

SKYL-TECH, INC.

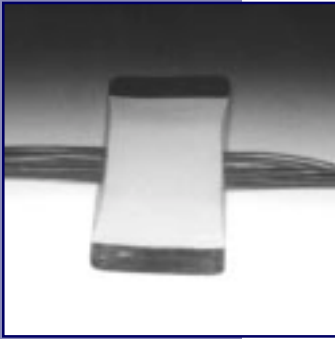
a world leader in validation technology



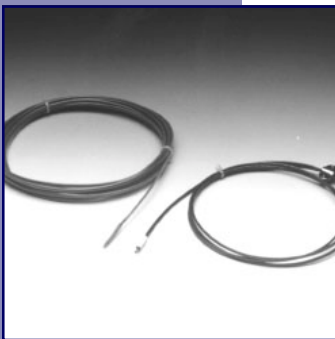
- validation assemblies
- thermocouples
- feedthrus
- consulting



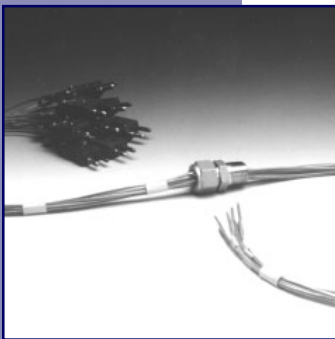
The PV-Seal™ brand of FEEDTHRU allows the introduction of sensor wires into pressure and vacuum vessels such as sterilizers, lyophilizers, vacuum ovens and barometric chambers. Models for sealing round and oval cross-section wires such as thermocouples are available in seven different hole count versions ranging from 1 to 24 holes.



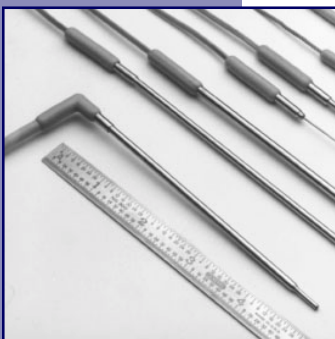
The TAPER-Seal™ brand of FEEDTHRU allows the introduction of sensor wires through the door seals of atmospheric ovens and stability chambers. The shape of the FEEDTHRU prevents the leaks that can destroy the distribution balance in these chambers.



Type "T" soft tip thermocouples are the workhorses of thermal distribution and penetration validation studies. This Teflon- and Kapton- insulated stranded wire is a premium "select" grade for unrivaled accuracy. The stranded wire makes for ease of handling in the tight spaces found in autoclaves, ovens and freeze dryers.



Any combination of Skyl-Tech thermocouples and FEEDTHRU can be fabricated into custom assemblies that meet your specific needs. Skyl-Tech assemblies include individually numbered wires and connectors for easy attachment to measurement devices.



Skyl-Tech has the experience and manufacturing facilities necessary to supply custom solutions for your temperature monitoring needs. We also offer consulting services to help our customers with the design and execution of thermal validation studies.

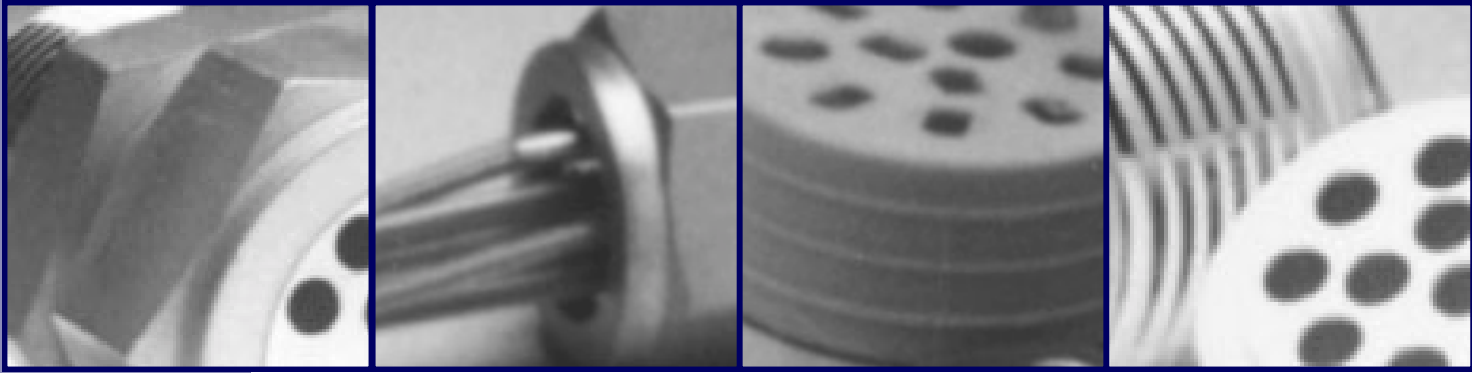


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A World Leader in Validation Technology

Established in 1985 and incorporated as Skyl-Tech, Inc. in 1988, we are dedicated to supplying the pharmaceutical, food, electronics and aerospace industries, and OEM's to these industries, with temperature sensors and FEEDTHRU™ sealing glands for validation and monitoring studies in autoclaves, ovens, freeze dryers, and isolators.

Today we are a world leader in specialty thermocouples and FEEDTHRUs™ with an extensive line of precision products developed to meet our customers' specific needs. We pride ourselves on delivering quality products along with unparalleled customer service. Twenty-five years of sensor design and hands-on validation experience go into every product and service we offer.

We will continue to develop new products to address customer needs and improve existing products to remain the premier supplier of precision thermocouples and FEEDTHRUs™.



FEEDTHRUs: Overview

The PV-Seal™ brand of pressure and vacuum FEEDTHRUs™ will positively seal both round and oval cross-section sensor and thermocouple leads for pressures to 200 psia and vacuums to 10 microns.

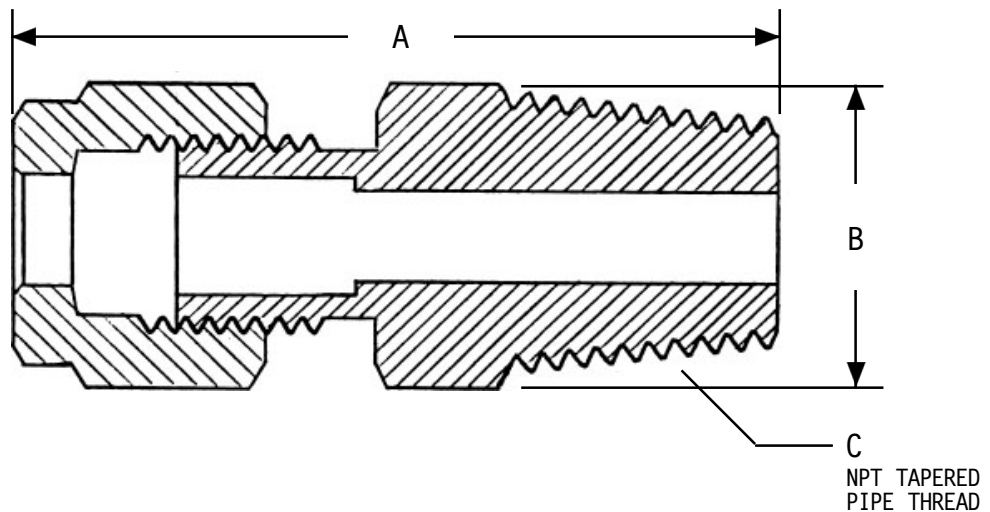
The unique design features of these FEEDTHRUs™ eliminate all the problems associated with other sealing glands, cumbersome sandwiched double flanges and in-house potted seals. Our FEEDTHRUs™ do not develop leaks with handling and usage. Broken sensors are easy to remove and replace: simply loosen the pressure cap, pull out the old sensor, insert a new sensor and hand-tighten the pressure cap: the seal is restored.

KEY BENEFITS:

- TYPE 316 STAINLESS STEEL
- REUSABLE SILICONE RUBBER SEALANT
- SEALS FROM 10 MICRONS TO 200 PSIA
- TRUE EASE OF PROBE REPLACEMENT
- SEALANT HOLES SHAPED TO MATCH PROBE CROSS-SECTION
- PHARMACEUTICAL-QUALITY MATERIALS AND FINISHES

Pressure and Vacuum FEEDTHRU Specs

MODEL	A	THREAD (NPTM)	B	LENGTH (INCHES)	C	HEX SIZE (INCHES)	MAX # HOLES	
							.125"D	.065"D
S-300	1/8		1.40		1/2		1	3
	1/4		1.40		9/16		1	3
	1/2		1.60		7/8		1	3
	1/4" WELD		1.60		0.540 RD		1	3
S-420	1/4		1.40		5/8		3	5
	1/2		1.60		7/8		3	5
	1/4" WELD		1.40		0.540 RD		3	5
	1/2" WELD		1.60		0.840 RD		3	5
S-570	1/2		1.85		7/8		5	10
	3/4		1.90		1 1/16		5	10
	1/2" WELD		2.15		0.840 RD		5	10
S-710	1/2		1.85		15/16		8	14
	3/4		1.90		1 1/16		8	14
	1/2" WELD		2.15		0.840 RD		8	14
S-830	3/4		1.90		1 1/16		10	16
	3/4" WELD		2.15		1.050 RD		10	16
S-930	3/4		1.90		1 3/16		14	24
	1" WELD		2.15		1.315 RD		14	24
S-1140	1		2.35		1 3/8		24	--
	1" WELD		2.35		1.315 RD		24	--

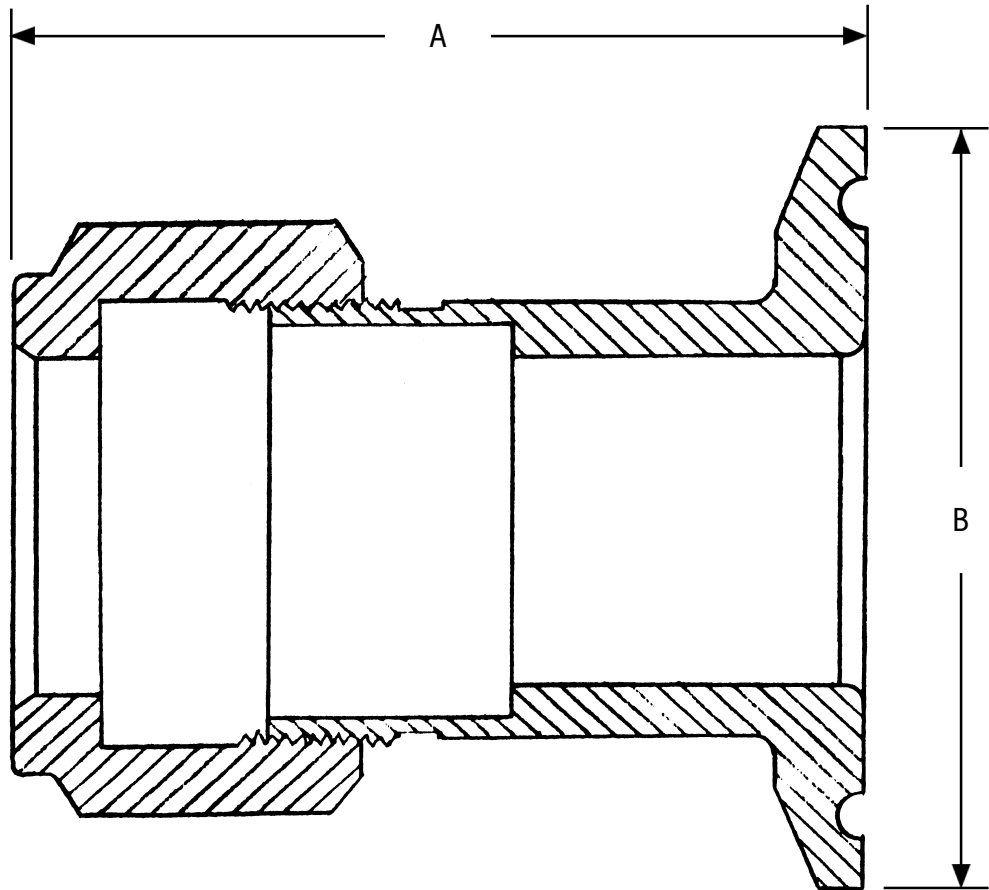


How to Order by Model Number

MODEL	NUMBER OF HOLES	HOLE SIZE	HOLE SHAPE	PIPE THREAD
S-XXXX — XX — XXX — OVal Round — X				
EXAMPLE:				
S-710 — 8 — 125 — OV — 3/4				

Flange Clamp Feedthru Specs

MODEL	A	LENGTH (NPTM)	B	FLANGE SIZE (INCHES)		MAX # HOLES	
				.125"D	.065"D	.125"D	.065"D
S-710	1.48		1.98	8	14		
S-830	1.48		1.98	10	16		
S-930	1.56		1.98	14	24		
S-1140	1.85		1.98	24	--		



How to order by model number

MODEL	NUMBER OF HOLES	HOLE SIZE	HOLE SHAPE	FLANGE
S-XXXX	XX	XXX	OVal Round	1 1/2 TC
<i>EXAMPLE:</i>				
S-710	8	125	OV	1 1/2 TC



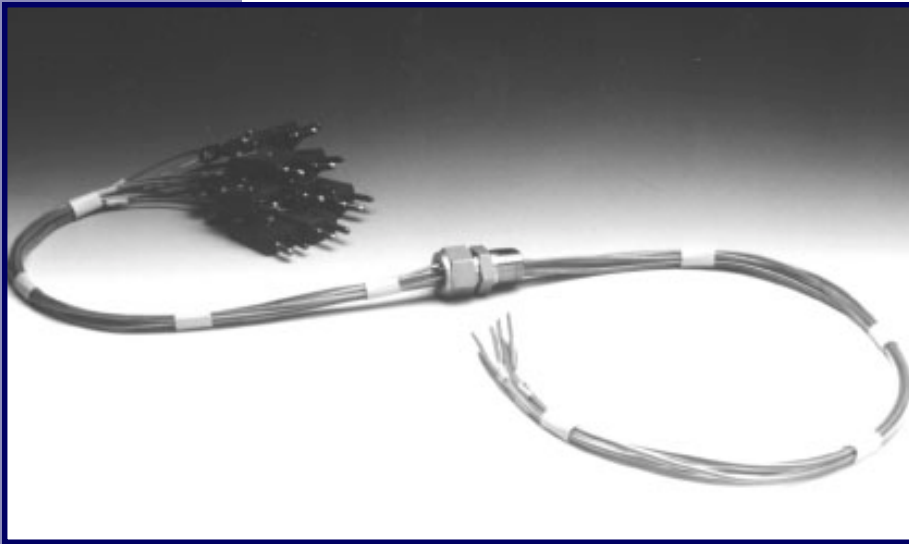
FEEDTHRU[™]: Oven and Stability Chamber

This FEEDTHRU[™] solves the difficult problem of neatly inserting 20 thermocouples through the door seal of an oven, stability chamber or incubator while maintaining a leak-proof seal on the door gasket. Fabricated from silicone rubber, stainless steel, and high temperature reinforcing materials, this 0.20 inch thick, tapered-end FEEDTHRU[™] achieves excellent seals around both the thermocouples and the door gasket, ensuring that gasket leaks do not destroy chamber uniformity. If your chamber does not have a validation opening, Skyl-Tech's oven FEEDTHRU[™] makes the introduction of sensors simple. If you must assemble the load away from the chamber, rendering validation openings useless, this is the only way that you can do your work.

KEY BENEFITS:

- **RETAINS GASKET SEAL**
- **KEEPS THERMOCOUPLES NEATLY IN PLACE UNDER GASKET**
- **ALLOWS FOR ASSEMBLING LOAD AWAY FROM CHAMBER**

(NOTE: Not for use in the door of pressure or vacuum chambers, including steam or gas sterilizers and freeze dryers.)



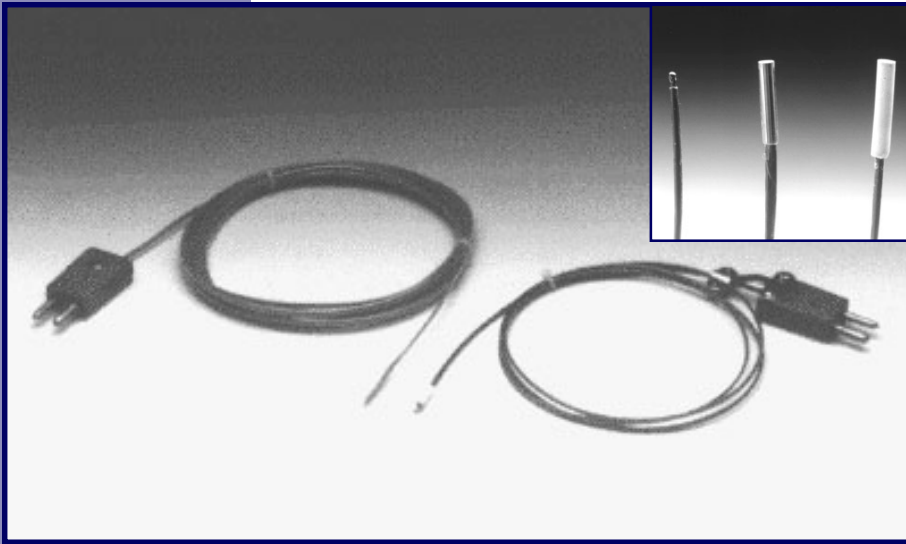
Assemblies: Overview

Skyl-Tech will design and produce assembly configurations, saving you valuable time. You choose the type of FEEDTHRU™, the number and type of thermocouples, the overall length, the number of probes and the connection types. Skyl-Tech assembles and custom-bundles the thermocouples. You receive the custom assembly ready to connect to your datalogger, calibrate and use for temperature studies.

Ask your validation group or outside contract validation group to supply and use a Skyl-Tech assembly. With proper care, it will give you years of trouble-free validation and monitoring service.

KEY BENEFITS:

- CONVENIENCE OF READY-TO-USE ASSEMBLY
- SAVES TIME FOR YOUR VALIDATION PERSONNEL
- LONG-LIFE STRANDED WIRE
- TIP COVERS PROTECT TIP AND STOP LEAKS
- EACH WIRE NUMBERED AT BOTH ENDS FOR EASY IDENTIFICATION
- FAST CONNECTION TO DATA LOGGERS



Soft Tip Thermocouples

Teflon®- and Kapton®-encapsulated* or bare-tipped thermocouples are the validation and monitoring workhorses of the pharmaceutical and food industries. Our sensors use only the finest grade of stranded Type “T” thermocouple wire. They also feature a fused FEP cap, necessary when using Teflon®-insulated thermocouples in steam and gas sterilizers. The ceramic tip on our Kapton®-insulated thermocouples slows the wire oxidation that results from exposure to high oven temperatures.

Skyl-Tech offers thermocouple options that make validation easier. Instead of solid wire, which rapidly loses its calibration and accuracy, we use only stranded, select premium grade, Type “T” wire. Only stranded wire holds a usable calibration during repeated manipulation in a sterilizer, freeze dryer or oven. Our tip covers guard against damage and oxidation; when used in sterilizers and freeze dryers, they prevent leaks during vacuum and steam phases. Shrink-wrapped number rings make each wire easy to identify and thermocouple connectors speed up attachment to data loggers.

Skyl-Tech provides the ultimate thermocouple configuration for validation work: a Teflon®- or Kapton®-insulated stranded premium select grade Type “T” wire with welded tip and tip cover, numbers at both ends, and a thermocouple connector. Try them once and you will never go back to site-fabricated thermocouples.

KEY BENEFITS:

- LONG-LIFE STRANDED WIRE
- TIP COVERS PROTECT TIP AND STOP LEAKS
- EACH WIRE NUMBERED AT BOTH ENDS FOR EASY IDENTIFICATION
- FAST CONNECTION TO DATA LOGGERS



Custom Solutions

Skyl-Tech has the experience and manufacturing facilities necessary to supply custom solutions for your temperature monitoring needs. We can custom design and fabricate small diameter metal-tipped thermocouples for package or bottle monitoring studies and micro-thermocouple trees for bottle mapping purposes. We can fabricate custom FEEDTHRUTM with any combination of different hole sizes and shapes. We can also produce various types of threaded and flanged terminations and fabricate feedthrus to fit in the finger of an isolator glove in contexts where standard isolator openings are not available.

Consulting Services

Skyl-Tech also offers consulting services to help our customers with the design and execution of thermal validation studies. Please contact us to set up a preliminary consultation.

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