

Inventory Reduction Table

1.3

Example. Shown below is how one manufacturer of small screws reduced his inventory of C-1018 wire from 24 different sizes to only seven stocked sizes. The first thing he did was to list his required wire diameters (rounded off to the nearest even dimension) as follows:

.090	.104	.112	.120	.130	.140	.156	.174
.092	.106	.116	.126	.134	.150	.160	.184
.094	.110	.118	.128	.138	.154	.164	.190

His specific products required limiting the maximum area reduction to about 20%. He immediately realized several advantages.

1. He was able to reduce his stock-sized inventory down to just seven basic sizes.
2. He was able to induce his steel suppliers to eliminate the surcharge for “special tolerance” wire.
3. In most cases he was able to purchase annealed-in-process wire and impose the final draft in-line with the cold headers—thus eliminating the steel supplier’s charge for this finishing draft. (See chart on reverse side.)

in Inches

60,000 PSI

DIAMETER REDUCTION AND FINISH WIRE DIAMETER										
Initial Diameter	.002	.004	.006	.008	.010	.012	.014	.016	.018	.020
.086	.084	.082	.080	.078	.076	.074	—	—	—	—
.090	.088	.086	.084	.082	.080	.078	.076	—	—	—
.094	.092	.090	.088	.086	.084	.082	.080	—	—	—
.098	.096	.094	.092	.090	.088	.086	.084	—	—	—
.102	.100	.098	.096	.094	.092	.090	.088	—	—	—
.106	.104	.102	.100	.098	.096	.094	.092	—	—	—
.110	.108	.106	.104	.102	.100	.098	.096	25%	—	—
.114	.112	.110	.108	.106	.104	.102	.100	.098	—	—
.118	.116	.114	.112	.110	.108	.106	.104	.102	—	—
.122	.120	.118	.116	.114	.112	.110	20%	.108	.106	—
.126	.124	.122	.120	.118	.116	.114	.112	.110	.108	—
.130	.128	.126	.124	.122	.120	.118	.116	.114	—	—
.134	.132	.130	.128	.126	.124	.122	.120	.118	—	—
.138	.136	.134	.132	.130	.128	15%	.126	.124	.122	.120
.142	.140	.138	.136	.134	.132	.130	.128	.126	.124	—
.146	.144	.142	.140	.138	.136	.134	.132	.130	.128	.126
.150	.148	.146	.144	10%	.142	.140	.138	.136	.134	.132
.154	.152	.150	.148	.146	.144	.142	.140	.138	.136	.134
.158	.156	5%	.154	.152	.150	.148	.146	.144	.142	.140
.162	.160	.158	.156	.154	.152	.150	.148	.146	.144	.142
.166	.164	.162	.160	.158	.156	.154	.152	.150	.148	.146
.170	.168	.166	.164	.162	.160	.158	.156	.154	.152	.150
.174	.172	.170	.168	.166	.164	.162	.160	.158	.156	.154
.178	.176	.174	.172	.170	.168	.166	.164	.162	.160	.158
.182	.180	.178	.176	.174	.172	.170	.168	.166	.164	.162
.186	.184	.182	.180	.178	.176	.174	.172	.170	.168	.166
.190	.188	.186	.184	.182	.180	.178	.176	.174	.172	.170
.194	.192	.190	.188	.186	.184	.182	.180	.178	.176	.174
.198	.196	.194	.192	.190	.188	.186	.184	.182	.180	.178
.202	.200	.198	.196	.194	.192	.190	.188	.186	.184	.182

By using this chart, you'll see how you can use the least refined material and still obtain the quality requirements of your finished product.

**Relative Cost Savings
Utilizing Various Grades
of the Same Material**

1.4

Condition	Procured as	Rod	Anneal	Clean and Coat	Drawn	Spher Anneal	Clean and Coat	Final Draw		Cold Head	Cost Per Lb.
								At Steel Company	In-line		
1	HOT-ROLLED ROD	R					C		D	CH	.26
2	DIRECT-DRAWN WIRE (no annealing)	R					C	D		CH	.28
3	A SPHEROIDIZE-ANNEALED HOT ROLLED ROD	R				SA	C		D	CH	.32
	B SPHEROIDIZE-ANNEALED ONCE-DRAWN WIRE	R				SA	C	D		CH	.34
4	ANNEALED-AT-FINISH-SIZE ONCE-DRAWN WIRE	R		C	D	SA	C			CH	.36
5	INTER-ANNEALED-IN- PROCESS WIRE	R		C	D	SA	C		D	CH	.38
		R		C	D	SA	C	D		CH	.40
6	DOUBLE-ANNEALED WIRE	R	A	C	D	SA	C		D	CH	.42
		R	A	C	D	SA	C	D		CH	.44

- Notes:**
1. Prices vary from region-to-region, from steel company to steel company, and from mill to mill, but are approximately correct from a relationship standpoint (comparing condition to condition).
 2. Considerable potential savings can be negotiated when wire is procured from the steel company in the semi-finished form or condition, i.e. initially drawn to rough tolerances at the steel company, shipped to the customer in a semi-finished form, and the light finishing pass drawn in-line. (3A vs. 3B, 5A vs. 5B and 6A vs. 6B)



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