



METRIC - ISO 7045 PAN PHIL INTERNAL TOOTH SEMS											ISO 7045*
Machine Screw Dimensions							Internal Tooth Lockwasher Dimensions				Phillips Driver Size
Nominal Size	Thread Pitch	A		H1		M	O.D.		Washer Thickness		
		Head Diameter		Height of Head		Recess Diameter	Outside Diameter				
		Max	Min	Max	Min	Ref	Max	Min	Max	Min	
M3	0.5	5.6	5.3	2.40	2.26	3	7.35	6.85	0.45	0.30	1
M4	0.7	8.00	7.64	3.10	2.92	4.4	8.75	8.25	0.60	0.45	2
M5	0.8	9.50	9.14	3.70	3.52	4.9	10.50	10.00	0.65	0.50	2
Tolerance on Length					over 3mm to 6mm			± 0.24			
					over 6mm to 10mm			± 0.29			
					over 10mm to 18 mm			± 0.35			
					over 20mm to 30mm			± 0.42			

\*Washers to ASME B18.13.1M

Description	A cross-recessed, pan head machine screw with a free-spinning, internal tooth captive lockwasher.			
Applications/Advantages	The washer/screw assembly makes this a locking screw with the washer providing the locking action. Machine pre-assembly provides cost savings to the end user. The internal tooth variety is recommended when it is desirable to hide the teeth for appearance or to prevent snagging.			
Component	Screw	Internal Tooth Lockwasher		Internal Tooth Lockwasher
Material	Class 4.8 Steel		Stainless	
	C1008 or equivalent carbon steel	C1050 Carbon Steel		410 Stainless
Hardness	Rockwell B 67 minimum	410 - 490 HV 5		-
Tensile Strength	60,900 psi.	-		-
Plating	Sems are available in a clear zinc finish and baked after plating.		Sems are provided with no additional finish	