**Automatic Cableway System**

All cableways shall use an automatic cableway gauging system. New cableways that are installed will accommodate the automatic cableway gauging system. The automatic cableway gauging system shall have the capability of being shared among all cableways.

The automatic cableway gauging system shall meet or exceed the following specifications:

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| **Automatic Cableway** |
| **System** |
| **Site Conditions** | * Ambient temperature: -30 to +60 degrees C (air)
* Relative humidity: 5% to 100%, semi-arid climate
 |
| **Shared System** | * The system shall perform river and stream discharge measurements from fixed cableways using either conventional Columbus type gauging weights and mechanical current meter or Acoustic Doppler Current Profiler (ADCP)
* The system shall be operated from the bank of the river or stream using remote control
* The system shall allow the current meter or ADCP to traverse the stream at user selected distances and user selected depths (in the case of the current meter).
* Digital distances and depths shall be automatically recorded with a stream discharge computer in the field.
 |
| **Distance Measurement** | * Horizontal distance and vertical depth shall be measured and recorded within or equal to 0.1m
 |
| **Remote Control** | * The remote control shall allow for control up to 500m in range from the bank operated discharge point
* Limit switches or other safety precaution shall be included to prevent damage to the hoist or horizontal traversing mechanisms
* Motors shall be protected with electrical fuses to prevent motor overload. The fuses must be standard and available in India
* The power source for the remote control device shall be by common batteries, such as C, D, AA, AAA
* If radio frequency is used for remote control, the radio shall comply with the regulation for wireless devices in India
 |
| **Hoist** | * Hoisting mechanism used to move discharge devices into the water shall be capable of using the 135kg weight, and all associated equipment used for making the discharge measurement
* Hoist power requirements shall be provided by 12V DC batteries, and shall be commonly available in India
 |
| **Discharge Measurement** | * Automatic cableway gauging system shall include a built in signal processor for current meters and ADCPs
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| **Discharge Computer** | * Each automatic cableway system shall include a field computer that will be used to calculate discharge in the field (Aquacalc 5000, Hydromate, or better)
 |
| **Software** | * All software to process the discharge measurement and incorporate this measurement into the development of a rating table shall be included. Software shall be able to create discharge tables to be transferred to the data centre and on to the DSS.
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| **Tools and manuals** | * Complete tool kit for installation and routine maintenance giving full details (number of pieces and type)
* Full documentation and maintenance instructions in English (1 copy per station)
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Items in RED are to be used for the Bid Evaluation Review (BER).