

Power and Distribution **Transformers**



**PRODUCTS THAT ARE ENERGY
EFFICIENT & ENVIRONMENT FRIENDLY**

ABOUT US

With humble beginning, today Pooja Group is into manufacturing of Power and Distribution Transformers, HT and LT Automatic Voltage Controllers, Variable Voltage Transformer, Isolation Transformers, Electroplating Rectifiers and other special Purpose transformer apart from manufacturing Sewing Machines & Fans in South Asia since 1975.

The Power controller manufacturing division of Pooja Group is a part of **JINDAL Group** who are pioneers in this field. The consolidated group is one of the South Asia's largest power control company with largest client base and service network in the industry.

The group operates from 4 factory complexes which are spread in Himachal Pradesh, Punjab and Haryana. All our facilities are ISO 9001:2008 certified.

Throughout the entire process, Pooja follows stringent quality control measures starting from designing, selection of raw materials, testing after every process. Our products are designed and developed using modern techniques and optimum utilization of raw materials, which ensures cost-effectiveness and trouble free running of our equipments.

We have an array of sophisticated facilities like coil winding machines, heating ovens, forklifts, EOT cranes etc.,

Wishing for client's patronage and products by assuring quality and service.





MANUFACTURING PROCESS



SERVICE AND WARRANTY

At POOJA, we believe that customer satisfaction is a result of quality products complemented through a team of talented and skilled professionals in the power industry. We recognize that any down time of critical equipment and machinery is expensive. Our highly skilled team of service experts, equipped with full range of tools and spares is spread in a manner to get your equipment back on line in the shortest possible time. We ensure that your investment in our products works round the clock & pays you back many times over! Our network of Sales engineers/technicians/service centers is spread across India, Nepal, Bangladesh etc and is continually expanding.

PRODUCT RANGE

- Three Phase Power and Distribution Transformers up to 10 MVA 33 kV class
- Transformers with OLTC arrangement
- Special Purpose Transformers
- Complete self protection (CSP) Transformers- up to 1600 kVA with external MCCB
- Furnace duty Transformers
- LT - LT Transformers
- Step up Transformers
- Package Substation Transformers- up to 2 MVA with RMU or HV breaker and LV distribution panel
- Automatic Voltage Controllers

TECHNICAL SPECIFICATIONS

Range	25 kVA to 5 MVA
Applicable Standards	IS 1180:2014 (Part-1) - Outdoor type oil immersed Distribution Transformers upto and including 2500 KVA, 33KV (EEL 1/2/3) IS: 2026- Indian standard for Power Transformers IEC: 60076 (parts 1 to 11)- International standard for Power Transformers
Vector Group	Dyn11 or as per customer specifications and requirement
Winding Material	Copper/ Aluminium
Primary Voltage	11, 22, 33 KV or as per customer specifications and requirement
Secondary Voltage	433/415/400 V or as per customer specifications and requirement
Duty, type	Continuous duty Outdoor/Indoor, Conventional or hermetically sealed
No. Of Phases	3 Phase
Class of insulation	Class A
Insulating oil	Mineral oil as per IS:335 / IEC:296
Frequency	50/60 Hz

CUSTOMIZED OPTIONS

Mounting	Pole/Pad/Ground Mounted with Under carriage with four unidirectional/bi-directional rollers
Cooling Medium	Oil Natural Air Natural (ONAN)- Pressed Steel Radiators or Corrugated Finwall or Elliptical Tubes
Tapping	Externally operated Off circuit tap changing switch (OCTC)/ On load tap changer (OLTC) with RTCC panel and AVR as per customer requirement of range and steps
Termination	HV / LV : Bushing / cable box / busduct flange
Safety/Anti theft systems	Primary expulsion fuse for protection External circuit breaker for overload and fault protection Primary surge arrestor for lightening protection Anti theft measures to prevent theft of transformer oil
Optional fittings	Buchholz Relay with alarm and trip contacts Inspection cover Weather proof marshalling box as per IP 55 Jacking pads Pressure relief valve (PRV) with alarm and trip contacts Dial type winding temperature indicator (WTI) and oil temperature indicator (OTI) with contacts Magnetic oil level gauge (MOG) with low level alarm contacts

OTHER ADDITIONAL SERVICES:

- Repair and refurbishment of Power Transformers.
- Supervision and commissioning of transformers on site.
- Supply of spares for reputed transformer make.
- Overhauling and maintenance of transformer on annual contract base.



IS: 1180 (Part-1)



CML No. 9600024411

Distribution Transformers according to BIS Specification:

As per the Government of India norms w.e.f. 1st February 2016, BIS Certification for IS: 1180 (Part -1) : 2014, is Mandatory for Outdoor type oil immersed Distribution Transformers upto and including 2500 kVA, 33kV- Specification. We are pleased to inform that **POOJA** is approved by BIS (Bureau of Indian Standards, Govt. of India) having CML No. 9600024411 to manufacture, test and supply energy efficient transformers, in accordance with BIS guidelines.

MAXIMUM TOTAL LOSSES UPTO 11KV CLASS TRANSFORMERS (AS PER IS: 1180 (PART-1) : 2014)

SL.No	Phase	Rating (kVA)	Impedance (Percent)	Maximum Total Loss (W)					
				Energy Efficiency Level 1		Energy Efficiency Level 2		Energy Efficiency Level 3	
				50% Load	100% Load	50% Load	100% Load	50% Load	100% Load
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
i)	3	25	4.5	210	695	190	635	175	595
ii)	3	63	4.5	380	1250	340	1140	300	1050
iii)	3	100	4.5	520	1800	475	1650	435	1500
iv)	3	160	4.5	770	2200	670	1950	570	1700
v)	3	200	4.5	890	2700	780	2300	670	2100
vi)	3	250	4.5	1050	3150	980	2930	920	2700
vii)	3	315	4.5	1100	3275	1025	3100	955	2750
viii)	3	400	4.5	1300	3875	1225	3450	1150	3330
ix)	3	500	4.5	1600	4750	1510	4300	1430	4100
x)	3	630	4.5	2000	5855	1860	5300	1745	4850
xi)	3	1000	5.0	3000	9000	2790	7700	2620	7000
xii)	3	1250	5.0	3600	10750	3300	9200	3220	8400
xiii)	3	1600	6.25	4500	13500	4200	11800	3970	11300
xiv)	3	2000	6.25	5400	17000	5050	15000	4790	14100
xv)	3	2500	6.25	6500	20000	6150	18500	5900	17500

MAXIMUM TOTAL LOSSES ABOVE 11KV UPTO & INCLUDING 22KV CLASS TRANSFORMERS (AS PER IS: 1180 (PART-1) : 2014)

Three Phase Transformer

+5 % of the Maximum Total Loss Values given in above table

MAXIMUM TOTAL LOSSES ABOVE 22KV UPTO & INCLUDING 33KV CLASS TRANSFORMERS (AS PER IS: 1180 (PART-1) : 2014)

Three Phase Transformer

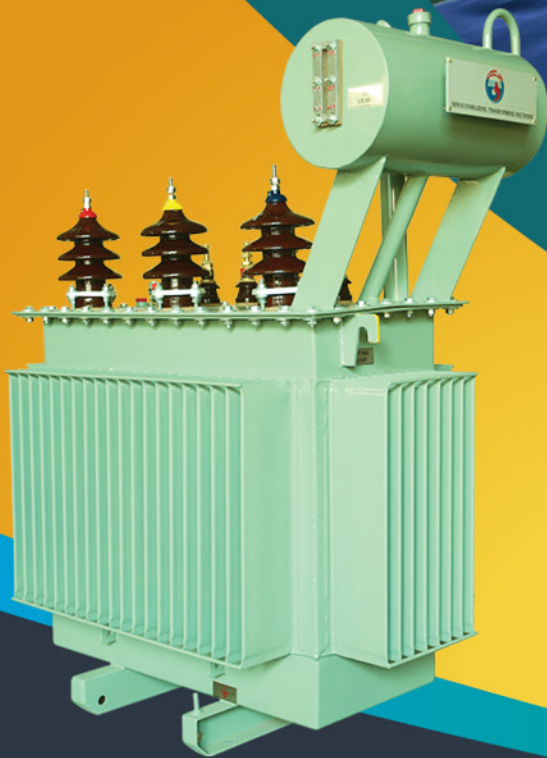
+7.5 % of the Maximum Total Loss Values given in above table

PERMISSIBLE LIMIT OF TEMPERATURE RISE (AS PER IS: 1180 (PART-1) : 2014)

Particulars	Oil Temperature Rise	Winding Temperature Rise
Upto and including 200 kVA, 33kV Class transformer	35 °C	40 °C
From 250 kVA, upto including 2500 kVA, 33kV Class transformer	40 °C	45 °C

WHY POOJA:

- Part of 50 year old Jindal group
- Timely Deliveries
- Quality of fresh raw materials as per IS/ international standards
- Modern plant with R&D facility
- Super strong process check at every stage during manufacturing
- Experienced and skilled manpower
- Excellent service after sales team across indian subcontinent
- Strong customer base of repeat customers and industrial users.
- Thorough testing of transformer as per applicable standard.
- Ensuring safety, health & hygiene for all employees



TESTING QUALITY & CONTROL

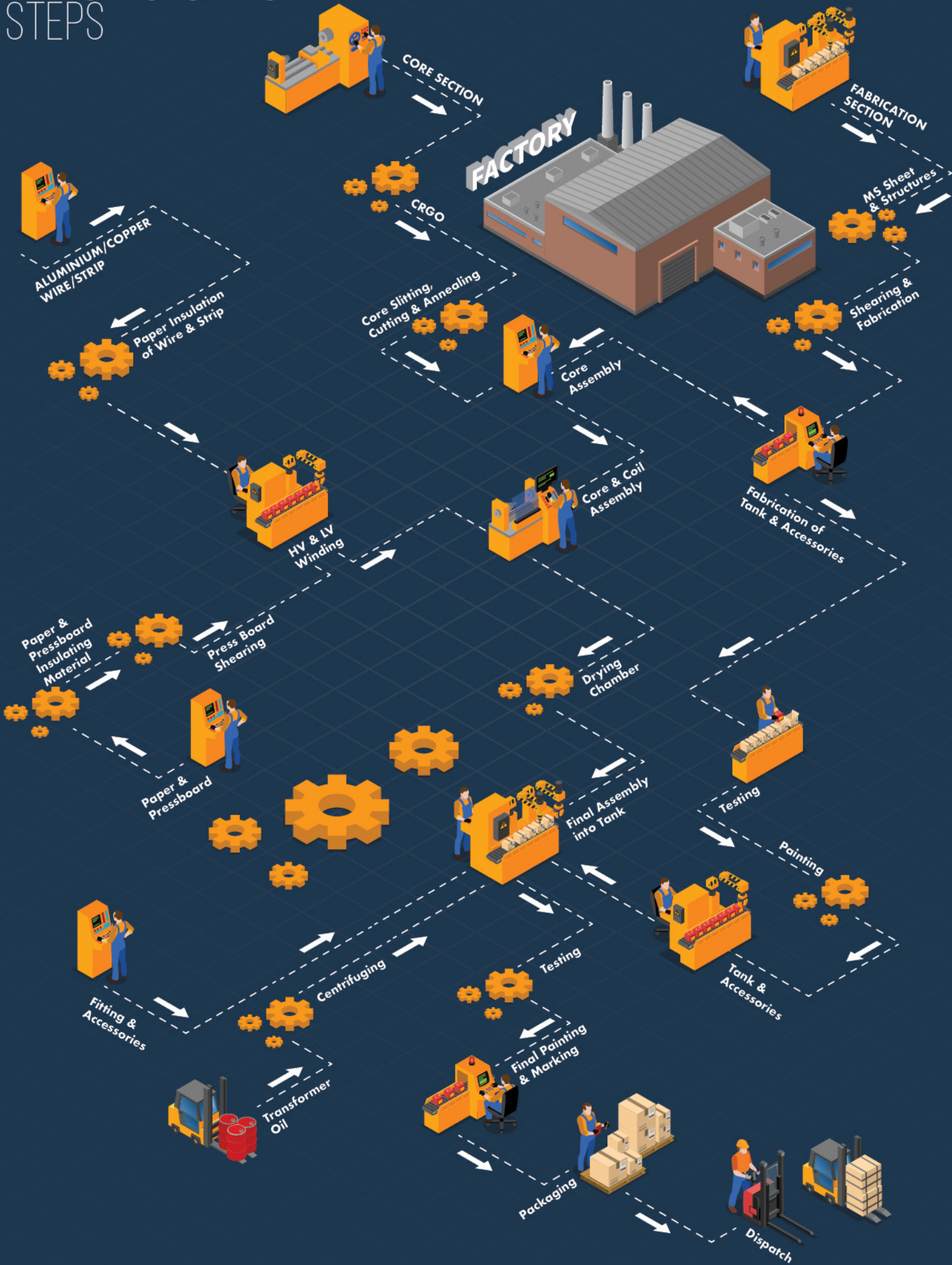
Every transformer goes through series of tests throughout the manufacturing process, right from the raw material stage by our well laid quality assurance plan (QAP). All the routine tests are carried out as per applicable standards in our in-house laboratory. Calibration of all instruments is done at regular intervals from NABL accredited labs. Our unit is equipped with modern testing lab, which is developed with an integrated testing panel with the following testing facilities:

- Measurement Of No Load Loss
- Load Loss Test
- Separate Source Voltage Withstand Test
- Induced Overvoltage Withstand Test
- High Voltage Test
- Turn Ratio & Phase Polarity Test
- Insulation Resistance Test
- Winding Resistance Test
- Vector Group Test
- Oil Leakage Test
- Oil Dielectric Test
- Heat Run Test
- Temperature Rise Test
- Paint Adhesion Test
- Other Tests:
 - Air Pressure Test
 - Measurement of Paint Thickness
 - Measurement of Acoustic Sound Level
 - Vacuum Test

Our designs have been type tested (Short-circuit withstand and lightning impulse voltage Test etc.) in NABL accredited laboratories such as CPRI and ERDA in India.



MANUFACTURING STEPS



						
						
						
						SELECT CLIENTELE



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