

Section I - Building Components

1. Door, Frame and Hardware



S. W. FLEMING LIMITED

TECHNICAL DATA SHEET

F-SERIES FRAMES

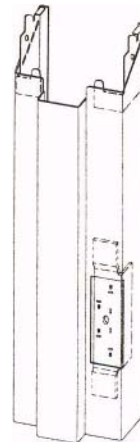
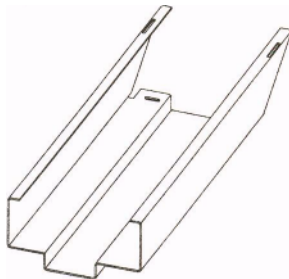
Door size 3070

Standard Features

- 16 gage punch-mitered, double rabbet, masonry profile, commercial frame for 1-3/4" (44.4) thick doors
- Jambs, heads and all components fabricated from paintable galvanized steel
- All components projection welded
- All hinge location provided with Fleming 10 gage high frequency hinge reinforcing
- All hinge reinforcements dimpled to convert from standard to heavy weight
- All hinge reinforcements protected with dust boxes
- 16 gage ASA strike reinforcing with 1" (25mm) deep integral dust box
- Strike jambs and double heads machine punched for door silencers
- Knocked-down, convertible to tack, face or profile welded construction. Each jamb provided with 2 projection welded KD corner clips and head machine slotted for corner clip tabs
- Floor anchor projection welded into all jambs
- 2" (50mm) face x 5/8" (16mm) stop profile with unequal rabbets. See F02(2)
- Available in standard Imperial or Metric widths and heights. See G02(2) and G03(2)
- All hinge jambs are provided with an embossed (die stamped) Underwriters Laboratories (UL) fire label, recognized in the US and Canada

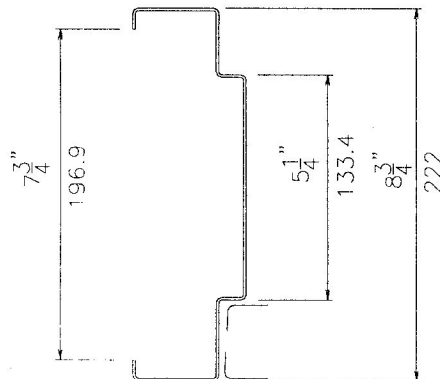
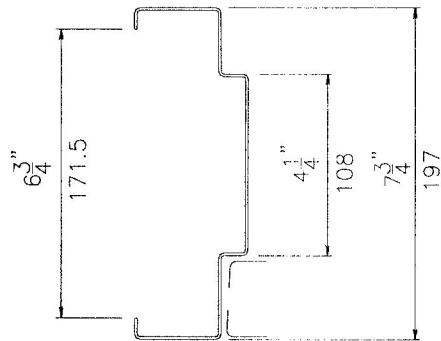
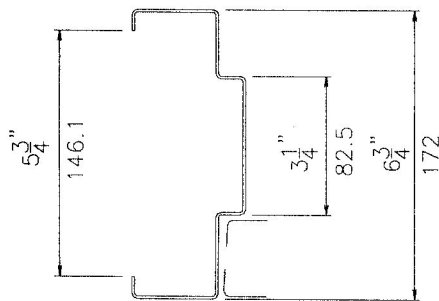
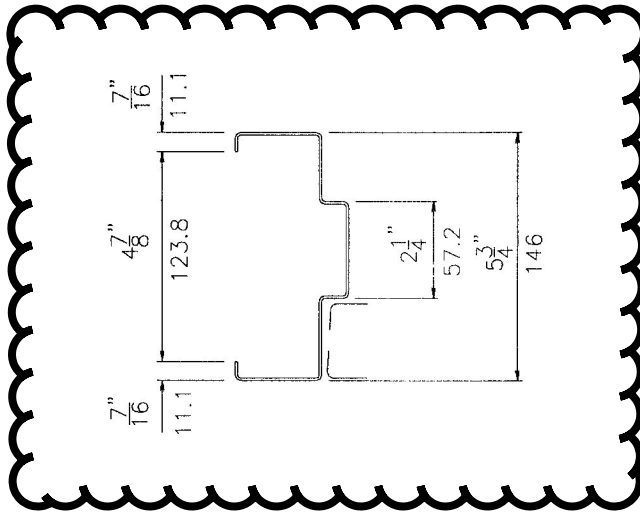
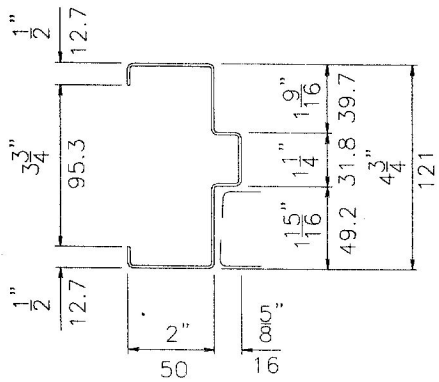
Options

- 12 (PMO only) or 14 gage galvanized steel
- 12 (PMO only), 14 or 16 gage G90 galvanized steel
- UL, WH, ULC labelling to 4'0" x 10'0" (1250 x 3050) and 8'0" x 10'0" (2450 x 3050) at 3 hours
- Profiles - drywall returns, plaster returns, equal rabbets, single rabbet, shadow line, hospital, contra-swing
- 16 gage profile for 1-3/8" (34.9) thick doors
- Sanitary base
- Punch Mitered Only (PMO) = no corner clips or head slots for tack, face or profile welded construction
- Non-standard face widths (PMO only)
- Non-standard widths, heights and jamb depths
- Punch and dimple for existing wall anchors (EWA)
- Non-standard hinge location, back set, weight or reinforcing thickness
- Non-standard hinge preparations - anchor hinge, surface hinge, continuous hinge, mortise pivots, pocket pivots, SOSS hinge, electric power transfer hinge
- Non-standard strike location or back set
- Non-standard strike preparations - 2nd strike, surface, deadlock, electric or door position switch
- Head preparations - surface, concealed or semi-concealed closer or holder, reversible flush bolt strike, vertical rod strike, door position switch, magnetic lock
- Lead-lining



Standard Profiles and Jamb Depths

Dimensions at 4-3/4" (121) Jamb Depth are Typical Unless Indicated Otherwise



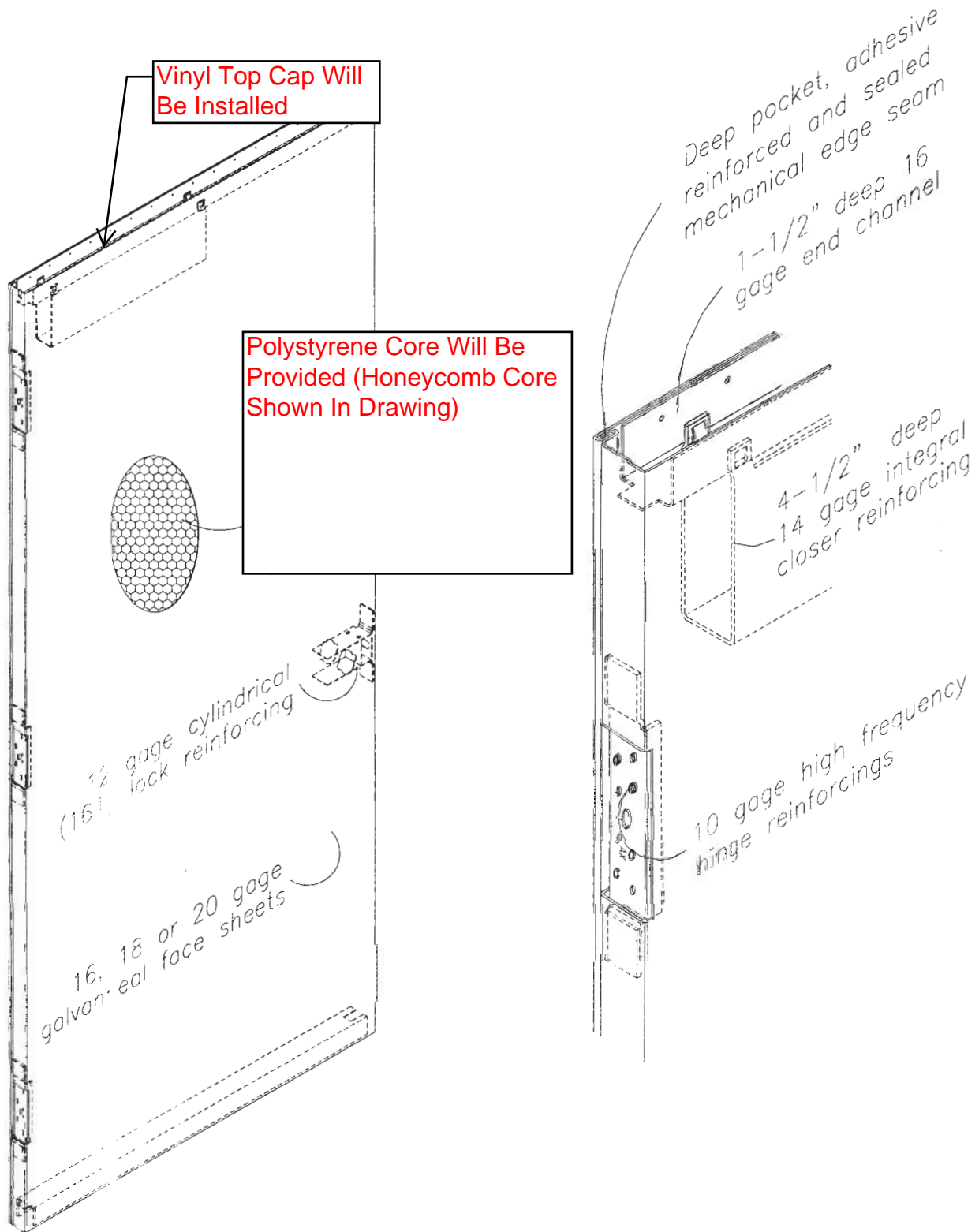
Standard Features

- 16, 18 or 20 gage face sheets, 1 $\frac{3}{4}$ " (44.4) thick
- Face sheets and all components fabricated from A40 paintable galvaneal steel
- All hinge locations provided with projection welded Fleming 10 gage high frequency 4 $\frac{1}{2}$ " (114) hinge reinforcing. See D17(2)
- All hinge reinforcing dimpled to convert from standard to heavy weight
- Projection welded, 1 $\frac{1}{2}$ " (38) extra deep, 16 gage end channels with integral 14 gage, 4 $\frac{1}{2}$ " (114) deep closer reinforcing channel. See D17(1)
- Integral closer reinforcing provided in top and bottom of all reversible doors. See D17(1)
- Small cell kraft paper honeycomb core laminated to face sheets under pressure with PUR contact adhesive
- Longitudinal edges interlocked with deep pocket mechanical seam, sealed and reinforced with resin reinforced polyvinyl chloride (RRPC) adhesive
- Edges beveled 1/8" in 2" (3 in 50)
- 12 gage cylindrical lock (161) reinforcing, face and edge cutouts for 2 $\frac{3}{4}$ " (69.9) back set. See D17(13)
- Available in standard Imperial or Metric widths and heights. See G02(1) and G03(1)

Options

- Polystyrene (R 6.0 / RSI 1.06), polyisocyanurate (R 12.3 / RSI 2.17) or temperature rise rated (TRR) cores
- G90 galvanized steel (PolyS, PolyI or TRR cores only)
- Fire labeling up to 4'0" x 10'0" (1250 x 3050) and 8'0" x 10'0" (2450 x 3050) at 3 hours, traditional and positive pressure, with or without smoke and draft control. See S14, S15, S16 or the Fleming Fire Labeling Specification brochure for details.
- Double egress, *dutch or clad doors*
- Edge seams - tack welded only or tack welded, filled and dressed. See D14
- Square or bull-nosed lock or hinge edges. See D14
- *Rabatted or bull-nosed with mortise astragal lock edges*
- Lights - cutout with trim and stops installed, cutout only, cutout with inner channels or bridged cutout only
- Louver, peep hole/viewer, *mail slot, mono-rail or security view port* preparation
- Non-standard widths, heights and undercuts
- Non-standard thickness (1-3/8" [D18 and D20 only], 2" or 2-1/4" [D16, D18 or D20])
- Non-standard hinge location, height, weight, reinforcing thickness, quantity of hinges or *back-set*
- Non-standard hinge preparations - surface or continuous hinge (blank or drilled and tapped), spring hinge, electric power transfer preparation, electric hinge, no hinge preparations, *mortise pivots, pocket pivots, SOSS hinge or anchor hinge*
- Non-standard cylindrical (161) height or backset
- Additional 161 preparation
- Mortise (86ED) locks - edge preparation only or edge preparation with function holes for sectional or escutcheon trim
- Fire or panic exit device reinforcing and function hole preparations for rim, mortise, surface or concealed vertical rod devices
- Non-standard locks or latches - deadlock, inter-connected lock, magnetic lock or contact, *roller latch, 2 or 3 point or security lock*
- Flush or surface bolt reinforcing and preparations
- Conduit for electric/electronic hardware
- Reinforcing for push / pull or *reinforcing and preparation for flush pull*
- Non-standard strike location or *backset*
- Strikes - ASA (4-7/8" x 1-1/4" with lip), ASANL (4-7/8" x 1-1/4"), deadlock (2-3/4" x 1-1/8"), electric or open-back
- Over lapping astragal, *loose* (ordered as accessory item) or installed - flat bar or Z type or mortise astragal preparation
- Concealed closer or holder preparation and reinforcing
- Flush top cap - vinyl, snap-in steel, tack welded steel or welded and filled steel
- Rabbeted steel top cap
- Flush tack welded steel bottom cap
- Concealed or semi-concealed door bottom preparations
- *Double-acting doors*

Note : Options appearing in *italics* are not currently supported by Fleming E-Business



PRINTED IN CANADA

Galvanneal

Paintable Galvanneal Steel

One of the many things that separates Fleming from its competition is the material from which our products are manufactured. As a standard, Fleming products are manufactured from Paintable Galvanneal, a Hot Dipped Galvanized Steel rather than Cold Rolled Steel with factory applied primers.

Galvanneal was developed for the automotive industry by the steel mills to combat the ravaging effects of corrosion most common on vehicles in the 1960s. Today, North American manufacturers of automobiles use Galvanneal or a sister product Galvalume for all body parts below the splash rail. Fleming pioneered the use of Galvanneal in the steel door and frame industry over 25 years ago for the same reasons as the automotive industry, in that the most troublesome complaint was that of rust.

The seasonal North American climate varying from hot and humid to cold freezing rain and snow proved to be a formidable challenge to any material. Also, steel doors and frames are generally subjected to the worst climatic and environmental conditions while on the job site prior to installation and finish painting; hence the reason for using Paintable Galvanneal.

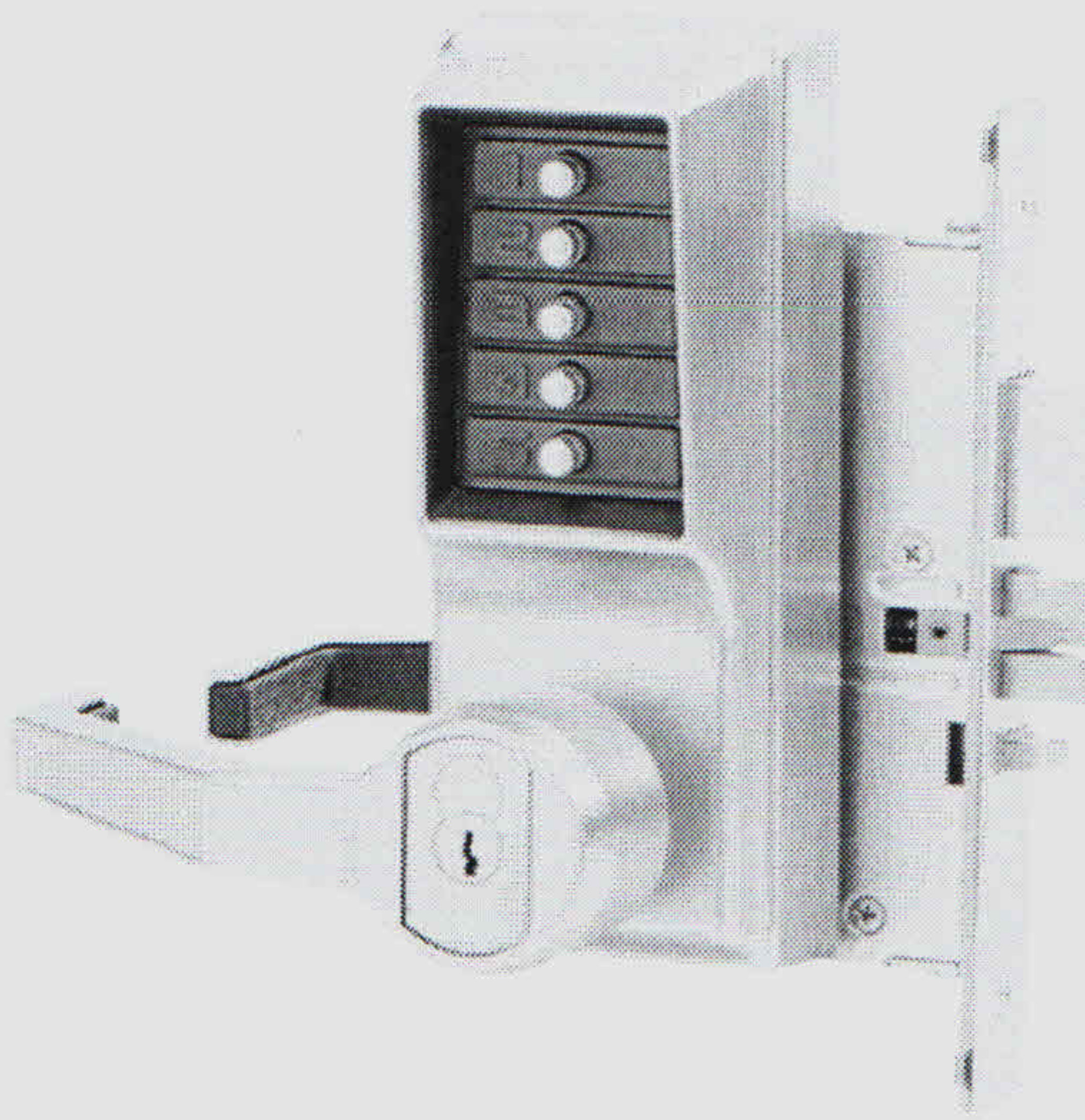
Paintable Galvanneal is a Hot Dipped Galvanized, specially processed steel that receives a mill coating of chromate and phosphate at the steel mill to ensure the maximum in finish paint adhesion and low maintenance operation. Independent laboratory testing to strict ASTM test criteria has proven that Fleming Paintable Galvanneal Steel outperforms traditional cold rolled and factory primed painted with regard to

corrosion resistance and finish paint film adhesion.

Fleming backs these claims with the only 10-Year Rust Perforation and Finished Paint Film Adhesion Warranty in the industry today. Most manufacturers charge a premium in cost and an increase in lead times for a galvanized product. With Fleming you get a product that is competitively priced with cold rolled steel, the added protection of hot dipped galvanizing, superior finished paint film adhesion, and on-time delivery.

Note: For a copy of the ASTM Corrosion Resistance and Finished Paint Film Adhesion test reports or Fleming's industry leading 10-Year Rust Perforation and Finished Paint Film Adhesion Warranty, please contact your local Fleming Distributor or Fleming's customer service department directly.





Application

The 8100 Series lock, with the added security of a mortise lock and deadbolt, provides fully mechanical pushbutton access control with no electrical wiring, electronics, or batteries. Exterior access is by combination. Egress is by interior lever and is free at all times. The lock meets Americans with Disabilities Act (ADA) standards.

8100 Series locksets are ideal for limiting access to high-traffic, security-sensitive areas in commercial, institutional, residential, and industrial buildings. These locks are perfect for locations with a high personnel turnover rate such as data processing centers, employee entrances, R&D labs, apartments, dormitories, and restricted areas in hospitals and airports.

The pushbutton design eliminates problems associated with the issue, control, and collection of keys and magnetic cards. The combination can be quickly and easily changed to ensure continued maximum security once employees, tenants, or guests leave, saving the cost of new keys, key cylinders, magnetic cards, and card-encoding devices.

Features

One-hand operation: Depress the buttons in the correct sequence to unlock the anti-friction latch.

Thousands of possible combinations: Authorized individuals can change the combination in seconds. One or all five buttons can be used in the combination with two or more buttons depressed simultaneously.

Easy to install on wood or metal doors: The lock requires standard (86) mortise preparation.

Rugged & weather resistant: The lock is wear-tested for intensive use.

Includes: Standard strikes, installation instructions; full-scale template, combination change wrench.

Standard Features

Key override: Can be used to override the lock combination and deadbolt to gain access using a key. This feature allows facilities to initiate or maintain a master-keyed security system (keyed alike or keyed differently). The lock accepts removable core cylinders (not supplied except with "XB" models.)

Passage: Allows access without using the lock entry code, keeping the door unlocked even while closed. This feature is activated from the inside with a thumbturn or key.

Lockout (privacy): Disables the lock from the inside so that entry codes cannot be used to gain access. Access is permitted using the key override only. This feature is activated from the inside with a key.

Specifications

Construction: Heavy-duty mortise lock housing; conforms to ANSI 156.3; cast front housing; brass unified trim plate; fixed cast or wrought ADA-compliant levers

Strike: 4⁷/₈" (124 mm) L x 1¹/₄" (32 mm) W x 1/4" (6 mm) D mortise strike plate

Latch & backset: 1" (25 mm) deadbolt; 3/4" (19 mm) two-piece anti-friction latch (meets or exceeds UL/ULC 3-hour fire rating for "A" labeled doors); accommodates 1/2" (13 mm) throw; 2³/₄" (70 mm) backset

Door thickness: 1¹/₂" (38 mm) to 2¹/₄" (57 mm)

Installation: Standard (86) mortise preparation; 5" (127 mm) minimum stile required

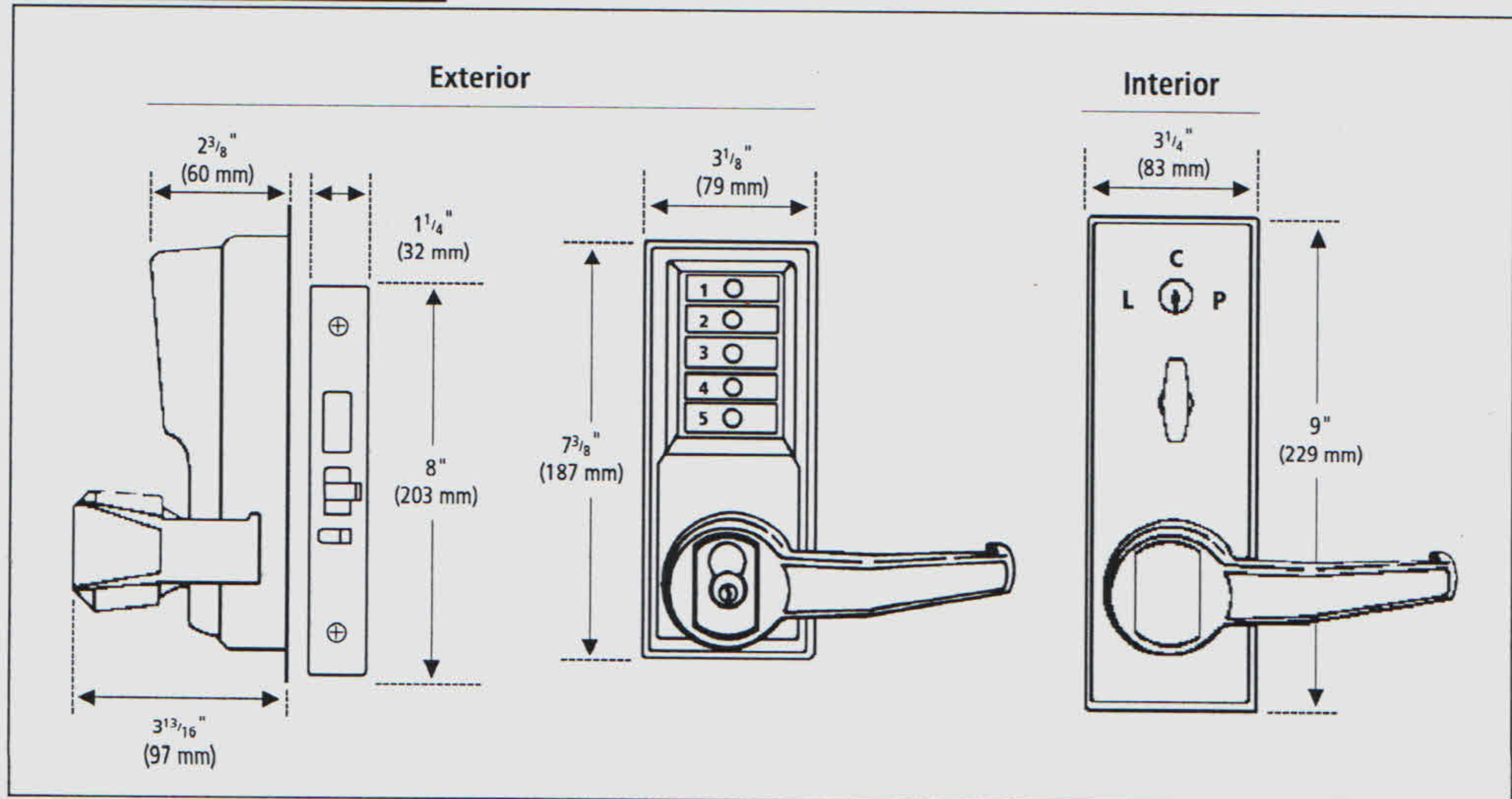
Door handing: Factory-handed; not field reversible

Control: DF5 keys or thumbturn for passage and lockout

Finishes: 03 (605) "Chiara" Bright Brass; 05 (609) Antique Brass; 26D (626) Satin Chrome

Weight: 9.8 lbs. (3.7 kg)

Dimensions



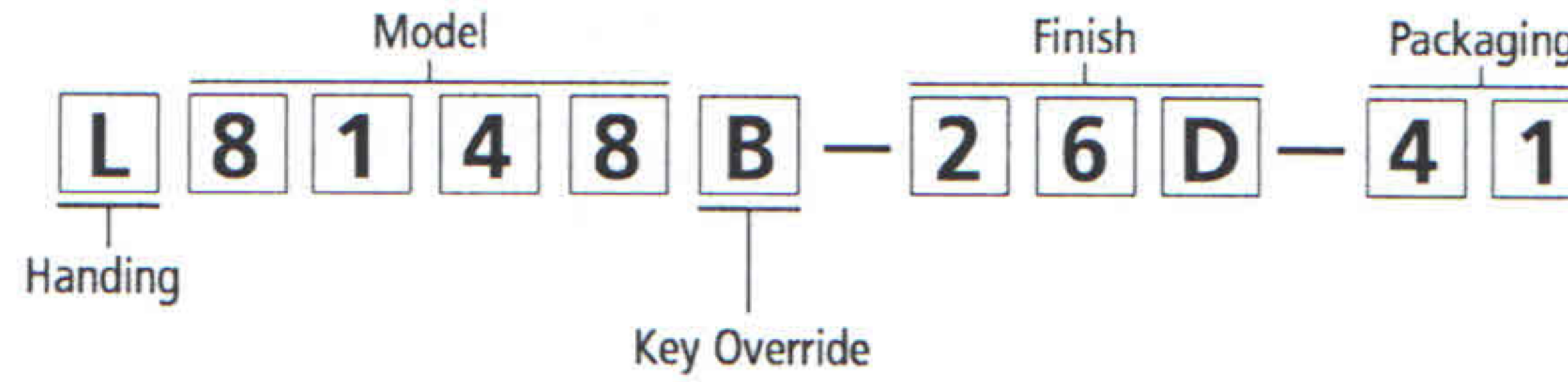
Ordering Information

Example

Left hand model 8148
with Best & Compatibles
key override, Satin Chrome
finish, packaged 1 per box



Build the part number with the features you require:



Handing	Description
L	Left hand
LR	Left hand reverse bevel
R	Right hand
RR	Right hand reverse bevel

Model	Description	Key override feature	Passage feature	Lockout feature
8148	8100 Series mortise lockset; 3/4" (19 mm) two-piece latch with 1" (25 mm) deadbolt	•	•	•
8146	8100 Series mortise lockset; 3/4" (19 mm) two-piece latch (no deadbolt)	•	•	•

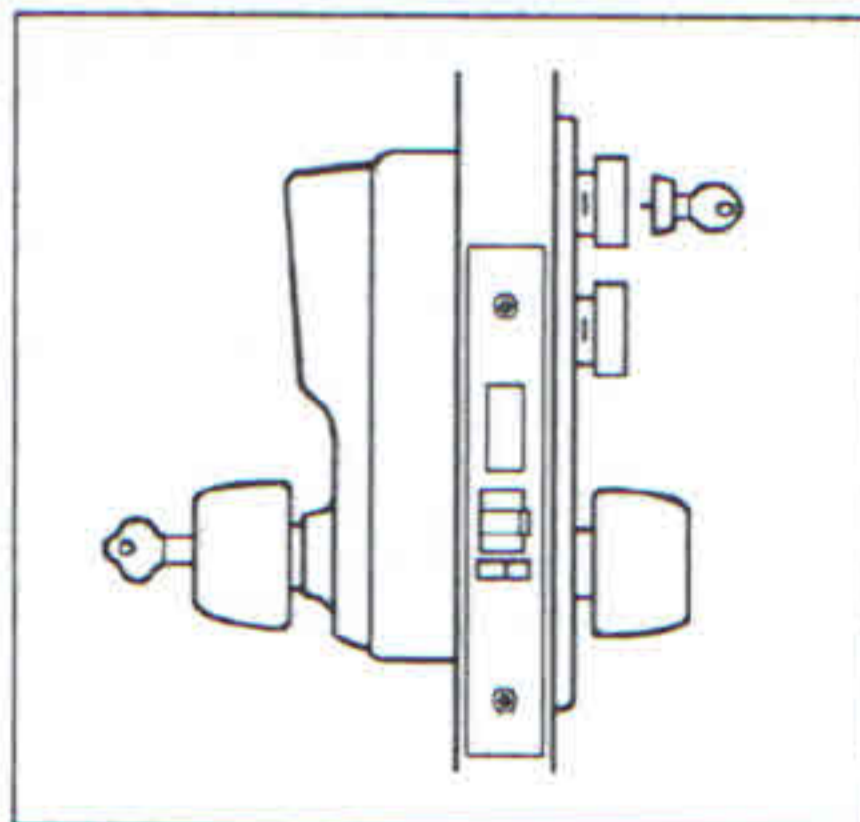
Key override*	Description
A	ASSA
B	Best & Compatibles
C	Corbin / Russwin
M	Medeco** / Yale
R	Sargent
S	Schlage
XB	Best & Compatibles (core included)

* Accepts removable core cylinders (not supplied).
** 5-pin Medeco cylinder requires a special knob spacer. Request spacer when ordering, part number 201569 (supplied free of charge).

Finish	Description
03	"Chiara" Bright Brass (605)
05	Antique Brass (609)
26D	Satin Chrome (626)

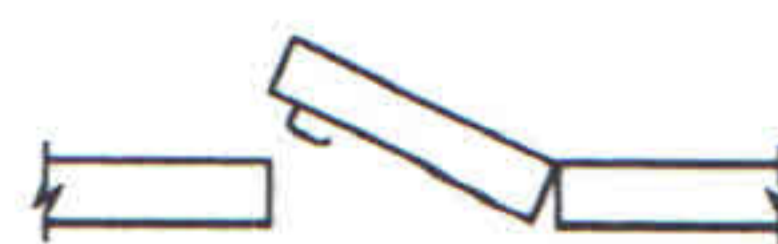
Packaging	Description
41	1 per box

8100 Series

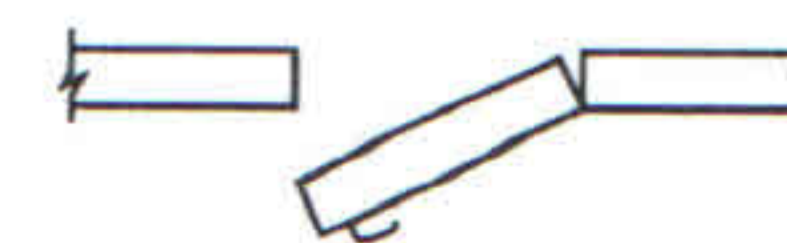


Door Handing

You must specify the handing of your door for 8100 Series locks. The lock is handed at the factory and is not field reversible. To determine the handing of your door, look at the door in its closed position from the exterior (pushbutton side), and use the corresponding diagram below when specifying the handing of Unican locks and corresponding replacement parts.



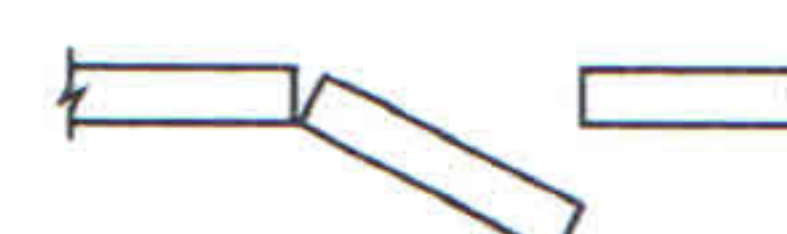
Right Hand Doors, R



Right Hand Reverse Bevel, R



Left Hand Doors, L



Left Hand Reverse Bevel, L

McKINNEY Hinge Catalog

Full Mortise Steel Hinges

Five Knuckle Standard Weight Series

McKinney
ASSA ABLOY

MPB91

Bearing hinge. Stainless base polished to a satin finish.



Available Sizes

Inches	MM	Gauge
4½ x 4½	114.3 x 114.3	.134

Available Options:

- NRP (non-removable pin)

Available Finishes

- U32D Satin Stainless

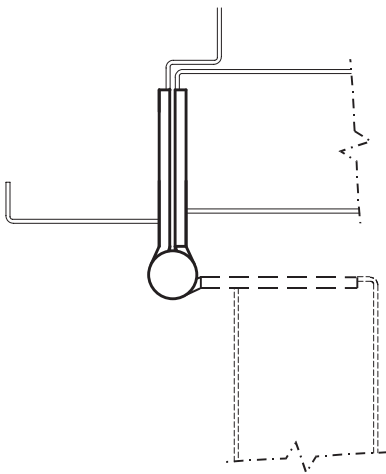
Packing:

Packed 3 each per box, 48 per carton.
 All machine x all wood screws.

ANSI Cross Reference:

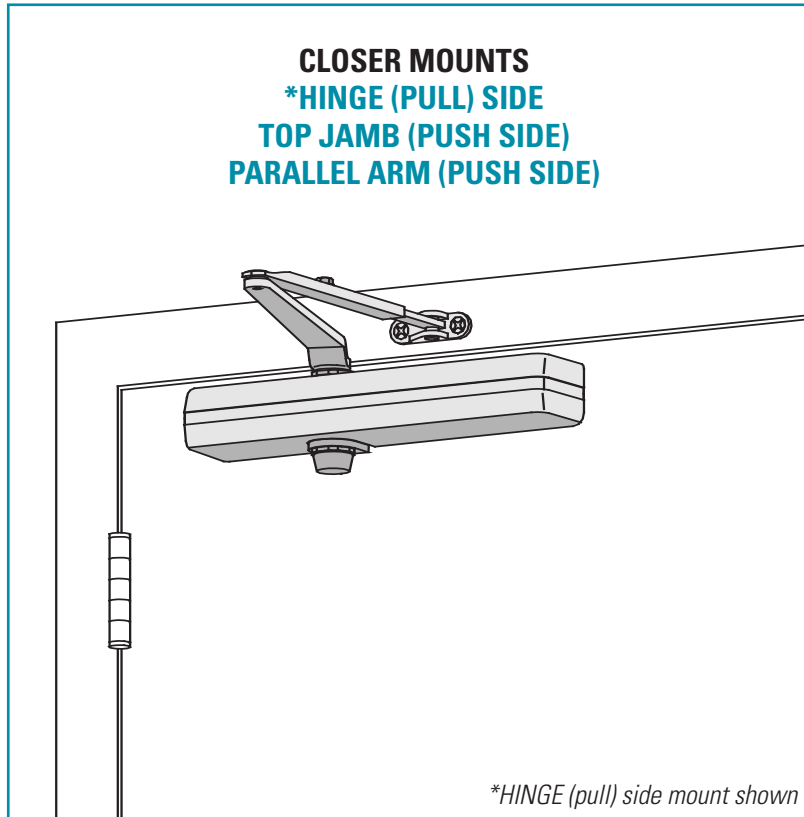
A5112 Stainless

APPLICATION



Recommended for standard weight, medium frequency doors, or doors with closing devices. MacPro by McKINNEY templated hinges are made to conform to ANSI/BHMA 156.1, 156.7.

LCN 1460 SERIES



Designed for maximum versatility, the 1460, available with multiple cover options, can be used for both commercial and institutional applications. This fully universal closer offers a wide variety of options and new fast and accurate installation.

UL and cUL listed for self-closing doors without hold-open. Tested and certified under ANSI Standard A156.4, grade one.

- ▶ Standard 1460 series closer shipped with regular arm, a slim line plastic cover, and self reaming and tapping screws. See 1460 Series Pages 16 & 17 for options.
- ▶ Multiple cover options include; Standard (Slim line), Smooth Slim line (EC), Full and Designer Series.
- ▶ Non-sized (1-6) cylinder is adjustable for interior doors to 5'0" and exterior doors to 4'0".
- ▶ Closer mounts hinge side, top jamb and parallel arm on either right or left swinging doors.
- ▶ Closer meets ADA requirements. See 1460 Series page 18.
- ▶ Standard or optional custom powder coat finish.
- ▶ Optional plated finish on Designer Series metal cover, arm and fasteners.
- ▶ Optional SRI primer for installations in corrosive conditions.

MOUNTING					FINISH			COVER		CYLINDER				*ARM FUNCTION					
HINGE (PULL) SIDE	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLASTIC	METAL	DESIGNER SERIES	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	REGULAR (DOUBLE)	STANDARD (SINGLE)	HEAVY DUTY	HOLD-OPEN	EDA/HEDA	CUSH/HCUSH	SCUSH/SHCUSH
●	○	●	●	○	●	○	●	●	●	○	○	○	180°	○	180°	180°	110°	100°	100°

● Available
 ○ Not available

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
 * Maximum opening/hold-open point with standard template.
 D = For Designer series only.

Cylinders & IC Products – Arrow Pointe

Classic Product

Arrow Pointe interchangeable core products offer dealers unlimited flexibility and keying options. Available in standard 6 and 7 pin format in Arrow and competitive keyways, dealers can install Arrow Pointe in new or existing key systems. Arrow's unique manufacturing process gives Arrow Pointe interchangeable cores unmatched strength and durability. The core features four main components: The plug, shell, sleeve and faceplate. Our precision engineering design, keying capability and availability make Arrow Pointe interchangeable cores our most specified brand for commercial, industrial and institutional applications.



7 PIN INTERCHANGEABLE CORE

6 PIN INTERCHANGEABLE CORE

Features:

- Solid Brass Construction
- Reinforced Sleeve Design
- Combined or Uncombined
- US26D or US4 finish
- Slide cap cores available

Arrow Keyways:

1C & 1D Standard keyways or unpublished restricted keyways available — consult factory for availability.

Pointe Key Blanks:

Nickel Silver

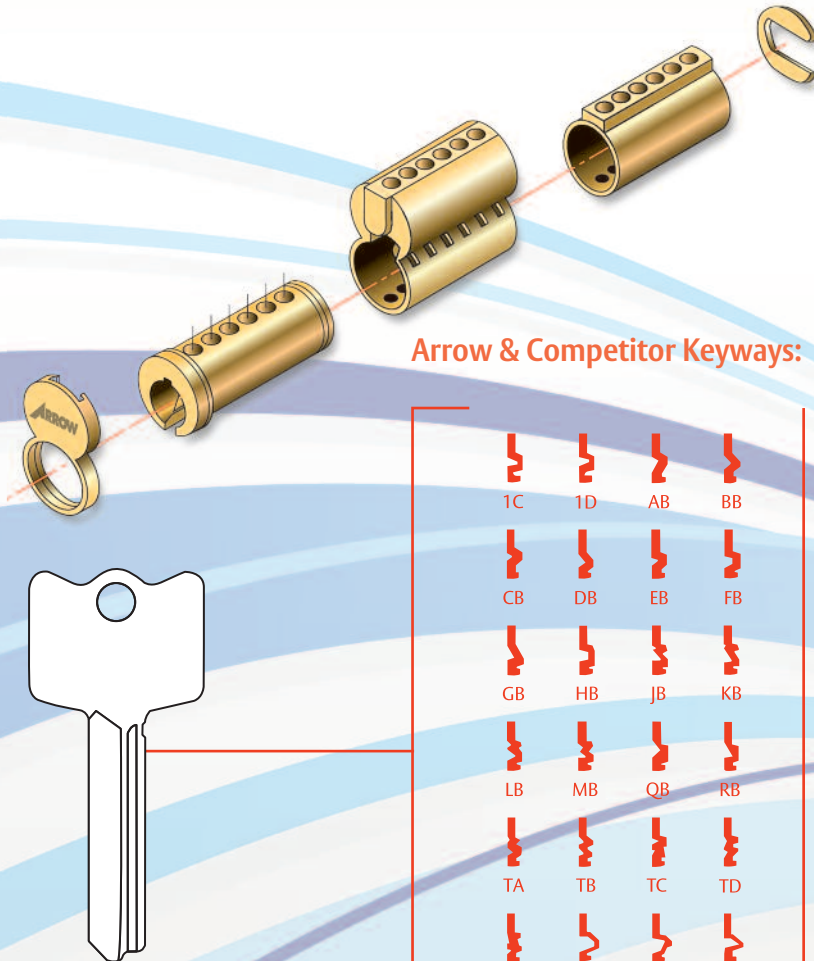
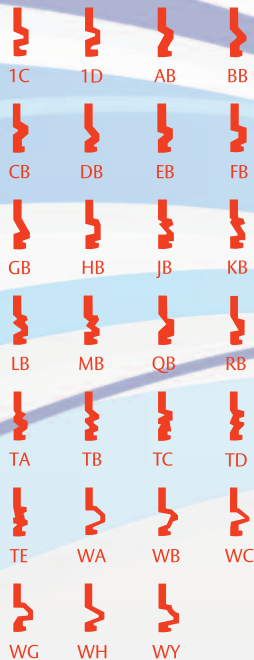
CAT NO.	DESCRIPTION
C x Keyway	6 or 7 Pin Key Blank
CP x Keyway	6 or 7 Pin Key Blank, Plain Bow

Competitive Keyways:

AB, BB, CB, DB, EB, FB, GB, HB, JB, KB, LB, MB, QB, RB, TA, TB, TC, TD, TE, WA, WB, WC, WG, WH, WY

CAT NO.	DESCRIPTION
100CR	6 Pin Core Combined
7100CR	7 Pin Core Combined
100CR-UC	6 Pin Core Uncombined
7100CR-UC	7 Pin Core Uncombined

Arrow & Competitor Keyways:

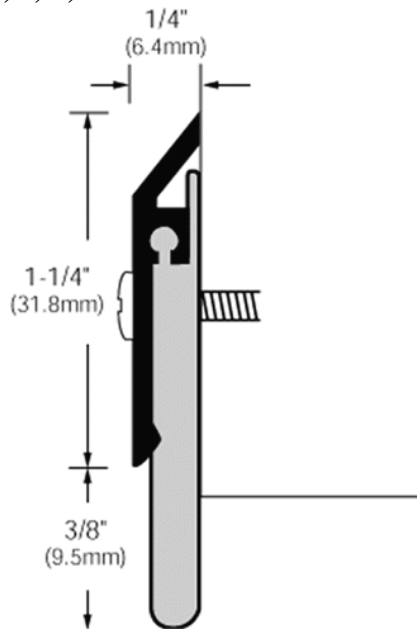




Door Bottom Sweeps

750S

A,D,G,M



Insert Codes • B-Nylon Brush • V-Vinyl • N-EPDM • S-Silicone

Finishes Codes • A-Mill Finish Aluminum • D-Dark Bronze Anodized Aluminum • G-Gold Anodized Aluminum • M-Mill Finish Brass (Bronze) • X-Clear Anodized Aluminum



Fire Labeling

All products containing non-metallic seals have been listed and labeled resulting from a determination by a certified fire laboratory that these products do not adversely affect the fire resistance of the door or frame. All products are regularly checked under a labeling and listing inspection service. NFPA80 states, "The clearance between the door and the frame and between the meeting edges of doors swinging in pairs shall be 1/8" ± 1/16" (3.18mm ± 1.59mm) for steel.

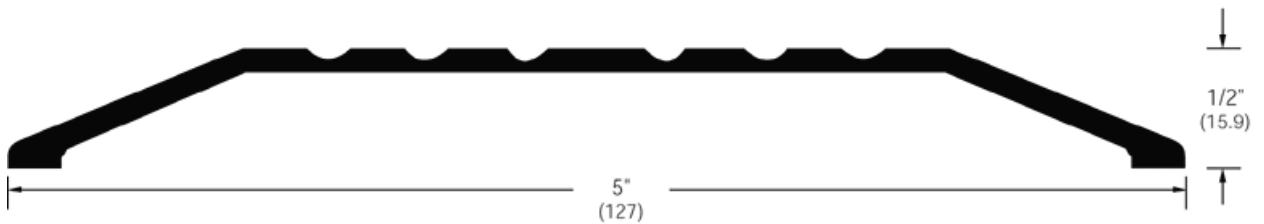


Saddle Threshold

412S
A,D,G,M



412S
Brass



Fire Labeling

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Handicap Accessibility

All products denoted by this symbol are designed for applications where handicap accessibility is specified. These products are less than 1/4" in height or, if greater than 1/4" and no greater than 1/2", meet a 1:2 slope.

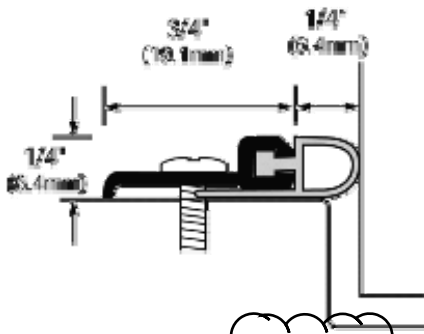


Jamb Weatherstripping

891S

A,D,G

891S



Insert Codes • B-Brush • V-Vinyl • N-TPE • S-Silicone • W-Pile
(Specify When Ordering)

Finishes Codes • A-Mill Finish Aluminum • D-Dark Bronze Aluminum • G-Gold Anodized Aluminum • X-Clear Anodized



Fire Labeling

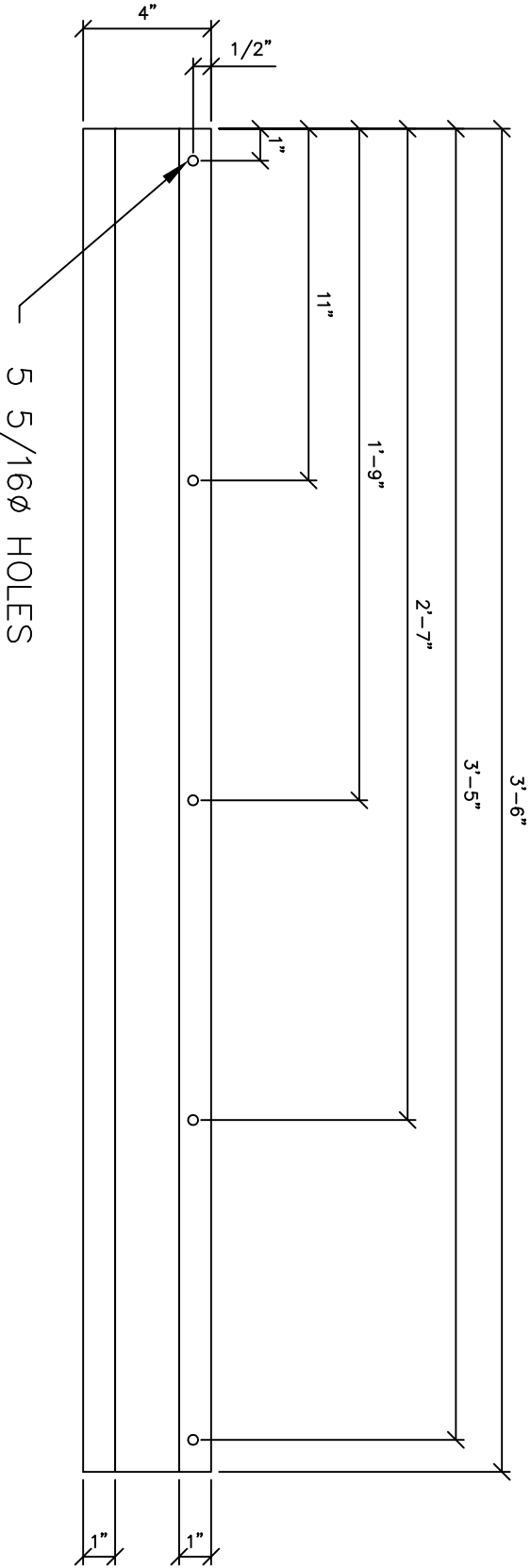
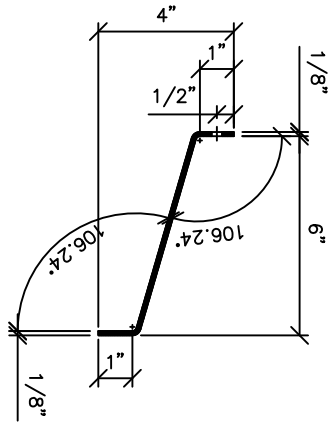
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Air/Smoke Tested

Hager products have been tested with air/smoke infiltration, all within the .500 cfm/ft. maximum allowable leakage at a pressure of a 25 mph wind (1.56 psf). The tests were conducted in accordance with ASTM test procedures and meets ASTM: E283-91.

FOR A 3'-0" DOOR
 MATERIAL: 1/8" ALUMINUM



DRAWN BY:
 JPR
 ENGINEERING
 UNITED CONCRETE PRODUCTS

DATE DRAWN
 1/16/14

UNITED
 CONCRETE PRODUCTS

UNITED CONCRETE PRODUCTS INC.
 173 Church Street Yalesville, CT 06492
 (800) 234-3119 Fax: (203) 265-4941

UNITED CONCRETE PRODUCTS
 YALESVILLE, CT
 PRECAST CONCRETE BUILDINGS

DRAWING TITLE
 1/8" x 6" x 42" AL DRIP CAP

JOB NUMBER
 081-1653

A1

Section I - Building Components

2. Door and Frame Paint



Protective & Marine Coatings

SHER-CRYL™ HPA HIGH PERFORMANCE ACRYLIC

B66-300 SERIES
B66-350 SERIES

GLOSS
SEMI-GLOSS

Revised 2/10

PRODUCT INFORMATION

1.26

PRODUCT DESCRIPTION

SHER-CRYL HPA is a new technology, ambient cured, one component acrylic coating with superior exterior performance properties. Provides performance comparable to high performance solvent based coatings such as urethanes and epoxies.

- Chemical resistant
- Superior color and gloss retention
- Outstanding early moisture resistance
- Flash rust/early rust resistant
- Low odor, low VOC
- Corrosion resistant
- Fast dry
- Outstanding application characteristics

PRODUCT CHARACTERISTICS

Finish:	High Gloss or Semi-Gloss
Color:	Wide range of colors available
Volume Solids:	38.5% ± 2%, Ultra White
Weight Solids:	51% ± 2%, Ultra White
VOC (EPA Method 24):	<200 g/L; 1.66 lb/gal

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	6.0 (150)	10.0 (250)
Dry mils (microns)	2.5 (63)	4.0 (100)
~Coverage sq ft/gal (m²/L)	154 (3.8)	247 (6.0)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	616 (15.1)	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 7.0 mils wet (175 microns):

	@ 50°F/10°C	@ 77°F/25°C	@ 120°F/49°C
		50% RH	
To touch:	1 hour	30 minutes	5 minutes
To handle:	8 hours	5 hours	15 minutes
To recoat:	8 hours	5 hours	15 minutes
To cure:	30 days	30 days	30 days

Drying time is temperature, humidity, and film thickness dependent.

Shelf Life:	36 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C)
Flash Point:	>230°F (110°C) PMCC, mixed
Reducer/Clean Up:	Water

RECOMMENDED USES

For use over prepared:

- Steel
- Aluminum
- Zinc rich primers
- Galvanizing
- Concrete
- Wood
- Masonry

Examples:

- Buildings
- Machinery
- Power plants
- Select Marine Structures
- Storage Tanks
- Equipment
- Piping
- Water treatment plants
- New Construction
- Structural Steel

- Suitable for use in USDA inspected facilities
- Can be used as a dryfall coating under certain environmental conditions (see Application Bulletin)
- Conforms to AWWA D102-03 OCS #3
- Acceptable for use in high performance architectural applications
- Acceptable for interior use / drywall
- Conforms to MPI #'s 154 & 164 (Gloss); 141, 153, & 163 (Semi-Gloss)
- Complies with performance criteria of SSPC Paint 24.

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10

System Tested*:

1 ct. Sher-Cryl HPA @ 3.0 mils (75 microns)

*unless otherwise noted below

Test Name	Test Method	Results
Adhesion	ASTM D4541	946 psi
Corrosion Weathering (with Pro-Cryl Primer)	ASTM D5894, 10 cycles, 3,360 hours	Rating 9 per ASTM D610 for rusting ; Rating 10 per ASTM D714 for blistering
Direct Impact Resistance	ASTM D2794	>100 in. lbs.
Dry Heat Resistance	ASTM D2485	300°F (149°C)
Exterior Durability	3 years, 45° South	Excellent
Flexibility	ASTM D522, 180° bend, 1/8" mandrel	Passes
Humidity Resistance (with Pro-Cryl Primer)	ASTM D4585, 1,250 hours	Rating 9 per ASTM D1654 for corrosion ; Rating 10 per ASTM D714 for blistering
Pencil Hardness	ASTM D3363	2B
Salt Fog Resistance (with Pro-Cryl Primer)	ASTM B117, 1,250 hours	Rating 9 per ASTM D1654 for corrosion ; Rating 10 per ASTM D714 for blistering
Thermal Cycling	ASTM D2246, 10 cycles	Passes

Provides performance comparable to products formulated to federal specification: AA50570, and Paint Specification: SSPC-Paint 23 and 24.

Meets or exceeds performance of MIL-PRF-24596A Flame Retardant Latex.



Protective & Marine Coatings

SHER-CRYL™ HPA HIGH PERFORMANCE ACRYLIC

B66-300 SERIES
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GLOSS
SEMI-GLOSS

PRODUCT INFORMATION

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RECOMMENDED SYSTEMS			
		Dry Film Thickness / ct.	
		Mils	(Microns)
Steel:			
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Steel:			
1 ct.	Pro-Cryl Universal Primer	2.0-4.0	(50-100)
1-2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Steel:			
1 ct.	DTM Acrylic Primer/Finish	2.5-5.0	(63-125)
or	Kem Bond HS	2.0-5.0	(50-125)
or	Zinc Clad Primer	3.0-5.0	(75-125)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Steel:			
1 ct.	Zinc Clad XI	3.0-4.0	(75-100)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Aluminum:			
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Aluminum:			
1 ct.	DTM Wash Primer	0.7-1.3	(18-32)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Galvanizing:			
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Concrete Block:			
1 ct.	Heavy Duty Block Filler	10.0-18.0	(250-450)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Concrete/Masonry:			
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Prefinished Siding: (Baked-on finishes)			
1 ct.	DTM Bonding Primer	2.0-5.0	(50-125)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Wood, exterior:			
1 ct.	A-100 Exterior Oil Wood Primer	1.5	(38)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Wood, interior:			
1 ct.	PrepRite Classic Latex Primer	1.6	(39)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)

The systems listed above are representative of the product's use, other systems may be appropriate.

DISCLAIMER

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SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Do not use hydrocarbon solvents for cleaning.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel:	SSPC-SP2
Aluminum:	SSPC-SP1
Galvanizing:	SSPC-SP1
Concrete & Masonry:	SSPC-SP13/NACE 6, or ICRI 03732, CSP 1-3

* Wood: Dry and sanded smooth
* Prefinished Siding: SSPC-SP1

* Requires primer

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusty	D St 2	D St 2	SP 2	-
Rusty	C St 3	C St 3	SP 3	-
Power Tool Cleaning	D St 3	D St 3	SP 3	-

TINTING

Tint with EnviroToner Colorants at 100% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

Do not use Blend-A-Color Toner.

APPLICATION CONDITIONS

Temperature: 50°F (10°C) minimum, 120°F (49°C) maximum (air, surface, and material)
At least 5°F (2.8°C) above dew point
Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging: 1 gallon (3.78L) and 5 gallon (18.9L) containers
Weight: 10.30 ± 0.2 lb/gal 1.24 Kg/L

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



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APPLICATION BULLETIN

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SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Do not use hydrocarbon solvents for cleaning.

Iron & Steel

Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6. Primer recommended for best performance.

Aluminum

Remove all oil, grease, dirt, oxide and other foreign material per SSPC-SP1.

Galvanizing

The surface should be weathered for 6 months prior to painting. Remove all oil and grease per SSPC-SP1. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2. Prime area the same day as cleaned with Pro-Cryl.

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6 or ICRI 03732, CSP 1-3. Surfaces should be thoroughly cleaned and dry. Surface temperatures must be at least 55°F (13°C) before filling. If required for a smoother finish, use Heavy Duty Block Filler, B42W46. Filler must be thoroughly dry before topcoating per manufacturer's recommendations.

Weathered masonry and soft or porous cement board must be brush blasted or power tool cleaned to remove loosely adhering contamination and to get to a hard, firm surface. Apply one coat Loxon Conditioner, following label recommendations.

Wood

Surface must be clean, dry and sound. Prime with recommended primer. No painting should be done immediately after a rain or during foggy weather. Knots and pitch streaks must be scraped, sanded and spot primed before full coat of primer is applied. All nail holes or small openings must be properly caulked.

Pre-Finished Siding:

Remove oil, grease, dirt, oxides, and other contaminants from the surface by cleaning per SSPC-SP1 or water blasting per NACE Standard RP-01-72. Always checks for compatibility of the previously painted surface with the new coating by applying a test patch of 2 - 3 square feet. Allow to dry thoroughly for 1 week before checking adhesion. DTM Bonding Primer is required.

Previously Painted Surfaces

If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, additional abrasion of the surface and/or removal of the previous coating may be necessary. Retest surface for adhesion. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	D St 3	D St 3	SP 3	-

APPLICATION CONDITIONS

Temperature: 50°F (10°C) minimum, 120°F (49°C) maximum (air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer/Clean UpWater

Airless Spray

Pressure..... 1500 psi
Hose..... 1/4" ID
Tip017" - .021"
Filter 60 mesh
Reduction..... Not recommended

Conventional Spray

Gun Binks 95
Fluid Nozzle 66
Air Nozzle..... 63PB
Atomization Pressure..... 50 psi
Fluid Pressure..... 15-20 psi
Reduction..... As needed up to 12½% by volume

Brush

Brush..... Nylon / polyester
Reduction..... Not recommended

Roller

Cover 3/8" woven solvent resistant core
Reduction..... Not recommended

If specific application equipment is not listed above, equivalent equipment may be substituted.



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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: Mix paint thoroughly to a uniform consistency with low speed power agitation prior to use.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	6.0 (150)	10.0 (250)
Dry mils (microns)	2.5 (63)	4.0 (100)
~Coverage sq ft/gal (m ² /L)	154 (3.8)	247 (6.0)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	616 (15.1)	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 7.0 mils wet (175 microns):

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	1 hour	30 minutes	5 minutes
To handle:	8 hours	5 hours	15 minutes
To recoat:	8 hours	5 hours	15 minutes
To cure:	30 days	30 days	30 days

Drying time is temperature, humidity, and film thickness dependent.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with Mineral Spirits to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using Mineral Spirits.

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PERFORMANCE TIPS

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

During the early stages of drying, the coating is sensitive to rain, dew, high humidity, and moisture condensation. Plan painting schedules to avoid these influences during the first 16-24 hours of curing.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Application temperature above 95°F (35°C) may cause dry spray, uneven sheen, and poor adhesion.

Application temperature below 50°F (10°C) may cause poor adhesion and lengthen the drying and curing time.

Sher-Cryl Acrylic is extremely sensitive to hydrocarbon containing solvents. When cleaning the surface per SSPC-SP1, use only an emulsifying industrial detergent, followed by a water rinse. Do not use hydrocarbon containing solvents.

Do not use hydrocarbon solvents for cleaning.

Refer to Product Information sheet for additional performance characteristics and properties.

Sher-Cryl can be used as a dryfall coating in certain environmental conditions. Test product before each application. Test by spraying 15-25 feet toward paint container. All material should readily wipe clean. Temperature and humidity will affect ability to dryfall. Hot surface will cause overspray to bond to surface. Always clean overspray immediately from hot surfaces.

Refer to Product Information sheet for additional performance characteristics and properties.

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