

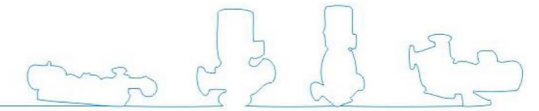
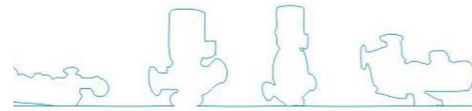


# KAISZER PUMP

WATER & WASTEWATER TREATMENT

## Q Submersible sewage pumps.





## Product Introduction

Q series automatic homogenizing submersible sewage pump is a new, environment-friendly product developed successfully by our research and development personnel after many times of improvements on the basis of digesting and absorbing advanced technologies of like products both at home and abroad and collecting opinions widely from domestic and foreign experts on water pumps. All of its performance indexes reach or exceed the advanced level of like products both at home and abroad. Since the product was launched in the market, it has been well-received and praised by users on the strength of

its high efficiency, energy saving, reliable quality and particularly unique effect of homogenizing the sediment in the sump.

### Principle of Q automatic homogenizing submersible sewage pump:

A common submersible sewage pump has the following defects in running: sewage in the sump is still basically, and filth is accumulated on the sump bottom gradually with continual inflow of sewage and such deposits cannot be discharged along with sewage by the inlet suction only when the water pump runs normally. Therefore, filth and impurities are getting more and more on the sump bottom and finally result in normal operation of the water pump and even burning out the motor. The engineering companies have to clean the sump on a regular basis, leading to waste in human and material resources instead of yielding a sewage discharge effect in a real sense.

### Homogenizing (purifying) principle of sewage pump:

1. Q automatic homogenizing submersible sewage pump is designed with a water diversion device on the pump chassis. The device rotates at a high speed along with the motor to reduce high-pressure water from the pump cavity to rinse the sump bottom at a swirl velocity of 10-20m/s. By means of mixing the deposits on the sump bottom to integrate it with water, finally the mixture around the water diversion device goes into the pump cavity and is discharged, thus avoiding accumulation of filth and impurities on the sump bottom thoroughly and purifying the sump completely.

2. Because of the device's function of rinsing and homogenizing, the sewage concentration is basically the same in all parts of the sump, thus improving the water pump's flow-through capacity greatly and achieving capabilities for jamming prevention and sewage discharge in a real sense.

3. The device is provided with a cutter to rotate with the motor at a high speed, and the cutter can shred fibers and impurities at the inlet before being discharged, thus improving its anti-winding capability.

### Automatic coupling device:

It adopts a tailor-made base to fix the outlet pipe on the sump bottom, and a related support, mounted on the sump top, seals the pump's outlet and outlet pipe automatically with double guide rails. The maintenance men needn't go into the sump in overhaul, which not only protects the environment but also saves expenses, fast for installation and easy for maintenance.

## Product features

1. It utilizes the pump's own outlet pressure to homogenize sedimentation sludge inside the sump to really achieve the purpose of discharging deposits inside the sump thoroughly.

2. Its design of big flow channel anti-jamming hydraulic part improves the filth through capacity greatly; with fiber substances 5 times of the pump diameter and solid particles about 50% of the pump diameter, motor being able to go through effectively.

3. With a rational design and reasonable fitting of motors, it has a high efficiency and a noticeable energy-saving effect.

4. The mechanical seal adopts a two-way serial seal, and its material is hard corrosion-resistance tungsten carbide, featuring durability, abrasion resistance and so on, so that the pump is able for safe and continuous operation for more than 8,000 hours.

5. With a compact structure, the pump is small and easy for moving and installation, unnecessary for building a pump room but able to work just being submerged into water, thus reducing construction costs substantially.

6. An oil-water leak probe is mounted in the pump's oil chamber, and if water goes into the oil chamber after the side mechanical seal of the water pump is damaged, the probe will send a signal to protect the pump.

7. A fully automatic safety protection control cabinet is optional as required by users to monitor the pump for water leakage, creepage, overload, overtemperature and so on, thus ensuring reliable and safe operation of the pump.

8. The double guide rail self-coupling mounting system facilitates installation and maintenance of the pump greatly so that people needn't go in and out of the sump for that.

9. The float switch can control stopping or starting of the pump in accordance with water level changes as required, thus unnecessary for being attended specially.

10. Make sure the motor is free of overload running within the working lift head range.

11. The motor can adopt a water jacket external circulating and cooling system as required. By applying the automatic protection device, the pump can operate safely in a non-water (dry) state.

## Applications of Product

1. Discharge of industrial and commercial waste water severely polluted.
2. Drainage systems of municipal sewage plants.
3. Sewage drainage stations in residential areas.
4. Drainage stations of civil air defense systems.
5. Sewage discharge of hospitals and hotels.
6. Municipal works and construction sites.
7. Supportive auxiliary machinery for exploration and mining.
8. Rural methane tanks and farmland irrigation.
9. Water supply systems of water plants.

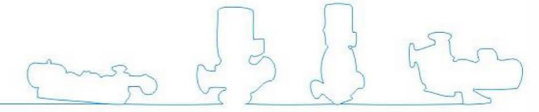
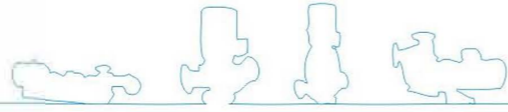
## Working Conditions of Pump

1. The medium temperature shall not exceed 60°C, the weight density within 1.0~1.3kg/dm<sup>3</sup> and PH within 5~9.

2. As for those pumps without the internal gravitational flow circulation and cooling system, the exposed motor part out of the liquid surface shall not exceed 1/2.

3. Generally the pump must be used within the working lift head range to ensure no overload of the motor. If it's required to be used within the total lift head range, it shall be noted additionally in the order for the manufacturer to manufacture as required.

4. The pump's motor current shall not exceed the motor's rated current during running.



## Structure Descriptions

Q automatic homogenizing submersible sewage pump consists of three parts: motor, pump and homogenizing structure, and the three are separated by the oil separating chamber and the mechanical seal assembly. It's an electromechanical integration, and the motor, the pump and the homogenizing device use the same shaft (rotor) together. The whole water pump is short and has a compact structure. It's provided with multiple protectors so that the pump can operate safely and reliably. Here are functions of its main parts:

**Signal wire 1:** It's provided with a total protection water pump control cabinet for the pump's total protection from such items as water leakage, loss of phase, short circuit, overheating and motor overload.

**Motor stator 7:** It adopts the class B or F insulation.

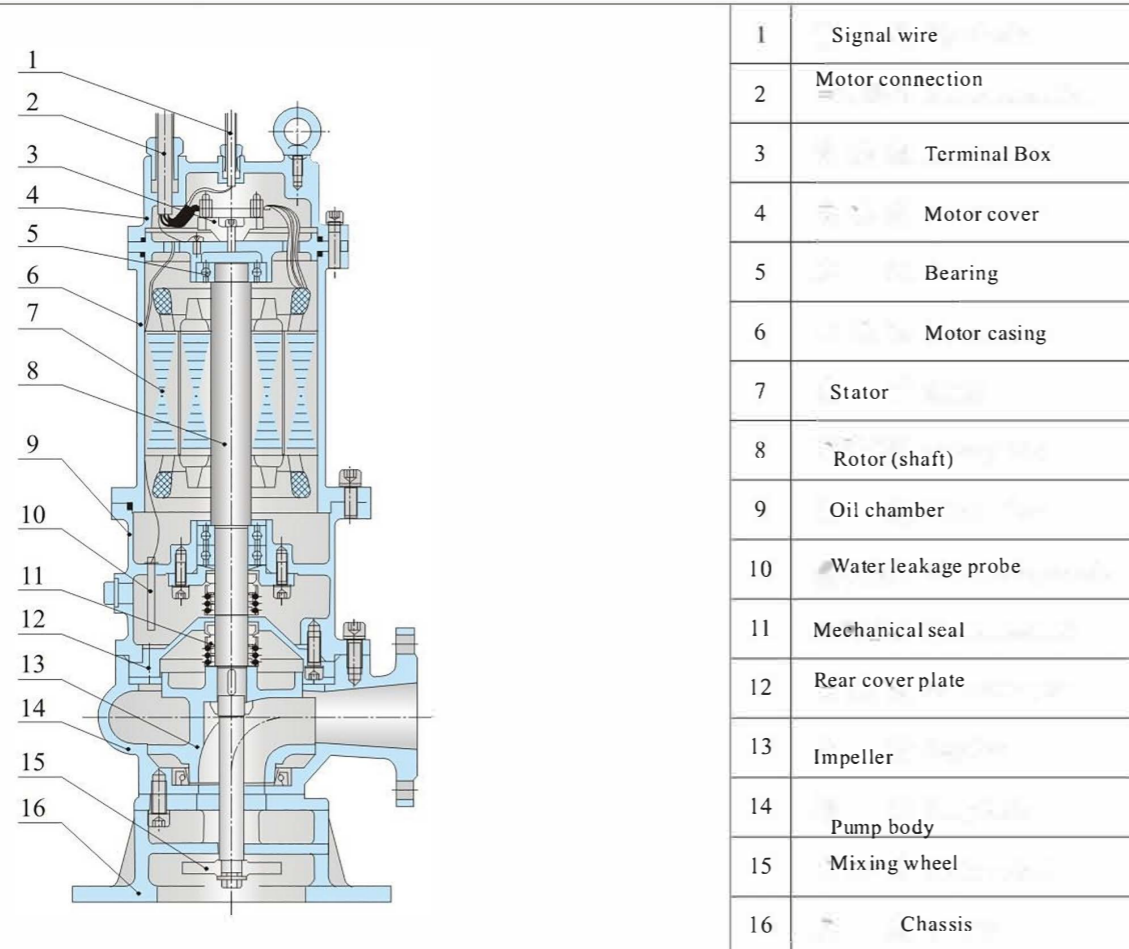
**Water leakage probe 10:** This element is mounted inside the oil chamber to send a signal to the control system to protect the pump when the mechanical seal is damaged and then water goes into the oil chamber.

**Mechanical seal 11:** It adopts the two-way serial seal made of the new hard corrosion-resistance tungsten carbide material, which is featured by its reliable seal, abrasion resistance, long life and so on.

**Impeller 13:** The impeller adopts the single or double flow channel structure with a very strong through capacity, which can make big blending materials and fiber waste to reduce jamming and winding faults.

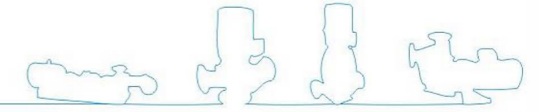
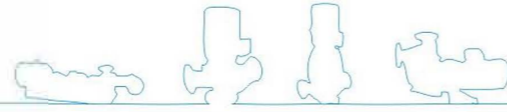
**Pump body 14:** It works with the impeller for the pump's high efficiency.

**Mixing wheel 15:** The bottom water is discharge with pressure and the sedimentation filth inside the sump is homogenized automatically by means of rotations of the wheel so that the pump can pump sewage completely to discharge sediment thoroughly for the purpose of purifying the sump.



## Performance Parameter Table

| No. | Type          | Flow (m <sup>3</sup> /h) | Head (m)         | Stir well diameter (mm) | Speed (r/min) | Power (kW) | Eff. (%)       | Weight (kg) | Water pump control cabinet type | Automatic coupler |
|-----|---------------|--------------------------|------------------|-------------------------|---------------|------------|----------------|-------------|---------------------------------|-------------------|
| 1   | 25Q8-22-1.1   | 5<br>8<br>10.5           | 23<br>22<br>19   | 600                     | 2900          | 1.1        | 32<br>38<br>37 | 42          | QZD-1.1                         | GAK-25            |
| 2   | 32Q12-15-1.1  | 7.2<br>12<br>15.5        | 17<br>15<br>12   | 600                     | 2900          | 1.1        | 32<br>40<br>41 | 42          | QZD-1.1                         | GAK-32            |
| 3   | 40Q15-15-1.5  | 9<br>15<br>19.5          | 17<br>15<br>12   | 800                     | 2900          | 1.5        | 38<br>45<br>46 | 52          | QZD-1.5                         | GAK-40            |
| 4   | 40Q15-30-2.2  | 9<br>15<br>19.5          | 32<br>30<br>27   | 800                     | 2900          | 2.2        | 40<br>48<br>47 | 55          | QZD-2.2                         | GAK-40            |
| 5   | 50Q20-7-0.75  | 12<br>20<br>26           | 8.5<br>7<br>5    | 600                     | 2900          | 0.75       | 46<br>54<br>52 | 50          | QZD-0.75                        | GAK-50            |
| 6   | 50Q10-10-0.75 | 6<br>10<br>13            | 12<br>10<br>8    | 600                     | 2900          | 0.75       | 48<br>56<br>54 | 50          | QZD-0.75                        | GAK-50            |
| 7   | 50Q25-10-1.5  | 15<br>25<br>32.5         | 12<br>10<br>7.5  | 800                     | 2900          | 1.5        | 48<br>56<br>54 | 60          | QZD-1.5                         | GAK-50            |
| 8   | 50Q20-15-1.5  | 12<br>20<br>26           | 17<br>15<br>12   | 800                     | 2900          | 1.5        | 48<br>55<br>53 | 55          | QZD-1.5                         | GAK-50            |
| 9   | 50Q27-15-2.2  | 16<br>27<br>35           | 17<br>15<br>12   | 800                     | 2900          | 2.2        | 48<br>56<br>52 | 60          | QZD-2.2                         | GAK-50            |
| 10  | 50Q15-25-2.2  | 9<br>15<br>19.5          | 27<br>25<br>22   | 800                     | 2900          | 2.2        | 48<br>56<br>52 | 60          | QZD-2.2                         | GAK-50            |
| 11  | 50Q18-30-3    | 10.8<br>18<br>23.5       | 32<br>30<br>26   | 1000                    | 2900          | 3.0        | 50<br>58<br>55 | 70          | QZD-3                           | GAK-50            |
| 12  | 50Q24-20-4    | 14.5<br>24<br>31         | 22.5<br>20<br>16 | 1000                    | 2900          | 4.0        | 53<br>60<br>58 | 85          | QZD-4                           | GAK-50            |
| 13  | 50Q25-32-5.5  | 15<br>25<br>32.5         | 34<br>32<br>28   | 1200                    | 2900          | 5.5        | 45<br>53<br>52 | 100         | QZD-5.5                         | GAK-50            |
| 14  | 50Q30-30-7.5  | 18<br>30<br>39           | 33<br>30<br>26   | 1200                    | 2900          | 7.5        | 48<br>56<br>55 | 110         | QZD-7.5                         | GAK-50            |
| 15  | 50Q20-40-7.5  | 12<br>20<br>26           | 43<br>40<br>35   | 1200                    | 2900          | 7.5        | 46<br>55<br>56 | 110         | QZD-7.5                         | GAK-50            |
| 16  | 65Q42-9-2.2   | 25.2<br>42<br>54.5       | 11<br>9<br>6     | 1000                    | 2900          | 2.2        | 47<br>56<br>55 | 60          | QZD-2.2                         | GAK-65            |
| 17  | 65Q25-15-2.2  | 15<br>25<br>32.5         | 17<br>15<br>12   | 1000                    | 2900          | 2.2        | 46<br>52<br>53 | 60          | QZD-2.2                         | GAK-65            |
| 18  | 65Q37-13-3    | 22<br>37<br>48           | 15.5<br>13<br>10 | 1000                    | 2900          | 3.0        | 47<br>55<br>56 | 70          | QZD-3                           | GAK-65            |
| 19  | 65Q25-30-4    | 15<br>25<br>32.5         | 33<br>30<br>26   | 1200                    | 2900          | 4.0        | 50<br>58<br>58 | 85          | QZD-4                           | GAK-65            |
| 20  | 65Q40-30-7.5  | 24<br>40<br>52           | 33<br>30<br>26   | 1200                    | 2900          | 7.5        | 48<br>58<br>58 | 110         | QZD-7.5                         | GAK-65            |
| 21  | 65Q30-40-7.5  | 18<br>30<br>39           | 43<br>40<br>36   | 1200                    | 2900          | 7.5        | 50<br>56<br>54 | 110         | QZD-7.5                         | GAK-65            |
| 22  | 65Q35-50-11   | 21<br>35<br>45.5         | 54<br>50<br>44   | 1500                    | 2900          | 11         | 52<br>60<br>62 | 200         | JJ1-11                          | GAK-65            |

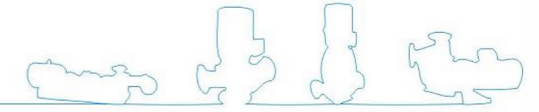
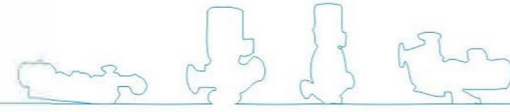


Performance Parameter Table

| No. | Type           | Flow (m <sup>3</sup> /h) | Head (m)         | Stir well diameter (mm) | Speed (r/min) | Power (kW) | Eff. (%)         | Weight (kg) | Water pump control cabinet type | coupler |
|-----|----------------|--------------------------|------------------|-------------------------|---------------|------------|------------------|-------------|---------------------------------|---------|
| 23  | 65Q35-60-15    | 21<br>35<br>45.5         | 64<br>60<br>53   | 1500                    | 2900          | 15         | 55<br>63<br>63   | 230         | JJ1-15                          | GAK-65  |
| 24  | 80Q40-7-2.2    | 24<br>40<br>52           | 9<br>7<br>5      | 1200                    | 2900          | 2.2        | 45<br>52<br>50   | 75          | QZD-2.2                         | GAK-80  |
| 25  | 80Q30-8-2.2    | 18<br>30<br>39           | 10<br>8<br>6     | 1200                    | 2900          | 2.2        | 38<br>45<br>46   | 75          | QZD-2.2                         | GAK-80  |
| 26  | 80Q50-10-3     | 30<br>50<br>65           | 13<br>10<br>7    | 1200                    | 2900          | 3.0        | 50<br>58<br>59   | 85          | QZD-3                           | GAK-80  |
| 27  | 80Q43-13-3     | 26<br>43<br>56           | 15<br>13<br>10   | 1200                    | 2900          | 3.0        | 43<br>50<br>52   | 85          | QZD-3                           | GAK-80  |
| 28  | 80Q60-13-4     | 36<br>60<br>78           | 15.5<br>13<br>10 | 1200                    | 2900          | 4.0        | 58<br>65<br>63   | 90          | QZD-4                           | GAK-80  |
| 29  | 80Q40-15-4     | 24<br>40<br>52           | 17<br>15<br>12   | 1200                    | 2900          | 4.0        | 50<br>57<br>58   | 90          | QZD-4                           | GAK-80  |
| 30  | 80Q50-20-5.5   | 30<br>50<br>65           | 23<br>20<br>16   | 1300                    | 2900          | 5.5        | 62<br>68<br>69   | 130         | QZD-5.5                         | GAK-80  |
| 31  | 80Q80-15-7.5   | 48<br>80<br>104          | 17.5<br>15<br>12 | 1300                    | 2900          | 7.5        | 64<br>71<br>72   | 135         | QZD-7.5                         | GAK-80  |
| 32  | 80Q65-25-7.5   | 40<br>65<br>85           | 28<br>25<br>21   | 1300                    | 2900          | 7.5        | 47<br>56<br>58   | 135         | QZD-7.5                         | GAK-80  |
| 33  | 80Q50-35-11    | 30<br>50<br>65           | 38<br>35<br>31   | 1300                    | 2900          | 11         | 45<br>53<br>52   | 210         | JJ1-11                          | GAK-80  |
| 34  | 80Q50-40-15    | 30<br>50<br>65           | 43<br>40<br>36   | 1300                    | 2900          | 15         | 45<br>50<br>52   | 215         | JJ1-15                          | GAK-80  |
| 35  | 100Q100-7-4    | 60<br>100<br>130         | 10<br>7<br>5     | 1500                    | 2900          | 4          | 65<br>72.5<br>71 | 130         | QZD-4                           | GAK-100 |
| 36  | 100Q80-10-4    | 48<br>80<br>104          | 13<br>10<br>7    | 1500                    | 2900          | 4          | 56<br>62<br>60   | 130         | QZD-4                           | GAK-100 |
| 37  | 100Q110-10-5.5 | 66<br>110<br>143         | 13.5<br>10<br>7  | 1500                    | 2900          | 5.5        | 58<br>66<br>65   | 155         | QZD-5.5                         | GAK-100 |
| 38  | 100Q65-15-5.5  | 40<br>65<br>85           | 18<br>15<br>12   | 1500                    | 2900          | 5.5        | 52<br>59<br>60   | 150         | QZD-5.5                         | GAK-100 |
| 39  | 100Q100-15-7.5 | 60<br>100<br>130         | 17.5<br>15<br>12 | 1500                    | 2900          | 7.5        | 60<br>67<br>65   | 170         | QZD-7.5                         | GAK-100 |
| 40  | 100Q85-20-7.5  | 50<br>85<br>110          | 23<br>20<br>16   | 1500                    | 2900          | 7.5        | 62<br>68<br>66   | 170         | QZD-7.5                         | GAK-100 |
| 41  | 100Q50-22-7.5  | 30<br>50<br>65           | 25<br>22<br>19   | 1500                    | 2900          | 7.5        | 58<br>63<br>62   | 170         | QZD-7.5                         | GAK-100 |
| 42  | 100Q100-25-11  | 60<br>100<br>130         | 28<br>25<br>22   | 1800                    | 1450          | 11         | 58<br>65<br>63   | 270         | JJ1-11                          | GAK-100 |
| 43  | 100Q70-22-11   | 42<br>70<br>90           | 24.5<br>22<br>19 | 1800                    | 1450          | 11         | 62<br>68<br>66   | 270         | JJ1-11                          | GAK-100 |
| 44  | 100Q50-35-11   | 30<br>50<br>65           | 38<br>35<br>32   | 1800                    | 1450          | 11         | 56<br>62<br>60   | 260         | JJ1-11                          | GAK-100 |
| 45  | 100Q87-28-15   | 52<br>87<br>113          | 32<br>28<br>25   | 1800                    | 1450          | 15         | 62<br>69<br>66   | 300         | JJ1-15                          | GAK-100 |

Performance Parameter Table

| No. | Type            | Flow (m <sup>3</sup> /h) | Head (m)       | Stir well diameter (mm) | Speed (r/min) | Power (kW) | Eff. (%)       | Weight (kg) | Water pump control cabinet type | Automatic coupler |
|-----|-----------------|--------------------------|----------------|-------------------------|---------------|------------|----------------|-------------|---------------------------------|-------------------|
| 46  | 100Q100-30-15   | 60<br>100<br>130         | 33<br>30<br>27 | 1800                    | 1450          | 15         | 60<br>66<br>65 | 300         | JJ1-15                          | GAK-100           |
| 47  | 100Q100-35-18.5 | 60<br>100<br>130         | 38<br>35<br>30 | 1800                    | 1450          | 18.5       | 60<br>65<br>63 | 380         | JJ1-18.5                        | GAK-100           |
| 48  | 100Q100-40-22   | 60<br>100<br>130         | 45<br>40<br>35 | 1800                    | 1450          | 22         | 56<br>62<br>62 | 410         | JJ1-22                          | GAK-100           |
| 49  | 100Q80-50-30    | 48<br>80<br>105          | 53<br>50<br>46 | 1800                    | 1450          | 30         | 55<br>60<br>62 | 440         | JJ1-30                          | GAK-100           |
| 50  | 100Q80-60-37    | 48<br>80<br>105          | 63<br>60<br>56 | 1800                    | 1450          | 37         | 50<br>56<br>58 | 450         | JJ1-37                          | GAK-100           |
| 51  | 125Q130-15-11   | 78<br>130<br>170         | 18<br>15<br>12 | 1800                    | 1450          | 11         | 56<br>62<br>60 | 380         | JJ1-11                          | GAK-125           |
| 52  | 125Q130-20-15   | 78<br>130<br>170         | 24<br>20<br>17 | 1800                    | 1450          | 15         | 58<br>63<br>62 | 300         | JJ1-15                          | GAK-125           |
| 53  | 150Q140-7-5.5   | 84<br>140<br>182         | 10<br>7<br>4   | 2000                    | 1450          | 5.5        | 66<br>72<br>72 | 180         | QZD-5.5                         | GAK-150           |
| 54  | 150Q120-10-5.5  | 72<br>120<br>156         | 14<br>10<br>7  | 2000                    | 1450          | 5.5        | 65<br>70<br>72 | 180         | QZD-5.5                         | GAK-150           |
| 55  | 150Q210-7-7.5   | 125<br>210<br>275        | 10<br>7<br>5   | 2000                    | 1450          | 7.5        | 68<br>75<br>73 | 180         | QZD-7.5                         | GAK-150           |
| 56  | 150Q145-9-7.5   | 87<br>145<br>190         | 12<br>9<br>7   | 2000                    | 1450          | 7.5        | 58<br>63<br>62 | 180         | QZD-7.5                         | GAK-150           |
| 57  | 150Q110-15-7.5  | 66<br>110<br>143         | 18<br>15<br>12 | 2000                    | 1450          | 7.5        | 66<br>72<br>70 | 200         | QZD-7.5                         | GAK-150           |
| 58  | 150Q200-10-15   | 120<br>200<br>260        | 14<br>10<br>7  | 2000                    | 1450          | 15         | 58<br>65<br>66 | 300         | JJ1-15                          | GAK-150           |
| 59  | 150Q180-15-15   | 108<br>180<br>235        | 18<br>15<br>12 | 2000                    | 1450          | 15         | 58<br>65<br>66 | 280         | JJ1-15                          | GAK-150           |
| 60  | 150Q140-18-15   | 85<br>140<br>182         | 22<br>18<br>15 | 2000                    | 1450          | 15         | 57<br>65<br>63 | 280         | JJ1-15                          | GAK-150           |
| 61  | 150Q200-14-18.5 | 120<br>200<br>260        | 17<br>14<br>11 | 2000                    | 1450          | 18.5       | 60<br>68<br>66 | 400         | JJ1-18.5                        | GAK-150           |
| 62  | 150Q180-20-18.5 | 108<br>180<br>235        | 23<br>20<br>17 | 2000                    | 1450          | 18.5       | 70<br>75<br>72 | 400         | JJ1-18.5                        | GAK-150           |
| 63  | 150Q150-25-18.5 | 90<br>150<br>192         | 28<br>25<br>22 | 2000                    | 1450          | 18.5       | 60<br>68<br>65 | 400         | JJ1-18.5                        | GAK-150           |
| 64  | 150Q200-22-22   | 120<br>200<br>260        | 25<br>22<br>19 | 2000                    | 1450          | 22         | 67<br>73<br>72 | 430         | JJ1-22                          | GAK-150           |
| 65  | 150Q180-25-22   | 108<br>180<br>235        | 28<br>25<br>22 | 2000                    | 1450          | 22         | 70<br>76<br>75 | 430         | JJ1-22                          | GAK-150           |
| 66  | 150Q130-30-22   | 78<br>130<br>170         | 34<br>30<br>27 | 2000                    | 1450          | 22         | 70<br>75<br>73 | 450         | JJ1-22                          | GAK-150           |
| 67  | 150Q250-22-30   | 150<br>250<br>325        | 25<br>22<br>19 | 2200                    | 1450          | 30         | 68<br>73<br>70 | 500         | JJ1-30                          | GAK-150           |

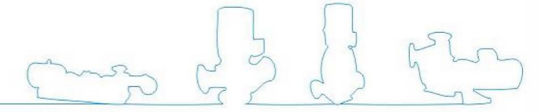
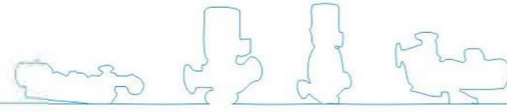


**Performance Parameter Table**

| No. | Type            | Flow (m <sup>3</sup> /h) | Head (m)       | Stir well diameter (mm) | Speed (r/min) | Power (kW) | Eff. (%)       | Weight (kg) | Water pump control cabinet type | coupler |
|-----|-----------------|--------------------------|----------------|-------------------------|---------------|------------|----------------|-------------|---------------------------------|---------|
| 68  | 150Q180-30-30   | 108<br>180<br>235        | 34<br>30<br>26 | 2200                    | 1450          | 30         | 68<br>73<br>71 | 500         | JJ1-30                          | GAK-150 |
| 69  | 150Q200-30-37   | 120<br>200<br>260        | 34<br>30<br>26 | 200                     | 1450          | 37         | 65<br>70<br>70 | 600         | JJ1-37                          | GAK-150 |
| 70  | 150Q150-35-37   | 90<br>150<br>195         | 38<br>35<br>32 | 2200                    | 1450          | 37         | 58<br>63<br>62 | 600         | JJ1-37                          | GAK-150 |
| 71  | 150Q160-45-37   | 96<br>160<br>208         | 49<br>45<br>41 | 2200                    | 1450          | 37         | 60<br>65<br>65 | 650         | JJ1-37                          | GAK-150 |
| 72  | 200Q360-6-11    | 216<br>360<br>468        | 10<br>6<br>4   | 2300                    | 970           | 11         | 66<br>72<br>70 | 450         | JJ1-11                          | GAK-200 |
| 73  | 200Q300-7-11    | 180<br>300<br>390        | 10<br>7<br>5   | 2300                    | 970           | 11         | 68<br>73<br>72 | 450         | JJ1-11                          | GAK-200 |
| 74  | 200Q400-7-15    | 240<br>400<br>520        | 10<br>7<br>5   | 300                     | 970           | 15         | 72<br>78<br>76 | 480         | JJ1-15                          | GAK-200 |
| 75  | 200Q250-11-15   | 150<br>250<br>325        | 14<br>11<br>8  | 2300                    | 1450          | 15         | 68<br>74<br>72 | 400         | JJ1-15                          | GAK-200 |
| 76  | 200Q300-10-18.5 | 180<br>300<br>390        | 14<br>10<br>7  | 300                     | 1450          | 18.5       | 66<br>72<br>73 | 500         | JJ1-18.5                        | GAK-200 |
| 77  | 200Q250-15-18.5 | 150<br>250<br>325        | 18<br>15<br>12 | 300                     | 1450          | 18.5       | 66<br>72<br>73 | 500         | JJ1-18.5                        | GAK-200 |
| 78  | 200Q400-10-22   | 240<br>400<br>520        | 14<br>10<br>7  | 2300                    | 1450          | 22         | 70<br>76<br>75 | 450         | JJ1-22                          | GAK-200 |
| 79  | 200Q310-13-22   | 186<br>310<br>400        | 16<br>13<br>11 | 2300                    | 1450          | 22         | 55<br>62<br>63 | 450         | JJ1-22                          | GAK-200 |
| 80  | 200Q300-15-22   | 180<br>300<br>390        | 18<br>15<br>12 | 2300                    | 1450          | 22         | 66<br>73<br>75 | 550         | JJ1-22                          | GAK-200 |
| 81  | 200Q400-13-30   | 240<br>400<br>520        | 16<br>13<br>11 | 2300                    | 1450          | 30         | 66<br>73<br>71 | 650         | JJ1-30                          | GAK-200 |
| 82  | 200Q360-15-30   | 216<br>360<br>470        | 19<br>15<br>12 | 2300                    | 1450          | 30         | 70<br>75<br>73 | 650         | JJ1-30                          | GAK-200 |
| 83  | 200Q250-22-30   | 150<br>250<br>325        | 26<br>22<br>18 | 2300                    | 1450          | 30         | 66<br>71<br>70 | 800         | JJ1-30                          | GAK-200 |
| 84  | 200Q350-25-37   | 210<br>350<br>455        | 29<br>25<br>21 | 2300                    | 1450          | 37         | 70<br>75<br>73 | 850         | JJ1-37                          | GAK-200 |
| 85  | 200Q400-25-45   | 240<br>400<br>520        | 29<br>25<br>21 | 2500                    | 1450          | 45         | 70<br>75<br>73 | 920         | JJ1-45                          | GAK-200 |
| 86  | 200Q380-28-45   | 228<br>380<br>495        | 32<br>28<br>24 | 2500                    | 1450          | 45         | 65<br>70<br>72 | 920         | JJ1-37                          | GAK-200 |
| 87  | 200Q250-35-45   | 150<br>250<br>325        | 39<br>35<br>31 | 2500                    | 1450          | 45         | 62<br>69<br>68 | 950         | JJ1-45                          | GAK-200 |
| 88  | 200Q400-30-55   | 240<br>400<br>520        | 34<br>30<br>25 | 2800                    | 1450          | 55         | 65<br>70<br>72 | 1000        | JJ1-55                          | GAK-200 |
| 89  | 200Q250-40-55   | 150<br>250<br>325        | 43<br>40<br>35 | 2800                    | 1450          | 55         | 62<br>69<br>70 | 1000        | JJ1-55                          | GAK-200 |

**Performance Parameter Table**

| No. | Type            | Flow (m <sup>3</sup> /h) | Head (m)       | Stir well diameter (mm) | Speed (r/min) | Power (kW) | Eff. (%)       | Weight (kg) | Water pump control cabinet type | Automatic coupler |
|-----|-----------------|--------------------------|----------------|-------------------------|---------------|------------|----------------|-------------|---------------------------------|-------------------|
| 90  | 200Q350-40-75   | 210<br>350<br>455        | 44<br>40<br>35 | 2800                    | 1450          | 75         | 62<br>68<br>66 | 1000        | JJ1-75                          | GAK-200           |
| 91  | 200Q350-45-90   | 210<br>350<br>455        | 48<br>45<br>40 | 2300                    | 1450          | 90         | 56<br>60<br>62 | 1080        | JJ1-90                          | GAK-200           |
| 92  | 250Q500-7-18.5  | 300<br>500<br>650        | 11<br>7<br>4   | 2500                    | 1450          | 18.5       | 54<br>58<br>60 | 780         | JJ1-18.5                        | GAK-250           |
| 93  | 250Q520-8-22    | 312<br>520<br>680        | 10<br>6<br>3   | 2500                    | 1450          | 22         | 52<br>56<br>58 | 780         | JJ1-22                          | GAK-250           |
| 94  | 250Q600-9-30    | 360<br>600<br>780        | 13<br>9<br>6   | 2500                    | 980           | 30         | 65<br>74<br>72 | 850         | JJ1-30                          | GAK-250           |
| 95  | 250Q500-10-30   | 300<br>500<br>650        | 15<br>10<br>6  | 2500                    | 980           | 30         | 64<br>71<br>72 | 850         | JJ1-30                          | GAK-250           |
| 96  | 250Q700-10-37   | 420<br>700<br>910        | 15<br>10<br>6  | 2500                    | 1450          | 37         | 73<br>81<br>82 | 850         | JJ1-37                          | GAK-250           |
| 97  | 250Q600-12-37   | 360<br>600<br>780        | 16<br>12<br>8  | 2500                    | 1450          | 37         | 70<br>78<br>78 | 850         | JJ1-37                          | GAK-250           |
| 98  | 250Q600-15-45   | 360<br>600<br>780        | 19<br>15<br>12 | 2800                    | 1450          | 45         | 68<br>75<br>74 | 950         | JJ1-45                          | GAK-250           |
| 99  | 250Q600-20-55   | 360<br>600<br>780        | 25<br>20<br>16 | 2800                    | 1450          | 55         | 65<br>73<br>71 | 1300        | JJ1-55                          | GAK-250           |
| 100 | 250Q700-20-75   | 420<br>700<br>910        | 25<br>20<br>16 | 2800                    | 1450          | 75         | 70<br>78<br>76 | 1500        | JJ1-75                          | GAK-250           |
| 101 | 250Q600-25-75   | 360<br>600<br>780        | 29<br>25<br>21 | 2800                    | 1450          | 75         | 66<br>73<br>71 | 1500        | JJ1-75                          | GAK-250           |
| 102 | 250Q600-30-90   | 360<br>600<br>780        | 34<br>30<br>26 | 3000                    | 1450          | 90         | 66<br>72<br>73 | 1600        | JJ1-90                          | GAK-250           |
| 103 | 300Q900-8-37    | 540<br>900<br>1170       | 15<br>8<br>5   | 3000                    | 980           | 37         | 76<br>81<br>82 | 1380        | JJ1-37                          | GAK-300           |
| 104 | 300Q800-12-45   | 480<br>800<br>1040       | 16<br>12<br>8  | 3000                    | 980           | 45         | 68<br>76<br>75 | 1500        | JJ1-45                          | GAK-300           |
| 105 | 300Q500-15-45   | 300<br>500<br>650        | 19<br>15<br>12 | 3000                    | 980           | 45         | 64<br>70<br>72 | 1500        | JJ1-45                          | GAK-300           |
| 106 | 300Q800-15-55   | 480<br>800<br>1040       | 19<br>15<br>12 | 3000                    | 980           | 55         | 66<br>73<br>72 | 1550        | JJ1-55                          | GAK-300           |
| 107 | 300Q600-20-55   | 360<br>600<br>780        | 25<br>20<br>16 | 3000                    | 980           | 55         | 68<br>75<br>74 | 1550        | JJ1-55                          | GAK-300           |
| 108 | 300Q800-20-75   | 480<br>800<br>1040       | 25<br>20<br>16 | 3000                    | 980           | 75         | 70<br>78<br>76 | 1600        | JJ1-75                          | GAK-300           |
| 109 | 300Q950-20-90   | 570<br>950<br>1235       | 25<br>20<br>16 | 3000                    | 980           | 90         | 72<br>80<br>78 | 1700        | JJ1-90                          | GAK-300           |
| 110 | 300Q1000-25-110 | 600<br>1000<br>1300      | 29<br>25<br>21 | 3000                    | 1450          | 110        | 75<br>82<br>80 | 2000        | JJ1-110                         | GAK-300           |
| 111 | 300Q800-32-110  | 480<br>800<br>1040       | 36<br>32<br>28 | 3000                    | 1450          | 110        | 68<br>76<br>75 | 2000        | JJ1-110                         | GAK-300           |



**Performance Parameter Table**

| No. | Type            | Flow (m <sup>3</sup> /h) | Head (m)         | Stir well diameter (mm) | Speed (r/min) | Power (kW) | Eff. (%)         | Weight (kg) | Water pump control cabinet type | Automatic coupler |
|-----|-----------------|--------------------------|------------------|-------------------------|---------------|------------|------------------|-------------|---------------------------------|-------------------|
| 112 | 300Q800-36-132  | 480<br>800<br>1040       | 40<br>36<br>32   | 3000                    | 1450          | 132        | 68<br>76<br>75   | 2000        | JJ1-132                         | GAK-300           |
| 113 | 300Q800-44-160  | 480<br>800<br>1040       | 49<br>44<br>40   | 3000                    | 1450          | 160        | 60<br>68<br>66   | 2750        | JJ1-160                         | GAK-300           |
| 114 | 350Q1200-8-45   | 720<br>1200<br>1440      | 13<br>8<br>5     | 3200                    | 980           | 45         | 76<br>84<br>85   | 1350        | JJ1-45                          | GAK-350           |
| 115 | 350Q1100-10-55  | 660<br>1100<br>1320      | 15<br>10<br>7    | 3200                    | 980           | 55         | 76<br>84<br>86   | 1380        | JJ1-55                          | GAK-350           |
| 116 | 350Q1300-12-75  | 780<br>1300<br>1560      | 17<br>12<br>8    | 3200                    | 980           | 75         | 76<br>83<br>85   | 1450        | JJ1-75                          | GAK-350           |
| 117 | 350Q1500-15-90  | 900<br>1500<br>1800      | 19<br>15<br>11   | 3200                    | 980           | 90         | 75<br>82<br>83   | 2000        | JJ1-90                          | GAK-350           |
| 118 | 350Q1200-18-90  | 720<br>1200<br>1440      | 23<br>18<br>14   | 3200                    | 980           | 90         | 76<br>83<br>85   | 2000        | JJ1-90                          | GAK-350           |
| 119 | 350Q1100-28-132 | 660<br>1100<br>1320      | 34<br>28<br>23   | 3500                    | 980           | 132        | 77<br>83<br>85   | 2520        | JJ1-132                         | GAK-350           |
| 120 | 350Q1000-36-160 | 600<br>1000<br>1200      | 41<br>36<br>32   | 3500                    | 980           | 160        | 71<br>78.5<br>76 | 2880        | JJ1-160                         | GAK-350           |
| 121 | 400Q1200-6-37   | 720<br>1200<br>1440      | 10<br>6<br>4     | 3800                    | 980           | 37         | 60<br>67<br>65   | 880         | JJ1-37                          | GAK-400           |
| 122 | 400Q1300-8-45   | 780<br>1300<br>1560      | 13<br>8<br>4     | 3800                    | 980           | 45         | 60<br>66<br>68   | 880         | JJ1-45                          | GAK-400           |
| 123 | 400Q1760-7.5-55 | 1055<br>1760<br>2110     | 11<br>7.5<br>4.5 | 3800                    | 980           | 55         | 75<br>82.3<br>85 | 2000        | JJ1-55                          | GAK-400           |
| 124 | 400Q1300-10-55  | 780<br>1300<br>1560      | 15<br>10<br>6    | 3800                    | 980           | 55         | 76<br>82<br>80   | 2000        | JJ1-55                          | GAK-400           |
| 125 | 400Q2600-6-75   | 1560<br>2600<br>3120     | 10<br>6<br>3     | 3800                    | 980           | 75         | 70<br>78<br>80   | 1750        | JJ1-75                          | GAK-400           |
| 126 | 400Q1500-10-75  | 900<br>1500<br>1800      | 15<br>10<br>6    | 3800                    | 980           | 75         | 76<br>82.1<br>83 | 1750        | JJ1-75                          | GAK-400           |
| 127 | 400Q2200-9-110  | 1320<br>2200<br>2640     | 14<br>9<br>6     | 3800                    | 980           | 110        | 75<br>80<br>82   | 2100        | JJ1-110                         | GAK-400           |
| 128 | 400Q2000-15-132 | 1200<br>2000<br>2400     | 19<br>15<br>12   | 3800                    | 740           | 132        | 78<br>85.5<br>84 | 2520        | JJ1-132                         | GAK-400           |
| 129 | 400Q1600-20-132 | 960<br>1600<br>1920      | 25<br>20<br>16   | 3800                    | 740           | 132        | 76<br>82<br>80   | 2520        | JJ1-132                         | GAK-400           |
| 130 | 400Q1700-22-160 | 1020<br>1700<br>2040     | 28<br>22<br>18   | 3800                    | 980           | 160        | 75<br>82<br>84   | 2880        | JJ1-160                         | GAK-400           |
| 131 | 400Q1500-26-160 | 900<br>1500<br>1800      | 32<br>26<br>22   | 3800                    | 980           | 160        | 78<br>83.5<br>85 | 2880        | JJ1-160                         | GAK-400           |
| 132 | 400Q2000-22-200 | 1200<br>2000<br>2400     | 26<br>22<br>18   | 3800                    | 980           | 200        | 76<br>82<br>85   | 3850        | JJ1-200                         | GAK-400           |
| 133 | 400Q1700-30-200 | 1020<br>1700<br>2040     | 35<br>30<br>26   | 3800                    | 980           | 200        | 77<br>83.5<br>85 | 3850        | JJ1-200                         | GAK-400           |
| 134 | 400Q1800-32-250 | 1080<br>1800<br>2160     | 36<br>32<br>28   | 3800                    | 740           | 250        | 76<br>82<br>84   | 4690        | JJ1-250                         | GAK-400           |

**Performance Parameter Table**

| No. | Type            | Flow (m <sup>3</sup> /h) | Head (m)       | Stir well diameter (mm) | Speed (r/min) | Power (kW) | Eff. (%)         | Weight (kg) | Water pump control cabinet type | Automatic coupler |
|-----|-----------------|--------------------------|----------------|-------------------------|---------------|------------|------------------|-------------|---------------------------------|-------------------|
| 135 | 400Q2000-30-280 | 1200<br>2000<br>2400     | 35<br>30<br>26 | 3800                    | 740           | 280        | 76<br>82.5<br>84 | 4690        | JJ1-280                         | GAK-400           |
| 136 | 500Q2500-10-110 | 1500<br>2500<br>3000     | 15<br>10<br>7  | 4000                    | 740           | 110        | 76<br>82<br>83   | 2100        | JJ1-110                         | GAK-500           |
| 137 | 500Q2000-15-110 | 1500<br>2500<br>3000     | 20<br>15<br>12 | 4000                    | 740           | 110        | 78<br>83<br>85   | 2100        | JJ1-110                         | GAK-500           |
| 138 | 500Q2800-10-132 | 1680<br>2800<br>3360     | 15<br>10<br>6  | 4000                    | 740           | 132        | 77<br>82<br>83   | 2250        | JJ1-132                         | GAK-500           |
| 139 | 500Q3600-10-160 | 2160<br>3600<br>4320     | 15<br>10<br>6  | 4000                    | 740           | 160        | 77<br>83<br>84   | 2280        | JJ1-160                         | GAK-500           |
| 140 | 500Q2600-15-160 | 1560<br>2600<br>3120     | 20<br>15<br>12 | 4000                    | 740           | 160        | 78<br>83<br>85   | 2280        | JJ1-160                         | GAK-500           |
| 141 | 500Q2000-20-160 | 1200<br>2000<br>2400     | 25<br>20<br>15 | 4000                    | 740           | 160        | 75<br>82<br>85   | 2280        | JJ1-160                         | GAK-500           |
| 142 | 500Q3000-15-200 | 1800<br>3000<br>3600     | 19<br>15<br>12 | 4000                    | 740           | 200        | 76<br>82<br>84   | 2280        | JJ1-200                         | GAK-500           |
| 143 | 500Q2500-20-200 | 1500<br>2500<br>3000     | 25<br>20<br>16 | 4000                    | 740           | 200        | 71<br>78<br>80   | 2280        | JJ1-200                         | GAK-500           |
| 144 | 500Q2800-15-220 | 1680<br>2800<br>3360     | 19<br>15<br>12 | 4000                    | 740           | 220        | 76<br>83<br>85   | 2350        | JJ1-220                         | GAK-500           |
| 145 | 500Q2400-22-220 | 1440<br>2400<br>2880     | 26<br>22<br>18 | 4000                    | 740           | 220        | 78<br>84<br>85   | 2350        | JJ1-220                         | GAK-500           |
| 146 | 500Q4000-15-250 | 2400<br>4000<br>4800     | 20<br>15<br>12 | 4000                    | 980           | 250        | 76<br>84<br>86   | 2650        | JJ1-250                         | GAK-500           |
| 147 | 500Q2600-24-250 | 1560<br>2600<br>3120     | 30<br>24<br>20 | 4000                    | 980           | 250        | 76<br>82<br>85   | 2650        | JJ1-250                         | GAK-500           |
| 148 | 550Q3000-12-160 | 1800<br>3000<br>3600     | 16<br>12<br>9  | 4200                    | 740           | 160        | 78<br>85<br>88   | 2480        | JJ1-160                         | GAK-550           |
| 149 | 550Q4200-10-185 | 2520<br>4200<br>5040     | 15<br>10<br>7  | 4200                    | 740           | 185        | 75<br>82<br>85   | 2480        | JJ1-185                         | GAK-550           |
| 150 | 550Q3000-16-200 | 1800<br>3000<br>3600     | 20<br>16<br>12 | 4200                    | 740           | 200        | 77<br>85<br>86   | 2500        | JJ1-200                         | GAK-550           |
| 151 | 550Q5000-10-220 | 3000<br>5000<br>6000     | 15<br>10<br>6  | 4200                    | 740           | 220        | 77<br>84<br>86   | 2500        | JJ1-220                         | GAK-550           |
| 152 | 600Q3500-12-185 | 2100<br>3500<br>4200     | 16<br>12<br>9  | 4500                    | 740           | 185        | 78<br>85<br>86   | 2580        | JJ1-185                         | GAK-600           |
| 153 | 600Q5500-10-250 | 3300<br>5500<br>6600     | 15<br>10<br>7  | 4500                    | 740           | 250        | 75<br>83<br>85   | 2580        | JJ1-250                         | GAK-600           |
| 154 | 600Q3750-17-250 | 2250<br>3750<br>4500     | 22<br>17<br>13 | 4500                    | 740           | 250        | 77<br>85<br>87   | 2580        | JJ1-250                         | GAK-600           |
| 155 | 600Q6000-10-280 | 3600<br>6000<br>7200     | 16<br>10<br>7  | 4500                    | 740           | 280        | 75<br>84<br>86   | 2600        | JJ1-280                         | GAK-600           |
| 156 | 700Q9000-6-250  | 5400<br>9000<br>10800    | 12<br>6<br>3   | 4500                    | 740           | 250        | 74<br>82<br>85   | 2800        | JJ1-250                         | GAK-700           |
| 157 | 700Q10000-6-280 | 6000<br>10000<br>12000   | 12<br>6<br>3   | 4500                    | 740           | 280        | 74<br>83<br>85   | 2800        | JJ1-280                         | GAK-700           |