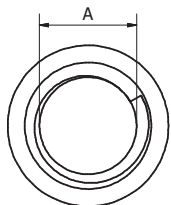
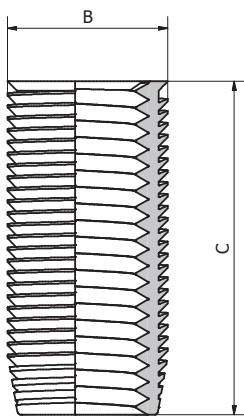


FFT Full-Torque inserts for through holes

FFT inserts are our most popular, lowest cost and easiest to install. These inserts can be used for most common bolt hole repairs. They produce maximum strength, a flush surface finish and don't leave a visible thread line. They are available in metric and inch thread sizes, in both their standard and fine-thread variants.



All sizes listed on this page are standard stock items, yet subject to prior sale. We are also able to quickly custom produce any other diameter or length.

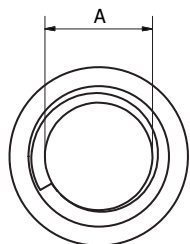
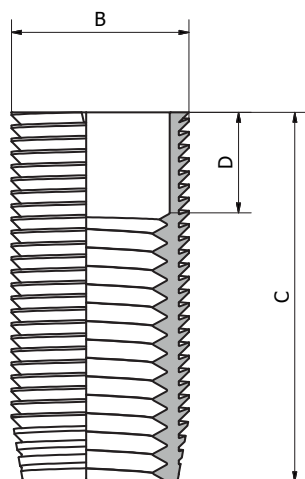
FFT INSERTS FOR METRIC THREADS (DIMENSIONS IN MILLIMETERS)

A	B	C	BASIC KIT	FIVE ADDITIONAL INSERTS	INSTALLATION TOOL KIT
M6	8.84	8.00	FFT2S6100K	FFT2S6100-5	FP26100K
		15.00	FFT26100K	FFT26100-5	
M7	8.84	8.60	FFT2S7100K	FFT2S7100-5	FP27100K
		17.50	FFT27100K	FFT27100-5	
M8	11.80	10.20	FFT3S8125K	FFT3S8125-5	FP38125K
		19.80	FFT38125K	FFT38125-5	
M10	15.10	12.70	FFT4S10150K	FFT4S10150-5	FP410150K
		25.00	FFT410150K	FFT410150-5	
M11	15.10	12.70	FFT4S11150K	FFT4S11150-5	FP411150K
		25.00	FFT411150K	FFT411150-5	
M12	18.70	15.20	FFT5S12175K	FFT5S12175-5	FP512175K
		30.20	FFT512175K	FFT512175-5	
M14	18.70	15.24	FFT5S14200K	FFT5S14200-5	FP514200K
		28.45	FFT514200K	FFT514200-5	
M16	21.84	19.81	FFT6S16200K	FFT6S16200-5	FP616200K
		39.75	FFT616200K	FFT616200-5	
M18	24.64	22.50	FFT7S18250K	FFT7S18250-5	FP718250K
		45.00	FFT718250K	FFT718250-5	
M20	27.81	23.88	FFT8S20250K	FFT8S20250-5	FP820250K
		47.63	FFT820250K	FFT820250-5	
M24	31.00	30.48	FFT9S24300K	FFT9S24300-5	FP924300K
		60.33	FFT924300K	FFT924300-5	
M30	37.72	29.97	FFT11S30350K	FFT11S3035-5	FP1130350K
		59.94	FFT1130350K	FFT1130350-5	
M36	44.00	36.07	FFT13S36400K	FFT13S36400-5	FP1336400K
		71.88	FFT1336400K	FFT1336400-5	
M42	56.52	41.91	FFT15S42450K	FFT15S42450-5	FP1542450K
		84.07	FFT1542450K	FFT1542450-5	
M48	62.87	48.00	FFT16S48500K	FFT16S48500-5	FP1648500K
		96.00	FFT1648500K	FFT1648500-5	

FFT INSERTS FOR METRIC FINE THREADS (DIMENSIONS IN MILLIMETERS)

A	B	C	BASIC KIT	FIVE ADDITIONAL INSERTS	INSTALLATION TOOL KIT
M10 x 1.25	15.10	12.70	FFT4S10125K	FFT4S10125-5	FP410125K
		25.00	FFT410125K	FFT410125-5	
M11 x 1.25	15.10	12.70	FFT4S11125K	FFT4S11125-5	FP411125K
		25.00	FFT411125K	FFT411125-5	
M12 x 1.25	16.30	15.20	FFT4.5S12125K	FFT4.5S12125-5	FP4.512125K
		30.20	FFT4.512125K	FFT4.512125-5	

FFT inserts are also available in counter-sunk execution. They are usually made to match the exact geometry of various applications. Besides being counter-sunk, they are usually made to a specific length.



All sizes listed on this page are standard stock items, yet subject to prior sale.

We are also able to quickly custom produce any other diameter or length.

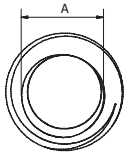
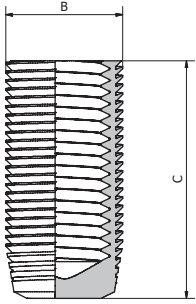
FFT COUNTER-SUNK INSERTS FOR METRIC THREADS (DIMENSIONS IN MILLIMETERS)

A	B	C	D	BASIC KIT	FIVE ADDITIONAL INSERTS	INSTALLATION TOOL KIT
M10	15.10	35.56	8.20	FFT4SP004K	FFT4SP004-5	FP4SP005K
	15.10	40.00	12.70	FFT4SP005K	FFT4SP005-5	FP4SP005K
M12	18.67	28.58	8.20	FFT5SP001K	FFT5SP001-5	FP5SP005K
	18.67	40.64	6.35	FFT5SP003K	FFT5SP003-5	FP5SP005K
	18.67	52.07	19.05	FFT5SP005K	FFT5SP005-5	FP5SP005K
	21.84	25.40	8.20	FFT6SP002K	FFT6SP002-5	FP6SP011K
M14	18.67	36.07	5.33	FFT5SP007K	FFT5SP007-5	FP5SP006K
	18.67	48.26	17.27	FFT5SP008K	FFT5SP008-5	FP5SP006K

FFB

Full-Torque inserts for blind holes

FFB inserts have a solid, or “blind” bottom. They are liquid- and airtight up to 69 MPa (10,000 Psi) and are used in applications where bolt holes are reaching into, or are close to, pressurized cavities such as cooling water spaces.



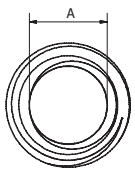
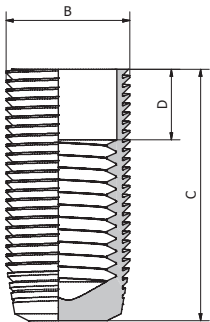
FFB INSERTS FOR METRIC THREADS (DIMENSIONS IN MILLIMETERS)

A	B	C	BASIC KIT	FIVE ADDITIONAL INSERTS	INSTALLATION TOOL KIT
M6	8.84	19.40	FFB26100K	FFB26100-5	FFP26100K
M7	8.84	21.84	FFB27100K	FFB27100-5	FFP27100K
M8	11.81	28.07	FFB38125K	FFB38125-5	FFP38125K
M10	15.11	27.60	FFB410150K	FFB410150-5	FFP410150K
M11	15.11	33.78	FFB411150K	FFB411150-5	FFP411150K
M12	18.70	36.83	FFB512175K	FFB512175-5	FFP512175K
M14	18.70	44.45	FFB514200K	FFB514200-5	FFP514200K
M16	21.84	47.50	FFB616200K	FFB616200-5	FFP616200K
M18	24.64	57.40	FFB718250K	FFB718250-5	FFP718250K
M20	27.81	59.94	FFB820250K	FFB820250-5	FFP820250K
M24	30.98	73.15	FFB924300K	FFB924300-5	FFP924300K
M30	37.72	77.98	FFB1130350K	FFB1130350-5	FFP1130350K
M36	43.99	91.95	FFB1336400K	FFB1336400-5	FFP1336400K
M42	56.51	105.92	FFB1542450K	FFB1542450-5	FFP1542450K
M48	62.86	119.98	FFB1648500K	FFB1648500-5	FFP1648500K

FFB

Counter-sunk inserts for blind holes

FFB counter-sunk inserts are made to match the exact geometry of various applications. Besides being counter-sunk, they are usually made to a specific length.



FFB COUNTER-SUNK INSERTS FOR METRIC THREADS

(DIMENSIONS IN MILLIMETERS)

A	B	C	D	BASIC KIT	FIVE ADDITIONAL INSERTS	INSTALLATION TOOL KIT
M10	15.10	41.91	6.99	FFB4SP002K	FFB4SP002-5	FFP4SP005K
M12	18.70	50.04	6.48	FFB5SP008K	FFB5SP008-5	FFP5SP005K
	18.70	58.93	6.48	FFB5SP008K	FFB5SP008-5	FFP5SP005K
M14	18.70	65.91	13.34	FFB5SP003K	FFB5SP003-5	FFP5SP006K
M16	21.84	47.00	8.89	FFB6SP003K	FFB6SP003-5	FFP6SP009K
	21.84	76.20	29.21	FFB6SP002K	FFB6SP002-5	FFP6SP009K
M20	24.64	74.30	22.61	FFB7SP005K	FFB7SP005-5	FFP7SP004K

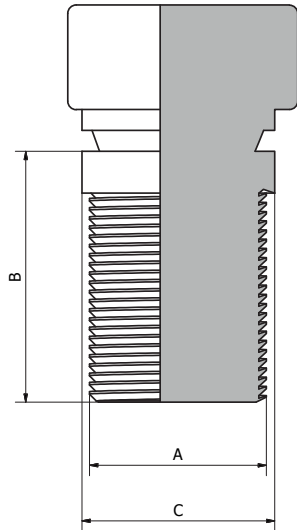
FFB COUNTER-SUNK INSERTS FOR METRIC FINE THREADS

(DIMENSIONS IN MILLIMETERS)

A	B	C	D	BASIC KIT	FIVE ADDITIONAL INSERTS	INSTALLATION TOOL KIT
M12 x 1.50	18.67	39.24	7.00	FFB5SP005K	FFB5SP005-5	FFP5SP009K
M14 x 1.50	18.67	54.61	12.70	FFB5SP002K	FFB5SP002-5	FFP5SP002K
M16 x 1.50	21.84	95.25	44.88	FFB6SP010K	FFB6SP010-5	FFP6SP010K

All sizes listed on this page are standard stock items, yet subject to prior sale. We are also able to quickly custom produce any other diameter or length.

Solid plugs are used for filling holes and to repair badly damaged or miss-drilled holes. Their head snaps off at a predetermined torque to create a pressure-tight fit.



FULL-TORQUE SOLID PLUGS (DIMENSIONS IN MILLIMETERS)

A	B	C	BASIC KIT	FIVE ADDITIONAL PLUGS
8.84	13.34	11.43	FPS20375K	FPS20375-5
	21.60	11.43	FPS20700K	FPS20700-5
11.81	14.60	15.24	FPS30400K	FPS30400-5
	24.76	15.24	FPS30800K	FPS30800-5
15.11	19.05	18.57	FPS40500K	FPS40500-5
	36.83	18.57	FPS41200K	FPS41200-5
18.67	15.75	21.64	FPS50470K	FPS50470-5
	24.76	21.64	FPS50600K	FPS50600-5
	47.63	21.64	FPS51500K	FPS51500-5
	73.03	21.64	FPS52500K	FPS52500-5
21.84	33.66	25.17	FPS61000K	FPS61000-5
	59.05	25.17	FPS62000K	FPS62000-5
24.64	27.94	29.67	FPS70800K	FPS70800-5
	39.37	29.67	FPS71250K	FPS71250-5
	64.77	29.67	FPS72250K	FPS72250-5
27.81	17.78	31.22	FPS80500K	FPS80500-5
	47.63	31.22	FPS81500K	FPS81500-5
	60.33	31.22	FPS82000K	FPS82000-5
31.00	19.05	34.42	FPS90500K	FPS90500-5
	25.40	34.42	FPS90750K	FPS90750-5
	47.63	34.42	FPS91500K	FPS91500-5
34.65	31.75	39.75	FPS100900K	FPS100900-5
	63.50	39.75	FPS102150K	FPS102150-5
37.72	34.93	42.93	FPS111000K	FPS111000-5
	69.85	42.93	FPS112375K	FPS112375-5
40.89	38.10	46.60	FPS121100K	FPS121100-5
	76.20	46.60	FPS122600K	FPS122600-5
44.00	41.28	50.16	FPS131200K	FPS131200-5
	85.72	50.16	FPS132950K	FPS132950-5
50.16	44.45	57.40	FPS141300K	FPS141300-5
	95.25	57.40	FPS143300K	FPS143300-5
56.15	50.80	64.77	FPS151525K	FPS151525-5
	107.95	64.77	FPS153775K	FPS153775-5
62.86	60.32	71.88	FPS161875K	FPS161875-5
	127.00	71.88	FPS164500K	FPS164500-5