

SPK kit assembled on the valve outlet with the STI sensor.

The SPK Series Sensor Piping Kit is a matched 316/316L stainless steel fitting set for mounting an STI Series immersion temperature sensor directly in the water flow — no thermowell required.

Each kit pairs a 6" pipe nipple, a tee, and a reducing bushing sized to the system pipe, stepping the connection down to the sensor's ½" NPT. Kits cover ¾" through 3" piping and are matched to the correct STI probe length.

Install the kit on the valve's AB (mixed) outlet port so the probe sits in the flow stream, following the STI Series sensor mounting requirements.

Technical Data

Material	316 / 316L stainless steel
Fittings (tee, bushing)	Class 150, cast — ASTM A351 Gr. CF8M
Pipe nipple	Schedule 40 — ASTM A312 / A733
Threads	NPT per ASME B1.20.1
Sensor connection	½" NPT
Nipple length	6"
Pipe size range	¾" – 3" (DN20 – DN80)
Compatible sensors	STI-090, STI-130
Max water pressure	250 PSI (per STI sensor)
Max temperature	250 °F (per STI sensor)

Kit Selection

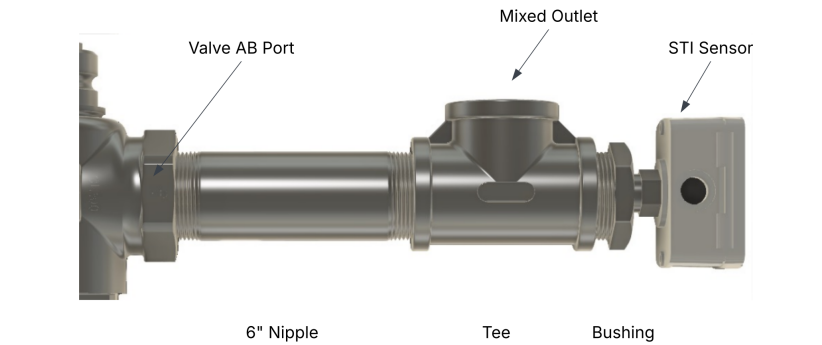
Kit P/N	Size	STI Sensor	Probe Length
SPK-020	¾"	STI-090	3.5" (90 mm)
SPK-025	1"	STI-090	3.5" (90 mm)
SPK-032	1¼"	STI-090	3.5" (90 mm)
SPK-040	1½"	STI-090	3.5" (90 mm)
SPK-050	2"	STI-090	3.5" (90 mm)
SPK-065	2½"	STI-130	5.5" (130 mm)
SPK-080	3"	STI-130	5.5" (130 mm)

Kit Contents

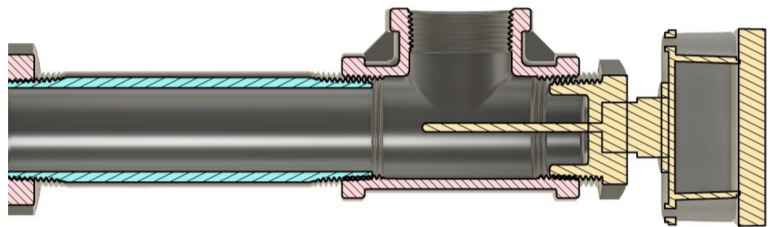
- Pipe nipple** — 6", Schedule 40, 316/316L SS, NPT both ends.
- Tee** — Class 150 cast, 316/316L SS (CF8M), NPT.
- Reducing bushing** — Class 150 SS, NPT; reduces the branch to ½" NPT.

The valve and STI sensor are not included with the kit.

Installation



SPK kit installed on the valve AB (mixed) outlet, with the STI sensor at the tee branch.



Cross-section — the sensor probe extends through the bushing and tee into the flow stream.

1. Select the SPK kit based on your valve size (see **Kit Selection**). The STI sensor is supplied with the TVS43 valve package.
2. Install the SPK kit directly on the **AB (mixed) outlet port** of the mixing valve.
3. Apply thread sealant to all NPT connections.
4. Thread the 6" nipple into the valve's AB port, then install the tee so the branch port faces the sensor and the probe will sit in the flow stream. The bull of the tee is the mixed-outlet connection to the system. Add an isolation ball valve downstream of the SPK kit.
5. Install the reducing bushing in the tee branch to provide the ½" NPT sensor connection.
6. Thread the STI sensor into the ½" bushing hand-tight, then snug with a wrench — do not overtighten.
7. Confirm the probe is fully immersed in the flowing water; the tip should reach the pipe centerline where possible.
8. Pressurize the system and inspect every joint for leaks before placing in service.