

**INNOVATIVE COMPONENTS, INC.**

**THREAD DETECTIVE® THREAD IDENTIFYING TOOLS**

**PIPE THREAD VERSIONS – INSTRUCTIONS FOR USE**

Pipe threads are screw threads typically used on threaded pipes and pipe fittings. Determining what size pipes you need for your project can be confusing. Many people assume pipe size is the outer diameter of the pipe—but “**pipe size**” **actually refers to what is called “nominal diameter.”** Fittings can be just as confusing. Their inside diameters must be large enough to fit over the pipe's outside diameter. A half-inch plastic elbow, for example, has an outside diameter of about 1-1/4 inches.

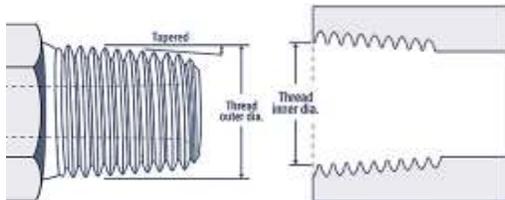
The **Pipe Thread Detective** is a versatile tool designed to allow you to quickly and easily identify the proper size for your pipe and fittings, and, in many cases, determine the exact thread type. The most common pipe threads in the USA are NPT (National Pipe Tapered) and NPS (National Pipe Straight). In Europe, the UK and China BSPT (British Standard Pipe Tapered) and BSPP (British Standard Pipe Parallel) are more common. Metric pipe threads/ISO). The Thread Detective will always be able to determine the proper nominal diameter of your pipe. However, due to the similarity of various thread types, it will have some limitations. Please be aware of the following limitations:

- NPT and BSPT tapered threads are almost identical and can't be differentiated by this tool. You will be limited to identifying parallel (straight) from tapered threads.
- NPS and BSPP threads are almost identical for sizes 1/8", 1/2", 3/4", and 1". The Thread Detective can differentiate all thread types for these diameters except for BSPP male and NPS female.
- Some mass-produced fittings may be manufactured with tolerances outside industry standards. This can result in misidentification.

**Due to these limitations, the Thread Detective for Pipe Threads must never be used to identify fittings used in high pressure applications or applications involving hazardous materials, liquids or gasses.**

Proper use of this product requires both positive identification and the process of elimination. Best results will be achieved by utilizing the combination of NPS, BSPP, and ISO parallel strands. The addition of the NPT and BSPT strands will further enhance the effectiveness of the tools. The reverse side of this sheet is a flowchart that walks you through the steps required to identify both male and female fittings of most popular diameters and thread types. Please keep these instructions for further use. These instructions and the flowchart can also be found at [www.threaddetective.com](http://www.threaddetective.com).

Male tapered threads (NPT/BSPT) can easily be identified visually by the conical shape of the threads. Female tapered threads must be identified using the Thread Detective tools. NPS and BSPP will accept straight threads completely into the gauges for their entire length. NPT/BSPT threads will only go 2-3 turns onto or into the gauge.



**For use in identifying plumbing pipe thread sizes only, including NPT/NPS/BSPT/BSPP/ISO. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED. Do not force National style Pipe Thread Detective (NPS/NPT) on British style threads (BSPP/BSPT) or vice versa, as doing so will not properly identify and may damage threads. Do not use damaged threads for any applications, as doing so may result in personal injury, death or damage to property. Not for use in high pressure applications or applications involving hazardous materials, liquids, or gasses.**