WHITEPAPER:
THE BOLTED HOPPER OF TSC

(Patent pending NL/EP/USA)

TSC has developed an innovative approach to constructing square silos with a seamless integration of the hopper with the structural column. The key advantage of this integration lies in the entire structure being securely bolted together. This eliminates welding during assembly. This bolted hopper concept has already been successfully employed in coffee projects in Spain, France, and Switzerland for some of the most renowned coffee brands in the world.

Traditional silo design and construction methods involve welding the hopper and column to the steel structure. During the installation of the silo, a slating plate is welded to connect the wall to the hopper. However, welding on site has several drawbacks, such as introducing additional safety requirements, especially when the facility is operational during silo construction. Welding can impact the coating and, moreover, welding demands specialized personnel and prolongs the construction process.

Notably, the bolted hopper concept maintains all the advantages of TSC's custom-made silos, allowing for tailor-made hopper angles, outflow dimensions, and outflow positions as specified by the client. These custom silos are manufactured in partnership with European factories known for adhering to the highest standards. Thus, if you require a profiled wall, lightweight silo suitable for handling free-flowing bulk solids, TSC's new bolted hopper is likely the most optimal choice.

Fig.1 | A 3D render of the bolted hopper system

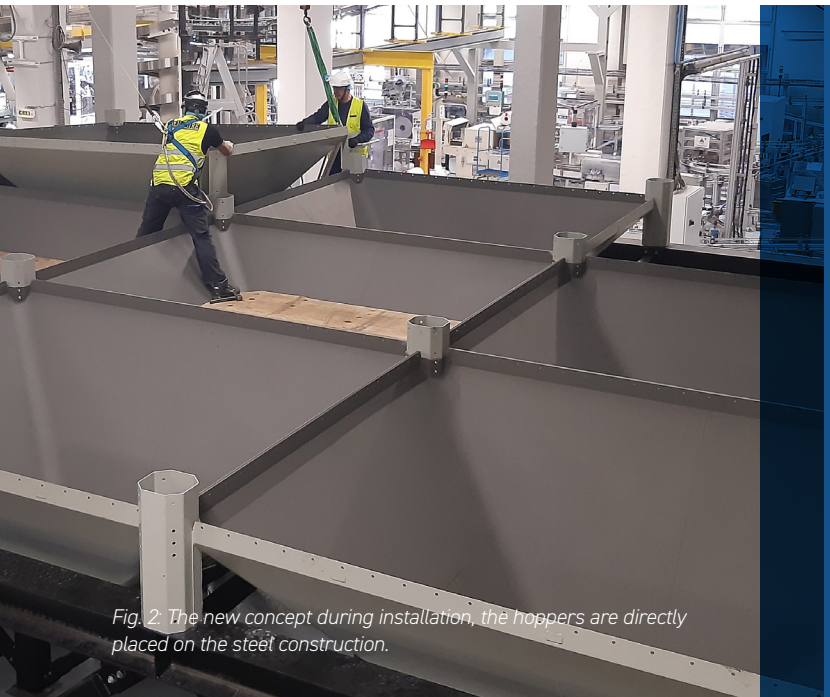

Fig. 2: The new concept during installation, the hoppers are directly placed on the steel construction.

BENEFITS

By eliminating the need for welding, the entire silo construction can be installed in one go by a single team. This approach offers significant benefits, including:

- Preservation of the original paint without damage
- Absence of heat-affected zones in the steel
- No requirement for hot work permits
- Reduced installation time
- Potentially no need to halt factory production for silo construction

TSC-Silos ■ Aalten, The Netherlands
info@tsc-silos.com ■ www.tsc-silos.com