

# THROTTLE PLATES

## IMPORTANT FACTS

### DIAMETER

Must be measured across the center of the bolt holes. It is smaller than the throttle bore to provide clearance for rotation, and material expansion of the plate from the engine heat during a hot soak. The clearance varies depending on the quantity of plates over a length of shaft.

**Example :** One-piece throttle shaft with four plates versus two shafts with two plates each, joined with a Kinsler billet Spring-Screw Link... the latter can run with less clearance. A single throttle plate can run with even less. See [Pages #64-65](#).

### SCREW HOLES

Throttle plate screw holes are larger than the screw diameter to allow the plate to be adjusted for alignment in the throttle bore.

### MATERIAL

Our standard plate material is 2024 aluminum. This alloy has a very high bending strength. On special order we offer 304 stainless steel (.091" thick ONLY). We don't recommend brass (too soft) or cold rolled steel (too weak, rusts, and creates excessive wear on throttle bore).

### THICKNESS

We use .062", .071", or .091" depending on the throttle bore size and the strength that is require for the plate. Do not use a plate that is thicker than needed, as that causes more air flow restriction.

### ANGLE

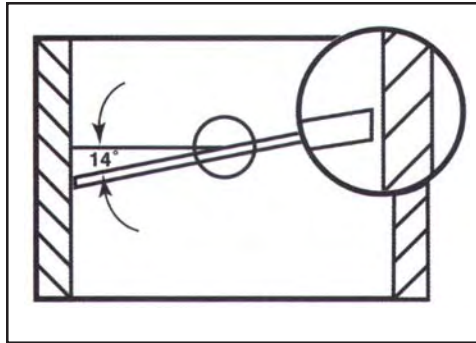
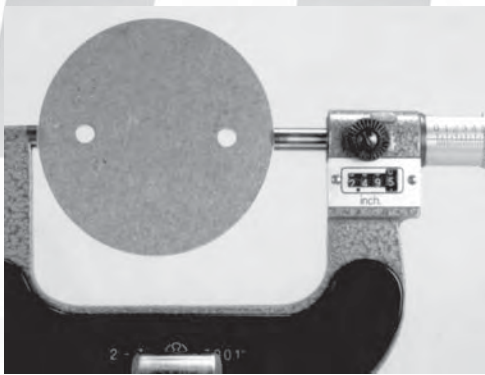
Our standard angle is 14°, rotating 76° to wide open. This is good for sealing and non-sticking. Special angles available on request.

### STREAMLINED

For an aerodynamic shape, the plate has the leading and trailing edge thinned to about one-half the original thickness, then tapered and blended to where the plate mounts on the throttle shaft. Least air flow resistance when used with streamlined throttle shafts, see [Page #55](#). This design is as strong as the standard in bending, but is much more expensive to make.

## STANDARD KINSLER ALUMINUM THROTTLE PLATES :

PART #	ACTUAL DIAMETER	NOMINAL THICKNESS	CENTER TO CENTER ON SCREW HOLES
20010	1.372"	.062"	1.0"
20012	1.523"	.062"	1.0"
20014	1.697"	.062"	1.0"
20016	1.763"	.062"	1.0"
20018	1.807"	.062"	1.0"
20020	1.872"	.062"	1.0"
20022	1.897"	.062"	1.0"
20024	1.997"	.062"	1.0"
20026	2.147"	.071"	1.0"
20028	2.179"	.071"	1.5"
20030	2.182"	.071"	1.5"
20032	2.242"	.071"	1.5"
20034	2.245"	.071"	1.5"
20036	2.247"	.071"	1.5"
20038	2.297"	.071"	1.5"
20040	2.362"	.071"	1.5"
20042	2.365"	.071"	1.5"
20044	2.367"	.071"	1.5"
20046	2.429"	.071"	1.5"
20048	2.432"	.071"	1.5"
20050	2.434"	.071"	1.5"
20052	2.492"	.071"	1.5"
20054	2.495"	.071"	1.5"
20056	2.497"	.071"	1.5"
20058	2.554"	.071"	1.5"
20060	2.557"	.071"	1.5"
20062	2.617"	.071"	1.5"
20064	2.620"	.071"	1.5"
20066	2.670"	.071"	1.5"
20068	2.672"	.071"	1.5"
20070	2.675"	.071"	1.5"
20072	2.682"	.071"	1.5"
20074	2.685"	.071"	1.5"
20077	2.804"	.071"	1.5"
20078	2.807"	.071"	1.5"
20080	2.892"	.071"	1.5"
20081	2.895"	.071"	1.5"
20082	2.897"	.071"	1.5"
20084	2.997"	.071"	1.5"
20086	2.997"	.091"	1.5"
20088	3.147"	.091"	1.5"
20090	3.495"	.125"	1.0" (3 SCREWS)



### QUALITY MACHINING

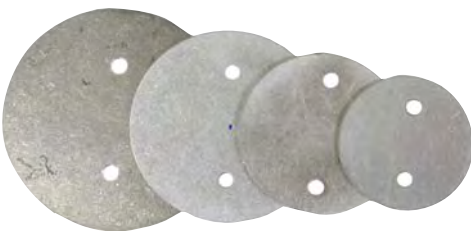
*EACH KINSLER THROTTLE PLATE IS TURNED IN A LATHE !!!*

A stamped plate can be bowed from the press, have varying edge angles, etc. Turning gives a flat, crisp edge, at the precise angle.

### REPLACEMENT THROTTLE PLATE

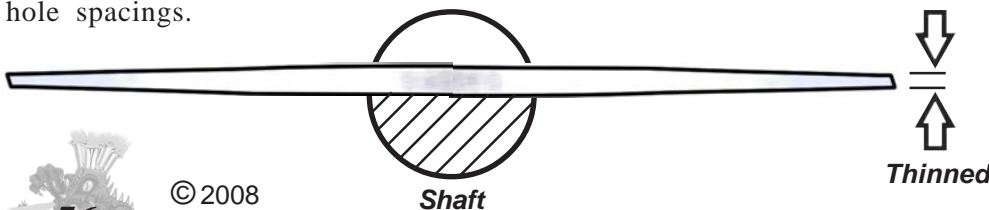
We STOCK and/or custom MAKE plates for all types of injection manifolds and throttle bodies:

*HILBORN, CROWER, ENDERLE, ENGLER, JACKSON, ALGON, RON'S, EVM, GM, HOLLEY, ETC.*



### CUSTOM THROTTLE PLATES

We make plates for just about ANYTHING! Injection units, carbs, throttle bodies, etc. We have spinning fixtures for different angles and bolt hole spacings.



**NOTE : Due to machining tolerances sizes may vary slightly !**



© 2008

*Kinsler Fuel Injection, Inc.*

1834 THUNDERBIRD TROY, MICHIGAN 48084 U.S.A.  
www.Kinsler.com Phone (248) 362-1145 Fax (248) 362-1032