Continuous Ink Jet
Basic Principles

CodeJet C-260
Ink @ 3.2 bar

60µm Jewel Plate

CodeJet
Ink @ 3.2 bar

Suction generated by Venturi in ink system

Gutter collects ink & recycles it
Piezo-electric crystal.
Rate of change of voltage makes it shrink/contract.

MODULATION signal.
15-240V, 76.8kHz
Sine wave
Charge Electrodes applies a negative charge to the drop.

Ink @ 3.2 bar
Ink @ 3.2 bar

0 volt Gutter Block

Positive EHT Plate (up to +8kV) attracts negatively charged drops out of ink stream
Ink @ 3.2 bar

Drops are affected by EHT field, those with higher charge are deflected further.
Ink @ 3.2 bar

CodeJet
Ink @ 3.2 bar

Time

Direction of product movement
Optimizing Print

- Break Up Position
- Modulation Voltage
- Viscosity
- Pressure
- Temperature
- Solvent Content

Phase Detector adjusts & corrects

CodeJet
CIJ - Limitations

- Inks - Substrates
- Products per Minute vs. Print Speed
- Shaft encoder
- Barcodes
- Throw distance C-160 has a very good throw distance
CIJ In Action