ISO 16852:2008-03 (E)

Flame arresters - Performance requirements, test methods and limits for use

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Terms and definitions 2

4 Symbols 4

5 Hazards and flame arrester classifications 6
5.1 Flame transmission: deflagration, stable and unstable detonation 6
5.2 Flame transmission: stabilized burning 7

6 General requirements 7
6.1 Measuring instruments 7
6.2 Construction 7
6.3 Housings 8
6.4 Joints 8
6.5 Pressure test 8
6.6 Leak test 8
6.7 Flow measurement (air) 8
6.8 Flame transmission test 9
6.9 Summary of tests to be conducted 11

7 Specific requirements for static flame arresters 12
7.1 Construction 12
7.2 Design series 12
7.3 Flame transmission test 13
7.4 Limits for use 26

8 Specific requirements for liquid product detonation flame arresters 27
8.1 Liquid seals 27
8.2 Foot valves 28
8.3 Flame transmission test 29
8.4 Limits for use 30

9 Specific requirements for dynamic flame arresters (high velocity vent valves) 30
9.1 General 30
9.2 Flame transmission test 30
9.3 Endurance burning test 31
9.4 Limits for use 33

10 Specific requirements for hydraulic flame arresters 33
10.1 Equipment 33
10.2 Flame transmission test 34
10.3 Limits for use 35
11 Information for use 37
11.1 Instructions for use 37
11.2 Marking 37

Annex A (normative) Flow measurement 40

Annex B (informative) Information for selecting flame arresters 44

Annex C (informative) Best practice 45

Annex D (informative) Use of in-line stable detonation flame arresters 46

Bibliography 47