Blackmer Addendum to the IOM for EU & UK Compliance

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Blackmer

Addendum to the IOM for EU & UK Compliance

All Sliding Vane Pump Models



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List of Standards

Blackmer pumps are designed to applicable national and international standards using sound engineering principles. They are built in ISO registered facilities at locations in the USA and India. This is a listing of those standards that have been applied or consulted in the design evaluation of the product or directly applied in the certification of the product. The application of some of these standards is the responsibility of the end user and not that of Blackmer.

Directive 2014/34/EU Equipment for potentially explosive atmospheres (ATEX) UKSI 2016 No. 1107 The Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016

Directive 2006/42/EC Machinery Directive Supply of Machinery (Safety) Regulations 2008 No. 1597

Directive 2014/34/EU: Guidelines on application

EN ISO 80079-36:2016 *Explosive atmosphere-Part 36: Non-electrical equipment for explosive atmospheres-Basic method and requirements*

EN ISO 80079-37:2016 Explosive atmosphere-Part 37: Non-electrical equipment for explosive atmospheres-Non electrical type of protection constructional safety "c", control of ignition source "b", liquid immersion "k"

ISO 1813 Belt drives - V-ribbed belts, joined V-belts and V-belts including wide section belts and hexagonal belts - Electrical conductivity of antistatic belts: Characteristics and methods of test

EN ISO 12100:2010 Safety of Machinery-General principles for design. Risk assessment and risk reduction (ISO 12100-1:2010)

EN ISO 13857:2019 Safety of machinery-Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)

EN ISO 14120:2015 Safety of machinery-Guards-General requirements for the design and construction of fixed and movable guards

EN 349:1993+A1:2008 Safety of Machinery-Minimum gaps to avoid crushing of parts of the human body

EN 809:1998+A1:2009+AC:2011 *Pumps and pump units for liquids-Common safety requirements*

EN 12162:2001+A1:2009 Liquid pumps-Safety requirements-Procedure for hydrostatic testing EN 13445-5:2021 Unfired pressure vessels-Part 5: Inspection and testing

ISO-TR 14121 Safety of machinery-Risk assessment-Part 2: Practical guidance and examples of methods

Other standards:

NFPA 58 Liquefied Petroleum Gas Code ANSI/UL 51 Standard for Power-Operated Pumps and Bypass Valves for Anhydrous Ammonia, LP-Gas and Propylene

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ANSI/UL79 Power-Operated Pumps for Petroleum Dispensing Products

ASTM A29/A29M Standard Specification for General Requirements for Steel Bars, Carbon and Alloy, Hot-Wrought

ASTM A48 Standard Specification for Gray Iron Castings

ASTM A108 Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished

ASTM A216 Standard Specification for Steel Castings, Carbon, Suitable for Fusion Welding, For High Temperature Service

ASTM A229 Standard Specification for Steel Wire, Quenched and Tempered for Mechanical Springs

ASTM A276/A276M Standard Specification for Stainless Steel Bars and Shapes

ASTM A351/A351-M Standard Specification for Castings, Austenitic, for Pressure-Containing Parts

ASTM A322 Standard Specification for Steel Bars, Alloy, Standard Grades

ASTM A536 Standard Specification for Ductile Iron Castings

ASTM A564/A564M Standard Specification for Hot Rolled and Cold Finished Age-Hardening Stainless Steel

ASTM A 743-A743M Standard Specification for Castings, Iron-Chromium, Nickel, Corrosion Resistant, for General Application

ASTM A890/A890-M Standard Specification for Castings, Iron-Chromium-Nickle-Molybdenum Corrosion-Resistant, Duplex (Austenitic/Ferritic) for General Application

ASTM B633 Standard Specification for Electrodeposited Coatings of Zinc on Iron or Steel ASTM B849 Standard Specification for Pre-Treatments of Iron or Steel for Reducing Risk of Hydrogen Embrittlement

ASTM B850 Standard Guide for Post-Coating Treatments of Steel for Reducing the Risk of Hydrogen Embrittlement

AMS 13165 Shot Peening of Metal Parts

Note: Any reference to ATEX, ATEX Directive, or EU 2014/34/EU is also a reference to SI 2016 No. 1107.

Any reference to The Machinery Directive or Directive 2006/42/EG is also a reference to The Supply of Machinery (Safety) Regulations 2008 No. 1597

General Description

This equipment is a sliding vane rotary pump designed for pumping a variety of liquids, including potentially toxic, flammable, or explosive liquids. They are available in a variety of sizes from ³/₄ inch (19 mm) thru 10-inch (254 mm) inlet and outlet and configurations. These include left hand and right-hand rotation, single or double shaft (limited models) and different seals, gaskets, vane, and O-ring materials. These pumps are constructed of a variety of materials including ductile iron and stainless steel. They are available in a variety of pipe connections and sizes. They are not intended to operate as a safety device.



Safety Information and General Warnings

This manual is intended to supplement the standard Blackmer Installation and Operation Manual (IOM) provided with every Blackmer pump. It is provided to give specific information regarding installation and operation in the European Union countries and the United Kingdom. Please refer to the appropriate IOM for installation and operation specifics pertaining to the specific pump installation and operation. This manual is not intended to replace the IOM provided.



General Danger warning

Text marked with this symbol are instructions that if not followed could lead to an increase in the possibility of injury to people or property.



Hot surface warning

Text marked with this symbol are instruction that if not followed could lead to contact by personnel or property with hot surfaces.



Read Operators Manual (IOM) Warning

Text marked with this symbol indicate instructions that are more completely defined in the pump model specific IOM.



Lifting point warning Text marked with this symbol indicate instructions for safe handling to avoid crushing or pinching hazards.



Pinch Point/Entanglement warning

Text marked with this symbol indicate instructions that if not followed could lead to entanglement or pinch/shearing hazards.





General Danger Warning

Blackmer pumps are designed for the transfer of liquids. They should only be installed and operated by properly trained personnel.



Hot surface warning

Blackmer pumps have surfaces that can get hot, such as the discharge flange, casing, or seal area. Contact with these surfaces could lead to personal injury or property damage. It is the end user's responsibility that personnel are guarded against any contact with hot surfaces. The end user is

responsible for any required warning signage.



Read operators manual

Blackmer pumps must only be installed and operated by properly trained personnel. They should never be started or operated before reading and fully understanding the instructions in the Installation, Operation and Maintenance Manual (IOM) and this addendum that was provided with this equipment. If the

IOM is not provided or has been misplaced copies are available on the Blackmer website or the local Blackmer distributor. Local or national codes may require training before operation. It is the end users responsibility to insure that all training requirements are met.



Lifting point warning

Blackmer pumps are heavy. They should only be lifted in accordance with the IOM instructions provided for that machine. Blackmer pumps should never be used as a lifting point for the machinery that they are incorporated into.

Pump drive warning



All Blackmer pumps require a customer supplied drive system. Blackmer does not provide complete ATEX rated drive systems. It is the responsibility of the end user to install a properly rated coupling or drive, and motor. **Proper placarding and protection**

levels for the customer provided drive equipment is the responsibility of the end user.

It is the end user's responsibility to properly anchor the pump to a foundation or frame of sufficient mass and stiffness to accommodate any forces produced. The design of the mounting and installation of these pumps must be performed by qualified individuals familiar with pumps to ensure compliance. Further Blackmer IOM and Technical Bulletins must be followed whenever they are not in conflict with local codes or regulations.



It is the final user's responsibility to ensure that the pump is properly mounted and that the operational limits are not exceeded.



Blackmer pumps are rotation specific and must be operated only in the proper direction. It is mandatory that prior to initial start-up and after any maintenance that requires removal of power from the installation that a rotational direction check be performed on the motor only with the pump uncoupled.

Installation and Operation Information



1. Blackmer pumps are provided with a pump model specific IOM. This Addendum to the IOM is not intended to replace the information provided in the pump specific IOM. If the information in the Addendum conflicts with the pump specific IOM, the pump specific IOM information should be used.



2. Blackmer pumps are designed to pump a variety of potentially flammable or explosive liquids. Air mixed with flammable vapor in the housing of the pump can create an explosion hazard. It is the end user's reasonability to ensure that any inadvertent (or intentional) mixtures:

a. are above the lower explosive limit of concentration

- b. are below the upper explosive limit of concentration
- c. that will self-ignite without an addition of an oxidizer or catalyst
- d. are reactive with the materials of construction.

Are not allowed to occur.

The best way to ensure this is to purge all oxygen (air) from the system prior to initial commissioning and after pump maintenance that requires the opening of the system.

3. The end user must take all necessary precautions in the calculation of the LEL, UEL, ignition impact energy and auto ignition point of the process fluid and any explosive gasses in the vicinity of the installation. Consideration must be given to the energy value of any such mixture.



4. The end user is responsible for the necessary precautions regarding the process liquid as it relates to hazards such as but not limited to:

- Flammability-the upper and lower levels and ease of ignition
- Toxicity-the acceptable concentration levels
- Explosive behavior-the upper and lower level and the energy produced
- Corrosion potential and material compatibility
- Personal Protective Gear requirement
- Placarding and signage requirements for compliance with local, national, and international standards

5. Blackmer pumps are designed to operate within an ambient temperature range of -20°C to 40° C.





- 6. Only trained operators and maintenance personnel should be allowed to work on the system. All maintenance must be performed in accordance with the IOM and this Addendum. Local and National codes must also be followed when they apply.
- 7. Most Blackmer pumps have an internal relief valve to limit pump differential pressure. These operate by returning discharge fluid to the inlet side of the pump. Prolonged running in internal relief mode is considered an abnormal operation and could result in higher pump temperature than indicated in Table 1. Installation of a properly sized and adjusted external bypass valve is mandatory for certain Blackmer pump models (consult the pump specific IOM for recommendations). Blackmer recommends Blackmer bypass valves be used on all installations requiring use of a bypass valve.



8. **Blackmer pumps are not intended for use in a potentially explosive dust atmosphere.** However dust is naturally occurring in the environment that this equipment will be installed in. Proper care and/or protection against dust accumulation on the outside of the pump is crucial to maintaining the pumps Ex rating. Periodic inspection and cleaning are required to maintain the rating. **Do not use high temperature steam or**

high pressure water to clean the outside of the pump.

9. The end user is responsible for compliance of the installed pump to all applicable International, National and Local codes and standards. This includes the category rating of the final equipment.



10. It is the end user's responsibility that the drive system is ATEX compliant. Blackmer belts are ISO 1813 compliant for conductivity. The end user is responsible for any static wicks or brushes that may be required to meet local or national codes or standards. Blackmer does not supply ATEX rated couplings.



11. The end user is responsible for all required guarding and safety placarding of the finished machinery.



12. Some models of Blackmer pumps use magnetic drive couplings. Refer to the model specific IOM for details regarding magnetically coupled pumps. The end user is responsible for any safety placarding required by local and national codes.



Supplemental Maintenance Information



In order to ensure a proper level of explosion resistance and machinery safety proper bearing maintenance is required.

Lubrication: Please refer to the pump IOM for details.



Failure to follow the published lubrication intervals could result in an elevated explosion risk. To avoid possible entanglement in moving parts do not lubricate while the pump or drive system is running.



Failure to follow safety instructions in the pump specific IOM or this Addendum could lead to an increase in fluid injection risk. When disconnecting/disassembling pumps proper PPE must be worn to protect from high velocity fluid ejection risks. Further proper electrical and hydraulic lockout procedures must be followed to prevent entanglement, pinching, or crushing hazards. It is the end user's responsibility that proper placarding is applied and visible to advise maintenance personnel to these hazards. Inspect the installation at a regular basis for leaks. Never check for leaks with your hands. Personal injury could result.

Improper fastener torque can lead to a higher risk of fluid ejection. Fasteners should be tightened to the torques as specified in the pump specific IOM or to the values in Table 4 if not specified.

Pump shaft seals are a potential source of High Pressure Fluid Ejection risk as are any joints in pressure containing parts. Never check for leaks with your hands. Personal injury could result.



Bearing Life: To provide the intended level of explosion resistance the shaft bearings must be replaced at 2,000 hour intervals. This interval is based on a pump running at the maximum operating conditions (pressure, speed and temperature) with no cavitation and should be considered a minimum for safe operations. If the pump is operated at lower pressures, speed and temperature this could be an inspection interval and replacement could be on condition if

the bearings are deemed sound to return to service. Conversely if the pump is used in extremely dusty, wet or other adverse conditions this interval should be shortened. Also if the pump experiences cavitation regularly during operation bearing life could be reduced. Proper locknut adjustment is required for the bearings to achieve the rated life. A new pump has the bearings adjusted properly when assembled at the factory. Field service requires that the locknuts be adjusted according to the IOM maintenance instructions (see IOM for replacement and adjustment procedure). Failure to follow these instructions could reduce the explosion resistance of the pump and/or create a personal injury/property damage risk.

Sound Measurements: Sound Levels for pumping equipment vary greatly, depending on operating conditions, piping system design, foundation design, etc. Probably the greatest effect on sound level is the presence of cavitation, which is primarily dependent on system design and often, increases dramatically during system upset.

You can expect the following sound levels when operating a Blackmer pump at its' maximum rated speed and discharge pressure with NO cavitation. Sound levels are measured at 1 meter from the pump and 1.6 meters from the foundation per European Machinery Directive 2006/42/EC. Maximum Noise Level: 85 dba



ATEX rating information

It is the end user's responsibility that any optional elastomers/O-rings meet the required ATEX temperature code required. Typically, the material should be rated 20°C higher than the required temperature code. Blackmer pumps will typically have a temperature rise of 20°C or less above the inlet fluid

temperature. Certain Blackmer pump models will require temperature limiting devices to remain Category II equipment.



Possible Misuse Warning: The pump must only be installed in systems designed for its intended use. Blackmer pumps must only be operated within the published pressure and temperature limits. Only properly trained personnel should be allowed to operate or maintain Blackmer pumps.



Mechanical Ignition Sources: Guards, intended to protect from personal injury from rotating components, must be fabricated from ATEX compliant materials to prevent a potential ignition source. The pump and its' drive system must be properly grounded to prevent electrostatic discharge. ATEX certified elastic couplings must be used. These couplings must have a level of protection equivalent or better than that of the pump unit. The pump has

internal parts that rub together, these parts require pumpage to lubricate the rubbing surfaces. If the pump is run dry for periods of over one-minute, maximum surface temperature may exceed the pump classification temperature. Consequently, every time the pump is started, an operator must check that there is a flow through the pump. Liquid level or flow detector controls may be necessary to prevent dry running. These devices must comply with the standards in force, especially those related to electric devices in explosive atmospheres and/or standard EN 80079-36 related to the protection of non-electric equipment in explosive atmospheres by controlling sources of ignition. Pumps must be properly maintained and lubricated, see IOM (Installation, Operation, & Maintenance Instructions) for service information.





Packing Seal Pumps: Standard (SNP/NP) model pumps and (MLN, MRLN) model pumps are equipped with packing seals which must be properly adjusted, see IOM. All pumps equipped with packings must be equipped with a temperature controlling device to prevent exceeding the maximum surface temperature.



Magnetically Coupled Pumps: (MVP/SMVP/MI/MS) model pumps require additional ignition hazard precautions to prevent an excess temperature condition. Magnetically coupled pumps must be maintained on a regular basis as excessive bushing wear and/or loose magnets can result in rubbing contact with the containment can, consult IOM.

Blackmer pumps are devices whose surface temperature depends on the product temperature. Temperature classification for various product temperatures in various pump models is listed in Table 1. For pumps with steam jackets the steam temperature must not exceed the maximum product temperature. Temperature limiting devices are required for NP, MLN, MRLN, MVP, SMVP, SNP, and TX(/D/DI/S/SD/H) models which need to be classified as Category 2. Contact Blackmer Customer Care Group for your specific requirements.



ATEX Marking Information

	Product (inclusivo all sizes, drive options, & relief valve arrangements)		
250 ° C*	NP (with jackets or electric heater elements*)		
150 ° C	HXLJ (with jackets*), (MLN, MRLN, MLX, MRLX, MRLXW with jackets*), TXV		
80 ° C	CRL, CRLR FFNP, GX, GNX, GNXH, HXL, MLN, MRLN, MLX, MRLX, MRLXW, NP, NPH, PV, PVS, SNP, SX, STX, TX, TXD, TXDI, TXS, TXSD, TXH, X, XB, XF, XL, XLF, XRLF, XLW, XRL, XU, MI, MS		
80 ° C	LGB, LGF, LGL, LGLD, LGLH, LGRL, LGRLF, MAX, SGL, SGLD, SGRL, SMVP, TLGLF		

Table 1. Temperature limits

*For pumps with steam jackets the steam temperature must not exceed the maximum product temperature.

Table 2. Vane temperature limits				
Vane Material	Pump Temperature Limit (°C)	Fluid Temperature Limit (°C)		
Duravane	115	108		
Laminate	176	169		
Bronze	260	250*		
Iron	260	250*		

Table 3. O-ring temperature limits

O-ring Material	Material Temperature Limit (°C)	Fluid Temperature Limit (°C)		
Nitrile	120	100		
FKM	175	155		
EPDM	150	130		
PTFE	260	250*		
Neoprene	105	85		

*Must have temperature limiting equipment installed.



Table 4. Bolt torque values. If the torque values are listed in the pump specific IOM for a particular bolt use that value. If it is not listed in the pump specific IOM use the table values.

	RECOMMENDED TORQUE in Ft-Lbs							
SIZE	Steel G	Steel Grade 2 Steel Gra		rade 5 Steel G		Grade 8	Stainless Steel	
	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
#8	-	-	-	-	3.7	-	1.4	-
#10	-	-	-	-	5.4	-	2	-
1/4	5.7	6.5	9.1	10	12.9	14	5	5.7
5/16	11.6	12.8	18.7	20	26	29	10	11
3/8	20.7	23.5	33	37	47	53	18	20
7/16	31	37	53	59	75	84	29	32
1/2	50	57	81	91	115	129	44	50
9/16	72	81	117	131	166	185	64	71
5/8	100	114	162	184	229	260	88	100
3/4	178	199	288	321	407	454	156	174
7/8	287	317	464	512	656	724	252	278
1"	430	270	696	762	984	1070	378	414

Equipment Marking: All pump models are classified Group II Category 2 & 3, Gas Group IIB. Temperature limiting devices are required for NP, MLN, MRLN, SMVP, SNP, MI, MS and TX(/D/DI/S/SD/H) models which need to be classified as Category 2.

Blackmer offers many optional materials that will affect the temperature rating of various pump models. See table 1 for temperature ratings for various models. See table 2 and 3 for special conditions for optional materials of construction.

All pumps are marked II 2 G Ex h IIB T5...T2 Gb X



Notes:



EU DECLARATION OF CONFORMITY

Directive 2014/34/EU Annex VIII

Herewith we declare that all sizes of Blackmer pump models: CRL, FFNP, GX, HXL, HXLJ, LGB, LGF, LGLH, LGL, LGLD, LGLF, LGRL, LGRLF, MLN, MRLN, MLX, MRLX, MRLX, MRLXW, NP, NPH, PV, PVS, SGL, SGLD, SGRL, SMVP, SNP, STX, SX, TLGLF, TX, TXD, TXDI, TXS, TXSD, TXH, TXV, X, XB, XF, XH, XL, XLF, XRLF, XLW, XRL, XU, MI, and MS to which this declaration relates are in conformity with the provisions of the ATEX Directive 2014/34/EU. The above equipment are sliding vane, positive displacement pumps designed for fluid transfer applications. These pumps are designed in accordance with EN Standards, using sound engineering principles, manufactured, and assembled in ISO registered facilities. This device is not intended to act as a safety accessory. Technical file is archived with:

LCIE notified body number 0081, file no. LCIE 154087-717375.

Directive 2014/34/EU Equipment for potentially explosive atmospheres (ATEX)

Applied Harmonized Standards:

EN ISO 80079-36:2016 Explosive Atmosphere-Part 36: Non-electrical equipment for explosive atmospheres-Basic method and requirements

EN ISO 80079-37:2016 Explosive Atmosphere-Part 37: Non-electrical equipment for explosive atmospheres-Nonelectrical type of protection constructional safety "c", control of ignition source "b", liquid immersion "k"

EN 12162:2001+A1:2009 Liquid Pumps-Safety Requirements-Procedure for hydrostatic testing

Other Applied Standards

ISO 1813 Belt drives - V-ribbed belts, joined V-belts and V-belts including wide section belts and hexagonal belts - Electrical conductivity of antistatic belts: Characteristics and methods of test

NFPA 58 Liquefied Petroleum Gas Code

ANSI/UL51 Standard for Power-Operated Pumps and Bypass Valves for Anhydrous Ammonia, LP-Gas, and Propylene

ANSI/UL79 Power-Operated Pumps for Petroleum Dispensing Products

Lara Kauchak General Manager 24 May 2023 Date Grand Rapids MI USA

EU DECLARATION OF CONFORMITY

Machinery directive 2006/42/EG, Annex II A

Herewith we declare that all sizes of Blackmer pump models: CRL, FFNP, GX, HXL, HXLJ, LGB, LGF, LGLH, LGL, LGLD, LGLF, LGRL, LGRLF, MLN, MRLN, MLX, MRLX, MRLX, MP, NPH, PV, PVS, SGL, SGLD, SGRL, SMVP, SNP, STX, SX, TLGLF, TX, TXD, TXDI, TXS, TXSD, TXH, TXV, X, XB, XF, XH, XL, XLF, XRLF, XLW, XRL, XU, MI, and MS to which this declaration relates are in conformity with the provisions of the Machinery Directive, 2006/42/EG. The above equipment are sliding vane, positive displacement pumps designed for fluid transfer applications. This device is not intended to act as a safety accessory.

Blackmer further declares that the above listed pumps are designed in accordance with EN Standards, using sound engineering practices, are designed, manufactured, and assembled in ISO registered facilities. These pumps are in compliance with all applicable harmonized/designated standards and therefore all pumps carry the CE marking.

Applied Harmonized/Designated Standards: EN 809:1998+A1:2009+AC:2011 *Pumps and pump units for liquids-Common safety requirements* EN 12162:2001+A1:2009 Liquid pumps-Safety requirements-Procedure for hydrostatic testing EN ISO 12100:2010 Safety of Machinery-General principles for design. Risk assessment and risk reduction (ISO 12100-1:2010)

Other Applied Standards ISO-TR 14121 Safety of machinery-Risk assessment-Part 2: Practical guidance and examples of methods

Lara Kauchak General Manager

24 May 2023 Date Grand Rapids MI USA



UK DECLARATION OF CONFORMITY

SI 2016 No. 1107

Herewith we declare that all sizes of Blackmer pump models: CRL, FFNP, GX, HXL, HXLJ, LGB, LGF, LGLH, LGL, LGLD, LGLF, LGRL, LGRLF, MLN, MRLN, MLX, MRLX, MRLXW, NP, NPH, PV, PVS, SGL, SGLD, SGRL, SMVP, SNP, STX, SX, TLGLF, TX, TXD, TXDI, TXS, TXSD, TXH, TXV, X, XB, XF, XH, XL, XLF, XRLF, XLW, XRL, XU, MI, and MS to which this declaration relates are in conformity with the provisions of UKSI 2016 No. 1107 *The Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations* 2016

The above equipment are sliding vane, positive displacement pumps designed for fluid transfer applications. These pumps are designed using sound engineering principles, manufactured, and assembled in ISO registered facilities. This device is not intended to act as a safety accessory. Technical file is archived with;

Element Materials Technology Warwick Ltd, notified body 0891, file no. 0891-014

UKSI 2016 No. 1107 The Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016

Applied Harmonized/Designated Standards:

EN ISO 80079-36:2016 Explosive Atmosphere-Part 36: Non-electrical equipment for explosive atmospheres-Basic method and requirements

EN ISO 80079-37:2016 Explosive Atmosphere-Part 37: Non-electrical equipment for explosive atmospheres-Nonelectrical type of protection constructional safety "c", control of ignition source "b", liquid immersion "k"

EN 12162:2001+A1:2009 Liquid Pumps-Safety Requirements-Procedure for hydrostatic testing

Other Applied Standards

ISO 1813 Belt drives - V-ribbed belts, joined V-belts and V-belts including wide section belts and hexagonal belts - Electrical conductivity of antistatic belts: Characteristics and methods of test

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ANSI/UL79 Power-Operated Pumps for Petroleum Dispensing Products

Lara Kauchak General Manager

24 May 2023 Date Grand Rapids MI USA

UK DECLARATION OF CONFORMITY

As defined by the: Supply of Machinery (Safety) Regulations 2008 No. 1597

Herewith we declare that all sizes of Blackmer pump models: CRL, FFNP, GX, HXL, HXLJ, LGB, LGF, LGLH, LGL, LGLD, LGLF, LGRL, LGRLF, MLN, MRLN, MLX, MRLX, MRLX, MRLXW, NP, NPH, PV, PVS, SGL, SGLD, SGRL, SMVP, SNP, STX, SX, TLGLF, TX, TXD, TXDI, TXS, TXSD, TXH, TXV, X, XB, XF, XH, XL, XLF, XRLF, XLW, XRL, XU, MI, and MS to which this declaration relates are in conformity with the provisions of the Supply of Machinery (Safety) Regulations 2008 The above equipment are sliding vane, positive displacement pumps designed for fluid transfer applications. This device is not intended to act as a safety accessory.

Blackmer further declares that the above listed pumps are designed in accordance with EN and UK Standards, using sound engineering practices, are designed, manufactured, and assembled in ISO registered facilities. These pumps are in compliance with all applicable harmonized/designated standards and therefore all pumps carry the UKCA marking.

Applied Harmonized/Designated Standards:

EN 809:1998+A1:2009+AC:2011 *Pumps and pump units for liquids-Common safety requirements*

EN 12162:2001+A1:2009 Liquid pumps-Safety requirements-Procedure for hydrostatic testing EN ISO 12100:2010 Safety of Machinery-General principles for design. Risk assessment and risk reduction (ISO 12100-1:2010)

Other Applied Standards ISO-TR 14121 Safety of machinery-Risk assessment-Part 2: Practical guidance and examples of methods

Lara Kauchak General Manager

24 May 2023 Date Grand Rapids MI USA



www.blackmer.com Form 617 page 17 / 19

Notes:



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