



SURE-BOARD®

NON-COMBUSTIBLE

SURE-BOARD®

SERIES 200S-F/200S-P

FLOOR/ROOF SHEATHING



SURE-BOARD®
...FOR ROOF & FLOOR SHEATHING

MARINO WARE®

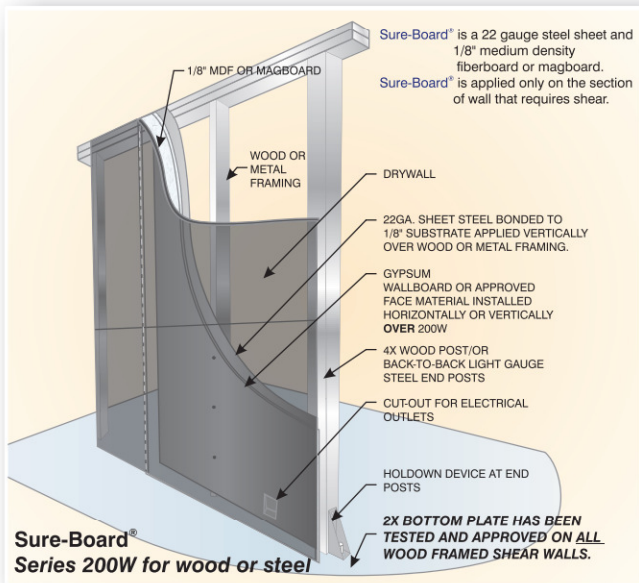
www.MarinoWARE.com

Sure-Board® Series 200

The Sure-Board® Series 200 Structural Shear Panels are Patented, IAPMO, ICC, DSA and City of Los Angeles approved products. The Series 200 is manufactured with a single 22 gage galvanized sheet of steel laminated to any manufactured version of gypsum panel with a water based EVA adhesive to create an incredibly STRONG shear panel that is 1 and 2 hour fire approved. Series 200W is also a Structural Shear Panel with one Dynamic_difference. Since 200W is laminated to 1/8" MDF (medium density fiberboard) the attachment can be with nails or screws. This allows 200W to be attached to WOOD or STEEL framing members with exceptional results. 200W is used as a substrate shear panel and can be installed in the field or in a panelized process, saving even more time in the field. And as we all agree, TIME is MONEY.

Replace your Present Shear Panels with Sure-Board® Today

The use of cross bracing, brace frames and plywood sheathing are the commonly used methods of our time. For the first time you can reduce your INSTALLED COSTS relating to lateral shear by as much as 30%. Don't hesitate, you need to make the change TODAY.



Warranty & Limitations

All products presented herein are warranted to the buyer to be free from defects in material and workmanship. The foregoing warranty is non-assignable and in lieu of and excludes all other warranties not expressly set forth herein, whether express or implied by operation of law or otherwise, including but not limited to any implied warranties of merchantability or fitness for a particular purpose. All details and specifications presented herein are intended as a general guide for the use of MarinoWARE® framing systems. These products should not be used without evaluation by a qualified engineer or architect to determine their suitability for a specific use.

Improve the quality
of your next framing
project with
Sure-Board®

The revolutionary
Sure-Board® improves quality
and successfully
eliminates shear wall
problems often
encountered in the framing and
construction process.

Sure-Board® 200 and 200W require no additional furring of the interior and exterior surfaces. The Series 200W when used as shear panels on Wood framing, require only a 1 1/2" thick bottom plate per the tested and approved assemblies. This item alone reduces the cost of cutting all of the studs and posts and reduces the labor time of framing on the first floor shear walls.

MarinoWARE® assumes no responsibility for failure resulting from use of its details or specifications, or for failure resulting from improper application or installation of these products.

Governing Law

All issues arising in connection with your order and all transactions associated with it shall be interpreted according to the laws of the State of New Jersey, and all actions or other proceedings arising out of such issues shall be brought only in Superior Court, State of New Jersey, County of Essex, or United States District Court for the District of New Jersey. No action may be brought more than one year after accrual of the cause of action therefore.

Improve the quality of your next framing project with *Sure-Board® Series 200S Floor Sheathing*

Our revolutionary non-combustible floorsheathing panels will improve the quality and increase the efficiency during the installation on your next residential or midrise load bearing project.

When you incorporate Sure-Board Series 200S floor sheathing, the ® finish product will prevent the need to work over uneven corrugated deck or have to bear the delay of pouring and finishing each level if you have been using a deep pandeck system.

These delays may be eliminated and production increased at no additional cost.

The installation of our series 200S panels do not require any new installation techniques for the field staff. Since the current methods and practices for installation are the same as those used for decades for plywood and OSB panels, we have the huge advantage of eliminating blocking and creating a great non-combustible structure for the future.

The Big One

Scan this QR to view the Seismic Tests Conducted at UCSD's Shake Table



Sure-Board was put to the "Real Test" at the world's largest outdoor shake table at UCSD.

The First Revolutionary 6 Story CFS Shake Table Test

Several industry partners along with H.U.D. and the California Seismic Safety Commission worked together on this program. DCI Engineering and the UCSD Engineering staff performed the first ever shake table test utilizing current code required lateral and diaphragm methods. Sure-Board sheathing demonstrated amazing resilience with no measurable damage. The test program included 13 pretests of increased magnitude to finally reach the MCE or 150% of the 1994 Northridge 6.7 magnitude seismic event. There was no structural damage and this structure was totally intact and ready for use. Imagine if it were a medical facility or one of our children's schools where the occupants must be kept safe at all costs. SureBoard is the best solution.

Sure-Board® Series 200S has proven results to make your building better and cost you less.



Sure-Board Series 200S is the non-combustible alternative for any CFS® sheathing application both large and small.

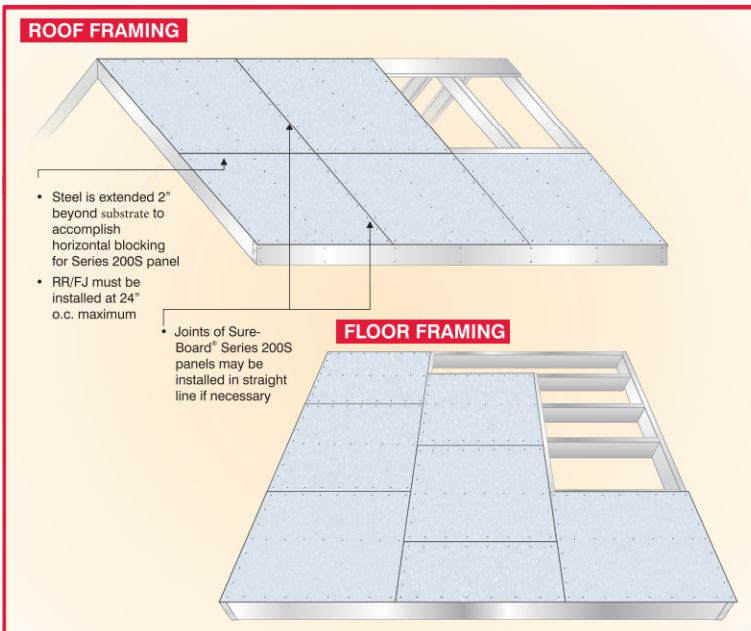


Sure-Board® Series 200S is UL-listed in 1 and 2-hour assemblies with standard C-Joints or JoistRite, per UL H503

Sure-Board® Series 200S is Approved Nationwide

Sure-Board® Series 200S is certified using all national building codes. That includes the current IBC, IRC, CBC, DSA, GSA, Army Corp of Engineers, City of New York, City of Los Angeles, and LARR 26040 to mention a few. IAPMO UES EC-012 and ER-185 certify our panels performance through our extensive test program, for use on any CFS project nationwide.

Sure-Board® Series 200S is the best investment in non-combustible sheathing for your building.
“OUR STEEL IS THE REAL DEAL.”



Sure-Board® Series 200S Floor/Roof Cross Sections

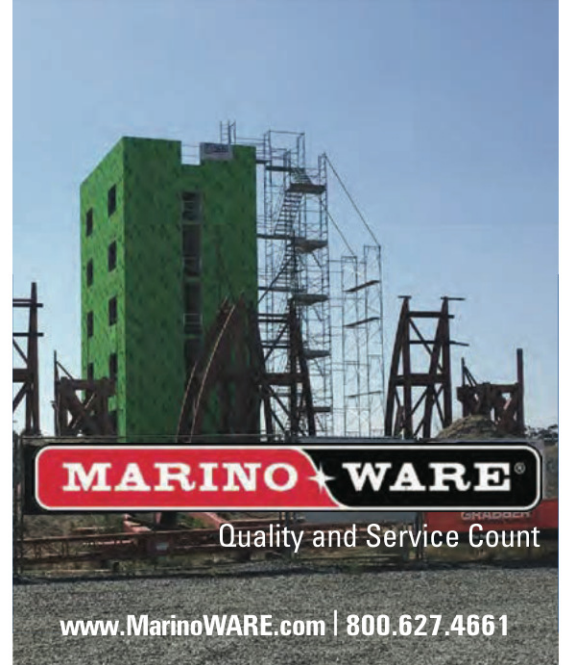
Sure-Board® Series 200S

is available Nationwide through thousands of distributors in all 50 states.

About Marino\WARE®

Marino\WARE offers a complete line of cold-formed steel framing products. Our metal framing product line includes: ViperStud® drywall framing studs, structural stud and track, ClipSource® clips and connectors, JoistRite, StudRite, ShaftWall, SoundGuard and FireStopping products, plastering steel, and drywall finishing products all under one roof.

Our three locations (South Plainfield, NJ; Griffin, GA; East Chicago and IN) are mega-plants – large, self-sufficient facilities with equipment to produce everything we sell. We carry a huge inventory of finished goods so that you can get anything you need without waiting, including custom orders for quick shipment. Our own in-house carrier, Norbet Trucking, ensures that delivery service is never compromised. We also offer in house technical support and shop drawings through Marino\WARE® Design Group.



REVOLUTIONARY "SURE-BOARD"® SERIES 200S IS THE NON-COMBUSTIBLE FLOOR/ROOF SHEATHING THAT WILL IMPROVE THE FIRE RESISTANCE OF YOUR BUILDING USING STANDARD CONSTRUCTION METHODS AND PRACTICES.

SURE-BOARD® Series 200S

For Floor/Roof Non-Combustible Sheathing

U.S. PATENT #7,770,346

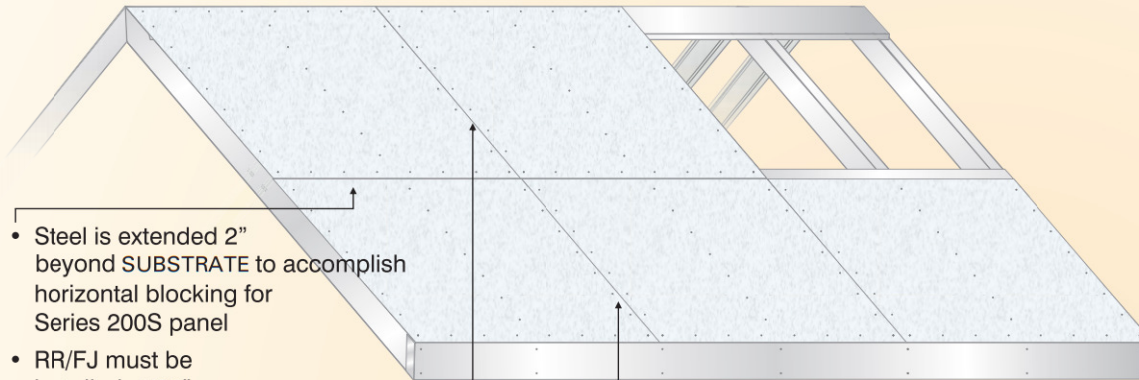
IAPMO ES ER-185

LARR #26040

DSA IR A-5

LA FAB #2109

ROOF FRAMING



- Steel is extended 2" beyond SUBSTRATE to accomplish horizontal blocking for Series 200S panel
- RR/FJ must be installed at 24" o.c. maximum

- Joints of Sure-Board® Series 200S panels may be installed in straight line if necessary

ADDITIONAL CERTIFICATIONS:

SOUND:

- Improves Sound/Impact Results on Typical CFS Framed Assembly.

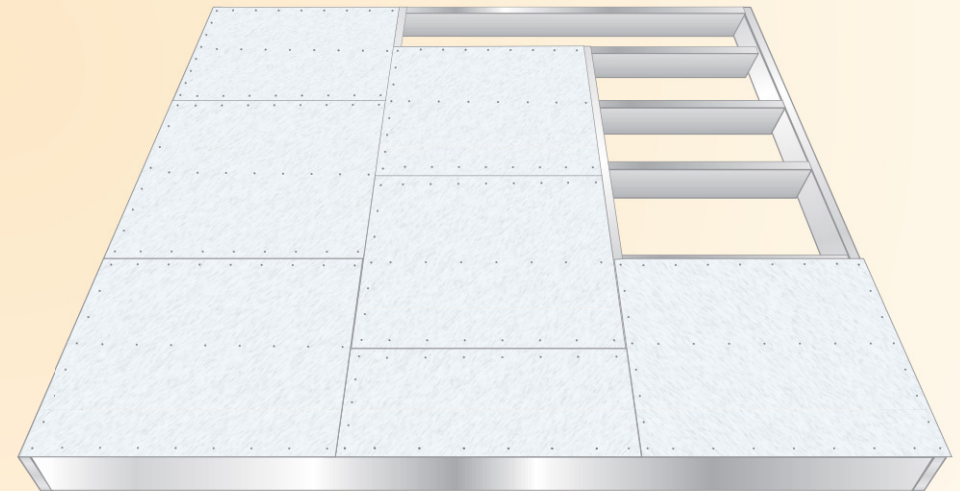
FIRE:

- UL Listed Fire Rating using Single Layer of 5/8" Type C and RC Channel (1 HR Assembly)
- 2 HR assembly with 2 layers of 5/8" Type C and RC Channel
- Conventional Steel Joists or JoistRite
- See UL H503 for complete assembly instructions

SAVINGS TO CONTRACTOR:

- Panel size is 48" x 48" dimension and can be laid in place by one installer.

FLOOR FRAMING



SURE-BOARD® SERIES 200S NON-COMBUSTIBLE SHEATHING WILL IMPROVE THE PERFORMANCE OF YOUR CFS STRUCTURE, WHILE REDUCING THE CONSTRUCTION COSTS TO YOU.

SURE-BOARD® IS A CLEAR WINNER.

SURE-BOARD®
Series 200S Sheathing

IAPMO ES ER-185
LARR #26040
DSA IR A-5



SURE-BOARD®
Series 200S Sheathing

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TABLE 1
NOMINAL DESIGN STRENGTHS FOR SURE-BOARD® SERIES 200S STRUCTURAL PANELS
– FLOOR AND ROOF SHEATHING CONTINUOUS OVER TWO OR MORE SPANS

Span Rating, (inches) (o.c.)	Nominal Strength (PSF)	Allowable Strength (ASD) (psf)	Factored Resistance (LRFD) (psf)	Allowable Concentrated Load, LBF
24 maximum	435	215	260	2,000

For SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 lbf = 4.448 N

¹ Maximum allowable strength for panels supported at 24 inches on center is 100 PSF for a deflection limit of L/360.

² Panels are capable of supporting an allowable concentrated load of 2,000 lbs. within the deflection limit of L/360 on properly designed and constructed framing members.

³ Series 200S panels installed for floors shall include minimum No. 20 gauge (0.033 inch) thick steel sheets.

Series 200S panels installed for roofs shall include minimum No. 20 gauge (0.033 inch) thick steel sheets.

TABLE 3
ALLOWABLE WIND UPLIFT LOADS FOR
SURE-BOARD® SERIES 200S STRUCTURAL PANELS^{1,2}

CFS Specifications				Allowable Wind Uplift, (ASD) (psf)				Allowable Wind Uplift, (ASD) (psf)			
				24 (inch) (o.c.), Joist Spacing				16 (inch) (o.c.), Joist Spacing			
				Screw Size				Screw Size			
Designated Thickness mills	Design Thickness, In.	F _y ksi	F _u ksi	No. 6	No. 8	No. 10	No. 12	No. 6	No. 8	No. 10	No. 12
33	0.0346	33	45	30.5	36.2	41.9	47.6	45.8	54.3	62.9	71.5
43	0.0451	33	45	39.5	47.2	54.6	62.1	59.3	70.7	81.9	93.2
54	0.0566	50	65	63.5	63.5	79.4	79.4	95.3	95.3	119.1	119.1
68	0.0713	50	65	63.5	63.5	79.4	79.4	95.3	95.3	119.1	119.1
97	0.1017	50	65	63.5	63.5	79.4	79.4	95.3	95.3	119.1	119.1
118	0.1242	50	65	63.5	63.5	79.4	79.4	95.3	95.3	119.1	119.1

For SI: 1 inch = 25.4 mm, 1 lbf = 4.448 N, 1 psf = 47.88 Pa, 1 psi = 6.89 kPa

¹ Allowable wind uplift based on screw spacings of 6 inches on center maximum at all panel edges and 12 inches on center maximum in the field/interior of the panels.

² If field/interior spacing is reduced from 12 inches on center, wind uplift may be proportionally increased.

SURE-BOARD®
Series 200S Sheathing

IAPMO ES ER-185
LARR #26040
DSA IR A-5



TABLE 2
NOMINAL SHEAR STRENGTH FOR BLOCKED HORIZONTAL DIAPHRAGMS, LBS/FT
SURE-BOARD® SERIES 200S STRUCTURAL PANELS

Screw Spacing, Inches		Nominal Strength, (Rn)	Allowable Strength, (ASD)		Factored Resistance (LRFD)	
Panel Edge	Field		Seismic	Wind/All Others	Seismic	Wind/All Others
2	6	2,770	1,110	1,380	1,660	1,800
3	6	2,730	1,090	1,360	1,640	1,770
4	6	1,980	790	990	1,190	1,290
6	6	1,320	530	660	790	860

For SI: 1 inch = 25.4 mm, 1 lb/ft = 14.5939 N/mm.

The equation Eq. (1) within the IAPMO Evaluation Report ER-185 shall be used to estimate the mid-span deflection of SURE-BOARD's MgO and fiber-cement simple span diaphragms:

Sure-Board® Series 200S FLOOR/ROOF Sheathing Information Table

SURE-BOARD® STANDARDS & SPECIFICATIONS:

The Sure-Board® Series 200S Structural Sheathing Panels laminated with water soluble adhesive to 3/4" MgO panels listed under ASTM C1325 and others. The steel sheet is 20 gauge (0.033 inch / 0.838 mm) minimum base-metal thickness complying with ASTM A653 CS/GRAD 33 minimum, and ASTM A1003/A1003M. The sheets are provided with a G-40 hot dipped galvanized coating conforming to ASTM A924.

SERIES 200S FLOOR SHEATHING:

3/4" MgO Sheathing is laminated to 20 gauge (0.033 inch / 0.838 mm) steel sheet for use as typical floor sheathing with framing members at 24" o.c. maximum spacing.

FASTENERS SPECIFICATIONS:

Fasteners to attach the Sure-Board Series® 200S panels to CFS members are self drilling/self tapping pilot point bugle head screws, #8 x 1 5/8" long winged driller by grabber super drive LOX drive screws or equal. Screws must have cutting nubs under screw head to seat into fiber cement sheathing properly.

DESIGN OF FLOOR/ROOF SYSTEM:

All floor and roof members and the installation of these members are responsibility of EOR and contractors.

Sure-Board®
IAPMO ES ER-185 Series 200S



www.MarinoWare.com

MARINO WARE®

Recommended Tools / Screws and Staples for Installing Sureboard® Series 200 / 200W “for shear” / 200S for Sheathing

Any questions please call Technical Support (866) 545-1545

Always wear Eye Protection when Cutting SURE-BOARD®

Grabber & TyRex Collated Screwgun and Standard Handfed Installation

- A) (14 gage or heavier stud/track)
2500 rpm Model 4025 with CW75F/7525 IT (Grabber) or DS325AC (TyRex) Super Drive Feed Track
- B) (lighter than 14 gage stud/track)
4000 rpm Model 4063 with CW75F/7540 IT (Grabber) or DS325AC (TyRex) Super Drive Feed Track
- C) Standard Screwgun (handfed) using long drill-tip Dart Screws (or equal)

Screws for Collated Screwgun and Handfed Screw Installation

- A) 200 Series (gypsum laminate)
#8 x 1 $\frac{3}{4}$ ” Bugle Head screw with long drill tip
Part Number: CM175SDZJBW (Grabber) or 08G200CKLFPS (TyRex) Steel Framing Only
- B) 200W Series (1/8” MDF laminate) Steel Framing Only
#10 x $\frac{3}{4}$ ” Panhead screw - self tapping
Part Number: CFP101875LYZ (Grabber) or 10M075CTMFDS (TyRex) Steel Framing Only
- C) 200 Series use Prime Source/Dart hand screw #PP2 #8X2” w/quadrex tip Steel Framing Only
- D) 200S Series (7/16” / 9/16” Fiber Cement laminate) Grabber #8 x 1 $\frac{5}{8}$ ” winged drillers
Part Number: CHS8158JBWG2 Steel Framing Only
- E) 200W Series (1/8” MDF) Standard #10 x 2 $\frac{1}{4}$ ” plywood gun nails Wood Framing Only
- F) 200 Series (Drywall laminate) #8 x 2” “A-point” CS8200JBWYZ (Grabber) Wood Framing Only

Metal Cutting Circular Saws for Cutting Sureboard® Series 200W and 200

(Watch Video Clips on website for reference and demonstration of cutting)

- A) Milwaukee 8” Circular Saw Model #6370-20, Blade only #48-40-4515
- B) Milwaukee 6 $\frac{3}{4}$ ” 28 Volt Cordless Model #0740-22, Blade only #48-40-4016
- C) Morse Evolution 180 7 $\frac{1}{4}$ ” Saw Blade CSM768TSC 7” carbide blade
- D) Champion RS725 7 $\frac{1}{4}$ ” Saw
- E) Standard Skilsaw with Carbide tip blade, 7 $\frac{1}{4}$ ” Ferrous metal blade Diablo MDL #D0748F

Lath Stapler and 14 Gage Staples/Nailgun for 200W Wood Framing Only

- A) Paslode Model #4150/38 W14
- B) Staples 7/8” #GSW1478 mfg. by Master Fasteners Inc., (14 Gage Staples)
- C) Standard Pneumatic Nailgun (using 10d smooth plywood nails)

MARINO WARE®

Recommended Tools / Screws / Saws / Blades for Installing Sureboard® Series *200 B / BX / BI for Ballistic / Blast

Any questions please call Technical Support (866) 545-1545

Always wear Eye Protection when Cutting SURE-BOARD®

Definition of Series *200 B / 200 BX / 200 BI Panels

- 1) *200 B – Ballistic panels with 14 gage steel sheet
- 2) *200 BX – Blast (EXTERIOR SIDE) panel with 14 gage steel sheet
- 3) *200 BI – Blast (INTERIOR SIDE) panel with 22 gage steel sheet

Grabber & TyRex/Senco Collated Screwgun and Standard Handfed Installation

- A) (14 gage or heavier framing studs/track)
2500 rpm Model 4025 with CW75F/7525 IT (Grabber) or DS325AC (TyRex/Senco)
Super Drive Feed Track
- B) (lighter than 14 gage framing studs/track)
4000 rpm Model 4063 with CW75F/7540 IT (Grabber) or DS325AC (TyRex/Senco)
Super Drive Feed Track
- C) Standard Screwgun (handfed) using long drill-tip Dart Screws (or equal)

Screws for Collated Screwguns and Handfed Screw Installation

- A) Series *200 B/BI Panels
#8 x 1¾" Bugle Head screw with long drill tip Collated Bugle Head Screws
Part Number: CM175SDZJBW (Grabber) or 08G200CKLFPS (TyRex/Senco)
Steel Framing Only
- B) Series *200 BX Panels
#10 x 2" (Grabber), #12 x 2" (Grabber), #14 x 2⅜" (Simpson), or #12 x 2" (TyRex/Senco)
Collated Bugle Head Screws
Part Number: C10200L3YZE (Grabber), CC12200LYZ (Grabber), TB1460S (Simpson) or 12G200YKLFCS (TyRex/Senco)
- C) Series *200 B/BI Panels use Prime Source/Dart hand screw #PP2 #8X2" w/quadrex tip
Steel Framing Only

Metal Cutting Circular Saws for Cutting Sureboard® Series *200 B/BX/BI

(Watch Video Clips on website for reference and demonstration of cutting)

- A) Milwaukee 8" Circular Saw Model #6370-20, Blade only #48-40-4515
- B) Milwaukee 6¾" 28 Volt Cordless Model #0740-22, Blade only #48-40-4016
- C) Morse Evolution 180 7¼" Saw Blade CSM768TSC 7" carbide blade
- D) Champion RS725 7¼" Saw
- E) Standard Skilsaw with Carbide tip blade, 7¼" Ferrous metal blade Diablo MDL #D0748F