

DIN EN 12604:2017-12 (E)

Industrial, commercial and garage doors and gates - Mechanical aspects - Requirements and test methods

Contents		Page
European foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	7
4	Safety requirements and/or protective measures	7
4.1	General	7
4.2	Design and construction	7
4.2.1	Operability	7
4.2.2	Glazing	7
4.3	Protection against unintentional and uncontrolled movements	7
4.3.1	Guides and end stops	7
4.3.2	Unintentional movements due to wind	8
4.3.3	Uncontrolled movements of vertically operating doors	8
4.3.4	Safeguarding against dropping of vertically operating door leaves	8
4.3.5	Safeguarding against dropping of hinged doors	9
4.4	Forces for manual operation	9
4.5	Devices for manual operation	9
4.6	Finger protection	9
4.7	Specific requirements for parts used in suspension and balancing systems	9
4.7.1	General	9
4.7.2	Springs	10
4.7.3	Counterweights	10
4.7.4	Steel wire ropes, chains, straps	10
4.8	Pass doors	11
4.9	Additional requirements for doors operating by gravity or other self-closing mechanism ..	11
5	Verification of the safety requirements and/or protective measures	11
5.1	General	11
5.2	Design and construction	12
5.2.1	Operability	12
5.2.2	Glazing	12
5.3	Protection against unintentional and uncontrolled movements	12
5.3.1	Guides and end stops	12
5.3.2	Unintentional movements due to wind	12
5.3.3	Uncontrolled movements of vertically operating doors	12
5.3.4	Safeguarding against dropping of vertically operating door leaves	13
5.3.5	Safeguarding against dropping of hinged doors	13
5.4	Forces for manual operation	13
5.5	Devices for manual operation	13
5.6	Finger protection	13
5.7	Specific requirements for parts used in suspension and balancing systems	14
5.7.1	Springs	14
5.7.2	Counterweights	14
5.7.3	Steel wire ropes, chains, straps	14
5.8	Pass doors	14

5.9	Warning signs and/or devices	14
	Annex A (informative) Guidelines for a safe construction	15
	Annex B (informative) Examples of mechanical protection and safety distances	16