

# CRUSH PLATES - LIGHTNING PROTECTION

## CRUSH PLATES FOR WOOD PROPS

OD	Thickness	Bolt Circle	Bolt Dia.	Part No.	Price
6"	3/8"	SAE 1 (4.375")	3/8"	05-02464	.
6"	3/8"	SAE 2 (4.75")	3/8"	05-02465	.
7"	3/8"	SAE 2	3/8"	05-02466	.
7"	3/8"	SAE 2	7/16"	05-02467	.
7"	3/8"	SAE 2	1/2"	05-02468	.
7"	1/2"	SAE 2	3/8"	05-02469	.
7"	1/2"	SAE 2	7/16"	05-02470	.
7"	1/2"	SAE	1/2"	05-02471	.

## PROP SPACERS

Solid Prop Spacers, 6 thru holes. The prop bolt goes thru the prop and spacer and threads into the engine.

Bolt Diameter	Part No.	Price
PRO SPACER 1.5"x5" ROTAX	05-02472	.
PRO SPACER 2"x5" ROTAX	05-02473	.
PRO SPACER 2.25"x5" ROTAX	05-02474	.
PRO SPACER 3"x5" ROTAX (SPOOL)	05-02475	.
PRO SPACER 4"x5" ROTARY (SPOOL)	05-04418	.

## DRIVE LUGS FOR EXTENSIONS



Part No.	Type	O.D.	I.D.	Thread	Price Ea.
05-28310	Threaded	5/8	---	3/8-24	.
05-04417	Threaded	5/8"	---	7/16-20	.
05-28410	Threaded	3/4	---	1/2-20	.

## PROP EXTENSIONS



Precision machined prop shaft extensions are available from Aircraft Spruce & Specialty Co. Don't settle for lesser quality at advertised "savings". Prop extensions are machined from solid 2024 T-351 aluminum bar, and are supplied with clear anodized finish and stainless steel drive lugs (installed). 7" diameter prop side is recommended for 0-320 engines running wood props, and is required for 0-360 engines (or larger) running wood props. For Cont. 0-200, you may choose 5.5" diam on engine side. If prop is metal, please measure depth of drilled counterbore at all 6 bolt hole positions.

Flange Engine	SAE No.	Bolt Circle	Lug Diameter	Eng. Bolt Dia.
Cont. A-65, A-75,	SAE 1	4-3/8	5/8"	3/8"
C-85, C-90, 0-200				
Lycoming 0-235	SAE 1 or 2		5/8"	3/8"
Lycoming 0-290	SAE 2	4-3/4"	5/8"	3/8"
Lycoming 0-320	SAE 2	4-3/4"	5/8"	3/8 or 7/16
Lycoming 0-360	SAE 2	4-3/4"	3/4"	1/2"
Lycoming O-540	SAE 2	4-3/4"	3/4"	1/2"

### PLEASE ORDER USING THE FOLLOWING PART NO.

X - length  
 - diam  
 E - engine  
 P - prop  
 - SAE  
 - ENGINE  
 - PROP HUB  
 - PROP TYPE

length diam engine prop thr or non 1 or 2 (wood or composite or metal) (Fixed Pitch or constant speed)

(6 or 7) or 7/16 or 1/2 or 7/16 or 1/2 lugs installed in extension

Example: 4 X 7 - 7/16 E - 3/8P thr - S2 - Lyc 0320 - wood - wood

## 12 HOLE SOLID PROP EXTENSION WITH THREADED DRIVE LUGS

Length x Dia.	Length x Dia.
1.25"x6"	1.25"x7"
2.25"x6"	2.25"x7"
3"x6"	4"x7"
4"x6"	6"x7"
6"x6"	8"x7"
8"x6"	

PRICES ON PROP EXTENSIONS CAN VARY PER APPLICATION  
 PLEASE CALL AND REQUEST A QUOTE FOR YOUR APPLICATION.

## LIGHTNING STRIKE PROTECTION WHY THE NEED FOR LIGHTNING STRIKE PROTECTION

Composite materials are poor conductors. Lightning that stops the aircraft is deadly. That's why aircraft structures are "zoned" for relative conductivity . . . to ensure that lightning passes through the aircraft and continues to the ground. The best way to accomplish this process, at the least cost is with lightweight, fantastically flexible MicroGrid...the conductive laminate of choice.



## MICROGRID...THE MATERIAL OF CHOICE

MicroGrid precision expanded strike protection in composite aircraft structures. In fact, MicroGrid is used by Boeing, Embraer, and many other aircraft manufacturers. MicroGrid's single unit structure is superior because it can't unravel like woven wire. Nor is costly material removed as in etching or stamping.

The appropriate gauge and pattern of material is easily adhered to the composite for 200,000 amps of conductivity. Aircraft are easily repaired after a lightning strike by simply sanding away the surface to apply a patch of new MicroGrid. And fantastically flexible MicroGrid easily conforms to a variety of shapes and contours in both manufacture and repair. It can be bent, shaped and laminated with a variety of materials, including those which expand, contract and flex.

### SPECIFICATIONS

	Aluminum	Copper
Weight - Lbs./SF	0.016	0.029
Base Metal Thickness	0.004 inch	0.003 inch
LWD	0.080 inch	0.125 inch
Overall Thickness	0.006 inch	0.005 inch
Open Area	68%	77%

## ALUMINUM OR COPPER MICROGRID?

Aluminum MicroGrid is ideal for most composite aircraft structure applications and is nearly half the weight of the copper MicroGrid. Copper MicroGrid is recommended for use with carbon fiber structures. Two layers of MicroGrid are recommended over fuel tank applications.

Aluminum MicroGrid (37" wide)..... P/N 05-02631 ..... ft.  
 Copper MicroGrid (18" wide)..... P/N 05-02632 ..... ft.