



Dispenser Technology – Tokheim Quantum ML

Model Overview

Apr-2022

DFS *Worldwide* Brands

WE
ARE

OUR VALUES

A Collaborative
Entrepreneurial Spirit

Winning
Through Customers

Engaging
in High Ethical
Standards, Openness
and Trust

Fostering
Expectations for
Results

Respecting
and Valuing People



WE
ARE

OUR VISION

Enabling the
evolution of
consumer
experience in
fueling and
convenience retail.



WE
ARE

OUR MISSION

A leading global
provider of
advanced
customer-
focused
technologies,
services and
solutions in the fuel
and convenience
retail industries.



WE
ARE

OUR CULTURE

A team committed to
doing great things,
collaborating to
deliver exceptional
business results for
our customers. We
are accountable,
results driven and
create value, through
innovation,
continuous
improvement and
execution excellence.



WE
ARE

CULTIVATING EXCELLENCE

Aligned

Accountable

Engaged

Problem Solvers

**Customer-
Centric**

**Celebratory in
Success**

**Execution
Champions**



DFS *Worldwide* Brands



Tokheim Dispenser Technology

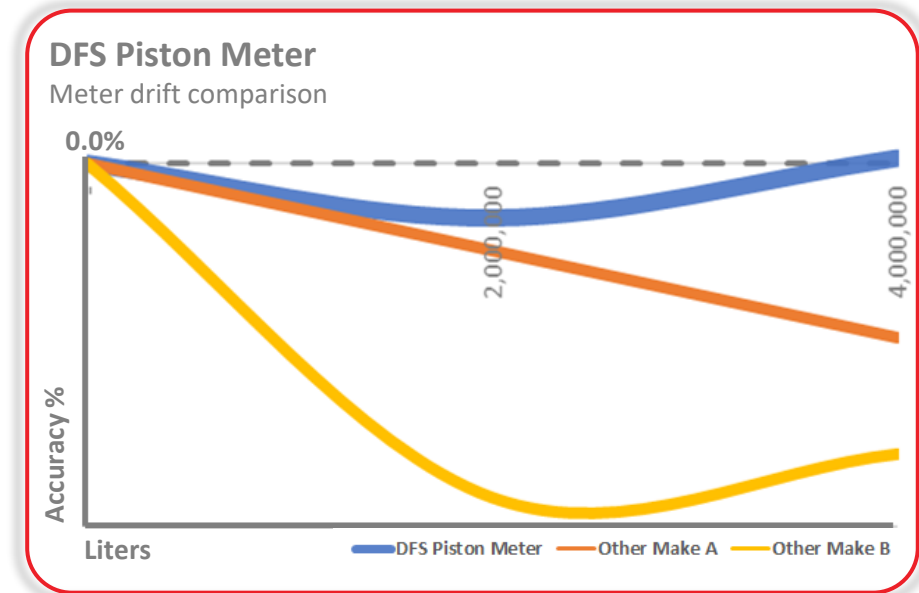
Engineered with field-proven global components and corrosion resistant materials, Tokheim fuel dispensers offer exceptional reliability

- Strong corrosion protection from high quality materials & industry leading paint technology
- Assembled to the highest standard with rigorous testing & quality control
- Engineered with leading pumping technology using gear pump for reliable longevity
- Superior uptime in field, with reliable operation from long-lasting components
- Better total cost of ownership from less maintenance required during lifetime



Designed for superior stability and accuracy over the lifetime of the dispenser, our fuel meter ensures accurate metering in all conditions

- Robust meter for optimal performance in all conditions
- Technology leadership with exceptional stability with minimal drift of 0.04% over 8 million liters
- Certified accuracy with meter performance verified by independent test lab
- Electronic calibration and industry-best resolution of 400 pulses per liter for accuracy across all flow rates
- Better total cost of ownership from minimal drift, reliable performance and minimal recalibration requirement



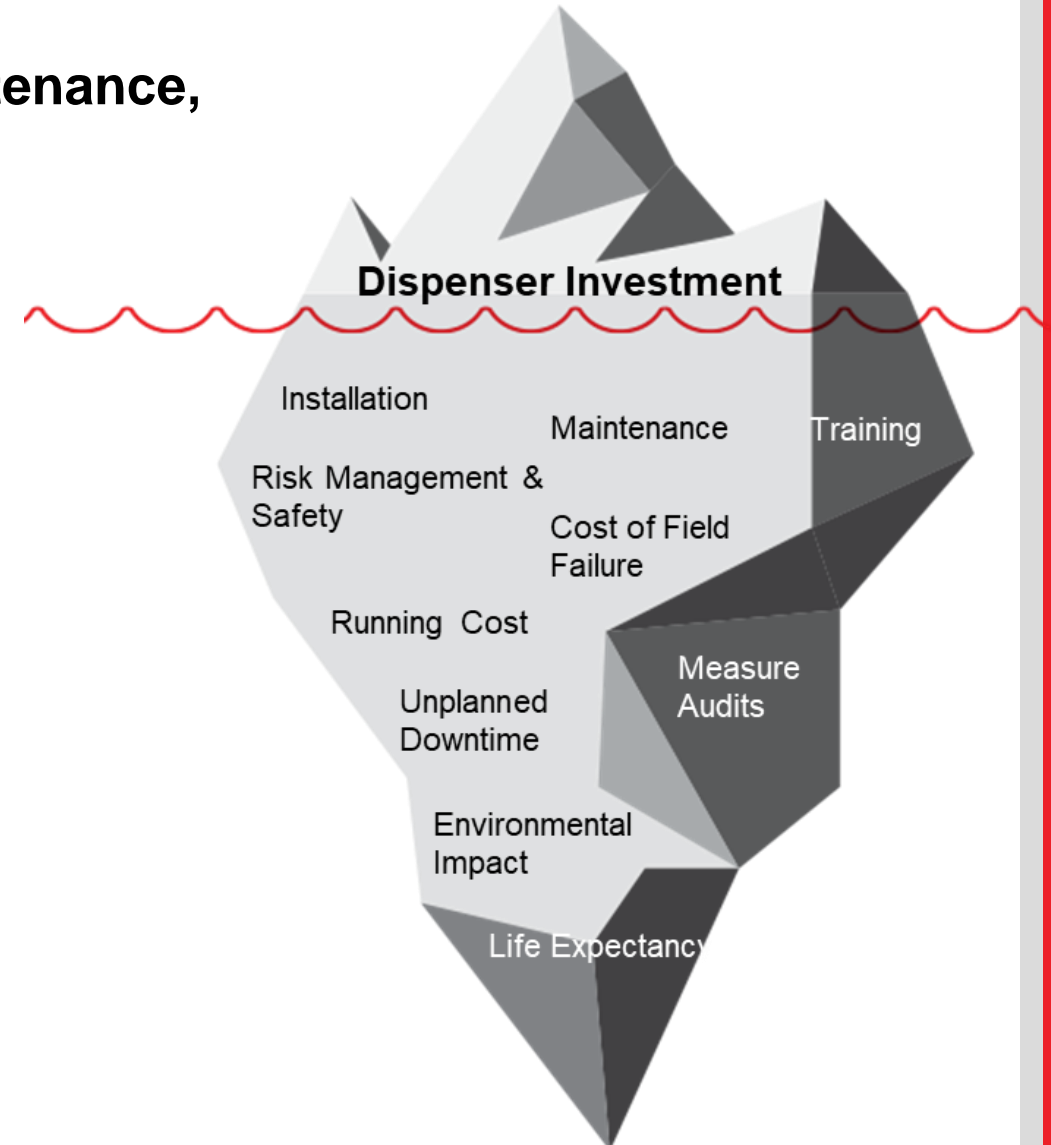


Engineered with safety in mind, from assembly to installation and daily operation, Tokheim fuel dispensers come with enhanced safety features as standard

- Safety-focused details that avoids working at height for expected maintenance interventions like hose replacements due to natural wear
- High-quality materials used for gaskets & o-rings to prevent leaks over lifetime
- Patented double-bump pipe couplings minimize faulty assembly for secured seal
- Better total cost of ownership from less maintenance with improved protection against leaks over lifetime

Engineered to maintain accuracy, require less maintenance, and last longer for low total cost of ownership. Engineering excellence in every detail

- Built to last with durable design using field-proven components that require less maintenance
- Strong corrosion protection outside and in to ensure a long lifetime of the dispenser
- Robust design with single bottom-frame & strong chassis for improved structural framework
- Reliable operation from minimal drift metering and stable field-proven electronics





Quantium ML

Dispenser Technology

Quality through Engineering Excellence

Tokheim fuel dispensers are recognized for quality in all core components.

Minimal Drift

Certified accuracy and superior stability for minimal drift over the meter's lifetime

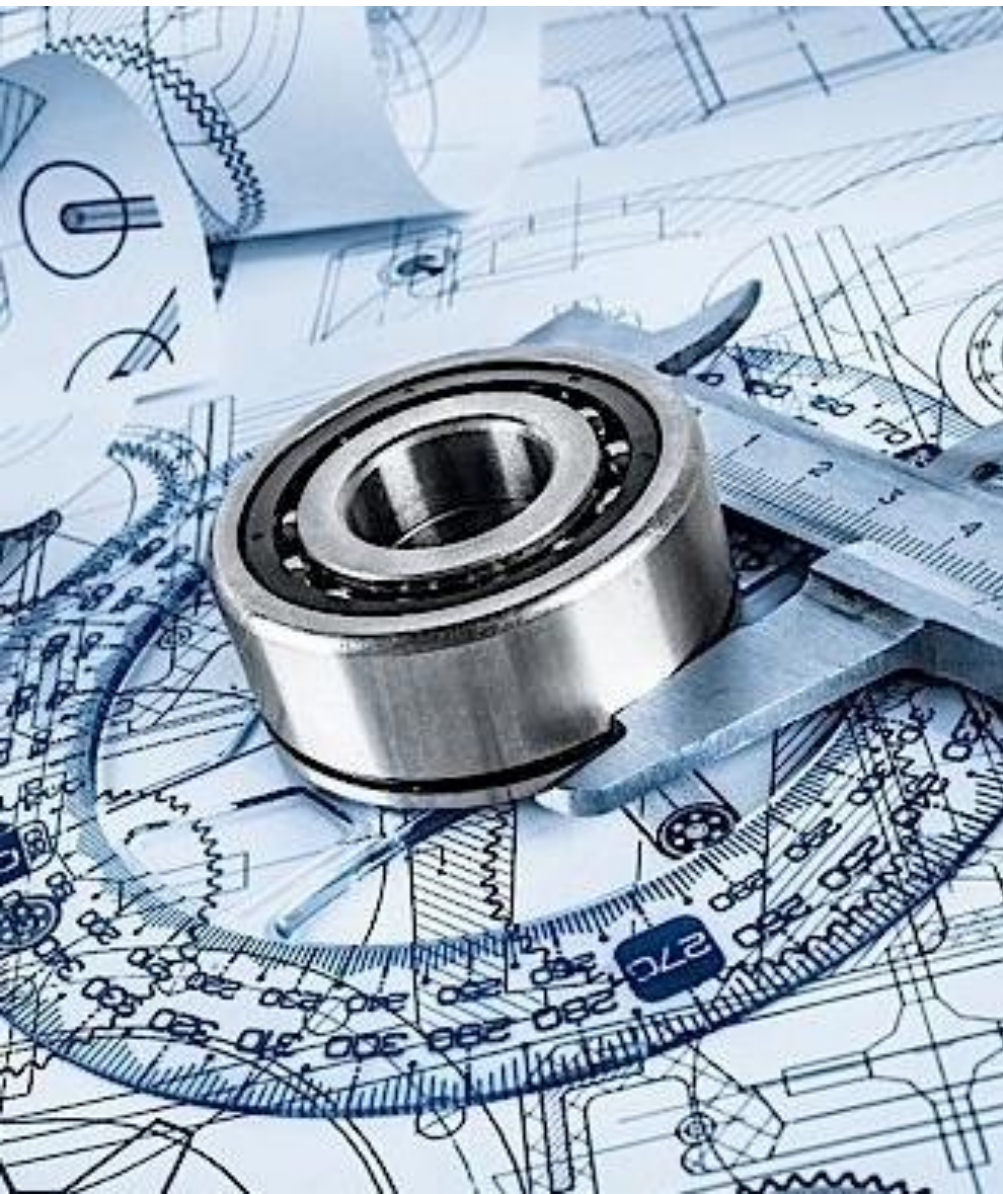
Reliable Quality

Built to last, using quality materials and field-proven components, as well as utilising strong corrosion protection, for a lifetime of reliability

Lowest Total Cost of Ownership

Engineered to maintain accuracy, requiring less maintenance and proven to last longer for low total cost of ownership.

Engineering excellence in every detail!



Engineering excellence, offering versatility with our modular design and core platform of quality components. True versatility to address your every need

Conventional Fuel



Quantum FS



Quantum ML
(LHR)



Quantum ML
(FHR)



Quantum ML
(EHR)

AdBlue



QFS AdB



QML AdB
(FHR)



QML B2B AdB
(FHR)



QML AdB
(EHR)



QML B2B AdB
(EHR)

LPG



QFS LPG



QML LPG



QML B2B LPG



Quantium ML

Nomenclature



Tokheim Quantum ML

Nomenclature

New Naming Convention

Name	Model Nomenclature			
QML	X	-	X	- X xyz
	Number of grades available		Total number of nozzles	Number of hose column positions Denomination of type (other than standard)

New Nomenclature:

Change to first number denoting number of available grades.

- High Speed (HS) 70 LPM is available as option (not special model config)
- High Speed 40-70 LPM switching is available as option (not special model config)



Quantum ML 3-6-3



Quantium ML

Conventional Fuels – Model Details



Tokheim Quality with unrivalled modularity for up to five grades in shared hose cabinet with full hose retraction for long reach



Available also as back-to-back for alternative fuels

Tokheim Quantum ML

Model Overview

Quantum ML

Orientation: Lane (Dual-sided or Single-sided)

Hydraulic System: Suction or Remote Pressure

Grades available: 1 to 5

Nozzles available: 1 to 10

Flow Rates^a available: 40, 40-70, 70, or 130 LPM

Hose Reach: 4.0m with FHR, 3.5m with LHR

Electronics: TQC pump computer

Metering: P-Meter (Piston). Optional ATC

Vapour Recovery: EVR or CEVR options

Options: Extensive range of optional extras available

Pump Media: 17" Digital screen for T-Media available

Payment: Integrated payment options available

	Length	Width	Height
QML 1-X-1	892	560	2050
QML 2-X-2	1032	560	2050
QML 3-X-3	1412	560	2050
QML 4-X-4	1792	560	2050
QML 5-X-5	2172	560	2050

a) Flow rates are indicative as actual flow rates depends on the underground fuel installation. Actual flow rates can vary +/- 10% from nominal flow rates.



Tokheim Quantum ML

Model Configurations

Model Configurations (Standard Flow)

Quantum ML	Nomenclature	Model Characteristics	Q510M
1-1-1	1 Grade Out, 1 Nozzle, 1 Hose column	Lane orientation, single-sided. Single delivery 40. 1 SAT A/B (70LPM). 1 Inlet, 1 Hydraulic position	1-1-1
1-2-1	1 Grade Out, 2 Nozzle, 1 Hose column	Lane orientation, dual-sided. Dual delivery 40+40. 2 SAT A+B (70LPM). 1 Inlet, 1 Hydraulic position	1-2-1
2-2-2	2 Grades Out, 2 Nozzles, 2 Hose columns	Lane orientation, single-sided. Single delivery 40/40. 2 Inlets, 2 Hydraulic positions	2-2-2
2-4-2	2 Grades Out, 4 Nozzles, 2 Hose columns	Lane orientation, dual-sided. Dual delivery 40/40+40/40. 2 Inlets, 2 Hydraulic positions	2-4-2
3-3-3	3 Grades Out, 3 Nozzles, 3 Hose columns	Lane orientation, single-sided. Single delivery 40/40/40. 3 Inlets, 3 Hydraulic positions	3-3-3
3-6-3	3 Grades Out, 6 Nozzles, 3 Hose columns	Lane orientation, dual-sided. Dual delivery 40/40/40+40/40/40. 3 Inlets, 3 Hydraulic positions	3-6-3
4-4-4	4 Grades Out, 4 Nozzles, 4 Hose columns	Lane orientation, single-sided. Single delivery 40/40/40/40. 4 Inlets, 4 Hydraulic positions	4-4-4
4-8-4	4 Grades Out, 8 Nozzles, 4 Hose columns	Lane orientation, dual-sided. Dual delivery 40/40/40/40+40/40/40/40. 4 Inlets, 4 Hydraulic positions	4-8-4
5-5-5	5 Grades Out, 5 Nozzles, 5 Hose columns	Lane orientation, single-sided. Single delivery 40/40/40/40/40. 5 Inlets, Hydraulic positions	5-5-5
5-10-5	5 Grades Out, 10 Nozzles, 5 Hose columns	Lane orientation, dual-sided. Dual delivery 40/40/40/40+40/40/40/40/40. 5 Inlets, 5 Hydraulic positions	5-10-5

Retail Speed suction use retail capacity (RC) pumping unit

- High Speed (HS) 70 LPM is available as option (not special model config)
- High Speed 40-70 LPM switching is available as option (not special model config)



Tokheim Quantum ML

Model Configurations

Model Configurations (Very High Speed Flow)

Quantum FS	Nomenclature	Model Characteristics	Q510M
1-1-1 1VHS-S	1 Grade Out, 1 Nozzle, 1 Hose column	Lane orientation, single-sided. Single delivery 130. 1 SAT A/B. 2 Inlets, 2 Hydraulic positions	1-1-1 VHS
1-2-1 1VHS-nS	1 Grade Out, 2 Nozzles, 1 Hose column	Lane orientation, dual-sided. Dual delivery 130*+130*. 2 SAT A+B. 2 Inlets, 2 Hydraulic positions	n/a
1-2-1 1VHS-S	1 Grade Out, 2 Nozzles, 1 Hose column	Lane orientation, dual-sided. Dual delivery 130+130. 2 SAT A+B. 2 Inlets, 2 Hydraulic positions	2-2-1
1-2-2 1VHS-S	1 Grade Out (1 shared), 2 Nozzles, 2 Hose columns	Lane orientation, single-sided. Single delivery 130/40. 2 Inlets, 2 Hydraulic positions	1-2-2 VHS
1-4-2 1VHS-nS	1 Grade Out (1 shared), 4 Nozzles, 2 Hose columns	Lane orientation, dual-sided. Dual delivery 130*/40+130*/40. 2 SAT A+B. 2 Inlets, 2 Hydraulic positions	n/a
1-4-2 1VHS-S	1 Grade Out (1 shared), 4 Nozzles, 2 Hose columns	Lane orientation, dual-sided. Dual delivery 130/40+130/40. 2 SAT A+B. 2 Inlets, 2 Hydraulic positions	2-4-2 VHS

Very High Speed applications will use combination of RC & HC pumping units

- 1VHS-S will deliver 130 LPM also when both sides are in use simultaneously
- 1VHS-nS will deliver 90 LPM when both sides are in use simultaneously, but 130 LPM when used singularly. 130* = non-simultaneously



Tokheim Quantum ML

Model Configurations

Model Configurations (Very High Speed Flow)

Quantum FS	Nomenclature	Model Characteristics	Q510M
2-2-2 1VHS-S	2 Grades Out, 2 Nozzles, 2 Hose columns	Lane orientation, single-sided. Single delivery 130/40. 1 SAT A/B. 3 Inlets, 3 Hydraulic positions	n/a
2-4-2 2VHS-S	2 Grades Out, 4 Nozzles, 2 Hose columns	Lane orientation, dual-sided. Dual delivery 130/130+130/130. 2 SAT A+B. 4 Inlets, 4 Hydraulic positions	4-4-2 VHS
2-4-2 1VHS-nS	2 Grades Out, 4 Nozzles, 2 Hose columns	Lane orientation, dual-sided. Dual delivery 130*/40+130*/40. 2 SAT A+B. 3 Inlets, 3 Hydraulic positions	n/a
2-4-2 1VHS-S	2 Grades Out, 4 Nozzles, 2 Hose columns	Lane orientation, dual-sided. Dual delivery 130/40+130/40, 2 SAT A+B. 3 Inlets, 3 Hydraulic positions	3-4-2 VHS
2-3-3 1VHS-S	2 Grades Out (1 shared), 3 Nozzles, 3 Hose columns	Lane orientation, single-sided. Single delivery 130/40/40. 3 Inlets, 3 Hydraulic positions	n/a
2-6-3 1VHS-nS	2 Grades Out (1 shared), 6 Nozzles, 3 Hose columns	Lane orientation, dual-sided. Dual delivery 130*/40/40+130*/40/40. 3 Inlets, 3 Hydraulic positions	n/a
2-6-3 1VHS-S	2 Grades Out (1 shared), 6 Nozzles, 3 Hose columns	Lane orientation, dual-sided. Dual delivery 130/40/40+130/40/40. 3 Inlets, 3 Hydraulic positions	3-6-3 VHS

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Tokheim Quantum ML

Model Configurations

Model Configurations (Very High Speed Flow)

Quantum FS	Nomenclature	Model Characteristics	Q510M
3-3-3 1VHS-S	3 Grades Out, 3 Nozzles, 3 Hose columns	Lane orientation, single-sided. Single delivery 130/40/40. 1 SAT A/B. 4 Inlets, 4 Hydraulic positions	n/a
3-6-3 1VHS-nS	3 Grades Out, 6 Nozzles, 3 Hose columns	Lane orientation, dual-sided. Dual delivery 130*/40/40+130*/40/40. 2 SAT A+B. 4 Inlets, 4 Hydraulic positions	n/a
3-6-3 1VHS-S	3 Grades Out, 6 Nozzles, 3 Hose columns	Lane orientation, dual-sided. Dual delivery 130/40/40+130/40/40. 2 SAT A+B. 4 Inlets, 4 Hydraulic positions	4-6-3 VHS
3-4-4 1VHS-S	3 Grades Out (1 shared), 4 Nozzles, 4 Hose columns	Lane orientation, single-sided. Single delivery 130/40/40/40. 4 Inlets, 4 Hydraulic positions	n/a
3-8-4 VHS-nS	3 Grades Out (1 shared), 8 Nozzles, 4 Hose columns	Lane orientation, dual-sided. Dual delivery 130*/40/40/40+130*/40/40/40. 4 Inlets, 4 Hydraulic positions	n/a
3-8-4 1VHS-S	3 Grades Out (1 shared), 8 Nozzles, 4 Hose columns	Lane orientation, dual-sided. Dual delivery 130/40/40/40+130/40/40/40. 4 Inlets, 4 Hydraulic positions	4-8-4 VHS

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Tokheim Quantum ML

Model Configurations

Model Configurations (Very High Speed Flow)

Quantum FS	Nomenclature	Model Characteristics	Q510M
4-4-4 1VHS-S	4 Grades Out, 4 Nozzles, 4 Hose columns	Lane orientation, single-sided. Single delivery 130/40/40/40. 1 SAT A/B. 5 Inlets, 5 Hydraulic positions	n/a
4-8-4 1VHS-nS	4 Grades Out, 8 Nozzles, 4 Hose columns	Lane orientation, dual-sided. Dual delivery 130*/40/40/40+130*/40/40/40. 2 SAT A+B. 5 Inlets, 5 Hydraulic positions	n/a
4-8-4 1VHS-S	4 Grades Out 8 Nozzles, 4 Hose columns	Lane orientation, dual-sided. Dual delivery 130/40/40/40/40+130/40/40/40. 2 SAT A+B. 5 Inlets, 5 Hydraulic positions	5-8-4 VHS
4-5-5 1VHS-S	4 Grades Out (1 shared), 5 Nozzles, 5 Hose columns	Lane orientation, single-sided. Single delivery 130/40/40/40/40. 5 Inlets, 5 Hydraulic positions	n/a
4-10-5 1VHS-nS	4 Grades Out (1 shared), 10 Nozzles, 5 Hose columns	Lane orientation, dual-sided. Dual delivery 130*/40/40/40/40+130*/40/40/40. 5 Inlets, 5 Hydraulic positions	n/a
4-10-5 1VHS-S	4 Grades Out (1 shared), 10 Nozzles, 5 Hose columns	Lane orientation, dual-sided. Dual delivery 130/40/40/40/40+130/40/40/40/40. 5 Inlets, 5 Hydraulic positions	5-10-5 VHS
5-5-4 1VHS-S	5 Grades Out, 5 Nozzles, 4 Hose columns	Lane orientation, Asymmetrical dual-sided. Dual delivery 40/40/40/40+130. 1 SAT A/B. 5 Inlets, 5 Hydraulic positions	5-5-4 VHS

Very High Speed applications will use combination of RC & HC pumping units

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- 1VHS-nS will deliver 90 LPM when both sides are in use simultaneously, but 130 LPM when used singularly. 130* = non-simultaneously



Quantium ML

Alternative Fuels – AdBlue Model Details

Tokheim Quantum ML

Model Overview



Tokheim Quality with same modularity for AdBlue with one or two nozzles for both HV & LV



Available also as back-to-back

Quantum ML AdBlue

Orientation: Lane (Dual-sided or Single-sided)

Hydraulic System: Remote Pressure

Grades available: 1

Nozzles available: 1 to 4

Flow Rates available: 10 or 20 LPM (LV, HV nozzle)

Hose Reach: 4.0m with Full Hose Retraction

Electronics: TQC pump computer

Metering: P-Meter (Piston)

Heating: ATEX heating, non-ATEX heating

Options: Extensive range of optional extras available

Pump Media: 17" Digital screen for T-Media available

Payment: Integrated payment options available

	Length	Width	Height
QML 1-X-1	892	560	2050
QML 1-X-2	1032	560	2050

*Dimensions shown without heating



Tokheim Quantum FM

Model Configurations

Model Configurations AdBlue

Quantum ML	Nomenclature	Model Characteristics	Q510M
1-1-1 ADB	1 Grade Out, 1 Nozzle, 1 Hose column	Lane orientation, single-sided. Single delivery 20 ^{a)} . 1 Inlet, 1 Hydraulic position	1-1-1 ADB
1-2-1 ADB	1 Grade Out, 2 Nozzles, 1 Hose column	Lane orientation, dual-sided. Dual delivery 20 ^{a)} +20 ^{a)} . 1 Inlet, 1 Hydraulic position	1-2-1 ADB
1-2-2 ADB	1 Grade Out, 2 Nozzles, 2 Hose column	Lane orientation, single-sided. Dual delivery 20/10. 1 Inlet, 1 Hydraulic position	1-2-2 ADB
1-4-2 ADB	1 Grade Out, 4 Nozzles, 2 Hose columns	Lane orientation, dual-sided. Dual delivery 20/10+20/10. 1 Inlet, 1 Hydraulic position	1-4-2 ADB

AdBlue models

■ Available as standalone model or Back-2-Back for up to maximum of 10 nozzles

a) Flowrate either HV 20 LPM or LV 10 LPM



Quantium ML

Alternative Fuels – LPG Model Details



Tokheim Quality with same modularity for LPG available as standalone or back-2-back



Available also as back-to-back

Tokheim Quantum ML

Model Overview

Quantum ML LPG

Orientation: Lane (Dual-sided or Single-sided)

Hydraulic System: Remote Pressure

Grades available: 1

Nozzles available: 1 to 2 (multiple connections available)

Flow Rates available: 50 LPM (Max 25 bar)

Hose Reach: 3.9m with Hose Retraction

Electronics: TQC pump computer

Metering: GPL 700 meter

Options: Extensive range of optional extras available

Pump Media: 17" Digital screen for T-Media available

Payment: Integrated payment options available

	Length	Width	Height
QML 1-X-1	892	560	2050



Tokheim Quantum ML

Model Configurations

Model Configurations LPG

Quantum ML	Nomenclature	Model Characteristics	Q510
1-1-1 LPG	1 Grade Out, 1 Nozzle, 1 Hose column	Lane orientation, single-sided. Single delivery 50. 1 Inlet, 1 Hydraulic position	1-1-1 LPG
1-2-1 LPG	1 Grade Out, 2 Nozzles, 1 Hose column	Lane orientation, dual-sided. Dual delivery 50+50. 1 Inlet, 1 Hydraulic position	1-2-1 LPG

LPG models

■ Available as standalone model or Back-2-Back for up to maximum of 10 nozzles

