

## Indicative Specifications / Evaluation Form

Item No.	Item Description	Qty.	To Be Filled
1	<b>Cardio-vascular Injector system for IR(Interventional radiology)</b>	1	<b>Comply</b>
	<b>Specifications</b>		<b>Yes/No</b>
1	Technical offer must be clear in terms of standards , which will be offered with the Cardio-vascular Injector and Optional features and items . Please specify the details clearly and requested specs/info must be well supported with reference documents.		
2	The offered system shall be a state-of-the-art angiographic contrast delivery/injector system designed for coronary angiography, cardiac catheterization, ventriculography,Neuro and peripheral vascular procedures		
3	Please specify make, model and origin of the machine.		
4	Main injector console/control unit		
5	Injector head assembly		
6	Touchscreen monitor/control panel		
7	Hand controller (AngioTouch or equivalent)		
8	Mobile cart with lockable wheels and bed rail mounting system		
9	Pressure monitoring interface		
10	X-ray synchronization interface cables		
11	Automatic air column detection sensor		
12	Contrast source monitoring sensor		
13	Syringe valve sensor		
14	Isolation manifold safety mechanism		
15	Automatic high/low pressure switching		
16	Real-time pressure monitoring		
17	Automatic injection stop in case of air detection		
18	Audible and visual alarms & Emergency stop function		
19	Contrast media reduction technology		
20	Contrast flow rate-Variable and fixed from 0.1 to 40 ml/sec or better		
21	Flow rate increment-0.1 ml/sec or better		
22	Saline flow rate-Approx. 1.6 ml/sec or better		
23	Injection volume range-0.1 to 99.9 ml or better		
24	Volume increment 0.1 ml		
25	User adjustable Pressure limit range from 200 to 1200 psi		
26	Refill rate Automatic/manual refill approx. 3 ml/sec		
27	LCA, RCA, LV/Ao, pigtail, selective, microcatheter, user-defined Injection modes		
28	Synchronize with major angiography systems-Siemens -icono Pro unit		
29	Hemodynamic integration		
30	Variable real-time flow control		
31	Hand-operated proportional controller		
32	unit must be available for demonstration		
33	Lightweight and compact design suitable for clinical rooms.		
34	Easy to clean surfaces and disinfectable parts.		
35	Unit must be antimicrobial protection		
36	Power supply: 220–240V, 50/60 Hz		
37	Please specify the weight and unit must be provided with good quality castors .		
38	<u><b>Quality and Patient safety</b></u>		
38.1	Device should be CE and FDA approved		
38.2	Offered System must comply with Electrical safety IEC 6060-1		
38.3	Device must be manufactured on quality standards .Medical device Quality management system , ISO-13485 or equivalent.		

38.4	Electrical leakage and overload protection		
39	<b>Accessories</b>		
39.1	All necessary accessories		
40	<b>Consumables</b>		
40.1	Supplied with all standard consumables-Disposable patient kits, High-pressure tubing, Syringe assemblies, ivannirra assemblies, capability Sterile single use disposables		
41	<b>Available Additional Option</b>		
No.	OPTIONS DESCRIPTION		
42	<b>Important Notes &amp; Obligatory Conditions</b>		
A.	Completing this compliance sheet is mandatory. All the information to be provided by the vendor in the compliance sheet false information given will result in an immediate disqualification and the offer shall be considered null and void.		
B.	Complete on-site (off-site, if necessary) end user training for doctors and other associated staff and Service training for Staff is required.		
C.	Equipment Meets OR Exceeds IEC - 601, ISO, ANS, BS, JIS		
D.	Rated Voltage: 240V(+/- 5% ) 228-252 Volts single Phase OR 415 ( +/- 5% ) 395 - 435 Volts three Phase, 50 Hz .Three core cat earthed. Three pin electrical plug.		
E.	A Price List For Spare Parts: Must be provided to cover at least 7 years of operation and maintenance of the equipment supplied.		
F.	Operation And Service Manuals: All Manuals must be supplied as " Standard Requirements of Technical Documents " for Copies each and one Soft Copy for each.		
G.	Installation: All equipment must be installed by the manufacturer's engineer(s) or those approved from the Hospital Bio Department.		
H.	Warranty : Comprehensive minimum 3 Years warranty .		



multi-procedure syringe usage	
it must be 100% true. Any	
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le and the casing must be	
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medical Engineering	