## COMMON ABBREVIATIONS AND ACRONYMS

AC—alternating current A/D-analog-to-digital AEC-architect, engineer and constructor Al-artificial intelligence ANDF-architecture neutral distribution format ASCI-application specific integrated circuit API-application programming interface
ATG-automatic tank gauge BCD-binary coded decimal BPS-bits per second CAD-computer-aided design CAE-computer-aided engineering CAM—computer-aided manufacturing
CASE—computer-aided software engineering C/C-center-to-center CFC-chlorofluorocarbon CIE—computer integrated enterprise
CIM—computer integrated manufacturing CIP-clean in place
CJC-cold junction compensation
CMOS-complementary metal oxide semi-conductor
CNC-computer numerical control
CPU-central processing unit
CRC-cyclic redundancy check
CRT-cathode ray tube
CSA-Canadian Standards Association
CT current transformer CT-current transformer D/A-digital-to-analog **DAS**—data acquisitions system **DC**-direct current DCE-distributed computing environment DCS-distributed control system **DES**-discrimination expert system **DIN**-Deutsches Institute fur Normung **DMA**-direct memory access **DNC**-direct numerical control **DOS**-disk operating system **DP**-differential pressure DPDT-double pole, double throw **DPM**–digital panel meter DRAM-dynamic random access memory EHL-effective heated length EMI-electro magnetic interference **EMS**-expanded memory specification EPA—enhanced performance architecture EPROM—erasable, programmable read-only memory ERP-enterprise resource planning ES-expert system
EVOP-evolutionary operations
EWMA-exponentially weighted moving

average FCS-field control station

FFT-fast Fourier transform FIA-flow injection analysis FID-flame ionization detector FIP-factory information protocol FMS- flexible manufacturing system FS-full scale FTIR-Fourier transform infrared GC-gas chromatograph GPIB-general purpose interface bus GUI-graphical user interface HCFC-hydrochlorofluorocarbon HPLC-high pressure liquid chromatography HPV-high performance vane HTG-hydrostatic tank gauge IC-integrated circuit
I/O-input/output ID- inside diameter I/P-current-to-pneumatic **IR**-infrared IS-intrinsic safety JIT-just-in-time
LAN-local area network
LC-liquid chromatograph
LCD-liquid crystal display LCL-lower control unit LDES-linear discrimination expert system LED-light emitting diode **LEL**-lower explosive limit **LIMS**-laboratory information management system LP-linear programming
MACT-maximum achievable control technology MAP-manufacturing automation protocol MGO-magnesium oxide MIPS-millions instructions per second MIS-management information services MMI-man machine interface MMS-manufacturing message system MTBF-meantime between failures MTTD-mean time to detect MTTF-mean time to fail MODEM-modulating/demodulating module MPCS-manufacturing planning and control software MRP-material requirements planning MRP II-manufacturing resource planning NC-normally closed NC-numerical control NDIR-non-dispersive infrared NIR-near infrared NO–normally open
OCR–optical character recognition OD-outside diameter
OEM-original equipment manufacturer

OI-operator interface OOD-object oriented design
OOP-object oriented programming OSI-open systems interconnection P&ID-piping and instrumentation diagram PB-proportional band PC-personal computer or programmable controller PD-positive displacement P/I-pneumatic-to-current PI-proportional-integral PID-proportional-integral-derivative PLC-programmable logic controller PROM-programmable logic controller PSA-pressure sensitive adhesive PRV-pressure reducing valve PV-process variable or process value QC-quality control
R&D-research and development
RAM-random access memory RAM—random access memory
RF—radio frequency
RFI—radio frequency interference
RH—relative humidity
RMS—root mean square ROM-read-only memory RSS-root sum squared RTD-resistance temperature detector RTU-remote terminal unit **RV**-relief valve SCADA-supervisory control and data acquisition SCR-silicon controlled rectifier SFC-supercritical fluid chromatography SNA-systems networking architecture SP-set point SPC-statistical process control SPDT-single pole, double throw SQC-statistical quality control SSR-solid state relay SSC-single station controller SV-set point value T/C-thermocouple TCD-thermal conductivity detector THD-total harmonic distortion TOP-technical office protocol **TPM**-total predictive maintenance TQC-total quality control TVSS-transient voltage surge suppressor UCL-upper control limit
UPS-uninterruptible power supply **UV**-ultraviolet VV—ultraviolet
VDT—video display terminal
VFD—variable frequency drive
VME—virtual memory executive system WAN—wide area network WIP—work-in-process

WARRANTY: STS makes no warranties or representations of any sort regarding the fitness for use, or the application of its products by the Purchaser. The selection, application or use of STS products is the Purchaser's responsibility. STS products are warranted to be free from defects in material and workmanship. STS's sole responsibility under this warranty is to repair or replace, free of charge, F.O.B. its factory, items determined by STS to be defective. The period of the warranty is one year from the manufacturing date. or three years for products so marked. Some additional time is extended for items purchased through and stocked by authorized STS Service Centers. All warranties exist between STS and the first party Purchaser. No claims will be allowed for labor, material, loss of profit or damages in shipping, handling, in installation or by abuse. STS will not honor back charges for any alterations, modifications or revisions of any kind. STS cannot warranty any immersion heater against failure by sheath corrosion if caused by operating conditions beyond the con-trol of STS. The ultimate selection of sheath and other immer-sion heater component materials are the responsibility of the Purchaser.

**RETURNS:** No products returned can be accepted without a completed Return Material Authorization form.

## Variance in Quantity (VIQ):

Because of special manufacturing requirements and processes, STS may ship the following Variances in Quantity:

Order Quantity	VIQ
1-6 pieces	0
7-24 pieces	± 1
25-49 pieces	± 2
50-80 pieces	± 3
81-99 pieces	± 4
100+	±5%

There is no overshipment on items with a net value over \$125. However, certain items of extraordinary difficulty may exceed above VIQ.