Stamo Agitation Solutions

**Engineered for Superior Strength and Energy Efficiency**

Since 1949, Stamo has designed and constructed robust and energy efficient mixers for process solutions. One of Stamo’s enduring innovations is the use of a square, hollow shaft for deeper applications. Stamo’s hollow shaft is constructed of structural carbon steel which has several advantages over solid, round stainless steel shafts:

- Superior tensile strength
- 2x the fatigue life
- Lighter per foot of length
  - 85 foot shaft lengths without the need for lower bearings
  - Smaller and lighter bearings and improved harmonics
  - Less structural support required to install
  - Lower HP required to operate
  - Reduced installed cost

Stamo provides agitator shaft stands which:

- Minimize forces on the gear box
- Can be used as a bearing housing
- Undergo strength analysis using the Finite Element Method (FEM)

**More Than 60 Years of Knowledge Backed by Modern Design Tools**

Stamo uses Computational Fluid Dynamics (CFD) along with *Flow Calculate* which is a proprietary sizing program developed by Stamo to ensure each agitator meets the following guidelines:

- Is highly reliable
- Provides uniform mixing intensity in the entire liquid volume
- No plug flow
- Requires limited maintenance or spare parts
Square Shaft Stainless Steel Cladding for Superior Protection

Many water and wastewater applications – whether due to pH or other site-specific requirements – require all wetted parts to be stainless steel. Stamo meets this expectation by cladding each of its carbon steel hollow shafts with 304 or 316 stainless steel.

STEP 1: The square shaft is inserted into square cutouts in the mating flanges and welded into place (Fig. A).
STEP 2: The shaft is positioned on the horizontal plane to allow for easy welding access (Fig. A).
STEP 3: Factory bent stainless steel sections are placed on the square shaft and tack welded in place (Fig. B).
STEP 4: The cladding is then seam welded by hand to make a continuous, water-tight skin (Fig. C).
STEP 5: The welded cladding is meticulously checked for pinholes to ensure no moisture can penetrate the weld.

Stamo’s innovation, precision, and knowledge produce a finished mixer product that is stronger, lighter and yet still protected from the harshest of environments (Fig. D).

Rugged & Energy-Efficient Stamo Mixers Combined with Kruger Process Solutions

Kruger supports Stamo installations with an expert, US-based staff and warehouse facility, providing the assurance of local support for a world class mixer.

Contact your local Veolia representative for more information:

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