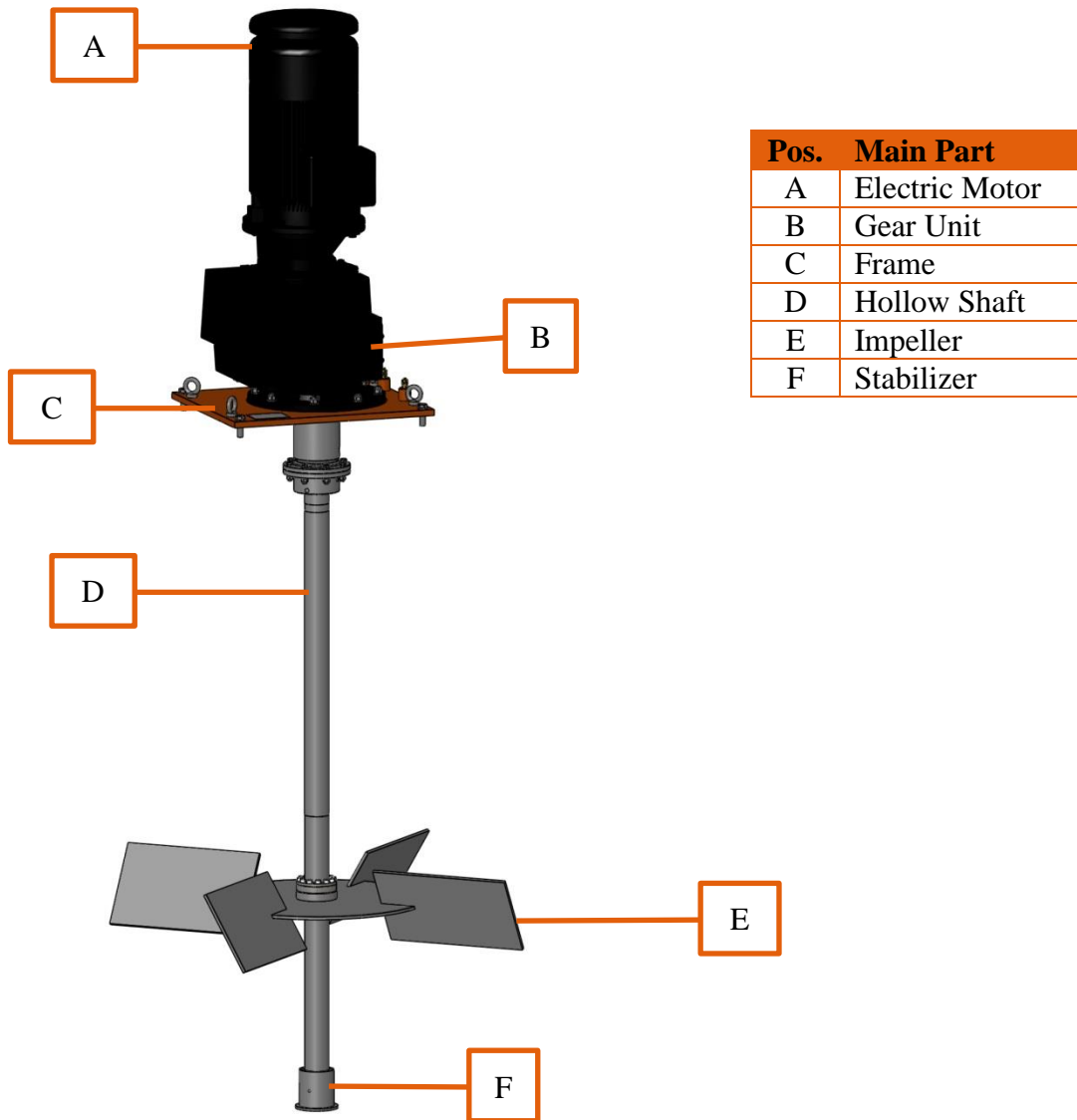


## Agitator Equipment Description

M-I SWACO AGITATORS are widely used in drilling applications to generate mechanical agitation needed in mud preparation, processing and storage. A carbon steel impeller rotates directly into the mud at a fixed speed providing homogenous mixing. The main parts of these Units are:



An explosion proof electric motor is connected to a gearbox to drive the impeller shaft (shown in the figure) with required speed and torque. The impeller rotation generates homogeneous mud mixing.

A stabilizer at the bottom reduces vibration in the system and increases stiffness.

## Mounting Position

Two mounting positions are available for the Electric motor and the gear unit: horizontal and vertical.



The vertical position allows further space for movement around the unit, where the horizontal version allows further space for that equipment that must be installed above the agitator.

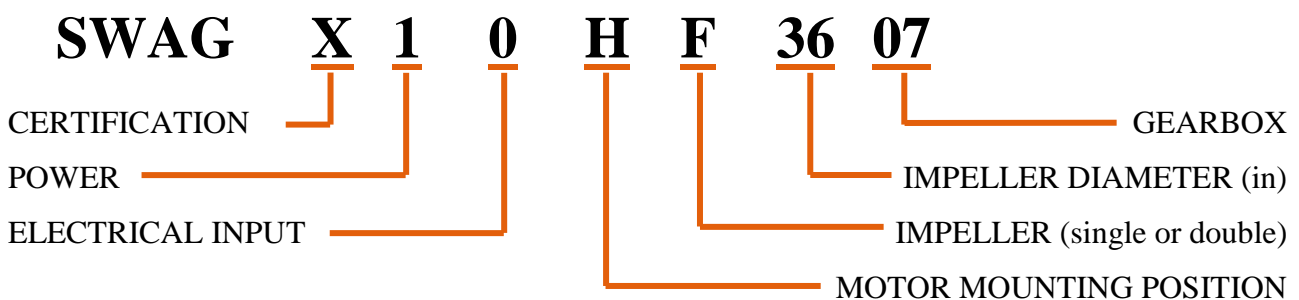
## Temperature Ranges

Different operating temperatures are available:

- between 0°C and +40°C (Atex Zone 1 compliant version);
- between -20°C and +40°C (Atex Zone 1 compliant version);
- between 0°C and +55°C (CE marked version).

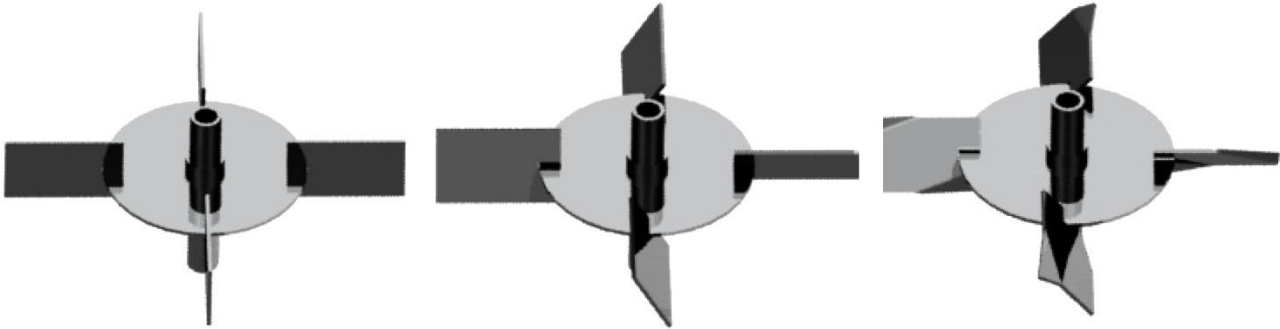
## Agitator Nomenclature Definition

M-I SWACO AGITATORS are identified by a 13-digit code, constructed as follows:



## Impeller Types

Three types of Impellers are available:



### FLAT IMPELLER

Typically used for mixing in low tanks (less than 1.5 m height). The Flat Impeller provides high shear force and mostly radial flow for immediate mixing.

### CANTED IMPELLER

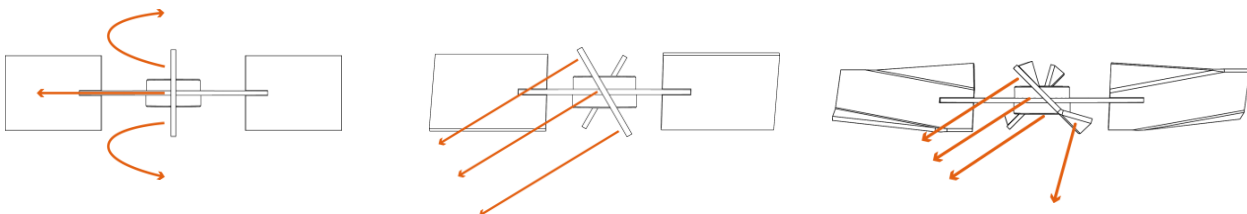
Used mostly in active mud system compartments (such as solid removal sections or mixing sections), the Canted Impeller provides high shear mixing force with both axial and radial flow. For tanks higher than 3.5 m, two or more impellers may be used in combination on the same shaft.

### CONTOUR IMPELLER

Typically used in suction or storage compartment, the Contour Impeller provides low shear mixing force with mostly axial flow to prevent air entrance.

## Flow Direction

The Impellers have distinctive flow direction proprieties:



### FLAT IMPELLER

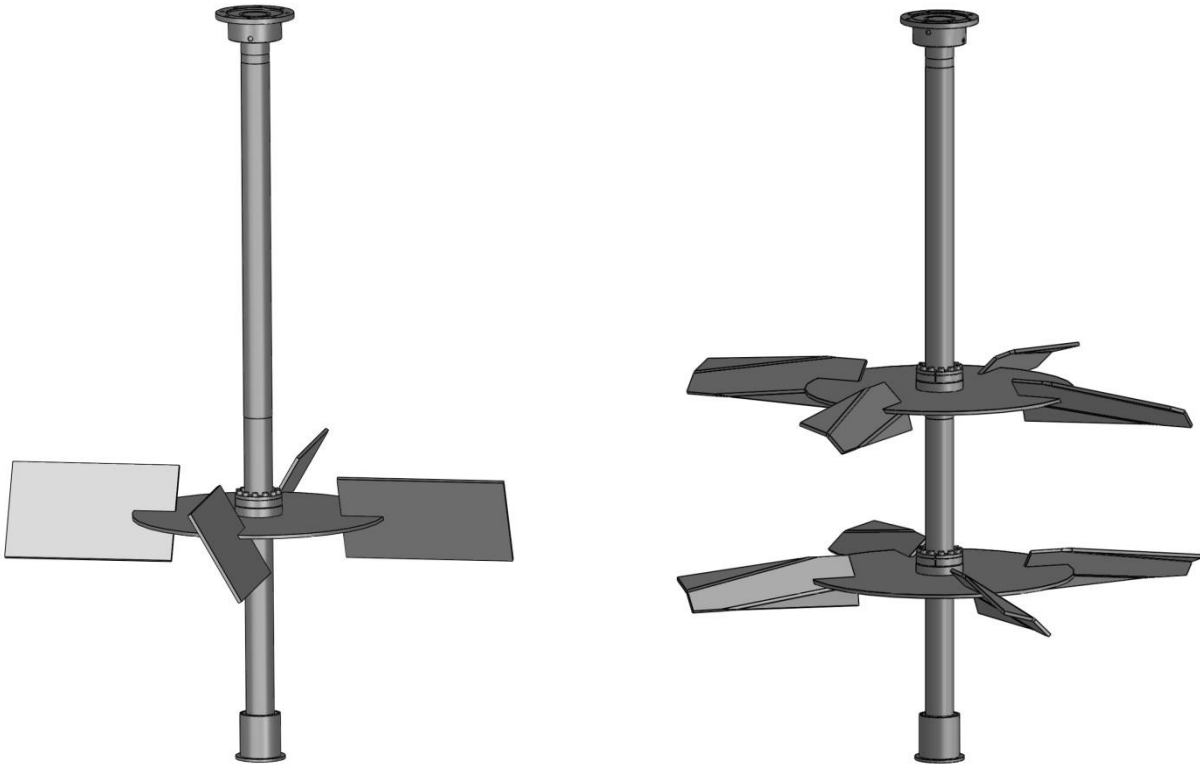
### CANTED IMPELLER

### CONTOUR IMPELLER

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**Double impeller option**

It is possible to install an extra impeller on the agitator for those applications where bigger tanks are used and there is a higher quantity of mud to be processed.



For further information on M-I SWACO AGITATORS, please contact our technical dept. or sales dept.:

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