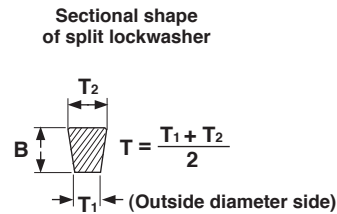
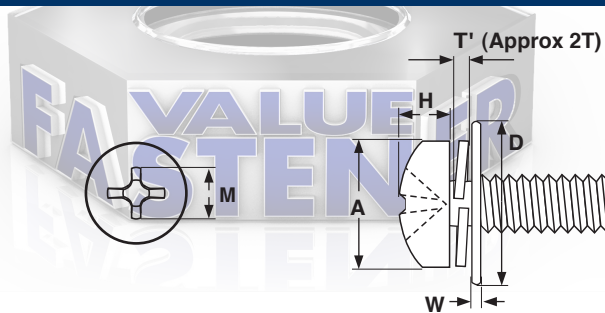


SEMS

JIS B1188 Small Pan Phillips: STAINLESS Split Lockwasher/Flat Washer



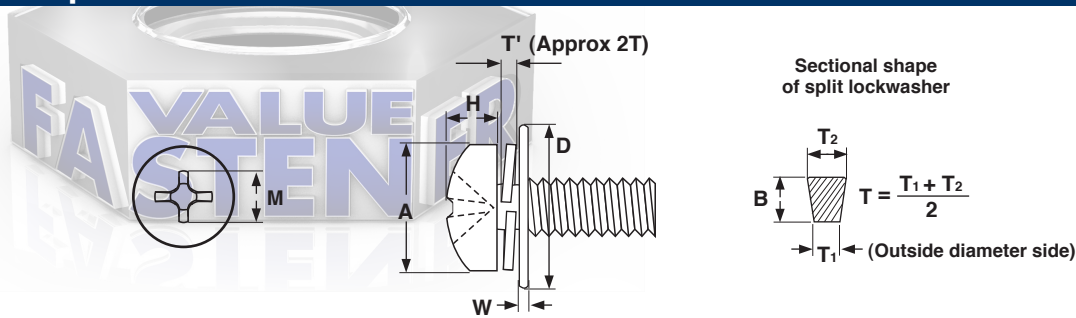
METRIC - JIS B1188 PHILLIPS SMALL PAN SPLIT WASHER / FLAT WASHER SEMS JIS B1188												
Screw Dimensions							Flat Washer				Split Washer	
Nominal Size	Thread Pitch	A		H		M	D		W		D1	Phillips Drive Size
		Head Diameter		Head Height		Recess Diam	Outside Diameter		Thickness		Outside Diameter	
		Max	Min	Max	Min	Ref	Max	Min	Max	Min	Max	
M2	0.4	3.5	3.1	1.4	1.2	2.2	5	4.7	0.34	0.26	4	1
M2.5	0.45	4.5	4.1	1.8	1.6	2.6	6.5	6.15	0.55	0.45	4.8	1
M3	0.5	5.5	5	2.15	1.85	3.6	7	6.65	0.55	0.45	5.5	2
							6	5.7	0.55	0.45	5.5	
M4	0.7	7	6.5	2.75	2.45	4.2	9	8.65	0.9	0.7	7	2
M5	0.8	9	8.4	3.45	3.15	4.9	10	9.65	1.1	0.9	8.5	2
M6	1.0	10.5	9.8	4.1	3.7	6.3	12.5	12.1	1.75	1.45	11.5	3

Tolerance on Length		Nominal Screw Lengths			
		Nominal Screw Size			
		Up to 10 mm			
		Over 10 mm to 20 mm, incl.			
		Over 20 mm to 40 mm, incl.			
		Over 40 mm			
		M2.5	-0.4	-0.6	-0.8
		M3 to M4	-0.6	-0.6	-0.8
		M5 to M8	-0.8	-1	-1

Description	A cross-recessed, pan head machine screw with two free-spinning, captive washers. Directly below the pan head is a helical split lockwasher; beneath the split lockwasher is a round flat washer. The diameter and height of the pan head are between 5% and 20% smaller than a standard pan head.		
Applications/Advantages	This double washer sems screw is typically a more economical alternative to a patented conical washer sems screw. They are commonly used in the electronics industry. The Stainless SEMS screw is used in applications where resistance to corrosion is a primary concern.		
Component	Screw	Split Lockwasher	Flat Washer
Material	A2 Stainless	304 Stainless	302 Stainless
Plating	Stainless SEMS are usually provided without any additional finish.		

**JIS B1188 Small Pan Phillips:
STEEL Split Lockwasher/Flat Washer**

SEMS



METRIC - JIS B1188 PHILLIPS SMALL PAN SPLIT WASHER / FLAT WASHER SEMS JIS B1188

Screw Dimensions							Flat Washer				Split Washer		Phillips Drive Size
Nominal Size	Thread Pitch	A		H		M	D		W		D1	B(min) x T (min)	
		Head Diameter		Head Height		Recess Diam	Outside Diameter		Thickness		Outside Diameter		
		Max	Min	Max	Min	Ref	Max	Min	Max	Min	Max		
M2	0.4	3.5	3.1	1.4	1.2	2.2	5	4.7	0.34	0.26	4	0.9 x 0.5	1
M2.5	0.45	4.5	4.1	1.8	1.6	2.6	6.5	6.15	0.55	0.45	4.8	1 x 0.6	1
M3	0.5	5.5	5	2.15	1.85	3.6	7	6.65	0.55	0.45	5.5	1.1 x 0.7	2
							6	5.7	0.55	0.45			
M4	0.7	7	6.5	2.75	2.45	4.2	9	8.65	0.9	0.7	7	1.4 x 1	2
M5	0.8	9	8.4	3.45	3.15	4.9	10	9.65	1.1	0.9	8.5	1.7 x 1.3	2
M6	1.0	10.5	9.8	4.1	3.7	6.3	12.5	12.1	1.75	1.45	11.5	2.7 x 1.5	3
Tolerance on Length		Nominal Screw Size		Nominal Screw Lengths									
				Up to 10 mm		Over 10 mm to 20 mm, incl.		Over 20 mm to 40 mm, incl.		Over 40 mm			
		M2.5		-0.4		-0.6		-0.8		-			
		M3 to M4		-0.6		-0.6		-0.8		-1			
		M5 to M8		-0.8		-1		-1		-1			

Description	A cross-recessed, pan head machine screw with two free-spinning, captive washers. Directly below the pan head is a helical split lockwasher; beneath the split lockwasher is a round flat washer. The diameter and height of the pan head are between 5% and 20% smaller than a standard pan head.		
Applications/Advantages	This double washer sems screw is typically a more economical alternative to a patented conical washer sems screw. They are commonly used in the electronics industry.		
Component	<i>Screw</i>	<i>Split Lockwasher</i>	<i>Flat Washer</i>
Material	Class 4.8 carbon steel	Split lockwashers shall be made from a carbon steel that conforms to the following chemical composition requirements: Carbon: 0.54 - 0.81%; Silicon: 0.15 - 0.35%; Manganese: 0.30 - 0.90%; Phosphorus: 0.030% max.; Sulfur: 0.030% max.	Plain washers shall be made from a carbon steel that conforms to the following chemical composition requirements: Carbon: 0.12% max.; Manganese: 0.50% max.; Phosphorus: 0.040% max.; Sulfur: 0.045% max.
Hardness	Rockwell B 71 minimum	Rockwell C 42 - 50	Rockwell B 60 maximum
Tensile Strength	420 N/mm ² (applies to screws with a minimum nominal length of 2.5d (where d is the nominal diameter of the screw))	-	-
Plating	Sems are available in zinc yellow and clear zinc finishes, and baked after plating.		