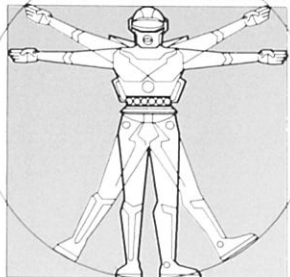


ROBO

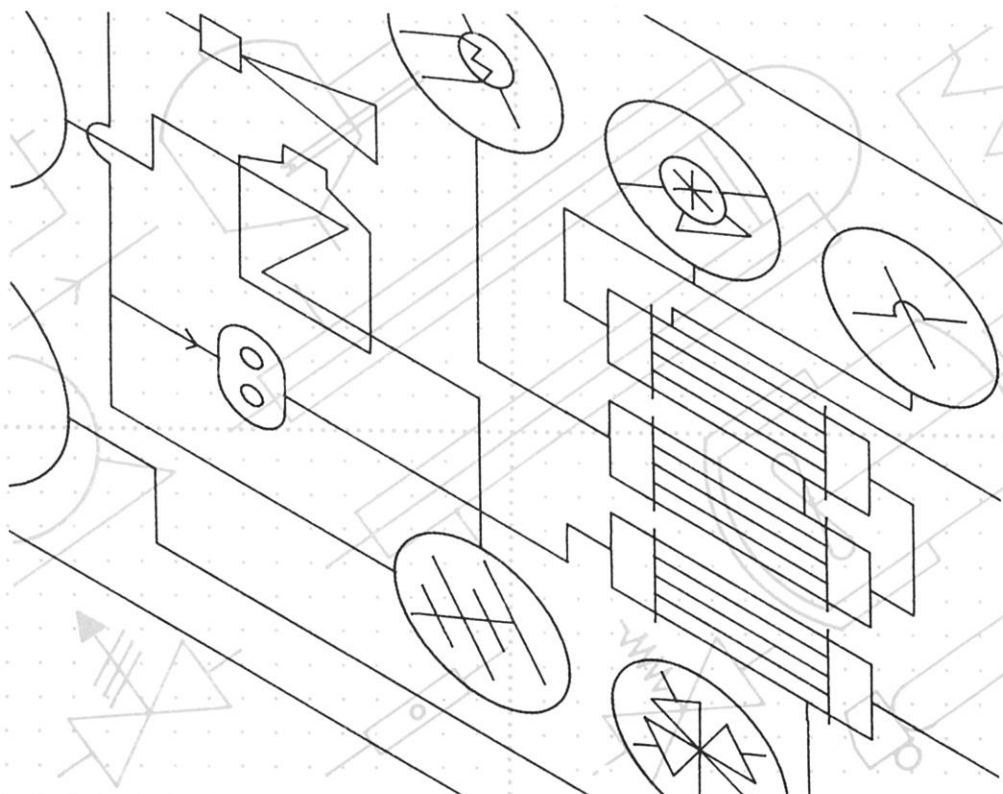


GRAPHICS

A GUIDE TO LIBRARY DISK # 231
FOR USE WITH THE ROBOGRAPHICS SYSTEM

CHEMICAL ENGINEERING PROCESS

Symbols to BS1553, BS974, ASA & others



CHEMICAL ENGINEERING PROCESS



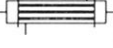






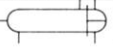



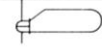





















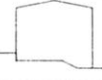
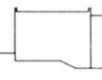



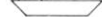














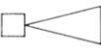








Symbols to BS1553, BS974, ASA and others

This disk contains 172 Chemical Engineering symbols commonly used in the preparation of schematic diagrams in the chemical industry.

You can of course amend any of the symbols or draw your own for specific applications, storing them on your own Library Disks to be used repeatedly as required.

The symbols have been designed so they can be rapidly assembled and interconnected on the Locked Grid of the ROBOGRAPHICS system. The symbols can be used in a range of sizes, orientations and colours which can be used to give different line-weights on plotting. Text and labels can be added to the diagrams in a range of sizes and at any position.

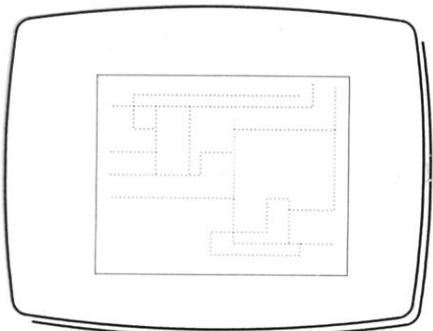
The symbol set is compatible with others available in the ROBOGRAPHICS range including Electronics and Fluid Power facilitating the production of multi-system schematic diagrams.

HEAT EXCHANGER 	HEAT EXCHANGER 	HEAT EXCHANGER 	HORIZONTALLY STACKED PAIR HE 	PARTIAL CONDENSER 	VERTICALLY STACKED BANK HE 	DOUBLE PIPE HE 	PLATE TYPE HE 
SHELL & TUBE HE 	FLOATING HEAD HE 	HEATED TANK 	SURFACE CONDENSER 	AIR COOLED CONDENSER 	KETTLE TYPE REBOILER 	EVAPORATOR 	EVAPORATOR 
FURNACE 	VESSEL 	VESSEL 	VESSEL 	DISTILLATION COLUMN (MID SECTION) 	DISTILLATION COLUMN (TOP OR BOTTOM) 	PERFORATED TRAY 	PACKED BED 
SPHERICAL GAS HOLDER 	BLOWING EGG 	AUTOCLAVE 	CLOSED FLAT ROOF TANK 	BELL TYPE GAS HOLDER 	PERFORATED TRAYS 	CATALYST BED 	BUBBLE CAP TRAYS 
FLOW DIRECTION 	RAIL TANKER 	CLOSED FLAT ROOF TANK 	CONICAL FIXED ROOF TANK 	FLOATING ROOF TANK 	SEPARATOR 	CYCLONE SEPARATOR 	LIQUID SEPARATOR 
OCEAN TANKER 	ROAD TANKER 	ELECTROSTATIC PRECIPITATOR 	ROTARY VACUUM FILTER 	FILTER PRESS 	CENTRIFUGE 	SETTLING TANK 	LIQUID DECANter 
FLARE STACK 	LIQUID INLET 	STEAM ENGINE 	ELECTRIC MOTOR 	TURBINE 	PUMP 	PUMP 	STEAM EJECTOR 
HEAT EXCHANGER 	VESSEL 	RECIPROCATING COMPRESSOR 	RECIPROCATING COMPRESSOR 	METERING PUMP 	RECIPROCATING PUMP 	ROTARY COMPRESSOR 	ROTARY PUMP (GEAR PUMP) 

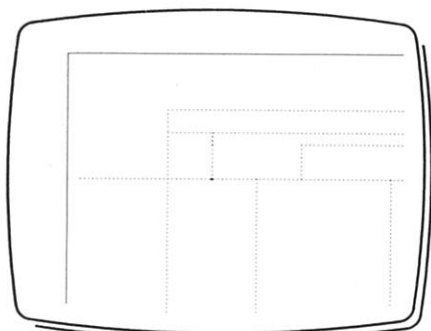
INDEX A

IN-LINE VALVE	MANUAL ISOLATION VALVE	3 WAY VALVE	4 WAY VALVE	MULTI-WAY VALVE	ANGLE VALVE	DIAPHRAGM VALVE	REDUCING VALVE
BALL VALVE	BUTTERFLY VALVE	DIAPHRAGM VALVE	GATE VALVE	GLOBE VALVE	BELLOWS SEAL VALVE	NEEDLE VALVE	DASHPOT CHECKED VALVE
FLOAT OPERATED VALVE	PISTON OPERATED VALVE	QUICK OPENING VALVE	QUICK CLOSING VALVE	SOLENOID OPERATED VALVE	SPRING LOADED VALVE	STATICALLY LOADED VALVE	WEIGHT LOADED VALVE
CONTROL VALVE (CV)	CV OPENS ON FAILURE	CV CLOSES ON FAILURE	CV RETAINS POSITION	PNEUMATIC CV	PNEUMATIC VALVE WITH MANUAL O/RIDE	MANUAL OPERATED VALVE	SAFETY VALVE (BLOW OFF PRESSURE IN BOX)
LOCAL INSTRUMENT	CONTROL ROOM BOARD INSTRUMENT	LOCAL BOARD INSTRUMENT	CONTROL ROOM & LOCAL BOARD INSTRUMENT	METER (GENERAL)	DIAPHRAGM METER	ORIFICE PLATE FLOW METER	ORIFICE CARRIER FLOW METER
FLOW RATIO CONTROLLER	VARIABLE AREA METER (ROTAMETER)	VENTURI METER	TURBINE METER	SIGHT FLOWMETER	ROTARY DISPLACEMENT METER	PILOT TUBE FLOWMETER	CALIBRATED PIPE/ORIFICE
SIGHT GLASS	CONTROL ROOM BOARD INSTRUMENT	LOCAL BOARD INSTRUMENT	CONTROL ROOM & LOCAL BOARD INSTRUMENT	PNEUMATIC VALVE	PNEUMATIC VALVE	PNEUMATIC VALVE MANUAL O/RIDE	MANUAL VALVE

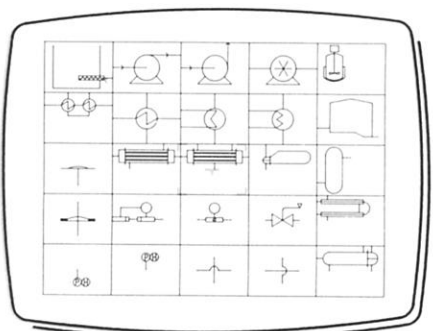
INDEX B



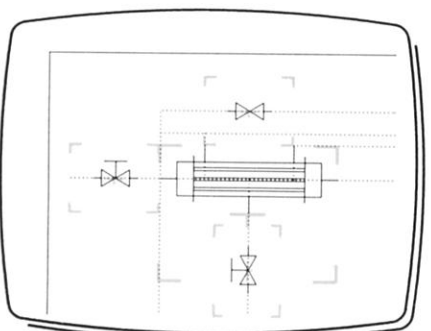
LAY-OUT THE DIAGRAM



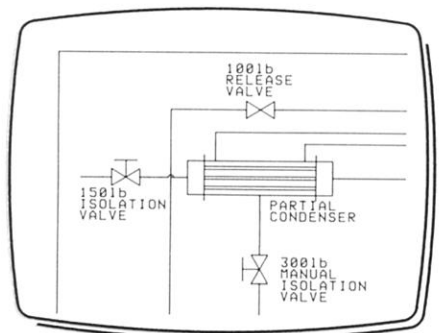
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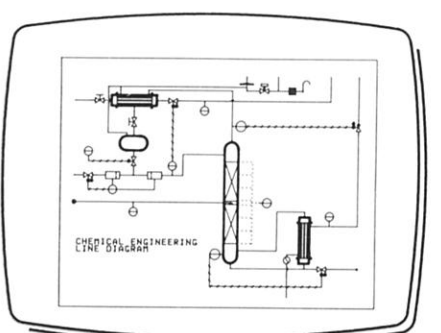
COPY FROM THE LIBRARY



PLACE SYMBOLS ON LAYOUT



ADD CONNECTIONS AND TEXT



FINISHED AND READY TO PLOT

T-JUNCTION	JUNCTION	CROSSOVER	T-JUNCTION	JACKETED PIPE	BEND IN JACKETED PIPE	BEND IN JACKETED PIPE	LAGGED PIPE
STEAM TRACED PIPE	ELECTRICALLY TRACED PIPE	CROSSOVER	FINNED PIPE	JACKETED PIPE	LAGGED PIPE	END OF LAGGING	END OF JACKET
HP STEAM RETURN	MP STEAM RETURN	LP STEAM RETURN	HP STEAM SUPPLY	MP STEAM SUPPLY	PNEUMATIC INSTRUMENT LINE	CLOSED SPADE	OPEN SPADE
HP STEAM RETURN	MP STEAM RETURN	LP STEAM RETURN	HP STEAM SUPPLY	MP STEAM SUPPLY	PNEUMATIC INSTRUMENT LINE	ELECTRICAL INSTRUMENT LINE	ELECTRICAL INSTRUMENT LINE
FEEDSTOCK	PRODUCT	LIQUID VOLUME FLOW	WEIGHT FLOW	GAS VOLUME FLOW	TEMPERATURE	PRESSURE	FLOW DIRECTION
SIPHON DRAIN	OPEN VENT	TRAP	TUNDISH	BURSTING DISK	IN-LINE BURSTING DISK	FLAME ARRESTER	EXHAUST HEAD

INDEX C

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 TELEPHONE 01-263 3388 or 01-263 8585