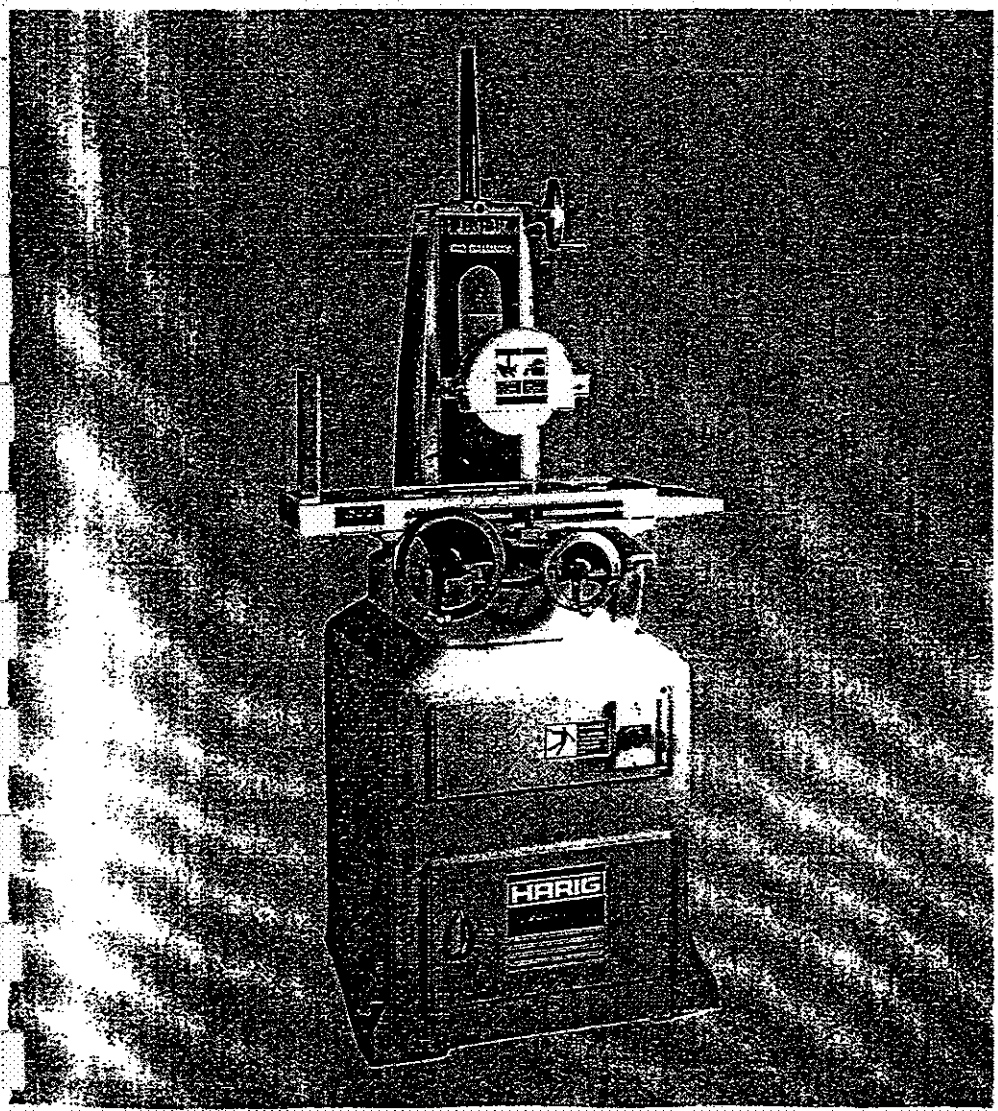
LINE ITEM #15
AUTOMATED GRINDER

Bridgeport®

HARIG® 612 • 618
Ball Way Surface Grinders

- **Finger Tip Operation**
- **Hand Scraped Ways**
- **Lasting Performance Accuracy**
- **Made in the U.S.A.**

- Rigid construction. One piece cast column construction, heavily ribbed 30,000 psi graphitic iron to resist deflection under load.
- Smooth gliding cable-driven table using precision ball-bearing balls to evenly distribute workloads.
- New crossfeed drive features positive lubrication and easy backlash adjustments.
- Cast iron base extended to the floor. Three point leveling system.

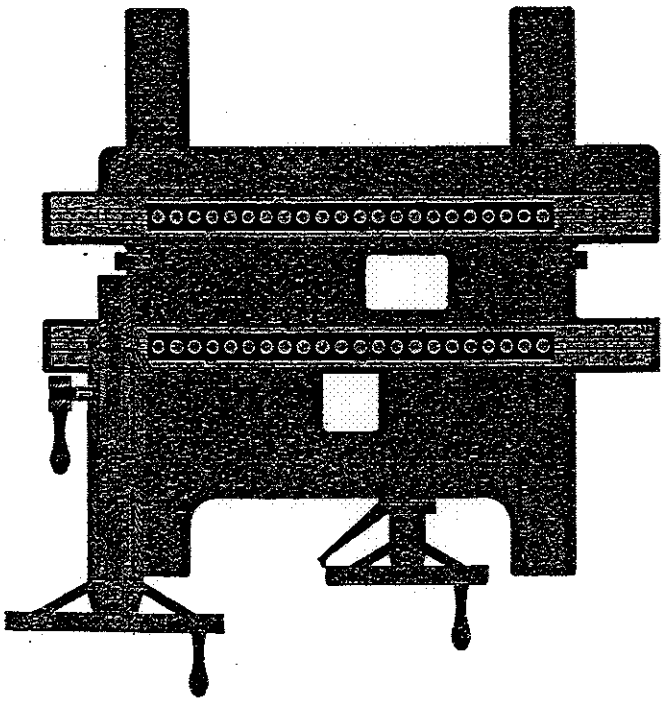


- Automatic lubrication standard. Harig's unique automatic FLO-CLEAN LUBRICATION SYSTEM continuously floods filtered lubrication to the column, carriage and table ball ways.
- Temperature compensating spindle housing for consistent accuracy. The direct drive 3 inch diameter spindle features Class 7 preloaded duplex bearings.
- The Harig Ball Way has hardened balls accurate to 5 millionths. Rollers are generally limited to 25 millionths accuracy. Balls deflect dirt aside, unlike rollers which may roll over it causing finish and surface accuracy variations.
- Lockup longitudinal table travel by flipping lever. Turn a thumb screw to lock cross feed travel.
- Manual start on-off push button includes overload and underload protection.
- Full support. Warranty of 24-months on parts and 12-months on labor. Bridgeport stands behind every machine with nationwide parts, accessories, service, and application engineering support.
- Financing and leasing readily available.

HARIG® 612 • 618 Ball Way Surface Grinders
6 x 12 in. or 6 x 18 in. platen
Performance accuracy that lasts

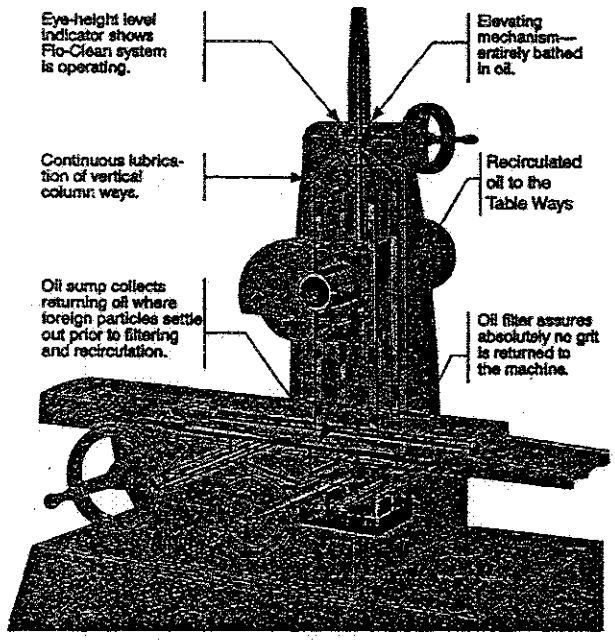
g® Ball Way Grinder Machine Specifications	612	618
le longitudinal table drive	Standard	Standard
itudinal travel	12-3/4 in. (324 mm)	20 in. (508 mm)
s feed travel	6-3/4 in. (171 mm)	6-3/4 in. (171 mm)
al working height (under 7 in. wheel)	12 in. (305 mm)	11-3/4 in. (298 mm)
en work area	6 x 12 in. (152 x 305 mm)	6 x 18 in. (152 x 457 mm)
ding wheel furnished	7 x 1/2 x 1-1/4 in. I.D. (178 x 13 x 32 mm)	7 x 1/2 x 1-1/4 in. I.D. (178 x 13 x 32 mm)
ling wheel maximum capacity	8 x 1-1/4 x 1-1/4 in. I.D. (203 x 32 x 32 mm)	8 x 1-1/4 x 1-1/4 in. I.D. (203 x 32 x 32 mm)
ting handwheel grad.	0.0001 in. (0.0025 mm)	0.0001 in. (0.0025 mm)
s feed handwheel grad.	0.001 in. (0.02 mm)	0.001 in. (0.02 mm)
dle motor	1-1/2 HP (1.125 kW)	1-1/2 HP (1.125 kW)
le speed	3450 RPM @ 1-1/2 HP, 60Hz	3450 RPM @ 1-1/2 HP, 60Hz
area cabinet	29 x 29 in. (737 x 737 mm)	29 x 29 in. (737 x 737 mm)
r area operating space	48 x 45 in. (1219 x 1143 mm)	69 x 45 in. (1753 x 1143 mm)
weight of machine	1150 lbs. (522 kg)	1350 lbs. (599 kg)
ht, domestic crated	1330 lbs. (603 kg)	1530 lbs. (694 kg)
ht, export boxed	1450 lbs. (658 kg)	1650 lbs. (748 kg)
rt box dimensions	76 x 55 x 45 in. (1.9 x 1.4 x 1.1 m)	76 x 55 x 45 in. (1.9 x 1.4 x 1.1 m)

e: Specifications subject to change without notice



Longitudinal Table Travel:
Harig's smooth cable drive Ball Way design table is protected from contamination with front and rear seals.

Automatic Lubrication System:
Harig's exclusive Flo-Clean Lubrication System continuously floods ways, bearings and lead screws with recirculated filtered oil.



Bridgeport®

500 Lindley Street, P.O. Box 32, Bridgeport, CT 06606 **Call Toll-Free 1-800-243-4292**

Notice: Bridgeport Machines, Inc. provides protective devices for the safe use of this equipment. Operation of this equipment may cause injury if the protective devices are ed. A comprehensive safety manual is provided with all machines offered by Bridgeport Machines, Inc. and recommended safe operating procedures must be adhered to.

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Jan. 95 Rev. 3 10M VDP Code No. 1104-1520

LINE ITEM #16
WIRE EDM

Specifications

Machine		E 250	E 400	E 900	S 250	S 400	S 900
X axis travel	in.	13.78	23.62	35.43	13.78	23.62	35.43
Y axis travel	in.	9.84	15.75	15.75	9.84	15.75	15.75
Z axis travel	in.	7.87	15.75	15.75	7.87	15.75	15.75
U axis travel	in.	3.15	3.15	3.15	3.15	3.15	3.15
V axis travel	in.	3.15	3.15	3.15	3.15	3.15	3.15
Max. workpiece size X	in.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Y	in.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Z	in.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Max. workpiece weight	lb	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Maximum table speed	in./min.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Maximum taper angle	±18°/4 in. (maximum ± 30°/1.8 in.)
Wire guide	Closed diamond guide
Wire diameter	in. [illegible]
Wire spool	[illegible]
Minimum hole diameter	in. [illegible]

(*) With anti-collision system 2200 lb.

CNC	
Controlled axes	X, Y, U, V, Z
N° axes simultaneously controlled	5
Minimum increment programmable and controllable	in. 0.00004
Max. program [illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
Display	[illegible]
[illegible]	Membrane, dust resistant

Filtering unit	
[illegible]	Standard
[illegible]	Deionized water
[illegible]	Mixed bed resins
[illegible]	132 132 132 291 317 344
[illegible]	Mineral Element
[illegible]	21 21 21 28 28 28
[illegible]	3 3 3 3 3 3

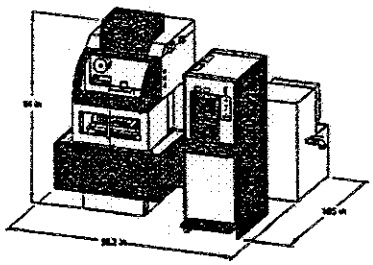
General characteristics						
[illegible]	5160	6810	8818	5300	7040	9060
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Options

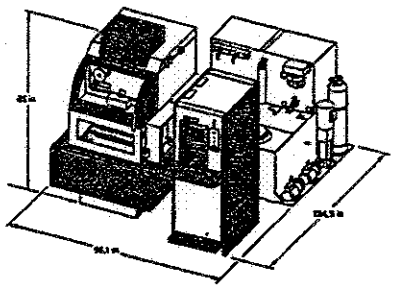
- Wire guides: 0.004, 0.006, 0.008, 0.012 in. diameter.
- Automatic wire threading unit
- [illegible]
- [illegible]
- [illegible]
- Dielectric fluid cooler
- Vibration absorbers
- [illegible]

Range and models

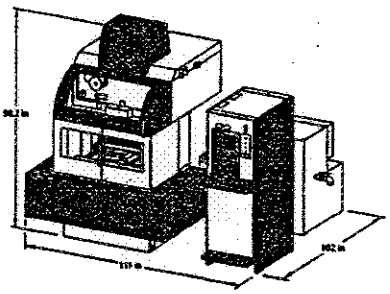
E 250



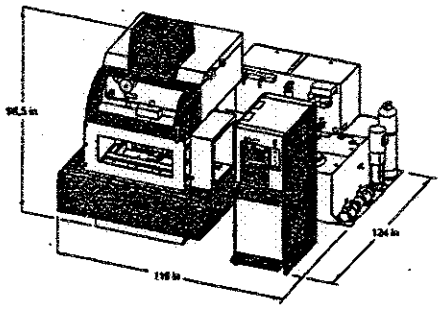
S 250



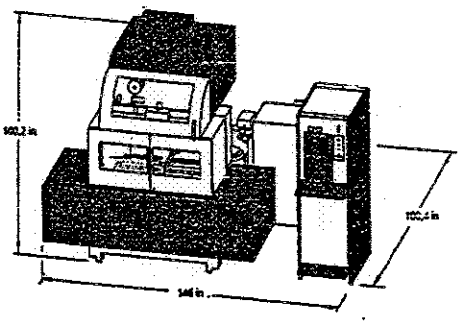
E 400



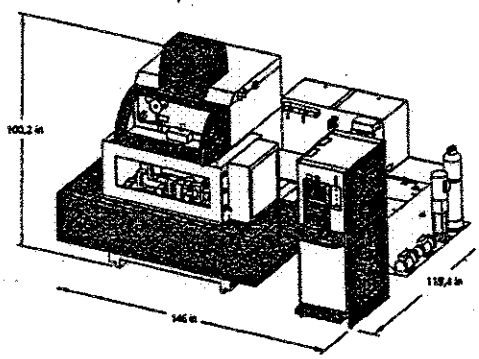
S 400



E 900



S 900



Specifications

Machine		C 300	C 400	H 300	H 400	H 600	H 700
"X" axis	in.	15,75	25,4	15,75	25,4	39,37	59,05
"Y" axis	in.	11,81	15,75	11,81	15,75	23,62	29,53
"Z" axis	in.	11,81	15,75	11,81	15,75	19,69	19,69
"C" axis	°	360	360	360	360	360	360
X-Y-Z positioning resolution	in.	0,00004	0,00004	0,00004	0,00004	0,00004	0,00004
C positioning resolution	°	0,001	0,001	0,001	0,001	0,001	0,001
Axis movement maximum speed	in./min.	35,4	35,4	35,4	35,4	35,4	35,4
Rotation maximum speed (C axis)	t/min.	40	40	40	40	40	40
Working tank							
Type		Rise and fall system			Fixed		
Tank dimensions	in.	35,43 x 19,69 x 11,81	43,31 x 27,56 x 15,75	35,43 x 19,69 x 11,81	43,31 x 27,56 x 15,75	66,93 x 39,37 x 23,62	90,55 x 51,19 x 27,56
Work table dimensions	in.	21,65 x 15,75	31,50 x 23,62	21,65 x 15,75	31,50 x 23,62	47,24 x 31,50	66,93 x 39,37
Max. distance between head and table .							
(Without "C" axis)	in.	19,69	23,62	19,69	23,62	31,50	39,37
(With "C" axis)	in.	16,54	20,47	16,54	20,47	28,35	37,80
Maximum dielectric height	in.	10,43	14,37	10,43	14,37	22,24	26,18
Maximum workpiece height	in.	9,06	12,99	9,06	12,99	20,87	24,80
Allwable weight on table	lb.	1.760	3.300	1.760	3.300	8.800	22.000
Maximum electrode weight (*)	lb.	220	440	220	440	880	880
Maximum electrode weight (with "C" axis) (**)	lb.	110/26,4	110/26,4	110/26,4	110/26,4	110/26,4	110/26,4
Allowable weight on electrode changer (***)	lb.	88/22	110/22	88/22	110/22	110/22	110/22
Rise and fall working tank				Manual and Programmed			
Generator							
Maximum power	A	60/120	60/120	60/120	60/120	60/120	60/120
Programmables intensities	Nº	12	12	12	12	12	12
Ignition voltage	Nº			80-100-120-160-200			
On-time	µseg.			1 a 6.500 programables			
Off-time	µseg.			1 a 6.500 programables			
Maximum stock removal rate with copper	in³/h	1,8315	1,8315	1,8315	1,8315	1,8315	1,8315
Maximum stock removal rate with graphite	in³/h	2,1968	2,1968	2,1968	2,1968	2,1968	2,1968
Electrode wear with cooper	%	0,2	0,2	0,2	0,2	0,2	0,2
Electrode wear with graphite	%	0,1	0,1	0,1	0,1	0,1	0,1
Minimum surface finish	VDI	0	0	0	0	0	0
Dielectric							
Total capacity	us gal.	132	331	132	331	436	900
Filter system		paper	paper	paper	paper	paper	paper
Filter level	µm	1	1	1	1	1	1
Change of filter elements	hours	>10.000	>10.000	>10.000	>10.000	>10.000	>10.000
Flushing method				Automatic (optional)			
Flushings:							
Head (pressure, intermittent)				1 to 10 programmables			
Tank (pressure, suction, intermittent)				1 to 10 programmables			
General characteristics							
Total weight	lb.	6.000	11.220	6.000	11.220	15.400	19.800
Total surface	in.	86,61x90,55	94,49x110,24	86,61x90,55	94,49x110,24	124,02x129,24	157,5x178,35
Maximum height	in.	91,73	104,72	91,73	104,72	113,39	126
Maximum power raiting (****)	KVA	10,7/14,6	10,7/14,6	10,7/14,6	10,7/14,6	10,7/14,6	10,7/14,6

(*) On electrode holder plate (**) Stattic/Dynamic depending on geometry (***) Total weight/Unit max. (****) 60/120 Amp.

Options

- Linear electrode changer with 4 to 12 stations (models C 300 / H 300), 6 to 16 stations (models C 400 / H 400), 8 to 22 stations (models H 600), 10 to 26 stations (model H 700).
- Robotized flexible handling systems for electrode and workpieces.
- Telemonitoring and remote control.
- Dielectric cooling device.

LINE ITEM #18
REVERSE ENGINEERING

Line #	QTY	Nomenclature	Vendor/Mfr	Function	Cost (1ea)	Est Total Cost Per Line	Dimension WxLxH	Remarks
18	2	Reverse engineering	Renishaw "Cyclone"	Machine shop	$48,000.00	$96,000.00	2′ x 1′-8″ x 14″	w/PC unit, allows 3D imaging and measurment for items w/o specs.

LINE ITEM #19
COORDINATE MEASURING MACHINE

August 29 , 2001

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Bright CNC Series

Series 191

PHOTOS

Line Drawings

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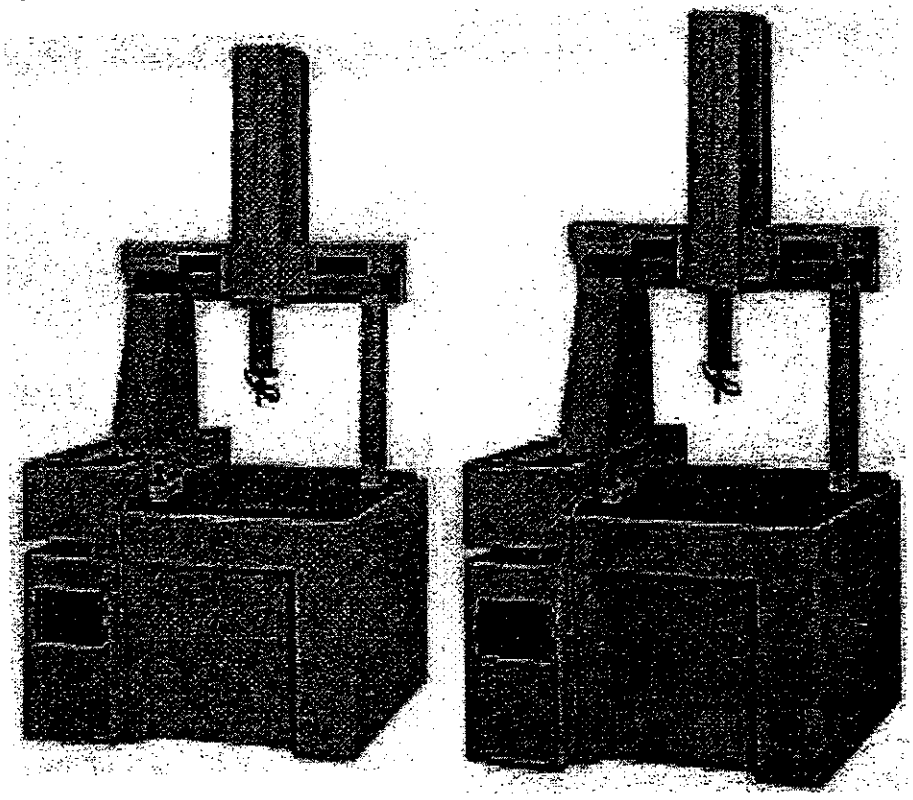

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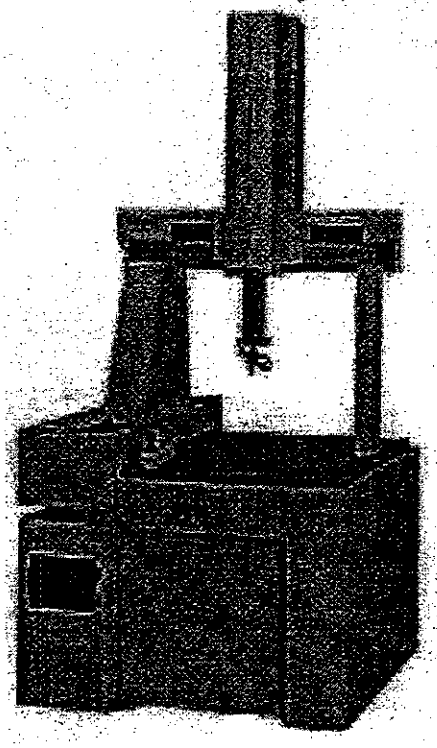
Bright CNC Series

Series 191

See page Q-04 of Catalog No. 302.



You get high measuring speeds and increased acceleration with Mitutoyo's Bright Series CNC CMM line. Combining some of the industry's most powerful measuring software to make short work of your most challenging measurements.

FEATURES:

- High Accuracy
- High Speed
- High Acceleration
- High workpiece loading
- Low Affordable Price

SPECIFICATIONS:

Inch/Metric

LINE ITEM #20
WORKBENCHES

Line #	QTY	Nomenclature	Vendor/Mfr	Function	Cost (1ea)	Est Total Cost Per Line	Dimension WxLxH	Remarks
20	8	Workbenches		Facility	$800.00	$6,400.00	24" x 72"	Hardwood w/vises

LINE ITEM #21
TOOL CABINETS

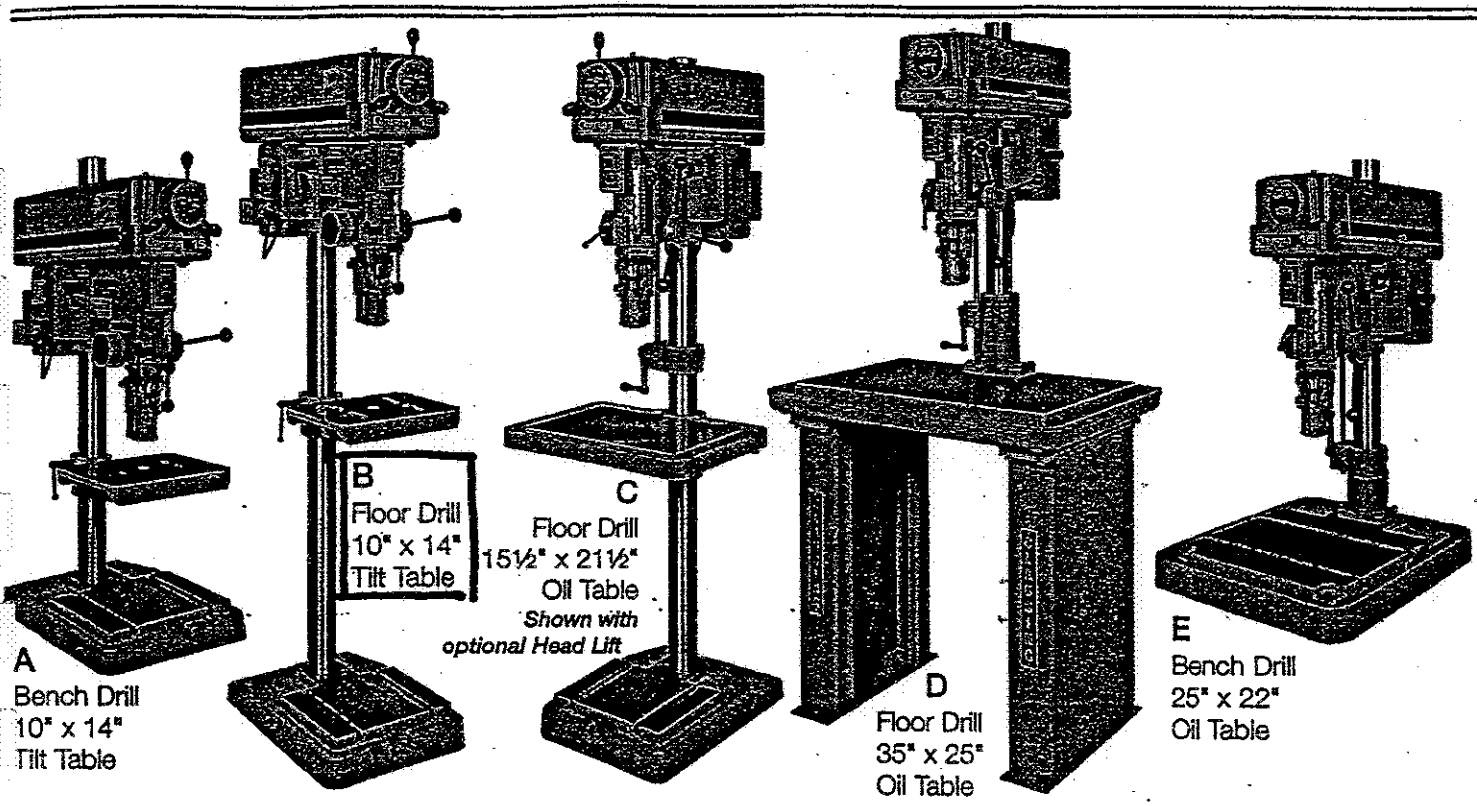
Line #	QTY	Nomenclature	Vendor/Mfr	Function	Cost (1ea)	Est Total Cost Per Line	Dimension WxLxH	Remarks
21	6	Tool cabinets		Facility	$1,900.00	$11,400.00	45" x 27" x 38"	Holds work centers, casters, 5 drawer, 1 compartment

Line #	QTY	Nomenclature	Vendor/Mfr	Function	Cost (1ea)	Est Total Cost Per Line	Dimension WxLxH	Remarks
22	8	Cabinets		Facility	$325.00	$2,600.00	48" x 18" x 72"	Heavy duty, 5 shelf

LINE ITEM #23
SHELF UNITS

Line #	QTY	Nomenclature	Vendor/Mfr	Function	Cost (1ea)	Est Total Cost Per Line	Dimension WxLxH	Remarks
23	8	Shelf units		Facility	$225.00	$1,800.00	36" x 18" x 84"	Heavy duty, 5 shelf

LINE ITEM #24
UPRIGHT DRILL PRESS



INFINITELY VARIABLE SPEED DRIVE

NOTE: Variable speed drills are NOT available without motors.

Motor Furnished	A Bench Drill tilt table		B Floor Drill tilt table		C Floor Drill 15" x 21" table		D Floor Drill 35" x 25" table		E Bench Drill 25" x 22" table	
	½" Key chuck	2 MT	½" Key chuck	2 MT	½" Key chuck	2 MT	½" Key chuck	2 MT	½" Key chuck	2 MT
Slow-Speed-Infinitely variable Speeds: 330 - 2640 rpm										
¾ Hp, 1-ph, 1140 rpm	1680	1682	1688	1690	1768	1770	1684-501	1686-501	1790	1792
¾ Hp, 3-ph, 1140 rpm	1681	1683	1689	1691	1769	1771	1685-501	1687-501	1791	1793
Hi-Speed-Infinitely variable Speeds: 500 - 4000 rpm										
¾ Hp, 1-ph, 1725 rpm	1660	1662	1670	1672	1764	1766	1665-501	1667-501	1786	1788
¾ Hp, 3-ph, 1725 rpm	1661	1663	1671	1673	1765	1767	1666-501	1668-501	1787	1789

STEP PULLEY DRIVE

Slow-Speed-Five-Speed: 260-530-1060-1860-3600 rpm										
¾ Hp, 1-ph, 1140 rpm	1650	1652	1675	1677	1760	1762	1654-501	1656-501	1782	1784
¾ Hp, 3-ph, 1140 rpm	1651	1653	1676	1678	1761	1763	1655-501	1657-501	1783	1785
Hi-Speed-Five Speed: 400-800-1600-2800-5400 rpm										
¾ Hp, 1-ph, 1725 rpm	1622	1627	1642	1647	1752	1757	1632-501	1637-501	1774	1779
¾ Hp, 3-ph, 1725 rpm	1624	1629	1644	1649	1754	1759	1634-501	1639-501	1776	1781
less Motor* (switch Furnished)	1620	1625	1640	1645	1750	1755	1630-501	1635-501	1772	1777

SPECIFY VOLTAGE... When voltage is not specified, motor will be wired on lower voltage.

ingle-phase switch installed and wired use motor with rpm shown above to get speed range indicated. Motors are ball bearing. 3-phase single eed motors are 208/220/440v, 60c. Single-phase motors are capacitor-start, 115/230v., 60c.

Drill Presses

Specifications:

Drill to center of circle	15" dia.
Capacity in steel	
Production rated, with optional power feed, ¾ hp motor	⅝" in cast iron ½" in mild steel
Spindle travel	
Spindle	2 MT or 33 JT with ½" chuck
Column	
Quill	ground steel, 2" dia.
TABLE, DRILL PRESS A and B	
Working surface	
Spindle to table, maximum Bench drill A Floor drill B	 14¼" 41¾"
TABLE, DRILL PRESS C	
BASE working surface, ground, DRILLS A, B, C	13" x 10"
Spindle to base, maximum	
TABLE, DRILL PRESS D	
Working surface	
Spindle to table, maximum	
Column bracket to center of spindle	6⅞"
TABLE, DRILL PRESS E	
Working surface	10" x 10"
Spindle to table, maximum	
Column bracket to center of spindle	6⅞"

FURNISHED: ½" key chuck or 2 MT spindle; micrometer depth stop; push-button safety switch; belt guard; spindle guard; 3 spoke feed wheel. Floor drill D, and bench drill E have head positioning mechanism. Other models have column collar.

Motors and switches are installed and wired, ready to connect to current. Single-phase motors have 10' three-wire cord and plug.

Optional Electrical Equipment*

For Factory Installation Only

(Controls for field installation ... price on application.)

No. 2371 MAGNETIC STARTER.* Protects motor against overload, low and no voltage. Motor will not automatically restart when power is restored. Transformer provides 110v at start-stop push button switch. 6 lbs.

No. 2371-14 MAGNETIC STARTER for 3-phase. Includes disconnect switch and 110 volt push buttons. Meets NMTBA standards.

No. 2371-15 MAGNETIC STARTER for 3-phase. Includes disconnect switch and 110 volt push buttons. Meets JIC standards.

No. 2377 REVERSING DRUM SWITCH. * Protects motor against overload, low and no voltage. Motor will not automatically restart when power is restored. Transformer provides 110v at start-stop push button switch. 6 lbs.

** Controls for single phase ... price on application.*

Motors

Catalog Number	H.P.	Speed	Phase	Voltage
2790	¾	1725 rpm	1	115/230
2793	¾	1140 rpm	1	115/230
2849	¾	1140 rpm	3	220/440
2849	¾	1140 rpm	3	220/440

Overall Dimensions	Width	Depth	Height	Weight
Drill press A	15½"	28"	44⅝"	275 lbs.
Drill press B				
Drill press C	21½"	28"	72⅝"	350 lbs.
Drill press D				
Drill Press E	22"	32½"	47"	350 lbs.

LINE ITEM #25
ARC WELDER

Dialarc® 250 AC/DC

Issued May 2001 • Index No. AD/2.1

Stick Welding Power Source

Quick Specs

Light Industrial Applications
Process
Input Power
Rated Output
Max. Open-Circuit Voltage

The Power of Blue®

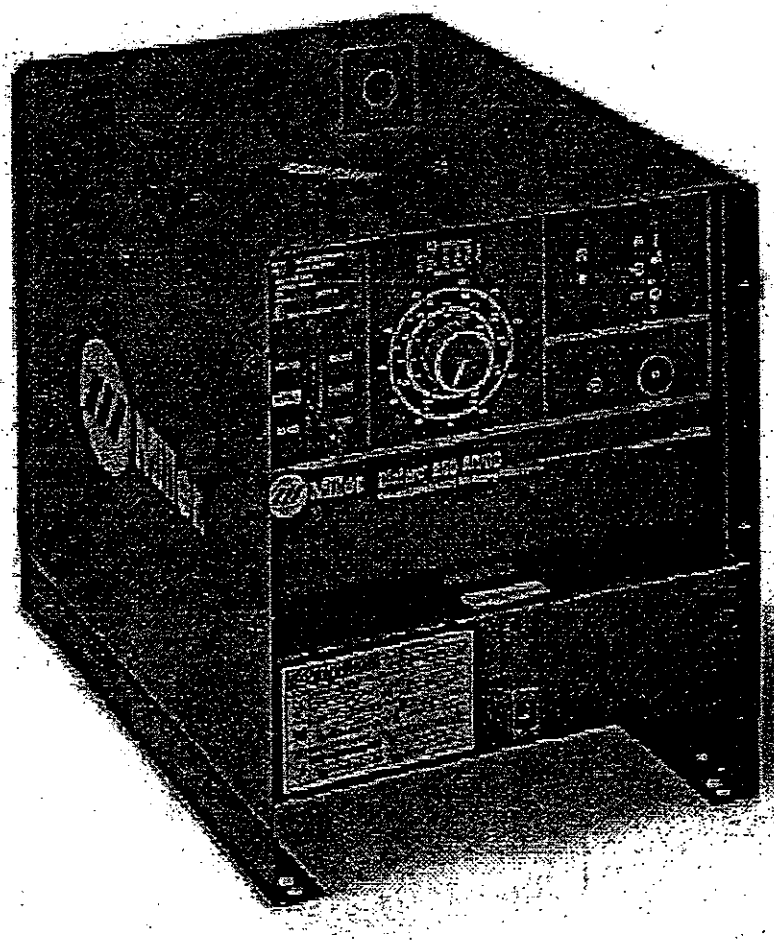
Single-dial current control simplifies weld adjustment.

Infinite current control allows precise weld output adjustment; you always get the exact heat you need to produce a better weld.

Two weld ranges for both AC and DC welding allow greater control of weld performance for changes in welding conditions.

Fully varnished magnetic amplifier technology provides lower maintenance, and outstanding product reliability with fewer moving parts.

Forced-draft cooling fan ensures a cooler running product, extending the life of the power source.



Superior 6010 and 7018 Stick welding performance offers a wide range of electrode versatility; welds difficult-to-weld metals.

High output and duty cycle allows unit to handle nearly all of your Stick welding needs.

Industrial, weld output terminal cover.

Power factor correction is available for lower primary power demand.

Optional remote weld output control provides current control without going back to the power source—saves time and effort.

TRUE BLUE® 3 YR. WARRANTY

Power source is warranted for 3 years, parts and labor.
Original main power rectified parts are warranted for 5 years.

Miller

Miller Electric Mfg. Co.
An Illinois Tool Works Company

International Headquarters
Phone: 920-735-4505

Web Site

ISO 9001

Specifications (Subject to change without notice)

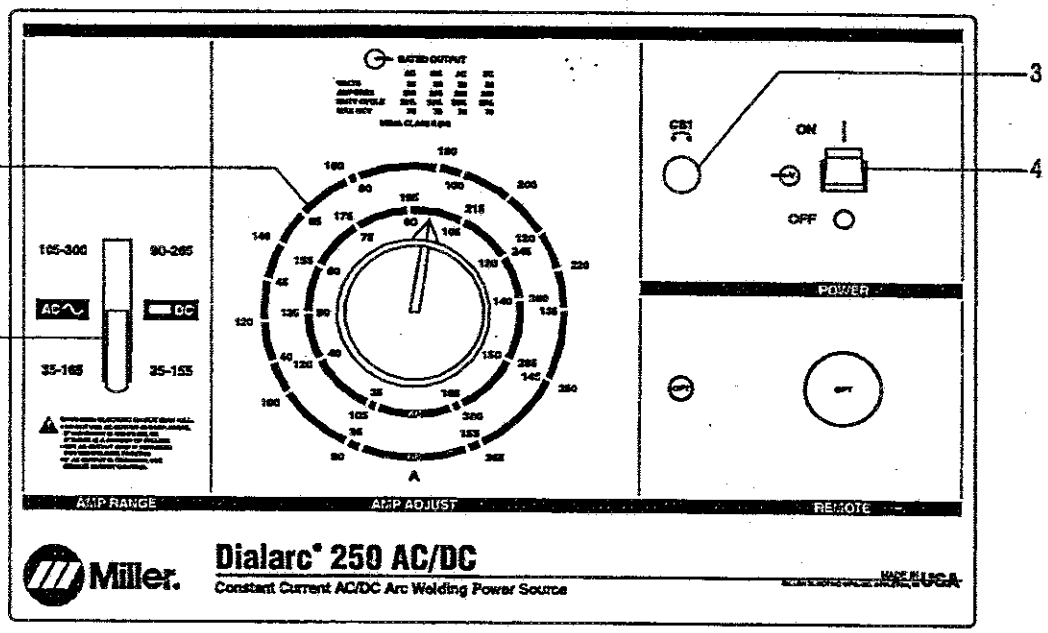
CC | AC/DC | 1 Phase

Power Factor Correction		Welding Amperage Ranges	Max. Open-Circuit Voltage	Rated Output	Amps Input at Rated Output, 50 or 60 Hz, Single-Phase 200 V	220 V	230 V	330 V	440 V	460 V	575 V	KVA	KW	Dimensions	Weight
Without	AC	Low: 35–165 High: 105–300	70	250 A at 30 VAC, 30% Duty Cycle	103	84	90	48.6	42	45	36	20.7	11.8	H: 24-1/4 in (616 mm) W:19 in (483 mm) D: 28 in (711 mm)	**Net:** 360 lb (163 kg) **Ship:** 370 lb (168 kg)
	DC	Low: 35–155 High: 90–265	79	200 A at 28 VDC, 50% Duty Cycle	80	68	70	39	34	35	28	16.1	8.2		
With	AC	Low: 35–165 High: 105–300	70	250 A at 30 VAC, 30% Duty Cycle	78	—	68	—	—	34	27	15.6	11.8		**Net:** 365 lb (166 kg) **Ship:** 375 lb (171 kg)
	DC	Low: 35–155 High: 90–265	79	200 A at 28 VDC, 50% Duty Cycle	57	—	50	—	—	25	20	11.5	8.2		

Certified by Canadian Standards Association to both Canadian and U.S. Standards.

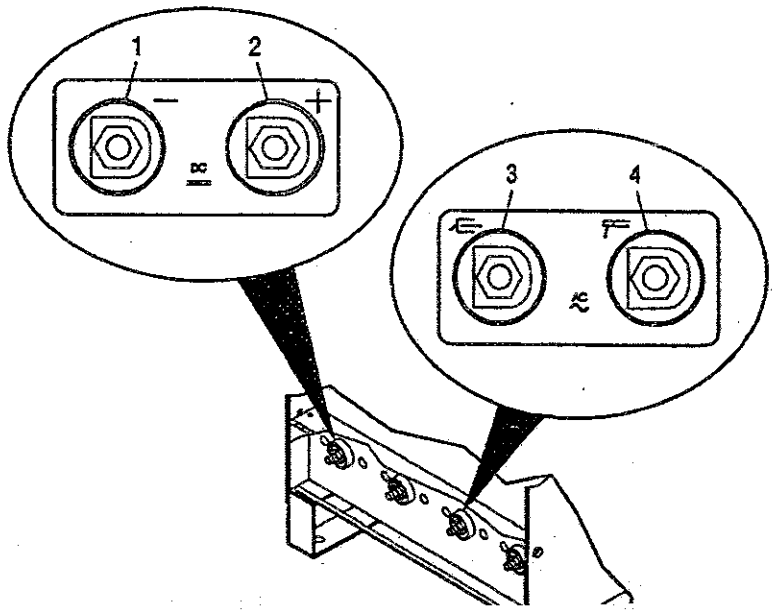
Control Panel

. Amperage Adjustment Control
. Range Selector Switch
. Circuit Breaker CB1
. Power Switch

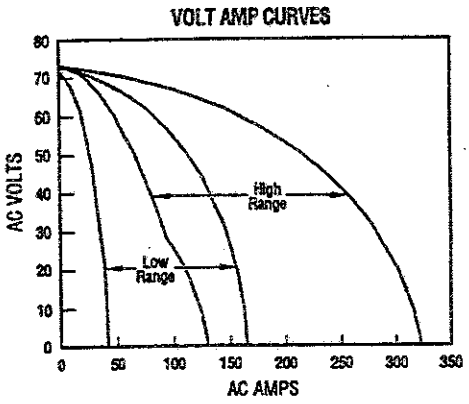


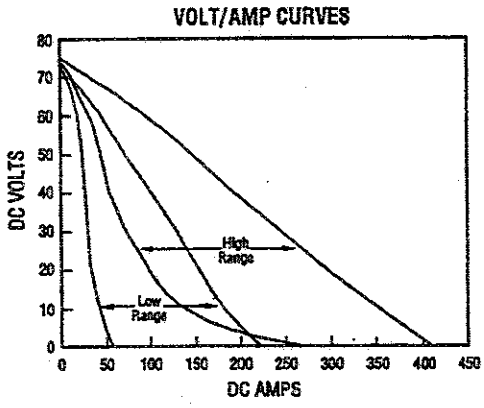
ır DC Weld Output
Negative (-) Weld Output Terminal
Positive (+) Weld Output Terminal

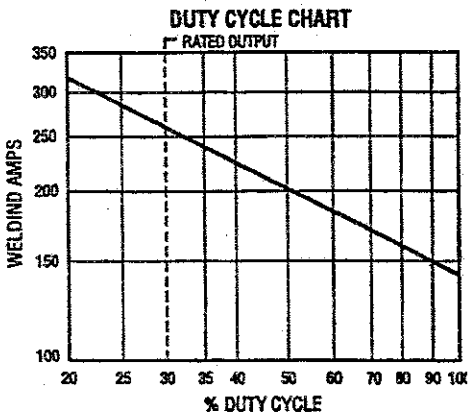
r AC Weld Output
Work Weld Output Terminal
Electrode Weld Output Terminal



Performance Data



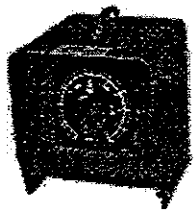




Genuine Miller Accessories

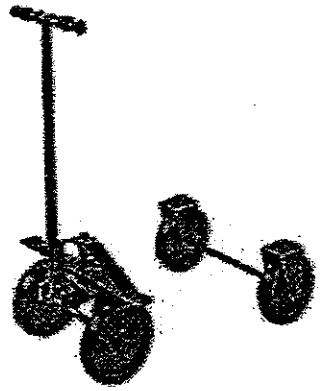
No. 2CWA Welding Accessories
#040 042
Consists of 35 ft (10.6 m), No. 2 electrode cable with insulated electrode holder; 30 ft (9.1 m), No. 2 work cable; work clamp; welding helmet; and wire scratch brush.

RF-10 Remote Current Control Facilities
#041 111 Field
Includes receptacle, remote-standard switch and wiring.



RHC-3 Remote Hand Amperage Control
#040 056
Requires RF-10 Remote Current Control Facilities. Includes 20 ft (6 m) cord and plug.

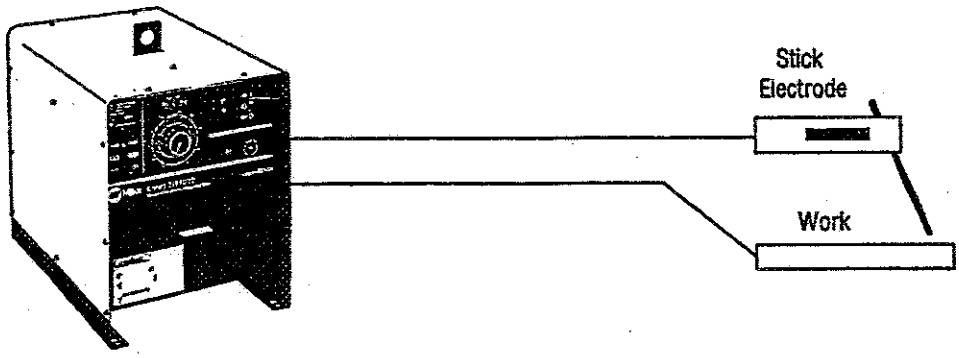
RFC-23A #040 071
Requires RF-10 Remote Current Control Facilities. Remote foot amperage control with 20 ft (6 m) cord and plug.



No. 19 Running Gear #041 580
Four 8 in (203 mm) poly/rubber blend wheels with 30 in (762 mm) towing handle. All running gear shipped unassembled.

Typical Installations

Stick (SMAW) Basic Equipment



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Dialarc® 250 AC/DC	#907 017 #907 016 #907 029	200/230/460, 60 Hz 230/460/575, 60 Hz 220/380/440,50 Hz		
Dialarc® 250P AC/DC	#907 015	200/230/460/575, 60 Hz		
No. 19 Running Gear	#041 580			
Accessories				
No. 2CWA Welding Accessories	#040 042	Includes 2/0, 35 ft electrode cable and holder, 30 ft work cable, welding helmet and wire scratch brush.		
F-10	#041 111	Remote current control facilities, field only		
HC-3	#040 056	Remote hand amperage control		
RFC-23A	#040 071	Remote foot amperage control		
Miscellaneous				
Stick Electrodes				
Helmet/Gloves/Scratch Brush				
Chipping Slag Hammer				
Other				

Date: **Total Quoted Price:**

Distributed by:

Miller
The Power of Blue

LINE ITEM #26
MIG WELDER

CP-252TS

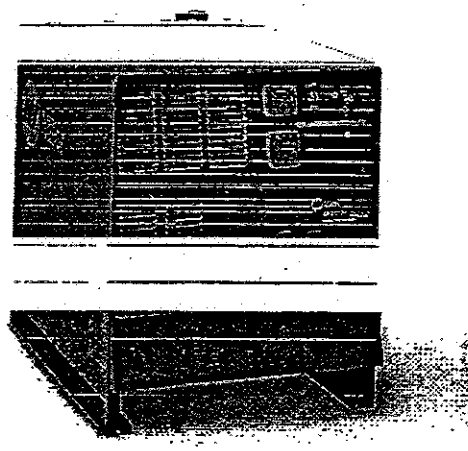
Index No. DC/31
Issued Dec. 1999

Industrial, Three-Phase, CV DC Arc Welding Power Source

Processes

- MIG (GMAW) Welding
- Flux Cored (FCAW) Welding

TRUE BLUE 3 YR. WARRANTY



CP-252TS power sources offer the most reliable arcs in the industry. Their rugged, simple design is an industry-proven standard—an unbeatable combination for demanding arc characteristics in a three-phase MIG weld. The CP-252TS has a tapped slope adjustment for a precise arc and puddle control required where welds must maintain ideal appearance.

Applications

- Light fabrication
- Automotive
- Furniture
- Agricultural
- Truck body fabrication
- Metal fabrication
- Small equipment manufacturing

Features	Benefits
Adjustable tapped slope settings	Provides the flexibility to produce the optimal arc characteristics. The CP-252TS has four slope settings. See the slope adjustment diagram on page 2.
Solid-state weld contactor	Provides longevity to match the ultra-durable and reliable reputation of the CP series.
Presettable welding voltage	Allows you to easily set weld output before welding. Voltmeter displays output while you adjust the voltage control.
Simple front panel design	Voltmeter and ammeter (analog) are large and easy to read. Minimal setup time needed with just one control adjustment. Lower panel cover protects output connections from harsh welding environments.
Power efficient	Exceptional value and return on your investment.
115 VAC duplex receptacle	Provides 15 amps auxiliary power.
14-pin receptacle	Provides quick, direct connection to Miller wire feeders and accessories.

Specifications *(Subject to change without notice.)*

Industrial, Heavy Industrial — CV, DC, 3 Phase

Rated Output	Open-Circuit Voltage	Amps Input at Rated Output, Three-Phase, 60 Hz 200 V	230 V	460 V	KVA	KW	Dimensions	Net Weight
250 A at 35 V, 100% Duty Cycle 320 A at 28 V, 60% Duty Cycle	14–44	34.5	30	15	11.9	11.2	H: 27-1/4 in (692 mm) W: 22-1/4 in (565 mm) D: 27 in (686 mm)	321 lb (146 kg)

Conforms with NEMA EW 1, "Electric Arc Welding Power Sources", Class I (100).

Certified by Canadian Standards Association

Ordering Information

☞ See back page.

Miller. The Power of Blue.

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

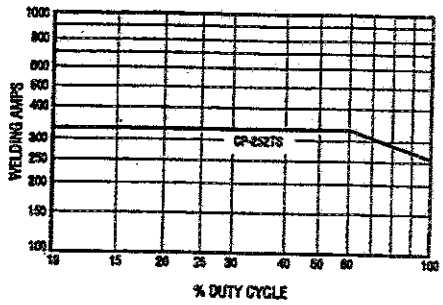
International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com

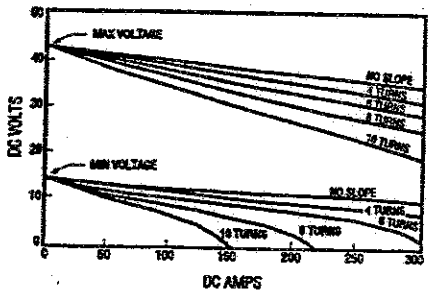
ISO 9001 REGISTERED QUALITY SYSTEM

Performance Data

DUTY CYCLE CHART

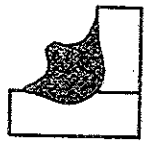
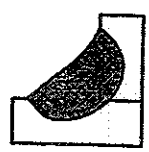
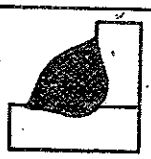
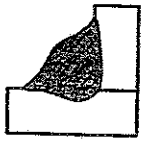
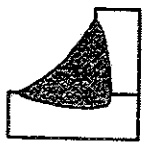
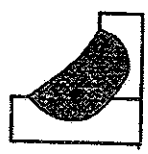


VOLT/AMP CURVE



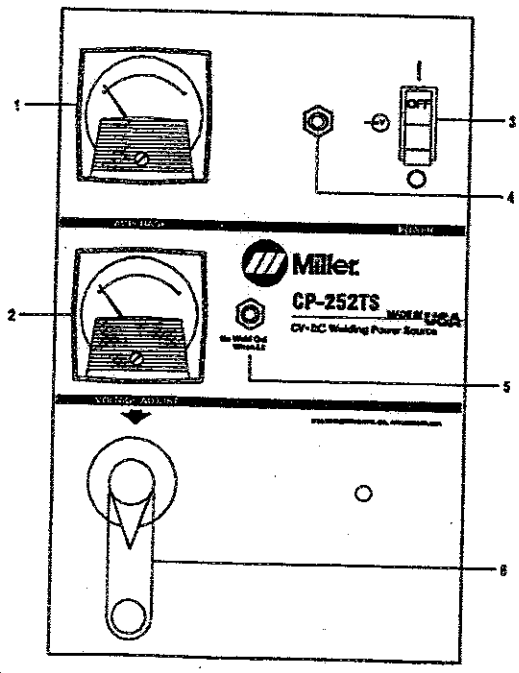
The diagram to the right illustrates graphically the control over the weld bead through use of the tapped slope adjustment. Note that as more turns are applied to the slope adjustment, the weld bead profile changes.

SLOPE ADJUSTMENT DIAGRAM

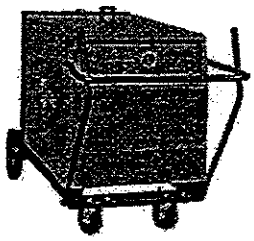
SLOPE ADJUST	STAINLESS STEEL ER308LHSI .035 in 90% HE/7.5% AR/2.5% CO_2	MILD STEEL ER70S-6 .035 in 75% AR/25% CO_2	ALUMINUM ER4043 .035 in 100% Ar
4 TURNS	NOT RECOMMENDED		
6 TURNS			
8 TURNS			
10 TURNS			
NOTES:	*8 and 10 turns of slope are recommended for stainless steel.*	*6 and 8 turns of slope are recommended for mild steel.*	*Slope has a small effect on bead profile.* *8 and 10 turns of slope are recommended for aluminum because of starting characteristic.*

ntrol Panel

1. Ammeter
2. Voltmeter
3. Power Switch
4. Pilot Light
5. Preset Indicator Light
6. Voltage Control



Accessories

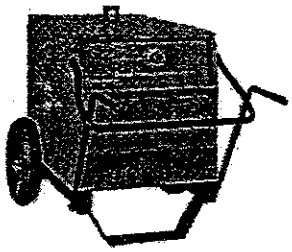


Standard Running Gear #042 886
The large 10 in (254 mm) rear wheels and 5 in (127 mm) front casters on this running gear provide excellent mobility on the shop floor, making it easier to move the power source. Very easy to install. Handles double as weld cable holder.

(Note: Both sides lift as shown.)

Cylinder Rack/Lift #043 005
Miller's patent pending cylinder rack features a lift which moves the cylinders up onto the rack and into position without manual lifting! The rack accommodates two cylinder bottles, and can be attached directly to the Standard Running Gear.

Standard Cylinder Rack #042 887
Holds two cylinders. Only installs on Standard Running Gear.

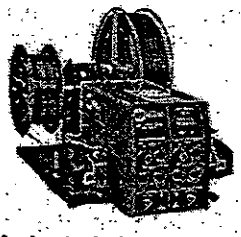


Rough Terrain Running Gear #043 043
This two-wheel running gear features pneumatic tires for extra mobility. Handles double as a cable holder.

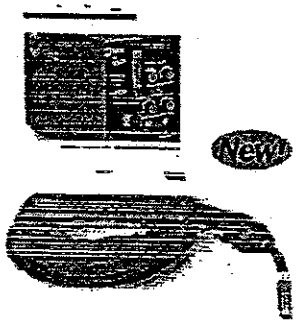
MIG Hook-Up Kit #173 856
25 ft (7.6 m) 2/0 cable. Kit includes gas hose assembly, lugged weld cable assembly and work cable with clamp.

Wire Feeders

22A #193 066
Lightweight, 24 VAC constant-speed semi-automatic wire feeder, best suited for small diameter wires. Accommodates up to a 60 lb (27.2 kg) spool of welding wire when using optional wire reel assembly. See Lit. Index No. M/11.0.



60 Series
S-62 #131 785
S-64 #131 786
D-64 #131788
Heavy-duty, industrial, constant-speed 24 VAC semi-automatic wire feeders in dual or single models, with available digital meters. Ideal for high-duty-cycle MIG welding (GMAW) and Flux Cored welding (FCAW). Accommodates a wide variety of wire sizes and types. See Lit. Index No. M/2.0.



XR Control #181 538
Push-pull wire feed system offers unparalleled performance for aluminum MIG welding. See Lit. Index No. M/1.7.

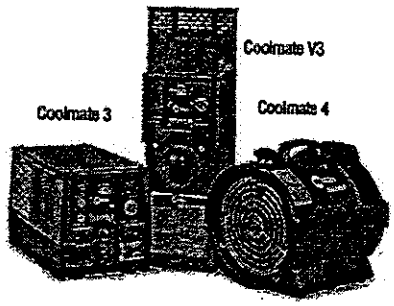
Spoolmatic® 30A #130 831
A 1-lb, air-cooled spool gun that extends the weld process range by adding a handy portable system for small wire MIG. Rated 200 A at 100% duty cycle. Includes 30 ft (9.1 m) cable assembly. (WC-24 #137 549 for 14 pin.)

WC-24 Weld Control
#137 549
Packaged in a compact, lightweight, non-metallic enclosure, the WC-24 easily mounts directly on the power source. It's designed for use with Miller CV power sources supplying 24 VAC and 14-pin receptacles. The control includes a board-mounted potentiometer which can alter the drive motor acceleration rate to optimize arc starting performance.

Extension Cables for 14-Pin Plugs to 14-Pin Sockets
#122 973 25 ft (7.6 m)
#122 974 50 ft (15.2 m)
#122 975 75 ft (22.8 m)

Water Coolant Systems

For more information, see Miller Coolant Systems Lit. Index No. AY/7.2.



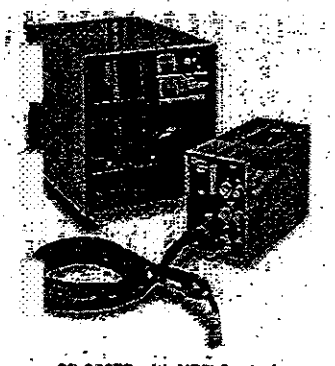
Coolmate 3
#043 007 115 VAC
#043 008 230 VAC
For use with water-cooled torches rated up to 600 amps. Unique paddle-wheel indicator, external filter and easy fill spout.

Coolmate V3 #043 009 115 VAC
For use with water-cooled torches rated up to 500 amps. Vertical design conveniently mounts to Miller cylinder rack in place of one cylinder.

Coolmate 4 #042 288
For use with water-cooled torches rated up to 600 amps. Tough molded polyethylene case with carrying handle.

Coolant #043 810
Sold in cases of four 1-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37°F (-38°C) or boiling to 227°F (108°C). Also contains a compound that resists algae growth.

ical Welding Systems
Aluminum MIG Welding



CP-252TS with XR™ Control
nventional Aluminum MIG System
(#950 704)

Ordering Information and System Checklist

Power Source and Options	Stock No.	Description	Qty.	Price
CP-252TS	#903 785	200/230/460 V, 60 Hz		
CP-252TS Package	#950 704	Includes CP-252TS (#903 785) and XR Control with 30 ft (9.1 m) gun		
Wire Feeders				
22A	#193 066	See Lit. Index No. M/11.0		
60 Series	#131 785 #131 786 #131 788	S-62. See Lit. Index No. M/2.0 S-64 D-64		
Extension Cables	#122 973 #122 974 #122 975	25 ft (7.6 m) 50 ft (15 m) 75 ft (23 m)		
Spoolmatic® 30A Spool Gun	#130 831	See Lit. Index No. M/1.5		
WC-24	#137 549	See Lit. Index No. M/1.5		
XR Control	#161 536	See Lit. Index No. M/1.7		
Proper Size Drive Rolls				
Proper Wire Size				
Guns				
MIGmatic™ Series		See Lit. Index No. M/10.0		
XR-Edge Guns		See Lit. Index No. M/1.7		
XR-Pistol Guns		See Lit. Index No. M/1.7		
Gun Liners				
Contact Tips				
Coolant Systems *(Not required for gas/air cooled systems.)*				
Coolmate™ 3	#043 007 #043 008	115 VAC. See Lit. Index No. AY/7.2 230 VAC		
Coolmate™ V3	#043 009	115 VAC. See Lit. Index No. AY/7.2		
Coolmate™ 4	#042 288	230 VAC. See Lit. Index No. AY/7.2		
Miller Coolant	#043 810			
Miscellaneous				
Standard Running Gear	#042 866			
Cylinder Rack/Lift	#043 005			
Standard Cylinder Rack	#042 867			
Rough Terrain Running Gear	#043 043			
MIG Hook-Up Kit	#173 856	25 ft (7.6 m) 2/0 cable		
Electrode Cable and Lugs				
Work Cable and Clamp				
Primary Cable and Plug/Receptacle				
Gas Cylinder		Rent/purchase		
Regulator/Flowmeter				
Gas Hose				
Extension Cables	#122 973 #122 974 #122 975	25 ft (7.6 m) 50 ft (15 m) 75 ft (23 m)		
Date:		**Total Quoted Price:**		

Distributed by:

Miller.
The Power of Blue.

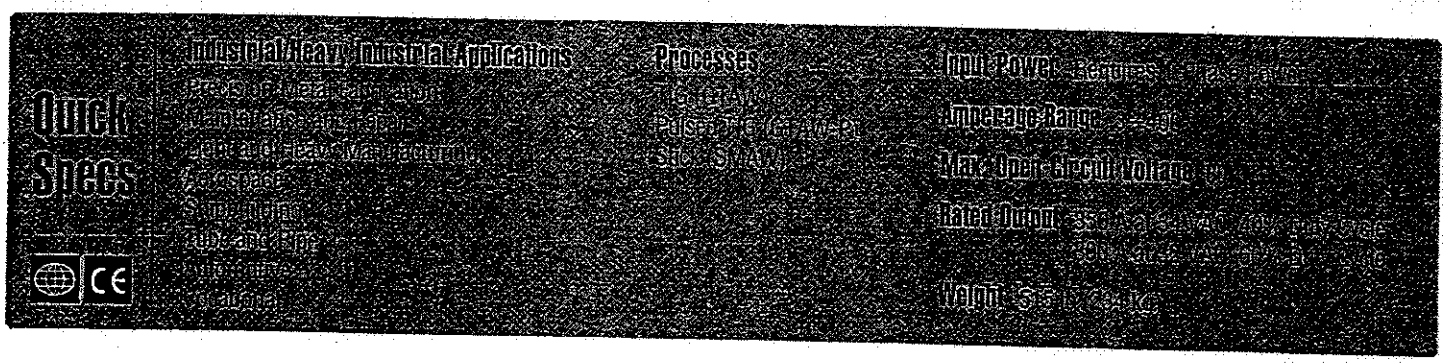
in USA

LINE ITEM #27
TIG MACHINES

Syncrowave® 350 LX

Issued July 2001 • Index No. AD/4.3

TIG/Stick Welding Power Source



The Power of Blue®

Enhanced!

Squarewave output with AC balance control features adjustable penetration and cleaning action while increasing arc stability on various aluminum alloys, and helps eliminate tungsten spitting and arc rectification.

NEW! **Built-in cable hangers** on both sides conveniently fold out of power supply to allow all weld cables to be neatly stored, to prevent torch or cable damage.

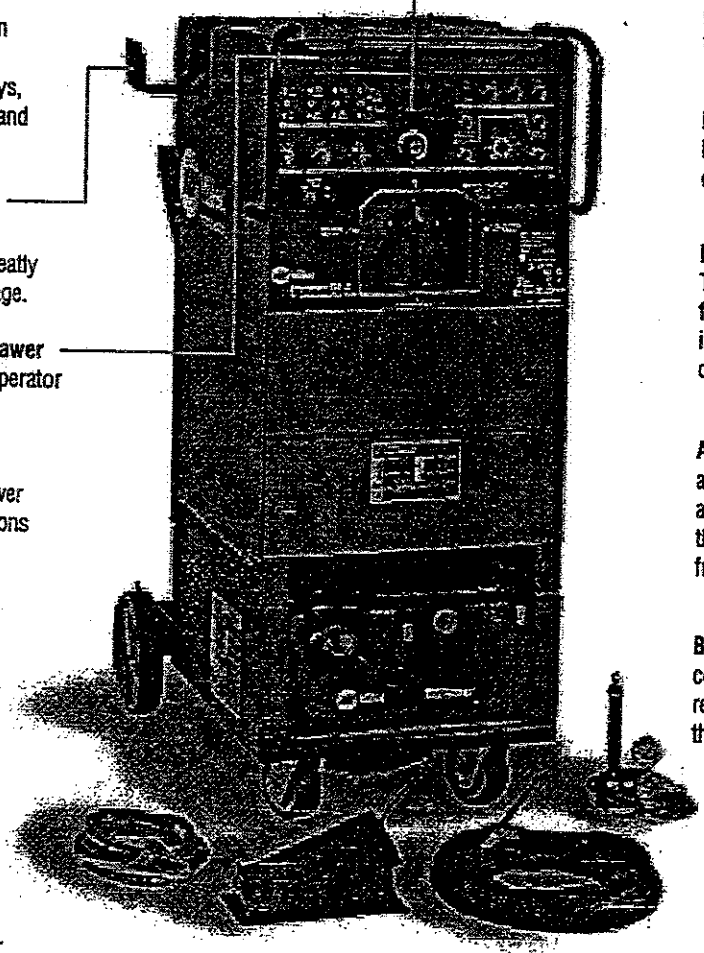
NEW! **Built-in consumable storage drawer** located on the front panel allows the operator to store and readily access the needed consumables to be more productive.

Line voltage compensation keeps power source constant regardless of fluctuations in input power (±10%).

Last procedure recall automatically recalls the last procedure set-up when switching polarity. Prevents operator confusion and reduces training time requirements.

Help messages provide assistance to the operator about output status for machine circuitry.

Standard built-in **preflow** 0–10 seconds will purge the weld area prior to welding. Standard built-in **postflow** 0–50 seconds will protect the weld and tungsten when welding is completed.



Syncrowave 350 LX TIGRunner® shown

Dual digital meters allow for quick and easy viewing of actual and preset values of amperage and voltage. Allows for greater accuracy and repeatability in the welding procedure.

Fan-On-Demand™ reduces maintenance by reducing the amount of airborne contaminants pulled through the machine.

Lift-Arc™ for DC TIG arc starts allows TIG starting without the use of high frequency. This feature starts the arc in DC at any amperage without contaminating the weld or the tungsten.

Adaptive Hot Start™ for Stick arc starts automatically increases the output amperage at the start of a weld should the start require it. Prevents the electrode from sticking and creating an inclusion.

Built-in pulser provides a heating and cooling effect on the weld puddle to reduce the heat input and distortion of the material.

Optional built-in sequencer allows the operator to set a start current that is higher or lower than the welding current. The final slope/final amperage controls provide crater fill and tailout of the weld.

TRUE BLUE® 3 YR WARRANTY

Power source is warranted for 3 years, parts and labor.
Original main power rectified parts are warranted for 5 years.

MADE IN USA
APPLETON, WI

Miller

Miller Electric Mfg. Co.
An Illinois Tool Works Company

International Headquarters
Phone: 920-735-4505

Web Site
www.MillerWelds.com

ISO 9001

ecifications (Subject to change without notice.)

CC AC/DC 1 Phase

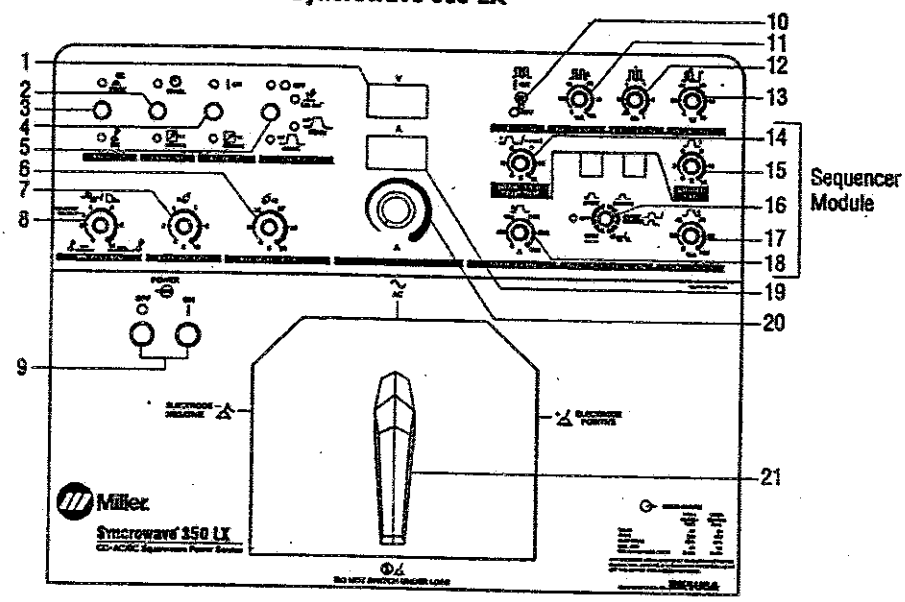
d Output	Power Factor Correction	50/60 Hz Amps Input at AC Balance, Rated Load, 1-phase 200 V	220 V	230 V	400 V	440 V	460 V	520 V	575 V	KVA	KW	Welding Amp Range	Max OCV	Dimensions	Weight
A, 34 VAC, % Duty Cycle	Without	129 5*	117 5*	112 4*	65 3*	58 2*	56 2*	49 2*	45 2*	25.8 1.2*	14.3 0.4*	3–400 A	80 V	H: 40 in (1016 mm) W: 22-7/8 in (581 mm) D: 25-1/4 in (641 mm)	515 lb (234 kg)
	With	98 69*	89 63*	85 60*	49 35*	44 31*	43 30*	37 26*	34 24*	19.6 13.8*	14.0 0.4*	3–400 A	80 V		
0 A, 32 VAC, % Duty Cycle	Without	150 5*	137 5*	131 4*	75 3*	68 2*	66 2*	57 2*	53 2*	30.5 1.2*	17.7 0.4*	3–400 A	80 V		
	With	118 69*	107 63*	103 60*	59 35*	53 31*	52 30*	45 26*	41 24*	23.6 13.8*	17.7 0.4*	3–400 A	80 V		

ile idling. *Certified by Canadian Standards Association to both Canadian and U.S. Standards.* *Conforms to European standards.*

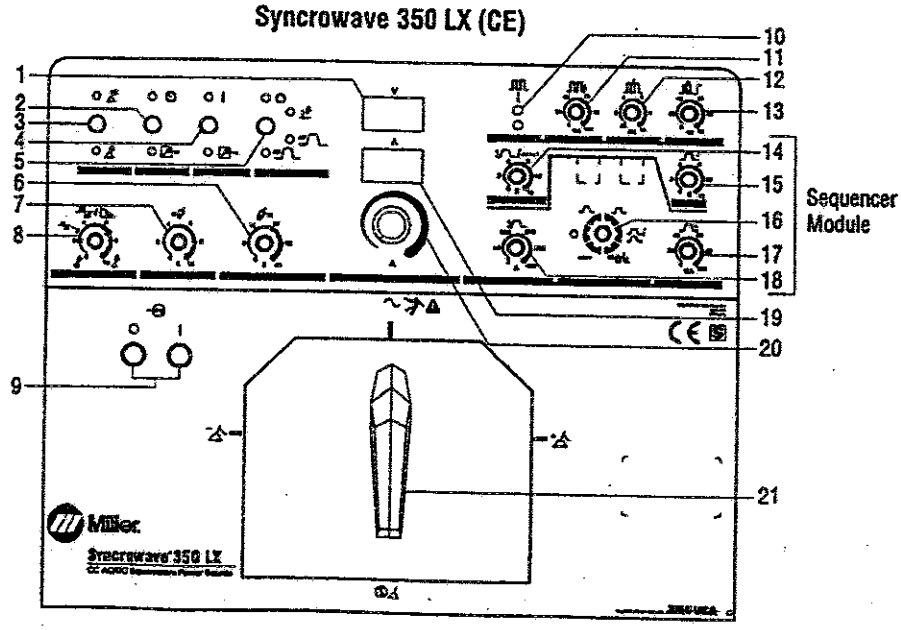
ntrol Panel (English version shown.)

Voltmeter Display
rrent Control
ocess Control
Output Control
Start Mode Control
stflow Time Control
flow Time Control
Balance/Dig Control
Power Switch Push Buttons
se On/Off Switch
ckground Amps Control
Pulse Frequency Control
k Time Control
rt Time/Spot Time Control*
rater Time Control*
Sequence Selection Switch*
al Current Control*
rt Current Control*
Ammeter Display
Amperage Adjustment Control
put Selector Switch
ncer Module

Syncrowave 350 LX



Syncrowave 350 LX (CE)

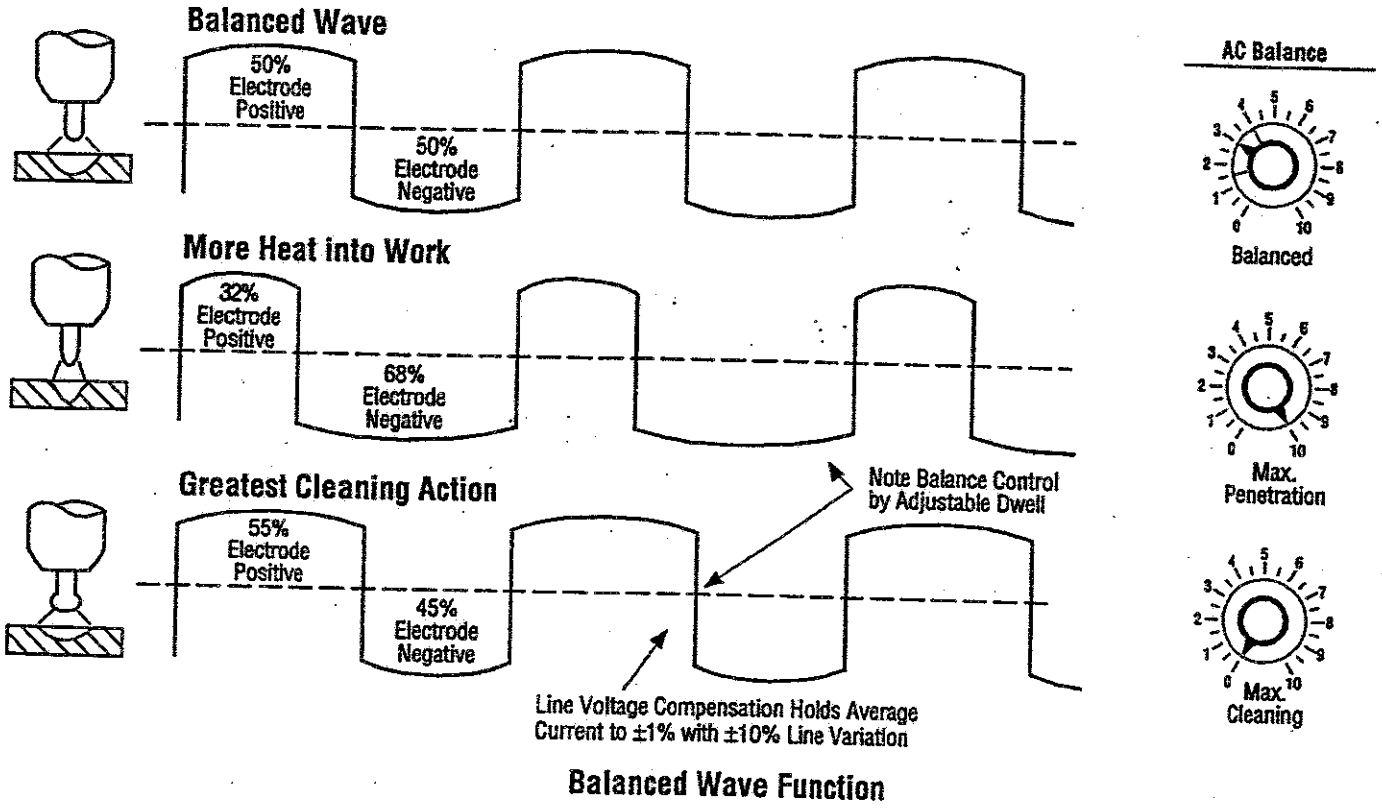


Control Panel Parameter Values

A. Preflow (s)	0–10.0	E. Background Amperage (%A)	0–100*	I. Start Current (A)	3–400*
B. Balance/Dig	0–10	F. Pulse Frequency (Hz)	.25–10.0*	J. Spot Time (s)	0–15*
C. Postflow (s)	0–50.0	G. Peak Percent Time (%)	5–95*	K. Crater Time (s)	0–15*
D. Weld Amperage (A)	3–400	H. Start Time (s)	0–15*	L. Final Current (%A)	0–100*

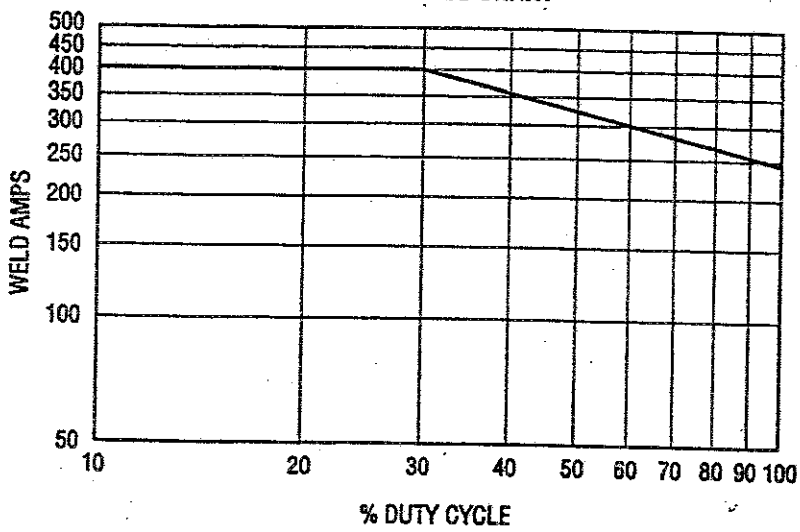
**Optional*

Balanced Output Control

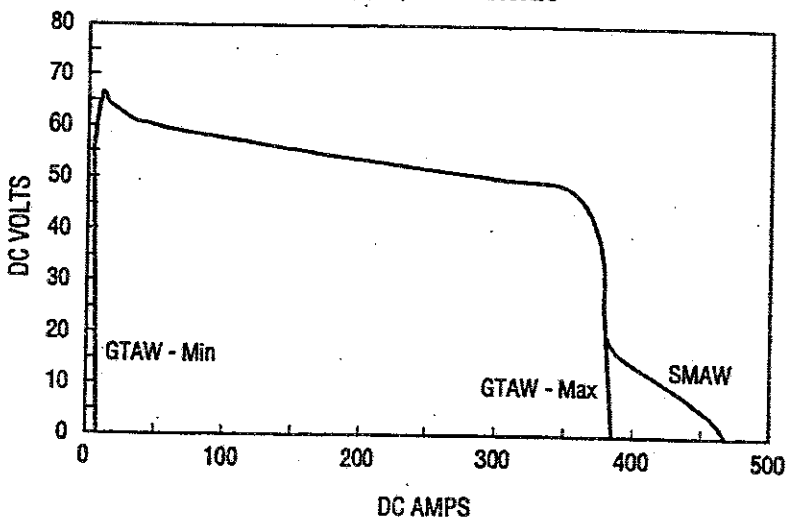


Balanced Wave Function

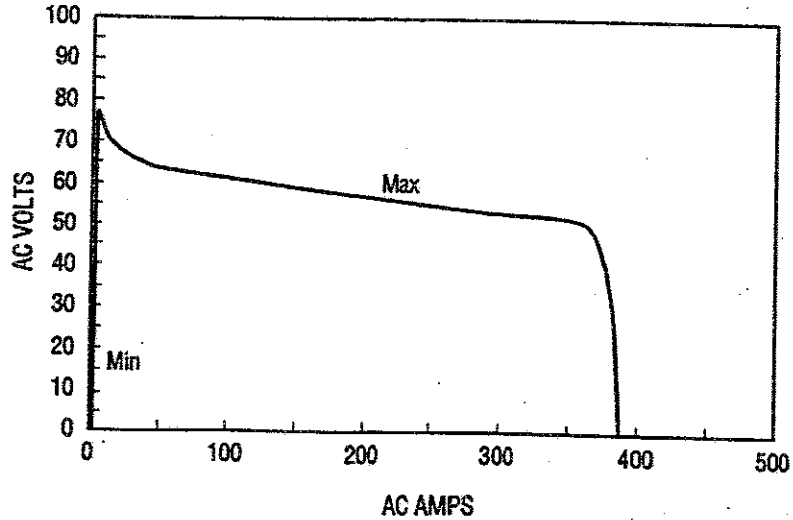
DUTY CYCLE CHART



DC VOLT/AMP CURVES



AC VOLT/AMP CURVES



Genuine Miller Options

TIGRunner Packages

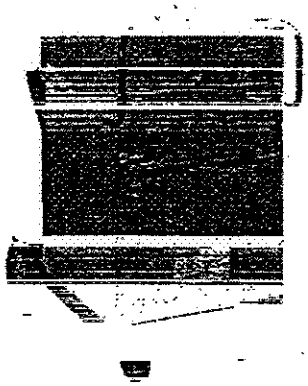
Syncrowave 350 LX TIGRunner® #903 736
Includes Syncrowave 350 LX (model #903 513), Cool Runner™ 3X, No. 32 Running Gear, and remote foot control (completely assembled). Also includes 45V11 TIG block.

Syncrowave 350 LX TIGRunner® with Torch #903 736-01-1
Includes Syncrowave 350 LX (model #903 513), Cool Runner™ 3X, No. 32 Running Gear, and remote foot control (completely assembled). Also a 25 ft, 250 amp water-cooled DB20M25R Diamondback™ torch, work clamp, 45V11 TIG block, 10 ft gas hose, regulator/flowmeter, cable cover and an AK-4 accessory kit.

Sequencer Module #043 788 Field
Provides a starting current higher or lower than the welding current. Provides final slope and final current for trailing the weld. Provides a spot control for TIG spot application.

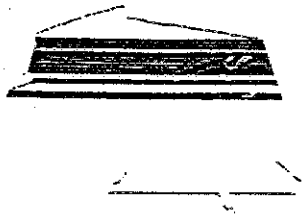
Power Factor Correction Kit #043 757 Field

Genuine Miller Accessories

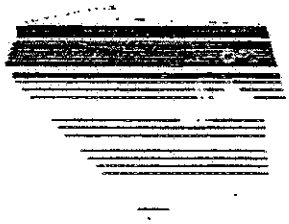


No. 28 Running Gear* #043 861
No. 32 Running Gear #194 997
Includes two 10 in (254 mm) wheels, two 5 in (127 mm) casters, two-compartment rack (for gas cylinder(s) or Coolmate V3 coolant system), and handles. Provides excellent mobility and easy to install.
**For all Miller solid-state power sources prior to serial number LB 118875.*

Remote Controls and Switches

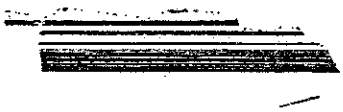


RFCS-14 HD Foot Control #194 744
For all Miller solid-state power sources after serial number JK674521. This new design increases stability with a larger base, and durability with a heavier cord. Maximum flexibility is accomplished with a reconfigurable cord that can exit the front, back or either side of the pedal. Foot pedal provides remote current and contactor control. Includes 20 ft (6 m) cord and 14-pin plug.



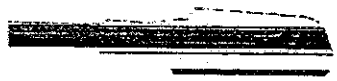
RFCS-14 Foot Control #043 554
For all Miller solid-state power sources after serial number JK674521. Foot pedal provides remote current and contactor control. Includes 20 ft (6 m) cord and 14-pin plug.

RCCS-14 Remote Contactor and Current Control #043 688 14-pin plug
For all Miller solid-state power sources after serial number JK674521. North/south rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Great for applications that require a finer amperage control. Includes 26.5 ft (8 m) control cord.

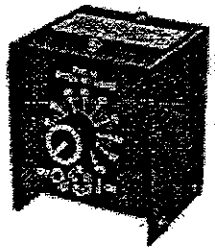


RCC-14 Remote Contactor and Current Control #151 086 14-pin plug
For all Miller solid-state power sources after serial number JK674521. Side-to-side rotary-motion fingertip control fastens to TIG torch using two Velcro® straps. Great for production or contractors that need quick ramp-up. Includes 26.5 ft (8 m) control cord.

RMLS-14 Switch #129 337
For all Miller solid-state power sources after serial number JK674521. Momentary- and maintained-contact rocker switch for contactor control. Push forward for maintained contact and backward for momentary contact. Includes 26.5 ft (8 m) cord and 14-pin plug.



RMS-14 On/Off Control #187 208
For all Miller solid-state power sources after serial number JK674521. Momentary-contact switch for contactor control. Rubber-covered pushbutton dome switch ideal for repetitive on-off applications. Includes 26.5 ft (8 m) cord and 14-pin plug.



RHC-14 Hand Control #129 340
Miniature hand control for remote current and contactor control. Dimensions: 4 in (102 mm) x 4 in (102 mm) x 3-1/4 in (82 mm). Includes 20 ft (6 m) cord and 14-pin plug.

Extension Cords for 14-Pin Remote Controls
#122 973 25 ft (7.6 m)
#122 974 50 ft (15.2 m)
#122 975 75 ft (23 m)

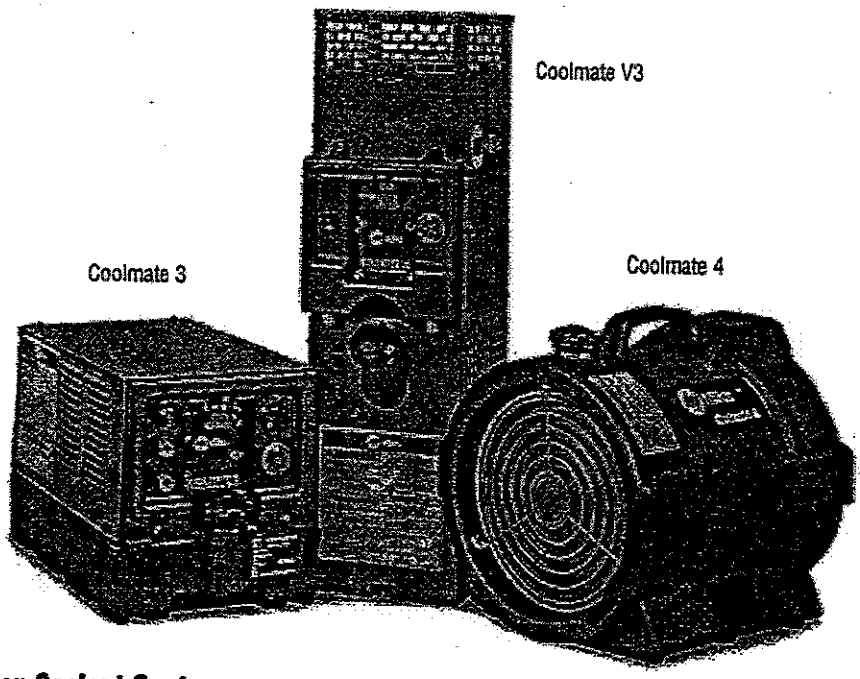
Gas Tungsten Arc (TIG) Welding Book #170 555
To order this item, distributors can call the Miller Literature Distribution Center at 1-920-751-2120, or FAX 1-920-751-2121. 86 pages—8-1/2 x 11 in. A comprehensive text on all aspects of the GTAW process. Filled with figures and tables to illustrate process technique and equipment setup. Glossary of TIG terms also provided.

Video–GTAW Setup Procedures #108 241
To order this item, distributors can call the Miller Literature Distribution Center at 1-920-751-2120, or FAX 1-920-751-2121. 13:00 minutes. A detailed demonstration on preparing your equipment for TIG welding. Uses a Syncrowave 250 power source, but topics fit any TIG setup including air-or water-cooled systems. In-depth discussion of tungstens and gases.

TIG Training CD #196 567
Designed for anyone who's looking to better understand the TIG process. Easy to understand instruction, proven teaching steps, and expert advice help to create a more effective academic approach to training. Subject areas covered include system components, process fundamentals, electrical theory, safety, power source operation.

TIG (GTAW) Torches

Diamondback™ TIG Torches
The NEW Diamondback line of ergonomically designed TIG torches from Miller Electric complements the most popular TIG power source line available today. The Diamondback torch line includes both air-cooled and water-cooled models. The air-cooled models range in size from 25 to 200 A. The water-cooled models include 250 and 350 A torches. All models are standard with a rigid head. See Diamondback TIG Torch Selector Guide.



Water Coolant Systems

For more information, see the Miller Coolant Systems literature sheet, Index No. AY/7.2.

Coolmate™ 3
#043 007 115 VAC
#043 007-01-2 115 VAC, CE
#043 008 230 VAC
#043 008-01-2 230 VAC, CE
For use with water-cooled torches rated up to 600 amps. Unique paddle-wheel indicator, external filter and easy-fill spout.

Coolmate™ V3
#043 009 115 VAC
#043 009-01-2 115 VAC, CE
For use with water-cooled torches rated up to 500 amps. Vertical design conveniently mounts to Miller cylinder rack in place of one cylinder.

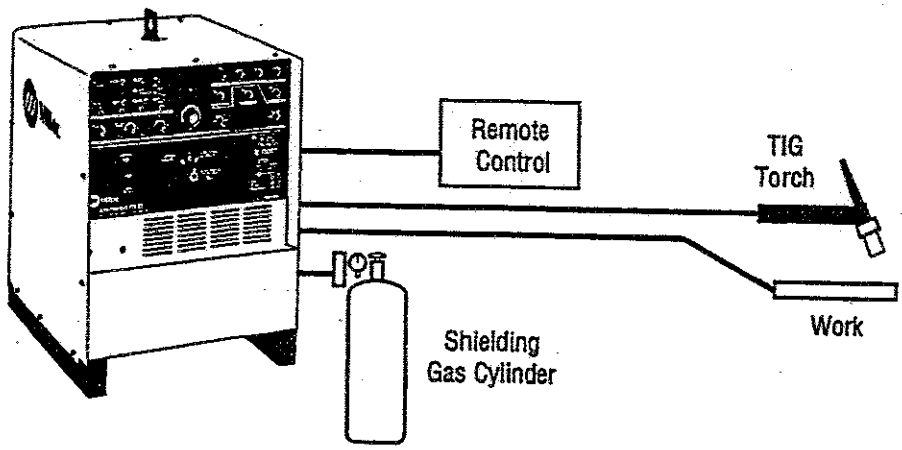
Coolmate™ 4
#042 288 115 VAC
#042 288-01-5 115 VAC, CE
For use with water-cooled torches rated up to 600 amps. Tough molded polyethylene case with carrying handle.

Cool Runner™ 3X
#043 994 115 VAC
#043 994-01-1 115 VAC, CE
Provides the perfect solution for industrial, water-cooled TIG applications. For water-cooled TIG torches rated up to 500 amps.

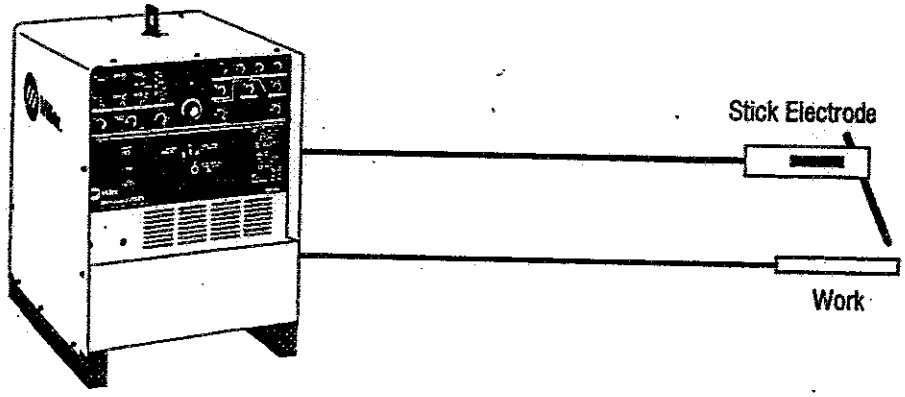
Low Conductivity Coolant #043 810
Aluminum Protecting Coolant #043 809
Sold in cases of four 1-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37°F (-38°C) or boiling to 227°F (108°C). Also contains a compound that resists algae growth.

Typical Installations

TIG (GTAW) Basic Equipment



Stick (SMAW) Basic Equipment



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Syncrowave® 350 LX	#903 513	200/230/460 V, 50/60 Hz, Standard Model		
	#903 513-01-1	200/230/460 V, 50/60 Hz, Full-Feature Model		
	#903 514	230/460/575 V, 50/60 Hz, Standard Model		
	#903 514-01-1	230/460/575 V, 50/60 Hz, Full-Feature Model		
	#903 515	220/400/440/520 V, 50/60 Hz, CE, Standard Model		
	#903 515-01-1	220/400/440/520 V, 50/60 Hz, CE, Full-Feature Model		
	#903 516	220/400/440/520 V, 50/60 Hz, English, Standard Model		
	#903 516-01-1	220/400/440/520 V, 50/60 Hz, English, Full-Feature Model		
	#903 736	Syncrowave 350 LX TIGRunner® (includes #903 513 model)		
	#903 736-01-1	Syncrowave 350 LX TIGRunner® with torch (includes #903 513 model)		
Sequencer Module	#043 788	Field		
Power Factor Correction Kit	#043 757	Field		
TIG Accessories				
No. 28 Running Gear	#043 861			
No. 32 Running Gear	#194 997			
Diamondback TIG Torches		See Diamondback™ TIG Torch Selector Guide		
Consumables and Tungsten		See Diamondback™ TIG Torch Selector Guide		
Gas Cylinder				
Gas Hose and Fittings				
Water Coolant Systems				
Coolmate™ 3	#043 007	115 VAC		
	#043 007-01-2	115 VAC, CE		
	#043 008	230 VAC		
	#043 008-01-2	230 VAC, CE		
Coolmate™ V3	#043 009	115 VAC. Upright		
	#043 009-01-2	115 VAC, CE. Upright		
Coolmate™ 4	#042 288	115 VAC		
	#042 288-01-5	115 VAC, CE		
Cool Runner™ 3X	#043 994	115 VAC		
	#043 994-01-1	115 VAC, CE		
Low Conductivity Coolant	#043 810			
Aluminum Protecting Coolant	#043 809			
Coolant System Hoses				
Stick Accessories				
Stick Hook-Up Kit	#173 851	2/0 cable, 50 ft (15.2 m). Includes electrode holder, weld cable, and work cable with clamp		
Stick Electrodes				
Remote Control				
RFCS-14HD	#194 744	Heavy-duty foot control		
RFCS-14	#043 554	Foot control		
RCCS-14	#043 688	North/south fingertip control		
RCC-14	#151 086	Side-to-side fingertip control		
RMLS-14	#129 337	Momentary/maintained rocker switch		
RMS-14	#187 208	Momentary rubber dome switch		
RHC-14	#129 349	Hand control		
Miscellaneous				
Extension Cords	#122 973	25 ft (7.6 m)		
	#122 974	50 ft (15.2 m)		
	#122 975	75 ft (22.9 m)		
Welding Cables				
Work Cable and Clamp				
Welding Gloves and Helmet				

Date:

Total Quoted Price:

Distributed by:

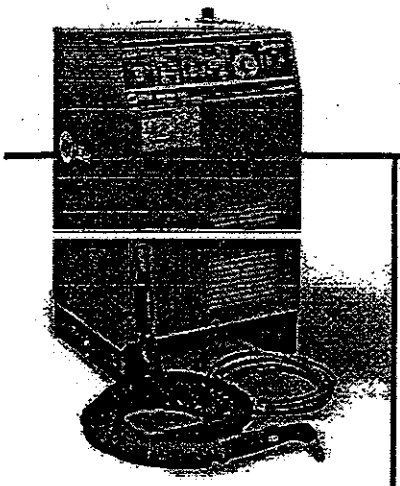
Miller
The Power of Blue.

LINE ITEM #28
PLASMA CUTTER

Spectrum® 1250

Heavy Industrial Air Plasma Cutting and Gouging Systems

Index No. PC/11.0
Issued April 1999



TRUE BLUE® 5YR WARRANTY

ISO 9001 REGISTERED QUALITY SYSTEM

With a rated cutting capacity of 1-1/4 in (31.8 mm) on mild or stainless steel, and 1 in (25.4 mm) on aluminum, the Spectrum® 1250 has the power to handle the heaviest plasma applications. Here's a three-phase system that delivers day-in, day-out performance for production work in fabrication and manufacturing shops. It's also a great worker in scrap and recycling.

The Spectrum 1250 is engineered and built to take the most demanding industrial work, while delivering uncompromising reliability. This unit also provides superior piercing abilities and high-quality gouging.

Comes complete with:

- ICE-100 hand-held torch with 30 ft (9 m) or 50 ft (15.2 m) torch cable; or, ICE-100M machine-held torch with 50 ft (15.2 m) torch cable
- 30 ft (9 m) work cable with clamp
- ICE-100 Torch consumable kit (see page 3 for description)

ICE-100 or ICE-100M Torch

- Improved design for longer consumable life
- Drag shield practically eliminates double arcing and improves consumable life in piercing and cutting
- High duty cycle for full-time productivity

Processes

Air Plasma Cutting

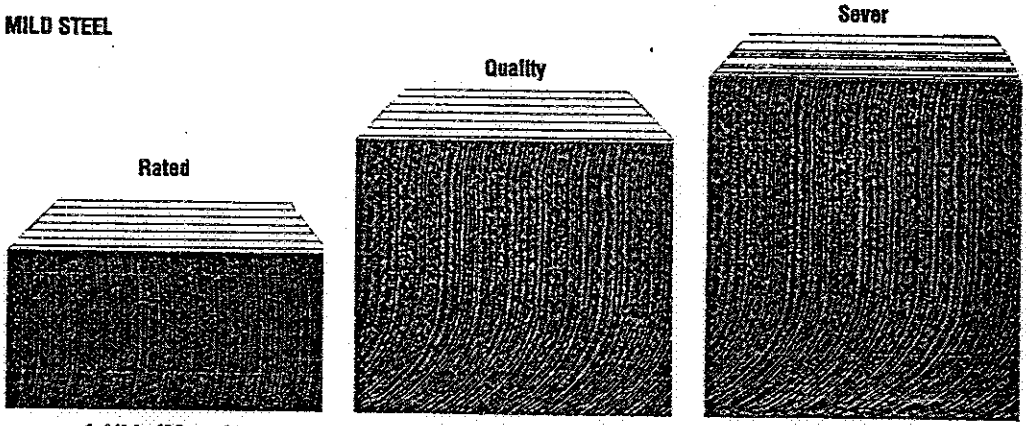
Air Plasma Gouging

Description

DC 1 Phase 3 Phase

Cutting Capability *(Thickness to scale.)*

MILD STEEL



1-1/4 in (32 mm)*

Rated Cutting Capacity
10 inches per minute (minimum speed at which an operator achieves a smooth, steady cut using a hand-held torch).

1-1/2 in (38 mm)*

Maximum Quality Cutting Capacity
Good-quality cut achieved at lower speeds.

1-3/4 in (44 mm)*

Sever Cut Capacity
Maximum cut achieved in ideal conditions.

**Using shielded consumables.*

Features	Benefits
Gouging and piercing	The 1250 offers a long powerful gouging arc for those heavy duty metal displacement jobs plus piercing capabilities up to 1 in steel.
ICE-100 Torch	Miller's rugged ICE torches include an epoxy cup that outlives typical ceramic parts and is virtually unbreakable. Hand-held and machine-held torch models available.
Postflow cooling circuit	A postflow circuit cools the consumables and torch with postflow air after you release the trigger. This feature extends life of torch and consumables.
Miller's True Blue® Warranty	No other manufacturer offers a better warranty than Miller. Power source is warranted for three years, parts and labor. Original rectifier parts have a five-year warranty and the ICE torches have a one-year parts and labor warranty.

Ordering Information

Spectrum® 1250 with 100 Amp Torch	Voltage	With 30 ft (9 m) Hand-Held Torch	With 50 ft (15 m) Hand-Held Torch	With 50 ft (15 m) Machine Torch
	200/230/460	#903 450*	#903 450-01-1*	#903 450-01-2*
	230/460/575	#903 451*	#903 451-01-1*	#903 451-01-2*
	220/380/415	#903 452	#903 452-01-1**	#903 452-01-2

Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters–USA
USA Phone: 920-735-4505 (Auto-Attended)
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site–www.MillerWelds.com

Miller. *The Power of Blue*

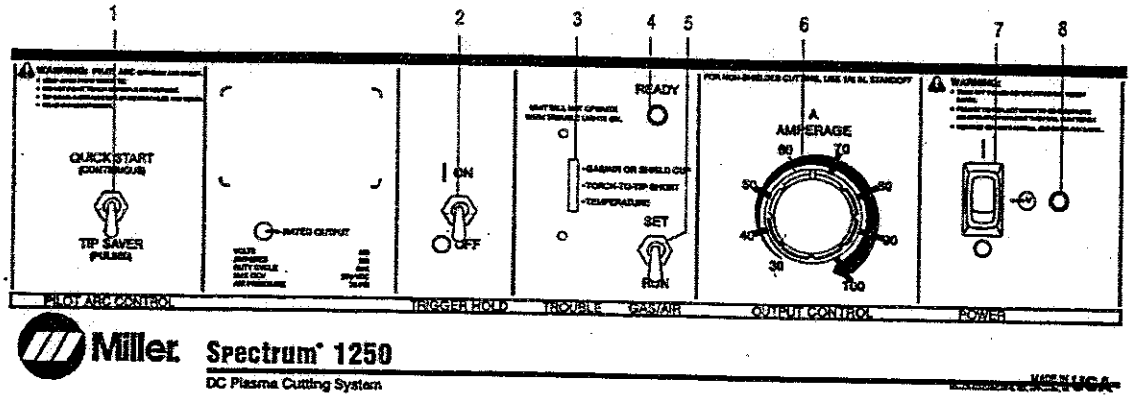
Specifications *(Subject to change without notice.)*

Heavy Industrial DC 3 Phase

Input Power	Rated Output	Max. Open-Circuit Voltage	Amps Input at Rated Output, 50/60 Hz 200 V	220 V	230 V	380 V	415 V	460 V	575 V	KVA/KW	Plasma Gas Flow/Pressure	Dimensions	Net Weight	Ship Weight
3-Phase, 200/230/460 V, 50/60 Hz	100 A at 120 VDC, 60% Duty Cycle	270 VDC	85	–	74	–	–	37	–	30/16	7.0 CFM (170 L/min) at 70 PSI (442 kPa)	H: 38 in (965 mm) W: 22-1/2 in (571 mm) D: 20 in (508 mm)	410 lb (185 kg)	470 lb (212 kg)
3-Phase, 230/460/575 V, 50/60 Hz			–	–	74	–	–	37	30					
3-Phase, 220/380/415 V, 50/60 Hz			–	77	–	45	41	–	–					

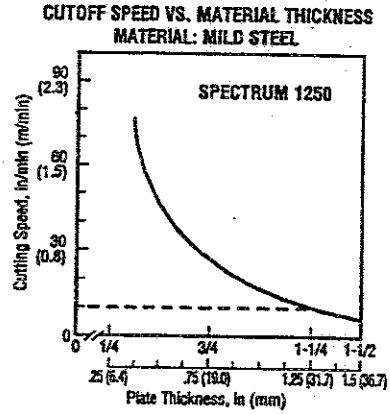
Control Panel

1. Pilot Arc Control Switch
2. Trigger Hold Switch
3. Trouble Lights
4. Ready Light
5. Set/Run Switch
6. Output Control
7. Power Switch
8. Pilot Light



Cutting Performance

To determine the maximum rated cutting thickness, follow the dashed line from the 10 IPM (inches per minute) point on the cutting chart. The point at which this line intersects the cutting curve determines the maximum recommended production cutting thickness of the unit.

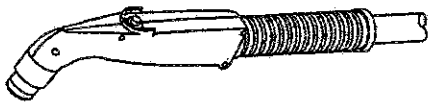


Note: The rating is based on 10 IPM because this is the minimum speed at which the operator achieves a smooth, steady cut when using a hand-held torch.

Additional Features

	Benefits
Drag shield	The ICE torch includes a drag shield that attaches to the cup and holds the tip 1/8 in (3.2 mm) off of the workpiece. This permits the operator to drag the torch on the workpiece while cutting at full output, which increases operator comfort and makes template cutting easier.
User-friendly control panel	Spectrum units are easy to use because the control panels are easy to understand. Spectrums also include diagnostic lights to help troubleshoot for quick setup.
Built-in gas/air filter/regulator	The Spectrum Series has its regulator housed inside the power source to protect it from transportation damage. A standard air connection is also provided on the back panel for easy gas or air hookup.
Portability	Order the optional running gear for in-shop portability.
Trigger hold switch	Allows operator to control cutting arc without triggering. Provides convenience and comfort by enabling operator to keep clear of extremely hot areas while gouging or cutting for long periods of time.
Pilot arc switch	The expanded metal mode allows operator to cut grates, chain link fence, and other perforated metals without retriggering the gun.

Replacement Torches



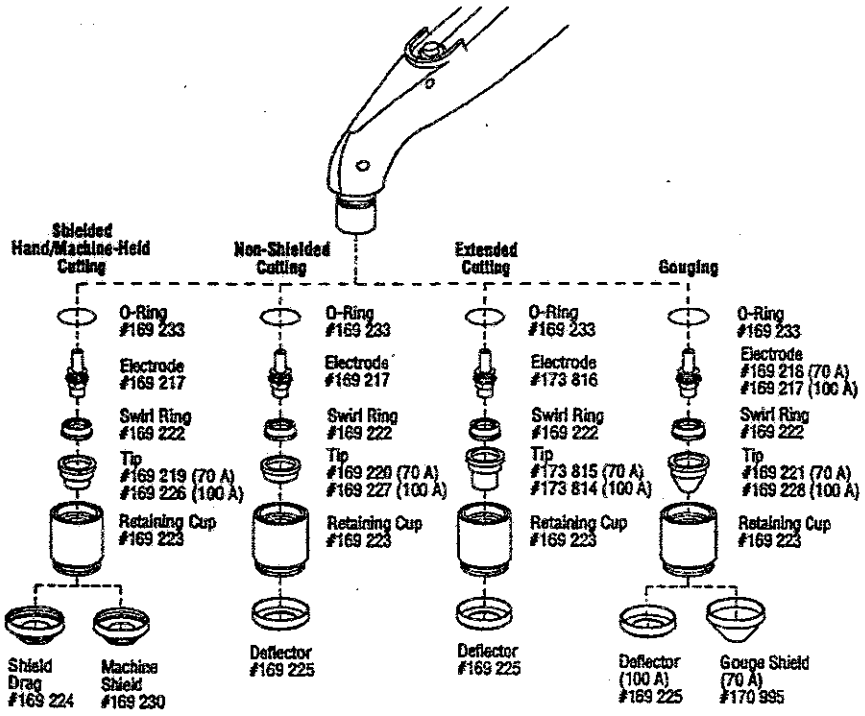
ICE-100 Hand-held Torch
#169 207 30 ft (9 m)
#169 246 50 ft (15.2 m)

ICE-100M Machine-held Torch*
#169 247 50 ft (15.2 m)

ICE-70/100 Machine-held Torch*
#174 572 75 ft (22.5 m)

**If hand-held torch is being replaced by machine-held, optional remote pendant control (#042 585) must be ordered.*

Torch Consumables



Torch Consumable Kits

#169 235 For ICE-70
Includes four electrodes, four tips for shielded, two tips for non-shielded, one swirl ring, one retaining cup, one drag shield, one deflector, one gouging electrode, one gouging tip, one gouging shield, one O-ring, one wrench and silicone grease.

#169 236 For ICE-100
Includes four electrodes, four tips for shielded, two tips for non-shielded, one swirl ring, one retaining cup, one drag shield, one deflector, one gouging tip, one O-ring, one wrench and silicone grease.

#170 559 For ICE-70M
#170 560 For ICE-100M
Kits include five electrodes (70 and 100 amp), five tips for shielded, two swirl rings (70 and 100 amp), one retaining cup, two machine shields, one O-ring, one wrench and silicone grease.

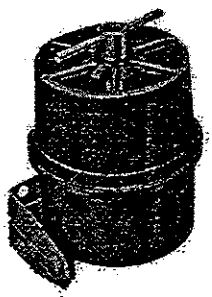
Options and Accessories

Silicone Grease #169 231

Cable Covers
#118 677 15 ft (4.5 m) torch
#118 678 30 ft (9 m) torch
Protect hose and cables. Feature nonconductive zipper and are easily removed if necessary.

Circle Cutting Guide #173 404
Attaches to torch to cut even circles. Adjusts to over 18 in (457 mm) diameter.

Standoff Guide #132 657
Attaches to torch cup while using non-shielded or extended electrode to create 1/8 in (3 mm) standoff.



Motor Guard Air Filter #042 306
This filter is equipped with a mounting bracket that allows installation on the top, side, or rear panel of most plasma cutters. The filter is equipped with a 1/4 in NPT port to match the fittings on most plasma systems; it has a rated airflow of over 45 SCFM.

Replacement Filter Element #042 312
Carton of four filters for use with motor guard air filter #042 306.

Running Gear #042 989
Includes two rubber tires, and two swivel casters.

Pendant Control #042 585
For ICE-70M or ICE-100M torch. Provides remote start and stop control of the arc and remote amperage control.

Extractor Dryer #171 517
Two-stage filter/dryer drains excess water out of air supply to extend consumable and torch life.

System Checklist and Quotation Sheet

Cutting System	Stock No.	Description	Qty.	Price
Spectrum 1250	See page 2	Cuts up to 1-1/2 in		
Torch Accessories				
Consumables	See page 3			
Consumable Kits	#169 235 #169 236 #178 559 #178 560	For ICE-70 For ICE-100 For ICE-70M For ICE-100M		
Silicone Grease	#169 231			
Cable Covers	#118 677 #118 678 #042 389	15 ft (4.5 m) 30 ft (9 m) 50 ft (15 m)		
Circle Cutting Guide	#173 404			
Accessories				
Motor Guard Air Filter	#042 306			
Replacement Filters	#042 312			
Compressed Air/Nitrogen				
Gas Hose with Fittings				
Primary Cable and Plug				
Safety Face Shield				
Hearing Protective Device				
Gloves and Protective Clothing				
Running Gear	#042 989			
Pendant Control	#042 585			
Date:		**Total Quoted Price:**		

Miller.
The Power of Blue.

Distributed by:

LINE ITEM #29
METAL SHEAR

Here is the information on the 1/4" x 10' Shear and Press Brake
Products: Shearing: HDE

The ATLANTIC 10'x1/4" is the most budget friendly machine in our shearing line.

2 hydraulic cylinders connected to each other in series pull down the ram (under driven).

This shear has a maximum capacity of 1/4" mild steel with tensile strength of 60,000 PSI or 10GA stainless steel.

Specifications & Standards

Standard motorized back gauge of 39".

Hydraulic sheet hold downs on separate hydraulic circuit for better pressure control.

Standard 40" squaring arm with scale and tilting front stop.

Very large oil tank.

Cutting capacities rated for steel with 60,000 PSI tensile strength.

Adjustable rake angle and blade clearance setting.

Optional SC7 CNC control for automatic gauging and rake angle & blade clearance setting.

Setup, installation, and training by factory trained engineers, nationwide.

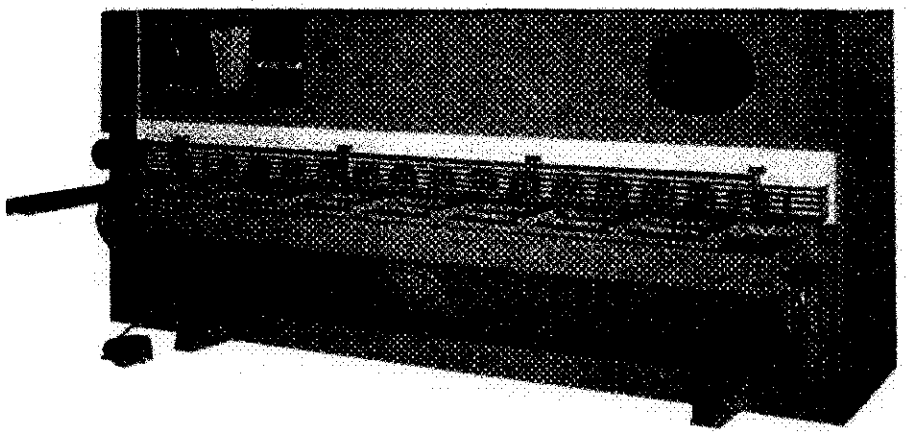
1 Year warranty on parts and labor.

Dimensions 62" H x 106" Length x 76" Wide
Weight lbs 10,500
Price $27,900.00

[FrontPage Include Component]

ATLANTIC

Shears



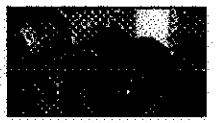
HDE 10' x 1/4"
Unerdriven Hydraulic Heavy Duty Shears

Specifications:

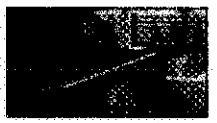
Capacity mild steel	1/4"
Capacity stainless steel	10 ga.
Cutting length	122"
Strokes per minute	10-25
Squaring arm length	40"
Plate hold downs	18
Working height	31"
Length	148"
Width	66"
Height	63"
Weight	10,500 lbs.

Features:

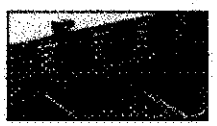
(Click on thumbnails for larger pics)



Fine Adjustment:
The backgauge has front read-out with fine adjustment with the handwheel.



Squaring Arm:
A front squaring arm of 40" is supplied standard with the machine. As an option, longer squaring arms are available



Hold-Downs:
Hydraulic independant hold-downs are closely spaced to insure proper clamping of small or oddly shaped parts.

Control Panel:
the control panel is conveniently located in tthe front, centralizing all necessary operating functions.

Backgauge:
The backgauge has two rigid arms and the parallel stop gaurantees high precision cuts. The command is electro-mechanical. The handwheel at the front allows fine adjustment and is connected to both arms by means of ball linkage shafts.

Atlantic Machine offers both underdriven and overdriven hydraulic heavy duty shears. Both have easy to use control panels, 2 underdriven or overdriven cylinders, quick and easy adjustments, and come delivered completely ready to use with hydraulic fluid. Atlantic machine tools are proven reliable at an affordable cost.

Tecleo aquí para entrar en contacto con U.S. INDUSTRIAL Machine Tools.

U. S. INDUSTRIAL Machine Tools
5671Palmer Way • Suite D • Carlsbad, CA 92008, USA
Llamada: : (800) 888-4312 o (760) 438-6838
Fax: (760) 438-6896
E-mail: sales@usindustrialmachine.com

Financement Instantané

English Version

Comentarios sobre este sitio? Contacto:
Webmaster@firesurf.com

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Revisado: March 09, 2002

www.firesurf.com

LINE ITEM #31
SHEETMETAL FORMER

The ATLANTIC press brake line is our hydraulic conventional line ranging from 45T up to 330T with bending lengths of 5' up to 14'. These high precision machines have a mechanical depths top integrated in both cylinders.

Ram parallel is guaranteed by a sturdy torsion bar which connects both sides of the ram.

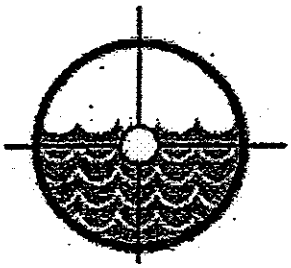
Bending accuracy is 0.0004" and we offer a motorized back gauge on all machines. All machines use standard American style tooling. Both mechanical depth stops are integrated inside the hydraulic cylinders. This keeps the depth stops dust free and well lubricated by the hydraulic oil. We guarantee a 0.0004" bending accuracy with this system, perfectly suited for air bending.

Most competitors offer systems with micro switches which are directly related to the viscosity of the oil (temperature) and wear of the switches. Those machines mostly guarantee a 0.001" precision, which is not accurate enough to air bend.

120 Ton x 8' $31,900.00
Dims 88" H x 109" L" x 61"
Weight 17,000 lbs

LINE ITEM #32
ULTRASONIC CLEANER

SHOR INTERNATIONAL CORPORATI
Fine Tools & Innovative Machines Since 1918
20 Parkway West, Mt. Vernon N.Y. 10552 (914) 667-
fax: (914) 667-0190 e-mail: shorinternational@attglobal.ne



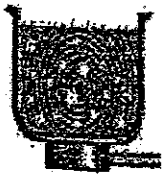
Weapon Cleaning Ultrasonics

The Ultimate Weapon Cleaning Systems

Clean, condition and lubricate everything from handguns to tactical weapons effectively, efficiently, economically... in minutes & without manual labor.

Ultrasonic cleaning technology is the most progressive method available for cleaning hand guns, shot guns and tactical weapons. It provides law enforcement with a uniform standard of cleanliness. It effectively cleans the "impossible to reach by hand" areas with minimal assembly.

To use: simply field strip your weapon and place it in the ultrasonic tank filled with **Ultrasonic Weapon Cleaning Solution**. The concentrated solution, when used in the ultrasonic, is powerful enough to remove crud, light rust, loose lead, powder buildup and copper residue. After cleaning, ultrasonically condition and lubricate with **Ultrasonic Weapon Lubricating Solution**. This displaces all traces of water and leaves the weapon with a uniform, dry lubrication. **The result is a weapon that looks and feels "factory new".**



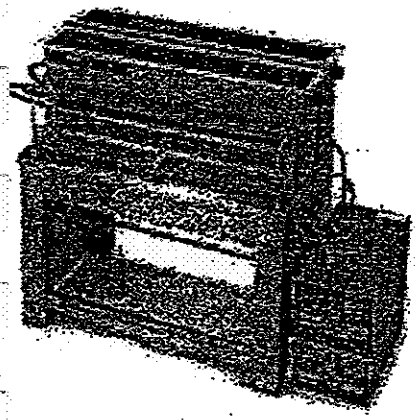
What is Ultrasonics? High frequency sound waves are used to produce more than 40,000 alternating high and low pressure waves per second. As these waves travel through our specially formulated cleaning solution, millions of microscopic vacuum bubbles form and implode. This process, know as cavitation, creates an action capable of cleaning up to 16 times more effectively than hand cleaning. In minutes, all dirt, crud, light rust, loose lead, powder buildup and copper residue are removed from even the tiniest grooves and interior areas of the weapon being cleaned.

Choose the Ultrasonic Weapon Cleaning System that satisfies your requirements: L & R Weapon Cleaning Systems are available in several models:

Output	Holds	Inside Tank	Stock#	Price
1500 Watt 43 KHz	36 qts	52" x 6-1/4" x 7"	18643	$9,999.00

LE-236 Dual Tank Setup Includes-

Ultrasonics with timer, drain & cover Weapons rack
6 Small Cleaning/Lubricating Baskets
4 gallon cleaning concentrate
8 gallon lubricating solution



Output	Holds	Inside Tank	Stock#	Price
1800 Watt 43 KHz Standard	22 qts & 20.8 qts	32" x 6-1/4" x 7" & 32" x 6-1/4" x 7"	18646	$11,582.00
1800 Watt 43 KHz Sweep Technology	22 qts & 20.8 qts	32" x 6-1/4" x 7" & 32" x 6-1/4" x 7"	18654	$12,464.00

LE-250 Dual Tank Setup Includes-

Ultrasonics with timer, drain & cover Weapons rack
10 Small Cleaning/Lubricating Baskets
8 gallon cleaning concentrate
16 gallon lubricating solution

Output	Holds	Inside Tank	Stock#	Price
3000 Watt 43 KHz	36 qts & 34 qts	52" x 6-1/4" x 7" & 52" x 6-1/4" x 7"	18650	$16,795.00

SHOR
Since 1918

SHOR INTERNATIONAL CORPORATION

Fine Tools, Equipment and Innovative Products Since 1918

20 PARKWAY WEST, MT. VERNON, N.Y. 10552

PHONE (914) 667-1100 FAX (914) 667-0190

E-MAIL: SHORINTERNATIONAL@ATTGLOBAL.NET

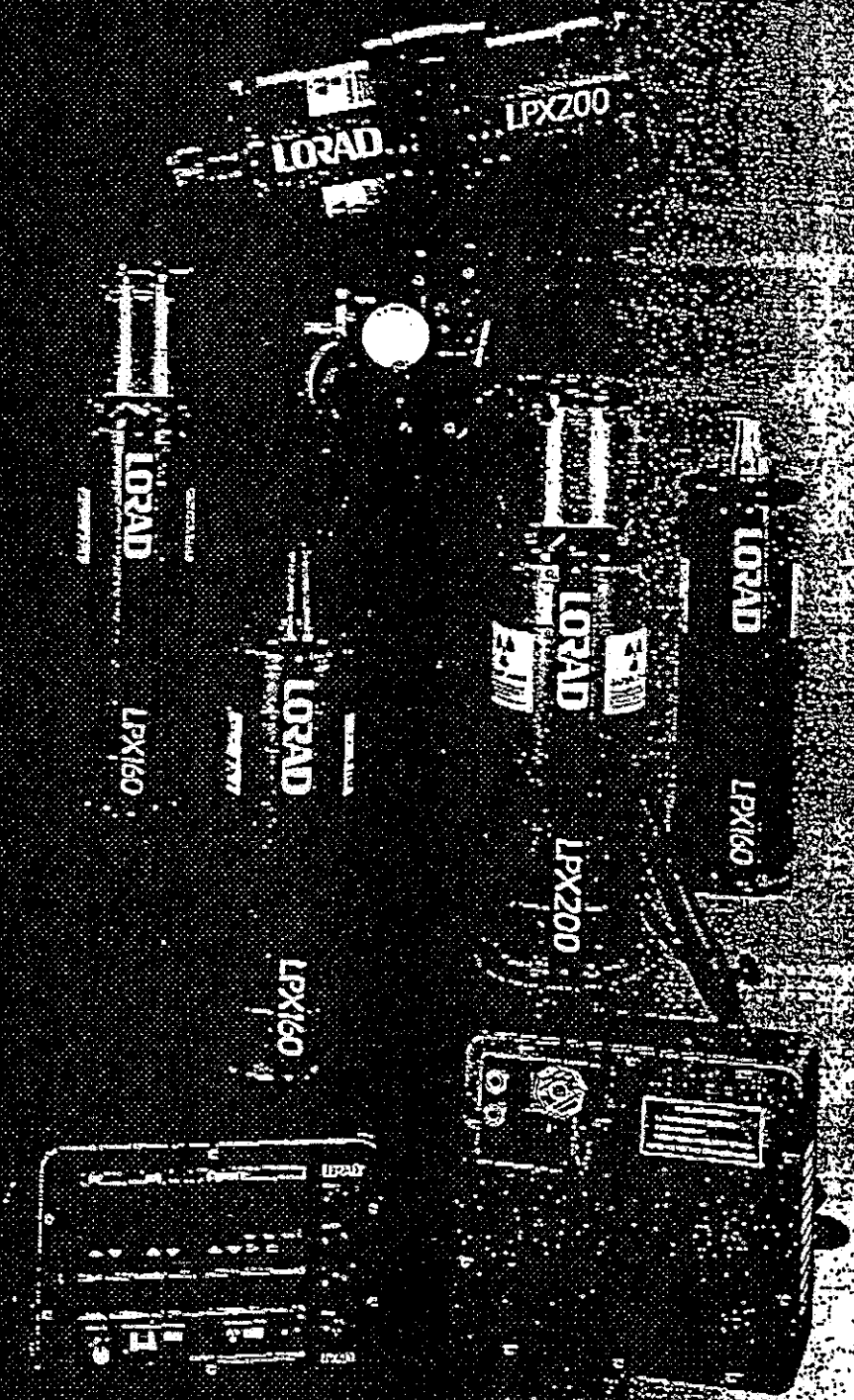
(PLEASE NOTE THAT I SHOR CANADA IS IN NO MANNER AFFILIATED WITH THE I. SHOR COMPANY AND HAS BEEN ORDERED BY FEDERAL COURT TO ABANDON ALL USE OF THE SHOR NAME BY THE END OF 2002.)

LINE ITEM #33
500KTV X-RAY, DIGITAL

LPX SERIES CONSTANT POTENTIAL

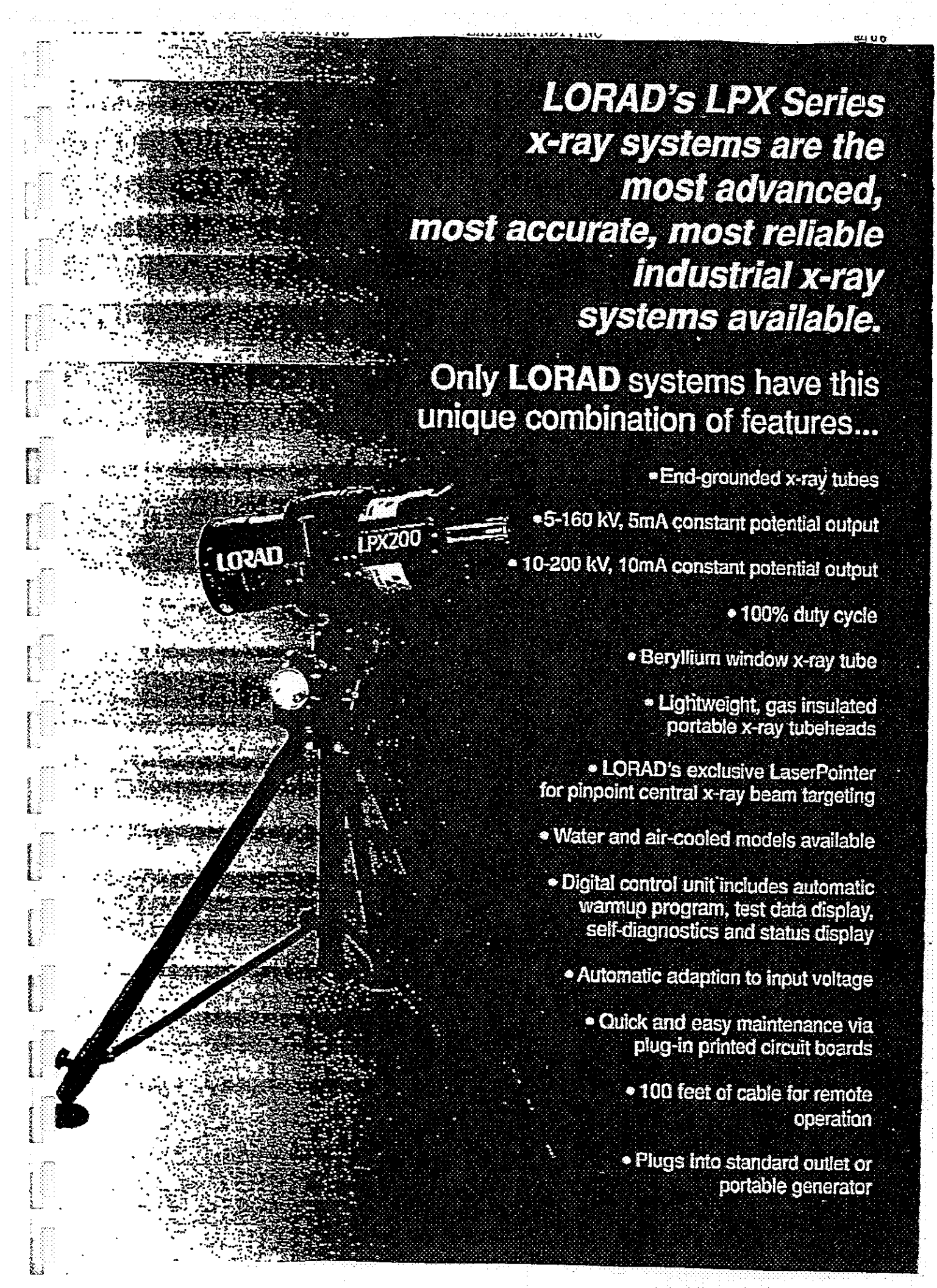
4/14

State-Of-The-Art Industrial X-Ray Systems for Aerospace, Industry and Defense



LORAD
Industrial Imaging
ISO 9001 Registered

EASTERN NDT
1404 City Point Road
Hopewell, Virginia 23860
Ph: 804-458-1661 Fax: 804-458-1780


LORAD's LPX Series
x-ray systems are the
most advanced,
most accurate, most reliable
industrial x-ray
systems available.
Only LORAD systems have this
unique combination of features...
•End-grounded x-ray tubes
•5-160 kV, 5mA constant potential output
• 10-200 kV, 10mA constant potential output
• 100% duty cycle
• Beryllium window x-ray tube
• Lightweight, gas insulated
portable x-ray tubeheads
• LORAD's exclusive LaserPointer
for pinpoint central x-ray beam targeting
• Water and air-cooled models available
• Digital control unit includes automatic
warmup program, test data display,
self-diagnostics and status display
• Automatic adaption to input voltage
• Quick and easy maintenance via
plug-in printed circuit boards
• 100 feet of cable for remote
operation
• Plugs into standard outlet or
portable generator
LORAD
LPX200

Introducing an innovative new vision in industrial imaging.

Lorad, a division of Trex Medical Corporation, has brought the state of industrial imaging to a new high with its portable, constant potential x-ray units, the LPX 160 and LPX 200.

The LPX series x-ray units are so advanced, they will set new NDT standards in Aerospace, Industry, Defense and anywhere it is critical to pinpoint the tiniest fault before it becomes a dangerous and expensive problem.

Available in either liquid or air cooled versions, the digital LPX series x-ray units will produce variable outputs from 5 to 160kV, 0.1 to 5mA and from 10 to 200kV, 0.1 to 10mA (900 watt max) to produce unparalleled resolution imaging in a wide variety of materials.

All Lorad industrial x-ray systems operate on a 100% duty cycle for cost-efficient continuous operation.

End-Grounded Anode

The LPX series x-ray units are end grounded to allow for easier and more flexible positioning of the tubehead assembly. The end grounded x-ray tubes have a focal spot size of 1.5mm sq. The tube port is built with a low-absorption beryllium window that allows the radiographer to utilize the full spectrum of x-ray energy. This configuration permits shorter exposure times with high output for high resolution imaging of materials as diverse as thin composites and honeycomb structure to various metals with differing thicknesses.

Constant Potential Output for the Best Discrimination

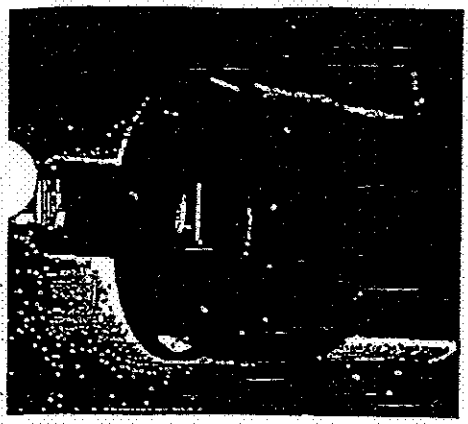
The Lorad LPX series x-ray units have been engineered to produce the sharpest images in industrial x-ray. The high radiation output of the Lorad LPX systems allow for lower kV per exposure and increased film contrast for superior radiographic imaging.

The unique design of the LPX series x-ray units allows for unmatched repeatability by monitoring both the kV and the mA directly at the tubehead, not at the high voltage power supply input like other systems.

Digital Microprocessor Control

All Lorad LPX systems come standard with Lorad's exclusive microprocessor-driven control. In addition to automatic warm-up and self-diagnostic circuitry, the LPX series x-ray units, when

When you work with flaws...

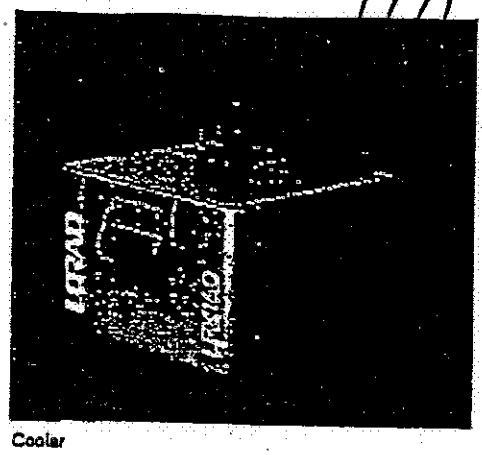


Water-cooled tube head

set anywhere from 0 min 0 seconds to 99 min 59 seconds in 1 second increments; mAs is variable from 0 to 29995 mAs.

Automatic Adaption to Input Line Voltage

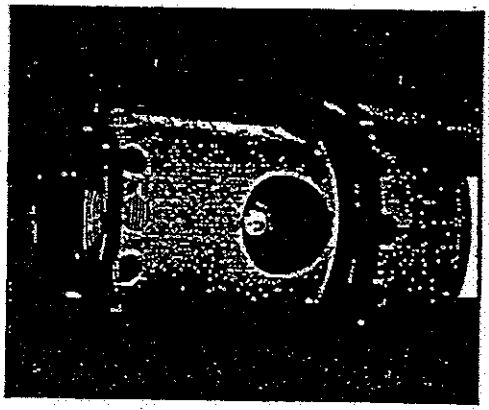
The LPX series x-ray units are perfectly suited to today's demanding NDT inspection requirements. The LPX series are rugged, yet easy to transport and economical to maintain and can be powered by either line power or portable generator to permit all day inspection under extreme conditions. All systems automatically adapt to standard input line voltage of 100-130 or 200-250 VAC or they can be powered by a portable generator so they can be used virtually anywhere.



Cooler

equipped with the optional Exposure Library Unit, now have memory to store and recall up to 250 exposure techniques and will retain the last set of exposure parameters present before powering down, including the exposure time remaining.

The LPX series x-ray units adjust the kV in 1kV increments and adjust the mA in .1 mA increments. Exposure duration can be

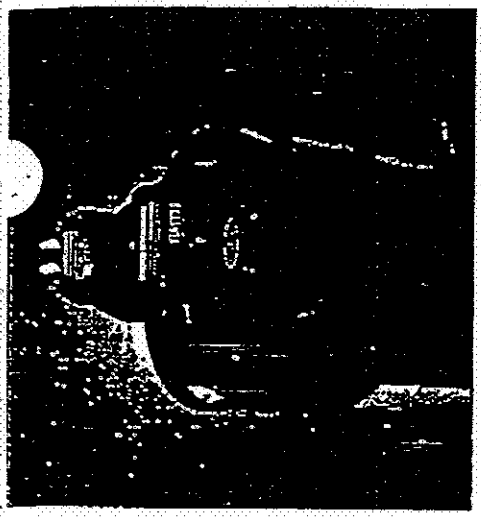


Air-cooled tube head

Exclusive LaserPointer

Only Lorad LPX portable x-ray systems allow pinpoint image area targeting via Lorad's exclusive LaserPointer laser sighting system. Lorad's LaserPointer projects a highly visible reference laser beam from the tubehead to surfaces as far as 75 feet away from the tubehead to show precisely where the central x-ray beam will be located. Unique in industrial x-ray, the LaserPointer permits unmatched accuracy for greater efficiency and reduced set-up times.

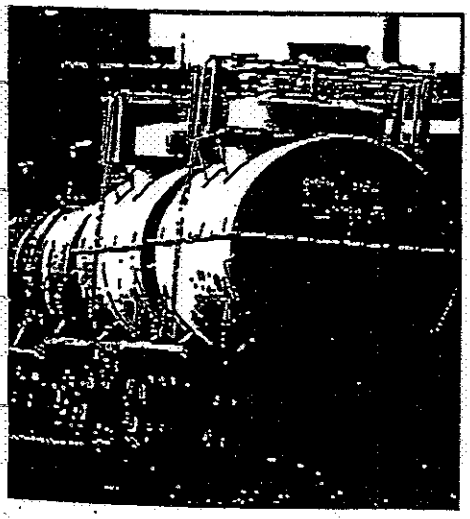
...you have to be perfect.



LaserPointer pinpoints central ray up to 75 feet

LPX Series Unique Combination of Features

Lorad's LPX series x-ray units are the most advanced, most accurate and most reliable industrial x-ray systems available anywhere. All Lorad systems feature end-grounded x-ray tubes, 100% duty cycle, beryllium windows, gas insulated tubeheads, digital control and more. Key features include retention of the last set of exposure parameters and the storage and recall of up to 250 exposure techniques when equipped with the optional Exposure Library Unit.



Systems cover a wide range of industries.

The Lorad Team

Backed by the resources of Trex Medical, Lorad has established a reputation as the industry leader with its state of the art technology. Lorad, with its team of highly dedicated personnel are acknowledged experts at problem solving in the field of industrial x-ray. The Lorad Team is available to insure that wherever Lorad LPX x-ray systems are in use throughout the world, they are accompanied by high quality service and excellent communication between Lorad and the customer.

LPX systems are already at work in aerospace.

Model 1620 X-Ray Tube Head Stand

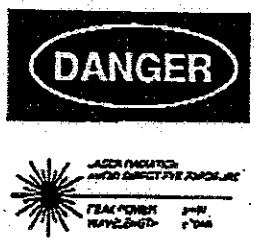
LORAD'S model 1620 Tubehead Stand has been designed to set up quickly and provide rigid support for optimal image quality and flexible, three-axis positioning for LORAD'S LPX160 and LPX 200 industrial tubeheads.

The stand incorporates two-segment telescoping legs, a hand-wheel-driven variable height adjustment and a gearhead which provides lockable hand-wheel control of tube head tilt and horizontal rotation.

The tubehead cradle is cushioned for secure mounting and vibration damping-yet allows easy, quick tubehead mounting and interchangeability. The cradle accommodates both the 160kV and 200kV tubeheads.

Tubehead positioning is via smooth, precision, lockable handwheel gear drives. The handwheels are equipped with automatic torque-limiting devices to prevent damage to the positioning mechanisms.

A bubble-type indicator is included for quick and easy leveling of the tubehead.

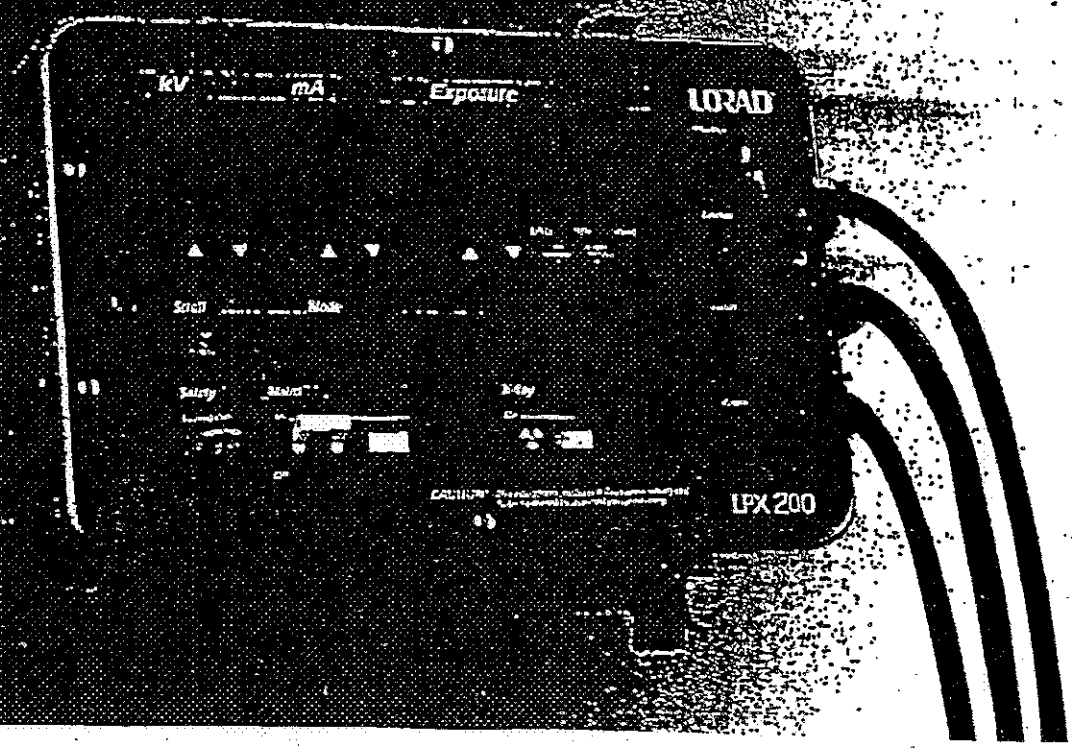


Specify the power of digital control.

10/14

All LORAD systems are equipped with LORAD's exclusive microprocessor-driven control unit that brings powerful digital capabilities to industrial x-ray.

- Automatic warm-up in five operator selectable modes
- Complete menu of warm-up routines
- Units of exposure in seconds or mAs
- Precise kV and mA indication
- Alphanumeric display of operating status
- Self-diagnostic circuitry
- Accurate setting for exact repeatability
- Displays are readable in direct sunlight



LORAD INDUSTRIAL IMAGING

- NDT
  - LPX Series
  - Contact Us
- Hologic
- Lorad Medical

NDT

LORAD Portable X-Ray systems are the most advanced, most accurate, most reliable industrial x-ray systems available.

Only LORAD systems have this unique combination of features

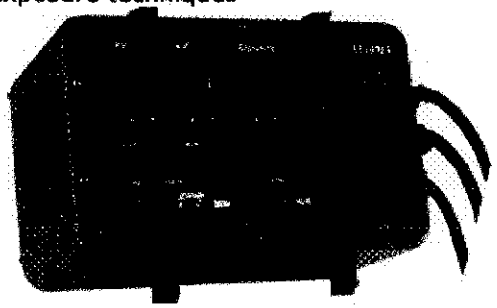
- End-grounded x-ray tubes
- 5-160 kV, 5mA constant potential output
- 10-200 kV, 10mA constant potential output
- 10-300 kV, 10mA constant potential output
- 100% duty cycle
- Beryllium window x-ray tube
- Lightweight, gas insulated portable x-ray tubeheads
- LORAD's exclusive LaserPointer for pinpoint central x-ray beam targeting
- Water and air-cooled models available
- Warmup program, test data display, self-diagnostics and status display
- Automatic adaption to input voltage
- Quick and easy maintenance via plug-in printed circuit boards
- 100 feet of cable for remote operation
- Plugs into standard outlet or portable generator
- 40° Directional Tubehead or 360° Panoramic

Specify the power of digital control.

All LORAD systems are equipped with LORAD's exclusive microprocessor-driven control unit that brings powerful digital capabilities to industrial x-ray.

- Automatic warm-up in five operator selectable modes
- Units of exposure in seconds or mAs
- Precise kV and mA indication
- Alphanumeric display of operating status

- Self-diagnostic circuitry
- Accurate setting for exact repeatability
- Displays are readable in direct sunlight
- Store/Recall of 250 exposure techniques



Introducing an innovative new vision in industrial imaging.

LORAD, a Hologic Company, has brought the state of industrial imaging to a new high with its portable, constant potential x-ray units, the LPX 160, and LPX 200, and LPX 300. The LPX series x-ray units are so advanced, they will set new NDT standards in Aerospace, Industry, Defense and anywhere it is critical to pinpoint the tiniest fault before it becomes a dangerous and expensive problem. Available in either liquid or air cooled versions, the digital LPX series x-ray units will produce variable outputs from 5 to 300kV, 0.1 to 10mA (900 watt max) to produce unparalleled resolution imaging in a wide variety of materials. All LORAD industrial x-ray systems operate on a 100% duty cycle for cost-efficient continuous operation.

End-Grounded Anode

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Digital Microprocessor Control

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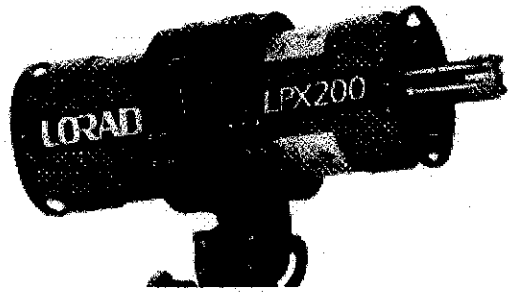
When you work with flaws...



...you have to be perfect

Automatic Adaption to Input Line Voltage

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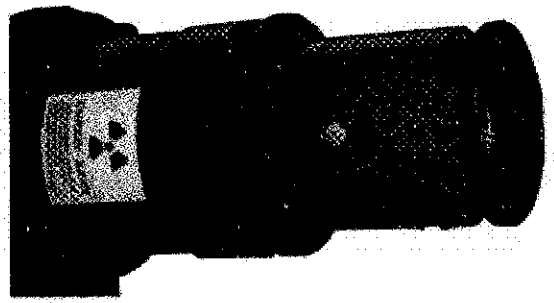

Exclusive LaserPointer

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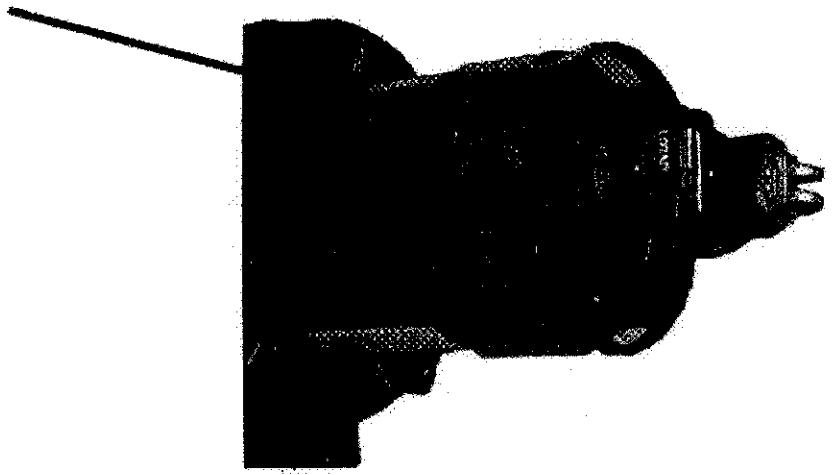

LPX Series Unique Combination of Features

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The LORAD Team

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Model 1620 X-Ray Tubehead Stand

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The stand incorporates two segment telescoping legs, a handwheel-driven variable height adjustment and a gearhead which provides lockable handwheel control of tubehead tilt and horizontal rotation.

The tubehead cradle is cushioned for secure mounting and vibration damping, yet allows easy, quick tubehead mounting and interchangeability. The cradle accommodates both the 160kV and 200kV tubeheads.

Tubehead positioning is via smooth, precision, lockable handwheel gear drives. The handwheels are equipped with automatic torque limiting devices to prevent damage to the positioning mechanisms.

A bubble-type indicator is included for quick and easy leveling of the tubehead.

...the LPX160 has become the benchmark that all other manufacturers are striving to imitate.

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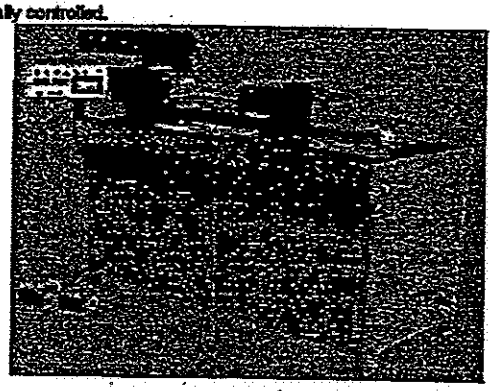
LINE ITEM #34
MAGNETIC INSPECTION

WET HORIZONTAL MPI FEATURES **Effective: 1/1/2001**

Standard Features:	$	52,351.00
Heavy - duty air cooled, three phase power supply.		
480vac input, three phase.		
All operator controls are located in a single console on the left for convenience.		
Can be operated in either contacts, coil or multi-vector mode.		
Cycle started by foot control. If auto bath option is chosen, bath is automatically controlled.		
Two digital ammeters incorporating "reading hold" features.		
Two individual power controls, one for each vector.		
Fully adjustable SCR current control system.		
Low current alarms. Adjustable with Touch Screen option.		
92" part length capacity.		
6000 amp output PWDC, HWDC, 6000 amps AC.		
Decaying AC demag.		
Pump run by solid state contactor.		
Solid state switching between the head and coils.		
Heavy duty bed rail system.		
Heavy duty headstock and tailstock.		
Pneumatic driven head stock.		
Gear driven tailstock is standard.		
Paint color - Magnetic tan, baked powder coating.		
Hard maple grates front and rear standard.		
Hip bar supplied as standard equipment.		
Operator manual & documentation included.		



(Same as unit shown except with long cabinet)

Recessed 16 ga. steel front doors and 16 ga. steel rear panels are gasketed to make a dust proof enclosure out of the base.
Stainless Steel Hip Bar
Stainless steel tank is 16 ga. material.
All structural components are made from 10 ga. steel.
Standard one year warranty.
Power Line Safety contactor
Adjustable control panel
Automag - NEW AS STANDARD
Operator Selectable Single or Dual Mag Shot - Standard

Optional Features:		
Automatic bath application.	$	3,307.00
Magnetic UB400SA, 400 watt swing away black light	$	2,480.00
Larger coils. Workpiece adapters.		P.O.R.
Outboard work rests.		P.O.R.
Reversing DC demag section.	$	4,805.00
BasicTouch Screen menu system	$	8,687.00
SPC Package	$	3,500.00
Networking Option		P.O.R.
Automatic Central Conductor Fixture	$	3,617.00
Central Conductor Bars		P.O.R.
Heat exchanger (recommended)	$	3,617.00
Hood and ventilator & white light	$	1,912.00
Poly grates - recommended for water based carriers	$	304.00
Special paint.		P.O.R.
Rear tank cutout and insert for future conveyor installation.	$	848.00
Seperate cabinet for power supply & interconnecting cabling and ducting.	$	7,234.00
400 watt hand held black light and mounting brackets	$	440.00

masterprice 01012001.xls
Revised 06/20/2001

Specifications subject to change without notice

MAGWERKS CORPORATION

MAGNETIC PARTICLE INSPECTION EQUIPMENT & MACHINERY ~ SALES ~ SERVICE ~ CERTIFICATION ~ TRAINING

4024 W. 10th STREET
INDIANAPOLIS, IN 46222
VOICE 317-241-8011 FAX 317-241-8015 WORLD WIDE WEB www.magwerks.com

RECOMMENDED START-UP MATERIALS
(for any Wet MPI Machine)

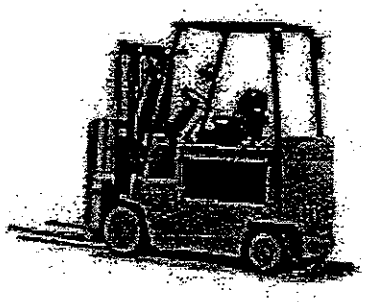
quantity	description	per	unit price	extension
	Magnetic powder – oil based	lb.	84.00	84.00
1	Oil vehicle – Aircraft Grade	55gal	490.00	490.00
2	Double braided copper pad set with V block	Ea.	125.00	250.00
	Central conductor set-3pcs	Set	114.00	114.00
	Ketos ring with long form certs. To meet AS5282	Ea.	500.00	500.00
1	Centrifuge tube	Ea.	63.00	63.00
	Centrifuge stand	Ea.	33.00	33.00
	Principles of Magnetic Particle Inspection	Ea.	98.00	98.00
2	Ultraviolet absorbing spectacles	Ea.	16.00	32.00
	B-100 100 watt black light-high effeciency	Ea.	500.00	500.00
	Gauss meter Series 25, 10-0-10 w/o long form certs	Ea.	95.00	95.00
6	QQIs – Standard circle & cross, part # 13-028-01	Ea.	30.00	180.00
3	QQIs – Minature circle & cross, part # 13-028-03	Ea.	30.00	90.00

LINE ITEM #35
FORKLIFT, ELECTRIC

4 Wheel/Sitdown Rider/Cushion Tire

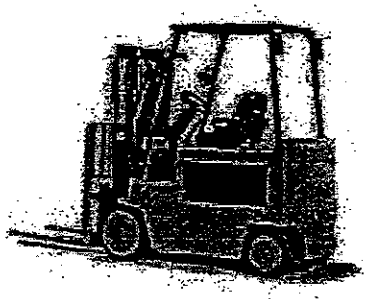
E70XL3 / E80XL3
E100XL3 / E120XL3

4 Wheel/Sitdown Rider/Cushion Tire



E70XL3 / E80XL3
E100XL3 / E120XL3

4 Wheel/Sitdown Rider/Cushion Tire

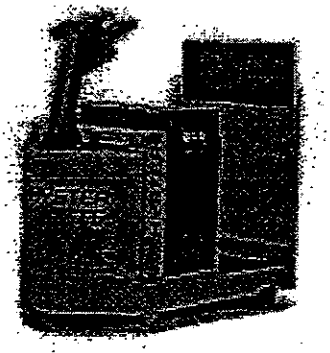


E70XL3 / E80XL3
E100XL3 / E120XL3

LINE ITEM #36
TOW MOTOR

2,000 - 4,000 lbs

Tow Tractor

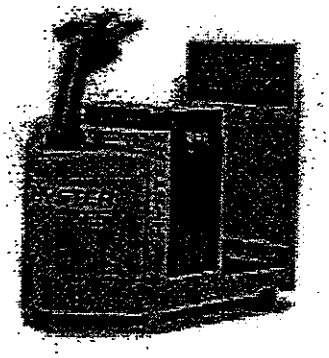


T5XT **

**Rated at 200 lbs. "normal drawbar pull" and has a rolling weight towing capacity up to 10,000 lbs.

2,000 - 4,000 lbs

Tow Tractor



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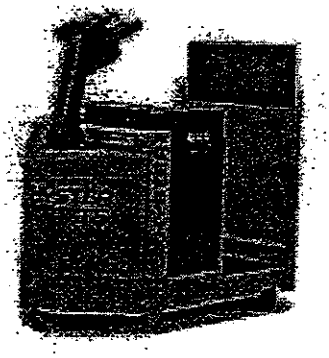
Tow Tractor



T5XT **

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