
**Rims for agricultural, forestry and
construction machines**

*Jantes pour machines agricoles, engins forestiers et engins de
construction*

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*, Subcommittee SC 5, *Agricultural tyres and rims*.

This first edition of ISO 18804 cancels and replaces ISO 4251-3:2006, which has been technically revised.

Rims for agricultural, forestry and construction machines

1 Scope

This document specifies rim dimensions for rims for agricultural, forestry, and construction machines.

All dimensions in this document are given in millimetres and are applicable to the side of rim which is in contact with the tyre during the mounting and in service.

NOTE Terms used are in accordance with ISO 3911.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Rim diameter and circumferences

Nominal rim diameter codes, D_R , are shown in [Table 1](#) related to the specified rim diameter given in [Figure 1](#).

For rim diameter measurements, see [Annex A](#).

A tolerance of $\pm 1,2$ mm on the rim circumference is permitted.

Table 1 — Rim diameters

5° drop-centre rims

Dimensions in millimetres

Nominal rim diameter code D_R	Specified rim diameter ^a D
4	100,8
6	151,6
8	202,4
9 ^b	227,8
10	253,2
12	304,0
13 ^b	329,4
14	354,8
15	380,2
16	405,6
17 ^b	436,6
18	462,0
19 ^b	487,4
20	512,8
22	563,6
24	614,4
26	665,2
28	716,0
30	766,8
32	817,6
34	868,4
36	919,2
38	970,0
40	1 020,8
42	1 071,6
44	1 122,4
46	1 173,2
48	1 224,0
50	1 274,8
52	1 325,6
54	1 376,4

^a The specified rim diameters, D , in millimetres, are derived from the nominal rim diameter codes, D_R , as follows:

- a) $D_R > 16$, $D = 25,4 (D_R + 0,187 5)$;
- b) $D_R \leq 16$, $D = 25,4 (D_R - 0,031 25)$.

The values are rounded to 0,1 mm.

^b Value not recommended.

See [Annex B](#) for additional regionally recognized 5° diameter codes.

15° drop-centre rims

Dimensions in millimetres

Nominal rim diameter code D_R	Specified rim diameter D
19.5	495,3
22.5	571,5
24.5	622,3
26.5	673,1
30.5	774,7

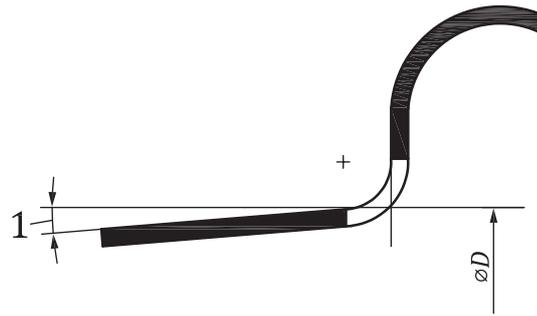
See [Annex C](#) for additional regionally recognized 15° diameter codes.

Flat base rims and full tapered bead seat rims

Dimensions in millimetres

Nominal rim diameter code D_R	Specified rim diameter D
20	514,4
25	635,0

See [5.8](#) and [5.9](#).

**Key**

1 bead taper

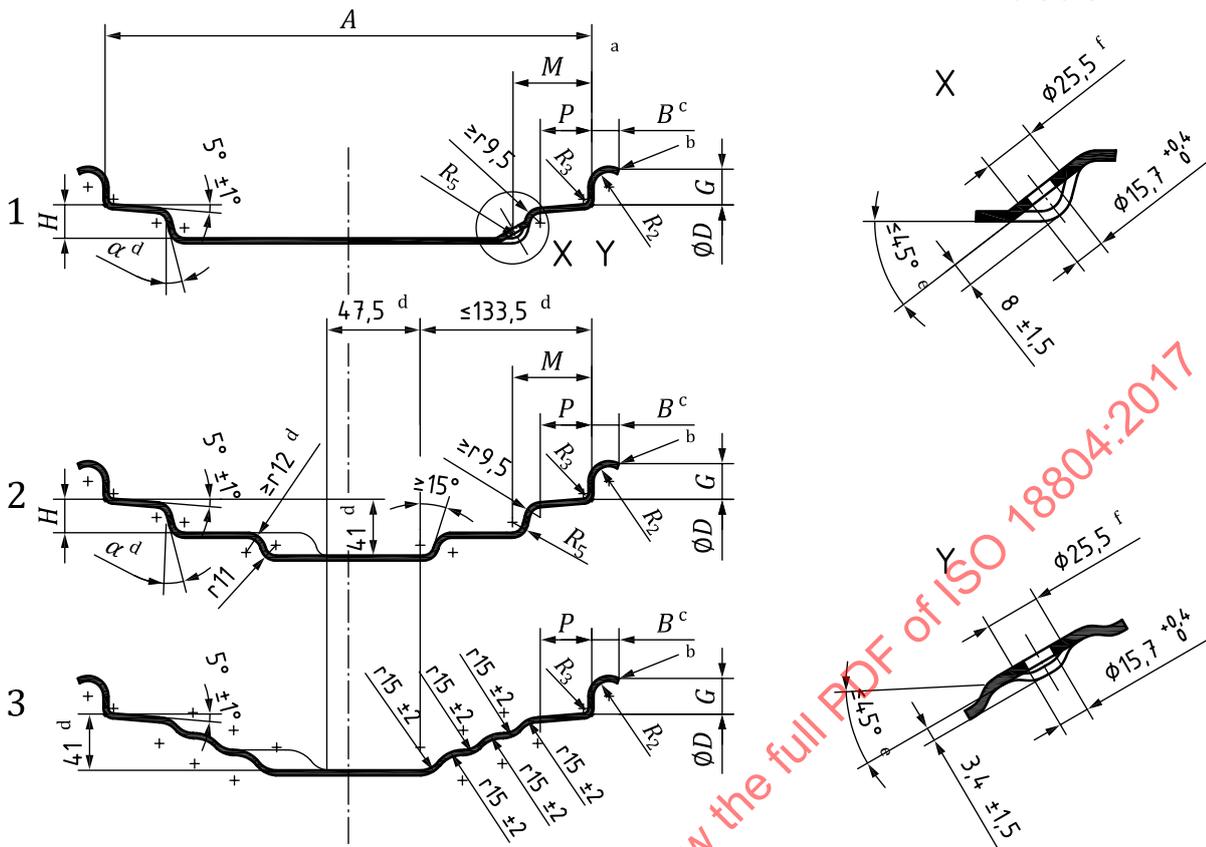
Figure 1 — Specified rim diameter**5 Rim contours and valve holes****5.1 Drop-centre W, DW and TW rims**

Dimensions and tolerances of drop-centre W, DW and TW rims (includes all suffixes, for example, DW-A) shall be as given in [Table 2](#) and shown in [Figure 2](#). For W-C rims, refer to [Annex B](#).

The valve hole shall have a diameter of 15,7 mm $\begin{matrix} +0,4 \\ 0 \end{matrix}$ and may be on either side of the rim.

The nominal valve seat angle is $30^\circ \pm 5^\circ$. To provide for valve-to-vehicle clearance, optional valve seat angles of 45° maximum are permissible. For any angle selected for a given rim, the tolerance is $\pm 5^\circ$.

Dimensions in millimetres



Key

- 1 W contour
- 2 DW contour
- 3 TW contour
- X valve hole detail (W and DW contour)
- Y valve hole detail (TW contour)
- a The tyre-mounting side is that side of the rim for which the dimension *M* is shown.
- b Break corner equivalent to *R* 0,5 min.
- c Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange. For suffix B (example: DW20B), the contour can either follow a continuation of *R*₂ to full width or, if conical shaped, a minimum 30° angle applies between the upper *G* horizontal reference line.
- d These dimensions comprise the minimum well envelope for tyre-mounting purposes.
- e For any angle selected for a given rim, the tolerance is ±5°.
- f Flat surface for valves.

EXAMPLE Dimensions *A*, *B*, *G*, *M*, *P*, *R*₂ and *R*₃ all apply to W, DW and TW contours; *H* and *R*₅ apply to W and DW contours.

Figure 2 — Contour W, DW and TW rims

Table 2 — Dimensions of W, DW and TW rims

Dimensions in millimetres

Rim width code	A		B min.	G ±1,0	H min.	M max.	P min.	R ₂	R ₃ max.	R ₅ max.	α min.		
	tol.												
W6	152,5	±2,5	10,0	22,5	20,5	44,5	23,5	9,5	6,5	11,0	6°		
W7	178,0											19,3	60,5
W7L													
W8	228,5		25,5	51,0		27,0	6°						
W8H								254,0	22,0		57,5	41,0	15,0
W8L	279,5		25,5	66,0		33,0	11,0						
W9								305,0	22,0		57,5	27,0	11,0
W10	330,0		16,0	66,0		41,0	15,0						
W10A								355,5	11,5		57,5	27,0	11,0
W10H	381,0		16,0	66,0		41,0	15,0						
W10L		406,5			11,5			57,5	33,0	11,0	6,5		
W11	432,0		16,0	66,0		41,0	15,0					8,0	
W11H		457,0			11,5			57,5	27,0	11,0	6,5		
W12	457,0		16,0	66,0		41,0	15,0					8,0	
W12A		457,0			11,5			57,5	33,0	11,0	6,5		
W13	457,0		16,0	66,0		41,0	15,0					8,0	
W13A		457,0			11,5			57,5	27,0	11,0	6,5		
W14L	457,0		16,0	66,0		41,0	15,0					8,0	
W15A		457,0			11,5			57,5	33,0	11,0	6,5		
W15L	457,0		16,0	66,0		41,0	15,0					8,0	
W16A		457,0			11,5			57,5	27,0	11,0	6,5		
W16L	457,0		16,0	66,0		41,0	15,0					8,0	
W17L		457,0			11,5			57,5	33,0	11,0	6,5		
W18A	457,0		16,0	66,0		41,0	15,0					8,0	
W18L		457,0			11,5			57,5	27,0	11,0	6,5		

NOTE 1 Where DW rims are specified, also the optional TW contour is allowed.

NOTE 2 Rim width guidelines:

- rim width codes to be in increments of 2.00 for width codes ≤ 48;
- rim width codes to be in increments of 4.00 for width codes > 48.

Table 2 (continued)

Rim width code	A		B	G	H	M	P	R ₂	R ₃	R ₅	α
	tol.	min.	±1,0	min.	max.	min.	max.	max.	max.	min.	
DW10	254,0	±2,5	11,5	25,5	20,5	54,0	27,0	11,0	6,5		
DW11	279,5										
DW12	305,0										
DW13	330,0	±5,0	11,5	29,0	27,0	63,5	36,5	11,0			
DW18	457,0										
DW14L	355,5										
DW15L	381,0										
DW16L	406,5										
DW17L	432,0										
DW18L	457,0	±5,0	16,0	25,5	20,5	66,0	41,0	15,0			
DW10A	254,0										
DW11A	279,5										
DW12A	305,0										
DW13A	330,0										
DW14A	355,5										
DW15A	381,0										
DW16A	406,5										
DW18A	457,0										
DW20A	508,0										
DW20B	533,5	21,0	29,0	27,0	95,5	50,5	41,0	15,0	8,0	14,5	15°
DW21A		16,0									
DW21B	584,0	21,0	29,0	27,0	95,5	50,5	41,0	15,0	8,0	14,5	15°
DW23A		16,0									
DW23B	609,5	21,0	29,0	27,0	95,5	50,5	41,0	15,0	8,0	14,5	15°
DW24A		16,0									
DW24B	635,0	21,0	29,0	27,0	95,5	50,5	41,0	15,0	8,0	14,5	15°
DW25A		16,0									
DW25B	686,0	21,0	29,0	27,0	95,5	50,5	41,0	15,0	8,0	14,5	15°
DW27A		16,0									
DW27B		21,0									

NOTE 1 Where DW rims are specified, also the optional TW contour is allowed.

NOTE 2 Rim width guidelines:

- rim width codes to be in increments of 2.00 for width codes ≤ 48;
- rim width codes to be in increments of 4.00 for width codes > 48.

Table 2 (continued)

Rim width code	A		B	G	H	M	P	R ₂	R ₃	R ₅	α
		tol.	min.	±1,0	min.	max.	min.		max.	max.	min.
DW28A	711,0		16,0								
DW28B			21,0								
DW30A	762,0		16,0								
DW30B			21,0								
DW31A	787,5		16,0								
DW31B			21,0								
DW36A	914,5		16,0								
DW36B			21,0								
DW44A	1 117,5		16,0								
DW44B			21,0								

NOTE 1 Where DW rims are specified, also the optional TW contour is allowed.

NOTE 2 Rim width guidelines:

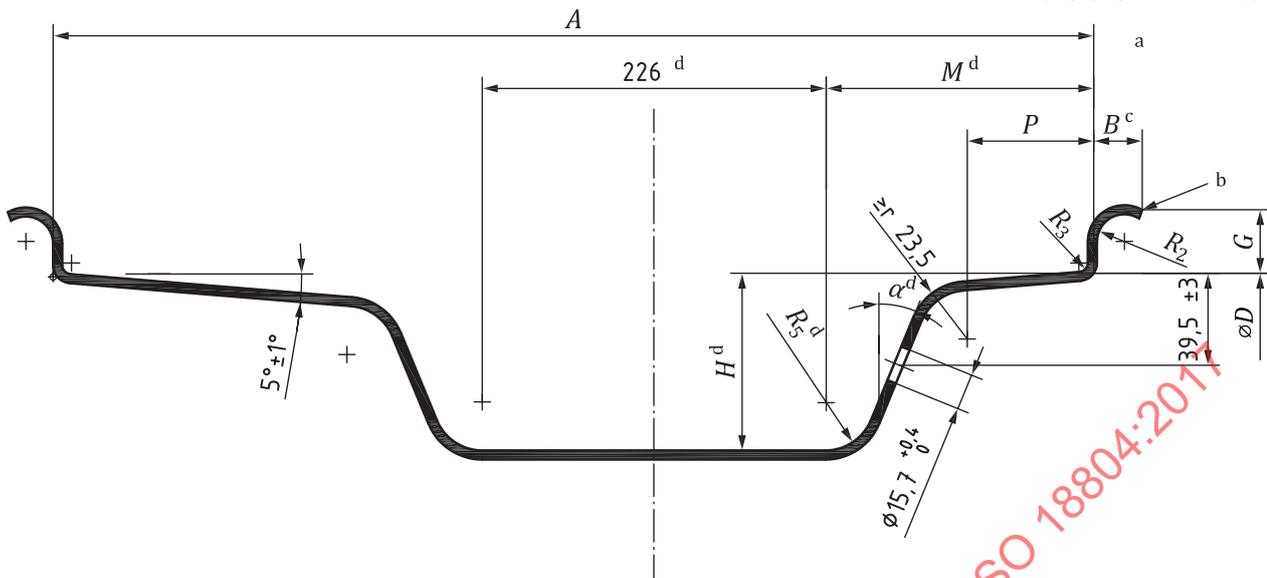
- rim width codes to be in increments of 2.00 for width codes ≤ 48;
- rim width codes to be in increments of 4.00 for width codes > 48.

5.2 Drop-centre DH rims

Dimensions and tolerances of drop-centre DH rims (includes all suffixes, for example, DH-H) shall be as given in [Table 3](#) and shown in [Figure 3](#).

The valve hole shall have a diameter of 15,7 mm $\begin{matrix} +0,4 \\ 0 \end{matrix}$ with location shown in [Figure 4](#).

Dimensions in millimetres



- a The tyre-mounting side is that side of the rim for which the dimension *M* is shown.
- b Break corner equivalent to *R* 0,5 min.
- c Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange. For suffix B, the contour can either follow a continuation of *R*₂ to full width or, if conical shaped, a minimum 30° angle applies between the upper *G* horizontal reference line.
- d These dimensions comprise the minimum well envelope for tyre-mounting purposes.

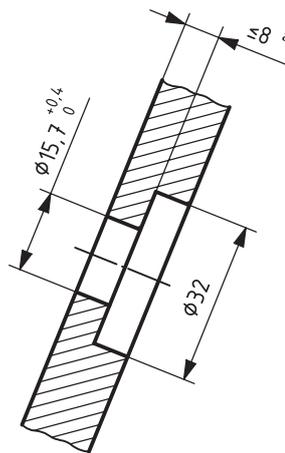
Figure 3 — Contour of DH rims

Table 3 — Dimensions of DH rims

Dimensions in millimetres

Rim width code	A	tol.	B min.	G ±1,0	H min.	M max.	P min.	R ₂	R ₃ max.	R ₅ max.	α min.
DH21	533,5	±6,5	16,0	29,0	69,0	121,0	54,0	15,0	8,0	22,0	22°
DH21H			21,0				60,0				
DH21HB			21,0				60,0				
DH27	686,0	±6,5	16,0	29,0	69,0	121,0	54,0	15,0	8,0	22,0	22°
DH27H			21,0				60,0				
DH27HB			21,0				60,0				
DH31	787,5	±6,5	16,0	29,0	69,0	121,0	54,0	15,0	8,0	22,0	22°
DH31H			21,0				60,0				
DH31HB			21,0				60,0				
DH36	914,5	±6,5	16,0	29,0	69,0	121,0	54,0	15,0	8,0	22,0	22°
DH36H			21,0				60,0				
DH36HB			21,0				60,0				
DH44	1 117,5	±6,5	16,0	29,0	69,0	121,0	54,0	15,0	8,0	22,0	22°
DH44H			21,0				60,0				
DH44HB			21,0				60,0				

Dimensions in millimetres



- ^a Maintain 8 max. dimension by counterboring on the weather side of the rim only.

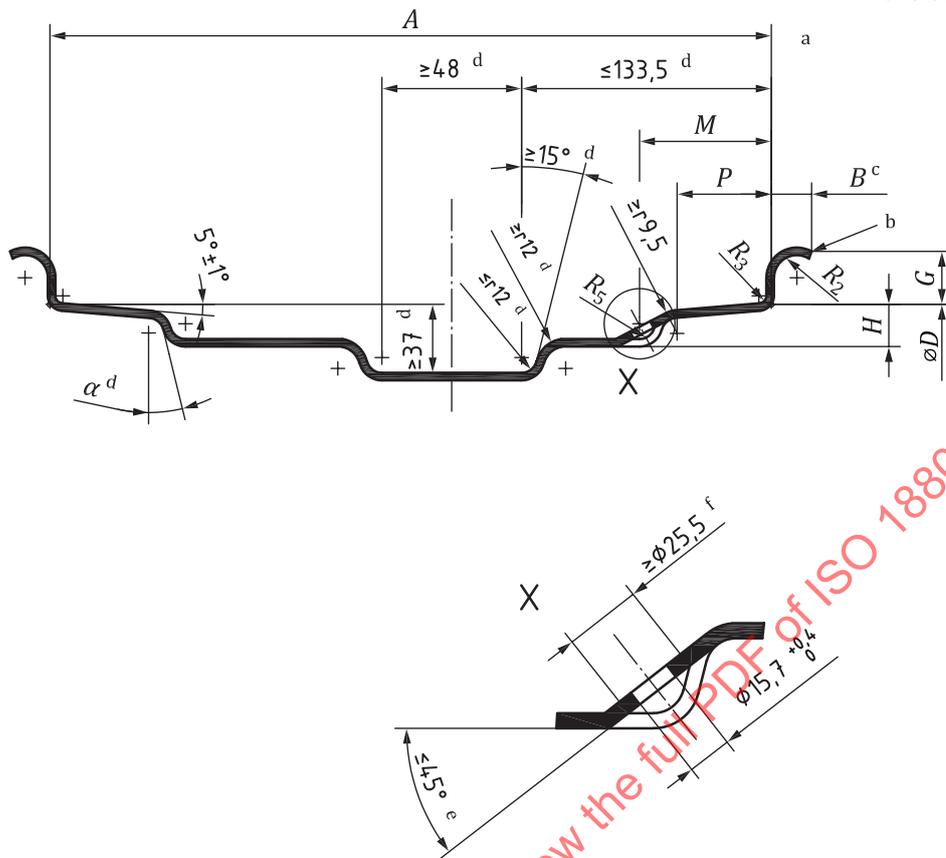
Figure 4 — Dimension of the valve holes in DH rims

5.3 Drop-centre MW rims

Dimensions and tolerances of drop-centre MW rims (includes all suffixes, for example, MW-A) shall be as given in [Table 4](#) and shown in [Figure 5](#).

The valve hole shall have a diameter of 15,7 mm $\begin{matrix} +0,4 \\ 0 \end{matrix}$ and may be on either side of the rim.

Dimensions in millimetres



- a The tyre-mounting side is that side of the rim for which the dimension *M* is shown.
- b Break corner equivalent to *R* 0,5 min.
- c Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange. For suffix B (example: MW23B), the contour can either follow a continuation of *R*₂ to full width or, if conical shaped, a minimum 30° angle applies between the upper *G* horizontal reference line.
- d These dimensions comprise the minimum well envelope for tyre-mounting purposes.
- e For any angle selected for a given rim, the tolerance is ±5°.
- f Flat surface for valves.

Figure 5 — Contour of MW rims

Table 4 — Dimensions of MW rims

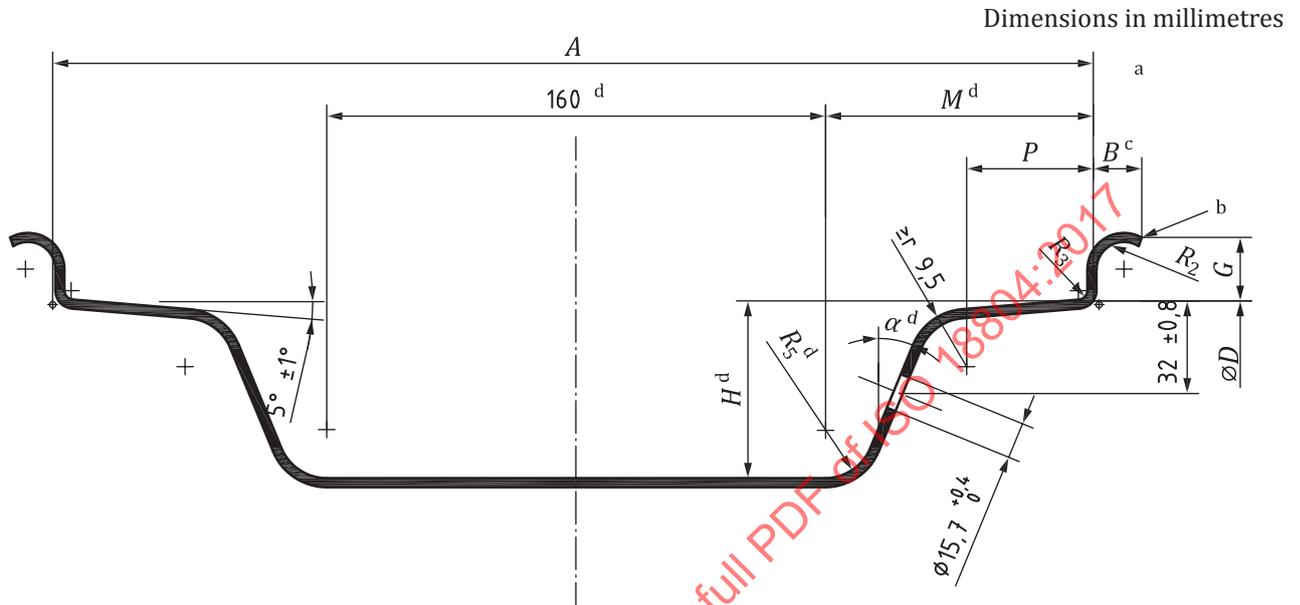
Dimensions in millimetres

Rim width code	A	tol.	B min.	G ±1,0	H min.	M max.	P min.	R ₂	R ₃ max.	R ₅ max.	α min.
MW20A	508,0	±6,5	16,0	29,0	19,0	95,5	50,5	15,0	8,0	14,5	15°
MW20B			21,0								
MW23A	584,0		16,0								
MW23B			21,0								
MW25A	635,0		16,0								
MW25B			21,0								
MW28A	711,0		16,0								
MW28B			21,0								

5.4 Drop-centre DD rims

Dimensions and tolerances of drop-centre DD rims shall be as given in Table 5 and shown in Figure 6.

The valve hole shall have a diameter of 15,7 mm $^{+0,4}_0$ and may be on either side of the rim.



- a The tyre-mounting side is that side of the rim for which the dimension *M* is shown.
- b Break corner equivalent to *R* 0,5 min.
- c Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange.
- d These dimensions comprise the minimum well envelope for tyre-mounting purposes.

Figure 6 — Contour of DD rims

Table 5 — Dimensions of DD rims

Dimensions in millimetres

Rim width code	<i>A</i>		<i>B</i> min.	<i>G</i> ±1,0	<i>H</i> min.	<i>M</i> max.	<i>P</i> min.	<i>R</i> ₂	<i>R</i> ₃ max.	<i>R</i> ₅ max.	<i>α</i> min.
	tol.										
DD16	406,5	±5,0	16,0	25,5	71,0	152,5	41,0	15,0	8,0	57,0	15°
DD18	457,0										

5.5 Other drop-centre rims

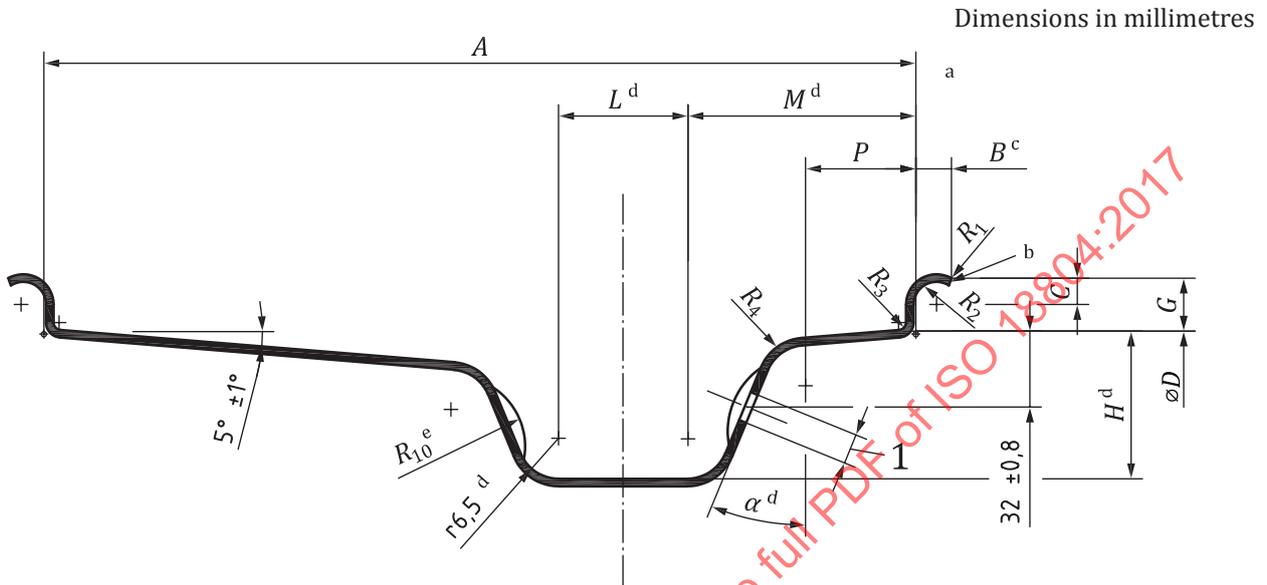
Dimensions and tolerances of other drop-centre rims shall be as given in Table 6 and shown in Figure 7.

The normal location of valve holes in these rims is shown in Figure 7. The valve hole may be on either side of the rim well. The valve hole diameter shall be:

- a) 15,7 mm $^{+0,4}_0$ for rims of nominal rim diameter code 15 and above;
- b) 11,3 mm $^{+0,4}_0$ for rims of nominal rim diameter code 14 and below.

An optional location of valve holes in rims of diameter code 15 and above (valve hole diameter $15,7 \text{ mm }^{+0,4}_0$) is shown in [Figure 8](#).

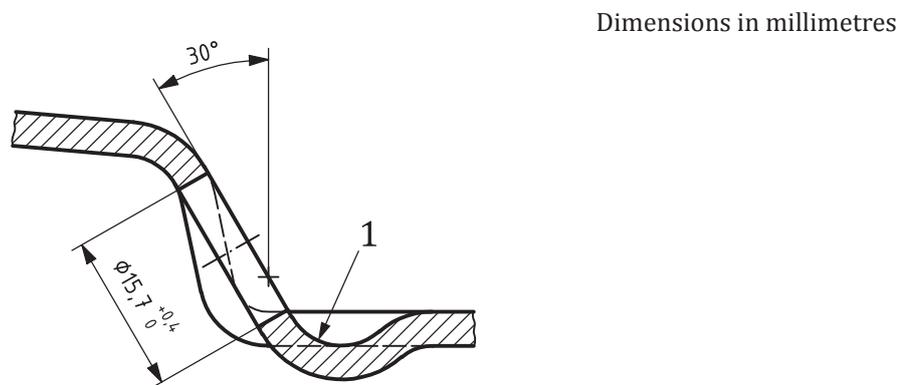
A valve hole in the corner of the well, as shown in [Figure 9](#), is an optional location and provides valve-to-vehicle clearance. Valve seat angles of 15° to 50° are permissible. For any angle selected for a given rim, the tolerance is $\pm 5^\circ$.



Key

- 1 valve hole
- a The tyre-mounting side is that side of the rim for which the dimension M is shown.
- b Break corner equivalent to $R 0,5 \text{ min}$.
- c Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange.
- d These dimensions comprise the minimum well envelope for tyre-mounting purposes.
- e Optional.

Figure 7 — Contour of other drop-centre rims

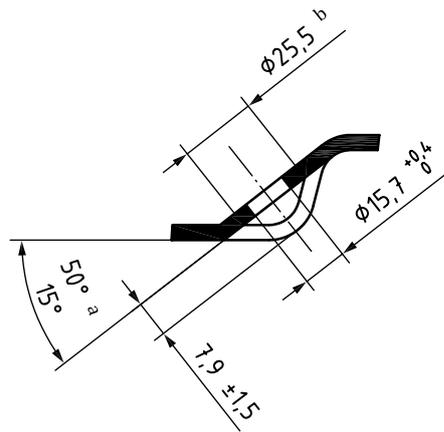


Key

- 1 local depression to clear valve head

Figure 8 — Optional location of 15,7 mm valve hole

Dimensions in millimetres



- a For any angle selected for a given rim, the tolerance is $\pm 5^\circ$.
- b Flat surface for valves.

Figure 9 — Location of valve hole in the corner of the well

Table 6 — Dimensions of other drop-centre rims

Dimensions in millimetres

Rim width code	A		B	G	H ^a	C	L	M	P	R ₁	R ₂	R ₃	R ₄	R ₁₀	α ^a	Valve hole
	tol.	min.	±1,0					max.	min.			max.	min.		min.	
2.50 A	63,5	±2,0	9,5	11,5	12,0	6,5	12,5	25,5	11,5	—	6,5	4,0	4,0	—	10°	See Figure 7 or 8
2.50 C			11,0	16,5	13,5	11,5		12,0	7,5	12,0	3,5	8,0	13,0	6,5	6,0	
3.00 D ^b	76,0	11,5	18,0	18,0	12,5	17,5	29,0	14,0	14,0	—	9,0					
3.50 D	89,0	19,0	34,0	15,5	19,0	23,0	38,5	17,5				—	8,0	5,5	6,0	
3.75 I	95,5	10,0	16,0	22,0	9,0	25,0	35,0	14,0	8,5	14,0	6,5					
4.00 E	101,5	12,5	20,0	19,0	13,5	19,0		42,0				20,5	—	10,5	6,5	
4 JA		8,5	16,0		8,0	23,0	38,5	17,5	22,0	40,0	8,5	14,0				
4.25 KA	108,0	9,5	20,0	26,0	10,5	22,0	42,0	20,5					—	10,5	6,5	
4.50 E	114,5	12,5		23,0	13,5		21,0	47,0	19,5	—	10,5	6,5				
4 1/2 K		12,0	20,0	10,5	22,0	45,0		19,5					—	10,5	6,5	
4 1/2 KB	10,0	13,0	22,5	26,0	14,5	25,0	54,0		23,5	9,5	15,5	6,5				
5.00 F	127,0	8,5	16,0	19,0	8,0	48,0	38,5	17,5	—	8,0	5,5		6,0	4,0	15°	
5 JA		12,0	20,0	20,0	10,5	21,0	47,0	19,5				—				10,5
5 K	10,0	13,0		22,5	26,0	14,5	25,0		54,0	23,5	9,5		15,5	6,5	6,0	
5 KB	139,5	12,0	20,0	20,0	10,5	21,0	47,0	19,5	6,5	10,5	7,0	6,0	4,0			10°
5 1/2 K	10,0	13,0	22,5		26,0	14,5	25,0							54,0	23,5	
5 1/2 KB	±2,5	13,0	22,5	26,0	14,5	25,0	54,0	23,5	9,5	15,5	6,5	6,0	6,0	15°	10°	
6.00 F	152,5	±2,0	10,0	19,5	20,0	11,0	28,5	48,5	25,0	7,0	12,0	6,5	4,0	—		15°
6 KB		±2,5	10,0	22,0	27,0		28,5	48,5	25,0	7,0	12,0	6,5			6,5	
6 L	12,5	10,0	20,5	31,0	8,0	99,0	38,5	17,5	—	8,0	5,5	6,5	4,0	15°		10°
6 LB	±2,5	12,0	20,5	31,0	8,0	99,0	38,5	17,5							—	
7.00	178,0	±2,0	8,5	16,0	19,0	8,0	99,0	38,5	17,5	—	8,0	5,5	6,5	4,0		15°
7 JA		±2,5	19,5	20,0	11,0	25,0	45,0	19,5	6,5						10,5	
7 KB	±2,0	22,0	27,0	11,0	28,5	54,0	25,0	7,0	12,0	6,5	6,5	4,0	10°	15°		
7 LB	±2,5	19,5	20,0		11,0	25,0	45,0	19,5	6,5	10,5					7,0	6,5
8 KB	203,0	±2,0	22,0	27,0	11,0	28,5	54,0	25,0	7,0	12,0	6,5	6,5	4,0	10°	15°	
8 LB	±2,5	8,5	16,0	19,0		8,0	138,0	38,5	17,5	—	8,0					5,5
8 1/2 JA	±2,0	10,0	25,5	31,0	11,0	60,0	65,0	31,5	—			11,0	6,5	6,5	4,0	
9	±2,5	10,0	25,5	31,0	11,0	60,0	65,0	31,5		—	11,0					6,5
9 1/2 JA	±2,0	8,5	16,0	19,0	8,0	163,0	38,5	17,5	—			8,0	5,5	6,5	4,0	
10 LB	±2,5	10,0	22,0	27,0	11,0	28,5	54,0	25,0		7,0	12,0					6,5
10 1/2 JA	±2,0	8,5	16,0	19,0	8,0	99,0	38,5	17,5	—	8,0	5,5	6,5	4,0	10°	15°	
11	±2,5	10,0	25,5	31,0	11,0	60,0	65,0	31,5								—
12 LB	±2,0	12,0	19,0	31,0	11,0	61,0	65,0	30,0	—	11,0	6,5	6,5	4,0	10°	15°	
13	±2,5	10,0	22,0	27,0		12,0		28,5								54,0
13 LB	±2,0	12,0	25,5	31,0	11,0	90,0	65,0	31,5	—	11,0	6,5	6,5	4,0	10°	15°	
14	±2,5	10,0	22,0	27,0		12,0		28,5								54,0
14	±2,5	12,0	25,5	31,0	11,0	90,0	65,0	31,5	—	11,0	6,5	6,5	4,0	10°	15°	

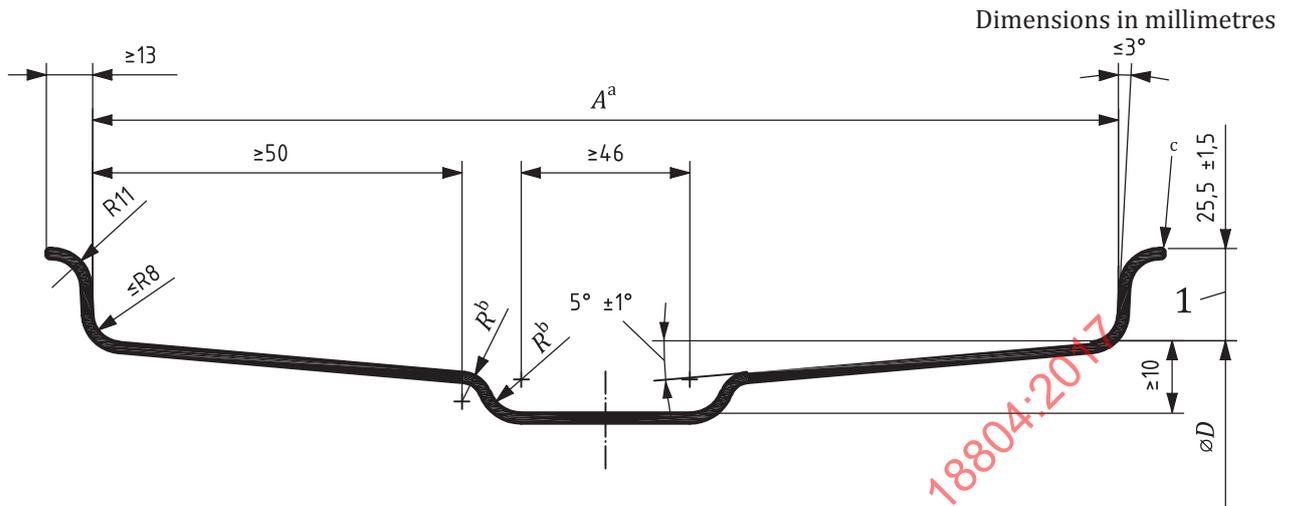
^a Larger values may be required to ensure sufficient space for tubeless tyre valve seating.

^b For rim width codes 3.00 B, 4 J, 4 1/2 J and 5 1/2 J, see ISO 4000-2.

5.6 Semi-drop-centre rims (multi-piece)

Dimensions and tolerances of semi-drop-centre rims shall be as given in Table 7 and shown in Figure 10.

The location of valve holes is shown in [Figure 11](#).



Key

- 1 flange and bead seat removable on one side of rim
- a Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange.
- b Unspecified radius.
- c Break corner equivalent to $R\ 0,5\ \text{min}$.

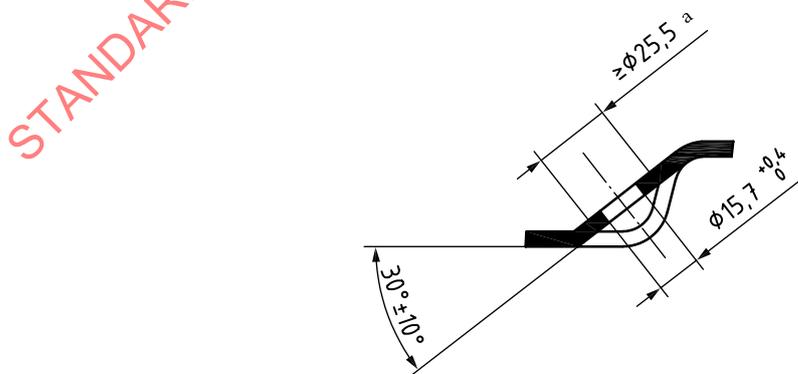
Figure 10 — Contour of semi-drop-centre rims (multi-piece)

Table 7 — Dimensions of semi-drop-centre rims (multi-piece)

Dimensions in millimetres

Rim width code	A	
		tol.
11	279,5	±5,0
12	305,0	±6,5
13	330,0	

Dimensions in millimetres



- a Flat surface for valves.

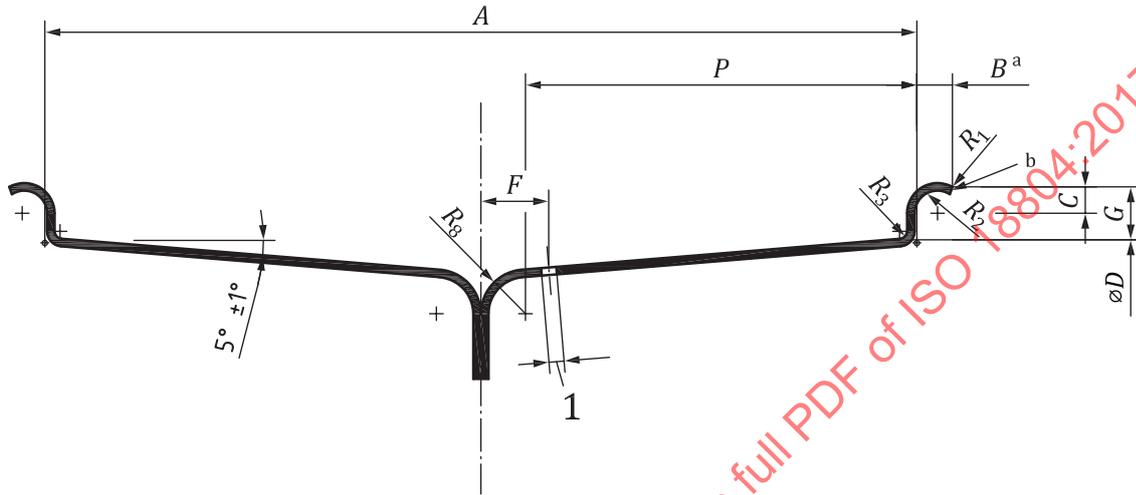
Figure 11 — Location of valve holes in semi-drop-centre rims

5.7 Divided rims

Dimensions and tolerances of divided rims shall be as given in Table 8 and shown in Figure 12.

The location of valve holes is shown in Figure 12. The valve hole diameter shall be:

- a) 15,7 mm $^{+0,4}_0$ for rims of nominal rim diameter code 15 and above;
- b) 11,3 mm $^{+0,4}_0$ for rims of nominal rim diameter code 14 and below.



Key

- 1 valve hole
- a Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange.
- b Break corner equivalent to R 0,5 min.

Figure 12 — Contour of divided rims

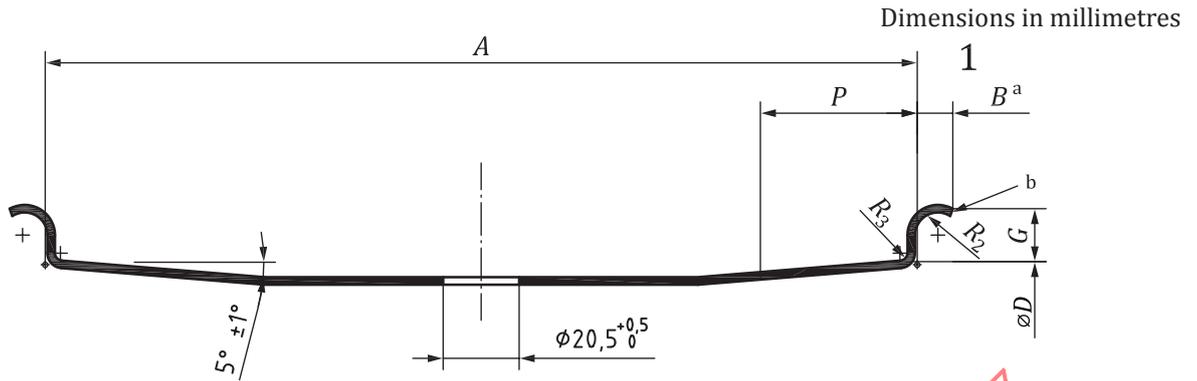
Table 8 — Dimensions of divided rims

Dimensions in millimetres

Rim width code	A $\pm 2,0$	B min.	G $\pm 1,0$	C	P min.	R ₁	R ₂	R ₃ max.	R ₈ max.	F min.	F max.
2.50 C	63,5	11,0	16,5	11,5	12,0	7,5	12,0	6,5	5,0	9,0	14,0
3.00 D	76,0	11,5	18,0	12,5	14,0	8,0	13,0		10,0	11,0	
4.00 E	101,5	12,5	20,0	13,5	25,0	8,5	14,0		12,0	16,0	
5.00 F	127,0	13,0	22,5	14,5	23,5	9,5	15,5		12,0	11,0	21,0
5.50 F	139,5								20,0	26,0	
5 1/2 K		12,0	20,0	10,5	19,5	—	10,5		9,5	13,0	17,5
6.00 F		152,5	13,0	22,5	14,5	23,5	9,5		15,5	12,0	20,0

5.8 5° and 3° flat base rims (multi-piece) — DWM, VF and HF

Dimensions and tolerances of flat base rims shall be as given in Tables 9, 10, and 11 and shown in Figures 13, 14 and 15.



Key

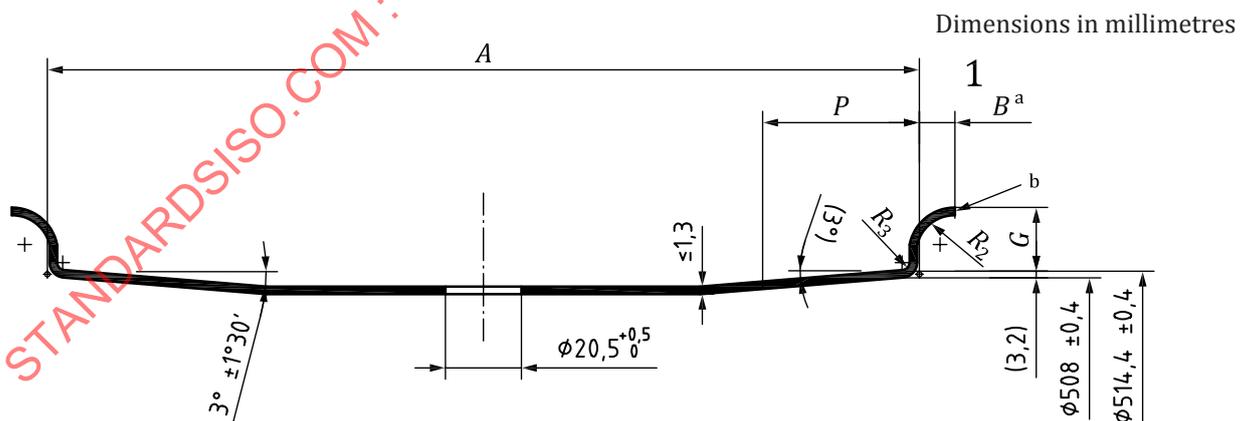
- 1 flange and bead seat removable on this side of rim
- a Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange. The contour can either follow a continuation of R_2 to full width or, if conical shaped, a minimum 30° angle applies between the upper G horizontal reference line.
- b Break corner equivalent to $R\ 0,5$ min.

Figure 13 — Contour of flat base DWM rims

Table 9 — Dimensions of flat base DWM rims

Dimensions in millimetres

Rim width code	A	tol.	B min.	G $\pm 1,0$	P min.	R_2	R_3 max.
31DWM	787,5	$\pm 6,5$	21,0	29,0	59,7	15,0	8,0
36DWM	914,5						
44DWM	1 117,5						



Key

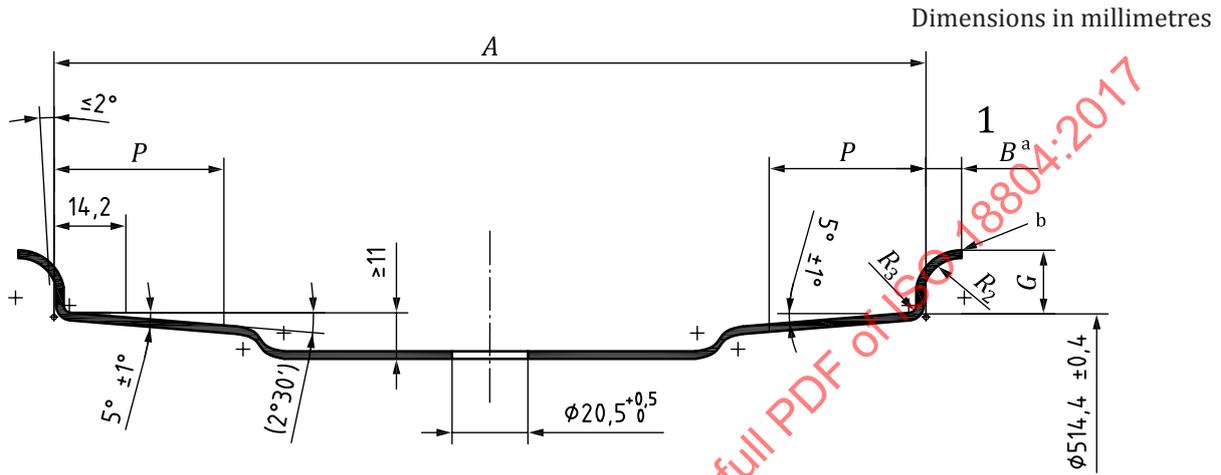
- 1 flange and bead seat removable on this side of rim
- a Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange.
- b Break corner equivalent to $R\ 0,5$ min.

Figure 14 — Contour of flat base VF rims

Table 10 — Dimensions of flat base VF rims

Dimensions in millimetres

Run with code	A		B	G	P	R ₂	R ₃
		tol.	min.	±1,2	min.		max.
20.50VF	520,5	±3,2	25,5	44,5	45,7	27,0	8,0
26.00VF	660,5						
36.00VF	914,5						



Key

- 1 flange and bead seat removable on this side of rim
- a Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange.
- b Break corner equivalent to R 0,5 min.

Figure 15 — Contour of flat base HF rims

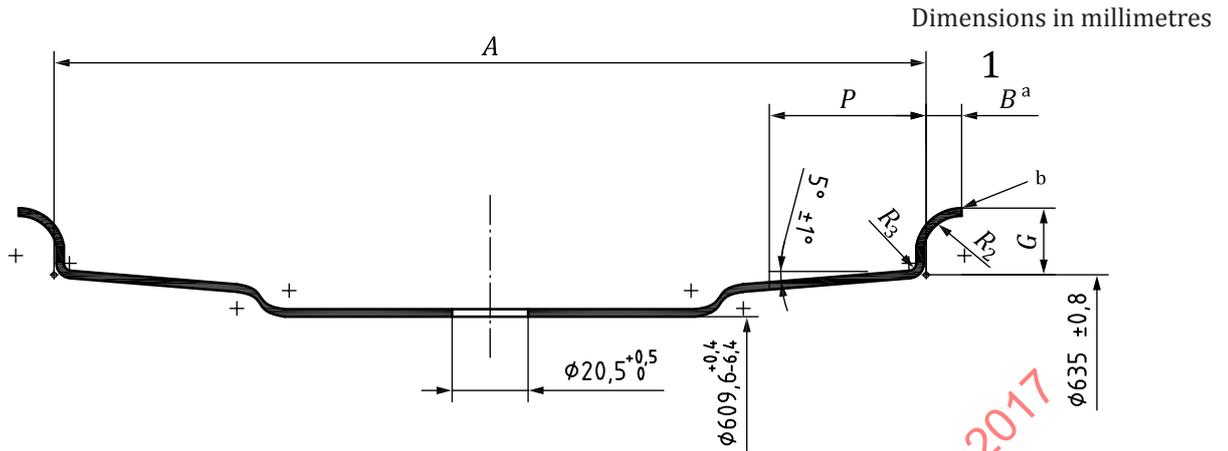
Table 11 — Dimensions of flat base HF rims

Dimensions in millimetres

Rim width code	A		B	G	P	R ₂	R ₃
		tol.	min.	± 1,2	min.		max.
10.00HF	254,0	±3,2	24,6	43,2	59,7	22,9	8,0
20.50HF	520,5						
26.00HF	660,5						
36.00HF	914,5						

5.9 Full tapered bead seat rims (multi-piece) — TH

Dimensions and tolerances of full tapered bead seat rims shall be as given in [Table 12](#) and shown in [Figure 16](#).



Key

- 1 flange and bead seat removable on this side of rim
- a Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange.
- b Break corner equivalent to $R\ 0,5$ min.

Figure 16 — Contour of full tapered bead seat rims

Table 12 — Dimensions of full tapered bead seat rims

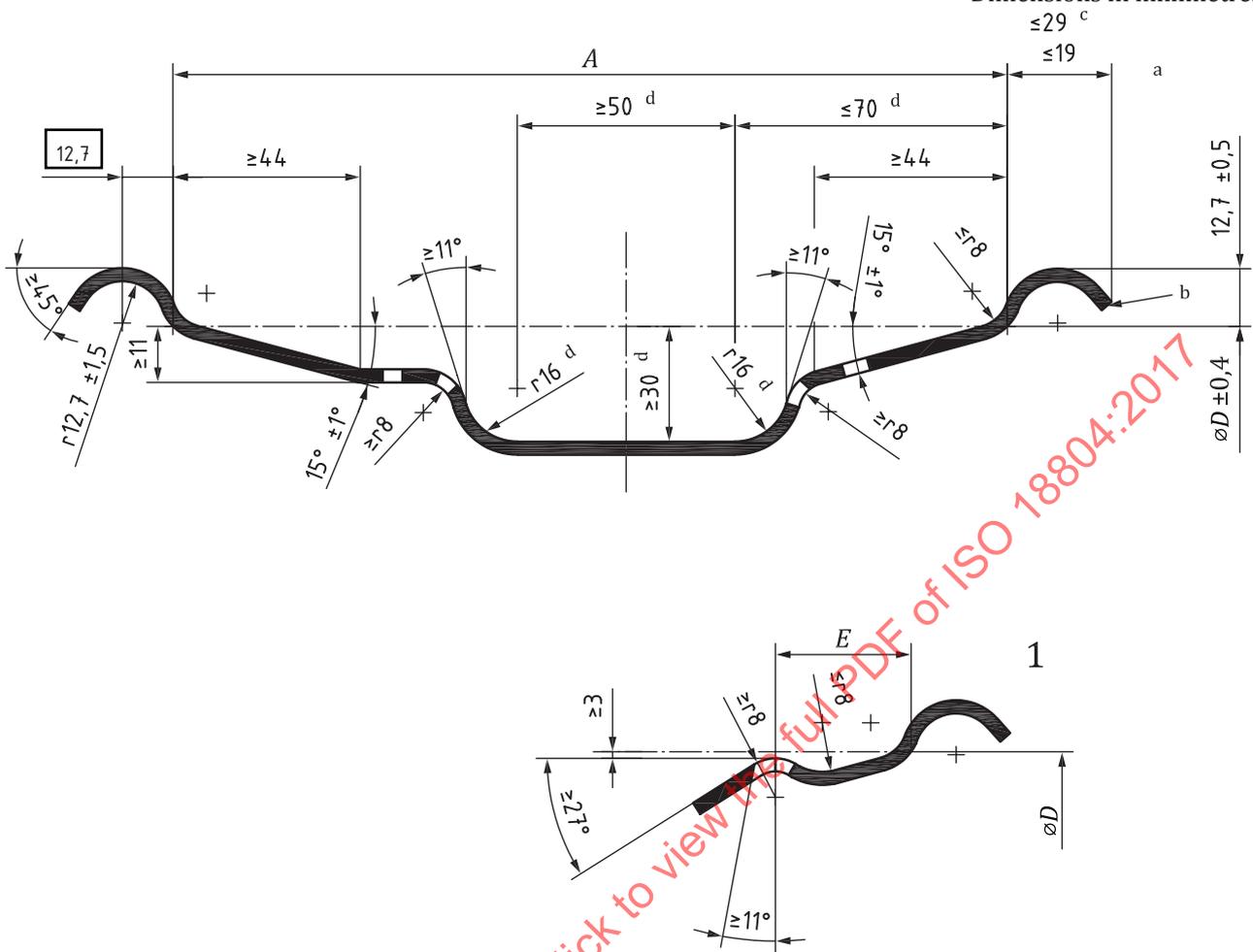
Dimensions in millimetres

Rim width code	A		B	G	P	R ₂	R ₃
		tol.	min.	±1,2	min.		max.
30.0TH	762,0	±6,4	27,2	38,1	59,7	25,4	8,0
36.0TH	914,5						

5.10 AG 15° drop-centre rims

Dimensions and tolerances of AG 15° drop-centre rims shall be as given in [Table 13](#) and shown in [Figure 17](#).

Dimensions in millimetres



Key

- 1 optional hump contour
- a The tyre-mounting side is that side of the rim for which the dimension 70 max. is shown.
- b Break corner equivalent to $R 0,5$ min.
- c Flange width includes edge radius.
- d These dimensions comprise the minimum well envelope for tyre-mounting purposes.

Figure 17 — Contour of AG 15° drop-centre rims

Table 13 — Dimensions of AG 15° drop-centre rims

Dimensions in millimetres

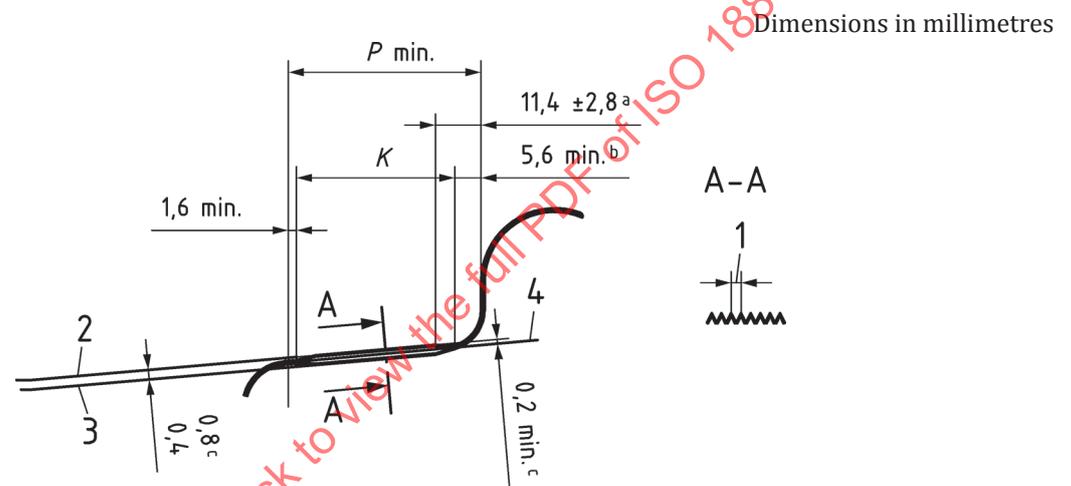
Width code	Nominal diameter codes	Rim width $A \pm 5,0$	Optional hump location E
AG11.75	22.5	298,5	32 min.
AG13.00	26.5	330	36 min.
AG16.00	22.5, 26.5	406,5	
AG20.00	22.5, 24.5, 26.5, 30.5	508	
AG22.00	22.5, 24.5, 26.5, 30.5	559	
AG24.00	22.5, 24.5, 26.5, 30.5	609,5	
AG28.00	26.5, 30.5	711	

H2 marking to follow the rim width code designation when optional humps are added (for example, "AG16.00H2").

6 Rim knurling

Transverse knurling on bead seats is shown in [Figure 18](#) for W, DW, TW, DH, MW, DD, and DWM rims. The following specifications apply. Pitch of knurling shall be 1,6 to 3,2.

Rim width code	Rim diameter code	
	<24	24 and >
<14	Optional	Optional
14 and >	Optional	Mandatory



Key

- 1 knurl pitch
- 2 knurl crest
- 3 knurl root
- 4 bead seat surface
- K* full knurl width
- a* To full knurl height.
- b* To knurl lead-in taper.
- c* Knurl crest shall not be below bead seat surface.

<i>P</i> min.	Full knurl width <i>K</i> min.
<33	10,2
33 to 41,3	20,6
>41,3	25,4

Figure 18 — Rim knurling

Annex A (normative)

Rim diameter measurements

Rim diameter measurements shall be performed using a ball tape checked on a mandrel (see [Figure A.1](#)). The ball diameter should usually be 16 mm. Ball sizes other than 16 mm may be used if a suitable alteration to the mandrel diameter and circumference dimensions is made (see [Table A.1](#)). It will be left to the discretion of the individual national standards organization whether the mandrel shall have nominal or maximum circumference.

Table A.1 — Mandrel dimensions

Dimensions in millimetres

Nominal rim diameter code D_R	Nominal mandrel diameter D_M	Nominal mandrel circumference ^a U_M	Maximum mandrel diameter $D_{M,max}$	Maximum mandrel circumference ^b $U_{M,max}$
5° drop-centre rims				
4 ^c	100,14	314,6	100,52	315,8
6 ^c	150,94	474,2	151,32	475,4
8	201,07	631,7	201,45	632,9
9	226,47	711,5	226,85	712,7
10	251,87	791,3	252,25	792,5
12	302,67	950,9	303,05	952,1
13	328,07	1 030,7	328,45	1 031,9
14	353,47	1 110,5	353,85	1 111,7
15	378,87	1 190,2	379,25	1 191,4
16	404,27	1 270,1	404,65	1 271,2
17	435,22	1 367,3	435,60	1 368,5
18	460,62	1 447,1	461,00	1 448,3
19	486,02	1 526,9	486,40	1 528,1
20	511,42	1 606,7	511,80	1 607,9
22	562,22	1 766,3	562,60	1 767,5
24	613,02	1 925,9	613,40	1 927,1
25	634,09	1 992,1	634,49	1 993,3
26	663,82	2 085,5	664,20	2 086,7
28	714,62	2 245,1	715,00	2 246,3
30	765,42	2 404,6	765,80	2 405,8
32	816,22	2 564,2	816,60	2 565,4
34	867,02	2 723,8	867,40	2 725,0
36	917,82	2 883,4	918,20	2 884,6
38	968,62	3 043,0	969,00	3 044,2
^a $U_M = D_M \times 3,141\ 59$. ^b $U_{M,max} = U_M + 1,2$. ^c Ball size of 8 mm diameter.				

Table A.1 (continued)

Nominal rim diameter code	Nominal mandrel diameter	Nominal mandrel circumference ^a	Maximum mandrel diameter	Maximum mandrel circumference ^b
D_R	D_M	U_M	$D_{M,max}$	$U_{M,max}$
40	1 019,42	3 202,6	1 019,80	3 203,8
42	1 070,22	3 362,2	1 070,60	3 363,4
44	1 121,02	3 521,8	1 121,40	3 523,0
46	1 171,82	3 681,4	1 172,20	3 682,6
48	1 222,62	3 841,0	1 223,00	3 842,2
50	1 273,42	4 000,6	1 273,80	4 001,8
52	1 324,22	4 160,2	1 324,60	4 161,4
54	1 375,02	4 319,7	1 375,40	4 320,9
15° drop-centre rims				
19.5	492,12	1 546	492,52	1 547,2
22.5	568,32	1 785,4	568,72	1 786,6
24.5	619,12	1 945,0	619,52	1 946,2
26.5	669,92	2 104,6	670,32	2 105,8
30.5	771,52	2 423,8	771,92	2 425,0
^a $U_M = D_M \times 3,141\ 59$. ^b $U_{M,max} = U_M + 1,2$. ^c Ball size of 8 mm diameter.				

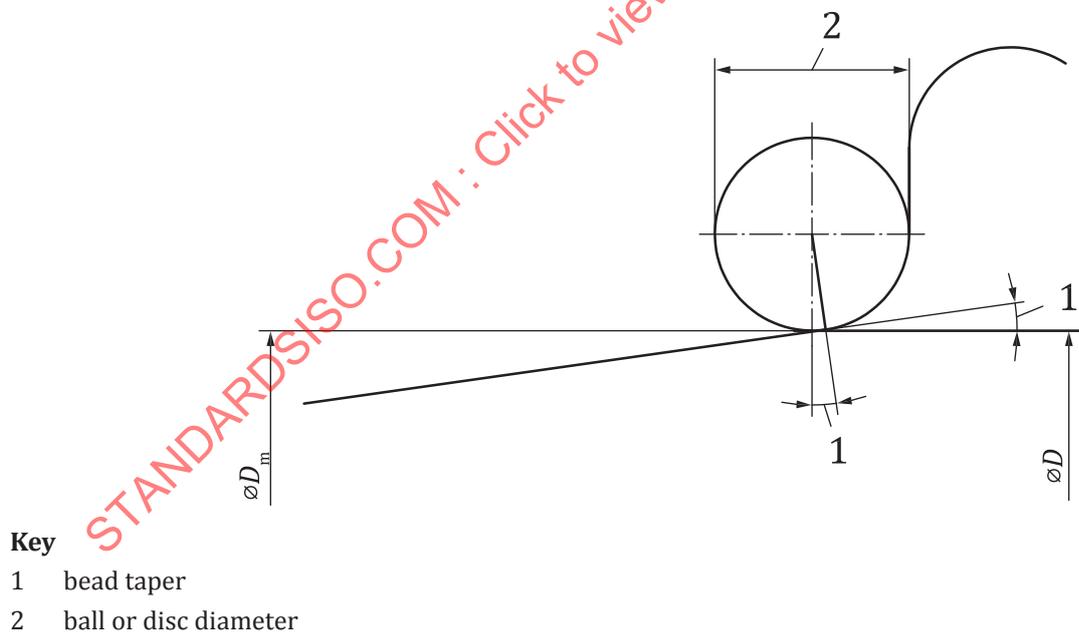


Figure A.1 — Specified rim diameter and mandrel diameter