

## The use of

the Flex Rubber Impeller
$\square$

## N -Rubber

H-Rubber

F-Rubber
U-Rubber

U-Rubber

CR-Rubber

Use of transferring water, seawater, soil and waste water, sewage, mud sludge, shampoo, rinse, detergent and bubble

Use for transferring petoleum, light oil, thinner, gasoline, cutting oil, paint, alcohol, animal- and vegetable-oil, beef tallow and other various kinds of oil.

Use for transferring sulfuric acid, cuprous sulfuric acid, ferrous sulfuric acid, hydrochloric acid, ferrous chloride, nitric acid, dyes, phosphoric acid, acetic acid, caustic soda and other chemicals.

Use of transferring lubricant, oil, DOP, waste oil, vinegar, vinegar-mixed soy sauce, fermented fishes and liquids, and nontoxic substances required from pharmaceutical and food industries.

Use of transferring seawater.

| Pump Model | $\mathbf{D} \times \mathbf{W}(\mathrm{mm})$ | Blade |
| :--- | :---: | :---: |
| DS-10 | $52 \times 22$ | 6 |
| DS-15 | $56 \times 37$ | 7 |
| DS-20FW | $65 \times 39$ | 7 |
| DS-25 | $65 \times 50$ | 7 |
| DS-25SW | $95 \times 45$ | 9 |
| DS-R32 | $81 \times 54$ | 8 |
| DS-R32FW | $95 \times 54$ | 9 |
| DS-R40 | $95 \times 63$ | 9 |
| DS-R40SW | $127 \times 57$ | 9 |
| DS-R50 | $95 \times 90$ | 9 |
| DS-R50SW | $127 \times 69$ | 9 |
| DS-R65FW | $127 \times 80$ | 9 |


| Pump Model | $\mathbf{D} \times \mathbf{W}(\mathrm{mm})$ | Blade |
| :--- | :---: | :---: |
| DS-R65SW | $163 \times 85$ | 9 |
| DS-R80SW | $163 \times 102$ | 9 |
| DS-R100FW | $163 \times 122$ | 9 |
| DS-R120FW | $163 \times 145$ | 9 |
| DS-R120SW | $200 \times 133$ | 10 |
| DS-R150FW | $200 \times 158$ | 10 |
| DS-R150SW | $290 \times 165$ | 9 |
| DS-R200FW | $290 \times 225$ | 9 |
| DS-R1S | $81 \times 54$ | 8 |
| DS-R1.5S | $95 \times 63$ | 9 |
| DS-R2S | $121 \times 89$ | 9 |
| DS-R2.5S | $127 \times 108$ | 12 |


| Pump Model | $\mathbf{D} \times \mathbf{W}(\mathrm{mm})$ | Blade |
| :--- | :---: | :---: |
| DS-R3S | $163 \times 128$ | 9 |
| DS-R4S | $200 \times 158$ | 9 |



## MONO FLEX PUMP

Mono Flex pump is simple one which sucks and discharges liquid in such a way that special rubber impeller rotors are bent and return continuously

As the impeller s life spam is exactly pump s life spam itself, we have spent more than 20 years in the research and development for this special synthetic rubber and manufacturing the special synthetic rubber impeller.

This is the type of pump which could never be used for industrial purpose in the world.

## Material of Cashing and Shaft

FCD45, SUS304, SUS316, SUS316L,
Alloy-20, SR-50A, Hastelloy B, C,
CD 4 MCu , Titanium and other special materials are available.


## Priciple of Pumping



Mono flex pump is a measurement pump operated by a centrifugal force. It hold the fluids between the rotors of the impeller.

The rotors are bent and return to discharge fluids by rotating and push out the fluids.


As shown in the diagram, as NO. 1 rotor sucks fluids by separating from N0.10 cam. and rotates, the fluids are pushed out at NO. 5 rotor position by the rotatory power.

The rotors will strike NO. 10 cam at NO .3 rotor position and discharges the rest of the fluids.

This sequencer operation allows it to pump with a low RPM.
If the ball valve is attached to the suction hole, the pumping of proper amount of fluids consistently will be done by controlling the volume of suction.

This is a way of transporting a constant amount of fluids by controlling the RPM.

## The application of Mono Flex Pump

Transfer various soil-and waste-water sludge, sewage, specific tank outflow, mud, soil agri-livestock waste water and their side products and feeds liquid-type animal feeds and their by-products.
Transfer fermented fish products (fermented shirimps, anchovy, etc.) red pepper paste, currymixture, edible oil, soy sauce, milk, Makkoli (raw rice wine), soft drinks and various foodstuffs.
Transfers sulfuric acid, ferrous sulfate, cuprous sulphide, hydrochloric acid, ferrous chloride, nitric acid, dyes, phosphoric acid, acetic acid, caustic soda and other chemicals.
Transfer lubricant, oil, DOP, various waste oil, petroleum, light oil, thinner, gasoline, cutting oil, fresh oil, rolling oil and other oils.

Mono Flex Pump
Specifications

| MODEL | HP |  | PRESSURE $\mathrm{kg} / \mathrm{cm} 2$ | PORT SIZE | FLOW RATE (1/m) |  |  |  |  |  | 단워 유랑 cc/Rev |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 4P |  | 6P |  | 8P |  |  |
|  | 4P | 6 P |  |  | 60 Hz | 50 Hz | 60 Hz | 50 Hz | 60 Hz | 50 Hz |  |
|  | 4 | 6 P |  |  | 1750(RPM) | 1450(RPM) | 1120(RPM) | 950(RPM) | 830(RPM) | 700(RPM) |  |
| DS-R10 | 1/2 | - |  | 2.2 | 10A PT | 20 | 17 | 13 | 11 | 10 | 8 | 11.6 |
| DS-R15 | 1/2 | - | 2.4 | 15A PT | 34 | 28 | 22 | 19 | 16 | 14 | 19.6 |
| DS-R20 | 1/2 | - | 2.7 | 20A PT | 59 | 49 | 38 | 32 | 28 | 24 | 33.9 |
| DS-R20FW | 1 | 1/2 | 4.4 | 20A PT | 64 | 53 | 41 | 35 | 30 | 26 | 36.6 |
| DS-R25 | 1 | 1/2 | 2.7 | 25A PT | 80 | 66 | 51 | 43 | 38 | 32 | 45.5 |
| DS-R25SW | 2 | 1 | 5.5 | 25A PT | 109 | 91 | 70 | 60 | 52 | 44 | 62.5 |
| DS-R32 | 2 | 1 | 2.7 | 32A PT | 100 | 83 | 64 | 54 | 47 | 40 | 57.1 |
| DS-R32FW | 3 | 2 | 5.5 | 32A PT | 141 | 116 | 90 | 76 | 67 | 56 | 80.3 |
| DS-R40 | 2 | 2 | 3.3 | 40A PT | 180 | 149 | 115 | 97 | 85 | 72 | 102.6 |
| DS-R40SW | 5 | 3 | 5.5 | 40A PT | 250 | 207 | 160 | 136 | 119 | 100 | 142.8 |
| DS-R50 | 3 | 2 | 3.3 | 50A PT | 241 | 199 | 154 | 131 | 114 | 96 | 137.5 |
| DS RSOSW | 5 | 3 | 5.5 | 50A PT | 305 | 252 | 195 | 165 | 115 | 122 | 174.1 |
| DS-R65 | 5 | 3 | 3.8 | 65A PT | 320 | 265 | 205 | 174 | 152 | 128 | 183.0 |
| DS-R65FW | 7.5 | 5 | 5 | 65A PT | 375 | 311 | 240 | 203 | 178 | 150 | 214.2 |
| DS-R65SW | 7.5 | 5 | 5.5 | 65A PT |  |  | 390 | 331 | 289 | 244 | 348.2 |
| DS-R80SW | - | 7.5 | 5.5 | 2-65A Flange |  |  | 450 | 382 | 333 | 281 | 401.7 |
| DS-R100FW | - | 7.5 | 5.5 | 2-65A Flange |  |  | 540 | 458 | 400 | 337 | 482.1 |
| DS-R120FW | - | 10 | 5.5 | 2-100A Flange |  |  | 700 | 594 | 519 | 438 | 625.0 |
| DS-R120SW | - | 10 | 5.5 | 2-100A Flange |  |  | 860 | 729 | 637 | 537 | 767.8 |
| DS-R150FW | - | 15 | 6.5 | 2-125A Flange |  |  | 1040 | 882 | 771 | 650 | 928.5 |
| DS-R150SW | - | 20 | 7 | 2-125A Flange |  |  | 2565 | 2176 | 1901 | 1603 | 2290 |
| DS-R200FW | - | 30 | 7 | 2-150A Flange |  |  | 3506 | 3005 | 2598 | 2191 | 3130 |
| DSR-1S | 2 | 1 | 4.5 | 1S Ferrule, Male |  |  | 64 | 54 | 47 | 40 | 57 |
| DSR-1.5S | 2 | 2 | 5 | 1.5S Ferrule, Male |  |  | 114 | 97 | 85 | 71 | 102 |
| DSR-2S | 5 | 3 | 5.5 | 25 Ferrule, Male |  |  | 235 | 200 | 174 | 147 | 210 |
| DSR-2.5S | 7.5 | 5 | 5.5 | 2.5S Ferrule, Male |  |  | 336 | 285 | 249 | 210 | 300 |
| DSR-3S | 7.5 | 5 | 5.5 | 3S Ferrule, Male |  |  | 540 | 458 | 400 | 337 | 482.1 |
| DSR-3S | 10 | 7.5 | 5.5 | 4S Ferrule, Male |  |  | 1040 | 882 | 771 | 650 | 928.5 |



## Dimensions



## Industry

(units :mm)

| Model | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C}$ | $\mathbf{D}$ | $\mathbf{E}$ | $\mathbf{F}$ | $\mathbf{G}$ | $\mathbf{H}$ | $\mathbf{I}$ | $\mathbf{J}$ | $\mathbf{K}$ | $\mathbf{L}$ | $\mathbf{M}$ | $\mathbf{N}$ | 2-PS |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DS-R20FW | 75 | 25 | 50 | 60 | 42 | 18 | 60 | 80 | $5 \times 5$ | 29 | 55 | 237 | 32 | 78 | $2-\mathrm{PS} 3 / 4^{\prime \prime}$ | 9 |
| DS-R25SW | 100 | 30 | 70 | 70 | 37 | 22 | 75 | 102 | $7 \times 7$ | 42 | 78 | 264 | 37 | 90 | $2-\mathrm{PS} 1^{\prime \prime}$ |  |
| DS-R32FW | 100 | 30 | 70 | 70 | 37 | 22 | 75 | 102 | $7 \times 7$ | 42 | 78 | 273 | 41 | 95 | $2-\mathrm{PS} 1 \times 1 / 4^{\prime \prime}$ | 11 |
| DS-R40FW | 100 | 30 | 70 | 70 | 37 | 22 | 75 | 102 | $7 \times 7$ | 42 | 78 | 282 | 46 | 99 | $2-\mathrm{PS} 1 \times 1 / 2^{\prime \prime}$ | 11 |
| DS-R40SW | 120 | 35 | 90 | 90 | 48 | 32 | 95 | 112 | $10 \times 8$ | 66 | 95 | 323 | 43 | 107 | $2-P S 1 \times 1 / 2^{\prime \prime}$ | 11 |
| DS-R50SW | 120 | 35 | 90 | 90 | 48 | 32 | 95 | 112 | $10 \times 8$ | 66 | 95 | 335 | 49 | 113 | $2-P S 2^{\prime \prime}$ | 11 |
| DS-R65FW | 120 | 35 | 90 | 90 | 48 | 32 | 95 | 112 | $10 \times 8$ | 66 | 95 | 351 | 57 | 121 | $2-P S 2 \times 1 / 2^{\prime \prime}$ | 11 |
| DS-R65SW | 190 | 42 | 140 | 140 | 68 | 42 | 120 | 132 | $12 \times 8$ | 45 | 120 | 440 | 63 | 127 | $2-P S 2 \times 1 / 2^{\prime \prime}$ | 13 |
| DS-R80SW | 190 | 42 | 140 | 140 | 68 | 42 | 160 | 132 | $12 \times 8$ | 50 | 160 | 457 | 71 | 136 | $2-65 A$ flange | 13 |
| DS-R100FW | 190 | 42 | 140 | 140 | 68 | 42 | 160 | 132 | $12 \times 8$ | 50 | 160 | 477 | 81 | 146 | $2-80 A$ flange | 13 |
| DS-R120SW | 190 | 42 | 140 | 140 | 68 | 42 | 170 | 160 | $12 \times 8$ | 50 | 170 | 485 | 92 | 143 | $2-100 A$ flange | 13 |
| DS-R150FW | 190 | 42 | 140 | 140 | 68 | 42 | 170 | 160 | $12 \times 8$ | 50 | 170 | 511 | 98 | 163 | $2-125 A$ flange | 13 |
| DS-R150SW | 240 | 65 | 185 | 185 | 88 | 48 | 220 | 200 | $14 \times 9$ | 60 | 210 | 589 | 100 | 151 | $2-125 A$ flange | 17 |
| DS-R200FW | 240 | 65 | 185 | 185 | 88 | 48 | 220 | 200 | $14 \times 9$ | 60 | 210 | 649 | 130 | 181 | $2-125 A$ flange | 17 |

Sanitary
(units :mm)

| Model | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C}$ | $\mathbf{D}$ | $\mathbf{E}$ | $\mathbf{F}$ | $\mathbf{G}$ | $\mathbf{H}$ | $\mathbf{I}$ | $\mathbf{J}$ | $\mathbf{K}$ | $\mathbf{L}$ | $\mathbf{M}$ | $\mathbf{N}$ | 2-Ferrule(Male) | 4-fl |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DS-R1S | 100 | 30 | 70 | 50 | 49 | 22 | 100 | 80 | $7 \times 7$ | 5 | 80 | 257 | 37 | 91 | 1 S | 11 |
| DS-R1.5S | 100 | 30 | 70 | 50 | 49 | 22 | 100 | 102 | $7 \times 7$ | 5 | 80 | 263 | 42 | 95 | 1.5 S | 11 |
| DS-R2S | 137 | 38 | 112 | 56 | 72 | 28 | 118 | 100 | $8 \times 7$ | 6 | 118 | 330 | 55 | 109 | 2 S | 11 |
| DS-R2.5S | 137 | 54 | 112 | 56 | 72 | 32 | 118 | 100 | $10 \times 8$ | 12 | 124 | 356 | 60 | 114 | $2.5 S$ | 11 |
| DS-R3S | 150 | 55 | 120 | 123 | 39.5 | 38 | 142 | 132 | $12 \times 8$ | 7.5 | 142 | 454 | 74.5 | 162 | $3 S$ | 11 |
| DS-R4S | 150 | 55 | 120 | 123 | 39.5 | 38 | 160 | 132 | $12 \times 8$ | 10 | 160 | 490 | 92.5 | 180 | $4 S$ | 11 |

INNOVATIVE PUMPS \& SYSTEMS SINCE 1946

- Inlet/ Outlet
- Pipe Diameter : 1S. 1.5S, 2S, 2.5S
- Pressure : 0~5kg/cm2
- Flow : 10~525 I/min

| SANITARY PUMP SET | |


SANITARY PUMP SET |


SANITARY TYPE


SANITARY TYPE



Wide Range of APPLICATIONS


