



COMPANY PROFILE



TDPS buys technology from Toyo Denki Japan

IPO of TDPS

Grants license to GE Brazil

Established Branch Office in USA

TDPS design largest 55MW – 4 Pole generator supplied to London

1999

2001

2007

2009

2011

2012

2013

2014

2015

2016

Manufacturing Facility Established in Bangalore

Joint Development Agreement with VOITH Hydro

Licence Agreement with Siemens up to 200MW

First 67.5MW 2 pole generator supplied

Established Branch Office in Germany

MAJOR MILESTONES

- 3500+ Generators supplied
- 60 Million USD in 2016-17
- Total installed capacity of 25,700 MW
- Generators operating in 85 Countries
- Plant built up area 473,600 sq. ft.
- 600 Employees
- Capacity to manufacture 40 machines a month

CERTIFICATION



ISO 9001:2008

Quality Management System



ISO 14001:2004

Environment Management System



OHSAS 18001:2007

BS: Occupational Health & Safety Assessment Series



ISO 3834-2

Welding Certification



Association of American Railroads



Product certifications for Wind generators



ATEX



European certification For TDPS generators



Russian certifications For TDPS generators



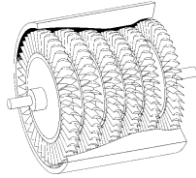
Canadian certifications For TDPS generators

IEC, IS, JEC, NEMA

APPLICATION SECTORS



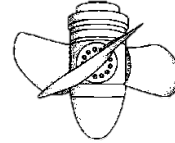
TURBINES



Steam
Up to 200MW



Gas
Up to 200MW

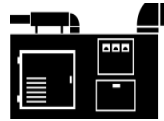


Hydro
Up to 32MW



Wind*

ENGINES



Diesel
Up to 20 MW



Gas
Up to 20 MW

SPECIAL APPLICATIONS



Motor Testing*



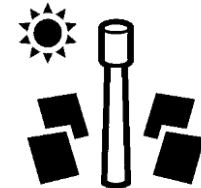
Locomotive*



Oil & Gas*



Geo Thermal*



Solar Thermal*

* as per customer requirement

MANUFACTURING FACILITIES



UNIT 1 - HEAD OFFICE



UNIT 2



UNIT 1 - FACILITIES



Coil Stretching Machine, Vincent Industries, France



Automatic Taping Machine, Sanwa Denki Japan



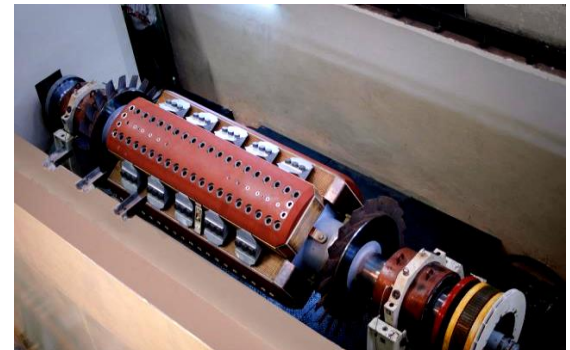
Rotor VPI Plant, VPI India



Induction Brazing Machine, Micamation Switzerland



Global VPI Plant, VPI India



Dynamic Balancing Machine, Abro India

UNIT 2, SHOP 1 - FACILITIES



Vertical Machining Centre, Nikholas Carrea Spain



Horizontal Machining Centre, Nikholas Carrea Spain



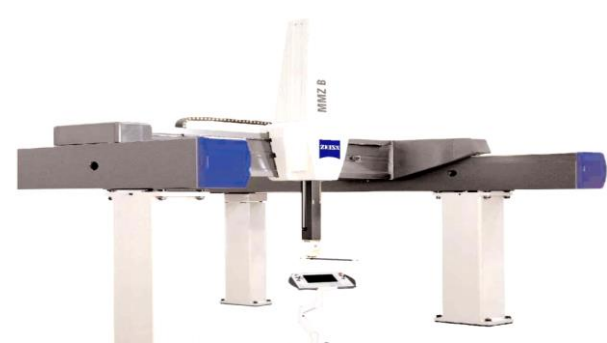
CNC Centre Lathe, Gurutzpe Spain



Hydraulic Press, Hydropack India



Stator Stamping Varnishing Line, Hymmen Germany



CMM Machine, Carl Zeiss

UNIT 2, SHOP 2 - FACILITIES



Rotor & Stator VPI



Ovens lined up



Electrical Testing Chamber



Coil Taping Machine

UNIT 2, SHOP 2 - FACILITIES



Coil Section



Winding Section



Final Assembly Area



Testing Area

UNIT 2, SHOP 2 – TRACTION GENERATORS BAY



Rotor Coil Press



Coil Taping Machine, Micamation Switzerland



Coil Stretching Machine, Micamation Switzerland

UNIT 2, SHOP 2 – TRACTION GENERATORS BAY



Vacuum Pressure Impregnation Tank



Annealing Setup for Rotor

UNIT 2, SHOP 3 – 2 POLE GENERATORS FACTORY

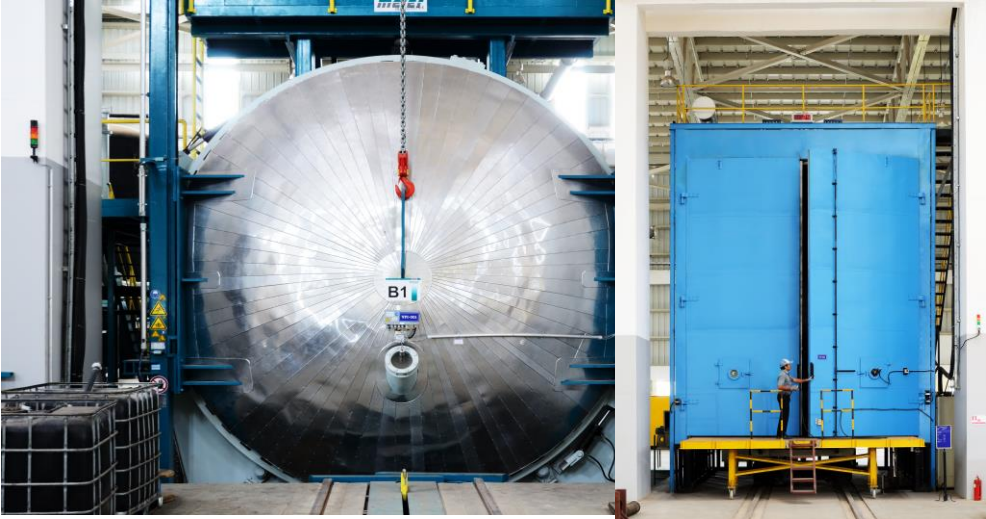


Roebel Bar Machine, Vincent Industries France
Upto 8000mm in Length



Automatic Taping Machine, Micamation Switzerland
Maximum Bar Length With Overhang – 6000mm

UNIT 2, SHOP 3 – 2 POLE GENERATORS FACTORY



Vacuum Pressure Impregnation



Core Tilting Machine

TESTING

14 TEST BEDS



Routine Tests

- Resistance measurement of all windings
- Insulation resistance measurement before and after HV
- High Voltage test on all windings
- Open Circuit and short circuit characteristics
- Efficiency test by summation of losses method.
- Phase sequence
- Voltage balance
- Rotor impedance
- Functional check of accessories with Generator

Type Tests

- Open Circuit Heat run
- Short Circuit Heat run
- Momentary Over Current Test
- Sudden Short Circuit test @ 30% rated voltage
- Noise Level test
- Recording of no load wave form, harmonics and THF calculation
- Determination of reactance values by sudden short circuit test
- Vibration measurement
- Shaft voltage
- Over speed test
- Retardation Test

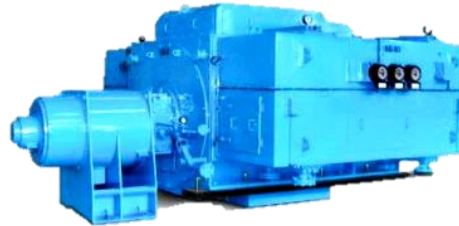
STEAM TURBINE GENERATORS

POWERING OVER 20,770MW WITH 1,640 GENERATORS

tdps™

Product Range

- Range: 1 – 250MVA
- Voltage levels: Up to 15.75kV
- Speeds : 1500/1800/3000/3600RPM
- Frequency: 50/60Hz
- Insulation Class: F
- Bearings: Antifriction/Sleeve
- Protection: IP23 to IP56
- Rotor: Cylindrical/Salient
- Excitation: Brushless/Static
- Installation: Hazardous/Non-hazardous



STEAM TURBINE GENERATORS

IN OPERATION AT SITE

tdps™



Rating	2MW
Project	Toyota Car Factory
Location	Toyota, Aichi Prefecture, Japan
Application	Industrial
Turbine	JFE
End User	Toyota Kaikan Plant

Rating	49.45MW
Project	Snetterton
Location	Snetterton, UK
Application	Biomass
Turbine	Alstom
EPC	BWSC
Consultant	Fichtner



STEAM TURBINE GENERATORS

IN OPERATION AT SITE

tdps™



Rating	24MW & 14MW
Project	Mitr Phu Viang
Location	Khon Khaen, Thailand
Application	Co-Generation Sugar
Turbine	Shin Nippon
End User	Mitr Phol Phu Viang Mill

Rating	17.6MW
Project	Biocel Paskov
Location	Paskov, Czech Republic
Application	Industrial
Turbine	TMS
End User	Lenzing



STEAM TURBINE GENERATORS

IN OPERATION AT SITE

tdps™



Rating	18.209MW
Project	Lisahally
Location	Lisahally, UK
Application	Biomass
Turbine	Alstom
EPC	BWSC
Consultant	Fichtner

Rating	3.5MW
Project	Oreade
Location	Le Havre, France
Application	Waste to Energy
Turbine	Fincantieri
EPC	Suez
Consultant	Ingevalor



STEAM TURBINE GENERATORS

IN OPERATION AT SITE



Rating	2 x 20MW
Project	Fujairah Cement Industries
Location	Dibba (UAE)
Application	Industrial
Turbine	Shin Nippon
EPC	The Indure Private Limited
Consultant	Desein Private Limited

STEAM TURBINE GENERATORS

IN OPERATION AT SITE



Rating	13.75MW
Project	Sappi Sai BPTG
Location	South Africa
Application	Industrial
Turbine	Triveni Turbine
EPC	Triveni Turbines Limited
End user	Sappi Saiccor Mill

STEAM TURBINE GENERATORS

FOR GEO-THERMAL APPLICATION

tdps™



Rating	3.2MW
Customer	Kengen
Location	Kenya
Application	Geo-Thermal
Turbine	Maxwatt
Consultant	Green Energy

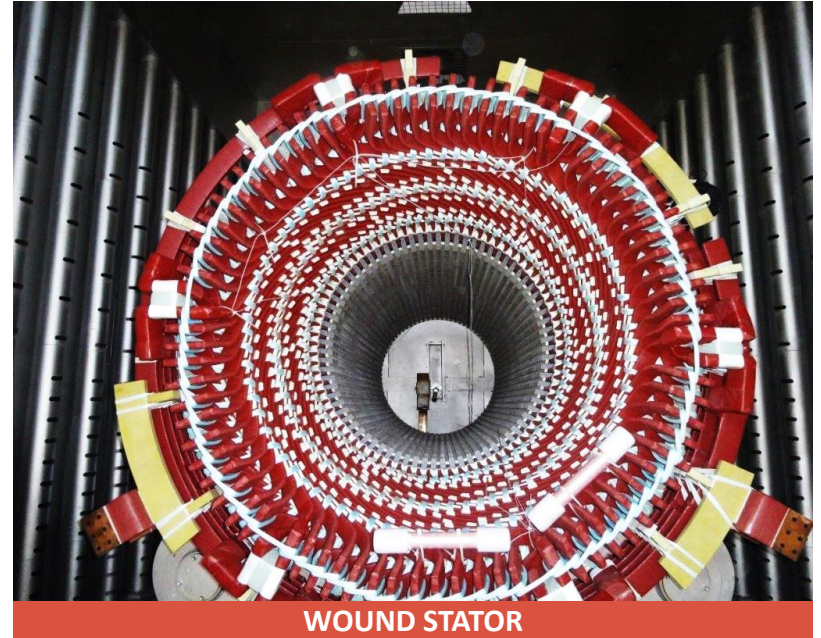
STEAM TURBINE 2 POLE GENERATORS

POWERING OVER 264MW WITH 4 GENERATORS



Rating	2 x 67.5MW (2 pole)
Project/End User	Bhubaneshwar Power Pvt. Ltd.
Location	Orissa, India
Application	Industrial
Turbine	Siemens
Consultants	TPSC (INDIA) Pvt. Ltd. TATA Consulting Engineers Limited

STEAM TURBINE 2 POLE GENERATORS



DIESEL ENGINE GENERATORS

POWERING OVER 1,230MW WITH 890 GENERATORS

tdps™

Product Range

- Range: 1 – 32MVA
- Voltage levels: Up to 15kV
- Speeds : 187 to 1800RPM
- Frequency: 50/60Hz
- Insulation Class: F
- Bearings: Antifriction/Sleeve
- Machine mounted Lube Oil System (Optional)
- Machine mounted AVR (Optional)
- Protection: IP23 to IP54
- Rotor: Cylindrical/Salient
- Excitation: Brushless/Static



DIESEL ENGINE GENERATORS

IN OPERATION AT SITE



Generators Coupled to CAT Engines



Generators Coupled to MTU Engines



Generators Coupled to Cummins Engines



Generators Coupled to Perkins Engines

DIESEL ENGINE GENERATORS

IN OPERATION AT SITE

tdps™



Rating	4 x 2.5MW
Location	Lungga Power Plant, Honiara, Solomon Islands
Application	Primary power source to Honiara city
Engine	MAN Diesel & Turbo
End user	Solomon Island Electricity Authority
EPC	MAN Diesel & Turbo Denmark
Consultant	Jacobs Australia Pty Limited

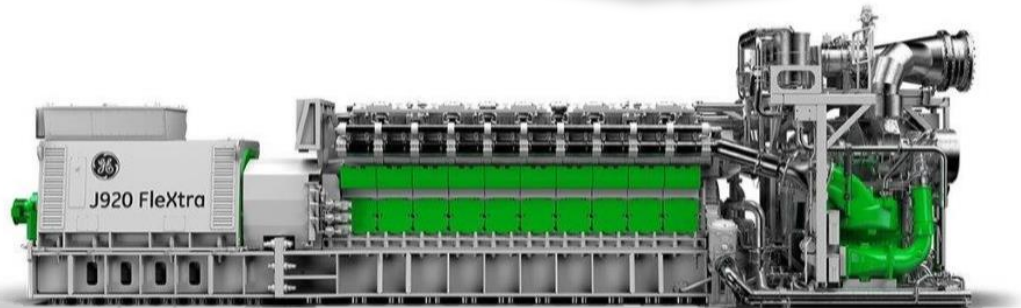
GAS ENGINE GENERATORS

POWERING OVER 1100MW WITH 245 GENERATORS



Product Range

- Range: 1 – 32MVA
- Voltage levels: Up to 15kV
- Speeds : 187 to 1800RPM
- Frequency: 50/60Hz
- Insulation Class: F
- Bearings: Antifriction/Sleeve
- Machine mounted Lube Oil System (Optional)
- Machine mounted AVR (Optional)
- Protection: IP23 to IP54
- Rotor: Cylindrical/Salient
- Excitation: Brushless/Static



GAS ENGINE GENERATORS

IN OPERATION AT SITE



GE-J 620 Series- Coupled to 4.5MVA GEJ Gas Engine



GE-J 920 Series – Coupled to 12MVA GEJ Gas Engine

HYDRO TURBINE GENERATORS

POWERING OVER 2,200MW WITH 490 GENERATORS

tdps™

Product Range

- Range: 1 – 40MVA
- Orientation: Horizontal/Vertical
- Voltage levels: Up to 15kV
- Speeds : 187 to 1800RPM
- Frequency: 50/60Hz
- Insulation Class: F
- Bearings: Antifriction/Sleeve
- Protection: IP23 to IP54
- Rotor: Cylindrical/Salient
- Excitation: Brushless/Static



HYDRO TURBINE GENERATORS

IN OPERATION AT SITE

tdps™



1.75MW Generator - SUBHASH Project



10.64MW Generator - BHILANGANA Project



7.2MW Generator - PANTASMA - NICARAGUA



3.2MW Generator - BUSERUKA, UGANDA



11.7MW Generator - CUBUJUQUI-COSTA RICA



23MW Generator - CAMBASI HEP, TURKEY

HYDRO TURBINE GENERATORS

IN OPERATION AT SITE



Rating	2 x 31.5MW
Location	Jimmie Creek, Canada
Application	Run-of-river power plant
Turbine	Vertical Pelton , Voith make
End user	Alterra Power Corp
Consultant	SNC Lavalin

HYDRO TURBINE GENERATORS

IN OPERATION AT SITE



Rating	2 x 6MW
Location	Ha Giang, Vietnam
Project	Thanh Thuy 1 & 2
Turbine	Horizontal Pelton Voith make

HYDRO TURBINE GENERATORS

IN OPERATION AT SITE



30MVA Generators – San Miguel - Colombia



10.16MW & 4.93MW Generators – DECAN Project – Kosovo - KELAG

HYDRO TURBINE GENERATORS

IN OPERATION AT SITE



13.932MW Generators - KJENSVATN Project - Norway



12.159MW Generators - KOKISH Project - Canada

WIND GENERATORS

POWERING OVER 200MW WITH 130 GENERATORS



1MW, 144rpm / 138rpm Permanent Magnet Generator



2MW, 1440rpm – Synchronous generator

OEMS WE WORK WITH



STEAM TURBINE

- AIRCLEAN • ALSTOM • ARANI POWER • CHOLA • DRESSER RAND • EKOL • ELLIOT • FINCANTIERI • FUJI ELECTRIC • GE TRIVENI • HANGZHOU
- HINDUSTAN TURBO MACHINEARY • N G TURBINES • JFE • KESSELS • KIRLOSKAR EBARA • MAN DIESEL & TURBO • SHIN NIPPON
- SHINKO • SIEMENS • SKODA • TRIVENI TURBINES LIMITED • TGM KANIS • TURBODEN • TURBOTECH • TMS • TURBOKRAFT

DIESEL ENGINE

- CATERPILLAR • CUMMINS • DAIHATSU • GE JENBACHER • GE TRANSPORTATION • MAN DIESEL & TURBO • MITSUBISHI • MTU
- NIIGATA • PERKINS • PIELSTICK • WARTSILA • YANMAR

GAS ENGINE

- GE JENBACHER • NIIGATA • GUASCOR POWER

GAS TURBINE

- KAWASAKI HEAVY INDUSTRIES (KHI) • ONPOWER (ROLLS ROYCE)

HYDRO TURBINE

- ANDRITZ • BOOM SYSTEMS • B FOURESS • ENERGI TEKNIKK • FLOVEL • KIRLOSKAR BROTHERS • MECAMIDI GROUP • MAVEL a.s.
- RAINPOWER a.s. • SPETAKSVERK • TOSHIBA POWER SYSTEMS CORPORATION • TURBOINSTITUT • VOITH • WWS-WASSERKRAFT

WIND TURBINE

- KENERSYS • WINWIND

CONSULTANTS / EPC



AND MANY MORE...

CONSULTANTS / EPC



DASTUR



AND MANY MORE...

tdps™ is here



Distribution across the globe

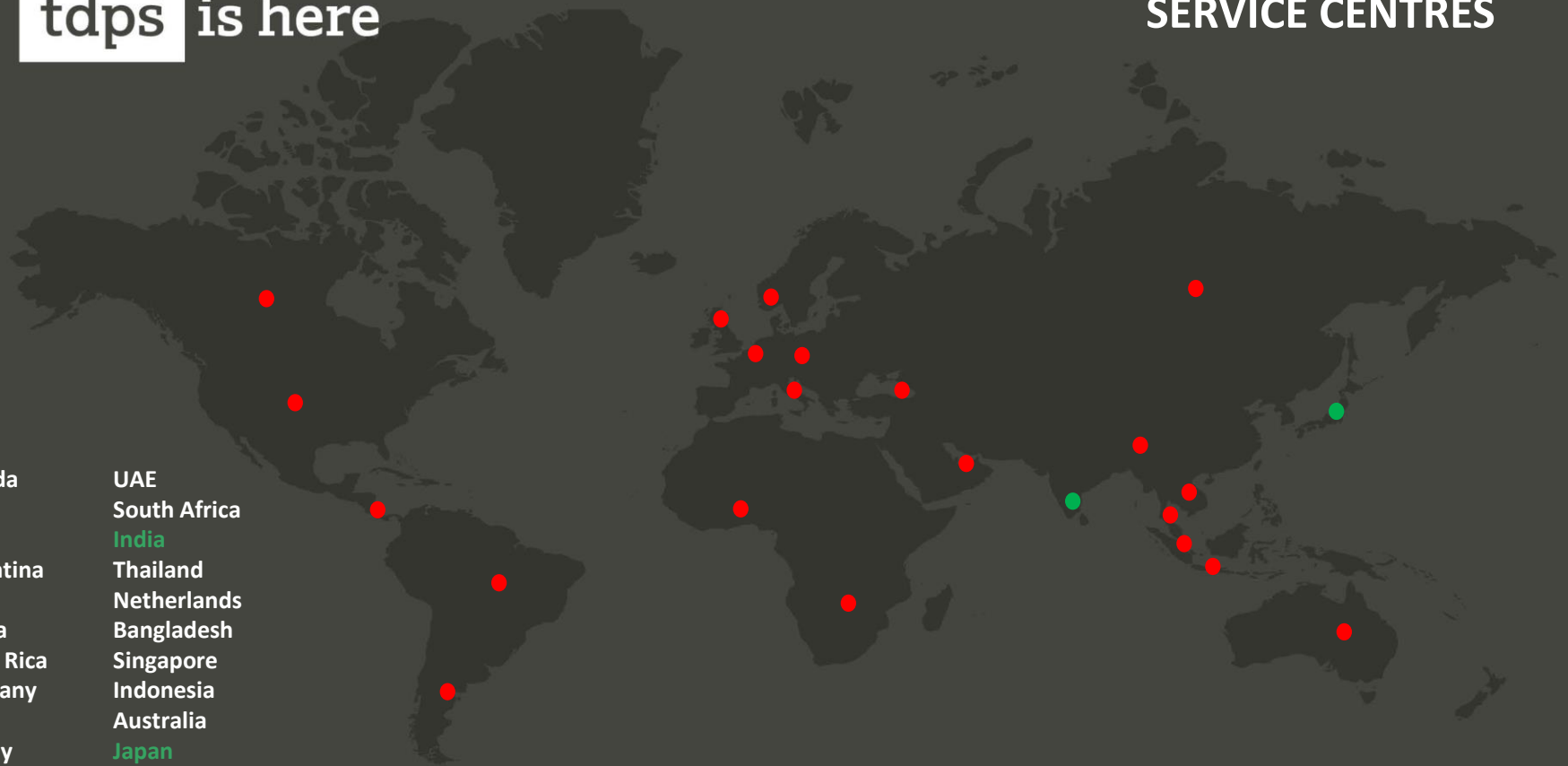
Continent	Nations	Quantity
Asia	27	2837
Africa	21	112
Australia	2	43
Europe	21	197
North America	10	114
South America	4	13

- India : Head Office
- Japan : Branch office
- Germany : Branch office
- USA : Branch Office

Generators Operating in 85 countries

tdps™ is here

SERVICE CENTRES



- Canada
- USA
- Brazil
- Argentina
- UK
- Russia
- Costa Rica
- Germany
- Italy
- Turkey
- Norway
- Australia
- UAE
- South Africa
- India
- Thailand
- Netherlands
- Bangladesh
- Singapore
- Indonesia
- Australia
- Japan
- Nigeria

Service Centers in 23 countries

tdpsTM is generating, innovation,
solutions, value, welfare, power,
growth, energy, empowerment,
new, potential, creativity, ideas,
change, relations, improvements

All the meticulous planning and detailing that goes into producing a generator is not something people think of — nor should they! We work hard to make sure that people don't have to think about generators — after all that's what we do for a living. In TDPS we deliver engineering solutions to world class generators.

www.tdps.co.in