SECTION 08710

DOOR CLOSERS AND CONTROLS

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\*\* NOTE TO SPECIFIER \*\* Rixson Specialty Door Controls, (An ASSA ABLOY Group company); door closers and controls.
This section is based on the products of Rixson Specialty Door Controls, (An ASSA ABLOY Group company), which is located at:
3000 Hwy. 74 E.
Monroe, NC 28112
Toll Free Tel: 800-457-5670
Tel: 704-283-2101
Fax: 800-221-0489
Email: [request info (lana.kirkpatrick@assaabloy.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Rixson+Specialty+Door+Controls,+(An+ASSA+ABLOY+Group+company)&coid=35204&rep=&fax=800-221-0489&message=RE:%20Spec%20Question%20(08710rix):%20%20&mf=)
Web: [www.rixson.com](http://www.rixson.com)
 [ [Click Here](http://www.arcat.com/arcatcos/cos35/arc35204.html) ] for additional information.
RIXSON Specialty Door Controls offers customized solutions for challenging design requirements. It is the leading North American provider of concealed closers, pivots and mechanical/electromechanical door holders.
The ASSA ABLOY Group is the world's leading manufacturer and supplier of locking solutions, dedicated to satisfying end-user needs for security, safety and convenience.

1. GENERAL
	1. SECTION INCLUDES
		1. Door Hardware:

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + - 1. Heavy-duty floor closers.
			2. Shallow depth floor closers.
			3. Specialty closers.
			4. Pivots and pivot sets.
			5. Checkmate stops and holders.
			6. Thresholds.
			7. Electromagnetic door holders/releases (floor mounted).
			8. Electrified closer/holder (Smok-Chek V).
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 08100 - Steel Doors and Frames.
		2. Section 08210 - Wood Doors.
		3. Section 08700 - Door Hardware.
	1. SUBMITTALS
		1. Submit under provisions of Section 01300.
		2. Product Data: Manufacturer's data sheets on each product to be used, including:
			1. Preparation instructions and recommendations.
			2. Storage and handling requirements and recommendations.
			3. Installation methods.
	2. DELIVERY, STORAGE, AND HANDLING
		1. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
		2. Handling: Handle materials to avoid damage.
	3. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
	4. SEQUENCING
		1. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
	5. WARRANTY
		1. Provide manufacturer's standard limited warranty including the following:
			1. Closers: 27, 28, 30, 40 heavy duty floor closers, 10 years.
			2. Electrified closer/holders, 2 years.
			3. Electromagnetic holders/releases, 2 years.
			4. All other Rixson products, 2 years.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Rixson Specialty Door Controls, (An ASSA ABLOY Group company), which is located at: 3000 Hwy. 74 E.; Monroe, NC 28112; Toll Free Tel: 800-457-5670; Tel: 704-283-2101; Fax: 800-221-0489; Email: [request info (lana.kirkpatrick@assaabloy.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Rixson+Specialty+Door+Controls,+(An+ASSA+ABLOY+Group+company)&coid=35204&rep=&fax=800-221-0489&message=RE:%20Spec%20Question%20(08710rix):%20%20&mf=); Web: [www.rixson.com](http://www.rixson.com)

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01600.
	1. HEAVY-DUTY FLOOR CLOSERS
		1. Model 27:

\*\* NOTE TO SPECIFIER \*\* For fire rated openings (up to 3 hour assemblies" prefix "F". For 20-minute labeled doors suffix "-20" to the part number. Available non-hold open (N) or selective hold open (S) at same degree as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".

* + - 1. Single Acting, Handed. Exterior or Interior Doors. Door Width up to 4 feet 0 inches (1219 mm). Weight to 450 lb (204 Kg).
			2. ANSI/C06041/C06051.
			3. Built-in positive dead stop prevents door from swinging beyond the desired opening degree Provide 85 degree, 90 degree, or 105 degree stop as scheduled or required.
			4. Separate and independent valves for closing speed, latch speed and backcheck.
			5. Provide with floor plate or threshold installation as scheduled or required.
			6. Cycolac, rust-proof cement case.
			7. Standard top pivot: #180 included.
			8. Intermediate pivot(s) required: Provide M19.
			9. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold weather fluid.
			3. Sealed closer.
			4. 1-1/2 inches (38 mm) offset.
		1. Model 27-180:

\*\* NOTE TO SPECIFIER \*\* For fire-rated openings (up to 3 hour assemblies), prefix "F". For 20-minute labeled doors suffix "-20" to the part number. Available non-hold open (N) or automatic hold open (A). Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".

* + - 1. Single Acting, Handed. Door Width up to 4 feet 0 inches (1219 mm). Exterior or Interior Doors. Weight to 450 lb (204 Kg).
			2. Maximum opening 180 degree, provide auxiliary floor or wall stop as scheduled or required.
			3. Separate and independent valves for closing speed and latch speed.
			4. Adjustable hydraulic backcheck.
			5. Available with floor plate or threshold installation.
			6. Cycolac, rustproof cement case.
			7. Vertical Door adjustment.
			8. Standard top pivot: #180 included.
			9. Intermediate pivot(s) required: M19.
			10. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Cold Weather.
			2. Sealed Closer.
			3. 1-1/2 inches (38 mm) offset.
		1. Model 127:

\*\* NOTE TO SPECIFIER \*\* For fire rated openings (up to 3 hour assemblies). For 20-minute labeled doors suffix "-20" to the part number. Available non-hold open (N) or selective hold open (S) at same degree as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".

* + - 1. Single Acting, Handed. Exterior or interior Doors. Deep Reveal Applications. Door Width up to 4 feet 0 inches (1219 mm). Weight to 250 lb (113 Kg).
			2. ANSI/C06041/C06051.
			3. Closer has a tapered spindle and uses a unique bottom arm to allow door installation.
			4. Built-in positive dead stop prevents door from swinging beyond the desired opening degree. Provide 85 degree, 90 degree, or 105 degree stop as scheduled or required.
			5. Separate and independent valves for closing speed, latch speed and backcheck.
			6. Provide floor plate or threshold installation as scheduled or required.
			7. Cycolac, rustproof cement case.
			8. Standard top pivot: #180 included.
			9. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Sealed Closer.
			3. Intermediate pivot(s) for non-fire rated opening: Model 119.
		1. Model 427:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or selective hold open (S) at same degree as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".

* + - 1. Single Acting, Handed. Exterior or Interior Doors. Door Width up to 4 feet 0 inches (1219 mm). Deep Reveal/Alcove Applications. Weight to 250 lb (113 Kg).
			2. ANSI/C06041.
			3. Closer has a tapered spindle and uses a unique bottom arm.
			4. Built-in positive dead stop prevents door from swinging beyond the desired opening degree. Provide 85 degree, 90 degree, or 105 degree stop as scheduled or required.
			5. Separate and independent valves for closing speed, latch speed and backcheck.
			6. Provide floor plate or threshold installation as scheduled or required.
			7. Cycolac rustproof cement case.
			8. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold weather fluid.
			3. Sealed closer.
			4. Provide intermediate pivot(s): 119.
		1. Model F327:

\*\* NOTE TO SPECIFIER \*\* This closer carries a UL listing for 3 hour fire door assemblies. Fire rated handing means required. Includes closer, mortised rail and arm with slider.

* + - 1. Single Acting, Handed. Interior or Exterior Doors. Door Width up to 4 feet 0 inches (1219 mm). 90 degree maximum door swing. Weight to 250 lb (113 Kg).
			2. ANSI/C06031.
			3. Separate and independent valves for closing speed, latch speed and backcheck.
			4. Cold Weather Fluid.
			5. Cycolac rustproof cement case.
			6. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Provide auxiliary stop.
			2. Sealed Closer.
		1. Model L27:

\*\* NOTE TO SPECIFIER \*\* For fire rated openings (up to 3 hour assemblies) prefix "F". For 20-minute labeled doors suffix "-20" to the part number. Available non-hold open (N) or selective hold open (S) at same degree as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".

* + - 1. Single Acting, Handed. Exterior or Interior Doors. Lead-lined/Heavy/High Traffic Doors. Door Width up to 4 feet 0 inches (1219 mm). Weight to 1500 lb (680 Kg).
			2. ANSI/C06071.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide for lead-lined door thicknesses: 1-3/4 inches (44mm), 2 inches (51 mm), 2-1/4 inches (57mm), 2-1/2 inches (63mm) or 3 inches (76mm).
			2. Additional thrust bearing for greater load capacity.
			3. Provide built-in positive dead stop to prevent door from swinging beyond the desired opening degree as scheduled or required. (85 degree, 90 degree, or 105 degree).
			4. Separate and Independent valves for closing speed, latch speed and backcheck.
			5. Cast Iron cement case.
			6. Standard top pivot: L180 included. Intermediate pivot(s) required: ML19.
			7. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold weather fluid.
			3. Sealed closer.
		1. Model L27-180:

\*\* NOTE TO SPECIFIER \*\* For fire rated openings (up to 3 hour assemblies) prefix "F". For 20-minute labeled doors suffix "-20" to the part number. Available non-hold open (N) or automatic hold open (A) at 180 degree. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Single Acting, Handed. Exterior or Interior Doors. Lead-lined/Heavy/High-Traffic Doors. Door Width up to 4 feet 0 inches (1219 mm). Weight to 1500 lb (680 Kg).
			2. ANSI/C06071.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide for lead-lined door thicknesses: 1-3/4 inches (44mm), 2 inches (51 mm), 2-1/4 inches (57mm), 2-1/2 inches (63mm) or 3 inches (76mm).
			2. Additional thrust bearing for greater load capacity.
			3. Built-in positive dead stop prevents door from swinging beyond 180 degree only.
			4. Separate and independent valves for closing speed, latch speed and backcheck.
			5. Cast Iron cement case.
			6. Standard top pivot: L180 included.
			7. Intermediate pivot(s): ML19.
			8. Provide extended spindles for installation as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed Action.
			2. Cold Weather Fluid.
			3. Sealed closer.
		1. Model Q27/QT27:

\*\* NOTE TO SPECIFIER \*\* For fire rated openings (up to 3 hour assemblies) prefix "F". For 20-minute labeled doors suffix "-20" to the part number. Q closers have a floor plate. Available non-hold open (N) or selective hold open (S) at same degree as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".

* + - 1. Single Acting, Handed. Exterior and Interior Doors. Door Width up to 4 feet 0 inches (1219 mm). Weight to 350 lb (159 Kg). 1-3/4 inches (44 mm) thick only.
			2. ANSI/C06041/C06051.
			3. 3/4 inch (19 mm) offset only.
			4. Provide built-in positive dead stop to prevent door from swinging beyond the desired opening degree as scheduled or required. (85 degree, 90 degree, or 105 degree).
			5. Mortise arm with thru-bolt attachment.
			6. Increased depth of cement case for easy closer removal.
			7. Separate and independent valves for closing speed, latch speed and backcheck.
			8. Cycolac rustproof cement case
			9. Standard top pivot: #180 included. One ML19 intermediate pivot included.
			10. Maximum door swing 95 degree.
			11. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold weather fluid.
		1. Model HM27:

\*\* NOTE TO SPECIFIER \*\* For fire rated opening (up to 3 hour assemblies) prefix "F" Available non-hold open (N) or selective hold open (S) at same degrees as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".

* + - 1. Single Acting, Handed. Exterior or Interior Doors. 1-3/4 inches (44 mm) Hollow Metal Doors/Frames. Door Width up to 4 feet 0 inches (1219 mm). Weight to 250 lb (113 kg).
			2. ANSI/C06041/C06051.
			3. Provide three special steel 4-1/2 inches (114 mm) ball bearing standard weight hinges with 3/4 inch (19 mm) offset. Doors over 90 inches (2286 mm) in height shall be provided with an additional hinge.
			4. Surface mounted bottom arm with thru-bolts.
			5. Provide built-in positive dead stop to prevent door from swinging beyond the desired opening degree as scheduled or required. (85 degree, or 90 degree). Maximum door swing 95 degree.
			6. Separate and independent valves for closing speed, latch speed and backcheck.
			7. Provide floor plate or threshold installation as scheduled or required.
			8. Cycolac rustproof cement case.
			9. Provide extended spindles for installation as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold Weather fluid.
			3. Sealed closer.
		1. Model 20:

\*\* NOTE TO SPECIFIER \*\* For fire rated openings (up to 3 hour assemblies) prefix "F". For 20-minute labeled doors suffix "-20" to the part number. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Single Acting, Handed. Interior Doors. Door Width up to 3 feet 0 inches (914 mm). Weight to 200 lb (91 Kg). Non-hold open only.
			2. ANSI/C06042/C06052.
			3. Allows 180 degree door swing (trim permitting).
			4. Single valve adjustable closing speed 70 degree to 0 degree.
			5. Built-in hydraulic backcheck cushions opening from 140 degree to 180 degree.
			6. Provide floor plate or threshold installation as scheduled or required.
			7. Cast iron cement case.
			8. Standard top pivot: #180 included. Provide intermediate pivot(s): M19 as scheduled or required.
			9. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.
		1. Model 28 x 554 ARM:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or selective hold open (S) at same degree as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Concealed Arm. Single Acting, Handed. Exterior or Interior Doors. Sizes up to 4 feet 0 inches x 8 feet 6 inches (1219 mm x 2591 mm). Weight to 350 lb (159 Kg).
			2. ANSI/C06021.
			3. Arm bolt locks arm to closer spindle - adjustments made through heel of door.
			4. Provide built-in positive dead stop to prevent door from swinging beyond the desired opening degree as scheduled or required. (85 degree, 90 degree, or 105 degree).
			5. Separate and independent valves for closing speed, latch speed and backcheck.
			6. Provide with floor plate or threshold installation where scheduled or required.
			7. Cycolac, rustproof cement case.
			8. Standard top pivot: #340 included.
			9. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold Weather fluid.
			3. Sealed closer.
		1. Model 28:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or selective hold open (S) at same degree as dead stop
Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Centering Arm, Single Acting, Handed. Exterior or Interior Doors. Sizes up to 4 feet 0 inches x 8 feet 6 inches (1219 mm x 2591 mm). Weight to 350 lb (159 Kg).
			2. ANSI/C06021.
			3. Provide built-in positive dead stop to prevent door from swinging beyond the desired opening degree as scheduled or required. (85 degree, 90 degree, or 105 degree).
			4. Separate and independent valves for closing speed, latch speed and backcheck.
			5. Provide floor plate or threshold installation as scheduled or required.
			6. Arm reinforcement bracket for wood doors.
			7. Cycolac, rustproof cement case.
			8. Standard top pivot: #340 included.
			9. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold weather fluid.
			3. Sealed closer.
		1. Model H28:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or selective hold open (S) at same degree dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Single Acting Handed. Exterior or Interior Doors. Extra Heavy High Traffic Doors. Sizes up to 4 feet 0 inches x 8 feet 6 inches (1219 mm x 2591 mm). Weight to 1000 lb (454 Kg).
			2. ANSI/C06061.
			3. Additional thrust bearing for greater load capacity.
			4. Provide built-in positive dead stop to prevent door from swinging beyond the desired opening degree as scheduled or required. (85 degree, 90 degree, or 105 degree).
			5. Separate and independent valves for closing speed, latch speed and backcheck.
			6. Available with floor plate or threshold installation.
			7. Cast iron cement case.
			8. Standard top pivot: H340 included.
			9. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold weather fluid.
			3. Sealed closer.
		1. Model H28 x 587 ARM:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or selective hold open (S) at same degree dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Side load Arm. Single Acting, Handed. Exterior or Interior Doors. Extra Heavy High Traffic Doors. Sizes up to 4 feet 0 inches x 8 feet 6 inches (1219 mm x 2591 mm). Weight to 1000 lb (454 Kg).
			2. Special side load arm for 1-3/4 inches (44 mm) thick doors.
			3. Adjustable pivot point to be moved away from pivot edge of door - minimum 2-3/4 inches (70 mm) backset.
			4. Additional thrust bearing for greater load capacity.
			5. Provide built-in positive dead stop to prevent door from swinging beyond the desired opening degree as scheduled or required. (85 degree, 90 degree, or 105 degree).
			6. Separate and independent valves for closing speed, latch speed and backcheck.
			7. Provide floor plate or threshold installation as scheduled or required.
			8. Cast iron cement case.
			9. Standard top pivot: H340 included.
			10. Provide extended spindles as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold weather fluid.
			3. Sealed closer.
		1. Model 328:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or selective hold open (S) at same degree as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Single Acting, Handed. Exterior or Interior Doors. Glass Doors with Patch Fittings. Size up to 3 feet 2 inches x 8 feet 0 inches (965 mm x 2438 mm). Weight up to 325 lb (147 mm).
			2. Provide built-in positive dead stop to prevent door from swinging beyond the desired opening degree as scheduled or required. (85 degree, 90 degree, or 105 degree).
			3. Separate and independent valves for closing speed, latch speed and backcheck.
			4. Floor plate standard. For threshold application an extended spindle shall be provided.
			5. Cycolac, rustproof cement case.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold Weather fluid.
			3. Sealed closer.
		1. Model 428 (With Patch Fittings):

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or selective hold open (S) at same degree as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH". 605, 629, and 630 finishes only.

* + - 1. Single Acting, Handed. Exterior or Interior Doors. Full Glass Doors. Size up to 3 feet 2 inches x 8 feet 0 inches (965 mm x 2438 mm). Top and bottom patch fittings for tempered glass doors 3/8 inch to 1/2 inch (9.5 mm to 13 mm) thick. Weight up to 325 lb (147 mm).
			2. Provide built-in positive dead stop to prevent door from swinging beyond the desired opening degree as scheduled or required. (85 degree, 90 degree, or 105 degree).
			3. Separate and independent valves for closing speed, latch speed and backcheck.
			4. Floor plate standard. For threshold application an extended spindle shall be provided.
			5. Cycolac, rustproof cement case.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold weather fluid.
			3. Sealed closer.
		1. Model EH28:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or selective hold open (S) at same degree as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Single Acting, Handed. Interior or Exterior Doors. Floor Closer for Power Transfer. Sizes up to 4 feet 0 inches x 8 feet 6 inches (1219 mm x 2591 mm). 2 inches minimum door thickness. Weight up to 500 lb (227 mm).
			2. Provide power transfer through closer spindle. Low voltage, Class II wiring (2 wire, 18 gauge only).
			3. Additional thrust bearing for greater load capacity.
			4. Provide extended spindles 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.
			5. Provide built-in positive dead stop to prevent door from swinging beyond the desired opening degree as scheduled or required. (85 degree, 90 degree, or 105 degree).
			6. Separate and independent valves for closing speed, latch speed and backcheck.
			7. Provide floor plate or threshold installation as scheduled or required.
			8. Cast iron cement case.
			9. Standard top pivot: H340 included.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold weather fluid.
			3. Sealed closer.
		1. Model EH28 x 587 ARM:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or selective hold open (S) at same degree as dead stop. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Side Load Arm. Interior or Exterior Doors. Floor Closer for Power Transfer. Sizes up to 4 feet 0 inches x 8 feet 6 inches (1219 mm x 2591 mm). 2 inches (51 mm) minimum door thickness. Weight up to 500 lb (227 Kg).
			2. Special Side load arm for 1-3/4 inches (44 mm) thick doors.
			3. Adjustable pivot point to be moved away from pivot edge of the door - minimum 2-3/4 inches (70 mm) backset.
			4. Provides power transfer through closer spindle. Low voltage, Class II wiring (2 wire, 18 gauge only).
			5. Additional thrust bearing for greater load capacity.
			6. Built-in positive dead stop prevents door from swinging beyond the desired opening degree Provide 85 degree, 90 degree, 95 degree, or 105 degree as scheduled or required.
			7. Separate and independent valves for closing speed, latch speed and backcheck.
			8. Provide floor plate or threshold installation as scheduled or required.
			9. Cast iron cement case.
			10. Standard top pivot: H340 included.
			11. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Cold weather fluid.
			3. Sealed closer.
		1. Model 30:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or automatic hold open (A) at 90 degree (requires 93 degree swing) or 100 degree (requires 103 degree swing).

* + - 1. Double Acting, Non-handed. Interior or Exterior Doors. Sizes up to 4 feet 0 inches x 8 feet 6 inches (1219 mm x 2591 mm). Weight to 200 lb (91 Kg).
			2. ANSI/C06012.
			3. Centering arm with adjustment screws in faces of door.
			4. Adjustable closing speed valves for each direction of door swing.
			5. Mechanism returns door to center.
			6. Maximum door opening 103 degree.
			7. Provide auxiliary door stop, overhead or floor type as scheduled or required.
			8. Provide floor plate or threshold installation as scheduled or required.
			9. Steel cement case.
			10. Provide arm reinforcement for wood doors.
			11. Standard top pivot: #340 included.
			12. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Cold Weather fluid.
			2. Sealed closer.
		1. Model 40:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or automatic hold open (A) at 90 degree (requires 93 degree swing) or 100 degree (requires 103 degree swing). Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Double Acting, Non-handed. Interior or Exterior Doors. Sizes up to 4 feet 0 inches x 8 feet 6 inches (1219 mm x 2591 mm). Weight to 300 lb (136 Kg).
			2. ANSI/C0612.
			3. Centering arm with adjustment screws in faces of door.
			4. Adjustable closing speed valves for each direction of door swing.
			5. Mechanism returns door to center.
			6. Maximum door opening 103 degree.
			7. Auxiliary door stop required, overhead or floor type as scheduled or required.
			8. Provide floor plate or threshold installation as scheduled or required.
			9. Steel cement case.
			10. Arm reinforcement bracket for wood doors.
			11. Standard top pivot: #340 included.
			12. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Cold Weather fluid.
			2. Sealed closer.
		1. Model H40:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or automatic hold open (A) at 90 degree (requires 93 degree swing) or 100 degree (requires 103 degree swing). Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Double Acting, Non-handed. Interior or Exterior Doors. Sizes up to 4 feet 0 inches x 8 feet 6 inches (1219 mm x 2591 mm). For thick, extra heavy doors (2 inches (51 mm) minimum thickness). Weight to 1000 lb (454 Kg).
			2. ANSI/C06012.
			3. Thrust bearing for greater load capacity.
			4. Adjustable closing speed valves for each direction of door swing.
			5. Mechanism returns door to center.
			6. Maximum door opening 103 degree.
			7. Provide auxiliary door stop required, overhead or floor type as scheduled or required.
			8. Provide floor plate or threshold installation as scheduled or required.
			9. Steel cement case.
			10. Standard top pivot: #H340 included.
			11. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Cold Weather fluid.
			2. Sealed closer.
		1. Model H40 x 587 ARM:

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (N) or automatic hold open (A) at 90 degree (requires 93 degree swing) or 100 degree (requires 103 degree swing). Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH"

* + - 1. Side Load Arm. Double Acting, Non-handed. Interior or Exterior Doors. Sizes up to 4 feet 0 inches x 8 feet 6 inches (1219 mm x 2591 mm). For thick, extra heavy doors (2 inches (51 mm) minimum thickness). Weight to 1000 lb (454 Kg).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide side load arm for 1-3/4 inches (44 mm) thick doors.
			2. ANSI/C06012.
			3. Adjustable pivot point to be moved away from pivot edge of door. Minimum 2-3/4 inches (38 mm) backset.
			4. Thrust bearing for greater load capacity.
			5. Adjustable closing speed valves for each direction of door swing.
			6. Mechanism returns door to center.
			7. Maximum door opening 103 degree.
			8. Provide auxiliary door stop, overhead or floor type as scheduled or required.
			9. Provide floor plate or threshold installation as scheduled or required.
			10. Steel cement case.
			11. Standard top pivot: #H340 included.
			12. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Cold Weather fluid.
			2. Sealed closer.

\*\* NOTE TO SPECIFIER \*\* Model 428 available in 605, 629 and 630 only.

* + 1. Finishes (all heavy duty door closers):

\*\* NOTE TO SPECIFIER \*\* Finishes available. Delete finishes not required.

* + - 1. Bright Brass 605.
			2. Satin Brass 606.
			3. Bright Bronze 611.
			4. Satin Bronze 612.
			5. Oil Rubbed Bronze 613.
			6. Dark Oxidized Satin Bronze - equivalent 613E.
			7. Bright Nickel 618.
			8. Satin Nickel 619.
			9. Flat Black 622.
			10. Bright Chrome 625.
			11. Satin Chrome 626.
	1. SHALLOW DEPTH FLOOR CLOSERS
		1. Model 51:

\*\* NOTE TO SPECIFIER \*\* For fire rated openings (up to 3 hour assemblies) prefix "F". For 20-minute label doors - suffix "-20" to the part number. Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".

* + - 1. Model 510.
			2. Single Acting, Handed. Interior Doors. Door Width up to 4 feet 0 inch (1219 mm). Weight to 250 lb (113 Kg).
			3. ANSI/C06041/C06051.
			4. Interchangeable spindle adapters.
			5. Allows doors to swing 180 degree, trim permitting.
			6. Separate and independent valves for closing speed, latch speed and backcheck.

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (NBC) or automatic hold open (ABC) specify 90 degree, 105 degree, or 180 degree. Delete type not required.

* + - 1. Provide non-hold open (NBC).
			2. Provide automatic hold open (ABC) 90 degree, 105 degree, or 180 degree as scheduled or required.
			3. Provide spring sizes 3 through 5 to match door weight and opening.
			4. Provide floor plate or threshold installation as scheduled or required.
			5. Cycolac, rustproof cement case.
			6. Standard top pivot: #180 included. Provide intermediate pivot: M19.
			7. Provide extended spindles in 1/2 inch (13 mm) increments up to 2 inches 951 mm) longer than standard as scheduled or required to accommodate installation.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.
			2. Provide 1-1/2 inches offset as scheduled or required.
		1. Model F53:

\*\* NOTE TO SPECIFIER \*\* Auxiliary stop recommended. Extended spindles available in 1/2 inch increments up to 2 inches longer than standard. This closer carries a UL listing for 3-hour fire assemblies. Fire rated hanging means required.

* + - 1. Model 530\_.
			2. Single Acting, Handed. Interior Doors. Door Width up to 4 feet 0 inch (1219 mm). Weight to 250 lb (113 Kg).
			3. Maximum swing 90 degree.
			4. ANSI/C06031.
			5. Interchangeable spindle adapters.
			6. Includes closer, mortised rail and arm slider.
			7. Separate and independent valves for closing speed, latch speed and backcheck.
			8. Provide spring sizes 3 through 5 to match door weight and opening.
			9. Floor plate standard. For threshold applications provide a 1/2 inch (13 mm) extended spindle.
			10. Cycolac rustproof cement case.
		1. Model F5310:

\*\* NOTE TO SPECIFIER \*\* Auxiliary stop recommended. Extended spindles available in 1/2 inch increments up to 2 inches longer than standard. This closer carries a UL listing for 3-hour fire assemblies. Fire rated hanging means required.

* + - 1. Single Acting, Handed. Interior Doors. Door Width up to 4 feet 0 inch (1219 mm). Weight to 250 lb (113 Kg).
			2. Maximum swing 90 degree.
			3. ANSI/C06031.
			4. Specially milled spindle allows positive latch speed control.
			5. Interchangeable spindle adapters.
			6. Includes closer, mortised rail and arm slider.
			7. Separate and independent valves for closing speed, latch speed and backcheck.
			8. Provide spring sizes 3 through 5 to match door weight and opening.
			9. Floor plate standard. For threshold applications provide a 1/2 inch (13 mm) extended spindle.
			10. Cycolac rustproof cement case.
		1. Model Q51/QT51:

\*\* NOTE TO SPECIFIER \*\* Delayed action option. Extended spindles available in 1/2 inch increments up to 2 inches longer than standard. For fire rated openings (up to 3 hour assemblies) prefix "F". "Q" closers have a floor plate. "QT" closers have a threshold. Models available to meet ICC/ANSI A117.1 low opening force requirements. Prefix "PH".

* + - 1. Model Q (QT) 510\_.
			2. Single Acting, Handed. Interior Doors. Door Width up to 4 feet 0 inch (1219 mm). 1-3/4 inches (44 mm) door thickness only. Weight to 250 lb (113 Kg).
			3. ANSI/C06041/C06051.
			4. 3/4 inch (19 mm) offset only.
			5. Interchangeable spindle adapters.
			6. Mortise arm with thru-bolt attachment.
			7. Increased depth of cement case for easy closer removal.
			8. Separate and independent valves for closing speed, latch speed and backcheck.

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (NBC) or automatic hold open (ABC) specify 90 degree or 105 degree. Delete type not required.

* + - 1. Provide non-hold open (NBC).
			2. Provide automatic hold open (ABC) 90 degree or 105 degree as scheduled or required. Doors will swing 5 degree beyond hold open point.
			3. Provide spring sizes 3 through 5 to match door weight and opening.
			4. Cycolac, rustproof cement case.
			5. Standard top pivot: #180 included. One M19 intermediate pivot included.
		1. Model HM51:

\*\* NOTE TO SPECIFIER \*\* Delayed action option. Extended spindles available in 1/2" increments up to 2" longer than standard. For fire rated openings (up to 3 hour assemblies), prefix "F". Models available to meet ICC/ANSI A117.1 low opening force requirements. Prefix "PH".

* + - 1. Model HM510\_
			2. Single Acting, Handed. Interior Doors. 1-3/4 inches (44 mm) Hollow Metal Doors and Frames. Door Width up to 4 feet 0 inch (1219 mm). Weight to 250 lb (113 Kg).
			3. ANSI/C06041/C06051.
			4. Interchangeable spindle adapters.
			5. Includes three special steel 4-1/2 inches (114 mm) ball bearing standard weight hinges with 3/4 inch (19 mm) offset. Doors over 90 inches (2286 mm) in height require an additional hinge.
			6. Surface mounted bottom arm with thru bolts.
			7. Separate and independent valves for closing speed, latch speed and backcheck.

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (NBC) or automatic hold open (ABC) specify 90 degree or 105 degree. Delete type not required.

* + - 1. Provide non-hold open (NBC).
			2. Provide automatic hold open (ABC) 90 degree or 105 degree as scheduled or required. Doors will swing 5 degree beyond hold open point.
			3. Provide spring sizes 3 through 5 to match door weight and opening.
			4. Provide floor plate or threshold installation as scheduled or required.
			5. Cycolac, rust proof cement case.
		1. Model 50 x 554 ARM:

\*\* NOTE TO SPECIFIER \*\* Delayed action option. Extended spindles available in 1/2 inch increments up to 2 inches longer than standard. Models available to meet ICC/ANSI A117.1 low opening force requirements. Prefix "PH".

* + - 1. Model PH501\_.
			2. Concealed Arm. Single Acting, Handed. Interior Doors. Door sizes up to 4 feet 0 inch x 8 feet 0 inch (1219 mm x 2438 mm). Weight to 250 lb (113 Kg).
			3. ANSI/C06021.
			4. Arm bolt locks arm to closer spindle - adjusting screws on face of doors.
			5. Interchangeable spindle adapters.

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (NBC) or automatic hold open (ABC) specify 90 degree or 105 degree. Delete type not required.

* + - 1. Provide non-hold open (NBC).
			2. Provide automatic hold open (ABC) 90 degree or 105 degree as scheduled or required.
			3. Provide spring sizes 3 through 5 to match door weight and opening.
			4. Provide floor plate or threshold installation as scheduled or required.
			5. Cycolac, rustproof cement case.
			6. Standard top pivot #340 included.
		1. Model 50:

\*\* NOTE TO SPECIFIER \*\* Models available to meet ICC/ANSI A117.1 low opening force requirements. Prefix "PH".

* + - 1. Model PH501\_.
			2. Centering Arm. Single Acting, Handed. Interior Doors. Door sizes up to 4 feet 0 inch x 8 feet 0 inch (1219 mm x 2438 mm). Weight to 250 lb (113 Kg).
			3. ANSI/C06022.
			4. Centering arm with adjustment screws in the faces of door.
			5. Interchangeable spindle adapters.
			6. Separate and independent valves for closing speed, latch speed and back check.

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (NBC) or automatic hold open (ABC) specify 90 degree or 105 degree. Delete type not required.

* + - 1. Provide non-hold open (NBC).
			2. Provide automatic hold open (ABC) 90 degree or 105 degree as scheduled or required.
			3. Provide spring sizes 3 through 5 to match door weight and opening.
			4. Provide floor plate or threshold installation as scheduled or required.
			5. Cycolac, rustproof cement case.
			6. Arm reinforcement bracket for wood.
			7. Standard top pivot #340 included.
			8. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Provide delayed action.
		1. Model 5040:

\*\* NOTE TO SPECIFIER \*\* Models available to meet ICC/ANSI A117.1 low opening force requirements. Prefix "PH". Available in 605,629 & 630 finishes.

* + - 1. Model 504\_.
			2. Single Acting, Handed. Interior Doors. Full Glass Doors. Door Sizes 3 feet 6 inches x 8 feet 0 inches (1067 mm x 2438 mm). Top and bottom patch fittings for tempered glass doors 3/8 inch to 1/2 inch (9.5 mm to 13 mm) thick. Weight to 200 lb (91 Kg).
			3. Interchangeable spindle adapters.
			4. Separate and independent valves for closing speed, latch speed and backcheck.

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (NBC) or automatic hold open (ABC) specify 90 degree or 105 degree. Delete type not required.

* + - 1. Provide non-hold open (NBC).
			2. Provide automatic hold open (ABC) 90 degree or 105 degree as scheduled or required.
			3. Provide spring sizes 3 through 5 to match door weight and opening.
			4. Top pivot included.
			5. Cycolac rustproof cement case

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Provide delayed action.
		1. Model 5020:

\*\* NOTE TO SPECIFIER \*\* Models available to meet ICC/ANSI A117.1 low opening force requirements. Prefix "PH"

* + - 1. Model 502\_
			2. Double Acting, Non-handed. Interior doors. Door Sizes up to 4 feet 0 inch x 8 feet 0 inch (1219 mm x 2438 mm). Weight to 250 lbs.
			3. ANSI/C06012.
			4. Centering arm with adjustment screws in faces of door.
			5. Interchangeable spindle adapters. Provide floor plate or threshold installation as required or scheduled.
			6. Separate and independent valves for closing speed, latch speed and backcheck.

\*\* NOTE TO SPECIFIER \*\* Available non-hold open (NBC) or automatic hold open (ABC) specify 90 degree or 105 degree. Delete type not required.

* + - 1. Provide non-hold open (NBC).
			2. Provide automatic hold open (ABC) 90 degree or 105 degree as scheduled or required.
			3. Door may only swing 130 degree in either direction. Auxiliary stop required.
			4. Provide spring sizes 3 through 5 as scheduled or required.
			5. Cycolac, rustproof cement case.
			6. Arms reinforcement bracket for wood doors.
			7. Standard top pivot #340 included.
			8. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Delayed action.

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + 1. Finishes (all shallow depth floor closers):
			1. Bright Brass 605.
			2. Satin Brass 606.
			3. Bright Bronze 611.
			4. Satin Bronze 612.
			5. Dark Bronze 613.
			6. Dark Oxidized Satin Bronze- equivalent 613E.
			7. Bright Nickel 618.
			8. Satin Nickel 619.
			9. Flat Black 622.
			10. Bright Chrome 625.
			11. Satin Chrome 626.
	1. SPECIALTY CLOSERS
		1. Models 10 & 12 DUO-CHEK:

\*\* NOTE TO SPECIFIER \*\* Model 10 is 90 degree automatic hold open; 12 is non-hold open. Models 10 and 12 available to meet ICC/ANSI A117.1 low opening force requirements. Prefix "PH"

* + - 1. Double Acting, Non-handed. Low/Medium Traffic Interior Doors. 1-3/4 inches (44 mm) door thickness. Sizes up to 2 feet 10 inches x 7 feet 0 inch (864 mm x 2134 mm). Weight to 125 lb (57 Kg).
			2. ANSI/CO6013.
			3. Standard top pivot: 101020 walking beam type.
			4. Cast iron cement case.
			5. Adjustable closing speed.
			6. Centering arm for adjustment.
			7. 95 degree maximum opening.
			8. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.
		1. Models 15 & 16 DUO-CHEK:

\*\* NOTE TO SPECIFIER \*\* 15 is 90 degree automatic hold open; 16 is non-hold open.

* + - 1. 1-3/4 inches (44 mm) door thickness. Door sizes up to 3 feet 6 inches x 7 feet 0 inch (1067 mm x 2134 mm). Weight to 125 lb (57 Kg).
			2. ANSI/CO6013.
			3. Standard top pivot: 101020 walking beam type.
			4. Cast iron cement case.
			5. Adjustable closing speed.
			6. Centering arm for adjustment.
			7. 95 degree maximum opening.
			8. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.
		1. Model 354:

\*\* NOTE TO SPECIFIER \*\* Recommended for office rail gates, partitions, and lavatory stall doors. Not compliant with ICC/ANSI A117.1 low opening force requirements.

* + - 1. Double Acting, Non-handed. Dwarf doors from 2 feet 2 inches to 3 feet 0 inch wide (660 mm x 914 mm). 1-3/4 inches (44 mm) door thickness.
			2. Maximum Weight: 75 lb (34 Kg).
			3. ANSI/CO9503.
			4. Body mounts under gate. Includes closer bracket and flange style arm. Frame carries full weight of door.
			5. Surface mounted top pivot: 3541020.
			6. Maximum opening 90 degree.
			7. Quiet control; no slamming or flapping.
			8. All moving parts enclosed and fully immersed in lubricating checking fluid.
		1. Model 355:

\*\* NOTE TO SPECIFIER \*\* Recommended for office rail gates, partitions, and lavatory stall doors. Not compliant with ICC/ANSI A117.1 low opening force requirements.

* + - 1. Double Acting, Non-handed. Dwarf doors from 2 feet 2 inches to 3 feet 0 inch wide (660 mm x 914 mm). Maximum weight: 75 lb (34 Kg). 1-3/4 inches (44 mm) door thickness.
			2. ANSI/CO9503
			3. Body mounts under gate. Includes closer bracket and flange style arm. Frame carries full weight of door.
			4. Mortise top pivot: 3551020.
			5. Maximum opening 90 degree.
			6. Quiet control; no slamming or flapping.
			7. All moving parts enclosed and fully immersed in lubricating checking fluid.
		1. Model 356:

\*\* NOTE TO SPECIFIER \*\* Recommended for office rail gates, partitions, and lavatory stall doors. Not compliant with ICC/ANSI A117.1 low opening force requirements.

* + - 1. Double Acting, Non-handed. Dwarf doors from 2 feet 2 inches to 3 feet 0 inch wide (660 mm x 914 mm). Maximum weight: 75 lb (34 Kg). 1-3/4 inches (44 mm) door thickness.
			2. ANSI/CO9503.
			3. Body mounts under the gate. Includes closer bracket and arm that may be surface mounted or mortised. Frame carries full weight of door.
			4. Surface mounted top pivot: 3541020.
			5. Maximum opening 90 degree.
			6. Quiet control; no slamming or flapping.
			7. All moving parts enclosed and fully immersed in lubricating checking fluid.
			8. Painted finishes only.
		1. Model 357:

\*\* NOTE TO SPECIFIER \*\* Recommended for office rail gates, partitions, and lavatory stall doors. Not compliant with ICC/ANSI A117.1 low opening force requirements. Painted finishes only.

* + - 1. Double Acting, Non-handed. Dwarf doors from 2 feet 2 inches to 3 feet 0 inch wide (660 mm x 914 mm). 1-3/4 inches (44 mm) door thickness. Maximum weight: 75 lb (34 Kg).
			2. ANSI/CO9503.
			3. Body mounts under the gate. Includes closer bracket and arm that may be surface mounted or mortised. Frame carries full weight of door.
			4. Mortise top pivot: 3551020.
			5. Maximum opening 90 degree.
			6. Quiet control; no slamming or flapping.
			7. All moving parts enclosed and fully immersed in lubricating checking fluid.
		1. Model 359:

\*\* NOTE TO SPECIFIER \*\* Recommended for office rail gates, partitions, and lavatory stall doors. Not compliant with ICC/ANSI A117.1 low opening force requirements. Painted finishes only. Package includes closer, bracket, and slide track arm.

* + - 1. Single Acting, Non-handed. Dwarf doors from 2 feet 2 inches to 3 feet 0 inch wide (660 mm x 914 mm). 1-3/4 inches (44 mm) door thickness. Maximum weight: 75 lb (34 Kg).
			2. ANSI/C09503.
			3. Closer mounts under the door. Surface mounted to edge of partition with edge wide enough for 1-1/2 inches (38 mm) bracket. Frame carries full weight of door.
			4. Maximum opening 140 degree.
			5. Track style arm.
		1. Model SEC27-180:

\*\* NOTE TO SPECIFIER \*\* This closer is for fire-rated openings (up to 3 hour assemblies). Only non-hold open closers are used. Intermediate pivot required: FA19.

* + - 1. Single Acting, Handed. Interior Security Doors. Door Width up to 4 feet 0 inches (1219 mm). Weight to 650 lb (295 Kg).
			2. BHMA/ANSI/C06045.
			3. Non-hold open only.
			4. Standard top pivot: FA 180 included. Intermediate pivot required: FA19.
			5. Door will swing to 180 degree, trim permitting.
			6. Built-in hydraulic backcheck at 160 degree.
			7. Cast iron cement case with cast in extensions for positive anchorage in floor.
			8. Solid 1/4 inch (6 mm) thick steel floor plate.
			9. Cast-in lip to provide positive containment of cement case in floor.
			10. Sealed closer standard.
			11. Heavy-duty forged bottom arm.
			12. Adjustable closing speed.
			13. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.
		1. Model 1350:

\*\* NOTE TO SPECIFIER \*\* Includes closer body, mounting bracket, arm and slide track. Black finish only.

* + - 1. Single Acting. Exterior Ornamental Iron Gates. Gate Maximum 3 feet 6 inches x 7 feet 0 inches (1067 mm x 2134 mm). Weight to 150 lb (68 mm). May be mounted on cross-member or spokes.
			2. Track has pass thru hole to avoid debris build up.
			3. Components shall be rust-resistant.
			4. Surface closer has closing and latch speed controls.
			5. All-weather fluid.
		1. Model 1351:

\*\* NOTE TO SPECIFIER \*\* Includes closer body, mounting bracket, arm and slide track. Black finish only.

* + - 1. Single Acting. Exterior Ornamental Iron Gates. Gate Maximum 4 feet 6 inches x 10 feet 0 inch (1372 mm x 3048 mm). Weight to 250 lb (113 Kg). May be mounted on cross-member or spokes.
			2. Track has pass thru hole to avoid debris build up.
			3. Components shall be rust-resistant.
			4. Surface closer has adjustable latch speed, closing speed and backcheck.
			5. All weather fluid.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + 1. Finishes:
			1. Bright Brass 605.
			2. Satin Brass 606.
			3. Bright Bronze 611.
			4. Satin Bronze 612.
			5. Dark Bronze 613.
			6. Dark Oxidized Satin Bronze - equivalent 613E.
			7. Satin Nickel 619.
			8. Flat Black 622.

\*\* NOTE TO SPECIFIER \*\* 350 Gate Closer only.

* + - 1. Sprayed Alum 689.
			2. Sprayed Dk Brz 690.
			3. Sprayed Lt Brz 691.
			4. Sprayed Brass 696.

\*\* NOTE TO SPECIFIER \*\* 1350 and 1351 Gate Closers only.

* + - 1. Flat Black Only 622.
	1. PIVOTS AND PIVOT SETS
		1. Model 117-1/4:
			1. Interior Doors. Door Width up to 3 feet 6 inches (1067 mm). Handed. Weight to 250 lb (113 Kg).
			2. ANSI/C07172.
			3. Standard top pivot 180 included. 119 intermediate pivot required. Bottom pivot mortised into side jamb.
			4. Non-ferrous base material.
			5. 3/4 inch (19 mm) offset.
			6. Weight of door supported by floor.
			7. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.
		2. Model 117:

\*\* NOTE TO SPECIFIER \*\* Available for fire door assemblies up to three hours - specify F117For 20-minute label suffix "-20" to the part number

* + - 1. Interior Doors. Door Width up to 3 feet 6 inches (1067 mm). Handed. Weight to 300 lb (136 Kg).
			2. ANSI/C07202.
			3. Standard top pivot 180 included. 119 intermediate pivot required. Bottom pivot mortised into floor
			4. Non-ferrous base material
			5. 3/4 inch (19 mm) offset.
			6. Doors shall swing 180 degree, trim permitting.
			7. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete if not required.

* + - 1. Provide for 1-1/2 inches (38 mm) door thickness.
		1. Model 173:

\*\* NOTE TO SPECIFIER \*\* Uses same arm and cap as 117 pivot set.

* + - 1. Interior Doors. Door sizes up to 3 feet 0 inches x 8 feet 0 inch x 1-3/4 inches (914 mm x 2438 x 44 mm). Handed. Weight 150 lb (68 Kg).
			2. ANSI/C07162/C07202.
			3. Standard top pivot 180 included. 119 intermediate pivot required for all doors over 6 feet 8 inches (2032 mm). Bottom pivot mounts directly to concrete floor.
			4. Non-ferrous base material.
			5. 3/4 inch (19 mm) offset only (measured from centerline of pivot to face of door).
			6. Door will swing 180 degree, trim permitting.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete if not required.

* + - 1. Provide 1-1/2 inches (38 mm) offset (door weight 100 lb (45 Kg)) for doors with cladding or frame molding.
		1. Model 147:

\*\* NOTE TO SPECIFIER \*\* For 20-minute label suffix "-20" to the part number. Available for fire door assemblies up to three hours (ferrous material) - specify F147. Intermediate pivot required by UL. Specify FM19. Uses same arm and cap as 27 floor closer.

* + - 1. Exterior or Interior Doors. Door Width up to 4 feet 0 inches (1219 mm). Handed. Weight to 600 lb (272 Kg). 3/4 inch (19mm) offset (door weight 350 lb (159 Kg) for doors with cladding or frame molding.
			2. ANSI/C07162/C07202.
			3. Standard top pivot 180 included. M19 intermediate pivot required. Bottom pivot mounts directly to floor.
			4. Non-ferrous base material.
			5. Doors will swing 180 degree, trim permitting.
			6. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.
		1. Model L147:

\*\* NOTE TO SPECIFIER \*\* For 20-minute label suffix "-20" to the part number. Doors with lead lining under the skin should also use this product. Available to accommodate lead in door thicknesses 1-3/4 inches (44mm), 2 inches (51mm), 2-1/4 inches (57mm), 2-1/2" (64mm), or 3 inches (76mm) - specify when ordering. Available for fire door assemblies up to three hours for 1-3/4 inches (44mm) doors only (ferrous material) - specify FL147. Intermediate pivot required by UL. Specify FML19.

* + - 1. Exterior or Interior Doors. Lead-lined/Heavy/High Traffic Doors. Door Width up to 4 feet 0 inch (1219 mm). Handed. Weight to 800 lb (363 Kg).
			2. ANSI/C07162/C07202.
			3. Standard top pivot L180 included. ML19 intermediate pivot required. Bottom pivot mounts directly to floor.
			4. Screw holes in top pivot and bottom arm spaced to straddle lead lining in middle of door.
			5. Non-ferrous base material.
			6. 3/4 inch (19mm) offset (measured from centerline of pivot to face of door).
			7. Doors will swing 180 degree, trim permitting.
			8. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.
		1. Model 547:

\*\* NOTE TO SPECIFIER \*\* For 20-minute label suffix "-20" to the part number. Available for fire door assemblies up to three hours. Specify F457. Intermediate pivots FM190 included.

* + - 1. Exterior or Interior Doors. For Arch Top Doors or Overhead Concealed Closers. Weight to 500 lb (227 Kg). Door Width up to 3 feet 6 inches (1067 mm). Handed.
			2. ANSI/C07162 (modified)/C07202.
			3. Set consists of two each M190 intermediate pivots and bottom pivot. Bottom pivot mounts directly to floor.
			4. Non-ferrous base material.
			5. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door).
			6. Doors will swing 180 degree, trim permitting.
			7. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.
		1. Model 165:
			1. Exterior or Interior Doors. For Doors without Bottom Pivots. Weight to 300 lb (136 Kg). Door Width up to 3 feet 6 inches (1067 mm). Handed.
			2. ANSI/C07162 (modified).
			3. Set consists of one H180 top pivot and two each M190 intermediate pivots.
			4. Non-ferrous base material.
			5. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door).
			6. Doors will swing 180 degree, trim permitting.

\*\* NOTE TO SPECIFIER \*\* Available for fire door assemblies up to three hours. Specify F195. Intermediate pivot required by UL. Specify FM19 (order separately)

* + 1. Model 195:
			1. Exterior or Interior Doors. Weight to 450 lb (204 Kg). Door Width up to 4 feet 0 inch (1219 mm). Handed.
			2. Standard top pivot 180 included.
			3. 119 or M19 intermediate pivots are required. Bottom pivot mortised into side jamb.
			4. Pivot set can be vertically adjusted up to 3/16 inch (5 mm) after installation without the use of shims. Weight of door is supported by floor operator.
			5. Non-ferrous base material.
			6. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door).
			7. Doors will swing 180 degree, trim permitting.
			8. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.

\*\* NOTE TO SPECIFIER \*\* Available for fire door assemblies up to three hours (ferrous material) - specify F117-1/2. Intermediate pivot required by UL. Specify FM19 (order separately). For 20-minute label suffix "-20" to the part number

* + 1. Model 117-1/2:
			1. Exterior or Interior Doors. Weight to 650 lb (295 Kg). Door Width up to 4 feet 0 inch (1219 mm). Handed. Available for 1-1/2 inches (38 mm) offset (door weight 350 lb (159 Kg)) for doors with cladding or frame molding.
			2. ANSI/C07121/C07202.
			3. Standard top pivot 180 included. M19 intermediate pivot required. Bottom pivot mortised into floor.
			4. Non-ferrous base material.
			5. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door).
			6. Doors will swing 180 degree, trim permitting.
			7. Provide extended spindles available in 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard as scheduled or required.
		2. Model L117:

\*\* NOTE TO SPECIFIER \*\* Exterior or Interior Doors. Lead-lined/Heavy/High Traffic Doors. Available for fire door assemblies up to three hours (ferrous material) - specify FL117-1/2. Intermediate pivot required by UL. Specify FML19 (order separately). For 20-minute label suffix "-20" to the part number.

* + - 1. Weight to 1,750 lbs. Door Width up to 4 feet 0 inch (1219 mm). Handed.
			2. ANSI/C07111.
			3. Standard top pivot L180 included. ML19 intermediate pivot required. Bottom pivot mortised into floor.
			4. Provide unit to accommodate door thicknesses 1-3/4 inches (44 mm), 2 inches (51 mm), 2-1/4 inches (57 mm), or 3 inches (76mm) as scheduled or required..
			5. Additional thrust bearing for greater load capacity.
			6. Non-ferrous base material for top pivot.
			7. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door).
			8. Doors will swing 180 degree, trim permitting.
			9. Provide extended spindles for installation as scheduled or required. 1/2 inch (13 mm) increments up to 2 inches (51 mm) longer than standard.
		1. Model 180:

\*\* NOTE TO SPECIFIER \*\* Available for fire door assemblies (ferrous material) - specify F180 or FH180. For 20-minute label suffix "-20" to the part number. Standard top pivot for most offset pivot sets and floor closers

* + - 1. Full mortise. Non-handed.
			2. Oil-impregnated sintered bronze bushing.
			3. Non-ferrous base material.
			4. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door)
			5. Provide longer than standard pivot pins for installation as scheduled or required. Lengths are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19mm).
		1. Model 180 x 102:
			1. Top pivot for doors in deep reveals or unusual door details where one leaf is too long for the normal door or frame portion.
			2. Full mortise. Handed.
			3. Oil-impregnated sintered bronze bushings.
			4. Non-ferrous base metal.
			5. Available for 1-1/2 inches (38 mm) offset. May be inverted.
			6. Provide longer than standard pivot pins for installation as scheduled or required. Lengths are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19mm).
		2. Model L180:

\*\* NOTE TO SPECIFIER \*\* Standard top pivot for L147, L117 pivots and L27 floor closers. Doors with lead lining under the skin should also use this product.

* + - 1. Lead-lined/Heavy/High Traffic Doors.
			2. Full mortise. Non-handed.
			3. Screw holed spaced to straddle lead in the middle of the door

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Available to accommodate lead in door thicknesses 1-3/4 inches (44 mm), 2 inches (51 mm), 2-1/4 inches (57 mm), or 3 inches (76mm) - specify when ordering
			2. Non-ferrous base material.
			3. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door).
			4. Provide longer than standard pivot pins for installation as scheduled or required. Lengths are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19mm).
		1. Model FA180:

\*\* NOTE TO SPECIFIER \*\* Available for fire door assemblies for 1-3/4 inches (19 mm) doors only (ferrous material). Specify FL180. For 20-minute label suffix "-20" to the part number.

* + - 1. Asylum Design. Full Mortise. Handed.

\*\* NOTE TO SPECIFIER \*\* Optional top pivot for institutional use or installations where flat surfaces are objectionable

* + - 1. Standard top pivot for SEC27-180 floor closer.
			2. Institutional top pivot - anti-ligature.
			3. Ferrous base material.
			4. 3/4 inch (19mm) offset (measured from centerline of pivot to face of door).
			5. Provide longer than standard pivot pins for installation as scheduled or required. Lengths are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19mm).
		1. Model 280:

\*\* NOTE TO SPECIFIER \*\* Flush door and frame application only. Available for fire door assemblies (ferrous material) - specify F280

* + - 1. Half Surface. Handed.
			2. ANSI/C07501.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide top pivot for doors that cannot be mortised.
			2. Non-ferrous base material.
			3. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door). 1-3/4 inches (44 mm) door only.
			4. Provide longer than standard pivot pins for installation as scheduled or required. Lengths are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19mm).
		1. Model 380:

\*\* NOTE TO SPECIFIER \*\* Flush door and frame application only. Designed for channel iron door frames with aluminum, hollow metal or wood doors. Available for fire door assemblies (ferrous material) - specify F380

* + - 1. Half Mortise. Handed.
			2. ANSI/C07511.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide top pivot for doors that cannot be mortised.

\*\* NOTE TO SPECIFIER \*\* Door portion from L180 pivot is available if lead-lined doors are used - specify L380 and door thickness

* + - 1. Provide L380 pivot for thicker doors as scheduled.
			2. Non-ferrous base material.
			3. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door).
			4. Provide longer than standard pivot pins for installation as scheduled or required. Lengths are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19mm).
		1. Model 480:

\*\* NOTE TO SPECIFIER \*\* Flush door and frame application only. 1-3/4 inches (44 mm) door only. Designed for channel iron door frames and any door where thru-bolting is advantageous. Available for fire door assemblies (ferrous material) - specify F480.

* + - 1. Full surface. Handed.
			2. ANSI/C07521.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide top pivot for doors that cannot be mortised.
			2. Non-ferrous base material.
			3. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door).
			4. Provide longer than standard pivot pins for installation as scheduled or required. Lengths are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19mm).
		1. Model 680:

\*\* NOTE TO SPECIFIER \*\* Used where no frame exists above door, or where it is not possible to anchor pivot into header of frame. Side jamb portion can be surface mounted or mortised.

* + - 1. Side Jamb Mounted. Frame Portion.
			2. Handed.
			3. 3/4 inch (19 mm) offset (measured from centerline of pivot to face of door).
		1. Model 119:

\*\* NOTE TO SPECIFIER \*\* Used with 117,117-1/4,195 pivot sets and 127 and 427 floor closers.

* + - 1. Full Mortise. Handed. Not load-bearing. Maintains door alignment.
			2. ANSI/C07382.
			3. 3/4 inch (19 mm) offset.
			4. Non-ferrous base material.
		1. Model M19:

\*\* NOTE TO SPECIFIER \*\* Aids in installing floor closers and bottom pivots. For 20-minute label suffix "-20" to the part number .Available for fire door assemblies (ferrous material) - specify FM19.

* + - 1. Full Mortise. Handed. Not load-bearing. Maintains door alignment.
			2. ANSI/C07321/C07371.
			3. Non-ferrous base metal.

\*\* NOTE TO SPECIFIER \*\* Delete offset not required.

* + - 1. 3/4 inch (19 mm) offset.
			2. 1-1/2 inches (38 mm) offset
		1. Model M190:

\*\* NOTE TO SPECIFIER \*\* Aids in installing floor closer and bottom pivots. Available for fire door assemblies (ferrous material) - specify FM190. For 20-minute label suffix "-20" to part number.

* + - 1. Heavy-Duty Full Mortise. Handed. Lateral load-bearing. Maintains door alignment.
			2. ANSI/C07321/C07371.
			3. Heavy-duty needle bearing.

\*\* NOTE TO SPECIFIER \*\* Delete offset not required.

* + - 1. 3/4 inch (19 mm) offset.
			2. 1-1/2 inches (38 mm) offset.
		1. Model ML19:

\*\* NOTE TO SPECIFIER \*\* Lead-lined, Heavy or High Traffic Doors. Aids in installing closers and pivots. Available to accommodate door thicknesses 1-3/4 inches (44 mm), 2 inches (51 mm), 2-1/4 inches (57 mm), 2-1/2 inches (64 mm), or 3 inches (76 mm). Available for fire door assemblies - 1-3/4 inches (44 mm) door only - specify FML19. For 20-minute label suffix "-20" to part number.

* + - 1. Full Mortise. Handed. Load-bearing. Maintains door alignment.
			2. ANSI/C07311.
			3. Non-ferrous base material.
		1. Model FA19:

\*\* NOTE TO SPECIFIER \*\* Asylum or High Security Applications. Aids in installing bottom pivots. May be used with fire door assemblies.

* + - 1. Full mortise. Handed. Maintains door alignment.
			2. ANSI/C07361.
			3. 3/4 inch (19 mm) offset.
			4. Ferrous base material.
		1. Model 219:

\*\* NOTE TO SPECIFIER \*\* 1-3/4 inches (44 mm) flush door and frame applications only.

* + - 1. Half Surface. Handed. Maintains door alignment.
			2. ANSI/C07331.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide top pivot for doors that cannot be mortised.
			2. Non-ferrous base material.
			3. 3/4 inch (19 mm) offset.
		1. Model 319:

\*\* NOTE TO SPECIFIER \*\* Flush door and frame applications only.

* + - 1. Half Mortise. Handed. Maintains door alignment.
			2. ANSI/C07341.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide top pivot for doors that cannot be mortised.

\*\* NOTE TO SPECIFIER \*\* Door portion from ML19 pivot is available if lead-lined door is used - specify L319 and door thickness. Delete if not required.

* + - 1. Provide L319 for lead lined door application.
			2. Non-ferrous base material.
			3. 3/4 inch (19 mm) offset.
		1. Model 419:

\*\* NOTE TO SPECIFIER \*\* 1-3/4 inches flush door and frame applications only.

* + - 1. Full Surface. Handed. Maintains door alignment.
			2. ANSI/C07351.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide top pivot for doors that cannot be mortised.
			2. Non-ferrous base material.
			3. 3/4 inch (19 mm) offset.
		1. Model E-M19:

\*\* NOTE TO SPECIFIER \*\* Electolynx® option, suffix "QC#" (number of wires). Available for fire door assemblies (ferrous material) - specify E-FM19. For 20-minute label, suffix "-20" to the part number

* + - 1. Offset Hung. Electric Pivot for Power Transfer. Provide four, six, eight or twelve wires as scheduled or required. 24-gauge wire is rated at 2 amps for low voltage, class II wiring applications. Handed. Not load-bearing.
			2. Door and jamb portion are factory assembled and cannot be separated.
			3. Provide M19 intermediate pivot to install door.

\*\* NOTE TO SPECIFIER \*\* Delete offset not required.

* + - 1. 3/4 inch (19 mm) offset.
			2. 1-1/2 inches (38 mm) offset.
		1. Model E-M19U:

\*\* NOTE TO SPECIFIER \*\* For Electrified Panic Devices with Large Inrush Current.

* + - 1. Offset Hung. Electric Pivot for Power Transfer. Two each 18 gauge wires. Each wire is rated at 2 amps continuously. UL listed for 24-volt, Class I wiring. Junction boxes are supplied with pivots. Handed. Not Load-bearing.
			2. Provide M19 intermediate pivot to install door.
			3. Door and jamb portion are factory assembled and cannot be separated.
			4. 3/4 inch (19 mm) offset.
		1. Model E-ML19

\*\* NOTE TO SPECIFIER \*\* Lead Lined or Extra Heavy Doors. Available 1-3/4 inches (44 mm) doors only. Electrolynx® option available, suffix "QC#" (number of wires).

* + - 1. Offset Hung. Electric Pivot or Power Transfer. Provide four, six, eight, or twelve wires as scheduled or required. 24-guage wire is rated at 2 amps for low voltage, class II wiring applications. Handed. Not load-bearing.

\*\* NOTE TO SPECIFIER \*\* Option available. Delete option if not required.

* + - 1. Provide Electrolynx.
			2. Provide ML19 intermediate pivot to install door.
			3. Door and jamb portion are factory assembled and cannot be separated.
			4. 3/4 inch (19 mm) offset.
		1. Model CS-M19:
			1. Offset Hung. Electric Pivot for Door Position Monitoring. Magnetically activated reed switch in frame leaf of pivot monitors door position. Switch rated at 0.3 amps and 28 volts maximum, three each 22-gauge wires. Adjusting screw is easy to set on-site after installation. Screw is disguised as an installation screw. Handed. Not load-bearing.
			2. Provide M19 intermediate pivot to install door.

\*\* NOTE TO SPECIFIER \*\* Delete offset not required.

* + - 1. 3/4 inch (19 mm) offset.
			2. 1-1/2 inches (38 mm) offset.
		1. Model CS-E-M19:

\*\* NOTE TO SPECIFIER \*\* ElectroLynx option available for power transfer only, suffix "QC#" (number of wires) - specify four, six, eight, or twelve wires.

* + - 1. Offset Hung. Handed. Not load-bearing. Electric Pivot for Door Position Monitoring + Power Transfer. Magnetically activated reed switch in frame leaf of pivot monitors door position. Adjusting screw is easy to set on-site after installation. Provide four, six, eight or twelve wires as scheduled or required. 24-gauge wire is rated @ 2 amps for low voltage, class II wiring application. Screw is disguised as installation screw. Switch rated at 0.3 amps and 28 volts maximum (Three each 22 gauge wires).

\*\* NOTE TO SPECIFIER \*\* Option available. Delete option if not required.

* + - 1. Provide Electrolynx.
			2. Provide M19 intermediate pivot to install door.
			3. Door and jamb portion are factory assembled and cannot be separated

\*\* NOTE TO SPECIFIER \*\* Delete offset not required.

* + - 1. 3/4 inch (19 mm) offset.
			2. 1-1/2 inches (38 mm) offset.
		1. Model CS-ML19:

\*\* NOTE TO SPECIFIER \*\* Lead Lined or Extra Heavy Doors.

* + - 1. Offset Hung.
			2. Electric Pivot for Door Position Monitoring. Magnetically activated reed switch in frame leaf of pivot monitors door position. Adjusting screw is easy to set on-site after installation. Screw is disguised as installation screw. Switch rated at 0.3 amps and 28 volts maximum, three each 22-gauge wires. Handed. Not load-bearing.
			3. Provide ML19 intermediate pivot to install door.
			4. Door and jamb portion are factory assembled and cannot be separated.
			5. 3/4 inch (19 mm) offset.
		1. Model F519:

\*\* NOTE TO SPECIFIER \*\* Full mortise, non-handed pivot for pocket door applications. UL listed for all labeled pocket-fire door assemblies up to and including 3 hours. Fire-rated door assemblies must have been tested with pocket pivots.

* + - 1. Pocket Door Pivot. Non-handed.
			2. ANSI/C07611.
			3. Heavy-duty steel pivot with ball bearings. Allows doors to swing 90 degree.
			4. Provide a minimum of three pocket pivots per door.
		1. Model E-F519:

\*\* NOTE TO SPECIFIER \*\* Full mortise, non-handed pivot for pocket door applications. Always use as middle pivot. Fire-rated door assemblies must have been tested with pocket pivots. Electrolynx option available, suffix "QC4"

* + - 1. Pocket Door Pivot. Non-handed. Electric Pivot for Power Transfer. Available with four wires only. 24-guage wire is rated at 2 amps for low voltage, class II wiring applications.
			2. Heavy-duty steel pivot with ball bearings. Allows doors to swing 90 degree.
			3. Door and jamb portion are factory assembled and cannot be separated.
			4. Provide minimum three pocket pivots per door.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide Electrolynx.
		1. Model 127-3/4:

\*\* NOTE TO SPECIFIER \*\* Not allowed for used on labeled doors and frames.

* + - 1. Interior Doors. Weight to 200 lb (91 Kg). Door Sizes up to 3 feet 6 inches x 8 feet 6 inches (1067 mm x 2591 mm). Non-handed.
			2. ANSI/C07042.
			3. Standard top pivot 320 included. Bottom pivot mortised into side jamb.
			4. Weight of door supported by floor.
			5. Pivot point centered in thickness of door.
			6. Door shall have radius on pivot edge.
			7. Pivot point remains constant at 1-1/4 inches (32 mm) from the edge of the door.
			8. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.
		1. Model 128-3/4:

\*\* NOTE TO SPECIFIER \*\* Not allowed for used on labeled doors and frames.

* + - 1. Interior Doors. Weight to 250 lb (113 Kg). Door Sizes up to 3 feet 6 inches x 8 feet 6 inches (1067 mm x 2591 mm). Non-handed.
			2. ANSI/C07032.
			3. Bottom pivot mounts directly to floor. Standard top pivot 320 included.
			4. Weight of door supported by floor.
			5. Pivot point centered in thickness of door.
			6. Door shall have radius on pivot edge.
			7. Pivot point remains constant at 1-1/4 inches (32 mm) from the edge of the door.
			8. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.
		1. Model 370:

\*\* NOTE TO SPECIFIER \*\* Not allowed for used on labeled doors and frames.

* + - 1. Exterior or Interior Doors. Weight to 500 lb (227 Kg). Door sizes up to 3 feet 8 inches x 8 feet 6 inches (1118 mm x 2591 mm). Non-handed.
			2. ANSI NO/C07032.
			3. Standard top pivot 340 included. Bottom pivot mounts directly to floor.
			4. Pivot point centered in thickness of door.
			5. Door shall have radius on pivot edge.
			6. Sealed bearings for weather and debris protection.
			7. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.
		1. Model 117-3/4:

\*\* NOTE TO SPECIFIER \*\* Not allowed for used on labeled doors and frames.

* + - 1. Exterior or Interior Doors. Weight to 600 lb (272 Kg). Door Sizes up to 4 feet 0 inch x 8 feet 6 inches (1219 mm x 2591 mm). Non-handed.
			2. Standard top pivot 340 included. Bottom pivot is mortised into floor.
			3. Pivot point centered in thickness of door.
			4. Door shall have radius on pivot edge.
			5. Heavy-duty bearings. Pivot set has sealed bearings for weather and debris protection.
			6. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.
		1. Model H117-3/4:

\*\* NOTE TO SPECIFIER \*\* Not allowed for used on labeled doors and frames.

* + - 1. Exterior or Interior Doors. Weight to 1,000 lb (454 Kg). Door Sizes up to 4 feet 0 inch x 8 feet 6 inches (1219 mm x 2591 mm). Non-handed.
			2. ANSI/C07011.
			3. Standard top pivot H340 included. Bottom pivot is mortised into floor.
			4. Provide end load arm for minimum 2 inches (51 mm) thick doors.
			5. Pivot point centered in thickness of door.
			6. Additional surface applied thrust bearing.
			7. Door shall have radius on pivot edge.
			8. Pivot point remains constant at 2-3/4 inches (70 mm) from the edge of the door.
			9. Sealed bearings for weather and debris protection.
			10. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.
		1. Model H117-3/4 x 587 ARM:

\*\* NOTE TO SPECIFIER \*\* Not allowed for used on labeled doors and frames.

* + - 1. ANSI/C07011.
			2. Standard top pivot H340 included. Bottom pivot is mortised into floor.
			3. Provide special side load arm for 1-3/4 inches (44 mm) thick doors or for moving pivot point toward lock edge of door. Pivot point centered in thickness of door.
			4. Surface applied thrust bearing.
			5. Door shall have radius on pivot edge.
			6. Sealed bearings for weather and debris protection.
			7. Provide extended spindles as scheduled or required. (1/2 inch (13 mm) increments to 2 inches (51 mm) longer than standard.
		1. Model 176:

\*\* NOTE TO SPECIFIER \*\* Not allowed for used on labeled doors and frames.

* + - 1. Interior Doors. Weight up to 150 lb (68 Kg). Door Sizes up to 3 feet 0 inches x 8 feet 0 inches (914 mm x 2438 mm). Door Thickness 1-3/8 inches to 1-3/4 inches (35 mm to 44 mm). Non-handed.
			2. ANSI/C07032.
			3. Standard top pivot 320 included. Bottom pivot mounts directly into concrete floor.
			4. Pivot point centered in thickness of door.
			5. 3/8 inch (9.5 mm) vertical adjustment.
			6. Door shall have radius on pivot edge.
		1. Model 178:

\*\* NOTE TO SPECIFIER \*\* Used on full glass doors.

* + - 1. Interior Glass Doors. Weight to 175 lb (79 Kg). Door Sizes up to 3 feet 0 inch x 8 feet 0 inch (914 mm x 2591 mm). Non-handed. Glass thicknesses 3/8 inch to 1/2 inch (9.5 mm to 13 mm).
			2. Doors do not return to center.
			3. Includes special floor portion, top and bottom patch fittings and walking beam top pivot.
		1. Model 320:

\*\* NOTE TO SPECIFIER \*\* Standard top pivot for Models 127-3/4, 128-3/4, and 176 pivot sets.

* + - 1. Fully Concealed. Non-handed.
			2. Walking beam-type pivot - 1/2 inch (13 mm) diameter pivot pin with 3/4 inch (19 mm) engagement.
			3. Oil-impregnated sintered bronze bushing.
			4. Provide longer than standard pivot pins for installation as scheduled or required. Increments are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19 mm).
		1. Model 340:

\*\* NOTE TO SPECIFIER \*\* Standard top pivot for Models 370 and 117-3/4 pivot sets. Also used for 28, 30, 40, and 50 Series floor closers.

* + - 1. Fully Concealed. Non-handed.
			2. Walking beam-type pivot - 1/2 inch (13 mm) diameter pivot pin with 3/4 inch (19 mm) engagement.
			3. Oil impregnated sintered bronze bushing.
			4. Provide longer than standard pivot pins for installation as scheduled or required. Increments are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19 mm).
		1. Model H340:

\*\* NOTE TO SPECIFIER \*\* Standard top pivot for Model H117-3/4 pivot set. Also used for H28 and H40 Series floor closers. Can be used with any floor closer or pivot set with point 2-3/4 inch (70 mm), or greater, from edge of the door.

* + - 1. Fully Concealed. Heavy-Duty. Non-handed.
			2. Heavy-duty needle bearing.
			3. Walking beam-type pivot - 11/16 inch (17 mm) diameter pivot pin with 3/4 inch (19 mm) engagement.
			4. Provide longer than standard pivot pins for installation as scheduled or required. Increments are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19 mm).
		1. Model 345:

\*\* NOTE TO SPECIFIER \*\* Earthquake Tolerant. Taller Doors. Ideal for locations where there is a fear of dramatic building settling or for doors over 8 feet 6 inches (2591 mm) in height. Can be used with any center hung bottom pivot or floor closer. Order pivot set or floor closer LTP (less top pivot) with 345 on separate line item.

* + - 1. Fully Concealed. Center Hung. Non-handed
			2. Provide top pivot where scheduled or required.
			3. Long pivot pin engages in top of door 1-3/4 inches (44 mm).
			4. Walking beam-type pivot - 1/2 inch (13 mm) diameter pivot pin.
			5. Oil impregnated sintered bronze bushing.
		1. Model H345:

\*\* NOTE TO SPECIFIER \*\* Earthquake Tolerant. Taller Doors. Ideal for locations where there is a fear of dramatic building settling or for doors over 8 feet 6 inches (2591 mm) in height. Can be used with any center hung bottom pivot or floor closer. Order pivot set or floor closer LTP (less top pivot) with 345 on separate line item.

* + - 1. Fully Concealed. Center Hung. Non-handed.
			2. Long pivot pin engages in top of door 1-3/4 inches (44 mm).
			3. Walking beam-type pivot - 11/16 inch (17 mm) diameter pivot pin
			4. Heavy-duty needle bearing.
		1. Model 340 x 102

\*\* NOTE TO SPECIFIER \*\* Optional top pivot for doors or frames that have conflicts with other hardware. For lighter weight doors use 320 x 102. No finish plate supplied. Can be inverted. The walking beam portion would be installed the header of the frame.

* + - 1. Fully Concealed. Non-handed.
			2. Oil impregnated sintered bronze bushing.
			3. Provide longer than standard pivot pins for installation as scheduled or required. Increments are 1/4 inch (6 mm) up to 3/4 inch (19 mm).
		1. Model 340 x AP3:

\*\* NOTE TO SPECIFIER \*\* Used where no frame exists above door, or where it is not possible to anchor pivot into header of frame. Center hung applications only. Part is handed to keep installation plate to inside of room or building.

* + - 1. Surface mounted. Handed doors up to 3 feet 6 inches (1067 mm) wide.
			2. Includes 340 door companion.
		1. Model E-H340:

\*\* NOTE TO SPECIFIER \*\* Can be used with any center hung bottom pivot or floor closer. Order the pivot set LTP (less top pivot) with E-H340 as a separate line. Four, six, eight, and twelve wires are 24 gauge and available in Electrolynx®, Suffix "QC#" (number of wires).

* + - 1. Center Hung. Top Pivot for Power Transfer. Provide two, four, six, eight, or twelve wires as scheduled or required. Two-wire in 18 gauge as required. Non-handed.
			2. Walking beam-type pivot - 11/16 inch (17 mm) diameter pivot pin with 3/4 inch (19 mm) engagement.
			3. Heavy-duty needle bearing.
			4. Provide longer pivot pins for installation as scheduled or required. Increments are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19 mm).
		1. Model E-H345:

\*\* NOTE TO SPECIFIER \*\* Earthquake Tolerant. Taller Doors. Used with heavy-duty pivots and floor closers. Ideal for locations where there is a fear of dramatic building settling. Can be used with any center hung bottom pivot or floor closer whose pivot point is 2-3/4 inches (70 mm), or greater, from the edge of the door. Order the pivot set LTP (less top pivot) with E-H345 as a separate line. Four, six, eight, and twelve wires are 24 gauge and available in Electrolynx®, Suffix "QC#" (number of wires)

* + - 1. Fully Concealed. Center Hung. Non-handed. For doors over 8 feet 6 inches (2591 mm) in height.
			2. Top Pivot for Power Transfer. Provide two, four, six, eight or twelve wires as scheduled or required. Two-wire in 18 gauge as required.
			3. Walking beam-type pivot - 11/16 inch (17 mm) diameter pivot pin.
			4. Longer pivot pin throw engages in top of door 1-3/4 inches (44mm).
			5. Heavy-duty needle bearing.
		1. Model CS-340:
			1. Center Hung. Door Position Monitoring. Non-handed. Switch rated at 0.3 amps and 28 volts maximum, three wires, 22 gauge. Magnetically activated reed switch in frame of pivot monitors door position.
			2. Walking beam type pivot. Adjusting screw is adjusted on-site concealed by cover plate.
			3. Oil-impregnated sintered bronze bearing.
			4. Provide longer pivot pins for installation as scheduled or required. Increments are 1/4 inch (6 mm), 1/2 inch (13 mm), 3/4 inch (19 mm).
		2. Model CS-345:

\*\* NOTE TO SPECIFIER \*\* For taller doors. Longer pivot pin throw engages in top of door 1-3/4 inches (44mm). Ideal for locations where there is a fear of dramatic building settling or taller doors. Can be used with any center hung bottom pivot or floor closer.

* + - 1. Fully Concealed. Center Hung. Door Position Monitoring. Non-handed.
			2. Magnetically activated reed switch door position monitor. Switch rated at 0.3 amps and 28 volts maximum, three wires, 22 gauge.
			3. Heavy-duty needle bearing.

\*\* NOTE TO SPECIFIER \*\* Finishes available. Delete finish not required.

* + 1. Finishes:
			1. Bright Brass 605.
			2. Satin Brass 606.
			3. Bright Bronze 611.
			4. Satin Bronze 612.
			5. Dark Bronze 613.
			6. Dark Oxidized Satin Bronze- equivalent 613E.
			7. Bright Nickel 618.
			8. Satin Nickel 619.
			9. Flat Black 622.
			10. Bright Chrome 625.
			11. Satin Chrome 626.
	1. CHECKMATE STOPS AND HOLDERS
		1. 1 Series:

\*\* NOTE TO SPECIFIER \*\* Recommended for high traffic, heavy abuse installations. Interior or Exterior doors. Doors may be single or double acting. LS option omits spring for special applications.

* + - 1. Model 1-\_ \_ 6.
			2. ANSI:
				1. Friction: C01531.
				2. H.O.: C01511.
				3. Stop: C01541.
			3. Heavy-duty. Non-handed. 1-3/4 inches (44 mm) minimum door thickness.

\*\* NOTE TO SPECIFIER \*\* LS option omits spring for special applications. Delete if not required.

* + - 1. Heavy shock absorber spring shall provide 5-7 degree compression before dead stop.

\*\* NOTE TO SPECIFIER \*\* Delete hold open type not required.

* + - 1. Provide surface on/off knob on hold open models.
			2. Provide stop, friction stay.
			3. 110 degree maximum opening.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide UL listed stop function for fire door assemblies.
		1. 1 ADJ Series:

\*\* NOTE TO SPECIFIER \*\* Recommended for high traffic, heavy abuse situations. Interior or exterior doors. Doors may be single or double acting.

* + - 1. Model 1 ADJ- \_ \_ 6.
			2. ANSI:
				1. H.O.: C01511.
				2. Stop: C01541.
			3. Adjustable, heavy-duty. Non-handed.
			4. Heavy shock absorber spring shall provide 5-7 degree compression before dead stop

\*\* NOTE TO SPECIFIER \*\* Order specifically as a stop or hold open function. Delete function not required.

* + - 1. Provide stop function.
			2. Provide hold open function.
			3. 110 degree maximum opening. Degree of opening is fully adjustable.
			4. Durable slider cam and shock block.
			5. 1-3/4 inches (44 mm) minimum door thickness.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide UL listed stop function for fire door assemblies.
		1. 2 Series:

\*\* NOTE TO SPECIFIER \*\* Interior doors. Doors may be single or double acting. Recommended for high traffic, heavy abuse installations. Can be ordered specifically as a stop, friction stay or hold open. Multi-function unit is shipped as a stop. Can be converted to a hold open or friction in the field. 5012-PKG (Adapter kit) included.

* + - 1. Model 2-\_ \_6.
			2. ANSI:
				1. Friction: C04532.
				2. H.O.: C04512.
				3. Stop: C04542.
			3. Adjustable, standard duty. Non-handed. Degree of opening is fully adjustable.
			4. Heavy shock absorber spring provides 5-7 degree compression before dead stop.
			5. Durable slider cam and shock block.
			6. 110 degree maximum opening.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide UL listed stop function for fire door assemblies.
		1. 5 Series:

\*\* NOTE TO SPECIFIER \*\* Interior Doors. Recommended for moderate traffic, medium weight interior doors. Doors may be single or double acting. Available in 652 and sprayed finishes only

* + - 1. Model 5-\_ \_ 6.
			2. ANSI:
				1. H.O. : C04512
				2. Stop: C04542
			3. Standard duty. Non-handed. Degree of opening determined by templating - not field adjustable.
			4. Heavy shock absorber spring provides 5-7 degree compression before dead stop.
			5. 110 degree maximum opening.
		1. 6 Series:

\*\* NOTE TO SPECIFIER \*\* Interior or Exterior doors. Doors may be single or double acting. Recommended for moderate traffic, medium weight interior doors. Low profile concealed channel designed for installation in aluminum storefront doors. Available in stop function only

* + - 1. Model 6-\_ \_ 6.
			2. ANSI: Stop: C01541.
			3. Low profile. Non-handed. Low profile concealed channel design.
			4. Heavy shock absorber spring provides 5-7 degree compression before dead stop. Durable slider cam.
			5. 110 degree maximum opening.
			6. 1-3/4 inches (44 mm) minimum door thickness.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide UL listed stop function for fire door assemblies.
		1. 6ADJ Series:

\*\* NOTE TO SPECIFIER \*\* Interior or exterior doors. Doors may be single or double acting. Recommended for moderate traffic, medium weight doors. Low profile concealed channel designed for installation in aluminum doors. Available in stop function only

* + - 1. Model 6 ADJ-\_ \_ 6.
			2. ANSI: Stop: C01541.
			3. Adjustable low profile. Non-handed. Low profile concealed channel design. Degree of opening is fully adjustable. Durable slider cam.
			4. Heavy shock absorber spring provides 5-7 degree compression before dead stop.
			5. 110 degree maximum opening.
			6. 1-3/4 inches (44 mm) minimum door thickness.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide UL listed function for fire door assemblies.
		1. 7 Series:

\*\* NOTE TO SPECIFIER \*\* Interior or exterior doors. Single acting.

* + - 1. Model 7-\_ \_ 6.
			2. ANSI: H.O.: C09551.
			3. Industrial duty. Non-handed. Cantilever design. Hold open only.
			4. Double spring arm absorbs shock. Self-lubricating bronze bearings.
			5. 110 degree maximum opening.
		1. 8HD Series:

\*\* NOTE TO SPECIFIER \*\* Interior or Exterior Doors. Single acting doors, push side mounting (only). Recommended for high traffic, heavy abuse installations. For flush mounting on the push side of the door use angle jamb bracket adapter 5458-LH or 5459-RH. Cannot be mounted on pull side of the door

* + - 1. Model 8 HD-\_ \_6.
			2. ANSI:
				1. H.O.: C03511.
				2. Stop: C03541.
			3. Extra heavy-duty. Non-handed.
			4. Extra heavy shock absorber spring provides 6 degree compression before dead stop.
			5. Stainless steel base metal.

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Provide stop function.
			2. Provide thumbturn hold open.
			3. 110 degree maximum opening.
			4. 1-3/4 inches (44 mm) minimum door thickness.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide UL listed stop function for fire door assemblies.
		1. 9 Series:

\*\* NOTE TO SPECIFIER \*\* For pull side mounting or flush mounting on push side or for rabbeted push side use angle jamb bracket adapter 5458-LH or 5459-RH. Interior or Exterior doors. Doors are single acting. Recommended for high traffic, heavy abuse installations.

* + - 1. Model 9-\_ \_ 6.
			2. ANSI:
				1. Friction: C02531.
				2. H.O.: C02511.
				3. Stop: C02541.
			3. Heavy-duty. Non-handed.

\*\* NOTE TO SPECIFIER \*\* LS option omits spring for special application. Delete spring requirement if required.

* + - 1. Heavy shock absorber spring provides 5-7 degree compression before dead stop.

\*\* NOTE TO SPECIFIER \*\* Delete function not required.

* + - 1. Provide stop function.
			2. Provide friction stay function.
			3. Provide hold open function.
				1. Provide On/off knob on hold open function
			4. Slider cam and shock block.
			5. 110 degree maximum opening.
			6. 1-3/4 inches (44 mm) minimum door thickness.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide UL listed stop function for fire door assemblies.
		1. 9 ADJ Series:

\*\* NOTE TO SPECIFIER \*\* Interior or exterior doors. Doors are single acting. Recommended for high traffic, heavy abuse installations. For pull side mounting or flush mounting on push side or for rabbeted push side use angle jamb bracket adapter 5458-LH or 5459-RH

* + - 1. Model 9 ADJ-\_ \_6.
			2. ANSI:
				1. H.O.: C02511.
				2. Stop: C02541.
			3. Adjustable, heavy-duty. Non-handed. Degree of opening is fully adjustable.
			4. Heavy shock absorber spring provides 5-7 degree compression before dead stop.
			5. Durable slider cam and shock block.
			6. 110 degree maximum opening.
			7. 1-3/4 inches (44 mm) minimum door thickness.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide stop function UL listed for fire door assemblies.
		1. 10 Series:

\*\* NOTE TO SPECIFIER \*\* Interior Doors. Single Acting doors. Recommended for moderate traffic, medium weight doors. For pull side mounting or flush mounting on push side or for rabbeted mounting on push side use angle jamb bracket adapter 5258. Multi-function unit is shipped as a stop. Can be converted to a hold open or friction in field. 5012-PKG (adapter kit) included.

* + - 1. Model 10-\_ \_ 6.
			2. ANSI:
				1. Friction: C05532.
				2. H.O.: C05512.
				3. Stop: C05542.
			3. Adjustable. Non-handed. Degree of opening is fully adjustable. Provide multi-function unit, field convertible.
			4. Heavy shock absorber spring provides compression before dead stop.
			5. Durable slider cam and shock block.
			6. 110 degree maximum opening.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide stop function UL listed for fire door assemblies
		1. 55 Series:

\*\* NOTE TO SPECIFIER \*\* For pull side mounting or flush mounting on push side or for rabbeted mounting on push side use angle jamb bracket adapter 5258. Interior doors. Single acting. Recommended for moderate traffic, medium weight doors. Available in 652 and sprayed finishes only.

* + - 1. Model 55-\_ \_ 6.
			2. ANSI:
				1. H.O. : C05512
				2. Stop: C05542
			3. Standard duty. Non-handed. Degree of opening determined by template. Not field adjustable.
			4. Heavy shock absorber spring provides 5-7 degree compression before dead stop

\*\* NOTE TO SPECIFIER \*\* Delete function not required.

* + - * 1. Provide stop function.
			1. Provide hold open function.
			2. Side block and shock block.
			3. 110 degree maximum opening.

\*\* NOTE TO SPECIFIER \*\* Finishes available. Delete finish not required.

* + 1. Finishes:
			1. Sprayed Alum 689.
			2. Sprayed Dark Bronze 690.
			3. Sprayed Light Bronze 691.
			4. Sprayed Brass 696.
			5. Bright Brass 605.
			6. Satin Brass 606.
			7. Bright Bronze 611.
			8. Satin Bronze 612.
			9. Dark Bronze 613.
			10. Dark Oxidized Satin Bronze - equivalent 613E.
			11. Bright Nickel 618.
			12. Satin Nickel 619.
			13. Flat Black 622.
			14. Bright Stainless 629.
			15. Stainless Steel 630.
			16. Satin Chrome 652.
	1. THRESHOLDS
		1. Type 1:

\*\* NOTE TO SPECIFIER \*\* Used with 28, H28, 30, 40, H40, and 50 series floor closers, pivot sets 117-3/4 and H117-3/4.

* + - 1. For doors hung in center of frame.

\*\* NOTE TO SPECIFIER \*\* Specify length of threshold (jamb to jamb)

* + - 1. Straight ends standard.
		1. Type 4:

\*\* NOTE TO SPECIFIER \*\* Used with 28, H28, F327, 30, 40, H40, 50, and F5300 series floor closers, pivot sets 117-3/4 and H117-3/4

* + - 1. For doors hung flush with the frame.

\*\* NOTE TO SPECIFIER \*\* Specify length of threshold (jamb to jamb). When ordering for F327 or F5300 floor closers, specify hanging means.

* + - 1. Mitered returns, standard.
		1. Type 3:

\*\* NOTE TO SPECIFIER \*\* Used with 27, L27, I27, QT27, HM27, 51, QT51 series floor closers, pivot sets 117-1/2 and L117

* + - 1. For doors flush with the frame.

\*\* NOTE TO SPECIFIER \*\* Specify door thickness. Specify length of threshold (jamb to jamb)

* + - 1. Mitered returns, standard.
		1. Type 5:

\*\* NOTE TO SPECIFIER \*\* Used with 27, L27, I27, QT27, HM27, 51, QT51 and HM51 series floor closers, pivot sets 117-1/2 and L117
\*\* NOTE TO SPECIFIER \*\* Specify door thickness. Specify length of threshold (jamb to jamb)

* + - 1. Mitered returns, standard.
		1. Finishes:

\*\* NOTE TO SPECIFIER \*\* Options available. Delete options not required.

* + - 1. Aluminum (AL).
			2. Bronze (BZ).
			3. Bright Brass 605.
			4. Satin brass 606.
			5. Dark Bronze 613.
	1. ELECTROMAGNETIC DOOR HOLDERS/RELEASES (FLOOR MOUNTED)
		1. Model 980:

\*\* NOTE TO SPECIFIER \*\* Total Floor Space Required: 6-5/8 inches (168 mm). Mounting Requirements: Conduit connects directly to floor plate.

* + - 1. Floor Mount. Single Door. Concealed Wiring.
			2. ANSI/C00021.

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current: (120VAC, 60 Hz., .020 amp) (24VAC/DC, 60 Hz., .020 amp) (12VDC, .040 amp).
		1. Model 981:

\*\* NOTE TO SPECIFIER \*\* Floor Space Required: 8-1/4 inches (210 mm). Mounting Requirements: Conduit connects directly to floor plate.

* + - 1. Floor mount. Back-to-Back Doors. Concealed Wiring.
			2. ANSI/C00031.

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current: (120VAC, 60Hz., .040 amp), (24VAC/DC, .040 amp), (12VDC, .080 amp)
		1. Model 989:

\*\* NOTE TO SPECIFIER \*\* Mounting Requirements: 2 inches x 4 inches x 2-1/2 inches (51 mm x 102 mm x 64 mm) outlet box. Wall shall be properly reinforced and outlet box adequately fastened.

* + - 1. Wall mount. Low profile. Concealed Wiring.
			2. ANSI/C00011.
			3. Total Projection: 7/16 inch (11 mm).

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current: (120VAC/DC, 60 Hz., .020 amp), (24VAC/DC, 60Hz., .020 amp), (12VDC, .040 amp)
		1. Model 990:

\*\* NOTE TO SPECIFIER \*\* Mounting Requirements: 2 inches x 4 inches x 2-1/2 inches (51 mm x 102 mm x 64 mm) outlet box. Wall shall be properly reinforced and outlet box adequately fastened.

* + - 1. Wall mount. Low profile. Concealed Wiring.
			2. ANSI/C00011.
			3. Total Projection: 1-13/16 inches (46 mm).

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current: (120VAC/DC, 60 Hz., .020 amp), (24VAC/DC, 60Hz., .020 amp), (12VDC, .040 amp)
		1. Model 991:

\*\* NOTE TO SPECIFIER \*\* Approved for class I division 2, class II division 2, groups F and G and class III locations.

* + - 1. Wall mount. Surface Wiring. Hazardous Locations.
			2. ANSI/C00011.
			3. Total Projection: 4 inches (102 mm).
			4. Unit includes a sealed surface-mounted junction box.

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current: (120VAC, 60Hz., .017 amp), (24VAC, .080 amp), (12VAC, .180 amp), (24VDC, .068 amp), (240VAC, 50/60Hz., .009 amp)
		1. Model 993:

\*\* NOTE TO SPECIFIER \*\* 9930 Floor mount available. Unit has test switch - may be ordered without switch if door will be pulled out of hold open very often. Substantial wall reinforcement required.

* + - 1. High hold. Surface or Concealed Mounting. Floor or Wall Application.
			2. 300 lb (136 Kg) holding force.
			3. Total Projection: 5-1/4 inches (133 mm).
			4. Switch box included: 4-1/2 inches x 4-9/16 inches x 2-5/16 inches (114 mm x 116 mm x 59 mm) deep.
			5. Armature plate thru-bolted to maintain consistent contact with magnet.
			6. Voltage and Current: 24VAC/DC .25 amp.
		1. Model 994:

\*\* NOTE TO SPECIFIER \*\* Adjustable armature rotation up and down, back and forth for better alignment. Cannot be used with 900 base or spacers. Can be used without adjustment piece making it a model 997. Mounting Requirements: 2 inches x 4 inches x 2-1/2 inches (51 mm x 102 mm x 64 mm) outlet box. Wall shall be properly reinforced and outlet box adequately fastened.

* + - 1. Wall mount. Adjustable Armature. Concealed Wiring.
			2. ANSI/C00011.
			3. Total Projection: 3-3/4 inches (95 mm).

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current: (120VAC, 60Hz., .020 amp), (24VAC/DC, 60Hz., .020 amp), (12VDC, .040 amp)
		1. Model 996:

\*\* NOTE TO SPECIFIER \*\* Mounting Requirements: 1-1/2 inches (38 mm) deep adapter housing. Wall shall be properly reinforced.

* + - 1. Wall mount. Surface Wiring.
			2. ANSI/C00011.
			3. Total Projection: 4-1/8 inches (105 mm).

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current: (120VAC, 60Hz, .020 amp), (24VAC/DC, 60Hz, .020 amp), (12VDC, .040 amp).
		1. Model 997:

\*\* NOTE TO SPECIFIER \*\* Mounting Requirements: 2 inches x 4 inches x 1-3/4 inches (51 mm x 102 mm x 45mm). Wall shall be properly reinforced and outlet box adequately fastened.

* + - 1. Wall Mount. Concealed Wiring.
			2. ANSI/C00011.
			3. Total Projection: 2-5/8 inches (67 mm).

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current: (120VAC, 60Hz, .020 amp), (24VAC/DC, 60Hz, .020 amp), (12VDC, .040 amp).
		1. Model 998:

\*\* NOTE TO SPECIFIER \*\* Mounting Requirements: 2 inches x 4 inches x 1-3/4 inches (51 mm x 102 mm x 45mm). Wall shall be properly reinforced and outlet box adequately fastened.

* + - 1. Wall Mount. Concealed Wiring.
			2. ANSI/C00011.
			3. Total Projection: 3-5/8 inches (92 mm).

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current: (120VAC, 60Hz., .020 amp), (24VAC/DC, 60Hz., .020 amp), (12VDC, .040 amp).
		1. Model 999:

\*\* NOTE TO SPECIFIER \*\* Mounting Requirements: 2 inches x 4 inches (51 mm x 102 mm) outlet box; 4 inches (102 mm) square box; 4 inches (102mm) octagonal box. Wall shall be properly reinforced and outlet box adequately fastened.

* + - 1. Universal Mounting. Base Plate; Concealed Wiring.
			2. ANSI/C00011.
			3. Total Projection: 4-3/8 inches (111 mm).

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current: (120VAC, 60Hz., .020 amp), (24VAC/DC, 60Hz., .020 amp), (12VDC, .040 amp)
		1. Model 972:

\*\* NOTE TO SPECIFIER \*\* Substitute for fusible links in overhead rolling doors, guillotine doors, fire dampers and self-closing windows. 972H for Swinging Doors. 972S for Sliding Doors. 972U for Overhead Doors.

* + - 1. Automatic release when triggered by an electrically operated switch.
			2. ANSI/C00041
			3. Heavy-duty. Holding force 75 lb (34 Kg).

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Voltage and Current" (120VAC, 60Hz, .150 amp), (24VAC, 60Hz, .150 amp), (24VDC, .08 amp), (12VDC, .08 amp)
		1. Finishes:

\*\* NOTE TO SPECIFIER \*\* Finishes available. Delete finish not required.

* + - 1. Sprayed Alum 689.
			2. Sprayed Dark Bronze 690.
			3. Sprayed Light Bronze 691.
			4. Sprayed Black 693.
			5. Sprayed Brass 696.
	1. ELECTRIFIED CLOSER/HOLDER (SMOK-CHEK V)
		1. Model 0600: Cross corridor doors - swinging in the same direction.

\*\* NOTE TO SPECIFIER \*\* Mounts on 2 inches (51 mm) header. Maximum reveal 1/8 inch (3 mm).

* + - 1. Non-handed. Maximum door weight 250 lb (113 Kg). Doors up to 4 feet 0 inches (1219 mm).
			2. ANSI/C00111.
			3. Pull side mount. Hold open range 85 degree to 145 degree.

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Power: 24VAC/DC.
			2. Power: 120VAC.
		1. Model 0601: Cross corridor doors - double egress - doors swinging in opposite directions

\*\* NOTE TO SPECIFIER \*\* Mounts on 2 inches (51 mm) header. Maximum reveal 3-1/2 inches (89 mm).

* + - 1. Non-handed. Maximum door weight 250 lb (113 Kg). Doors up to 4 feet 0 inches (1219 mm).
			2. ANSI/C00231.
			3. Push side mount. Hold open range 85 degree to 135 degree.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide special arm 550789 swing and hold at 180 degree.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Provide special arm 550789 for reveals 3-1/2 inches to 5-1/2 inches.

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Power: 24VAC/DC.
			2. Power: 120VAC.
		1. Model 0602: Cross corridor doors - swinging in the same direction.
			1. Non-handed. Maximum door weight 250 lb (113 Kg). Doors up to 4 feet 0 inches (1219 mm).
			2. ANSI/C00471.
			3. Pull side mount for holder. Push side mount for closer. Hold open range 85 degree to 180 degree. Mounts on 2 inches (51 mm) header.

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Power: 24VAC/DC.
			2. Power: 120VAC.
		1. Model 0100: Cross corridor doors.

\*\* NOTE TO SPECIFIER \*\* No closer supplied. Can be used with floor closers. Mounts on 2 inches header. Maximum reveal 1/8 inch (3 mm).

* + - 1. Non-handed. Maximum door weight 250 lb (113 Kg). Doors up to 4 feet 0 inches (1219 mm).
			2. ANSI/C00471.
			3. Pull side mount for holder. Hold open range 85 degree to 180 degree.

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - 1. Power: 24VAC/DC.
			2. Power: 120VAC.
		1. Model 0101: Cross corridor doors - double egress- doors swinging in opposite directions

\*\* NOTE TO SPECIFIER \*\* Mounts on 2 inches (51 mm) header. Maximum reveal 3-1/2 inches (89 mm). No closer supplied.

* + - 1. Non-handed. Maximum door weight 250 lb (113 Kg). Doors up to 4 feet 0 inches (1219 mm).
			2. ANSI/C00511.
			3. Push side mount for holder. Hold open range 85 degree to 135 degree.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - * 1. Provide special arm 550789 for reveals 3-1/2 inches to 5-1/2 inches.

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - * 1. Power: 24VAC/DC.
			1. Power: 120VAC.
		1. Model 4 Pull Non-Detectored: Patient room doors.

\*\* NOTE TO SPECIFIER \*\* Double egress arm available for reveals deeper than 1/8" up to 3" (prefix "DE"). Maximum opening 110 degree. 4 PULL can be used with smoke detectors or as a slave unit to the 6 PULL. 2 inches (51 mm) clearance required above 2 inches (51 mm) frame. 4 PULL available in 24VDC only. When 4 PULL and 6 PULL are ordered for a single pair of double doors, 4 PULL must be 24VDC.

* + - 1. Handed. Maximum door weight 250 lb (113 Kg). Door width 2 feet 4 inches to 4 feet 0 inches (711 mm to 1219 mm).
			2. ANSI/C00351/C00361/C00371/C00381.
			3. Pull side mounted. Provide free swing arm where scheduled or required. Maximum door opening 180 degree/ Maximum Hold Open 175 degree. Single point hold open preset at factory (85 degree-175 degree).
			4. Power: 120VAC input is stepped down to 24VDC solenoid.
		1. Model 4 Push Non-Detectored: Patient room doors or stairwell.

\*\* NOTE TO SPECIFIER \*\* When 4PUSH and 6PUSH are ordered for a single pair of double doors, 4 PUSH must be 24VDC. 4 PUSH can be used with smoke detectors or as a slave unit to the 6 PUSH. 4 PUSH available in 24VDC only.

* + - 1. Handed. Maximum door weight 250 lb (113 Kg). Door width 2 feet 4 inches to 4 feet 0 inches (711 mm to 1219 mm).
			2. ANSI/C00311/C00321.
			3. Push side (stop) mounted. Maximum door opening 180 degree / Maximum hold open 175 degree.
			4. Selective Hold Open (Standard) - single point hold open preset at factory (85 degree-175 degree).
			5. Power: 120VAC input is stepped down to 24VDC solenoid.
		1. Model 99-726: Used with independent closers.

\*\* NOTE TO SPECIFIER \*\* Detectored or non-detectored. For doors 2 feet 8 inches to 4 feet 0 inches (813 mm to 1219 mm) (non-detectored) 3 feet 0 inches to 4 feet 0 inches (914 mm to 1219 mm) (detectored).

* + - 1. Non-handed. Surface mounted. Single acting.
			2. ANSI/C00511/C00521.
			3. Push side. 85 degree to 110 degree hold open. Surface or concealed wiring. Holding force 25 to 35 lb (11 Kg to 16 Kg).

\*\* NOTE TO SPECIFIER \*\* Delete Detectored or non-detectored as required.

* + - 1. Detectored 24VDC.
			2. Non-detectored 120VAC/24VAC/DC.

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - * 1. Power: 24VAC/DC.
			1. Power: 120VAC.
		1. Model 99-926: Used with independent closers.

\*\* NOTE TO SPECIFIER \*\* Detectored or non-detectored. For doors 2 feet 8 inches to 4 feet 0 inches (813 mm to 1219 mm) (non-detectored) 3 feet 0 inches to 4 feet 0 inches (914 mm to 1219 mm) (detectored).

* + - 1. Non-handed. Surface mounted. Single acting.
			2. ANSI/C00471/C00481.
			3. Pull side. 85 degree to 110 degree hold open. Surface or concealed wiring.
			4. Holding force 25 to 35 lb (11 Kg to 16 Kg).

\*\* NOTE TO SPECIFIER \*\* When used in conjunction with detectored model, unit must be 24VDC. Delete Detectored or non-detectored as required.

* + - 1. Non-detectored 120VAC/24VAC/DC
			2. Detectored 120VAC/ 24VAC /DC

\*\* NOTE TO SPECIFIER \*\* Delete power not required.

* + - * 1. Power: 24VAC/DC.
			1. Power: 120VAC.
		1. Finishes:

\*\* NOTE TO SPECIFIER \*\* Finishes available. Delete finish not required.

* + - 1. Sprayed Aluminum 689.
			2. Sprayed Dark Bronze 690.
			3. Sprayed Light Bronze 691.
			4. Sprayed Brass 696.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install in accordance with manufacturer's instructions, approved submittals and in proper relationship with adjacent construction.
		2. Test for proper operation and adjust until satisfactory results are obtained.
		3. Replace units which do not operate properly at no additional expense to the Owner.

END OF SECTION