

PARAMOUNT RADIATORS PVT LTD

QUALITY RADIATORS FOR EVERY INDUSTRY.







TRACEABILITY

Paramount Radiators Pvt Ltd maintains a unique identification system for each radiator, ensuring complete traceability at every stage of production. From the selection of raw materials and coils to the operators handling each process—with detailed records of name, date, and shift—We ensure full accountability. This system enables us to verify quality standards for every customer and accurately monitor each detail, providing higher reliability and superior customer satisfaction.







ABOUT US

Founded in 2010, Paramount Radiators Pvt Ltd is a leading manufacturer of Pressed Steel Radiators for Power and Distribution Transformers. With a strong commitment to quality and innovation, we have earned the trust of our clients across India and abroad.

At Paramount Radiators Pvt Ltd, quality is not just a promise — it's our assurance. Our modern, state-of-the-art in-house manufacturing facility enables us to produce radiators that meet international standards and deliver consistent performance under all operating conditions.

Our products are widely trusted by reputed **transformer manufacturers** for their **durability**, **precision**, and reliability. With over a decade of experience and a dedicated team, we continue to set new benchmarks in the radiator manufacturing industry.

Driven by excellence and supported by our valued customers and suppliers, **Paramount Radiators Pvt Ltd** is ready to move forward to the next level of growth and global recognition.







Our facility is fully equipped to conduct radiator testing in compliance with IEEMA and DIN standards.

- 1- Comprehensive set of instruments for precise dimensional measurements.
- 2- Pressure gauge setup for PTVT evaluations.
- 3- Regular in-house type testing is carried out every three months to ensure leak resistance against transformer oil, following IS:335 standards. Tests are performed at a temperature of 100°C ± 5°C and maintained under a pressure of 1 kg/cm² for 8 hours.
- 4- Advanced thickness measuring equipment.
- 5- Dry-film thickness testers suitable for paint, lacquer, and galvanization coatings.
- 6- Paint adhesion (peel-off) testing using Permacel 99, as per ASTM D 3359-02.







MATERIALS



S. No.	Part	Material
1	Radiator Element	Nominal sheet thickness of 1.0/1.20 mm thickness CRCA steel conforming to Grade D of IS: 513
2.	Top and Bottom header pipes	88.9 / 114 mm OD and 3.2 and up to 3.6mm thick ERW / HFIW pipe as per IS: 1239 Pt 1. (N.B: We can specify header pipe OD and 88.9mm for CC upto 3000MM and 30 Elements, 114mm OD for CC above 3000MM and more than 30 elements)
3	End Plate	CRCA sheet conforming to Grade D of IS: 513, with thickness minimum 2.5MM
4	Step Flange	12mm, 16mm and 18mm thick (minimum) weldable structural steel plate conforming to Grade E 250 Quality A of IS: 2062
5	Sockets for Air Release and Drain Plug	36 mm diameter weldable structural steel rod conforming to Grade E 250 Quality A of IS: 2062.
6	Air vent and drain plugs	36 mm weldable structural steel hexagonal bar conforming to Grade E 250 Quality A of IS: 2062.
7	Bracing Bar	8/10 mm weldable Bright Bar conforming to IS: 7283.
8	Lifting Lugs	10 mm thick, weldable structural steel plate conforming to Grade E 250 Quality A of IS: 2062.
9	Washer for air release and drain plugs	3.0 mm thick Teflon washers.

Cooling Section

At Paramount Radiators Pvt Ltd, our cooling sections are engineered for superior performance and reliability. Each section is crafted from high-quality CRCA steel strips with thicknesses of 1.0 mm and 1.2 mm, ensuring excellent strength and durability.

We offer cooling section widths of **240 mm**, **300 mm**, and **520 mm** to meet a wide range of transformer design requirements. Each radiator is assembled with precision, using sections spaced at **50 mm**, or **65 mm** centers — customized according to the heat dissipation and oil temperature parameters specified by the transformer manufacturer.

Our radiators are typically available with **3 to 40 sections**, and we also provide **custom-built designs** for specialized applications or higher-capacity needs. With Paramount Radiators, you can expect dependable performance, quality craftsmanship, and tailored solutions that meet your exact specifications.

SPECIAL FEATURES





Advanced CNC Radiator Roll Forming and Header Tube Processing

Paramount Radiators Pvt Ltd utilizes state-of-the-art CNC roll forming and header tube punching lines, ensuring exceptional dimensional accuracy, smooth surface finish, and consistent quality across all radiator models.



Fully Automated Welding Line

Our automated multi-spot and dual-seam welding systems are designed for maximum precision and productivity. The integrated panel handling and spot-welding functions eliminate manual intervention, prevent panel damage, and ensure uniform, high-strength welds throughout production.



Modern Shot Blasting and Painting Booth

Paramount Radiators pvt ltd features an advanced shot blasting and painting facility with spacious working areas, capable of accommodating

radiators up to 4000 mm in length. This ensures superior coating adhesion, long-lasting protection, and a premium finish on every unit.



HEADER PIPES



At Paramount Radiators Pvt Ltd, both the top and bottom headers are precision-engineered with an outer diameter of 90 mm and a thickness of 3 mm. Each header extends 25 mm beyond the centerline of the end section and is securely sealed with welded end covers to ensure strength and leak-proof performance.

HEADER PIPE EXTENSION

For enhanced flexibility and customization, an additional length of MS pipe (same OD) is welded to the open-end headers. The standard extension length is 75 mm, or it can be tailored to meet specific customer requirements.

FLANGES

Our detachable radiators feature standard 150 mm square flanges with 4 holes of 20 mm diameter on a 160 mm PCD. These are available in:

12 mm thickness – for center-to-center (CC) up to and including 1500 mm, with up to 24 sections.

18 mm thickness – for CC above 1500 mm, with more than 24 sections.

AIR VENT PLUG & DRAIN PLUG

Each radiator is equipped with a ½" RP air vent plug on the top header and a ½" RP drain plug on the bottom header. The air vent plug is positioned between the first and second sections on the open end, while the drain plug is located between the last two sections on the blanked end — ensuring convenient access for maintenance and smooth operation.

BRACING STRAPS



As a standard practice, our radiators are reinforced with bracing straps for added stability.

1 pair for CC between 1000 mm and 2000 mm

2 pairs for CC between 2100 mm and 2800 mm

3 pairs for CC above 2800 mm

Radiators with CC below 1000 mm typically do not require bracing straps. All straps are manufactured from 8 mm diameter MS bright rods, ensuring superior rigidity and durability.

QUALITY FEATURES





Minimal Human Intervention

Our manufacturing process is designed with maximum automation, reducing the chances of human error to an absolute minimum and maintaining consistent product quality.



Precision Jigs and Fixtures

Using state-of-the-art jigs and fixtures for both pipe and flange welding, Paramount Radiators ensures perfect alignment and highly accurate assembly — eliminating alignment errors and guaranteeing reliable performance.

PAINTING

At Paramount Radiators Pvt Ltd, every unit undergoes a meticulous shot blast-cleaning process to ensure a perfectly prepared surface for coating. Each radiator receives two coats of high-quality primer and finish paint, such as Red Oxide Zinc Chrome, MIO, Enamel, Epoxy, or PU finishes, achieving a total dry film thickness (DFT) ranging from 70 to 350 microns on the exterior surface.

The interior surface is protected with a **special heat-resistant varnish**, enhancing durability and long-term performance.

Depending on customer requirements, we also offer a wide range of **custom coating systems**, including **Yellow Zinc Chromate Primer**, **Zinc-Rich Primer**, **Micaceous Iron Oxide Primer**, **Epoxy Primer**, **Polyurethane Finish**, and **Spray Galvanized coatings**, ensuring maximum corrosion resistance and superior finish quality.



Header Type Radiator



Goose Neck Radiator



Flange Type Radiator



Off Set Type Radiator



Hot Dip Galvanized Radiators



DOMESTIC PACKING



EXPORT PACKING

HEAT DISSIPATION CHART

Heat Dissipation Chart (520MM Width)														
Centre	Cooling			-	tts dissipated per section for oil excess temperature of								Oil per	
Distance	Surface		5°C		0°C		5°C				°C		0°C	section in
CC	Per	ONAN	ONAF	ONAN	ONAF	ONAN	ONAF	ONAN	ONAF	ONAN	ONAF	ONAN	ONAF	Litres
200	0.070	250	125	205	100	T 360	551	1 414	T 622	177	701	T 510	770	2.77
800	0.970	258	425	305	489	360	551	414	622	477	701	519	778	2.77
900	1.090	288	472	328	541	378	615	426	691	497	774	532	859	3.05
1000	1.208	317	550	365	637	412	723	463	810	523	920	549	1028	3.32
1100	1.329	343	597	392	685	446	785	500	875	563	990	628	1109	3.59
1200	1.450	366	635	424	737	479	837	540	940	609	1064	676	1187	3.86
1300	1.570	393	678	455	788	514	890	575	1007	650	1134	723	1263	4.13
1400	1.691	417	716	482	838	544	943	612	1033	689	1204	765	1334	4.41
1500	1.812	437	752	511	876	574	991	626	1115	729	1261	807	1398	4.68
-														
1600	1.933	463	793	536	925	605	1044	679	1176	765	1370	847	1469	4.95
1700	2.054	483	829	562	963	634	1087	712	1221	799	1382	888	1526	5.22
1800	2.174	507	867	588	1014	662	1140	741	1277	837	1442	924	1596	5.49
1900	2.295	528	903	616	1047	691	1181	774	1330	871	1498	963	1652	5.76
2000	2.416	551	939	620	1094	717	1229	805	1380	906	1545	998	1719	6.04
2100	2.537	569	971	661	1132	744	1274	834	1427	931	1608	1035	1772	6.31
2200	2.658	589	1005	686	1171	771	1314	861	1475	970	1659	1069	1831	6.58
2300	2.778	610	1044	710	1205	795	1355	891	1515	1003	1701	1104	1886	6.85
2400	2.899	636	1081	733	1250	824	1406	918	1574	1029	1759	1141	1945	7.12
2500	3.020	653	1113	753	1277	847	1437	948	1613	1059	1796	1170	1996	7.40
2600	3.141	674	1144	774	1321	826	1489	975	1666	1083	1861	1205	2060	7.67
2700	3.262	691	1177	796	1351	898	1545	1003	1714	1119	1906	1239	2111	7.94
2800	3.382	713	1211	818	1394	923	1567	1003	1714	1119	1906	1273	2111	8.21
2900	3.503	731	1211	840	1428	946	1611	1058	1799	1179	2005	1303	2205	8.48
3000	3.624	754	1245	857	1428	1001	1665	1038	1839	1209	2003	1374	2246	8.48
3000	5.024	154	1205	031	1400	1001	1005	1007	1037	1205	2043	13/4	2240	0.13
3100	3.745	762	1322	874	1494	1015	1699	1100	1867	1350	2084	1409	2293	9.37
3200	3.866	784	1342	891	1524	1040	1727	1128	1899	1385	2122	1443	2342	9.65
3300	3.987	804	1374	910	1550	1065	1753	1145	1925	1419	2154	1477	2388	9.95
3400	4.110	826	1396	928	1578	1088	1778	1173	1950	1449	2194	1507	2424	10.23
3500	4.231	842	1426	948	1608	1114	1810	1203	1984	1483	2232	1535	2465	10.51
CORRECT														
Verticle Dist			core centr	er line	0	100	200	300	400	500	600	800	1000	
Correction F		betties	2010 00	1 mic	0.8	0.85	0.89	0.925	0.95	0.975	1.00	1.05	1.1	
Horizontal D		nm betwe	en radiato	rs:	575	595	620	645	685	735	785			
Correction F	Factor:			1	0.76	0.82	0.86	0.91	0.95	0.985	1			
Number of se	sections per r	radiator:			2	4-5	6-8	9-11	12-14	15-17	18-20	21-24	25-30	30-35
Correction F	actor:			7	1.11	1.06	1.02	1.00	0.99	0.98	0.97	0.96	0.95	0.94



Steel pressed transformer radiators (240 MM width)

Centre Distance in mm	Cooling Surface M ²	Net Weight Kgs	Oil in Itrs	Approx Watts dissipated air natural section for Oil temprature of							
	Per Eler	nent (inclu	de Pipe)	35°C	40°C	45°C	50°C	55°C	60°C		
400	0.298	2.28	0.87	90	96	108	120	133	160		
500	0.349	2.77	0.96	96	107	124	137	153	174		
600	0.405	3.25	1.17	110	124	137	156	175	197		
700	0.463	3.73	1.38	120	139	156	176	200	221		
800	0.532	4.22	1.57	133	154	174	197	222	247		
900	0.599	4.70	1.79	147	169	193	218	244	272		
1000	0.665	5.19	2.00	184	212	240	269	304	339		
1100	0.732	5.67	2.19	200	229	261	291	328	366		
1200	0.798	6.15	2.42	212	245	278	313	353	392		
1300	0.865	6.64	2.58	227	263	298	333	376	417		
1400	0.931	7.12	2.72	241	278	314	353	399	442		
1500	0.998	7.60	2.86	255	295	332	371	419	466		
1600	1.064	8.09	3.00	268	309	349	391	441	488		
1700	1.131	8.57	3.14	278	323	365	409	459	509		
1800	1.197	9.05	3.28	291	338	381	427	481	531		
1900	1.264	9.54	3.41	303	353	396	444	501	552		
2000	1.330	10.02	3.55	316	366	412	461	520	574		
2100	1.397	10.50	3.70	328	379	427	479	536	593		

Steel pressed transformer radiators (300 MM width)



Centre Distance in mm	Cooling Surface M ²	Net Weight Kgs	Oil in Itrs	Approx Watts dissipated air natural section for Oil temprature of							
	Per Elen	nent (inclu	ide Pipe)	35°C	40°C	45°C	50°C	55°C	60°C		
400	0.298	2.28	0.87	90	96	108	120	133	160		
500	0.349	2.77	0.96	96	107	124	137	153	174		
600	0.405	3.25	1.17	110	124	137	156	175	197		
700	0.463	3.73	1.38	120	139	156	176	200	221		
800	0.532	4.22	1.57	133	154	174	197	222	247		
900	0.599	4.70	1.79	147	169	193	218	244	272		
1000	0.665	5.19	2.00	184	212	240	269	304	339		
1100	0.732	5.67	2.19	200	229	261	291	328	366		
1200	0.798	6.15	2.42	212	245	278	313	353	392		
1300	0.865	6.64	2.58	227	263	298	333	376	417		
1400	0.931	7.12	2.72	241	278	314	353	399	442		
1500	0.998	7.60	2.86	255	295	332	371	419	466		
1600	1.064	8.09	3.00	268	309	349	391	441	488		
1700	1.131	8.57	3.14	278	323	365	409	459	509		
1800	1.197	9.05	3.28	291	338	381	427	481	531		
1900	1.264	9.54	3.41	303	353	396	444	501	552		
2000	1.330	10.02	3.55	316	366	412	461	520	574		
2100	1.397	10.50	3.70	328	379	427	479	536	593		



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info@paramountradiators.com



More information call us





350/1, ACHRONDA, GAGOL ROAD, PARTAPUR, Meerut, Uttar Pradesh, 250103, India



paramountradiators.com

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