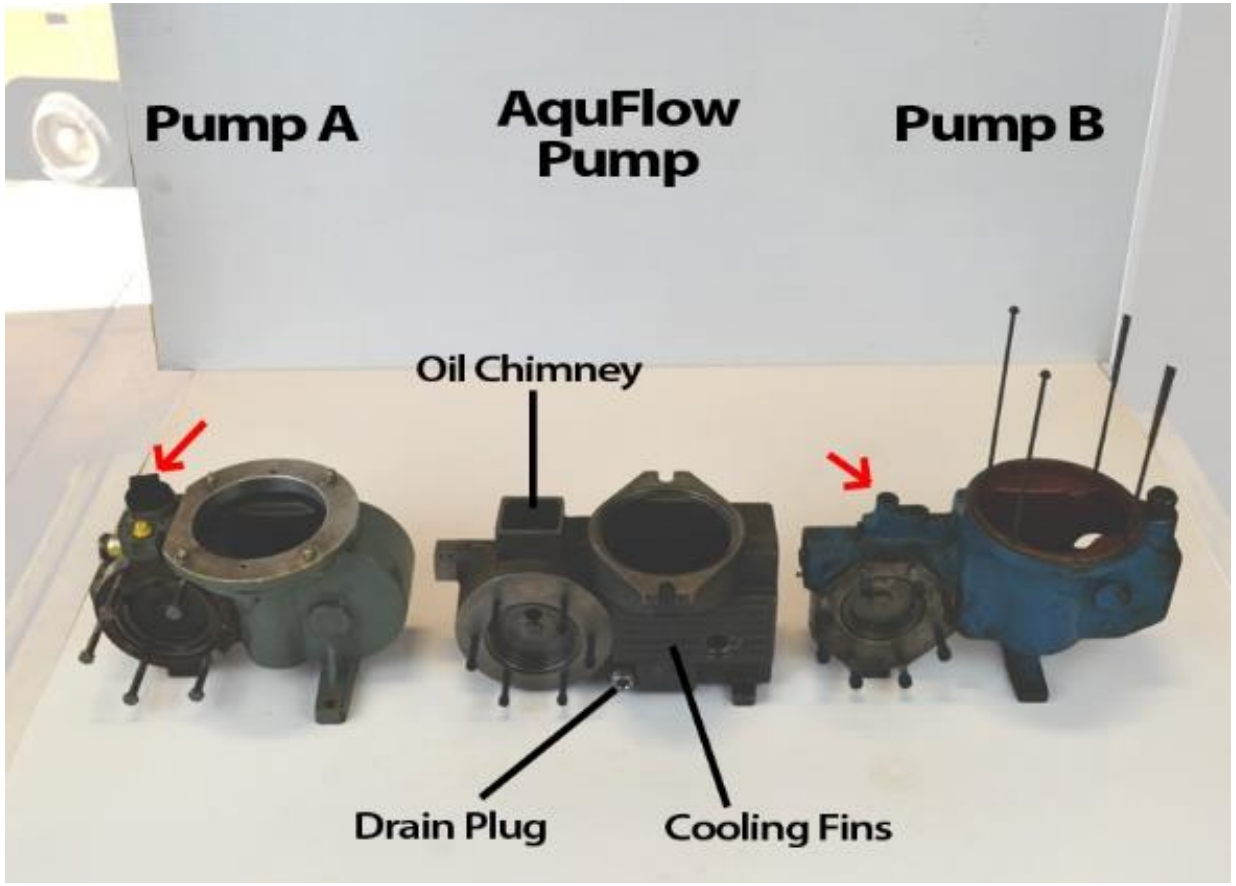
# AquFlow Vs Competitors

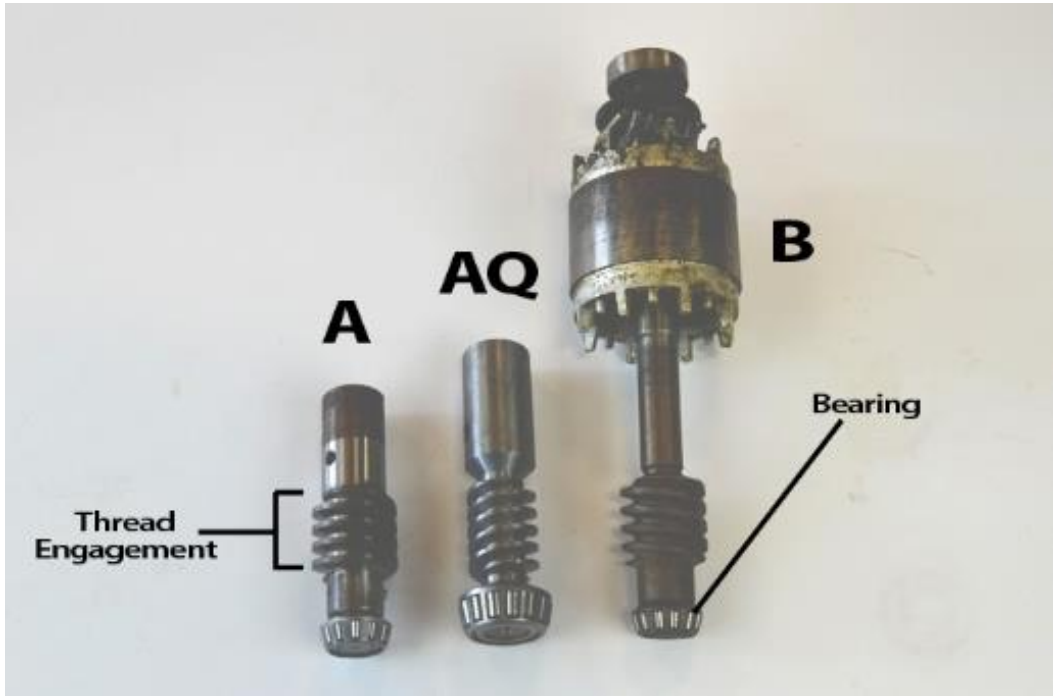
# Pump Frame – Housing Comparison

| AquFlow | A | B |
|---|---|---|
| Heavy Duty Industrial Design with cooling fins | Smaller lighter duty frame | Smaller lighter duty frame |
| Integrated Direct C- Face Motor mount | Two piece design with Motor adapter separate | Needs special motor without the front face |
| Easy Access to all serviceable parts on the same side | Drain plug on the opposite side | Same |
| Checking and replenishing oil easier at the top square chimney | Smaller hole to check and replenish oil | Smaller hole to check and replenish oil |



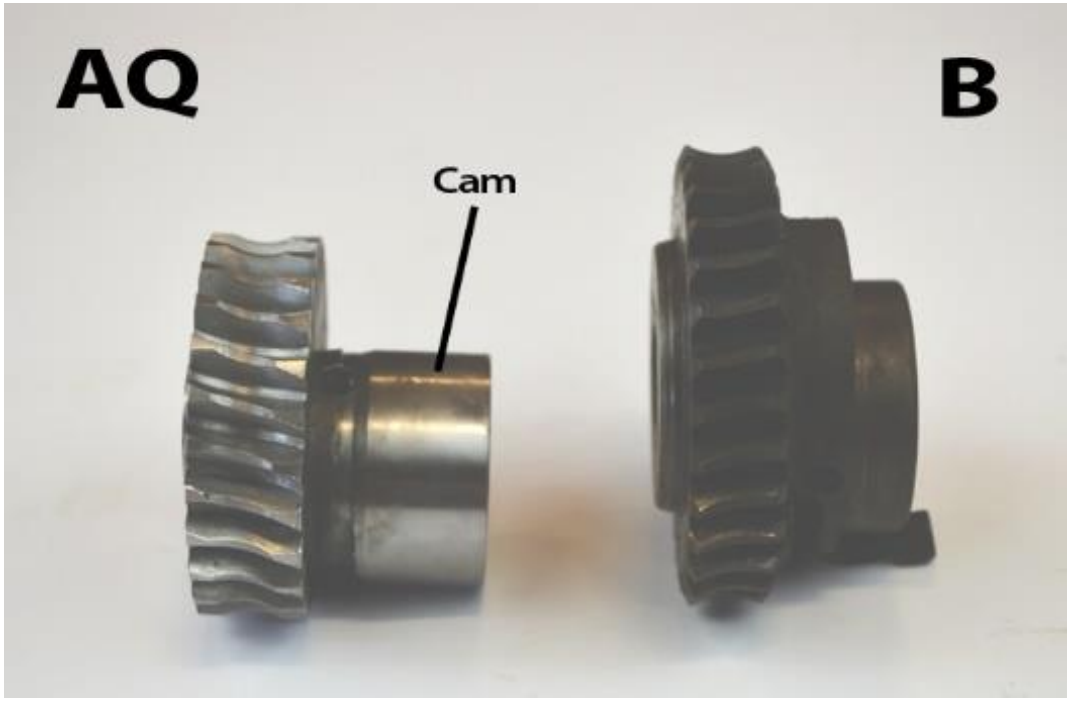
# Worm Shaft Assembly

| AquFlow | A | B |
|---|---|---|
| More thread engagement - better alignment, less noise, more torque and less wear | Small thread engagement area | Small thread engagement area |
| One piece worm shaft. | 2 piece design. More difficult and weaker. | Multiple pieces with motor rotor integrated. Serviceability nightmare. |
| Larger conical shaft bearing – longer life, quieter, more efficient | Small bearing | Small bearing – even though there is no motor bearing in front, unstable. |



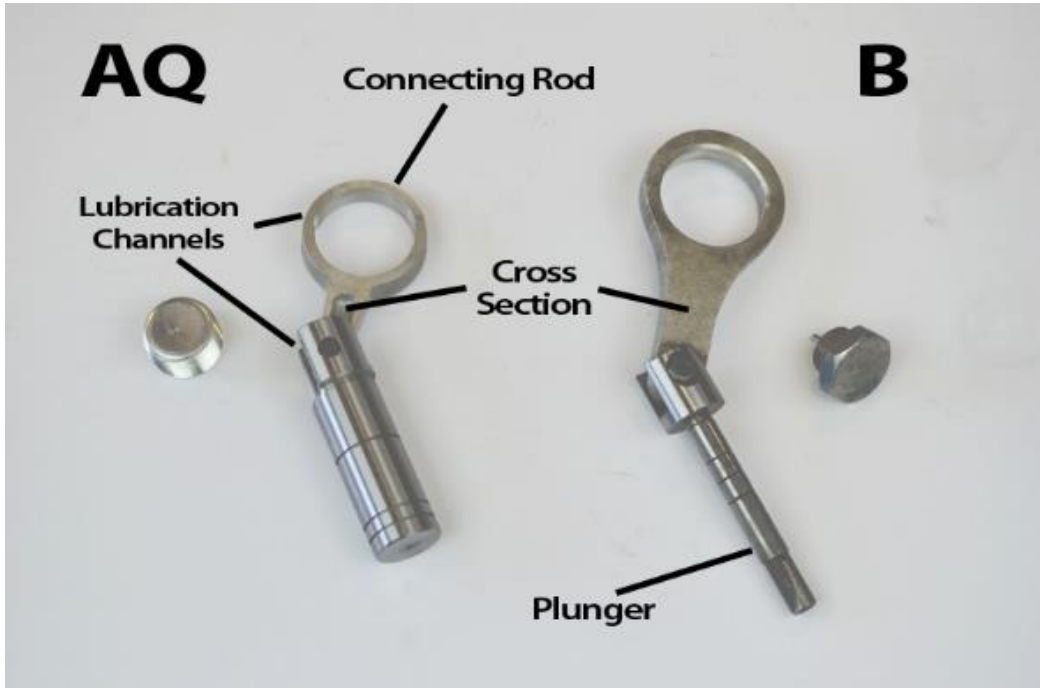
# Worm Gear Assembly including Gear Shaft

| AquFlow | A | B |
|---|---|---|
| Thicker profile – more engagement, less wear, quieter. | Narrower profile – less engagement and weaker design | Narrower profile – less engagement and weaker design |
| Wider Cam surface for better alignment and lubrication | Narrow cam surface | Narrow cam surface |
| More Surface Area to run on gear shaft | | |
| Gear Shaft has O-ring seals – Easy to change by sliding the shaft out a little. No disassembly required. | Cannot service in the field. Cannot get the gear shaft out at all. | Gear shaft is secured only from one side. |



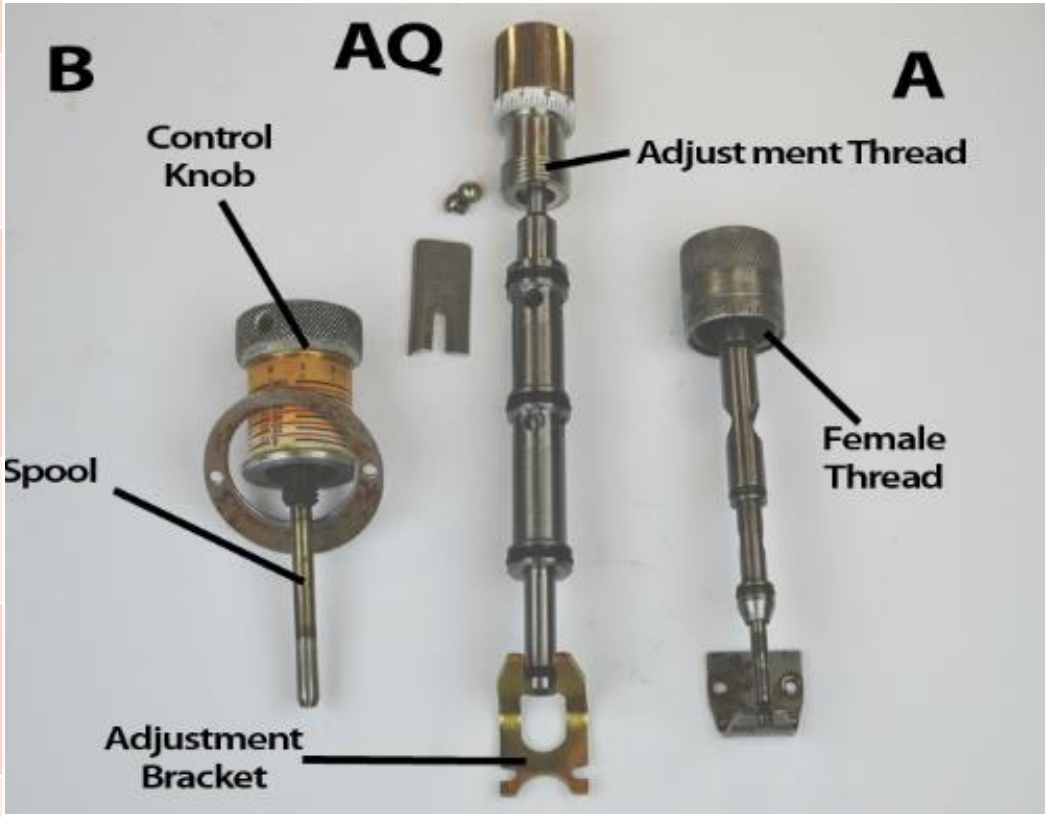
# Connecting Rod and Plunger Assembly

| AquFlow | A | B |
|---|---|---|
| Shorter length of connecting rod for stability and strength. | Long connecting rod making for weaker mechanism | Long connecting rod making for weaker mechanism |
| I Beam cross section of connecting rod. Stronger. | Flat cross section | Flat cross section |
| Lubrication channel for smoother running | No lubrication channel | No lubrication channel |



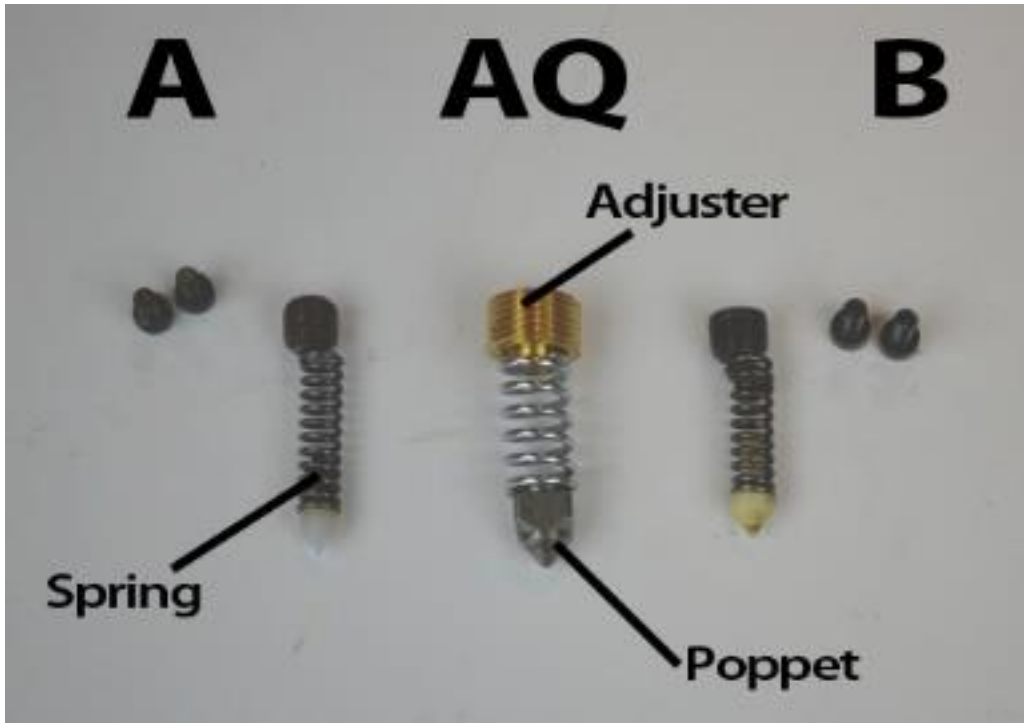
# Capacity Adjustment – Spool Valve Assembly

| AquFlow | A | B |
|---|---|---|
| Control Knob is solid 316 SS | Aluminum knob | Aluminum knob |
| Adjustment thread is larger diameter and higher TPI | Female threads on aluminum knob assembly | Very small diameter threads |
| Larger diameter spool for hydraulic efficiency and easier purging of any trapped air | Smaller diameter spool could not be as efficient and more difficult to purge air | Smaller diameter spool could not be as efficient |
| Larger replenishment holes for oil | Smaller holes – more difficult to replenish | Smaller holes – more difficult to replenish |
| Sturdier Zinc plated adjustment bracket that easier to access | Thinner bracket and not as accessible | Thinner bracket and not as accessible |
| Easy to remove the assembly by one screw | Two or more set screws make it more difficult | Two or more set screws make it more difficult |



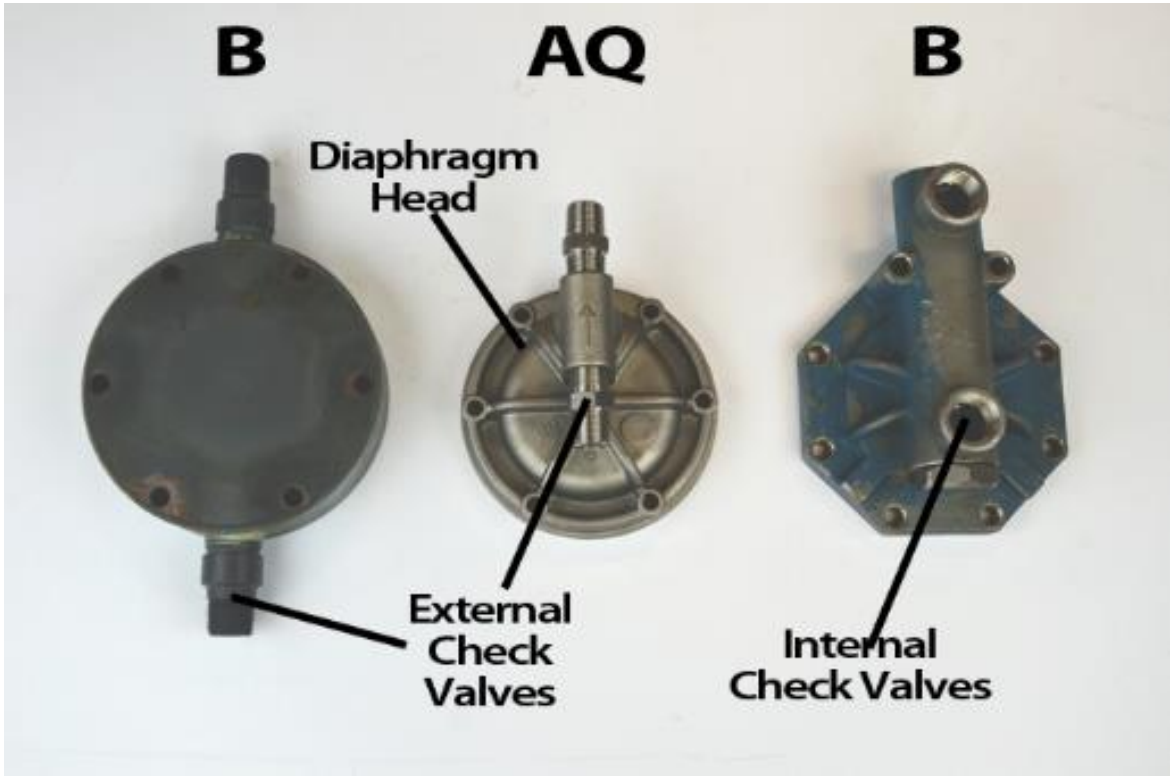
# Internal Relief Valve Assembly

| AquFlow | A | B |
|---|---|---|
| Metal poppet, larger diameter – better sealing, less wear | Small plastic poppet – leakage due to wear | Small plastic poppet – leakage due to wear |
| Bulkier larger diameter spring | Smaller weaker spring – less stable | Smaller weaker spring – less stable |
| Larger Brass Adjuster – Easy to identify | Smaller Steel Adjuster – Not as easy to identify | Smaller Steel Adjuster – Not as easy to identify |
| Adjuster located inside a closed chimney – protected from easy or unintentional tampering | Adjuster located out in the open – environment and unintentional tampering risks | Adjuster located out in the open – environment and unintentional tampering risks |



# Liquid End - Check Valves And Diaphragm

| AquFlow | A | B |
|---|---|---|
| External Check Valves – easy to service and replace | External Check Valves – easy to service and replace | Internal Check Valves with complex disassembly and not entirely replaceable |
| PTFE diaphragm with O-ring seals. | PTFE diaphragm with a Square cross section gasket. | PTFE diaphragm with no O-ring seals. The only seal is the press on a non-elastic diaphragm which could take a set. |
| Diaphragm Assembly allows the diaphragm to flex a bit with each stroke. | Diaphragm is trapped under bolts which does not allow the diaphragm to move which causes deformation and creasing over time. | Diaphragm Assembly allows the diaphragm to flex a bit with each stroke. |



# AquFlow Design Evolution

| AquFlow | A | B |
|---|---|---|
| AquFlow started in 1972 as Hydroflo with the sole objective to upgrade the existing metering pump designs at the time. | This was the line that Hydroflo aimed to improve upon. | The design philosophy here seems to emphasize upon cost savings. |
| AquFlow quickly expanded the product line to the most complete range with 900, 1000, 2000, 3000 and 4000 with > 3,500 GPH | Also evolved over time but with all its iterations and acquisitions, it is the only line than can match or exceed AquFlow range. | The range is limited to 1 or 2 frame sizes and capacities up to 240 GPH. Focus not on customer needs but on economies of scale. |
| | | |

# AquFlow – A Different Business Model

| AquFlow | A | B |
|---|---|---|
| Small Entrepreneurial Company - Owned and Operated by Engineers | Large Corporation part of a larger investment company – BC Partners / Carlyle Group that owns PetSmart and Supermarkets | Mid-sized company part of a large company |
| Answerable to customers only | Answerable to Wall Street investors | Answerable to Wall Street investors |
| Manufactured completely in USA. No Overseas mfg. | Overseas manufacturing. | Overseas Manufacturing. |
| Lead times are the fastest in the industry | Long Lead times | Long Lead times |
| Smaller more flexible facility that is more agile to the changing demands | Larger perhaps more rigid facility that is likely less flexible | Larger perhaps more rigid facility that is likely less flexible |
| Management by customer centric team of engineers | Management by numbers / bean counters | Management by numbers / bean counters |


BC Partners


A DOVER COMPANY

QUARTZDYNE