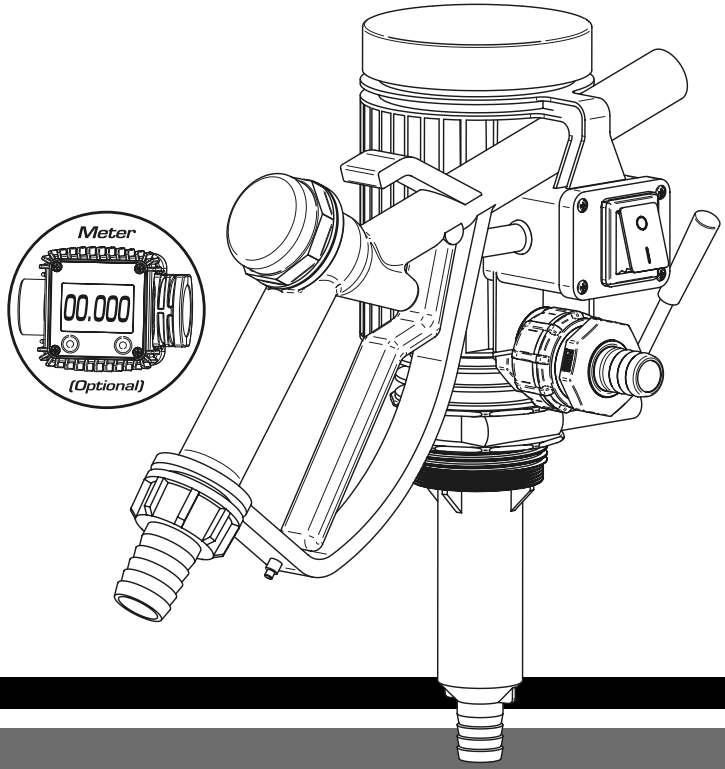
PIUSI Fluid Handling Innovation

PICO
DIESEL TRANSFER PUMP



Installazione uso e manutenzione **IT**
Installaltion, use and maintenance **EN**
Installaltion, use and maintenance **FR**
Installierung, Betrieb und Wartung **DE**
Instalación, uso y mantenimiento **ES**
Instalação, uso e manutenção **PT**
Betjenings- ogvedligeholdelses-manual **DA**
Manual föranvändning ochunderhåll **SV**

MADE IN ITALY

BULLETIN M0178D ML _00

ENGLISH

1 INDEX

2	MACHINE AND MANUFACTURER IDENTIFICATION	14
3	DECLARATION OF CONFORMITY	14
4	MACHINE DESCRIPTION	15
4.1	HANDLING AND TRANSPORT	15
5	GENERAL WARNINGS	16
6	SAFETY INSTRUCTIONS	16
7	FIRST AID RULES	18
8	GENERAL SAFETY RULES	19
9	TECHNICAL DATA	19
10	OPERATING CONDITIONS	20
10.1	ENVIRONMENTAL CONDITIONS	20
10.2	ELECTRICAL POWER SUPPLY	20
10.3	DUTY CYCLE	20
10.4	PERMITTED AND NON-PERMITTED FLUIDS	20
11	INSTALLATION AND EQUIPMENT	21
11.1	ELECTRICAL CONNECTIONS	21
12	COMMISSIONING / DAILY USE	22
13	DISASSEMBLING AND MAINTENANCE	22
15	NOISE LEVEL	22
16	PROBLEMS AND SOLUTIONS	23
17	DEMOLITION AND DISPOSAL	23
18	EXPLODED VIEWS	92
19	OVERALL DIMENSIONS	93

BULLETIN MO178D

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2 MACHINE AND MANUFACTURER IDENTIFICATION



AVAILABLE MODELS	**PICO 230 V - PICO 12 V - PICO 24 V**
MANUFACTURER	PIUSI S.p.A. Via Pacinotti 16/A - Z.I. Rangavino 46029 Suzzara (MN) Italy

3 DECLARATION OF CONFORMITY

The undersigned: PIUSI S.p.A.
Via Pacinotti 16/A - Z.I. Rangavino
46029 Suzzara (MN) Italy

Hereby states under its own responsibility, that the equipment described below:
Description : **Machine designed for the transfer of diesel fuel, emulsions and water**
Model : **PICO 230 V - PICO 12 V - PICO 24 V**
Serial number: refer to Lot Number shown on CE plate affixed to product
Year of manufacture: refer to the year of production shown on the CE plate affixed to the product is in conformity with the legal provisions indicated in the directives :
- Machine Directive 2006/42/EC
- Electromagnetic Compatibility Directive 2014/30/EU
The documentation is at the disposal of the competent authority following motivated request at Piusi S.p.A. or following request sent to the e-mail address: doc_tec@piusi.com
The person authorised to compile the technical file and draw up the declaration is Otto Varini as legal representative

Suzzara, 01.03.2021

Otto Varini
legal representative

EN

4 MACHINE DESCRIPTION

DESCRIPTION

Station for the transfer of diesel fuel, emulsions and water, equipped with a centrifugal electric pump. IT IS IDEAL FOR THE QUICK AND EASY REFUELLING OF VEHICLES WITH DIESEL ENGINES FROM DRUMS, CONTAINERS AND TANKS.

MATERIAL

The pump of the PICO station is made from a technopolymer material that guarantees maximum resistance to all the forms of stress to which the pump may be subjected during transfer operations. All internal and external metal parts are made from AISI 303 stainless steel.

4.1 HANDLING AND TRANSPORT

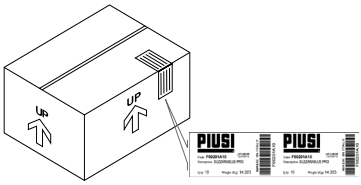
Foreword

Due to the limited weight and dimensions of the pumps, special lifting equipment is not required to handle them. The pumps are carefully packed before dispatch. Check the packing when receiving the material and store in a dry place.

PACKAGING

The pump is equipped comes packed suitably for shipment.
On the packaging a label shows the following product information:

- name
- code
- weight



MODEL	WEIGHT (Kg)		PACKAGING DIMENSION (mm)
	WITH AUTOMATIC NOZZLE	WITH MANUAL NOZZLE	
PICO 230 K24	5,8	4,8	345 x 175 x 255
PICO 12V K24	5,8	4,8	345 x 175 x 255
PICO 24V K24	5,8	4,8	345 x 175 x 255

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5 GENERAL WARNINGS

Warnings

To ensure operator safety and to protect the dispensing system from potential damage, workers must be fully acquainted with this instruction manual before attempting to operate the dispensing system.

Symbols used in the manual



The following symbols will be used throughout the manual to highlight safety information and precautions of particular importance:

ATTENTION



This symbol indicates safe working practices for operators and/or potentially exposed persons.

WARNING

This symbol indicates that there is risk of damage to the equipment and/or its components.



NOTE

This symbol indicates useful information.

Manual preservation

This manual should be complete and legible throughout. It should remain available to end users and specialist installation and maintenance technicians for consultation at any time.

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6 SAFETY INSTRUCTIONS

Mains - preliminary checks before installation



ATTENTION

You must avoid any contact between the electrical power supply and the fluid that needs to be FILTERED.

Maintenance control

Before any checks or maintenance work are carried out, disconnect the power source.

FIRE AND EXPLOSION When flammable fluids are present in the work area, such as gasoline and windshield wiper fluid, be aware that flammable fumes can ignite or explode.	 	**To help prevent fire and explosion:** Use equipment only in will ventilated area. Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline. Do not plug or unplug power cords or turn lights on or off when flammable fumes are present. Ground all equipment in the work area. Stop operation immediately if static sparking occurs or if you feel a shock. Do not use equipment until you identify and correct the problem. Keep a working fire extinguisher in the work area.
ELECTRIC SHOCK **Electrocution or death**	 	This equipment must be grounded. Improper grounding, setup or usage of the system can cause electric shock. Turn off and disconnect power cord before servicing equipment. Connect only to a grounded electrical outlets. Use only 3 wire extension cords in accordance with local electrical codes. Extension cords should have a ground lead. Ensure ground prongs are intact on power and extension cords. Do not expose to rain. Store indoors. Never touch the electric plug of socket with wet hands. Do not turn the dispensing system on if the power connection cord or other important parts of the apparatus are damaged, such as the inlet outlet plumbing, dispensing nozzle or safety devices. Replace damaged components before operation. Before each use check that the power connection cord and power plug are not damaged. If damaged, have power connection cord replaced before use by a qualified electrician. The electrical connection between the plug and socket must be kept well away from water. Unsuitable extension leads can be hazardous, in accordance with current regulations. only extension cords that are labelled for outdoor use and have a sufficient conduction path should be used outdoors. For safety reasons, we recommend that, in principle, the equipment be used only with a earth-leakage circuit breaker (max 30 mA). Electrical connections must use ground fault circuit interrupter (GFCI). Installation operations are carried out with the box open and accessible electrical contacts. All these operations have to be done with the unit isolated from the power supply to prevent electrical shock!

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EQUIPMENT MISUSE Misuse can cause death or serious injury		Do not operate the unit when fatigued or under the influence of drugs or alcohol.
		Do not leave the work area while equipment is energized or under pressure.
		Turn off all equipment when equipment is not in use.
		Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
		Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
		Do not kink or over bend hoses or use hoses to pull equipment.
		Keep children and animals away from work area.
		Comply with all applicable safety regulations.
		Do not exceed the maximum operating pressure or the temperature of the part with lower nominal value of the system. See Technical Data in all equipment manuals.
		Use fluids and solvents that are compatible with the wetted part of the system. See Technical Data in all equipment manuals. Read the manufacturer's instructions of the fluids and solvents. For more information on the material, request the safety data sheet (MSDS) from the distributor or dealer.
		Check the equipment every day. Immediately repair or replace worn or damaged parts only with original spare parts of the manufacturer.
		Make sure the equipment is classified and approved compliant with the standards of the environment where it is used.
		Use the equipment only for the intended use. Contact your distributor for more information.
		Keep hoses and cables far from traffic areas, sharp edges, moving parts and hot surfaces.
		Do not bend or overbend the hoses or use the hose to pull the equipment.
TOXIC FLUID OR FUMES HAZARD		Read MSDS's to know the specific hazards of the fluids you are using.
		Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
		Prolonged contact with the treated product may cause skin irritation: always wear protective gloves during dispensing.

7 FIRST AID RULES

Electrocution		Disconnect the unit from the mains, or use a dry insulator as protection while moving the electrocuted person far from any conductor. Do not touch the electrocuted person with bare hands until he/she is far from any conductor. Ask qualified and trained people for help immediately
SMOKING PROHIBITED		Do not smoke near the pump and do not use the pump near flammable.

8 GENERAL SAFETY RULES

ESSENTIAL PROTECTIVE EQUIPMENT CHARACTERISTICS

Wear protective equipment that is:
- suited to the operations that need to be performed;
- resistant to cleaning products.

PERSONAL PROTECTIVE EQUIPMENT THAT MUST BE WORK



Safety shoes;



Close-fitting clothing;



Protective gloves;



Safety goggles;

OTHER EQUIPMENT



Instruction manual

9 TECHNICAL DATA

	PICO 230 V	PICO 12 V	PICO 24 V
Voltage	230V	12V	24V
Frequency	50/60 Hz	DC	DC
Current Type	AC single phase	Continuous Current	Continuous Current
Absorbed power	224 W	110 W	135 W
Absorption	0,97 A	9,2 A	5,6 A
Insulation category	II	III	III
Flow rate,manual / automatic nozzle	35 / 30 l/min	30 / 25 l/min	30 / 25 l/min
Discharge head	1 metre	1 metre	1 metre
Pump weight	1,8 Kg	1,8 Kg	1,8 Kg
Protection	IP x 4	IP x 4	IP x 4
Noise level	70 dB	70 dB	70 dB
Drum connection	M64x4 - 2"G	M64x4 - 2"G	M64x4 - 2"G
Electrical connections	Lenght cable 2 m+ Schuko plug	Lenght cable 3 m+ hose-end fitting pliers	Lenght cable 3 m+ hose-end fitting pliers
Pump connections	Hose-end fitting ø19	Hose-end fitting ø19	Hose-end fitting ø19
Delivery tube	2,5 m øi 19	2,5 m øi 19	2,5 m øi 19
Intake tube	1,5 m øi 19	1,5 m øi 19	1,5 m øi 19

ATTENTION



Operating conditions of the declared data
Fluid: **Diesel Fuel**
Temperature: **20°C**

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10 OPERATING CONDITIONS

10.1 ENVIRONMENTAL CONDITIONS

TEMPERATURE	min. -20 °C / max +60 °C
RELATIVE HUMIDITY	max. 90%
ATTENTION	**The temperature limits shown apply to the pump components and must be respected to avoid possible damage or malfunction.**

10.2 ELECTRICAL POWER SUPPLY

NOTE	Depending on the model, the pump must be supplied by a (12/24V) continuous current line whose nominal values are shown in the table in Paragraph "Technical Specifications". The maximum acceptable variations from the electrical parameters are: Voltage:+/- 5% of the nominal value
ATTENTION	**Power from lines with values outside of the indicated limits can damage the electrical components.**

10.3 DUTY CYCLE

NOTE	The pumps are designed for INTERMITTENT use with a 30- minute work cycle under conditions of maximum back pressure.
ATTENTION	**Functioning under delivery closed conditions is only allowed for brief periods of time (5 minutes maximum).**

10.4 PERMITTED AND NON-PERMITTED FLUIDS

FLUIDS PERMITTED	- DIESEL FUEL at a viscosity of from 2 to 5.35 cSt (at a temperature of 37.8°C), Minimum Flash Point (PM): 55°C, according to UNI EN 590 - WATER - EMULSIONS water/oil - READY-TO-USE ANTIFREEZE LIQUID (ethylene glycol content <60%)	
FLUIDS NON PERMITTED AND RELATED DANGERS	- GASOLINE	- FIRE - EXPLOSION
	- INFLAMMABLE LIQUIDS with PM < 55°C	- FIRE - EXPLOSION
	- LIQUIDS WITH VISCOSITY > 20 cSt	- MOTOR OVERLOAD
	- FOOD LIQUIDS	- CONTAMINATION OF THE SAME
	- CORROSIVE CHEMICAL PRODUCTS	- PUMP CORROSION - INJURY TO PERSONS
	- SOLVENTS	- FIRE - EXPLOSION - DAMAGE TO GASKET SEALS

11 INSTALLATION AND EQUIPMENT

ATTENTION **The pump must never be operated before the delivery and suction lines have been connected.**

PRELIMINARY INSPECTION

- Verify that all components are present. Request any missing parts from the manufacturer.
- Check that the pump has not suffered any damage during transport or storage.
- Carefully clean the suction and delivery inlets and outlets, removing any dust or other packaging material that may be present.
- Check that the electrical data corresponds to those indicated on the data plate.
- Always install in an illuminated area.

Equipment and assembly:

- No. 1 pump body
- No. 1 filter
- No. 4 metres of ·" tube
- No. 4 clamps
- No. 1 dispensing nozzle (manual or automatic)
- No. 1 hose-end fitting
- No. 1 meter K24 (optional)

1 Prepare the intake tube (7) by cutting a sufficient length from the rubber tube to reach the bottom of the drum or tank. Insert one end of the intake tube in the appropriate intake nozzle on the pump body (1) and fasten in place with a clamp (3). Assemble the filter (9) and fasten in place with a clamp (3).

2 Screw the pump body (1) onto the drum or tank, taking care to place the pump in a VERTICAL position, and connect the device to the power supply.

3 On the delivery of the pump, screw the plastic hose-end fitting to the ring nut already fixed on the outlet. If it is used with a meter, this is to be fitted on the outlet by means of the ring nut and with the hose-end fitting screwed to the meter outlet.

4 Thread the delivery tube (2) onto the delivery nozzle of the pump body and fasten in place with a clamp. Thread the dispensing nozzle (4) onto the opposite end of the delivery tube and fasten in place with a clamp (3).

11.1 ELECTRICAL CONNECTIONS

PICO electrical connections are limited to the insertion of the plug into the socket for the model with Schuko plug and connection of the pliers to the battery, in the version fitted with cable with pliers.

ATTENTION **A SUITABLE SWITCH SHOULD BE INSTALLED ON THE MAINS POWER LINE TO DISABLE IT. THE INSTALLER IS COMPLETELY RESPONSIBLE FOR THIS OPERATION.**

WARNING **Comply with the following (not exhaustive) instructions to ensure a proper electrical connection:**

1 During installation and maintenance make sure that power to the electric lines has been turned off.

2 Use cables characterized by the minimum cross-sections, nominal voltages and wiring-type adequate to the electrical characteristics shown in Paragraph "Technical Specifications" and the installation environment.

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12 COMMISSIONING / DAILY USE

A Open the nozzle, by activating the lever. Keep the fuelling lever pressed. Start the pump by repeatedly activating the fuelling lever (25 operations) until priming of the fluid to be dispensed (the liquid starts flowing from the dispensing nozzle).

B When fluid starts flowing out, start the motor using the switch and proceed to fuelling. When finished, release the fuelling lever, place the spout in the pump body, if supplied. Do not let the motor running with the fuelling lever not pressed for more than 5 minutes.

ATTENTION  **Repeat process "A" after an extended stop, if liquid doesn't flow, if the motor is re-started or after a power failure.**

Do not let the motor running with the fuelling lever not pressed for more than 5 minutes. The pump must never be used when empty.

13 DISASSEMBLING AND MAINTENANCE

PICO 40 requires little maintenance, but we recommend the period checking, and if necessary cleaning, of the intake filter and the state of efficiency of the tubes and the dispensing nozzle, in order to ensure a long working life.

Safety instructions Before carrying out any maintenance work, disconnect the dispensing system from any electrical and hydraulic power source. During maintenance, the use of personal protective equipment (PPE) is compulsory.
In any case always bear in mind the following basic recommendations for a good functioning of the pump

Authorised maintenance personnel All maintenance must be performed by qualified personnel. Tampering can lead to performance degradation, danger to persons and/or property and may result in the warranty being voided.

Ensure that the pump has been disconnected from the power supply before performing any cleaning, maintenance or disassembly operation.

If the electric cable is damaged it must be replaced from the constructor or its technical service or however from a person with a similar qualification so as to prevent any risk. Make sure that the place where the pump is installed is not susceptible to being overflowed.

14 EMERGENCY OPERATION

FOREWORD In the case of power failure or when small quantities of liquid need to be transferred, it is possible to operate the pump manually, in the following manner:

- keep the lever of the dispensing nozzle pressed (5);
- activate the trigger repeatedly (12/15 times approx.) (6);
- proceed to the transfer.

15 NOISE LEVEL

In normal operating conditions, noise emissions of all models do not exceed 70 dB at a distance of 1 metre from the electric pump.

16 PROBLEMS AND SOLUTIONS

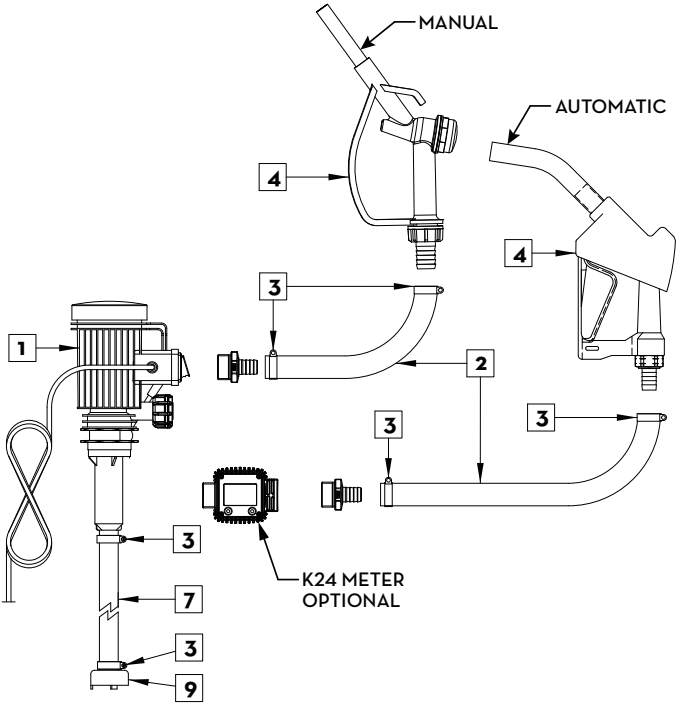
For any problems contact the authorised dealer nearest to you.

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
THE MOTOR IS NOT TURNING	Lack of electric power	Check the electrical connections and safety systems. Contact the Service Department.
THE PUMP IS NOT PRIMED	Probable emptying of the intake tube.	Prime according to the described procedure.
NOTE 	The manufacturer reserves the right to modify the product at any time and without previous notice. In the case in which the pump must be used with liquids whose chemical aggressiveness is not known, it is advisable to contact your dealer.	

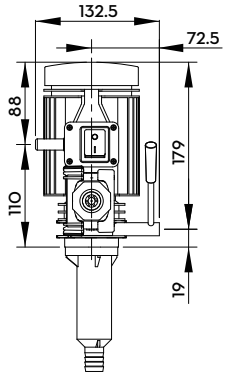
17 DEMOLITION AND DISPOSAL

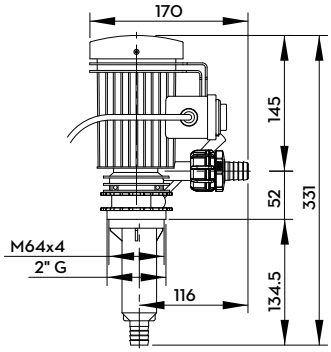
FOREWORD	If the system needs to be disposed, the parts which make it up must be delivered to companies that specialize in the recycling and disposal of industrial waste and, in particular:
DISPOSING OF PACKING MATERIALS	The packaging consists of biodegradable cardboard which can be delivered to companies for normal recycling of cellulose.
METAL PARTS DISPOSAL	Metal parts, whether paint-finished or in stainless steel, can be consigned to scrap metal collectors.
DISPOSAL OF ELECTRIC AND ELECTRONIC COMPONENTS	These must be disposed of by companies that specialize in the disposal of electronic components, in accordance with the indications of directive 2012/19/EU (see text of directive below).
	European Directive 2012/19/EU requires that all equipment marked with this symbol on the product and/or packaging not be disposed of together with non-differentiated urban waste. The symbol indicates that this product must not be disposed of together with normal household waste. It is the responsibility of the owner to dispose of these products as well as other electric or electronic equipment by means of the specific refuse collection structures indicated by the government or the local governing authorities.
INFORMATION REGARDING THE ENVIRONMENT FOR CLIENTS RESIDING WITHIN THE EUROPEAN UNION	Disposing of RAEE equipment as household wastes is strictly forbidden. Such wastes must be disposed of separately.
	Any hazardous substances in the electrical and electronic appliances and/or the misuse of such appliances can have potentially serious consequences for the environment and human health.
	In case of the unlawful disposal of said wastes, fines will be applicable as defined by the laws in force.
MISCELLANEOUS PARTS DISPOSAL	Other components, such as pipes, rubber gaskets, plastic parts and wires, must be disposed of by companies specialising in the disposal of industrial waste.

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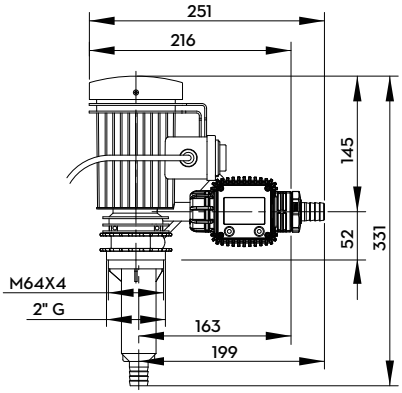

MANUAL
AUTOMATIC
4
4
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1
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3
K24 METER
OPTIONAL
7
3
9

OVERALL DIMENSIONS





K24 OPTIONAL



SV

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