

# Industrial use

for continual transfer, dosing, injection, filling, mixing

## Food :



<b>Dairy products</b>	Milk - Creams - Stirred yoghurts - Fresh cream - Ice cream - Condensed milk - Milk Pudding - Melted cheese - Fermented agents - Flavorings - Dessert creams - Liquid sugar, etc.
<b>Beverages and Wines</b>	Beverages - Alcohol - Liquor - Wine - Beer - Fruit juice - Syrups - Yeasts - Liquid sugar - Flavorings - colorings, etc.
<b>Cakes and Baked Goods</b>	Dough - Fillings - Garnishes and coatings - Yeasts - Liquid eggs - Batter (pancake batter) - Chocolate - Flavorings - Colorings - Ingredients and additives, etc.
<b>Fruit and vegetable</b>	Tomato concentrates - Fruit concentrates - Juice - Purées - Stewed fruit - Fruit jelly - Oils and vegetable fats - Gum Arabic, etc.
<b>Meat and fish</b>	Oils and animal fats (edible tallow, lard, etc.) - Blood products - Gelatin - Oils - Molasses - Brine - Enzymes - Lactic acid - Ascorbic acid - Chlorides, etc.
<b>Convenience Food and Canned</b>	Dressings - Vegetable and fish soups - Condiments (tomato sauce, ketchup, tomato purée, crushed tomatoes) - Baby food - Oils - Brine - Jelly, etc.
<b>Sugars and starches</b>	Liquid sugar - Honey - Liquors - Pulp - Juice - Glucose - Starch and by-products, etc.
<b>Oils and fat</b>	Vegetable Oils and fats (canola, peanut, olive, palm, copra, etc.) - Animal oils and fats (edible tallow, lard, butter, margarine, etc.)
<b>Condiments and Dressings</b>	Mayonnaise - Tomato concentrate - Ketchup - Mustard - Dressings - Vinegar, etc.
<b>Misc. Ingredients and Additives</b>	Yeasts - Fermented agents - Acids (lactic acid, formic acid, ascorbic acid, amino-acid, etc.) - Flavorings - Colorings, etc.
<b>Animal food</b>	Fat Edible - Meat emulsions - Flavorings - Colorings



## Cosmetics and Pharmaceuticals

Oils - Creams (Beauty cream, toothpaste, etc.) - Lotions - Gels - Milks - Liquid soaps - Shampoo - Ointments - Syrups - Emulsions - Aroma extracts  
Liquid pharmaceutical products - Additives - Active ingredients - Reagents - Various cosmetic foundations, etc.

## Soap & Detergents

Detergent - Surfactants - Soda lye - Additives - Builders - Glycerine - Animal Fats and vegetable oils - Amines - Enzymes - Concentrated dyes and Perfumes - Caustics - Brine and sodium hydroxide - Nigre - Bleaches - Fatty acids - Deionized water

## Paints, Inks and Coatings

Water-based paints - Lacquers - Varnish - Pigments- Plasticizers - Earth - Acrylic adhesives - Resins - Hardeners - Catalysts - Colorings - Inks - Glycerin - Wax - Emulsions (water/oil and wate/soap)

## Wasterwater Treatment

Polymers - Chemical feed

## Manufactured Products and Processes

Phytosanitary products (fungicides, liquid fertilizer, etc.) - Plasturgy ( Polyhydric alcohols, isocyanates) - Acid effluents for surface treatment - Polymers



**SPEC SHEET 2001-001 E**  
SECTION : **2001**  
Effective : **November 2009**  
Replaces : **October 2006**

# BLK SERIES BLK Hy-clean SERIES

## The new standard in rotary lobe pumps

### Outstanding quality and level of hygiene :

- Design for cleanability : Hy-clean for use in the food, cosmetics and pharmaceutical industries
- Large drive shaft
- Low contamination risk (practically no retention zone)
- All parts in contact with fluid in AISI 316 L stainless steel
- Ra 0.8 µm standard finish (Ra 0.4 µm on option)
- Compliant with EHEDG recommendations
- Compliance with health requirements : FDA, 3A
- 3.1 certificate on request
- Operates in explosive areas : Atex certificate
- 2 years warranty
- Clean modern lines

### Performance :

- Excellent volumetric efficiency
- Smooth flow
- Low NPSH required
- Integrity of transferred media maintained
- Transfer of media containing solids in suspension
- Capacity to pump media of low and high viscosity
- Suitable for CIP (Cleaning In Place) and SIP (Sterilisation In Place)

### Economical :

- Cost-effective technical solution for volumetric fluid transfer (excellent performance/price ratio)
- Front access for changing mechanical seals
- Fast and easy maintenance
- Quick dismantling
- Easy drainage
- Low energy consumption

### Easy integration :

- Compact solution : low space consumption
- Dry operation possible with wetted mechanical seals
- Reversible suction and discharge
- Modular design
- Horizontal or vertical connection porting
- Interchangeable drive/driven shaft
- Wide choice of connections : DIN 11851, NPT, BSP, SMS, Tri-clamp, ISO PN16, RJT, ASEPTIC, NEUMO
- Robust design



ZI la Plaine des Isles  
rue des Caillottes  
89000 AUXERRE - FRANCE  
T + 33.3.86.49.86.30  
F + 33.3.86.46.42.10  
contact@mouvex.com



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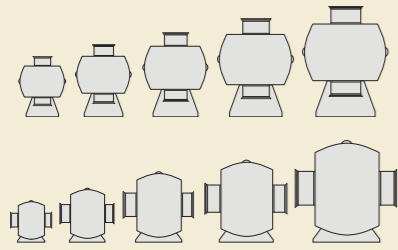
## The best in lobe pump technology by Mouvex



### 2 RANGES

Design in 316 L stainless steel for all chemical, pharmaceutical, cosmetic and food industry applications

BLK Series

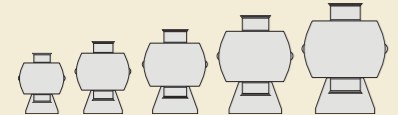


5 sizes

Connection porting : vertical and horizontal

BLK Hy-clean Series

Specific hygienic design compliant with EHEDG recommendations (very high level of cleanability)



5 sizes

Connection porting : vertical only

### Advantages of both ranges

- Designed for cleanability
- High volumetric efficiency
- Low NPSH
- Modern robust design
- Reversible operation
- Smooth flow
- Maintenance in place without dismantling pipes
- low shear pumping
- Dry operation possible with wetted mechanical seals
- Low pulsation
- Modular design (vertical and horizontal porting)
- Suitable for CIP and SIP

#### AISI 316L stainless steel cover

- Quick and easy dismantling
- Easy access to seals
- Easy to clean
- Flat reversible cover
- Mirror-finish surface
- Ra 0,8 µm

#### AISI 316 L stainless steel body

Standard surface finish 0,8 µm (0,4 µm on option)

Front-loaded mechanical seals  
reduced maintenance and downtime

Over-dimensioned front bearings  
• heavy loads supported

Robust reliable system

Rear bearings  
high speeds supported

Interchangeable drive/driven shafts

Helical gears  
• More accurate synchronisation  
• Low noise  
• Easy adjustment  
• Longer lifetime

Modular design  
1 pump block + 1 vertical or horizontal foot

#### Rotor screws

- 316L stainless steel
- Efficient locking

#### TRI LOBE Rotor

#### AISI 316 L stainless steel

- Interchangeable Bi-Wing rotor
- Easy to mount
- Accurate positioning with no risk of mechanical error
- Hygienic
- No retention zone

#### Gasket

#### L-shaped

- Groove machined into body
- Hygienic
- EHEDC-compliant

#### Splined shaft

- Enhanced distribution of stress
- Reduced wear

All parts in contact with pumped fluid in AISI 316 L stainless steel

Anti-splash casing protection disc

Easy access to seals

#### Separately built body and bearing housings

Eliminates risk of accidental media pollution

Oil level viewing point

Support in brushed 304 stainless steel

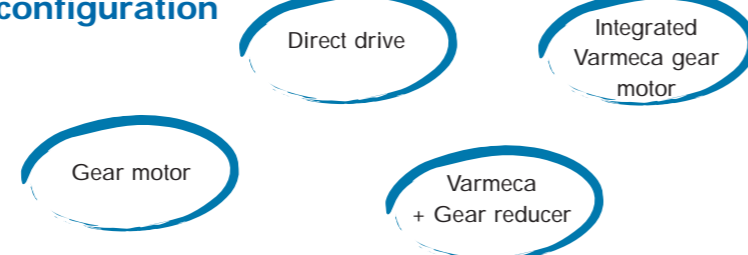
Drainage outlet

Designed for easy cleaning with CIP/SIP processes

### Bare shaft pump



### Unit configuration



### Industrial applications and processes

#### Main industrial applications :

- Transfer - Filling - Emptying
- Dosage - Packaging
- Atomisation - Evaporation - Drying
- Concentration Filtration
- Extraction - Mixing
- Baking - Homogenisation
- Emulsion - Separation - Fermentation
- Racking - Degassing - Sterilisation
- Pasteurisation - Booster
- Extrusion

## Characteristics of both ranges

SIZE	Models	Orifice DN	Displacement (litres)	Max output (m <sup>3</sup> /h)	Max pressure(bar)	Max speed (rpm)
Size 1	BLK 1-2-12	20	0,020	1,8	12	1450
	BLK 1-2-7	25	0,030	1,7	7	950
Size 2	BLK 2-6-12	25	0,100	5,7	12	950
	BLK 2-8-7	40	0,140	7,9	7	950
Size 3	BLK 3-13-12	40	0,230	13,3	12	950
	BLK 3-17-7	50	0,300	17,1	7	950
Size 4	BLK 4-29-12	50	0,970	29,2	12	720
	BLK 4-41-7	80	0,950	41,1	7	720
Size 5	BLK 5-78-12	100	2,170	78,2	12	600
	BLK 5-116-7	150	3,210	115,8	7	600

Max. temperature :

- 110° C (230° F) in standard
- 150° C (302° F) in option

Max. viscosity : 100 000 mPa.s (cP)

Diameter of non-solid particles : ϕ 45 mm max. (ϕ 15 mm recommended) 1,77" (0,59" recommended)

	OPTIONS	BLK	BLK Hy-Clean
Connection type	SMS	Yes	Yes
	DIN 11851	Yes	Yes
	Tri Clamp	Yes	Yes
	BSP	Yes	Yes
	NPT	Yes	Yes
	ISO PN16	Yes	Yes
Other connections	On request	On request	On request
Rectangular input orifice	(Photo 1)	Option	Option
Rotor type	Tri-lobe (Photo 2)	Standard	Standard
	Bi-wing (Photo 3)	Option	Option
	Other type	On request	On request
Mechanical seals Single MS - in standard (Double MS - in option) (Wetted MS - in option)	C/SIC	Standard	Standard
	SIC / SIC	Option	Option
	TungC / SIC	Option	Option
	TungC / TungC	Option	Option
Gasket	EPDM (FDA-compliant)	Standard	Standard
	FPM	Option	Option
	PTFE	Option	Option
Pressure release valve	By-pass built into cover	Option (Photo 4)	Not recommended
	External By-pass	Option	Recommended
Heating-cooling jacket (180° Max.)	Front jacket	Option	Option
	Body jacket	Option	Option
Pump support	For vertical porting	Yes (Photo 5)	Yes (Photo 5)
	For horizontal porting	Yes (Photo 6)	Yes (Photo 6)
Roughness	Ra 0,8 µm	Standard	Standard
	Ra 0,4 µm	Option	Option



(Photo 1)



(Photo 2)



(Photo 3)



(Photo 4)



(Photo 5)



(Photo 6)

### Performances

