



## **Breakers & attachments**



## Genuine vision since 1968

### About us

Technopark "Impulse" combines deep experience, advanced technologies and state-of-the-art production facilities. Our vision is to produce technology-intensive hydraulic attachments for construction machinery, which support our Partners by increasing their efficiency and comfort in their everyday job.

Our team produces attachments with unique features which meet international standards and requirements.

**"Impulse" – Quality made!**

### Contact info

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### Product supply map



Nowadays "Impulse" attachments are being successfully operated in Australia, India, UK, Germany, France, Italy, South Africa, Scandinavia, Latin America, China.

### Own production capacities

## Up-to-date production facilities



19000 square meters of industrial and storage facilities, equipped with 200 modern and high-precision production machines, more than 300 high qualified and experienced employees, make Technopark "Impulse" to the most advanced production facility in the region.



## Corporate evolution

Technopark "Impulse" is a unique company with rich history built on the experience of generations of researchers and developers of the latest models of high-tech equipment.



## History of the industry

- 1968 – Start of original designed hydraulic breakers development in USSR.
- 1978 – First project of joint ventured production of breakers with Finish company Roxon.
- 1982 – Six research establishments develop hydraulic breakers in USSR.
- 1985 – Twelve factories all over the USSR produce 3000 hydraulic breakers per year.
- 1991 – Most of the factories were closed, research & developments are continued by groups of enthusiasts.

## History of the company

- 1995 – Company foundation, leading engineers unite in "impulse" project. "Impulse" becomes successor of the Soviet Development School.
- 1997 – Start of processing base and machinery equipment accumulation.
- 2000 – First engineering prototypes of SMG & D series of IV breaker's generation were produced.
- 2006 – Factory modernization for production of "100 series" hydraulic breakers (V generation).
- 2009 – Start of pilot production of new-generation hydraulic breakers; production of buckets.
- 2010 – Serial production of V generation breakers; start of utility equipment production.



## Building of the new factory

- 2011 – ISO 9001 certification; start of hydraulic pile drivers production.
- 2012 – Export shipments started; cooperation with SSAB (Sweden). Production of breaker boom systems and hydraulic stations.
- 2014 – First tests and pilot production of VI generation hydraulic breakers
- 2016 – The VI generation of hydraulic breakers was patented in WIPO according to PCT standard.
- 2018 – Serial production of Impulse Classic breakers for heavy excavators.

Moscow region, Domodedovo, v. Rastunovo, Industrial area "Impulse"



## Equipment & technologies



### Cutting (Plasma)



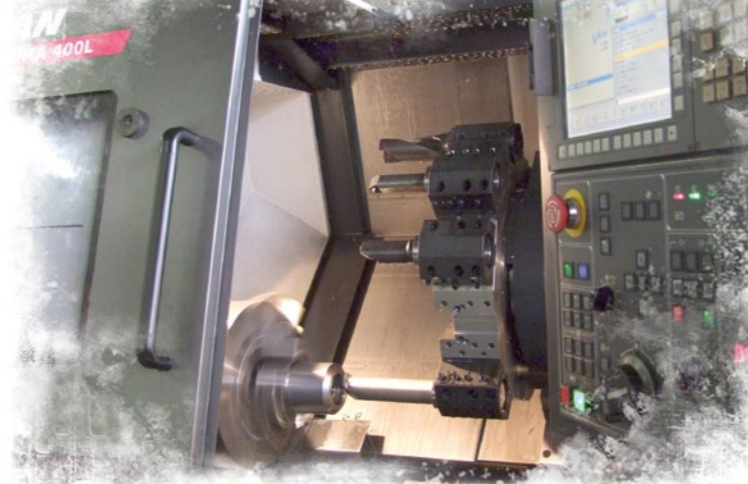
Three modern plasma & gas-cutting machines

### Bending



600 tons sheet bending press

### Machining



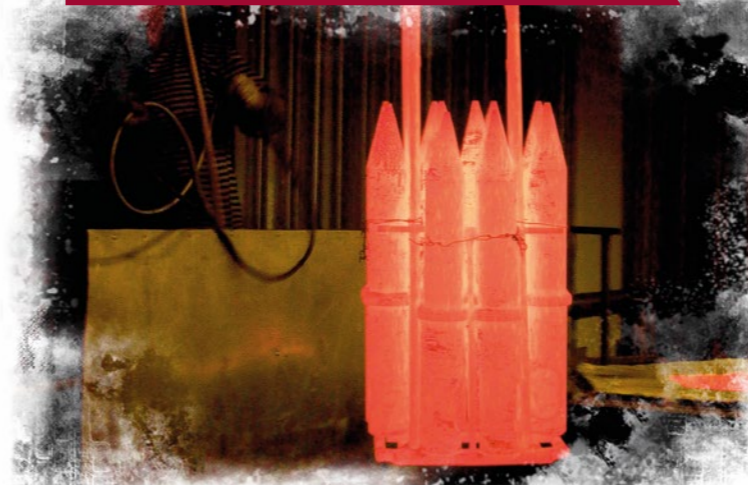
Over 50 units of unique machining equipment

### Welding



Only US welding machines

### Heat-treatment



Self-developed technology of heat-treatment

### Assembling



Intermediate control at all stages

## Hydraulic breakers

Technopark "Impulse" produces NextGEN hydraulic breakers for the most tough applications. Each model is developed with special focus on maximum reliability and efficiency.

# World Wide SUPPORT

### Light series

The breaker provides maximum concentration of power for its minimum weight. Easy-to-change single bushing and cylinder liner make Impulse breakers easily repairable in the field, special tools are no longer required. Conical lower section provides better penetration. The construction without any through bolts prevents any problems with "blank firing".



### Heavy duty series

Tested in rough Siberian and African conditions, this series give You proven reliability, ultimate power and productivity. The bottom housing is made from special wear resistant casting steel, it provides additional protection for the main body even after "blank firing".

### Medium series

The enlarged gas camera provides better productivity even for lighter excavators. Additional outside changeable buffer protects the housing from damages during heavy operations. The single bush-box is easily dismantled with just four bolts, so there is no need for a heavy press. The main body, with its no-bolt design, decreases the damage risks after "blank firing".



### Breaker Impulse 150 Classic

- internal structure -

#### Easy disassembling

screw cap for easy disassembling in the field without special tools

#### Usable connection

360 degrees swivel joints extend lifetime of high-pressure hoses

#### Changeable cylinder liner

the breaker will never need a complete overhaul in factory conditions

#### Stop pin

the cylinder-shaped pin allows the quick replacement of the working tool

#### Two-component seal

reduces the risks of abrasive materials entering to the inner of the cylinder



#### Up&Down safety buffers

decrease impact force influence to the boom of the base machine.

#### Monolith construction

main body without tie-rods - the root problem of old-type breakers is finally solved

#### Diamond hardening

the outside surface of the piston is hardened for providing an extended service life

#### Guard ring

the strengthened protection ring is an additional "anti-blank firing" protection

#### Single bushing

one bushing instead of the standard two allows the dismantling without using a press

# Ultimate equipment

Model	Housing type	Weight of carrier, t	Tool diam., mm	Weight, kg	Frequency, bpm	Operating pressure, bar	Oil flow, l/min
Impulse 100 Classic	Open	1-6,5	68	275	800-1600	90-130	30-50
Impulse S100 Classic	Box	1-6,5	68	290	800-1600	90-130	30-50
Impulse 120 Classic	Open	4-9	68	275	450-900	90-130	30-50
Impulse S120 Classic	Box	4-9	68	290	450-900	90-130	30-50
Impulse 150 Classic	Open	5-10	75	315	450-900	130-150	40-80
Impulse S150 Classic	Box	5-10	75	330	450-900	130-150	40-80
Impulse S300 Classic	Box	9-18	105	800	400-900	140-160	80-120
Impulse S500 Classic	Box	18-26	135	1500	400-900	140-160	120-180
Impulse S600 Classic	Box	28-40	150	2200	400-800	140-160	190-250



## Vibratory pile drivers



The impulse vibratory pile driver is a reliable and high-performing attachment. It is capable to carry out a wide range of tasks: driving and extraction of piles, pipes, double T-beams, etc.



### Classic pile driver

The competitive price and long-life reliability of Impulse pile-drivers make them to a very fast repaying and profitable investment.

The pile drivers provide You the ultimate power since they have one of the largest amplitude and eccentric moments.

The compact design allows the maximum possible usage of the excavator's radius and reach, in that way much longer piles can be driven. Impulse classic pile-drivers are 30% lighter than the models of the competitors.

Different types of clamps ensure effective driving and extraction of sheet and Larssen piles, H-beams, U-sections, various sized pipes. Impulse pile-drivers can be fitted with compacting plates for soil densifying - like a standard hydraulic compactor, but with much higher power output.



### Tilting pile driver

With up to 90° hydraulic tilting, piles and pipes can be clamped and taken directly from the ground, giving You extra 30% efficiency compared to standard pile-driver usage.

Impulse VP350R & VP600R pile-drivers are being equipped with screw drive swing bearings, which give You the advantage of more precise rotation.

All operations can be controlled from a single joystick. Clamping, tilting, positioning and driving was never that easy - operated with only one hand.

The pile-drivers are powered from the hydraulic system of the excavator via a single-flow piping-kit (the same that powers the hydraulic breaker) - the pile driver mounting won't bring any additional expenses or time spending.

Model	Weight of base machine, t	Amplitude, mm	Eccentric moment, kgm	Weight, kg	Working pressure, bar	Oil flow, l/min
VP310	12 – 35	12	4	1 050	150 – 250	120 – 140
VP350R*	22 – 35	6.8	3.5	1 680	200 – 320	190
VP500	25 - 40	12	8	1400	300	220 - 240
VP600R*	30 – 40	8.8	6.1	1 860	250 – 320	220

\*Models with hydraulic tilting and rotating mechanism



### Standard clamp

Standard clamps are being used for immersion of ordinary and flat surfaced piles. Restricted to pipe's diameter and wall thickness, standard clamps are also used for pipe immersion.

### Tube clamp

Tube clamps are being used for the immersion of pipes of smaller diameter - from 108 up to 400 mm. Gripping of wood piles is also possible.

### Double clamp

Double clamps allow secure seizure of pipes with diameter from 300 up to 1100 mm. Assuring more even and precise immersion, the double clamps protect the pipe's walls from damaging.

## Compactors



Impulse compactors are hydraulic attachments which are intended to carry out planning works as well as works on soil compaction, and preparation of building sites. Classic and proven set-up for the major compaction works. High quality motors and reliable construction steel ensure a fail safe operation of each machine from the model lineup. The wide range (suitable for mini-excavators through to 35 ton machines) covers all main tasks at the construction site. Maintenance, servicing and repairs are easy. The high impulse energy, longer endurance limit and lower maintenance costs meet the demands of most end-users in construction business.

Model	Dimension AxBxC, mm	Compacting force, t	Nominal frequency, rpm	Compactor weight <sup>1</sup> , kg	Carrier weight class <sup>2</sup> , t	Operation pressure, bar	Oil flow, l/min
V25	730x318x473	1,5-2,5	2 500	225	4-8	170-200	30-50
V30	920x600x537	2-3	2 400	330	7-12	90-130	70-100
V80	1120x750x685	7-8	2 200	615	10-16	130-160	110-140
V100	1270x950x765	9-11	2 250	950	14-25	130-170	130-160
V120	1290x1000x765	10-15	2 050	960	18-35	150-190	150-170
V150	1500x1000x826	15-20	2 200	1 295	30-40	250-300	260-280

1 – Without adapter plate

2 – Weights apply to standard carriers only. Any variances must be agreed with manufacturer.

## Municipal attachments

Technopark "impulse" produces a wide range of attachments for backhoe-loaders, skid steers and wheel loaders for safe material handling and area cleansing.

### Cold planers

Cold planers are popular type of attachments. They are mainly used for performing patch repairs, asphalt and concrete road's surface removal. The «Impulse» cold planer is easy to operate on wide range of construction machines – from skid steers up to backhoe loaders. The «Impulse» cold planer is a self-leveling cutting equipment, whatever the terrain roughness, road surface unevenness or planer's tilt angle – You will always be getting even depth of milling.



Model	Width, mm	Depth, mm	Tooth quantity, pcs	Oil flow, l/min	Operating pressure, bar	Weight, kg
FD 350 SSL	350	0-110	42	60-90	180-210	590
FD 400 SSL	400	0-110	48	70-100	180-210	610
FD 450 SSL	450	0-150	48	100-140	180-210	790
FD 600 SSL	600	0-150	60	120-160	180-210	950
FD 350 BHL	350	0-110	42	60-90	180-210	590

### Angle brooms

"Impulse" angle brooms are all season attachments: they easily cope with dust and tree leaves during the summer and snow in winter. High efficiency is being reached due the special turning mechanism, which allows the swiping at 25° angle. Easy to mount and operate, reliable hydraulic hoses and components, even wear of brushes and light design - these are the key advantages, that make "Impulse" angle brooms to ultimate performance equipment.



Model	Width, mm	Disk diameter, mm	Tilting angle, degrees	Working pressure, bar	Oil flow, l/min	Weight, kg
SP 1850	1850	550	±25	140 - 170	55 - 75	200
SP 1850 G	1850	550	±25	140 - 170	55 - 75	220
SP 2400	2400	850	±25	150 - 180	95 - 125	475
SP 2400 G	2400	850	±25	150 - 180	95 - 125	500

## Snowblowers

Our quality engineered and built blowers enable the fast and easy clearance of snow from streets, as well as narrow roads and storage areas. They are designed to ensure maximum performance and distance of snow blowout with a minimized risk of jamming. A direct hydraulic drive of the blower's auger eliminate such problematic parts as chains or sprockets. Additional features include a larger width compared to the competitors, wear-resistant, replaceable edge and efficient operation even on machines without High-Flow.



Model	Width, mm	Blowout, m	Productivity, m³/min	Working pressure, bar	Oil flow, l/min	Weight, kg
SR 1850	1850	5 - 15	200	150 - 175	50 - 60	335
SR 2500	2500	5 - 30	900	150 - 175	50 - 60	980

### Snow blades

The light designed snow blades are constructed specially for skid-steers and backhoe-loaders. Sidewalks, roads, parking and industrial areas can be easily cleared from snow. All "Impulse" models are equipped with a tilting mechanism, which allows to tilt the blade on 30 degrees left or right. The solid design is lightened by the rubber blade, which does not lose elasticity, it's wear and frost resistant and easy to replace. An anti-shock system, which is implemented in the design, protects the base machine and the blade itself from any kind of damages caused by different types of obstructions.



Model	Width, mm	Height, mm	Tilting angle, degrees	Working pressure, bar	Oil flow, l/min	Weight, kg
TB 1800	1800	650	±30	140 - 160	55 - 75	225
TB 1800 G	1800	650	±30	140 - 160	55 - 75	250
TB 2000	2000	650	±30	140 - 160	55 - 75	235
TB 2000 G	2000	650	±30	140 - 160	55 - 75	260
TB 2800	2800	950	±30	140 - 160	55 - 75	460
TB 2800 G	2800	950	±30	140 - 160	55 - 75	490

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