# Retrofit solutions of Jyoti/Toshiba MT, MS & OZ make minimum oil circuit breakers

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 & modernization of basic equipment and allied parts. The retrofitted switchgear offers far greater system, reliability, long term safety and long term availability of spares 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.





### 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

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. Many types of existing circuit breakers can be identified by looking at the rating plates viz. OZ2, OD1, MT1, MS1, MS2, MT2, VC10J20 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. ABB proposal provides the best fit for purpose apparatus for each switchgear unit, depending of 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, cross section and schematic drawing of the existing panel
- Height, width and depth of the panel
- Control & motor voltage
- Feeder details



ABB VD4 vacuum retrofit of Jyoti/Toshiba MT1 breaker

For more information please contact Service department at:

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#### NOTE:

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



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