

(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 20 ATEX 0881X**

(4) Product: **MIT XX Series, Air Operated Diaphragm Pumps**

(5) Firm Name: **EKİN Endüstriyel Isıtma Soğutma San. ve Tic. Ltd. Şti.**

(6) Firm Address: **DES Sanayi Sitesi 107. Sokak B14 Blok No: 2 Ümraniye İSTANBUL / TURKEY**

(7) Product Address: **Maltepe Mah. Çiftelahavuzlar Cad. Ayvalıdere Sok. No: 6 Zeytinburnu İSTANBUL / TURKEY**

(8) This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(9) 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.10-1816 date 24.12.2020.

(10) Compliance with Essential Health and safety requirements has been assured by compliance with;

**EN ISO 80079-36:2016 , EN ISO 80079-37:2016**

(11) 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.

(12) 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.

(13) The marking of the equipment or protective system shall include the following:



**II 2G Ex h IIB T6 Gb**  
**II 1D Ex h IIIB T(80°C) Da**  
**I M2 Ex h I Mb**

**Responsible Person:**

Nurettin Terzioglu  
Head of Certification Body



**Date of Issue : 25.12.2020**



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

Tel : +90 232 431 17 45 – 46 Fax : +90 232 431 17 30 E-mail: iep@iep.com.tr Fr:45

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(14) Schedule

(15) Certificate Nr: **IEP 20 ATEX 0881X**

(16) Description of Equipment;

MIT XX series, air operated diaphragm pumps that are worked by compressed air are commonly used for transferring industrial liquids. The diaphragm pumps can vacuum the liquids from deep. An air operated diaphragm pumps has two diaphragms. MIT XX series, air operated diaphragm pumps are used for II A and IIB gas group liquid transfer. The pumps used in the mine consist of cast iron and stainless steel.

MIT XX series, air operated diaphragm pumps other casing that is produced aluminum, cast iron and stainless steel. The parts and materials that are used in MIT XX series, diaphragm pumps have been determined in the list of Part 2.5 date 2018 list. Epdm, Viton, Teflon, Buna-N, Neoprene and Santoprene isolation materials are used in pumps.

MIT XX series, air operated diaphragm pumps has been evaluated as zone 1, 2, 21 and 22 that be used danger area determined in the EN 60079-10-1 and EN 60079-10-2 standard.

### Technical Parameters:

Types	MIT 550	MIT 1500	MIT 4000	MIT 5600	MIT 8900
Capacity	55 lt / min.	150 lt / min.	400 lt / min.	560 lt / min.	890 lt / min.
Intake / Discharge Size	¾ "	1"	1 ½ "	2"	3"
Air Inlet Size	1/4"	1/2"	3/4"	3/4"	3/4"
Solids - Handling	3 MM	4 MM	6 MM	6 MM	8 MM
Suction Depth	6 M	6 M	6 M	6 M	6 M
Max Operating Pressure	7 Bar	7 Bar	7 Bar	7 Bar	7 Bar
Main Body	AL-SC	AL-DD-SS-SC	AL-DD-SS-SC	AL-DD-SS-SC	AL-DD-SS-SC
Air Cons. Max.	34 m <sup>3</sup> /h	67 m <sup>3</sup> /h	85 m <sup>3</sup> /h	169 m <sup>3</sup> /h	235 m <sup>3</sup> /h
Ball Seats	S-T	S-N-B-E-T-V	S-N-B-E-T-V	S-N-B-E-T-V	S-N-B-E-T-V
Diaphragms	S-N-B-E-T-V				
Ball Valves	S-N-B-E-T-V				

AL: Aluminum      SC: Sheet Metal (Hygienic)      B: Buna-N      E: Epdm  
DD: Cast Iron      S: Santoprene      T: Teflon (PTFE)  
SS: Stainless Stell      N: Neoprene      V: Viton (FKM)

Certificate Nr IEP 20 ATEX 0881 X (X means): Diaphragm Pumps work with air. Aluminum body is not used in mines. Operate according to the user manually . The liquid temperature is max 80 °C. Tx fluid temperature is 80 °CMax according to the elastomeric material list.

### Responsible Person:

Nurettin Terzioglu  
Head of Certification Body





# IEP ENERGY PETROLEUM INSTITUTE

(17) Certificate Nr: **IEP 20 ATEX 0881X**

(18) Special conditions for safe use: The installation and the operation of the MIT XX series air operated diaphragm pumps have to confirm to the relevant national regulations and operation manually.

(19) Essential Health and Safety Requirements:

**19.1** Are included in standards, which are mentioned in clause (10) of this certificate. The products were approved in accordance with above mentioned standards and manufacturer's instruction.

**19.2** At the installation and the operation of the MIT XX series air operated diaphragm pumps have to be observed manufacturer's manual 22 pages dated March 2018.

(20) List of Documentation:

- ♦ MIT XX diaphragm pumps user manual : 47 pages, dated November 2020
- ♦ Part Lists : 14 pages, dated 18.11.2020
- ♦ Risk Assessment Test Reports : 2 pages, dated 04.01.2017
- ♦ Drawings;

Drawing Nr;	Drawing Name;	Date;
PBS	Pump Connection Diagram	20.10.2016
PTS	Pump Grounding Scheme	20.10.2016
PSAS	Pump Liquid Flow Chart	20.10.2016
PHCS	Pump Air Outlet Scheme	20.10.2016
PSBS	Pump Liquid Discharge Scheme	20.10.2016
MIT 550 MTG AL	MIT 550 Exploded Drawing	10.11.2016
MIT 1500 MTG AL	MIT 1500 Exploded Drawing	29.11.2016
MIT 4000 MTG AL	MIT 4000 Exploded Drawing	22.10.2016
MIT 5600 MTG AL	MIT 5600 Exploded Drawing	02.09.2016
MIT 8900 MTG AL	MIT 8900 Exploded Drawing	08.10.2016

**Other Technical Drawings;** 250 pages, date 2016.

For the validity of analysis type certificate, the parts that are used in MIT XX series air operated diaphragm pumps are confirmed in the part 14 pages, dated 18.11.2020.

**Responsible Person:**

Nurettin Terzioglu  
Head of Certification Body



**Date of Issue: 25.12.2020**

