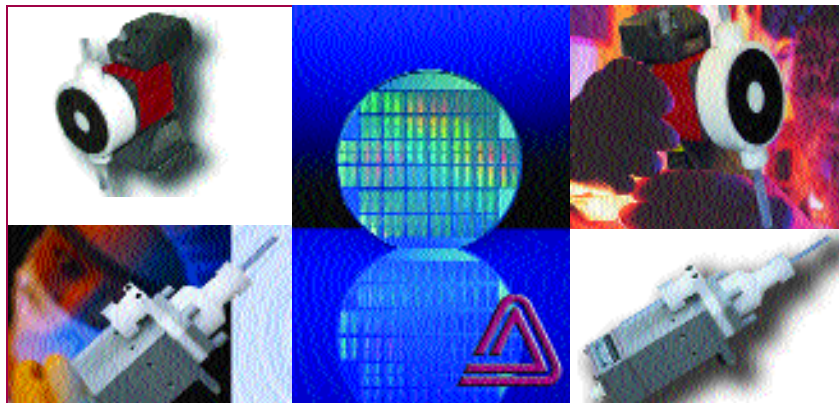


# Metering, Dosing & Blending PUMPS

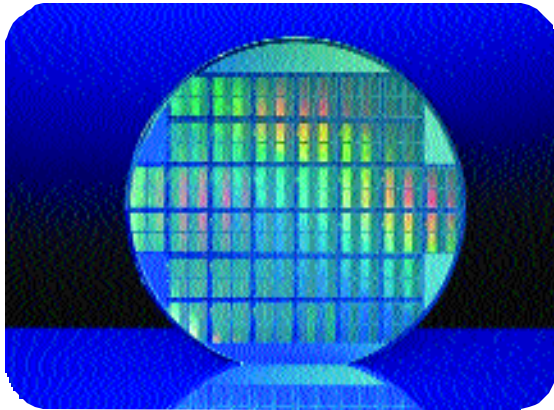


*for the*  
SEMICONDUCTOR INDUSTRY



**IWAKI WALCHEM** provides fluid handling solutions to the Semiconductor equipment industry. High purity metering pumps are provided for on-tool chemical generation and chemical concentration management. As the leader in surface preparation recirculation pumps, our high purity pumps are the choice for CMP, etch/strip, and copper solution handling.

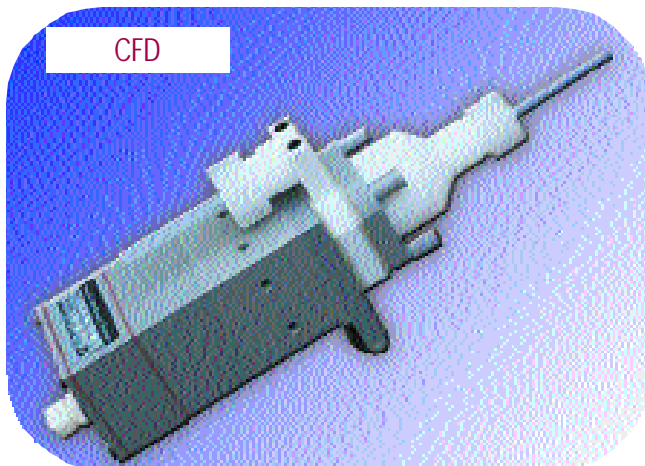
**Metering** - IW's metering pumps are positive displacement chemical dosing devices with the ability to vary capacity manually or automatically as process conditions require. This allows accurate mixing, blending or replenishment of ultra-high purity fluids.



**HIGH PURITY** - Our pumps are designed for the highest purity applications in the world. If parts per billion and parts per trillion ionic purity determine the success of your process, then look no further. Iwaki Walchem pumps are proven in both semiconductor and electronics grade chemical manufacturing.

**Dosing** - The air-operated CFD is ideal for on-tool chemical generation such as SC-1, SC-2, dilute RCA cleans, buffered oxide etches and semiaqueous cleaning solutions. Added features such as sensors on the pneumatic drive and leak detection are standard.





CFD

# CFD Series Chemical Dispensing Pump

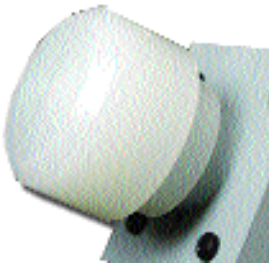
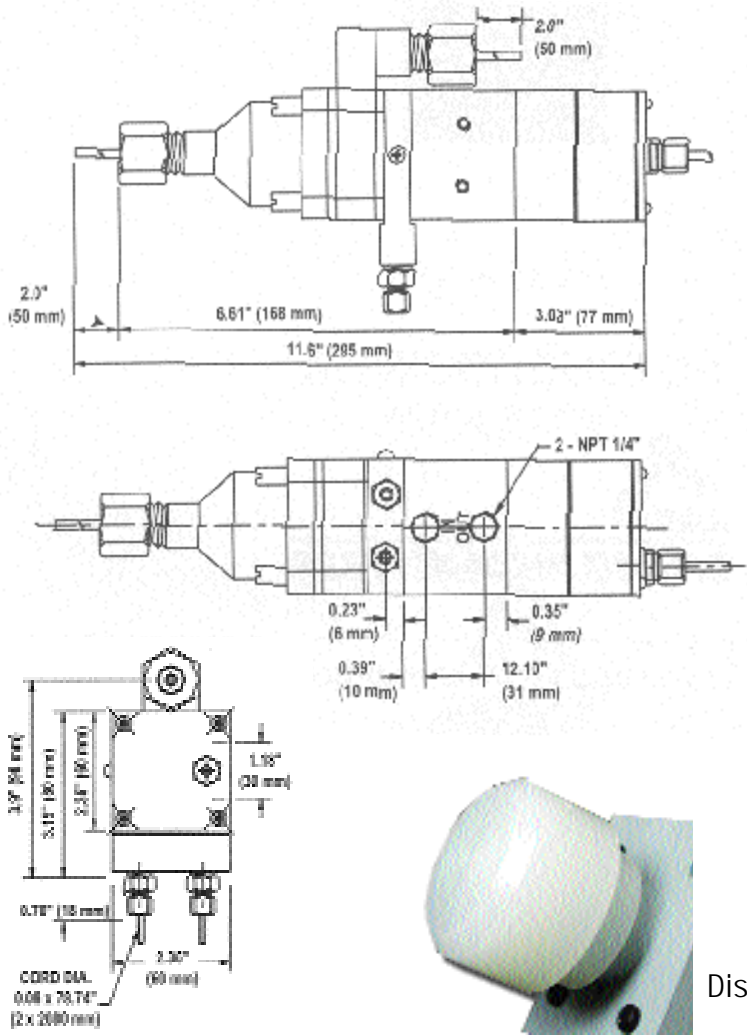
High Purity Materials  
PTFE and PFA wetted parts and clean room manufacturing ensure process purity.

Highly Accurate  
Capable of 1% repeatability which translates into efficient use of chemistry and fast replenishment without overshoot.

Process Purity  
Ensured by integral leak detection sensor.

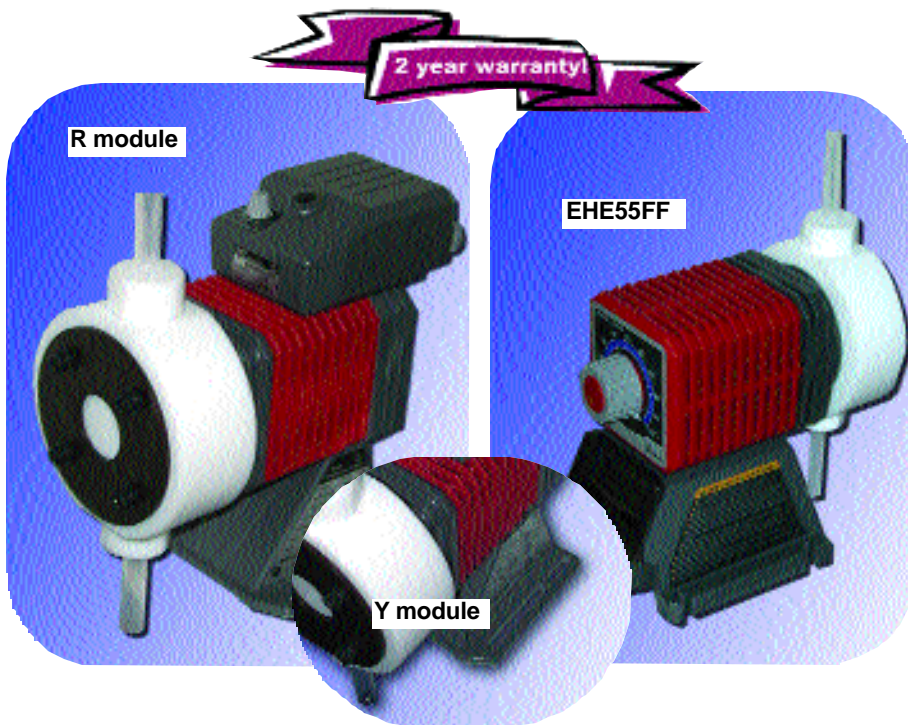
Easy Installation  
Suction and discharge double ball check valves reduce the number of fittings and make installation easy.

Easy Integration  
Integration with existing process controllers is simple.



Displacement Adjustment Knob

Series	Maximum Discharge Pressure psi (MPa)	Capacity* mL/stroke	Maximum Stroke Speed spm	Air Supply Pressure psi (MPa)	Wet End Material
CFD	7.1 (0.05)	6-10	30	21.3 to 42.7 (0.15 to 0.3)	PTFE/PFA



# EH-FF Series Electronic Metering Pumps

High Purity Materials  
PTFE and PFA materials of construction.

Tube Connections  
Pump tube connections offer maximum installation flexibility.

High Speed Operation  
Up to 360 strokes per minute results in high-resolution chemical feed, increasing accuracy, eliminating slug-feed effects.

Modular Components  
The liquid end, drive and electronics are modular, enabling economical repair or replacement of parts.

Compact Size  
Ideal for OEM specifications, EH-FF pumps are small, quiet and lightweight.

Long Lasting Diaphragm  
PTFE laminate over EPDM is molded onto a solid core. 2 year warranty with no maintenance.

## Featuring Two Control Options

**R** **EHC35FF(R)** series pumps come equipped with a speed control knob, digital pulse input and external start/stop functions.

**Y** **EHC35FF(Y)** series pumps can come equipped with digital speed control, programmable 4-20mA input and pulse input with multiplier divider. The Y module increases the turndown ratio on the EH-FF35 from 125:1 to 900:1. The Y module features a 12vdc power supply which allows you to use either a Hall Effect or reed switch flow meter.

### Y Module Features

Microprocessor-Based Circuitry

Allows operator adjustment of pump speed and external input settings via 4-button keypad. External Digital Input Mode-Pulse Multiply  
Often used in flow proportional systems, such as flowmeter contactor or batch feed applications. One input pulse can produce 1 to 999 pump strokes.

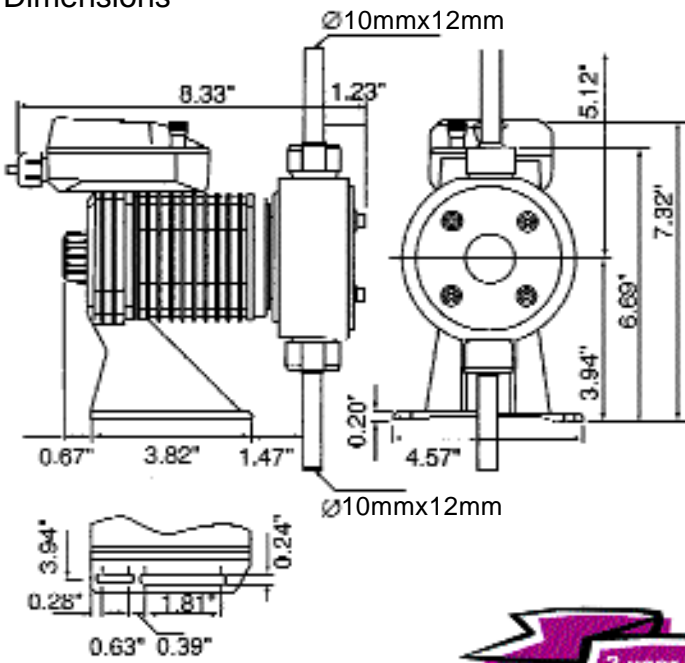
External Digital Input Mode-Pulse Divide

The pump can be set up to divide (accumulate) pulses by a factor of 1 to 999. External Control Analog Programmable 4-20 mA input allows for user defined speed control band; user sets minimum pump speed and maximum speed.

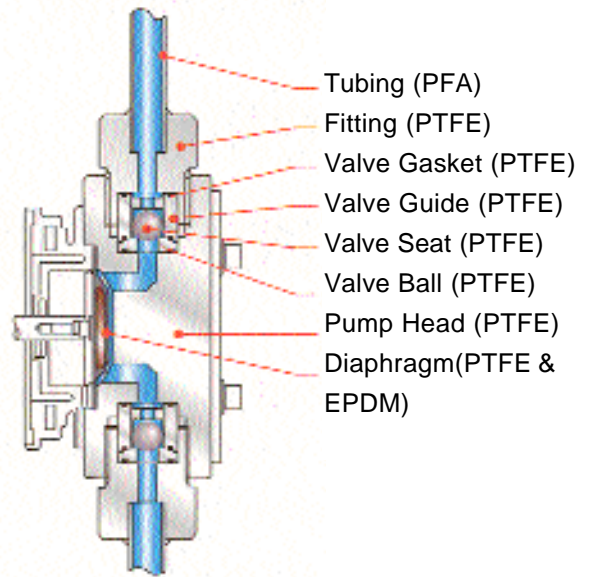
Series	Size	Maximum Output Capacity (GPH)	Maximum Output Capacity (mL/min)	Maximum Output per (stroke mL)	Maximum Pressure PSI	Maximum Pressure MPa	Connection Size Tubing O.D.
EH	C35	4.3	270	0.75	30	0.2	10mm x 12mm
	E55	6.7	420	1.17	30	0.2	10mm x 12mm

# EHC35FF

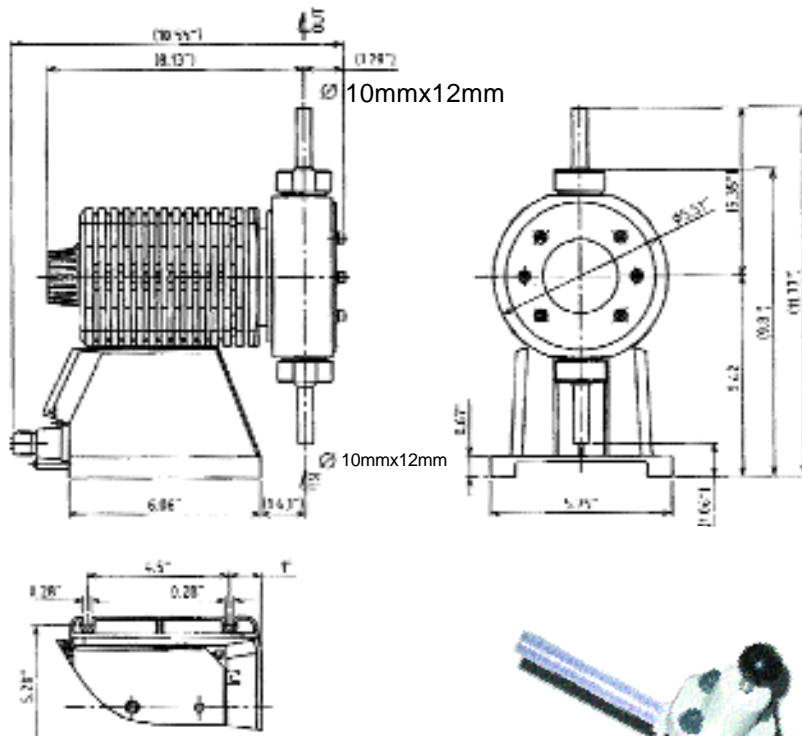
## Dimensions



## Materials of Construction



# EHE55FF



EN-009X Extension Cable



Back Pressure Valve



Y Module

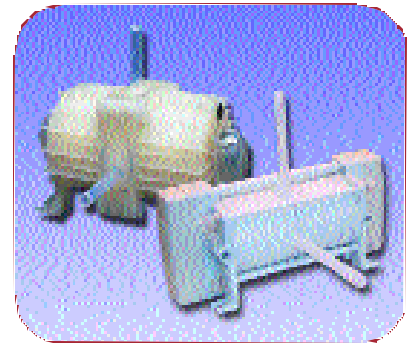
# Iwaki Walchem's World of Sealless Non-Metallic Pumps



*High Purity CHEMICAL  
DELIVERY Pumps*



*High purity metering pumps,  
for SEMICONDUCTOR manu-  
facturing*



*High Purity Recirculation  
pumps for SEMICON-  
DUCTOR manufacturing*



*Compact recirculating  
pumps, for COOLING  
LOOPS, WET ETCH, COP-  
PER PLATING, and other  
applications*



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