

# Quattroflow™ QF1200HT Compact Version

## With extended turn-down ratio (200:1)

Quattroflow develops and manufactures, in close cooperation with its customers, specific Quaternary (Four-Piston) Diaphragm Pumps for critical applications in the pharmaceutical and biotech industries. The method of operation of Quattroflow pumps allows them to gently, safely and securely convey aqueous solutions and biological products that are sensitive to shear force. The four-piston design does not feature a mechanical shaft seal or wetted rotating parts, ensuring total product containment without abrasion or particle generation. Additionally, the four-piston pumping principle enables risk-free dry-running, low pulsation, self priming, and minimal particle generation.



Quattroflow pumps are available in two variations: traditional Multiple-Use and the increasingly popular Single-Use:

- Multiple-Use:** Quattroflow stainless-steel Multiple-Use pumps deliver the highest level of purity, containment and, perhaps most important, cleanability in biopharmaceutical-manufacturing operations, from simple product transfer to critical and demanding filtration and chromatography applications. These pumps are suitable for clean-in-place/steaming-in-place (CIP/SIP) operations, as well as offering autoclave capability.
- Single-Use:** Quattroflow Single-Use pumps have a disposable product wetted chamber constructed of solid polypropylene (PP) or injection-molded polyethylene (PE) that can be replaced as a complete unit. The simple disposability of the pump chamber saves time and money by eliminating cleaning validation, sterilization and product cross-contamination. Single-Use pumps are critical to reduce equipment turnaround times in the development biosimilar processes. In general, multi-product facilities are the typical field of application of the Single-Use pumps (e.g. process development, production of clinical reference samples, contract manufacturing).

### QF1200HT Diaphragm Pump Technical Data

MODEL	QF1200S-HT	QF1200SU-HT	QF1200SU-HT-M
<b>Pump Type</b>	Multiple-Use	Single-Use	Single-Use
<b>Flow Rate</b>	6 - 1200 lph (0.1 - 20 lpm)	6 - 1200 lph (0.1 - 20 lpm)	6 - 1200 lph (0.1 - 20 lpm)
<b>Max. Temperature:</b>			
• Fluid	80°C (176°F)	60°C (140°F)	50°C (122°F)
• CIP	90°C (194°F)	-	-
• SIP	130°C (266°F)	-	-
• Autoclave	130°C (266°F)	130°C (266°F)	-
<b>Standard Connection</b>	3/4" TC, inline	3/4" TC, inline	3/4"TC, front
<b>Power Supply</b>	110 - 230 V, 1-phase	110 - 230 V, 1-phase	110 - 230 V, 1-phase
<b>Materials:</b>			
• Pump Chamber	316L SS	Machined PP	Injection-Molded PE
• Diaphragms	TPE	TPE	TPE
• Valves	EPDM	EPDM	EPDM
• Housing	304 SS	304 SS	304 SS