

Schuster Electronics, Inc.

Value-Added Capabilities

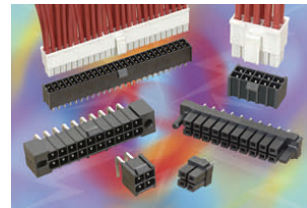
At Schuster Electronics, our goal is to provide our customers with the highest quality product and on-time service in the industry, at a very competitive price. Customer satisfaction is the critical factor by which we measure our success.



VALUE-ADDED SERVICES

Schuster Electronics offers a wide variety of value-added services including:

- ⇒ Custom connector, switch and cable assembly
- ⇒ High density terminal block assembly
- ⇒ Parts marking, engraving, packaging and kitting services
- ⇒ Custom rail and terminal block assemblies
- ⇒ Just-In-Time delivery services
- ⇒ Barcode and custom labeling
- ⇒ Quality assurance testing for cable assemblies
- ⇒ Custom modification on printer, LCD, & interface modules
- ⇒ Strip product cut to customer specifications
- ⇒ Same day shipping
- ⇒ EDI (Electronic Data Interchange)
- ⇒ Printed circuit board modification
- ⇒ Electro-mechanical assemblies
- ⇒ UL Approved Facility
- ⇒ Certified Value-Added facility for Hirose Electric U.S.A. & Phoenix Contact



Call, fax, or e-mail Schuster for More Information!

OHIO
Cincinnati
 (800) 877-6875
 (513) 489-1400
 FAX 513-489-8686
 sales@schusterusa.com

OHIO
Cleveland
 (800) 521-1358
 (330) 425-8134
 FAX 330-425-1863
 sales@schusterusa.com

MICHIGAN
Detroit
 (800) 826-0441
 (248) 542-1229
 FAX 248-542-1361
 sales@schusterusa.com

PENNSYLVANIA
Pittsburgh
 (888) 263-3532
 724-387-2989
 FAX 724-387-1417
 sales@schusterusa.com

Outside the Midwest, please call (800) 521-1358 or e-mail: sales@schusterusa.com

Schuster Electronics

Celebrating 100 Years of Excellence





WHAT IS VALUE-ADDED?

The procedure in which value is added to a product by altering it after receiving from a vendor. Methods of altering a product from its original form include, but are not limited to:

1. Repackaging
2. Connector and switch assembly
3. Cable Assembly
 - ⇒ IDC
 - ⇒ Discreet
4. Snap and cut product
5. Rail Assembly
6. Custom marker strips
7. P.C. board modifications
8. Custom modifications to customer specifications
9. Kitting (case by case consideration)
10. Terminal block assembly
11. Rail cutting
12. Stripping / tinning wire
13. Custom labeling

Advantages of Using Schuster for Your Value-Added Needs

Increased Production

Through Additional In-house Machinery:

- ⇒ Wire cutting / stripping machine
- ⇒ Two Hirose crimping machines with abilities to do several DF series including DF1, 1B, 3, 11 and 13
- ⇒ Drill press for custom rail assemblies

Quality Assurance

- ⇒ Devoted to 100% accuracy
- ⇒ All inspections documented
- ⇒ Subcontracted assemblies brought back to Schuster for in-house assembly, assuring 100% quality control
- ⇒ ISO standards implemented to tighten control of all value-added product
- ⇒ SPC procedures used
- ⇒ Thorough inspection and test procedures



FOCUSING ON CORE COMPETENCIES

An increasingly faster moving and competitive marketplace has forced us all to continually reexamine our business. Success today depends on our ability to honestly answer (and act on) the following questions:

- * *What do we do well (and not so well?)*
- * *What do we **need** to do to be successful?*
- * *What defines our company in the marketplace?*

In the past “vertical integration” (directly controlling as many aspects of the design and manufacture of your product as possible) was considered a high virtue. Manufacturers built complex, self-sufficient operations to maximize manufacturing control.

Unfortunately, these complex organizations tended to be expensive and slow to react to market changes. Further, they made sense only if a company did everything well; few did. As markets shifted, vertically integrated manufacturing operations became liabilities to their owners.

Focusing on “core competencies” is all about allocating resources only to those things your business can (or **must**) do well. It means freeing up resources to be applied to what you do best, to what defines you in the marketplace.

Frequently, it means farming-out the things your company does not do well to specialized contract manufacturers who do. Utilizing contract manufacturers allows you to buy someone else’s core competency, only as much as you need.

**BUY VERSUS BUILD
COST JUSTIFYING CONTRACT LABOR**

Cost justifying contract labor services is more complex than simply evaluating the direct costs of raw material and labor required to build an assembly vs. the cost to contract the assembly out. A complete buy/build analysis should also evaluate indirect costs such as:

- ⇒ Inventory: Raw material, WIP
- ⇒ Finished goods
- ⇒ Scrap, excess & obsolete
- ⇒ Engineering design/changes
- ⇒ Manufacturing set-up
- ⇒ Tooling (both to purchase and maintain)
- ⇒ Production routing/planning
- ⇒ Material processing (buying, receiving, inspecting, moving raw material)
- ⇒ Interest expense.
- ⇒ Overhead (floor space, utilities, management, capital equipment depreciation, etc.)
- ⇒ Lost opportunity (where else could this money be spent?)

The table below illustrates how significant these indirect costs can be relative to direct costs.

The Total Cost of Building a Cable Assembly EAU=1000

Cost Description	Qty / Year	Cost Per		
		Each	Assembly	Year
Direct Costs				
Bill of Material Cost	1000		\$7.50	\$7500
Manufacturing Labor Cost	1000		\$250	\$2500
Total Direct Cost	45%		\$10.00	\$10000
Indirect Costs				
Engineering Design and Changes	2	\$250	\$0.50	\$500
Purchase Orders (5 Vendors, 4 PO / yr each)	20	75	1.50	1500
Material Handling (20 receipts, part pulls)	20	50	1.00	1000
Tooling	1	1000	1.00	1000
Tooling Maintenance	2	150	.30	300
Manufacturing Setup / Lot	6	50	.30	300
Production Routing & Planning /Lot	6	50	.30	300
Final Inspection & Test / Lot	6	75	.45	450
Other Variable Overhead (200% of labor)	200		5.00	5000
Labor Scrap	2		.05	50
Material Scrap (2% of material)	2		.15	150
Excess/Obsolete Inventory (1% of material)	1		.08	75
Interest Expense (2% month of finished goods, WIP, raw material inventory)	24		1.50	1500
Total Indirect Cost	55%		\$12.13	\$12125
Total Manufactured Cost	100%		\$22.13	\$22125

The indirect cost of planning and processing manufacturing jobs is frequently more than the direct material and labor costs. It is critical to identify and account for these costs when evaluating the value of using contract labor.