

## SCABA® Agitators

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Top-mounted and Side-mounted Agitators for Industrial Processes



# SCABA® Agitators

SCABA® is a specialist in stirring applications for the process, water and waste, and paper industry, wherever a liquid is to be mixed with another liquid, or with particles or gas.

Since our formation in 1970, we have been supplying agitators to all corners of the world and for a wide variety of stirring processes. The in house calculation programs that we have developed have made us known for our ability to produce a reliable solution to virtually any type of stirring problem. The software, in combination with our patented agitator impellers, enable us to offer economically beneficial process solutions.

Our experience and expertise enables us to offer process guarantees, which we have been doing for many years.

SCABA® is a member of the ABS Pump Group - one of the world's leading pump manufacturers. Sales of agitators are handled principally through the ABS sales organization. This enables us to assure our customers a good local service in all corners of the world.

SCABA® conforms to the ISO9001 quality assurance standard, which ensures reliable deliveries and high quality.

Our salesmen offer a comprehensive service including advise on selections prior to order placement and a good after sales service.



In consultation with your specialists, our highly trained salesmen analyze your basic conditions and needs. Alternative solutions are then discussed.



Our calculation programs allow for unlimited variation of tank sizes, media data, agitator impellers, speeds and shaft combinations.



In order to maintain the necessary high standard of our process expertise, we continually run research projects in our laboratory. We also undertake tests on customer products.



Modern computerized machine tools are used in the production of our agitators.



# SCABA® - Top Entering Agitators

The agitators are of a robust, modular design and can be combined with various types of drive units, seals and impellers. Due to this flexibility, the agitators can be adapted optimally to the needs of the process.

## Drive unit

The drive unit selected is determined by the process requirements and the customer's wishes.

The agitator can be equipped with gears, parallel shaft gears, bevel gears or V-belt drives.

## Motor

- Power ratings: 0.12 kW - 250 kW
- Electric
- Hydraulic
- Pneumatic

## Pedestal modul

The shaft coupling in the pedestal module provides the connection between the drive and the agitator shaft. Sleeve and flange couplings are standard. Radially split couplings are used for special applications.

The pedestal module is equipped with a double spherical roller bearing with adapter sleeve. For a V-belt drive and certain special applications, an extra shaft bearing is built into the pedestal module.

The patented SCABA® shaft bearing can be used as an alternative. This enables the bearing to be changed without the need for removing the shaft.

- Flange coupling
- Sleeve coupling
- Radially split coupling

- Double spherical roller bearings
- Patented bearing for simplified bearing change

## Housing for shaft seal

This is equipped with a suitable seal. The connecting flange of the housing can be supplied in different sizes.

- Stuffing box
- Single mechanical seal
- Double mechanical seal
- TH and TS seals
- Labyrinth seal

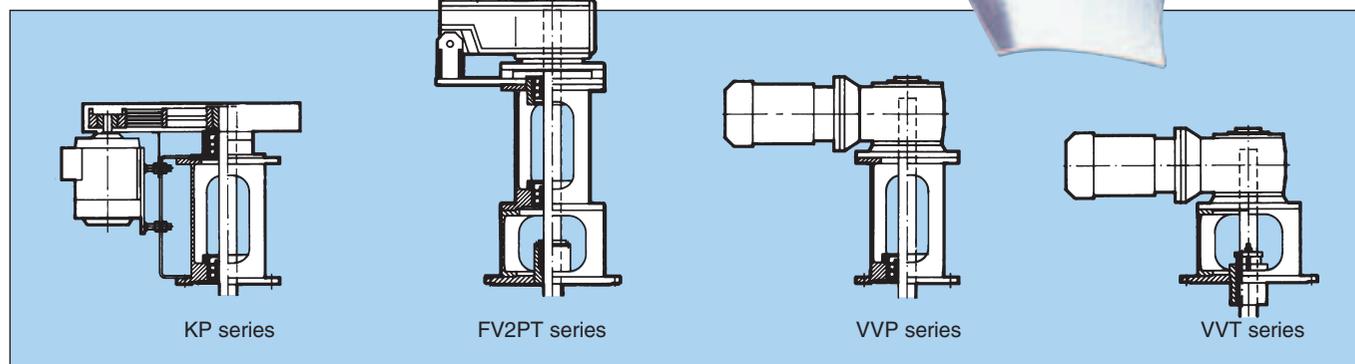
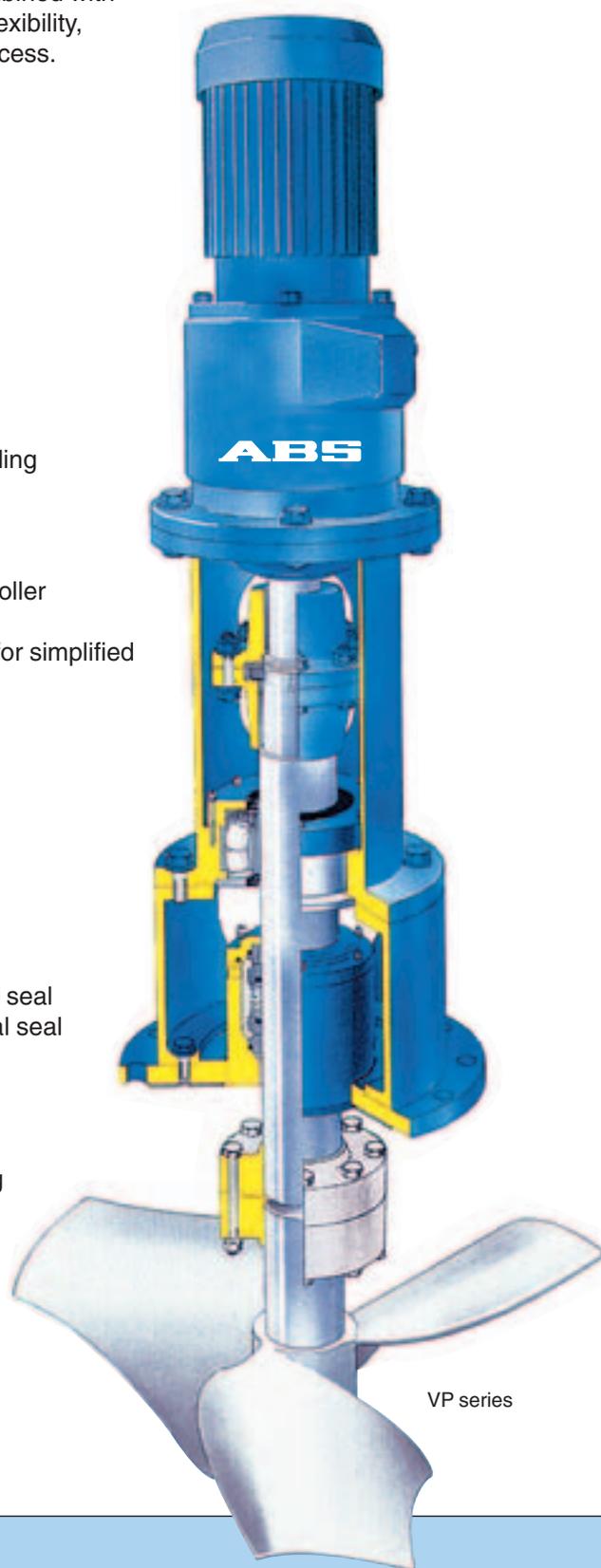
## Shaft coupling

The agitator shaft is equipped with one or more shaft couplings, if necessary. The couplings are of flange type, although if the hygienic requirements are strict, threaded shaft couplings can be supplied instead.

- Flange coupling
- Threaded coupling

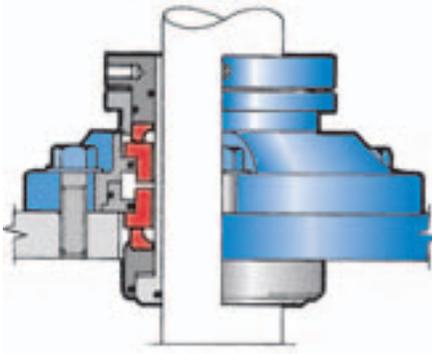
## Agitator impeller

SCABA® has a wide range of patented agitator impellers which are selected to suit the specific application.



# Shaft Seals for Top Entering Agitators

The shaft seals are designed to maintain the required pressure in the tank or to prevent leakage through the shaft entry. Seals are also used to prevent impurities from entering the tank, or to prevent damage to the agitator by splashing or by vapour from the process liquid.

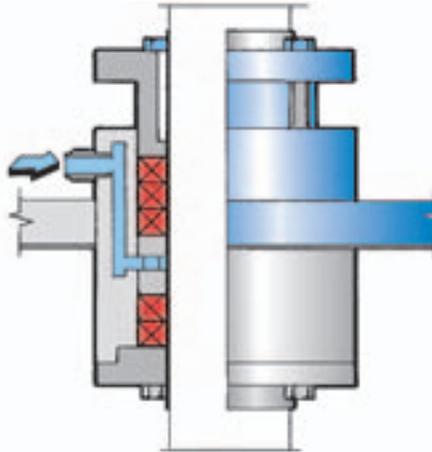


## Mechanical seal

Adapted to meet the customer's requirements on performance and the preferred seal supplier.

The seal housing can be designed to allow the seal to be changed without removing the agitator from the tank.

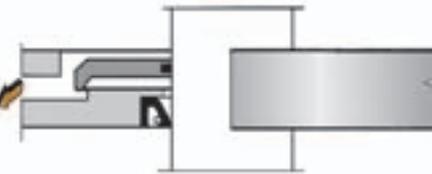
- Double or single design
- Dry or liquid lubricated
- Split seal
- Liquid-cooled seal housing
- Cartridge seal



## Stuffing box seal

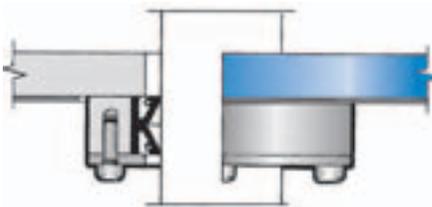
The lantern ring, usually included, serves as a gliding bearing and increases the useful life of the seal. The shaft is often equipped with a wear sleeve.

- 2 - 5 packing plaits
- Liquid or grease lubricated



## TH seal

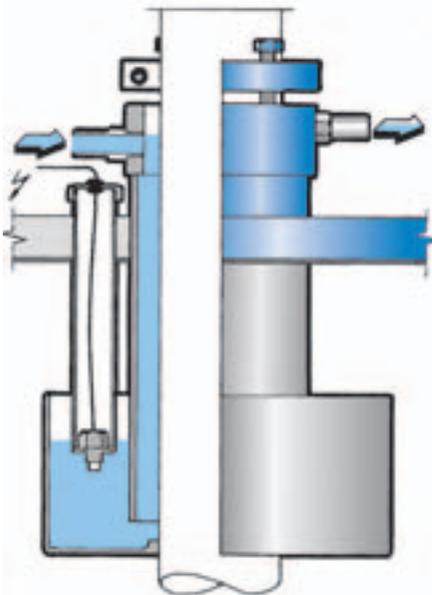
Hygienic seal designed to prevent the ingress of oil and impurities into the process liquid. Has a labyrinth function.



## TS seal

Lip seal designed to prevent the ingress of impurities into the process liquid.

Protects the agitator from splashing and from attack by the vapour in the tank.



## Labyrinth seal

Seal for low-pressure processes. Particularly suitable for digesters. The height of the water trap is determined by the pressure inside the tank.

- Can be equipped with level control in the labyrinth.
- With or without facilities for changing the shaft bearing with the agitator remaining on the tank.

# SCABA® Impellers



SCABA® uses their own patented or designed registered impellers. Combined with our extensive design know-how, these impellers produce the best possible process results at the lowest possible energy cost. The wide-spanning range of impellers enable us to select the optimum element for each individual application.

## SHP1

Patented, classic SCABA® high-flow propeller which is acknowledged for its energy-efficiency and effectiveness.

It is just as effective on difficult suspensions and reactions as it is on homogenizing and mixing. Intended for viscosities up to 50 000 mPas.

## Applications

- Mixing
- Homogenizing
- Suspensions
- Reactions
- Medium-high viscosities



## SHP18

A registered-design development of the SHP1.

Offers better effectiveness at lower viscosities. Low weight allows for lighter shaft design.

- Mixing
- Homogenizing
- Suspensions
- Low viscosities



## SHPD

Double-acting propeller for high viscosities, up to paste consistency. Also suitable for very gentle stirring. Due to the double-acting function, the liquid is pumped both downwards and upwards.

- Mixing
- Homogenizing
- Very high viscosities
- Gentle stirring



## SRGT

Patented turbine intended for gas dispersion. Due to its design, the power demand is constant at varying gas flows. Performs very well also on three-phase systems comprising liquid - gas - particles.

- Gas dispersion
- Three-phase systems



## SLRT

Patented agitator element for stirring when the liquid level is very low.

Keeps the liquid in motion even when other agitator elements are no longer effective.

- For low liquid levels
- Prevents sedimentation



## Other agitator elements

Our range also includes impellers of conventional type.

- Supplement to our own impellers

# SCABA® - Side Entering Agitators

The agitators are of a robust modular design and can be combined with various types of drive units, seals and impellers. This flexibility enables the agitator to be adapted optimally to the process requirements.

## Housing with shaft bearing

A range of housings are used, and these can be adapted to most drive units.

## Housing for shaft seal

Side entering agitators are always equipped with shaft seals. The housing is designed to accommodate either a stuffing box or a variety of optional mechanical seals.

The connecting flange of the housing can be delivered in different dimensions.

## Agitator propeller

The SCABA® SHP1 or SHP18 high-flow propeller is used to generate good axial flow.

## Gear-driven agitator series

Designed for heavy duty as well as light duty.

The gear boxes are of standard brand, which simplifies service and ensures good availability of spare parts.

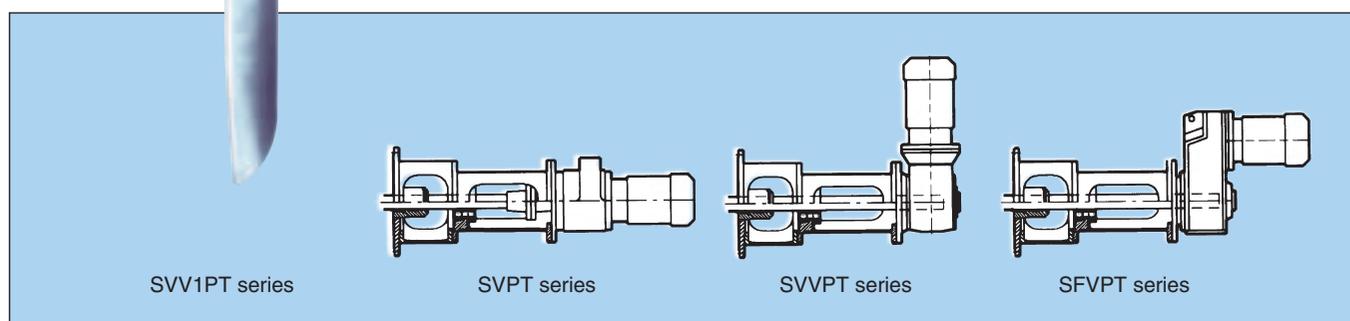
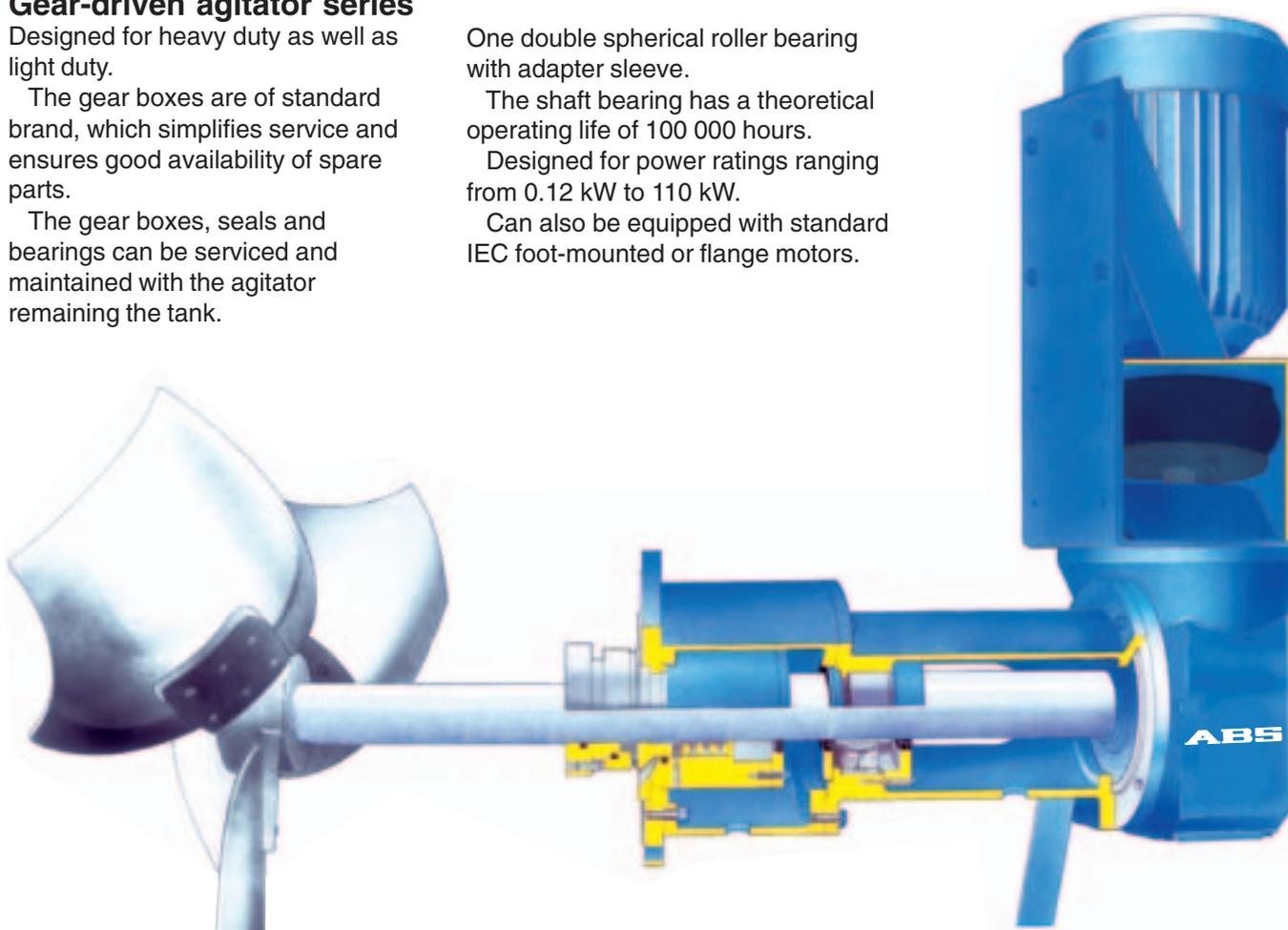
The gear boxes, seals and bearings can be serviced and maintained with the agitator remaining the tank.

One double spherical roller bearing with adapter sleeve.

The shaft bearing has a theoretical operating life of 100 000 hours.

Designed for power ratings ranging from 0.12 kW to 110 kW.

Can also be equipped with standard IEC foot-mounted or flange motors.



# SCABA® - Side Entering Agitators

## SKPT series of V-belt driven agitators

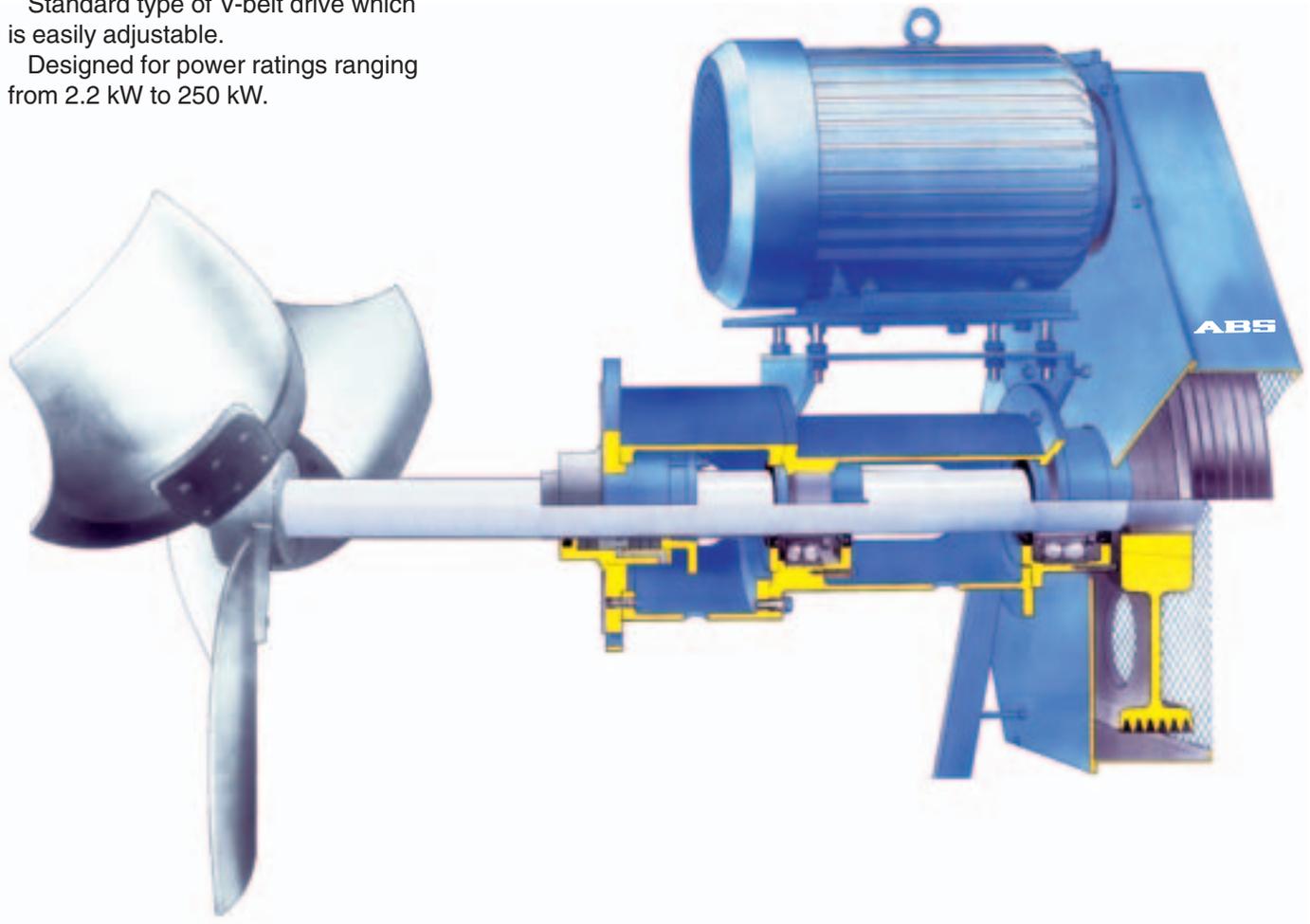
Specially designed for heavy duty.

Seals and bearings can be serviced and maintained with the agitator remaining in the tank.

Two double spherical roller bearings with adapter sleeve with a theoretical operating life of 100 000 hours.

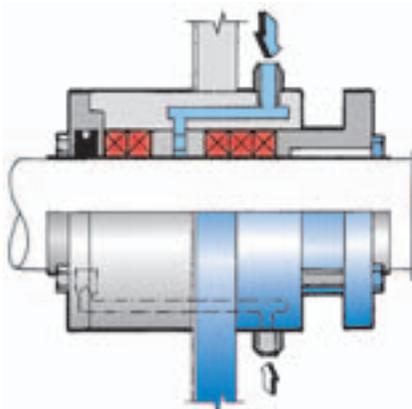
Standard type of V-belt drive which is easily adjustable.

Designed for power ratings ranging from 2.2 kW to 250 kW.

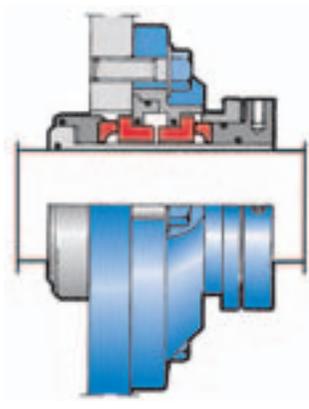


## Shaft seals for side entering agitators

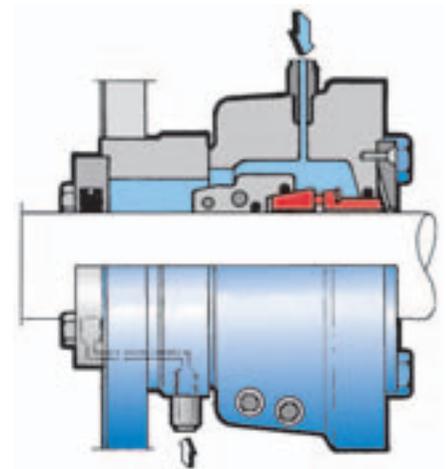
The shaft seals are designed to maintain the required pressure in the tank or to prevent leakage through the shaft entry.



Stuffing box



Double mechanical seal

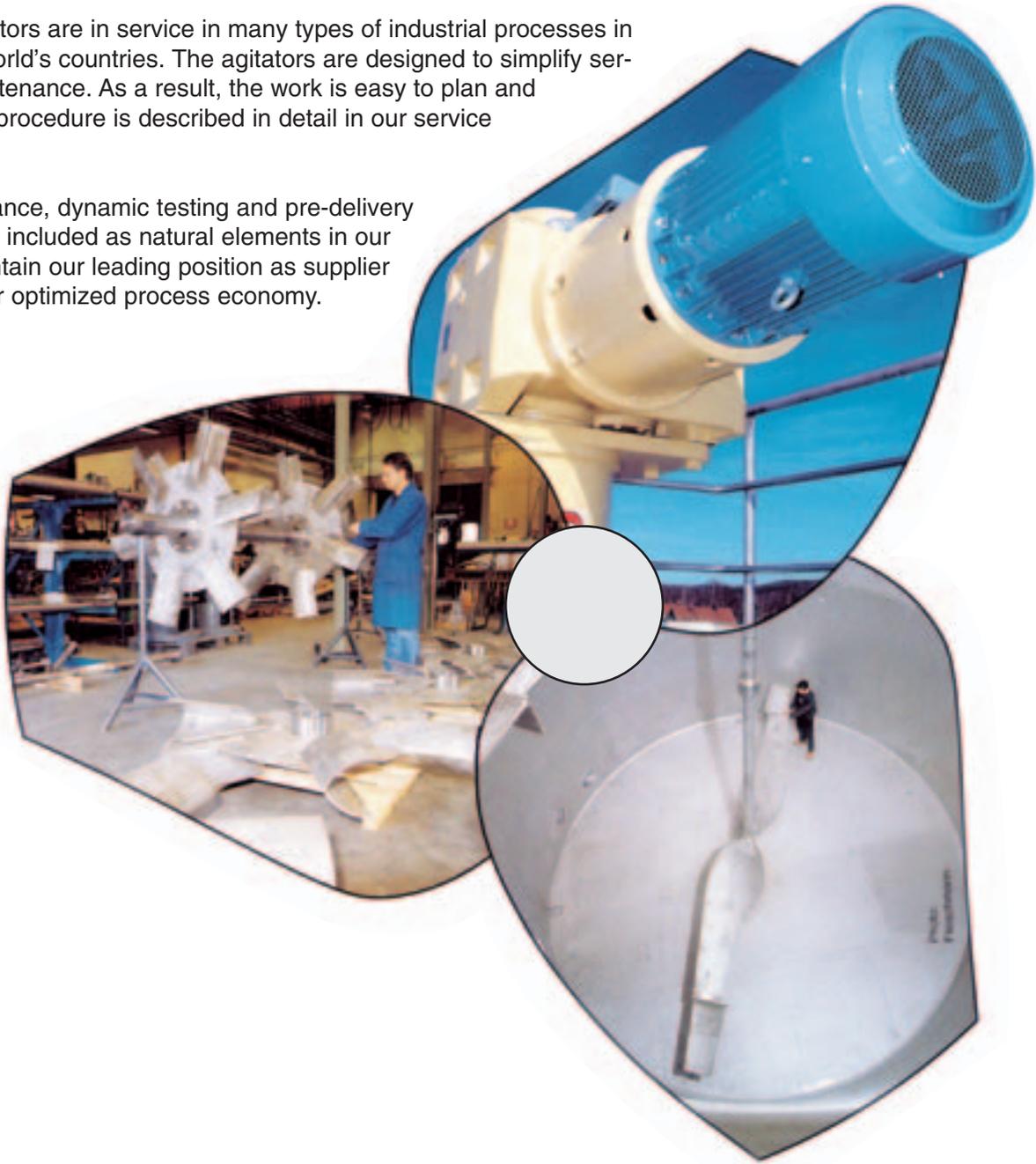


Single mechanical split seal

# Service, Maintenance and Reliable Deliveries

SCABA® agitators are in service in many types of industrial processes in most of the world's countries. The agitators are designed to simplify service and maintenance. As a result, the work is easy to plan and execute. The procedure is described in detail in our service instructions.

Quality assurance, dynamic testing and pre-delivery inspection are included as natural elements in our efforts to maintain our leading position as supplier of agitators for optimized process economy.



ABS reserves the right to alter specifications due to technical developments.

**ABS**  
COST-EFFECTIVE PUMPING

**Austria**  
Tel. +43 2236 642 61  
Fax +43 2236 642 66

**Belgium**  
Tel. +32 2 725 79 00  
Fax +32 2 725 71 19

**Brazil**  
Tel. +55 41 227 81 00  
Fax +55 41 348 18 79

**Canada**  
Tel. +1 905 670 4677  
Fax +1 905 670 3709

**China**  
Tel. +86 21 5234 0472  
Fax +86 21 5234 1179

**Denmark**  
Tel. +45 48 17 11 10  
Fax +45 48 17 19 11

**Estonia**  
Tel. +372 656 3398  
Fax +372 656 3385

**Finland**  
Tel. +358 9 506 88 90  
Fax +358 9 55 80 53

**France**  
Tel. +33 1 49 35 24 50  
Fax +33 1 48 54 42 82

**Germany**  
Tel. +49 62 57 9317 0  
Fax +49 62 57 9317 99  
Tel. +49 2246 13 0  
Fax +49 2246 13 200

**Great Britain**  
Tel. +44 1293 744 800  
Fax +44 1293 543 392

**Greece**  
Tel. +30 210 95 325 01/02/03  
Fax +30 210 95 325 04

**Hungary**  
Tel. +36 1 231 60 70  
Fax +36 1 231 60 80

**Ireland**  
Tel. +353 1 460 88 88  
Fax +353 1 460 88 89

**Italy**  
Tel. +39 051 89 00 911  
Fax +39 051 86 18 48

**Malaysia**  
Tel. +603 5124 6550  
Fax +603 5124 6548

**Netherlands**  
Tel. +31 30 242 56 78  
Fax +31 30 241 03 46

**Norway**  
Tel. +47 67 554 700  
Fax +47 67 554 750

**Poland**  
Tel. +48 22 633 82 87  
Fax +48 22 633 86 44

**Singapore**  
Tel. +65 6 4633 933  
Fax +65 6 4622 122

**South Africa**  
Tel. +27 11 397 1612  
Fax +27 11 397 1795

**Spain**  
Tel. +34 91 670 28 51  
Fax +34 91 666 58 68

**Sweden**  
Tel. +46 31 706 16 00  
Fax +46 31 27 29 20

**Switzerland**  
Tel. +41 71 694 6555  
Fax +41 71 694 6556

**Turkey**  
Tel. +90 216 455 2256  
Fax +90 216 455 2265

**USA**  
Tel. +1 203 238 2700  
Fax +1 203 238 0738

**All other countries**  
ABS Pumps International  
Head Office, Sweden  
Tel. +46 31 83 63 00  
Fax +46 31 16 79 14

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[www.abspumps.com](http://www.abspumps.com)

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