

# High Pressure Jetting

# H P J



**PTC**  
High Pressure Jetting

COMPANY PROFILE **2014**



## COMPANY PROFILE

- P.T.C.S.r.l., is an Italian limited company founded in Genoa in the year 1968 having as its principal activity the certification of quality and quantity of petroleum products and crude oil and the calibration of storage tanks.
- Subsequently, this activity has been diversified by entering into the field of High Pressure Water Jetting technology, related to the maintenance of petroleum processing plants, refineries, dry docks, etc.
- At present this activity, utilizing as "heart" of the product top of the range plungers pumps (Kamat, HPP, etc.), offers a very wide range of different applications in many other industrial areas.
- Our hydrodynamic units delivered with a specific scope of supply tailored to customer's needs, are utilized in the marine surface preparation, oil refineries and chemical plants maintenance, concrete renovation and hydrodemolition, process application in foundries and steel plants, etc.
- Furthermore, thanks to an endless reference list, PTC has gained a high reputation both in Italy and worldwide as reliable supplier of process machinery to the rubber and automotive production industry.

## HYDRODYNAMIC UNITS

- PTC hydrodynamic units cover a complete power range from 15 to 550 kW (20 - 750 HP) in continuous duty utilizing high grade triplex pumps with maximum working pressures up to 3000 bar (44.000 psi).
- These units are CAD-designed by our technical staff and produced in our facilities in a wide range of models to suit different input powers (by electric or diesel engine), assemblies (skid or trolley) and accessories (soundproof cabinet, remote control, etc.), all tested in-house to assure the satisfaction of even the strictest requirements concerning reliability and performances.
- PTC can solve innovative and standard applications mainly in the fields of:
  - Industrial maintenance (ship hulls, pipe washing, systems, exchangers, towers, filters, etc).
  - Pressurization of industrial lines (presses, hydro-forming, line and plant testing, etc).
  - Concrete renovation (hydro-demolition, flaming, ripping, etc).
  - Various industrial uses (foundry castings, precision foundry, steel plate and billet descaling, cleaning and deburring of special pieces, etc.) as well as underwater jobs.



## SPECIAL EQUIPMENTS

- Over the years, PTC has worked closely with its customers to develop a wide range of tailor made equipment, including:
  - SICURJET: a cold cutting system using water jets and abrasives for industrial maintenance in explosion-risk environments.
  - GUIDE RECIPROCATORS: to accompany the nozzle movement to delineate precise linear, radial or circular cuts and hydro-ripping.
  - WASHING ROBOTS: (internal and external) for heat exchangers and pipe bundles in refineries.
  - TEST BENCHES AND SYSTEMS: for flushing and testing pipes and systems of up to 3000 bar
  - FIXED WASHING SYSTEMS: to facilitate hydrodynamic washing in industrial areas.





# HYDRODYNAMIC UNITS › ELECTRIC ENGINE (DRIVE)

EasyPower **E**



PTC **1E**



PTC **2E**



PTC **3E**



PTC **4E**



PTC **5E**



PTC **6E**







UHP **E**



ATEX versions available



## HYDRODYNAMIC UNITS › ELECTRIC ENGINE (DRIVE)

 Model	 Max power		 Pressure bar (psi)		 Flow rate l/min (USgpm)	
	kW	CV	Min	Max	Min	Max
<b>EASY POWER E</b>	18,5	25	300 (4350)	500 (7250)	15 (3,9)	30 (7,9)
<b>PTC 1 - 37 / E</b>	37	50	280 (4060)	1000 (14500)	19 (5,0)	70 (18,4)
<b>PTC 2 - 45 / E</b>	45	61	100 (1450)	2100 (30450)	11 (2,9)	232 (61,2)
<b>PTC 3 - 75 / E</b>	75	102	135 (1950)	2800 (40610)	12 (3,1)	283 (74,7)
<b>PTC 3 - 90 / E</b>	90	122	150 (2175)	2500 (36260)	17 (4,4)	283 (74,7)
<b>PTC 4 - 110 / E</b>	110	150	125 (1815)	2500 (36260)	23 (6,0)	454 (119,9)
<b>PTC 4 - 130 / E</b>	130	177	135 (1960)	1500 (21760)	38 (10,0)	496 (131,0)
<b>PTC 5 - 160 / E</b>	160	217	150 (2175)	2500 (36260)	28 (7,3)	522 (137,8)
<b>PTC 6 - 250 / E</b>	250	340	115 (1670)	2800 (40610)	41 (10,8)	1145 (302,4)
<b>PTC 3-UHP 2000 / E</b>	75	102	2000 (29000)		20 (5,2)	
<b>PTC 3-UHP 2800 / E</b>	75	102	2800 (40610)		14 (3,6)	
<b>PTC 4-UHP 2500 / E</b>	110	150	2500 (36260)		23 (6,0)	
<b>PTC 4-UHP 1500 / E</b>	110	150	1500 (21760)		32 (8,4)	
<b>PTC 5-UHP 2800 / E</b>	160	287,5	2800 (40610)		26 (6,8)	
<b>PTC 6-UHP 2500 / E</b>	250	349	2500 (36260)		51 (13,4)	



## HYDRODYNAMIC UNITS › DIESEL ENGINE (DRIVE)

EasyPower **D**



PTC **1D**



PTC **2D**



PTC **3D**



PTC **4D**



PTC **5D**



PTC **6D**



PTC **7D**



PTC **8D**







UHP **D**





## HYDRODYNAMIC UNITS › DIESEL ENGINE (DRIVE)

 Model	 Max power		 Pressure bar (psi)		 Flow rate l/min (USgpm)	
	kW	CV	Min	Max	Min	Max
<b>EASY POWER D</b>	37	50	300 (4350)	500 (7250)	15 (3,9)	37 (9,7)
<b>PTC 1 - 37 / D</b>	37	50	280 (4060)	1000 (14500)	19 (5,0)	70 (18,4)
<b>PTC 2 - 45 / D</b>	45	61	100 (1450)	2100 (30450)	11 (2,9)	232 (61,2)
<b>PTC 3 - 75 / D</b>	75	102	135 (1950)	2800 (40610)	13 (3,4)	283 (74,7)
<b>PTC 3 - 90 / D</b>	90	122	150 (2175)	2500 (36260)	18 (4,7)	283 (74,7)
<b>PTC 4 - 110 / D</b>	110	150	125 (1815)	2500 (36260)	23 (6,0)	454 (120,0)
<b>PTC 4 - 130 / D</b>	130	177	135 (1960)	1500 (21760)	38 (10,0)	496 (131,0)
<b>PTC 5 - 160 / D</b>	160	217	150 (2175)	2800 (40610)	26 (6,8)	522 (138,0)
<b>PTC 6 - 250 / D</b>	250	340	115 (1670)	2800 (40610)	41 (10,8)	1145 (302,0)
<b>PTC 7 - 350 / D</b>	350	476	140 (2030)	2500 (36260)	70 (18,4)	1310 (346,0)
<b>PTC 7 - 400 / D</b>	400	544	155 (2250)	2500 (36260)	83 (21,9)	1310 (346,0)
<b>PTC 8 - 500 / D</b>	500	680	145 (2105)	2500 (36260)	103 (27,2)	1913 (505,0)
<b>PTC 3-UHP 2000 / D</b>	75	102	2000 (29000)		20 (5,2)	
<b>PTC 3-UHP 2800 / D</b>	75	102	2800 (40610)		14 (3,6)	
<b>PTC 4-UHP 2500 / D</b>	110	150	2500 (36260)		23 (6,0)	
<b>PTC 4-UHP 1500 / D</b>	130	177	1500 (21760)		32 (8,4)	
<b>PTC 5-UHP 2800 / D</b>	160	217,5	2800 (40610)		26 (6,8)	
<b>PTC 6-UHP 2500 / D</b>	250	340	2500 (36260)		51 (13,4)	
<b>PTC 7-UHP 2500 / D</b>	250	340	2500 (36260)		70 (18,4)	
<b>PTC 8-UHP 2500 / D</b>	400	544	2500 (36260)		83 (21,9)	



# HIGH PRESSURE UNITS FOR AN ENTIRE

Application	Bar (Psi)
<b>ALLUMINIUM AND STEEL MILLS</b> Hardened bauxite dust on mills, filters, floors, tanks, sumps and sewers; water scale, coke, ore and lime in heat exchangers, flues, boilers, open hearths, furnaces, chutes and hoppers, descaling billets and water hydraulics; mill scale, tight rust and weld slag from vessels, tanks and pipes.	200 - 2.800 (3.000 - 40.000)



Application	Bar (Psi)
<b>AUTOMOTIVE</b> Paint from booths, machinery, gratings, conveyers, dollies and skids.	700 - 2.800 (10.000 - 40.000)



Application	Bar (Psi)
<b>AVIATION</b> Expansion joints, grease, rubber and hydraulic fluids on airport runways.	700 - 1.400 (10.000 - 20.000)



Application	Bar (Psi)
<b>BREWERIES AND DISTILLERIES</b> Yeast, sediments and fermentation residues on vats, pipes and facilities; cleaning of boilers tubes, vats and pipe lines.	200 - 1.500 (3.000 - 22.000)



Application	Bar (Psi)
<b>CEMENT PLANTS</b> Remove dirt, grease and product build up on grates, floors, external piping, bins, walls, hopper cars and handling equipment; cooler hearths and pre-heater columns, bins, hopper cars, floors, rotary kilns and walls.	200 - 1.000 (3.000 - 15.000)



Application	Bar (Psi)
<b>CHEMICAL PROCESSING</b> Chemicals from boiler tubes, tanks, valves, evaporators, heat exchangers, tube bundles, pipes, vessels, reactors and facilities.	350 - 2.800 (5.000 - 40.000)





# WORLD OF POSSIBLE APPLICATIONS

Application	Bar (Psi)
<b>CONSTRUCTION AND RENOVATION</b> Asphalt distributors, mixers, tar cookers and pavers; asphalt, dirt, concrete, mortar, tar, grease, mastic and clay on vehicles, mixer trucks and machinery; canals, lifts, dams and runways; cleaning of natural stone walling, removal of joint materials, coats, damaged or corroded coatings from walls and floors, roughening of concrete and stone surfaces.	200 - 2.800 (3.000 - 40.000)



Application	Bar (Psi)
<b>FOOD AND BEVERAGES PROCESSING</b> Fats, oils, dirt and dough, food residues from vats, ovens, mixers, conveyors and facilities; cleaning of cold storage facilities, slaughter-houses, fish and meat butchers, sugar processing plants, bottling plants, food cutting, evaporators, milk tanks, centralised dairy systems, ultra-filtration by reverse osmosis; water jet cutting.	200 - 1.000 (3.000 - 15.000)



Application	Bar (Psi)
<b>FOUNDRIES</b> Removal of deposits, metal oxidation, ceramic and sand core materials from castings, furnaces and paddles.	100 - 700 (1.500 - 10.000)



Application	Bar (Psi)
<b>HYDRODEMOLITION</b> Concrete cement cutting, reclamation and wet sandblasting of tunnels also using special robots; concrete surface hydro-ripping for large infrastructure, dams, viaducts, homes and offices; surface preparation.	1.000 - 2.800 (15.000 - 40.000)



Application	Bar (Psi)
<b>MARINE</b> Removal of marine growth, barnacles, loose paint and rust on ship hulls, docks, ballasts, platforms, condensers, floating drydocks, anchor chains, storage tanks and boilers; underwater cleaning of pipes and drilling platforms, of barnacles and marine growth to 'white metal'; coatings removal prior to repainting; draining of sludge and sediments from cargo holds, ballast tanks and double bottoms; surface preparation.	350 - 2.800 (5.000 - 40.000)



Application	Bar (Psi)
<b>MILITARY</b> Airport cleaning, nuclear decontamination, cleaning navy applications, wheel and tracked vehicles, rehabilitation and/or decommissioning of concrete installations, cold cutting of ammunition and armoured tanks in decommissioned sites.	700 - 2.800 (10.000 - 40.000)



# HIGH PRESSURE UNITS FOR AN ENTIRE

Application	Bar (Psi)
<b>MINING</b> Pre-maintenance cleaning of dumpers, drag lines, underground haulage lines and shafts; aids in the recovery of ore; unclog plant machinery due to deposits of coal, rock dust, mud or oils.	100 - 500 (1.500 - 7.000)



Application	Bar (Psi)
<b>MUNICIPALITIES</b> Reservoirs and containers, sewers and drain pipes, sanitation equipment and refuse vehicles; insulators, boiler tubes, vehicles and machinery; surface preparation.	200 - 500 (3.000 - 7.000)



Application	Bar (Psi)
<b>OILFIELDS</b> Paraffin and crude residues from platforms and storage tanks; removal of drilling mud and cement from drill pipes; "cold" cutting.	200 - 2.800 (3.000 - 40.000)



Application	Bar (Psi)
<b>PETROCHEMICAL PROCESSING AND REFINERIES</b> Algae, carbon, scum, soft polymers and asbestos, wax, paraffin, grease and crude residues, water scale, calcium sulphate, chlorides, hard polymers, iron oxide, coke, hard carbon, PVC and PVA in heat exchangers, re-boilers, tanks, reactors, pipes, cooling towers and facilities; "cold" cutting.	350 - 2.800 (5.000 - 40.000)



Application	Bar (Psi)
<b>PHARMACEUTICAL</b> Cleaning of chemicals (liquid and solid) from pipes, kettles, mixers, tubes, heat exchangers, reactors, filters and evaporators.	500 - 2.800 (7.000 - 40.000)



Application	Bar (Psi)
<b>PIPES (INDUSTRIAL)</b> Removal of rust and varnish prior to recoating, dope and oil from pipe threads for inspection, drilling mud and debris in various kinds of pipes (internal); manual or fully automatic test units equipped with plunger pumps for filling and test processes.	100 - 700 (1.500 - 10.000)



# WORLD OF POSSIBLE APPLICATIONS

Application	Bar (Psi)
<b>POWER STATIONS</b> Nuclear decontamination of fuel capsules, 'U' tube exchangers, flash from pre-heater tubes, hand tools and equipment.	700 - 2.800 (10.000 - 40.000)



Application	Bar (Psi)
<b>PRESSURE TESTING</b> Manual or fully automatic test benches up to 7.000 bar used for pressure testing of valves, tubings, hoses, fittings and complete systems.	400 - 7.000 (6.000 - 100.000)



Application	Bar (Psi)
<b>PULP &amp; PAPER</b> Cleaning of grease, oil, pitch, dirt and wood pulp from heat exchangers, tubes, foundries, press sections of paper machines, suction rolls, stock chests and lines; water jet cutting.	350 - 700 (5.000 - 10.000)



Application	Bar (Psi)
<b>RAILWAYS</b> Gypsum, potash, cement, lime in hopper cars; removing grease, dirt and deposits from trucks, undercarriages and tank cars; removal of leaf mulch from railway lines.	350 - 2.800 (5.000 - 40.000)



Application	Bar (Psi)
<b>RUBBER PROCESSING</b> Latex, SBR and water scale in reactors, storage tanks, heat exchangers, tubing, pipes and facilities.	600 - 2.800 (9.000 - 40.000)



Application	Bar (Psi)
<b>TRAFFIC AND TRANSPORTS</b> Removal of road markings, cleaning of railway carriages and buses, renovation of concrete surfaces; cleaning of grease, vegetation, mud, tar, cement or asphalt on vehicles and machinery; graffiti, stains, tar and mastics on concrete bridges and overpasses, removal of expansion joints and paint strips; unblock culverts on bridges and clean up overspill.	350 - 1.000 (5.000 - 15.000)

















# ROBOTS



- PTC Robots are designed for different applications and they are the results of over 30 years of dedicated field experience. Pipe bundle cleaning, abrasive cold cutting in hazardous zones, surface preparation and concrete rehabilitation are main areas of application for such equipment.
- All PTC Robots are manufactured with high grade materials and are conceived for friendly use (whole operation controlled by a single panel) and easy maintenance to enhance: Safety (no worker near jetting area), Performances, Reliability, Quality.

# WATERJETTING ACCESSORIES

	<p>Dry Shut Guns</p> <p>Dump Shut Guns</p>		<p>Flexible Lances</p> <p>Rigid Lances</p>
	<p>Air Operated Flow Control Valve (tumble box)</p>		<p>Flexible Lance Nozzles</p> <p>Rigid Lance Nozzles</p>
	<p>HP &amp; UHP Hoses</p>		<p>High Pressure Nozzles</p>
	<p>Dump Type Foot Valves</p>		<p>Rotating Nozzles</p>
	<p>Spray Guns with Electronic Command (only for UHP units)</p>		<p>Pipe &amp; Sewage Cleaning Nozzles</p>
	<p>Protective Clothing for Waterjetting (TST)</p>		<p>"Turbo" Nozzles</p>

## PTC IS OFFICIAL DISTRIBUTOR OF



High Pressure and UHP pumps



High pressure and UHP hoses



High pressure and UHP components



High pressure nozzles & components



High Pressure cleaning protections



# CERTIFICATION ISO 9001:2008



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Per informazioni sulla validità del certificato, visitare il sito [www.rina.org](http://www.rina.org)

For information concerning validity of the certificate, you can visit the site [www.rina.org](http://www.rina.org)

Riferirsi al Manuale della Qualità per i dettagli delle esclusioni ai requisiti della norma

Reference is to be made to the Quality Manual for details regarding the exemptions from the requirements of the standard

**CERTIFICATO N. 21080/10/S**  
**CERTIFICATE No. 21080/10/S**

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI  
 IT IS HEREBY CERTIFIED THAT THE QUALITY MANAGEMENT SYSTEM OF

**P.T.C. SRL**

VIA TAGLIOLINI 50 16152 GENOVA (GE) ITALIA

NELLE SEGUENTI UNITÀ OPERATIVE / IN THE FOLLOWING OPERATIONAL UNITS

VIA TAGLIOLINI 50 16152 GENOVA (GE) ITALIA

È CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD

**ISO 9001:2008**

PER I SEGUENTI CAMPI DI ATTIVITÀ / FOR THE FOLLOWING FIELD(S) OF ACTIVITIES

PROGETTAZIONE, PRODUZIONE, COMMERCIALIZZAZIONE E MANUTENZIONE DI MOTOPOMPE A PISTONI AD ALTA ED ALTISSIMA PRESSIONE D'ACQUA.  
 COMMERCIALIZZAZIONE E MANUTENZIONE DI ATTREZZATURE DI LAVORO WATERJETTING.  
 NOLEGGIO MOTOPOMPE E/O ATTREZZATURE.

DESIGN, PRODUCTION, MARKETING AND SERVICING OF HIGH PRESSURE WATER JETTING UNITS.  
 MARKETING AND SERVICING OF WATER JETTING TOOLS.  
 RENTAL OF WATER JETTING UNITS AND TOOLS.

EA:18  
EA:29A

La validità del presente certificato è subordinata a sorveglianza periodica annuale / semestrale ed al riesame completo del sistema di gestione con periodicità triennale  
The validity of this certificate is dependent on an annual / six monthly audit and on a complete review, every three years, of the management system  
L'uso e la validità del presente certificato sono soggetti al rispetto del documento RINA: Regolamento per la Certificazione di Sistemi di Gestione per la Qualità  
The use and validity of this certificate are subject to compliance with the RINA document: Rules for the certification of Quality Management Systems

Prima emissione <i>First Issue</i>	01.04.2010	
Emissione corrente <i>Current Issue</i>	28.03.2013	
Data scadenza <i>Expiry Date</i>	26.03.2016	

Dott. Roberto Cavanna  
(Managing Director)




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**RINA Services S.p.A.**  
Via Corsica 12 - 16128 Genova Italy



SGQ N° 002 A SSI N° 001 G  
 SGA N° 002 D DAP N° 001 H  
 PRD N° 002 B PRS N° 006 C  
 SCR N° 003 F LAB N° 0032

Membro degli Accordi di Mutoo Riconoscimento EA, IAF e ILAC  
Signatory of EA, IAF and ILAC Mutual Recognition Agreements



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[www.ptcitaliana.com](http://www.ptcitaliana.com)



P.T.C. srl Via F.lli Canepa, 132 F › 16152 Genova (Italy)  
tel: +39 010 6509422 › fax: +39 010 6509406  
info@ptcitaliana.com › [www.ptcitaliana.com](http://www.ptcitaliana.com)