

**DH**

**Horizontal Double-Suction  
Split Case Centrifugal Pumps**

**50 Hz • 60 Hz**



***Since 1918 in Japan***

# DH Horizontal Double-Suction Split Case Centrifugal Pumps

## ■ Applications

- General water supply in dwelling houses, city buildings, etc.
- Circulation of cold and/or hot water
- Industrial water supply system
- Irrigation use
- Fire fighting and sprinkler

## ■ Features

### ● Easy Disassembly

Inspection is simplified, it is not necessary to disturb pump alignment and suction & discharge piping when parts replacement are necessary.

### ● Wide Range of Material

Pump material can be changed in accordance with customer's request.

### ● High Efficiency

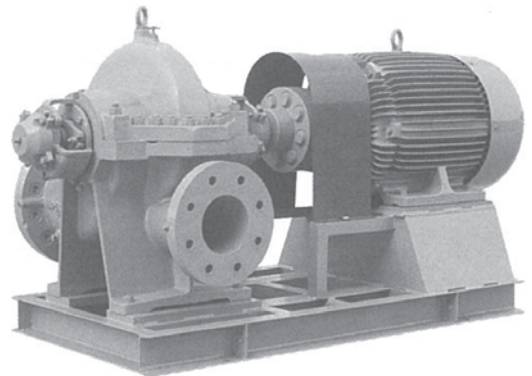
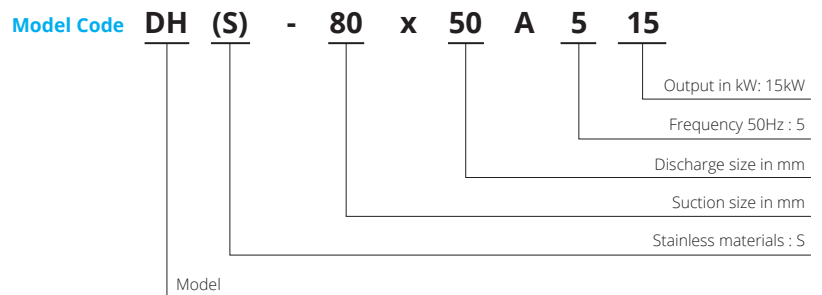
High operating efficiency realize lower operation cost and smaller motor output.

### ● High suction lift

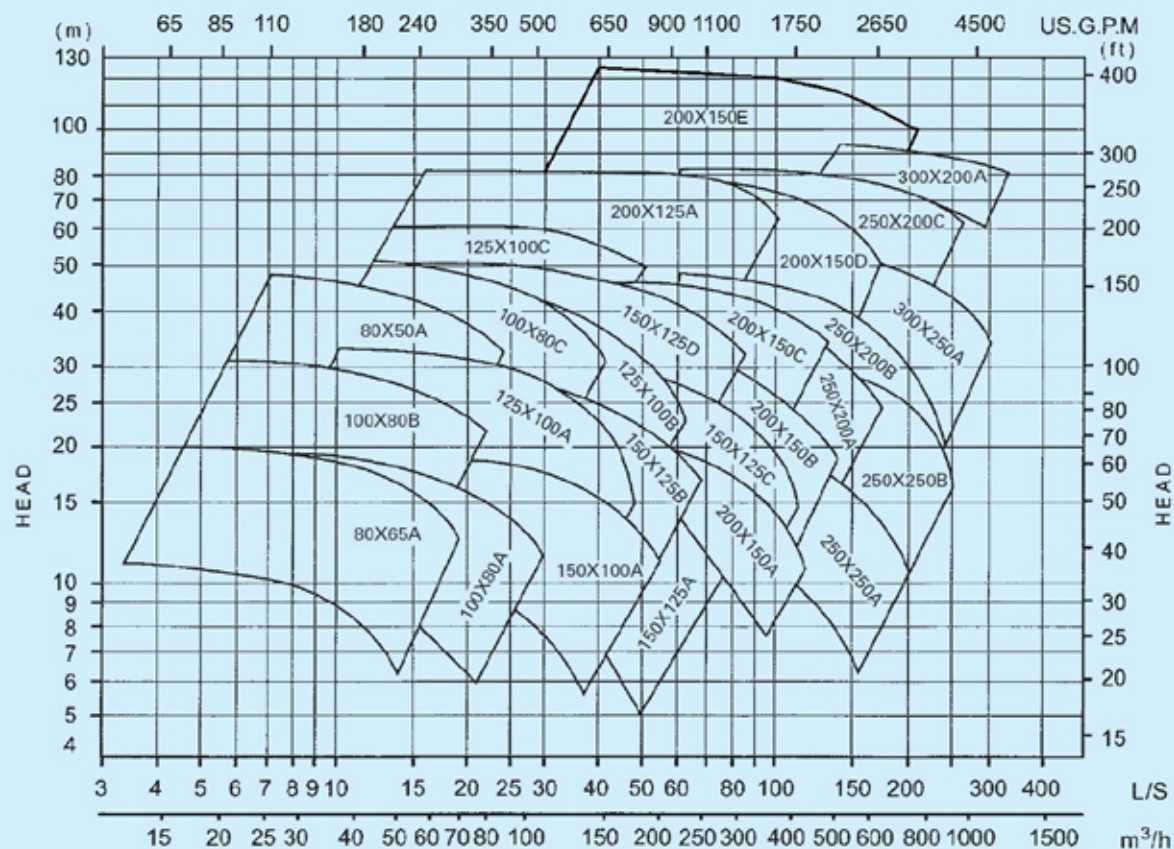
Double suction pump ensures high suction lift performance with wide capacities.

## ■ Specifications

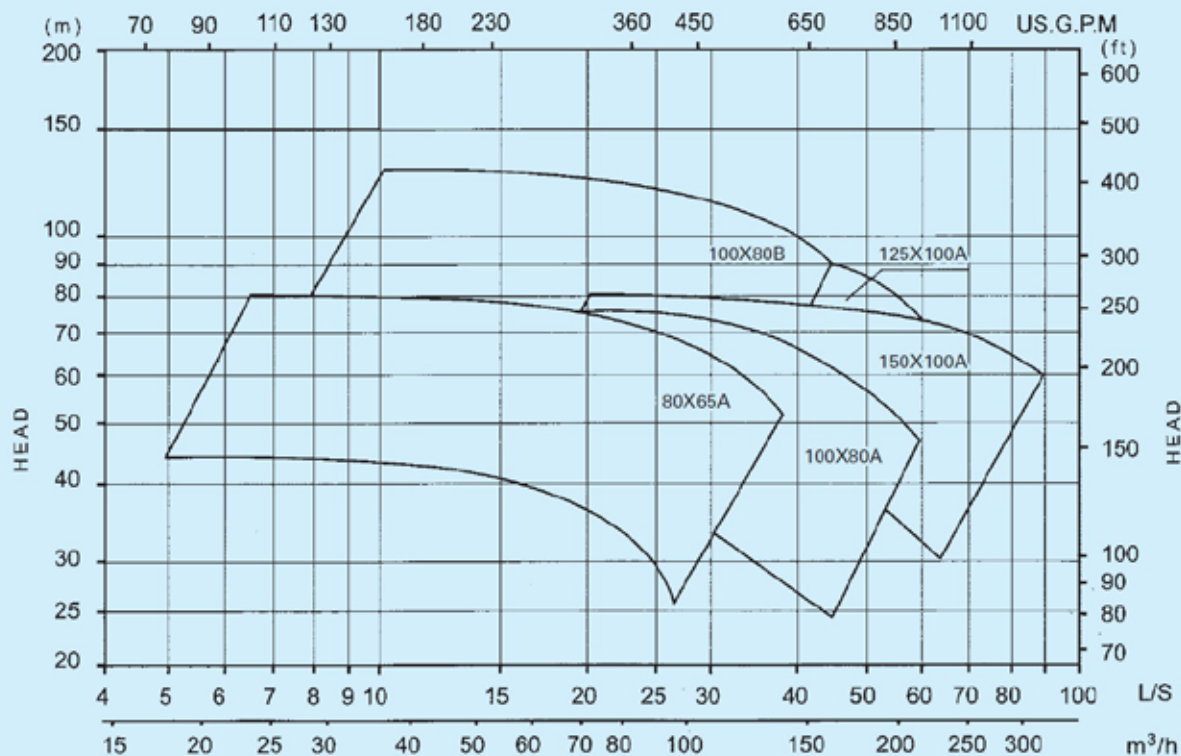
- **Liquid** : Fresh Water (-10°C~80°C) Option : up to 90°C
- **Re. NPSH** : See the individual charastric curve
- **Max suc. Press** : 16kgf/cm<sup>2</sup> -  $\frac{\text{shut off head}}{10}$
- **Max working Press** : 16kgf/cm<sup>2</sup>
- **Revolution** : 1500 rpm or 3000 rpm at 50Hz  
: 1800 rpm or 3600 rpm at 60Hz
- **Structure**
  - Impeller** : Closed
  - Shaft seal** : Mechanical seal (Option: Gland packing)
  - Bearing** : Closed ball bearing
- **Material**
  - Impeller** : Cast iron (FC250) / Bronze (CAC701) Option : Stainless Steel (SCS14)
  - Shaft** : Stainless Steel (SUS420J1)
  - Casing** : Cast iron (FC250) Option : Ductile Cast iron (FCD450)  
Stainless Steel (SCS14)



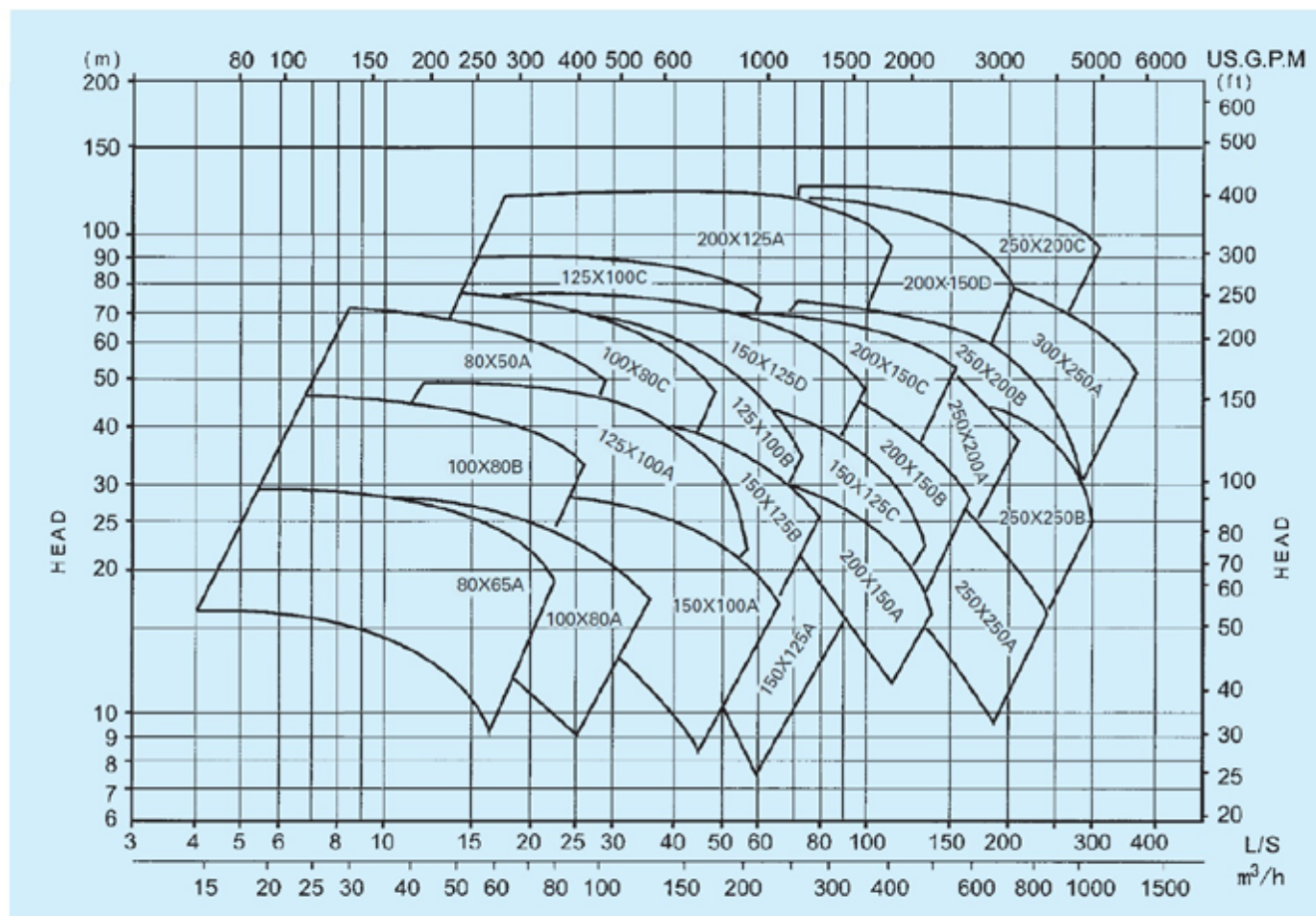
## DH 50Hz Synchronous Revolution 1450 r.p.m.



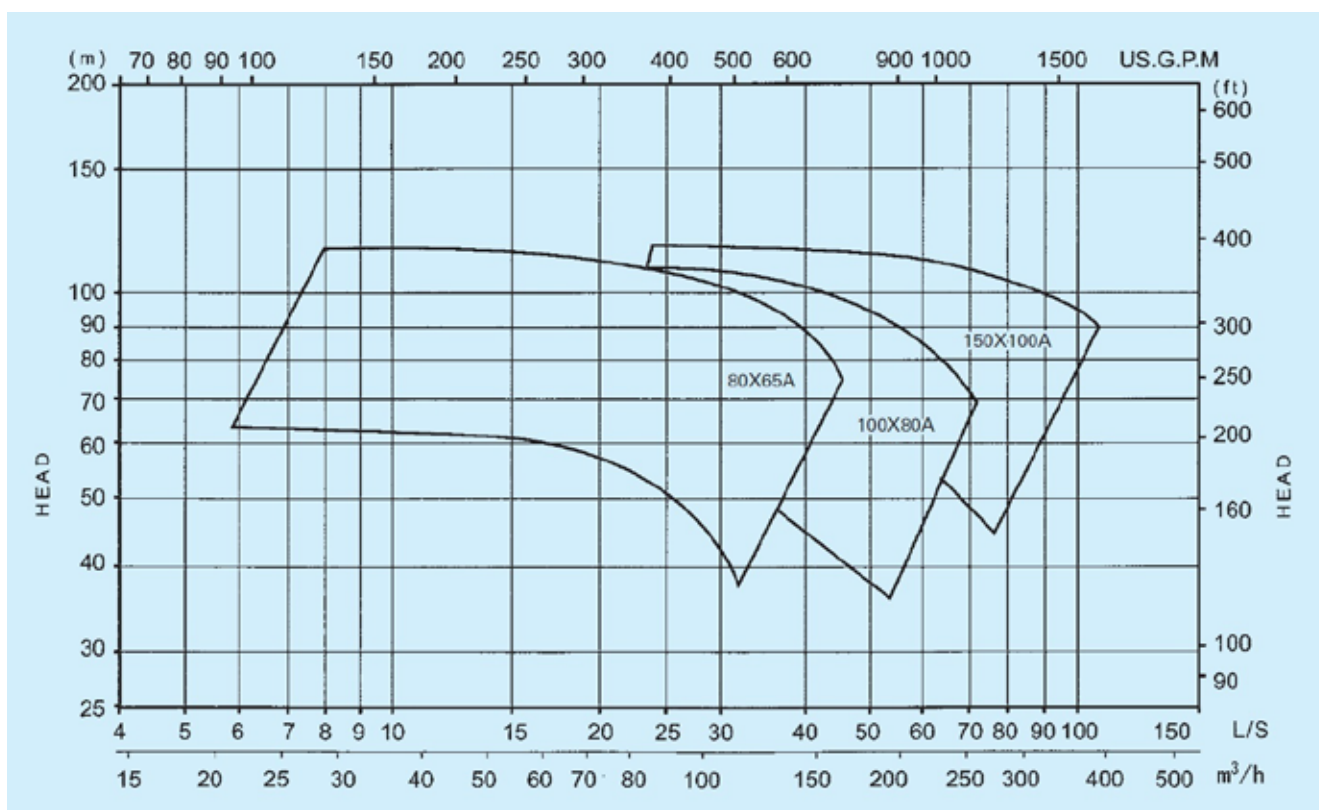
## DH 50Hz Synchronous Revolution 2900 r.p.m.



## DH 60Hz Synchronous Revolution 1750 r.p.m.



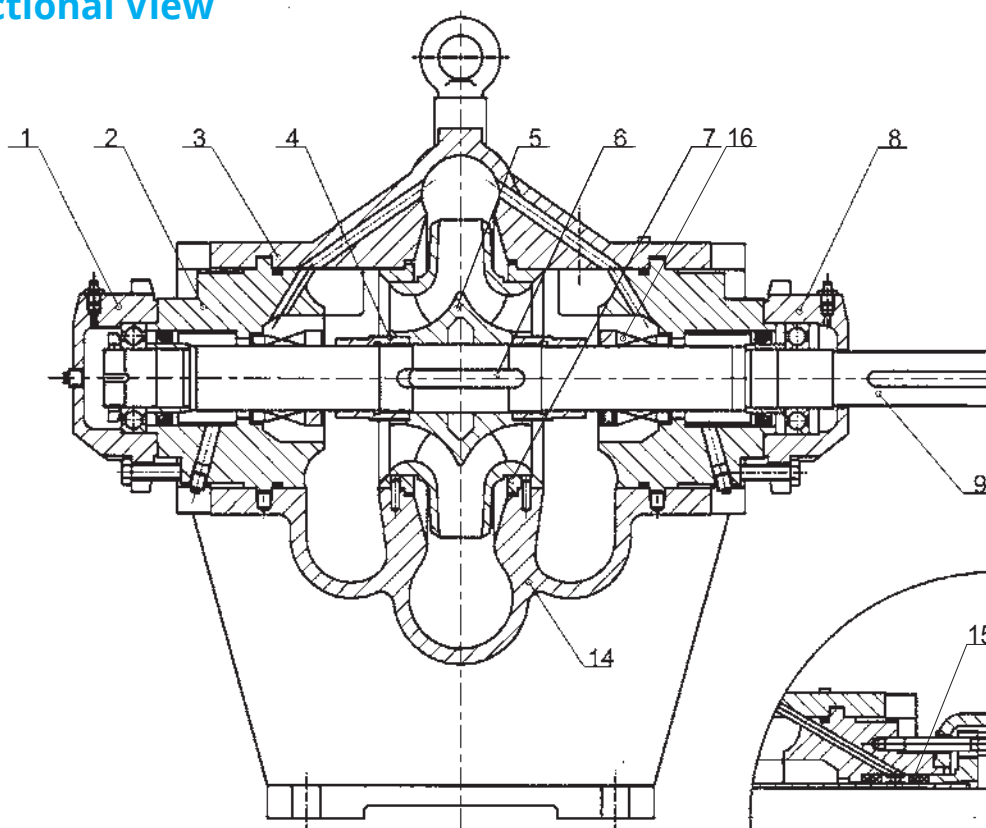
## DH 60Hz Synchronous Revolution 3500 r.p.m.



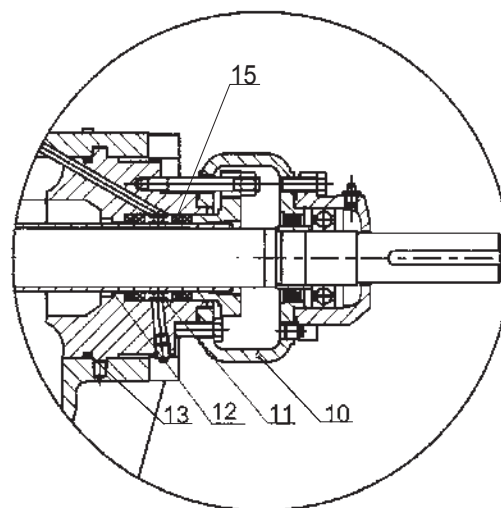
## Design Detail

| Pump Model - DH                                                       | Bearing | Shaft Dimension at coupling (mm) |          |
|-----------------------------------------------------------------------|---------|----------------------------------|----------|
|                                                                       |         | Diameter                         | Key size |
|                                                                       | x2 pcs  | d                                | u x T    |
| 80x50A / 80x65A / 100x80A,B,C / 125x100A / 150x125A,B,C / 200x150A    | 6306    | 25                               | 8 x 7    |
| 125x100B,C / 150x100A / 150x125D / 200x150B,C / 250x200A / 250x250A,B | 6309    | 42                               | 12 x 8   |
| 200x125A / 200x150D,E / 250x200B,C / 300x200A / 300x250A              | 6312    | 55                               | 16 x 10  |

## Sectional View



Mechanical seal type drawing



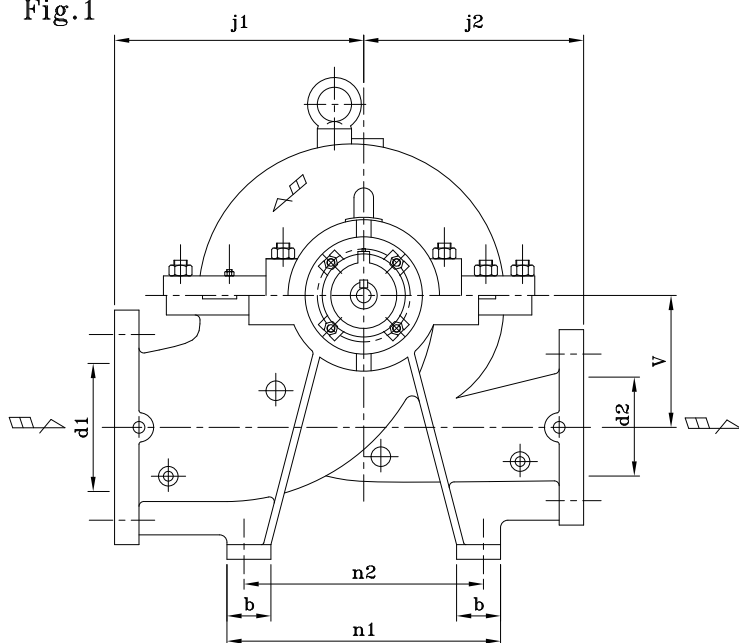
Gland packing type drawing

| No | Parts Description   | Q'ty | Materials                 |
|----|---------------------|------|---------------------------|
| 1  | Left bearing body   | 1    | FC250 (Cast Iron)         |
| 3  | Casing cover        | 1    | FC250 (Cast Iron)         |
| 5  | Impeller            | 1    | CAC701 (Bronze)           |
| 7  | Casing wearing ring | 2    | CAC 406 (Bronze)          |
| 9  | Shaft               | 1    | SUS420J1(Stainless Steel) |
| 11 | Lantern ring        | 2    | FC250 (Cast Iron)         |
| 13 | Casing O-ring       | 2    | NBR                       |
| 15 | Gland packing       | 8    | Aramid fiber              |

| No | Parts Description          | Q'ty | Materials        |
|----|----------------------------|------|------------------|
| 2  | Stuffing box               | 2    | FC250(Cast Iron) |
| 4  | Impeller lock sleeve       | 2    | S45C (Steel)     |
| 6  | Anti-flexible impeller key | 1    | S45C (Steel)     |
| 8  | Right bearing body         | 1    | FC250(Cast Iron) |
| 10 | Motor stool                | 2    | FC250(Cast Iron) |
| 12 | Gland cover                | 2    | FC250(Cast Iron) |
| 14 | Casing lower half          | 1    | FC250(Cast Iron) |
| 16 | Mechanical seal            | 2    | Ceramic x Carbon |

## Dimensions (Bare shaft pump)

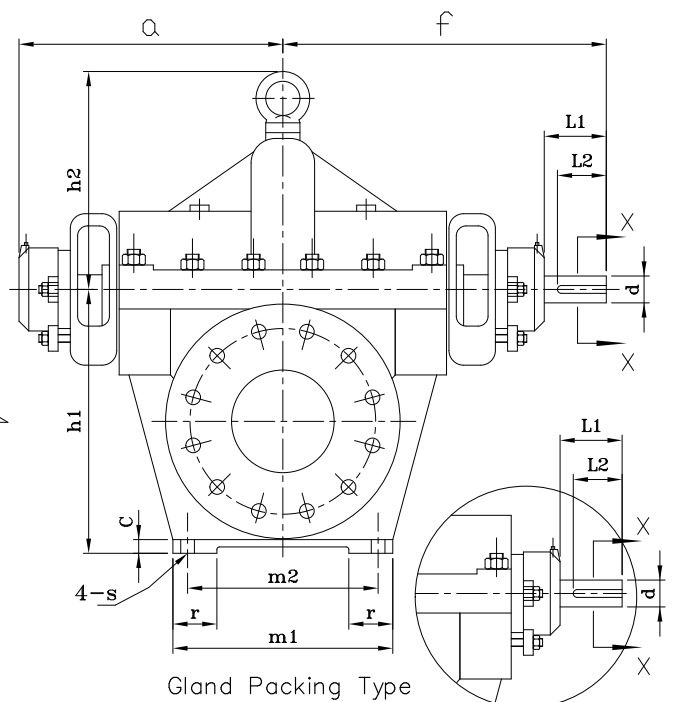
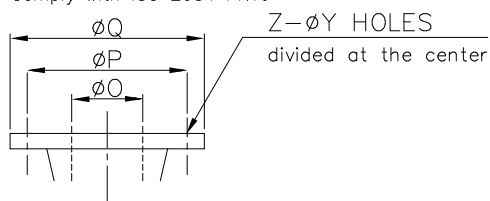
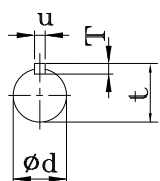
Fig.1



SECTION X-X

Flange Size

Comply with ISO 2084 PN16



Gland Packing Type

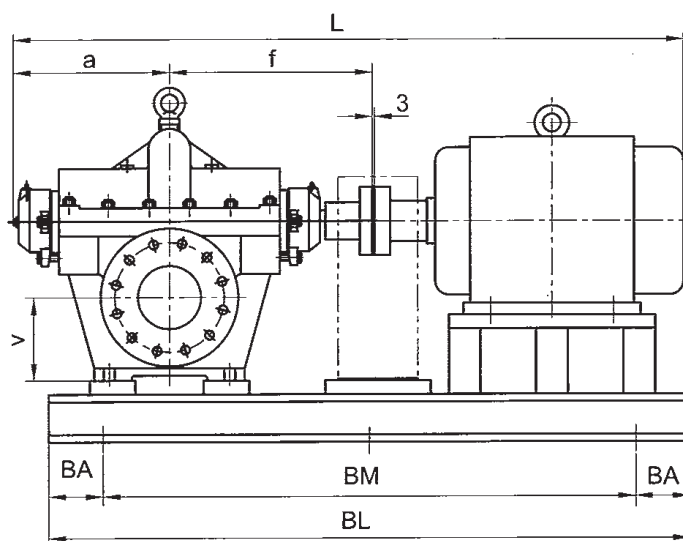
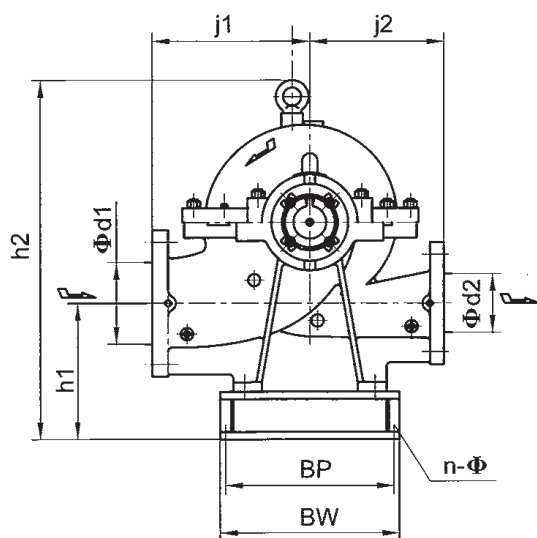
Mechanical Seal Type

Flange Dimension

Unit : mm

|   | 50  | 65  | 80  | 100 | 125 | 150 | 200 | 250 | 300 |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| O | 50  | 65  | 80  | 100 | 125 | 150 | 200 | 250 | 300 |
| P | 125 | 145 | 160 | 180 | 210 | 240 | 295 | 355 | 410 |
| Q | 165 | 185 | 200 | 220 | 250 | 285 | 340 | 405 | 460 |
| Z | 4   | 4   | 8   | 8   | 8   | 8   | 12  | 12  | 12  |
| Y | 18  | 18  | 18  | 18  | 18  | 22  | 22  | 26  | 26  |

| Model DH | Flange  |         | a   |     | f   |     | h1  | h2  | j1  | j2  | v   | m1  | m2  | n1  | n2  | b   | c  | r   | s  | t  | u  | d  | L1  | L2  | Unit: mm    |     |
|----------|---------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|----|----|----|-----|-----|-------------|-----|
|          | Suc. d1 | Dis. d2 | MS  | SP  | MS  | SP  |     |     |     |     |     |     |     |     |     |     |    |     |    |    |    |    |     |     | Weight (Kg) |     |
|          |         |         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |    |    |    |    |     |     | SP          | MS  |
| 80x50A   | 80      | 50      | 246 | 331 | 314 | 399 | 300 | 315 | 355 | 280 | 170 | 330 | 270 | 400 | 340 | 65  | 25 | 65  | 22 | 28 | 8  | 25 | 70  | 63  | 186         | 175 |
| 80x65A   | 80      | 65      | 246 | 331 | 314 | 399 | 250 | 254 | 280 | 225 | 130 | 300 | 240 | 350 | 290 | 65  | 25 | 65  | 22 | 28 | 8  | 25 | 70  | 63  | 129         | 118 |
| 100x80A  | 100     | 80      | 246 | 331 | 314 | 399 | 280 | 249 | 270 | 230 | 130 | 300 | 240 | 350 | 290 | 65  | 25 | 65  | 22 | 28 | 8  | 25 | 70  | 63  | 137         | 126 |
| 100x80B  | 100     | 80      | 246 | 331 | 314 | 399 | 280 | 274 | 290 | 275 | 150 | 300 | 240 | 350 | 290 | 65  | 25 | 65  | 22 | 28 | 8  | 25 | 70  | 63  | 150         | 135 |
| 100x80C  | 100     | 80      | 246 | 400 | 314 | 399 | 320 | 330 | 340 | 350 | 175 | 330 | 270 | 400 | 340 | 65  | 25 | 65  | 22 | 28 | 8  | 25 | 70  | 63  | 205         | 194 |
| 125x100A | 125     | 100     | 246 | 382 | 314 | 399 | 320 | 299 | 320 | 275 | 170 | 300 | 240 | 350 | 290 | 65  | 25 | 65  | 22 | 28 | 8  | 25 | 70  | 63  | 166         | 175 |
| 125x100B | 125     | 100     | 301 | 400 | 401 | 500 | 340 | 346 | 340 | 350 | 190 | 330 | 270 | 450 | 390 | 75  | 25 | 75  | 22 | 45 | 12 | 42 | 100 | 90  | 248         | 227 |
| 125x100C | 125     | 100     | 301 | 400 | 401 | 500 | 390 | 362 | 400 | 350 | 210 | 330 | 270 | 450 | 390 | 75  | 25 | 75  | 22 | 45 | 12 | 42 | 100 | 90  | 330         | 315 |
| 150x100A | 150     | 100     | 301 | 400 | 401 | 500 | 340 | 289 | 310 | 250 | 170 | 300 | 240 | 350 | 290 | 75  | 25 | 75  | 22 | 45 | 12 | 42 | 100 | 90  | 224         | 203 |
| 150x125A | 150     | 125     | 277 | 362 | 345 | 430 | 340 | 278 | 325 | 250 | 180 | 330 | 270 | 400 | 340 | 75  | 25 | 75  | 22 | 28 | 8  | 25 | 70  | 63  | 238         | 226 |
| 150x125B | 150     | 125     | 246 | 331 | 314 | 399 | 340 | 308 | 310 | 290 | 160 | 330 | 240 | 350 | 290 | 75  | 25 | 75  | 22 | 28 | 8  | 25 | 70  | 63  | 196         | 185 |
| 150x125C | 150     | 125     | 277 | 400 | 345 | 430 | 340 | 309 | 335 | 290 | 175 | 330 | 270 | 400 | 340 | 75  | 25 | 75  | 22 | 28 | 8  | 25 | 70  | 63  | 249         | 238 |
| 150x125D | 150     | 125     | 301 | 400 | 401 | 500 | 390 | 360 | 400 | 350 | 210 | 330 | 270 | 450 | 390 | 75  | 25 | 75  | 22 | 45 | 12 | 42 | 100 | 90  | 331         | 310 |
| 200x125A | 200     | 125     | 371 | 460 | 496 | 585 | 500 | 425 | 480 | 450 | 260 | 450 | 390 | 560 | 490 | 90  | 28 | 90  | 28 | 59 | 16 | 55 | 127 | 100 | 640         | 615 |
| 200x150A | 200     | 150     | 277 | 445 | 345 | 430 | 390 | 298 | 365 | 310 | 200 | 330 | 270 | 400 | 340 | 75  | 25 | 75  | 22 | 28 | 8  | 25 | 70  | 63  | 265         | 255 |
| 200x150B | 200     | 150     | 301 | 445 | 401 | 500 | 440 | 337 | 365 | 315 | 235 | 420 | 360 | 400 | 340 | 75  | 25 | 75  | 22 | 45 | 12 | 42 | 100 | 90  | 336         | 315 |
| 200x150C | 200     | 150     | 301 | 400 | 401 | 500 | 440 | 349 | 410 | 350 | 210 | 420 | 360 | 400 | 340 | 75  | 25 | 75  | 22 | 45 | 12 | 42 | 100 | 90  | 376         | 355 |
| 200x150D | 200     | 150     | 371 | 460 | 496 | 585 | 540 | 446 | 510 | 450 | 270 | 450 | 390 | 560 | 490 | 90  | 28 | 90  | 28 | 59 | 16 | 55 | 127 | 100 | 595         | 570 |
| 200x150E | 200     | 150     | 473 |     | 585 |     | 540 | 510 | 473 | 585 | 300 | 450 | 390 | 560 | 490 | 90  | 28 | 90  | 27 | 59 | 16 | 55 | 127 | 100 | 725         | 700 |
| 250x200A | 250     | 200     | 346 | 445 | 446 | 545 | 540 | 381 | 450 | 385 | 285 | 500 | 440 | 510 | 450 | 75  | 25 | 75  | 22 | 45 | 12 | 42 | 100 | 90  | 535         | 515 |
| 250x200B | 250     | 200     | 371 | 460 | 496 | 585 | 460 | 411 | 480 | 420 | 225 | 420 | 350 | 510 | 440 | 90  | 28 | 90  | 28 | 59 | 16 | 55 | 127 | 100 | 530         | 550 |
| 250x200C | 250     | 200     | 371 | 460 | 496 | 585 | 540 | 445 | 550 | 450 | 270 | 450 | 390 | 560 | 490 | 90  | 28 | 90  | 28 | 59 | 16 | 55 | 127 | 100 | 675         | 647 |
| 250x250A | 250     | 250     | 346 | 331 | 446 | 545 | 440 | 375 | 490 | 340 | 210 | 420 | 360 | 400 | 340 | 75  | 25 | 75  | 22 | 45 | 12 | 42 | 100 | 90  | 415         | 390 |
| 250x250B | 250     | 250     | 346 | 331 | 446 | 545 | 540 | 391 | 430 | 400 | 250 | 500 | 440 | 510 | 450 | 75  | 25 | 75  | 22 | 45 | 12 | 42 | 100 | 90  | 489         | 460 |
| 300x200A | 300     | 200     | 385 | 471 | 496 | 585 | 550 | 490 | 564 | 524 | 290 | 500 | 380 | 720 | 560 | 160 | 35 | 130 | 28 | 59 | 16 | 55 | 127 | 100 | 845         | 820 |
| 300x250A | 300     | 250     | 371 | 460 | 496 | 585 | 540 | 466 | 550 | 420 | 265 | 500 | 430 | 560 | 490 | 90  | 28 | 90  | 28 | 59 | 16 | 55 | 127 | 100 | 685         | 660 |



Suction Flange

Discharge Flange

## The Table for the Installation Dimensions

| Model<br>DH | Pump Dimensions |               |     |     |     |     |     |     |      | Motor        |                 | Basic Dimensions |       |      |     |      |      |     |       |      |  | Total<br>WT(Kg) |
|-------------|-----------------|---------------|-----|-----|-----|-----|-----|-----|------|--------------|-----------------|------------------|-------|------|-----|------|------|-----|-------|------|--|-----------------|
|             | Inlet<br>ød1    | Outlet<br>ød2 | a   | f   | j1  | j2  | h1  | v   | h2   | Output<br>KW | Mating<br>Motor | BA               | BM    | BL   | BP  | BW   | L    | AD  | n-ø   |      |  |                 |
| 80X65A      | 80              | 65            | 246 | 314 | 280 | 225 | 240 | 120 | 615  | 4            | 112M/4P         | 175              | 500   | 850  | 510 | 550  | 1010 | 200 | 4-ø19 | 243  |  |                 |
|             |                 |               |     |     |     |     | 265 |     | 640  | 30           | 200L/2P         | 125              | 2*475 | 1200 | 510 | 550  | 1348 | 215 | 6-ø19 | 451  |  |                 |
| 100X80A     | 100             | 80            | 246 | 314 | 270 | 230 | 270 | 150 | 648  | 5            | 132S/4P         | 175              | 600   | 950  | 510 | 550  | 1003 | 200 | 4-ø19 | 253  |  |                 |
|             |                 |               |     |     |     |     | 295 |     | 674  | 45           | 225M/2P         | 125              | 2*525 | 1300 | 560 | 600  | 1408 | 215 | 6-ø24 | 513  |  |                 |
| 150X125B    | 150             | 125           | 246 | 314 | 310 | 290 | 325 | 180 | 778  | 15           | 160L/4P         | 125              | 2*425 | 1100 | 560 | 600  | 1150 | 215 | 6-ø19 | 412  |  |                 |
| 100X80B     | 100             | 80            | 246 | 314 | 290 | 275 | 250 | 130 | 674  | 7.5          | 132M/4P         | 175              | 600   | 950  | 510 | 550  | 1043 | 200 | 4-ø19 | 270  |  |                 |
|             |                 |               |     |     |     |     | 275 |     | 699  | 55           | 250M/2P         | 125              | 2*550 | 1350 | 560 | 600  | 1493 | 200 | 6-ø24 | 698  |  |                 |
| 125X100A    | 125             | 100           | 246 | 314 | 320 | 275 | 270 | 150 | 740  | 15           | 160L/4P         | 175              | 750   | 1100 | 510 | 550  | 1150 | 200 | 4-ø19 | 357  |  |                 |
|             |                 |               |     |     |     |     | 370 |     | 839  | 75           | 280S/2P         | 200              | 2*550 | 1500 | 610 | 650  | 1563 | 225 | 6-ø29 | 970  |  |                 |
| 150X100A    | 150             | 100           | 301 | 401 | 310 | 250 | 315 | 170 | 793  | 11           | 160M/4P         | 125              | 2*450 | 1150 | 550 | 600  | 1292 | 215 | 6-ø24 | 395  |  |                 |
|             |                 |               |     |     |     |     | 390 |     | 868  | 75           | 280S/2P         | 200              | 2*600 | 1600 | 610 | 650  | 1705 | 225 | 6-ø24 | 1006 |  |                 |
| 150X125A    | 150             | 125           | 277 | 345 | 350 | 250 | 305 | 160 | 780  | 11           | 160M/4P         | 125              | 2*425 | 1100 | 610 | 650  | 1212 | 230 | 6-ø24 | 422  |  |                 |
| 150X125C    | 150             | 125           | 277 | 345 | 335 | 290 | 310 | 165 | 794  | 30           | 200L/4P         | 125              | 2*525 | 1300 | 610 | 650  | 1400 | 230 | 6-ø24 | 603  |  |                 |
| 200X150A    | 200             | 150           | 277 | 345 | 365 | 310 | 335 | 190 | 838  | 18.5         | 180M/4P         | 125              | 2*475 | 1200 | 610 | 650  | 1252 | 230 | 6-ø24 | 554  |  |                 |
| 250X250A    | 250             | 250           | 346 | 446 | 490 | 340 | 400 | 230 | 985  | 30           | 200L/4P         | 150              | 2*575 | 1450 | 610 | 650  | 1570 | 285 | 6-ø24 | 820  |  |                 |
| 80X50A      | 80              | 50            | 246 | 314 | 355 | 280 | 250 | 130 | 762  | 15           | 160L/4P         | 175              | 750   | 1100 | 560 | 600  | 1150 | 215 | 4-ø19 | 370  |  |                 |
| 100X80C     | 100             | 80            | 246 | 314 | 340 | 350 | 290 | 145 | 790  | 22           | 180L/4P         | 125              | 2*450 | 1150 | 610 | 650  | 1227 | 230 | 6-ø24 | 462  |  |                 |
| 125X100B    | 125             | 100           | 301 | 401 | 340 | 350 | 295 | 150 | 831  | 30           | 200L/4P         | 125              | 2*550 | 1350 | 610 | 650  | 1480 | 230 | 6-ø24 | 600  |  |                 |
| 150X125D    | 150             | 125           | 301 | 401 | 400 | 350 | 350 | 180 | 940  | 37           | 225S/4P         | 150              | 2*550 | 1400 | 610 | 650  | 1550 | 240 | 6-ø24 | 734  |  |                 |
| 200X150C    | 200             | 150           | 301 | 401 | 410 | 350 | 400 | 230 | 1036 | 55           | 250M/4P         | 200              | 2*575 | 1550 | 660 | 700  | 1635 | 285 | 6-ø24 | 1064 |  |                 |
| 125X100C    | 125             | 100           | 301 | 401 | 410 | 350 | 400 | 180 | 1036 | 45           | 225M/4P         | 200              | 2*575 | 1450 | 610 | 650  | 1550 | 285 | 6-ø24 | 1552 |  |                 |
| 200X125A    | 200             | 125           | 371 | 496 | 480 | 450 | 455 | 240 | 1036 | 90           | 280M/4P         | 200              | 2*575 | 1450 | 610 | 650  | 1550 | 285 | 6-ø28 | 1922 |  |                 |
| 250X200B    | 250             | 200           | 371 | 496 | 480 | 420 | 455 | 235 | 1089 | 75           | 280S/4P         | 200              | 2*675 | 1750 | 750 | 800  | 1870 | 285 | 6-ø28 | 1430 |  |                 |
| 300X250A    | 300             | 250           | 371 | 496 | 590 | 420 | 495 | 275 | 1231 | 132          | 315M/4P         | 200              | 2*775 | 1950 | 750 | 800  | 2210 | 325 | 6-ø28 | 1953 |  |                 |
| 200X150D    | 200             | 150           | 371 | 496 | 510 | 450 | 490 | 270 | 1212 | 132          | 315M/4P         | 200              | 2*775 | 1950 | 750 | 800  | 2110 | 305 | 6-ø28 | 1860 |  |                 |
| 250X200C    | 250             | 200           | 371 | 496 | 550 | 450 | 490 | 270 | 1205 | 200          | 315L/4P         | 200              | 2*800 | 2000 | 750 | 800  | 2210 | 325 | 6-ø28 | 2250 |  |                 |
| 300X200A    | 300             | 200           | 385 | 496 | 564 | 524 | 510 | 290 | 1290 | 315          | 355L/4P         | 300              | 2*860 | 2320 | 960 | 1010 | 2591 | 305 | 6-ø28 | 2416 |  |                 |

# TERAL

## Pumps and Fans



In-line Pumps



Horizontal Centrifugal Pumps



Freshwater & Sewage Submersible Pumps



Water Supply Units



Coolant Pumps



Ring Blowers



Industrial Fans

### TERAL ASIA LIMITED

Room 1001, 10/F., Olympia Plaza, 255 King's Road, North Point, Hong Kong Tel: +852-2571-0282 Fax: +852 2571-0619 E-mail: sales@teralasia.com

### TERAL THAI CO., LTD.

### TERAL TRADING & SERVICE CO., LTD.

150 Moo 16 Udomsorayuth Rd., T.Bangkrasan, A.Bangpa-In, Ayutthaya 13160 Thailand Tel: +66-3525-8543 Fax: +66-3525-849

### TERAL GENERAL MACHINE (SHANGHAI) CO., LTD.

No. 285, Yuan Qu Road (N), Bei Qiao, Min Hang District, Shanghai 201109, China Tel: +86-21-6490-9128 Fax: +86-21-6490-9126

### Affiliated Sister Company: Atai Fuji Motor Co., Ltd. (Ring Blowers & Coolant Pumps)

No. 32, Sec 2, Chang-Hsing Rd., Lu-Chu Hsiang, Taoyuan Hsien, Taiwan, R.O.C. Tel: +886-3-321-3030 Fax: +886-3-321-7890

### TERAL MALAYSIA SDN BHD

L-1-1, Block L, No. 2 Jalan PJU 1A/41B, Pusat Dagangan NZX, Ara Jaya, 47301 Petaling Jaya, Selangor, D.E., Malaysia  
Tel: +60-3-7885-8305 Fax: +60-3-7887-3305 E-mail: sales.my@teralasia.com

### Teral Middle East F.Z.C.

E1-1921C, Ajman Free Zone, Ajman, UAE Tel: 00971 (0)551184953 Email: sales.me@teralasia.com

### Teral Pumps & Fans North America Ltd.

2380 United Blvd, Coquitlam, B.C. CANADA V3K 6A3 Tel: +1-(604)-839-1008 Email: salesamerica@teralasia.com

### TERAL INC.

Head Office - 230, Moriwaki, Miyuki-cho, Fukuyama-city, Hiroshima, 720-0003, Japan Tel: +81-84-955-1111 Fax: +81-84-955-5777  
Tokyo Office - TERAL Koraku Bldg., 2-3-27, Koraku, Bunkyo-ku, Tokyo, 112-0004, Japan Tel: +81-3-3818-6890 Fax: +81-3-3818-6790  
(Edition Date: Mar. 2015 by Teral Asia Limited)

[www.teral.net](http://www.teral.net)