इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी मंत्रालय
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY

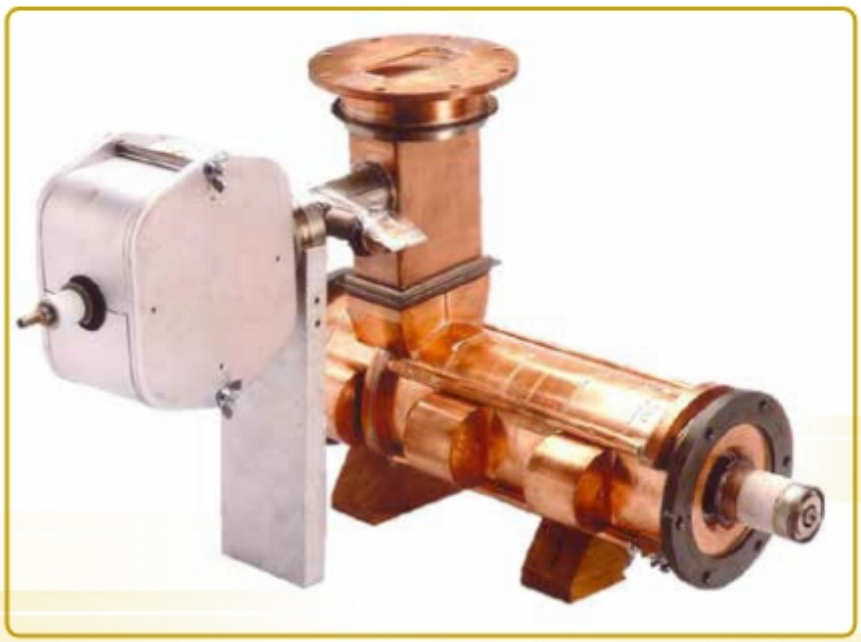
SAMEER

Tec-Verse 2026
CONNECT · COLLABORATE · INNOVATE

SIDDHARTH 6 MV Radiation Oncology System



- Indigenously developed Radiation Oncology System
- Design, development, fabrication, integration and testing done in house at SAMEER
- Clinical parameters as per international standards
- AERB type approved machine
- Technology transferred to Indian Industry



Linear Accelerator Tube

Specifications	
Energy	6 MV Photon
Dose Rate	Flattened dose 240 Rads/min at 1 m
Field size	0 x 0 to 35 x 35 cm^2
Field Flatness	< ±3 %
Field symmetry	< ±1.5 %
RF Source	Magnetron with Pulse Modulator
Console	FPGA based computerized

SOCIETY FOR APPLIED MICROWAVE ELECTRONICS ENGINEERING AND RESEARCH
R&D laboratory of Ministry of Electronics and Information Technology,
Govt. of India, IIT Campus, Powai, Mumbai : 400076, India
Tel. +91-22-2572-4699 | E-mail : dg@sameer.gov.in | Website : www.sameer.gov.in

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PATIENT EXPOSURE DATA OF MEDICAL LINACS						
YEAR	SIDDHARTH-1	SIDDHARTH-2	SIDDHARTH-3	SIDDHARTH-4	SIDDHARTH-5	TOTAL
2006	12,000					12,000
2007	14,000					14,000
2008	14,000	2,618				16,618
2009	14,000	14,374				28,374
2010	15,000	20,460				35,460
2011	11,000	12,798				23,798
2012		15,433				15,433
2013		25,944				25,944
2014		28,269	4,892			33,161
2015		15,164	6,744			21,908
2016		15,832	1,960			17,792
2017		18,597	0	3,325		21,922
2018		9,625	5,693	10,659		25,977
2019		2,813	16,803	552		20,168
2020			13,543	11,676		25,219
2021			15,019	17,729		32,748
2022			10,653	16,496		27,149
2023			14,190	16,750	5,101	36,041
2024			4,679	15,934	1,340	21,953
SUB-TOT	80,000	1,81,927	94,176	93,121	6,441	4,55,665
	COMM. IN AUG 2006 AT MGIMS WARDHA	COMM. IN MAR 2008 AT CI ADYAR	COMM. IN MAY 2014 AT ICF INDORE	COMM. IN APR 2017 AT ACF AMRAVATI	COMM. IN FEB 2023 AT CI ADYAR	



Siddharth-1



Siddharth-2



Siddharth-3



Siddharth-4



Siddharth-5

- AERB Type Approved Machine
- Nominal Energy 6 MV Photon
- More than FOUR Lakhs Patient exposures have been delivered using indigenously developed SIDDHARTH machines
- Transferred to Indian Industry in 2014, 2024

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