

List of MARINE type approvals

| ABS | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|---|--------------------|-----------|-------------|-----------------|-------------------------------|
| Ducts | 16-LD1518446-PDA | Jun 2016 | Jun 2021 | EPU & SPU | Ducts ISO15371:2009 |
| Machinery local application | 16-LD1588174-PDA | Jan 2017 | Jan 2022 | GPU | GPU Circ.913 & 1387 |
| Deep fat fryer | 17-LD1677637-2-PDA | Jul 2019 | Oct 2022 | EPU & SPU & KBU | DFF ISO15371:2009 |
| Accommodation, public spaces and storage areas HF1900 | 18-LD1728787-PDA | Apr 2018 | Apr 2023 | GPU&SPU | HI-FOG1900 Res.A.800(19) |
| Ro-Ro spaces and special category spaces | 18-LD1735565-PDA | May 2018 | May 2023 | EPU & SPU | Ro-Ro Circ.1272 & 1430 |
| Balcony | 18-LD1735585-PDA | May 2018 | May 2023 | EPU & SPU | Balcony Circ.1268 |
| Machinery space low pressure bilge foam | 18-LD1735573-PDA | May 2018 | May 2023 | Custom | Bilge foam Circ.1165 |
| Machinery local application | 18-LD1735581-PDA | May 2018 | May 2023 | EPU & SPU | ML5-ML9 Circ.913 & 1387 |
| Machinery space total flooding 1500m3 | 19-LD1817819-PDA | May 2019 | May 2024 | GPU | GPU Circ.1165 |
| Machinery space total flooding 6600m3 | 19-LD1884630-PDA | Aug 2019 | Aug 2024 | EPU & SPU | MT4 Circ.1165 |
| Accommodation, public spaces and storage areas HF3000 | 19-LD1896895-PDA | Sep 2019 | Sep 2024 | EPU & SPU | HI-FOG3000 Res.MSC.265(84) |

| Bureau Veritas | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|---|--------------------|-----------|-------------|-----------------|-------------------------------|
| Machinery space total flooding 1500m3 | 09484/D0 BV | Sep 2016 | Feb 2022 | GPU | GPU Circ.1165 |
| Machinery local application | 09485/D0 MED | Aug 2017 | Aug 2022 | GPU | GPU Circ.913 & 1387 |
| Machinery local application | 12873/D0 MED | Aug 2017 | Aug 2022 | EPU & SPU | ML5-ML9 Circ.913 & 1387 |
| Machinery space low pressure bilge foam | 31907/A1 BV | Aug 2017 | Nov 2022 | Custom | Bilge foam Circ.1165 |
| Ro-Ro spaces and special category spaces | 21458/C0 BV | Sep 2019 | Sep 2024 | EPU & SPU | Ro-Ro Circ.1272 & 1430 |
| Accommodation, public spaces and storage areas HF3000 | 39817/A0 BV | Dec 2019 | Dec 2024 | EPU & SPU | HI-FOG3000 Res.MSC.265(84) |
| Pipe Fittings | 59887/A0 BV | May 2020 | May 2025 | Custom | Component approval |
| Machinery space total flooding 6600m3 | 17131/D0 BV | Jul 2020 | Jul 2025 | EPU & SPU | MT4 Circ.1165 |
| Accommodation, public spaces and storage areas HF1900 | 43614/B0 BV | Nov 2020 | Dec 2025 | GPU&SPU | HI-FOG1900 Res.A.800(19) |
| Deep fat fryer | 35595/B0 BV | May 2021 | May 2026 | EPU & SPU & KBU | DFF ISO15371:2009 |
| Ducts | 45724/B0 BV | Mar 2021 | Jun 2026 | EPU & SPU | Ducts ISO15371:2009 |

| Bureau Veritas MED EC Type Examination Certif. 2014/90/EU on Marine Equipment (MED) | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|---|--------------------|-----------|-------------|---------------|-------------------------|
| Machinery local application | 09485/D0 MED | Aug 2017 | Aug 2022 | GPU | GPU Circ.913 & 1387 |
| Machinery local application | 12873/D0 MED | Aug 2017 | Aug 2022 | EPU & SPU | ML5-ML9 Circ.913 & 1387 |



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| China Classification Society | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|---|--------------------|-----------|-------------|-----------------|-------------------------------|
| Ducts | SW18PTB00001_05 | May 2019 | Mar 2023 | EPU & SPU | Ducts ISO15371:2009 |
| Deep fat fryer | SW18PTB00001_02 | May 2019 | Mar 2023 | EPU & SPU & KBU | DFF ISO15371:2009 |
| Machinery local application | SW18PTB00001_04 | May 2019 | Mar 2023 | EPU & SPU | ML5-ML9 Circ.913 & 1387 |
| Machinery space total flooding 6600m3 | SW18PTB00001_03 | May 2019 | Mar 2023 | EPU & SPU | MT4 Circ.1165 |
| Accommodation, public spaces and storage areas HF3000 | SW18PTB00001_01 | May 2019 | Mar 2023 | EPU & SPU | HI-FOG3000 Res.MSC.265(84) |

| DNV | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|---|-------------------------|-----------|-------------|---------------|------------------------------------|
| Quality | 63724-2009-AQ-FIN-FIN | Jun 2018 | Oct 2021 | Quality | ISO9001 |
| SVQ valve | TAP000006D | Nov 2015 | Jun 2020 | SVQ | DNV valve |
| Machinery local application | TAF00000E6 | Sep 2016 | Jun 2021 | GPU | GPU Circ.913 & 1387 |
| Machinery local application | TAF00000E5 | Sep 2016 | Jun 2021 | EPU & SPU | MLPU Circ.913 & 1387 |
| Machinery local application | TAF00000E7 | Sep 2016 | Jun 2021 | EPU & SPU | ML9 Circ.913 & 1387 |
| Combustion turbines, machinery spaces, and special hazard machinery spaces in enclosures with volumes up to, and including 260 m ³ | 262.1-021221-J-4, Rev.2 | Mar 2020 | Dec 2023 | MAU | Machinery space 260 m ³ |
| Accommodation, public spaces and storage areas HF1900 | TAF00001BF | Oct 2019 | Oct 2024 | GPU&SPU | HI-FOG1900 Res.A.800(19) |
| Pipe Fittings | TAP0000273 | Nov 2020 | Nov 2025 | Custom | Component approval |

| DNVGL MED MED EC Type Examination Certif. 2014/90/EU on Marine Equipment (MED) | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|--|--------------------|-----------|-------------|-----------------|-------------------------------|
| Ducts | MEDB0000193 | Aug 2016 | Aug 2021 | EPU & SPU | Ducts ISO15371:2009 |
| Machinery space low pressure bilge foam | MEDB00003G6 | Dec 2017 | Dec 2022 | Custom | Bilge foam Circ.1165 |
| Machinery space total flooding 1500m3 | MEDB00003SE | Feb 2018 | Feb 2023 | GPU | GPU Circ.1165 |
| Deep fat fryer | MEDB000065G | Jan 2020 | Jan 2025 | EPU & SPU & KBU | DFF ISO15371:2009 |
| Machinery space total flooding 6600m3 | MEDB00000E9rev1 | Mar 2020 | Mar 2025 | EPU & SPU | MT4 Circ.1165 |
| Accommodation, public spaces and storage areas HF3000 | MEDB00006R0 | Jul 2020 | Jul 2025 | EPU & SPU | HI-FOG3000 Res.MSC.265(84) |
| Balcony | MEDB00000ED rev1 | Dec 2020 | Dec 2025 | EPU & SPU | Balcony Circ.1268 |
| Ro-Ro spaces and special category spaces | MEDB00000EC rev1 | Mar 2021 | Mar 2026 | EPU & SPU | Ro-Ro Circ.1272 & 1430 |



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| Lloyd's Register | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|---|--------------------|-----------|-------------|-----------------|-------------------------------|
| Ro-Ro spaces and special category spaces deluge | LR1900487SF-03 | Feb 2020 | Jan 2021 | EPU & SPU | Ro-Ro Circ.1272 & 1430 |
| Ro-Ro spaces and special category spaces sprinkler | LR1900498SF-03 | Feb 2020 | Jan 2021 | EPU & SPU | Ro-Ro Circ.1272 & 1430 |
| Ducts | SAS F170075 | Apr 2017 | Apr 2022 | EPU & SPU | Ducts ISO15371:2009 |
| Machinery local application | LR2096094SF | Aug 2020 | Dec 2022 | GPU | GPU Circ.913 & 1387 |
| Machinery local application | SAS F180094 | Dec 2017 | Dec 2022 | EPU & SPU | ML5-ML9 Circ.913 & 1387 |
| Machinery space low pressure bilge foam | SAS F180159 | Mar 2018 | Mar 2023 | Custom | Bilge foam Circ.1165 |
| Balcony | LR1900473SF | Jun 2014 | May 2024 | EPU & SPU | Balcony Circ.1268 |
| Deep fat fryer | LR1900480SF | Jul 2014 | Jul 2024 | EPU & SPU & KBU | DFE ISO15371:2009 |
| Machinery space total flooding 6600m3 | LR2015039SF | Feb 2020 | Feb 2025 | EPU & SPU | MT4 Circ.1165 |
| Accommodation, public spaces and storage areas HF3000 | LR2004242SF | Feb 2020 | Feb 2025 | EPU & SPU | HI-FOG3000 Res.MSC.265(84) |
| Machinery space total flooding 1500m3 | LR2096154SF | Mar 2020 | Mar 2025 | GPU | GPU Circ.1165 |
| Accommodation, public spaces and storage areas HF1900 | LR2096244SF | Aug 2020 | Aug 2025 | GPU | HI-FOG1900 Res.A.800(19) |
| Accommodation, public spaces and storage areas HF1900 | LR2096239SF | Aug 2020 | Aug 2025 | EPU & SPU | HI-FOG1900 Res.A.800(19) |

| RINA | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|---|--------------------|-----------|-------------|-----------------|-------------------------------|
| Machinery local application | FPE324417XG | Nov 2017 | Nov 2022 | EPU & SPU | ML5-ML9 Circ.913 & 1387 |
| Machinery space low pressure bilge foam | FPE036914CS | Feb 2019 | Feb 2024 | Custom | Bilge foam Circ.1165 |
| Accommodation, public spaces and storage areas HF1900 | FPE047119XG | Mar 2019 | Mar 2024 | GPU&SPU | HI-FOG1900 Res.A.800(19) |
| Machinery space low pressure bilge foam | FPE036914CS | Feb 2019 | Feb 2024 | Custom | Bilge foam Circ.1165 |
| Accommodation, public spaces and storage areas HF1900 | FPE047119XG | Mar 2019 | Mar 2024 | GPU&SPU | HI-FOG1900 Res.A.800(19) |
| Machinery space total flooding 6600m3 | FPE246919XG | Oct 2019 | Oct 2024 | EPU & SPU | MT4 Circ.1165 |
| Deep fat fryer | FPE304919XG | Oct 2019 | Oct 2024 | EPU & SPU & KBU | DFE ISO15371:2009 |
| Accommodation, public spaces and storage areas HF3000 | FPE282319XG | Oct 2019 | Oct 2024 | EPU & SPU | HI-FOG3000 Res.MSC.265(84) |
| Balcony | FPE015720XP/002 | Mar 2020 | Mar 2025 | EPU & SPU | Balcony Circ.1268 |
| Ro-Ro spaces and special category spaces | FPE015720XP/001 | Mar 2020 | Mar 2025 | EPU & SPU | Ro-Ro Circ.1272 & 1430 |
| Ducts | FPE040421XP | Jun 2021 | Jun 2026 | EPU & SPU | Ducts ISO15371:2009 |



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| Russian Maritime Register of Shipping | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|---|--------------------|-----------|-------------|-----------------|-------------------------------|
| Ducts | 17.00386.313 | Jan 2017 | Jan 2022 | EPU & SPU | Ducts ISO15371:2009 |
| Machinery local application | 17.00382.313 | Jan 2017 | Jan 2022 | EPU & SPU | ML5-ML9 Circ.913 & 1387 |
| Machinery local application | 17.00379.313 | Jan 2017 | Jan 2022 | GPU | GPU Circ.913 & 1387 |
| Machinery space total flooding 1500m3 | 17.00378.313 | Jan 2017 | Jan 2022 | GPU | GPU Circ.1165 |
| Machinery space total flooding 6600m3 | 17.00379.313 | Jan 2017 | Jan 2022 | EPU & SPU | MT4 Circ.1165 |
| Ro-Ro spaces and special category spaces | 17.00384.313 | Jan 2017 | Jan 2022 | EPU & SPU | Ro-Ro Circ.1272 & 1430 |
| Machinery space low pressure bilge foam | 18.50084.260 | Nov 2018 | Nov 2023 | Custom | Bilge foam Circ.1165 |
| Deep fat fryer | 21.30005.260 | Jan 2021 | Jan 2025 | EPU & SPU & KBU | DFF ISO15371:2009 |
| Acomodation, public spaces and storage areas HF3000 | 21.30004.260 | Jan 2021 | Jan 2025 | EPU & SPU | HI-FOG3000 Res.MSC.265(84) |

| Panama Maritime Authority | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|--------------------------------|--------------------|-----------|-------------|---------------|-----------------------------|
| Machinery local application | SEG-TEC-RG02/06/70 | Jun 2002 | Continuous | EPU & SPU | MLPU Circ.913 & 1387 |
| Accomodation and public spaces | SEG-TEC-RG02/06/80 | Jun 2002 | Continuous | EPU & SPU | HI-FOG2000 Res.A.800(19) |

| US Coast Guard | Certificate number | Issued at | Valid until | HI-FOG system | Regulation |
|---|--------------------|-----------|-------------|---------------|------------------------------------|
| Machinery space total flooding 1500m3 | 162.135/6/0 | Sep 2016 | Sep 2021 | GPU | GPU Circ.1165 |
| Machinery local application | 162.135/7/0 | May 2018 | May 2023 | SPU | MLPU Circ.913 & 1387 |
| Machinery space total flooding 6600m3 | 162.135/11/0 | Oct 2018 | Oct 2023 | EPU & SPU | MT4 Circ.1165 |
| Accomodation, public spaces and storage areas HF3000 | 162.135/18/0 | Oct 2018 | Oct 2023 | EPU & SPU | HI-FOG3000 Res.MSC.265(84) |
| Accomodation, public spaces and storage areas HF1900&2000 | 162.135/9/0 | Oct 2018 | Oct 2023 | EPU & SPU | HI-FOG1900&2000 Res.A.800(19) |
| Gas turbine encl., paint lockers and mach. spaces up to and including 260m ³ | 162.135/13/0 | Nov 2018 | Nov 2023 | MAU | Machinery space 260 m ³ |

