Vacuum Insulated Tubing (VIT) Data Sheet

Size Range (outer x inner)	2-7/8 in x 1.9 in to 7 in x 5-1/2 in
Outer Pipe OD x WT	73.02 x 5.51 mm to 177.8 x 9.19 mm
Inner Pipe OD x WT	48.26 x 3.68 mm to 139.7 x 7.72 mm
Weight Range	13.5 kg/m to 65 kg/m
Insulation Grades	B, C, D, E
Thermal Conductivity (lambda)	0.06 to 0.002 W/m-K
Thread Types	USS, BTC, or custom options

Performance Benefits	Typical Applications
- Minimizes heat loss and helps maintain fluid temperature along the wellbore. - Helps reduce wax formation and supports heavy-oil flow by keeping fluids at a stable temperature. - Helps reduce thermal cycling impact that can affect well integrity over time.	- Heavy oil recovery and thermal EOR operations (for example SAGD, CSS). - Geothermal wells requiring thermal retention in the upper well section. - Deepwater projects where cooling can accelerate hydrate formation during shut-ins. - Cold-region operations where heat transfer can disturb permafrost and create stability risk.

Grade	lambda (W/m-K)	Btu/(ft-h-F)
B	0.06 - 0.04	0.0347 - 0.0231
C	0.04 - 0.02	0.0231 - 0.0116
D	0.02 - 0.006	0.0116 - 0.0035
E	0.006 - 0.002	0.0035 - 0.0012

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Engineering Design Characteristics

- Dual-pipe construction: inner pipe for fluid transport; outer pipe for mechanical protection.
- Multi-layer insulation system: reflective foil, insulation materials, and a high-vacuum environment working together.
- Pre-stressed inner tube to improve welding integrity and reduce thermal deformation.
- Controlled vacuum system with getter materials to support long-term vacuum performance.
- Full-process NDT applied to base tubes, welds, vacuum ports, and final thermal conductivity tests.

Model (mm)	Outer x Inner (in)	Outer OD x WT (mm)	Inner OD x WT (mm)	Annulus (mm)	Thread	Coupling OD (mm)	Weight (kg/m)	Insulation Grade
73 x 40	2-7/8 x 1.9	73.02 x 5.51	48.26 x 3.68	40.9 / 6.87	USS	88.9	13.5	B
89 x 50	3-1/2 x 2-3/8	88.9 x 6.45	60.32 x 4.83	50.66 / 7.84	USS	108	20.5	C
114 x 76	4-1/2 x 3-1/2	114.3 x 6.88	88.9 x 6.45	76 / 5.82	BTC	132.1	32	D

Manufacturing & Supply

Manufacturing Workflow: HF welding - Weld seam NDT - Vacuum creation - Thermal conductivity test - Final inspection and packing.

Supply Range:
- Length options: 9.5 m / 10 m / 12 m
- Threading: USS, BTC, or custom thread profiles
- Custom OD/WT/ID and insulation grade upon request

Quality & Documentation

- EN 10204 3.1 MTC (3.2 available with third-party witness)
- NDT per project requirement (UT/RT/MT/VT)
- Hydrostatic test and dimensional inspection records
- Thermal conductivity verification report

Request for Quotation (RFQ)

RFQ Information: To quote VIT on a like-for-like basis, provide outer OD/WT, inner OD/WT, length, insulation grade (B/C/D/E), thread type, quantity, coating/handling requirements, and requested documentation (MTC level plus NDT/hydro-test scope).