住友電工グループ
SUMITOMO ELECTRIC GROUP

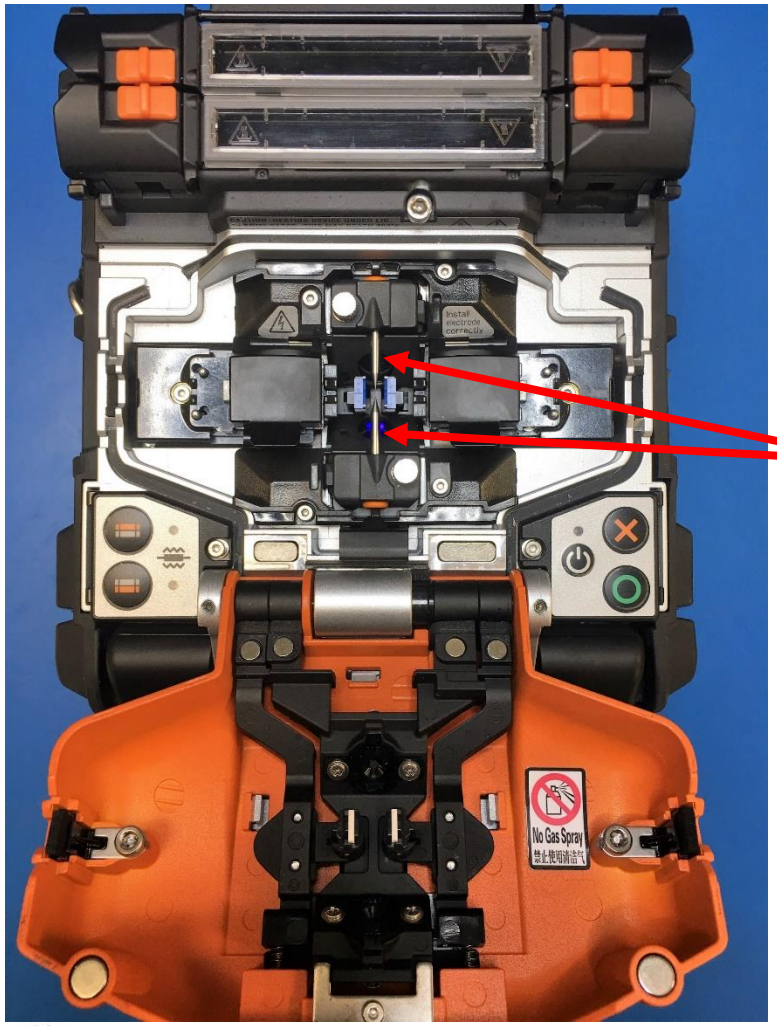
Practical Fusion Splicer Maintenance

Sumitomo Electric Europe Ltd

06/03/2019

Key components of a splicer

What are some of the key components of a fusion splicer that require user maintenance?

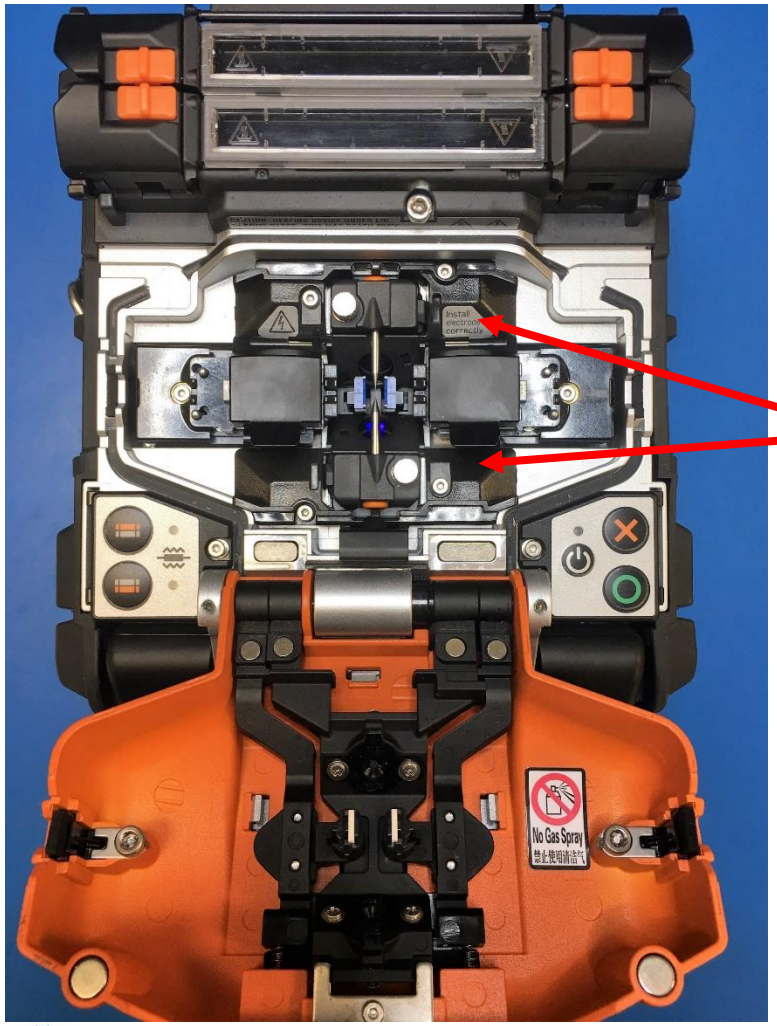


Electrodes

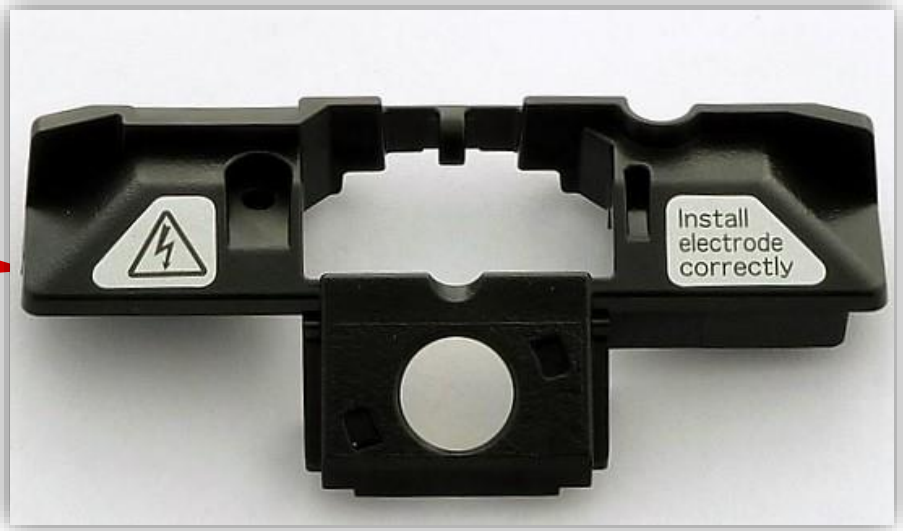
SUMITOMO ELECTRIC GROUP

Key components of a splicer

What are some of the key components of a fusion splicer that require user maintenance?



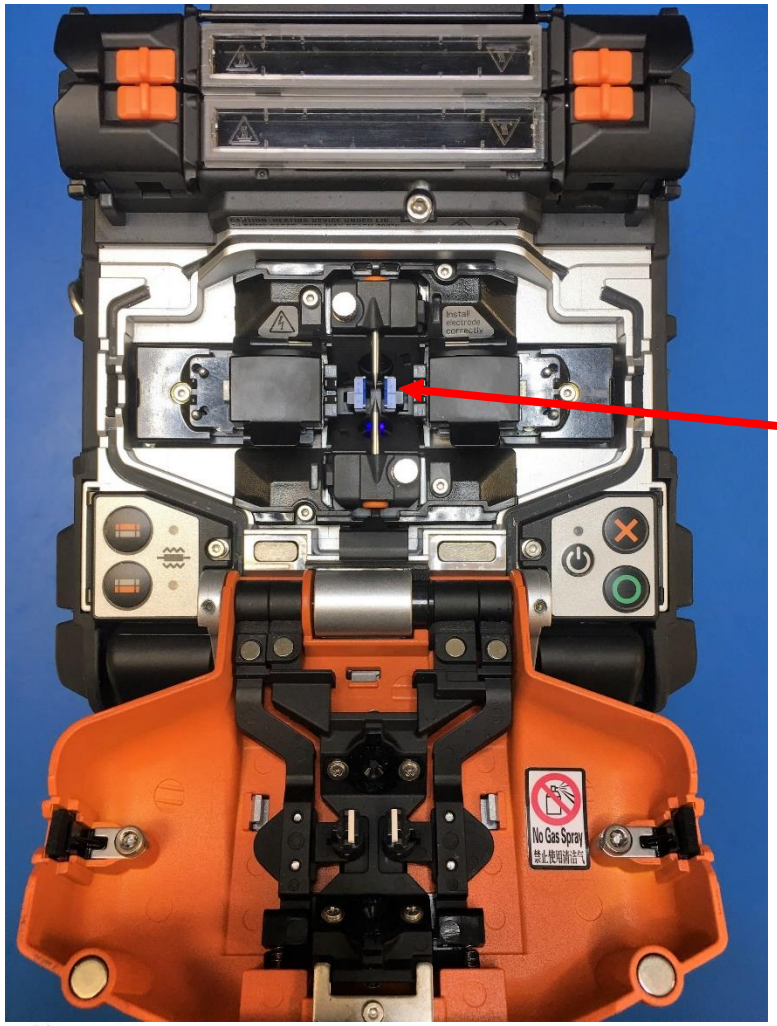
Microscope lens protectors



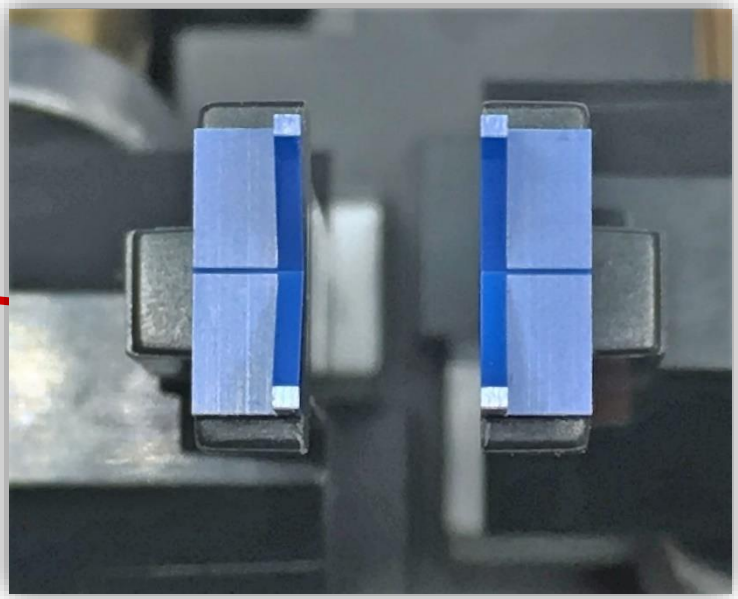
SUMITOMO ELECTRIC GROUP

Key components of a splicer

What are some of the key components of a fusion splicer that require user maintenance?



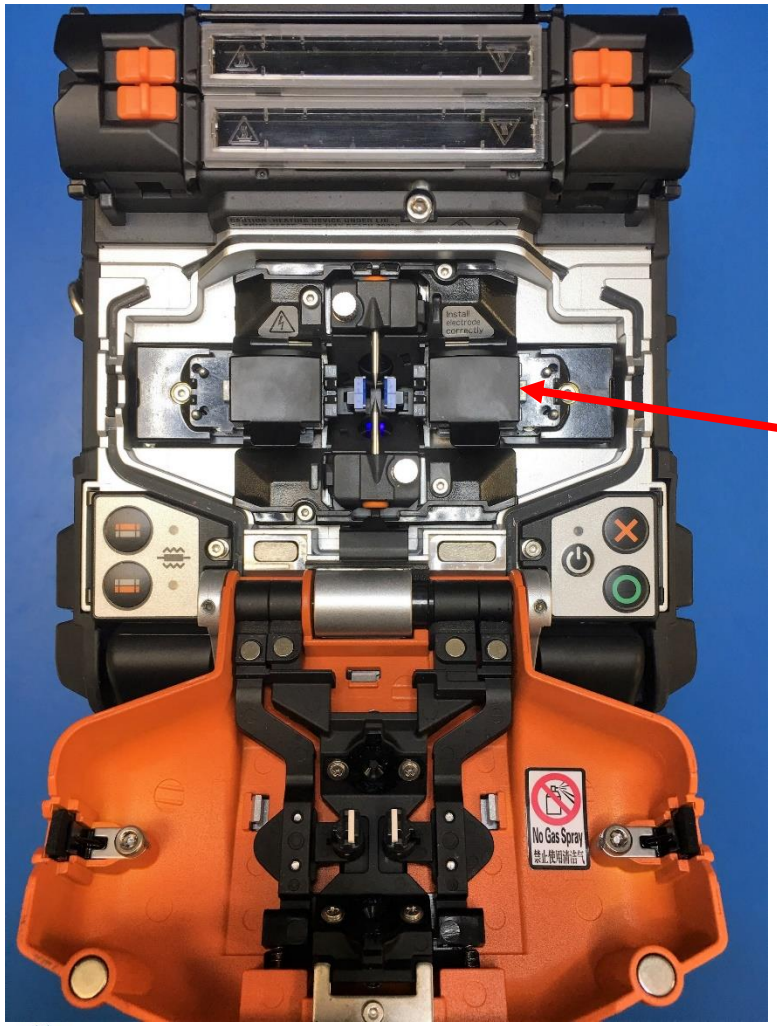
Fibre V-Grooves



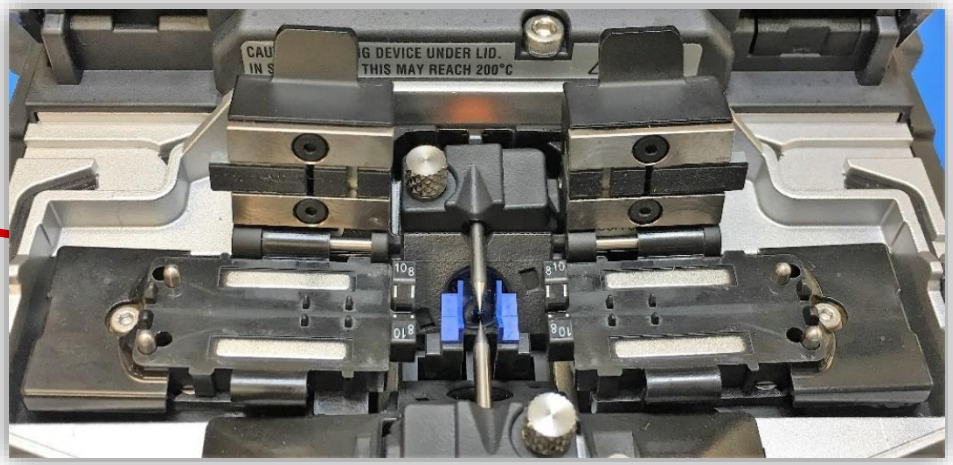
SUMITOMO ELECTRIC GROUP

Key components of a splicer

What are some of the key components of a fusion splicer that require user maintenance?



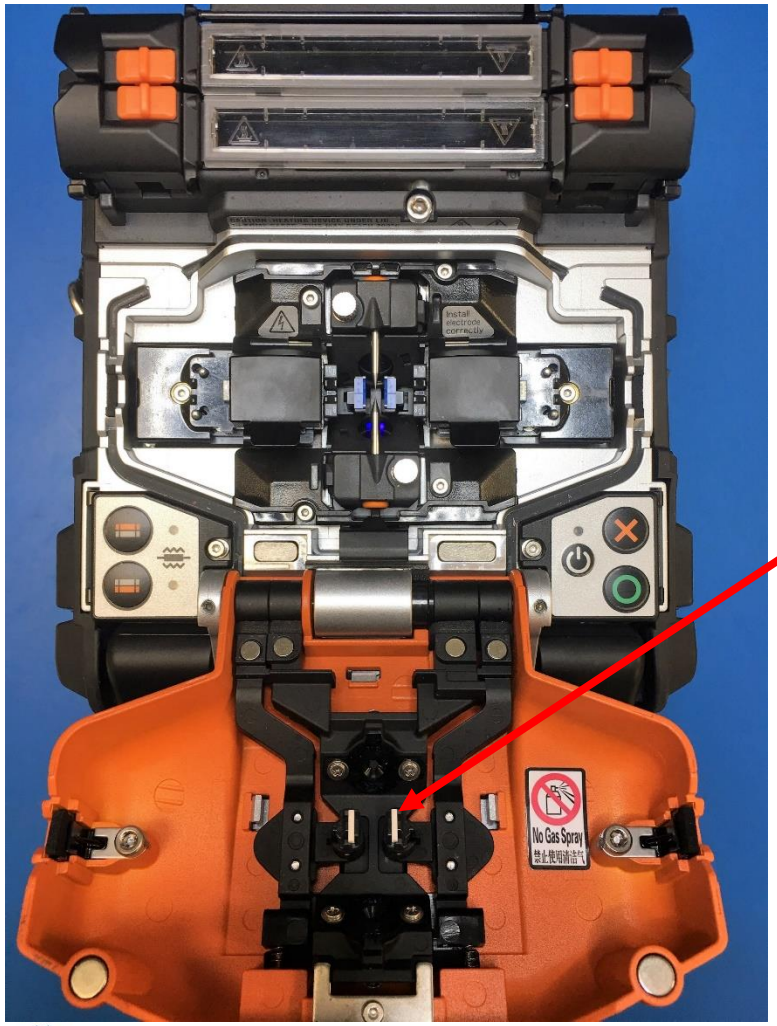
Coating Fibre Clamps



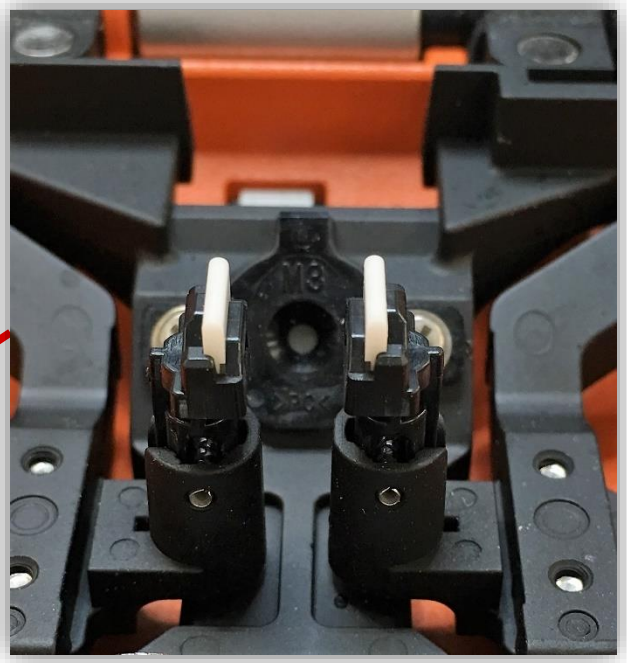
SUMITOMO ELECTRIC GROUP

Key components of a splicer

What are some of the key components of a fusion splicer that require user maintenance?



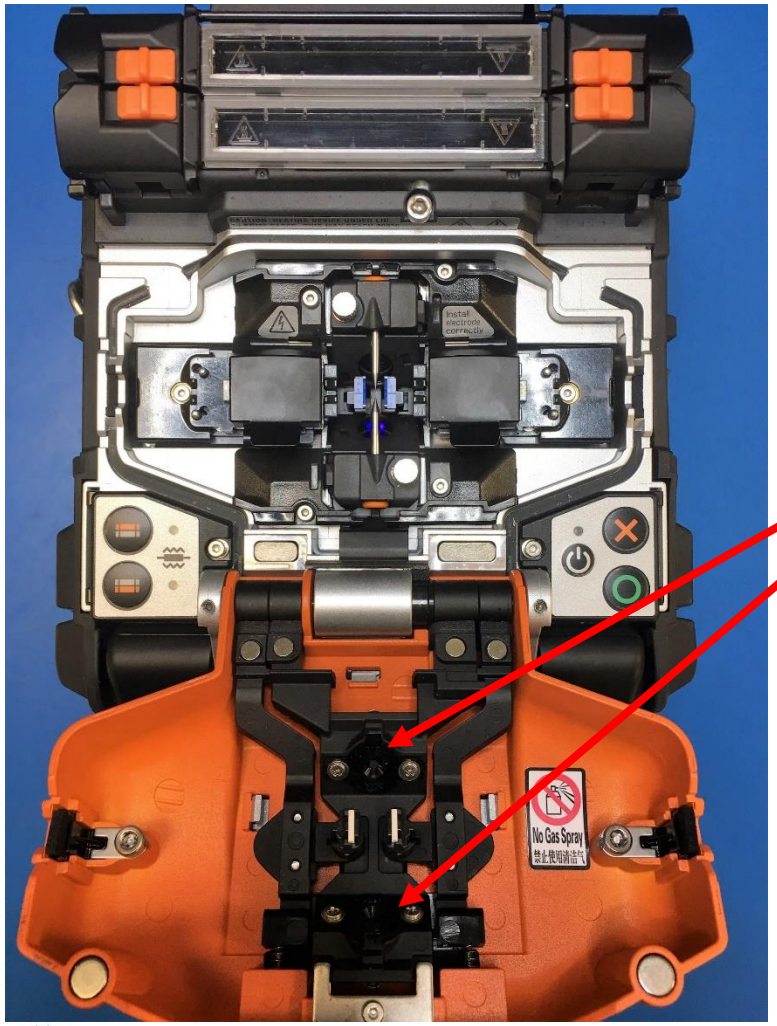
Bare Fibre Clamps



SUMITOMO ELECTRIC GROUP

Key components of a splicer

What are some of the key components of a fusion splicer that require user maintenance?



LED’s

SUMITOMO ELECTRIC GROUP

Regular maintenance

Why is routine maintenance good practice?

Electrodes

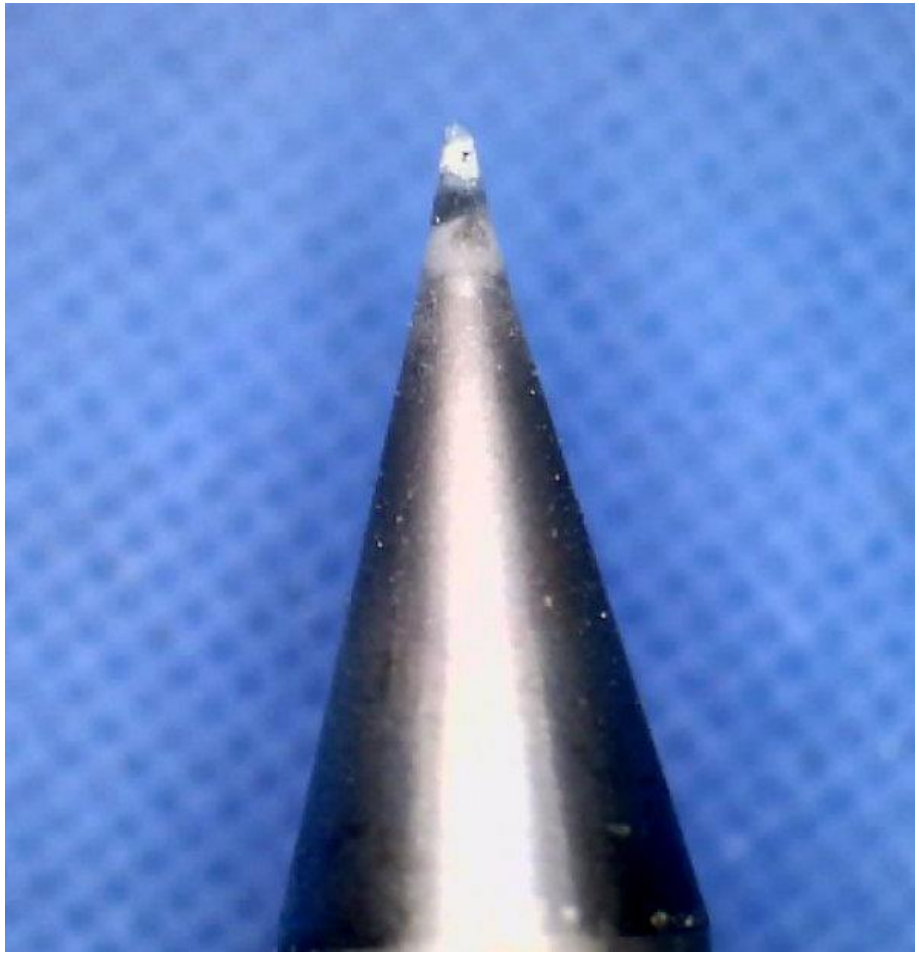
Appearance of one of the electrode tip from a new pair.

Regular maintenance

Why is routine maintenance good practice?

Electrodes

After ~ 1000 splices a layer of silica glass contamination can be seen around the electrode tips.



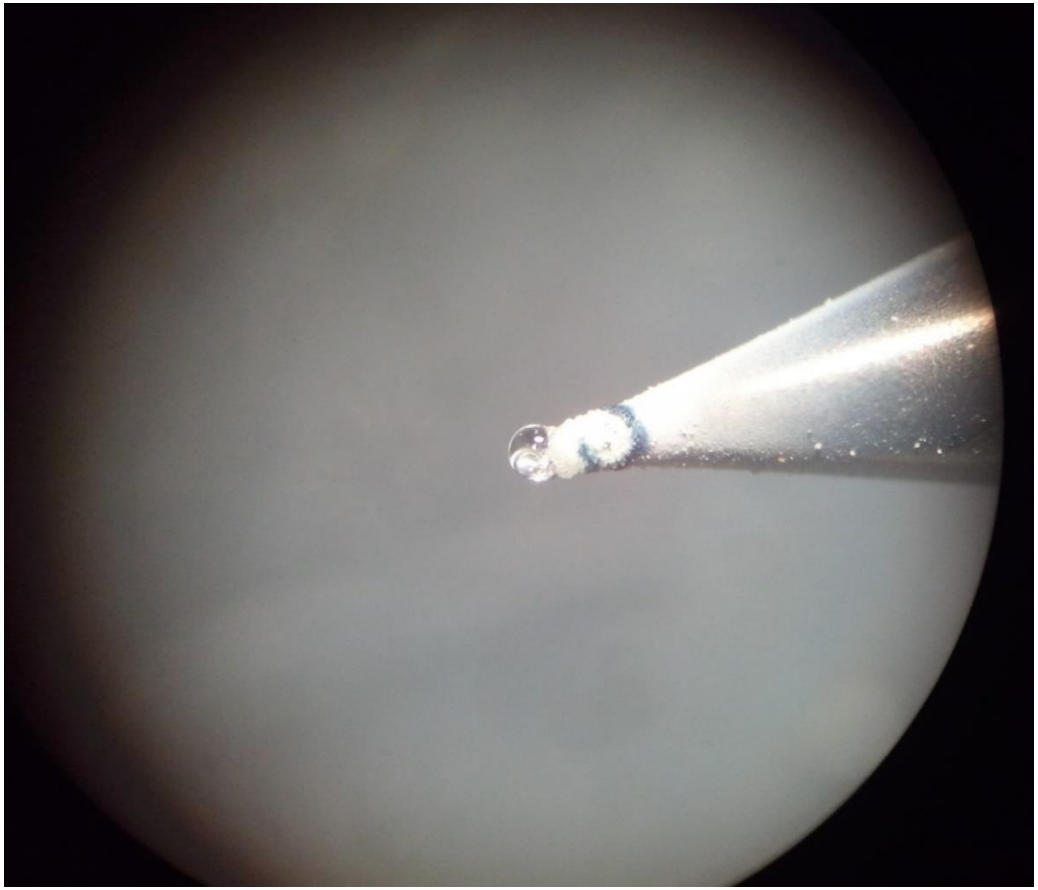
Regular maintenance

Why is routine maintenance good practice?

Electrodes

After several 1000 splices, the contamination around the tips will be heavy enough to cause the arc to be unstable.

At this point its time to replace the electrodes before splicing quality deteriorates.

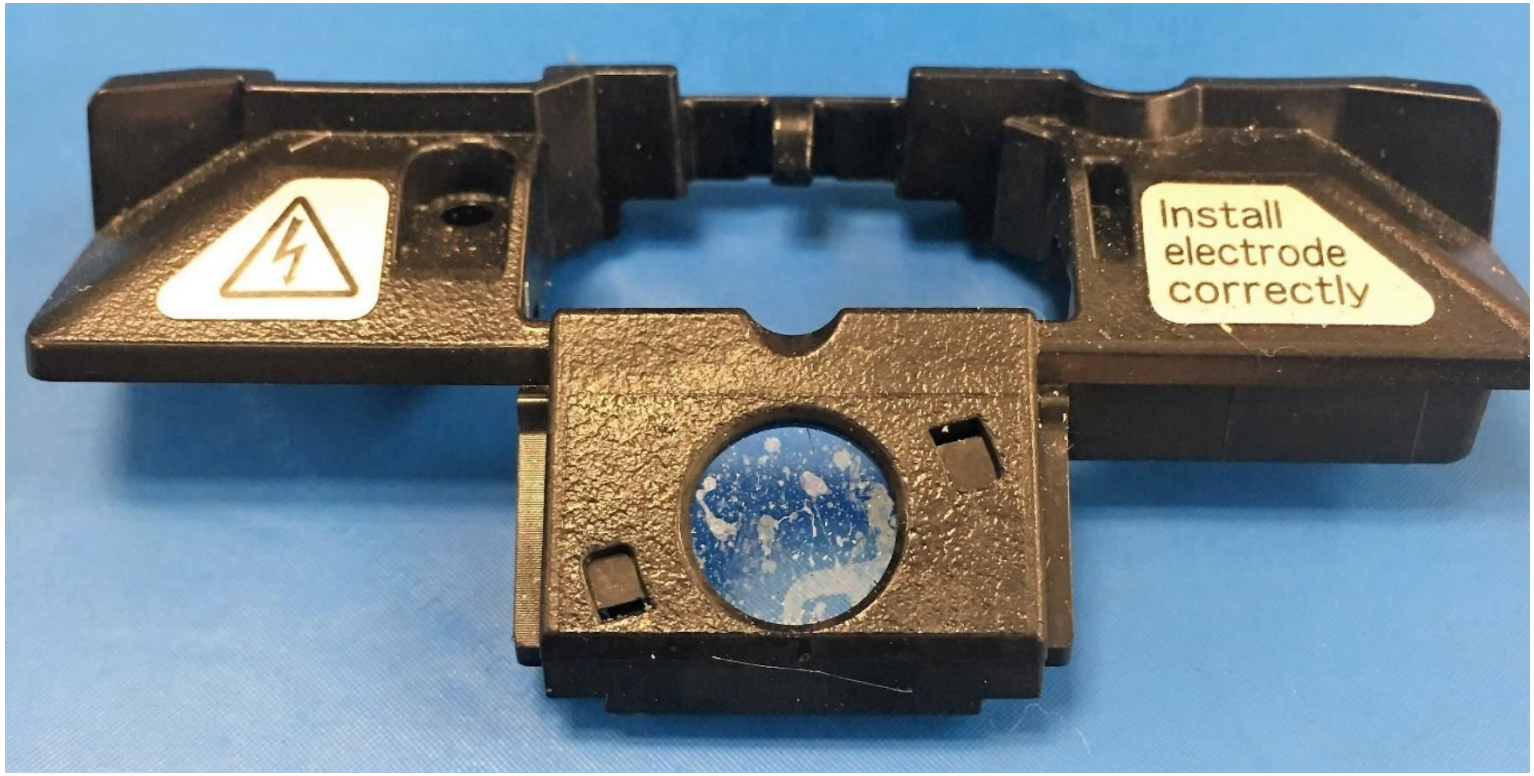


Regular maintenance

Why is routine maintenance good practice?

Microscope lens protectors

Lens protectors are just like wearing spectacles, if they are dirty its difficult for the splicer to see finer detail like the fibre core clearly.



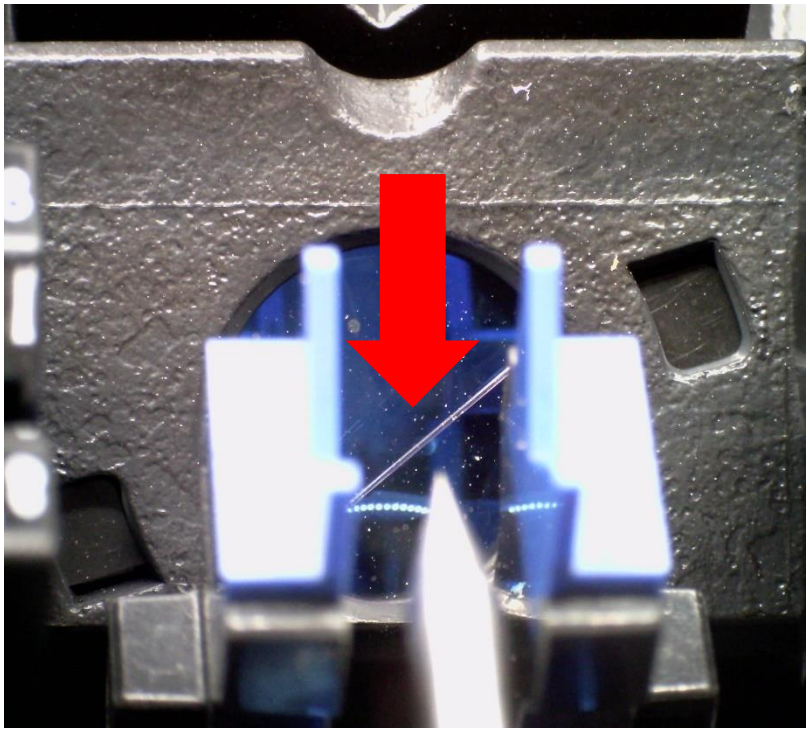
SUMITOMO ELECTRIC GROUP

Regular maintenance

Why is routine maintenance good practice?

Microscope lens protectors

Watch what happens when a foreign object interferes with the splicers optics.



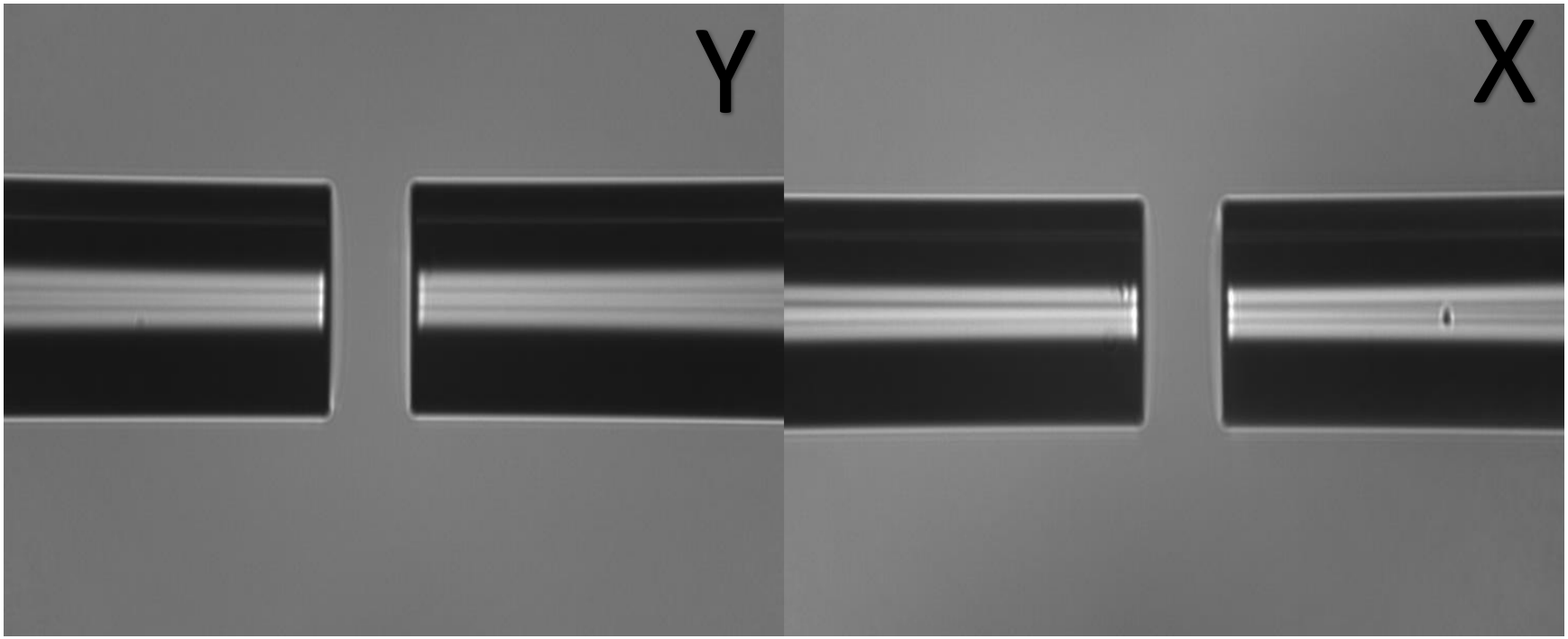
Regular maintenance

Why is routine maintenance good practice?

Microscope lens protectors

The splicer can't correctly recognise fibre type.

Look at how different the fibre image appears when something is in the way.



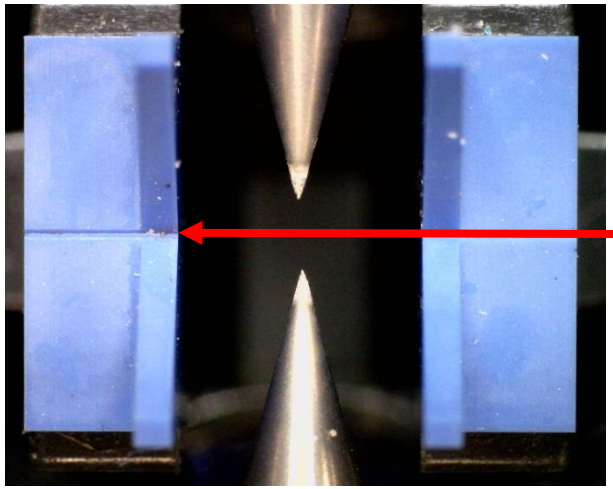
Remember this the same fibre, just viewed from two between directions X & Y.

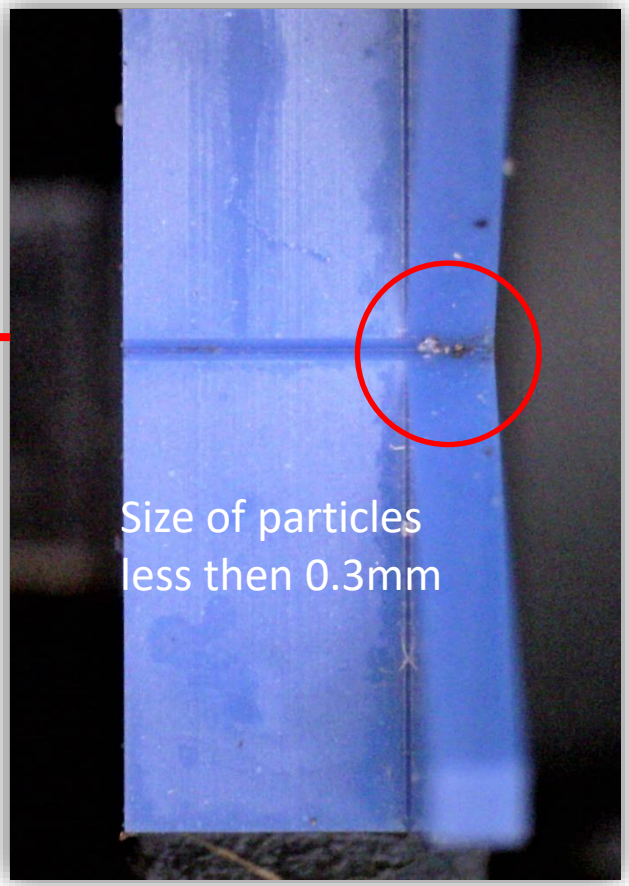
Regular maintenance

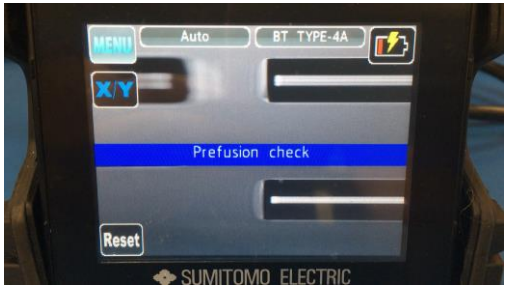
Why is routine maintenance good practice?

V-Grooves

Dirty v-grooves are bad for your splicer.
Watch what happens when some dirt partials build up in the v-groove.





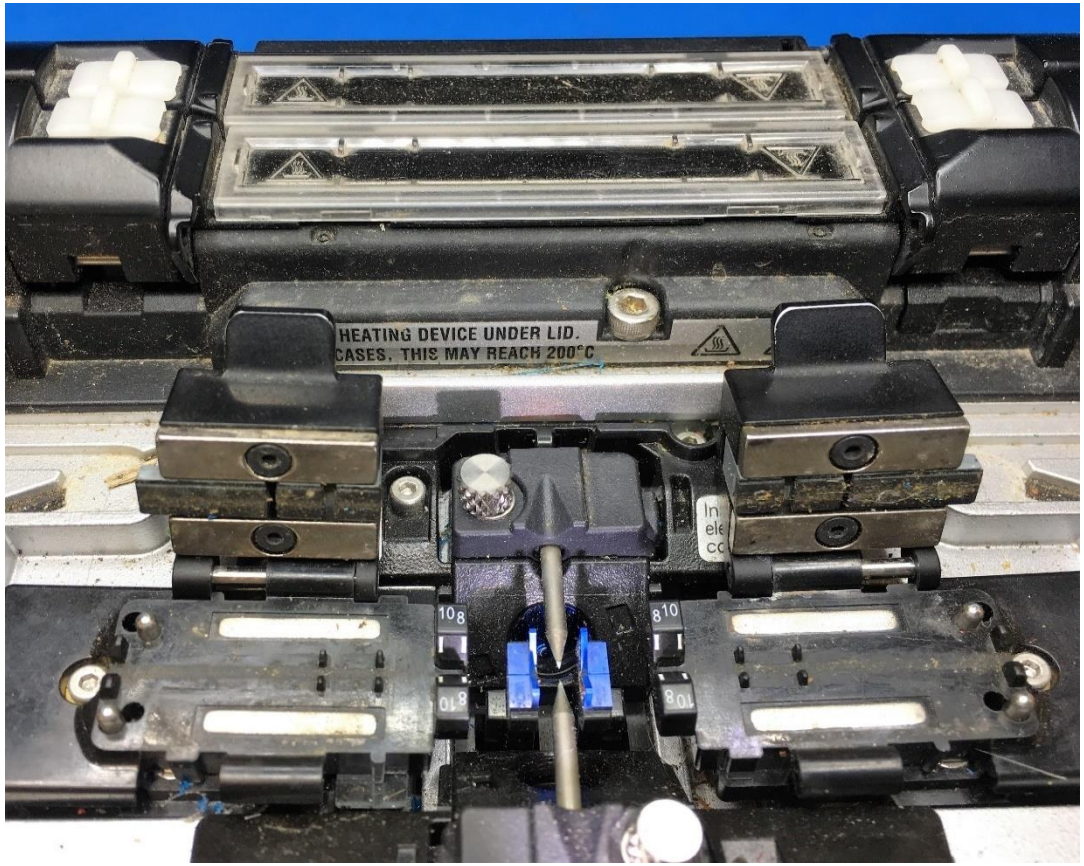


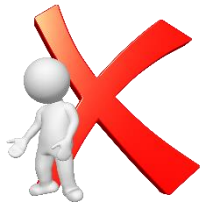
Regular maintenance

Why is routine maintenance good practice?

Keeping your splicer clean

Remember a fusion splicer is a precision instrument that needs to be kept clean in order for it to function correctly..





Regular maintenance

Why is routine maintenance good practice?

Keeping your splicer clean

Keeping your splicer clean will result in less downtime.

Regular maintenance

Why is routine maintenance good practice?

Maintaining your splicer & cleaver

So let us show you how to maintain your splicer & cleaver the Sumitomo way!