

2088: ADJUSTMENTS TO TOTAL WATER (D159)

Specification for enhancement to allow adjustment of total water on the design-product relations screen

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RELATED DOCUMENTATION

Name	Location	Details
D159 Extra Material (Water) - Design to Products Relations.doc	\\adls0003\Documents\Customer\Active\AURMX - Readymix Holdings\42003 National System\Specifications\D159 Extra Material (Water) - Design to Products Relations.doc	Original Specification

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1. Business Requirements

1.1 Overview

Currently adjustments to the amount of water added to designs can be done only within the mix designs / change points area. With a particular design group there can be many products mapped to it via design to product relations. Using "Extra Materials" we can modify some of these products to suit requirements but water cannot be adjusted at this level. This specification covers an enhancement to add "total water" to the list of constituents that can be adjusted.

2. Functional Requirements

2.1 Overview

The main change required to the QESTMix user interface is the addition of new columns on the design-product relations screen in which the user can adjust the total water from the original values (taken either from the mix design screen, or by interpolating between change points). This will also require some changes to the core mix components to support the water adjustment.

Another, independent change needs to be made to the bill of materials export, which is to change the source of the "water" field, depending on whether the mix is for a computer (eagle) batched plant, or for a manually batched plant.

2.2 Changes to Design Product Relation Screen

Plant	Product Code	Alt	Mix Group	Mix Code	Level Grd	F/c	Slump	Mix Name	Water Adj.
5412	NS151FBMX		N1FBMX_011		345 S15	15		S15 10mm BLOCKMIX C	20

Figure 1: Mockup of the design-product relation screen

Two additional columns will be added to the design-product relations grid. These will be labeled similarly to the other "extra materials" columns. The first column will contain either a '+' or an 'x' ('d' is not applicable for water). The second column will be labeled "Water Adj.", and will allow an adjustment to the total water in the mix – this will either be an amount to add (could be negative), or a factor to multiply by.

Both of the new columns will be shown only when the "Extra materials" checkbox is marked.

Values in these columns will affect products based on this design-product relation only. The effect will be that the Total Water will be adjusted from the amount specified in the original design, as shown in the screenshots below. In turn, this will also affect the added water (note that the added water may also have been affected by other material substitutions etc).

Figure 2: Screenshot showing the original mix design

When the create and update process is run, the product will be updated. The total water in the product will be adjusted using the values specified for its design-product relation. Note: when the product is based on interpolated values between two change points, the water adjustment will be applied after interpolation.

Figure 3: Screenshot showing the final product

2.3 Changes to Bill Of Materials Export

Currently the Bill Of Materials Export uses the "Total Water" field for all plants (both manually and computer batched plants). This is correct for computer batched plants, however, it needs to be changed to use the "Added Water" field for manually batched plants.

The exported data will always contain the data in the product mix, and hence, any water adjustments will have been applied.

3. Assumptions and Additional Constraints

n/a

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