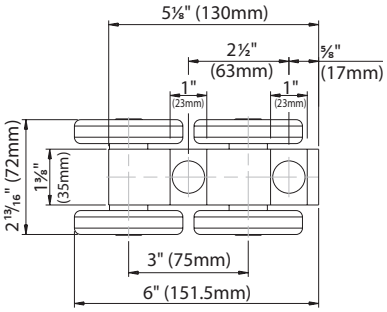






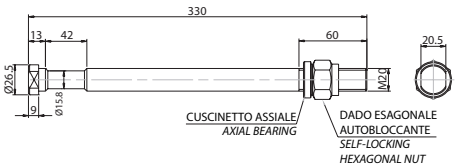


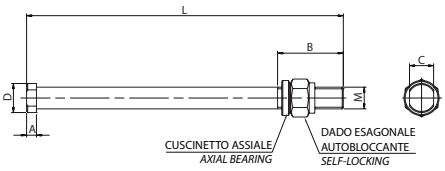




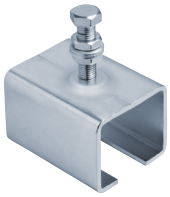
377R
Upper pin for folding doors.
13" (330mm) long x M20)
Use with trolleys 375-P20 or 376-P20 and hinge P365.

377-G-330
Upper pin for folding doors.
13" (330mm) long x M20)
Use with trolley 375G and hinge P365.





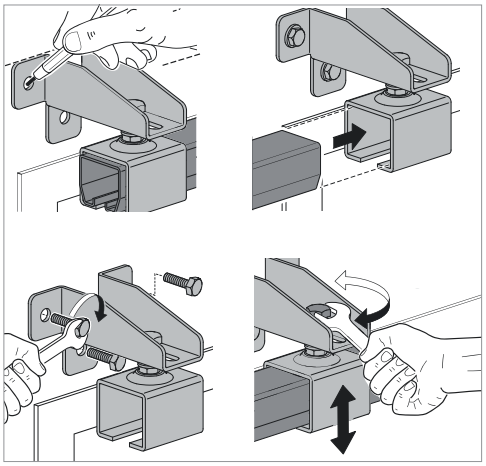
TRACK SUPPORTS



Adjustable track support.
Galvanized

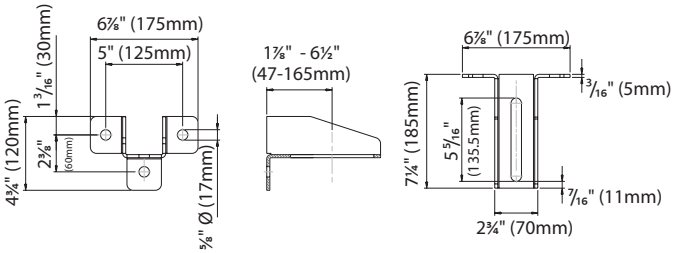
355P (for 399 track)
Width: 3⅜" (86mm)
Height: 3" (75mm)
Length: 4" (100mm)

355G (for 398 track)
Width: 4 7/16" (113mm)
Height: 4" (101mm))
Length: 4" (100mm)

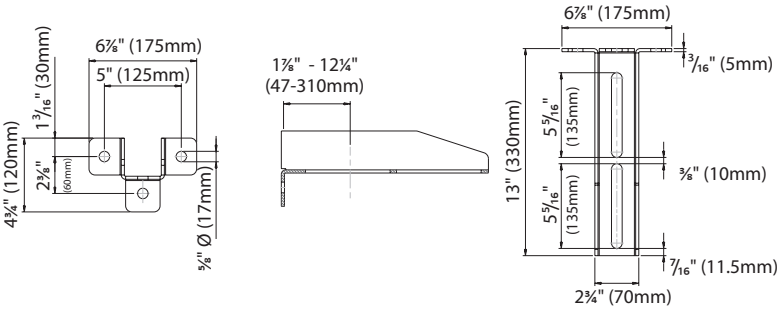


Items 355 and 354 shown.

354-185
Adjustable wall support. 7-1/4" long.
Recommended spacing 27-1/2" apart.
Galvanized



354-330
Adjustable wall support. 13" long.
Recommended spacing 27-1/2" apart.
Galvanized



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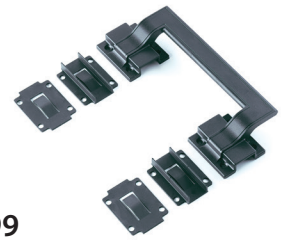
DROP BOLT LEVERS, DROP BOLTS, HANDLE, GROUND CATCHES & LEAF STOP

694-MC-DX (right operating)
694-MC-SX (left operating)
Large lever used to operate the drop bolt. Galvanized

695G-9.84FT
Tubular drop bolt for use with the large lever. Size 30mm x 10mm
Galvanized

691G
Drop bolt guide.
Use with item 695G.
Galvanized



699
Black nylon pull handle with guides. Use with drop bolt item 695G. From top of bracket to bottom of bracket 11-7/16" high. From top of handle to bottom of handle 9-1/2" high.

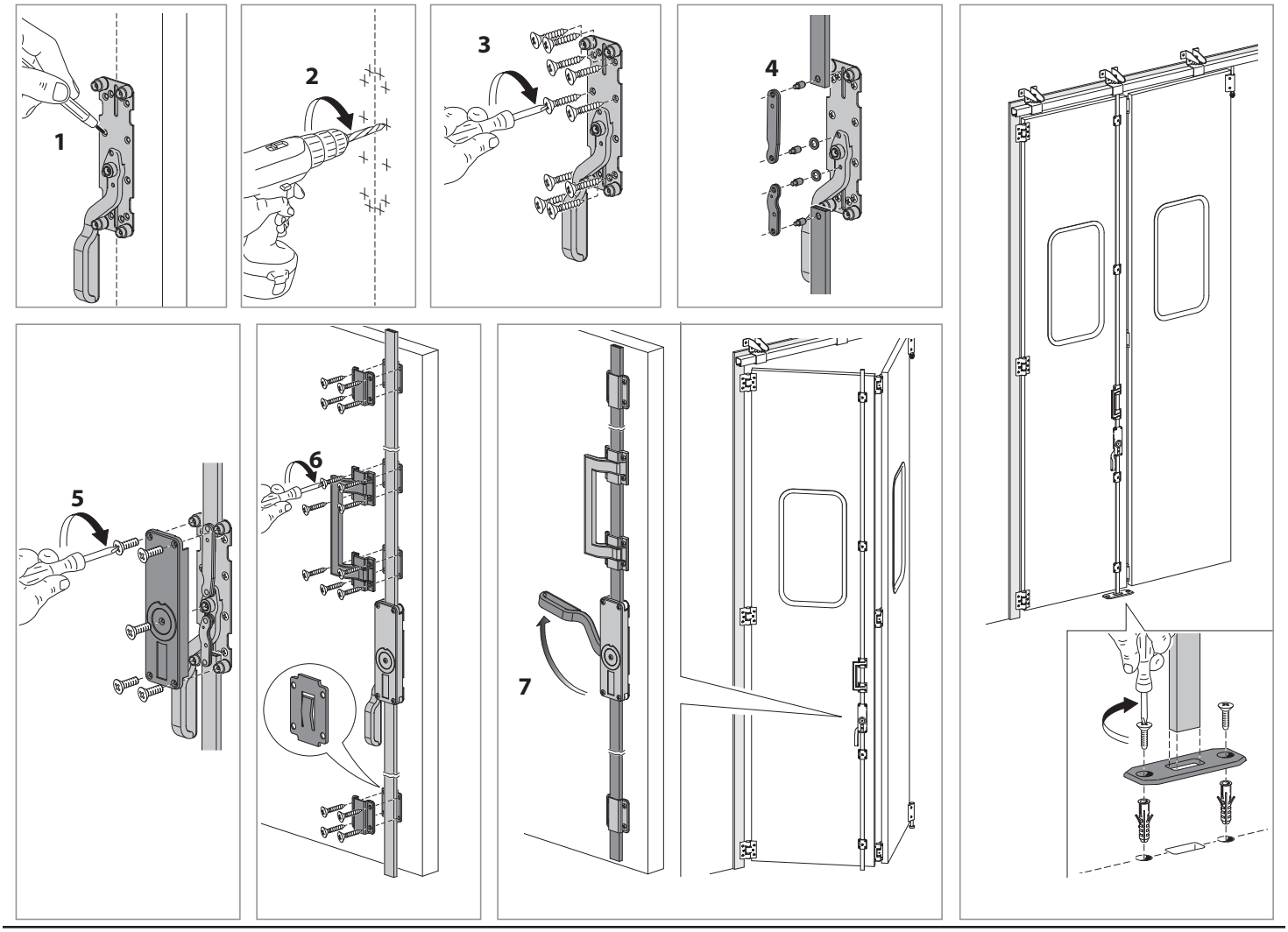
365 (galvanized)
Ground strike plate to receive drop bolt item 695G.

367
Ground strike plate to receive lower pin item 379-G-135. Black nylon with steel reinforcement.

379G-135
Adjustable lower pin.
5-5/16" long. Use with item 367.
Galvanized

239
Rubber door leaf stop

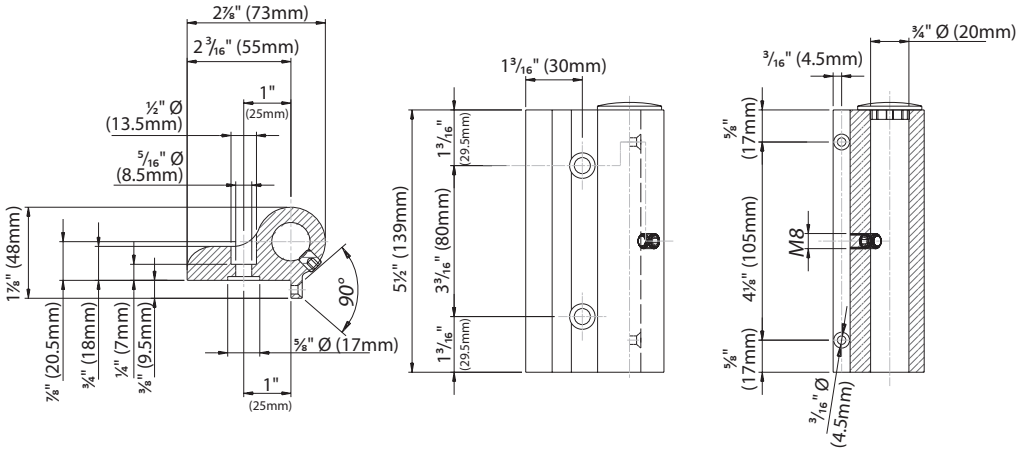
LEVER INSTALLATION GUIDE



HINGES

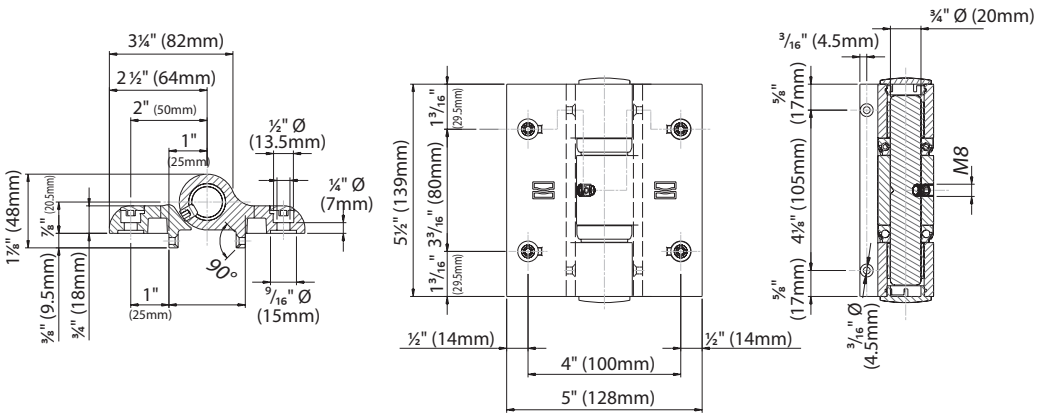
P365

Hinge with 1 off-center leg.
Weight capacity: 440 lbs/pair.
Die-cast aluminum, black finish
Use with upper pin item 377-R
Use with lower pin item 379G-135



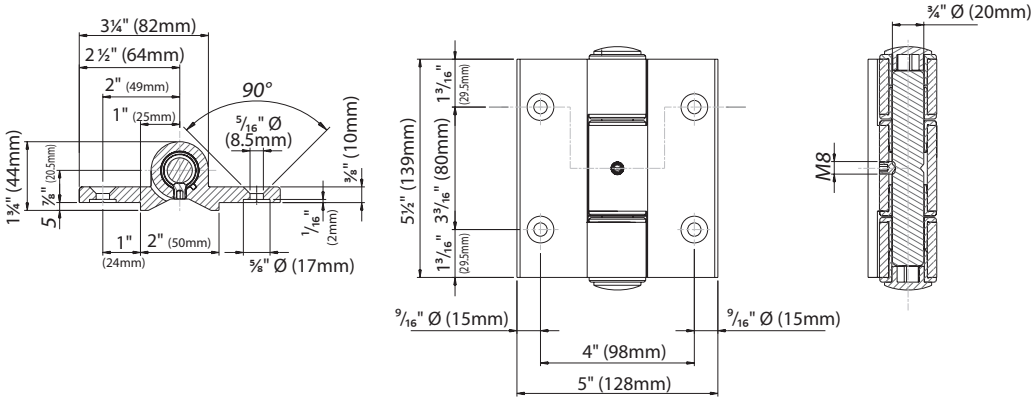
P380

Hinge with 2 legs.
Weight capacity: 660 lbs/pair.
Die-cast aluminum, black finish



A380-G

Large hinge with off center leg.
Weight capacity: 880 lbs/pair.
Die-cast aluminum, black finish



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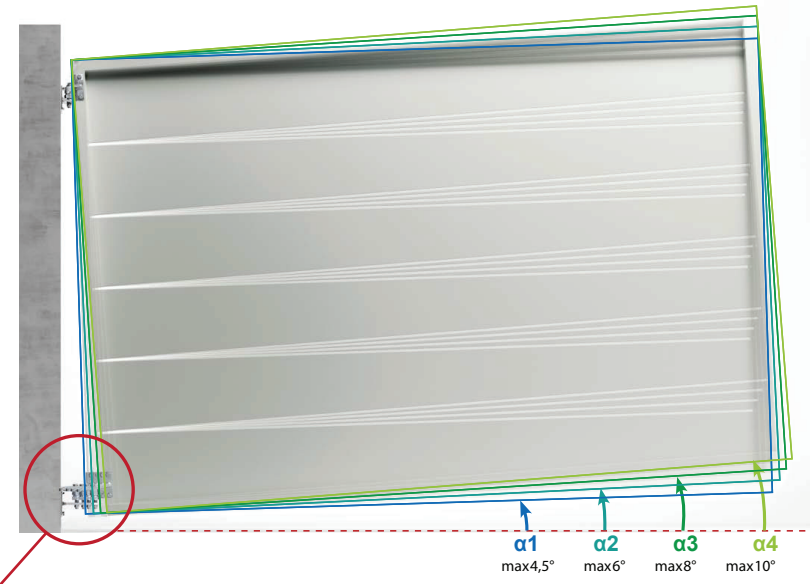
COMUNELLOGATE

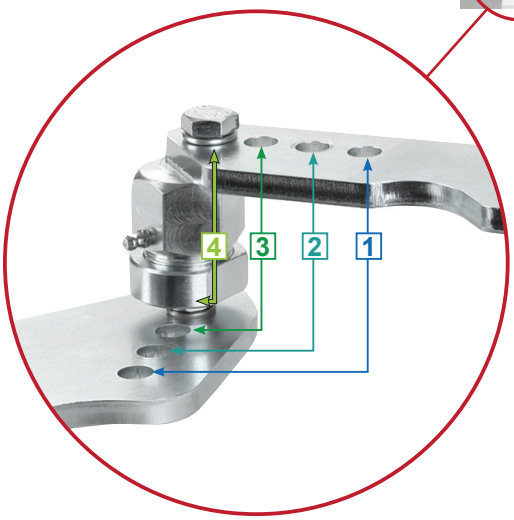
Rising/Uphill Hinge System

Rising hinge system for swing gates opening on an incline. Rising hinges is an innovative bolt-on gate hinge solution with 4 adjustable leaf inclination settings to match a slope of 4.5° up to 10°.

RS-100F

Leaf weight up to 330 lbs.





The lower hinge has an adjustment system consisting of 4 holes both in the bracket that connects to the gate leaf and in the bracket that connects to the post. Each pair of holes (1, 2, 3, 4) corresponds to an inclination of the gate.

By adjusting the distance between the two hinges and adjusting the lower hinge, the desired inclination can be obtained.

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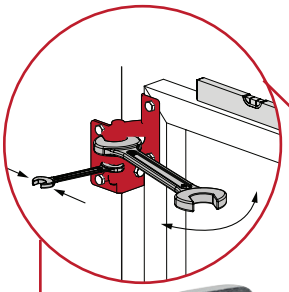
Upper Rising Hinge

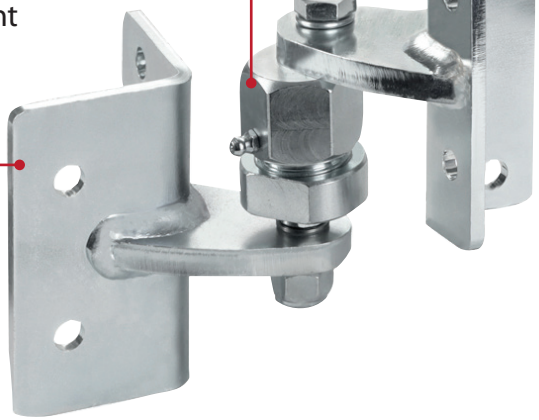


The leaf bracket is connected to the joint by means of an off-axis eccentric screw; the rotation of the joint allows for a fine adjustment of the gate which is useful for placing it in a horizontal position and aligning it with the post.

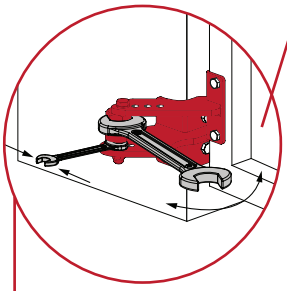
The ball joint with grease nipple allows the gate to tilt during movement

Steel bracket for bolting to the gate leaf

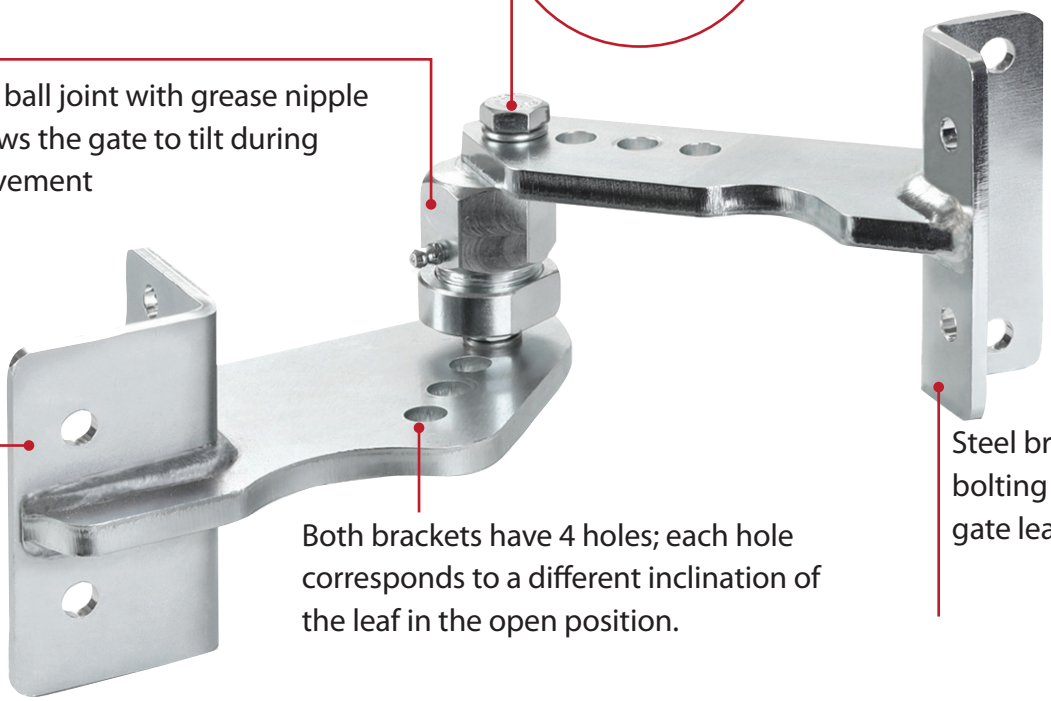
Steel bracket for bolting to the post



Lower Rising Hinge



The ball joint with grease nipple allows the gate to tilt during movement

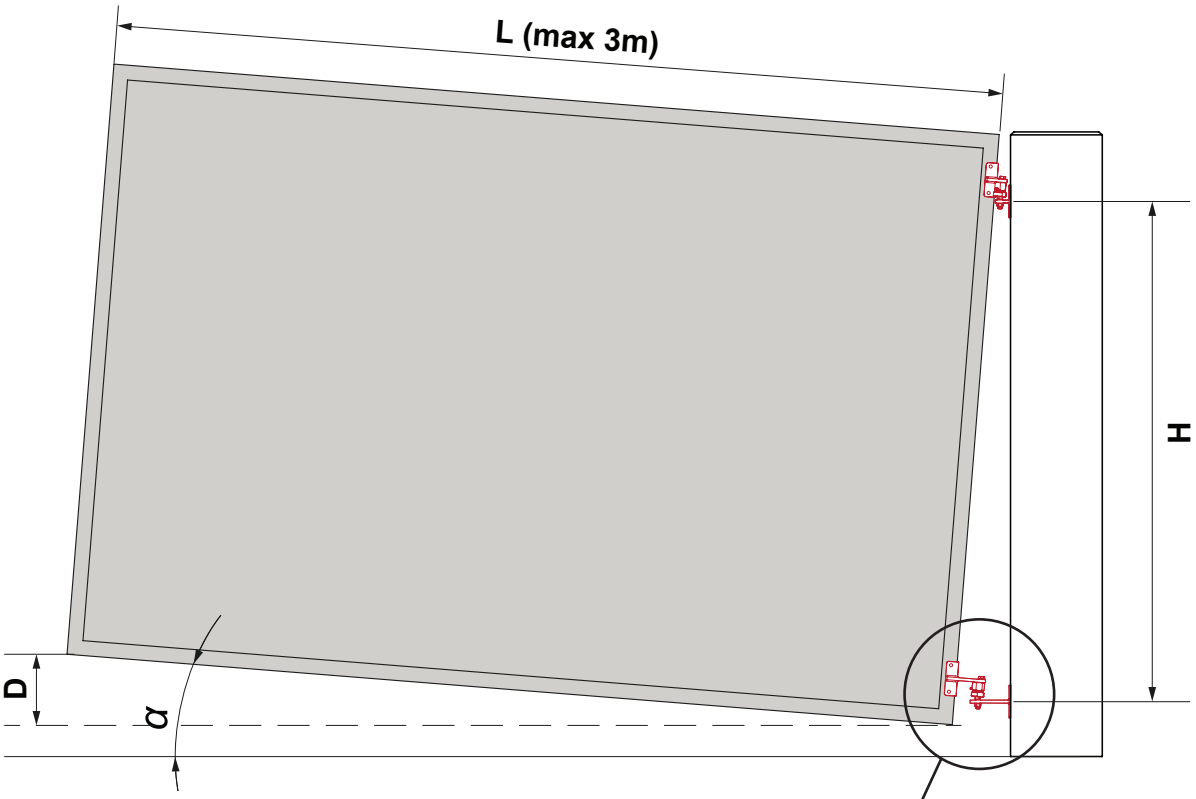


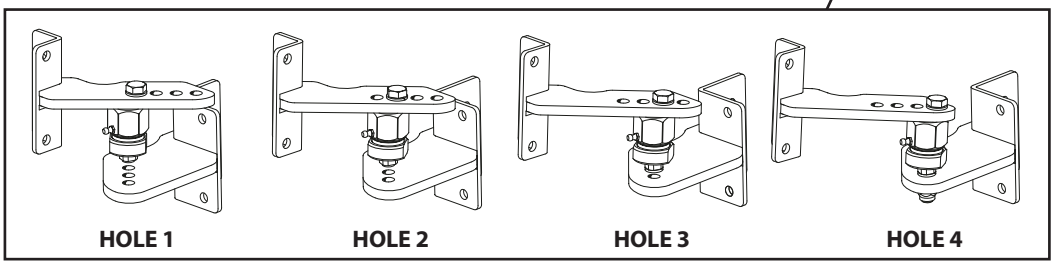
Steel bracket for bolting to the post

Both brackets have 4 holes; each hole corresponds to a different inclination of the leaf in the open position.

Steel bracket for bolting to the gate leaf

Lower hinge rise set up





Gate Height (ft/m)	HOLE	α°	D (in / mm) (L = 6½ ft / 2 m)	D (in / mm) (L = 10 ft / 3 m)
4 ft / 1.2 m	1	3	4 in / 100 mm	6 in / 150 mm
	2	4.5	6½ in / 160 mm	9½ in / 240 mm
	3	5.5	8 in / 200 mm	12 in / 300 mm
	4	7	10 in / 250 mm	15 in / 375 mm
5 ft / 1.5 m	1	2.5	3½ in / 90 mm	5½ in / 135 mm
	2	3.5	5 in / 120 mm	7 in / 180 mm
	3	4.5	6½ in / 160 mm	9½ in / 240 mm
	4	5.5	8 in / 200 mm	12 in / 300 mm
6 ft / 1.8 m	1	2	3 in / 70 mm	4 in / 105 mm
	2	3	4 in / 100 mm	6 in / 150 mm
	3	3.5	5 in / 120 mm	7 in / 180 mm
	4	4.5	6½ in / 160 mm	9½ in / 240 mm

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Bi-Folding Gate Configurator available at archirondesign.com/comunello

Albatros

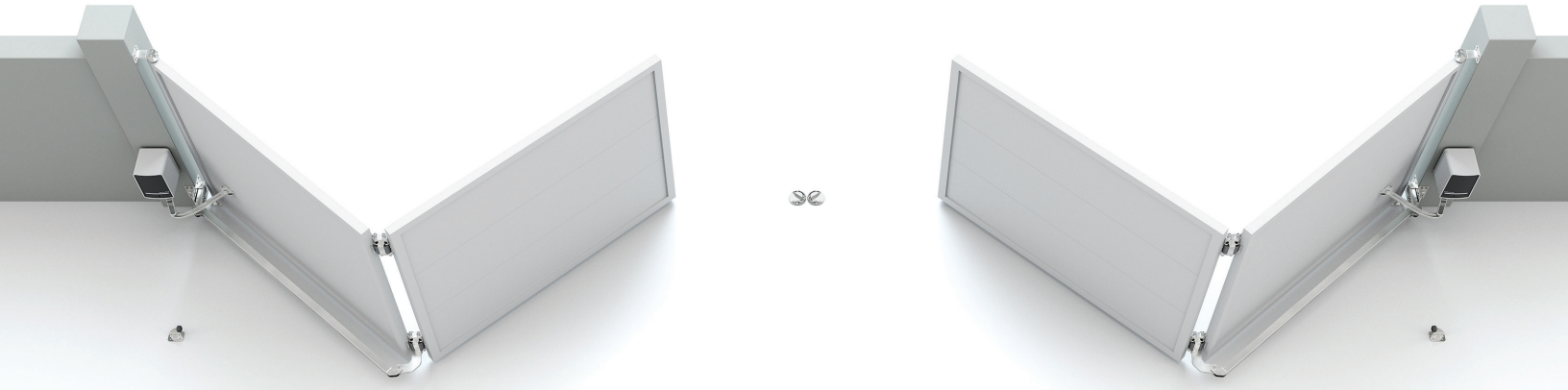
A bi-folding gate system for confined spaces.

- Bi-folding wide opening swing gate system
- For double gates up to 52ft wide opening
- Geared hinges for smooth opening
- Fold system occupies minimal space for opening and closing
- Trackless obstacle free entranceway
- Space saving design
- Precise and adjustable stop position

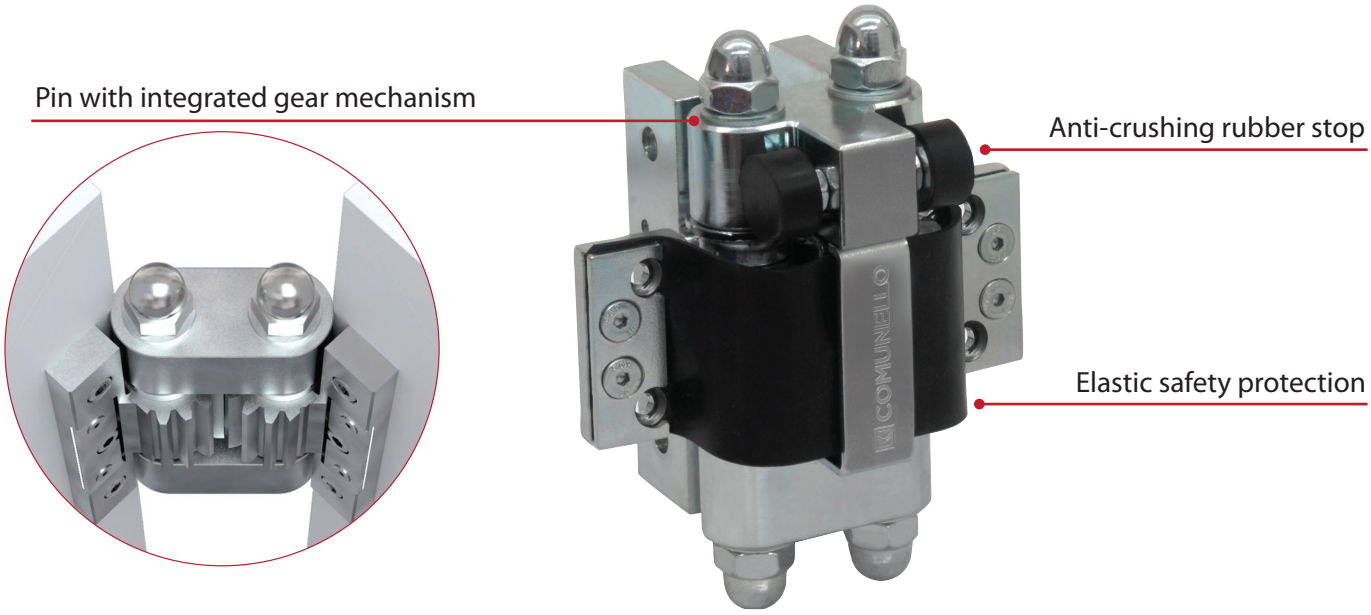
Watch a video for more information.

COMUNELLOGATE

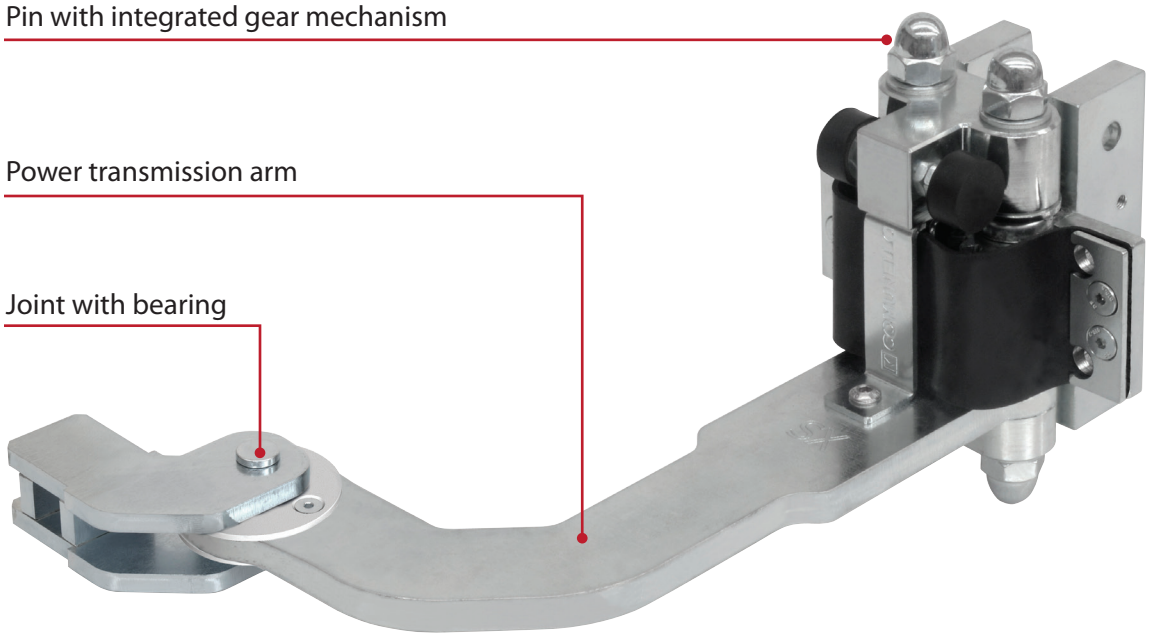
With its patented revolutionary geared hinge, the Albatros system offers a stable smooth opening for large bi-folding gates. This high quality system remains totally suspended and therefore trackless, allowing a clean obstacle free entrance and using half the space of a single leaf swing gate. The Albatros power transmission arm is mounted on the hinge post and is connected to the geared hinge between the panels achieving a smooth and reliable opening system.



Upper geared hinge



Lower geared hinge with power transmission arm



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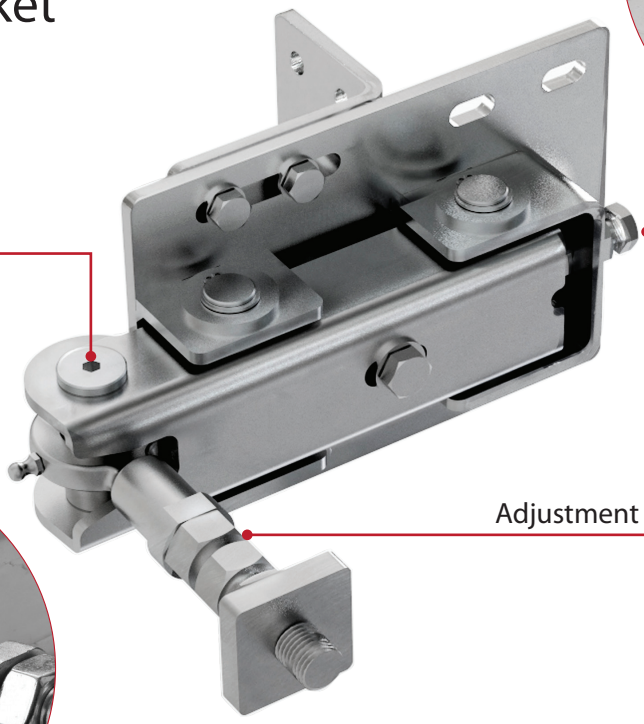
FEATURES

- Bi-folding wide opening swing gate system
- For double gates up to 52ft wide opening
- Geared hinges for smooth opening
- Fold system occupies minimal space for opening and closing
- Trackless obstacle free entranceway
- Space saving design
- Precise and adjustable stop position

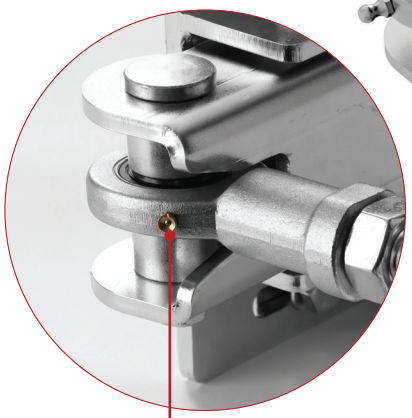
Adjustable bracket



Adjustment for gate alignment when open

Ball joint with grease nipple

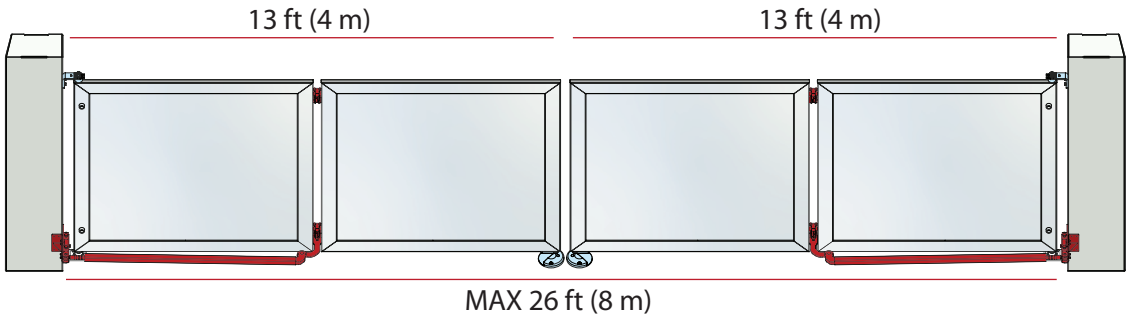
Adjustment for gate alignment when closed

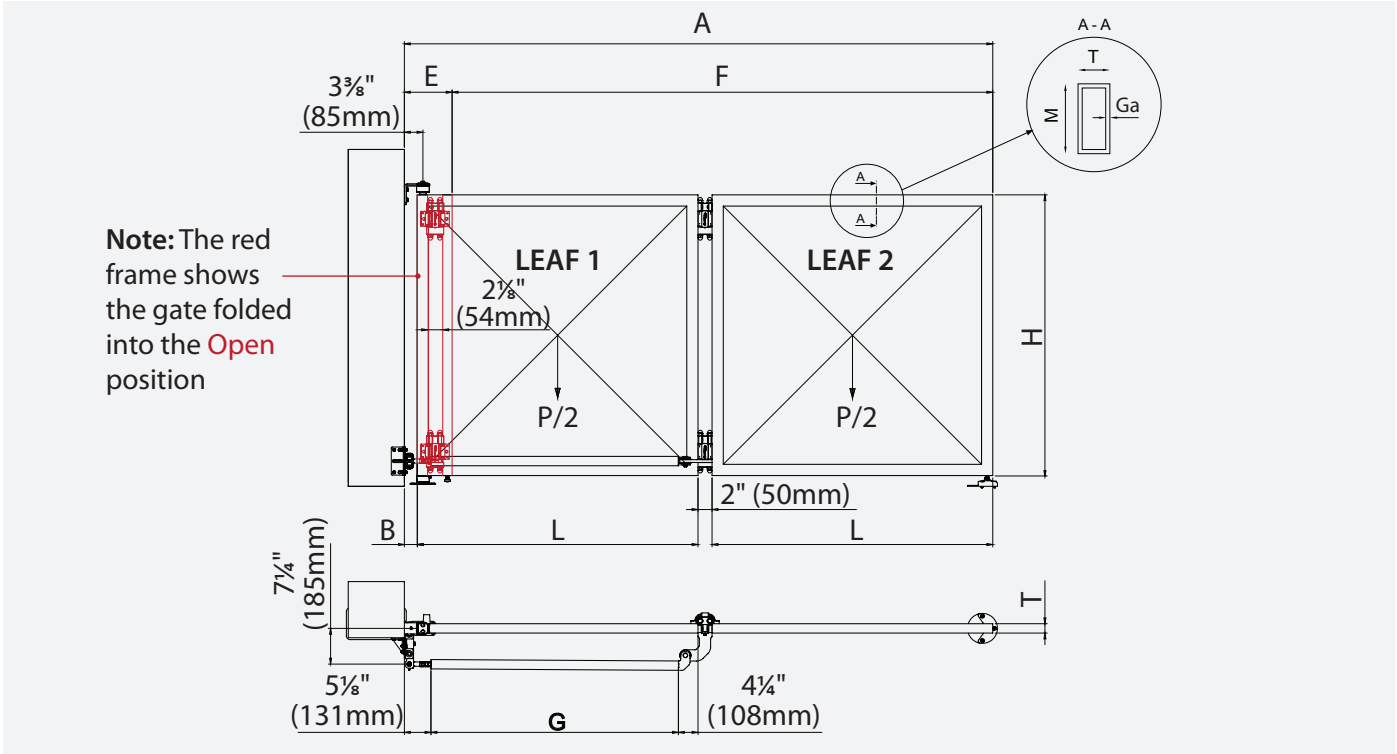


Grease nipple

Albatros **ABS-100P** For single gates up to 13ft (4m) or double gates up to 26ft (8m)

Note: Gate width is limited to 3 times the height.





ABS-100P System Configuration Formulas For Opening Size "A" and Gate Frame Profile Thickness "T"	
B: Hinge gap	B (in) = **3-3/8"** - T/2
L: Gate leaf width	L (in) = (A - **2"** - B) ÷ 2
G: Hinge to post connector tube length	G (in) = L - **9-7/16"** + B
E: Gate width in open position	E (in) = (2 x T) + B + **2-1/8"**
F: Net opening size	F (in) = A - E

NOTE: The parameters in **BOLD** in the formulas above are inches

Piccolo Hinge Gaps by Profile Size		
FRAME SIZE	HINGE GAP	ADJUSTABILITY
2"	2-1/4"	+/- 5/16"
3"	1-3/4"	+/- 5/16"
4"	1-1/4"	+/- 5/16"

ABS-100P Gate Frame Size Requirements		
OPENING A (in)	LEAF WEIGHT P/2 MAX (lbs)	GATE FRAME MIN TUBE SIZE (in)
60" (5')	220	3" x 2" 11 Ga
78" (6'6")	220	3" x 2" 11 Ga
96" (8')	220	3" x 2" 11 Ga
120" (10')	220	3" x 2" 11 Ga
144" (12')	220	4" x 2" 11 Ga
156" (13')	220	6" x 2" 11 Ga

NOTE: For leaf weights (P/2) over 220 lbs., contact AIDI for technical support at 908.757.2323

As indicated in the table above, we recommend the use of tubing specified to make your gate structurally sound/rigid to avoid bending during opening and closing cycles. It is also advisable to limit the overall gate weight as much as possible.

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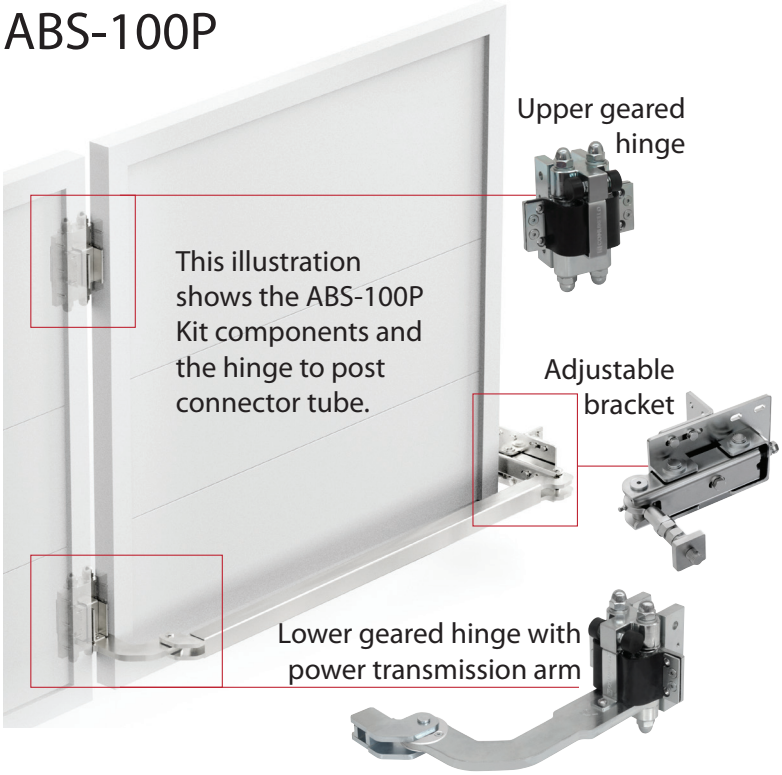
ABS-100P



ABS-10P

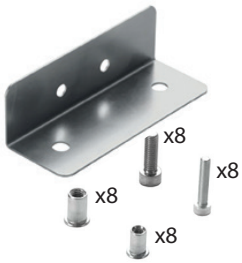
Hinge to post connector tube, 9'10" lengths, raw

ABS-16

LEFT and RIGHT ground strike plate 6-1/4" dia. (160mm) wide, 1-3/16" (30mm) high

ABS-20P

Drilling template with rivets and screws



ALBATROS MODEL **ABS-100P** SYSTEM HINGES

GROUND MOUNT – SCREW ON HINGE SET
3/16" thick mounting bracket
9/16" Gap adjustment
Sealed Bearings
2" Hinge diameter

85PST-M

87PST-M

POST MOUNT – SCREW ON HINGE SET
3/8" thick mounting bracket
9/16" Gap adjustment
Sealed Bearings
2" Hinge diameter

85L-M

87L-M

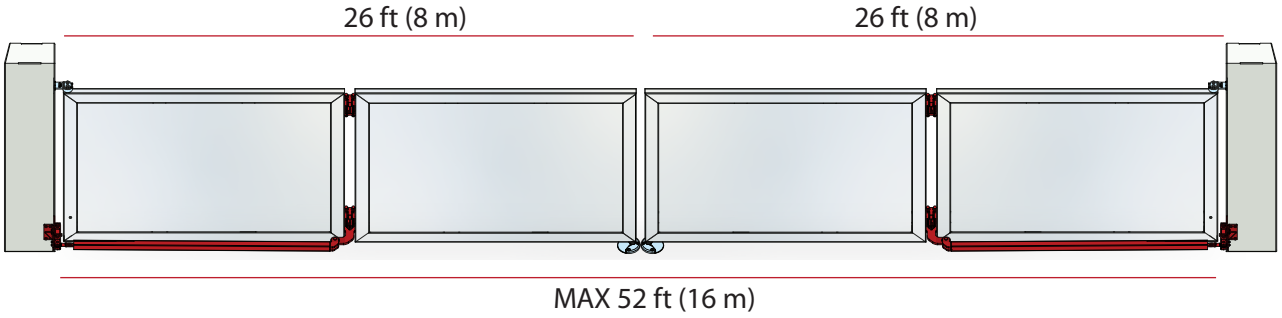
GROUND MOUNT – WELD ON HINGE SET
3/8"thick mounting bracket
9/16" Gap adjustment
Sealed Bearings
2" Hinge diameter

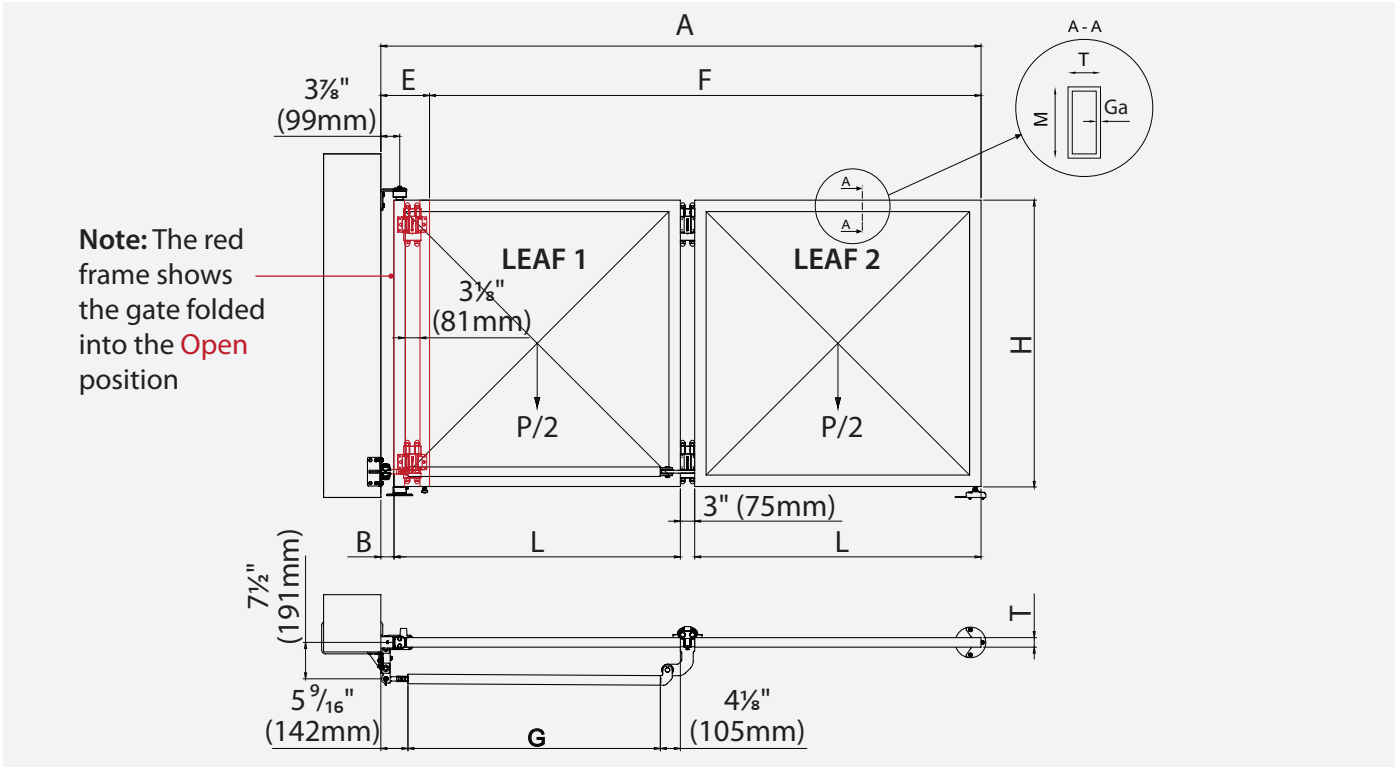
85M

87M

Albatros **ABS-100G** For single gates up to 26ft (8m) or double gates up to 52ft (8m)

Note: Gate width is limited to 3 times the height.





Note: The red frame shows the gate folded into the Open position

ABS-100G System Configuration Formulas For Opening Size "A" and Gate Frame Profile Thickness "T"	
B: Hinge gap	B (in) = **3-7/8"** - T/2
L: Gate leaf width	L (in) = (A - **3"** - B) ÷ 2
G: Hinge to post connector tube length	G (in) = L - **9-3/4"** + B
E: Gate width in open position	E (in) = (2 x T) + B + **3-1/8"**
F: Net opening size	F (in) = A - E

NOTE: The parameters in **BOLD** in the formulas above are inches

Piccolo Hinge Gaps by Profile Size		
FRAME SIZE	HINGE GAP	ADJUSTABILITY
2"	2-3/4"	+/- 5/16"
3"	2-1/4"	+/- 5/16"
4"	1-3/4"	+/- 5/16"

ABS-100G Gate Frame Size Requirements		
OPENING A (in)	LEAF WEIGHT P/2 MAX (lbs)	GATE FRAME MIN TUBE SIZE (in)
60" (5')	330	4" x 2" 11 Ga
78" (6'6")	330	4" x 2" 11 Ga
96" (8')	330	4" x 2" 11 Ga
120" (10')	330	6" x 2" 11 Ga
144" (12')	330	6" x 2" 11 Ga
156" (13')	330	6" x 2" 11 Ga

NOTE: For leaf weights (P/2) over 330 lbs., contact AIDI for technical support at 908.757.2323

As indicated in the table above, we recommend the use of tubing specified to make your gate structurally sound/rigid to avoid bending during opening and closing cycles. It is also advisable to limit the overall gate weight as much as possible.

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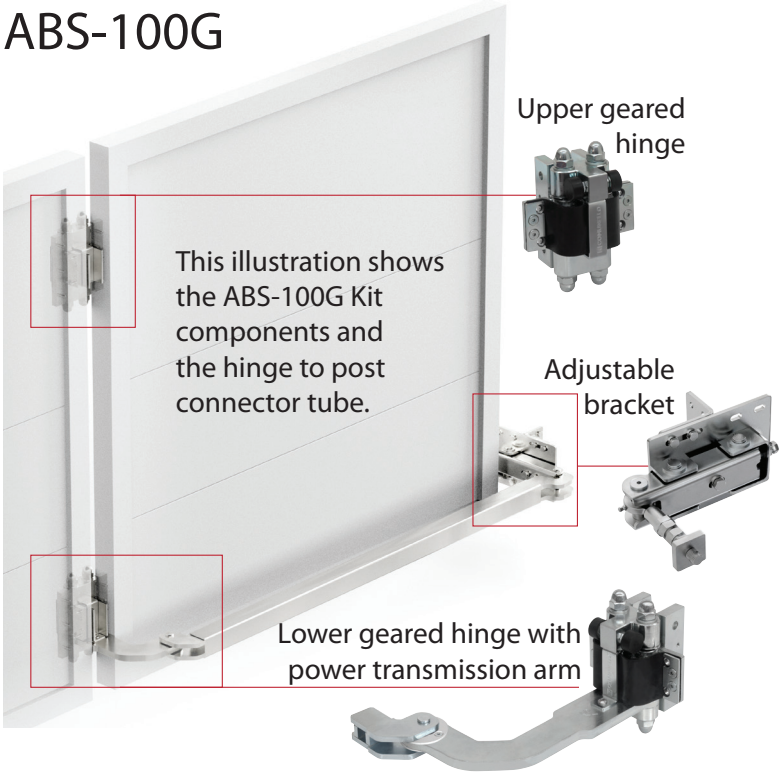
ABS-100G



ABS-10G

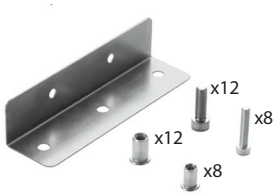
Hinge to post connector tube, 9'10" lengths, raw

ABS-16

LEFT and RIGHT ground strike plate 6-1/4" dia. (160mm) wide, 1-3/16" (30mm) high

ABS-20G

Drilling template with rivets and screws



ALBATROS MODEL **ABS-100G** SYSTEM HINGES

GROUND MOUNT – SCREW ON HINGE SET
3/16" thick mounting bracket
9/16" Gap adjustment
Sealed Bearings
2-11/16" Hinge diameter

85PST-G

87PST-G

POST MOUNT – SCREW ON HINGE SET
3/8" thick mounting bracket
9/16" Gap adjustment
Sealed Bearings
2-11/16" Hinge diameter

85L-G

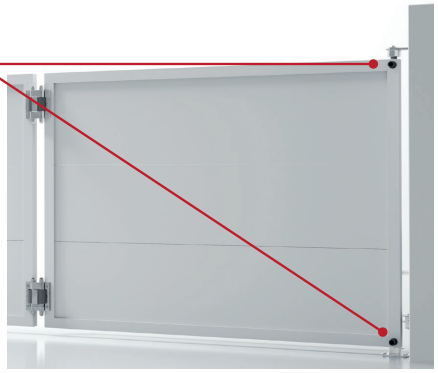
87L-G

GROUND MOUNT – WELD ON HINGE SET
3/8"thick mounting bracket
9/16" Gap adjustment
Sealed Bearings
2-11/16" Hinge diameter

85G

87G

239
Gate leaf stopper



A variety of gate stops are available to suit the requirements.

201
Gate stop with triple function. Mounted via screws. 5-3/16" high.

202
Runaway gate stop. Mounted via screws. 4-3/4" high.

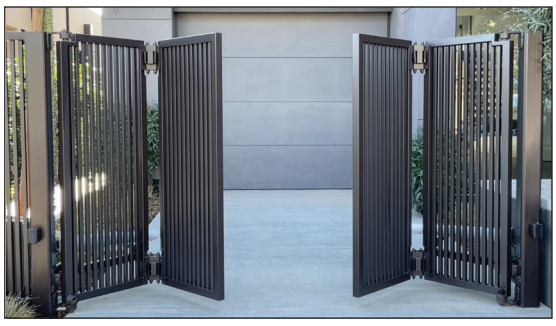
202F-A
Damped runaway gate stop. Mounted via screws. 4-3/16" high.

202F-B
Adjustable gate stop. Slot to accommodate up to a 2-1/2" gate frame. mounted via screws. 5-1/8" high.

Black Security Products installed this bi-folding swing gate at an airport entry point. This gate system was perfect since there was no room for a regular swing or sliding gate.

The photo to the right shows how compact the gate folds together.

A California homeowner wanted a gate across their driveway so a Bi-folding gate was chosen. The driveway was narrow so there was no room for a standard swing gate or a sliding gate. **West Coast Gates & Entry Systems** recommended the Albatros Bi-Folding gate system that is made by Comunello. Instead of the gate swinging open, the gate simply folds in half allowing plenty of room for a vehicle to pass by and enter the garage.



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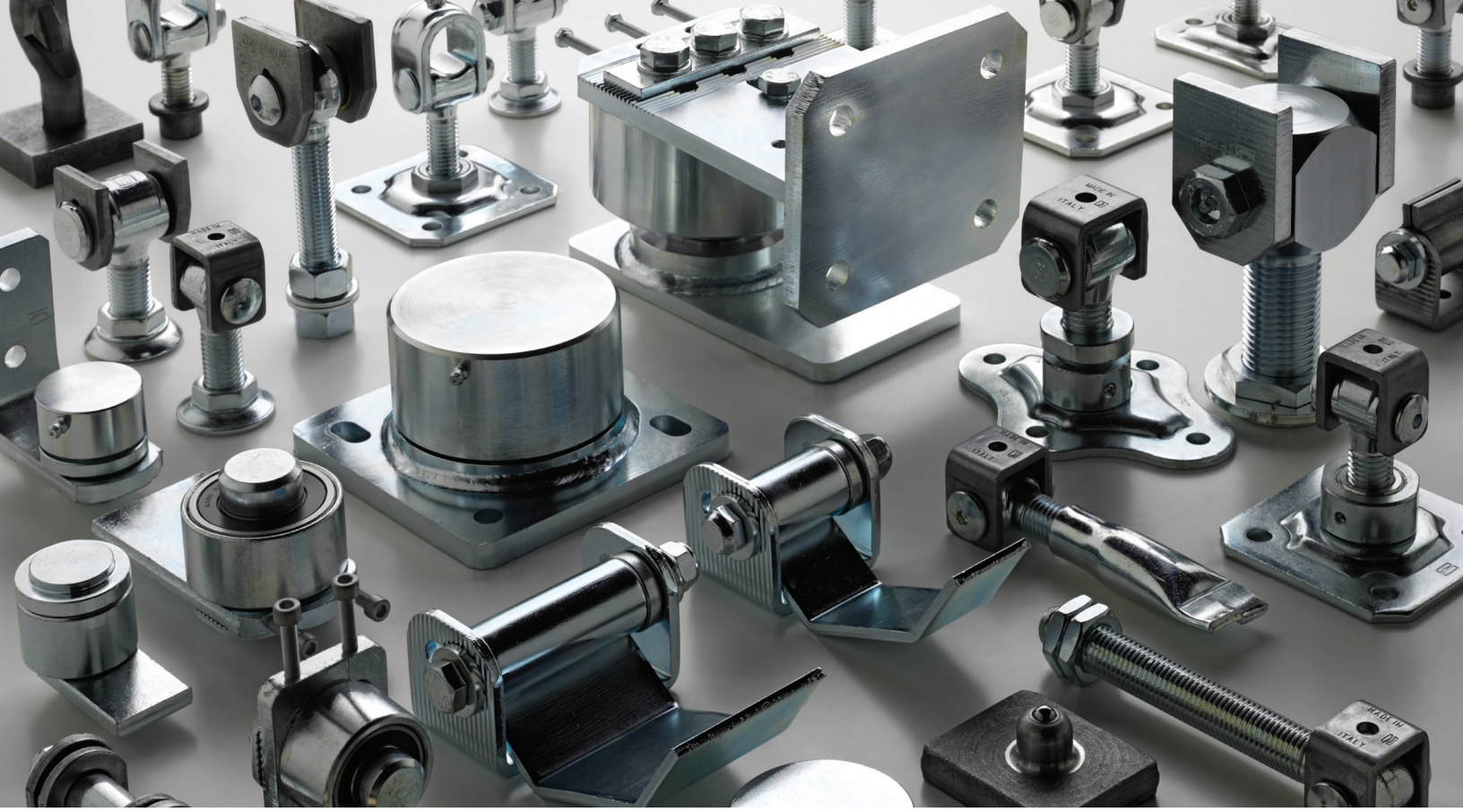


COMUNELLOGATE

Swing Gate Hardware

Comunello offers the most diversified range of high quality hinges and gate hardware for all gate types. Single and double leaf, with weld on and bolt on hinge options, with industry leading range of weight capacity for light gates up to heavy duty industrial strength hinges with 8,800 lbs. capacity. Additional gate hardware accessories include stops, handles, bolts, and latches.

Adjustable upper hinge with sealed bearings and a plate to be welded

85M
3/8" thick mounting bracket
2" Hinge diameter
2-1/4" - 3-3/8" Adjustability
Maximum Capacity 990 lbs

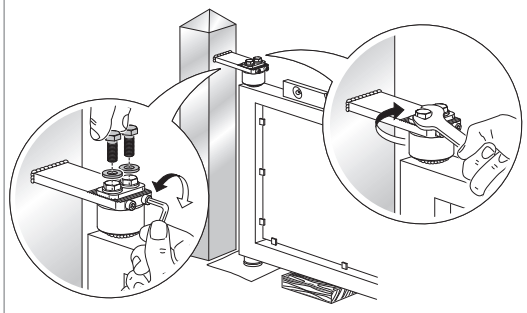
85G
3/8" thick mounting bracket
2-11/16" Hinge diameter
3-1/2" - 4-1/16" Adjustability
Maximum Capacity 1400 lbs

Bottom hinge with thrust bearing to be welded

87M
2" Hinge diameter
Maximum Capacity 990 lbs

87G
2-11/16" Hinge diameter
Maximum Capacity 1400 lbs

85



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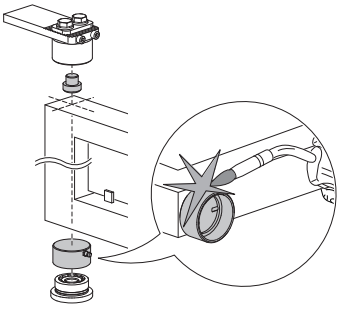
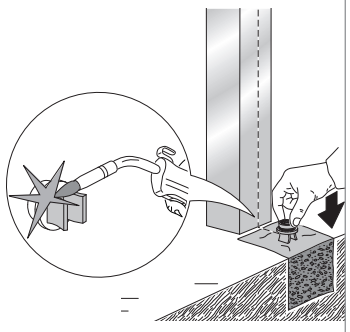
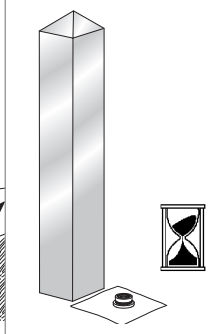






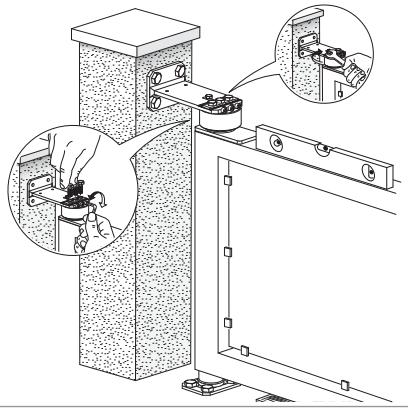
Double adjustable heavy duty upper hinge with sealed bearings and plate to be screwed on

85XL
1/2" thick mounting bracket
5" Hinge diameter
5-3/16" - 6-1/2" Adjustability
Maximum Capacity 8800 lbs
Suppllied with cover

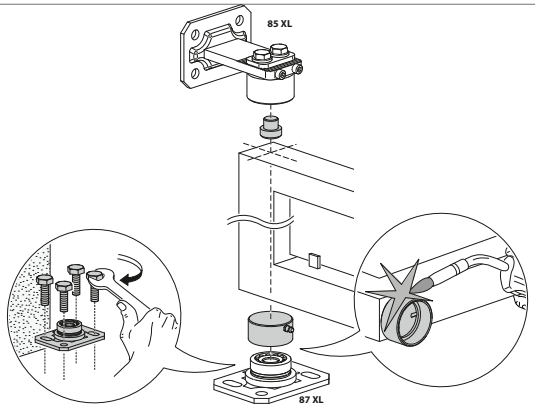
Heavy duty bottom hinge with thrust bearing and plate to be screwed on

87XL
1/2" thick mounting plate
4-1/4" Hinge diameter
Maximum Capacity 8800 lbs

85XL



87XL



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Adjustable upper hinge with L-Bracket to be screwed on and sealed bearings

85L-M
3/8" thick mounting bracket
2" Hinge diameter
2-1/4" - 3-3/8" Adjustability
Maximum Capacity 770 lbs

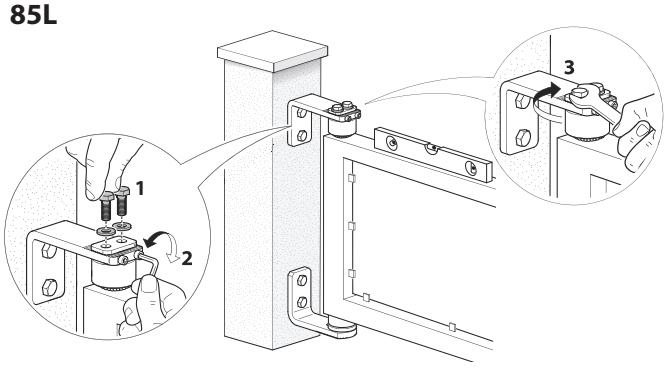
85L-G
3/8" thick mounting bracket
2-11/16" Hinge diameter
3-1/2" - 4-1/16" Adjustability
Maximum Capacity 1100 lbs

Adjustable bottom hinge with L-Bracket to be screwed on and sealed bearings

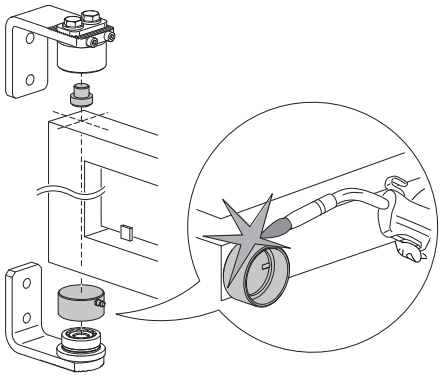
87L-M
3/8" thick mounting bracket
2" Hinge diameter
2-3/16" - 3-3/8" Adjustability
Maximum Capacity 770 lb

87L-G
3/8" thick mounting bracket
2-11/16" Hinge diameter
3-3/4" - 4-1/16" Adjustability
Maximum Capacity 1100 lbs

85L



87L



Adjustable upper hinge with plate to be screwed on and sealed bearings

85PST-M
3/8" thick mounting bracket
2" Hinge diameter
2-1/4" - 3-3/8" Adjustability
Maximum Capacity 700 lbs

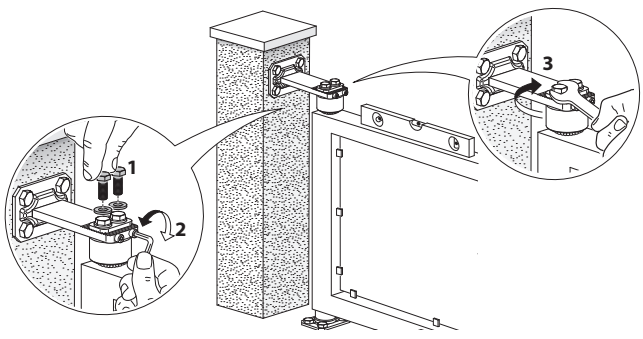
85PST-G
3/8" thick mounting bracket
2-11/16" Hinge diameter
3-1/2" - 4-1/16" Adjustability
Maximum Capacity 1100 lbs

Bottom hinge with thrust bearing and plate to be screwed on and sealed bearings

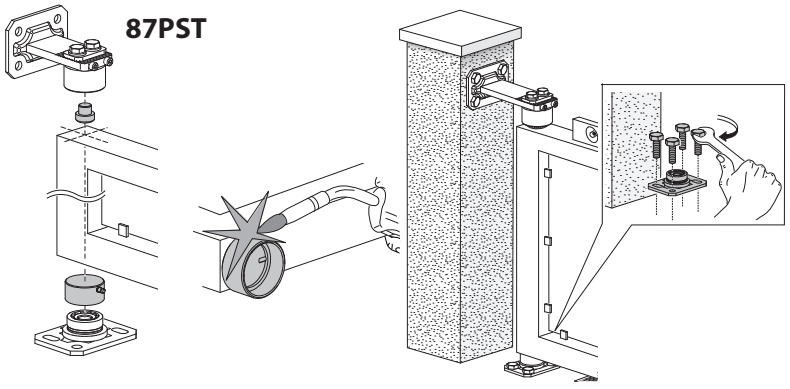
87PST-M
3/16" thick mounting plate
2" Hinge diameter
Maximum Capacity 700 lbs

87PST-G
3/16" thick mounting plate
2-11/16" Hinge diameter
Maximum Capacity 1100 lbs

85PST



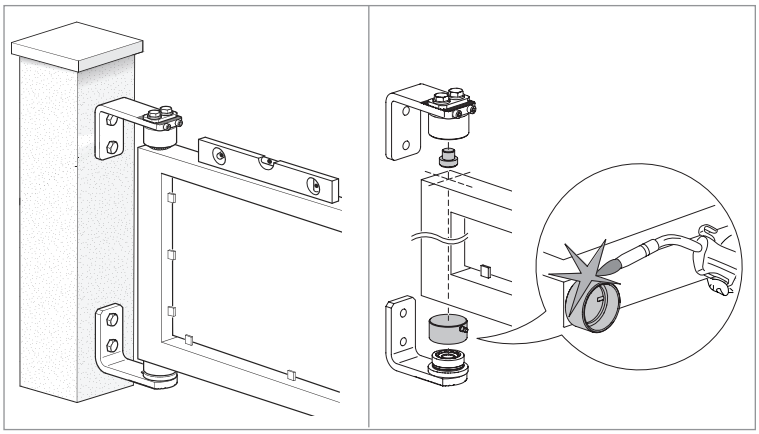
87PST



Adjustable upper hinge with L-Bracket to be screwed on

86L-P
3/8" thick mounting bracket
1-3/16" Hinge diameter
2" - 3-5/16" Adjustability
Maximum Capacity 440 lbs

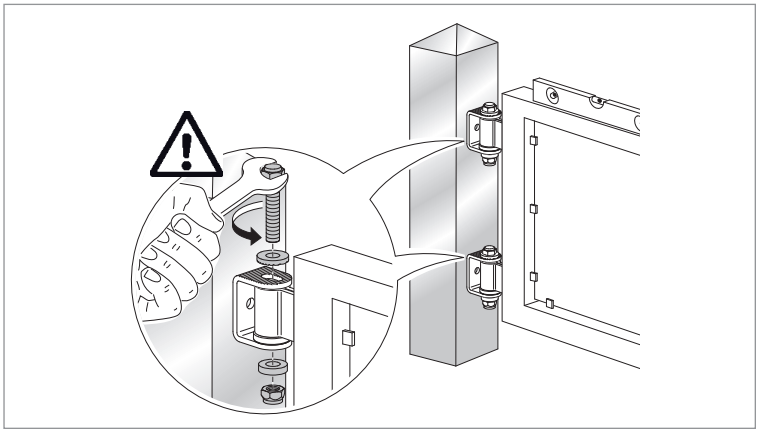
87PST-P
3/16" thick mounting plate
Maximum Capacity 440 lbs



Adjustable hinge with wing to be welded and bracket to be screwed on

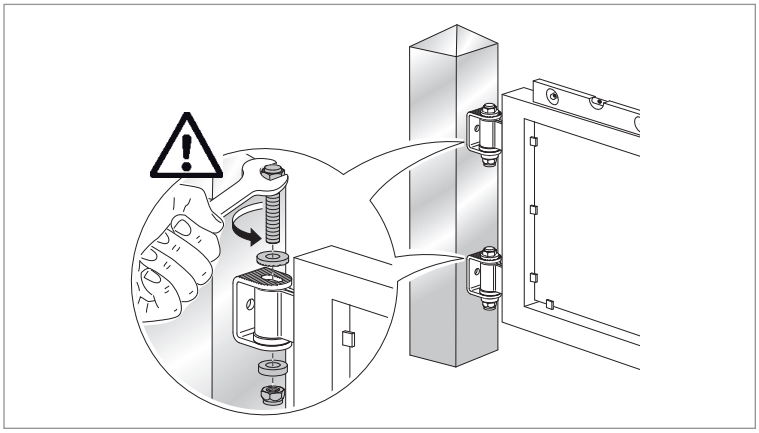
90P
1/4" thick mounting bracket
M10 Bolt, 2-7/8" high
2-3/16" - 2-1/2" Adjustability
Maximum Capacity 440 lbs

90G
1/4" thick mounting bracket
M12 Bolt, 3-3/4" high
2-3/16" - 2-1/2" Adjustability
Maximum Capacity 660 lbs



Adjustable hinge with wing and bearing to be welded and bracket to be screwed on

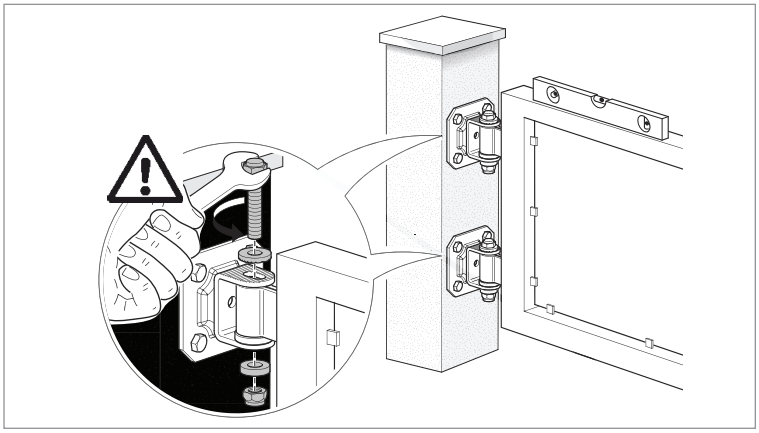
92G
1/4" thick mounting bracket
M12 Bolt, 3-3/4" high
2-3/16" - 2-1/2" Adjustability
Maximum Capacity 660 lbs



Adjustable hinge with wing to be welded and bracket to be screwed on

94P
3/16" thick mounting bracket
M10 Bolt, 2-7/8" high
2-7/16" - 2-3/16" Adjustability
Maximum Capacity 440 lbs

94G
3/16" thick mounting bracket
M12 Bolt, 3-3/4" high
2-7/16" - 2-3/16" Adjustability
Maximum Capacity 660 lbs



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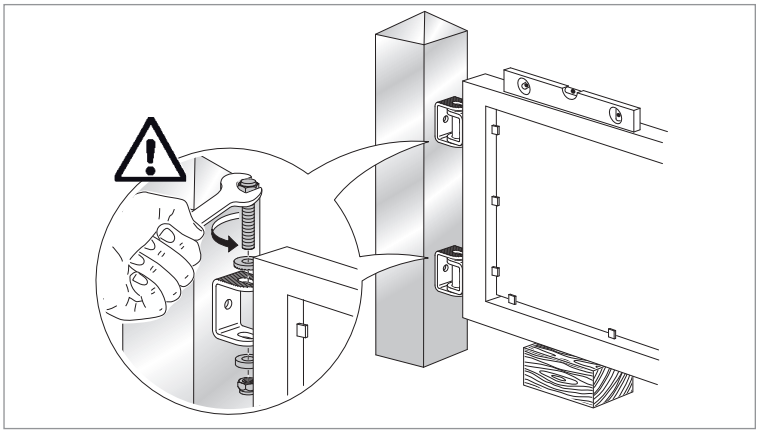
Adjustable upper hinge with plate to be screwed on and sealed bearings

100P
1/4" thick mounting bracket
M10 Bolt, 2-7/8" high
2-7/16" - 2-3/16" Adjustability
Maximum Capacity 220 lbs

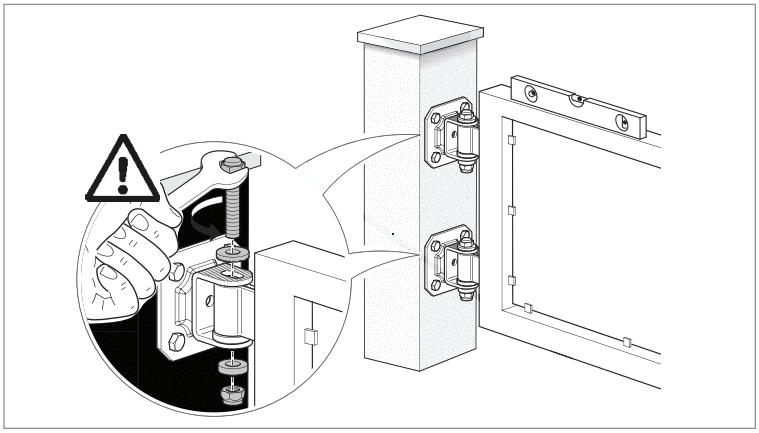
100G
1/4" thick mounting bracket
M12 Bolt, t, 3-3/4" high
2-7/16" - 2-3/16" Adjustability
Maximum Capacity 440 lbs



Adjustable hinge with U-bracket and back plate to be screwed on

100PST-P
3/16" thick mounting bracket
M10 Bolt, 2-7/8" high
2-/2" - 3" Adjustability
Maximum Capacity 440 lbs

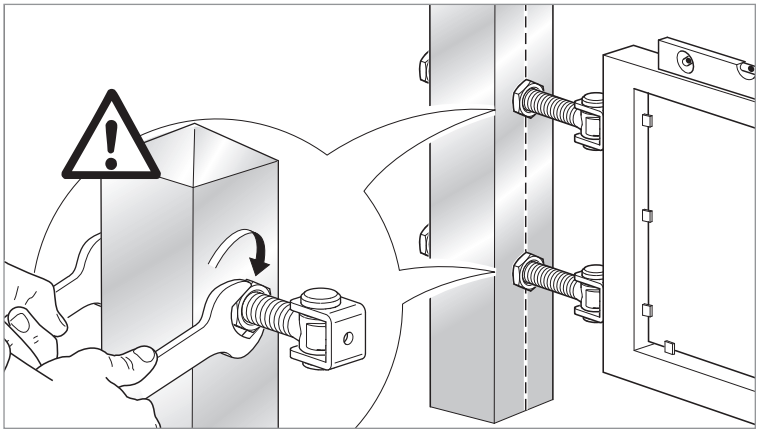
100PST-G
3/16" thick mounting bracket
M12 Bolt, 3-3/4" high
2-7/16" - 2-13/16" Adjustability
Maximum Capacity 660 lbs



Hinge with long bolt and U-bracket to be welded

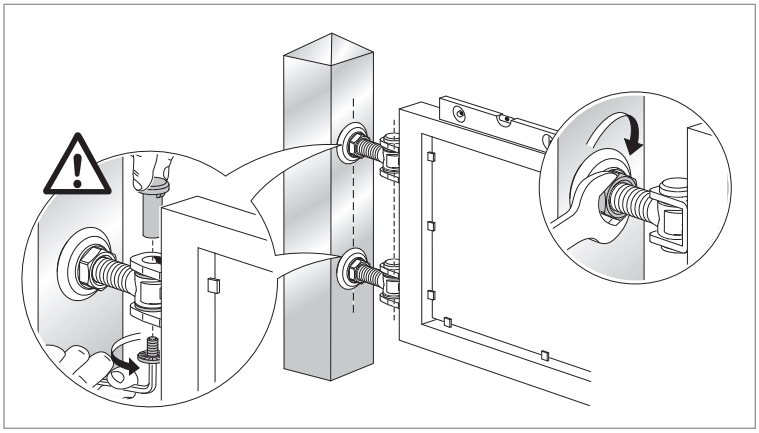
130-M18
3/16" thick mounting bracket
M18 Bolt
7-3/16" Long
Maximum Capacity 275 lbs

130-M22
3/16" thick mounting bracket
M22 Bolt
7-3/8" Long
Maximum Capacity 485 lbs



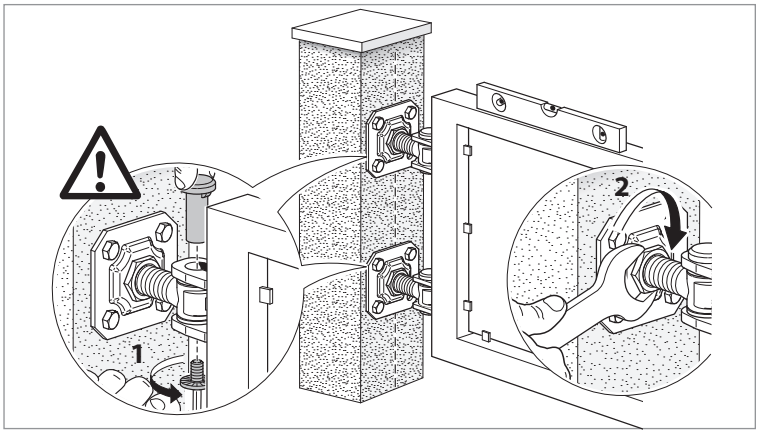
Hinge with wings to be welded and adjustable nut to be screwed on

160-M22
1/4" thick mounting bracket
M10 Bolt, 2-7/8" high
2-3/4" - 3-3/4" Adjustability
Maximum Capacity 485 lbs

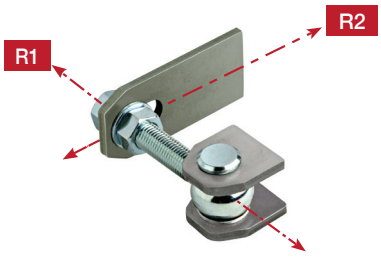


Hinge with wings to be welded and back plate with adjustable nut to be screwed on.

163-M22
3/16" thick mounting bracket
M22 Bolt, 4" high
2-3/8" - 3-5/16" Adjustability
Capacity 485 lbs per pair

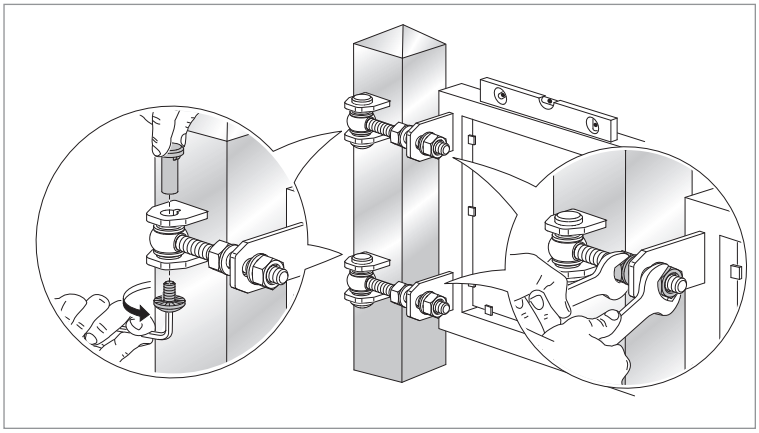


Adjustable hinge with wings and back plate to be welded to 180° opening.

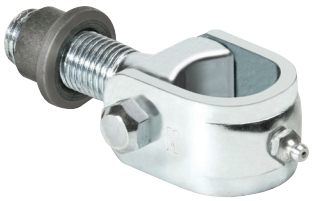


178-M16
5/16" thick back plate
R1: 1-1/2" -4"
R2: 2" - 2-3/4"
Capacity 165 lbs per pair

178-M24
1/2" thick back plate
R1: 2-3/4" -4-3/4"
R2: 3-3/8" - 4-1/4"
Capacity 440 lbs per pair

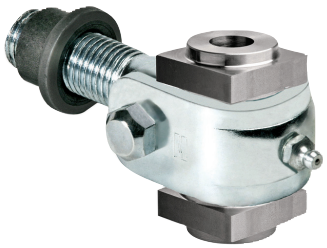


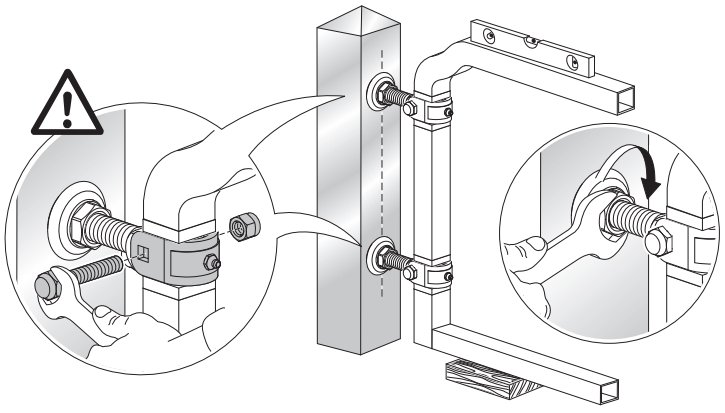
Adjustable clamp hinge.
Use with items 190-30 & 190-40.



180-M18
4-1/4" Long x 1-1/2" wide
1-3/4" - 2-3/4" Adjustability
Capacity 220 lbs per pair

180-M27
5-1/2" Long x 2" wide
2-1/4" - 3-3/4" Adjustability
Capacity 570 lbs per pair





Holed pivot with square base for use with clamp hinge items 180-M18 and 180-M27.

190-30
For square tube size of 1-1/4"
Use with item 180-M18

190-40
For square tube size of 1-1/2"
Use with item 180-M27

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Hinge with 3 wings and removable pivot.

410-80
3-1/4" high
Capacity
165 lbs./pair

410-100
4" high
Capacity
220 lbs./pair

410-120
5" high
Capacity
330 lbs./pair

410-140
5-5/8" high
Capacity
165 lbs./pair

Flag Welding Hinge

RIGHT HAND HINGE

430DX-60
2-3/4" high
Capacity
330 lbs./pair

430DX-100
4" high
Capacity
675 lbs./pair

430DX-140
5-1/2" high
Capacity
1000 lbs./pair

430DX-200
8-1/2" high
Capacity
1350 lbs./pair

LEFT HAND HINGE

430SX-60
2-3/4" high
Capacity
330 lbs./pair

430SX-100
4" high
Capacity
675 lbs./pair

430SX-140
5-1/2" high
Capacity
1000 lbs./pair

430SX-200
8-1/2" high
Capacity
1350 lbs./pair

Flat hinge with 2 wings and removable pivot.

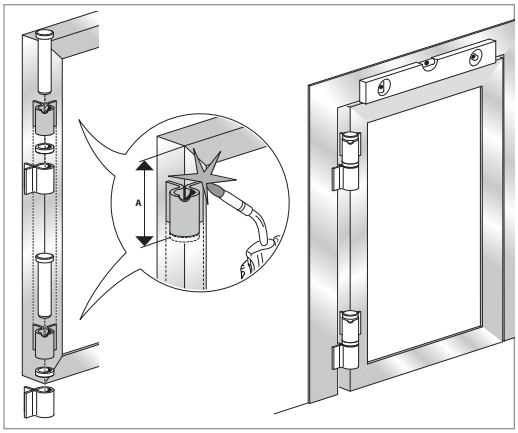
431-80
3-1/4" high
Capacity 220 lbs./pair

431-100
4" high
Capacity 330 lbs./pair

431-120
5" high
Capacity 485 lbs./pair

Big hinge with 2 open wings to be welded. Removable pivot with washer and bearing.

445-90
4" high
Pin size is 3/4"
Capacity 1760 lbs./pair



Big hinge with 2 closed wings to be welded. Removable pivot with washer and bearing.

450-90
4" high
Pin size is 3/4"
Capacity 880 lbs./pair

Big hinge with 2 long closed wings to be welded. Removable pivot with bearing.

459-180
7-5/16" high
Pin size is 3/4"
Capacity 1760 lbs./pair

Drop hinge with steel pivot and bearing.

564-100
4" high
Capacity 330 lbs./pair

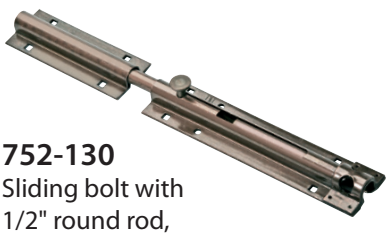
564-120
4-3/4" high
Capacity 500 lbs./pair

564-140
5-1/2" high
Capacity 585 lbs./pair

564-160
6-3/8" high
Capacity 675 lbs./pair

564-180
7-1/4" high
Capacity 740 lbs./pair

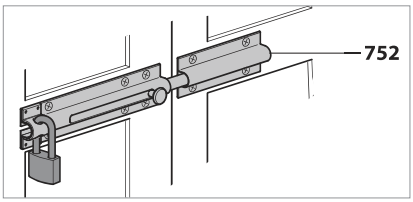
SLIDING BOLTS

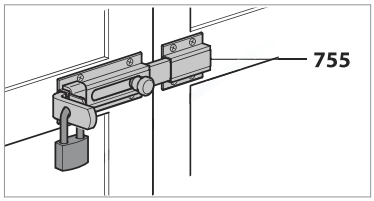


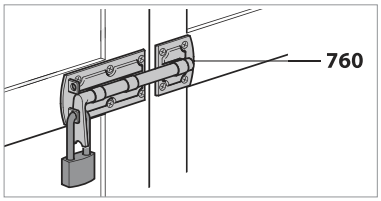
752-130
Sliding bolt with 1/2" round rod, padlockable. Bronze finish. Lock not included.

755-400
Heavy duty sliding bolt with 1" square rod, padlockable. Galvanized.. Lock not included.

760-215
Sliding bolt with 9/16" round rod, padlockable. Galvanized. Lock not included.







HANDLES

674
Die-cast alloy pull handle in black.
6-3/8" Long

675G
Decorative curved pull handle in black.
10-7/16" Long
5/8" dia.

677G
Decorative pull handle in black.
10-7/16" Long
5/8" dia.

678P
Decorative curved pull handle in black.
9-1/4" Long
3/4" dia.

270G
Flush mounted handle.
3-1/2" wide x
7-7/8" tall

272
Flush mounted handle with lever.
3-1/2" wide x
7-7/8" tall

GATE STOP AND SAFETY CABLE

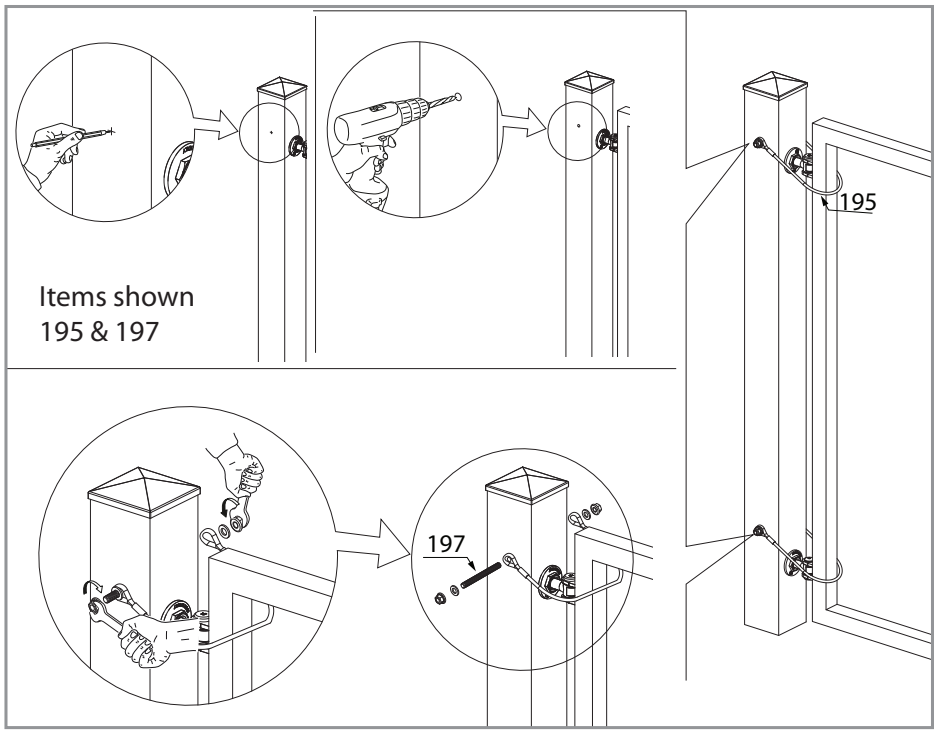
171
Stop for swing gates
6" long

Safety cable for swinging gates. Capacity 880 lbs.

Galvanized	Stainless Steel
195-500	**195i-500**
19-11/16" long	19-11/16" long
195-700	**195i-700**
27-1/2" long	27-1/2" long

Threaded rod for safety cable.

Galvanized	Stainless Steel
197	**197i**
9-13/16" long	9-13/16" long



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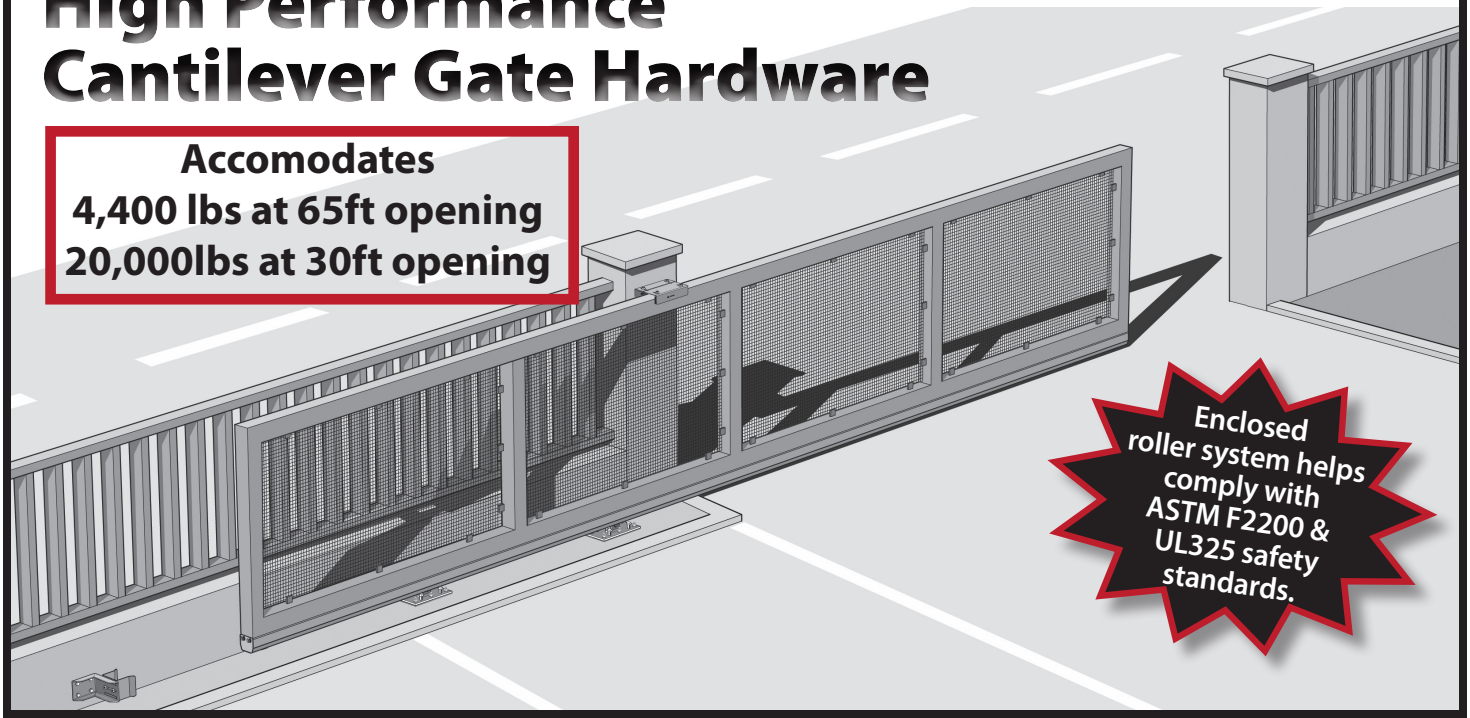
DURA GATES®

CANTILEVER GATES, EVOLVED

High Performance Cantilever Gate Hardware

Accomodates
4,400 lbs at 65ft opening
20,000lbs at 30ft opening



Product Manual

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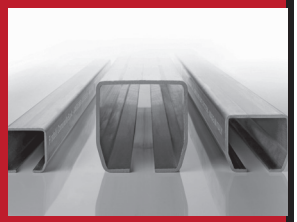
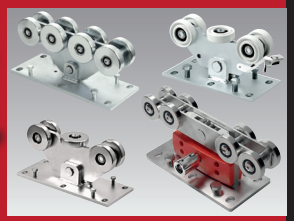
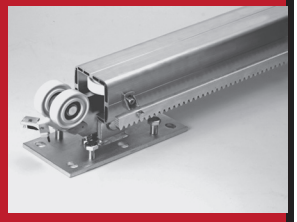
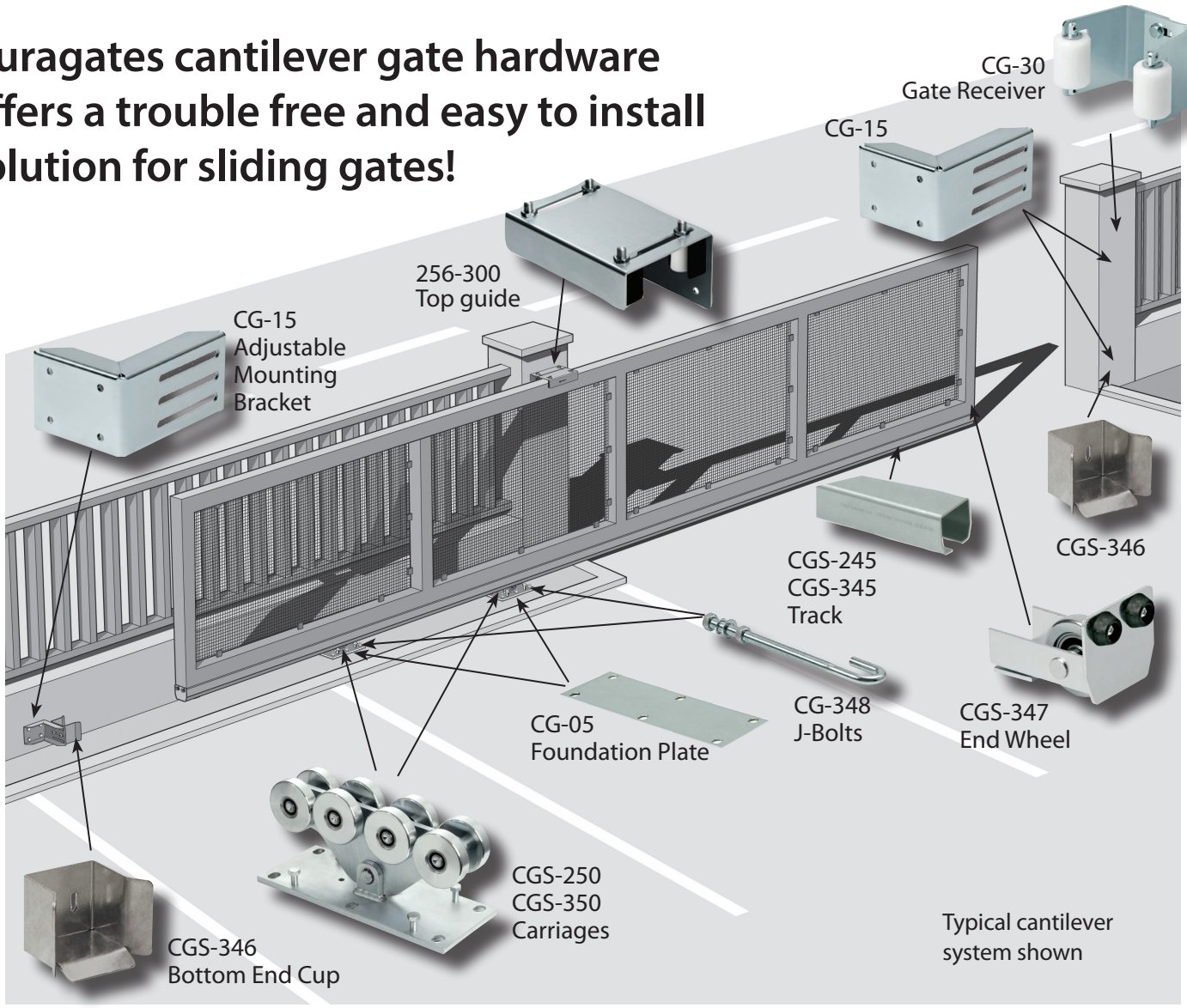






Duragates cantilever gate hardware offers a trouble free and easy to install solution for sliding gates!



This simple, yet heavy duty system can handle almost all sliding gate applications. Sealed bearings and covered rollers avoid many of the usual maintenance and efficiency problems due to weather elements. They also help comply with UL325 and ASTM F2200 gate safety standards.

All products are manufactured in Italy by Fratelli Comunello, the world leaders in gate hardware. The technical innovation in the system, as compared to a traditional sliding gate, lies in the fact that the entire gate is cantilevered off the ground without any rollers traveling on the ground. This allows for free movement of the gate in uneven ground conditions and reduces the wear and tear on the gate and on any installed gate automation. The sealed bearings on the carriage assembly require no maintenance or lubrication. Besides, it gives the gate a nice clean look with minimal visible hardware. This engineered solution also reduces the length of the counterbalance resulting in a smaller overall gate length.

The bottom track is available in galvanized steel, aluminum track and stainless steel and can accommodate a solution for every type of rolling gate project. By welding or mechanically fastening the gate to the bottom track, Duragates sliding gate system can be used with any gate material such as steel, wood, vinyl, aluminum, chain link, etc.

The model selection depends on the combination of the size of the opening and the weight of the gate. Based on the combination, several models may fit your project. The heavier the model, the smaller the counterbalance (tail of the gate) which becomes increasingly important when you have a tight space. Our cantilever gate configurator will provide you the optimal selection of model along with dimensions of the tail of the gate, the position of the carriages and the foundation size required.

The hardware, combined with a range of high-quality gate automation we offer, is truly a long lasting and complete solution for any cantilever sliding gate. Send us your sliding gate details for a customized gate configuration.

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MATERIAL OF GATE OR GATE FRAME

The following information is required to make sure the hardware selected for the gate will be sized correctly to carry the load and give an expected long service life.

With this system, the gate infill can be of any material as long as you can attach it to the bottom track. Some common combinations are as follows.

Steel Gates that weld or bolt directly to steel track

- Chain Link
- Ornamental Steel
- Wood gates on a welded steel frame
- Wood framed gates

Aluminum Gates that weld or bolt directly to aluminum track

- Ornamental Aluminum
- PVC gate on an aluminum frame
- Wood gate on an aluminum frame

Stainless Steel Gates that weld or bolt directly to stainless steel track

- Stainless Steel Gates
- Unique and/or exotic metal gates

PVC Gates These gates need to have a metal frame for structural support. Aluminum or stainless is compatible with PVC, but we do not recommend galvanized steel track for PVC gates because of accelerated corrosion issues. If the galvanized steel is separated by some sort of a barrier (i.e. (rubber, plastic, stainless) material, the corrosion process may be slowed down.

WIDTH OF THE OPENING

This is typically the width of the driveway, dimension (L), in the image below.

NOTES:

If the gate is required to travel more than 4 inches past the opening (the "closed" position), then this extra distance should be added to (L) opening size.

If the foundation pad will need to be set back farther than 9" away from the opening for any reason, then this extra distance should be added to (L) opening size. Reasons could include "something" in the ground (pipes, conduit/electrical, drainage, etc.), an obstruction, or could be for aesthetic reasons.

MEASUREMENTS

GATE WEIGHT (P)

GATE OPENING WIDTH (L)

TOTAL LENGTH (LT)

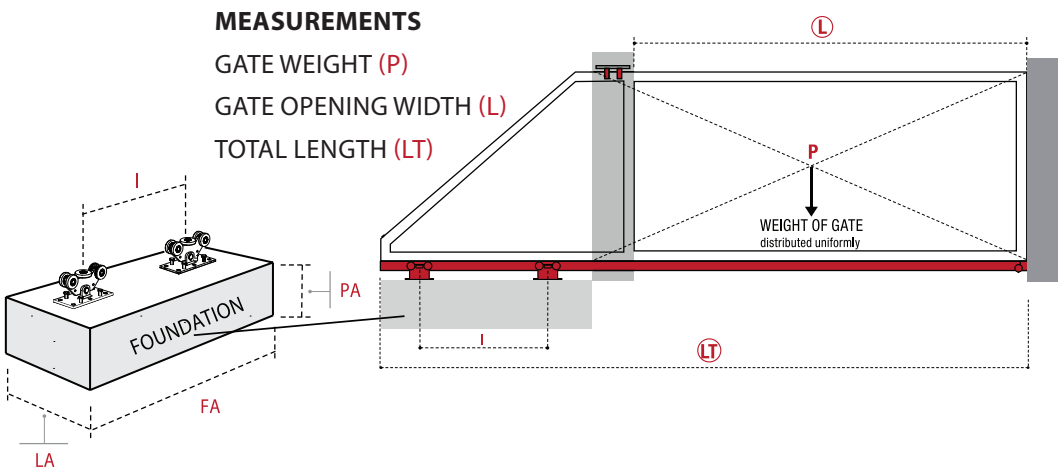
FOUNDATION

LENGTH (LA)

WIDTH (FA)

DEPTH (PA)

INTERAXIS (I)



WEIGHT OF THE GATE

When we estimate the weight, we typically are thinking of, and include the full length of the gate assuming a 50% tail section.

However, for our purposes, this is the estimated or calculated ***weight of the gate for the portion that spans over the opening length (L)*** and does not include the tail section. Clarify if possible, how the weight was determined. *The weight of the cantilever track need NOT be included in the gate weight estimate (P).*

Note: Most fence installers and fabricators tend to overestimate the gate weight.
The chart below shows typical per foot weights of common gates.

Gate Type and material	Typical Range	Average
Steel Picket Gate, Residential, 6 Ft high	20 - 40 lbs/ft	30 lbs/ft
Steel Security Gate, Heavier Duty	40 - 120 lbs/ft	50 lbs/ft
Aluminum Picket Gate, 6 Ft high	10 - 30 lbs/ft	15 lbs/ft
Wood Gate with Cedar planks full privacy, 6 Ft high	20 - 30 lbs/ft	25 lbs/ft
Wood Gate with Steel frame	20 - 40 lbs/ft	30 lbs/ft
Wood Gate with Aluminum Frame	15 - 30 lbs/ft	23 lbs/ft
PVC/Vinyl Privacy Gate, 6 Ft high	15 - 20 lbs/ft	17 lbs/ft
Chain Link Gate, Residential, 6 Ft high	8 - 12 lbs/ft	10 lbs/ft
Chain Link Gate, Commercial, 6 + 1, w/barbed wire	15 - 25 lbs/ft	18 lbs/ft

TAIL LENGTH AND CARRIAGE SELECTION

Call 908-757-2323 or request a quote at Duragates.com to get your gate configured using our online calculator.

The Duragates system allows for a shorter tail length than the typical 50% for other types of cantilever hardware. However, there is often a tradeoff between the length of the tail section and the size of the cantilever hardware. Choosing a larger carriage will usually result in a shorter tail section.

Some other factors that affect the optimal tail length are as follows:

- If there is a space limitation you may need to upgrade to heavier hardware.
- The physical gate may already be built to a certain overall length (LT) and the track is to be fitted to the existing gate.
- For aesthetic reasons or other, it may be desirable to build the gate longer than specified.
- While extending the tail section does not change either the gate opening (L) or weight (P) parameters, it does change the "effective" opening size for the gate when the gate is in the "full open" position. More weight and length are being cantilevered in this open position than the configurator accounted for in its design.
- It is recommended that you extend both the length of the concrete pad (FA) and the carriage spacing (I) by the same distance that you extend the gate length (LT).

The carriage selection also depends on the application and frequency of use.

Residential
- Smaller, less expensive hardware is typically desirable

Multi-Family and Commercial
- Space limitations more likely
- Higher usage may warrant an upgrade to stronger hardware

Industrial
- Heavy duty hardware typically preferred
- Typically have high cycle rates, and heavy duty hardware extends gate life

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ALTERNATE CARRIAGE MOUNTING OPTIONS

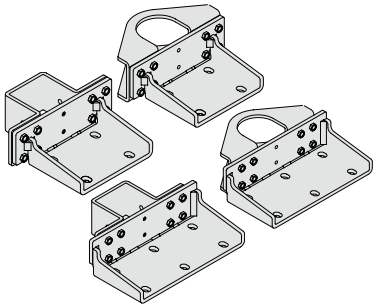
We recommend mounting cantilever hardware on a single pad that has been poured into the ground and extends down past the frost line. This ties the two carriages together on one solid foundation for permanent alignment and significantly reduces independent movement of the carriages.

Other options for installing carriages are post mounted and pier mounted, and if done properly, it will not significantly impact the performance, although it may shorten the service life of the gate.

When using either of these alternate carriage installations keep in mind that Duragates hardware allows for shorter total gate lengths by using the weight of the concrete foundation as part of the counterweight. With post or pier mounted carriages, you need enough concrete in the ground to support the loads pushing down on one carriage AND the loads pulling up on the other. Depending on the weight and opening size, you will need piers or post holes that are 16" to 24" in diameter and deep enough that together they hold the same volume of concrete as required for pad mounted carriages.

Post Mount Installation Suggestions


Post mount example from Ameristar

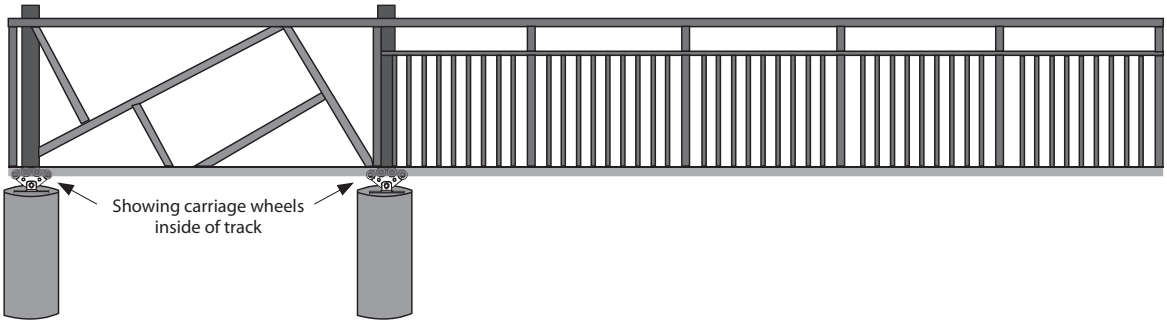


- Position the "front" carriage on the end post at the opening, or on a post within 10 inches of the opening. NOTE: If the end post is used to mount the carriage, the gate will protrude into the opening a few inches when in the fully open position.
- Position the "back" carriage at the position specified by the configuration to match the carriage spacing (I). It is ok to extend the carriage mounting position back (longer) to the next post if desired, but you must follow the guidelines for "Extending the tail length of the gate". It is NOT ACCEPTABLE to reduce the carriage spacing to match up with a line post.
- Dig the holes and pour concrete equal to the volume specified by the configuration. Make the holes big enough to accommodate the concrete necessary to carry the load of the cantilevered gate.
- Confirm that the hole depth is below the frost line.
- We recommend connecting the two carriage support posts mechanically by welding or bolting a horizontal member at or just below ground level. This keeps the two carriages from moving independently and misaligning over time.
- Mount the carriages on the post mount bracket making sure 1) the orientation is correct; and 2) the carriages are level and plumb, and also level with each other as described in the installation instructions section "Set the Carriages".

Pier Mount Installation Suggestions

- Position the "front" pier just behind the end post at the opening so the carriage can set 9 inches behind the post.
- Position the "back" pier at the position specified by the configuration to match the carriage spacing (I).
- Dig the holes and pour concrete equal to the volume specified by the configuration. Make the holes big enough to accommodate the concrete necessary to carry the load of the cantilevered gate.
- Confirm that the hole depth is below the frost line.
- Mount the carriages on the piers making sure 1) the orientation is correct; and 2) the carriages are level and plumb, and also level with each other as described in the installation instructions section "Set the Carriages".

Pier mount example



ACCESSORY SELECTION

CG-348 - J-Bolts set into newly poured concrete are the best method of anchoring the carriages to the pad.

Mini and Small Carriages (M) require 4 J-Bolts per carriage.

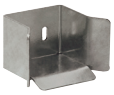
Large (P), Grande (G) & Extra Large (XL) Carriages require 6 J-Bolts per carriage

CG-05 - Foundation Plates make it easier to level and align the carriages, but are not required.

CGS-347 - End wheels serve three functions:

1) covering the end of the track for UL325 compliance when the gate is automated,
2) assisting the gate to seat effortlessly into the end cup receiver to stabilize the gate in the open and closed positions, and
3) keep dirt and debris out of the track for smoother operation.

CGS-346 -End cups are used to stabilize the gate in the fully open and closed positions AND to provide a positive gate stop to meet safety code for automated gates. Typically 2 are used per gate. For gates that stay closed most of the time only 1 is needed.



CG-15 - Heavy duty adjustable "L" bracket to mount end cups and receivers to the side of the fence post or column.

CG-30 - Slide gate receiver should be positioned near the top of the gate on the receiving post or column. The size of this guide receiver is matched with the gate frame, and not the track model.

CG-30M - Fits 2" to 3" frames
CG-30P - Fits 3⅜" to 4½" frames
CG-30G - Fits 4" to 6" frames

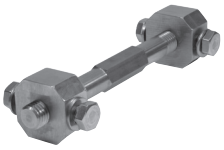
CGI-40-2IN - The tension is used for minor adjustment of gate sag and for vertical alignment in the closed position
The tension bar is machined from stainless steel and fits 2" square tubing and 2-3/8" round pipe. The tension bar's turnbuckle action allows you to raise and lower the nose of the gate easily by turning the tension bar on the installed gate.

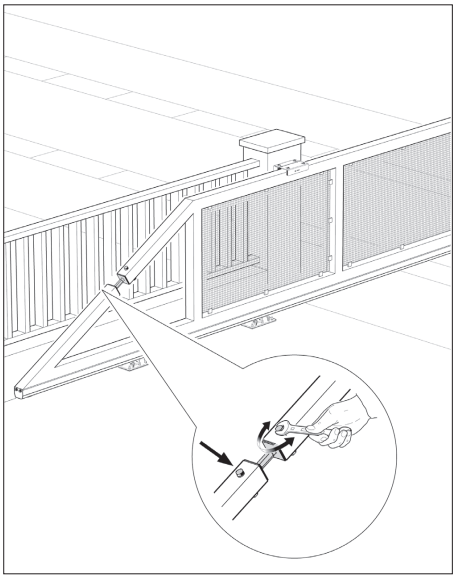
The tension bar is recommended for all cantilever gates: bottom track, top track, and those using gate rollers.

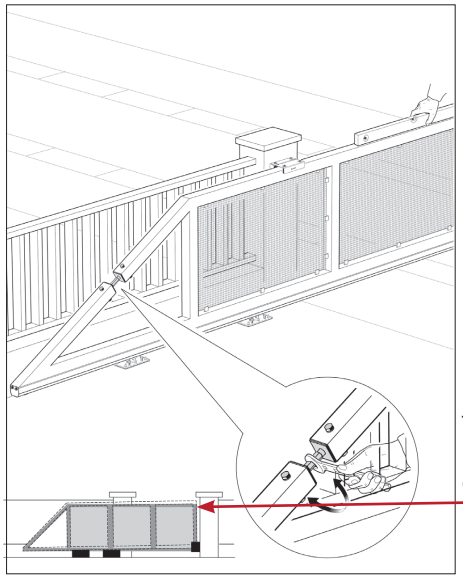
For double gates it simplifies aligning the tops of the gates where they meet in the center.

For long gates where gate sag becomes exaggerated it provides an easy method to compensate for the sag.

For all gates the tension bar gives the gate adjustability for sag and alignment over the life span of the gate.







The top corner of the gate will rise and fall as.tension is adjusted on the tension bar.

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GATE TOP GUIDE SELECTION

Guide assembly choice primarily depends on how the top of the gate is built. For over the top guides, a flat, even surface is necessary for the rollers to run on. For gates built without a flat top, side rollers or monorail guides are necessary.

Typically, only one top guide assembly is needed, but for gates with 26 ft or larger openings or for privacy gates with significant infill, we recommend two top guides spaced apart approximately by the same distance of the carriages.

The monorail guide with 2 guide rollers is recommended for ice and snow conditions. This gives a fully covered track and a very small area for the gate to freeze to the guide.

Top Guides (over the top style)

- Require smooth surface on both sides of the gate
- Flat top gates
- Wood privacy gates

255-220-C
For up to 2⅜" frame

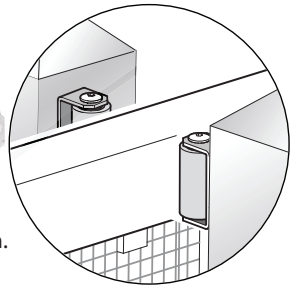
256-220
For up to 3" frames

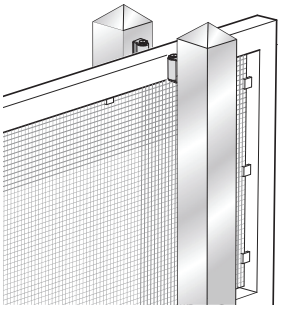
256-300
For up to 4½" frames

Side Rollers

- Guide post is required on both sides of the gate
- Requires smooth surface on both sides
- Arched top gates (match the arch height)
- Picket top gates
- Security gates with razor or barbed wire
- Wood privacy gates
- Face mounted picket gates

253
10" Side Roller
1¼" dia.
2" clearance
Use 2 per gate min.

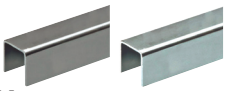




CGS-499
1100 lb load capacity
guide roller
(use in pairs)

Monorail Guide with roller

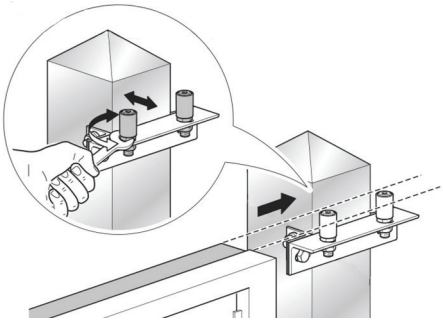
- Arched top gates
- Picket top gates
- Chain Link Gates
- Wood Picket gates
- Face mounted picket gates
- Security gates with razor or barbed wire
- Aesthetic/design to hide guide assembly



CG-254
Galvanized 1½" U-Channel
Use guide rollers CG-252 or 258-30

RG-387
Galvanized 1¼" U-Channel
Use guide rollers 258-30

CG-237
Aluminum 1½" U-Channel
Use guide rollers 258-30



CG-252
Single Roller
1½" dia.

258-30
Double Roller
1¼" dia.

GATE SAFETY CODE CONSIDERATIONS

Manual gates do not require specific accessories or design considerations to meet code. But automated gates can cause serious injury or death. There are two sets of safety codes to guide installers and manufacturers in delivering safe gates to the marketplace.

Make sure your gate system is installed and maintained according to the manufacturer's installation instructions. Make sure your installer adheres to UL325 and ASTM F2200 standards.

DO - Operate your gate system only when all necessary entrapment protection devices are connected and working properly. Examples of these devices include:

- Sensing edges
- Photoelectric sensors (e.g. photo eyes)

Follow ASTM F2200 standard for automated gates. Where applicable, these include the following:

- Covers for all exposed weight bearing rollers and pinch points that exist less than 8 feet (2.5 m) above grade.
- Fallover protection to prevent the gate from falling when gate is detached from supporting hardware.
- Physical gate stops to avoid over-travel in both directions.
- Proper adjustment of the inherent sensing system.
- No protrusions along the bottom of the gate.
- Protective screen mesh to guard openings from the gate's base support to a minimum height of 6 feet (1.8 m) above the ground. This must prevent a sphere of 2¼ inches (57 mm) from passing under or through any opening in the gate or adjacent fence (the portion covered in the gate's open position.) Refer to the illustrations.

PRECAUTIONS FOR GATE SYSTEMS

ENTRAPMENT ZONE HAZARDS

Body parts may become entrapped between a gate and a stationary object when the gate begins to move, which can result in serious injury or death. **Make sure pedestrians stay clear of the gate path and areas where gate motion is close to stationary objects.**

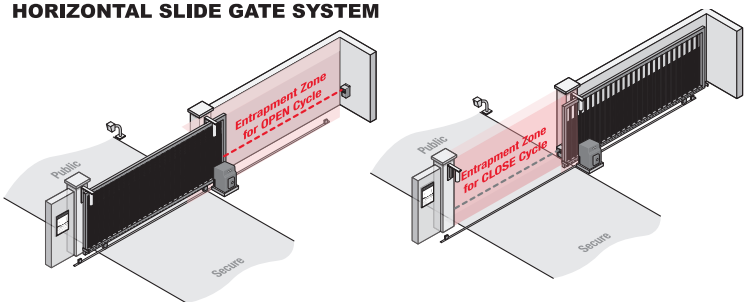
PINCH POINT HAZARDS

- In open roller slide gates, severe injury can occur when hands and fingers get caught in the slide gate rollers. Feet can be injured between the bottom of the gate and bottom rollers. **Make sure roller guards are installed to cover these pinch points.**
- A swing gate's opening mechanism may have arms that can overlap with a scissoring effect, which can result in serious injury. **Make sure pedestrians stay clear of the gate path and the opening mechanism, especially when the gate is in motion.**

CRUSH HAZARDS

In picket gates, body parts positioned between the bars can become seriously mutilated when the gate begins to move, which can result in serious injury or death.
Make sure openings are covered or screened and gaps are filled to prevent persons from reaching through, and/or passing through, the gate.

HORIZONTAL SLIDE GATE SYSTEM



MORE INFORMATION

Websites:

DASMA: www.dasma.com

Underwriters Laboratories: www.ul.com

Automated Vehicular Gate Standards, ASTM F2200: www.astm.org

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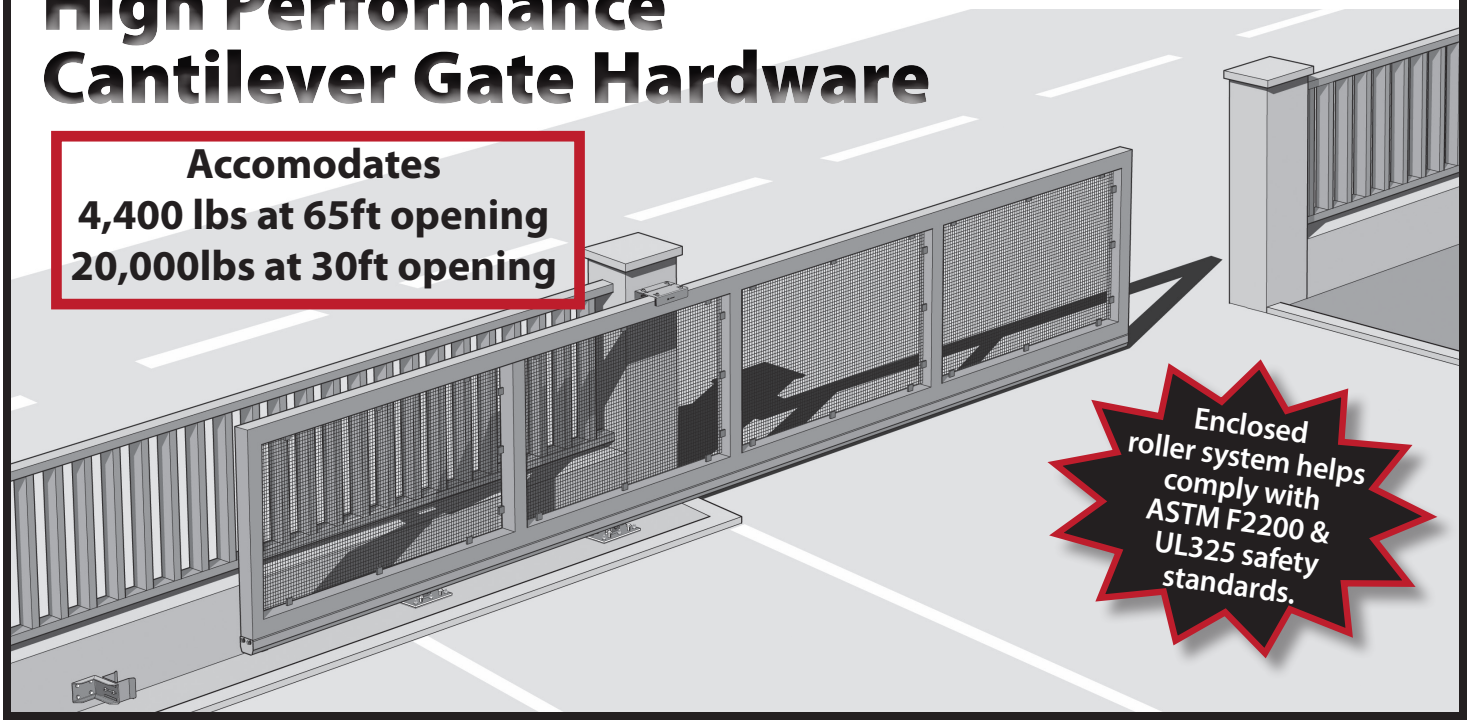
DURA GATES®

CANTILEVER GATES, EVOLVED

High Performance Cantilever Gate Hardware

Accomodates
4,400 lbs at 65ft opening
20,000lbs at 30ft opening



Installation Instructions

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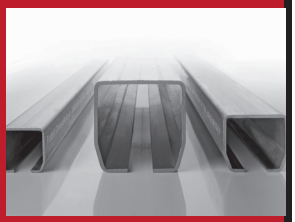

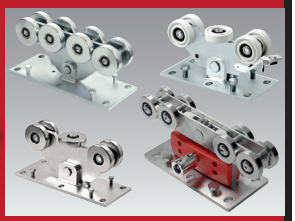

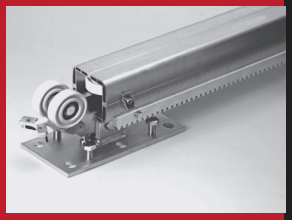

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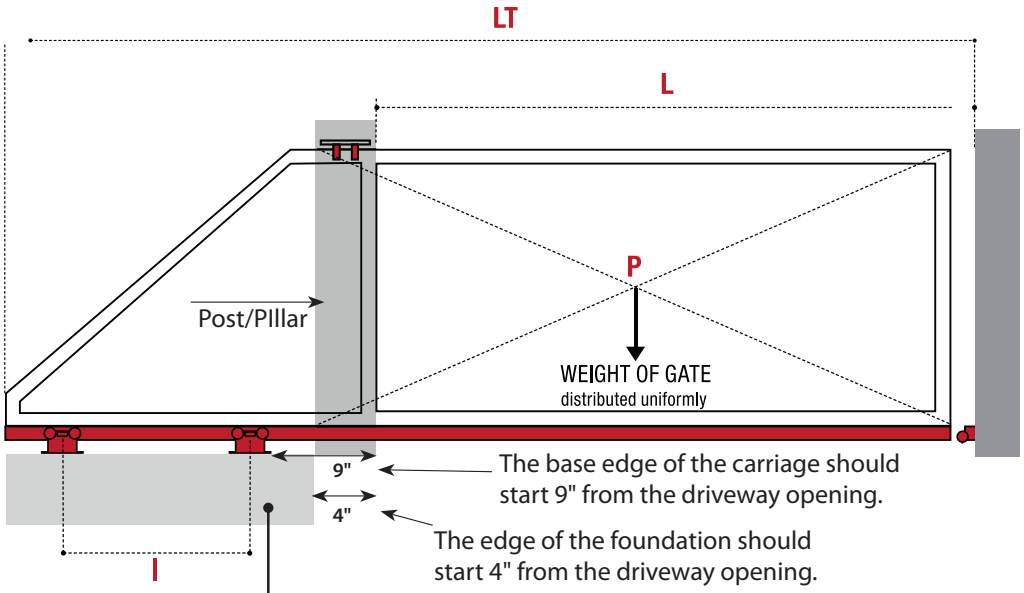
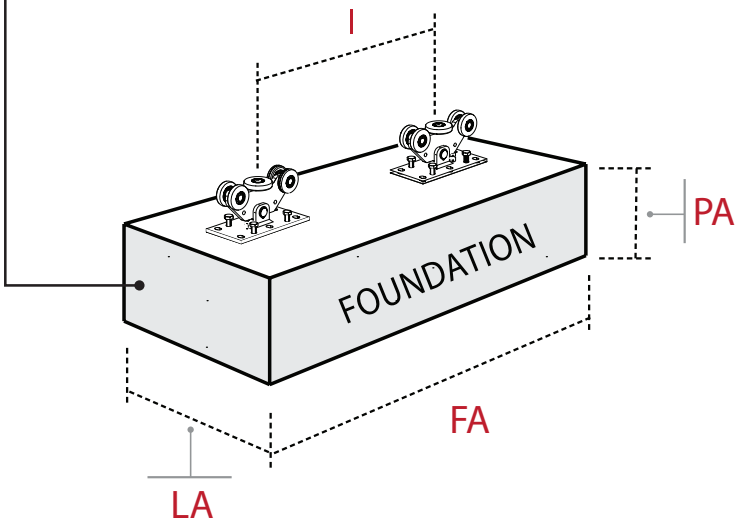
STEP 1 - PREPARATION OF THE FOUNDATION

Prepare the foundation site and pour as per the measurements received in your configuration sheet. Best practices call for the concrete depth to be below the frost line, so we recommend digging the foundation deep enough to extend below the frost line at the installation site.

Call 908-757-2323 or request a quote at Duragates.com to get your gate configured using our online calculator.

NOTE: We recommend using reinforced concrete with specified gravity of a minimum of 1.56 lbs/cu ft.





Concrete Pad Considerations

The online configurator calculates the concrete pad dimensions based on the gate opening size (L) and gate weight (P). The pad acts as the counterbalance weight for the gate, allowing for shorter tail sections.

NOTES:

- The pad length is nearly the size of the gate's tail length (ca. 95%).
- The pad dimensions (FAxLAxPA) do not take the frost line into consideration and the pad must be deeper than the frost line to prevent frost heaves that may displace the pad.
- The pad dimensions determine the volume of concrete required to provide a counterweight. Any alteration to the length, width or depth of the pad must NOT reduce the volume.
- The pad will often extend under the fence line. This will allow the gate to be placed close enough to the fence line to meet the UL325 entrapment code spacing of <2-1/4". Distance "A" in the figure on page 95 should be chosen so the edge of the fence is less than 2-1/4" from the edge of the end post or column at the opening.
- The leading edge of the foundation pad should start 4" from the driveway opening

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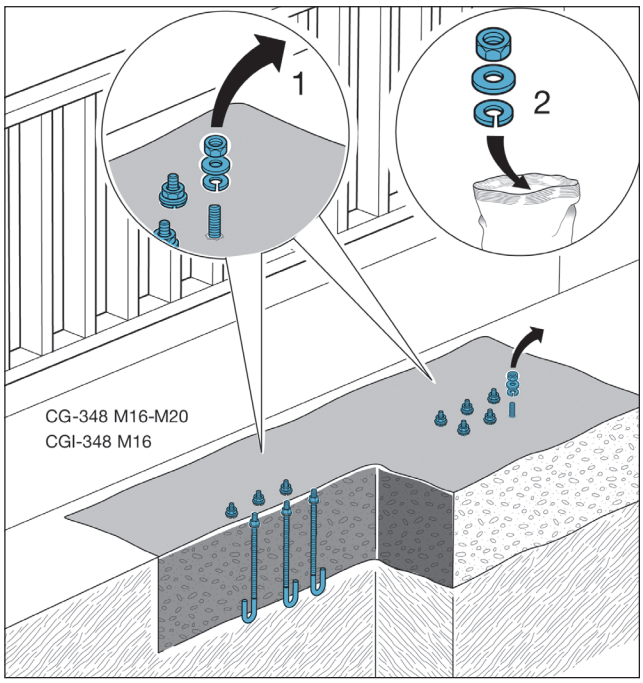
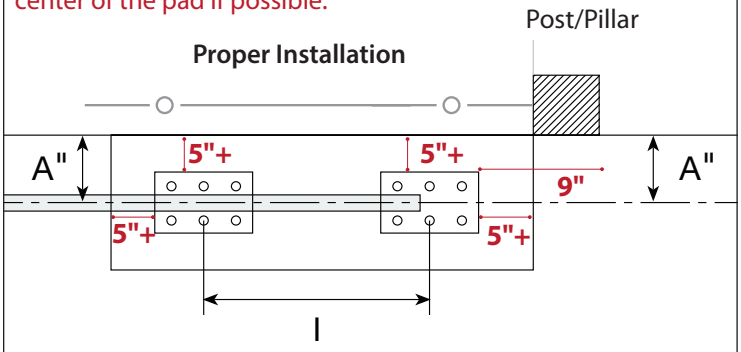
STEP 2 - J-BOLT / TIE ROD INSTALLATION

Once the foundation is prepared, fill the hole with concrete and level to top. Sink or hang the J-Bolts so they are centered "end to end" on the pad, with the leading edge of the front carriage a minimum of 5" from the edge of the concrete. Be sure the center-to-center distance between the carriages is as specified as dimension (I) on the configuration sheet.

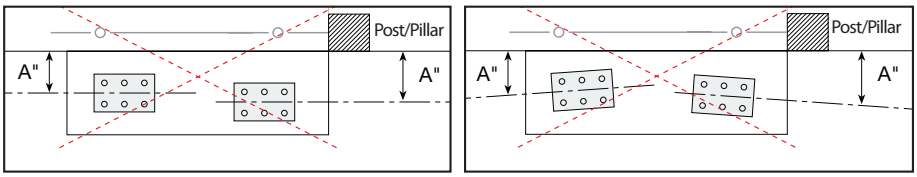


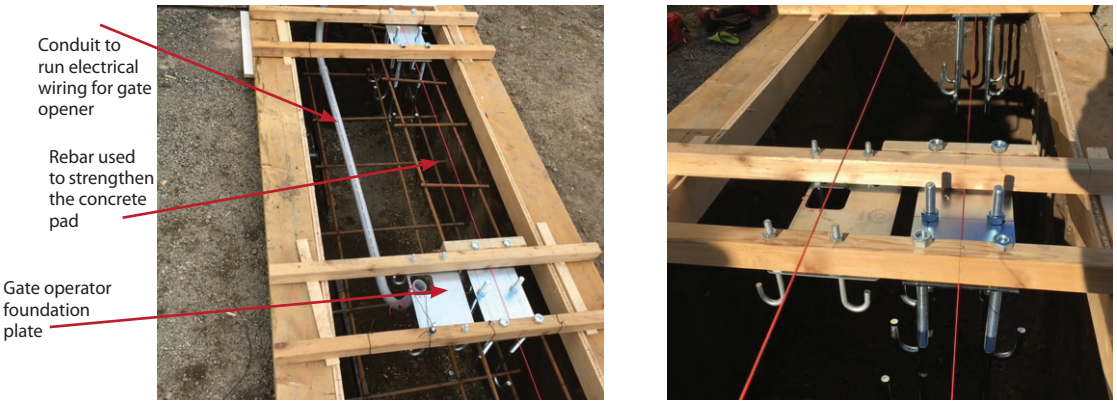
The carriage plate should be no less than 5" from each edge of the concrete slab. Ideally the carriages should be "floated" near the center of the pad if possible.



Note: The pad can start under the fence line. This is done to keep the gate face at no more than 2-1/4" from the fence line and to avoid entrapment.

Wrong Installations



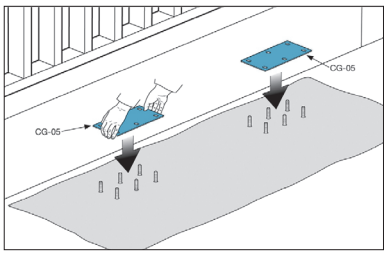


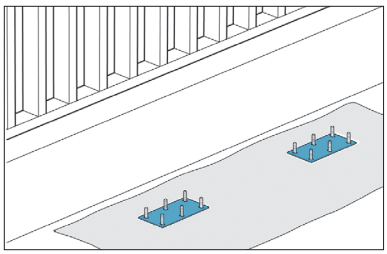
Line up the bolts. Use a string line, template, or other means to ensure bolts are correctly spaced apart per the (I) dimension from the configuration. Line up with the other carriage and run parallel to the gate opening.

Run a string line or laser across the opening to ensure the gate lands at the right point when closed.

Note: The top of the bolt/tie rod should stick out of the cement at least 2". When using a temporary template to set the J-bolts the bottom nut may be sacrificed into the concrete.

STEP 3 - SET THE CARRIAGES



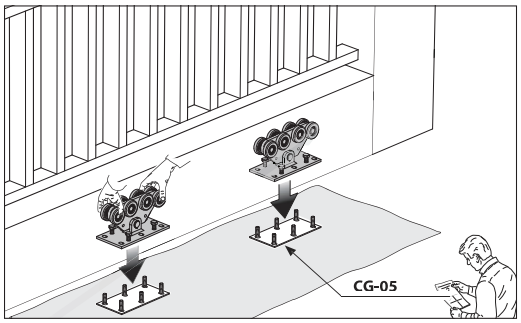


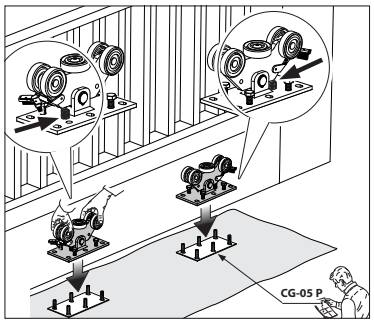
Once the foundation is well hardened, loosen the nuts off the J-Bolts, clean and level the area where the foundation plates or carriages will rest to prepare for the installation of the carriages.

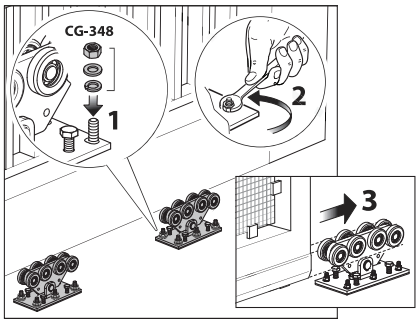
Place the Foundation plates over the J-bolts.

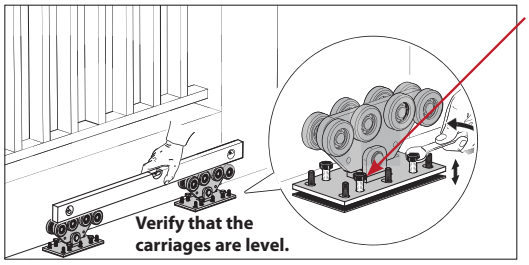
Make sure the orientation of the carriage is correct.

Use the flat and lock washers to secure the carriage to the bolts. Align and level the carriages, then begin tightening the nuts, constantly checking that the carriages are level. If they are not level, then adjust the carriage to level, and also level with each other.

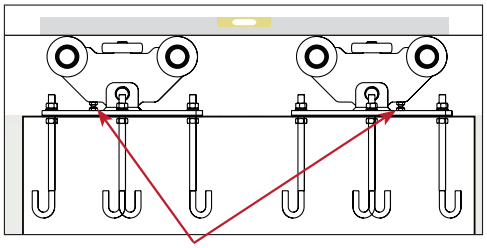








Vertical adjustment jackbolts are available on the "P" & "G" carriage models. They are not available on the "M" carriages.



Note: When mounting the CGA carriages, make sure the regulating screws are facing towards the outside as shown in the picture.

If not using foundation plates

Option 1: Carriages will sit on the bottom nuts on the J-bolts to allow plumb/level adjustments using the J-bolts as jack bolts

Option 2: Carriages can be placed directly on the foundation. Plumb/level adjustments must be done by shimming the carriages.

NOTES:

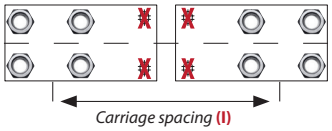
- For Piccolo carriages, the regulating screws should face "outward" and not be installed between the carriages, and for the aluminum P carriage, the sweep brush should also be on the "outside".

Using the CG-05P Foundation Plates with "M" Carriages

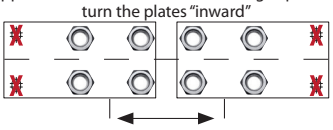
The foundation plate has 6 holes, but the "M" carriages only have 4 mounting holes that align with the middle holes and one side of the outside holes as shown.

The diagrams to the right show how to use the CG-05P foundation plates with the CGS-250.8M & CGA-350.5M carriages.

Using the CG-05P foundation plate with CGS / CGA "M" carriages



For very small gate carriage spacing applications where there is not enough space to turn the plates "inward"



- For carriage installations using the J-bolt as the jack bolt adjustment method, it is best to back fill the space under the carriage with grout to keep the carriage firmly secure over time. This is especially true for heavier gates.

Grout and fill the space under the carriage.

The nut below the carriage can also be used for adjustment.

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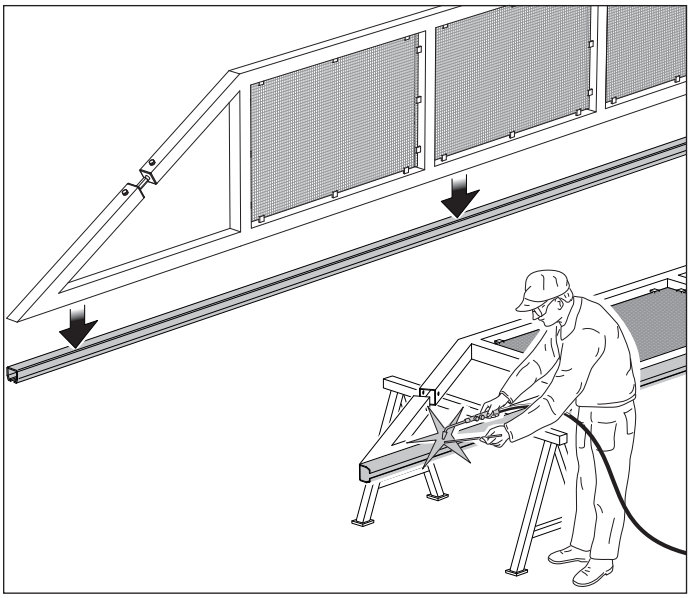
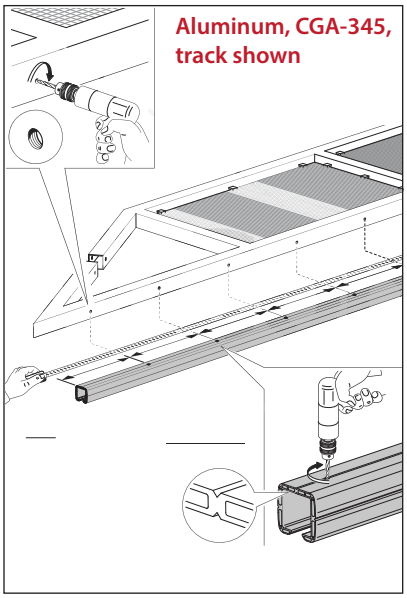
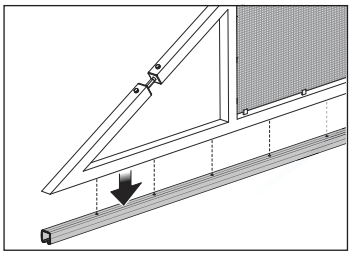
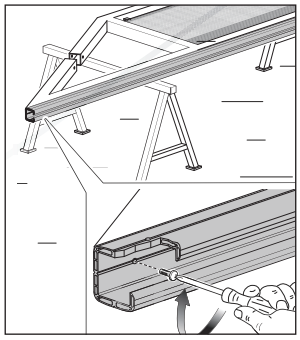
STEP 4 - ATTACHING THE GATE TO THE TRACK

Attach your gate to the top of the track by welding or mechanically fastening.









When the gate frame material and the track material are different, you have a few different options. For example, a wood gate on a steel track, a PVC gate on an aluminum track, or an aluminum gate on a steel track.

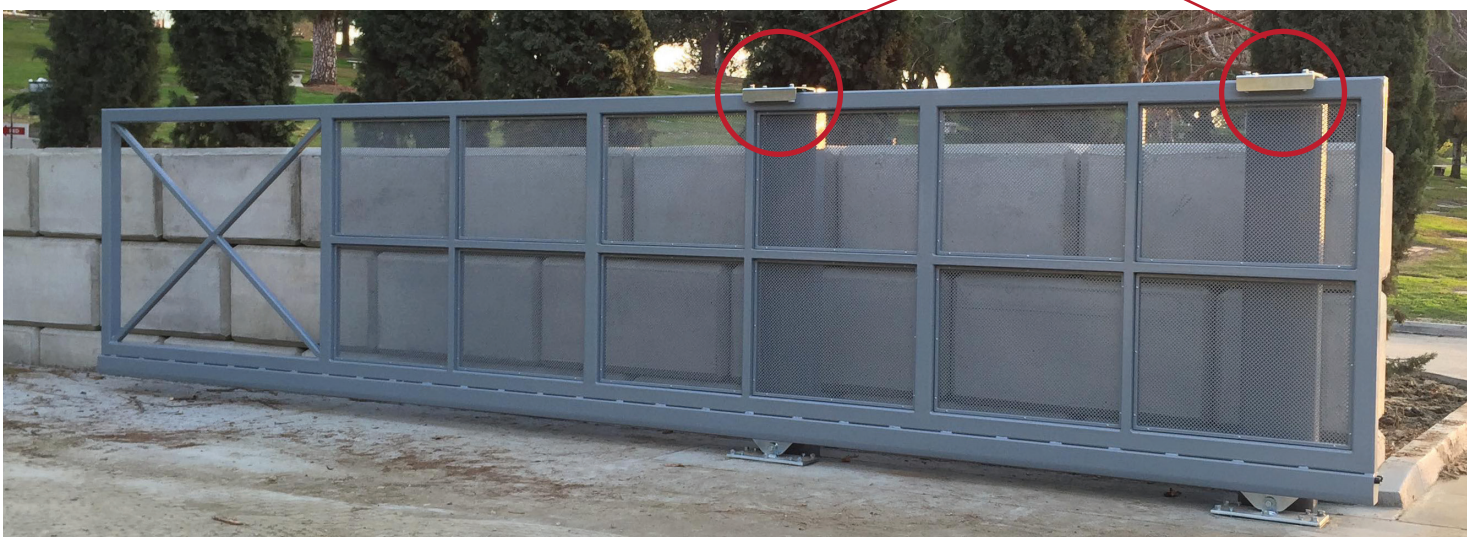
1) Bolt/screw on the gate frame to the track - drill up and thru the top of the cantilever track and bolt the frame to the track. Caution - it's best to use counter sinking bolts/screws so that nothing protrudes into the track cavity to obstruct the carriage wheels. There is a gap in the middle of the wheels on the carriage where a hex head bolt will fit between and not obstruct gate travel, but you must be very careful in size selection and placement.
2) Weld small tabs with bolt holes along both edges of the track (like alligator skin). Bolt thru the gate frame and tabs.
3) Use a length of flat bar or angle along the bottom length on both sides of the gate frame. Weld this flat bar or angle to the top of the cantilever track and bolt through the gate.

Welding the gate to the track

We recommend stitch welding both sides down the length of the track and gate frame as shown below.

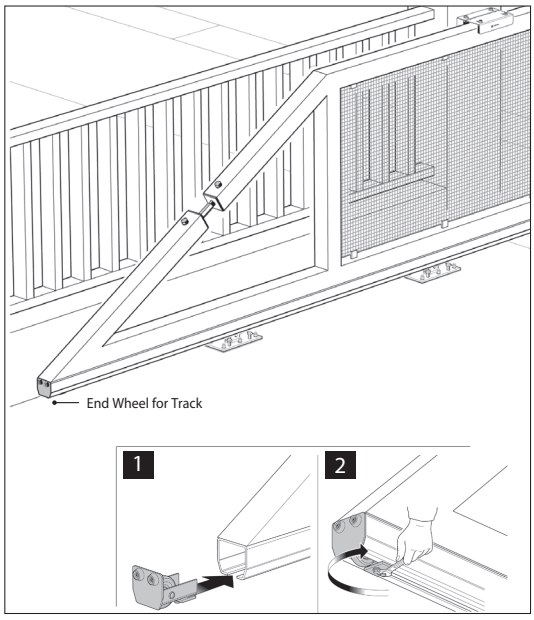
Long gate over 25' requires 2 upper guides

In gate below 2 of item 256-220 are used. See step 9.



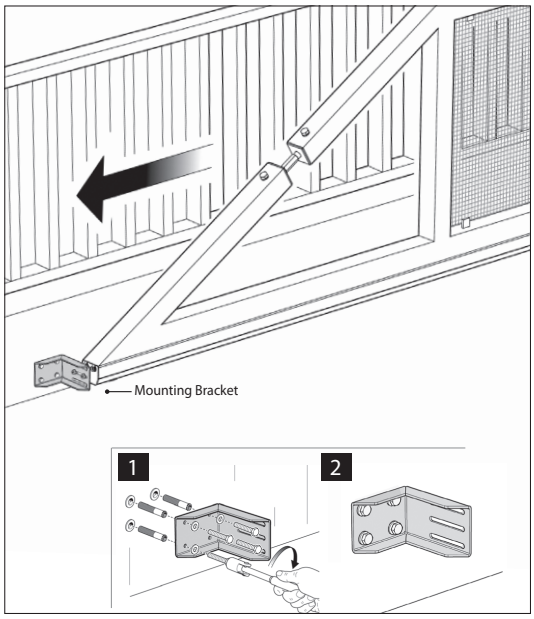
STEP 5 - INSTALL THE END WHEELS

Install the end wheels into both ends of the track. These are recommended to help keep dirt and debris from the inside of the track and for UL-325 compliance. By themselves, they are not a positive stop.



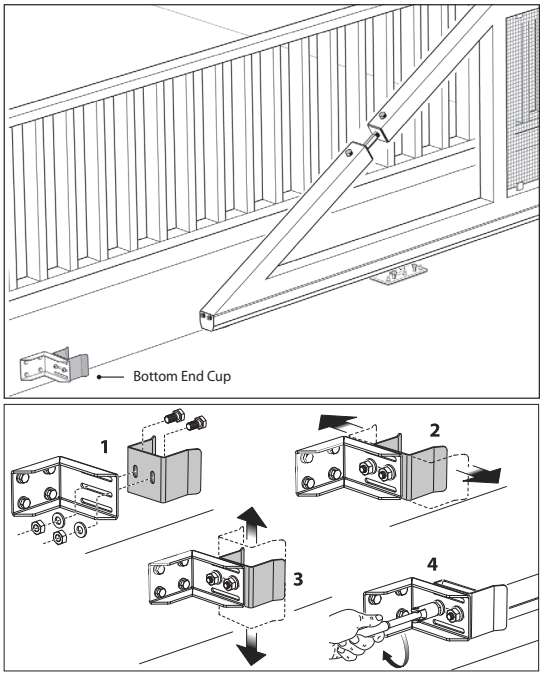
STEP 6 - INSTALL THE MOUNTING BRACKETS

The adjustable mounting brackets are used to hold the bottom end cup and also the gate receiver, CG-30 as shown in Step 8.



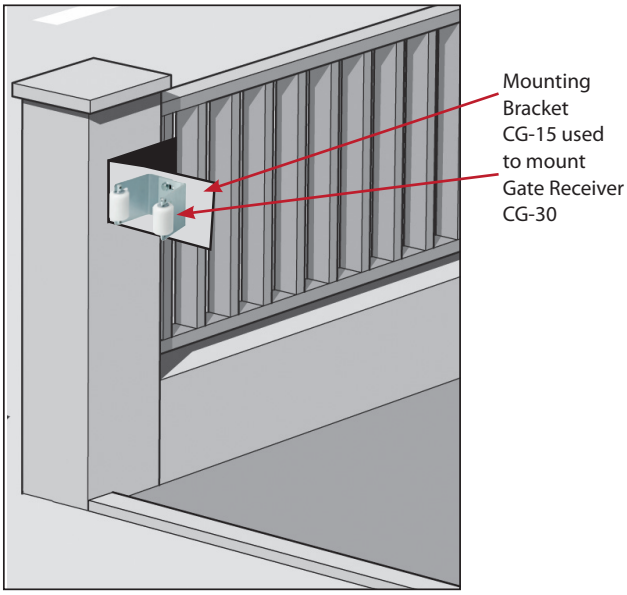
STEP 7 - INSTALL BOTTOM END CUPS TO THE MOUNTING BRACKET

Install the bottom end cups to the adjustable mounting bracket. The bottom end cups provide a positive stop for the gate and eliminate vibration in the gate, extending the life of the carriages.



STEP 8 - INSTALL THE GATE RECEIVER

The gate receiver can be installed on the closed side of the gate to keep the gate steady at the top. Install the gate receiver to a mounting bracket.



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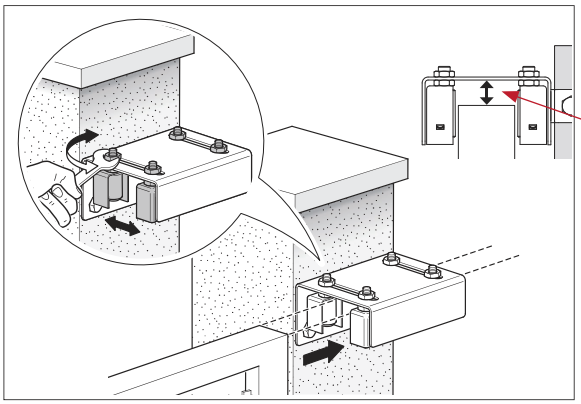
STEP 9 - INSTALL THE TOP GATE GUIDE

The top gate guide is installed on the post near the carriages. The top gate guide keeps the gate vertical under wind loads, but does not support the gate load. For gates longer than 25 feet we recommend using 2 top guides. See gate photo on bottom of page 97.

Over the top styles: 255-220-C, 256-220 or 256-300



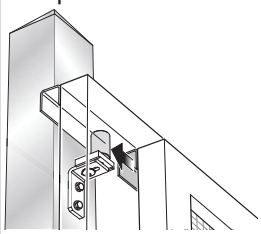
Top clearance dimension is approx 1/8".

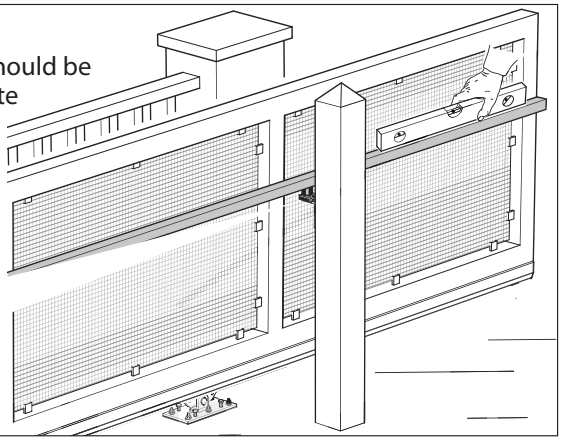
See page 91 on choosing a top guide.

If the gate has an arched or decorative top, then the U-channel would be used for a side mount, upper guide option. This style allows for a "hidden" guide and the rollers will not mark the surface of the gate over time. A single roller and a double roller option are available. The U-Channel should be installed at least half way up from the bottom of the gate and above the center of mass of the gate.

CG-254 and CG-252

The CG-254 U-channel should be positioned above the gate midpoint.

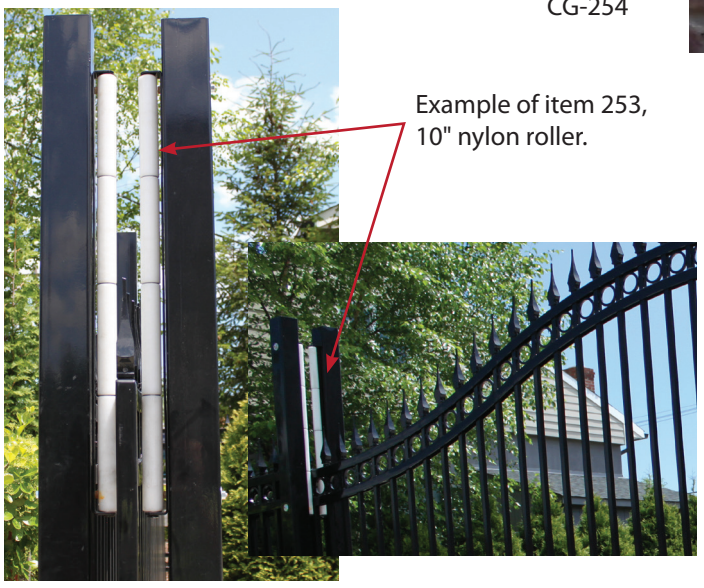




CG-252

CG-254

If the U-channel is not an option, then the 10" nylon rollers could be used to support the gate. A post would have to be set on both sides of the gate and a minimum of 2 rollers are needed on each side.



Example of item 253, 10" nylon roller.

GATE TRUSSING FOR SELF-SUPPORTING GATES

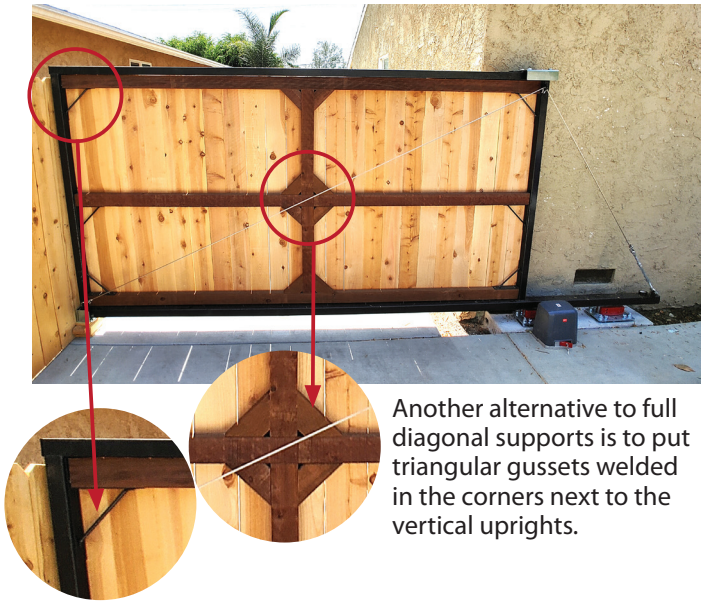
All cantilever gates must be manufactured and trussed in a way that they are self-supporting. The Duragates track is built to support the weight and balance of the gate but will not support gates that are not trussed to prevent sagging or curling, or are not in and of themselves self-supporting.

Diagonal trussing in the vertical dimension is needed for all gates. A simple diagonal in the tail section will work for many "smaller" gates.

Diagonal bracing in each section should be used for large gates with a 30 ft or greater opening.

Long gates also need lateral trussing to resist wind and the tendency to "lean over" to one side. Often referred to as a "strong arm" support, this is a 1 ft wide "panel" attached perpendicular to the gate, running the full length of the gate. This is especially important for privacy style gates, or any gate with significant infill to catch the wind. .

Example of a wooden gate with aluminum frame, well trussed and supported.



Another alternative to full diagonal supports is to put triangular gussets welded in the corners next to the vertical uprights.

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USING THE BOTTOM TRACK AS PART OF THE GATE FRAME

The Duragates track can be used as the bottom horizontal rail of the gate. This allows for some material savings and a sleeker look as the track becomes part of the gate itself.

This works well for light gates with a high percentage of air flow through the gate. Both aluminum or steel gates that are picket style, use chain link or wire mesh as infill are great applications for using the track as the bottom rail.

The exceptions to consider are:

- In high wind environments when excessive side load is expected
- For heavy commercial gates
- On gates with openings longer than 28 feet wide

Some fabricators prefer not to use the track as the frame because it is usually wider than the rest of the gate frame, so laying it out on the table takes more time.

WELDING BOTTOM TRACK TOGETHER FOR LONGER GATES

When connecting two or more pieces of track, butt welding the ends together works well when the gate has a bottom horizontal rail as part of the gate frame. When the bottom track itself is part of the gate frame, a 45-degree splice is better in order to distribute the stress points along the width of the track.

It is always best to splice the track in a position where the gate does not stop fully open or close with a carriage directly over the splice. When the splice is directly over a carriage you should use the 45-degree splice.

For steel, bevel the outside and weld the outside perimeter of the splice. It's best not to weld inside of the track because it creates an exaggerated bump in the travel and is quite difficult to grind and clean up. For aluminum, the track is a hollow complex profile, so there is not enough material to bevel the track before welding.

EXTENDING THE TAIL SECTION OF THE GATE

For a given weight and size of opening, our online gate configurator suggests a minimum length of tail to carry the load. (typically, 30% to 40% of the width of the opening). At times it is desirable to make the tail section longer for aesthetics or to reduce the load on the carriages.

Call 908-757-2323 or request a quote at Duragates.com to get your gate configured using our online calculator.

There are three critical dimensions to consider when extending the length:

- The total gate length, (LT)
- The carriage interaxis spacing, (I)
- The foundation length, (FA)

When you increase the overall gate length (LT) to extend the length of the tail, you need to increase the other two dimensions by the same amount to make sure you do not create an overload situation when the gate is fully open.

MAINTENANCE SCHEDULE

The Duragates system is very low maintenance. The bearings on the wheels are maintenance free sealed bearings and do not need to be lubricated over their lifespan.

No lubricant should be introduced into the track, wheels, carriages, or in the bottom load bearing track assembly. Lubricants and oil based products will attract and build up dust, dirt and other materials that will significantly degrade the performance of the hardware, and shorten it's lifespan.

Maintenance Frequency

The maintenance frequency depends on the application and number of gate cycles.

General Recommendations

Private home or business	Every 2 years
Multi-family < 4 units	Every 2 years
Warehouse	Every 1 year
Multi-family > 4 units	Every 6 months

If the gate is automated, please follow the maintenance schedule for the operator as per the manufacturers recommendations.

Required Maintenance

Carriage/Track
Check the functionality and integrity of the carriages.
Clean the lower area of contact between the wheels and the track.
Confirm that the mounting bolts securing the carriages to the foundation are tight.
Confirm that the fasteners on the End Wheel are secure.

Top Guide Assembly
Check the rollers for wear.
Confirm that the fasteners on the rollers are secure.
Check the condition of the roller covers if applicable.

Gate Stops
Confirm that the fasteners on the End Cups and brackets are secure.
Confirm that the fasteners on the Gate Receiver and bracket are secure.

Warranty
All products have a 2 year warranty. This warranty is limited to the repair or replacement of product parts that FRATELLI COMUNELLO SPA acknowledges as defective. The warranty does not include the costs necessary for repairing or replacing the material (e.g. labor costs, rental of equipment etc.).

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Absolute Aluminum in Venice, Florida installed a couple of gates using our aluminum track model, CGA-350.5P.

Both driveway gates were 21 feet wide by 500 pounds. After the tail end/counterbalance was added to these gates the total gate length came to 28 feet long.

Duragates cantilever hardware systems offer sliding gate solutions from simple 4-foot residential deck gates to large scale 60-foot long industrial gates.

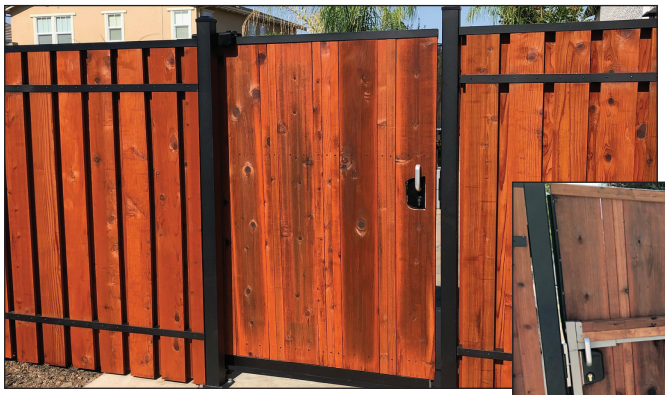
The CGS-350.5XL hardware was specified to carry a massive 58-foot long gate weighing over 7,000 pounds, and cantilevering out over a 40-foot opening at the Children's Hospital at the National Research & Innovation Campus in Washington, DC.

Architects on the project (Elkus/Manfredi Architects Ltd., of Boston) specified a massive gate that, when closed, would act as a vision screen to block off the loading dock from view.

The gate fabrication and installation was awarded to Extreme Steel Inc., a structural steel specialist out of Winchester, Virginia.

The CGS-KIT150, a cantilever sliding gate kit, is an economical solution for lightweight gates up to 13ft in length. The enclosed roller system complies with safety standards (ASTM F2200 & UL325) making this hardware kit the perfect choice for small openings.

A resident in California was impressed with the hardware. He used the KIT150 to install his 45" wide by 100 lb. gate. He secured his gate with a Locinox sliding gate lock.



Homeowner Kevin said, "Swinging side yard gates are problematic because either my kids or the wind keep slamming the gate shut and damaging the structure so I built a sliding gate instead. This is a side yard fence design that has a cantilever rolling gate. It looks amazing and solves problems with broken fence posts, holding the gate open when carrying things through, rolling bicycles, etc."

The DuraGates KIT150 was used as a privacy gate separating two properties in a Chicago neighborhood. The gate is secured with a Locinox sliding gate lock.

Read what our client Bob had to say, "The gate came out great, I'm very happy with the sliding system so I'd certainly use it again the next time I'm doing a project that requires a sliding option.

I built the fence and gate out of steel that I welded together. I then used tongue and groove cedar for the panels. The gate and fence divide two buildings we own so it gives us the option of having it opened or closed.

Model CGS-350.8G was the perfect solution for this 40ft gate at this commercial facility in New Jersey.

The sliding gate hardware adapted easily to the uneven driveway and the 3 line barbed wire.

Thank you New Jersey Door Works for sharing your photos.

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INTEGRATOR ..... PAGES 17-20

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ROLLING GATE SYSTEM — PAGES 21-34

THE RANGER — PAGES 35-42

INDUSTRIAL SLIDING DOOR HARDWARE — PAGES 43-54

INDUSTRIAL FOLDING DOOR HARDWARE — PAGES 55-64

RISING/UPHILL HINGES — PAGES 65-68

THE ALBATROS — PAGES 69-76

SWING GATE HINGES AND ACCESSORIES — PAGES 77-84

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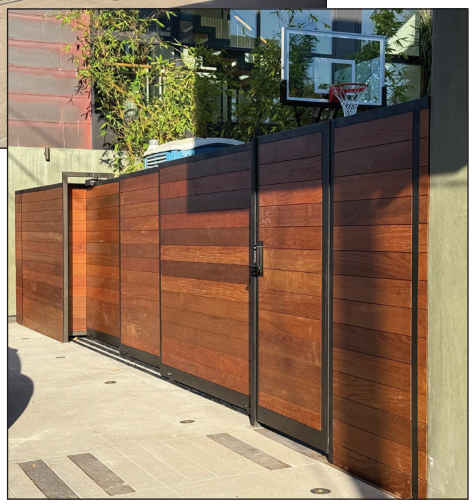
This sleek, lightweight sliding gate at a residence in California used the Duragates CGS-250.8M model. The homeowner wanted it automated so they chose a FAAC gate operator. The keypad out front allows for easy entry to the property. The tail end of the gate is nicely hidden behind a stone wall hiding the gate hardware from the street.



This modern wood and steel framed gate uses the Ranger Telescoping Gate System due to space constraints. The 3-leaf gate slides easily behind a matching fence to secure the courtyard.

The Albatros Bi-folding Gate System was used at an office complex driveway entry due to limited swing space.

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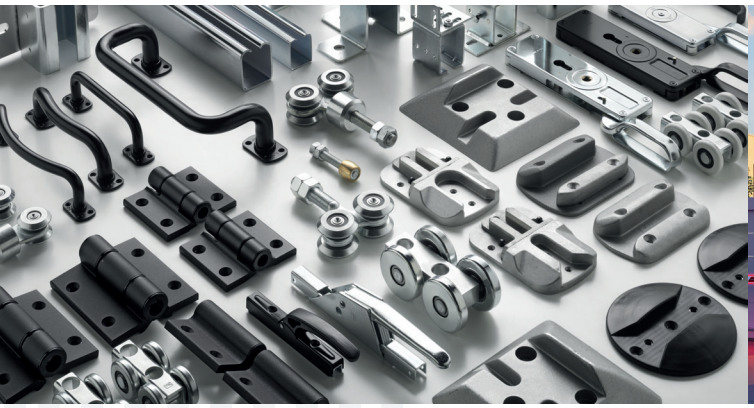

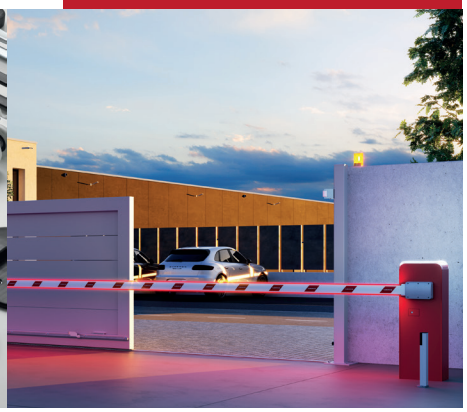

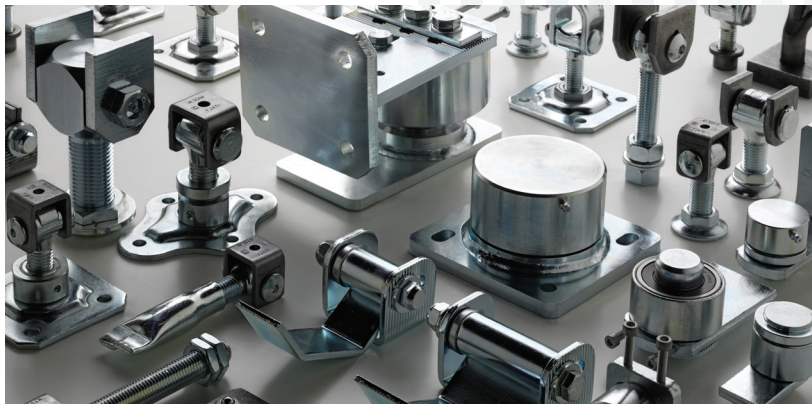

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