Grafica's

nano-printex

print easy

All Electrical-Mechanical Automatic Direct-to-Garment Screen Printing machine

ADVANTAGES

ALL ELECTRICAL-MECHANICAL DESIGN:

- No problematical pneumatics
- No complicated hydraulic system
- No need or cost for compressor
- No need for troublesome and expensive moisture separator to supply dry compressed air
- Save running & maintenance cost of compressor
- Avoid noise pollution with compressor
- Reduces hassles with pneumatic pipelines and leakages
- Avoid spending unnecessary on extra power consumption to operate energy-consuming compressor
- Significant savings on overall equipment investment

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The **nano-prinTex — *print easy***™ spectacularly revolutionizes the textile/garment screen printing industry globally by developing the world's first all electrical-mechanical line of automatic textile printers. Since our specialty in designing and building 'European-quality screen printing equipment for graphics and high-end industrial markets, we know more than most the importance of repeatable accuracy, quality and optimum performance requirements for exceptional productivity to remain competitive in today's formidable marketplace.

Moreover, our expertise in handling demanding and often complex industrial screen printing applications has resourcefully enabled us to reach out to textile and garment printers, by education and teaching how to deliver the finest in print quality from using high quality screen making equipment.

The underlying value of the **nano-prinTex** takes on a new high in stunning performance as it can be combined with our renowned economical package **NPL-Tex**, consisting of an electric textile dryer (nano-Texdryer), on-line flash curing unit (nano-flashTex) and complete pre-press system. The latter is an innovative all-in-one screen-making system (nano-screen maker 5-in-1) plus a squeegee sharpener (nano-sharpener), so that superb screens can be made with very limited space. In fact, no one else offers an integrated package of this caliber, to proficiently support start-up/entry-level companies all the way to the pro-shops—all at a fraction of expected cost.

Engineering philosophy behind the nano-prinTex's heartbeat follows the incredible success of the **nano-print** series of graphic printing machines and **NPLs**, with over 1,000 units satisfactorily built and installed worldwide during the past two years alone. In a world which is increasingly becoming more complicated each day, such mindset has unquestionably proven that simplicity always wins at the end of the day.

To keep these textile printers straightforward but extremely friendly and reliable, problematic pneumatics and the futile use of outdated hydraulics are long history!

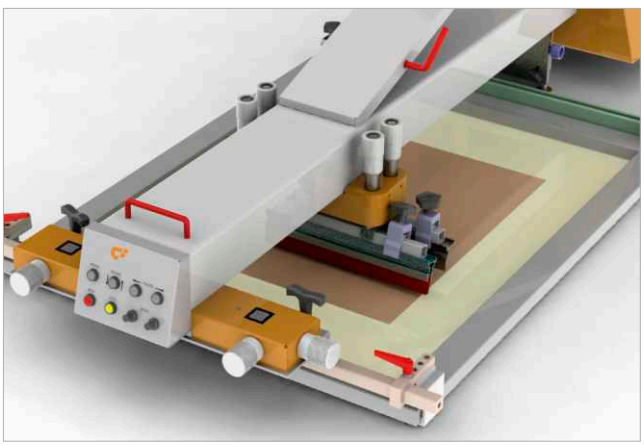
So too are noisy polluting compressors, leaving an uncomplicated trouble-free design to be very cost-effective in maintenance and lower energy consumption overall. Even expensive servo drives are totally eliminated, for indexing accuracy, replaced with efficient CNC harden cams since pallets perpetually always stop mechanically in the same position under each print head. Even inexpensive gear motors are enjoying a new lease of life by replacing costly systems to handle essential tasks competently.

Too many unnecessary complicated printing machines carry a double burden; they typically have too many parts and superfluous mechanisms that make the whole screen frame and squeegee head needlessly cluttered and over bearing for the operators. The **nano-prinTex** has been meticulously designed in this respect by making the inner workings of the printing operation exceptionally simplified, fast and extremely easy to operate. Unlike most expensive and tedious PLC control systems, where more than 50% is entirely underutilized due to added extra features never deployed, the **nano-prinTex** touch screen control panel is kept simple to let the operator follow easy steps with clear legible icons for easier non-language comprehension so nothing is overlooked or compromised. Even when loaded with extensive standard features, simplicity has always been the gateway to efficient productivity!

Equipment is manufacturing under stringent conditions to ensure high-level performance and internal quality standards, with full after-sales service and spare parts support. For beginners to professionals, the DMI (Dhirubhai Mistry Institute for Print Education, Research & Training) is one of a kind screen printing institute that is accessible to anyone in order to learn advance screen making procedures, printing techniques, process training, etc.

STANDARD FEATURES & BENEFITS

- Simple 'print easy' design so even entry-level operators can be exceptionally productive
- Healthier image-to-frame ratio (wider frame to maximum image size) considerably enhances print quality for more exact reproduction alikeness
- Larger frames radically improves registration by lowering the inherent distortion factor



- Built with high quality steel and aluminum for smooth and sturdy operation to ensure durability and reliability are not compromised
- Index system manufactured using CNC laser-cutting technology to achieve perfect repetition accuracy of each pallet without the burden and complications of unnecessary expensive servo drives
- High quality pressure die-cast aluminum squeegee head provides exceptional rigidly and strength for constant dependability

- Squeegee holder, flood bar, pallet mounting assembly and print head are made from high quality light weight anodized robust aluminum extrusions to reduce design complexity and manufacturing cost
- Special anodized aluminum extruded flood bar with 0.5 mm profiled edge delivers sharp crisp image

reproduction and consistent halftones throughout the print run for hassle-free printing of light-on-dark or dark-on-light

- All moving mechanical parts are fully hardened for endurance and trustworthiness
- Hard nickel plated metal parts are used to avoid corrosion while keeping the appearance of splendor in ownership

ELECTRICAL & ELECTRONICS COMPONENTS

- High quality internationally approved electrical components
- AC geared motor with variable frequency-drive inverter for squeegee precise head movement
- Independent speed controller for exact repeatable squeegee and flood bar travel
- Individual front and back proximity sensor to adjust print stroke length
- Smooth motorized print head up down movement

Precision Guide Rail

High Quality AC Motor

Heavy Duty Gear Box

AC Frequency Inverter

Steel Belted Timing Belt

- Motorized squeegee head mounted on high quality linear guide ways for smooth and vibration free movement during printing
- Timing belt for smooth trouble-free squeegee head movement

REGISTRATION SYSTEM

- "***Fix-Easy***"™ screen frame registration device for accurate and quick press setup
- Micro registration system for screen frame movement with reference mark and locking device

STRAIGHT FORWARD TOUCH SCREEN CONTROL PANEL

AUTO MODE

- Print start: starts each print head one after another for first print and thereafter all print heads runs simultaneously in sequence as programmed during production
- Print finish: stops each print head in sequence when production is completed
- Test print mode: START/STOP individual print head automatically in program sequence allows operator to ensure proper registration setting, color matching, etc., before starting final production.
- Production reset to restart fresh production run
- Change mode from print to flash curing
- Adjustable flash curing delay timer
- Monitor set production speed v/s actual production speed
- Progressive counter with pause mode delivers actual production quantity
- Independent squeegee and flood speed control
- Multiple print strokes (1-9)
- Multiple print stroke with print head lift or without
- Print stop position with flood without flood (generally avoids ink drying on screen mesh especially useful when printing water based inks or any fast drying inks)

MANUAL MODE

- Inching movement of pallet (left to right or right to left)
- Screen frame (up-down)
- Squeegee head (front-back to set stroke length)
- Push button to CALL print head directly from any color without interval, while the mode allows operator to set print cycle as desired

INDEX MOVEMENT

- Fully hardened WPS steel cams used for index movement to maintain consistent repetition accuracy and to achieve perfect registration, thereby reducing wear and tear

PALLETS

- High quality light weight and sturdy aluminum special die cast pallets

- Smooth surface ground pallet top for perfect level
- Easy tool-free quick pallet release

- Independent pallet leveling system with precise control at all four corners ensures perfect squeegee pressure all over the print
- Customized pallets also available on request

OFF-CONTACT SETTING

- Tool-free four independent adjustors to set desired off-contact distance between screen frame and pallet on all four corners with locking device
- Special metal spacers allows precise off-contact setting on all four corners

Individual off-contact setting for front side

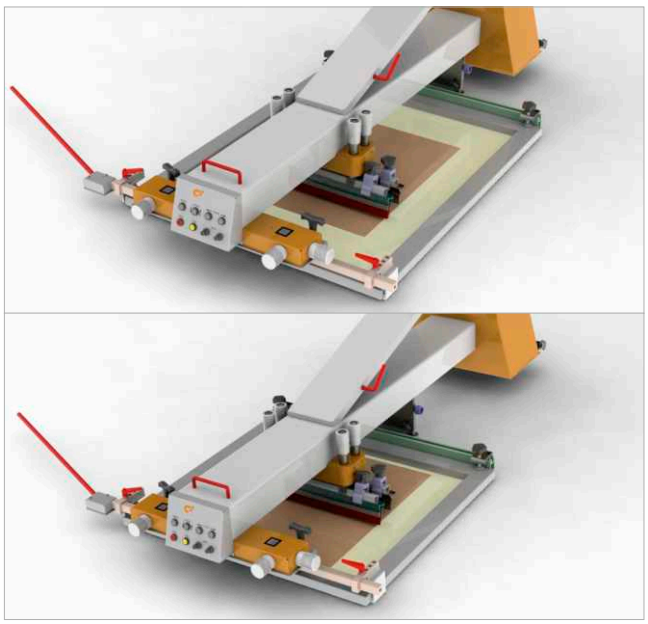
Individual off-contact setting for back side

SAFETY

- Safety bar for each print head
- When safety bar is activated pallets reverses immediately to lower position

SCREEN FRAME

- Easy print head lifting mechanism for screen frame cleaning



- Adjustable screen frame holder to set various screen frame sizes
- Common screen frame holder to clamp standard aluminum frames or roller frames

SQUEEGEE/FLOOD PRESSURE SETTING

- Individual left-right squeegee and flood bar pressure adjustors with scale

FLASH CURING

- Quick tool-free print head lifting mechanism to easily position flash curing unit
- In-built electrical port to connect flash curing unit

- Foot switch for easy operation
- Castor wheel for easy mobility
- Simple '*print easy*' design

The **nano-prinTex - *print easy*™** comes with unique standard combinations:

Available in 6, 8, 10 & 12 colors in combinations of:

4 colors - 8 or 10 pallets
(2 standard built-in electrical connections to flash curing unit)

6 colors - 8, 10, 12 or 14 pallets
(2 standard built-in electrical connections to flash curing unit)

8 colors - 10, 12 or 14 pallets
(3 standard built-in electrical connections to flash curing unit)

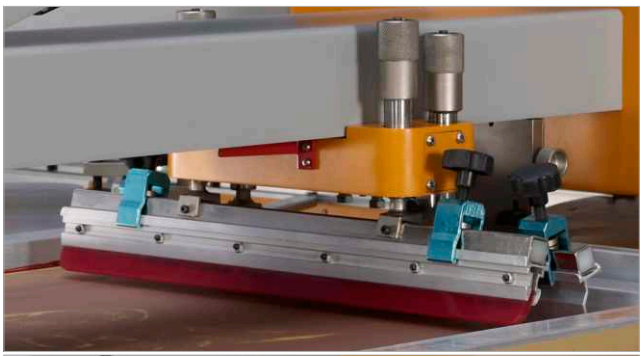
10 colors - 12 or 14 pallets
(4 standard built-in electrical connections to flash curing unit)

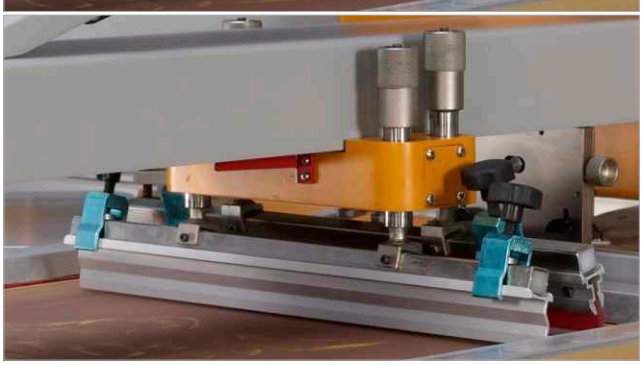
12 colors - 14 pallets
(5 standard built-in electrical connections to flash curing unit)

Includes: Two sets of squeegee holders (16" & 18") & two flood bars (18" & 20") per print head

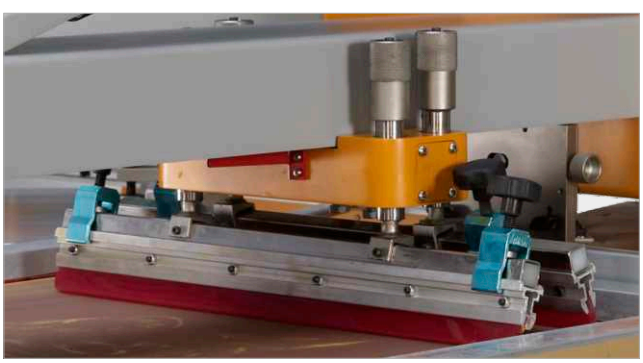
OPTIONAL

- Print & flash multiple times on any print head without skipping other print heads
- Index double rotation with multiple print option
- Programmable print head control to set multiple job in single rotation
- Clockwise or anti clockwise index rotation
- 100 adjustable programs with memory
- Adjustable print mode to set squeegee movement from front to back or back to front





- Print both directions by replacing flood bar with squeegee



- Print both directions with multiple print strokes
- Skip pallet option to avoid printing on empty pallets
- Laser registration guides for accurate placement of fabrics/piece goods

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Technical Data

Specifications	GF-1620 NPT 6C-8P	GF-1620 NPT 8C-10P	GF-1620 NPT 10C-12P	GF-1620 NPT 12C-14P
Max. Print Heads	6 Color	8 Color	10 Color	12 Color
Max. Pallets	8 Pallet	10 Pallet	12 Pallet	14 Pallet
Pallet Size (Honey Comb Pallet With Silicon Sheet)	19.6" x 32.2" (500 x 820 mm)	19.6" x 32.2" (500 x 820 mm)	19.6" x 32.2" (500 x 820 mm)	19.6" x 32.2" (500 x 820 mm)
Std. Frame Size (OD) Max. Frame Size (OD) for skip frame	28"x35" (711x889mm)	28"x35" (711x889mm)	28" x 35" (711x889mm)	28" x 35" (711x889mm)
Min. Frame Size (OD)	24" x 24" (610 x 610 mm)	24" x 24" (610 x 610 mm)	24" x 24" (610 x 610 mm)	24" x 24" (610 x 610 mm)
Max. Screen Frame Thickness	1" ~ 2"	1" ~ 2"	1" ~ 2"	1" ~ 2"
Roller Frame Compatible	Yes (Max. Dia 1.5")	Yes (Max. Dia 1.5")	Yes (Max. Dia 1.5")	Yes (Max. Dia 1.5")
In-built plugs to connect flash curing unit	2	3	4	5
Power Consumption (without flash curing)	3 kW	3.5 kW	4 kW	4.5 kW
Electrical Specifications (with flash curing)	440 V, 3 ph, 50/60 Hz, 28 kW, 47 Amps (max. 2 flash curing)	440 V, 3 ph, 50/60 Hz, 40 kW, 68 Amps (max. 3 flash curing)	440 V, 3 ph, 50/60 Hz, 52 kW, 87 Amps (max. 4 flash curing)	440 V, 3 ph, 50/60 Hz, 64 kW, 111 Amps (max. 5 flash curing)
Electrical Specifications as US & European standards	Available on request	Available on request	Available on request	Available on request
Squeegee Rubber Specifications	8 x 30 mm	8 x 30 mm	8 x 30 mm	8 x 30 mm
Total Machine Height	73" (1.85 mtr) (6 ft)	73" (1.85 mtr) (6 ft)	73" (1.85 mtr) (6 ft)	73" (1.85 mtr) (6 ft)
Base Diameter	47" (1.2 mtr) (4 ft)	57" (1.45 mtr) (4.75 ft)	69" (1.75 mtr) (5.74 ft)	69" (1.75 mtr) (5.74 ft)
Machine Diameter	157" (4 mtr) (13.2 ft)	175" (4.5 mtr) (14.6 ft)	197" (5 mtr) (16.4 ft)	216" (5.5 mtr) (18 ft)
Total Machine Weight (without flash curing)	1250 kg (2755 lb)	1750 kg (3858 lb)	2500 kg (5511 lb)	2900 kg (6393 lb)

Customized pallets also available on request

Note : Use servo stabilizer for voltage controller for safety of machine from excess voltage from main supply.

Above dimension are in inches or else specified / All dimension, specification and features are subject to change without notice / Servo stabilizer, squeegee rubber, screen frame, inks and other consumables are not supplied with the standard machine / Stabilized power supply is essential to protect all electronics and electrical parts

Technical Data

Specifications	GF-2028 NPT 10C-12P	GF-2028 NPT 12C-14P	GF-2436 NPT 10C-12P	GF-2436 NPT 12C-14P
Max. Print Heads	10 Color	12 Color	10 Color	12 Color
Max. Pallets	12 Pallets	14 Pallets	12 Pallets	14 Pallets
Pallet Size (Honey Comb Pallet With Silicon Sheet)	24" x 42" 609 x 1067 mm	24" x 42" 609 x 1067 mm	29" x 48" 737 x 1219 mm	29" x 48" 737 x 1219 mm
Std. Frame Size (OD) Max. Frame Size (OD) for skip frame	25"x43" (635x1092mm) 32"x43" (813x1092 mm)	25"x43" (635x1092mm) 32"x43" (813x1092mm)	30"x52" (762x1321mm) 32"x52" (813x1321mm)	30"x52" (762x1321mm) 32"x52" (813x1321mm)
Min. Frame Size (OD)	24" x 24" (610 x 610 mm)	24" x 24" (610 x 610 mm)	26" x 26" (660 x 660 mm)	26" x 26" (660 x 660 mm)
Max. Screen Frame Thickness	1" ~ 2"	1" ~ 2"	1.5" ~ 2"	1.5" ~ 2"
Roller Frame Compatible	Yes (Max. Dia 1.5")	Yes (Max. Dia 1.5")	Yes (Max. Dia 1.5")	Yes (Max. Dia 1.5")
In-built plugs to connect flash curing unit	4	5	4	5
Power Consumption (without flash curing)	6 kW	6.75 kW	6 kW	6.75 kW
Electrical Specifications (with flash curing)	440 V, 3 ph, 50/60 Hz, 78.36 kW, 120 Amps/phase (max. 4 flash curing)	440 V, 3 ph, 50/60 Hz, 97.2 kW, 150 Amps/phase (max. 5 flash curing)	440 V, 3 ph, 50/60 Hz, 93 kW, 145 Amps/phase (max. 4 flash curing)	440 V, 3 ph, 50/60 Hz, 115.5 kW, 180 Amps/phase (max. 5 flash curing)
Electrical Specifications as US & European standards	Available on request	Available on request	Available on request	Available on request
Squeegee Rubber Specifications	8 x 30 mm	8 x 30 mm	8 x 30 mm	8 x 30 mm
Total Machine Height	79" (6.58 ft)	79" (6.58 ft)	81" (6.8 ft)	81" (6.8 ft)
Base Diameter	69" (5.75 ft)	81" (6.75 ft)	90" (7.51 ft)	107"x84" (8.9Lx6.9W ft)
Machine Diameter	197" (16.4 ft)	216" (18 ft)	229" (19 ft)	252" (21 ft)
Total Machine Weight (without flash curing)	2500 kg (5511 lb)	2900 kg (6393 lb)	3008 kg (6632 lb)	3967 kg (8746 lb)

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