



GEN³
SYSTEMS

NANO-COAT
DIP COATING SYSTEMS

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Ultra Precision
Dip Coating Systems

The Gen3 NANO-Coat Systems may be used with all coating types for the very widest range of applications:

Solar-cell coatings

Photovoltaic Cell

Nano-coatings

LCD panels

Wafers

Glass panels and plates

Optics and Lenses

Conformal Coatings

Paints and other finishes

Photo-Resists



Precision coating from $<60\text{nm}$ to $>150\mu\text{m}$ @ $\pm 3\%$ accuracy

Ultra precise application of coatings onto a variety of substrates guaranteeing:

Speed control: $< 0,5$ mm/second on BOTH immersion and withdrawal

Accuracy: $\pm 3\%$ FSD (Over the full range)

Stroke Range: ~ 35 mm to >2 meters

Totally judder-free operation using our unique (OPC) Oleo-Pneumatic Circuit

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NANO-COAT Dip Systems can apply coatings from $<60\text{nm}$ to $>50\ \mu\text{m}$ @ $>3\%$ accuracy.

Being totally air operated, NANO-Coat Dip Systems are totally safe to use with all coatings including flammable liquids.

Standard Features:

- Stainless Steel (Type 304) Dip Tank and tank surround
- Independently variable speed control of immersion and withdrawal strokes
- Lift cylinder and air-over-oil reservoirs
- Guide and dip actuator rod with low level limit dip actuator switch
- Stroke reversing valve

Control Panel c/w:

- Start/Stop switch with override and pneumatic key-switch
- Variable speed controls, dwell timer, pump drive (where applicable) – all lockable
- Jig support bar – square or round profile

Constructed with an aluminium box frame chassis with solvent resistant coated steel panels. The standard tank and tank support plate is fabricated from electro-polished type 304 stainless steel.

The system requires compressed air at 2.4 litres per second (5 cfm) at a pressure of 5.5 bar (or 80 psi).



DC 2000 NANO Work Station



DC 2002 NANO

The NANO-COAT range comprises:

DC 2000 NANO Stroke / Dip range = up to 300 mm (12 inches)

Standard size = 220L x 80W x 220D mm (3.75Ltrs)

Maximum Tank size = 300L x 120W x 300D mm

Note: if an optional pump is selected Custom sized tanks may be specified.

DC 2002 NANO Stroke / Dip range = up to 700 mm (27 inches)

Standard Tank size = 600L x 250W x 350D mm
Custom sized tanks may be specified up to maximum dimensions of: 965L x 200W x 700D mm

DC 2003 NANO Stroke / Dip range = up to 2000mm (6 feet)

Custom sized tanks may be specified.

DCC NANO Gen3 Systems can also supply the Dip Control Circuit mounted onto an independent frame to facilitate a totally self-contained mechanism that can be mounted over existing dip tanks / drying or curing stations.



DC 2003 NANO

NANO-COAT Options:

RPS - Recirculating Pump System for constant coating level control $\pm 0,5\ \text{mm}$
Pump options include: Parastaltic – Piston – Double-Diaphragm – Rotary – Screw etc..

PDC - Precision Depth Control – only available with RPS Option. This comprises Vernier Scales providing depth accuracy $<0,01\ \text{mm}$

FX - Fume extraction cover and spigot to control solvent vapour release – Standard on DC2002 NANO (Does not include fan)

AVC - Automatic Viscosity Control. This provides control to better than $\pm 10\ \text{mPa}$

GIS - Gas Inerting System. This permits Argon (Ar) or Nitrogen (N) gas to be injected over the coating material within the tank. NOTE: This will include a minimum 50mm clearance between the tank top and the coating within the tank

FDS - Fume Detection System

MF - Micro Filtration with bypass to suit client's material

AR - Coating material Auto-Refill system

LI - Light Isolation package for light sensitive coating materials

TTC - Tank Temperature Control

XY - Xylan® (PTFE) coating to process surfaces

CT - Stainless steel Catch Tray complete with manual extractor rods to recover items that may fall into the tank

JIG - Jigs to handle the items for coating

www.gen3systems.com

Distributed by:
ASCENTECH LLC
TEL: 860-526-8903
E-mail: info@ascentechllc.com



A BRITISH
MANUFACTURER

Gen3 Systems Limited

B2, Armstrong Mall, Southwood Business Park, Farnborough, Hampshire, GU14 0NR. UK
Telephone: +44 (0)12 5252 1500 • Fax: +44 (0)12 5252 1112 • Email: sales@gen3systems.com