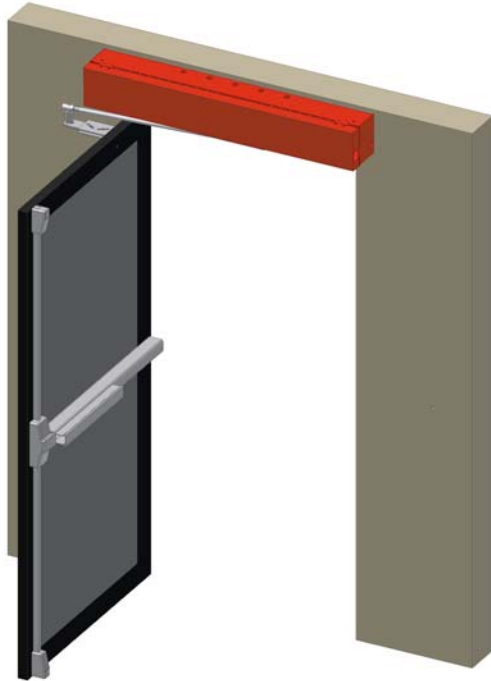


Carey Automatic Door, LLC

1 - PNEUMATIC OPERATOR FOR SINGLE SWINGING DOOR

“IN” for Doors Swinging under Operator

“OUT” for Doors Swinging away from Operator



Packages 1, 2 & 3



Packages 4, 5 & 6

FACTORS TO CONSIDER BEFORE ORDERING:

- HAND:** Specify Right Hand for clockwise swinging doors, Left Hand for counterclockwise swinging doors.
- REVEAL:** Distance from back of operator case to inside surface of door in closed position. Varies with door thickness and hanging. See detail sheet MDS-255 on Page CP-19 for additional information.
- SIDE CLEARANCE:** Distance required between jamb and side wall for door bracket.
- OPENING:** Determines size of operator required.
- SAFETY SWITCH:** Safety Switch 4080987 required when safety device is used.

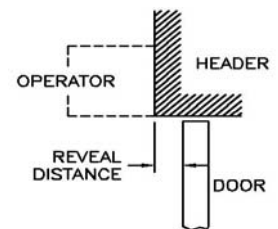
All operators shipped as single acting. Closing Valve Kit (307381, ALL AIR 940100) is available as extra for double acting. Recommended where windy conditions exist.

Emergency Release available for “IN” applications. Refer to Package No. 2.

When operator is to be concealed either above the ceiling or below the floor, consult Pages CP-6 & CP-6A for details.

CONSIDER WHETHER YOU NEED ANY OR ALL OF THE FOLLOWING:

Closing Valve Kit 307381, 940100 for Double Acting Operation; Safety Switch 408987; Controls; and Door Pivots or Hinges.



Carey Automatic Door, LLC
1 - PNEUMATIC OPERATOR FOR SINGLE SWINGING DOOR

FOR SINGLE "IN" SWINGING DOOR
For ALL AIR, See Page CP-3B

PKG NO.	PART NO.*	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE
1	307695	14" 01 IN	30" to 48"	4"	8 1/8"
2	307696	14" 01 IN w/Emergency Release	30" to 48"	4"	8 1/8"
3	307697	24" 01 IN	49" to 72"	9 1/2"	15 1/4"

PACKAGE NO. 1	PACKAGE NO. 2	PACKAGE NO. 3	ITEM DESCRIPTION
1 - 103155 (6)	1 - 103155 (6)	--	OPERATOR-OS-14" R.H. (L.H)
--	--	1 - 103159 (60)	OPERATOR-OS-24" R.H. (L.H)
1 - 403257	1- 403257	1 - 403257	SLIDE BAR - Universal
1- 502494	--	--	DOOR BRACKET - SDB-114 "IN"
--	1- 311806	--	DOOR BRACKET O17V-14" Emer Rel.
--	--	1 - 304034	DOOR BRACKET - MHO-24 "IN"
1- 409318	1- 409318	1 - 409318	DOOR ROD
1- 515430	1- 515430	1 - 515430	PLUG IN RELAY

FOR SINGLE "OUT" SWINGING DOOR
For ALL AIR, See Page CP-3B

PKG NO.	PART NO.*	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE
4	307698	14" 01 OUT	30" to 48"	4"	8 1/8"
5	307699	14" 01 OUT Wide Throw	30" to 48"	4"	8 1/8"
6	307700	24" 01 OUT	49" to 72"	8 1/2"	11 1/8"

PACKAGE NO. 4	PACKAGE NO. 5	PACKAGE NO. 6	ITEM DESCRIPTION
1 - 103155 (6)	1 - 103155 (6)	--	OPERATOR-OS-14" R.H. (L.H)
--	--	1 - 103159 (60)	OPERATOR-OS-24" R.H. (L.H)
1 - 403257	1- 403257	1 - 403257	SLIDE BAR - Universal
1- 502495	--	--	DOOR BRACKET - SDB-114 "OUT
--	1- 502891	--	DOOR BRKT-14" "OUT" Wide Throw
--	--	1 - 304040	DOOR BRACKET - MHO-24 "OUT"
1- 409318	1- 409318	1 - 409318	DOOR ROD
1- 515430	1- 515430	1 - 515430	PLUG IN RELAY

*NOTE: For LH Packages, change 2nd digit of part number to = 8.

Carey Automatic Door, LLC
1 - PNEUMATIC OPERATOR FOR SINGLE SWINGING DOOR

ALL AIR FOR SINGLE "IN" SWINGING DOOR

PKG NO.	PART NO.*	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE
1AA	347695	14" 01 IN All Air	30" to 48"	4"	8 1/8"
2AA	347696	14" 01 IN w/Emer. Release All Air	30" to 48"	4"	8 1/8"
3AA	347697	24" 01 IN All Air	49" to 72"	9 1/2"	15 1/4"

PACKAGE NO. 1AA	PACKAGE NO. 2AA	PACKAGE NO. 3AA	ITEM DESCRIPTION
1 - 103305 (6)	1 - 103305 (6)	--	OSX-14" R.H. (LH) All Air Operator
--	--	1 - 103307 (8)	OSX-24" R.H. (LH) All Air Operator
1 - 920100	1 - 920100	1 - 920100	ALL AIR VALVE PACKAGE
1 - 403257	1 - 403257	1 - 403257	SLIDE BAR - Universal
1 - 502494	--	--	DOOR BRACKET - SDB-114 "IN"
--	--	1 - 304038	DOOR BRACKET - MHO-24 "IN"
--	1 - 311806	--	EMERGENCY REL. BRACKET
1 - 409318	1 - 409318	1 - 409318	DOOR ROD
2 - 402839 OR	2 - 402839 OR	2 - 402839 OR	PULL CORD MA-10 OR
2 - 409693	2 - 409693	2 - 409693	PALM BUTTON

ALL AIR FOR SINGLE "OUT" SWINGING DOOR

PKG NO.	PART NO.*	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE
4AA	347698	14" 01 OUT All Air	30" to 48"	4"	8 1/8"
5AA	347699	14" 01 OUT w/Emer. Release All Air	30" to 48"	4"	8 1/8"
6AA	347700	24" 01 OUT All Air	49" to 72"	8 1/2"	11 1/8"

PACKAGE NO. 4AA	PACKAGE NO. 5AA	PACKAGE NO. 6AA	ITEM DESCRIPTION
1 - 103305 (6)	1 - 103305 (6)	--	OSX-14" R.H. (LH) All Air Operator
--	--	1 - 103307 (8)	OSX-24" R.H. (LH) All Air Operator
1 - 920100	1 - 920100	1 - 920100	ALL AIR VALVE PACKAGE
1 - 403257	1 - 403257	1 - 403257	SLIDE BAR - Universal
1 - 502495	--	--	DOOR BRACKET - SDB-114 "OUT"
--	1 - 502891	--	DOOR BRKT-14" OUT Wide Throw
--	--	1 - 304040	DOOR BRACKET-MHO-24 "OUT"
1 - 409318	1 - 409318	1 - 409318	DOOR ROD
2 - 402839 OR	2 - 402839 OR	2 - 402839 OR	PULL CORD MA-10 OR
2 - 409693	2 - 409693	2 - 409693	PALM BUTTON

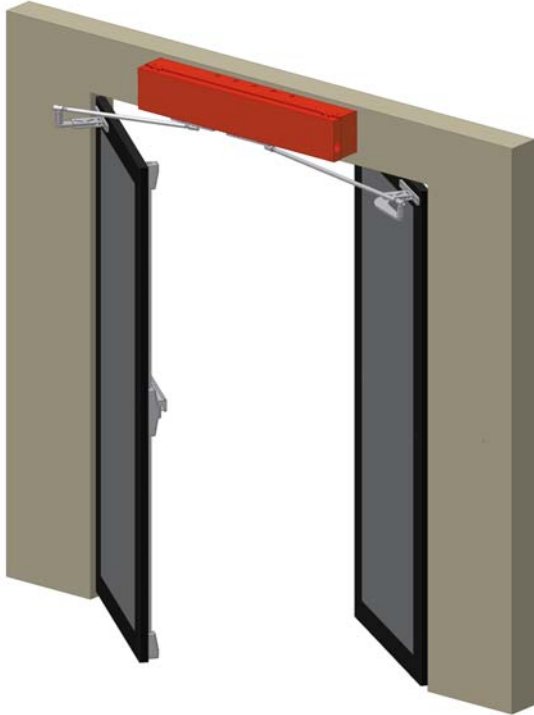
*NOTE: For LH Packages, change 2nd digit of part number to = 5.

See Page CP-13 for additional ALL AIR and Explosion Proof information.

Carey Automatic Door, LLC

1 - PNEUMATIC OPERATOR FOR PAIR OF SWINGING DOORS

**One "IN" & One "OUT"
(Stack Pressure Control)**



Packages 7, 8, 9

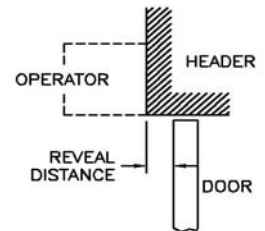
Both Swinging "IN" OR "OUT"



Packages 17, 18, 19

FACTORS TO CONSIDER BEFORE ORDERING:

- HAND:** Packages 7, 8, 9 only - when viewed from operator side if Right Hand door swings OUT and Left Hand door swings IN, order Right Hand operator. If door swings are reversed, order Left Hand operator.
- REVEAL:** Distance from back of operator case to inside surface of door in closed position. Varies with door thickness and hanging. See detail sheet MDS-255 on Page CP-19 for additional information.
- SIDE CLEARANCE:** Distance required between jamb and side wall for door bracket.
- OPENING:** Determines size of operator required.
- SAFETY SWITCH:** Safety Switch 408987 required when safety device is used.



All operators shipped as single acting. Closing Valve Kit (307381, ALL AIR 940100) is available as extra for double acting. Recommended where windy conditions exist.

Emergency Release available for "IN" applications. Refer to Packages 8 or 18.

When operator is to be concealed either above the ceiling or below the floor, consult Pages CP-6 & CP-6A for details.

CONSIDER WHETHER YOU NEED ANY OR ALL OF THE FOLLOWING:

Closing Valve Kit 307381, 940100 for Double Acting Operation; Safety Switch 408987; Controls; and Door Pivots or Hinges.

Carey Automatic Door, LLC
1 - PNEUMATIC OPERATOR FOR PAIR OF SWINGING DOORS

FOR PAIR OF SWINGING DOORS: ONE "IN" & ONE "OUT"
For ALL AIR, See Page CP-4B

PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE IN	OUT
7	307701	14" 02	48" to 72"	4"	8 1/8"	8 1/8"
8	307702	14" 02 IN with Emer. Release	48" to 72"	4"	8 1/8"	8 1/8"
9	307703	24" 02	73" to 120"	8 1/2"	15 1/4"	11 1/8"

NOTE: For LH Package, change 2nd digit of part number to = 8.

PACKAGE NO. 7	PACKAGE NO. 8	PACKAGE NO. 9	ITEM DESCRIPTION
1 - 103155 (6)	1 - 103155 (6)	--	OPERATOR - OS 14" R.H. (LH)
--	--	1 - 103159 (60)	OPERATOR - OS 24" R.H. (LH)
1 - 403257	1 - 403257	1 - 403257	SLIDE BAR - Universal
1 - 502494	--	--	DOOR BRACKET - SDB-114 "IN"
1 - 502891	1 - 502891	--	DOOR BRKT 14" "OUT" Wide Throw
--	1 - 311806	--	DOOR BRKT 017V-14" Emer. Rel.
--	--	1 - 304038	DOOR BRACKET - MHO-24 "IN"
--	--	1 - 304040	DOOR BRACKET - MHO-24 "OUT"
2 - 409318	2 - 409318	1 - 409318	DOOR ROD
--	--	1 - 409319	DOOR ROD
1 - 306706	1 - 306706	1 - 306706	BALL STUD - LONG 290-48
1 - 306708	1 - 306708	--	BALL STUD - SHORT 290-50
1 - 515430	1 - 515430	1 - 515430	PLUG IN RELAY

FOR PAIR OF SWINGING DOORS: "IN" OR "OUT"
For ALL AIR, See Page CP-4B

PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE IN	OUT
17	307711	14" 011 IN	48" to 72"	4"	8 1/8"	8 1/8"
18	307712	14" 011 IN w/Emergency Release	48" to 72"	4"	8 1/8"	8 1/8"
19	307713	14" 011 OUT	48" to 72"	4"	15 1/4"	11 1/8"

PACKAGE NO. 17	PACKAGE NO. 18	PACKAGE NO. 19	ITEM DESCRIPTION
1 - 103303	1 - 103303	1 - 103303	OPERATOR - 011S - 14"
2 - 502494	--	--	DOOR BRACKET SDB-114 "IN"
--	2 - 311806	--	DOOR BRKT 017V'14" Emer. Rel.
--	--	2 - 502495	DOOR BRACKET SDB-114 "OUT"
2 - 409318	2 - 409318	2 - 409318	DOOR ROD
1 - 307690	1 - 307690	1 - 307690	BALL STUD PACKAGE
1 - 515430	1 - 515430	1 - 515430	PLUG-IN RELAY

Carey Automatic Door, LLC

1 - PNEUMATIC OPERATOR FOR PAIR OF SWINGING DOORS

ALL AIR FOR PAIR OF SWINGING DOORS: ONE "IN" AND ONE "OUT"

PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE	
					IN	OUT
7AA	347701	14" 02 All Air (1 In - 1 Out)	48" to 72"	4"	8 1/8"	8 1/8"
8AA	347702	14" 02 All Air (1 In w/Emer. - 1 Out)	48" to 72"	4"	8 1/8"	8 1/8"
9AA	347703	24" 02 All Air (1 In - 1 Out)	73" to 120"	8 1/2"	15 1/4"	11 1/8"

NOTE: For LH Package, change 2nd digit of part number to = 5.

PACKAGE NO. 7AA	PACKAGE NO. 8AA	PACKAGE NO. 9AA	ITEM DESCRIPTION
1 - 103305 (6)	1 - 103305 (6)	--	OSX-14" R.H. (LH) All Air Operator
--	--	1 - 103307 (8)	OSX-24" R.H. (LH) All Air Operator
1 - 920100	1 - 920100	1 - 920100	ALL AIR VALVE PACKAGE
1 - 403257	1 - 403257	1 - 403257	SLIDE BAR - Universal
1- 502494	--	--	DOOR BRACKET - SDB-114 "IN
1- 502891	1- 502891	--	DOOR BRKT 14" "OUT" Wide Throw
--	1 - 311806*	--	DOOR BRKT 017V 14" Emer. Rel.*
--	--	1 - 304038	DOOR BRACKET MHO-24 "IN"
--	--	1 - 304040	DOOR BRACKET MHO-24 "OUT"
2 - 409318	2 - 409318	1 - 409318	DOOR ROD
--	--	1 - 409319	DOOR ROD
1 - 306706	1 - 306706	1 - 306706	BALL STUD LONG
1 - 306708	1 - 306708	--	BALL STUD SHORT
2 - 402839	2 - 402839	2 - 402839	PULL CORD MA-10 OR
2 - 409693	2 - 409693	2 - 409693	PALM BUTTON

ALL AIR FOR PAIR OF SWINGING DOORS: "IN" OR "OUT"

PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE	
					IN	OUT
17AA	347711	14" 011 IN	48" to 72"	4"	8 1/8"	8 1/8"
18AA	347712	14" 011 IN w/Emergency Release	48" to 72"	4"	8 1/8"	8 1/8"
19AA	347713	14" 011 OUT	48" to 72"	4"	15 1/4"	11 1/8"

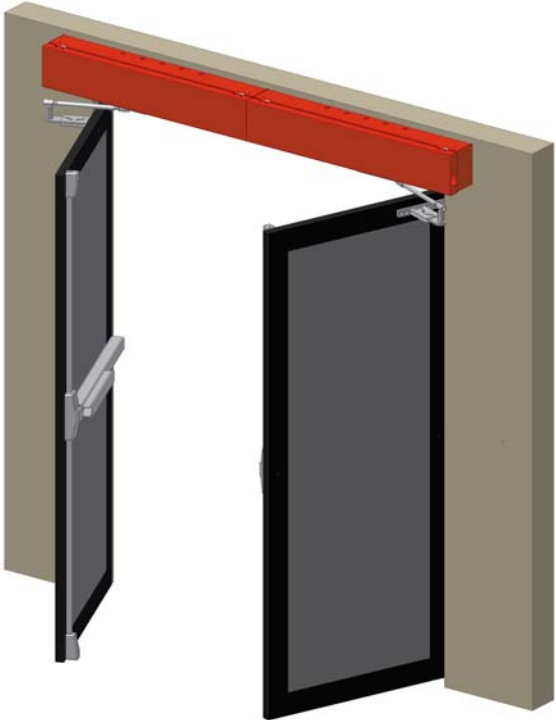
PACKAGE NO. 17AA	PACKAGE NO. 18AA	PACKAGE NO. 19AA	ITEM DESCRIPTION
1 - 103303	1 - 103303	1 - 103303	OSX-14" R.H. (L.H.) All Air Operator
1 - 920100	1 - 920100	1 - 920100	ALL AIR VALVE PACKAGE
2 - 502494	--	--	DOOR BRACKET SDB-114 "IN"
--	2 - 311806*	--	DOOR BRKT 017V'14" Emer. Rel.*
--	--	2 - 502495	DOOR BRACKET SDB-114 "OUT"
2 - 409318	2 - 409318	2 - 409318	DOOR ROD
1 - 307690	1 - 307690	1 - 307690	BALL STUD PACKAGE
2 - 402839	2 - 402839	2 - 402839	PULL CORD MA-10 OR
2 - 409693	2 - 409693	2 - 409693	PALM BUTTON

*Emergency Release (311806) cannot be used for Explosion Proof applications as electrical input is required.

See Page CP-13 for additional ALL AIR and Explosion Proof information.

Carey Automatic Door, LLC
2 - PNEUMATIC OPERATORS FOR PAIR OF SWINGING DOORS

For Pair of "IN" Swinging Doors



Packages 10, 11 & 12

For Pair of "OUT" Swinging Doors



Packages 13, 14, 15 & 16

FACTORS TO CONSIDER BEFORE ORDERING:

- REVEAL:** Distance from back of operator case to inside surface of door in closed position. Varies with door thickness and hanging. See detail sheet MDS-255 on Page CP-19 for additional information.
- SIDE CLEARANCE:** Distance **required** between jamb and side wall for door bracket.
- OPENING:** Determines size of operator required.
- SAFETY SWITCH:** Safety Switch 408987 required when safety device is used.

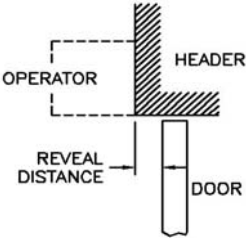
All operators shipped as single acting. Closing Valve Kit (307479, ALL AIR 940100) is available as extra for double acting. Packages 10, 11 & 12 only. Recommended where windy conditions exist.

Emergency Release available for "IN" applications. Refer to Package 11.

When operator is to be concealed either above the ceiling or below the floor, consult Pages CP-6 & CP-6A for details.

CONSIDER WHETHER YOU NEED ANY OR ALL OF THE FOLLOWING:

Closing Valve Kit 307479, 940100 for Double Acting Operation; Safety Switch 408987; Controls; and Door Pivots or Hinges.



Carey Automatic Door, LLC
2 - PNEUMATIC OPERATORS FOR PAIR OF SWINGING DOORS

FOR PAIR OF "IN" SWINGING DOORS
For ALL AIR, See Page CP-5B

PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE
10	307704	14" 04 IN	54" to 96"	4"	8 1/8"
11	307705	14" 04 IN w/Emergency Release	54" to 96"	4"	8 1/8"
12	307706	24" 04 IN	85" to 144"	8 1/2"	15 1/4"

PACKAGE NO. 10	PACKAGE NO. 11	PACKAGE NO. 12	ITEM DESCRIPTION
1 - 103156	1 - 103156	--	OPERATOR OS 14" LH
1 - 103164	1 - 103164	--	OPERATOR OSS 14" RH SLAVE
--	--	1 - 103160	OPERATOR OS 24" LH
--	--	1 - 103168	OPERATOR OSS 24" RH SLAVE
2 - 403257	2 - 403257	2 - 403257	SLIDE BAR - Universal
2 - 502494	--	--	DOOR BRACKET - SDB-114 "IN
--	2 - 311806	--	DOOR BRKT 017V 14" Emer. Release
--	--	2 - 304038	DOOR BRACKET MHO-24 "IN"
2 - 409318	2 - 409318	2 - 409318	DOOR ROD
1 - 307549	1 - 307549	1 - 307550	SYNCHRONIZING FLOW CONTROL
1 - 515430	1 - 515430	1 - 515430	PLUG-IN RELAY

FOR PAIR OF "OUT" SWINGING DOORS
For ALL AIR, See Page CP-5B

PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE
13	307707	14" 04 OUT S.A.	54" to 96"	4"	8 1/8"
14	307708	14" 04 OUT D.A.	54" to 96"	4"	8 1/8"
15	307709	24" 04 OUT S.A.	97" to 144"	8 1/2"	11 1/8"
16	307710	24" 04 OUT D.A.	97" TO 144"	8 1/2"	11 1/8"

PKG NO. 13	PKG NO. 14	PKG NO. 15	PKG NO. 16	ITEM DESCRIPTION
1 - 307983	--	--	--	Operator 14" Special Single Acting Master
1 - 307984	--	--	--	Operator 14" Special Single Acting Slave
--	1 - 307987	--	--	Operator 14" Special Double Acting Master
--	1 - 307988	--	--	Operator 14" Special Double Acting Slave
--	--	1 - 307985	--	Operator 24" Special Single Acting Master
--	--	1 - 307986	--	Operator 24" Special Single Acting Slave
--	--	--	1 - 307989	Operator 24" Special Double Acting Master
--	--	--	1 - 307990	Operator 24" Special Double Acting Slave
2 - 403257	2 - 403257	2 - 403257	2 - 403257	SLIDE BAR - Universal
1 - 307549	1 - 307549	1 - 307550	1 - 307550	SYNCHRONIZING FLOW CONTROL
2 - 409318	2 - 409318	2 - 409318	2 - 409318	DOOR ROD
2 - 502891	2 - 502891	--	--	DOOR BRACKET 14" "OUT" Wide Throw*
--	--	2 - 304040	2 - 304040	DOOR BRACKET 24" "OUT"
1 - 515430	1 - 515430	1 - 515430	1 - 515430	PLUG-IN RELAY

*Note: If other than swing clear hinges are used, specify 502495 "OUT" Brackets on order.

Carey Automatic Door, LLC

2 - PNEUMATIC OPERATORS FOR PAIR OF SWINGING DOORS

ALL AIR FOR PAIR OF "IN" SWINGING DOORS

PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE
10AA	347704	14" 04 IN ALL AIR	54" to 96"	4"	8 1/8"
11AA	347705	14" 04 IN w/Emer. Release ALL AIR	54" to 96"	4"	8 1/8"
12AA	347706	24" 04 IN ALL AIR	85" to 144"	8 1/2"	15 1/4"

PACKAGE NO. 10AA	PACKAGE NO. 11AA	PACKAGE NO. 12AA	ITEM DESCRIPTION
1 - 103305	1 - 103305	--	OSX - 14" R.H. ALL AIR OPERATOR
1 - 103306	1 - 103306	--	OSX - 14" L.H. ALL AIR OPERATOR
--	--	1 - 103307	OSX - 24" R.H. ALL AIR OPERATOR
--	--	1 - 103308	OSX - 24" L.H. ALL AIR OPERATOR
1 - 920100	1 - 920100	1 - 920100	ALL AIR VALVE PACKAGE
2 - 403257	2 - 403257	2 - 403257	SLIDE BAR - UNIVERSAL
2 - 502494	--	--	DOOR BRACKET - SDB-114 "IN"
--	2 - 311806	--	DOOR BRKT 017V 14" Emer. Release*
--	--	2 - 304038	DOOR BRACKET MHO-24 "IN"
2 - 409318	2 - 409318	2 - 409318	DOOR ROD
1 - 970105	1 - 970105	1 - 970105	SYNCHRONIZING FLOW CONTROL
2 - 402839	2 - 402839	2 - 402839	PULL CORD MA-10 OR
2 - 409693	2 - 409693	2 - 409693	PALM BUTTON

*Emergency Release (311806) cannot be used for Explosion Proof applications as electrical input is required.

ALL AIR FOR PAIR OF "OUT" SWINGING DOORS

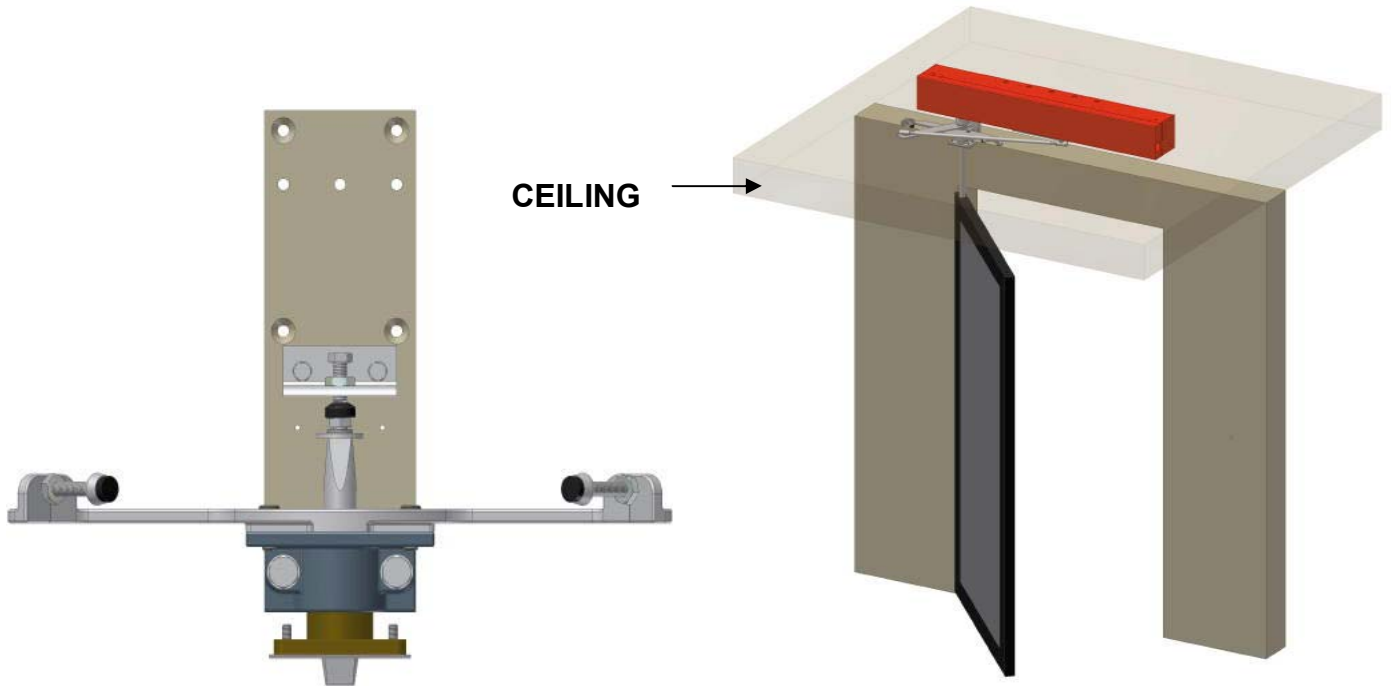
PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE
13AA	347707	14" 04 OUT ALL AIR	54" to 96"	4"	8 1/8"
15AA	347709	24" 04 OUT ALL AIR	97" to 144"	8 1/2"	11 1/8"

PKG NO. 13AA	PKG NO. 15AA	ITEM DESCRIPTION
1 - 103305	--	OSX - 14" R.H. ALL AIR OPERATOR
1 - 103306	--	OSX - 14" L.H. ALL AIR OPERATOR
--	1 - 103307	OSX - 24" R.H. ALL AIR OPERATOR
--	1 - 103308	OSX - 24" L.H. ALL AIR OPERATOR
1 - 920100	1 - 920100	ALL AIR VALVE PACKAGE
2 - 403257	2 - 403257	SLIDE BAR - UNIVERSAL
2 - 502495	--	DOOR BRACKET - SDB - 114 "OUT"
--	2 - 304039	DOOR BRACKET MHO - 24" "OUT"
2 - 409318	2 - 409318	DOOR ROD
1 - 970105	1 - 970105	SYNCHRONIZING FLOW CONTROL
2 - 402839	2 - 402839	PULL CORD MA-10 OR
2 - 409693	2 - 409693	PALM BUTTON

See Page CP-13 for additional ALL AIR and Explosion Proof information.

Carey Automatic Door, LLC
1 - PNEUMATIC OPERATOR FOR SWINGING DOOR - CONCEALED

MAGIC STAR



Packages 20, 21, 22, 23

SHAFT LENGTH	CLEARANCE DOOR TOP TO OPERATOR TOP
6-5/32"	15"
7-3/8"	16-1/4"
10-3/8"	19-1/4"
16-3/8"	25-1/4"
22-3/8"	31-1/4"
38-3/8"	37-1/4"
34-3/8"	43-1/4"
39-3/8"	48-1/4"

FACTORS TO CONSIDER BEFORE ORDERING:

- HAND:** Specify Right Hand for clockwise swinging doors,
Left Hand for counterclockwise swinging doors.
- OPENING:** Determines size of operator required.
- SAFETY SWITCH:** Safety Switch 408987 required when safety device is used.

All operators shipped as single acting. Closing Valve Kit (307381, ALL AIR 940100) is available as extra for double acting. Recommended where windy conditions exist.

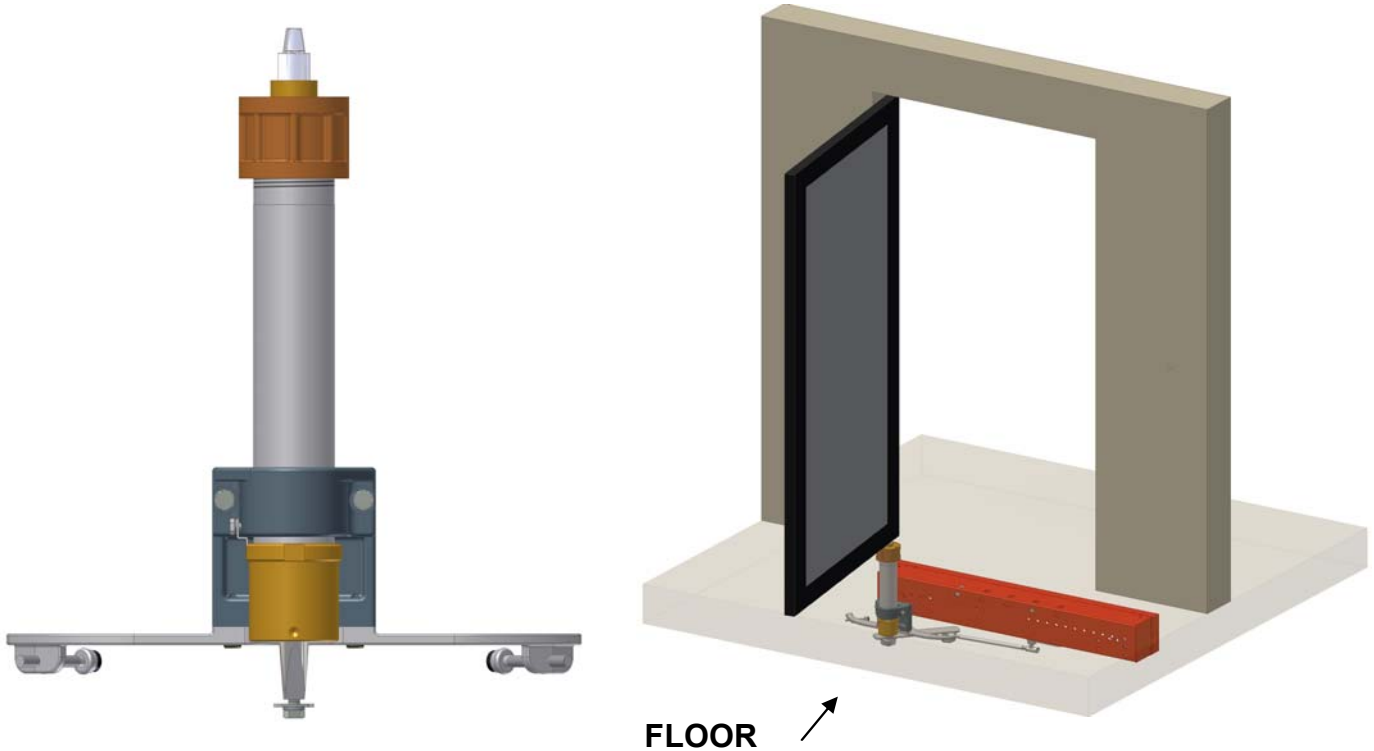
Emergency Release available for "IN" applications. Refer to Packages 21, 23, 25 & 27.

CONSIDER WHETHER YOU NEED ANY OR ALL OF THE FOLLOWING:

Closing Valve Kit 307381, 940100 for Double Acting Operation; Safety Switch 408987; Controls; and Door Pivots or Hinges.

Carey Automatic Door, LLC
1 - PNEUMATIC OPERATOR FOR SWINGING DOOR - CONCEALED

MAGIC MOLE



Packages 24, 25, 26, 27

SHAFT LENGTH	FLOOR THICKNESS
20-9/16"	Up to 7-1/2" Inclusive
26-9/16"	Over 7-1/2" to 13-1/2" Inclusive
32-9/16"	Over 13-1/2" to 19-1/2" Inclusive
38-9/16"	Over 19-1/2" to 25-1/2" Inclusive
44-9/16"	Over 25-1/2" to 31-1/2" Inclusive

FACTORS TO CONSIDER BEFORE ORDERING:

- HAND:** Specify Right Hand for clockwise swinging doors,
Left Hand for counterclockwise swinging doors.
- OPENING:** Determines size of operator required.
- SAFETY SWITCH:** Safety Switch 408987 required when safety device is used.

All operators shipped as single acting. Closing Valve Kit (307381, ALL AIR 940100) is available as extra for double acting. Recommended where windy conditions exist.

Emergency Release available for "IN" applications. Refer to Packages 21, 23, 25 & 27.

CONSIDER WHETHER YOU NEED ANY OR ALL OF THE FOLLOWING:

Closing Valve Kit 307381, 940100 for Double Acting Operation; Safety Switch 408987; Controls; and Door Pivots or Hinges.

Carey Automatic Door, LLC

1 - PNEUMATIC OPERATOR FOR SWINGING DOOR - CONCEALED

OPERATOR CONCEALED OVERHEAD

For ALL AIR Pkgs. 20 & 21, See Page CP-6C

Star Pivot Length, See Page CP-6

PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING
20	307714	14" 01 STAR	30" to 48"
21	307715	14" 01 STAR w/Emergency Release	30" to 48"
22*	307716	14" 011 STAR Pair of Doors	48" to 72"
23*	307717	14" 011 STAR Pair of Doors w/Emergency Release	48" to 72"

Note: For Pkg. 20 & 21 only - LH Package change 2nd digit to = 8

*Packages 22 & 23 Handle a Pair of Doors

PKG NO. 20	PKG NO. 21	PKG NO. 22	PKG NO. 23	ITEM DESCRIPTION
1 - 103155 (6)	1 - 103155 (6)	--	--	OPERATOR OS 14" RH (LH)
--	--	1 - 103303	1 - 103303	OPERATOR O11S 14"
1 - 402121	--	2 - 402121	--	LEVER
--	1 - 406234	--	2 406234	LEVER - Emergency Release 017S - 14"
1 - 402371	1 - 402371	2 - 402371	2 - 402371	DOOR ARM - STAR
1 - 409318	1 - 409318	2 - 409318	2 - 409318	DOOR ROD
1 - 403257	1 - 403257	--	--	SLIDE BAR - Universal
--	--	1 - 307690	1 - 307690	BALL STUD PACKAGE
1 - 405113	1 - 405113	1 - 405113	2 - 405113	PIVOT - BOTTOM
--	1 - 402923	--	2 - 402923	EMERGENCY CUTOFF SWITCH
1 - SPECIFY	1 - SPECIFY	1 - SPECIFY	1 - SPECIFY	PIVOT - 102126 specify length below
1 - 515430	1 - 515430	1 - 515430	1 - 515430	PLUG-IN RELAY

OPERATOR CONCEALED UNDER FLOOR

For ALL AIR Pkgs. 24 & 25, See Page CP-6C

Mole Pivot Length, See Page CP-6A

PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING
24	307718	14" 01 MOLE	30" to 48"
25	307719	14" 01 MOLE w/Emergency Release	30" to 48"
26*	307720	14" 011 MOLE Pair of Doors	48" to 72"
27*	307721	14" 011 MOLE Pair of Doors w/Emergency Release	48" to 72"

Note: For Pkg. 24 & 25 only - LH Package change 2nd digit to = 8

*Packages 26 & 27 Handle a Pair of Doors

PKG NO. 24	PKG NO. 25	PKG NO. 26	PKG NO. 27	ITEM DESCRIPTION
1 - 103155 (6)	1 - 103155 (6)	--	--	OPERATOR OS 14" RH (LH)
--	--	1 - 103303	1 - 103303	OPERATOR O11S 14"
1 - 402121	--	2 - 402121	--	LEVER - 014 ML
--	1 - 406234	--	2 - 406234	LEVER - Emergency Release 017M - 14"
1 - 502651	1 - 502651	2 - 502651	2 - 502651	DOOR ARM
1 - 310079	1 - 310079	2 - 310079	2 - 310079	PIVOT - TOP
1 - 409318	1 - 409318	2 - 409318	2 - 409318	DOOR ROD
1 - 403257	1 - 403257	--	--	SLIDE BAR - Universal
--	--	1 - 307690	2 - 307690	BALL STUD PACKAGE
--	1 - 402923	--	2 - 402923	EMERGENCY CUTOFF SWITCH
1 - SPECIFY	1 - SPECIFY	2 - SPECIFY	2 - SPECIFY	PIVOT - 103030 specify length below
1 - 515430	1 - 515430	1 - 515430	1 - 515430	PLUG-IN RELAY

Carey Automatic Door, LLC

1 - PNEUMATIC OPERATOR FOR SWINGING DOOR - CONCEALED

ALL AIR OPERATOR CONCEALED OVERHEAD STAR Pivot Length, See Page CP-6

PKG NO.	PART NO.*	DESCRIPTION	SIZE OF OPENING
20AA	347714	14" 01 STAR All Air	30" to 48"
21AA	347715	14" 01 STAR w/Emergency Release All Air	30" to 48"

PACKAGE NO. 20AA	PACKAGE NO. 21AA	ITEM DESCRIPTION
1 - 103305 (6)	1 - 103305 (6)	OSX - 14" RH (LH) ALL AIR OPERATOR
1 - 920100	1 - 920100	ALL AIR VALVE PACKAGE
1 - 402121	--	LEVER - O14SL
--	1 - 406234*	LEVER - Emergency Release 017S-14**
1 - 402371	1 - 402371	DOOR ARM - STAR
1 - 409318	1 - 409318	DOOR ROD
1 - 403257	1 - 403257	SLIDE BAR - Universal
1 - 405113	1 - 405113	FERGUSON BOTTOM PIVOT
--	1 - 402923*	EMERGENCY CUTOFF SWITCH**
1 - 102126	1 - 102126	STAR PIVOT - Specify proper length from table
2 - 402839	2 - 402839	PULL CORD MA-10 OR
2 - 409693	2 - 409693	PALM BUTTON

ALL AIR OPERATOR CONCEALED UNDER FLOOR MOLE Pivot Length, See Page CP-6A

PKG NO.	PART NO.*	DESCRIPTION	SIZE OF OPENING
24AA	347718	14" 01 MOLE All Air	30" to 48"
25AA	347719	14" 01 MOLE w/Emergency Release All Air	30" to 48"

PACKAGE NO. 24AA	PACKAGE NO. 25AA	ITEM DESCRIPTION
1 - 103305 (6)	1 - 103305 (6)	OSX - 14" RH (LH) ALL AIR OPERATOR
1 - 920100	1 - 920100	ALL AIR VALVE PACKAGE
1 - 402121	--	LEVER - O14ML
--	1 - 406234*	LEVER - Emergency Release 017M-14**
1 - 502651	1 - 502651	DOOR ARM
1 - 310079	1 - 310079	TOP PIVOT
1 - 409318	1 - 409318	DOOR ROD
1 - 403257	1 - 403257	SLIDE BAR - Universal
--	1 - 402923*	EMERGENCY CUTOFF SWITCH**
1 - 103030	1 - 103030	MOLE PIVOT - Specify proper length from table
2 - 402839	2 - 402839	PULL CORD MA-10 OR
2 - 409693	2 - 409693	PALM BUTTON

*NOTE: For LH Packages, change 2nd digit of part number to = 5.

**Emergency Release Lever (406234) and Emergency Cutoff Switch (402923) cannot be used for Explosion Proof applications as electrical input is required.

See Page CP-13 for additional ALL AIR and Explosion Proof information.

Carey Automatic Door, LLC
1 - PNEUMATIC OPERATOR FOR SWINGING FIRE DOORS

The Automatic Swinging Fire Door Package has been previously tested to meet the Provisions of the National Fire Protection Association Standards 80 and 101. The Package fills a need required by Life Safety Codes in hospitals, nursing homes, industrial plants, institutions, office buildings and schools.

**Double Egress
Package 55**

**Perimeter "IN"
Package 56**

**Perimeter "OUT"
Package 57**



FACTORS TO CONSIDER BEFORE ORDERING:

DOUBLE EGRESS: Two doors swinging in opposite direction. "A" labeled with Astragal; "B" labeled without Astragal.

PERIMETER: Doors swinging in same direction (either IN or OUT). "B" labeled Doors Only.

FOR INFORMATION ON INSTALLATION DETAILS AND WIRING, REFER TO: DETAIL SHEET P-97 (MDS-445)

FOR A COMPLETE PACKAGE, THE FOLLOWING EQUIPMENT MUST BE ORDERED:

FIRE DOOR PACKAGES Nos. 55, 56 OR 57	Page CP-12A
CONTROLS & RELAYS (515430)	INCLUDED
*FIRE EXIT HARDWARE No. ED6800A.....	From Corbin Russwin Dealer
*SMOKE AND HEAT DETECTOR	By Others
*DOORS (Sizes as indicated)	From any approved fire door mfg. company
Specify Class "A" or "B" UL Listed Doors Only	
Prepare for CB-1901, 5" x 4 1/2" Hinges and Fire Door Exit Hardware	
Stanley Door Hardware and Stanley Fire Door Latch	

U.L. LISTED DOOR SIZES:

OPENING HEIGHT: 6' - 8" TO 8' - 0"
In 2" Increments

OPENING WIDTH: 6' - 0" TO 8' - 0"
In 4" Increments

Carey Automatic Door, LLC
1 - PNEUMATIC OPERATOR FOR SWINGING FIRE DOORS

SWINGING FIRE DOORS

PKG NO.	PART NO.	DESCRIPTION	SIZE OF OPENING	MAX. REVEAL SEE MDS-255	SIDE CLEARANCE
55	310267	14" DOUBLE EGRESS (Specify Oper. Hand)	72" - 96"	4"	8 1/8"
56	310268	14" PERIMETER "IN"	72" - 96"	4"	8 1/8"
57	310269	14" PERIMETER "OUT"	72" - 96"	4"	8 1/8"

PKG NO. 55	PKG NO. 56	PKG NO. 57	ITEM DESCRIPTION
2 - 103155 OR	1 - 103155	1 - 103155	OPERATOR OS 14" RH Pneumatic Operator
2 - 103156	1 - 103156	1 - 103156	OPERATOR OS 14" LH Pneumatic Operator
2 - 403257	2 - 403257	2 - 403257	SLIDE BAR UNIVERSAL
1 - 502494	2 - 502494	--	DOOR BRACKET SDB - 114 IN
1 - 502495	--	2 - 502495	DOOR BRACKET SDB - 114 OUT
1 - 409318	2 - 409318	2 - 409318	DOOR ROD
2 - 515601	2 - 515601	2 - 515601	M/S LATCH
1 - 311376	1 - 311376	1 - 311376	3 Pair CB-1901 Hinges 5" x 4 1/2" Prime Coat

Carey Automatic Door, LLC, its employees and associates are not electrical engineers or building code experts. You should consult the proper experts before purchasing a fire door application.

<h2 style="margin: 0;">Carey Automatic Door, LLC</h2> <h3 style="margin: 0;">OSX ALL AIR (EXPLOSION PROOF) OPERATOR PACKAGES</h3>

100% ALL AIR & EXPLOSION PROOF PACKAGES

100% ALL AIR door systems are pneumatically operated with no electronics. **Explosion Proof door systems** are pneumatically operated with no electronics as well as all moving components are manufactured from non-sparking materials.

100% ALL AIR & EXPLOSION PROOF OPERATORS:

Air Opening and Air Closing (no electricity involved) - pneumatically controlled from central air supply or separate compressor. Opening and closing action will be individually controlled by separate built-in pressure regulators and opening and closing valves, which are all adjustable for pressure and volume for required speed and power. All regulators and valves can be self-contained within a control box at the door location. The operator will be capable of operating doors against wind velocities (and equivalent stack pressures) up to 40 miles per hour. Built-in two-stage checking cylinders for both opening and closing limits. The operator will instantaneously recycle the door to the full open position from any point in closing cycle. The operator will be activated by two pneumatic push plate or pull cord assemblies. The entire system is driven by pneumatic cylinders and valves without the use of electrical or electronic components.

All Operators available as ALL AIR. The following are excluded as Explosion Proof Packages: 17, 18, 19, 20, 21, 22, 23, 26, 27, 30, 31, 32, 37, 38, 39, 40, 55, 56 & 57.

FACTORS TO CONSIDER BEFORE ORDERING:

- HAND:** Swinging Doors - Specify Right Hand for clockwise, Left Hand for counterclockwise.
Sliding Doors - Specify Right Hand if door slides to the left to open, Left Hand if door slides to right.
- REVEAL:** Distance from back of operator case to inside surface of door in closed position.
Varies with door thickness and hanging. (See Detail Sheet MDS-255 on Page CP-19)
- SIDE CLEARANCE:** Distance **required** between jamb and side wall for door bracket.
- OPENING:** Determines size of operator required.

To order **ALL AIR (EXPLOSION PROOF)** equipment select the application required as shown on Pages CP-2 through CP-12A. Order by Part Number. Fire door packages include closing lever with weights.

The ALL AIR (EXPLOSION PROOF) Package Equipment List will differ from the appropriate Standard Package Equipment List as follows:

<u>PART NO.</u>	<u>DESCRIPTION</u>	
103305	OSX - 14" R.H. All Air Operator	Substituted for Regular Operator
103306	OSX - 14" L.H. All Air Operator	Substituted for Regular Operator
103307	OSX - 24" R.H. All Air Operator	Substituted for Regular Operator
103308	OSX - 24" L.H. All Air Operator	Substituted for Regular Operator
920100	ALL AIR Valve Package	1 included in Every Package except Fire Door
402839	Pull Cord - MA-10	2 included in Every Package OR
409693	Wall Mounted Palm Button Switches	2 included in Every Package
960130	All Air Time Delay (0-30 seconds)	1 included in Every Package
960175	All Air Time Delay (0-60 seconds)	Available on special order as an optional extra
311769	Valve Control Panel	Available on special order as an optional extra

AVAILABLE ACTIVATION OPTIONS:

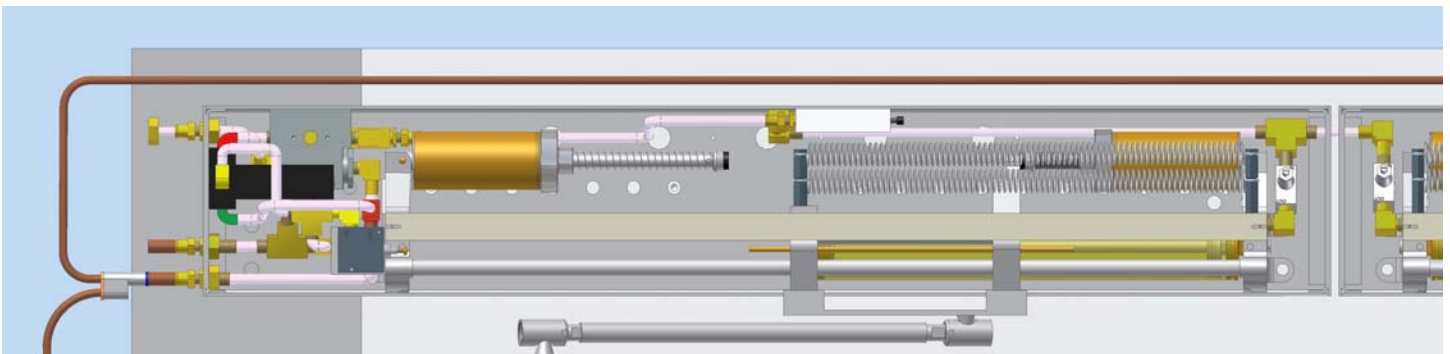
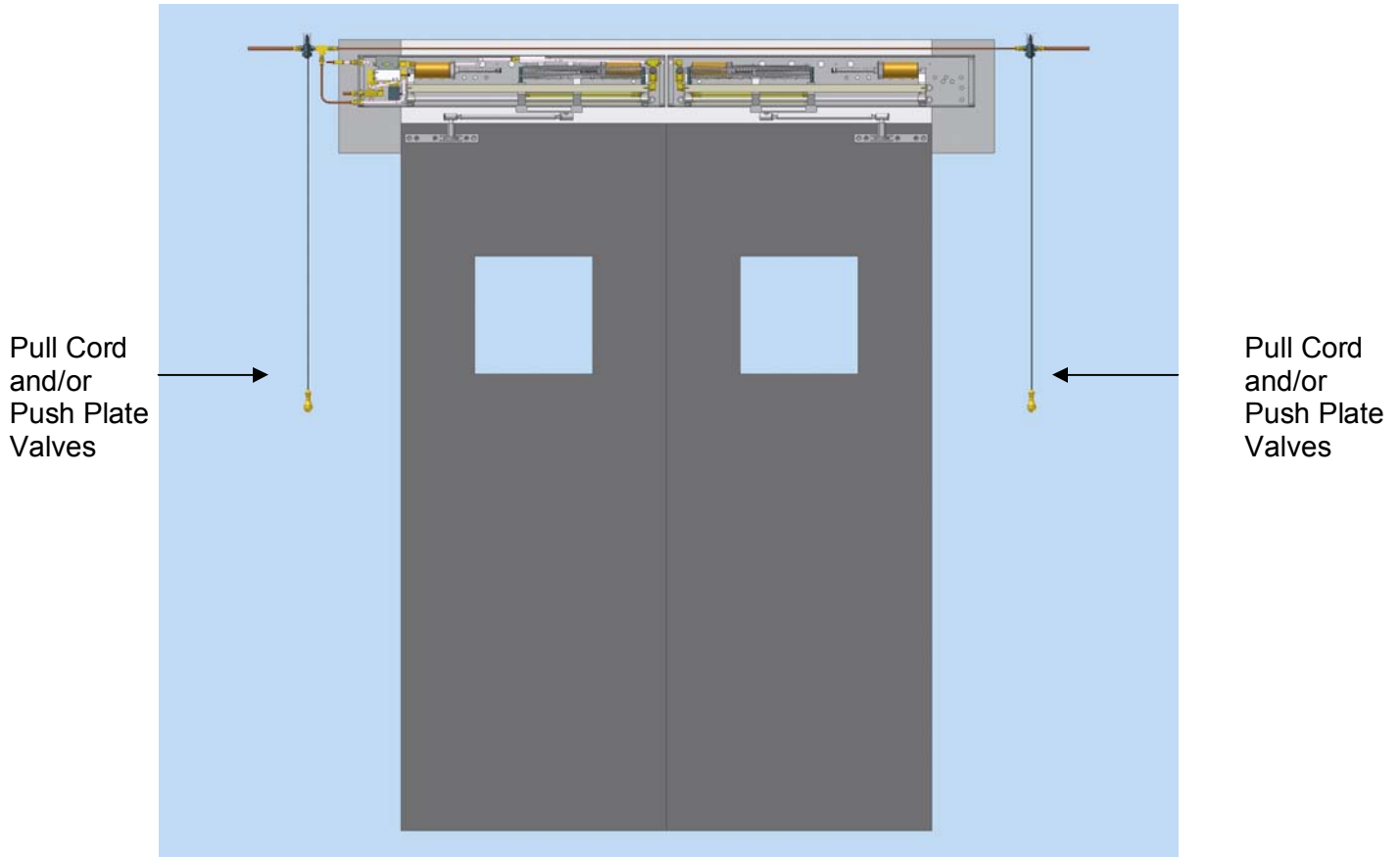
- Push to Open, Push to Close
- Push to Open, Hold Open with Time Delay (standard: 30 sec., optional: 60 sec.), Air Power Close

Customized Systems Available for Specialized Applications.

Carey Automatic Door, LLC, its employees and associates are not electrical engineers or building code experts. You should consult the proper experts before purchasing a system in a hazardous area.

Carey Automatic Door, LLC
OSX ALL AIR (EXPLOSION PROOF) OPERATOR PACKAGES

“IN” SWING OPERATORS
Doors Swing Under the Operator

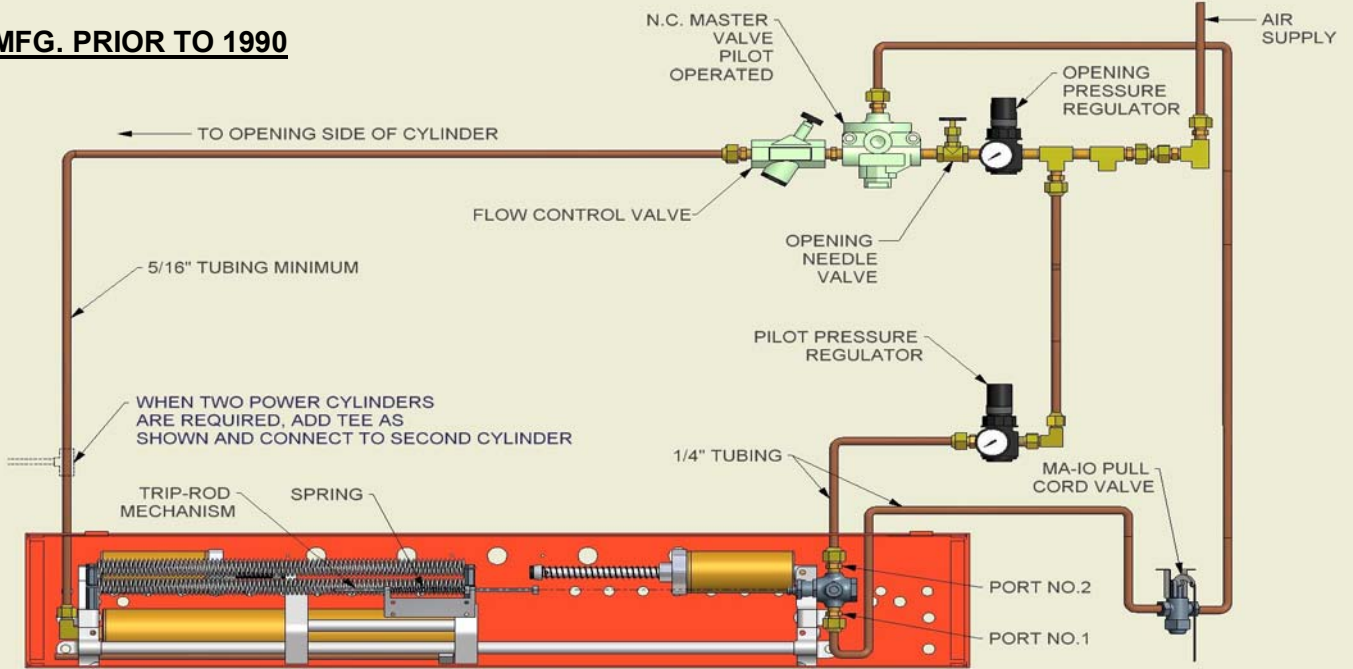


All Regulators & Valves are Self-Contained with Operator Case!

Carey Automatic Door, LLC

OSX ALL AIR (EXPLOSION PROOF) OPERATOR PACKAGES

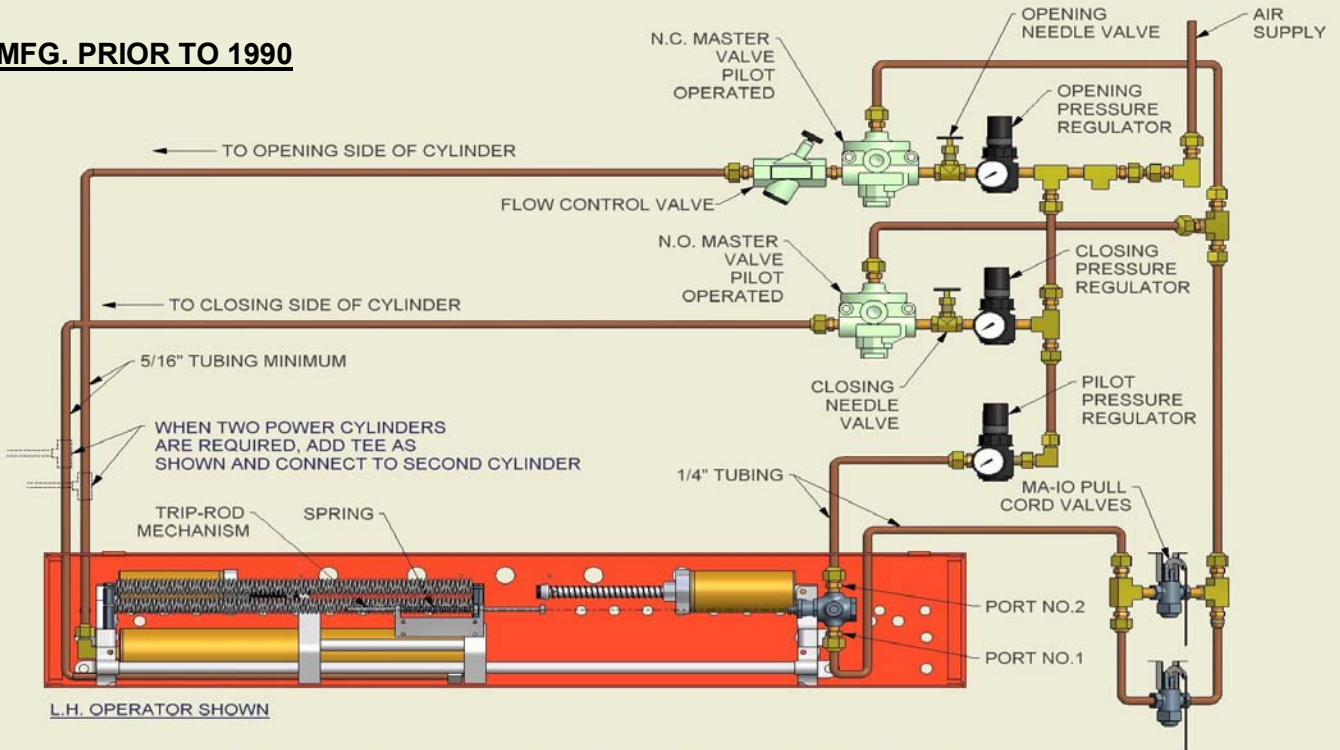
AS MFG. PRIOR TO 1990



L.H. OPERATOR SHOWN

**ALL PNEUMATIC CONTROL WITH SINGLE ACTING AIR
AND COUNTER-WEIGHT CLOSING**

AS MFG. PRIOR TO 1990



L.H. OPERATOR SHOWN

ALL PNEUMATIC CONTROL WITH DOUBLE ACTING AIR

Carey Automatic Door, LLC

SPECIFICATIONS: OS PNEUMATIC OPERATORS & CONTROLS

I. GENERAL

Furnish pneumatic operators (visible or concealed), controls, and accessories, including necessary connecting hardware and air supply, as indicated on architectural plans and in accordance with manufacturer's working drawings, wiring diagrams and instructions. Equipment shall be as manufactured or supplied by Carey Automatic Door, LLC of Southbury, Connecticut.

II. SCOPE OF WORK

A. The General Contractor shall coordinate his work with the work of all trades, including Masonry, Plumbing, Electrical, Automatic Doors sections of the specifications and as covered in Architectural and Manufacturer's details. For overhead installation of the operator, header construction adequate to support the operator shall be provided.

A-1. Under Automatic Doors Section: The Automatic Doors contractor shall furnish and install the Pneumatic Operator, door arms and connecting rods, carpets or other controls, molding and other accessories. Work to be in strict accordance with manufacturer's recommendations.

A-2. Under Masonry Section: When concealed under-floor application is required, the Masonry contractor shall grout and plumb special floor pivot supplied by Carey Automatic Door in accordance with manufacturer's instructions, and it shall be plumb and true and rigidly mounted to receive operator.

Where molding is required for recessed carpet installations, the Masonry contractor shall provide recesses in floor for carpet frames, and shall set and level carpet frames in accordance with manufacturer's drawings and instructions. Necessary support for operators will be provided in accordance with suppliers detailed drawings.

A-3. Under Electrical Section: The Electrical contractor shall provide 115 v., 60 cycle, 1 phase supply to the manufacturer's 115/24 v. transformer. Operator, carpets and manual controls shall be wired to 24 v. circuit. Photoelectric controls shall be wired to 115 v. circuit. Compressor motor shall be wired to nameplate voltage and phase supply.

A-4. Under Plumbing Section: The Plumbing contractor shall connect air compressor or central air supply to Pneumatic Operator with brass pipe, copper tubing or equivalent with brass fittings, in accordance with lengths and sizes shown on manufacturer's details and instructions. Minimum pressure in air line before operator pressure regulator shall be at least 20 p.s.i. more than required by operator. The Plumbing contractor shall check with Carey representative for air requirements, since this varies with the operator application (60 p.s.i. will be maximum operator requirements). Furnish and install drain traps where necessary for all low points or pockets in the air line.

III. FUNCTIONAL

A. Operators - Air Power Opening and Spring Closing (Single Acting) - These shall be pneumatically powered from central air supply or separate compressor. Opening action shall be controlled by built-in pressure regulator set and shall be adjustable for pressure and volume for required speed and power at door location. Closing speed shall be controlled by power springs and valve exhaust adjustment. Built-in adjustable two-stage checking cylinders for both opening and closing limits. Operators to contain plug-in type electrical control relays. Operators to instantaneously recycle to full open position from any point in closing cycle.

B. Operators - Air Power Opening and Air Power Closing (Double Acting) - These shall be pneumatically powered from central air supply or separate compressor. Opening and closing action shall be individually controlled by separate built-in pressure regulator sets and shall be adjustable for pressure and volume for required speed and power at door location. Operators shall be capable of operating doors against wind velocities (and equivalent stack pressures) up to 40 miles per hour. Built-in adjustable two-stage checking cylinders for both opening and closing limits. Operators to contain plug-in type electrical control relays.

(Continued)

Carey Automatic Door, LLC SPECIFICATIONS: OS PNEUMATIC OPERATORS & CONTROLS
--

III. FUNCTIONAL

C. Actuating Control - Shall be either or a combination of the following, selected to suit the existing traffic conditions and conform to the operating limits of the control. Optional 3-30 second plug-in time delay relay shall be provided when required.

Carpet shall be HD or SC types of waterproof and wear resistant vinyl construction, not more than 1/2" in thickness. Carpet sizes and positioning shall be as indicated on plans. Carpet shall be wired for low voltage (24 v.) circuit by means of a transformer in the control box. Built-in safety features shall prevent opening of door when approached from wrong direction while door is in closed position, and also maintain door in open position when minimum pressure of 10-15 lbs. is applied to either Opening or Safety Carpet. Carpet control shall be limited in application to openings having only pedestrian traffic or light weight rubber tired wheeled traffic. Install in accordance with manufacturer's details and instructions.

Photoelectric Controls, Models HR-1 (Horizontal) and VR-1 (Vertical) - Beams shall recognize a minimum interruption of 0.1 seconds and generate a signal and shall operate up to a distance of 40 feet at this sensitivity. Not to be affected by voltage variations between 90-137 volts, 60-cycle, A.C.

Manual Controls shall be either or a combination of the following:

C-7	Push Button Switch
C-8	Push Plate Switch
CU-8-E	Explosion-proof Push Plate Switch
C-14	Pull Cord Switch
C-11-A	Floor Button Switch
C-14-A	Explosion-proof Pull Cord Control

D. Emergency Release Bracket - shall be furnished where required to quickly disengage the operator and permit an in-swinging door to swing outward. Manual return of door to closed position will re-engage the operator automatically.

E. Miscellaneous - Where required, use the following accessories:

- Rails - Models P-60 or P-50
- Stanguard Protectors - Model G-101
- Carpet Molding - To conform to carpet.

F. Air Supply - Shall be either central air supply or separate compressor. Must be capable of delivering the necessary C.F.M. free air as required by type and number of pneumatic operators. Consult Carey representative for capacity recommendations.

IV. BILL OF MATERIALS AND DETAILS

Consult Carey representative for information.

Carey Automatic Door, LLC SPECIFICATIONS: INDUSTRIAL SWING & SLIDE DOOR OPERATORS
--

I. GENERAL

A. Furnish pneumatic operators as manufactured or supplied by Carey Automatic Door, LLC of Southbury, Connecticut. The system shall consist of: Pneumatic Operator and connecting hardware, control relay, actuating controls and accessories.

B. Related Work Specified Elsewhere

The general contractor shall coordinate the work of all trades, including glass and glazing, masonry, plumbing, and electrical requirements covered in manufacturer's details and appropriate sections of specifications.

B-1. Under Electrical Section

The electrical contractor shall provide 117v, 60 cycle, 1 phase supply to the manufacturer's control relay. Compressor motor shall be wired to nameplate voltage and phase supply.

B-2. Under Electrical (if applicable)

The electrical contractor shall provide electrical conduit and wiring from specified controls to control relay as outlined on manufacturer's drawings.

B-3. Under Plumbing Section

The plumbing contractor shall connect air compressor or central air supply to Pneumatic Operator with copper tubing and brass fittings or equivalent in accordance with lengths and sizes shown on manufacturer's details and instructions. Minimum pressure in air line before operator pressure regulator shall be at least 20 p.s.i. more than required by operator. The plumbing contractor shall check with Carey representative for air requirements, since this varies with the operator application (60 p.s.i. will be maximum operator requirements). Furnish and install drain traps where necessary for all low points or pockets in the air line.

B-4. Under Frames and Doors (if applicable)

Furnish and install frames and doors as specified and shown on drawings.

B-5. Under Masonry Section (if applicable)

The masonry contractor shall provide recess in floor for mat frames and shall set and level frames in accordance with manufacturer's drawings and instructions.

C. All automatic entrance equipment is to comply fully with all sections of ANSI A156.10.

D. All equipment must operate between -20° degrees F and +120° degrees F.

II. PRODUCT

A. Operators (specify A-1, A-2 or A-3)

A-1. OS SINGLE ACTING PNEUMATIC OPERATORS

Air Power Openings and Spring Closing - these shall be pneumatically powered from central air supply or separate compressor. Opening action shall be controlled by built-in pressure regulator and shall be adjusted for pressure and volume for required speed and power at door location. Closing speed shall be controlled by power springs and valve exhaust adjustment. Built-in adjustable two-stage checking cylinders for both opening and closing limits. Operators to contain plug-in type control relays with adjustable time delay. Operators to instantaneously recycle to full open position from any point in closing cycle.

(Continued)

Carey Automatic Door, LLC SPECIFICATIONS: INDUSTRIAL SWING & SLIDE DOOR OPERATORS
--

II. PRODUCT

A. Operators (specify A-1, A-2 or A-3)

A-2. OD DOUBLE ACTING PNEUMATIC OPERATOR

Air Power Openings and Air Power Closing - these shall be pneumatically powered from central air supply or separate compressor. All Air lines to be made from non-ferrous material with air line filter. Opening and closing action shall be individually controlled by separate built-in pressure regulator sets which shall be adjustable for pressure and volume for required speed and power at door location. Operators shall be capable of operating doors against wind velocities (and equivalent stack pressures) up to 40 miles per hour. Built-in adjustable two-stage checking cylinders for both opening and closing limits. Operators to contain plug-in type electrical control relays with adjustable time delay. Operators to instantaneously recycle to full open position from any point in closing cycle.

A-3. OSX ALL AIR OPERATOR

Air Openings and Air Closing (no electricity involved) - these shall be pneumatically powered from central air supply or separate compressor. All Air lines to be made from non-ferrous material with air line filter. Opening and closing action shall be individually controlled by separate built-in pressure regulators and opening and closing valves, which shall be adjustable for pressure and volume for required speed and power. Regulators and valves shall be self-contained within a control box at door location. Operators shall be capable of operating doors against wind velocities (and equivalent stack pressures) up to 40 miles per hour. Built-in two-stage checking cylinders for both opening and closing limits. Operators to instantaneously recycle the door to full open position from any point in closing cycle. Operator shall be activated by two class 10, MA-10 pull cord valve or pneumatic palm button assemblies.

B. Actuating Controls

Carey shall furnish specified controls such as: palm buttons, push plates, pull cords and other accessories as manufactured by Carey Automatic Door.

III. EXECUTION

A. The general contractor shall ensure that no defects or errors are present in completed phases of the work which would result in poor application or installation, or cause latent defects of the automatic door equipment.

Carey Automatic Door, LLC
SPECIFICATIONS: SWINGING DOOR OPERATORS

O-1S-14" and O-1S-24" Pneumatic Swinging Door Operators

Doors must swing freely on hinges or pivots of adequate size for good, automatic door operation. The doors, even though not supplied by Carey Pneumatic Door, must be checked for the following items as they influence the operation of your pneumatic operator equipment.

1. Check door and frame for proper installation and clearance - 1/8" at top and lead edge of door, 3/16" at the carpet or floor. Door units must be plumb, level and true to line.
2. Where door and jamb are of hollow metal construction, hinge reinforcement plates must be used.

IF DOORS ARE HUNG ON HINGES - Make certain that hinges are firmly secured to door and door frame. Full jeweled hinges are recommended. These are the only hinges designed to take lateral as well as vertical stress within the ball bearings, thus eliminating wear.

IF DOORS ARE HUNG ON PIVOTS - Check to see if pivots are secure in the header, the floor and door. If not, tighten. If they show excessive wear, make arrangements to have worn parts replaced. Door units must be plumb, level and true to line.

If doors are striking the side jambs, adjustment may be possible. Wood doors may be planed off as required to provide proper clearance. In the case of Metal or All-glass doors, if this fault prevails, the installer of the door should be called to put doors and/or frames in proper condition.

CAREY DOOR PIVOTS - Carey top and bottom Pivots are recommended for center pivot hung doors. See Page CPD-19.

INSTALLATION OF HINGES:

1. Set top hinge 5" from top of door, bottom hinge 10" from bottom of door, and center hinge midway between the two.
2. Seat hinge pin all the way in the barrel. Lock with set screw.

Sizes of Hinges:

Door Thickness

- | | | |
|----|----------------------------|--------|
| 1. | 5" x 4" hinges | 1-3/4" |
| | (5" high x 4" wide - open) | |
| 2. | 5" x 5" hinges | 2-1/4" |

We recommend FBB212 Hinges.

EXTRA HEAVY BALL BEARING HINGES

- For outside doors, use non-ferrous metal or stainless steel hinges.
- For interior doors, use steel hinges, plated or prime coated.
- Use non-template hinges on wood doors and wood frames.
- Use template hinges on wood doors with metal jambs and on hollow metal doors with pressed metal jambs.
- Use three hinges for doors up to and including 90" high.
- Use four hinges for doors up to and including 120" high.
- Use five hinges for doors over 120" high.

Carey Automatic Door, LLC

SPECIFICATIONS: FIRE DOOR PACKAGE

I. GENERAL

A. Furnish and install the Automatic Swinging Fire Door Package as manufactured or supplied by Carey Automatic Door, LLC of Southbury, Connecticut. The system shall consist of: OS Pneumatic Operator and connecting hardware, control relays electric solenoid latches, control box, actuating controls and accessories.

B. Related Work Specified Elsewhere

The general contractor shall coordinate the work of all trades, including glass and glazing, masonry, plumbing, and electrical requirements covered in manufacturer's details and appropriate sections of specifications.

B-1. Under Electrical Section (OS Pneumatic Operator)

The electrical contractor shall provide 117v, 60 cycle, 1 phase supply to the manufacturer's control relay. Compressor motor shall be wired to nameplate voltage and phase supply.

B-2. Under Electrical Section (if applicable)

The electrical contractor shall provide electrical conduit and wiring from specified controls to control relay as outlined on manufacturer's drawings.

B-3. Under Plumbing Section

The plumbing contractor shall connect air compressor or central air supply to the OS Pneumatic Operator with copper tubing and brass fittings or equivalent in accordance with lengths and sizes shown on manufacturer's details and instructions. Minimum pressure in air line before operator pressure regulator shall be at least 20 p.s.i. more than required by operator. The plumbing contractor shall check with Carey representative for air requirements, since this varies with the operator application (60 p.s.i. will be maximum operator requirements). Furnish and install drain traps where necessary for all low points or pockets in the air line.

B-4. Under Frames and Doors Section (if applicable)

Furnish and install frames and doors as specified and shown on drawings.

B-5. Under Masonry Section (if applicable)

The masonry contractor shall provide recess in floor for mat frames and shall set and level frames in accordance with manufacturer's drawings and instructions.

C. All automatic entrance equipment is to comply fully with all sections of ANSI A156.10.

D. All equipment must operate between -20° degrees F and +120° degrees F.

II. PRODUCT

A. OS Pneumatic Swinging Fire Door Package shall consist of the following equipment:

- 1 OS Pneumatic Operator and connecting hardware per door leaf
- 1 Control relay per operator
- 1 Electrical solenoid latch per door leaf
- 1 Control box (recess or surface)
- A/R Actuating controls
- 1 (Heat/Smoke detector system contacts by others)
- 3 Pairs of Stanley CB-1901 full mortise hinges 5" x 4 1/2"

(Continued)

Carey Automatic Door, LLC

SPECIFICATIONS: FIRE DOOR PACKAGE

B. Operators

B-1. Air Power Openings and Spring Closing - these shall be pneumatically powered from central air supply or separate compressor. Opening action shall be individually controlled by built-in pressure regulator and shall be adjusted for pressure and volume for required speed and power at door location. Closing speed shall be controlled by power springs and valve exhaust adjustment. Built-in adjustable two-stage checking cylinders for both opening and closing limits. Operators to contain plug-in type control relays with adjustable time delay. Operators to instantaneously recycle to full open position from any point in closing cycle.

C. U.L. Listed Frames and Doors

A or B labeled for double egress, and B labeled for simultaneous pair applications (perimeter). Doors shall be hinge hung and frame shall be designed to accommodate Carey electric solenoid latch mechanisms.

D. U.L. Listed Fire Exit Hardware (GXHX)

Exit hardware shall be concealed or surface mounted vertical rod type device.

E. Operating Sequence of System

Normal automatic operation of doors with power "ON" - the electric solenoid latches are held in the retracted position, electrically. This shall allow automatic use of doors. The electric solenoid latches shall prevent fire exit hardware from mechanically latching while energized.

E.1 U.L. listed heat detectors, smoke detectors and/or central alarm systems shall be the triggering mechanism for the fire mode.

E-2. Power Failure Mode

In either event, the electric solenoid latch coils are de-energized. The latches are extended into the tripping position. The operators are de-energized - air is exhausted - springs close the doors. When the doors reach their closed position, they shall latch mechanically by means of exit hardware. The doors can only be opened by manually depressing the exit hardware crossbar.

E-3. Resetting Doors for Automatic Operation

Press magnetic control reset button on control box, electric solenoid latches will be returned to their retracted position electrically. Reset fire exit hardware by manually depressing the crossbar on each door. Doors are now in their automatic mode.

F. Actuating Controls

Carey shall furnish specified controls such as: push plates, pull cords and other accessories as manufactured by Carey Automatic Door, LLC.

III. EXECUTION

A. The general contractor shall ensure that no defects or errors are present in completed phases of the work which would result in poor application or installation, or cause latent defects of the automatic door equipment.