

## PUMPS FOR SEWAGE, EFFLUENTS AND MIXTURES

LINE: **Mega**



### 1. Application

The KSB MEGAFLOW centrifugal pump is recommended for wastewater, raw sewage, chemical effluents, activated and digested sludges for the following applications:

- Municipal and industrial wastewater treatment
- Drainage
- Pulp and paper
- Food processing
- Sugar and alcohol
- Mining and manufacturing
- Building

### 2. Design

Horizontal, single-stage, simple horizontal suction and vertical upwards discharge. The "back-pull-out" design allows maintenance and repair services through the backside, without dismantling piping and without impact on the alignment.

The available hydraulics and impeller types allow proper selection for the handled liquid and required application.

### 3. Designation

	<u>KSB</u>	<u>Megaflow</u>	<u>50 - 160</u>	<u>K</u>
Trade Mark	_____	_____	_____	_____
Model / Type	_____	_____	_____	_____
Discharge Nozzle Diameter (mm)	_____	_____	_____	_____
Nominal Impeller Diameter (mm)	_____	_____	_____	_____
Impeller	_____	_____	_____	_____

### 4. Operating Data

Sizes	- DN 50 up to 350 (2" up to 14")
Flow	- up to 11,000 gpm (2,500 m³/h)
Head	- up to 328 ft (100m)
Temperature	- up to 221°F (105° C)
Max. Suction pressure	- up to 43 psi (3 bar)
Speed	- up to 3,500 rpm

## **Legal information/Copyright**

Type Series Booklet Megaflow

All rights reserved. The contents provided herein must neither be distributed, copied, reproduced, edited or processed for any other purpose, nor otherwise transmitted, published or made available to a third party without the manufacturer's express written consent.

Subject to technical modification without prior notice.

© KSB Brasil Ltda., Várzea Paulista 30/03/2022

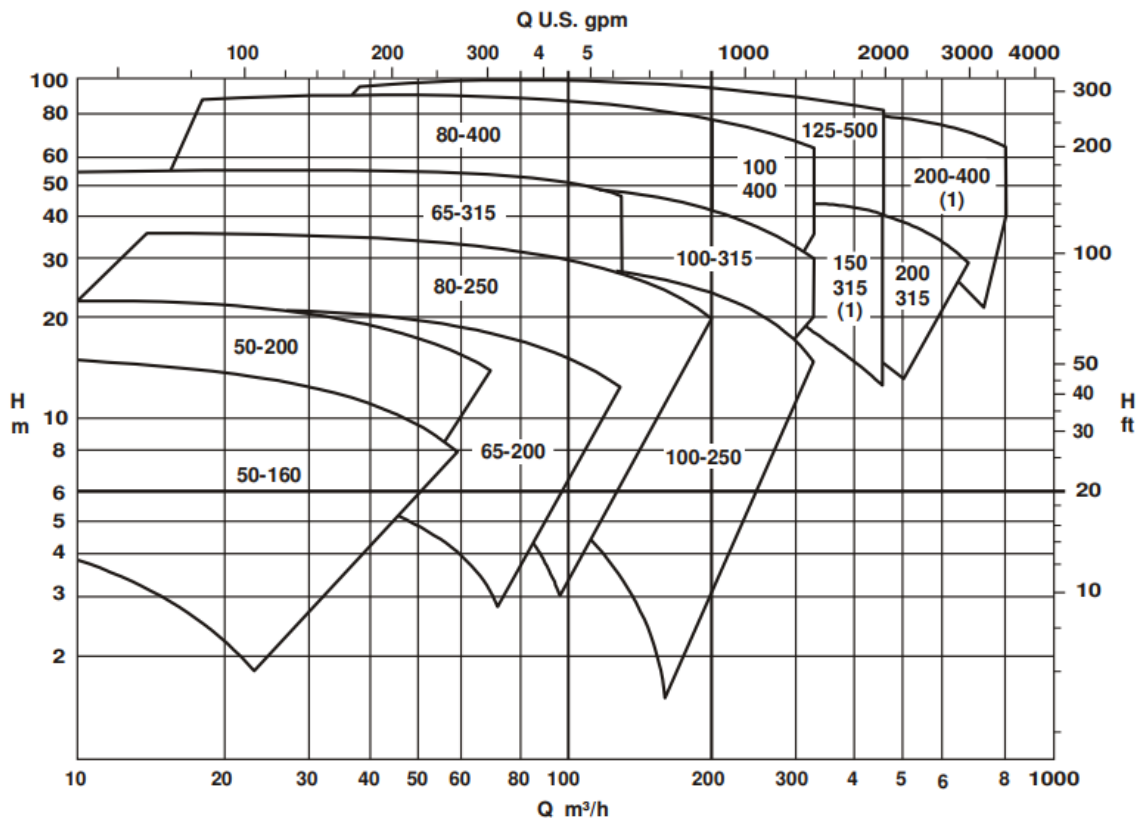
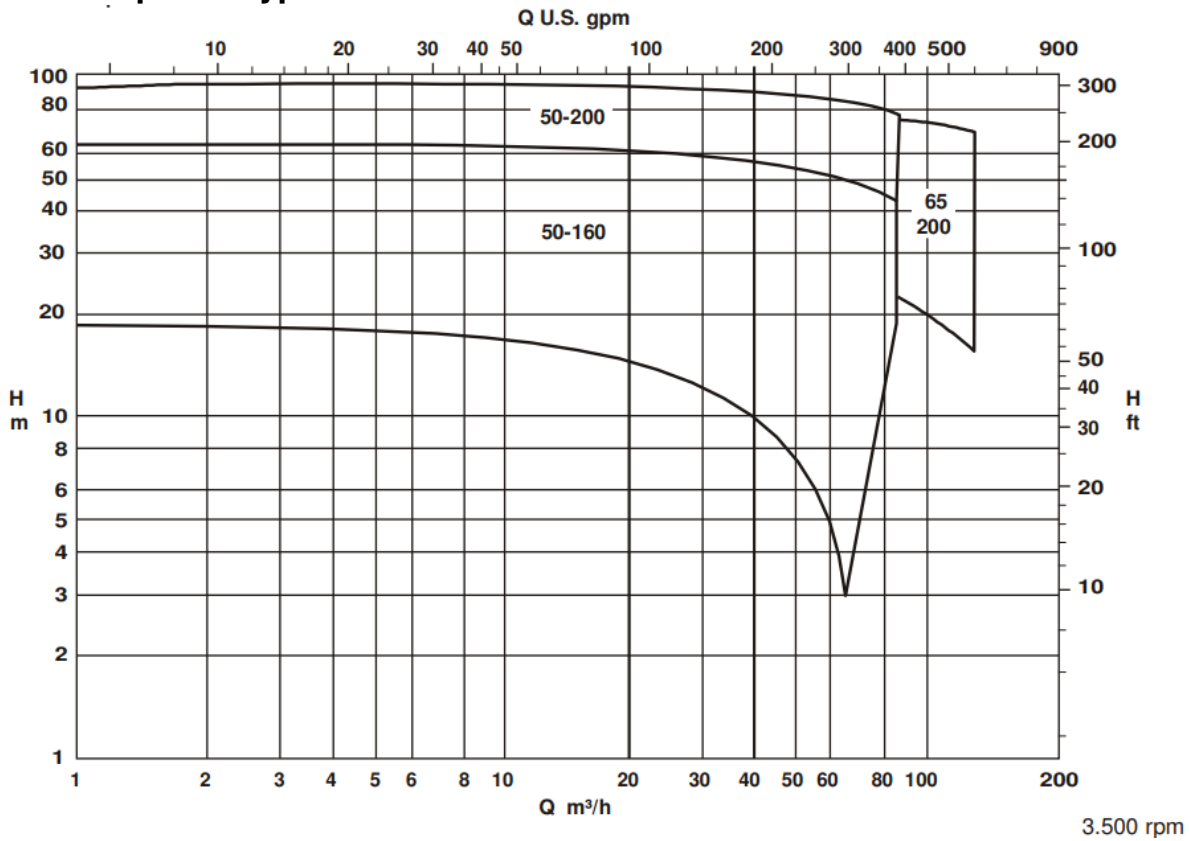
## Content

<b>1. Application .....</b>	<b>1</b>
<b>2. Design.....</b>	<b>1</b>
<b>3. Designation .....</b>	<b>1</b>
<b>4. Operating data .....</b>	<b>1</b>
<b>5. Hydraulic Chart – 60 Hz (K Impeller) .....</b>	<b>5</b>
5.1 Impeller Type K – 3500 rpm / 1750 rpm.....	5
5.1 Impeller Type K – 1160 rpm / 875/580 rpm.....	6
5.2 Impeller Type O – 1750 rpm / 1160 rpm .....	7
5.2 Impeller Type O – 875 rpm.....	8
5.3 Impeller Type E – 1750 rpm .....	8
5.3 Impeller Type E – 1160 rpm / 875/700 rpm.....	9
<b>6. Technical data.....</b>	<b>10</b>
6.1 Bearings .....	11
6.2 Maximum speed .....	12
<b>7. Materials .....</b>	<b>13</b>
<b>8. Constructive Details.....</b>	<b>14</b>
<b>9. Peripheral Speed .....</b>	<b>15</b>
<b>10. Selection on Shaft Seal.....</b>	<b>15</b>
<b>11. Mechanical Seal.....</b>	<b>16</b>
<b>12. Impeller sealing clearances.....</b>	<b>17</b>
<b>13. NPSH.....</b>	<b>17</b>
<b>14. Drive.....</b>	<b>17</b>
<b>15. Power margin.....</b>	<b>18</b>
<b>16. Painting.....</b>	<b>18</b>
<b>17. Accessories (optional).....</b>	<b>18</b>
<b>18. Pump Selection.....</b>	<b>18</b>
<b>19. Cross sectional Drawing/ Parts List .....</b>	<b>19</b>
19.1 Execution with Impeller K – Bearing Bracket CS40 and CS50 .....	19
19.2 Parts List – Impeller K – Bearing Bracket CS40 and CS50 .....	20
19.3 Execution with Impeller K – Bearing Bracket AK .....	21
19.4 Execution with Impeller O – Bearing Bracket AK .....	22
19.5 Parts List – Impellers K and O – Bearing Bracket AK .....	23
19.6 Execution with Impellers K and O – Bearing Bracket P 65/160 X.....	24
19.7 Parts List – Impellers K and O – Bearing Bracket P 65/160 X.....	25
19.8 Execution with Impeller K – Bearing Bracket P 80/200 S .....	26
19.9 Parts List – Impeller K – Bearing Bracket P 80/200 S.....	27
19.10 Execution with Impeller E – Bearing Brackets A 40 K / A 50K and A 60K.....	28

19.11 Parts List – Impeller E –Bearing Brackets A 40 K / A 50K and A 60K .....	29
19.12 Execution with Impeller E – Bearing Bracket P 65/160 X .....	30
19.13 Parts List – Impeller E – Bearing Bracket P 65/160 X.....	31
<b>20. Dimensions .....</b>	<b>32</b>
20.1 Execution with Impellers K and O .....	32
20.2 Execution with Impeller E .....	34
<b>21. Foundation Plans .....</b>	<b>35</b>
21.1 Pumps with Impellers K and O – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K – Coupling with spacer.....	35
21.2 Pumps with Impeller E – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K – Coupling with spacer .....	37
21.3 Pumps with Impellers K, O and E – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K – Coupling with spacer .....	38
21.4 Pumps with Impellers K and O – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K – Coupling without spacer .....	39
21.5 Pumps with Impeller E – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K – Coupling without spacer .....	41
21.6 Pumps with Impellers K, O and E – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K – Coupling without spacer .....	42
21.7 Pumps with Impellers K and O – Bearing Brackets A 60K, P 65/160X and P 80/200S – Coupling with spacer .....	43
21.8 Pumps with Impeller E – Bearing Brackets A 60K, P 65/160 X and P 80/200 S – Coupling with spacer .....	46
21.9 Pumps with Impellers K, O and E – Bearing Brackets A 60K, P 65/160X and P 80/200 S – Coupling with spacer.....	47
21.10 Pumps with Impellers K and O – Bearing Brackets A 60K, P 65/160 X and P 80/200 S – Coupling without spacer .....	48
21.11 Pumps with Impeller E – Bearing Brackets A 60K, P 65/160 X and P 80/200 S – Coupling without spacer .....	51
21.12 Pumps with Impellers K, O and E – Bearing Brackets A 60K, P 65/160X and P 80/200S – Coupling without spacer .....	52
<b>22. Connections by Impeller Type and Bearing Bracket Size .....</b>	<b>53</b>

## 5. Hydraulic Chart – 60 Hz (K Impeller)

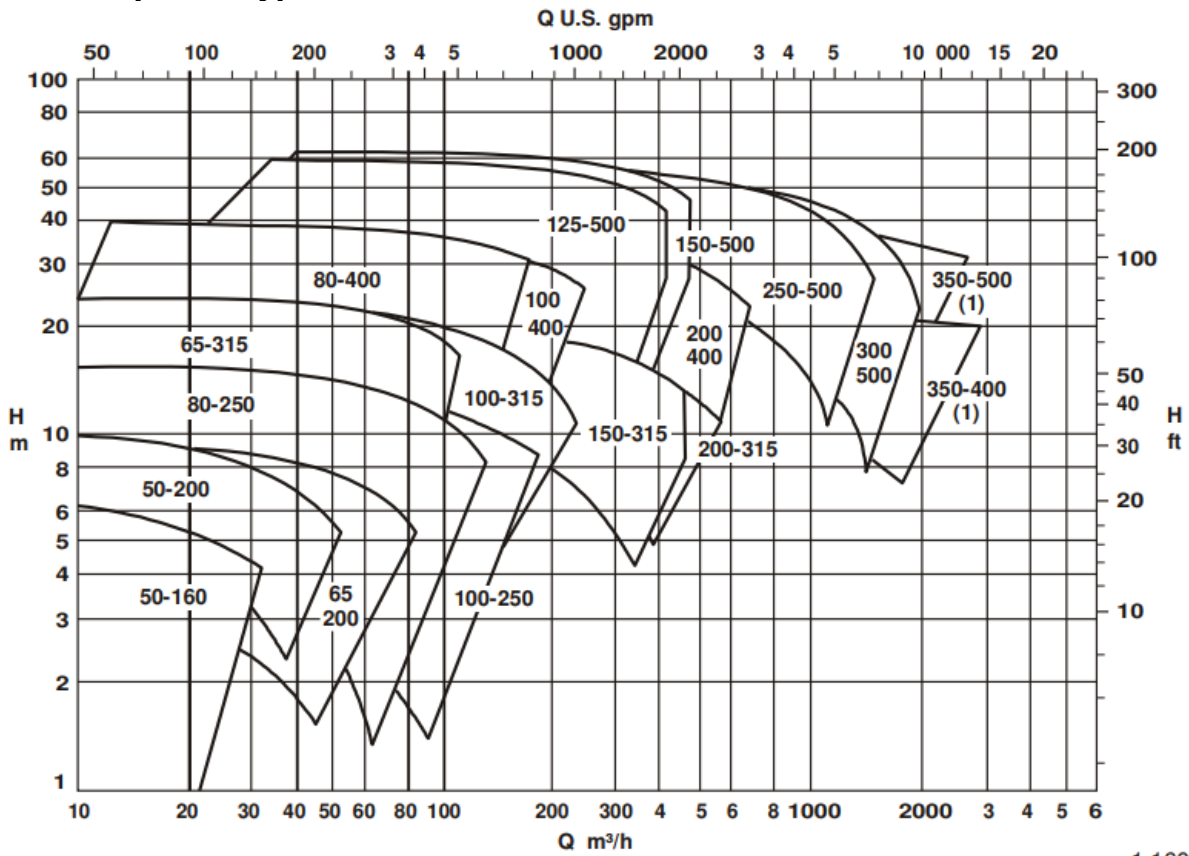
### 5.1 Impeller Type K



(1) Upon request

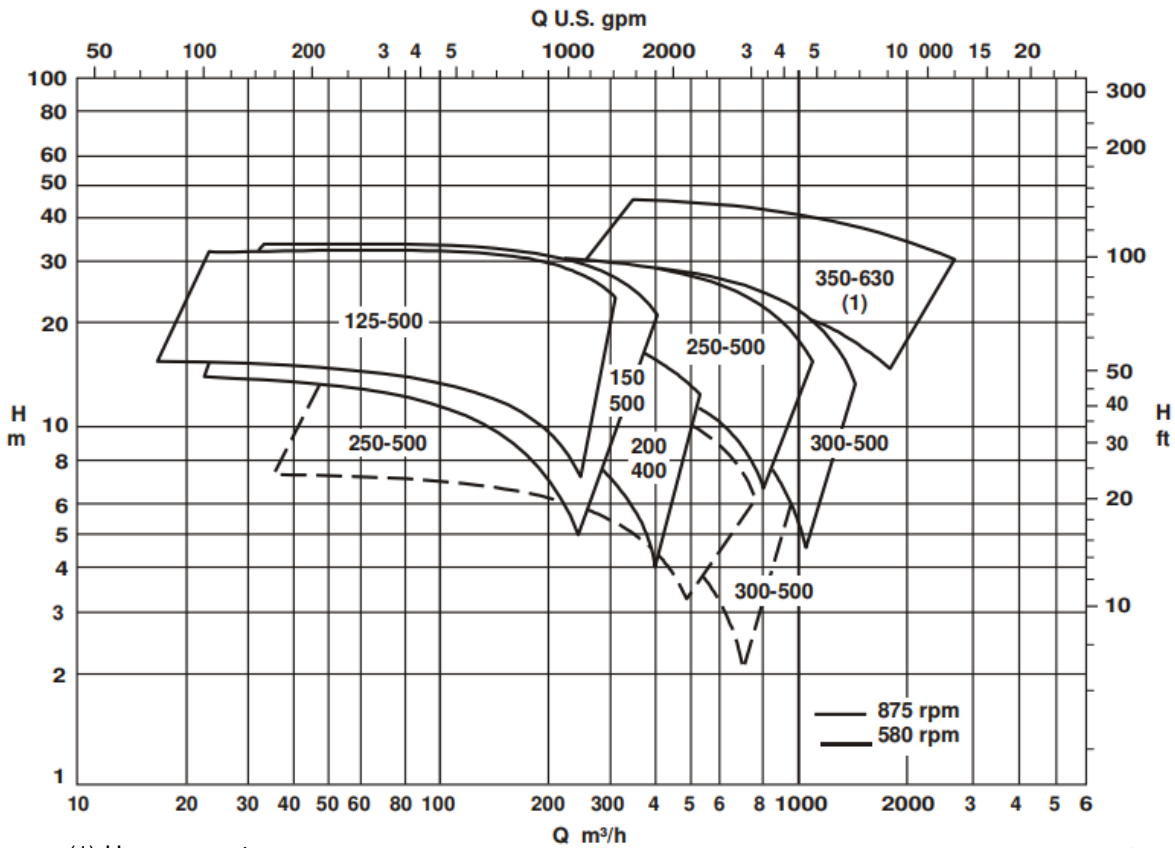
1.750 rpm

## 5.1 Impeller Type K



(1) Upon request

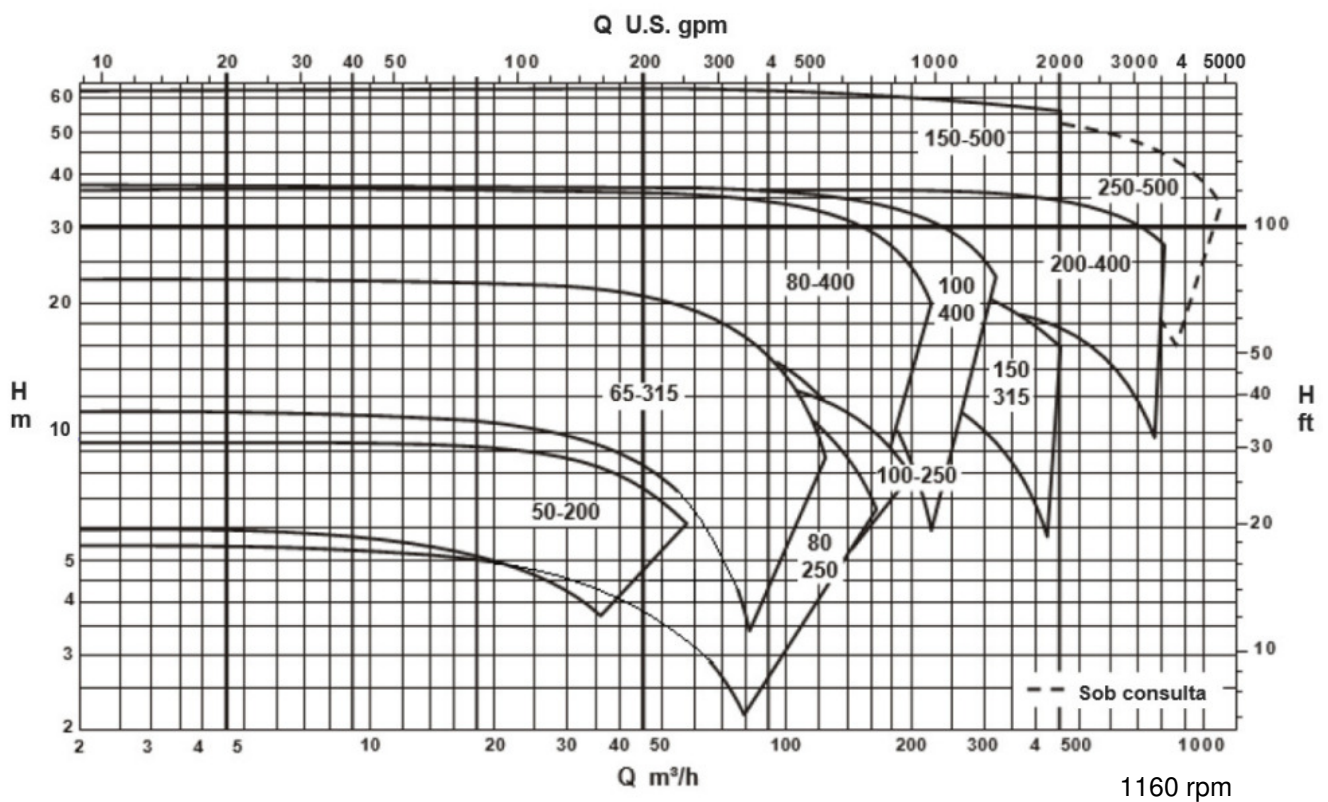
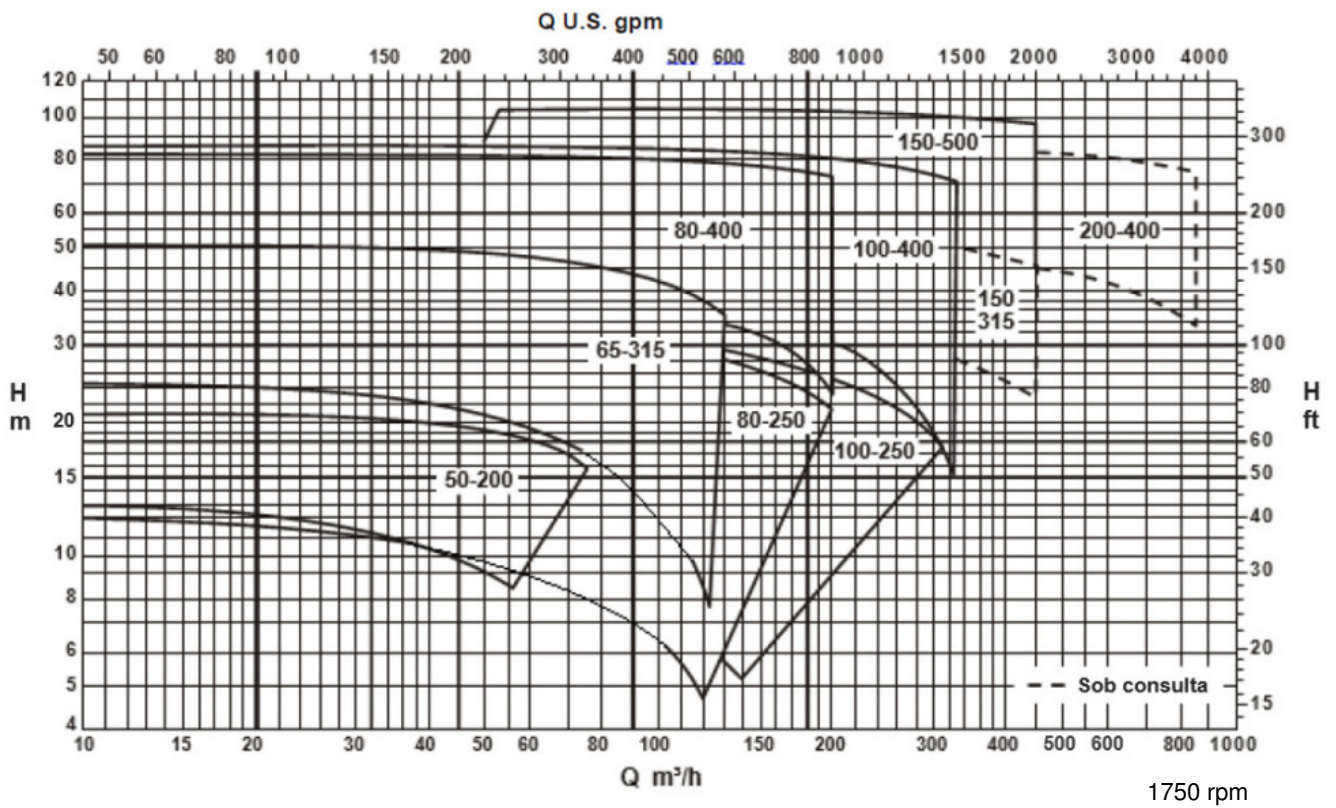
1.160 rpm



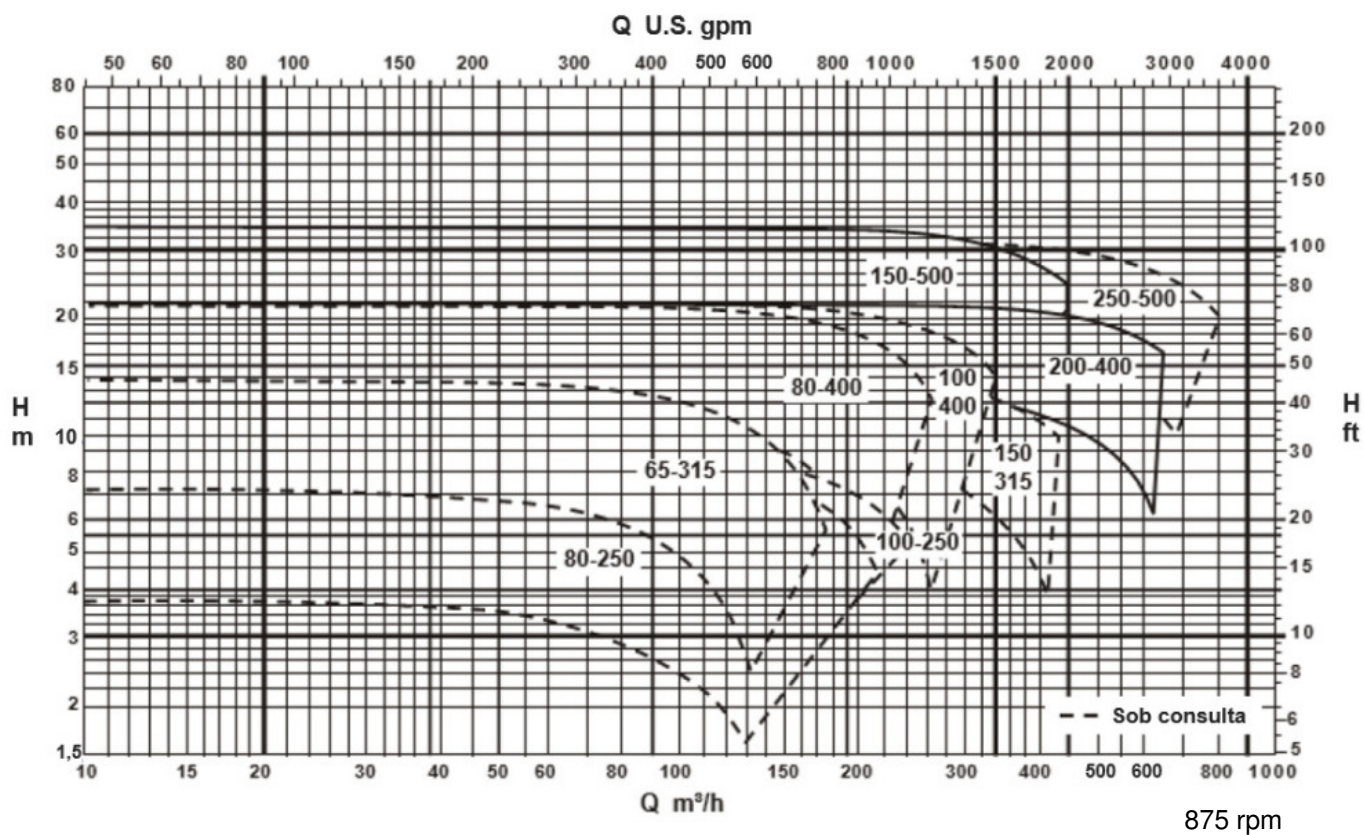
(1) Upon request

875 / 580 rpm

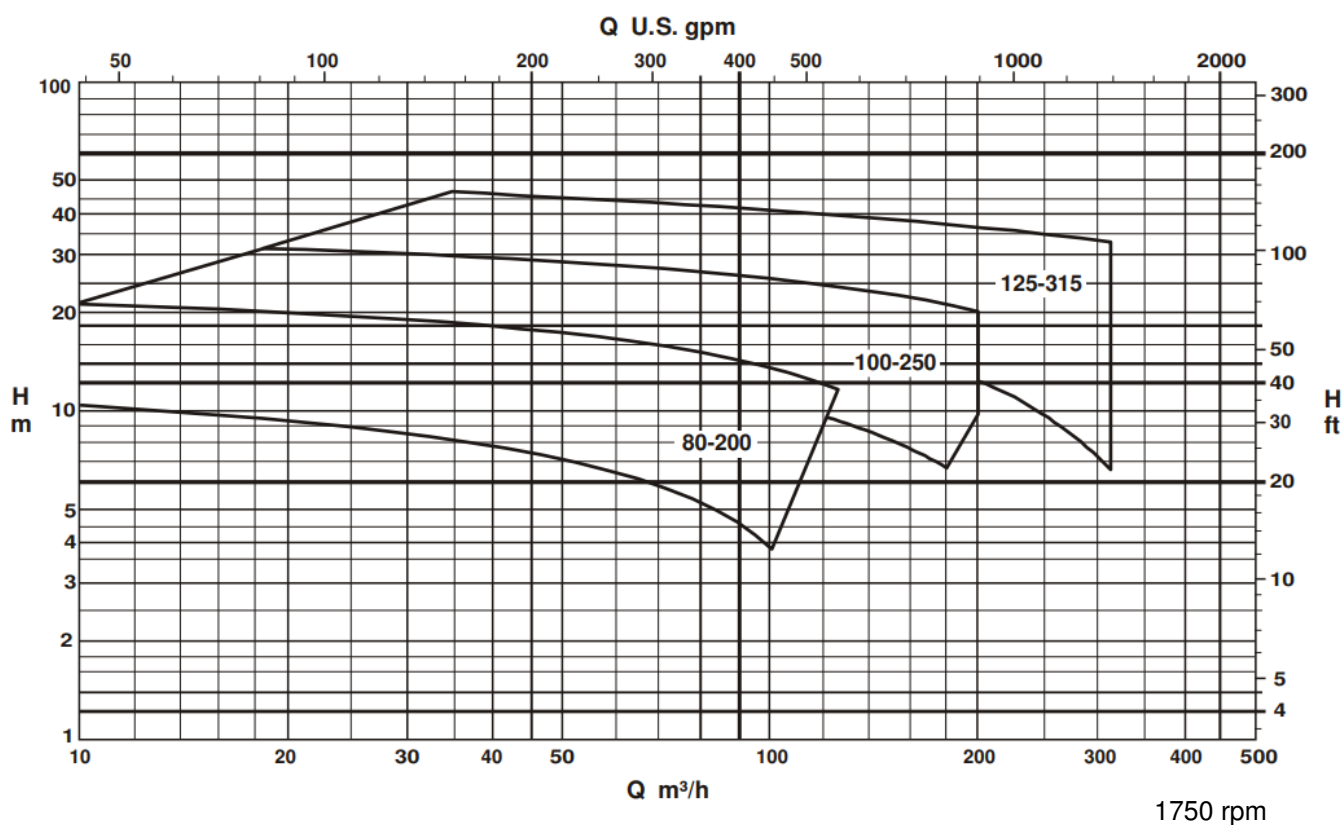
## 5.2 Impeller Type O



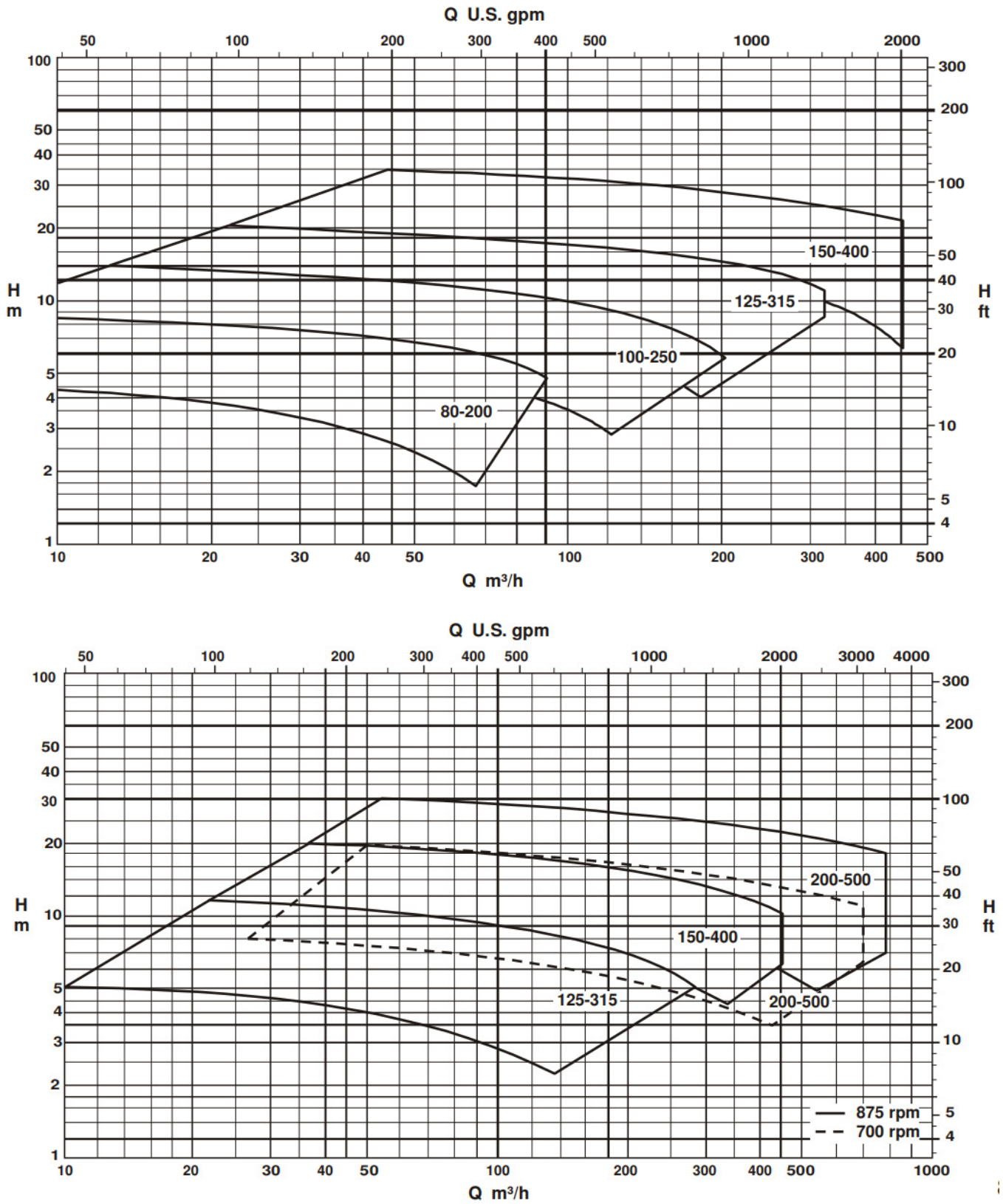
## 5.2 Impeller Type O



## 5.3 Impeller Type E



### 5.3 Impeller Type E



## 6. Technical Data

Sizes		Unit	50-160	50-200	65-200	80-200	80-250	65-315	100-250	100-315	80-400	100-400	125-315	150-315	200-315	125-500	150-400	150-500	200-400	200-500	250-500	300-500	350-400	350-500	350-630			
Construction data		Kgm <sup>2</sup>	0,031	0,064	0,095	0,200	0,215	0,418	(4)	0,598	1,100	1,230	1,246	0,720	0,867	2,620	2,734	2,850	2,060	8,240	4,750	5,900	(2)	(2)	(2)			
Hydrostatic Test Pressure		-	(5)			(6)	(5)		(7)	(5)			(6)	(5)			(6)	(5)		(6)	(5)		(2)	(2)	(2)			
Maximum Suction Pressure		bar	3																				(2)					
Maximum Discharge Pressure		bar	10																				(2)					
Temperature	Minimum		° C	-30																				(2)				
	Maximum	Liquid		Abrasive WITHOUT flush		90																				(2)		
				NOT Abrasive		105																				(2)		
				Abrasive WITH flush		105																				(2)		
Axial Thrust Balance		-	Back vanes																				(2)					
Min/Max. Flow		-	0,1 .Qopt. / refer to Characteristic Curve																				(2)					
Direction of rotation		-	Clockwise, when looking at the drive end																				(2)					
Maximum speed		rpm	Refer to table 2, item 6.1																				(2)					
Lubrication		-	Oil, by constant level oiler																				(2)					
Flanges	Cast Iron		-	ANSI B16.1 125# FF																				(2)				
	Stainless Steel		-	ANSI B16.5 150# RF																				(2)				
Seal chamber	Ø Sleeve		mm	35	45			60			70			80			100			(2)								
	Ø Chamber			55	65			85			95			105			132			(2)								
	□ Packing			10	10			12,5			12,5			12,5			16			(2)								
	L Chamber			60	60			73			73			87			103			(2)								
Weight	Cast Iron		Kg	45	68	78	95	104	150	136	159	237	243	220	231	224	370	380	385	375	400	740	840	(2)	(2)	(2)		
	Steel			47	72	82	100	110	159	143	168	251	257	232	245	237	392	402	407	395	423	783	890	(2)	(2)	(2)		

Table 1

### Notes:

- Ø115 for impeller Ø ≤ 335; Ø130 for impeller Ø >335 up to Ø400
- According to Hydraulic Institute, max. = 15bar
- According to Hydraulic Institute, max. = 6 bar
- According to Hydraulic Institute, for impellers K/O max. = 15 bar; for impeller E max. = 6 bar
- Pump with impeller K/O, GD<sup>2</sup> = 0,270 Kg.m<sup>2</sup>; with impeller E, GD<sup>2</sup> = 0,640 Kg.m<sup>2</sup>
- For size 100-400 "K" at 1450 and 1750 rpm – bearing bracket P55/140s. Please consult KSB.
- For size 100-400 "O" at 1450 and 1750 rpm – bearing bracket P65/160ax. Please consult KSB.

## 6.1 Bearings

Pump size	Impeller	Max. allowable solid diameter (mm)	Bearing bracket	Bearings		Max. allowable p/n (CV/rpm)
				NDE	DE	
50-160	K	34	CS40	6208C3	6208C3	0,0180
50-200	K	30	CS50	6310C3	6310C3	0,0500
	O	25	A40K	NU308	6308C3	0,0458
65-200	K	30	CS50	6310C3	6310C3	0,0500
80-200	E	55	A40K	NU308	6308C3	0,0458
80-250	K	50	A40K	NU308	6308C3	0,0458
	O	35	A40K	NU308	6308C3	0,0458
65-315	K	35	A50K	NU310	6310C3	0,100
	O	18				
100-250	K	54				
	O	44				
	E	70				
100-315	K	47				
80-400	K	40	A60K (1)	NU312	6312C3	0,158
	O	22				
100-400	K	45	A60K (1)(2)			
	O	30				
125-315	E	90	A60K			
150-315	K	85				
	O	60				
200-315	K	80				
125-500	K	50	P65/160X	NU413	2x 7313BUA	0,310
150-400	E	(3)				
150-500	K	60				
	O	85				
200-400	K	80				
	O	80				
200-500	E	150				
250-500	K	75	P80/200S	NU419	2x 7319BUA	0,422
	O	(3)				
300-500	K	95				
350-400	K	(2)	(3)	(3)		
350-500	K	(2)				
350-630	K	(2)				

Table 2

### Notes:

- (1) For size 100-400 "K" at 1450 and 1750 rpm – bearing bracket P55/140s. Please consult KSB.
- (2) For size 100-400 "O" at 1450 and 1750 rpm – bearing bracket P65/160ax. Please consult KSB.
- (3) Note: Consult KSB for pump sizes 350-400, 350-500 and 350-630.

## 6.2 Maximum speed

Pump size	Impeller type	Speed (rpm)	$\gamma = 1,0 \text{ kgf/dm}^3$	$\gamma = 1,2 \text{ kgf/dm}^3$	$\gamma = 1,4 \text{ kgf/dm}^3$
			Maximum Impeller Diameter (mm)		
50-160	K/O	1750	169	169	169
		2900	169	165	160
		3500	160	150	145
50-200	K/O	1750	209	209	209
		2900	209	209	209
		3500	209	209	200
65-200	K	1750	209	209	209
		2900	209	209	200
		3500	200	190	- -
65-315	K/O	1450	320	320	320
		1750	320	320	320
		2900	260	255	245
80-200	E	up to 2000	205	205	205
80-250	K/O	1450	260	260	260
		1750	260	260	260
		2900	230	220	210
80-400	K/O	1450	404	404	404
		1750	404	380	370
100-250	K/O	1450	260	260	260
		1750	260	260	260
		2900	230	215	205
100-250	E	up to 1450	255	255	255
		1750	255	255	235
		2000	255	235	215
100-315	K/O	1450	320	320	320
		1750	320	320	310
100-400	K/O	1450	404	404	404
		1750	404	380	360
125-315	E	up to 1160	315	315	315
		1450	315	300	270
		1750	270	240	240
125-500	K/O	1160	504	504	504
		1450	504	490	465
		1750	450	400	- -
150-315	K/O	1160	320	320	320
		1450	320	310	300
		1750	300	290	275
150-400	E	725	400	400	400
		875	400	400	388
		960	400	388	370
		1160	400	370	348
		1300	400	348	--
		1450	370	--	--

Table 3

## 6.1 Maximum speed

Pump size	Impeller type	Speed (rpm)	$\gamma = 1,0 \text{ kgf/dm}^3$	$\gamma = 1,2 \text{ kgf/dm}^3$	$\gamma = 1,4 \text{ kgf/dm}^3$
			Maximum Impeller Diameter (mm)		
150-500	K/O	960	504	504	504
		1160	504	500	--
		1450	504	460	--
200-315	K/O	1160	320	320	320
		1450	320	305	295
		1750	300	280	270
200-400	K/O	1160	404	404	404
		1450	404	404	380
		1750	360	330	--
200-500	E	480	500	500	500
		580	500	500	500
		725	500	480	420
		875	500	450	420
		960	500	450	420
250-500	K/O	725	504	504	504
		960	475	450	430
		1160	430	400	--
300-500	K/O	725	504	500	475
		960	460	430	410
		1160	405	--	--
350-400	K	1160	408	408	408
350-500	K	1160	--	--	--
350-630	K	875	630	630	630

Table 3

## 7. Materials

Part nº	Description	Material variants		
		G	GC	C
102	Volute casing	A48 CL. 30		A743 CF8M
135	Wear plate	A48 CL. 30	A743 CF8M	
163	Discharge cover	A48 CL. 30		A743 CF8M
210	Shaft	SAE 1045		
230	Impeller	A48 CL. 30	A743 CF8M	
330	Bearing bracket	A48 CL. 30		
456	Neck bush	A48 CL. 30		AISI 316
461	Packing	Para-amide w/ PTFE + graphite		
524	Shaft protecting sleeve	AISI 316		
906	Impeller screw	SAE 1045	A564 type 630	

Table 4

## 8. Constructive Details

### 8.1 Casing

Large clearance volute, one piece casting including support feet. Radially split with discharge cover. Replaceable wear plate on suction side.

### 8.2. Nozzle Layout

Axial, horizontal suction and radial vertical discharge. Optionally an intermediate suction piece with clean out and inspection hole can be offered.

### 8.3 Impeller

Three types of impellers are available: K, O and E.

#### 8.3.1 Impeller type K

The impeller K is closed with two or three vanes therefore is specially recommended to pump dirty or muddy liquids with no gases and which are not prone to form long fiber plaits. Also suitable for paper and cellulose pulp with a mass concentration up to 3%.

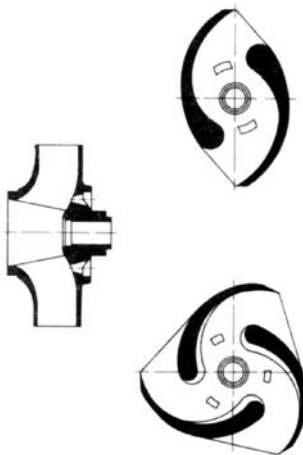


Fig. 1  
Impeller Type K

#### 8.3.2 Impeller Type O:

Multiple vane open impeller. Recommended for liquids containing air such as sugar plants residues without cane trash, cellulose and paper pulp with a mass concentration up to 6 %.



Fig. 2  
Impeller type O

#### 8.3.3 Impeller type E:

Single vane closed impeller, recommended for liquids containing solids in suspension such as sewage, long fibers, sludge with air concentration, fruits, vegetables, fish, sugar cane, residues in the food industry, rags, wood pieces, bones, etc.

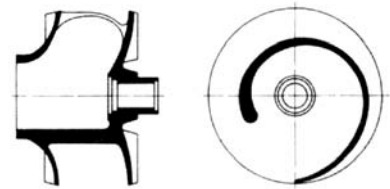


Fig. 3

**Note: The impellers are not directly interchangeable due to different wear plates (impeller types K and O) or due to the different casing construction (impeller type E).**

### 8.4 Shaft

The shaft design is a dry type provided with shaft protecting sleeve in the sealing area and sealed with gaskets on impeller nut (or screw) and protecting sleeve region.

### 8.5 Axial Thrust Balancing

Axial thrust is balanced by impeller back vanes, which relieve essentially the pressure in the seal chamber and prevent the deposit of solids in the backside. The remaining thrust is absorbed by the bearings.

### 8.6 Shaft seal

Gland packing (standard) or optionally by means of a single or double mechanical seal. The shaft seal selection depends on the handled liquid and required application.

### 8.7 Bearings

Ball bearings (drive side) and cylindrical roll (pump side) oil lubricated. Oil level is checked by a small rod or optionally controlled by a constant level oiler.

## 9. Peripheral Speed

After determining the pump operation rotation and check maximum discharge pressure, check also if impeller material is appropriate regarding to peripheral speed, observing the following limits:

Grey iron - A48 CL 30 up to 40 m/s  
Copper – CuSn 10 up to 60 m/s  
Stainless steel – A 743 CF 8M – up to 80 m/s

## 10. Selection of Shaft seal

Code	Application
0	For liquids containing solids in suspension with low abrasivity. Sealing with clean liquid of external source with pressure of 0,5 up to 1 bar over the pressure $p_w$ (see item 9.3)
1	Same execution as code 0, however applicable when sealing liquid should not be in contact to the pumped liquid.
2	For liquids containing abrasive solids in suspension. Flushing with clean liquid of external source with pressure of 0,1 and 0,2 bar over the pressure $p_w$ (see item 9.3).
3	For liquids free of solids in suspension and positive suction. Seal though the pumped liquid.
9	Single or double Mechanical Seals

Table 5

**Note:** Codes indicated on Table 3 comply with the seal executions indicated on sectional drawings according to figures 12, 13, 14, 15, 16 and 17.

### 10.1 Pressure of seal liquid / Flush for pumps with impellers type K / O / E.

Seal code	Pressure (bar)		$\Delta P$ Seal (bar)	$\Delta P$ Flush (bar)
	Seal	Flush		
0 and 1	$P_w + \Delta P$	-	0,5 a 1	-
2	-	$P_w + \Delta P$	-	0,1 a 0,2

Table 6

### 10.2 Sealing Flow / Flush

#### 10.2.1 Pumps with Impellers type K and O

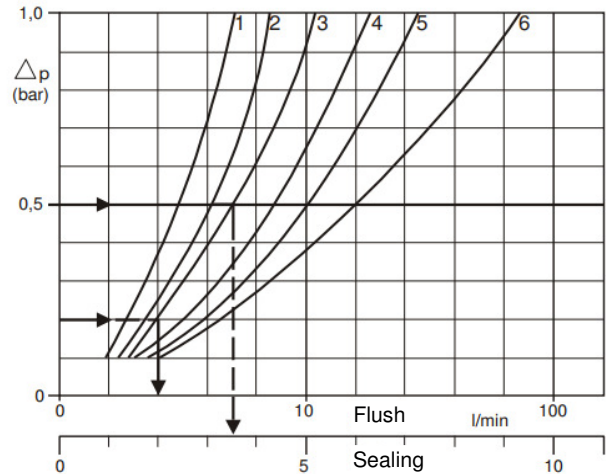


Fig. 4

#### Legend

1	2	3	4	5	6
50-160	50-200	65-315	80-400	125-500	250-500
	65-200	100-250	100-400	150-500	300-500
	80-250	100-315	150-315	200-400	
			200-315		

#### 10.2.2. Pump with Impeller type E

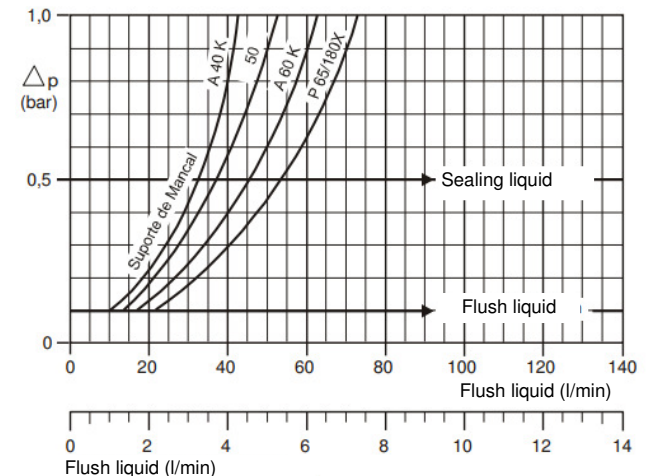


Fig. 5

### 10.3 Pressure at the Seal Chamber ( $P_w$ )

$$P_w = \frac{K \cdot H_o \cdot \gamma}{10} + P_s$$

$P_w$  = pressure at sealing chamber (bar)

$K$  = correction value

$H_o$  = head (m) with  $Q = m^3/h$

$\gamma$  = specific weight ( $kgf/dm^3$ )

$P_s$  = suction pressure (bar)

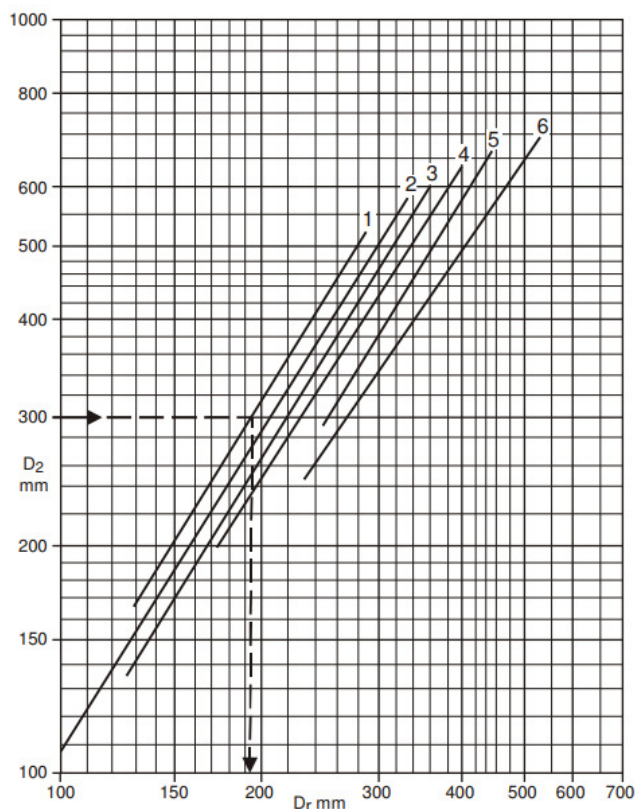
### 10.3.1 K Correction factor for Pump with E Impeller

Pump Size	"K"
80-200	0,3
100-250	
125-315	0,4
150-400	
200-500	

Table 7

### 10.3.2 Correction factor for Pumps with K and O Impellers

Initially determine the outer diameter of back vanes ( $D_r$ ), according to fig. 6 based on impeller outer diameter ( $D_2$ ). With  $D_2$  and  $D_r$ , determine through fig. 7 K factor. On figures 6 and 7 there is an example for  $D_r$  and K values, for a pump KSB Megaflow 65-315 K with  $D_2 = 300$  mm, where  $D_r = 195$  (fig. 6) and  $K = 0,25$  (fig.7).


Fig. 6 – Vane diameter  $D_2$ 

Legend:

1	2	3	4	5	6
65-315	50-160	80-250	125-500	200-400	150-500
80-400	50-200	100-250	150-315	250-500	300-500
	65-200	100-315	200-315		
	100-400				

Size	Max. $D_r$ (mm)	Size	Max. $D_r$ (mm)
50-160	140	100-400	340
50-200	170	125-500	400
65-200	180	150-315	280
65-315	260	150-500	420
80-250	220	200-315	280
80-400	340	200-400	360
100-250	220	250-500	440
100-315	260	300-500	430

Table 8

Table 8 – Back vane maximum diameter

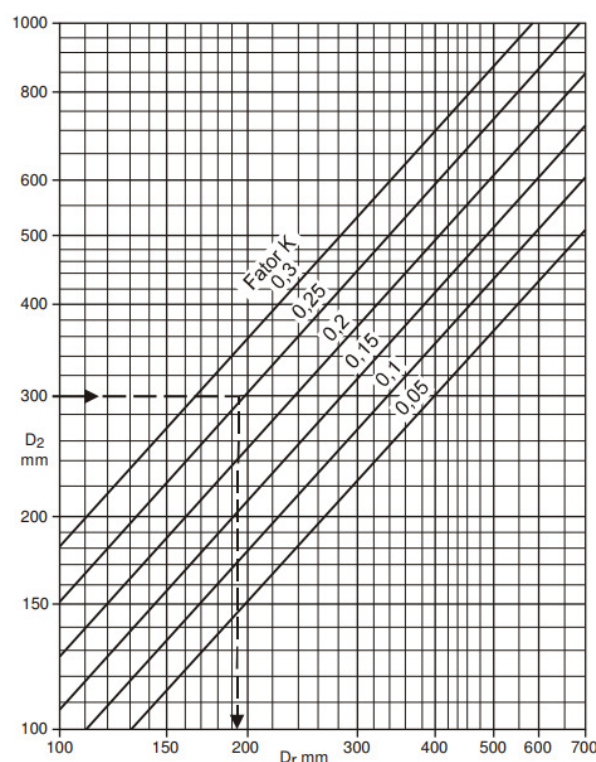


Fig. 7 – K Correction factor for Pumps with K and O Impellers

Note: For pumps size 350, please consult KSB.

## 11. Mechanical Seal

Option of shaft seal by mechanical seal available.

For the cases with sealing plan 11 (API) and nominal flow  $\leq 20$  m<sup>3</sup>/h it should be added to the nominal flow a recirculating flow of 1 m<sup>3</sup>/h.

## 12. Impellers sealing clearances

### 12.1 K and O Impellers

Clearances are indicated at Fig.8 for K Impeller and Fig. 9 for O Impeller.

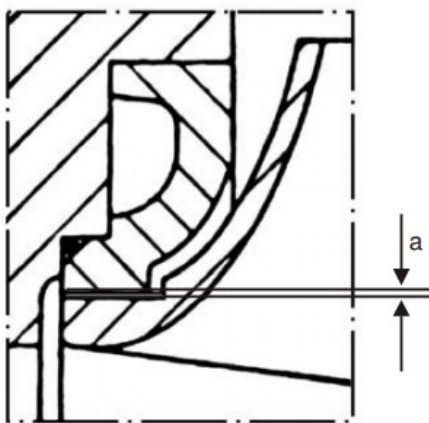


Fig. 8 Clearance K impeller

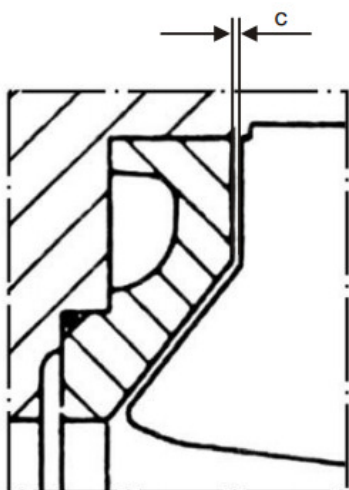


Fig. 9 Clearance O impeller

Pump size	Clearance (mm)		
	K Impeller (a)		O Impeller (c)
	Cast iron	steel	
50-160/ 50-200/ 65-200/ 65-315/ 80-250/ 80-400/ 100-250/ 100-315/ 100-400/ 125-500/ 150-315	0,2 + 0,05	0,3 + 0,05	0,5
150-500/ 200-315/ 200-400/ 250-500	0,3 + 0,05	0,35 + 0,05	
300-500	0,4 + 0,05	0,45 + 0,05	

Table 9 – Sealing clearance (mm) for K and O Impellers

Note: Consult KSB for pump sizes 350-400, 350-500 and 350-630.

### 12.2 E Impeller

#### 12.2.1 Standard Execution

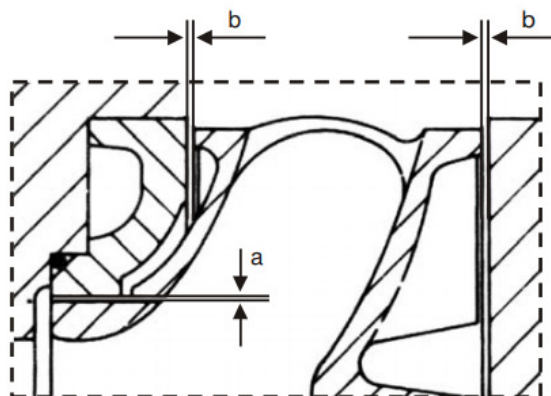


Figure 10 – Clearance E impeller

Pump size	Clearance (mm)	
	a	b
80-200 100-250	0,25 + 0,05	1,0
125-315 150-400 200-500	0,45 + 0,05	1,0

Table 10 – Clearances for E impeller

## 13. NPSH

The required NPSH values are indicated on the performance curves. For pumps with K and O impellers, add 0,5 m as manufacturing margin. NPSH tests for impellers type K and O can be realized for a flow at minimum:

$$Q \geq 0,5 Q_{opt} \text{ for } DN_2 \leq 50$$

$$Q \geq 0,35 Q_{opt} \text{ for } DN_2 > 50$$

## 14. Drive

Direct, through flexible coupling, by electric motor, turbine, diesel, etc.. Flexible coupling can be with or without spacer. In this case, the advantages of "back-pull-out" system are lost. Special drive through pulley and belt are possible. Please consult KSB.

## 15. Power margin

Pump with impeller type	Pump required power (HP)	Power margin for drive motor
K / O	Up to 10	Approx. 30 %
	10 up to 50	Approx. 20 %
	Above 50	Approx. 15 %
E	Up to 7,5	Approx. 50 %
	7,5 up to 20	Approx. 25 %
	20 up to 50	Approx. 15 %
	Above 50	Approx. 10 %

Table 11 – Power margin

- Note: 1. Minimum power shall not be lower than 2 HP.  
2. For pumps with K / O impellers with duty point close to the “shut-off” it should be considered a power margin of approximately 50%.  
3. For pumps with E impellers and duty point up to 25% of flow of the best efficiency point it should be considered a power margin of approximately 100%.

## 16. Painting

KSB Standard.

## 17. Accessories (optional)

### 17.1 Coupling

KSB Standard or from other manufacturers, with or without spacer.

### 17.2 Drive

Electric motor, turbine, diesel engine, etc...

### 17.3 Coupling guard

KSB Standard.

### 17.4 Baseplate

KSB Standard of welded structured steel with drain pan.

### 17.5 Belt and Pulleys

According to the sub suppliers.

### 17.6 Suction device

Available for all pump sizes.

Suction device is fixed to the pump suction nozzle according to the pump flange standard. It has an opening for inspection, sealed with appropriate cover and gasket. See fig. 11.

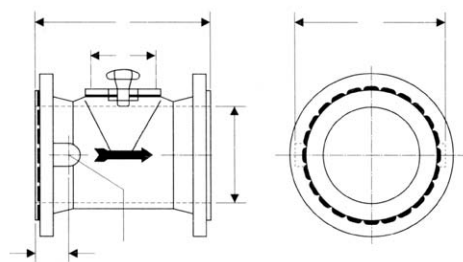


Fig. 11

① Standard execution without boring

**Table 12 – Dimension of Suction device**

Note: Consult KSB for pump sizes 350-400, 350-500 and 350-630.

## 18. Pump selection

For pump selection consult Performance curves

Pump size	Impeller type	DN (mm)	I (mm)	Øp (mm)	Possible pressure gage locations		
					3M ①	b1 (mm)	b2 (mm)
50-160	K	65	200	80	1/2 NPT	100	47
50-200	K / O						
65-200	K	80	200	80	1/2 NPT	112	47
80-200	E						
65-315	K / O						
80-250	K / O	100	250	120	1/2 NPT	134	47
80-400	K / O						
100-250	E						
100-250	K / O	125	250	120	1/2 NPT	160	47
100-315	K						
100-400	K / O						
125-315	E						
150-315	K / O	150	250	150	1/2 NPT	190	47
125-500	K						
150-400	E						
150-500	K / O						
200-315	K	200	350	200	1/2 NPT	240	55
200-400	K / O						
200-500	E						
250-500	K	250	400	200	1/2 NPT	295	55
300-500	K	300	400	200	1/2 NPT	295	55

booklet.

These curves refer to water in ambient temperature and specific weight of 1,0 kg/dm<sup>3</sup>.

19. Cross Sectional Drawing / Parts List  
19.1 Execution with K impeller – Bearing brackets CS40 and CS50

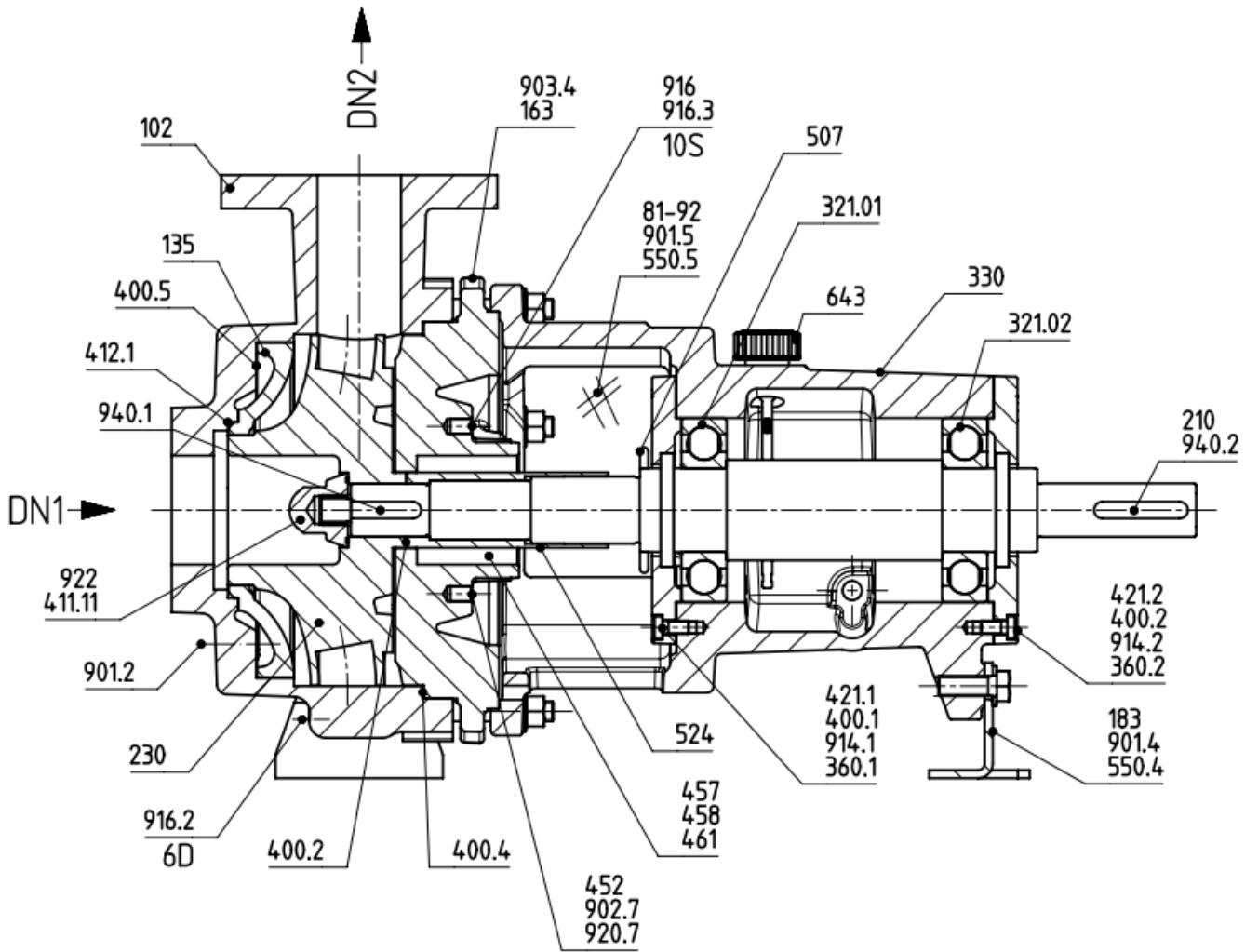
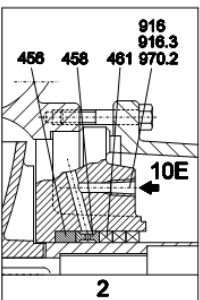
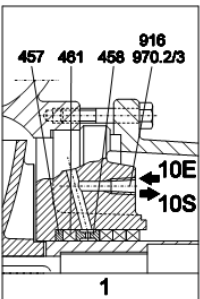
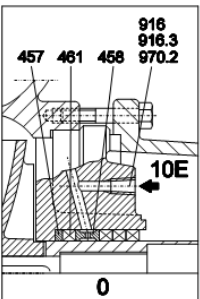


Fig. 12

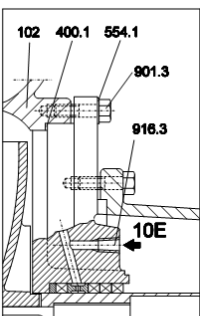
SEALING DETAIL



MECHANICAL SEAL

SEE SPECIAL DRAWING NR.

9



Applicable for pumps  
50-200 / 65-200 / 80-250  
100-250 / 65-315 / 100-315  
80-400 / 100-400

## 19.2 Parts List

### K Impeller – Bearing bracket CS40 and CS50

Description	Part N°	Qty.
Volute casing	102	1
Wear plate	135	1
Discharge cover	163	1
Support foot	183	1
Shaft	210	1
Impeller	230	1
Bearing	321	1
Bearing bracket	330	1
Bearing cover	360.1	1
Bearing cover	360.2	1
Flat gasket	400.1	1
Flat gasket	400.2	1
Flat gasket	400.3	1
Flat gasket	400.4	1
Flat gasket	400.5	1
Joint ring	411	1
O'Ring	412.1	1
Radial seal ring	421.1	1
Radial seal ring	421.2	1
Gland cover	452	1
Neck ring	457	1
Lantern ring	458	1
Packing (2)	461	(3)
Thrower	507	1
Shaft protection sleeve	524	1
Washer	550.1	8
Washer	550.4	1
Washer	550.5	8
Constant level oiler	638	1
Oil dipstick	643	1
Hexagonal head bolt	901.2	4
Hexagonal head bolt	901.3	1
Hexagonal head bolt	901.4	1
Hexagonal head bolt	901.5	8
Hexagonal head bolt	901.31	2
Stud	902.1	8
Threaded plug	903.1	2
Hexagonal head bolt	914.1	3
Hexagonal head bolt	914.2	3
Threaded insert	915	1
Threaded plug	916.1	3
Threaded plug	916.2	1
Threaded plug	916.7	1
Nut	920.1	8
Nut	920.7	2
Impeller nut	922	1
Key	940.1	1
Key	940.2	1
Nameplate	970.1	1
Nameplate (8)	970.2	1
Nameplate (9)	970.3	1
Cover plate	81-92	2

#### Notes:

- (1) Applicable only for sealing code 2
- (2) Anti-friction graphite asbestos
- (3) Quantity: 04 for sealing 0 and 1  
Quantity: 03 for sealing 2
- (4) Used only on sealing 0, 1 and 2
- (5) Used only on sealing 2

Table 13

# 19.3 Execution with K impeller – Bearing bracket AK

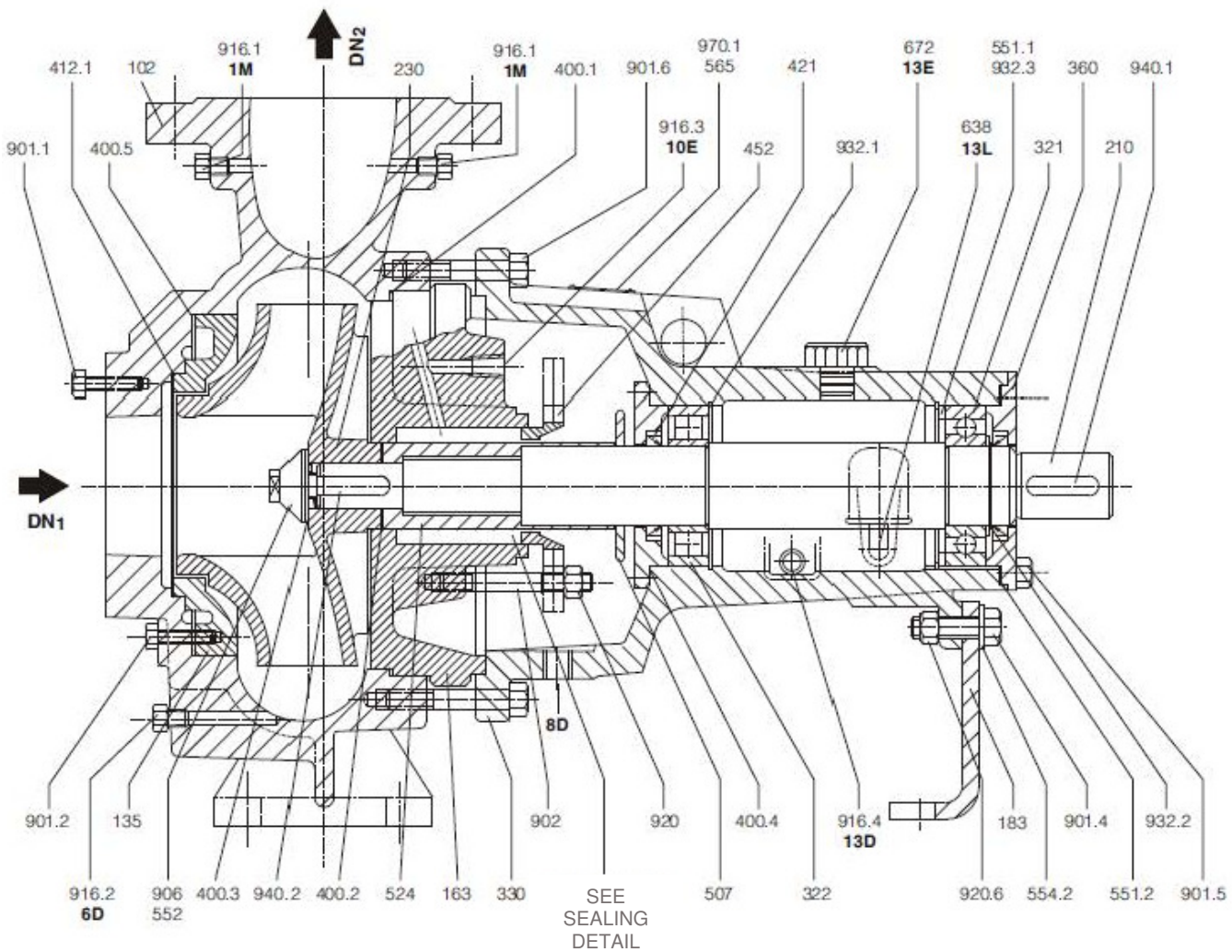
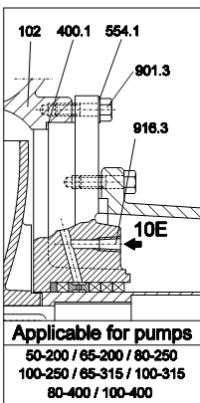
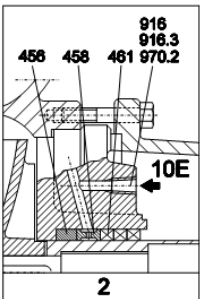
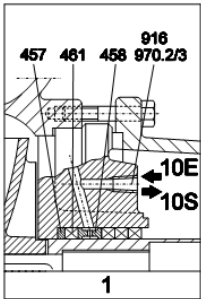
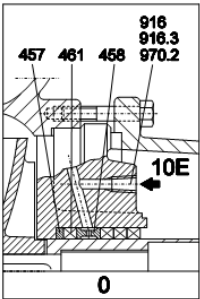


Fig. 13

## SEALING DETAIL





## 19.5 Parts List

### K and O Impellers – Bearing bracket AK

Denomination	Part n°	Qty.	Note:
Volute casing	102	1	
Wear plate	135	1	
Discharge cover	163	1	(1) Applicable only for sealing type 2
Support foot	183	1	
Shaft	210	1	(2) Anti-friction type
Impeller	230	1	
Bearing	321	1	(3) Quantity: 4 for sealing types 0 and 1
Bearing	322	1	Quantity: 3 for sealing type 2
Bearing bracket	330	1	
Bearing cover	360	2	(4) Quantity: 8 for pump sizes 50-200/65-200
Flat gasket	400.1	1	Quantity: 12 for pump sizes 80-250/100-250/65-315/100-315
Flat gasket	400.2	1	Quantity: 16 for pump sizes 80-400/100-400
Flat gasket	400.3	1	
Flat gasket	400.4	2	(5) Quantity: 4 for pump sizes 50-160/50-200/65-200/80-250/100-250
Flat gasket	400.5	1	Quantity: 8 for pump sizes 65-315/100-315/150-315/200-315/80-400/100-400
O'Ring	412.1	1	
Radial seal ring	421	2	
Gland cover	452	1	(6) Quantity: 6 for sealing type 9
Neck bush (1)	456	1	Quantity: 8 for sealing types 0 and 2
Neck ring	457	1	Quantity: 10 for sealing type 1
Lantern ring	458	1	
Packing (2)	461	(3)	(7) Quantity: 4 for pump sizes 50-160/50-200/65-200/65-315
Thrower	507	1	Quantity: 8 for pump sizes 80-250/80-400/100-250/100-315
Shaft protecting sleeve	524	1	100-400/150-315/200-315
Washer	551.1	1	
Washer	551.2	1	(8) Quantity: 6 for pump sizes 50-160/50-200/65-200/80-250
Locking disc	552	1	Quantity: 8 for pump sizes 65-315/100-315/100-250
Washer	554.1	(4)	Quantity: 12 for pump sizes 150-315/200-315/80-400/100-400
Washer	554.2	1	
Rivet	565	(6)	
Constant-level-oiler	638	1	(9) Quantity: 1 for sealing types 0 and 2
Venting	672	1	Quantity: 2 for sealing type 9
Hexagonal head bolt	901.1	(7)	Not used on sealing type 1
Hexagonal head bolt	901.2	(5)	
Hexagonal head bolt	901.3	(4)	(10) Quantity: 1 for sealing types 0 and 2
Hexagonal head bolt	901.4	1	Quantity: 2 for sealing type 1
Hexagonal head bolt	901.5	8	Not used on sealing type 9
Hexagonal head bolt	901.6	(8)	
Stud	902	2	(11) Used only on sealing types 0, 1 and 2
Impeller screw	906	1	
Plug	916	(10)	(12) Used only on sealing type 1
Threaded plug	916.1	2	
Threaded plug	916.2	1	
Threaded plug	916.3	(9)	
Threaded plug	916.4	1	
Nut	920	2	
Nut	920.6	1	
Circlip	932.1	2	
Circlip	932.2/3	1	
Key	940.1	1	
Key	940.2	1	
Nameplate	970.1	1	
Nameplate (11)	970.2	1	
Nameplate (12)	970.3	1	

Table 14

19.4 Execution with K / O impeller – Bearing bracket P65/160 X

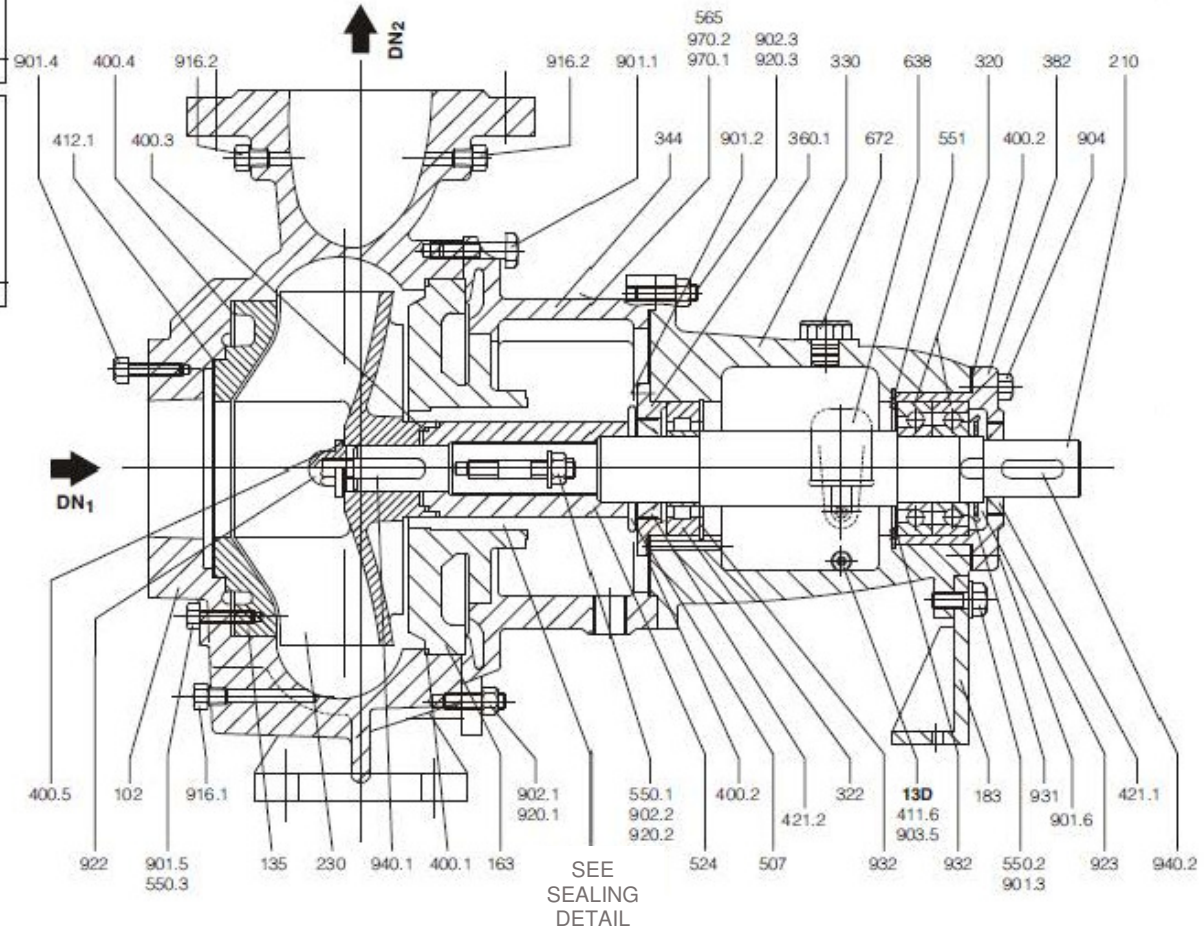
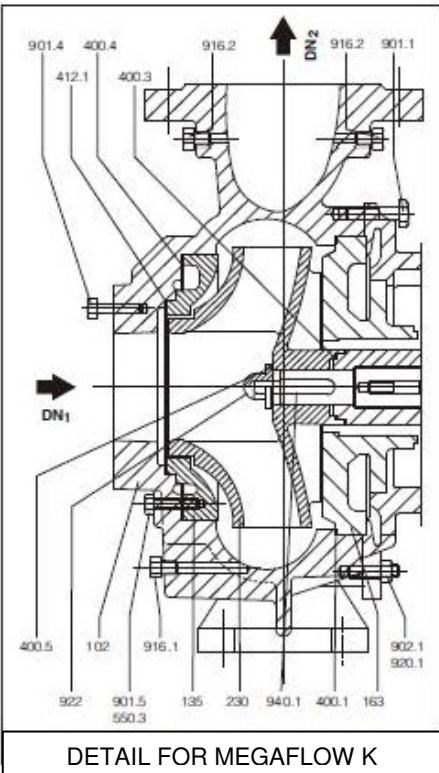
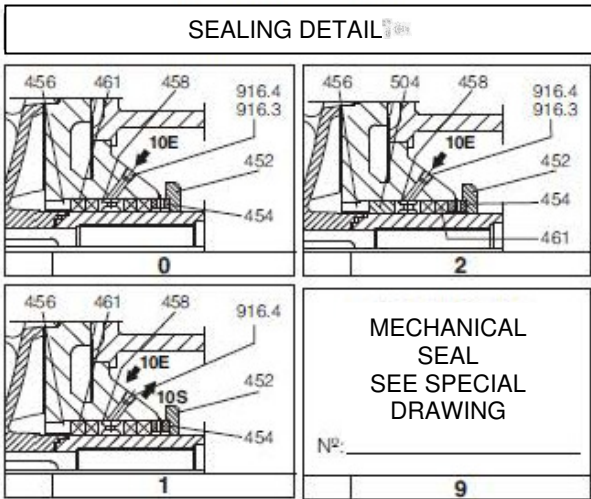


Fig. 15

## 19.7 Parts List

### K and O Impellers – Bearing Bracket P 65/160 X

Denomination	Part N°	Qty.
Volute casing	102	1
Wear plate	135	1
Discharge cover	163	1
Support foot	183	1
Shaft	210	1
Impeller	230	1
Bearing	320	2
Bearing	322	1
Bearing bracket	330	1
Bearing bracket lantern	344	1
Bearing cover	360.1	1
Bearing casing	382	1
Flat gasket	400.1	1
Flat gasket	400.2	2
Flat gasket	400.3	1
Flat gasket	400.4	1
Flat gasket	400.5	1
Gasket	411.6	1
O'Ring	412.1	1
O'Ring	412.3	1
Radial seal ring	421.1/2	1
Gland cover	452	1
Gland cover ring	454	1
Neck bush	456	1
Lantern ring	458	1
Packing (2)	461	(1)
Spacer ring	504	(3)
Thrower	507	1
Shaft protecting sleeve	524	1
Washer (4)	550.1	2
Washer	550.2	1
Washer	550.3	8
Spacer disc	551	1
Locking disc	552	1
Rivet	565	(9)
Constant-level-oiler	638	1
Venting	672	1
Hexagonal head bolt	901.1	4
Hexagonal head bolt	901.2	4
Hexagonal head bolt	901.3	1
Hexagonal head bolt	901.4	8
Hexagonal head bolt	901.5	8
Hexagonal head bolt	901.6	4
Stud	902.1	(7)
Stud	902.2	(8)
Stud	902.3	4
Threaded plug	903.5	1
Plug	916	(6)
Threaded plug	916.1	1
Threaded plug	916.2	2
Threaded plug	916.3	(5)
Nut	920.1	(7)
Nut	920.2	(8)
Nut	920.3	4
Impeller nut	922	1
Bearing nut	923	1
Lock washer	931	1
Circlip	932	2
Key	940.1	1
Key	940.2	1
Nameplate	970.1/2	1
Nameplate (10)	970.3	1
Nameplate (11)	970.4	1

#### Notes:

- (1) Quantity 4 for sealing types 0 and 1  
Quantity 3 for sealing type 2
- (2) Anti-friction type
- (3) Used only for sealing
- (4) Not used for sealing type 9
- (5) Quantity: 1 for sealing types 0 and 2  
Quantity: 2 for sealing type 9. Not used on sealing type 1
- (6) Quantity 1 for sealing types 0 and 2  
Quantity 2 for sealing type 1. Not used on sealing type 9
- (7) Quantity: 16 for pumps with impellers Ø 400  
Quantity: 20 for pumps with impellers Ø 500
- (8) Quantity: 2 parts for pumps with gasket  
Quantity: 4 parts for pumps with mechanical seal
- (9) Quantity: 6 for sealing types 9  
10 for sealing type 1
- (10) Not used for sealing type 9
- (11) Only used on sealing type 1

Table 15

# 19.8 Execution with K impeller – Bearing bracket P80/200 S

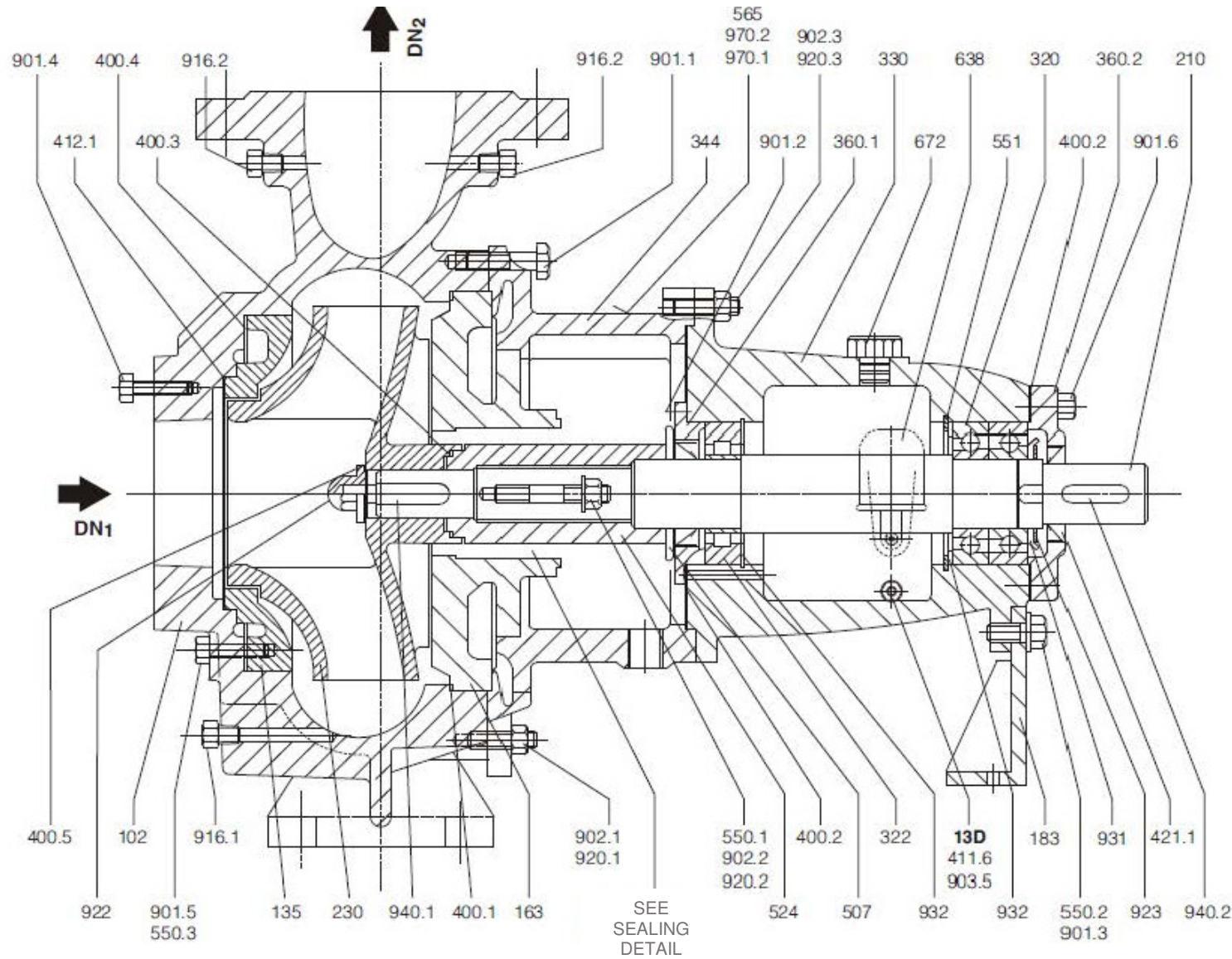


Fig. 16

# 19.9 Parts List - K Impeller – Bearing bracket P 80/200 S

Denomination	Part N°	Qty
Volute casing	102	1
Wear plate	135	1
Discharge cover	163	1
Support foot	183	1
Shaft	210	1
Impeller	230	1
Bearing	320	2
Bearing	322	1
Bearing bracket	330	1
Bearing bracket lantern	344	1
Bearing cover	360.1	1
Bearing casing	360.2	1
Flat gasket	400.1	1
Flat gasket	400.2	2
Flat gasket	400.3	2
Flat gasket	400.4	1
Flat gasket	400.5	1
Gasket	411.6	1
O'Ring	412.1	1
Radial seal ring	421.1	1
Radial seal ring	421.2	1
Gland cover	452	1
Gland cover ring	454	1
Neck bush	456	1
Lantern ring	458	1
Packing (2)	461	(1)
Spacer ring	504	(3)
Thrower	507	1
Shaft protecting sleeve	524	1
Washer (4)	550.1	2
Washer	550.2	1
Washer	550.3	12
Spacer disc	551	1
Locking disc	552	1
Rivet	565	(5)
Constant-level-oiler	638	1
Venting	672	1
Hexagonal head bolt	901.1	4
Hexagonal head bolt	901.2	4
Hexagonal head bolt	901.3	1
Hexagonal head bolt	901.4	12
Hexagonal head bolt	901.5	12
Hexagonal head bolt	901.6	4
Stud	902.1	20
Stud	902.2	(8)
Stud	902.3	4
Threaded plug	903.5	1
Plug	916	(7)
Threaded plug	916.1	1
Threaded plug	916.2	2
Threaded plug	916.3	(6)
Nut	920.1	20
Nut	920.2	(8)
Nut	920.3	4
Impeller nut	922	1
Bearing nut	923	1
Lock washer	931	1
Circlip	932	2
Key	940.1	1
Key	940.2	1
Plate	970.1/2	1
Nameplate (9)	970.3	1
Nameplate (10)	970.4	1

## Notes:

- (1) Quantity 4 for sealing types 0 and 1  
Quantity 3 for sealing type 2
- (2) Anti-friction type
- (3) Used only for sealing type 2
- (4) Not used for sealing type 9
- (5) Quantity: 6 for sealing type 9  
8 for sealing types 0 and 2  
10 for sealing type 1
- (6) Quantity 1 for sealing types 0 and 2  
Quantity 2 for sealing type 9.  
Not used for sealing type 1.
- (7) Quantity: 1 for sealing types 0 and 2  
Quantity: 2 for sealing type 1  
Not used on sealing type 9
- (8) Quantity: 2 parts for pumps with gasket  
Quantity: 4 parts for pumps with mechanical seal  
Not used in the version 9. Only for sealing 1
- (9) Not used for sealing type 9
- (10) Only used on sealing type 1

Table 16



## 19.11 Lista de Peças

### Rotor E - Suportes A 40K / A 50K e A 60K

Description	Part Nº	Qty.
Volute casing	102	1
Wear plate	135	1
Discharge cover	163	1
Support foot (1)	183	1
Shaft	210	1
Impeller	230	1
Bearing (2)	321	1
Bearing (2)	322	1
Bearing bracket	330	1
Bearing cover	360	2
Flat gasket	400.1	1
Flat gasket	400.2	1
Flat gasket	400.3	1
Flat gasket	400.4	2
Flat gasket	400.5	1
O'Ring	412	1
Radial seal ring	421	2
Gland cover	452	1
Neck bush (3)	456	1
Neck ring	457	1
Lantern ring	458	1
Packing	461	(4)
Thrower	507	1
Shaft protecting sleeve	524	1
Washer	551.1/2	1
Washer	554.1	(5)
Washer	554.2	1
Rivet	565	(6)
Constant level oiler	638	1
Venting	672	1
Hexagonal head bolt	901.2	2
Hexagonal head bolt	901.3	(7)
Hexagonal head bolt	901.4	1
Hexagonal head bolt	901.5	8
Hexagonal head bolt	901.6	(5)
Stud	902	2
Threaded plug	903.1	2
Threaded plug	903.2	1
Threaded plug	903.3	(8)
Threaded plug	903.4	1
Impeller screw	906	1
Hexagon socket head cap screw	914	(9)
Threaded plug	916	(10)
Nut	920.1	2
Nut	920.2	1
Circlip	932.1	2
Circlip	932.2	1
Circlip	932.3	1
Key	940.1	1
Key	940.2	1
Nameplate	970.1	1
Nameplate (11)	970.2	1
Nameplate (12)	970.3	1

#### Notes:

- (1) A48 CL30 for size 125-315
- (2) For bearing bracket A 40K part 321 DE bearing = 6308 C3  
For bearing bracket A 40K part 322 NDE bearing = NU308 C3  
For bearing bracket A 50K part 321 DE bearing = 6310 C3  
For bearing bracket A 50K part 322 NDE bearing = NU310 C3  
For bearing bracket A 60K part 321 DE bearing = 6312 C3  
For bearing bracket A 60K part 322 NDE bearing = NU312 C3
- (3) Used only on sealing 2
- (4) Quantity: 04 for sealing 0 and 1  
Quantity: 03 for sealing 2
- (5) Quantity: 08 for pump 80-200  
Quantity: 12 for pump 100-250
- (6) Quantity: 06 for sealing 9  
Quantity: 08 for sealing 0 and 2  
Quantity: 10 for sealing 1
- (7) Quantity: 06 for sealing 80-200  
Quantity: 08 for sealing 100-250  
Quantity: 12 for sealing 125-315
- (8) Quantity: 01 for sealing 0 and 2  
Quantity: 02 for sealing 9  
Not used on sealing 1
- (9) Quantity: 04 for sizes 80-200 and 100-250  
Quantity: 08 for size 125-315
- (10) Quantity: 01 for sealing 0 and 2  
Quantity: 02 sealing 1  
Not used on sealing 9
- (11) Used only on sealing 0, 1 and 2
- (12) Used only on sealing 2

Table 17

19.12 Execution with E Impeller – Bearing bracket P65/160 X

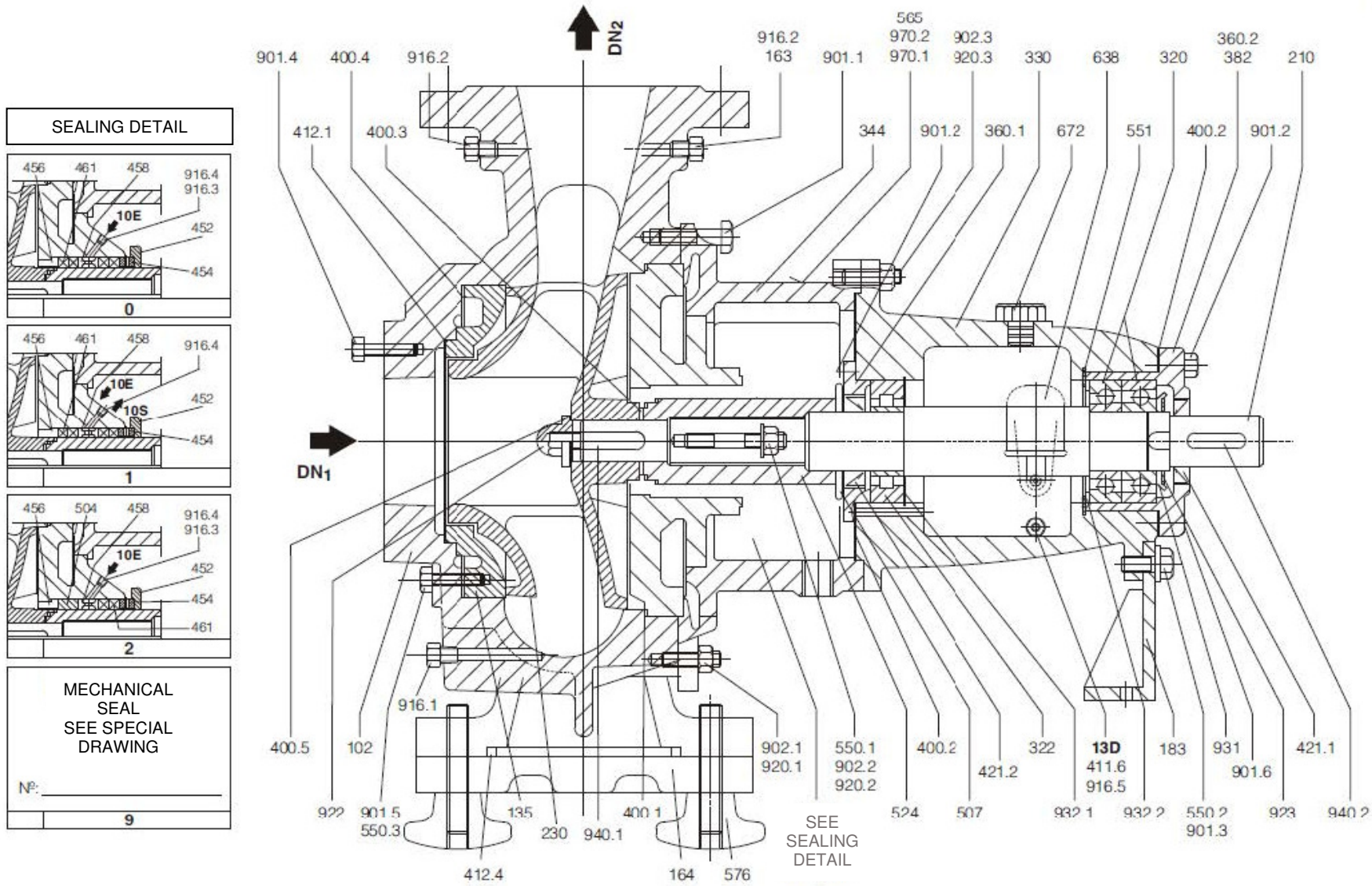


Fig. 18

# 19.13 Parts list / Materials

## Rotor E – Bearing Bracket P 65/160 X

Description	Part N°	Qty.
Volute	102	1
Wear plate	135	1
Discharge cover	163	1
Inspection cover	164	1
Support foot	183	1
Shaft	210	1
Impeller	230	1
Bearing (1)	320	2
Bearing (1)	322	1
Bearing bracket	330	1
Bearing bracket lantern	344	1
Bearing cover	360.1	1
Bearing cover	360.2	1
Bearing carrier (2)	382	1
Flat gasket	400.1/2/3	1
Flat gasket	400.4	2
Flat gasket	400.5	1
Joint ting	411	1
O'Ring	412.1/4	1
O'Ring (2)	412.3	1
Radial seal ring	421.1/2	1
Gland cover	452	1
Stuffing box ring	454	1
Neck bush	456	1
Lantern ring	458	1
Packing (4)	461	(3)
Spacer ring (9)	504	1
Thrower	507	1
Shaft protecting sleeve	524	1
Spacer disc	551	1
Washer (6)	554.1	2
Washer	554.2	1
Washer	554.4	2
Rivet	565	(8)
Constant level oiler	638	1
Venting	672	1
Hexagonal head bolt	901.1	4
Hexagonal head bolt	901.2	8
Hexagonal head bolt	901.3	1
Hexagonal head bolt	901.4	8
Hexagonal head bolt	901.5	8
Hexagonal head bolt	901.7	2
Stud	902.1	(6)
Stud	902.2	(7)
Stud	902.3	4
Threaded plug	903.1	2
Threaded plug	903.2/3/5	1
Grub screw (2)	904	4
Threaded insert	915	1
Threaded plug	916	(7)
Nut	920.1	(6)
Nut	920.2	(7)
Nut	920.3	4
Impeller nut	922	1
Bearing nut	923	1
Lock washer	931	1
Circlip	932.1/2	2
Key	940.1/2	1
Nameplate	970.1/2/3/4	1

### Notes:

(1) For Bearing Bracket P 65/160 X part 320 DE Bearing = 7313BG  
For Bearing Bracket P 65/160 X part 322 NDE Bearing = NU413

(2) Used only on sizes 150-400 and 200-500

(3) Quantity: 04 for sealing 0 and 1  
Quantity: 03 for sealing 2

(4) Anti-friction graphite asbestos

(5) Not used on Mechanical Seal execution

(6) Quantity: 16 parts for impeller of Ø 400 mm  
Quantity: 20 parts for impeller of Ø 500 mm  
Quantity: 02 parts for pumps with packing  
Quantity: 04 parts for pumps with Mechanical Seal

(7) Quantity: 01 part for executions 0 and 9  
Quantity: 02 parts for execution 1

(8) Quantity: 06 parts for execution 9  
Quantity: 08 parts for executions 0 and 2  
Quantity: 10 parts for execution 1

(9) Only applicable for sealing 2

Table 18

## 20. Dimensions

### 20.1 Execution with K / O Impeller – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K

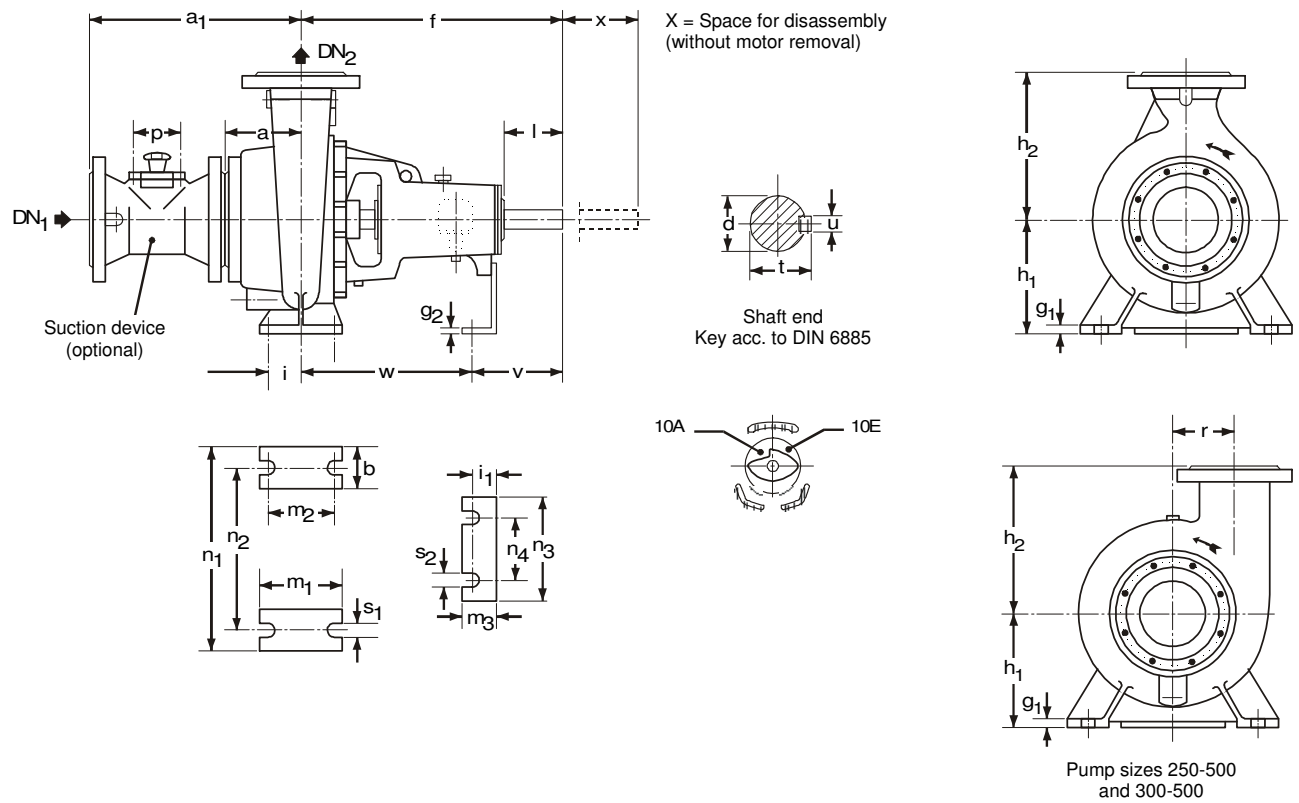


Fig. 19

## 20.1 Execution with K / O Impeller – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K

Dimensions in mm

Pump Size	Pump Dimensions															
	DN <sub>1</sub>	DN <sub>2</sub>	a	a <sub>1</sub>	b	f	g <sub>1</sub>	g <sub>2</sub>	h <sub>1</sub>	h <sub>2</sub>	m <sub>1</sub>	m <sub>3</sub>	n <sub>1</sub>	n <sub>3</sub>	p	r
50-160	65	50	100	302	50	385	14	6,35	160	180	100	66,35	265	152	80	--
50-200	65	50	112	314	50	500	14	9,52	160	200	100	64,52	265	152	80	--
65-200	80	65	125	327	65	500	16	9,52	180	225	125	64,52	320	154	80	--
65-315	80	65	140	342	80	530	18	9,52	225	280	160	61,52	400	152	80	--
80-250	100	80	125	377	80	500	18	9,52	225	280	160	64,52	400	152	120	--
80-400	100	80	140	392	80	670	18	6	280	355	160	65	435	210	120	--
100-250	125	100	140	392	80	530	18	9,52	225	280	160	61,52	400	152	120	--
100-315	125	100	140	392	80	530	18	9,52	250	315	180	61,52	400	152	80	--
100-400	125	100	140	392	100	670	20	10	280	355	200	65	500	210	120	--
125-500	150	125	160	412	100	720	24	12	355	450	200	60	550	200	150	--
150-315	150	150	180	432	100	670	22	15	315	400	200	65	550	210	150	--
150-500	150	150	160	412	100	720	24	12	375	500	200	65	550	200	150	--
200-315	200	200	200	552	100	670	22	12	355	450	200	60	550	210	200	--
200-400	200	200	180	532	100	720	24	12	355	500	200	60	550	200	200	--
250-500	250	250	200	602	130	1000	26	12	425	400	260	60	800	200	200	315
300-500	300	300	200	602	130	1000	26	12	450	450	260	60	800	200	200	315

Pump Size	Foot Dimensions									Shaft end				
	i	i <sub>1</sub>	m <sub>2</sub>	n <sub>2</sub>	n <sub>4</sub>	s <sub>1</sub>	s <sub>2</sub>	v <sub>t</sub>	w	d	l	t	u	x
50-160	35	41,35	70	212	110	14	14	100	285	24	50	26,9	8	100
50-200	35	39,52	70	212	110	14	14	130	370	32	95 (1)	35,3	10	100
65-200	47,5	39,52	95	250	110	14	14	130	370	32	95	35,3	10	120
65-315	60	36,52	120	315	110	14	14	160	370	42	110	45,1	12	120
80-250	60	36,52	120	315	110	18	14	130	370	32	80	35,2	10	120
80-400	60	35	120	355	140	18	20	170	500	48	110	51,5	14	120
100-250	60	36,52	120	315	110	18	14	160	370	42	110	45,1	12	140
100-315	60	36,52	120	315	110	18	14	160	370	42	110	45,1	12	140
100-400	75	35	150	400	140	23	20	170	500	48	110	51,5	14	160
125-500	75	39	150	450	140	23	18	205	515	60	140	64,2	18	160
150-315	75	38	150	450	140	23	20	170	500	48	110	51,5	14	160
150-500	75	39	150	450	140	23	18	205	515	60	140	64,2	18	160
200-315	75	35	150	450	140	23	20	170	500	48	110	51,6	14	160
200-400	75	39	150	450	140	23	18	205	515	60	140	64,2	18	160
250-500	95	39	190	670	140	28	18	220	780	75	150	79,7	20	315
300-500	95	39	190	670	140	28	18	220	780	75	150	79,7	20	315

Table 19

- (1) For pump 50-200 O the dimension l = 80 mm.  
(2) For pump sizes 350-400, 350-500 and 350-630, please consult KSB.

# 20.2 Execution with E Impeller – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K

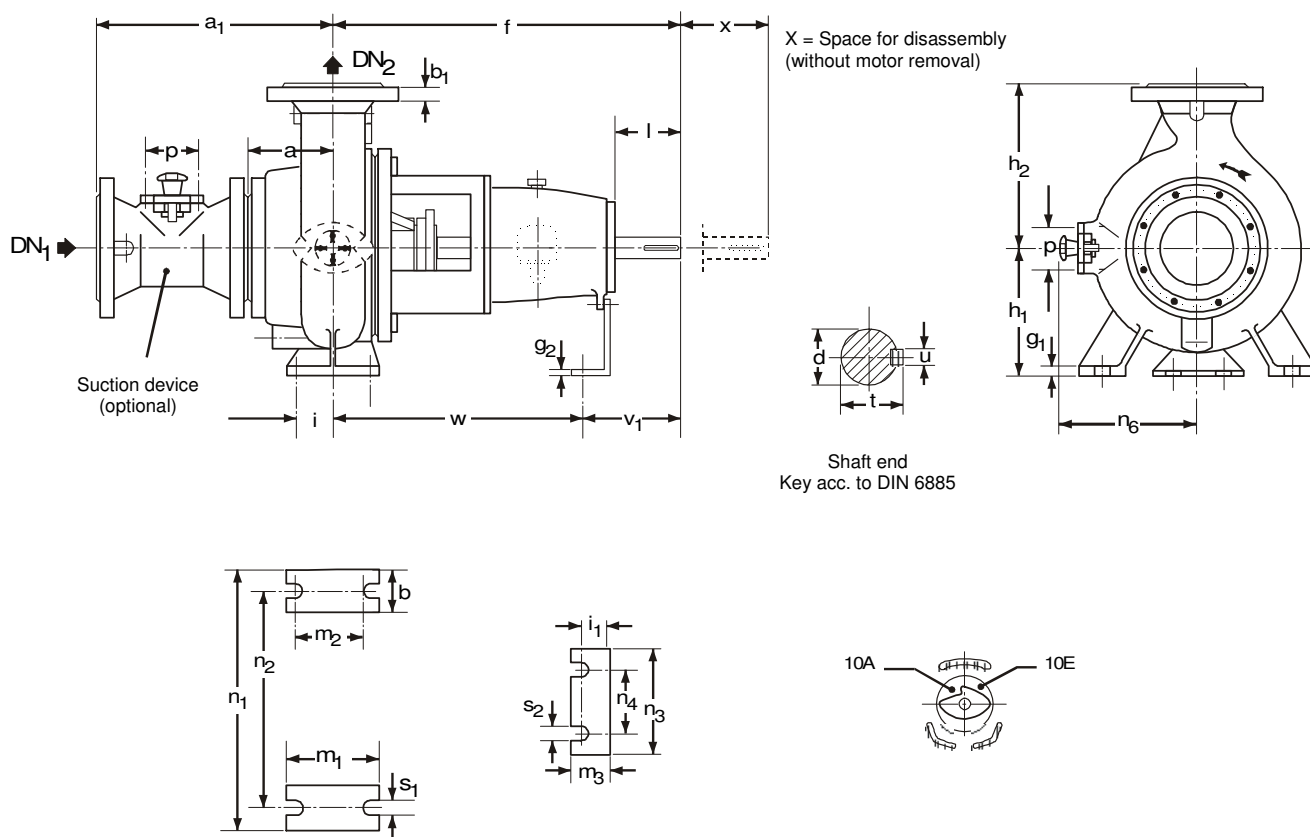


Fig. 20

Dimensions in mm

Pump Size	Pump Dimensions															
	$DN_1$	$DN_2$	$a$	$a_1$	$b$	$f$	$g_1$	$g_2$	$h_1$	$h_2$	$m_1$	$m_3$	$n_1$	$n_3$	$n_5$	$r$
80-200	80	80	140	342	65	530	16	9,52	180	250	125	64,5	345	153	--	--
100-250	100	100	140	392	80	600	18	9,52	225	280	160	61,5	400	152	--	--
125-315	125	125	180	432	100	720	20	15	280	355	200	65	500	210	--	--
150-400	150	150	250	502	100	750	24	12	355	500	200	60	550	200	390	150
200-500	200	200	250	602	120	800	24	12	425	560	200	60	700	200	510	200

Pump Size	Foot Dimensions									Shaft end				
	$i$	$i_1$	$m_2$	$n_2$	$n_4$	$s_1$	$s_2$	$v_t$	$w$	$d$	$l$	$t$	$u$	$x$
80-200	47,5	39,5	95	280	110	14	14	130	400	32	80	36,3	10	180
100-250	60	36,5	120	315	110	18	14	160	440	42	110	45,1	12	200
125-315	75	38	150	400	140	23	20	170	550	48	110	51,5	14	200
150-400	75	39	150	450	140	23	18	205	545	60	140	64,2	18	250
200-500	75	39	150	560	140	23	18	205	595	60	140	64,2	18	300

Table 20

## 21. Foundation Plan

### 21.1 Pumps with K / O impellers – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K Coupling with Spacer

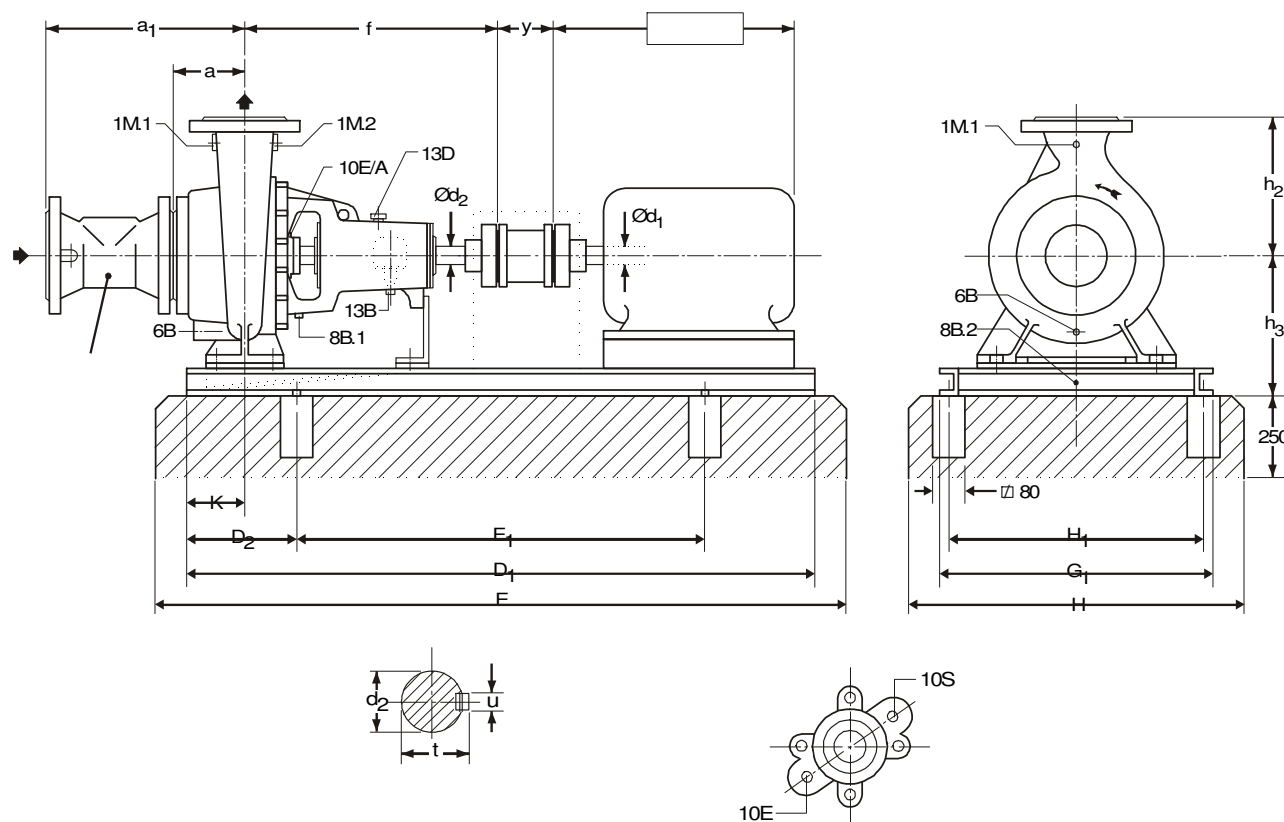


Fig. 21

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions													
		DN1	DN2		Baseplate N°	Weight (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	y	a1
50-160	42	65	50	80	BS-0001-00-C	41	780	1080	380	200	305	605	270	70	280	180	100	385	100	302
				90	BS-0001-01-C	44	825	1125	425	200	305	605	270	70	280	180	100	385	100	302
				100	BS-0001-02-C	45	855	1155	455	200	305	605	270	70	280	180	100	385	100	302
				112	BS-0001-03-C	46	870	1170	470	200	305	605	270	70	280	180	100	385	100	302
				132	BS-0001-04-C	55	945	1245	545	200	305	605	270	70	280	180	100	385	100	302
				160	BS-0001-05-C	55	1070	1370	670	200	360	660	325	70	280	180	100	385	100	302
				180	BS-0001-06-C	70	1125	1425	725	200	395	695	360	70	300	180	100	385	100	302
				200	BS-0001-07-C	68	1155	1455	755	200	445	745	410	70	320	180	100	385	100	302
50-200	74	65	50	80	BS-0002-00-C	46	895	1195	495	200	305	605	270	70	280	200	112	500	100	314
				90	BS-0002-01-C	48	940	1240	540	200	305	605	270	70	280	200	112	500	100	314
				100	BS-0002-02-C	49	970	1270	570	200	305	605	270	70	280	200	112	500	100	314
				112	BS-0002-03-C	50	985	1285	585	200	305	605	270	70	280	200	112	500	100	314
				132	BS-0002-04-C	59	1060	1360	660	200	305	605	270	70	280	200	112	500	100	314
				160	BS-0002-05-C	59	1185	1485	785	200	360	660	325	70	280	200	112	500	100	314
				180	BS-0002-06-C	73	1240	1540	840	200	395	695	360	70	300	200	112	500	100	314
				200	BS-0002-07-C	72	1270	1570	870	200	445	745	410	70	320	200	112	500	100	314
				225	BS-0002-08-C	79	1320	1620	920	200	495	795	460	70	345	200	112	500	100	314

## 21.1 Pumps with K / O impellers – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K Coupling with Spacer

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions													
		DN1	DN2		Baseplate N°	Weight (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	y	a1
65-200	79	80	65	80	BS-0003-00-C	52	950	1250	550	200	360	660	325	82	300	225	125	500	140	327
				90	BS-0003-01-C	55	995	1295	595	200	360	660	325	82	300	225	125	500	140	327
				100	BS-0003-02-C	55	1025	1325	625	200	360	660	325	82	300	225	125	500	140	327
				112	BS-0003-03-C	56	1040	1340	640	200	360	660	325	82	300	225	125	500	140	327
				132	BS-0003-04-C	59	1115	1415	715	200	360	660	325	82	300	225	125	500	140	327
				160	BS-0003-05-C	73	1240	1540	840	200	360	660	325	82	300	225	125	500	140	327
				180	BS-0003-06-C	68	1295	1595	895	200	395	695	360	82	300	225	125	500	140	327
				200	BS-0003-07-C	84	1325	1625	925	200	445	745	410	82	320	225	125	500	140	327
				225	BS-0003-08-C	82	1375	1675	975	200	495	795	460	82	345	225	125	500	140	327
				80	BS-0004-00-C	60	965	1265	565	200	440	740	405	100	345	280	125	500	140	377
				90	BS-0004-01-C	63	1010	1310	610	200	440	740	405	100	345	280	125	500	140	377
				100	BS-0004-02-C	63	1040	1340	640	200	440	740	405	100	345	280	125	500	140	377
				112	BS-0004-03-C	67	1055	1355	655	200	440	740	405	100	345	280	125	500	140	377
				132	BS-0004-04-C	69	1130	1430	730	200	440	740	405	100	345	280	125	500	140	377
				160	BS-0004-05-C	75	1255	1555	855	200	440	740	405	100	345	280	125	500	140	377
				180	BS-0004-06-C	77	1310	1610	910	200	440	740	405	100	345	280	125	500	140	377
				200	BS-0004-07-C	97	1340	1640	940	200	445	745	410	100	345	280	125	500	140	377
				80	BS-0005-00-C	62	995	1295	595	200	440	740	405	100	345	280	140	530	140	342
				90	BS-0005-01-C	64	1040	1340	640	200	440	740	405	100	345	280	140	530	140	342
				100	BS-0005-02-C	65	1070	1370	670	200	440	740	405	100	345	280	140	530	140	342
				112	BS-0005-03-C	67	1085	1385	685	200	440	740	405	100	345	280	140	530	140	342
				132	BS-0005-04-C	70	1160	1460	760	200	440	740	405	100	345	280	140	530	140	342
				160	BS-0005-05-C	76	1285	1585	885	200	440	740	405	100	345	280	140	530	140	342
				180	BS-0005-06-C	78	1340	1640	940	200	440	740	405	100	345	280	140	530	140	342
				200	BS-0005-07-C	98	1370	1670	970	200	445	745	410	100	345	280	140	530	140	342
				225	BS-0005-08-C	84	1420	1720	1020	200	495	795	460	100	345	280	140	530	140	342
				80	BS-0005-00-C	62	995	1295	595	200	440	740	405	100	345	280	140	530	140	392
				90	BS-0005-01-C	64	1040	1340	640	200	440	740	405	100	345	280	140	530	140	392
				100	BS-0005-02-C	65	1070	1370	670	200	440	740	405	100	345	280	140	530	140	392
				112	BS-0005-03-C	67	1085	1385	685	200	440	740	405	100	345	280	140	530	140	392
				132	BS-0005-04-C	70	1160	1460	760	200	440	740	405	100	345	280	140	530	140	392
				160	BS-0005-05-C	76	1285	1585	885	200	440	740	405	100	345	280	140	530	140	392
				180	BS-0005-06-C	78	1340	1640	940	200	440	740	405	100	345	280	140	530	140	392
				200	BS-0005-07-C	98	1370	1670	970	200	445	745	410	100	345	280	140	530	140	392
				225	BS-0005-08-C	84	1420	1720	1020	200	495	795	460	100	345	280	140	530	140	392
				90	BS-0006-01-C	66	1040	1340	640	200	440	740	405	100	370	315	140	530	140	392
				100	BS-0006-02-C	67	1070	1370	670	200	440	740	405	100	370	315	140	530	140	392
				112	BS-0006-03-C	69	1085	1385	685	200	440	740	405	100	370	315	140	530	140	392
				132	BS-0006-04-C	72	1160	1460	760	200	440	740	405	100	370	315	140	530	140	392
				160	BS-0006-05-C	78	1285	1585	885	200	440	740	405	100	370	315	140	530	140	392
				180	BS-0006-06-C	82	1340	1640	940	200	440	740	405	100	370	315	140	530	140	392
				200	BS-0006-07-C	83	1370	1670	970	200	455	745	410	100	370	315	140	530	140	392
				225	BS-0006-08-C	109	1420	1720	1020	200	495	795	460	100	370	315	140	530	140	392

## 21.1 Pumps with K / O impellers – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K Coupling with Spacer

Dimensions in mm

Pump Size	Weight (kg)	Flanges		Shaft end		
		DN1	DN2	d2	u	t
50-160	42	65	50	24	8	26,9
50-200	74	65	50	32	10	35,3
65-200	79	80	65	32	10	35,3
80-250	102	100	80	32	10	35,3
65-315	130	80	65	42	12	45,1
100-250	114	125	100	45	12	45,1
100-315	145	125	100	42	12	45,1

Table 21

## 21.2 Pumps with E impeller - Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K Coupling with Spacer

Dimensions in mm

Pump size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions													
		DN1	DN2		Baseplate N°	Weight (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	y	a1
80-200	100	80	80	80	BS-0095-00-C	52	1020	1320	620	200	385	685	350	82	300	250	140	500	180	342
				90	BS-0095-01-C	55	1065	1365	665	200	385	685	350	82	300	250	140	500	180	342
				100	BS-0095-02-C	55	1095	1395	695	200	385	685	350	82	300	250	140	500	180	342
				112	BS-0095-03-C	57	1110	1410	710	200	385	685	350	82	300	250	140	500	180	342
				132	BS-0095-04-C	59	1185	1485	785	200	385	685	350	82	300	250	140	500	180	342
				160	BS-0095-05-C	72	1310	1610	910	200	385	685	350	82	300	250	140	500	180	342
100-250	143	100	100	80	BS-0096-00-C	62	1125	1425	725	200	440	740	405	100	345	280	140	530	200	392
				90	BS-0096-01-C	65	1170	1470	770	200	440	740	405	100	345	280	140	530	200	392
				100	BS-0096-02-C	66	1200	1500	800	200	440	740	405	100	345	280	140	530	200	392
				112	BS-0096-03-C	67	1215	1515	815	200	440	740	405	100	345	280	140	530	200	392
				132	BS-0096-04-C	70	1290	1590	890	200	440	740	405	100	345	280	140	530	200	392
				160	BS-0096-05-C	76	1415	1715	1015	200	440	740	405	100	345	280	140	530	200	392
				180	BS-0096-06-C	78	1470	1770	1070	200	440	740	405	100	345	280	140	530	200	392
				200	BS-0096-07-C	113	1500	1800	900	200	445	745	405	100	345	280	140	530	200	392

Size	Weight (kg)	Flanges		Shaft end		
		DN1	DN2	d2	u	t
80-200	100	80	80	32	10	35,3
100-250	143	100	100	42	12	45,1

Table 22

Variation of dimensions:

1. Dimensions without indication of tolerance according to DIN 7168
2. Parts in Cast Iron - DIN 1686 GTB 18
3. Parts in Nodular Cast Iron - DIN 1685 GTB 18
4. Parts in Carbon Steel - DIN 1683 GTB 18

Note: Foundation Plan for pump size 350, please consult KSB.

# 21.3 Pumps with K / O / E Impellers – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K Coupling with spacer

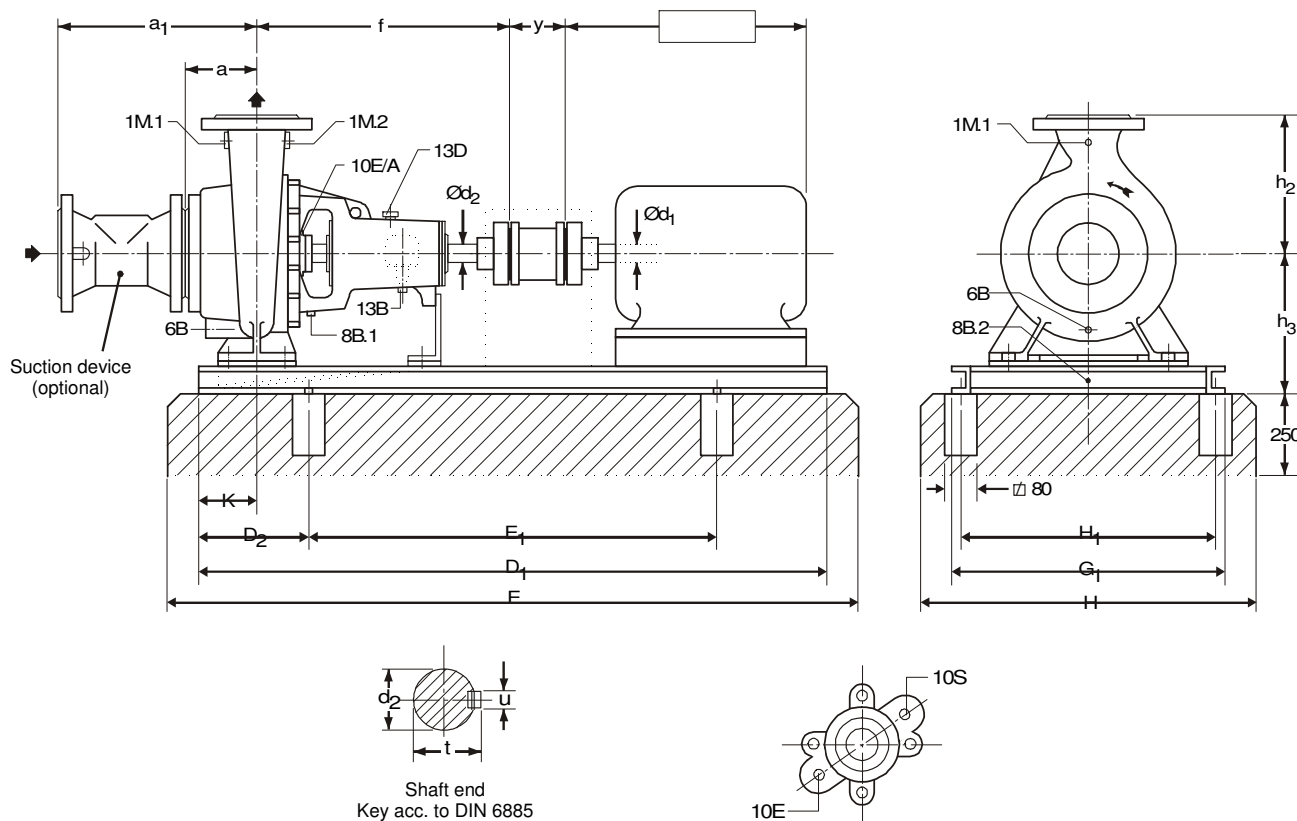


Fig. 22

COUPLING WITH SPACER	
Manufacturer:	Type:

COUPLING GUARD	
<input type="checkbox"/> - STEEL	<input type="checkbox"/> - BRASS
<input type="checkbox"/> - WITHOUT COUPLING GUARD	

FLANGE ACCORDING TO STANDARD	
<input type="checkbox"/> ANSI B16.1 125 # FF	
<input type="checkbox"/> ANSI B16.5 150 # RF	

PUMP SET WEIGHTS IN kg	
- Pump	
- Motor	
- Baseplate	
- Coupling guard	
- TOTAL WEIGHT	

CONNECTIONS TABLE		
Connection	Denomination	NPT Thread
1M.1	Pressure gage / Priming	1/2"
1M.2	Pressure gage	1/2"
6B	Drainage	3/4"
8B.1	Leaking	1/2"
8B.2	Leaking	1/2"
10E	External Sealing – Inlet	←
10A	External Sealing - Outlet	←
13D	Lubrication	---
13B	Drainage	1/2"

← Bearing brackets A30K and A40K = 1/4"  
A50K = 3/8"

AUXILIARY CONNECTIONS			
	SEALING LIQUID FROM EXTERNAL SOURCE	10E/S	Pressure: bar
			Flow: l/min
	FLUSHING LIQUID FROM EXTERNAL SOURCE	10E	Pressure: bar
			Flow: l/min

SUCTION DEVICE	
<input type="checkbox"/> - WITH	<input type="checkbox"/> - WITHOUT

MOTOR	
Manufacturer:	
Frame:	
Insulation:	
Power:	
Frequency:	
Number of poles:	
Voltage:	
Constructive form:	

# 21.4 Pumps with K / O Impellers – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K Coupling without spacer

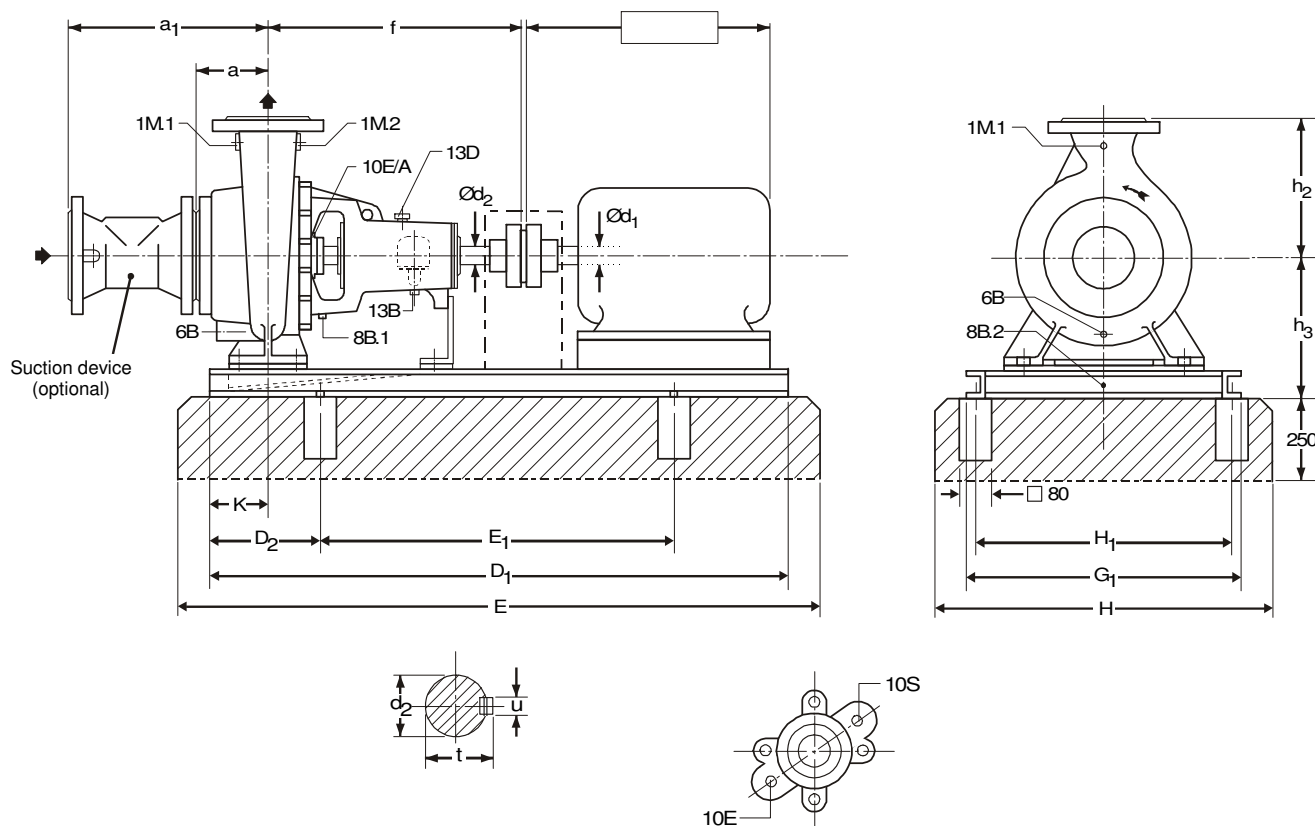


Fig. 23

Dimensions in mm

Dimensions in mm

Pump size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions													
		Baseplate N°	Peso (kg)		D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	a1			
																		DN1	DN2	
50-160	42	65	50	80	BS-0015-00-C	40	695	995	295	200	305	605	270	70	280	180	100	385	302	
				90	BS-0015-01-C	42	740	1040	340	200	305	605	270	70	280	180	100	385	302	
				100	BS-0015-02-C	43	770	1070	370	200	305	605	270	70	280	180	100	385	302	
				112	BS-0015-03-C	44	785	1085	385	200	305	605	270	70	280	180	100	385	302	
				132	BS-0015-04-C	54	860	1160	460	200	305	605	270	70	280	180	100	385	302	
				160	BS-0015-05-C	53	985	1285	585	200	360	660	325	70	280	180	100	385	302	
				180	BS-0015-06-C	68	1040	1340	640	200	395	695	360	70	300	180	100	385	302	
				200	BS-0015-07-C	66	1070	1370	670	200	445	745	410	70	320	180	100	385	302	
50-200	74	65	50	80	BS-0016-00-C	44	810	1110	410	200	305	605	270	70	280	200	112	500	314	
				90	BS-0016-01-C	47	856	1156	455	200	305	605	270	70	280	200	112	500	314	
				100	BS-0016-02-C	47	885	1185	485	200	305	605	270	70	280	200	112	500	314	
				112	BS-0016-03-C	48	900	1200	500	200	305	605	270	70	280	200	112	500	314	
				132	BS-0016-04-C	58	975	1275	575	200	305	605	270	70	280	200	112	500	314	
				160	BS-0016-05-C	58	1100	1400	700	200	360	660	325	70	280	200	112	500	314	
				180	BS-0016-06-C	72	1155	1455	755	200	395	695	360	70	300	200	112	500	314	
				200	BS-0016-07-C	70	1185	1485	785	200	445	745	410	70	320	200	112	500	314	
				225	BS-0016-08-C	77	1235	1535	835	200	495	795	460	70	345	200	112	500	314	

## 21.4 Pumps with K / O Impellers – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K Coupling without spacer

Dimensions in mm

Pump size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions												
		DN1	DN2		Baseplate N°	Weight (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	a1
65-200	79	80	65	80	BS-0017-00-C	49	825	1125	425	200	360	660	325	82	300	225	125	500	327
				90	BS-0017-01-C	52	870	1170	470	200	360	660	325	82	300	225	125	500	327
				100	BS-0017-02-C	53	900	1200	500	200	360	660	325	82	300	225	125	500	327
				112	BS-0017-03-C	54	915	1215	515	200	360	660	325	82	300	225	125	500	327
				132	BS-0017-04-C	56	990	1290	590	200	360	660	325	82	300	225	125	500	327
				160	BS-0017-05-C	71	1115	1415	715	200	360	660	325	82	300	225	125	500	327
				180	BS-0017-06-C	65	1170	1470	770	200	395	695	360	82	300	225	125	500	327
				200	BS-0017-07-C	81	1200	1500	800	200	445	745	410	82	320	225	125	500	327
				225	BS-0017-08-C	78	1250	1550	850	200	495	795	460	82	345	225	125	500	327
80-250	102	100	80	80	BS-0018-00-C	60	840	1140	440	200	440	740	405	100	345	280	125	500	377
				90	BS-0018-01-C	63	885	1185	485	200	440	740	405	100	345	280	125	500	377
				100	BS-0018-02-C	63	915	1215	515	200	440	740	405	100	345	280	125	500	377
				112	BS-0018-03-C	67	930	1230	530	200	440	740	405	100	345	280	125	500	377
				132	BS-0018-04-C	69	1005	1305	605	200	440	740	405	100	345	280	125	500	377
				160	BS-0018-05-C	75	1130	1430	730	200	440	740	405	100	345	280	125	500	377
				180	BS-0018-06-C	77	1185	1485	785	200	440	740	405	100	345	280	125	500	377
				200	BS-0018-07-C	97	1215	1515	815	200	445	745	410	100	345	280	125	500	377
65-315	130	80	65	80	BS-0019-00-C	59	870	1170	470	200	440	740	405	100	345	280	140	530	342
				90	BS-0019-01-C	61	915	1215	515	200	440	740	405	100	345	280	140	530	342
				100	BS-0019-02-C	63	945	1245	545	200	440	740	405	100	345	280	140	530	342
				112	BS-0019-03-C	64	960	1260	560	200	440	740	405	100	345	280	140	530	342
				132	BS-0019-04-C	67	1035	1335	635	200	440	740	405	100	345	280	140	530	342
				160	BS-0019-05-C	73	1160	1460	760	200	440	740	405	100	345	280	140	530	342
				180	BS-0019-06-C	76	1215	1515	815	200	440	740	405	100	345	280	140	530	342
				200	BS-0019-07-C	96	1245	1545	845	200	445	745	410	100	345	280	140	530	342
225	BS-0019-08-C	80	1295	1595	895	200	495	795	460	100	345	280	140	530	342				
100-250	114	125	100	80	BS-0019-00-C	59	870	1170	470	200	440	740	405	100	345	280	140	530	392
				90	BS-0019-01-C	61	915	1215	515	200	440	740	405	100	345	280	140	530	392
				100	BS-0019-02-C	63	945	1245	545	200	440	740	405	100	345	280	140	530	392
				112	BS-0019-03-C	64	960	1260	560	200	440	740	405	100	345	280	140	530	392
				132	BS-0019-04-C	67	1035	1335	635	200	440	740	405	100	345	280	140	530	392
				160	BS-0019-05-C	73	1160	1460	760	200	440	740	405	100	345	280	140	530	392
				180	BS-0019-06-C	76	1215	1515	815	200	440	740	405	100	345	280	140	530	392
				200	BS-0019-07-C	96	1245	1545	845	200	445	745	410	100	345	280	140	530	392
225	BS-0019-08-C	80	1295	1595	895	200	495	795	460	100	345	280	140	530	392				
100-315	145	125	100	90	BS-0020-01-C	64	915	1215	515	200	440	740	405	100	370	315	140	530	392
				100	BS-0020-02-C	64	945	1245	545	200	440	740	405	100	370	315	140	530	392
				112	BS-0020-03-C	66	960	1260	560	200	440	740	405	100	370	315	140	530	392
				132	BS-0020-04-C	70	1035	1335	635	200	440	740	405	100	370	315	140	530	392
				160	BS-0020-05-C	76	1160	1460	760	200	440	740	405	100	370	315	140	530	392
				180	BS-0020-06-C	79	1215	1315	815	200	440	740	405	100	370	315	140	530	392
				200	BS-0020-07-C	79	1245	1545	845	200	455	745	410	100	370	315	140	530	392
				225	BS-0020-08-C	106	1295	1595	895	200	495	795	460	100	370	315	140	530	392

## 21.4 Pumps with K / O Impellers – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K Coupling without spacer

Dimensions in mm

Pump size	Weight (kg)	Flanges		Shaft end		
		DN1	DN2	d2	u	t
50-160	42	65	50	24	8	26,9
50-200	74	65	50	32	10	35,3
65-200	79	80	65	32	10	35,3
80-250	102	100	80	32	10	35,3
65-315	130	80	65	42	12	45,1
100-250	114	125	100	45	12	45,1
100-315	145	125	100	42	12	45,1

Table 23

## 21.5 Pumps with E Impellers – Bearing Brackets CS40, CS50, A 30K, A 40K and A 50K Coupling without spacer

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions												
		DN1	DN2		Baseplate N°	Peso (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	a1
80-200	100	80	80	80	BS-0090-00-C	49	885	1185	455	200	385	685	350	82	300	250	140	500	342
				90	BS-0090-01-C	51	900	1200	500	200	385	685	350	82	300	250	140	500	342
				100	BS-0090-02-C	52	930	1230	530	200	385	685	350	82	300	250	140	500	342
				112	BS-0090-03-C	53	945	1245	545	200	385	685	350	82	300	250	140	500	342
				132	BS-0090-04-C	55	1020	1320	620	200	385	685	350	82	300	250	140	500	342
				160	BS-0090-05-C	69	1145	1445	745	200	385	685	350	82	300	250	140	500	342
100-250	143	100	100	80	BS-0091-00-C	58	940	1240	540	200	440	740	405	100	345	280	140	530	392
				90	BS-0091-01-C	61	985	1285	585	200	440	740	405	100	345	280	140	530	392
				100	BS-0091-02-C	62	1015	1315	615	200	440	740	405	100	345	280	140	530	392
				112	BS-0091-03-C	63	1030	1330	630	200	440	740	405	100	345	280	140	530	392
				132	BS-0091-04-C	66	1105	1405	705	200	440	740	405	100	345	280	140	530	392
				160	BS-0091-05-C	72	1230	1530	830	200	440	740	405	100	345	280	140	530	392
				180	BS-0091-06-C	74	1285	1585	885	200	440	740	405	100	345	280	140	530	392
				200	BS-0091-07-C	94	1315	1615	915	200	445	745	405	100	345	280	140	530	392

Pump size	Weight (kg)	Flanges		Shaft end		
		DN1	DN2	d2	u	t
80-200	100	80	80	32	10	35,3
100-250	143	100	100	42	12	45,1

Table 24

Variation of dimensions:

1. Dimensions without indication of tolerance according to DIN 7168
2. Parts in Cast Iron - DIN 1686 GTB 18
3. Parts in Nodular Cast Iron - DIN 1685 GTB 18
4. Parts in Carbon Steel - DIN 1683 GTB 18

Note: Foundation Plan for pump size 350, please consult KSB.

## 21.6 Pumps with K / O / E impellers – CS40, CS50, A 30K, A 40K and A 50K bearing brackets

### Coupling without spacer

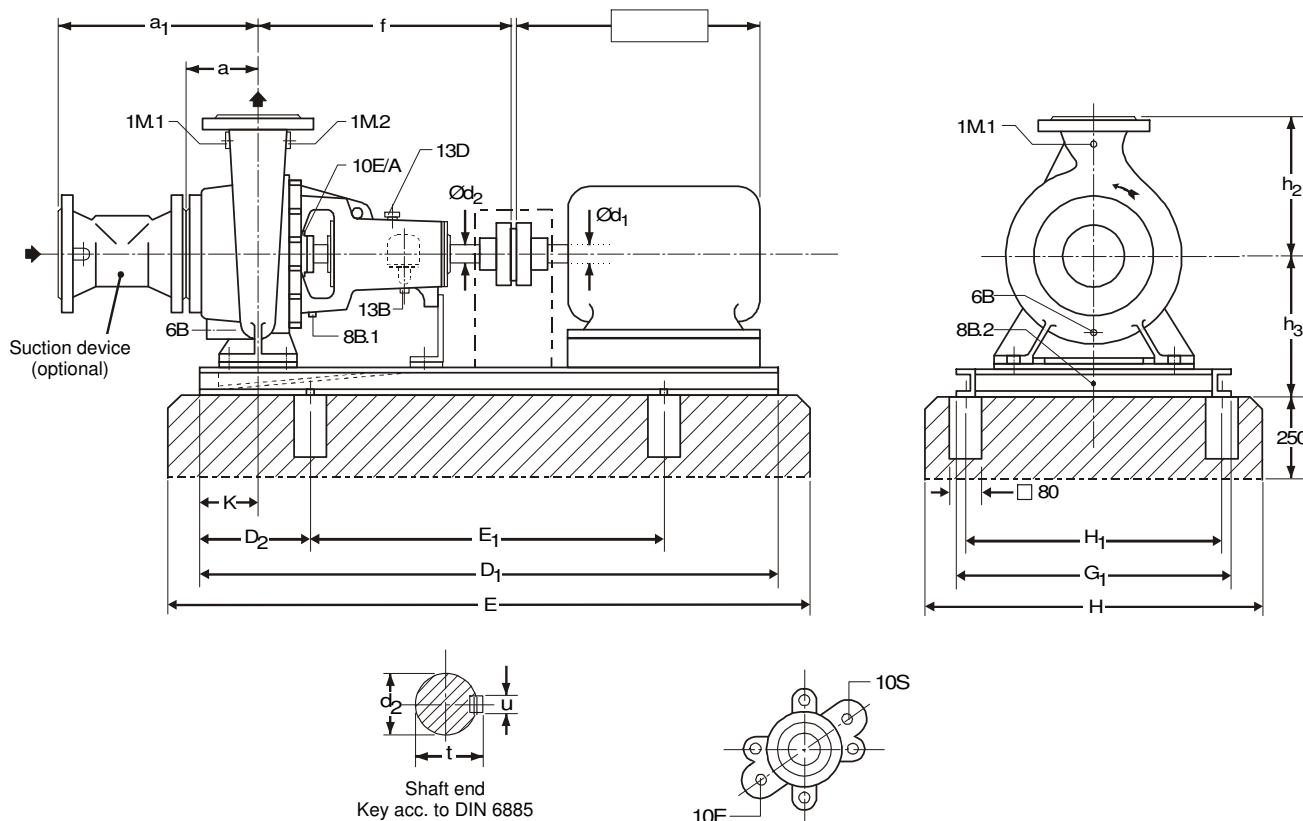


Fig. 24

COUPLING WITHOUT SPACER	
Manufacturer:	Type:

COUPLING GUARD	
<input type="checkbox"/> - STEEL	<input type="checkbox"/> - BRASS
<input type="checkbox"/> - WITHOUT COUPLING GUARD	

FLANGE ACCORDING TO STANDARD	
<input type="checkbox"/> ANSI B16.1 125 # FF	
<input type="checkbox"/> ANSI B16.5 150 # RF	

PUMP SET WEIGHTS IN kg	
- Pump	
- Motor	
- Baseplate	
- Coupling guard	
- TOTAL WEIGHT	

CONNECTIONS TABLE		
Connection	Denomination	NPT Thread
1M.1	Pressure gage / Priming	1/2"
1M.2	Pressure gage	1/2"
6B	Drainage	3/4"
8B.1	Leaking	1/2"
8B.2	Leaking	1/2"
10E	External Sealing – Inlet	←
10A	External Sealing - Outlet	←
13D	Lubrication	---
13B	Drainage	1/2"

Bearing brackets A30K and A40K = 1/4"  
A50K = 3/8"

AUXILIARY CONNECTIONS			
	SEALING LIQUID FROM EXTERNAL SOURCE	10E/S	Pressure: bar
			Flow: l/min
	FLUSHING LIQUID FROM EXTERNAL SOURCE	10E	Pressure: bar
			Flow: l/min

SUCTION DEVICE	
<input type="checkbox"/> - WITH	<input type="checkbox"/> - WITHOUT

MOTOR	
Manufacturer:	
Frame:	
Insulation:	
Power:	
Frequency:	
Number of poles:	
Voltage:	
Constructive form:	

### 21.7 Pumps with K / O impellers - Bearing Brackets A 60K, P 65-160X and P 80-200S Coupling with spacer

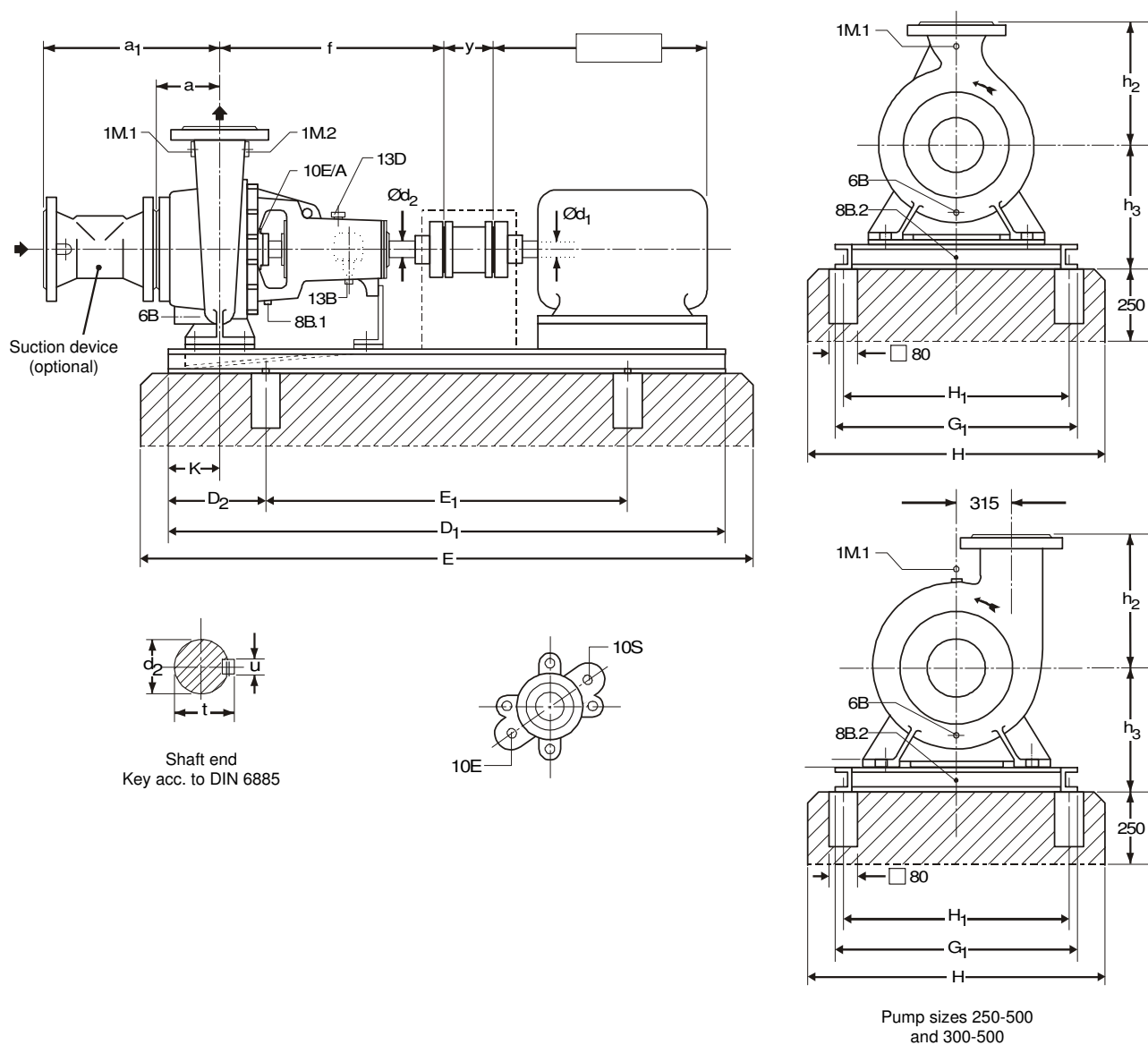


Fig. 25

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions													
		DN1	DN2		Baseplate N°	Peso (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	y	a1
80-400	231	100	80	100	BS-0009-02-C	77	1210	1510	810	200	475	775	440	100	400	355	140	670	140	392
				112	BS-0009-03-C	78	1225	1525	825	200	475	775	440	100	400	355	140	670	140	392
				132	BS-0009-04-C	82	1300	1600	900	200	475	775	440	100	400	355	140	670	140	392
				160	BS-0009-05-C	89	1425	1725	1025	200	475	775	440	100	400	355	140	670	140	392
				180	BS-0009-06-C	93	1480	1780	1080	200	475	775	440	100	400	355	140	670	140	392
				200	BS-0009-07-C	109	1510	1810	910	300	475	775	435	100	435	355	140	670	140	392
				225	BS-0009-08-C	114	1560	1860	960	300	495	795	455	100	435	355	140	670	140	392
				250	BS-0009-09-C	142	1635	1935	1035	300	550	850	510	100	450	355	140	670	140	392
				280	BS-0009-10-C	129	1770	2070	1170	300	600	900	560	100	450	355	140	670	140	392
				315	BS-0009-11-C	144	1840	2140	1240	300	670	970	630	100	485	355	140	670	140	392

## 21.7 Pumps with K / O impellers - Bearing Brackets A 60K, P 65-160X and P 80-200S

### Coupling with spacer

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions														
		Baseplate N°	Weight (kg)		D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	y	a1			
100-400	240	150	150	100	BS-0010-02-C	86	1270	1570	870	200	540	840	505	120	400	355	140	670	180	392	
				112	BS-0010-03-C	86	1285	1585	885	200	540	840	505	120	400	355	140	670	180	392	
				132	BS-0010-04-C	92	1360	1660	960	200	540	840	505	120	400	355	140	670	180	392	
				160	BS-0010-05-C	98	1485	1785	1085	200	540	840	505	120	400	355	140	670	180	392	
				180	BS-0010-06-C	110	1540	1840	940	300	540	840	500	120	450	355	140	670	180	392	
				200	BS-0010-07-C	120	1570	1870	970	300	540	840	500	120	450	355	140	670	180	392	
				225	BS-0010-08-C	122	1620	1920	1020	300	540	840	500	120	450	355	140	670	180	392	
				250	BS-0010-09-C	146	1695	1995	1095	300	550	850	510	120	450	355	140	670	180	392	
				280	BS-0010-10-C	135	1830	2130	1230	300	600	900	560	120	450	355	140	670	180	392	
				315	BS-0010-11-C	151	1900	2200	1300	300	670	970	630	120	485	355	140	670	180	392	
150-315	240	150	150	100	BS-0007-02-C	89	1270	1570	870	200	590	890	555	120	435	400	180	670	180	392	
				112	BS-0007-03-C	91	1285	1585	885	200	590	890	555	120	435	400	180	670	180	392	
				132	BS-0007-04-C	95	1360	1660	960	200	590	890	555	120	435	400	180	670	180	392	
				160	BS-0007-05-C	104	1485	1785	1085	200	590	890	555	120	435	400	180	670	180	392	
				180	BS-0007-06-C	125	1540	1840	940	300	590	890	550	120	485	400	180	670	180	392	
				200	BS-0007-07-C	127	1570	1870	970	300	590	890	550	120	485	400	180	670	180	392	
				225	BS-0007-08-C	129	1620	1920	1020	300	590	890	550	120	485	400	180	670	180	392	
				250	BS-0007-09-C	129	1695	1995	1095	300	590	890	550	120	485	400	180	670	180	392	
				280	BS-0007-10-C	139	1830	2130	1230	300	600	900	560	120	485	400	180	670	180	392	
				315	BS-0007-11-C	150	1900	2200	1300	300	670	970	630	120	485	400	180	670	180	392	
200-315	290	200	200	132	BS-0008-04-C	99	1360	1660	960	300	590	890	550	120	475	450	200	670	180	432	
				160	BS-0008-05-C	109	1485	1785	1085	300	590	890	550	120	475	450	200	670	180	432	
				180	BS-0008-06-C	131	1540	1840	940	300	590	890	550	120	525	450	200	670	180	432	
				200	BS-0008-07-C	132	1570	1870	970	300	590	890	550	120	525	450	200	670	180	432	
				225	BS-0008-08-C	135	1620	1920	1020	300	590	890	550	120	525	450	200	670	180	432	
				250	BS-0008-09-C	135	1695	1995	1095	300	590	890	560	120	525	450	200	670	180	432	
				280	BS-0008-10-C	146	1830	2130	1230	300	600	900	630	120	525	450	200	670	180	432	
				315	BS-0008-11-C	159	1900	2200	1300	300	670	970	750	120	525	450	200	670	180	432	
125-500	370	150	125	112	BS-0011-05-C	127	1535	1835	935	200	590	890	555	120	525	450	160	720	180	552	
				132	BS-0011-06-C	132	1590	1890	990	200	590	890	555	120	525	450	160	720	180	552	
				160	BS-0011-07-C	133	1620	1920	1020	200	590	890	550	120	525	450	160	720	180	552	
				180	BS-0011-08-C	137	1670	1970	1070	300	590	890	550	120	525	450	160	720	180	552	
				200	BS-0011-09-C	138	1745	2045	1145	300	590	890	550	120	525	450	160	720	180	552	
				225	BS-0011-10-C	148	1880	2180	1280	300	600	900	560	120	525	450	160	720	180	552	
				250	BS-0011-11-C	160	1950	2250	1350	300	670	970	630	120	525	450	160	720	180	552	
				355	BS-0011-12-C	181	2100	2400	1500	300	790	1090	750	120	525	450	160	720	180	552	
150-500	385	150	150	112	BS-0012-03-C	97	1335	1635	935	300	590	890	555	120	495	500	160	720	180	412	
				132	BS-0012-04-C	103	1410	1710	1010	300	590	890	555	120	495	500	160	720	180	412	
				160	BS-0012-05-C	129	1535	1835	935	300	590	890	550	120	545	500	160	720	180	412	
				180	BS-0012-06-C	136	1590	1890	990	300	590	890	550	120	545	500	160	720	180	412	
				200	BS-0012-07-C	138	1620	1920	1020	300	590	890	550	120	545	500	160	720	180	412	
				225	BS-0012-08-C	141	1670	1970	1070	300	590	890	550	120	545	500	160	720	180	412	
				250	BS-0012-09-C	142	1745	2045	1145	300	590	890	550	120	545	500	160	720	180	412	
				280	BS-0012-10-C	152	1880	2180	1280	300	600	900	560	120	545	500	160	720	180	412	
				315	BS-0012-11-C	165	1950	2250	1350	300	670	970	630	120	545	500	160	720	180	412	
				355	BS-0012-12-C	228	2100	2400	1500	300	790	1090	750	120	545	500	160	720	180	412	

## 21.7 Pumps with K / O impellers - Bearing Brackets A 60K, P 65-160X and P 80-200S

### Coupling with spacer

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions													
		DN1	DN2		Baseplate N°	Weight (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	y	a1
200-400	375	200	200	160	BS-0011-05-C	127	1535	1835	935	200	590	890	555	120	525	500	180	720	180	412
				180	BS-0011-06-C	132	1590	1890	990	200	590	890	555	120	525	500	180	720	180	412
				200	BS-0011-07-C	133	1620	1920	1020	200	590	890	550	120	525	500	180	720	180	412
				225	BS-0011-08-C	137	1670	1970	1070	300	590	890	550	120	525	500	180	720	180	412
				250	BS-0011-09-C	138	1745	2045	1145	300	590	890	550	120	525	500	180	720	180	412
				280	BS-0011-10-C	148	1880	2180	1280	300	600	900	550	120	525	500	180	720	180	412
				315	BS-0011-11-C	160	1950	2250	1350	300	670	970	630	120	525	500	180	720	180	412
				355	BS-0011-12-C	181	2100	2400	1500	300	790	1090	750	120	525	500	180	720	180	412
250-500	740	250	250	132	BS-0101-04-C	165	1890	2190	1290	300	840	1140	800	150	595	400	200	1000	350	602
				160	BS-0101-05-C	179	2015	2315	1415	300	840	1140	800	150	595	400	200	1000	350	602
				180	BS-0101-06-C	186	2070	2370	1470	300	840	1140	800	150	595	400	200	1000	350	602
				200	BS-0101-07-C	187	2100	2400	1500	300	840	1140	800	150	595	400	200	1000	350	602
				225	BS-0101-08-C	191	2150	2450	1550	300	840	1140	800	150	595	400	200	1000	350	602
				250	BS-0101-09-C	193	2225	2525	1625	300	840	1140	800	150	595	400	200	1000	350	602
				280	BS-0101-10-C	203	2360	2660	1760	300	840	1140	800	150	595	400	200	1000	350	602
				315	BS-0101-11-C	211	2430	2730	1830	300	840	1140	800	150	595	400	200	1000	350	602
300-500	840	300	300	355	BS-0101-12-C	223	2580	2880	1980	300	840	1140	800	150	595	400	200	1000	350	602
				132	BS-0102-04-C	168	1890	2190	1290	300	840	1140	800	150	620	450	200	1000	350	602
				160	BS-0102-05-C	182	2015	2315	1415	300	840	1140	800	150	620	450	200	1000	350	602
				180	BS-0102-06-C	188	2070	2370	1470	300	840	1140	800	150	620	450	200	1000	350	602
				200	BS-0102-07-C	191	2100	2400	1500	300	840	1140	800	150	620	450	200	1000	350	602
				225	BS-0102-08-C	195	2150	2450	1550	300	840	1140	800	150	620	450	200	1000	350	602
				250	BS-0102-09-C	196	2225	2525	1625	300	840	1140	800	150	620	450	200	1000	350	602
				280	BS-0102-10-C	208	2360	2660	1760	300	840	1140	800	150	620	450	200	1000	350	602
				315	BS-0102-11-C	217	2430	2730	1830	300	840	1140	800	150	620	450	200	1000	350	602
				355	BS-0102-12-C	228	2580	2880	1980	300	840	1140	800	150	620	450	200	1000	350	602

Pump Size	Shaft (kg)	Flanges		Shaft end		
		DN1	DN2	d2	u	t
80-400	231	100	80	48	14	51,5
100-400	240	125	100	48	14	51,5
150-315	240	150	150	48	14	51,5
200-315	290	200	200	48	14	51,5
125-500	370	150	125	60	18	64,2
150-500	385	150	150	60	18	64,2
200-400	375	200	200	60	18	64,2
250-500	740	250	250	75	20	79,7
300-500	840	300	300	75	20	79,7

Table 25

## 21.8 Pumps with E impellers - Bearing Brackets A 60K, P 65-160X and P 80-200S

### Coupling with spacer

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions													
		DN1	DN2		Baseplate N°	Weight (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	y	a1
125-315	232	125	125	80	BS-0097-00-C	78	1265	1565	865	200	540	840	505	120	--	--	180	723	200	432
				90	BS-0097-01-C	81	1310	1610	910	200	540	840	505	120	--	--	180	723	200	432
				100	BS-0097-02-C	83	1340	1640	940	200	540	840	505	120	--	--	180	723	200	432
				112	BS-0097-03-C	84	1355	1655	955	200	540	840	505	120	--	--	180	723	200	432
				132	BS-0097-04-C	87	1430	1730	1030	200	540	840	505	120	--	--	180	723	200	432
				160	BS-0097-05-C	112	1555	1855	955	300	540	840	500	120	--	--	180	723	200	432
				180	BS-0097-06-C	115	1610	1910	1010	300	540	840	500	120	--	--	180	723	200	432
				200	BS-0097-07-C	117	1640	1940	1040	300	540	840	500	120	--	--	180	723	200	432
				225	BS-0097-08-C	123	1690	1990	1090	300	540	840	500	120	--	--	180	723	200	432
				250	BS-0097-09-C	150	1765	2055	1165	300	550	850	510	120	--	--	180	723	200	432
150-400	402	150	150	132	BS-0098-04-C	115	1510	1810	910	300	590	890	550	120	--	--	250	750	250	502
				160	BS-0098-05-C	125	1635	1935	1035	300	590	890	550	120	--	--	250	750	250	502
				180	BS-0098-06-C	130	1690	1990	1090	300	590	890	550	120	--	--	250	750	250	502
				200	BS-0098-07-C	132	1720	2020	1120	300	590	890	550	120	--	--	250	750	250	502
				225	BS-0098-08-C	140	1770	2070	1170	300	590	890	550	120	--	--	250	750	250	502
				250	BS-0098-09-C	142	1845	2145	1245	300	590	890	550	120	--	--	250	750	250	502
200-500	423	200	200	280	BS-0098-10-C	148	1980	2280	1380	300	590	890	560	120	--	--	250	750	250	502
				132	BS-0099-04-C	135	1610	1910	1010	300	740	1040	700	120	--	--	250	800	300	602
				160	BS-0099-05-C	147	1735	2035	1135	300	740	1040	700	120	--	--	250	800	300	602
				180	BS-0099-06-C	153	1790	2090	1190	300	740	1040	700	120	--	--	250	800	300	602
				200	BS-0099-07-C	155	1820	2120	1220	300	740	1040	700	120	--	--	250	800	300	602
				225	BS-0099-08-C	166	1870	2170	1270	300	740	1040	700	120	--	--	250	800	300	602
				250	BS-0099-09-C	169	1945	2245	1345	300	740	1040	700	120	--	--	250	800	300	602
				280	BS-0099-10-C	176	2080	2380	1480	300	740	1040	700	120	--	--	250	800	300	602
				315	BS-0099-11-C	179	2150	2450	1550	300	740	1040	700	120	--	--	250	800	300	602

Pump Size	Weight (kg)	Flanges		Shaft end		
		DN1	DN2	d2	u	t
125-315	232	125	125	48	14	51,5
150-400	402	150	150	60	18	64,2
200-500	423	200	200	60	18	64,2

Table 26

Variation of dimensions:

1. Dimensions without indication of tolerance according to DIN 7168
2. Parts in Cast Iron - DIN 1686 GTB 18
3. Parts in Nodular Cast Iron - DIN 1685 GTB 18
4. Parts in Carbon Steel - DIN 1683 GTB 18

Note: Foundation Plan for pump size 350, please consult KSB.

### 21.9 Pumps with E impellers - Bearing Brackets A 60K, P 65-160X and P 80-200S Coupling with spacer

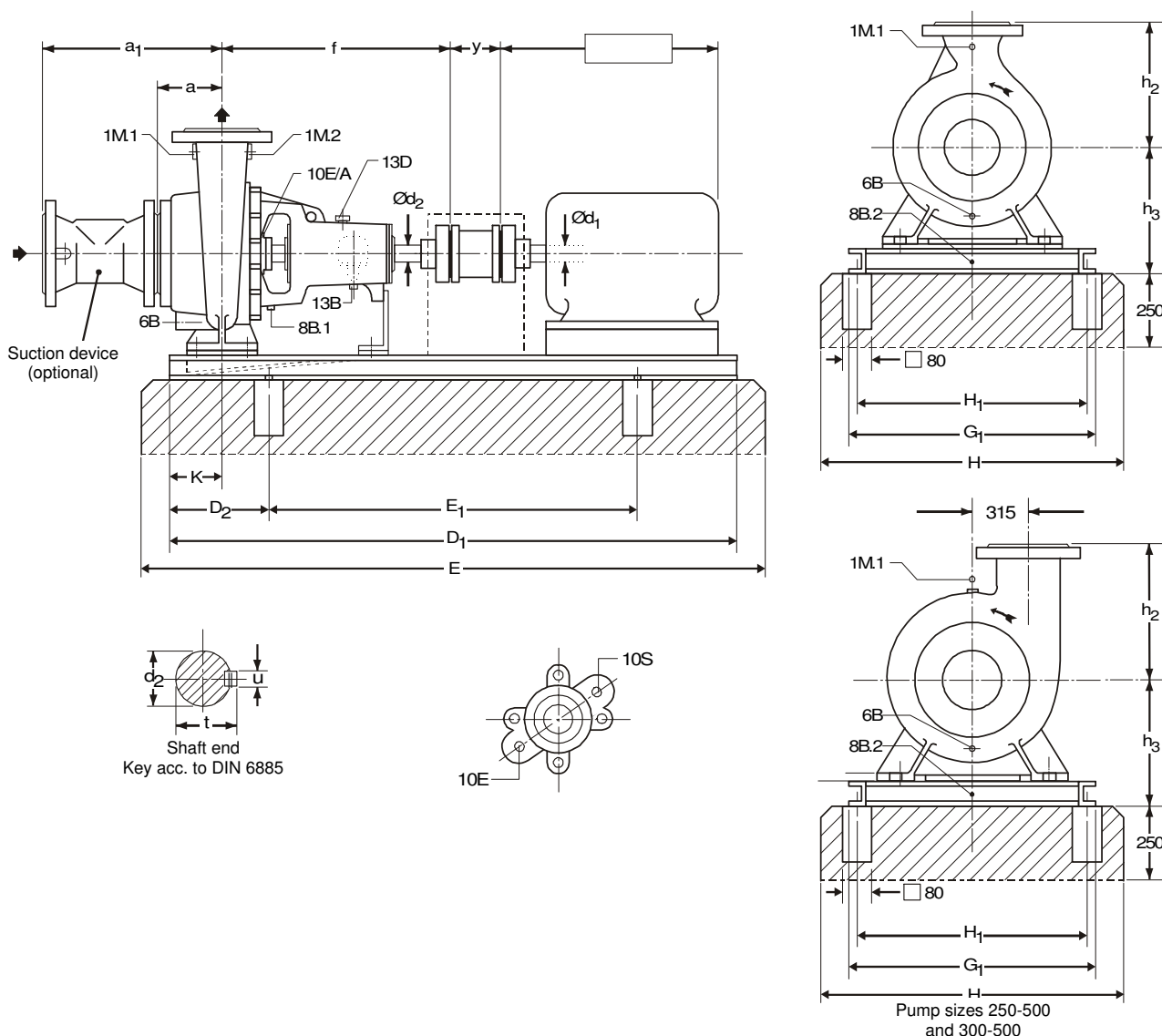


Fig. 26

COUPLING WITH SPACER	
Manufacturer:	Type:

COUPLING GUARD	
<input type="checkbox"/> - STEEL	<input type="checkbox"/> - BRASS
<input type="checkbox"/> - WITHOUT COUPLING GUARD	

FLANGE ACCORDING TO STANDARD	
<input type="checkbox"/>	ANSI B16.1 125 # FF
<input type="checkbox"/>	ANSI B16.5 150 # RF

PUMP SET WEIGHTS IN kg	
- Pump	
- Motor	
- Baseplate	
- Coupling guard	
TOTAL WEIGHT	

CONNECTIONS TABLE		
Connection	Denomination	NPT Thread
1M.1	Pressure gage	½"
1M.2	Pressure gage	½"
6B	Drainage	¾"
6D	Priming	1"
8B.1	Leaking	½"
8B.2	Leaking	½"
10E	External Sealing – Inlet	¼" ←
10A	External Sealing - Outlet	¼" ←
13D	Lubrication	---
13B	Drainage	½"

← For Bearing brackets A60K = 3/8"

Note: 6D only for sizes: 250-500 and 300-500

SUCTION DEVICE	
<input type="checkbox"/> - WITH	<input type="checkbox"/> - WITHOUT

MOTOR
Manufacturer:
Frame:
Insulation:
Power:
Frequency:
Number of poles:
Voltage:
Constructive form:

AUXILIARY CONNECTIONS			
	SEALING LIQUID FROM EXTERNAL SOURCE	10E/S	Pressure: bar Flow: l/min
	FLUSHING LIQUID FROM EXTERNAL SOURCE	10E	Pressure: bar Flow: l/min

### 20.10 Pumps with K / O impellers - Bearing Brackets A 60K, P 65-180X and P 80-200S Coupling without spacer

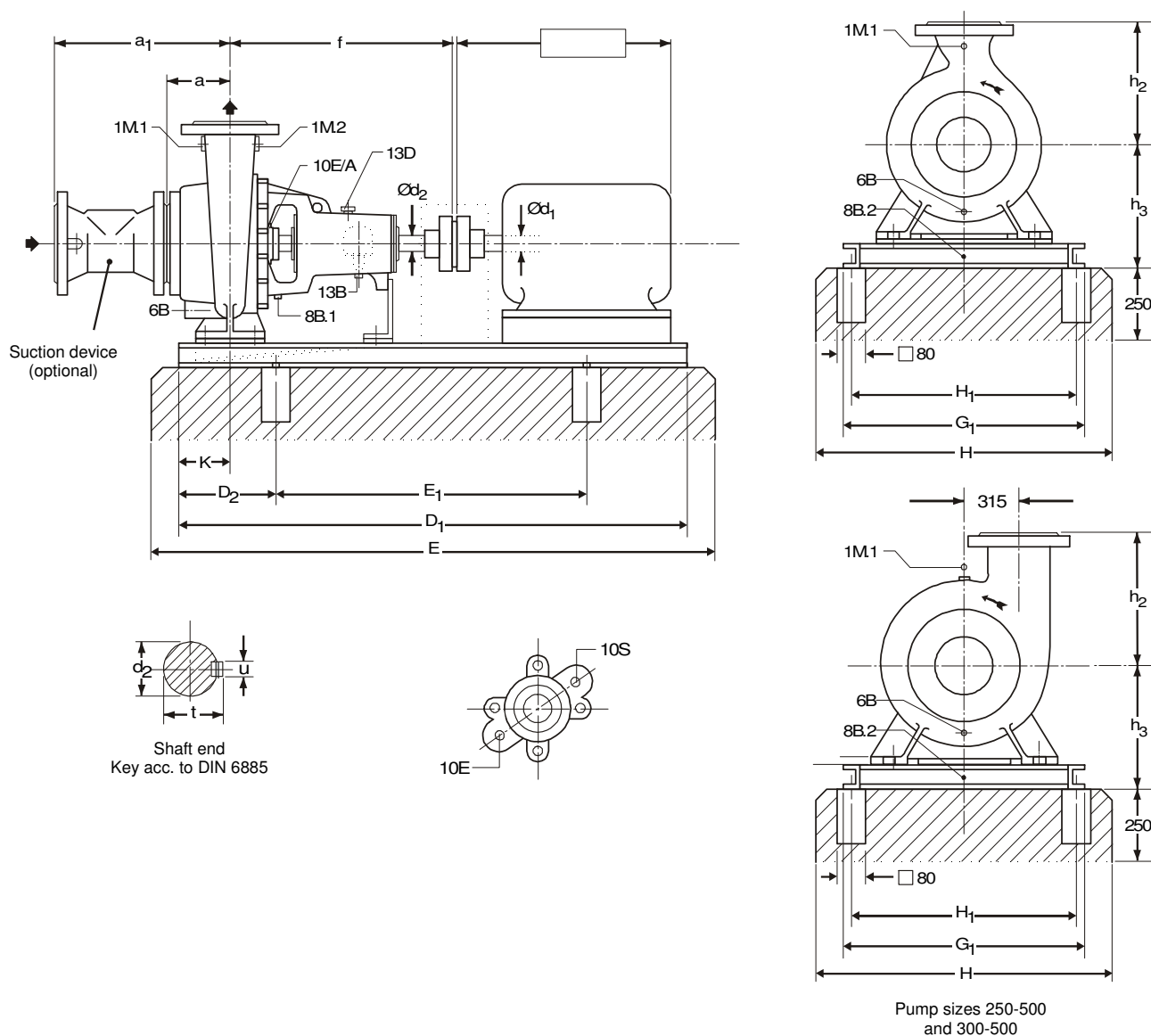


Fig. 27

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions												
		DN1	DN2		Baseplate N°	Weight (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	a1
80-400	231	100	80	100	BS-0022-02-C	74	1085	1385	685	200	475	775	440	100	400	355	140	670	392
				112	BS-0022-03-C	76	1100	1400	700	200	475	775	440	100	400	355	140	670	392
				132	BS-0022-04-C	79	1175	1475	775	200	475	775	440	100	400	355	140	670	392
				160	BS-0022-05-C	87	1300	1600	900	200	475	775	440	100	400	355	140	670	392
				180	BS-0022-06-C	90	1355	1655	955	200	475	775	440	100	400	355	140	670	392
				200	BS-0022-07-C	91	1385	1685	985	200	475	775	435	100	435	355	140	670	392
				225	BS-0022-08-C	94	1435	1735	1035	200	495	795	455	100	435	355	140	670	392
				250	BS-0022-09-C	143	1510	1810	901	200	550	850	510	100	450	355	140	670	392
				280	BS-0022-10-C	125	1645	1945	1045	200	600	900	560	100	450	355	140	670	392
				315	BS-0022-11-C	140	1715	2115	1115	200	670	970	630	100	485	355	140	670	392

## 20.10 Pumps with K / O impellers - Bearing Brackets A 60K, P 65-180X and P 80-200S Coupling without spacer

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions												
		DN1	DN2		Baseplate N°	Weight (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	a1
100-400	240	125	100	100	BS-0023-02-C	83	1105	1405	705	200	540	840	505	120	400	355	140	670	392
				112	BS-0023-03-C	84	1120	1420	720	200	540	840	505	120	400	355	140	670	392
				132	BS-0023-04-C	88	1195	1495	795	200	540	840	505	120	400	355	140	670	392
				160	BS-0023-05-C	95	1320	1620	920	200	540	840	505	120	400	355	140	670	392
				180	BS-0023-06-C	99	1375	1675	975	200	540	840	500	120	450	355	140	670	392
				200	BS-0023-07-C	99	1405	1705	1005	200	540	840	500	120	450	355	140	670	392
				225	BS-0023-08-C	100	1455	1755	1555	200	540	840	500	120	450	355	140	670	392
				250	BS-0023-09-C	145	1530	1830	930	300	550	850	510	120	450	355	140	670	392
				280	BS-0023-10-C	129	1665	1965	1065	300	600	900	560	120	450	355	140	670	392
				315	BS-0023-11-C	147	1735	2035	1135	300	670	970	630	120	485	355	140	670	392
150-315	240	150	150	100	BS-0021-02-C	86	1105	1405	705	200	590	890	555	120	435	400	180	670	392
				112	BS-0021-03-C	88	1120	1420	720	200	590	890	555	120	435	400	180	670	392
				132	BS-0021-04-C	95	1195	1495	795	200	590	890	555	120	435	400	180	670	392
				160	BS-0021-05-C	99	1320	1620	920	200	590	890	555	120	435	400	180	670	392
				180	BS-0021-06-C	105	1375	1675	975	200	590	890	550	120	485	400	180	670	392
				200	BS-0021-07-C	106	1405	1705	1005	200	590	890	550	120	485	400	180	670	392
				225	BS-0021-08-C	107	1455	1755	1055	200	590	890	550	120	485	400	180	670	392
				250	BS-0021-09-C	127	1530	1830	930	300	590	890	550	120	485	400	180	670	392
				280	BS-0021-10-C	133	1665	1965	1065	300	600	900	560	120	485	400	180	670	392
				315	BS-0021-11-C	144	1735	2035	1135	300	670	970	630	120	485	400	180	670	392
200-315	290	200	200	132	BS-0025-04-C	96	1195	1495	795	200	590	890	550	120	475	450	200	670	432
				160	BS-0025-05-C	104	1320	1620	920	200	590	890	550	120	475	450	200	670	432
				180	BS-0025-06-C	109	1375	1675	975	200	590	890	550	120	525	450	200	670	432
				200	BS-0025-07-C	110	1405	1705	1005	200	590	890	550	120	525	450	200	670	432
				225	BS-0025-08-C	113	1455	1755	1055	200	590	890	550	120	525	450	200	670	432
				250	BS-0025-09-C	134	1530	1830	930	300	590	890	560	120	525	450	200	670	432
				280	BS-0025-10-C	141	1665	1965	1065	300	600	900	630	120	525	450	200	670	432
				315	BS-0025-11-C	154	1735	2035	1135	300	670	970	750	120	525	450	200	670	432
125-500	370	150	125	112	BS-0028-05-C	106	1370	1670	970	200	590	890	555	120	525	450	160	720	552
				132	BS-0028-06-C	110	1425	1725	1025	200	590	890	555	120	525	450	160	720	552
				160	BS-0028-07-C	112	1455	1755	1055	200	590	890	550	120	525	450	160	720	552
				180	BS-0028-08-C	132	1505	1805	905	300	590	890	550	120	525	450	160	720	552
				200	BS-0028-09-C	137	1580	1880	980	300	590	890	550	120	525	450	160	720	552
				225	BS-0028-10-C	143	1715	2015	1115	300	600	900	560	120	525	450	160	720	552
				250	BS-0028-11-C	155	1785	2085	1185	300	670	970	630	120	525	450	160	720	552
				355	BS-0028-12-C	176	1935	2235	1335	300	790	1090	750	120	525	450	160	720	552
150-500	385	150	150	112	BS-0024-03-C	94	1170	1370	770	200	590	890	555	120	495	500	160	720	412
				132	BS-0024-04-C	99	1245	1545	845	200	590	890	555	120	495	500	160	720	412
				160	BS-0024-05-C	109	1370	1670	970	200	590	890	550	120	545	500	160	720	412
				180	BS-0024-06-C	114	1425	1725	1025	200	590	890	550	120	545	500	160	720	412
				200	BS-0024-07-C	115	1455	1755	1055	200	590	890	550	120	545	500	160	720	412
				225	BS-0024-08-C	136	1505	1805	905	300	590	890	550	120	545	500	160	720	412
				250	BS-0024-09-C	140	1580	1880	980	300	590	890	550	120	545	500	160	720	412
				280	BS-0024-10-C	146	1715	2015	1115	300	600	900	560	120	545	500	160	720	412
				315	BS-0024-11-C	160	1785	2185	1185	300	670	970	630	120	545	500	160	720	412
				355	BS-0024-12-C	224	1935	2235	1335	300	790	1090	750	120	545	500	160	720	412

## 20.10 Pumps with K / O impellers - Bearing Brackets A 60K, P 65-180X and P 80-200S Coupling without spacer

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions												
		DN1	DN2		Baseplate N°	Weight (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	a1
200-400	375	200	200	160	BS-0028-05-C	106	1370	1670	970	200	590	890	555	120	525	500	180	720	412
				180	BS-0028-06-C	110	1425	1725	1025	200	590	890	555	120	525	500	180	720	412
				200	BS-0028-07-C	112	1455	1755	1055	200	590	890	550	120	525	500	180	720	412
				225	BS-0028-08-C	132	1505	1805	905	300	590	890	550	120	525	500	180	720	412
				250	BS-0028-09-C	137	1580	1880	980	300	590	890	550	120	525	500	180	720	412
				280	BS-0028-10-C	143	1715	2015	1115	300	600	900	550	120	525	500	180	720	412
				315	BS-0028-11-C	155	1785	2085	1185	300	670	970	630	120	525	500	180	720	412
250-500	740	250	250	355	BS-0028-12-C	176	1935	2235	1335	300	790	1090	750	120	525	500	180	720	412
				132	BS-0103-04-C	155	1555	2190	955	300	840	1140	800	150	595	400	200	1000	602
				160	BS-0103-05-C	169	1680	2315	1080	300	840	1140	800	150	595	400	200	1000	602
				180	BS-0103-06-C	176	1735	2035	1135	300	840	1140	800	150	595	400	200	1000	602
				200	BS-0103-07-C	176	1765	2065	1165	300	840	1140	800	150	595	400	200	1000	602
				225	BS-0103-09-C	181	1815	2115	1215	300	840	1140	800	150	595	400	200	1000	602
				250	BS-0103-09-C	187	1890	2190	1290	300	840	1140	800	150	595	400	200	1000	602
300-500	840	300	300	280	BS-0103-10-C	193	2025	2325	1425	300	840	1140	800	150	595	400	200	1000	602
				315	BS-0103-11-C	202	2095	2395	1495	300	840	1140	800	150	595	400	200	1000	602
				355	BS-0103-12-C	211	2245	2345	1645	300	840	1140	800	150	595	400	200	1000	602
				132	BS-0104-04-C	158	1555	1855	955	300	840	1140	800	150	620	450	200	1000	602
				160	BS-0104-05-C	171	1680	1980	1080	300	840	1140	800	150	620	450	200	1000	602
				180	BS-0104-06-C	177	1735	2035	1135	300	840	1140	800	150	620	450	200	1000	602
				200	BS-0104-07-C	180	1765	2065	1165	300	840	1140	800	150	620	450	200	1000	602
300-500	840	300	300	225	BS-0104-09-C	184	1815	2115	1215	300	840	1140	800	150	620	450	200	1000	602
				250	BS-0104-09-C	191	1890	2190	1290	300	840	1140	800	150	620	450	200	1000	602
				280	BS-0104-10-C	198	2025	2325	1420	300	840	1140	800	150	620	450	200	1000	602
				315	BS-0104-11-C	207	2095	2395	1495	300	840	1140	800	150	620	450	200	1000	602
				355	BS-0104-12-C	219	2245	2545	1645	300	840	1140	800	150	620	450	200	1000	602

Pump Size	Weight (kg)	Flanges		Shaft end		
		DN1	DN2	d2	u	t
80-400	231	100	80	48	14	51,5
100-400	240	125	100	48	14	51,5
150-315	240	150	150	48	14	51,5
200-315	290	200	200	48	14	51,5
125-500	370	150	125	60	18	64,2
150-500	385	150	150	60	18	64,2
200-400	375	200	200	60	18	64,2
250-500	740	250	250	75	20	79,7
300-500	840	300	300	75	20	79,7

Table 27

## 21.11 Pumps with E impeller - Bearing Brackets A 60K, P 65/160 X and A P 80/200 S Coupling without spacer

Dimensions in mm

Pump Size	Weight (kg)	Flanges		IEC Motor Frame	Baseplate		Foundation Plan Dimensions												
		DN1	DN2		Baseplate Nº	Peso (kg)	D1	E	E1	D2	G1	H	H1	K	h3	h2	a	f	a1
125-315	232	125	125	80	BS-0092-00-C	74	1080	1380	680	200	540	840	505	120	--	--	180	723	432
				90	BS-0092-01-C	78	1125	1425	725	200	540	840	505	120	--	--	180	723	432
				100	BS-0092-02-C	79	1155	1455	755	200	540	840	505	120	--	--	180	723	432
				112	BS-0092-03-C	80	1170	1470	770	200	540	840	505	120	--	--	180	723	432
				132	BS-0092-04-C	84	1245	1545	845	200	540	840	505	120	--	--	180	723	432
				160	BS-0092-05-C	91	1370	1670	970	200	540	840	500	120	--	--	180	723	432
				180	BS-0092-06-C	94	1425	1725	1025	200	540	840	500	120	--	--	180	723	432
				200	BS-0092-07-C	95	1455	1755	1055	200	540	840	500	120	--	--	180	723	432
				225	BS-0092-08-C	118	1505	1805	905	300	540	840	500	120	--	--	180	723	432
250	BS-0092-09-C	145	1580	1880	980	300	550	850	510	120	--	--	180	723	432				
150-400	402	150	150	132	BS-0093-04-C	93	1515	1875	1175	200	590	890	550	120	--	--	250	750	502
				160	BS-0093-05-C	102	1400	1700	1055	200	590	890	550	120	--	--	250	750	502
				180	BS-0093-06-C	107	1455	1755	1085	200	590	890	550	120	--	--	250	750	502
				200	BS-0093-07-C	109	1485	1785	935	200	590	890	550	120	--	--	250	750	502
				225	BS-0093-08-C	134	1535	1835	1010	300	590	890	550	120	--	--	250	750	502
				250	BS-0093-09-C	135	1610	1910	1045	300	590	890	550	120	--	--	250	750	502
				280	BS-0093-10-C	142	1745	2045	2045	300	600	600	560	120	--	--	250	750	502
200-500	423	200	200	132	BS-0094-04-C	110	1325	1625	925	300	740	1040	700	120	--	--	250	800	602
				160	BS-0094-05-C	121	1450	1750	1050	300	740	1040	700	120	--	--	250	800	602
				180	BS-0094-06-C	144	1505	1805	905	300	740	1040	700	120	--	--	250	800	602
				200	BS-0094-07-C	147	1535	1835	935	300	740	1040	700	120	--	--	250	800	602
				225	BS-0094-08-C	158	1585	1885	985	300	740	1040	700	120	--	--	250	800	602
				250	BS-0094-09-C	160	1660	1960	1060	300	740	1040	700	120	--	--	250	800	602
				280	BS-0094-10-C	168	1795	2095	1195	300	740	1040	700	120	--	--	250	800	602
				315	BS-0094-11-C	171	1865	2165	1265	300	740	1040	700	120	--	--	250	800	602

Pump Size	Weight (kg)	Flanges		Shaft end		
		DN1	DN2	d2	u	t
125-315	232	125	125	48	14	51,5
150-400	402	150	150	60	18	64,2
200-500	423	200	200	60	18	64,2

Table 28

Variation of dimensions:

1. Dimensions without indication of tolerance according to DIN 7168
2. Parts in Cast Iron - DIN 1686 GTB 18
3. Parts in Nodular Cast Iron - DIN 1685 GTB 18
4. Parts in Carbon Steel - DIN 1683 GTB 18

Note: Foundation Plan for pump size 350, please consult KSB.

# 21.12 Pumps with Impellers K / O / E – Bearing Brackets A 60K, P 65-160 X and P 80-200S Coupling without Spacer

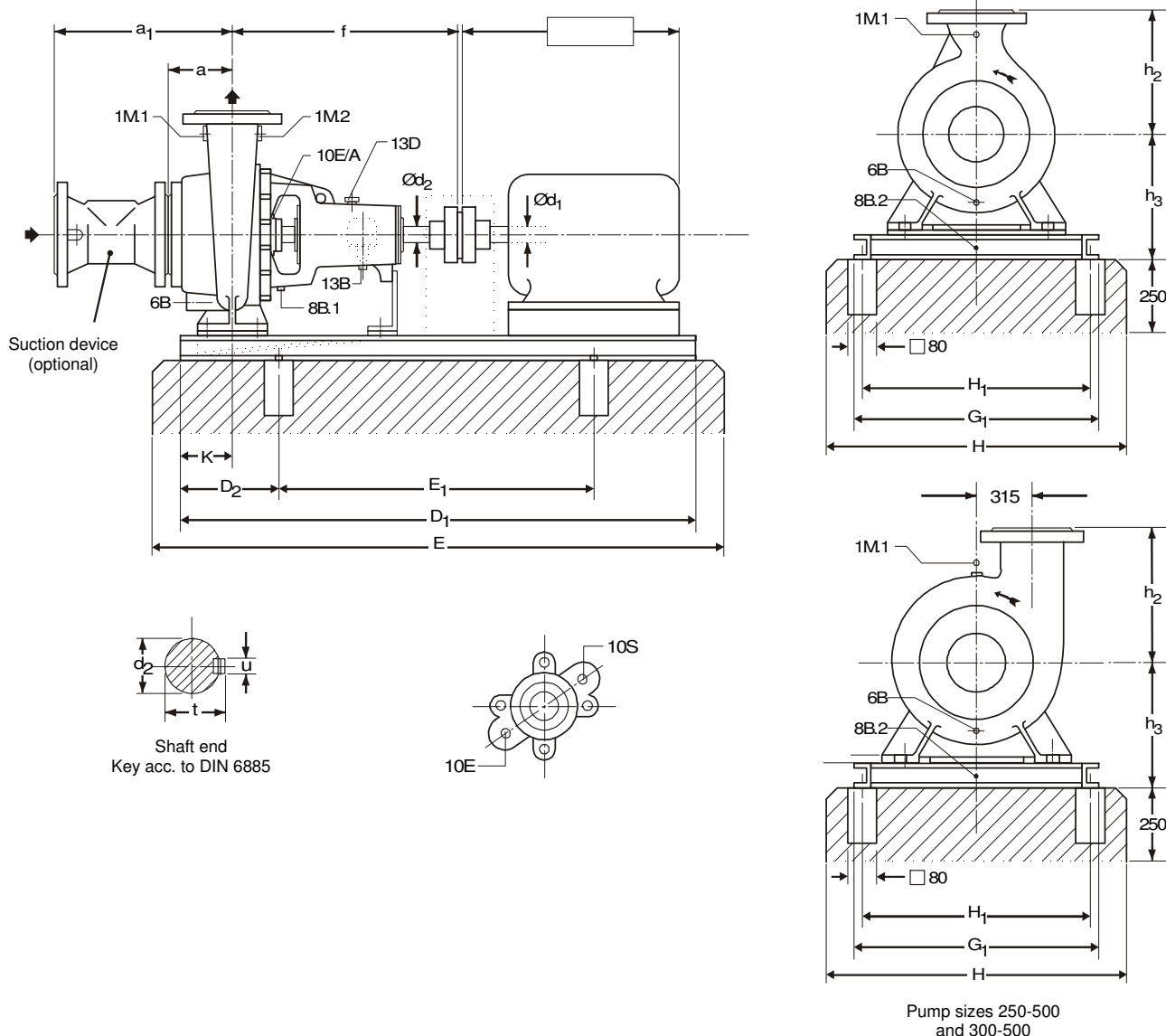


Fig. 28

COUPLING WITHOUT SPACER	
Manufacturer:	Type:

COUPLING GUARD	
<input type="checkbox"/> - STEEL	<input type="checkbox"/> - BRASS
<input type="checkbox"/> - WITHOUT COUPLING GUARD	

FLANGE ACCORDING TO STANDARD	
<input type="checkbox"/> ANSI B16.1 125 # FF	
<input type="checkbox"/> ANSI B16.5 150 # RF	

PUMP SET WEIGHTS IN kg	
- Pump	
- Motor	
- Baseplate	
- Coupling guard	
- TOTAL WEIGHT	

CONNECTIONS TABLE		
Connection	Denomination	NPT Thread
1M.1	Pressure gage	1/2"
1M.2	Pressure gage	1/2"
6B	Drainage	3/4"
6D	Priming	1"
8B.1	Leaking	1/2"
8B.2	Leaking	1/2"
10E	External Sealing – Inlet	1/4"←
10A	External Sealing – Outlet	1/4"←
13D	Lubrication	---
13B	Drainage	1/2"

← For Bearing brackets A60K = 3/8"

Note: 6D only for sizes: 250-500 and 300-500

SUCTION DEVICE	
<input type="checkbox"/> - WITH	<input type="checkbox"/> - WITHOUT

MOTOR	
Manufacturer:	
Frame:	
Insulation:	
Power:	
Frequency:	
Number of poles:	
Voltage:	
Constructive form:	

AUXILIARY CONNECTIONS			
	SEALING LIQUID FROM EXTERNAL SOURCE	10E/S	Pressure: bar
			Flow: l/min
	FLUSHING LIQUID FROM EXTERNAL SOURCE	10E	Pressure: bar
			Flow: l/min

## 22. Connections by impeller type and bearing bracket size

CONNEC TION	DENOMINATION	IMPELLERS K AND O							IMPELLER E			
		BEARING BRACKET							BEARING BRACKET			
		CS40	CS50	A40K	A50K	A60K	P65/ 160X	P80/ 200S	A40K	A50K	A60K	P65/ 160X
1M.1	PRESSURE GAGE / PRIMING	½ NPT ①							1 NPT			
1M.2	PRESSURE GAGE	½ NPT							½ NPT			
3M	PRESSURE GAGE (Optional)	½ NPT							½ NPT			
6B	CASING DRAIN	¾ NPT					¾ NPT ②	¾ NPT	1 NPT			
8B	DRAIN LEAKING LIQUID	½ NPT							½ NPT			
10A	OUTLET SEALING LIQUID	¼ NPT			3/8 NPT		¼ NPT	¼ NPT ③	¼ NPT		3/8 NPT	¼ NPT
10E	INLET SEALING LIQUID	¼ NPT			3/8 NPT		¼ NPT	¼ NPT ③	¼ NPT		3/8 NPT	¼ NPT
13B	OIL DRAIN	¼ NPT							¼ NPT			
13D	VENT	Ø 20 mm							Ø 20 mm			
638	CONSTANT LEVEL OILER	¼ NPT							¼ NPT			

Table 29

Notes:

- ① Priming for sizes 250-500 and 300-500 = 1 NPT
- ② 1 NPT for size 250-500
- ③ 3/8 NPT for size 250-500

30/03/2022

A2370.0E/3



**KSB Brasil Ltda**

Rua José Rabello Portella, 638  
Várzea Paulista SP 13220-540  
Brasil <http://www.ksb.com.br>  
Tel.: 11 4596 8500

**SAK – KSB Customer Service**  
e-mail: [sak@ksb.com](mailto:sak@ksb.com)