

# Water Measuring Jar for Concrete Mixer

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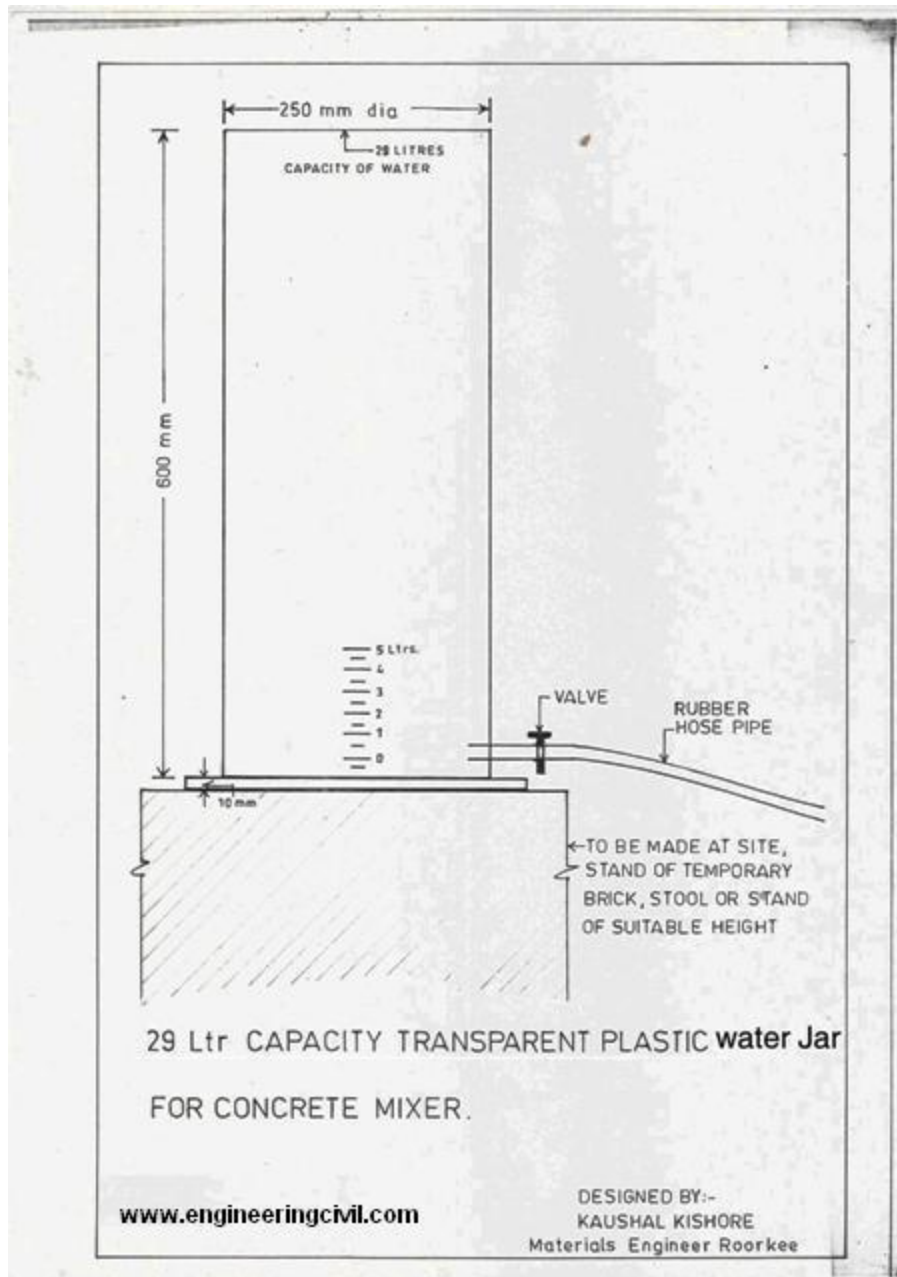
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In about 80% of our construction sites, the water in the concrete mixer is added in a very crude manner either direct from a hoze pipe or by some container without any proper measured quantity. Thus no consideration is given to maintain free Water/Cement ration to its correct specified value resulting production of poor quality of concrete. The addition of mixing water in the concrete mixer with these crude methods always add more water then actually required. This excess water in due course evaporated leaving voids and increasing the porosity of the concrete. Such concrete will have lower strength and also will be not durable.

Therefore it is very important to maintain free W/C ration to its correct value in all the batches of concrete. Free W/C ratio means mixing water added to saturated and surface dry aggregates ie, if the site aggregates are dry extra water is to be added in the mixing water as per the absorption of aggregate, and if the site aggregates contains surface water, this surface water is to be deducted from the mixing water. The weight of aggregates should also be adjusted accordingly. A Concrete Mix Design is reported in standard moisture condition of aggregates and this is saturated and surface dry aggregates. If aggregates are being taken by volume bulking of sand should be taken into consideration.

To solve the construction sites mixing water problems, a simple graduated transparent plastic jar of least count 0.5 ltr, as per drawing should be supplied along with the mixer or may be fabricated at site. This Jar be installed at site near concrete mixer as shown in the drawing. The water may be filled in the jar to the quantity of required gauging water. While mixer is running the measured water in the jar slowly drain in the mixer drum through rubber hoze by opening the valve. If ADMIXTURES are to be used and required to be mixed with the gauging water, this may be mixed with water of the jar.



We at engineeringcivil.com thankful to **Sir Kaushal Kishore** for publishing his paper on "Water Measuring Jar for Concrete Mixer".

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