

Aluminum Rigid Conduit

Aluminum Conduit, Elbows, Couplings, and Nipples

Columbia-MBF™, the leading manufacturer of steel conduit and tubing, also offers a broad line of rigid aluminum conduit, elbows, Coupling, and nipples.

Columbia-MBF aluminum rigid conduit combines light weight and corrosion resistance to provide a full-line of easy to install, low maintenance conduit whenever specifications call for aluminum.

The complementary line of aluminum accessories ensures end to end system installation.



FEATURES

- Light Weight
Approximately one-third the weight of steel
- Corrosion Resistant
Aluminum resists most corrosive atmospheres in industrial environments
- Easy to Install
Can be easily cut, bent and threaded without special tools
- Low Maintenance
Doesn't leave discoloring streaks or stains

SPECIFICATION DATA

ALLOY:

Columbia-MBF Rigid Aluminum Conduits and Fittings are all manufactured of 6063 alloy in temper designation T-1 to ensure maximum performance in electrical installations.

STANDARDS:

Columbia-MBF Rigid Aluminum Conduit is CSA certified to CSA C22.2 No. 45, "Standard for Electrical Rigid Metal Conduit—Aluminum, Red Brass and Stainless Steel", and is manufactured in accordance with ANSI C80.5.

THREAD PROTECTORS:

Color-coded end caps keep threads clean and sharp and help provide trade size recognition. Even sizes are blue; 1/2 trade sizes are black; and 1/4 trade sizes are red.

RECOMMENDED INSTALLATION PRACTICES

CUTTING:

A hacksaw is recommended to cut trade sizes 1 1/4 and smaller. Larger trade sizes can be cut with power cut-off equipment.

BENDING:

Standard EMT benders, one size larger than the size of the conduit, should be used on conduit trade sizes 1 and smaller. For sizes over trade size 1, conventional equipment is recommended.

THREADING:

Sharp dies and conventional cutting oil should be used for aluminum conduit. A general purpose emulsifiable oil can provide excellent results.

Coupling AND FITTINGS:

Aluminum Coupling and fittings are recommended; however, galvanized Coupling and fittings are satisfactory for most installations.

FISHING AND WIRE PULLING:

Small Conduit:

In trade sizes up to 1 1/2 and on shorter runs (up to 100 feet), polyethylene fish tapes can be used effectively. Also recommended are round, flexible, speedometer-type steel cables. Use of flat steel tapes should be avoided since they tend to jam in the bends, or if not used carefully, scrape and cut conduit walls.

Large Conduit:

For pulling large conductors through larger conduit or longer runs, polypropylene rope is recommended. Steel pulling cables, especially when old or frayed, can damage steel or aluminum conduit.

IN SOIL OR CONCRETE:

The Canadian Electrical Code states that aluminum conduit and tubing shall not be embedded in concrete containing reinforcing steel unless the concrete contains no chloride additives or the conduit/tubing has been treated with supplementary corrosion protection.

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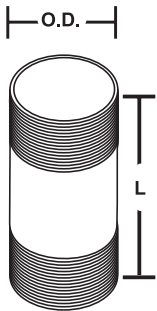


Conduit Nipples Weights and Dimensions

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Designators		*Approx. Wt Per 100 Pcs		Length		Outside Dia. (O.D.)		Nominal Wall Thickness ²		Thread Specification	Thread Length	Standard Package
Trade Size	Metric	Lb.	Kg.	In.	mm	In.	mm	In.	mm	National Pipe Thread	In.	Pieces
1/2	16	2	1	1-1/8	28.6	0.840	21.3	0.104	2.64	14 NPT	3/4	100
1/2	16	3	1	1-1/2	38.1	0.840	21.3	0.104	2.64	14 NPT	3/4	100
1/2	16	4	2	2	50.8	0.840	21.3	0.104	2.64	14 NPT	3/4	100
1/2	16	6	3	2-1/2	63.5	0.840	21.3	0.104	2.64	14 NPT	3/4	100
1/2	16	7	3	3	76.2	0.840	21.3	0.104	2.64	14 NPT	3/4	100
1/2	16	8	4	3-1/2	88.9	0.840	21.3	0.104	2.64	14 NPT	3/4	100
1/2	16	9	4	4	101.6	0.840	21.3	0.104	2.64	14 NPT	3/4	100
1/2	16	12	5	5	127.0	0.840	21.3	0.104	2.64	14 NPT	3/4	100
1/2	16	14	6	6	152.4	0.840	21.3	0.104	2.64	14 NPT	3/4	25
3/4	21	3	1	1 3/8	34.9	1.050	26.7	0.107	2.72	14 NPT	3/4	100
3/4	21	4	2	1-1/2	38.1	1.050	26.7	0.107	2.72	14 NPT	3/4	100
3/4	21	5	2	2	50.8	1.050	26.7	0.107	2.72	14 NPT	3/4	100
3/4	21	7	3	2-1/2	63.5	1.050	26.7	0.107	2.72	14 NPT	3/4	100
3/4	21	8	4	3	76.2	1.050	26.7	0.107	2.72	14 NPT	3/4	100
3/4	21	10	5	3-1/2	88.9	1.050	26.7	0.107	2.72	14 NPT	3/4	100
3/4	21	12	5	4	101.6	1.050	26.7	0.107	2.72	14 NPT	3/4	25
3/4	21	15	7	5	127.0	1.050	26.7	0.107	2.72	14 NPT	3/4	25
3/4	21	18	8	6	152.4	1.050	26.7	0.107	2.72	14 NPT	3/4	25
1	27	4	2	1-1/2	38.1	1.315	33.4	0.126	3.20	11-1/2 NPT	15/16	100
1	27	7	3	2	50.8	1.315	33.4	0.126	3.20	11-1/2 NPT	15/16	100
1	27	9	4	2-1/2	63.5	1.315	33.4	0.126	3.20	11-1/2 NPT	15/16	25
1	27	12	5	3	76.2	1.315	33.4	0.126	3.20	11-1/2 NPT	15/16	25
1	27	14	6	3-1/2	88.9	1.315	33.4	0.126	3.20	11-1/2 NPT	15/16	25
1	27	16	7	4	101.6	1.315	33.4	0.126	3.20	11-1/2 NPT	15/16	25
1	27	22	10	5	127.0	1.315	33.4	0.126	3.20	11-1/2 NPT	15/16	25
1	27	26	12	6	152.4	1.315	33.4	0.126	3.20	11-1/2 NPT	15/16	25
1-1/4	35	7	3	1-5/8	41.3	1.660	42.2	0.133	3.38	11-1/2 NPT	31/32	25
1-1/4	35	10	5	2	50.8	1.660	42.2	0.133	3.38	11-1/2 NPT	31/32	25
1-1/4	35	13	6	2-1/2	63.5	1.660	42.2	0.133	3.38	11-1/2 NPT	31/32	25
1-1/4	35	16	7	3	76.2	1.660	42.2	0.133	3.38	11-1/2 NPT	31/32	25
1-1/4	35	20	9	3-1/2	88.9	1.660	42.2	0.133	3.38	11-1/2 NPT	31/32	25
1-1/4	35	23	10	4	101.6	1.660	42.2	0.133	3.38	11-1/2 NPT	31/32	25
1-1/4	35	30	14	5	127.0	1.660	42.2	0.133	3.38	11-1/2 NPT	31/32	25
1-1/4	35	36	16	6	152.4	1.660	42.2	0.133	3.38	11-1/2 NPT	31/32	25
1-1/2	41	10	5	1-3/4	44.5	1.900	48.3	0.138	3.51	11-1/2 NPT	1	25
1-1/2	41	12	5	2	50.8	1.900	48.3	0.138	3.51	11-1/2 NPT	1	25
1-1/2	41	16	7	2-1/2	63.5	1.900	48.3	0.138	3.51	11-1/2 NPT	1	25
1-1/2	41	20	9	3	76.2	1.900	48.3	0.138	3.51	11-1/2 NPT	1	25
1-1/2	41	24	11	3-1/2	88.9	1.900	48.3	0.138	3.51	11-1/2 NPT	1	25
1-1/2	41	28	13	4	101.6	1.900	48.3	0.138	3.51	11-1/2 NPT	1	25
1-1/2	41	36	16	5	127.0	1.900	48.3	0.138	3.51	11-1/2 NPT	1	25
1-1/2	41	44	20	6	152.4	1.900	48.3	0.138	3.51	11-1/2 NPT	1	25
2	53	13	6	2	50.8	2.375	60.3	0.146	3.71	11-1/2 NPT	1	25
2	53	18	7	2-1/2	63.5	2.375	60.3	0.146	3.71	11-1/2 NPT	1	25
2	53	22	10	3	76.2	2.375	60.3	0.146	3.71	11-1/2 NPT	1	25
2	53	26	12	3-1/2	88.9	2.375	60.3	0.146	3.71	11-1/2 NPT	1	25
2	53	30	14	4	101.6	2.375	60.3	0.146	3.71	11-1/2 NPT	1	25
2	53	48	22	5	127.0	2.375	60.3	0.146	3.71	11-1/2 NPT	1	20
2	53	58	26	6	152.4	2.375	60.3	0.146	3.71	11-1/2 NPT	1	20
2-1/2	63	22	10	2-1/2	63.5	2.875	73.0	0.193	4.90	8 NPT	1-1/2	10
2-1/2	63	30	14	3	76.2	2.875	73.0	0.193	4.90	8 NPT	1-1/2	10
2-1/2	63	39	18	3-1/2	88.9	2.875	73.0	0.193	4.90	8 NPT	1-1/2	10
2-1/2	63	54	24	4	101.6	2.875	73.0	0.193	4.90	8 NPT	1-1/2	10
2-1/2	63	64	29	5	127.0	2.875	73.0	0.193	4.90	8 NPT	1-1/2	8
2-1/2	63	80	36	6	152.4	2.875	73.0	0.193	4.90	8 NPT	1-1/2	8
3	78	34	15	2-5/8	66.7	3.500	88.9	0.205	5.21	8 NPT	1-9/16	10
3	78	43	20	3	76.2	3.500	88.9	0.205	5.21	8 NPT	1-9/16	10
3	78	54	24	3-1/2	88.9	3.500	88.9	0.205	5.21	8 NPT	1-9/16	5
3	78	65	29	4	101.6	3.500	88.9	0.205	5.21	8 NPT	1-9/16	5
3	78	76	34	5	127.0	3.500	88.9	0.205	5.21	8 NPT	1-9/16	5
3	78	87	39	6	152.4	3.500	88.9	0.205	5.21	8 NPT	1-9/16	5
3-1/2	91	43	20	2-3/4	69.9	4.000	101.6	0.215	5.46	8 NPT	1-5/8	5
3-1/2	91	76	34	4	101.6	4.000	101.6	0.215	5.46	8 NPT	1-5/8	4
3-1/2	91	102	46	5	127.0	4.000	101.6	0.215	5.46	8 NPT	1-5/8	4
3-1/2	91	128	58	6	152.4	4.000	101.6	0.215	5.46	8 NPT	1-5/8	4
4	103	52	24	2-7/8	73.0	4.500	114.3	0.225	5.72	8 NPT	1-21/32	5
4	103	87	39	4	101.6	4.500	114.3	0.225	5.72	8 NPT	1-21/32	4
4	103	118	54	5	127.0	4.500	114.3	0.225	5.72	8 NPT	1-21/32	4
4	103	149	68	6	152.4	4.500	114.3	0.225	5.72	8 NPT	1-21/32	4
5	129	70	32	3	76.2	5.563	141.3	0.245	6.22	8 NPT	1-3/4	1
5	129	160	73	5	127.0	5.563	141.3	0.245	6.22	8 NPT	1-3/4	1
5	129	200	91	6	152.4	5.563	141.3	0.245	6.22	8 NPT	1-3/4	1
6	155	110	50	3-1/8	79.4	6.625	168.3	0.266	6.76	8 NPT	1-7/8	1
6	155	210	95	5	127.0	6.625	168.3	0.266	6.76	8 NPT	1-7/8	1
6	155	260	118	6	152.4	6.625	168.3	0.266	6.76	8 NPT	1-7/8	1

1 Applicable tolerances on outside diameter are: for trade sizes 1/2 (16) through 1 1/2 (41) +.016 in. (.40mm), -.031 in. (.79mm), for trade size 2 (53) through 6 (155) ± 1%
 2 The minimum tolerance on the wall thickness is governed by the minimum mass requirement. * General information not a spec requirement.

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Columbia-MBF™ Electrical & Support Division

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