

# METRIC SCREWS, BOLTS, AND THREADED ROD

ALL DIMENSIONS ARE IN MILLIMETERS

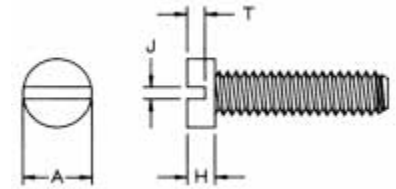
Nominal Screw Length	Tolerance On Length mm
to 3 mm incl.	0.2
over 3 to 10 mm	0.3
over 10 to 16 mm	0.4
over 16 to 50 mm	0.5
over 50 mm	1.0

All tolerances are plus and minus.

THREAD SIZE	A	H	J	T
M2 X 0.4	3.80	1.30	0.70	0.90
M2.5 X 0.45	4.50	1.60	0.80	1.00
M3 X 0.5	5.50	2.00	1.00	1.30
M3.5 X 0.6	6.00	2.40	1.10	1.40
M4 X 0.7	7.00	2.60	1.20	1.60
M5 X .08	8.50	3.30	1.50	2.00
M6 X 1.0	10.00	3.90	1.90	2.30
M8 X 1.25	13.00	5.00	2.30	2.80
M10 X 1.5	15.63	6.00	2.80	3.20

ITEM NUMBER	DESCRIPTION	ITEM NUMBER	DESCRIPTION
50M020040D004	M2 X .4 X 4MM Cheese Slot	50M040070D020	M4 X .7 X 20MM Cheese Slot
50M020040D005	M2 X .4 X 5MM Cheese Slot	50M040070D025	M4 X .7 X 25MM Cheese Slot
50M020040D006	M2 X .4 X 6MM Cheese Slot	50M040070D030	M4 X .7 X 30MM Cheese Slot
50M020040D008	M2 X .4 X 8MM Cheese Slot	50M040070D035	M4 X .7 X 35MM Cheese Slot
50M020040D010	M2 X .4 X 10MM Cheese Slot	50M040070D040	M4 X .7 X 40MM Cheese Slot
50M020040D012	M2 X .4 X 12MM Cheese Slot	50M050080D006	M5 X .8 X 6MM Cheese Slot
50M020040D016	M2 X .4 X 16MM Cheese Slot	50M050080D008	M5 X .8 X 8MM Cheese Slot
50M020040D020	M2 X .4 X 20MM Cheese Slot	50M050080D010	M5 X .8 X 10MM Cheese Slot
50M020040D025	M2 X .4 X 25MM Cheese Slot	50M050080D012	M5 X .8 X 12MM Cheese Slot
50M025045D004	M2.5 X .45 X 4MM Cheese Slot	50M050080D016	M5 X .8 X 16MM Cheese Slot
50M025045D005	M2.5 X .45 X 5MM Cheese Slot	50M050080D020	M5 X .8 X 20MM Cheese Slot
50M025045D006	M2.5 X .45 X 6MM Cheese Slot	50M050080D025	M5 X .8 X 25MM Cheese Slot
50M025045D008	M2.5 X .45 X 8MM Cheese Slot	50M050080D030	M5 X .8 X 30MM Cheese Slot
50M025045D010	M2.5 X .45 X 10MM Cheese Slot	50M050080D035	M5 X .8 X 35MM Cheese Slot
50M025045D012	M2.5 X .45 X 12MM Cheese Slot	50M050080D040	M5 X .8 X 40MM Cheese Slot
50M025045D016	M2.5 X .45 X 16MM Cheese Slot	50M060100D005	M6 X 1.0 X 5MM Cheese Slot
50M025045D020	M2.5 X .45 X 20MM Cheese Slot	50M060100D008	M6 X 1.0 X 8MM Cheese Slot
50M025045D025	M2.5 X .45 X 25MM Cheese Slot	50M060100D010	M6 X 1.0 X 10MM Cheese Slot
50M030050D004	M3 X .5 X 4MM Cheese Slot	50M060100D012	M6 X 1.0 X 12MM Cheese Slot
50M030050D005	M3 X .5 X 5MM Cheese Slot	50M060100D016	M6 X 1.0 X 16MM Cheese Slot
50M030050D006	M3 X .5 X 6MM Cheese Slot	50M060100D020	M6 X 1.0 X 20MM Cheese Slot
50M030050D008	M3 X .5 X 8MM Cheese Slot	50M060100D025	M6 X 1.0 X 25MM Cheese Slot
50M030050D010	M3 X .5 X 10MM Cheese Slot	50M060100D030	M6 X 1.0 X 30MM Cheese Slot
50M030050D012	M3 X .5 X 12MM Cheese Slot	50M060100D035	M6 X 1.0 X 35MM Cheese Slot
50M030050D016	M3 X .5 X 16MM Cheese Slot	50M060100D040	M6 X 1.0 X 40MM Cheese Slot
50M030050D020	M3 X .5 X 20MM Cheese Slot	50M060100D045	M6 X 1.0 X 45MM Cheese Slot
50M030050D025	M3 X .5 X 25MM Cheese Slot	50M060100D050	M6 X 1.0 X 50MM Cheese Slot
50M030050D030	M3 X .5 X 30MM Cheese Slot	50M060100D060	M6 X 1.0 X 60MM Cheese Slot
50M030050D035	M3 X .5 X 35MM Cheese Slot	50M060100D065	M6 X 1.0 X 65MM Cheese Slot
50M030050D042	M3 X .5 X 42MM Cheese Slot	50M060100D070	M6 X 1.0 X 70MM Cheese Slot
50M035060D005	M3.5 X .6 X 5MM Cheese Slot	50M060100D075	M6 X 1.0 X 75MM Cheese Slot
50M035060D006	M3.5 X .6 X 6MM Cheese Slot	50M080125D010	M8 X 1.25 X 10MM Cheese Slot
50M035060D008	M3.5 X .6 X 8MM Cheese Slot	50M080125D016	M8 X 1.25 X 16MM Cheese Slot
50M035060D010	M3.5 X .6 X 10MM Cheese Slot	50M080125D020	M8 X 1.25 X 20MM Cheese Slot
50M035060D012	M3.5 X .6 X 12MM Cheese Slot	50M080125D025	M8 X 1.25 X 25MM Cheese Slot
50M035060D016	M3.5 X .6 X 16MM Cheese Slot	50M080125D030	M8 X 1.25 X 30MM Cheese Slot
50M035060D020	M3.5 X .6 X 20MM Cheese Slot	50M080125D035	M8 X 1.25 X 35MM Cheese Slot
50M035060D025	M3.5 X .6 X 25MM Cheese Slot	50M080125D050	M8 X 1.25 X 50MM Cheese Slot
50M035060D015	M3.5 X .6 X 35MM Cheese Slot	50M080125D070	M8 X 1.25 X 70MM Cheese Slot
50M035060D042	M3.5 X .6 X 42MM Cheese Slot	50M100150D016	M10 X 1.5 X 16MM Cheese Slot
50M040070D006	M4 X .7 X 6MM Cheese Slot	50M100150D020	M10 X 1.5 X 20MM Cheese Slot
50M040070D008	M4 X .7 X 8MM Cheese Slot	50M100150D025	M10 X 1.5 X 25MM Cheese Slot
50M040070D010	M4 X .7 X 10MM Cheese Slot	50M100150D030	M10 X 1.5 X 30MM Cheese Slot
50M040070D012	M4 X .7 X 12MM Cheese Slot	50M100150D035	M10 X 1.5 X 35MM Cheese Slot
50M040070D016	M4 X .7 X 16MM Cheese Slot	50M100150D050	M10 X 1.5 X 50MM Cheese Slot
		50M100150D060	M10 X 1.5 X 60MM Cheese Slot

## CHEESE SLOTTED



# METRIC SCREWS, BOLTS, AND THREADED ROD

THREAD SIZE	A	H	W
M2	3.02 - 3.20	1.3 - 1.6	3.38 min.
M2.5	3.82 - 4.00	1.8 - 2.1	4.28 min.
M3	4.82 - 5.00	2.0 - 2.3	5.40 min.
M3.5	5.32 - 5.50	2.3 - 2.6	5.96 min.
M4	6.78 - 7.00	2.6 - 3.0	7.59 min.
M5	7.78 - 8.00	3.3 - 3.8	8.71 min.
M6	9.78 - 10.00	4.1 - 4.7	10.95 min.
M8	12.73 - 13.00	5.2 - 6.0	14.26 min.
M10	15.73 - 16.00	6.5 - 7.5	17.62 min.
M12	17.73 - 18.00	7.8 - 9.0	19.86 min.

HEX CODE "J"

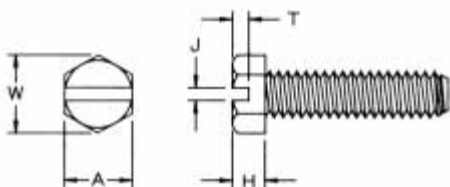
HEX SLOTTED CODE "K"

THREAD SIZE	A	W	H	J	T
M2	.302 - .320	3.38 min.	1.3 - 1.6	.60	.46
M2.5	3.82 - 4.00	4.28 min.	1.8 - 2.1	.80	.99
M3	4.82 - 5.00	5.40 min.	2.0 - 2.3	.99	1.30
M3.5	5.32 - 5.50	5.96 min.	2.3 - 2.6	1.20	1.28
M4	6.78 - 7.00	7.59 min.	2.6 - 3.0	1.24	1.28
M5	7.78 - 8.00	8.71 min.	3.3 - 3.8	1.30	1.40
M6	9.78 - 10.00	10.95 min.	4.17 - 4.7	1.70	2.24
M8	12.73 - 13.00	14.26 min.	5.2 - 6.0	2.15	2.27
M10	15.73 - 16.00	17.62 min.	6.5 - 7.5	2.38	2.90

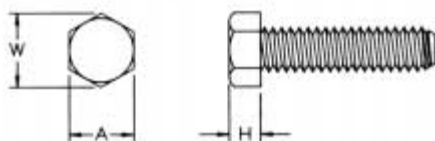
Nominal Screw Length	Tolerance On Length mm
to 3 mm incl.	0.2
over 3 to 10 mm	0.3
over 10 to 16 mm	0.4
over 16 to 50 mm	0.5
over 50 mm	1.0

All tolerances are plus and minus.

## HEX SLOTTED CODE "K"



## HEX CODE "J"



### ITEM NUMBER ----- DESCRIPTION -----

50M020040	004	M2	X .4	X 4MM
50M020040	005	M2	X .4	X 5MM
50M020040	006	M2	X .4	X 6MM
50M020040	008	M2	X .4	X 8MM
50M020040	010	M2	X .4	X 10MM
50M020040	012	M2	X .4	X 12MM
50M020040	016	M2	X .4	X 16MM
50M020040	020	M2	X .4	X 20MM
50M020040	025	M2	X .4	X 25MM
50M025045	004	M2.5	X .45	X 4MM
50M025045	005	M2.5	X .45	X 5MM
50M025045	006	M2.5	X .45	X 6MM
50M025045	008	M2.5	X .45	X 8MM
50M025045	010	M2.5	X .45	X 10MM
50M025045	012	M2.5	X .45	X 12MM
50M025045	016	M2.5	X .45	X 16MM
50M025045	020	M2.5	X .45	X 20MM
50M025045	025	M2.5	X .45	X 25MM
50M030050	004	M3	X .5	X 4MM
50M030050	005	M3	X .5	X 5MM
50M030050	006	M3	X .5	X 6MM
50M030050	008	M3	X .5	X 8MM
50M030050	010	M3	X .5	X 10MM
50M030050	012	M3	X .5	X 12MM
50M030050	016	M3	X .5	X 16MM
50M030050	020	M3	X .5	X 20MM
50M030050	025	M3	X .5	X 25MM
50M030050	030	M3	X .5	X 30MM
50M030050	035	M3	X .5	X 35MM
50M030050	042	M3	X .5	X 42MM
50M035060	005	M3.5	X .6	X 5MM
50M035060	006	M3.5	X .6	X 6MM
50M035060	007	M3.5	X .6	X 7MM
50M035060	008	M3.5	X .6	X 8MM
50M035060	010	M3.5	X .6	X 10MM
50M035060	012	M3.5	X .6	X 12MM
50M035060	016	M3.5	X .6	X 16MM
50M035060	020	M3.5	X .6	X 20MM
50M035060	025	M3.5	X .6	X 25MM
50M035060	035	M3.5	X .6	X 35MM
50M035060	042	M3.5	X .6	X 42MM
50M040070	006	M4	X .7	X 6MM
50M040070	008	M4	X .7	X 8MM
50M040070	010	M4	X .7	X 10MM
50M040070	012	M4	X .7	X 12MM
50M040070	016	M4	X .7	X 16MM
50M040070	020	M4	X .7	X 20MM

### ITEM NUMBER ----- DESCRIPTION -----

50M040070	025	M4	X .7	X 25MM
50M040070	030	M4	X .7	X 30MM
50M040070	035	M4	X .7	X 35MM
50M040070	040	M4	X .7	X 40MM
50M050080	006	M5	X .8	X 6MM
50M050080	008	M5	X .8	X 8MM
50M050080	010	M5	X .8	X 10MM
50M050080	012	M5	X .8	X 12MM
50M050080	016	M5	X .8	X 16MM
50M050080	020	M5	X .8	X 20MM
50M050080	025	M5	X .8	X 25MM
50M050080	030	M5	X .8	X 30MM
50M050080	035	M5	X .8	X 35MM
50M050080	040	M5	X .8	X 40MM
* 50M050080	070	M5	X .8	X 70MM
50M060100	005	M6	X 1.00	X 5MM
50M060100	008	M6	X 1.00	X 8MM
50M060100	010	M6	X 1.00	X 10MM
50M060100	012	M6	X 1.00	X 12MM
50M060100	016	M6	X 1.00	X 16MM
50M060100	020	M6	X 1.00	X 20MM
50M060100	025	M6	X 1.00	X 25MM
50M060100	030	M6	X 1.00	X 30MM
50M060100	035	M6	X 1.00	X 35MM
50M060100	040	M6	X 1.00	X 40MM
50M060100	045	M6	X 1.00	X 45MM
50M060100	050	M6	X 1.00	X 50MM
50M060100	060	M6	X 1.00	X 60MM
50M060100	070	M6	X 1.00	X 70MM
50M060100	075	M6	X 1.00	X 75MM
50M080125	010	M8	X 1.25	X 10MM
50M080125	016	M8	X 1.25	X 16MM
50M080125	020	M8	X 1.25	X 20MM
50M080125	025	M8	X 1.25	X 25MM
50M080125	030	M8	X 1.25	X 30MM
50M080125	035	M8	X 1.25	X 35MM
50M080125	040	M8	X 1.25	X 40MM
50M080125	050	M8	X 1.25	X 50MM
50M080125	070	M8	X 1.25	X 70MM
50M100150	016	M10	X 1.50	X 16MM
50M100150	020	M10	X 1.50	X 20MM
50M100150	025	M10	X 1.50	X 25MM
50M100150	030	M10	X 1.50	X 30MM
50M100150	035	M10	X 1.50	X 35MM
50M100150	050	M10	X 1.50	X 50MM
50M100150	060	M10	X 1.50	X 60MM
50M100150	070	M10	X 1.50	X 70MM
* 50M120175J	040	M12	X 1.75	X 40MM

\* NOT AVAILABLE IN SLOT HEX HEAD.

# METRIC SCREWS, BOLTS, AND THREADED ROD

ALL DIMENSIONS ARE IN MILLIMETERS



THREAD SIZE	B	A	C	T
M3 X .5	5.2	7.6	1.0	1.1
M3.5 X .6	6.1	8.5	1.1	1.3
M4 X .7	7.1	9.40	1.2	1.5
M5 X .8	7.7	10.0	1.3	1.5
M6 X 1.0	7.75	12.21	1.14	1.53

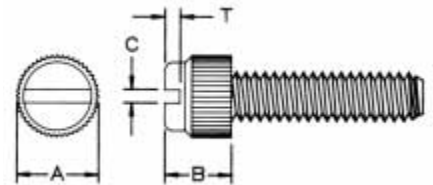
Nominal Screw Length	Tolerance On Length mm
to 3 mm incl.	0.2
over 3 to 10 mm	0.3
over 10 to 16 mm	0.4
over 16 to 50 mm	0.5
over 50 mm	1.0

All tolerances are plus and minus.

ITEM NUMBER	DESCRIPTION
50M030050T004	M3 X .5 X 4MM Thumb Screw
50M030050T005	M3 X .5 X 5MM Thumb Screw
50M030050T006	M3 X .5 X 6MM Thumb Screw
50M030050T008	M3 X .5 X 8MM Thumb Screw
50M030050T010	M3 X .5 X 10MM Thumb Screw
50M030050T012	M3 X .5 X 12MM Thumb Screw
50M030050T016	M3 X .5 X 16MM Thumb Screw
50M030050T020	M3 X .5 X 20MM Thumb Screw
50M030050T025	M3 X .5 X 25MM Thumb Screw
50M030050T030	M3 X .5 X 30MM Thumb Screw
50M030050T035	M3 X .5 X 35MM Thumb Screw
50M030050T042	M3 X .5 X 42MM Thumb Screw
50M035060T005	M3.5 X .6 X 5MM Thumb Screw
50M035060T006	M3.5 X .6 X 6MM Thumb Screw
50M035060T008	M3.5 X .6 X 8MM Thumb Screw
50M035060T010	M3.5 X .6 X 10MM Thumb Screw
50M035060T012	M3.5 X .6 X 12MM Thumb Screw
50M035060T016	M3.5 X .6 X 16MM Thumb Screw
50M035060T020	M3.5 X .6 X 20MM Thumb Screw
50M035060T025	M3.5 X .6 X 25MM Thumb Screw
50M035060T035	M3.5 X .6 X 35MM Thumb Screw
50M035060T042	M3.5 X .6 X 42MM Thumb Screw
50M040070T003	M4 X .7 X 3MM Thumb Screw
50M040070T006	M4 X .7 X 6MM Thumb Screw
50M040070T008	M4 X .7 X 8MM Thumb Screw
50M040070T010	M4 X .7 X 10MM Thumb Screw
50M040070T012	M4 X .7 X 12MM Thumb Screw
50M040070T016	M4 X .7 X 16MM Thumb Screw

ITEM NUMBER	DESCRIPTION
50M040070T020	M4 X .7 X 20MM Thumb Screw
50M040070T025	M4 X .7 X 25MM Thumb Screw
50M040070T030	M4 X .7 X 30MM Thumb Screw
50M040070T035	M4 X .7 X 35MM Thumb Screw
50M040070T040	M4 X .7 X 40MM Thumb Screw
50M050080T006	M5 X .8 X 6MM Thumb Screw
50M050080T008	M5 X .8 X 8MM Thumb Screw
50M050080T010	M5 X .8 X 10MM Thumb Screw
50M050080T012	M5 X .8 X 12MM Thumb Screw
50M050080T016	M5 X .8 X 16MM Thumb Screw
50M050080T020	M5 X .8 X 20MM Thumb Screw
50M050080T025	M5 X .8 X 25MM Thumb Screw
50M050080T030	M5 X .8 X 30MM Thumb Screw
50M050080T040	M5 X .8 X 40MM Thumb Screw
50M060100T005	M6 X 1.0 X 5MM Thumb Screw
50M060100T008	M6 X 1.0 X 8MM Thumb Screw
50M060100T010	M6 X 1.0 X 10MM Thumb Screw
50M060100T012	M6 X 1.0 X 12MM Thumb Screw
50M060100T016	M6 X 1.0 X 16MM Thumb Screw
50M060100T020	M6 X 1.0 X 20MM Thumb Screw
50M060100T022	M6 X 1.0 X 22MM Thumb Screw
50M060100T025	M6 X 1.0 X 25MM Thumb Screw
50M060100T035	M6 X 1.0 X 35MM Thumb Screw
50M060100T040	M6 X 1.0 X 40MM Thumb Screw
50M060100T045	M6 X 1.0 X 45MM Thumb Screw
50M060100T050	M6 X 1.0 X 50MM Thumb Screw
50M060100T060	M6 X 1.0 X 60MM Thumb Screw
50M060100T070	M6 X 1.0 X 70MM Thumb Screw
50M060100T075	M6 X 1.0 X 75MM Thumb Screw

## ECONOMY GRADE THUMB SCREW

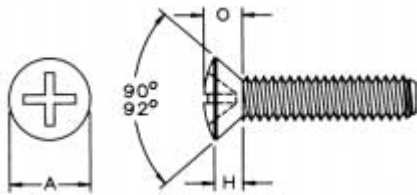


# METRIC SCREWS, BOLTS, AND THREADED ROD

ALL DIMENSIONS ARE IN MILLIMETERS

THREAD SIZE	A	H	O
M2 X 0.4	3.5 - 4.4	1.2 max ref.	1.7 max
M2.5 X 0.45	4.4 - 5.5	1.5 max ref.	2.1 max
M3 X 0.5	5.2 - 6.3	1.7 max ref.	2.4 max
M3.5 X 0.6	6.9 - 8.2	2.3 max ref.	3.1 max
M4 X 0.7	8.0 - 9.4	2.7 max ref.	3.7 max
M5 X 0.8	8.9 - 10.4	2.7 max ref.	3.9 max
M6 X 1	10.9 - 12.6	3.3 max ref.	4.7 max
M8 X 1.25	15.4 - 17.3	4.6 max ref.	6.6 max
M10 X 1.5	17.8 - 20.0	5.0 max ref.	7.3 max

## OVAL PHILLIPS



ITEM NUMBER	DESCRIPTION
50M025045M004	M2.5 X .45 X 4MM Oval Phil
50M025045M005	M2.5 X .45 X 5MM Oval Phil
50M025045M006	M2.5 X .45 X 6MM Oval Phil
50M025045M008	M2.5 X .45 X 8MM Oval Phil
50M025045M010	M2.5 X .45 X 10MM Oval Phil
50M025045M012	M2.5 X .45 X 12MM Oval Phil
50M025045M016	M2.5 X .45 X 16MM Oval Phil
50M025045M020	M2.5 X .45 X 20MM Oval Phil
50M025045M025	M2.5 X .45 X 25MM Oval Phil
50M030050M005	M3 X .5 X 5MM Oval Phil
50M030050M006	M3 X .5 X 6MM Oval Phil
50M030050M008	M3 X .5 X 8MM Oval Phil
50M030050M010	M3 X .5 X 10MM Oval Phil
50M030050M012	M3 X .5 X 12MM Oval Phil
50M030050M016	M3 X .5 X 16MM Oval Phil
50M030050M020	M3 X .5 X 20MM Oval Phil
50M030050M025	M3 X .5 X 25MM Oval Phil
50M035060M005	M3.5 X .6 X 5MM Oval Phil
50M035060M006	M3.5 X .6 X 6MM Oval Phil
50M035060M008	M3.5 X .6 X 8MM Oval Phil
50M035060M010	M3.5 X .6 X 10MM Oval Phil
50M035060M012	M3.5 X .6 X 12MM Oval Phil
50M035060M016	M3.5 X .6 X 16MM Oval Phil
50M035060M020	M3.5 X .6 X 20MM Oval Phil
50M035060M025	M3.5 X .6 X 25MM Oval Phil
50M035060M035	M3.5 X .6 X 35MM Oval Phil
50M040070M006	M4 X .7 X 6MM Oval Phil
50M040070M008	M4 X .7 X 8MM Oval Phil
50M040070M010	M4 X .7 X 10MM Oval Phil
50M040070M012	M4 X .7 X 12MM Oval Phil

ITEM NUMBER	DESCRIPTION
50M040070M016	M 4 X .7 X 16MM Oval Phil
50M040070M020	M 4 X .7 X 20MM Oval Phil
50M040070M025	M 4 X .7 X 25MM Oval Phil
50M050080M006	M5 X .8 X 6MM Oval Phil
50M050080M008	M5 X .8 X 8MM Oval Phil
50M050080M010	M5 X .8 X 10MM Oval Phil
50M050080M012	M5 X .8 X 12MM Oval Phil
50M050080M016	M5 X .8 X 16MM Oval Phil
50M050080M020	M5 X .8 X 20MM Oval Phil
50M050080M025	M5 X .8 X 25MM Oval Phil
50M050080M030	M5 X .8 X 30MM Oval Phil
50M050080M040	M5 X .8 X 40MM Oval Phil
50M060100M008	M6 X 1.0 X 8MM Oval Phil
50M060100M010	M6 X 1.0 X 10MM Oval Phil
50M060100M012	M6 X 1.0 X 12MM Oval Phil
50M060100M016	M6 X 1.0 X 16MM Oval Phil
50M060100M020	M6 X 1.0 X 20MM Oval Phil
50M060100M025	M6 X 1.0 X 25MM Oval Phil
50M060100M035	M6 X 1.0 X 35MM Oval Phil
50M060100M045	M6 X 1.0 X 45MM Oval Phil
50M080125M010	M8 X 1.25 X 10MM Oval Phil
50M080125M016	M8 X 1.25 X 16MM Oval Phil
50M080125M020	M8 X 1.25 X 20MM Oval Phil
50M080125M025	M8 X 1.25 X 25MM Oval Phil
50M080125M030	M8 X 1.25 X 30MM Oval Phil
50M080125M050	M8 X 1.25 X 50MM Oval Phil
50M100150M020	M10 X 1.5 X 20MM Oval Phil
50M100150M025	M10 X 1.5 X 25MM Oval Phil
50M100150M035	M10 X 1.5 X 35MM Oval Phil

# METRIC SCREWS, BOLTS, AND THREADED ROD

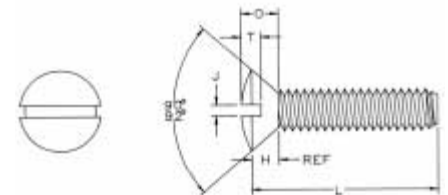
ALL DIMENSIONS ARE IN MILLIMETERS

THREAD SIZE	A	H	O	J	T
M2 X 0.4	3.5 - 4.4	1.2 max ref.	1.7 max	0.5 - 0.7	0.8 - 1.0
M2.5 X 0.45	4.4 - 5.5	1.5 max ref.	2.1 max	0.6 - 0.8	1.0 - 1.2
M3 X 0.5	5.2 - 6.3	1.7 max ref.	2.4 max	0.8 - 1.0	1.2 - 1.5
M3.5 X 0.6	6.9 - 8.2	2.3 max ref.	3.1 max	1.0 - 1.2	1.4 - 1.7
M4 X 0.7	8.0 - 9.4	2.7 max ref.	3.7 max	1.2 - 1.5	1.6 - 1.9
M5 X 0.8	8.9 - 10.4	2.7 max ref.	3.9 max	1.2 - 1.5	2.0 - 2.4
M6 X 1	10.9 - 12.6	3.3 max ref.	4.7 max	1.6 - 1.9	2.4 - 2.8
M8 X 1.25	15.4 - 17.3	4.6 max ref.	6.6 max	2.0 - 2.3	3.2 - 3.7
M10 X 1.5	17.8 - 20.0	5.0 max ref.	7.3 max	2.5 - 2.8	3.8 - 4.4

ITEM NUMBER	DESCRIPTION
50M020040L004	M2 X .4 X 4MM Oval Slot
50M020040L005	M2 X .4 X 5MM Oval Slot
50M020040L006	M2 X .4 X 6MM Oval Slot
50M020040L008	M2 X .4 X 8MM Oval Slot
50M020040L010	M2 X .4 X 10MM Oval Slot
50M020040L011	M2 X .4 X 11MM Oval Slot
50M020040L012	M2 X .4 X 12MM Oval Slot
50M020040L016	M2 X .4 X 16MM Oval Slot
50M020040L025	M2 X .4 X 25MM Oval Slot
50M025045L004	M2.5 X .45 X 4MM Oval Slot
50M025045L005	M2.5 X .45 X 5MM Oval Slot
50M025045L006	M2.5 X .45 X 6MM Oval Slot
50M025045L008	M2.5 X .45 X 8MM Oval Slot
50M025045L010	M2.5 X .45 X 10MM Oval Slot
50M025045L012	M2.5 X .45 X 12MM Oval Slot
50M025045L016	M2.5 X .45 X 16MM Oval Slot
50M025045L020	M2.5 X .45 X 20MM Oval Slot
50M025045L025	M2.5 X .5 X 25MM Oval Slot
50M030050L005	M3 X .5 X 5MM Oval Slot
50M030050L006	M3 X .5 X 6MM Oval Slot
50M030050L008	M3 X .5 X 8MM Oval Slot
50M030050L010	M3 X .5 X 10MM Oval Slot
50M030050L012	M3 X .5 X 12MM Oval Slot
50M030050L015	M3 X .5 X 15MM Oval Slot
50M030050L016	M3 X .5 X 16MM Oval Slot
50M030050L020	M3 X .5 X 20MM Oval Slot
50M030050L025	M3 X .5 X 25MM Oval Slot
50M030050L030	M3 X .5 X 30MM Oval Slot
50M030050L042	M3 X .5 X 42MM Oval Slot
50M035060L005	M3.5 X .6 X 5MM Oval Slot
50M035060L006	M3.5 X .6 X 6MM Oval Slot
50M035060L008	M3.5 X .6 X 8MM Oval Slot
50M035060L010	M3.5 X .6 X 10MM Oval Slot
50M035060L016	M3.5 X .6 X 16MM Oval Slot
50M035060L020	M3.5 X .6 X 20MM Oval Slot
50M035060L025	M3.5 X .6 X 25MM Oval Slot
50M035060L035	M3.5 X .6 X 35MM Oval Slot
50M040070L006	M4 X .7 X 6MM Oval Slot
50M040070L008	M4 X .7 X 8MM Oval Slot
50M040070L010	M4 X .7 X 10MM Oval Slot

ITEM NUMBER	DESCRIPTION
50M040070L012	M4 X .7 X 12MM Oval Slot
50M040070L015	M4 X .7 X 15MM Oval Slot
50M040070L016	M4 X .7 X 16MM Oval Slot
50M040070L020	M4 X .7 X 20MM Oval Slot
50M040070L025	M4 X .7 X 25MM Oval Slot
50M040070L030	M4 X .7 X 30MM Oval Slot
50M040070L035	M4 X .7 X 35MM Oval Slot
50M050080L006	M5 X .8 X 6MM Oval Slot
50M050080L010	M5 X .8 X 10MM Oval Slot
50M050080L012	M5 X .8 X 12MM Oval Slot
50M050080L015	M5 X .8 X 15MM Oval Slot
50M050080L016	M5 X .8 X 16MM Oval Slot
50M050080L020	M5 X .8 X 20MM Oval Slot
50M050080L025	M5 X .8 X 25MM Oval Slot
50M050080L030	M5 X .8 X 30MM Oval Slot
50M050080L035	M5 X .8 X 35MM Oval Slot
50M050080L040	M5 X .8 X 40MM Oval Slot
50M060100L008	M6 X 1.0 X 8MM Oval Slot
50M060100L010	M6 X 1.0 X 10MM Oval Slot
50M060100L012	M6 X 1.0 X 12MM Oval Slot
50M060100L016	M6 X 1.0 X 16MM Oval Slot
50M060100L020	M6 X 1.0 X 20MM Oval Slot
50M060100L025	M6 X 1.0 X 25MM Oval Slot
50M060100L035	M6 X 1.0 X 35MM Oval Slot
50M060100L040	M6 X 1.0 X 40MM Oval Slot
50M060100L045	M6 X 1.0 X 45MM Oval Slot
50M060100L050	M6 X 1.0 X 50MM Oval Slot
50M080125L016	M8 X 1.25 X 16MM Oval Slot
50M080125L020	M8 X 1.25 X 20MM Oval Slot
50M080125L025	M8 X 1.25 X 25MM Oval Slot
50M080125L030	M8 X 1.25 X 30MM Oval Slot
50M080125L050	M8 X 1.25 X 50MM Oval Slot
50M100150L020	M10 X 1.50 X 20MM Oval Slot
50M100150L025	M10 X 1.50 X 25MM Oval Slot
50M100150L030	M10 X 1.50 X 30MM Oval Slot
50M100150L035	M10 X 1.50 X 35MM Oval Slot
50M100150L060	M10 X 1.50 X 60MM Oval Slot

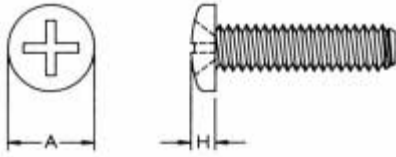
## OVAL SLOTTED



# METRIC SCREWS, BOLTS, AND THREADED ROD

ALL DIMENSIONS ARE IN MILLIMETERS

## PAN PHILLIPS



THREAD SIZE	A	H
M2	3.7 - 4.0	1.4 - 1.6
M2.5	4.7 - 5.0	1.9 - 2.1
M3	5.3 - 5.6	2.2 - 2.4
M3.5	6.6 - 7.0	2.3 - 2.6
M4	7.6 - 8.0	2.8 - 3.1
M5	9.1 - 9.5	3.4 - 3.7
M6	11.5 - 12.0	4.3 - 4.6
M8	15.5 - 16.0	5.6 - 6.0
M10	19.4 - 20.0	7.1 - 7.5

Nominal Screw Length	Tolerance On Length mm
to 3 mm incl.	0.2
over 3 to 10 mm	0.3
over 10 to 16 mm	0.4
over 16 to 50 mm	0.5
over 50 mm	1.0

All tolerances are plus and minus.



ITEM NUMBER	DESCRIPTION	ITEM NUMBER	DESCRIPTION
50M020040P004	M2 X .4 X 4MM Pan Phil	50M040070P025	M4 X .7 X 25MM Pan Phil
50M020040P005	M2 X .4 X 5MM Pan Phil	50M040070P030	M4 X .7 X 30MM Pan Phil
50M020040P006	M2 X .4 X 6MM Pan Phil	50M040070P035	M4 X .7 X 35MM Pan Phil
50M020040P008	M2 X .4 X 8MM Pan Phil	50M040070P040	M4 X .7 X 40MM Pan Phil
50M020040P010	M2 X .4 X 10MM Pan Phil	50M050080P006	M5 X .8 X 6MM Pan Phil
50M020040P012	M2 X .4 X 12MM Pan Phil	50M050080P008	M5 X .8 X 8MM Pan Phil
50M020040P016	M2 X .4 X 16MM Pan Phil	50M050080P010	M5 X .8 X 10MM Pan Phil
50M020040P020	M2 X .4 X 20MM Pan Phil	50M050080P012	M5 X .8 X 12MM Pan Phil
50M020040P025	M2 X .4 X 25MM Pan Phil	50M050080P015	M5 X .8 X 15MM Pan Phil
50M025045P004	M2.5 X .45 X 4MM Pan Phil	50M050080P016	M5 X .8 X 16MM Pan Phil
50M025045P005	M2.5 X .45 X 5MM Pan Phil	50M050080P020	M5 X .8 X 20MM Pan Phil
50M025045P006	M2.5 X .45 X 6MM Pan Phil	50M050080P025	M5 X .8 X 25MM Pan Phil
50M025045P008	M2.5 X .45 X 8MM Pan Phil	50M050080P030	M5 X .8 X 30MM Pan Phil
50M025045P010	M2.5 X .45 X 10MM Pan Phil	50M050080P035	M5 X .8 X 35MM Pan Phil
50M025045P012	M2.5 X .45 X 12MM Pan Phil	50M050080P040	M5 X .8 X 40MM Pan Phil
50M025045P016	M2.5 X .45 X 16MM Pan Phil	50M060100P005	M6 X 1.00 X 5MM Pan Phil
50M025045P020	M2.5 X .45 X 20MM Pan Phil	50M060100P008	M6 X 1.00 X 8MM Pan Phil
50M025045P025	M2.5 X .45 X 25MM Pan Phil	50M060100P010	M6 X 1.00 X 10MM Pan Phil
50M030050P004	M3 X .5 X 4MM Pan Phil	50M060100P012	M6 X 1.00 X 12MM Pan Phil
50M030050P005	M3 X .5 X 5MM Pan Phil	50M060100P016	M6 X 1.00 X 16MM Pan Phil
50M030050P006	M3 X .5 X 6MM Pan Phil	50M060100P020	M6 X 1.00 X 20MM Pan Phil
50M030050P008	M3 X .5 X 8MM Pan Phil	50M060100P022	M6 X 1.00 X 22MM Pan Phil
50M030050P010	M3 X .5 X 10MM Pan Phil	50M060100P025	M6 X 1.00 X 25MM Pan Phil
50M030050P012	M3 X .5 X 12MM Pan Phil	50M060100P030	M6 X 1.00 X 30MM Pan Phil
50M030050P016	M3 X .5 X 16MM Pan Phil	50M060100P035	M6 X 1.00 X 35MM Pan Phil
50M030050P020	M3 X .5 X 20MM Pan Phil	50M060100P040	M6 X 1.00 X 40MM Pan Phil
50M030050P025	M3 X .5 X 25MM Pan Phil	50M060100P045	M6 X 1.00 X 45MM Pan Phil
50M030050P030	M3 X .5 X 30MM Pan Phil	50M060100P050	M6 X 1.00 X 50MM Pan Phil
50M030050P035	M3 X .5 X 35MM Pan Phil	50M060100P060	M6 X 1.00 X 60MM Pan Phil
50M030050P042	M3 X .5 X 42MM Pan Phil	50M060100P070	M6 X 1.00 X 70MM Pan Phil
50M035060P005	M3.5 X .6 X 5MM Pan Phil	50M060100P075	M6 X 1.00 X 75MM Pan Phil
50M035060P006	M3.5 X .6 X 6MM Pan Phil	50M080125P010	M8 X 1.25 X 10MM Pan Phil
50M035060P007	M3.5 X .6 X 7MM Pan Phil	50M080125P016	M8 X 1.25 X 16MM Pan Phil
50M035060P008	M3.5 X .6 X 8MM Pan Phil	50M080125P020	M8 X 1.25 X 20MM Pan Phil
50M035060P010	M3.5 X .6 X 10MM Pan Phil	50M080125P025	M8 X 1.25 X 25MM Pan Phil
50M035060P012	M3.5 X .6 X 12MM Pan Phil	50M080125P030	M8 X 1.25 X 30MM Pan Phil
50M035060P016	M3.5 X .6 X 16MM Pan Phil	50M080125P035	M8 X 1.25 X 35MM Pan Phil
50M035060P020	M3.5 X .6 X 20MM Pan Phil	50M080125P050	M8 X 1.25 X 50MM Pan Phil
50M035060P025	M3.5 X .6 X 25MM Pan Phil	50M080125P070	M8 X 1.25 X 70MM Pan Phil
50M035060P035	M3.5 X .6 X 35MM Pan Phil	50M100150P013	M10 X 1.50 X 13MM Pan Phil
50M035060P042	M3.5 X .6 X 42MM Pan Phil	50M100150P016	M10 X 1.50 X 16MM Pan Phil
50M040070P003	M4 X .7 X 3MM Pan Phil	50M100150P019	M10 X 1.50 X 19MM Pan Phil
50M040070P006	M4 X .7 X 6MM Pan Phil	50M100150P020	M10 X 1.50 X 20MM Pan Phil
50M040070P008	M4 X .7 X 8MM Pan Phil	50M100150P025	M10 X 1.50 X 25MM Pan Phil
50M040070P010	M4 X .7 X 10MM Pan Phil	50M100150P030	M10 X 1.50 X 30MM Pan Phil
50M040070P012	M4 X .7 X 12MM Pan Phil	50M100150P035	M10 X 1.50 X 35MM Pan Phil
50M040070P016	M4 X .7 X 16MM Pan Phil	50M100150P050	M10 X 1.50 X 50MM Pan Phil
50M040070P020	M4 X .7 X 20MM Pan Phil	50M100150P060	M10 X 1.50 X 60MM Pan Phil

# METRIC SCREWS, BOLTS, AND THREADED ROD

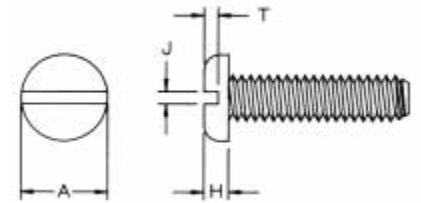
ALL DIMENSIONS ARE IN MILLIMETERS



ITEM NUMBER	DESCRIPTION
50M020040N004	M2 X .4 X 4MM Pan Slot
50M020040N005	M2 X .4 X 5MM Pan Slot
50M020040N006	M2 X .4 X 6MM Pan Slot
50M020040N008	M2 X .4 X 8MM Pan Slot
50M020040N010	M2 X .4 X 10MM Pan Slot
50M020040N012	M2 X .4 X 12MM Pan Slot
50M020040N016	M2 X .4 X 16MM Pan Slot
50M020040N020	M2 X .4 X 20MM Pan Slot
50M020040N025	M2 X .4 X 25MM Pan Slot
50M025045N004	M2.5 X .45 X 4MM Pan Slot
50M025045N005	M2.5 X .45 X 5MM Pan Slot
50M025045N006	M2.5 X .45 X 6MM Pan Slot
50M025045N008	M2.5 X .45 X 8MM Pan Slot
50M025045N010	M2.5 X .45 X 10MM Pan Slot
50M025045N012	M2.5 X .45 X 12MM Pan Slot
50M025045N016	M2.5 X .45 X 16MM Pan Slot
50M025045N020	M2.5 X .45 X 20MM Pan Slot
50M025045N025	M2.5 X .45 X 25MM Pan Slot
50M030050N004	M3 X .5 X 4MM Pan Slot
50M030050N005	M3 X .5 X 5MM Pan Slot
50M030050N006	M3 X .5 X 6MM Pan Slot
50M030050N008	M3 X .5 X 8MM Pan Slot
50M030050N010	M3 X .5 X 10MM Pan Slot
50M030050N012	M3 X .5 X 12MM Pan Slot
50M030050N016	M3 X .5 X 16MM Pan Slot
50M030050N020	M3 X .5 X 20MM Pan Slot
50M030050N025	M3 X .5 X 25MM Pan Slot
50M030050N030	M3 X .5 X 30MM Pan Slot
50M030050N035	M3 X .5 X 35MM Pan Slot
50M030050N042	M3 X .5 X 42MM Pan Slot
50M035060N005	M3.5 X .6 X 5MM Pan Slot
50M035060N006	M3.5 X .6 X 6MM Pan Slot
50M035060N007	M3.5 X .6 X 7MM Pan Slot
50M035060N008	M3.5 X .6 X 8MM Pan Slot
50M035060N010	M3.5 X .6 X 10MM Pan Slot
50M035060N012	M3.5 X .6 X 12MM Pan Slot
50M035060N016	M3.5 X .6 X 16MM Pan Slot
50M035060N020	M3.5 X .6 X 20MM Pan Slot
50M035060N025	M3.5 X .6 X 25MM Pan Slot
50M035060N035	M3.5 X .6 X 35MM Pan Slot
50M035060N042	M3.5 X .6 X 42MM Pan Slot
50M040070N003	M4 X .7 X 3MM Pan Slot
50M040070N006	M4 X .7 X 6MM Pan Slot
50M040070N008	M4 X .7 X 8MM Pan Slot
50M040070N010	M4 X .7 X 10MM Pan Slot
50M040070N012	M4 X .7 X 12MM Pan Slot
50M040070N016	M4 X .7 X 16MM Pan Slot
50M040070N020	M4 X .7 X 20MM Pan Slot

ITEM NUMBER	DESCRIPTION
50M040070N025	M4 X .7 X 25MM Pan Slot
50M040070N030	M4 X .7 X 30MM Pan Slot
50M040070N035	M4 X .7 X 35MM Pan Slot
50M040070N040	M4 X .7 X 40MM Pan Slot
50M050080N006	M5 X .8 X 6MM Pan Slot
50M050080N008	M5 X .8 X 8MM Pan Slot
50M050080N010	M5 X .8 X 10MM Pan Slot
50M050080N012	M5 X .8 X 12MM Pan Slot
50M050080N015	M5 X .8 X 15MM Pan Slot
50M050080N016	M5 X .8 X 16MM Pan Slot
50M050080N020	M5 X .8 X 20MM Pan Slot
50M050080N025	M5 X .8 X 25MM Pan Slot
50M050080N030	M5 X .8 X 30MM Pan Slot
50M050080N035	M5 X .8 X 35MM Pan Slot
50M050080N040	M5 X .8 X 40MM Pan Slot
50M060100N005	M6 X 1.00 X 5MM Pan Slot
50M060100N008	M6 X 1.00 X 8MM Pan Slot
50M060100N010	M6 X 1.00 X 10MM Pan Slot
50M060100N012	M6 X 1.00 X 12MM Pan Slot
50M060100N016	M6 X 1.00 X 16MM Pan Slot
50M060100N020	M6 X 1.00 X 20MM Pan Slot
50M060100N022	M6 X 1.00 X 22MM Pan Slot
50M060100N025	M6 X 1.00 X 25MM Pan Slot
50M060100N030	M6 X 1.00 X 30MM Pan Slot
50M060100N035	M6 X 1.00 X 35MM Pan Slot
50M060100N040	M6 X 1.00 X 40MM Pan Slot
50M060100N045	M6 X 1.00 X 45MM Pan Slot
50M060100N050	M6 X 1.00 X 50MM Pan Slot
50M060100N060	M6 X 1.00 X 60MM Pan Slot
50M060100N070	M6 X 1.00 X 70MM Pan Slot
50M060100N075	M6 X 1.00 X 75MM Pan Slot
50M080125N010	M8 X 1.25 X 10MM Pan Slot
50M080125N016	M8 X 1.25 X 16MM Pan Slot
50M080125N020	M8 X 1.25 X 20MM Pan Slot
50M080125N025	M8 X 1.25 X 25MM Pan Slot
50M080125N030	M8 X 1.25 X 30MM Pan Slot
50M080125N035	M8 X 1.25 X 35MM Pan Slot
50M080125N050	M8 X 1.25 X 50MM Pan Slot
50M080125N070	M8 X 1.25 X 70MM Pan Slot
50M100150N013	M10 X 1.50 X 13MM Pan Slot
50M100150N016	M10 X 1.50 X 16MM Pan Slot
50M100150N019	M10 X 1.50 X 19MM Pan Slot
50M100150N020	M10 X 1.50 X 20MM Pan Slot
50M100150N025	M10 X 1.50 X 25MM Pan Slot
50M100150N030	M10 X 1.50 X 30MM Pan Slot
50M100150N035	M10 X 1.50 X 35MM Pan Slot
50M100150N050	M10 X 1.50 X 50MM Pan Slot
50M100150N060	M10 X 1.50 X 60MM Pan Slot

## PAN SLOTTED



THREAD SIZE	A	H	J	T
M2	3.7 - 4.0	1.1 - 1.3	0.5 - 0.7	0.5 min.
M2.5	4.7 - 5.0	1.3 - 1.5	0.6 - 0.8	0.6 min.
M3	5.3 - 5.6	1.6 - 1.8	0.8 - 1.0	0.7 min.
M3.5	6.6 - 7.0	1.9 - 2.1	1.0 - 1.2	0.8 min.
M4	7.6 - 8.0	2.2 - 2.4	1.2 - 1.5	1.0 min.
M5	9.1 - 9.5	2.7 - 3.0	1.2 - 1.5	1.2 min.
M6	11.5 - 12.0	3.3 - 3.6	1.6 - 1.9	1.4 min.
M8	15.5 - 16.0	4.5 - 4.8	2.0 - 2.3	1.9 min.
M10	19.4 - 20.0	5.7 - 6.0	2.5 - 2.8	2.4 min.

Nominal Screw Length	Tolerance On Length mm
to 3 mm incl.	0.2
over 3 to 10 mm	0.3
over 10 to 16 mm	0.4
over 16 to 50 mm	0.5
over 50 mm	1.0

All tolerances are plus and minus.

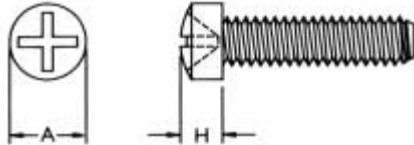


# METRIC SCREWS, BOLTS, AND THREADED ROD

ALL DIMENSIONS ARE IN MILLIMETERS

THREAD SIZE	A	H
M2 X 0.4	3.8	1.60
M2.5 X 0.45	5.0	2.00
M3 X 0.5	6.0	2.40
M3.5 X 0.6	7.0	2.70
M4 X 0.7	8.0	3.10
M5 X 0.8	10.0	3.80
M6 X 1.0	12.0	4.60
M8 X 1.25	16.0	6.00
M10 X 1.5	18.0	7.00

**FILLISTER PHILLIPS** 



**ITEM NUMBER** ----- **DESCRIPTION** -----

50M020040G004	M2 X .4 X 4MM	Fill Phil
50M020040G005	M2 X .4 X 5MM	Fill Phil
50M020040G006	M2 X .4 X 6MM	Fill Phil
50M020040G008	M2 X .4 X 8MM	Fill Phil
50M020040G010	M2 X .4 X 10MM	Fill Phil
50M020040G012	M2 X .4 X 12MM	Fill Phil
50M020040G016	M2 X .4 X 16MM	Fill Phil
50M020040G020	M2 X .4 X 20MM	Fill Phil
50M020040G025	M2 X .4 X 25MM	Fill Phil
50M025045G004	M2.5 X .45 X 4MM	Fill Phil
50M025045G005	M2.5 X .45 X 5MM	Fill Phil
50M025045G006	M2.5 X .45 X 6MM	Fill Phil
50M025045G008	M2.5 X .45 X 8MM	Fill Phil
50M025045G010	M2.5 X .45 X 10MM	Fill Phil
50M025045G012	M2.5 X .45 X 12MM	Fill Phil
50M025045G016	M2.5 X .45 X 16MM	Fill Phil
50M025045G020	M2.5 X .45 X 20MM	Fill Phil
50M025045G025	M2.5 X .45 X 25MM	Fill Phil
50M030050G004	M3 X .5 X 4MM	Fill Phil
50M030050G005	M3 X .5 X 5MM	Fill Phil
50M030050G006	M3 X .5 X 6MM	Fill Phil
50M030050G008	M3 X .5 X 8MM	Fill Phil
50M030050G010	M3 X .5 X 10MM	Fill Phil
50M030050G012	M3 X .5 X 12MM	Fill Phil
50M030050G016	M3 X .5 X 16MM	Fill Phil
50M030050G020	M3 X .5 X 20MM	Fill Phil
50M030050G025	M3 X .5 X 25MM	Fill Phil
50M030050G030	M3 X .5 X 30MM	Fill Phil
50M030050G035	M3 X .5 X 35MM	Fill Phil
50M030050G042	M3 X .5 X 42MM	Fill Phil
50M035060G005	M3.5 X .6 X 5MM	Fill Phil
50M035060G006	M3.5 X .6 X 6MM	Fill Phil
50M035060G007	M3.5 X .6 X 7MM	Fill Phil
50M035060G008	M3.5 X .6 X 8MM	Fill Phil
50M035060G010	M3.5 X .6 X 10MM	Fill Phil
50M035060G012	M3.5 X .6 X 12MM	Fill Phil
50M035060G016	M3.5 X .6 X 16MM	Fill Phil
50M035060G020	M3.5 X .6 X 20MM	Fill Phil
50M035060G025	M3.5 X .6 X 25MM	Fill Phil
50M035060G035	M3.5 X .6 X 35MM	Fill Phil
50M035060G042	M3.5 X .6 X 42MM	Fill Phil
50M040070G003	M4 X .7 X 3MM	Fill Phil
50M040070G006	M4 X .7 X 6MM	Fill Phil
50M040070G008	M4 X .7 X 8MM	Fill Phil
50M040070G010	M4 X .7 X 10MM	Fill Phil
50M040070G012	M4 X .7 X 12MM	Fill Phil
50M040070G016	M4 X .7 X 16MM	Fill Phil
50M040070G020	M4 X .7 X 20MM	Fill Phil

**ITEM NUMBER** ----- **DESCRIPTION** -----

50M040070G025	M4 X .7 X 25MM	Fill Phil
50M040070G030	M4 X .7 X 30MM	Fill Phil
50M040070G035	M4 X .7 X 35MM	Fill Phil
50M040070G040	M4 X .7 X 40MM	Fill Phil
50M050080G006	M5 X .8 X 6MM	Fill Phil
50M050080G008	M5 X .8 X 8MM	Fill Phil
50M050080G010	M5 X .8 X 10MM	Fill Phil
50M050080G012	M5 X .8 X 12MM	Fill Phil
50M050080G015	M5 X .8 X 15MM	Fill Phil
50M050080G016	M5 X .8 X 16MM	Fill Phil
50M050080G020	M5 X .8 X 20MM	Fill Phil
50M050080G025	M5 X .8 X 25MM	Fill Phil
50M050080G030	M5 X .8 X 30MM	Fill Phil
50M050080G035	M5 X .8 X 35MM	Fill Phil
50M050080G040	M5 X .8 X 40MM	Fill Phil
50M060100G005	M6 X 1.0 X 5MM	Fill Phil
50M060100G008	M6 X 1.0 X 8MM	Fill Phil
50M060100G010	M6 X 1.0 X 10MM	Fill Phil
50M060100G012	M6 X 1.0 X 12MM	Fill Phil
50M060100G016	M6 X 1.0 X 16MM	Fill Phil
50M060100G020	M6 X 1.0 X 20MM	Fill Phil
50M060100G022	M6 X 1.0 X 22MM	Fill Phil
50M060100G025	M6 X 1.0 X 25MM	Fill Phil
50M060100G030	M6 X 1.0 X 30MM	Fill Phil
50M060100G035	M6 X 1.0 X 35MM	Fill Phil
50M060100G040	M6 X 1.0 X 40MM	Fill Phil
50M060100G045	M6 X 1.0 X 45MM	Fill Phil
50M060100G050	M6 X 1.0 X 50MM	Fill Phil
50M060100G060	M6 X 1.0 X 60MM	Fill Phil
50M060100G070	M6 X 1.0 X 70MM	Fill Phil
50M060100G075	M6 X 1.0 X 75MM	Fill Phil
50M080125G010	M8 X 1.25 X 10MM	Fill Phil
50M080125G016	M8 X 1.25 X 16MM	Fill Phil
50M080125G020	M8 X 1.25 X 20MM	Fill Phil
50M080125G025	M8 X 1.25 X 25MM	Fill Phil
50M080125G030	M8 X 1.25 X 30MM	Fill Phil
50M080125G035	M8 X 1.25 X 35MM	Fill Phil
50M080125G050	M8 X 1.25 X 50MM	Fill Phil
50M080125G070	M8 X 1.25 X 70MM	Fill Phil
50M100150G013	M10 X 1.50 X 13MM	Fill Phil
50M100150G016	M10 X 1.50 X 16MM	Fill Phil
50M100150G019	M10 X 1.50 X 19MM	Fill Phil
50M100150G020	M10 X 1.50 X 20MM	Fill Phil
50M100150G025	M10 X 1.50 X 25MM	Fill Phil
50M100150G030	M10 X 1.50 X 30MM	Fill Phil
50M100150G035	M10 X 1.50 X 35MM	Fill Phil
50M100150G050	M10 X 1.50 X 50MM	Fill Phil
50M100150G060	M10 X 1.50 X 60MM	Fill Phil



# METRIC SCREWS, BOLTS, AND THREADED ROD

ALL DIMENSIONS ARE IN MILLIMETERS

THREAD SIZE	A	H	J	T
M2 X 0.4	3.8	1.60	0.60	0.90
M2.5 X 0.45	5.0	2.00	0.70	1.10
M3 X 0.5	6.0	2.40	1.00	1.30
M3.5 X 0.6	7.0	2.70	1.10	1.40
M4 X 0.7	8.0	3.10	1.20	1.60
M5 X 0.8	9.4	3.80	1.50	2.00
M6 X 1.0	12.0	4.60	1.90	2.30
M8 X 1.25	16.0	6.00	2.30	2.80
M10 X 1.5	20.0	7.50	2.80	3.20



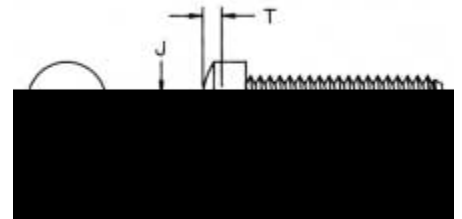
**ITEM NUMBER**      ----- **DESCRIPTION** -----

50M020040F004	M2	X .4	X 4MM	Fill Slot
50M020040F005	M2	X .4	X 5MM	Fill Slot
50M020040F006	M2	X .4	X 6MM	Fill Slot
50M020040F008	M2	X .4	X 8MM	Fill Slot
50M020040F010	M2	X .4	X 10MM	Fill Slot
50M020040F012	M2	X .4	X 12MM	Fill Slot
50M020040F016	M2	X .4	X 16MM	Fill Slot
50M020040F020	M2	X .4	X 20MM	Fill Slot
50M020040F025	M2	X .4	X 25MM	Fill Slot
50M025045F004	M2.5	X .45	X 4MM	Fill Slot
50M025045F005	M2.5	X .45	X 5MM	Fill Slot
50M025045F006	M2.5	X .45	X 6MM	Fill Slot
50M025045F008	M2.5	X .45	X 8MM	Fill Slot
50M025045F010	M2.5	X .45	X 10MM	Fill Slot
50M025045F012	M2.5	X .45	X 12MM	Fill Slot
50M025045F016	M2.5	X .45	X 16MM	Fill Slot
50M025045F020	M2.5	X .45	X 20MM	Fill Slot
50M025045F025	M2.5	X .45	X 25MM	Fill Slot
50M030050F004	M3	X .5	X 4MM	Fill Slot
50M030050F005	M3	X .5	X 5MM	Fill Slot
50M030050F006	M3	X .5	X 6MM	Fill Slot
50M030050F008	M3	X .5	X 8MM	Fill Slot
50M030050F010	M3	X .5	X 10MM	Fill Slot
50M030050F012	M3	X .5	X 12MM	Fill Slot
50M030050F016	M3	X .5	X 16MM	Fill Slot
50M030050F020	M3	X .5	X 20MM	Fill Slot
50M030050F025	M3	X .5	X 25MM	Fill Slot
50M030050F030	M3	X .5	X 30MM	Fill Slot
50M030050F035	M3	X .5	X 35MM	Fill Slot
50M030050F042	M3	X .5	X 42MM	Fill Slot
50M035060F005	M3.5	X .6	X 5MM	Fill Slot
50M035060F006	M3.5	X .6	X 6MM	Fill Slot
50M035060F007	M3.5	X .6	X 7MM	Fill Slot
50M035060F008	M3.5	X .6	X 8MM	Fill Slot
50M035060F010	M3.5	X .6	X 10MM	Fill Slot
50M035060F012	M3.5	X .6	X 12MM	Fill Slot
50M035060F016	M3.5	X .6	X 16MM	Fill Slot
50M035060F020	M3.5	X .6	X 20MM	Fill Slot
50M035060F025	M3.5	X .6	X 25MM	Fill Slot
50M035060F035	M3.5	X .6	X 35MM	Fill Slot
50M035060F042	M3.5	X .6	X 42MM	Fill Slot
50M040070F003	M4	X .7	X 3MM	Fill Slot
50M040070F006	M4	X .7	X 6MM	Fill Slot
50M040070F008	M4	X .7	X 8MM	Fill Slot
50M040070F010	M4	X .7	X 10MM	Fill Slot
50M040070F012	M4	X .7	X 12MM	Fill Slot
50M040070F016	M4	X .7	X 16MM	Fill Slot
50M040070F020	M4	X .7	X 20MM	Fill Slot

**ITEM NUMBER**      ----- **DESCRIPTION** -----

50M040070F025	M4	X .7	X 25MM	Fill Slot
50M040070F030	M4	X .7	X 30MM	Fill Slot
50M040070F035	M4	X .7	X 35MM	Fill Slot
50M040070F040	M4	X .7	X 40MM	Fill Slot
50M050080F006	M5	X .8	X 6MM	Fill Slot
50M050080F008	M5	X .8	X 8MM	Fill Slot
50M050080F010	M5	X .8	X 10MM	Fill Slot
50M050080F012	M5	X .8	X 12MM	Fill Slot
50M050080F015	M5	X .8	X 15MM	Fill Slot
50M050080F016	M5	X .8	X 16MM	Fill Slot
50M050080F020	M5	X .8	X 20MM	Fill Slot
50M050080F025	M5	X .8	X 25MM	Fill Slot
50M050080F030	M5	X .8	X 30MM	Fill Slot
50M050080F040	M5	X .8	X 40MM	Fill Slot
50M060100F005	M6	X 1.00	X 5MM	Fill Slot
50M060100F008	M6	X 1.00	X 8MM	Fill Slot
50M060100F010	M6	X 1.00	X 10MM	Fill Slot
50M060100F012	M6	X 1.00	X 12MM	Fill Slot
50M060100F016	M6	X 1.00	X 16MM	Fill Slot
50M060100F020	M6	X 1.00	X 20MM	Fill Slot
50M060100F022	M6	X 1.00	X 22MM	Fill Slot
50M060100F025	M6	X 1.00	X 25MM	Fill Slot
50M060100F030	M6	X 1.00	X 30MM	Fill Slot
50M060100F035	M6	X 1.00	X 35MM	Fill Slot
50M060100F040	M6	X 1.00	X 40MM	Fill Slot
50M060100F045	M6	X 1.00	X 45MM	Fill Slot
50M060100F050	M6	X 1.00	X 50MM	Fill Slot
50M060100F060	M6	X 1.00	X 60MM	Fill Slot
50M060100F070	M6	X 1.00	X 70MM	Fill Slot
50M060100F075	M6	X 1.00	X 75MM	Fill Slot
50M080125F010	M8	X 1.25	X 10MM	Fill Slot
50M080125F016	M8	X 1.25	X 16MM	Fill Slot
50M080125F020	M8	X 1.25	X 20MM	Fill Slot
50M080125F025	M8	X 1.25	X 25MM	Fill Slot
50M080125F030	M8	X 1.25	X 30MM	Fill Slot
50M080125F035	M8	X 1.25	X 35MM	Fill Slot
50M080125F050	M8	X 1.25	X 50MM	Fill Slot
50M080125F070	M8	X 1.25	X 70MM	Fill Slot
50M100150F013	M10	X 1.50	X 13MM	Fill Slot
50M100150F016	M10	X 1.50	X 16MM	Fill Slot
50M100150F019	M10	X 1.50	X 19MM	Fill Slot
50M100150F020	M10	X 1.50	X 20MM	Fill Slot
50M100150F025	M10	X 1.50	X 25MM	Fill Slot
50M100150F030	M10	X 1.50	X 30MM	Fill Slot
50M100150F035	M10	X 1.50	X 35MM	Fill Slot
50M100150F050	M10	X 1.50	X 50MM	Fill Slot
50M100150F060	M10	X 1.50	X 60MM	Fill Slot

## FILLISTER SLOTTED



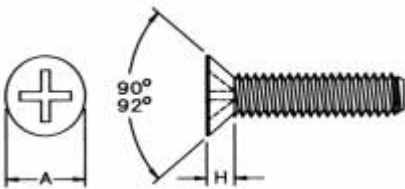
# METRIC SCREWS, BOLTS, AND THREADED ROD

ALL DIMENSIONS ARE IN MILLIMETERS

THREAD SIZE	A	* H
M2 X 0.4	3.5 - 4.4	1.2 max ref.
M2.5 X 0.45	4.4 - 5.5	1.5 max ref.
M3 X 0.5	5.2 - 6.3	1.7 max ref.
M3.5 X 0.6	6.9 - 8.2	2.3 max ref.
M4 X 0.7	8.0 - 9.4	2.7 max ref.
M5 X 0.8	8.9 - 10.4	2.7 max ref.
M6 X 1	10.9 - 12.6	3.3 max ref.
M8 X 1.25	15.4 - 17.3	4.6 max ref.
M10 X 1.5	17.8 - 20.0	5.0 max ref.

\* H Dimension is a reference dimension only.

## FLAT PHILLIPS



ITEM NUMBER	DESCRIPTION	ITEM NUMBER	DESCRIPTION
50M025045I004	M2.5 X .45 X 4MM Flat Phil	50M040070I016	M4 X .7 X 16MM Flat Phil
50M025045I005	M2.5 X .45 X 5MM Flat Phil	50M040070I020	M4 X .7 X 20MM Flat Phil
50M025045I006	M2.5 X .45 X 6MM Flat Phil	50M040070I025	M4 X .7 X 25MM Flat Phil
50M025045I008	M2.5 X .45 X 8MM Flat Phil	50M050080I006	M5 X .8 X 6MM Flat Phil
50M025045I010	M2.5 X .45 X 10MM Flat Phil	50M050080I008	M5 X .8 X 8MM Flat Phil
50M025045I012	M2.5 X .45 X 12MM Flat Phil	50M050080I010	M5 X .8 X 10MM Flat Phil
50M025045I016	M2.5 X .45 X 16MM Flat Phil	50M050080I012	M5 X .8 X 12MM Flat Phil
50M025045I020	M2.5 X .45 X 20MM Flat Phil	50M050080I016	M5 X .8 X 16MM Flat Phil
50M025045I025	M2.5 X .45 X 25MM Flat Phil	50M050080I020	M5 X .8 X 20MM Flat Phil
50M030050I005	M3 X .5 X 5MM Flat Phil	50M050080I025	M5 X .8 X 25MM Flat Phil
50M030050I006	M3 X .5 X 6MM Flat Phil	50M050080I030	M5 X .8 X 30MM Flat Phil
50M030050I008	M3 X .5 X 8MM Flat Phil	50M050080I040	M5 X .8 X 40MM Flat Phil
50M030050I010	M3 X .5 X 10MM Flat Phil	50M060100I008	M6 X 1.00 X 8MM Flat Phil
50M030050I012	M3 X .5 X 12MM Flat Phil	50M060100I010	M6 X 1.00 X 10MM Flat Phil
50M030050I016	M3 X .5 X 16MM Flat Phil	50M060100I012	M6 X 1.00 X 12MM Flat Phil
50M030050I020	M3 X .5 X 20MM Flat Phil	50M060100I016	M6 X 1.00 X 16MM Flat Phil
50M030050I025	M3 X .5 X 25MM Flat Phil	50M060100I020	M6 X 1.00 X 20MM Flat Phil
50M035060I005	M3.5 X .6 X 5MM Flat Phil	50M060100I025	M6 X 1.00 X 25MM Flat Phil
50M035060I006	M3.5 X .6 X 6MM Flat Phil	50M060100I035	M6 X 1.00 X 35MM Flat Phil
50M035060I008	M3.5 X .6 X 8MM Flat Phil	50M060100I045	M6 X 1.00 X 45MM Flat Phil
50M035060I010	M3.5 X .6 X 10MM Flat Phil	50M080125I010	M8 X 1.25 X 10MM Flat Phil
50M035060I012	M3.5 X .6 X 12MM Flat Phil	50M080125I016	M8 X 1.25 X 16MM Flat Phil
50M035060I016	M3.5 X .6 X 16MM Flat Phil	50M080125I020	M8 X 1.25 X 20MM Flat Phil
50M035060I020	M3.5 X .6 X 20MM Flat Phil	50M080125I025	M8 X 1.25 X 25MM Flat Phil
50M035060I025	M3.5 X .6 X 25MM Flat Phil	50M080125I030	M8 X 1.25 X 30MM Flat Phil
50M035060I035	M3.5 X .6 X 35MM Flat Phil	50M080125I050	M8 X 1.25 X 50MM Flat Phil
50M040070I006	M4 X .7 X 6MM Flat Phil	50M100150I020	M10 X 1.50 X 20MM Flat Phil
50M040070I008	M4 X .7 X 8MM Flat Phil	50M100150I025	M10 X 1.50 X 25MM Flat Phil
50M040070I010	M4 X .7 X 10MM Flat Phil	50M100150I035	M10 X 1.50 X 35MM Flat Phil
50M040070I012	M4 X .7 X 12MM Flat Phil		

# METRIC SCREWS, BOLTS, AND THREADED ROD

ALL DIMENSIONS ARE IN MILLIMETERS

THREAD SIZE	A	H	J	T
M2 X 0.4	3.5 - 4.4	1.2 max ref	0.5 - 0.7	0.4 - 0.6
M2.5 X 0.45	4.4 - 5.5	1.5 max ref	0.6 - 0.8	0.5 - 0.7
M3 X 0.5	5.2 - 6.3	1.7 max ref	.08 - 1.0	0.6 - 0.9
M3.5 X 0.6	6.9 - 8.2	2.3 max ref	1.0 - 1.2	0.9 - 1.2
M4 X 0.7	8.0 - 9.4	2.7 max ref	1.2 - 1.5	1.0 - 1.3
M5 X 0.8	8.9 - 10.4	2.7 max ref	1.2 - 1.5	1.1 - 1.4
M6 X 1	10.9 - 12.6	3.3 max ref	1.6 - 1.9	1.2 - 1.6
M8 X 1.25	15.4 - 17.3	4.6 max ref	2.0 - 2.3	1.8 - 2.3
M10 X 1.5	17.8 - 20.0	5.0 max ref	2.5 - 2.8	2.0 - 2.6

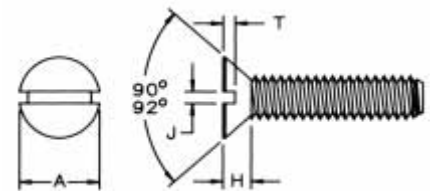
**ITEM NUMBER** ----- **DESCRIPTION** -----

50M020040H004	M2 X .4 X 4MM	Flat Slot
50M020040H005	M2 X .4 X 5MM	Flat Slot
50M020040H006	M2 X .4 X 6MM	Flat Slot
50M020040H008	M2 X .4 X 8MM	Flat Slot
50M020040H010	M2 X .4 X 10MM	Flat Slot
50M020040H011	M2 X .4 X 11MM	Flat Slot
50M020040H012	M2 X .4 X 12MM	Flat Slot
50M020040H016	M2 X .4 X 16MM	Flat Slot
50M020040H025	M2 X .4 X 25MM	Flat Slot
50M025045H004	M2.5 X .45 X 4MM	Flat Slot
50M025045H005	M2.5 X .45 X 5MM	Flat Slot
50M025045H006	M2.5 X .45 X 6MM	Flat Slot
50M025045H008	M2.5 X .45 X 8MM	Flat Slot
50M025045H010	M2.5 X .45 X 10MM	Flat Slot
50M025045H012	M2.5 X .45 X 12MM	Flat Slot
50M025045H016	M2.5 X .45 X 16MM	Flat Slot
50M025045H020	M2.5 X .45 X 20MM	Flat Slot
50M025045H025	M2.5 X .45 X 25MM	Flat Slot
50M030050H005	M3 X .5 X 5MM	Flat Slot
50M030050H006	M3 X .5 X 6MM	Flat Slot
50M030050H008	M3 X .5 X 8MM	Flat Slot
50M030050H010	M3 X .5 X 10MM	Flat Slot
50M030050H012	M3 X .5 X 12MM	Flat Slot
50M030050H015	M3 X .5 X 15MM	Flat Slot
50M030050H016	M3 X .5 X 16MM	Flat Slot
50M030050H020	M3 X .5 X 20MM	Flat Slot
50M030050H025	M3 X .5 X 25MM	Flat Slot
50M030050H030	M3 X .5 X 30MM	Flat Slot
50M030050H042	M3 X .5 X 42MM	Flat Slot
50M035060H005	M3.5 X .6 X 5MM	Flat Slot
50M035060H006	M3.5 X .6 X 6MM	Flat Slot
50M035060H008	M3.5 X .6 X 8MM	Flat Slot
50M035060H010	M3.5 X .6 X 10MM	Flat Slot
50M035060H016	M3.5 X .6 X 16MM	Flat Slot
50M035060H025	M3.5 X .6 X 25MM	Flat Slot
50M035060H035	M3.5 X .6 X 35MM	Flat Slot
50M040070H006	M4 X .7 X 6MM	Flat Slot
50M040070H008	M4 X .7 X 8MM	Flat Slot

**ITEM NUMBER** ----- **DESCRIPTION** -----

50M040070H010	M4 X .7 X 10MM	Flat Slot
50M040070H012	M4 X .7 X 12MM	Flat Slot
50M040070H015	M4 X .7 X 15MM	Flat Slot
50M040070H016	M4 X .7 X 16MM	Flat Slot
50M040070H020	M4 X .7 X 20MM	Flat Slot
50M040070H025	M4 X .7 X 25MM	Flat Slot
50M040070H030	M4 X .7 X 30MM	Flat Slot
50M040070H035	M4 X .7 X 35MM	Flat Slot
50M050080H006	M5 X .8 X 6MM	Flat Slot
50M050080H008	M5 X .8 X 8MM	Flat Slot
50M050080H010	M5 X .8 X 10MM	Flat Slot
50M050080H012	M5 X .8 X 12MM	Flat Slot
50M050080H015	M5 X .8 X 15MM	Flat Slot
50M050080H016	M5 X .8 X 16MM	Flat Slot
50M050080H020	M5 X .8 X 20MM	Flat Slot
50M050080H025	M5 X .8 X 25MM	Flat Slot
50M050080H030	M5 X .8 X 30MM	Flat Slot
50M050080H040	M5 X .8 X 40MM	Flat Slot
50M060100H008	M6 X 1.0 X 8MM	Flat Slot
50M060100H010	M6 X 1.0 X 10MM	Flat Slot
50M060100H012	M6 X 1.0 X 12MM	Flat Slot
50M060100H016	M6 X 1.0 X 16MM	Flat Slot
50M060100H020	M6 X 1.0 X 20MM	Flat Slot
50M060100H025	M6 X 1.0 X 25MM	Flat Slot
50M060100H035	M6 X 1.0 X 35MM	Flat Slot
50M060100H040	M6 X 1.0 X 40MM	Flat Slot
50M060100H045	M6 X 1.0 X 45MM	Flat Slot
50M060100H050	M6 X 1.0 X 50MM	Flat Slot
50M080125H016	M8 X 1.25 X 16MM	Flat Slot
50M080125H020	M8 X 1.25 X 20MM	Flat Slot
50M080125H025	M8 X 1.25 X 25MM	Flat Slot
50M080125H030	M8 X 1.25 X 30MM	Flat Slot
50M080125H050	M8 X 1.25 X 50MM	Flat Slot
50M100150H020	M10 X 1.5 X 20MM	Flat Slot
50M100150H025	M10 X 1.5 X 25MM	Flat Slot
50M100150H030	M10 X 1.5 X 30MM	Flat Slot
50M100150H035	M10 X 1.5 X 35MM	Flat Slot
50M100150H060	M10 X 1.5 X 60MM	Flat Slot

## FLAT SLOTTED

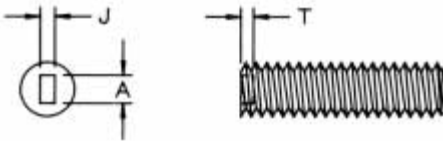


# METRIC SCREWS, BOLTS, AND THREADED ROD

ALL DIMENSIONS ARE IN MILLIMETERS

THREAD SIZE	A	J	T
M4 X 0.7	2.0	.64	.76
M5 X 0.8	3.3	.89	1.3
M6 X 1.0	4.1	1.0	1.5
M8 X 1.25	5.2	1.6	2.4
M10 X 1.5	6.6	1.5	2.5

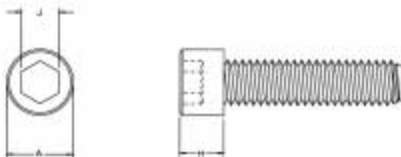
## GRUB SLOTTED



ITEM NUMBER	DESCRIPTION
50M040070R003	M4 X .7 X 3MM Grub Slot
50M040070R006	M4 X .7 X 6MM Grub Slot
50M040070R008	M4 X .7 X 8MM Grub Slot
50M040070R010	M4 X .7 X 10MM Grub Slot
50M040070R012	M4 X .7 X 12MM Grub Slot
50M040070R016	M4 X .7 X 16MM Grub Slot
50M040070R020	M4 X .7 X 20MM Grub Slot
50M040070R025	M4 X .7 X 25MM Grub Slot
50M040070R030	M4 X .7 X 30MM Grub Slot
50M040070R035	M4 X .7 X 35MM Grub Slot
50M040070R040	M4 X .7 X 40MM Grub Slot
50M050080R006	M5 X .8 X 6MM Grub Slot
50M050080R008	M5 X .8 X 8MM Grub Slot
50M050080R010	M5 X .8 X 10MM Grub Slot
50M050080R012	M5 X .8 X 12MM Grub Slot
50M050080R016	M5 X .8 X 16MM Grub Slot
50M050080R020	M5 X .8 X 20MM Grub Slot
50M050080R025	M5 X .8 X 25MM Grub Slot
50M050080R030	M5 X .8 X 30MM Grub Slot
50M050080R040	M5 X .8 X 40MM Grub Slot
50M060100R005	M6 X 1.00 X 5MM Grub Slot
50M060100R008	M6 X 1.00 X 8MM Grub Slot
50M060100R010	M6 X 1.00 X 10MM Grub Slot
50M060100R012	M6 X 1.00 X 12MM Grub Slot
50M060100R016	M6 X 1.00 X 16MM Grub Slot

ITEM NUMBER	DESCRIPTION
50M060100R020	M6 X 1.00 X 20MM Grub Slot
50M060100R022	M6 X 1.00 X 22MM Grub Slot
50M060100R025	M6 X 1.00 X 25MM Grub Slot
50M060100R030	M6 X 1.00 X 30MM Grub Slot
50M060100R035	M6 X 1.00 X 35MM Grub Slot
50M060100R045	M6 X 1.00 X 45MM Grub Slot
50M060100R050	M6 X 1.00 X 50MM Grub Slot
50M060100R060	M6 X 1.00 X 60MM Grub Slot
50M060100R070	M6 X 1.00 X 70MM Grub Slot
50M060100R075	M6 X 1.00 X 75MM Grub Slot
50M080125R010	M8 X 1.25 X 10MM Grub Slot
50M080125R016	M8 X 1.25 X 16MM Grub Slot
50M080125R020	M8 X 1.25 X 20MM Grub Slot
50M080125R025	M8 X 1.25 X 25MM Grub Slot
50M080125R030	M8 X 1.25 X 30MM Grub Slot
50M080125R035	M8 X 1.25 X 35MM Grub Slot
50M080125R050	M8 X 1.25 X 50MM Grub Slot
50M100150R013	M10 X 1.50 X 13MM Grub Slot
50M100150R016	M10 X 1.50 X 16MM Grub Slot
50M100150R019	M10 X 1.50 X 19MM Grub Slot
50M100150R020	M10 X 1.50 X 20MM Grub Slot
50M100150R025	M10 X 1.50 X 25MM Grub Slot
50M100150R030	M10 X 1.50 X 30MM Grub Slot
50M100150R035	M10 X 1.50 X 35MM Grub Slot
50M100150R050	M10 X 1.50 X 50MM Grub Slot
50M100150R060	M10 X 1.50 X 60MM Grub Slot

## HEX SOCKET HEAD CAP SCREW



ITEM NUMBER	DESCRIPTION
50M100150S013	M10 X 1.50 X 13MM Hex Soc
50M100150S016	M10 X 1.50 X 16MM Hex Soc
50M100150S019	M10 X 1.50 X 19MM Hex Soc
50M100150S020	M10 X 1.50 X 20MM Hex Soc
50M100150S025	M10 X 1.50 X 25MM Hex Soc
50M100150S030	M10 X 1.50 X 30MM Hex Soc
50M100150S035	M10 X 1.50 X 35MM Hex Soc
50M100150S050	M10 X 1.50 X 50MM Hex Soc
50M100150S060	M10 X 1.50 X 60MM Hex Soc

Nominal Screw Size	M1.6 thru M10	M12 thru M20	Over M20
	Nominal Screw Length	Tolerance on Length, mm	
to 16 mm, incl.	0.3	0.3	--
over 16 to 50 mm	0.4	0.4	0.7
over 50 to 120 mm	0.7	1.0	1.5
over 120 to 200mm	1.0	1.5	2.0
over 200 mm	2.0	2.5	3.0

All tolerances are plus and minus.

THREAD SIZE	A	H	J	HEX DEPTH
M 10	15.67 - 16.00	9.81 - 10.00	8.0 nom.	5.00 min.

# METRIC SCREWS, BOLTS, AND THREADED ROD

ALL DIMENSIONS ARE IN MILLIMETERS

## NYLON THREADED ROD

This versatile threaded rod stock is easily cut to size, resistant to most chemicals, electrically insulating, non-magnetic, light-weight, low thermal conductivity, vibration and abrasion resistant.



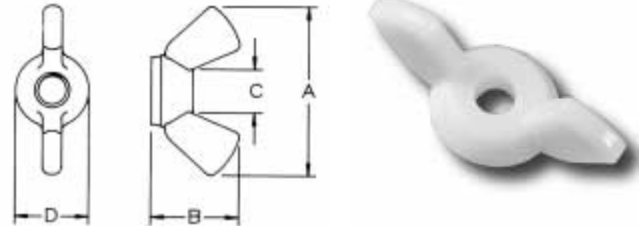
ITEM NUMBER	DESCRIPTION
38M040070TR	M 4 X .07 THREADED ROD
38M050080TR	M 5 X .08 THREADED ROD
38M060100TR	M 6 X 1.0 THREADED ROD
38M080125TR	M 8 X 1.25 THREADED ROD

## METRIC NUTS

ALL DIMENSIONS ARE IN MILLIMETERS

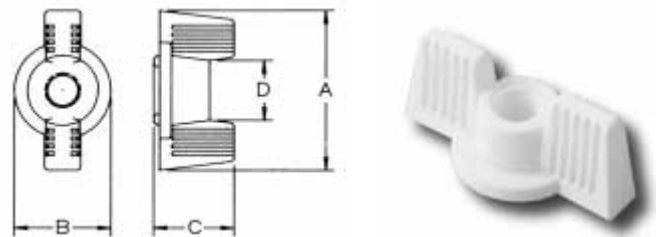
### NYLON WING NUTS TOLERANCE +/- .26 mm

ITEM NUMBER	DESCRIPTION	A	B	C	D
06M040070WN	M4 X 0.7	22.8	12.2	5.8	10.2
06M050080WN	M5 X 0.8	22.8	12.2	5.8	10.2
06M060100WN	M6 X 1.0	28.0	16.0	7.6	14.2
06M080125WN	M8 X 1.25	35.1	18.3	9.1	16.5
06M100150WN	M10 X 1.5	35.1	18.3	9.1	16.5
06M120175WN	M12 X 1.7	44.7	22.7	15.0	21.1



### DECO WING NUTS TOLERANCE +/- .26 mm

ITEM NUMBER	DESCRIPTION	A	B	C	D
06M030050DWN	M3 X 0.5	16.0	9.5	8.0	6.0
06M040070DWN	M4 X 0.7	16.0	9.5	8.0	6.0
06M050080DWN	M5 X 0.8	22.2	12.7	11.1	7.9
06M060100DWN	M6 X 1.0	29.7	15.8	13.4	9.5



ITEM NUMBER	DESCRIPTION	A	B	C	D
06M030050DLWN	M3 X 0.5	16.0	9.5	8.0	6.0
06M040070DLWN	M4 X 0.7	16.0	9.5	8.0	6.0
06M050080DLWN	M5 X 0.8	22.2	12.7	11.1	7.9
06M060100DLWN	M6 X 1.0	29.7	15.8	13.4	9.5

## DECO LOCKING WING NUTS

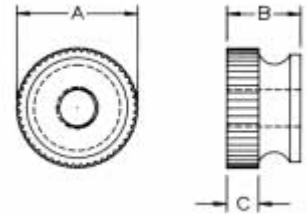
# METRIC NUTS

ALL DIMENSIONS ARE IN MILLIMETERS



## NYLON THUMB NUTS

TOLERANCE +/- .26 mm



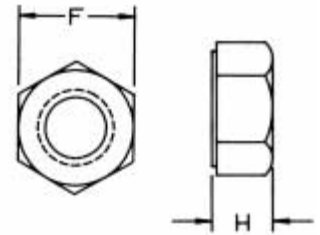
ITEM NUMBER	DESCRIPTION	A	B	C
08M040070TN	M4 X 0.7	10.8	7.7	3.5

## NYLON HEX NUTS

TOLERANCE +/- .26 mm



ITEM NUMBER	DESCRIPTION	F	H
04M020040HN	M2 X 0.4	3.9	1.2
04M025045HN	M2.5 X 0.45	4.9	1.8
04M030050HN	M3 X 0.5	5.4	2.2
04M035060HN	M3.5 X 0.6	6.9	2.7
04M040070HN	M4 X 0.7	6.9	3.0
04M050080HN	M5 X 0.8	7.9	4.3
04M060100HN	M6 X 1.0	10.0	5.4
04M080125HN	M8 X 1.25	12.9	6.4
04M100150HN	M10 X 1.50	14.8	9.8



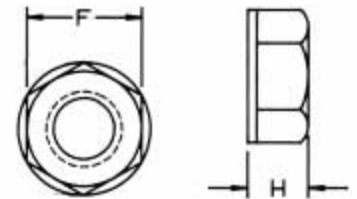
DESIGNED FOR STEEL SCREWS

## NYLON LOCK NUTS

TOLERANCE +/- .26 mm



ITEM NUMBER	DESCRIPTION	F	H
07M060100LN	M6 X 1.0	10.9	6.7

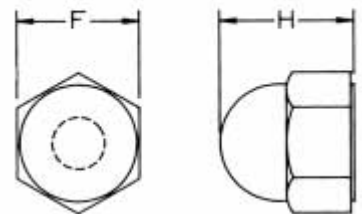


## NYLON CAP NUTS

TOLERANCE +/- .26 mm



ITEM NUMBER	DESCRIPTION	F	H * REE
05M040070CN	M4 X 0.7	7.0	8.0
05M050080CN	M5 X 0.8	8.0	10.0
05M060100CN	M6 X 1.0	10.0	12.0
05M080125CN	M8 X 1.25	13.0	15.0
05M100150CN	M10 X 1.5	17.0	18.0
05M120175CN	M12 X 1.75	18.9	20.5
05M160200CN	M16 X 2.0	23.7	24.8
05M200250CN	M20 X 2.5	26.7	29.1

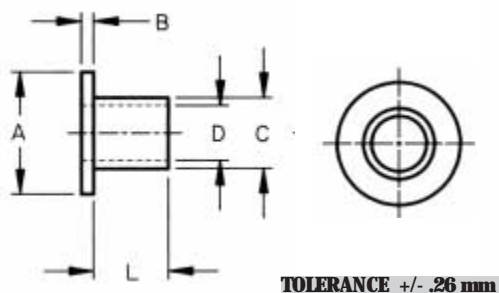


## LOCKING CAP NUTS

05M040070LCN	M4 X 0.7	7.0	8.0
05M050080LCN	M5 X 0.8	8.0	10.0
05M060100LCN	M6 X 1.0	10.0	12.0

# METRIC WASHERS AND SCREW INSULATORS

Nylon Screw Insulators are used to isolate metal screws electrically as well as to reduce corrosion. They can be used as light load bearings in many applications.



TOLERANCE +/- .26 mm



TOLERANCE +/- .13 mm

## NYLON SCREW INSULATORS

ITEM NUMBER	DESCRIPTION	L	A	B	C	D
10SCM002003	SCM 2 X 3	3 MM	4.2 MM	1.0 MM	3.0 MM	2.1 MM
10SCM002004	SCM 2 X 4	4 MM	4.2 MM	1.0 MM	3.0 MM	2.1 MM
10SCM002005	SCM 2 X 5	5 MM	4.2 MM	1.0 MM	3.0 MM	2.1 MM
10SCM002006	SCM 2 X 6	6 MM	4.2 MM	1.0 MM	3.0 MM	2.1 MM
10SCM003002	SCM 3 X 2	2 MM	6.2 MM	1.0 MM	4.0 MM	3.1 MM
10SCM003003	SCM 3 X 3	3 MM	6.2 MM	1.0 MM	4.0 MM	3.1 MM
10SCM003004	SCM 3 X 4	4 MM	6.2 MM	1.0 MM	4.0 MM	3.1 MM
10SCM003005	SCM 3 X 5	5 MM	6.2 MM	1.0 MM	4.0 MM	3.1 MM
10SCM003006	SCM 3 X 6	6 MM	6.2 MM	1.0 MM	4.0 MM	3.1 MM
10SCM003007	SCM 3 X 7	7 MM	6.2 MM	1.0 MM	4.0 MM	3.1 MM
10SCM003008	SCM 3 X 8	8 MM	6.2 MM	1.0 MM	4.0 MM	3.1 MM
10SCM003009	SCM 3 X 9	9 MM	6.2 MM	1.0 MM	4.0 MM	3.1 MM
10SCM003010	SCM 3 X 10	10 MM	6.2 MM	1.0 MM	4.0 MM	3.1 MM
10SCM004003	SCM 4 X 3	3 MM	8.4 MM	1.5 MM	6.0 MM	4.1 MM
10SCM004004	SCM 4 X 4	4 MM	8.4 MM	1.5 MM	6.0 MM	4.1 MM
10SCM004005	SCM 4 X 5	5 MM	8.4 MM	1.5 MM	6.0 MM	4.1 MM
10SCM004007	SCM 4 X 7	7 MM	8.4 MM	1.5 MM	6.0 MM	4.1 MM
10SCM004009	SCM 4 X 9	9 MM	8.4 MM	1.5 MM	6.0 MM	4.1 MM
10SCM005003	SCM 5 X 3	3 MM	10.2 MM	2.0 MM	7.0 MM	5.1 MM
10SCM005004	SCM 5 X 4	4 MM	10.2 MM	2.0 MM	7.0 MM	5.1 MM
10SCM005005	SCM 5 X 5	5 MM	10.2 MM	2.0 MM	7.0 MM	5.1 MM
10SCM005007	SCM 5 X 7	7 MM	10.2 MM	2.0 MM	7.0 MM	5.1 MM
10SCM005009	SCM 5 X 9	9 MM	10.2 MM	2.0 MM	7.0 MM	5.1 MM
10SCM006004	SCM 6 X 4	4 MM	12.2 MM	2.0 MM	8.0 MM	6.1 MM
10SCM006006	SCM 6 X 6	6 MM	12.2 MM	2.0 MM	8.0 MM	6.1 MM
10SCM006008	SCM 6 X 8	8 MM	12.2 MM	2.0 MM	8.0 MM	6.1 MM
10SCM006010	SCM 6 X 10	10 MM	12.2 MM	2.0 MM	8.0 MM	6.1 MM
10SCM006012	SCM 6 X 12	12 MM	12.2 MM	2.0 MM	8.0 MM	6.1 MM
10SCM008004	SCM 8 X 4	4 MM	14.2 MM	2.5 MM	10.0 MM	8.1 MM
10SCM008006	SCM 8 X 6	6 MM	14.2 MM	2.5 MM	10.0 MM	8.1 MM
10SCM008008	SCM 8 X 8	8 MM	14.2 MM	2.5 MM	10.0 MM	8.1 MM
10SCM008010	SCM 8 X 10	10 MM	14.2 MM	2.5 MM	10.0 MM	8.1 MM
10SCM008012	SCM 8 X 12	12 MM	14.2 MM	2.5 MM	10.0 MM	8.1 MM

## NYLON FLAT WASHERS

ITEM NUMBER	DESCRIPTION	A	B	T
16M02050080	M2	5.00	2.15	0.80
16M02556080	M2.5	5.60	2.65	0.80
16M03080080	M3	8.00	3.20	0.80
16M03580080	M3.5	8.00	3.70	0.80
16M04090080	M4	9.00	4.30	0.80
16M05011100	M5	11.00	5.30	1.00
16M06012150	M6	12.00	6.40	1.50
16M08018200	M8	18.00	8.40	2.00
16M08525200	M8.5	25.00	8.50	2.00
16M10022250	M10	22.00	10.50	2.50

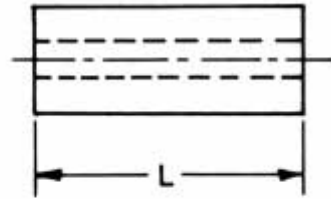
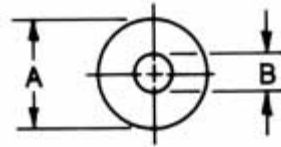
# METRIC SPACERS

ALL DIMENSIONS ARE IN MILLIMETERS

TOLERANCE ON A AND L DIMENSIONS ARE +/- .38 mm  
TOLERANCE ON B DIMENSION IS +/- .26 mm

ITEM NUMBER	DESC.	A	B	L
13ME001	ME 1	4 MM	2.6 MM	2 MM
13ME002	ME 2	4 MM	2.6 MM	3 MM
13ME003	ME 3	4 MM	2.6 MM	5 MM
13ME004	ME 4	4 MM	2.6 MM	7.5 MM
13ME005	ME 5	4 MM	2.6 MM	10 MM
13ME006	ME 6	4 MM	2.6 MM	15 MM
13ME007	ME 7	4 MM	2.6 MM	20 MM
13ME008	ME 8	4 MM	2.6 MM	25 MM
13ME009	ME 9	4 MM	2.6 MM	30 MM
13ME010	ME 10	5 MM	2.6 MM	2 MM
13ME011	ME 11	5 MM	2.6 MM	3 MM
13ME012	ME 12	5 MM	2.6 MM	5 MM
13ME013	ME 13	5 MM	2.6 MM	7.5 MM
13ME014	ME 14	5 MM	2.6 MM	10 MM
13ME015	ME 15	5 MM	2.6 MM	15 MM
13ME016	ME 16	5 MM	2.6 MM	20 MM
13ME017	ME 17	5 MM	2.6 MM	25 MM
13ME018	ME 18	5 MM	2.6 MM	30 MM
13ME019	ME 19	5 MM	3.2 MM	2 MM
13ME020	ME 20	5 MM	3.2 MM	3 MM
13ME021	ME 21	5 MM	3.2 MM	5 MM
13ME022	ME 22	5 MM	3.2 MM	7.5 MM
13ME023	ME 23	5 MM	3.2 MM	10 MM
13ME024	ME 24	5 MM	3.2 MM	15 MM
13ME025	ME 25	5 MM	3.2 MM	20 MM
13ME026	ME 26	5 MM	3.2 MM	25 MM
13ME027	ME 27	5 MM	3.2 MM	30 MM
13ME028	ME 28	6 MM	3.2 MM	3 MM
13ME029	ME 29	6 MM	3.2 MM	5 MM
13ME030	ME 30	6 MM	3.2 MM	7.5 MM
13ME031	ME 31	6 MM	3.2 MM	10 MM
13ME032	ME 32	6 MM	3.2 MM	15 MM
13ME033	ME 33	6 MM	3.2 MM	20 MM
13ME034	ME 34	6 MM	3.2 MM	25 MM
13ME035	ME 35	6 MM	3.2 MM	30 MM
13ME036	ME 36	8 MM	3.2 MM	3 MM
13ME037	ME 37	8 MM	3.2 MM	5 MM
13ME038	ME 38	8 MM	3.2 MM	7.5 MM
13ME039	ME 39	8 MM	3.2 MM	10 MM
13ME040	ME 40	8 MM	3.2 MM	15 MM
13ME041	ME 41	8 MM	3.2 MM	20 MM
13ME042	ME 42	8 MM	3.2 MM	25 MM
13ME043	ME 43	8 MM	3.2 MM	30 MM
13ME044	ME 44	6 MM	3.6 MM	3 MM
13ME045	ME 45	6 MM	3.6 MM	5 MM
13ME046	ME 46	6 MM	3.6 MM	7.5 MM
13ME047	ME 47	6 MM	3.6 MM	10 MM
13ME048	ME 48	6 MM	3.6 MM	15 MM
13ME049	ME 49	6 MM	3.6 MM	20 MM
13ME050	ME 50	6 MM	3.6 MM	25 MM
13ME051	ME 51	6 MM	3.6 MM	30 MM
13ME052	ME 52	8 MM	4.3 MM	3 MM
13ME053	ME 53	8 MM	4.3 MM	5 MM
13ME054	ME 54	8 MM	4.3 MM	7.5 MM

ITEM NUMBER	DESC.	A	B	L
13ME055	ME 55	8 MM	4.3 MM	10 MM
13ME056	ME 56	8 MM	4.3 MM	15 MM
13ME057	ME 57	8 MM	4.3 MM	20 MM
13ME058	ME 58	8 MM	4.3 MM	25 MM
13ME059	ME 59	8 MM	4.3 MM	30 MM
13ME060	ME 60	10 MM	5.3 MM	3 MM
13ME061	ME 61	10 MM	5.3 MM	5 MM
13ME062	ME 62	10 MM	5.3 MM	7.5 MM
13ME063	ME 63	10 MM	5.3 MM	10 MM
13ME064	ME 64	10 MM	5.3 MM	15 MM
13ME065	ME 65	10 MM	5.3 MM	20 MM
13ME066	ME 66	10 MM	5.3 MM	25 MM
13ME067	ME 67	10 MM	5.3 MM	30 MM
13ME068	ME 68	10 MM	6.3 MM	3 MM
13ME069	ME 69	10 MM	6.3 MM	5 MM
13ME070	ME 70	10 MM	6.3 MM	7.5 MM
13ME071	ME 71	10 MM	6.3 MM	10 MM
13ME072	ME 72	10 MM	6.3 MM	15 MM
13ME073	ME 73	10 MM	6.3 MM	20 MM
13ME074	ME 74	10 MM	6.3 MM	25 MM
13ME075	ME 75	10 MM	6.3 MM	30 MM
13ME076	ME 76	15 MM	6.5 MM	3 MM
13ME077	ME 77	15 MM	6.5 MM	5 MM
13ME078	ME 78	15 MM	6.5 MM	7.5 MM
13ME079	ME 79	15 MM	6.5 MM	10 MM
13ME080	ME 80	15 MM	6.5 MM	15 MM
13ME081	ME 81	15 MM	6.5 MM	20 MM
13ME082	ME 82	15 MM	6.5 MM	25 MM
13ME083	ME 83	15 MM	6.5 MM	30 MM
13ME084	ME 84	12 MM	8.3 MM	3 MM
13ME085	ME 85	12 MM	8.3 MM	5 MM
13ME086	ME 86	12 MM	8.3 MM	7.5 MM
13ME087	ME 87	12 MM	8.3 MM	10 MM
13ME088	ME 88	12 MM	8.3 MM	15 MM
13ME089	ME 89	12 MM	8.3 MM	20 MM
13ME090	ME 90	12 MM	8.3 MM	25 MM
13ME091	ME 91	12 MM	8.3 MM	30 MM
13ME092	ME 92	18 MM	8.3 MM	3 MM
13ME093	ME 93	18 MM	8.3 MM	5 MM
13ME094	ME 94	18 MM	8.3 MM	7.5 MM
13ME095	ME 95	18 MM	8.3 MM	10 MM
13ME096	ME 96	18 MM	8.3 MM	15 MM
13ME097	ME 97	18 MM	8.3 MM	20 MM
13ME098	ME 98	18 MM	8.3 MM	25 MM
13ME099	ME 99	18 MM	8.3 MM	30 MM
13ME100	ME 100	15 MM	10.4MM	3 MM
13ME101	ME 101	15 MM	10.4MM	5 MM
13ME102	ME 102	15 MM	10.4MM	7.5 MM
13ME103	ME 103	15 MM	10.4MM	10 MM
13ME104	ME 104	15 MM	10.4MM	15 MM
13ME105	ME 105	15 MM	10.4MM	20 MM
13ME106	ME 106	15 MM	10.4MM	25 MM
13ME107	ME 107	15 MM	10.4MM	30 MM
13ME108	ME 108	22 MM	10.4MM	5 MM



## METRIC NYLON SPACERS

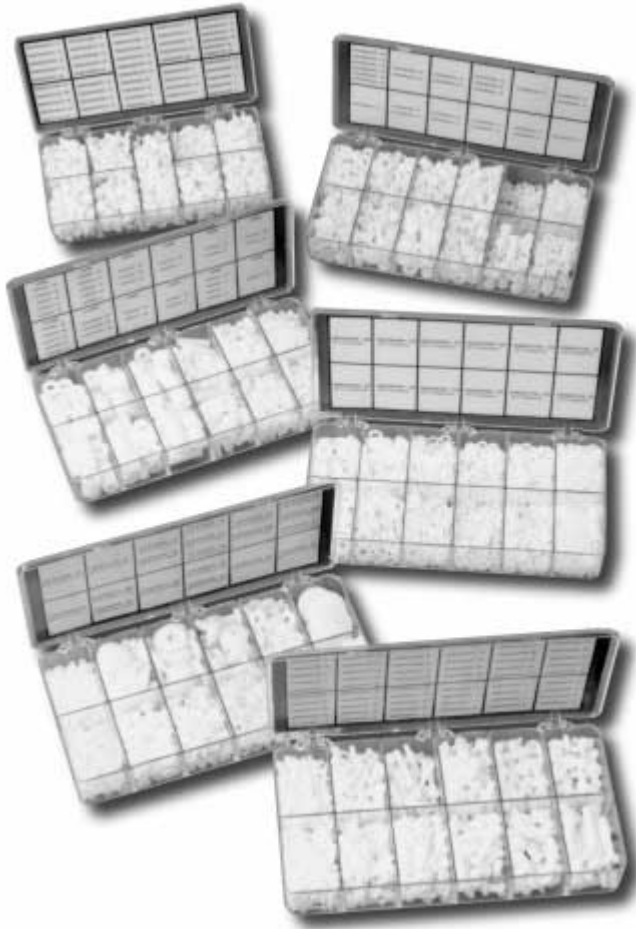
MATERIAL: HEAT STABILIZED BLACK NYLON

ITEM NUMBER	DESC.	A	B	L
13ME109	ME 109	22 MM	10.4 MM	10 MM
13ME110	ME 110	22 MM	10.4 MM	15 MM
13ME111	ME 111	22 MM	10.4 MM	20 MM
13ME112	ME 112	22 MM	10.4 MM	25 MM
13ME113	ME 113	22 MM	10.4 MM	30 MM
13ME118	ME 118	18 MM	13.3 MM	3 MM
13ME119	ME 119	18 MM	13.3 MM	5 MM
13ME120	ME 120	18 MM	13.3 MM	7.5 MM
13ME121	ME 121	18 MM	13.3 MM	10 MM
13ME122	ME 122	18 MM	13.3 MM	15 MM
13ME123	ME 123	18 MM	13.3 MM	20 MM
13ME124	ME 124	18 MM	13.3 MM	25 MM
13ME125	ME 125	18 MM	13.3 MM	30 MM
13ME126	ME 126	25 MM	13.3 MM	5 MM
13ME127	ME 127	25 MM	13.3 MM	10 MM
13ME128	ME 128	25 MM	13.3 MM	15 MM
13ME129	ME 129	25 MM	13.3 MM	20 MM
13ME130	ME 130	25 MM	13.3 MM	25 MM
13ME131	ME 131	25 MM	13.3 MM	30 MM
13ME132	ME 132	10 MM	6.3 MM	28 MM





# METRIC FASTENER ASSORTMENT KITS



MOLDED NYLON FASTENERS PROVIDE ELECTRICAL INSULATION, VIBRATION AND CORROSION RESISTANCE. NYLON KITS HAVE A LOW THERMAL CONDUCTIVITY, ARE NON-MAGNETIC AND HAVE A HIGH STRENGTH-TO-WEIGHT RATIO. PACKAGED IN LARGE REUSABLE TRANSPARENT PLASTIC STORAGE BOXES.

IDEAL FOR:

**PROTOTYPE WORK** - Large working assortments.  
**PRODUCT DESIGN** - Latest designs for increased productivity.  
**MODEL MAKING** - Commercially available standard parts.  
**SHOP AND MAINTENANCE** - Convenient selection.

## # 04AS0965MSM MACHINE SCREWS

**OVER 950 NYLON FASTENERS  
OVER 60 DIFFERENT  
SIZES AND TYPES**

Assortment Kit Consists of Approximately:

220 - M2	X 4MM to 25MM Long
170 - M2.5	X 4MM to 25MM Long
115 - M3	X 5MM to 25MM Long
110 - M3.5	X 5MM to 25MM Long
130 - M4	X 6MM to 25MM Long
135 - M4	X 6MM to 25MM Long
85 - M6	X 5MM to 25MM Long

## # 04AS04115FWM FLAT WASHERS

**OVER 700 NYLON FASTENERS**

Assortment Kit Consists of Approximately:

900 - M2	Flat Washers
825 - M2.5	Flat Washers
700 - M3	Flat Washers
650 - M3.5	Flat Washers
570 - M4	Flat Washers
300 - M5	Flat Washers
170 - M6	Flat Washers

## # 04AS0690SPM SPACERS

**OVER 600 NYLON FASTENERS  
OVER 30 DIFFERENT SIZES AND TYPES**  
Assortment Kit Consists of Approximately:

105 - M2	X 3MM to 25MM Long
95 - M2.5	X 3MM to 25MM Long
80 - M3	X 3MM to 25MM Long
150 - M3.5	X 3MM to 10MM Long
110 - M4	X 3MM to 25MM Long
50 - M5	X 3MM to 25MM Long
55 - M6	X 3MM to 25MM Long

## # 04AS0655MMN MACHINE SCREWS AND NUTS

**OVER 655  
NYLON FASTENERS  
OVER 30 DIFFERENT  
SIZES AND TYPES**

Slotted Cheese Head, Hex Head, Fillister Head and 90° Flat Head Styles, MACHINE SCREWS in sizes;

Assortment Kit Consists of Approximately:

100 - M3	X 5	X 6 to 25MM
100 - M3.5	X 6	X 5 to 25MM
100 - M4	X 7	X 6 to 16MM
100 - M5	X 8	X 6 to 16MM
30 - M6	X 1.00	X 8 to 16MM
200 - Metric Nuts & Washers		

## # 04AS0705SCM SCREW INSULATORS

**OVER 700  
NYLON FASTENERS  
OVER 20 DIFFERENT  
SIZES AND TYPES**

Assortment Kit Consists of Approximately:

150 - M2	Screw Insulators
125 - M3	Screw Insulators
200 - M4	Screw Insulators
125 - M5	Screw Insulators
105 - M6	Screw Insulators

## # 04AS0700WSM SHOULDER WASHERS

**OVER 1000  
NYLON FASTENERS  
OVER 20 DIFFERENT  
SIZES AND TYPES**

Assortment Kit Consists of Approximately:

315 - M2	Shoulder Washers
245 - M3	Shoulder Washers
180 - M4	Shoulder Washers
225 - M5	Shoulder Washers
105 - M6	Shoulder Washers