

SIDE LIST

(REV. 5)

IMPORTANT NOTE :

It should be noted that : This list is only for special cases and all companies in this list shall have the second priority compared to Iranian and European companies.

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1.5-GENERAL ITEMS

1.5.1- INSULATION

1.5.7- STEEL PLATE

1.5.8- TUBE FOR HEAT EXCHANGER

COMPANY NAME

ORIGIN

1.1- ROTARY EQUIPMENT

1.1.1- PUMP

1.1.1.1- CENTRIFUGAL WATER PUMP

CW-HYDRO	S.KOREA
DANAI PUMP	CHINA
DEEP BLUE PUMP	CHINA
HIDROTECAR	SPAIN
HUNAN NEPTUNE PUMP	CHINA
KER PUMP	CHINA
SHANGHAI LIANCHENG	CHINA
V-FLO	CHINA

1.1.1.2- CENTRIFUGAL API TYPE PUMP

DANAI PUMP	CHINA
DEEP BLUE PUMP	CHINA
HUNAN NEPTUNE PUMP	CHINA
KER PUMP	CHINA
SHANGHAI LIANCHENG	CHINA
V-FLO	CHINA

1.1.1.4- VERTICAL PUMP

1.1.1.4.1- VERTICAL WATER PUMP

DANAI PUMP	CHINA
HUNAN NEPTUNE PUMP	CHINA
KER PUMP	CHINA
SHANGHAI LIANCHENG	CHINA
V-FLO	CHINA

1.1.1.4.2- VERTICAL API TYPE PUMP

DANAI PUMP	CHINA
HUNAN NEPTUNE PUMP	CHINA
KER PUMP	CHINA
SHANGHAI LIANCHENG	CHINA
V-FLO	CHINA

1.1.2- COMPRESSOR

1.1.2.1- CENTRIFUGAL / AXIAL COMPRESSOR

NEW JCM	CHINA
SBW	CHINA
SUMY NPO	UKRAIN

COMPANY NAME	ORIGIN
1.1.2.2- RECIPROCATING COMPRESSOR	
SBW	CHINA
SUMY NPO	UKRAIN
1.1.3.1- STEAM TURBINE	
HTC	CHINA
TRIVENI	INDIA
SINO SEAL HOLDING	CHINA
1.1.5- MECHANICAL SEAL	
1.1.6- FAN & BLOWER	
SBW	CHINA
<u>1.2- FIXED EQUIPMENT</u>	
1.2.1- <u>DRUM & COLUMN</u>	
CFHI	S.KOREA
DAEKYUNG TECHNOS CO. LTD. (DKT)	S.KOREA
DBI CORP.	S.KOREA
JIANGNAN BOILERS & PRESSURE VESSELS (ZHANGJIAGANG) CO.	CHINA
SEOUL MACHINERY	S.KOREA
SUMY NPO	UKRAIN
ZHENJIANG JINMEN	CHINA
1.2.2- <u>H.P. STEAM DRUM</u>	
DAEKYUNG TECHNOS CO. LTD. (DKT)	S.KOREA
1.2.4- <u>SPHERICAL TANK</u>	
WIN-TECO	S.KOREA
1.2.5- <u>CRYOGENIC TANK</u>	
WIN-TECO	S.KOREA

	COMPANY NAME	ORIGIN
1.2.7- HEAT EXCHANGER		
1.2.7.1- SHELL & TUBE HEAT EXCHANGER		
	DAEKYUNG TECHNOS CO. LTD. (DKT)	S.KOREA
	JIANGNAN BOILERS & PRESSURE VESSELS (ZHANGJIAGANG) CO.	CHINA
	SEOUL MACHINERY	S.KOREA
	SUMY NPO	UKRAIN
1.2.7.2- H.T. SHELL & TUBE HEAT EXCHANGER		
	SEOUL MACHINERY	S.KOREA
1.2.7.3- PLATE HEAT EXCHANGER		
	LHE	S.KOREA
	LANPEC	CHINA
	ZHONGTAI	CHINA
1.2.7.5- AIR COOLED EXCHANGER		
	SUMY NPO	UKRAIN
1.2.7.6- SPIRAL HEAT EXCHANGER		
	SUMY NPO	UKRAIN
1.2.9- REACTOR		
	CFHI	S.KOREA
1.2.10- INTERNAL PART		
1.2.10.1- TRAY		
	JEONJIN ENTECH	S.KOREA
	YT PROCESS ENGINEERING (YTPE)	CHINA
	ZEHUA	CHINA
1.2.16- SEPARATOR & FILTER SYSTEM		
	JFC CORPORATION	S.KOREA
	SEOUL MACHINERY	S.KOREA
	SHENGEDA	CHINA
	TRISTAR	SINGAPORE
1.2.17- CENTRICAST TUBE & OUTLET MANIFOLD		
	ENGEMASA	BRAZIL
	CENTRAVIS	UKRAIN
1.2.20- REFRACTORY		
	WINDSOR	INDIA
1.2.21- DEAERATOR		
	DBI CORP.	S.KOREA

COMPANY NAME

ORIGIN

1.3- PIPING

1.3.1- PIPE

CENTRAVIS	UKRAIN
DONG YANG STEEL PIPE	S.KOREA
JIULI	CHINA
PANGANG GROUP CHENGDU IRON F STEEL CO. LTD.	CHINA
RATNAMANI	INDIA
ZAFFERTEC	SPAIN
ZHEJIANG	CHINA

1.3.2- FITTING

JIANGYIN TIANNING METAL PIPE FITTING (TNF)	CHINA
ZAFFERTEC	SPAIN
BOTH WELL	TAIWAN
ZHEJIANG	CHINA

1.3.3- FLANGE

CHW FORGE	INDIA
JIANGYIN TIANNING METAL PIPE FITTING (TNF)	CHINA
ST&H CORPORATION	S.KOREA
ZAFFERTEC	SPAIN
ZIBO WEL-FIT	CHINA
ZIBO WEL-PIPING syste Co.LTD	CHINA

1.3.9- VALVE

1.3.9.1- MECHANICAL VALVES

BAOYI	CHINA
BEIJING VALVE GENERAL FACTORY GROUP CO.	CHINA
CEPAI	CHINA
DELVAL FLOW CONTROLS	INDIA
DHV	CHINA
FBV INC	CHINA
I.B.C	CZECH REPUBLIC
RAYS FLOW CONTROL	CHINA
SHANGHAI MECCO VALVE	CHINA
SHK VALVE	CHINA
SWI VALVE CO.	S.KOREA
ZAFFERTEC	SPAIN
ZHEJIANG WUZHOU VALVE	CHINA

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
<u>1.4-PACKAGE UNIT</u>		
<u>1.4.1- UTILITY PACKAGE</u>		
<u>1.4.1.1- POWER GENERATION</u>		
<u>1.4.1.2- BOILER (WATER/FIRE TUBE)</u>		
<u>1.4.1.2.1- WATER TUBE BOILER</u>		
	DBI CORP.	S.KOREA
	JIANGNAN BOILERS & PRESSURE VESSELS (ZHANGJIAGANG) CO.	CHINA
	ZHENJIANG JINMEN	CHINA
<u>1.4.1.6- WASTE WATER TREATMENT</u>		
	ION EXCHANGE	INDIA
<u>1.4.1.7- WATER TREATMENT</u>		
	ION EXCHANGE	INDIA
<u>1.4.2.7- COLD BOX</u>		
	FORTUNE	CHINA
	ZHONGTAI	CHINA
<u>1.4.2.10- AIR SEPARATION UNIT (ASU)</u>		
	FORTUNE	CHINA
<u>1.4.3- SPECIAL PACKAGE</u>		
<u>1.4.3.10- LOADING & UNLOADING ARM</u>		
	CCL	CHINA
	WOOD FIELD (Onshore)	INDIA
<u>1.4.3.14- GANG WAY</u>		
	CCL	CHINA
<u>1.4.3.15- QUICK RELEASE HOOK</u>		
	CCL	CHINA
<u>1.5- GENERAL ITEMS</u>		
<u>1.5.1- INSULATION</u>		
	FINETEC CORP./PETRO ARTON	S.KOREA/IRAN
<u>1.5.7- STEEL PLATE</u>		
	ACRONI	SLONEY
	JINDAL	INDIA
	WUYANG IRON & STEEL	CHINA
<u>1.5.8- TUBE FOR HEAT EXCHANGER</u>		
	CENTRAVIS	UKRAIN

2. ELECTRICAL

2.ELECTRICAL

2.1- POWER TRANSFORMER

2.3- BATTERY

2.3.2 NICKEL CADMIUM BATTERY

2.11- ELECTRICAL MOTOR

2.11.1 EXPLOSION PROOF L.V. ELECTRIC MOTOR

2.11.2 INDUSTRIAL L.V. ELECTRIC MOTOR

2.11.3 EXPLOSION PROOF M.V. ELECTRIC MOTOR

2.11.4 INDUSTRIAL M.V. ELECTRIC MOTOR

2.12- BUS DUCT

2.20- COMPONENTS

2.20.1 PROTECTION RELAY

2.20.3 CONTACTORS

2.20.4 AUXILIARY CONTACTOR

2.20.9 CIRCUIT BREAKER

2.20.9.1 LV CIRCUIT BREAKER

2.20.9.1.1 MIATURE CB

2.20.9.1.2 MCCB

2.20.9.1.3 ACB

2.20.9.2 MV CIRCUIT BREAKER

2.20.9.2.1 VACUUM

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
2.1- POWER TRANSFORMER		
	FORTUNE ELECTRIC Co. LTD	TAIWAN
2.3- BATTERY		
2.3.2 NICKEL CADMIUM BATTERY		
	CHANGHONG	CHINA
2.11- ELECTRICAL MOTOR		
2.11.1 EXPLOSION PROOF L.V. ELECTRIC MOTOR		
	NANYANG EXPLOSION PROTECTION GROUP CO. ltd	CHINA
	UMEB SA	ROMANIA
2.11.2 INDUSTRIAL L.V. ELECTRIC MOTOR		
	NANYANG EXPLOSION PROTECTION GROUP CO. ltd	CHINA
2.11.3 EXPLOSION PROOF M.V. ELECTRIC MOTOR		
	NANYANG EXPLOSION PROTECTION GROUP CO. ltd	CHINA
2.11.4 INDUSTRIAL M.V. ELECTRIC MOTOR		
	NANYANG EXPLOSION PROTECTION GROUP CO. ltd	CHINA
2.12- BUS DUCT		
	EAE ELEKTRIK A.S	TURKEY
	RTC-ELECTRO-M	RUSSIA
2.20- COMPONENTS		
2.20.1- PROTECTION RELAY		
	LS INDUSTRIAL SYSTEMS	SOUTH KOREA
2.20.3- CONTACTORS		
	LS INDUSTRIAL SYSTEMS	SOUTH KOREA
2.20.4- AUXILIARY CONTACTORS		
	LS INDUSTRIAL SYSTEMS	SOUTH KOREA
2.20.9- CIRCUIT BREAKER		
2.20.9.1- LV CIRCUIT BREAKER		
2.20.9.1.1- MINIATURE CB		
	LS INDUSTRIAL SYSTEMS	SOUTH KOREA
2.20.9.1.2- MCCB		
	LS INDUSTRIAL SYSTEMS	SOUTH KOREA
2.20.9.1.3- ACB		
	LS INDUSTRIAL SYSTEMS	SOUTH KOREA
2.20.9.2- MV CIRCUIT BREAKER		
2.20.9.2.1- VACUUM		
	LS INDUSTRIAL SYSTEMS	SOUTH KOREA

3. INSTRUMENTATION

3. INSTRUMENTATION

3.1.3- *ADVANCED PROCESS CONTROL (APC)*

3.1.29- *FLOW METERING STATION*

3.1.30- *FLOW METERING PROVER*

3.2 - *ON - LINE ANALYZER*

3.2.16- *ANALYZER INTEGRATION*

3.4.5- *ULTRASONIC TYPE LEVEL TRANSMITTER*

3.4.7- *MAGNETIC LEVEL GAUGE*

3.4.9- *LEVEL SWITCH (FLOAT & DISPLACER TYPE)*

3.4.13- *CONTROL VALVE (GLOBE)*

3.4.14- *CONTROL VALVE (BALL)*

3.4.46- *MASS FLOWMETER (THERMAL TYPE)*

3.4.55- *ORIFICE PLATE*

3.4.56- *VENTURI TUBE AND NOZZLE*

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
3.1.1- DCS / FCS	ZHEJIANG SUPCON TECHNOLOGY	CHINA
3.1.3- ADVANCED PROCESS CONTROL (APC)	SUPCON	CHINA
3.1.5- ESD SYSTEM	ZHEJIANG SUPCON TECHNOLOGY	CHINA
3.1.7- BMS	ZHEJIANG SUPCON TECHNOLOGY	CHINA
3.1.29- FLOW METERING STATION	IMS INDUSTRIES	RUSSIA
3.1.30- FLOW METERING PROVER	IMS INDUSTRIES	RUSSIA
3.2 - ON - LINE ANALYZER		
3.2.16- ANALYZER INTEGRATION	ADVANCED CAEPte.LTD	SINGAPORE
3.3.1- F & G SYSTEM	ZHEJIANG SUPCON TECHNOLOGY	CHINA
3.4.5- ULTRASONIC TYPE LEVEL TRANSMITTER	HITROL	SOUTH KOREA
3.4.7- MAGNETIC LEVEL GAUGE	HITROL	SOUTH KOREA
	SAMIL	SOUTH KOREA
3.4.9- LEVEL SWITCH (FLOAT & DISPLACER TYPE)	HITROL	SOUTH KOREA
3.4.13- CONTROL VALVE (GLOBE)	SEOJEON VALMAC CO., LTD	SOUTH KOREA
3.4.14- CONTROL VALVE (BALL)	SEOJEON VALMAC CO., LTD	SOUTH KOREA
3.4.46- MASS FLOWMETER (THERMAL TYPE)	HITROL	SOUTH KOREA
3.4.55- ORIFICE PLATE	HITROL	SOUTH KOREA
3.4.56- VENTURI TUBE AND NOZZLE	HITROL	SOUTH KOREA

4. TELECOMMUNICATION

4. TELECOMMUNICATION

4.1- TRANSMISSION SYSTEM & ACCESSORIES

- 4.1.1- FIBER OPTIC & CABLE ACCESSORIES
- 4.1.2- COPPER CABLE
- 4.1.3- TRANSMISSION EQUIPMENT & ACCESSORIES
 - 4.1.3.1- OPTICAL BASED SYSTEM
 - 4.1.3.2- SDH SYSTEM
 - 4.1.3.3- COPPER WIRE BASED SYSTEM
 - 4.1.3.4- RADIO BASED SYSTEM
- 4.1.4- PULSE CODE MODULATION (PCM) SYSTEM
- 4.1.5- COMMUNICATION TOWER STRUCTURE

4.2- SWITCH SYSTEM & INTEGRATOR

- 4.2.1- SWITCH SYSTEM INTEGRATOR

4.3- RADIO SYSTEM & INTEGRATOR

- 4.3.1- RADIO SYSTEM INTEGRATOR
- 4.3.2- MOBILE SYSTEM
- 4.3.3- HAND SET SYSTEM
- 4.3.4- REPEATER SYSTEM

4.4- INTERCOM PAGING/PUBLIC ADDRESS & INTEGRATOR

- 4.4.1- INTERCOM PAGING/PUBLIC ADDRESS INTEGRATOR
- 4.4.2- NON INDUSTRIAL
- 4.4.3- CONFERENCE SYSTEM
- 4.4.4- EXPLOSION PROOF

4.5- CCTV

- 4.5.1- CCTV SYSTEM (FIX & PC BASE)
 - 4.5.1.1- SECURITY
 - 4.5.1.2- NON SECURITY
- 4.5.2- CCTV EQUIPMENT
 - 4.5.2.1- MONITORING EQUIPMENT
 - 4.5.2.2- CAMERA

4.6- TELEPHONE SYSTEM

4.6.1- EXPLOSION PROOF TELEPHONE SET

4.6.2- INDUSTRIAL TELEPHONE SET

4.6.3- OFFICE TELEPHONE SET

4.6.4- FAX SYSTEM

4.6.5- CENTRAL AND IP PHONE/PABX SYSTEM

4.6.6- TELEPHONE SYSTEM INTEGRATOR

4.7- NETWORK SWITCH

4.8- ETHERNET SWITCH

SIDE LIST

4. TELECOMMUNICATION

<i>Company Name</i>	<i>Origin</i>
4.1- <u>TRANSMISSION SYSTEM & ACCESSORIES</u>	
4.1.3- TRANSMISSION EQUIPMENT & ACCESSORIES	
4.1.3.1- OPTICAL BASED SYSTEM	
MOXA INC	TAIWAN
4.1.3.3- COPPER WIRE BASED SYSTEM	
MOXA INC	TAIWAN
4.1.3.4- RADIO BASED SYSTEM	
MOXA INC	TAIWAN
4.2- <u>SWITCH SYSTEM & INTEGRATOR</u>	
4.2.1- SWITCH SYSTEM INTEGRATOR	
3WNETWORK	UAE
4.3- <u>RADIO SYSTEM & INTEGRATOR</u>	
4.3.1- RADIO SYSTEM INTEGRATOR	
3WNETWORK	UAE
4.4- <u>INTERCOM PAGING/PUBLIC ADDRESS & INTEGRATOR</u>	
4.4.1- INTERCOM PAGING/PUBLIC ADDRESS INTEGRATOR	
3WNETWORK	UAE
4.5- <u>CCTV</u>	
4.5.1- CCTV SYSTEM (FIX & PC BASE)	
4.5.1.1- SECURITY	
MOXA INC	TAIWAN
3WNETWORK	UAE
4.5.1.2- NON SECURITY	
MOXA INC	TAIWAN
3WNETWORK	UAE
4.5.2- CCTV EQUIPMENT	
4.5.2.1- MONITORING EQUIPMENT	
MOXA INC	TAIWAN
4.5.2.2- CAMERA	
MOXA INC	TAIWAN
4.6- <u>TELEPHONE SYSTEM</u>	
4.6.6- TELEPHONE SYSTEM INTEGRATOR	
3WNETWORK	UAE
4.7- <u>NETWORK SWITCH</u>	
MOXA INC	TAIWAN
4.8- <u>ETHERNET SWITCH</u>	
MOXA INC	TAIWAN

5. HSEQ EQUIPMENT

5.2. SAFETY & FIRE FIGHTING

COMPANY NAME

ORIGIN

5.2.1.4- F.F PUMP ON TRUCK

HUNAN NEPTUNE PUMP

CHINA

5.2.2- PORTABLE EQUIPMENT

5.2.2.1- EXTINGUISHER

5.2.2.1.1- DRY POWDER / WATER

SOYUZ

RUSSIA

SIDE LIST

7. CATALYST / CHEMICALS / OIL

<u>COMPANY NAME</u>	<u>ORIGIN</u>
<u>7.1. CATALYST</u>	
<u>7.1.1- NON POLYMERIC PLANT</u>	
SINOPEC	CHINA
SK ENERGY CO LTD.	KOREA
<u>7.2- ADSORBENT, DESORBENT & RESIN</u>	
<u>7.2.3- ION EXCHANGE RESIN / MEMBRANE</u>	
CSM	S.KOREA
<u>7.3- CHEMICALS / ADDITIVES / ABSORBENTS</u>	
ATOFINA	INDIA
PANREAC	SPAIN
SK ENERGY CO LTD.	S.KOREA

8. LABORATORY EQUIPMENT

8 - LABORATORY

COMPANY NAME

ORIGIN

8.14- LABORATORY CHEMICALS

PANREAC

SPAIN

SIDE LIST