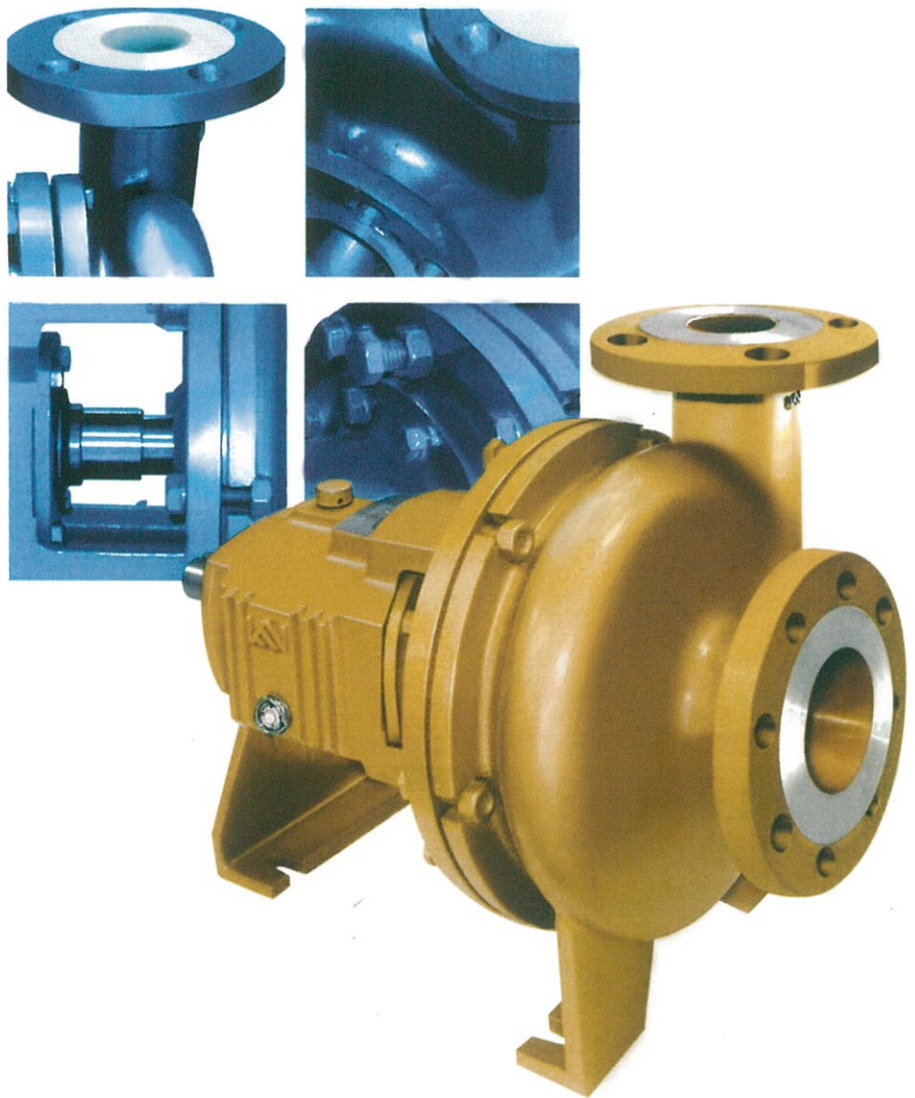




KN KEWPUMP®

Keeps Pumping



KS-SE3

**BACK PULL-OUT END SUCTION
SOLID HANDLING PUMP**



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.

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

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.

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

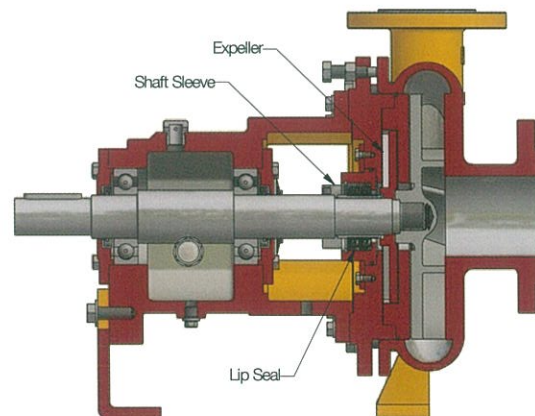
On some tough pumping services like paper stock and slurries, mechanical seals require outside flush and constant, costly attention. Even then, seal failures are common, resulting in downtime. KS-SE3 offers a Dynamic Seal which, simply by fitting an expeller between sealing chamber and impeller, eliminates 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, Lip Seal or other type of secondary seal prevents pump from leaking.



Model Designation

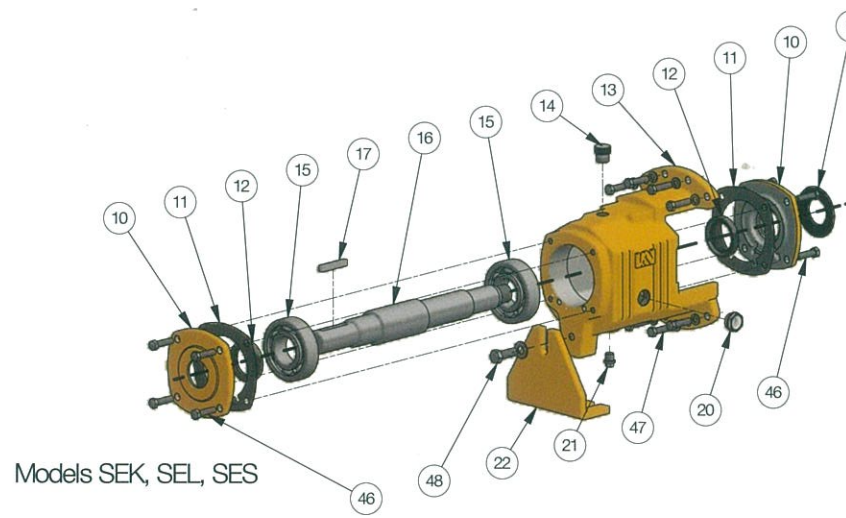
| Model Range | |
|-------------|--|
| SEK: | Back pull-out, non self priming with max. impeller size 254mm |
| SEL: | Back pull-out, non self priming with max. impeller size 320mm |
| SES: | Back pull-out, self priming with max. impeller size 254mm |
| SEMK: | Closed coupled, non self priming with max. impeller size 254mm |
| SEML: | Closed coupled, non self priming with max. impeller size 320mm |
| SEMS: | Closed coupled, self priming with max. impeller size 254mm |

SEK 50R D

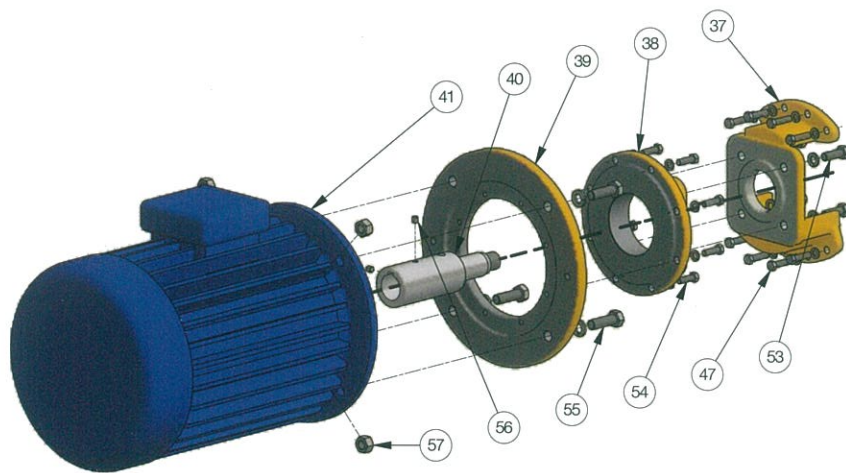
| Shaft Sealing Type | |
|--------------------|---------------------------|
| Blank: | Mechanical Sealing (Std.) |
| L: | Lip Sealing |
| D: | Dynamic Sealing |
| G: | Gland Packing |

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

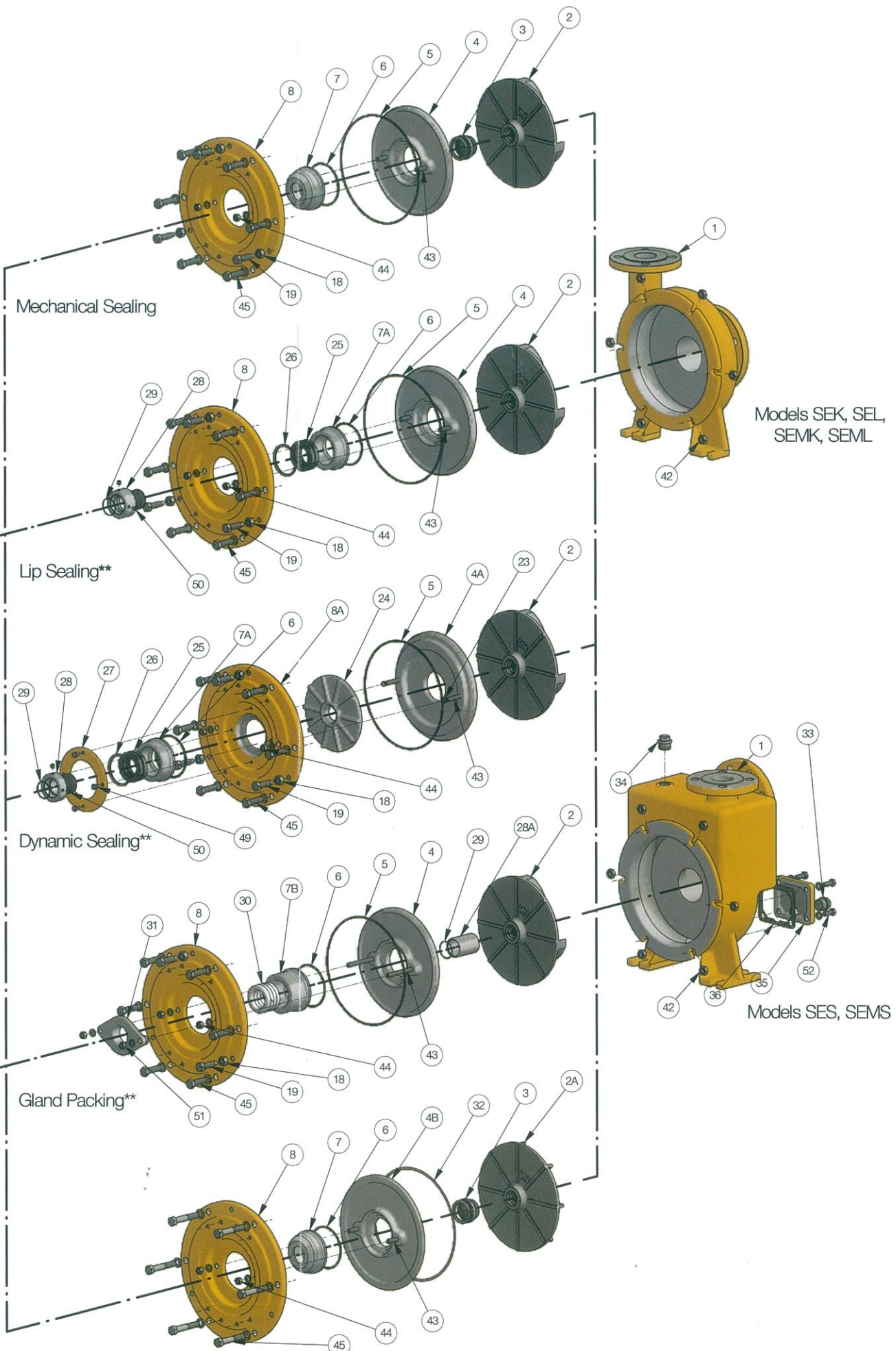
| Model Size | |
|------------|----------------------------------|
| 40: | Nominal discharge diameter 40mm |
| 50: | Nominal discharge diameter 50mm |
| 80: | Nominal discharge diameter 80mm |
| 100: | Nominal discharge diameter 100mm |



Models SEK, SEL, SES



Models SEMK, SEML, SEMS



Mechanical Sealing

Lip Sealing**

Dynamic Sealing**

Gland Packing**

Torque Flow Impeller with Mechanical Sealing

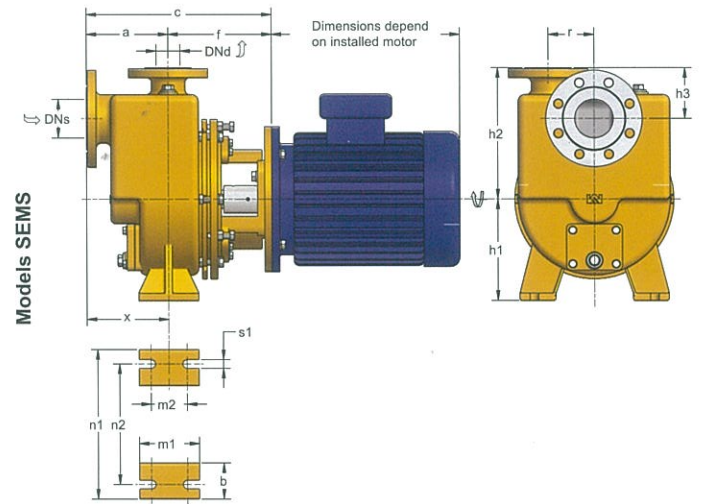
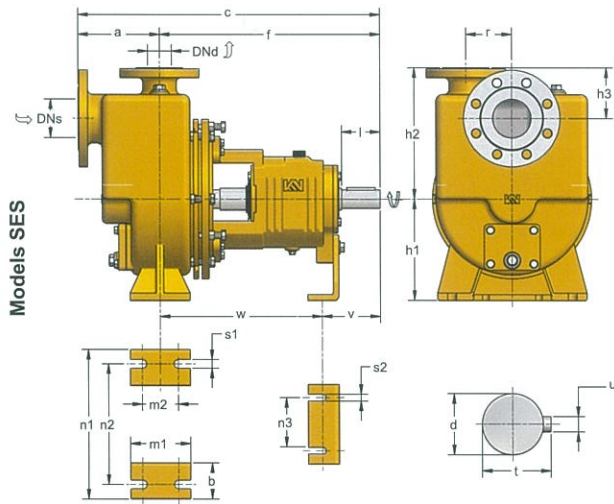
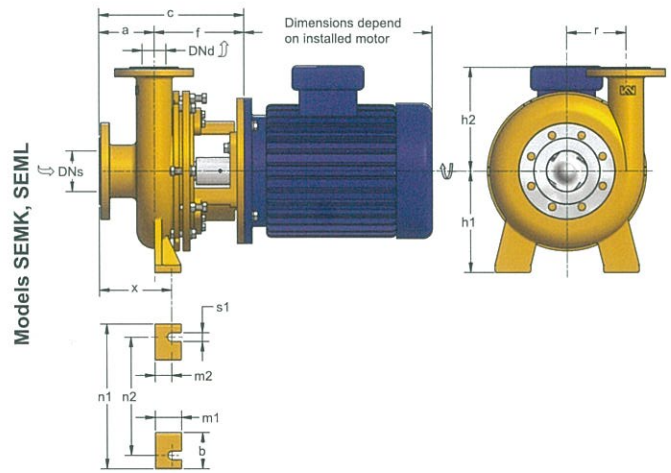
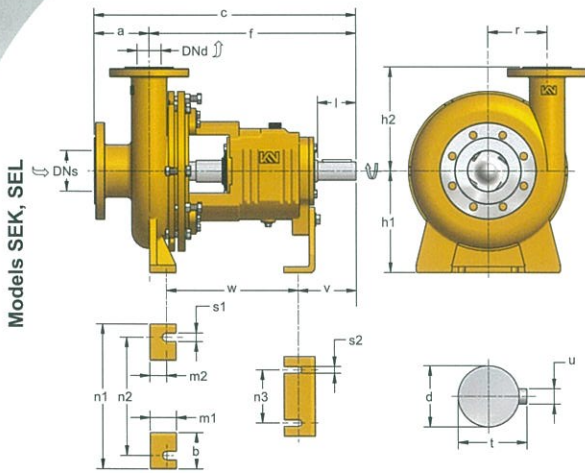
Models SEK, SEL, SEMK, SEML

Models SES, SEMS

| 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.ML/G | Casing Cover for Mechanical Sealing, Lip Sealing and Gland Packing | Stainless Steel |
| 4A | 210.D | Casing Cover for Dynamic Sealing | Stainless Steel |
| 4B | 210.FML/G | Casing Cover for Torque Flow Impeller with Mechanical Sealing, Lip 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.L/D | Sealing Chamber for Lip Sealing and Dynamic Sealing | Stainless Steel |
| 7B | 211.G | Sealing Chamber for Gland Packing | Stainless Steel |
| 8 | 221.ML/G | Adaptor Extension Ring for Mechanical Sealing, Lip 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 | Oil Proof Paper |
| 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 | 207 | Lip Seal | Synthetic Rubber + P.T.F.E. |
| 26 | 460 | Cir Clip | Steel |
| 27 | 235 | Sealing Chamber Holding Bracket | Cast Iron |
| 28 | 133.L/D | Shaft Sleeve for Lip Sealing and 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 | Cotton |
| 31 | 213 | Gland | Stainless Steel |
| 32 | 431 | Casing Cover Gasket | Asbestos Sheet |
| 33 | 401 | Casing Drain Plug | Stainless Steel |
| 34 | 402 | Venting Plug | Stainless Steel |
| 35 | 217 | Casing Drain Cover | Stainless Steel |
| 36 | 439 | Casing Drain Cover Gasket | Synthetic Rubber |
| 37 | 220 | Frame Adaptor | Cast Iron |
| 38 | 233* | Motor Frame Adaptor | Cast Iron |
| 39 | 225 | Motor Adaptor Extension Ring | Cast Iron |
| 40 | 132 | Motor Extension Shaft | Stainless Steel |
| 41 | 501 | Flange-Mounted Motor | -- |
| 42 | -- | Casing Nut | Steel |
| 43 | -- | Casing Cover Stud | Steel |
| 44 | -- | Casing Cover Nut | Steel |
| 45 | -- | Casing Bolt | Steel |
| 46 | -- | Bearing Cover Bolt | Steel |
| 47 | -- | Adaptor Extension Ring Bolt | Steel |
| 48 | -- | Support Foot Bolt | Steel |
| 49 | -- | Sealing Chamber Holding Bracket Bolt | Steel |
| 50 | -- | Shaft Sleeve Set Screw | Steel |
| 51 | -- | Gland Nut | Steel |
| 52 | -- | Casing Drain Cover Bolt | Steel |
| 53 | -- | Motor Frame Adaptor Bolt | Steel |
| 54 | -- | Motor Adaptor Extension Ring Bolt | Steel |
| 55 | -- | Motor Bolt | Steel |
| 56 | -- | Motor Extension Shaft Set Screw | Steel |
| 57 | -- | Motor Nut | Steel |

* Only available in models SEMK, SEML and SEMS with motor horsepower 15HP or 20HP

** Only available in models SEK, SEL and SES



Models SEK, SEL, SES

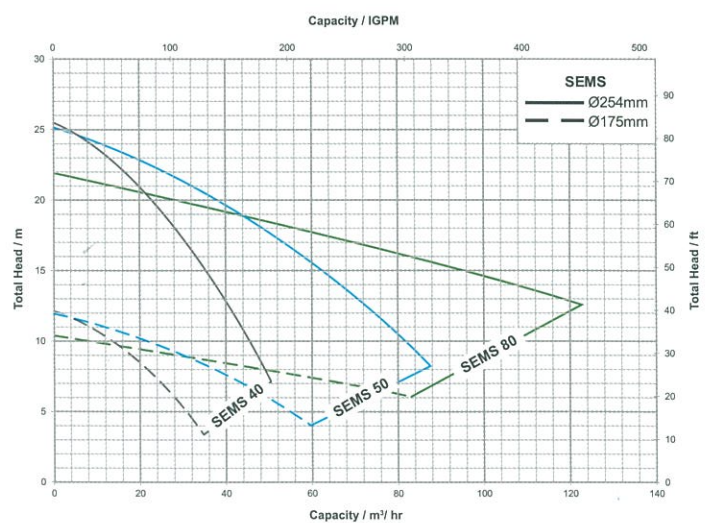
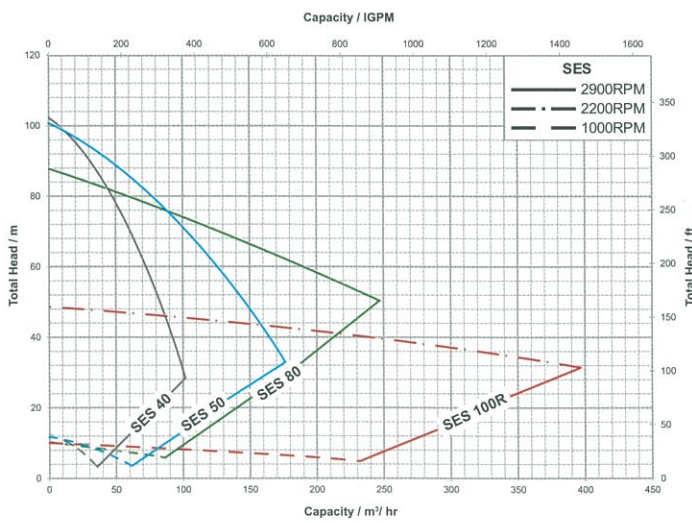
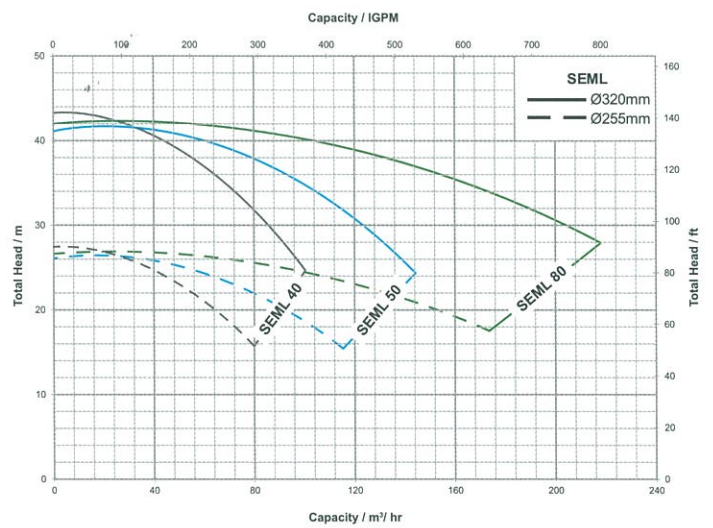
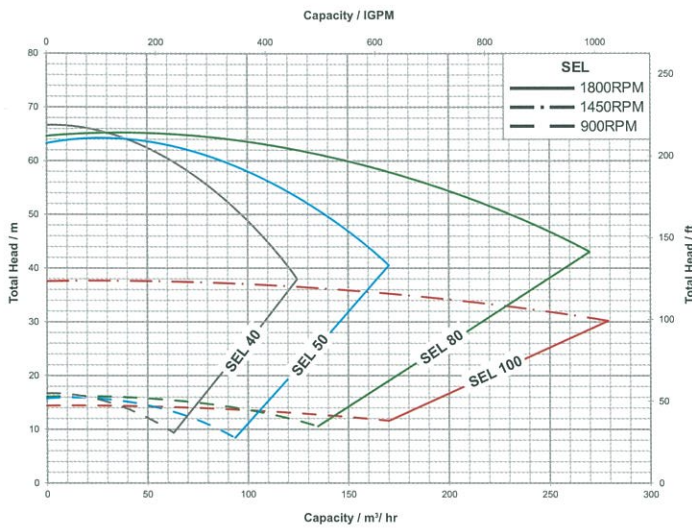
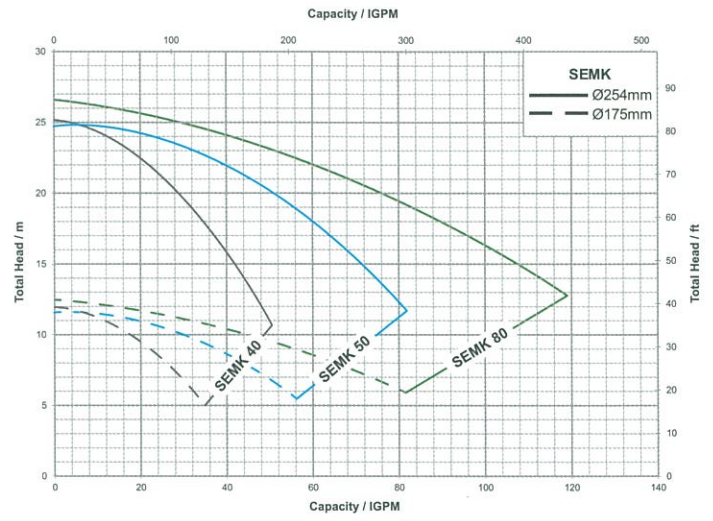
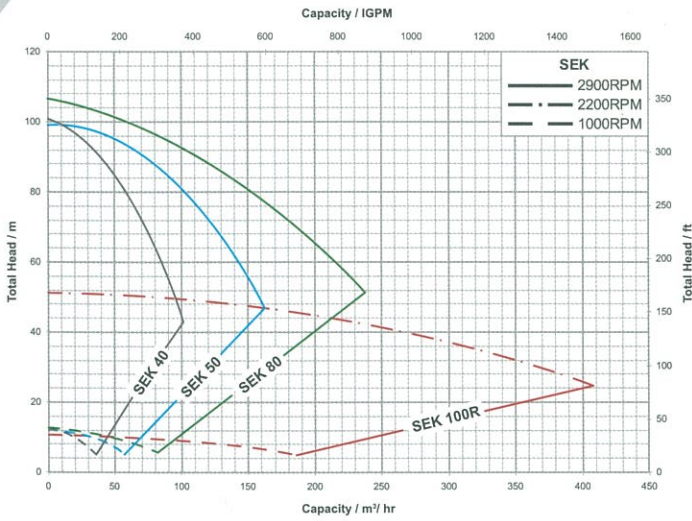
| | | Dimensions in mm | | | | | | | | | | | | | | | | | | | | | | | Bare Pump Weight in kg |
|------------|----------|------------------|-----------------|-----|-----|-----|-----|-----|-----|-----------------|----|-----|-----|-----|-----|-----|----|-----------|-----|-----|----|----|-----|-----|------------------------|
| PUMP MODEL | Flanges | | Pump Dimensions | | | | | | | Foot Dimensions | | | | | | | | Shaft End | | | | | | | |
| | DNd | DNs | a | f | c | h1 | h2 | h3 | r | b | m1 | m2 | n1 | n2 | n3 | s1 | s2 | v | w | d | l | t | u | | |
| SEK | SEK 40 | 40 | 65 | 85 | 430 | 515 | | 213 | | 135 | | | | | | | | 260 | | | | | 80 | | |
| | SEK 50 | 50 | 80 | 115 | 435 | 550 | 210 | 218 | | 123 | | | | | | | | 265 | | | | | 82 | | |
| | SEK 80 | 80 | 100 | 110 | 445 | 555 | | 255 | | 130 | 75 | 55 | 35 | 300 | 245 | 110 | 18 | 14 | 130 | 275 | 38 | 80 | 41 | 10 | 92 |
| | SEK 100R | 100 | 125 | 123 | 460 | 583 | | 270 | | 148 | | | | | | | | | 290 | | | | | 99 | |
| SEL | SEL 40 | 40 | 65 | 85 | 435 | 520 | | 260 | | 165 | | | | | | | | 255 | | | | | 106 | | |
| | SEL 50 | 50 | 80 | 115 | 440 | 555 | 250 | 260 | | 163 | 75 | 55 | 35 | 380 | 310 | 185 | 18 | 14 | 140 | 260 | 38 | 80 | 41 | 10 | 112 |
| | SEL 80 | 80 | 100 | 115 | 445 | 560 | | 260 | | 161 | | | | | | | | 265 | | | | | 116 | | |
| | SEL 100 | 100 | 150 | 155 | 470 | 625 | 265 | 280 | | 167 | | 75 | 55 | 390 | 320 | | | | 270 | | | | | 154 | |
| SES | SES 40 | 40 | 65 | 150 | 460 | 610 | | 265 | 99 | 101 | | | 150 | 100 | | | | 345 | | | | | 104 | | |
| | SES 50 | 50 | 80 | 170 | 465 | 635 | 210 | 275 | 103 | 95 | 75 | 150 | 100 | 310 | 250 | 110 | 18 | 14 | 130 | 350 | 38 | 80 | 41 | 10 | 108 |
| | SES 80 | 80 | 100 | 230 | 485 | 715 | | 328 | 116 | 93 | | 170 | 120 | | | | | 380 | | | | | 136 | | |
| | SES 100R | 100 | 125 | 240 | 485 | 725 | | 375 | 132 | 117 | | 195 | 145 | | | | | 393 | | | | | 150 | | |

Models SEMK, SEML, SEMS

| | | Dimensions in mm | | | | | | | | | | | | | | | | | | | Bare Pump Weight in kg |
|------------|---------|------------------|-----------------|-----|-----|-----|-----|-----|-----|-----------------|----|-----|-----|-----|-----|----|-----|-----|--|--|------------------------|
| PUMP MODEL | Flanges | | Pump Dimensions | | | | | | | Foot Dimensions | | | | | | | | | | | |
| | DNd | DNs | a | f | c | h1 | h2 | h3 | r | b | m1 | m2 | n1 | n2 | s1 | x | | | | | |
| SEMK | SEMK 40 | 40 | 65 | 85 | 185 | 270 | | 213 | | 135 | | | | | | | 125 | 82 | | | |
| | SEMK 50 | 50 | 80 | 115 | 190 | 305 | 210 | 218 | | 123 | 75 | 55 | 35 | 300 | 245 | 18 | 155 | 84 | | | |
| | SEMK 80 | 80 | 100 | 110 | 200 | 310 | | 255 | | 130 | | | | | | | 155 | 94 | | | |
| SEML | SEML 40 | 40 | 65 | 85 | 190 | 275 | | 260 | | 165 | | | | | | | 130 | 114 | | | |
| | SEML 50 | 50 | 80 | 115 | 195 | 310 | 250 | 260 | | 163 | 75 | 55 | 35 | 380 | 310 | 18 | 160 | 120 | | | |
| | SEML 80 | 80 | 100 | 115 | 200 | 315 | | 260 | | 161 | | | | | | | 155 | 124 | | | |
| SEMS | SEMS 40 | 40 | 65 | 150 | 215 | 365 | | 265 | 99 | 101 | | | 150 | 100 | | | 135 | 106 | | | |
| | SEMS 50 | 50 | 80 | 170 | 220 | 390 | 210 | 275 | 103 | 95 | 75 | 150 | 100 | 310 | 250 | 18 | 155 | 110 | | | |
| | SEMS 80 | 80 | 100 | 230 | 240 | 470 | | 328 | 116 | 93 | | 170 | 120 | | | | 205 | 138 | | | |

All dimensions are ± 5mm unless otherwise stated. Not to be used for construction.
 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.
 For models SEMK, SEML and SEMS with motor horsepower 15HP or 20HP, dimensions f and c plus (+) another 40mm.
 Flange dimensions according to ISO2084-PN16 (BS4504-1969 Table 16/11. DIN2501/PN16).

KEWPUMP® KS-SE3 PUMP SELECTION CHART



All curves based on semi-open impeller, except SEK 100R and SES 100R (fully-open impeller).
 For SEK, SEL and SES, curves based on full size impeller for each model.
 For SEMK, SEML and SEMS, curves based on pump speed 1450rpm for each model.
 Curves for reference only. For final selection refer to individual pump curve.



<http://www.kewpump.com>

