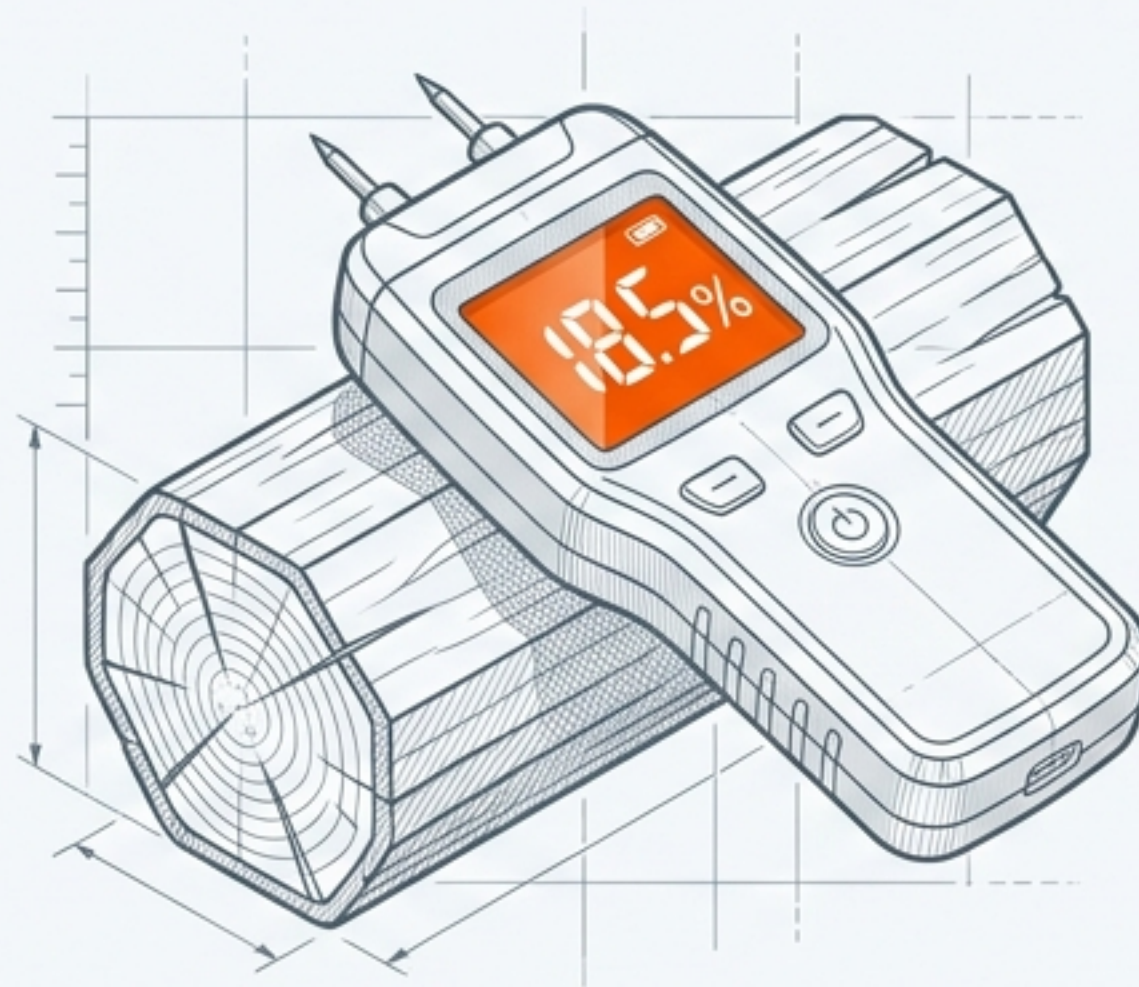


THE PURSUIT OF THE PERFECT BURN: A MASTERCLASS IN MOISTURE TESTING

The definitive New Zealand guide to firewood diagnostics, technique, and equipment.



Designed for the discerning home heating and BBQ enthusiast.

The Hidden Variable Controlling Your Fire

>20% MOISTURE (WET/GREEN WOOD)



- Wasted heat energy (boiling water instead of heating)
- High emissions and excessive smoke
- Accelerated creosote and tar buildup damaging flues and stoves

<20% MOISTURE (SEASONED/READY TO BURN)



- **Maximum heat output and fuel efficiency**
- **Clean, bright, and smokeless combustion**
- **Protects premium BBQs, pizza ovens, and home heating systems**

THE MOISTURE SPECTRUM



Unsafe for burning.
Evaporates water instead
of producing heat.

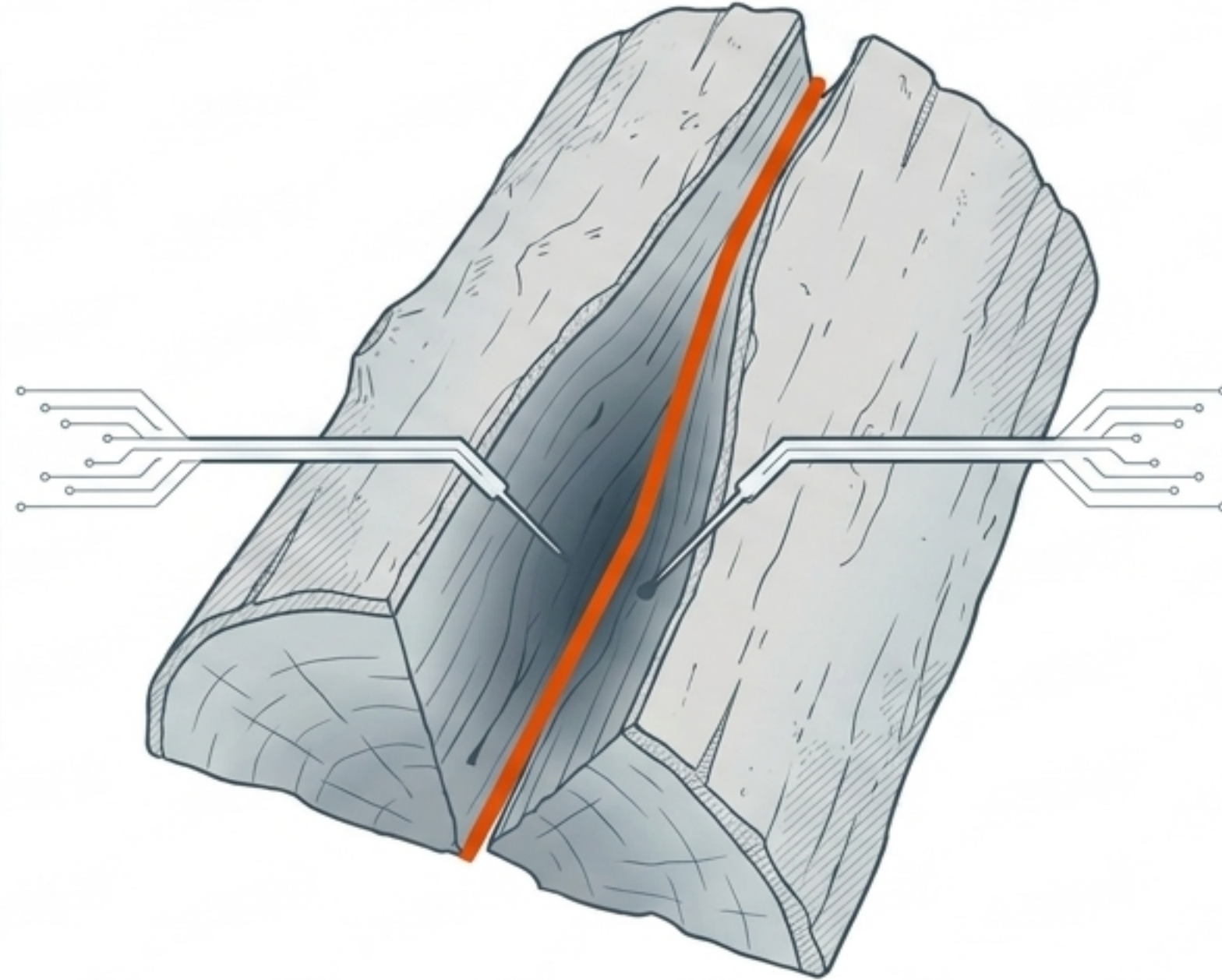
The ideal target for consistent,
efficient fireplace and
BBQ performance.

Exceptional performance,
producing the hottest and
cleanest burn.

THE ANATOMY OF A LOG AND THE GOLDEN RULE OF TESTING

THE GOLDEN RULE

Surface moisture evaporates rapidly. The true moisture content lives exclusively in the core. You must split the wood to test it.



THE DATA POINT

Testing the outer bark yields artificially low readings, completely masking the green, wet wood underneath.

THE 5-STEP DIAGNOSTIC RITUAL



1. Select

Choose 3 logs from different zones of your pile (top, middle, bottom) for a balanced sample. For long rounds, cut from the middle.

2. Split

Cleave the logs down the center to expose the freshly opened core.

3. Wipe

Quickly brush away any surface dew or friction moisture that could distort the sensors.

4. Probe

Press the meter's pins firmly into the deepest part of the exposed core.

5. Average

Record multiple readings across the logs to calculate the true batch score.

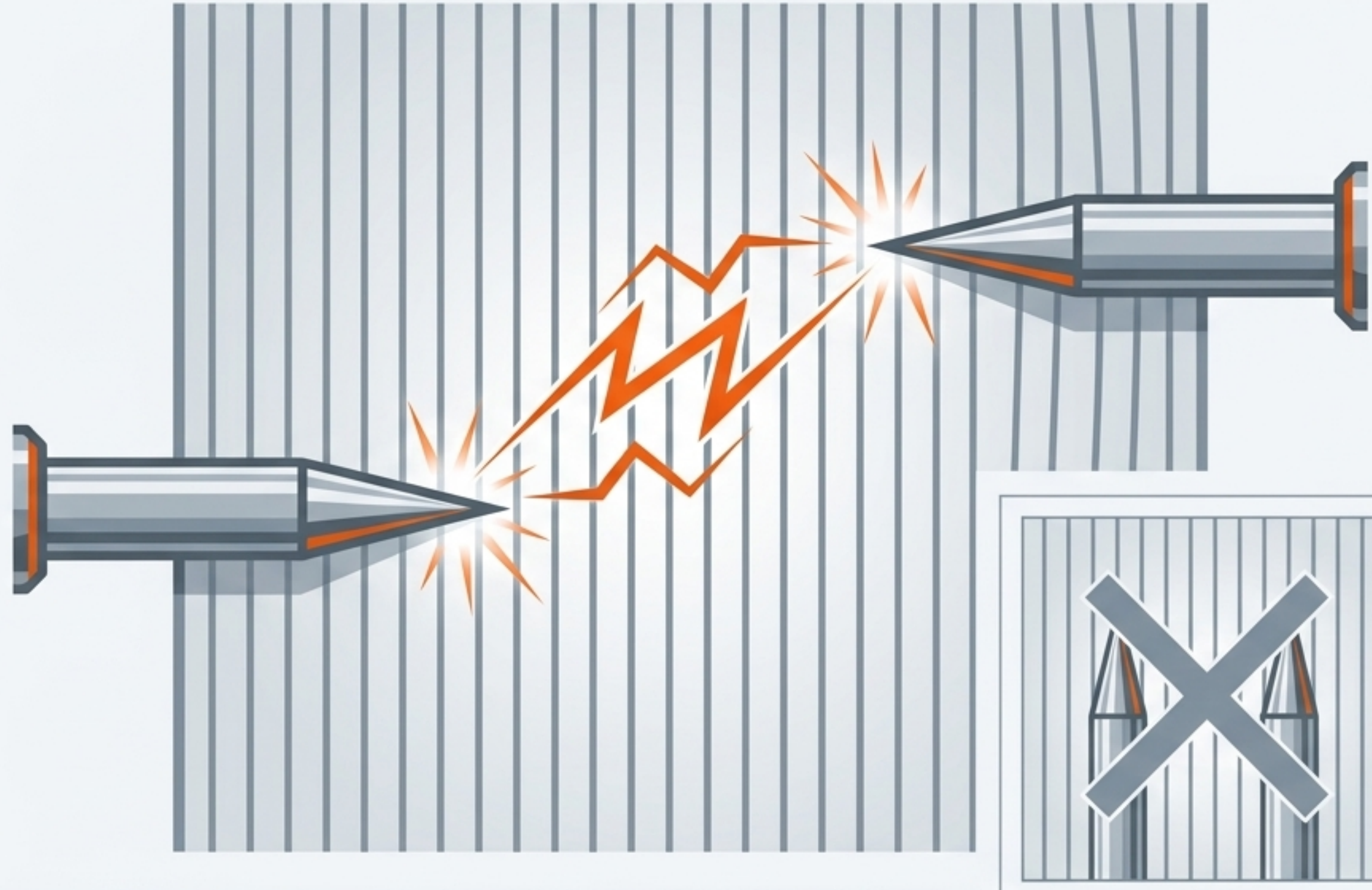
PRECISION ENGINEERING: PROBING ACROSS THE GRAIN

The Science:

Moisture meters measure electrical resistance. Electrical conductivity is significantly greater *across the grain* than with the grain.

The Technique:

Always orient your meter so the pins cut **perpendicularly** across the wood's natural **growth rings**. Probing parallel to the grain yields inconsistent, artificially low readouts.



THE TROUBLESHOOTING GRID: WHAT SKEWS YOUR DATA?



TEMPERATURE DROPS

Issue: Cold environments slow electrical conductivity.

Impact: Every 10°C drop causes a ~1% artificial decrease in the reading.

Warm wood to room temperature for true accuracy.



TIMING THE SPLIT

Issue: Waiting too long after splitting the log.

Impact: The newly exposed core begins drying **immediately**. **Probe instantly after the split.**



TESTING IRREGULARITIES

Issue: Probing over knots or dense anomalies.

Impact: Knots dry at vastly different rates than straight grain, creating unrepresentative spikes or drops.



PROXIMITY TO METAL

Issue: Testing logs resting on metal racks, nails, or truck beds.

Impact: Metal conducts electricity and can hijack the meter's current, causing massive data skew.

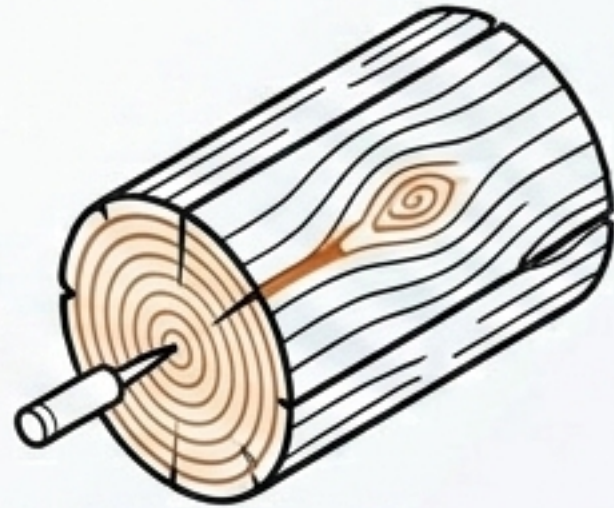
EQUIPMENT SELECTION: THE METER BUYER'S MATRIX

FEATURE	BASIC UTILITY	ADVANCED PRECISION
Sensor Design	4-Prong fixed (requires flat surface)	Dual-Pin (penetrates deeper, handles uneven splits) ✓
Data Display	LED bar-graph or basic numeric	Digital LCD with 'Hold' function for hard-to-see angles
Calibration	Factory set, standard wood assumption	Adjustable species settings (softwood vs. hardwood) ✓
Market Examples (NZ)	Kent Digital Gauge (~\$40)	STIHL Wood Moisture Gauge (~\$45) or specialized CEM models

SYNTHESIS: THE EQUATION FOR FLAWLESS COMBUSTION



PRECISION
GEAR



ACROSS-THE-GRAIN
TECHNIQUE



< 20% CORE
READING



**MAXIMUM HEAT.
ZERO SMOKE.
COMPLETE CONTROL.**