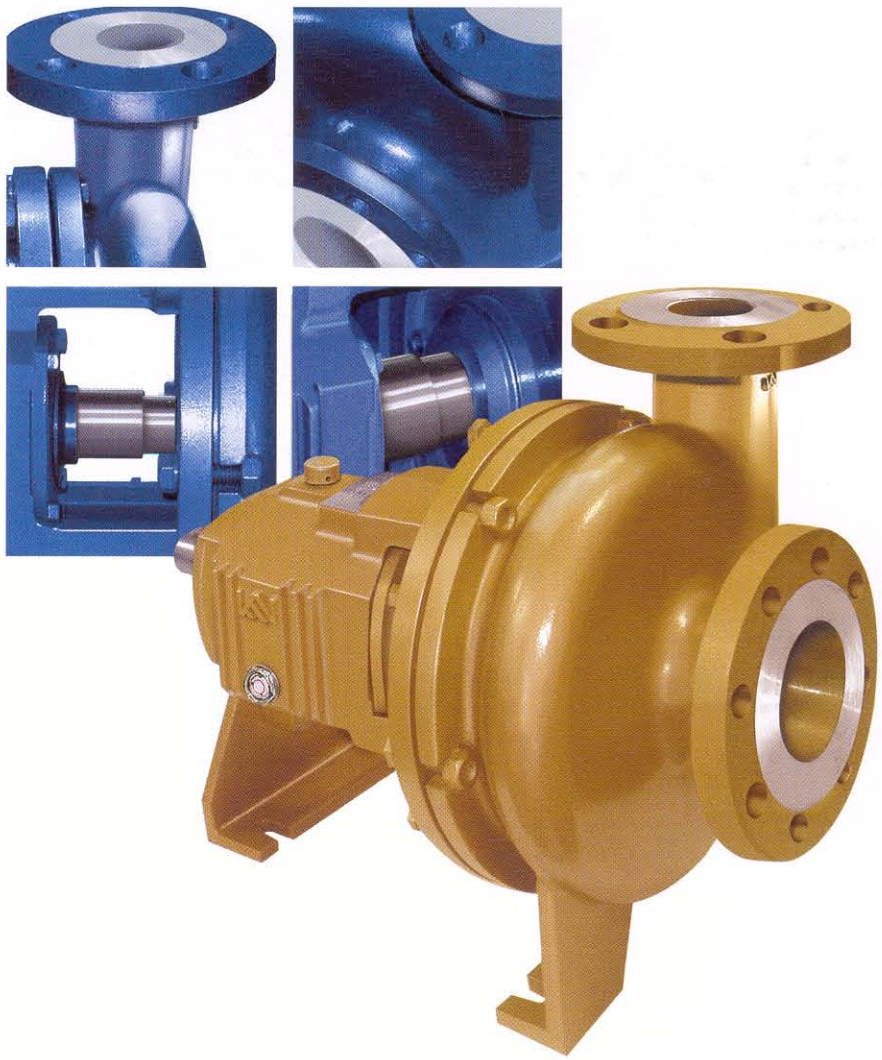
KEWPUMP®

Keeps Pumping



KS-SE3

BACK PULL-OUT END SUCTION SOLID HANDLING PUMP

TÜV CERT ISO 9001 : 2000 Certificate: 04100 2002 1779 ES QUALITY MANAGEMENT SYSTEM

Enterprise 2006

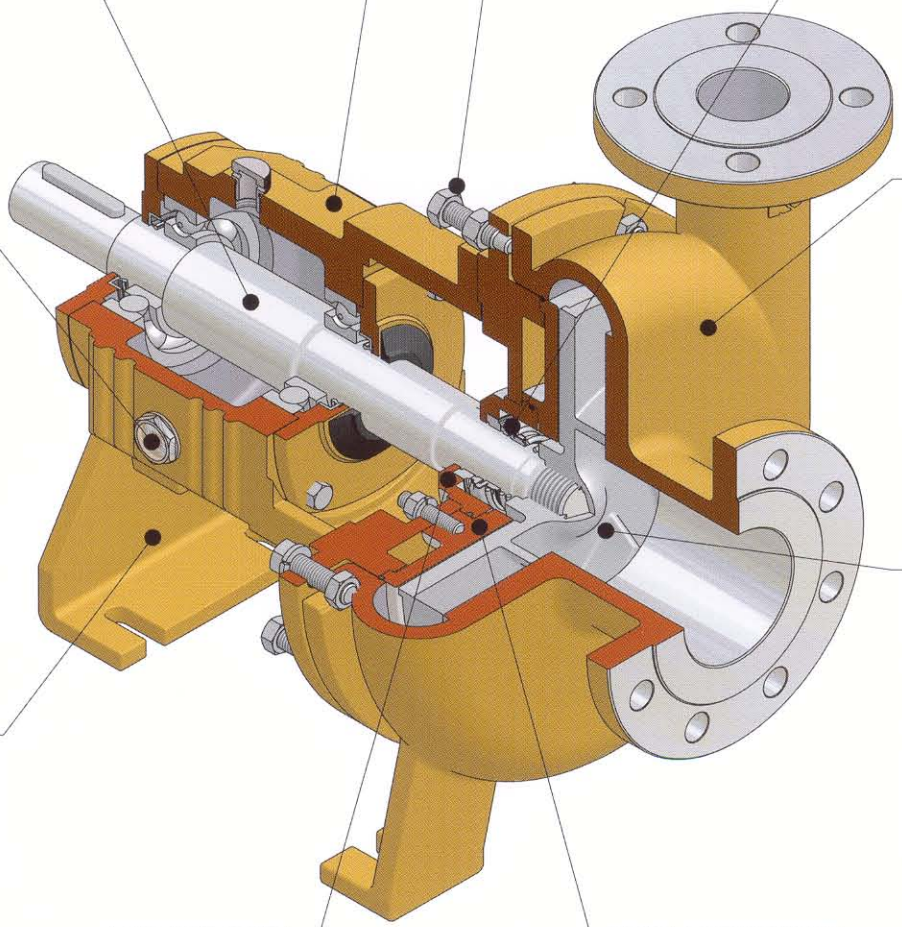
"thebrandlaureate" The Grammy Awards for Branding

Large solid shaft size for heavy duty performance with minimal bearing overhang, provides superior resistance to deflection and increase lifetime of the mechanical seal.

Heavy duty cast iron construction bearing bracket with enlarge oil reservoir for better dissipation of heat.

Clearance adjusting screw make open impeller close and running clearance adjustments easy and accurate to extend pump performance life.

Standard single-acting mechanical seal is generally employed. Dynamic sealing and gland packing system fitted with shaft sleeve also available on request.



Bull eye sight glass for easy accurate monitoring of oil level and condition.

Concentric casing with tangential discharge nozzle design. The impeller and casing is equal at all points. This will reduce turbulence, cavitation and casing life is greatly extended especially in abrasive service.

Non-clogging semi-open vane impeller, ideal for handling liquids containing suspended matter or solids. The impeller also consists of multi back vanes to reduce the concentration of solids and also lower the pressure on the sealing chamber area. Closed impeller, fully-open impeller and torque flow impeller also available on request.

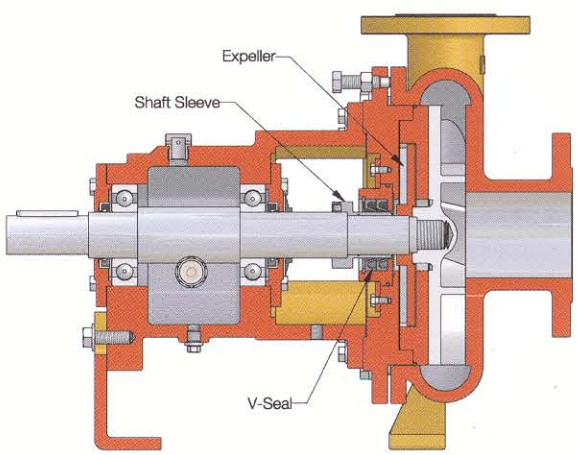
Full support rear foot to prevent bearing bracket from tipping over when disassembled.

Large bore sealing chamber improves cooling and lubrication of seal faces for extending mechanical seal life.

Casing cover wear plate is bolted to the frame with two bolts, easy to access, convenient and economic to replace.

Dynamic Sealing

On some tough pumping services like paper stock and slurries, mechanical seals require outside flush and constant, costly attention. Even then, seal failures are common, resulting in downtime. KS-SE3 offers a Dynamic Seal which, simply by fitting a expeller between sealing chamber and impeller, eliminates the need for a mechanical seal.



Advantages

- External seal water not required
- Elimination of pump contamination and product dilution
- Reduces utility cost
- No need to treat seal water
- Eliminate problems associated with piping from a remote source
- Adjustable shaft sleeve design enables the shaft sleeve to be used up to five cycles longer thus saving significant maintenance cost and down time

Working Principle

During start-up, expeller acts like an impeller, removing liquid and solids from the sealing chamber. When the pump is stationary, V-Seal or other type of secondary seal prevents pump from leaking.

Model Designation

SEK 50R D

Model Range
SEK: *Impeller size 254mm*
SEL: *Impeller size 320mm*

Model Size
40: *Nominal discharge diameter 40mm*
50: *Nominal discharge diameter 50mm*
80: *Nominal discharge diameter 80mm*
100: *Nominal discharge diameter 100mm*

Shaft Sealing Type
Blank: *Mechanical Sealing (Std.)*
D: *Dynamic Sealing*
G: *Gland Packing*

Impeller Type
Blank: *Semi-Open (Std.)*
C: *Closed*
R: *Fully-Open*
F: *Torque Flow*

Part No. Notations

XXX . X . X

Item Code *Material Code* *Type Code*

- Part No. with standard material and type are shown in the parts list.

Example Part No. : 120.1.S (Item = Impeller Material = SS304 Type = Semi-Open)

Item Code

- For parts which have no variation in material and type, Part No. contains of Item Code only.

Example Part No. : 440 (Item = Deflector)

Material Code

For Item Codes 100, 120, 121, 130, 133, 210, 211, 213 and 221.D (for dynamic sealing) only :

1 = SS304	4 = Ni-Hard	7 = Galvanise Steel	10 = CA15
2 = SS316	5 = Cast Iron	8 = Mild Steel	
3 = CA40	6 = Ductile Iron	9 = CD4MCU	

For Item Code 200 only :

A = CA/CE/VT	G = SC/CA/VT
B = CE/CE/VT	H = SC/SC/NBR
C = CA/SC/VT	I = TC/TC/EPDM
D = SC/SC/VT	J = CA/STEEL/VT
E = TC/TC/VT	N = STELLITE/CA/VT
F = TC/SC/VT	O = CE/CA/VT

LEGEND

CA = Carbon	VT = Viton
CE = Ceramic	NBR = Nitrile
SC = Silicon Carbide	EPDM = EPDM
TC = Tungsten Carbide	
STEEL = Steel	
STELLITE = Stellite	

- Available materials for the above items are depended on the product specifications.
- For parts which have no variation in type, Part No. contains of Item Code and Material Code

Example Part No. : 213.5 (Item = Gland Material = Cast Iron)

Type Code

For Item Code 120 only :

C = Closed S = Semi-Open R = Fully-Open F = Torque Flow

For Item Codes 133, 210, 211 and 221 only :

M = Mechanical Sealing D = Dynamic Sealing G = Gland Packing

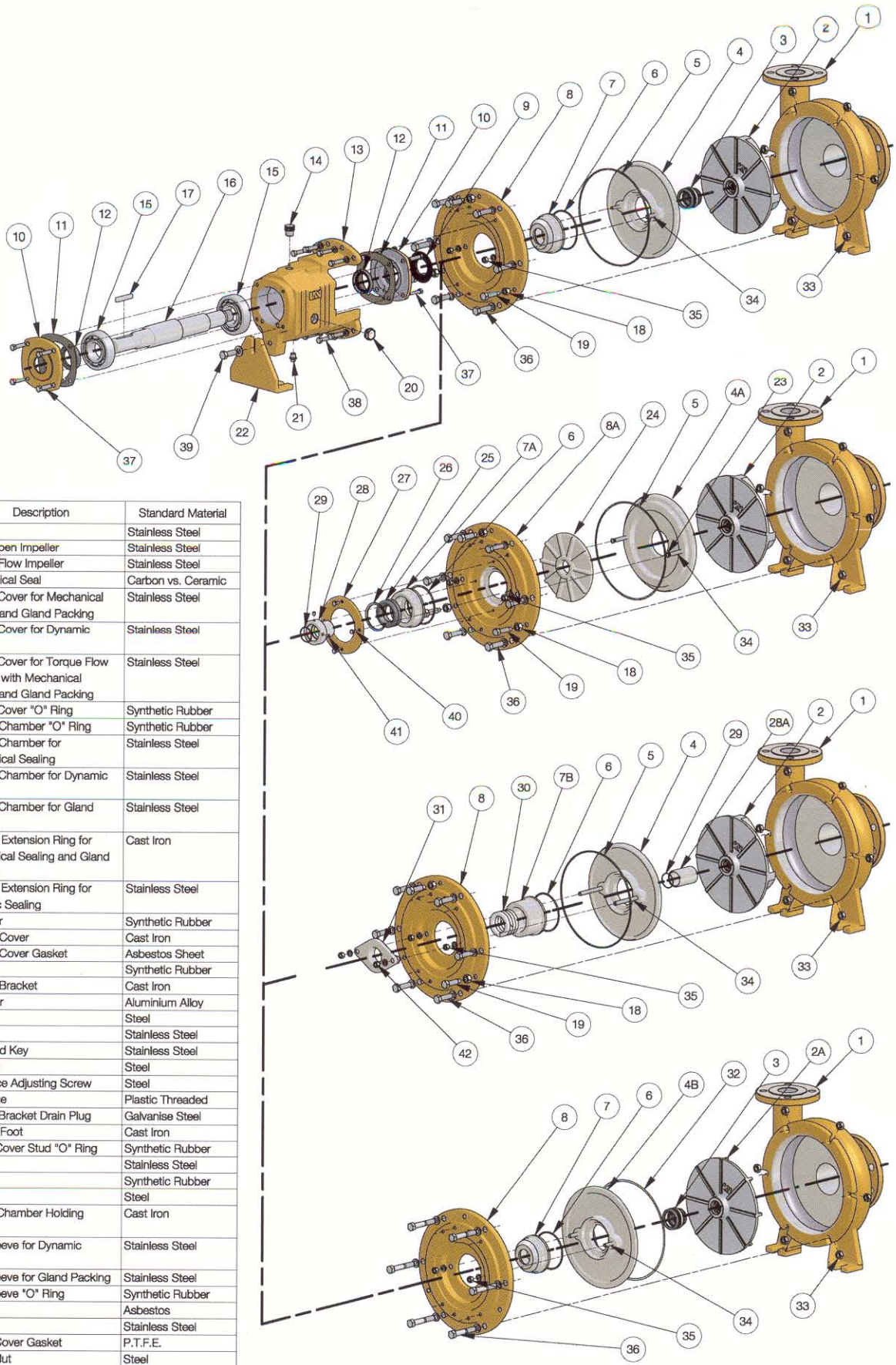
For Item Code 210 only :

F = for models with torque flow impeller
Blank = for models with other types of impeller

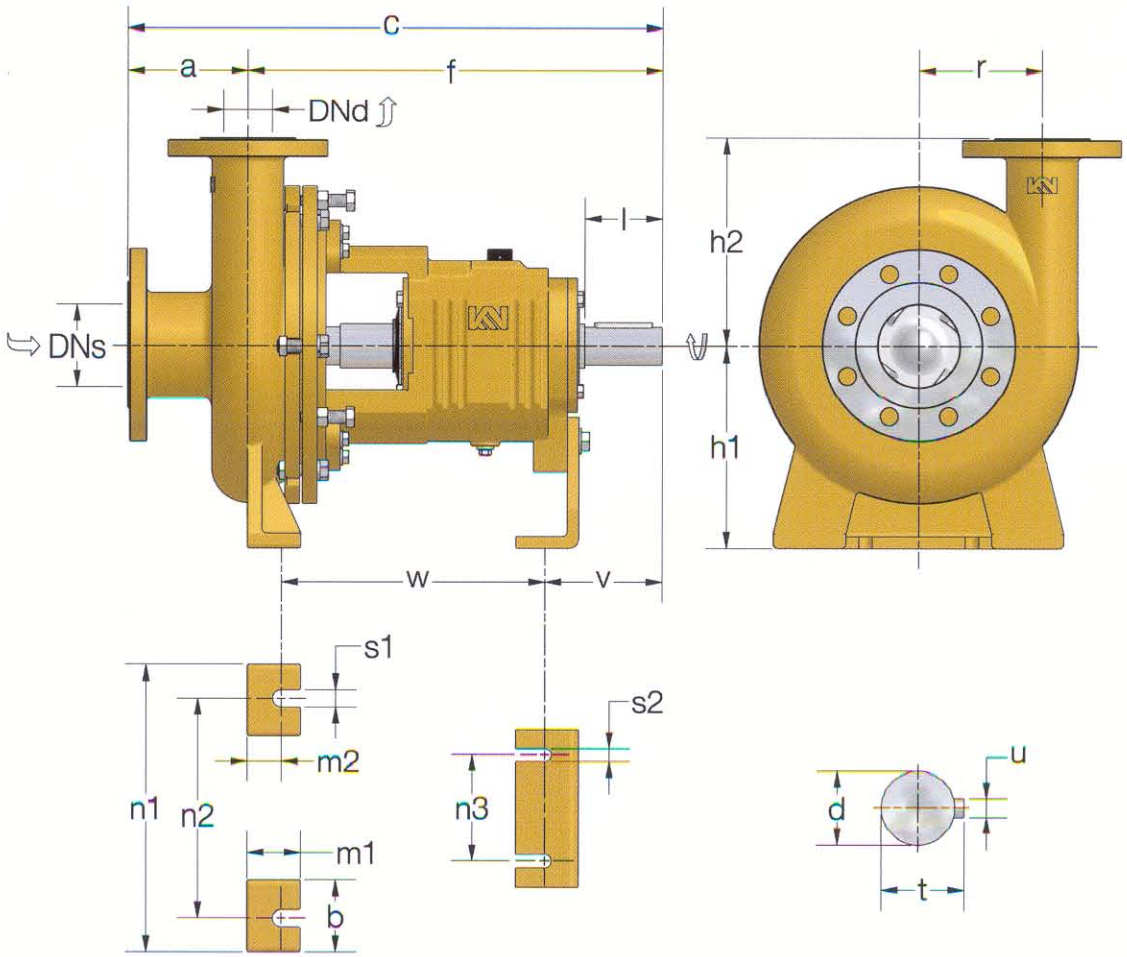
- Available types for the above items are depended on the product specifications.

Example Part No. : 120.2.C (Item = Impeller Material = SS316 Type = Closed)

Kewpump (M) Sdn. Bhd. reserves the right to change the materials and types to keep pace with technological progress.

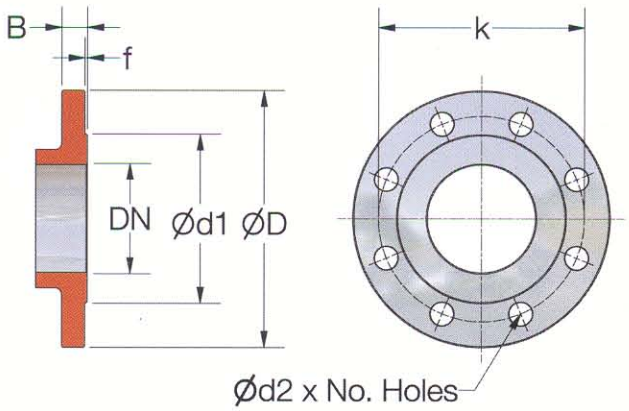


Item No.	Part No.	Description	Standard Material
1	100	Casing	Stainless Steel
2	120.S	Semi-Open Impeller	Stainless Steel
2A	120.F	Torque Flow Impeller	Stainless Steel
3	200.A	Mechanical Seal	Carbon vs. Ceramic
4	210.M/G	Casing Cover for Mechanical Sealing and Gland Packing	Stainless Steel
4A	210.D	Casing Cover for Dynamic Sealing	Stainless Steel
4B	210.FM/G	Casing Cover for Torque Flow Impeller with Mechanical Sealing and Gland Packing	Stainless Steel
5	420	Casing Cover "O" Ring	Synthetic Rubber
6	421	Sealing Chamber "O" Ring	Synthetic Rubber
7	211.M	Sealing Chamber for Mechanical Sealing	Stainless Steel
7A	211.D	Sealing Chamber for Dynamic Sealing	Stainless Steel
7B	211.G	Sealing Chamber for Gland Packing	Stainless Steel
8	221.M/G	Adaptor Extension Ring for Mechanical Sealing and Gland Packing	Cast Iron
8A	221.D	Adaptor Extension Ring for Dynamic Sealing	Stainless Steel
9	440	Deflector	Synthetic Rubber
10	320	Bearing Cover	Cast Iron
11	430	Bearing Cover Gasket	Asbestos Sheet
12	321	Oil Seal	Synthetic Rubber
13	301	Bearing Bracket	Cast Iron
14	330	Oil Cover	Aluminium Alloy
15	310	Bearing	Steel
16	130	Shaft	Stainless Steel
17	136	Shaft End Key	Stainless Steel
18	464	Jam Nut	Steel
19	451	Clearance Adjusting Screw	Steel
20	331	Oil Gauge	Plastic Threaded
21	400	Bearing Bracket Drain Plug	Galvanise Steel
22	410	Support Foot	Cast Iron
23	492	Casing Cover Stud "O" Ring	Synthetic Rubber
24	121	Expeller	Stainless Steel
25	202	V-Seal	Synthetic Rubber
26	460	Cir Clip	Steel
27	235	Sealing Chamber Holding Bracket	Cast Iron
28	133.D	Shaft Sleeve for Dynamic Sealing	Stainless Steel
28A	133.G	Shaft Sleeve for Gland Packing	Stainless Steel
29	423	Shaft Sleeve "O" Ring	Synthetic Rubber
30	201	Packing	Asbestos
31	213	Gland	Stainless Steel
32	431	Casing Cover Gasket	P.T.F.E.
33	--	Casing Nut	Steel
34	--	Casing Cover Stud	Steel
35	--	Casing Cover Nut	Steel
36	--	Casing Bolt	Steel
37	--	Bearing Cover Bolt	Steel
38	--	Adaptor Extension Ring Bolt	Steel
39	--	Support Foot Bolt	Steel
40	--	Sealing Chamber Holding Bracket Bolt	Steel
41	--	Shaft Sleeve Set Screw	Steel
42	--	Gland Nut	Steel



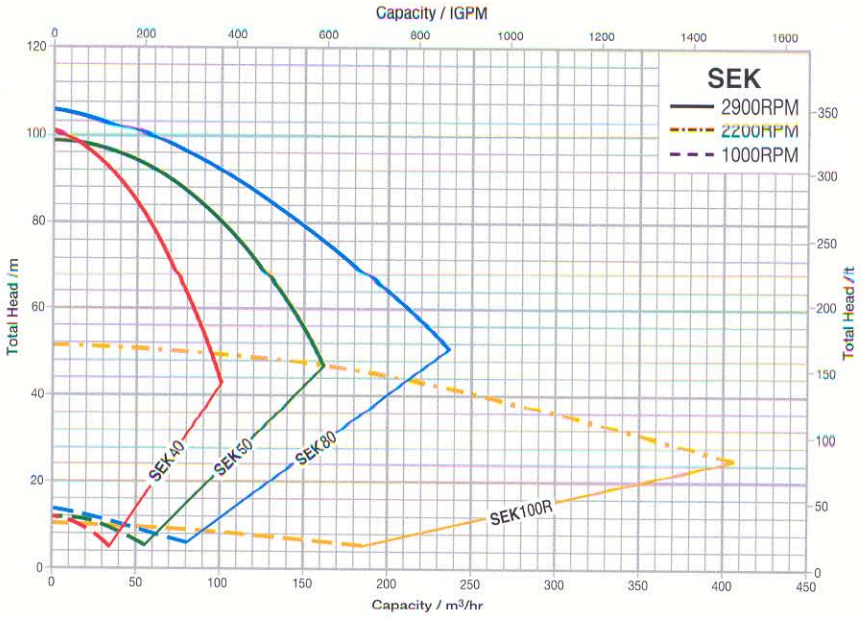
Dimensions in mm																						
PUMP MODEL	Flanges		Pump Dimensions						Foot Dimensions										Shaft End			
	DNd	DNs	a	f	c	h1	h2	r	b	m1	m2	n1	n2	n3	s1	s2	v	w	d	l	t	u
SEK 40	40	65	85	430	515	210	203	135	75	55	35	300	245	110	18	14	130	265	38	80	42.8	9.5
SEK 50	50	80	115	430	545		215	123														
SEK 80	80	100	115	440	555		242	130														
SEK 100R	100	125	125	445	570		262	148														
SEL 40	40	65	90	430	520	250	254	165	75	55	35	380	310	185	18	14	140	255	38	80	42.8	9.5
SEL 50	50	80	120	435	555		256	163														
SEL 80	80	100	115	440	555		260	161														

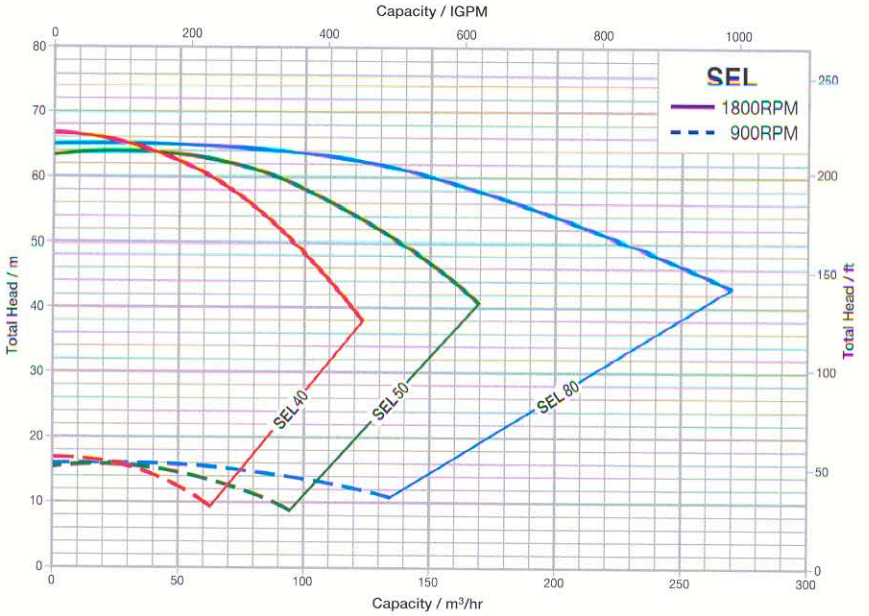
Dimensions are based on semi-open / fully-open impeller
For closed impeller, dimensions **f**, **c** and **w** plus (+) another 6mm
For torque flow impeller, dimensions **f**, **c** and **w** plus (+) another 30mm



Dimensions in mm								
Nominal Dia.	Flange		Raised Face		Drilling*			Bolting
DN	D	B	d1	f	No.	d2	k	
40	150	18	88	3	4	18	110	M16
50	165	20	102	3	4	18	125	M16
65	185	20	122	3	4	18	145	M16
80	200	22	138	3	8	18	160	M16
100	220	24	158	3	8	18	180	M16
125	250	26	188	3	8	18	210	M16

Flange dimensions and drilling according to ISO 2084 – PN16
* Holes equally spaced straddling pump centreline





All curves based on semi-open impeller, except SEK 100R (fully-open impeller).
All curves based on full size impeller.
Curves for reference only. For final selection refer to individual pump curve.

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