

VOLUME - II

PRICE BID SPECIFICATION

PROJECT: *Material Handling, E&C for Mechanical , Electrical and C&I worksfor
Turboblower & Auxilliaries (TB-5) for RINL, Visakhapatnam*

BHARAT HEAVY ELECTRICALS LIMITED

	TENDER NO.: HY/PE&SD/E&C/ RINL_TB#5/MECH. /001 Project :: Material Handling, E&C for Mechanical , Electrical and C&I worksfor Turboblower & Auxilliaries (TB-5) for RINL, Visakhapatnam	REV00
	Name of the Work: Material Handling, E&C for Mechanical , Electrical and C&I worksfor Turboblower & Auxilliaries (TB-5) for RINL, Visakhapatnam	
	Name of the Bidder ::	Price offer no and Date :
	NOTES ::	
1	This document details the price/payment schedule format for the enquiry. No other format will be entertained and evaluated.	
2	Duly signed & stamped unpriced price schedule format shall be submitted along with Technical offer by bidder as a token of his concurrence that his price schedule is to be submitted in this format & prices shall be offered for all the items appearing in this price format .	
3	Bidder shall fill up prices of all items and submit to BHEL in separate sealed cover. All prices shall be submitted including of all taxes, (except service tax, which is payable seperately. Please refer, chapter: VII, Part - I of TCC for details)	
4	Total of price for all the items of "Schedule of Quantities" put together shall be considered for evaluation of the financial bid and for ascertaining the L-1 bidder. Any discount offered by the bidder on overall price or at the time of reverse auction will be uniformly applied on all the individual items for execution & billing purposes.	
5	For payment purpose,final contract value will be as per clause 2.14 of GCC	
6	All the bills will be settled from BHEL, PE&SD, -Hyderabad only.	

Name of the Work ::Material Handling, E&C for Mechanical , Electrical and C&I works for Turboblower & Auxilliaries (TB-5) for RINL, Visakhapatnam

Tender No.: HY/PE&SD/E&C/ RINL_TB#5/MECH. /001

Schedule of Rates

Abstract of Cost

Section No.	Item Description	Amount (Rs.)	Remarks
1.0	Equipment Erection		Carry over total of Section 1.0
2.0	Piping Fabrication		Carry over total of Section 2.0
3.0	Piping Radiography		Carry over total of Section 3.0
4.0	Piping Erection		Carry over total of Section 4.0
5.0	Thermal Insulation		Carry over total of Section 5.0
6.0	Material Handling		Carry over total of Section 6.0
	Total (Rs. In figures)=		
	Total (Rs. In words)=		

Name of the Work::Material Handling, E&C for Mechanical , Electrical and C&I worksfor
Turboblower & Auxilliaries (TB-5) for RINL, Visakhapatnam
Tender No.: HY/PE&SD/E&C/ RINL_TB#5/MECH. /001

Section 1.0 ERECTION, TESTING COMMISSIONING AND PAINTING APPLICATION

Item No.	Item Description	Qty	Weight	Total Wt
		Nos	Kgs	Kgs
1.1	Outer Casing - Upper Part + Exhaust Hood - Upper Part	1	20500	20500.00
1.2	Outer Casing Lower Part + Exhaust Hood - Lower Part	1	28500	28500.00
1.3	Front Bearing Housing	1	1600	1600.00
1.4	Rear Bearing Housing	1	4000	4000.00
1.5	Steam Chamber	1	1500	1500.00
1.6	Guide Blade Carrier-I	1	1100	1100.00
1.7	Guide Blade Carrier-II	1	600	600.00
1.8	Guide Blade Carrier-III	1	1600	1600.00
1.9	Guide Blade Carrier-IV	1	1700	1700.00
1.10	Guide Blade Carrier-V	1	6200	6200.00
1.11	Lube Oil Tank	1	5500	5500.00
1.12	Overhead Oil Tank	1	1500	1500.00
1.13	Duplex Filter	1	600	600.00
1.14	MOP, EOP Assembly	1	4000	4000.00
1.15	JOP Assembly (AC)	1	1500	1500.00
1.16	Oil Accumulator Station (6 Nos)	1	1200	1200.00
1.17	Oil Vapour Extraction Fans	2	100	200.00
1.18	Oil Centrifuge	1	250	250.00
1.19	Governing Console	1	1200	1200.00
1.20	Surface Condensor	1	120213	120213.00
1.21	Condensate Tank	1	2474	2474.00
1.22	Drain Cooler	1	1461.1	1461.10
1.23	Gland Steam Condensor	1	1512.1	1512.10
1.24	Ejector Silencer	1	256.8	256.80
1.25	HP Heater	1	10164.7	10164.70
1.26	HP Heater - 2	1	10109.4	10109.40
1.27	LP Heater	1	5934.8	5934.80
1.28	Lube Oil Cooler	1	6620	6620.00
1.29	SJAE	1	6070	6070.00
1.3	Flash Tank	1	4315.3	4315.30
1.31	HE_Piping	1	7421.7	7421.70
1.32	Lube Oil Filter Duplex	1	2600	2600.00
1.33	Lube Oil Filter Simplex	1	350	350.00
1.34	Inlet Air Filter Assembly	1	40000	40000.00
1.35	Discharge Silencer	1	3000	3000.00
1.36	CEP	1	6312.6	6312.60
1.37	Turbo Blower	1	75500	75500.00
1.38	Turbo Blower Base Frame	1	13500	13500.00
1.39	Turbo Blower Piping	1	1000	1000.00
1.40	Misc	1	1045.2	1045.20
				403110.70
	Rate : (Rs.) in figure & word			
	Amount= Rs.(In figures)			
	Amount= Rs.(In words)			

Schedule of Rates

Section 2.0 Piping Fabrication, Welding and Fitup

Item No.	Piping System	Type of Weld	Total Joints	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
2.1	AS Piping Size 0.5 Schedule/Thk. S160	TIG+SMAW	36			
2.2	AS Piping Size 0.5 Schedule/Thk. S80	TIG+SMAW	141			
2.3	AS Piping Size 1 Schedule/Thk. S160	TIG+SMAW	92			
2.4	AS Piping Size 1 Schedule/Thk. S40	TIG+SMAW	4			
2.5	AS Piping Size 1 Schedule/Thk. S80	TIG+SMAW	206			
2.6	AS Piping Size 1.5 Schedule/Thk. S80	TIG+SMAW	7			
2.7	AS Piping Size 2 Schedule/Thk. S160	TIG+SMAW	37			
2.8	AS Piping Size 2 Schedule/Thk. S40	TIG+SMAW	38			
2.9	AS Piping Size 2 Schedule/Thk. S80	TIG+SMAW	10			
2.10	AS Piping Size 3 Schedule/Thk. S160	TIG+SMAW	21			
2.11	AS Piping Size 3 Schedule/Thk. S40	TIG+SMAW	61			
2.12	AS Piping Size 3 Schedule/Thk. S80	TIG+SMAW	2			
2.13	AS Piping Size 4 Schedule/Thk. S40	TIG+SMAW	37			
2.14	AS Piping Size 4 Schedule/Thk. S80	TIG+SMAW	6			
2.15	AS Piping Size 6 Schedule/Thk. S40	TIG+SMAW	70			
2.16	AS Piping Size 10 Schedule/Thk. 33	TIG+SMAW	57			
2.17	AS Piping Size 10 Schedule/Thk. S160	TIG+SMAW	12			
2.18	AS Piping Size 14 Schedule/Thk. S40	TIG+SMAW	4			
2.19	CS Piping Size 0.25 Schedule/Thk. 10.7	TIG+SMAW	8			
2.20	CS Piping Size 0.25 Schedule/Thk. S80	TIG+SMAW	26			
2.21	CS Piping Size 0.375 Schedule/Thk. S160	TIG+SMAW	15			
2.22	CS Piping Size 0.5 Schedule/Thk. S160	TIG+SMAW	9			
2.23	CS Piping Size 0.5 Schedule/Thk. S40	TIG+SMAW	2			
2.24	CS Piping Size 0.5 Schedule/Thk. S80	TIG+SMAW	683			
2.25	CS Piping Size 0.75 Schedule/Thk. S80	TIG+SMAW	54			

Item No.	Piping System	Type of Weld	Total Joints	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
2.26	CS Piping Size 1 Schedule/Thk. S160	TIG+SMAW	39			
2.27	CS Piping Size 1 Schedule/Thk. S40	TIG+SMAW	2			
2.28	CS Piping Size 1 Schedule/Thk. S80	TIG+SMAW	617			
2.29	CS Piping Size 1.5 Schedule/Thk. S80	TIG+SMAW	108			
2.30	CS Piping Size 2 Schedule/Thk. S40	TIG+SMAW	78			
2.31	CS Piping Size 2 Schedule/Thk. S80	TIG+SMAW	126			
2.32	CS Piping Size 3 Schedule/Thk. S40	TIG+SMAW	249			
2.33	CS Piping Size 3 Schedule/Thk. S80	TIG+SMAW	8			
2.34	CS Piping Size 4 Schedule/Thk. S40	TIG+SMAW	161			
2.35	CS Piping Size 6 Schedule/Thk. S40	TIG+SMAW	181			
2.36	CS Piping Size 6 Schedule/Thk. S80	TIG+SMAW	3			
2.37	CS Piping Size 8 Schedule/Thk. S160	TIG+SMAW	75			
2.38	CS Piping Size 8 Schedule/Thk. S20	TIG+SMAW	155			
2.39	CS Piping Size 8 Schedule/Thk. S40	TIG+SMAW	154			
2.40	CS Piping Size 8 Schedule/Thk. S80	TIG+SMAW	18			
2.41	CS Piping Size 10 Schedule/Thk. S20	TIG+SMAW	6			
2.42	CS Piping Size 10 Schedule/Thk. S40	TIG+SMAW	8			
2.43	CS Piping Size 12 Schedule/Thk. S20	TIG+SMAW	15			
2.44	CS Piping Size 12 Schedule/Thk. S40	TIG+SMAW	3			
2.45	CS Piping Size .5 Schedule/Thk. 2	TIG+SMAW	4			
2.46	CS Piping Size 14 Schedule/Thk. S10	TIG+SMAW	65			
2.47	CS Piping Size 14 Schedule/Thk. S20	TIG+SMAW	36			
2.48	CS Piping Size 14 Schedule/Thk. S40	TIG+SMAW	4			
2.49	CS Piping Size 16 Schedule/Thk. 10	TIG+SMAW	3			
2.50	CS Piping Size 16 Schedule/Thk. S20	TIG+SMAW	1			
2.51	CS Piping Size 16 Schedule/Thk. S40	TIG+SMAW	2			
2.52	CS Piping Size 20 Schedule/Thk. 10	TIG+SMAW	8			
2.53	CS Piping Size 20 Schedule/Thk. 7	TIG+SMAW	2			

Item No.	Piping System	Type of Weld	Total Joints	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
2.54	CS Piping Size 20 Schedule/Thk. S10	TIG+SMAW	2			
2.55	CS Piping Size 24 Schedule/Thk. 10	TIG+SMAW	1			
2.56	CS Piping Size 24 Schedule/Thk. 8	TIG+SMAW	9			
2.57	CS Piping Size 24 Schedule/Thk. S10	TIG+SMAW	22			
2.58	CS Piping Size 28 Schedule/Thk. 8	TIG+SMAW	7			
2.59	CS Piping Size 30 Schedule/Thk. S40	TIG+SMAW	1			
2.60	CS Piping Size 32 Schedule/Thk. 8	TIG+SMAW	10			
2.61	CS Piping Size 36 Schedule/Thk. 10	TIG+SMAW	40			
2.62	CS Piping Size 40 Schedule/Thk. 10	TIG+SMAW	3			
2.63	CS Piping Size 48 Schedule/Thk. 10	TIG+SMAW	7			
2.64	CS Piping Size 52 Schedule/Thk. 12	TIG+SMAW	16			
2.65	CS Piping Size 60 Schedule/Thk. 10	TIG+SMAW	10			
2.66	CS Piping Size 64 Schedule/Thk. S10	TIG+SMAW	2			
2.67	SS Piping Size 0.25 Schedule/Thk. 10.7	TIG	12			
2.68	SS Piping Size 0.375 Schedule/Thk. S160	TIG	4			
2.69	SS Piping Size 0.5 Schedule/Thk. S160	TIG	20			
2.70	SS Piping Size 0.5 Schedule/Thk. S40	TIG	4			
2.71	SS Piping Size 0.5 Schedule/Thk. S80	TIG	174			
2.72	SS Piping Size 0.75 Schedule/Thk. S40	TIG	88			
2.73	SS Piping Size 0.75 Schedule/Thk. S80	TIG	268			
2.74	SS Piping Size 1 Schedule/Thk. S160	TIG	8			
2.75	SS Piping Size 1 Schedule/Thk. S40	TIG	92			
2.76	SS Piping Size 1 Schedule/Thk. S80	TIG	112			
2.77	SS Piping Size 1.5 Schedule/Thk. S40	TIG	18			
2.78	SS Piping Size 1.5 Schedule/Thk. S80	TIG	91			
2.79	SS Piping Size 2 Schedule/Thk. S10	TIG	80			
2.80	SS Piping Size 2 Schedule/Thk. S40	TIG	72			
2.81	SS Piping Size 2 Schedule/Thk. S80	TIG	8			

Item No.	Piping System	Type of Weld	Total Joints	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
2.82	SS Piping Size 3 Schedule/Thk. S10	TIG	99			
2.83	SS Piping Size 3 Schedule/Thk. S40	TIG	9			
2.84	SS Piping Size 4 Schedule/Thk. S10	TIG	17			
2.85	SS Piping Size 4 Schedule/Thk. S40	TIG	12			
2.86	SS Piping Size 6 Schedule/Thk. S10	TIG	82			
2.87	SS Piping Size 6 Schedule/Thk. S80	TIG	9			
2.88	SS Piping Size 8 Schedule/Thk. S10	TIG	54			
2.89	SS Piping Size 10 Schedule/Thk. S10	TIG	7			
2.90	SS Piping Size 10 Schedule/Thk. S20	TIG	4			
	Total Amount (Rs. In Figures)=					
	Total Amount (Rs. In words)=					

Name of the Work ::Material Handling, E&C for Mechanical , Electrical and C&I worksfor Turboblower & Auxilliaries (TB-5) for RINL, Visakhapatnam

Tender No.: HY/PE&SD/E&C/ RINL_TB#5/MECH./001

Schedule of Rates

Section 3.0 Piping Radiography

Item No.	Piping System	Type of Weld	No of Joint	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
3.1	AS Piping Size 0.5 Schedule/Thk. S160	TIG+SMAW	36			
3.2	AS Piping Size 0.5 Schedule/Thk. S80	TIG+SMAW	141			
3.3	AS Piping Size 1 Schedule/Thk. S160	TIG+SMAW	92			
3.4	AS Piping Size 1 Schedule/Thk. S40	TIG+SMAW	4			
3.5	AS Piping Size 1 Schedule/Thk. S80	TIG+SMAW	206			
3.6	AS Piping Size 1.5 Schedule/Thk. S80	TIG+SMAW	7			
3.7	AS Piping Size 2 Schedule/Thk. S160	TIG+SMAW	37			
3.8	AS Piping Size 2 Schedule/Thk. S40	TIG+SMAW	38			
3.9	AS Piping Size 2 Schedule/Thk. S80	TIG+SMAW	10			
3.10	AS Piping Size 3 Schedule/Thk. S160	TIG+SMAW	21			
3.11	AS Piping Size 3 Schedule/Thk. S40	TIG+SMAW	61			
3.12	AS Piping Size 3 Schedule/Thk. S80	TIG+SMAW	2			
3.13	AS Piping Size 4 Schedule/Thk. S40	TIG+SMAW	37			
3.14	AS Piping Size 4 Schedule/Thk. S80	TIG+SMAW	6			
3.15	AS Piping Size 6 Schedule/Thk. S40	TIG+SMAW	70			
3.16	AS Piping Size 10 Schedule/Thk. 33	TIG+SMAW	57			
3.17	AS Piping Size 10 Schedule/Thk. S160	TIG+SMAW	12			
3.18	AS Piping Size 14 Schedule/Thk. S40	TIG+SMAW	4			
3.19	CS Piping Size 0.25 Schedule/Thk. 10.7	TIG+SMAW	1			
3.20	CS Piping Size 0.25 Schedule/Thk. S80	TIG+SMAW	3			
3.21	CS Piping Size 0.375 Schedule/Thk. S160	TIG+SMAW	2			
3.22	CS Piping Size 0.5 Schedule/Thk. S160	TIG+SMAW	1			
3.23	CS Piping Size 0.5 Schedule/Thk. S40	TIG+SMAW	1			
3.24	CS Piping Size 0.5 Schedule/Thk. S80	TIG+SMAW	70			
3.25	CS Piping Size 0.75 Schedule/Thk. S80	TIG+SMAW	6			
3.26	CS Piping Size 1 Schedule/Thk. S160	TIG+SMAW	4			
3.27	CS Piping Size 1 Schedule/Thk. S40	TIG+SMAW	1			

Item No.	Piping System	Type of Weld	No of Joint	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
3.28	CS Piping Size 1 Schedule/Thk. S80	TIG+SMAW	65			
3.29	CS Piping Size 1.5 Schedule/Thk. S80	TIG+SMAW	12			
3.30	CS Piping Size 2 Schedule/Thk. S40	TIG+SMAW	8			
3.31	CS Piping Size 2 Schedule/Thk. S80	TIG+SMAW	14			
3.32	CS Piping Size 3 Schedule/Thk. S40	TIG+SMAW	25			
3.33	CS Piping Size 3 Schedule/Thk. S80	TIG+SMAW	1			
3.34	CS Piping Size 4 Schedule/Thk. S40	TIG+SMAW	20			
3.35	CS Piping Size 6 Schedule/Thk. S40	TIG+SMAW	20			
3.36	CS Piping Size 6 Schedule/Thk. S80	TIG+SMAW	1			
3.37	CS Piping Size 8 Schedule/Thk. S160	TIG+SMAW	10			
3.38	CS Piping Size 8 Schedule/Thk. S20	TIG+SMAW	16			
3.39	CS Piping Size 8 Schedule/Thk. S40	TIG+SMAW	16			
3.40	CS Piping Size 8 Schedule/Thk. S80	TIG+SMAW	2			
3.41	CS Piping Size 10 Schedule/Thk. S20	TIG+SMAW	1			
3.42	CS Piping Size 10 Schedule/Thk. S40	TIG+SMAW	1			
3.43	CS Piping Size 12 Schedule/Thk. S20	TIG+SMAW	1			
3.44	CS Piping Size 12 Schedule/Thk. S40	TIG+SMAW	1			
3.45	CS Piping Size 0.5 Schedule/Thk. 2	TIG+SMAW	1			
3.46	CS Piping Size 14 Schedule/Thk. S10	TIG+SMAW	8			
3.47	CS Piping Size 14 Schedule/Thk. S20	TIG+SMAW	5			
3.48	CS Piping Size 14 Schedule/Thk. S40	TIG+SMAW	1			
3.49	CS Piping Size 16 Schedule/Thk. 10	TIG+SMAW	1			
3.50	CS Piping Size 16 Schedule/Thk. S20	TIG+SMAW	1			
3.51	CS Piping Size 16 Schedule/Thk. S40	TIG+SMAW	1			
3.52	CS Piping Size 20 Schedule/Thk. 10	TIG+SMAW	1			
3.53	CS Piping Size 20 Schedule/Thk. 7	TIG+SMAW	1			
3.54	CS Piping Size 20 Schedule/Thk. S10	TIG+SMAW	1			
3.55	CS Piping Size 24 Schedule/Thk. 10	TIG+SMAW	1			
3.56	CS Piping Size 24 Schedule/Thk. 8	TIG+SMAW	1			

Item No.	Piping System	Type of Weld	No of Joint	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
3.57	CS Piping Size 24 Schedule/Thk. S10	TIG+SMAW	3			
3.58	CS Piping Size 28 Schedule/Thk. 8	TIG+SMAW	1			
3.59	CS Piping Size 30 Schedule/Thk. S40	TIG+SMAW	1			
3.60	CS Piping Size 32 Schedule/Thk. 8	TIG+SMAW	1			
3.61	CS Piping Size 36 Schedule/Thk. 10	TIG+SMAW	4			
3.62	CS Piping Size 40 Schedule/Thk. 10	TIG+SMAW	1			
3.63	CS Piping Size 48 Schedule/Thk. 10	TIG+SMAW	1			
3.64	CS Piping Size 52 Schedule/Thk. 12	TIG+SMAW	2			
3.65	CS Piping Size 60 Schedule/Thk. 10	TIG+SMAW	1			
3.66	CS Piping Size 64 Schedule/Thk. S10	TIG+SMAW	2			
3.67	SS Piping Size 0.25 Schedule/Thk. 10.7	TIG	2			
3.68	SS Piping Size 0.375 Schedule/Thk. S160	TIG	1			
3.69	SS Piping Size 0.5 Schedule/Thk. S160	TIG	2			
3.70	SS Piping Size 0.5 Schedule/Thk. S40	TIG	1			
3.71	SS Piping Size 0.5 Schedule/Thk. S80	TIG	20			
3.72	SS Piping Size 0.75 Schedule/Thk. S40	TIG	10			
3.73	SS Piping Size 0.75 Schedule/Thk. S80	TIG	30			
3.74	SS Piping Size 1 Schedule/Thk. S160	TIG	1			
3.75	SS Piping Size 1 Schedule/Thk. S40	TIG	10			
3.76	SS Piping Size 1 Schedule/Thk. S80	TIG	12			
3.77	SS Piping Size 1.5 Schedule/Thk. S40	TIG	3			
3.78	SS Piping Size 1.5 Schedule/Thk. S80	TIG	10			
3.79	SS Piping Size 2 Schedule/Thk. S10	TIG	8			
3.80	SS Piping Size 2 Schedule/Thk. S40	TIG	8			
3.81	SS Piping Size 2 Schedule/Thk. S80	TIG	1			
3.82	SS Piping Size 3 Schedule/Thk. S10	TIG	10			
3.83	SS Piping Size 3 Schedule/Thk. S40	TIG	1			
3.84	SS Piping Size 4 Schedule/Thk. S10	TIG	2			
3.85	SS Piping Size 4 Schedule/Thk. S40	TIG	2			

Item No.	Piping System	Type of Weld	No of Joint	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
3.86	SS Piping Size 6 Schedule/Thk. S10	TIG	10			
3.87	SS Piping Size 6 Schedule/Thk. S80	TIG	2			
3.88	SS Piping Size 8 Schedule/Thk. S10	TIG	6			
3.89	SS Piping Size 10 Schedule/Thk. S10	TIG	1			
3.90	SS Piping Size 10 Schedule/Thk. S20	TIG	1			
	Total Amount (Rs. In Figures)=					
	Total Amount (Rs. In words)=					

Name of Work ::Material Handling, E&C for Mechanical , Electrical and C&I worksfor Turboblower & Auxilliaries (TB-5) for RINL, Visakhapatnam

Tender No.: HY/PE&SD/E&C/ RINL_TB#5/MECH./001

Schedule of Rates

Section 4.0 Piping Erection including supports and Hanger

Item No.	Piping System, Size / Thickness	Wt Kgs	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
4.1	AS Piping Size 0.5 Schedule/Thk. S160	90			
4.2	AS Piping Size 0.5 Schedule/Thk. S80	440.8			
4.3	AS Piping Size 1 Schedule/Thk. S160	122.2			
4.4	AS Piping Size 1 Schedule/Thk. S40	0.8			
4.5	AS Piping Size 1 Schedule/Thk. S80	1416.3			
4.6	AS Piping Size 1.5 Schedule/Thk. S80	130.4			
4.7	AS Piping Size 2 Schedule/Thk. S160	615.9			
4.8	AS Piping Size 2 Schedule/Thk. S40	136.6			
4.9	AS Piping Size 2 Schedule/Thk. S80	30			
4.10	AS Piping Size 3 Schedule/Thk. S160	649.2			
4.11	AS Piping Size 3 Schedule/Thk. S40	902.8			
4.12	AS Piping Size 3 Schedule/Thk. S80	3.4			
4.13	AS Piping Size 4 Schedule/Thk. S40	1126.5			
4.14	AS Piping Size 4 Schedule/Thk. S80	514			
4.15	AS Piping Size 6 Schedule/Thk. S40	1685.5			
4.16	AS Piping Size 10 Schedule/Thk. 33	25905			
4.17	AS Piping Size 10 Schedule/Thk. S160	2607.8			
4.18	AS Piping Size 14 Schedule/Thk. S40	820			
4.19	CS Piping Size 0.25 Schedule/Thk. 10.7	1.2			
4.20	CS Piping Size 0.25 Schedule/Thk. S80	20.8			
4.21	CS Piping Size 0.375 Schedule/Thk. S160	1.2			
4.22	CS Piping Size 0.5 Schedule/Thk. S160	32.5			
4.23	CS Piping Size 0.5 Schedule/Thk. S40	14.4			
4.24	CS Piping Size 0.5 Schedule/Thk. S80	1218.4			
4.25	CS Piping Size 0.75 Schedule/Thk. S80	41.5			
4.26	CS Piping Size 1 Schedule/Thk. S160	334.8			
4.27	CS Piping Size 1 Schedule/Thk. S40	0.4			
4.28	CS Piping Size 1 Schedule/Thk. S80	2110.1			
4.29	CS Piping Size 1.5 Schedule/Thk. S80	488.8			
4.30	CS Piping Size 2 Schedule/Thk. S40	529.9			
4.31	CS Piping Size 2 Schedule/Thk. S80	812.6			
4.32	CS Piping Size 3 Schedule/Thk. S40	3506.4			
4.33	CS Piping Size 3 Schedule/Thk. S80	4			
4.34	CS Piping Size 4 Schedule/Thk. S40	3009.2			
4.35	CS Piping Size 6 Schedule/Thk. S40	8072.8			
4.36	CS Piping Size 6 Schedule/Thk. S80	23.4			
4.37	CS Piping Size 8 Schedule/Thk. S160	9213.6			

Item No.	Piping System, Size / Thickness	Wt Kgs	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
4.38	CS Piping Size 8 Schedule/Thk. S20	5292.8			
4.39	CS Piping Size 8 Schedule/Thk. S40	13630			
4.40	CS Piping Size 8 Schedule/Thk. S80	14580			
4.41	CS Piping Size 10 Schedule/Thk. S20	304.2			
4.42	CS Piping Size 10 Schedule/Thk. S40	840			
4.43	CS Piping Size 12 Schedule/Thk. S20	472.2			
4.44	CS Piping Size 12 Schedule/Thk. S40	60			
4.45	CS Piping Size .5 Schedule/Thk. 2	14.1			
4.46	CS Piping Size 14 Schedule/Thk. S10	2900.7			
4.47	CS Piping Size 14 Schedule/Thk. S20	324			
4.48	CS Piping Size 14 Schedule/Thk. S40	890			
4.49	CS Piping Size 16 Schedule/Thk. 10	135			
4.50	CS Piping Size 16 Schedule/Thk. S20	314.4			
4.51	CS Piping Size 16 Schedule/Thk. S40	762			
4.52	CS Piping Size 20 Schedule/Thk. 10	544			
4.53	CS Piping Size 20 Schedule/Thk. 7	1056			
4.54	CS Piping Size 20 Schedule/Thk. S10	39			
4.55	CS Piping Size 24 Schedule/Thk. 10	96			
4.56	CS Piping Size 24 Schedule/Thk. 8	6345			
4.57	CS Piping Size 24 Schedule/Thk. S10	913.2			
4.58	CS Piping Size 28 Schedule/Thk. 8	1113.9			
4.59	CS Piping Size 30 Schedule/Thk. S40	125			
4.60	CS Piping Size 32 Schedule/Thk. 8	6943			
4.61	CS Piping Size 36 Schedule/Thk. 10	27769.2			
4.62	CS Piping Size 40 Schedule/Thk. 10	4464			
4.63	CS Piping Size 48 Schedule/Thk. 10	9196			
4.64	CS Piping Size 52 Schedule/Thk. 12	39952			
4.65	CS Piping Size 60 Schedule/Thk. 10	10808.9			
4.66	CS Piping Size 64 Schedule/Thk. S10	332			
4.67	SS Piping Size 0.25 Schedule/Thk. 10.7	0.4			
4.68	SS Piping Size 0.375 Schedule/Thk. S160	0.2			
4.69	SS Piping Size 0.5 Schedule/Thk. S160	1.5			
4.70	SS Piping Size 0.5 Schedule/Thk. S40	30.2			
4.71	SS Piping Size 0.5 Schedule/Thk. S80	16.4			
4.72	SS Piping Size 0.75 Schedule/Thk. S40	124.5			
4.73	SS Piping Size 0.75 Schedule/Thk. S80	326.7			
4.74	SS Piping Size 1 Schedule/Thk. S160	0.9			
4.75	SS Piping Size 1 Schedule/Thk. S40	472.4			
4.76	SS Piping Size 1 Schedule/Thk. S80	65.1			
4.77	SS Piping Size 1.5 Schedule/Thk. S40	243.6			

Item No.	Piping System, Size / Thickness	Wt Kgs	Rate(Rs.) in figure & word	Amount(Rs.) in figure & word	Remarks
4.78	SS Piping Size 1.5 Schedule/Thk. S80	126.8			
4.79	SS Piping Size 10 Schedule/Thk. S10	228.3			
4.80	SS Piping Size 10 Schedule/Thk. S20	68			
4.81	SS Piping Size 2 Schedule/Thk. S10	181.7			
4.82	SS Piping Size 2 Schedule/Thk. S40	225.4			
4.83	SS Piping Size 2 Schedule/Thk. S80	44.4			
4.84	SS Piping Size 3 Schedule/Thk. S10	553.2			
4.85	SS Piping Size 3 Schedule/Thk. S40	172.2			
4.86	SS Piping Size 4 Schedule/Thk. S10	123.2			
4.87	SS Piping Size 4 Schedule/Thk. S40	23.4			
4.88	SS Piping Size 6 Schedule/Thk. S10	232.7			
4.89	SS Piping Size 6 Schedule/Thk. S80	99			
4.90	SS Piping Size 8 Schedule/Thk. S10	897.6			
	Total Amount (Rs. In Figures)=				
	Total Amount (Rs. In words)=				

Name of the Work ::Material Handling, E&C for Mechanical , Electrical and C&I worksfor Turboblower & Auxilliaries (TB-5) for RINL, Visakhapatnam

Tender No.: HY/PE&SD/E&C/ RINL_TB#5/MECH. /001

Schedule of Rates

Section 5.0Thermal Insulation application for Piping and Equipments

Item No.	Description	Unit	Quantity	Rate (Rs.) in figures & words	Amount (Rs.) in figures & words
5.1	Insulation as per specification provided in TCC	MT	12.0		
Total Amount(Rs.) in figures=					
Total Amount(Rs.) in words=					

Name of the Work ::Material Handling, E&C for Mechanical , Electrical and C&I worksfor
Turboblower & Auxilliaries (TB-5) for RINL, Visakhapatnam

Tender No.: HY/PE&SD/E&C/ RINL_TB#5/MECH. /001

Schedule of Rates

Section 6.0 Material Handling

Item No.	Item Description	Qty	Weight	Total Wt
		Nos	Kgs	Kgs
6.1	Outer Casing Lower Part + Exhaust Hood - Lower Part	1	28500	28500.0
6.2	Front Bearing Housing	1	1600	1600.0
6.3	Rear Bearing Housing	1	4000	4000.0
6.4	Steam Chamber	1	1500	1500.0
6.5	Guide Blade Carrier-I	1	1100	1100.0
6.6	Guide Blade Carrier-II	1	600	600.0
6.7	Guide Blade Carrier-III	1	1600	1600.0
6.8	Guide Blade Carrier-IV	1	1700	1700.0
6.9	Guide Blade Carrier-V	1	6200	6200.0
6.10	Lube Oil Tank	1	5500	5500.0
6.11	Overhead Oil Tank	1	1500	1500.0
6.12	Duplex Filter	1	600	600.0
6.13	MOP, EOP Assembly	1	4000	4000.0
6.14	JOP Assembly (AC)	1	1500	1500.0
6.15	Oil Accumulator Station (6 Nos)	1	1200	1200.0
6.16	Oil Vapour Extraction Fans	2	100	200.0
6.17	Oil Centrifuge	1	250	250.0
6.18	Governing Console	1	1200	1200.0
6.19	Surface Condensor	1	120213	120213.0
6.20	Condensate Tank	1	2474	2474.0
6.21	Drain Cooler	1	1461.1	1461.1
6.22	Gland Steam Condensor	1	1512.1	1512.1
6.23	Ejector Silencer	1	256.8	256.8
6.24	HP Heater	1	10164.7	10164.7
6.25	HP Heater - 2	1	10109.4	10109.4
6.26	LP Heater	1	5934.8	5934.8
6.27	Lube Oil Cooler	1	6620	6620.0
6.28	SJAE	1	6070	6070.0
6.29	Flash Tank	1	4315.3	4315.3
6.30	HE_Piping	1	7421.7	7421.7
6.31	Lube Oil Filter Duplex	1	2600	2600.0
6.32	Lube Oil Filter Simplex	1	350	350.0
6.33	Inlet Air Filter Assembly	1	40000	40000.0
6.34	Discharge Silencer	1	3000	3000.0
6.35	Piping	1	272020.5	272020.5
6.36	Support	1	13601.025	13601.0
6.37	CEP	1	6312.6	6312.6
6.38	Electrical, Instrumentation	1	144128.2	144128.2
6.39	Turbo Blower	1	75500	75500.0
6.40	Turbo Blower Base frame	1	13500	13500.0
6.41	Turbo Blower Piping	1	1000	1000.0
6.42	Misc	1	1045.2	1045.2
				812360.4
	Rehandling@10%=-			81236.0
	Grand Total=			893596.5
	say, MT.			893.6
	Rate : (Rs.) in figure & word			
	Amount= Rs.(In figures)			
	Amount= Rs.(In words)			