

Nashpa Oil Field & LPG Gas Processing Plant,

OIL & GAS DEVELOPMENT COMPANY LIMITED DISTRICT KARAK.

Tel. Phone # 0922-526295 (I/C Mechanical)

Fax: 0922-526299

Email: mechanical_nashpa@ogdcl.com

TENDER NOTICE

- 1- Oil & Gas Development Company Limited (OGDCL) is the largest Exploration and Production listed Company of Pakistan having operations at 48 locations and fields in all the four provinces, intends to procure material for its operations. The details about the company can be obtained from website http://www.ogdcl.com
- 2- Sealed bids in duplicate along with prescribed Bid Bond from a Scheduled Bank or branch of foreign bank operating in Pakistan of the quoted FOR value are invited for the material given below under Competitive Bidding Procedure on Single Stage Single Envelope Bidding System. Terms and conditions are mentioned in the tender documents.

Sr.#	Tender Enquiry No.	Description	Bids Submission Date & Time	Bids Opening Date & Time	Bid Bond Value
1	TE/NOF/M/01/2024	Hiring Of Services for Chemical Cleaning of Air Cooled Heat Exchangers of Engines at Nashpa Plant	3:30 PM 20-FEB-2024	4:00 PM 20-FEB-2024	Rs. 20,000/-

- 3- Tender Documents / Tender Enquiry can be obtained/downloaded from OGDCL WEBSITE, www.ogdcl.com or on written request from the Office of the INCHARGE MECHANICAL NASHPA OIL FIELD & LPG GAS PROCESSING PLANT C/O MANAGER TCS DISTRICT KOHAT, Pakistan on any day from 0900 Hours (PST) to 1300 Hours (PST).
- 4- The bids will be opened at the Mechanical Office Nashpa LPG Plant. The couriers are received at TCS Centre Kohat. It takes on average 02 days (after delivery at TCS Centre, Kohat) to reach concerned section after documentation at Field. It is, therefore, advised that the bidder should dispatch the courier considering lead time. Bids will be opened on time and date mentioned

against each Tender Enquiry. Bidder(s) or their Authorized Representative(s) are encouraged to attend the Tender Opening meetings to ensure on time bid submission.

5- Bidders must provide their own as well as principal business details at the time of tender purchase including Address, Phone & Fax Numbers, E-mail (if any) for effective communication. If further details/clarifications are required, it may be obtained from INCHARGE MECHANICAL NASHPA OIL FIELD & LPG GAS PROCESSING PLANT C/O MANAGER TCS DISTRICT KOHAT via e-mail, phone and personally.

6- The OGDCL reserves the right to accept or reject any bid and to annul the bidding process and reject all the bids at any time prior to award of Purchase Order.

Mailing Address:

I/C Mechanical Nashpa Oil Field & LPG Gas Processing Plant

OIL & GAS DEVELOPMENT COMPANY LIMITED C/O TCS MANAGER DISTRICT KOHAT
Tel. Phone # 0922-526295 (I/C Mechanical)

Fax: 0922-526299

Email: mechanical_nashpa@ogdcl.com

OIL AND GAS DEVELOPMENT COMPANY LIMITED NASHPA OIL & GAS FIELD

SCHEDULE OF REQUIREMENT TENDER ENQUIRY # TE/NOF/M/01/2024

Hiring Of Services for Internal Chemical Cleaning/Removal of Water Scale Deposits of 02 Nos. Air-Cooled Exchangers/Condensers at Nashpa Plant

S#	Description	Reference #	Rate	Total rate (inclusive of all Taxes)	Deviation
1	As per attached Scope of Work				

SCOPE OF WORK:

Sr No.	Description	Unit	Qty.	Unit Rate (PKR)	Cost (PKR)
1.	Pressure Test for leakage Detection	Activity	2		
2.	Chemical Circulation and Flushing of Air Cooled Exchanger/Condenser for removal of Water Scale Deposits	Activity	2		
3.	Circulation of Neutralizer Solution to maintain tube metallurgy	Activity	2		
4.	Mobilization/Demobilization Cost	Activity	2		
			l	Total	
			1	5% KPRA Tax	
				Grand Total	

TERMS AND CONDITIONS:

- 1. All bidders should carefully read TOR's attached with the Tender documents before submission of Bid.
- 2. The complete cost of services should be broken down into the service heads mentioned in the section "Scope of Services". The services should be inclusive of tools, equipment and cost of material to be utilized. No payment against any other service or material head shall me made or considered for evaluation of the bid.
- 3. Technical Data Sheet/Drawing of Air Cooled Exchanger/Condenser is attached herewith for the purpose of cost estimation required for financial offer.
- 4. Feel Free to contact on email address: mechanical-nashpa@ogdcl.com for any query in connection with clarification about scope of work.
- 5. Rate must be quoted against each of the enlisted Activities. Evaluation will be based on complete scope of work.
- 6. Evaluation of the bids shall take place on the total cost of all services exclusive of GST.
- 7. Boarding & lodging will be provided by OGDCL.
- 8. Logistics support (Crane, Lifter and Trailer) will be provided by OGDCL.
- 9. Power will be provided by OGDCL.
- 10. Contractor will provide supervision, labour, materials/Chemicals, tools, machines and equipment's to clean Air Cooled Exchanger/Condenser Chemical Descaling without any metal loss.
- 11. Contractor will Provide Product data sheet and MSDS of chemicals to be used as inhibitor/neutralizer pertinent to tube metallurgy.
- 12. Contractor will provide required PPE's to its labour.

- 13. Contractor will comply with HSE policy of OGDCL.
- 14. Contractor will follow the safety protocols regarding Corona Pandemic.
- 15. After issuance of formal work order, Contractor is to provide services immediately or at a date mentioned by OGDCL.
- 16. Payment will be made as per OGDCL's standard procedure.
- 17. OGDCL reserves the right to inspect, stop and advise rework for any job either during execution or after execution, if deemed necessary by the Company's representative based on quality of the job, finish of the job or if the job is not being or have been performed in line with the best engineering practices. In this regard, the rework will be in Contractor's Scope.
- 18. Contractor must have 5-10 years' of relevant experience substantiated by documentary evidence (Service orders, work completion certificates etc.). Without documentary evidence bid will be rejected.
- 19. Partial Payments will not be made, in any case.
- 20. Management of the plant reserves the right to curtail the job list or terminate the services of any hired staff at any time without any reason.
- 21. Contractor should ensure the police verification of all manpower direct and indirect and must have bio-data file of each.

[] AIR-COOLED CONDENSER

	Kelvion		[X] AIR C	OOLER EX		DATA SHEE		COOLED C	ONDENSER	
1	INQUIRY N°			PROJECT NO.		1		ITEM NO.		
2	SITE	Pakistan		ORDER NO.				ALTERNATIVE		
3	CUSTOMER	Westrac			ı			DESCRIPTION		
J	TYPE	IF-PB206T3H-091H06D		IDENTIFICATION				DESCRIPTION		
4			1-0311100D			1				
4	ARRANGEMENT	INDUCED	LT CIF	CUIT				LIT CIDCLII	-	
_		+	LI CIF			HT CIRCUIT				
5	HEAT EXCHANGED			210		HEAT EXCHANGED			1375 Kw	
6	TRANSFER RATE / FINNED	<u> </u>		44.1	W/m².K	TRANSFER RATE / FINNED			60.6 W/m².K	
7	FOULING FACTOR					FOULING FACTOR			m².K/W	
8				PRO	ODUCT SIDE					
9	PRODUCT	Water + Mono	Ethylene Glyc	ol 50 %		Water + Mono Ethylene Glycol 50 %				
10	TEMPERATURE	IN	62.7°C	OUT	54.0°C	IN	95.0°C	OUT	82.5°C	°C
11		LIQUID	STEAM	LIQUID	STEAM	LIQUID	VAPOR	STEAM	INERTS	
12	FLOW	24.0				108.0				m3/h
13	MOL. WEIGHT									
14	DENSITY									Kg/m ³
15	VISCOSITY					Ī				Cst
16	SPECIFC HEAT	1								kJ/kg.K
17	LATENT HEAT	1								kJ/kg.K
18	CONDUCTIVITY	+								W/m.K
20	OPERATING PRESSURE AT INLET	+	l		Bar	ODEBATING DO	ESSLIDE VA. IV	<u>I</u>		
_		+			Bar	OPERATING PR				Bar
21	CALCULATED PRESSURE DROP			0.14		CALCULATED P	RESSURE DROP	,	0.5	Bar
22			,		AIR SIDE					
23	INLET TEMPERATURE			46.0	°C	AVERAGE OUTL	ET TEMPERATU	IRE	70.8	°C
24	AIR QUANTITY			68	M3/S	AIR QUANTITY/F	AN		5.7 M3/S	
25	STATIC PRESSURE DROP 20°C			87	Pa	RELATIVE HUMI	DITY AT 46 °C		50 %	
26	MAX./MIN AIR TEMPERATURE			-/-	°C	ALTITUDE ABOVE SEA LEVEL			823 M	
27			•	CON	STRUCTION	1				
28	DESIGN OVER-PRESSURE			6	BAR				Kelvion	
29	TEST PRESSURE			9 BAR		APPROVAL OF DRAWINGS			CUSTOMER+Kelvion	
30	DESIGN TEMPERATURE		100 °C		INSPECTION BY			Kelvion		
31		I T	LIT		-			·		
_	TUBE BUNDLE	LT	HT	HEADER		PIPE DIMENSIONS COPPER WALL THK			0 MM	
32	NUMBER OF BUNDLES	1	1	TYPE						
33	BUNDLES IN PARALLEL	1	1	MATERIAL					0.5	MM
34	BUNDLES IN SERIES			CONN. TUBE-TU	JBE SHEET	BRA		FINNED LG	9000	MM
35	TUBE ROWS/BUNDLE			GASKET MATER	RIAL	N.	/A	MATERIAL	COPPER	
36					NCE	0 MM			NGULAR	
ا ئے	TUBES / BUNDLE			CORR. ALLOWA	INCE	0	MM	FIN RECTAN	NGULAR	
_	TUBES / BUNDLE TUBE PITCH			INLET NUMBER		0 1 2 1/2		FIN RECTAN	CONTINUOUS	3
37					SIZE LT HT		! / 1 6"			S MM
37 38	TUBE PITCH			INLET NUMBER	/SIZE LT HT ER/SIZE LT HT	1 2 1/2	! / 1 6" ! / 1 6"	TYPE	CONTINUOUS	
37 38 39	TUBE PITCH NO. OF PASSES SPLIT HEADER			INLET NUMBER OUTLET NUMBE FLANGE MATER	/SIZE LT HT ER/SIZE LT HT RIAL	1 2 1/2 2 2 1/2 C	2 / 1 6" 2 / 1 6" .S	TYPE FIN PITCH LT/H [*] MATERIAL	CONTINUOUS 2.1 Aluminium	
37 38 39 40	TUBE PITCH NO. OF PASSES			INLET NUMBER OUTLET NUMBE FLANGE MATER FLANGE DESIG	/SIZE LT HT ER/SIZE LT HT RIAL	1 2 1/2 2 2 1/2 C	2 / 1 6" 2 / 1 6" .S	TYPE FIN PITCH LT/H [*] MATERIAL	CONTINUOUS 2.1	
37 38 39 40	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW			INLET NUMBER OUTLET NUMBE FLANGE MATER FLANGE DESIGN MECHANI	/SIZE LT HT ER/SIZE LT HT RIAL	1 2 1/2 2 2 1/2 C	2 / 1 6" 2 / 1 6" .S	TYPE FIN PITCH LT/H MATERIAL BOND TYPE	CONTINUOUS 2.1 Aluminium	
37 38 39 40 41	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN	000		INLET NUMBER OUTLET NUMBE FLANGE MATER FLANGE DESIGN MECHANI MOTOR	/SIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C	2 / 1 6" 2 / 1 6" .S	TYPE FIN PITCH LT/H [*] MATERIAL	CONTINUOUS 2.1 Aluminium	
37 38 39 40 41 42	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER	900	mm	OUTLET NUMBER OUTLET NUMBE FLANGE MATER FLANGE DESIGN MECHANI MOTOR ARRANGEMENT	/SIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I	2 / 1 6" 2 / 1 6" .S PN16	TYPE FIN PITCH LT/H MATERIAL BOND TYPE DRIVE	CONTINUOUS 2.1 Aluminium	
37 38 39 40 41 42 43	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM	950	MIN-1	OUTLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGN MECHANI MOTOR ARRANGEMENT RPM	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT	2/16" 2/16" S PN16	TYPE FIN PITCH LT/H MATERIAL BOND TYPE	CONTINUOUS 2.1 Aluminium	
37 38 39 40 41 42 43 44	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN	+		INLET NUMBER OUTLET NUMBE FLANGE MATER FLANGE DESIGIO MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2	2/16" 2/16" SPN16	TYPE FIN PITCH LT/H MATERIAL BOND TYPE DRIVE	CONTINUOUS 2.1 Aluminium	
37 38 39 40 41 42 43 44	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM	950	MIN-1	OUTLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGN MECHANI MOTOR ARRANGEMENT RPM	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT	2/16" 2/16" S PN16	TYPE FIN PITCH LT/H MATERIAL BOND TYPE DRIVE	CONTINUOUS 2.1 Aluminium	
37 38 39 40 41 42 43 44 45	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN	950	MIN-1	INLET NUMBER OUTLET NUMBE FLANGE MATER FLANGE DESIGIO MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2	2/16" 2/16" SPN16	TYPE FIN PITCH LT/H MATERIAL BOND TYPE DRIVE	CONTINUOUS 2.1 Aluminium EXPANSION	
37 38 39 40 41 42 43 44 45 46	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES	950	MIN-1	INLET NUMBER OUTLET NUMBE FLANGE MATER FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	CONTINUOUS 2.1 Aluminium EXPANSION	
37 38 39 40 41 42 43 44 45 46 47	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL	950 2.2	MIN-1	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIG MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	CONTINUOUS 2.1 Aluminium EXPANSION	
37 38 39 40 41 42 43 44 45 46 47	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL TOTAL NO. OF FANS	950 2.2	MIN-1 KW	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE ENCLOSURE	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400 IP 55	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	CONTINUOUS 2.1 Aluminium EXPANSION	
37 38 39 40 41 42 43 44 45 49 50	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL TOTAL NO. OF FANS SOUND POWER LEVEL PER FAN	950 2.2 12 95	MIN-1 KW	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE ENCLOSURE INSULATION	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400 IP 55 CL H/F	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	CONTINUOUS 2.1 Aluminium EXPANSION	
37 38 39 40 41 42 43 44 45 46 47 48 49 50	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL TOTAL NO. OF FANS SOUND POWER LEVEL PER FAN SOUND PRESS @ 1M	950 2.2 12 95	MIN-1 KW dB(A) dB(A)	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE ENCLOSURE INSULATION	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400 IP 55 CL H/F	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	CONTINUOUS 2.1 Aluminium EXPANSION	MM
37 38 39 40 41 42 43 44 45 46 47 48 49 50	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL TOTAL NO. OF FANS SOUND POWER LEVEL PER FAN	950 2.2 12 95	MIN-1 KW dB(A) dB(A)	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE ENCLOSURE INSULATION	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400 IP 55 CL H/F	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	CONTINUOUS 2.1 Aluminium EXPANSION ES DATE	MM
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL TOTAL NO. OF FANS SOUND POWER LEVEL PER FAN SOUND PRESS @ 1M	950 2.2 12 95	MIN-1 KW dB(A) dB(A)	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE ENCLOSURE INSULATION	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400 IP 55 CL H/F	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	ES DATE 8/18/2016	NAME Z.YU.
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL TOTAL NO. OF FANS SOUND POWER LEVEL PER FAN SOUND PRESS @ 1M	950 2.2 12 95	MIN-1 KW dB(A) dB(A)	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE ENCLOSURE INSULATION	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400 IP 55 CL H/F	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	ES DATE 8/18/2016	MM
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL TOTAL NO. OF FANS SOUND POWER LEVEL PER FAN SOUND PRESS @ 1M	950 2.2 12 95	MIN-1 KW dB(A) dB(A)	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE ENCLOSURE INSULATION	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400 IP 55 CL H/F	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	ES DATE 8/18/2016	NAME Z.YU.
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL TOTAL NO. OF FANS SOUND POWER LEVEL PER FAN SOUND PRESS @ 1M	950 2.2 12 95	MIN-1 KW dB(A) dB(A)	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE ENCLOSURE INSULATION	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400 IP 55 CL H/F	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	ES DATE 8/18/2016	NAME Z.YU.
17 18 19 10 11 12 13 14 15 16 17 18 19 16 17 18 19 16 17	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL TOTAL NO. OF FANS SOUND POWER LEVEL PER FAN SOUND PRESS @ 1M	950 2.2 12 95	MIN-1 KW dB(A) dB(A)	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE ENCLOSURE INSULATION	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400 IP 55 CL H/F	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	ES DATE 8/18/2016	NAME Z.YU.
7 8 9 0 1 1 1 2 2 3 3 4 4 7 7 8 8 9 9 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TUBE PITCH NO. OF PASSES SPLIT HEADER COUNTER FLOW FAN DIAMETER RPM SHAFT POWER / FAN NUMBER OF BLADES BLADES MATERIAL TOTAL NO. OF FANS SOUND POWER LEVEL PER FAN SOUND PRESS @ 1M	950 2.2 12 95	MIN-1 KW dB(A) dB(A)	INLET NUMBER OUTLET NUMBE FLANGE MATEF FLANGE DESIGI MECHANI MOTOR ARRANGEMENT RPM POWER / MOTO CYCLES VOLTAGE ENCLOSURE INSULATION	ISIZE LT HT ER/SIZE LT HT RIAL N ICAL EQUIP	1 2 1/2 2 2 1/2 C ISO I MENT 950 2.2 50 400 IP 55 CL H/F	2/16" 2/16" SPN16 MIN-1 KW Hz	TYPE FIN PITCH LT/H* MATERIAL BOND TYPE DRIVE DIRECT	ES DATE 8/18/2016	NAME Z.YU.

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2.2 Drawing

