

ISO/TR 11583:2012-04 (E)

Measurement of wet gas flow by means of pressure differential devices inserted in circular cross-section conduits

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Symbols and subscripts	2
5 Principle of the method of measurement and computation	2
5.1 Principle of the method of measurement	2
5.2 Computation	4
6 Venturi tubes	5
6.1 General	5
6.2 Design requirements	5
6.3 Pressure tappings	5
6.4 Computation of gas flowrate	6
6.5 Uncertainties	8
7 Orifice plates	9
7.1 General	9
7.2 Design requirements	9
7.3 Use of orifice plates with drain holes	9
7.4 Pressure tappings	9
7.5 Computation of gas flowrate	10
7.6 Uncertainties	12
8 Tracer techniques	12
8.1 General	12
8.2 Technique	13
8.3 Measuring the gas flowrate using tracer techniques	13
9 Comparison method	14
10 Total mass flowrate known	14
11 Using a throttling calorimeter	15
12 Installation	15
12.1 Flow conditioners	15
12.2 Insulation	15
12.3 Pressure tappings and impulse lines	15
12.4 Gas composition	16
12.5 Densitometers	16
13 Sampling	17
13.1 General	17

13.2	Sampling points at the wet-gas meter	17
13.3	Sampling points at test separators	17
Annex A (informative) Calculations		18
Bibliography		25