



SLOVENSKI STANDARD
SIST EN 735:2000
01-december-2000

Overall dimensions of rotodynamic pumps - Tolerances

Overall dimensions of rotodynamic pumps - Tolerances

Anschlußmaße für Kreiselpumpen - Toleranzen

Dimensions d'encombrement des pompes rotodynamiques - Tolérances

Ta slovenski standard je istoveten z: EN 735:1995

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ICS:

23.080

11.040.10

Pumps

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EUROPEAN STANDARD

EN 735

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 1995

ICS 23.080

Descriptors: Rotodynamic pumps, dimensions, overall dimensions, dimensional tolerances

English version

**Overall dimensions of rotodynamic pumps -
Tolerances**

Dimensions d'encombrement des pompes rotodynamiques - Tolérances Anschlußmaße für Kreiselpumpen - Toleranzen

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CENEuropean Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Ref. No. EN 735:1995 E

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Foreword

This European Standard has been prepared by SC4 "Rotodynamic pumps" of CEN/TC 197 "Pumps", the Secretariat of which is held by DIN, based on a proposal, document CEN/TC 197/SC 4 N 23, submitted by the European Committee of pump manufacturers (EUROPUMP) in December 1990 and was adopted for CEN enquiry at the CEN/TC 197/SC 4 meeting on 1991-03-14 in Frankfurt.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 1995, and conflicting national standards shall be withdrawn at the latest by October 1995.

According to the CEN/CENELEC Rules, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This European Standard specifies the acceptable tolerances for overall dimensions of rotodynamic pumps with particular requirements for horizontal, single stage, end suction centrifugal pumps.

2 Normative references

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

ISO 496: 1973 Driving and driven machines - Shaft heights

ISO/R 775: 1969 Cylindrical and 1/10 conical shaft ends

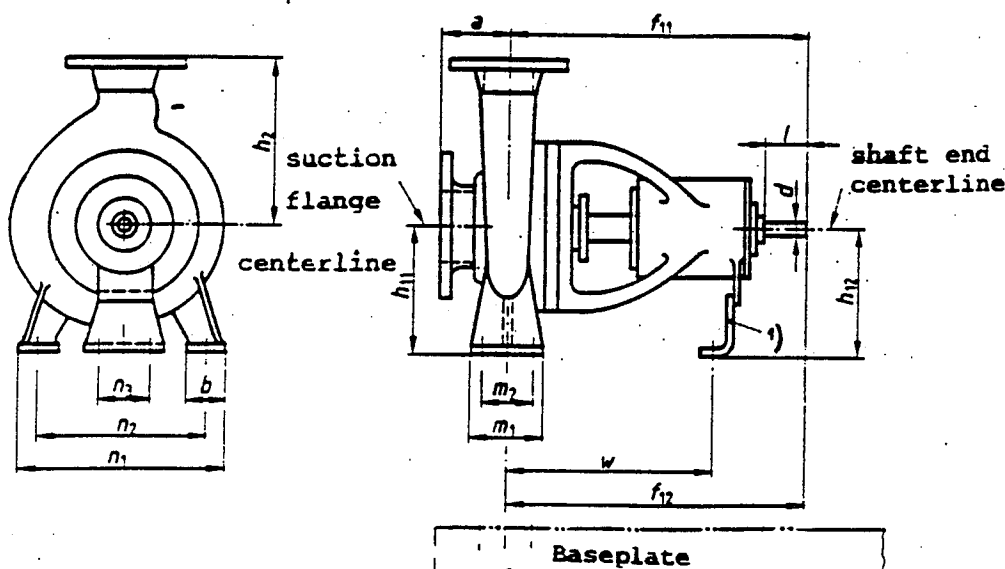
ISO 2768-1: 1989 General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications

ISO 2768-2: 1989 General tolerances - Part 2: Geometrical tolerances for features without individual tolerance indications

3 End-suction centrifugal pumps

End-suction centrifugal pumps with dimensions toleranced in accordance with this standard, shall have their dimensions within the appropriate tolerance band shown in table 1, as illustrated in figure 1.

Figure 1 illustrates a pictorial representation of an end suction pump. Pumps to this standard do not need to correspond to this pictorial representation, only the indicated dimensions are to be as specified.



1) Rear foot for bearing housing is at the manufacturers discretion

Figure 1: Overall dimensions

Table 1: Acceptable tolerances for overall dimensions

Dimensions in millimetres

Overall dimension	Tolerance group code	Nominal dimension field/acceptable tolerances						Basic Standard
		up to 50	above 50 up to 250	above 250 up to 630	above 630 up to 1000	above 1000		
$h_{12}^{11)}$	E 1	0 -0,4	0 -0,5	0 -1	0 -1,5	0 -2		ISO 496
d	E 2	up to 50 k 6	above 50 up to 95 m 6					ISO/R 775
$n_2^{22)}$ $n_3^{22)}$ $m_2^{22)}$ $w^{22)}$ $f_{12}^{22)}$ l	E 3	above 6 up to 30	above 30 up to 120	above 120 up to 400	above 400 up to 1000	above 1000 up to 2000		ISO 2768-1 ISO 2768-2
a $f_{11}^{33)}$ $h_{11}^{44)}$ h_2	E 4	above 6 up to 160	above 160 up to 250	above 250 up to 400	above 400 up to 630	above 630 up to 1000	above 1000 up to 1600) 1600	—
b m_1 n_1	E 5	above 6 up to 160	above 160 up to 250	above 250 up to 400	above 400 up to 630	above 630 up to 1000	above 1000 up to 1600) 1600	—
		$\pm 0,2$	$\pm 0,3$	$\pm 0,5$	$\pm 0,8$	$\pm 1,2$		
		± 2	$\pm 2,5$	± 3	± 4	± 5	± 6 ± 8	
		± 3	$\pm 3,75$	$\pm 4,5$	± 6	$\pm 7,5$	± 9 ± 12	

¹¹⁾ The dimension h_{12} indicates the distance from the shaft end centreline to the underside of the rear foot.

²²⁾ The tolerances apply to the distance between fixing screws. Pumps designed with holes or slots shall allow for the appropriate tolerance.

³³⁾ The dimension f_{11} indicates the distance from the discharge flange centreline to the shaft end.

⁴⁴⁾ The dimension h_{11} indicates the distance from the underside face of the feet to the suction flange centreline.

⁵⁵⁾ The dimension f_{12} indicates the distance from the shaft end to the centreline of the fixing holes axes of the feet.

4 Rotodynamic pumps other than end suction centrifugal pumps

Rotodynamic pumps other than end suction centrifugal pumps with dimensions and tolerances in accordance with this standard shall have their main dimensions within the appropriate tolerance band shown in table 2.

Table 2: Acceptable tolerances for overall dimensions

Dimensions in millimetres

Overall dimensions	Nominal dimension field/acceptable tolerances							Tolerance group in accordance with table 1
Axis height								E 1
Shaft end diameter								E 2
Distance between two machined surfaces	iTeh STANDARD PREVIEW (standards.iteh.ai)							E 3
Distance between machined and unmachined surfaces	SIST EN 735:2000 https://standards.iteh.ai/catalog/standards/sist/448082bf-fbcc-4359-b362-88146905ae26/sist-en-735-2000							E 4
Distance between unmachined surfaces	above 6 up to 160	above 160 up to 250	above 250 up to 400	above 400 up to 630	above 630 up to 1000	above 1000 up to 1600	> 1600	
	± 4	± 5	± 6	± 8	± 10	± 12	± 16	