

# SCI series screw impeller pump



## APPLICATION

SCI series submersible/dry screw pump are designed for economical and reliable pumping of sewage water from commercial, communal and industrial sources. Mainly can be used in municipal engineering, sewage treatment environmental protection engineering, industrial engineering, hotel, hospital, civil air defense, mining and other industries, can be used for delivery of solid particles and long fiber wastewater, wastewater, storm water and city living water, and even can be used for in vivo delivery. Used in conjunction with the automatic coupling system the below ground level wet installation is a particularly economical solution which also does not damage the environment.

The pump are also suitable for quick portable applications.

## MODEL DESCRIPTION

SCI - XX - XX D/Z/G - 2/4/6/8

|        |        |        |        |\_\_ Motor pole

|        |        |        |\_\_\_\_ Special speed

|        |        |\_\_\_\_ Motor power (X10)

|        |\_\_\_\_ Motor stator outer diameter

|\_\_\_\_ Screw centrifugal pump

## PRUDUCT FEATURE



Centrifugal submersible sewage pump, when running on the H-Q curve, power is not overloaded, applicable to water level changes, unstable conditions occasions or site emergency drainage; also applies to lift or flow high condition; also for sewage medium in municipal engineering and cotton, slaughter plant containing more fiber impurities; The front end of impeller can stir the wastewater, it applicable to the sewage contain medium solid particles. After the effluent was discharged by the sewage pump, there is no precipitate left in the pool, without regularly clean up the sewage pool.

## TECHNICAL DECRPTION

Motor: the unique insulation design ensures the motor can still run normally if little water is in the chamber of motor. The optimal design of

motor guarantees that the pump is able to start running when the hydraulic parts are submerged by some mud and sands.

Motor submerged: continuous operation S1

Insulation grade: H, Medium temperature: Up to 40°C

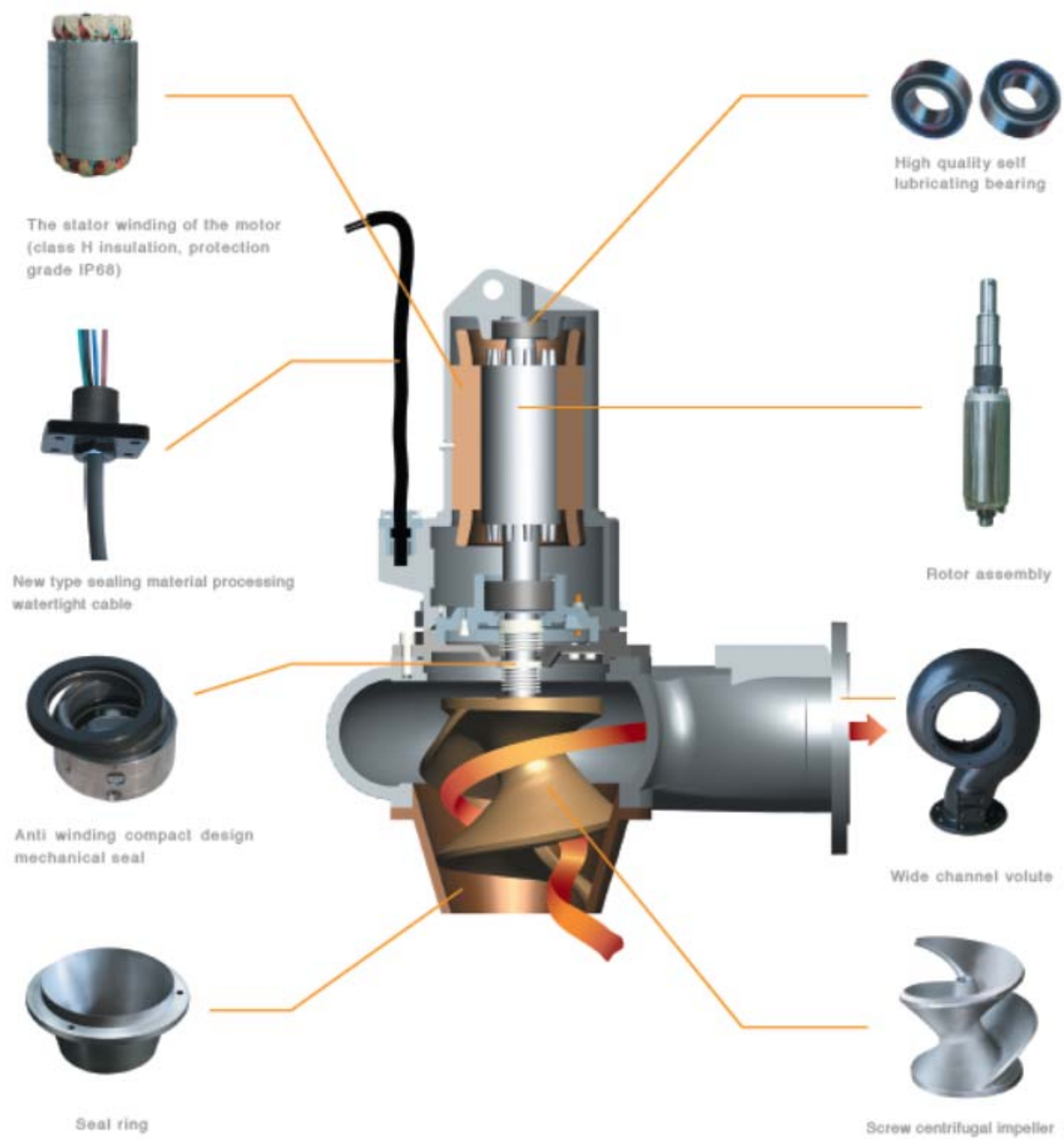
Hydraulic parts: processed with advanced CFD flow field diagnose technology, it has many merits like high efficiency, no block and anti-corrosion etc. the impeller is adopted semi-open single or double vane with cutter design, they have large flow channel to ensure that large solid can be passed.

Sealing design: we take any improvement measures for pump sealing, adopt two double mechanical seal design, which enable the product to be safer and more reliable

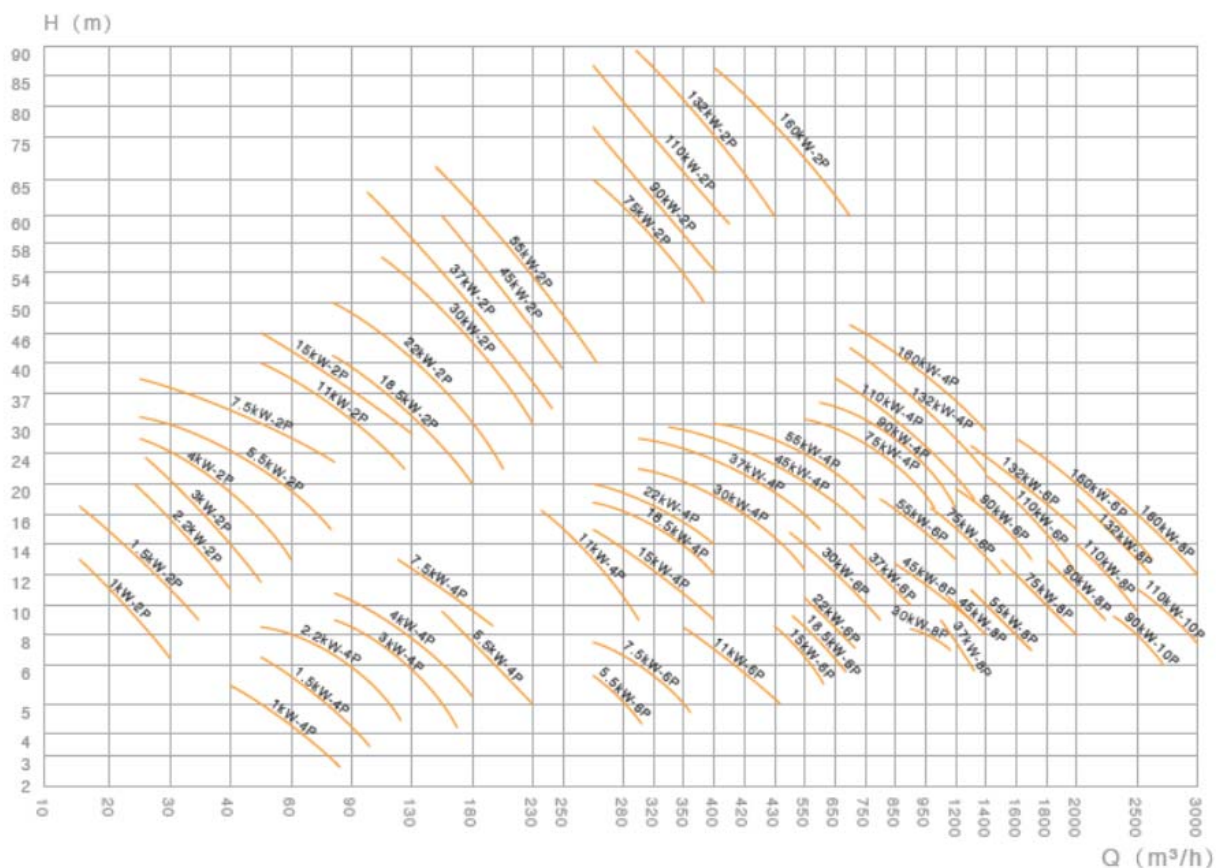
Protection measures: leakage protection in oil chamber, motor overload protection

Material: pump casing, volute is GG25, impeller is GG60 (option SS304, SS316), mechanical seal is SiC/SiW (with anti-winding function), cable is heavy rubber set soft cable, duty voltage 450/750V, PVC outer sheathed copper conductor

# PRODUCT STRUCTURE SECTION



# PERFORMANCE CURVE



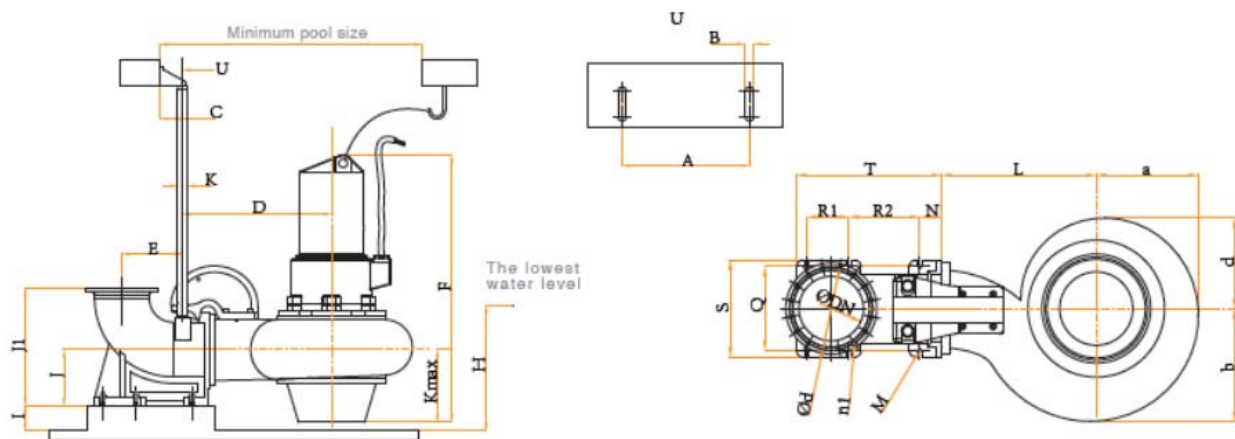
## TECHNICAL DAT

| Item .<br>No. | Model      | Capacity<br>(m3/h) | Head<br>(m) | Power<br>(Kw) | Discharge<br>(mm) | Speed<br>(r/min) | Max<br>solids<br>Passed<br>(mm) | Connection<br><br>flange | Weight<br>(kg ) |
|---------------|------------|--------------------|-------------|---------------|-------------------|------------------|---------------------------------|--------------------------|-----------------|
| 1             | SCI10610D2 | 8--25              | 14--5.5     | 1             | 56                | 2900             | 33                              | 65                       | 28              |
| 2             | SCI10610Z4 | 30-45              | 3.5--2.5    | 1             | 100               | 1490             | 54                              | 100                      | 40              |
| 3             | SCI10615D2 | 10--30             | 15--6       | 1.5           | 56                | 2900             | 36                              | 65                       | 28              |
| 4             | SCI10615Z4 | 35-60              | 5--3        | 1.5           | 100               | 1490             | 59                              | 100                      | 45              |
| 5             | SCI13522D2 | 14--40             | 19--8       | 2.2           | 66                | 2900             | 39                              | 80                       | 55              |
| 6             | SCI13522Z4 | 45-100             | 8--3.5      | 2.2           | 120               | 1490             | 63                              | 150                      | 50              |
| 7             | SCI13530D2 | 15--50             | 20--9       | 3             | 66                | 2900             | 41                              | 80                       | 56              |
| 8             | SCI13530Z4 | 60-125             | 8.5--4      | 3             | 120               | 1490             | 67                              | 150                      | 55              |
| 9             | SCI15040D2 | 20-60              | 25--9.5     | 4             | 71                | 2900             | 43.5                            | 80                       | 78              |
| 10            | SCI15040Z4 | 65-150             | 9--4.5      | 4             | 129               | 1490             | 71                              | 150                      | 80              |
| 11            | SCI17055D2 | 25-75              | 28--10      | 5.5           | 80                | 2900             | 46                              | 80                       | 100             |
| 12            | SCI17055Z4 | 80-170             | 9.5--5      | 5.5           | 150               | 1490             | 76                              | 150                      | 160             |

| Item .<br>No. | Model      | Capacity<br>(m3/h) | Head<br>(m) | Power<br>(Kw) | Discharge<br>(mm) | Speed<br>(r/min) | Max<br>solids<br>Passed<br>(mm) | Connection<br><br>flange | Weight<br>(kg ) |
|---------------|------------|--------------------|-------------|---------------|-------------------|------------------|---------------------------------|--------------------------|-----------------|
| 13            | SCI17055H4 | 120-250            | 7.5--3.5    | 5.5           | 170               | 1490             | 115                             | 200                      | 150             |
| 14            | SCI17075D2 | 35-90              | 30--13      | 7.5           | 80                | 2900             | 49                              | 80                       | 105             |
| 15            | SCI17075Z4 | 90-200             | 12.5-6      | 7.5           | 150               | 1490             | 81                              | 150                      | 170             |
| 16            | SCI17075H4 | 140-300            | 8.5--4      | 7.5           | 170               | 1490             | 123                             | 200                      | 160             |
| 17            | SCI20011D2 | 40--110            | 35--15.5    | 11            | 92                | 2900             | 53                              | 100                      | 165             |
| 18            | SCI20011Z4 | 130-260            | 15--7       | 11            | 175               | 1490             | 87                              | 200                      | 280             |
| 19            | SCI20011H4 | 190-400            | 10--4.5     | 11            | 187               | 1490             | 132                             | 200                      | 270             |
| 20            | SCI20015D2 | 50-140             | 40--17.5    | 15            | 92                | 2900             | 57                              | 100                      | 170             |
| 21            | SCI20015Z4 | 150-300            | 17--8       | 15            | 175               | 1490             | 93                              | 200                      | 300             |
| 22            | SCI20015H4 | 240-500            | 11.5-5      | 15            | 200               | 1490             | 140                             | 200                      | 290             |
| 23            | SCI23018D2 | 55-160             | 45--19.5    | 18.5          | 100               | 2900             | 59                              | 100                      | 200             |
| 24            | SCI23018Z4 | 170-350            | 19--9       | 18.5          | 185               | 1490             | 97                              | 200                      | 360             |
| 25            | SCI23018H4 | 280-600            | 13-5.5      | 18.5          | 210               | 1490             | 147                             | 200                      | 350             |
| 26            | SCI23022D2 | 60-170             | 50--21.5    | 22            | 100               | 2900             | 61                              | 100                      | 220             |
| 27            | SCI23022Z4 | 190-400            | 21--9.5     | 22            | 185               | 1490             | 100                             | 200                      | 380             |
| 28            | SCI23022H4 | 300-650            | 14--6       | 22            | 217               | 1490             | 152                             | 200                      | 370             |
| 29            | SCI25030D2 | 70-200             | 55--24      | 30            | 111               | 2900             | 65                              | 150                      | 240             |
| 30            | SCI25030Z4 | 230-500            | 23--11      | 30            | 205               | 1490             | 107                             | 200                      | 550             |
| 31            | SCI25030H4 | 370-800            | 15.5--6     | 30            | 240               | 1490             | 162                             | 250                      | 540             |
| 32            | SCI25037D2 | 80-230             | 60--25      | 37            | 111               | 2900             | 68                              | 150                      | 250             |
| 33            | SCI25037Z4 | 250-550            | 26--12      | 37            | 205               | 1490             | 111                             | 200                      | 580             |
| 34            | SCI25037H4 | 400-900            | 17--7       | 37            | 240               | 1490             | 169                             | 250                      | 570             |
| 35            | SCI28045D2 | 100-280            | 65--28      | 45            | 118               | 2900             | 71                              | 200                      | 300             |
| 36            | SCI28045Z4 | 300-600            | 27---13     | 45            | 215               | 1490             | 116                             | 250                      | 640             |
| 37            | SCI28045H4 | 450-1000           | 18.5--8     | 45            | 250               | 1490             | 176                             | 250                      | 630             |

## INSTALLATION SYSTEM

Wet installation



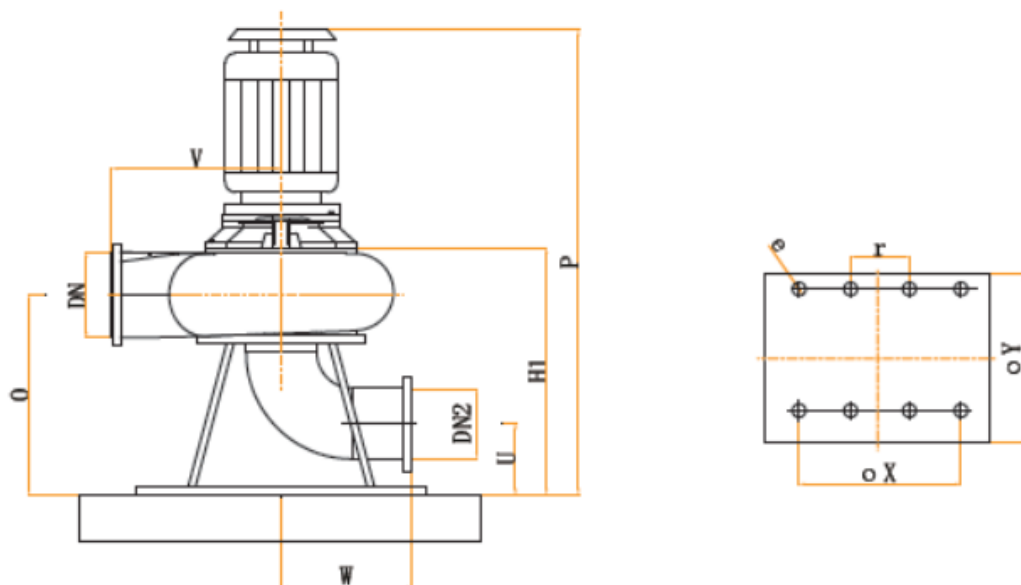
| Type  | DN     | A   | B  | C   | D     | E   | F    | I   | J   |
|-------|--------|-----|----|-----|-------|-----|------|-----|-----|
| 65AC  | Rc5/2" | 90  | 18 | 85  | 281   | 130 | 428  | 0   | 157 |
| 80AC  | Rc3"   | 90  | 18 | 100 | 329   | 174 | 520  | 50  | 205 |
| 100AC | Rc4"   | 115 | 18 | 100 | 451.5 | 210 | 800  | 80  | 220 |
| 150AC | Rc6"   | 115 | 18 | 100 | 533   | 244 | 765  | 150 | 250 |
| 200AC | Rc8"   | 180 | 20 | 180 | 700   | 300 | 3100 | 250 | 305 |
| 250AC | Rc10"  | 180 | 20 | 180 | 742   | 348 | 3540 | 400 | 340 |
| 300AC | Rc12"  | 220 | 20 | 180 | 899   | 400 | 3920 | 450 | 402 |
| 400AC | Rc16"  | 300 | 20 | 180 | 1170  | 475 | 3920 | 450 | 438 |

| Type  | J1  | Kmax | H    | K  | a     | b   | d   | L     | T    |
|-------|-----|------|------|----|-------|-----|-----|-------|------|
| 65AC  | 255 | 73   | 338  | 32 | 105   | 111 | 105 | 211   | 400  |
| 80AC  | 343 | 76   | 365  | 32 | 118   | 124 | 118 | 233   | 450  |
| 100AC | 402 | 110  | 450  | 60 | 174.5 | 184 | 174 | 321.5 | 650  |
| 150AC | 474 | 215  | 600  | 60 | 225   | 305 | 270 | 403   | 850  |
| 200AC | 571 | 330  | 740  | 60 | 370   | 370 | 370 | 553   | 900  |
| 250AC | 698 | 430  | 970  | 60 | 360   | 430 | 310 | 639   | 1200 |
| 300AC | 780 | 480  | 1100 | 76 | 500   | 705 | 720 | 999   | 1300 |
| 400AC | 920 | 570  | 1100 | 76 | 640   | 705 | 855 | 1034  | 1400 |

| Type  | S   | Q   | R1  | R2  | N   | Φd   | n1     | M     | g1xg2(min) |
|-------|-----|-----|-----|-----|-----|------|--------|-------|------------|
| 65AC  | 380 | 160 | 200 | 0   | 31  | Φ145 | 4-Φ20  | 4-Φ22 | 900x550    |
| 80AC  | 400 | 140 | 240 | 0   | 40  | Φ160 | 8-Φ20  | 4-Φ22 | 1200X900   |
| 100AC | 600 | 200 | 305 | 0   | 40  | Φ180 | 8-Φ22  | 4-Φ22 | 1200x900   |
| 150AC | 650 | 270 | 350 | 0   | 46  | Φ240 | 8-Φ22  | 4-Φ22 | 1400x1000  |
| 200AC | 690 | 300 | 420 | 0   | 93  | Φ295 | 8-Φ22  | 4-Φ26 | 1500x1200  |
| 250AC | 800 | 340 | 460 | 0   | 108 | Φ350 | 12-Φ22 | 4-Φ26 | 1700x1300  |
| 300AC | 880 | 400 | 180 | 430 | 100 | Φ400 | 12-Φ22 | 6-Φ28 | 2200x1700  |
| 400AC | 900 | 520 | 260 | 440 | 135 | Φ515 | 16-Φ26 | 6-Φ28 | 2250x1700  |



## Portable installation



| Type  | DN     | P    | U   | V   | W   | □X   |
|-------|--------|------|-----|-----|-----|------|
| 65AC  | Rc5/2" | 915  | 115 | 280 | 280 | 380  |
| 80AC  | Rc3"   | 1100 | 165 | 380 | 280 | 380  |
| 100AC | Rc4"   | 1100 | 200 | 430 | 300 | 400  |
| 150AC | Rc6"   | 2425 | 245 | 450 | 330 | 500  |
| 200AC | Rc8"   | 2850 | 295 | 450 | 360 | 680  |
| 250AC | Rc10"  | 3220 | 295 | 523 | 360 | 680  |
| 300AC | Rc12"  | 3680 | 450 | 870 | 650 | 1200 |
| 400AC | Rc16"  | 3680 | 450 | 870 | 650 | 1200 |

| Type  | r   | □Y   | e     | O*   | H1*  | DN2 |
|-------|-----|------|-------|------|------|-----|
| 65AC  | 0   | 500  | 4-Φ28 | 600  | 680  | 150 |
| 80AC  | 0   | 500  | 4-Φ28 | 650  | 720  | 150 |
| 100AC | 0   | 500  | 4-Φ28 | 701  | 820  | 200 |
| 150AC | 0   | 600  | 4-Φ28 | 741  | 847  | 250 |
| 200AC | 0   | 800  | 4-Φ32 | 839  | 1021 | 300 |
| 250AC | 0   | 800  | 4-Φ32 | 853  | 1037 | 300 |
| 300AC | 400 | 800  | 4-Φ34 | 1100 | 1350 | 500 |
| 400AC | 400 | 1000 | 4-Φ34 | 1100 | 1350 | 500 |