

JAPANESE INDUSTRIAL STANDARD

JIS C 8330-1991

Fittings for rigid metal conduits

1996.2

ERRATA

Page	Position	Wrong	Correct																											
10	Table in Attached Fig2., Dimension D, Nominal sizes E51, E63 and E75	<table><tr><td>150.8±0.2</td></tr><tr><td>463.5±0.35</td></tr><tr><td>776.2±0.35</td></tr></table>	150.8±0.2	463.5±0.35	776.2±0.35	<table><tr><td>50.8±0.2</td></tr><tr><td>63.5±0.35</td></tr><tr><td>76.2±0.35</td></tr></table>	50.8±0.2	63.5±0.35	76.2±0.35																					
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11	Tables in Attached Fig.3.	Prefix C or G to the Nominal sizes of couplings as follows. For thin steel conduit <table><tr><th>Nominal size of coupling</th></tr><tr><td>C19</td></tr><tr><td>C25</td></tr><tr><td>C31</td></tr><tr><td>C39</td></tr><tr><td>C51</td></tr><tr><td>C63</td></tr><tr><td>C75</td></tr></table>		Nominal size of coupling	C19	C25	C31	C39	C51	C63	C75	For thick steel conduit <table><tr><th>Nominal size of coupling</th></tr><tr><td>G16</td></tr><tr><td>G22</td></tr><tr><td>G28</td></tr><tr><td>G36</td></tr><tr><td>G42</td></tr><tr><td>G54</td></tr><tr><td>G70</td></tr><tr><td>G82</td></tr><tr><td>G92</td></tr><tr><td>G104</td></tr></table>	Nominal size of coupling	G16	G22	G28	G36	G42	G54	G70	G82	G92	G104							
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19	Table in Attached Fig.11.	“※” denotes the separate line has been changed. <table><tr><th rowspan="2">Nominal designation of screw thread</th><th colspan="3"></th></tr><tr><th>Nominal size of applicable conduit</th><th>Number of threads (per 25.4 mm) <i>n</i></th><th>Pitch <i>P</i> (Ref.)</th></tr><tr><td>G 16</td><td>G 16</td><td rowspan="2">14</td><td>1.814 3</td></tr><tr><td>G 22</td><td>G 22</td><td>1.814 3</td></tr><tr><td>G 28</td><td>G 28</td><td rowspan="5">※ 11</td><td>2.309 1</td></tr><tr><td>G 36</td><td>G 36</td><td>2.309 1</td></tr><tr><td>G 42</td><td>G 42</td><td>2.309 1</td></tr><tr><td>G 54</td><td>G 54</td><td>2.309 1</td></tr></table>		Nominal designation of screw thread				Nominal size of applicable conduit	Number of threads (per 25.4 mm) <i>n</i>	Pitch <i>P</i> (Ref.)	G 16	G 16	14	1.814 3	G 22	G 22	1.814 3	G 28	G 28	※ 11	2.309 1	G 36	G 36	2.309 1	G 42	G 42	2.309 1	G 54	G 54	2.309 1
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Remarks: This errata is for correcting the first edition of this Standard.

Japanese Standards Association

JIS

JAPANESE INDUSTRIAL STANDARD

Fittings for rigid metal conduits

Ⓔ **JIS C 8330**—1991

Translated and Published

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Japanese Standards Association



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In the event of any doubt arising,
the original Standard in Japanese is to be final authority.



JAPANESE INDUSTRIAL STANDARD

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Fittings for rigid metal conduits

C 8330-1991

1. Scope

This Japanese Industrial Standard specifies fittings for use with the conduits specified in JIS C 8305.

Remarks 1. Applicable standards to this Standard are shown as follows.

JIS B 0204-Screw Threads for Rigid Metal Conduits and Fittings

JIS C 8305-Rigid Steel Conduits

JIS C 8359-General Rules for Fittings of Metal Conduits and Underfloor Ducts

2. The units and numerical values in { } in this Standard are based on the traditional units and are appended for informative reference.

2. Classification

The fittings for rigid metal conduits shall be classified as specified in Table 1.

Table 1. Classification of fittings

Classification			Fig.	Remarks
Name	Applicable conduits			
Elbow		Thick steel conduit Thin steel conduit	1	Elbow connected by coupling
	A type	Threadless conduit	2	
	B type	Threadless conduit		
Coupling		Thick steel conduit Thin steel conduit Threadless conduit	3	—
			4	
Union coupling		Thick steel conduit Thin steel conduit	5	—
Connector		Thin steel conduit Threadless conduit	6	—
Bushing		Thick steel conduit Thin steel conduit	7	—
Insulating bushing	No. 1	Thick steel conduit	8	No. 1 is a bushing in which body is made of metals and wire draw-out portion is made of insulators.
	No. 2	Thin steel conduit	9	No. 2 is a bushing in which body is made of only insulators.
Lock nut		For thick steel conduit For thin steel conduit	10	—

3. Performance

3.1 Threadless joint property The threadless joint property shall comply with the provision of 4.1 (threadless joint property) of JIS C 8359 when subjected to the test of 7.2 of Table 2.

3.2 Mounting The mounting of insulating bushing shall cause no fissures, cracks nor other defects when subjected to the test of 7.3 of Table 2.

3.3 Tensile strength The tensile strength of insulating bushing of No. 1 shall be present no failures nor other changes detrimental to practical service when subjected to the test of 7.4 of Table 2.

3.4 Rust prevention The rust prevention shall comply with the provision of 4.2 of JIS C 8359 when subjected to the test of 7.5 of Table 2.

Further, fittings processed by rust prevention by synthetic resin coating shall comply with the provision of 4.3 of JIS C 8359 and further these processed by rust prevention by coating shall comply with the provision of 4.4 of JIS C 8359.

3.5 Electric strength The insulating bushing shall withstand the test voltage when subjected to the test of 7.6 of Table 2.

4. Construction

The construction shall, beside in compliance with 5. of JIS C 8359, comply with the following particulars.

- (1) Both ends of the elbow shall be cut perpendicularly to the axis, and subjected to chamfering. Any section shall show practically circular shape, uniform thickness, smooth internal and external faces, and no harmful projections.
- (2) A conduit end stop is provided at the center of coupling for threadless couplings.
- (3) The opening of connector shall be made round at the external thread part in order not to damage the electric wire.

Providing grounding construction is acceptable.

- (4) For bushings and insulating bushings, the electric wire draw-out end shall be made round in order not to damage the electric wire, and the end of threaded portion shall be subjected to chamfering.
- (5) The bushing and insulating bushing shall be equipped with a rib which can be clamped on the outside.
- (6) The insulator of insulating bushing of No. 1 shall be firmly fixed on the metallic body by mechanical treatment. The screw thread of insulating bushing of No. 2, which is formed at the time of synthetic resin in one body moulding, shall follow Attached Figs. 11 and 12. The screw thread made on other fittings shall follow JIS B 0204.

5. Shapes and dimensions

The shapes and dimensions of fittings shall be as given in Attached Figs. 1 to 10. However, the figures show an example of shapes. The tolerances on dimensions shall follow 6. of JIS C 8359.

6. Materials

The materials shall follow 7. of JIS C 8359.

7. Test methods

The tests shall be carried out in accordance with each of items specified in Table 2.

Table 2. Tests

No. of item	Classification of tests	Names of fittings	Method of test
7.1	Construction test	Elbow, coupling, union coupling, connector, bushing, insulating bushing (No. 1, No. 2), lock nut	Whether the fittings comply with the provisions of 4. to 6. and 10 or not is examined in the construction test.
7.2	Threadless joint property test	Fittings of threadless joint system such as elbow, coupling and	The threadless joint property test shall follow 8.2 of JIS C 8359. However, the lateral pressure test on B type of elbow of threadless joint system shall be carried out in accordance with the method given in Fig. 2, and whether the elbow complies with the provisions of 4.1 (threadless joint property) specified in JIS C 8359 or not is examined. In the test a dead weight given in the table shall be applied for 1 min and removed. After 1 min, the dead weight shall be applied for 1 min.
7.3	Mounting test	Insulating bushing (No. 1, No. 2)	In the mounting test, the insulating bushing shall be screwed to the end point of threaded conduit and then mounted with the torsional moment given in Table 3.

Table 2. (Continued)

No. of item	Classification of tests	Names of fittings	Method of test
7.4	Tension test	Insulating bushing (No. 1)	In the tension test, the insulating bushing shall be mounted to the applicable conduit, and the guide wire (galvanized steel wire) inserted into the inside of conduit shall be pulled under the following conditions, as given in Fig. 1: (1) Angle at which the guide wire is pulled: 45° (2) Length by which the guide wire is pulled: 4 m (3) Velocity at which the guide wire is pulled: 5 m/min (4) Diameters and the number of guide wires and the tensile load on guide wire shall be as given in Table 4.
7.5	Rust prevention test	Elbow, Coupling, Union coupling, Connector, Bushing, Insulating bushing (No. 1), Lock nut	The rust prevention test shall follow 8.3 (rust prevention test) of JIS C 8359. However, the coating performance test of fittings processed by rust prevention with synthetic resin coating shall be in accordance with 8.4 of JIS C 8359 and the paint film test of fittings processed by rust prevention with painting shall be in accordance with 8.5 of JIS C 8359.
7.6	Withstand voltage test	Insulating bushing (No. 1, No. 2)	In the withstand voltage test, the insulating bushing shall be mounted on a conduit and set as it looks upward. A flat metal plate shall be placed on it, and a dead weight of 1 kg shall be applied. An a.c. voltage of 2000 V having a nearly sinusoidal wave form of 50 or 60 Hz in frequency shall be applied between the metal plate and the conduit for 15 min.