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Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Pekos fabricación S.L.U.		
Address	Poligono Bildosola K3, Artea (Bizkaia), 48142, Spain		
Туре	Ball Valves		
Description	Low Fugitive Emission Ball Valves		
	 Type: Z series, full and reduced bore, floating and guided ball Full trunnion ball valve, full and reduced bore, split body Rating: Size range ½" to 12" / DN15 to 300 Pressure rating ANSI Class 150-300-600/ DIN PN10-100 Type: Full trunnion ball valve, full and reduced bore, split body Rating: Size range ½" to 20" / DN15 to 500 Pressure rating ANSI Class 150 & 300/DIN PN10-40 Size range ½" to 16" / DN15 to DN400 Pressure rating ANSI Class 600/ DIN PN63-100 Size range ½" to 12" / DN15 to DN300 Pressure rating ANSI Class 900/ DIN PN160 Type: 3 pieces forged ball valve, full bore Rating: Size range 1/4" to 1½" / DN8 to DN40 2" to 2½" / DN50 to DN65 3" / DN80 Pressure rating ANSI Class 800 ANSI Class 600 ANSI Class 400 Type: 3 pieces forged ball valve, reduced bore Rating: Size range 1/2" to 2" / DN15 to DN50 2½" to 3" / DN65 to DN80 		
	Emad Jodeh		
rch Street, London, EC3M 4BS, Ui	Senior Mechanical Specialist to Lloyd's Register EMEA		

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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4" / DN100

Pressure rating ANSI Class 800 ANSI Class 600 ANSI Class 400 Type: Low fugitive emission metal seated full trunnion ball valves Ratings: 1 1/4" - 1 1/2" (class 2500) // DN32 -DN40 (PN400) 2" (class 900-2500) // DN50 (PN160-400) 2 1/2" (class 600-2500) // DN65 (PN100-400) 3" - 10" (Class 150-2500) // DN80 - DN250 (PN10- PN400) 12" (Class 150-1500) // DN300 (PN10- PN250) 14" (Class 150-900) // DN350 (PN10- PN160) 16" (Class 150-600) // DN400 (PN10-PN100) 18" - 20" (Class 150-300) // DN450 - DN500 (PN10-PN40) 24" (Class 150) // DN600 (PN10- PN16) Type: Top Entry floating ball valves & Top Entry full trunnion valves Ratings: ZTE: CL150-300 1/2" to 4" Full bore; (3/4" to 6" Reduced bore) CL600 1/2" to 2" Full bore; (3/4" to 2 1/2" Reduced bore) PN16/40 DN15 to 100 Full bore (DN20 to 150 Reduced bore), PN16/40 DN15 to 100, PN63/100 DN15-50 Full bore; (DN20 to 65 Reduced bore) PN63/100 DN15 - 50 Full bore; (DN20 to 65 Reduced bore) ZTEGS: CL150 - 300 - 600 1/2" to 10" Full bore; (3/4" to 14" Reduced bore) PN10-100 DN15 to 250 Full bore; (DN20 to 350 Reduced bore) TEGS: CL150 3" to 24" Full bore; (4" to 24" Reduced bore) CL300 3" to 22" Full bore; (4" to 24" Reduced bore) CL600 2 1/2" to 20" Full bore; (3" to 22" Reduced bore) PN10 - 16 DN80 to 600 Full bore; (DN100 to 650 Reduced bore) PN25 - 40 DN80 to 550 Full bore; (DN100 to 600 Reduced bore) PN63 - 100 DN65 to 500 Full bore; (DN80 to 550 Reduced bore) **Trade Name** Z series Application For use as isolating, on/off or control valves involatile air pollutant and hazardous fluid services in Marine, Offshore and Industrial systems

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Type Approval Certificate

Specified Standard

LR Rules and Regulations for the Classification of Ships LR Rules and Regulations for the Classification of Mobile Offshore Units ISO 15848-1 TA-LUFT VDI 2440

Standard	Temperature range	Tightness Class	Endurance Class
ISO 15848-1	-29°C to 200°C	BH	CO3
	-29°C to 400°C	AH	CO3
TA-LUFT VDI 2440	-29°C to 400°C	-	-

Other Conditions

Valves used in flammable fluid systems are to be of fire tested type
 The valves are to be marked with the following information:

- Tightness class
- Endurance class
- Pressure rating
- Temperature class
- Number of stem seal adjustments

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 12/00083(E2)

The Design Appraisal Document LR22226538TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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