

302/302H/303 Self-tapping Inserts

The inserts which self-tap into plastic holes then provide internal threads

- 1, Suitable to duroplastics, hard or high-strength plastics
- 2, Thermoplastics can be used but not recommended due to cost disadvantages
- 3, The 303 type is the thin-wall version of 303 type.



METRIC THREAD /unit:mm

302 & 302H Type

Internal Thread Size	Insert Length L	Head H	Head Height T	External Thread Size		Rec. Hole Size d1 (1)	Min. Hole Depth L1	Min. Wall Thickness W
				D	P			
M2	6.0	-	-	4.5	0.5	4.1-4.2	8.0	See Note (2)
M2.5	6.0	-	-	4.5	0.5	4.1-4.2	8.0	
M3	6.0	-	-	5	0.5	4.6-4.7	8.0	
M3.5	8.0	-	-	6	0.75	5.5-5.6	10.0	
M4	8.0	9.0	1.0	6.5	0.75	6.0-6.1	10.0	
M5	10.0	11.0	1.0	8	1.0	7.3-7.5	13.0	
M6	12.0	12.0	1.5	9	1.0	8.3-8.5	15.0	
	14.0	13.0	1.5	10	1.5	9.0-9.2	17.0	
M8	15.0	15.0	1.5	12	1.5	11.0-11.2	18.0	
M10	18.0	17.0	1.5	14	1.5	13.0-13.2	22.0	
M12	22.0	19.0	1.5	16	1.5	15.0-15.2	26.0	

UNIFIED THREAD /unit:mm

302 & 302H Type

Internal Thread Size		Insert Length L	Head H	Head Height T	External Thread Size		Rec. Hole Size d1 (1)	Min. Hole Depth L1	Min. Wall Thickness W
UNC	UNF				D	P			
4-40	4-48	6.0	-	-	5	0.5	4.6-4.7	8.0	See Note (2)
6-32	6-40	8.0	-	-	6	0.75	5.5-5.6	10.0	
8-32	8-36	8.0	9.0	1.0	6.5	0.75	6.0-6.1	10.0	
10-24	10-32	10.0	11.0	1.0	8	1.0	7.3-7.5	13.0	
1/4-20	1/4-28	14.0	13.0	1.5	10	1.5	9.0-9.2	17.0	
5/16-18	5/16-24	15.0	15.0	1.5	12	1.5	11.0-11.2	18.0	
3/8-16	3/8-24	18.0	17.0	1.5	14	1.5	13.0-13.2	22.0	
7/16-14	7/16-20	22.0	19.0	1.5	16	1.5	15.0-15.2	26.0	
1/2-13	1/2-20	22.0	-	-	18	1.5	17.0-17.2	28	
5/8-11	5/8-18	22.0	-	-	20	1.5	19.0-19.2	27	

METRIC THREAD /unit:mm

303 Type

Internal Thread Size	Insert Length L	Head H	Head Height T	External Thread Size		Rec. Hole Size d1 (1)	Min. Hole Depth L1	Min. Wall Thickness W
				D	P			
M3	6.0	-	-	4.5	0.5	4.2~4.3	8.0	See Note (2)
M3.5	6.0	-	-	5	0.60	4.6~4.7	8.0	
M4	6.0	-	-	6	0.70	5.6~5.7	8.0	
M5	8.0	-	-	7	0.8	6.6~6.7	10.0	
M6	10.0	-	-	8	1.0	7.5~7.6	13.0	
M8	12.0	-	-	10	1.3	9.2~9.4	15.0	
M10	15.0	-	-	12	1.5	11.2~11.4	18.0	

Note (1): The Hole Size varies with the variation of material strength or hardness, harder plastics require larger hole. The data listed are for reference.

Note (2): Not Smaller than 0.4-0.6 times of External Thread Diameter of the Insert applied and always need trial tests to decide.

Material: Brass JIS C3604 (Standard Material)
Stainless Steel (INOX) 303, 304F, 316F
Carbon Steel 1215, 12L14 with Zinc Plated, class 3 chromate
Other materials upon request

Part Number: Model Code_HxT_Internal Thread Size*Pitch_External Thread Size_L_Material

302_4-40_M5*0.5_L6.0_B	302 Self-tapping Insert, Internal Thread 4-40UNC, External Thread M5*0.5, 6.0mm long, Brass
303_M3*0.5_M5*0.5_L6.0_B	303 Self-tapping Insert, Internal Thread M3*0.5, External Thread M5*0.5, 6.0mm long, Brass
302H_φ11.0x1.0_M5*0.8_M8*1.0_L10.0_CS	302 Self-tapping Insert with φ11.0x1.0 head, External Thread M8*1.0, Internal Thread M5*0.8, 10mm long, Carbon Steel 1215 with Zinc Plated

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