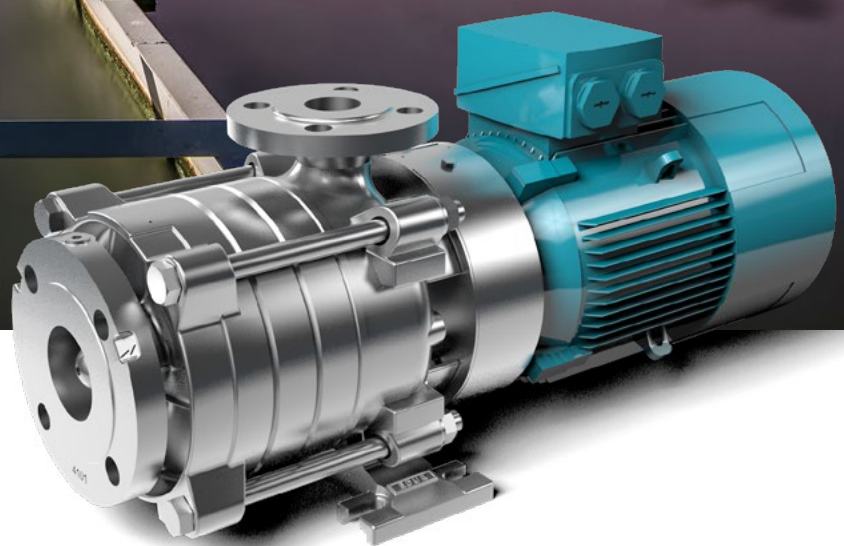




Product information

MADE IN GERMANY
...SINCE 1927

Multiphase Pumps –
Innovative conception for
liquid-gas mixtures and
gas enrichment of liquids



Handling of liquids with gas contents up to 30%: Multiphase Pumps revolutionize your processes!

MORE THAN PUMPS ONLY

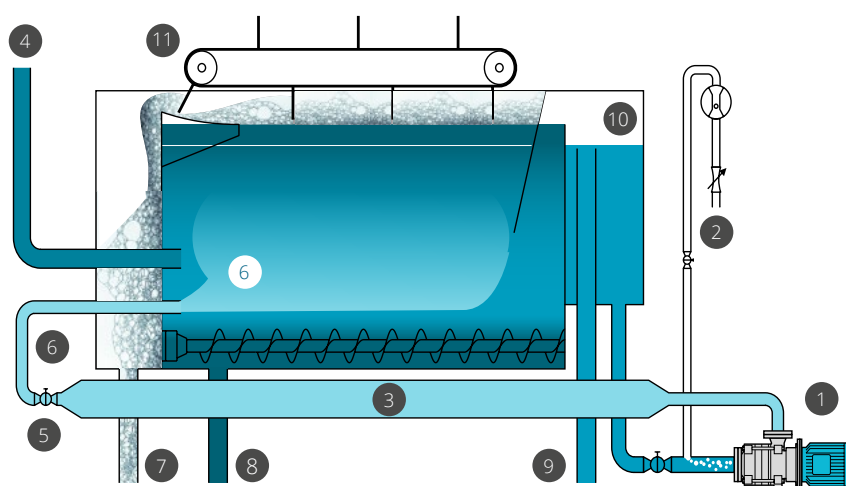
EDUR-multiphase pumps are specially designed for integrated liquid-gas mixture supply and the generation of dispersions. The pump hydraulics differ considerably in design and operating mode compared to conventional centrifugal pumps and so allows the suction side throttle operation without the cavitation effect that would occur at standard centrifugal pumps. Gas contents up to 30% are being automatically primed and handled in a reliable way. At the same time a dynamic mixing effect and an excellent gas saturation does occur. Hereby fine micro bubbles are generated with a size between 30 and 50µm during the pressure release down to atmospheric pressure.

ENDLESS POTENTIAL SAVINGS

By using the EDUR-multiphase pumps you will no longer require expensive compressor systems, pressure vessels, control systems, valves and the corresponding maintenance efforts. Gaseous media can be directly fed to the pump in the partial flow process. This is possible due to the special open and free of axial thrust impeller design.

EDUR-multiphase pumps are convincing due to low wear even in case of slight impurities and stable operating conditions throughout the entire pump characteristic curves. The excellent efficiency of EDUR-multiphase pumps and the reduced investment costs do amortize the replacement of conventional inefficient multiphase plants in a short period of time.

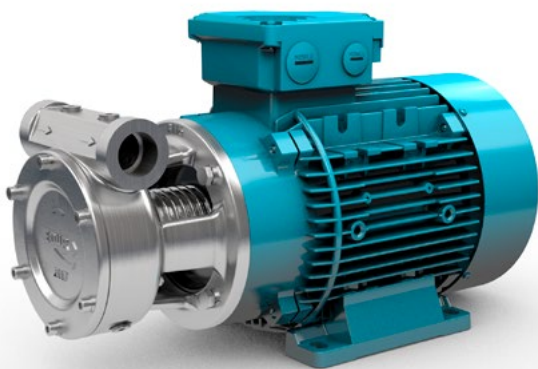
FLOTATION SYSTEM* WITH EDUR-MULTIPHASE PUMP



- | | | |
|------------------------|--|-----------------------------------|
| ① EDUR-Multiphase Pump | ⑤ Pressure Release Valve | ⑧ Solids |
| ② Gas Supply | ⑥ Micro Bubbles after Pressure Release | ⑨ Effluent |
| ③ Solution Line | ⑦ Flotate | ⑩ Partial Flow (Recycle Flow) |
| ④ Inflow Waste Water | | ⑪ Skimmer for Removing of Flotate |

YOUR PROCESS – OUR KNOW-HOW

Each application does have its own dynamics. Specialized EDUR-engineers analyze your process flow and select the suitable pump type. Please contact us – we look forward to your answer.



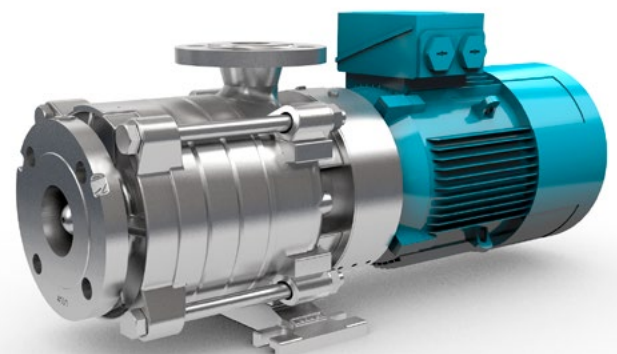
SERIES PBU

Properties: Single-stage peripheral pump in block design, horizontal

Material: stainless steel

Technical data

Flow rate	up to 14,5 m ³ /h 64 US gpm
Working pressure	up to 16 bar 232 psi
Gas contents	up to 15 %
Temperature	-40 to +140 °C -40 to +284 °F



SERIES LBU

Properties: Multi-stage centrifugal pump in block design, horizontal

Material: grey cast iron, nodular cast iron, all-bronze, stainless steel, super duplex

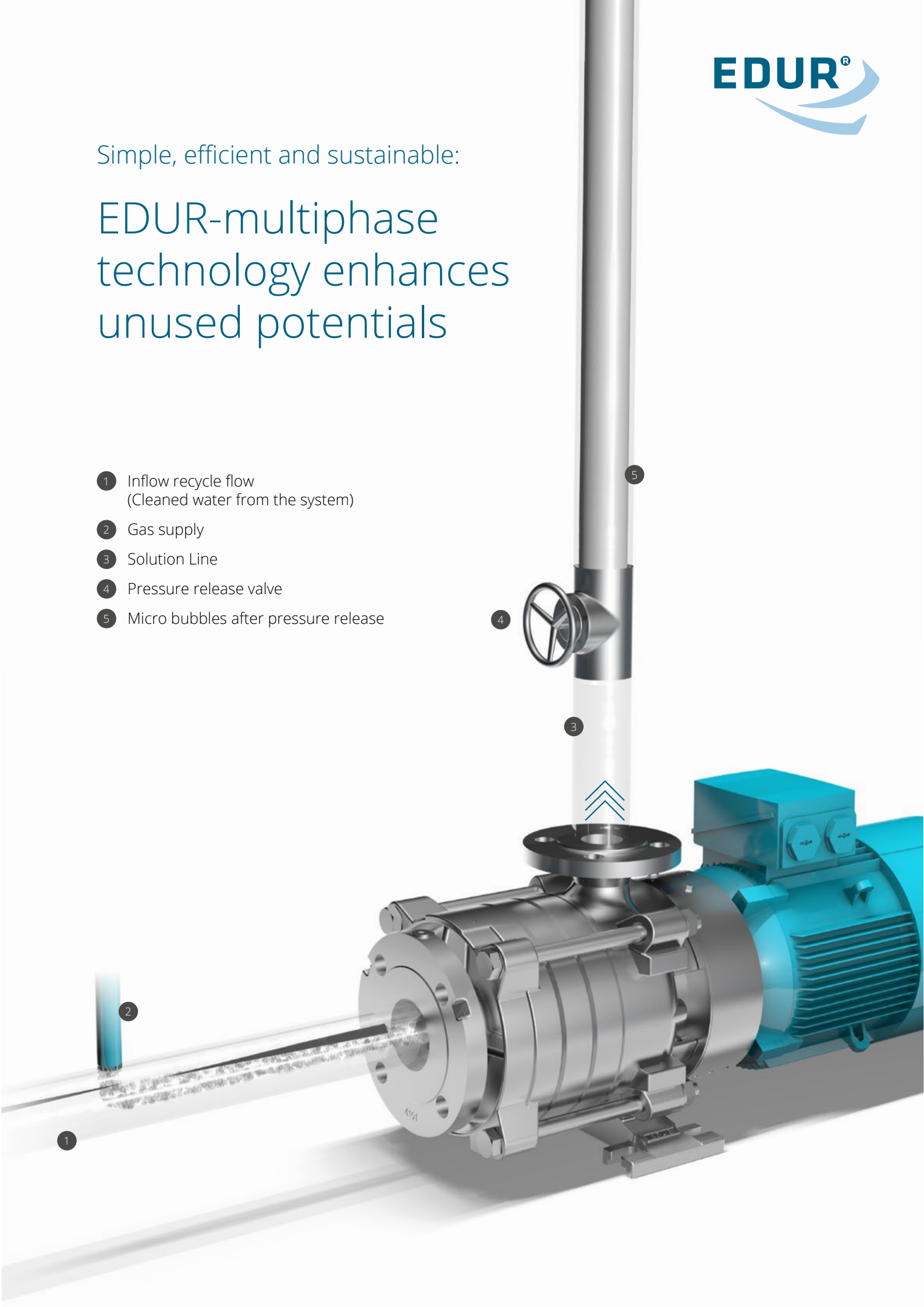
Technical data

Flow rate	up to 60 m ³ /h 264 US gpm
Working pressure	up to 40 bar 580 psi
Gas contents	up to 30 %
Temperature	-50 to +140 °C -58 to +284 °F

Simple, efficient and sustainable:

EDUR-multiphase technology enhances unused potentials

- 1 Inflow recycle flow
(Cleaned water from the system)
- 2 Gas supply
- 3 Solution Line
- 4 Pressure release valve
- 5 Micro bubbles after pressure release



Advantages at a glance

INNOVATIVE PUMPING CONCEPTION

- Excellent gas saturation
- Gas contents up to 30% are being automatically primed and handled in a reliable way
- Dynamic mixing
- Ideal dispersions with bubble sizes between 30 and 50µm
- Perfect micro bubbles ("white water")

POTENTIAL SAVINGS

- Significant reduction of system components (compressor, pressure vessel, elaborated control and various valves are eliminated)
- High process reliability – minimal downtimes
- Low investment costs
- Low wear even in case of slight impurities
- Reduced maintenance and service costs
- Low operating costs

EASY INSTALLATION

- Compact block construction
- Low space requirements

RETROFITTING EXISTING SYSTEMS

TECHNICAL SUPERIORITY

- Especially designed impellers
- Direct gas entry into the suction line
- Energy efficient motors
- Low noise operation

LAYOUT

- Optimum pump selection by our specialized engineers

APPLICATIONS AND TARGET GROUPS:

- Water and wastewater treatment, flotation plants – use acc. to VDMA specification 24430
- Bioreactors: ventilation
- Fuel production: CO₂ leaching
- Petro industry: crude oil water separation
- Coolant lubricant circuits: oil water separation
- Cleaning agents treatment: flooding of oil residues and solids
- Primary industries: extraction of copper, silver, gold from raw materials
- Paper industry: lime traps
- Fertilizer production: ammonia stripping plants
- Cooling water treatment: ozonation

Your application is not mentioned?
Please get in contact with us!

EDUR-Multiphase Pumps – Extremely versatile for industrial and municipal process technologies

