

## PIPING & INSTRUMENT DIAGRAM IIT HYDERABAD 650 KLD STP-1





							TOLERANCES	UNLESS NOTED
							DECIMALS	ANGLES
							.X	
В	REVISED PER CLIENT COMMENTS		KJ	KR	SK	26 Jul 18	.XX	FRAC
Α	INITIAL RELEASE		KJ	KR	SK	24 Jul 18		
REV	DESCRIPTION	ECO	DWN	APPR	APPR	DATE		$\rightarrow$
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IIT HYDERABAD 650 KLD STP-1

CUSTOMER INFORMATION

PIPING & INSTRUMENT DIAGRAM

**COVER SHEET** 

DRAWING NUMBER

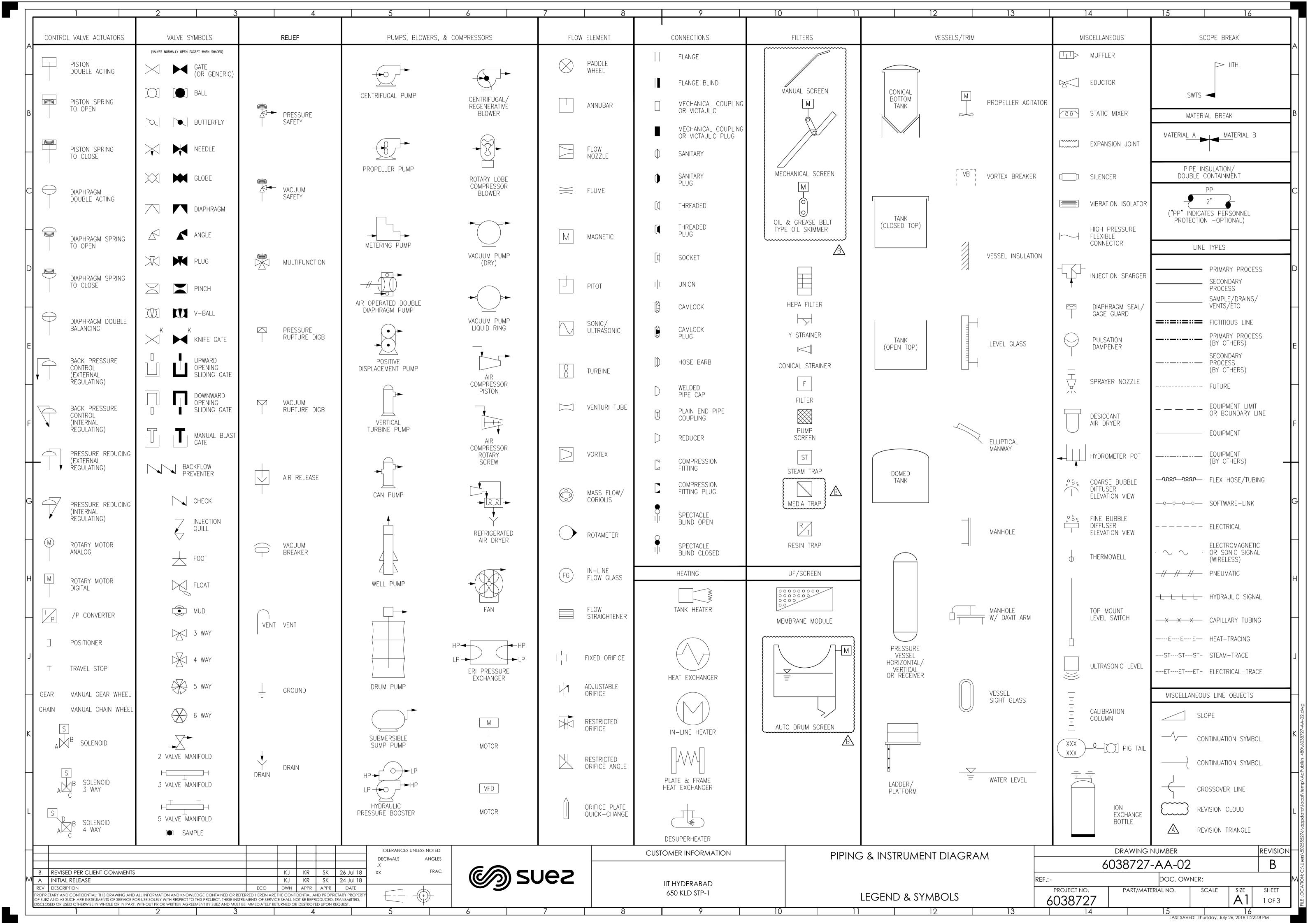
6038727-AA-01

REF.:
PROJECT NO.

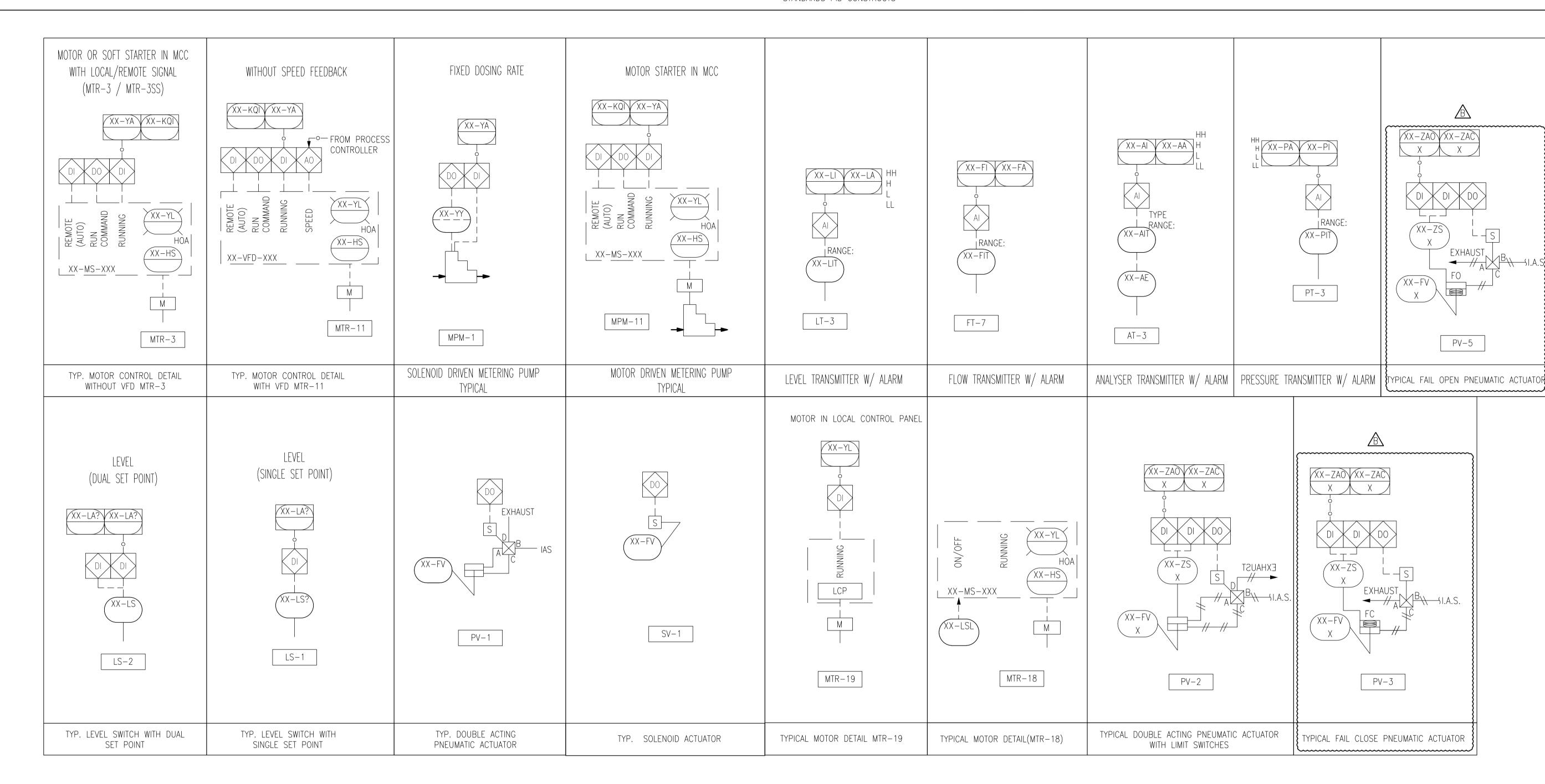
PART/MATERIAL NO.

SCALE SIZE SHEET

4038727



	1	2 3 4	5 6	5 7 8	9 10	11	12 13 14	15 16
		INSTE	RUMENT FUNCTIONS		•	INSTRUMENT SYMBOLS	EQUIPMENT / INSTRUMENT TAGGING SCHEME	EQUIPMENT ABBREVIATIONS
	SUCCEEDING LETTER	A C E G	I L Q R	S T Y V,Z		PANEL MOUNT	11-XXX-222A-3	AB ABSORBER AC AIR COMPRESSOR ACF ACTIVATED CARBON FILTER
						INSTRUMENT	IDENTIFIER (IF NECESSARY)  MULTIPLE INSTRUMENT  IDENTIFIER (IF NECESSARY)	AER AERATOR ARV AIR RELEASE VALVE B BLOWER
В					SPECIAL IDENTIFICATION	FIELD MOUNT OR PRIMARY INSTRUMENT	EQUIPMENT NUMBER/ INSTRUMENT LOOP NUMBER EQUIPMENT ABBREVIATION/	BF BAG FILTER C CENTRIFUGE, CYCLONE CD CONDENSER B
		W LARM COLLER Y ELEME		ER MITTER (PILOT), 10N,	IDEINII IO/MIOIN	BEHIND PANEL	INSTRUMENT FUNCTION  PROCESS AREA	CDM CATALYTIC DESTRUCT MODULE  CF CARTRIDGE FILTER  CH CHILLER
	MEASURED OR	IGH ALAR RM  Y ALARM  FAULT AL  ONTROLLE  G CONTR  (PRIMARY	H SWITC	CH SWITCH SWITCH VALVE DMPUTAT SRANS VALVE NTROL E		INSTRUMENT	LINE IDENTIFIER  LINE CLASS SPECIFICATION	CHL CHLORINATOR  CIP CLEAN—IN—PLACE
С	INITIATING VARIABLE	GH ALA GH ALA GH ALA W A	INDICATOR PILOT LIG TOTALIZER SWITCH HIGH-HIG	IGH SWII  DW SWIT  DW-LOW  JDICATING  GLAY, CC  ONVERTE  ONTROL  ALVE		PILOT LIGHT	-XXPPPA-SNN	CL CLARIFIER  CONV CONVEYOR  CORS CATALYTIC OXYGEN REMOVAL SYSTEM
				HI LO LO SC CC		PLC FUNCTION	SCHEDULE (OPTIONAL)  SERVICE DIFFERNTIATOR (OPTIONAL)	CP CONTROL PANEL CR CRYSTALIZER
$\mathbb{H}$						WITH DISPLAY	PR CODE (OPTIONAL)  MATERIAL CODE  PIPE SIZE	CS CHEMICAL SYSTEM CT COOLING TOWER, CARBON TOWER CV CHECK VALVE
	A ANALYSIS	AA AAHH AAH AAL AALL AAT AC AIC AE	AI AL AR AS ASHH A	ASH ASL ASLL AT AIT AY ACV AV AZ	SYMBOL DESCRIPTION	PLC FUNCTION, BLIND	MATERIAL CODE MATERIAL	DC DISTRIBUTION CHAMBER DO DISSOLVED OXYGEN
D_	B BURNER, COMBUSTION	A PAITT AND ALL AND AC AC AL	AI AL AI AS ASIIII A	ASIT ASE ASEE AT ATT AT ACV AV AZ		BLIND	CC CONCRETE	DMF DUAL MEDIA FILTER DR AIR DRIER E EDUCTOR
	C USER'S CHOICE					PLC INPUT/OUTPUT	AUST AUSTENITIC STAINLESS STEEL AY ALLOY 20	EAF ENTRAPPED AIR FLOATATION ED ELECTRODIALYSIS EDI ELECTRODEIONIZATION —
	D USER'S CHOICE					DI _ DISCRETE INPUT	CI CAST IRON CS CARBON STEEL	EDR ELECTRODIALYSIS REVERSAL EV EVAPORATOR
E	E VOLTAGE	EA EAHH EAH EAL EALL EAT EC EIC EE	EI EL ER ES ESHH E	ESH ESL ESLL ET EIT EY EZ		DI _ DISCRETE INPUT DO _ DISCRETE OUTPUT AI _ ANALOG INPUT AO _ ANALOG OUTPUT	CSRL CARBON STEEL RUBBER LINED  GI GALVANISED IRON, CLASS B (MEDIUM)  PVDF LINED	FC FAIL CLOSE
	F FLOW	FA FAHH FAH FAL FALL FAT FC FIC FE FO	G FI FL FQI FR FS FSHH F	FSH FSL FSLL FT FIT FY FCV FV	FO ORIFICE PLATE		DUPL DUPLEX STAINLESS STEEL ASTELLOY C	FDA FORCED DRAFT AERATOR, DEGASIFIER FO FAIL OPEN
	FF FLOW RATIO	FFAFFAHH FFAH FFAL FFALL FFC FFIC	FFI FFR FFS FFSHH F	FFSH FFSL FFSLL FFY FFCV		FUNCTIONS	PL POLYPROPYLENE LINED  SA 304, 304L STAINLESS STEEL  SB AL-6XN	FL FAIL LAST FP FILTER PRESS GF GRAVITY FILTER
	G USER'S CHOICE					UNDEFINED INTERLOCK LOGIC	SC 254-SMO SD 2205	H HEATER  HF HEPA FILTER  HMI HUMAN-MACHINE INTERFACE
F   -	H HAND	HA HC HIC	HL HS	HCV HV	HMS PUSHBUTTON SWITCH		SE 2507 SF 904L SG ZERON 100	HOA HAND-OFF-AUTO  HPB HYDRAULIC PRESSURE BOOSTER
	CURRENT (ELECTRICAL)	IA IAHH IAH IAL IAL IAT IC IIC IE		ISH ISL ISLL IT IIT IY IZ		<u>SUMMING</u>	SS 316, 316L STAINLESS STEEL SUAU SUPER AUSTENITIC STAINLESS STEEL	HV HAND OPERATED VALVE HX HEAT EXCHANGER IAS INSTRUMENT AIR SUPPLY
	J POWER  K TIME SCHEDULE	JA JSHH JAH JAL JALL JAT JC JIC JE	JI JL JQI JR JS JSHH .	JSH JSL JSLL JT LIT JY JZ		CONTINUATION ARROWS	TL PTFE LINED PLASTIC CP CPVC	IQ INJECTION QUILL, INJECTION CHECKVALVE IX SOFTENER
G	Q TIME TOTAL	KQAKQAHH KQAH KQAL KQALL	KQI KQL KQR KQS KQSHH K	KQSH KQSL KQSLL		SERVICE A SHEET X	FR FIBER REINFORCED PLASTIC PE POLYETHYLENE	LS LIME SOFTENER  M MOTOR  MBR MEMBRANE BIOREACTOR
	L LEVEL	LA LAHH LAH LAL LALL LAT LC LIC LE LO		LSH LSL LSLL LT LIT LY LCV LV		FLOW: PRESSURE: TEMP:	PP POLYPROPYLENE PV PVC PD PVDF	MCC MOTOR CONTROL CENTER MD MEMBRANE DEGASIFIER
H	M MOTOR CONTROL		MS			FLOW-SINGLE DIRECTION	PT PTFE	MF MICROFILTRATION  ML MUFFLER, SILENCER  MMF MULTIMEDIA FILTER
	N USER'S CHOICE					SERVICE A SHEET X	PR CODE CLASS  METALLIC	MX MIXER  NF NANOFILTRATION  OC OXYGEN CONCENTRATOR
	O USER'S CHOICE					FLOW: PRESSURE: TEMP:	125 ANSI CLASS 125 150 ANSI CLASS 150	ORP OXYGEN-REDUCTION POTENTIAL OZ OZONATOR
	P PRESSURE OR VACUUM	PA PAHH PAH PAL PALL PAT PC PIC	PI PL PR PS PSHH F	PSH PSL PSLL PT PIT PIT PY PV	PSV PRESSURE SAFETY VALVE	FLOW-BOTH DIRECTIONS	300 ANSI CLASS 300 400 ANSI CLASS 400 600 ANSI CLASS 600	OZG OZONE GENERATOR P PUMP PD PULSATION DAMPENER
	PD PRESSURE DIFFERENTIAL	PDARDAHH PDAH PDAL PDALL PDAT PDC PDIC		PDSH PDSL PDSLL PDT PDIT PDY PDCV		A	900 ANSI CLASS 900 PLASTIC	PLC PROGRAMMABLE LOGIC CONTROLLER PSE RUPTURE DISC
	Q QUANTITY		QQI			TRANSFER ARROW TO SAME SHEET	040 SCHEDULE 40 080 SCHEDULE 80 120 SCHEDULE 120	PUV MULTIFUNCTION VALVE PX PRESSURE EXCHANGER RO REVERSE OSMOSIS
	R RADIATION  S SPEED OR EREQUENCY	SA SAHH SAH SAL SALL SAT SC SIC SE	SI SL SR SS SSHH S	SSH SSL SSLL ST SIT SY SCV SZ	CB CDEED CONTROL CTATION	SERVICE  1 PID NUMBER SHEET X	D64 SDR 64 D41 SDR 41	RP ROTARY PRESS RT RESIN TRAP
	S SPEED OR FREQUENCY  T TEMPERATURE	SA SAHH SAH SAL SALL SAT SC SIC SE  TA TAHH TAH TAL TALL TAT TC TIC TE		TSH TSL TSLL TT TIT TY TCV TV TZ	GB SPEED CONTROL STATION  TW THERMOWELL	FLOW: PRESSURE: TEMP:	D32 SDR 32.5 D26 SDR 26	SC SCRUBBER SCP SCRAPER SCR SCREEN
   <sub>K</sub>	U MULTI-VARIABLE				THENWOTTEE	ELECTRICAL TRANSFER ARROW TO DIFFERENT PID DOCUMENT	D21 SDR 21 D17 SDR 17 D13 SDR 13.5	SFT SOFTENER  GBM GBIMMER  SM STATIC MIXER, INLINE MIXER  K
	V VIBRATION OR MECH. ANALYSIS	VA VAHH VAH VAT VE	VI VL VR VS VSHH V	VSH VT VIT VY		-	MULTIPLE P06 PN6	ST STEAM TRAP STK MEMBRANE STACK (ED,EDR, EDI, E-CELL)
	W WEIGHT OR FORCE	WA WAHH WAH WAL WALL WAT WC WIC WE	WI WL WQI WR WS WSHH V	WSH WSL WSLL WT WIT WY WCV WV WZ		SERVICE	P10 PN10 P16 PN16 P20 PN20	STR STRAINER SV SAMPLE VALVE TK TANK
	X UNCLASSIFIED					X SHEET X  FLOW: PRESSURE:	P50 PN50 P50 PN50 P68 PN68	TOC TOTAL ORGANIC CARBON TRB TURBINE
L	Y EVENT, STATE OR PRESENCE	YA	YI YL YR YS			TEMP: ELECTRICAL TRANSFER ARROW	P100 PN100	UF ULTRAFILTRATION UPS UNINTERRUPTIBLE POWER SUPPLY UV ULTRAVIOLET IRRADIATOR
	Z POSITION OR DIMENSION	ZA ZAO=OPEN ZAC=CLOSE ZAT ZC ZIC ZE ZC		PEN ZSC=CLOSE ZT ZIT ZY ZCV ZV ZZ		TO SAME PID DOCUMENT	A00 ATMOSPHERIC V00 VACUUM	VB VACUUM BREAKER VD VACUUM DEGASIFIER
F			TOLERANCES UNLESS NOTED  DECIMALS ANGLES  .X		CUSTOMER INFORMATION	PIPING & INSTRU	JMENT DIAGRAM	DRAWING NUMBER REVISION B
M /	REVISED PER CLIENT COMMENTS A INITIAL RELEASE EV DESCRIPTION	KJ KR SK 2  KJ KR SK 2  ECO DWN APPR APPR	26 Jul 18 .xx FRAC 24 Jul 18 DATE	Suez	IIT HYDERABAD		REF.:-	DOC. OWNER:  PART/MATERIAL NO. SCALE SIZE SHEET
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PROCESS	ΔRFΔ	CLASSIFICATION
INUCESS	$\forall \cup \nabla$	CLASSII ICATION

- 03 INFLUENT COLLECTION, PUMPING & TRANSFER
- 08 PRETREATMENT SYSTEM
- 15 BIOTREATMENT CHEMICALS 16 BIOLOGICAL SYSTEM

- 20 MBR SYSTEM
- 23 MBR CLEANING CHEMICALS 71 – SOFTENER
- 80 SLUDGE HANDLING SYSTEM
- 90 COMPRESSED AIR SYSTEM 92 - SERVICE WATER SYSTEM

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6038727-AA-02							
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PROJECT NO.	PART/MATERIA	L NO.	SCALE	SIZE	SHEET		
6038727				A1	3 OF 3		

LEGEND & SYMBOLS

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