

ISO 16148:2016-04 (E)

Gas cylinders - Refillable seamless steel gas cylinders and tubes - Acoustic emission examination (AT) and follow-up ultrasonic examination (UT) for periodic inspection and testing

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Operational principles	3
5	Personnel qualification	3
6	Special considerations to ensure valid tests	4
6.1	General	4
6.2	Acoustic emission examination methods	4
6.3	Pressurization	4
6.4	Safety precautions	5
7	Acoustic emission examination equipment	5
8	Acoustic emission examination calibration and equipment verification	7
8.1	Calibration	7
8.2	Equipment verification	7
9	Overall procedure	7
10	Real-time evaluation criteria	8
11	AT test report	9
12	Follow-up ultrasonic examination	10
Annex A (normative) Ultrasonic examination (UT) follow-up to acoustic emission examination (AT)		11
Annex B (normative) AT equipment specifications		17
Annex C (normative) Example instrument settings, examination methods and rejection criteria for MAE		19
Annex D (informative) Alternative method for source location		22
Annex E (informative) Distance amplitude correction procedures		24
Bibliography		27