



SECRET/CONTROL - U.S. OFFICIALS ONLY  
 CONFIDENTIAL  
 CENTRAL INTELLIGENCE AGENCY  
 -2-

50X1

in boiler houses for ranges up to 400 kg per square cm; manometers for refrigeration plants for ranges up to 25 kg per square cm; safety manometers for high-pressure gases.

Supplementary equipment for manometers.

Electric high-tension contact devices for all kinds of signal and remote control installations, and electric tele-transmitters for telemeters (elektrische Fernsender fuer Fernmessanlagen).

Manometer accessories.

Shut-off and test faucets or valves, connecting pieces, throttling devices.

Recording manometers.

With capsule spring, plate spring, metal tube spring or steel tube spring as motor for excess pressure, low pressure, difference of pressure, or tension dynamometer, single and double recorders writing on a measuring disk or running measuring tape. Indicator ranges from minus 1 kg per square centimeter to plus 1,000 kg per square centimeter.

Liquid manometer.

Tension dynamometers with vertical or inclined measuring tubes and varicolored measuring liquids, used for measuring slight pressures or differences of pressure of air or gas, for 1 to 5 measuring points. Indicator ranges from minus 200 to plus 100 mm Hg. \*\*

Mercury difference manometers.

For indicator ranges up to 400 mm Hg or 1 kg per square centimeter, for static pressure up to 63 kg per square centimeter. \*\*

b. Measuring Instruments - Thermometers.

Glass thermometer.

Straight and angle thermometers in round or flat casing with large scale, white or colored background, graduation from minus 20 to 600 degrees centigrade. Submersible and protective tubes for all purposes and test thermometers with graduation from minus 20 to 600 degrees centigrade.

Spring thermometers.

Recording spring thermometers, straight and angle thermometers, tele-thermometers; supplementary equipment for spring thermometers, electric heavy current contact devices for all kinds of signal and remote control installations; recording spring thermometers and manothermometers.

Electric thermometers.

Resistance thermometers.

For temperatures ranging from minus 100 to plus 500 degrees centigrade; temperature tracers (Temperaturfuehler) for all kinds of operations in connection with Ortex indicating or recording instruments of various designs;

Thermoelectric pyrometers.

For temperatures ranging from minus 20 to plus 1,500 degrees centigrade, thermoelements for all kinds of operations in connection with Ortex indicating or recording instruments of various designs.

Ortex temperature indicating instruments.

Ortex telemeter station.

with Ortex indicating instruments and Ortex selector switches all on the same front plate with resistance thermometers, pyrometers or Ortex tele-transmitters;

SECRET-CONTROL/US OFFICIALS ONLY  
 CONFIDENTIAL

SECRET/CONTROL - U.S. OFFICIALS ONLY

CENTRAL INTELLIGENCE AGENCY

-3-

50X1

Ortex temperature recorder.

Ortex selector switches.

Ortex tele-transmitters.

for mechanical indicator measuring instruments (Zeigermessgeraete) and stationary indicators (Standzeiger) for electric tele-transmitting of the measuring data.

Electro contact instruments.

Measuring instruments with heavy-current contact devices.

Manometers, thermometers and other mechanical indicator measuring instruments for the operation of electric signal installations, switch or control gears for all kinds of warning or remote control installations.

Machinery equipment.

Includes tachometers, "Drehpendel"-hand-tachometers, and motors.

Miscellaneous gauges.

Tire pressure gauges for motor vehicles and motorcycles, compression gauges for Diesel and carburetor engines, pump gauges, and density gauges for all kinds of gas pipe lines.

c. Fittings - Shut-off Valves.

Shut-off and check valves.

Drop-forged valves.

Shut-off and check valves, small valves for nominal pressure ranging from 25 to 500 atmospheres in nominal widths ranging from 3 to 50 mm.

Special valves.

For the chemical industry. Made of cast iron for ammonia, for nominal pressure up to 25 atmospheres and in nominal widths from 15 to 300 mm.

For the mineral oil industry (hot oil). Made of electrical steel castings or forged steel.

Membrane operated (membranbetaetigte) valves and piston operated (kolbenbetaetigte) valves for compressed air, compressed water, or oil control.

Stop slide valves.

High-pressure superheated steam slide valves.

For temperatures ranging from 400 to 520 degrees centigrade, nominal pressure from 25 to 320 atmospheres and in nominal widths from 30 to 500 mm.

Special slide valves for the mineral oil industry.

Made of high-grade electric steel castings for oilfields, refineries, hydrogenation plants, and oil pipe lines.

c. Fittings - Controlling Agents.

Stop cocks.

Lubricating cocks.

Pressure-reducing valves.

For air and water with membrane and spring weight for nominal pressure up to 16 atmospheres and in nominal widths from 20 to 65 mm.

Pressure-reducing valves for saturated and superheated steam.

SECRET-CONTROL/US OFFICIALS ONLY

CONFIDENTIAL

SECRET/CONTROL - U.S. OFFICIALS ONLY

CENTRAL INTELLIGENCE AGENCY

50X1

Hydraulic regulator valves.

Tabu regulator valves.

With impulse amplification (Impuls-Verstaerkung) b., compressed water (water pipe line), oil or compressed air, precision regulator for pressure, temperature, flow volume etc. with direct-installed or remote controlled regulator valve.

Safety valves.

Low lift safety valves (Niederhub-Sicherheitsventile), full lift safety valves (Vollhub-Sicherheitsventile), auxiliary controlled (hilfsgesteuerte) safety valves with large blow-off capacity for steam, water and other liquids;

e. Fittings - Measuring Instruments.

Level indicators.

Glass tube indicators with valve head made of forged steel for steam boilers and containers up to nominal pressure of 25 atmospheres; Reflection water level gauges with hinged tube holder made of steel, for steam boilers and containers up to a nominal pressure of 40 atmospheres; high-pressure water level gauges and water level distant reading indicators for nonpressure containers used to indicate the oil level in transformers, oil switches, oil tanks and gear boxes.

Jet apparatuses.

Injectors for steam boiler feeding.

Steam air suction and steam air pressure apparatuses.

Pipeline accessories.

Condensed water discharge.

f. Fittings - Pumps.

Steam pumps.

Hand pumps.

Pressure pumps and test pumps.

For pressure-testing pipelines and containers with single pistons up to 100 atmospheres pressure, with double-acting pistons up to 1,000 atmospheres pressure.

g. Autogenous Apparatus.

Welding and cutting torches.

Pressure-reducing valves for acetylene, oxygen and hydrogen.

h. Foundry products.

Electric steel castings.

Metal castings, nonferrous metals and light metals, sand castings and die castings. \*\*\*

5. The plant was given occasional special orders by the Soviet plant management. Early in March 1948 the plant management requested the production of red brass valves in small sizes. The order amounted to more than one million castmarks. Since the middle of March 1949, Soviet-ordered tests were made to reach the highest possible specific pressure. A high-pressure press and a high-pressure chamber for a specific pressure of 18,000 kg per square centimeter were used in these tests. Another order of the Soviet plant management concerned the design and construction of safety valves and regulating devices for high-speed boats of the Soviet Navy. In November 1950 the plant had to deliver 120 flooding valves

SECRET/CONTROL/US OFFICIALS ONLY

CONFIDENTIAL

**CONFIDENTIAL**  
SECRET CONTROL - U.S. OFFICIALS ONLY

CENTRAL INTELLIGENCE AGENCY

-5-

50X1

for submarines to the Soviets by 1 December 1950. The value of the production of the plant was 24 million eastmarks in 1938, 43 million eastmarks in 1943, 12.5 million eastmarks in 1946, and 25 million eastmarks in 1947 including 12.5 million eastmarks for fittings and 12.5 million eastmarks for measuring instruments. The main raw material supplies came from the Soviet Zone of Germany. The plant had a sales office in Duesseldorf and one in Munich in order to obtain certain tools, refined steels, and nonferrous metals which cannot be supplied by the Soviet Zone of Germany. These sales agencies procure the needed westmark funds by the sale of various fittings and measuring instruments of the plant. The Louis Strube Plant in Magdeburg-Duckau was reported as a plant supplying red brass to the SAG Plant in Magdeburg.

6. The key personnel of the Soviet management in the Magdeburg Plant included 50X1-HUM Vatajev, (fnu), general manager, and Dimitriev, (fnu), technical manager. The key personnel of the German management included Beutner or Beutler, (fnu), technical manager, [redacted] manager who worked his way up from the position of assistant in the measuring instrument construction department; and Gerlach, (fnu), commercial manager. The manager of the measuring instruments department Stuebing, (fnu), and the manager of the technical office Erwin Mueller. The technical office comprised the following technicians: Walter Holz, specialist for steam pressure gauges and thermometers; Erwin Erenz, expert on manometers; and Diesterweg, (fnu), expert for tachometers and meters. The department for electric measuring instruments was headed by Heinz Freise, the steel foundry by engineer Branden, (fnu), expert on foundry production, and the nonferrous metal foundry by Wegerer, (fnu). The total number of employees was 4,800 in 1947 and about 5,000 in April 1950.

\* [redacted] Comment. Before the war the plant had an electric steel foundry with three 50X1-HUM electric furnaces which had a total annual output of 11,400 tons of electric steel. [redacted] the steel foundry will allegedly acquire 50X1-HUM two additional electric furnaces.

\*\* [redacted] Comment. Wassersaeule abbreviated WS (column of water) is a measuring unit 50X1-HUM for small pressure, and is used in slight gas pressure, such as that occurring in the gas supply system. One cm of WS equals 0.001 atmosphere. WS is an abbreviation of Quecksilbersaeule (column of mercury).

\*\*\* [redacted] Comment. The wartime production of the plant comprised manometers, hydro-50X1-HUM meters, warship fittings, torpedo steering engines for the "Tiefenruder" depth instruments, steering devices for the "Seitenruder", and submarine measuring instruments.

**CONFIDENTIAL**  
SECRET CONTROL / US OFFICIALS ONLY