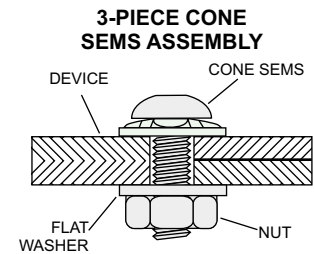
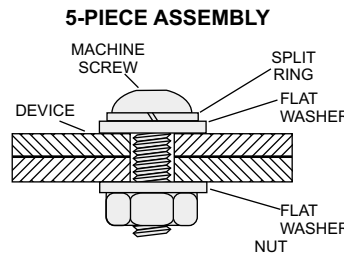
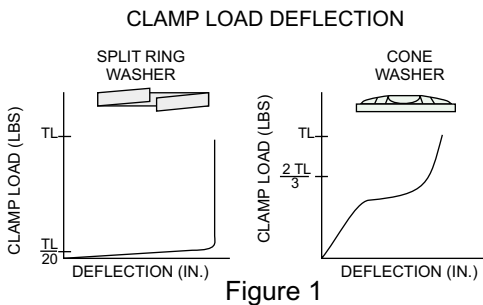


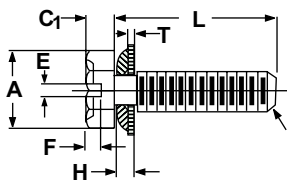
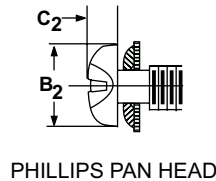
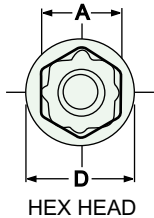
This unique Sems fastener features an integral, free-spinning, Cone washer. With two distinct configurations, this dual action spring washer has two separate load deflection rates. The configurations act in unison to provide a reliable low torque, controlled tension fastener.

The Cone Sems assembly provides a higher retained clamp load and improved compensation for thermal cycling and vibration. This fastener is capable of accepting a high tension load while maintaining a live spring action and generates a constant load, even with variations in installation torques. By increasing the acceptable driving torque range it enhances flexibility in component design.

The Cone washer's long deflection period and two-stage loading contribute to better control during installation, improved tool bit life and reduced operator fatigue. (See Fig.1) Load is directed towards the outer diameter of the washer, making the fastener ideal for clamping fragile materials and for spanning large clearance holes.



PHILLIPS INDENTED HEX HEAD AND PHILLIPS PAN HEAD SPECIFICATIONS



- A₁ = Across Flats
- B₂ = Across Corners
- B₁ = Pan Head O.D.
- C₂ = Hex Head Height
- C = Pan Head Height
- D = Washer Diameter
- H = Overall Washer Height
- T = Washer Material Thickness
- E = Slot Width
- F = Slot Depth

SCREW MATERIAL:
SAE 1022
WASHER MATERIAL:
SAE 1050

METRIC SIZE

SIZE	A	B1	B2	C1	C2	D	H	T	E	F	TORQUE*
M3x0.5	5.00	5.40	5.50	2.30	2.15	7.82	1.55	0.64	1.00	1.17	0.6
	4.82	MIN.	5.00	2.00	1.85	7.52	0.99	0.80	0.84		
M3.5X0.6	5.50	5.96	6.00	2.60	2.45	7.82	1.55	0.64	1.20	1.47	1.2
	5.32	MIN.	5.50	2.30	2.15	7.52	0.99	1.00	1.17		
M4X0.7	7.00	7.59	7.00	3.00	2.75	8.46	1.65	0.78	1.50	1.76	2.4
	6.78	MIN.	6.50	2.60	2.45	8.20	1.32	1.20	1.40		
M5X0.8	8.00	8.74	9.00	3.80	3.45	9.73	2.59	0.94	1.50	2.18	4.0
	7.78	MIN.	8.40	3.30	3.15	9.47	1.65	1.20	1.78		
M6X1	10.00	10.95	10.50	4.70	4.10	12.90	2.24	0.99	1.90	2.36	7.5
	9.78	MIN.	9.80	4.10	3.70	12.57	1.63	1.60	1.91		

* Newton Meters (Nm) property class 5.8 screw material

INCH SIZE

SIZE	A	B1	B2	C1	C2	D	H	T	E	F	TORQUE*
4-40	.187	.202	.219	.096	.080	.250	.039	.015	.039	.054	5.0
	.181	MIN.	.205	.084	.070	.244	.021	.025	.038	.044	
6-32	.250	.272	.270	.096	.097	.320	.061	.025	.048	.054	11.0
	.244	MIN.	.256	.084	.087	.303	.039	.030	.045	.052	
8-32	.250	.272	.322	.120	.115	.383	.073	.030	.054	.066	21.0
	.244	MIN.	.306	.105	.105	.370	.050	.030	.050	.060	
10-32	.312	.340	.373	.141	.133	.446	.075	.032	.060	.080	35.0
	.305	MIN.	.357	.126	.122	.433	.051	.032	.060	.060	
1/4-20	.375	.409	.492	.206	.175	.508	.088	.039	.075	.101	75.0
	.367	MIN.	.473	.140	.162	.498	.064	.039	.064	.083	

* Pound-Inch (lb-in) grade 2 screw material

(1 N.m = 8.85 Inch pounds. N.m x 8.85 = Inch pounds x 0.113 = N.m)
Data also applicable to over-the-thread style Tooth and Cone washers.