

TECHNICAL BROCHURE · PUMPS

CP series miscella pump

Explosion-proof pump for transferring miscella, a mixture of oil and hexane, between the extractor and distillation.

120M³/H FLOW (CP.280)**24**

M HEAD

9.5

KW ON WORKING MEDIUM

Why miscella needs a special pump

Miscella is a mixture of oil and hexane leaving the extractor. It looks like an ordinary liquid, but in composition it is an explosive medium.

- **A spark means an explosion.** The motor, terminal box and electrical components are explosion-proof.
- **Seal leakage.** A double mechanical seal with barrier fluid or a sealless (canned) design is used.
- **Static electricity.** A low-conductivity liquid builds up charge, so reliable earthing of the pump and pipeline is mandatory.
- **Chemical resistance.** Wetted materials are selected to resist hexane and oil.

Pump types used for miscella

- **Centrifugal:** the main type between machines: large volumes, moderate pressure, continuous duty.
- **Screw / gear:** where precise, stable flow is needed (for example, dosing to distillation).
- **Submersible (vertical):** installed in a sump under the extractor, which reduces the risk of air ingress.

How to choose a pump

1 Flow and head

Start from the flow (m³/h) and head (m) required for your scheme; model data is below.

2 Medium properties

Miscella density, inlet temperature and permissible solid particle size influence design and materials.

3 Explosion protection

For solvent duty this is a basic requirement, not an option: Ex-rated motor and electrical parts, earthing.

4 Installation place

Horizontal or vertical (submersible) placement depends on the layout under the extractor.

Important

Indicative selection only. The final model is defined by the technical specification together with D.ENERGY engineers.

Model parameters CP.280

Flow rate, m³/h	120
Head, m	24
Miscella density, kg/m³	720
Miscella: maximum solid particle size, mm	up to 3 mm
Rotor speed, rpm	1450
Power on working medium, kW	9.5
Maximum efficiency in operating range, %	58
RMS vibration velocity measured on the pump bracket at the bearing supports, mm/s	4.5
Miscella inlet temperature, K (°C)	335 (62)

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This material is for information only. Final configuration and parameters are defined by the technical specification and agreed with D.ENERGY engineers. Data as of 08.10.2026.