

SCIENTIFIC PRODUCTION CENTER



## SPECTEHNOMASH SPC LLC

*Development • Production • Installation*

[WWW.STMUA.COM](http://WWW.STMUA.COM)



**Special technological equipment for  
ammunition production of calibers:**

7,62x39; 7,62x51; 7,62x54; 5,45x39; 5,56x45;  
9x18; 9x19; 12,7x108; 12,7x99; 14,5x114



## ABOUT THE COMPANY

"SPECTEHNOMASH" Scientific Production Center" LLC is a modern enterprise that has many years of experience in design, production, and operation of production equipment cartridges. At present, the company has its own at the disposal of qualified engineering and technical personnel, specialists, production facilities for the manufacture of equipment for the production of cartridges, modern equipment for manufacture high-quality tools, and the necessary infrastructure. Specialists of our company developed a design-technological documentation for special technological equipment for the production of ammunition for small arms of all main calibers:

- 9x18; 9x19; 5.45x39; 5.56x45; 7.62x39; 7.62x51; 7.62x54 mm (production technology is based on the use of high-performance automatic rotary lines);
- 12.7x108; 12.7x99; 14.5x114; 23; 30 mm (in production technology modern multi-position presses are used).

## TECHNOLOGY

The main advantage of the offered technology is based on automatic rotary lines before traditional technology in that processing and control of details is carried out in the course of transport moving processed products. This principle provides the necessary performance when the compact location of equipment and the minimum number of employees. Having modern research and production potential, the technical level which is based on production experience automated technological equipment, the enterprise provides high-quality process equipment for the production of ammunition, tools, test equipment, and packaging. The quality assurance system at the enterprise is based on experience production and supply of various products to customers that require high reliability.



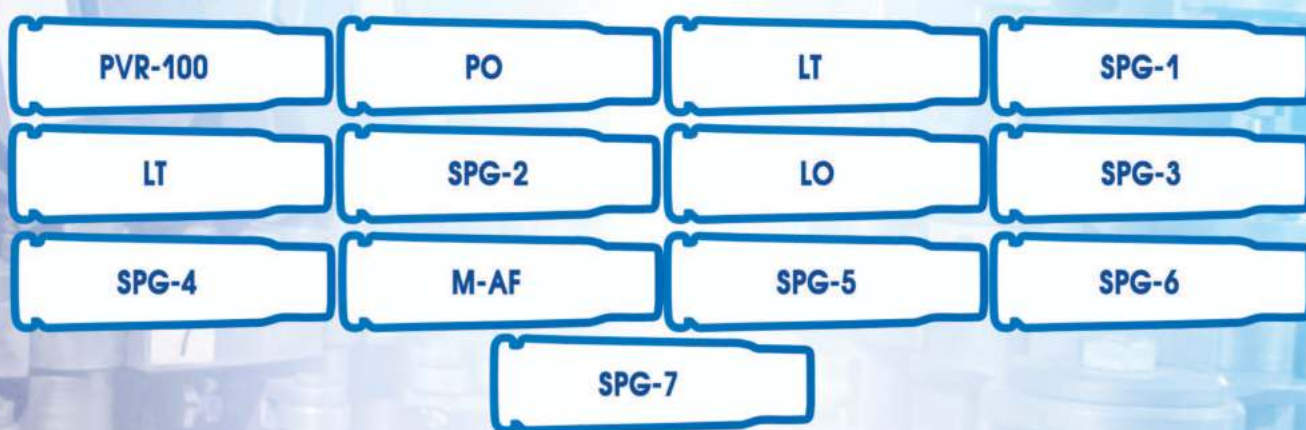
## OUR OFFERS

Taking into account the requirements of the Customers, the Company provides:

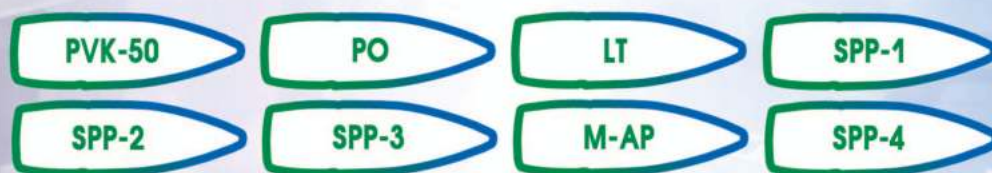
- A comprehensive approach to the production of products;
- Ability to supply turnkey equipment (under a separate contract);
- Ensuring the supply of tools to the Customer and materials for the production of ammunition;
- Provision of technical documentation and, if necessary highly qualified production and engineering staff;
- Training of specialists in the Customer's country;
- Modernization and optimization of existing production facilities for expanding the range and increasing production volumes;
- Planning decisions and design of equipment placement for the manufacture of cases, bullets, assembly and packaging of cartridges;
- After delivery of the equipment to the Customer, we carry out service throughout the service life of supplied equipment.
- The supply of spare parts is guaranteed throughout service life.

# Technological scheme of elements production and cartridge assembly

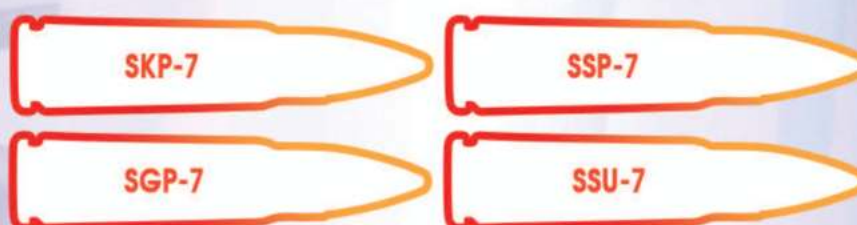
## Scheme 1. Cartridge case production



## Scheme 2. Bullet production



## Scheme 3. Cartridge assembly



## Press PVR-100

### Function

Special-purpose press PVR-100 is intended for blanking of parts from strip material.

### Function operations

- Blanking



### Technical features

Production rate, pcs per minute	700
Power consumption, kW	15.64
Compressed air consumption, m <sup>3</sup> /h	10.5
Overall dimensions without packing, LxWxH, mm	2800x1700x2900
Net weight, kg	13170
Capacity of press, ton-force	100
Traverse stroke, mm	30
Ram stroke frequency, min <sup>-1</sup>	140
Feed pitch of material: maximal / minimal, mm	40 / 17
Voltage, V / Current frequency, Hz	380 / 50

## Machine SPG-1

### Function

Machine SPG-1 is intended for the manufacture of billets of the first and second drawing, recrystallization annealing of billets after the second drawing and further cooling.

### Function operations

- First cupping/drawing
- Second drawing
- Recrystallization annealing
- Cooling



### Technical features

Production rate, pcs per minute	200+20
Air change rate, consumed by exhaust ventilation, m <sup>3</sup> /h	600
Operation factor, not less than	0,85
Power consumption (installed), kW	62.56
Water flow rate, m <sup>3</sup> /h	4.3
Compressed air consumption, m <sup>3</sup> /h	8.7
Overall dimensions without packing, LxWxH, mm	3730x1050x2720
Net weight, kg	7300±50

## Machine SPG-2

### Function

Machine SPG-2 is intended for third and fourth drawings, and for first and second cutting of cartridge case billets.

### Function operations

- Third drawing
- First cutting
- Fourth drawing
- Second cutting



### Technical features

Production rate, pcs per minute	200+20
Operation factor, not less than	0.85
Power consumption (installed), kW	29.8
Water flow rate, m <sup>3</sup> /h	2.3
Compressed air consumption, m <sup>3</sup> /h	0.66
Overall dimensions without packing, LxWxH, mm	3748x1050x2720
Net weight, kg	7200

## Machine SPG-3

### Function

Machine SPG-3 is intended for the manufacture of cartridge case billets by press forming.

### Function operations

- First forming
- 100% automatic check of primer pocket depth
- Second forming
- 100% automatic check of anvil depth
- 100% automatic check of primer pocket diameter
- Flash hole piercing
- Edge finishing of flash hole
- 100% automatic check of flash hole presence



### Technical features

Production rate, pcs per minute	200+20
Operation factor, not less than	0.85
Power consumption, kW	20.93
Water flow rate, m <sup>3</sup> /h	0.5
Overall dimensions without packing, LxWxH, mm	4435x1065x2375
Net weight, kg	7700

## Machine SPG-4

**Function**  
Machine SPG-4 is intended for tapering of cartridge case billets.

### Function operations

- Mouth annealing
- Cooling
- Pickling
- Rinsing
- Phosphotization
- Saponification
- First tapering
- Second tapering
- Rinsing
- Drying

### Technical features

Production rate, pcs per minute	200+20
Operation factor, not less than	0.85
Power consumption, kW	66
Water flow rate, m <sup>3</sup> /h	4
Steam consumption, kW	50
Compressed air consumption, m <sup>3</sup> /h	35
Air change rate, consumed by exhaust ventilation, m <sup>3</sup> /h	2500
Overall dimensions without packing, LxWxH, mm	4990x1665x2396
Net weight, kg	11700
Product-flow time for cases, min	9



## Machine SPG-5

**Function**  
Machine SPG-5 is intended for cartridge cases machining and control.

### Function operations

- Grooving
- Calibration
- Cutting of mouths
- 100% rim height check
- 100% extraction groove diameter check
- 100% cartridge case length check

### Technical features

Production rate, pcs per minute	200+20
Operation factor, not less than	0.85
Power consumption, kW	5.5
Compressed air consumption, m <sup>3</sup> /h	2.5
Overall dimensions without packing, min	3246x910x2200
Net weight, kg	6800



## Machine SPG-6

**Function**  
Machine SPG-6 is intended for complete automatic check of cartridge case dimensions and visual inspection of quality of cartridge case surface alongside with further conditional rejection of the flow.

### Function operations

- 100% automatic control by calibration chamber
- 100% automatic control of anvil depth
- 100% automatic control of pocket diameter
- 100% automatic control of flash hole presence

### Technical features

Production rate, pcs per minute	200+20
Operation factor, not less than	0.85
Power consumption, (installed), kW	3.0
Overall dimensions without packing, LxWxH, mm	2115x880x2040
Net weight, kg	3900



## Machine SPG-7

**Function**  
Machine SPG-7 is intended for visual quality control of cartridge case surface.

### Function operations

- 100% visual quality control

### Technical features

Production rate, pcs per minute	285±15
Power consumption, kW	0.6
Overall dimensions without packing, LxWxH, mm	2670x600x1560
Net weight, kg	700



## Machine SPP-1

**Function**  
Machine SPP-1 is intended for manufacture of bullet jackets.

**Function operations**

- First drawing
- Second drawing
- First tapering
- Second tapering
- Third tapering
- Fourth tapering
- Jacket cutting
- Jacket expanding



**Technical features**

Production rate, pcs per minute	200+20
Operation factor, not less than	0.85
Power consumption, kW	30
Water flow rate, m <sup>3</sup> /h	1
Overall dimensions without packing, LxWxH, mm	4360x1100x2397
Net weight, kg	10000

## Machine SPP-2

**Function**  
Machine SPP-2 is intended for manufacture of lead jacket and preliminary bullet assembly.

**Function operations**

- Lead billet cutting
- First forming
- Second forming
- Drying
- Insertion of core into jacket
- 100% visual control
- Insertion of unit with core into jacket and preliminary folding of jacket ends



**Technical features**

Production rate, pcs per minute	200+20
Operation factor, not less than	0.85
Power consumption, kW	16.7
Air change rate, consumed by exhaust ventilation, m <sup>3</sup> /h	2000
Overall dimensions without packing, LxWxH, mm	3955x1310x2030
Net weight, kg	6000

## Machine SPP-3

**Function**  
Machine SPP-3 is intended for the bullet assembly.

**Function operations**

- Final insertion of unit with core into bullet jacket and flanging of jacket ends
- First tapering of bullet jacket boat-tail
- First flanging of jacket ends
- Second flanging of jacket ends
- Second tapering of bullet boat-tail
- Diametrical calibration of bullet
- Bullet knurling
- 100% automatic control of bullet main diameter
- 100% automatic control of bullet boat-tail length
- 100% automatic control of bullet length
- 100% automatic control of bullet weight



**Technical features**

Production rate, pcs per minute	200+20
Operation factor, not less than	0.85
Power consumption, kW	5.5
Overall dimensions without packing, LxWxH, mm	4085x840x2030
Net weight, kg	6500

## Machine SPP-4

**Function**  
Machine SPP-4 is intended for visual quality control of bullet surface.

**Function operations**

- 100% visual control of bullets



**Technical features**

Production rate, pcs per minute	(120±10)x2
Power consumption, kW	1.0
Overall dimensions without packing, LxWxH, mm	1445x850x1400
Net weight, kg	350

## Machine SKP-7

**Function**  
Machine SKP-7 is intended for insertion of primer into cartridge case.

- Function operations**
- Primer insertion
  - 100% automatic control of primer insertion depth



### Technical features

Production rate, pcs per minute	200+20
Operation factor, not less than	0.85
Power consumption, kW	1.6
Compressed air consumption, m <sup>3</sup> /h	7
Pressure, MPa	0.2
Overall dimensions without packing, LxWxH, mm	2010x880x1965
Net weight, kg	2700

## Machine SSP-7

**Function**  
Machine SSP-7 is intended for assembly, geometrical and weight control of cartridges.

- Function operations**
- Case mouth expanding
  - Powder chamber filling
  - Propellant presence control
  - Preliminary assembly of bullet and cartridge case
  - Final assembly of bullet and cartridge case
  - Tapering of cartridge mouth
  - 100% automatic control of cartridge configuration
  - 100% automatic control of cartridge case body length
  - 100% automatic control of cartridge length
  - 100% automatic control of cartridge weight



### Technical features

Production rate, pcs per minute	200+20
Operation factor, not less than	0.85
Power consumption, kW	2.0
Overall dimensions without packing, LxWxH, mm	3680x1170x2000
Net weight, kg	5600

## Machine SKG-127 (145)

**Function**  
Machine SKG-127 (145) is intended for the insertion of primer into cartridge case, control of primer insertion depth and crimping for the cartridges of calibers 12.7x108, 12.7x99, 14.5x114 mm.

- Function operations**
- Primer insertion
  - 100% automatic control of primer insertion depth
  - Primer punching



### Technical features

Production rate, pcs per minute	60±5
Operation factor, not less than	0.85
Power consumption, kW	1.5
Overall dimensions without packing, LxWxH, mm	2600±50x1000x2400
Net weight, kg	3000±50

## Machine SSP-127 (145)

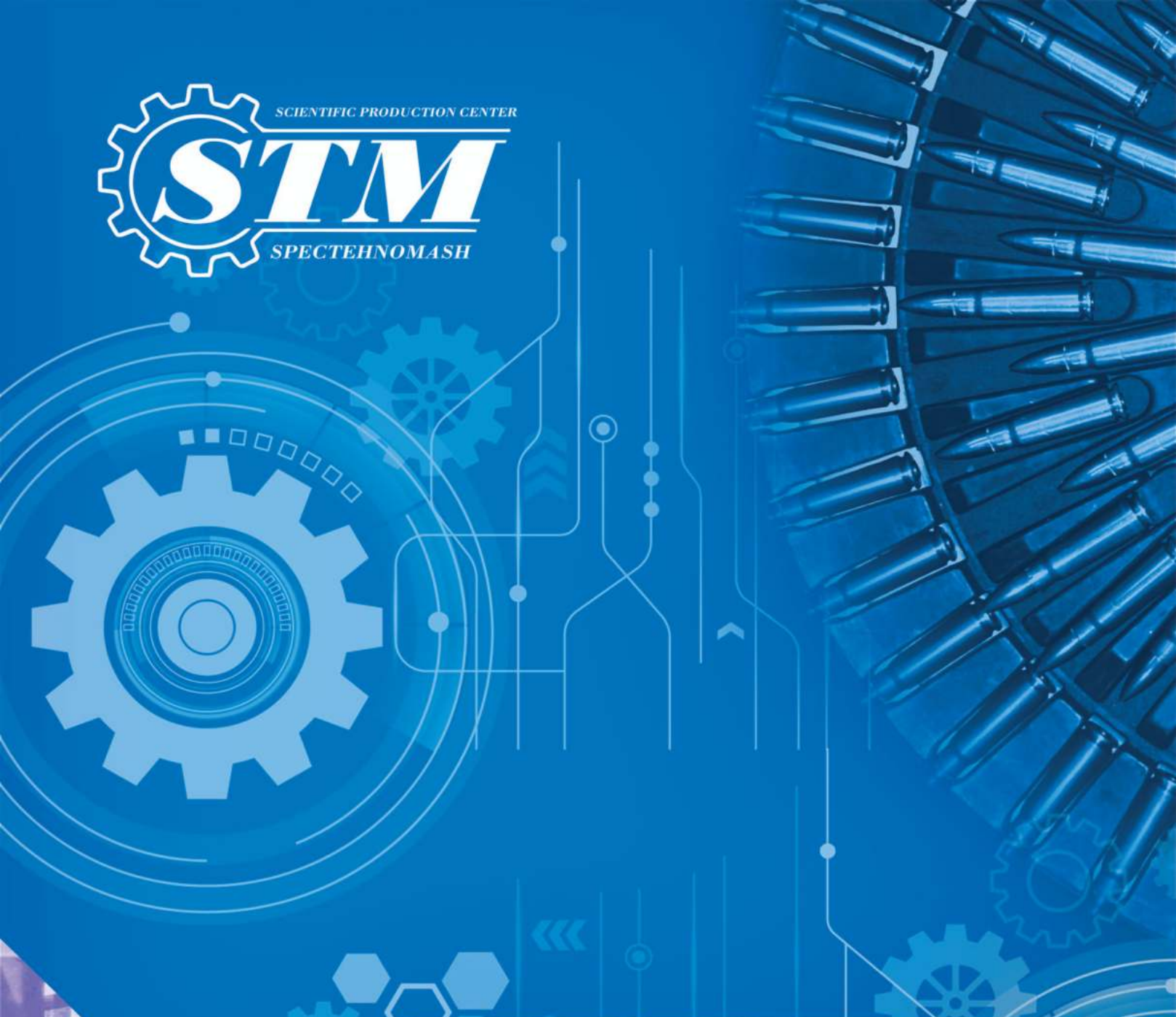
**Function**  
Machine SSP-127 (145) is intended for the loading and assembly of cartridges of calibers 12.7x108, 12.7x99, 14.5x114 mm.

- Function operations**
- Case mouth expanding
  - First and second control of case and primer presence
  - First and second powder chamber filling
  - Propellant presence control
  - Preliminary and final assembly of the bullet and cartridge case
  - Bullet presence control
  - First and second tapering of cartridge mouth
  - 100% automatic control of cartridge configuration
  - 100% automatic control of cartridge length



### Technical features

Production rate, pcs per minute	41±1
Operation factor, not less than	0.85
Power consumption, kW	2.8
Overall dimensions without packing, LxWxH, mm	1816x1100x2573
Net weight, kg	700



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