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Foreword

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Amendment 1 to ISO 286-2:1988 was prepared by Technical Committee ISO/TC 213, *Dimensional and geometrical product specifications and verification*, Subcommittee SC 1.

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Introduction

The new edition of ISO 286-1 “Geometrical product specification (GPS) - ISO system of limits and fits - Part 1: Basis of tolerances, deviations and fits” influences the content of ISO 286-2 “ISO system of limits and fits - Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts” in the clauses and tables as indicated in this amendment.

This amendment also covers the content of ISO 286-2:1988/Cor.1:2006.

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ISO system of limits and fits —

Part 2:

Tables of standard tolerance grades and limit deviations for holes and shafts

AMENDMENT 1

Page 1, 0 Introduction

In the 2nd paragraph "... basic size..." is replaced by: "... nominal size ..."

In the 3rd paragraph delete at the end of the sentence: "firstly at the industrial international level".

Page 1, Clause 1 Scope

In the first sentence 2nd line delete: "(zones)"

In the text 3rd line "... the information ..." is replaced by: "... the tables ..."

In the second sentence "... upper deviations ..., ... lower deviations ..." is replaced by:

"... upper limit deviations ..., ... lower limit deviations ..."

In the text of the note "... upper deviations ... lower deviations ..." is replaced by:

"... upper limit deviations ... lower limit deviations ..."

Page 1, Clause 2 Field of application

The 2nd paragraph "It should be noted that ...variety of requirements" is replaced by:

For simplicity and also because of the importance of cylindrical workpieces of circular sections, only these are referred to explicitly. It should be clearly understood however, that the tolerances and deviations given in this International Standard equally apply to workpieces of other than circular sections.

In particular the term "hole" or "shaft" can be taken as referring to the space contained by the two parallel opposite features of the feature of size of any workpiece such as the width of a slot or the thickness of a key.

The figure is replaced by the following:

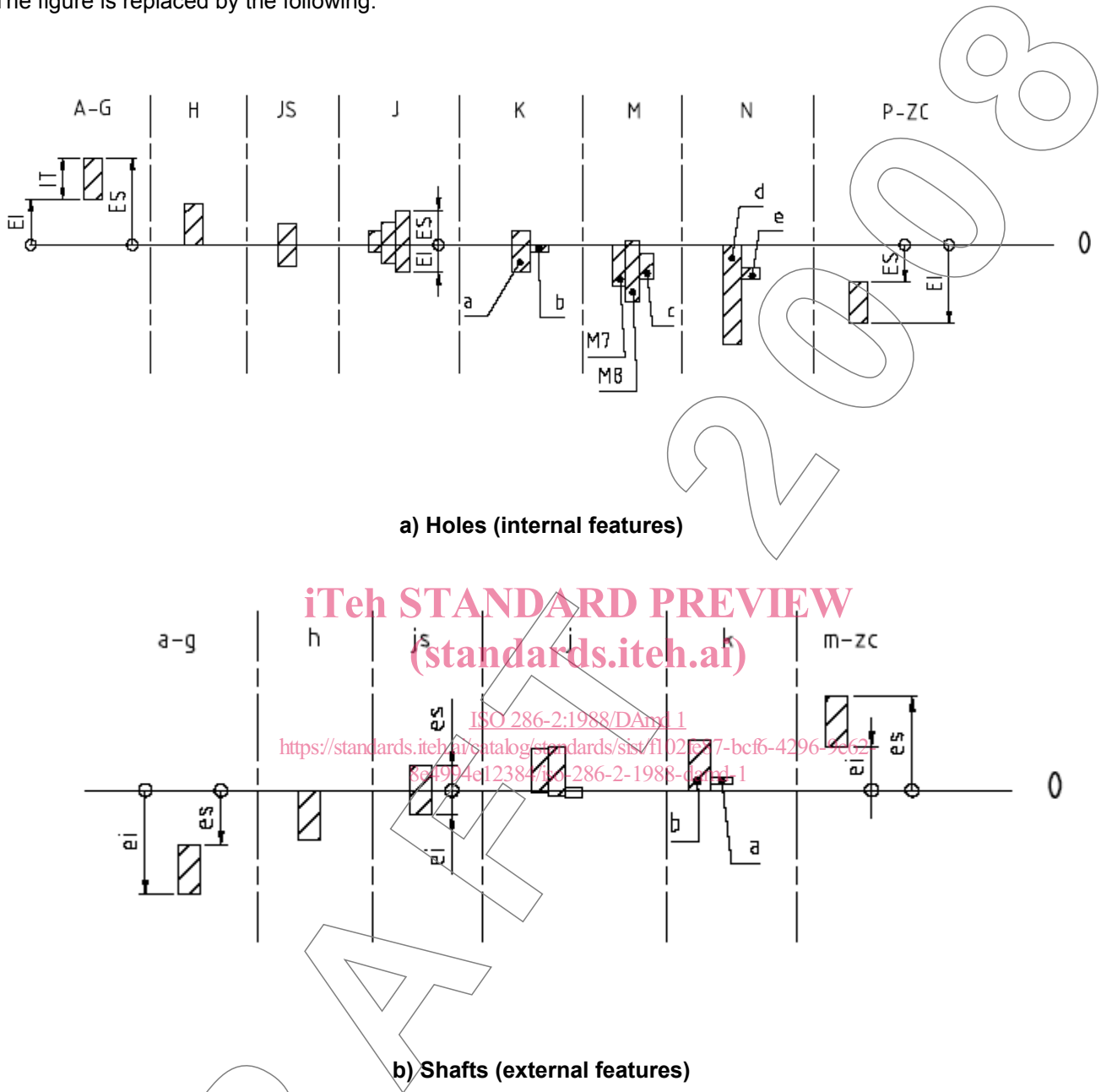


Figure 1 — Upper and lower deviations

Page 2, Clause 3 References

The title “References” is replaced by: “Normative references”

Replace the title of ISO 286-1 by “Geometrical product specification (GPS) - ISO system of limits and fits - Part 1: Basis of tolerances, deviations and fits”

Delete the reference to ISO 1829.

Note The content of ISO 1829 is included in the new edition of ISO 286-1.

Page 2, Clause 4 Standard tolerances

In the first paragraph “IT1” is replaced by “IT01”

The 2nd paragraph is replaced by: “For further information on the system and its application see part 1 of this standard.”

Page 2, Clause 5 Limit deviations for holes

The end of the 2nd paragraph “... given in ISO 1829.” is replaced by: “... given in ISO 286-1 Clause 4.5 and 5.

Note - the end of the 1st sentence “... basic size steps.” is replaced by: “... nominal size steps.”

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Page 2, Clause 6 Limit deviations for shafts

The end of the 2nd paragraph “... given in ISO 1829.” is replaced by: “... given in ISO 286-1 Clause 4.5 and 5.

Note - the end of the 1st sentence “... basic size steps.” is replaced by: “... nominal size steps.”

Page 3, Clause 7 Bibliography

The content of this clause is moved to the end of the document without clause number and replaced by:

The following Geometrical Product Specifications-Standards are useful with regard to the application of this part of ISO 286:

- [1] ISO 1101:2004, *Geometrical Product Specifications (GPS) – Geometrical tolerancing — Tolerances of form, orientation, location and run-out*
- [2] ISO 1302:2001, *Geometrical Product Specifications (GPS) – Indication of surface texture in technical product documentation*
- [3] ISO/R 1938:1971, *ISO system of limits and fits - Part II: Inspection of plain workpieces*
- [4] ISO 2692:2006, *Geometrical product specifications (GPS) — Geometrical tolerancing — Maximum material requirement (MMR), least material requirement (LMR) and reciprocity requirement (RPR)*
- [5] ISO 2768-1:1989, *General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

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Page 4, Table 1

Replace the title and Table 1 by the following:

Delete the note on top of the table and the footnotes 1), 2) and 3).

Table 1 — Values of standard tolerance grades for nominal sizes up to 3150 mm

Nominal size mm		Standard tolerance grades																			
		IT01	IT0	IT1	IT2	IT3	IT4	IT5	IT6	IT7	IT8	IT9	IT10	IT11	IT12	IT13	IT14	IT15	IT16	IT17	IT18
Above	Up to and including	Standard tolerance values																			
		µm										mm									
—	3	0,3	0,5	0,8	1,2	2	3	4	6	10	14	25	40	60	0,1	0,14	0,25	0,4	0,6	1	1,4
3	6	0,4	0,6	1	1,5	2,5	4	5	8	12	18	30	48	75	0,12	0,18	0,3	0,48	0,75	1,2	1,8
6	10	0,4	0,6	1	1,5	2,5	4	6	9	15	22	36	58	90	0,15	0,22	0,36	0,58	0,9	1,5	2,2
10	18	0,5	0,8	1,2	2	3	5	8	11	18	27	43	70	110	0,18	0,27	0,43	0,7	1,1	1,8	2,7
18	30	0,6	1	1,5	2,5	4	6	9	13	21	33	52	84	130	0,21	0,33	0,52	0,84	1,3	2,1	3,3
30	50	0,6	1	1,5	2,5	4	7	11	16	25	39	62	100	160	0,25	0,39	0,62	1	1,6	2,5	3,9
50	80	0,8	1,2	2	3	5	8	13	19	30	46	74	120	190	0,3	0,46	0,74	1,2	1,9	3	4,6
80	120	1	1,5	2,5	4	6	10	15	22	35	54	87	140	220	0,35	0,54	0,87	1,4	2,2	3,5	5,4
120	180	1,2	2	3,5	5	8	12	18	25	40	63	100	160	250	0,4	0,63	1	1,6	2,5	4	6,3
180	250	2	3	4,5	7	10	14	20	29	46	72	115	185	290	0,46	0,72	1,15	1,85	2,9	4,6	7,2
250	315	2,5	4	6	8	12	16	23	32	52	81	130	210	320	0,52	0,81	1,3	2,1	3,2	5,2	8,1
315	400	3	5	7	9	13	18	25	36	57	89	140	230	360	0,57	0,89	1,4	2,3	3,6	5,7	8,9
400	500	4	6	8	10	15	20	27	40	63	97	155	250	400	0,63	0,97	1,55	2,5	4	6,3	9,7
500	630			9	11	16	22	32	44	70	110	175	280	440	0,7	1,1	1,75	2,8	4,4	7	11
630	800			10	13	18	25	36	50	80	125	200	320	500	0,8	1,25	2	3,2	5	8	12,5
800	1000			11	15	21	28	40	56	90	140	230	360	560	0,9	1,4	2,3	3,6	5,6	9	14
1000	1250			13	18	24	33	47	66	105	165	260	420	660	1,05	1,65	2,6	4,2	6,6	10,5	16,5
1250	1600			15	21	29	39	55	78	125	195	310	500	780	1,25	1,95	3,1	5	7,8	12,5	19,5
1600	2000			18	25	35	46	65	92	150	230	370	600	920	1,5	2,3	3,7	6	9,2	15	23
2000	2500			22	30	41	55	78	110	175	280	440	700	1100	1,75	2,8	4,4	7	11	17,5	28
2500	3150			26	36	50	68	96	135	210	330	540	860	1350	2,1	3,3	5,4	8,6	13,5	21	33