



# ***HANDHELD PNEUMATICS***

TEX light and medium  
breaker range

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*Atlas Copco*

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# ***GREAT TODAY BETTER TOMORROW***

Smart equipment lets you do more in less time. And for many years to come.

Our motto is sustainable productivity. By making hammers and breakers that minimise vibration and noise you are able to work successfully for many years to come. And as you gain experience, your work will improve. That's sustainability at its best.

If sustainability is long term, reliability is here and now. And for us reliability means that you can put 100 percent of your energy to solving the task at hand. One way of creating

reliable machinery is by keeping it simple.

Designing smart with interchangeable parts saves both time, space and money. It means you can cover more spare parts for your hammers and breakers with a smaller inventory. The solid body concept means that the heart of both hammers and breakers is made from a single cast. Few things are stronger than cast metal and it helps to keep parts at

a minimum. It won't get simpler or smarter than that.

To get the most out of your time and energy it's important to match the machine and the tool for the job at hand. And just like you, we take care of business from beginning to end. Our tools are wear resistant and they have a shock resistant central core. We love breaking, but only when the right things break.

# THE *ULTIMATE* POWER GUIDE

The right choice of power source makes all the difference.  
Here's what to grab and when.

To pick the right power source you have to start by asking what you want to accomplish. When you are 3,000 metres below the earth's surface, one or two kilograms of excess weight might make all the difference.

Or if you work in disaster relief and have no access to external power sources, a trustworthy gasoline engine can save lives. We have a power system for every occasion and we are more than happy

to help you make the right choice.

Take a look at this guide and if you have any more questions, don't hesitate to get in touch with your local Atlas Copco representative.



**PETROL**



**HYDRAULIC**

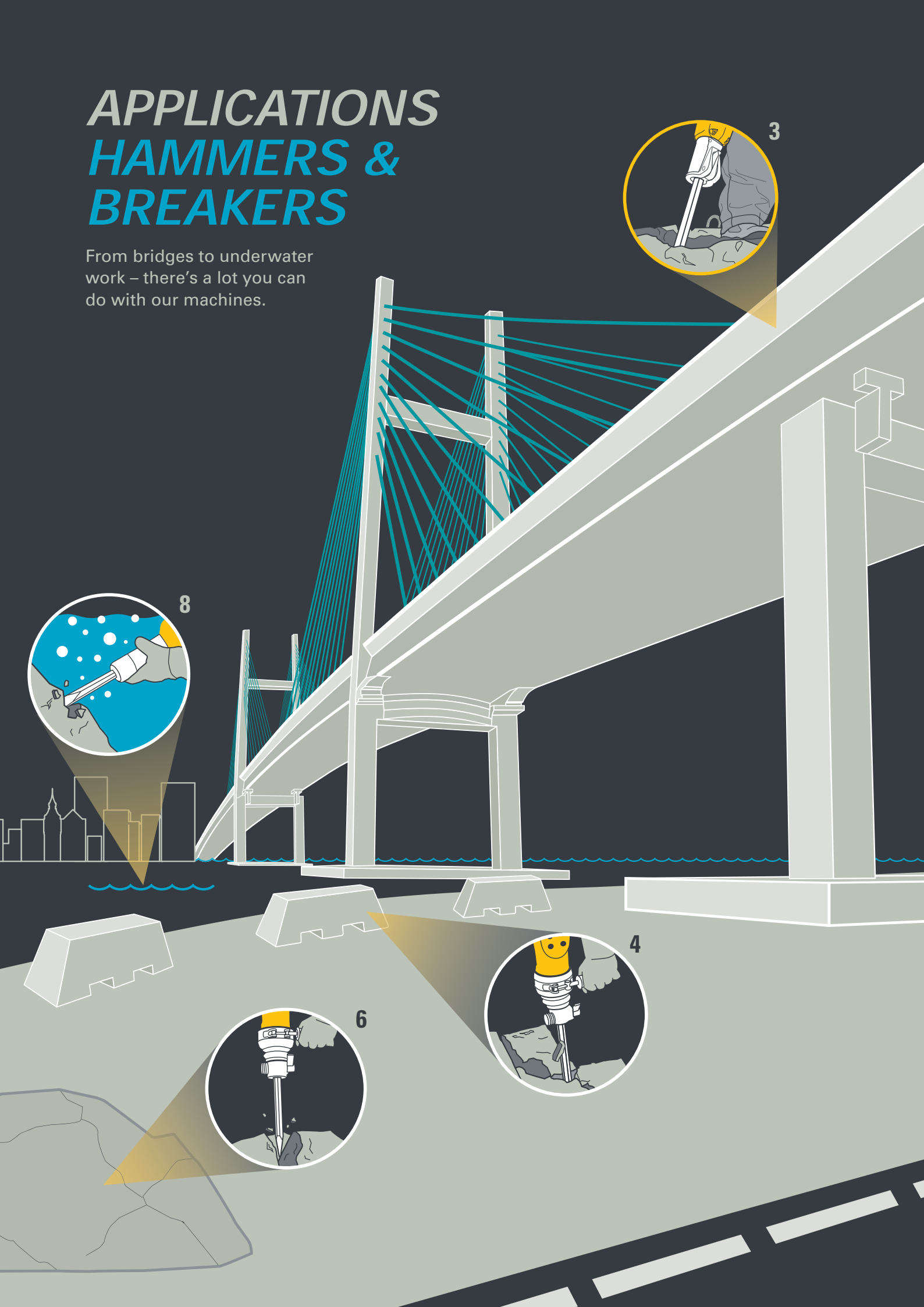
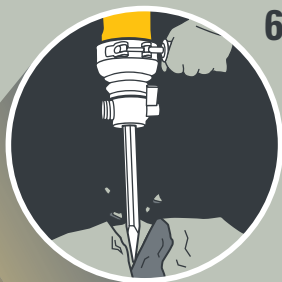
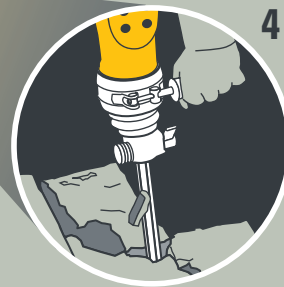


**PNEUMATIC**

	PETROL	HYDRAULIC	PNEUMATIC
<b>HOW</b>	Grab and go!	A stackable, smart power source that monitors its own functions	A trusted power source with less vibration than the competition thanks to more than 110 years of refinement.
<b>WHY</b>	You don't need an external power supply	The best possible power to weight ratio of all systems and with a minimum of vibrations	Easy to work with and powerful enough for most applications. You can run multiple tools at the same time
<b>WHAT</b>	A high performance petrol-driven 2-stroke engine for drilling and breaking	Hydraulic oil can withstand extreme pressure and that makes it to a powerful energy transmitter	An engine creates compressed air that in turn powers your tools
<b>WHO</b>	Rescue personnel, military, railroad and telecommunication workers	Professionals on the road who need lots of power for one tool at a time	Construction workers, demolition specialists
<b>WHERE</b>	Remote locations, disaster areas	On the road, in a mine, on a farm or in a construction site	Road construction and repairs, bridge repairs, general demolition, mining
<b>WHEN</b>	Time is short and space is limited	You must handle every challenge, fast	You have many tools on site that all run on pneumatics

# APPLICATIONS HAMMERS & BREAKERS

From bridges to underwater work – there's a lot you can do with our machines.



# KNOW YOUR HAMMERS & BREAKERS

## APPLICATIONS

### 1. SOFT MATERIAL

Brick, soft rock and other soft materials require lighter hammers and breakers that deliver a high number of blows per minute and less impact force.

### 2. MEDIUM MATERIAL

The harder the material, the more weight and impact force is needed. Medium materials include medium hard rocks, non-reinforced concrete and asphalt.

### 3. HARD MATERIAL

To break hard rocks, including high silica content boulders, and reinforced concrete you need high impact force and fewer blows per minute.

### 4. DEMOLITION

Demolition is the process of tearing down a structure. Materials range from soft to hard. You need tough, reliable hammers and breakers with the right type of tools.

### 5. RENOVATION

Renovation is the process of improving a structure. Typical tasks include chipping and scaling concrete. Renovation work in general, and especially inside buildings, means you need effective sound and vibration protection.

### 6. ROCK SPLITTING

Rock splitting with hammers and breakers is time and cost saving compared to using explosives. Explosives requires secure storing and causes interruptions when blasting and clearing.

### 7. CHIPPING

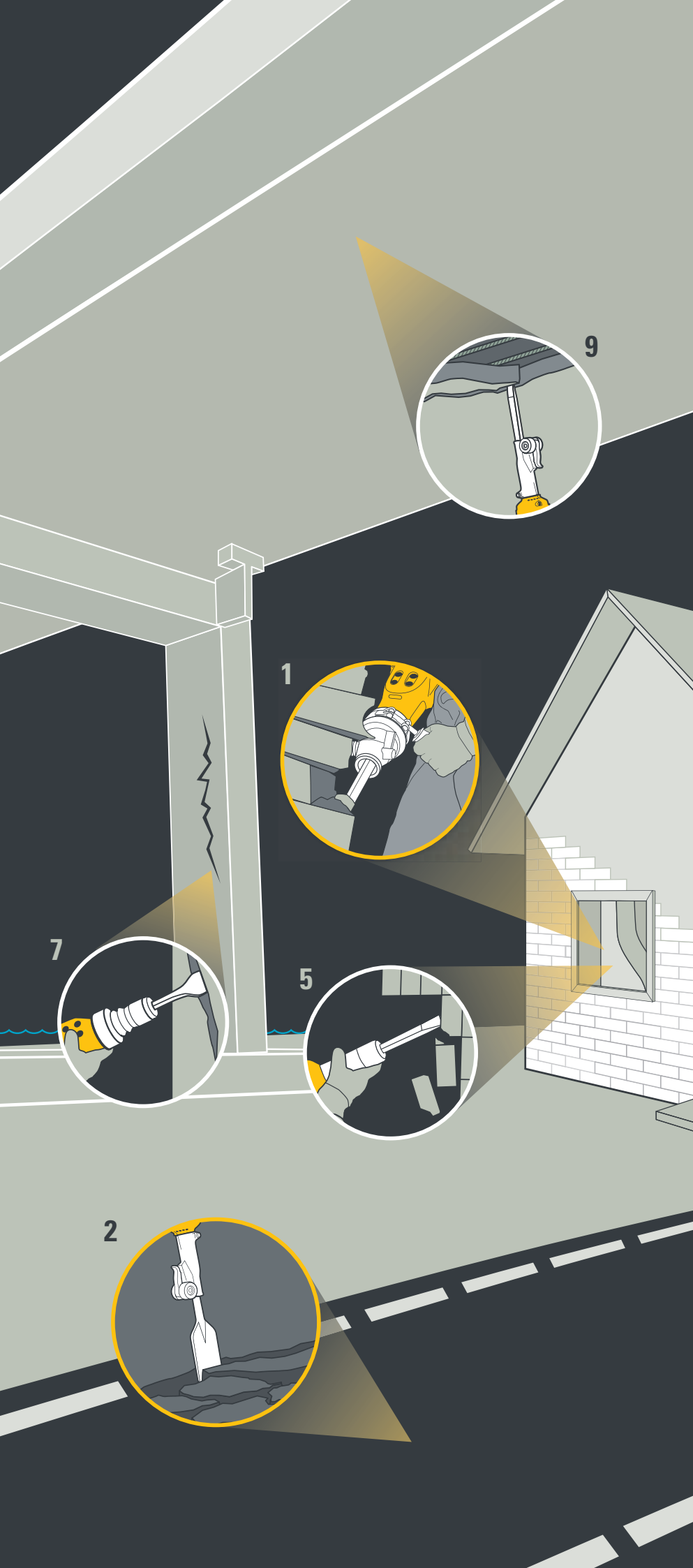
Chipping means you remove cracked and weak concrete before improving for example a road structure with new concrete.

### 8. UNDERWATER WORK

Pneumatics work in most conditions. You can use pneumatic hammers and breakers for chipping and scaling operations under water.

### 9. OVERHEAD WORK

For overhead renovation work you need a light and efficient hammer with high impact rate.







# YOUR BREAKER INSIDE OUT

This is how your breaker takes care of dangerous vibrations. It is also the story of our hand and arm protection system – HAPS.

We took on the challenge to create ergonomically designed breakers already in the 1960s. The first we did was to allow the piston to turn on cushions, a technique which has been fine-tuned over the years. During the 70s we introduced the first vibration damping handles. In the 80s and 90s we added vibration-damping springs and optimized the weight relationship between handle and body. Today we have added a flexible pivot point, where the energy is reduced in all three directions. The relationship between fixed and movable parts has also been adjusted in recent years.

## THIS IS VIBRATION

There are two types of forces that result in vibration. The first type comes from the machine itself. It occurs when the piston accelerates, when internal parts are in imbalance or when the tools are in imbalance. We battle this type of vibration with HAPS technology.

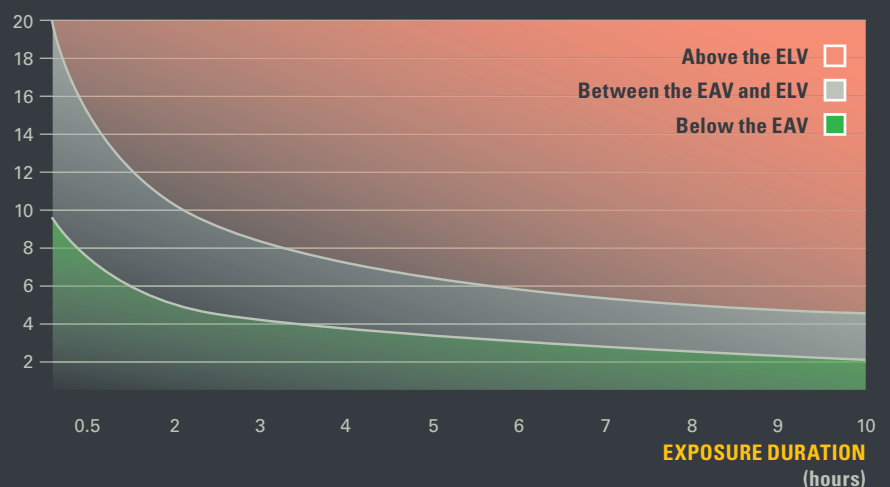
The second vibration-source we have to battle is caused by the impact energy from the breaking itself. By using the right breaking techniques you can reduce the effect of impact-induced vibration.

## 10 SIMPLE WAYS TO REDUCE VIBRATION

- Use HAPS-enabled machines
- Use the right machine for the right job
- Use the proper machine maintenance
- Keep tools sharp
- Let go of the trigger while extracting the tool from the broken surface
- Switch work tasks
- Take regular breaks
- Don't grip the machine too hard
- Keep hands warm and dry
- Massage your fingers during breaks

## RELATION BETWEEN VIBRATION AND EXPOSURE LEVEL

**VIBRATION MAGNITUDE**  
( $\text{m/s}^2$ )



█ The Exposure Limit Value (ELV) is  $5 \text{ m/s}^2$   
The red area = **immediate action to stop**

█ The Exposure Action Value (EAV) is  $2.5 \text{ m/s}^2$   
The grey area = **establish an action plan**

## LET THE MACHINE WORK

### THIS IS HOW TO BEST USE YOUR HAPS-ENABLED MACHINE

Vibration-dampened HAPS-machines have prestressed spring handles. If you push down too hard on them, you hit a stop and lose the effect of the springs. Press the handle half-way down, and the right amount of feed force is applied automatically. Allow the machine to “float” between the handles.

#### Precision starts here

The Softstart trigger helps you slowly release the energy of the breaker. The two-step trigger gives you full control when starting a difficult cut.

#### Easy lubrication for long life

The integrated lubricator keeps moving parts in shape for a whole shift. In cold conditions lubrication also works as an anti-freeze.

GET  
MORE  
DONE

#### Rotation makes weightless

The air inlet swivel rotates through 360° with ease, even when pressurized. Rotation makes heavy rubber hoses feel lighter and it saves your strength.

GREAT  
ERGONOMICS

#### Sevenfold increase

The HAPS system (Hand Arm Protection System) is unique for the PE-machines. It allows up to seven times the trigger time of conventional fixed-handled machines at a given level of vibration exposure.

**H.A.P.S.**  
HAND ARM PROTECTION SYSTEM

SAVE TIME  
& MONEY

#### Air stops vibration

The piston turns on air cushions at either end of the cylinder. When the machine works off-load, it practically eliminates metal-to-metal contact.

#### Simple is reliable

The Solid body concept is all about reliability. By making a solid, one-piece housing we reduce the number of parts and eliminate potential problems. The housing has a low centre of gravity for good balance.

#### Less noise, more done

The slim polyurethane silencer cuts noise by up to 75 percent, compared to a non-silenced machine. And it never gets in your line of sight.

# TAKING CARE OF TALENT

When you are in demand, it's important to use your energy in the right way. By picking the right tool, you'll be a breaker – not a shaker.

Our light and medium range breakers can handle most tasks. And just like you, they're unique. The Solid body design means the whole breaker is made from one single casting. Thanks to the technology, we can skip the bolts that are often used to keep the machine together. In fact, our breakers have between 25 and

35 less parts than other breakers. Fewer parts make simple servicing and better reliability. For you that translate to a little more done every day and a lot of time saved each month. To keep yourself in shape we recommend you use HAPS-enabled machines. With far less vibration

levels you can work up to six times longer per day. Less vibration is important for productivity, especially if you are multitasking. All vibration work adds up during the day. With HAPS you can take on tasks without having to worry about reaching excessive vibration levels. That's taking care of talent.

TEX Pneumatic light breakers		140 PS		180 PS		220 PS			150 PE		190 PE	
Vibro-reduced		NO		NO		NO			YES		YES	
Weight	kg	15.5		19	19.5	22	23.5	23.5	19		22.5	23
Length	mm	590		595	645	625	670	670	590		595	645
Air consumption at 6 bar	l/s	25		26		30			25		26	
Impact rate	blows/min	1,530		1,500		1,320			1,530		1,500	
Vibration level 3 axes (ISO 28927-10)	m/s <sup>2</sup>	15.2		14.5		12.8			4.5		3.7	
Sound power level guaranteed (2000/14/EC)	Lw, dB(A)	104		104		104	106	106	104		104	
Sound pressure level (ISO 11203)	Lp, r=1m	91		92	91	92	93	93	91		92	91
Shank size: Hex	mm	22x82.5	25x108	25x108	28x160	25x108	28x160	32x160	22x82.5	25x108	25x108	28x160
Part number		8461 0223 30	8461 0223 32	8461 0224 30	8461 0224 34	8461 0225 30	8461 0225 32	8461 0225 35	8461 0223 31	8461 0223 33	8461 0224 31	8461 0224 33

Important: Full details of measurement are available in the Safety and Operating Instruction of the product (part no 9800 0683 90). They can be found on [www.acprintshop.com](http://www.acprintshop.com)

TEX Pneumatic light breakers		20 PS	20 PS-1	21 PE	21 PE-1
Weight	kg	20	20	21	21
Length	mm	635	600	650	615
Air consumption at 6 bar	l/s	25	25	25	25
Impact rate	blows/min	1,140	1,140	1,140	1,140
Vibration level 3 axes (ISO 28927-10)	m/s <sup>2</sup>	18.3	18.3	7.6	7.6
Sound power level guaranteed (2000/14/EC)	Lw, dB(A)	105	105	105	105
Sound pressure level (ISO 11203)	Lp, r=1m	93	93	93	93
Shank size: Hex	mm	25x108	-	25x108	-
Part number		8461 0223 31	-	8461 0225 31	-
Shank size: Round	mm	-	25x75	-	25x75
Part number		-	8461 0224 33	-	8461 0226 33

Important: Full details of measurement are available in the Safety and Operating Instruction of the product (part no 9800 0683 90). They can be found on [www.acprintshop.com](http://www.acprintshop.com)

Accessories	Part number
Hand hose 20 mm x 3 m complete with claw coupling, wing nut and hose clamps	9030 2048 00
Claw coupling, Atlas Copco Standard	9000 0306 00
Claw coupling, Atlas Copco Standard with strainer	9000 0306 01

Please note: the above hand hose is equipped with Atlas Copco standard claw couplings.



## TEX light breaker

### Ear-friendly

Noise reduction makes the 140PS a great choice in confined spaces.

### Quick latch

Just like the 150PE, this model has a kick latch for quick and easy tool change.

### Demolition wizard

The TEX 140PS can handle everything from medium hard materials like concrete, to breaking soft bricks.

**140**  
**PS**

### No heavy hose

The rotating air-inlet swivel makes it easier to move with the air-hose.

**GET MORE  
DONE**

### Win-win breaker

With this HAPS-enabled breaker you increase both productivity and safety. HAPS stabilize and reduce vibration in three-axis.

### Balanced performance

Great balance means high comfort and performance, without adding unnecessary weight.

**150**  
**PE**

**GREAT  
ERGONOMICS**

### Smooth breaking

To keep breaking smooth and effective, the piston turns on air cushions.

### The first blow

The Softstart function is the breaking equivalent of a surgical tool. It makes the first blow a joy.



### Save time on service

Many common parts make maintenance easy and are good for business.



### Hard hitting

The 140 PS and 150 PE are hard hitting thanks to extra long piston strokes.



### ERGO KIT

Complete kits for converting TEX PS models into vibration-dampened breakers (PE-model).

Kits	TEX 140, 180	TEX 220, 270
Part number	3310 1458 61	3310 1458 60

## TEX medium breaker

### Right, right away

The first blows are no match thanks to the Softstart-function.

### Move faster

The rotating air inlet swivel makes work easier. It's an appreciated feature available on all light/medium models.

SAVE TIME

### Quick kick

You will find the kick latch retainer on both the 270 PS and 230 PE.

270  
PS

230  
PE

GREAT  
ERGONOMICS

### Less vibration with HAPS

The HAPS vibration reduction system protects and makes you more efficient.

### Soft start

The first critical blows are easy thanks to the Softstart-function. Squeeze carefully and experience full control from the first second to the last.

### Automatic protection

The 230 PE and 270 PS both have automatic lubrication. Just fill up and go to work.

VERSATILE

### Heavy hitter

The 230 PE medium breaker is great for service jobs and general demolition thanks to low weight and a mighty punch.

TEX Pneumatic medium breakers		270 PS		230 PE		
Vibro-reduced		NO		YES		
Weight	kg	28		25.5	27	27
Length	mm	690		625	670	670
Air consumption at 6 bar	l/s	32		30		
Impact rate	blows/min	1,230		1,320		
Vibration level 3 axes (ISO 28927-10)	m/s²	14.9		4.2		
Sound power level guaranteed (2000/14/EC)	Lw, dB(A)	105		106		
Sound pressure level (ISO 11203)	Lp, r=1m	92		92	93	93
Shank size: Hex	mm	28x160	32x160	25x108	28x160	32x160
Part number		8461 0226 30	8461 0226 31	8461 0225 31	8461 0225 34	8461 0225 35

Important: Full details of measurement are available in the Safety and Operating Instruction of the product (part no 9800 0683 90). They can be found on [www.acprintshop.com](http://www.acprintshop.com)

Accessories	Part number
Hand hose 20 mm x 3 m complete with claw coupling, wing nut and hose clamps	9030 2048 00
Claw coupling, Atlas Copco Standard	9000 0306 00
Claw coupling, Atlas Copco Standard with strainer	9000 0306 01

Please note: the above hand hose is equipped with Atlas Copco standard claw couplings.

### One piece

Both 230 PE and 270 PS are single cast breakers. That means fewer parts and less maintenance.



### Medium special

The medium breakers can handle everything from breaking concrete and asphalt to softer materials.







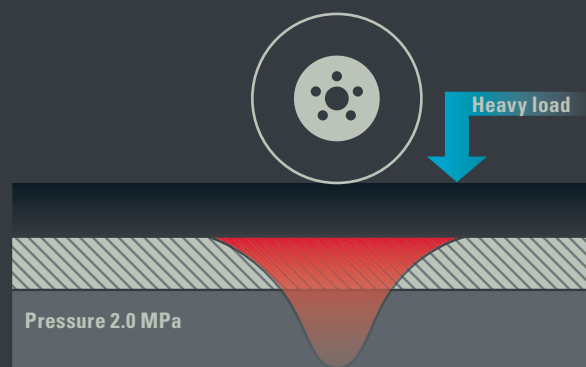
# BREAKING PAVEMENTS THE RIGHT WAY

Asphalt is a flexible wearing course. A reinforced concrete course is rigid and can handle heavier loads than asphalt. That means you should use different breakers for different pavements.

## ASPHALT USE MEDIUM BREAKERS

Flexible pavement

A part of the asphalt to be removed  
– medium breakers 25-30 kg



## FATIGUE CRACKING

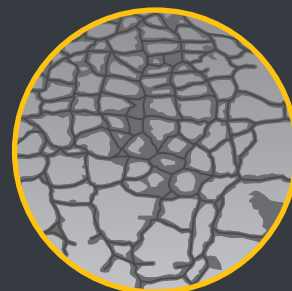
These are linear cracks that extend across the entire slab. Typically, these cracks divide an individual slab into two to four pieces. Water can infiltrate the cracks and cause erosion of the subbase. It causes spalling and disintegration if the cracks are not sealed.

Cracks can be caused by:

- Heavy traffic

- Temperature differences in the top and bottom of the slab may cause it to curl upwards or downwards, which can result in cracks
- Moisture
- Loss of support

Sealing can repair a single crack. More than one linear crack usually requires a full depth patch.

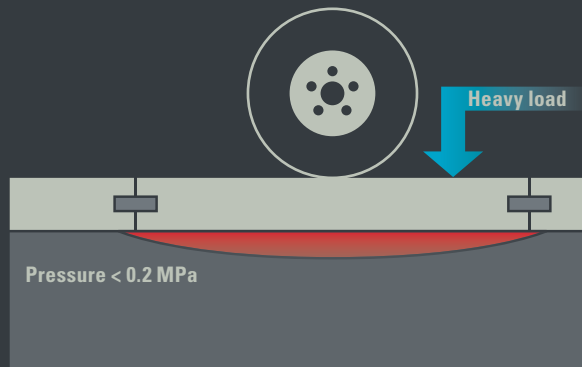




## REINFORCED CONCRETE USE HEAVY BREAKERS

### Rigid pavement

A concrete slab to be broken  
– heavy breakers > 30 kg



### PUNCHOUT

A punchout is an isolated piece of slab that breaks into several pieces. That in turn may cause spalling and disintegration. Water can infiltrate the pavement, which causes erosion of the subbase.

Punchouts can be caused by:

- Inadequate consolidation

- Steel corrosion
- Inadequate amount of steel
- Too wide shrinkage cracks
- Too narrow shrinkage cracks

A full depth patch is recommended.



### SPALLING

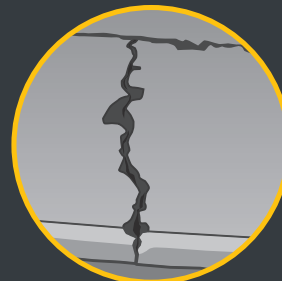
Spalling is the cracking, breaking or chipping of the edges near a concrete joint or crack. It generally indicates more advanced deterioration beneath the surface.

Spalling can be caused by:

- Excessive stress due to infiltration of incompressible materials in the joints and subsequent expansion

- Freeze and thawing
- Inadequate consolidation during construction
- Heavy traffic

When spalling is further than 75 mm from the crack face it also indicates a possible spalling at the joint bottom. A full depth patch is recommended.



### CORNER BREAK

It's a crack that intersects the slab joints near a corner. "Near" is typically defined as around two metres from the corner. The damage extends through the entire slab and is caused by high stresses in the area. Water can infiltrate the crack and cause erosion of the subbase. It in turn causes spalling and disintegration.

Corner breaks are caused by:

- Load repetitions combined with a loss of support
- Poor load transfer across the joint
- Curling stresses due to temperature differences at the top and bottom of the slab

A full depth patch is recommended.



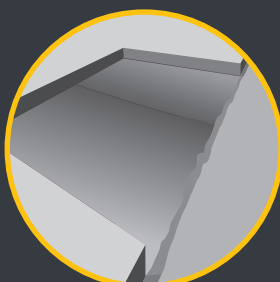
## FIXING A HOLE

There are two main ways of repairing a damaged pavement.  
The width and depth of the damaged area decides which is in question.

### PARTIAL DEPTH PATCH

With a partial depth patch you restore slab damages about 50 - 75 mm deep and covering less than one square metre.

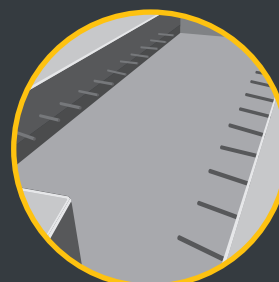
**Use:** Hammer and/or light and medium breaker



### FULL DEPTH PATCH

A full depth patch restores spalling, punchouts, scaling, corner breaks and cracks of an area bigger than one square metre and that originate from the bottom. Measure the spalls when you decide between a partial or full depth patch for spalling and slab cracking. If spalls extend beyond 75 mm from the joint – do a full depth patch.

**Use:** Heavy and/or medium breaker





# COMPRESSOR GUIDE STEP-BY-STEP

Our compressors can often run several breakers and hammers at once. This guide helps you choose the right combination of hammers, breakers and compressor.



TEX Pick hammers

TEX Light & medium breakers

TEX Heavy breakers

		05 PE	09 PE	12 PE	150 PE	190 PE	230 PE	280 PE	33 PE	40 PE
	kg <sup>1</sup>	6.5	10.5	12	19	23	27	31.5	37	42
	l/s <sup>2</sup>	10	17	20	25	26	30	32	37	42
XAS Compressors	37 KD	33	3	2	1	1	1	1	-	-
	47 KD	42	4	2	2	1	1	1	1	1
	57 DD	50	5	3	2	1	1	1	1	1
	67 DD	62	6	3	2	2	2	1	1	1
	77 DD	72	7	4	2	2	2	2	2	1
	97 DD	89	8	5	3	3	2	2	2	2
	137 DD	120	12	7	4	4	4	3	3	2


1) Weight 2) Air consumption at 6 bar

## SINGLE GUIDE


- 1 If you have one type of hammer and breaker: use **Single Guide**.
- 2 Find the model you want to use in the top row.
- 3 Find the compressor you want to use in the far left column.
- 4 Where the row and column meet you will find the number of hammers or breakers you can run with a particular compressor.
- 5 For instance, you can run two TEX 190 PE with a XAS 77 DD and three units with a XAS 97 DD.

# TOOLS FOR EVERY JOB - TEX LIGHT & MEDIUM BREAKERS


## 20PS, 21PE, 140PS, 150PE, 180PS, 190PE, 220PS, 230PE

 Shank H 25 x 108 mm	Working length	Total length	Tip width	Part number
Moil point	380	500	-	3083 3253 00
Narrow chisel	380	500	25	3083 3254 00
Wide chisel	380	500	75	3083 3255 00
Digging chisel	380	500	75	3083 3256 00
Digging spade	380	500	120	3083 3257 00
Clay spade	430	550	125	3083 3033 00
Wedge chisel	380	500	35	3083 3258 00
Shaft for tamping pad	280	400	-	3083 3259 00
Tamping pad, round	-	-	ø175	3083 3252 10
Tamping pad, square	-	-	ø175	3083 3239 00


## 20PS-1, 21PE-1

 Shank 25 x 75 mm with square collar	Working length	Total length	Tip width	Part number
Narrow chisel	450	537	-	3083 3316 00
Digging chisel	420	507	75	3083 3317 00
Clay spade	420	507	135	3083 3318 00

## 180PS, 190PE, 220PS, 230PE, 270PE, 280PE

 Shank H 28 x 160 mm	Working length	Total length	Tip width	Part number
Moil point	380	546	-	3083 3271 00
	450	616	-	3083 3272 00
	1,000	1,166	-	3083 3273 00
Narrow chisel	390	556	36	3083 3274 00
	450	616	36	3083 3275 00
	1,000	1,166	36	3083 3276 00
Wide chisel	380	546	75	3083 3277 00
Asphalt cutter	300	466	115	3083 3278 00
Digging chisel	380	546	75	3083 3279 00
Digging spade	380	546	125	3083 3280 00
Clay spade	380	546	140	3083 3281 00
Wedge chisel	400	566	40	3083 3282 00
Shaft for tamping pad	230	396	-	3083 3283 01
Tamping pad, round	-	-	ø180	3083 3301 00
Tamping pad, square	-	-	ø150	3083 3302 00
Driver pad, round	-	-	ø200	3083 3197 00

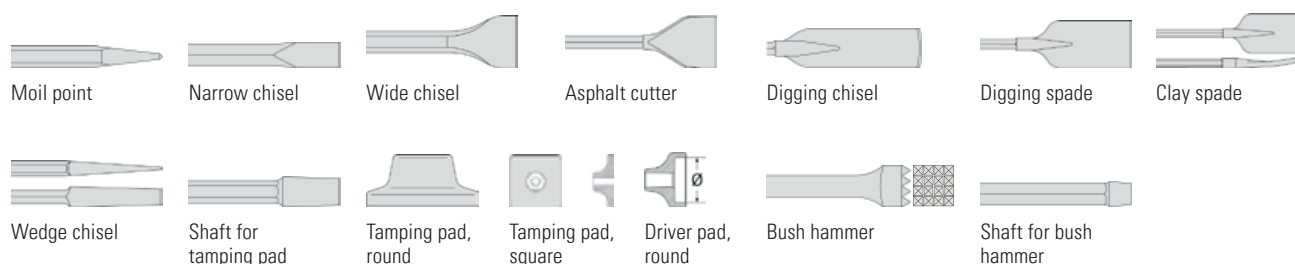
## 220PS, 230PE, 270PS, 280PE

 Shank H 32 x 160 mm	Working length	Total length	Tip width	Part number
Moil point	380	546	-	3083 3205 00
	450	616	-	3083 3206 00
	1,000	1,166	-	3083 3207 00
Narrow chisel	380	546	36	3083 3208 00
	450	616	36	3083 3209 00
	1,000	1,166	36	3083 3210 00
Wide chisel	380	546	75	3083 3211 00
Asphalt cutter	300	466	115	3083 3212 00
Digging chisel	380	546	75	3083 3213 00
Digging spade	380	546	125	3083 3214 00
Clay spade	380	546	140	3083 3215 00
Wedge chisel	400	566	40	3083 3216 00
Shaft for tamping pad	235	401	-	3083 3218 01
Tamping pad, round	-	-	ø180	3083 3301 00
Tamping pad, square	-	-	ø150	3083 3302 00
Driver pad, round	-	-	ø200	3083 3197 00



### Breaker & hammer AIR-OIL, synthetic lubricant

Oil volume	L	1	5	20
Weight	kg	1.1	5.8	23
Part number		8099 0202 36	8099 0202 02	8099 0202 15



# JUST FOR YOU

In our new profile store you will find everything from Atlas Copco clothing to the latest scale models of our specialist equipment.

## TEX 230 PE

This original TEX 230 PE is a medium sized pneumatic breaker, ideal for service jobs and general demolition. The solid body housing design contains fewer parts – and that means greater reliability. The scale model is delivered with a "rock" base with Atlas Copco logo.

### FACTS

- **Scale model:** 1:10.3
- **Size:** 10 x 4.7 x 1.7 cm
- **Weight:** 90 grams
- **Material:** Zink alloy
- **Item no:** PS001554
- **Price:** 14.50 EUR/pcs

*Note: This product is a collectors model, not a toy.*



Check out our new store here: [www.atlascopco.com/profilestore](http://www.atlascopco.com/profilestore)

## COMMITTED TO SUSTAINABLE PRODUCTIVITY

We stand by our responsibilities towards our customers,  
towards the environment and the people around us.  
We make performance stand the test of time.  
This is what we call – Sustainable Productivity.

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