A component, such as a motor starter or fuseholder, that is provided with a tightening torque marking that is visible to the installer complies with this requirement.

Exception No. 1: A wire-binding screw is not required to be marked with a tightening torque.

Exception No. 2: A control circuit terminal that has a rated tightening torque of 7 inch-lb (0.8 N·m) is not required to be marked with a tightening torque.

Table 54.1
Tightening torque for screws

Test wire size installed in connector		Tightening torque, pound-inches (N·m)							
		Slotted head No. 10 and larger				Hexagonal head-external drive socket wrench			
		Slot width – 0.047 inch (1.2 mm) or less and slot length 1/4 inch (6.4 mm) or less		Slot width – over 0.047 inch (1/2 mm) or slot length – over 1/4 inch (6.4 mm)		Split-bolt connectors		Other connectors	
AWG or kcmil	(mm^2)								
18 – 10	(0.82 – 5.3)	20	(2.3)	35	(4.0)	80	(9.0)	75	(8.5)
8	(8.4)	25	(2.8)	40	(4.5)	80	(9.0)	75	(8.5)
6 – 4	(13.3 – 21.2)	35	(4.0)	45	(5.1)	165	(18.6)	110	(12.4)
3	(26.7)	35	(4.0)	50	(5.6)	275	(31.1)	150	(16.9)
2	(33.6)	40	(4.5)	50	(5.6)	275	(31.1)	150	(16.9)
1	(42.4)	–		50	(5.6)	275	(31.1)	150	(16.9)
1/0 – 2/0	(53.5 – 67.4)	–		50	(5.6)	385	(43.5)	180	(20.3)
3/0 – 4/0	(85.0 – 107.2)	–		50	(5.6)	500	(56.5)	250	(28.2)
250 – 350	(127 – 177)	–		50	(5.6)	650	(73.4)	325	(36.7)
400	(203)	–		50	(5.6)	825	(93.2)	375	(36.7)
500	(253)	–		50	(5.6)	825	(93.2)	375	(42.4)
600 – 750	(304 – 380)	–		50	(5.6)	1000	(113.0)	375	(42.4)
800 – 1000	(406 – 508)	–		50	(5.6)	1100	(124.3)	500	(56.5)
1250 – 2000	(635 – 1010)	–		–	–	1100	(124.3)	600	(67.8)

NOTE – For values of slot width or length not corresponding to those specified, the largest torque value associated with the conductor size shall be marked. Slot width is the nominal design value. Slot length shall be measured at the bottom of the slot.

Table 54.2
Tightening torque for slotted head screws smaller than No. 10 intended for use with 8 AWG (8.4 mm^2) or smaller conductors

Slot length of screw[a]		Tightening torque, pound-inches (N·m)			
		Slot width of screw[b], in (mm)			
		Smaller than 0.047 (1.2)		0.047 (1.2) and larger	
inches	(mm)				
Less than 5/32	(4)	7	(0.79)	9	(1.0)
5/32	(4)	7	(0.79)	12	(1.4)
3/16	(4.8)	7	(0.79)	12	(1.4)
7/32	(5.6)	7	(0.79)	12	(1.4)

Table 54.2 Continued on Next Page

Table 54.2 Continued

Slot length of screw[a]		Tightening torque, pound-inches (N·m)			
		Slot width of screw[b], in (mm)			
inches	(mm)	Smaller than 0.047 (1.2)		0.047 (1.2) and larger	
1/4	(6.4)	9	(1.0)	12	(1.4)
9/32	(7.1)			15	(1.7)
Above 9/32	(7.1)			20	(2.3)

[a] For slot lengths of intermediate values, torques pertaining to next shorter slot length shall be utilized. For screws with multiple tightening means, the largest torque value associated with the conductor size shall be marked. Slot length shall be measured at the bottom of the slot.

[b] Slot width is the nominal design value.

Table 54.3
Tightening torque for socket head screws

Socket size across flats		Tightening torque	
inches	(mm)[a]	Pound-inches	(N·m)
1/8	(3.2)	45	(5.1)
5/32	(4.0)	100	(11.3)
3/16	(4.8)	120	(13.6)
7/32	(5.6)	150	(16.9)
1/4	(6.4)	200	(22.6)
5/16	(7.9)	275	(31.1)
3/8	(9.5)	375	(42.4)
1/2	(12.7)	500	(56.5)
9/16	(14.3)	600	(67.8)

[a] For screws with multiple tightening means, the largest torque value associated with the conductor size shall be marked. Slot length shall be measured at the bottom of the slot.

54.5 The equipment grounding conductor terminal shall be identified by one of the following methods:

a) With a green, not readily removable terminal screw with a hexagonal head;

b) With a green, hexagonal, not readily removable terminal nut;

c) With the words, "Ground" or "Grounding" ;

d) With the letters, "G", "GR", "GRD", "GND" or "GRND" ;

e) With the symbol in Figure 54.1.

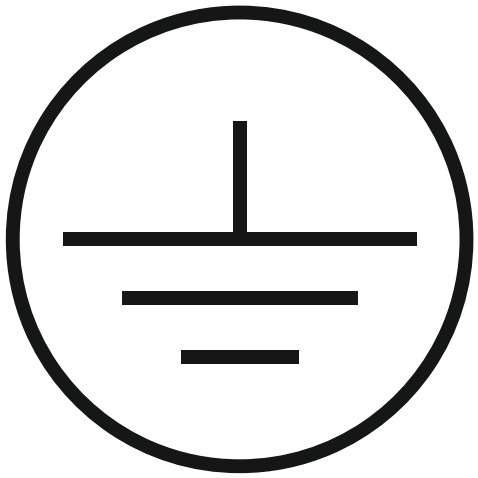
f) If the equipment grounding conductor terminal is within a housing (i.e., terminal block), identification shall be made by either or both of the following methods:

1) 54.5 (c), (d), or (e) on or adjacent to the housing near the terminal opening;

2) The terminal housing colored the bicolor combination green-and-yellow.

Figure 54.1

Grounding symbol (IEC Publication 417, Symbol 5019)



54.6 Field wiring terminals of a low-voltage limited energy circuit or of a low-voltage, less than 30 Vrms, isolated secondary circuit shall be marked "Class 1 control circuit," "Use Class 1 conductors," "For connection to a Class 1 remote control circuit," or the equivalent.

54.7 Field wiring terminals of a Class 2 circuit shall be marked "Class 2 control circuit," "Use Class 2 conductors," "For connection to a Class 2 remote control circuit," or the equivalent.

54.8 An industrial control panel that contains a Class 1 control circuit and/or a power circuit and also contains a Class 2 circuit and that is not provided with barriers shall have markings or instructions specifying how required separation of field wiring conductors shall be maintained.

54.9 A field wiring terminal for a control circuit conductor smaller than 14 AWG (2.1 mm^2) as specified in the Exception to 37.2.1 shall be marked with the wire size(s) to be used.

54.10 For an industrial control panel containing one or more grounding electrode conductor terminals required by 16.2, each grounding electrode conductor terminal shall be marked to identify the size of the field supplied grounding electrode conductor and the source of the separately derived system voltage.

Exception No. 1: The marking is not required when the grounding electrode conductor terminal is not required in accordance with the Exception No. 1 to 16.2.

Exception No. 2: When a single grounding electrode conductor terminal is supplied for multiple separately derived systems in accordance with Exception No. 2 to 16.2, the marking in 54.10 shall specify that a 3/0 AWG grounding electrode conductor is required to connect the grounded conductors of multiple separately derived systems to a grounding electrode.

54.11 All field-wiring terminals shall be marked with one of the following:

a) "Use Copper Conductors Only" for terminals intended for connection only to copper wire;

b) "Use Aluminum Conductors Only" for terminals evaluated only for connection to aluminum wire;

c) "Use Copper or Aluminum Conductors" or "Use Copper, Copper-Clad Aluminum, or Aluminum Conductors" for terminals evaluated for either copper or aluminum wire; or

d) "Use Copper or Copper-Clad Aluminum Conductors" for terminals evaluated for connection to either copper or copper-clad aluminum wire.

54.12 For an industrial control panel with a slash voltage rating as in 49.6(a), the input terminals shall be marked, “For use on a solidly grounded wye source only”, or the equivalent.

55 Hazard Markings

55.1 Hazard markings shall be located on a part that is not removable without impairing the operation or appearance of the equipment.

55.2 A hazard marking shall be prefixed with the word "CAUTION" or "WARNING," as applicable, in letters not less than 1/8 inch (3.2 mm) high. The remaining letters of such marking, unless otherwise specified, shall not be less than 1/16 inch (1.6 mm) high.

55.3 A hazard marking intended to instruct the operator shall be legible and visible to the operator during normal operation of the equipment. A marking that provides servicing instructions shall be legible and visible when such servicing is performed.

55.4 An industrial control panel intended to be provided with more than one supply source such that more than one disconnect switch is required to disconnect all power within the control panel shall be marked with the word "CAUTION" or "WARNING" and the following or equivalent: "Risk of Electric Shock – More than one disconnect switch may be required to de-energize the equipment before servicing." A risk assessment shall be performed to justify if the word "WARNING" or "CAUTION" shall be used.

Exception: This marking is not required for an isolated control circuit contact that is separately supplied.

55.5 The marking required for enclosures intended for field assembly of the bonding means in accordance with 24.1(b) shall be located where visible during installation, such as inside the cover, and consist of the word "CAUTION" and the following or equivalent, "Bonding between conduit connection is not automatic and must be provided as a part of the installation;" or the word "CAUTION" and the following or equivalent, "Nonmetallic enclosure does not provide grounding between conduit connections. Use grounding bushings and jumper wires."

55.6 An industrial control panel provided with an instantaneous trip circuit breaker used as branch circuit protection for a combination motor controller shall be marked:

a) With the word "WARNING" and the following or the equivalent: "To maintain overcurrent, short-circuit, and ground-fault protection, the manufacturer's instructions for selecting current elements and setting the instantaneous-trip circuit breaker must be followed."

b) With the word "WARNING" and the following or the equivalent: "Tripping of the instantaneous-trip circuit breaker is an indication that a fault current has been interrupted. Current-carrying components of the magnetic motor controller should be examined and replaced if damaged to reduce the risk of fire or electric shock. If burnout of the current element of an overload relay occurs, the complete overload relay must be replaced."

55.7 An industrial control panel provided with a self-protected combination motor controller shall be marked:

a) With the word "WARNING" and the following or the equivalent: "To maintain overcurrent, short-circuit, and ground-fault protection, the manufacturer's instructions for selection of overload and short circuit protection must be followed to reduce the risk of fire or electric shock."

b) With the word "WARNING" and the following or the equivalent: "If an overload or a fault current interruption occurs, circuits must be checked to determine the cause of the interruption. If a fault condition exists, the current-carrying components should be examined and replaced if damaged, and the integral current sensors must be replaced to reduce the risk of fire or electric shock."

55.8 An industrial control panel incorporating UPS equipment shall be marked with the word "Danger" or "Warning" and the following or equivalent: “Risk of Electric Shock – UPS equipment outputs remain live with main disconnect in off position.”

56 Fuseholder Markings

56.1 A branch circuit fuseholder that accepts a fuse having a rating larger than the maximum specified rating and all control circuit fuseholders shall be marked with the voltage and current rating of the replacement fuse.

57 Switch Markings

57.1 The operating handle of each disconnecting means shall be marked to indicate the open ("off") and closed ("on") positions.

57.2 A manual switch not intended to be operated under load as specified in 33.2.2 shall be marked "Do not operate under load."

57.3 An industrial control panel containing a disconnecting means that is back-fed shall be marked to identify the location or disconnecting means with the back-fed line side connection.

58 Overload Relay Heater Table Markings

58.1 An industrial control panel provided with an overload relay shall have the overload relay set or element selected in accordance with the manufacturer’s specifications and verified with the motor nameplate rating.

59 Receptacle Markings

59.1 A general use receptacle protected by branch circuit overcurrent protection rated less than the rating of the receptacle and intended for connection of only a control circuit load shall be marked with the ampere rating of the overcurrent protective device and the intended use for the receptacle.

59.2 Multiple pin type receptacles having a common pin configuration shall be marked to identify the intended load connection.

59.3 A general use receptacle provided within a control circuit and intended for connection of a control circuit load shall be marked with the ampere rating of the overcurrent protective device and the intended use for the receptacle.

59.4 A multi-pin receptacle or a general-use receptacle rated more than 20 amperes shall be marked "For disconnecting use only, not for current rupturing" or the equivalent.

60 Field Provided Components

60.1 An industrial control panel provided with a power circuit where the disconnecting means, branch circuit protection and/or motor overload protection is omitted shall be marked to indicate that these devices

shall be provided by the installer. The marking for field installed branch circuit protection shall include the size and type of protection when required as a result of a component marking as indicated in 31.2.2.

60.2 An industrial control panel provided with a separately supplied control circuit where the disconnecting means and/or branch circuit protection is omitted shall be marked to indicate that these devices shall be provided by the installer.

60.3 An industrial control panel schematic wiring diagram that includes devices that are not provided with the industrial control panel shall be marked to indicate that these devices shall be provided by the installer.

60.4 An industrial control panel with bus bars intended for field installation of pressure wire connectors, cable lugs or similar termination devices in accordance with the Exception to 28.1.1, shall be provided with a marking stating the number and type of pressure wire connectors, cable lugs or terminal kit that is acceptable for use with the anticipated field wiring identified in 54.2 and for mounting to the bus bar hole pattern.

61 Schematic Wiring Diagrams

61.1 An industrial control panel shall be provided with a complete electrical schematic wiring diagram including all components provided by the manufacturer. Field installed components shown on the schematic wiring diagram shall comply with 60.3.

61.2 A standardized schematic wiring diagram that includes optional components and circuits that are commonly supplied by a manufacturer shall be modified on a per unit basis to include only those components that are actually being supplied by the manufacturer.

PART 2 – SPECIFIC USE INDUSTRIAL CONTROL PANEL TYPES

ENCLOSURES

62 General

62.1 The requirements in Sections 63 and 64 cover Type 1 enclosures constructed of sheet or cast metal.

62.2 A Type 1 – 13 enclosure constructed of polymeric material enclosure shall be investigated to the construction requirements, performance requirements, and marking requirements applicable to the enclosure environmental Type(s) in the Standard for Enclosures for Electrical Equipment, Environmental Considerations, UL 50E.

62.3 A Type 2 – 13 enclosure constructed of sheet or cast metal shall comply with:

a) The construction requirements in Section 63, Construction, and Section 64, Markings, of this standard; and

b) The construction, performance, and marking requirements applicable to the enclosure environmental Type(s) in the Standard for Enclosures for Electrical Equipment, Environmental Considerations, UL 50E.

c) A Type 3RX, 3SX, and 3X enclosure shall additionally comply with the corrosion resistance test in the Standard for Enclosures for Electrical Equipment, Environmental Considerations, UL 50E.

62.4 In addition to complying with 62.2 and 62.3, a Type 4 or 4X enclosure or compartment having ventilation openings shall be subjected to the indoor Circulating Dust Test, and the Rod Entry Test, in

accordance with the Standard for Enclosures for Electrical Equipment, Environmental Considerations, UL 50E. When the enclosure or compartment is provided with a fan, it shall be subjected to all environmental tests required by UL 50E, both with the fan on and with the fan off. As a result of these tests, there shall be no entry of dust into the enclosure or compartment having a Type 4 or 4X rating.

63 Construction

63.1 Metal thickness

63.1.1 A cast-metal enclosure shall be made from iron, aluminum, brass, or copper and be at least 1/8 inch (3.2 mm) thick at every point, more than 1/8 inch thick at reinforcing points, and at least 1/4 inch (6.4 mm) thick at tapped holes for conduit.

63.1.2 The thickness of a sheet-metal enclosure shall not be less than that specified in Table 63.1 and Table 63.2, except that at points to which a wiring system is to be connected, steel shall be at least 0.032 inch (0.81 mm) thick, and nonferrous metal at least 0.045 inch (1.14 mm) thick.

Exception: An enclosure that complies with the Compression Test and Deflection Test of the Standard for Enclosures for Electrical Equipment, Non-Environmental Considerations, UL 50, is not required to comply with this requirement at points other than where a wiring system is to be connected.

63.1.3 Table 63.1 and Table 63.2 are based on a uniform deflection of the enclosure surface for any given load concentrated at the center of the surface regardless of metal thickness.

63.1.4 With reference to Table 63.1 and Table 63.2, a supporting frame is a structure of angle or channel or folded rigid section of sheet metal that is rigidly attached to and has essentially the same outside dimensions as the enclosure surface and that has torsional rigidity to resist the bending moments that are applied by the enclosure surface when it is deflected. Constructions without supporting frame include:

a) A single sheet with single formed flanges – formed edges;

b) A single sheet that is corrugated or ribbed;

c) An enclosure surface loosely attached to a frame, for example, with spring clips; and

d) An enclosure surface having an unsupported edge.

See Figure 63.1 for evaluation of supported and unsupported enclosure surfaces. This figure further defines the means of selecting the required metal thickness from either the "with supporting frame" or "without supporting frame" columns in Table 63.1 and Table 63.2.

Table 63.1
Thickness of sheet metal for enclosures – carbon or stainless steel

Without supporting frame[a]				With supporting frame or equivalent reinforcement[a]				Minimum required thickness, in	
Maximum width[b]		Maximum length[c]		Maximum width[b]		Maximum length[c]			
inches	(cm)	inches	(cm)	inches	(cm)	inches	(cm)	inches	(mm)
4.0	(10.2)	Not limited		6.25	(15.9)	Not limited		0.020	(0.51)
4.75	(12.1)	5.75	(14.6)	6.75	(17.1)	8.25	(21.0)		
6.0	(15.2)	Not limited		9.5	(24.1)	Not limited		0.026	(0.66)

Table 63.1 Continued on Next Page

Table 63.1 Continued

Without supporting frame[a]				With supporting frame or equivalent reinforcement[a]				Minimum required thickness, in	
Maximum width[b]		Maximum length[c]		Maximum width[b]		Maximum length[c]			
inches	(cm)	inches	(cm)	inches	(cm)	inches	(cm)	inches	(mm)
7.0	(17.8)	8.75	(22.2)	10.0	(25.4)	12.5	(31.8)		
8.0	(20.3)	Not limited		12.0	(30.5)	Not limited		0.032	(0.81)
9.0	(22.9)	11.5	(29.2)	13.0	(33.0)	16.0	(40.6)		
12.5	(31.8)	Not limited		19.5	(49.5)	Not limited		0.042	(1.07)
14.0	(35.6)	18.0	(45.7)	21.0	(53.3)	25.0	(63.5)		
18.0	(45.7)	Not limited		27.0	(68.6)	Not limited		0.053	(1.35)
20.0	(50.8)	25.0	(63.5)	29.0	(73.7)	36.0	(91.4)		
22.0	(55.9)	Not limited		33.0	(83.8)	Not limited		0.060	(1.52)
25.0	(63.5)	31.0	(78.7)	35.0	(88.9)	43.0	(109.2)		
25.0	(63.5)	Not limited		39.0	(99.1)	Not limited		0.067	(1.70)
29.0	(73.7)	36.0	(91.4)	41.0	(104.1)	51.0	(129.5)		
33.0	(83.8)	Not limited		51.0	(129.5)	Not limited		0.080	(2.03)
38.0	(96.5)	47.0	(119.4)	54.0	(137.2)	66.0	(167.6)		
42.0	(106.7)	Not limited		64.0	(162.6)	Not limited		0.093	(2.36)
47.0	(119.4)	59.0	(149.9)	68.0	(172.7)	84.0	(213.4)		
52.0	(132.1)	Not limited		80.0	(203.2)	Not limited		0.108	(2.74)
60.0	(152.4)	74.0	(188.0)	84.0	(213.4)	103.0	(261.6)		
63.0	(160.0)	Not limited		97.0	(246.4)	Not limited		0.123	(3.12)
73.0	(185.4)	90.0	(228.6)	103.0	(261.6)	127.0	(322.6)		

[a] See 63.1.4.

[b] The width is the smaller dimension of a rectangular piece of sheet metal that is part of an enclosure. Adjacent surfaces of an enclosure other than the cover shall comply with 63.1.5 and 63.1.6 or be made of a single sheet.

[c] Not limited applies only when the edge of the surface is flanged at least 1/2 inch (12.7 mm) or fastened to adjacent surfaces not routinely removed in use.

Table 63.2
Thickness of metal for electrical enclosures – aluminum, copper, or brass

Without supporting frame[a]				With supporting frame or equivalent reinforcement[a]				Minimum required thickness,	
Maximum width[b]		Maximum length[c]		Maximum width[b]		Maximum length[c]			
inches	(cm)	inches	(cm)	inches	(cm)	inches	(cm)	inches	(mm)
3.0	(7.6)	Not limited		7.0	(17.8)	Not limited		0.023	(0.58)
3.5	(8.9)	4.0	(10.2)	8.5	(21.6)	9.5	(24.1)		
4.0	(10.2)	Not limited		10.0	(25.4)	Not limited		0.029	(0.74)
5.0	(12.7)	6.0	(15.2)	10.5	(26.7)	13.5	(34.3)		
6.0	(15.2)	Not limited		14.0	(35.6)	Not limited		0.036	(0.91)
6.5	(16.5)	8.0	(20.3)	15.0	(38.1)	18.0	(45.7)		
8.0	(20.3)	Not limited		19.0	(48.3)	Not limited		0.045	(1.14)

Table 63.2 Continued on Next Page

Table 63.2 Continued

Without supporting frame[a]				With supporting frame or equivalent reinforcement[a]				Minimum required thickness,	
Maximum width[b]		Maximum length[c]		Maximum width[b]		Maximum length[c]			
inches	(cm)	inches	(cm)	inches	(cm)	inches	(cm)	inches	(mm)
9.5	(24.1)	11.5	(29.2)	21.0	(53.3)	25.0	(63.5)		
12.0	(30.5)	Not limited		28.0	(71.1)	Not limited		0.058	(1.47)
14.0	(35.6)	16.0	(40.6)	30.0	(76.2)	37.0	(94.0)		
18.0	(45.7)	Not limited		42.0	(106.7)	Not limited		0.075	(1.91)
20.0	(50.8)	25.0	(63.5)	45.0	(114.3)	55.0	(139.7)		
25.0	(63.5)	Not limited		60.0	(152.4)	Not limited		0.095	(2.41)
29.0	(73.7)	36.0	(91.4)	64.0	(162.6)	78.0	(198.1)		
37.0	(94.0)	Not limited		87.0	(221.0)	Not limited		0.122	(3.10)
42.0	(106.7)	53.0	(134.6)	93.0	(236.2)	114.0	(289.6)		
52.0	(132.1)	Not limited		123.0	(312.4)	Not limited		0.153	(3.89)
60.0	(152.4)	74.0	(188.0)	130.0	(330.2)	160.0	(406.4)		

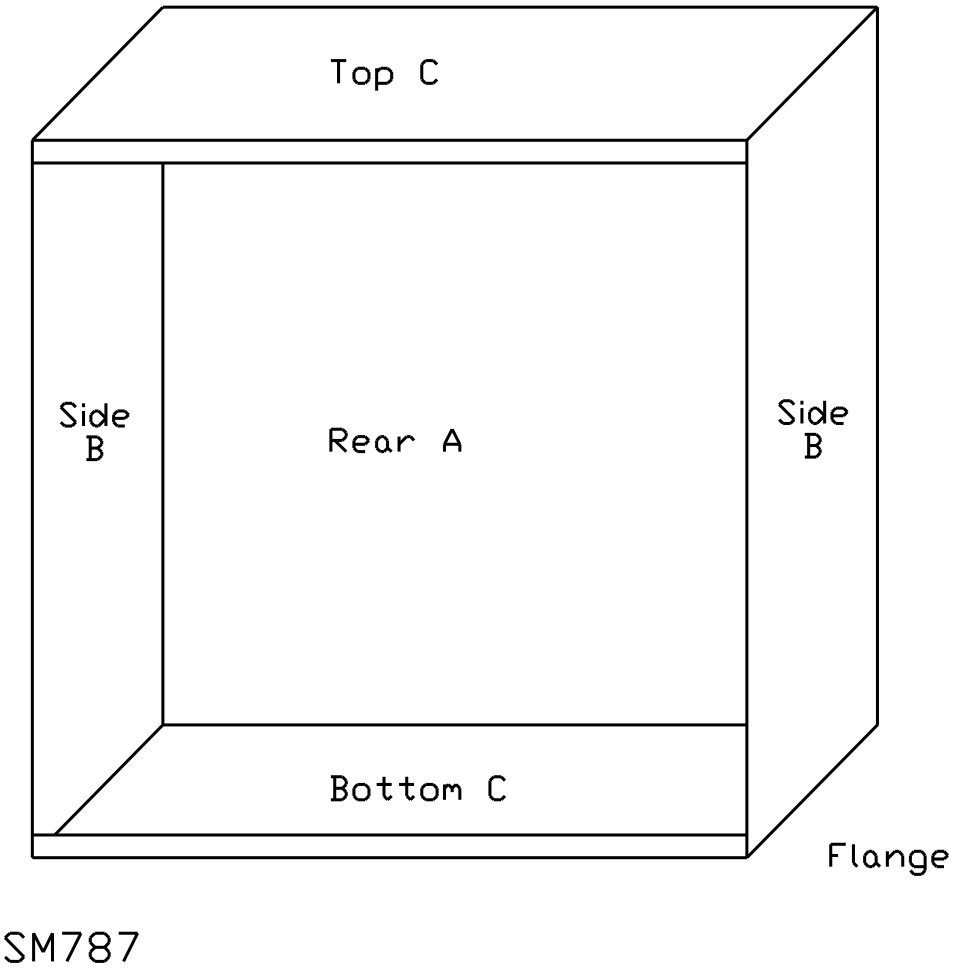
[a] See 63.1.4.

[b] The width is the smaller dimension of a rectangular piece of sheet metal that is part of an enclosure. Adjacent surfaces of an enclosure other than the cover shall comply with 63.1.5 and 63.1.6 or be made of a single sheet.

[c] Not limited applies only when the edge of the surface is flanged at least 1/2 inch (12.7 mm) or fastened to adjacent surfaces not routinely removed in use.

Figure 63.1

Supported and unsupported enclosure surfaces



NOTES:

Each enclosure surface is evaluated individually based on the length and width dimensions. For each set of surface dimensions, A, B or C, the width is the smaller dimension regardless of its orientation to other surfaces. In Table 63.1 and Table 63.2, there are two sets of dimensions that correspond to a single metal thickness requirement and the following describes the applicable procedure for determining the minimum metal thickness for each surface:

1. For a supported surface, all of the table dimensions, including the "not limited" lengths, are able to be applied. The rear surface "A", top and bottom surfaces "C", are supported either by adjacent surfaces of the enclosure or by a 1/2 inch (12.7 mm) wide flange. To determine required metal thickness for supported surfaces, the width is to be measured and compared with the table value in the maximum width column that is equal to or greater than the measured width. When the corresponding length in the maximum length column is "Not limited", the minimum thickness in the far right column is to be used. When the corresponding length in the maximum length column is a numerical value, and the measured length of the side does not exceed this value, the minimum thickness from the far right column is to be used. When the measured length of the side exceeds the numerical value, the next line in the table is to be used.

2. For an unsupported surface, only the table dimensions that include a specific length requirement are applied. The dimensions with a "not limited" length do not apply. The front edge of the left and right surfaces "B", are not supported by an adjacent surface or by a flange. An edge that is rabbeted , as shown in Figure 63.3, is also evaluated as an unsupported surface. To determine the required metal thickness for unsupported surfaces, the length is to be measured and compared with the table value in the maximum length column that is not less than the measured length, ignoring the "not limited" entries. When the corresponding width in the maximum width column is not less than the measured width, the minimum thickness from the far right column is to be used. When the measured width of the surface exceeds the value in the maximum width column, the next line in the table is to be used.

63.1.5 All seams, joints, or splices at corners or back edges of an enclosure shall be closed by:

a) Overlapping flanges formed of sheet metal from which the enclosure is made;

b) Metal surfaces overlapping adjacent surfaces or supporting frame;

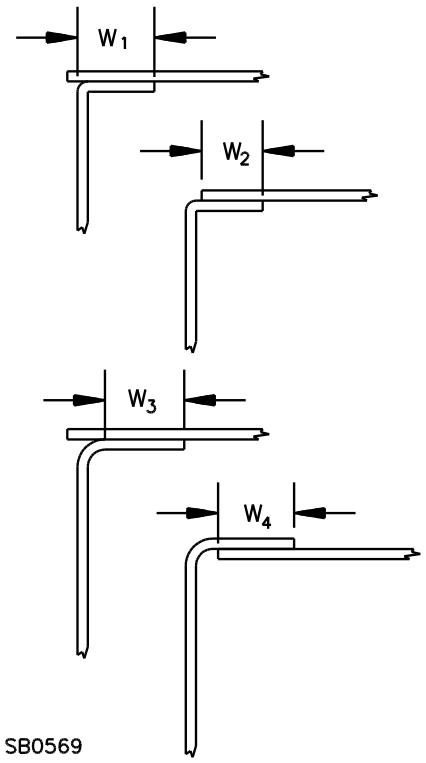
c) Separate overlapping flanges; or

d) Continuous welding that provides a construction equivalent to an integral-flanged construction.

63.1.6 With reference to the requirement in 63.1.5, the overlap shall be at least 1/2 inch (12.7 mm) and shall extend the full length of the seam. See Figure 63.2.

Figure 63.2

Overlap between flat cover and box flange and at corner or box seam



63.1.7 A piece of angle or channel having a thickness not less than the enclosure wall, and having a flange perpendicular to the enclosure wall at least 1/2 inch (12.7 mm) in height and extending the full length or width of an enclosure wall shall be evaluated as a supported side for the purpose of subdividing the overall area of an enclosure wall into two smaller areas to determine compliance with the metal thickness requirements of Table 63.1 and Table 63.2. The inclusion of a single support does not constitute a supporting frame with regard to Table 63.1 and Table 63.2.

63.1.8 When two or more covers or panels are provided to close a single opening, the thickness of each cover or panel shall be not less than a single sheet as specified in Table 63.1 or Table 63.2. The adjacent edges of such multiple panels or covers shall:

a) Be flanged at least 1/2 inch (12.7 mm);