# Turbulent Flow Plastic Baffles

**Improve mould cooling performance over traditional brass baffles**

### Turbulent Flow Plastic Baffles Benefits

- Patented side wipers prevent coolant blow-by, ensuring coolant flow to the end of baffles.
- Results in better cooling of targeted hot spots.
- Dramatically improves cooling time.
- Increases coolant flow velocity and lowers Delta “T” across mould surface.
- Built-in ribs encourage turbulent flow and reduce stagnant laminar flow.
- Turbulent flow dissipates about 3x the BTUs as compared to laminar flow.
- Non-hygroscopic, glass-reinforced engineering thermoplastic (polyphthalamide) excels under high heat, providing better temperature stabilization.
- Pre-wrapped with TFE tape.
- Maximum coolant temperature recommended: 100°C (212°F).

![Turbulent Flow Plastic Baffles](image)

### Turbulent Flow Plastic Baffles (Inch) – PBF

<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>NOMINAL PLUG SIZE</th>
<th>S HEX SIZE</th>
<th>L NOMINAL OVERALL LENGTH</th>
<th>T BAFFLE THICKNESS</th>
<th>W BAFFLE WIDTH</th>
<th>DRILL SIZE</th>
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</table>

Slot indicates baffle position.

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TURBULENT FLOW PLASTIC BAFFLE INSTALLATION INSTRUCTIONS

The plastic baffle is installed in standard gun-drilled cooling channels and CNC-standard NPT-F holes.

- Recommended tolerance for cooling channels is +/-0.05"
- Clearance must be provided between end of baffle and end of drilled channel to provide adequate flow
- One-inch increments are marked on each side of the baffle blade
- Baffle blades may be cut or snapped at marked one-inch increments to obtain preferred dimension (smooth the top edge after proper sizing)
- Do not expose the baffle to flame cutting

The plastic baffle has a moulded wiper on both sides of the blade that travels the length of the blade. This allows the thin wiper to make contact with the inside walls of the water line thereby sealing them off and prohibiting blow-by.

- Make sure the thread seal tape is not damaged
- Turn the baffle clockwise when installing so the baffle blade bends the wipers over as they are installed into the water line. This seals the plastic blade to the water line holes.
- Do not thread and unthread the baffles, as this will diminish the sealing and performance properties

During tightening, the Allen wrench will become snug, indicating that the plug is sealed to the hole.

- Is it not recommended to force tightening beyond the wrench becoming snug
- Do not use a hammer to push the blade into the channel

If, for any reason, cooling channel cleaning is required, replace the baffle with a new one.

If the hex is damaged, a hand drill may be used to remove it.