Mississippi State University

June 13, 2018

Re: 18-62, Addendum #1, Universal Testing Machine

To Whom It May Concern:

The following questions were received pertaining to the above bid file. See answers below and bid accordingly.

Q1) The bid states "load capacity of at least 115,000 lbf" and "testing rebar (#2 thru #11)". #11 rebar can vary between 110 kip to 140 kip (depending on grade). We do offer a 135 kip (600 kN) tester but are concerned that this is not sufficient for #11 rebar. See attachment - rebar.jpg. We would recommend our 225 kip tester but we also want to be competitive in price. Do you have a preference?

A1) If the machine can achieve 115,000 lbf and grip #2 to #11 rebar when loaded at to less than 115,000 lbf that is sufficient for our needs. 135 kips (135,000 lbf) is fine. We understand that 115,000 lbf can't test #11 rebar to failure in all cases, but our needs do not require us to be able to do so.

Q2) Our DX-Series Tester can be configured with either open front hydraulic grips or manual crank & pinion grips. See attachment - Open front Hydraulic Grips vs Closed Manual Crank and Pinion.jpg. Hydraulic grips are easier, faster to use, and less susceptible to specimen slippage. Manual grips are cheaper. Do you have a preference?

A2) Manual crank & pinion grips.

Q3) Tensile Testing of Rebar: Do you require that an extensometer be quoted?

A3) No

Q4) What are the specimen sizes for compression? Typically cement morters are 2" cubes and concrete cylinders are 4"x8" or 6"x12". I will assume that your cement morters are 2" cubes (unless you tell me otherwise). In regards to concrete cylinders, will you be testing 4x8, 6x12, r something different?

A4) We need to be able to test cubes that are 2", and cylinders with diameters varying from 2" to 6" where heights are twice the diameter (e.g. 2x4, 3x6, 4x8, and 6x12).

Q5) In regards to Cementitious Specimens in Tension, I just want to make sure that you are only referring to ASTM C496 (Standard Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens).

A5) We need to be able to perform a variety of tensile tests. ASTM C496 is one configuration. Other configurations are also likely, but we can perform the needed testing so long as the machine can apply at least 115,000 lbf and grip #2 to #11 rebar with an opening as already specified between grip locations.

Q6) In regards to DAQ capable of recording elastic modulus & Poisson's ratio of cementitious specimens (ASTM C469, testing collar not required to be provided by vendor), could you provide additional details regarding testing collar not required to be provided by vendor? If you are providing your own collar, would you also be providing the transducers? If you are providing your own collar with transducers then we would need to know more about the transducers if you want them to interface with our DAQ.

A6) Please provide a price on the quote for your transducers without a collar.

Q7) In regards to data from a minimum of four strain gauges, are your strain gauges supplied with their own excitation? If so, is the output dc? We do offer strain gauge adapter boxes that allow use of 120-ohm and 350-ohm gauges that allow you to use the ac excitation and signal conditioning.

A7) No, our intention is to use 120-ohm or 350-ohm foil strain gages that can be attached to, for example, rebar, wood, concrete, or other materials, and the leads from those strain gages be connected directly to your equipment so that their strain readings can be written to a file within your system on the same time scale as load and stroke.

Q8) In regards to Equipment must meet OSHA safety requirements for electrical equipment for measurement, control, and lab use, could you provide additional details? Is this merely something like CE? Or, do you require an NRTL-approved certification (such as UL or CSA)?

A8) We don't fully understand this question. We need a piece of equipment that is safe to use in a materials laboratory environment. We are not sure what some of the acronyms you have used refer to. If you would like more clarification on this question, please provide more specific information as to your inquiry and we will work to find an answer.

Addendum: Acknowledge the receipt of each addendum by writing on the bid form the number of the addendum and the date received.

Thank you,

Debra Raines
Bid Specialist