

Sliding & Folding Door Industrial Hardware Catalogue

Design in Motion

November 2012



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HENDERSON

PC Henderson has long been acknowledged as the world leader in the design and manufacture of sliding and folding door hardware systems for residential, commercial and industrial applications.

Established in 1921, PC 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 supported by Henderson's fully trained UK based technical sales team.

The company is committed to quality and is registered to BS EN ISO 9001: 2008 Quality Systems and Environmental Management Systems ISO 14001: 2004.

As part of this commitment this brochure has been printed on carbon neutral paper in line with the FSC which promotes responsible management of the world's forests. This accreditation guarantees that only the amount of wood which the forest can regenerate naturally is cut down with minimal impact on the environment, wildlife and the indigenous people who reside there.



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Henderson Door Hardware Systems

Versatility of application

Henderson's door hardware systems have been developed for many straight sliding, round-the-corner or folding designs. Such versatility and variety of application gives the customer a wide freedom in design.

The most common application is for sliding doors, however Henderson door hardware is also designed for many, perhaps more unusual non-door applications. Examples of this include sliding machinery, sliding curtains, sliding scenery and sliding sports equipment.

Sliding and folding doors offer many benefits:

- Attractive door designs can be used.
- Space is saved in the opening area as there is no swing. This is very useful for large doors or where space is limited.
- Opening width is maximised as the doors can be slid or folded out of the way.
- Doors are safe to move, important for large doors as it makes them easier to control.
- Room sizes can be easily adjusted with no loss of space by using folded partition doors.

Non-door applications give flexibility by being able to move objects easily and quickly.

Residential applications

Residential uses of hardware are typically on doors for wardrobes, cabinets, cupboards, interior doors and room dividers.

Commercial applications

Commercial uses of hardware include shops, restaurants, schools, garages, churches, offices and many other settings where an aesthetically pleasing installation is a high priority.



Industrial applications

Industrial uses of hardware encompass those where function, durability and reliability are more important than aesthetics. Common applications are doors used in:

- Factories and warehouses
- Farms and barns
- Sliding gates
- Fire doors
- Specific architectural uses such as shop fronts or aluminium framed glazed panels.

Non-door uses are also common, for example, industrial curtains, theatre scenery and over-head production lines.

Residential and Industrial hardware

A residential application is considered to be any installation involving individual door weights up to 100kg. Door weights in excess of this, in the range of 100kg up to 8 tonnes, are required to use industrial gear. Doors can be top hung or supported on bottom rollers, depending upon the building structure and permissible loadings. Advice on selecting your hardware is given later in this brochure.

Technical Support from Henderson

Our technical sales team can give expert advice on all aspects of the selection, installation, maintenance and spares provisions for every type of sliding and folding hardware. The service is based on worldwide experience with all types of installation, and is available to customers both in the UK and overseas.

The EXPERT Specification Service

Henderson is unique in being able to offer customers a computer based service to assist in the specification of the appropriate sliding door hardware. The EXPERT Service is totally free and offers fast and accurate specification and no obligation quotation.

Replacement Parts

Replacement parts for repair and refurbishment are available for Henderson sliding and folding door hardware from your local stockist. Alternatively our technical sales team will be happy to assist in giving new life to well-used installations. Simply call 0191 377 7345.

The Expert Service

If you have a project where you would like to use sliding or folding door hardware use the FREE Henderson Expert Service to supply your bill of materials, quantities, prices and drawings.

Simply contact our Technical Sales Department and based on the answers you give to a series of questions (opening size, door size and weight etc.) We then specify the gear you require and you will receive a quotation from Henderson giving you a bill of materials and a list of the correct gear

- quantity
- price
- drawing
- fitting instructions

If you wish to make changes to your original specification, just contact us, we will find your original quotation, make the amendments and issue you with a revised quotation.

It couldn't be simpler. Leave it to the experts!





UK Technical Sales Team

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Industrial Sliding Gear

UK Technical Sales Team Tel: 0191 377 7345 e-mail: sales@pchenderson.com

Straight Sliding 280-307

FOR SLIDING WOOD DOORS

For top-hung, straight sliding wood doors for commercial and industrial applications; glazed or flush construction or, for industrial use, solidly framed, ledged and braced. Nine systems are available for door leaf weights up to 2000kg. Maximum door width and no. required depends on height, and the weight of door material (eg a softwood door with 50-60mm frame and 20mm boarding weighs c. 22-24 kg/m2). For optimum operation, the width should not exceed 3/4 the door height.

COMPONENTS

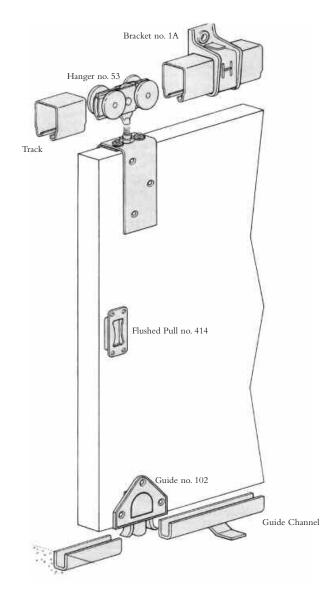
Components supplied include: support and jointing brackets; track; hangers; bottom channel; guides; full range of accessories. Consult our Technical Sales Team or 'Expert' Service for guidance on quantities.

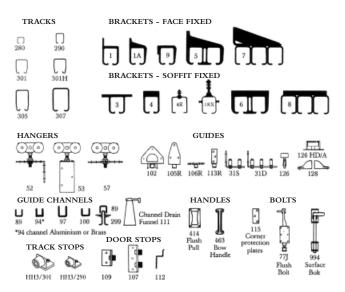
INSTALLATION NOTES (also see drawing)

The gear is suitable for single or multiple lines of track where the supporting structure is sufficient to bear the total door weight. Sterling bottom roller gear (see p34-37) may be specified where support is insufficient. Any number of doors sliding to one or both sides may be specified. A wicket door may be incorporated for individual access requirements. A canopy (not by PC Henderson) is recommended for external fitting of the doors. Typical installation detail drawings are also available.





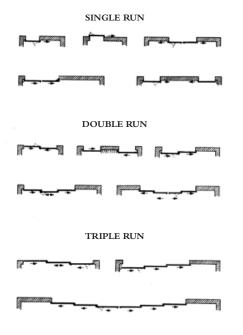




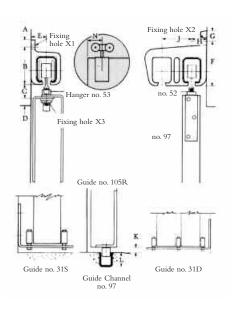
280-307 Wood Door System No.	280	280	290	290	301	301	301H	305	307
Maximum Door Height	2400mm	2400mm	3000mm	3000mm	3600mm	3600mm	4200mm	4800mm	6000mm
Maximum Door Width	1250mm	1250mm	**	**	**	**	**	**	**
Maximum Door Weight	50kg	100kg	150kg	200kg	300kg	400kg	450kg	700kg	2000kg
Door Thickness	20-50mm	20-50mm	35-48mm	35-48mm	43-57mm	43-57mm	43-57mm	43-57mm	60-70mm
Track Twice the width of doors Available lengths: 1.8, 2, 2.5, 3, 4 & 6m	280	280	290	290	301	301	301H	305	307*
Brackets, single run (face fixing) Brackets, double run, (face-fixing) Brackets, single run (soffit fixing) fix every 900mm max and at track joints	281†	281††	1A/290 5/290 3A/290	1A/290 5/290 3A/290	1A/301 5/301 3A/301	1A/301 5/301 3A/301	1A/301 5/301 3A/301	1A/305 5/305 3A/305	1/307/S 5/307/S 3/307/S
Hangers 2 per door Wood Doors - apron fixing Wood Door - angle plate fixing Wood Doors - concealed fixing All Hangers with suffix/N have nylon wheels, a	284N nd /S have st	284 Teel wheels.	53K/N 52K/N 57K/N	53K/S200 52K/S200 57K/S200	53A/S 52A/S 57A/S	53A/N 52A/N 57A/N	53A/N 52A/N 57A/N	53C/S 52C/S 57C/S	53FJ/S
Guide Channel same length as track	89	89	89	89	97	97	97	97	97
Guides 2 per door Wood Doors Wood Doors - concealed fixing	105R/89 106R/94	105R/89 106R/94	105R/89 106R/94	105R/89 106R/94	102/97 106R/97	102/97 106R/97	102/97 106R/97	102/97 106R/97	102/97 106R/97
Flush Pull 1 per door Bow Handle 1 per door (use flush pulls only on double runs of track)	414 463	414 463	414 463	414 5463	414 463	414 463	414 463	414 463	413 464

door height.

EXAMPLE PLAN DETAILS



SECTION DETAILS



		DIMENSIONS													
TRACK	А	В	с	D	Ε	F	G	н	J	к	L	X1	X2	ХЗ	Ν
280	7	40	20	12	16					10	25	M5			*
290	13	67	25	13	27	80	20	27	54	10	25	M8	M12	11	48
301/301H	20	97	50	25	35	110	33	39	79	10	38	M12	M16	20	75
305	25	140	50	25	38	155	38	48	92	13	38	M16	M20	20	85
307	24	156	67	38	45	192	26	45	91	13	38	M16	M20	25	115

PC Henderson provide a full technical support service.

* Husky 50 (284N) = 110mm * Husky 100 (284) = 120mm

Straight Sliding 280-307

FOR SLIDING METAL DOORS

For top-hung, straight sliding metal doors for commercial and industrial applications; normally framed and braced with steel angle and then clad with steel sheet or similar. Where steel box section is used, hangers no. 56X and guides no. 104PX should be specified; for fire doors, hangers no. 56AF/S or 56CF/S should be used - please consult our Technical Sales Team. Nine systems are available for door weights up to 2000kg.

COMPONENTS

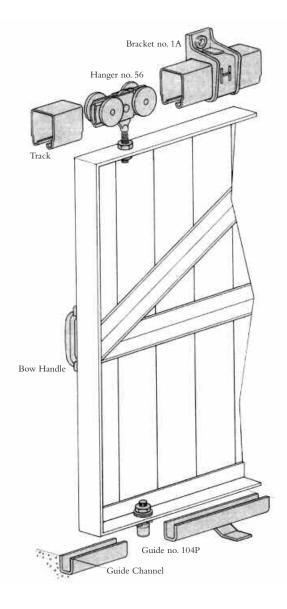
Components supplied include: support and jointing brackets; track; hangers; bottom channel; guides; full range of accessories. Consult our Technical Sales Team or 'Expert' Service for guidance on quantities.

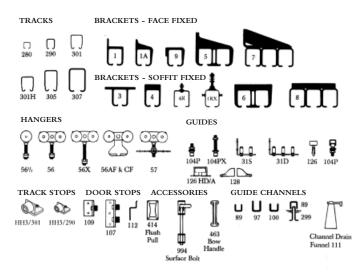
INSTALLATION NOTES (also see drawing)

The gear is suitable for single or multiple lines of track where the supporting structure is sufficient to bear the total door weight. Sterling bottom roller gear (see p12-15) may be specified where support is insufficient. Any number of doors sliding to one or both sides may be specified. A wicket door may be incorporated for individual access requirements. A canopy (not by Henderson) is recommended for external fitting of the doors. Typical installation detail drawings are also available from the Technical Sales Team.





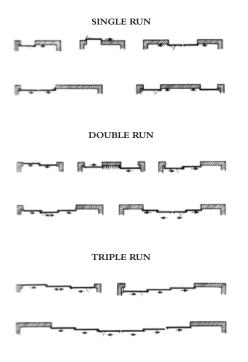




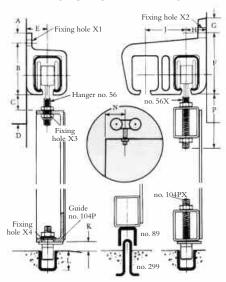
280-307 Metal Door System No.	280	280	290	290	301	301	301H	305	307
Maximum Door Height	2400mm	2400mm	3000mm	3000mm	3600mm	3600mm	4200mm	4800mm	6000mm
Maximum Door Width	1250mm	1250mm	****	****	****	****	****	****	****
Maximum Door Weight	50kg	100kg	150kg	200kg	300kg	400kg	450kg	700kg	2000kg
Door Thickness	20-50mm	20-50mm	35-48mm	35-48mm	43-57mm	43-57mm	43-57mm	43-57mm	60-70mr
Track Twice the width of doors (more if the doors slide further) Available lengths: 1.8, 2, 2.5, 3, 4 & 6m	280*	280*	290*	290*	301	301*	301H*	305	307***
Brackets, single run (face fixing) Brackets, double run, (face-fixing) Brackets, single run (soffit fixing) fix every 900mm max and at track joints	281†	281††	1A/290 5/290 3A/290	1A/290 5/290 3A/290	1A/301 5/301 3A/301	1A/301 5/301 3A/301	1A/301 5/301 3A/301	1A/305 5/305 3A/305	1/307/5 5/307/5 3/307/5
Hangers 2 per door Metal Doors - angle frame Metal Doors - box frame Metal Doors - concealed plate Metal Doors - firedoors All Hangers with suffix/N have nylon wheels, and /S have steel wheels.	285N 284N	285 284	56K/S 56KX/S 57K/N	56K/S200 57K/S200	56A/S 56A/X 57A/S 56AF/S	56A/N 56AX/N 57A/N	56A/N 56AX/N 57A/N 56AF/S	56C/S 56CX/S 57C/S 56CF/S	56FJ/S 56FJ/S
Guide Channel same length as track	89	89	89	89	97	97	97	97	97
Guides 2 per door Metal Doors - angle frame Metal Doors - box frame	104P/89 104PX/89	104P/89 104PX/89	104P/89 104PX/89	104P/89 104PX/89	104P/97 104PX/97	104P/97 104PX/97	104P/97 104PX/97	104P/97 104PX/97	104P/97 104PX/97

*Nylon wheeled hangers (eg 56A/N) - Not to be used for fire resistent door installations involving temperatures exceeding 80°c. ** If used with 301H track give max. capacity of 360kg. † Fix brackets every 550mm max. †† Fix brackets every 275mm max. *** Max. length 3m.

EXAMPLE PLAN DETAILS



SECTION DETAILS



		DIMENSIONS															
TRACK	A	В	с	D	Ε	F	G	н	J	к	L	X1	X2	ХЗ	X4	N	Р
280	7	40	20	13	16					10	25	M5		8.4	17	50	
290	13	67	25	13	27	80	20	27	54	10	25	M8	M12	10.5	17	48	110
301/301H	20	97	50	25	35	110	33	39	79	10	38	M12	M16	17	20	75	140
305	25	140	50	25	38	155	38	48	92	13	38	M16	M20	17	20	85	140
307	24	156	67	38	45	192	26	45	91	13	38	M16	M20	21	20	115	140

PC Henderson provide a full technical support service.

Mansion/Majestic

FOR SLIDING WOOD DOORS

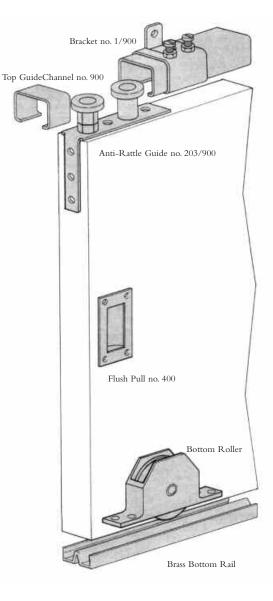
High quality bottom roller gear and fittings to match the best sliding partitions, including glazed, flush or panelled doors. Three systems are available for door leaf weights up to 270kg. Maximum door leaf width and number required depends on height and weight of the door leaf material.

COMPONENTS

Components supplied include: top guide channel; optional top guide brackets; bottom rollers; bottom rail; full range of accessories. Consult our Technical Sales Team or 'Expert' Service for guidance on quantities.

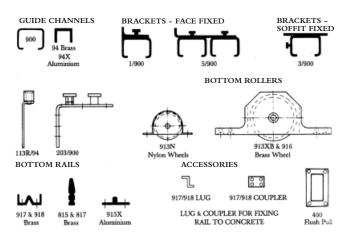
INSTALLATION NOTES (also see drawing)

Door leaves must be constructed with deep bottom section for the concealed, mortised bottom rollers (minimum depth 150mm for 913N/913XB rollers or 175mm for 916 rollers). Typical installation detail drawings are also available.





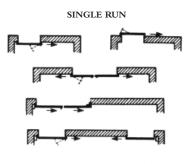




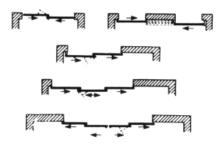
Mansion/Majestic System No.	Mansion 55	Mansion 170	Majestic
Maximum Door Height	2600mm	2600mm	3300mm
Maximum Door Weight	55kg	170kg	270kg
Door Thickness	30-57mm	30-57mm	44-57mm
Top Guide Channel Twice the width of doors Available lengths: 1.8, 2, 2.5 & 3m (More if doors slide further)	94*Brass 94X Aluminium	900	900
Brackets, single run (soffit fixing) Brackets, single run (face fixing) Brackets, double run (face fixing) Fix every 900mm max and at channel joints		3/900 1/900 5/900	3/900 1/900 5/900
Guides - 2 per door	113R/94	203/900	203/900
Bottom Rollers - brass wheel - nylon wheel	913N	913XB	916
Bottom Rail - brass - brass recessed - aluminium same length as guide channel (lengths 1.5 & 3m)	aluminium 915X**	918 815	917 817
Flush Pull 2 per door	400	400	400

* Available in 1.5 & 3m lengths, drilled for soffit fixing. ** Available in 1.5, 2, 2.5 & 3m lengths.

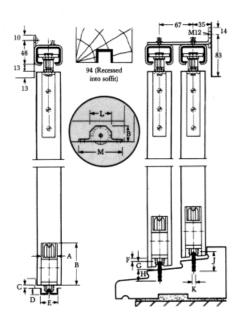
EXAMPLE PLAN DETAILS



DOUBLE RUN



SECTION DETAILS



		DIMENSIONS										
SYSTEM	A	В	с	D	E	F	G	н	J	К	L	м
MANSION 55	16	37	5	6	21	5	16	16	32	6	48	74
MANSION 170	22	48	5	10	25	5	16	16	32	6	63	117
MAJESTIC	32	82	6	13	35	6	16	22	38	8	111	229

PC Henderson provide a full technical support service.

INDUSTRIAL

Sterling

FOR SLIDING WOOD DOORS

For bottom rolling wood doors in a range of commercial and industrial applications, especially where the supporting structure or lintel is insufficient for the weight of the door or headroom is limited. The doors may be partially or fully glazed, or should be framed, ledged and braced for industrial applications. Four systems are available up to 2000kg per door. Maximum door width and number of doors required depends on height and weight of the door material. For optimum operation, the door width should not be less than 1/2 the door height.

COMPONENTS

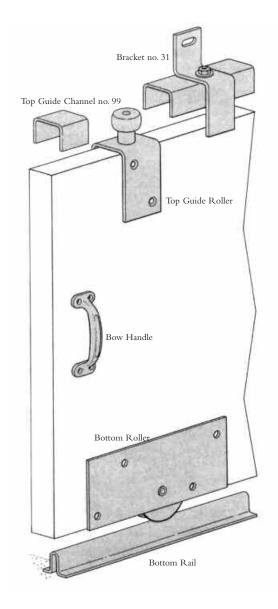
Components supplied include: top guide channel; brackets; top guide rollers; bottom rollers; bottom rail; full range of accessories. Consult our Technical Sales Team or 'Expert' Service for guidance on quantities.

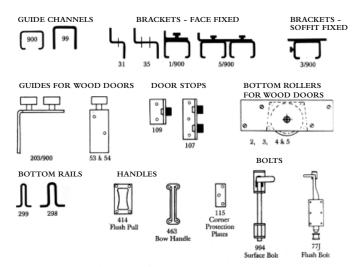
INSTALLATION NOTES (also see drawing)

The gear is suitable for single or multiple lines of track. Rollers should be positioned in the bottom door leaf section, clear of the joint with the stile. Suitable depth of bottom door leaf sections are: 230mm for bottom rollers no.s 2 & 5; 300mm for no. 3; no. 4 made to order to suit door thickness between 70-100mm as specified. Any number of doors sliding to one or both sides may be specified.

A canopy (not by PC Henderson) is recommended for external fitting of the doors.



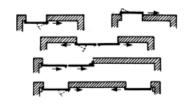


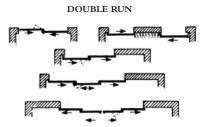


Sterling Wood Door System No.	225	350	800	2000
Maximum Door Height	3300mm	4000mm	5200mm	7500mm
Maximum Door Weight	225kg	350kg	800kg	2000kg
Door Thickness	44-50mm	44-54mm	54-63mm	See Text
Top Guide Channel Twice the width of doors (More if doors slide further) Available lengths: 2, 2.5 & 3m	900	99	99	13
Brackets , single run (face fixing) Brackets , double run (face fixing) Fix every 900mm max and at channel joints	1/900 5/900	31 35	31 35	1/13 5/13
Guides - 2 per door	54/900	53/99	53/99	53/13
Bottom Rollers 2 per door	5	2	3	4
Bottom Rail (same length as guide channel)	299	298	298	298
Flush Pull 1 per door (used on double runs of track)	414	414	414	413
Bow Handle 1 per door (used on single doors)	463	463	463	464

EXAMPLE PLAN DETAILS

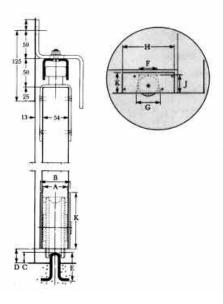






SECTION DETAILS

(NB: The top section of the door illustrated is only Sterling 350 & 800. For Sterling 225 see MANSION)



		DIMENSIONS											
TRACK	A	В	с	D	Е	F	G	н	J	к			
225	44	50	16	24	50	65	102	159	67	75			
350	44	54	20	25	50	115	135	305	95	102			
800	51	63	20	30	50	135	175	381	130	152			

PC Henderson provide a full technical support service.

Sterling

FOR SLIDING METAL DOORS AND GATES

Straight sliding bottom roller

For bottom rolling metal doors and gates in a range of commercial and industrial applications, especially where the supporting structure or lintel is insufficient for the weight of the door or headroom is limited. The doors should be framed and braced using steel angle, then clad with steel sheet; for Sterling 3600 and 8000 gear the door should be constructed from steel channel section. Six systems are available up to 8000kg per door. Maximum door leaf width and no. required depends on the height and the weight of door material. Gear is also suitable for power operation (power operation not by PC Henderson - consult our Technical Sales Team).

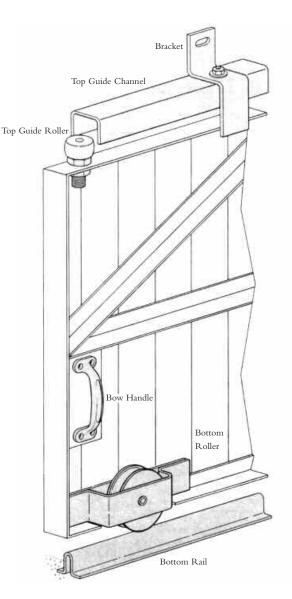
COMPONENTS

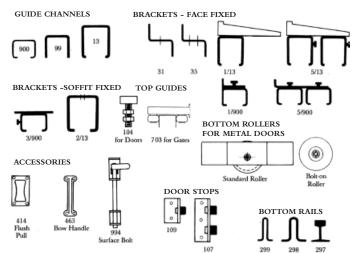
Components supplied include: top guide channel; brackets; top guide rollers; bottom rollers; bottom rail; full range of accessories. (All steel parts are galvanised.) Consult our Technical Sales Team or 'Expert' Service for guidance on quantities.

INSTALLATION NOTES (also see drawing)

The gear is suitable for single or multiple lines of track. Rollers should be positioned securely in the bottom door frame section by welding or bolting. Bottom rail must be set level and may be recessed for protection from traffic. Any number of doors sliding to one or both sides may be specified. A wicket door may be incorporated for individual access requirements. A canopy (not by PC Henderson) is recommended for external fitting of the doors.





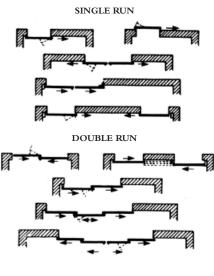


					-	
Sterling Metal Door System No.	225	350	800	2000	3600	8000
Maximum Door Height	3300mm	4000mm	5200mm	7500mm	12500mm	20000mm
Maximum Door Weight	225kg	350kg	800kg	2000kg	3600kg	8000kg
Door Thickness	44-50mm	44-54mm	54-63mm	58-70mm	152min	152min
Top Guide Channel Twice the width of doors (More if doors slide further) Available lengths: 2, 2.5 & 3m	900	99	99	13	Not by PCH	
Brackets , single run (face fixing) Brackets , double run (face fixing) Fix every 900mm max and at channel joints	1/900 5/900	31 35	31 35	1/13 5/13	Not by PCH Not by PCH	
Guides - 2 per door	104/900	104/99	104/99	104/13	104S*	104S*
Bottom Rollers 2 per door - standard	55	15	35	4SJ	3600**	8000**
Bottom Rollers 2 per door - Bolt on rollers also available in 'V' square or 'U' tread, see below	5SU	1SU	3SU	4SJU		
Bottom Rail (same length as guide channel)	299	298	298	298	297***	297***
Bow Handle 1 per door (used on single doors)	463	463	463	464	464	464

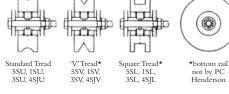
* Fit 4 per door, available in choice of 125, 175 & 200mm diameters.

** Made to suit door. Chain driven geared rollers available. *** Only Available in 2.7m lengths (plain steel).



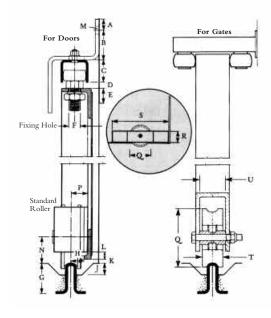






PC Henderson provide a full technical support service.

SECTION DETAILS



		DIMENSIONS																
TRACK	А	в	C D	E	F	G	н	J	к	L	м	N	Р	Q	R	s	т	U
225	10	10	38 20	25	17	50	14	16	3	11	12	30	19	75	50	229	25	35
350	20	50	38 10	25	21	50	22	20	6	13	12	44	29	110	75	305	40	50
800	20	50	38 10	25	21	50	22	20	6	13	12	62	32	146	75	381	40	50
2000	32	35	85 25	30	26	50	25	20	10	12	16	85	32	197	102	457	45	56
3600			20	127	32	65	44							286			105	128
8000			20	203	32	65	44							436			105	128

Tangent

FOR FOLDING WOOD OR METAL DOORS

Round the corner

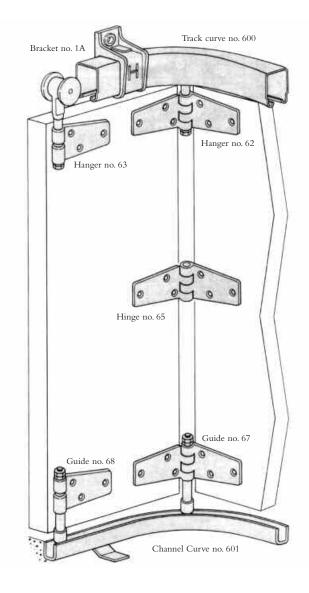
Robust top-hung door gear for round-the-corner residential, commercial or light industrial, wood or metal folding doors; deluxe fittings are also available in polished or satin anodised aluminium finishes. The doors leaves may be panelled, flush or glazed. Four systems are available to suit door leaf weights up to 80kg.

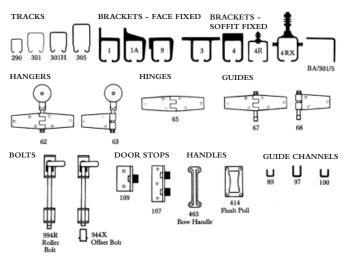
COMPONENTS

Components supplied include: track; track curves; support and jointing brackets; hangers; hinges; guides; bottom channel; channel curves; full range of accessories. (All steel parts are galvanised) Consult our Technical Sales Team or 'Expert' Service for guidance on quantities (see table for maximum door leaf width and drawing for door leaf detail).

INSTALLATION NOTES (also see drawing)

Hinges should be fixed to framing and joints of the door. For smooth operation, only 3-5 leaves should be hinged in one unit; any number of units may be used, sliding to one or both sides. The end door leaf under the curve normally forms a swinging access door (see plan for details). Typical installation detail drawings are also available.









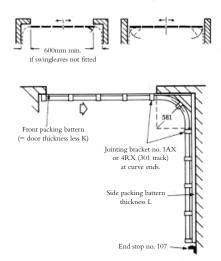
Tangent Round-the-corner System No.		290	301	301H	305
Maximum Door Leaf Height		2400mm	3300mm	3600mm	4500mm
Maximum Door Leaf Weight		35kg	55kg	70kg	80kg
Maximum Door Leaf Width (minimum 711	nm)		900mm	900mm	900mm 900mm
Door Leaf Thickness			35-50mm	45-55mm	45-55mm 45-55mm
Track Front track = opening width + reveal R Side track = opening width Available lengths: 1.8, 2, 2.5, 3, 4 & 6m	- 800	290	301	301H	305
Track Curves Require 1, or 2 for biparting do	ors	600K	600B	600BH	600D
Brackets - face fixing Fix every 900mm max and at track joints and Fix jointing brackets/sleeve at both curved er		1A/290 1AX/290	1A/301, 1AX/301 4RX/301TS	1A/301 4RX/301TS	1/305 1AX/305
Hangers 1 per door leaf joint and end leaf	Intermediate leaves End Leaf	62K 63K	62A 63A	62A 63A	62C 63C
Hinges 3 in height*		65	65	65	65C
Guides - 1 per door leaf joint and end leaf	Intermediate Leaves End Leaf	67/89 68/89	67/97 68/97	67/97 68/97	67C/97 68C/97
Channel - Same length as track Channel Curve - No. as track curves		89 601/89	97 601/97	97 601/97	97 601/97
Bow Handles 1 every 2 leaves Flush Pull 1 every 2 leaves Roller Bolt 1 per swingleaf door		463 414 994R/89	463 414 994R/97	463 414 994R/97	463 414 994R/97

* Increase to 4 for doors over 3000mm high. Fit offset bolt 994X on doors with trailing swingleaf, on all fixed units, unit of 5 leaves and biparting units.

EXAMPLE PLAN DETAILS

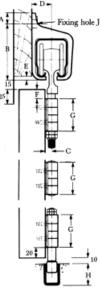


For convenient locking R should not exceed 360mm, but 115mm-230mm is ideal. If the swingleaf under the curve is not required R should be a min. of 690mm to accommodate the corner curve.



PC Henderson provide a full technical support service.

SECTION DETAILS



	DIMENSIONS										
TRACK	A	В	с	D	E	F	G	н	J	к	L
290	13	67	11	27	6	10	57	25	M8	6	65
301/301H	20	97	11	35	6	15	57	25	M12	16	70
305	25	140	14	38	10	15	83	38	M16	16	75

Tangent

FOR FOLDING WOOD OR METAL DOORS

External folding

Robust top-hung door gear for commercial or light industrial wood or metal folding doors; deluxe fittings are also available in polished or satin anodised aluminium finishes. The door leaves may be panelled, flush or glazed. Seven systems are available to suit door leaf weights up to 80kg.

COMPONENTS

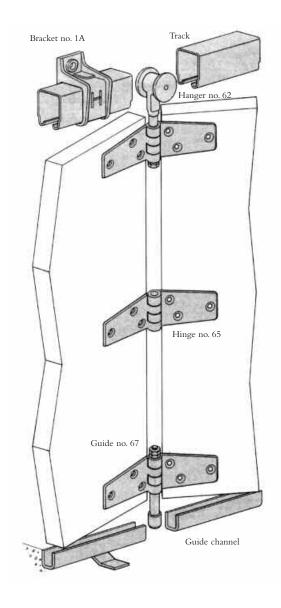
Components supplied include: track; support brackets; hangers; hinges; guides; bottom channel; range of accessories. (All steel parts are galvanised.) Consult our Technical Sales Team or 'Expert' Service for guidance on quantities (see table for maximum door leaf width and drawings for door leaf detail).

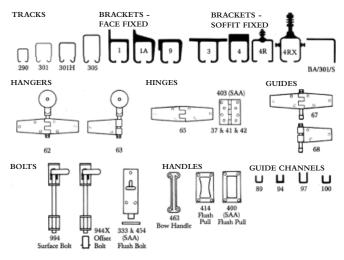
INSTALLATION NOTES (also see drawing)

Hinges should be fixed to framing and joints to the door. Up to 8 door leaves can be hinged to jamb within the opening or behind a reveal. Freefloating units may also be used of 4, 6 or 8 door leaves for stability. A swinging pass door is only suitable for door leaves under 3000mm high and is obtained by using 3 or 5 door leaves hinged to the jamb or an independently hung door leaf (see plan for details). If over 3000mm high, an independently hung door leaf is recommended. Typical installation detail drawings are also available.









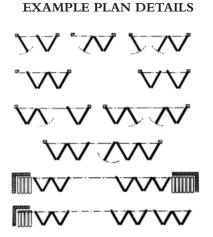
All dimensions are in mm.

					,	, 5	•	
Tangent Folding System No.		2905	290D	3015	301D	301HS	301HD	305S
FINISH** Maximum Folding Door Leaf Height		standard 2400mm	DELUXE 2400mm	STANDARD 3300mm	DELUXE 3300mm	STANDARD 3600mm	DELUXE 3600mm	STANDARD 4500mm
Maximum Folding Door Leaf Weight		35kg	35kg	55kg	55kg	70kg	70kg	80kg
Maximum Folding Door Leaf Width		900mm	900mm	900mm	900mm	900mm	900mm	900mm
Door Leaf Thickness		35-50mm	35-50mm	45-55mm	45-55mm	45-55mm	45-55mm	45-55mm
Track Equal to width of opening (extra if doors Available lengths: 1.8, 2, 2.5, 3, 4 & 6m	s slide further)	290	290	301	301	301H	301H	305
Brackets - face fixed Brackets - soffit fixed Fix every 900mm max and at track joint Fix extra bracket where door leaves stack		1A/290 3A/290	1A/290 3A/290	1A/301 3A/301	1A/301 3A/301	1A/301 3A/301	1A/301 3A/301	1A/305 3A/305
Hangers 1 every 2 door leaves Intermediate door leaves End Leaf		62K 63K	62K/P 63K/P	62A 63A	62A/P 63A/P	62A 63A	62A/P 63A/P	62C 63C
Hinges 3 in height*		65	403/2 403/3	65	403/2 403/3	65	403/2 403/3	65C
	rmediate Leaves Leaf	67/89 68/89	67/94P 68/94P	67/97 68/97	67/94P 68/94P	67/97 68/97	67/94P 68/94P	67C/97 68C/97
Channel - Same length as track (Galvanised wire steel)		89	94	97	94	97	94	97
Handles 1 every 2 door leaves Bolts 1 every 2 door leaves		463 994	400 333	463 994	400 454	463 994	400 454	463 994

** Standard or deluxe finishes (polished/anodised fittings) are available. * Increase to 4 hinges when doors exceed 3000mm high

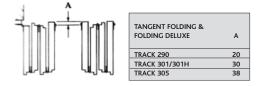
No more than 8 leaves should be hinged together, and can be hinged to jamb or floating.

A swinging pass door is obtained by using 3 or 5 leaves hinged to jamb, or an independently hung door leaf. For doors over 3000mm high a wicket door is recommended.



WIDTH OF LEAVES

ALL ALIKE EXCEPT END LEAVES WITH HANGERS WHICH MUST BE WIDER BY DIMENSION 'A'



PC Henderson provide a full technical support service.

Fixing Hole J Fixing

SECTION DETAILS

		DIMENSIONS							
TRACK	A	В	с	D	E	F	G	н	J
290	13	67	11	27	6	10	57	25	M8
301/301H	20	97	11	35	6	15	57	38	M12
305	25	140	14	38	10	15	83	38	M16

Council

FOR END FOLDING WOOD PARTITION DOORS

Endfold partition

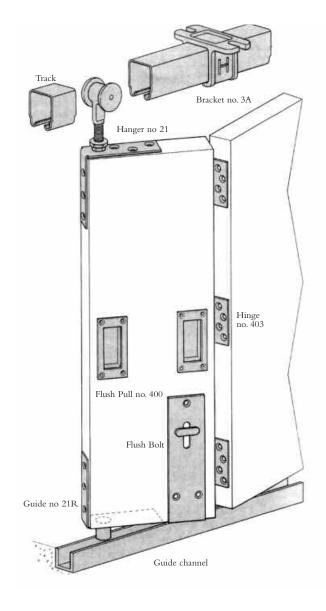
Quality top-hung gear and fittings for end folding wood partition doors. Four systems are available to a maximum leaf weight of 80kg.

COMPONENTS

Components supplied include: support brackets and track; top hangers; hinges; guides; bottom channel; full range of accessories. Consult our Technical Sales Team or 'Expert' Service for guidance on quantities. (See table for maximum door leaf width).

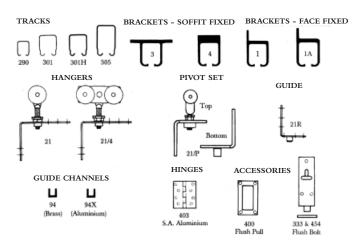
INSTALLATION NOTES (also see drawing)

Doors must be constructed with solid top and bottom rails and stiles for secure fixing of components. Door leaves may be panelled. flush or glazed. For best operation, no more than 8 door leaves are to be hinged to one jamb (see inset drawing for fixing detail of flush endfold pivot gear) or anchored by pivots. Alternatively door leaves may be floating in units of 4, 6 or 8. An access door can be a swing leaf at the end of either the 3, 5 or 7 door leaf unit or independently hung to the jamb. On door heights over 3000mm consult our Technical Sales Team. Typical installation detail drawings are also available





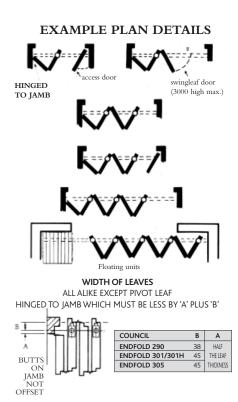




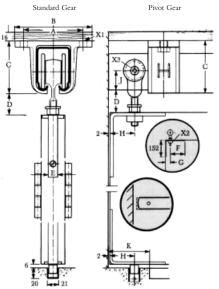
Council Endfold System No.	290	301	301H	305
Maximum Folding Door Leaf Height	2700mm	3300mm	3600mm	4500mm
Maximum Folding Door Leaf Weight	35kg	55kg	70kg	80kg
Maximum Folding Door Leaf Width	900mm	900mm	900mm	900mm
Door Leaf Thickness	35-44mm	44-57mm	44-57mm	44-57mm
Track equal to width of opening (extra if doors slide further) Available lengths: 1.8, 2, 2.5, 3, 4 & 6m	290	301	301H	305
Brackets - Soffit fixed. Fix every 900mm max and at track joints Fix extra bracket where doors stack	3A/290	3A/301	3A/301	3A/305
Hangers 1 every 2 leaves (+ endleaf of floating unit only) Alternative type if adjacent to swingleaf	21K/N 21K/4N	21A/S 21A/4S	21A/S 21A/4S	21C/S
Hinges 3 in height* Alternative pivot set where equal width leaves are to be Anchored at one end	403/1 21K/P	403/2 21A/P	403/2 21A/P	403/3
Guides - 1 every 2 leaves (+ endleaf of floating unit only)	21KR/94	21R/94	21R/94	21R/94
Guide Channel - Same length as track - brass (available in 1.5 & 3m lengths) aluminium (available in 1.5, 2, 2.5 & 3m lengths)	94 94X	94 94X	94 94X	94 94X
Flush Pull 1 every 2 leaves (2 on end leaves of units) Flush Bolt 1 every 2 leaves	400 333	400 454	400 454	400 454

No more than 6 leaves should be hinged together and can be hinged to jamb or floating.

A swinging pass door is obtained by using a 3 or 5 door leaf unit up to 3000mm high, or an independently hung leaf. * Increase to 4 hinges for doors over 3000mm high.







	DIMENSIONS												
TRACK	Α	В	С	D	Ε	F	G	Н	J	К	X1	X2	Х3
290	64	83	56	20	13	114	38	38	20	70	M8	13	M6
301/30H	100	130	86	45	18	133	45	45	35	75	M12	20	M8
305	125	168	121	60	18	133	45				M16	20	

PC Henderson provide a full technical support service.

INDUSTRIAL

Council

FOR CENTRE FOLDING WOOD PARTITION DOORS

Centrefold partition

Quality top-hung gear and fittings for centre folding wood partition doors. Four systems are available to a maximum leaf weight of 80kg.

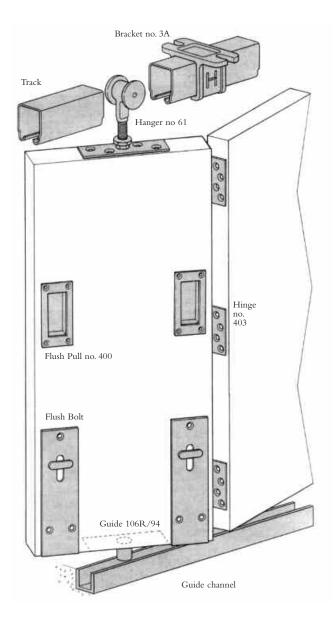
COMPONENTS

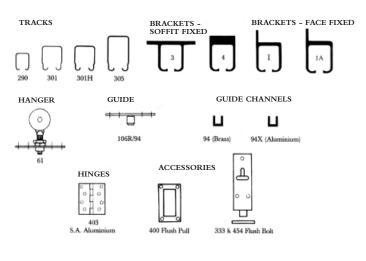
Components supplied include: support brackets and track; top hangers; hinges; guides; bottom channel; full range of accessories. Consult our Technical Sales Team or 'Expert' Service for guidance on quantities. (See table for maximum door leaf width).

INSTALLATION NOTES (also see drawing)

Doors must be constructed with solid top and bottom rails and stiles for secure fixing of the components. Door leaves may be panelled, flush or glazed. For best operation, no more than $7^{1/2}$ door leaves are to be hinged to one jamb (see inset drawing for fixing detail), alternatively door leaves may be floating in units 5, 7 or 9. Any access door should be hung separately to the jamb. Typical installation detail drawings are also available.







Council Centrefold System No.	290	301	301H	305
Maximum Folding Leaf Height	2700mm	3300mm	3600mm	4500mm
Maximum Folding Leaf Weight	35kg	55kg	70kg	80kg
Maximum Folding Leaf Width	1000mm	1000mm	1000mm	1000mm
Door Thickness	35-44mm	44-57mm	44-57mm	44-57mm
Track Equal to opening width Available lengths: 1.8, 2, 2.5, 3, 4 & 6m	290	301	301H	305
Brackets - Soffit fixed. Fix every 900mm max and at track joints Fix extra bracket where doors stack	3A/290	3A/301	3A/301	3A/305
Hangers 1 every 2 leaves	61K/S	61A/S	61A/S	61C/S
Hinges 3 in height*	403/1	403/2	403/2	403/3
Guides - 1 every 2 leaves	106R/94	106R/94	106R/94	106R/94
Guide Channel - Same length as track - brass (available in 1.5 & 3m lengths) aluminium (available in 1.5, 2, 2.5 & 3m lengths)	94 94X	94 94X	94 94X	94 94X
Flush Pull 1 every 2 leaves (2 on end leaf) Flush Bolt 1 every 2 leaves (2 on end leaf)	400 333	400 454	400 454	400 454

Door should consist of 3, 5 or 7 folding leaves, with extra half leaf hinged to jamb. Alternatively, 5, 7 or 9 leaves may be floating.

* Increase to 4 hinges for doors over 3000mm high.

EXAMPLE PLAN DETAILS



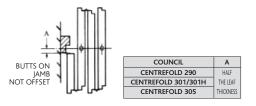






Floating units

WIDTH OF LEAVES ALL ALIKE EXCEPT PIVOT LEAF HINGED TO JAMB WHICH MUST BE HALF THE WIDTH OF A FULL LEAF LESS 'A'



PC Henderson provide a full technical support service.

G G Bracket No. 3A Bracket No. 4A D П Guide 106R/94 20 Channel 94

					DIM	ENS	IONS				
TRACK	Α	В	С	D	E	F	G	Н	J	К	
290	64	83	56	23	38	13	M8	48	67	140	
301/301H	100	130	86	45	50	20	M12	75	95	184	
305	125	168	121	60	65	20	M16	83	137	241	

SECTION DETAILS

College

FOR END FOLDING WOOD PARTITION DOORS

Endfold partition

High quality bottom roller gear and fittings for end folding wood partitions doors. Two systems are available for a maximum door leaf weight of 140kg.

COMPONENTS

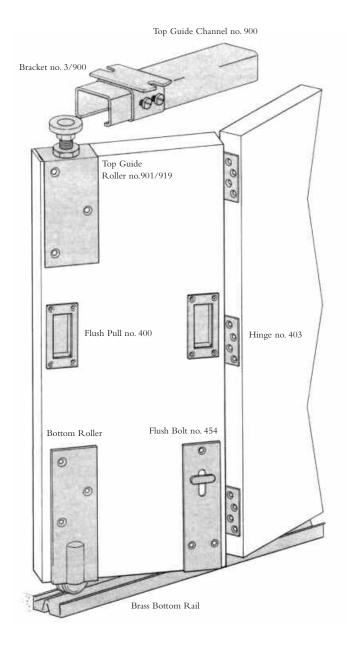
Components supplied include: top guide brackets; top guide channel; top guide rollers; hinges; bottom rollers; bottom rail; full range of accessories. Consult our Technical Sales Team or 'Expert' Service for guidance on quantities. (See table for maximum door leaf width).

INSTALLATION NOTES (also see drawing)

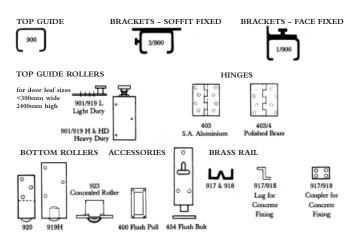
Doors must be constructed with solid top and bottom rails and stiles for secure fixing of components. Minimum 50mm wide and 75mm deep stiles for 923 concealed rollers (max. door weight 70kg) 125mm deep stiles for 920 rollers, 150mm deep for 919H rollers and 200mm deep bottom rails. Door leaves may be panelled, flush or glazed. For best operation, no more than 8 door leaves are to be hinged to one jamb (see inset drawing for fixing detail), alternatively door leaves may be floating in units of 6 or 8. Any swing door should be hung separately to the jamb. Typical installation drawings are also available.







CHOICE OF GEARS



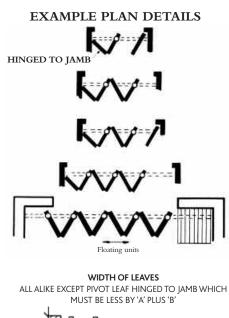
24

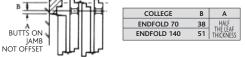
College Endfold System No.	ENDFOLD 70	ENDFOLD 140	
Maximum Folding Leaf Height	3600mm	5500mm	
Maximum Folding Leaf Weight	70kg	140kg	
Maximum Folding Leaf Width	900mm	900mm	
Door Thickness	44mm	54mm	
Top Guide Channel Equal to opening width (extra if doors slide further) Available lengths: 2, 2.5 & 3m	900	900	
Brackets - Soffit fixed. Fix every 600mm max and at channel joints Fix extra bracket where doors stack	3/900	3/900	
Top Guide Rollers 1 every 2 leaves (+ endleaf of floating unit only)	901/919H	901/919HD	
Hinges 3 in height*	403/2	403/3	
Bottom Rollers 1 every 2 leaves (+ endleaf of floating unit only)	920/923	919H	
Bottom Rail - same length as Top Guide Channel Available lengths 1.5m & 3m	918	917	
Flush Pull 1 every 2 leaves (2 on end leaf)	400	400	
Flush Bolt 1 every 2 leaves	454	454	

* Increase to 4 hinges when doors exceed 3000mm high.

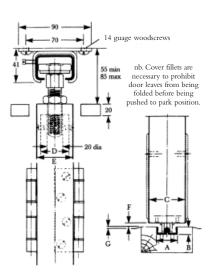
No more than 8 door leaves should be hinged to jamb.

An access door can be independently hinged to a jamb or a wicket door fitted, but a swing door should not be attached to a folding unit.





SECTION DETAILS



	DIMENSIONS							
SYSTEM	Α	В	с	D	E	F	G	
ENDFOLD 70	25	10	44	34	44	5	2	
ENDFOLD 140	35	13	54	44	54	6	3	

PC Henderson provide a full technical support service.

INDUSTRIAL

College

FOR CENTRE FOLDING WOOD PARTITION DOORS

Centrefold partition

High quality bottom roller gear and fittings for centre folding wood partition doors. Two systems are available for a maximum door leaf weight of 140kg.

COMPONENTS

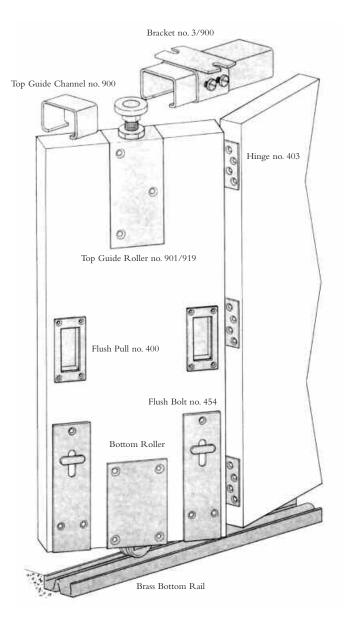
Components supplied include: top guide brackets; top guide channel; top guide rollers; hinges; bottom rollers; bottom rail; full range of accessories. Consult our Technical Sales Team or 'Expert' Service for guidance on quantities. (See table for maximum door leaf width).

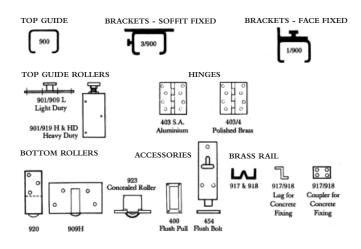
INSTALLATION NOTES (also see drawing)

Doors must be constructed with solid top and bottom rails and stiles for secure fixing of components. Minimum 50mm wide and 75mm deep stiles for 923 concealed rollers (max. door weight 70kg). Minimum 200mm deep for bottom rails. Door leaves may be panelled, flush or glazed. For best operation, no more than $7^{1/2}$ door leaves to be hinged to one jamb (see inset drawing for fixing detail), alternatively door leaves may be floating in units of 5 or 7. Any swing door should be hung separately to the jamb. Typical installation detail drawings are also available.







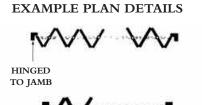


College Centrefold System No.	CENTREFOLD 70	CENTREFOLD 140
Maximum Folding Leaf Height	3600mm	5500mm
Maximum Folding Leaf Weight	70kg	140kg
Maximum Folding Leaf Width	1000mm	1000mm
Door Thickness	44mm	54mm
Top Guide Channel Equal to opening width Available lengths: 2, 2.5 & 3m	900	900
Brackets - Soffit fixed. Fix every 600mm max and at channel joints Fix extra bracket where doors stack	3/900	3/900
Top Guide Rollers 1 every 2 leaves	901/919H	901/919HD
Hinges 3 in height*	403/2	403/3
Bottom Rollers 1 every 2 leaves	920/923	909Н
Bottom Rail - same length as Guide Channel Available lengths 1.5m & 3m	918	917
Flush Pull 1 every 2 leaves**	400	400
Flush Bolt 1 every 2 leaves**	454	454

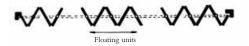
* Increase to 4 hinges when doors exceed 3000mm high.

No more than $7^{1_{2}}$ leaves should be hinged to the jamb, or 7 leaves maximum for a floating unit

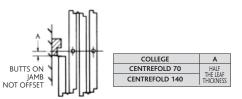
An access door can be independently hinged to a jamb, but a swing door should not be attached to a folding unit. ** Two on endleaves of units.





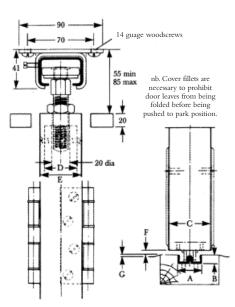


WIDTH OF LEAVES ALL ALIKE EXCEPT PIVOT LEAF HINGED TO JAMB WHICH MUST BE HALF THE WIDTH OF A FULL LEAF LESS 'A'



PC Henderson provide a full technical support service.

SECTION DETAILS



	DIMENSIONS							
SYSTEM	A	В	с	D	E	F	G	
CENTREFOLD 70	25	10	44	34	44	5	2	
CENTREFOLD 140	35	13	54	44	54	6	3	

Arcade

FOR END & CENTRE FOLDING ALUMINIUM SECTION DOORS

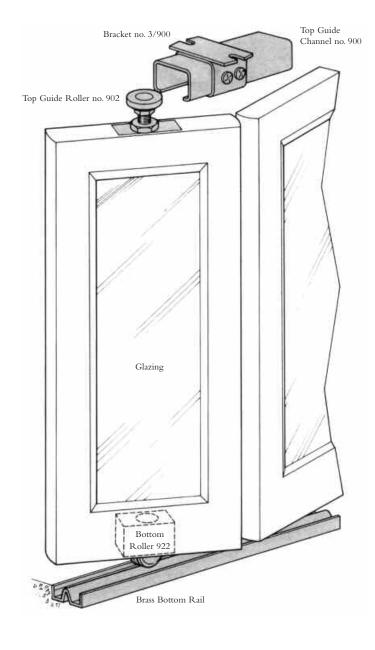
High quality bottom roller gear and fittings for end and centre folding aluminium section glazed for retail and display applications to a maximum door leaf weight of 70kg.

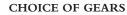
COMPONENTS

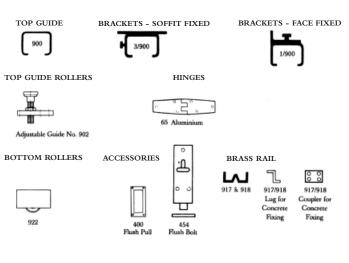
Components supplied include: top guide brackets; top guide channel; top guide rollers; back flap hinges; bottom rollers; bottom rail; full range of accessories. Consult our Technical Sales Team or 'Expert' Service for guidance on quantities. (See table for maximum leaf width).

INSTALLATION NOTES (also see drawing)

For doors constructed with standard aluminium section rails and stiles, with glazed panels. For best endfold operation, no more than 8 door leaves to be hinged to one jamb (see inset drawing for fixing detail), alternatively door leaves may be floating in units of 6 or 8. Any access door should be hung separately to the jamb. For best centrefold operation, not more than 7¹/₂ door leaves to be hinged to one jamb (see inset drawing for fixing detail), alternatively door leaves may be floating in units of 5 or 7. Any access door should be hung separately to the jamb. Typical installation detail drawings are also available.











All dimensions are in mm.

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UK Technical Sales Team Tel: 0191 377 7345 e-mail: sales@pchenderson.com

Arcade System No.	ENDFOLD A70	CENTREFOLD A70
Maximum Folding Leaf Height	3600mm	3600mm
Maximum Folding Leaf Weight	70kg	70kg
Maximum Folding Leaf Width	900mm	1000mm
Door Thickness	45-47mm	45-47mm
Top Guide Channel Equal to opening width Available lengths: 2, 2.5 & 3m	900	900
Brackets - Soffit fixed. Fix every 600mm max and at channel joints Fix extra bracket where doors stack	3/900	3/900
Top Guide Rollers 1 every 2 leaves	902	902
Hinges 3 in height*	65	65
Bottom Rollers 1 every 2 leaves	922	922
Bottom Rail - same length as Guide Channel Available lengths 1.5m & 3m	918	918
Flush Pull 1 every 2 leaves**	400	400
Flush Bolt 1 every 2 leaves**	454	454

* Increase to 4 hinges when doors exceed 3000mm high.

Endfold: No more than 8 leaves should be hinged to the jamb. Centrefold: No more than 7^{1/2} leaves should be hinged to the jamb, or 7 leaves maximum for a floating unit An access door can be independently hinged to a jamb, but a swing door should not be attached to a folding unit. ** Two on endleaves of units.

EXAMPLE PLAN DETAILS

ENDFOLD

 $\frac{1}{1}$

HINGED TO JAMB

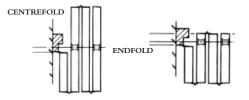
CENTREFOLD

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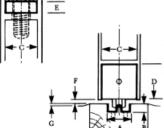
HINGED TO JAMB

WIDTH OF LEAVES DEPENDENT ON DOOR CONSTRUCTION CONSULT OUR TECHNICAL SALES TEAM



PC Henderson provide a full technical support service.

woodscrews guage



	DIMENSIONS						
SYSTEM	Α	В	с	D	E	F	G
END & CENTREFOLD	25	10	38	38	12	5	2

SECTION DETAILS

Titan

FOR SLIDING CANTILEVER **METAL GATES**

Quality, heavy duty cantilever gear for sliding metal gates suitable for industrial and commercial use - examples of use include security, traffic control and where the road surface is uneven, eg railway lines. Cantilever gates leave the roadway free of channels, guide rails or other obstructions, using a track which fits to the bottom rail of the gate and runs on internal rollers for security and weather protection, it can also be used for heavy doors where no overhead support exists. Two systems are available to suit openings up to 10m wide and weights up to 1000kg (automated - automation not by PC Henderson or manually operated).

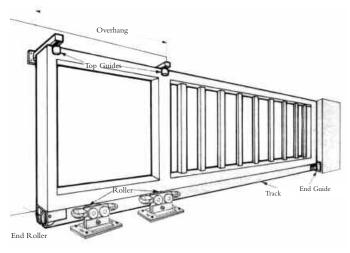
COMPONENTS

All steel parts are galvanised and components supplied per gate include: bottom rollers; top guides; end guides; end rollers; track - length is determined by the opening width plus overhang. The table opposite indicates choice of gear dependent on gate weight, overhang and opening width.

INSTALLATION NOTES (also see drawing)

Gates should be constructed from welded square steel tubing. Enough space is required to slide the gate completely clear of the opening. Rollers should be mounted on substantial concrete footings and spaced as widely as possible. Typical installation detail drawings are also available.

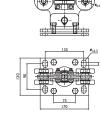


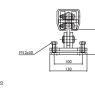


OUANTITY REOUIRED PER GATE TRACK: OPENING WIDTHS PLUS OVERHANG (see opposite) ROLLERS x 2 - END GUIDES x 2 - TOP GUIDES x 2 - END ROLLER x 2

	DIMENSIONS										
		STEEL TRACK									
Part No.	Material	Length	Weight kg	L	н	0	т				
700	Galvanised Steel	6m	51.5	80	75	22	4.5				
710	Galvanised Steel	6m	90	90	110	25	6				

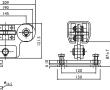
704



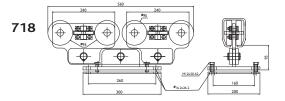








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Read across the chart to your required gate opening width, then read downward to estimate gate weight. Shaded area indicates roller type (refer to colour key) and the overhang length C that is required.

OVERHANG LENGTH C IN METRES SHOWN IN BOXES

Use a pair of rollers 704 and track 700 with end rollers 701 and end guide 702.

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Mainh+ in

Use a pair of rollers 708 and track 700, with end rollers 701 and end guide 702

Use a pair of rollers 718 and track 710 with end rollers 705 and end guide 712.

	Opening Width in Metres											
		3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0	
n kg	Up to 250kg	0.235	0.235	0.235	0.235	0.235	0.235					
Gate Weight in	Up to 550kg	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.410	0.410	
Gate V	Up to 1000kg	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	

Note: To automate your Titan cantilever gate all figures and dimensions remain the same.

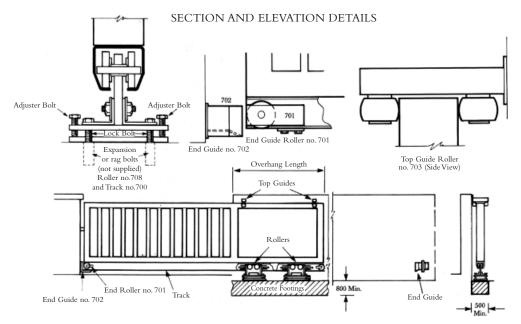
overhang verhang ve

Min. weight of each concrete block for each roller = $1.7 \times W$ (total gate weight with the track)

(average concrete density : 2.6 to 2.8 kg/m³).

B (Distance between roller centres) = $0.3 \times L$.

 ${\bf C}$ = Distance from centre of roller to gate adjacent cornered overhang, on each side in metres.



Note: Rollers should be set as far apart as possible but allow space for end roller no.701 (130mm) at both track ends.

PC Henderson provide a full technical support service.

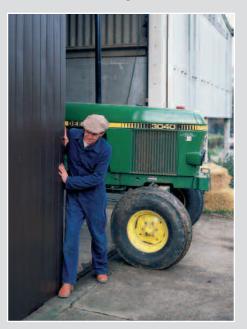
Versaframe

FOR STEEL FRAME SLIDING DOORS

Steel frame sections are supplied in kit form for on-site construction of economical, sturdy sliding doors. Doors should be clad with suitable metal or wood sheeting to choice (door cladding not supplied by PC Henderson). Versaframe is designed for use with 301 track, hangers and brackets. The wall mounted guide system (VG1) is ideal for farm doors or dirty industrial applications as no floor channel is needed. Conventional guide system (VG2) is a reliable system for use with bottom channel 97 and is suitable for doors up to 5m x 5m. The Versaframe kit is supplied per door and includes frame lengths and fittings. Order the frame section length kits plus the relevant fittings kit according to the door height and width (as per table). In addition to this you need to order 301 track to twice the width of the proposed door; 2 x 56 AX/S or 56AX/N hangers; sufficient 1/301/S brackets for fixing at 900mm centres along track -(600mm centres for doors over 400kg.) (See pages 8 - 9)

INSTALLATION NOTES (also see drawing)

Door width should not exceed height. For the smoothest operation, width of door should be 2/3 height. Typical installation detail drawings are available.

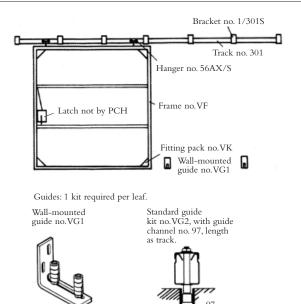




Door width		oor Heigl	ht		Track length of	Min no. of 1/301/S Brackets
	2m	3m	4m	5m	301/301H	required
2m	5xVF2	4xVF2 2xVF3		6xVF2 2xVF5	4m	6
		6xVF3	5xVF3 2xVF4	6xVF3 2xVF5	6m	8
4m			7xVF4	6xVF4 2xVF5	8m	11
5m				8xVF5	10m	13

Versaframe hangers, guides & fittings

2m	3m	4m	5m						
VK2	Vk3	VK4	VK5	Fitting kit per door height					
2	2	2	2	no.56 AX hangers per door					
VG1	VG1	VG1	VG1	Guide kit - wall mounted					
VG2	VG2	VG2	VG2	Guide kit - standard					
(order channel 97 to same length as 301 track)									



301 FARM PACKS

SLIDING GEAR PACKS FOR TIMBER OR METAL DOORS

301 farm packs provide all components required for hanging a sliding timber or metal door weighing upto 400kg Sets contain 2 hangers no. 53AS/5 (+ locking nuts for metal doors) track no. 301 (twice door width); face fixing brackets no. 1/301/S (for approx. 900mm centres); 2 bracket end clips no. 1A/301/EC; 2 stay rollers no.126; 1 bow handle no. 463. For Biparting doors, order two sets plus no. 128 shoe guide/centre stop.

Door widths up to	Kits
1800mm	FP6
2700mm	FP9
3600mm	FP12

Fall Arrest Rail System

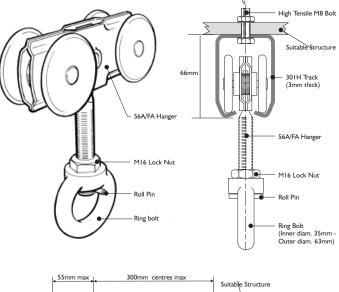
Horizontally sliding fall arrest anchorage system fully tested to comply with BSEN 795:1997, Class D and CE type approved. Designed for use by personnel who are working at dangerous heights, such as maintenance workers or window cleaners who require a sliding fall arrest anchor system.

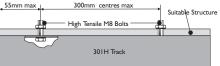
COMPONENTS

This system comprises of 56A/FA hanger, to which a lanyard can be attached, sliding within our 301H overhead straight track. Each hanger is manufactured from zinc plated steel to withstand most external conditions, and is fitted with two bearinged axles which allow the hanger to slide freely within the track.

INSTALLATION NOTES

Fixings used should be M8 high tensile bolts of a type suited to the structure material to which the track is to be fixed. Fixing centres should be no greater than 300mm along the centre line of the track. This system is intended only for direct overhead fixing, and should not be used in a side fixed configuration or with any type of track bracket. For more information please consult our Technical Sales Team. This product fulfils the essential health and safety requirements of PPE directive 89/686/EEC Category III and its amendments.



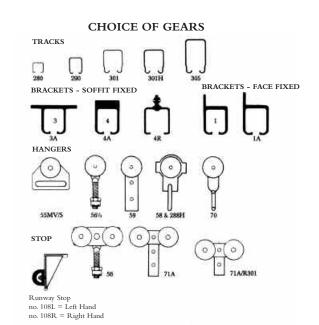


Overhead Runway Gear

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. Suitable for a wide variety of applications including industrial curtains, cable carriers, safety runways for use in factories, warehouses, dairies, commercial and public buildings and vehicles.



OVERHEAD SLIDING TRACKED SYSTEM



Component Drawings

TRACK

All tracks are in galvanised finsh.* Once installed they should be kept greased, to reduce wear and increase life. Any length of track is obtained by putting sections of track together and fixing a jointing bracket at the joints, and using end clips or closed brackets at each end.
 Available lengths

 280-305:
 1.8, 2, 2.5, 3, 4 & 6m

 307:
 2, 2.5 & 3m
TRACK 290 DIMENSIONS **TRACK 280** (mm) 280 301 301H 305 290 307 Α 29 45 66 66 93 104 В 32 36 55 55 57 73 С 1.2 2 2 3 3 5 B C→ **TRACK 301 TRACK 301H** A **TRACK 305 TRACK 307** * Zinc plated **FULL SIZE SECTIONS**

Component Drawings

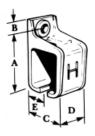
TRACK AND BRACKETS

All brackets are aluminium alloy die castings except where indicated with a suffix/S (eg 1/301/S) which are zinc plated steel. Fit closed brackets with end-clip at track ends. Jointing brackets are required at each track joint. Maximum bracket spacing is every 900mm.

BRACKETS - FACE FIXED

1/307/S

159 24



				No	o. 1 o	r 1A
Cat No.	Α	В	С	D	E	Bolt
1A/290	67	13	52	32	27	M8
1/290/S	75	13	55	60	27	M8
1A/301	97	19	73	57	35	M12
1/301/S	95	16	69	60	37	M12
1A/305	140	25	85	76	38	M16

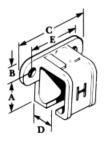
Bracket End Clips, 1A/290 EC and 1A/301 EC. For converting brackets No.s 1, 1A, 3A, 4A, 5, 5AA & 6/301 to closed brackets in the 290, 301 & 301H formats

75

45 M16

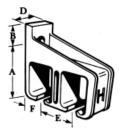
1/301/S steel bracket is fully compatible with previous design and also accepts the 1A/301 EC End Clips.

91

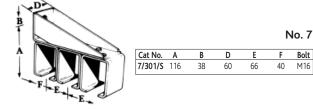


N	0.	9	or	9A

Cat No.	Α	В	С	D	E	Bolt
9A/290	43	16	70	24	51	14G Screw
9/301/S	65	12	125	38	89	18G Screw
9/305/S	84	38	160	59	130	M12
9/307/S	84	50	184	69	140	M16



					Ν	lo. 5
Cat No.	Α	В	D	E	F	Bolt
5/290	80	20	38	54	27	M12
5/301	110	33	57	79	39	M16
5/305	155	38	75	92	48	M20
5/307/S	192	26	102	91	45	M20



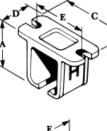
BRACKETS - SOFFIT FIXED

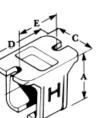
Α

67

95

137





>				No	o. 3 o	r 3A
Cat No.	Α	В	С	D	Ε	Bolt
3A/290	56	-	83	32	64	M8
3A/301	86	-	130	57	100	M12
3/301/S	88	-	130	57	97	M12
3A/305	121	-	168	75	125	M16
3/307/S	158	-	184	90	140	M16

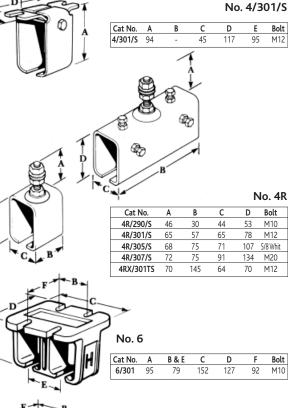
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Cat No. 4A/290 4A/301 4A/305 4/307/S 158

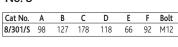
No. 4 or 4A Bolt B C D F 48 75 60 M8 75 117 95 M12 83 190 130 M16

184

140 M16



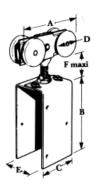
No. 8



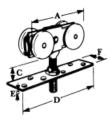
No. 4R

/N = Nylon Wheels /S = Steel Wheels

Nylon wheels are quieter and avoid the need to grease track to reduce wear. Hence their carrying capacity is greater. For automatic doors halve the carrying capacity and use nylon wheels if possible. N.B. Door weight capacities are for a pair of hangers.



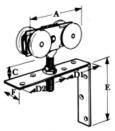
Track No.	Hanger No.				Door weight			
		A	В	С	D	Е	F	Capacity
	53K/N							150Kg
290	53K/S	87	95	57	37	35-48	30	150Kg
	53K/S 200							200Kg
301	53A/S	147	178	70	50	43-57	70	300Kg
501	53A/N	142	1/8	/6	50	43-57	70	400Kg
301H	53A/S	1.12	170	70	50	40.57	71	360Kg
30 IH	53A/N	142	178	/6	56	43-57	/1	450Kg
305	53C/S	161	178	76	75	43-57	71	700Kg
307	53FJ/S	215	390	65	88	60	94	2000Kg



No.57 WOOD DOORS

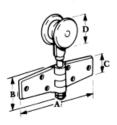
No.53 WOOD DOORS

Track No.	Hanger No.		Door weight				
		Α	с	D	Е	F	Capacity
290	57K/N	87	31	140	5	25	150Kg
230	57K/S 200	07	51	140	5	25	200Kg
301	57A/S	142	57	184	6	38	300Kg
301H	57A/N	142	57	184	6	38	450Kg
305	57C/S	161	61	184	6	38	700Kg



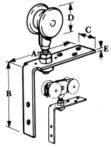
No.52 WOOD DOORS

Track No.	Hanger No.			Door weight				
		A	С	D1	D2	Е	F	Capacity
	52K/N							150Kg
290	52K/S	87	31	77	51	134	25	150Kg
	52K/S 200							200Kg
301	52A/S	142	57	102	127	165	38	300Kg
301H	52A/N	142	57	102	127	165	38	450Kg
305	52C/S	161	61	102	127	165	38	700Kg



No.62 FOLDING DOORS

Track No.	Hanger No.	Dimensions							
		A	В	с	D				
290	62K	180	77	45	37				
301 301H	62A	180	77	45	56				
305	62C	540	104	51	75				



No.21 FOLDING DOORS

Track No.	Hanger No.	Dimensions						
		A	В	С	D	Е		
	21K/S							
290	21K/N	153	153	25	37	5		
	21K/4N							
301	21A/S	170	150	20	FC	c		
301H	21A/4S	178	153	38	56	6		
305	21C/S	178	153	38	56	6		

No.56 METAL DOORS

-

Track No.	Hanger No.		Door weight				
		A	В	с	D	¿D	Capacity
	56K/N						150Kg
290	56K/S	87	32	27	37	10	150Kg
	56K/S 200						200Kg
301	56A/S	142	70	42	56	10	300Kg
501	56A/N	142	70	42	50	16	400Kg
301H	56A/S	142	70	42	50	10	360Kg
5010	56A/N	142	70	42	56	16	450Kg
305	56C/S	161	70	42	75	16	700Kg
307	56FJ/S	215	86	55	88	20	2000Kg

No.56F FIRE DOORS

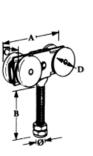
56AF/S

Track No.	Hanger No.	Dimensions							Door weight
		Α	В	С	D	żD	Ε	F	Capacity
301	56AF/S	142	70	45	50	56	16	42	300Kg
301H	56AF/S	142	70	45	50	56	16	42	400Kg
305	56CF/S	161	89	45	83	75	17	51	700Kg



No.56X METAL DOORS

Track Hanger



No.	No.						weight
		A	В	С	D	żD	Capacity
290	56KX/N	87	110	27	37	10	150Kg
290	56KX/S	1 110 21 37 10		200Kg			
301	56AX/S	142	146	42	56	16	300Kg
	56AX/N	142			00	10	400Kg
301H	56AX/S	142	146	42	50	10	360Kg
	56AX/N	142		42	56	16	450Kg
305	56CX/S	161	146	42	75	16	700Kg
307	56FJX/S	215	140	55	88	20	2000Kg

Dimensions

Door

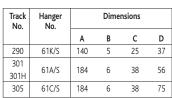
D 37 56

75

No.63 FOLDING DOORS

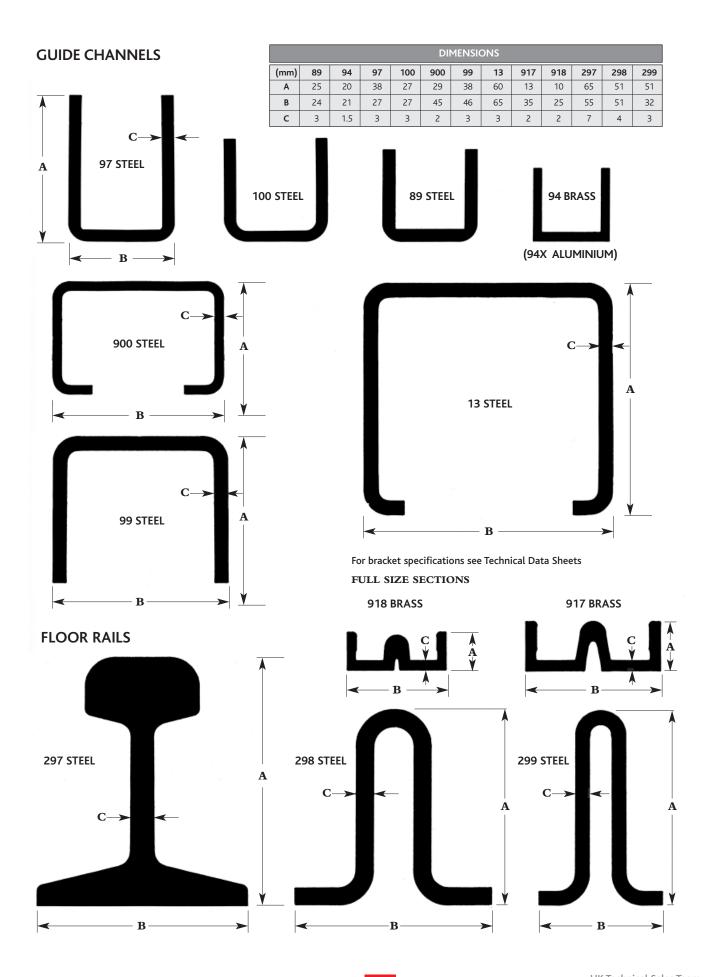
Track No.	Hanger No.		Dime	nsions
		Α	В	С
290	63K	90	77	45
301 301H	63A	90	77	45
305	63C	203	104	51

No.61 FOLDING DOORS



Component Drawings

CHANNEL AND RAILS



Accessories

GUIDES AND DOOR FURNITURE

GUIDES

No. 31S Single Wall Mounted Stay Roller (Biparting doors) - Provides clear threshold -fit No. 128 shoe guide with centre stop. Nlyon Rollers, galv. steel angle.

No. 31D Double Wall Mounted Stay Roller (Double line) - Provides clear threshold -Nlyon Rollers, galv. steel angle.

No. 126HD/A Ground Stay Roller -Provides clear threshold - Rollers covered by shields to prevent traffic damage. galv. steel angle

No. 112 Stop Guide Binds door to frame in closed position. Slotted for padlock and hasp.

No. 128 Shoe Guide with Centre Stop Zinc plated iron, adjustable, centre stop plate provided, for biparting doors.

No. 299 Curtailed Rail with Inverted No.89 Channel to underside of doors -Provides clear threshold - fit No.128 shoe guide with centre stop on biparting doors.

No. 126 Ground Stay Roller - Provides clear threshold - fit No.128 shoe guide with centre stop on biparting doors. Galv. Steel

Most roller guides are fitted with brass rollers. The assemblies are rustproofed by electrozinc galvanising. Fit two guides per door. Always specify channel type when ordering guides (eg104P/97)

No. 102 Side Guide Roller - Heavy duty plough guide, ideal for most applications. Malleable body with self adjusting roller spindle

Use with channels No.s 97 or 100.

No. 105R Roller Guide - General purpose guide suitable for most applictions. Is economical yet very strong. Use with channels No.s 89, 97 or 100.

No. 106R Roller Guide - Galvanised steel plate with a brass roller. Ideal for small, light doors especially internal applications. Not recommended for dirty conditions. Use with channels No.s 89, 97 or 100.

No. 113R Slide Guide Roller - Galvanised steel plate with a brass roller. Not recommended for heavy doors or dirty conditions. Use with channels No.s 89 or 94

No. 104P Under Guide Roller - Brass roller used for metal doors. Easily removable without dismounting doors. Use with channels No.s 89, 97 or 100.

No. 104PX Long Under Guide Roller - Same a 104P but with extra long bolt.

No. 67 Intermediate Guide - Round-the-Corner and Folding Doors. No. 67/89 for track 290 and channel 89. No. 67/97 for track 301 or 301H and channel 97

No. 67C/97 for track 305 and channel 97.

No. 68 End Guide - Round-the-Corner and Folding Doors. No. 68/89 for track 290 and channel 89.

No. 68/97 for track 301 or 301H and channel 97

No. 68C/97 for track 305 and channel 97.

No. 21R End Fold Guide - Folding Doors. No. 21KR/94 for track 290 and channel 94. No. 21R/94 for track 301, 301H and 305

No. 106R Centre Fold Guide - Folding Doors. No. 106R/94 for all tracks.



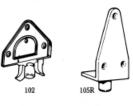
31D Double Wall nted Stay Roller

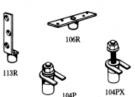


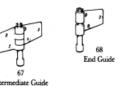














End Fold Guide 21R



PCH)

No.65 Back Flap Hinges - No.65 for track 290, 301 or 301H. Aluminium No.65C track 305. Zinc plated.

No.403 Butt Hinge -No.403/1 89x50 aluminium alloy. No.403/2 100x55 aluminium alloy. No.403/3 100x75 aluminium alloy.

DOOR FURNITURE

No. 994 Bolt - Electro galvanised steel shoot and guides with socket for concrete, when required.

No. 994X Offset Bolt - Zinc galvanised steel shoot and guides with socket for concrete

No. 994R Roller Guide Bolt - Electro galvanised steel shoot and guides with brass roller. Use with channel No.s 89 or 97

No. 994S locking Bolt - Electro galvanised steel shoot and guides with socket for concrete. Use with Padlock (Not by PCH).

No. 77 Flush Bolt - No.77] suitable for framed doors with bottom rails up to 152x48. Zinc plated steel. No77S suitable for framed doors with bottom rails up to 236x70. Zinc plated steel.

No. 78 Flush Bolt - Designed for fitting to stile of flush doors minimum 127x45. Zinc plated steel.

No. 333 Semi Flush Bolt - 152x35 Aluminium allov in satin anodised finish.

No. 454 Semi Flush Bolt - 190x41 Aluminium alloy in satin anodised finish.

No. 463 Bow Handle - Zinc plated cast iron. 159x46

No. 464 Bow Handle - Zinc plated cast iron. 261x62

No. 400 Flush Pull - Aluminium alloy in satin anodised finish 108x48 with 17 mortise.

No. 414 Flush Pull - Aluminium self finish 133x60 with 20 mortise.

No. 413 Flush Pull - Heavy duty Zinc plated cast iron 152x95 with 26 mortise.

Flush Pull No.26P - White polypropylene n.b. Drill 31mm hole.

No.115 Corner Protection Plates - Rustproofed by electronzinc plating - Fit a pair on the leading door edge where door meets door stop.

No.109 Single Wall or Ground Stop - Zinc plated steel with rubber buffer. For light doors. Fit on wall , 2/3 up door height.

No.103 Single Floor Stop - Satin anodised aluminium with rubber buffer. For heavier residential internal doors.

No.110N Door Stop - White nylon complete with rubber buffer. For light interior doors. (Wall or floor fixed.)

No.28P/1 Door Stop - White nylon for light cupboard

and wardrobe doors. No.107E Buffer Stop Rubber - For fitting to slamming post when other stops cannot be used.

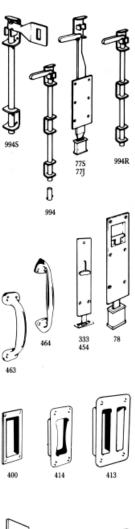
No.107 Double Wall Stop - Zinc plated steel with rubber buffers. For medium weight doors, fit one on wall, 2/3 up door height. For heavier door fit 2.

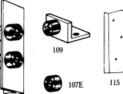
No. HH/290 Track Stop

No. HH/301 Track Stop

No.431 Swivel Locking Bar - Rustproofed by Zinc plating. For meeting doors sliding on outside face of wall or for securing to end post. Use with padlock (not by

No.430 Detachable Locking Bar - Rustproofed by Zinc plating. For straight run doors sliding inside and locked outside. Use with padlock (not by PCH).







107

HH/290

HH/301



Butt Hings



Back Flap Hinge 65

All dimensions are in mm.





Sponge Neoprene Sealing Strip No.537 22x6mm - supplied in 10m rolls.

LOCKS AND SEALING STRIP

Rim Cylinder Lock No. 444

Accessories

Five pin tumbler action with long body (keyhole 60mm from jamb) enables door to overlap jamb by 25/38mm. Keyhole plate in B.M.A. finish. Supplied with two keys. To differ only.

Sliding Door Mortise Dead Lock No.295 For light interior sliding doors. Claw action with brass striker plate and claws in unrebated from only - supplied with two keys. suits minimum stile 102x35mm

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