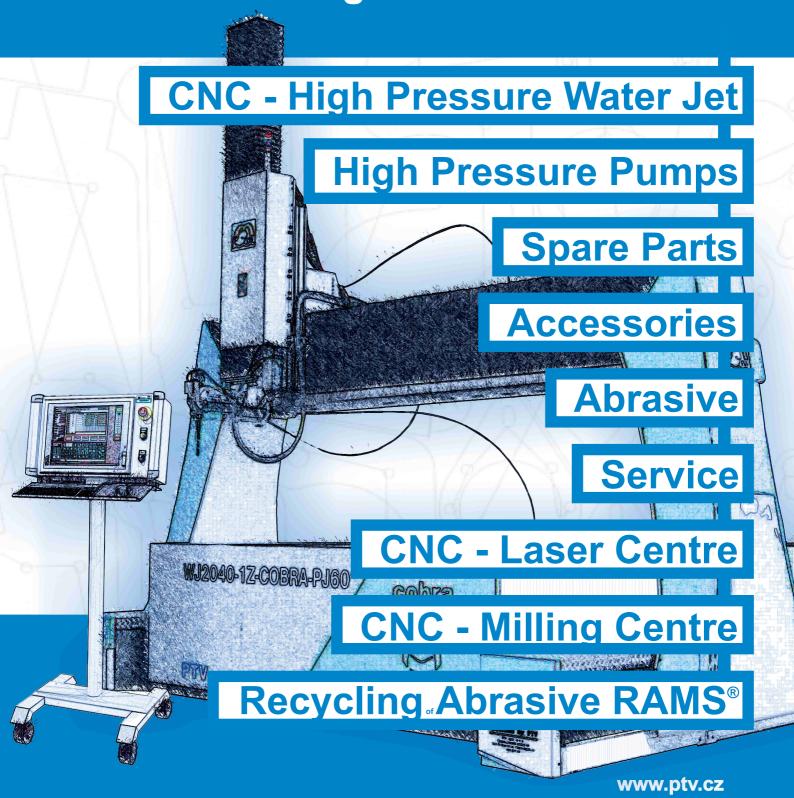
PTV, spol. s r.o.



### Complete Cutting Technology High-Pressure Water Jet



### **CNC TABLES**

Our **CNC** tables are equipped with their **own software**, created especially for PTV tables, and a **database of technical parameters** for cutting various types of materials. Also included as standard equipment is a **proportional abrasive doser**. During manufacturing, the components used are supplied by leading European, American and Japanese companies.

#### **COBRA Model**

Top models new generation of PTV tables

- Low longitudinal axis for better table stability, more precise cutting and easier access to the working area alongside the table.
- Y-axis length up to 30 m.
- Modular table construction with the option of 2 portal heights.
- A new concept for the Z-axis with an elevation of 500 mm for cutting materials up to 320 mm (3D) / 500 mm (2D) thick.
- New design of CNC table and control panel with an emphasis on ergonomics and the use of high-resistance materials.
- High and extremely robust welded steel structure.
- Precise linear motions.
- Hardened and ground toothed racks and pinions.
- Extremely robust servomotors in combination with precise gears Linear measurement system.



#### **UNI JET Model**

Most frequently sold model - certainty proven by time

- Basic steel framing structure with AL portal.
- Linear guidelines with ball routers.
- Hardened toothed racks and stainless-steel pinions.
- Precise planetary gearbox with servomotors.
- Stainless-steel covering.
- Portal completely covered with bellows.
- Independent catcher.

#### SMART JET II - S Model

The compact table suitable for 2D cutting with possibilty to add an optional head for bevel elimination

- Compact table with a range of accessories
- Possible to design a special abrasive or water
- Steel structure with integral catcher
- Completely covered with the strength of the AL portal profile
- Ilinear guides with ball trolleys
- Hardened stainless steel racks and pinions
- Servomotors with precision planetary gearboxes
- Covers of sheet metal painted with powder paint



UNIJET-PJ5A



### **CNC TABLES**

#### SMART JET II - L Model

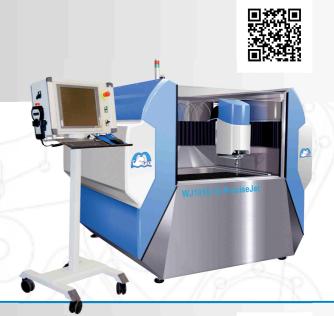
Simple execution an economically advantageous variation for 2D cutting

- Low-cost table
- Abrasive or water special
- Steel frame construction with integrated catcher
- AL portal completely covered by bellows
- Linear guidelines with ball routers
- Hardened toothed racks and stainless-steel pinions
- Precise planetary gearboxes with servomotors
- Covering of spraypainted sheet metal



### PRECISE JET Model Special table for microcutting

- To be used for a standard cutting applications or cutting with pure water
- Modern design
- Quick installation
- Workspace is completely covered
- Highly precise linear encoder (accuracy 3 µm / 1,000 mm)
- Highly dynamic cutting head whose movement is ensured by linear servomotors
- Loading area allowing to integrate a clamping mechanism for accurate clamping of machined parts
- Precise cover of the motion drives enabling a long machine life



#### DYNAMITE Model Special, highly dynamic table for pure-water cutting in 2D

- Steel frame construction
- Integrated stainless steel catcher constructed for the specific needs of the user
- Acceleration up to 2G
- Linear guidelines with ball routers
- Drive using linear servomotors
- Outer covering of stainless steel





### SPECIAL TECHNOLOGY

#### Special applications - Sliding grids

Pure water CNC tables with sliding grids

One example of a customer solution is a Smart Jet II-S CNC table or DYNAMITE CNC table, which uses a pure water for cutting. The machine is equipped with a system of exchangeable, sliding grids, which enable the intermediates to be placed on the first grid and the cut parts to be removed from it at the same time as the cutting process is underway on the other grid. This greatly increases the productivity of the entire process. Work safety is ensured by a protective partition with a sliding shield and laser barriers.









Special applications - Rotary axis



Rotary axis ( sixth axis







The production line of CNC tables was extended by rotation axis which is offered in optional variants parallely to X or Y-axis and in two power types. The Standard type offers 7Nm torque, maximum 1,000 rpm, maximum loading capacity of 200 kgs. The clamping parameters with 3 clamps are: 200 mm for external clamping and 254 mm for internal fastening. Another option is the Heavy axis offering 40 Nm torque, max. 150 rpm, and max. loading capacity of 1,000 kgs. The chuck of 3 clamps enables to fasten the parts of 315 mm external size, resp. 392 mm internal.





### SPECIAL TECHNOLOGIES

#### **ProgressJet Sytem**

- eliminates errors caused by the jet's energy drop
- enables vertical cuts to be made and simultaneously increases product's shape precision
- suitable only for surface cut applications
- function ensured by additional 3D mechanics controlled by CNC table's system in accordance with the material and technological database
- enables rotation axes to be tilted up to +/- 10°
- its function is fully controlled by the CNC table's system
- does not require specialized 3D CAD-CAM





#### ProgressJet 5AX System

- fulfils all the functions of a standard ProgressJet system
- designed for 3D cuts from plate semi-products
- mechanics enable rotation axis to be tilted up to +/- 45°
- 3D mode requires a 3D CAD-CAM generated program (IGEMS modul 5X-CAM)





#### ProgressJet 60 dg System

It is based on the previous ProgressJet 5AX system and extends and improves its qualities. It can be also used for 2D taper compensation as well as for 3D cutting, whereas the 2D and 3D characteristics are the same as in the previous ProgressJet version.

#### In addition, the ProgressJet 60 dg offers new functions:

- its mechanics enable rotation axis to be tilted up to +/- 60°
- laser height sensor is integrated
- unique safety system which monitors and analyses the cutting head and the abrasive jet position within the working area by means of sensors and eliminates danger for operators or danger of machine damage
- a higher protection of components compared to the previous version



#### Teach In

#### Application intended for machining complex-shaped prefabricates

Teach In allows for creating a cutting program through the gradual recording of points chosen on the workpiece. The system works with all axes accessible on the given machine, meaning that it is possible to create a cutting program along the axes XYZ and the rotation axes A and B without needing an expensive CAD/CAM system. Teach In is also suitable where there is no extant computer model of the cut prefabricate, for example for artistic objects. For its correct functioning the CNC table must be equipped with remote control.



#### **Gentle Piercing**

A special function of the control system, allowing for safe piercing of fragile materials or ones liable to delamination.

This piercing method is particularly suitable for marble, granite, glass, laminates, layered insulation or other composites, where classical through-penetration causes breakage in these materials along the penetration point, delamination of individual layers, or overall destruction. The function can only be used with some PTV pumps.





### SPECIAL TECHNOLOGY

#### Special applications - blasting unit

#### Automatic abrasive blasting unit

Another example of the customer solution is an automatic abrasive blasting unit, which is unit intended for blasting of products by clean water rotating jet. The machine is equipped with a system of sliding working grids. These grids enable you to putting semi-finished product on one side and removing the blasted on the other side in continuous mode. In this manner is significantly increased the productivity and quality of the process of contour and dimension standard parts.

For nonstandard parts is workplace equipped with a manual abrasive blasting gun with rotating nozzle, the processing happens in abrasive blasting cabin. Both workplaces are connected on special pump PTV JETS – 10/40.



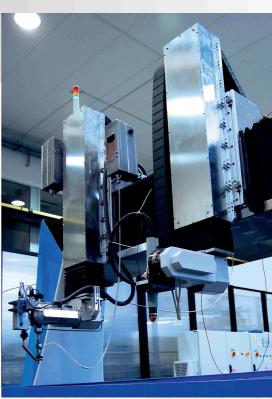




#### Special applications - mutli-technology CNC

WJ COBRA Model combined workplace for waterjet cutting plus plasma



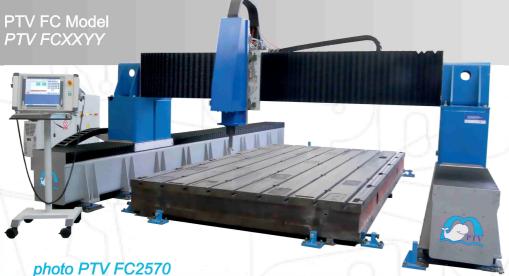




### SPECIAL TECHNOLOGY

#### Special aplications - Milling Centre PTV FC





















#### **CNC Milling Centre PTV FCxxyy**

The machining center PTV FC is a milling machine with a portal structure. The machine consists of a low longitudinal axes on which moves portal. Between the longitudinal axes of the space for clamping plate. Milling machine is managed by by the control system in all basic axes. The machining center is equipped with a headstock with a mechanical drive spindle from the servo motor, lighting of a workspace and a remote control.

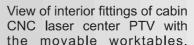
The optional equipment includes automatic tool changer, low pressure external tool cooling, central cooling tools. The optional equipment includes two longitudinal separation chip conveyors that can be equipped with a filtering device.

#### Special aplications Cabinet Laser Centrum PTV CLC

PTV CLC Model PTV CLCXXYY

CNC laser center cabin with portal construction with drive servomotors in all basic axes. It utilizes the latest findings and components in the field of cutting laser beam using a fiber laser technology. It is characterized by very low energy consumption and a diverse portfolio of divided materials with excellent static and dynamic properties.

Dimensions of effective working area is up to 2x6 meters.









# **CNC TABLES**

#### CNC tables equipment



■ standard / ■ resp. option	COBRA	UNIJET	SMART JET II - S	SMART JET II - L	PRECISE JET	DYNAMIT
Proportional doser of abrasive	1	-15	1.6	J/a •	7. ¥J. \	
Height sensor	.0			-	$//\cdot$	
ProgressJet				<i>A</i> 0 //		5/
ProgressJet 5AX 45°		•		///	<b>-</b>	MAZ
ProgressJet 5AX 60°	1.	•				yP]/
Pressure transportation system	•	•	•	· /		4//_/
Remote control	o •	(• 0	•	•	0	7/ 13
Nater level regulation	m*	•		• /	10	1 /
Stainless steel catcher	•	-		-/9/	1.6	V• 1)
Air drill	• /	0		\	· /	1/9
High revolution spindle	•	1.6	<u> </u>		· //	7
Laser measuring cross	•	1	•	1 10	( b)	
Vacuum suction of abrasive	•	/ I /	•	/ · · · · ·	$\setminus V//$	2
Light barrier	•	1/•	•	•	CXV//	/ ·
Wire protection zone	. •	1 . c	•	•	70/10	
Mechanically inclined B-head	->/	VI • E	1	1.60	5 1/	8-1
High construction of Y-axis	1/	$\wedge$	4	-17/	•///	
Gentle Piercing	- V• 🗇	1	-	(ct/	• )b)	\ .#/
Control system simulation	7 · V	•	-(b•)	~\*X	][-]	A.
Splash protection box	1.1	-	1.1/	0 X	- 1º//	0
Rotary axis (sixth axis)	W.L	•	T •/>	$\wedge \cdot \rangle$	////	
Microcutting		-	•		ñ .≰ (all	

<sup>\*</sup> standard for working areas up to 16m2

#### Technical parameters of CNC tables

	COBRA	UNI JET	SMART JET II - S	SMART JET II - L	PRECISE JET	DYNAMITE
Max. portal lenght	4 m	4,5 m	2,5 m	2 m	1 m	2 m
Positioning accuracy / 300mm	+/- 0,04	+/- 0,04	+/- 0,05	+/- 0,05	+/- 0,01	+/- 0,03
Repeatability	+/- 0,03	+/- 0,03	+/- 0,04	+/- 0,04	+/- 0,007	+/- 0,02
Max. working speed	20 000	16 000	12 000	12 000	30 000	90 000
Max. transversal speed	30 000	20 000	30 000	30 000	90 000	120 000
Qty of Z- supports	1 - 2	1 - 2	1-2	1	$\bigcap_{1}$	1-2
Z-axis uplift	500 - 700	200 - 700	200	200	100	100 - 200
Qty of cutting heads	1 - 4	1 - 8	1 - 2	1	1	1 - 10

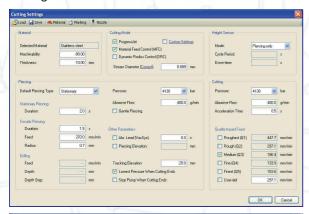


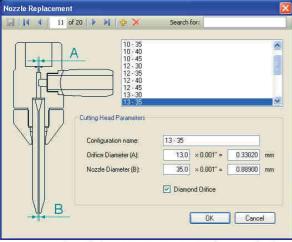
### **CONTROL SYSTEM**

#### Control System Software PTV 886

The control system is based on an industrial PC in a Windows Embedded environment.
The software of the control system offers the following cutting process operating functions:

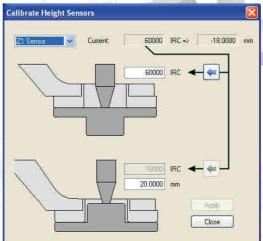
- Cutting conditions presetting (nozzle, pump pressure, abrasive...)
- Integral material database
- Material type and thickness option on the operating system, when the system itself determines speed, or, in CAD/CAM
- MFC function operates cutting speed in a way that optimizes divergence between upper and lower side of the cut at the required quality.
- DRC function eliminates errors caused by variable width of the cut slit when the jet enters material.
- ProgressJet function













### **PUMPS**

We produce:

PTV JETS - 7.5/60c

75 kW pumps with maximum pressure of 4 130 bar (60 KPSI) and water qty 7,5 l/min :





We produce:

PTV JETS - 5.7/60c

55 kW pumps with maximum pressure of 4 130 bar (60 KPSI) and water qty 5,7 l/min :





We produce:

PTV JETS - 3.8/60 Classic

37 kW pumps with maximum pressure of 4 130 bar (60 KPSI) and water qty 3,8 l/min :





We produce:

PTV JETS - 3.8/60 Compact

37 kW pumps with maximum pressure of 4 130 bar (60 KPSI) and water qty 3,8 l/min :





We produce:

PTV JETS - 3.8/60 Basic

37 kW pumps with maximum pressure of 4 130 bar (60 KPSI) and water qty 3,8 l/min :







### **PUMPS**

#### We produce:

#### PTV JETS - 2.2/60

with a special anti-noise covering

22 kW pumps

with maximum pressure of 4 130 bar (60 KPSI) and water qty 2,2 I/min:





#### We produce:

#### PTV JETS - 2.2/60

with wooden cover

22 kW pumps

with maximum pressure of 4 130 bar (60 KPSI) and water qty 2,2 l/min:





#### We produce:

#### PTV JETS - 2.2/60 (1.1/60)

without cover

22 kW (11 kw) pumps

with maximum pressure of 4 130 bar (60 KPSI) and water qty 2,2 I/min (1,1 I/min):







#### H2O 50

37 kW pumps with maximum pressure of 6 480 bar and water qty 2,46 l/min:





#### SL VI PRO 60 / PRO 125

45 kW and 93 kW pumps with maximum pressure of 6 200 bar and water qty 3,4 and 5,8 I/min









### **PUMPS**

## Technical parameters of PTV JETS pumps

	PTV JETS 7,5/60	PTV JETS 5,7/60	PTV JETS 3,8/60 Compact	PTV JETS 3,8/60 Classic	PTV JETS 3,8/60 Basic	PTV JETS 2,2/60	PTV JETS 1,1/60
Max. output ( I/min )	7,5	5,7	3,8	3,8	3,8	2,2	1,1
Max. pressure ( bar/PSI )	4 130/60 000	4 130/60 000	4 130/60 000	4 130/60 000	4 130/60 000	4 130/60 000	4 130/60 000
Input ( kW/HP/A )	75/100/160	56/75/160	37/50/80	37/50/80	37/50/80	22/30/63	11/15/25
Max. diameter of orifice	1x 19 or 2x 14	1x 17 or 2x 12	1x 14 or 2x 10	1x 14 or 2x 10	1x 14 or 2x 10	1x 10	1x 7
Qty intensifiers	2	1	$\mathcal{A}$	1	1	1	) 1
Electromotor	Siemens	WEC	Siemens	Siemens	Siemens	WEC	WEC

**\** 

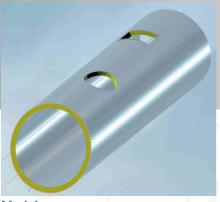
All the PTV pumps are equipped with 2-stage filtration unit, an automatic bleed down valve, an inner diagnostic system and remote control from a CNC table control system cutting program.

# Cutting parameters Comparison PTV JETS pumps

Pump	Nozzle	Qty of abrasive g/min	Cutting speed ALUMINIUM 20mm Division Cut (mm/min)	Cutting speed STAINLESS STEEL 20mm Division Cut (mm/min)	Cutting speed TITANIUM 20mm Division Cut (mm/min)
11 kW	0,007"	100	156	49	74
22 kW	0,010"	300	425	133	201
37 kW	0,014"	500	885	276	419
56 kW	0,017"	800	1028	321	489
75 kW	0,019"	800	1546	483	733



### CAD/CAM SOFTWARE





### CAD/CAM software IGEMS



- Top of the range program with modular conception
- Very good CAD similar to AutoCAD
- Quality design
- Open technological database
- Wide language selection options
- Excellent support from the producer

#### **Modules:**

■IGEMS R10 - Heart of the program which is combined with other additional modules.

**BAWJ** - Basic CAM module. Together with IGEMS R10 it serves for basic work with the program. Supported operations: work with internal database, preparation of the semiproduct for cutting, CNC code generation.

■2D CAM - Basic CAM module. Together with IGEMS it serves for basic work with the program.

Supported operations: creation of shapes in basic environment of the internal CAD, import of dwg and dxf files.

■CAM-Tools - Module for analysis and optimization of imported or created shape. The module is not essential for the work, but it greatly influences the possibility of finding errors. It allows the final product to be optimized and a clear and shorter CNC code to be generated.

■Nesting Level 1 - Very important tool for semi-automatic and automatic nesting.

■ Nesting Level 2 - Very important tool for cutting large series. It it able to nest the requested shapes on the semiproduct with a maximum effectiveness that, importantly, reduces the quantity of cutting material consumed.

■CAM 5X (Bevel cutting) - Module designed for 5-axis machines. Amplifies the possibilities of the 2D CAM module with other functions.

■Data Exchange - Enables CBF, GEO, TAG, ORD, WMF, IGS to be imported to Igems. It is useful for users that already have a database of files in some of the above mentioned formats and want to work with them. The module also enables backword of the CNC code.

**SignMaker** - For work with JPG/BMP patterns and fonts in the environment of the internal CAD. The module is especially suitable for the customers that work with printed patterns.

TileMaker - For tile nesting, inlays and mosaics.

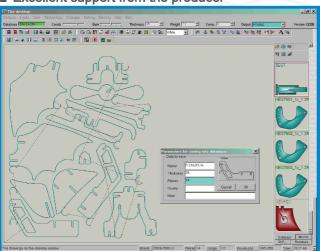
■Organizer - Helps to store information about realized or planned jobs, customers, etc. It is based on SQL database and allows quick access to information in accordance with the specified requirements.

Floating Licence - Enables more people to work without having to introduce the hardware key into each computer.

■TubeCut -The TubeCut module let's you cut tubes with either C-axis or the tube laying flat on the table. It comes with the 3D previewer so you easily can visualise the results before you start cutting. And, you can cut with both 5X and regular 3X machines.

#### WRYKRYS CAD-CAM

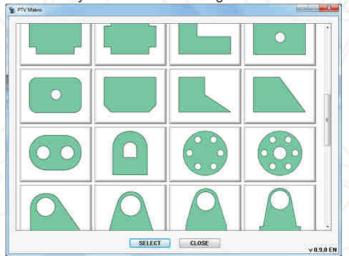
- Complex not modular
- Czech product
- Top price / performance ratio
- Wide language selection option
- Excellent support from the producer





PTV Makro is a user-friendly and intuitive program for creating simple geometric shapes. The user selects one of the predefined shapes and modifies its parameters according to his needs. The result is a CNC code that can be loaded into the control system of the PTV cutting tables.





### **ACCESSORIES**

#### Abrasive Pulse Transportation System: PDA 1000 / 1000 Double and PDA 250



Fully automated abrasive transportation system of brand new design suitable for an abrasive transportation to the proportional doser ATD5. A lower price and an especially lower operating costs are the main advanteges in comparison with the previous models. The lower operating costs have been reached by significantly lower consumption of compressed air. The system is available in two basic versions differing in the hoper size.

#### Technical Parameters PDA 1000 / PDA 1000 Double

Capacity: 1,000 / 2x500 kg of abrasive

Working pressure: 3 - 5 bar Dimensions: 1,030x1,030x1,400 mm

Net Weight: 220 / 260 kg



#### **Technical Parameters PDA 250** Capacity: 250 kg of abrasive Working pressure: 3 - 5 bar

Dimensions: 720x720x900 mm

Net Weight: 100 kg



#### Light Barrier, Wire System

Light barrier or a Wire system are the parts of the safety system of some PTV machines. It serves to protect the operator from possible injuries caused by the machine's moving parts or those of the technology it bears.



#### **Abrasive Removal System**

The abrasive removal system serves to remove the mechanical particles (used abrasive and particles up to 3 mm of diameter) from the catcher.

The basic part of the Abrasive Removal System is made of a steel welded construction, on which all the necessary parts are placed: i.e. pneumatic pump, sludge pump, operator electronic device, mechanical hydrocyclon. There are stainless steel suction heads in the catcher, through which water + abrasive material are sucked. This mixture continues through thick-walled hoses by means of an air pump to the hydrocyclon, in which water is separeted. Then the water goes to the auxiliary tank and solid particles to a suspended big-bag. Resting water passes through the big-bag to an auxiliary tank and then it's pumped over to the catcher by means of a sludge pump. The big-bag is exchanged, when it's full.





The sedimentation unit is intended for removing abrasive material and impurities (max. 1.6 mm), created during the cutting process, from the table catcher. The unit works on the principle of the independent precipitation of impurities in the sedimentation tank.





### **ACCESSORIES**



#### Diamond cutting heads H2O and SLICE 2

Used primarily for cutting in 3D regimes. The special design of the mixing chambers increases the speed of the abrasive particles to the maximum and hereby increases the cutting speed and the quality of the cut. The entry of abrasive to the mixing chamber at an angle of 30 ° contributes to the increase in cutting speed. Cutting heads SLICE 2 allows turning of cartridge in the range of 360°, exactly according to the customers needs.



#### Proportional doser of abrasive

Allows for the fluid changing of the abrasive flow during cutting without needing to stop the cutting process. With a suitable choice of quantity regulation for various operating regimes, it is possible to lower the use of abrasive and thus operating costs, while increasing the quality of the cut. Quantity regulation can be performed automatically from the cutting program or manually.

#### Other advantages of using the dispenser:

- Lowered risk of water penetration into the dispenser supply
- Quick removal of defects during unwanted water penetration into the dispenser
- Lowered consumption of compressed air
- Lowered risk of jamming the abrasive jet while piercing materials
- Type ATD V is additionally equipped with a function for detecting the level of abrasive in the tank, optical and aural signalling of the threat of abrasive shortage, and a function for stopping the cutting process if the tank is empty.





Height







The height sensor fulfils the function of an automatic guard of the optimal distance between the uneven cut prefabricate and the cutting jet. A potentiometric sensor is used to maintain the correct distance. Remote Control



Allows for comfortable table servicing during manual insertion and fluid changes of feed in the automatic regime. Thanks to a flexible cable with a maximum length of 6m, it spans the entire working space of the machine. For tables equipped with Teach In function it is supplied automatically.

Remote control for ATD V





Remote control for ATD V proportional doser of abrasive provides communication between the proportional doser manufactured by PTV and the control system for waterjet cutting machines from other manufacturers, which do not use proportional dosing of abrasive. Thanks to this device, machines from other manufacturers can also benefit from the advantages offered by the proportional abrasive doser.



### ABRASIVE / RECYCLING ABRASIVE

#### **Abrasive**

PTV supplies high quality abrasive material of Australian origin. Thanks to unique hardness and solidity of grains it secures the highest productivity and perfect quality of cutting. Highly precise sorting secures 100% effectiveness without any dust and excessive grains thus providing permanently optimal cutting conditions and stable supply of abrasive material without clogging of mixing tubes (abrasive nozzles).

For the time being we do not exclude our offer for Indian garnet (which is an alternative variant of high-quality abrasive material). However with respect to unclear Indian business policy and limited mining this type of material is becoming almost inaccessible worldwide. For our customers we have prepared a unique recycling system for used abrasive material, thanks to which we can successfully and effectively face the worldwide crisis on the abrasive market.

You can also find in our offer a high quality recycled Abrasive material prepared by PTV that meets the strictest comparison criteria compared with new abrasives, and even it can be considered more effective variant in many parameters. The economic aspect of used recycled abrasive is also very interesting



### Table of standardly offered graininess of abrasives

	1.0		
■ availaible ■ inavailaible	Australian	Indian	recycled
50	•		
80	•		, ,
120	•	15 To 25	31
200	•		V/V=
350	only 25kg	<b>.</b>	

#### Table of standard packaging of abrasives

■ available ■ unavailable	Australian	Indian	recycled
25 kg			
1 t	TA TO		
2 t	/ • Y	T-1//	

#### Recycling abrasive

#### RAMS® SYSTEM

PTV has developed a recycling system for used abrasive material. The patented system is a unique device offering to its users a maximum efficiency and economic operation. The use of the system is very simple, its operation is controlled by a special software from the control unit and requires an occasional supervision only.

It does not matter how the user is pre-equipped, the system is ready to be used with any existing configuration of workplace using HP waterjet abrasive cutting. The recycling of the used abrasive material results in obtaining a full-featured product for immediate use while preserving its original features and quality.

PLEASE SEE MORE INFORMATION IN OUR RAMS® SYSTEM PRODUCT CATALOG

# Recycling A brasive Maximum Saving







### PTV, spol. s r.o.

PTV COMPANY IS A LONG-TERM MANUFACTURER OF COMPLETE HIGH PRESSURE WATERJET CUTTING SYSTEMS. PTV EMPHASIZES A MAXIMUM IMPACT ON QUALITY, PERMANENT DEVELOPMENT AND INNOVATION OF PRODUCTS.
ALL MANUFACTURED PRODUCTS ARE GOVERNED BY NEWEST WORLD TRENDS. THE COMPANY ITSELF IS
DEVELOPING SUCH COMMODITIES AND LAUNCHES THEM ON THE MARKET

PTV, spol. s r.o. was founded in February 1991 by experts who (as representatives of FLOW Int. - USA) promoted the high-pressure watejet technology already in 1986 year in Eastern Europe already. FLOW company has developed a high-pressure pump for use in the space program, and as the first in the world launched it for commercial use in 1971. From the initial period focused to a business only, PTV has transformed itself into a production-oriented company with an emphasis on its own development. The first HP pump of its own design was launched by PTV in 1996 and the first complex system including the CNC X-Y cutting table was produced in January 2000. The high pressure components used in the pumps are the products of H2OJET, USA, with which our cooperation has started in 2001.

#### PTV offers:

- Absolutely the greatest experience in the field of water jet in Eastern Europe there are almost 800 installations of workplaces containing more than 650 CNC X-Y tables of our own production.
- More than 70 highly skilled workers, many of whom have more than 25 years experience in waterjet cutting industry.
- A wide range of technical solutions for standard products as well as economical variants, special applications, but also individual customer requirement, individual machine dimensions or application. Our high flexibility is the basic approach to customer's requirements.
- Extensive warehouse of operating material and spare parts.
- Skilled team of service experts, if needed in 24/7 mode.
- Experience in supplying our systems to abroad. PTV products are already installed in 36 countries in Europe, Asia
- Despite the generally proclaimed technical impossibility and economic disadvantage of recycling the used abrasive material, PTV has developed a unique RAMS® Abrasive Recycling Facility that works automatically, efficiently, without the need for service and very economically.

RAMS® machines are covered by two national patents and worldwide patent procedure is underway.

#### **QUALITY MANAGEMENT SYSTEM**





PTV spol. s r.o. is a holder of the ISO 9001 Quality Certificate since 2001. The quality management system is applied and monitored, and its efficiency has been constantly improved. It is maintained in accordance with company development and customer requirements.

#### We produce

CNC machines for high-pressure water jet cutting High pressure pumps Abrasive removal systems RAMS® recycling system of the used abrasive material Our own control systems

#### We deliver

Complete technological units Complete accessories Spare & consumable parts Abrasive material

Service interventions Counsultation





### WEB PAGES





Websites of company PTV, spol. s r.o. offers for customers comprehensiv informations. Current production program, direct contacts to the responsible workers, complet range of spare parts, searching spare parts by catalog number, video sequences of cutting of various materials, Water Jet, photogallery of samples, company news, invitations to fair, etc...



# REALIZATION















#### **APPLICATION**

Heat sensitive materials, hard workable materials, materials with a tendency to clog up cutting equipment, marble, granite, ceramic materials, glass, wall and floor tiles, rubber, insulation, foam materials, kevlar, plastic materials, acrylic glass, leather, wood, cork, composites, sandwich materials, rock wool, all types of metal, stainless steel, alloys and other metals, food, paper, etc...

























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