





A VULCAN TOOL FOR EVERY JOB

TYPICAL SOLDERING JOBS--TOOL TO USE

SCREW TIP TYPE TOOLS

		Cat. No.		Price Comp.	Extra Tip	Heating Head	Watts	Equal to Old Style Copper	Net Wt.	Tip Dia.
RADIO REPAIRS—LIGHT HOME USE	Specially designed for light soldering. (No. 20 is recommended for industrial use.)	10		\$3.75	.30	\$2.30	44	1 lb. per pr.	5/8 lbs.	7/16"
FINEST INSTRUMENTS	Small Fuses, Light Telephone Repairs, Radio and all very light soldering.	20		5.00	.30	3.55	50	1 lb. per pr.	5/8 lbs.	7/16"
RADIO—HOME USE	Fine Instruments, Inspectors' or Linemen's Tool Kits, Radio Repairmen, Toys.	30		6.25	.40	4.70	60	1 1/2 lbs. per pr.	3/4 lbs.	1/2"
TELEPHONE SWITCHBOARDS	Electrical Instruments, Light Manufacturing, Fuses, Signs, Organs, Jewelry, High Speed Radio and Television Work.	40		7.00	.40	5.45	90	2 1/2 lbs. per pr.	3/8 lbs.	1/2"
FAST RADIO MANUFACTURING	Fast Telephone Work, Auto Repairs, Wiring, Signal Equipment, Lanterns, Lamp Shade Frames, School Laboratories, Home Use.	50		8.00	.65	6.20	130	3 1/2 lbs. per pr.	1 1/8 lbs.	7/8"
LIGHT AUTO REPAIRS	General Utility, Light Tinware, Small Motors, Cans, Home Use.	60		9.25	.90	6.95	175	4 1/2 lbs. per pr.	1 3/8 lbs.	1"
GENERAL MANUFACTURING	Medium Tinware, Leaders, Gutters, Auto Wiring, Metal Patterns, Aircraft.	70		10.75	1.20	8.15	220	6 lbs. per pr.	1 3/4 lbs.	1 1/8"
HEAVY TINWARE	Metal Cornices, Shutters and Doors, Skylights, Metal Boats, Refrigerators, Auto Radiators, Commutators.	80		12.50	1.60	9.50	310	7 1/2 lbs. per pr.	2 3/8 lbs.	1 3/8"
ROOFING—TANKS	Ventilating and Air Conditioning Equipment, Milk Cans, Drums, Heavy Metal Patterns, Auto Bodies, Fender Dents.	90		14.50	2.10	11.00	430	10 lbs. per pr.	3 3/8 lbs.	1 5/8"

PLUG TIP TYPE TOOLS

RADIO—HOME USE	Fine Instruments, Inspectors' or Linemen's Tool Kits, Radio Repairmen, Toys.	35		6.25	.40	4.70	100	1 1/2 lbs. per pr.	1 1/8 lbs.	3/8"
TELEPHONE SWITCHBOARDS	Electrical Instruments, Light Manufacturing, Fuses, Signs, Organs, Jewelry, High Speed Radio and Television Work.	45		7.00	.50	5.35	150	2 1/2 lbs. per pr.	1 1/4 lbs.	1/2"
FAST RADIO MANUFACTURING	Fast Telephone Work, Auto Repairs, Wiring, Signal Equipment, Lanterns, Lamp Shade Frames, School Laboratories, Home Use.	55		8.50	.90	6.20	200	3 1/2 lbs. per pr.	1 5/8 lbs.	5/8"
GENERAL MANUFACTURING	Medium Tinware, Leaders, Gutters, Auto Wiring, Metal Patterns, Aircraft.	75		11.25	1.60	8.25	300	6 lbs. per pr.	2 3/8 lbs.	7/8"

GENERAL INFORMATION: All tools equipped with 6 feet of 10,000 cycle approved heater cord and rubber plug cap. Metal Tool Stand with each tool. Operate equally well on either AC or DC. Stocked in standard voltages. Special voltages \$1.00 extra. (No. 10 tool supplied only in 110 to 120 volts.) In the screw type tool, the bevel and thread of each tip exactly fits the heating head, resulting in exceptional heat conduction efficiency. Use only genuine VULCAN Tips. SPECIFY VOLTAGE WHEN ORDERING.

RHEOSTATS

Rheostats provide more flexible and accurate temperature control of VULCAN Electric Soldering Tools. They protect them, when not actually delivering their working heat, by preventing the unused heat from storing up, save the expense of wasted current, protect the "tinning" from burning off the tip and prolong the life of the winding. Rheostats maintain the exact degree of temperature required for perfect soldering on any particular job.

Code Letter	For Tools Numbered	Price
A	10, 20 & 30	\$8.50
B	35, 40 & 50	9.50
C	45, 55, 60 & 70	10.50
D	75, 80 & 90	12.00

THE VULCAN GUARANTEE

The VULCAN Tools represent absolute quality, are accurately manufactured and tested, and are guaranteed perfect in both materials and workmanship. We specify no period of free replacement nor do we set a one year limit on our guaranty, but we will make good any VULCAN Tool in which our investigation shows any manufacturing fault.

These Tools are offered with complete assurance of their ability to do perfect soldering at the highest speed, believing that the users will appreciate their wonderful possibilities and use them under proper and reasonable conditions.

A BOOKLET

"How To SOLDER Perfectly"

FREE Upon Request

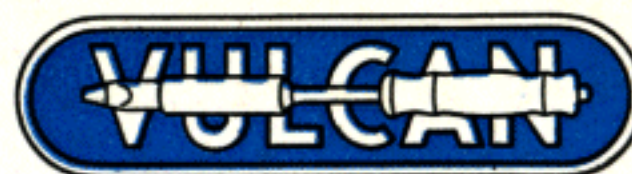
12 pages of Valuable Information

We invite your correspondence on your Soldering Problems

VULCAN ELECTRIC COMPANY

600 BROAD STREET

LYNN, - MASS.



UNUSUAL VULCAN FEATURES

Protected windings, hermetically sealed, prevent damage by flux fumes, oxidation, water, etc.

Purest, hard forged copper tips, tinned ready for use and easily replaceable.

Adjustable, ventilated handles, cool and comfortably shaped to fit hand.

Fireproof, protected terminals relieve cord strain.

Approved by Underwriters' Laboratories.

Current consumption very low. Less costly to operate.

FOR SALE EVERYWHERE
BY
LEADING JOBBERS AND DISTRIBUTORS

VULCAN

ELECTRIC SOLDERING TOOLS



VULCAN ELECTRIC COMPANY
LYNN, MASS.

VULCAN ELECTRIC SOLDERING TOOLS

(SCREW TIP TYPE TOOLS)



NO. 90 TOOL

VULCAN HIGH POWERED ELECTRIC SOLDERING TOOLS are the result of years of specialization in the soldering field. They will do perfect soldering at high speed throughout a long life. VULCAN windings are protected from oxidation and corrosion by being hermetically sealed — like incandescent lamp filaments. VULCAN tools are rugged, light weight, well balanced and economical.

THE SELECTION OF THE EXPERT THE PRIDE OF THE AMATEUR

Every Boy Should Learn
the Scientific Art of
Soldering



VULCAN Tools will
Develop a Boys
Creative Abilities

Heavy Soldering Is As Easy
As Light Soldering



Just Use the Proper Size of
VULCAN Tool

Every Man Appreciates
an Efficient and
Dependable Tool



VULCAN Tools Fix
Home Appliances and
Save Repair Bills

HERMETICALLY SEALED ELEMENTS The hermetically sealed element of the Vulcan tool is one of its distinct advantages. Sealing the element protects the red hot resistance wire during use from the quick corroding action of the acid fumes and oxygen of the air. This gives longer life and greater heating power.

FULL HEATING POWER MAINTAINED FOR LIFE OF TOOL Another striking advantage of the sealed element is: by protecting the resistance wire from corrosion it maintains the initial wattage (heating power) throughout the element's life. A great advantage in factory production where a constant speed of soldering must always be maintained.

UNSEALED ELEMENTS PROGRESSIVELY LOSE HEATING POWER

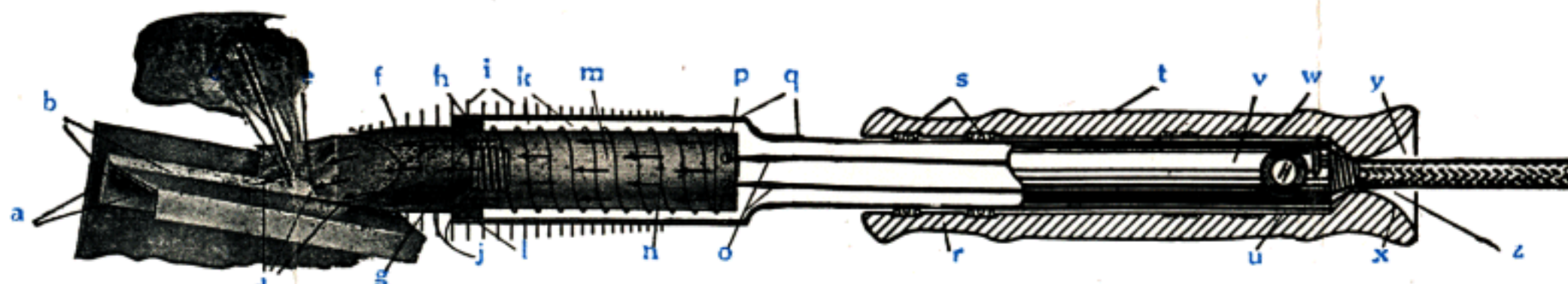
All elements which are not protected from acid fumes and oxygen, gradually lose their heating power due to the resistance wire's increasing resistance. The resistance wire's surface corrodes away reducing the size of the wire. Soldering tools with such elements solder more and more slowly with age.

HIGHEST QUALITY ELEMENTS THAT OUTLAST THE CASE OF THE TOOL

It has been found that with the longer-lived "sealed-in" element the case of the iron, even with normal care, needs replacing about the same time as the element. Therefore, the Vulcan method is to replace the element with a new heating head, or heater, which is an element sealed into a steel case with an accurately machined bevel and thread at one end and a slim extension, or stem, at the other, containing the terminal.

THE VULCAN SYSTEM OF PRODUCING, CONDUCTING AND DELIVERING CONSTANT - AMPLE - HEAT

- a—Parts being soldered the "Vulcan" way.
- b—Soldered portion of the joint.
- c—Solder that is fusing into the joint.
- d—Delivery of ample heat at the "correct soldering temperature."
- e—Brightly "tinned" (solder coated) working surface of the tip.
- f—Hard forged tip of purest copper.
- g—Accurate valve-fitting connection to the heater, that (when kept firmly tightened) seals the tip cavity and protects the enclosed metal surfaces.
- h—Loose-fitting screw thread, that permits the bevelled surfaces to fit perfectly (it unscrews easily when the bevelled surfaces are loosened by "rapping the tip until it loosens.")
- i—Heat dissipated by radiation when the tool is at soldering temperature.
- j—It pays to keep the unused (untinned) portion of the tip, and the entire end and surface of the heating head clean and free from the flux, corrosion and overheat that would destroy them.



- k—Hermetically sealed winding chamber.
- l—Brazed joint that provides a "hermetically sealed" steel case that protects the winding chamber, from the flux, water, oxidation and corrosion that would otherwise steadily eat away the heating wire.
- m—High heat conductive core made of the purest copper obtainable.
- n—Best obtainable heating wire (red hot during operation) insulated to withstand a 2000 volt alternating current insulation break down test.
- o—Brazed joints that guarantee permanently perfect connections between the heating wire and cool wire leads.

- p—High heat resisting insulator, holding and protecting the heating wire and the lead wires.
- q—Shell and stem of the blued steel case that protect the heating element and the leads. (Do not crush, bend, cut or smash this vitally important protective casing).
- r—"Short" position of handle.
- s—Powerful steel handle springs (slow heat conducting) that firmly grip the stem but are adapted to slide along it in adjusting the length of the tool to the best working convenience.

- t—Ventilated (cool) enameled hard wood handle, covering and protecting the terminal and cord connection. Tool can be extended or shortened by sliding handle along the stem.
- u—Terminal insulator with contact screws.
- v—Sealed end of stem of "hermetically sealed" case that protects the winding chamber from the flux, water, oxidation and corrosion that would otherwise steadily eat away the heating wire.
- w—Bump that acts as a stop when handle has been drawn to full length position. Handle can be easily removed over the bump by a quick jerk.
- x—Flared opening protects cord at end of handle from sharp bending in use.
- y—High grade flexible connecting cord.
- z—Heavy linen thread that takes the strain from the bared fine copper strands of the cord connection (carefully noticing how cord is connected and tied and always reconnecting and retying in the identical manner will reduce cord repairs.)

REPLACING THE ELEMENT in the Vulcan tool is very simple. It can be done in a few moments without any chance of mistakes. Unscrew the tip, pull handle off on to cord, loosen contact screws and remove cord. Attach old cord, handle and tip to new element or Heating Head.

SIMPLE TO ASSEMBLE All the work of removing and assembling easily damaged, replaceable elements and lead wires is avoided. Whereas, the Vulcan element or heating head costs a little more than replaceable elements, Vulcan users have found the benefits derived from the Vulcan tools many times offsets the slight additional expense. Because of fewer replacements Vulcan tools are the cheapest to maintain.

THE FINEST HARD FORGED COPPER TIPS tinned ready for use and easily replaceable.

ADJUSTABLE, VENTILATED, COOL and COMFORTABLE HANDLES to fit the hand are provided on all Vulcan tools.

ALL VULCAN TOOLS ADJUSTABLE IN LENGTH Terminals are readily accessible by simply sliding the handle off the stem on to the cord.

TERMINALS ♦ FIREPROOF ♦ UNBREAKABLE ♦ CORD STRAIN RELIEF

The terminals are unique in design. They are small and compact, yet possess that extra margin of safety against electrical breakdown. They are made of fireproof material which will withstand 2000° F. Enclosed for its full length in the end of the steel stem, the terminal is reinforced against breakage. Provision is made in the end of the terminal so that the cord can be securely bound to the terminal and the end of the steel stem by waxed linen thread which relieves all possibility of cord strain being transmitted to the terminal screws. Also, the twisting together of the separate conductors (which results in wear and short circuits) is prevented by the firm and secure tie.

HIGHEST EFFICIENCY in conducting heat to the tip, Vulcan tools consume less current, making operation less costly. In the screw tip type tool the bevel and thread of each tip exactly fits the heating head, resulting in exceptional heat conduction efficiency. Because of the sealed element, Vulcan tools may be cooled off by immersing the tip end in water. No water can enter the winding chamber.

BEST QUALITY CORD AND PLUG Equipped with 6 foot (10,000 cycle) approved heater cord and rubber plug cap.

UNDERWRITERS' LISTED Approved by the underwriters who require an insulation breakdown test of 900 volts A. C. for one minute. Vulcan tools, however, must pass a more severe A. C. breakdown test to meet Vulcan standards. This is why Vulcan Tools are of exceptional quality and durability.

SOLDER FASTER BETTER CHEAPER

FREE DOWNLOAD - NOT FOR RESALE



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