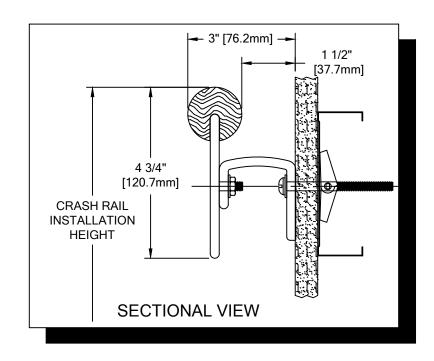
#### PLEASE READ

PLEASE READ THESE INSTRUCTIONS THOROUGHLY PRIOR TO BEGINNING THE <u>HRW-32S HANDRAIL</u> INSTALLATION!

THIS INSTRUCTION SHEET IS INTENDED TO PROVIDE A SPECIFIC GUIDE TO FOLLOW FOR THE INSTALLATION OF HRW-32S HANDRAIL. CONTAINED WITHIN IS THE TECHNICAL INFORMATION AND INSTALLATION TECHNIQUES REQUIRED TO COMPLETE AN EFFICIENT, NEAT AND LONG-LASTING INSTALLATION.

INSPECT ALL MATERIALS FOR DAMAGE OR MISSING PARTS. IF YOU DISCOVER DAMAGED OR MISSING MATERIALS, IN THE USA PLEASE NOTIFY THE FACTORY AT (800) 233-8493, AND IN CANADA (888) 895-8955.

HRW-32S HANDRAIL MUST BE INSTALLED IN ACCORDANCE WITH THESE INSTRUCTIONS! FAILURE TO FOLLOW THESE INSTRUCTIONS MAY VOID ANY PRODUCT WARRANTIES AND RESULT IN AN UNSUCCESSFUL INSTALLATION. FOR SPECIFIC QUESTIONS REGARDING THE INSTALLATION OF HRW-32S HANDRAIL PLEASE CALL THE FACTORY AT (800) 233-8493 OR EMAIL IWPTECHSUPPORT@C-SGROUP.COM. IN CANADA CALL (888) 895-8955.



### **IMPORTANT NOTES**

- 1. DUE TO THE NATURE OF WOOD, COMPONENT COLORS MAY VARY. SORT WOOD COMPONENTS AND MATCH PARTS BY COLOR.
- 2. THIS MATERIAL HAS BEEN MANUFACTURED TO CUSTOMER SPECIFIED DIMENSIONS AND CAN NOT BE CUT OR MODIFIED ON SITE. TO DO SO COULD VOID WARRANTY.
- RADIAL MATERIAL MAY BE SUPPLIED FACTORY FORMED OR IN STRAIGHT LENGTHS FOR FIELD FORMING. CONSULT FACTORY FOR OPTIONS.
- 4. TANGENT POINTS ON FACTORY FORMED RADIAL MATERIAL WILL BE MARKED APPROXIMATELY AND SHOULD BE CUT TO SUIT FIELD CONDITIONS.
- 5. ALL DIMENSIONS ARE TYPICAL.
- 6. FOR DRYWALL/PLASTER WALL CONSTRUCTION, IT IS RECOMMENDED FOR FASTENERS TO BE ENGAGED INTO METAL/WOOD STUDS TO MAINTAIN MAXIMUM PULLOUT STRENGTH. IF DURING INSTALLATION YOU ENCOUNTER SPECIAL WALL CONDITIONS THAT DO NOT ALLOW FOR DIRECT ATTACHMENT TO THE STUDS PLEASE CONSULT THE LOCAL AUTHORITY HAVING JURISDICTION.
- 7. INSTALL OUTSIDE CORNERS FIRST.
- 8. INSTALL LONGEST RUN OF HANDRAIL FIRST.
- 9. MATERIAL MUST REACH 65°F MIN. TO 75°F MAX. 24 HOURS PRIOR TO INSTALLATION. THIS IS ESSENTIAL TO MINIMIZE EXPANSION AND CONTRACTION OF MATERIAL.
- 10. MAY REQUIRE USE OF FIRE PUTTY WHEN INSTALLED ON FIRE WALL WITH TOGGLE BOLTS.
- 11. THIS HANDRAIL REQUIRES A <u>MINIMUM</u> OF 2 MOUNTING BRACKETS PER UNIT. THE <u>MINIMUM</u> END CAP-TO-END CAP HANDRAIL LENGTH IS 13" [330.2mm].

Doc#: II-24HRW32S Issue Date: 11/15/04 Rev Date: 02/23/16



STAINLESS STEEL CRASH RAIL (24S057000)



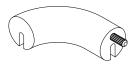
WOOD HANDRAIL (24W290xxx)



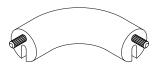
MOUNTING BRACKET (24F181003)



FASTENER #1 1/4-20 HEX NUT (90H010001)



HRW-32 END CAP (LH-24W291xxx) (RH-24W292xxx)



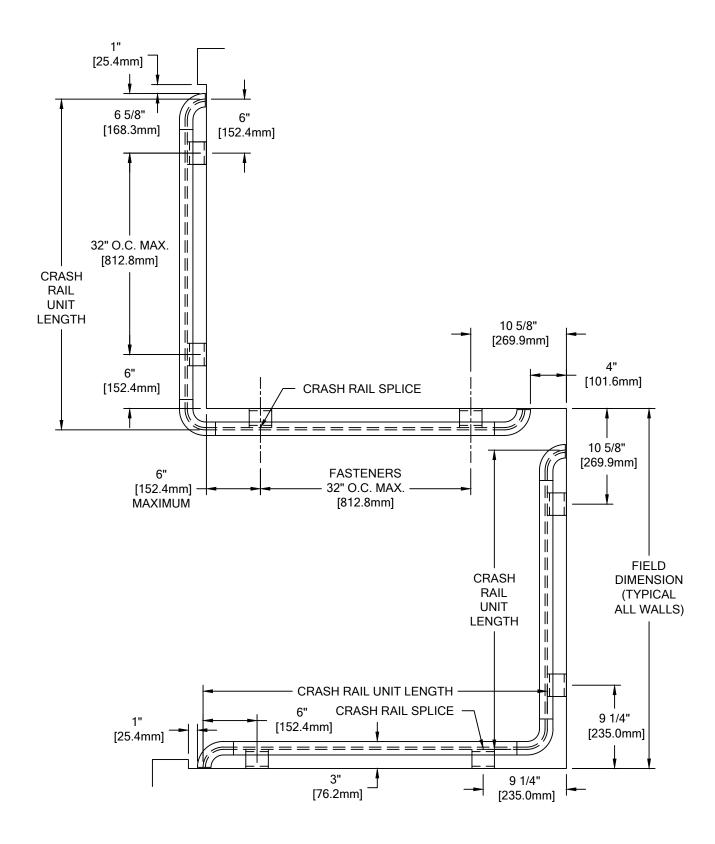
HRW-32 OUTSIDE CORNER (24W293xxx)



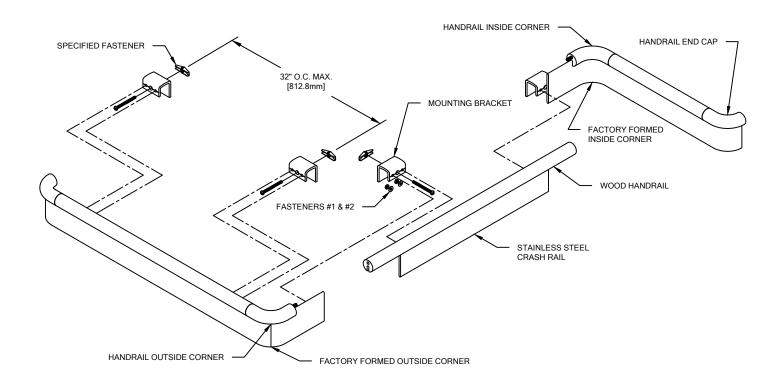
FASTENER #2 1/4" FLAT WASHER (90H007003)

WALL CONDITION	SPECIFIED FASTENER	DRILL DIAMETERS		C/S PART
		WALL	RETAINER	NUMBER
STEEL STUD/GYPSUM WALL	1/4-20 X 3" ROUND HEAD BOLT/TOGGLE WING	3/4"	N/A	90H045002
CONCRETE/CONCRETE BLOCK	#14 X 4" PHILLIPS ROUND HEAD ALL-PURPOSE SCREW	7/32"	N/A	90H225002
WOOD STUD/GYPSUM WALL	#14 X 4" PHILLIPS ROUND HEAD ALL-PURPOSE SCREW	7/32"	N/A	90H225002

### **LAYOUT VIEW**



#### TYPICAL ASSEMBLY



NOTE: INSTALLATION OF LINEAL OR RADIAL HRW-32S HANDRAIL SHOULD BE DONE IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS.

- USE LOCAL CODE REQUIREMENTS AND ESTABLISH HANDRAIL HEIGHT ABOVE FINISH FLOOR. DEDUCT 2 3/4" [69.8mm] AND SNAP A CHALK LINE AT THAT HEIGHT. THIS MARKS THE LOCATION OF THE MOUNTING BRACKET FASTENERS.
- 2. DETERMINE WALL FASTENER LOCATIONS BY USING THE REQUIRED DEDUCTIONS (SEE LAYOUT VIEW) AND DRILL HOLE DIAMETER (REFERENCE CHART ON PAGE 2) IN THE WALL FOR SPECIFIED WALL FASTENERS (SEE NOTE 2 ON LAYOUT VIEW).
- 3. INSTALL MOUNTING BRACKETS USING APPROPRIATE FASTENERS. LEVEL EACH MOUNTING BRACKET WHILE FASTENING IT TO THE WALL.
- 4. APPLY WOOD GLUE INTO THE HOLES AND CUT SURFACE OF HANDRAIL (TITEBOND IS RECOMMENDED). ATTACH HANDRAIL BY SLIDING THE END CAP DOWEL INTO THE MATING WOOD HANDRAIL CLEARANCE HOLE. WIPE OFF ANY EXCESS GLUE.
- 5. ATTACH THE ASSEMBLED HANDRAIL TO THE WALL BRACKETS BY ALIGNING THE HEX HEAD BOLTS WITH THE MOUNTING BRACKETS AND INSERTING THE HEX HEAD BOLT INTO THE MOUNTING BRACKET HOLE. PLACE A 1/4" FLAT WASHER AND 1/4-20 HEX NUT ONTO THE HEX HEAD BOLT AND TIGHTEN AS REQUIRED.

NOTE: WHEN FIELD FORMING RADIUS HANDRAIL, BE SURE TO APPLY NEEDED PRESSURE FROM BRACKET TO BRACKET.



Doc#: II-24HRW32S

2/23/16

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