### **Drilling and Tapping Guidelines**

When drilling & tapping enclosures for conduit, proper installation requires compliance with the following:

- 1. Must be tapped with at least 5 full NPT threads in enclosure back or sides only; min. ½" conduit size for UL.
- 2. Tapping depth of NPT holes must be plus ½ turn min. to plus 1 ½ turns max. past standard NPT plug gage notch.
- 3. Inner end of conduit openings shall be smooth and well-rounded.
- 4. A minimum of (7) thread engagement, class 2 fit, required for Div. 1 Group B applications.

MINIMUM DISTANCE FROM CONDUIT/CABLE CENTER TO EDGE OF FLAT AREA

SIZE NPT	5	4	3 1/2	3	2 ½	2	1 ½	1 1/4	1	3/4	1/2	1/4-3/8
(METRIC)				(M75)	(M63)	(M50)	(M40)	(M32)	(M25)	(M20)	(M16)	
	2 <sup>13</sup> ⁄16	2 1/4	2	1 ¾	1 7/16	1 3/16	1	7/8	11/16	%16	1/2	1/2

MINIMUM DISTANCE FROM AUXILIARY DEVICE CENTER TO EDGE OF FLAT AREA

SIZE NPT	5	4	3 1/2	3	2 1/2	2	1 1/2	1 1⁄4	1	3/4	1/2	1/4-3/8	
(METRIC)				(M75)	(M63)	(M50)	(M40)	(M32)	(M25)	(M20)	(M16)		
	2 13/16	2 1/4	2	1 3/4	1 7/16	1 3/16	1	7/8	11/16	%16	1/2	1/2	

MINIMUM SPACING BETWEEN CENTERS OF CONDUIT & CABLE ENTRIES

SIZE NPT	5	4	3 1/2	3	2 ½	2	1 ½	1 1/4	1	3/4	1/2	1/4-3/8	
(METRIC)				(M75)	(M63)	(M50)	(M40)	(M32)	(M25)	(M20)	(M16)		
½16 - 3/8	4 3/8	3 %	3 ¾	3	2 %	2 3/8	2	1 1/8	1 %	1 3/8	1 1/4	1 1/8	
½ (M16)	4 3/8	3 %	3	3	2 %	2	2	1 1/8	1 %	1 3/8	1 1/4		
³⁄4 (M20)	4 1/2	3 ¾	3 ½	3 1/8	2 3/4	2 ½	2 1/8	2	1 3/4	1 ½			
1 (M25)	4 5/8	3 %	3 %	3 1/4	2 1/8	2 3/4	2 1/4	2 1/8	1 1/8				
1 ¼ (M32)	4 1/8	4 1/8	3 %	3 ½	3 1/8	2 1/8	2 ½	2 3/8					
1 ½ (M40)	5	4 1/4	4	3 %	3 1/4	3	2 %						
2 (M50)	5 3/8	4 ¾	4 1/2	4	3 %	3 3/8							
2 ½ (M63)	5 ½	4 1/8	4 %	4 1/4	3 1/8								
3 (M75)	5 %	5 1/4	5	4 %	4 % Double all distances for conduit entries in backwall.								
3 ½	6 1/4	5 3/4	5 ½										
4	6 %	6											
5	7 3/8												

- NOTES 1. This information is compiled from data which we believe is reliable and is given in good faith. Since the methods of application and conditions under which our products are used are beyond our control, we are not able to guarantee the application and/or use of same. The user assumes all risks and liability in connection with the application and use of our products.
  - 2. All dimensions are in inches.



# **GUIDELINES**

# **Drilling and Tapping Guidelines**

When drilling & tapping enclosures for conduit, proper installation requires compliance with the following:

- 1. Consult factory for extensive machining options, i.e. mounting of operators, thread type and size thru wall, mounting pans.
- 2. Layout data sheets available.

### MINIMUM DISTANCE BETWEEN CENTERS OF AUXILIARY DEVICES AND CONDUIT ENTRIES

SIZE	5 NPSM	4 NPSM	3 ½ NPSM	3 NPSM	2 ½ NPSM	2 NPSM	1 ½ NPSM	1 ¼ NPSM	1 NPSM	½-¾ NPSM	¹⁄4-₃⁄8 NPSM	1⁄4-1 UN
1/4-3/8	4 3/8	3 5/8	3 3/8	3	2 %	2 3/8	2	1 1/8	1 %	1 3/8	1 1/4	1 1/8
½ NPT (M16)	4 3/8	3 %	3 3/8	3	2 5/8	2 3/8	2	1 %	1 5/8	1 3/8	1 1/4	
3/4 NPT (M20)	4 1/2	3 ¾	3 ½	3 1/8	2 3/4	2 ½	2 1/8	2	1 3/4	1 ½		
1 NPT (M25)	4 5/8	3 %	3 %	3 1/4	2 1/8	2 3/4	2 1/4	2 1/8	1 1/8			
1 ¼ NPT (M32)	4 %	4 1/8	3 %	3 ½	3 1/8	2 %	2 ½	2 3/8				
1 ½ NPT (M40)	5	4 1/4	4	3 %	3 1/4	3	2 5/8					
2 NPT (M50)	5 3/8	4 3/4	4 1/2	4	3 %	3 3/8						
2 ½ NPT (M63)	5 ½	4 1/8	4 5/8	4 1/4	3 %							
3 NPT (M75)	5 %	5 1/4	5	4 5/8								
3 ½ NPT	6 1/4	5 3/4	5 ½									
4 NPT	6 %	6										
5 NPT	7 3/8											

### MINIMUM DISTANCE BETWEEN CENTERS OF AUXILIARY DEVICES

SIZE	5	4	3 1/2	3	2 1/2	2	1 1/2	1 1/4	1	1/2 - 3/4	1/4 - 3/8	1⁄4 - 1 UN
	NPSM	NPSM										
1⁄4 -1 UN	4 3/8	3 %	3 ¾	3	2 %	2 3/8	2	1 1/8	1 %	1 3/8	1 1/4	1 1/8
1/4 - 3/8 NPSM	4 3/8	3 %	3 3/8	3	2 %	2 3/8	2	1 1/8	1 %	1 3/8	1 1/4	
½ - ¾ NPSM	4 1/2	3 ¾	3 ½	3 1/8	2 3/4	2 ½	2 1/8	2	1 3/4	1 ½		
1 NPSM	4 %	3 %	3 5/8	3 1/4	2 1/8	2 3/4	2 1/4	2 1/8	1 1/8			
1 ¼ NPSM	4 1/8	4 1/8	3 %	3 ½	3 1/8	2 1/8	2 ½	2 3/8				
1 ½ NPSM	5	4 1/4	4	3 %	3 1/4	3	2 %					
2 NPSM	5 3/8	4 3⁄4	4 ½	4	3 %	3 3/8						
2 ½ NPSM	5 ½	4 1/8	4 5/8	4 1/4	3 %							
3 NPSM	5 %	5 1/4	5	4 5/8								
3 ½ NPSM	6 1/4	5 ¾	5 ½									
4 NPSM	6 %	6										
5 NPSM	7 3/8											

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