

STN	Veľkopriestorové vodné kotly Časť 3: Navrhovanie a výpočet tlakových častí Oprava AC	STN EN 12953-3/AC 07 7605
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Shell boilers. Part 3: Design and calculation for pressure parts

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/24

Obsahuje: EN 12953-3:2016/AC:2024

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Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024
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v znení neskorších predpisov.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

**EN 12953-
3:2016/AC:2024**

July 2024

ICS 27.060.30; 27.100

English version

Shell boilers - Part 3: Design and calculation for pressure parts

Chaudières à tubes de fumée - Partie 3:
Conception et calcul des parties sous
pression

Großwasserraumkessel - Teil 3: Konstruktion
und Berechnung für drucktragende Teile

This corrigendum becomes effective on 3 July 2024 for incorporation in the official English version of the EN.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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EN 12953-3:2016/AC:2024 (E)**1 Modification to 12.1, Thickness of straight tubes subject to external pressure**

Replace the existing subclause 12.1 with the following:

“

12.1 Thickness of straight tubes subject to external pressure

The wall thickness $e_t - c_1$ (ordered nominal thickness minus tolerance) of straight tubes ≤ 170 mm nominal outside diameter, subjected to external pressure, shall be greater or equal than the maximum given by Formulae (65), (66) or Table 7.

$$e_{ct,el.} = d_0 \sqrt[3]{\frac{pS_2(1-\nu^2)}{2E}} + c_{2,red.} \quad (65)$$

$$e_{ct,pl.} = \frac{pd_0}{1,6f} + c_2 \quad (66)$$

where

- $e_{ct,el}$ required wall thickness of straight tubes with reference to elastic buckling
 $e_{ct,pl}$ required wall thickness of straight tubes with reference to plastic deformation
 $c_2 = 0,75$ mm allowance for metal wastage
 $c_{2,red} = 0,3$ mm reduced allowance for metal wastage effective on elastic buckling
 ν Poisson's ratio
 S_2 safety factor ($S_2 = 3,0$; see 13.1.3).

NOTE For ferritic steel the Poisson's ratio $\nu = 0,3$ can be used.

Table 7 — Minimum thickness of tubes

Dimensions in millimetres

Nominal outside diameter	Minimum thickness
	$e_t - c_1$
$d_0 \leq 26,9$	1,90
$26,9 < d_0 \leq 54,0$	2,20
$54,0 < d_0 \leq 76,1$	2,50
$76,1 < d_0 \leq 88,9$	2,80
$88,9 < d_0 \leq 114,3$	3,15
$114,3 < d_0 \leq 139,7$	3,50
$139,7 < d_0 \leq 168,3$	3,99

”.

