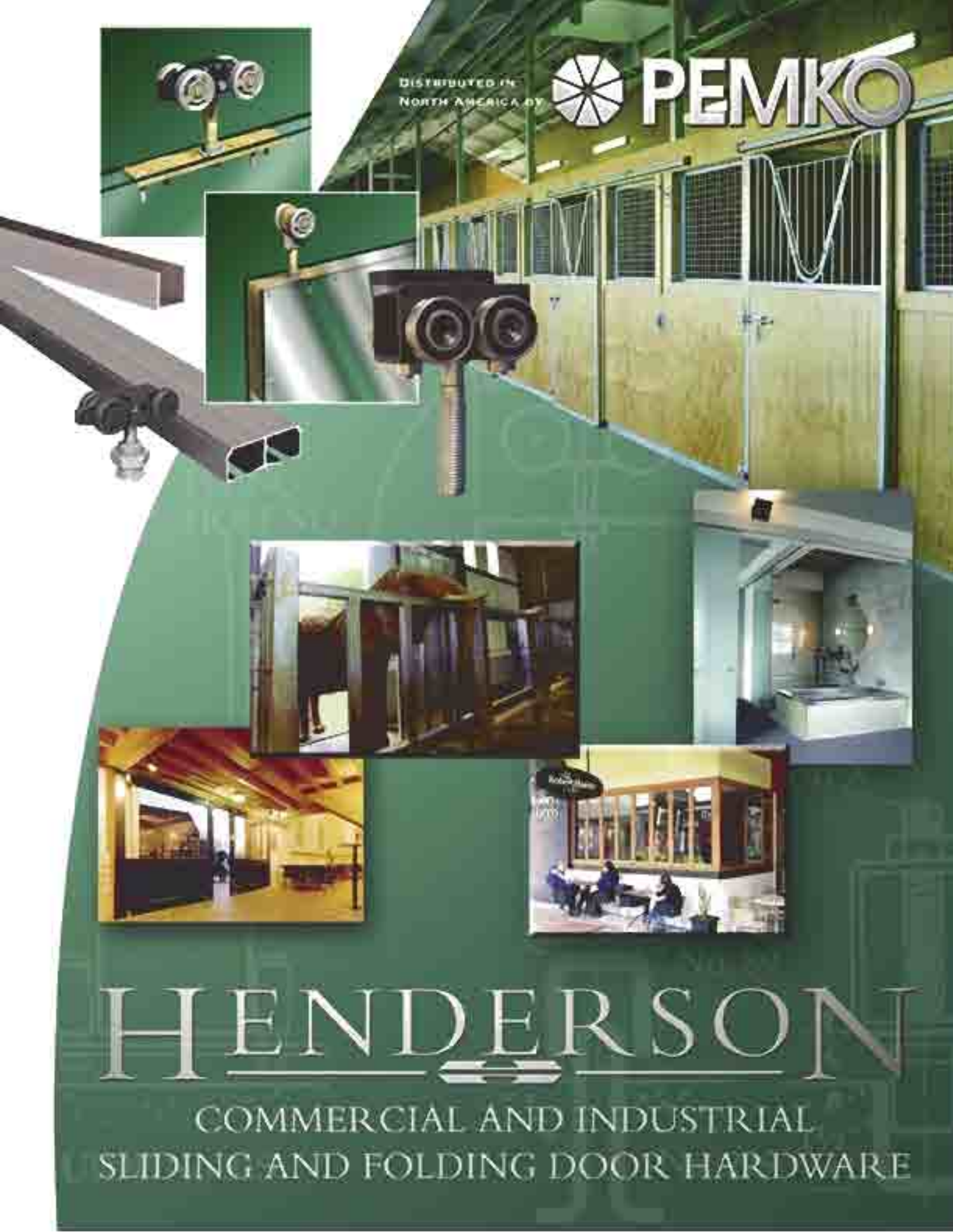


HENDERSON

COMMERCIAL AND INDUSTRIAL SLIDING AND FOLDING DOOR HARDWARE

Contents

HENDERSON

P C Henderson has long been acknowledged as the world leader in the design and manufacture of Sliding Gear Systems for residential, commercial and industrial applications.

Established in 1921, the company is a member of Cardo Door, the largest Business Area within Cardo AB, a major European engineering products group with an annual turnover in excess of £700 million.

P C Henderson is based in Bowburn in North East England and has subsidiaries in Holland and Ireland. The company has a long established sales and distribution network in over 70 countries, with head office support from Henderson's fully trained technical sales team.

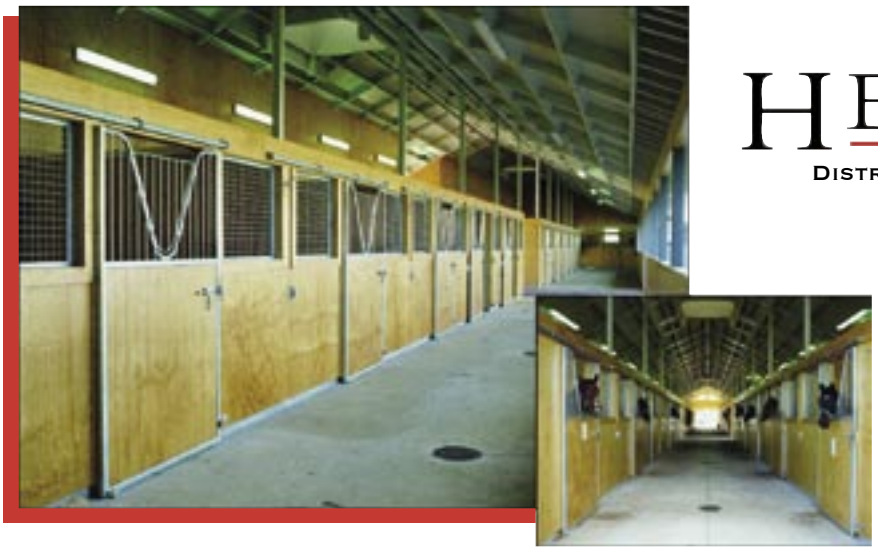
The company is committed to quality and is registered to BS EN ISO 9002: 1994 Quality Systems.

HENDERSON COMMERCIAL RANGE

The three models in the Henderson commercial range - Husky Glass, Pacer and Flexirol - are suitable for doors weighing up to 1100 lbs. (500kg). They are ideal for applications such as shop-fronts, hotels, conference centers and offices, where smooth action, high performance and aesthetics are important.

You can choose from wood, aluminum and glass door options, with straight sliding, folding and multidirectional stacking systems. Flexirol multidirectional systems can accommodate 90° and 135° movement. Pacer systems allow 135° movement.

Aluminum track can be painted on site to match interior colors and ceilings. Pacer track has the option of clip-on aluminum fascia.



HENDERSON

DISTRIBUTED IN NORTH AMERICA BY PEMKO

INDUSTRIAL & STAINLESS STEEL TRACK AND HARDWARE

290-307

FOR STRAIGHT SLIDING WOOD DOORS

For straight sliding wood doors, the following are included:

- Support brackets and track
- Hangers
- Guides
- Full range of Accessories

Five track sizes are available to suit doors of different weights up to 4400 lbs.

For best operation the door width should not exceed 3/4 of the door height. Wood doors for industrial applications should be framed, ledged and braced.

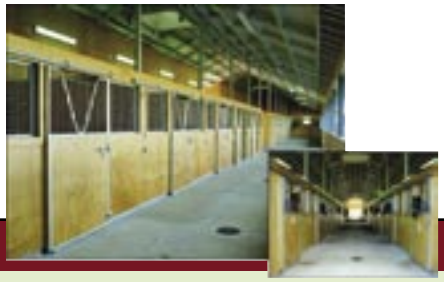
For commercial applications wood doors may be of flush construction, or fully glazed for showrooms.

Use the table below to estimate the approximate weight (pounds per square foot) of doors of different materials.

Door Type	lbs./sq. ft.
Hollow Metal 18 ga	4.6 lbs.
Hollow Metal 16 ga	5.8 lbs.
Flush Wood, Particleboard Core	4.8 lbs.
Flush Wood, Stave Core	4.3 lbs.
Flush Wood, Mineral Core	4.7 lbs.

APPLICATIONS

- The hardware is suitable for industrial and commercial applications, with single or double lines of track, in situations where the structure will support the weight of the door. Where this support is insufficient, "Sherwood" bottom roller hardware should be specified.
- Openings may be covered by any number of doors sliding to one or both sides as required. (See plan details).
- On large doors where individual access is required, a wicket door may be incorporated in one of the sliding units.
- Where doors are fitted externally, an overhang is recommended.



COMPOSITION

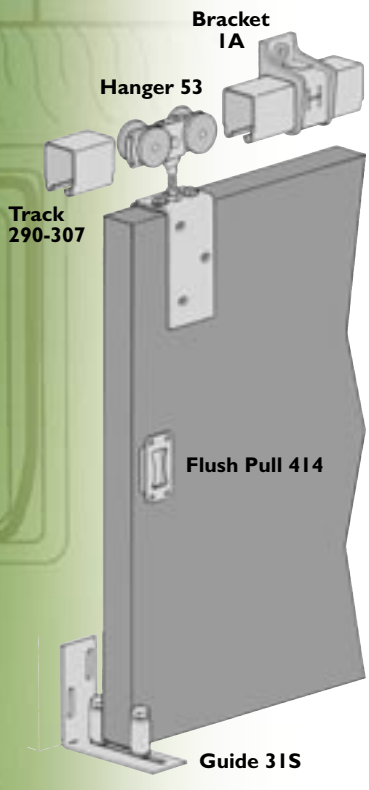
Track: Cold-rolled steel section hot-dip galvanized.

Brackets: Cast aluminum alloy or pressed steel.
Suitable brackets available for single, double and triple run applications.
Track ends closed by end-clips or closed brackets.

Hangers: Fitted with maintenance-free precision needle bearings, sealed for life.
Adjustable in height.
Steel parts rustproofed by electrozinc plating or painted.

Guides: Choice of bottom guide arrangements available.
For heavier doors, always fit guide channel 97 and guides 102 1/2 or 105.

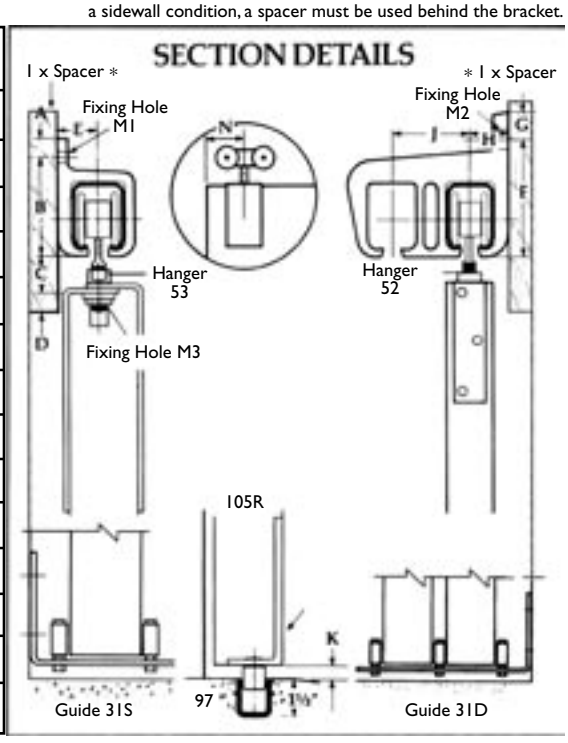
Door Stops & Accessories: In painted or galvanized steel.



All Dimensions in Feet and Inches

Track	280	290	301/ 301H	305	307
A	3/4	1/2	3/4	1	1
B	19/16	15/8	313/16	51/2	61/8
C	3/4	1	2	2	25/8
D	1/2	1/2	1	1	11/2
E	5/8	111/16	13/8	11/2	13/4
F		35/32	43/8	61/8	7 9/16
G		3/4	15/16	11/2	1
H		111/16	11/2	17/8	13/4
J		21/8	31/8	35/8	35/8
K	3/8	3/8	3/8	1/2	1/2
M1	8G	5/16	1/2	5/8	5/8
M2		1/2	5/8	3/4	3/4
M3		7/16	3/4	3/4	1
N	11/2	2	3	31/2	41/2

*When using 280 or 290 track with doors 1-3/8" and thicker for a sidewall condition, a spacer must be used behind the bracket.

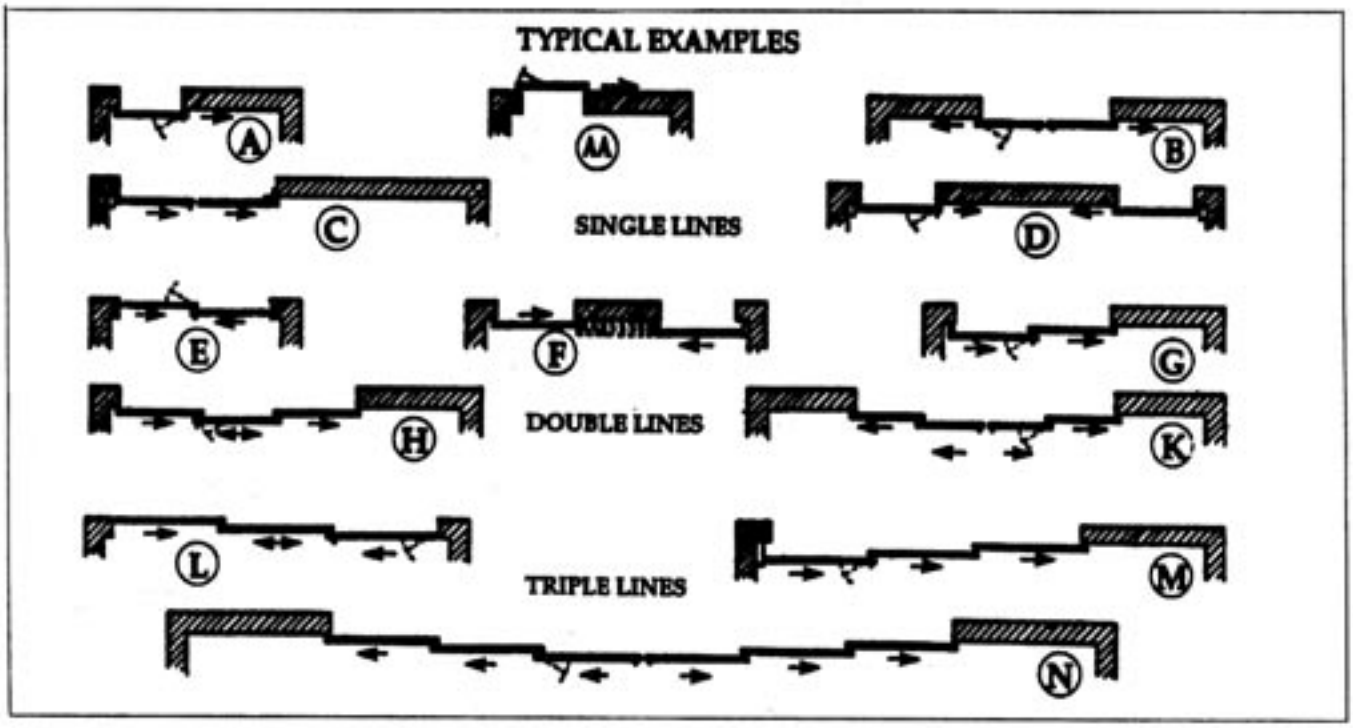


Answer the questions below and fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware. Or use the chart on the following pages to select appropriate hardware for your job.

STRAIGHT SLIDING TRACK

JOB NAME _____ QUOTE ❑ ORDER ❑ P.O.#_____

1.	Type of Track Required or Proposed: ☐ Top Hung ☐ Bottom Roller
2.	Position of Door: ☐ Exterior (exposed) ☐ Interior (inside building)
3.	Width of Opening:
4.	Height of Opening:
5.	Proposed Number of Doors:
6.	Door Thickness (1-3/8" min. - 2-1/4" max.): Other:
7.	Door Material: ☐ Solid Core ☐ Leadlined ☐ Glazed ☐ Metal Frame ☐ Hollowcore *if metal frame or leadlined, give details under question 16*
8.	Door Weight:
9.	Do Doors Slide within Opening (as in plan "E" or "L")? *if NO, go to question 11* *if YES, go to question 13*
10.	When Looking at the Door from the Inside of the Building, do Doors Slide: ☐ Both Ways ☐ Left Only ☐ Right Only
11.	Do the Doors Slide: ☐ Inside the Building (as in plan "A") ☐ Outside the Building (as in plan "AA")
12.	How Many Lines of Track? ☐ One ☐ Two ☐ Three
13.	Bracket Mounting: ☐ Sidewall ☐ Overhead
14.	Depth of Header: Width of Header:
15.	Door Construction (metal doors): ☐ Angle Frame ☐ Box Frame (depth of section 0-6") ☐ Channel Frame ☐ Special Frame/Leadlined
16.	Type of Floor: ☐ Asphalt ☐ Concrete ☐ Steel ☐ No Floor (elevated opening) ☐ Wood ☐ Tile
17.	Type of Wheel Preferred (top hung only - tracks 305 & 307 have steel only): ☐ Nylon ☐ Steel
18.	Security: ☐ Lock ☐ Bolt ☐ Unsecured *Will lock bolt be seen from the same side of door as doors hung – YES or NO*
19.	Number of Identical Openings:



Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

290-307 HARDWARE KIT FOR STRAIGHT

Max. Door Height	up to 10 ft.	up to 12 ft.
Max. Door Weight	up to 300-400 lbs.*	up to 600-800 lbs.*
Door Thickness	1 1/2-2"	1 3/4-2 1/4"
KIT NUMBER	**290**	**301**

Track

Brackets *(one bracket for every three feet of track)*

Jointing Brackets available for joining two pieces of track at bracet (i.e. *1AX/301*)

1A/290 *sidewall-use for limited installation space*

3A/290 *overhead-use for limited installation space*

5/290 *sidewall dual track*

4A/290 *overhead-use for ample installation space*

4R/290S *overhead-suspended*

9A/290 *sidewall-use for ample installation space*

1A/301 *sidewall-use for limited installation space*

3A/301 *overhead-use for limited installation space*

5/301 *sidewall double track*

4A/301 *overhead-use for ample installation space*

4R/301S *overhead-suspended*

9A/301 *sidewall-use for ample installation space*

Hangers *(two per door)*

52K/N *300 lb. door door top/edge mount*

57K/N *300 lb. door door top mount*

53K/N *300 lb. door* door top mount w/door face flanges*

53K/S200 *400 lb. door* door top mount w/door face flanges*

52A/S *600 lb. door door top/edge mount*

53A/S *600 lb. door* door top mount w/door face flanges*

57A/S *600 lb. door* door top mount*

52A/N *800 lb. door door top/edge mount*

53A/N *800 lb. door* door top mount w/door face flanges*

57A/N *800 lb. door* door top mount*

Stops *(two per door)*

109 *double fastener single wall or ground stop*

HH3/290 *track mounted double fastener stop*

HH3/301 *track mounted double fastener stop*

107 *single wall stop-double rubber buffers*

Guides *(three per door)*

31S *single wall mounted stay roller*

126HD/A *heavy duty ground stay roller*

106R *under guide roller*

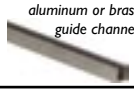
126 *ground stay roller*

105 *roller guide*

31S *single wall mounted stay roller*

31D *double wall mounted stay roller*

Guide Channel



94A *or* 94B *aluminum or brass guide channel*

89 *steel guide channel*

97 *steel guide channel*

97 *steel guide channel*

Flush Pulls

414 *flush pull*

414 *flush pull*

Bow Handles

463 *bow handle - 6 1/4"*

863 *bow handle - 5 1/4"*

463 *bow handle - 6 1/4"*

SLIDING WOOD DOORS (complete, ready to install)

	up to 14 ft.	up to 16 ft.	up to 20 ft.
	up to 1000 lbs.	up to 1500 lbs.	up to 4400 lbs.
	1 3/4-2 1/4"	1 3/4-2 1/4"	2 3/8-2 3/4"
	301H	**305**	**307**
	301H 	305 	307 
	1A/301 *sidewall-use for limited installation space*  3A/301 *overhead-use for limited installation space*  5/301 *sidewall double track*  4A/301 *overhead-use for ample installation space*  4R/301S *overhead-suspended*  9A/301 *sidewall-use for ample installation space* 	1A/305 *sidewall-use for limited installation space*  3A/305 *overhead-use for limited installation space*  5/305 *sidewall double track*  4A/305 *overhead-use for ample installation space*  4R/305S *overhead-suspended* 	1/307/S *sidewall-use for limited installation space*  3/307S *overhead-use for limited installation space*  5/307/S *sidewall double track*  4/307S *overhead-use for ample installation space*  4R/307S *overhead-suspended* 
	52A/N *1000 lb. door door top/edge mount*  53A/N *1000 lb. door door top mount w/door face flanges*  57A/N *1000 lb. door door top mount* 	52C/S *1500 lb. door door top/edge mount*  57C/S *1500 lb. door door top mount*  53C/S *1500 lb. door door top mount w/door face flanges*	53FJ/S *4400 lb. door door top mount w/door face flanges* 
	HH3/301 *track mounted double fastener stop*  107 *single wall stop-double rubber buffers* 	107 *single wall stop-double rubber buffers* 	***not required***
	31S *single wall mounted stay roller*  31D *double wall mounted stay roller* 	31S *single wall mounted stay roller*  31D *double wall mounted stay roller* 	31S *single wall mounted stay roller*  31D *double wall mounted stay roller* 
	97 *steel guide channel* 	97 *steel guide channel*  89 *steel guide channel* 	97 *steel guide channel*  89 *steel guide channel* 
	414 *flush pull* 	414 *flush pull*	413 *flush pull*
	463 *bow handle - 6 1/4"*	463 *bow handle - 6 1/4"*	464 *bow handle - 10 1/4"*

290-307

FOR STRAIGHT SLIDING METAL DOORS

For straight sliding metal doors, the following are included:

- Support brackets and track
- Hangers
- Guides
- Full range of accessories

Five track sizes are available to suit doors of different weights up to 4400 lbs.

For best operation the door width should not exceed 3/4 of the door height. Door construction is normally framed and braced using steel angle section then clad with steel sheet or other suitable material. When steel box section is used, specify hangers with extended strap bolts and elongated guides. If aluminum framed doors are to be used, type of hanger required will depend on door section.

Use the table below to estimate the approximate weight (pounds per square foot) of doors of different materials.

Door Type	lbs./sq. ft.
Hollow Metal 18 ga	4.6 lbs.
Hollow Metal 16 ga	5.8 lbs.
Flush Wood, Particleboard Core	4.8 lbs.
Flush Wood, Stave Core	4.3 lbs.
Flush Wood, Mineral Core	4.7 lbs.

APPLICATIONS

- The hardware is suitable for industrial and commercial applications, with single or double lines of track, in situations where the structure will support the weight of the door. Where this support is insufficient, "Sherwood" bottom roller hardware should be specified.
- Openings may be covered by any number of doors sliding to one or both sides as required. (See plan details).
- On large doors where individual access is required, a wicket door may be incorporated in one of the sliding units.
- Where doors are fitted externally, an overhang is recommended.

COMPOSITION

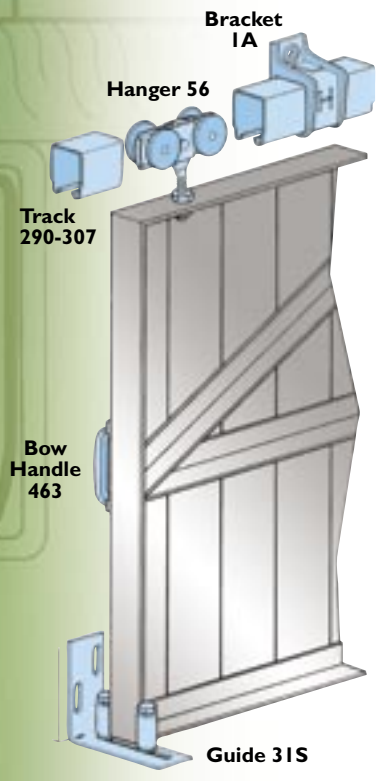
Track: Cold-rolled steel section hot-dip galvanized.

Brackets: Cast aluminum alloy or pressed steel.
Suitable brackets available for single, double and triple run applications.
Track ends closed by end-clips or closed brackets.

Hangers: Fitted with maintenance-free precision needle bearings, sealed for life.
Adjustable in height.
Steel parts rustproofed by electrozinc plating or painted.

Guides: Choice of bottom guide arrangements available.
For heavier doors, always fit guide channel 97 and guides 104P or 104PX.

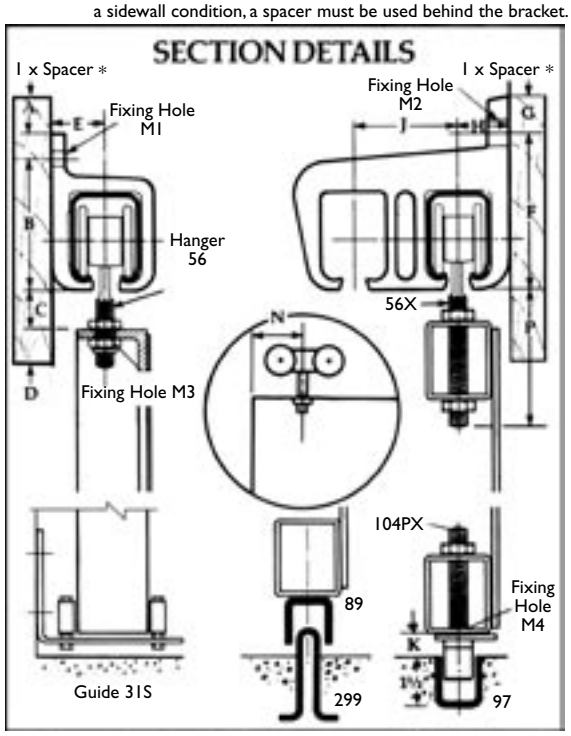
Door Stops & Accessories: In painted or galvanized steel.



All Dimensions in Feet and Inches

Track	280	290	301/ 301H	305	307
A	1/4	1/2	3/4	1	1
B	1 9/16	1 5/8	3 13/16	5 1/2	6 1/8
C	3/4	1	2	2	2 5/8
D	1/2	1/2	1	1	1 1/2
E	5/8	1 1/16	1 3/8	1 1/2	1 3/4
F		3 5/32	4 3/8	6 1/8	7 9/16
G		3/4	1 5/16	1 1/2	1
H		1 1/16	1 1/2	1 7/8	1 3/4
J		2 1/8	3 1/8	3 5/8	3 5/8
K	3/8	3/8	3/8	1/2	1/2
M1	8G	5/16	1/2	5/8	5/8
M2		1/2	5/8	3/4	3/4
M3	1/8	7/16	11/16	11/16	1/8
M4	11/16	11/16	11/16	13/16	13/16
N	1 1/2	2	3	3 1/2	4 1/2
P		4 3/8	5 1/2	5 1/2	5 1/2

*When using 280 or 290 track with doors 1-3/8" and thicker for a sidewall condition, a spacer must be used behind the bracket.

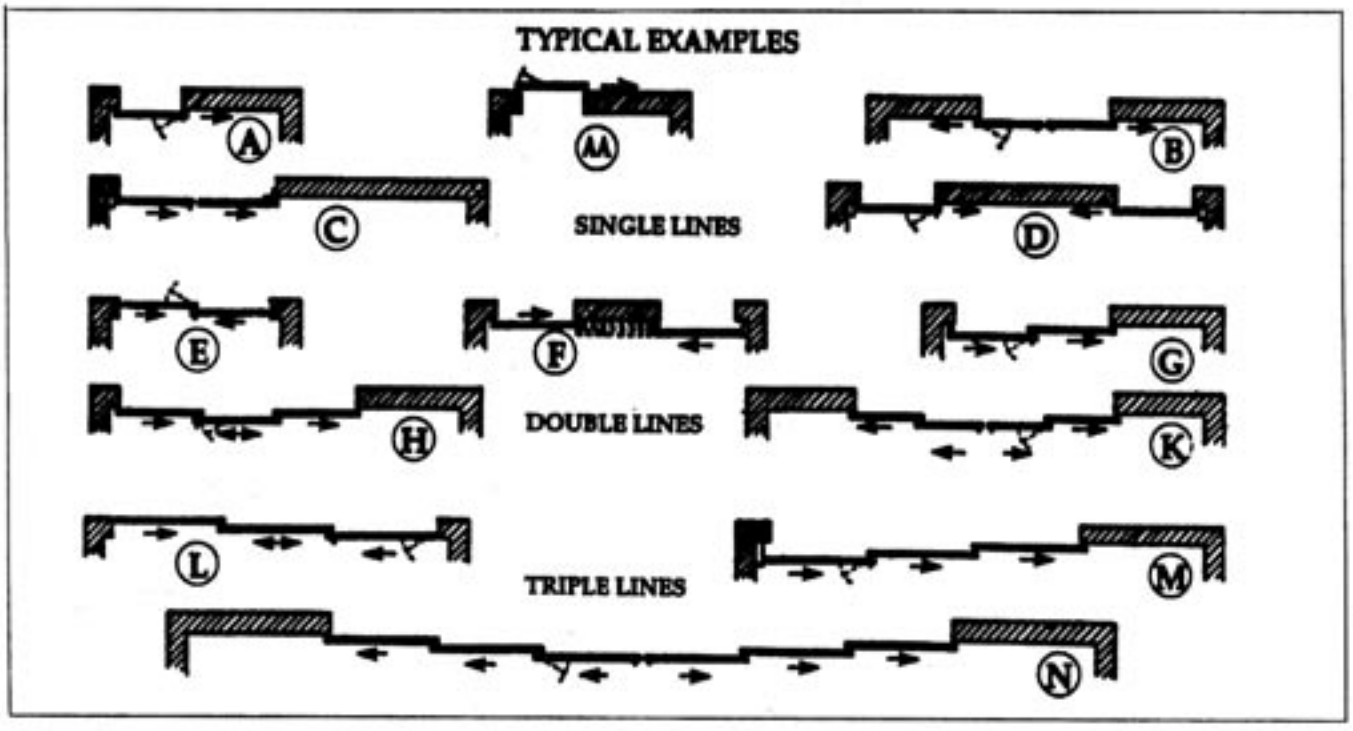


Answer the questions below and fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware. Or use the chart on the following pages to select appropriate hardware for your job.

STRAIGHT SLIDING TRACK

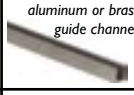
JOB NAME _____ QUOTE ❑ ORDER ❑ P.O.#_____

1.	Type of Track Required or Proposed: ☐ Top Hung ☐ Bottom Roller
2.	Position of Door: ☐ Exterior (exposed) ☐ Interior (inside building)
3.	Width of Opening:
4.	Height of Opening:
5.	Proposed Number of Doors:
6.	Door Thickness (1-3/8" min. - 2-1/4" max.): Other:
7.	Door Material: ☐ Solid Core ☐ Leadlined ☐ Glazed ☐ Metal Frame ☐ Hollowcore *if metal frame or leadlined, give details under question 16*
8.	Door Weight:
9.	Do Doors Slide within Opening (as in plan "E" or "L")? *if NO, go to question 11* *if YES, go to question 13*
10.	When Looking at the Door from the Inside of the Building, do Doors Slide: ☐ Both Ways ☐ Left Only ☐ Right Only
11.	Do the Doors Slide: ☐ Inside the Building (as in plan "A") ☐ Outside the Building (as in plan "AA")
12.	How Many Lines of Track? ☐ One ☐ Two ☐ Three
13.	Bracket Mounting: ☐ Sidewall ☐ Overhead
14.	Depth of Header: Width of Header:
15.	Door Construction (metal doors): ☐ Angle Frame ☐ Box Frame (depth of section 0-6") ☐ Channel Frame ☐ Special Frame/Leadlined
16.	Type of Floor: ☐ Asphalt ☐ Concrete ☐ Steel ☐ No Floor (elevated opening) ☐ Wood ☐ Tile
17.	Type of Wheel Preferred (top hung only - tracks 305 & 307 have steel only): ☐ Nylon ☐ Steel
18.	Security: ☐ Lock ☐ Bolt ☐ Unsecured *Will lock bolt be seen from the same side of door as doors hung – YES or NO*
19.	Number of Identical Openings:



Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

290-307 HARDWARE KIT FOR STRAIGHT

Max. Door Height	up to 10 ft.	up to 12 ft.
Max. Door Weight	up to 300-400 lbs.*	up to 600-800 lbs.*
Door Thickness	1 1/2-2"	1 3/4-2 1/4"
KIT NUMBER	**290**	**301**
Track	 290	 301
Brackets *(one bracket for every three feet of track)*	1A/290 *sidewall-use for limited installation space*  3A/290 *overhead-use for limited installation space*  5/290 *sidewall dual track*  4A/290 *overhead-use for ample installation space*  4R/290S *overhead-suspended*  9A/290 *sidewall-use for ample installation space* 	1A/301 *sidewall-use for limited installation space*  3A/301 *overhead-use for limited installation space*  5/301 *sidewall double track*  4A/301 *overhead-use for ample installation space*  4R/301S *overhead-suspended*  9A/301 *sidewall-use for ample installation space* 
Jointing Brackets available for joining two pieces of track at bracet (i.e. *1AX/301*) 		
Hangers *(two per door)*	 56KX/S *300 lb. door door top/edge mount*   56K/S *300 lb. door* door top mount w/door face flanges* 56K/S200 *400 lb. door* door top mount w/door face flanges* 57K/N *300 lb. door door top mount*	 56A/S *600 lb. door door top/edge mount* 56AX/S *600 lb. door* door top mount w/door face flanges*   57A/S *600 lb. door* door top mount*  56A/N *800 lb. door* door top/edge mount*  56AX/N *800 lb. door* door top mount w/door face flanges*  57A/N *800 lb. door* door top mount*
Stops *(two per door)*	 109 *double fastener single wall or ground stop*  HH3/290 *track mounted double fastener stop*	 HH3/301 *track mounted double fastener stop*  107 *single wall stop-double rubber buffers*
Guides *(three per door)*	 31S *single wall mounted stay roller*  126HD/A *heavy duty ground stay roller*  106R *under guide roller*  126 *ground stay roller* 105 *roller guide*	 31S *single wall mounted stay roller*  31D *double wall mounted stay roller*
Guide Channel	94A *or* 94B *aluminum or brass guide channel*  89 *steel guide channel*  97 *steel guide channel* 	97 *steel guide channel* 
Flush Pulls	 414 *flush pull*	 414 *flush pull*
Bow Handles	463 *bow handle - 6 1/4"*	863 *bow handle - 5 1/4"* 463 *bow handle - 6 1/4"*

fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware.

SLIDING METAL DOORS (complete, ready to install)

	up to 14 ft.	up to 16 ft.	up to 20 ft.
	up to 1000 lbs.	up to 1500 lbs.	up to 4400 lbs.
	1 3/4-2 1/4"	1 3/4-2 1/4"	2 3/8-2 3/4"
	301H	**305**	**307**
	301H 	305 	307 
	1A/301 *sidewall-use for limited installation space*  3A/301 *overhead-use for limited installation space*  5/301 *sidewall double track*  4A/301 *overhead-use for ample installation space*  4R/301S *overhead-suspended*  9A/301 *sidewall-use for ample installation space* 	1A/305 *sidewall-use for limited installation space*  3A/305 *overhead-use for limited installation space*  5/305 *sidewall double track*  4A/305 *overhead-use for ample installation space*  4R/305S *overhead-suspended* 	1/307/S *sidewall-use for limited installation space*  3A/307 *overhead-use for limited installation space*  5/307/S *sidewall double track*  4A/307 *overhead-use for ample installation space*  4R/307S *overhead-suspended* 
	56A/N *1000 lb. door door top/edge mount*  57A/N *1000 lb. door door top mount*  56AX/N *1000 lb. door door top mount w/door face flanges* 	56C/S *1500 lb. door door top/edge mount*  57C/S *1500 lb. door door top mount*  56CX/S *1500 lb. door door top mount* 	56FJX/S *4400 lb. door door top mount - box frame*  56FJ/S *4400 lb. door door top mount w/door face flanges - angle frame* 
	HH3/301 *track mounted double fastener stop*  107 *single wall stop-double rubber buffers* 	107 *single wall stop-double rubber buffers* 	***not required***
	31S *single wall mounted stay roller*  31D *double wall mounted stay roller* 	31S *single wall mounted stay roller*  31D *double wall mounted stay roller* 	31S *single wall mounted stay roller*  31D *double wall mounted stay roller* 
	97 *steel guide channel* 	97 *steel guide channel*  89 *steel guide channel* 	97 *steel guide channel*  89 *steel guide channel*
	414 *flush pull*	414 *flush pull*	413 *flush pull*
	463 *bow handle - 6 1/4"*	463 *bow handle - 6 1/4"*	464 *bow handle - 10 1/4"*

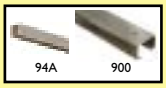
MANSION/ MAJESTIC

FOR STRAIGHT SLIDING WOOD DOORS

For straight sliding wood doors, the following are included:

- Top guide brackets and top guide, or top guide only
- Top guide Rollers
- Bottom Rollers
- Bottom Rail
- Full range of accessories

Two track sizes are available to suit doors of different weights up to 600 lbs.



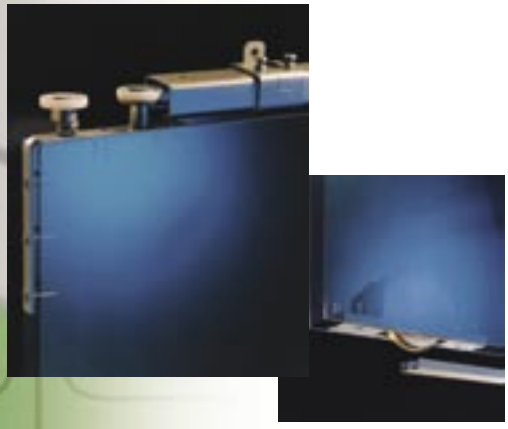
Three systems are available to suit doors of different weights up to 600 lbs. Doors must be constructed with deep bottom rails to accommodate the concealed and mortised bottom rollers (6" deep for 913XB and 7" deep for 916). Doors may be panelled, flush or glazed.

Use the table below to estimate the approximate weight (pounds per square foot) of doors of different materials.

Door Type	lbs./sq. ft.
Hollow Metal 18 ga	4.6 lbs.
Hollow Metal 16 ga	5.8 lbs.
Flush Wood, Particleboard Core	4.8 lbs.
Flush Wood, Stave Core	4.3 lbs.
Flush Wood, Mineral Core	4.7 lbs.

APPLICATIONS

- Hardware is designed for straight sliding partitions, picture windows, or fully glazed patio or showroom doors where good class joinery requires the highest quality fittings.



COMPOSITION

Track: Cold-rolled steel section hot-dip galvanized. Aluminum channel section for lighter doors.

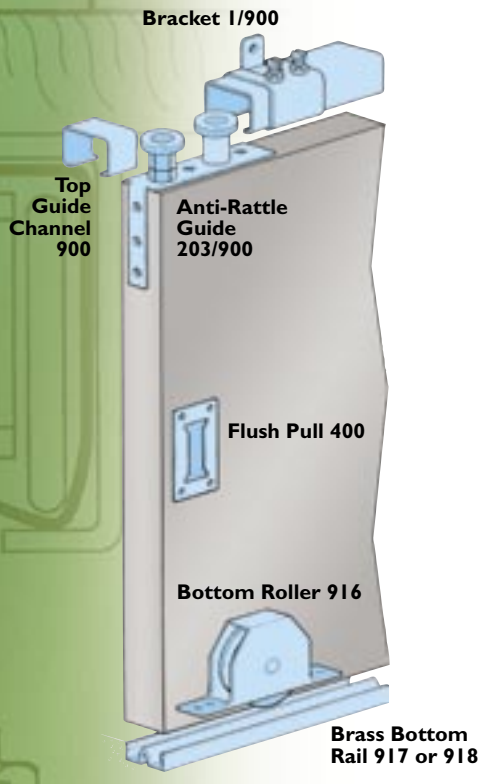
Brackets: Pressed steel, painted finish. Single and double side wall fixing. Side ear overhead fixing.

Top Guide Rollers: Concealed edge fixing with electrozinc plated aprons and double adjustable anti-rattle nylon rollers. Concealed edge fixing with electrozinc plated aprons and brass rollers for light doors.

Bottom Rollers: Steel or aluminum body with brass wheel and ball journal bearings. Steel electrozinc plated body with nylon wheel and silver steel axle for light doors.

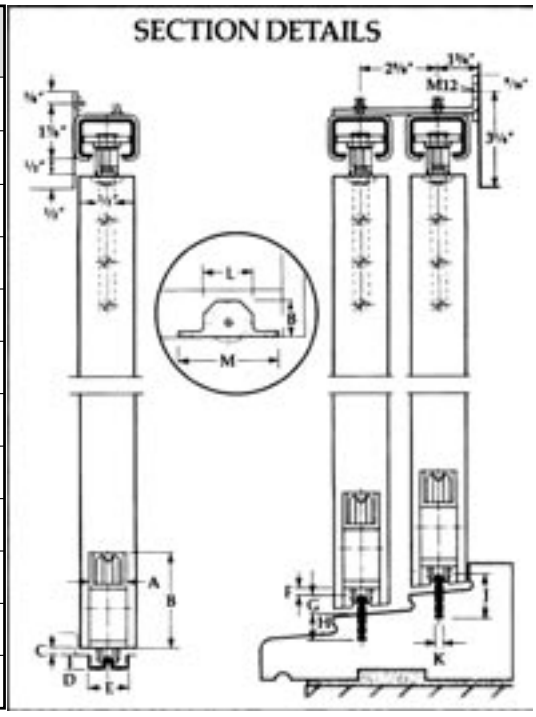
Bottom Rail: Brass drilled and counter-sunk for wood floor or lugged for concrete, or brass partly recessed providing weather bar. Aluminum drilled and counter-sunk for light doors.

Flush Pull: In satin anodized aluminum.



All Dimensions in Feet and Inches

Track	Mansion	Majestic
A	7/8	1 1/4
B	1 7/8	3 1/4
C	1/4	1/4
D	3/8	1/2
E	1	1 3/8
F	1/4	1/4
G	5/8	5/8
H	5/8	7/8
J	1 1/4	1 1/2
K	1/4	5/16
L	2 1/4	4 3/8
M	4 5/8	9

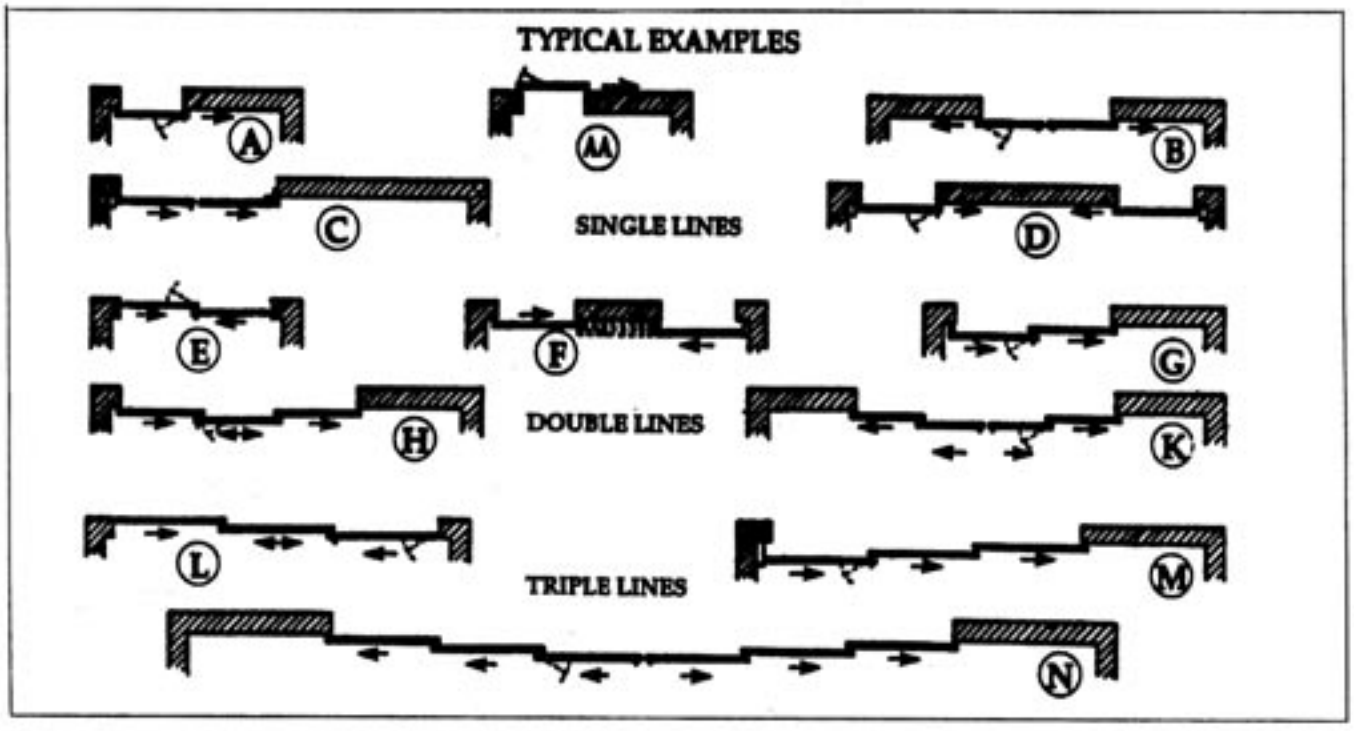


Answer the questions below and fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware. Or use the chart on the following pages to select appropriate hardware for your job.

STRAIGHT SLIDING TRACK

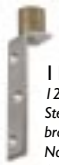
JOB NAME _____ QUOTE ❑ ORDER ❑ P.O.#_____

1.	Type of Track Required or Proposed: ☐ Top Hung ☐ Bottom Roller
2.	Position of Door: ☐ Exterior (exposed) ☐ Interior (inside building)
3.	Width of Opening:
4.	Height of Opening:
5.	Proposed Number of Doors:
6.	Door Thickness (1-3/8" min. - 2-1/4" max.): Other:
7.	Door Material: ☐ Solid Core ☐ Leadlined ☐ Glazed ☐ Metal Frame ☐ Hollowcore *if metal frame or leadlined, give details under question 16*
8.	Door Weight:
9.	Do Doors Slide within Opening (as in plan "E" or "L")? *if NO, go to question 11* *if YES, go to question 13*
10.	When Looking at the Door from the Inside of the Building, do Doors Slide: ☐ Both Ways ☐ Left Only ☐ Right Only
11.	Do the Doors Slide: ☐ Inside the Building (as in plan "A") ☐ Outside the Building (as in plan "AA")
12.	How Many Lines of Track? ☐ One ☐ Two ☐ Three
13.	Bracket Mounting: ☐ Sidewall ☐ Overhead
14.	Depth of Header: Width of Header:
15.	Door Construction (metal doors): ☐ Angle Frame ☐ Box Frame (depth of section 0-6") ☐ Channel Frame ☐ Special Frame/Leadlined
16.	Type of Floor: ☐ Asphalt ☐ Concrete ☐ Steel ☐ No Floor (elevated opening) ☐ Wood ☐ Tile
17.	Type of Wheel Preferred (top hung only - tracks 305 & 307 have steel only): ☐ Nylon ☐ Steel
18.	Security: ☐ Lock ☐ Bolt ☐ Unsecured *Will lock bolt be seen from the same side of door as doors hung – YES or NO*
19.	Number of Identical Openings:



Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

MANSION/MAJESTIC HARDWARE KIT FOR

Max. Door Height	up to 8 ft.	
Max. Door Weight	up to 120 lbs.	
Door Thickness	1 1/4-2 1/4"	
Top Guide Channel	94A 	
Brackets *(one bracket for every three feet of track)*	***not required***	
Guides *(two per door)*	113R/94 *120 lb. door Steel plate with brass roller. Not recommended for heavy doors or dirty conditions.*  106R/94 *120 lb. door Steel plate with brass roller. Ideal for small, light doors especially internal applications. Not recommended for dirty conditions.* 	
Bottom Rollers *(two per door)*	913N *steel electrozinx plated body with nylon wheel and silver steel axle for light doors* 	
Bottom Rail	915A *aluminum drilled and countersunk for light doors* 	
Flush Pull	400 *in satin anodized aluminum* 	
Bow Handle	863 *bow handle - 5 1/4"* 	
Optional Extras		

STRAIGHT SLIDING WOOD DOORS (complete, ready to install)

	up to 9 ft.	up to 11 ft.
	up to 380 lbs.	up to 600 lbs.
	1 1/4-2 1/4"	1 1/4-2 1/4"
	 900	 900
	1/900 *sidewall-use for limited installation space*  5/900 *sidewall dual track* 	1/900 *sidewall-use for limited installation space*  5/900 *sidewall dual track* 
	203/900 *Concealed edge fixing with electrozinc plated aprons and double adjustable anti-rattle nylon rollers. Concealed edge fixing with electrozinc plated aprons and brass rollers for light doors.* 	203/900 *Concealed edge fixing with electrozinc plated aprons and double adjustable anti-rattle nylon rollers. Concealed edge fixing with electrozinc plated aprons and brass rollers for light doors.* 
	913XB *steel or aluminum body with brass wheel and ball journal bearings* 	916 *steel or aluminum body with brass wheel and ball journal bearings* 
	918 *brass drilled and countersunk for wood floor or lugged for concrete, or brass partly recessed providing weather bar*  815 *brass drilled and countersunk for wood floor or lugged for concrete, or brass partly recessed providing weather bar* 	917 *brass drilled and countersunk for wood floor or lugged for concrete, or brass partly recessed providing weather bar*  817 *brass drilled and countersunk for wood floor or lugged for concrete, or brass partly recessed providing weather bar* 
	400 *in satin anodized aluminum* 	400 *in satin anodized aluminum* 
	863 *bow handle - 5 1/4"* 	863 *bow handle - 5 1/4"* 
	917/918 *lug use with 917/918 cup for fixing rail to concrete*  917/918 *cup (coupler) use with 917/918 lug for fixing rail to concrete* 	917/918 *lug use with 917/918 cup for fixing rail to concrete*  917/918 *cup (coupler) use with 917/918 lug for fixing rail to concrete* 

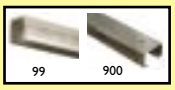
Sherwood

FOR STRAIGHT SLIDING WOOD DOORS

For straight sliding wood doors, the following are included:

- Top guide channel and brackets
- Top guide Rollers
- Bottom Rollers
- Bottom Rail
- Full range of accessories

Three systems (two track sizes) are available to suit doors of different weights up to 1800 lbs.



For best operation, door width should not be less than half the door height. Wood doors should be framed, ledged and braced for industrial application or may be partly or fully glazed. The rollers should be positioned in the bottom rail of door clear of the joints with the stiles. 9" deep bottom rails for No. 5 and No. 2 bottom rollers and 12" deep bottom rails for No. 3 bottom rollers are recommended.

Use the table below to estimate the approximate weight (pounds per square foot) of doors of different materials.

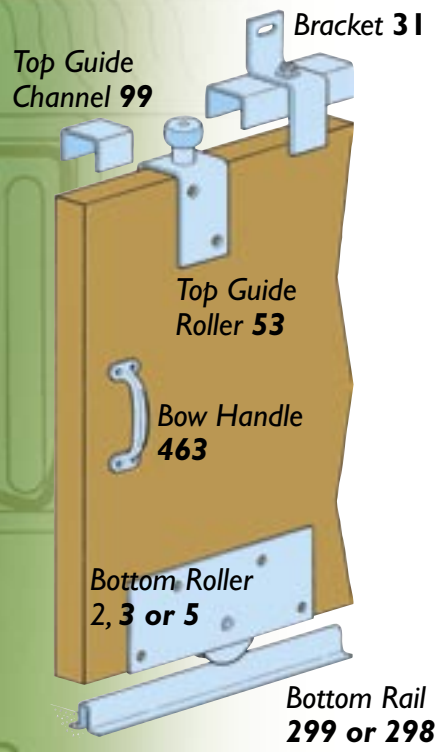
Door Type	lbs./sq. ft.
Hollow Metal 18 ga	4.6 lbs.
Hollow Metal 16 ga	5.8 lbs.
Flush Wood, Particleboard Core	4.8 lbs.
Flush Wood, Stave Core	4.3 lbs.
Flush Wood, Mineral Core	4.7 lbs.

APPLICATIONS

- Hardware is suitable for light commercial, showroom, industrial and heavy commercial installations where the overhead structure will not support the weight of doors or where headroom is limited.
- Any number of doors may be used on single or multiple lines of rail sliding to one or both sides as required.
- On large doors where individual access is required, a wicket door may be incorporated in one of the sliding units.
- Where doors are fitted externally, an overhang is recommended.

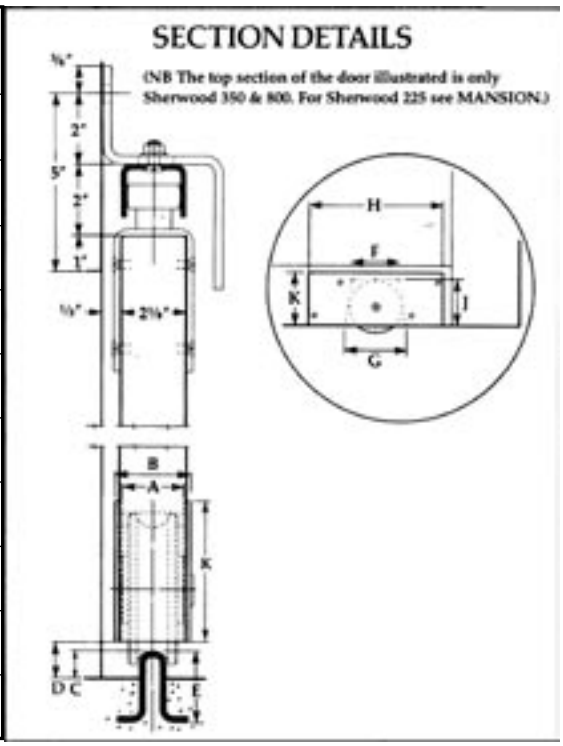
COMPOSITION

Top Guide Channel:	Cold-rolled steel section.
Brackets:	Pressed steel, painted finish. Single and double side wall fixing.
Top Guide Rollers:	Steel electrozinc plated or painted aprons with nylon or brass rollers.
Bottom Rollers:	Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish.
Bottom Rail:	Cold-rolled steel section complete with couplers.
Door Stops & Accessories:	In painted or galvanized steel.



All Dimensions in Feet and Inches

System	225	350	800
A	1 3/4	1 3/4	2
B	2	2 1/8	2 1/2
C	5/8	3/4	3/4
D	1	1	1 3/16
E	1	1	1
F	2 1/2	4 1/2	5 3/8
G	4	5 3/8	6 7/8
H	6 1/4	12	15
J	2 5/8	3 3/4	5 1/8
K	3	4	6



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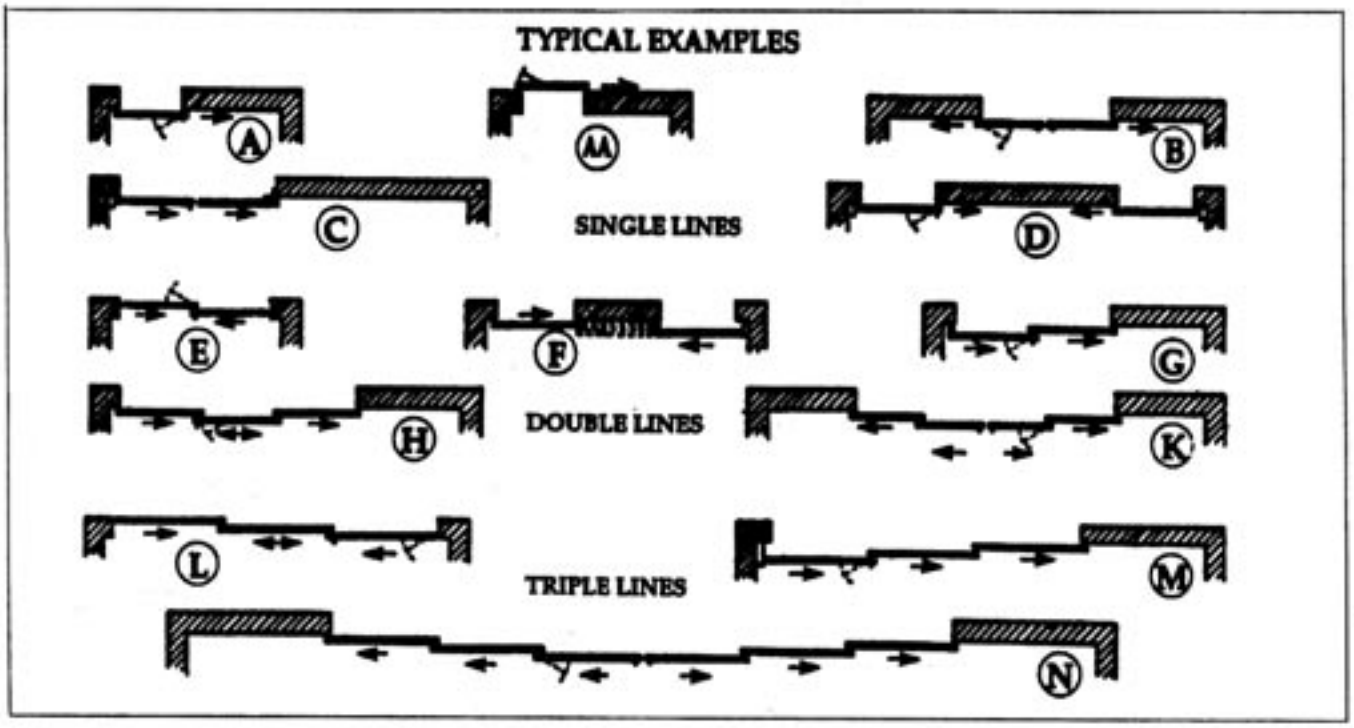
STRAIGHT SLIDING TRACK

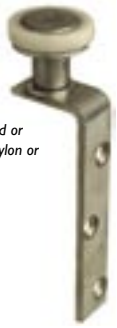
JOB NAME _____ QUOTE ❑ ORDER ❑ P.O.#_____

1.	Type of Track Required or Proposed: ☐ Top Hung ☐ Bottom Roller
2.	Position of Door: ☐ Exterior (exposed) ☐ Interior (inside building)
3.	Width of Opening:
4.	Height of Opening:
5.	Proposed Number of Doors:
6.	Door Thickness (1-3/8" min. - 2-1/4" max.): Other:
7.	Door Material: ☐ Solid Core ☐ Leadlined ☐ Glazed ☐ Metal Frame ☐ Hollowcore *if metal frame or leadlined, give details under question 16*
8.	Door Weight:
9.	Do Doors Slide within Opening (as in plan "E" or "L")? *if NO, go to question 11* *if YES, go to question 13*
10.	When Looking at the Door from the Inside of the Building, do Doors Slide: ☐ Both Ways ☐ Left Only ☐ Right Only
11.	Do the Doors Slide: ☐ Inside the Building (as in plan "A") ☐ Outside the Building (as in plan "AA")
12.	How Many Lines of Track? ☐ One ☐ Two ☐ Three
13.	Bracket Mounting: ☐ Sidewall ☐ Overhead
14.	Depth of Header: Width of Header:
15.	Door Construction (metal doors): ☐ Angle Frame ☐ Box Frame (depth of section 0-6") ☐ Channel Frame ☐ Special Frame/Leadlined
16.	Type of Floor: ☐ Asphalt ☐ Concrete ☐ Steel ☐ No Floor (elevated opening) ☐ Wood ☐ Tile
17.	Type of Wheel Preferred (top hung only - tracks 305 & 307 have steel only): ☐ Nylon ☐ Steel
18.	Security: ☐ Lock ☐ Bolt ☐ Unsecured *Will lock bolt be seen from the same side of door as doors hung – YES or NO*
19.	Number of Identical Openings:



Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

Sherwood HARDWARE FOR STRAIGHT

Max. Door Height	**up to 11 ft. - System 225**	
Max. Door Weight	up to 500 lbs.	
Door Thickness	$1^{3}/_{4}$-2"	
Top Guide Channel	 900	
Brackets *(one bracket for every three feet of track)*	1/900 *sidewall-use for limited installation space*  3/900 *overhead-use for limited installation space*  5/900 *sidewall dual track* 	
Guides *(two per door)*	54/900 *Steel electrozinc plated or painted aprons with nylon or brass rollers* 	
Bottom Rollers *(two per door)*	5 *Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish.* 	
Bottom Rail	299 *Cold-rolled steel section complete with couplers.* 	
Flush Pull	 414 *flush pull*  413 *flush pull*	
Bow Handle	 463 *bow handle - 6 1/4"*	
Optional Extras	115 *corner protection plate*  994, 994R or 994S *cane bolt*  77J *flush bolt*  109 or 107 *stops*  430 or 431 *locking bar* 	

fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware.

SLIDING WOOD DOORS

	up to 13 ft. - System 350	up to 17 ft. - System 800
	up to 750 lbs.	up to 1800 lbs.
	$1^{3}/_{4}$-$2^{1}/_{4}$"	$2^{1}/_{8}$-$2^{1}/_{2}$"
	 99	 99
	31 *sidewall-use for limited installation space* 	31 *sidewall-use for limited installation space* 
	53/99 *Steel electrozinc plated or painted aprons with nylon or brass rollers* 	53/99 *Steel electrozinc plated or painted aprons with nylon or brass rollers* 
	2 *Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish.* 	3 *Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish.* 
	298 *Cold-rolled steel section complete with couplers.* 	298 *Cold-rolled steel section complete with couplers.* 
	 414 *flush pull*  413 *flush pull*	 414 *flush pull*  413 *flush pull*
	 463 *bow handle - $6^{1}/_{4}$"*	 463 *bow handle - $6^{1}/_{4}$"*
	115 *corner protection plate*  994, 994R or 994S *cane bolt*  994 994R 994S 77J *flush bolt*  109 or 107 *stops*  109 107 430 or 431 *locking bar*  430 431	115 *corner protection plate*  994, 994R or 994S *cane bolt*  994 994R 994S 77J *flush bolt*  109 or 107 *stops*  109 107 430 or 431 *locking bar*  430 431

Sherwood

FOR STRAIGHT SLIDING METAL DOORS

APPLICATIONS

- The hardware is suitable for internal and external use in commercial and industrial buildings where the overhead structure will not support the weight of doors or where headroom is limited.
- Any number of doors may be used on single or multiple lines of rail sliding to one or both sides as required.
- Where doors are fitted externally, an overhang is recommended.

For straight sliding metal doors, the following are included:

- Top guide channel and brackets
- Top guide Rollers
- Bottom Rail
- Full range of accessories

Six systems (three track sizes) are available to suit doors of different weights up to 17,500 lbs.

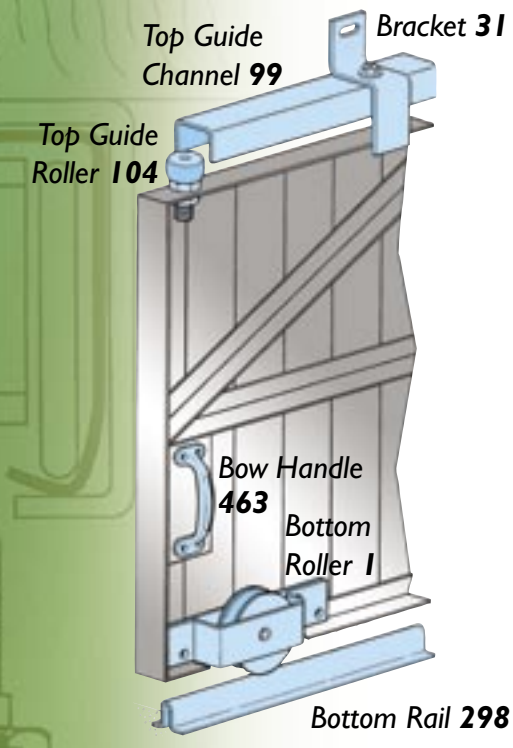
For best operation, door width s… the door height. The door is no… using steel angle section and then clad with steel sheet or other suitable material except for Sherwood 3600 and 8000 hardware where the door would be constructed from steel channel section. Sherwood 3600 and 8000 hardware comprises standard and purpose made components as required. Bottom rollers can be supplied for mechanical operation by geared chain wheel and winding handle.

Use the table below to estimate the approximate weight (pounds per square foot) of doors of different materials.

Door Type	lbs./sq. ft.
Hollow Metal 18 ga	4.6 lbs.
Hollow Metal 16 ga	5.8 lbs.
Flush Wood, Particleboard Core	4.8 lbs.
Flush Wood, Stave Core	4.3 lbs.
Flush Wood, Mineral Core	4.7 lbs.

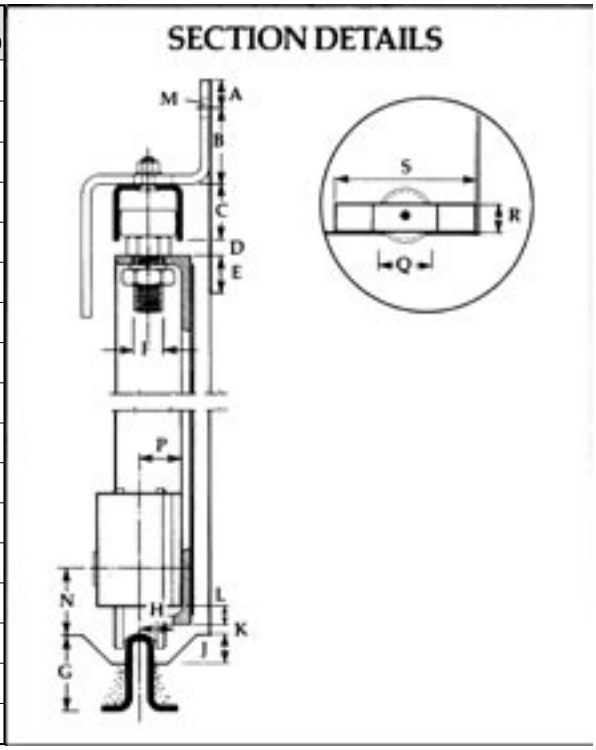
COMPOSITION (Except 3600 and 8000 hardware)

Top Guide Channel:	Channel cold-rolled steel section.
Brackets:	Pressed steel, painted finish. Single and double side wall fixing.
Top Guide Rollers:	Steel electrozinc plated with nylon or steel rollers fitted through top of door. Adjustable in height.
Bottom Rollers:	Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish suitable for welding or bolting.
Bottom Rail:	Cold-rolled steel section complete with couplers. 3600 and 8000 hardware is manufactured to custom requirements. Composition is available on request.
Door Stops & Accessories:	In painted or galvanized steel.



All Dimensions in Feet and Inches

System	225	350	800	2000	3600	8000
A	3/8	3/4	3/4	1 1/4		
B	3/8	2	2	1 3/8		
C	1 1/2	1 1/2	1 1/2	3 3/8		
D	3/4	3/8	3/8	1		
E	1	1	1	1 3/16		
F	11/16	7/8	7/8	1	1 1/4	1 1/4
G	2	2	2	2	2 1/2	2 1/2
H	9/16	7/8	7/8	1		
J	5/8	3/4	3/4	3/4	1	1
K	1/8	1/4	1/4	3/8	3/4	3/4
L	7/16	1/2	1/2	1/2		
M	1/2	1/2	1/2	5/8		
N	1 3/16	1 3/4	2 7/16	3 3/8	5	8
P	3/4	1 1/8	1 1/4	1 1/4	3	3
Q	3	3 3/4	5	7 7/8		
R	2	3	3	4		
S	9	12	15	18		

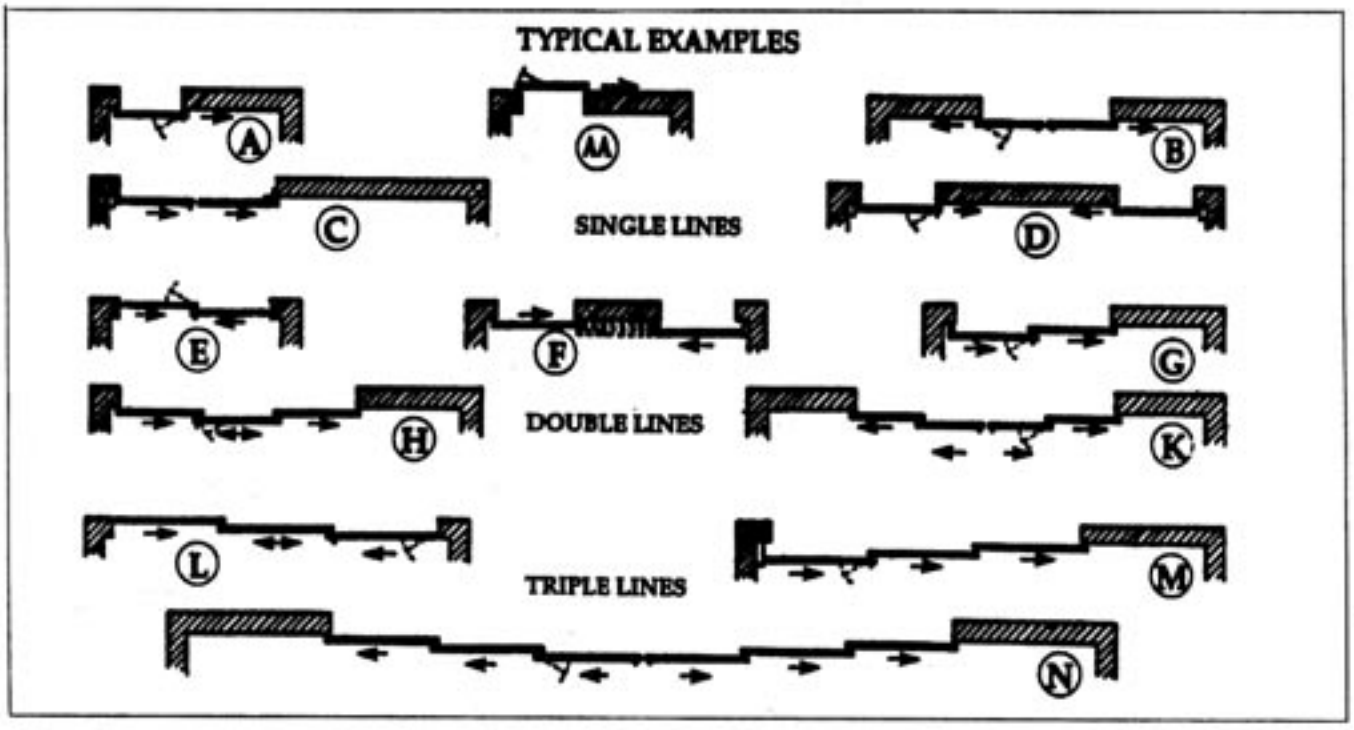


Answer the questions below and fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware. Or use the chart on the following pages to select appropriate hardware for your job.

STRAIGHT SLIDING TRACK

JOB NAME _____ QUOTE ❑ ORDER ❑ P.O.#_____

1.	Type of Track Required or Proposed: ☐ Top Hung ☐ Bottom Roller
2.	Position of Door: ☐ Exterior (exposed) ☐ Interior (inside building)
3.	Width of Opening:
4.	Height of Opening:
5.	Proposed Number of Doors:
6.	Door Thickness (1-3/8" min. - 2-1/4" max.): Other:
7.	Door Material: ☐ Solid Core ☐ Leadlined ☐ Glazed ☐ Metal Frame ☐ Hollowcore *if metal frame or leadlined, give details under question 16*
8.	Door Weight:
9.	Do Doors Slide within Opening (as in plan "E" or "L")? *if NO, go to question 11* *if YES, go to question 13*
10.	When Looking at the Door from the Inside of the Building, do Doors Slide: ☐ Both Ways ☐ Left Only ☐ Right Only
11.	Do the Doors Slide: ☐ Inside the Building (as in plan "A") ☐ Outside the Building (as in plan "AA")
12.	How Many Lines of Track? ☐ One ☐ Two ☐ Three
13.	Bracket Mounting: ☐ Sidewall ☐ Overhead
14.	Depth of Header: Width of Header:
15.	Door Construction (metal doors): ☐ Angle Frame ☐ Box Frame (depth of section 0-6") ☐ Channel Frame ☐ Special Frame/Leadlined
16.	Type of Floor: ☐ Asphalt ☐ Concrete ☐ Steel ☐ No Floor (elevated opening) ☐ Wood ☐ Tile
17.	Type of Wheel Preferred (top hung only - tracks 305 & 307 have steel only): ☐ Nylon ☐ Steel
18.	Security: ☐ Lock ☐ Bolt ☐ Unsecured *Will lock bolt be seen from the same side of door as doors hung – YES or NO*
19.	Number of Identical Openings:



Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

Sherwood HARDWARE KIT FOR STRAIGHT

Max. Door Height	up to 11 ft.	up to 13 ft.	
Max. Door Weight	up to 500 lbs.	up to 750 lbs.	
Door Thickness	1 3/4-2"	1 3/4-2 1/8"	
SYSTEM NUMBER	**225**	**350**	
Top Guide Channel	 900	 99	
Brackets *(one bracket for every three feet of track)*	1/900 *sidewall-use for limited installation space*  3/900 *overhead-us for limited installation space*  5/900 *sidewall dual track* 	31 *Pressed steel painted finish. Single side wall fixing.* 	
Guides *(two per door) (four per door on 3600/8000 systems)*	 104/900 *Steel electrozinc plated with nylon or steel rollers fitted through top of door. Adjustable in height.*	 104/99 *Steel electrozinc plated with nylon or steel rollers fitted through top of door. Adjustable in height.*	
Bottom Rollers *(two per door)*	 5S *Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish suitable for welding or bolting.*	 1S *Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish suitable for welding or bolting.*	
Bottom Rail	 299 *Cold-rolled steel section complete with couplers.*	 298 *Cold-rolled steel section complete with couplers.*	
Bow Handle	 463 *bow handle - 6 1/4"*	 463 *bow handle - 6 1/4"*	
Optional Extras	994, or 994S *cane bolt*  414 *flush pull*  109 or 107 *stops* 	994, or 994S *cane bolt*  414 *flush pull*  109 or 107 *stops* 	

fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware.

SLIDING METAL DOORS

	up to 17 ft.	up to 25 ft.	up to 40 (3600) or 65 (8000) ft.
	up to 1800 lbs.	up to 4400 lbs.	up to 8000 (3600) or 17500 (8000) lbs.
	$2^1/_8$-$2^1/_2$"	$2^1/_4$-$2^3/_4$"	6" minimum thickness
	800	**2000**	**3600 or 8000**
	 99	13 *not shown*	***not required***
	 31 *Pressed steel painted finish. Single side wall fixing.*	1/13 *sidewall single track* 	***not required***
	 104/99 *Steel electrozinc plated with nylon or steel rollers fitted through top of door. Adjustable in height.*	 104/13 *Steel electrozinc plated with nylon or steel rollers fitted through top of door. Adjustable in height.*	104S *(not shown)* *Steel electrozinc plated with nylon or steel rollers fitted through top of door. Adjustable in height.*
	 3S *Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish suitable for welding or bolting.*	 4SJ *Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish suitable for welding or bolting.*	3600 *(not shown)* *Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish suitable for welding or bolting. Made to suit door. Chain driven geared rollers also available.* 8000 *(not shown)* *Cast iron wheels fitted with roller bearings and grease nipples for lubrication. Supplied in painted finish suitable for welding or bolting. Made to suit door. Chain driven geared rollers also available.*
	 298 *Cold-rolled steel section complete with couplers.*	 298 *Cold-rolled steel section complete with couplers.*	297 *cold rolled steel section complete with couplers* 
	 463 *bow handle - 6 1/4"*	 464 *bow handle - 10 1/4"*	***not required***
	994, or 994S *cane bolt*  994 994S 414 *flush pull*  109 or 107 *stops*  109 107	994, or 994S *cane bolt*  994 994S 414 *flush pull*  109 or 107 *stops*  109 107	994, or 994S *cane bolt*  994 994S 414 *flush pull*  109 or 107 *stops*  109 107

Tangent

FOR FOLDING METAL OR WOOD DOORS

For folding metal or wood doors, the following are included:

- Support brackets and track
- Hangers
- Hinges
- Guides
- Bottom channel
- Full range of accessories

Four track sizes are available to suit doors of different weights up to 180 lbs.

For smooth operation, no more than six door panels should be hinged together in one unit. Doors may be panelled or flush, glazed if required. Hinges should be fixed to framing and joints of the door. Fittings are available in standard or deluxe finish which is polished or satin anodized aluminum.

Use the table below to estimate the approximate weight (pounds per square foot) of doors of different materials.

Door Type	lbs./sq. ft.
Hollow Metal 18 ga	4.6 lbs.
Hollow Metal 16 ga	5.8 lbs.
Flush Wood, Particleboard Core	4.8 lbs.
Flush Wood, Stave Core	4.3 lbs.
Flush Wood, Mineral Core	4.7 lbs.

APPLICATIONS

- The hardware is suitable for commercial or industrial folding doors, folding windows and showroom doors.
- Up to six door panels can be hinged to a jamb fixed within the opening or behind a reveal.
- Alternatively free-floating units can be parked behind a reveal, units must be made up of four or five units for stability.
- A swinging pass door (for doors under 10' high) is obtained by using three or five panels hinged to jamb or an independently hung panel (see plan details).
- For doors over 10' high, a wicket door is recommended.

COMPOSITION

Track: Cold-rolled steel section hot-dip galvanized.

Brackets: Cast aluminum alloy or pressed steel, suitable for side wall or overhead fixing. Closed brackets or end-clips available for track ends.

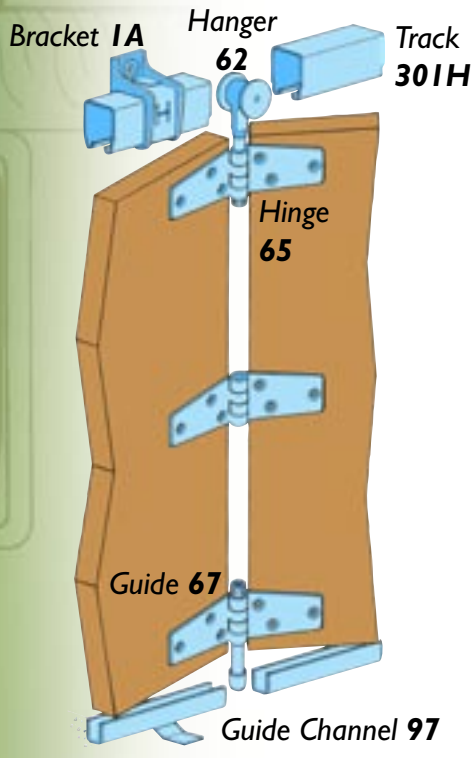
Hangers: Steel wheels fitted with maintenance free precision needle bearings sealed for life. Adjustable in height. Steel parts are rustproofed by electrozinc plating or painted, and hinge parts are in cast aluminum alloy, or painted cast iron. Deluxe finish hangers have polished aluminum hinge parts.

Hinges: In cast aluminum alloy (deluxe = S.A.A.) or painted cast iron.

Channel and Guides: Bottom channel steel section in three sizes, lugged for concrete and drilled for drainage. Brass roller guides are mounted on alloy or cast iron hinge parts (deluxe = polished aluminum). Aluminum or brass channel is available for deluxe applications.

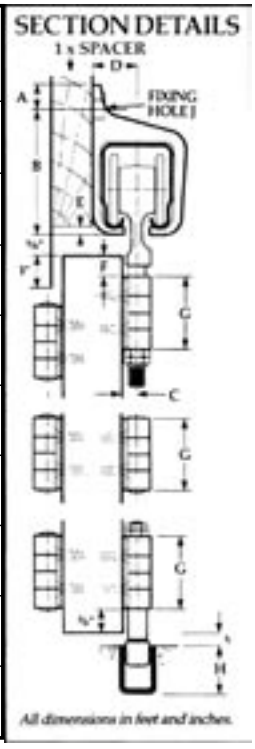
Bolts and Bow Handles: In painted or galvanized steel.

Flush Bolts and Pulls: In satin anodized aluminum.



All Dimensions in Feet and Inches

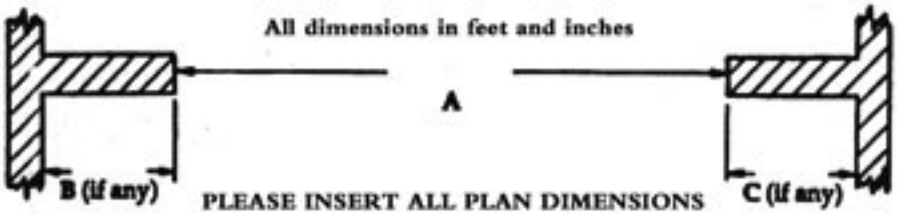
Track	290	301/301H	305
A	1/2	3/4	1
B	2 5/8	3 13/16	5 1/2
C	7/16	7/16	9/16
D	1 1/16	1 3/8	1 1/2
E	1/4	1/4	3/8
F	3/8	5/8	5/8
G	2 1/4	2 1/4	3 1/4
H	1	1 1/2	1 1/2
J	5/16	1/2	5/8



Answer the questions below and fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware. Or use the chart on the following pages to select appropriate hardware for your job.

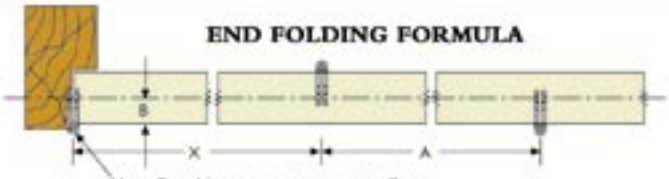
FOLDING TRACK

JOB REFERENCE _____ INQUIRY ☐ ORDER ☐



PLEASE INSERT ALL PLAN DIMENSIONS

1.	Is the Installation to be: ☐ Top Hung ☐ or Bottom Rolling
2.	Are Partitions to be: ☐ Center Folding ☐ or End Folding *(see diagrams below)*
3.	Width of Opening: 3'0" min. - 60'0" max.
4.	Height of Opening: 3'0" min. - 15'0" max.
5.	Are Partitions: ☐ Hinged to the Jamb ☐ Floating ☐ Hinged and Floating ☐ Pivoted *(end fold only)*
6.	Is an Additional Swing Door Required: ☐ Yes ☐ No
7.	Leaf Thickness: ☐ Top Hung (1-3/4" min. or 2-1/4" max.) ☐ Bottom Rolling (1-3/4" min. or 2-1/4" max.)
8.	Leaf Material: ☐ Solid Core ☐ Leadlined ☐ Glazed
9.	Leaf Weight: *state actual weight if known*
10.	Width of Header:
11.	Type of Floor: ☐ Concrete ☐ Tile ☐ Wood
12.	Bottom Guide Channel Required: *applies to top hung track only* ☐ Brass ☐ Aluminum
13.	Number of Units: *see also question 5*
14.	Number of Leaves per Unit: ☐ Left Hand ☐ Right Hand ☐ Middle Unit
15.	No. of Sets Required: *one or more identical openings*
16.	Indicate Which Example Most Resembles Proposed Installation Diagram *(A-K below)*:



END FOLDING FORMULA

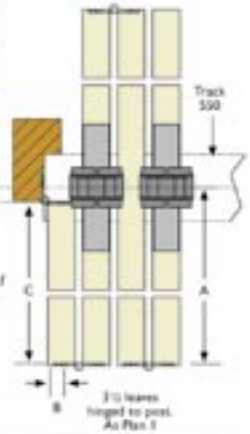
Note: Butt hinges on posts are not offset

All leaves are of equal width except the leaf hinged to the post.
The dimension for the leaf hinged to the post (X) is,
A, less B (half the leaf thickness), less 45mm (1¹/₁₆").
Formula: X=(A-B)-45mm (1¹/₁₆")

CENTER FOLDING FORMULA

All full leaves are of equal width.
A pivoting half-leaf (dimension C) is half the width of a full leaf (dimension A), less half of the leaf thickness (dimension B).

Note: Hangers and guides are to be fitted to alternate leaves only.

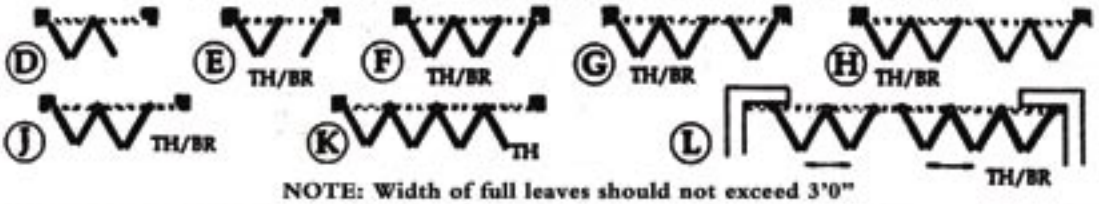


TYPICAL EXAMPLES OF CENTER FOLDING PARTITION TRACK

TH = configuration suitable for Top Hung track. BR = suitable for Bottom Rolling track. A Center Folding unit should not have a swinging leaf attached.

TYPICAL EXAMPLES OF END FOLDING PARTITION TRACK

TH = configuration suitable for Top Hung track. BR = suitable for Bottom Rolling track.

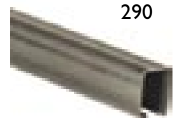
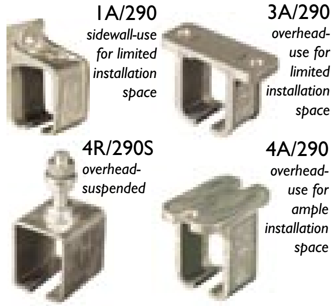
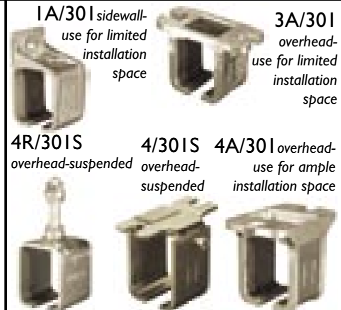
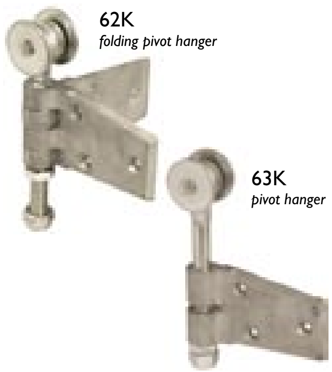
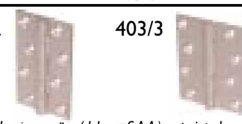
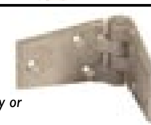
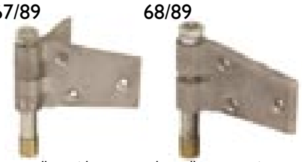
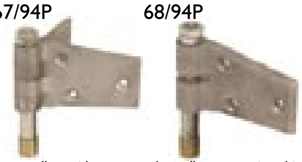
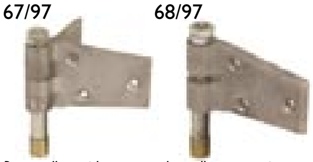
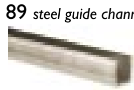
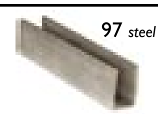
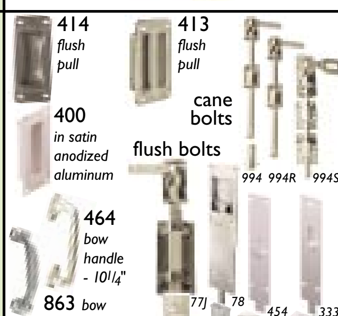
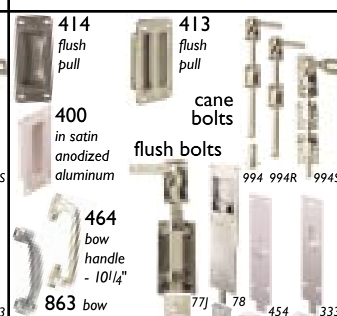
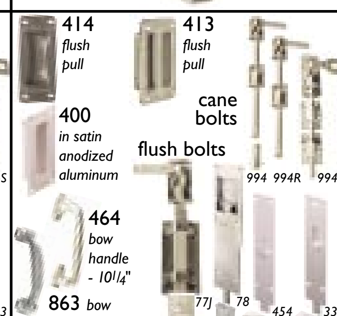


NOTE: Width of full leaves should not exceed 3'0"

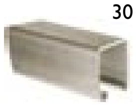
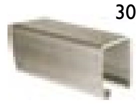
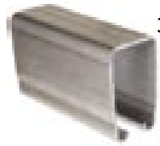
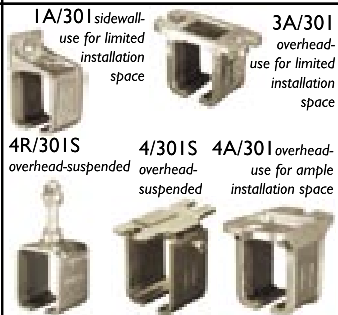
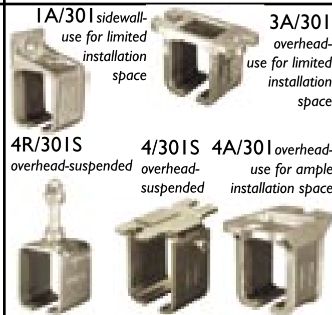
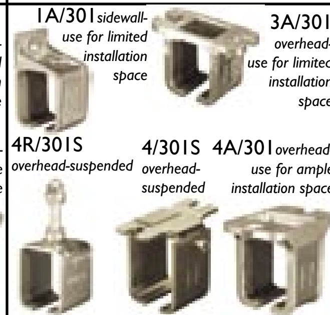
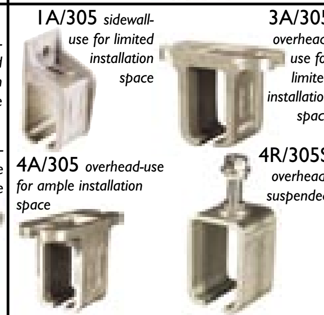
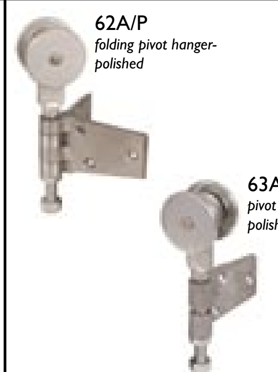
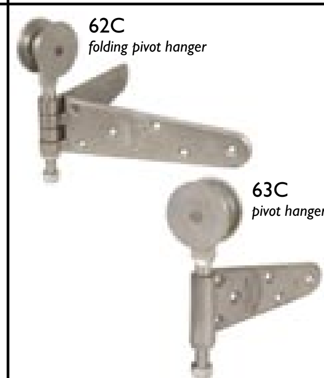
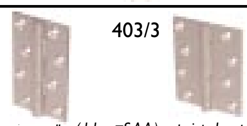
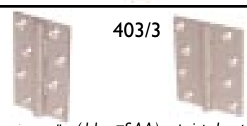
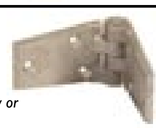
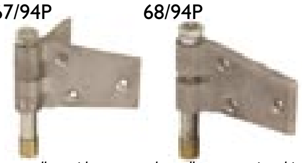
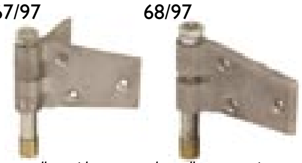
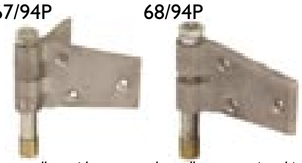
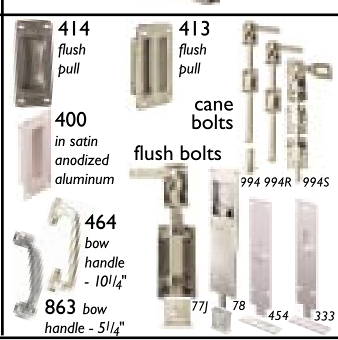
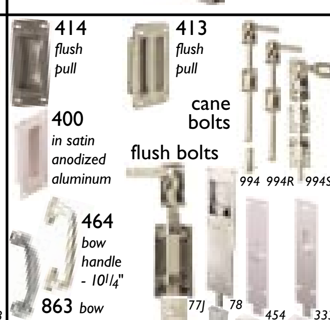
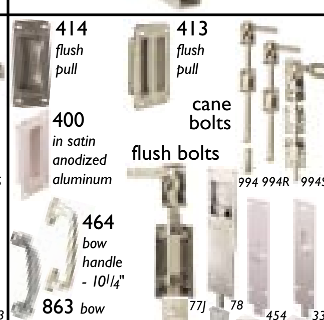
Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

Tangent

HARDWARE FOR FOLDING

Max. Door Size	up to 8 ft./2'8" wide	up to 8 ft./2'8" wide	up to 11 ft./3ft. wide
Max. Door Weight	up to 80 lbs.	up to 80 lbs.	up to 120 lbs.
Door Thickness	$1^{3}/_{8}$-2"	$1^{3}/_{8}$-2"	$1^{3}/_{4}$-$2^{1}/_{4}$"
SYSTEM	**Standard 8 ft.**	**Deluxe 8 ft.**	**Standard 11 ft.**
Track	 290	 290	 301
Brackets *(one bracket for every three feet of track)*  **Jointing Brackets** available for joining two pieces of track at bracet (i.e. *1AX/301*)	 1A/290 *sidewall-use for limited installation space*; 3A/290 *overhead-use for limited installation space*; 4R/290S *overhead-suspended*; 4A/290 *overhead-use for ample installation space*	 1A/290 *sidewall-use for limited installation space*; 3A/290 *overhead-use for limited installation space*; 4R/290S *overhead-suspended*; 4A/290 *overhead-use for ample installation space*	 1A/301 *sidewall-use for limited installation space*; 3A/301 *overhead-use for limited installation space*; 4R/301S *overhead-suspended*; 4/301S *overhead-suspended*; 4A/301 *overhead-use for ample installation space*
Hangers *(one every two doors)*	 62K *folding pivot hanger*; 63K *pivot hanger*	 62A/P *folding pivot hanger-polished*; 63A/P *pivot hanger-polished*	 62A *folding pivot hanger*; 63A *pivot hanger*
Hinges	 65 *In cast aluminum alloy or painted cast iron.*	 403/2 403/3 *In cast aluminum alloy (deluxe=S.A.A.) or painted cast iron.*	 65 *In cast aluminum alloy or painted cast iron.*
Guides *(one every two doors)*	 67/89 68/89 *Brass roller guides mounted on alloy or cast iron hinge parts*	 67/94P 68/94P *Brass roller guides mounted on alloy or cast iron hinge parts (deluxe = polished aluminum)*	 67/97 68/97 *Brass roller guides mounted on alloy or cast iron hinge parts*
Guide Channel	 89 *steel guide channel*	 94A *aluminum guide channel*	 97 *steel guide channel*
Optional Extras	 414 *flush pull*; 413 *flush pull*; 400 *in satin anodized aluminum*; cane bolts 994 994R 994S; flush bolts 77J 78 454 333; 464 *bow handle - $10^{1}/_{4}$"*; 863 *bow handle - $5^{1}/_{4}$"*	 414 *flush pull*; 413 *flush pull*; 400 *in satin anodized aluminum*; cane bolts 994 994R 994S; flush bolts 77J 78 454 333; 464 *bow handle - $10^{1}/_{4}$"*; 863 *bow handle - $5^{1}/_{4}$"*	 414 *flush pull*; 413 *flush pull*; 400 *in satin anodized aluminum*; cane bolts 994 994R 994S; flush bolts 77J 78 454 333; 464 *bow handle - $10^{1}/_{4}$"*; 863 *bow handle - $5^{1}/_{4}$"*

METAL OR WOOD DOORS

	up to 11 ft./3ft. wide	up to 12 ft./3ft. wide	up to 12 ft./3ft. wide	up to 15 ft./3ft. wide
	up to 120 lbs.	up to 150 lbs.	up to 150 lbs.	up to 180 lbs.
	1 3/4-2 1/4"	1 3/4-2 1/4"	1 3/4-2 1/4"	1 3/4-2 1/4"
	Deluxe 11 ft.	**Standard 12 ft.**	**Deluxe 12 ft.**	**Standard 15 ft.**
	 301	 301H	 301H	 305
	 1A/301 *sidewall-use for limited installation space* 3A/301 *overhead-use for limited installation space* 4R/301S *overhead-suspended* 4/301S *overhead-suspended* 4A/301 *overhead-use for ample installation space*	 1A/301 *sidewall-use for limited installation space* 3A/301 *overhead-use for limited installation space* 4R/301S *overhead-suspended* 4/301S *overhead-suspended* 4A/301 *overhead-use for ample installation space*	 1A/301 *sidewall-use for limited installation space* 3A/301 *overhead-use for limited installation space* 4R/301S *overhead-suspended* 4/301S *overhead-suspended* 4A/301 *overhead-use for ample installation space*	 1A/305 *sidewall-use for limited installation space* 3A/305 *overhead-use for limited installation space* 4A/305 *overhead-use for ample installation space* 4R/305S *overhead-suspended*
	 62A/P *folding pivot hanger-polished* 63A/P *pivot hanger-polished*	 62A *folding pivot hanger* 63A *pivot hanger*	 62A/P *folding pivot hanger-polished* 63A/P *pivot hanger-polished*	 62C *folding pivot hanger* 63C *pivot hanger*
	 403/2 403/3 *In cast aluminum alloy (deluxe=S.A.A.) or painted cast iron.*	 65 *In cast aluminum alloy or painted cast iron.*	 403/2 403/3 *In cast aluminum alloy (deluxe=S.A.A.) or painted cast iron.*	 65 *In cast aluminum alloy or painted cast iron.*
	 67/94P 68/94P Brass roller guides mounted on alloy or cast iron hinge parts (deluxe = polished aluminum)	 67/97 68/97 Brass roller guides mounted on alloy or cast iron hinge parts	 67/94P 68/94P Brass roller guides mounted on alloy or cast iron hinge parts (deluxe = polished aluminum)	 67C/97 68C/97 Brass roller guides mounted on alloy or cast iron hinge parts
	 94A *aluminum guide channel*	 97 *steel guide channel*	 94A *aluminum guide channel*	 97 *steel guide channel*
	 414 *flush pull* 413 *flush pull* cane bolts 400 *in satin anodized aluminum* flush bolts 994 994R 994S 464 *bow handle - 10 1/4"* 863 *bow handle - 5 1/4"* 77J 78 454 333	 414 *flush pull* 413 *flush pull* cane bolts 400 *in satin anodized aluminum* flush bolts 994 994R 994S 464 *bow handle - 10 1/4"* 863 *bow handle - 5 1/4"* 77J 78 454 333	 414 *flush pull* 413 *flush pull* cane bolts 400 *in satin anodized aluminum* flush bolts 994 994R 994S 464 *bow handle - 10 1/4"* 863 *bow handle - 5 1/4"* 77J 78 454 333	 414 *flush pull* 413 *flush pull* cane bolts 400 *in satin anodized aluminum* flush bolts 994 994R 994S 464 *bow handle - 10 1/4"* 863 *bow handle - 5 1/4"* 77J 78 454 333

Tangent

FOR ROUND THE CORNER WOOD OR METAL DOORS

For "round-the-corner" metal or wood doors, the following are included:

- Support brackets and track
- Hangers
- Hinges
- Guides
- Bottom channel
- Full range of accessories

Four track sizes are available to suit doors of different weights up to 180 lbs.

For smooth operation, no more than six door panels should be hinged together in one unit. Doors may be panelled or flush, glazed if required, with framing and joints designed to provide suitable fixing for hinges.

Use the table below to estimate the approximate weight (pounds per square foot) of doors of different materials.

Door Type	lbs./sq. ft.
Hollow Metal 18 ga	4.6 lbs.
Hollow Metal 16 ga	5.8 lbs.
Flush Wood, Particleboard Core	4.8 lbs.
Flush Wood, Stave Core	4.3 lbs.
Flush Wood, Mineral Core	4.7 lbs.

APPLICATIONS

- The hardware is suitable for commercial or industrial Tangent doors, windows and showroom doors.
- The doors slide clear of the opening and are parked along the side walls.
- Openings may be covered by any number of units sliding to one or both sides.
- Units should not be less than three panels nor more than six panels hinged together.
- The end panel under the curve normally forms an access swing door.

COMPOSITION

Track and Track Curves: Cold-rolled steel section hot-dip galvanized.

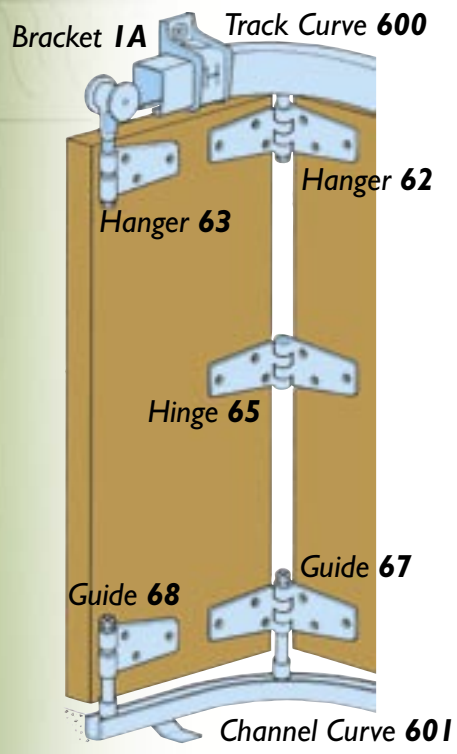
Brackets: Cast aluminum alloy or pressed steel, suitable for side wall or overhead fixing. Closed brackets or end-clips are available for track ends, and jointing brackets for both ends of the track curve.

Hangers: Steel wheels are fitted with maintenance free precision needle bearings sealed for life. Adjustable in height. Steel parts are rustproofed by electrozinc plating or painted, and hinge parts are in cast aluminum alloy, or painted cast iron. Deluxe finish hangers have polished aluminum hinge parts.

Hinges: In cast aluminum alloy or painted cast iron.

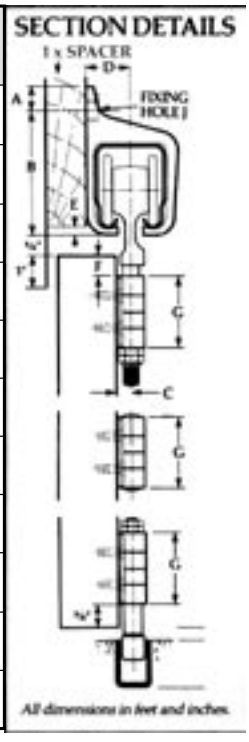
Channel and Guides: Bottom channel steel section in three sizes, lugged for concrete and drilled for drainage. Brass roller guides are mounted on alloy or cast iron hinge parts

Bolts, Stops and Handles: In painted or galvanized steel.



All Dimensions in Feet and Inches

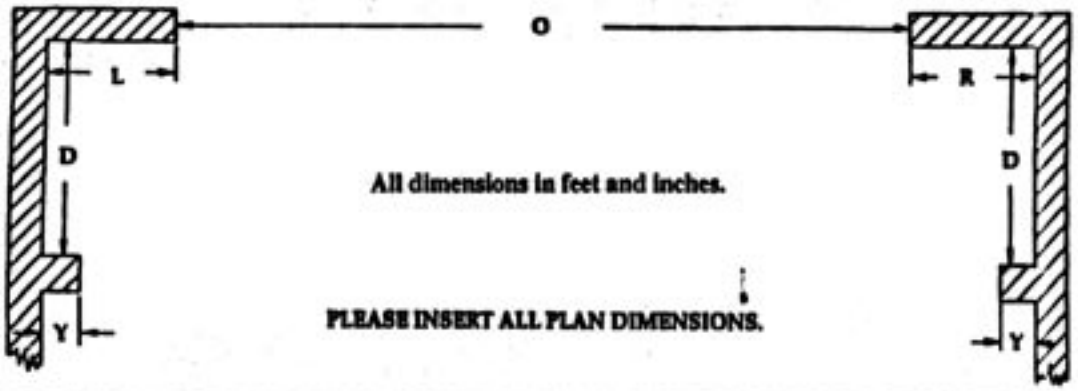
Track	290	301/301H	305
A	1/2	3/4	1
B	2 5/8	3 13/16	5 1/2
C	7/16	7/16	9/16
D	1 1/16	1 3/8	1 1/2
E	1/4	1/4	3/8
F	3/8	5/8	5/8
G	2 1/4	2 1/4	3 1/4
H	1	1 1/2	1 1/2
J	5/16	1/2	5/8
K	1	1 1/2	1 1/2
L	5/16	1/2	5/8



Answer the questions below and fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware. Or use the chart on the following pages to select appropriate hardware for your job.

ROUND THE CORNER TRACK

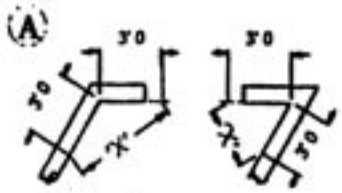
JOB NAME_____ QUOTE ❑ ORDER ❑ P.O.#_____



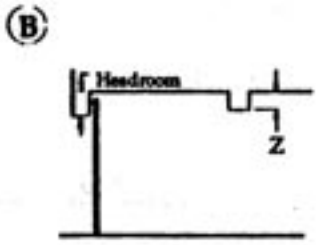
All dimensions in feet and inches.

PLEASE INSERT ALL PLAN DIMENSIONS.

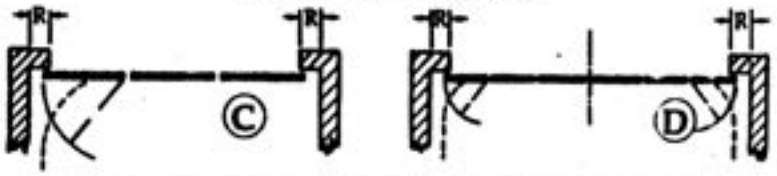
1.	Width of Opening: 3'0 min. - 60'0 max.
2.	Height of Opening: 5'0 min - 15'0 max.
3.	Proposed No. of Leaves (2-20)
4.	Door Thickness: 1-3/4" min. - 2-1/4" max.
5.	Door Material: ☐ Solid Core ☐ Softwood ☐ Metal Frame *if metal frame:* ☐ Channel Frame ☐ Special ☐ Box Frame *if box frame: depth of box section*
6.	Leaf Weight: *state actual weight if you know*
7.	Doors Open to the: ☐ Left only ☐ Right only ☐ Both ways
8.	Depth of Left Reveal:
9.	Depth of Right Reveal:
10.	Is Side Wall: ☐ Clear ☐ Obstructed *if obstructed, show dimensions on diagram below*
11.	Is Side Wall Square: *if out of square show dimension "X" on diagram A below*
12.	Headroom Available Above Opening Inches:
13.	Depth of Header:
14.	Is Roof: ☐ Clear ☐ Obstructed *if obstructed, show dimension "z" on diagram B below*
15.	If Swing Door(s) Required, State Number:
16.	No. of Units and No. of Leaves per Unit:
17.	No. of Units Opening to: ☐ Left ☐ Right
18.	No. of Sets Required (one or more identical openings):



If side walls are not square.



TYPICAL INSTALLATIONS



We recommend reveals R should not exceed 12" for convenient locking. Usually a 4" or 8" reveal is preferred. If the swinger under the curve is not required the reveal must be a minimum of 27" to accommodate the corner curve.

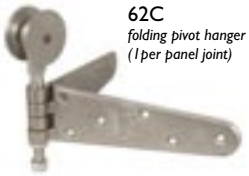
NUMBER OF LEAVES: To calculate correct numberof leaves divide opening width (O above) by 32" - 36".

Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

Tangent HARDWARE KIT FOR ROUND-THE-

Max. Door Height	up to 8ft.- System 290	up to 11 ft.- System 301
Max. Door Weight	up to 80 lbs.	80-120 lbs.
Door Thickness/Width	$1\frac{3}{8}$-2" thick, 32" wide	$1\frac{3}{4}$-$2\frac{1}{4}$" thick, 36" wide
Track and Track Curve	290  600K *track curve* 	301  600B *track curve* 
Brackets ***(one bracket for every three feet of track)***	1A/290 *sidewall-use for limited installation space*  3A/290 *overhead-use for limited installation space*  4A/290 *overhead-use for ample installation space*  4R/290S *overhead-suspended* 	1A/301 *sidewall-use for limited installation space*  3A/301 *overhead-use for limited installation space*  4A/301 *overhead-use for ample installation space*  4R/301S *overhead-suspended* 
Jointing Brackets available for joining two pieces of track at bracet (i.e. *1AX/301*) 		
Guides ***(two per door)***	67/89  68/89  *Brass roller guides mounted on alloy or cast iron ninge parts*	67/97  68/97  *Brass roller guides mounted on alloy or cast iron hinge parts*
Hangers	62K *folding pivot hanger (1per panel joint)*  63K *pivot hanger (for end panel)* 	62A *folding pivot hanger (1per panel joint)*  63A *pivot hanger (for end panel)* 
Hinges	65 *In cast aluminum alloy or painted cast iron.* 	65 *In cast aluminum alloy or painted cast iron.* 
Guide Channel/ Channel Curve	89 *steel guide channel*  601/89 *guide channel curve* 	97 *steel guide channel*  601/97 *guide channel curve* 
Bow Handles, Flush Pulls, Flush Bolts	863 *bow handle - 5 1/4"*  463 *bow handle - 6 1/4"*  414 *flush pull*  400 *flush pull*  994R *cane bolt* 	863 *bow handle - 5 1/4"*  463 *bow handle - 6 1/4"*  414 *flush pull*  400 *flush pull*  994R *cane bolt* 
Optional Extras	109 or 107 *stops*  994X *offset cane bolt* 	109 or 107 *stops*  994X *offset cane bolt*

CORNER WOOD OR METAL DOORS

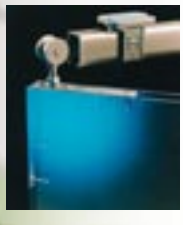
	up to 12 ft. - System 301H	up to 15 ft. - System 305
	120-150 lbs.	150-180 lbs.
	1 3/4-2 1/4" thick, 36" wide	1 3/4-2 1/4" thick, 36" wide
	301H  600BH *track curve* 	305  600D *track curve* 
	1A/301 *sidewall-use for limited installation space*  3A/301 *overhead-use for limited installation space*  4A/301 *overhead-use for ample installation space*  4R/301S *overhead-suspended* 	1A/305 *sidewall-use for limited installation space*  3A/305 *overhead-use for limited installation space*  4A/305 *overhead-use for ample installation space*  4R/305S *overhead-suspended* 
	67/97  68/97  *Brass roller guides mounted on alloy or cast iron hinge parts*	67C/97  68C/97  *Brass roller guides mounted on alloy or cast iron hinge parts*
	62A *folding pivot hanger (1 per panel joint)*  63A *pivot hanger (for end panel)* 	62C *folding pivot hanger (1 per panel joint)*  63C *pivot hanger (for end panel)* 
	65 *In cast aluminum alloy or painted cast iron.* 	65 *In cast aluminum alloy or painted cast iron.* 
	97 *steel guide channel*  601/97 *guide channel curve* 	97 *steel guide channel*  601/97 *guide channel curve* 
	863 *bow handle - 5 1/4"*  463 *bow handle - 6 1/4"*  414 *flush pull*  400 *flush pull*  994R *cane bolt* 	463 *bow handle - 6 1/4"*  413 *flush pull*  994R *cane bolt* 
	109 or 107 *stops*  994X *offset cane bolt* 	109 or 107 *stops*  994X *offset cane bolt* 

Council 290-305

FOR END FOLDING WOOD PARTITION DOORS

APPLICATIONS

- The hardware is suitable for residential, commercial and public buildings where concealed fixing of the fittings is required.
- Only the neat flush pulls and bolts are visible on the face of the screen.
- Folding units should consist of an even number of panels up to a maximum of six hinged to jamb or anchored by pivots.
- For wide openings, the center units may be "floating" and these should consist of four or six panels.
- A swing door independently hinged to post is recommended for easy access, or alternatively one can be added to a two or four panel unit. Avoid these on partitions over 10" high and if access is required a wicket door should be arranged.



For flush end-folding wood doors, the following are included:

- Support brackets and track
- Hangers
- Hinges
- Guides
- Bottom channel
- Full range of accessories

Four track sizes are available to suit doors of different weights up to 180 lbs.

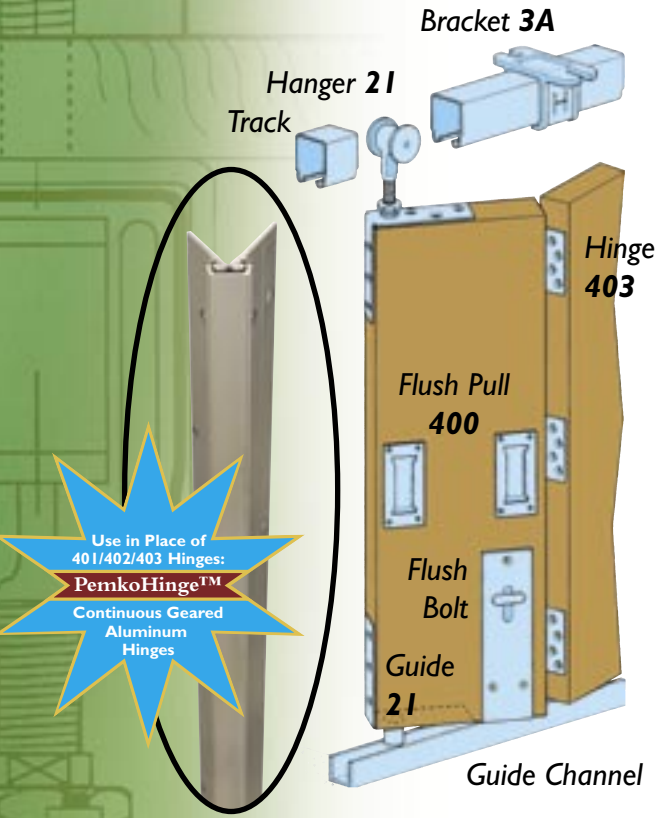
For smooth operation, the recommended maximum number of panels in one unit is six hinged to jamb. If the panels are all of equal width and are required to be anchored at one end, Council "Flush fold pivot" hardware can be used. Panels may be panelled, glazed or flush and should be constructed with solid top and bottom rails to provide a secure fixing for edge fitting, hangers and guides.

Use the table below to estimate the approximate weight (pounds per square foot) of doors of different materials.

Door Type	lbs./sq. ft.
Hollow Metal 18 ga	4.6 lbs.
Hollow Metal 16 ga	5.8 lbs.
Flush Wood, Particleboard Core	4.8 lbs.
Flush Wood, Stave Core	4.3 lbs.
Flush Wood, Mineral Core	4.7 lbs.

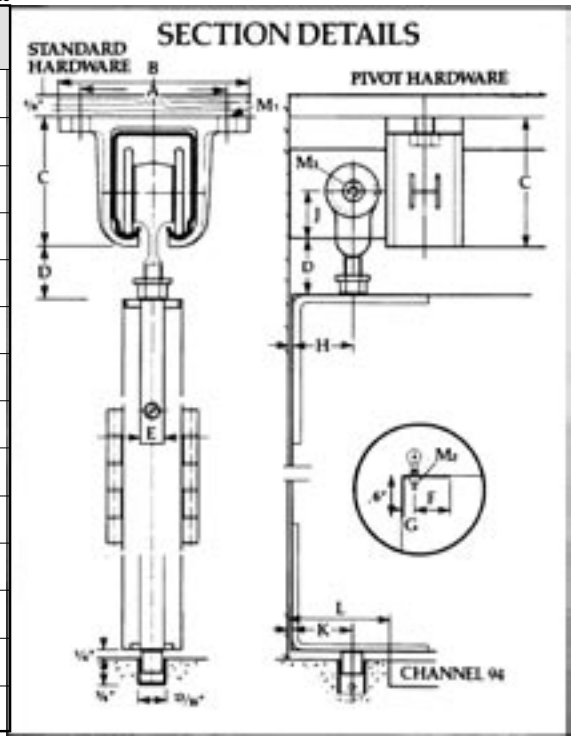
COMPOSITION

Track:	Cold-rolled steel section hot-dip galvanized.
Brackets:	Cast aluminum or pressed steel electrozinc plated finish. Suitable brackets available for side wall or overhead fixing as well as closed brackets for each end.
Hangers:	Fitted with maintenance free precision needle bearings sealed for life. Adjustable in height. Steel wheels and other parts are electrozinc plated.
Hinges:	Aluminum alloy satin anodized finish. For economy, specify electrozinc plated steel hinges.
Guides:	Brass rollers fitted to steel aprons which are electrozinc plated.
Guide Channel:	Brass or aluminum drilled and counter-sunk for wood or lugged for concrete.
Pivot Set (if required):	Comprises a top pivot, standard bottom guide and alternative sockets for wood or concrete floors.
Flush Pulls and Bolts:	In satin anodized aluminum.



All Dimensions in Feet and Inches

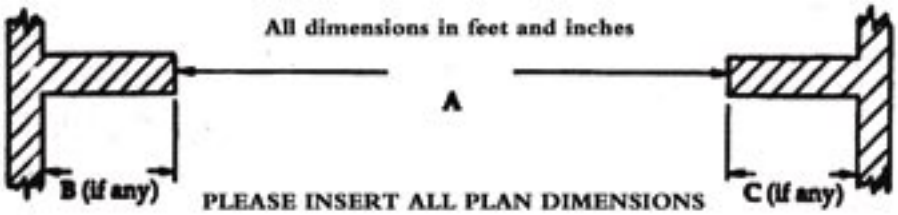
Track	290	301/301H	305
A	2 1/2	4	5
B	3 1/4	5 1/8	6 5/8
C	2 3/16	3 3/8	4 3/4
D	3/4	1 3/8	2 3/8
E	1/2	11/16	11/16
F	4 1/2	5 1/4	5 1/4
G	1 1/2	1 3/4	1 3/4
H	1 9/16	1 7/8	
J	3/4	1 3/8	
K	1 9/16	1 7/8	
L	2 3/4	3	
M1	5/16	1/2	5/8
M2	1/2	5/8	5/8
M3	1/4	5/16	



Answer the questions below and fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware. Or use the chart on the following pages to select appropriate hardware for your job.

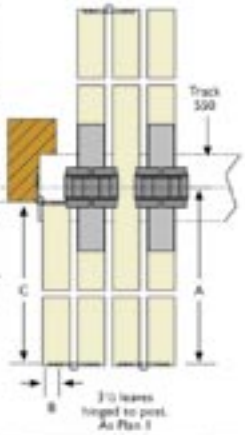
FOLDING TRACK

JOB REFERENCE _____ INQUIRY ☐ ORDER ☐

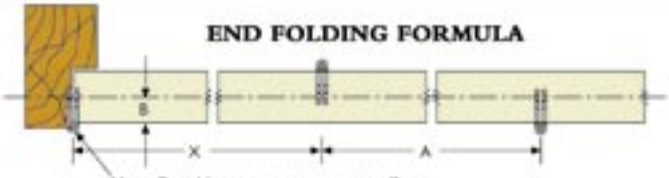


PLEASE INSERT ALL PLAN DIMENSIONS

1.	Is the Installation to be: ☐ Top Hung ☐ or Bottom Rolling
2.	Are Partitions to be: ☐ Center Folding ☐ or End Folding *(see diagrams below)*
3.	Width of Opening: 3'0" min. - 60'0" max.
4.	Height of Opening: 3'0" min. - 15'0" max.
5.	Are Partitions: ☐ Hinged to the Jamb ☐ Floating ☐ Hinged and Floating ☐ Pivoted *(end fold only)*
6.	Is an Additional Swing Door Required: ☐ Yes ☐ No
7.	Leaf Thickness: ☐ Top Hung (1-3/4" min. or 2-1/4" max.) ☐ Bottom Rolling (1-3/4" min. or 2-1/4" max.)
8.	Leaf Material: ☐ Solid Core ☐ Leadlined ☐ Glazed
9.	Leaf Weight: *state actual weight if known*
10.	Width of Header:
11.	Type of Floor: ☐ Concrete ☐ Tile ☐ Wood
12.	Bottom Guide Channel Required: *applies to top hung track only* ☐ Brass ☐ Aluminum
13.	Number of Units: *see also question 5*
14.	Number of Leaves per Unit: ☐ Left Hand ☐ Right Hand ☐ Middle Unit
15.	No. of Sets Required: *one or more identical openings*
16.	Indicate Which Example Most Resembles Proposed Installation Diagram *(A-K below)*:



END FOLDING FORMULA



Note: Butt hinges on posts are not offset

All leaves are of equal width except the leaf hinged to the post.
The dimension for the leaf hinged to the post (X) is,
A, less B (half the leaf thickness), less 45mm (1¾").
Formula: X=(A-B)-45mm (1¾")

CENTER FOLDING FORMULA

All full leaves are of equal width.
A pivoting half-leaf (dimension C) is half the width of a full leaf (dimension A), less half of the leaf thickness (dimension B).

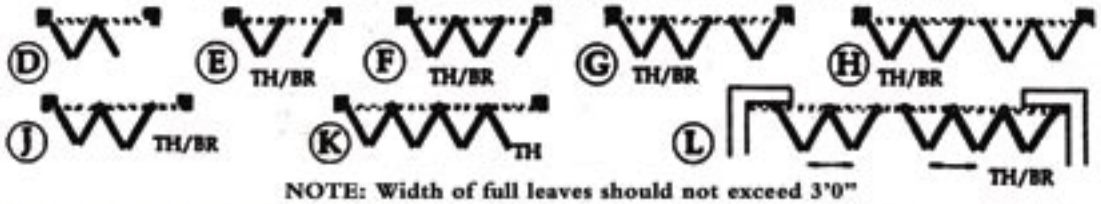
Note: Hangers and guides are to be fitted to alternate leaves only.

TYPICAL EXAMPLES OF CENTER FOLDING PARTITION TRACK

TH = configuration suitable for Top Hung track. BR = suitable for Bottom Rolling track. A Center Folding unit should not have a swinging leaf attached.

TYPICAL EXAMPLES OF END FOLDING PARTITION TRACK

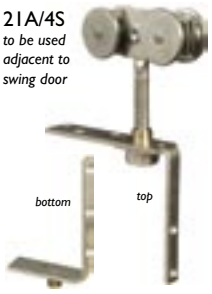
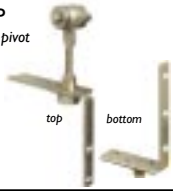
TH = configuration suitable for Top Hung track. BR = suitable for Bottom Rolling track.



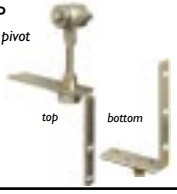
NOTE: Width of full leaves should not exceed 3'0"

Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

Council 290-305 HARDWARE FOR END FOLDI

Max. Door Height	up to 9ft.- System 290	up to 11 ft.- System 301
Max. Door Weight	up to 80 lbs.	80-120 lbs.
Door Thickness/Width	$1\frac{3}{8}$-$1\frac{3}{4}$" thick, 32" wide	$1\frac{3}{4}$-$2\frac{1}{4}$" thick, 36" wide
Track	290 	301 
Brackets *(one bracket for every three feet of track)*	1A/290 *sidewall-use for limited installation space*  3A/290 *overhead-use for limited installation space*  4A/290 *overhead-use for ample installation space* 	1A/301 *sidewall-use for limited installation space*  3A/301 *overhead-use for limited installation space*  4A/301 *overhead-use for ample installation space* 
Guides *(two per door)*	21KR/94 *guide* 	21KR/94 *guide* 
Hangers	21K/S *endfold hanger (1 for every 2 panels)*  21K/4N *to be used adjacent to swing door* 	21A/S *endfold hanger (1 for every 2 panels)*  21A/4S *to be used adjacent to swing door*  *bottom* *top*
Hinges, Pivots	403/1  *In cast aluminum alloy (deluxe=S. A.A.) or painted cast iron.* 21K/P *endfold pivot*  *top* *bottom*	403/2  *In cast aluminum alloy (deluxe=S. A.A.) or painted cast iron.* 21A/P *endfold pivot*  *top* *bottom*
Guide Channel	94 *brass guide channel*  94A *aluminum guide channel* 	94 *brass guide channel*  94A *aluminum guide channel* 
Flush Pulls, Flush Bolts	414 *flush pull*  400 *flush pull*  454 *flush bolt*  333 *flush bolt* 	414 *flush pull*  400 *flush pull*  454 *flush bolt*  333 *flush bolt* 
Optional Extras	113R *guide*  21R *endfold guide*  1/290EC *(not shown) end clip for 290 steel brackets (1A/290 end clips also available for aluminum brackets)*	113R *guide*  21R *endfold guide*  1/301EC *end clip for 301 steel brackets (1A/301 end clips also available for aluminum brackets)* 

NG WOOD PARTITION DOORS

	up to 12 ft. - System 301H	up to 15 ft. - System 305
	120-150 lbs.	150-180 lbs.
	1 3/4-2 1/4" thick, 36" wide	1 3/4-2 1/4" thick, 36" wide
	301H 	305 
	1A/301 *sidewall-use for limited installation space*  3A/301 *overhead-use for limited installation space*  4A/301 *overhead-use for ample installation space* 	1A/305 *sidewall-use for limited installation space*  3A/305 *overhead-use for limited installation space*  4A/305 *overhead-use for ample installation space* 
	21KR/94 *guide* 	21KR/94 *guide* 
	21A/S *endfold hanger (1 for every 2 panels)*  21A/4S *to be used adjacent to swing door*  *bottom* *top*	21C/S *endfold hanger (1 for every 2 panels)* 
	403/2  *In cast aluminum alloy (deluxe=S. A.A.) or painted cast iron.* 21A/P *endfold pivot*  *top* *bottom*	403/3  *In cast aluminum alloy (deluxe=S. A.A.) or painted cast iron.*
	94 *brass guide channel* 94A *aluminum guide channel* 	94 *brass guide channel* 94A *aluminum guide channel* 
	414 *flush pull* 400 *flush pull* 454 *flush bolt* 333 *flush bolt* 	414 *flush pull* 400 *flush pull* 454 *flush bolt* 
	113R *guide*  21R *endfold guide*  1/301EC *end clips for 301 steel brackets (1A/301 end clips also available for aluminum brackets)* 	113R *guide*  21R *endfold guide* 

Council 290-305

FOR CENTER FOLDING WOOD PARTITION DOORS

For center-folding wood doors, the following are included:

- Support brackets and track
- Hangers
- Hinges
- Guides
- Bottom channel
- Full range of accessories

Four track sizes are available to suit doors of different weights up to 180 lbs.

For smooth operation, the recommended maximum number of panels in one unit is five and a half hinged to jamb. Panels may be panelled, glazed or flush and should be constructed with solid top and bot-

Use the table below to estimate the approximate weight (pounds per square foot) of doors of different materials.

Door Type	lbs./sq. ft.
Hollow Metal 18 ga	4.6 lbs.
Hollow Metal 16 ga	5.8 lbs.
Flush Wood, Particleboard Core	4.8 lbs.
Flush Wood, Stave Core	4.3 lbs.
Flush Wood, Mineral Core	4.7 lbs.

APPLICATIONS

- The hardware is suitable for residential, commercial and public buildings.
- Partitions are usually hung centrally under the lintel and fold to one or both sides, occupying a minimum of space during closing operation.
- The folding units should consist of an odd number of full panels with one half panel hinged to jamb.
- For wide openings, the center units may be "floating" and consist of five or seven panels in one unit.
- Where an access door is required this may be hung separately to the jamb and not form part of the folding unit, or a wicket door should be arranged in one panel.

COMPOSITION

Track Cold-rolled steel section hot-dip galvanized.

Brackets: These are of cast aluminum or pressed steel. Suitable brackets are available overhead fixing as well as closed brackets for each end.

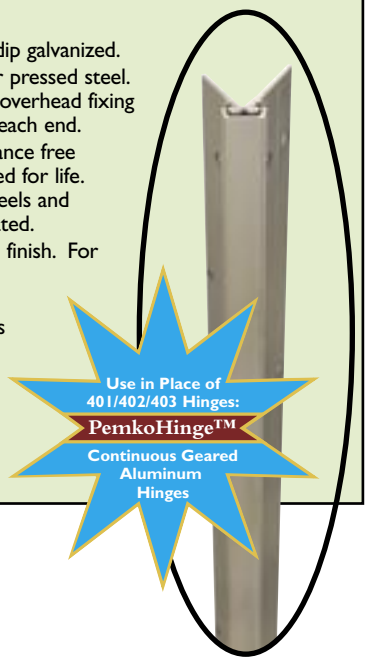
Hangers: These are fitted with maintenance free precision needle bearings sealed for life. Adjustable in height. Steel wheels and other parts are electrozinc plated.

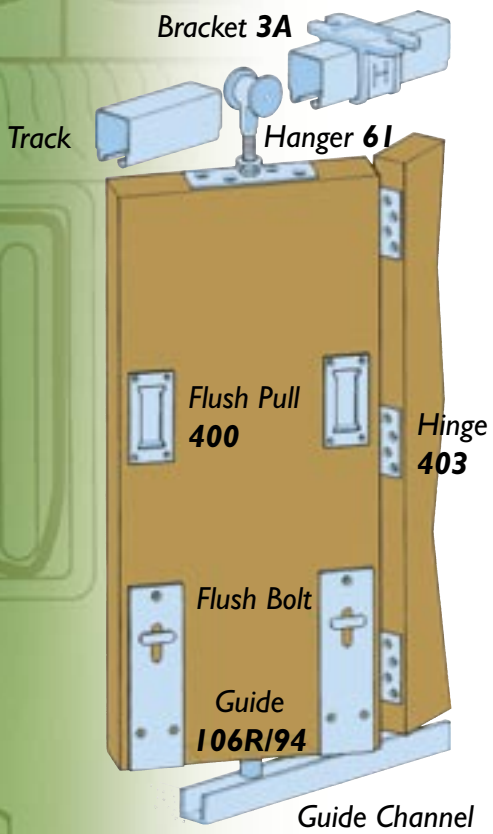
Hinges: Aluminum alloy satin anodized finish. For economy, specify electrozinc plated steel hinges.

Guides: Brass rollers fitted to steel plates which are electrozinc plated.

Channel: Brass or aluminum drilled and counter-sunk for wood or lugged for concrete.

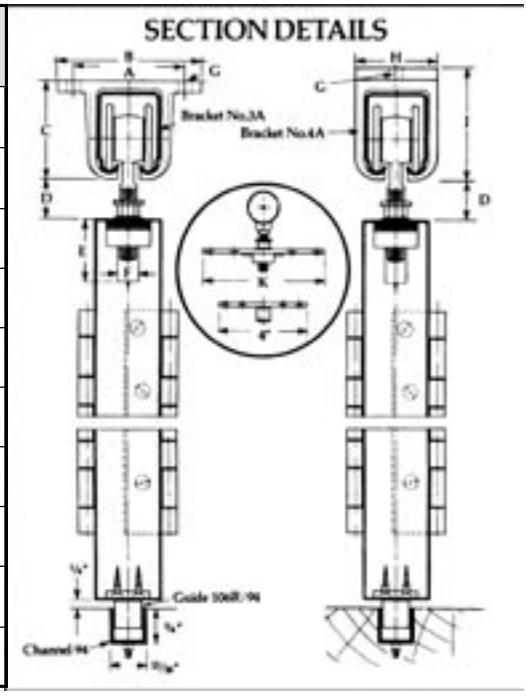
Flush Pulls and Bolts: In satin anodized aluminum.





All Dimensions in Feet and Inches

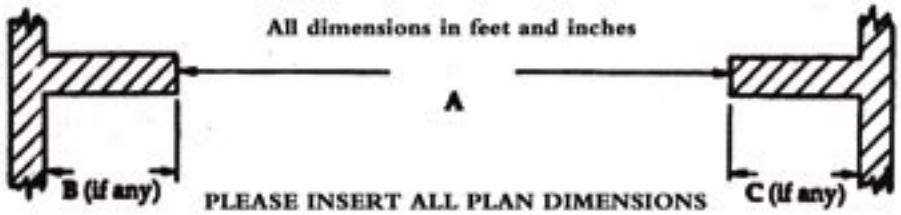
Track	290	301/301H	305
A	2 1/2	4	5
B	3 1/4	5 1/8	6 5/8
C	2 3/16	3 3/8	4 3/4
D	3/4	1 3/8	2 3/8
E	1 1/2	2	2 1/2
F	1/2	3/4	3/4
G	5/16	1/2	5/8
H	1 7/8	3	3 1/4
J	2 5/8	3 3/4	5 3/8
K	5 1/2	7 1/4	9 1/2



Answer the questions below and fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware. Or use the chart on the following pages to select appropriate hardware for your job.

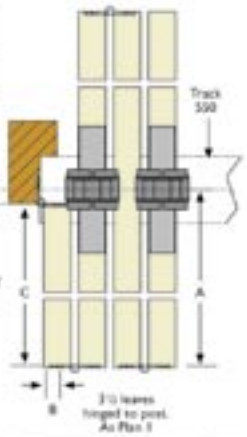
FOLDING TRACK

JOB REFERENCE _____ INQUIRY ❑ ORDER ❑

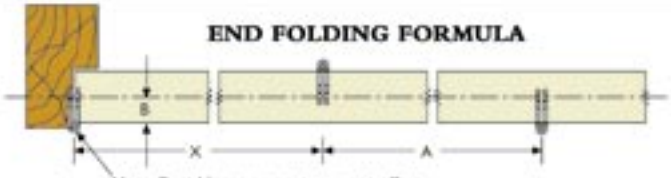


PLEASE INSERT ALL PLAN DIMENSIONS

1.	Is the Installation to be: ☐ Top Hung ☐ or Bottom Rolling
2.	Are Partitions to be: ☐ Center Folding ☐ or End Folding *(see diagrams below)*
3.	Width of Opening: 3'0" min. - 60'0" max.
4.	Height of Opening: 3'0" min. - 15'0" max.
5.	Are Partitions: ☐ Hinged to the Jamb ☐ Floating ☐ Hinged and Floating ☐ Pivoted *(end fold only)*
6.	Is an Additional Swing Door Required: ☐ Yes ☐ No
7.	Leaf Thickness: ☐ Top Hung (1-3/4" min. or 2-1/4" max.) ☐ Bottom Rolling (1-3/4" min. or 2-1/4" max.)
8.	Leaf Material: ☐ Solid Core ☐ Leadlined ☐ Glazed
9.	Leaf Weight: *state actual weight if known*
10.	Width of Header:
11.	Type of Floor: ☐ Concrete ☐ Tile ☐ Wood
12.	Bottom Guide Channel Required: *applies to top hung track only* ☐ Brass ☐ Aluminum
13.	Number of Units: *see also question 5*
14.	Number of Leaves per Unit: ☐ Left Hand ☐ Right Hand ☐ Middle Unit
15.	No. of Sets Required: *one or more identical openings*
16.	Indicate Which Example Most Resembles Proposed Installation Diagram *(A-K below)*:



END FOLDING FORMULA



Note: Butt hinges on posts are not offset

All leaves are of equal width except the leaf hinged to the post.
The dimension for the leaf hinged to the post (X) is,
A, less B (half the leaf thickness), less 45mm (1¾").
Formula: X=(A-B)-45mm (1¾")

CENTER FOLDING FORMULA

All full leaves are of equal width.
A pivoting half-leaf (dimension C) is half the width of a full leaf (dimension A), less half of the leaf thickness (dimension B).

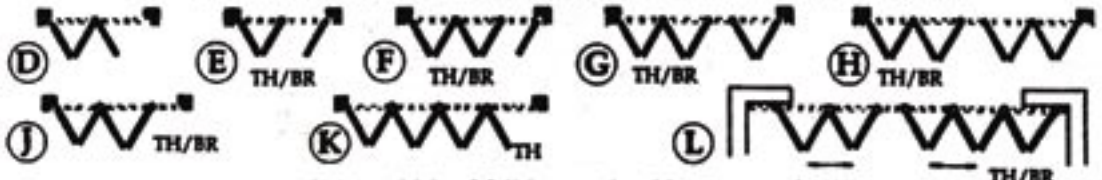
Note: Hangers and guides are to be fitted to alternate leaves only.

TYPICAL EXAMPLES OF CENTER FOLDING PARTITION TRACK

TH = configuration suitable for Top Hung track. BR = suitable for Bottom Rolling track. A Center Folding unit should not have a swinging leaf attached.

TYPICAL EXAMPLES OF END FOLDING PARTITION TRACK

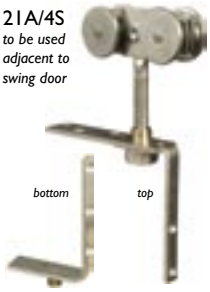
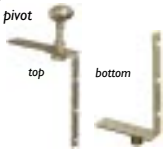
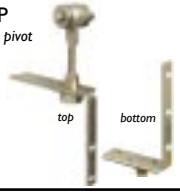
TH = configuration suitable for Top Hung track. BR = suitable for Bottom Rolling track.



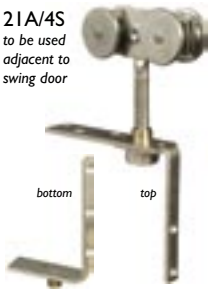
NOTE: Width of full leaves should not exceed 3'0"

Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

Council 290-305 HARDWARE FOR CENTER

Max. Door Height	up to 9ft.- System 290	up to 11 ft.- System 301
Max. Door Weight	up to 80 lbs.	80-120 lbs.
Door Thickness/Width	$1\frac{3}{8}$-$1\frac{3}{4}$" thick, 32" wide	$1\frac{3}{4}$-$2\frac{1}{4}$" thick, 36" wide
Track	290 	301 
Brackets *(one bracket for every three feet of track)*	1A/290 *sidewall-use for limited installation space*  3A/290 *overhead-use for limited installation space*  4A/290 *overhead-use for ample installation space* 	1A/301 *sidewall-use for limited installation space*  3A/301 *overhead-use for limited installation space*  4A/301 *overhead-use for ample installation space* 
Guides *(two per door)*	21KR/94 *guide* 	21R/94 *guide* 
Hangers	21K/S *endfold hanger (1 for every 2 panels)*  21K/4N *to be used adjacent to swing door* 	21A/S *endfold hanger (1 for every 2 panels)*  21A/4S *to be used adjacent to swing door*  *bottom* *top*
Hinges, Pivots	403/1  *In cast aluminum alloy (deluxe=S. A.A.) or painted cast iron.* 21K/P *endfold pivot*  *top* *bottom*	403/2  *In cast aluminum alloy (deluxe=S. A.A.) or painted cast iron.* 21A/P *endfold pivot*  *top* *bottom*
Guide Channel	94 *brass guide channel*  94A *aluminum guide channel* 	94 *brass guide channel*  94A *aluminum guide channel* 
Flush Pulls, Flush Bolts	414 *flush pull*  400 *flush pull*  454 *flush bolt*  333 *flush bolt* 	414 *flush pull*  400 *flush pull*  454 *flush bolt*  333 *flush bolt* 
Optional Extras	113R *guide*  21R *endfold guide*  1A/301EC *end clips for 301 brackets* 	113R *guide*  21R *endfold guide*  1A/301EC *end clips for 301 brackets* 

FOLDING WOOD PARTITION DOORS

	up to 12 ft. - System 301H	up to 15 ft. - System 305
	120-150 lbs.	150-180 lbs.
	1 3/4-2 1/4" thick, 36" wide	1 3/4-2 1/4" thick, 36" wide
	301H 	305 
	1A/301 *sidewall-use for limited installation space*  3A/301 *overhead-use for limited installation space*  4A/301 *overhead-use for ample installation space* 	1A/305 *sidewall-use for limited installation space*  3A/305 *overhead-use for limited installation space*  4A/305 *overhead-use for ample installation space* 
	21R/94 *guide* 	21R/94 *guide* 
	21A/S *endfold hanger (1 for every 2 panels)*  21A/4S *to be used adjacent to swing door*  *bottom* *top*	21C/S *endfold hanger (1 for every 2 panels)* 
	403/2  *In cast aluminum alloy (deluxe=S. A.A.) or painted cast iron.* 21A/P *endfold pivot*  *top* *bottom*	403/3  *In cast aluminum alloy (deluxe=S. A.A.) or painted cast iron.*
	94 *brass guide channel*  94A *aluminum guide channel* 	94 *brass guide channel*  94A *aluminum guide channel* 
	414 *flush pull*  400 *flush pull*  454 *flush bolt*  333 *flush bolt* 	414 *flush pull*  400 *flush pull*  454 *flush bolt* 
	113R *guide*  21R *endfold guide*  1A/301EC *end clips for 301 brackets* 	113R *guide*  21R *endfold guide*  1A/301EC *end clips for 301 brackets* 

Arcade A70

FOR END AND CENTER FOLDING ALUMINUM AND WOOD SECTION DOORS

For end folding and center folding aluminum and wood partition doors, the following are included:

- Top guide brackets
- Bottom rail
- Back flap hinges
- Bottom rollers
- Top guide rollers
- Top guide channel
- Full range of accessories

For best endfold operation, not more than 8 leaves should be hinged to one jamb; alternatively leaves may be floating in units of 6 or 8. Any access door should be hung separately to the jamb. For best centerfold operation, not more than 7 1/2 leaves to be hinged to one jamb; alternatively leaves may be floating in units of 5 or 7. Any access door should be hung separately to the jamb.

Use the table below to estimate the approximate weight (pounds per square foot) of doors of different materials.

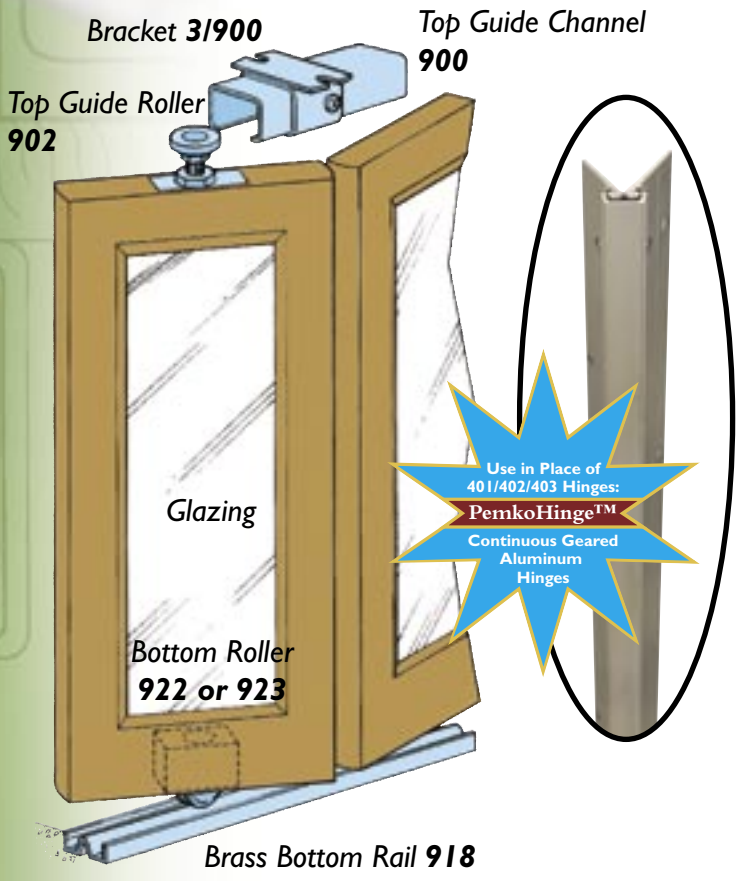
Door Type	lbs./sq. ft.
Hollow Metal 18 ga	4.6 lbs.
Hollow Metal 16 ga	5.8 lbs.
Flush Wood, Particleboard Core	4.8 lbs.
Flush Wood, Stave Core	4.3 lbs.
Flush Wood, Mineral Core	4.7 lbs.

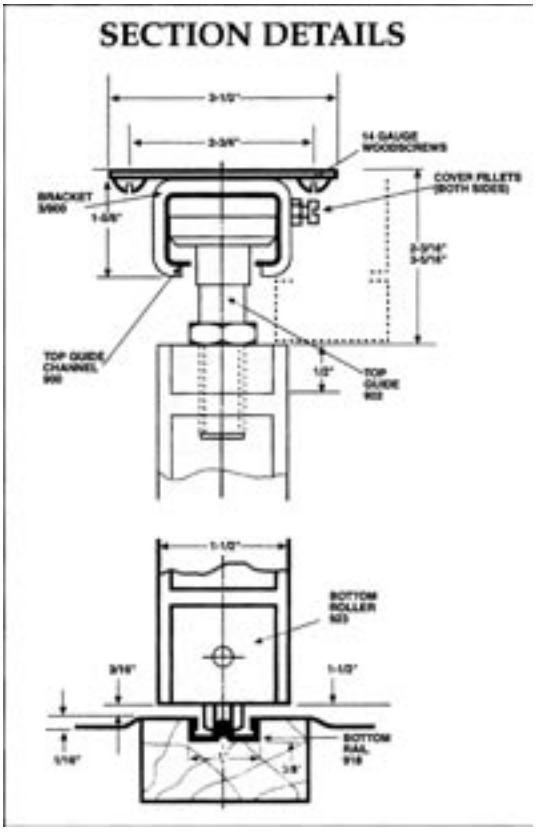
APPLICATIONS

- High-quality bottom roller hardware and fittings for end and center folding aluminum section glazed for retail and display applications to a maximum leaf weight of 150 lbs.

COMPOSITION

Top Guide Channel:	900 galvanized steel with safety lip.
Top Guide Brackets:	Pressed steel zinc plated.
Top Guide Rollers:	Fitted with adjustable nylon rollers. Vertical adjustment is simple and positive.
Bottom Rollers:	Supported on thrust bearings.
Hinges:	Proprietary hinges used to suit the aluminum rails and stile used to construct the leaves.
Rail:	Pre-drilled and countersunk for wood or lugging into concrete.
Accessories:	Flush Pulls, Flush Bolts and Locks.

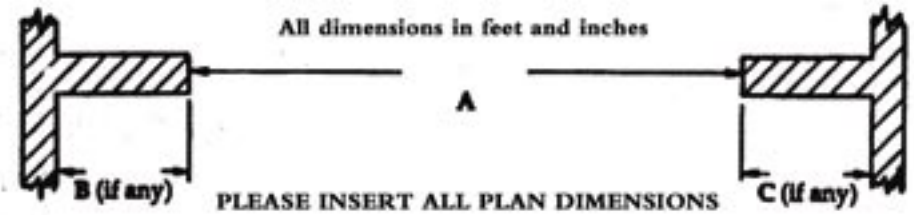




Answer the questions below and fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware. Or use the chart on the following pages to select appropriate hardware for your job.

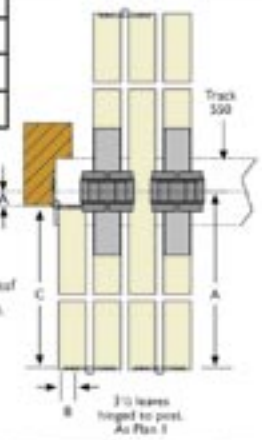
FOLDING TRACK

JOB REFERENCE _____ INQUIRY ☐ ORDER ☐

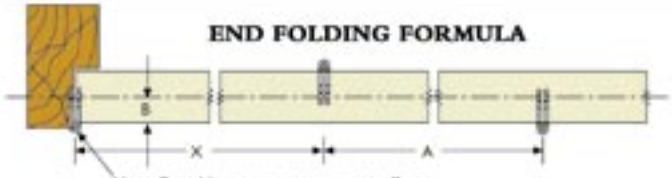


PLEASE INSERT ALL PLAN DIMENSIONS

1.	Is the Installation to be: ☐ Top Hung ☐ or Bottom Rolling
2.	Are Partitions to be: ☐ Center Folding ☐ or End Folding *(see diagrams below)*
3.	Width of Opening: 3'0" min. - 60'0" max.
4.	Height of Opening: 3'0" min. - 15'0" max.
5.	Are Partitions: ☐ Hinged to the Jamb ☐ Floating ☐ Hinged and Floating ☐ Pivoted *(end fold only)*
6.	Is an Additional Swing Door Required: ☐ Yes ☐ No
7.	Leaf Thickness: ☐ Top Hung (1-3/4" min. or 2-1/4" max.) ☐ Bottom Rolling (1-3/4" min. or 2-1/4" max.)
8.	Leaf Material: ☐ Solid Core ☐ Leadlined ☐ Glazed
9.	Leaf Weight: *state actual weight if known*
10.	Width of Header:
11.	Type of Floor: ☐ Concrete ☐ Tile ☐ Wood
12.	Bottom Guide Channel Required: *applies to top hung track only* ☐ Brass ☐ Aluminum
13.	Number of Units: *see also question 5*
14.	Number of Leaves per Unit: ☐ Left Hand ☐ Right Hand ☐ Middle Unit
15.	No. of Sets Required: *one or more identical openings*
16.	Indicate Which Example Most Resembles Proposed Installation Diagram *(A-K below)*:



END FOLDING FORMULA



Note: Butt hinges on posts are not offset

All leaves are of equal width except the leaf hinged to the post. The dimension for the leaf hinged to the post (X) is, A, less B (half the leaf thickness), less 45mm (1¾").

Formula: X=(A-B)-45mm (1¾")

CENTER FOLDING FORMULA

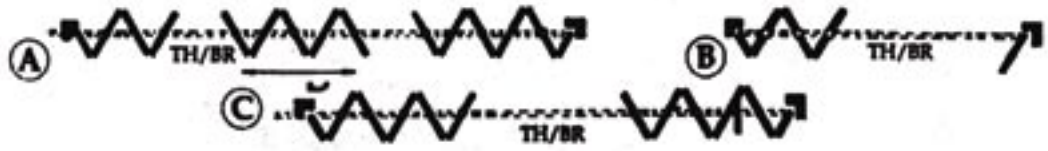
All full leaves are of equal width.

A pivoting half-leaf (dimension C) is half the width of a full leaf (dimension A), less half of the leaf thickness (dimension B).

Note: Hangers and guides are to be fitted to alternate leaves only.

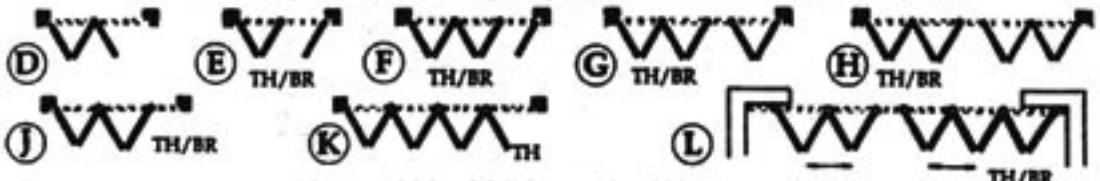
TYPICAL EXAMPLES OF CENTER FOLDING PARTITION TRACK

TH = configuration suitable for Top Hung track. BR = suitable for Bottom Rolling track. A Center Folding unit should not have a swinging leaf attached.



TYPICAL EXAMPLES OF END FOLDING PARTITION TRACK

TH = configuration suitable for Top Hung track. BR = suitable for Bottom Rolling track.



NOTE: Width of full leaves should not exceed 3'0"

Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

Arcade A70 HARDWARE FOR END AND CENTER

Max. Folding Leaf Height	**up to 12 ft. - Endfold System A70**	
Max. Door Weight up to 150 lbs.	up to 150 lbs.	
Top Guide Channel	 900	
Brackets *(fix every 3' max and at channel joints. Fix extra bracket where doors stack)*	1/900 *sidewall-use for limited installation space*  3/900 *overhead-use for limited installation space* 	
Top Guide Rollers *(one every two doors)*	902 *comes with flat mounting plate (not shown)* 	
Hinges *(three in height)*	 65/65P *hinge*	
Bottom Rollers *(one every two doors)*	922 *for aluminum doors*  923 *for wood doors* 	
Bottom Rail	 918 *brass bottom rail*	
Flush Pull	 400 *flush pull*	
Flush Bolt	 454 *flush bolt*	

FOLDING ALUMINUM AND WOOD SECTION DOORS

up to 12 ft. - Centerfold System A70

900

1/900
sidewall-use for limited installation space

3/900
overhead-use for limited installation space

902
comes with flat mounting plate (not shwon)

65/65P *hinge*

922
for aluminum doors

923
for wood doors

918 *brass bottom rail*

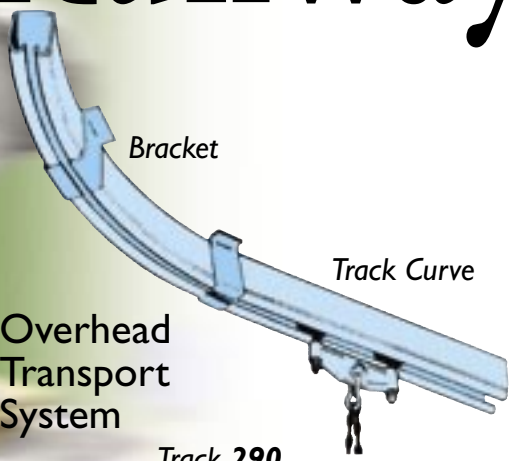
400 *flush pull*

454 *flush bolt*

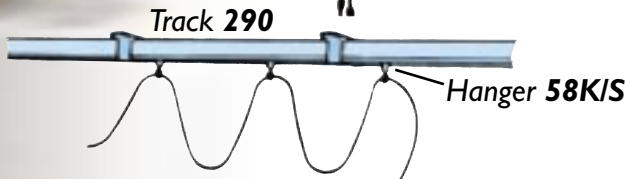
Overhead Runways

Henderson standard tracks, curves and brackets can be used together with a choice of specially adapted hangers to make a variety of overhead runway systems. These are suited not only to the transfer of load from one location to another, but also for more specialized applications such as industrial and vehicle curtains, cable carriers, safety runways for window cleaners of high buildings, and even gymnasium climbing ropes.

Five track sizes are available depending on load weight,.

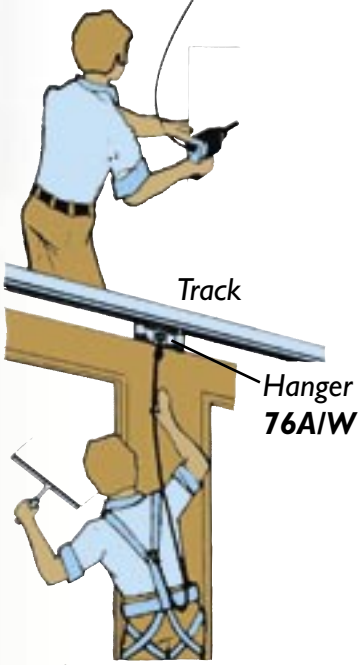


Overhead Transport System

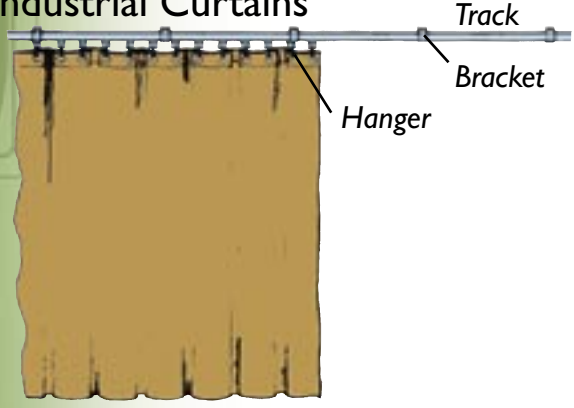


Cable Carrying System

Window Cleaning Safety System



Industrial Curtains

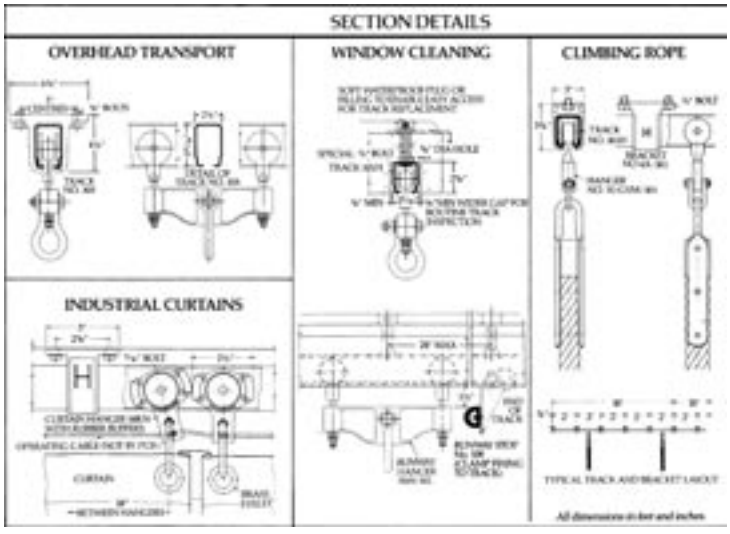


APPLICATIONS

- The hardware is suitable for factories, warehouses, commercial and public buildings and vehicles.
- For overhead transport runways layouts including curves are possible.
- These are usually attached to the roof support structure, using fixed or adjustable overhead fixing brackets spaced 2-3 ft. apart, but it is important that the overhead structure can support a moving load.
- Window cleaning runways are fitted to the outside of buildings designed with a parapet wide enough for a person to walk along.
- The specially punched track is normally fixed into a precast recess within the overhead concrete slab, using purpose designed bolt assemblies.
- A window cleaner (load weight 300lbs max) wearing an approved safety harness and lanyard attached to the hanger can be restrained through a 6 ft. fall, but the track and fittings must afterwards be inspected and if necessary replaced.
- Suitable for straight track applications only.

COMPOSITION

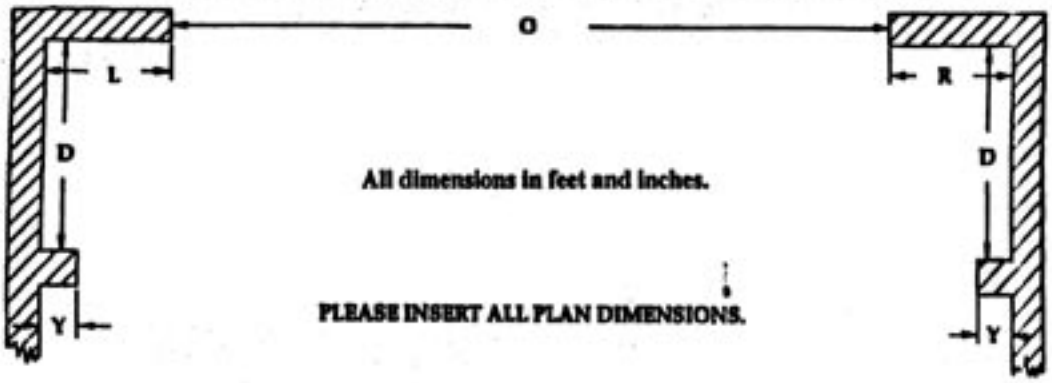
Track and Track Curves:	Cold-rolled steel section hot-dip galvanized.
Brackets:	These are cast aluminum or pressed steel electrozinc plated finish or painted.
Hangers:	Steel wheels are fitted with maintenance free precision needle bearings sealed for life. All steel parts are electrozinc plated or painted.
Stops:	In painted or galvanized steel.



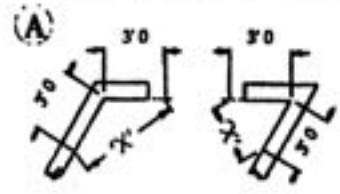
Answer the questions below and fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware. Or use the chart on the following pages to select appropriate hardware for your job.

ROUND THE CORNER TRACK

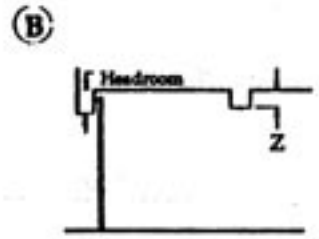
JOB NAME _____ QUOTE ❑ ORDER ❑ P.O.# _____



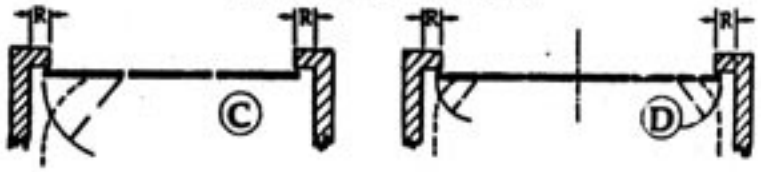
1.	Width of Opening: 3'0 min. - 60'0 max.
2.	Height of Opening: 5'0 min - 15'0 max.
3.	Proposed No. of Leaves (2-20)
4.	Door Thickness: 1-3/4" min. - 2-1/4" max.
5.	Door Material: ☐ Solid Core ☐ Softwood ☐ Metal Frame *if metal frame:* ☐ Channel Frame ☐ Special ☐ Box Frame *if box frame: depth of box section*
6.	Leaf Weight: *state actual weight if you know*
7.	Doors Open to the: ☐ Left only ☐ Right only ☐ Both ways
8.	Depth of Left Reveal:
9.	Depth of Right Reveal:
10.	Is Side Wall: ☐ Clear ☐ Obstructed *if obstructed, show dimensions on diagram below*
11.	Is Side Wall Square: *if out of square show dimension "X" on diagram A below*
12.	Headroom Available Above Opening Inches:
13.	Depth of Header:
14.	Is Roof: ☐ Clear ☐ Obstructed *if obstructed, show dimension "z" on diagram B below*
15.	If Swing Door(s) Required, State Number:
16.	No. of Units and No. of Leaves per Unit:
17.	No. of Units Opening to: ☐ Left ☐ Right
18.	No. of Sets Required (one or more identical openings):



If side walls are not square.



TYPICAL INSTALLATIONS



We recommend reveals R should not exceed 12" for convenient locking Usually a 4" or 8" reveal is preferred. If the swinger under the curve is not required the reveal must be a minimum of 27" to accommodate the corner curve.

NUMBER OF LEAVES: To calculate correct numberof leaves divide opening width (O above) by 32" - 36".

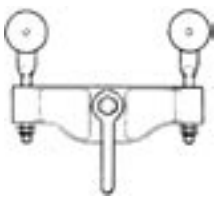
Use the chart below to select appropriate hardware for your job. Or answer the questions on the previous page and

Overhead Runways

Max. Load Weight	0-500 lbs.	0-440 lbs.	11 lbs./ 44 lbs.
System Type	**Overhead Transport (straight)**	**Overhead Transport (curved)**	**Industrial Curtains**
Track	301 *for 300 lbs load weight* 301H *for 400 lbs load weight* 305 *for 500 lbs load weight*	301 *for 240 lbs load weight* 301H *for 300 lbs load weight* 305 *for 440 lbs load weight*	280 *for 11 lbs load weight* 290 *for 44 lbs load weight*
Track Curves *(23" radius)*	***not required***	600B *for 240 lbs load weight* 600BH *for 300 lbs load weight* 600D *for 440 lbs load weight*	280TC *(not shown) for 11 lbs load weight* 600K *for 44 lbs load weight*
Brackets ***(one bracket for every three feet of track and at track joints)***	3A/301 *overhead fixed* 3A/305 *overhead fixed* 4R/301S *overhead-fixed adjustable* 4R/305S *overhead-fixed adjustable*	3A/301 *overhead fixed* 3A/305 *overhead fixed* 4R/301S *overhead-fixed adjustable* 4R/305S *overhead-fixed adjustable*	4R/280S *overhead fixed adjustable-for 11lbs. load weight* 3A/290 *overhead fixed-for 44 lbs load weight* 4R/290S *overhead fixed adjustable-for 44 lbs. load weight*
Jointing Brackets available for joining two pieces of track at bracet (*i.e. 1AX/301*)			
Hangers	76/301 (can also use *71A*) *for 400 lbs load weight* 76/305 *lbs load weignt*	76/301 *for 300 lbs load weight* 76/305 *for 440 lbs load weight*	288H *for 11 lbs load weight* 58K/S *for 44 lbs load weight*

fax (800-283-4050) or call (800-283-9988) Pemko Customer Service for assistance with choosing your hardware.

Overhead Transport Systems

	44 lbs.	90 lbs.	300 lbs.*	440 lbs.
	Vehicle Curtains	**Cable Carriers**	**Window Cleaning**	**Climbing Rope**
	290 	290 	301H  305 	301H 
	not required	***not required***	***not required***	***not required***
	3A/290 *overhead fixed*  4R/290S *overhead fixed adjustable* 	3A/290 *overhead fixed*  4R/290S *overhead fixed adjustable* 	M12 Bolts *not shown*	4A/301 *overhead fixed*  4R/301S *overhead fixed or overhead fixed adjustable* 
	55MV/S 	56K/N 	76A/W 	70GYM 

* Capacity when load is dropped through 6 ft.

Titan FOR SLIDING CANTILEVER GATES

Titan cantilever hardware suits sliding metal gates. The track is fixed to the base of the gate, which runs on a pair of rollers ground-fixed to one side of the opening. This leaves the roadway free from any obstructions, especially top or bottom rails, which easily get blocked, damaged or can upset forklift loads. The heavy-duty rollers are hidden within the rail for maximum security and weather protection.

Two track sizes are available to suit openings up to 32 ft. wide.

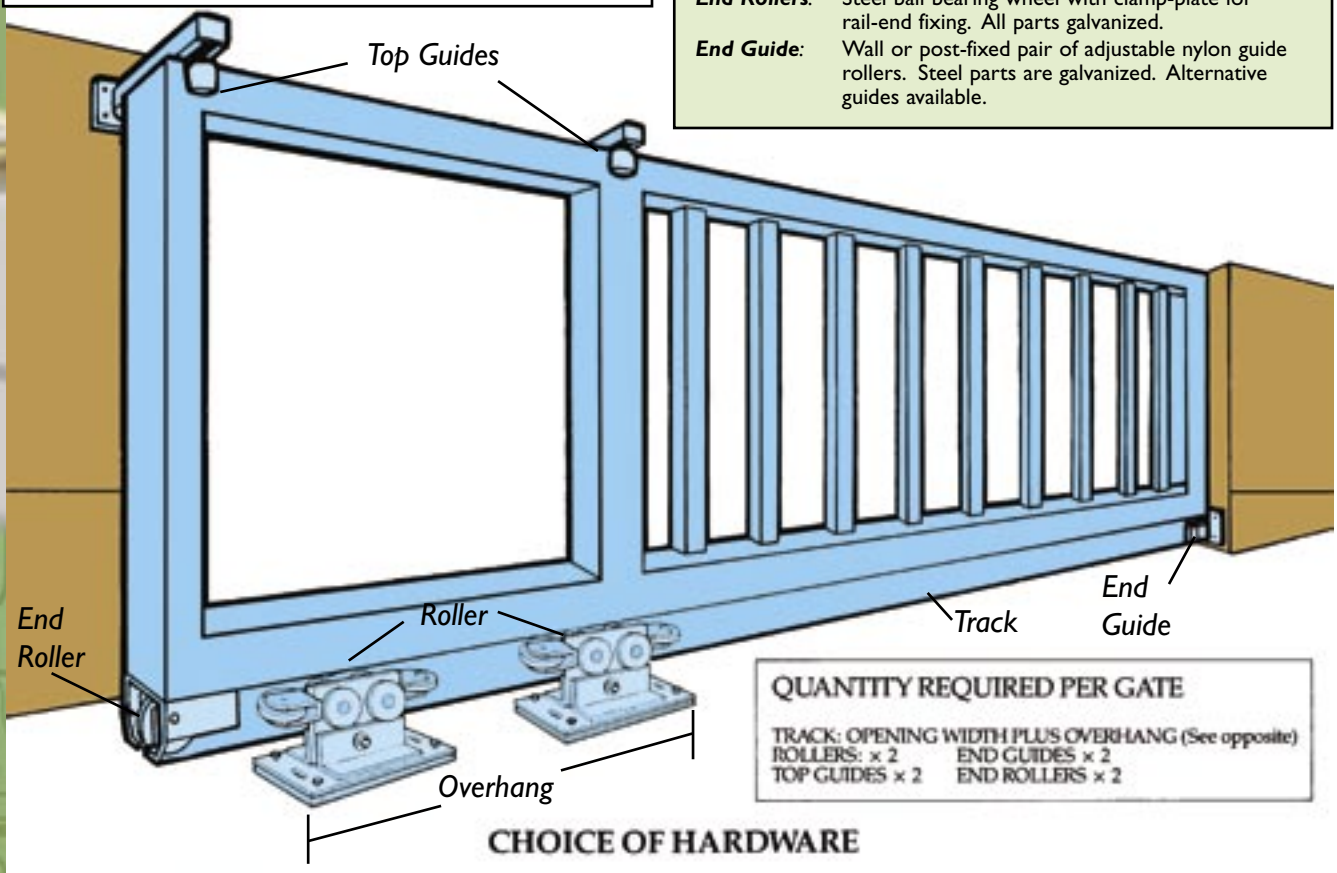
710 (not shown)	700 (not shown)
holds up to 2000 lbs. if manually operated	holds up to 1200 lbs. if power operated.

APPLICATIONS

- Gates into security-fenced areas (e.g. airports, storage), factory entrances, condominiums and residences.
- Gates over railway lines or uneven – surface roadways.
- These gates are best constructed in welded steel square tubing to your own design giving better security than round tube and chainlink gates.
- Opening width and gate weight determine the length of overhang required and track and roller type to use.
- There should be enough space available to slide the gate and overhang clear of the opening.
- Rollers should be mounted on substantial concrete footings, as wide apart as possible on the overhang.
- Titan can also be used for doors, where no overhead support exists for a sectional or shutter door to be fitted.

COMPOSITION

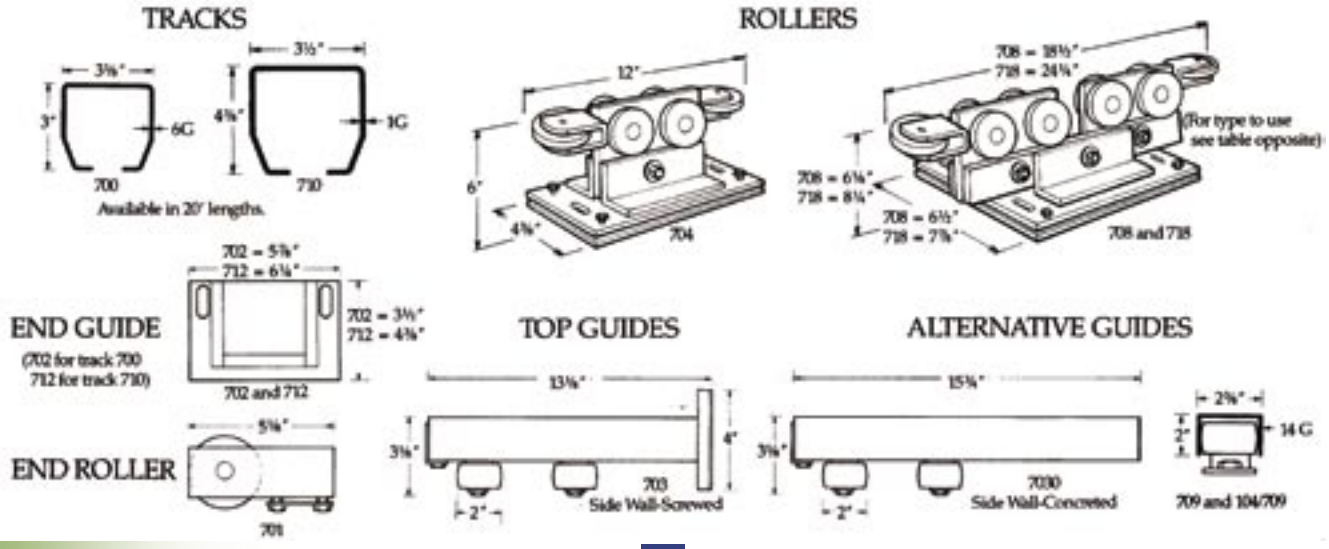
Track:	Cold-rolled galvanized steel section in 20 ft. lengths.
Rollers:	Steel wheels with precision ball bearings mounted on height-adjustable ground plates. All parts are galvanized or painted.
End Rollers:	Steel ball bearing wheel with clamp-plate for rail-end fixing. All parts galvanized.
End Guide:	Wall or post-fixed pair of adjustable nylon guide rollers. Steel parts are galvanized. Alternative guides available.



QUANTITY REQUIRED PER GATE

TRACK: OPENING WIDTH PLUS OVERHANG (See opposite)
ROLLERS: × 2 END GUIDES × 2
TOP GUIDES × 2 END ROLLERS × 2

CHOICE OF HARDWARE



HOW TO CHOOSE YOUR HARDWARE: Choose gate type, manual or automatic. Read across to required gate opening width, then read downward to estimated gate weight. Shaded area indicates roller type and overhang length required.

☐ Use a pair of rollers No. 704 and track No. 700 ☐ Use a pair of rollers No. 708 and track No. 700 ■ Use a pair of rollers No. 718 and track No. 710

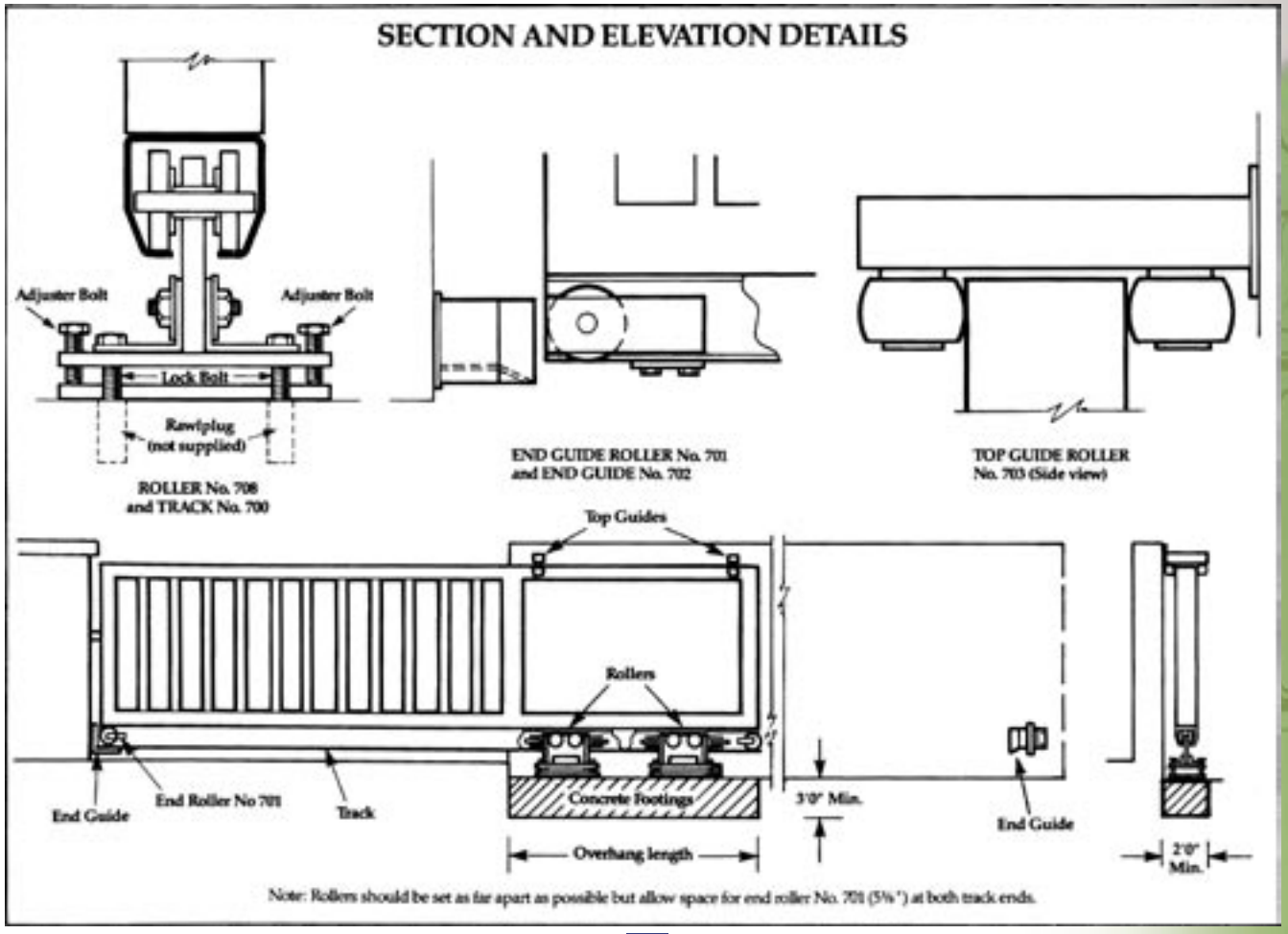
MANUAL

GATE WEIGHT:	OPENING WIDTH (ft)													
	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'
400lbs.	4'	4'	4'6"	5'	5'6"	6'	6'6"	7'6"	5'6"	6'	6'	6'6"	6'6"	7'
600lbs.	5'	6'	7'	8'	9' / 5'6"	10' / 6'	11' / 6'6"	12' / □7'	7'6"	8'	8'6"	9'	9'6"	10'
800lbs.	8'	9'6"	11'	12'6"	14' / 7'6"	15'6" / 6'	17' / 8'6"	18'6" / 9'	9'6"	10'	10'6"	11'	11'6"	12'
1000lbs.					9'6"	10'6"	11'6"	12'	13'	14'	15'	16'	17'	18'
1200lbs.					13'	14'	15'	16'	7'6"	8'	8'6"	9'	9'6"	10'
1400lbs.						7'	7'6"	8'	8'6"	9'	9'6"	10'	10'6"	11'
1600lbs.						8'6"	9'	9'6"	10'	10'6"	11'	11'6"	12'	12'6"
1800lbs.						9'6"	10'	10'6"	11'	12'	12'6"	13'	14'	15'
2000lbs.						10'6"	11'6"	12'6"	13'6"	14'6"	15'	15'6"	16'	16'6"

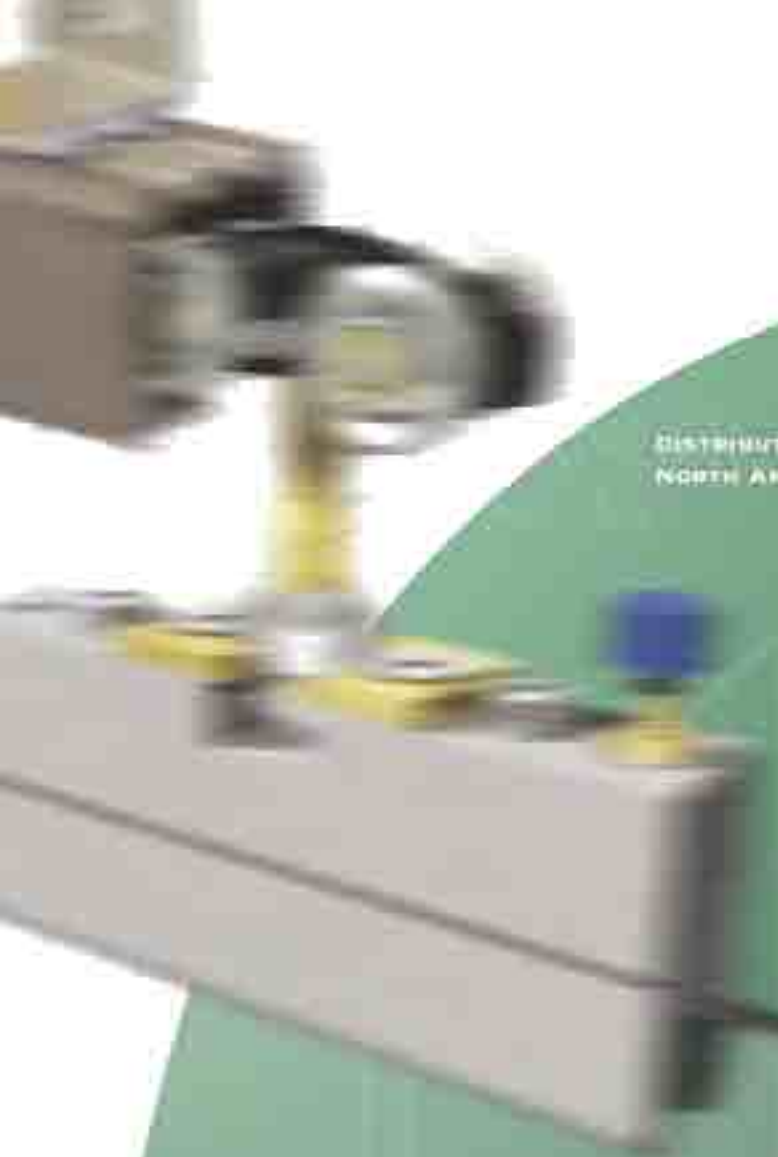
AUTOMATIC

GATE WEIGHT:	OPENING WIDTH (ft)													
	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'
300lbs.	5'6"	6'	6'6"	7' / 5'6"	7'6" / 6'	8' / 6'6"	9' / 7'	10' / 7'6"						
400lbs.	7' / 5'6"	8' / 6'	9' / 6'6"	10'6" / 7'	12' / 7'6"	13' / 8'	14' / 8'6"	15' / 9'	6'	6'6"	7'	7'6"	8'	8'6"
500lbs.	6'	6'6"	7'	8'	9' / 6'	10' / 6'	11' / 6'	12' / 6'6"	7'	7'6"	8'	8'6"	9'	9'6"
600lbs.	8'6"	9'6"	10'6"	11'6"	13' / 6'	14'6" / 6'6"	16' / 7'	17'6" / 7'6"	8'	8'6"	9'	9'6"	10'	10'6"
700lbs.	10'	11'	12'	13'	14'6" / 6'6"	16' / 7'	17'6" / 7'6"	19' / 8'	8'6"	9'	9'6"	10'	10'6"	11'
800lbs.					8'	8'6"	9'	9'6"	10'	10'6"	11'	11'6"	12'	12'6"
900lbs.					9'	9'6"	10'	10'6"	11'	12'	12'6"	13'	14'	15'
1000lbs.					9'6"	10'6"	11'6"	12'6"	13'6"	14'6"	15'	15'6"	16'	16'6"
1100lbs.					11	12'	13'	14'	15'	16'				
1200lbs.					13'6"	14'6"	15'6"	16'6"						

SECTION AND ELEVATION DETAILS



Note: Rollers should be set as far apart as possible but allow space for end roller No. 701 (5⅛") at both track ends.



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