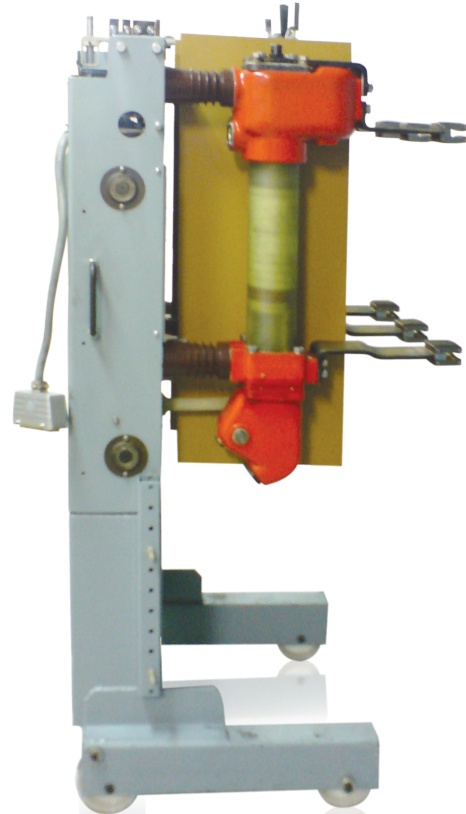


## Retrofit solutions of ASEA make HKK minimum oil circuit breaker

The foremost advantage of retrofitting a circuit breaker in switchgear is that the required specifications are met with the latest technology at only a partial cost of replacing the equipment. This becomes more evident when the associated costs of civil works, cabling and downtime are considered. Retrofitting helps in saving up to 60 percent of the cost of new equipment.

Typically, retrofitting constitutes replacement of vital equipment having similar or advanced features, for life extension, reduced maintenance and improved functionality. This includes upgradation and modernization of basic equipment and allied parts. The retrofitted switchgear offers far greater system reliability, long term availability of spares and increased safety to the operators with minimal investment and downtime.

ABB is a full system provider for retrofit solutions, from the proposal and design, through the manufacturing and testing, up to the installation and commissioning.



ASEA HKK breaker

## Benefits

### Reliability

- Significant life time extension
- Lower maintenance requirements
- Long time availability of spare parts

### Safety

- Strong fault risk reduction
- Additional embedded safety features
- Improved operator protection

### Technology

- Latest generation apparatus
- Designed according to IEC 62271-100 Standard
- Tested and certified products

### Project

- Short implementation time for replacement
- Minimum shutdown of the switchboard
- Smooth site activity

### Investment

- Limited capital investment
- Minimization of further maintenance costs
- Warranty on the conversion work

## Facts

HKK/HKM is a family name of wide range of minimum oil circuit breakers manufactured by ASEA and currently phased out. Additional variants have been produced during their life cycle due to the technological development & market requirements, such as 24 kV versions. These circuit breakers are widely present in the networks and ABB can provide the relevant retrofitting solutions across the globe. This equipment has been in service for many decades and retrofitting could significantly extend the operational life of the switchgear. The use of well proven VD4 Vacuum circuit breaker enhances the reliability of the switchgear. The retrofit circuit breakers can be fitted with Surge Arresters or Potential Transformers on request. Specific Versions can be identified looking on the label and taking the part after HKK(e.g 12/1225, 12/1240, 12/3140, 24/1225 etc.)

## Technical data

A full range of retrofit solutions have been developed based on ABB vacuum and gas circuit breakers. Fused Vacuum contactor is also available for replacing Motor Starter Units. Perfect one to one interchangeability is guaranteed from electrical and mechanical point of view. ABB proposal provides the best fit for purpose apparatus for each switchgear unit, depending on the complete network equipment conditions and the specific feeder operational characteristics.

The following basic details are necessary for providing standard retrofit solutions:

- Height, width and depth of the circuit breaker compartment
- GA and schematic drawing of the existing panel
- Height, width and depth of the panel
- Control voltage
- Feeder details
- Four side pictures
- Data label and technical information and serial number
- Compartment inner pictures



**ABB VD4 vacuum retrofit of ASEA HKK breaker**

For more information please contact Service department at:

### ABB India Limited

#### PPMV – Retrofit & Services

Plot No. 79, Street No. 17,  
MIDC Estate,  
Satpur Nashik,  
Maharashtra, India – 422007  
Tel: +91 253-2201200  
Fax: +91 253-2351260  
Email: ppmvsupport@in.abb.com

[www.abb.com](http://www.abb.com)

### NOTE:

We reserve the right to make changes in the course of technical development.