

VENDOR LIST

REV. 4

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1. MECHANICAL

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1.1- ROTARY EQUIPMENT

COMPANY NAME

ORIGIN

1.1.1- PUMP

1.1.1.1- CENTRIFUGAL WATER PUMP

KALAYE PUMP	IRAN
NAVID SAHAND	IRAN
PUMP IRAN	IRAN
PUMP RIZAN	IRAN
IRAN INDUSTRIAL PUMPS	IRAN
TOLID PUMPHAYE BOZORG & TURBINE ABI (PETCO)	IRAN
ABS GROUP	SWEDEN
DICKOW PUMPEN	GERMANY
DMW CORP.	JAPAN
EBARA	JAPAN
ENSIVAL / MORET GROUP	FRANCE / BELGIUM
FLOWERVE CORPORATION	USA / W.EUROPE / CANADA
ICHIKAWA	JAPAN
K.S.B.	GERMANY
RUHR PUMPEN	GERMANY
STORK	THE NETHERLANDS
SULZER	USA / W.EUROPE / CANADA
TORISHIMA PUMP	JAPAN
VOGEL	AUSTRIA
WEIR GROUP PLC (GABBIONETA)	UK / ITALY

1.1.1.2- CENTRIFUGAL API TYPE PUMP

NAVID SAHAND	IRAN
IRAN INDUSTRIAL PUMPS	IRAN
TOLID PUMPHAYE BOZORG & TURBINE ABI (PETCO)	IRAN
DICKOW	GERMANY
DMW CORP.	JAPAN
EBARA	JAPAN
ENSIVAL MORET GROUP	FRANCE / BELGIUM
ENVIROTECH	THE NETHERLANDS
FINDER POMPE S.P.A.	ITALY
FLOWERVE CORPORATION (WORTHINGTON, INGERSOL / DRESSER PUMP)	USA / W.EUROPE / CANADA
K.S.B.	GERMANY
mitsubishi heavy ind.ltd (MHI)	JAPAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
NIJHUIS	THE NETHERLANDS
ROODHART GROUP	THE NETHERLANDS
RUHR PUMPEN	GERMANY
SHIN NIPPON MACHINERY CO.LTD	JAPAN
STORK	THE NETHERLANDS
SULZER	USA / W.EUROPE / CANADA
SUNDSTRAND INTERNATIONAL S.A.	FRANCE
TORISHIMA PUMP	JAPAN
VOGEL	AUSTRIA
WEIR GROUP PLC (GABBIONETA)	UK / ITALY

1.1.1.3- SLURRY PUMP

EGGER	SWITZERLAND
WEIR GROUP PLC	W.EUROPE

1.1.1.4- VERTICAL PUMP

1.1.1.4.1- VERTICAL WATER PUMP

PUMP PARS	IRAN
TOLID PUMPHAYE BOZORG & TURBINE ABI (PETCO)	IRAN
ALSTOM	FRANCE
DICKOW	GERMANY
DMW CORP.	JAPAN
EBARA	JAPAN
ENSIVAL MORET GROUP	FRANCE / BELGIUM
FLOWERVE CORPORATION	USA / W.EUROPE / CANADA
HITACHI	JAPAN
K.S.B	GERMANY
NIJHUIS	THE NETHERLANDS
NIKKISO (SUNDYNE)	JAPAN
RUHR PUMPEN	GERMANY
SHIN NIPPON MACHINERY CO.LTD	JAPAN
SPP	UK
STORK	THE NETHERLANDS
SULZER	USA / W.EUROPE / CANADA
TORISHIMA PUMP	JAPAN
VOGEL	AUSTRIA
WEIR GROUP PLC (GABBIONETA)	UK / ITALY

COMPANY NAME

ORIGIN

1.1.1.4.2- VERTICAL API TYPE PUMP

TOLID PUMPHAYE BOZORG & TURBINE ABI (PETCO)	IRAN
DICKOW	GERMANY
DMW CORP.	JAPAN
EBARA	JAPAN
FLOWERVE CORPORATION (WORTHINGTON, INGERSOL / DRESSER PUMP)	USA / W.EUROPE / CANADA
K.S.B	GERMANY
MARUSHICHI	JAPAN
NIKKISO (SUNDYNE)	JAPAN
RUHR PUMPEN	GERMANY
SHIN NIPPON MACHINERY CO.LTD	JAPAN
STORK	THE NETHERLANDS
SULZER	USA / W.EUROPE / CANADA
TORISHIMA PUMP	JAPAN
VOGEL	AUSTRIA
WEIR GROUP PLC (GABBIONETA)	UK / W.EUROPE

1.1.1.5- DOSING PUMP

MACHIN SAZI NEEV	IRAN
PUMP VIJEH (GESSCO)	IRAN (GERMANY)
BRAUN & LUEBBE	GERMANY / FRANCE
D.K.M CLEXTRAL	FRANCE
DOSAPRO MILTON ROY	FRANCE / UK / GERMANY
LEWA	GERMANY
NIKKISO	JAPAN
O.M.GALLARATESI	ITALY
PERONIPOMPE	ITALY
PROMINENT	GERMANY
SEKO	ITALY

1.1.1.6- CENTRIFUGAL HIGH SPEED PUMP (INTEGRAL GEAR)

EBARA	JAPAN
FLOWERVE CORPORATION	USA / W.EUROPE / CANADA
K.S.B	GERMANY
NIKKISO	JAPAN
ROODHART GROUP	THE NETHERLANDS
STORK	THE NETHERLANDS
SUNDYNE / INTERPEC	FRANCE / W.EUROPE
WEIR GROUP PLC (GABBIONETA)	UK / W.EUROPE

COMPANY NAME

ORIGIN

1.1.1.7- SCREW PUMP

KALAYE PUMP (ALBANY)	IRAN (UK)
ALLWEILLER AG	GERMANY
FLOWSERVE CORPORATION	USA / W.EUROPE / CANADA
ALSTOM (SCAM IMO)	FRANCE
KAWASAKI	JAPAN
MAAG PUMP SYSTEMS TEXTRON AG	SWITZERLAND
PLENTY MIRLESS	UK
SEEPEX	GERMANY
SHIN NIPPON MACHINERY CO.LTD	JAPAN
STORK POMPEN	BELGIUM

1.1.1.8- GEAR PUMP

FLOWSERVE CORPORATION	USA / W.EUROPE / CANADA
MAAG	SWITZERLAND
MICRO PUMP	USA / UK
OSAKA	JAPAN

1.1.1.9- CRYOGENIC SUBMERGED PUMP

EBARA INTERNATIONAL CORP.	JAPAN
FLOWSERVE CORPORATION	USA / W. EUROPE / CANADA
NIKKISO	JAPAN
STERLING FLUID SYSTEM	UK

1.1.1.10- LIQUID RING VACUUM PUMP

VACUUM PARS INDUSTRIES	IRAN
DE LAVAL INTERNATIONAL AE	SWEDEN
FLOWSERVE CORPORATION	USA / W. EUROPE / CANADA
ENSIVAL	UK / FRANCE

1.1.1.11- SEAL LESS PUMP

DICKOW	GERMANY
EBARA FLUID HANDLING	JAPAN
ELMO	GERMANY
HIBON	FRANCE
KSB	GERMANY
LEDERLE-THERMETIC PUMPEN GMBH	THE NETHERLANDS
NIKKISO	JAPAN
SUNDYNE HMD	UK

COMPANY NAME

ORIGIN

1.1.2- COMPRESSOR

1.1.2.1- CENTRIFUGAL / AXIAL COMPRESSOR

HAVAYAR	IRAN
ATLAS-COPCO	GERMANY
DRESSER RAND	FRANCE
ELLIOT / EBARA	JAPAN
HITACHI	JAPAN
INGERSOL RAND	GERMANY
KAWASAKI HEAVY INDUSTRY	JAPAN
KOBELCO	JAPAN
MAN DIESEL & TURBO SE	GERMANY
MITSUBISHI HEAVY INDUSTRIES	JAPAN
SIEMENS	GERMANY / THE NETHERLANDS

1.1.2.2- RECIPROCATING COMPRESSOR

BURCHARDT	SWITZERLAND
BURTON CORBLIN	FRANCE
HITACHI	JAPAN
INGERSOL RAND	GERMANY
JSW (JAPAN STEEL WORK)	JAPAN
KOBELCO	JAPAN
MAN DIESEL & TURBO SE	GERMANY
NEUMAN & ESSER	GERMANY
SIAD MACCHINE IMPIANTI	ITALY
SIEMENS	GERMANY
THOMASSEN	THE NETHERLANDS

1.1.2.3- SCREW COMPRESSOR

HAVAYAR	IRAN
ALSTOM (GEC-ALSTOM)	FRANCE
ATLAS COPCO	GERMANY / SWITZERLAND
COMP AIR	UK
DRESSER-RAND	FRANCE / W. EUROPE
GHH	GERMANY
KOBELCO	JAPAN
MAN DIESEL & TURBO SE	GERMANY
MYCOM	JAPAN

COMPANY NAME

ORIGIN

1.1.2.4- LIQUID RING TYPE COMPRESSOR

PARS VACUUM	IRAN
HIBON	FRANCE
ELMO	GERMANY
SHIN NIPPON MACHINERY CO.LTD	JAPAN

1.1.2.5- LOBE COMPRESSOR

HIBON	FRANCE
REIMELT	GERMANY

1.1.3- TURBINE

1.1.3.1- STEAM TURBINE

DRESSER RAND	ITALY / FRANCE
ELLIOT / EBARA CORPORATION	UK/JAPAN
FRANCO TOSSI	ITALY
HITACHI	JAPAN
K.K & K	GERMANY
MAN DIESEL & TURBO SE	GERMANY
MITSUBISHI HEAVY INDUSTRIES	JAPAN
SHIN NIPPON MACHINERY CO.LTD	JAPAN
SHINIKO	JAPAN
SIEMENS	GERMANY

1.1.3.2- GAS COMBUSTION TURBINE

ABB-ALSTOM (SULZER TURBO / ESCHER WYSS)	GERMANY / FRANCE
HITACHI	JAPAN
KAWASAKI HEAVY INDUSTRY	JAPAN
MAN DIESEL & TURBO SE	GERMANY / SWITZERLAND
MITSUBISHI HEAVY INDUSTRIES	JAPAN
ROLLS ROYCE ALLISON	UK
SIEMENS-WESTINGHOUSE	GERMANY

1.1.3.3- TURBO EXPANDER

AIR LIQUIDE	FRANCE
ATLAS COPCO GAS & PROCESS DIVISION	SWEDEN / GERMANY
CRYOSTAR	FRANCE
ELLIOT / EBARA	UK / JAPAN
MAFI-TRENCH	UK
MAN DIESEL & TURBO SE	GERMANY / SWITZERLAND

COMPANY NAME

ORIGIN

1.1.4- MIXER & AGITATOR

ANTICO	ITALY
EKATO	GERMANY
LIGHTNIN MIXER	UK
NIPPON GEAR CO. LTD.	JAPAN
PLENTY	UK
R.V.T.	GERMANY
ROBBIN	FRANCE

1.1.5- MECHANICAL SEAL

NAHADIN ARMAN	IRAN
BURGMANN PARS	IRAN / GERMANY
KAVAND POOYA SAKHT / JOHN CRANE	IRAN / UK
PILARY GOSTAR / FLOWSERVE	IRAN / GERMANY
EAGLE	JAPAN
NIPPON PILLAR	JAPAN

1.1.6- FAN & BLOWER

MACHIN SAZI MANGAN (ONLY FAN)	IRAN
SANAYE VACUUM PARS / ROBUSHI	IRAN / ITALY
AERZENER	GERMANY
BOLDROCHI	ITALY
CBI FAN ENGINEERING	ITALY
HIBON	FRANCE
HOWDEN	UK / FRANCE
KOBE STEEL	JAPAN
MAN DIESEL & TURBO SE	GERMANY
ROBUSCHI & C S.P.A.	ITALY
SIEMENS	GERMANY
STORK	THE NETHERLANDS

1.1.7- GEAR UNIT

BHS CINCINNATI GETRIEBE TECHNIK	GERMANY
FELENDER	GERMANY
HANSEN	BELGIUM
LUFKIN	FRANCE
MAAG	SWITZERLAND
NIPPON GEAR	JAPAN
RENK TACKE GMBH	GERMANY

1.1.8- EXTRUDER

COPERION (WERNER)	GERMANY
JSW	JAPAN
KOBELCO	JAPAN

COMPANY NAME

ORIGIN

1.1.9- COUPLING

WILL BE ADVISED LATER

1.2- FIXED EQUIPMENT

1.2.1- DRUM & COLUMN

ASAS SANAT PARS	IRAN
ARTASH	IRAN
AZAR AB	IRAN
DISAL	IRAN
FATEH SANAT KIMIA	IRAN
GARMA GOSTAR	IRAN
GHATAT VA MACHINALAT SANAYE PETROCHIMI (TOOS)	IRAN
JAHANKAR ESFAHAN	IRAN
KAVEH MOBADDEL	IRAN
MACHIN DAROU	IRAN
MACHIN SAZI ARAK	IRAN
MACHIN SAZI ESFAHAN	IRAN
MAHDIN	IRAN
MASNOUAT FELEZI SANGIN	IRAN
NEYRPERSE	IRAN
PARGASIRAN	IRAN
PAYSAZ	IRAN
POOLAD SAZAN FARAYAND	IRAN
REACTOR SAZ	IRAN
SADID JAHAN SANAT	IRAN
SANATI AHANSAI	IRAN
SANAYE PARSIAN SAZEH SEPAHAN	IRAN
SUPERACTIVE	IRAN
SYSTEMHAYE SANATI TAKESTAN	IRAN
TAGHTIRAN	IRAN
TASHA	IRAN
ADM	FRANCE
B.S.L. INDUSTRIES	FRANCE
BELLELI ENERGY CPE SPA	ITALY
C.M.P	FRANCE
COEK ENGINEERING	BELGIUM
DELATTRE BEZONS	FRANCE
DELAUNAY	FRANCE
FBM HUDSON ITALIANA S.P.A.	ITALY
G & G GELDOF	BELGIUM

<u>COMPANY NAME</u>	<u>ORIGIN</u>
GARDINAL	BELGIUM
HANS LEFFER	GERMANY
HITACHI KASADO JYUKOGYOCC	JAPAN
LODEWIJCK	BELGIUM
OFFICINE LUGI RESTA	ITALY
OLMI	ITALY
ROLLE	ITALY
SIMIC	ITALY
SNIG	FRANCE

1.2.2- H.P. STEAM DRUM

BELLELI ENERGY CPE SPA	ITALY
BORSIG GMBH	GERMANY
DEUTSCHE BABCOCK-BALCKE & DURRE AG	JAPAN / GERMANY
FBM HUDSON ITALIANA S.P.A.	ITALY
FOSTER WHEELER ENERGY	UK
HITACHI KASADO	JAPAN
HITACHI ZOSEN	JAPAN
KAWASAKI HEAVY INDUSTRIES	JAPAN
OFFICINE LUGI RESTA S.P.A.	ITALY
MANGIAROTTI S.P.A.	ITALY
MITSUBISHI HEAVY INDUSTRIES	JAPAN
OLMI	ITALY
ROLLE	ITALY
STEINMULLER GMBH	GERMANY

1.2.3- ATMOSPHERIC STORAGE TANK

ASAS SANAT PARS	IRAN
AZAR AB	IRAN
GHATAT VA MACHINALAT SANAYE PETROCHIMI (TOOS)	IRAN
MACHIN SAZI ARAK	IRAN
MACHIN SAZI ESFAHAN	IRAN
MACHIN SAZI PARS	IRAN
MAHDIN	IRAN
MASNOOAT FLEZI SANGIN	IRAN
NEYRPERSE	IRAN
PARGASIRAN	IRAN
PAYSAZ	IRAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
POULAD SAZAN FARAYAND	IRAN
REACTOR SAZ	IRAN
SADID JAHAN SANAT	IRAN
SANATI AHANSAI	IRAN
SANAYE PARSIAN SAZEH SEPAHAN	IRAN
SUPERACTIVE	IRAN
TASHA	IRAN

1.2.4- SPHERICAL TANK

MACHIN SAZI ARAK	IRAN
POLAD SAZAN FARAYAND	IRAN
SANAYE PARSIAN SAZEH SEPAHAN	IRAN
BELLELI ENERGY CPE SPA	ITALY
CMP ALIES	FRANCE
G & G GELDOF	BELGIUM
MARALDI	ITALY
T.K.K.	JAPAN
WHESOE	UK

1.2.5- CRYOGENIC TANK

CHIGAGO BRIDGE	UK
FOSTER WHEELER ENERGY	UK
KAWASAKI HEAVY INDUSTRIES	JAPAN
MARALDI	ITALY
mitsubishi heavy industries	JAPAN
MOTHERWELL BRIDGE	UK
TASHA / MARALDI	IRAN / ITALY
T.K.K.	JAPAN
WHESOE	UK

1.2.6- SILO / HOPPER

MOPHID SEPAHAN	IRAN
ELLIMETAL NV	BELGIUM
JANSENS & DIEPERINK B.V.	THE NETHERLANDS

1.2.7- HEAT EXCHANGER

1.2.7.1- SHELL & TUBE HEAT EXCHANGER

ASAS SANAT PARS	IRAN
AZARAB	IRAN
DISAL	IRAN
FATEH SANAT KIMIA	IRAN
GARMA GOSTAR	IRAN
GHATAT VA MACHINALAT SANAYE PETROCHIMI (TOOS)	IRAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
KAVEH MOBADDEL	IRAN
MACHIN DAROU	IRAN
MACHIN SAZI ARAK	IRAN
MAHDIN	IRAN
MASNOUAT FELEZI SANGIN	IRAN
PARGASIRAN	IRAN
SANAYE HARARATI IRAN	IRAN
SUPER ACTIVE	IRAN
TASHA	IRAN
TEHRAN MOBADEL	IRAN
BELLELI ENERGY CPE SPA	ITALY
BOLDROCCHI ECO LOGIA S.R.L.	ITALY
BORSIG GMBH	GERMANY
COEK ENGINEERING	BELGIUM
DELAUNAY	FRANCE
F.B.M HUDSON	ITALY
FOURE LAGADEC	FRANCE
G & G INTERNATIONAL NV	BELGIUM
G.E.A WIEGAND	GERMANY
GARGANO	ITALY
HANS LEFFER	GERMANY
HITACHI	JAPAN
LODEWIJCK	BELGIUM
OFFICINE LUIGI RESTA S.P.A.	ITALY
MANGIAROTTI S.P.A.	ITALY
MITSUBISHI HEAVY INDUSTRIES	JAPAN
OLMI	ITALY
OMSA	ITALY
PETOR CARBON DEVELOPMENT	UK
ROLLE S.P.A.	ITALY
SIMIC	ITALY
VRV	ITALY

1.2.7.2- H.T. SHELL & TUBE HEAT EXCHANGER

BORSIG AG	GERMANY
COEK ENGINEERING	BELGIUM
DELAUNAY	FRANCE
FBM HUDSON ITALIANA S.P.A.	ITALY
FISHER LORRANIE	FRANCE
FOURE LAGADEC	FRANCE
HITACHI ZOSEN	JAPAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
KOBE STEEL	JAPAN
LODEWIJCK	BELGIUM
OFFICINE LUGI RESTA S.P.A.	ITALY
MANGIAROTTI S.P.A.	ITALY
OLMI	ITALY
RIBATTI	FRANCE
SCHMIDTSCH HISSDAMPF GMBH	GERMANY
STEINMULLER GMBH	GERMANY / SPAIN

1.2.7.3- PLATE HEAT EXCHANGER

TAHA GHALEB TOOS	IRAN
ALFA LAVAL S.P.A.	ITALY / JAPAN
APV	UK
GEA WIEGAND	GERMANY
KOCH	ITALY
LINDE AG	GERMANY
NI SAKA SEISAKUSHO	JAPAN
NORTON GMBH	GERMANY
S.R.D	GERMANY
SECATHEN (FOR WELDED PLATE)	FRANCE
SONDEX	DENMARK
VICARB BENELUX	ITALY / BELGIUM

1.2.7.4- DOUBLE PIPE HEAT EXCHANGER

AZARAB	IRAN
DISAL	IRAN
MACHIN SAZI ARAK	IRAN
ASET	FRANCE
BROWN FINTUBE (KOCH)	FRANCE
GARGANO	ITALY
SIIRTEC	ITALY
SUITOMO HEAVY IND.	JAPAN

1.2.7.5- AIR COOLED EXCHANGER

ASAS SANAT PARS	IRAN
COOLERHAYE HAVAEI ABAN	IRAN
DAMAFIN	IRAN
FATEH SANAT KIMIYA	IRAN
KAVEH MOBADDEL	IRAN
MACHIN SAZI ARAK	IRAN
TASHA	IRAN
BALCKE & DURRE	GERMANY

<u>COMPANY NAME</u>	<u>ORIGIN</u>
BOLDROCCHI SRL	ITALY
BTT / GEA	FRANCE / GERMANY / ITALY
F.B.M HUDSON	ITALY
GEA LUFTKERHLER	GERMANY
GRAHAM	UK
HAMON INDUSTRIES THERMIQUE	BELGIUM
KAWASAKI HEAVY INDUSTRIES	JAPAN
OLMI	ITALY

1.2.7.6- SPIRAL HEAT EXCHANGER

LINDE AG	GERMANY
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1.2.8- EJECTOR

ANA GMBH	GERMANY
BERTIN TECHNOLOGIES SA	FRANCE
BOC EDWARDS	UK
BUSCH	UK
DELAS / WEIR	FRANCE
DEN HOLDER	THE NETHERLANDS
EQUIREPSA	SPAIN
FACET	FRANCE
FLO - DYNE	UK
JAPAN EJECTOR ENGINEERING	JAPAN
NOVATEC	FRANCE
GEA JET PUMP	GERMANY
GEA WIEGAND	GERMANY
GEVEKE	THE NETHERLANDS
GRAHAM	UK
HICK HARGREAVES	UK
KIEKENS	THE NETHERLANDS
KORTING (SPIRAX SARCO)	GERMANY / FRANCE
OSAKA VACUUM	JAPAN

1.2.9- REACTOR

AZARAB	IRAN
DISAL	IRAN
MACHIN SAZI ARAK	IRAN
MAHDIN	IRAN
PARGASIRAN	IRAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
PAYSAZ	IRAN
POULAD SAZAN FARAYAND	IRAN
REACTORSAZ	IRAN
BELLELI ENERGY CPE SPA	ITALY
C.M.P	FRANCE
CIVIDAC	ITALY
COEK ENGINEERING	BELGIUM
DWE	GERMANY
FBM. HUDSON	ITALY
FELGUERA CALDERERA	SPAIN
G & G GELDOF	BELGIUM
HANS LEFFER	GERMANY
HITACHI SHIP BUILDING & ENGINEERING	JAPAN
KOBE STEEL	JAPAN
OFFICINE LUIGI RESTA S.P.A.	ITALY
MANGIAROTTI S.P.A.	ITALY
MITSUBISHI NAGASAKI MACHINE	JAPAN
MUNCH	FRANCE
ROLLE	ITALY
S.B.N	AUSTRIA
UBE INDUSTRIES LTD	JAPAN
V.R.V	ITALY
ZANON	ITALY

1.2.10- INTERNAL PARTS

1.2.10.1- TRAY

AZAR ENERGY	IRAN
DAMAVAND FELEZ / MONTZ	IRAN / GERMANY
FOULAD PRESS	IRAN
PARGASIRAN	IRAN
SANAYE PENTANE CHEMI	IRAN
BARETTI	ITALY
BAYER	GERMANY
CECA	FRANCE
COSTA CURTA	ITALY
ETA	UK
EURO SLOT	FRANCE
KOCH-GLITSCH S.P.A	ITALY / FRANCE
NORTON GMBH	GERMANY
SULZER CHEMTECH / METAWA	SWITZERLAND / W.EUROPE

COMPANY NAME

ORIGIN

1.2.10.2- CYCLONE

PARGASIRAN	IRAN
ALPINE	GERMANY
EMTROL	UK
LUFTTECHNIK	GERMANY
VAN TONGEREN	UK

1.2.10.3- SCRUBBER PACKAGE / FLUE GAS FILTER

PARGASIRAN	IRAN
ABB FLAXT	FRANCE / GERMANY
AIR CURE INC	GERMANY
BEKAERT ADVANCED	BELGIUM
JOHNSON FILTRATION SYSTEM	FRANCE
LAB SA	FRANCE
SERVITHEN	FRANCE
SOCREMATIC	FRANCE

1.2.11- FIRED HEATER

IRCAST / SCHAWENBERG	IRAN / GERMANY
ABB LUMMUS	THE NETHERLANDS
BIH	UK
BABCOCK WANSON	UK
FOSTER WHEELER	FRANCE
HEURTEY PETROCHEN	FRANCE
IHI	JAPAN
ITT SPA	ITALY
K.T.I	ITALY
KIRCHNER	ITALY
KOBE STEEL	JAPAN
SELAS LINDE	GERMANY

1.2.12- AIR PREHEATER / START UP HEATER

AIR OIL FLARE GAS SA	UK
AST(BERTRAMS)	SWITZERLAND
BALKE DURRE	GERMANY
EET	FRANCE
GEA LUFTKUEHLER GMBH	GERMANY
HEURTEY PETROCHEN	BELGIUM / FRANCE
HITACHI Zosen	JAPAN
ITT SPA	ITALY
S.C.R.D.	SWITZERLAND

COMPANY NAME

ORIGIN

1.2.13- SILENCER

AZAR AB	IRAN
FAN AZMAYAN POYANDEH	IRAN
KAVEH MOBADDEL	IRAN
MACHIN SAZI ARAK	IRAN
SUPER ACTIVE	IRAN
TASHA	IRAN
BOET	FRANCE
BURGESS MANNING	UK / FRANCE / GERMANY
FORAIN	ITALY
GERBER	GERMANY
MULLER BBM	GERMANY
QUIETFLO	THE NETHERLANDS
SAI	FRANCE
TIO	THE NETHERLANDS

1.2.14- STATIC MIXER

KOCH	ITALY
LIGHTING MIXER	UK
NIPPON GEAR CO.LTD	JAPAN
PITALUGA	FRANCE / ITALY
PLENTY	UK
PREMATECHNIK	GERMANY
PRIMIX	THE NETHERLANDS
SIDAC	FRANCE
STIBBE	THE NETHERLANDS
SULZER	SWITZERLAND
VEOLIA ENVIRONMENTAL SERVICES	UK
WELDER B.V	THE NETHERLANDS

1.2.15- DESUPERHEATER

BTG	SWEDEN
EMERSON	FRANCE / GERMANY
FAUDI	GERMANY
GEA LUFTKUHER GMBH	GERMANY
GESTRA AG	GERMANY
GRAHAM	UK
KENT PROCESS CONT	UK
KEYSTONE	UK
KIEKENS	THE NETHERLANDS
SAMSON A.G	FRANCE / GERMANY
WIEGAND	GERMANY

COMPANY NAME

ORIGIN

1.2.16- SEPARATOR & FILTER SYSTEM

KASRAVAND	IRAN
PARGASIRAN	IRAN
MASNOAT FELEZI SANGIN	IRAN
SYSTEMHAYE SANATI TAKESTAN	IRAN
ABB FLAXT	GERMANY/FRANCE
AIR CURE INC	GERMANY
ALFA LAVAL	ITALY
AMAFILTER SARL	FRANCE
ANDRITZ SEPARATION GMBLT	GERMANY
BEA FILTER	ITALY
BELLELI ENERGY CPE SPA	ITALY
BERGUM IMPIANTI	ITALY
DAHLAM	THE NETHERLANDS
EUROFIL TEC	UK
EURO SLOT	FRANCE
FAUDI FILTER SYSTEMS GMBH	GERMANY
FILTERS S.R.L.	ITALY
FLUIDEL	ITALY
FORAIN	ITALY
FUJI FILTER	JAPAN
G.SARTORI	ITALY
JOHNSON FILTRATION SYSTEM	FRANCE
LAB SA	FRANCE
LFC LOCHEM B.V.	THE NETHERLANDS
PLENTY FILTER	UK
SERVITHEN	FRANCE
SIIRTEC NIGI	ITALY
SOCREMATIC	FRANCE
WELDERS FILTRATION TECHNOLOGY	BELGIUM

1.2.17- CENTRICAST TUBE & OUTLET MANIFOLD

BORSIG GMBH	GERMANY
CENTROMENT WRAZA	BELGIUM
DANACASTER	UK
FOSTER WHEELER	FRANCE
HEURTEY PETROCHEM	FRANCE
IHI	JAPAN
KOBE STEEL	JAPAN
KTI	ITALY

<u>COMPANY NAME</u>	<u>ORIGIN</u>
KUBOTA	JAPAN
MANOIR INDUSTRIES	FRANCE
PARALLOY BIDDING CLEVELAND	UK
SCHMIDT & CLEMENS	GERMANY / SPAIN
SEL AS KIRCHNER	GERMANY

1.2.18- CONVECTION COIL / RADIATION TUBE

CARNOY	BELGIUM
CORROTHERM	UK
DAIDO STEEL	JAPAN
DEUTSCHE BABCOCK + BALCKE & DURRE	GERMANY
KTI	BELGIUM
KUBOTA	JAPAN
LMI	ITALY
SCHMIDT & CLEMENS	GERMANY
SCOMARK ENGINEERING	UK
SIRZ	ITALY
STEINMULLER	GERMANY

1.2.19- BURNER

PARS MASHAL (SAKI)	IRAN (UK)
AIROIL GMBH	GERMANY
DURIKER COMBUSTION ENG. B.V.	THE NETHERLANDS
GRAHAM	UK
HAMWORTHY	UK
ITAS	ITALY
JOHN ZINK GMBH	LUXEMBORG
PREMATECHNIK	GERMANY
SULZER ESHER WYE	SWITZERLAND

1.2.20- REFRACTORY

AMOL CARBORANDOM	IRAN
CERAMIC TEHRAN	IRAN
CERAMICHAYE SANATI ARDAKAN	IRAN
DIRGODAZ AMOL	IRAN
FARAVARDEH NASOOZ AZAR ESFAHAN	IRAN
FARAVARDEH NASOOZ TABRIZ	IRAN
FARAVARDEHAYE KANI GHEIRE FELEZI	IRAN
FARAVARDEHAYE NASOOZ IRAN	IRAN
FARAVARDEHAYE NASOOZ NIROU	IRAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
GAHAR CERAM	IRAN
FARANASOUZ YAZD	IRAN
BECKMANN	GERMANY
CIRIA	ITALY
DIDIER WERKE	GERMANY
JUNER AND GRATHER	GERMANY
KARRENA	GERMANY
PLIBRICO	UK / THE NETHERLANDS
THERMAL CERAMICS	UK

1.2.21- DEAERATOR

AZARAB	IRAN
GARMA GOSTAR	IRAN
MACHIN SAZI ARAK	IRAN
MAPNA BOILER	IRAN
MASNOAT FELEZI SANGIN	IRAN
BABCOCK / HITACHI	JAPAN
STORK THERMEQ	THE NETHERLANDS

1.3- PIPING

1.3.1- PIPE

IRAN SPIRAL	IRAN
LOOLEH GOSTAR ESFARAYEN	IRAN
LOOLEH SAZI AHWAZ	IRAN
LOOLEH SAZI KHOOZESTAN	IRAN
LOOLEH SAZI MAHSHAHR	IRAN
LOOLEH SAZI SANIG JAM	IRAN
LOOLEH VA PROFILE SAVEH	IRAN
LOOLEH VA TAJHIZAT SADID	IRAN
NAVARD VA LOOLEH SAFA	IRAN
NAVARO VA LOOLEH AHWAZ	IRAN
ARCELORMITTAL STAAHL HANDEL	THE NETHERLANDS / GERMANY
AVESTA SANDVIK TUBE AB	SWEDEN
BHDT GMBH	AUSTRIA
CORUS	UK
DUFERCO	BELGIUM / SWITZERLAND
ECONOSTO	THE NETHERLANDS
EEW (ERNDTEBRÜCKER EISENWERK)	GERMANY
EURO PIPE	GERMANY
INTERMETAL2000	UK
IPS	THE NETHERLANDS
KOBE STEEL	JAPAN
KURVERS	FRANCE / GERMANY
MANFERROSTAAL	BELGIUM / THE NETHERLANDS

<u>COMPANY NAME</u>	<u>ORIGIN</u>
MANNESMAN HANDEL	GERMANY
MARDALE	UK
MARUBENI	JAPAN
MERRYFIELD	UK
MID STEEL PIPELINE LIMITED	UK
NIPPON STEEL	JAPAN
NIRO-TECHNIK	GERMANY
PHOCEENNE	FRANCE / BELGIUM
PIPE LINE TUBE & CASING	UK
SANDVIK (Pipe & Tube)	SWEDEN
SCHULTZ	GERMANY
SIDECO	ITALY
SUMITOMO METAL	JAPAN
TENARIS (EUROTUBE)	UK
THYSSEN	GERMANY
TPS	GERMANY
VAN LEEUWEN BUIZEN	THE NETHERLANDS / BELGIUM

1.3.2- FITTING

FOOLAD ASA	IRAN
STEEL ASA	IRAN
TOOS PEYVAND	IRAN
BASSI LUIGI	ITALY
CORUS	UK
FAD	ITALY
GELD BACH	GERMANY
I.M.L	ITALY
INTERMETAL2000	UK
KURVERS	FRANCE / GERMANY
MID STEEL PIPELINE LIMITED	UK
NIRO-TECHNIK	GERMANY
OMR	ITALY
PHOCEENNE	FRANCE / BELGIUM
PIPE LINE TUBE & CASING	UK
SANDVIK	SWEDEN
SCHULTZ	GERMANY
SCOMARK ENG.	UK
TECTUBI RACCORDI	ITALY
TPS	GERMANY
VAN LEEUWEN BUIZEN	THE NETHERLANDS / BELGIUM

COMPANY NAME

ORIGIN

1.3.3- FLANGE

GHARB FLANGE	IRAN
MACHIN SAZI ARAK	IRAN
MARO SANAT	IRAN
MOJTAMA SANATI ESFARAYEN	IRAN
MOJTAMA SHAHABADI	IRAN
CORUS	UK
FAD	ITALY
GELD BACH	GERMANY
I.M.L	ITALY
INTERMETAL2000	UK
KURVERS	FRANCE / GERMANY
MELESI	ITALY
MID STEEL PIPELINE LIMITED	UK
NIRO-TECHNIK	GERMANY
PHOCEENNE	FRANCE
TECTUBI RACCORDI	ITALY
TPS	GERMANY
VAN LEEUWEN BUIZEN	THE NETHERLANDS

1.3.4- BOLT & NUT

BASTARVAN	IRAN
IRAN PITCH	IRAN
IRAN TOHID	IRAN
PARS PITCH	IRAN
PART SAZI MASHHAD	IRAN
PITCH MOHREH SAZANE SANATI	IRAN
PITCH VA MOHREHAYE SANATI IRAN	IRAN
POOLAD PITCH KAR	IRAN
SAHAND POULAD	IRAN
TADAROKATE SANATI SEPAHAN	IRAN
OME	ITALY
PHOCEENNE	FRANCE

1.3.5- GASKET

BURGMANN PARS	IRAN
ERTEASH GHOSTAR PAYMAN	IRAN
GHATAT VA MACHINALAT SANAYE PETROCHIMI (TOOS)	IRAN
ATBIN ISTA	IRAN
KIMIA FARAVAR SANAT	IRAN
KLINGIRAN	IRAN
SANAYE VASHER SAZI BEHTA	IRAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
ECONOSTO	W.EUROPE
FLEXITALIC	UK
FMA	ITALY
JAMES WALKER	UK
TC KLINGER	GERMANY
TECNO TREX	ITALY

1.3.6- STEAM TRAP

EYVAZ TECHNIC	IRAN
KAR AVARANE BOKHAR	IRAN
SANAYE BOKHAR ESFAHAN	IRAN
SANAYE HAFTOME TIR ESFAHAN	IRAN
TALEH BOKHAR	IRAN
ARMSTRONG	UK
BEKO TECHNOLOGIES GMBH	GERMANY
DOUGLAS CHERO	ITALY
(FLOWSERVE CORPORATION)	BELGIUM / FRANCE
ECONOSTO	THE NETHERLANDS
GESTRA	GERMANY / FRANCE
JUCKER	ITALY
PLENTY	UK
SPIRAX SARCO	FRANCE
T.L.V (Trouble Less Valve)	JAPAN
YAMANTO KOUKI	JAPAN

1.3.7- STRAINER

AEVAZ TECHNIC	IRAN
DAMAVAND FELEZ	IRAN
KARAVARAN BOKHAR	IRAN
NAGHSH JAHAN PALAYEH	IRAN
SANAYE HAFTOME TIR ESFAHAN	IRAN
YAZD FILTER	IRAN
ARMSTRONG	UK
BEKO	GERMANY
EBUTECH	THE NETHERLANDS
INTERMETAL2000	UK
PLENTY	UK
SPIRAX SARCO	FRANCE

COMPANY NAME

ORIGIN

1.3.8- FLEXIBLE / EXPANSION JOINT

EN ETAF SANE	IRAN
ERTEASH GOSTAR PEYMAN	IRAN
ERTEASHAT LASTIC IRAN	IRAN
ERTEASHAT SANATI IRAN	IRAN
FELEXOR PARS	IRAN
KAROON SAR	IRAN
LASTIC SAHAND	IRAN
ELAFLEX	FRANCE / BELGIUM
FLEXIDER	ITALY
KEMPCHEM	GERMANY

1.3.9- VALVE

ASAL ARA	IRAN
GOROOH FAJR MARKAZI	IRAN
GOROOH SANATI GODAKHTAR	IRAN
MARO SANAT	IRAN
PARS PANGAN	IRAN
RASTA GOROOH GHESHM	IRAN
SANAYE GOSTARESH SHIRSAZI	IRAN
SHIRHAYE MAKHROOTIE KHAVARMIANEH (PLUG ONLY)	IRAN
TAKVIN SANAT AFRA	IRAN
TEHRAN SOFA	IRAN
ADAMS	GERMANY
ALCO VALVES LTD	UK
ANDERSON	FRANCE / GERMANY
APPARECCHI DI SICUREZZA EDI TENUTA S.P.A	ITALY
ARFLU S.A.	SPAIN
BAF VALVES B.V	THE NETHERLANDS
BESTOBELL VALVES LTD	UK
BONNEY FORGE	ITALY
BRAY VALVE & CONTROLS	GERMANY/UK
CAPITAL VALVE	UK
DANIEL INDUSTRIES	UK
DELLA FUGLI	ITALY
DELTA PACIFIC VALVE DPV	UK
(FLOWERVE CORPORATION)	BELGIUM / GERMANY
DURIRON	CANADA
ECONOSTO	THE NETHERLANDS
EMERSON	THE NETHERLANDS
FASANI S.P.A.	ITALY
FEMA	ITALY
FLOW TECH	UK

<u>COMPANY NAME</u>	<u>ORIGIN</u>
GESTRA	GERMANY / SPAIN
GROVE DRESSER	ITALY
IPS	THE NETHERLANDS
KITZ CORPORATION	JAPAN
KURVERS	GERMANY / FRANCE
LAZARO ITUARTE INTERNATIONAL, S.A.	SPAIN
MULTI-VALVE TECHNOLOGY	UK
ORBIT	UK
PETRO VALVS	ITALY
PHOCEENNE	FRANCE / BELGIUM
PIBIVIESSE	ITALY
PIETRO FIORTINI	ITALY
RAIMONDI	ITALY
RBR VALVOLE SPA	ITALY
RINGO VALVULAS	SPAIN
ROBERT CORT	UK
SANDRERES	UK
SERCK AUDCO VALVE	UK
SHIPHAM VALVES	UK
SHIRAKAWA	JAPAN
SHUCTK	GERMANY
STOCKHAM VALVE	UK
SUD ROBINETTERIE INDUSTRIES	FRANCE
TAI MILANO S.P.A.	ITALY
TECHNO FRANCE	FRANCE / ITALY
THYSSEN	GERMANY
VALVOSIDER	ITALY
VELAN	GERMANY
VITAS	ITALY
WEIR VALVE & CONTROL	UK
ZA. VE.RO.INDUSTRIAL VALVES	ITALY

1.3.10- SPRING SUPPORT AND HANGER

BHP SYSTEMS DESIGN	USA / W. EUROPE
FELEXIDER	ITALY
LISEGA	GERMANY
PIPING TECHNOLOGY & PRODUCT	USA / W. EUROPE
UEC INDUSTRIES	UK
WALRABEN	GERMANY

COMPANY NAME

ORIGIN

1.4- PACKAGE UNIT

1.4.1- UTILITY PACKAGE

1.4.1.1- POWER GENERATION

ABB	GERMANY
ALSTOM	FRANCE
GE	W.EUROPE
HITACHI	JAPAN
KAWASAKI	JAPAN
ROLLS ROYCE ALLISON	UK
SIEMENS	GERMANY

1.4.1.2- BOILER (WATER/FIRE TUBE)

1.4.1.2.1- WATER TUBE BOILER

AZARAB	IRAN
BAMIN TECH	IRAN
GARMA GOSTAR	IRAN
MAPNA BOILER	IRAN
OSVEH IRAN INDUSTRIAL GROUP	IRAN
BABCOCK / HITACHI	JAPAN
BALCKE DURR	GERMANY
DEUTSCHE BABCOCK AG	GERMANY
FOSTER WHEELER	UK / GERMANY
MACCHI S.P.A.	ITALY
STEINMULLER	GERMANY

1.4.1.2.2- FIRE TUBE BOILER

GARMA GOSTAR	IRAN
MACHIN SAZI ARAK	IRAN

1.4.1.3- HEAT RECOVERY STEAM GENERATION

AZARAB	IRAN
MAPNA BOILER	IRAN
MASHIN SAZI ARAK	IRAN
THERMO DESIGN INC./ OSVEH INDUSTRIAL GROUP *	CANADA/IRAN
ALSTOM	FRANCE
FOSTER WHEELER	FRANCE
NC-CCT	ITALY
NECHNIK-KTI	ITALY
NEM BV	THE NETHERLANDS
UMAG TECHNOLOGIE GMBH	GERMANY

* THERMO DESIGN INC./ OSVEH INDUSTRIAL GROUP IS ACCEPTABLE FOR HRSG IF AND ONLY IF ENGINEERING AND PERFORMANCE GUARANTEE OF THE PACKAGE IS PROVIDED BY THERMO DESIGN

COMPANY NAME

ORIGIN

1.4.1.4- N2 / O2 UNIT

HAVAYAR	IRAN
CRYOTEC AN LAGENBAU	GERMANY
AIR LIQUIDE	FRANCE
AIR PRODUCT	FRANCE
LINDE AG	GERMANY
NIHON SANSEI	JAPAN
SIAD MACCHINE IMPIANTI	ITALY

1.4.1.5- COOLING TOWER

FARABARD	IRAN
TAVAN AFZAR	IRAN
BALCKE DURE / MARELLY	GERMANY / W.EUROPE
ECODYNE	CANADA
GEA	GERMANY
HAMON INDUSTRIES THERMIQUE	BELGIUM
SPX COOLING TECHNOLOGIES	GERMANY

1.4.1.6- WASTE WATER TREATMENT

ABNIC	IRAN
ARON AB	IRAN
KHERAD ENERGY & ENVIRONMENT	IRAN
MACHINE SAZI VIJEH (MSV)	IRAN
NOVIEN ZOLAL	IRAN
PENDER	IRAN
ZOLALE IRAN	IRAN
DEGREMONT/FARASSAN	FRANCE

1.4.1.7- WATER TREATMENT

MACHINE SAZI VIJEH (MSV)	IRAN
PENDER	IRAN
SHAHRAB SHARGH TEHRAN	IRAN
ZOLAL IRAN	IRAN
CECA SA	FRANCE
DEGREMONT/FARASSAN	FRANCE
METITO	UK

1.4.1.8- DESALINATION UNIT

FAN NIRO	IRAN
PENDER	IRAN
VA-THE-VAG	IRAN
ALFA LAVAL	ITALY
AXIOM	AUSTRIA
DEGREMONT	FRANCE
SIDEM	FRANCE

COMPANY NAME

ORIGIN

1.4.1.9- PLANT / INSTRUMENT AIR PACKAGE

HAVAYAR	IRAN
HAVAKARAN SANAT	IRAN
ATLAS COPCO	GERMANY/SWITZERLAND
KK & K	GERMANY
SIAD MACCHINE IMPIANTI	ITALY

1.4.1.10- INCINERATOR PACKAGE

DEGREMONT	FRANCE
GBA	ITALY
JOHN ZINK	UK
ITAS	ITALY

1.4.1.11- EMERGENCY DIESEL GENERATION

ARYA MACHINERY (CATERPILLAR)	IRAN
FARS DIESEL	IRAN
MAH NIRO	IRAN
MAN DIESEL & TURBO SE	GERMANY
mitsubishi heavy industries	JAPAN
MTU	GERMANY
MVM	GERMANY
PERKINS ENGINES COMPANY LTD	UK
SDMO	FRANCE
SIEMENS	GERMANY
VOLVO	SWEDEN
WARTSILA CORPORATION	FINLAND / THE NETHERLANDS

1.4.2- PROCESS PACKAGE

1.4.2.1- REFRIGERATION PACKAGE

MASIR SABZ DELTA	IRAN
AIR LIQUIDE	FRANCE
AXIMA & GRENCobl	FRANCE
CARRIER FRANCE SA	FRANCE / BELGIUM
CASTAIN	UK
CCM SULZER	FRANCE
EBARA	JAPAN
LINDE AG	GERMANY
QUIRT	FRANCE
TRANE	FRANCE / BELGIUM
YORK	FRANCE

COMPANY NAME

ORIGIN

1.4.2.2- DRYER PACKAGE

HAVAYAR	IRAN
SHID GHESHM	IRAN
SUPER ACTIVE	IRAN
CMI INDUSTRIAL HRSG NV	BELGIUM
COEK ENGINEERING	BELGIUM
COHIN	W.EUROPE
ELLIMETAL	BELGIUM
FISCHER	FRANCE
G & G INTERNATIONAL NV	BELGIUM
GALA	USA / W.EUROPE
NAT	FRANCE
NATOO	FRANCE
SNIG	FRANCE

1.4.2.3- CHEMICAL INJECTION

KARDANAN SHARGH Co.	IRAN
MACHIN SAZI NEEV	IRAN
MASIR SABZ DELTA	IRAN
RASTA GORO OH GHESHM	IRAN
ATELIER-DE-FOS	ITALY
DKM POMPES SA	FRANCE
DOSARPO MILTON	FRANCE
HOODGVELD PROCESS EQUIPMENT	THE NETHERLANDS
MILTON ROY EUROPE	FRANCE
OMG OFFICINE MECHANICHE GALLARATESI SPA	ITALY
PERONIPOMPE	ITALY
PROMINENT	GERMANY
SALINE WATER SPECIALISTS (SWS)	ITALY
SEKO	ITALY

1.4.2.4- HYDROGEN PACKAGE

LINDE AG	GERMANY
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1.4.2.5- PSA

HAVAYAR	IRAN
CRYOTEC AN LAGENBAU	GERMANY

1.4.2.6- HRU

WILL BE ADVISED LATER

COMPANY NAME

ORIGIN

1.4.2.7- COLD BOX

HAVAYAR	IRAN
AIR LIQUID	FRANCE
AIR PRODUCT	FRANCE
CASTAIN	UK
KOBELCO	JAPAN
LINDE AG	GERMANY
SIAD MACCHINE IMPIANTI	ITALY

1.4.2.8- CATALYST PNEUMATIC TRANSPORT

BONYAN EMAN	IRAN
DISAL	IRAN
IRAN OIL	IRAN
PARK TECHNIC	IRAN
SYSTEMHAYE SANATI TAKESTAN	IRAN
TAMKAR	IRAN
BUHLER MIAG	FRANCE
NEU	BELGIUM / FRANCE
SANTENS ENG. SERNIVICES	BELGIUM

1.4.3- SPECIAL PACKAGE

1.4.3.1- HVAC SYSTEM

1.4.3.1.1- COMPRESSION CHILLING

ABGARDAN	IRAN
ATMOSPHERE	IRAN
CENTIGRAD	IRAN
GHESHM TAHVIEH	IRAN
GOROOH SANATI IRANIAN	IRAN
HAVA SAZ	IRAN
KARA TAHVIEH	IRAN
MEHR ASL	IRAN
NASEEM GOSTAR	IRAN
RADIRAN	IRAN
SABA AFARIN	IRAN
SABALAN GOSTAR TAHVIEH	IRAN
SAFIYAD	IRAN
SANAYEH SARMA AFARIN	IRAN
SARAN	IRAN
SARAVAN	IRAN
SARAVEL	IRAN
SARMA AFARIN	IRAN
SHAYA DAMA	IRAN
TAHVIEH	IRAN
TEHRAN TAHVIE GHESHM	IRAN
ZAHESH	IRAN

COMPANY NAME

ORIGIN

1.4.3.1.2- ABSORPTION CHILLING

SARI POUYA	IRAN
YORK IRAN	IRAN
ZAHESH	IRAN
EBARA	JAPAN

1.4.3.2- FLARE SYSTEM

MASNOUAT FELEZI SANGIN	IRAN
SYSTEMHAYE SANATI TAKESTAN / THERMO ENGINEERING	IRAN / ITALY
TASHA / HAMWORTHY	IRAN / THE NETHERLANDS
TEHRAN JAVAN	IRAN
AIR OIL FLARE GAS	UK / FRANCE
BIRWEL	UK
ESCHER	THE NETHERLANDS
GBA	UK
HOOGVELD	THE NETHERLANDS
ITAS IMPIANTI THERMOTECHNICS	ITALY
JOHN ZINK	JAPAN / UK / LUXEMBOURG
KALDAIR	UK
NIPPON NATIONAL AIR OIL BURNER	JAPAN
PREMATECHNIK	GERMANY
SAMIA S.R.L.	ITALY
STIBBE	THE NETHERLANDS

1.4.3.3- BAGGING / PALLETIZING / SHRINKING SYSTEM

GOROOH SANATI FARINEH / HAVER & BOECKER	IRAN / GERMANY
MAH MACHIN	IRAN
PALAS / BAGLINE	IRAN / ITALY
PEIKAREH / WINDMOLLER & HOLSCHER	IRAN / GERMANY
BEUMER MASCHINEN FABRIK GMBH	GERMANY
ZEPHLIN	GERMANY

1.4.3.4- BIG BAG SYSTEM

FARINEH MASHIN	IRAN
MAH MACHIN	IRAN
KRONOS RICHARSON	ITALY

1.4.3.5- DRUM FILLING PACKAGE

FEIGE GMBH	GERMANY
LOG DOS	GERMANY
SIG COMA CO	ITALY

COMPANY NAME

ORIGIN

1.4.3.6- CONVEYING SYSTEM

TEIF SEPAHAN	IRAN
FAM FORDERANLAGEN MAGDEBURG GMBH	
HIRATA INDUSTRIAL MACHINERY	JAPAN
HOFFMEISTER-LEUCHTEN GMBH	GERMANY
KRUPP	GERMANY
P.H.B	GERMANY
TECHINT TECHNOLOGIES	ITALY

1.4.3.7- BUCKET ELEVATOR

ADVAN CORPORATION	JAPAN
DOUBRAVA GMBH & CO. KG	AUSTRIA
EMDE INDUSTRIE-TECHNIK GMBH	GERMANY

1.4.3.8- CRUSHER

BAUERMISTER	GERMANY
P.H.B	GERMANY

1.4.3.9- RECLAIMER

P.H.B	GERMANY
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1.4.3.10- LOADING & UNLOADING ARM

BAHRAM BAZOO	IRAN
FMC EUROPE SA ENERGY SYSTEMS DIV.	FRANCE
SVT	GERMANY
WOODFIELD SYSTEMS LTD	UK

1.4.3.11- ELEVATOR / LIFT (EX)

COUPL ASANSOR	IRAN
SAHAND	IRAN
OTIS	GERMANY
SCHINDLER	GERMANY

1.4.3.12- PIG LAUNCHER & RECEIVER

1.4.3.12.1- PIG CUP & SPHERE

MAHDIN	IRAN
SANAYE POLYURTAN SAVAY	IRAN
ZAFER	IRAN
KLIEISS & CO BV.	UK/THE NETHERLANDS
PIPELINE ENG.(PE)	UK
TD WILLIAMSON	UK

1.4.3.12.2- LAUNCHER & RECEIVER

JAHED SANAT	IRAN
KASRAVAND	IRAN
PARGASIRAN	IRAN
RMA	GERMANY
TECTUBI	ITALY

COMPANY NAME

ORIGIN

1.5- GENERAL ITEMS

1.5.1- INSULATION

AYEGH PARDIS SAEI	IRAN
BAB	IRAN
GILAN MICA	IRAN
IDEH SAZAN	IRAN
JAHAN AYEGH PARS	IRAN
PASHM & SHISHEH IRAN / THERMO TANK	IRAN
PASHM CERAMIC IRAN	IRAN
PASHM SANG IRAN	IRAN
PASHM SANG VILA	IRAN
PASHM SARBAREH IRAN	IRAN
TARABGIN	IRAN
TARADIS	IRAN

1.5.2- PAINT

AHWAZ RANG (AFTAB)	IRAN
BAJAK	IRAN
GITI ASA	IRAN
GOROOH RANG PEDRAM	IRAN
NEGIN ZEREH	IRAN
PARS OCEAN	IRAN
PARS PAMCHAL	IRAN
RANG ARGHAVAN	IRAN
RANG FIROUZEH SHIRAZ	IRAN
RANG SAZI IRAN	IRAN
RANG SAZI TEHRAN ORANUS	IRAN
RANG SOORMEH	IRAN
RANGDANEH KALA	IRAN
RANGHAYE SANATI IRAN	IRAN
RANGIN	IRAN
RANGIN ZEREH	IRAN
RONASS	IRAN
SANAYE CHEMIYAE BUSHEHR	IRAN
SANYE RANG KROMAT	IRAN
SARV RANG	IRAN
TAKRANG KAR	IRAN
TIF IRAN	IRAN

COMPANY NAME

ORIGIN

1.5.3- FLEXIBLE METAL HOSE

BOOSHIRAN	IRAN
BURGMANN PARS	IRAN
ZADA	IRAN
GEORGE BOYD	UK
JOHN MORRIS SIEBE	UK
WILLCOX FLUID HANDLING	UK

1.5.4- COATING & WRAPPING

BAJAC	IRAN
ISO SEAL	IRAN
NIASHIMI	IRAN
TOORSEAL	IRAN
VARZIRAN	IRAN
ALTA	ITALY
LONG PRODUCT	UK
POLYAIM	UK
SERVITWRAP	CANADA/UK

1.5.5- ELECTRODE & FILLER

AMA	IRAN
ELECTROD YAZD	IRAN
JOSHE & OXYGEN IRAN	IRAN
SANAYE GEOOSH VA ELECTROD	IRAN
BOHLER	GERMANY
ESSAB	SWEDEN
LINCOLN/METRODE	UK
OERLIKON	FRANCE

1.5.6- PIPE, FITTING & VALVE (NON METALLIC)

AB HAYATE KERMEN (POLYMER)	IRAN
ARIAN SADEH (HB COMPOSITE)	IRAN
BASPAR SANAT PAZHOOH (BSP)	IRAN
FARASAN (GRP / FRP)	IRAN
GAS LOOLEH (POLYMER)	IRAN
MASHHAD SADRA (GRP / FRP)	IRAN
MOEIN KHORAMSHAHR	IRAN
PARS ETHYLENE KISH	IRAN
SANAYE POLYMER KERMEN (POLYMER)	IRAN
SUPER PIPE (POLYMER)	IRAN

COMPANY NAME

ORIGIN

1.5.7- PLATE

FOOLAD MOBARAKEH	IRAN
VOESTALPINE	AUSTRIA

1.5.8- TUBE FOR HEAT EXCHANGER

LOOLEHAYE DAGHIGH KAVEH	IRAN
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1.5.9- HEAD OF VESSEL

POULAD SAZAN FARAYAND CO.	IRAN
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1.5.10- RUBBER PARTS

BASHIR COMPLEX (SA IRAN)	IRAN
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2 - ELECTRICAL

2. ELECTRICAL

2.ELECTRICAL

2.1- POWER TRANSFORMER

2.2- STATIC CONVERTOR

2.2.1- AC UPS

2.2.2- DC UPS (BATTERY CHARGER)

2.2.3- FREQUENCY CONVERTOR

2.3- BATTERY

2.3.1- LEAD ACID BATTERY

2.3.2- NICKEL CADMIUM BATTERY

2.4- SWITCH GEAR

2.4.1- L.V. SWITCH GEAR / MCC

2.4.2- M.V. SWITCH GEAR (GIS)

2.4.3- M.V. SWITCH GEAR (AIS + VCB)

2.4.4- H.V. SWITCH GEAR (GIS)

2.4.5- LOCAL DISTRIBUTION PANEL (INDUSTRIAL)

2.4.6- LOCAL DISTRIBUTION PANEL (EXPLOSION PROOF)

2.4.7- CAPACITOR BANK PANEL

2.5- LIGHTING

2.5.1- INDUSTRIAL LIGHTING

2.5.2- EXPLOSION PROOF LIGHTING

2.5.3- STREET LIGHTING

2.5.4- LIGHTING POLE / ARM

2.5.5- AIRCRAFT WARNING LIGHT

2.6 - LOCAL CONTROL STATION

2.6.1- INDUSTRIAL CONTROL STATION

2.6.2- EXPLOSION PROOF CONTROL STATION

2.7- CABLE TRAY / LADDER & ACCESSORIES

2.7.1- METAL CABLE TRAY / CABLE LADDER & ACCESSORIES

2.7.2- GRP CABLE TRAY / CABLE LADDER & ACCESSORIES

2.8- INSTALLATION MATERIAL

- 2.8.1- CABLE GLAND
- 2.8.2- CONDUIT & FITTING
- 2.8.3- CABLE TERMINATION KIT & JOINT
- 2.8.4- PLUG & SOCKET (IND. / EXP. PROOF)
- 2.8.5- INDUSTRIAL JUNCTION & TERMINAL BOX
- 2.8.6- EXPLOSION PROOF J&T BOX

2.9- CABLE

- 2.9.1- LOW VOLTAGE / CONTROL CABLE
- 2.9.2- MEDIUM VOLTAGE CABLE
- 2.9.3- HIGH VOLTAGE CABLE

2.10- CONTROL & INDICATION SYSTEM

- 2.10.1- ANNUNCIATION PANEL
- 2.10.2- INTERPOSING RELAY PANEL
- 2.10.3- POWER DISTRIBUTED CONTROL SYSTEM (PDCS) / POWER MANAGEMENT SYSTEM (PMS)

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

2.13- FIRE ALARM SYSTEM

2.14- ELECTRICAL HEAT TRACING

2.15- CATHODIC PROTECTION

- 2.15.1- CATHODIC PROTECTION SYSTEM
- 2.15.2- CATHODIC PROTECTION COMPONENT
 - 2.15.2.1- TRANSFORMER-RECTIFIER
 - 2.15.2.2- (IMPRESSED CURRENT ANODE (MMO/SILICON
 - 2.15.2.3- SACRIFICIAL ANODE
 - 2.15.2.4- REFERENCE ELECTRODE
 - 2.15.2.5- SPARK GAP
 - 2.15.2.6- CADWELD POWDER
 - 2.15.2.7- HANDY CAP
 - 2.15.2.8- CATHODIC PROTECTION REMOTE MONITORING & CONTROL SYSTEM
 - 2.15.2.9- FLANGE INSULATION KIT

2.16- EARTHING & LIGHTNING

2.17- NEUTRAL GROUNDING RESISTOR

2.18- AC GENERATOR

2.18.1- TURBO GENERATOR

2.18.2- EMERGENCY GENERATOR

2.19- MOBILE SUBSTATION

2.20- COMPONENTS

2.20.1 PROTECTION RELAY

2.20.2 AUXILIARY RELAY

2.20.3 CONTACTORS

2.20.4 AUXILIARY CONTACTOR

2.20.5 FUSE

2.20.6 SIGNAL LIGHT

2.20.7 CONTROL SWITCH

2.20.8 METERS

2.20.9 CIRCUIT BREAKER

2.20.9.1 LV CIRCUIT BREAKER

2.20.9.1.1 MIATUURE 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

2.20.9.2.2 SF6

2.20.10 TRANSDUCER

2.20.11 CT'S & PT'S

2.20.12 TERMINALS

2.20.13 SPACE HEATER

2.20.14 THERMOSTAT

2.20.15 LIGHTING LAMPS

2.20.15.1 INCANDESCENT LAMP

2.20.15.2 MERCURY VAPOR LAMP

2.20.15.3 SODIUM VAPOR LAMP

2.20.15.4 FLOURESCENT LAMP

2.20.16 TIMER

2.20.17 CAPACITORS

2.20.18 FAULT / EVENT RECORDER

2.21- ELECTRICAL HEATER FOR PROCESS EQUIPMENT

COMPANY NAME

ORIGIN

2.1- POWER TRANSFORMER

IRAN TRANSFO	IRAN
ABB TRANSFO	FINLAND / GERMANY
AREVA	FRANCE
BRUSH TRANSFORMER	UK
FUJI ELECTRIC CO	JAPAN
IEO TRANSFORMATOREN	NETHERLANDS
PAUWELS	BELGIUM
SCHNEIDER GROUP	FRANCE
SCHORCH	GERMANY
SIEMENS	GERMANY
TOSHIBA CORPORATION	JAPAN
VA TECH ELIN	AUSTRIA

2.2- STATIC CONVERTOR

2.2.1- AC UPS

ARA TAJHIZ SYSTEM	IRAN
AMAK-KOSHA (BORRI)*	IRAN (ITALY)
BORNA ELECTRONIC	IRAN
JAHAD DANESHGAHI ELM VA SANAT	IRAN
PARS ELTEK ENERGY	IRAN
PARS KAVIR ARVAND	IRAN
PORSOO ELECTRONIC **	IRAN
POYEH ELECTRONIC *	IRAN
TRADIS *	IRAN
BENNING	GERMANY
CHLORIDE INDUSTRIAL	FRANCE
GUTOR ELECTRONIC LTD	SWITZERLAND
SAFT POWER SYSTEM	FRANCE
SCHNEIDER GROUP	FRANCE
SIEMENS	GERMANY
SOCOMEK	FRANCE

* VENDORS FOR UPS UP TO 5KVA

** VENDORS FOR UPS UP TO 20KVA

2.2.2- DC UPS (BATTERY CHARGER)

ARA TAJHIZ SYSTEM	IRAN
BORNA ELECTRONIC	IRAN
JAHAD DANESHGAHI ELM VA SANAT	IRAN
PARS KAVIR ARVAND	IRAN
ALCAD	SWEDEN
BENNING	GERMANY
CHLORIDE INDUSTRIAL	FRANCE
GUTOR ELECTRONIC LTD	SWITZERLAND
SAFT POWER SYSTEM	FRANCE

<u>COMPANY NAME</u>	<u>ORIGIN</u>
SCHNEIDER GROUP	FRANCE
SIEMENS	GERMANY
SOCOMEK	FRANCE
TOSHIBA CORPORATION	JAPAN

2.2.3- FREQUENCY CONVERTOR

BORNA ELECTRONIC	IRAN
MICROCONTROL	IRAN
ABB GROUP	GERMANY
ANSALDO SISTEMI INDUSTRIALI	ITALY
LENZE	GERMANY
MITSUBISHI	JAPAN
OMRON	JAPAN
SCHNEIDER GROUP	FRANCE
SIEMENS	GERMANY
VACON	FINLAND

2.3- BATTERY

2.3.1- LEAD ACID BATTERY

NIRO	IRAN
PLATIN IRAN (NIL)	IRAN
ALCAD	SWEDEN
HOPPECKE	GERMANY
SAFT	FRANCE/ SWEDEN
VARTA	GERMANY / FRANCE
YUASA	JAPAN

2.3.2- NICKEL CADMIUM BATTERY

ALCAD	SWEDEN
GAZ	GERMANY
HOPPECKE	GERMANY
SAFT	SWEDEN
VARTA	GERMANY / FRANCE

2.4- SWITCH GEAR

2.4.1- L.V. SWITCH GEAR / MCC

ELECTRO KAVIR	IRAN
ARUN ENERGY	IRAN
FARINE SANAT	IRAN
IRAN SEABOK	IRAN
IRAN SWITCH	IRAN
IRAN TABLOUE	IRAN
JABON	IRAN
KERMAN TABLOUE	IRAN
NEKA NOVIN	IRAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
PARS TABLOUE	IRAN
PARS SANAT PARAND	IRAN
SATHA	IRAN
TAKSAZ TABLO	IRAN
TAMIN TABLOUE	IRAN
TOLIDE MALZOOMATE BARGH (TMB)	IRAN

2.4.2- M.V. SWITCH GEAR (GIS)

ABB GROUP	GERMANY
GE	WEST EUROPE
HOLEC	WEST EUROPE
SCHNEIDER GROUP	FRANCE
SIEMENS	GERMANY
VA TECH ELIN	NETHERLANDS

2.4.3- M.V. SWITCH GEAR (AIS + VCB)

ARUN ENERGY	IRAN
AZAR FONoon TABLOUE	IRAN
ELECTRO KAVIR	IRAN
IRAN SEABOK	IRAN
IRAN SWITCH	IRAN
IRAN TABLOUE	IRAN
JABON	IRAN
KERMAN TABLOUE	IRAN
MAZHAR NOOR	IRAN
NEKA NOVIN	IRAN
PARS SANAT PARAND	IRAN
PARS TABLOUE	IRAN
SANE SHARGH	IRAN
TAKSAZ TABLO	IRAN
TAMIN TABLOUE	IRAN
TOLIDE MALZOOMATE BARGH (TMB)	IRAN
YAM	IRAN

2.4.4- H.V. SWITCH GEAR (GIS)

ELECTROKAVIR / SIEMENS	IRAN / GERMANY
ABB GROUP	GERMANY
ALSTOM	FRANCE
HITACHI	JAPAN
MITSUBISHI	JAPAN
SCHNEIDER GROUP	FRANCE
SIEMENS	GERMANY
VA TECH ELIN	NETHERLANDS

COMPANY NAME

ORIGIN

2.4.5- LOCAL DISTRIBUTION PANEL (INDUSTRIAL)

ASHTIAN TABLO	IRAN
AZAR FONON TABLOUE	IRAN
ARUN ENERGY	IRAN
ELECTRO KAVIR / LENA YAZD	IRAN
FARAMIN TABLOUE	IRAN
IRAN SEABOK	IRAN
IRAN SWITCH	IRAN
IRAN TABLOUE	IRAN
JABON	IRAN
KERMAN TABLOUE	IRAN
NEKA NOVIN	IRAN
PANJTASH	IRAN
PARS TABLOUE	IRAN
PARS SANAT PARAND	IRAN
RASAN	IRAN
SANE SHARGH	IRAN
SATHA	IRAN
TAKSAZ TABLO	IRAN
TAMIN TABLOUE	IRAN
TOLIDE MALZOOMAT BARGH (TMB)	IRAN
YAM	IRAN

2.4.6- LOCAL DISTRIBUTION PANEL (EXPLOSION PROOF)

DARIAN	IRAN
MACHIN SAZI SHOMAL / CEAG	IRAN / GERMANY
NOOR MEHVAR FARS	IRAN
COELBO	ITALY
CORTEM	ITALY
FEAM	ITALY
LEGRAND	FRANCE
SCHUCH	GERMANY
STAHL	GERMANY
WALSALL	UK

2.4.7- CAPACITOR BANK PANEL

ARUN ENERGY	IRAN
MAZHAR NOOR	IRAN
PALAYESH NIROO	IRAN
SANE SHARGH	IRAN
TAKSAZ TABLO	IRAN
TOLIDE MALZOOMAT BARGH (TMB)	IRAN

ALSO SEE 2.4.1 VENDORS

COMPANY NAME

ORIGIN

2.5- LIGHTING

2.5.1- INDUSTRIAL LIGHTING

JAHAN NOOR	IRAN
JAR	IRAN
MAZI NOOR	IRAN
NOORSA GOSTAR NOVIN	IRAN
NOOR KAR (GOLNOOR)	IRAN
SANAYE ROSHANAEE FAJR	IRAN
SANYE ROSHANAEE ARM	IRAN
WALSALL	UK

2.5.2- EXPLOSION PROOF LIGHTING

JAHAN NOOR / GLAMOX	IRAN (NORWAY)
MAZI NOOR (SCHUCH)	IRAN (GERMANY)
MACHIN SAZI SHOMAL (CEAG)	IRAN (GERMANY)
NOOR MEHVAR FARS	IRAN
COELBO	ITALY
CORTEM	ITALY
FEAM	ITALY
LEGRAND	FRANCE
NUOVA ASP s.r.l	ITALY
STAHL	GERMANY
THORN LIGHTING	WEST EUROPE

2.5.3- STREET LIGHTING

GOLNOOR	IRAN
JAHAN NOOR	IRAN
JAR	IRAN
MAZINOOR	IRAN
NOORSA GOSTAR NOVIN	IRAN
SANAYE ROSHANAEE FAJR	IRAN
SANYE ROSHANAEE ARM	IRAN

2.5.4- LIGHTING POLE / ARM

AHWAZ FANOUS	IRAN
JAR	IRAN
MAZINOOR	IRAN
NOOR KAR (GOLNOOR)	IRAN
NOORSA GOSTAR NOVIN	IRAN
PARS AKHGAR	IRAN
SANYE ROSHANAEE ARM	IRAN
TOLIDE MALZOOMAT BARGH	IRAN

COMPANY NAME

ORIGIN

2.5-5- AIRCRAFT WARNING LIGHT

GLAMOX	NORWAY
NUOVA ASP s.r.l	ITALY
ORGA B.V.	NETHERLANDS
SIEMENS	GERMANY
THALES	FRANCE

2.6 - LOCAL CONTROL STATION

2.6.1- INDUSTRIAL CONTROL STATION

DARIAN	IRAN
FARAYAND LAKSAR (ITALSMEA)	IRAN (ITALY)
MACHIN SAZI SHOMAL (CEAG)	IRAN (GERMANY)
CORTEM	ITALY
FEAM	ITALY
LEGRAND	FRANCE
STAHL	GERMANY

2.6.2- EXPLOSION PROOF CONTROL STATION

DARIAN	IRAN
FARAYAND LAKSAR (ITALSMEA)	IRAN (ITALY)
MACHIN SAZI SHOMAL (CEAG)	IRAN (GERMANY)
NOOR MEHVAR FARS	IRAN
COELBO	ITALY
CORTEM	ITALY
FEAM	ITALY
LEGRAND	FRANCE
STAHL	GERMANY
WALSALL	UK

2.7- CABLE TRAY /LADDER & ACCESSORIES

2.7.1- METAL CABLE TRAY/CABLE LADDER & ACCESSORIES

AHWAZ FANOUS	IRAN
AJINEH	IRAN
ARAN SHAHAB	IRAN
FARAMIN TABLOUE	IRAN
MAZHAR NOOR	IRAN
NEKA NOVIN	IRAN
PAJOHAN SANAT PARS	IRAN
PANJTASH	IRAN
PARS AKHGAR	IRAN
POUSHESH MONAVAR GOSTAR	IRAN
SATHA	IRAN
TAVAN AFROOZ VINEH ENG.CO.	IRAN
TOSEH SANAYE PETRO FOOLADE GHARB	IRAN
VANASHID	IRAN

COMPANY NAME

ORIGIN

2.7.2- GRP CABLE TRAY/CABLE LADDER & ACCESSORIES

WILL BE ADVISED LATER

2.8- INSTALLATION MATERIAL

2.8.1- CABLE GALND

MACHIN SAZI SHOMAL	IRAN
NOOR MEHVAR FARS	IRAN
COELBO	ITALY
COPER CROUSE-HINDS (CEAG)	GERMANY
CORTEM	ITALY
HAWKE	UK
NUOVA ASP s.r.l	ITALY
STAHL	GERMANY
WALSALL	UK

2.8.2- CONDUIT & FITTING

LOOLEHAYE DAGHIGH KAVEH	IRAN
PARS AKHGAR	IRAN
TOSE TANAYE IRAN	IRAN
TOSEH SANAYE PETRO FOOLADE GHARB	IRAN
PMA	SWITZERLAND

2.8.3- CABLE TERMINATION KIT & JOINT

CTL	UK
NEXAN	FRANCE
PFISTERER	GERMANY
RAYCHEM	GERMANY
RXS	FRANCE
SIEMENS	GERMANY
SUDKABEL	GERMANY

2.8.4- PLUG & SOCKET (IND. / EXP. PROOF)

MACHIN SAZI SHOMAL (CEAG)	IRAN (GERMANY)
CORTEM	ITALY
LEGRAND	FRANCE
NUOVA ASP s.r.l	ITALY
SCHUCH	GERMANY
STAHL	GERMANY
WALSALL	UK

COMPANY NAME

ORIGIN

2.8.5- INDUSTRIAL JUNCTION & TERMINAL BOX

MACHIN SAZI SHOMAL	IRAN
CORTEM	ITALY
ITALSMEA	ITALY
LEGRAND	FRANCE
STAHL	GERMANY
WALSALL	UK

2.8.6- EXPLOSION PROOF JUNCTION & TERMINAL BOX

DARIAN	IRAN
MACHIN SAZI SHOMAL	IRAN
NOOR MEHVAR FARS	IRAN
COELBO	ITALY
COPER CROUSE-HINDS (CEAG)	GERMANY
CORTEM	ITALY
FEAM	ITALY
ITALSMEA	ITALY
NUOVA ASP s.r.l	ITALY
STAHL	GERMANY
WALSALL	UK

2.9- CABLE

2.9.1- LOW VOLTAGE / CONTROL CABLE

IRAN CABLE MANUFACTURING COMPANY	IRAN
KABL SAZI TAK	IRAN
KABLE ALBORZ	IRAN
KABLE BAKHTAR	IRAN
KABLE KERMEN & KAVIAN	IRAN
KHORASAN ELECTRIC INDUSTRIES	IRAN
KABLE METAL	IRAN
KABLE SHAHIN	IRAN
OFOGHE ALBORZ	IRAN
SIM VA KABLE ABHAR	IRAN
SIM VA KABLE YAZD	IRAN
SIMBAF	IRAN
SIMCO	IRAN
SINA CABLE	IRAN

2.9.2- MEDIUM VOLTAGE CABLE

IRAN CABLE MANUFACTURING COMPANY	IRAN
KABLE ALBORZ	IRAN
KABLE KERMEN & KAVIAN	IRAN
KABLE SHAHIN	IRAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
OFOGHE ALBORZ	IRAN
SIM VA KABLE ABHAR	IRAN
SIM VA KABLE YAZD	IRAN
SIMCO	IRAN
FUJI ELECTRIC	JAPAN
KERPEN	BELGIUM
SIEMENS	GERMANY

2.9.3- HIGH VOLTAGE CABLE

IRAN CABLE MANUFACTURING COMPANY	IRAN
SIM VA KABLE ABHAR	IRAN
OFOGHE ALBORZ	IRAN
SIMCO	IRAN
FUJI ELECTRIC	JAPAN
KERPEN	GERMANY
PRYSMAIN CABLE & SYSTEM	ITALY
SUDKABEL	GERMANY
SIEMENS	GERMANY

2.10- CONTROL & INDICATION SYSTEM

2.10.1- ANNUNCIATION PANEL

ELECTRO KAVIR	IRAN
FARARAVESH	IRAN
JABON	IRAN
KERMAN TABLOUE	IRAN
NEKA NOVIN	IRAN
PARS SANAT PARAND	IRAN
TAMIN TABLOUE	IRAN
ABB GROUP	GERMANY
SCHNEIDER GROUP	FRANCE
SIEMENS	GERMANY

2.10.2- INTERPOSING RELAY PANEL

AZAR FONOON TABLOUE	IRAN
ELECTRO KAVIR	IRAN
IRAN SEABOK	IRAN
IRAN SWITCH	IRAN
IRAN TABLOUE	IRAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
JABON	IRAN
KERMAN TABLOUE	IRAN
PARS TABLOUE	IRAN
SATHA	IRAN
TAMIN TABLOUE	IRAN
TOLIDE MALZOOMATE BARGH	IRAN

2.10.3- POWER DISTRIBUTED CONTROL SYSTEM (PDCS) / POWER MANAGEMENT SYSTEM (PMS)

CONTRONIC	IRAN
GOROOH SANATI FARINEH	IRAN
GOROOH SANATI NEDA	IRAN
KERMAN TABLOUE	IRAN

2.11- ELECTRICAL MOTOR

2.11.1- EXPLOSION PROOF L.V. ELECTRIC MOTOR

JEMCO	IRAN
ABB GROUP	GERMANY
ALSTOM	FRANCE
CEMP	ITALY
LEROY SOMER	FRANCE
MARELY	ITALY
SCHORCH	GERMANY
SIEMENS	GERMANY
TOSHIBA	JAPAN
VEM MOTOR GmbH.	GERMANY

2.11.2- INDUSTRIAL L.V. ELECTRIC MOTOR

ARIAN SANAT	IRAN
JEMCO	IRAN
MOTOGEN	IRAN
TURBO GENERATOR	IRAN
ABB GROUP	GERMANY
ALSTOM	FRANCE
BROOK CROMPTON	UK
CEMP	ITALY
FLENDER	GERMANY
LEROY SOMER	FRANCE
MARELY	ITALY
SCHORCH	GERMANY
SIEMENS	GERMANY
TOSHIBA	JAPAN
VEM MOTOR GmbH.	GERMANY

COMPANY NAME

ORIGIN

2.11.3- EXPLOSION PROOF M.V. ELECTRIC MOTOR

JEMCO (LOHER)	IRAN (GERMANY)
ABB GROUP	GERMANY
ANSALDO SISTEMI INDUSTRIALI	ITALY
BRUSH	UK
FUJI	JAPAN
SCHNEIDER GROUP	FRANCE
SCHORCH	GERMANY
SIEMENS	GERMANY
TECO WESTINGHOUSE	USA / TAIWAN
TOSHIBA	JAPAN
VEM MOTOR Gmbh.	GERMANY

2.11.4- INDUSTRIAL M.V. ELECTRIC MOTOR

JEMCO (LOHER)	IRAN (GERMANY)
ABB GROUP	GERMANY
ANSALDO SISTEMI INDUSTRIALI	ITALY
BRUSH	UK
FUJI	JAPAN
SCHNEIDER GROUP	GERMANY
SCHORCH	GERMANY
TECO WESTINGHOUSE	USA / TAIWAN
TOSHIBA	JAPAN
VEM MOTOR Gmbh.	GERMANY

2.12- BUS DUCT

GITAL	IRAN
BBI	ITALY
BETA BARDUCT	UK
BKS	SWITZERLAND
GRAZIADIO	ITALY
EDMUNDSON	UK
FUJI ELECTRIC	JAPAN
HITACHI CABLE	JAPAN
MARELY	ITALY
SCHNEIDER GROUP	FRANCE
SIMELECTRO	FRANCE
ZUCCHINI	ITALY

2.13- FIRE ALARM SYSTEM

GOROOH SANATI NEDA	IRAN
MAZDAK	IRAN
PARS HASSAS	IRAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
ABB GROUP	GERMANY
CERBERUS	SWITZERLAND
DETECTOMAT	GERMANY
SILVANI	ITALY
GEC	UK
HOCHIKI	JAPAN
PHOTAIN CONTROL PLC	UK
SIEMENS	GERMANY
THORN	UK

2.14- ELECTRICAL HEAT TRACING

BARTEC	GERMANY
ELTHERM	GERMANY
RAYCHEM	GERMANY
SIGMA CONTROL	GERMANY
THERMON	UK

2.15- CATHODIC PROTECTION

2.15.1 CHTADOIC PROTECTION SYSTEM

ARMIN SANAT GOSTARAN	IRAN
FANAVARI DANESH KHORDEGI	IRAN
FARA SANAT BAN	IRAN
JAHAD DANESHGAHI ELM VA SANAT	IRAN
MOHANDESI MOSHAVER BINA	IRAN
PAYESH SANAT NOVIN	IRAN
REFERENCE IRAN	IRAN
TECHINCO	IRAN
ZANG SETIZANE SHARGH	IRAN
CATHODIC PROTECTION CO (CPC)	UK
CORROCELL CO	UK
CORRPRO	UK
CORR OCEAN	NORWAY
ROSE CORROSION SERVICES	UK
WILSON WALTON	UK

2.15.2- CHTADOIC PROTECTION COMPONENT

2.15.2.1 TRANSFORMER-RECTIFIER

ARMIN SANAT GOSTARAN	IRAN
BORNA ELECTRONIC	IRAN
JAHAD DANESHGAHI ELM VA SANAT	IRAN
POOYESH NIROO	IRAN
REFERENCE IRAN	IRAN
BAC	UK

<u>COMPANY NAME</u>	<u>ORIGIN</u>
CORROCO	UK
CATHODIC PROTECTION CO (CPC)	UK
CATH-TECH	CANADA
HELLAS	THE NETHERLANDS
WILSON WALTON	UK

2.15.2.2 IMPRESSED CURRENT ANODE(MMO/SILICON)

REFERENCE IRAN	IRAN
BAC GROUP	UK
CORROCO	UK
CORRPRO	UK
CATHODIC PROTECTION CO (CPC)	UK
GCP	GERMANY
HITECH	UK
MAGNETO	NETHERLANDS
PML	CANADA
TELPRO	UK

2.15.2.3 SACRIFICIAL ANODE (MG/AL/ZN)

ARMIN SANAT GOSTARAN	IRAN
REFERENCE IRAN	IRAN

2.15.2.4 REFERENCE ELECTRODE

ARMIN SANAT GOSTARAN	IRAN
REFERENCE IRAN	IRAN
CORRPRO	UK

2.15.2.5 SPARK GAP

CORROCO	UK
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2.15.2.6 CADWELD POWDER

ERICO	THE NETHERLANDS
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2.15.2.7 HANDY CAP

CELLPACK	GERMANY
ERICO	THE NETHERLANDS
ROYSTON	USA

2.15.2.8 CATHODIC PROTECTION REMOTE MONITORING AND CONTROL SYSTEM

REFERENCE IRAN	IRAN
GCP	GERMANY
IMP	UK
REMCO SYSTEM LTD	UK

COMPANY NAME

ORIGIN

2.15.2.9- FLANGE INSULATION KIT

PARS PAJOHAN SANAT	IRAN
REFERENCE IRAN	IRAN

2.16- EARTHING & LIGHTNING MATERIAL

AMAD SANAT PISHTAZ	IRAN
AMOUJ FARAYAND	IRAN
ESPAK	IRAN
KAR PIRA KAVIR	IRAN
NOVIN JOSH	IRAN
PAYA SYSTEM	IRAN
PETONIA	IRAN
TAJHIZAT SYSTEM ZAMIN	IRAN
ABB GROUP	GERMANY
ALLTEC	USA
FURSE	UK
FRANCE PARATONNERRES	FRANCE
INDELEC	FRANCE

2.17- NEUTRAL GROUNDING RESISTOR

BORNA ELECTRONIC	IRAN
MEHR TAVAN GOSIL	IRAN
ABB GROUP	GERMANY
ALSTOM	FRANCE
FUJI ELECTRIC	JAPAN
MITSUBISHI	JAPAN
SIEMENS	GERMANY
TOSHIBA	JAPAN

2.18- AC GENERATOR

2.18.1- TURBO GENERATOR

ALSTOM	FRANCE
ELIN	AUSTRIA
HITACHI	JAPAN
MITSUBISHI	JAPAN
SIEMENS	GERMANY
TOSHIBA	JAPAN

2.18.2- EMERGENCY GENERATOR

ABB GROUP	FRANCE
ANSALDO SISTEMI INDUSTRIALI	ITALY
LEROY SOMER	FRANCE
SIEMENS	GERMANY
TOSHIBA	JAPAN

COMPANY NAME

ORIGIN

2.19- MOBILE SUBSTATION

IRAN TRANSFO	IRAN
FULMEN	IRAN
KERMAN TABLOUE	IRAN
SANE SHARGH	IRAN
TRANS POST PARS	IRAN
ABB GROUP	GERMANY
SIEMENS	GERMANY

2.20- COMPONENTS

2.20.1- PROTECTION RELAY

ABB GROUP	GERMANY
ALSTOM	FRANCE
GE	USA/UK
ICE	FRANCE
OMRON	JAPAN
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY
SCHTUK ELEKTRONIK	GERMANY

2.20.2- AUXILIARY RELAY

AEG	GERMANY
FINDER	UK
GE	USA/UK
LEGRAND	FRANCE
OMRON	JAPAN
PHOENIX	GERMANY
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY
THYTRONIC	ITALY

2.20.3- CONTACTORS

ABB GROUP	GERMANY
AEG	GERMANY
FUJI	JAPAN
GE	USA/UK
MOELLER	GERMANY
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY

2.20.4- AUXILIARY CONTACTORS

AEG	GERMANY
FINDER	UK
GE	USA/UK
OMRON	JAPAN
PHOENIX	GERMANY

<u>COMPANY NAME</u>	<u>ORIGIN</u>
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY
THYTRONIC	ITALY

2.20.5- FUSE

ABB GROUP	GERMANY
AEG	GERMANY
ALSTOM	FRANCE
BUSSMAN	GERMANY
FERRAZ	FRANCE
GOLD	GERMANY
JUAN MOELLER	GERMANY
LEGRAND	FRANCE
SIBA	GERMANY
SIEMENS	GERMANY
SOCOMEK	FRANCE

2.20.6- SIGNAL LIGHT

ABB GROUP	GERMANY
ELFIN	ITALY
GE	USA/UK
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY

2.20.7- CONTROL SWITCH

ELECTRO KAVEH	IRAN
ROYAN	IRAN
CEAG	GERMANY
GE	USA/UK
K&N	ITALY
MOELLER	GERMANY
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY

2.20.8- METERS

FASE	ITALY
FERRER	ITALY
ISKAVA	JAPAN
IME	ITALY
MITSUBISHI	JAPAN
SIEMENS	GERMANY

COMPANY NAME

ORIGIN

2.20.9- CIRCUIT BREAKER

2.20.9.1- LV CIRCUIT BREAKER

2.20.9.1.1- MINIATURE CB

ABB GROUP	GERMANY
AEG	GERMANY
GE	UK
LEGRAND	FRANCE
mitsubishi	JAPAN
MOELLER	GERMANY
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY
UNELEC	FRANCE

2.20.9.1.2- MCCB

TEHRAN PADENA	IRAN
ABB GROUP	GERMANY
AEG	GERMANY
FUJI	JAPAN
GE	UK
mitsubishi	JAPAN
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY
UNELEC	FRANCE

2.20.9.1.3- ACB

TEHRAN PADENA	IRAN
ABB GROUP	GERMANY
AEG	GERMANY
FUJI	JAPAN
GE	UK
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY

2.20.9.2- MV CIRCUIT BREAKER

2.20.9.2.1- VACUUM

ABB GROUP	GERMANY
AEG	GERMANY
FUJI	JAPAN
GE	UK
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY

COMPANY NAME

ORIGIN

2.20.9.2.2- SF6

ABB GROUP	GERMANY
AEG	GERMANY
ALSTOM	FRANCE
GE	UK
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY

2.20.10- TRANSDUCER

FERRER	ITALY
GEC	FRANCE
IME	ITALY

2.20.11- CT's & PT's

ELECTRO PEJVAK	IRAN
MAG ELECTRIC	IRAN
ABB GROUP	GERMANY
FERRER	ITALY
MITSUBISHI	JAPAN
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY
THYTRONIC	ITALY
WATTSUD	ITALY

2.20.12- TERMINALS

RAAD	IRAN
RAD IRAN	IRAN
CABUR	ITALY
MITSUBISHI	JAPAN
MOELLER	GERMANY
PHOENIX	GERMANY
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY

2.20.13- SPACE HEATER

GE	UK
RITTAL	GERMANY
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY
THYTRONIC	ITALY

COMPANY NAME

ORIGIN

2.20.14- THERMOSTAT

ATBIN	IRAN
BARTEC	GERMANY
KOBOLD	GERMANY
RITTAL	GERMANY
SAREL	ITALY
SIEMENS	GERMANY

2.20.15- LIGHTING LAMPS

2.20.15.1- INCANDESCENT LAMP

PARS	IRAN
GE	UK
OSRAM	GERMANY
PHILIPS	NETHERLANDS
TUNGSRAM	HUNGARY

2.20.15.2- MERCURY VAPOR LAMP

SHAHAB TOUSHE	IRAN
GE	UK
OSRAM	GERMANY
PHILIPS	NETHERLANDS

2.20.15.3- SODIUM VAPOR LAMP

SHAHAB TOUSHE	IRAN
OSRAM	GERMANY
PHILIPS	NETHERLANDS

2.20.15.4- FLOURESCENT LAMP

AFRA	IRAN
PARS	IRAN
SHAHAB TOUSHE	IRAN
OSRAM	GERMANY
PHILIPS	NETHERLANDS

2.20.16- TIMER

ABB GROUP	GERMANY
AEG	GERMANY
DOLD	GERMANY
OMRON	JAPAN
SCHNIEDER ELECTRIC	FRANCE
SIEMENS	GERMANY

COMPANY NAME

ORIGIN

2.20.17- CAPACITORS

PALAAYESH NIROO

IRAN

2.20.18 FAULT / EVENT RECORDER

PARDISSAN

IRAN

2.21- ELECTRICAL HEATER FOR PROCESS EQUIPMENT

MABNA PISHEH

IRAN

3 - INSTRUMENTATION

3.INSTRUMENTATION

3.INSTRUMENTATION

3.1- SYSTEM

- 3.1.1- DCS / FCS
- 3.1.2- DCS / FCS INTEGRATION
- 3.1.3- ADVANCED PROCESS CONTROL (APC)
- 3.1.4- OPERATOR TRAINING SIMULATE (OTS)
- 3.1.5- ESD SYSTEM
- 3.1.6- HIGH INTEGRATION PROTECTION SYSTEM (HIPS)
- 3.1.7- BMS
- 3.1.8- BMS / ESD SYSTEM INTEGRATION
- 3.1.9- PLC
- 3.1.10- PLC INTEGRATION
- 3.1.11- TANK GAUGING SYSTEM (TGS)
- 3.1.12- CONTROL PANEL
- 3.1.13- MIMIC PANEL
- 3.1.14- CONTROLLER
- 3.1.15- SCADA / DATA LOGGER
- 3.1.16- SCADA / DATA LOGGER INTEGRATION
- 3.1.17- TELEMETERING REMOTE TERMINAL UNIT (RTU)
- 3.1.18- TELEMETERING RADIO
- 3.1.19- INDICATOR
- 3.1.20- RECORDER
- 3.1.21- ANNUNCIATION PANEL
- 3.1.22- MARSHALLING AND BARRIER CABINET
- 3.1.23- ISOLATING / BARRIER / REPEATER / AMPLIFIER
- 3.1.24- PERSONAL COMPUTER
- 3.1.25- PRINTER
- 3.1.26- VIBRATION MONITORING SYSTEM
- 3.1.27- CONDITION MONITORING SYSTEM
- 3.1.28- GOVERNOR / OVER SPEED PROTECTION
- 3.1.29- FLOW METERING STATION
- 3.1.30- FLOW METERING PROVER
- 3.1.31- LEAKAGE DETECTION SYSTEM
- 3.1.32- HUMAN MACHINE INTERFACE (HMI)

3.2- ON - LINE ANALYZER

- 3.2.1- GAS CHROMATOGRAPH
- 3.2.2- INFRARED ANALYZER
- 3.2.3- RAMAN ANALYZER
- 3.2.4- OXYGEN ANALYZER
- 3.2.5- OXYGEN ANALYZER (IN LIQUID)
- 3.2.6- H₂ ANALYZER
- 3.2.7- MOISTURE ANALYZER (IN GAS)
- 3.2.8- MOISTURE ANALYZER (IN LIQUID)
- 3.2.9- SULPHUR ANALYZER (H₂S, SOX, TAIL GAS)
- 3.2.10- CHLORINE ANALYZER
- 3.2.11- SILICA ANALYZER
- 3.2.12- AMMONIA ANALYZER (IN WATER)
- 3.2.13- PH METER
- 3.2.14- CONDUCTIVITY METER
- 3.2.15- TURBIDITY / COLOR METER
- 3.2.16- ANALYZER INTEGRATION
- 3.2.17- DENSITY METER
- 3.2.18- TOTAL HYDRO CARBON
- 3.2.19- CH₄ ANALYZER
- 3.2.20- ALUMINUM ALKIL
- 3.2.21- SAMPLING SYSTEM

3.3- HSE EQUIPMENT

- 3.3.1- F & G SYSTEM
- 3.3.2- F & G SYSTEM INTEGRATION
- 3.3.3- GAS AND VAPOR DETECTOR
- 3.3.4- SMOKE DETECTOR
- 3.3.5- HEAT DETECTOR
- 3.3.6- FLAME DETECTOR
- 3.3.7- MANUAL CALL POINT
- 3.3.8- EMISSION MONITORING SYSTEM (EMS)
- 3.3.9- EMS INTEGRATION

3.4- FIELD DEVICE

- 3.4.1- DISPLACER TYPE LEVEL TRANSMITTER
- 3.4.2- CAPACITIVE TYPE LEVEL TRANSMITTER
- 3.4.3- RADIOACTIVE TYPE LEVEL TRANSMITTER
- 3.4.4- RADAR TYPE LEVEL TRANSMITTER
- 3.4.5- ULTRASONIC TYPE LEVEL TRANSMITTER
- 3.4.6- SERVO & FLOAT TYPE LEVEL TRANSMITTER
- 3.4.7- MAGNETIC LEVEL GAUGE
- 3.4.8- GAUGE GLASS
- 3.4.9- LEVEL SWITCH (FLOAT & DISPLACER TYPE)

- 3.4.10- LEVEL SWITCH (TUNING FORK TYPE)
- 3.4.11- LEVEL SWITCH (CAPACITANCE TYPE)
- 3.4.12- LEVEL SWITCH (RADIOACTIVE TYPE)
- 3.4.13- CONTROL VALVE (GLOBE)
- 3.4.14- CONTROL VALVE (BALL)
- 3.4.15- CONTROL VALVE (BUTTERFLY)
- 3.4.16- CONTROL VALVE (ECCENTRIC PLUG)
- 3.4.17- CONTROL VALVE (ANGLE)
- 3.4.18- CONTROL VALVE (3 WAY)
- 3.4.19- CONTROL VALVE (NEEDLE VALVE)
- 3.4.20- DIAPHRAGM TYPE CONTROL VALVE
- 3.4.21- CONTROL VALVE POSITIONER
- 3.4.22- I/P , P/I & F/P CONVERTOR
- 3.4.23- MOTOR OPERATED VALVE
- 3.4.24- PRESSURE SELF REGULATING VALVE
- 3.4.25- TEMPERATURE SELF REGULATING VALVE
- 3.4.26- DESUPER HEATER
- 3.4.27- SAFETY VALVE
- 3.4.28- RUPTURE DISK
- 3.4.29- BREATHER VALVE
- 3.4.30- EMERGENCY VENT VALVE
- 3.4.31- DELUGE VALVE
- 3.4.32- ON / OFF VALVE (BALL)
- 3.4.33- ON / OFF VALVE (BUTTERFLY)
- 3.4.34- ON / OFF VALVE (ANGLE)
- 3.4.35- ON / OFF VALVE (GATE)
- 3.4.36- BOTTOM TANK VALVE
- 3.4.37- PISTON TYPE ACTUATOR
- 3.4.38- ELECTRICAL ACTUATOR
- 3.4.39- FILTER REGULATOR
- 3.4.40- SOLENOID VALVE
- 3.4.41- PROXIMITY SWITCH
- 3.4.42- PIG DETECTOR
- 3.4.43- VALVE LOCKING DEVICE
- 3.4.44- N2 BLANKETING SYSTEM
- 3.4.45- MASS FLOWMETER (CORIOLIS TYPE)
- 3.4.46- MASS FLOWMETER (THERMAL TYPE)
- 3.4.47- ULTRASONIC FLOWMETER
- 3.4.48- MAGNETIC FLOWMETER
- 3.4.49- VORTEX FLOWMETER
- 3.4.50- POSITIVE DISPLACEMENT METER
- 3.4.51- TURBINE METER
- 3.4.52- ROTAMETER
- 3.4.53- BULK FLOWMETER

- 3.4.54- FLOW SWITCH
- 3.4.55- ORIFICE PLATE
- 3.4.56- VENTURI TUBE AND NOZZLE
- 3.4.57- ANNUBAR
- 3.4.58- PRESSURE & TEMPERATURE GAUGE
- 3.4.59- PRESS. & TEMP. SWITCH
- 3.4.60- PRESS. & DIFFERENTIAL PRESS. TRANSMITTER
- 3.4.61- T/C , RTD & WELLS
- 3.4.62- TEMPERATURE TRANSMITTER
- 3.4.63- FIELD INDICATOR
- 3.4.64- JUNCTION BOX
- 3.4.64.1- EX-JUNCTION BOX
- 3.4.64.2- INDUSTRIAL – JUNCTION BOX
- 3.4.65- CABLE GLAND
- 3.4.66- INSTRUMENT CABLE
- 3.4.67- CABLE TRAY / LADDER
- 3.4.68- INSTRUMENT VALVE
- 3.4.69- INSTRUMENT PIPE & FITTING
- 3.4.70- INSTRUMENT TUBE & FITTING

COMPANY NAME

ORIGIN

3.1- SYSTEM

3.1.1- DCS / FCS

FARINEH FANAVAR	IRAN
KERMAN TABLOUE	IRAN
ABB	GERMANY
EMERSON	UK / FRANCE
HONEYWELL INTL	ITALY / FRANCE / BELGIUM
MTL	UK
SIEMENS	GERMANY
SMAR	BRAZIL
YAMATAKE	JAPAN / W.EUROPE
YOKOGAWA	JAPAN / W.EUROPE

3.1.2- DCS / FCS INTEGRATION

FARANEGAR SANAT	IRAN
FIMCO	IRAN
GOROOH SANATI FARINEH	IRAN
GOROOH SANATI NEDA	IRAN
GOROOH SANATI PATSA	IRAN
IROSCO CONTROL	IRAN
KERMAN TABLO	IRAN
MANABEH ENSANI VA MOHANDESI IRAS TARH	IRAN
MOHANDESI VA ABZAR DAGHIGH IDEH	IRAN
PARS HASSAS	IRAN
KHADAMAT MOHANDESI SIMAN FARIS VA KHUZESTAN	IRAN
TEHRAN TAMAM	IRAN

3.1.3- ADVANCED PROCESS CONTROL (APC)

ASPENTECH	WEST EUROPE
AXENS	FRANCE
EMERSON	UK / FRANCE
HONEYWELL INTL	GERMANY
SHELL GLOBAL SOLUTION (SGS)	THE NETHERLANDS
YOKOGAWA	JAPAN / FRANCE

3.1.4- OPERATOR TRAINING SIMULATOR (OTS)

GOSTARESH FARAYANDE SHARIF	IRAN
ASPENTECH	W. EUROPE
AXENS	FRANCE

COMPANY NAME

ORIGIN

3.1.5- ESD SYSTEM

ABB	UK / GERMANY / W.EUROPE
EMERSON	UK / FRANCE
GEBHARDT AUTOMATION GMBH	GERMANY
HIMA	GERMANY
HONEYWELL FSC	BELGIUM
ICS TRIPLEX	UK
PILZ	GERMANY
ROTORK	FRANCE
SIEMENS	GERMANY
YOKOGAWA	THE NETHERLANDS / JAPAN

3.1.6- HIGH INTEGRATION PROTECTION SYSTEM (HIPS)

HIMA	GERMANY
ICS-TRIPLEX	UK
TRICONEX	UK
YOKOGAWA	JAPAN

3.1.7- BMS

ALLEN BRADLEY	BELGIUM / W. EUROPE
EMERSON	UK / FRANCE
GROUP SCHNEIDER	GERMANY / FRANCE
HIMA	GERMANY
HONEYWELL	GERMANY
ICS TRIPLEX	UK
JOHN ZINK	USA / W.EUROPE
OMRON	JAPAN
PILZ	GERMANY
SIEMENS	GERMANY

3.1.8- BMS / ESD SYSTEM INTEGRATION

AZAR DAGHIGH IRANIAN	IRAN
GOROOH SANATI NEDA	IRAN
GOROOH SANATI PATSA	IRAN
HANIF	IRAN
KERMAN TABLOUE	IRAN
MANABEH ENSANI VA MOHANDESI IRAS TARH	IRAN
TEHRAN TAMAM	IRAN

3.1.9- PLC

CONTRONIC	IRAN
ALLEN BRADLEY	BELGIUM
GE FANUC	UK / W.EUROPE
GROUP SCHNEIDER	GERMANY

<u>COMPANY NAME</u>	<u>ORIGIN</u>
HIMA	GERMANY
HONEYWELL	GERMANY
mitsubishi	JAPAN
OMRON	JAPAN
PILZ	GERMANY
SIEMENS	GERMANY
TOSHIBA	JAPAN

3.1.10- PLC INTEGRATION

AZAR DAGHIGH IRANIAN	IRAN
CONTRONIC	IRAN
FANAVARAN KEYHAN AZARAKHSH	IRAN
FARARAVESH	IRAN
FARAYAND PARDAZ	IRAN
FARS SCOUT	IRAN
FIMCO	IRAN
GOROOH SANATI FARINEH	IRAN
GOROOH SANATI NEDA	IRAN
GOROOH SANATI PATSA	IRAN
HANIF	IRAN
HESCO	IRAN
KERMAN TABLO	IRAN
MANABEH ENSANI VA MOHANDESI IRAS TARH	IRAN
MOHANDESI VA ABZAR DAGHIGH IDEH	IRAN
PAYKAR BONYAN	IRAN
KHADAMAT MOHANDESI SIMAN FARS VA KHUZESTAN	IRAN
TAM IRAN KHODRO	IRAN
TAVAN AZMAYAN	IRAN
TEHRAN TAMAM	IRAN

3.1.11- TANK GAUGING SYSTEM (TGS)

ENDRESS & HAUSER	GERMANY / W.EUROPE
HONEYWELL ENRAF	THE NETHERLANDS / W.EUROPE
KROHNE	GERMANY / W.EUROPE
MOTHERWELL CONTROL SYSTEM	UK
SAAB ROSEMONT	SWEDEN / W. EUROPE
SAKURA ENDRESS	JAPAN / W.EUROPE
WHESOE VAREC	UK / W.EUROPE

COMPANY NAME

ORIGIN

3.1.12- CONTROL PANEL

CONTRONIC	IRAN
FARANEGAR SANAT	IRAN
FARARAVESH	IRAN
FARS SCOUT	IRAN
FIMCO	IRAN
GOROOH SANATI FARINEH	IRAN
GOROOH SANATI NEDA	IRAN
GOROOH SANATI PATSA	IRAN
HANIF	IRAN
HESCO	IRAN
KERMAN TABLO	IRAN
MANABEH ENSANI VA MOHANDESI IRAS TARH	IRAN
MOHANDESI VA ABZAR DAGHIGH IDEH	IRAN
PARS HASSAS	IRAN
TABLO FAZ	IRAN
TEHRAN TAMAM	IRAN
TOLIDE MALZOOMATE BARGH	IRAN
ABB	GERMANY
AST	ITALY
SIEMENS	GERMANY
YAMATAKE	JAPAN
YOKOGAWA	JAPAN / W.EUROPE

3.1.13- MIMIC PANEL

GOROOH SANATI NEDA	IRAN
KERMAN TABLO	IRAN
PARS HASSAS	IRAN
RAHPOUYAN ANDISHEH DENA	IRAN

3.1.14- CONTROLLER

ATBIN	IRAN
ABB	GERMANY
EMERSON	UK / FRANCE
EUROTHERM	UK
FUJI	JAPAN
HONEYWELL	W. EUROPE
YAMATAKE	JAPAN
YOKOGAWA	JAPAN / W.EUROPE

COMPANY NAME

ORIGIN

3.1.15- SCADA / DATA LOGGER

FARINEH FANAVAR	IRAN
ABB	GERMANY
EMERSON	UK / FRANCE
FUJI	JAPAN
HITACHI	JAPAN
HONEYWELL	GERMANY
YOKOGAWA	JAPAN / W.EUROPE

3.1.16- SCADA / DATA LOGGER INTEGRATION

CONTRONIC	IRAN
GOROOH SANATI PATSA	IRAN
ITA	IRAN
KERMAN TABLO	IRAN
MICRO MOJ	IRAN
PARVARESH DADEHHA	IRAN
TAM IRAN KHODRO	IRAN
TAVAN AZMAYAN	IRAN

3.1.17- TELEMETERING REMOTE TERMINAL UNIT (RTU)

IRAN MADAR	IRAN
KERMAN TABLO	IRAN
MICRO ELECTRONIC	IRAN
ABB	W. EUROPE
CONTROL MICRO SYSTEM	CANADA
EMERSON	W. EUROPE
FUJI	JAPAN
HITACHI	JAPAN
YOKOGAWA	JAPAN / W.EUROPE

3.1.18- TELEMETERING RADIO

MIKRO ELECTRONIC	IRAN
ABB GROUP	GERMANY
CONTROL MICRO SYSTEM	GERMANY
FUJI	JAPAN
HITACHI	JAPAN
SIAE	ITALY
TRIO	AUSTRALIA

COMPANY NAME

ORIGIN

3.1.19- INDICATOR

ATBIN	IRAN
IRAN MADAR	IRAN
KERMAN TABLO	IRAN
PARS HASSAS	IRAN
SA IRAN	IRAN
SANAYE ELECTRONIC SHIRAZ	IRAN
TEHRAN TAMAM	IRAN
ABB	GERMANY
EMERSON	UK / FRANCE
EUROTHERM	UK
FUJI	JAPAN
HONEYWELL	W.EUROPE
YAMATAKE	JAPAN
YOKOGAWA	JAPAN / W.EUROPE

3.1.20- RECORDER

PARS JAHD	IRAN
ABB	GERMANY
BARTON	UK
CHESSELL	GERMANY
EMERSON	UK / FRANCE
EUROTHERM	UK
FUJI	JAPAN
HONEYWELL	W.EUROPE
METROWATT	GERMANY
YAMATAKE	JAPAN
YOKOGAWA	JAPAN / W.EUROPE

3.1.21- ANNUNCIATION PANEL

FARARAVESH	IRAN
KERMAN TABLO	IRAN
MAZDAK	IRAN
PARDISSAN	IRAN
PARS HASSAS	IRAN
TRADIS	IRAN
AST	ITALY
HIMA	GERMANY
IDEC (IZUMI)	JAPAN
KIMDEN	JAPAN
OMRON	JAPAN
PANALARM	W. EUROPE
ROCHESTER	W. EUROPE
RONAN	UK
YOKOGAWA	JAPAN / W.EUROPE

COMPANY NAME

ORIGIN

3.1.22- MARSHALLING AND BARRIER CABINET

CONTRONIC	IRAN
FARANEGAR SANAT	IRAN
FARARAVESH	IRAN
FARS SCOUT	IRAN
GHESHM VOLTAGE	IRAN
GOROOH SANATI FARINEH	IRAN
GOROOH SANATI NEDA	IRAN
GOROOH SANATI PATSA	IRAN
HANIF	IRAN
HESCO	IRAN
KERMAN TABLO	IRAN
MANABEH ENSANI VA MOHANDESI IRAS TARH	IRAN
MOHANDESI VA ABZAR DAGHIGH IDEH	IRAN
PAYKAR BONYAN	IRAN
TABLO FAZ	IRAN
TAVAN AZMAYAN	IRAN
TEHRAN TAMAM	IRAN
ABB	GERMANY
AST	ITALY
INDUSTRONIC	GERMANY
MITSUBISHI	JAPAN
RICHARDSON	UK
SIEMENS	GERMANY
STAHL	GERMANY

3.1.23- ISOLATING / BARRIER / REPEATER / AMPLIFIER

BARTECH	W.EUROPE
GM INTERNATIONAL	ITALY
HAWKE	UK
MTL	UK
PEPPERL & FUCHS	GERMANY
PR ELECTRONIC	DENMRK
STAHL	GERMANY
TURCK	UK

COMPANY NAME

ORIGIN

3.1.24- PERSONAL COMPUTER

GOROOH SANATI PATSA / ADAVANTECH	IRAN / UK
COMPAQ	USA / W.EUROPE
DELL	UK
FUJITSU SIEMENS	JAPAN / GERMANY
HIGH SCREEN	GERMANY
HP	W.EUROPE
KONTRON	GERMANY
MICRO SYSTEM	UK
PANASONIC	JAPAN
PHILIPS	THE NETHERLANDS
SHARP	JAPAN
SONY	JAPAN
TOSHIBA	JAPAN

3.1.25- PRINTER

EPSON	GERMANY / UK
HP	W.EUROPE
KODAK	JAPAN
LG	KOREA
SAMSUNG	KOREA
SHARP	JAPAN

3.1.26- VIBRATION MONITORING SYSTEM

BENTLY NEVADA	W.EUROPE
BRUEL & KJAER	GERMANY
EPRO	GERMANY
SCHENCK	GERMANY
SHINKAWA	JAPAN
VIBROMETER	SWISS

3.1.27- CONDITION MONITORING SYSTEM

BENTLY NEVADA	W.EUROPE
BRUEL & KJAER	GERMANY
EPRO	GERMANY
SCHENCK	GERMANY
SHINKAWA	JAPAN
VIBROMETER	SWISS

3.1.28- GOVERNOR / OVER SPEED PROTECTION

SIEMENS	GERMANY
WOODWARD	UK

COMPANY NAME

ORIGIN

3.1.29- FLOW METERING STATION

ASIA ABZAR DAGHIGH	IRAN
REZVAN GOSTARE TEHRAN	IRAN
ALDERLEY	UK
AO SMITH	USA / W.EUROPE
BOPP & REUTHER	W.EUROPE
EMERSON	UK
INSTROMET	THE NETHERLANDS
OVAL	JAPAN
PETROL SRL	ITALY
PETROMAX	UK
PROGETTI	ITALY
SMS	UK
VEMTECH	GERMANY
WHITELY ENG.	UK

* For custody transfer applications and the same by Iranian Vendors, Refer to "Office of Supervision on Oil Exports" List.
(www.mop.ir)

3.1.30- FLOW METERING PROVER

ASIA ABZAR DAGHIGH	IRAN
REZVAN GOSTARE TEHRAN	IRAN
ALDERLEY	UK
INSTROMET	THE NETHERLANDS
OVAL	JAPAN
PETROL SRL	ITALY

3.1.31- LEAKAGE DETECTION SYSTEM

ABB	GERMANY
ATMOSI	UK
KROHNE OIL & GAS	THE NETHERLANDS

3.1.32- HUMAN MACHINE INTERFACE (HMI)

FARINEH FANAVAR	IRAN
KERMAN TABLOUE	IRAN

3.1.33- WIRELESS INSTRUMENT

EMERSON	W. EUROPE
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3.2- ON - LINE ANALYZER

3.2.1- GAS CHROMATOGRAPH

ABB	UK / GERMANY
SICK	GERMANY
SIEMENS	GERMANY
YOKOGAWA	JAPAN

COMPANY NAME

ORIGIN

3.2.2- INFRARED ANALYZER

ABB	UK / GERMANY
EMERSON	UK / FRANCE
SERVOMEX	UK
SICK	GERMANY
SIEMENS	GERMANY
YOKOGAWA	JAPAN

3.2.3- RAMAN ANALYZER

EMERSON	UK / FRANCE
HORIBA (JOBIN VYON)	FRANCE

3.2.4- OXYGEN ANALYZER

ABB	UK / GERMANY
EMERSON	UK
ENDRESS & HAUSER	GERMANY
ENOTEC	GERMANY
FUJI	JAPAN
MSA	THE NETHERLANDS
OXITECH	W.EUROPE
PANAMETRICS	W.EUROPE
SERVOMEX	UK
SICK	GERMANY
SIEMENS	GERMANY
SYSTEC	W.EUROPE
YOKOGAWA	JAPAN

3.2.5- OXYGEN ANALYZER (IN LIQUID)

ABB	UK / GERMANY
ATI	UK
Dr. THEIDIG	GERMANY
EMERSON	UK / FRANCE
ENDRESS & HAUSER	GERMANY
POLY METRON	FRANCE
YOKOGAWA	JAPAN

3.2.6- H₂ ANALYZER

ABB	UK / GERMANY
EMERSON	UK/ FRANCE
SERVOMEX	UK
SIEMENS	GERMANY
YOKOGAWA	JAPAN

COMPANY NAME

ORIGIN

3.2.7- MOISTURE ANALYZER (IN GAS)

BARTEC	GERMANY
BERTHOLD TECHNOLOGIES	GERMANY
EMERSON	UK / FRANCE
IMA	UK
PANAMETRICS	UK
ROTRONIK	JAPAN
SHIRAKAWA	JAPAN
SHAW	UK
SICK	GERMANY
SIEMENS	GERMANY
YOKOGAWA	JAPAN

3.2.8- MOISTURE ANALYZER (IN LIQUID)

ABB	UK / GERMANY
BERTHOLD TECHNOLOGIES	GERMANY
PANAMETRICS	UK
SERVOMEX	UK
SIEMENS	GERMANY
YOKOGAWA	JAPAN

3.2.9- SULPHUR ANALYZER (H₂S / SOX / TAIL GAS)

ABB	UK / GERMANY
AMETEC	GERMANY
DELMAR	FRANCE
EMERSON	UK
GALVANIC APPLIED SCIENCE	CANADA
MAIHAK	W.EUROPE
NOVACHEM	W.EUROPE
ONYX TRACKER	UK
SERVOMEX	UK
SICK	GERMANY
SIEMENS	GERMANY
YOKOGAWA	JAPAN

3.2.10- CHLORINE ANALYZER

ATI	UK
EMERSON	UK / FRANCE
ENDRESS & HAUSER	GERMANY
JESCO	GERMANY
POLY METRON	FRANCE
YOKOGAWA	JAPAN

3.2.11- SILICA ANALYZER

ENDRESS & HAUSER	GERMANY
POLY METRON	FRANCE
SWAN	SWITZERLAND

COMPANY NAME

ORIGIN

3.2.12- AMMONIA ANALYZER (IN WATER)

ABB	GERMANY / UK
Dr. LANGE	GERMANY

3.2.13- PH METER

ABB	UK / GERMANY
ATI	UK
DKK	JAPAN
EMERSON	UK / FRANCE
ENDRESS & HAUSER	GERMANY
HORIBA	JAPAN
IC CONTROL	W.EUROPE
LISLEMETRIK	GERMANY
METTLER TOLEDO	SWITZERLAND
POLY METRON	FRANCE
SERVOMEX	UK
SIEMENS	GERMANY
SWAN	SWITZERLAND
YOKOGAWA	JAPAN

3.2.14- CONDUCTIVITY METER

ABB	UK / GERMANY
ATI	UK
BOPP & REUTHER	UK
DKK	JAPAN
EMERSON	UK / FRANCE
ENDRESS & HAUSER	GERMANY
HORIBA	JAPAN
IC CONTROL	W.EUROPE
LISLEMETRIK	GERMANY
METTLER TOLEDO	SWITZERLAND
PEEK MEASUREMENT	UK
POLY METRON	FRANCE
SERVOMEX	UK
SIEMENS	GERMANY
SWAN	SWITZERLAND
THEIS	THE NETHERLANDS
YOKOGAWA	JAPAN

3.2.15- TURBIDITY / COLOR METER

ATI	UK
EMERSON	UK / FRANCE
LISLEMETRIK	GERMANY
NOVATEC	UK

COMPANY NAME

ORIGIN

3.2.16- ANALYZER INTEGRATION

ARTIN TAK	IRAN
FONOONE BARTARE TAV	IRAN
MEHR KANAZ	IRAN
PIRAMOON SYSTEM QESHM	IRAN
RAHBORDHAYE HOOSHMAND	IRAN
SIMA MEHR	IRAN
ZIST ANDISH PISHGAM	IRAN
ABB	W.EUROPE
CEGELEC	FRANCE
HOBRE	THE THE NETHERLANDS

3.2.17- DENSITY METER

BERTHOLD TECHNOLOGIES	GERMANY
EMERSON	UK / FRANCE
ENDRESS & HAUSER	GERMANY

3.2.18- TOTAL HYDROCARBON ANALYZER

SICK	GERMANY
SIEMENS	GERMANY

3.2.19- CH4 ANALYZER

EMERSON	UK / FRANCE
SICK	GERMANY

3.2.20- ALUMINIUM ALKYL ANALYZER

JESCO	GERMANY
SIEMENS	GERMANY

3.2.21- SAMPLING SYSTEM

DOEDIJNS	THE THE NETHERLANDS
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3.3- HSE EQUIPMENT

3.3.1- F & G SYSTEM

APOLLO	UK / W.EUROPE
ANSUL	UK
ATRONICA	NORWAY
BLACK FIRE	CANADA
CHUBB FIRE	UK / W.EUROPE
CROWCON	UK / W.EUROPE
DETECTOMAT	W.EUROPE
DRAEGER	GERMANY / W.EUROPE

<u>COMPANY NAME</u>	<u>ORIGIN</u>
G.F.G	GERMANY
GEBHARDT AUTOMATION GMBH	GERMANY
GENERAL MONITOR	UK / W.EUROPE
KIDDE	ITALY / W.EUROPE
HOCKE	JAPAN
MINIMAX	UK / W.EUROPE
PREUSSAG	UK / W.EUROPE
SES ENSER	ITALY / W.EUROPE
SIEMENS	GERMANY / W.EUROPE
SILVANI	ITALY / W.EUROPE
TOTAL WALTHER	GERMANY

3.3.2- F & G SYSTEM INTEGRATION

FONON BARTAR TAV	IRAN
GOROOH SANATI NEDA	IRAN
KERMAN TABLOUE	IRAN
MAZDAK	IRAN
NARFOAMKAR	IRAN
SARIAK	IRAN
SPIN ELECTRIC	IRAN

3.3.3- GAS AND VAPOR DETECTOR

COMPUTER MONITOR	GERMANY
CROWCON	UK / W.EUROPE
DRAEGER	GERMANY / W.EUROPE
FENWAL	UK / W.EUROPE
GASTEC	JAPAN
GENERAL MONITOR	UK / W.EUROPE
GFG	GERMANY / W.EUROPE
MSA	USA
OLDHAM	W.EUROPE
PHOTAIN	UK / W.EUROPE
PREUSSAG	UK / W.EUROPE
SES ENSER	ITALY / W.EUROPE
SILVANI	FRANCE / W.EUROPE
SIMTRONICS	NORWAY
SKC	USA
ZELLWEGER	GERMANY / W.EUROPE

COMPANY NAME

ORIGIN

3.3.4- SMOKE DETECTOR

APOLLO	UK / W.EUROPE
CHUBB	UK / W.EUROPE
CROWCON	UK / W.EUROPE
DETECTOMAT	GERMANY / W.EUROPE
FIGGIE	ITALY / W.EUROPE
GENERAL MONITOR	UK / W.EUROPE
MINIMAX	UK / W.EUROPE
PHOTAIN	UK / W.EUROPE
PREUSSAG	UK / W.EUROPE
THORN	UK / W.EUROPE

3.3.5- HEAT DETECTOR

APOLLO	UK / W.EUROPE
CHUBB	UK / W.EUROPE
CROWCON	UK / W.EUROPE
DETECTOMAT	GERMANY / W.EUROPE
FIGGIE	ITALY / W.EUROPE
GENERAL MONITOR	UK / W.EUROPE
MINIMAX	UK / W.EUROPE
PHOTAIN	UK / W.EUROPE
PREUSSAG	UK / W.EUROPE
THORN	UK / W.EUROPE

3.3.6- FLAME DETECTOR

APOLLO	UK / W.EUROPE
CROWCON	UK / W.EUROPE
DETECTOMAT	GERMANY / W.EUROPE
GENERAL MONITOR	UK / W.EUROPE
MINIMAX	UK / W.EUROPE
PHOTAIN	UK / W.EUROPE
PREUSSAG	UK / W.EUROPE
RAMZY	ITALY

3.3.7- MANUAL CALL POINT

BARTEC	FRANCE / GERMANY
STAHL	GERMANY
THORN	UK

3.3.8- EMISSION MONITORING SYSTEM (EMS)

CROWCON	UK / W.EUROPE
DURAG	GERMANY
ENVIRONMENTS	FRANCE

COMPANY NAME

ORIGIN

3.3.9- EMS INTEGRATION

COMPANY NAME	ORIGIN
ZIST ANDISH PISHGAM	IRAN

3.4- FIELD DEVICE

3.4.1- DISPLACER TYPE LEVEL TRANSMITTER

DRESSER (MASONEILAN)	W.EUROPE
EMERSON	W.EUROPE
FOX BORO	USA / W.EUROPE
MAGNETROL	USA / W.EUROPE
MORITAN	JAPAN
TAKROL	UK
TOKYO KEISO	JAPAN
YAMATAKE	JAPAN

3.4.2- CAPACITIVE TYPE LEVEL TRANSMITTER

ENDRESS & HAUSER	GERMANY / W.EUROPE
TOKYO KEISO	JAPAN
VEGA	GERMANY / W.EUROPE

3.4.3- RADIOACTIVE TYPE LEVEL TRANSMITTER

BERTHOLD	GERMANY / W.EUROPE
ENDRESS & HAUSER	GERMANY / W.EUROPE
MOTOYAMA	JAPAN / W.EUROPE
OHMART	JAPAN / W.EUROPE
PANAMETRIC	JAPAN / W.EUROPE

3.4.4- RADAR TYPE LEVEL TRANSMITTER

ENDRESS & HAUSER	GERMANY / W.EUROPE
HONEYWELL ENRAF	THE NETHERLANDS / W.EUROPE
KROHNE	GERMANY / W.EUROPE
SAAB ROSEMONT	SWEDEN / W.EUROPE
SAKURA ENDRESS	JAPAN / W.EUROPE
VEGA	GERMANY / W.EUROPE
WHESOE VAREC	UK / W.EUROPE

3.4.5- ULTRASONIC TYPE LEVEL TRANSMITTER

ENDRESS & HAUSER	GERMANY / W.EUROPE
KDG MOBREY	UK
KROHNE	GERMANY / W.EUROPE
MAGNETROL	USA / W.EUROPE
MILTRONIC	GERMANY / W.EUROPE
VEGA	GERMANY / W.EUROPE

COMPANY NAME

ORIGIN

3.4.6- SERVO & FLOAT TYPE LEVEL TRANSMITTER

ENDRESS & HAUSER	GERMANY
HONEYWELL ENRAF	THE NETHERLANDS / W.EUROPE
TOKYO KEISO	JAPAN
VEGA	GERMANY / W.EUROPE
WHESOE VAREC	UK

3.4.7- MAGNETIC LEVEL GAUGE

ESHT'E'AL ARAK	IRAN
EYVAZ TECHNIC	IRAN
TEHRAN DELIK	IRAN
BONETTI	ITALY / W.EUROPE
KROHNE	GERMANY / W.EUROPE
MAGNETROL	USA / W.EUROPE
PHONIX	GERMANY / W.EUROPE
TC KLINGER	UK / W.EUROPE
WEKA INSTRUMENT	GERMANY / W.EUROPE

3.4.8- GAUGE GLASS

BONETTI	ITALY / W.EUROPE
MAGNETROL	USA / W.EUROPE
NIHON	JAPAN
PHONIX	GERMANY / W.EUROPE
TC KLINGER	UK / W.EUROPE
TOKYO KEISO	JAPAN

3.4.9- LEVEL SWITCH (FLOAT & DISPLACER TYPE)

ESHT'E'AL ARAK	IRAN
EYVAZ TECHNIC	IRAN
TEHRAN DELIK	IRAN
ANALYTIC	GERMANY / W.EUROPE
BESTA	SWITZERLAND
DELTA	W.EUROPE
ENDRESS & HAUSER	GERMANY / W.EUROPE
JUCKER	UK / W.EUROPE
KOBOLD	W.EUROPE
LABKO	FINLAND
MAGNETROL	USA / W.EUROPE
OFFICINE OROBICHE	ITALY
PHONIX	GERMANY / W.EUROPE
TOKYO KEISO	JAPAN

3.4.10- LEVEL SWITCH (TUNING FORK TYPE)

ENDRESS & HAUSER	GERMANY / W.EUROPE
VEGA	GERMANY / W.EUROPE

COMPANY NAME

ORIGIN

3.4.11- LEVEL SWITCH (CAPACITANCE TYPE)

ARYAN PEJOUHESH	IRAN
ENDRESS & HAUSER	GERMANY / W.EUROPE
TOKYO KEISO	JAPAN
VEGA	GERMANY / W.EUROPE

3.4.12- LEVEL SWITCH (RADIOACTIVE TYPE)

BERTHOLD	GERMANY
ENDRESS & HAUSER	GERMANY / W.EUROPE
OHMART	JAPAN / W.EUROPE
PANAMETRICS	JAPAN / W.EUROPE

3.4.13- CONTROL VALVE (GLOBE)

ABB	GERMANY
ASAHI	JAPAN
BURKERT	GERMANY
CCI	SWITZERLAND
DRESSER	GERMANY / W.EUROPE
EMERSON	ITALY
FLOWSERVE CORPORATION	W.EUROPE
KSB	GERMANY
MANKENBER	GERMANY
MASCOT VALVES PVT LTD	AUSTRALIA
MOTOYAMA	JAPAN
SAMSON	GERMANY
SEVERN GLOCON	UK / W.EUROPE
WEIR VALVE & CONTROL	UK
XOMOX	GERMANY / W.EUROPE
YAMATAKE	JAPAN

3.4.14- CONTROL VALVE (BALL)

ABB	GERMANY
CCI	SWITZERLAND
DRESSER	W.EUROPE
EMERSON	UK / W.EUROPE
EUROMATIC	ITALY
FLOWSERVE CORPORATION	W.EUROPE
KITZ	GERMANY
KTM (KITAMUR)	JAPAN
METSO	FINLAND
NIHONDIA	JAPAN
SAMSON	GERMANY
VALTEK	UK / W.EUROPE
WEIR VALVE & CONTROL	UK

COMPANY NAME

ORIGIN

3.4.15- CONTROL VALVE (BUTTERFLY)

MIRAB	IRAN
ABB	GERMANY
EMERSON	UK / W.EUROPE
GOLD	GERMANY
KITZ	GERMANY
METSO	FINLAND
SAMSON	GERMANY
TYCO	JAPAN / W.EUROPE
WEIR VALVE & CONTROL	UK
XOMOX	GERMANY / W.EUROPE
YAMATAKE	JAPAN

3.4.16- CONTROL VALVE (ECCENTRIC PLUG)

DRESSER	UK / W.EUROPE
EMERSON	UK / W.EUROPE
METSO	FINLAND
SAMSON	GERMANY
WEIR VALVE & CONTROL	UK
YAMATAKE	JAPAN

3.4.17- CONTROL VALVE (ANGLE)

BURKERT	GERMANY
CCI	SWITZERLAND
FLOWSERVE CORPORATION	USA / W. EUROPE / CANADA

3.4.18- CONTROL VALVE (3 WAY)

CCI	SWITZERLAND
EMERSON	UK / W.EUROPE
KTM	JAPAN
SAMSON	GERMANY
WEIR VALVE & CONTROL	UK

3.4.19- CONTROL VALVE (NEEDLE VALVE)

DRESSER	UK / W.EUROPE
EMERSON	UK / W.EUROPE
WEIR VALVE & CONTROL	UK
YAMATAKE	JAPAN

COMPANY NAME

ORIGIN

3.4.20- DIAPHRAGM TYPE CONTROL VALVE

ASAHI	JAPAN
KITAMURA	JAPAN
NDV	JAPAN
NIPPON DAIYA	JAPAN
SAUNDRES	UK / W.EUROPE
WEIR VALVE & CONTROL	UK

3.4.21- CONTROL VALVE POSITIONER

ABB	GERMANY
BURKERT	GERMANY
CCI	SWITZERLAND
EMERSON	JAPAN / W.EUROPE
HONEYWELL	GERMANY
METSO	FINLAND
SAMSON	GERMANY
SMAR	BRAZIL
YAMATAKE	JAPAN / W.EUROPE
YOKOGAWA	JAPAN / W.EUROPE

3.4.22- I/P , P/I & F/P CONVERTOR

ABB	GERMANY
EMERSON	UK / FRANCE
FOXBORO	USA / W. EUROPE
HONEYWELL	GERMANY
KROHNE	GERMANY
SMAR	BRAZIL

3.4.23- MOTOR OPERATED VALVE

L.BERNARD	FRANCE
LIMITORQUE	UK
ROTORK	UK
SHIMADZU SEIASKUSHO	JAPAN

3.4.24- PRESSURE SELF REGULATING VALVE

EYVAZ TECHNIC	IRAN
EMERSON	UK / FRANCE
MANKENBERG	GERMANY
SAMSON	GERMANY

3.4.25- TEMPERATURE SELF REGULATING VALVE

EYVAZ TECHNIC	IRAN
DUNFOSS	DENMARK
SAMSON	GERMANY

COMPANY NAME

ORIGIN

3.4.26- DESUPER HEATER

CCI / BTG	SWITZERLAND
COPE'S VULCAN	UK
GADELIUS	JAPAN
HOPKINSON	UK
KIEKENS	THE NETHERLANDS
YAR WAY	JAPAN

3.4.27- SAFETY VALVE

FARAVAR AZIN FELEZ	IRAN
BOPP & REUTHER	GERMANY
CROSBY	UK
DRESSER	GERMANY
FARRIS	UK
FUKUI	JAPAN
LESER	GERMANY
SAPAG	FRANCE
SEREG	FRANCE
TAI MILANO	ITALY

3.4.28- RUPTURE DISK

BS & B	UK
ELFAB HUGHES	UK
FIKE	THE NETHERLANDS
LAMOT	W.EUROPE

3.4.29- BREATHER VALVE

CHYODA	JAPAN
FLAME & FILTER	GERMANY
MARVAI	W.EUROPE
PROTEGO	GERMANY
UNIT INTERNATIONAL	UK
WEHSSOE VAREC	UK

3.4.30- EMERGENCY VENT VALVE

BS & B	UK
ELFAB HUGHES	UK
FIKE	THE NETHERLANDS
FUKADA	JAPAN
HITACHI	JAPAN
LAMOT	W.EUROPE
SIEMENS	GERMANY

COMPANY NAME

ORIGIN

3.4.31- DELUGE VALVE

CHUB	UK
PREUSSAG	GERMANY
SILVANI	ITALY

3.4.32- ON / OFF VALVE (BALL)

ACT	FRANCE
FLOWSERVE ARGUS	GERMANY
DE - YONG KOHEN	FRANCE
FLOW CONTROL TECHNOLOGY	FRANCE
GRINELL	W.EUROPE
KITZ	GERMANY
KSB	GERMANY
KTM	JAPAN
METSO AUTOMATION	GERMANY
NIPPON	JAPAN
SALARI	FRANCE
TYCO	JAPAN
WEIR VALVE & CONTROL	UK

3.4.33- ON / OFF VALVE (BUTTERFLY)

ERBO	IRAN
MIRAB	IRAN
DRESSER	UK / W.EUROPE
GOLD	GERMANY
METSO	GERMANY / W.EUROPE
MOTOYAMA	JAPAN
SAMSON	GERMANY
TOMOE VALVE	JAPAN
TYCO	JAPAN
WEIR VALVE & CONTROL	UK

3.4.34- ON / OFF VALVE (ANGLE)

ABB	W.EUROPE
DRESSER	UK / W.EUROPE
EMERSON	UK / W.EUROPE
KTM	JAPAN
METSO AUTOMATION	GERMANY
SAMSON	GERMANY
TYCO	JAPAN
WEIR VALVE & CONTROL	UK
YAMATAKE	JAPAN

COMPANY NAME

ORIGIN

3.4.35- ON / OFF VALVE (GATE)

MIRAB	IRAN
TASISAT BOKHARE ESFAHAN	IRAN
ASAHI	JAPAN
MOTOYAMA	JAPAN
WEIR VALVE & CONTROL	UK

3.4.36- BOTTOM TANK VALVE

RITAGE	GERMANY
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3.4.37- PISTON TYPE ACTUATOR

ABB	W. EUROPE
BETTIS	CANADA
BIFFI	W.EUROPE
EL-O-MATIC	UK
LIMITORQUE	UK / W.EUROPE
METSO AUTOMATION	GERMANY / W. EUROPE
ROTORK	UK
SERVOVALVE	ITALY
TYCO	JAPAN

3.4.38- ELECTRICAL ACTUATOR

AUMA	GERMANY
L.BERNARD	FRANCE

3.4.39- FILTER REGULATOR

PARS REGULATOR	IRAN
SANAYE HAVAYE FESHORDEH	IRAN
DRESSER	UK / W.EUROPE
DRUVA	GERMANY
EMERSON	UK / W.EUROPE
PARKER	UK
PETROVALVE	ITALY
SAMSON	GERMANY
SHOKETSU	JAPAN
TYCO	JAPAN
YAMATAKE	JAPAN

3.4.40- SOLENOID VALVE

ALPHA	ITALY
ASCO / JOUCOMATIC	GERMANY / W.EUROPE
BINDURGE	ITALY
BOSCH	GERMANY
BURKERT	GERMANY
FESTO	GERMANY

<u>COMPANY NAME</u>	<u>ORIGIN</u>
HERION	GERMANY
PARKER	UK / JAPAN
REX - ROTH	GERMANY
THOMPSON VALVE	UK

3.4.41- PROXIMITY SWITCH

TABRIZ PEJOUH	IRAN
ASCO	GERMANY
AUTONIC	KOREA
FESTO	GERMANY
HONEY WELL	BELGIUM
IFM ELECTRONICS	GERMANY
OMRON	JAPAN
PEPPERL & FUCHS	GERMANY

3.4.42- PIG DETECTOR

SAVAY	IRAN
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3.4.43- VALVE LOCKING DEVICE

CAMERON FRANCE SA	FRANCE
FLOWSERVE AHAUS GMBH	GERMANY
VOMOX INTL GMBH	GERMANY
WEIR VALVES & CONTROLS	UK

3.4.44- N2 BLANKETING SYSTEM

EMERSON	UK / FRANCE
PREUSSAG	GERMANY
SAVAL	THE NETHERLANDS

3.4.45- MASS FLOWMETER (CORIOLIS TYPE)

BOPP & REUTHER	GERMANY
EMERSON	UK
ENDRESS & HAUSER	GERMANY
HONEYWELL	W.EUROPE
KROHNE	GERMANY
KOBOLD	W.EUROPE
OVAL	JAPAN
YOKOGAWA	JAPAN

3.4.46- MASS FLOWMETER (THERMAL TYPE)

BAILEY	UK
EMERSON	JAPAN / THE NETHERLANDS
ENDRESS & HAUSER	GERMANY
KOBOLD	W.EUROPE

COMPANY NAME

ORIGIN

3.4.47- ULTRASONIC FLOWMETER

EMERSON	UK
FAURE HERMAN	FRANCE
FUJI	JAPAN
INSTROMET	THE NETHERLANDS
KROHNE	GERMANY

3.4.48- MAGNETIC FLOWMETER

BOPP & REUTHER	W.EUROPE
EMERSON	UK / FRANCE
ENDRESS & HAUSER	GERMANY
FUJI	JAPAN / FRANCE
KROHNE	GERMANY
KOBOLD	W.EUROPE
SIEMENS	GERMANY
YAMATAKE	JAPAN
YOKOGAWA	JAPAN

3.4.49- VORTEX FLOWMETER

BOPP REUTHER	GERMANY
EMERSON	UK / FRANCE
HONTZSCH	GERMANY
KROHNE	GERMANY
OVAL	JAPAN
YOKOGAWA	JAPAN

3.4.50- POSITIVE DISPLACEMENT METER

AUSTRIA	ITALY
BOPP & REUTHER	W.EUROPE
EMERSON	UK / FRANCE
OVAL	JAPAN
SIEMENS	GERMANY
SMITH	UK
YAMATAKE	JAPAN

3.4.51- TURBINE METER

ABFAR (For Water)	IRAN
AUSTRIA	ITALY
BOPP & REUTHER	W.EUROPE
EMERSON	UK / FRANCE
FAURE HERMAN	FRANCE
OVAL	JAPAN
SCHLUMBERGER	FRANCE
SMITH	UK

COMPANY NAME

ORIGIN

3.4.52- ROTAMETER

AZMOON MOTAMAM	IRAN
BOPP& REUTHER	UK
DOHKITA	JAPAN
EMERSON	UK / FRANCE
KOBOLD	W.EUROPE
KROHNE	GERMANY
RYUKAI	JAPAN
YOKOGAWA	JAPAN

3.4.53- BULK FLOWMETER

BERTHOLD TECHNOLOGIES	GERMANY
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3.4.54- FLOW SWITCH

EMERSON	UK / FRANCE
KOBOLD	GERMANY
KROHNE	GERMANY

3.4.55- ORIFICE PLATE

AZMOON MOTAMAM	IRAN
PARS JAHD	IRAN
PETRO DEGHAAT PART	IRAN
SANGAN SANAT	IRAN
SINA CONTROL	IRAN
EISPA	SPAIN
EMERSON	UK / FRANCE
EUROMISURE	UK / FRANCE
OKAZAKI	JAPAN
TERCOM	ITALY

* For custody transfer applications and the same by Iranian Vendors, Refer to "Office of Supervision on Oil Exports" List.
(www.mop.ir)

3.4.56- VENTURI TUBE AND NOZZLE

SINA CONTROL	IRAN
BARTHEL	GERMANY
EMERSON	UK / FRANCE
TECNOMATIC	ITALY

3.4.57- ANNUBAR

AZMOON MOTAMAM	IRAN
PARS JAHD	IRAN
ABB	W.EUROPE
BUSH BEACH ENGINEERING	UK
EMERSON	UK / FRANCE
TERCOM	ITALY
YOKOGAWA	JAPAN

COMPANY NAME

ORIGIN

3.4.58- PRESSURE & TEMPERATURE GAUGE

FARAYAND LAKSAR / RUEGER	IRAN / SWITZERLAND
SANGAN SANAT	IRAN
SCHMIERER PARS / SCHMIERER	IRAN / GERMANY
ASHCROFT	UK
BADOTHERM	THE NETHERLANDS
BOURDON	FRANCE
ELFAB HUGHES	UK
ETTORE CELLA	ITALY
NOUVA FIMA	ITALY
STEWARTS	UK
WIKA	GERMANY

3.4.59- PRESS. & TEMP SWITCH

KELIDHAYE AUTOMATIC	IRAN
ASHCROFT	UK
BETA	THE NETHERLANDS
CELLA	ITALY
DELTA-CONTROLS	UK
HERION	GERMANY
UNITED ELECTRIC	W.EUROPE
WIEGAND	GERMANY

3.4.60- PRESS. & DIFFERENTIAL PRESS. TRANSMITTER

PARS JAHD	IRAN
ABB	W.EUROPE
EMERSON	UK / FRANCE
ENDRESS & HAUSER	GERMANY
FUJI	JAPAN
HONEYWELL	BELGIUM
SAKURA ENDRESS	JAPAN
SIEMENS	GERMANY
SMAR	BRAZIL
YAMATAKE	JAPAN
YOKOGAWA	JAPAN

3.4.61- T/C , RTD & WELLS

ATBIN	IRAN
FARAYAND LAKSAR / RUEGER	IRAN / SWITZERLAND
EISPA	SPAIN
EMERSON	UK / FRANCE
ENDRESS & HAUSER	GERMANY
EUROMISURE	ITALY
FUJI	JAPAN
NAGANO	JAPAN
NILGATA	JAPAN
THERMO ELECTRIC	UK

COMPANY NAME

ORIGIN

3.4.62- TEMPERATURE TRANSMITTER

PARS JAHAD	IRAN
ABB	W.EUROPE
EMERSON	UK / FRANCE
ENDRESS & HAUSER	GERMANY
FOXBORO	UK
FUJI	JAPAN
HONEYWELL	BELGIUM
SAKURA ENDRESS	JAPAN
SIEMENS	GERMANY
SMAR	BRAZIL
YAMATAKE	JAPAN
YOKOGAWA	JAPAN

3.4.63- FIELD INDICATOR

GEROEGIN	FRANCE
SMAR	BRAZIL
VEGA	GERMANY

3.4.64- JUNCTION BOX

3.4.64.1- EX. - JUNCTION BOX

DARIAN	IRAN
MACHIN SAZI SHOMAL	IRAN
CHALMIT	UK
COPER CROUSE-HINDS (CEAG)	GERMANY
CORTEM SPA	ITALY
HAWKE	UK
NUOVA	ITALY
SABER	ITALY
STAHL	GERMANY

3.4.64.2- INDUSTRIAL - JUNCTION BOX

IMAN AFZAR	IRAN
NOUR MEHVAR FARS	IRAN
PAJOHAN SANAT PARS	IRAN

3.4.65- CABLE GLAND

DARIAN	IRAN
MACHIN SAZI SHOMAL	IRAN
BICC	UK
HAWKE	UK
NUOVA	ITALY
STAHL	GERMANY

COMPANY NAME

ORIGIN

3.4.66- INSTRUMENT CABLE

KABL KERMAN & KAVIYAN	IRAN
KABL SAZI IRAN	IRAN
KABL SAZI TAK	IRAN
KABLE ALBORZ	IRAN
KABLE SHAHIN	IRAN
SIM VA KABL ABHAR	IRAN
SIM VA KABL MOGHAN	IRAN
SIMBAF	IRAN
SIMCO	IRAN
AEG	GERMANY
BICC	UK
CABLE DE LYON	FRANCE
KERPENWERK	GERMANY
NEXANS (ALCATEL)	FRANCE
SIEMENS	GERMANY

3.4.67- CABLE TRAY / LADDER

AHWAZ FANOUS	IRAN
AJINEH	IRAN
FARAMIN TABLO	IRAN
PAJOHAN SANAT PARS	IRAN
PANJTASH	IRAN
SATEHA	IRAN
TOSEH SANAYE PETRO FOOLADE GHARB	IRAN
VANASHID	IRAN
YEKTA	IRAN

3.4.68- INSTRUMENT VALVE

MACHIN SAZI NEEV	IRAN
EMERSON	UK / FRANCE
KEYSTONE	UK
OLIVER VALVE	W.EUROPE
PARKER	UK
VIMEC	W.EUROPE

COMPANY NAME
ORIGIN
3.4.69- INSTRUMENT PIPE & FITTING

ESFAHAN MAYSAM	IRAN
FOOLAD ASA	IRAN
GHARB FLANGE	IRAN
GOROOH SANATI SADID	IRAN
LOOLE SAZI KHOZESTAN	IRAN
LOOLE VA PROFILE SAVEH	IRAN
NAVARD LOOLE AHWAZ	IRAN
SEPAHAN	IRAN
SEPENTA	IRAN
TOOS PAYVAND	IRAN
VOG IRAN	IRAN
BASSI LUIGI	ITALY
CAPEX	CANADA
CAPITAL VALVE	UK
COPROSIDER	ITALY
DALMINE	SWEDEN
DEL CORTE	FRANCE
ICARUS	BELGIUM
IML	ITALY
INTERMETAL	FRANCE / UK
KOBE STEEL	JAPAN
KURVERS	GERMANY / FRANCE
LUEBECK	THE NETHERLANDS
MANNESMAN HANDLE	GERMANY
MID STEEL PIPELINE	UK
PHOCEENNE	FRANCE / BELGIUM
SANDVIK	SWEDEN
SIDERINT	UK
STAAHL HANDEL	GERMANY / THE NETHERLANDS
STRAVAL	FRANCE
SUMITOMO METAL	JAPAN
TAD	ITALY
TECTUBI	ITALY / FRANCE
VAN LEEUWEN	THE NETHERLANDS / BELGIUM

COMPANY NAME

ORIGIN

3.4.70- INSTRUMENT TUBE & FITTING

AJIR	IRAN
ALL METAL	IRAN
LOOLEHAYE DAGHIGHE KAVEH	IRAN
MACHIN SAZI NEEV	IRAN
PARS REGULATOR	IRAN
SANAYE HAVAYE FESHORDEH	IRAN
TOOS PEYVAND	IRAN / UK
CAPITAL VALVE	UK
FITOK	USA
FESTO	GERMANY
GYROLOCK	UK
HOKE	UK
JANDUIC	ITALY
MANNESMAN	GERMANY
MID STEEL PIPELINE	UK
PARKER	UK
ROTAREX	LUXEMBURG
SWAGELOCK	GERMANY

4 - TELECOMMUNICATION

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

4.3- RADIO SYSTEM

4.3.1- FIXED SYSTEM

4.3.2- MOBILE SYSTEM

4.3.3- HAND SET SYSTEM

4.3.4- REPEATER SYSTEM

4.4- INTERCOM PAGING/PUBLIC ADDRESS

4.4.1- INDUSTRIAL

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

4.7- NETWORK SWITCH

4.8- ETHERNET SWITCH

COMPANY NAME

ORIGIN

4.1- TRANSMISSION SYSTEM & ACCESSORIES

4.1.1- FIBER OPTIC CABLE & ACCESSORIES

KABLE RAFSANJAN	IRAN
KABLE SHAHID QANDI YAZD	IRAN
ALCATEL	FRANCE
BELDEN	FRANCE / UK / GERMANY
BRUGG	SWITZERLAND
FUJIKURA	JAPAN
N.K.F.	NETHERLANDS
PIRELLI	ITALY
R & M	SWITZERLAND
SIEMENS	GERMANY

4.1.2- COPPER CABLE

KABL SAZI IRAN	IRAN
KABLE ABHAR	IRAN
KABLE ALBORZ	IRAN
KABLE KERMAN	IRAN
KABLE RAFSANJAN	IRAN
KABLE SHAHID QANDI YAZD	IRAN
MOGHAN CABLE	IRAN
OFOGHE ALBORZ CABLE	IRAN
SIMBAF	IRAN
SIMCO	IRAN
TAK CABLE	IRAN

4.1.3- TRANSMISSION EQUIPMENT & ACCESSORIES

4.1.3.1- OPTICAL BASED SYSTEM

PARSTEL	IRAN
ERICSSON	SWEDEN

4.1.3.2- SDH SYSTEM

ERICSSON	SWEDEN
NEC	JAPAN

4.1.3.3- COPPER WIRE BASED SYSTEM

PARSTEL	IRAN
TELLMAR	IRAN
ERICSSON	SWEDEN
NEC	JAPAN
SIEMENS	GERMANY

COMPANY NAME

ORIGIN

4.1.3.4- RADIO BASED SYSTEM

PARSTEL	IRAN
TELLMAR	IRAN
ERICSSON	SWEDEN
NEC	JAPAN
SIEMENS	GERMANY

4.1.4- PULSE CODE MODULATION (PCM) SYSTEM

SANAYE ERTEBATI PAYA	IRAN
SANAYE GHATAATE ELECTRONIC	IRAN

4.1.5- COMMUNICATION TOWER STRUCTURE

ANTEN KAR	IRAN
AVANGAN	IRAN
GORD ASIA	IRAN
MICRO MOJ	IRAN
SAEDANE SANAT	IRAN
SANAYE BONYAD POSHESH	IRAN
SANAYE ERTEBATI ZAEIM	IRAN
SANAYE MOKHABERATI (SA IRAN)	IRAN
SANAYE MOKHABERATI IRAN (ITMC)	IRAN
TAKTA	IRAN
ANDREW SRL	ITALY
TAIT	NEW ZALAND

4.2- SWITCH SYSTEM

DIGITRON	IRAN
KARA TELEPHONE	IRAN
PARS TELEPHONE KAR	IRAN
SANAYE ERTEBATI IRAN	IRAN
SANAYE ERTEBATI PAYA (KARIN)	IRAN
SANAYE ERTEBATI RAHE DOOR	IRAN
SANAYE MOKHABERATI (SA IRAN)	IRAN
SANAYE MOKHABERATI IRAN (ITMC)	IRAN
ALCATEL	FRANCE
ERICSSON	SWEDEN
MITEL	CANADA
NEC	JAPAN
PANASONIC	JAPAN
SIEMENS	GERMANY
TRANSTEL	UK

COMPANY NAME

ORIGIN

4.3- RADIO SYSTEM

4.3.1- FIXED SYSTEM

SANAYE ERTEBATI RAHE DOOR	IRAN
SANAYE ERTEBATI ZAEIM	IRAN
SANAYE MOKHABERATI (SA IRAN)	IRAN
ALCATEL	FRANCE
ERICSSON	SWEDEN
FUJITSU	JAPAN
MARCONI	UK
MOTOROLA	UK / JAPAN
NEC	JAPAN
NOKIA	FINLAND/CHINA
SIAE	ITALY
SIEMENS	GERMANY

4.3.2- MOBILE SYSTEM

SANAYE ERTEBATI RAHE DOOR (ITI)	IRAN
SANAYE ERTEBATI ZAEIM	IRAN
SANAYE MOKHABERATI (SA IRAN)	IRAN
ALCATEL	FRANCE
ERICSSON	SWEDEN
MOTOROLA	UK / JAPAN
NOKIA	FINLAND/CHINA
TAIT	NEW ZEALAND

4.3.3- HAND SET SYSTEM

SANAYE ERTEBATI RAHE DOOR (ITI)*	IRAN
SANAYE ERTEBATI ZAEIM*	IRAN
SANAYE MOKHABERATI (SA IRAN)*	IRAN
ALCATEL	FRANCE
ERICSSON	SWEDEN
FUJITSU	JAPAN
MARCONI	UK
MOTOROLA*	UK / JAPAN
NEC	JAPAN
NOKIA	FINLAND/CHINA
NTT DOCOMO	JAPAN
OTE*	ITALY
SIAE	ITALY
SIEMENS	GERMANY
TAIT*	NEW ZEALAND

* VENDORS PRODUCING INTRINSICALLY SAFE SET AS WELL AS NORMAL SET.

COMPANY NAME

ORIGIN

4.3.4- REPEATER SYSTEM

SANAYE ERTEBATI RAHE DOOR (ITI)	IRAN
SANAYE ERTEBATI ZAEIM	IRAN
SANAYE MOKHABERATI (SA IRAN)	IRAN
ALCATEL	FRANCE
ERICSSON	SWEDEN
MARCONI	UK / ITALY
MOTOROLA	UK / JAPAN
OTE	ITALY
ROHDE & SCHWARZ	GERMANY
ROHILL	NETHERLANDS

4.4- INTERCOM PAGING/PUBLIC ADDRESS

4.4.1- INDUSTRIAL

SARYAK	IRAN
INDUSTRONIC	GERMANY
IWATSU	JAPAN
NEUMANN	ITALY

4.4.2- NON INDUSTRIAL

ECHOCHANG	IRAN
HORAND	IRAN
MAZDAK	IRAN
SARYAK	IRAN

4.4.3- CONFERENCE SYSTEM

HORAND	IRAN
PANASONIC	JAPAN
PHILIPS	NETHERLANDS
SONY	JAPAN
TELEVIC	SWITZERLAND

4.4.4- EXPLOSION PROOF

INDUSTRONIC	GERMANY
INTEL	ITALY
IWATSU	JAPAN
NEUMANN	ITALY

COMPANY NAME

ORIGIN

4.5- CCTV

4.5.1- CCTV SYSTEM (FIX & PC BASE)

4.5.1.1- SECURITY

ADISH ELECTRONIC	IRAN
ALKA PARDAZ TABRIZ	IRAN
ARDAL	IRAN
BAZARGANI ARIAN	IRAN
DENA SANAT	IRAN
FAN AVARAN TASVIR	IRAN
GITA VARZ	IRAN
IRAN AMVAJ ELECTRONIC	IRAN
MICRO NARM AFZAR	IRAN
OFOGH ROSHAN DENA	IRAN
RAH AVARD ELECTRONIC	IRAN
RAH ROSHD	IRAN
SHAYAN	IRAN
SHAR NOOR	IRAN
SANAYE ELECTRONIC ZAIEM	IRAN
SA IRAN	IRAN
SANAYE ELECTRONIC OPTIC ESFAHAN	IRAN
VIDA ELECTRONIC	IRAN

4.5.1.2- NON SECURITY

AFRIZ FARAYAND	IRAN
DENA SANAT	IRAN
OFOGHE ROSHAN DENA	IRAN
PATSA	IRAN
RAH ROSHD	IRAN
SANAYE ERTEBATI ZAEIM	IRAN
SANAYE MOKHABERATI (SA IRAN)	IRAN
SANAYE OPTIC ESFAHAN	IRAN
SARYAK	IRAN
INTEL	ITALY
HERNIS	NORWAY
PANASONIC	JAPAN
SYNECTIC SYSTEM GROUP LTD	UK

4.5.2- CCTV EQUIPMENT

4.5.2.1- MONITORING EQUIPMENT

PANASONIC	JAPAN/MALAYSIA
SIEMENS	GERMANY
SONY	JAPAN/MALAYSIA
SYNECTIC SYSTEM GROUP LTD	UK

COMPANY NAME
ORIGIN
4.5.2.2- CAMERA

IQEYE	USA
PANASONIC	JAPAN/MALAYSIA
SIEMENS	GERMANY
SONY	JAPAN/MALAYSIA
SPARK LAN	USA/TAIWAN
SYNECTIC SYSTEM GROUP LTD	UK

4.6- TELEPHONE SYSTEM
4.6.1- EXPLOSION PROOF TELEPHONE SET

DAC	UK
FERNSIG	GERMANY
LELAS	FRANCE
MITLE TELECOM.	UK
NEUMANN ELECTRONIC	GERMANY
NEC GROUP	JAPAN
S.A.EQUIPMENT	UK
SIEMENS	GERMANY

4.6.2- INDUSTRIAL TELEPHONE SET

DAC	UK
FERNSIG	GERMANY
LELAS	FRANCE
MITLE TELECOM.	UK
NEUMANN ELECTRONIC	GERMANY
NEC GROUP	JAPAN
S.A.EQUIPMENT	UK
SIEMENS	GERMANY

4.6.3- OFFICE TELEPHONE SET

SANAYE ERTEBATI PAYA	IRAN
SANAYE MOKHABERATI (SA IRAN)	IRAN
ALCATEL	FRANCE
SIEMENS	GERMANY
PANASONIC	JAPAN

COMPANY NAME

ORIGIN

4.6.4- **FAX SYSTEM**

EPSON	JAPAN
HP	USA
PANASONIC	JAPAN
PHILIPS	NETHERLANDS
RICO	JAPAN
SHARP	JAPAN

4.6.5- **CENTRAL AND IP PHONE/PABX SYSTEM**

AVA COMMUNICATION	IRAN
ERICSSON	SWEDEN
PANASONIC	JAPAN
SIEMENS	GERMANY

4.7- NETWORK SWITCH

3COM	USA
BELDEN	USA
D-LINK	USA
SISCO	USA

4.8- ETHERNET SWITCH

HIRCHAMANN	GERMANY
WESTRMO	SWEDEN

5 - HSEQ

5. HSEQ EQUIPMENT

5.1. HEALTH

5.1.1. ELECTROMAGNETIC FIELD ANALYZER

5.1.2. SOUND LEVEL METER

5.1.3. LUXMETER

5.1.4. WET BULB GLOBE TEMPERATURE (WBGT)

5.1.5. DUST MONITOR

5.1.6. GAS AND VAPOURE DETECTOR

5.1.7. UV AND IR RADIATION DETECTOR

5.1.8. IONIZED RADIATION DETECTOR

5.1.9. FIT TEST FOR BREATHING MASK

5.1.10- POTABLE WATER QC EQ.

5.1.10.1- MICROBIOLOGY

5.2. SAFETY & FIRE FIGHTING

5.2.1- FIXED EQUIPMENT

5.2.1.1- WATER SPRAY, SPRINKLER SYSTEM

5.2.1.2- FOAM SYSTEM

5.2.1.3- WATER SUPPLY (HYDRANTS , MONITORS & REELS)

5.2.1.3.1- POST INDICATOR VALVE

5.2.1.3.2- SELF OSCILLATING MONITOR

5.2.1.4- FIRE FIGHTING PUMP

5.2.1.5- FIRE BOX

5.2.1.6- GAS DETECTOR SYSTEM

5.2.1.7- INERT GAS (IG) & CO2 SYSTEM

5.2.2- PORTABLE EQUIPMENT

5.2.2.1- EXTINGUISHER

5.2.2.1.1- DRY POWDER / WATER

5.2.2.1.2- CO2 / FOAM

5.2.2.2- FIRE MONITOR

5.2.2.3- PUMP FOR FIRE ENGINE

5.2.3- FIRE TRUCK

5.2.3.1- FOAM TENDER , WATER & FOAM TENDER & TANKER

5.2.3.2- POWDER TRUCK , RESCUE TRUCK & LADDER , MULTI - PURPOSE

5.2.4- GENERAL FIRE FIGHTING MATERIALS & ACCESSORIES

5.2.4.1- HOSES

5.2.4.2- FITTING , COUPLING & ADAPTOR

5.2.4.3- NOZZLE

5.2.4.4- POWDER & FOAM (ONLY MAT'S)

5.2.4.5- CO2 FILLING MACHINE , HOSE BINDING MACHINE , HOSE WINDING MACHINE , BREATHING AIR COMPRESSOR AND POWDER FILLING MACHINE.

5.2.5- FIRE PROOFING SYSTEM

5.2.6- RESCUE SYSTEM EQUIPMENT

5.2.7- SAFETY DEVICES

5.2.8- SPECIAL ITEMS

5.2.8.1- FALL PROTECTION EQUIPMENT

5.2.8.2- SAFTY VESTS AND SUB SEA WORK EQ.

5.2.8.3- CHEMICAL RESISTANCE ANTI-FIRE CLOTHING

5.2.8.4- SELF CONTAIN BREATHING APPARATUS (SCBA) / AIR LINE & FILTERING

5.3- ENVIRONMENT

5.3.1- AIR POLLUTION ANALYSER

5.3.2- STACK FLUE GAS ANALYZER

5.3.3- WASTE WATER PORTABLE ANALYZER

5.3.4- WASTE WATER AUTOMATIC SAMPLING DEVICE

5.3.5- WASTE WATER ON-LINE ANALYZER

5.3.6- SOIL POLLUTION MONITOR & ANALYZER

5.3.7- UNDER GROUND WATER MONITOR & ANALYZER

5.3.8- OIL MIST COLLECTORS

5.4- QUALITY

COMPANY NAME

ORIGIN

5.1. HEALTH

5.1.1. ELECTROMAGNETIC FIELD ANALYZER

CASELLA-CEL	UK
HOLA DAY	USA / W.EUROPE

5.1.2. SOUND LEVEL METER

BRÜEL & KJÆR	DENMARK
CASELLA-CEL	UK
CASTLE	UK
CIRRUS	UK
QUEST	USA / W.EUROPE

5.1.3. LUXMETER

HAGNER	SWEDEN
TESTO AG	GERMANY

5.1.4. WET BULB GLOBE TEMPERATURE (WBGT)

CASELLA-CEL	UK
KIMO	FRANCE
QUEST	USA / W.EUROPE

5.1.5. DUST MONITOR

BGI	USA / W.EUROPE
CASELLA-CEL	UK
DRÄGER	GERMANY
MSA	USA / W.EUROPE
SKC	USA / W.EUROPE
TERMO	USA / W.EUROPE
WESTECH	USA / UK

5.1.6. GAS AND VAPOUR DETECTOR

COMPUR MONITOR	GERMANY
DRÄGER	GERMANY
GASTEC	JAPAN
GFG	GERMANY
MSA	USA / W.EUROPE
SKC	USA / W.EUROPE

5.1.7. UV AND IR RADIATION DETECTOR

HAGNER	SWEDEN
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5.1.8. IONIZED RADIATION DETECTOR

WILL BE ADVISED LATER

COMPANY NAME

ORIGIN

5.1.9. FIT TEST FOR BREATHING MASK

DRÄGER	GERMANY
FENZY	FRANCE
MSA	USA / W.EUROPE

5.1.10- POTABLE WATER QC EQ.

HACH	USA
ZULLIG AG	SWITZERLAND

5.1.10.1- MICROBIOLOGY

ZULLIG AG	SWITZERLAND
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5.2. SAFETY & FIRE FIGHTING

5.2.1- FIXED EQUIPMENT

5.2.1.1- WATER SPRAY, SPRINKLER SYSTEM

ANGUS FIRE LTD.	UK
ANSUL	UK
DELTA FIRE Inc.	USA
FUKU HODA	JAPAN
HATSUTA	JAPAN
INBAL VALVES	UK
JOMOS	SWITZERLAND
KIDDE FIRE CO.	ITALY
MINIMASK	GERMANY
ROSENBAUER	GERMANY / AUSTRIA
SAMTEKNO-Tempus OY	FINLAND
SES ASA PROTECTION(SES ENSER ENGINEERING)	ITALY
SILVANI	ITALY
SIMTRONICS	NORWAY
SPRAY SAFE	UK
TOTAL FEURCHUTZ	GERMANY
VIKING	USA / W.EUROPE

5.2.1.2- FOAM SYSTEM

ANGUS FIRE LTD.	UK
CHEMETRON	USA / W.EUROPE
CHUBB FIRE	UK
CHUBB NATIONAL FOAM	UK
FUKU HODA	JAPAN
KIDDE FIRE CO.	ITALY
MURITA	JAPAN
PYRENE	CANADA
ROSENBAUER	GERMANY / AUSTRIA
SHILLA FIRE	KOREA
SILVANI	ITALY
TOTAL WALTHER	GERMANY

<u>COMPANY NAME</u>	<u>ORIGIN</u>
WILLIAMS	USA, W.EUROPE
ZIEGLER	GERMANY

5.2.1.3- WATER SUPPLY (HYDRANTS , MONITORS & REELS)

IMEN SAHAND ARYA	IRAN
IMEN TIAR (WET ONLY)	IRAN
ALCO CONTROLS GmbH	GERMANY
AMERICAN DARLING	CANADA / W.EUROPE
ANGUS FIRE LTD.	UK
KENEDY VALVE	CANADA
KNOWSLEY SK LTD.	UK
MULLER	GERMANY
POK	FRANCE
SHILLA FIRE	KOREA
SILVANI	ITALY
SIMTRONICS	NORWAY

5.2.1.3.1- POST INDICATOR VALVE

ANGUS FIRE	UK
KENEDY VALVE	CANADA

5.2.1.3.2- SELF OSCILLATING MONITOR

POK	FRANCE
SHILLA FIRE	KOREA

5.2.1.4- FIRE FIGHTING PUMP ON TRUCK

GODAIVA	UK
ROSENBAURE	GERMANY / AUSTRIA
SIDES	FRANCE
ZIEGLER	GERMANY

5.2.1.5- FIRE BOX

DENA SHIRAZ	IRAN
ETFAYE HARIGHE BOSTAN	IRAN
EAMEN PARS	IRAN
IMEN SAHAND ARYA	IRAN
IMEN TIAR	IRAN
KIMIAGAR	IRAN
NARFOAMKAR	IRAN
NEGAHBAN	IRAN

5.2.1.6- GAS DETECTOR SYSTEM

ANSUL	UK
BLACK FIRE	CANADA
B.W	CANADA
CHUBB FIRE	UK
DRÄGER	GERMANY
HOCKE	JAPAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
MINIMAX	GERMANY
SIEMENS	AUSTRALIA / NEW ZEALAND
SILVANI	ITALY
TOTAL WALTHER	GERMANY

5.2.1.7- INERT GAS (IG) & CO2 SYSTEM

EUSEBI IMPIANTI	ITALY
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5.2.2- PORTABLE EQUIPMENT

5.2.2.1- EXTINGUISHER

5.2.2.1.1- DRY POWDER / WATER

AZAR CYLANDR	IRAN
DARROOS IRAN	IRAN
IRAN ATASHBAR	IRAN
IRAN NEJAT	IRAN
PISHROW	IRAN
TOCHAL	IRAN
YADEGAR	IRAN
ANGUS FIRE LTD.	UK
BAVARIA	GERMANY
CHUBB FIRE	UK
GLORIA	GERMANY
SIMTRONICS	NORWAY
TOTAL WALTHER	GERMANY
VICTORIA	ITALY

* THE EQUIPMENT SUPPLIED BY IRANIAN VENDORS SHOULD BE CERTIFIED BY ISIRI, ALSO TO BE EQUIPPED BY VALVES SUPPLIED FROM OFF-SHORE.

5.2.2.1.2- CO2 / FOAM

ANGUS FIRE LTD.	UK
ANSUL	UK
BAVARIA	GERMANY
BLACK FIRE	CANADA
CHUBB FIRE	UK
GLORIA	GERMANY
MINIMAX	GERMANY
SILVANI	ITALY
TOTAL WALTHER	GERMANY
VICTORIA	ITALY

5.2.2.2- FIRE MONITOR

AZAR KHODRO	IRAN
IMEN SAHAND ARYA	IRAN
IMEN TIAR	IRAN
MACHIN ATASHMAHAR NO	IRAN
SANATKARAN BERM CO.	IRAN
SANGUIN KAR SANAT	IRAN

<u>COMPANY NAME</u>	<u>ORIGIN</u>
ALCO CONTROLS GmbH	GERMANY
ANGUS FIRE LTD.	UK
ELKHARTE	UK
MORITA	JAPAN
POK	FRANCE
SILVANI	ITALY
TOTAL WALTHER	GERMANY
ZIEGLER	GERMANY

5.2.2.3- PUMP FOR FIRE ENGINE

AZAR KHODRO	IRAN
SANATKARAN BERM CO.	IRAN
SANGUIN KAR SANAT	IRAN
CAMIVA	ITALY
GODIVA	UK
HALE	UK
ROSENBAUER	GERMANY / AUSTRIA
SILVANI	ITALY
ZIEGLER	GERMANY

5.2.3- FIRE TRUCK

5.2.3.1- FOAM TENDER, WATER & FOAM TENDER & TANKER

AFTAB EKBATAN	IRAN
ATASH MAHAR NO	IRAN
MOJTAMA SANAYE HADID	IRAN
SANATKARAN BERM CO.	IRAN
SANGUIN KAR SANAT	IRAN
BAI	ITALY
BARIBBI	ITALY
CHENETTI	ITALY
CHUBB NATIONAL FOAM	UK
JOHN DENNIS COACHBUILDERS LTD	UK
EMERGENCY ONE	USA / W.EUROPE
KAR MICHAEL	UK
METZ	FRANCE
ROSENBAUER	GERMANY / AUSTRIA
SAVAL	BELGIUM
SIDES	FRANCE
SILVANI	ITALY
SOMATI	FRANCE
SUPERIOR	CANADA
ZIEGLER	GERMANY

5.2.3.2- POWDER TRUCK, RESCUE TRUCK & LADDER, MULTI - PURPOSE

ATASH MAHAR NO	IRAN
SANGUIN KAR SANAT	IRAN
BAI	ITALY
BARIBBI	ITALY

<u>COMPANY NAME</u>	<u>ORIGIN</u>
CHENETTI	ITALY
CHUBB NATIONAL FOAM	UK
JOHN DENNIS COACHBUILDERS LTD	UK
EMERGENCY ONE	USA / NETHERLANDS
KAR MICHAEL	UK
METZ	FRANCE
ROSENBAUER	GERMANY / AUSTRIA
SAVAL	BELGIUM
SIDES	FRANCE
SILVANI	ITALY
SOMATI	FRANCE
SUPERIOR	CANADA
ZIEGLER	GERMANY

5.2.4- GENERAL FIRE FIGHTING MATERIALS & ACCESSORIES

5.2.4.1- HOSES

ANGUS FIRE LTD.	UK
G & H (GOLLMER & HUMMEL)	GERMANY
MEHLER	GERMANY
NAFFCO	UK
ROSENBAUER	GERMANY / AUSTRIA
TOTAL WALTHER	GERMANY
ZIEGLER	GERMANY

5.2.4.2- FITTING , COUPLING & ADAPTOR

IMEN SAHAND ARYA	IRAN
IMEN TIAR	IRAN
NEGAHBAN	IRAN
A.W.G.	GERMANY
ANGUS FIRE LTD.	UK
JOHN MORRIS	UK
MORITA	JAPAN
POK	FRANCE
ROSENBAUER	GERMANY / AUSTRIA
SHILLA FIRE	KOREA
TOTAL WALTHER	GERMANY

5.2.4.3- NOZZLE

IMEN SAHAND ARYA	IRAN
IMEN TIAR	IRAN
NEGAHBAN	IRAN
ANGUS FIRE LTD.	UK
CHUBB FIRE	UK
KIDDE FIRE CO.	ITALY
FUKU HUDA	JAPAN
KNOWSLEY SK LTD.	UK
POK	FRANCE
PYRENE	CANADA
ROSENBAUER	GERMANY / AUSTRIA

COMPANY NAME

ORIGIN

SHILLA FIRE	KOREA
SILVANI	ITALY

5.2.4.4- POWDER & FOAM (ONLY MAT'S)

ATASHBAS	IRAN
AZAR KABIN	IRAN
EYMAN TASH SEPAHAN	IRAN
LOSHAREH	IRAN
AJAX	NETHERLANDS
ANGUS FIRE LTD.	UK
N.F (NATIONAL FOAM)	UK
NAFFCO	UK
PURPLE K	NETHERLANDS
SABO	FRANCE / ITALY
SILVANI	ITALY
TOTAL	FRANCE

5.2.4.5- CO2 FILLING MACHINE , HOSE BINDING MACHINE , HOSE WINDING MACHINE , BREATHING AIR COMPRESSOR AND POWDER FILLING MACHINE.

AFTAB EKBATAN*	IRAN
TIGRA	IRAN
BAVARIA	GERMANY
DRÄGER	GERMANY
G & H (GOLLMER & HUMMEL)	GERMANY
INTERSPIRO	SWEDEN
ROSENBAUER	GERMANY / AUSTRIA
SILVANI	ITALY
WAGNER	GERMANY
ZIEGLER	GERMANY

* HOSE BINDING MACHINE ONLY

5.2.5- FIRE PROOFING SYSTEM

(SUBJECT TO DISCUSSION IN CIVIL ENGINEERING)

5.2.6- RESCUE SYSTEM EQUIPMENT

BEAL	ITALY
HE / MATRO	NETHERLANDS
LUCAS	UK
NORTH SAFETY	CANADA / W.EUROPE
PETZL	FRANCE
ROSENBAUER	GERMANY / AUSTRIA
ZIEGLER	GERMANY

COMPANY NAME

ORIGIN

5.2.7- SAFETY DEVICES

[PPE (PERSONAL PROTECTIVE EQUIPMENT)]

CLAR	IRAN
DENA SHIRAZ	IRAN
IMEN TORK	IRAN
G.S.P	IRAN
HEYAAT	IRAN
IMEN SANAT	IRAN
IMEN TIAR	IRAN
KAFSH MELLI	IRAN
MILAD	IRAN
MOJTAMEH BESAT	IRAN
MO-LOUD	IRAN
NEGAHBAN	IRAN
SAFE	IRAN
B.W.	CANADA
BRISTOL	UK
CROWCON	UK
DRÄGER	GERMANY
FENZY	FRANCE
INTERSPIRO	SWEDEN
KEMIRA	GERMANY
NORTH SAFETY	CANADA / W.EUROPE
OLDHAM	FRANCE
ROSENBAUER	GERMANY / AUSTRIA
SABER	FRANCE
TEMPEX	UK
TOTAL	FRANCE

5.2.8- SPECIAL ITEMS

5.2.8.1- FALL PROTECTION EQUIPMENT

PETZL	FRANCE
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5.2.8.2- SAFTY VESTS AND SUB SEA WORK EQ.

PETZL	FRANCE
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5.2.8.3- CHEMICAL RESISTANCE ANTI-FIRE CLOTHING

MOJTAMA BESAT	IRAN
ARTHURE FIRE	CANADA
BRISTOL	UK
DRÄGER	GERMANY
MSA	USA / W.EUROPE
NORTH SAFETY	CANADA / W.EUROPE
ROSENBAUER	GERMANY / AUSTRIA

COMPANY NAME

ORIGIN

5.2.8.4- SELF CONTAIN BREATHING APPARATUS (SCBA) / AIR LINE & FILTERING

AUER	GERMANY
DRÄGER	GERMANY
FENZY	FRANCE/POLAND
MSA	USA / W.EUROPE
ROSENBAUER	GERMANY / AUSTRIA

5.3- ENVIRONMENT

5.3.1- AIR POLLUTION ANALYSER

BUHLER TECHNOLOGIES	GERMANY
ENVIROMENT S.A.	FRANCE
POLLUTION S.P.A	ITALY
PROTEA	UK
TESTO	GERMANY

5.3.2- STACK FLUE GAS ANALYZER

ABB	UK
APEX	USA / W.EUROPE
HORIBA	USA / W.EUROPE
LAND	UK
MRU	GERMANY
OPIS	SWEDEN
PROTEA	UK
TESTO	GERMANY

5.3.3- WASTE WATER PORTABLE ANALYZER

EXACT TM	UK
JENWAY	UK
THERMO	USA / W.EUROPE
WINDOUS	GERMANY
W.T.W	GERMANY

5.3.4- WASTE WATER AUTOMATIC SAMPLING DEVICE

ENDRESS & HAUSER	GERMANY
ISCO	USA / W.EUROPE
NEMOL	GERMANY
W.T.W	GERMANY

5.3.5- WASTE WATER ON-LINE ANALYZER

STIP & PROMINENT	USA / CANADA
W.T.W	GERMANY

COMPANY NAME

ORIGIN

5.3.6- SOIL POLLUTION MONITOR & ANALYZER

WILL BE ADVISED LATER
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5.3.7- UNDER GROUND WATER MONITOR & ANALYZER

KPSI

USA / W.EUROPE

SEBA

GERMANY

5.3.8- OIL MIST COLLECTORS

WILL BE ADVISED LATER
.....

5.4- QUALITY

WILL BE ADVISED LATER
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6 - CIVIL & STRUCTURE

6. CIVIL & STRUCTURE

6. CIVIL & STRUCTURE

6.1- STEEL STRUCTURE

6.2- FALSE FLOOR / CEILING / ALUMINIUM COMPOSITE PANEL

6.3- GROUT / ADDITIVE CONCRETE / HARDNER

6.4- GALVANIZED COATING

6.5- SEALING MATERIAL

6.5.1- CONCRETE JOINT SEALANT / WATER STOP

6.5.2- GEOTEXTILE

6.5.3- GEOMEMBRANE

6.5.4- ISOLATING MAT'S

6.6- GRATING

6.6.1- METALIC

6.6.2- NON – METALIC

6.7- SPATIAL (SPACE) FRAME

6.8- MARINE STRUCTURE

6.9- FIRE PROOFING (REGULAR / LIGHT WEIGHT)

6.10- PRE - CAST

6.10.1- CONCRETE

6.10.2- NON-CONCRETE

6.11- SANDWICH PANEL

6.12- BRIDGE CRANE (E.O.T)

6.13- SPECIAL DOOR (EXPLOSION PROOF)

6.14- DOUBLE PANE WINDOW

6.15- ANCHOR CABLE

6.16- NEW MAT'S / COMPONENTS

6.17- PRE-FABRICATED BUILDING

6.17.1- CONCRETE

6.17.2- NON-CONCRETE/CONEX

6.18- ANCHOR BOLTS

6.19- LIGHT WEIGHTED MAT'S

6.20- ACID PROOF TILES

6.21- ACID PROOF MORTARS

6.22- GLASS

6.22.1- NORMAL

6.22.2- ARMY

6.22.3- SECURIT

6.22.4- DOUBLE GLAZED

6.22.5- REFLECTOR/ MIRROR (CONCAVE, CONVEX, FLAT)

COMPANY NAME

ORIGIN

6.1 - STEEL STRUCTURE

AHANSAY	IRAN
ALFA SAM	IRAN
ARIA FOOLAD SABALAN	IRAN
AZAR FELEZAN	IRAN
ESKELETHAI FOOLAD VA MAKHAZEN IRAN	IRAN
ESTA FELEZ	IRAN
FOOLAD FAN	IRAN
FOOLAD NAGHSH EURASIA	IRAN
JAHANKAR ESFAHAN	IRAN
KARA SAZEH KIMIYA	IRAN
KAROON SAZEH	IRAN
MACHINE AJZA	IRAN
MACHIN SAZI AZARBAYJANI	IRAN
MACHIN SAZI ARAK	IRAN
MACHIN SAZI PARS	IRAN
MACHIN SAZI SAZEHAYEH SANATI ASTOTOOS	IRAN
METEC	IRAN
MILAD	IRAN
NAFT SAZEH GHESHM	IRAN
NASB SAMAN ARAK	IRAN
NEYRPERIS	IRAN
PAYBAND SAZEH	IRAN
PAYSAZ	IRAN
SADAD MACHIN	IRAN
SANAYE FELEZI IRAN	IRAN
SANAYE KOLAHDOZ	IRAN
SAZEHAYEH FELEZI SHAHRYAR	IRAN
SOOLEH KAVEH PARS	IRAN

6.2 - FALSE FLOOR / CEILING / ALUMINIUM COMPOSITE PANEL

ALMICO	IRAN
ALUMINUM BAMKAR	IRAN
AZARAN PLASTIC	IRAN
FATH IRAN	IRAN
GHATAAT FOLADI	IRAN
IRAN SAGHF	IRAN
KNAUF IRAN	IRAN
PARSI TAK	IRAN
PROFILE ALUMINIUM ZIAE	IRAN
RAIZIRAN	IRAN
SANAYE ARMIN AZAR	IRAN
SANAYE AYTAK DARB	IRAN
TEHRAN DAMA	IRAN
STEEL SYSTEM	FRANCE

COMPANY NAME

ORIGIN

6.3 - GROUT / ADDITIVE CONCRETE / HARDNER

ATROPAT SHIMI	IRAN
BETON SHIMIE KHAVARMIANEH	IRAN
CLINIC SAKHTEMANI IRAN	IRAN
FARAVARDEHYE SHIMIAEI SAKHTEMAN	IRAN
FOMAN SHIMI	IRAN
MOHANDESI SHIMI IRAN	IRAN
REZIN BETON BARTAR	IRAN
SANATI REZIN SAZAN FARIS	IRAN
SHIMI SAKHTEMAN	IRAN
MAZ	GERMANY
SIKA	SWITZERLAND

6.4 - GALVANIZED COATING

IRAN YASA ARAK	IRAN
KHORDEGI GHADIR	IRAN
MERKID	IRAN
NAVARD VA LOOLEH AHWAZ	IRAN
SEPENTA	IRAN
TEHRAN HARA	IRAN
ZENDEH ROOD	IRAN

6.5 - SEALING MATERIAL

6.5.1- CONCRETE JOINT SEALANT / WATER STOP

ATROPAT SHIMI	IRAN
AYEGHHAYE ROTOBATI	IRAN
CLINIC SAKHTEMANI IRAN	IRAN
FIROZ GAM	IRAN
ISOGAM	IRAN
PASHM SANG IRAN	IRAN
POM CO	IRAN
SHIMI SAKHTEMAN	IRAN

6.5.2- GEOTEXTILE

BEHSAZ NASJ	IRAN
CHESHMEH SAR YAZD	IRAN
SABZ GOSTAR KANDOVAN	IRAN

6.5.3- GEOMEMBRANE

CHESHMEH SAR YAZD	IRAN
CHIDAK BASPAR	IRAN
SABZ GOSTAR KANDOVAN	IRAN
SEPIDEH SOBH ALAGHEBAND	IRAN
NEROU	SWITZERLAND

COMPANY NAME

ORIGIN

6.5.4- ISOLATING MAT'S

AYEGH PARDIS SAEI	IRAN
BAB	IRAN
IDEH SAZAN	IRAN
PASHM & SHISHEH IRAN / THERMO TANK	IRAN
PASHM CERAMIC IRAN	IRAN
PASHM SANG IRAN	IRAN
TARABGIN	IRAN
TARADIS	IRAN

6.6 - GRATING

6.6.1- METALLIC

AHVAVZ FANOOS	IRAN
ALFA SAM	IRAN
ARAK RAIL	IRAN
DOZHPAD	IRAN
FAZA SAZAN AMIN	IRAN
FELEZ SAZEH	IRAN
FOOLAD DRAKHSAN	IRAN
FOOLAD PERESS	IRAN
GHATEATE FOOLADI	IRAN
PARS MOSHABAK	IRAN
SANAYE AYTAK DARB	IRAN
SANAYE FLEZI IRAN	IRAN
TADAROKAT SANATI SEPAHAN	IRAN

6.6.2- NON - METALLIC

PARS MOSHABAK	IRAN
FIBERSTRUCT	THE NETHERLANDS

6.7- SPATIAL (SPACE) FRAME

SANAYE SHAHABADI	IRAN
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6.8 - MARINE STRUCTURE

NAFT SAZEH GHESHM	IRAN
SADRA	IRAN
TASISAT DARYAEI IRAN (IOEC)	IRAN

6.9- FIRE PROOFING (REGULAR / LIGHT WEIGHT)

GILAN MIKA	IRAN
COOL THERM	UK
LAPINUS	THE NETHERLANDS
WARNERISOFI ISOLATION	FRANCE

COMPANY NAME

ORIGIN

6.10- PRE - CAST

6.10.1- CONCRETE

AZARIT	IRAN
DOKAL	IRAN
FIAL BETON	IRAN
IRDAK	IRAN
SANAT IRAN	IRAN
SIMAN DOROD	IRAN
TOSHEH SANAT FAZELAB IRAN	IRAN

6.10.2- NON-CONCRETE

KNAUF IRAN	IRAN
MAMOUT	IRAN

6.11- SANDWICH PANEL

FABIS	IRAN
GHATATE FOOLADI	IRAN
MAMOUT	IRAN

6.12- BRIDGE CRANE (E.O.T)

AHROM VAZIN	IRAN
ARIAN	IRAN
FIROZA	IRAN
IRAN SAKHT CRANE	IRAN
MACHIN SAZI MANGAN	IRAN
MACHIN SAZI PARS	IRAN
SADAD MACHIN	IRAN
SHAHANG VAZIN	IRAN
TEFLER	IRAN
VAZNEH PARS	IRAN

6.13- SPECIAL DOOR (EXPLOSION PROOF)

SANDOGH NASOZ KAVEH	IRAN
SANDOGH NASOZ KHORAM	IRAN

6.14- DOUBLE PANE WINDOW

ARIAN PAZHANG	IRAN
SANAYE ARMIN AZAR	IRAN
SECO	IRAN

6.15- ANCHOR CABLE

MACHIN SAZI MANGHAN	IRAN
MALAYER WIRE ROPE	IRAN
SADAD MACHIN	IRAN

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
6.16- <u>NEW MAT'S / COMPONENTS</u>		
	SECO	IRAN
6.17- <u>PRE-FABRICATED BUILDING</u>		
6.17.1- <u>CONCRETE</u>		
	WILL BE ADVISED LATER	
6.17.2- <u>NON-CONCRETE / CONEX</u>		
	WILL BE ADVISED LATER	
6.18- <u>ANCHOR BOLTS</u>		
	AHVAVZ FANOOS	IRAN
6.19- <u>LIGHT WEIGHTED MAT'S</u>		
	HEBLEX	IRAN
6.20- <u>ACID PROOF TILES</u>		
	ANZAN SANAT POLYMER	IRAN
6.21- <u>ACID PROOF MORTARS</u>		
	WILL BE ADVISED LATER	
6.22- <u>GLASS</u>		
6.22.1- <u>NORMAL</u>		
	SHISHEH GHAZVIN	IRAN
6.22.2- <u>ARMY</u>		
	SHISHEH GHAZVIN	IRAN
6.22.3- <u>SECURIT</u>		
	SHISHEH GHAZVIN	IRAN
6.22.4- <u>DOUBLE GLAZED</u>		
	SHISHEH GHAZVIN	IRAN
6.22.5- <u>REFLECTOR/ MIRROR (CONCAVE, CONVEX, FLAT)</u>		
	SHISHEH GHAZVIN	IRAN

7 - CAT., CHEM. & OIL

7. CATALYST / CHEMICALS / OIL

7.1. CATALYST

7.1.1- NON POLYMERIC PLANT

7.1.2- POLYMERIC PLANT

7.2- ADSORBENT, DESORBENT & RESIN

7.2.1- MOLECULAR SIEVE

7.2.2- SILICAGEL / ACTIVATED ALUMINA / ADSORBENTS

7.2.3- ION EXCHANGE RESIN / MEMBRANE

7.2.4- ACTIVATED CARBON

7.3- CHEMICALS / ADDITIVES / ABSORBENTS

7.4- SUPPORT & PACKING

7.5- OIL & GREASE

COMPANY NAME

ORIGIN

7.1. CATALYST

7.1.1- NON POLYMERIC PLANT

AXENS	FRANCE
BASF	GERMANY
BAYER	GERMANY
CECA	FRANCE/JAPAN
CRI	USA / W.EUROPE
EVONIK	GERMANY
EXXON-MOBIL	USA
HALDOR TOPSOE	DENMARK
INEOS	UK/BELGIUM
JOHNSON MATTHEY	UK
KATALEUNA	USA/THE NETHERLANDS
NIPPON SHOKUBAI	JAPAN
PERCHEM	SWITZERLAND
PETROGAS	UK
SCI	UK
SD (SCIENTIFIC DESIGN)	USA
SUD-CHEMIE	GERMANY
SYNETIX	UK
TORAY	JAPAN
UOP	USA / W.EUROPE
ZEOLYST	USA

7.1.2- POLYMERIC PLANT

AKZO NOBEL	USA / W.EUROPE
BASELL	GERMANY
BASF	GERMANY
ETHYL S.A.	USA/BELGIUM
HULS	GERMANY
INOES	UK/FRANCE
INTER CHIM	AUSTRIA
JOHNSON MATTHEY	UK
mitsui	JAPAN
SCHERING	GERMANY
SIBA - GIEGY	SWITZERLAND
STAUFFER	USA/SWITZERLAND
SUD-CHEMIE	GERMANY
WITCO	GERMANY

COMPANY NAME

ORIGIN

7.2- ADSORBENT, DESORBENT & RESIN

7.2.1- MOLECULAR SIEVE

AXENS	FRANCE
CECA	FRANCE
ENITECNI	SWITZERLAND
mitsui	JAPAN
SIBEL HEGNER	JAPAN
UNION SHOWA	JAPAN
ZEOCHEM	SWITZERLAND

7.2.2- SILICAGEL / ACTIVATED ALUMINA / ADSORBENTS

JAHAD DANESHGAHI SHARIF	IRAN
AIRSEC S.A.	FRANCE
ARKEMA CANADA INC.	CANADA
AXENS	FRANCE
CECA	FRANCE
JOHNSON MATTHEY	UK
GEEJAY CHEMICAL	UK

7.2.3- ION EXCHANGE RESIN / MEMBRANE

BAYER	GERMANY
DOW DOW CHEMICAL CO. LTD.	UK
FIMTEC	USA
HYDRONATIC	CANADA
PROULITE	UK
ROHM & HAAS	UK / ITALY
TORAY	JAPAN

7.2.4- ACTIVATED CARBON

PAD ARVIN	IRAN
SHIMI PAJOOHAN	IRAN
DOW DOW CHEMICAL CO. LTD.	UK
JACOBI CARBONS AB	SWEDEN

COMPANY NAME

ORIGIN

7.3- CHEMICALS / ADDITIVES / ABSORBENTS

ABTIN REZIN	IRAN
CHASSB SAZ SARI	IRAN
ELMI SAZAN PEESHROW	IRAN
EMEN TASH SEPAHAN	IRAN
ENERGY SEMNAN	IRAN
EXIR KIMIAGAR ZARRIN	IRAN
FAKHR CHEMIE RAZAN	IRAN
FARAVAR PAJOOHESH RAZI	IRAN
FARSHID SHAHREZA	IRAN
IRANOL	IRAN
JAHAD DANESHGAHI SHARIF	IRAN
KAROON SHIMI KHOOZESTAN	IRAN
KIMIA MAHAN ALBORZ	IRAN
MAHAM PARCHIN	IRAN
MAVAD SHIMIAI	IRAN
MEHRTASH SEPAHAN	IRAN
NARBON	IRAN
NIROO CHLOR	IRAN
PADRAVIN	IRAN
PARS CHLOR	IRAN
PARS LIAN	IRAN
PETRO POOYESH KIMIA	IRAN
ROUDBAR TOUTIA	IRAN
SADR CHEMIE	IRAN
SALAR SHIMI SHAHRYAR	IRAN
SANAYEH DEFA SHIMIAYEE	IRAN
SHIMIAYEE FARS SHIRAZ	IRAN
SHIMIAEE TASFIEH	IRAN
SIMAB REZIN	IRAN
SINA CHEMICAL INDUSTRIAL COMPANY	IRAN
SULFUR SODIUM IRAN	IRAN
TAJDAR SAMAN	IRAN
ZOHAL CHEMI	IRAN
AAE CHEMIE	SWITZERLAND
AKZO NOBEL	THE NETHERLANDS
AREMA	FRANCE
ARKEMA	FRANCE
ASHI DENKA	JAPAN
BARABANT	UK
BASF	GERMANY
BAYER	GERMANY
BECKMANN	GERMANY
BETZ	ITALY

<u>COMPANY NAME</u>	<u>ORIGIN</u>
BOLTH	UK
BUDENHEM	GERMANY
BWA	UK
CHAMPION	UK
CHEMCOR	THE NETHERLANDS
CHEMICAL INDUSTRIES	THE NETHERLANDS
CHIMEC	ITALY
CIBA	SWITZERLAND
DARACOR	FRANCE
DEGUSSA	FRANCE
DYCAR INT	UK
ENITECNI	SWITZERLAND
ERWIN H-BRAMMER	GERMANY
FACI	ITALY
HACHEM	GERMANY
HENKEL	GERMANY
HERCULES	UK
HOTAN	SWITZERLAND
HOZART	IRELAND
ICI KATALCO	UK
INTER CHEM	AUSTRIA
IRMECO GMBH	GERMANY
MATERTEC	SWITZERLAND
MESSER	UK
mitsui	JAPAN
NALCO	ITALY
NORIT	THE NETHERLANDS
PERCHEM	SWITZERLAND
PETRO VLISL	THE NETHERLANDS
SOJITZ	JAPAN
STEPAN EUROPE	GERMANY
STEULER	GERMANY
SUDCHEMICAL	GERMANY
VOGLER	SWITZERLAND
WATERTEC	SWITZERLAND
WITCO	GERMANY

COMPANY NAME

ORIGIN

7.4- SUPPORT & PACKING

ARDAKAN CERAMIC	IRAN
AZAR ENERGY	IRAN
DAMAVAND FELEZ (MONTZ)	IRAN / GERMANY
FARAALIAJ ARAK	IRAN
GAHR CERAM	IRAN
MABNA GOSTAR SEPAHAN	IRAN / GERMANY
PAYDAR	IRAN
POLIKA KARAJ	IRAN
SANAYE CERAMIC TEHRAN	IRAN
SANAYE PANTAN CHEMI	IRAN
SETAREH SANAT TOOS	IRAN
SHIRIN YAR TEHRAN	IRAN
TAVAN AFZAR	IRAN
TAVANKARAN SANAT	IRAN
BASF	GERMANY
PERCHEM	SWITZERLAND
SAINT - GOBAIN NOR-PRO	THE NETHERLANDS
VEREINIGTE FULLKORPER	GERMANY
VOGLER	THE NETHERLANDS
WATERTEC	SWITZERLAND

7.5- OIL & GREASE

ASIA GULEH	IRAN
BEHRAN	IRAN
BEHTOTAL	IRAN
IRANOL	IRAN
NAFT PARS	IRAN
NAFT SEPAHAN	IRAN
PALAYESH SHOMAL	IRAN
AGIP	ITALY
BP	UK
CPI	USA
ESSO	W.EUROPE
EXXON MOBIL	W.EUROPE
MOLYKOTE	W.EUROPE
SHELL	UK
TOTAL FINA ELF	FRANCE

8 - LABORATORY EQ.

8. LABORATORY EQUIPMENT

8 - LABORATORY

8.1- CHROMATOGRAPHY

8.1.1- GAS CHROMATOGRAPH /MASS SPECTROSCOPE (GC , GC / MS)

8.1.2- HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC)

8.1.3- ION CHROMATOGRAPHY (IC)

8.2- SPECTROPHOTOMETER

8.2.1- FOURIER TRANSFORMER INFRARED (FTIR) , INFRA RED (IR)

8.2.2- ULTRA VIOLET (UV / UV VISIBLE)

8.2.3- INDUCTIVELY COUPLED PLASMA / MASS (ICP, ICP / MS)

8.2.4- EMISSION SPECTROSCOPE (ES)

8.2.5- ATOMIC ABSORPTION (AA)

8.2.6- X-RAY FLUORESCENCE (XRF) / X-RAY DIFFRACTION (XRD)

8.2.7- FLAME PHOTOMETER

8.3- AIR ANALYZER

8.4- O2 ANALYZER (DISSOLVER)

8.5- O2 ANALYZER (GAS)

8.6- WATER ANALYZER

8.7- ION SELECTIVE

8.8- OIL ANALYZER

8.8.1- FLASH/ POUR/CLOUD POINT

8.8.2- VISCOSITY

8.8.3- WATER IN OIL

8.8.4- LIQUID DENSITY METER

8.9- ELEMENTAL (CHNOS) ANALYZER

8.10- POLYMER TEST EQUIPMENT

8.10.1- PHYSICAL

8.10.1.1- BRITTLENESS TEMPERATURE

8.10.1.2.- BULK DENSITY

8.10.1.3- DENSITYMETER (WITH BALANCE)

8.10.1.4-DIFFERENTIAL SCANNING CALORIMETER (DSC)

8.10.1.5- DIFFERENTIAL THERMAL ANALYZER (DTA)

8.10.1.6- BALL DROP
 8.10.1.7- ELECTRICAL RESISTANCE METER
 8.10.1.8- ENVIRONMENT STRESS CORROSION RESISTANCE(ESCR)
 8.10.1.9- GLOSS METER
 8.10.1.10- DENSITY METER (GRADIENT)
 8.10.1.11- HARDNESS TESTER
 8.10.1.12- HAZE METER
 8.10.1.13- HDT / VICAT
 8.10.1.14- IZOD IMPACT
 8.10.1.15- MELT FLOW INDEX (MFI)
 8.10.1.16- MELTING POINT
 8.10.1.17- MICROMETER
 8.10.1.18- TENSILE & FLEXURAL
 8.10.1.19- TGA
 8.10.1.20- VOLATILENESS METER (WITH BALANCE)
 8.10.1.21- VOLATILE METER
 8.10.1.22- NOTCHING MACHINE
 8.10.1.23- DART DROP IMPACT
 8.10.1.24- GEL PERMISSION CHROMATOGRAPH (GPC)
 8.10.1.25- PIPE TESTER
 8.10.1.26- LIMITED OXYGENATION INDEX (LOI)
 8.10.1.27- TEAR TESTER
 8.10.1.28- YELLOW / WHITE INDEX TESTER
 8.10.1.29- PLAX TESTER

8.10.2 - TECHNICAL

8.10.2.1- BALL MILL MIXER
 8.10.2.2- BLOW FILM
 8.10.2.3- BLOW MOULDING
 8.10.2.4- CAST FILM
 8.10.2.5- INJECTION
 8.10.2.6- PIPE EXTRUDER
 8.10.2.7- PRESS
 8.10.2.8- PELLETIZER

8.11- GENERAL ITEMS

8.11.1- ANALYTICAL BALANCE
 8.11.2- CENTRIFUGE
 8.11.3- COLORIMETER (UV)
 8.11.4- COLORIMETER (SAYBOLT)
 8.11.5- COLORIMETER (COMPERATOR)
 8.11.6- CONTAMINATING METER
 8.11.7- BOD / COD / TOC METER
 8.11.8- AIR / N₂ / H₂ GENERATOR
 8.11.9- DEMINERALIZED WATER (DM WATER MAKER)
 8.11.10- DENSITY METER
 8.11.11- DEW POINT
 8.11.12- DISTILATION
 8.11.13- EXPLOSION PROOF REFRIGERATOR

- 8.11.14- FURNACE
- 8.11.15- HOT PLATE / STRIPPER / MANTLE
- 8.11.16- INDUCTION PERIOD
- 8.11.17- KARL-FISCHER TITRATOR (COULOMETRY / VOLUMETRIC)
- 8.11.18- OVEN / INCUBATOR
- 8.11.19- PARTICLE SIZE (LASERIC)
- 8.11.20- PH METER
- 8.11.21-REID VAPOUR PRESSURE (RVP)
- 8.11.22-REFRACTO METER
- 8.11.23-PARTICLE SIZE (SIEVE SHAKER)
- 8.11.24-STOP WATCH
- 8.11.25-TECHNICAL BALANCE
- 8.11.26-TITRATOR
- 8.11.27-TURBIDITY METER
- 8.11.28-ULTRASONIC BATH
- 8.11.29-VACUUM PUMP
- 8.11.30-WATER BATH
- 8.11.31-HVAC

- 8.12- SPECIAL SOFT / HARDWARE
 - 8.12.1- LABORATORY INFORMATION MANAGEMENT SYSTEM

- 8.13- LABORATORY GLASSWARE

- 8.14- LABORATORY CHEMICALS

- 8.15- LABORATORY FURNITURE
 - 8.15.1- ACID PROOF TILES
 - 8.15.2- ACID PROOF MORTARS

- 8.16- SAMPLING EQUIPMENT
 - 8.16.1- NEEDLE VALVE
 - 8.16.2- CYLINDER
 - 8.16.3- QUICK CONNECTION
 - 8.16.4- HOSE
 - 8.16.5- RUBBER BLADDER

- 8.17- CALIBRATION & STANDARD GASES

- 8.18- CONSUMABLE GOODS

COMPANY NAME

ORIGIN

8.1- CHROMATOGRAPHY

8.1.1- GAS CHROMATOGRAPH /MASS SPECTROSCOPE (GC , GC / MS)

AGILENT TECHNOLOGIES	UK
HP	USA / THE NETHERLANDS
M&I LABTECH	BELGIUM
PHILIPS	THE NETHERLANDS
SHIMADZU	JAPAN
SIEMENS	GERMANY
VARIAN CHROMPACK	USA / THE NETHERLANDS

8.1.2- HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC)

HP	USA / NETHERLANDS
PHILIPS	THE NETHERLANDS
VARIAN CHROMPACK	USA /THE NETHERLANDS

8.1.3- ION CHROMATOGRAPHY (IC)

METROHM	SWITZERLAND
WATERS	USA/W.EUROPE

8.2- SPECTROPHOTOMETER

8.2.1- FOURIER TRANSFORMER INFRARED (FTIR) , INFRA RED (IR)

BRUCKER	GERMANY
JASCO	JAPAN
PERKIN ELMER	USA / W.EUROPE
PHILIPS	THE NETHERLANDS
SHIMADZU	JAPAN
THERMOELECTRON	W.EUROPE
VARIAN CHROMPACK	USA / W.EUROPE

8.2.2- ULTRA VIOLET (UV / UV VISIBLE)

CARRY	USA / W.EUROPE
CECIL	UK
HACH	USA
PERKIN ELMER	USA / W.EUROPE
PHILIPS	THE NETHERLANDS
VARIAN CHROMPACK	USA / THE NETHERLANDS
WTW	USA/GERMANY

8.2.3- INDUCTIVELY COUPLED PLASMA / MASS (ICP, ICP / MS)

PERKIN ELMER	USA / W.EUROPE
PHILIPS	THE NETHERLANDS
VARIAN CHROMPACK	USA / W.EUROPE

COMPANY NAME

ORIGIN

8.2.4- EMISSION SPECTROSCOPE (ES)

PERKIN ELMER	USA / W.EUROPE
PHILIPS	THE NETHERLANDS
THERMOELECTRON	W.EUROPE
VARIAN CHROMPACK	USA / THE NETHERLANDS

8.2.5- ATOMIC ABSORPTION (AA)

PERKIN ELMER	USA / W.EUROPE
PHILIPS	NETHERLANDS
THERMOELECTRON	W.EUROPE
VARIAN CHROMPACK	USA / THE NETHERLANDS

8.2.6- X-RAY FLUORESCENCE (XRF) / X-RAY DIFFRACTION (XRD)

PANALYTICAL (PHILIPS)	UK / THE NETHERLANDS
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8.2.7- FLAME PHOTOMETER

PERKIN ELMER	USA/W.EUROPE
SHIMADZU	JAPAN

8.3- AIR ANALYZER

ENVIRONMENT S.A.	FRANCE
HORIBA	W.EUROPE
MCZ	GERMANY
TESTO	GERMANY

8.4- O2 ANALYZER (DISSOLVER)

HACH	USA / W.EUROPE
METROHAM	SWITZERLAND
METTLER	SWITZERLAND
TOA-DKK	JAPAN
WTW	GERMANY

8.5- O2 ANALYZER (GAS)

SERVOMEX	GERMANY
TELEDYNE	USA / W.EUROPE

8.6- WATER ANALYZER

METROHM	SWITZERLAND
METTLER	SWITZERLAND
MILLIPORE	USA/W.EUROPE
SARTORIUS	GERMANY
WTW	GERMANY

8.7- ION SELECTIVE

METROHM	SWITZERLAND
WATERS	USA / W.EUROPE
WTW	GERMANY

COMPANY NAME

ORIGIN

8.8- OIL ANALYZER

8.8.1- FLASH/ POUR/CLOUD POINT

HERZOG	GERMANY
PAC-ISL SA	FRANCE
PETROTEST	GERMANY

8.8.2- VISCOSITY

ANTON PAAR	AUSTRIA
HERZOG	GERMANY
KOEHLER	USA / W.EUROPE
LAUDA	AUSTRIA
PERKIN ELMER	USA / W.EUROPE

8.8.3- WATER IN OIL

METROHM	SWITZERLAND
METTLER	SWITZERLAND

8.8.4- LIQUID DENSITY METER

METTLER	SWITZERLAND
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8.9- ELEMENTAL (CHNOS) ANALYZER

WILL BE ADVISED LATER

8.10- POLYMER TEST EQUIPMENT

8.10.1- PHYSICAL

8.10.1.1- BRITTLENESS TEMPERATURE

CEAST	ITALY
ZWICK	GERMANY

8.10.1.2- BULK DENSITY

CEAST	ITALY
ZWICK	GERMANY

8.10.1.3- DENSITYMETER (WITH BALANCE)

METTLER	SWITZERLAND
SARTORIUS	GERMANY

8.10.1.4- DIFFERENTIAL SCANNING CALORIMETER (DSC)

METTLER	SWITZERLAND
PERKIN ELMER	USA / W.EUROPE
PHILIPS	SWITZERLAND

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
8.10.1.5-	DIFFERENTIAL THERMAL ANALYZER (DTA)	
	METTLER	SWITZERLAND
	PERKIN ELMER	USA / W.EUROPE
	PHILIPS	THE NETHERLANDS
8.10.1.6-	BALL DROP	
	CEAST	ITALY
8.10.1.7-	ELECTRICAL RESISTANCE METER	
	CEAST	ITALY
	ZWICK	GERMANY
8.10.1.8-	ENVIRONMENT STRESS CORROSION RESISTANCE(ESCR)	
	CEAST	ITALY
	RAY RAN	W.EUROPE
	ZWICK	GERMANY
8.10.1.9-	GLOSS METER	
	AMETEC / DAVEN PORT	W.EUROPE
	CEAST	ITALY
	GARDNER	JAPAN
	ZWICK	GERMANY
8.10.1.10-	DENSITY METER (GRADIENT)	
	GARD CO.	JAPAN
8.10.1.11-	HARDNESS TESTER	
	WILL BE ADVISED LATER	
8.10.1.12-	HAZE METER	
	GARDNER	JAPAN
8.10.1.13-	HDT / VICAT	
	WILL BE ADVISED LATER	
8.10.1.14-	IZOD IMPACT	
	AMETEC / DAVEN PORT	W.EUROPE
	CEAST	ITALY
	ZWICK	GERMANY
8.10.1.15-	MELT FLOW INDEX (MFI)	
	CEAST	ITALY
	ZWICK	GERMANY

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
8.10.1.16- MELTING POINT		
	CEAST	ITALY
	YAMATO	JAPAN
	ZWICK	GERMANY
8.10.1.17- MICROMETER		
	CEAST	ITALY
	MITUTOYO	JAPAN
	ZWICK	GERMANY
8.10.1.18- TENSILE & FLEXURAL		
	ADAMEL	FRANCE
	INSTRON	UK
	LLOYD	W.EUROPE
8.10.1.19- TGA		
	METTLER	SWITZERLAND
	PERKIN ELMER	USA / W.EUROPE
	PHILIPS	THE NETHERLANDS
8.10.1.20- VOLATILENESS METER (WITH BALANCE)		
	WILL BE ADVISED LATER	
8.10.1.21- VOLATILE METER		
	HERAEUS	GERMANY
	POR-LABO	FRANCE
	THERMOELECTRON	W.EUROPE
8.10.1.22- NOTCHING MACHINE		
	CEAST	ITALY
	ZWICK	GERMANY
8.10.1.23- DART DROP IMPACT		
	CEAST	ITALY
	DYNISCO	USA / W.EUROPE
	ZWICK	GERMANY
8.10.1.24- GEL PERMEATION CHROMATOGRAPH (GPC)		
	CEAST	ITALY
	HP	USA / THE NETHERLANDS
	PHILIPS	THE NETHERLANDS
	THERMOELECTRON	W.EUROPE
	VARIAN CHROMPACK	USA / W.EUROPE
	WATERS	USA / W.EUROPE

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
8.10.1.25- PIPE TESTER		
	CEAST	ITALY
	IPT	GERMANY
8.10.1.26- LIMITED OXYGENATION INDEX (LOI)		
	CEAST	ITALY
	DYNISCO	UK
8.10.1.27- TEAR TESTER		
	CEAST	ITALY
	DAVENPORT	
	ZWICK	GERMANY
8.10.1.28- YELLOW / WHITE INDEX TESTER		
	MINOLTA	JAPAN
8.10.1.29- PLAX TESTER		
	CEAST	ITALY
	INFRA SERV	GERMANY
	ZWICK	GERMANY
8.10.2- TECHNICAL		
8.10.2.1- BALL MILL MIXER		
	WEBER	GERMANY
8.10.2.2- BLOW FILM		
	DR.COLLIN	GERMANY
	REIFENHÄUSER	GERMANY
	WEBER	GERMANY
8.10.2.3- BLOW MOULDING		
	BEKUM	W.EUROPE
	DR.COLLIN	GERMANY
	REIFENHÄUSER	GERMANY
8.10.2.4- CAST FILM		
	DR.COLLIN	GERMANY
	REIFENHÄUSER	GERMANY
	WEBER	GERMANY
8.10.2.5- INJECTION		
	ARBURG	GERMANY
	BATTENFELD	GERMANY
	BILLION	UK
	DR.COLLIN	GERMANY
	HERBERG	GERMANY
	NEGRI BOSSI S.P.A.	ITALY

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
	REIFENHÄUSER	GERMANY
	WEBER	GERMANY
8.10.2.6- PIPE EXTRUDER		
	BATTENFELD	GERMANY
	BILLION	GERMANY
	DR.COLLIN	GERMANY
	HERBERG	GERMANY
	REIFENHÄUSER	GERMANY
	WEBER	GERMANY
8.10.2.7- PRESS		
	CEAST	ITALY
	DR.COLLIN	GERMANY
8.10.2.8- PELLETIZER		
	BATTENFELD	GERMANY
	DR.COLLIN	GERMANY
	HERBERG	GERMANY
	REIFENHÄUSER	GERMANY
	WEBER	GERMANY
8.11- <u>GENERAL ITEMS</u>		
8.11.1- ANALYTICAL BALANCE		
-	A&D	UK
-	ADAMLAB	UK
-	METTLER	SWITZERLAND
-	OHAUS	GERMANY
-	SARTORIUS	GERMANY
8.11.2- CENTRIFUGE		
	CENTRINO	UK
	HERAEUS	GERMANY
	SIGMA / ALDRICH	GERMANY
8.11.3- COLORIMETER (UV)		
	HACH	USA
	PERKIN ELMER	USA / W.EUROPE
	SHIMADZU	JAPAN
	VARIAN	USA / W.EUROPE
8.11.4- COLORIMETER (SAYBOLT)		
	LOVIBOND	GERMANY
8.11.5- COLORIMETER (COMPERATOR)		
	WILL BE ADVISED LATER	
8.11.6- CONTAMINATING METER		
	WILL BE ADVISED LATER	

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
8.11.7- BOD / COD / TOC METER		
	HACH	USA / W.EUROPE
	WTW	GERMANY
8.11.8- AIR / N2 / H2 GENERATOR		
	DOMNICK	UK
	PEAK SCIENTIFIC	UK
	SCHMIDLIN-DBS AG	GERMANY
8.11.9- DEMINERALIZED WATER (DM WATER MAKER)		
	TKA	GERMANY
	MILLIPORE	GERMANY
8.11.10- DENSITY METER		
	ANTON PAAR	SWITZERLAND
	METROHM	SWITZERLAND
	METTLER	SWITZERLAND
8.11.11- DEW POINT		
	SHAW	UK
8.11.12- DISTILLATION		
	HERZOG	GERMANY
	KOEHLER	USA / W.EUROPE
	NORMALAB	GERMANY
	PETROTEST	GERMANY
8.11.13- EXPLOSION PROOF REFRIGERATOR		
	FISHER SCIENTIFIC	GERMANY
	LABCOLD	GERMANY
	LABLINE	USA / W.EUROPE
8.11.14- FURNACE		
	HERAEUS	GERMANY
8.11.15- HOT PLATE / STRIPPER / MANTLE		
	COLE PARMER	USA / W.EUROPE
	HEIDOLPH	GERMANY
	IKA	GERMANY
	SCHCOTT	GERMANY
8.11.16- INDUCTION PERIOD		
	KOHLER	USA / W.EUROPE
8.11.17- KARL-FISCHER TITRATOR (COULOMETRY / VOLUMETRIC)		
	METROHM	SWITZERLAND
	METTLER	SWITZERLAND

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
8.11.18- OVEN / INCUBATOR		
	COLE PARMER	USA / W.EUROPE
	HERAEUS	GERMANY
	IKA	GERMANY
	MEMERT	GERMANY
	THERMOELECTRON	W.EUROPE
8.11.19- PARTICLE SIZE (LASERIC)		
	MALVERN	UK
	METROHM	SWITZERLAND
	RETSCH	GERMANY
8.11.20- PH METER		
	FISCHER	GERMANY
	HACH	GERMANY
	METROHM	SWITZERLAND
	METTLER	SWITZERLAND
	WTW	GERMANY
8.11.21- REID VAPOUR PRESSURE (RVP)		
	HERZOG	GERMANY
8.11.22- REFRACTO METER		
	COLE PARMER	USA / W.EUROPE
	METROHM	SWITZERLAND
	METTLER	SWITZERLAND
8.11.23- PARTICLE SIZE (SIEVE SHAKER)		
	ATS FAAR	ITALY
	HOSOKAWA	JAPAN
	RETSCH	GERMANY
8.11.24- STOP WATCH		
	DRÄGER	GERMANY
	MILLIPORE	USA / W.EUROPE
	PERKIN ELMER	USA / W.EUROPE
8.11.25- TECHNICAL BALANCE		
	A&D	UK
	METTLER	SWITZERLAND
	OHAUS	GERMANY
	SARTORIUS	GERMANY
8.11.26- TITRATOR		
	METTLER	SWITZERLAND
	METROHM	SWITZERLAND
8.11.27- TURBIDITY METER		
	HACH	GERMANY
	WTW	GERMANY

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
8.11.28- ULTRASONIC BATH		
	IKA	GERMANY
	SONOREX	GERMANY
8.11.29- VACUUM PUMP		
	STERLING	GERMANY
	BRAND GMBH	GERMANY
8.11.30- WATER BATH		
	HUBER	GERMANY
	JULABO	GERMANY
	LAUDA	GERMANY
	MEMERT	GERMANY
8.11.31- HVAC		
	WILL BE ADVISED LATER	
8.12- <u>SPECIAL SOFT / HARD WARE</u>		
8.12.1- LABORATORY INFORMATION MANAGEMENT SYSTEM		
	THERMOELECTRON	W.EUROPE
8.13- <u>LABORATORY GLASSWARE</u>		
	BRAND GMBH	GERMANY
	B.B.STERLLING	UK
	SCHOTT - DURAN	GERMANY
8.14- <u>LABORATORY CHEMICALS</u>		
	ACROSS	USA / W.EUROPE
	ALDRICH	USA / W.EUROPE
	FLUCKA	USA / W.EUROPE
	MERCK	GERMANY
	ROMIL	UK
	SIGMA	USA / W.EUROPE
8-15- <u>LABORATORY FURNITURE</u>		
8.15.1- ACID PROOF TILES		
	ARVIN TEC	IRAN
	AZAR PARS TAJHIZ	IRAN
	FARAYAD TEHRAN	IRAN
	FARPAJOOH	IRAN
	SHIMA	IRAN
	TEHRAN NOAVAR	IRAN
8.15.2- ACID PROOF MORTARS		
	WILL BE ADVISED LATER	
8-16- <u>SAMPLING EQUIPMENT</u>		
8.16.1- NEEDLE VALVE		
	PARKER	USA / W.EUROPE
	SUPELCO / SIGMA-ALDRICH	USA / W.EUROPE
	SWAGELOK	GERMANY

COMPANY NAME

ORIGIN

8.16.2- CYLINDER

PARKER	USA / W.EUROPE
SUPELCO / SIGMA-ALDRICH	USA / W.EUROPE
SWAGE-LOCK	GERMANY

8.16.3- QUICK CONNECTION

PARKER	USA / W.EUROPE
SUPELCO / SIGMA-ALDRICH	USA / W.EUROPE
SWAGELOK	GERMANY

8.16.4- HOSE

PARKER	USA / W.EUROPE
SUPELCO / SIGMA-ALDRICH	USA / W.EUROPE
SWAGELOK	GERMANY

8.16.5- RUBBER BLADDER

WILL BE ADVISED LATER

8.17- CALIBRATION & STANDARD GASES

AIR LIQUIDE	FRANCE
AIR PRODUCTS	USA / W.EUROPE
B.O.C.	UK
LINDE	GERMANY

8.18- CONSUMABLE GOODS

DRÄGER	GERMANY
JULABO	GERMANY
KERN	GERMANY
LABCOLD	USA / W.EUROPE
MILLIPORE	USA / W.EUROPE
SUPELCO / SIGMA-ALDRICH	USA / W.EUROPE

9 - WORKSHOP

9. WORK SHOP & MAINTENANCE EQUIPMENT

9.1- MECHANICAL EQUIPMENT

9.1.1- MACHINE SHOP

- 9.1.1.1- BENDING MACHINE
- 9.1.1.2- BEVELING MACHINE
- 9.1.1.3- MILLING MACHINE
- 9.1.1.4- LATHE MACHINE
- 9.1.1.5- DIE MACHNIE
- 9.1.1.6- DYNAMIC BALANCING MACHINE
- 9.1.1.7- DRILLING MACHNIE
- 9.1.1.8- GRINDER MACHNIE
- 9.1.1.9- CUTTING MACHNIE
- 9.1.1.10- ROLLING MACHINE
- 9.1.1.11- BORING MACHINE
- 9.1.1.12- SHAPPING MACHINE

9.1.2- VALVE SHOP

- 9.1.2.1- VLAVE TEST BENCH
- 9.1.2.2- LAPPING MACHINE
- 9.1.2.3- RING & GASKET CUTTER / PACKING CUTTER

9.1.3- WELDING SHOP

- 9.1.3.1- ELECTRODE OVEN
- 9.1.3.2- POLYETHYLENE WELDING EQUIPMENT
- 9.1.3.3- WELDING MACHNIE
- 9.1.3.4- STRESS RELIEF ELEMENTS
- 9.1.3.5- PLASMA CUTTING

9.1.4- PUMP SHOP

- 9.1.4.1- HYDROSTATIC TEST PUMP

9.1.5 AUXILIARY

- 9.1.5.1- CHAIN HOIST
- 9.1.5.2- GANTRY/MOBILE CRANE
- 9.1.5.3- JET CLEANER
- 9.1.5.4- AIR COMPRESSOR
- 9.1.5.5- CHAIN BLOCK
- 9.1.5.6- HOT TAP
- 9.1.5.7- HYDRAULIC PRESS
- 9.1.5.8- HOLIDAY TEST EQUIPMENT
- 9.1.5.9- ALIGNMENT TOOLS
- 9.1.5.9.1- DIAL GAUGE
- 9.1.5.9.2- LASER
- 9.1.5.10- PROTABLE FLANGE FACE
- 9.1.5.11- STROBOSCOPE

- 9.1.5.12- TUBE EXPANDER
- 9.1.5.13- VIBRATION METER & ANALYZER
- 9.1.5.14- COATING THICKNESS GAUGE METER
- 9.1.5.15- HYDRAULIC BEARING REMOVAL TOOL
- 9.1.5.16- FORMING MACHINE
- 9.1.5.17- GRINDING MACHINE
- 9.1.5.18- AXIAL/CYLINDRICAL GRINDING MACHINE
- 9.1.5.19- ELECTRICAL LIFT TRUCK

9.1.6- HIGH TEC.SPARE PARTS (CRITICAL MACHINERY)

- 9.1.6.1- BLADE & VANE
- 9.1.6.2- BEARING
- 9.1.6.3- ROTOR (SHAFT & DISK)
- 9.1.6.4- IMPELLER
- 9.1.6.5- MECHANICAL/LIQUID & DRY GAS SEAL TYPE (PARTS & COMPLETED)
- 9.1.6.6- NOZZLE & COMBUSTOR
- 9.1.6.7- SUCTION/DISCHARGE VALVE
- 9.1.6.8- CUTTER BLADE

9.2- INSTRUMENTATION EQUIPMENT

- 9.2.1- COUNTER TIMER
- 9.2.2- DEAD WEIGHT TESTER
- 9.2.3- ELECTRONIC BENCH TEST
- 9.2.4- FIELD BUS CALIBRATOR
- 9.2.5- FREQUENCY METER
- 9.2.6- HART COMMUNICATOR
- 9.2.7- IC TESTER
- 9.2.8- MEMORY PROGRAMMER/ERASER
- 9.2.9- OIL BATH/OVEN
- 9.2.10- OSCILLOSCOPE
- 9.2.11- PNEUMATIC TEST BENCH
- 9.2.12- PNEUMATIC HAND PUMP
- 9.2.13- PORTABLE 24 VDC POWER SUPPLY
- 9.2.14- PORTABLE CALIBRATOR WITH DIGITAL MANOMETER
- 9.2.15- PORTABLE DIGITAL MULTIMETER
- 9.2.16- DC CLAMP MILLI AMMETER

- 9.2.17- PORTABLE HAND HELD TACHOMETER
- 9.2.18- PORTABLE MANOMETER DIGITAL / ANALOGUE TYPE
- 9.2.19- PORTABLE PNEUMATIC CALIBRATOR
- 9.2.20- PORTABLE SIGNAL GENERATOR
- 9.2.21- PORTABLE SURFACE THERMOMETER
- 9.2.22- PORTABLE TEMPERATURE INDICATOR
- 9.2.23- PORTABLE THERMOCOUPLE / RTD SIMULATOR AND TESTER
- 9.2.24- PORTABLE UNIVERSAL METER
- 9.2.25 LCR METER
- 9.2.26- PORTABLE VACUUM SET
- 9.2.27- PORTABLE VIBRATION METER
- 9.2.28- PORTABLE VIBRATION CALIBRATOR
- 9.2.29- RESISTANCE DECADE BOX
- 9.2.30 CAPACITANCE BOX
- 9.2.31- STANDARD DC VOLTAGE / CURRENT SOURCE
- 9.2.32- STANDARD Hg COLUMN MANOMETER
- 9.2.33- STANDARD MERCURY THERMOMETER
- 9.2.34- STANDARD TEST GAUGE
- 9.2.35- STANDARD WATER COLUMN MANOMETER
- 9.2.36- TUBE BENDER / CUTTER
- 9.2.37- PORTABLE PH METER
- 9.2.38- PORTABLE CONDUCTIVITY METER
- 9.2.39- ABSOLUTE MANOMETER

9.3- ELECTRICAL EQUIPMENT

- 9.3.1- INSULATION RESISTANCE TESTER
- 9.3.2- HIPOT TESTER (AC/DC)
- 9.3.3- CLAMP- ON MULTIMETER
- 9.3.4- EARTH RESISTANCE TESTER
- 9.3.5- HI-POTENTIAL EQUIPMENT METER
- 9.3.6- HYDROLIC PRESS CABLE SHOE
- 9.3.7- INDUCTION BEARING HEATER
- 9.3.8- MCC TEST BENCH
- 9.3.9- PHASE SEQUENCE TESTER
- 9.3.10- PRIMARY/SECONDARY CURRENT INJECTION SET
- 9.3.11- TRANSFORMER OIL TESTER
- 9.3.12- WINDING MACHINE
- 9.3.13- WINDING TESTER
- 9.3.14- OIL TREATING PACKAGE
- 9.3.15- RELAY TEST SET
- 9.3.16- MOTOR TEST BENCH
- 9.3.17- LOW RESISTANCE METER
- 9.3.18- CABLE LOCATION FAULT SYSTEM (CABLE FAULT LOCATOR/SURGE GENERATOR/CABLE BURN TEST)
- 9.3.19- LASER TERMOMETER
- 9.3.20- LUX METER
- 9.3.21- PORTABLE CHARGER
- 9.3.22- RESISTIVE LOAD BANK

9.1- MECHANICAL EQUIPMENT

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
9.1.1- MACHINE SHOP		
9.1.1.1- BENDING MACHINE		
	GHAEM MASHIN	IRAN
	MASHIN SAZI POOYA MEHR	IRAN
	ENERPAC	USA/W.EUROPE
	RIGID	W.EUROPE/USA
	SAHINLER	TURKEY
9.1.1.2- BEVELING MACHINE		
	TOS - MET SRO	CZECH
9.1.1.3- MILLING MACHINE		
	MASHIN SAZI TABRIZ	IRAN
	BOEHRINGER	GERMANY
	CINCINNATI	USA / W.EUROPE
	DINACHI	JAPAN
	HITACHI VIA MECHANICS LTD.	JAPAN
	KENT	TAIWAN
	KNÜTH	GERMANY
	TOS - MET SRO	CZECH
9.1.1.4- LATHE MACHINE		
	MASHIN SAZI TABRIZ	IRAN
	ATAX	UK
	BINNS BERRY	UK
	BOEHRINGER	GERMANY
	DECKEL MAHO GILDEMEISTER (DMG)	GERMANY
	KNÜTH	GERMANY
	POREBA	TAIWAN
	TOS - MET SRO	CZECH
9.1.1.5- DIE MACHNIE		
	RIGID	USA / W.EUROPE
9.1.1.6- DYNAMIC BALANCING MACHINE		
	CEMB SNC	ITALY
	IRD	USA / W.EUROPE
	SCHENCK	GERMANY
9.1.1.7- DRILLING MACHNIE		
	MASHIN SAZI TABRIZ	IRAN
	ATLAS COPCO	SWITZERLAND
	BOSCH	GERMANY
	KNÜTH	GERMANY
	LAP MASTEK	UK / W.EUROPE
	MOSTANA	RUSSIA

COMPANY NAME

ORIGIN

9.1.1.8- GRINDER MACHINIE

MASHIN SAZI TABRIZ	IRAN
KENT	TAIWAN
SAHINLER	TURKEY
TOS - MET SRO	CZECH

9.1.1.9- CUTTING MACHINIE

FOOLAD SA	IRAN
GHAEM MASHIN	IRAN
RAYCO TECHNIC	IRAN
SAHINLER	TURKEY
TOS - MET SRO	CZECH

9.1.1.10- ROLLING MACHINE

MASHIN SAZI TABRIZ	IRAN
SAHINLER	TURKEY

9.1.1.11- BORING MACHINE

WILL BE ADVISED LATER

9.1.1.12- SHAPPING MACHINE

WILL BE ADVISED LATER

9.1.2- VALVE SHOP

9.1.2.1- VLAVE TEST BENCH

AZAR SANGAN	IRAN
MEHAND HYDRAULICS ENG.	IRAN
VENTIL	THE NETHERLANDS

9.1.2.2- LAPPING MACHINE

NAHADIN SAZAN PARS	IRAN
NAHORAN	IRAN
EFECO	GERMANY
FENLI	THE NETHERLANDS
KEMET	UK
LAPMASTER INTERNATIONAL (UK) LTD	USA / W.EUROPE

9.1.2.3- RING & GASKET CUTTER / PACKING CUTTER

ALLENA.K-Co. Inc.	USA
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9.1.3- WELDING SHOP

9.1.3.1- ELECTRODE OVEN

ABTIN TEB	IRAN
OXITON	IRAN

9.1.3.2- POLYETHYLENE WELDING EQUIPMENT

WILL BE ADVISED LATER

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
9.1.3.3- WELDING MACHINIE		
	GAAM ELECTRIC	IRAN
	LINCOLN ELECTRIC	UK
	MILLER	USA
9.1.3.4- STRESS RELIEF ELEMENTS		
	WELDOTHERM	GERMANY
9.1.3.5- PLASMA CUTTING		
	WILL BE ADVISED LATER	
9.1.4- PUMP SHOP		
9.1.4.1- HYDROSTATIC TEST PUMP		
	RIGID	USA / W.EUROPE
	HYDRO FORCE	UK
9.1.5- AUXILIARY		
9.1.5.1- CHAIN HOIST		
	TELFER	IRAN
	VITAL	JAPAN
9.1.5.2- GANTRY/MOBILE CRANE		
	LAGVAR	IRAN
	MASHIN SAZI ARAK	IRAN
	SABAHANG VAZIN	IRAN
	SADAD MASHIN	IRAN
	POWER TEAM	USA
	TADANA	THE NETHERLANDS
9.1.5.3- JET CLEANER		
	EUREKA	JAPAN
	HAWA	GERMANY
	INGRID KRANZLE	GERMANY
	WOMA	W.EUROPE
9.1.5.4- AIR COMPRESSOR		
	ATLAS COPCO.	IRAN
	BARON	IRAN
	COMPRESSOR SAZI TABRIZ	IRAN
	HAVAYAR	IRAN
9.1.5.5- CHAIN BLOCK		
	ABZAR MAHDI	IRAN
9.1.5.6- HOT TAP		
	MIRRAGE	UK
	NATIONAL PIPING SERVICE IPSCO	USA

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
9.1.5.7- HYDRAULIC PRESS		
	FOOLAD SA	IRAN
	MASHIN SAZI IRAN	IRAN
	MEHAND HYDRAULICS ENG.	IRAN
9.1.5.8- HOLIDAY TEST EQUIPMENT		
	WILL BE ADVISED LATER	
9.1.5.9- ALIGNMENT TOOLS		
9.1.5.9.1- DIAL GAUGE		
	EASYVIBER	SWEDEN
9.1.5.9.2- LASER		
	EASYVIBER	SWEDEN
9.1.5.10- PORTABLE FLANGE FACE		
	MIRAGE	UK
9.1.5.11- STROBOSCOPE		
	WILL BE ADVISED LATER	
9.1.5.12- TUBE EXPANDER		
	AIR TOOL	USA
	WICKSTEED	UK
9.1.5.13- VIBRATION METER & ANALYZER		
	IRD	UK
	SCHENCK	W.EUROPE
9.1.5.14- COATING THICKNESS GAUGE METER		
	ELCOMETER	SWEDEN
	FILMETRICS	USA / W.EUROPE
	LUMETRICES	USA / W.EUROPE
	MICRO EPSILON	USA / W.EUROPE
9.1.5.15- HYDRAULIC BEARING REMOVAL TOOL		
	HI FORCE	UK
	SKF	W.EUROPE
	ENERPAC	USA/W.EUROPE
9.1.5.16- FORMING MACHINE		
	MASHIN SAZI TABRIZ	IRAN
	TOS - MET SRO	CZECH
9.1.5.17- GRINDING MACHINE		
	BOSCH	GERMANY
	KUNG	KOREA
	METABO	KOREA

<u>COMPANY NAME</u>	<u>ORIGIN</u>
9.1.5.18- AXIAL/CYLINDRICAL GRINDING MACHINE	
KENT	TAIWAN
KNÜTH	GERMANY
TOS - MET SRO	CZECH

9.1.5.19- ELECTRICAL LIFT TRUCK
WILL BE ADVISED LATER

9.1.6 - HIGH TEC.SPARE PARTS (CRITICAL MACHINERY)

9.1.6.1- BLADE & VANE
WILL BE ADVISED LATER

9.1.6.2- BEARING	
BOLBERING SAZI TABRIZ	IRAN
FAG	W.EUROPE
NACHI	JAPAN
SKF	W.EUROPE

9.1.6.3- ROTOR (SHAFT & DISK)
WILL BE ADVISED LATER

9.1.6.4- IMPELLER
WILL BE ADVISED LATER

9.1.6.5- MECHANICAL / LIQUID & DRY GAS SEAL TYPE (PARTS & COMPLETED)
REFER TO ITEM NO. 1.1.5 (MECHANICAL SEAL) OF MECHANICAL VENDOR LIST-REV.4

9.1.6.6- NOZZLE & COMBUSTOR
WILL BE ADVISED LATER

9.1.6.7- SUCTION/DISCHARGE VALVE
WILL BE ADVISED LATER

9.1.6.8- CUTTER BLADE
WILL BE ADVISED LATER

COMPANY NAME

ORIGIN

9.2- INSTRUMENTATION EQUIPMENT

9.2.1- COUNTER TIMER

ESCORT	W.EUROPE
LEADER	JAPAN
OMRON	JAPAN

9.2.2- DEAD WEIGHT TESTER

BUDENBERGE	GERMANY
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9.2.3- ELECTRONIC BENCH TEST

PARS HASSAS	IRAN
METRIX	USA/WEST EUROPE

9.2.4- FIELDBUS CALIBRATOR

EMERSON	UK
YOKOGAWA	JAPAN / W.EUROPE
HONEYWELL	USA

9.2.5- FREQUENCY METER

BK	USA/W.EUROPE
ESCORT	W.EUROPE
FLUKE	USA / W.EUROPE
LEADER	JAPAN

9.2.6- HART COMMUNICATOR

EMERSON	UK
FLUKE	USA / W.EUROPE
HONEYWELL	USA / W.EUROPE
YOKOGAWA	JAPAN / W.EUROPE

9.2.7- IC TESTER

ABI	UK
LEADER	JAPAN
LEAP	W.EUROPE

9.2.8- MEMORY PROGRAMMER / ERASER

AFZAR AZMA (ERASER)	IRAN
SUPER PRO.	W.EUROPE

9.2.9- OIL BATH/OVEN

DRUCK	USA/W.EUROPE
INDOMART	CANADA
ISOTECH PEGASUS	UK
TECHNE	W.EUROPE

COMPANY NAME

ORIGIN

9.2.10- OSCILLOSCOPE

SA IRAN	IRAN
FLUKE	USA/WEST EUROPE
HIOKI	JAPAN
HITACHI	JAPAN
LEADER	JAPAN
METRIX	USA/W.EUROPE
TEXTRONIX	UK / W.EUROPE

9.2.11- PNEUMATIC TEST BENCH

PARS HASSAS	IRAN
BUDENBURG	UK

9.2.12- PNEUMATIC HAND PUMP

AMETEK	UK
DRUCK	USA/W.EUROPE
INDOMART	CANADA

9.2.13- PORTABLE 24 VDC POWER SUPPLY

AFZAR AZMA	IRAN
FLUKE	USA / W.EUROPE
INDOMART	CANADA
YOKOGAWA	JAPAN

9.2.14- PORTABLE CALIBRATOR WITH DIGITAL MANOMETER

BUDENBURG	UK
YOKOGAWA	JAPAN

9.2.15- PORTABLE DIGITAL MULTIMETER

FLUKE	USA / W.EUROPE
HIOKI	JAPAN
METRIX	USA/WEST EUROPE

9.2.16 DC CLAMP MILLI AMMETER

FLUKE	USA / W.EUROPE
HIOKI	JAPAN
METRIX	USA/WEST EUROPE

9.2.17- PORTABLE HAND HELD TACHOMETER

WILL BE ADVISED LATER

9.2.18- PORTABLE MANOMETER DIGITAL / ANALOGUE TYPE

AMETEK	UK
BUDENBURG	UK
WIKA	SWEDEN

9.2.19- PORTABLE PNEUMATIC CALIBRATOR

AMETEK	UK
BUDENBURG	UK
DRUCK	USA/W.EUROPE

COMPANY NAME

ORIGIN

9.2.20- PORTABLE SIGNAL GENERATOR

SA IRAN	IRAN
FLUKE	USA / W.EUROPE
INDOMART	CANADA
PROMAC	W.EUROPE
TTI	UK

9.2.21- PORTABLE SURFACE THERMOMETER

FLUKE	USA / W.EUROPE
HIOKI	JAPAN

9.2.22- PORTABLE TEMPERATURE INDICATOR

DRUCK	USA/W.EUROPE
FLUKE	USA / W.EUROPE
HIOKI	JAPAN
INDOMART	CANADA
OMRON	JAPAN
PROMAC	W.EUROPE

9.2.23- PORTABLE THERMOCOUPLE / RTD SIMULATOR AND TESTER

AMETEK	UK
DRUCK	USA/W.EUROPE
FLUKE	USA / W.EUROPE
INDOMART	CANADA
ISOTECH	UK
PROMAC	W.EUROPE

9.2.24- PORTABLE UNIVERSAL METER

SA IRAN	IRAN
DRUCK	USA/W.EUROPE
FLUKE	USA/WEST EUROPE
HIOKI	JAPAN

9.2.25 LCR METER

FLUKE	USA / W.EUROPE
HIOKI	JAPAN
LEADER	JAPAN

9.2.26- PORTABLE VACUUM SET

BUDENBURG	UK
DRUCK	USA/W.EUROPE

9.2.27- PORTABLE VIBRATION METER

BENTLY NAVADA	USA / W.EUROPE
IRD	UK

9.2.28- PORTABLE VIBRATION CALIBRATOR

BENTLY NAVADA	USA / W.EUROPE
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	<u>COMPANY NAME</u>	<u>ORIGIN</u>
9.2.29-	<u>RESISTANCE DECADE BOX</u>	
	YOKOGAWA	JAPAN
9.2.30	<u>CAPACITANCE BOX</u>	
	PARS ELECTRONIC	IRAN
9.2.31-	<u>STANDARD DC VOLTAGE / CURRENT SOURCE</u>	
	PARS HASSAS	IRAN
	INDOMART	CANADA
	YOKOGAWA	JAPAN
9.2.32-	<u>STANDARD Hg COLUMN MANOMETER</u>	
	LAMBRECHT	GERMANY
	PRINCO	GERMANY
9.2.33-	<u>STANDARD MERCURY THERMOMETER</u>	
	FLUKE	USA/W.EUROPE
9.2.34-	<u>STANDARD TEST GAUGE</u>	
	ASHCROFT	USA/W.EUROPE
	BUDENBURG	UK
	HEISE	USA/W.EUROPE
9.2.35-	<u>STANDARD WATER COLUMN MANOMETER</u>	
	FISHER & PAYKEL	USA/W.EUROPE
9.2.36-	<u>TUBE BENDER / CUTTER</u>	
	RIDJID	USA/W.EUROPE
9.2.37-	<u>PORTABLE PH METER</u>	
	EMERSON	W.EUROPE
	METTLER	USA/W.EUROPE
	YOKOGAWA	JAPAN
9.2.38-	<u>PORTABLE CONDUCTIVITY METER</u>	
	EMERSON	W.EUROPE
	METTLER	USA/W.EUROPE
	YOKOGAWA	JAPAN
9.2.39-	<u>ABSOLUTE MANOMETER</u>	
	ASHCROFT	USA/W.EUROPE
	WIKA	SWEDEN

COMPANY NAME

ORIGIN

9.3- ELECTRICAL EQUIPMENT

9.3.1- INSULATION RESISTANCE TESTER

AVO/MEGGER	UK
CHAUVIN ARNOUX	FRANCE
FLUKE	USA/WEST EUROPE
HIOKI	JAPAN
KYORITSU	JAPAN

9.3.2- HI-POT TESTER (AC/DC)

JAHAD DANESHGAHI ELM VA SANAT	IRAN
AVO/MEGGER	UK
SEBAKMT	GERMANY
MUSASHI	JAPAN

9.3.3- CLAMP- ON MULTIMETER

AVO/MEGGER	UK
CHAUVIN ARNOUX	FRANCE
FLUKE	USA/WEST EUROPE
HIOKI	JAPAN
KYORITSU	JAPAN

9.3.4- EARTH RESISTANCE TESTER

AVO/MEGGER	UK
CHAUVIN ARNOUX	FRANCE
FLUKE	USA/WEST EUROPE
HIOKI	JAPAN
KYORITSU	JAPAN

9.3.5- HI-POTENTIAL EQUIPMENT METER

AVO/MEGGER	UK
DETEX	USA/WEST EUROPE

9.3.6- HYDROLIC PRESS CABLE SHOE

BURNDY	USA/WEST EUROPE
ENERPACK	USA/WEST EUROPE
HIGHFORCE	UK
KARL PFISTERER	GERMANY
NISHIDA	JAPAN

9.3.7- INDUCTION BEARING HEATER

FAG	GERMANY
SKF	GERMANY
SN-THERM220	GERMANY
SNR	FRANCE
TM INDUCTION HEATING	THE NETHERLANDS

9.3.8- MCC TEST BENCH

TO BE SUPPLIED BY MCC MANUFACTURER

	<u>COMPANY NAME</u>	<u>ORIGIN</u>
9.3.9-	<u>PHASE SEQUENCE TESTER</u>	
	AVO/MEGGER	UK
	CHAUVIN ARNOUX	FRANCE
	FLUKE	USA/WEST EUROPE
	HIOKI	JAPAN
	KYORITSU	JAPAN
9.3.10-	<u>PRIMARY/SECONDARY CURRENT INJECTION SET</u>	
	JAHAD DANESHGAHI ELM VA SANAT	IRAN
	AVO/MEGGER	UK
	BAUR	AUSTRIA
	EURO SMC S.A.	SPAIN
	FOSTER	UK
	HIPOTRONICS	USA/WEST EUROPE
	SIEMENS	GERMANY
9.3.11-	<u>TRANSFORMER OIL TESTER</u>	
	AVO/MEGGER	UK
	BAUR	AUSTRIA
	MUSASHI	JAPAN
9.3.12-	<u>WINDING MACHINE</u>	
	ELECTRICAL POWER INDUSTRIES LABORATORIES (EPIL)	IRAN
	AVO/MEGGER	UK
	WHITELEGG MACHINES	UK
9.3.13-	<u>WINDING TESTER</u>	
	AVO/MEGGER	UK
9.3.14-	<u>OIL TREATING PACKAGE</u>	
	AAN	GERMANY
	HERING	GERMANY
	VOKES	UK
9.3.15-	<u>RELAY TEST SET</u>	
	JAHAD DANESHGAHI ELM VA SANAT	IRAN
	AVO/MEGGER	UK
	BAUR	AUSTRIA
	CEE	FRANCE
	EUROSMC S.A.	SPAIN
	FOSTER	UK
	SIEMENS	GERMANY
9.3.16-	<u>MOTOR TEST BENCH</u>	
	ABB GROUP	GERMANY
	WHITELEGG MACHINES	UK
9.3.17-	<u>LOW RESISTANCE METER</u>	
	AVO/MEGGER	UK

COMPANY NAME

ORIGIN

9.3.18- CABLE LOCATION FAULT SYSTEM (cable fault locator/surge generator/cable burn test)

AVO/MEGGER	UK
BICOTEST	UK
SEBAKMT	GERMANY

9.3.19- LASER TERMOMETER

FLUKE	USA/WEST EUROPE
RAYTEK	GERMANY
TES	TAIWAN

9.3.20- LUX METER

AVO / MEGGER	UK
CHAUVIN ARNOUX	FRANCE
FLUKE	USA/ WEST EUROPE

9.3.21- PORTABLE CHARGER

BORNA ELCTRONIC	IRAN
FARATEL	IRAN
JAHAD DANESHGAH ELM VA SANAT	IRAN
ALCAD	SWEDEN
GUTOR ELECTRONIC	FRANCE
SAFT POWER SYSTEM	FRANCE
SCHNEIDER GROUP	FRANCE
SIEMENS	GERMANY
SOCOMEK	FRANCE
TOSHIBA CORPORATION	JAPAN

9.3.22- RESISTIVE LOAD BANK

BORNA ELECTRONIC	IRAN
JAHAD DANESHGAH ELM VA SANAT	IRAN

SIDE LIST (REV. 11)

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1.3.10- SPRING SUPPORT AND HANGER

1.4.1.2- BOILER

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1.5-GENERAL ITEMS

1.5.1- INSULATION

1.1- ROTARY EQUIPMENT

COMPANY NAME

ORIGIN

1.1.1- PUMP

1.1.1.1- CENTRIFUGAL WATER PUMP

CW-HYDRO	S.KOREA
HIDROTECAR	SPAIN

1.1.2.2- RECIPROCATING COMPRESSOR

KWANGCHIN/HAVAYAR	S.KOREA/IRAN
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1.2- FIXED EQUIPMENT

1.2.1- DRUM & COLUMN

DAEKYUNG TECHNOS CO. LTD. (DKT)	S.KOREA
DBI CORP.	S.KOREA
JIANGNAN BOILERS & PRESSURE VESSELS (ZHANGJIAGANG) CO.	CHINA
SEOUL MACHINERY	S.KOREA
ZHENJIANG JINMEN	CHINA

1.2.2- H.P. STEAM DRUM

DAEKYUNG TECHNOS CO. LTD. (DKT)	S.KOREA
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1.2.4- SPHERICAL TANK

WIN-TECO	S.KOREA
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1.2.5- CRYOGENIC TANK

WIN-TECO	S.KOREA
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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

1.2.7.2- H.T. SHELL & TUBE HEAT EXCHANGER

SEOUL MACHINERY	S.KOREA
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1.2.7.3- PLATE HEAT EXCHANGER

LHE	S.KOREA
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1.2.16- SEPARATOR & FILTER SYSTEM

SEOUL MACHINERY	S.KOREA
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1.2.17- CENTRICAST TUBE & OUTLET MANIFOLD

ENGEMASA	BRAZIL
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1.2.21- DEAERATOR

DBI CORP.	S.KOREA
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COMPANY NAME

ORIGIN

1.3- PIPING

1.3.1- PIPE

DONG YANG STEEL PIPE	S.KOREA
PANGANG GROUP CHENGDU IRON F STEEL CO. LTD.	CHINA
ZAFFERTEC	SPAIN

1.3.2- FITTING

JIANGYIN TIANNING METAL PIPE FITTING (TNF)	CHINA
ZAFFERTEC	SPAIN

1.3.3- FLANGE

CHW FORGE	INDIA
JIANGYIN TIANNING METAL PIPE FITTING (TNF)	CHINA
ST&H CORPORATION	S.KOREA
ZAFFERTEC	SPAIN

1.3.9- VALVE

BEIJING VALVE GENERAL FACTORY GROUP CO.	CHINA
DELVAL FLOW CONTROLS	INDIA
SHK VALVE	CHINA
SWI VALVE CO.	S.KOREA
ZAFFERTEC	SPAIN
ZHEJIANG WUZHOU VALVE	CHINA

1.4.1.2- BOILER (WATER/FIRE TUBE)

1.4.1.2.1- WATER TUBE BOILER

DBI CORP.	S.KOREA
JIANGNAN BOILERS & PRESSURE VESSELS (ZHANGJIAGANG) CO.	CHINA
ZHENJIANG JINMEN	CHINA

1.5- GENERAL ITEMS

1.5.1- INSULATION

FINETEC CORP.	S.KOREA
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2. ELECTRICAL

2.ELECTRICAL

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2.3.2 NICKEL CADMIUM BATTERY

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COMPANY NAME

ORIGIN

2.3- BATTERY

2.3.2 NICKEL CADMIUM BATTERY

CHANGHONG CHINA

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

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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

SIDE LIST

3.INSTRUMENTATION

3.INSTRUMENTATION

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3.4.5- *ULTRASONIC TYPE LEVEL TRANSMITTER*

3.4.7- *MAGNETIC LEVEL GAUGE*

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

3.4.46- *MASS FLOWMETER (THERMAL TYPE)*

3.4.55- *ORIFICE PLATE*

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SIDE LIST

COMPANY NAME

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SUPCON

CHINA

3.4.5- ULTRASONIC TYPE LEVEL TRANSMITTER

HITROL

SOUTH KOREA

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HITROL

SOUTH KOREA

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HITROL

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

SIDE LIST

4 - TELECOMMUNICATION

(WILL BE ADVISED LATER)

SIDE LIST

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SIDE LIST

5. HSEQ EQUIPMENT

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(WILL BE ADVISED LATER)

SIDE LIST

7 - CAT., CHEM. & OIL

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 - LAB. EQUIPMENT

SIDE LIST

8. LABORATORY EQUIPMENT

8 - LABORATORY

COMPANY NAME

ORIGIN

8.14- LABORATORY CHEMICALS

PANREAC

SPAIN

SIDE LIST

9 - WORKSHOP

(WILL BE ADVISED LATER)

SIDE LIST

