

# Rigid Steel Conduit Elbow

45 Degree Type

ELECMAN® Rigid Steel Conduit Elbow is a manufactured curved section of RSC conduit threaded on each end.

**Material:**

Carbon steel

**Type:**

45 degree

**Surface Finish:**

**Hot-dip galvanized:**

Involves dipping the steel conduit in molten zinc, which creates a thick, durable coating.

**Zinc coating:**

1. Magnetic test in accordance with ASTM B 499.
2. Copper sulfate test (Preece Test) in accordance with ASTM A 239. Material will withstand four 1-minute immersions.
3. The zinc coating thickness is more than 40µm.

**Certification & Standard**

**Certification:**

Manufactured to Underwriters Laboratory Safety Standards UL 6  
UL File No.: E499650



**Standard:**

Manufactured in accordance with ANSI C80.1

**Welding:**

The welding of all seams is continuous and done in a workmanlike manner.

**Thread and Chamfer:**

1. Each length of elbow is threaded on both ends, the standard of the threads is NPT.
2. The number of threads per inch (threads per 25.4 mm), and the length of the threaded portion at each end of each length of conduit is as indicated in Table 1, and conform to ANSI/ASME B1.20.1. The thread is tapered for its entire length, and the taper is about 1 in 16.
3. Threads are treated with a protective coating to prevent corrosion.
4. Both ends are chamfered to remove burrs and sharp edges.

Table 1 - Dimensions of Threads for RSC Conduit Elbow

| Trade Size | Threads Per 25.4 mm. |        | Pitch diameter at end of thread $E_s$ , taper 62.5 mm. per meter <sup>b</sup> | Length of Thread (mm) |                 |
|------------|----------------------|--------|---|-----------------------|-----------------|
|            | in.                  | mm     |   | Effective $L_2$       | Overall $L_3^a$ |
| 1/2"       | 16                   | 14     | 19.3  | 13.5                  | 19.8            |
| 3/4"       | 21                   | 14     | 24.6  | 14.0                  | 20.1            |
| 1"         | 27                   | 11 1/2 | 30.8  | 17.3                  | 24.9            |
| 1 1/4"     | 35                   | 11 1/2 | 39.5  | 18.0                  | 25.7            |
| 1 1/2"     | 41                   | 11 1/2 | 45.6  | 18.3                  | 26.2            |
| 2"         | 53                   | 11 1/2 | 57.6  | 19.3                  | 26.9            |
| 2 1/2"     | 63                   | 8      | 69.1  | 29.0                  | 39.9            |
| 3"         | 78                   | 8      | 84.9  | 30.5                  | 41.4            |
| 3 1/2"     | 91                   | 8      | 97.5  | 31.8                  | 42.7            |
| 4"         | 103                  | 8      | 110.1   | 33.0                  | 43.9            |
| 5"         | 129                  | 8      | 136.9   | 35.8                  | 46.7            |
| 6"         | 155                  | 8      | 163.7   | 38.4                  | 49.5            |

Applicable Tolerance:

<sup>a</sup>Thread length( $L_3$ ): ±1 thread, recommended practice +0, -1

<sup>b</sup>Pitch diameter: ± turn is the maximum variation permitted from the gauging face of the working thread gauges

**Dimensions:**

The dimensions of RSC elbow 45 degree are in accordance with Table 2.

Table 2 - Dimensions of RSC Elbow 45 Degree

| Catalog Number | Trade Size |     | Minimum Radius (R) <sup>1</sup> to Center of Conduit | Minimum Straight Length (L) at Each End | Offset (F1) <sup>2</sup> | Offset (F2) <sup>2</sup> |
|----------------|------------|-----|--|---|--------------------------|--------------------------|
|                | in.        | mm  |  |   |                          |                          |
| REF050         | 1/2"       | 16  | 102  | 38                                      | 178                      | 73                       |
| REF075         | 3/4"       | 21  | 114  | 38                                      | 200                      | 83                       |
| REF100         | 1"         | 27  | 146  | 48                                      | 244                      | 102                      |
| REF125         | 1 1/4"     | 35  | 184  | 51                                      | 283                      | 117                      |
| REF150         | 1 1/2"     | 41  | 210  | 51                                      | 333                      | 137                      |
| REF200         | 2"         | 53  | 241  | 51                                      | 400                      | 165                      |
| REF250         | 2 1/2"     | 63  | 267  | 76                                      | 445                      | 184                      |
| REF300         | 3"         | 78  | 330  | 79                                      | 556                      | 229                      |
| REF325         | 3 1/2"     | 91  | 381  | 83                                      | 664                      | 276                      |
| REF400         | 4"         | 103 | 406  | 86                                      | 667                      | 276                      |
| REF500         | 5"         | 129 | 610  | 92                                      | 911                      | 378                      |
| REF600         | 6"         | 155 | 762  | 95                                      | 1102                     | 457                      |

<sup>1</sup>Minimum requirement as per UL Standard

<sup>2</sup>For information only, not a requirement as per UL Standard

