VectorTherm Components

VT300 Vacuum Thermal Chuck
Engineering Datasheet - Rev B
Fictional supplier reference document

Product Overview

The VT300 platform is described by VectorTherm as a rugged vacuum thermal chuck for pilot-line wafer testing, process characterization, and mixed-device qualification. The system is positioned for engineering teams that require wafer fixture flexibility, repeatable thermal cycling, and documented operating conditions during supplier evaluation.

Feature	Supplier Copy
Thermal platform	Wide operating envelope for engineering labs and production support benches.
Fixture compatibility	Designed for circular wafer fixtures, custom probe stations, and optional adapter plates.
Controls	Digital controller interface with recipe storage, ramp monitoring, and alarm outputs.
Service note	Recommended annual calibration; contact VectorTherm for fixture-specific maintenance intervals.

Selection Guide

Part Number	Description	Availability
VT300-VC	12 in vacuum thermal chuck with standard controller	Standard
VT300-VC-LF	12 in vacuum thermal chuck with low-flow coolant manifold	Build to order
VT300-ADP-200	Adapter plate for 200 mm wafer fixtures	Optional
VT300-CAL	Calibration and compliance documentation pack	Optional

Electrical, Thermal, and Vacuum Specifications

Parameter	Min	Typ	Max	Unit	Condition / Note
Wafer compatibility	12	12	12	in	Nominal supported wafer diameter
Temperature range	-4		356	F	Chuck top surface; controller closed loop
Temperature uniformity		1.4	2.7	F	Measured over central process zone
Vacuum pressure		5	10	mTorr	Typical value; dry pump and sealed port
Cooling flow	0.53	0.66	0.79	GPM	Water/glycol loop at 20 C
Power consumption		1.05	1.20	kW	Maximum draw may vary by recipe
Chuck flatness		0.00075	0.001	in	Across active surface
Surface roughness Ra		20	28	microinch	Reference finish
Payload		10	13	lb	Centered static load
Supply voltage	200	208	240	V	Single phase AC input

Environmental and Compliance Notes

- Operating ambient: 15 C to 35 C laboratory environment unless otherwise specified.
- Values marked typical are supplier characterization values and are not guaranteed limits.
- Product overview statements are informational and are not guaranteed engineering limits.
- Fictional demonstration datasheet. Not a released product specification.

Revision History and Application Notes

Revision	Date	Description
A	2026-05-20	Initial demonstration datasheet release
B	2026-06-15	Expanded product overview and specification table

Application note: supplier comparisons preserve original values, normalize measurable engineering values, and identify typical values, missing operating conditions, and non-equivalent wafer compatibility for review.