

## IB 7/40 Classic

The Kärcher ice blaster IB 7/40 Classic features impressive cleaning power. Its air flow has been optimised so that even low air pressures bring about excellent cleaning results. Like all Kärcher ice blasters, the IB 7/40 Classic is impressively reliable. Dry ice blasting with the Kärcher IB 7/40 Classic means working without unwanted interruptions. A new feature is integrated tank emptying that is activated by the touch of a button. It's compact build makes it possible to manoeuvre it easily even in narrow spaces.

### Standard accessories:

- Grease for nozzle threads
- Flat jet nozzle
- Flat wrench (for nozzle change) 2 piece
- Blasting hose with electrical control wire and quick couplers
- Blasting gun (ergonomic & save)
- Electronic control
- Oil and water separator
- Tool bag

Order number: 1.574-001.0



### Technical data

Connected load	0.6
Compressed-air connection	Claw Coupling (DIN3238)
Housing / frame	Stainless steel (1.4301)
Length of cord access. (m)	7
Air pressure (bar/MPa)	2-10/0.2-1
Quality of air	dry & oil free
Air flow (m <sup>3</sup> /min)	0.5-3.5
Sound pressure level (dB(A))	99
Dry ice capacity (kg)	18
Dry ice pellets (diameter) (mm)	3
Dry ice consumption (kg/h)	15-50
Weight without access. (kg)	69
Dimensions (L x W x H) (mm)	768x510x1100

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## Data8ls

### Description

The IB 7/40 Classic:

The Kärcher dry ice blasting machines feature a high-grade finish. All of the components used are of the highest quality. Well-thought out metering technology guarantees reliable blasting without icing over the machine. Kärcher blasting machines are designed for continuous use. Their reliability has been proven in numerous tests, including field tests and endurance tests. The airflow of the IB 7/40 Classic has been optimised so that the available compressed air is guided through the machine to the nozzle with minimal loss. This makes it possible to achieve excellent cleaning results with the IB 7/40 Classic, even with low pressures and low air consumption (max. 3.5 m<sup>3</sup>/min). Another advantage of this frugal use of resources is the low noise level. With a blasting pressure of e.g. 5 bar, the noise level is ca. 80 dB(A). The IB 7/40 Classic is equipped with a residual ice emptying unit. In this way the residual dry ice can be removed from the tank by the touch of a button when work is finished. This prevents the machine from freezing. The new ice blaster also has an integrated oil and water separator. This ensures reliable operation. The blasting pressure and the ice delivery rate can be infinitely adjusted with the buttons. The set values are shown on a display. In addition statistical figures such as operating time, average ice consumption per hour and total ice consumption can be called up. The control of the ice delivery rate and blasting pressure can be locked with a key-operated switch.

#### DRY ICE CLEANING:

Kärcher's dry ice blasting technology is a non-aggressive but thorough method of cleaning tools, moulds, surfaces and machines with a minimum of tooling and down times. In this process, small pellets, made of frozen carbon dioxide at a temperature of -79 °C, are injected into a stream of compressed air and accelerated by it. When the pellets impact the surface to be cleaned, it is cooled abruptly. Owing to the different rates of temperature-induced contraction of the contaminant and the base, the layer of contaminant goes brittle and breaks up, pellets penetrate the cracks and sublimate instantly. This blasts the contaminant away from the surface. The cleaning action of this process is based on the kinetic energy of the pellets, the embrittlement and loosening of the contaminants as well as the explosive sublimation of the blasting medium. The low hardness of dry ice pellets keeps surface abrasion exceptionally low. As with other blasting processes, dry ice blasting is suitable for treating complex surfaces of the kind found on printing presses and other machines. Unlike sand, water or steam jets neither water nor abrasive remain on or in the object being cleaned; the cleaning agent literally dissolves into the air. The dirt merely needs to be blown off or taken up by e.g. a vacuum cleaner. Drying times no longer apply, and the cleaned machine can be used immediately. Since carbon dioxide – frozen or gaseous – conducts electricity very poorly, electrical installations can be blasted without causing any problems. Since neither water nor other foreign substances are used in dry ice cleaning, there are no corrosion problems that often require cumbersome subsequent cleaning as well as the expensive disposal of the cleaning agent and wastewater contaminated with the dirt. Since no foreign substances are used, one can often forgo dismantling parts from machines, which saves time and prevents damage to tools and sensitive parts that might otherwise come about by handling them. Hot tools can be blasted without having to cool them down in advance, which in many cases leads to improved results because the dirt does not adhere to the surface as much. The short-term cooling of the blasted surfaces in our experience leads to absolutely no damage.

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### Application

Plastic injection molding:

Cleaning solution for: injection molds directly in the machine.

Dry ice blasters

## IB 7/40 Classic



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Contaminations: mold release agents, facing, grease, oil, residuas of rubber / polyurethane / thermoplastics

Automotive industry, plastics industry, machinery, foudries;

Cleaning solution for: casting (e. g. core boxes), moulding, maintenance (e. g. production lines, machinery, engines, drop forg

Contaminations: mold release agents, residuas of silicone / rubber / polyurethane / thermoplastics, welding splatters, grease, oil, paintings etc.

Food Industry, Pharmaceutical Industry, Cosmetics Industry:

Cleaning solution for: filling & mixing systems, production lines & handling machinery (e.g. transportation band in a bakery), tank cleaning, furnace cleaning, auxiliary machinery

Contaminations: build-up carbons, burned oil, resin, lecithin, encrustations, etc.

Print Shops, repair shops, second Hand Dealers:

Cleaning solution for: printing press, rotogravure support machinery, cylinders, ink vats, auxiliary tools

Contaminations: dry ink, oil, grease, etc.

Local Authorities:

Cleaning solution for: stairways, graffiti, chewing gum, facade cleaning

Electrical Industry:

Cleaning solution for: maintenance of electrical generators, turbines, cabinets (e.g. also after a fire damage)

Packaging Industry:

Cleaning solution for: production line, handling systems, machinery

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### Features & Benefits

Dry ice cleaning - the future of cleaning!

Optimised for use with in-house compressed air mains:

no further investments, e.g. compressor, etc.

Very compact and manoeuvrable:

Work in narrow spaces is possible

Metering technology tested in continuous operation: the metering unit guarantees reliable blasting without icing over the machine. Kärcher ice blasters are designed for continuous operation.

Low noise emission:

The optimised nozzle technology reduces noise emissions. A noise level of 80 dB(A) is not exceeded with the "flat jet nozzle, long" and a spray pressure of approx. 5 bar. The maximum noise level is 99 dB(A).

Low air consumption:

The IB 7/40 saves resources. The air consumption rises to a maximum of 3 m<sup>3</sup>/min. This makes dry ice blasting possile on smaller compressed air mains. Comparable machines from the competition use between

4 - 6 m<sup>3</sup>/min with the same cleaning results.

2 fenders protect the connections (control line & spray hose) from damage. Used as handles the IB 7/40 can be easily loaded. Machine downtimes: In most cases disassembly of the machine is not required - they can be cleaned as such without being disassembled. Can also be used on hot surfaces; machines can be started up immediately after being cleaned.

**Wear and damage:**

When used correctly dry ice is not abrasive, and it causes no damage to the machine / tool, no wear, no erosion

**Working hours:**

Considerably reduced - often only a quarter of the time or even less is necessary compared to other cleaning methods

**Cleaning quality:**

Excellent

**Abrasive & waste:**

Since the dry ice pellets sublimate back into CO<sub>2</sub> gas upon contact with the surface, no abrasives are left to be disposed of - only the loosened dirt needs to be cleared away. Therefore dry ice blasting can be ideally used in areas in which water, sand, corundum etc. are problematic (e.g. the aerospace industry)

**Consumption costs:**

Dry ice pellets and compressed air

**Safety:**

Only standard safety regulations need to be complied with, dry ice is environmentally friendly & non-conductive – it can therefore be used on electric machines and parts.

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## Accessories

### Blasting gun

#### Blasting gun - Classic

Ergonomic & lightweight blasting gun with safety device against accidental use. Because of its compact design the blasting gun is very lightweight and handy.

**Order number 4.775-794.0**



#### Blasting gun - Advanced

Ergonomic & lightweight blasting gun with safety device against accidental use. Because of its compact design the blasting gun is very lightweight and handy. The advanced blasting gun has an integrated remote control to adjust the blasting pressure and the dry ice output directly on the blasting gun. Furthermore there is a button to choose between "air & ice" or "only air".

**Order number 4.775-785.0**



### Blasting hose, compressed air hose

#### Blasting hose

5 m long blasting hose with electrical control wire and quick coupler, non marking casing, silicone free (inside-diameter: 1/2 inch)

**Order number 4.013-042.0**



#### Air hose (10 m)

1 Inch

**Order number 6.390-284.0**



#### Air hose (20 m)

1 Inch

**Order number 6.390-285.0**



## Blasting hose, compressed air hose

### Protection foil for IB blasting hoses, 100m

100m-roll of tube foil. To protect the blasting hose against dirt as well as against damage.

**Order number 6.667-214.0**



## Blasting nozzles

### Flat jet nozzle

Flat jet nozzle with optimized nozzle design. Great cleaning result and high area performance.

**Order number 4.130-423.0**



### Flat jet nozzle insert, 6 mm

Nozzle insert to regulate the air flow rate.

**Order number 4.130-421.0**



### Fan jet blasting nozzle insert, 8 mm

Nozzle insert to regulate the air flow rate.

**Order number 4.130-420.0**



### Flat jet nozzle insert, 10 mm

Nozzle insert to regulate the air flow rate.

**Order number 4.130-422.0**



## Blasting nozzles

### Round jet nozzle, small

Very compact and handy, aggressive round jet nozzle for small areas, low air consumption.

**Order number 4.130-418.0**



### Round blasting nozzle, large

Very compact and handy, aggressive round jet nozzle for midsize areas, higher air consumption.

**Order number 4.130-419.0**



## Low pressure - blasting nozzles

### Flat jet nozzle, long

Highest efficiency and a low noise level are the result of our optimized nozzle design. Great cleaning results and high area performance.

**Order number 4.321-235.0**



### Flat jet nozzle, short

Highest efficiency and a low noise level are the result of our optimized nozzle design. Very short nozzle to blast in narrow areas.

**Order number 4.321-237.0**



### Round jet nozzle, long

Highest efficiency and a low noise level are the result of our optimized nozzle design. Very short nozzle to blast in narrow areas.

**Order number 4.321-236.0**



## Low pressure - blasting nozzles

### Round jet nozzle, long

Highest efficiency and a low noise level are the result of our optimized nozzle design. Very aggressive for stubborn contaminations.

**Order number 4.321-234.0**



### Angled round jet nozzle, 90°

Angled nozzle redirect the jet. Ideal to clean injection moulds.

**Order number 4.321-249.0**



### Angled flat jet nozzle, 90°

Angled nozzle redirect the jet. Ideal to clean injection moulds.

**Order number 4.321-250.0**



### Mini angled nozzle, 90°

Mini angled nozzle for narrow areas. Redirect the blasting jet 90°. Overhanging: 63 mm, Length: 240 mm. The set consist of 4 parts: 1 x Cap nut 1 x Extension, 100 mm (5.321-971.0) 1 x Angle, 90° (5.321-973.0) 1 x Nozzle (5.321-977.0) There can be mounted as many extensions as needed. The angle and the nozzle can be ordered separately.

**Order number 4.321-259.0**



### Mini angled nozzle, 60°

Mini angled nozzle for narrow areas. Redirect the blasting jet 60°. Overhanging: 57 mm, Length: 260 mm. The set consist of 4 parts: 1 x Cap nut 1 x Extension, 100 mm (5.321-971.0) 1 x Angle, 60° (5.321-972.0) 1 x Nozzle (5.321-977.0) There can be mounted as many extensions as needed. The angle and the nozzle can be ordered separately.

**Order number 4.321-261.0**



### Extension, 100 mm

100 mm Extension for Mini angled nozzles (60°, 90°, 135°)

**Order number 5.321-971.0**





## Low pressure - blasting nozzles

### Angle, 90°

90° angle for all Mini angled nozzles.

Order number 5.321-973.0



### Angle, 60°

60° angle for all Mini angled nozzles.

Order number 5.321-972.0



### Replacement nozzle

Nozzle piece for all Mini angled nozzles.

Order number 5.321-977.0



### Adapter gerade Winkeldüse

Order number 5.321-992.0



### Nozzle hollow

Order number 4.321-989.0



## Mounting kits and other accessories

### Earth wire rewriter

Automatic electrostatic discharge wire with approximately 6 m wire and powerful clamp. The earth wire effectively prevents electrostatic charge of the cleaning object during ice blasting and with that sparks between object and nozzle. The earthing of the cleaning object is done over the grounding conductor of the Ice Blaster.



**Order number 2.641-741.0**

### Shovel

Used for filling the machine with dry ice pellets

**Order number 4.321-198.0**



### Box dry ice 35l

**Order number 5.574-054.0**



### Dry ice box, 100kg

Robust box made of EPP (expanded polypropylen) for storage and for transportation of dry ice pellets. The box is extremely robust and has very good insulation properties. This ensures fresh dry ice all the time.

**Order number 5.574-053.0**



### Y-Adapter f\_r Luftanschluss

**Order number 2.641-880.0**



## Nozzle accessories

### Open-end wrench

Open-end wrench for mounting nozzles (2 pcs required)

**Order number 7.815-009.0**



### Grease for nozzle thread

The threads of the blasting nozzles must be regularly treated with this silicone-free grease.

**Order number 6.288-088.0**



### Scrambler

The innovative scrambler patented by Kärcher is mounted between the trigger gun and blasting nozzle, and it breaks up the 3 mm dry ice pellets into fine particles. This makes it possible to clean very sensitive surfaces. The strength of the breaking up of the pellets can be set to any one of three different levels.

**Order number 4.110-015.0**



### Nozzle extension

300 mm nozzle extension

**Order number 4.760-658.0**



### Handle IB 7/40

Handle to mount on the nozzle extension. For easy two handed working.

**Order number 4.321-248.0**



### Angled blasting tube 90°

90° angled blasting tube that can be used in combination with all available nozzles. Additionally the connector 4.130-425.0 is required.

**Order number 4.321-203.0**



## Nozzle accessories

### Angled blasting tube 105°

105° angled blasting tube that can be used in combination with all available nozzles. Additionally the connector 4.130-425.0 is required.

Order number 4.321-204.0



### Adapter for angled blasting lances / flat jet nozzle insert, 14 mm

Necessary to connect all available angled tubes. Can also be used as flat jet nozzle insert (14 mm).

Order number 4.130-425.0



### Nozzle lightning for IB 7/40

Nozzle lightning to screw onto the blasting gun. To illuminate the working area.

Order number 2.815-421.0



## Protective equipment

### Safety glasses

Order number 6.321-208.0



### Protective gloves

Order number 6.321-210.0



Dry ice blasters

## IB 7/40 Classic



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### Protective equipment

#### Ear muffs

Order number 6.321-207.0

