



**GOLD MINE
TECHNOLOGY**

WASHING COMPLEX OF ENHANCED PLACER GOLD RECOVERY PSK-62

2020



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TECHNOLOGY**

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- Develops and implements projects:
 - On-site washing complexes for placer and technogenic gold mining;
 - Placer gold-concentrating sites (PGCS);
- Performs an audit of mining technology at customer sites;
- Mines gold from technogenic deposits.

→ We are improving technology from season to season

→ We offer only those products that have proven effective in practice

In 2019, Gold Mine Technology started an own project of mining a technogenic gold deposit

- The technogenic gold deposits are more accessible than the endogenous ones, they have:
 - Simplified documentation procedure
 - Low acquisition cost
 - No stripping required
- On the other hand, they have:
 - Lower gold content
 - Prevailing small fractions of gold
- The development demands using a washing and sorting plant:
 - Capable to wash a large amount of sand
 - Providing the maximum extraction of the hard-cleaning gold.

We ended up having our PSK-62 washing and sorting plant of enhanced gold recovery designed and tested

COMPONENTS OF PSK-62

SCREEN GIT-62

→ Easy to use → Low maintenance → Fail-safe

The **PSK-62** washing and sorting plant takes over the number of the screen model

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SCREEN TYPE
unbalanced-throw
heavy duty

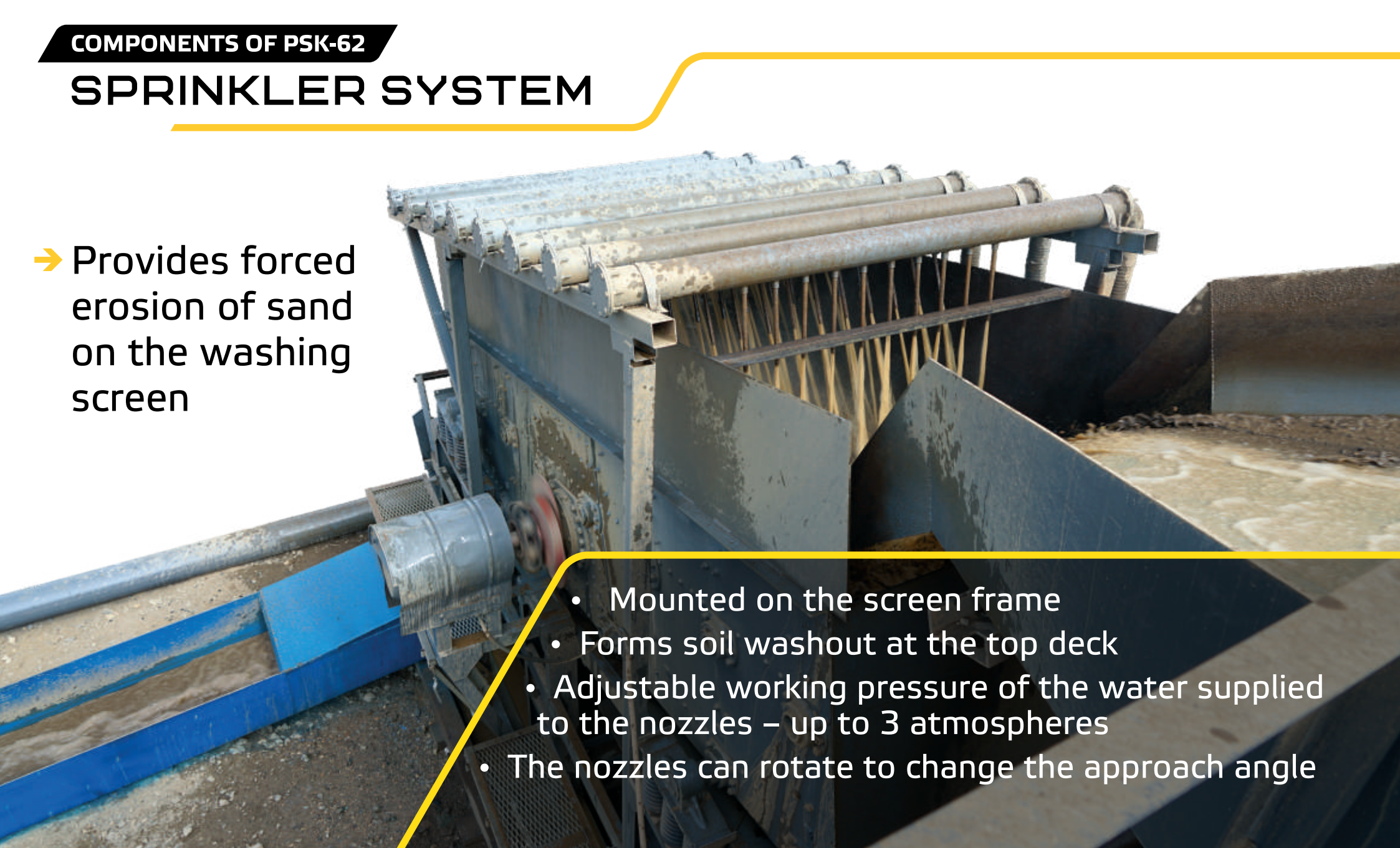
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CAPACITY
up to 200 m³/hour

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**FEEDING
LUMPS SIZE**
up to 300 mm

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SUITABLE
for different
types of soil

SPRINKLER SYSTEM

→ Provides forced erosion of sand on the washing screen

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- Mounted on the screen frame
 - Forms soil washout at the top deck
 - Adjustable working pressure of the water supplied to the nozzles – up to 3 atmospheres
 - The nozzles can rotate to change the approach angle

COMPONENTS OF PSK-62

GATEWAY

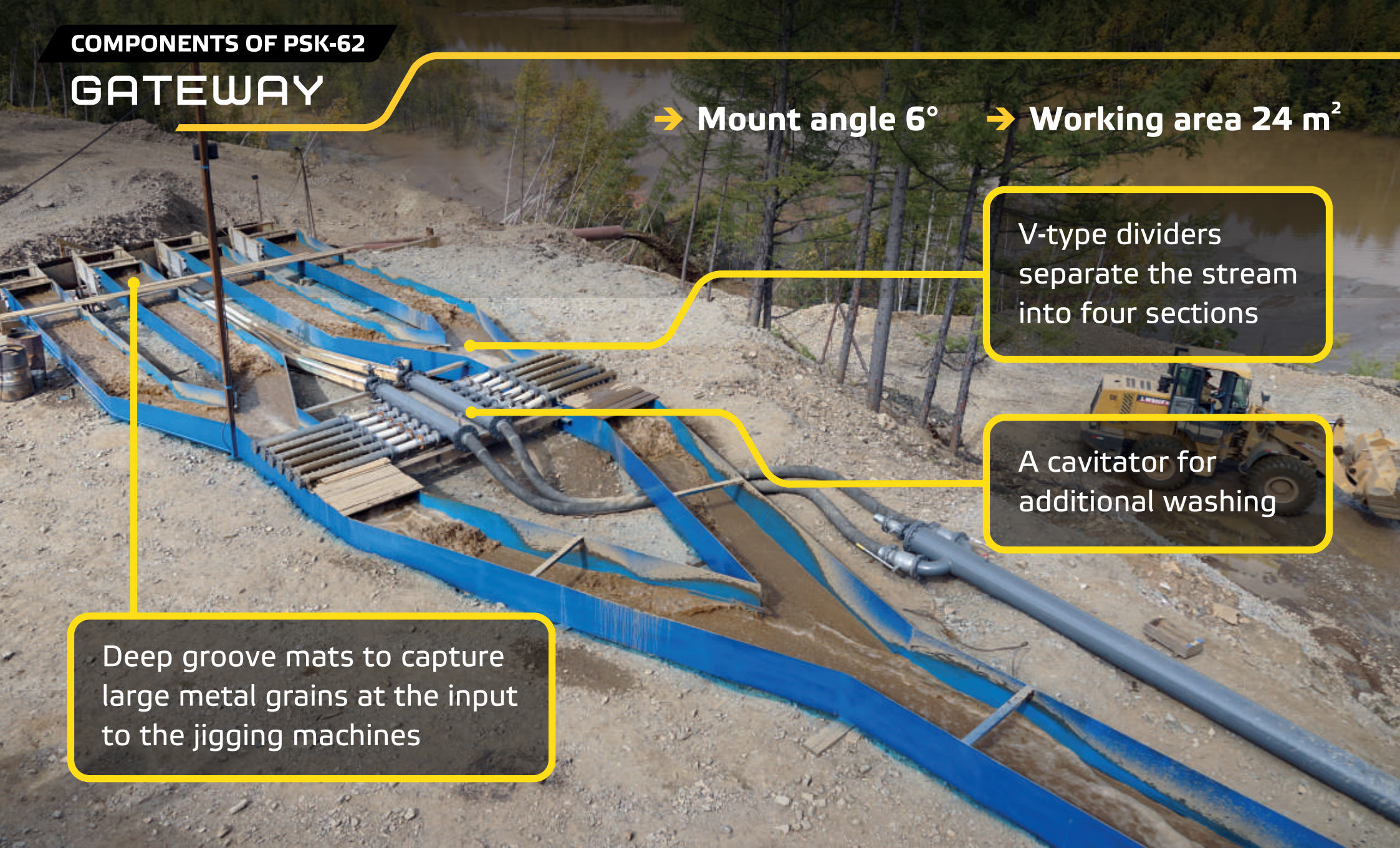
→ Mount angle 6°

→ Working area 24 m²

V-type dividers
separate the stream
into four sections

A cavitator for
additional washing

Deep groove mats to capture
large metal grains at the input
to the jigging machines



JIGGING MACHINES

Cascade installation

MOD-1

at the downstream of the first line of the jigging machines to collect the undersize jigging product

Capacity up to 10 t/hour

Feed size up to 15 mm

MOD-2

for each of four gateways

Capacity up to 25 t/hour

Feed size up to 15 mm

MOD-0,2

to complete the jigging cascade

Capacity up to 0,9 t/hour

Feed size up to 8 mm



→ Capture small grains of gold

→ Accelerate material take-down from the gateways

→ Exclude take-down losses



PLACER GOLD-CONCENTRATING SITE

After the washing and sorting plant the gold-containing concentrate is conveyed to the placer gold-concentrating site

The Gold Mine Technology's placer gold-concentrating site includes

Receiving hopper	Volume 10 m ³	Mounted outside
Jugging screen GIL-21 with sprinklers system	Capacity up to 5 t/hour; Feed size up to 150 mm	
Conveyor	Transportation of large fraction to the dump	
Jigging machine with a fixed sieve MOD-1	Capacity up to 10 t/hour; Feed size up to 15 mm	
Jig diaphragm machine MOD-0,2	Capacity up to 0,9 t/hour; Feed size up to 8 mm	Mounted in 20' metal container with wooden additions
Concentrating table SKO-1	Capacity 0,04...4,0 mm; Feed size 0,2 ... 2,0 mm	
Melting furnace	Melting of enriched concentrate from the concentrating table	

ACHIEVEMENTS OF WASHING SEASON 2019

The determined goal has been achieved! We minimized the small grain and hard-cleaning gold losses while keeping the output high.

➔ The average gold content in the deposit at the end of the season was 211mg/m³

	Deposit geological data	Screened gold assay		
Gold fraction	Size frequency			
Extra fine (up to 0,25 mm)	6,7%	26%	<0,08 mm	1,8%
			0,08-0,16 mm	12,2%
			0,16-0,25 mm	12%
Fine (0,25-0,8 mm)	85,2%	67%	0,25-0,4 mm	27%
			0,4-0,8 mm	40%
Medium size (0,8-2,5 mm)	8%	7%	0,8-1,4 mm	7%
			>1,4 mm	0%
Large size (more than 2,5 mm)	0,1%	0%		

CONTACT INFORMATION

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Learn more:

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