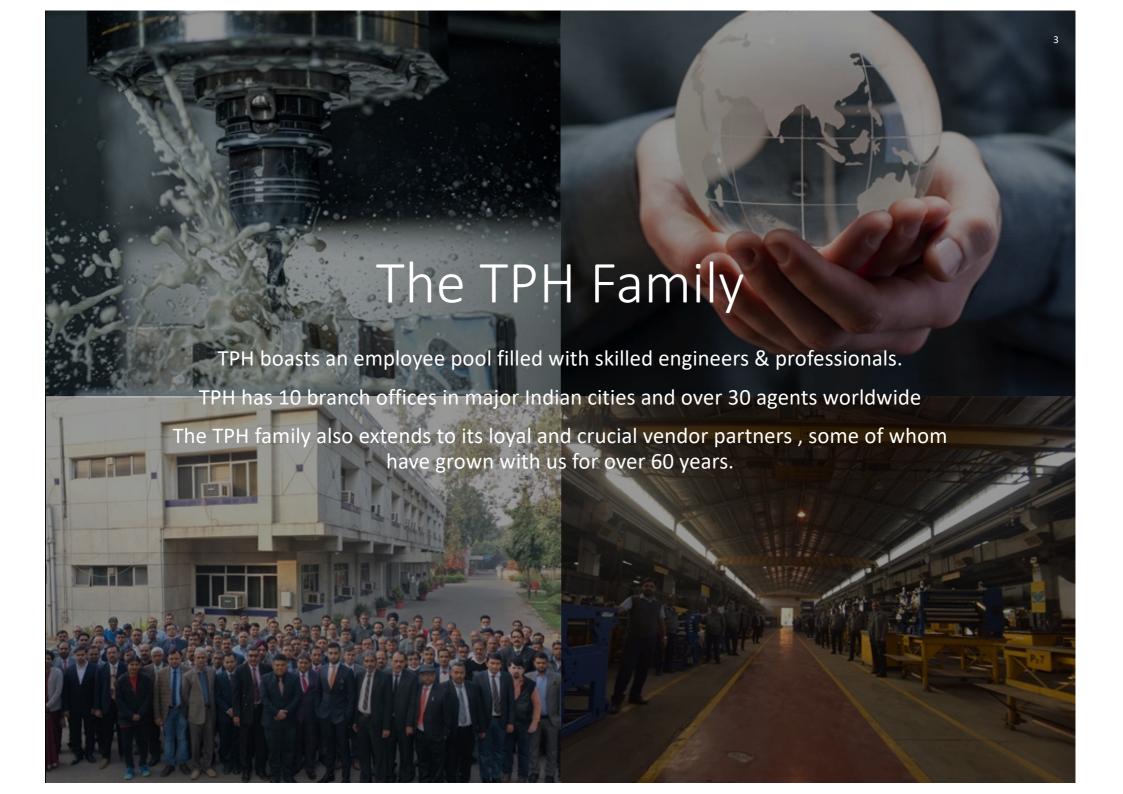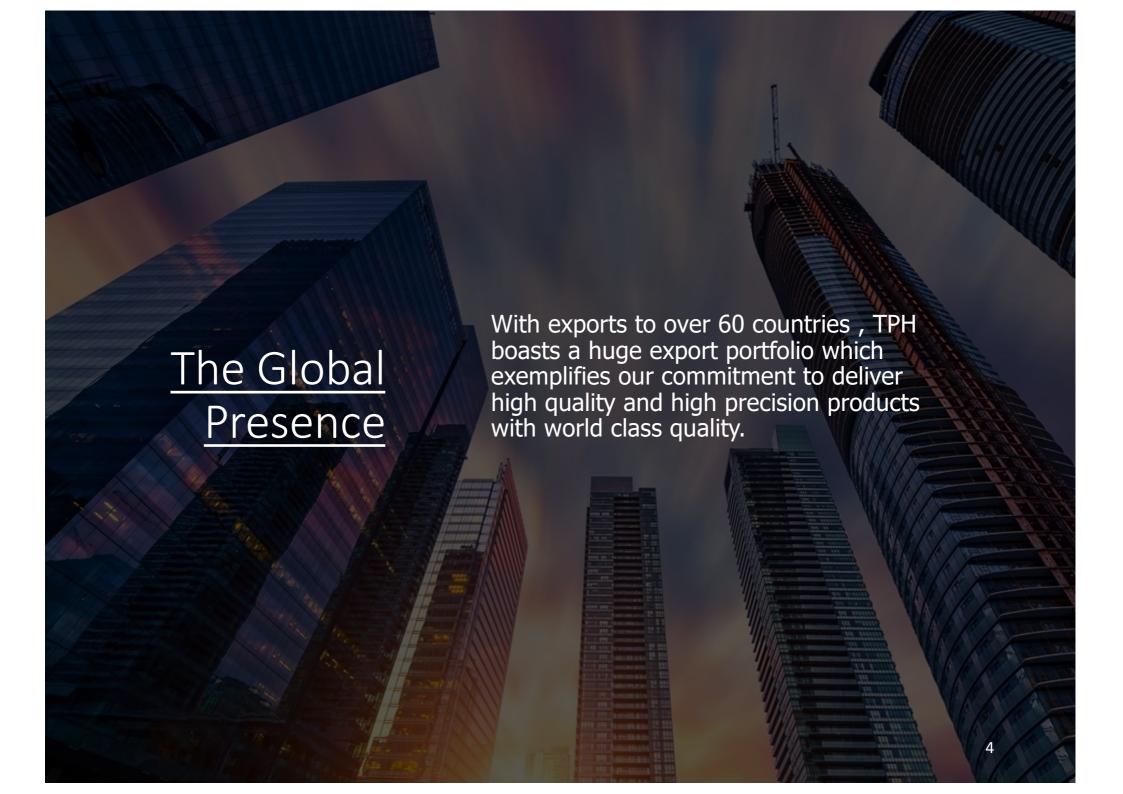Orient X-Press 50,000 CPH

An Introduction: Our history

The Printer's House (TPH) Orient group is a diversified group of companies founded in 1946 that is an industry leader in the manufacturing and supply of a host of engineered products from India. A renowned and trusted name globally when it comes to quality manufacturing.
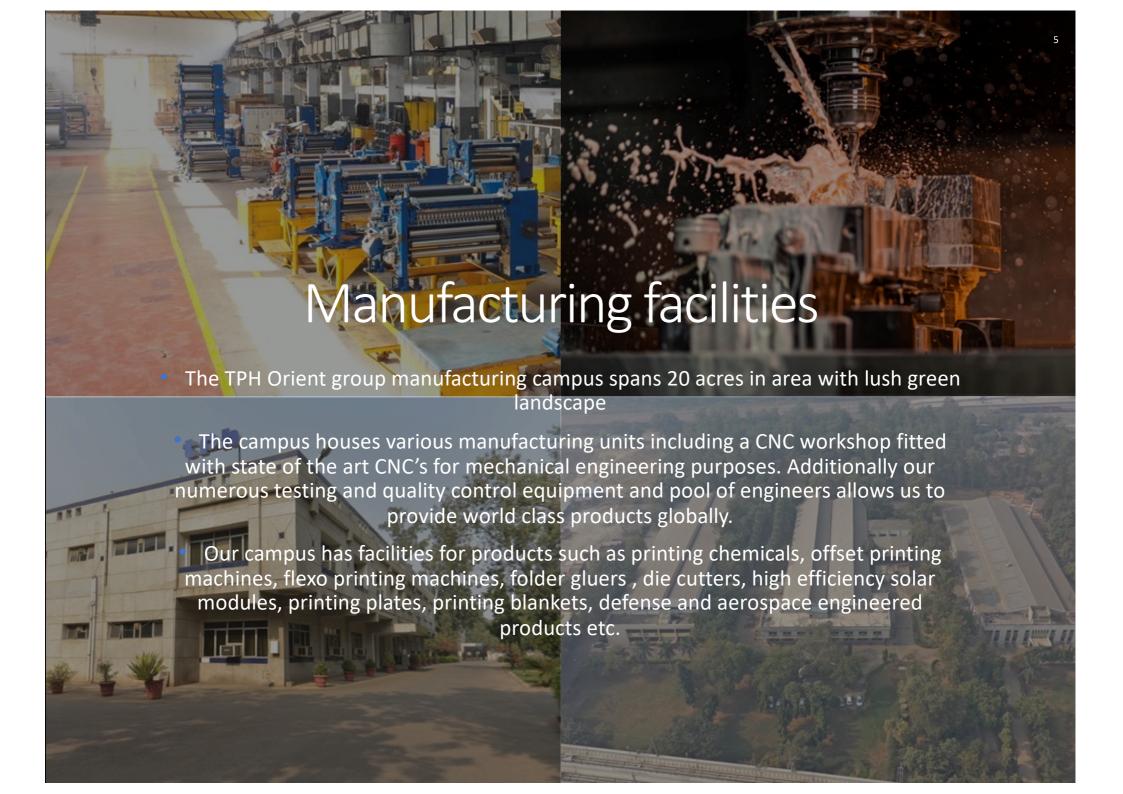
The Year was 1946. **K.D. Kohli**, a freedom fighter and newspaperman, started The Printers House (TPH) Orient group. Since then, TPH has carved a formidable reputation as a quality conscious technology driven manufacturer of a number of products. Tph's adherence to global standards has enabled to export its products to more than 60 countries worldwide.

All our products are produced at factories in a 20 acre campus in Delhi NCR. Tph takes pride in being a company of Indian origin, started by an enterprising freedom fighter turned Newspaperman Mr. K.D. Kohli. The TPH Orient group is now a diversified group of companies and a market leader in printing machinery, packaging machinery , printing consumables , engineering services for Defence and aerospace, and solar energy.

However, it is in our humble origins we take solace and hope to continue to grow whilst supplying a product that can match any global standard.

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The TPH Family

TPH boasts an employee pool filled with skilled engineers & professionals.

TPH has 10 branch offices in major Indian cities and over 30 agents worldwide

The TPH family also extends to its loyal and crucial vendor partners , some of whom have grown with us for over 60 years.

The Global Presence

With exports to over 60 countries , TPH boasts a huge export portfolio which exemplifies our commitment to deliver high quality and high precision products with world class quality.

Manufacturing facilities

- The TPH Orient group manufacturing campus spans 20 acres in area with lush green landscape

- The campus houses various manufacturing units including a CNC workshop fitted with state of the art CNC's for mechanical engineering purposes. Additionally our numerous testing and quality control equipment and pool of engineers allows us to provide world class products globally.

- Our campus has facilities for products such as printing chemicals, offset printing machines, flexo printing machines, folder gluers , die cutters, high efficiency solar modules, printing plates, printing blankets, defense and aerospace engineered products etc.

Our Patrons

With over 20,000 printing units supplied worldwide TPH enjoys strong relation-ships with some of the most distinguished and reputed commercial printers, publishers, and news houses in the world.

Orient X-Press

Orient X-Press is a single width single circumference web-offset press with a speed up-to 50000 copies per hour for high quality newspaper printing, tabloid printing, and semi-commercial products. The printing modules available for Orient X-Press (50000 copies per hour) are Mono unit with Automatic Reel Changers and 4 High Tower.

The epitome of web offset printing, the Orient X-Press is the most advanced press of its kind and a true testament to the engineering expertise of Orient.

Orient X-Press 50,000 CPH specifications

Dynamically balanced solid stainless-steel plate and blanket cylinders preloaded on Timken double row taper roller bearings

Hardened and ground bushes in frames for plate and blanket cylinder sleeves

Motorized ink fountain rollers and swing down lever style ink fountain

On the nose, slit type plate lock up system provided with 2 Nos pin in the cylinder for quick positioning of printing plates.

Positioning of half plate possible

Narrow gap blanket lock up system

Motorized side register system for both plate cylinders

Motorized running circumferential register for both plate cylinders

Variable speed motorized brushmist dampening system

- Pneumatic on/off for Main Impression/Ink feed/Ink form & Dampener form.

- Infra red web break detector.

- Safety guards

- Motorized oil pressure lubrication for drive gears and bearings.

- Motorized automatic grease lubrication for operating side.

- Centralized water circulation system with chiller.

- PCB card for dampener motor speed control.

- Central Operating Console with touch screen.

- Cable Management System.

- Bustle wheel for fan out correction.

- Ink and water balance through touch screen and PLC.

- Reverse inching

- MMI (Man Machine Interface).

ORIENT
Web Offset Presses

tph

Taking your confidence in TPH
one step ahead.

ORIENT X-PRESS
(Speeds 50000 cph)

Key Features Available

Available in Stack Unit and 4Hi Tower Type Constructions

- Consists of body of high grade, stress relieved cast iron

- Dynamically balanced solid steel stainless steel plate and blanket cylinders with bearers, pre-loaded on Timken double row taper roller bearings

- On-the-nose, slit type plate lock up system for tool less placement of the plates

- Available in shafted as well as footprint shaftless version

- Auto colour-to-colour and print-to-cut registration system

- Motorised slide action segmented ink fountain blade & ink fountain rollers

- Remote water roller and ink roller speed controls

- Spray dampening system for dampening solution and auto blanket washing

- Digital preset system with direct wire communication link for CIP3/CIP4 compliant prepress

Automation

- Press automation is based on the networking of multiple printing units. All machine functions for the complete press configuration can be accessed via Touch Screen on Central Console. Parallelly the machine functions can also be controlled locally through MMI provided on the local station.

- **HARDWARE:**
- Siemens/Rex Roth/ Mitsubishi make DC Digital Drive for powering up the main DC motor.
- Siemens /Rex Roth/ Mitsubishi make (S7- 200) local PLCs control all machine functions locally.
- Siemens /Rex Roth/ Mitsubishi make MMI is used for operation of all local machine functions
- Siemens /Rex Roth/ Mitsubishi make (S7 - 400) PLCs is used as master processor to process the centralized data for machine function controls as well as to carry out all fast synchronization and data transfer functions with local print units through local PLCs.
- Siemens make Colour touch Screen is used on Central Console.

- **CONTROLS :**
- Ink/water balance using three standard curves
- Changing the pagination by Enabling/disabling the desired print units/towers
- Registration Control through Touch screen on the Central Console
- Centralized Machine lubrication system control and monitoring
- It also carry out overall machine status monitoring and alarm processing

OPERATION :

- The fully automatic function (One Touch Printing) runs the machine just by one touch button. Complete press functions are switched on sequentially as per pre defined logic, after attaining the predefined press speed. This function is very useful for waste reduction and getting after attaining function, reduction setting consistent print quality.

INK WATER BALANCE

- Ink water balance is achieved through Siemens S7-400 PLC. There are 3 standard curves which operator can program based on different inputs normally used in the press, like paper quality, Ink quality etc.

- These three standard curves can be programmed through Touch screen on central console. Before the running of press, operator selects the curve based on his inputs.
- At different machine speeds at all stations the Ink/water station values are fed as pre-selected curve.
- These can be modified either from the local station MMI or from the central console Touch Screen.

- These changes are permanent for that station; however, the changes can be reset by re-selecting the curve and will be repeated in future every-time. These values are stored in permanent non-volatile memory.

Orient Express - Technical Specification

PARTICULAR	CUT OFF		
	533mm	546mm	578mm
Printing Speed	50000Cph	50000Cph	50000Cph
Paper Width	700-915mm	700-915mm	700-915mm
Reel diameter (Max.)	1070mm(42")	1070mm(42")	1070mm(42")
Printing Plate Width	915mm	915mm	915mm
Printing Plate Length Unbent (Slit)	564mm	577mm	609mm
Printing Plate thickness	0.30/0.28mm	0.30/0.28mm	0.30/0.28mm
Rubber Blanket width	915mm	915mm	915mm
Rubber Blanket Length (Narrow)	612mm	625mm	657mm
Rubber Blanket thickness with packing	2.1mm	2.1mm	2.1mm
Rubber Blanket thickness W/O packing	1.7mm	1.7mm	1.7mm
Printing Length Max (Narrow)	518mm	531mm	563mm
Non-Printing gap(Narrow)	15mm	15mm	15mm
Paper Grammage(Uncoated)	38-100gm/sqm	38-100gm/sqm	38-100gm/sqm

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