

Dr. Bruno O. Weinschel
Weinschel Engineering Company, Inc.
One Weinschel Lane
Gaithersburg, Maryland 20760

SUMMARY:

This is a practical discussion covering such fundamentals as:

product modification for foreign market, shipping terms, pricing and various methods of payment.

PRODUCTION MODIFICATION FOR FOREIGN MARKET

(a) Connectors. Components using coaxial or waveguide connectors usually mate with foreign equipment if they comply either with the U.S. Military specifications or corresponding IEC standards.

While in the U. S. 50 ohms is the prevalent characteristic impedance, some German standards and some coaxial connectors of Spinner and Siemens are 60 ohms. Some British and USSR connectors have 70 or 75 ohm characteristic impedance.

(b) Supply Voltage and Frequency in the U. S. is typically 115 volts, 60 Hz while European voltages are typically 115 or 230 volts, 50 Hz. This must be considered in the design or selection of power supplies, motors, relays, solenoids, etc.

(c) Safety Standards. Typical ones in the U.S. are published by the U. L. and EIA. IEC standards often are more strict and the German VDE standards are even more stringent.

(d) Line cords must fit foreign outlets.

HOW TO GET STARTED

(a) Foreign Exhibits

In order to learn about a foreign market, at a minimum cost, one can participate in special exhibits arranged by the Department of Commerce.

(b) Where to Export

Quantity users of high technology microwave components and instruments, are West Germany,

Japan, Canada and England. It is very difficult to sell to France if a local competing device is available even at two or three times the U. S. product's price.

WHERE TO ADVERTISE

Most foreign engineers can read English fluently even if they speak it poorly. The several American microwave journals have a good foreign distribution.

HOW TO CONTINUE

(a) Technical Sales Information

Foreign engineers, especially Europeans, have a greater desire than their U. S. colleagues to understand detailed design principles, materials and production processes used. They are quite sophisticated and well educated.

For this reason, the local foreign sales engineer ought to be a graduate engineer even if the devices are sold successfully in the U. S. by sales engineers lacking an up-to-date formal engineering education.

Sophisticated instruments which may have an above average acquisition cost but are competitive when using principles of "life-cycle-costing", are sold more readily abroad than in the U. S. Freedom from maintenance, high quality, self-test, self-diagnosis, self-calibration and high productivity are major factors in successful foreign sales of modern instruments.

(b) Deviations From Specifications or Late Delivery

Foreign customers are most unforgiving on the above. Japanese purchase orders usually contain a penalty clause for late delivery. Usually shipments to Japanese accounts are made via a Japanese distributor. He is subject to that clause. On-time delivery is a must.

(c) Customer Goodwill

The mobility of foreign engineers is much lower than that of their U. S. colleagues. The same personnel are often found at the same customer for 20 or 30 years. Good performance is remembered.

Foreign engineers operate in a much smaller community. They form a cohesive group exchanging information on device performance freely. The story of a serious deficiency, not corrected for quickly, will spread rapidly.

(d) Maintenance

Local sales engineers within the country ought to be trained in maintenance, repair and possibly re-calibration of the equipment. A stock of replacement plug-in boards and key components ought to be kept in a central location to serve several countries.

(e) Seminars

Application and maintenance seminars should be arranged for periodically in key locations with easy access from several countries. These should be designed both to indoctrinate or update local sales engineers as well as the personnel of key customers.

EXPORT LICENSING

The Department of Commerce processes licenses. In cases of technology transfer, the State Department applies ITAR and the Department of Defense administers the 1979 Export Control Act. Foreign distribution of technical data not published in journals may be subject to regulation of all three agencies. Devices with microprocessors, programmable instruments, devices with phase lock circuitry, very precise calibration equipment, equipment above a high frequency limit are usually restricted to NATO and neutral countries where satisfactory end use is certified.

Certain countries, e.g., Canada, do not require processing of a license through the Department of Commerce and shipments can be made under a General License.

If a license application is denied, an appeal can be made successfully if one can show that like devices are commercially available from a foreign competitor.

FOREIGN PATENT PROTECTION

U. S. patents offer no protection outside of the U. S. except against foreign copies imported into the U. S.

If the export becomes sizeable and local foreign competition can be expected to copy, foreign patent applications ought to be filed via local foreign patent attorneys cooperating with a U. S. patent attorney. Usually this must be done within not more than one year from date of issue of the U. S. patent.

SHIPMENT METHOD AND TERMS

Very bulky equipment may require shipment via sea. It is preferred to use air freight, preferably via the national air carrier of the customer's country. Route via non-stop or minimum stop flight, avoid trans-shipment, when possible. Avoid C.I.F. or F.A.S. shipping terms; negotiate orders to ship only F.O.B. to your factory.

FOREIGN PRICING

(a) Direct Sale

If shipped directly to final user, the F.O.B. price is usually 5-10% above the U. S. domestic price in order to cover the cost of extra administrative and sales paper work, the cost of special packaging and additional testing at a different line voltage and line frequency.

(b) Shipment to Sales Agent/Distributor

If the local sales representative is the recipient of the shipment, you often do not learn the name on the end-user. The local agent pays customs duty, usually performs a complete test, then arranges for local delivery and may help the customer to install and train him how to successfully use the equipment. He sells the device at a further price increase. In case of a Japanese trading company, this may be a high markup. Usually it is difficult to learn the final price to the end user.

METHODS OF PAYMENT

(a) Credit Reports

There is no international Dun & Bradstreet book where one can look up quickly the credit rating of non U. S. customers. It is possible to extend the U. S. contract of Dun & Bradstreet to cover the world. Unless a current report is on file for the foreign account, it may take more than a month to receive a foreign credit report.

The Commerce Department's World Traders Data Report Department also process inquiries using the commercial attaches in the U. S. Consulates and Embassies abroad. The time delay is similar.

One can use the foreign branch or affiliate of a U. S. bank for credit information. Of course, the local sales engineer and his regional sales manager ought to have information on the credit worthiness of the account.

(b) Shipment on Open Credit

It is usually risky to extend credit to a foreign account. In case of non-collection due to a dispute or credit problem, recourse to local foreign courts can be very expensive and most unsatisfactory.

Foreign laws and commercial traditions often differ from U. S. customs. Terminating, e.g., the representation contract of a French sales organization can lead to costly liabilities if not handled very carefully since he may claim loss of future income. If the same party acts as a distributor or importer utilizing your open credit, he may hold back equipment or funds in case of a dispute. Local foreign courts may side with their nationals against you.

(c) Credit Insurance

This does not cover slow payers or disputed accounts. It is subject to a cumulative deductible, e.g., \$10,000; above that, typically 90% of the loss is paid. This is good for covering losses due to change of governments or bankruptcy. Its cost is 1/2 to 1% of the export volume covered. The Foreign Credit Assurance Association of insurance companies handles this with the support of the U. S. government. Processing of a master policy takes over four weeks after filing a voluminous application form.

(d) Local U. S. Embassy Purchases

Many foreign government purchases are routed through their U. S. embassies, mainly to avoid a mark-up by an importing distributor. While it is a U. S. purchase, the consideration for credit worthiness must not be influenced by this fact since the equipment cannot be readily repossessed and the embassy enjoys immunity from U. S. judgments if it so chooses.

(e) Shipment on Letter of Credit

The most desirable method is an irrevocable letter of credit for the full amount of the purchase payable in U. S. dollars, drawn on your own local bank. It is most essential, before accepting the order, to study carefully all conditions of the Letter of Credit. I recall a case, dealing with a Far Eastern government where we spent six months negotiating mutually acceptable terms. There are no standard conditions. The variations found in foreign Letter of Credits exceed by far the range of conditions found in U. S. purchase orders or U. S. government contracts.

If the shipment cannot be made within 30 days but e.g., 6 months after receipt of the order, the customer usually balks at tying up funds for that length of time. He usually will agree to send a Letter of Credit in time for the shipment if notified 30 days before shipment. This is an acceptable risk if the type and quantity of merchandise ordered is readily saleable to other accounts, should the customer fail to supply the Letter of Credit. Otherwise it is necessary to receive some earnest money with the order. It is important to literally satisfy all conditions of the Letter of Credit, otherwise the bank will not pay even if shipment was made. A fundamental problem is a delayed shipment since the Letter of Credit has an expiration date.

It is absolutely necessary before shipment to have the customer extend the date of the Letter of Credit. I recall cases where substantial shipments were made to a Far Eastern Government with minor variations in the required paperwork. It took over a year after shipment to receive payment.

(f) Shipment on Sight Draft

Payments are made typically by the customer's bank after receipt of shipping documents. However, the customer practically can delay this payment easily 60 to 90 days. This is much less desirable than a Letter of Credit. If a foreign government is the purchaser, often equipment is released to them while payment is delayed.

BENEFITS OF EXPORTS

Usually market declines in foreign countries are off-set in time from U. S. domestic recessions. Foreign sales, typically amounting to 25 to 40% of the overall sales, can smooth out the effect of domestic recessions. They tend to stabilize the manufacturing volume.

In order to compensate for the negative trade balance caused by excessive U. S. import of consumer goods, we must export high technology devices. This helps to again restore our positive merchandise trade balance thereby stabilizing the value of the U. S. dollar in the Foreign Exchange Market and at the same time, by increasing our manufactured volume increasing U. S. employment.