

# Automatic system for methane and coal dust explosions localization in coal mines



**25<sup>th</sup> World Mining Congress**

June 19-22, 2018 | Astana, Kazakhstan

**ASVP-LV.1M**

[wmc2018.org](http://wmc2018.org)

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Ministry of Investments and Development  
of the Republic of Kazakhstan



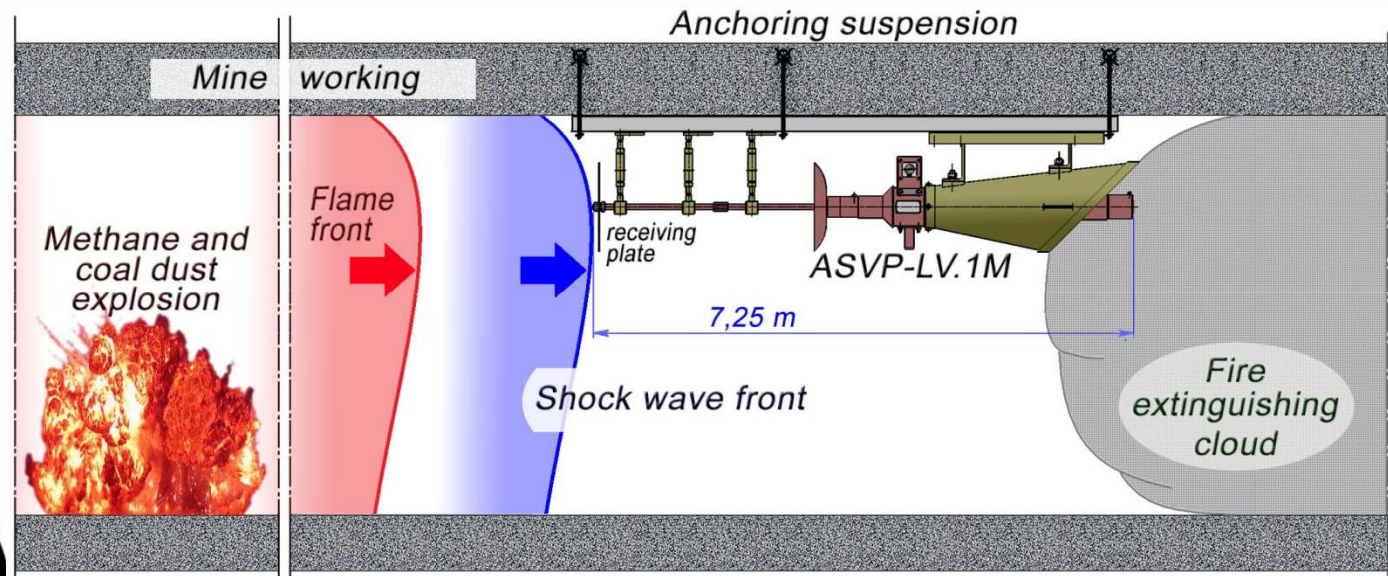
# Explosion in the mine workings



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# Explosion localization in mines



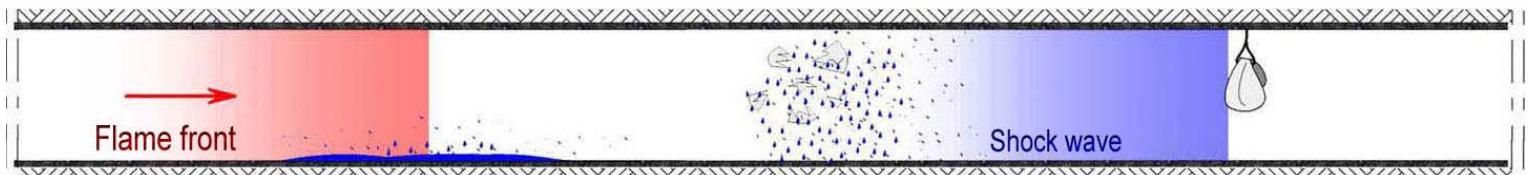
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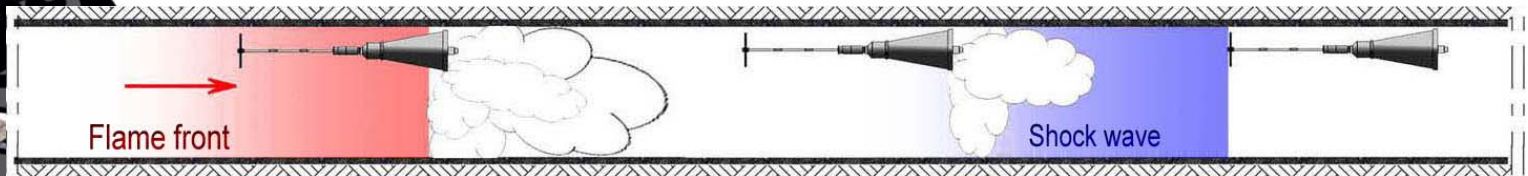
## Stone-dust barrier



## Water barrier



## ASVP-LV.1M



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# Comparative technical parameters

of devices for explosions localization



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	Stone-dust barrier	Water barrier	ASVP-LV.1M
Response speed	200-400 ms	150 ms	25 ms
Effectiveness of the extinguishing agent	400 kg/m <sup>2</sup>	440 L/m <sup>2</sup>	0,01 kg/m <sup>3</sup>
Average cloud life time	< 1 s	0,25 s	> 370 s
Spraying distance of fire extinguishing agent cloud	4-7 m	3-5 m	> 30 m



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# ASVP-LV.1M in action



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Testing of  
ASVP-LV.1M  
in 2011



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# Real explosion localization

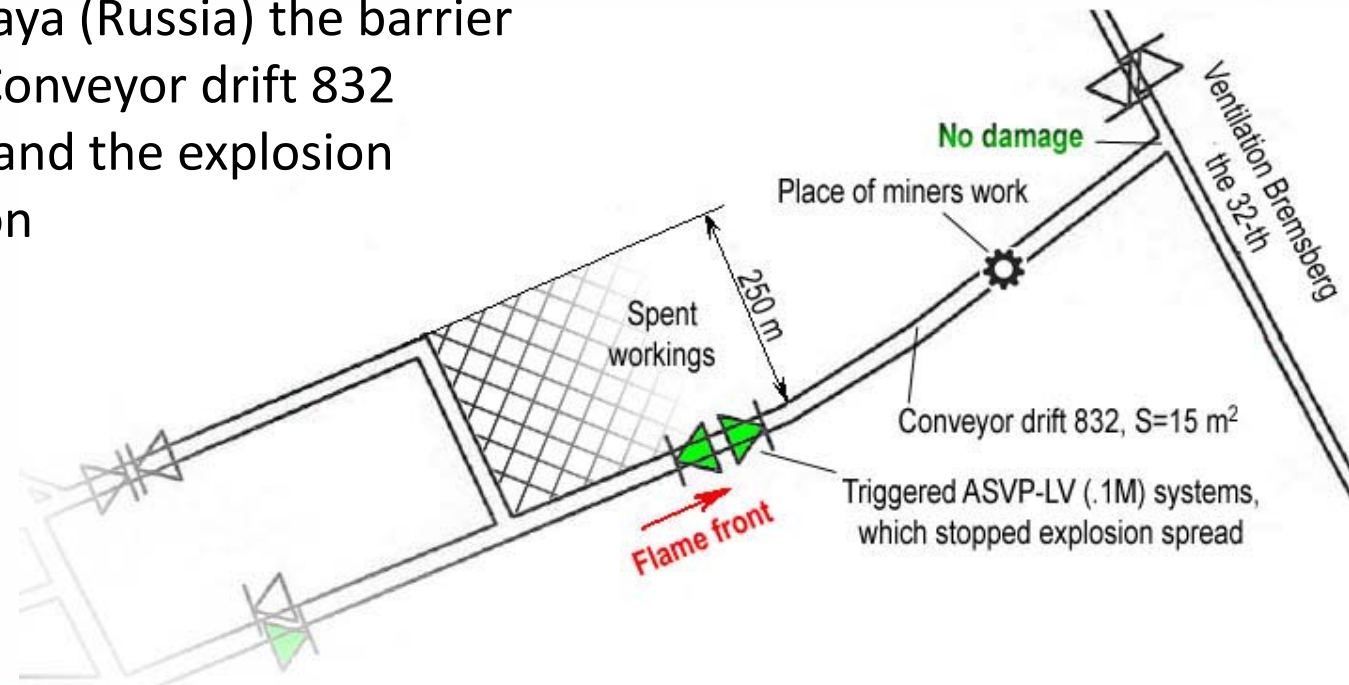
At the mine Vorkutinskaya (Russia) the barrier of two ASVP-LV in the Conveyor drift 832 has worked efficiently, and the explosion spread to the Ventilation Bremsberg the 32-th did not occur



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# Participation in exhibitions



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ASVP-LV.1M were awarded with diplomas and medals at Russian and International exhibitions and congresses

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# Production of ASVP-LV.1M



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# Permits for usage

Russia  
and EACU



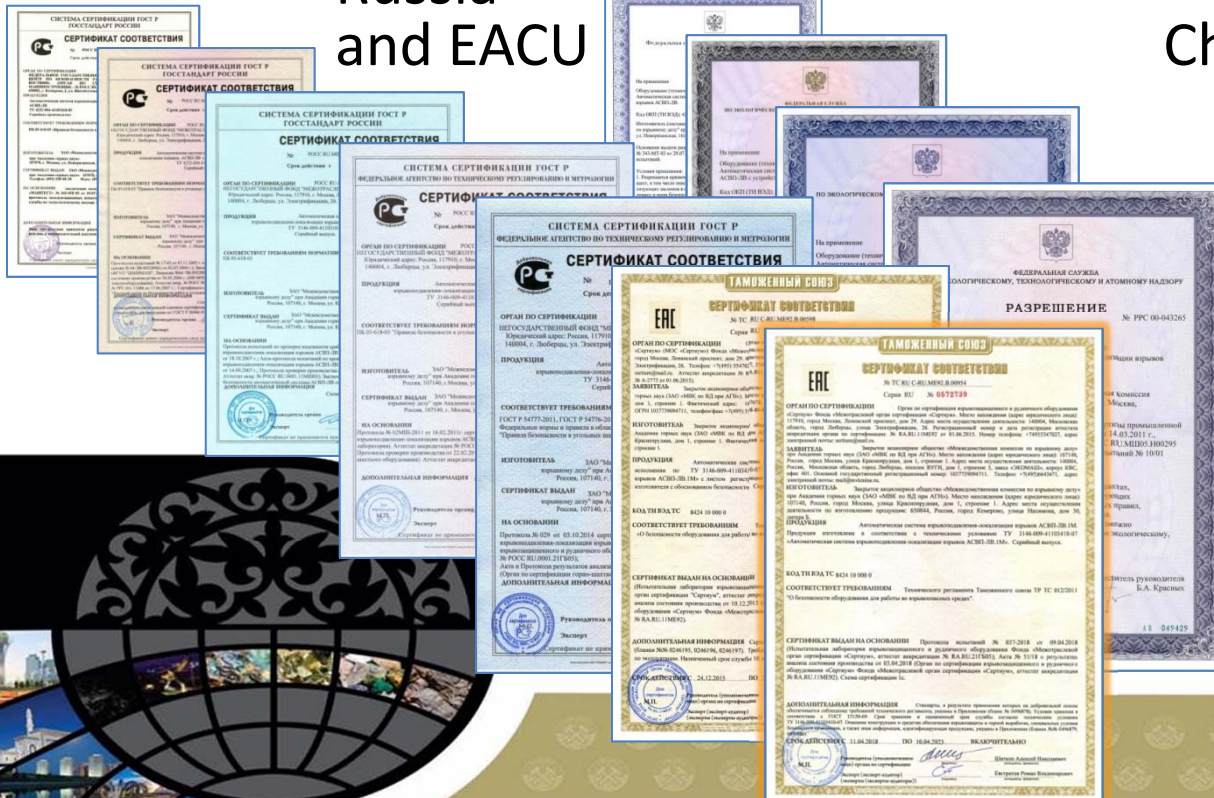
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China



Ukraine



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