

Bristol Hackspace
Agenda Items for the Members Meeting on Tuesday 12th July 2016
G10 Electrical sockets
Power for the Hardinge Lathe
John Willis 2016-07-11

Item 1: Electrical Installation in G10

Budget:	Quote valid to 28th July	£1469.00
	VAT	£ 293.8
	sub tot	£1762.8
	Contingency 10%	£ 176.2
	Tot	£1939.0

Budget Requested: up to £2000

Detail:

Replace the consumer unit with a 10 way one
Install a ring main with 9 double sockets along the bench wall
Install a ring to a pole with 8 double sockets near the laser cutter.
Sockets are to be white surface mounted plastic with neon indicators.

Justification

The electrical distribution system in G10 is not fit for purpose.
The daisy chained extension leads frequently pose a trip hazard.
There has been at least one case where a machine under test could not be turned off quickly when a fault developed due to the use of multiple extension leads. On that occasion it did not lead to an accident.
It is inconvenient to have to find a free socket before using a machine.

Issues:

Its not clear if the proposed system includes a local breaker to protect the 80 amp fuse in the building distribution room.

The specification for neon indicator sockets was part of another section of the quote so must be confirmed.

The contractor is not responsible for clearing the area or making good walls.

The Landlord may have a problem with routing cables to the central pole.

The cost for an additional double socket is £35 + VAT. It is probably not worth trying to reduce the cost by reducing the number of sockets.

Next Steps

Approve in principal the budget for this activity.
Discuss any work Nick would like to have done at the same time and agree to shutting off power to his area during the installation.
Clarify issues with the quote referred to above and re-quote if necessary.
Allow others to obtain competitive quotes within one month of the meeting.
Obtain agreement from the landlord
The committee be given the authority to approve the final purchase.

Item 2 Power for the Hardinge Lathe

Item 2-1

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Switched spur to a switch near the Hardinge Lathe

Estimate (half the quote above minus most sockets)	£550
VAT	£110
sub tot	£660
Contingency 20%	£132
Sub tot	£792
Budget	£800

Item 2-2-A

New Transwave MT2.2KW240VIP32 rotary inverter

Price (current ebay price inc delivery & vat)	£726.00
Contingency 10%	£ 72.6
sub tot	£798.6

Budget Requested up to £800.00

Item 2-2-B Used Transwave MT2.2KW240VIP32 rotary inverter

Budget Requested up to £300

One sold on ebay for £165 last week (collection only)

Item 2 Issues

We could buy a 240 volt lathe for the cost of power to the hardinge.

A partial quotation for 63 amp 3 phase to G10 indicated that it would cost around £2000 to connect the lathe to a 3 phase supply

The power specification for the Transwave 2.2KW model was for 20 amp 2.5mm cable. The next three models up required 4mm cable with breakers rated at 25amp / 32 amp for the 5.5KW model. This would allow us more flexibility sourcing a second hand unit and to run more 3 phase items with a larger converter.

Transwave recommended the 2.2KW unit over the phone.

Need to check the noise level of the rotary converter.

May need to get a qualified electrician to wire the Lathe to the wall switch.

Next Steps

Decide to go ahead with the Hardinge Lathe

Agree the budget in principal

Obtain quotes for the electrical work for both 2.5 & 4mm cable and authorise the committee to decide which approve the spend.

Decide on a time limit to procure a second hand unit and authorise 3 people to procure the unit..