# LABQUIP

# Quorum

# Q PLUS SERIES OPTIONS, SPARES & CONSUMABLES LIST

The Q Plus Series is suitable for both sputter coating metals, carbon and metal evaporation in SEM, FE-SEM and TEM applications. You can be assured, whatever your sample - the market leading Q Plus Series has it covered.

SPUTTER AND EVAPORATION

**Q150 Plus Series**

**Q300 Plus Series**

The Q Plus Series has it covered: **quorumtech.com**

# Q150V Plus Ordering Information

**27688** Q150V S Plus Sputter Coater optimised for high-vacuum applications. High resolution turbomolecular pumped capacitive touch-screen controled sputter coater with status LED indicator, including 10034 quick release sputter insert and one TK8845 57mm diameter x 0.3mm chromium target. 10067 rotating specimen stage, 50mm diameter, supplied as standard.

**27685** Q150V E Plus Carbon Evaporator optimised for high-vacuum applications. Turbomolecular pumped capacitive touch-screen controled carbon evaporator with status LED indicator suitable for TEM and SEM applications. Fitted with a carbon rod evaporation head for 3.05mm diameter carbon rods. Supplied with carbon rods (C5422 3.05mm x 300mm) and a carbon rod shaper (manual operation). 10067 rotating specimen stage, 50mm diameter, supplied as standard.

**27621** Q150V ES Plus Combined Sputtering and Carbon Coating System optimised for high-vacuum applications. The deposition heads can be swapped in seconds and the intelligent system logic automatically recognises which head is in place and displays the appropriate operating settings. Consists of high resolution turbomolecular pumped capacitive touch-screen controled sputter coater and carborn evaporator with status LED indicator, including quick release sputter insert and one TK8845 57mm diameter x 0.3mm chromium target, and high vacuum carbon rod evaporation coater, including quick-release carbon rod insert for 3.05mm diameter carbon rods. Coating inserts are interchangeable. 10067 rotating specimen stage, 50mm diameter, supplied as standard.

## Rotary pump requirements:
**13034** 5m3hr-1 2 Stage Oil Sealed Rotary Vane Pump

## Dry pumping option:
**11540** Diaphragm pump. Vacuubrand MD1 23 L/m

## Options and accessories:

### Head inserts and glow discharge
**10453** Additional sputter insert for quick metal change (V E and V ES version only). NB: this is an entire sputtering assembly - individual targets can also be purchased

**10455** Carbon fibre insert. Supplied with 2 m C5421 carbon fibre cord.

**10456** Carbon Rod Evaporation Insert. For 6.15mm diameter carbon rods.

**10457** Metal evaporation and aperture insert. Including the ability to evaporate upwards or downwards (V E and V ES version only). Supplied with a pack of 10 tungsten filaments (B5230) and a molybdenum (Mo) boat.

**10262** Glow discharge insert

### Specimen stages

**10067** 50 mm Stage

**10357** Tilt Stage Assembly. 50mm diameter specimen stage with adjustable tilt up to 90 degrees.

**10358** Slide Stage. For glass microscope slides (up to 2 x 75mm x 25mm slides).

**10360** "Rotacota" Type Stage. Variable tilt angle, planetary stage, rotational speed 8-20 rpm.

**10458** 4" Wafer Stage and Gearbox Flat rotation specimen stage for 4" wafers.

**10787** 4" Wafer stage. A flat 4"/102 mm flat, drop-in wafer stage which accepts 2", 3" or 4" wafers

**23850** Tilt Stage Assembly 4"

**10788** 4" Stub Holder

**10808** 8 Place Stub Stage for 30mm and 32mm ø stubs

**11856** 14 Place Stub Stage for 25mm and 30mm ø stubs

**12043** 9 Place Coverslip Stage 92 mm ø stage accepts nine 20 x 20mm cover slips

**12305** 4 Place 25mm ø Stub Stage

## Consumables and spare parts
**27608** Additional Standard Glass Cylinder Assembly. Includes glass chamber, implosion guard and gaskets.

**13530** Standard Coating Shield Assembly

**27691** Extended Glass Cylinder Assembly. 220mm high (standard chamber is 133mm high). For increased source to sample distance and coating large samples.

**11880** Extended Height Coating Shield Assembly

**B5230** Tungsten filament basket - pack of 10 (for use with 10457 metal evaporation insert).

**B5228** Molybdenum boats - pack of 10.

**10454** Film Thickness Monitor (FTM) Attachment. Including oscillator, feed-through, quartz crystals and holder.
*Please note, when evaporating carbon, the FTM ideally should only be used to provide a general indication of the coating thickness. It is not recommended that the FTM is used for termination of the coating process.*

**C5460** Film Thickness Monitor (FTM) Crystal (spare)

**11540** Diaphragm Pump MD1 23 L/M

**O7803** Basic Oil Mist Filter (spare)

**13233** 1L Rotary Pump Oil (spare)

**13235** 5L Rotary Pump Oil (spare)

**27508** O-ring (each) 2 required per coater

**27607** Non-seal L Gasket

**27728** Q150V ES Two Year Spares Kit.

**27729** Q150V E Two Year Spares Kit.

**27730** Q150V S Two Year Spares Kit

# Quorum

COATING SOLUTIONS

# Q150T Plus Series Ordering Information

**27648**    Q150T S Sputter Coater. High resolution turbomolecular pumped capacitive touch-screen controled sputter coater with status LED indicator , including 10034 quick release sputter insert and one TK8845 57mm diameter x 0.3mm chromium target. 10067 rotating specimen stage, 50mm diameter, supplied as standard.

**27650**    Q150T E Plus Carbon Evaporator. Turbomolecular pumped capacitive touch-screen controled carbon evaporator with status LED indicator suitable for TEM and SEM applications. Fitted with a carbon rod evaporation head for 3.05mm diameter carbon rods. Supplied with carbon rods (C5422 3.05mm x 300mm) and a carbon rod shaper (manual operation). 10067 rotating specimen stage, 50mm diameter, supplied as standard.

**27645**    Q150T ES Plus Combined Sputtering and Carbon Coating System. The deposition heads can be swapped in seconds and the intelligent system logic automatically recognises which head is in place and displays the appropriate operating settings. Consists of high resolution turbomolecular pumped capacitive touch-screen controled sputter coater and carbon evaporator with status LED indicator, including 10034 quick release sputter insert and one TK8845 57mm diameter x 0.3mm chromium target, and high vacuum carbon rod evaporation coater, including 10033 quick-release carbon rod insert for 3.05mm diameter carbon rods. Coating inserts are interchangeable. 10067 rotating specimen stage, 50mm diameter, supplied as standard.

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### Rotary pump requirements:
**13034**    5m3hr-1  2 Stage Oil Sealed Rotary Vane Pump

### Dry pumping option:
**11540**    Diaphragm pump. Vacuubrand MD1 23 L/m

### Options and accessories:
**Head inserts and glow discharge**

**10453**    Additional sputter insert for quick metal change (T E and T ES version only). NB: this is an entire sputtering assembly - individual targets can also be purchased

**10455**    Carbon fibre insert. Supplied with 2 m C5421 carbon fibre cord.

**10456**    Carbon Rod Evaporation Insert. For 6.15mm diameter carbon rods.

**10457**    Metal evaporation and aperture insert. Including the ability to evaporate upwards or downwards (T E and T ES version only). Supplied with a pack of 10 tungsten filaments (B5230) and a molybdenum (Mo) boat.

**10262**    Glow discharge insert

**Specimen stages**

**10067**    50 mm Stage

**10357**    Tilt Stage Assembly. 50mm diameter specimen stage with adjustable tilt up to 90 degrees.

**10358**    Slide Stage. For glass microscope slides (up to 2 x 75mm x 25mm slides).

**10360**    "Rotacota" Type Stage. Variable tilt angle, planetary stage, rotational speed 8-20 rpm.

**10458**    4" Wafer Stage and Gearbox Flat rotation specimen stage for 4" wafers.

**10787**    4" Wafer stage. A flat 4"/102 mm flat, drop-in wafer stage which accepts 2", 3" or 4" wafers

**10788**    4" Stub Holder

**10808**    8 Place Stub Stage for 30mm and 32mm ø stubs

**11856**    14 Place Stub Stage for 25mm and 30mm ø stubs

**12043**    9 Place Coverslip Stage 92 mm ø stage accepts nine 20 x 20mm cover slips

**12305**    4 Place 25mm ø Stub Stage

**23850**    Tilt Stage Assembly 4"

### Consumables and spare parts

**10454**    Film Thickness Monitor (FTM) Attachment. Including oscillator, feed-through, quartz crystals and holder.
*Please note, when evaporating carbon, the FTM ideally should only be used to provide a general indication of the coating thickness. It is not recommended that the FTM is used for termination of the coating process.*

**C5460**    Film Thickness Monitor (FTM) Crystal (spare)

**10422**    Rotating vacuum spigot. Allows a more convenient connection of the vacuum hose to the rear of the Q150T Plus - useful for when bench depth is limited.

**10429**    Extended height vacuum chamber. (214 mm high - the standard chamber is 127 mm high). For increased source-to- specimen distance and for coating large specimens.

**13530**    Standard Coating Shield Assembly

**11880**    Extended Height Coating Shield Assembly

**B5228**    Molybdenum boats - pack of 10

**B5230**    Tungsten filament basket - pack of 10 (for use with 10457 metal evaporation insert)

**G6260**    Glass cylinder 6" diameter

**10068**    Additional glass cylinder assembly

**O7803**    Basic Oil Mist Filter (spare)

**13233**    1L  Rotary Pump Oil (spare)

**13235**    5L  Rotary Pump Oil (spare)

**23606**    Non-seal L Gasket

**10447**    Two-year spares kit for Q150T S Plus

**10448**    Two-year spares kit for Q150T E Plus

**10449**    Two-year spares kit for Q150T ES Plus

# Q150R Plus Series Ordering Information

**27659**    Q150R S Plus Sputter Coater.Fully automatic, capacitive touch-screen controled rotary pumped sputter coater with status LED indicator. Including 10587 quick release sputter insert and one SC502-314A 57mm diameter x 0.1mm gold target. 10067 rotating specimen stage, 50mm diameter, supplied as standard.

**27660**    Q150R E Plus Carbon Evaporator. Fully automatic, capacitive touch-screen controled rotary pumped carbon fibre evaporation coater with status LED indicator. Including 10355 quick-release carbon fibre insert for evaporation of carbon cord. Supplied with C5421 carbon fibre cord, 10067 rotating specimen stage, 50mm diameter, supplied as standard.

**27652**    Q150R ES Combined Sputtering and Carbon Coating System. Consists of fully automatic, capacitive touch-screen controled rotary pumped sputter coater and carbon evaporator with status LED indicator. Including 10587 quick release sputter insert and one SC502-314A 57mm diameter x 0.1mm gold target, and carbon fibre evaporation coater, including 10355 quick-release carbon fibre insert for evaporation of carbon cord. Coating inserts are interchangeable and can be swapped in seconds. The intelligent system logic automatically recognises which insert is in place and displays the appropriate operating settings. 10067 rotating specimen stage, 50mm diameter, supplied as standard.

## Rotary pump requirements:
**13034**    5m3hr-1 2 Stage Oil Sealed Rotary Vane Pump

## Options and accessories:
### Head inserts and glow discharge
**10879**    Carbon rod evaporation insert for 3.05 mm Ø rods (R E and R ES only). Includes carbon rod shaper 13232 and wedge tool 2097. C5422 (3.05 mm Ø x 300 mm packet of ten) carbon rods.

**10726**    Additional sputter insert for quick metal change (RE and R ES version only). NB: this is an entire sputtering assembly - individual targets can also be purchased

**10262**    Glow discharge insert. Used to modify surface properties (e.g. hydrophobic to hydrophilic conversion) (R S and R ES versions only). Can be retrofitted.

### Specimen stages

**10067**    50 mm Stage

**10357**    Tilt Stage Assembly. 50mm diameter specimen stage with adjustable tilt up to 90 degrees.

**10358**    Slide Stage. For glass microscope slides (up to 2 x 75mm x 25mm slides).

**10360**    "Rotacota" Type Stage. Variable tilt angle, planetary stage, rotational speed 8-20 rpm.

**10458**    4" Wafer Stage and Gearbox Flat rotation specimen stage for 4" wafers.

**10787**    4" Wafer stage. A flat 4"/102 mm flat, drop-in wafer stage which accepts 2", 3" or 4" wafers

**23850**    Tilt Stage Assembly 4"

**10788**    4" Stub Holder

**10808**    8 Place Stub Stage for 30mm and 32mm ø stubs

**11856**    14 Place Stub Stage for 25mm and 30mm ø stubs

**12043**    9 Place Coverslip Stage 92 mm ø stage accepts nine 20 x 20mm cover slips

**12305**    4 Place 25mm ø Stub Stage

### Consumables and spare parts
**10454**    Film thickness monitor (FTM) attachment. Including oscillator, feed-through, quartz crystal holder and quartz crystals.

**C5460**    Spare quartz crystal

**10429**    Extended height vacuum chamber. (214 mm high - the standard chamber is 127 mm high). For increased source-to-specimen distance and for coating large specimens.

**10731**    Rotating vacuum spigot. Allows a more convenient connection of the vacuum hose to the rear of the Q150R Plus - useful for when bench depth is limited.

**13530**    Standard coating shield assembly

**11880**    Extend height coating shield assembly

**10068**    Additional standard glass cylinder assembly. Includes standard glass chamber, implosion guard and gaskets.

**13711**    Platinum coating vacuum hose assembly. Recommended for if platinum (Pt) is to be sputtered (R S and R ES versions only)

**10730**    Two-year spares kit for Q150R Plus S.

**10729**    Two-year spares kit for Q150R Plus E.

**10728**    Two-year spares kit for Q150R Plus ES.

**O7803**    Basic oil mist filter (spare)

**13233**    Pump oil 1 litre

**13235**    Pump oil 5 litre

**23606**    L Gasket (each)

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# Q300T D Plus Ordering Information

**10360** Q300T D Plus Dual Target Sequential Sputtering System
Includes a 57 mm Ø x 0.3 mm chromium (Cr) target (TK8845) and a 57 mm Ø x 0.1 mm thick gold (Au) target (SC502-314A).
A flat rotation stage for 4"/100 mm wafers is included.

## Rotary pump requirements:
**13034** 5 m3/hr Pfeiffer DUO 6 two-stage rotary vacuum pump. Includes vacuum hose, coupling kit and oil mist filter.

## Dry pumping options:
**11540** Diaphragm pump. A 'dry' alternative to the standard 13034 oil-based rotary pump, complete with vacuum hose, coupling kit and oil mist filter.

**26907** Edwards dry scroll pump nXDS10i. Pumping speed: 11.4 m/3hr.

## Options and accessories:
### Stage options:
**10357** Rotating 50 mm Ø specimen stage with adjustable tilt. The plat form has six specimen stub positions for 15 mm, 10 mm, 6.5 mm or 1/8" pin stubs. Stage rotation speed is variable between preset limits.

NB: Target to stage height is variable between 0-42 mm for the standard stage. When used with the extended height cylinder (optional accessory 10596) the target to stage height is an additional 87 mm.

**10067** 50 mm Ø variable height specimen stage. Has six stub positions for 15 mm, 10 mm, 6.5 mm disc stubs.

**10360** 50 mm Ø "Rotacota" stage. A rotary planetary-style stage with variable tilt angle from horizontal to 30º. The platform has six positions for either 15 mm, 10 mm, 6.5 mm disc stubs or 1/8" pin stubs. Rotation speed is variable between preset limits.

Note: Depending on specimen height, this stage may require the optional extended height cylinder.

**10358** 90 mm Ø specimen stage for glass microscope slides. For up to two 75 mm x 25 mm slides or a single 75 mm x 50 mm slide). The stage can alternatively accommodate up to six 1/8" SEM pin stubs. The stage rotation speed is variable between preset limits and includes a gear box to allow the optional FTM to be used.

## Consumables and spare parts
**10779** Dual channel film thickness monitor (FTM). A fully integrated system using the Q300T D touch screen display for the control and display of all FTM functions. Allows automatic termination of the sputtering process at pre-selected thickness values. Displays rate for sputtering processes in nm/m, with a resolution of 0.1 nm. Two FTM crystal holders are fixed in the chamber to give optimal position for both targets and to coat one material per crystal. Includes two spare C5460 quartz crystals

**C5460** Spare quartz crystal.

**10596** Extended height vacuum chamber. (214 mm H - the standard chamber is 127mm H). Recommended for increased source-to-specimen distance and for coating large specimens.

**10422** Rotating vacuum spigot. Allows a more convenient connection of the vacuum pump hose to the rear of the coater for when bench depth is limited.

**11223** Lockable emergency stop (e-stop) switch. This can be mounted on top of the system in a position easily accessible for the operator. It is provided with a key to release the knob after activation. NB: The addition of the e-stop does not inhibit or replace the normal on/off switch function.

**11576** Coating shields. Can be fitted to protect large surfaces from coating deposition - easily removable for ease of cleaning.

**10428** Full range, active vacuum gauge. Capable of measurement over the range of 1,000 mbar to 5 x 10-9 mbar. Typical ultimate vacuum of system is 5 x 10-5mbar. Must be factory fitted.

**11288** Spares Kit for Q300T D Plus

# Q300T T Plus Series Ordering Information

**10824**   Q300T T  Plus Triple Target, Large Chamber, Turbo-Pumped Sputter Coater
Fitted with three sputtering heads to ensure even metal deposition. Includes three 57 mm Ø x 0.3 mm chromium (Cr) sputter targets (TK8845). A 10826 flat rotation stage for 200 mm/8" and 150 mm/6" wafers is fitted as standard.

## Rotary pump requirements:
**13034**   5 m3/hr Pfeiffer DUO 6 two-stage rotary vacuum pump. Includes vacuum hose, coupling kit and oil mist filter.

## Dry pumping options:
**11540**   Diaphragm pump. A 'dry' alternative to the standard 13034 oil-based rotary pump, complete with vacuum hose, coupling kit and oil mist filter.

**26907**    Edwards dry scroll pump nXDS10i. Pumping speed: 11.4 m/3hr.

## Options and accessories:
### Stage options:
**10357**   Rotating 50 mm Ø specimen stage with adjustable tilt. The plat form has six specimen stub positions for 15 mm, 10 mm, 6.5 mm or 1/8" pin stubs. Stage rotation speed is variable between preset limits.

NB: Target to stage height is variable between 0-42 mm for the standard stage. When used with the extended height cylinder (optional accessory 10596) the target to stage height is an additional 87 mm.

**10067**   50 mm Ø variable height specimen stage. Has six stub positions for 15 mm, 10 mm, 6.5 mm disc stubs.

**10360**   50 mm Ø "Rotacota" stage. A rotary planetary-style stage with  variable tilt angle from horizontal to 30º. The platform has six positions for either 15 mm, 10 mm, 6.5 mm disc stubs or 1/8" pin stubs. Rotation speed is variable between preset limits.

Note: Depending on specimen height, this stage may require the optional extended height cylinder.

**10358**   90 mm Ø specimen stage for glass microscope slides. For up to two 75 mm x 25 mm slides or a single 75 mm x 50 mm slide). The stage can alternatively accommodate up to six 1/8" SEM pin stubs. The stage rotation speed is variable between preset limits and includes a gear box to allow the optional FTM to be used.

## Consumables and spare parts
**10779**   Dual channel film thickness monitor (FTM). A fully integrated system using the Q300T D touch screen display for the control and display of all FTM functions. Allows automatic termination of the sputtering process at pre-selected thickness values. Displays rate for sputtering processes in nm/m, with a resolution of 0.1 nm. Two FTM crystal holders are fixed in the chamber to give optimal position for both targets and to coat one material per crystal. Includes two spare C5460 quartz crystals

**C5460**    Spare quartz crystal.

**10596**   Extended height vacuum chamber. (214 mm H - the standard chamber is 127mm H). Recommended for increased source-to-specimen distance and for coating large specimens.

**10422**   Rotating vacuum spigot.  Allows a more convenient connection of the vacuum pump hose to the rear of the coater for when bench depth is limited.

**11223**   Lockable emergency stop (e-stop) switch. This can be mounted on top of the system in a position easily accessible for the operator. It is  provided with a key to release the knob after activation. NB: The addition of the e-stop does not inhibit or replace the normal on/off switch function.

**11576**   Coating shields. Can be fitted to protect large surfaces from coating deposition - easily removable for ease of cleaning.

**10428**   Full range, active vacuum gauge. Capable of measurement over the  range of 1,000 mbar to 5 x 10-9 mbar. Typical ultimate vacuum of system is 5 x 10-5mbar. Must be factory fitted.

**11288**   Spares Kit for Q300T T Plus

## Sputter Targets

| Sputter Targets | | Q150R PLUS | Q150T PLUS | Q150V PLUS | Q300T T PLUS | Q300T D PLUS |
|---|---|:---:|:---:|:---:|:---:|:---:|
| SC502-314A | Gold (Au) | ✔ | ✔ | ✔ | ✔ | |
| SC502-314A/ 0.2mm | Gold (Au) 0.2 mm | ✔ | ✔ | ✔ | ✔ | |
| TK8889 | Gold (Au) 0.3 mm | ✔ | ✔ | ✔ | ✔ | ✔ |
| SC502-314B | Gold/palladium (Au/Pd - 80:20) | ✔ | ✔ | ✔ | ✔ | |
| SC502-314B/0.2mm | Gold/palladium (Au/Pd - 80:20%) 0.2 mm | ✔ | ✔ | ✔ | ✔ | |
| TK8891 | Gold/palladium (Au/Pd - 80:20) 2 mm | ✔ | ✔ | ✔ | ✔ | ✔ |
| SC502-314C | Platinum (Pt). | ✔ | ✔ | ✔ | ✔ | |
| SC502-314C/0.2mm | Platinum (Pt) 0.2 mm | ✔ | ✔ | ✔ | ✔ | |
| TK8893 | Platinum (Pt) 0.3 mm | ✔ | ✔ | ✔ | ✔ | |
| SC502-314D | Nickel (Ni) | | ✔ | ✔ | ✔ | |
| SC502-314E | Silver (Ag) | ✔ | ✔ | ✔ | ✔ | |
| SC502-314G | Palladium (Pd) | ✔ | ✔ | ✔ | ✔ | |
| SC502-314H | Copper (Cu) | ✔ | ✔ | ✔ | ✔ | |
| TK8878 | Platinum/Palladium (Pt/Pd - 80:20) | | ✔ | ✔ | | ✔ |
| TK8887 | Platinum/Palladium(Pt/Pd -80:20) 0.3mm | | ✔ | ✔ | ✔ | ✔ |
| TK8845 | Chromium (Cr) 0.3 mm | | ✔ | ✔ | ✔ | ✔ |
| TK8862 | Chromium (Cr)1.5 mm | | ✔ | ✔ | ✔ | ✔ |
| TK8867 | Tungsten (W) 0.2 mm | | ✔ | ✔ | ✔ | ✔ |
| TK8846 | Tungsten (W) 0.5 mm | | ✔ | ✔ | ✔ | ✔ |
| TK8869 | Carbon (C) 1.5 mm | | ✔ | ✔ | ✔ | ✔ |
| TK8875 | Aluminium (Al) 1 mm | | ✔ | ✔ | ✔ | ✔ |
| TK8895 | Titanium (Ti) 0.5 mm | | ✔ | ✔ | ✔ | ✔ |
| TK8879 | Titanium (Ti) 1.5 mm | | ✔ | ✔ | ✔ | ✔ |
| TK8897 | Iron (Fe) | | ✔ | ✔ | ✔ | ✔ |
| TK8899 | Iridium (Ir) 0.3 mm | | ✔ | ✔ | ✔ | ✔ |
| TK8900 | Cobolt (Co) 0.3 mm | | ✔ | ✔ | ✔ | ✔ |
| TK8902 | Tin (Si) | | ✔ | ✔ | ✔ | ✔ |
| TK8903 | Molybdenum | | ✔ | ✔ | ✔ | ✔ |
| TK8905 | Magnesium (Mg) 0.3 mm thick | | ✔ | ✔ | ✔ | ✔ |
| TK8906 | Tantalum (Ta) | | ✔ | ✔ | ✔ | ✔ |
| TK8907 | Indium tin oxide (ITO) | | ✔ | ✔ | ✔ | ✔ |
| TK9000 | Alluminium (Al) 0.76mm | | | | | ✔ |
| TK8870 | Copper (Cu) 1.5 mm | | | | | ✔ |
| TK8859 | Gold (Au) 0.1 mm | | | | | ✔ |
| TK8860 | Gold/palladium (Au/Pd) 0.1 mm | | | | | ✔ |
| TK8872 | Nickel (Ni) 0.1 mm | | | | | ✔ |
| TK8877 | Palladium (Pd)  0.1 mm | | | | | ✔ |
| TK8861 | Platinum (Pt) 0.1 mm | | | | | ✔ |
| TK8871 | Silver (Ag) 0.1 mm | | | | | ✔ |

## Carbon Supplies

| Carbon Supplies | | Q150R PLUS | Q150T PLUS | Q150V PLUS | Q300T T PLUS | Q300T D PLUS |
|---|---|:---:|:---:|:---:|:---:|:---:|
| A0830A | Carbon rods 6.15 mm Ø x 100 mm length (unshaped) -   pack of 10 | NA | ✔ | ✔ | NA | NA |
| C5422 | Carbon rods 3.05 Ø x 100 mm, (unshaped) – pack of 10 | ✔ | ✔ | ✔ | NA | NA |
| C5421 | Carbon fibre cord - 1 m | ✔ | ✔ | ✔ | NA | NA |
| C5421-10 | Carbon fibre cord - 10 m | ✔ | ✔ | ✔ | NA | NA |
| C5421-100 | Carbon fibre cord - 100 m | ✔ | ✔ | ✔ | NA | NA |
| C5461 | Carbon fibre - fine strands (1m) | ✔ | ✔ | ✔ | NA | NA |
| C5461-10 | Carbon fibre - fine strands (10m) | ✔ | ✔ | ✔ | NA | NA |
| C5461-100 | Carbon fibre - fine strands (100m) | ✔ | ✔ | ✔ | NA | NA |
| 13232 | Manual carbon rod shaper for 3.05 mm Ø carbon rods | ✔ | ✔ | ✔ | NA | NA |
| 10879 | Carbon gun insert 3.05 mm | ✔ | ✔ | ✔ | NA | NA |
| 12097 | Wedge tool | ✔ | ✔ | ✔ | NA | NA |

The Q Plus Series has it covered: **quorumtech.com**

# The Q Plus Series

| Features | Q150R PLUS | Q150T PLUS | Q150V PLUS | Q300T T PLUS | Q300T D PLUS |
|---|---|---|---|---|---|
| New touch and swipe capacitive screen | ✓ | ✓ | ✓ | ✓ | ✓ |
| USB port for upgrades and download of log files | ✓ | ✓ | ✓ | ✓ | ✓ |
| Multiple-user profiles can be set up on one machine | ✓ | ✓ | ✓ | ✓ | ✓ |
| New software sorts recipes per user according to recent use | ✓ | ✓ | ✓ | ✓ | ✓ |
| 16GB of flash memory can store more than 1000 recipes | ✓ | ✓ | ✓ | ✓ | ✓ |
| Status indication through visual multi-colour LED | ✓ | ✓ | ✓ | ✓ | ✓ |
| Audio notification when process completed | ✓ | ✓ | ✓ | ✓ | ✓ |
| Create recipe sequences with simple copy, drag and drop operation | ✓ | ✓ | ✓ | ✓ | ✓ |
| Interchangeable stage options | ✓ | ✓ | ✓ | ✓ | |
| Interchangeable plug-in heads | ✓ | ✓ | ✓ | | |
| Capable of achieving vacuum 2 x $10^{-2}$ mbar | ✓ | | ✓ | ✓ | ✓ |
| Capable of achieving vacuum 5 x $10^{-5}$ mbar | | ✓ | ✓ | ✓ | ✓ |
| Capable of achieving vacuum 1 x $10^{-6}$ mbar | | | ✓ | | |
| FTM control on carbon deposition as an option | | ✓ | ✓ | | |
| Three sputter heads for large area deposition of different materials | | | | ✓ | |
| Single head selection for small samples | | | | ✓ | ✓ |
| Multi-layer deposition of two materials | | | | | ✓ |

| Benefits | Q150R PLUS | Q150T PLUS | Q150V PLUS | Q300T T PLUS | Q300T D PLUS |
|---|---|---|---|---|---|
| Single system for sputter and carbon coating | ✓ | ✓ | ✓ | | |
| Easy selection for frequently used recipes | ✓ | ✓ | ✓ | ✓ | ✓ |
| Easy configuration of head and stage options for different samples | ✓ | ✓ | ✓ | | |
| Easy to see multi-colour status indicator light from a distance | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ultra-fine grain size coating capability | | ✓ | ✓ | ✓ | ✓ |
| Ultra-fine carbon coating for high-resolution applications using carbon rods | | | ✓ | | |
| High purity depositions | | | ✓ | | |
| Large area of depositions - up to 200mm diameter | | | | ✓ | |

| Recommended Applications | Q150R PLUS | Q150T PLUS | Q150V PLUS | Q300T T PLUS | Q300T D PLUS |
|---|---|---|---|---|---|
| Low and medium magnifications | ✓ | | | | |
| SE Signal boost (1nm or less) | ✓ | | | | |
| Table-top SEM coating | ✓ | | | | |
| Elemental analysis | ✓ | | | | |
| Copper metallisation of layers | ✓ | | | | |
| High-resolution magnification SEM | | ✓ | | | |
| Protective platinum layers for FIB | | ✓ | | | |
| R&D of corrosion-, friction-, and wear- protective layers | | ✓ | ✓ | | |
| Protective layers on medical devices | | ✓ | ✓ | | |
| Carbon coating of replicas | | ✓ | | | |
| BSE imaging | | ✓ | | | |
| EDX, WDS, EBSD analysis | | ✓ | ✓ | | |
| Carbon coating of TEM grids | | | ✓ | | |
| Ultra-high resolution magnification SEM | | | ✓ | | |
| Nano-technology e.g. Zeolites, polymer nanobrushes | | | ✓ | | |
| Wafer inspection | | | | ✓ | |
| Multiple sample prep for SEM | | | | ✓ | |
| Materials applications - ideal for multi-layer coatings | | | | | ✓ |

## LABQUIP

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