

- (1) **EU-Type Examination Certificate**
- (2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres**
- Directive 2014/34/EU**
- (3) EU – Type Examination Certificate Number: **IEP 24 ATEX 1347X**
- (4) Equipment: **ENDURO-PRO Series Sewage and Wastewater Pumps**
- (5) Firm Name: **MAS-DAF MAKİNA SANAYİ A.Ş.**
- (6) Firm Address: **Orta Mah. Atayolu Caddesi No: 16 Tuzla - İstanbul / TÜRKİYE**
- (7) This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) The IEP Uluslararası Enerji Petrol Gözetim, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Sti., notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in confidential Report Nr: IEP.Rp.Ex.10-2737 date 05.04.2024.
- (9) Compliance with Essential Health and safety requirements has been assured by compliance with;
- EN IEC 60079-0:2018, EN ISO 80079-36: 2016, EN ISO 80079-37: 2016**
- (10) If the sign “ X “ is placed after the certificate number, it indicates that the product is subject to Specified Conditions of Safe Use specified in the schedule to this certificate.
- (11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (12) The marking of the equipment or protective system shall include the following:



II ½ G Ex h IIB T4 Ga/Gb
II 2G Ex db or eb IIB T4 Gb

Responsible Person :

Nurettin Terzioğlu
Head of Certification Body



Date of issue : 16.04.2024



IEP Uluslararası Enerji Petrol Göz., Sertifikasyon ve Teknik Hiz. Org. Tic. Ltd. Sti.
5746/1 Sok. No:9 K:2 Bornova - İZMİR / TÜRKİYE

Tel: +90 232 431 17 45 –46 Fax : +90 232 431 17 30 E-mail: iep@iep.com.tr Fr:45
This certificate is granted subject to the general conditions of the IEP Energy Petroleum Institute. This certificate may only be reproduced in its entirety and without any change, schedule included. You can check accuracy of this document by www.iep.com.tr.



IEP ENERGY PETROLEUM INSTITUTE

(13) Schedule

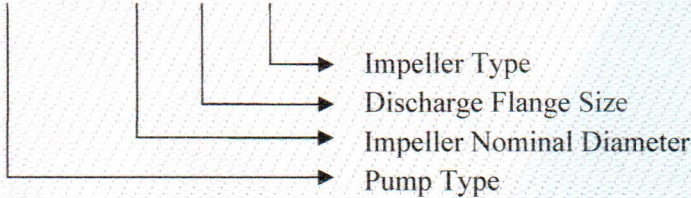
(14) Certificate Nr: **IEP 24 ATEX 1347X**

(15) Description of Equipment:

ENDURO-PRO series pumps feature an oil-in-dual and cartridge type mechanical seal system design for operational safety and sealing. All types of SiC materials are used. There are three impeller types with single-wing, double-wing and vortex impellers. ENDURO-PRO series pumps consist of 4 types. These types are X Type Free Flow (Vortex) Impellers, S Type Single Channel Impellers, D Type Two Channel Impellers, D Type Semi Open Impeller (for DN50) pumps. Material options: Pump body, cover and gear : cast iron (GG25); Impeller: Cast Iron (GG25); Wear Ring: Stainless Steel (AISI 304-316); Shaft: Stainless Steel (AISI 420); Mechanical Seal: SiC-SiC (TS EN 12756) d type ATEX certified electric motor is used for drive in the pump. The pump is used for the transfer of IIB gas group. The pump has been evaluated as Zone 0 (inner area) and Zone 1 (outer area) that be used danger area determined in the EN 60079-10-1 standard.

(16) Product Code System and Technical Specifications:

ENDURO-PRO XXX XXX D/X



Pump Type	Q max (m³/h)	Discharge Head (mss)	Power (kW)	Speed (rpm)
EnduroPro 80-250 D	16 - 85	5 - 10	3	1000
	20 - 135	12.5 - 24	11	1500
	17 104	30 - 44	18.5	3000
EnduroPro 80-250 X	17 - 104	6.9 - 12	5.5	1000
	27 - 142	20 - 28	15	1500
EnduroPro 100-250 D	19.5 - 143	3.8 - 10.5	4	1000
	30 - 220	8.8 - 25	15	1500
EnduroPro 100-250 X	20.5 - 138	7 - 11	5.5	1000
	30 - 150	18.4 - 24	15	1500
EnduroPro 100-315 D	31 - 158	10.5 - 16	7.5	1000
	41.5 - 300	19 - 40	30	1500
EnduroPro 100-315 X	34 - 108	7 - 9.6	4	1000
	55 - 186	14 - 22	15	1500
EnduroPro 150-315 D	55 - 344	7.2 - 14	11	1000
	92 - 426	20 - 31	45	1500
EnduroPro 150-315 X	60 - 344	6.2 - 13	15	1000
	91 - 426	19 - 31	45	1500
EnduroPro 300-315 D	405 - 1400	6.8 - 19	55	1000
	603 - 2110	13.8 - 42	160	1500
Ambient Temperature -20 ~ +40 °C				
Operating Pressure up to 10 bar				
Compression Flanges DN 50 – DN 300				
Impeller diameters ø140 – ø430 mm				

Responsible Person :

Nurettin Terzioglu
Head of Certification Body





IEP ENERGY PETROLEUM INSTITUTE

(17) Certificate Nr: **IEP 24 ATEX 1347X**

(18) Essential Health and Safety Requirements:

18.1 Are included in standards , which are mentioned in clause (9) of this certificate. The products were approved in accordance with above mentioned standards and manufacturer's instruction.

18.2 At the installation and the operation of the ENDURO-PRO series pumps have to be observed manufacturer's manual dated 08.02.2024 and 18 pages.

(19) Special conditions for safe use;

19.1 The installation and the operation of the ENDURO-PRO series pumps have to confirm to the relevant national regulations and operation manually.

19.2 Certificate Nr IEP 24 ATEX 1347X (X means): Installation should be done by authorized personnel according to the user manual. Earthling connections must be made properly. Periodic maintenance should be carried out by authorized personnel. Motor technical details to be mounted on ENDURO-PRO series pumps are available in the user manual.

19.3 The temperature of the liquid should be below the temperature class. The flow temperature of the material passing through it should not exceed 120 °C.

19.4 A level detection device shall be installed to ensure that the motorized part of the pump remains immersed.

19.5 If the heat or pressure sensor would be used, it shall be in the appropriate type of Ex-protected according to EN 60079-0.

19.6 The motor to be used in the pumps will be of d or e explosion-proof type in accordance with EN 60079-0, EN 60079-1 and EN 60079-7 standards. In addition, the product will be selected in accordance with the Ex-coding. (Zone 1, IIB and min. T4)

(20) List of Documentation:

- ♦ User manual 18 page, dated 08.02.2024
- ♦ Parts list and supplements dated 30.03.2021
- ♦ Risk Assessment Report 1 page, dated 09.02.2024
- ♦ Pump test report 9 pages, dated 12.01.2024
- ♦ Drawings;

Drawing Name;	Date;	Drawing Name;	Date;
64.1043.01.0	18.12.2019	64.1012.01.0	01.04.2021
64.0030.01.0	18.12.2019	64.1001.01.0	20.11.2014
64.0050.01.0	28.04.2024	64.1031.01.0	29.03.2021
64.0052.01.0	18.12.2019	M00580008250000000	30.03.2021
64.0052.01.1	18.12.2019	M00580010250000000	30.03.2021
64.0060.01.0	30.03.2021	M01580010315000000	30.03.2021
64.0400.01.0	03.05.2013	M10580015315000001	15.01.2020
64.0073.01.0	18.12.2019	M00580008250000000	30.03.2021

(21) For the validity of analysis type certificate, the parts that are used in ENDURO-PRO series pumps are confirmed in the list of equipment dated 30.03.2021

Responsible Person:

Nurettin Terzioglu
Head of Certification Body



Date of issue : 16.04.2024

