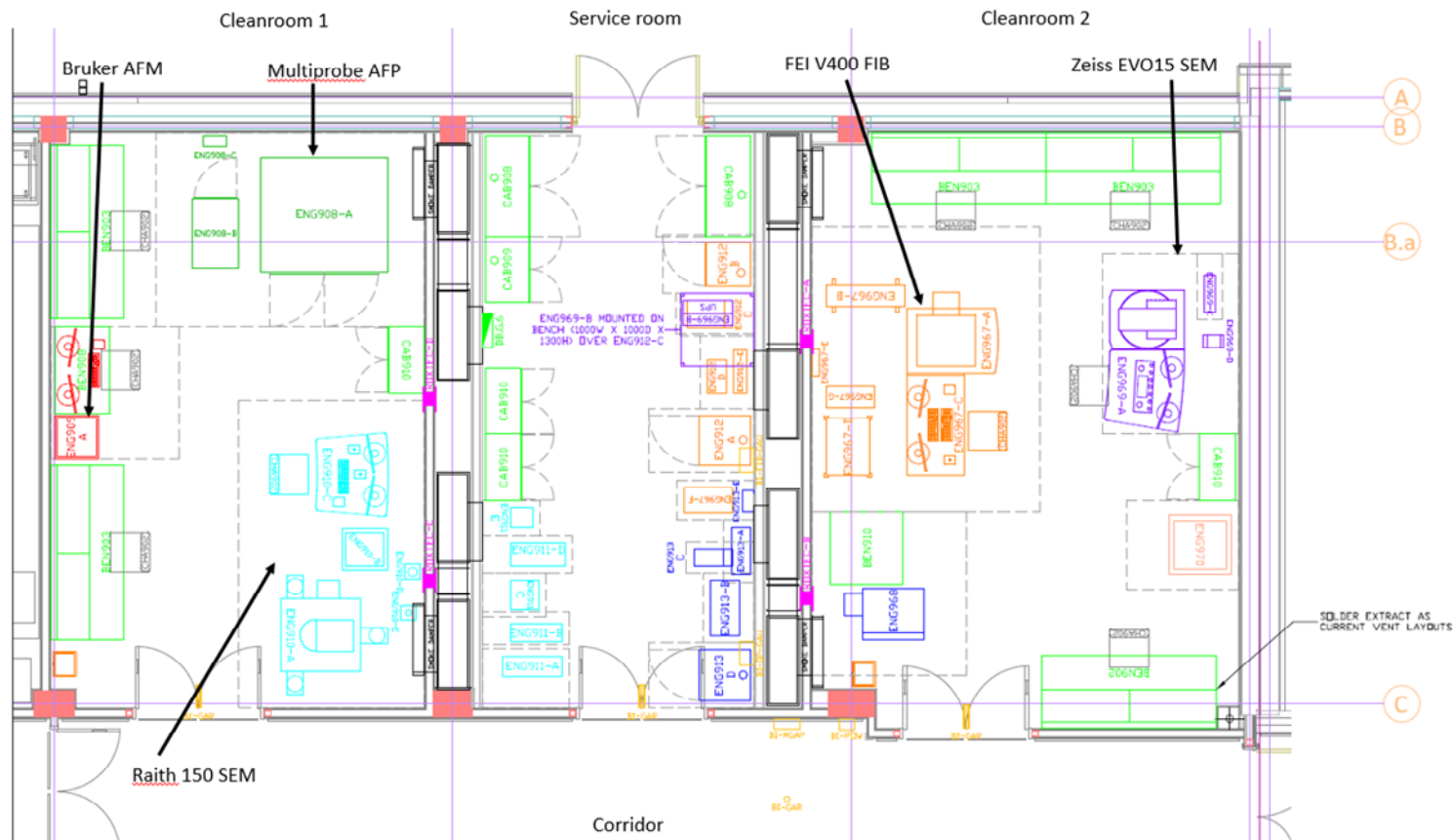


## DEFENCE, SCIENCE AND TECHNOLOGY LABORATORY (DSTL)

### AVS-3: Room dimension and layout

#### Location

The five pieces of equipment listed above are co-located across 2 cleanrooms separated by a service/plant room



## Dimensions

	Clean room 1	Clean room 2
Room dimension	5145mm wide x 7659mm long	5890mm wide x 8238mm long
Doorway opening dimension	1640mm wide by 2300mm high	1640mm wide by 2300mm high
Flooring	Polyflor OHmega EC vinyl flooring laid on 1200mm reinforced concrete slab.	Polyflor OHmega EC vinyl flooring laid on 1200mm reinforced concrete slab.
Flooring specification link	<a href="https://www.polyflor.com/jh/products.nsf/products!open&amp;prodcode=FXSC095">https://www.polyflor.com/jh/products.nsf/products!open&amp;prodcode=FXSC095</a>	<a href="https://www.polyflor.com/jh/products.nsf/products!open&amp;prodcode=FXSC095">https://www.polyflor.com/jh/products.nsf/products!open&amp;prodcode=FXSC095</a>

The service room door leading to outside (top of plan above) is restricted by bollards and leaves a gap of 1200mm wide for access. The door from the service room to the corridor is 1640mm wide.

There is an alternative access via the corridor but there are 5 sets of double doors to navigate. The widest four doors are 1600mm and the narrowest has not been installed yet but is of the same type as that that measures 1200mm but this door is not restricted by the outside environment in the same way. The corridor width at its narrowest is 1680mm.

**A schedule of equipment for cleanroom 1, service room, cleanroom 2 and corridor is detailed below.**

Room	Description	Quantity	Power & Earth Bond	Gases	Vent	Note	Actual Size Plus Bench height if different
Cleanroom 1	MultiProbe MP2b Nanoprober - Chamber	1	13A SSO with EU Adaptor				1760W x 1590D x 2125H
Cleanroom 1	MultiProbe MP2b Nanoprober - Cabinet	1	16A SPN Commando Socket & Isolator			32A at FH but 16A MCB	640W x 950D x 1805H

Cleanroom 1	MultiProbe MP2b Nanoprober - Pump	1	13A SSO			Possible relocate into service room	320W x 150D x 220H
Cleanroom 1	Bruker Atomic Force Microscope - Table & Instrument	1	13A SSO	CA - Compressed Air			610W x 610D x 1200H
Cleanroom 1	Bruker Atomic Force Microscope - Bench	1	2x 13A SSO				1500W x 910D x 770H
Cleanroom 1	BEN908 Operator Desk (1200W x 750D x 740H)					Does this replace the existing ENG909 Bench?	1200W x 750D x 740H
Cleanroom 1	Raith SEM - Equipment / Chamber	1	Supplied from service room Equipment +Additional Earth Bond	CA - Compressed Air N <sub>2</sub> Nitrogen			1680W x 1480 x 1820H - BH 1575
Cleanroom 1	Raith SEM - Cabinet	1	2x 13A SSO				560W x 630D x 1540H - CAB 990H
Cleanroom 1	Raith SEM - Bench	1	2x 13A SSO				1150W x 980D x 920H
Cleanroom 1	Raith SEM - Vac Pump pipework Vibration Block	1					205W x 205D x 300H
Cleanroom 1	Raith SEM - Vac Pump pipework Vibration Block	1					205W x 205D x 380H
service room	Raith SEM service chase equipment - UPS + Battery	1	32A SPN Commando Socket & Isolator				810W x 280D x 610H
service room	Raith SEM service chase equipment - Vac Pump	1	Supplied from G26 Equipment				700W x 250D x 430H
service room	Raith SEM service chase equipment - Compressor	1	13A SSO with EU Adaptor				400W x 380D x 650H
service room	Raith SEM service chase equipment - Cooler	1	16A SPN Commando Socket & Isolator				320W x 510D x 600H

service room	Raith SEM service chase equipment - Pump	1	Supplied from cleanroom 1 Equipment				300W x 280D x 160H
service room	FIB service chase equipment - Dry Bed Absorber	1	13A SPN SF Connection Unit		100mm Ø Galv Duct CW VCD	Vent to stop at high level Vent side connection by Specialist	700W x 710D x 1250H
service room	FIB service chase equipment - N <sub>2</sub> Nitrogen Gas Cabinet	1	No Power		100mm Ø Plastic Duct CW VCD	Vent to stop at high level	600W x 620D x 2050H
service room	FIB service chase equipment - Chiller	1	13A SPN SF Connection Unit				380W x 620D x 620H
service room	FIB service chase equipment - Vac Pump	1	16A SPN Commando Socket & Isolator				180W x 600D x 620H
Cleanroom 2	Focused Ion Beam - Equipment & Bench	1	Supplied from ENG967-D				890x 1265D x 1785H - BH 825
Cleanroom 2	Focused Ion Beam - Control Panel	1	Supplied from ENG967-D		110mm Ø Plastic Duct		1460W x 300D x 1460H
Cleanroom 2	Focused Ion Beam - Work Bench	1	Supplied from ENG967-D				1400W x 800D x 820H
Cleanroom 2	Focused Ion Beam - Cabinet	1	Supplied from ENG967-G +Additional Earth Bond				595W x 800D x 2180H
Cleanroom 2	Focused Ion Beam - Wall Mounted Manifold & Filter	1	Supplied from ENG967-F	CA - Compressed Air			370W x 100D x 130H
Cleanroom 2	Focused Ion Beam - UPS & Battery	1	32A SPN Commando Socket & Isolator			Possible relocate in to service room	355W x 660D x 460H
Cleanroom 2	Focused Ion Beam - Surge Arrester	1	Supplied from ENG967-E				290W x 660D x 295H

Cleanroom 2	Zeiss SEM - Equipment & Bench	1	Supplied from ENG969-B + 2x 13A SSO & Data +Additional Earth Bond	N <sub>2</sub> Nitrogen	Vac link from ENG969-C		1950 x 1106D x 1650H -BH 800
Cleanroom 2	Zeiss SEM - UPS & Battery	1	32A SPN Commando Socket & Isolator			Possible relocate in to service room	350W x 670D x 450H
Cleanroom 2	Xeiss SEM - Vac Pump	1	Supplied from ENG969-A		38mm Ø SS Duct CW Isolator Valve		160W x 510D x510H
Cleanroom 2	Xeiss SEM - Vibration Block	1					280W x 180D x 200H