

**MITSUBISHI**  
MITSUBISHI MATERIALS



# ENERGY

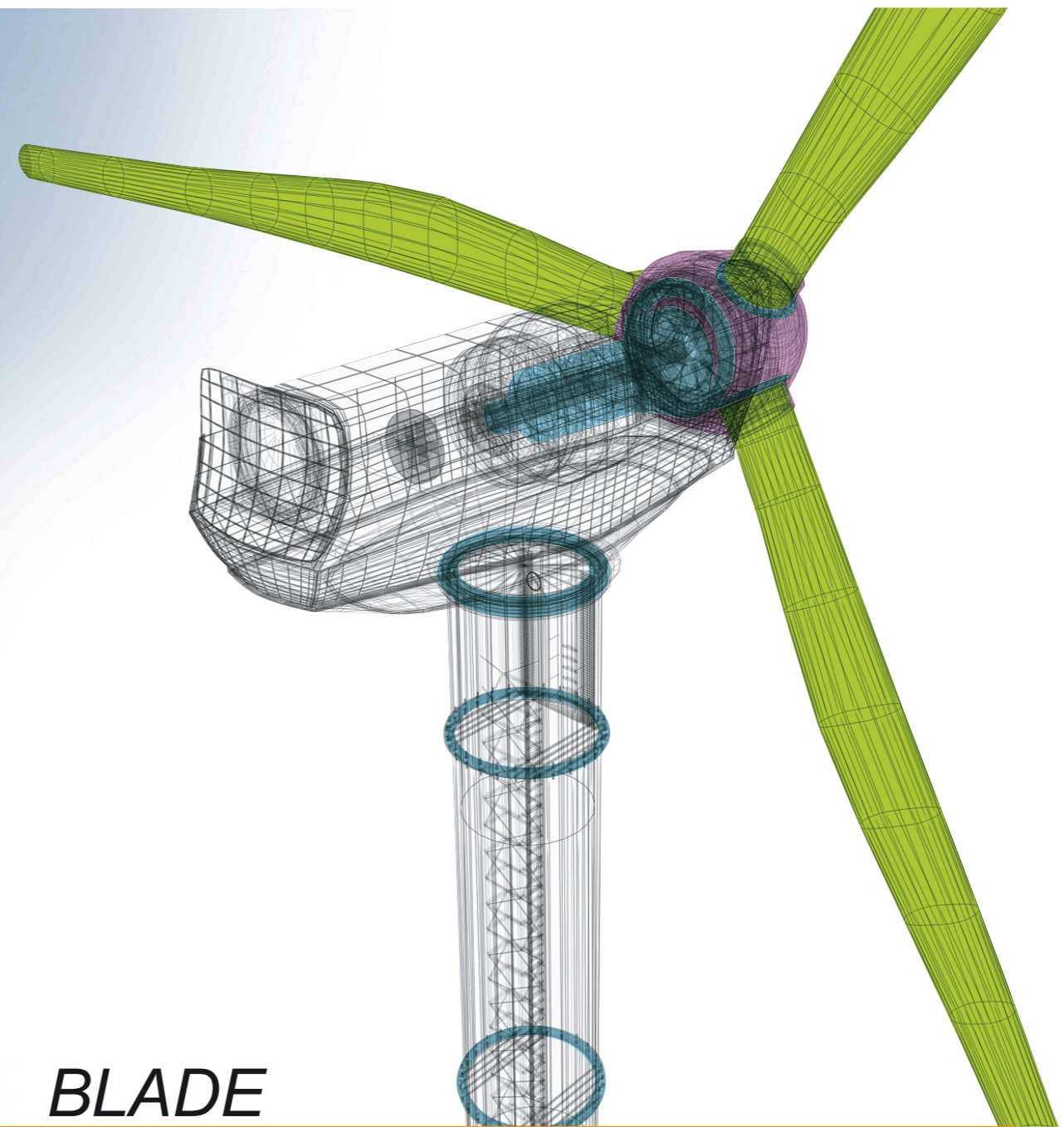
MITSUBISHI MATERIALS CORPORATION

# INDEX ENERGY

(Wind Power Generation)



Mitsubishi Materials is constantly engaging ultra modern technologies in the research and development of cutting tools. Results of the research provide solutions for the ever increasing requirements of the energy industry.



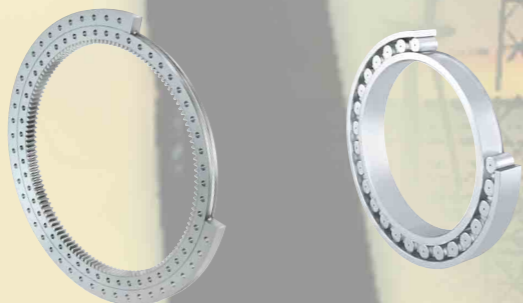
*HUB*

3



*SLEWING RING/BEARING*

5



*BLADE*

4



*SHAFT/CONNECTING RING*

6



Work material [Ductile cast iron]

## Drilling

Indexable drills with precisely balanced sharpness and stability achieve high efficiency machining for drilling large components.



## Contour machining

Indexable end mills exhibit low cutting resistance and stability machining for long overhang tool applications.



## Face milling

Indexable milling tools with fine and extra fine pitch options reduce costs while promoting higher productivity in ductile cast iron machining.



**AHX640W**



**TAW Drill**



**SPX**



**ASX445**



**NF10000**

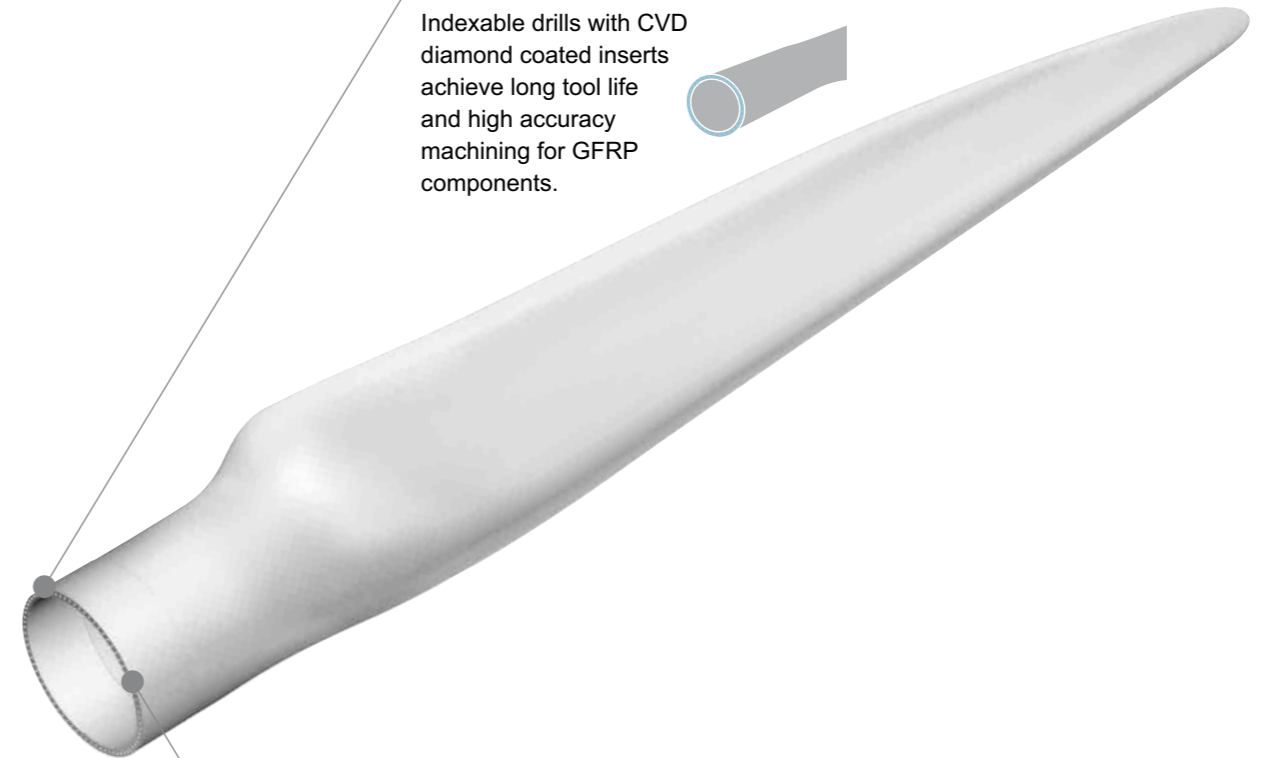
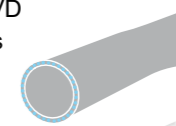


**TAW Drill**

Work material [GFRP]

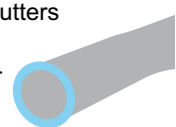
## Drilling

Indexable drills with CVD diamond coated inserts achieve long tool life and high accuracy machining for GFRP components.



## Face milling

Indexable face milling cutters with PCD inserts resist welding enabling longer tool life by preventing unexpected insert damage.



# SLEWING RING / BEARING

Work material [Alloy steel]

External, internal and face turning

CVD coated insert series offers excellent chip control and stability for heavy duty turning of forged components with scale.

Drilling

Drill series allows excellent chip evacuation to enable efficient machining of large and deep holes.



Raceway turning

Coated CBN grade inserts effectively finish turn hardened components such as HRC50-60.

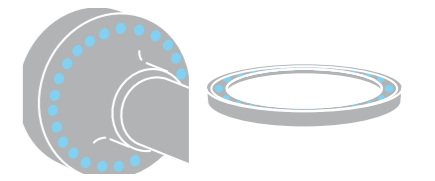


# SHAFT / CONNECTING RING

Work materials [Carbon steel, Alloy steel]

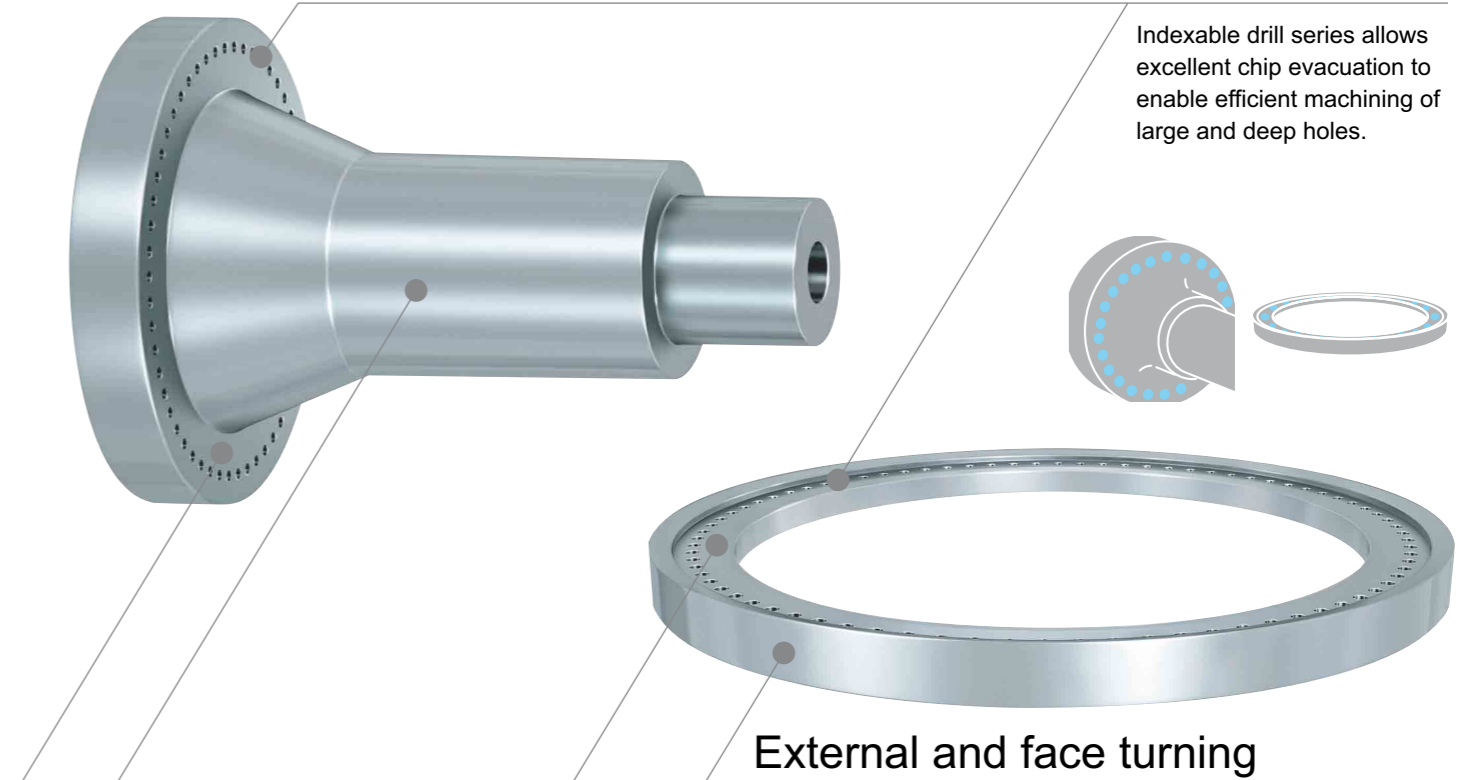
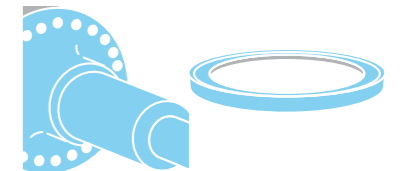
Drilling

Indexable drill series allows excellent chip evacuation to enable efficient machining of large and deep holes.



External and face turning

CVD coated insert series offers excellent chip control and stability for heavy duty turning of forged components with scale.



**Chip breaker for heavy cutting**

**Coated CBN grade BC8020**

**WSTAR Super long Drill TAF Drill**

**Chip breaker for heavy cutting**

**UE Series**

**Double Clamp Holder**

**TAW Drill**

**TAF Drill**