# BPC® Move

**Leading edge mechanical mixing for laboratory applications**


BPC INSTRUMENTS

# Reliable and efficient mechanical mixing for laboratory applications

## BPC® Move

BPC® Move is a compact standalone mechanical agitator ideal for easy, reliable mixing and dispersion and dissolution of particle-free solution and slurries. It combines the strength and reliability of mechanical agitation with the ease-of-use of magnetic stirring. Discover a new type of stirring that will improve user's laboratory experience significantly.

### Why BPC® Move

If you are tired of weak mixing intensity for magnetic stirrers, irregular spin, and magnets that keep falling out of place, then BPC® Move is the right choice. With its integrated bottle cap and user-friendly motor-holder set for top mounting on standard GL45 laboratory flasks, BPC® Move combines the best features from magnetic stirrers and overhead mechanical mixers and provides a superior agitation experience for laboratory usage.

### New way of reliable mixing

Instead of a magnetic stirring bar or a propeller, BPC® Move relies on a flexible agitation tube and an inserted stainless steel agitation rod, which provides clockwise or counter-clockwise rotational movement. Driven by a high-quality brushless step motor, BPC® Move delivers strong, gentle, precise, and reliable agitation, minimising the risk of the irregular spin that is commonly experienced with magnetic stirrers.

### Simple to use and full control

Its unique top mounting design, modular components, and high compatibility with standard laboratory flasks makes BPC® Move easy and trouble free to work with. Within a minute, the BPC® Move can be set up for operation and the user can be confident that the media will be well dispersed.
BPC® Move supports various mechanical mixing intensities and movements according to user needs. All interaction with the BPC® Move is conveniently done though a digital OLED display with a single multifunctional knob.

### Mixing solution for various sizes of flasks

BPC® Move is a durable, easily operated and cost-effective mixing solution for different sizes of standard GL45 laboratory flasks. The basic BPC® Move package includes three sizes of stirring rods that allow for mixing media in 0.5, 1 and 2 litres standard GL45 laboratory bottles. Switching between different stirring rods is seamless and give a great flexibility in dispersing different volume and types of media.

### Robustness for long-time operations

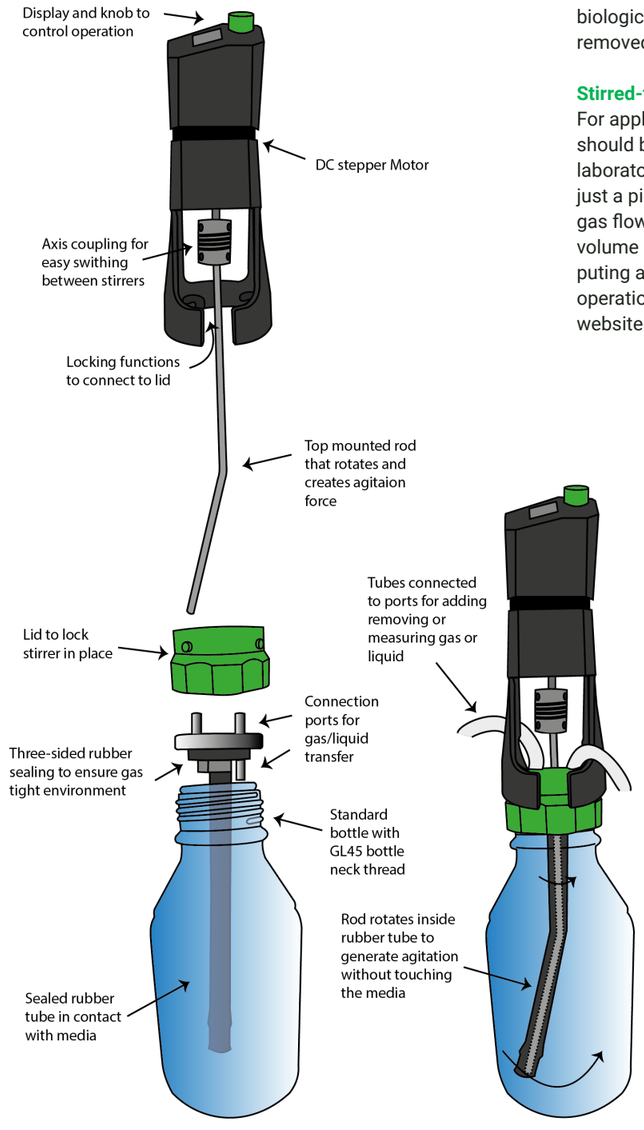
Designed with few wearable parts, BPC® Move offers a stable agitation solution and is excellent for long-term continuous utilisation. The flexible agitation tube is made in a chemical-, mechanical- and thermo-resistant material which is tolerant for both corrosive and high viscosity media, as well as allows sterilisation in autoclave conditions.

### Twin operational modes with advanced agitation features

BPC® Move offers operation in both normal and silent mode with precisely controlled agitation. With rotation speeds ranging from 1 to 600 RPM, the demand from most types of stirring applications can be satisfied. In silent mode, BPC® Move offers mixing from 1 to 220 RPM with reduced operational noise. In addition, BPC® Move offers various other modes: alternating stirring, intermittent stirring, and user-defined cycles.








### Served as stirred-tank reactor with standard laboratory flasks

Every stirring rod included with the basic BPC® Move package is integrated into a GL45 flask lid with one inlet and one outlet port, and a three-sided rubber seal that ensures a gas tight environment when mounted on a GL45 standard laboratory flask. This make the BPC® Move setup well suitable to be used as a stirred reactor or vessel for chemical or biological processes where substances need to be added, removed or monitored.

### Stirred-tank reactor with BPC® Go

For applications with a gas production or consumption that should be measured, the setup of BPC® Move and standard laboratory flask can be combined with a BPC® Go using just a piece of flexible gas tube. BPC® Go is a standalone gas flow meter that allows for precise measurement of gas volume and flow for most types of gas. Its embedded computing and intuitive software ensure both stable and flexible operation. Read more about BPC® Go at BPC Instruments' website.

# BPC® Move features comparison

| | Magnetic stirring | BPC® Move | Classical top mounted agitator |
|---|---|---|---|
| **Mixing streenght** | Low | **Medium to high** | High |
| **Mixing efficiency** | Poor or Medium | **High** | High |
| **User Interaction** | Low | **High** | Medium |
| **Operation features** | Limited | **High** | Limited |
| **Product lifetime** | Medium | **High** | High |
| **Cost** | Low to medium | **Medium** | Medium to high |
| **Setting up experience** | Easy | **Easy** | Difficult and requires laboratory stand |
| **Operation experence** | Problems with irregular spin or magnets that are out of place | **Stable and robust for long term operations** | Stable and robust for long term operations |
| **Applidable for both closed-chamber and open-vessel system** | No | **Yes** | No |
| **Noise level** | Low | **Low (very low noise level in silent mode)** | High |
| **Dimension** | Compact | **Compact** | Medium to big |
| **Weight** | Light | **Light** | Heavy |
| **Applicable media** | Liquids with low viscosity and suspended solid | **Liquids and slurries up to high viscosity and suspended solid** | Liquids and slurries up to high viscosity and suspended solid |
| **Typical Usage** | Dissolve and disperse chemical solutions | **Dissolve and disperse chemical solutions, gas-liquid mixing, disperse high viscosity, solid and particulate media, reactor stirring** | Disperse high viscosity and solid content media, particulate media and reactor stirring |




## For a wide range of laboratory applications

BPC® Move is a compact standalone agitator that can be used in various types of application where where requirements include reliable and strong agitation. The device is easy to set up and allows for operation in both closed-chamber and open-vessel environments including: anaerobic digestion, wastewater, biological fermentation, chemical and biological reactions. Some examples of application areas are:

- Mixing and dispersing chemicals and suspended solids in liquid media
- Bench-scale fermentation
- Gas and liquid mixing
- Bench-scale mixing
- Simple bench-scale chemical- or bioreactor

## Technical specifications

**Rotation speed:** 1-600 rpm and 1-220 rpm (silent mode)

**Torque:** 0.4 Nm

**Dimensions:** 4.6 x 4.5 x 17.5 cm

**Weight:** 0.48 kg

**Operating environment*:** Indoor (-20-60°C)

**Operating humidity:** 10-90% RH non-condensing

**Display:** 1.3” 128x64 OLED

**Housing:** plastic

**Power input:** 24 V DC / 0.7 A

**Operation modes:** normal and silent

**Mixing features:** single stirring direction (clockwise or counterclockwise), alternating stirring directions, continuous, intermittent, different mixing intensities in a cycle.

*The temperature range which the motor operates independently of the temperature of the mixing/process in the biorectors.

## Features

- A wide range of stirring intensity: 1-600 RPM or 1-220 RPM (silent mode)
- Various mixing features and agitation movements for both simple and advanced stirring tasks
- Intuitive and precise control over agitation with OLED display and single multifunctional knob
- User friendly setup – simple mounting on a standard GL45 laboratory flask without using a laboratory stand
- Strong and reliable agitation with minimal risk of irregular spin
- Stable operations with no magnet that can fall out of place
- Chemical resistant and autoclavable flexible agitation tube and integrated GL45 flask lid
- Integrated bottle cap and motor-holder set for standard GL45 flasks of various sizes
- Convenient and robust for both temporary and long-time continuous utilisation
- The basic BPC® Move package include three sizes of stirring rods for 0.5, 1 and 2 litres standard GL45 bottles
- Suitable for precise agitation in both closed-chamber and open-vessel systems
- Inlet and outlet ports for liquid or gas on the integrated GL45 flask lid
- Modular design for easy cleaning, replacement, and maintenance

## Your user experience is a top priority for us

We take pride in providing support throughout the lifetime of our products. This applies to products covered under warranty, and even products where the warranty period has expired. It is our ambition to make sure your instrument always works and continually delivers value.

## BPC® Move - THE STORY

The concept for the novel agitation applied in BPC® Move originally came from matching a demand of cost efficient and reliable stirring of multiple anaerobic digestion reactors in bench-scale situations. Such processes require a strong and reliable agitation over a long period of time and in a closed-chamber and gas tight environment. The existing options at that time did not allow for such a solution in a satisfactory way. The stirring was either too unreliable and week like with magnetic stirrers or too costly and difficult to seal with traditional overhead mixing options. Therefore, the new type of stirring concept was developed where an overhead stirrer could be used in a closed-chamber environment with perfect sealing. The first version was presented in 2009 with the release of AMPTS®. Thereafter the design and features have been improved steadily and after an increasing interest for other applications it was decided to refine the concept and make it available as a general and standalone agitator. After about three years of product development, BPC® Move is available on the market.


# Excellence is buildt on precision and accuracy

BPC Instruments is a global Swedish-based technology company developing and offering analytical instruments enabling more efficient, reliable, and high quality of research and analysis for industries in renewable bioenergy and environmental biotechnology. The result is not only higher accuracy and precision, but also significant reduction in time consumption and labour requirement for performing analyses. BPC Instruments' innovative products offer high quality hardware and software based on deep knowledge and experience of target applications. The solutions are the first of their kind, making the company a pioneer in its field. Today, BPC Instruments exports to 60+ countries around the world.

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