SLOVENSKI STANDARD
SIST EN 22858:2000

01-december-2000

End-suction centrifugal pumps (rating 16 bar) - Designation, nominal duty point and dimensions (ISO 2858:1975)

End-suction centrifugal pumps (rating 16 bar) - Designation, nominal duty point and dimensions (ISO 2858:1975)

Kreiselpumpen mit axialem Eintritt PN 16 - Bezeichnung, Nennleistung und Abmessungen (ISO 2858:1975)

Pompes centrifuges a aspiration en bout (pression nominale 16 bar) - Désignation, point de fonctionnement nominal et dimensions (ISO 2858:1975)

Ta slovenski standard je istoveten z: **EN 22858:1993**

ICS:

23.080	Črpalke	Pumps

SIST EN 22858:2000 **en**

EUROPEAN STANDARD **EN 22858:1993**

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English version

End-suction centrifugal pumps (rating 16 bar) - Designation, nominal duty point and dimensions (ISO 2858:1975)

Pompes centrifuges à aspiration en bout (pression nominale 16 bar) - Désignation, point de fonctionnement nominal et dimensions (ISO 2858:1975)

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This European Standard was approved by CEN on 1992-12-02. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

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

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

Foreword

In 1991, the International Standard ISO 2858:1975 (second edition) "End-suction centrifugal pumps (rating 16 bar) - Designation, nominal duty point and dimensions" was submitted to the CEN Primary Questionnaire procedure.

Following the positive result of the CEN/CS Proposal, ISO 2858:1975 (second edition) was submitted to the Formal Vote.

The result of the Formal Vote was positive.

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 August 1993, and conflicting national standards shall be withdrawn at the latest by August 1993.

According to the CEN/CENELEC Internal Regulations, 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, United Kingdom.

Endorsement notice

The text of the International Standard ISO 2858:1975 (second edition) was approved by CEN as a European Standard without any modification.

INTERNATIONAL STANDARD 2858

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION · МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ · ORGANISATION INTERNATIONALE DE NORMALISATION

End-suction centrifugal pumps (rating 16 bar) — Designation, nominal duty point and dimensions

Pompes centrifuges à aspiration en bout (pression nominale 16 bar) — Désignation, point de fonctionnement nominal et dimensions

Second edition — 1975-02-15

UDC 621.671

Ref. No. ISO 2858-1975 (E)

Descriptors : pumps, centrifugal pumps, dimensions, specifications, designation.

Price based on 2 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2858 (2nd Edition) was drawn up by Technical Committee ISO/TC 115, *Pumps*. It was submitted directly to the ISO Council, in accordance with clause 6.12.1 of the Directives for the technical work of ISO.

This International Standard cancels and replaces International Standard ISO 2858-1973, which had been approved by the Member Bodies of the following countries :

Austria	Israel	Spain
Belgium	Italy	Sweden
Egypt, Arab Rep. of	Netherlands	Switzerland
France	New Zealand	Thailand
Germany	Norway	Turkey
Hungary	Portugal	United Kingdom
India	Romania	U.S.S.R.
Ireland	South Africa, Rep. of	

The Member Bodies of the following countries had expressed disapproval of the document on technical grounds :

Australia
Czechoslovakia
Japan
U.S.A.

Printed in Switzerland

End-suction centrifugal pumps (rating 16 bar) — Designation, nominal duty point and dimensions

1 SCOPE AND FIELD OF APPLICATION[1)]

This International Standard specifies the principal dimensions and nominal duty point of end-suction centrifugal pumps having a maximum operating rating of 16 bar.[2)]

2 REFERENCES

ISO/R 228, *Pipe threads where pressure-tight joints are not made on the threads (1/8 inch to 6 inches).*

ISO 496, *Driving and driven machines — Shaft heights.*

ISO/R 775, *Cylindrical and 1/10 conical shaft ends.*

ISO 3069, *End-suction centrifugal pumps — Dimensions of cavities for mechanical seals and for soft packing.* (Supplement to this International Standard.)

NOTE — ISO 2084 can be used for the dimensions of flanges.

3 DESIGNATION

The pump designation comprises three numbers : the first corresponds to the inlet diameter, the second to the outlet diameter and the third to the nominal diameter of the impeller.

Example of designation

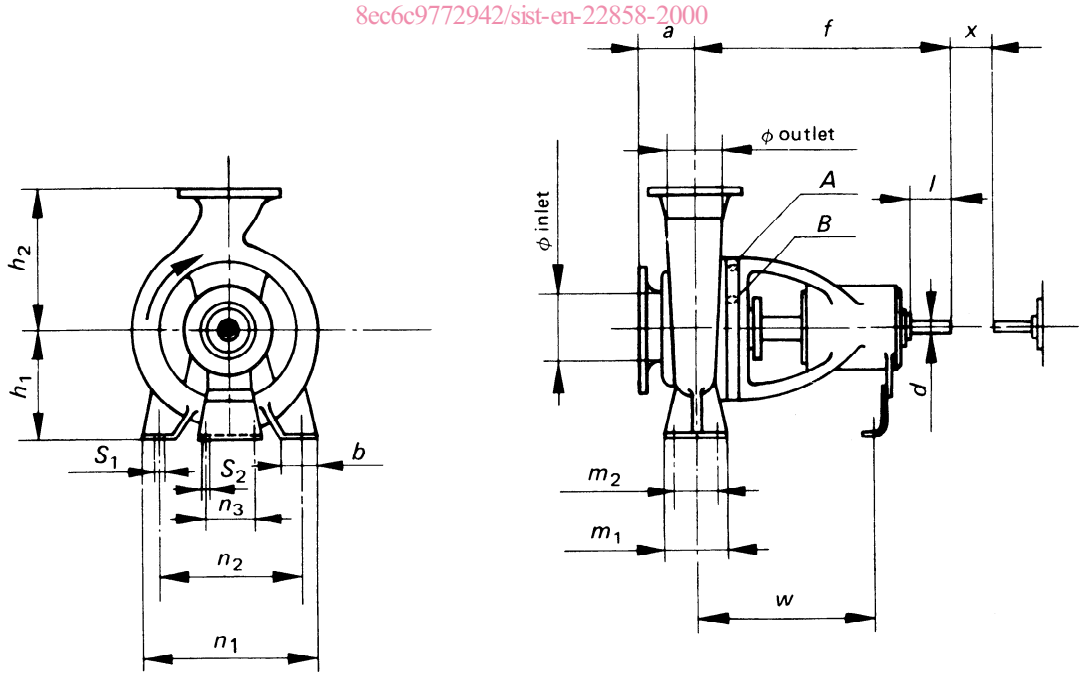
A centrifugal pump with an inlet diameter of 80 mm, an outlet diameter of 50 mm and a nominal impeller diameter of 250 mm is designated 80-50-250.

4 NOMINAL DUTY POINT AND DIMENSIONS

See figure below and table on page 2.

5 STATIC TEST PRESSURE

Static test pressure shall be 1,5 times the maximum discharge pressure but shall not exceed 24 bar. The relation between cold test pressure and hot operating pressure shall be the subject of agreement between manufacturer and user.



NOTE — Tapping points
All connections shall be in accordance with ISO/R 228.
A : Connection for cooling or heating supply to be 3/8 in.
B : Stuffing box tapping points to be as large as possible but not to exceed 1/2 in.

1) The manufacturer shall be consulted about the temperature limitation.
2) 1 bar = 0,1 MPa.

TABLE – **Nominal duty point and dimensions**

	Size designation[2]			Nominal duty point				Dimensions in millimetres																
	ϕ inlet	ϕ outlet	ϕ impeller (nominal)	n 1 450 min^{-1}		n 2 900 min^{-1}		Pump				Support							Clearance holes for bolts		Shaft end		
				Q	H	Q	H																
	mm	mm	mm	m^3/h	m	m^3/h	m	a	f	h_1	h_2	b	m_1	m_2	n_1	n_2	n_3	w	S_1	S_2	d	l	x[1]
	50	32	125		5		20			112	140				190	140							
	50	32	160	6,3	8	12,5	32	80	385	132	160	50	100	70	240	190	110	285	M 12	M 12	24	50	100
	50	32	200		12,5		50			160	180												
	50	32	250		20		80	100	500	180	225	65	125	95	320	250		370			32	80	
	65	50 (40)[3]	125		5		20	80		112	140				210	160							
	65	50 (40)[3]	160		8		32		385	132	160	50	100	70	240	190		285			24	50	
	65	40	200	12,5	12,5	25	50	100		160	180				265	212	110		M 12	M 12			100
	65	40	250		20		80		500	180	225	65	125	95	320	250		370			32	80	
	65	40	315		32		125	125		200	250				345	280							
	80	65 (50)[3]	125		5		20			132	160				240	190							
	80	65 (50)[3]	160		8		32	100	385	160	180	50	100	70	265	212		285			24	50	
	80	50	200	25	12,5	50	50				200						110		M 12	M 12			100
	80	50	250		20		80	125	500	180	225	65	125	95	320	250		370			32	80	
	80	50	315		32		125			225	280				345	280							
	100	80 (65)[3]	125		5		20		385	160	180				280	212		285			24	50	100
	100	80 (65)[3]	160		8		32	100			200	65	125	95					M 12				
	100	65	200	50	12,5	100	50		500	180	225				320	250	110	370		M 12	32	80	
	100	65	250		20		80	125		200	250	80	160	120	360	280			M 16				140
	100	65	315		32		125		530	225	280				400	315					42	110	
optional	125	80	160		8		32			180	225	65	125	95	320	250			M 12				
optional	125	80	200		12,5		50		500		250				345	280					32	80	
optional	125	80	250	80	20	160	80	125		225	280				400	315	110	370		M 12			140
optional	125	80	315		32		125		530	250	315	80	160	120					M 16		42	110	
optional	125	80	400		50					280	355				435	355							
	125	100	200		12,5		50	125	500	200	280				360	280					32	80	
	125	100	250	100[4]	20	200[4]	80			225		80	160	120	400	315	110	370	M 16	M 12	42	110	140
	125	100	315	125	32	250	125	140	530	250	315												
	125	100	400		50					280	355	100	200	150	500	400			M 20				
	150	125	250		20					250	355	80	160	120	400	315			M 16				
	150	125	315	200	32			140	530	280		100	200	150	500	400	110	370	M 20	M 12	42	110	140
	150	125	400		50					315	400												
	200	150	250	315[4]	20				530	280	375				500	400	110	370		M 12	42		
	200	150	315		32			160	670	315	400	100	200	150	550	450	140	500	M 20	M 16	48	110	180
	200	150	400	400	50						450												

NOTES

a) The forms and dimensions not specified are left to the discretion of the manufacturer.

b) Rotation is clockwise when viewed from the driven end.

1) Gap necessary for the withdrawal of the rotor toward the driven side.

2) Flange rating 16 bar.

3) Branch sizes in brackets to be valid for a limited period only.

4) These two values are alternatives.