

TECH. BULLETIN #0606-1

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Topic; Arimitsu Upgrade/retrofit kits for replacement of 310/5CP2120 series

The Arimitsu Upgrade kit is shipped fully assembled and ready to bolt to your existing base plate using the same bolt holes drilled for your 310/5CP. Each assembled kit includes pump, mounting rails, shaft key, hub, & type A/B single groove pulley.

Simply order the Upgrade kit that best fits your needs:

*Each kit shipped assembled & includes pump, rails, shaft key, hub, & single groove pulley.

| P/N | Description | Specifications |
|-------|---------------------|---------------------------|
| 61000 | Model 313 Kit Left | 4 GPM, 1500 PSI, 1050 RPM |
| 61001 | Model 313 Kit Right | 4 GPM, 1500 PSI, 1050 RPM |
| 61002 | Model 516 Kit Left | 4 GPM, 1500 PSI, 950 RPM |
| 61003 | Model 516 Kit Right | 4 GPM, 1500 PSI, 950 RPM |

We have calculated the pulley diameter necessary for the pump to provide the same flow (GPM) as your previously designed system when using your existing motor pulley. Use chart on next page as a guide for pump speed and flow for other motor pulley diameters.

FAO's:

What are the differences between the 313 & 516? Which model is best for me?

The Model 313 is recommended for 3hp installations. Our most compact Series, where space is critical.

The Model 516 can be used for 3hp or 5hp installations. Other 5 Series models for Super Bay applications.

Other differences:

The model 313 has individual valve plugs for valve access.

The model 516 valves are accessed by separating the manifold.

There is no advantage/disadvantage with either style. It is just a customer preference issue. It is just as easy to service either style when needed.

The model 313 has 2 discharge ports. The model 516 has 4 discharge ports.

Again, there is no advantage/disadvantage with either style. It is just a customer preference issue. Some customers prefer the 4 discharge ports on the 516 for added plumbing options.



Model 313



Don't deny yourself the opportunity of a quieter and more efficient operation. **UPGRADE** to Arimitsu Pumps on your equipment. The #1 selling CarWash pump in Japan.

Arimitsu of North America, Inc. 13915-H Radium Street N.W. Ramsey, MN 55303



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| Arimitsu Upgrade Kit - Motor Pulley quick reference table | | | | | | | | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|--|--|--|--|
| Pump RPM and GPM display is based on 1725 rpm motor | | | | | | | | | | | | | |
| Motor Pulley | 3″ | 3-1/4" | 3-1/2" | 3-3/4" | 4" | 4-1/4" | 4-1/2" | 4-3/4" | 5″ | | | | |
| 313 Kit (RPM) pump pulley=7.2" (GPM) | 718 2.7 | 778 3.0 | 838 3.2 | 898 3.4 | 958 3.6 | 1018 3.9 | 1078 4.1 | 1138 4.3 | 1198 4.5 | | | | |
| 516 Kit (RPM) pump pulley=8" (GPM) | 646 2.7 | 700 3.0 | 754 3.2 | 808 3.4 | 862 3.6 | 916 3.9 | 970 4.1 | 1024 4.3 | 1078 4.5 | | | | |

Nozzles Volume (GPM) at Various Pressures (PSI)

| Nozzle Size | Orifice Dia. | 40 PSI | 100 PSI | 250 PSI | 500 PSI | 600 PSI | 700 PSI | 800 PSI | 1000 PSI | 1200 PSI | 1500 PSI | 2000 PSI | 2500 PSI | 3000 PSI | 3500 PSI | 4000 PSI | 5000 PSI |
|----------------|-----------------|-----------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 2 | .034 | .20 | .32 | .50 | .71 | .77 | .84 | .89 | 1.00 | 1.10 | 1.22 | 1.41 | 1.58 | 1.73 | 1.87 | 2.00 | 2.24 |
| 2.5 | .039 | .25 | .40 | .63 | .88 | .97 | 1.05 | 1.12 | 1.25 | 1.37 | 1.53 | 1.77 | 1.98 | 2.17 | 2.34 | 2.50 | 2.80 |
| 3 | .043 | .30 | .47 | .75 | 1.06 | 1.16 | 1.25 | 1.34 | 1.50 | 1.64 | 1.84 | 2.12 | 2.37 | 2.60 | 2.81 | 3.00 | 3.35 |
| 3.5 | .048 | .35 | .55 | .88 | 1.24 | 1.36 | 1.46 | 1.57 | 1.75 | 1.92 | 2.14 | 2.47 | 2.77 | 3.03 | 3.27 | 3.50 | 3.91 |
| 4 | .052 | .40 | .63 | 1.00 | 1.41 | 1.55 | 1.67 | 1.79 | 2.00 | 2.19 | 2.45 | 2.83 | 3.16 | 3.46 | 3.74 | 4.00 | 4.47 |
| 4.5 | .055 | .45 | .71 | 1.13 | 1.59 | 1.74 | 1.88 | 2.01 | 2.25 | 2.46 | 2.76 | 3.18 | 3.56 | 3.90 | 4.21 | 4.50 | 5.03 |
| 5 | .057 | .50 | .79 | 1.25 | 1.77 | 1.94 | 2.09 | 2.24 | 2.50 | 2.74 | 3.06 | 3.54 | 3.95 | 4.33 | 4.68 | 5.00 | 5.59 |
| 5.5 | .060 | .55 | .87 | 1.38 | 1.94 | 2.13 | 2.30 | 2.46 | 2.75 | 3.01 | 3.37 | 3.89 | 4.35 | 4.76 | 5.14 | 5.50 | 6.15 |
| 6 | .062 | .60 | .95 | 1.50 | 2.12 | 2.32 | 2.51 | 2.68 | 3.00 | 3.29 | 3.67 | 4.24 | 4.74 | 5.20 | 5.61 | 6.00 | 6.71 |
| 6.5 | .064 | .65 | 1.03 | 1.63 | 2.30 | 2.52 | 2.72 | 2.91 | 3.25 | 3.56 | 3.98 | 4.60 | 5.14 | 5.63 | 6.08 | 6.50 | 7.27 |
| 7 | .067 | .70 | 1.11 | 1.75 | 2.47 | 2.71 | 2.93 | 3.13 | 3.50 | 3.83 | 4.29 | 4.95 | 5.53 | 6.06 | 6.55 | 7.00 | 7.83 |
| 7.5 | .070 | .75 | 1.19 | 1.88 | 2.65 | 2.90 | 3.14 | 3.35 | 3.75 | 4.11 | 4.59 | 5.30 | 5.93 | 6.50 | 7.02 | 7.50 | 8.39 |
| 8 | .072 | .80 | 1.26 | 2.00 | 2.83 | 3.10 | 3.35 | 3.58 | 4.00 | 4.38 | 4.90 | 5.66 | 6.32 | 6.93 | 7.48 | 8.00 | 8.94 |
| 8.5 | .074 | .85 | 1.34 | 2.13 | 3.01 | 3.29 | 3.56 | 3.80 | 4.25 | 4.66 | 5.21 | 6.01 | 6.72 | 7.36 | 7.95 | 8.50 | 9.50 |
| 9 | .076 | .90 | 1.42 | 2.25 | 3.18 | 3.49 | 3.76 | 4.02 | 4.50 | 4.93 | 5.51 | 6.36 | 7.12 | 7.79 | 8.42 | 9.00 | 10.06 |
| 9.5 | .078 | .95 | 1.50 | 2.38 | 3.36 | 3.68 | 3.97 | 4.25 | 4.75 | 5.20 | 5.82 | 6.72 | 7.51 | 8.23 | 8.89 | 9.50 | 10.62 |
| 10 | .080 | 1.00 | 1.58 | 2.50 | 3.54 | 3.87 | 4.18 | 4.47 | 5.00 | 5.48 | 6.12 | 7.07 | 7.91 | 8.66 | 9.35 | 10.00 | 11.18 |
| 11 | .083 | 1.10 | 1.74 | 2.75 | 3.89 | 4.26 | 4.60 | 4.92 | 5,50 | 6.02 | 6.74 | 7.78 | 8.70 | 9.53 | 10.29 | 11.00 | 12.30 |
| 12 | .087 | 1.20 | 1.90 | 3.00 | 4.24 | 4.65 | 5.02 | 5.37 | 6.00 | 6.57 | 7.35 | 8.49 | 9.49 | 10.39 | 11.22 | 12.00 | 13.42 |
| 12.5 | .089 | 1.25 | 1.98 | 3.13 | 4.42 | 4.84 | 5.23 | 5.59 | 6.25 | 6.85 | 7.65 | 8.84 | 9.88 | 10.83 | 11,69 | 12.50 | 13.98 |
| 13 | .091 | 1.30 | 2.06 | 3.25 | 4.60 | 5.03 | 5.44 | 5.81 | 6.50 | 7.12 | 7.96 | 9.19 | 10.28 | 11.26 | 12.16 | 13.00 | 14.53 |
| 14 | .093 | 1.40 | 2.21 | 3.50 | 4.95 | 5.42 | 5.86 | 6.26 | 7.00 | 7.67 | 8.57 | 9.90 | 11.07 | 12.12 | 13.10 | 14.00 | 15.65 |
| 15 | .096 | 1.50 | 2.37 | 3.75 | 5.30 | 5.81 | 6.27 | 6.71 | 7.50 | 8.22 | 9.19 | 10.61 | 11.86 | 12.99 | 14.03 | 15.00 | 16.77 |
| 20 | .109 | 2.00 | 3.16 | 5.00 | 7.07 | 7.75 | 8.37 | 8.94 | 10.00 | 10.95 | 12.25 | 14.14 | 15.81 | 17.32 | 18.71 | 20.00 | 22.36 |
| 25 | .125 | 2.50 | 3.95 | 6.25 | 8.84 | 9.68 | 10.46 | 11.18 | 12.50 | 13.69 | 15.31 | 17.68 | 19.76 | 21.65 | 23.39 | 25.00 | 27.95 |
| 30 | .141 | 3.00 | 4.74 | 7.50 | 10.61 | 11.62 | 12.55 | 13.42 | 15.00 | 16.43 | 18.37 | 21.12 | 23.72 | 25.98 | 28.06 | 30.00 | 33.54 |
| 40 | .156 | 4.00 | 6.32 | 10.00 | 14.14 | 15.49 | 16.73 | 17.89 | 20.00 | 21.91 | 24.49 | 28.28 | 31.62 | 34.64 | 37.42 | 40.00 | 44.72 |
| 50 | .172 | 5.00 | 7.91 | 12.50 | 17.68 | 19.36 | 20.92 | 22.36 | 25.00 | 27.39 | 30.62 | 35.36 | 39.53 | 43.30 | 46.77 | 50.00 | 55.90 |
| 60 | .188 | 6.00 | 9.49 | 15.00 | 21.21 | 23.24 | 25,10 | 26.83 | 30.00 | 32.86 | 36.74 | 42.43 | 47.43 | 51.96 | 56.12 | 60.00 | 67.08 |

A commonly used standard for nozzle size is the "nozzle number" which is equivalent to the nozzle capacity in GPM at 4000 PSI. Spray angle does not effect nozzle volume.

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