

## Emergency oxygen supply

The Research Centre for Fishery of the land Mecklenburg-Western Pomerania has a field site with breeding basins for fishes in Born on the peninsula Fischland-Darß. In the basins not only young but also old fishes such as perches, sturgeon, catfishes and pikeperches are bred. Automatic feeders feed the fishes, which the excrements contaminate the water.



### Research contracts from the industry

Filter systems are developed and tested, beside others, on behalf of the industry, based on the contamination rate of the water.

The basins must be ventilated with pure oxygen (O<sub>2</sub>) to ensure that the aquaculture - from the young fish to the 10-year old catfish having the weight of a 2-year old child survive the dwell time.

### Fail-safe Type 40 and Type 43 valves for emergency oxygen supply

The 2/2-way solenoid valves are in normally open design (NO) and permanently closed when voltage is applied. If the oxygen (O<sub>2</sub>) main supply fails the emergency supply plant consisting of the valve plate and bottle bundles



will ensure emergency supply. Thanks to the fail-safe function of the valves the latter release the oxygen from the bundles and ensure O<sub>2</sub>-supply to the basins.

### High surface temperature

As power is continuously supplied to the solenoid valves the surface of the coils can reach temperatures of up to + 90° C. Therefore it is



necessary to ensure proper recirculation and/or a good delta T °C to the ambient.

pic 1 Typ 43-NO



### Medical gas supply systems

Things that are good for fish breeding can be life-saving for human beings. This concept of emergency oxygen supply exists in all hospitals.

There too O<sub>2</sub>-supply is ensured from bottle bundles of the 43-NO series. When drop down the O<sub>2</sub>-pressure from the primary supply source falls, the gas switch over group control switches and gas supply is maintained via bottle batteries.

2 solenoid valves Type **E4324/1002/.692-NF** G3/4 are used per plate.

### Valves for oxygen are supplied as follows:

- FKM seals,
- cleaned , free of oil and grease
- marked and wrapped in foil.

pic 2 Typ 40-NC



pic 3 Typ 43 Einzelteile

