DIN EN ISO 5172:2006-08 (E)

Gas welding equipment - Blowpipes for gas welding, heating and cutting - Specifications and tests (ISO 5172:2006)

Contents

Page

Foreword 2

Introduction 4

1 Scope 4

2 Normative references 4

3 Terms and definitions 5
3.1 Mixing system 5
3.2 Blowpipes classified according to the possibility of varying the gas flow rate 7
3.3 Cutting and heating blowpipes classified according to the mixing position 8
3.4 Operational incidents 8
3.5 Flame specifications (reference values) 8

4 Hose connections 9

5 Material 9

6 Marking 10
6.1 General 10
6.2 Marking of the blowpipe 10
6.3 Marking of oxygen and fuel gas valves 10
6.4 Marking of nozzles 10
6.5 Marking of interchangeable components 10
6.6 Marking of cutting attachment 10
6.7 Marking of mixing systems 10
6.8 Gases to be used, symbols for gases 11

7 Safety and operational requirements 11
7.1 Safety requirements 11
7.2 Operational requirements 12

8 Tests 12
8.1 General 12
8.2 Leak test 13
8.3 Sustained backfire test 13
8.4 Test for stability in wind for fuel gas/compressed air flames 25
8.5 Valve endurance test 26
8.6 Backflow test for all blowpipes 26

9 Typical dimensions of machine cutting blowpipes 28

10 Instructions for use 29

Annex A (informative) Corresponding flow rates for the most common fuel gases 30

Annex B (informative) Terminology concerning welding and cutting blowpipes and example of construction 31

Annex C (informative) Approximate mixing ratios for normal flames 40

Annex D (informative) Marking of components of a blowpipe 41

Annex E (informative) Typical dimensions of machine cutting blowpipes 42

Annex F (informative) Cutting-nozzle seat angles 44

Annex G (normative) Alternative sustained backfire test -- Use with all blowpipes 45

Annex H (informative) Alternative sustained backfire test -- Production and field acceptance 46

Annex I (normative) Alternative colour codes for oxygen 47

Bibliography 48