

EU-TYPE EXAMINATION CERTIFICATE – PRODUCTION TYPE

Certificate No.:
124186-2012-CE-SWE-ACCREDIA

Initial date:
13 November 2012

Validity:
13 November 2022 - 12 November 2032

This certificate consists of 4 pages

This is to certify that representative examples of products manufactured by:

PMC Cylinders AB

Frideborgsvägen 21, 56730 Vaggeryd, Sweden

have been assessed with respect to the conformity assessment procedure described in:

ANNEX III MODULE B – PRODUCTION TYPE OF DIRECTIVE 2014/68/EU ON PRESSURE EQUIPMENT

and found to comply with the requirements in Annex I – Essential Safety Requirements of the Directive.

This certificate is valid for the following scope:

| | |
|----------------------------|---------------------------|
| Type of Pressure Equipment | Pressure Vessel |
| Product Name | Piston Accumulator |
| Product Version | Type PAC and PAS |

Place and date:
Vimercate, 14 November, 2022

For the issuing office:
Notified Body 0496, Italy
DNV Business Assurance Italy S.r.l.

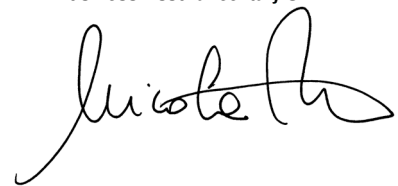
Check Validity



SGQ N° 003 A
SGA N° 003 D
SGE N° 007 M
SCR N° 004 F

EMAS N° 009 P
PRD N° 003 B
PRS N° 094 C
SSI N° 002 G

Membro di MLA EA per gli schemi di accreditamento SGQ, SGA, PRD, PRS, ISP, GHG, LAB e LAT, di MLA IAF per gli schemi di accreditamento SGQ, SGA, SSI, FSM e PRD e di MRA ILAC per gli schemi di accreditamento LAB, MED, LAT e ISP



Nicola Privato
Management Representative

Jurisdiction

Application of Directive 2014/68/EU and Decreto Legislativo n. 26 of 15 February 2016.

Certificate history:

| Revision | Description | Issue Date |
|----------|----------------------|------------------|
| 0 | Original certificate | 13 November 2012 |
| 1 | Renewal | 14 November 2022 |

Products covered by this Certificate:

| Product Name | Product version | PED category | Product standard |
|--------------------|------------------|----------------|------------------|
| Piston Accumulator | Type PAC and PAS | II, III and IV | EN 14359: 2017 |

Design data:

| Product Name | Maximum allowable pressure (PS) | Minimum allowable temperature (TS) | Maximum allowable temperature (TS) |
|--------------------|---------------------------------|------------------------------------|------------------------------------|
| Piston Accumulator | Upto 1500 barg (max.) | -40 °C (min.) | +100 °C (max.) |

Design data:

| Product Name | Maximum inside diameter/length (mm) | Fluid | Fluid group |
|--------------------|-------------------------------------|----------|-------------|
| Piston Accumulator | Ø700/ 10000 | Nitrogen | 2 |

Sites covered by this certificate

| Site Name | Site Address | Report ref |
|------------------|---|-----------------------------------|
| PMC Cylinders AB | Frideborgsvägen 21, 56730 Vaggeryd, Sweden | Type test report dated 2022-11-09 |

Applications/limitations

- The type examination is based on reference drawings and calculations done for a representative range of the products. The manufacturer is allowed to supply variants of the approved types of accumulators within the aforementioned design data. The manufacturer shall make specific drawings and calculations for each variant.

- Appropriate sealing elements suitable for the design conditions shall be selected.
- The examination does not include any components or products mounted on the accumulator.

Documents reviewed:

| Document No | Rev | Date | Title | Status |
|-------------|-----|------------|---|--------|
| 6820003 | 3 | 2022-11-10 | Piston accumulator, PAS-250-100-xxxx | A |
| 6810001 | 3 | 2022-06-01 | Piston accumulator, PAC-250-100-xxxx | A |
| 92295-01 | - | 2014-04-28 | PAS G1/4" 250/350, Base gas Ø100 | A |
| 92295-02 | - | 2014-05-05 | PAS G1/2" 250/350, Base gas Ø100 | A |
| 92227-04 | - | 2016-06-08 | PAC STD 1/2"-20UNF O-ring, Gavel gas Ø100 | A |
| 92226 | - | 2012-11-09 | PAC Ø100 G1", Base oil | A |
| 44485 | 1 | 2014-11-03 | PAS-250-100, Tube Ø100 | A |
| 44478 | - | 2012-11-13 | PAC-250, Ackrör Ø100 | A |
| 925911 | 5 | 2022-10-13 | Skylt accumulator | A |
| 926011 | 5 | 2022-11-02 | Skylt Ack PAC | A |
| - | - | - | PAC-250-100-xxx K016 Beräkningsark ackumulatorer | FI |
| - | - | - | PAS-250-100-xxx K016 Beräkningsark ackumulatorer | FI |
| - | - | 2022-11-04 | FEA Report 44478-Static 1-2 | FI |
| - | - | - | 6810001 BOM-list | FI |
| - | - | - | 6820003 BOM-list | FI |
| - | - | - | Instruction manual, Piston accumulators | FI |
| PMC PMA 001 | 1 | 2018-09-12 | Particular Material Appraisal, EN 10305-1:2010, grade E355+SR | A |
| PMC PMA 002 | 0 | - | Particular Material Appraisal, EN 10025-2, grade S355J2 | A |
| PMC PMA 003 | 0 | - | Particular Material Appraisal, EN 10210-1, grade S355J2H | A |
| PMC PMA 004 | 0 | - | Particular Material Appraisal, Sandvik specification for SAF 2205 | A |
| PMC PMA 005 | 0 | - | Particular Material Appraisal, Sandvik | A |

| | | | | |
|-------------|---|------------|---|---|
| | | | specification for SAF 2507 | |
| PMC PMA 006 | 0 | - | Particular Material Appraisal, EN 10297-1, grade E590K2 | A |
| PMC PMA 007 | 0 | 2022-11-07 | Particular Material Appraisal, OVAKO 520MW/ 520MW+ | A |

- *) A=Approved, FI=For information

Terms and conditions

This Certificate does not give the Manufacturer the right to CE mark and put on the market the product(s) listed on this Certificate. Only after the product(s) have been found to comply with the requirements in one of the following Conformity Assessment Modules C2, D, E or F, the Manufacturer may draw up an EU declaration of conformity and legally affix the CE mark followed by the identification number of the Notified Body involved in these modules.

Other valid terms and conditions are found in the DNV's PED Certification Requirements.

End of Certificate