

## **PART 1 GENERAL**

### 1.01 SECTION INCLUDES

This specification covers Snap-Loc<sup>®</sup> duct spacers designed to provide stability, and consistent separation between ducts. They support duct banks and relieve direct stress on the duct materials, whether encased in concrete and in a direct buried application. The spacer system is suitable for duct bank installation of electrical, power, voice, data, video and other cables. All necessary spacers, fittings and accessories shall be provided by the same manufacturer for a complete duct bank and raceway system.

### 1.02 REFERENCES

- A. 2005 National Electric Code, Annex B
- B. NEMA TCB2

### 1.03 SYSTEM DESCRIPTION

Spacer system shall be manufactured in accordance with the dimensional and performance requirements that provide the proper spacing and support for conduit systems.

### 1.04 SUBMITTALS

- A. Submit each type of spacers and accessory upon request

## **PART 2 PRODUCT**

### 2.01 ACCEPTABLE MANUFACTURERS

- A. Carlton<sup>®</sup>, a division of Lamson & Sessions
- B. Other manufacturers may be considered, as long as they meet all Snap-Loc<sup>®</sup> performance, dimensional and material specifications, and are evaluated and approved by a qualified engineer.

### 2.02 MATERIALS

- A. Spacers shall be made of engineered thermoplastic high impact polystyrene, that incorporate both intermediate and base spacer functions into a single unit
  - 1. Shall provide a strong and durable, non-metallic, non-corrosive and non-conductive support system.
- B. Shall be manufactured to duct outside diameter dimensions as specified in NEMA TC-2, TC-6 & 8 and ASTM F512.

Technical Information - Base Spacers			
Duct Size	Duct Spacing	Bottom of trench to center of duct	Horizontal Center to Center Spacing
2"	1 ½"	4.25	4.12
2"	2"	4.25	4.62
2"	3"	4.25	5.62
3"	1 ½"	4.81	5.25
3"	2"	4.81	5.75
3"	3"	4.81	6.75
4"	1"	5.31	5.75
4"	1 ½"	5.31	6.25
4"	2"	5.31	6.75
4"	3"	5.31	7.75
5"	1 ½"	5.84	7.31
5"	2"	5.84	7.81
5"	3"	5.84	8.81
6"	1 ½"	6.38	8.38
6"	2"	6.38	8.88
6"	3"	6.38	9.88
8"	1 ½"	7.38	10.30
8"	2"	7.38	10.76

Technical Information - Intermediate Spacers			
Duct Size	Duct Spacing	Vertical Center to Center Spacing	Horizontal Center to Center Spacing
2"	1 ½"	3.88	4.12
2"	2"	4.38	4.62
2"	3"	5.38	5.62
3"	1 ½"	5.01	5.25
3"	2"	5.51	5.75
3"	3"	6.51	6.75
4"	1"	5.51	5.75
4"	1 ½"	6.01	6.25
4"	2"	6.51	6.75
4"	3"	7.51	7.75
5"	1 ½"	7.07	7.31
5"	2"	7.57	7.81
5"	3"	8.57	8.81
6"	1 ½"	8.14	8.38
6"	2"	8.64	8.88
6"	3"	9.64	9.88
8"	1 ½"	10.14	10.30
8"	2"	10.64	10.76

- C. Shall contain both a horizontal and vertical locking system
  - 1. Horizontal locking system shall enable any spacers to be interlocked regardless of size.
    - a. Shall be a dovetail tongue and groove feature
  - 2. Locking mechanisms shall enable quick and efficient installation without the need for glue or epoxy of any type.
- D. Design shall consist of separate base and intermediate spacers

#### 2.03 MANUFACTURERS UNITS

- A. Spacers shall be available in IPS duct dimensions ranging from 2" through 8" with various spacing as determined by NEC 2005, ANNEX B

#### 2.04 FITTINGS

- A. Manufacturer shall make available reducers to enable smaller sized conduits to be used in the system without the need for change of spacer system
  - 1. 1" & 2" reducers
- B. A rebar holder shall be available as a separate piece to be utilized as needed, to provide a tie-down location for a rebar anchoring system

### **PART 3 EXECUTION**

#### 3.01 INSTALLATION

- A. Refer to 2005 National Electric Code – Annex B for appropriate spacing requirements
- B. Manufacturer shall provide Technical Assistance Hotline and/or dedicated Product Specialists available for field support
- C. Snap-Loc<sup>®</sup> spacers shall be used in concrete encased and direct-bury applications only.
  - 1. The use of duct spacers for direct burial may result in excessive point deflection unless proper design engineering is applied, such as the proper compaction of the appropriate backfill material.
  - 2. Manufacturer is not responsible for Snap-Loc<sup>®</sup> spacers used in direct bury applications.
    - a. Design engineers and contractors are responsible for the design of the installation
- D. Manufacturer shall make available, upon request, installation instruction sheets with spacers to ensure appropriate installation/interlocking of the spacers.