

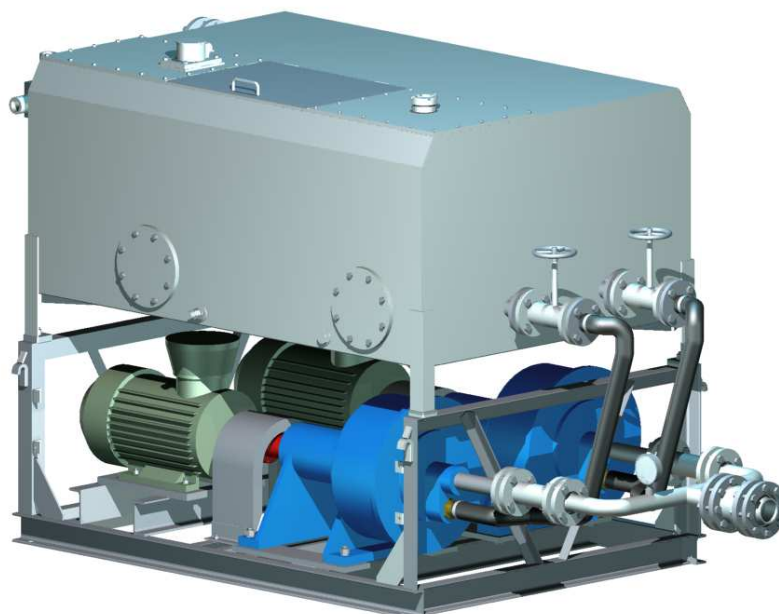


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emulsion pumping engines

APE-1



TECHNICAL SPECIFICATIONS:

- | | |
|--------------------------|--------------------------------|
| ✓ pump output | 2 x 170 dm ³ /min. |
| ✓ working pressure | 2,5 MPa |
| ✓ operating fluid | 0,7 ÷ 2% emulsja olejowo-wodna |
| ✓ motor power | 2 x 22 kW |
| ✓ tank capacity | 1500 dm ³ |
| ✓ pump system dimensions | 3115x1480x1775 |



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GENERAL DESCRIPTION:

The pump system comprises of: two pump units /with one held in reserve/, a storage tank and a mounting frame. The pump draws in emulsion from the gravity storage tank and pumps it through the return valve to the tanks of the central pumping station. The APE-1 gravity tank is constantly refilled with working emulsion returning from the mechanical roof supports. The integrated fluid level sensor in the APE-1 gravity tank enable the activation or switching off of the pump unit as required.


APPLICATION:

The APE-1 pumps working fluid that exits mechanical roof supports during the long wall mining process and returns it to a higher level. The central pumping station provides working emulsion under high pressure for the mechanical roof supports that may be operating at a lower level or on a downhill slope away from the pumping station. The is therefore used to return unpressurised fluid leaving the roof supports back to the central pumping station.

The **APE-1** meets E.U. safety classification and certification requirements. The **APE-1** is a Group **I** Device and is in the **M2** Category for equipment working in areas at risk of explosion. It meets Poland's legal requirements relating to the "essential requirements for equipment and protective systems intended for use in potentially explosive atmospheres (OJ No 263/2005, item. 2203)". This law complies with the EU Directive **94/9/EC (ATEX)**.

The device can therefore be used in deep mining operations and in the presence of methane at sites that are in the "a", "b" and "c" hazard classes for methane explosion and "A" and "B" hazard classes for coal dust explosion.

The unit is to be switched off by the operator if a risk of explosion develops and/or if methane concentration exceeds acceptable levels.

This T type of pump unit is marked  **I M2**.