

# Metric Fasteners

## RECOMMENDED TOOL SIZE FOR FASTENERS

THREAD SIZE	SHCS	BHSCS	FBHSCS	FHSCS
8-32	--	3/32"	--	--
10-32	5/32"	1/8"	--	--
1/4-20	3/16"	5/32"	5/32"	5/32"
5/16-18	1/4"	3/16"	3/16"	3/16"
3/8-16	5/16"	N/A	--	7/32"
M5	4mm	3mm	--	3mm
M6	5mm	4mm	--	4mm
M8	6mm	5mm	--	5mm
M10	8mm	6mm	--	6mm

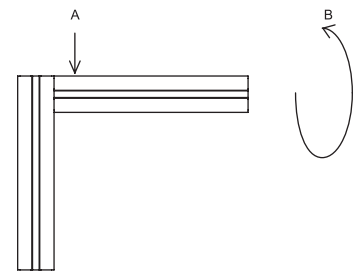
\* Numbers in chart reflect hex tool size required.

## FASTENER APPLICATION TEST

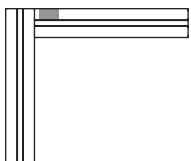
FASTENER	TS10-10		TS15-15L		TS15-15	
	A (lbs)	B	A (lbs)	B	A (lbs)	B
1	500	180 in/lbs	950	540 in/lbs	950	700 in/lbs
2	900	250 in/lbs	1,200	1,150 in/lbs	1,200	2,000 in/lbs
3	450	325 in/lbs	1,000	680 in/lbs	1,000	1,150 in/lbs
4	175	400 in/lbs	225	1,000 in/lbs	225	1,100 in/lbs
5	175	500 in/lbs	250	1,200 in/lbs	250	1,260 in/lbs
6	325	180 in/lbs	375	500 in/lbs	575	500 in/lbs
7	325	260 in/lbs	375	500 in/lbs	575	500 in/lbs

\* All forces are approximate.

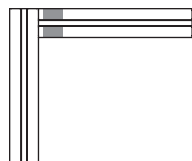
A - DIRECT FORCE  
B - TORTIONAL FORCE



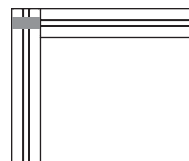
1 - SINGLE ANCHOR



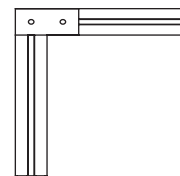
2 - DOUBLE ANCHOR



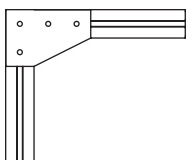
3 - END FASTENER



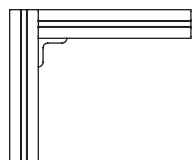
4 - JOINING STRIP



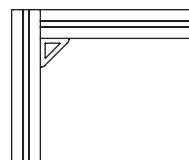
5 - 90° JOINING PLATE



6 - CORNER BRACKET



7 - CORNER GUSSET

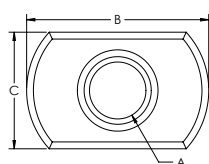


## ECONOMY T-NUTS

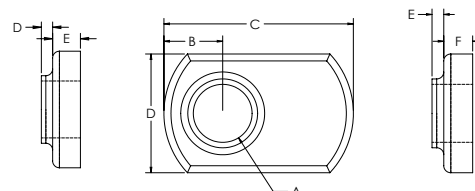


- Economical
- Extrusion end loading

CENTER THREAD



OFFSET THREAD



### CENTER THREAD

ITEM#	FINISH	SERIES	A	B	C	D	E
682888	Bright Zinc	20	M5 x .8	16.00mm	9.60mm	0.80mm	2.40mm
651445	Black Zinc	40	M8 x 1.25	38.00mm	16.00mm	2.00mm	3.60mm

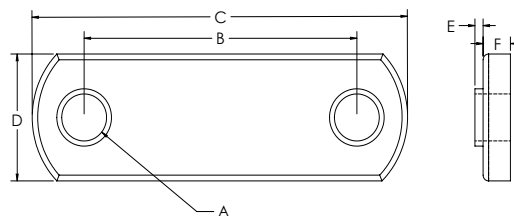
### OFFSET THREAD

ITEM#	FINISH	SERIES	A	B	C	D	E	F
651366	Bright Zinc	40	M6 x 1.0	6.35mm	20.57mm	12.95mm	1.27mm	3.05mm
651367	Bright Zinc	40	M8 x 1.25	7.11mm	25.40mm	16.25mm	2.03mm	3.55mm

## DOUBLE ECONOMY T-NUTS

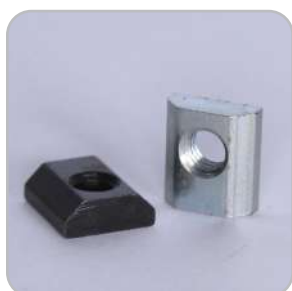


- Economical
- Extrusion end loading
- Convenient and better productivity over single economy T-Nut



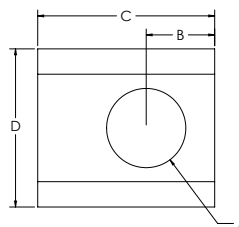
ITEM#	FINISH	SERIES	A	B	C	D	E	F
651461	Black Zinc	40	M8 x 1.25	40mm	76mm	16mm	2.032mm	3.556mm

## STANDARD T-NUTS OFFSET

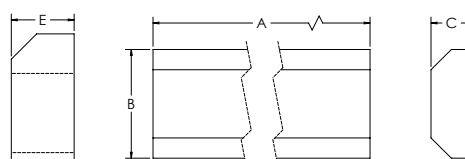


- Extrusion end loading
- Economical

STANDARD



PROFILE



ITEM#	FINISH	SERIES	A	B	C	D	E
651393	Black Zinc	40	M6 x 1.0	6.86mm	17.73mm	15.85mm	6.30mm
651395	Bright Zinc	40	M8 x 1.25	6.86mm	17.73mm	15.85mm	6.30mm

### PROFILES

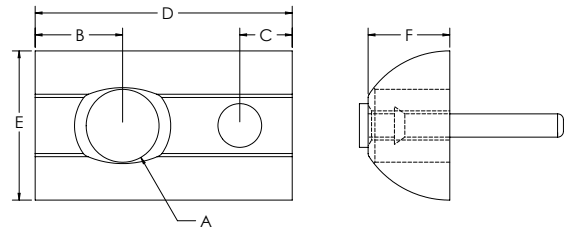
ITEM#	FINISH	SERIES	A	B	C
651475	Mill Finish	40	36.000"	.624"	.248"

# Metric Fasteners

## DROP IN T-NUTS WITH RUBBER HANDLE



- Tapered bottom allows for easy loading and removal from extrusion slot
- Reduces assembly time
- Easy to add and reposition in T-Slot when ends are closed off
- Rubber nub holds T-Nut in vertical T-Slot

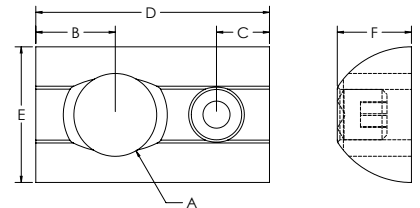


ITEM#	FINISH	SERIES	A	B	C	D	E	F
651372	Bright Zinc	40	M6 x 1.0	7.62mm	4.57mm	22.35mm	12.95mm	7.11mm
651371	Bright Zinc	40	M8 x 1.25	7.62mm	4.57mm	22.35mm	12.95mm	7.11mm

## DROP IN T-NUTS WITH SET SCREW



- Tapered bottom allows for easy loading and removal from extrusion slot
- Reduces assembly time
- Easy to add and reposition in T-Slot when ends are closed off
- Set screw holds T-Nut in vertical T-Slot

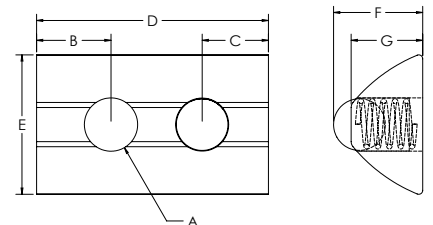


ITEM#	FINISH	SERIES	A	B	C	D	E	F
651425	Bright Zinc	40	M6 x 1.0	7.62mm	5.08mm	22.35mm	12.95mm	7.11mm
651421	Bright Zinc	40	M8 x 1.25	7.62mm	5.08mm	22.35mm	12.95mm	7.11mm

## DROP IN T-NUTS WITH BALL BEARING



- Tapered bottom allows for easy loading and removal from extrusion slot
- Reduces assembly time
- Easy to add and reposition in T-Slot when ends are closed off
- Ball bearing holds T-Nut in vertical T-Slot



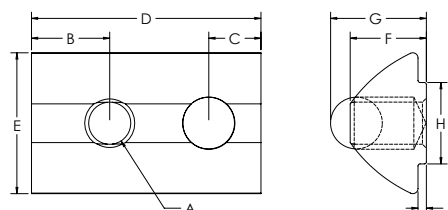
ITEM#	FINISH	SERIES	A	B	C	D	E	F	G
651646	Bright Zinc	40	M5 x .8	7.11mm	6.35mm	22.35mm	13.21mm	8.38mm	6.86mm
651647	Bright Zinc	40	M6 X 1.0	7.11mm	6.35mm	22.35mm	13.21mm	8.38mm	6.86mm
651626	Bright Zinc*	40	M6 X 1.0	6.35mm	6.00mm	23.00mm	18.00mm	8.60mm	6.80mm
651648	Bright Zinc	40	M8 x 1.25	7.11mm	6.35mm	22.35mm	13.21mm	8.38mm	6.86mm

\* Heavy duty tnut

## STEPPED DROP IN T-NUT WITH BALL BEARING



- Zinc plated stainless steel
- Self aligning roll in T-SLOT nut with spring ball

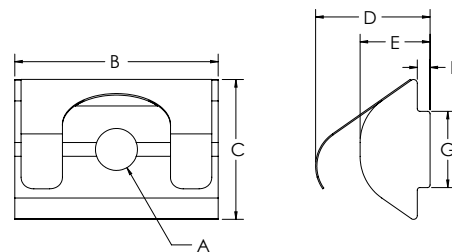


ITEM#	FINISH	SERIES	A	B	C	D	E	F	G	H	J
651551	Bright Zinc	20	M5 x .8	3.80mm	3.00mm	12.00mm	7.70mm	4.00mm	5.00mm	4.90mm	0.60mm
651623	Bright Zinc	40	M4 x .7	7.62mm	5.08mm	22.00mm	13.50mm	7.20mm	8.95mm	7.80mm	0.80mm
664111	Bright Zinc	40	M5 x .8	7.62mm	5.08mm	22.00mm	13.50mm	7.20mm	8.95mm	7.80mm	0.80mm
664112	Bright Zinc	40	M6 x 1.0	7.62mm	5.08mm	22.00mm	13.50mm	7.20mm	8.95mm	7.80mm	0.80mm
664113	Bright Zinc	40	M8 x 1.25	7.62mm	5.08mm	22.00mm	13.50mm	7.20mm	8.95mm	7.80mm	0.80mm

## STEPPED DROP IN T-NUT WITH SPRING LEAF



- Zinc plated steel
- Self aligning roll in t-nut with spring leaf

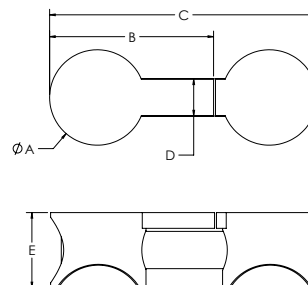


ITEM#	FINISH	SERIES	A	B	C	D	E	F	G
651711	Bright Zinc	40	M5 x .8	22.00mm	13.00mm	13.40mm	7.19mm	0.79mm	7.80mm
651712	Bright Zinc	40	M6 x 1.0	22.00mm	13.00mm	13.40mm	7.19mm	0.79mm	7.80mm
651713	Bright Zinc	40	M8 x 1.25	22.00mm	13.00mm	13.40mm	7.19mm	0.79mm	7.80mm

## BUTT FASTENERS



- Allows you to butt two extrusions end to end for maximum strength and alignment
- See page 466 for machining



ITEM#	FINISH	SERIES	A	B	C	D	E
651154	Bright Zinc	40	20.32mm	35.05mm	56.90mm	7.87mm	16.00mm
651633	Black	40	20.32mm	35.05mm	56.90mm	7.87mm	16.00mm

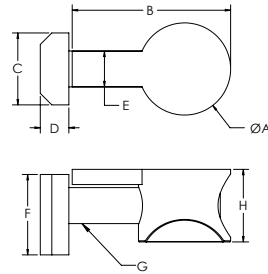
# Metric Fasteners

## ANCHOR FASTENERS



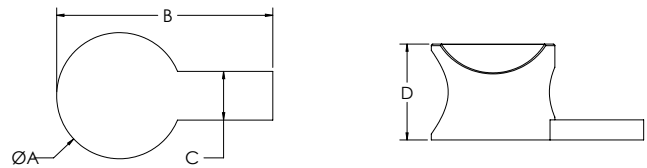
- Strongest of available fasteners
- Creates 90 degree T-Slot connections
- All T-Nuts are offset
- See page 466 for machining

STANDARD TNUT



ITEM#	FINISH	SERIES	A	B	C	D	E	F	G	H
651424	Bright Zinc	40	20.32mm	35.05mm	15.85mm	6.35mm	7.87mm	17.78mm	M8 x 30mm SHCS	16.00mm
651617	Black	40	20.32mm	35.05mm	15.85mm	6.35mm	7.87mm	17.78mm	M8 x 30mm SHCS	16.00mm

## ANCHOR FASTENER CAMS

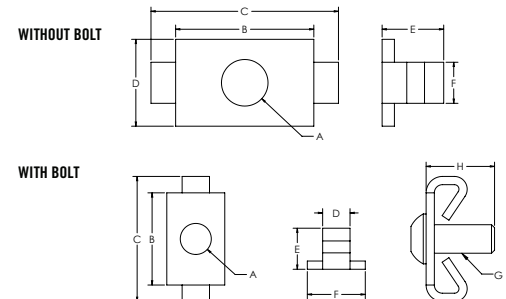


ITEM#	FINISH	SERIES	A	B	C	D
651147	Bright Zinc	40	20.32mm	35.05mm	7.87mm	16.00mm
651565	Black	40	20.32mm	35.05mm	7.87mm	16.00mm

## END FASTENERS



- Provides a hidden fastener when connecting extrusions at 90 degrees
- Mating extrusions glide over end fastener
- Tapping service required in the extrusion base end and access hole in the mating extrusion
- Prevents mating extrusion from rotating



ITEM#	FINISH	SERIES	A	B	C	D	E	F
651289	Bright Zinc	40	8.63mm	25.65mm	34.80mm	16.25mm	11.43mm	7.62mm
651160	Black Zinc	40	8.63mm	25.65mm	34.80mm	16.25mm	11.43mm	7.62mm

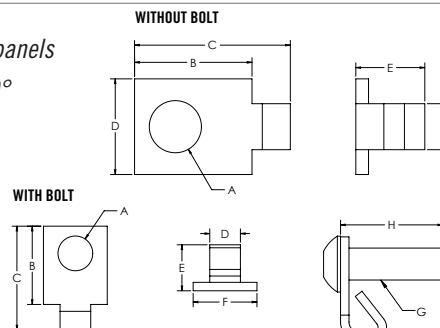
### WITH BOLTS

ITEM#	FINISH	SERIES	A	B	C	D	E	F	G	H
651418	Bright Zinc	40	8.63mm	25.65mm	34.80mm	7.62mm	11.43mm	16.25mm	M8 x 20mm BHSCS	20.00mm

## SINGLE TAB END FASTENERS



- Allows for panels to mate in slots without having to notch panels
- Provides hidden fastener when connecting extrusions at 90°
- Mating extrusions glide over end fastener
- Tapping service required in the extrusion base end and access hole in the mating extrusions



ITEM#	FINISH	SERIES	A	B	C	D	E	F
651495	Bright Zinc	40	8.63mm	19.56mm	25.91mm	7.62mm	11.43mm	15.75mm

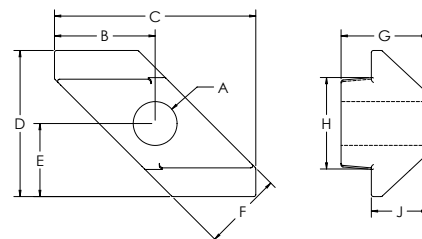
### WITH BOLTS

ITEM#	FINISH	SERIES	A	B	C	D	E	F	G	H
651502	Bright Zinc	40	8.63mm	19.56mm	25.91mm	7.62mm	11.43mm	15.75mm	M8 x 20mm BHSCS	24.89mm

## Z-NUTS



- Design allows for easy loading from extrusion slot
- Metric thread size only

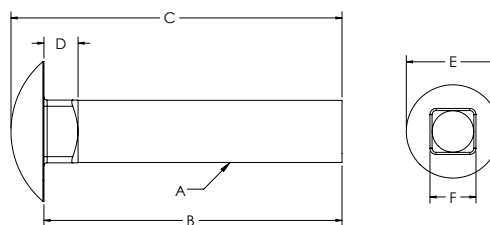


ITEM#	FINISH	SERIES	A	B	C	D	E	F	G	H	J
662002	Bright Zinc	40	M5 x .08	9.65mm	19.30mm	14.00mm	7.00mm	7.60mm	8.30mm	8.76mm	5.41mm
662001	Bright Zinc	40	M6 x 1.0	9.65mm	19.30mm	14.00mm	7.00mm	7.60mm	8.30mm	8.76mm	5.41mm

## ECONOMY TLOTS STUDS



- Extrusion end loading only



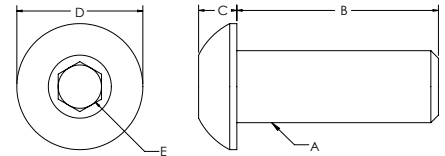
ITEM#	FINISH	SERIES	A	B	C	D	E	F
651378	Bright Zinc	40	M8	20.00mm	24.40mm	5.00mm	19.35mm	8.00mm
651379	Bright Zinc	40	M8	25.00mm	29.40mm	5.00mm	19.35mm	8.00mm
651380	Bright Zinc	40	M8	30.00mm	34.40mm	5.00mm	19.35mm	8.00mm
651381	Bright Zinc	40	M8	35.00mm	39.40mm	5.00mm	19.35mm	8.00mm

# Metric Fasteners

## BUTTON HEAD SOCKET CAP SCREW & ASSEMBLIES



- Grade 8 or stronger
- Alloy steel
- ANSI B18.3 rating



ITEM#	FINISH	A	B	C	D	E
651615	Black Phosphate	M5	8mm	2.75mm	9.50mm	3.44mm
651625	Bright Zinc	M5	8mm	2.75mm	9.50mm	3.44mm
699939	Black Phosphate	M5	10mm	2.75mm	9.50mm	3.44mm
699936	Black Phosphate	M6	10mm	3.15mm	10.35mm	4.58mm
681430	Stainless Steel	M6	10mm	3.15mm	10.35mm	4.58mm
651333	Black Phosphate	M6	12mm	3.15mm	10.35mm	4.58mm
683512	Stainless Steel	M6	12mm	3.15mm	10.35mm	4.58mm
651570	Black Phosphate	M6	14mm	3.15mm	10.35mm	4.58mm
683210	Stainless Steel	M6	14mm	3.15mm	10.35mm	4.58mm
651335	Black Phosphate	M6	16mm	3.15mm	10.35mm	4.58mm
659232	Stainless Steel	M6	16mm	3.15mm	10.35mm	4.58mm
651579	Black Phosphate	M6	18mm	3.15mm	10.35mm	4.58mm
683044	Stainless Steel	M6	18mm	3.15mm	10.35mm	4.58mm
651340	Black Phosphate	M6	20mm	3.15mm	10.35mm	4.58mm
651661	Bright Zinc	M6	20mm	3.15mm	10.35mm	4.58mm
683163	Stainless Steel	M6	20mm	3.15mm	10.35mm	4.58mm
651341	Black Phosphate	M6	25mm	3.15mm	10.35mm	4.58mm
651343	Black Phosphate	M8	12mm	4.25mm	13.75mm	5.72mm
651580	Black Phosphate	M8	14mm	4.25mm	13.75mm	5.72mm
651345	Black Phosphate	M8	16mm	4.25mm	13.75mm	5.72mm
681883	Stainless Steel	M8	16mm	4.25mm	13.75mm	5.72mm
651581	Black Phosphate	M8	18mm	4.25mm	13.75mm	5.72mm
683164	Stainless Steel	M8	18mm	4.25mm	13.75mm	5.72mm
651347	Black Phosphate	M8	20mm	4.25mm	13.75mm	5.72mm
659929	Stainless Steel	M8	20mm	4.25mm	13.375mm	5.72mm
651351	Black Phosphate	M8	25mm	4.25mm	13.75mm	5.72mm

### BUTTON HEAD SOCKET CAP SCREW COMBINATION PARTS

ITEM#	SERIES	BOLT ITEM	FINISH	THREAD	LENGTH	TNUT ITEM	TNUT TYPE	FINISH
651593	10	683210	Stainless Steel	M6	14mm	651386	Economy	Black Zinc
651594	10	659232	Stainless Steel	M6	16mm	651386	Economy	Black Zinc
651595	10	683044	Stainless Steel	M6	18mm	651386	Economy	Black Zinc
651596	10	683163	Stainless Steel	M6	20mm	651386	Economy	Black Zinc
651709	20	651615	Black Phosphate	M5	8mm	651551	Drop-In	Bright Zinc
651601	40	683210	Stainless Steel	M6	14mm	651366	Economy	Black Zinc
651771	40	651335	Black Phosphate	M6	16mm	651366	Economy	Black Zinc
651602	40	659232	Stainless Steel	M6	16mm	651366	Economy	Black Zinc
651793	40	651579	Black Phosphate	M6	16mm	651366	Economy	Black Zinc

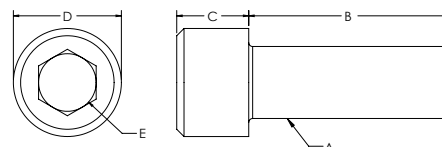
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651603	40	683044	Stainless Steel	M6	18mm	651366	Economy	Black Zinc
651772	40	651340	Black Phosphate	M6	20mm	651352	Hex Nut	Black Zinc
651604	40	683163	Stainless Steel	M6	20mm	651366	Economy	Black Zinc
651767	40	651343	Black Phosphate	M8	12mm	651367	Economy	Black Zinc
651507	40	651345	Black Phosphate	M8	16mm	651395	Standard	Black Zinc
651508	40	651345	Black Phosphate	M8	16mm	651648	Drop-In	Bright Zinc
651506	40	651345	Black Phosphate	M8	16mm	651367	Economy	Black Zinc
651521	40	651345	Black Phosphate	M8	16mm	651461	DBL Economy	Black Zinc
651605	40	681883	Stainless Steel	M8	16mm	651366	Economy	Black Zinc
651606	40	683164	Stainless Steel	M8	18mm	651366	Economy	Black Zinc
651607	40	659929	Stainless Steel	M8	20mm	651366	Economy	Black Zinc
651788	40	651347	Black Phosphate	M8	20mm	651367	Economy	Black Zinc

## SOCKET HEAD CAP SCREWS & ASSEMBLIES



- Grade 8 or stronger
- Alloy steel
- ANSI B18.3 rating



ITEM#	FINISH	A	B	C	D	E
699933	Black Phosphate	M5	16mm	4.91mm	8.33mm	4.58mm
699932	Black Phosphate	M6	10mm	5.85mm	10.00mm	5.72mm
651332	Black Phosphate	M6	12mm	5.85mm	10.00mm	5.72mm
651546	Black Phosphate	M6	14mm	5.85mm	10.00mm	5.72mm
658467	Stainless Steel	M6	14mm	5.85mm	10.00mm	5.72mm
651334	Black Phosphate	M6	16mm	5.85mm	10.00mm	5.72mm
680015	Stainless Steel	M6	16mm	5.85mm	10.00mm	5.72mm
651573	Black Phosphate	M6	18mm	5.85mm	10.00mm	5.72mm
683159	Stainless Steel	M6	18mm	5.85mm	10.00mm	5.72mm
651337	Black Phosphate	M6	20mm	5.85mm	10.00mm	5.72mm
683162	Stainless Steel	M6	20mm	5.85mm	10.00mm	5.72mm
651338	Black Phosphate	M6	25mm	5.85mm	10.00mm	5.72mm
658592	Black Phosphate	M6	35mm	5.85mm	10.00mm	5.72mm
651342	Black Phosphate	M8	12mm	7.82mm	13.10mm	6.86mm
651575	Black Phosphate	M8	14mm	7.82mm	13.10mm	6.86mm
651344	Black Phosphate	M8	16mm	7.82mm	13.10mm	6.86mm
683160	Stainless Steel	M8	16mm	7.82mm	13.10mm	6.86mm
651577	Black Phosphate	M8	18mm	7.82mm	13.10mm	6.86mm
683161	Stainless Steel	M8	18mm	7.82mm	13.10mm	6.86mm
651346	Black Phosphate	M8	20mm	7.82mm	13.10mm	6.86mm
681379	Stainless Steel	M8	20mm	7.82mm	13.10mm	6.86mm
651350	Black Phosphate	M8	25mm	7.82mm	13.10mm	6.86mm
651616	Black Phosphate	M8	30mm	7.82mm	13.10mm	6.86mm
651354	Bright Zinc	M8	30mm	7.82mm	13.10mm	6.86mm
682660	Black Phosphate	M8	35mm	7.82mm	13.10mm	6.86mm



# Metric Fasteners

## SOCKET HEAD SOCKET CAP SCREWS (CONTINUED)

ITEM#	FINISH	A	B	C	D	E
651542	Black Phosphate	M8	40mm	7.82mm	13.10mm	6.86mm
651562	Black Phosphate	M8	45mm	7.82mm	13.10mm	6.86mm
651553	Black Phosphate	M8	50mm	7.82mm	13.10mm	6.86mm
651563	Black Phosphate	M8	60mm	7.82mm	13.10mm	6.86mm
651564	Black Phosphate	M8	80mm	7.82mm	13.10mm	6.86mm
651552	Black Phosphate	M8	90mm	7.82mm	13.10mm	6.00mm
651541	Black Phosphate	M10	40mm	9.82mm	13.10mm	8.10mm

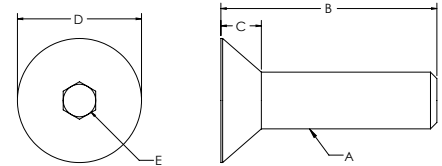
## SOCKET HEAD CAP SCREWS COMBINATION PARTS

ITEM#	SERIES	BOLT ITEM	FINISH	THREAD	LENGTH	TNUT ITEM	TNUT TYPE	FINISH
651597	10	658467	Stainless Steel	M6	14mm	651386	Economy	Black Zinc
651734	10	651334	Black Phosphate	M6	16mm	651386	Economy	Black Zinc
651598	10	680015	Stainless Steel	M6	16mm	651386	Economy	Black Zinc
651599	10	683159	Stainless Steel	M6	18mm	651386	Economy	Black Zinc
651600	10	683162	Stainless Steel	M6	20mm	651386	Economy	Black Zinc
651787	40	699933	Black Phosphate	M5	16mm	651646	Drop-In	Bright Zinc
651776	40	651332	Black Phosphate	M6	12mm	651366	Economy	Black Zinc
651608	40	658467	Stainless Steel	M6	14mm	651366	Economy	Black Zinc
651774	40	651334	Black Phosphate	M6	16mm	651366	Economy	Black Zinc
651609	40	680015	Stainless Steel	M6	16mm	651366	Economy	Black Zinc
651610	40	683159	Stainless Steel	M6	18mm	651366	Economy	Black Zinc
651775	40	651337	Black Phosphate	M6	20mm	651366	Economy	Black Zinc
651611	40	683162	Stainless Steel	M6	20mm	651366	Economy	Black Zinc
651777	40	651338	Black Phosphate	M6	25mm	651366	Economy	Black Zinc
651778	40	682072	Black Phosphate	M6	30mm	651366	Economy	Black Zinc
651779	40	682542	Black Phosphate	M6	40mm	651366	Economy	Black Zinc
651780	40	651344	Black Phosphate	M8	16mm	651367	Economy	Black Zinc
651612	40	683160	Stainless Steel	M8	16mm	651367	Economy	Black Zinc
651769	40	651577	Black Phosphate	M8	18mm	651367	Economy	Black Zinc
651613	40	683161	Stainless Steel	M8	18mm	651367	Economy	Black Zinc
651614	40	681379	Stainless Steel	M8	20mm	651367	Economy	Black Zinc
651512	40	651344	Black Phosphate	M8	16mm	651367	Economy	Bright Zinc
651426	40	651346	Black Phosphate	M8	20mm	651367	Economy	Bright Zinc

## FLATHEAD SOCKET CAP SCREW



- Grade 8 or stronger
- Alloy steel
- ANSI B18.3 rating



ITEM#	FINISH	A	B	C	D	E
651680	Black Phosphate	M4	8mm	2.20mm	8.00mm	2.5mm
682924	Black Phosphate	M5	16mm	3.00mm	9.70mm	3mm
651582	Black Phosphate	M5	20mm	3.00mm	9.70mm	3mm
651515	Black Phosphate	M6	12mm	3.72mm	11.78mm	4mm
651571	Black Phosphate	M6	14mm	3.72mm	11.78mm	4mm
651516	Black Phosphate	M6	16mm	3.72mm	11.78mm	4mm
651572	Black Phosphate	M6	18mm	3.72mm	11.78mm	4mm
651549	Black Phosphate	M6	20mm	3.72mm	11.78mm	4mm
683581	Black Phosphate	M6	22mm	3.72mm	11.78mm	4mm
651578	Black Phosphate	M8	12mm	4.96mm	15.66mm	5mm
651574	Black Phosphate	M8	14mm	4.96mm	15.66mm	5mm
651517	Black Phosphate	M8	16mm	4.96mm	15.66mm	5mm
651576	Black Phosphate	M8	18mm	4.96mm	15.85mm	5mm
651518	Bright Zinc	M8	20mm	4.96mm	15.85mm	5mm

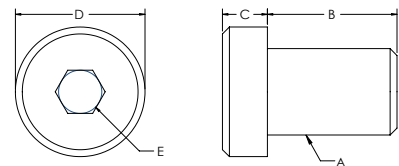
### FLAT HEAD CAP SCREWS COMBINATION PARTS

ITEM#	SERIES	BOLT ITEM	FINISH	THREAD	LENGTH	TNUT ITEM	TNUT TYPE	FINISH
651728	40	682924	Black Phosphate	M5	16mm	671338	Hammer Nut	Bright Zinc
651729	40	651582	Black Phosphate	M5	20mm	671338	Hammer Nut	Bright Zinc
651768	40	651571	Black Phosphate	M6	14mm	651366	Economy	Black Zinc
651773	40	651516	Black Phosphate	M6	16mm	651366	Economy	Black Zinc
651741	40	651516	Black Phosphate	M6	20mm	651352	Hex Nut	Black Zinc

## LOWHEAD SOCKET CAP SCREW

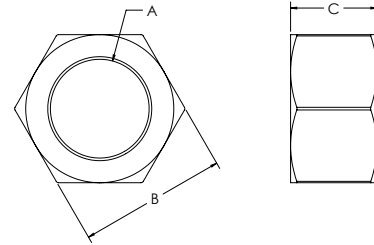


- Grade 8 or stronger
- Alloy steel
- ANSI B18.3 rating



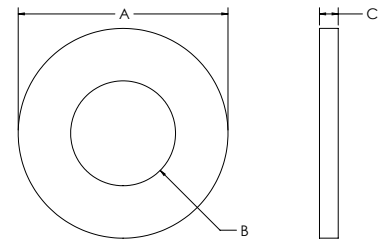
ITEM#	FINISH	A	B	C	D	E
683074	Stainless Steel	M8	25.00mm	5.00mm	13.00mm	5mm
682961	Black Phosphate	M8	30.00mm	4.93mm	12.90mm	5mm

## HEX NUTS



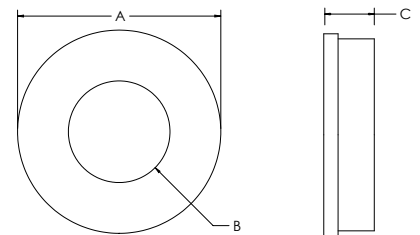
ITEM#	FINISH	A	B	C
651352	Black Zinc	M6	9.80mm	4.80mm
651353	Black Zinc	M8	12.80mm	6.30mm
680597	Bright Zinc	M12	18.80mm	9.80mm

## WASHERS



ITEM#	FINISH	TYPE	A	B	C
651550	Bright Zinc	M5	10.00mm	5.20mm	1.00mm
651388	Bright Zinc	M6	11.80mm	6.50mm	1.60mm
651387	Black Zinc	M8	15.70mm	8.50mm	1.75mm
681813	Bright Zinc	M10	19.75mm	10.60mm	2.00mm

## WASHERS WITH RUBBER SEAL

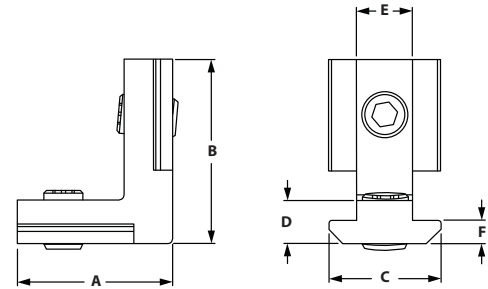


ITEM#	FINISH	TYPE	A	B	C
683422	Stainless Steel	M6	12.70mm	6.60mm	2.50mm
683139	Stainless Steel	M8	15.88mm	8.38mm	2.50mm

## INNER CONNECTORS



- Connects two extrusions at a 90° angle
- No machining required



**ITEM#**  
671654

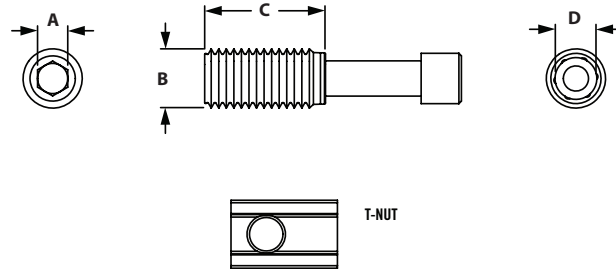
**SERIES**  
40

**A** 21.00mm    **B** 30.00mm    **C** 15.80mm    **D** 7.80mm    **E** 8.00mm    **F** 6.00mm

## T-MATIC CONNECTORS



- Connects two extrusions at a 90° angle
- No machining required
- T-nut included



**ITEM#**  
683553

**SERIES**  
40

**FINISH**  
Bright Zinc

**ITEM#**  
683583

**SERIES**  
40

**FINISH**  
Stainless Steel

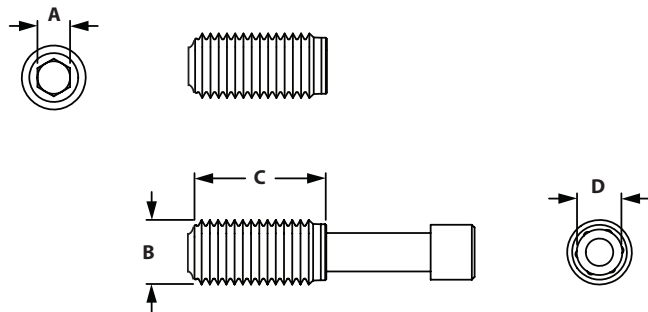
**A** 6.00mm    **B** 12.00mm    **C** 24.00mm    **D** T50

**A** 6.00mm    **B** 12.00mm    **C** 24.00mm    **D** T50

## T-MATIC BUTT CONNECTORS



- Connects two extrusions face-to-face
- No machining required



**ITEM#**  
683619

**SERIES**  
40

**FINISH**  
Stainless Steel

**SCREW**  
M6 X 50mm SHCS

**A** 6.00mm    **B** 12.00mm    **C** 31.00mm    **D** 6.00mm