



## Outotec OKTOP® Conditioner

A suitable conditioner selection enables the operator to achieve a smoother process through improved flotation efficiency, lower flotation chemical consumption and easier process control.

Outotec OKTOP® Conditioners are sized and designed to meet hard process requirements in flotation processes. They can be supplied either as part of the Outotec flotation cell delivery or as individual units.

The Outotec OKTOP Conditioner is available with a sanding probe for advanced control of the equipment. The sanding probe makes it possible to control the agitation as the process conditions change and also to control unnecessary agitator power usage and wear. The probe also helps to estimate possible upstream process problems, such as inadequate classification in milling.

### Benefits

- Ease of delivery
- Designed for optimal process performance
- Process guarantees
- Improved flotation efficiency
- Enhanced flotation process control

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Conditioning is needed in the following flotation processes:

- Oxidized sulfide ores
- Silicates
- Phosphates
- Separation of copper sulfides and molybdenite
- Oxide minerals

## Features

Outotec OKTOP Conditioners are designed to work seamlessly with Outotec flotation cells in order to provide the best possible process results. Solid suspension, process control and maintainability have been taken into consideration in the design in order to achieve the best results.

Outotec OKTOP® Conditioner features:

- Heavy-duty impeller design for durability and efficient mixing
- Sand gate for use during operational disturbances
- Uptake channel for smooth suspension transfer to flotation cells



For unique conditioning cases, Outotec has extensive testing facilities that can be used to find solutions for specific applications. The effect of the mixing intensity on flotation kinetics and solids suspension can be evaluated with testing, and mixing can then be tailored for applications that are not included in the basic product family scope.

Outotec's material knowledge base and testing abilities ensure the maximum durability of the equipment. Both physical erosion and chemical corrosion has been taken into consideration in the material selection.

## Conditioner upgrade

Outotec offers agitator upgrades to replace agitators in old conditioners. The upgrades result in higher efficiency of the equipment and also in process benefits through higher efficiency of the flotation train. Outotec can supply details about possible modifications needed for the current agitation tank.

## Outotec OKTOP® Conditioner product family

The selection of the right Outotec OKTOP Conditioner is determined by the specific requirements of the application. The table below lists the main properties and specifications for the Outotec OKTOP Conditioner product family. For applications outside the product series parameters, Outotec can offer tailored conditioner designs.

			Motor kW	Max. Solids Wt-%	Max. Particle size P95 µm	Tank Diameter mm
Normal duty	OKTOP 3200	Normal conditioning. Pure blending of flotation chemicals and uniform solids suspension.	2.2 - 75	35	100	2 000 - 12 000
High Intensity	OKTOP 3005	Conditioning for applications that require higher intensity, for example better efficiency of reactants, enhanced surface treatment and special task, e.g. moderate oxidizing conditioning.	7.5 - 160	35	100	2 000 - 12 000
High density	OKTOP 3005	For higher density slurries. Can also be used for high intensity applications with higher density.	11 - 200	50	150	2 000 - 12 000
Tailored	Selected based on application	Applications outside the basic product definition, e.g. forced oxidizing or attrition type conditioning.	Custom	Custom	Custom	1 000 - 15 000

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