

# DIN EN ISO 17201-3:2019-06 (E)

## Acoustics - Noise from shooting ranges - Part 3: Sound propagation calculations (ISO 17201-3:2019)

---

Contents	Page
European foreword.....	3
Foreword.....	4
Introduction .....	5
1    Scope.....	6
2    Normative references.....	6
3    Terms and definitions .....	6
4    Source modelling.....	7
4.1    General.....	7
4.2    Muzzle blast.....	7
4.2.1    Background .....	7
4.2.2    Free-field situation .....	8
4.2.3    Non-free-field situation .....	8
4.3    Projectile sound.....	11
5    Propagation calculation.....	11
5.1    General.....	11
5.2    Application of ISO 9613-2 for free-field situations .....	11
5.3    Application of ISO 9613-2 for non-free-field situations.....	13
5.4    Sophisticated models.....	13
6    Conversion of sound exposure levels .....	14
7    Uncertainties .....	15
Annex A (normative) Benchmark cases for shooting sheds with baffles.....	16
Annex B (informative) Sophisticated modelling approaches .....	32
Annex C (informative) Modelling of shooting scenarios — Examples of shooting ranges.....	41
Annex D (informative) Uncertainty .....	59
Bibliography.....	63