



## 0

### 1 DIVISION 0

Introduction and Calibration Factors: includes the following:  
 Location (Calibration) Factors - International values compared to Washington D.C. (Base of 1.00). Calibrations in this application are used to adjust the unit prices / schedule of rates depicted in the following Divisions 1 – 17.  
 188 # International Cities Location / Calibration Factors.  
 General Conversion Values - Imperial to Metric Units.  
 Import Duties General Sales Tax / Value. Added Tax / Consumption Tax.  
 284 # USA Location (Calibration) Factors.  
 Detailed Design / Engineering / Architectural and CM Fees 51 # Facility Types.  
 Union Labor Costs.  
 USA and Canada State & Province Sales Tax / GST.  
 Inflation Cost Indexes.

## 00

### 27 DIVISION 00

Cost Models / Cost Benchmarks (20 Number) includes cost and quantity data on the following:  
 Power Station Cost Model.  
 Crude Oil Distillation Complex.  
 High Rise Apartment Building Cost Model.  
 Waste Water Treatment Cost Model.  
 EPCM Home Office Billing Rate Sheet.  
 Consumer Products Facility.  
 Steel Production Cost Model.  
 Beverage Production Facility Cost Model.  
 Petro – Chemical Cost Model.  
 78 # Engineering / Construction Cost Benchmarks.  
 Class A Office Building  
 UK Pharmaceutical Facility  
 Clean Warehouse  
 Regional Airport  
 Shopping Mall  
 Clean Warehouse Facility

# 01

67

## DIVISION 01

General Requirements / General Conditions / Preliminaries:

includes cost data on the following:

Rules of thumb

Insurance Costs

Protection of Completed Work

Scaffolding

Temporary Utilities, Structures & Fences

Permits

Testing / Inspection

Surveys

Bonds

Site Staff / Field Personnel

Construction Equipment Costs / Rental

Temporary Construction Items

# 02

89

## DIVISION 02

Site Construction: includes schedule of rates for:

Demolition (including asbestos)

Excavation

Rock removal

Hardcore / Stone

Shoring

Planking & Strutting / Sheet Piling

Foundation Piling

Utilities

Miscellaneous Site Improvements

Paving

Concrete Curbing

Fencing

Site Lighting

Marine Work

Underground Storage Tanks

## 03

- 109**    **DIVISION 03**  
Concrete Work: includes schedule of rates for:  
Concrete  
Formwork  
Reinforcement  
Precast Concrete  
Grouting

## 04

- 135**    **DIVISION 04**  
Masonry: includes schedule of rates for:  
Brickwork  
Masonry  
Refractory

## 05

- 145**    **DIVISION 05**  
Metals: includes schedule of rates for:  
Structural Steel  
Metal Joists  
Metal Framing  
Miscellaneous Iron  
Metal Decking

## 06

- 163**    **DIVISION 06**  
Wood and Plastics: includes schedule of rates for:  
Rough Carpentry  
Finish Carpentry  
Carpentry Specialties

SAMPLE

## 07

173

### **DIVISION 07**

Thermal and Moisture Protection: includes schedule of rates for:  
Damp proofing and Waterproofing  
Thermal Protection  
Roofing Systems  
Caulking & Sealants

## 08

187

### **DIVISION 08**

Doors and Windows: includes schedule of rates for:  
Wood and Plastic Doors  
Metal Doors and Frames  
Windows  
Glazing / Glazed Curtain Walls  
Hardware

## 09

195

### **DIVISION 09**

Finishes: includes schedule of rates for:  
Plaster and Gypsum Board  
Tile  
Terrazzo  
Ceilings  
Flooring  
Wall Finishes  
Acoustical Treatment  
Painting and Coatings

## 10

207

### **DIVISION 10**

Specialties: includes schedule of rates for:  
Visual Display Boards  
Compartments and Cubicles  
Louvers and Vents  
Wall and Corner Guards  
Miscellaneous Facility Specialties

## 11

- 215**    **DIVISION 11**  
Equipment: includes schedule of rates for:  
Maintenance Equipment  
Loading Dock Equipment  
Industrial and Process Equipment  
Laboratory Equipment  
Material Handling Equipment

## 12

- 227**    **DIVISION 12**  
Furnishings: includes schedule of rates for:  
Furniture  
Manufactured Casework

## 13

- 231**    **DIVISION 13**  
Special Construction: includes schedule of rates for:  
Pre-Engineered Buildings & Structures  
Radiation Protection  
Storage Tanks  
Security Access and Surveillance

## 14

- 239**    **DIVISION 14**  
Conveying Systems: includes schedule of rates for:  
Elevators  
Escalators and Moving Walks  
Hoists and Cranes

# 15

- 247**      **DIVISION 15**  
Mechanical Work: includes schedule of rates for:  
Building Services Piping  
Plumbing Fixtures  
Process Piping  
Fire Protection Piping  
Heating, Ventilating & Air Conditioning Equipment  
Ductwork  
Insulation

# 16

- 317**      **DIVISION 16**  
Electrical Work: includes schedule of rates for:  
Electrical Equipment / Transformers  
Cable / Control wire  
Conduit  
Cable tray  
Communications  
Instrumentation and Controls

# 17

- 349**      **DIVISION 17**  
Process Equipment / Major Equipment: includes schedule of rates for:  
Agitators  
Air Handlers  
Boilers  
Chillers  
Compressors  
Condensers  
Conveyors  
Cooling Towers  
Ductwork  
Heat Exchangers  
Pumps  
Tanks

- 387**      **ABOUT THE FIRM**

# Cost Models and Cost Benchmarks

The following tables and benchmarks are provided to give the reader an appreciation of specific industrial / commercial construction costs that could be used to supplement the following Division(s) 1 – 17, schedule of rates data.

## (1) MAJOR CONSTRUCTION ACTIVITIES

See chart below.

ACTIVITY	COST OR MAN HOUR UNIT
Field labor union skilled worker	\$70- \$114 / Hour
Ditto non union	\$57 - \$86 / Hour
For unskilled labor application multiply above by	0.75
Construction Manager / Clerk of the Works	\$88 - \$144/ Hour
Demolition	5% - 35% of the cost of new work
Rock excavation - loose / rippable, hours per CY / M3	1.0 - 2.5 CY & 1.3 – 3.3 M3
Ditto needing jackhammers, hours per CY / M3	2.0 - 5.0 CY & 2.6 – 6.5 M3
Machine excavation, hours per CY / M3	0.2 - 0.4 CY & 0.26 – 0.5 M3
Hand excavation (Loose non stiff), hours per CY / M3	1.5 - 2.0 CY & 2.0 – 2.6 M3
Ditto stiff / hard material, hours per CY / M3	2.25 - 3.25 CY & 2.9 – 4.25 M3
Concrete foundations (inc. excavation, formwork / Rebar / installation etc.) Hours per CY / M3	12 - 24 CY & 15.7 – 31 M3
1" diameter conduit	0.12 - 0.14 / MH per LF & 0.39 - 0.45 M
2" ditto	0.14 - 0.16 / MH per LF & 0.45 - 0.52 M
Bricks (800 – 1,000 per day is considered a good production rate)	500 - 750 per day
Fabricate & erect C.S. piping (2") hours	1.25 - 1.85 / L.F & 4.1 - 6.1 M.
Fabricate & erect C.S. piping (6") hours	2.4 - 3.0 / L.F & 7.87 - 9.84 M.
Fabricate pipe offsite	20 - 40 hours / ton
Erect piping (2" and above)	100 - 200 hours / ton
Average Fabricate & erect	150 - 200 hours / ton
4" diameter production weld (schedule 160)	2.0 - 2.50 hrs:
6" ditto	2.75 - 3.5 hrs:
Average cost per pound / kg to fabricate and erect piping system based on Average cost \$19,000 - \$29,000 per ton, average \$22,750 per ton	\$12.00 per pound and \$26.40 kg
Structural steel erection hours	8 - 25 / ton

**(20) BUS & HEAVY TRUCK TIRE PRODUCTION FACILITY - INDIANA USA**  
**194,560 SF MID-2022 COST BASIS**  
**10 ACRES SITE ADJACENT TO EXISTING PRODUCTION FACILITY**

#	SCOPE OF WORK - DESCRIPTION	\$ COST	COST / SF
1	General Conditions / Preliminaries / Site Offices - Mob - Demob	4,387,500	22.55
2	Demolition of existing structure	105,000	0.54
3	Site works, Earthworks, Excavations, Utility Services, Site Roads, Ponds, Wells, Fencing & Employee Parking area	3,659,300	18.81
4	Facility Foundations - Concrete, Formwork, Rebar, Polished Floor	2,878,200	14.79
5	Structural Steel / Micl steel	6,770,840	34.80
6	Finish & Rough Carpentry - Cabinets	158,202	0.81
7	Exterior Enclosure (Inc. Metal Siding, Roof, Exterior Windows & Doors) 6 Truck Loading Docks	5,703,260	29.31
8	Internal Office Partitions & Doors, Finishes, Toilets Stalls, Reception Area & 7 Offices - Cubicles & 2 Conference Room - Security - Medical Station - Truck Driver waiting area	1,860,300	9.56
9	Re-Furbished Production Equipment from other location	852,000	4.38
10	Production Equipment / Support items (Tanks, Blenders, Extruders, Vats, Pumps, Molds, Heat Exchangers, Forklifts, Charging Stations)	13,297,500	68.35
11	Mechanical Systems - Plumbing, Process Pipe, HVAC, AHU's, Natural Gas, Fire Protection, Toiles & Safety Showers	8,222,175	42.26
12	Electrical / Instrumentation, Control Room, Bar Coding, CCTV's Security Systems & Fire Alarms	7,041,986	36.19
13	Start Up & Commissioning	209,391	1.08
14	BAR Insurance, Bonds, Fees & OH&P	3,395,560	17.45
15	Contingency / Management Reserve	5,500,000	28.27
<b>16</b>	<b>S/T</b>	<b>64,041,214</b>	<b>329.16</b>
17	Detailed Design & EPC HO Support / Procurement activities	6,049,999	31.10
18	Project / Construction Management & Project Controls	3,412,875	17.54
19	Owner Front End Design & Oversight	775,000	3.98
<b>20</b>	<b>TOTAL FACILITY COST</b>	<b>74,279,088</b>	<b>381.78</b>



	<b>2023 Division 1 - General Requirements / Preliminaries - Union Site</b>	<b>Unit</b>	<b>Material</b>	<b>Labor</b>	<b>Construction Equipment</b>	<b>Total</b>
170	Concrete pump 100' reach 4" dia line (60 - 120 CY / hour)	HOUR		Excl Oper	179.62	179.62
171	Concrete pump 120' reach 6" dia line (60 - 120 CY / hour)	HOUR		Excl Oper	204.98	204.98
172	Concrete pump 140' reach 6" dia line (60 - 120 CY / hour)	HOUR		Excl Oper	233.51	233.51
173	Concrete cutting / sawing , self propelled up to 6" deep gasoline / 2 - stoke	HOUR		Excl Oper	11.14	11.14
174	Concrete core drill (1" - 4" dia holes), vertical and horizontal, 25 HP, gasoline	HOUR		Excl Oper	24.69	24.69
175	Crane Crawler 10 Ton	HOUR		Excl Oper	170.51	170.51
176	Crane Crawler 20 Ton	HOUR		Excl Oper	219.34	219.34
177	Crane Crawler 50 Ton	HOUR		Excl Oper	312.22	312.22
178	Crane Crawler 100 Ton	HOUR		Excl Oper	497.73	497.73
179	Crane Crawler / dragline - clamshell, 3.5 CY / 3 M3, 120' boom length	HOUR		Excl Oper	180.35	180.35
180	Crane Crawler / dragline - clamshell, 5 CY / 4 M3, 140' boom length	HOUR		Excl Oper	232.42	232.42
181	Crane hydraulic rough terrain 10 Ton - 50' Boom	HOUR		Excl Oper	47.05	47.05
182	Crane hydraulic rough terrain 15 Ton - 60' Boom	HOUR		Excl Oper	48.46	48.46
183	Crane hydraulic rough terrain 20 Ton - 70' Boom	HOUR		Excl Oper	72.20	72.20
184	Crane, crawler, 25 Ton, 70' Boom	HOUR		Excl Oper	49.45	49.45
185	Crane, crawler, 50 Ton, 100' Boom	HOUR		Excl Oper	78.38	78.38
186	Crane, crawler, 100 Ton, 200' Boom	HOUR		Excl Oper	163.22	163.22
187	Crane, crawler, 150 Ton, 250' Boom	HOUR		Excl Oper	406.27	406.27
188	Crusher (stone / rock) plant 100 Ton / hour	HOUR		Excl Oper	120.60	120.60
189	Cutting Torch Tools oxy-acetylene 100' hose	HOUR		Excl Oper	6.41	6.41
190	D-11N crawler / tractor / dozer / ripper	HOUR		Excl Oper	263.41	263.41
191	D-10R crawler / tractor / dozer / ripper	HOUR		Excl Oper	232.42	232.42
192	D-9R - 9N crawler / tractor / dozer / ripper	HOUR		Excl Oper	181.86	181.86
193	D-8R crawler / tractor / dozer / ripper	HOUR		Excl Oper	167.79	167.79
194	D-6R crawler / tractor / dozer / ripper	HOUR		Excl Oper	131.17	131.17
195	D-4GXL crawler / tractor / dozer / ripper	HOUR		Excl Oper	56.19	56.19
196	Dragline bucket 3.5 CY / 3 M3 incl chains & cables	HOUR		Excl Oper	9.32	9.32

	<b>2023 - Division 2 - Site Construction - Union</b>	<b>Unit</b>	<b>Material</b>	<b>Labor</b>	<b>Const Equip</b>	<b>Total</b>
357	2" sub base for road / paved area including rolling	SY	2.52	2.70	0.17	5.40
358	4" sub base for road / paved area including rolling	SY	3.58	3.83	0.25	7.66
359	6" sub base for road / paved area including rolling	SY	4.68	4.99	0.32	9.99
360	Sealer / Tack coat 2 applications	SY	0.51	0.41	0.03	0.95
361	Stone for parking area 4" thick, rolled	SY	6.09	0.57	0.04	6.70
362	Stone for parking area 6" thick, rolled	SY	7.76	0.74	0.05	8.54
363	Imported engineered fill, sub base rolled in 12" lifts (Minimum)	TON	8.15	7.03	1.06	16.25
364	Imported engineered fill, sub base rolled in 12" lifts (Maximum)	TON	17.57	8.68	1.31	27.55
365	Imported borrow / crushed stone 1" including compacting	CY	43.71	2.80	0.42	46.94
366	Imported borrow / crushed stone 3/4" including compacting	CY	43.65	2.80	0.42	46.87
367	Imported borrow / crushed stone 1/2" including compacting	CY	45.70	2.80	0.42	48.93
368	Imported hardcore including compacting	CY	36.92	1.35	0.20	38.47
369	Excavate and backfill utility trench 3' deep X 18" wide	LF	0.63	1.51	0.36	2.51
370	Excavate and backfill utility trench 5' deep X 24" wide	LF	1.05	2.15	0.51	3.71
371	Excavate and backfill utility trench 7' deep X 36" wide	LF	1.70	2.79	0.66	5.15
	<b>Concrete Curbing / Paving / Pads</b>					
372	Excavate by hand for 12" x 6" curb	LF	11.63	7.46	1.13	20.22
373	Excavate by machine for 12" x 6" curb	LF	10.48	5.83	0.88	17.19
374	Install stone bedding for curb	LF	5.29	4.09	0.62	10.00
375	Dry concrete bedding material	CY	91.71	17.99	2.72	112.42
376	Concrete 12" x 6" wide	LF	11.92	7.61	1.15	20.68
377	PCC curb 18" x 6' wide - straight runs	LF	14.32	4.50	0.68	19.50
378	PCC curb 18" x 6' wide - curved runs	LF	17.14	5.32	0.80	23.26
379	Granite curbing / edging 12" high x 6" wide	LF	14.89	7.36	1.11	23.36
380	Granite slit faced curbing 18" high x 6" wide	LF	32.29	11.26	0.73	44.28
381	Concrete gutter 12" wide x 4' deep	LF	9.17	6.13	1.46	16.76
382	Concrete paving, 2", broom finish (no stone, excavation or mesh reinforcement)	SF	1.41	1.44	0.34	3.19
383	Concrete paving, 4", broom finish (no stone, excavation or mesh reinforcement)	SF	2.00	1.98	0.47	4.45
384	Brick pavers, on 2" bedding material (excludes excavation)	SF	5.16	6.67	0.43	12.26

	2023 Division 15 - Mechanical Work - Union	Unit of Measure	Material	Labor	Construction Equipment	Total
271	Sewage ejector pump - single 5 HP motor - 3" - 4" dia discharge c/w tank and piping and electrical hook up	EACH	25,974.79	3,503.69	223.50	29,701.99
272	Sewage ejector pump - duplex 1 HP motor - 2" - 3" dia discharge c/w tank and piping and electrical hook up	EACH	10,750.60	1,346.57	85.90	12,183.07
273	Sewage ejector pump - duplex 2 1/2 HP motor - 3" - 4" dia discharge c/w tank and piping and electrical hook up	EACH	21,817.49	2,925.19	186.60	24,929.28
274	Sewage ejector pump - duplex 5 HP motor - 3" - 4" dia discharge c/w tank and piping and electrical hook up	EACH	26,627.63	3,650.77	232.89	30,511.28
275	Sewage ejector pump - duplex 7.5 HP motor - 4" - 6" dia discharge c/w tank and piping and electrical hook up	EACH	31,185.22	4,252.05	271.24	35,708.51
	<b>Pumps - General Service</b>					
276	5 GPM - 50' head	EACH	1,336	457.57	29.19	1,822.94
277	10 GPM ditto	EACH	1,511	490.26	31.27	2,032.97
278	25 GPM ditto	EACH	2,206	751.72	47.95	3,006.01
279	50 GPM ditto	EACH	2,272	866.12	55.25	3,193.70
280	100 GPM ditto	EACH	2,420	1,372.71	87.57	3,880.33
281	250 GPM ditto	EACH	4,903	2,353.22	150.11	7,406.30
282	500 GPM ditto	EACH	7,257	3,497.15	223.09	10,977.49
283	1,000 GPM ditto	EACH	7,772	4,510.35	287.72	12,570.51
284	2,500 GPM ditto	EACH	18,026	5,752.33	366.95	24,145.68
285	5,000 GPM ditto	EACH	23,295	6,912.60	440.96	30,648.89
286	5 GPM - 250' head	EACH	1,848	480.45	30.65	2,359.14
287	10 GPM ditto	EACH	2,112	514.77	32.84	2,659.65
288	25 GPM ditto	EACH	3,089	789.31	50.35	3,928.52
289	50 GPM ditto	EACH	3,187	909.42	58.01	4,154.37
290	100 GPM ditto	EACH	3,388	1,441.35	91.95	4,921.36
291	250 GPM ditto	EACH	6,864	2,470.89	157.62	9,492.65
292	500 GPM ditto	EACH	10,173	3,672.01	234.24	14,079.16
293	1,000 GPM ditto	EACH	10,881	4,735.86	302.11	15,919.39
294	2,500 GPM ditto	EACH	25,195	6,039.94	385.29	31,620.00
295	5,000 GPM ditto	EACH	32,640	7,258.23	463.01	40,361.13
296	Pump - condensate - duplex 10 GPM	EACH	4,354	1,372.71	87.57	5,814.50
297	Ditto 25 GPM	EACH	6,809	1,601.50	102.16	8,512.18
298	Ditto 50 GPM	EACH	9,758	1,764.92	112.59	11,635.34
299	Ditto 100 GPM	EACH	140,304	2,908.85	185.56	143,398.38

	<b>2023 Division 16 - Electrical Work - Union</b>	<b>Unit</b>	<b>Material</b>	<b>Labor</b>	<b>Construct Equipt</b>	<b>Total</b>
135	Ditto 4"	EACH				12.00 per device
136	Electronic pressure recorder	EACH				12.00 per device
137	Electronic turbine flow meter 1"	EACH				4.00 per device
138	Ditto 2"	EACH				8.00 per device
139	Electronic swirl meter 1"	EACH				4.50 per device
140	Ditto 2"	EACH				8.00 per device
141	Electronic temperature controller	EACH				6.50 per device
142	Electronic flow indicator	EACH				5.00 per device
143	Electronic PD flow indicator	EACH				5.50 per device
144	Electronic level control valve	EACH				5.50 per device
	<b>Electrical work by various facility</b>					
145	Electrical work - Manufacturing facility 1 - 3 floors	SF	5.98	6.93	0.44	13.35
146	Electrical work - Shopping mall 1 - 3 floors	SF	6.61	8.35	0.53	15.49
147	Electrical work - Single family home 1 - 2 floors	SF	3.78	5.30	0.34	9.42
148	Electrical work - Motel / Hotel 1 - 3 floors	SF	4.95	6.99	0.45	12.38
149	Electrical work - Hotel 4 - 7 floors	SF	6.70	8.55	0.55	15.80
150	Electrical work - Airport terminal	SF	11.04	12.00	0.77	23.80
151	Electrical work - 3 star Hotel 4 - 7 floors	SF	11.99	14.32	0.91	27.23
152	Electrical work R&D Laboratory building	SF	13.90	15.86	1.01	30.78
153	Electrical work 1 - 3 floor Office	SF	10.79	14.61	0.93	26.33
154	Electrical work 4 - 8 floor Office	SF	10.32	13.76	0.88	24.96
155	Electrical work 9 - 15 floor Office	SF	8.90	12.10	0.77	21.77
156	Electrical work ISO 8 100,000 area	SF	38.43	42.39	2.71	83.53
157	Electrical work ISO 6 1,000 area	SF	68.88	84.79	5.41	159.08
158	Electrical work - Hospital	SF	23.73	30.56	1.95	56.25

	<b>2023 Division 16 - Electrical Work - Union</b>	<b>Unit</b>	<b>Material</b>	<b>Labor</b>	<b>Construct Equip</b>	<b>Total</b>
322	600 v copper 1/C # 2 THHN	LF	2.42	1.84	0.12	4.38
323	600 v copper 1/C - 1/0 THHN	LF	3.87	2.39	0.16	6.42
324	600 v copper 1/C - 2/0 THHN	LF	4.26	2.76	0.18	7.19
325	600 v copper 1/C - 3/0 THHN	LF	5.42	3.03	0.20	8.65
326	600 v copper 1/C - 4/0 THHN	LF	6.58	3.59	0.23	10.40
327	600 v copper 1/C - 250 MCM THHN	LF	7.93	4.32	0.28	12.54
328	600 v copper 1/C - 350 MCM THHN	LF	10.18	4.69	0.31	15.18
329	600 v copper 1/C - 500 MCM THHN	LF	14.31	5.70	0.37	20.39
330	600 v copper 1/C - 600 MCM THHN	LF	21.28	6.07	0.40	27.74
331	600 v copper 1/C - 750 MCM THHN	LF	27.08	6.90	0.45	34.43
332	PVC copper cable / raceway for 30 amp service	LF	2.92	5.14	0.39	8.44
333	Ditto 60 amp	LF	6.09	6.76	0.51	13.37
334	Ditto 100 amp	LF	11.48	16.23	1.23	28.94
335	Ditto 150 amp	LF	18.27	18.93	1.43	38.63
336	Ditto 225 amp	LF	36.99	21.64	1.64	60.27
337	Ditto 400 amp	LF	76.14	27.05	2.04	105.23
338	Ditto 800 amp	LF	169.93	32.46	2.45	204.84
339	EMT - copper cable / raceway for 30 amp service	LF	2.56	8.11	0.41	11.08
340	Ditto 60 amp	LF	7.57	10.82	0.55	18.94
341	Ditto 100 amp	LF	17.87	13.52	0.68	32.07
342	Ditto 150 amp	LF	24.43	16.23	0.82	41.47
343	Ditto 225 amp	LF	47.17	18.93	0.95	67.06
344	Ditto 400 amp	LF	91.49	24.34	1.84	117.67
345	Ditto 800 amp	LF	182.21	29.75	2.25	214.21
346	RSC - copper cable for 30 amp service	LF	4.76	10.82	0.82	16.40
347	Ditto 60 amp	LF	9.35	13.52	1.02	23.90
348	Ditto 100 amp	LF	22.23	18.93	1.43	42.59
349	Ditto 150 amp	LF	30.93	20.12	1.52	52.58
350	Ditto 225 amp	LF	59.04	26.06	1.97	87.07
351	Ditto 400 amp	LF	118.63	40.27	3.04	161.94
352	Ditto 800 amp	LF	233.33	51.12	3.86	288.31
353	PVC - aluminum cable for 30 amp service	LF	3.28	5.41	0.41	9.10
354	Ditto 60 amp	LF	5.74	8.11	0.61	14.47
355	Ditto 100 amp	LF	11.29	13.52	1.02	25.84
356	Ditto 150 amp	LF	16.06	16.23	1.23	33.52
357	Ditto 225 amp	LF	22.53	18.93	1.43	42.89
358	Ditto 400 amp	LF	28.96	21.64	1.64	52.23
359	Ditto 800 amp	LF	55.57	29.75	2.25	87.57