



Barrel and tank cleaners

For Winemakers



Barrel cleaning systems

Barrel cleaning systems from MOOG for gentle and effective cleaning of barrels. Choose the best cleaners available – your barrels deserve it!



BRA

1 barrel



BRM

1 barrel on rack



FR1

1 barrel



PRIMIQUE

1 / 2 barrels



FR2

2 barrels on rack



FR Duplex

2 barrels



LINERIQUE

3-8 barrels

Barrel cleaning systems from MOOG offer the following advantages:

- Perfect devices for every scale of operation and different storage of barrels
- Low water consumption through exact beam guidance
- Top quality, robust design
- Automatic, semi-automatic or manual loading and positioning
- Steam disinfection optional on many models
- Extensive range of options and accessories

With the BRA HD and HD Flex MOOG had launched the first barrel cleaners with water hydraulic drive.

They offer the same convincing cleaning results as the models with electric drive without cables (easier operation enhanced workplace safety).

Overview

	BRA	BRM	FR1	FR2	FR Duplex
For barrels from 225 to 300 litre	☐	☐	☐	☐	☐
For barrels from 300 to 500/600 litre	☐	☐	☐	☐	☐
Barrel throughput per hour*	10 - 20	15 - 25	10 - 20	15 - 25	15 - 25
Cleaning with cold water	☐	☐	☐	☐	☐
Cleaning with hot water	☐	☐	☐	☐	☐
Desinfection with steam				☐	☐
Dirt water suctioning	☐				
Dirt water drain through bunghole		☐			
Dirt water drain through collection tray			☐	☐	☐

☐ Standard equipment
 ☐ Available as option

* The number of barrels per hour is based on thorough cleaning results with cold and/or hot water, including loading and unloading of the barrels..



The barrel cleaning systems from MOOG Cleaning Systems work with a three-dimensionally rotating spray head, which guarantees an effective and gentle cleaning of the entire inner surface of the wine barrel with a 360-degree spray pattern.

The slowly rotating spray head with special fan jet nozzles dissolves the tartar without damaging the wood surface.

The barrel cleaners without integrated HP unit can be operated with any professional pressure washers, stationary or mobile.

Barrel cleaners BRA



BRA Standard



BRA Flex



BRA Simplex



BRA Simplex Flex



BRA HD



BRA HD Flex



Handheld units which clean the complete inside of the barrel and suction dirt water without separate pump.

The built-in injector system generates a very strong vacuum, which empties the barrel during and right after the cleaning process.

Highlights

- Effective 360° interior cleaning
- Suitable for all barrels with bunghole size >37 mm
- Integrated suction system for dirt water
- No need to turn the barrel for draining
- Cleaning with any professional high pressure cleaner
- HD models with water hydraulic drive
- All parts with water contact made from stainless steel
- Patented barrel support

Application examples are available at www.moog.ch

		BRA Standard	BRA Simplex	BRA HD	BRA Flex	BRA Simplex Flex	BRA HD Flex
<ul style="list-style-type: none"> ☼ Standard equipment ☹ Available as option/accessory 							
For barrels stored in one row		☼	☼	☼	☼	☼	☼
For stacked barrels					☼	☼	☼
For barrels from 225 to 300 litre		☼	☼	☼	☼	☼	☼
For barrels from 300 to 600 litre		☹	☹	☹			
Electric Drive 230/115 V		☼			☼		
Electric Drive 12VDC to power adapter 230/115V			☼			☼	
Water hydraulic drive				☼			☼
Stainless steel motor cover		☼		☼	☼		☼
Features:							
integrated inspection glass		☼		☼	☼		☼
Patented barrel support		☼		☼	☼	☼	☼
Bunghole mount 37÷56mm		☼	☼	☼	☼	☼	☼
Flexible suction tube					☼	☼	☼
Water connection M22x1,5		☼	☼	☼	☼	☼	☼
Flat spray nozzles 5°		☼	☼	☼	☼	☼	☼
Performance of hp cleaner	l/min	13 – 20	13 – 20	15 – 20	13 – 20	13 – 20	15 – 20
	bar	80-120	80-120	80-120	80-120	80-120	80-120

Pressure regulator for high pressure cleaners with pressure switch

- with built-in pressure gauge
- ensures trouble-free operations with high pressure cleaners with automatic start / stop function



Suction tubes for 400 and 600 litre barrels

- suitable for BRA Standard, BRA HD and BRA Simplex
- not for Flex-models



BRM



Unique, easy to operate device. For cleaning barrels on rack without lifting. The ball shaped spray head is easily inserted into the bung hole from below, assisted by small wheels. Dirt water spills down through the bung hole. The spray head is powered by water hydraulic drive for easy and safe operation.

Highlights

- Cleaning barrels directly on rack
- HP water hose is sufficient, no cables required
- Unique MOOG RK ball spray head for easy insertion without scratches

Features

- For 225 to 300 litre barrels placed on rack
- Spray head very easy to insert
- Suitable for all barrels with bung hole size >38 mm
- Ball valve for simple on / off switching the cleaning process

Accessories and options

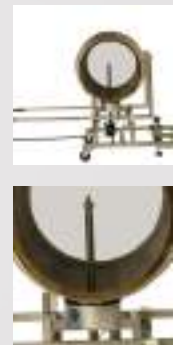
- New: Short version for very limited space around barrels
- Separate loading frame where required

Technical data

BRM

For barrels	l	225 - 300
Working pressure, recommended	bar	80÷120
Working temperature max	°C	90
Rotation speed	t/min	10 - 30, adjustable
Minimum size of bung hole	mm	38
Water connection		M22x1,5
Weight	kg	8

FR1



Mobile barrel cleaning system for manual loading.

The barrel is easily rolled onto the flat-angle loading ramp and manually tilted into position.

For larger barrels of up to 600 litres an adjustable combi version is available.

Highlights

- Robust and easy to use device
- Very cost effective
- Unique MOOG RK ball spray head

Features

- For barrels of 225 – 300 litres or 225 – 600 litres (combi version)
- Easy loading and positioning
- Rugged design for longtime operation
- Suitable for barrels with bung hole > 38mm
- Collection tray for dirt water

Accessories and options

- Adjustable combi version for barrel sizes from 225 – 600 litres
- Timer with automatic off-switch

Technical data

		FR1	FR1 Combi
For barrels	l	225 - 300	225 - 600
Working pressure, recommended	bar	80÷120	80÷120
Working temperature max	°C	120	120
Rotation speed	t/min	17	17
Minimum size of bunghole	mm	38	38
Water connection		M22x1,5	M22x1,5
Weight	kg	50	50
Electric drive	VAC	230 / 115	230 / 115

PRIMIQUE



The complete new generation of barrel cleaning systems.

The PRIMIQUE range comprises five models for different functional and economic needs.

Highlights

- Modular product range for various requirements
- Very fast loading and unloading for high efficiency
- Foldable for storage with very small footprint
- Suitable for all barrel sizes

Features

- For one / two barrels from 225 - 600 litres
- Easy, supported retraction of cleaning head
- Programmable cleaning process (except model 'M')
- Operated via touch screen (except model 'M')
- Separate dirt water extraction
- Integrated high pressure supply (except model 'M')
- Barrel hooked on rolls for easy rotation

Accessories and options

- Laser assisted alignment of bung hole (standard on model ,A')
- High temperature pump for max. 85°C
- Barrel disinfection with steam
- Automated barrel rotation for dripping of residual water (standard on model ,A')
- Soundproof hood for high pressure pump (standard on model ,A')

Technical data

PRIMIQUE M1 PRIMIQUE P1 PRIMIQUE A1 PRIMIQUE P2 PRIMIQUE A2

For barrels	l	225 - 600				
Working pressure, recom.	bar	80-120				
Working temperature max	°C	60 / 90				
Rotation speed	t/min	17				
Minimum size of bunghole	mm	38				
Weight	kg	depending on model				
Electric drive	VAC	230	400	400	400	400



■ **Excellent customer experience**

Unbeatable cleaning results
High reliability and long service life

■ **Higher throughput**

3 to 5 times faster loading / unloading of barrels

■ **Reduced effort**

90% lower lifting height, >65% shorter loading / unloading time

■ **Excellent flexibility**

Different levels of automation
Easy adjustment of barrel size (225 - 600 litres)

■ **Small and compact size**

24% less floor space during operation and storage (compared to FR1)

Product Range

PRIMIQUE M1

PRIMIQUE P1

PRIMIQUE A1

PRIMIQUE P2

PRIMIQUE A2

Product Range	PRIMIQUE M1	PRIMIQUE P1	PRIMIQUE A1	PRIMIQUE P2	PRIMIQUE A2
Barrels	1	1	1	2	2
Volume (Liters)	225 - 600	225 - 600	225 - 600	225 - 600	225 - 600
Operation	manual	programmed	programmed	programmed	programmed
Interface	mechanical	touch screen	touch screen	touch screen	touch screen
Insertion	assisted	assisted	guided	assisted	guided
Withdrawal	assisted	automatic	automatic	automatic	automatic
Water aspiration	Venturi	special pump	special pump	special pump	special pump
Draining	manually	manually	automatic	manually	automatic
HP cold water	separate	integrated	integrated	integrated	integrated
Enclosure	-	stainless steel	noise reduction	stainless steel	noise reduction
HP hot water	separate	separate	separate	separate	separate
Steam inlet	optional	optional	integrated	optional	integrated
Steam supply	separate	separate	separate	separate	separate

FR2 Standard



Simultaneous cleaning of two barrels on rack, barrels are loaded / unloaded by forklift. Spray heads are inserted manually with spring support.

New design of legendary FR2: Programmable cleaning process (lees, cold / hot water, steam / draining) with most recent PLC, depending on selected options. Operation and programming via touch screen.

Highlights

- **Cost efficient and effective barrel cleaning**
- **Automated loading and cleaning, manual positioning of barrels**
- **Unique MOOG RK ball spray heads**

Features

- For two barrels of 225 – 300 (combi version – 550) litres
- Rack stored, loading with forklift
- Manual positioning and insertion of spray heads
- Highly programmable cleaning process
- Integrated high pressure supply
- High / low pressure hot water inlet (max. 60/85° C)
- Four wheels (two with breaks) for easy movement

Accessories and options

- Combi version for different barrel sizes (225 – 550 litres)
- Adjustable rack support
- Lees collection drawers
- High temperature pump for max. 85°C
- Connection of external hot water pressure washer
- Connection for steam disinfection
- Quick couplings

Technical data

		FR2 Standard	FR2 Combi
For barrels	l	225 - 300	225-550
Working pressure, recommended	bar	100	100
Working temperature max	°C	60 / 85	60 / 85
Rotation speed	t/min	17	17
Minimum size of bunghole	mm	38	38
Flow rate high pressure pump	l/min	21	21
Weight	kg	280	280
Electric supply	VAC	400	400

FR2 Automatic



Fully automated cleaning of two barrels on rack. Easy loading / unloading with forklift. Automated positioning of barrels and insertion of spray heads.

Programmable cleaning process (lees, cold / hot water, steam / draining) with PLC, depending on selected options. Operation and programming via touch screen.

Highlights

- High throughput effective barrel cleaning
- Fully automated operation
- Unique MOOG RK ball spray heads

Features

- For two barrels of 225 – 300 (combi version -500) litres
- Rack with barrels lifted by forklift
- Automated positioning of barrels and insertion of spray heads
- Highly programmable cleaning process
- Integrated high pressure supply
- High / low pressure hot water inlet (max. 60/85° C)

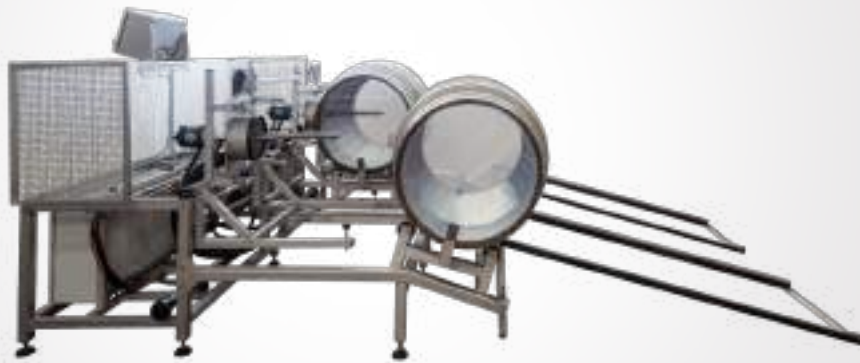
Accessories and options

- Combi version for different barrel sizes (225 – 500 litres)
- Adjustable rack support
- Automated lees collection drawers
- Connection for steam disinfection
- Four wheels (two with breaks) for easy movement
- Connection for remote support

Technical data

		FR2 Automatic	FR2 Automatic Combi
For barrels	l	225 – 300	225-600
Working pressure, recommended	bar	100	100
Working temperature max	°C	60 / 80	60 / 80
Rotation speed	t/min	17	17
Minimum size of bunghole	mm	38	38
Flow rate high pressure pump	l/min	21	21
Weight	kg	580	580
Electric supply	VAC	400	400

FR Duplex



Simultaneous and automated cleaning of two barrels. The barrels are loaded manually and automatically tilted 90 degree into the cleaning position and tilted back for offloading after finishing the cleaning cycle.

Programmable cleaning process (lees, cold / hot water, steam / draining) with PLC, depending on selected options. Operation and programming via touch screen.

Highlights

- Convenient loading of barrels via flat angle ramp
- Automated, programmable cleaning cycle
- Unique MOOG RK ball spray heads

Features

- For two barrels of 225 – 300 (combi version -500) litres
- Manual alignment, automated tilting into cleaning position
- Highly programmable cleaning process
- Integrated high pressure supply
- High / low pressure hot water inlet (max. 60/85° C)

Accessories and options

- Combi version for different barrel sizes
- Lees collection drawers
- High temperature pump for max. 85°C
- Connection of external hot water pressure washer
- Connection for steam disinfection
- Quick couplings

Technical data

		FR Duplex	FR Duplex Combi
For barrels	l	225 - 300	225 - 500
Working pressure, recommended	bar	100	100
Working temperature max	°C	60 / 80	60 / 80
Rotation speed	t/min	17	17
Minimum size of bunghole	mm	38	38
Flow rate high pressure pump	l/min	21	21
Weight	kg	250	250
Electrical supply	VAC	400	400

LINERIQUE



NEW!

The second generation of barrel cleaning lines from MOOG Cleaning Systems

LINERIQUE is a highly modular system which can be configured to customer specifications.

The number and kind of cleaning stations as well as the type of barrel loading and offloading are selectable.

Highlights

- Highest throughput, effective barrel cleaning
- Fully automated cleaning line
- Modular design, highly configurable
- Robust, reliable lifting and transport mechanics
- Unique MOOG RK ball spray heads

Features

- For barrels of 225 – 300 litres
- Different options for loading and offloading
- Modules for lees collection, cold/hot water cleaning, disinfection, rinsing, drying
- Number and type of washing stations freely selectable
- Fully automated process with strong workplace safety features
- Modern user interface and comprehensive system monitoring via large touch screen
- Integrated high pressure supply

Accessories and options

- Barrel handling with standard industrial robot
- Tilting device für loading and / or offloading
- Remote support

Technical data

LINERIQUE

For barrels	l	225 - 300
Working pressure, recommended	bar	100
Working temperature max	°C	60 / 80
Rotation speed	t/min	17
Minimum size of bunghole	mm	38
No. of stations		2 - 6
Weight	kg	depending on no. of stations
Electrical supply	VAC	400

Tank cleaners

Three-dimensional rotation with defined beam guidance.
For the most efficient, effective and reliable interior cleaning of tanks.

No use of chemicals

Low water consumption



Time saving

Savings in staff costs

Tank washers from MOOG Cleaning Systems offer the following advantages:

- Working pressure up to 250 bar
- Guided beam and highest leak tightness for excellent performance and low water consumption
- Top quality design and manufacturing, premium stainless steel grades

- 8 standard shaft lengths from 140 to 2000mm, individual lengths between 170 and 4000mm
- Small design and lightweight
- Easy to operate, low maintenance cost
- Comprehensive range of accessories

With the H-series tank washers MOOG offers a unique cleaning device with a water-powered hydraulic drive. The high pressure hose is the only supply line required to drive the spray head's rotation and to generate the HP beams through the nozzles.

Overview		E-Series	H-Series	
Electric drive		☹		
Water hydraulic drive			☹	
Working pressure max	bar	250	200	
Flow rate max	l/min	200	80	
Working temperature max	°C	150	90	
Adjustable rotation speed			☹	
Fixed rotation speed		☹		
Splash-proof drive		☹	☹	
Maintenance friendliness		high	very high	
Noise level of motor		low	low	

- ☹ Standard feature
- ☹ Available as option



All tank washers from MOOG Cleaning Systems work with a three-dimensionally rotating spray head designed and manufactured in Switzerland.

The guided beams with 360-degree spray pattern ensure an effective and thorough interior cleaning with less time and water.

Spray heads, shafts and drives are of modular design and can be mixed in any combination. The tank washers work with any professional pressure washer - mobile and stationary.

Tank cleaners E-Series



ER-55 / ER-40



ERK-37

Where electric motors may be used these devices offer the most cost effective solution with excellent cleaning performance.

Different MOOG spray heads and shaft lengths combined with rugged plastic or stainless steel motor covers will suit all needs for tank cleaning in vineries.

Highlights

- Electric drive for 230, 115, 48 or 24 VAC
- Excellent price performance
- Fixed revolutions of 11, 17, 24 or 33 turns per minute
- Long service interval, low maintenance cost

Accessories

- Stainless steel cover with IP 65
- Rubber protection for standard housing
- On / off switch
- Spray head protection
- Solvent resistant sealings

Technical data

ER-40 ER-55 ERK-37

Working pressure max	bar	200	180
Flow rate max	l/min	50	30
Working temperature max	°C	150	150
Jet coverage	degrees	360°	360°
Rotation speed	r/min	11 / 17 / 24 / 33	
Current type	VAC	230 / 115 / 24 / 48	
Weight*	kg	5÷20	

* The weight depends on the length of the shaft and the configuration of the fittings

- ☼ Standard equipment
- ☽ Available as option

	ER-40	ER-55	ERK-37
Stainless steel 316L	☼	☼	☼
Number of nozzles	2•3•4	2•3•4	2
Shaft length	from 200 to 4000 mm, special length on request		
Minimum size of opening (mm)	50	54	38
Viton seals	☼	☼	☼
Solvent resistant seals	☽	☽	☽
EPDM seals	☽	☽	☽
Water connection 3/8"	☼	☼	☼
Water connection M22x1,5	☽	☽	☽
Nozzle thread	M6	1/8"	M4
Point jet nozzles 0°	☼	☼	☼
Flat spray nozzles 5°/15°	☽	☽	☽



Tank cleaners H-Series



HR-55 / HR-40

HRK-37

The H-Series models are suitable for cleaning jobs that use the force of the water for the spray head. The drive powered by water hydraulics was developed by MOOG and offers the highest level of safety and reliability.

Highlights

- Spray head powered by water hydraulic motor
- Very high level of safety
- Variable rotation speeds
- Water-conducting parts in stainless steel and PEEK
- Long-lasting Viton seals
- Low weight
- Very easy to maintain

Technical data

		HR-40 HR-55	HRK-37
Working pressure max	bar	250	180
Flow rate max	l/min	50	30
Working temperature max	°C	90	90
Jet coverage	degrees	360°	360°
Rotation speed	r/min	10 - 30, adjustable	
Weight*	kg	5÷20	

* The weight depends on the length of the shaft and the configuration of the fittings

	HR-40	HR-55	HRK-37
<ul style="list-style-type: none"> ☰ Standard equipment ☱ Available as option/accessory 			
Stainless steel 316L	☰	☰	☰
Number of nozzles	2•3•4	2•3•4	2
Shaft length	from 200 to 4000 mm, special length on request		
Minimum size of opening (mm)	50	54	38
Viton seals	☰	☰	☰
Solvent resistant seals	☱	☱	☱
EPDM seals	☱	☱	☱
Water connection M22x1,5	☰	☰	☰
Water connection 3/8"	☱	☱	☱
EX version	☱	☱	☱
Nozzle thread	M6	1/8"	M4
Point jet nozzles 0°	☰	☰	☰
Flat spray nozzles 5°/15°	☱	☱	☱



Cleaning of casks automatically and without chemicals

MOOG offers devices for automated interior cleaning of wooden wine tanks between 15 and 100 hectoliters without chemicals.

Depending on availability the cleaning device can be inserted into the cask through

- the upper bung hole
- a trap door at the side
- a door at the bottom

This will save significant time and labor and avoid occasional damage of the wooden surface, which may happen when a high pressure lance is handled manually.



Example:

The MOOG HR55 with waterhydraulic drive and a shaft of 140mm supported by a professional pressure washer with a flow rate of 1000 to 1200 litres per hour at 180 bar is perfect to clean casks up to a maximum diameter of 2300mm. The device is suspended by means of the high pressure hose through the upper bung hole until the spray head is positioned at the mid point of the cask's height.

The required cycle time is depending on the cask size and the degree of deposits. By experience around 30 minutes with hot water and another 10 minutes with cold water are sufficient for excellent cleaning results.

Tank mount



Quick, reliable and versatile fastening of cleaning devices at tanks is key to allow for rapid installation at different tanks in a few minutes.

MOOG offers a universal clamping device which can be adjusted in three dimensions for perfect positioning of the cleaning device in the center of the tank. Works well with different kind of tanks.

In addition a special tank mount is available which replaces Moeschle-type tank covers completely.

The mount allows very easy fixing at the tank and three dimensional adjustment of the cleaning device for perfect alignment. During the cleaning process the mount acts as well as shelter against splash water.

Features

- Robust design for superior longevity
- Made from stainless steel / POM

Highlights

- Rapid installation
- Reliable fixation
- Three dimensional alignment

Viniculture

Winemakers from all major wine regions use MOOG barrel and tank cleaners for the automated cleaning and disinfection of barrels and tanks.

Application

Benefits

Wine barrel	Interior cleaning and disinfection of wine barrels	Automatic, rapid, thorough and reliable cleaning and disinfection of wine barrels with a 225 to 600 liter capacity. Low water consumption, savings in personnel cost and cleaning time.
Wine tanks	Interior cleaning of wine tanks	Automatic, rapid, thorough and reliable cleaning of wine tanks. Low water consumption, without the use of chemicals, savings in personnel cost, cleaning time, chemicals and disposal of waste water.



Excellent results

High pressure cleaning with cold/hot water for thorough cleaning. Consistent results thanks to the beam guidance of the jet spray.



High level of reliability

High quality material, robust design, precision manufacture and easy maintenance for a reliable operation and long service life.



Occupational safety / Ergonomics

Automation avoids climbing into tanks and improves ergonomics for employees. High degree of safety for employees thanks to the cleaning process without the use of chemicals.



Outstanding for cost-effectiveness

Savings in personnel cost, cleaning time and consumption / disposal of water.



Wise use of resources

Low water consumption, no need for cleaning agents.



Comprehensive product offering

From handheld devices for smaller wineries to fully automated cleaning lines, for barrels of different size as well as for casks and large tanks – MOOG has the most comprehensive product offering.

Our Company

The five values of MOOG Cleaning Systems have shaped our company over the years. They are reflected every day in the actions and decisions of our employees.

- **Swiss quality**
- **Customer-oriented**
- **Resource-efficient**
- **Professional**
- **Appreciative**



Swiss quality

MOOG Cleaning Systems is a Swiss family-run business that combines tradition and technology. People in Switzerland and around the world have been benefitting from our customised, innovative and resource-efficient cleaning systems since 1968.

Cleaning systems from MOOG are designed for professional use. They meet the highest demands of our customers. The components and systems are developed in-house and manufactured in the most modern facilities in Switzerland.



Unlimited possibilities

Our cleaning systems are modular and can be adapted to your requirements. Extensions and conversions are possible in many applications. We develop tailor-made special orders to suit your application on request.



High level of expertise

We unite development, production and distribution under one roof. As a result, we have the entire life cycle of our products under control. In the last 50 years we have acquired a tremendous amount of expertise in the application of high- and low-pressure systems.

- **Five decades of experience and expertise**
- **Design + manufacturing in Switzerland**
- **Superior in performance and reliability**
- **Experienced specialists for application consulting**
- **Most highly ranked wineries use MOOG**

Your MOOG Dealer



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