

WASHING SOLUTIONS











NEW

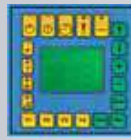


TEKNOX
DGT

WASHING SOLUTIONS

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DGT



DGT units are equipped with a new control system specifically conceived to improve and increase performances. The new technologically advanced **DGT ELECTRONIC CONTROL SYSTEM** has made it possible to:

- increase the global level of operating safety in accordance with new safety standards;
- create flexibility to allow for future equipment upgrades with the inclusion of new accessories or functions;
- parameterise all machine functions;
- reduce the consumption of electricity (energy saving function);
- reduce vapour emissions;
- introduce an automatic cycle start function;
- implement multi-language management of functions.

The **PLC** is made up of electronic circuits dedicated to the management of controls plus electronic components to manage power peripherals.

The **DGT** system offers the capability of managing all parameters, time and temperature settings, levels, alarms, scheduled maintenance, motor protection, current control, etc.

A weekly ON/OFF program can be set for both the tank heating system and oil separator.

Cycle parameters (times and temperatures) can be memorised in 5 different programs.

The PLC is extremely easy and intuitive to use, in any of the 5 available languages: I, GB, D, F and E.

Other custom features available on request.



TO OUR CUSTOMERS

The innovative idea of designing and producing washing systems originated in 1966 as the answer to the difficulties which technicians of calculator and typewriter maintenance encountered in the cleaning of these same machines. Subsequently, in almost forty years of activity, a wide number of projects were developed and important patents addressed to an ever increasing number of industrial and non-industrial sectors were taken out. Following the growing interest in this field, our commercial network extended out of Europe and expanded to numerous markets, from the Americas to Asia. The activity, originating and developed in the field of maintenance, constantly evolved until it established itself in the industrial sector. Right from the beginning, our purpose has been the ability to offer high quality products according to the needs of our Customers. You will find this in the entire range of products, together with the certainty of obtaining the best results even in the presence of difficult situations which may require the maximum level of cleaning.

A process which we will be able to maintain over time thanks to the constant updating of our products, in order to be able to overcome the challenges that this new millennium imposes.

The catalogue we present here, will show you the main typologies of systems which have allowed TEKNOX to become the leader in the industrial sector.



THE INNOVATION AT YOUR SERVICE

Some of the bases on which our innovations are founded are: the reduction of consumptions, the reduction of emissions in the atmosphere, the systems of active and passive security for the operators, the use of stainless steel, the continuous filtration procedure in baths, the exclusive intention of using specific water-based detergents and the high level of selective separation of contaminants.

Specific knowledge of the problems and constant research, especially taking into account the nature and shape of the pieces, has brought us to the development of specific techniques capable of guaranteeing excellent solutions in every case.

SYSTEMS INVOLVING TECHNOLOGY

Right from the beginning, one of our principal purposes has been the realization of systems which would be able to substitute the solvents while maintaining a high cleaning level. If, on the one hand, this choice is particularly appreciated for the well-known environmental problems, on the other hand, it has reached better results than expected. The production of tunnel washing systems, calibrated and positioned systems (with a closed or an open cell), the computer-based management by means of Logical Programmers, the diversified work cycles, the adoption of exclusive treatments, the compactness of the systems, the operative flexibility, the possibility of automatic movement of the supports and the robotized manipulations of parts, are only some of the





TEKNOX

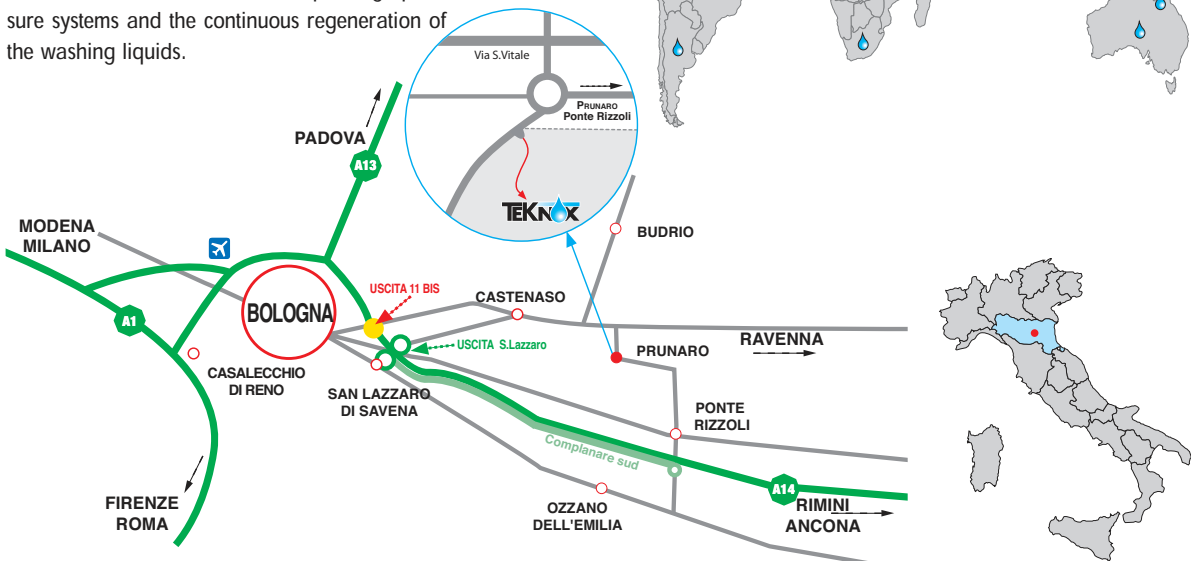
WASHING SOLUTIONS

PARTS CLEANING TECHNOLOGY

aspects which characterize the flexibility of the production aimed at the following product sectors:

- Food industry
- Wood industry
- Plastic industry
- Mechanical industry
- Washing moulds
- Maintenance
- Pre - painting
- Production
- Serigraphy and printing

Today, the TEKNOX experience is a certainty, the master of innovative technologies and knowledge capable of guaranteeing certified results on specific treatments of dead holes and slots in pieces of a serial nature, with the help of high pressure systems and the continuous regeneration of the washing liquids.



A TRADITION OF QUALITY

If the desire of the operators is the achievement of total quality, TEKNOX not only pursues this aim, but thanks to the knowledge acquired, it helps companies to achieve total quality by offering them reliable and safe systems.

STUDIES, PROJECTS AND THE FULFILLMENT OF YOUR NEEDS

Each project is studied in detail in the Research Centre, starting with total respect of the current security regulations. It is then carried out with maximum care, choosing the best components and is finally demonstrated and tested by qualified staff. Each system is studied and constructed starting from tested and personalized basic modules according to specific needs.

PATENTS

Numerous are the national and international patents obtained following constant research for solutions capable of improving and economizing the processes. Over time, we have acquired the technology for the recovery of the washing liquid, and now, for special applications, models which do not need any liquid are already available. This is an additional improvement characterized by respect for the environmental.

06/04/1992	N. 00227836	
06/04/1992	N. 00227837	
20/08/1997	N. 01294170	
21/08/1997	N. BO974000515	
06/08/1998	N. 98830486.1	EU
18/12/1998	N. 6,228,180 B1	US
18/02/1999	N. 99830084.2	EU

SERVICE

It is possible to request technical assistance in your zone or request accessories and spare parts by a phone call, a fax or an E-mail. The Technical Department is always at your disposal to offer helpful advice, information on products or how to obtain the best results in the field of washing.

HOW TO FIND US

Courtesy, knowledge and willingness to help will welcome you in our new premises in order to resolve your problems.

THE PRODUCTION

UNIX

Systems with a rotating basket for processes at the edge of the operating machine suitable for parts of small and medium dimensions.

LINEARJET

Systems using linear jets to wash oversized parts (of medium weight) or very long, narrow parts.

LINEARJET R

Systems with a tip-up chamber and fast loading, especially designed to operate with parts of small dimensions.

LINEARJET MAXI

Systems with underground tanks and a loading trolley at floor level for oversized or heavy parts.

ROBUR

Systems with a rotating basket for the production of different elements with considerable volume and weight (on a fixed base and with mobile jets for particularly heavy pieces).

ROBOJET

Big systems, on a positioned base and calibrated washing, on the edge of the transfers for big and complex elements such as gear boxes, skids, etc..

ROTOR

Our equipment model rotor im operates by a squared cage (basket) which is inserted into a drum for the rotation.

ROUNDJET

Systems with a positioned and calibrated procedure for continuous multi-stage treatment on elements of small dimensions

TUNNEL

Multi-stage on-line systems with conveyor belts, or equipped with calibrated bases, for serial parts production. Disposition of automatic loading and unloading devices for transfer systems.

THE QUALITY OF THE CALIBRATED WASHING USING:

TUNNEL WASHING SYSTEMS

Tests executed by certified laboratories have given results of a certified quality according with the UNI 4406 Norm, with maximum quantity of residuals < 0,1 mg.

ROBOJET WASHING SYSTEMS

Tests executed by certified laboratories have given results of a certified quality 14/12, according with the UNI 4406 Norm, with maximum quantity of residuals: < 2,1 mg.



TECHNICAL FEATURES

TEKNOX, with its long experience, has studied and currently produces different types of washing systems which are characterized by technical features especially designed to reduce the risks of the personnel employed to a minimum and particularly, conforming to the regulations of the **BASIC PRODUCT STANDARD** (paragraph 5.3 e 5.3.2) and of regulation No. EN 563, regarding **THERMAL AND CONTACT HAZARDS**.

Therefore, in conformity with the above Regulations, the machines currently in production are divided into two categories:

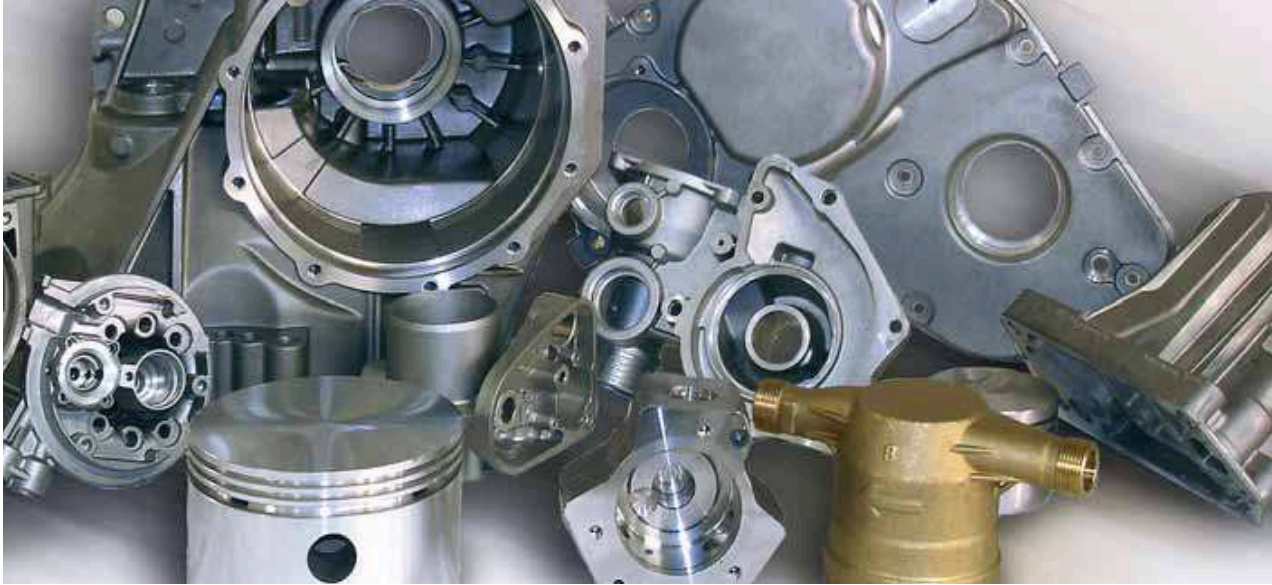
LT (Low Temperature)

for washing temperatures up to 60° C;

HT (High Temperature)

for washing temperatures up to 80° C; equipped with all necessary options to guarantee the safety of the personnel working at these temperatures.

ALL OUR SYSTEMS ARE DISTINGUISHED BY THEIR ADVANCED AND STRICT CORRESPONDENCE TO THE MACHINE DIRECTIVE AND TO THE SAFETY RULES.



TEKNOX TECHNOLOGY

New exclusive calibrated washing system, ideal to eliminate polluting substances from dead and threaded holes (optional).

SLOW ROTATION

System with very slow and controlled rotation which guarantees a greater jet impact and, consequently, better washing results.

THERMAL INSULATION

Easy-to-replace insulating panels to reduce the thermal dispersion of the baths.

VERTIPUMP

Vertical pump, traditional Teknox, with long lasting stainless steel impellers and low maintenance.

HIGH PRESSURE

Special high pressure pump, from 6 to 10 bar, to satisfy the most strict test needs.

BAG FILTER

Special filters which guarantee filtering up to 5 μ .

FILTER SYSTEM SZD

Special models with mud decantation.

TOP CONDENSER

Exclusive steam condenser.

DIALYSIS SYSTEM

Filtering system with second pump and second bag filter (in dialysis).

LOAD/UNLOAD STATION

Loading/unloading station.

STANDARD TECHNICAL FEATURES

DESCRIPTION	UNIX	ROBUR	ROBOJET	LINEARJET	ROUNDJET TUNNEL
<i>New DGT SYSTEM</i>	•	•	•	•	
Automatic door opening	OPTIONAL	•	•	•	
Timed exhaustion of the steams	•	•	•	•	•
Baskets made of electro-welded wire *	•	•		•	
Stainless steel filter large dimensions	•	•	•		•
Tilted tank bottom to facilitate drainage of waste liquids	•	•	•	•	•
Gaskets on covers	•	•	•	•	•
Waterproof electrical installation	•	•	•	•	•
Frames and sidings made of AISI 304 STAINLESS STEEL	•	•	•	•	•
Slow mechanical moving of the jets			•	•	
Outerloading table		•	•	•	
Electrical heating	•	•	•	•	•
Slow mechanical rotation of the basket	•	•			
Chips separator		•	•	•	•
Structures realised to work in heavy duty working conditions	•	•	•	•	•

• standard * studied to reduce the interference with the jets



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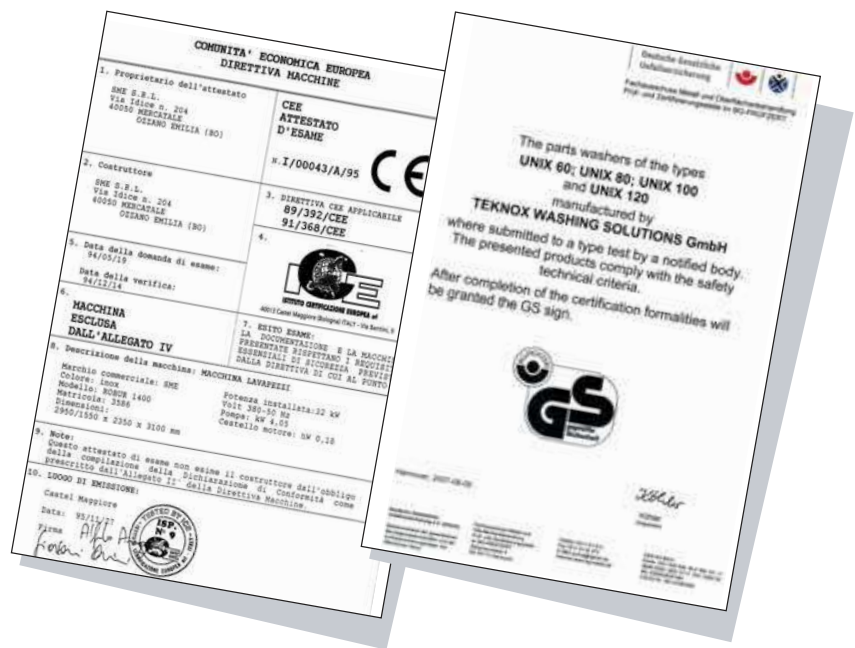
ACCESSORIES

DESCRIPTION	UNIX		ROBUR	ROBOJET	LINEARJET	ROUNDJET TUNNEL
	80	100 120				
Automatic cover opening	•	•	ST	ST	ST	ND
Overturning door			•	ND	ND	ND
Timed steam exhaustion (LT models)	ST	ST	ST	ST	ST	ST
Overturning washing chamber	ST	ST	ND	ND	MOD. R	ND
Outer carriage	•	•	ST/+	•	•	ND
Removable baskets for small metal parts	•	•	•			
Steam condenser	•	•	•	•	•	•
Bag filter, filtering up to 5µ (with stainless steel container)	•	•	•	•	•	•
Drying system with oven	ND	ND	•	•	ND	•
Proportioner device to maintain the washing solution	•	•	•	•	•	•
Cooling group by cold air	ND	ND	ND	ND	ND	•
System with 2 (model 2B) or more baths	•	•	•	•	•	•
Mud decanting installation (SZD models)	•	•	ND	ND	ND	ND
Oil separator installation	•	•	•	•	•	•
Kit for strongly caustic products (pH > 12)	•	•	•	•	•	•
Hand wash with foot control and light	•	•	•	ND	ND	ND
Robotized handling of the parts	ND	ND	ND	ND	ND	•
Jets moving (fixed parts carrying holder)	ND	ND	•	•	•	ND
Motorized moving of the parts carrying holder	ND	ND	•	•	•	ND
High pressure vertical pump	•	•	•	•	•	•
Weekly programmer	ST	ST	ST	ST	ST	•
PLC standard	•	•	•	•	•	•
Automatic fill-in of the tank	ST	ST	ST	ST	ST	ST
Methan, diesel, GPL heating	ND	ND	•	•	•	•
Chips separator	•	•	ST	ST	ST	ST
Calibrated washing system	ND	ND	ND	•	•	•
Positioned washing system	ND	ND	ND	•	•	•
Timed blowing with compressed air	•	•	•	•	•	•
Charge discharge station	ND	ND	•	•	•	ND
Modification for treatments in presence of abrasive	•	•	•	•	•	•
2 doors version	ND	ND	•	•	ND	ND
Stainless steel pumps	ST	ST	ST	ST	ST	ST
Piping in stainless steel	ST	ST	ST	ST	ST	ST

• available ; ST Standard ; ND Not available

Systems for HOT WASHING OF MOTORS AND MECHANICAL parts using water and biodegradable alkaline detergents

- built and certified to  mark requirements and product standards.
- Complies with European safety standards.
- Covered by international patents.



This catalogue cancels and replace any previous edition and revision.
All listed data is approximate and it's understood that this entails no obligation on our part. We reserve the right to implement modifications without notice.

Washing installation with rotating basket to wash small and medium size parts



UNIX 100 LT
PNEUMATIC COVER OPENING

UNIX



There are a wide variety of models which industries can choose from, specifically studied so as to allow for efficient and uniform elimination of contaminants from small and medium sized pieces, through the use of hot aqueous solutions containing biodegradable detergents.

They are particularly suitable for:

- pickling;
- phosphating (2 baths model);
- washing;
- lubrication;
- passivation;
- antirust protection ;
- degreasing;
- paint-stripping;

Classic versions:

SZD:

one bath, equipped with tank accessible from the external, mud decanter, box filter and stainless steel vertical pump;

2B:

2 baths, with stainless steel horizontal pumps and tanks accessible from the external.

AP:

have special high pressure stainless steel pumps

Main features:

Mod. HT (High temperature)

- Door-lock switch
- Thermic isolation
- IP55 electrical control board
- Timed exhauster of the steams
- Lock cover key
- Stainless steel panels under the basket.

- **30% energy saving with HT models**



UNIX 100 DGT



UNIX 100 SZD DGT

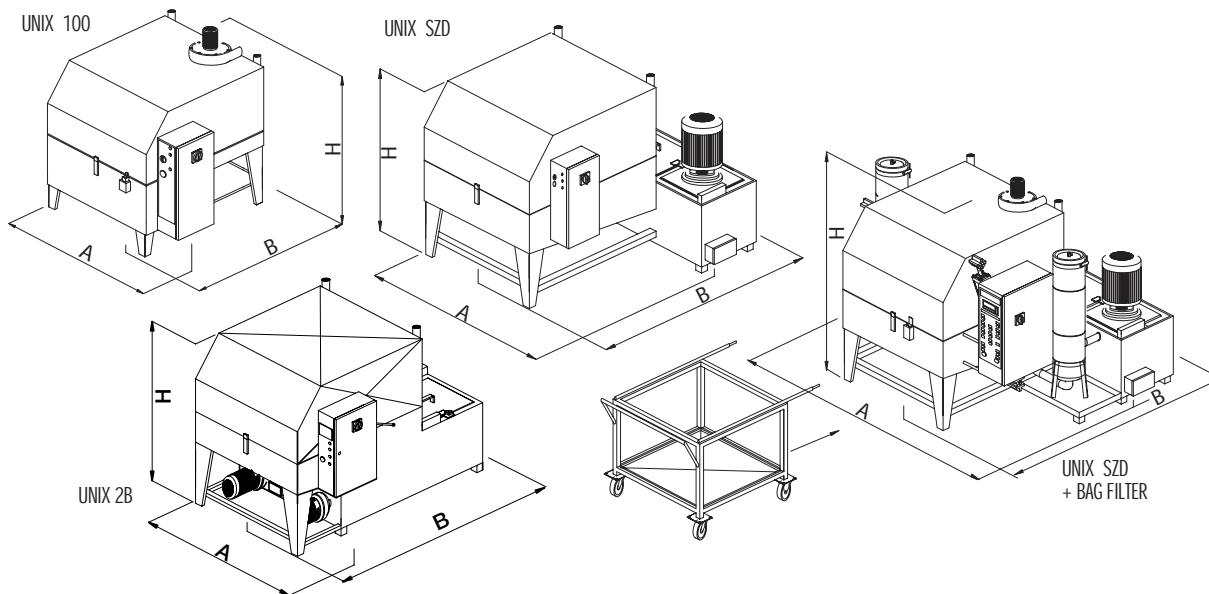


UNIX 2B DGT
+ HIGH PRESSURE



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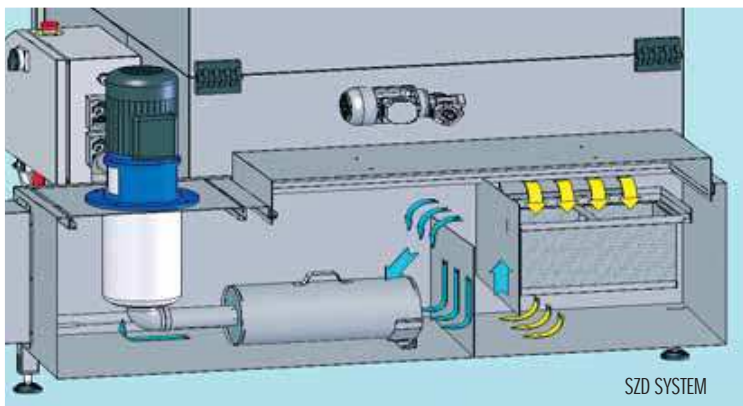


MOD. LT	Dimensions mm				Working Dimensions			Tank Capacity	Mass*	Pump			Mech. Rot.	Exhauster	Heat	TOTAL
	A	B	H	H2	Ø	H ₁	Load cap. kg	lt	kg	bar lav.	lt/min	kW	kW	kW	kW	kW(3-ph)
UNIX 80	1100	1220	1250	1750	780	540	100	150	110	2	110	0.55	0.09	0.25	4	4,7 - 4,0
UNIX 100	1350	1420	1260	1920	980	560	200	210	160	2.7	160	1.5	0.09	0.25	6	7,6 - 6,0
UNIX 120	1550	1600	1450	2100	1170	700	300	260	250	3	210	1.8	0.25	0.25	8	10,1 - 8,0
UNIX 80 AP	1100	1220	1250	1750	780	540	100	150	160	6	190	3.7	0.09	0.25	4	7,8 - 4,0
UNIX 100 AP	1350	1420	1260	1750	980	560	200	210	210	6	300	5.5	0.09	0.25	6	11,6 - 6,0
UNIX 120 AP	1550	1600	1450	2100	1170	700	300	260	310	6	300	7.5	0.25	0.25	8	15,8 - 8,0
UNIX 80 SZD	1700	1580	1440	1910	780	540	100	270	250	3	300	2.2	0.09	0.25	6	8,3 - 6,0
UNIX 100 SZD	1700	1790	1450	1910	980	560	200	300	390	3	300	2.2	0.09	0.25	8	10,3 - 8,0
UNIX 120 SZD	1900	1990	1625	2200	1170	700	300	380	430	3	300	3	0.25	0.25	10	13,3 - 10,0
UNIX 80 SZD AP	1585	1580	1450	1910	780	540	100	260	300	6	300	5.5	0.09	0.25	6	11,6 - 6,0
UNIX 100 SZD AP	1785	1800	1450	1910	980	560	200	260	450	6	300	5.5	0.09	0.25	8	13,3 - 8,0
UNIX 120 SZD AP	1900	1900	1650	2100	1170	700	300	300	490	6	300	7.5	0.25	0.25	10	17,8 - 10,0
UNIX 80 2B	1140	1800	1480	2090	780	540	100	2X150	280	2-2	100-100	0.55-0.55	0.09	0.25	2X6	12,7 - 12,0
UNIX 100 2B	1340	2000	1480	2090	980	560	200	2X250	430	2.7-2	160-100	1.5-0.55	0.09	0.25	2X8	17,6 - 16,0
UNIX 120 2B	1550	2200	1690	2290	1170	700	300	2X320	480	3-2	210-100	1.8-0.55	0.25	0.25	2X10	22,1 - 20,0
UNIX 80 2B AP	1220	1800	1480	2090	780	540	100	2X150	320	6-2	190-100	3.7-0.55	0.09	0.25	2X6	15,8 - 12,0
UNIX 100 2B AP	1420	2000	1480	2090	980	560	200	2X250	470	6-2	300-100	5.5-0.55	0.09	0.25	2X8	21,6 - 16,0
UNIX 120 2B AP	1650	2200	1690	2290	1170	700	300	2X320	520	6-2	300-100	7.5-0.55	0.25	0.25	2X10	28,0 - 20,0

MOD. HT +50 +50 +25

* Basic model: accessoires excluded

Maximum electrical input control with "ENERGY SAVING" function ↑



NEW

DGT



Washing installation with rotating platform to wash big size parts

ROBUR

NEW



ROBUR 2B

This series of machines is particularly suitable for the treatment of large and heavy machinery pieces. It was designed by our research and development department to offer suitable solutions for difficult jobs such as:

- phosphating;
- maintenance;
- pre-galvanic treatments;
- pre-painting;
- degreasing;
- heat treatments;

Our experience acquired over many years has made the development of a reliable and technologically advanced product possible, where decontaminating tools are made up of a large series of jets spraying hot water and non-toxic biodegradable alkaline detergents.

The constant and uniform treatment of surfaces is certainly one of the most highly valued characteristics of our systems. The slow mechanical rotation of the basket has a special type of clutch which is activated in case of exces-

sive effort as, for instance, when pieces are placed incorrectly or accidentally slip out of the basket. Automatic steam aspiration carries out the pre-drying process as well as the elimination of vapour formed during the wash cycle.

The wide range of models is available in **one or two bath version**.

General features:

- double piston vertical pneumatic safety opening;
- sludge drain hole;
- octagonal platform (grid) ;
- tank insulation;
- large stainless steel filter;
- box filter for chips separation;
- outer carriage (standard) for Robur 1000-1200-1400
- external loading platform for Robur 1800-2200;
- vertical pump immersed in the tank;
- computerized logical programming (on all models);

- electric heating;
- watertight tank separate from the washing chamber;
- straight jet nozzles.
- automatic steam exhaustion at the end of the cycle.

Automatic: door closing, carrying out of the cycle, basket centring and door opening

- **30% energy saving with HT models**

DGT

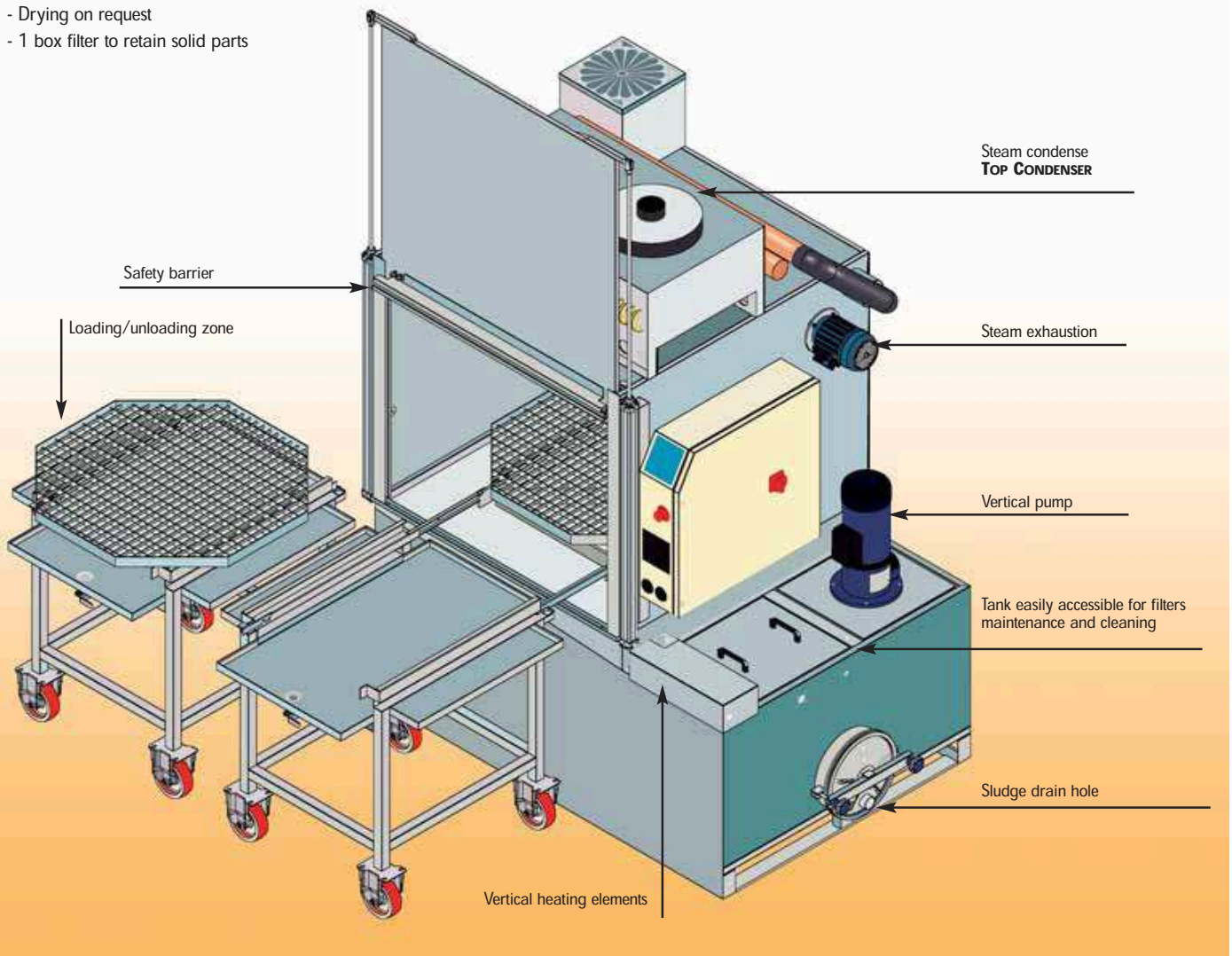


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TEKNOX

ROBUR + TOP CONDENSER

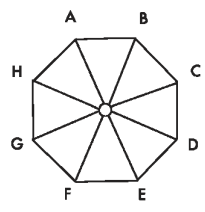
- Loading/unloading zone
- Drying on request
- 1 box filter to retain solid parts



OCTAGONAL BASKET

INTERNAL DIMENSIONS mm (± 2)

Mod.	AE	AB	HC
1000	950	365	880
1200	1150	440	1065
1400	1350	515	1250
1800	1750	670	1620
2200	2150	820	1985



ROBUR
Mod. overturning door

NEW

DGT



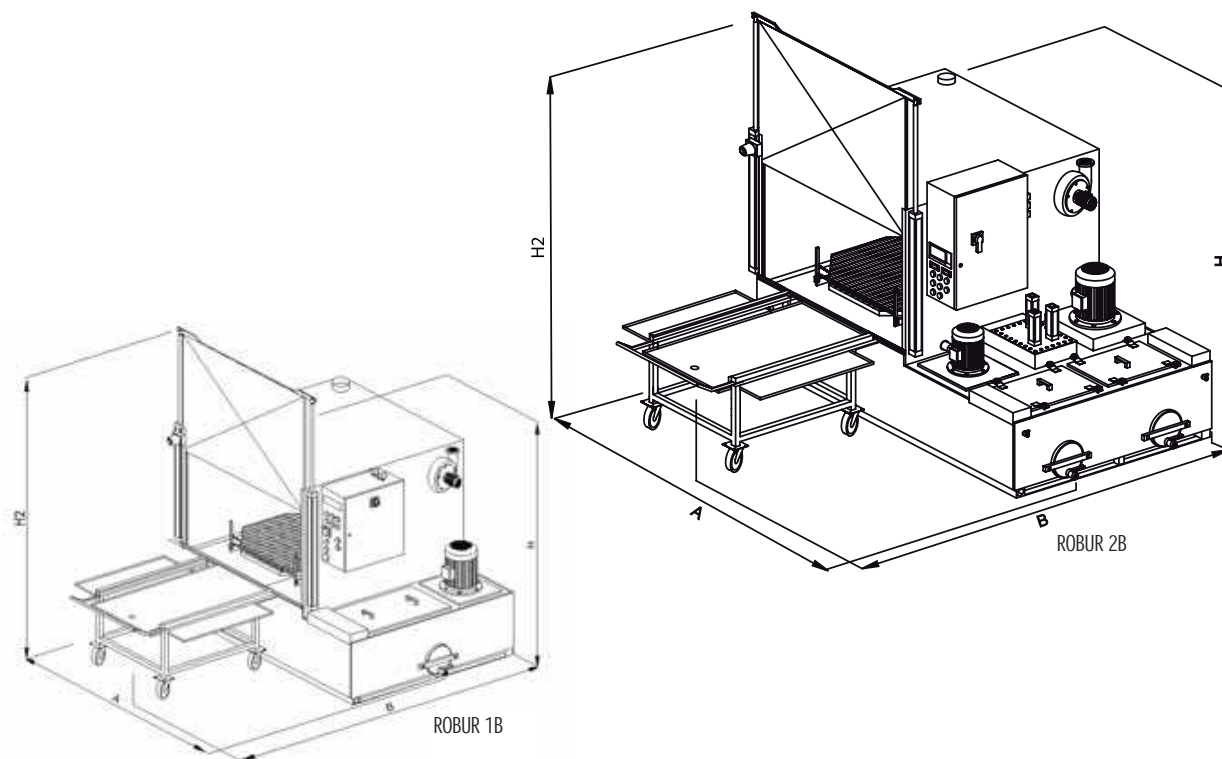
MOD.	Dimensions mm				Working Dimensions			Tank Capacity	Mass*	Pump			Mech. Rot.	Exhauster	Heat	Power supply		TOTAL
	A	B	H closed	H2 open	Ø	H ₁	Load kg	lt	kg	bar	lt/min	kW	kW	kW	kW	volt	ph	kW(3-ph)
LT for T ≤ 60° C																		
ROBUR 1000	1700	2130	2100	2870	1000	700	600	400	460	4	320	4	0.18	0.37	12	400	3	16,2 - 12,0
ROBUR 1200	1900	2700	2020	3100	1200	800	600	500	510	4	320	4	0.18	0.37	18	400	3	22,2 - 18,0
ROBUR 1400	2100	3100	2150	3400	1400	900	600	700	650	4	320	4	0.18	0.37	24	400	3	28,2 - 24,0
ROBUR 1800	2500	3900	2280	3500	1800	1000	800	1000	960	5	500	7,5	0.18	0.37	30	400	3	37,3 - 30,0
ROBUR 2200 **	2900	4700	2300	3500	2150	1000	1000	1200	1300	5	600	11	0.18	0.37	36	400	3	51,2 - 36,0
HT for T > 60° C																		
ROBUR 1000 AP	1700	2130	2100	2870	1000	700	600	400	500	8/9	320	7,5	0.18	0.37	12	400	3	19,7 - 12,0
ROBUR 1200 AP	1900	2700	2020	3100	1200	800	600	500	600	8/9	320	7,5	0.18	0.37	18	400	3	25,7 - 18,0
ROBUR 1400 AP	2100	3100	2150	3400	1400	900	600	700	700	8/9	320	7,5	0.18	0.37	24	400	3	31,7 - 24,0
ROBUR 1800 AP	2500	3900	2280	3500	1800	1000	800	1000	1050	8/9	500	15	0.18	0.37	30	400	3	45,2 - 30,0
ROBUR 2200 AP **	2900	4700	2300	3500	2150	1000	1000	1200	1380	8/9	600	15	0.18	0.37	36	400	3	55,2 - 36,0

A 2 bagni	Dimensions mm (*)				Working Dimensions			Tank Capacity	Mass*	Pump			Mech. Rot.	Exhauster	Heat	Power supply		TOTAL
	A	B	H	H2	Ø	H ₁	Load kg	lt	kg	bar	lt/min	kW	kW	kW	kW	volt	ph	kW(3-ph)
HT for T > 60° C																		
ROBUR 1200 2B	2450	2700	2020	3100	1200	800	600	2x400	600	4 - 3	320	4,2-2	0.18	0.37	2x12	400	3	28,2 - 24,0
ROBUR 1400 2B	2650	3100	2150	3400	1400	900	600	2x500	700	4 - 3	320	4,2-2	0.18	0.37	2x18	400	3	40,2 - 36,0
ROBUR 1800 2B	3100	3900	2280	3500	1800	1000	800	2x800	1100	5 - 3	500	7,5	0.18	0.37	2x24	400	3	55,7 - 48,0
ROBUR 2200 2B **	3500	4700	2300	3500	2150	1000	1000	2x1000	1450	6 - 3	600	11	0.18	2x0.37	2x30	400	3	71,2 - 60,0
ROBUR 1200 2B AP	2450	2700	2020	3100	1200	800	600	2x400	600	8 - 3	320	7,5-2,2	0.18	0.37	2x12	400	3	31,7 - 24,0
ROBUR 1400 2B AP	2650	3100	2150	3400	1400	900	600	2x500	700	8 - 3	320	4,5-2,2	0.18	0.37	2x18	400	3	43,7 - 36,0
ROBUR 1800 2B AP	3100	3900	2280	3500	1800	1000	800	2x800	1200	8 - 3	500	15,3	0.18	0.37	2x24	400	3	63,2 - 48,0
ROBUR 2200 2B AP **	3500	4700	2300	3500	2150	1000	1000	2x1000	1500	8 - 3	600	15,3	0.18	2x0.37	2x30	400	3	75,2 - 60,0

Maximum electrical input control with "ENERGY SAVING" function ↑

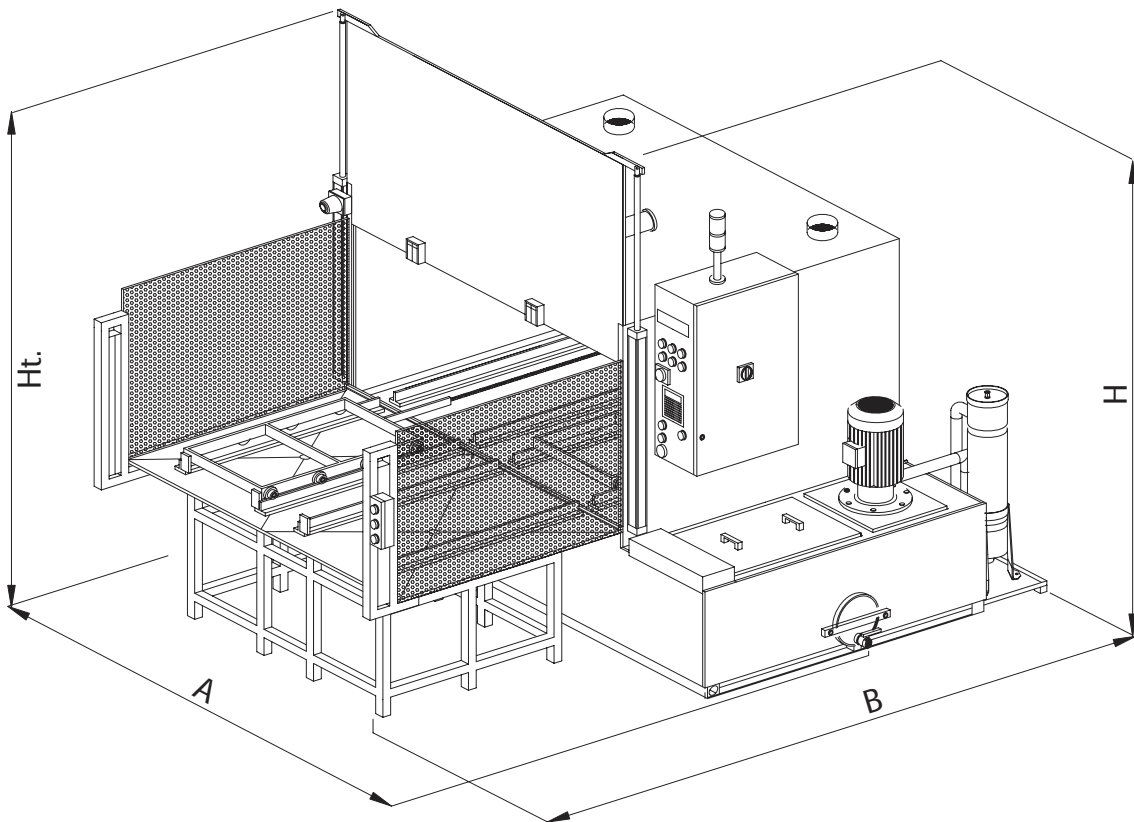
*Including insulation against thermal and contact risks accessories excluded

** Systems with rotating washing piping and fixed platform



ROBUR 1B

ROBUR 2B



Calibrated washing systems for big size parts



ROBOJET^{patented}

NEW

Innovative and patented system designed to carry out **washing operations of complex parts with hard-to-reach surfaces.**

This new **calibrated and positioned washing system** allows you to work with different sequences of pieces by simply choosing the corresponding program.

By using one of the most advanced patented washing systems on the market today, you can program the movement of the washing nozzles in relationship to the movement of the pieces so they are sure to reach the most difficult areas to clean (blind holes, internal chambers, fluid circulation ducts, etc.) according to a programmable procedure developed to guarantee that the cleaning parameters required are met. The liquids used are hot water and biodegradable detergent solutions, all extensively tested so as to assure the best results.

Computerized Logical Programming (PLC) runs all system functions and especially controls the following processes:

- Jet spray movement;
- Piece movement;

- The use of only those jets which are strictly necessary.

The PLC can **handle different washing programs.**

This system operates on pre-set modes and sequences with respect to shapes that have been memorised by the computer. It can be set to either completely wash the loaded parts or just certain areas of them, which assures particularly precise and efficient cleaning.

This allows considerable savings in terms of time, labour, energy and detergents, with a **considerable reduction in the amount of waste liquid to be drained and in the separate recovery of contaminants** (chips, oil, grease, etc.). This system is made up of a washing chamber with a separate tank and a high pressure vertical pump. The loading base, installed on a mobile trolley, is equipped with calibrated housings which hold the pieces and allow for easy handling.

In summary, the operational phases are the following:

- Loading of the piece on the appropriate calibrated housing;

- The following washing cycle is started by pushing a button:

- Loading the piece into the washing chamber;
- Closing the washing chamber door;
- Starting the washing, blowing and drying cycles on the basis of the types of pieces to be washed,
- Steam aspiration (and condensation if required);
- Opening of the washing chamber door;
- Moving of the piece back to the starting point;
- The operator can now take the piece out and put a new one in.

This process, exclusively developed by TEKNOX, obtains results which satisfy the **UNI 4406** quality standards

Automatic: door closing, carrying out of the cycle, basket centring and door opening

- **30% energy saving with HT models**



12-13

TEKNOX

ROTOR system for washing of small parts with water and biodegradable detergents

The ROTOR washing system consists of a washing chamber with a drum that rotates along a horizontal axis, into which a rectangular basket containing the parts to be washed is introduced.

ROTOR uses hot water and biodegradable detergents and has been specifically designed for treating small parts made of aluminium, brass, bronze, steel, etc.

ROTOR has demonstrated to be effective above all in treating delicate small parts with external threads

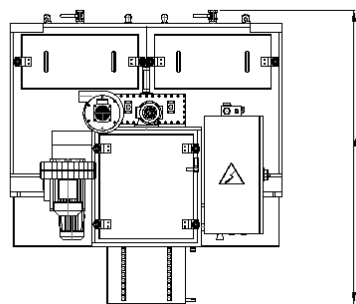
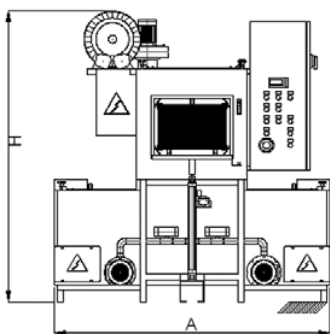
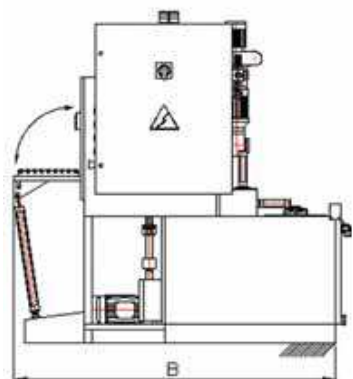
and threaded holes, thanks to the possibility of washing these parts by immersion using different rotation systems (e.g. full rotation or rocking of the basket).

The treatment cycle performed by ROTOR is the following:

- Immersion washing
- Spray washing
- Immersion rinsing (2-bath model)
- Spray rinsing (2-bath model)
- Blowing
- Drying

Treatment times range from 10 to 25 minutes, depending on the parts to be washed.

• 30% energy saving with HT models



MOD.	Dimensions (mm)			Working Dimensions			Tank		Pump			Mech. Rot.	Exhaust.	Dryng.	TOT. KW
	A	B	H	Dimensions mm LxP	H1	Load Kg	Lt	KW	bar	lt/min	Kw	Kw	Kw		OPTIONAL Kw(3 PH)
ROTOR 400 HT	1700	1800	2200	420x300	200	40	350	8	2,5	100	0,5	0,18	0,25	5,25	15 - 8
ROTOR 400 2B HT	1800	1800	2200	420x300	200	40	2x350	16	2,5	100	2x0,5	0,18	0,25	5,25	22 - 16
ROTOR 600 HT	1800	2000	2200	600x450	300	50	400	16	2,5	100	1	0,37	0,25	5,25	23 - 16
ROTOR 600 2B HT	1900	2000	2200	600x450	300	50	2x400	24	2,5	100	2x1	0,37	0,25	5,25	28 - 24

Maximum electrical input control with "ENERGY SAVING" function ↑



Washing
installations for
small parts

ROTOR

NEW



Rotor

ROTOR 600 2B HT
+ load/unload station



CE



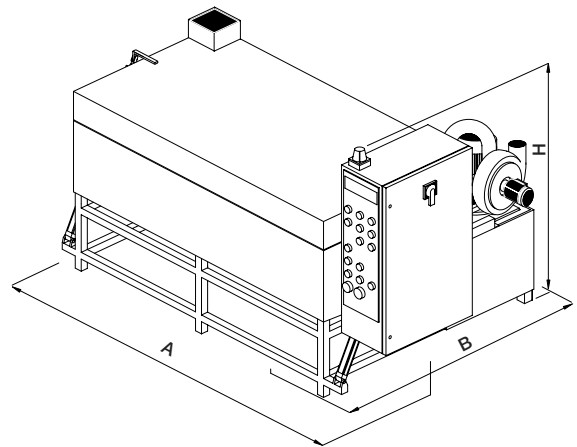
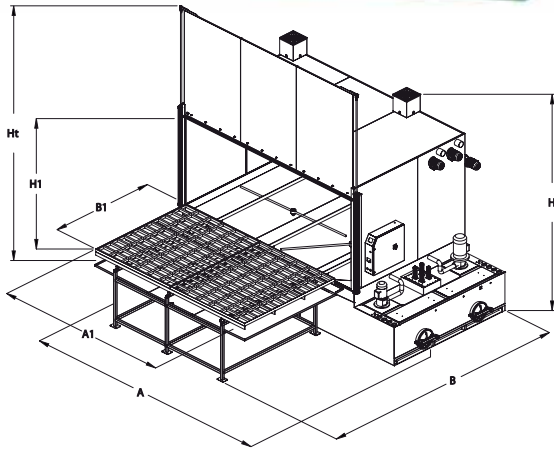
14-15

TEKNOX

LINEARJET



LINEARJET MAXI



MOD.

WITH OVERTURNING WASHING CHAMBER

MOD.	Dimensions mm			Working Dimensions				Tank Capacity	Pump			Med. Rot.	Exhauster	Heat	TOTAL.	
	A	B	H	A1	B1	H1	Load kg		It	bar lav.	lt/min					kW
1 Bath																
LINEARJET 1000 R	1400	1600	1600	1000	500	400	200	400	4/5	280	4	0.18	0.25	16	21 - 16	
LINEARJET 1500 R	3000	1500	1800	1500	1000	600	500	500	4/5	280	4	0.18	0.25	18	23 - 18	
LINEARJET 2000 R	3500	1600	1800	2000	1100	600	800	800	4/5	500	5,5	0.18	0.55	30	37 - 30	
LINEARJET 3000 R	4500	1700	2000	3000	1200	600	800	1000	4/5	500	7,5	0.18	0.55	40	49 - 40	
2 Baths																
LINEARJET 1500 R 2B	3500	1500	1800	1500	1000	600	500	2x400	4/5	280	4+2,2	0.18	0.25	2x12	29 - 24	
LINEARJET 2000 R 2B	4000	1600	1800	2000	1100	600	800	2x600	4/5	500	5,5+3	0.18	0.55	2x30	67 - 40	
LINEARJET 3000 R 2B	4900	1700	2000	3000	1200	600	800	2x800	4/5	800	7,5+4	0.18	0.55	2x30	69 - 60	

WITH VERTICAL DOOR

MOD.	Dimensions mm			Working Dimensions				Tank Capacity	Pump			Med. Rot.	Exhauster	Heat	TOTAL.	
	A	B	H	A1	B1	H1	Load kg		It	bar lav.	lt/min					kW
1 Bath																
LINEARJET 1500	3000	1500	2200	1500	1000	1000	500	500	4/5	280	4	0.18	0.25	16	21 - 16	
LINEARJET 2000	3500	1600	2400	2000	1100	1200	800	1000	4/5	500	5,5	0.18	0.55	24	31 - 24	
LINEARJET 3000	4500	1700	2700	3000	1200	1500	800	1200	4/5	800	7,5	0.18	0.55	30	39 - 30	
2 Baths																
LINEARJET 1500 2B	3500	1500	2200	1500	1000	1000	500	2x400	4/5	280	4+3	0.18	0.25	2x16	37 - 32	
LINEARJET 2000 2B	4000	1600	2400	2000	1100	1200	800	2x600	4/5	500	5,5+3	0.18	0.55	2x20	67 - 40	
LINEARJET 3000 2B	4900	1700	2700	3000	1200	1500	800	2x800	4/5	800	7,5+4	0.18	0.55	2x30	69 - 70	
Mod. HT for T > 60° C	+50	+50	+50													

Maximum electrical input control with "ENERGY SAVING" function ↑

Washing installations with fixed platform and jets moving



LINEARJET

LINEARJET

NEW

DGT



Used to wash elements whose shape or weight requires special solutions, e.g.:

- Very long and narrow pieces, such as tubes (internal washing);
- Very heavy pieces, over 10 tons, such as benches, mouldings of machine tools or particularly bulky containers.

We develop the following three series:

LINEARJET:

Suitable for medium sized loads, with vertical door and front loading platform;

LINERAJET R:

Ideal for smaller sized pieces, with tip-up chamber and quick loading from above;

LINEARJET MAXI:

Suitable for large or heavy pieces, it has underground tanks and floor level trolley for pieces. It is also available in a 2 door (front and back) version, with loading/unloading station on either side of the machine.

All models are available in two or several bath versions.

Automatic: door closing, carrying out of the cycle, basket centring and door opening

- **30% energy saving with HT models**

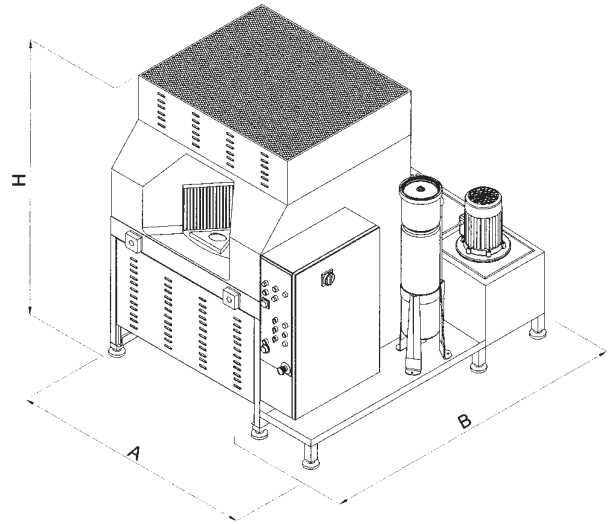


LINERAJET R



16-17

TEKNOX



MOD.

MOD.	Dimensions mm			Working Dimensions				Tank Capacity lt	Pump			Mech. Rot. kW	Exhauster kW	Heat kW	TOTAL kW(3-ph)
	A	B	H	A1	B1	H1	Load kg		bar lav.	lt/min	kW				
1 Bath															
GR 1000	1860	1880	1800	200	200	250	10	400	3	180	2,2	0,18	3 x 0,25	10	13
GR 1200	2060	2000	1900	300	300	350	20	500	4	220	3	0,18	3 x 0,25	18	22
GR 1400	2300	2200	2100	400	400	450	30	700	4	280	3	0,18	3 x 0,25	24	28
2 Baths															
GR 1200 2B	2060	2000	1900	300	300	350	20	500	4	220	3+2,2	0,18	3 x 0,25	18	25
GR 1400 2B	2300	2200	2100	400	400	450	30	700	4	280	4+2,2	0,18	3 x 0,25	24	31

Calibrated
washing
systems for
small
dimensions
parts

ROUNDJET

NEW



This series of installations performs a continuous washing system with different operating phases according to needs.

The operating process of Roundjet makes use of the exclusive experience assimilated by TEKNOX in the sector of calibrated and positioned washing systems, knowledge which enabled it to develop an especially efficient, technologically advanced product. The high cleaning capacity is guaranteed by a "global" closed-cycle treatment, especially designed for working continuously on series of parts.

A highly uniform treatment of surfaces is ensured by the slow mechanical rotation of the carousel parts-holder which is equipped with a safety clutch.

The automatic steam evacuation system carries out a pre-drying cycle and the total evacuation of the steam which has built up during the washing cycle.

The operating cycle consists of a variable number of phases, from six to ten. Starting from the loading station, the continuous rotation (step by step) allows passage through the subsequent treatment phases, until the piece is taken back to the starting position for unloading.

For example, the phases could be:

- loading;
- steam aspiration;
- washing;
- pause;
- rinse (in models with two baths);
- pause;
- blowing;
- drying (if required);
- steam aspiration;
- unloading

The range includes models with **one or two baths**.

General features:

- Tip-up opening of the washing chamber for inspection and maintenance purposes;

- TEKNOX parts-carrying system with interchangeable islands and specially calibrated housings (designed on the basis of the conformation of the parts, they ensure their proper positioning and improve the washing efficiency).
- blowing cycle
- 6 – 8 or 10-phase carousel (according to treatment needs);
- heat insulation;
- large-size stainless steel filter;
- calibrated plates for holding parts (replaceable);
- vertical pump immersed in the tank;
- separate high-capacity tank with cover to allow cleaning;
- positioned and calibrated washing.

- **30% energy saving with HT models**

18-19

TEKNOX

Tunnel washing systems



The features of these systems have been specifically studied for treatment and the finishing of mechanical parts of a complex and serial nature. In accordance with the requirements of the treatment to be carried out on the pieces, they can be single-stage or multi-stage with final drying.

The characteristic elements which distinguish them are:

- the automation of the washing cycle;
- the optimisation of treatment parameters without the need of constant control by specialized operators;
- a considerable saving of labour regarding the movement of the parts and of the personnel involved in washing, as these systems can be connected directly to the exit of the working machines;
- considerable improvement of results on complex parts which present difficult to reach zones, as the washing is carried out, piece by piece, according to calibrated procedures which take into account their physical shape;
- the application of new construction technology which has as its

aim the saving of energy and the reduction of pollution;

- the research of the most favourable opportunities to improve the washing quality.

CALIBRATED WASHING

Special installations provided with calibrated and positioned washing with washing's quality leaving residues of less than 0.1 mg.

The principle of calibrated washing originated as the result of the difficulties of obtaining the total treatment of pieces with blind holes, internal chambers, lubricating circuits, etc. which, due to their features, are more exposed to the accumulation of contaminating elements. These residues, in the finished group, may bring to serious malfunctions, defective assemblages or errors in subsequent mechanical treatments.

While, in the past, the mechanical parts washing simply involved degreasing, for the above reasons, today we must treat different problems such as:

- nature of contaminants;
- types of processing residues;
- requested characteristics of the

mechanical processes;

- degree of quality desired from the washing process (See ISO 4406 Norms);
- protection and maintenance;
- arrangements for subsequent treatments.

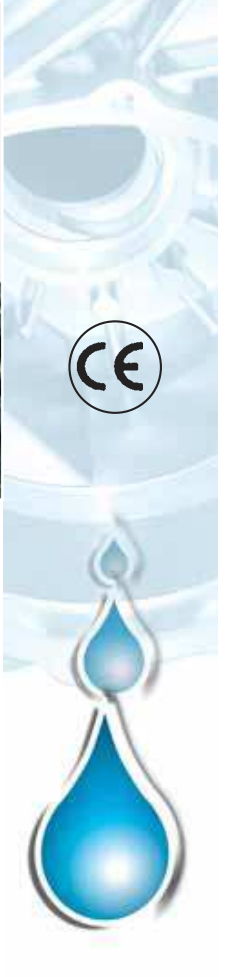
It is for these reasons, namely guaranteeing the functionality, reliability and duration over time of mechanical components present in the progressively more complex and sophisticated machinery, that we place the specific and technologically advanced quality of our products at the disposal of our Clients.

Our progress is characterised by the construction of washing installations which are always more complex in nature and constantly furnish the incentive for the research and development of new solutions.



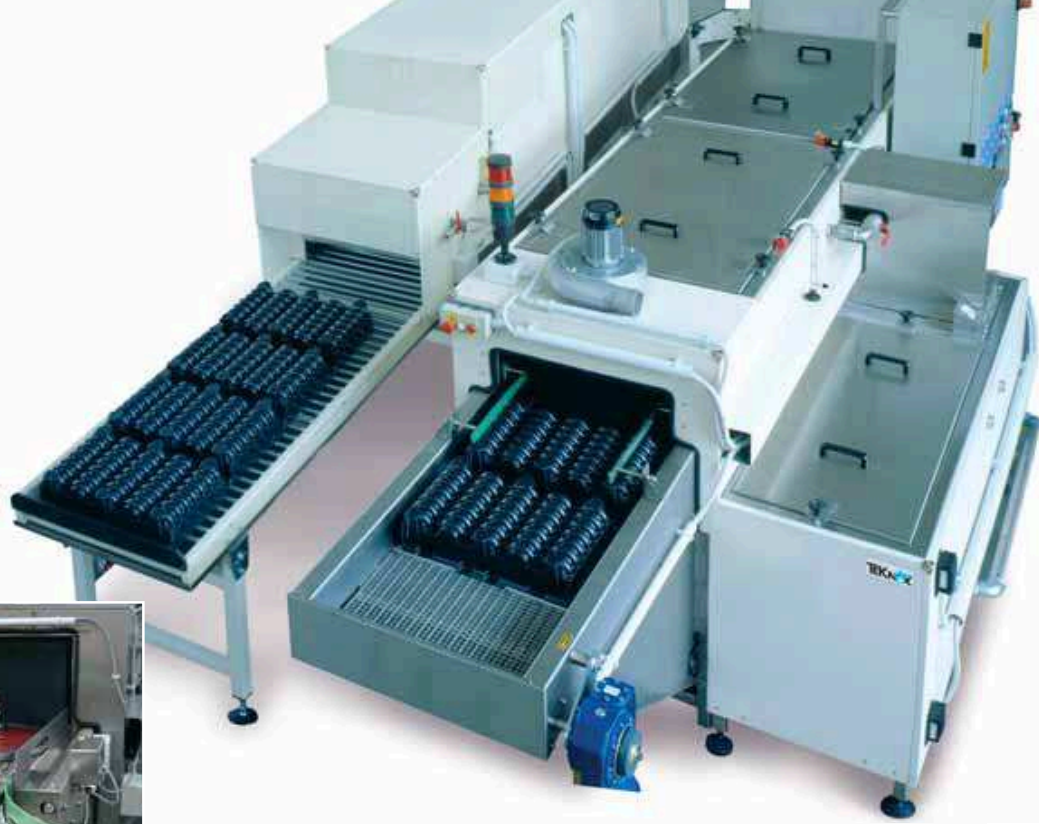
TUNNEL linear

NEW



TUNNEL oval

NEW

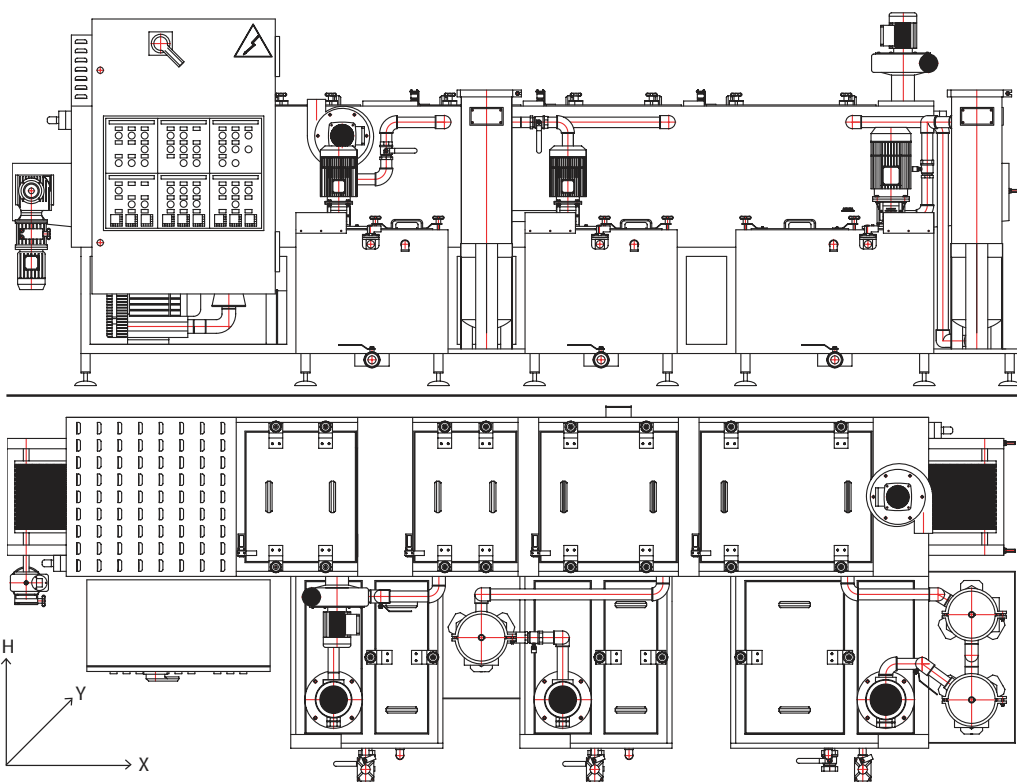


Oval tunnel with internal/external calibrated washing



TUNNEL for pipe

NEW



MOD.	External dimensions			Washing capacity				Capacity Lt	Blowing		Pump		Mech. Rot. kW	Exhauster kW	Heating tan kW	Drying kW	TOTAL kW (3-ph)
	X	Y mm	H	X ₁	Y ₁ mm	H ₁	Load Kg/m		Lt/min	bar	Lt/min	kW					
1 Bath																	
ITT 150x200x3	2800	1000	1500	150	150	200	20	300	1000/2000	2	300	2,2	0,18	1 x 0,25	8	5,5	16
ITT 300x300x3	3000	1500	1700	300	300	300	40	600	2000/4000	3	340	3	0,25	1 x 0,25	18	5,5	27
ITT 500x400x3	4200	1800	1800	500	400	400	60	800	3000/6000	3	380	4	0,50	2 x 0,50	24	12	42
ITT 800x500x3	5200	2200	2200	800	500	500	80	1000	3000/6000	4	400	5,5	0,50	2 x 0,50	30	12	49
2 Bath																	
ITT 150x200x3	3400	1000	1800	150	150	200	20	300	1000/2000	2	300	2,2	0,18	2 x 0,25	12	5,5	28
2° TANK								200		1	300	1,1			6		
ITT 300x300x5	3600	2000	1900	300	300	300	40	500	2000/4000	3	340	3	0,18	2 x 0,25	16	5,5	40
2° TANK								400		2	350	2,2			12		
ITT 500x400x5	4800	2200	2100	500	400	400	60	600	3000/6000	4	400	5,5	0,18	2 x 0,50	18	12	55
2° TANK								500		2	350	2,2			16		
ITT 800x500x5	5800	2200	2100	800	500	500	80	800	3000/6000	4	700	7,5	0,50	2 x 0,50	24	12	66
2° TANK								600		1,5	400	3			18		

Oil separator for non-soluble oils

NEW



DIS OIL separates non-soluble oil from the water used for parts washing processes.

DIS OIL is designed to recover non-soluble oils from parts washing machines and storage tanks.

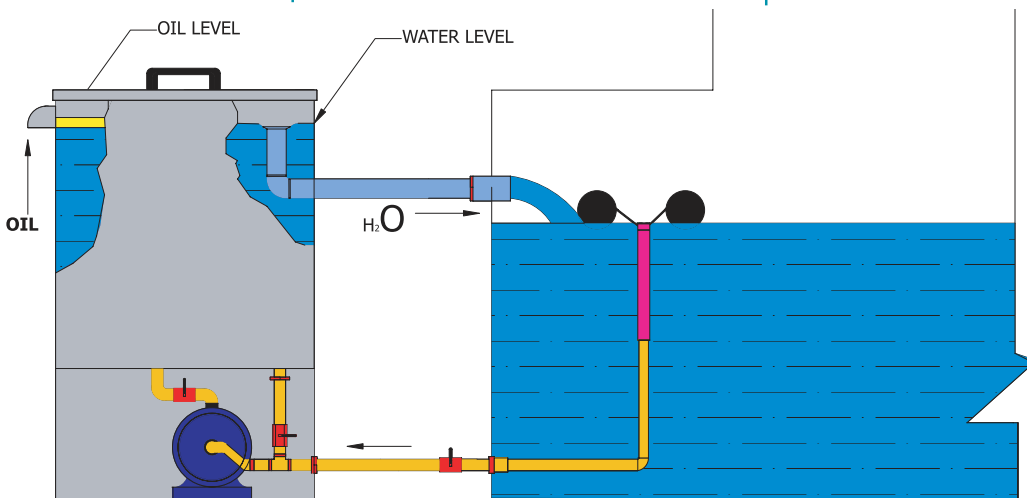
The principle of **DIS OIL** is based on a series of communicating tanks which separate the oil from the drawn fluid by relying on differences in height.

After the treatment the water and oil are discharged from two separate outlets; the water returns into the tank and the oil is col-

lected in a specific container for subsequent recovery or treatment.

Also available is a **DISOIL A** version, specifically engineered to draw oils from underground tanks or reservoirs, i.e. with a fluid level below the oil separator pump (which in this model is self-priming).

DIS OIL operates in an extremely simple and quiet manner.



MOD.	Dimensions mm			Mass *	Pump		Recovered oil	Power supply	
	L	P	H	KG	KW	lt/min	lh	V	PH
DIS OIL	450	500	900	45	0,37	10 - 30	1 - 5	230 - 240	3
DIS OIL A	450	500	900	48	0,37	10 - 30	1 - 5	230 - 240	3
DIS OIL M	450	500	900	45	0,37	10 - 30	1 - 5	230	1

* Basic model: accessoires excluded

2M01TUJ102 201MG 2AMH2 AWV

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