

## Ring seals and gaskets

**DIN**  
**7603**

ICS 23.040.80

Supersedes  
November 1994 edition.

Dichtringe

*In keeping with current practice in standards published by the International Organization for Standardization (ISO), a comma has been used throughout as the decimal marker.*

**Foreword**

This standard has been prepared by Technical Committee *Rohrverschraubungen* of the *Normenausschuss Rohrleitungen und Dampfkesselanlagen* (Pipelines and Pressure Vessels Standards Committee).

**Amendments**

This standard differs from the November 1994 edition as follows:

- a) The dimensions and mass of ring seals and gaskets which are not to be used for new designs are now dealt with in Appendix A.
- b) Dimension  $r_1$  has been specified for type C gaskets.
- c) Dimension  $d_1$  has been corrected for gaskets of nominal size  $21 \times 26$ .
- d) The specifications for service temperatures have been amended (cf. table 3).
- e) The standard has been editorially revised.

**Previous editions**

DIN 7603: 1936-07, 1941x-05, 1961-01, 1961-09, 1968-03, 1994-11.

All dimensions are in millimetres.

**1 Scope**

This standard specifies dimensions and materials for ring seals and flat or filled gaskets designed for use with compression couplings (e.g. as specified in DIN 3850 or DIN 7601) or pipe plugs (as specified in DIN 908).

**2 Normative references**

This standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the titles of the publications are listed below. For dated references, subsequent amendments to or revisions of any of these publications apply to this standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

DIN 908 Hexagon socket screw plugs with parallel screw thread

DIN 3850 Compression couplings – Overview

Continued on pages 2 to 10.

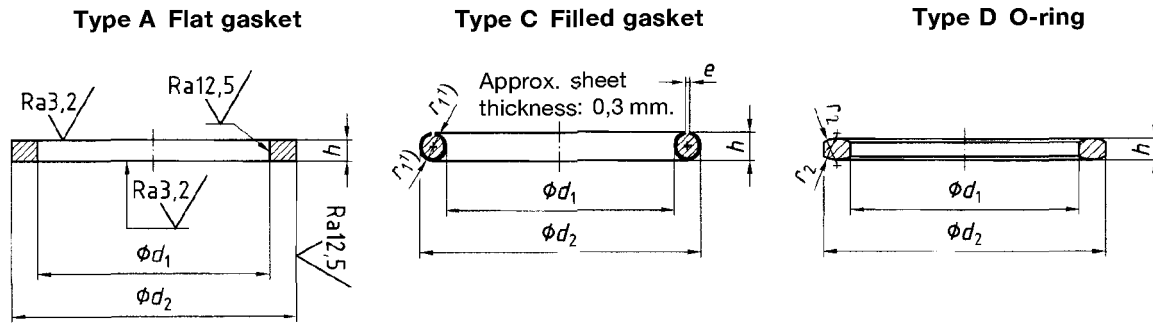
Translation by DIN-Sprachendienst.

In case of doubt, the German-language original should be consulted as the authoritative text.

DIN 7601                    Compression couplings with ball-type nipples – Overview  
DIN 7737                    Vulcanized fibre products – Types  
DIN EN ISO 6506-1        Metallic materials – Brinell hardness test – Part 1: Test method (ISO 6506-1 : 1999)

### 3 Dimensions and designation

The designs shown are for illustrative purposes only, but the dimensions of rings seals and gaskets shall be as specified.



1)  $r_1 = h/2$ .

Figure 1: Gasket and ring seal dimensions (notation)

Designation of a type A gasket (A) of nominal size 16 × 20, made of vulcanized fibre (Vf):

Gasket DIN 7603 – A 16 × 20 – Vf

Table 1: Gasket and ring seal dimensions

Nominal size	$d_1$	$d_2$	$e$ Maximum size	$h$						$r_2$
				Type A			Type C	Type D		
				Material						
				Al St Cu Vf Zn	FA	Prg	Pr	AIFA CuFA StFA	FA Al Cu Prg Pr St Vf, Zn	
<b>4 × 8</b>	4,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	7,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,2	1 ± 0,2	1 ± 0,2	0,5 ± 0,1	0,3	1,5 ± 0,2	1 ± 0,2	4
<b>5 × 7,5</b>	5,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	7,4 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,12							
<b>5,5 × 8</b>	5,7 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	7,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,12							
<b>6,5 × 9,5</b>	6,7 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	9,4 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,15							
<b>7 × 15<sup>1)</sup></b>	7,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	14,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	—	1,5 ± 0,2	—	—	—	—	—	—
<b>8 × 11,5</b>	8,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	11,4 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,17	1 ± 0,2	—	—	—	1,5 ± 0,2	1 ± 0,2	4
<b>10 × 13,5</b>	10,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	13,4 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,17							
<b>12 × 15,5</b>	12,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	15,4 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,17	1,5 ± 0,2	1,5 ± 0,15	0,5 ± 0,1	0,3	2 ± 0,3	1,5 ± 0,2	4
<b>12 × 16</b>	12,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	15,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,2							
<b>12 × 19<sup>1)</sup></b>	12,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	18,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	—							
<b>14 × 18</b>	14,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	17,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,2							
<b>14 × 20<sup>1)</sup></b>	14,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	19,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,3							
<b>15 × 19</b>	15,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	18,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,2							
<b>15 × 23<sup>1)</sup></b>	15,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	22,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	—							
<b>16 × 20</b>	16,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	19,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,2							
<b>17 × 21</b>	17,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	20,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,2							
<b>18 × 22</b>	18,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	21,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,2							
<b>20 × 24</b>	20,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	23,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,2	2 ± 0,2	2 ± 0,2	1 ± 0,15	0,3	2,5 ± 0,4	2 ± 0,3	6
<b>21 × 26</b>	21,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	25,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,25							
<b>22 × 27</b>	22,2 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	26,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,25							
<b>23 × 28</b>	23,3 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	27,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,25							
<b>24 × 29</b>	24,3 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	28,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,25							
<b>25 × 30</b>	25,3 $\begin{smallmatrix} +0,3 \\ 0 \end{smallmatrix}$	29,9 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	0,25							

1) These sizes are particularly suitable for use with air brakes (materials: Zn and Vf).

(continued)