

 **torbo**<sup>®</sup>

Technology  
Applications  
Advantages

versatile • economic • environmentally safe

versatile • economic • environmentally safe

## Complex, but simple

Customers the world over have realized the complex technology of the torbo blasting systems has made blasting jobs easier to deal with, without making the equipment difficult to operate. The patented process offers nearly unlimited operation possibilities, incomparable handling ease, exceptional cost savings, and substantial environmental protection.

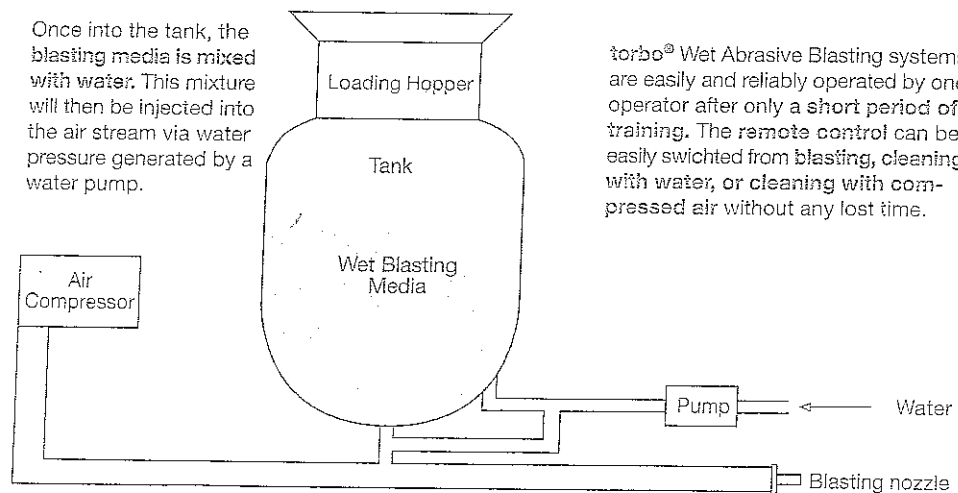
The tank (which is available with a capacity from 2.6 cu.ft. up to 13 cu.ft. < 80 up to 320 ltrs>; and can be extended up to a capacity of 130 cu.ft. if required) may be filled with any type of blasting media heavier than water. Dry, moist, and wet blasting media may be used.

The blasting media/water mixture from the vessel is injected into the air stream by means of water pressure. Since the blasting media is encased in water from the beginning, the normal development of dust emissions is virtually non-existent.

The tank may be filled with any blasting media heavier than water (i.e., most conventional blasting medias). The media (abrasive) may be dry, moist, or wet.

Once into the tank, the blasting media is mixed with water. This mixture will then be injected into the air stream via water pressure generated by a water pump.

torbo® Wet Abrasive Blasting systems are easily and reliably operated by one operator after only a short period of training. The remote control can be easily switched from blasting, cleaning with water, or cleaning with compressed air without any lost time.

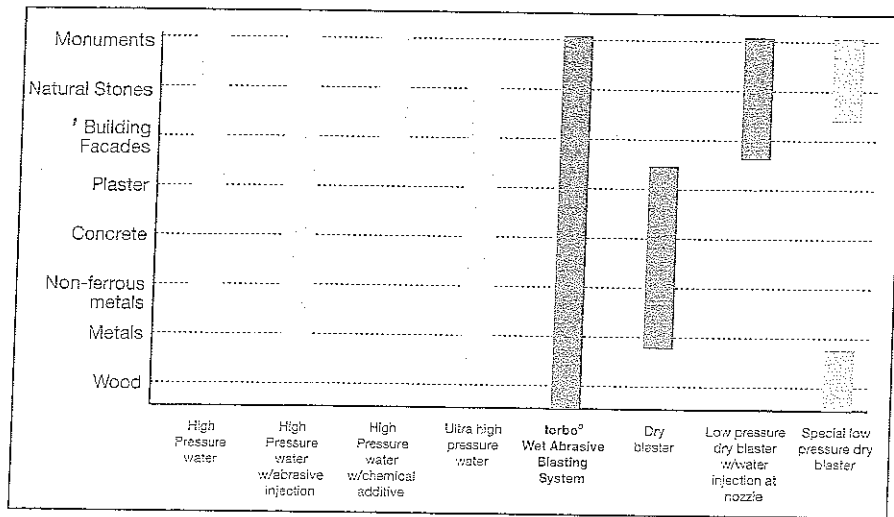


The volume of air flow during blasting can be set from soft to powerful, while the percentage of water and the pressure of the air compressor can also be adjusted at the machine.

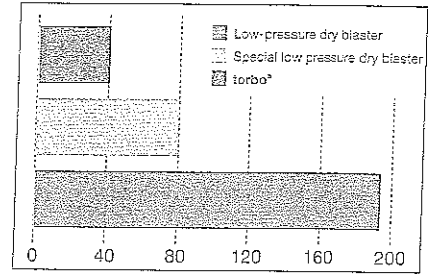
The blasting media is coated with water right from the filling process, because of this, the development of dust during blasting is substantially reduced.

torbo® - The most economic wet abrasive blasting system with the largest operation range!

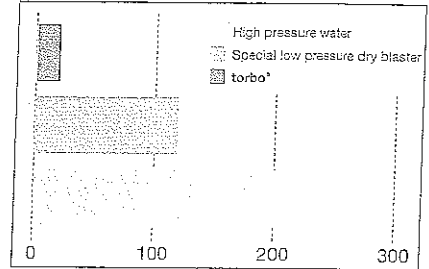
Examples for consumption of blasting media in kg/h



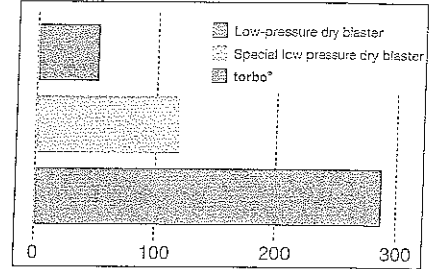
Monuments



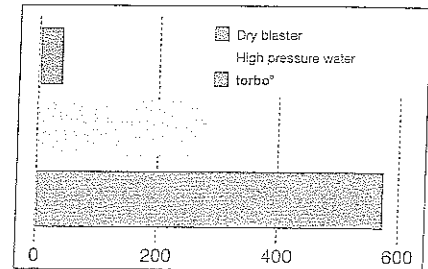
Building Facades



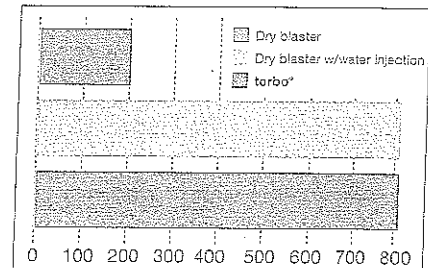
Natural Stones



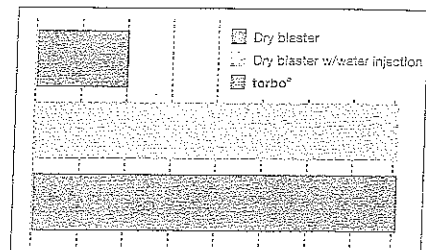
Plaster



Concrete

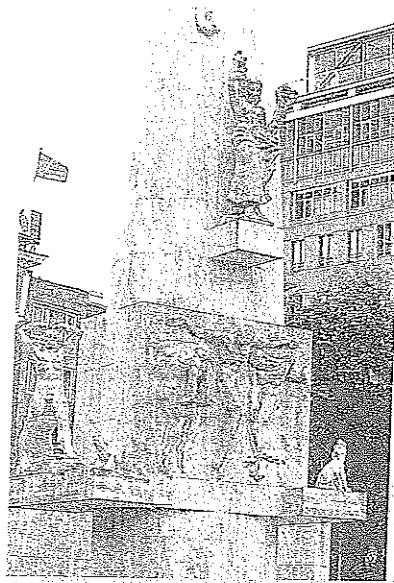
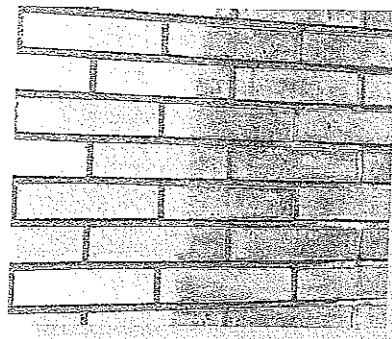


Metals



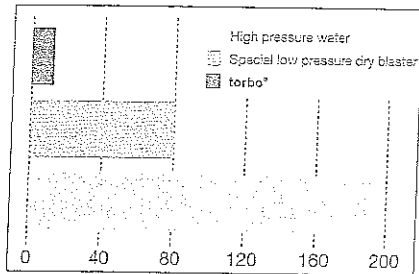
It does not matter what surface you are talking about - all torbo systems distinguish themselves by perfect results on operations of all kinds.

Thanks to the variety of adjustments possibilities, the intensity of blasting ranges from gentle to powerful, enabling the operator to choose surfaces such as monuments, natural stones or building facades, plaster, concrete brick, metals or wood.

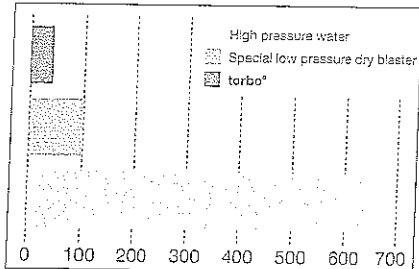


Examples for consumption of water l/h

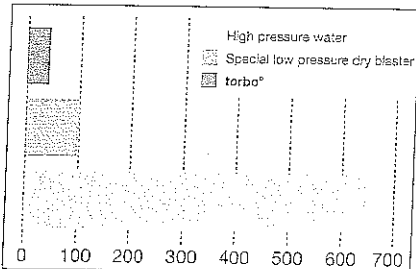
Monuments



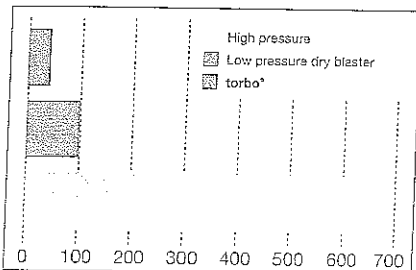
Building Facades



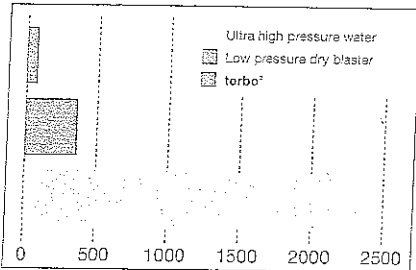
Natural Stones



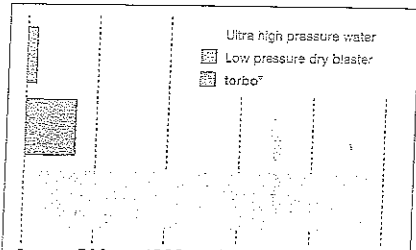
Plaster



Concrete



Metals



## Have a look at the advantages:

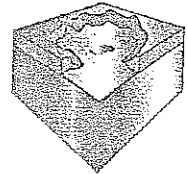
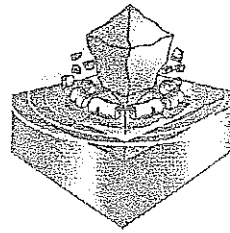
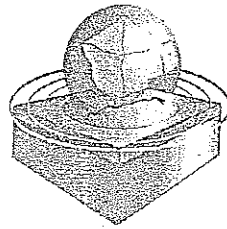
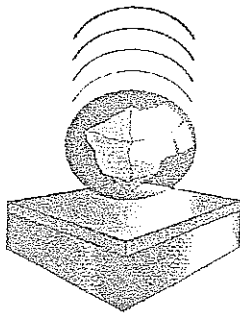
- ⇒ High coverage
- ⇒ Consumption of blasting media reduced by 60 %
- ⇒ Very low consumption of water
- ⇒ Multiple use of blasting media is possible
- ⇒ Minimized or no-containment required
- ⇒ Dry blasting media not required (saves storage costs)
- ⇒ Long service life of all parts subject to wear
- ⇒ Adjustment possibilities for every job scenario
- ⇒ Rust inhibitor injection available
- ⇒ Can blast up to 800 ft. in height



WET ABRASIVE BLASTING SYSTEMS

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 Keizer Technologies Americas, Inc.  
 10008 S. Dinaline Road

## HOW IT WORKS...



<p><b>1</b></p> <p>Each grain is micro encapsulated with water, held on by surface tension. This increases the mass of the grit to increase the hitting power. It also files as a perfect sphere in the air flow, increasing the speed and is lubricated to almost eliminate hose and nozzle wear.</p>	<p><b>2</b></p> <p>Bang! the grit stops dead, embedding in the surface coating. The water jacket continues moving but still holding onto the grain by surface tension, giving a second hammer blow and stopping any grit bounce.</p>	<p><b>3</b></p> <p>Bang! the water jacket jerks round the grit into the crack, under the coating and hydrostatically blasts a large amount of surface coating away.</p>	<p><b>4</b></p> <p>The end result – a profiled surface, feathered edges and the most efficient use of the least amount of grit and water possible.</p>
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versatile • economic • environmentally safe

 **torbo**<sup>®</sup>

Surface preparation  
of steel

Corrosion prevention

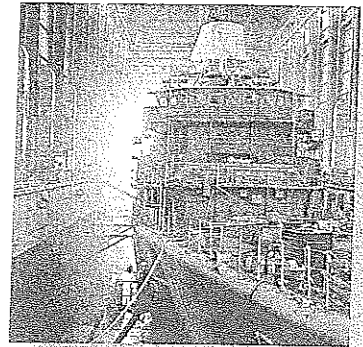
Concrete preparation  
and renovation

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## Powerful, but controllable

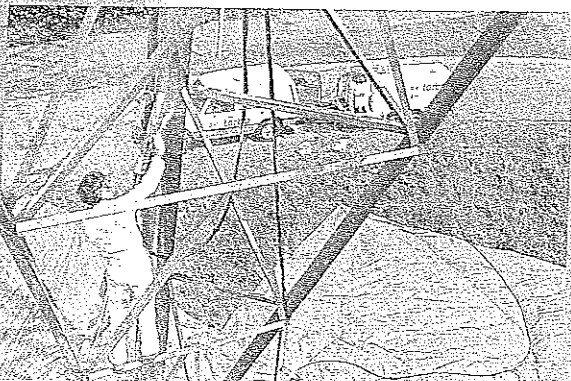
The torbo blasting system allows full flexibility to accommodate changes in the surface being cleaned / blasted. In contrast to other blasting procedures, the torbo is adjustable at will, which allows the operator to go from heavy blasting to gentle cleaning as the surface dictates.

The torbo system handles industrial maintenance applications, such as cleaning or removing layers of concrete, removal of paint by layers, total coating removal to specified degree of cleanliness (white metal etc.) or removal of oxidized layers from steel, with ease. The torbo system is also very effective in sensitive applications such as the petrochemical industry, where sparks or static electricity are prohibitive (by coating each particle of the blast medium with water, the torbo system effectively eliminates this concern).



With torbo systems your bottom line per blasting hour is lower. By reducing abrasive consumption by up to 60 % and consumption of water per area-unit drastically, the advantages are obvious: You give some relief to your wallet as well as the environment.

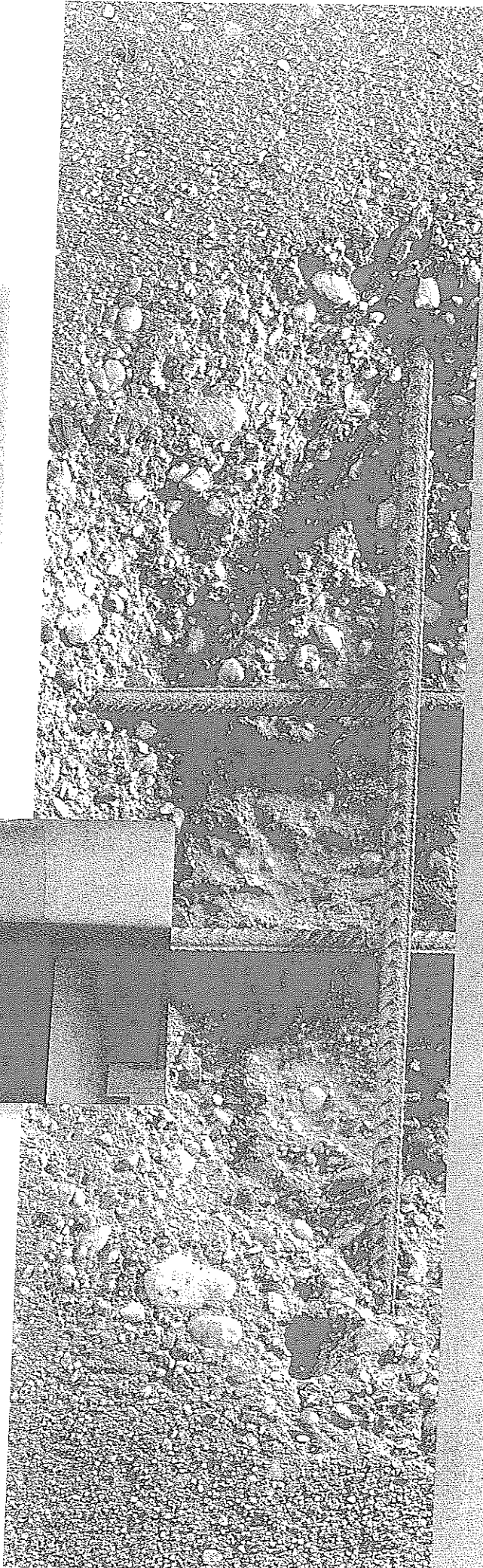
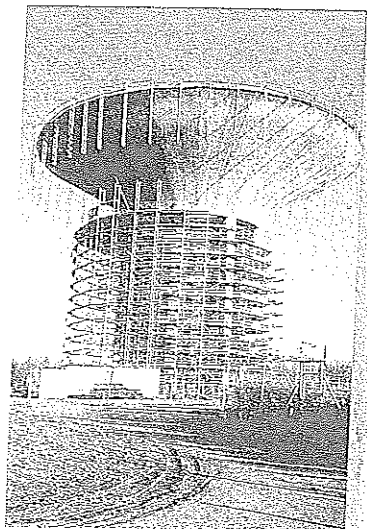
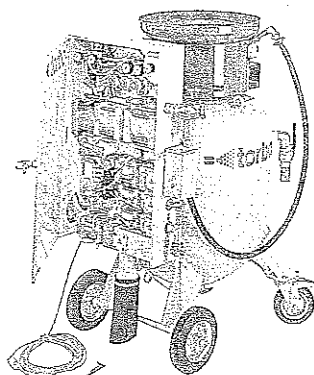
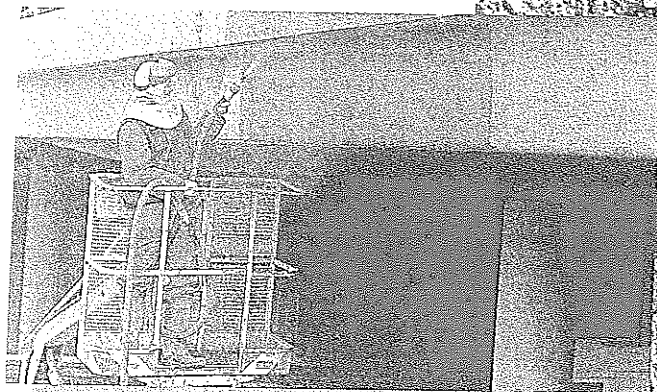
Another benefit of the torbo systems is the extended service life of blasting hoses and nozzles. These high wear accessories last four times as long due to the reduced friction from the water encased blasting media particles.





Another positive effect on ecology and economy, is a 95 % dust reduction when using torbo systems. This allows minimized or no containment, and no dust collectors or negative pressure. Further it allows complete and easy access around the entire structure being cleaned / blasted. There is also no need for air supplied hoods, which pleases the employee, as well as public perception of the work being performed.

The additional advantage of giving the operator full control of the machine at the blast nozzle by remote control, allows for less laborers.



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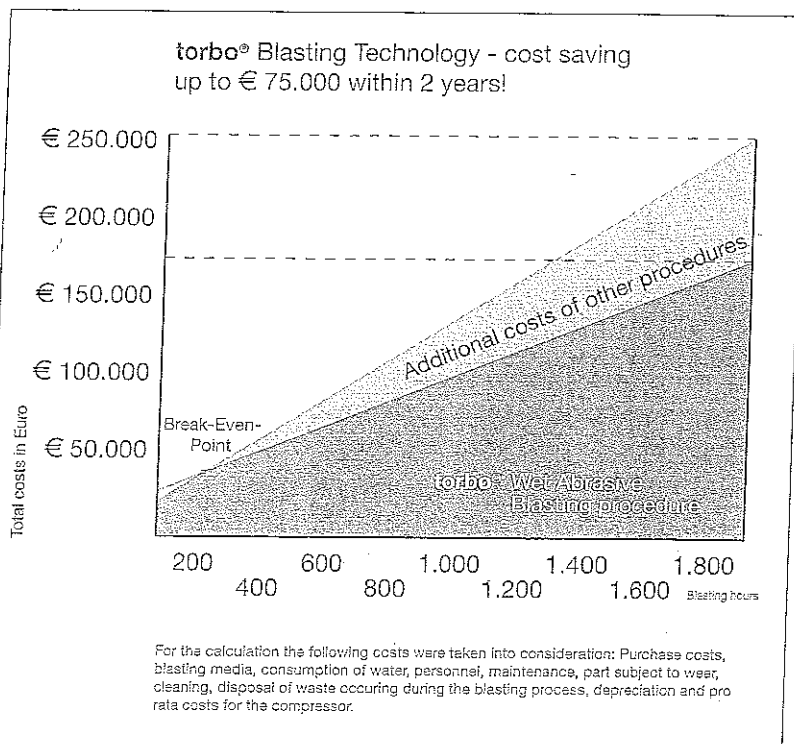
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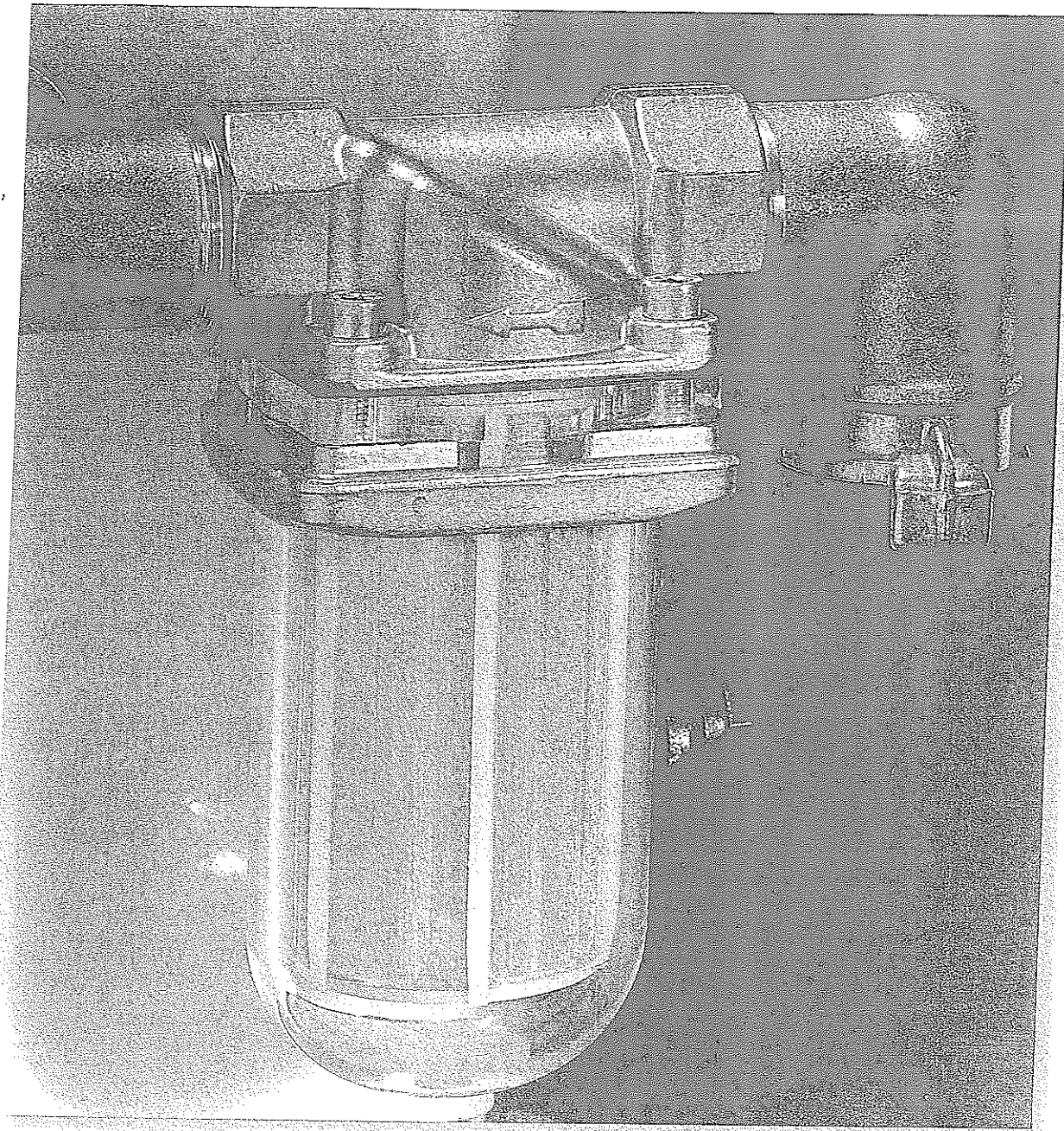
## Have a look at the advantages:

- High coverage
- Consumption of blasting media reduced by 60%
- Very low consumption of water
- Multiple use of blasting media is possible
- Minimized or no containment required
- Dry blasting media not required (saves storage costs)
- Long service life of all parts subject to wear
- Adjustment possibilities for every job scenario
- Rust inhibitor injection available
- Can blast up to 800 ft. in height



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Euless, TX 76040





 **torbo**<sup>®</sup>

torbo<sup>®</sup> L200/XL200

torbo<sup>®</sup> L320/XL320

torbocar AC 52

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## Strong, versatile and cost effective

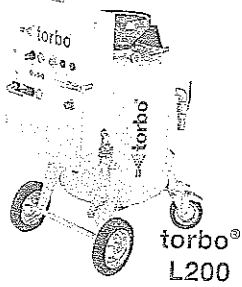
The „big boys“ of the torbo product family. This group of torbo's were designed for heavy commercial and industrial work, where high production rates are required. Even though they were intended for the high production market, detailed and softer applications are intrinsic to all torbo products.

The tank capacities run from 7 cu.ft. to 13 cu.ft. (200 to 320 ltrs.), with larger sizes available as custom designs. Trailer mounted models are custom designed to meet customer specific needs i.e., compressors, water tanks, work boxes, hose winches, goose neck, bumper pull, etc.

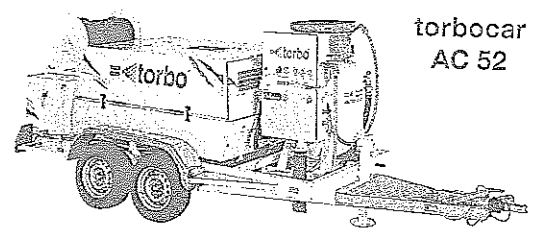
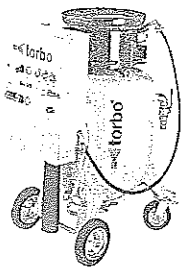
These units will handle all kinds of commercial and industrial applications i.e., removal of concrete or paint

by the layer, removal of rust, simple cleaning, taking metal to any degree of blast cleanliness, etc. torbo is the choice of many coatings manufactures for pretreatment of the surfaces to be coated.

In those industries where sparks or static charges are unacceptable, torbo is the answer. By coating each abrasive particle with water, prior to the nozzle, the problem is eliminated.



torbo®  
XL320



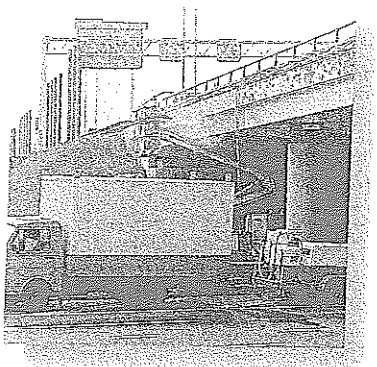
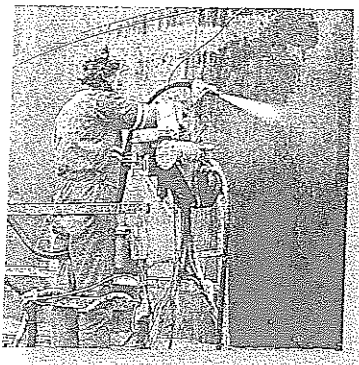
torbocar  
AC 52

		torbo® L200/XL200	torbo® L320/XL320	torbocar AC 52
Volume of vessel	l/dm³	200	320	320
	Cu. ft.	7,0	11,4	11,4
Vessel pressure (max.)	bar/PSI	12/170	12/170	12/170
Weight (empty)	kg (ca.)	215-300	240-320	1.770-1.850
	lbs. (ca.)	470-660	525-710	2.895-4.070
Permissible total weight	kg	1.000	1.000	2.000
	lbs.	2.200	2.200	4.400
Dimensions (height x width x depth)	mm	1.360 x 1.100 x 750	1.490 x 1.260 x 750	1.970 x 5.150 x 1.800
	inches	54 x 44 x 30	59 x 50 x 30	78 x 203 x 71
Size air-connection	mm	38/49	38/49	38/49
	inches	1 1/2 / 2	1 1/2 / 2	1 1/2 / 2
Compressor	type	-	-	CompAir
Air Connection	m³/min.	2,0-11,0	2,0-11,0	5,5 at 7 bar
(min.-max.)	Cu. ft. per min.	70-385	70-385	
	bar	4,0-10,0	4,0-10,0	8,0
	PSI	56-140	56-140	115
Connected power	Volt/Watt	12/1,2	12/1,2	12/1,2
Pressurized water (min.-max.)	bar	0,0-12	0,0-12	Watertank
	PSI	0,0-170	0,0-170	
Connection blasting hose	mm/inches	32/ 1 1/4	32/ 1 1/4	32/ 1 1/4
Consumption of blasting media	l/h	29-288	29-288	29-288
(min.-max.)	Cu. ft. per h	0,9-9	0,9-9	0,9-9
Standard blasting media mixture	Blasting media/Water	80% / 20%	80% / 20%	80% / 20%
(in vessel)				
Sieve top for:				
Dry blasting media		standard	standard	standard
Wet blasting media		optional	optional	optional
Fast filling device		optional	optional	optional
At the remote control:				
Safety magnetic-switch		standard	standard	standard
Function „blasting“		standard	standard	standard
Function „cleaning“		optional	optional	optional
Function „drying“		optional	optional	optional
At the machine:				
Dosing equipment for blasting media		standard	Standard	standard
Dosing equipment for additional water		optional	optional	optional
Dosing equipment for cleaning water		optional	optional	optional
Switching blasting to cleaning		optional	optional	optional
Setting for blasting pressure		optional	optional	optional
Setting for vessel pressure		standard	standard	standard
ON/Off- and Emergency-switch		standard	standard	standard
Quick-stop QS99 (integrated)	3 sec. per 100 m blasting hose	optional	optional	optional
Quick-stop QE99 (external)	3 sec. per 100 m blasting hose	optional	optional	optional
Compressor	m³/min at 7 bar	-	-	5,5
Watertank	l (circa)	-	-	500
Hose reel for blasting hose	m (circa)	-	-	60
Safety air reserve tank		standard	standard	standard
Filter for water and air		standard	standard	standard

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## Have a look at the advantages:

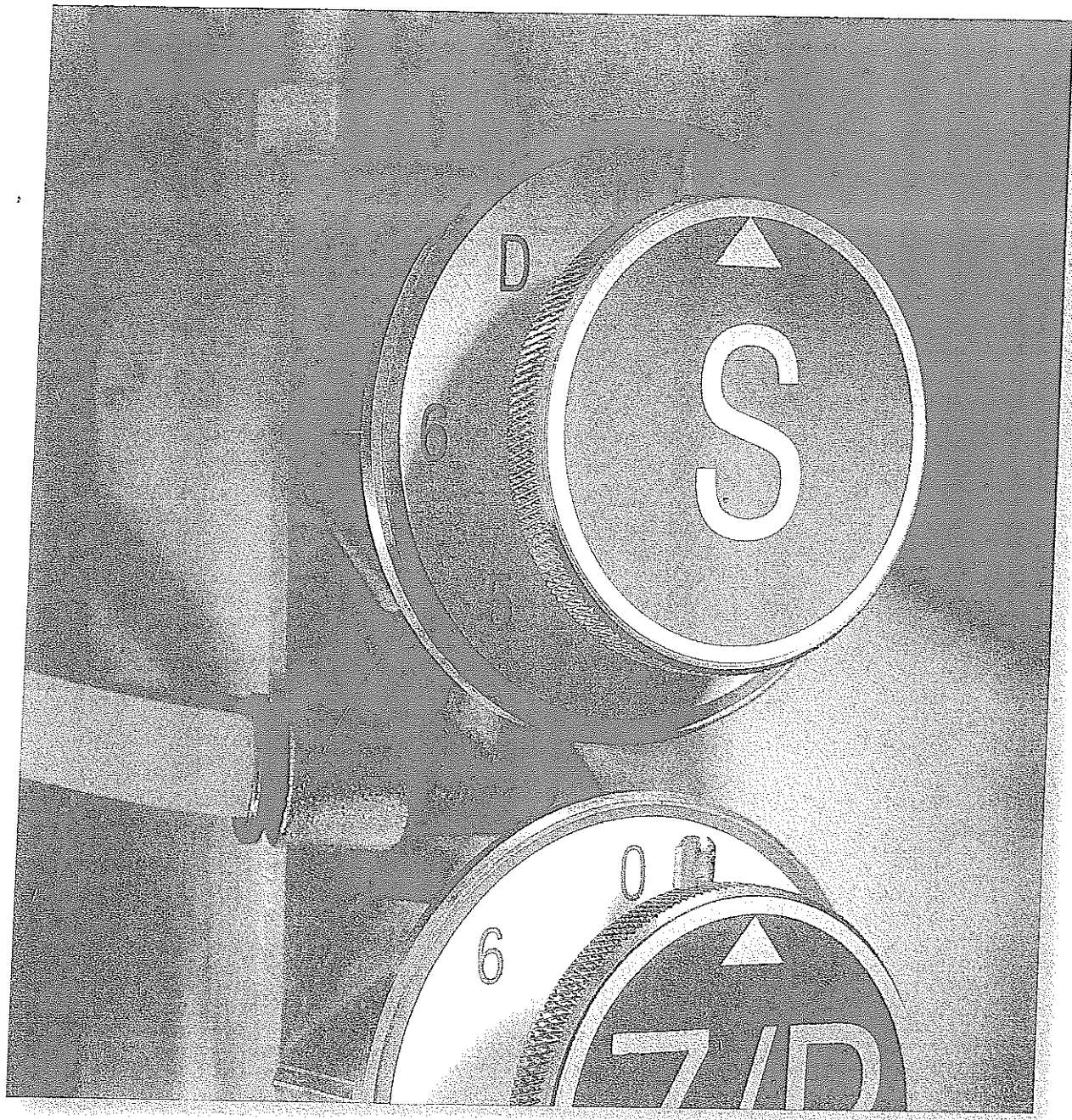
- ⇒ High coverage
- ⇒ Consumption of blasting media reduced by 60%
- ⇒ Very low consumption of water
- ⇒ Minimized or no containment required
- ⇒ Long service life of all parts subject to wear
- ⇒ Dry blasting media not required  
(saves storage costs)
- ⇒ Multiple use of blasting media is possible
- ⇒ Can blast up to 800 ft. in height
- ⇒ Adjustment possibilities for every job scenario
- ⇒ Rust inhibitor injection available



torbo.

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torbo<sup>®</sup> S080/M080

torbo<sup>®</sup> S120/M120

torbocar AC 25/AC 37

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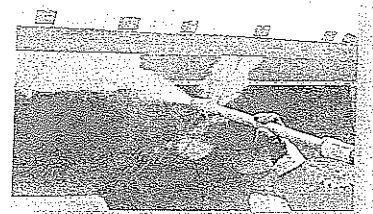
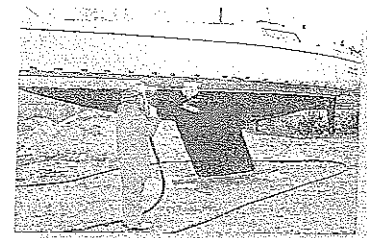
## Versatile and specific

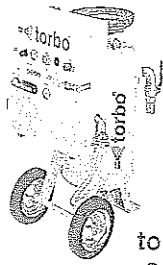
The smallest machines in the torbo product line, hold their own with the „big boys“. These machines were developed to fill the specific needs that larger and heavier equipment could not fulfill. Designed for the gentle / sensitive blasting market, these machines have no equal, while still possessing most all of the capabilities of their „bigger brothers“.

The tank capacities run from 2.6 to 4.2 cu.ft (80 to 120 ltrs.), which allows for maximum mobility, as needed: Whether faced with cleaning sandstone monuments, restoration work or removal of graffiti these machines will „do the job“.

Cutting designs into glass or preservation of historical monuments are no longer the chores they once were. The torbo's ability to use any media heavier than water, which includes all of the „natural“ abrasives, eliminates the concerns about efflorescence or time-delayed chemical reactions. The infinitely variable adjustments of the torbo systems, allow for job specific risk control.

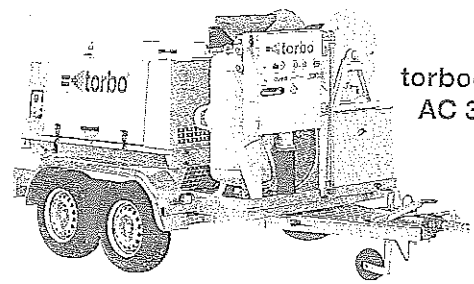
Containment and personal safety gear are almost eliminated by the torbo systems 95 % dust reduction capabilities. Significant operator cost reduction and safety improvements are realized with the use of the nozzle mounted remote control system.





torbo®  
S080

torbo®  
M120

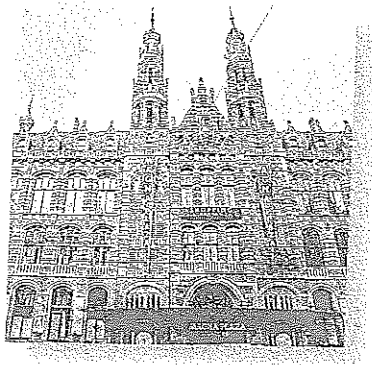


torbocar  
AC 37

		torbo® S080/M080	torbo® S120/M120	torbocar AC 25/AC 37
Volume of vessel	l/dm³	80	120	80/120
	Cu. ft.	2,8	4,2	2,8/4,2
Vessel pressure (max.)	bar/PSI	12/170	12/170	12/170
Weight (empty)	kg (ca.)	120-165	140-180	1.100-1.400
	lbs. (ca.)	265-365	310-395	2.400-3.100
Permissible total weight	kg	500	500	2.000
	lbs.	1.100	1.100	4.400
Dimensions (height x width x depth)	mm	1.130 x 720 x 660	1.220 x 830 x 660	1.620 x 3.800 x 1.850
	inches	45 x 29 x 26	49 x 33 x 26	64 x 151 x 74
Size air-connection	mm	25/32	25/32	25/32
	inches	1 / 1 1/2	1 / 1 1/2	1 / 1 1/2
Compressor	type	-	-	CompAir
Air Connection	m³/min.	2,0-5,0/2,0-10,0	2,0-5,0/2,0-10,0	2,5 at 7 bar/
(min.-max.)	Cu. ft. per min.	70-175/70-350	70-175/70-350	3,8 at 7 bar
	bar	4,0-10,0	4,0-10,0	8,0
	PSI	56-140	56-140	115
Connected power	Volt/Watt	12/1,2	12/1,2	12/1,2
Pressurized water (min.-max.)	bar	0,0-12	0,0-12	watertank
	PSI	0,0-170	0,0-170	
Connection blasting hose	mm/inches	32/ 1 1/4	32/ 1 1/4	32/ 1 1/4
Consumption of blasting media	l/h	19-144	29-288	19-288
(min.-max.)	Cu. ft. per h	0,6-4,5	0,9-9	0,6-9
Standard blasting media mixture	Blasting media/Water	80% / 20%	80% / 20%	80% /20%
(in vessel)				
Sieve top for:				
Dry blasting media		standard	standard	standard
Wet blasting media		N / A	optional	N / A / optional
At the remote control:				
Safety magnetic-switch		standard	standard	standard
Function „blasting“		standard	standard	standard
At the machine:				
Dosing equipment for blasting media		standard	standard	standard
Dosing equipment for additional water		optional	optional	optional
Setting for cleaning water		optional	optional	optional
Switching blasting to cleaning		optional	optional	optional
Setting for blasting pressure		standard	standard	standard
Setting for vessel pressure		standard	standard	standard
ON/Off- and Emergency-switch		standard	standard	standard
Quick-stop QS99 (integrated)	3 sec. per 100 m blasting hose	optional	optional	optional
Quick-stop QE99 (external)	3 sec. per 100 m blasting hose	optional	optional	optional
Compressor	m³/min at 7 bar	-	-	2,6/3,8
Watertank	l (ca.)	-	-	250/250
Hose reel for blasting hose	m (ca.)	-	-	40/40
Safety air reserve tank		standard	standard	standard
Filter for water and air		standard	standard	standard



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## Have a look at the advantages:

- High coverage
- Adjustment possibilities for every job scenario
- No claims, no recourse
- Consumption of blasting media reduced by 60 %
- Very low consumption of water
- Dry blasting media not required (saves storage costs)
- Long service life of all parts subject to wear
- Minimized or no containment required
- Multiple use of blasting media is possible
- Quickly operational

➤ **torbo<sup>®</sup>**  
➤ **torbo.**

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 **torbo**<sup>®</sup>

Cleaning of facades

Preservation of  
monuments

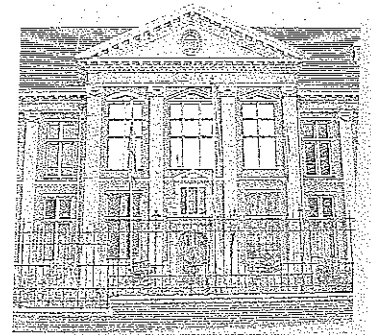
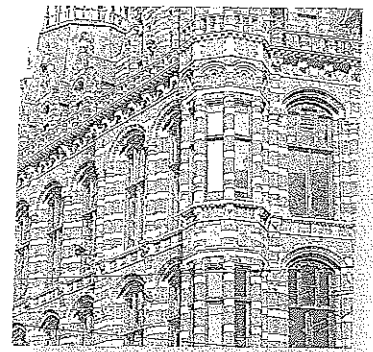
Restoration of natural  
stones

versatile • economic • environmentally safe

## Gentle, yet thorough

Various surfaces require different forms of treatment, but the limited number of applications can be a problem with most blasting systems. Persistent stains and deposits on sensitive surfaces can be extremely aggravating.

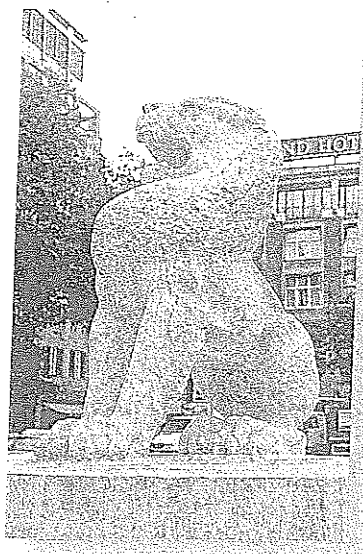
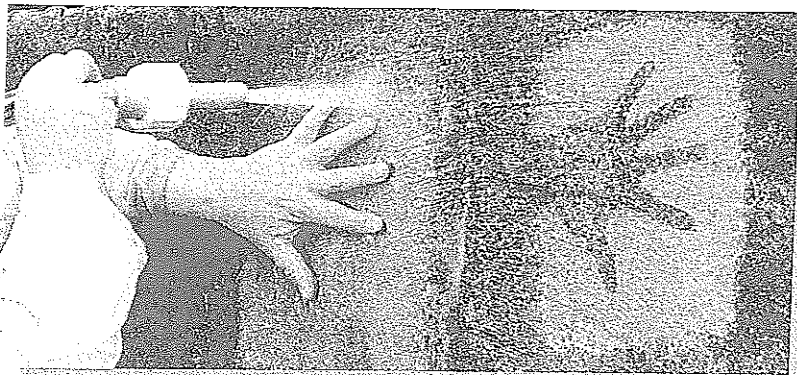
Field experience has shown all of us that the utmost caution is necessary when working with monuments disfigured by graffiti, as well as the historical building ravaged by time. Anyone who uses the wrong technology runs the inevitable risk of damaging these historical beauties or even destroy them forever. With torbo systems you are on the right track from the start. With our equipment it is guaranteed that you avoid the risk of damaging these sensitive substrates. Our patented technology, with specifically developed metering valves, allows an individual adjustment to the surface - and this means safety as well as peace of mind.



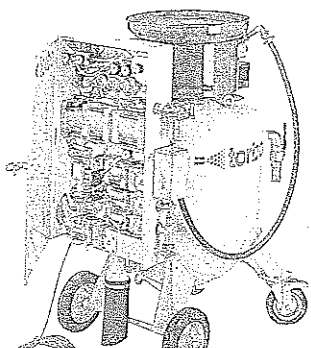
This revolutionary concept ensures a significant economic savings as well. Not only can the consumption of blasting media be reduced by 60 %, but also the consumption of water per area-unit drops considerably. The advantages for you are obvious: You give some relief to your wallet as well as to the environment.







Another positive effect on ecology and economy, is a 95% dust reduction when using torbo systems. This allows minimized or no containment, and no dust collectors or negative pressure.



Further it allows complete and easy access around the entire structure being cleaned / blasted. There is also no need for air supplied hoods, which pleases the employee, as well as public perception of the work being performed.

The additional advantage of giving the operator full control of the machine at the blast nozzle by remote control, allows for less laborers.



Versatile, ergonomic, and easy to use.



versatile • economic • environmentally safe

## Have a look at the advantages:

- ⇒ High coverage
- ⇒ Consumption of blasting media reduced by 60%
- ⇒ Very low consumption of water
- ⇒ Multiple use of blasting media is possible
- ⇒ Minimized or no containment required
- ⇒ Dry blasting media not required (saves storage costs)
- ⇒ Long service life of all parts subject to wear
- ⇒ Adjustment possibilities for every job scenario
- ⇒ No claims, no recourse



WET ABRASIVE BLASTING SYSTEMS

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