DIN EN 12629-7:2004-10 (D)

Maschinen für die Herstellung von Bauprodukten aus Beton und Kalksandsteinmassen - Sicherheit - Teil 7: Stationäre und fahrbare Einrichtungen für die Herstellung von Spannbetonelementen; Deutsche Fassung EN 12629-7:2004

Inhalt

Seite

Vorwort ... 3

Einleitung ... 4

1 Anwendungsbereich ... 5

2 Normative Verweisungen ... 6

3 Begriffe ... 7
3.1 Produkte ... 7
3.2 Einrichtungen ... 8

4 Liste der signifikanten Gefährdungen ... 11

5 Sicherheitsanforderungen und/oder Schutzmaßnahmen ... 29
5.1 Gestaltung — Bewegung — Zugänge ... 29
5.2 Steuerung der Maschinen, Betriebsarten ... 29
5.3 Sicherheit von Maschinen und Arbeitsausrüstungen - Allgemein ... 30
5.4 Lärm und Vibration ... 30
5.5 Spezifikationen zu bestimmten Maschinen und Arbeitsausrüstungen ... 31
5.6 Zusammenfassung der Sicherheitsmaßnahmen in Zusammenhang mit den signifikanten Gefährdungen, die in Abschnitt 4 aufgelistet sind ... 37

6 Nachweis der Sicherheitsanforderungen und/oder Maßnahmen ... 78

7 Benutzerinformationen — Betriebsanleitung ... 79
7.1 Einleitung ... 79
7.2 Allgemeine Informationen ... 79
7.3 Mindestempfehlungen für den Gebrauch von Maschinen ... 79

8 Kennzeichnung ... 81

Anhang A (informativ) **Spannbettanlage** ... 82

Anhang B (informativ) **Kehrmaschine, Kehreinrichtung, Öler, Drahtführungsmaschine** ... 87

Anhang C (informativ) **Bett-Gestaltungsmaschine** ... 89

Anhang D (informativ) **Drahtschub-/-zugmaschine** ... 91

Anhang E (informativ) **Kehrmaschine, Extruder, Vibroverteiler** ... 93

Anhang F (informativ) **Aufroll- und Abrollhaspel** ... 95

Anhang G (informativ) **Sägemaschine** ... 97

Anhang H (informativ) **Dreisprachige Liste von Begriffen zu Spannbetonelementen und -Ausrüstungen** ... 99

Anhang ZA (informativ) **Zusammenhang zwischen dieser Europäischen Norm und den grundlegenden Anforderungen der EU-Richtlinie 98/37/EG** ... 101

O.O Xxxx **32**
O.O.O Xxxxxxxxxxxxxxxx (xxxxx O.O) **32**
O.O.O Xxxxxx Xxxxx (xxxxx O.O) **32**
O.O.O Xxxxxxxxxxx (xxxxx O.O) **32**
O.O.O Xxxxxxxxxx (xxxxx O.O) **32**
Xxxxx

O.O.O Xxxxxxxxxxxxx (xxxxx O.O) **33**
O.O.O Xxxxxxxxx xxx Xxxxxxx xxx/xxxx Xxxxxx xx Xxxxxx (xxxxx O.O) **33**
O.O.O Xxxxxxxxxx xxx Xxxxxxx xxx Xxxxxx (xxxxx O.O) **33**
O.O.O Xxxx xxx Xxxxxxxxx (xxxxx O.O) **33**
O.O.O Xxxxx xxx Xxxxxxxxxxxxx (xxxxx O.O) **33**
O.O.OOXxxxxxxxxxxxxxxxx (xxxxx O.OO) **33**
O.O.OOXxxxxxxx xxx Xxxxxxx xxx Xxxxxx (xxxxx O.OO) **33**
O.O.OOXxxxxxxxxxx (xxxxx O.OO) **33**
O.O.OOXxxxxxxxxx (xxxxx O.OO) **34**
O.O.OOXxxxxxxxxxxxxx (xxxxx O.OO) **34**

OO Xxxxxxxxxxxxx **34**

OO Xxxxxxxxxxxxxxxxxxxxx **34**
OO.O Xxxxxxxxxxx **34**
OO.O Xxxxxxxxxxx (xx: xxxxxxx xxxx xxxx (XXX)) **35**
OO.O.OXxxxxxxxxxx **35**
OO.O.OXxxxxxxxxx **35**
OO.O Xxxxxxxxxxx Xxxxxxxxxxxxxxxxxxxx (XXX) **35**
OO.O.OXxxxxxxxxxx **35**
OO.O.OXxxxxxxxxx **36**
OO.O.OXxxxxxxxxxxxx xxx Xxxxxxxx **37**
OO.O.OXxxxxxxxxxxxxxxxxx **37**
OO.O.OXxxxxxx xxx Xxxxxxxxx xxx Xxxxxxxx **37**
OO.O.OXxxxxxxxxxx Xxxxxxxx **37**

Xxxxxx X (xxxxxxxx) **Xxxxxxxxxxxxxx xxx xxx xxxxxxxxxxx Xxxxxxxxxxxxxxxxxxx** **38**

Xxxxxx X (xxxxxxxx) **Xxxxxxxxxxxxxxxxxxxxxxxxx** **47**
X.O Xxxxxxxxxxxxx xxxxx xxxx xxxxxxxxxx Xxxxxxxxxxxxxxxxxxx **47**
X.O Xxxxxxxxxxx xxx Xxxxxxxxxx xxxxx xxxx Xxxxxxxxxx **47**
X.O.O Xxxxx xxx Xxxxxxxxxxxxx xxxx XX XXX OOOO **47**
X.O.O Xxxxx xxxx Xxxxxxxxxxxxx xxxx XX XXX OOOO **47**
X.O.O Xxxxxxxxxx xxx Xxxxxxxxxxxxxxxxxxx **48**
X.O.O Xxxxxxxxxx Xxxxxxx **49**

Xxxxxx X (xxxxxxxx) **Xxxxxxxxxx Xxxxxxxxxxxx xx Xxxxxxxxxx xxx Xxxxxxx xxx Xxxxx xxx Xxxxxxxxxxxxxxxxxx** **50**
X.O Xxxxxxxxxx **50**
X.O Xxxxxxxxx **50**
X.O.O Xxxxxxxx **50**
X.O.O Xxxxxxxxxxxx Xxxxx **51**
X.O.O Xxxxxxxxxxxxxxx **51**
X.O.O Xxxxxxxxxxx xxxxxxxxxxx Xxxxxx **51**
X.O.O Xxxxx xxx xxxx xxxxxxxxxx Xxxxxx xx Xxxxxxxxx xxx xxxxx Xxxxxxxxxx **52**
X.O Xxxxxxxxxx Xxxxxxxxxxx **52**
X.O.O Xxxxxxxxxx **52**
X.O.O Xxxxxxxxxx xxxxx Xxxx **52**
X.O.O Xxxxxxxxxx **52**

Xxxxxx X (xxxxxxxx) **Xxxxxxxxxx Xxxxxxxxxxx xx Xxxxxxxxxx xxx Xxxxxxx xxx Xxxxxxxxx** **53**
X.O Xxxxxxxxxx **53**
X.O Xxxxxxxxxx **53**
X.O.O Xxxxxxxxxx xx xxx Xxxxxxxx **53**
X.O.O Xxxxxxxxxx xx Xxxxx **53**
X.O.O Xxxxxxxxxx xx Xxxxxxxxxx xxx Xxxxxxx **54**
X.O Xxxxxxxxxx **55**

X.O.O Xxxxxxxxxx **55**
X.O.O Xxxxxxxxxxx **55**
X.O.O Xxxxxxxxxxxx **55**
X.O.O Xxxxxxxxxxxxx **55**

Xxxxx

X.O.O Xxxxx- xxx Xxxxxxxxxxxxxxxxxx **55**
X.O.O Xxxxx-Xxx-Xxxxxxx xxx Xxxxxxxxxx **55**

Xxxxxx X (xxxxxxxx) **Xxxxxxxxxx Xxxxxxxxxxxx xx Xxxxxxxxxx xxx xxxxxxxxxxxxxxx Xxxxxxxxxxxxxxxxxxxxxxxxxxx** **56**
X.O Xxxxxxxxxx **56**
X.O Xxxxxxxxx **56**
X.O.O Xxxxxxxxxxxxxx Xxxxxxxxxxxxxxxxxxxxxxx, Xxx X **56**
X.O.O Xxxxxxxxxxxxxx Xxxxxxxxxxxxxxxxxxxxxxx, Xxx X **57**
X.O.O Xxxxxxxxxx Xxxxxxxxxxxx xxx Xxxxxxxxxxx xxx Xxxxxxxxx xxx Xxxxxxxxxx xxx Xxxxxxxxx xxx Xxxxxxxxxxxxxxxxx, Xxx X xxx X **57**
X.O Xxxxxxxxxx Xxxxxxxxxxxxxxxxxxxx xx xxx Xxxxxx xxx Xxxxxxxxxxxxxxxx, Xxx X xxx X **57**
X.O.O Xxxxxxxxxx xxxxx Xxxx **57**
X.O.O Xxxxxxxxxxxx **58**
X.O.O Xxxxxxxxxxxxxxxxxxx **58**
X.O.O Xxxxxxxxxxxxxx **58**
X.O.O Xxxxxxxxxxxxxxx **59**
X.O.O Xxxxxxxxxx Xxxxxxxxxxxxxxxxx **59**
X.O.O Xxxxxxxxxxxxx **60**

X.O Xxxxxxxxxx xxx Xxxxxxxx **60**

Xxxxxx X (xxxxxxx) **Xxxxxxxxxx Xxxxxxxxxxx xxx Xxxxxxx xxx Xxxxxxxxxx xxx Xxxxxxxxxx (XX) xxxx Xxxxxxxxxxxxxx (XXX-X)** **61**
X.O Xxxxxxxxx **61**
X.O Xxxxxxxxx **61**
X.O.O Xxxxxxxxxxxx **61**
X.O.O Xxxxxxxxxxxxxxxx **63**
X.O.O XX-Xxxxxxxxx (Xxxxxxxxxxx xxxxx xxxxxxxxx Xxxxxxxxxx) **63**
X.O Xxxxxxxxxxx xxx Xxxxxxxxxxx xxx Xxxxxxxxxx xxx Xxxxxxx xxx XX xxxx XXX-X **65**
X.O.O Xxxxxxxxxx **65**
X.O.O Xxxxxxxxxxxxxxxx **65**
X.O.O Xxxxxxxxxxxxxx **66**
X.O.O Xxxxxxxxxxxxxxxxxx **67**
X.O.O Xxxxxxxxxx xxxxx Xxxx (XXX) **68**
X.O.O Xxxxxxxxxxx xxx xxxxx Xxxxxxxxxx **68**
X.O Xxxxxxxxxx Xxxxxxxxxxxxx **69**

Xxxxxx X (xxxxxxx) **Xxxxxx xxx xxxxxxxxx Xxxxxxxxx** **70**
X.O Xxxxxxxxx **70**
X.O Xxxxxxxx xxx Xxxxxxxxx xxx xxxxxxxxx Xxxxxxxxx (X_X) **70**
X.O Xxxxxxxxx **70**
X.O.O Xxxxxxxxx **70**
X.O.O Xxxxxxxxx **70**
X.O.O Xxxxxxxx(x) **70**
X.O Xxxxxxxxxx **73**
X.O.O Xxxxxxxxxx xxx Xxxxxx xxx Xxxxx- xxx Xxxxxxxxxxxxxxxxx xxx Xxxxxxxx **73**
X.O.O Xxxxxxxxxx xxx Xxxxxx xxx Xxxxxxxxxxxxxx **75**
X.O Xxxxxxxxxx xxx Xxxxxx **76**

Xxxxxx X (xxxxxxx) **Xxxxxx xxx Xxxxxxxxxx** **77**
X.O Xxxxxxxxx **77**
X.O Xxxxxxxx (X_X) **77**
X.O Xxxxxxxxxx xxx Xxxxxx **77**
X.O Xxxxxxxxxx xxx Xxxxxx **77**

Xxxxxx X (xxxxxxx) **Xxxxxx xxx Xxxxxxxxxx xxxxx Xxxx** **78**
X.O Xxxxxxxxxx **78**

X.O Xxxxxxxxx xxx Xxxxxxxxxx xxx Xxxxxxxxxxxx (X_X) 78

Xxxxx

X.O Xxxxxxxxxx..... 78
X.O.O Xxxxxxxxxx..... 78
X.O.O Xxxxxxxxxxx..... 78
X.O.O Xxxxxxxxx(x) xxx Xxxxxxx xxx Xxxxxxxxxxxx..... 78
X.O Xxxxxxxxxxxx xxx Xxxxxxx..... 78
X.O.O Xxxxxxx xxxxx xxx xxxxx Xxxx xxx. xxxx Xxxxxxxxxxxxx xxxxxxxxxxx Xxxxxxx..... 78
X.O.O Xxxxxxxxxxxx xxx Xxxxxxx xxx Xxxxxxxxxxxxxxxxxxx xxxx -xxxxxxxxx..... 80
X.O Xxxxxxxxxxxxx xxx Xxxxxxx..... 80

Xxxxxx X (xxxxxxxx) **Xxxxxxx xxx Xxxxxxxxxx xxx Xxxxxxxxxxxxxxxxxxxx xxx xxxxxxxxxxx Xxxxxxxxxxxxxxxxxx (XXXX) 81**
X.O Xxxxxxxxxxx..... 81
X.O Xxxxxxxxxx..... 81
X.O Xxxxxxxxxxxx xxx Xxxxxxxxxxxxxxxx..... 81
X.O Xxxxxxx xxx Xxxxxxxxxx..... 81
X.O Xxxxxxxxxxxx..... 81
X.O.O Xxxxxxxxxxx xxx Xxxxxxxxxxxxx xxx Xxxxxxxxxxxxxxxx 81
X.O.O Xxxxxxxxxxxx xxx Xxxxxxxxxx xxx XXXX 82
X.O Xxxxxxxxxx xxx XXXX..... 83

Xxxxxx X (xxxxxxxxxx) **Xxxxxxxxxxxx xxx xxx Xxxxxxxxxxx 85**
X.O Xxxxxxxxxxx..... 85
X.O Xxx xxx Xxxxxxxxxxxx 85
X.O Xxxxxxxxxxxxx xxx xxx Xxxxxxxxxxx..... 85
X.O Xxxxxxxxxxxx xxx Xxx-Xxxxxxxxxxx, Xxxxxxxx xxx Xxxxxxxxxxxxxxxxxxxxxx..... 85
X.O Xxxxxxx- xxx Xxxxxxxxxxxxxx..... 86
X.O Xxxxxxx xxx Xxxxxxxxxxxxxxx xxx Xxxxxx 86
X.O Xxxxxxxxxx xxx Xxxxxxxxxx xxxx Xxxxxxxxx 86
X.O Xxxxxxxxxx xxxx xxx Xxxxxxxxxxx xxx Xxxxxxxx 87

Xxxxxx XX (xxxxxxxxxx) **Xxxxxxxxxx xxxxxx Xxxxxxxxxxx Xxxx, xxx xxx Xxxxxxxxxxx xxx XX-Xxxxxxxxxxxxxxxxxxxxx xxxxxxxxx 88**
XX.O Xxxxxxxxxxxxxxxx xxx xxxxxxxxx Xxxxxxxxxxxx..... 88
XX.O Xxxxxxxxx xxx Xxxxxxxxxxxxxxxxxxxxxxxx xxx Xxxxxxxxx 89
XX.O.O XX-Xxxxxxxxxxxxxxxxxxxxx xxx XX-Xxxxxxxxxxxxxxxxxxx..... 90
XX.O XX-Xxxxxxxxxxxx xxx Xxxxxxxxxxxx..... 91

Xxxxxx X (xxxxxxxxxx) **Xxxxxxxxxx xxxxxxxxx Xxxxxxxxx xxxxxxx xxxxxx Xxxxxxxxxxx Xxxx xxx xxx xxxxxxxxxxxx Xxxxxx..... 95**