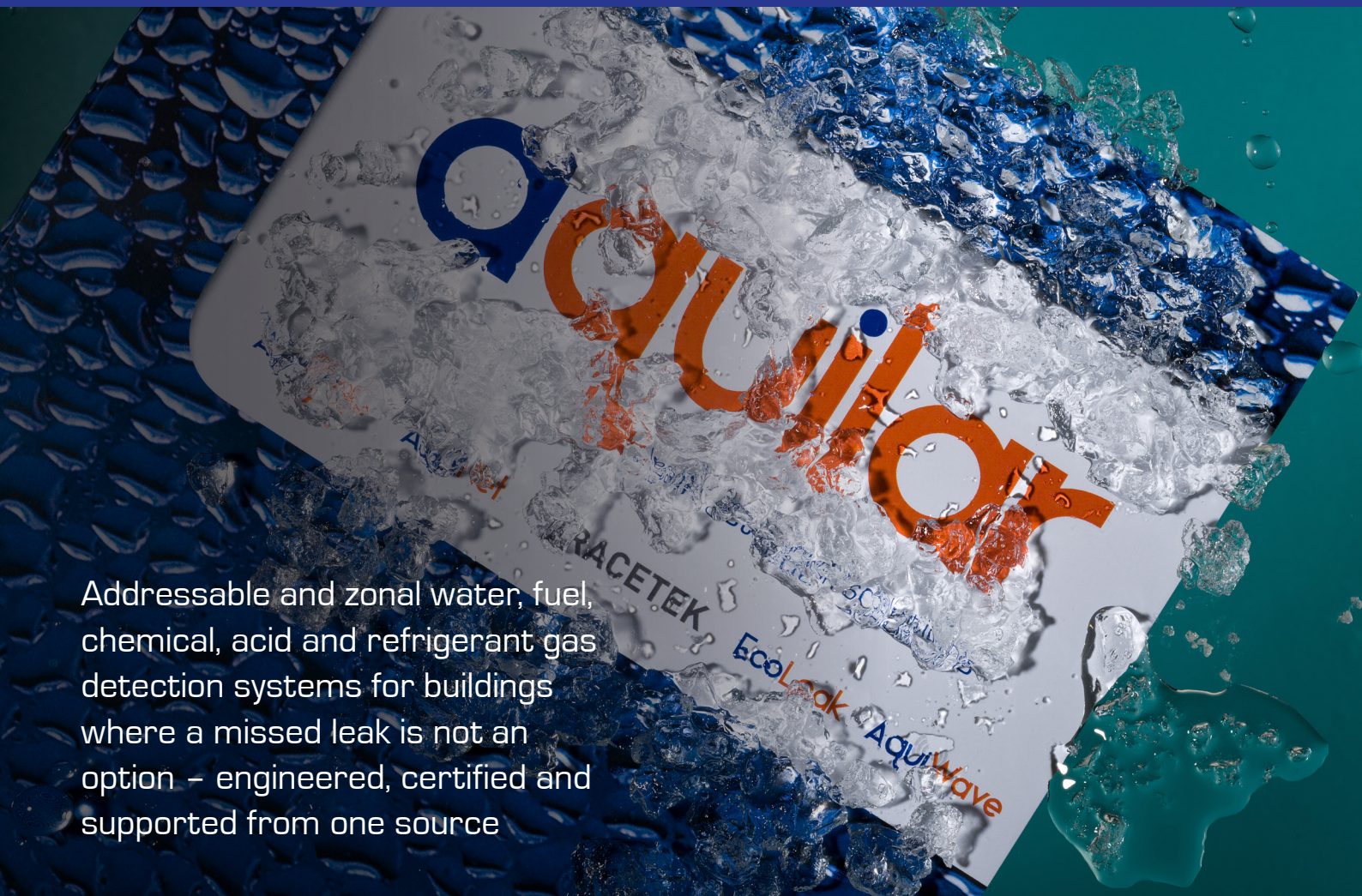


WATER . FUEL . CHEMICAL . ACID . REFRIGERANT

aquilar
leak detection solutions

A SPECIFIER'S GUIDE

Leak detection, specified with certainty



Addressable and zonal water, fuel, chemical, acid and refrigerant gas detection systems for buildings where a missed leak is not an option – engineered, certified and supported from one source

25 yr

IN LEAK
DETECTION

±1m

ADDRESSABLE
ACCURACY

190,000m

MAXIMUM
SENSING CAPACITY

4

LEAK TYPES,
ONE RANGE

1

SUPPLIER,
WHOLE SPEC

01 – THE CASE FOR SPECIFICATION

Water and gas leaks are a design risk, not a maintenance afterthought

Escape of water is the most common major insurance claim in UK commercial property and refrigerant loss is now a direct compliance liability under F-Gas.

Detection is cheapest at RIBA Stage 3-4, wired into the fabric of the building rather than retrofitted after the first incident; that makes it a specification decision. This guide is for the spec writers, not just for contractors.

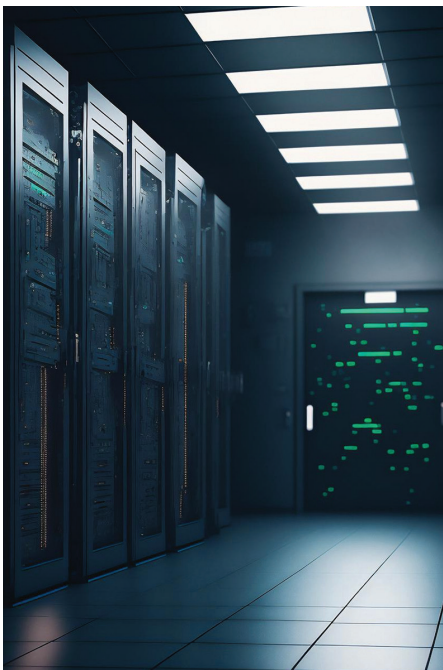
Who we are

Aquilar is a UK manufacturer and distributor of leak detection equipment for water, fuel, oil, chemical and refrigerant gas, working from a UK-based headquarters on projects worldwide either directly or through a selected partner network.

We supply the established TraceTek sensing-cable range alongside our own AT-and Eco+ series panels, sensors and valves. Over 25 years, expert technical and quoting support across the whole portfolio, we pride ourselves on service.

SPECIFICATION SUPPORT

CIBSE-aligned CPD sessions, specification wording, product schedules, BIM images and site-specific system design are always free to specifiers and consultants at any project stage.



Asset & risk

Server rooms, switch rooms, archives and plant spaces where water leaks and downtime cost more than the system that could have prevented it.



Compliance

BREEAM credits, WRAS water regulations, F-Gas refrigerant obligations and the 2024 Joint Code of Practice for Escape of Water all reward or require monitored detection.

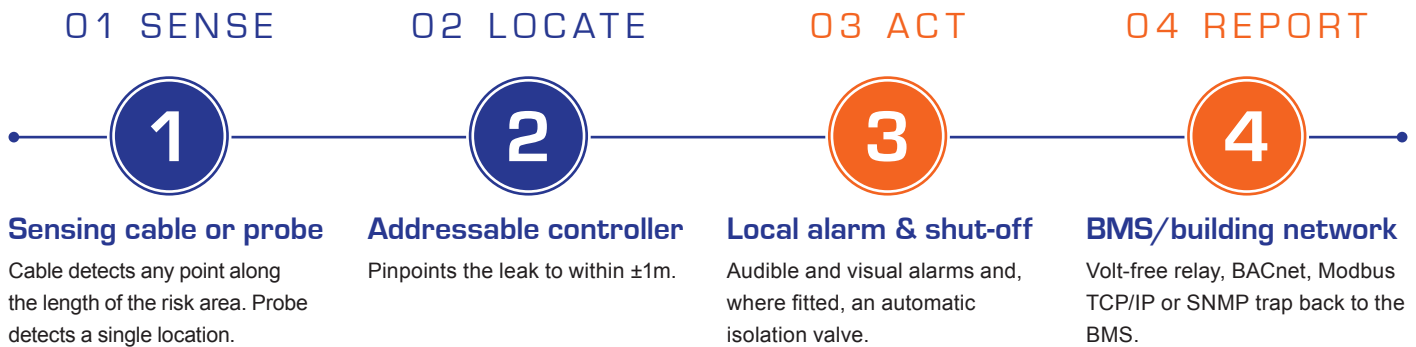


Insurance

Insurers increasingly ask for monitored leak detection with automatic shut-off as a condition of cover on higher-value commercial and residential risk.

02 - SYSTEM ARCHITECTURE

One architecture, four detection duties



SPECIFIER NOTE

Pairing sensing devices with a shut-off valve turns a detection system into a loss-prevention system; worth stating explicitly in the specification since it's the combination insurers look for rather than the sensor alone.

Aquilar product families

Water sensing

WRAS

Sensing cable, probes, WRAS-certified shut-off valves for high-risk wet areas and BREEAM major leak and flow control systems for overall leak monitoring.

TT1000 - TT1100 - ECO-LEAK - PROBES

Fuel, chemical & acid

ATEX

Hydrocarbon, chemical and acid-specific sensing cables and probes; ignores water; SIL-2 and ATEX-rated options.

TT5001 - TT3000 - TT7000 - TT-FFS - AT-OPSEN

Refrigerant gas

BS EN 378

Fixed gas sensors for commercial and residential occupied spaces and chiller plant, compliant with BS EN 378 and supporting F-Gas and BREEAM Pol 01.

AT-MSR - AT-MSR-230 - AT-WSB - AT-DGC - AT-SRG

Residential range

WIRELESS

Wireless leak sensors, mains isolation and ultrasonic flow monitoring for apartments with app-based monitoring.

WATER GRIP - CUBICSECURE - CUBICDETECTOR

SPECIFIER NOTE

Every Aquilar system follows the same logical path whether it is sensing water, fuel, chemical or refrigerant gases; it sits on one controller family and one BMS interface.

03 - PRODUCT RANGE

Water sensing, valves & accessories

Cable and probe detection distributed across the whole risk area paired with WRAS-certified shut-off and a full accessory range: for bathrooms, tea-points, utility rooms, wet rooms, plant, roof level risers and other high risk wet areas.

Zonal panels

AT-ZAP, Eco-1+/6+ – independent relay per zone, 1,6,12 zones. Eco-24 – independent relay per 6 zone channel, 24 zones. Monitors all four leak types.



Addressable panels

AT-APA – 4 channels, 600m sensing capacity. TTDM-128 – a maximum of 190,000m of sensing capacity, $\pm 1m$ location, dynamic mapping drawings.



Sensing cables & probes

TraceTek/Aquilar cables detect a leak at any point along its length; reusable, rugged and dries quickly (excl. TT1100). Probes cover floor and wall mounting where a cable run isn't practical.



Shut-off valves

An electronically operated valve, linked to the alarm panel, isolates the water supply the moment a leak is confirmed; limiting damage rather than just reporting it.



Range

Key features

TT1000	Low level general-purpose water sensing cable
TT1100-OHP	High level, direct pipe water sensing cable
Eco-Leak	Aquilar own-brand sensing cable
AT-PROBE-TS	Floor and wall mounted water detection probe for point detection
AT-600A / AT-DTP	Point water detection probe for drip trays and areas of restricted space

Certified UKCA, UL, FM, Baseefa, IECEx. Compatible with all TraceTek and Aquilar alarm panels.

Type

Notes

230Vac Solenoid	Normally closed
6Vdc Latching	Panel-powered, AT-ZAP / Eco-24 / AT-OFC
Ball Valve	230Vac or 12–24V actuator
Butterfly, Flanged	230Vac, brass or stainless

All WRAS certified.

Accessories

Accessories available including: sounder/beacon, AT-RAP remote alarm panel, speech auto-dialer, AT-RBU relay buzzer, AT-SD-LTE ethernet, splice kits, jumper and comms cables, portable test box, mapping tools and hold-down clips.



SPECIFIER NOTE - ACCESSORIES

The water, fuel, chemical, acid and refrigerant system families share the same accessory layers: sounders, beacons, dialers and remote panels; therefore, a mixed installation still draws from one accessories parts list.



03 - PRODUCT RANGE

Fuel, chemical, acid & refrigerant gas

Beyond water: hydrocarbon, chemical and acid-sensing cable for plant rooms and pipelines. Fixed refrigerant gas sensors for BS EN 378 and F-Gas compliance.

Fuel & chemical cable

TT5000/HUV cable series detects hydrocarbon fuels along its full length and ignores water; TT3000/TT7000 detect specific acids and conductive liquids. Sensing cables are factory-terminated, suitable to be buried externally or suitable for high level installation along pipelines.

Point detection probes suitable for banded areas, internal fuel storage and water run-off sumps etc.



Range	Detects
TT5000 / -HUV	Hydrocarbon fuels
TT3000	Hydrochloric and sulphuric acid, methanol, de-ionised and radioactive liquids
TT7000	Sulphuric and nitric acid
AT-OPSEN	Optical sensor hydrocarbons and mixed liquid media
TT-FFS	Hydrocarbon point detection

SIL-2

Approved fast-acting fuel detection (TT-FFS), ATEX compliant.

15+ YEAR

AT-SRG refrigerant sensor has a 15-year working life. No recalibration required.

IMMUNE

AT-SRG is immune to poisoning and is unaffected by hairspray, deodorant or non-target gases.

1-GANG

AT-SRG is a compact UK socket-size housing; unobtrusive in occupied space.

Refrigerant gas sensors

AT-SRG refrigerant gas sensors detect refrigerant leaks in an occupied space. They have a 15+ year working life, are self calibrating and require simple commissioning – a genuinely low lifetime cost alternative to semi-conductor or infra-red systems.

AT-MSR gas detection system for commercial/industrial use, wide operating temperature tolerance and SIL compliant.



Model	Configuration
AT-SRG	Refrigerant gas for hotel rooms, offices etc.
AT-MSR-230	Gas sensing commercial/industrial, 1–3 sensors, digital display, Modbus
AT-WSB	Gas sensing commercial/industrial, standalone, IP65, Modbus
AT-DGC	Gas sensing commercial/industrial, 1–96 sensors, BACnet available

Certification marks across the range

UKCA

UL

FM

Baseefa

IECEX

ATEX

SIL-2

BS EN 378:2016

Buried & external runs

STT3000, TT7000 and TT5000 cable can be buried or fixed overhead externally or along pipeline routes, extending the detection beyond the plant room walls directly to the point of highest risk.

Power is covered

The AT-ZAP and ECO-24 panels can power the 12/24V ac/dc AT-SRG sensors removing the need for additional fused spurs throughout a project or they can be standalone in a 230Vac option.

SPECIFIER NOTE - F-GAS & BREEAM POL 01

Fixed refrigerant detection is the most effective system for F-Gas compliance on packaged and VRF systems. It enables BREEAM Pol 01 credit. This is worth advising the M&E consultant early since it's often assumed to be covered by BMS alarms which it is not.

04 - COMPLIANCE & CREDITS

Built to be written into the spec, not argued into it

The credentials below are always checked by assessors, building control and insurers. Every claim on this page maps to a named standard or credit, not a marketing term.



BREEAM Wat 02 & Wat 03

The AT-WFM water flow monitor supports WAT 02 with an integrated pulse repeater for flow monitoring and Wat 03 Part 1 through user-adjustable flow-volume alarms.

BREEAM Pol 01

AT-SRG refrigerant gas sensors are compliant with BS EN 378:2016 and contribute directly to the Pol 01 refrigerant-impact credit on any system holding an F-Gas charge.



BREEAM Wat 03 Part 2

The AT-OFC occupancy flow controller isolates supply to WCs when unoccupied cutting both wastage and undetected-leak risk in intermittently used areas.

WRAS water regulations

Every shut-off valve in the water range is WRAS certified, satisfying the Water Supply (Water Fittings) Regulations for connection to the mains supply.



2024 JOINT CODE OF PRACTICE

Escape of water – now a named standard

Aquilar's CIBSE-aligned CPD sessions cover the updated 2024 Joint Code of Practice for Escape of Water alongside BS EN 378 and F-Gas – the three references that come up most often when a leak detection line item gets challenged at tender stage.

- CIBSE-aligned CPD, in person or remote
- NBS-ready spec clauses on request
- BIM objects for the full product range
- Product/coverage schedules per drawing set
- Site survey and system design, pre- or post-tender

4

BREEAM CREDITS
SUPPORTED

3

NAMED STANDARDS
COVERED IN CPD

4

VALVES WRAS
CERTIFIED

05 - WHERE IT'S SPECIFIED

Designed for the spaces where a leak isn't just an inconvenience



Data centres & comms rooms

Cable under raised floors and around CRAC units; refrigerant sensing on packaged cooling.



Healthcare

Pharmacy stores, WCs, MRI units, sterile rooms and ward risers, with shut-off, to limit disruption in occupied wards.



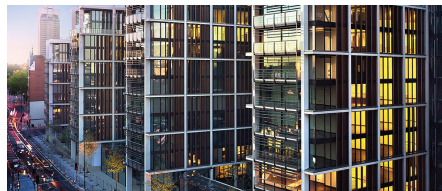
Museums & archives

Mapped detection around irreplaceable collections, integrated with existing BMS and dry-riser systems.



Petrochemical

Hydrocarbon detection for hydrant pipework, above and below-ground pipelines, storage and chemical tanks.



Residential & BTR

Wireless leak sensors and mains isolation at unit level, app-monitored, for build-to-rent and MDU schemes.



Commercial & mixed-use

Offices, restaurants, schools, sports clubs, plant rooms, roof-level risers and shared services – specified once and repeated across a portfolio.

Why specifiers stay with Aquilar

One supplier, every leak type

Water, fuel, chemical, acid and refrigerant on one controller family means one product schedule, one commissioning engineer and one number to call – not four separate specialist suppliers.

Strong pedigree, local support

We distribute the established TraceTek sensing-cable range alongside our own AT- and Eco-series. Proven sensing technology backed by a UK technical team who answer the phone.

Compliance built in, not bolted on

BREEAM, WRAS, F-Gas and BS EN 378 are addressed by product selection from day one.

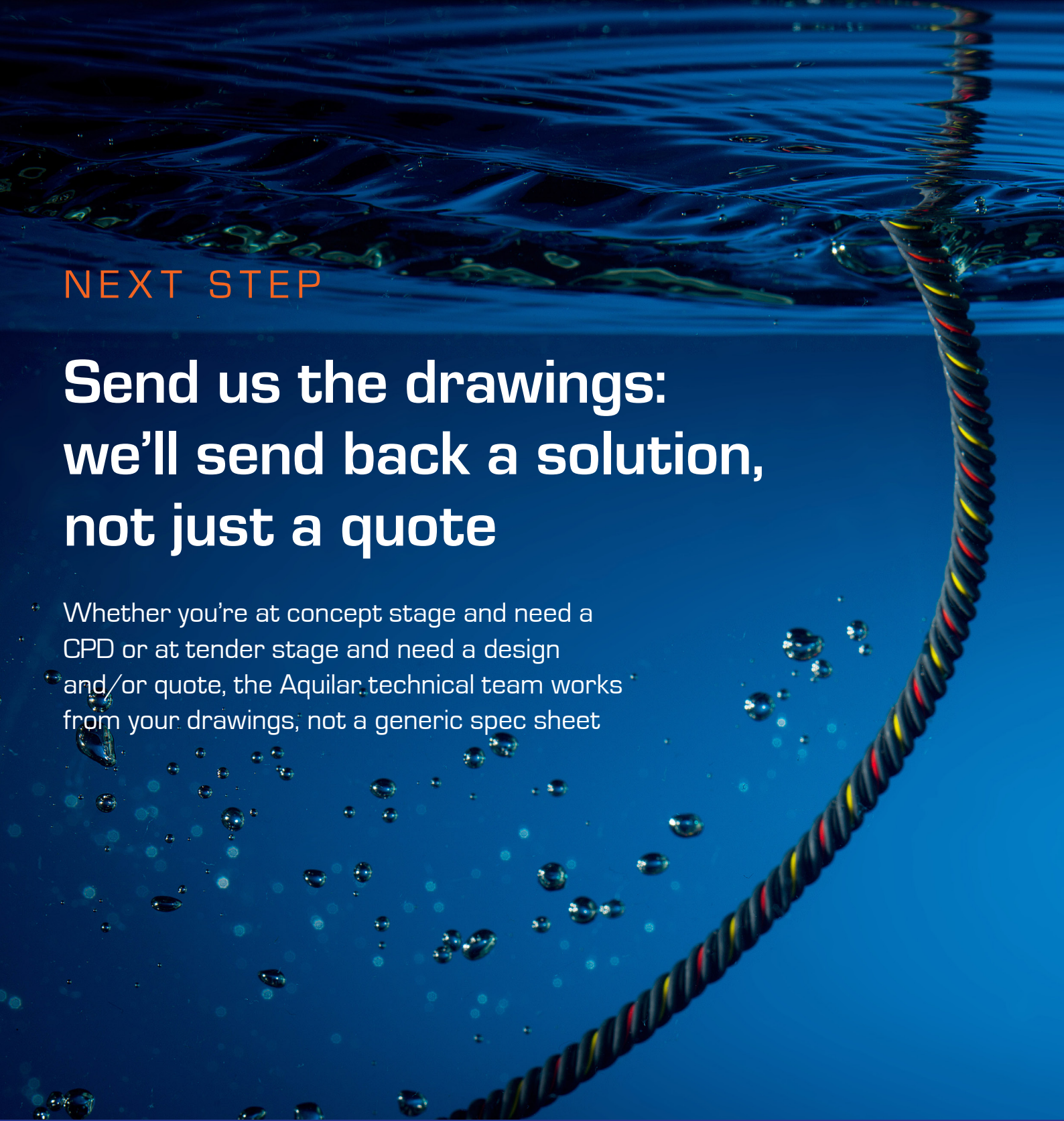
Free specification support

CPD, spec wording and product schedules cost nothing and commit you to nothing – support that starts well before a tender is issued.

When only wireless solutions will work

The same technical team also specifies the residential range: CubicSecure, Water Grip and CubicDetector – for build-to-rent and MDU schemes where unit-level, app-monitored detection fits better than hard-wired cable.





NEXT STEP

Send us the drawings: we'll send back a solution, not just a quote

Whether you're at concept stage and need a CPD or at tender stage and need a design and/or quote, the Aquilar technical team works from your drawings, not a generic spec sheet

CPD & SPECIFICATION

CIBSE-aligned sessions on water, refrigerant and fuel detection – booked directly with our technical team.

PRODUCT SCHEDULES

Product/coverage schedules per drawing set.

SITE SURVEY

For existing buildings and phased retrofits we offer a survey visit ahead of specification at no cost.

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