

NCTR26108 – Table Mounted Universal Materials Testing System of 50kn Capacity

Clarification Document

Q1	Requirement B4 requests a 200N capacity load cell. Could you explain why a second load cell is required? What is the lowest force limit required on the system? If an alternative capacity covers the required range, is this acceptable?
A1	We require accurate measurement down to 5 Newtons for biological samples. A 200 N loadcell previously sufficed but if an alternate is available this is acceptable, we previously used a 50N load cell for his application, however it is believed 200 N enables greater flexibility. Please provide full details of all options in your tender submission.

Q2	For requirement B5, the tensile grips are required for testing flat and round specimens. What are the ranges of thicknesses of flat and diameters of round specimens that will be tested?
A2	Flat bar grips to open more than 4mm x 20mm wide by >50 mm deep for standard polymer specimens (confirming to ISO 527 - from modulus and matrix) and sheet metals are desirable. Round specimens are bought in 5 mm shaft, 8mm od head, overall length approximately 37mm, conforming to BS EN ISO 6892. Please provide full details of all options in your tender submission.

Q3	Also in B5, it requests compression platens. What diameter compression platens are required?
A3	10cm would be sufficient. Please provide full details of all options in your tender submission.

Q4	In requirement B6, it specifies “Re-positioning repeatability”. Does this mean the repeatability of returning the crosshead to the home position after every test?
A4	Yes, unless programmed otherwise.

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Q5	In requirement B7, the palletised maximum height is 1900mm. Is this a hard limit or is there any scope for slightly higher?
A5	This is the lowest door height to the laboratory. If the unit can be tilted at the installers risk to enable access, this is acceptable to TU Dublin.
Q6	Also in requirement B7, the maximum depth is 690mm. Is there any scope for a deeper bench for a larger machine up to 720mm depth?
A6	Current bench width is 700mm. If proposed units' feet sit within that, or a support is supplied, that is acceptable to TU Dublin.
Q7	In requirement B8, for the video extensometer, what size and gauge length of specimen will be tested and what is the expected elongation? This is to correctly specify the field of view of the video extensometer.
A7	We use standard samples as in A2 but also carry out research which is subject to random variability, metals, polymers ,and fine ceramics. We will use it for tensile, compression, and flexural testing. Please describe the option(s) which best fulfil this capability.
Q8	For requirement B9, please elaborate on what is required. The grips and fixtures supplied will be compatible with the main system, please give further details on the purpose and type of rigid coupling adapters.
A8	We have a range of grips from our current machine, and the adapters would enable us to continue using them with the new machine and retain our existing capabilities.



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Q9	For requirement B20, can you clarify if the PC will be supplied by TU Dublin, or if a vendor supplied PC is required?
A9	PC will be supplied by TU Dublin. Currently model in use is a Dell Optiplex 5070. If a higher specification of PC is required to interface with proposed equipment or to run its software, please provide full specification requirements in your tender submission, including any option for PC to be provided with equipment.