

ISO/TS 4240-1:2023-03 (E)

Fine bubble technology - Environmental applications - Part 1: Inspection method using online particle counter in dissolved air flotation (DAF) plant

| Contents | | Page |
|---|--|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Principle | 2 |
| 5 | BVC measurement technique | 2 |
| 5.1 | Test equipment | 2 |
| 5.2 | Procedure | 3 |
| 6 | Bubble bed depth measurement technique | 4 |
| 6.1 | Test equipment | 4 |
| 6.2 | Procedure | 5 |
| 7 | Advantages and limitations | 6 |
| 7.1 | Advantages | 6 |
| 7.2 | Limitations | 7 |
| Annex A (informative) Measurement of bubble size and size distribution by PCM | | 8 |
| Annex B (informative) Height from the water surface to the bubble bed depth | | 9 |
| Annex C (informative) Comparison of the results of bubble bed depth obtained by using the naked eye and by using a particle counting method | | 10 |
| Annex D (informative) Measuring bubble bed depth of DAF process in full scale | | 12 |
| Annex E (informative) Change of bubble bed depth at different operating conditions | | 14 |
| Annex F (informative) Contribution of particles and bubbles in particle count measurements | | 15 |
| Annex G (informative) Effect of sampling tube length | | 17 |
| Bibliography | | 18 |