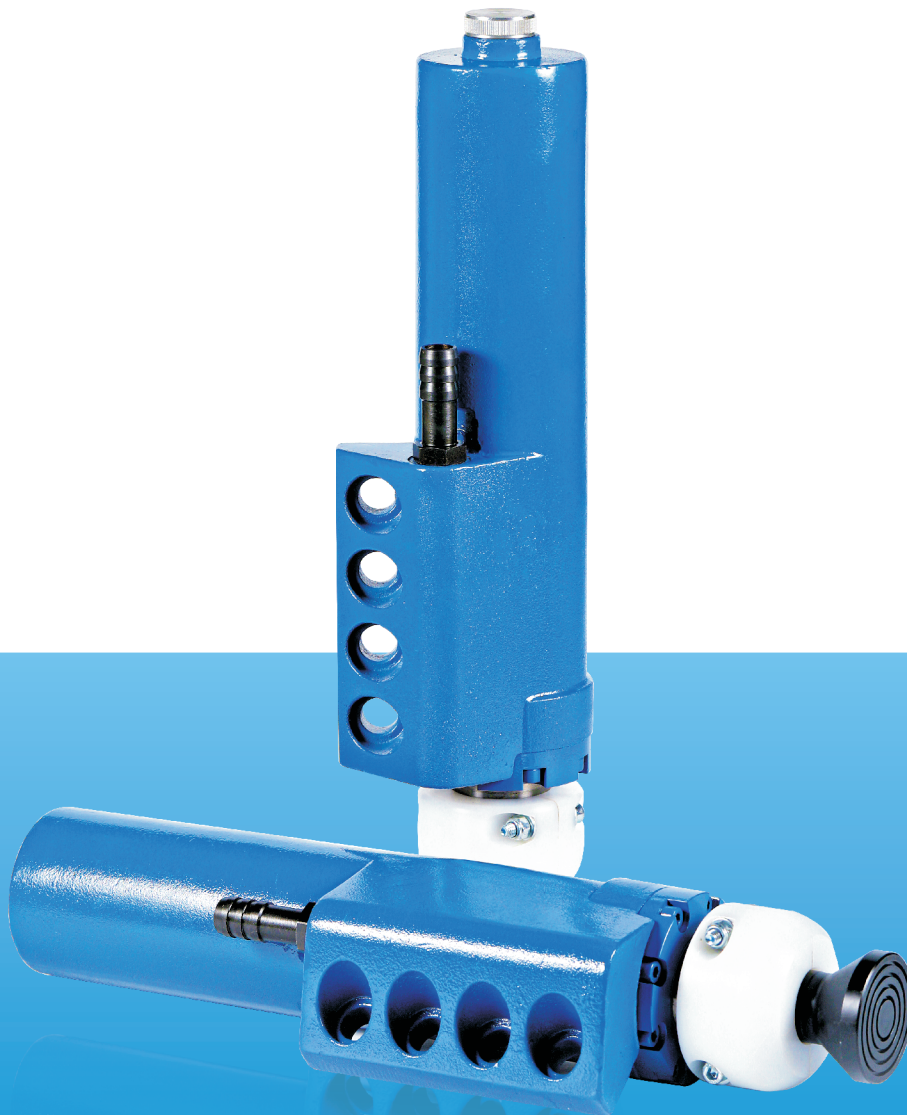




KCE SIMPSON
www.de-coringhammer.com



DE-CORING HAMMER

A cost-effective pneumatic core removal tool.

De-coring work for cast aluminum, cast steel, and other castings where internal sand core removal is difficult or sand core remains

Contact KCE

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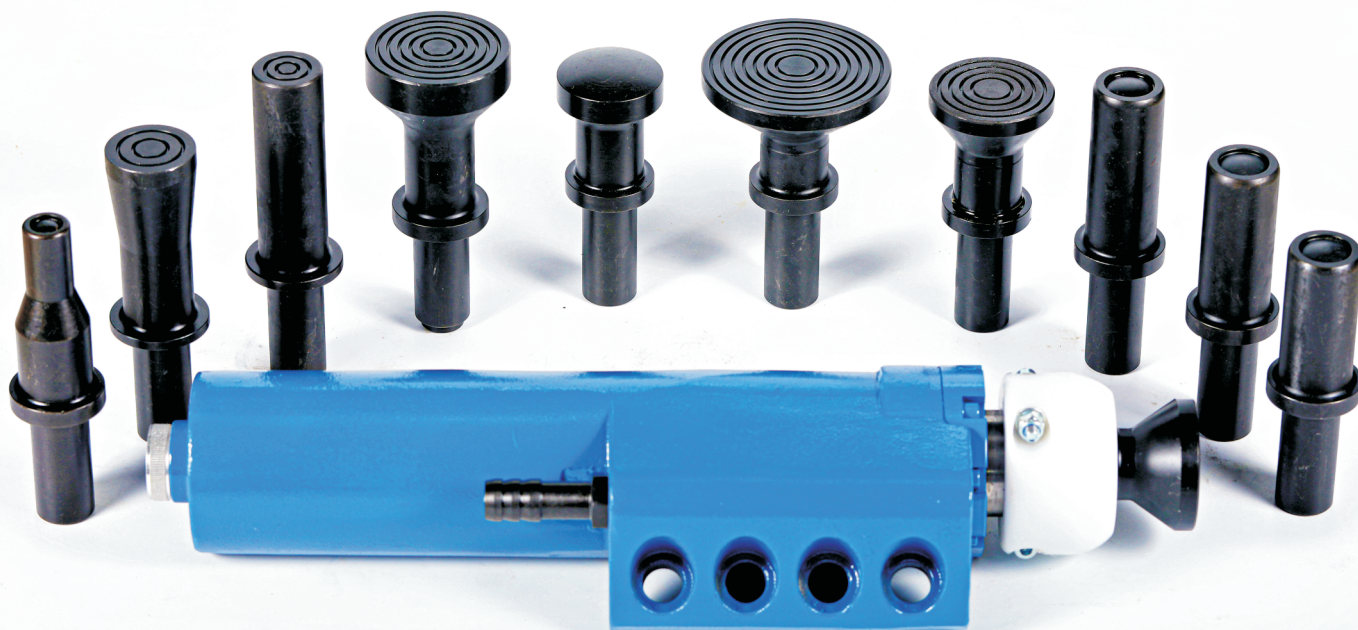
COMPANY PROFILE

KCE Simpson Machinery Technology (Nantong) Co., Ltd. is a casting equipment company that specializes in the design, manufacturing, and sales of foundry equipment.

KCE are dedicated to the design and manufacturing of decoring hammers, decoring machines, and decoring stations. Through continuous improvement and incorporating user feedback from the Chinese market, we work in collaboration with international experts to enhance the performance and lifespan of our decoring equipment.

Our goal is to produce world-class products and provide global customers with cost-effective casting equipment.

With a comprehensive quality management system, strong technical expertise, and advanced production processes, we ensure the manufacturing excellence of our products. KCE highly skilled team of employees serves as a reliable guarantee for delivering exceptional services to our customers.





WHAT IS DE-CORING HAMMER?

A cost-effective pneumatic core removal tool.

De-coring work for cast aluminum, cast steel, and other castings where internal sand core removal is difficult or sand core remains

- ◎ The vibration frequency is about 2-3% high (refer to the market with the same model)
- ◎ The vibration frequency is higher, the sand cleaning and core removal effect is better.
- ◎ Shorter vibrating cycle and efficient productivity
- ◎ Simple structure, high reliability and long service life
- ◎ Provide spare parts replacement service for all parts of the De-coring hammer
- ◎ The 70plus series of De-coring hammers are identical in size to the same model of the similar products in France and Italy, and can be completely replaced by interchange
- ◎ Personalized custom-made larger or smaller De-coring hammer that provides an increase or decrease
- ◎ The installation parts are freely customizable and the installation range is more flexible.

THE APPLICATION OF KCEN70plus SERIES HIGH-EFFECTIVE PNEUMATIC DE-CORING HAMMER

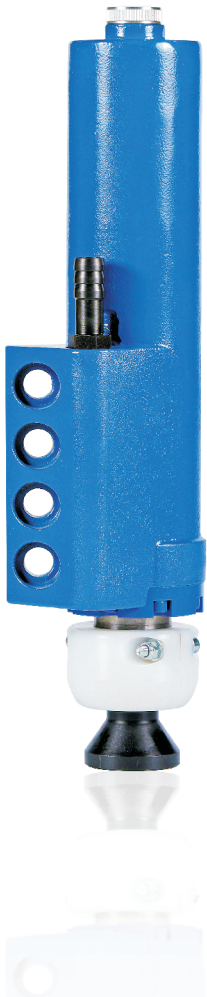
A pneumatic core removal tool with high cost performance is provided for the removal of cast aluminium, cast steel and other castings with difficult internal core removal or residual core. Some parts of the application are as follows: automobile engine cylinder block and cylinder head, automobile turbocharger steel castings, heat exchanger, etc.

PRINCIPLE OF DE-CORING HAMMER

The compressed air is used as the power source, and the air source switch is turned on, and the internal inner shaft tube assembly of the De-coring hammer is pushed out by the compressed air pressure until the front end hammer head presses the workpiece to be removed;

The switching of the position of the airflow reversing plug in the inner shaft tube assembly guides the airflow to make the piston rod perform periodic high frequency reciprocating impact on the hammer head, and the high frequency impact force generated by the piston rod is transmitted to the workpiece through the hammer head and then transmitted to the sand inside the workpiece. The core functions to separate the sand core, the sand core and the workpiece, thereby achieving the purpose of efficiently removing the sand core.

TYPES OF DE-CORING HAMMER



KCEN70plus Decoring Hammer

Air pressure (Bar)	4	5	6
Frequency (Hz)	18.4	19	20.5
Hit times (c/min)	1104	1140	1230
Air consumption (L/min.)	830	895	1030
Air inlet coupling	G3/4"		
Recommended beating stroke (mm)	≤80		
Max beating stroke (mm)	120		
Weight (kg)	24		

KCEN70plus-BL Decoring Hammer

Air pressure (Bar)	4	5	6
Frequency (Hz)	19	20.5	21.5
Hit times (c/min)	1140	1230	1290
Air consumption (L/min.)	835	925	935
Air inlet coupling	G3/4"		
Recommended beating stroke (mm)	≤80		
Max beating stroke (mm)	120		
Weight (kg)	24		

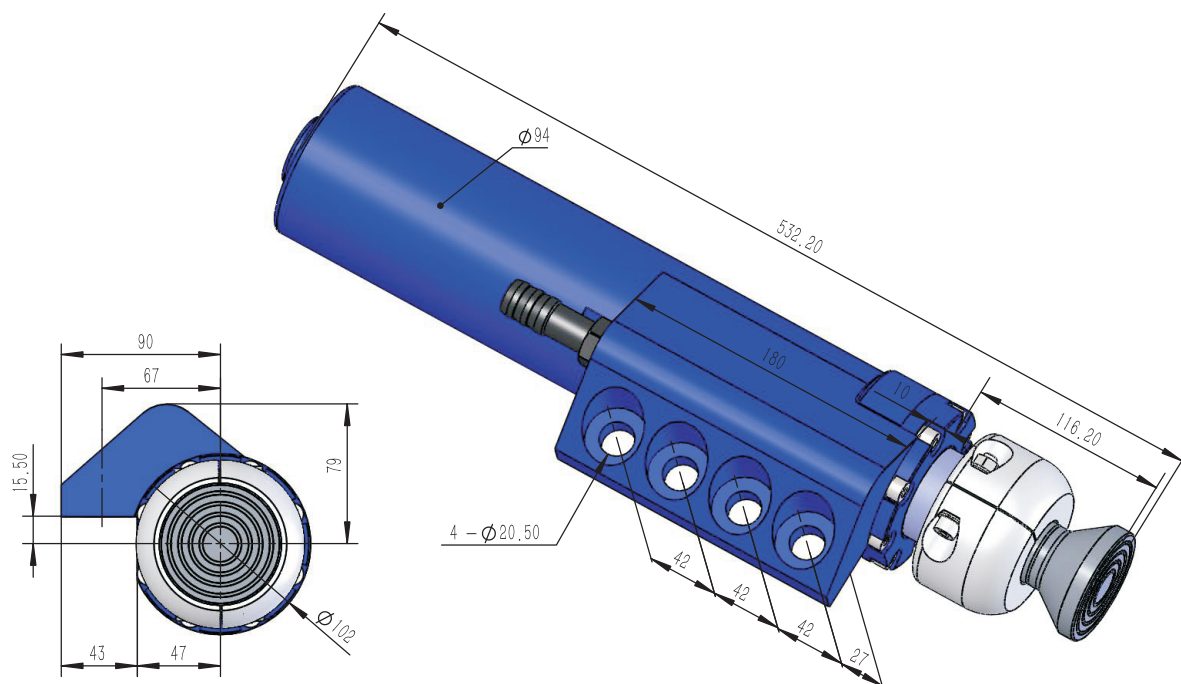
KCEN70plus-BR Decoring Hammer

Air pressure (Bar)	4	5	6
Frequency (Hz)	20.5	23	25
Hit times (c/min)	1230	1380	1500
Air consumption (L/min.)	805	910	920
Air inlet coupling	G3/4"		
Recommended beating stroke (mm)	≤80		
Max beating stroke (mm)	120		
Weight (kg)	24		

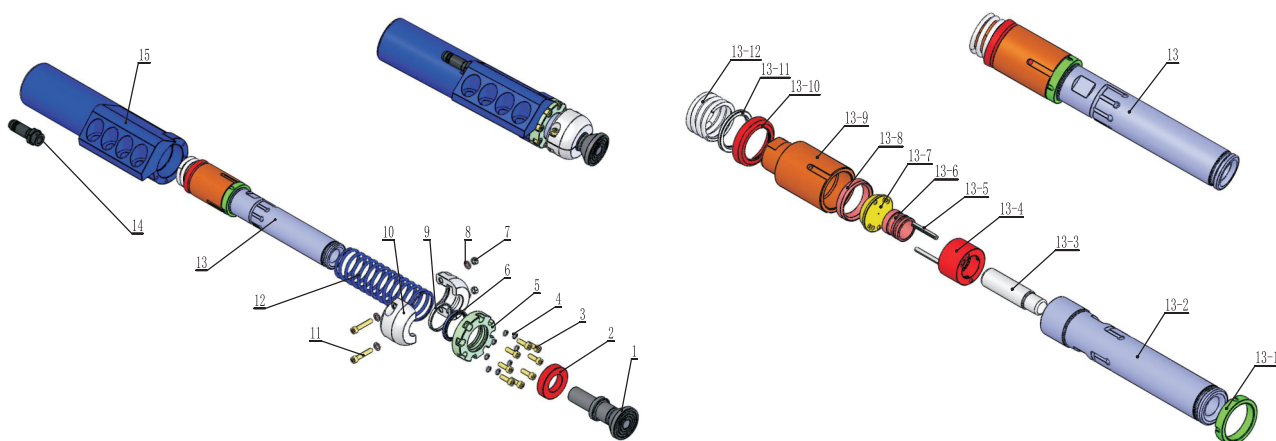
*Recommended maximum air pressure 6bar

*Recommended to use the Mobil Aimeur 525 ISO VG 46 as the recommended lubricant

*Please be sure to clean when installing the pneumatic hammer. Remember not to bring dirt from the air hammer inlet into the hammer.



Size Diagram of KCEN70plus high-effective pneumatic de-coring hammer



Explosion Chart of KCEN70plus
high-effective pneumatic de-coring hammer

Explosion Chart of Inner
Axle Tube Components



Maintenance of spare parts

In order to ensure that multiple De-coring hammers on a single device can work properly, each De-coring hammer needs to use the same diameter and length of the pipeline.

It is forbidden to use De-coring hammer without hammer and casting!

It is forbidden to use a pneumatic hammer without the workpiece that needs to be removed.

Model	No.	Part No.	Mark	Part Name
S-L1A	1	P.1A	●	Flat Beater
S-L2A	10	P.2A	●	Plastic Bushing
S-L2B	2	P.2B	●	Spacer
S-L3	12	P.3A	/	Recoil Spring
S-L4R	15	P.4R	◆	Jacket
S-L5-6	13-2,13-3	P.5-6	*	Cylinder+Piston:KCEN70plus
S-L5-6L	13-2,13-3L	P.5-6L	*	Cylinder+Piston:KCEN70plus-BL
S-L5-6R	13-2,13-3R	P.5-6R	*	Cylinder+Piston:KCEN70plus-BR
S-L7	13-1	P.7	*	Ring Nut
S-L8	13-9	P.8	*	Hammer Head
S-L9	13-4	P.9	*	Outer Valve:KCEN70plus, KCEN70plus-BL
S-L9R	13-4R	P.9R	*	Outer Valve:KCEN70plus-BR
S-L10	13-6	P.10	*	Inner Valve
S-L11	13-7	P.11	*	Valve Cover
S-L12	13-8	P.12	#	Upper Gasket
S-L13	13-12	P.13	/	Shock Absorber Spring
S-L14	13-10	P.14	#	Leather Gasket
S-L15	5	P.15	#	Guide bush
S-L16A	14	P.16A	#	Exhaust Connection 3/4"
S-L19	6	P.1/N	#	Dust Seal Ring
S-L20	3	P.2/N	#	Screw:M10×25 or M8×25
S-L21	4	P.3/N	#	Lock Washer Ø10 or Ø8
S-L22	13-5	P.4/N	#	Spring cotter: 6×50
S-L23	8	P.5/N	#	Plain Washers: Ø8
S-L24	11	P.6/N	#	Screw:M8×45
S-L25	7	P.7/N	#	Lock Nut:M8

Precaution:

When working for 300 hours or more, the De-coring hammer should be protected, inspected, cleaned, and the degreaser injected from the inlet. You do not need to remove the De-coring hammer from the core remover.

Remark:

1. "●"----The service life depends on the working environment conditions, such as the temperature of the struck casting and cycle time.
2. "/"----Need to be replaced after 1600 hours of working time, but if beating stroke is between recommended beating distance & maximum beating distance, such parts need to be replaced after about 1100 hours of working time.
3. "*"----Prevention and maintenance (after 500 hours of hammering or a little longer), those parts need to be repaired, otherwise to be replaced.
4. "#"----Such parts are recommended to be replaced every time maintenance is performed.
5. "◆"----It is recommended to be replaced by the original engineer.

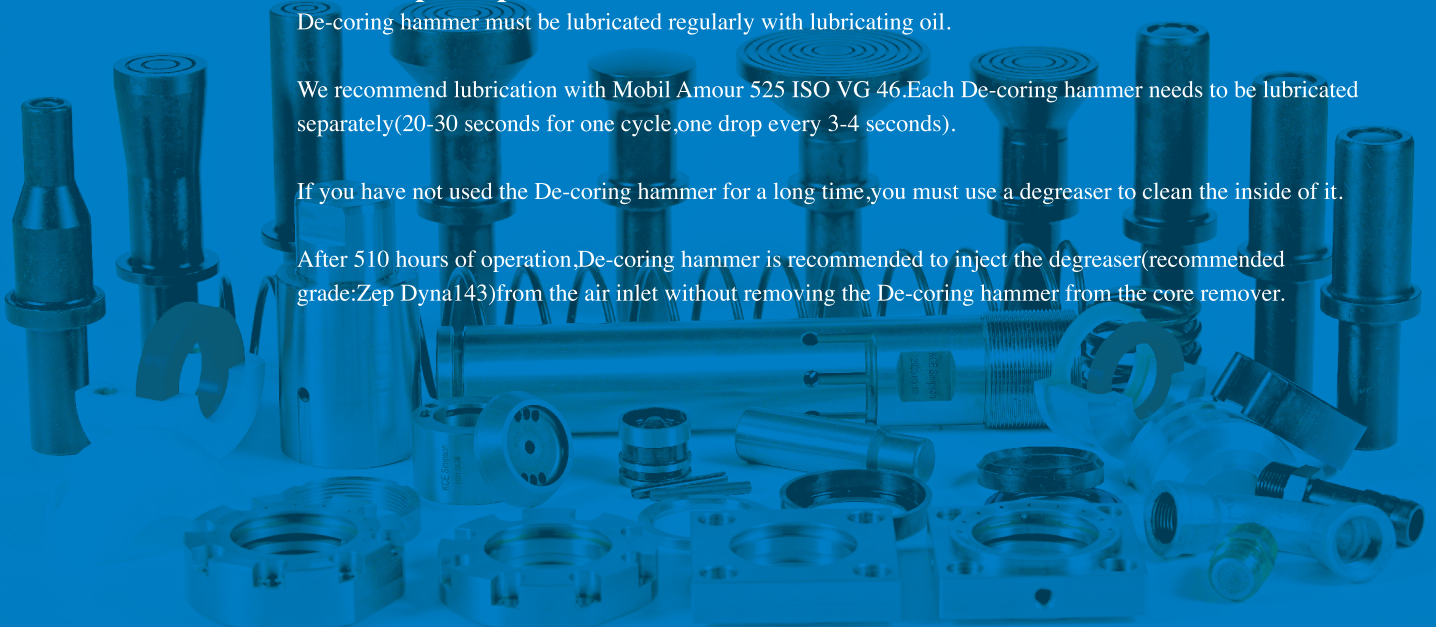
General principles

De-coring hammer must be lubricated regularly with lubricating oil.

We recommend lubrication with Mobil Amour 525 ISO VG 46. Each De-coring hammer needs to be lubricated separately (20-30 seconds for one cycle, one drop every 3-4 seconds).

If you have not used the De-coring hammer for a long time, you must use a degreaser to clean the inside of it.

After 510 hours of operation, De-coring hammer is recommended to inject the degreaser (recommended grade: Zep Dyna143) from the air inlet without removing the De-coring hammer from the core remover.





Precaution

When working for 300 hours or more, the De-coring hammer should be protected, inspected, cleaned, and the degreaser injected from the inlet. You do not need to remove the De-coring hammer from the core remover.

Maintenance:

After the De-coring hammer is disintegrated, complete the following steps:

Check the condition of each part, clean them or replace them. Reassemble the De-coring hammer step by step according to the reorganization steps. After reorganization, the De-coring hammer must be lubricated with Mobil Intermediate Lubricants.



Warning: All parts must be our products. Using parts from other sources will reduce the safety of use and ensure the safety of De-coring hammer.

The company is not responsible for products that do not use the original spare parts.

Safety Guide:

Follow the instructions for use.

When the De-coring hammer is not working properly, cut off the air supply.

When the noise of the De-coring hammer exceeds 85DB, measures to block noise (ear headphones, etc.) are required.

Air supply:

To prevent damage, contamination, or rust in the De-coring hammer, use an air handling unit to ensure that the air supplied to the De-coring hammer is dry and clean.

The required accessories, lines, and pipes must be of appropriate size, consistent with the required air pressure, intake air volume, air output, and volume to avoid the pipe being too narrow (inappropriate use of the air pipe), resulting in insufficient air supply.



**THE SAME MODEL OF THE SIMILAR PRODUCTS IN
FRANCE AND ITALY, AND CAN BE COMPLETELY
REPLACED BY INTERCHANGE**