

SPECIFICATION GUIDE

EASY TO SPECIFY

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YOU DON'T HAVE TO DETAIL AMERICAN STAIR STANDARD PRODUCTS

HERE'S HOW:

1. Refer to our specification on pages 1 to 11 and select the American Stair products you want to use on your project.
2. Designate floor openings where stairs are to be located and do not add further details.
3. Provide us with the following general information:
 - 3.1 Applicable codes.
 - 3.2 Stair loading requirements.
 - 3.3 Required exit width of stairs.
 - 3.4 Wall construction.
 - 3.5 Floor to floor heights.
 - 3.6 Layout of risers and treads for each floor of stairs.
 - 3.7 Size of stair opening.
 - 3.8 Length of stairwell (finished opening).
 - 3.9 Width of stairwell (finished opening).
 - 3.10 Tread type.
 - 3.11 Landing type.
 - 3.12 Specify if floor landings are by American Stair or part of the building structure.
 - 3.13 Railing type.
 - 3.14 Structural building framing type.
4. You can select specific parts of our details to show our products but it is not necessary.
5. We do not provide advanced details of stairs or railings to be used in your bidding or plan check documents.
6. Simply add a note on your construction documents that the metal stairs are to be design/build and a deferred submittal for plan checking purposes, if required.
7. If you require seals and calculations from an appropriately licensed professional engineer in the state where the project is located, this service is available at an added cost. The calculations are usually prepared in conjunction with the issue of shop drawings for review.

PRODUCT SUMMARY

◆ STRINGERS

Standard - Meeting or exceeding governing codes that are required for loading and deflection, plate stringers have been our standard since 1956. It is an economical NAAMM service or commercial classification that can be specified with any of the tread, landing and railing options described below. You do not have to detail this standard American Stair system.

Non-Standard - Channel types C and MC are offered at a reasonable increased cost to our standard plate while the use of box and tube add a premium to the overall stair price. Any of our tread, landing and railing designs can be used with these non-standard stringers.

◆ TREADS, LANDINGS AND PROTECTIVE COVERS

CheckerPlate - This raised medium pattern sheet steel is primarily used for industrial designs.

Endura - A popular alternative to Metal Pan, it is non-combustible, slip-resistant and the factory applied grit surface is warranted for the life of the building. It can be specified with a smooth surface to accommodate tile, carpet or other suitable coverings supplied by others. Recommended for interior use.

FasTrack® - An outstanding value, this design is slip-resistant and less noisy than CheckerPlate. For exterior use, we recommend FasTrack® with self-draining slot. The same warranty and surface options apply as do for Endura.

Metal Pan - Although it provides a quiet walking surface, it still remains the most expensive to install. Additional costs for concrete fill, temporary pan fillers and general clean-up are common. These extra costs can be eliminated by specifying our ReadyStep® without sacrificing the acoustical advantage. When noise is less critical, Endura and FasTrack® are excellent options.

ReadyStep® - This design has all of the same features as Endura, but is thicker, making it the better choice when quietness is essential. The same warranty and surface options apply as do for Endura. Recommended for interior use.

Steel Bar Grating - Used mainly for industrial stairs, but FasTrack®, specified with or without a self-draining slot, is a highly regarded alternative.

SafetyTreads and SafetyLandings - Our factory-applied photo luminescent tape will illuminate the stair nose-lines after loss of artificial light and continue to glow for more than 12 hours. If your requirements call for even safer emergency exiting, specify Endura, FasTrack® or ReadyStep® SafetyTreads and SafetyLandings.

Protective Covers - Final clean-up will be quicker when our optional exterior grade OSB covers are specified. They are factory-attached to the stair treads and/or landings and are easily removed. This option is only available on Endura, FasTrack® and ReadyStep® designs.

◆ RISERS

This is the vertical member between treads and can be supplied either open or closed. However, closed risers are required for emergency exit stairs.

◆ RAILINGS

American Stair's standard designs offer exceptional value starting with Multiple Strand, then Vertical Square Picket and followed by premium Woven Wire Mesh Fabric. We are not limited to these standards and can bid on many specials from your plans.

◆ CODES

Applicable codes to be enforced must be determined by the Architect. The following are the most frequently referred to nationally but other local codes may also apply.

ANSI A117.1 - American National Standards Institute

BOCA 1999 - Building Officials and Code Administrators

CBC 2007 - Title 24 California Building Code

IBC 2006 - International Building Code

NFPA 101 2003 - Life Safety by the National Fire Protection Assoc.

SBCCI 2003 - Standard Building Code

◆ FEDERAL LAW

ADA - The Americans with Disabilities Act is a federal law and therefore it applies to all buildings nationally. This dictates the diameter of the grasping portion of the railings be 1-1/4" min to 2" max and the required heights of 34" to 38". It also mandates that the walking surfaces of stair treads and landings must be slip-resistant and meet a minimum static coefficient of friction of 0.6.

◆ NAAMM STAIR DEFINITIONS

Class - Architectural, Commercial, Industrial, Service (class must be determined by Architect)

Type - Alternating Tread, Circular, Curved, Ships Ladder, Spiral, Straight and Winder.

◆ TESTING

Test results covering acoustics, smoke and fire spread characteristics as well as ADA slip-resistant requirements are available upon request for our Endura, FasTrack® and ReadyStep® products.

◆ FABRICATION AND SHIPMENT

We fabricate and install the treads into shop-assembled stair units and they arrive on the job site ready for easy installation. They are primed and ready for finish painting by others. Galvanized material is offered as an option.

COMPLIANCE

◆ BOLTING CONNECTIONS

Bolted structural connections to concrete walls or beams have been designed using Hilti KB3 Expansion Anchoring System per ICC-ES Report-1385.

◆ DESIGN LOAD

100 lbs. per sq. ft. plus material dead load on stairs. 50 lbs. per sq. ft. and 200 lbs. concentrated load on railing.

◆ DIMENSIONS

The General Contractor will verify all dimensions shown before fabrication. Opening dimension is the clear horizontal distance between structural support members. Architectural dimensions of stairs, landings and railings are the responsibility of the building designer and must meet building code requirements or any other municipality codes as may pertain there to.

◆ FASTENERS

Unless otherwise indicated, all mechanical fasteners are to be supplied by and are the responsibility of the installer.

◆ FIELD CONNECTIONS

When connecting stair material to the surrounding steel structure, concrete pour must be held back to the centerline of the support member to allow for the stair unit connection. Final grout is the responsibility of the General Contractor and continuous inspection is required for all field welding and poured concrete.

◆ MAINTENANCE

Steel stair and railing systems used in exterior applications and/or exposed to adverse conditions must be properly and regularly maintained to minimize corrosion. Continued corrosion can result in eventual structural failure.

◆ PRIMER

All exposed steel surfaces will receive one shop coat of American Stair Corporation, Inc. standard rust inhibitive primer paints. Final finish of all stair, landing and railing surfaces are not the responsibility of American Stair Corporation, Inc.

◆ RESPONSIBILITY

American Stair Corporation, Inc. is not responsible for improper use of its products and assumes no responsibility for the design, construction and installation of any material supplied by others. Stairways must never be used until all stair and railing components have been correctly installed and concrete fill as well as surrounding walls are in place.

MATERIAL

◆ BOLTS

ASTM A307 Unless Noted.

ASTM A325 As Noted.

◆ RAW STOCK AND SURFACES

All material is steel and purchased in raw stock sizes. FasTrack®, Endura and ReadyStep® have been tested in accordance with ASTM E84-95 for surface burning characteristics.

◆ ROD STOCK

ASTM A36

½" square.

¾" round.

1" round.

ASTM A706

#5 concrete reinforcing bars intermediate grade 40.

◆ ROLLED STOCK

ASTM A36

C6 x 8.2# Channel

C8 x 11.5# Channel

MC12 x 10.6# Channel

1-1/2" x 2-1/2" x 3/16" Angle

1-1/2" x 1-1/2" x 1/8" Angle

2" x 2-1/2" x 3/16" Angle

3" x 3" x 3/16" Angle

◆ SHEET STOCK

ASTM A36 or Equal-Min. 36K Yield Max (.26C)

3/16" x 10", 12", 14"

1/4" x 12", 14", 20"

ASTM A1011A or Equal-Min. 30K Yield Max (.26C)

10, 12, 14 Gauge x (varied sizes)

14 Gauge Checker x (varied sizes)

1/8" Checker (varied sizes)

◆ TUBING & PIPE

ASTM A53

2" Standard Schedule 40

2-1/2" Standard Schedule 40

ASTM A500B 46K Yield Max (.26C)

3/16" Square 14 Gauge Tube

1-1/2" Square 11 Gauge Tube

1-5/8" Round 14 Gauge Tube

1-1/2" Round 14 Gauge Tube

◆ WELDING

Material - Wire E70-S AWS A5-18

Process - Accomplished in accordance with AWS requirements Ref: AWS D1.1-02, D1.4-79, D1.3-81

ABBREVIATIONS

B/	BACK OF	FL.	FLOOR
BM.	BEAM	FM'D	FORMED
B.S.	BOTH SIDES	GA.	GAUGE
B.O.	BY OTHERS	GYP. BD.	GYPSUM BOARD
C.	CENTER	HD.	HAND
CHAN.	CHANNEL	LVL.	LEVEL
CL.	CLEAR OR CLEARANCE	N.S.	NEAR SIDE
CONC.	CONCRETE	O.H.	OPPOSITE HAND
C.M.U.	CONCRETE MASONRY UNIT	OPP.	OPPOSITE
CONT'D	CONTINUED	R.	RISER
E/	EDGE OF	STR.	STAIR
ELEV.	ELEVATION	STGR.	STRINGER
F.S.	FAR SIDE	T.	TREAD
F.C.T.F.	FIELD CUT TO FIT	T.O.S	TOP OF STEEL
FIN.	FINISH OR FINISHED	T.O.SL.	TOP OF SLAB
F.F.	FINISH FLOOR	U.W.	UNIT WIDTH

SYMBOLS

	DETAIL/SECTION MARK SHEET NUMBER		CENTERLINE
	LOADING (IN KIPS) (1 KIP = 1000 LBS.)		NOSE LINE
	FLOOR LEVEL ELEVATION MARKER		PLATE
	CHANNEL		RISER LINE
	LOOSE MATERIAL MARKER		DIAMETER OR ROUND
	FIELD WELD		ANGLE
			SQUARE