

CATALOG

2011 *product range*



Presentation

"STORM S" S.A. was established in 1990 in Gabrovo, Bulgaria and has manufactured machines and equipment for food processing industry for more than 20 years. The enterprise has two production bases – in Gabrovo and Plovdiv, Bulgaria. The main headquarter of the company is in Plovdiv.

"STORM S" S.A. offers full range of services, technologies, machines and equipment for food processing industry - consulting, technological projects, modernization, introducing of new technologies.

Thanks to its 20-year history, our company is able to offer complete decisions based on experience, contemporary technologies and tempting financial terms.

Engineering and design work of the company aims to develop high-technological machines with low energy consumption based on its own patents, thereby providing high quality world-class self-engineering production.



Two patents of the company were awarded with medals in 2001 in Pittsburgh, USA at the 17th World Salon of INPEX Innovations:

- gold medal:

for automatic cutting of carcasses into halves with no waste for the needs of conveyor systems in slaughterhouses;

- silver medal:

for energy saving method and equipment for pressing raw materials into briquettes.

The same year, at "Euro Intellect" exhibition in Sofia, Bulgaria these patents were awarded again. The **two gold medals** proved again the world level of the company.

On March 1st 2010 in Paris, France our company was awarded with **GOLDEN EUROPEAN AWARD FOR QUALITY 2010** in recognition for business success and quality of production.

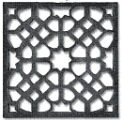
The company complies with **ISO 9001:2008, CE, GOST.**



STORM S S.A. company has two modern equipped production bases. In the recent years the company has made large investments to modernize its machinery park.



WATERJET CNC 3D



BENDING CNC 3D PRESSBRAKE



**GUILLOTINE CUTTING
LASER CUTTING**

PRECISE ARGON WELDING



**LATHE CNC 4 AND 5-AXES
VERTICAL CENTRES**

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CUTTING TOOLS AND CONSUMABLES

Our company produces cutting tools for mince-mincers (mince-grinders), knives for cutter machines etc.

All our cutting tools are made of high-quality tool steel with excellent cutting properties.

Our cutter knives are made of patented specialty steel with excellent cutting properties.

Our company also performs special orders for hole-plates and knives producing depending on customers' needs and requirements.

STORM S SA machines comply with the Council Directives No. 98/37/EEC and 73/23/EEC and USDA regulations.

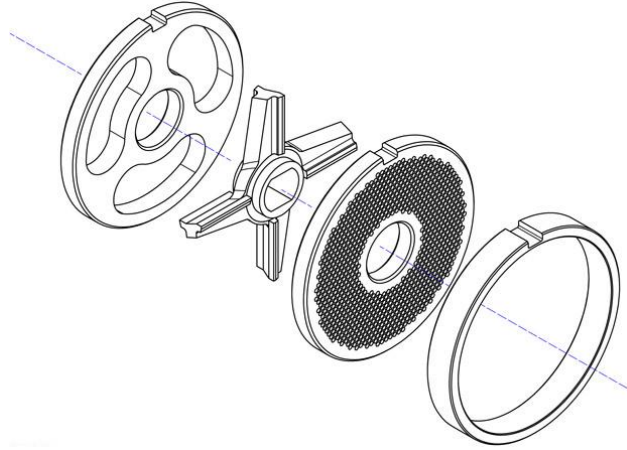
ISO 9001:2008



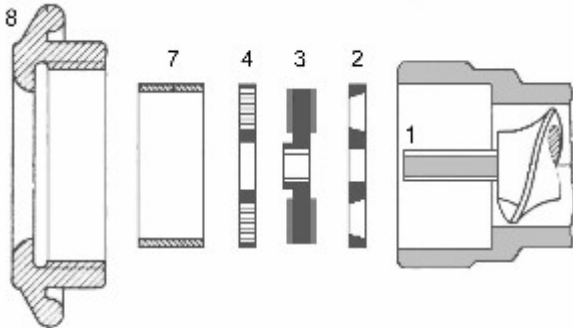
Machines comply with standards HACCP, EN 1672-2, the Council Directives No. 98/37/EEC and 73/23/EEC and USDA regulations.



KNIVES AND GRATES FOR MEAT-MINCERS UNGER SYSTEM

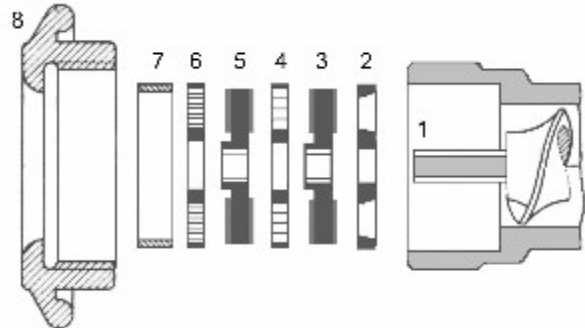


STORM S SA produces both standard and non-standard plates following the clients' requirements.



System Unger of 3 parts:

1. shaft
2. pre-cutter
3. knife
4. small-holes plate



System Unger of 5 parts:

1. shaft
2. pre-cutter
3. knife
4. big-holes plate, e.g. $\text{Ø}13$ mm
5. knife
6. small-holes plate, e.g. $\text{Ø}3$ mm
7. distance ring
8. stiffening ring



with inserts



with inserts



Robot S4



Robot S4 HD

Knives for all types of meat-mincers:

- monolithic
- with removable inserts
- single or double

They are manufactured of high-quality tool steel with high cutting properties.



with straight holes



with inclined „Turbo” holes



straight pre-cutter



inclined pre-cutter

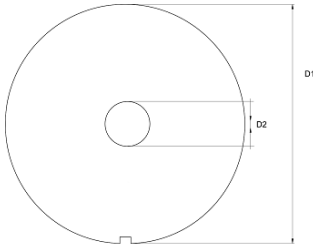
Plates for all types of meat-mincers:

- inclined holes towards the working area for better cutting and less wearing out of knives' inserts
- straight holes
- two-sided cutting edges with sharp angles for better transfer-
patented
- standard or according to customer's draft

They are manufactured of high-quality tool steel with high cutting properties.

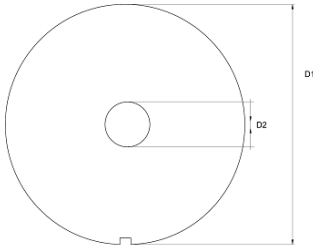
Our company performs special plates orders according to the client's requirements.

Our company offers to its clients meat-mincers plates and knives sharpening with professional sharpening machines „KNECHT” – Germany.



	Type	R70	H	A	B	C	D	E	F
D1	mm	70	82	90	98	106	114	130	150
D2	mm	17	22	24	26	28	29	32	38
Robot S4 two-sided knife	4-bladed	✓	✓	✓	✓	✓	✓	✓	
Knife with inserts	4-bladed						✓	✓	
Inserts							✓	✓	
Plates									
	1,5 mm	✓	✓	✓	✓	✓	✓	✓	✓
	2,0 mm	✓	✓	✓	✓	✓	✓	✓	✓
	2,5 mm	✓	✓	✓	✓	✓	✓	✓	✓
	3,0 mm	✓	✓	✓	✓	✓	✓	✓	✓
	3,5 mm	✓	✓	✓	✓	✓	✓	✓	✓
	4,0 mm	✓	✓	✓	✓	✓	✓	✓	✓
	4,5 mm	✓	✓	✓	✓	✓	✓	✓	✓
	5,0 mm	✓	✓	✓	✓	✓	✓	✓	✓
	6,0 mm	✓	✓	✓	✓	✓	✓	✓	✓
	7,8 mm	✓	✓	✓	✓	✓	✓	✓	✓
	10,0 mm	✓	✓	✓	✓	✓	✓	✓	✓
	13,0 mm	✓	✓	✓	✓	✓	✓	✓	✓
	16,0 mm	✓	✓	✓	✓	✓	✓	✓	✓
	18,0 mm							✓	
Pre-cutter - inclined	3 holes	✓	✓	✓	✓	✓	✓	✓	✓
Pre-cutter - straight	3 holes		✓		✓	✓	✓	✓	✓





	Type	G	U	ZW	V	WK	K	W	X
D1	mm	160	200	220	250	250	280	300	400
D2	mm	42	52	52	63	63	75	70	119
Robot S4 two-sided knife	4-bladed	✓	✓		✓	✓	✓	✓	✓
Knife with inserts	4-bladed								
Inserts									
Plates									
	1,5 mm	✓	✓						
	2,0 mm	✓	✓	✓		✓	✓	✓	
	2,5 mm	✓	✓			✓	✓	✓	
	3,0 mm	✓	✓	✓		✓	✓	✓	✓
	3,5 mm	✓	✓			✓	✓	✓	✓
	4,0 mm	✓	✓	✓		✓	✓	✓	✓
	4,5 mm	✓	✓						
	5,0 mm	✓	✓	✓		✓	✓	✓	✓
	6,0 mm	✓	✓	✓		✓	✓	✓	✓
	7,8 mm	✓	✓	✓		✓	✓	✓	✓
	10,0 mm	✓	✓	✓		✓	✓	✓	✓
	13,0 mm	✓	✓	✓		✓	✓	✓	✓
	16,0 mm	✓	✓	✓		✓	✓	✓	✓
	18,0 mm	✓	✓	✓		✓	✓	✓	✓
Pre-cutter - inclined	3 holes	✓	✓						
Pre-cutter - straight	3 holes	✓	✓	✓					



KNIVES FOR CUTTERS



STORM S SA produces knives for all types of cutters (LASKA, SEYDELMANN, NAGEMA, KILIA, ALPINA, KRAMER GREBE, ALEXANDERWERK, etc), manufactured of special patent tool steel with high cutting properties.

We offer cutter knives of SCHARF Company, Germany.

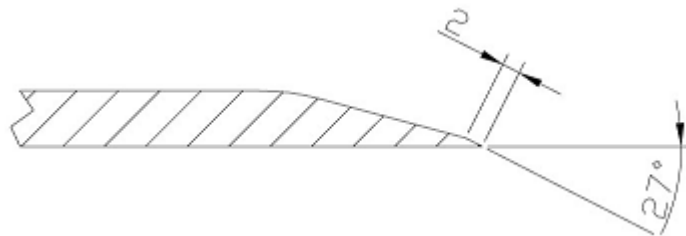


CUTTER KNIVES – Useful information:

It is well known that the cutter knives bear heavy loads during the work process. Therefore, to guarantee high-quality cutting, you need, above all always to follow the rules of storage, transport and sharpening of cutter knives.

To prolong the cutter knives operating life, they need to be well sharpened. It is very important to follow the principle of COLD sharpening where a sufficient amount of cold water is used.

Additional important condition for proper sharpening is to strict follow the angle of sharpening which affects the technical specification and application of the knives.



Usually, the angle of blade sharpening of the cutting part is 25° and apex-27°. This angle needs to vary according to the product.

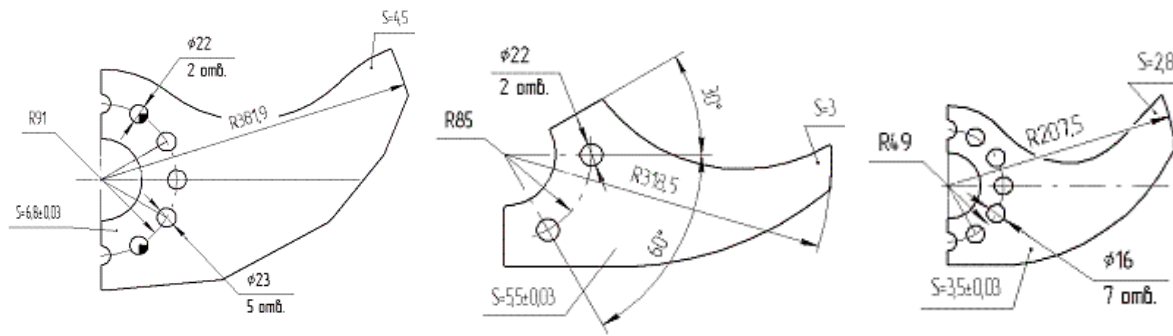
The acceptable deviation in weight of two opposite placed knives is maximum 5g.

We recommend after 3-4 times of sharpening, checking the cutter knives for micro cracks and scratches to avoid machine breakdowns in case of broken knives.

Following our recommendations will surely prolong the operating work of the knives!

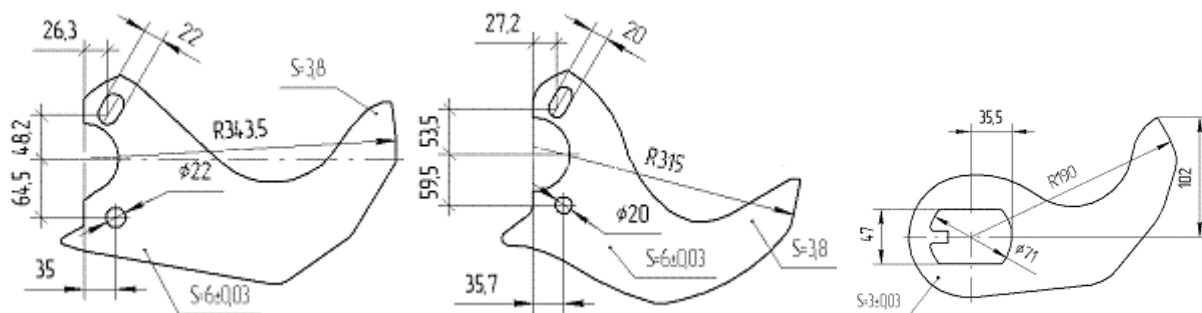
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ALPINA



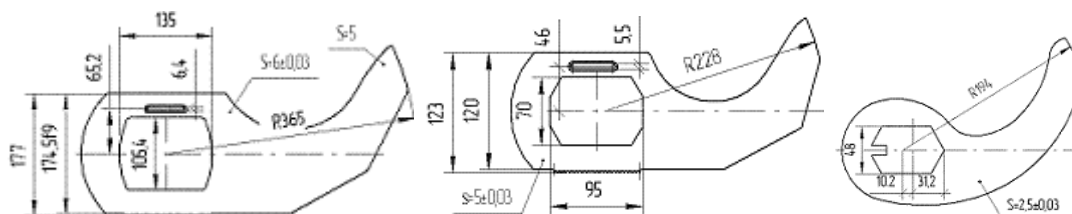
Volume (L)	40	50-60	60	80	125	200	300/300	500/540
Radius (mm)	167	185	197	212/209	252	285	320	325

LASKA



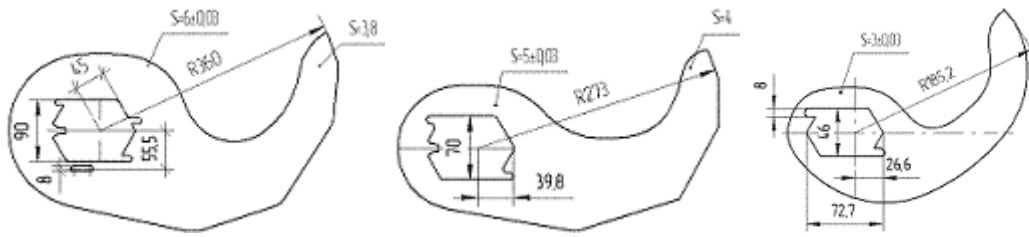
Volume (L)	15	40/45	60	80	90	100	130	150/200	320	330	500
Radius (mm)	118	165	190	204	215	230	236	265	290	315	350

KILIA



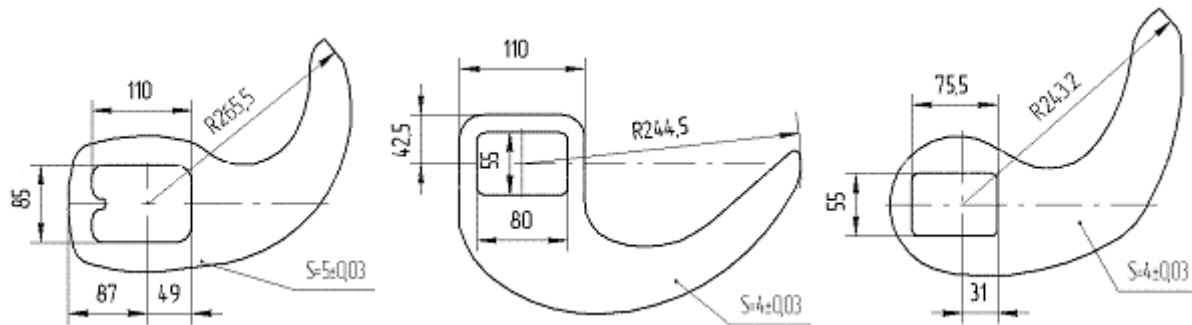
Volume (L)	30	40	50	65	90	120	200	325
Radius (mm)	150/150.5	160.5/165	176	195	215	238.5/241.5	265.5/290.5	290/331/328

SEYDELMANN



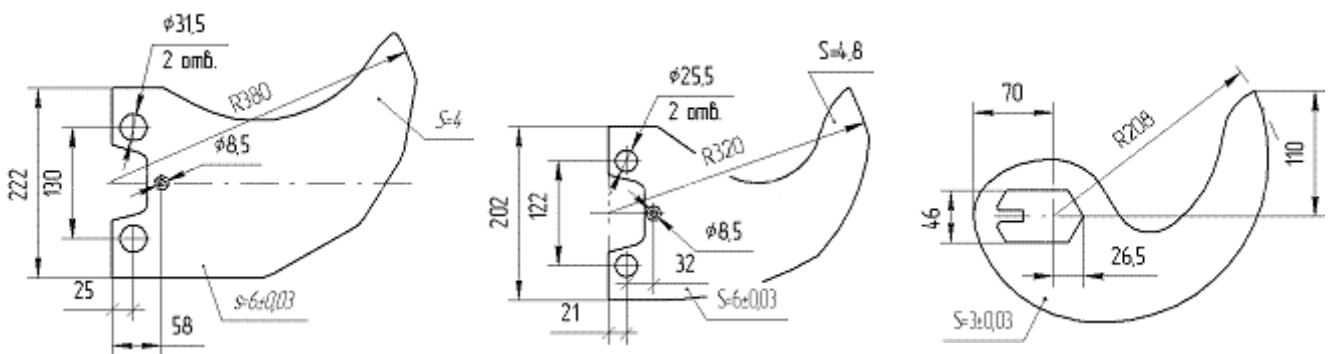
Volume (L)	40	60	90	120	200	250	300	325/400	335/475	500	750	1200
Radius (mm)	167	167	212	276	276	309	298	325	335	360	410	500

NAGEMA



Volume (L)	60	65	80	125/200	200
Radius (mm)	187	188	207	240.264	270

KRAMER GREBE



Volume (L)	33	45	65	80	90	100/120	150	200	300	325	500	750
Radius (mm)	160	175	195	208	215	229	240	265	293	320/325	350	420

STORM S SA manufactures knives for guillotines, emulsators, etc.



BAND SAW STRIPS

STORM S SA offers different band saw strips – for cutting of frozen meat, fish and bread.



1



2



1 - For frozen meat and fish

		ordinary		self-sharpening	
claw step	mm	4	4	4	4
width	mm	15	20	13	16
thickness	mm	0,5	0,5	0,65	0,60

2 - For bread

		ordinary
claw step	mm	10
width	mm	10
thickness	mm	0,45



TECHNICAL STRING

STORM S SA offers different types of technical string:
№ 1.6, Composition: 50% cotton/50% polyester or 100% cotton
Fiber strength: 9 – 10 kg





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