



SLOVENSKI STANDARD
SIST EN 734:2000
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Side channel pumps PN 40 - Nominal duty point, main dimensions, designation system

Side channel pumps PN 40 - Nominal duty point, main dimensions, designation system

Seitenkanalpumpen PN 40 - Nennleistung, Hauptmaße, Bezeichnungssystem

Pompes a canal latéral PN 40 - Point de fonctionnement nominal, dimensions principales, systeme de désignation

Ta slovenski standard je istoveten z: EN 734:1995
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EUROPEAN STANDARD

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ICS 23.080

Descriptors: pumps, designation, dimensions, performance evaluation, pressure tests, hydrostatic pressure

English version

**Side channel pumps PN 40 - Nominal duty point,
main dimensions, designation system**

Pompes à canal latéral PN 40 - Point de fonctionnement nominal, dimensions principales, système de désignation

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CEN

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Foreword

This European standard has been prepared by SC4 "Rotodynamic pumps" of CEN/TC 197 "Pumps" of which the Secretariat is held by DIN, based on a proposal, document CEN/TC 197/SC 4 N 21, 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of an identical text or by endorsement, at the latest by October 1995, and conflicting national standards shall be withdrawn at the latest by October 1995.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/CENLEC 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 designations, nominal duty point and main dimensions of heavy duty side channel pumps with a nominal pressure of 40 bar.

NOTE: Depending on special circumstances e.g. temperature, materials, sealing of the shaft etc., excess operating pressure need not attain the value of the nominal pressure under any circumstances.

2 Definition

For the purposes of this standard, the following definition applies:

2.1 side channel pumps: Liquid pumps which evacuate the inlet pipe and thereby automatically draw in the liquid to be pumped without the aid of ancillary equipment. They must be able to pump a liquid gas mixture with a gas content of at least 30 % at the suction nozzle, with steady operation.

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3 Nominal duty point and main dimensions

The nominal duty point and main dimensions appropriate to the relevant pump designation shall be given in table 1 and as illustrated in figure 1.

Figure 1 illustrates a pictorial representation of a side channel pump. Pumps to this standard shall not need to correspond to this pictorial representation, only the indicated dimensions and direction of rotation are to be as specified.

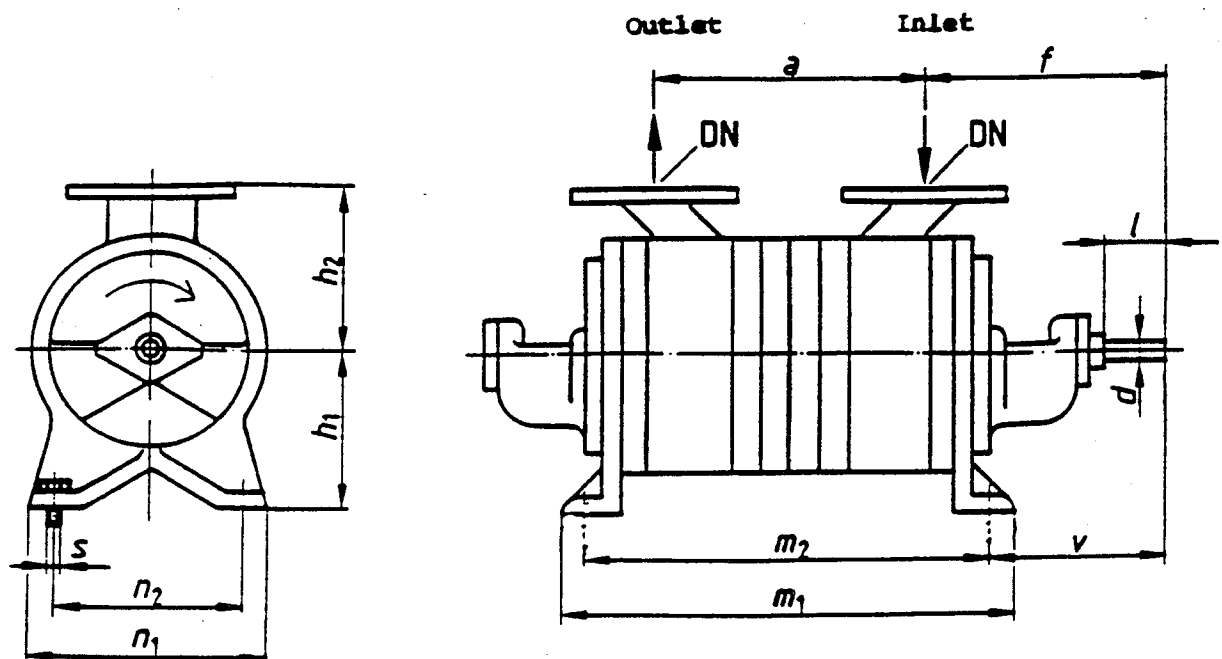


Figure 1: Main dimensions

Table 1: Nominal duty point and main dimensions

Size	Number of stages	Nominal duty point at 1450 min ⁻¹ (524 s ⁻¹)		DN ^a mm	a mm	d mm	s screws mm	f mm	h ₁ mm	h ₂ mm	l m	m ₁ mm	m ₂ mm	n ₁ mm	n ₂ mm	v mm
		Nominal ^{b)} Flow m ³ /h	Nominal ^{b)} Head ^{b)} m													
20	01	1,25	20	20	120	14	M10	170	100	100	25	270	236	140	105	112
	02		40		34 ^{c)}											
	3)		20 ^{c)}		34 ^{c)}											
31	01	2,5	20	32	146	19	M10	200	112	132	40	314	280	170	135	133
	02		40		40 ^{c)}											
	3)		20 ^{c)}		40 ^{c)}											
32	01	5	20	32	146	19	M10	200	112	132	40	314	280	170	135	133
	02		40		40 ^{c)}											
	3)		20 ^{c)}		40 ^{c)}											
40	01	10	20	40	160	24	M10	195	132	140	45	303	269	195	155	140
	02		40		215											
	3)		20 ^{c)}		55 ^{c)}											

continued

Table 1: Nominal duty point and main dimensions (concluded)

Size	Number of stages	Nominal duty point at 1450 min ⁻¹ (24 s ⁻¹)			DN ²⁾	a	d	s	f	h ₁	h ₂	l	m ₁	m ₂	n ₁	n ₂	v
		Nom. ¹⁾ m ³ /h	Flow l/s	Head ¹⁾ m													
50	01	16	4,5	20	175	28	M12	237	160	165	50	359	331	215	170	159	
	40			444									406				
	20 ⁴⁾			75 ⁴⁾									75 ⁴⁾				
65	01	25	7	20	195	32		262	180	180	65	412	374	245	195	172	
	40			502									464				
	20 ⁴⁾			90 ⁴⁾									90 ⁴⁾				

NOTE: Information on keys and keyways is to be taken from the manufacturers data.

¹⁾ The nominal flow and associated nominal head are standard values which refer to the pumping of liquid.

²⁾ Inlet and outlet connections and flange mounting dimensions according to PN 40.

³⁾ The number of stages can be more than 2, the required number of stages can be obtained from the required head and will be shown in the manufacturers data, (see footnote 4).

⁴⁾ With each additional stage the nominal head and the length of the pump, for dimensions a, m₁ and m₂, increase by the values shown.