

## Alusic aluminium profile and accessories – faster, more cost effective assembly

### STANDARD BOLT CONNECTION

A simple, yet strong joint can be achieved by using both an Allen head screw and square washer screwed into the core hole of the profile (see image on left). A small pilot hole is drilled opposite where the joining profile is to be located so that the screw can be tightened. This is the standard joint for the Alusic range and is a very cost effective outcome.

- ⇒ **The cost per Alusic connection as shown is \$0.34** using an M8x20 bolt (084.301.003) and 13x13 square washer (084.303.001).
- ⇒ Achieves an extremely simple, yet strong connection in under 1 minute.

***A leading competitor's equivalent connection costs \$4.84\* each and takes 3 times longer to achieve***

In some applications you may also add our anti twist device that replaces the square washer in the standard connection. The twin tabs on the anti twist device go into the slots of the connecting profile and stop any twisting in the joint – a simple and effective solution.

### CONNECTION SYSTEM

Typically the standard Alusic connector represents a significant time saving over the competitor's connection system. This time saving when multiplied over a large project, or on multiple assemblies can have substantial cost saving and production benefits.

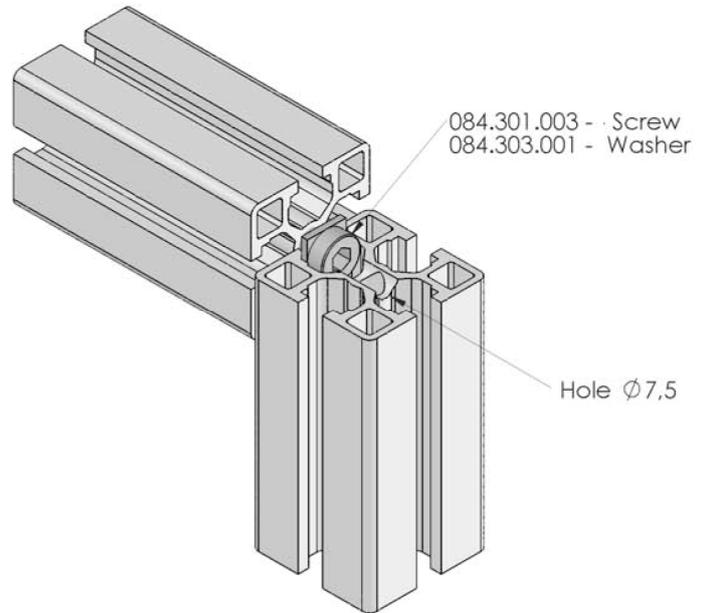
Using the Alusic Connection System:

- ⇒ First the drilling guide is attached to the selected profile;
- ⇒ Then a pilot hole is drilled according to the pre-determined holes on the drilling guide;
- ⇒ Next, the adjoining profile is tapped to M8;
- ⇒ Finally, the Alusic connector is then screwed into the tapped hole and slid into the adjoining profile and a 5mm Allen key is inserted through the pilot hole and tightened;

***Tip – A ball head Allen key makes the job even easier!***

- ⇒ For extra strength in the joint, we recommend a drop of Loctite on the screw thread prior to joining.

### CONNECTION IN UNDER 1 MINUTE!!!



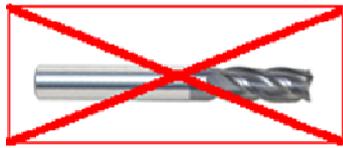
### 300% to 500% FASTER



## SAVE TIME & MONEY

The total time taken to complete a standard Competitor's connection is 2-3 minutes depending on available tooling; with the cost of the competitor's connection being up to 300% greater in labour costs alone, let alone the higher material cost of the connectors.

With a competitor's connection, the distance from the profile end, to the centre of the cross bush is critical to ensure the connector works effectively; if this is not achieved accurately this length of profile is left unusable whereas with the Alusic connection system the pilot hole is simply re-drilled and the adjoining profile tapped accordingly.



## NO MILLING OR SPECIAL TOOLING

The distance of the pilot hole with Alusic profile is pre-determined by the drilling jig with several millimetres of adjustment from side to side.

With the Alusic connecting system there is also the option of self tapping the screw into the adjoining profile as opposed to pre-tapping to ensure the connector has the best possible fit and to eliminate any possibility of vibration affecting the joint.

The potential for a loose joint can also be eliminated with the use of thread locking products like Loctite although this is not essential as the connection is extremely effective without this process.

*\*Prices correct at April 2015*



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## COST BENEFIT

To demonstrate some of the labour cost savings that can be achieved using the Alusic system we have performed a cost comparison exercise.

On the structure shown below, we conducted a time and motion study and have estimated the labour saving that could be achieved using the Alusic aluminium system when compared to a comparable, high quality European competitor's profile.



There are 350 individual connection points on this frame with a saving of between 300% to 500% in labour costs using Alusic standard connectors.

In other words, if using a competitor's connector that takes up to 3 minutes per connection point, you would require 1,050 minutes or 17.5 hours just to complete the connections on this structure and it would cost \$1,694.00\* just for the connectors.

Using the Alusic connector it takes less than 1 minute per connection and you would complete the connections in 5.8 hours and with a cost of only \$119.00\* for the connectors! That is 3 times faster than the competitor and an enormous cost saving in labour alone. That is a saving of 11.7 labour hours per structure and \$1,575.00\* in material costs!



Scan me to find out more



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