



Electric Blasting Machines

Type 922

Condenser Discharge Blasting Machine

provided with hand-operated A.C. generator

This Condenser Discharge Blasting Machine is manufactured and distributed by Messrs. VSV-Engineering Produktions- u. Handels GmbH under licence for Schaffler & Co. GmbH at the same high technical level and safety standards as the other well known *blasting machines, testing instruments and other blasting accessories*.

All products are manufactured at the highest technical level and fulfil all safety standards required by the Federal Ministry of Economics and Labour, dept. Mining Technique and Safety "Supreme Mining Authority" which is documented by the approval.

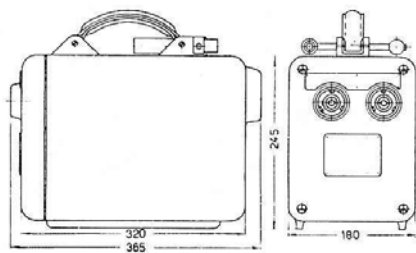
The type 922 has been provided for shooting with high intensity POLEX (HU) detonators which are recommended for use in high altitudes, in the vicinity of electric railways and in locations where stray currents are liable to occur as well as for huge numbers of normal detonators connected in series or series-parallel.

In spite of their high power, these blasting machines are of light weight and are relatively small in size so that they can be carried by one man without difficulty. The extremely simple operation is briefly described in the instructions overleaf.

The housing and the housing cover consist of highgrade light-alloy castings and are watertightly connected by four strong special-head screws. The built-in pilot lamp indicates the state of charge of the condenser. Plug sockets for the connection of the firing leads are mounted on the rear of the housing. The firing leads may be connected to the blasting machine only with the plugs which are supplied.

The drive pin for the generator and the pin for operating the change-over switch having the positions CHARGING-IGNITING are operated with the same, removable crankhandle key. The switch cannot be released due to a freeze resisting and jam free built in electro magnetic blocking device, if the condenser has not reached the proper charging tension.

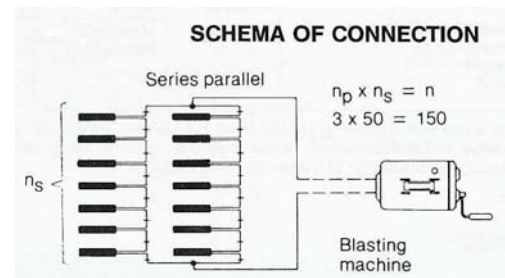
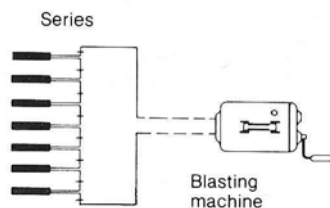
All coils and insulations are impregnated to resist moisture and tested for dielectric strength.



Dimensions 922

Technical data:

- Voltage : 3000 V
- Firing condenser : 40 μ F
- Energy : 180 Ws
- Dimensions : 370 x 180 x 270 mm
- Weight : 16 kg



All electrical parts and the complete blasting machine are tested with a tension of 2000 V a.c.

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Standard sensitive electric detonators A with 3 m copper leg wires at 2,5 Ω leading line resistance 10 Ω Firing impulse impulse of the blasting machine $K \geq 4$ mWs/ Ω (according to the Austrian regulation these detonators are not allowed any more, only igniters of this type are approved).	connected in series	No. of shots*	800
		Maximum resistance	2010 Ω
	in parallel series	No. of shots*	20 x 220 = 4400
Insensitive electric detonators Fiduz (U) with 3 m copper leg wires at 1,75 Ω leading line resistance 10 Ω Firing impulse impulse of the blasting machine $K \geq 22$ mWs/ Ω	connected in series	No. of shots*	900
		Maximum resistance	1070 Ω
	in parallel series	No. of shots*	10 x 200 = 2000
Highly insensitive electric detonators Porex (HU) with 3 m copper leg wires at 0,5 Ω leading line resistance 5 Ω Firing impulse impulse of the blasting machine $K \geq 3300$ mWs/ Ω	connected in series	No. of shots*	90
		Maximum resistance	50 Ω

*with iron leg wires the no. of shots must be halved. Type 922 / 3000 is designed particularly for firing the highly insensitive Porex (HU) detonators. When they are used for firing series of normal or U-detonators special attention must be paid to perfecting the insulation of the whole firing circuit.

OPERATING INSTRUCTIONS for type 922

The firing circuit is set up as usual (connection of detonators, resistance measurement, insulation test).

1. Set the switch to position "CHARGING" with the aid of the crank-handle-key. Otherwise the charging circuit will remain open and generator will idle when it is being operated.
2. Connect the firing leads with the plugs to the plug sockets.
3. Operate the generator with the crank until pilot lamp glows, and turn crank about 3 additional times. The blasting machine remains ready to fire only for 15 seconds. The pilot lamp glows after 15 turns within about 10 seconds. After the pilot lamp has extinguished, the switch is locked again. To make the blasting machine ready to fire again, follow instruction point 1 to 3.
4. Fire by setting the switch to position "IGNITING". When firing leads are not connected the condenser will discharge over a built-in resistor.

TESTING OF THE BLASTING MACHINE

The blasting machine is absolutely maintenance-free. According to the Austrian regulations the effectiveness of the blasting machines have to be tested by the appropriate type of SOLUS tester once per month. Therefore the condenser discharge blasting machine type 922 has to be tested with the tester for blasting machine type Solus 922.



IMPORTANT – FOR ATTENTION

Never actuate the blasting machine with short-circuited terminals or plug sockets respectively.

Please return damaged or defective blasting machines to our address for repair and service. If repairs are not carried out in our premises you and your staff will be endangered.

SAFETY FIRST

OUR PRODUCTION PROGRAMME

- A full range blasting machines (to to 1500 U-detonators [Fiduz] in series)
- Testing instruments for blasting machines and ohmmeter
- Leading lines and connecting wires
- Blasting accessories

SAFETY INSTRUCTIONS

If the blasting machine is not used according to the regulations and safety instructions or when the terminals (or the connected wires) are touched this may result in severe injuries. The energy of a discharging blasting machine can be compared with a small flash. The electric shock can cause high-grade burns (burst of the skin) and may occur danger of life (e.g. cardiac arrest).

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