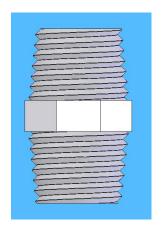


# Threaded Fittings

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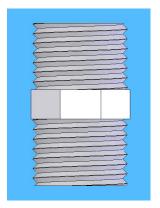
### **NPT Threads**



The standard thread found in the USA, and the default thread found on most all fittings in the MoreFlavor! Brands, is National Pipe Taper threads, abbreviated to NPT. NPT threaded fittings have a slight taper to them and when mated together and tightened, the threads compress to form a seal. Some confusion may result from the use of NPT, FPT, and MPT in describing threads.

Both FPT and MPT are NPT threads, with FPT meaning female threads (internal) and MPT meaning male threads (external). To assure a leak-free seal, we recommend using Teflon tape. We use 3 wraps of Teflon tape when sealing brass threads and 5-6 wraps when sealing stainless steel threads.

## **BSPP Threads**



A common thread on European made wine equipment is BSPP (British Standard Pipe Parallel). BSPP threads are often called straight (parallel) threads. NPT and BSPP threads have different angles, shape, and (in most cases) threads per inch (pitch). The thread angle is 60° for NPT threads; 55° for BSPP threads. NPT threads are flattened at

the peaks and valleys, while BSPP threads are rounded. Typically, parallel threads such as BSPP are used for mechanical joining, where the threads are not meant to seal against one another, even with Teflon tape, to make a water-tight seal. As a result, an O-ring (elastomer), hard metal seal, or soft metal seal is used. Typically in wine equipment situations this means placing an o-ring between the fitting and the backing (tank wall) to create a seal.

# **Mixing NPT and BSPP Threads**

#### Male NPT going into Female BSPP

In most situations that don't involve high pressure, a male NPT fitting can be threaded into a female BSPP fitting, using Teflon tape to seal. Note that because the male NPT fitting is tapered it will thread a little farther into the straight threaded BSPP female fitting.

#### Female NPT going onto Male BSPP

This connection will not work because the male BSPP fitting is not tapered and the female NPT threading is. You might get the female NPT fitting to go one or two threads onto the NPT fitting, but this is not enough to make a seal. You will find male BSPP fittings on some of our smaller German Speidel tanks, many European cooling jacket fittings, and our cooling snakes. In these situations there are two solutions. Ideally purchase a stainless female BSPP fitting which MoreFlavor! stocks in several sizes and styles. Preferably use an o-ring to seal this connection. In low pressure situations extra Teflon tape may be enough to make a seal between two BSPP fittings. In a pinch you can use a pvc tapered fitting where appropriate (primarily on cooling jackets.) A tapered female NPT PVC fitting has some give and therefore will thread onto BSPP straight thread. PVC fittings can be found at any hardware store.

### **GHT**

Garden hose thread is a unique thread found on... garden hoses... and many fittings made to attach to garden hose. It is close to ¾" NPT thread, but has a different pitch and thread count.