



# Biological Shaker

## Biological Shaker Performance Plans

Biological shakers are essential to cell culture applications and are required to be in continuous use for years. Relatively small, short-term variations in shaker operation can significantly influence culturing outcomes, with negative effects on yields and/or cell expression. Eppendorf's Biological Shaker Performance Plans ensure consistent, reliable shaker performance to manufacturer specifications after years of wear and tear.

Biological Shaker Performance Plans include a choice of preventive maintenance protocols which are designed to check and validate stable shaker performance. These protocols review all control parameters of your shaker and ensure everything is working as good as new.

Care for your shaker – optimize your cultures!

## IQ/OQ Services

Installation Qualification & Operational Qualification services assure that instrumentation is installed and running according to manufacturer specifications. IQ/OQ documentation is supplied to help prepare for quality and regulatory audits.

### ■ ADVANCED MAINTENANCE

Preventive maintenance service to meet manufacturer specifications

### ■ ESSENTIAL CHECK

Check of all fundamental functions of the product

**eppendorf**

Performance tested on \_\_\_\_\_

Model: \_\_\_\_\_

Serial no.: \_\_\_\_\_

Serviced by: \_\_\_\_\_

Service no.: \_\_\_\_\_

Next service: \_\_\_\_\_

Date: \_\_\_\_\_

**epServices**  
for premium performance

# Biological Shaker Performance Plans

Performance Plans	ESSENTIAL CHECK	ADVANCED MAINTENANCE	PREMIUM SERVICE <sup>1</sup>	Installation Qualification (IQ)	Operational Qualification (OQ)
<b>Catalog No. for Group 1 – Open air shakers</b>	0082080013	0082080014	0082080015	0082080017	0082080018
<b>Catalog No. for Group 2 – Incubated shakers</b>	0082080023	0082080024	0082080025	0082080027	0082080028
<b>Catalog No. for Group 3 – Incubated shakers with refrigeration</b>	0082080003	0082080004	0082080005	0082080007	0082080008
<b>Catalog No. for Group 4 – Industrial shakers (Innova® 5000)</b>	0082080033	0082080034	0082080035	0082080037	0082080038
<b>Catalog No. for Group 5 – Innova S44i</b>	0082080213	0082080214	0082080215	0082080217	0082080218
<b>External Checks and Maintenance</b>					
Check installation environment	■	■	■	■	
Check electrical/gas <sup>2</sup> supply and fittings		■	■	■	■
Check condition/operation of any door/ lid open sensors		■	■	■	■
Check security of doors/lids, handles, door struts <sup>2</sup> and hinges		■	■	■	■
<b>Internal Equipment and Fittings</b>					
Check security of shaker mechanism; lubricate non-sealed bearings, as appropriate <sup>2</sup>		■	■		
Check shaker drive motor, and circulation fan <sup>2</sup>		■	■		
Check condition of shaker drive belt; adjust belt tension as necessary		■	■		
Clean and check condenser <sup>2</sup>		■	■		
<b>Validation and Metrology</b>					
Validation and adjustment of operating parameters to within Eppendorf specifications	■	■	■		■ <sup>3</sup>
<b>Documentation</b>					
Issue preventive maintenance Check List (signed document)	■	■	■		
Dated service sticker fixed to shaker to confirm Eppendorf service	■	■	■	■	■
Provide IQ Report and Certificate				■	
Provide OQ Report and Certificate					■
<b>Supporting Information</b>					
Travel	not included	not included	included	included	not included
Time/Labor	included	included	included	included	included
Additional parts	not included	not included	included	not included	not included

**Additional catalog numbers for combined Installation and Operational Qualification (IQ/OQ) services are listed below.**

**Travel and labor are included. Additional parts are not included.**

- > **Group 1: 0082080019**
- > **Group 2: 0082080029**
- > **Group 3: 0082080009**
- > **Group 4: 0082080039**
- > **Group 5: 0082080219**

<sup>1</sup> All Premium Service, unless technically impossible is performed on-site. <sup>2</sup> Where feature is present.  
<sup>3</sup> The detailed certification service contents are listed in the OQ report.

## Field Service Only

Advantage OS	Catalog No.
Group 2	901513570
Group 3	901513572
Group 4	901513574
Group 5	ADSERV-S44i

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