

# Other AP238 Operations: gridding (DiskCutting).

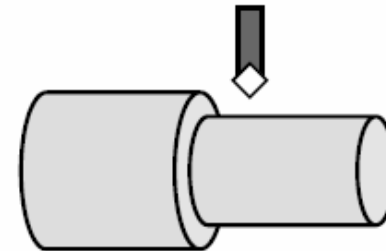
## ISO 14649:xx ????

### Turning Process Operations

STEP Tools, Inc.

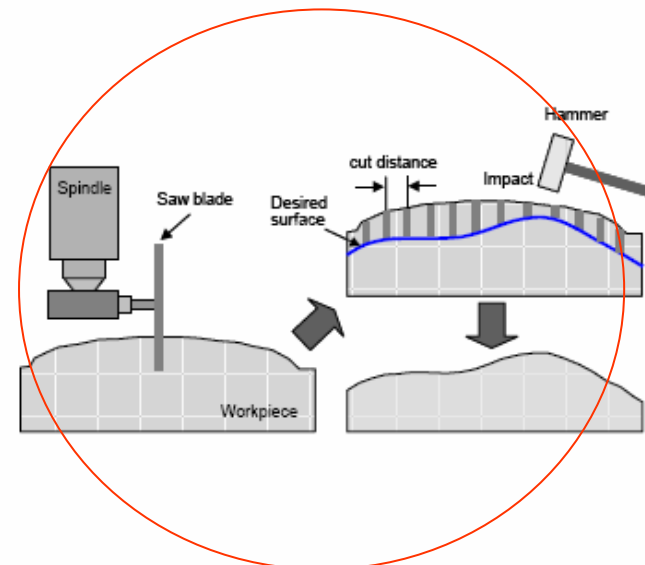
- Turning Operations

- Contouring, facing, grooving, threading and knurling.
- Roughing and finishing for each
- Set of strategies



- Possible Future Operations

- Work underway to describe operations for wire and sink EDM, contour cutting of wood and glass, grinding.
- Efforts in various stages of maturity.
- Will be added to AP-238 once the information requirements are mature.



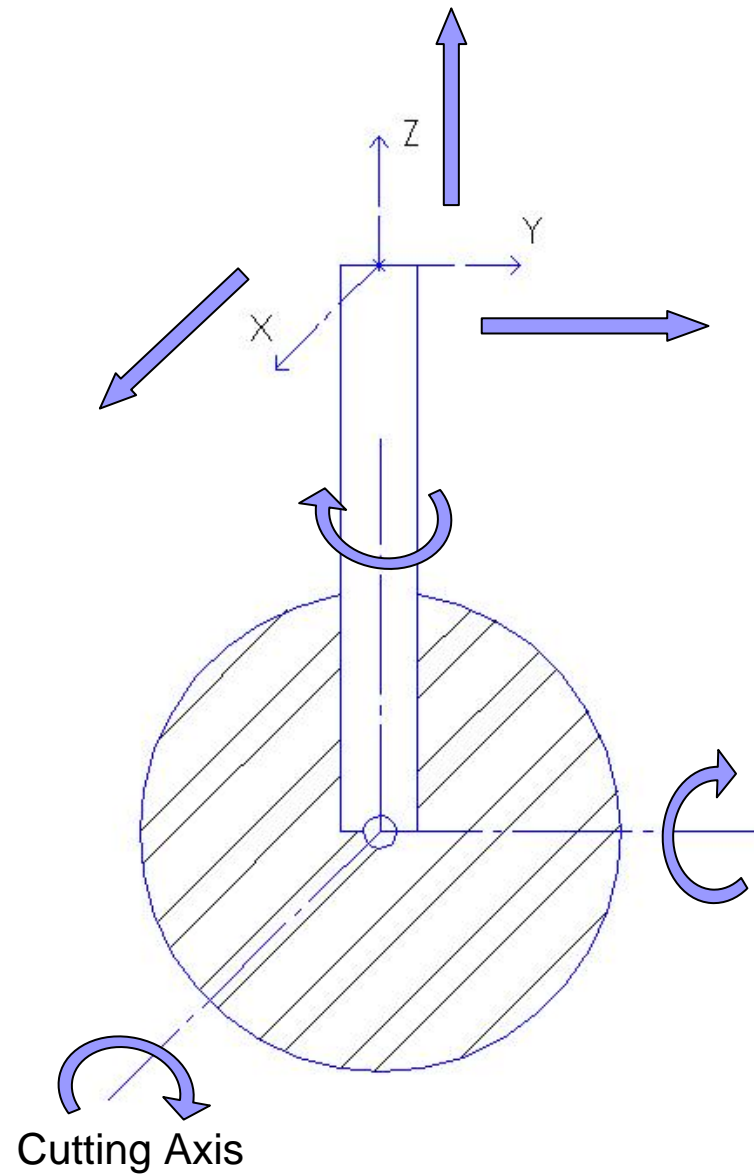
# Machines

- 5 Degrees:

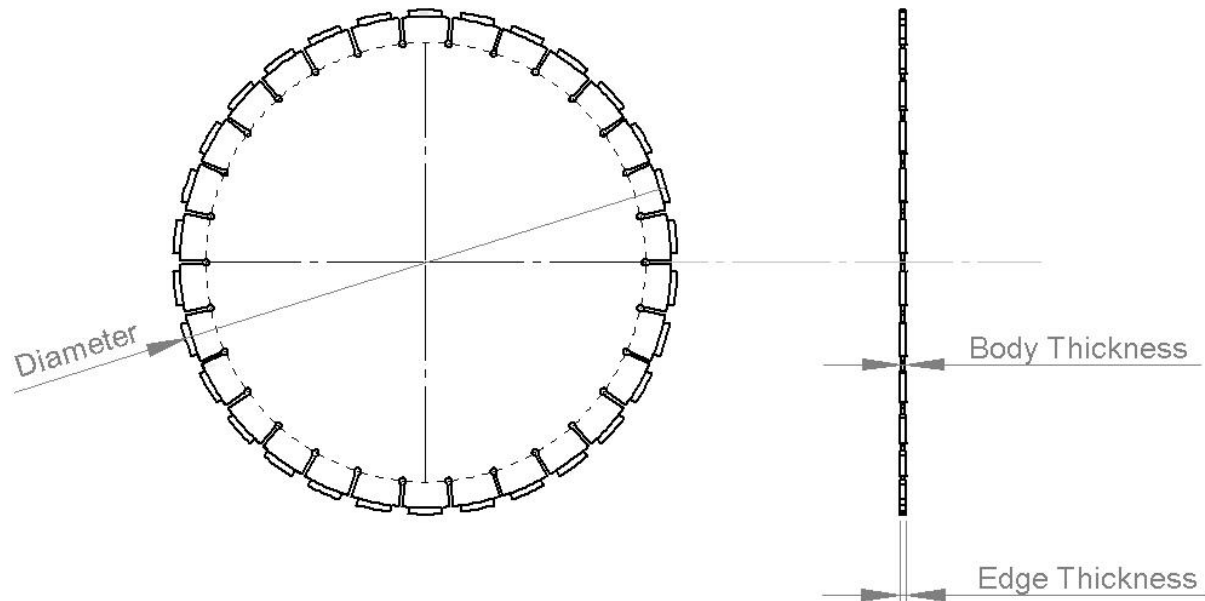
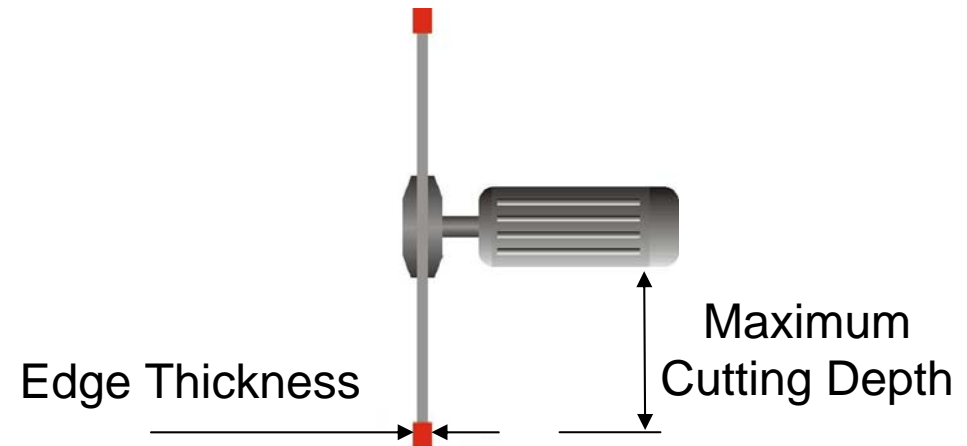


# Machine

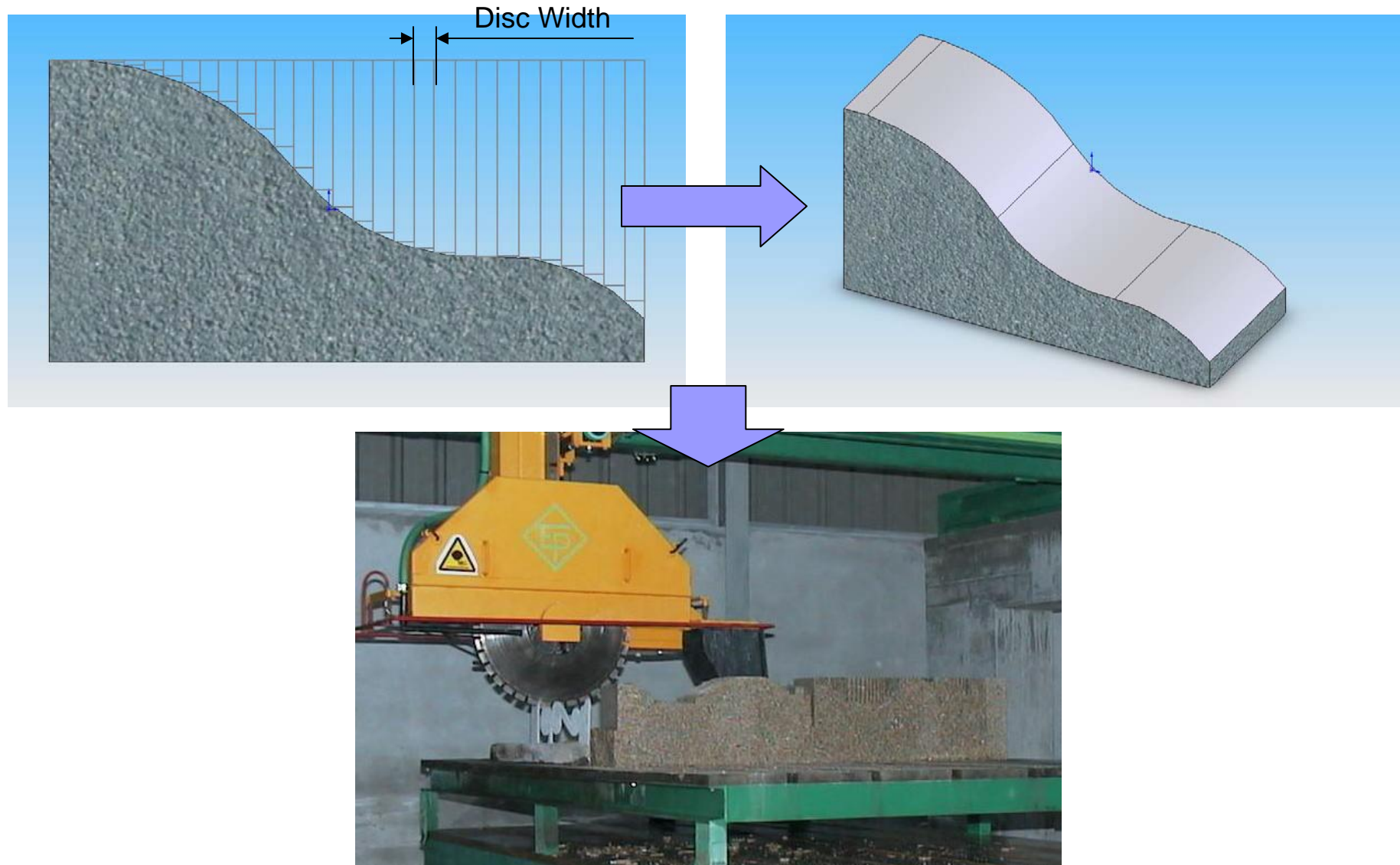
- 5 Degrees:



# Disc



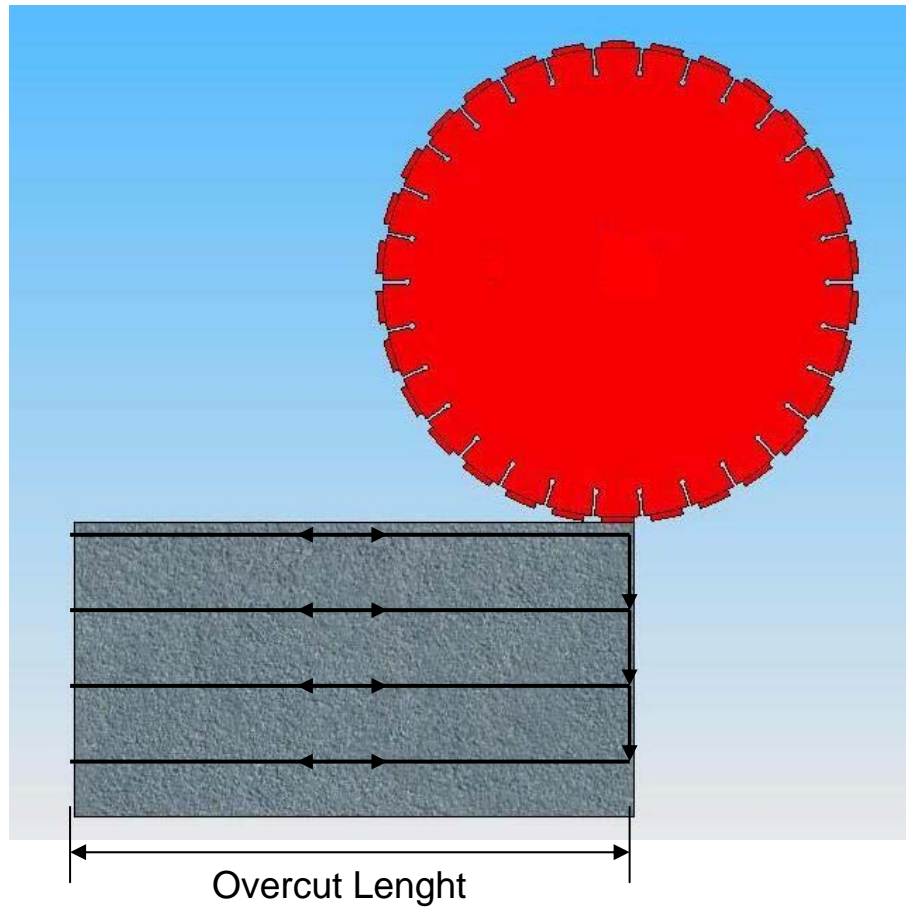
# Cutting Operations



# Cutting Operations

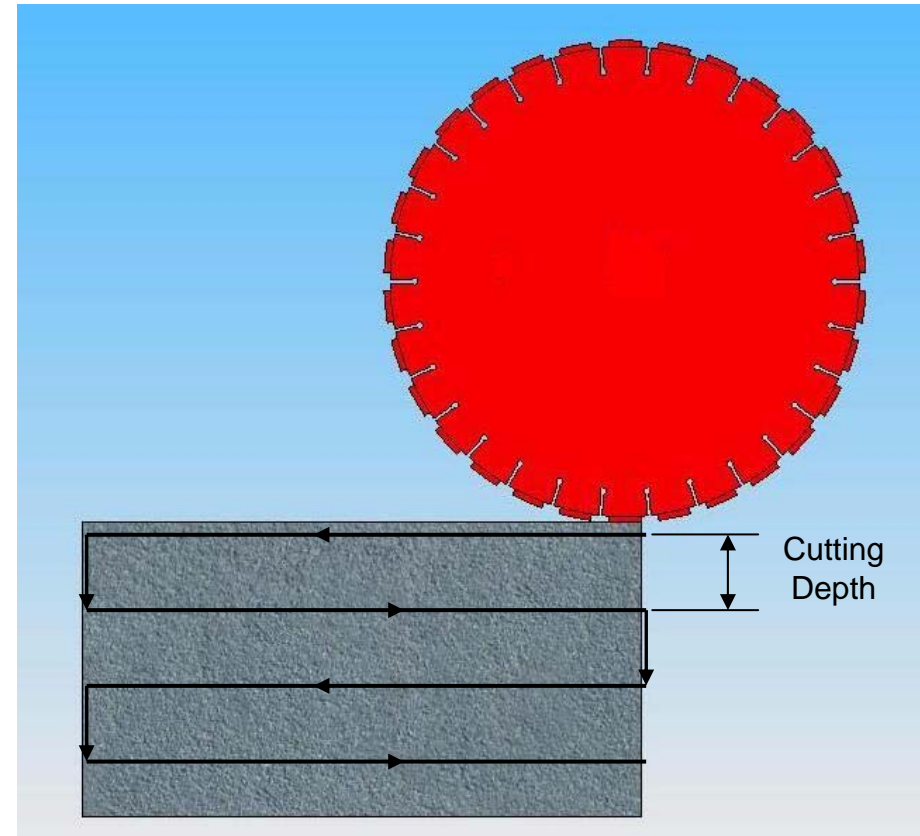
## Unidirectional Cut

(It cuts through the way specified only)

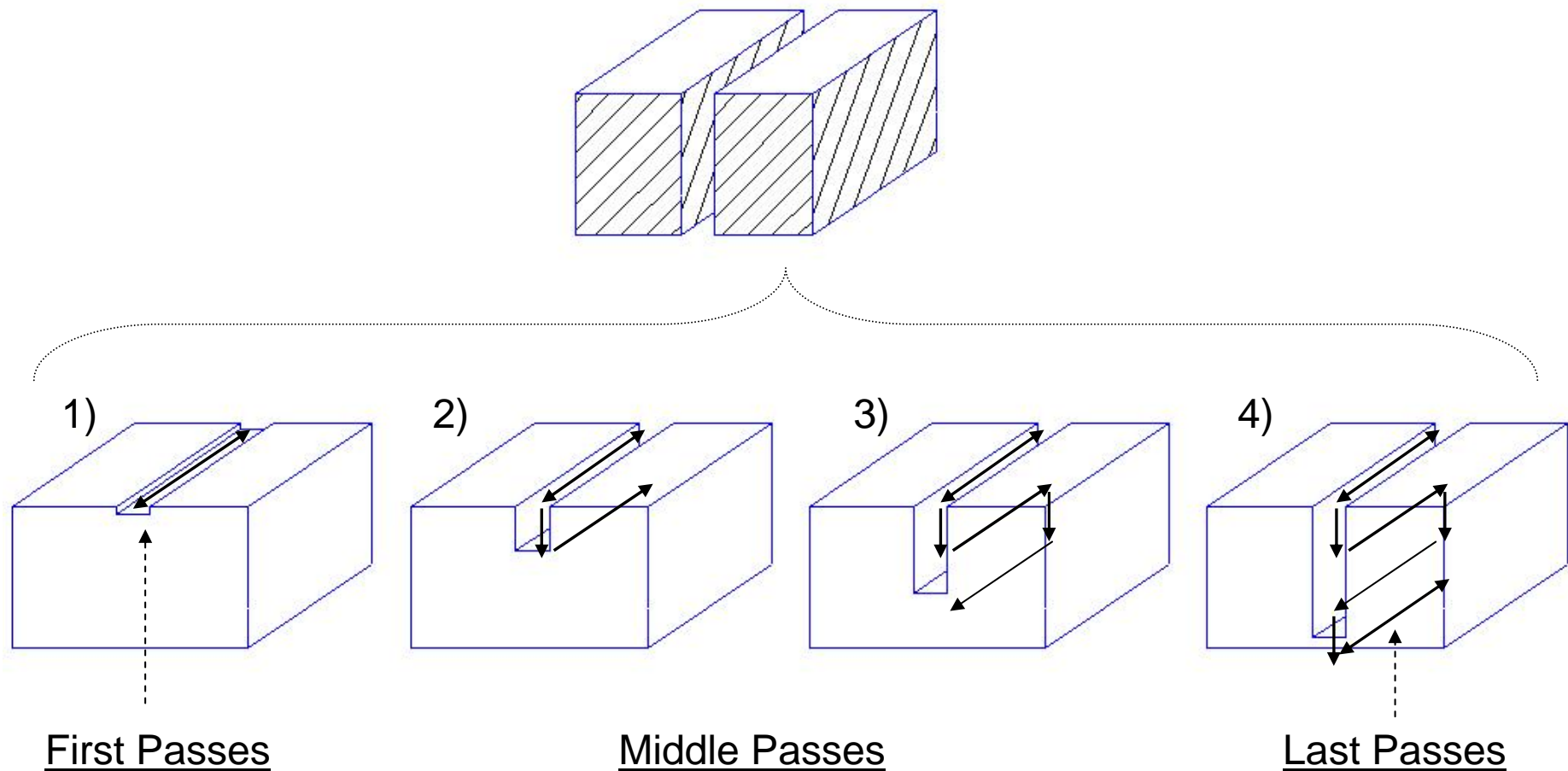


## Bidirectional Cut

(It cuts through both ways)

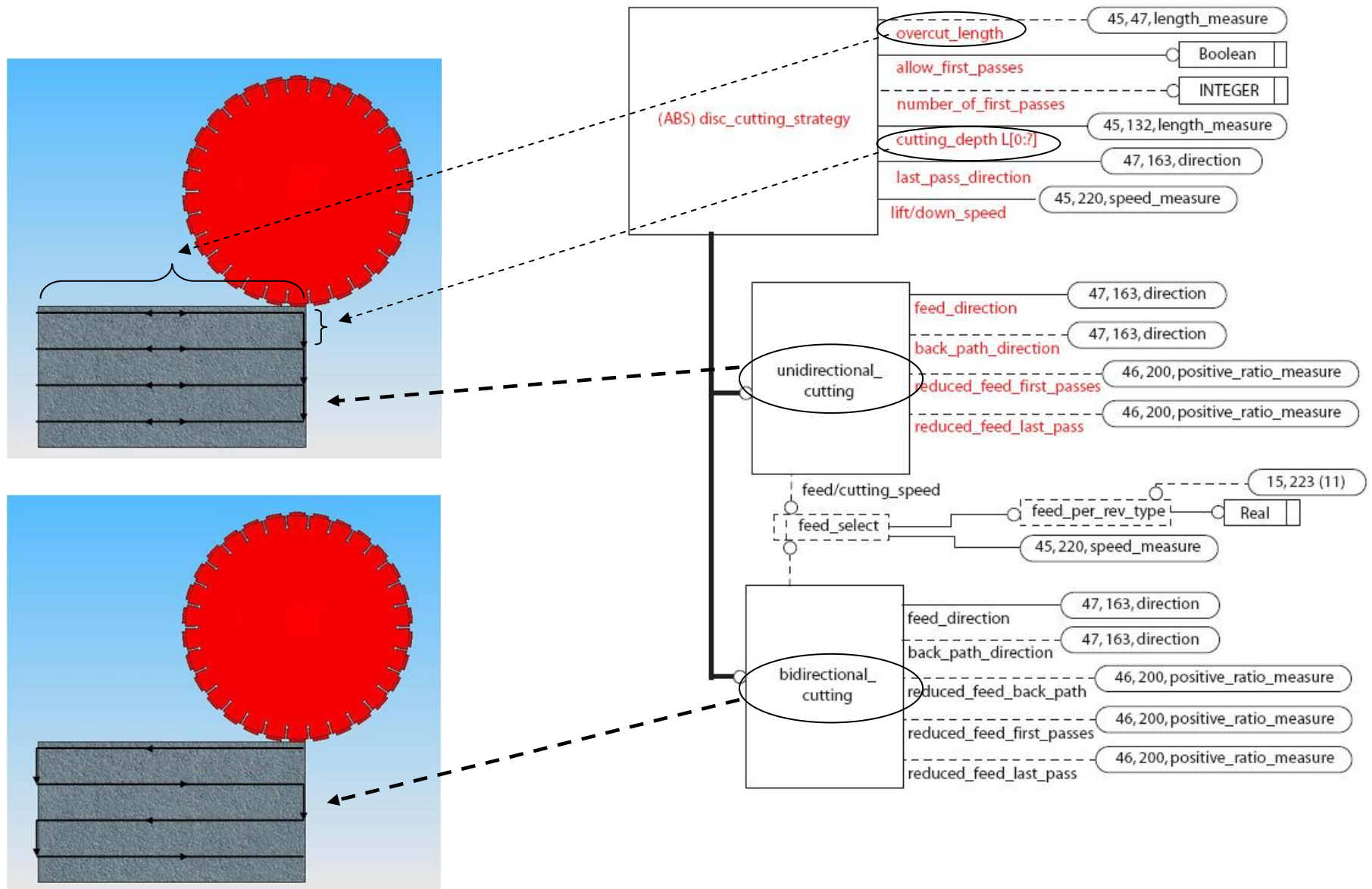


# Cutting Operations: strategies



*(Bidirectional case)*

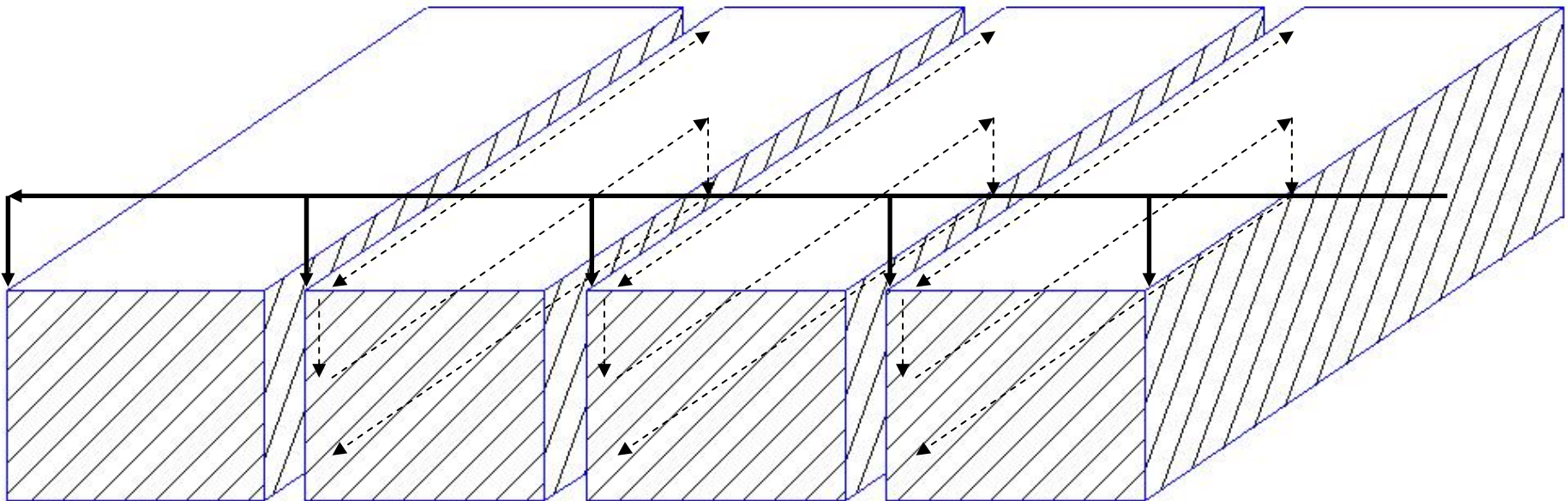
# Cut



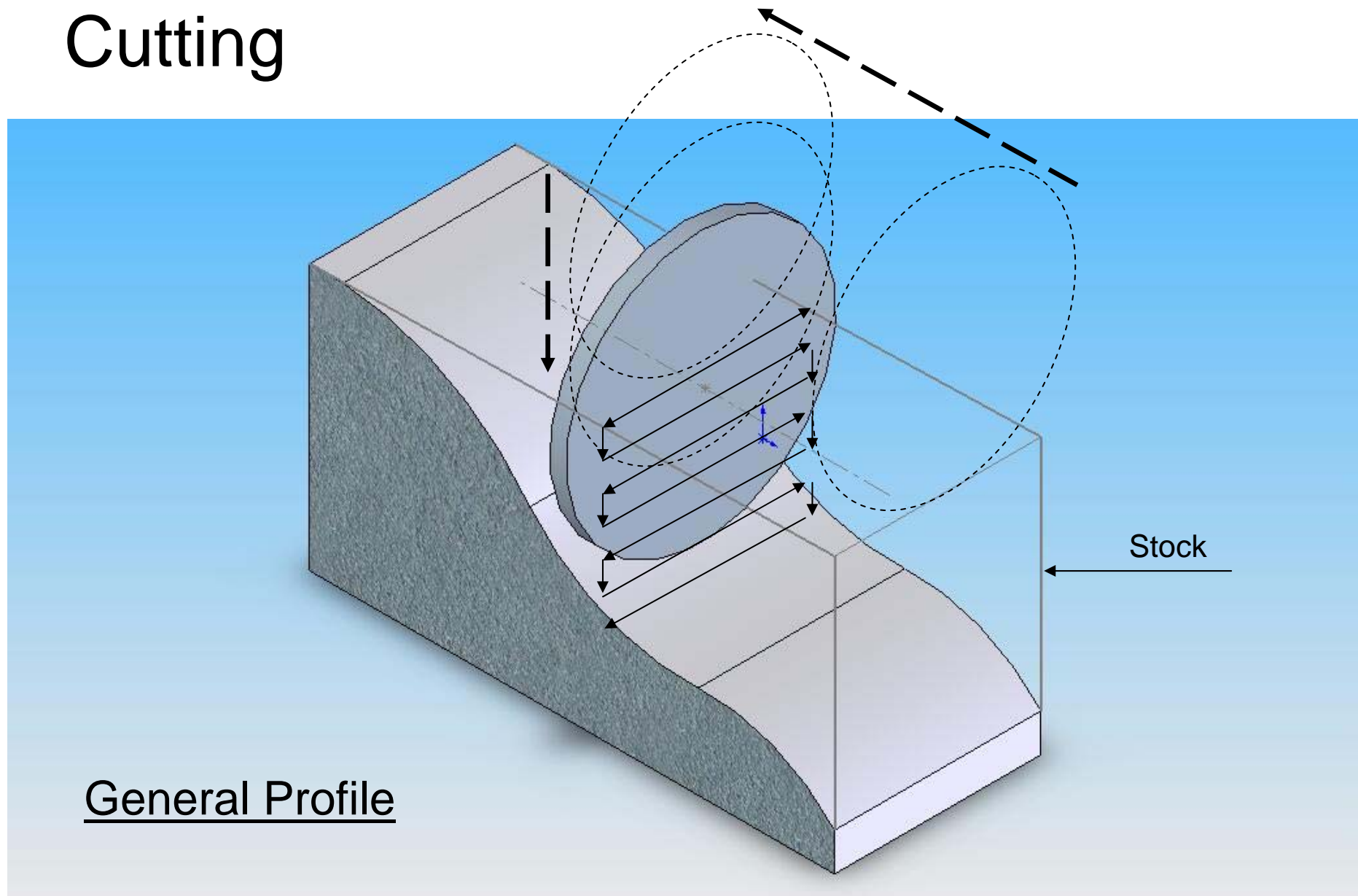


# Cut

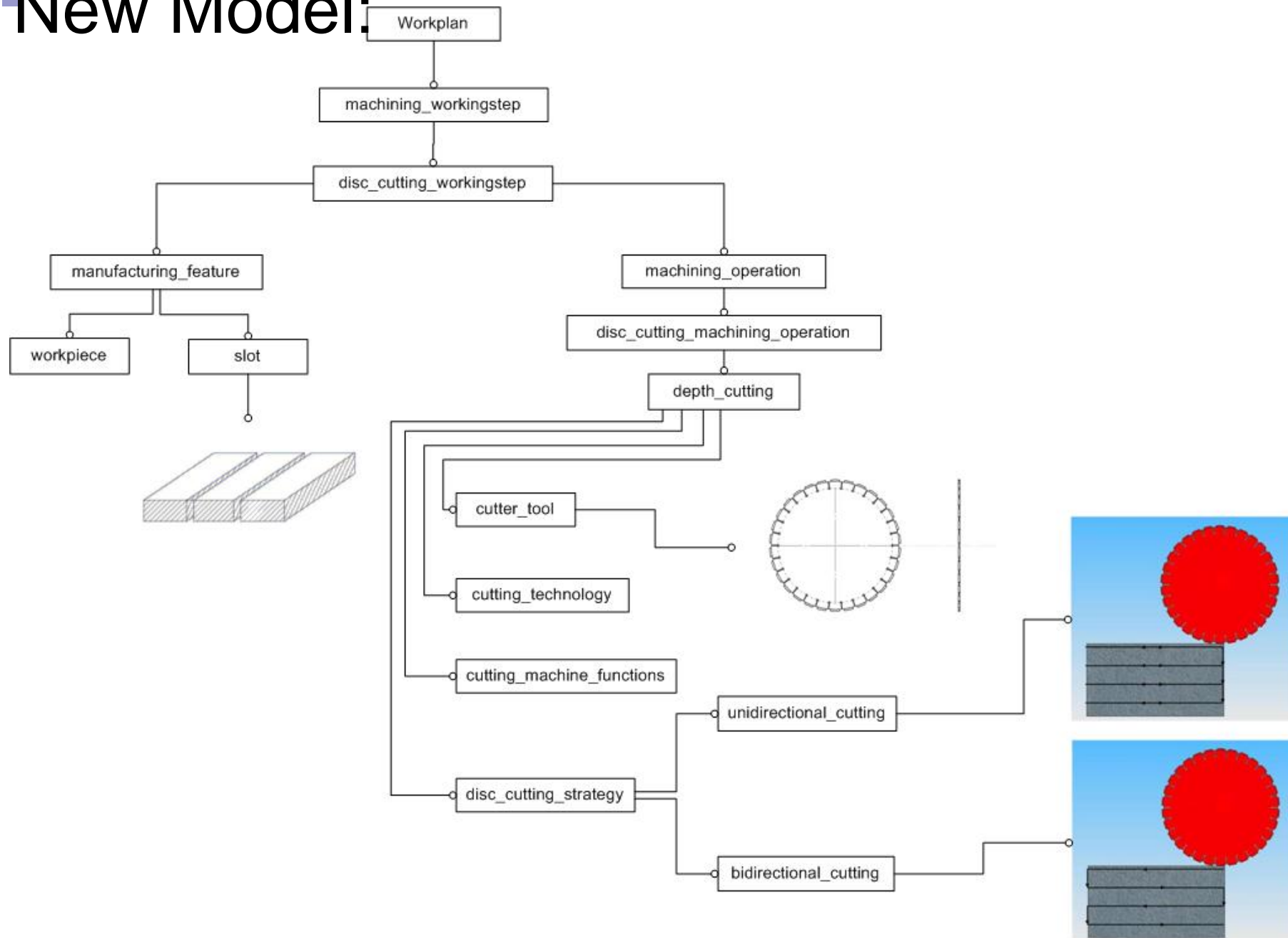
## Replicate Feature



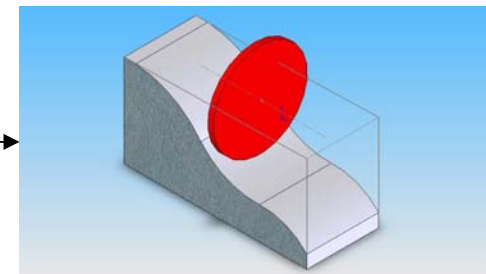
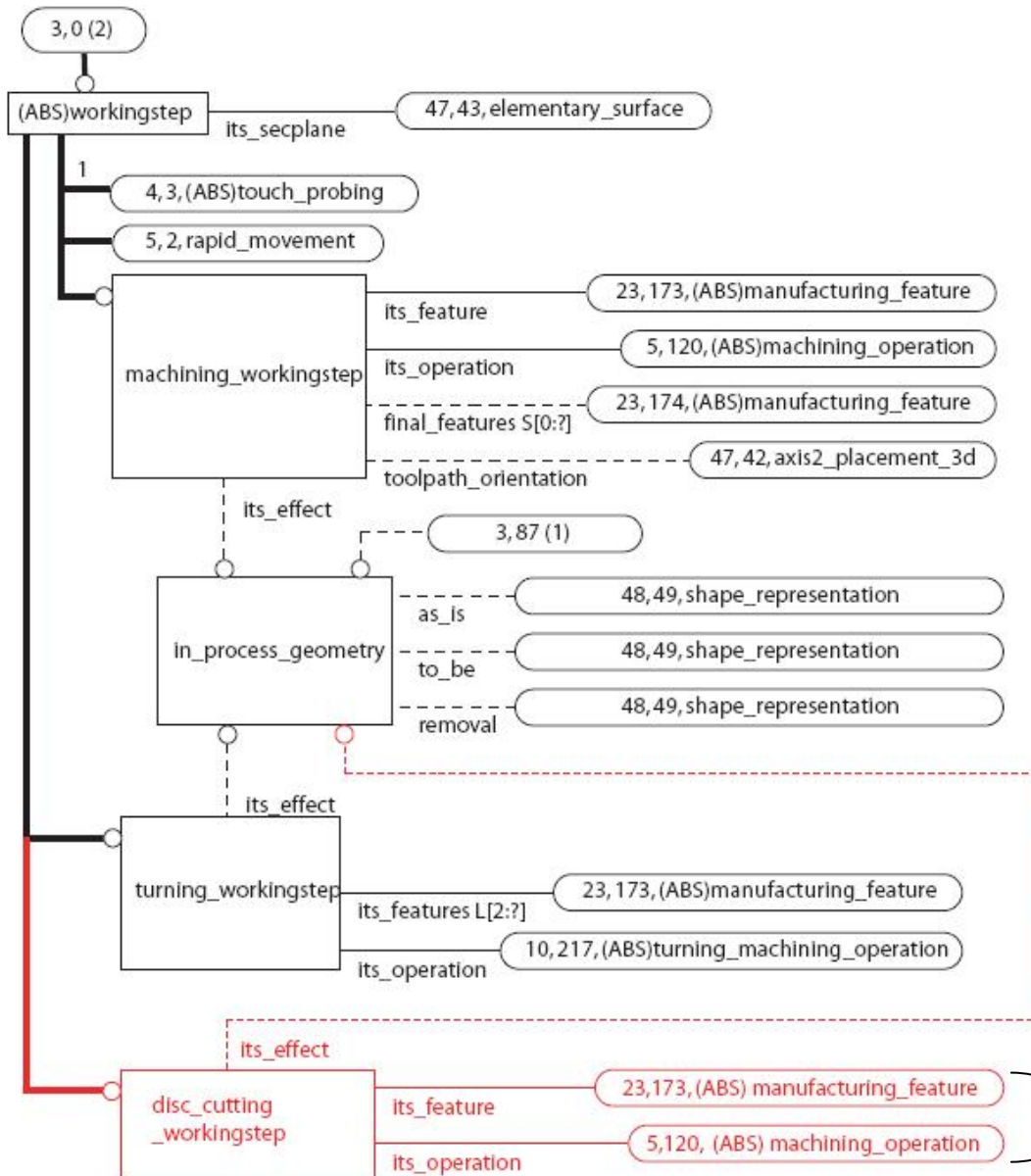
# Cutting



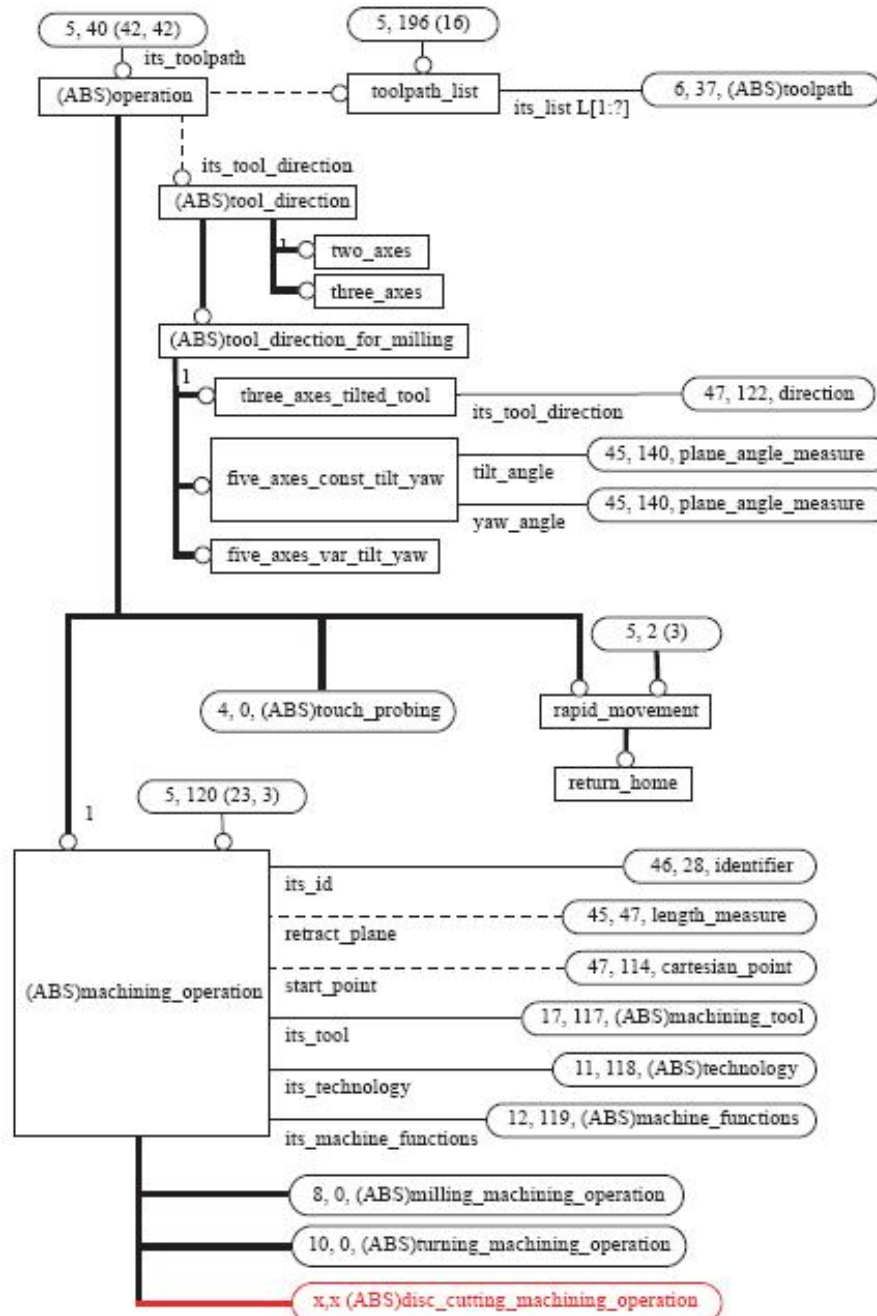
# New Model:



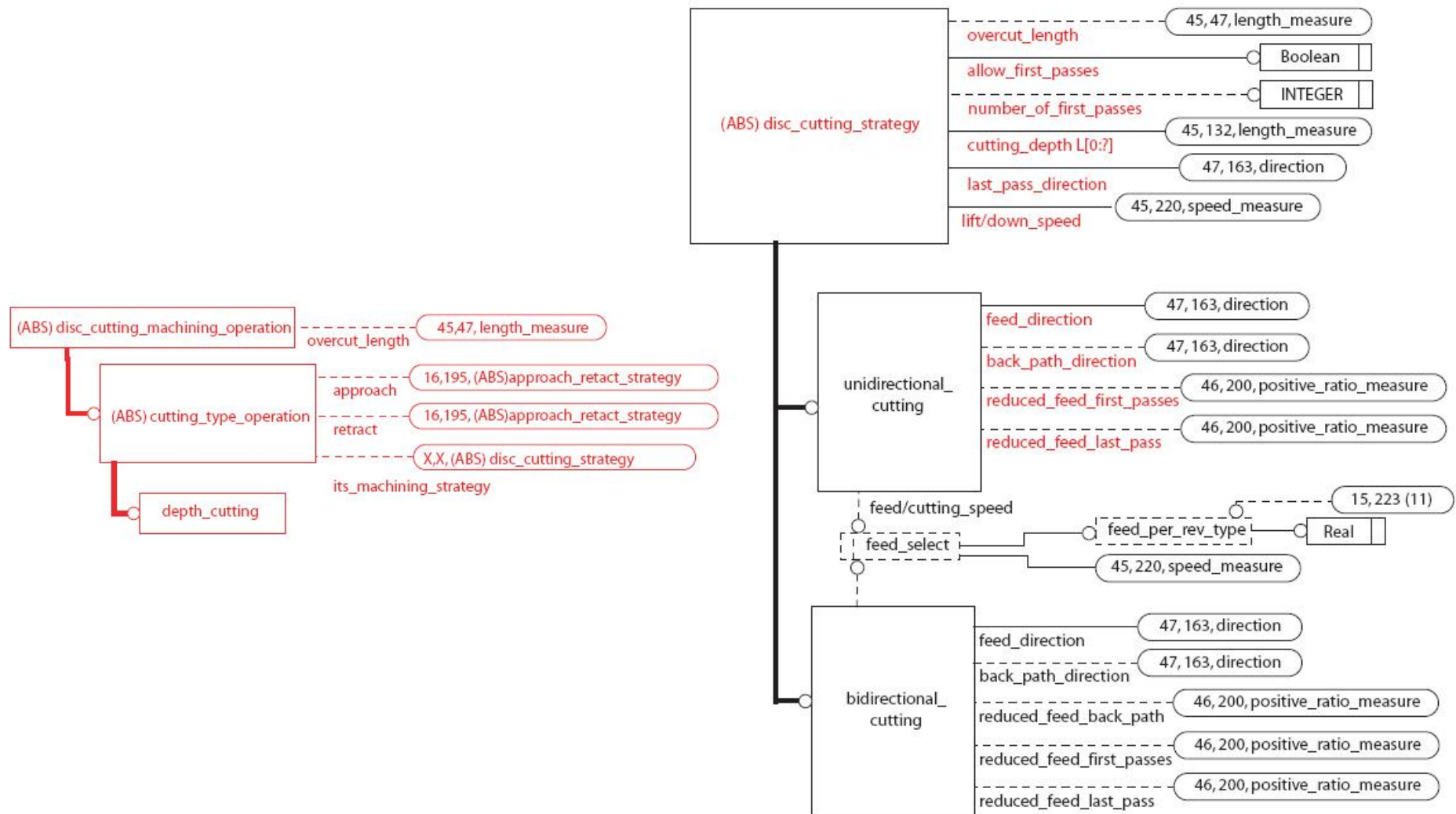
# Model



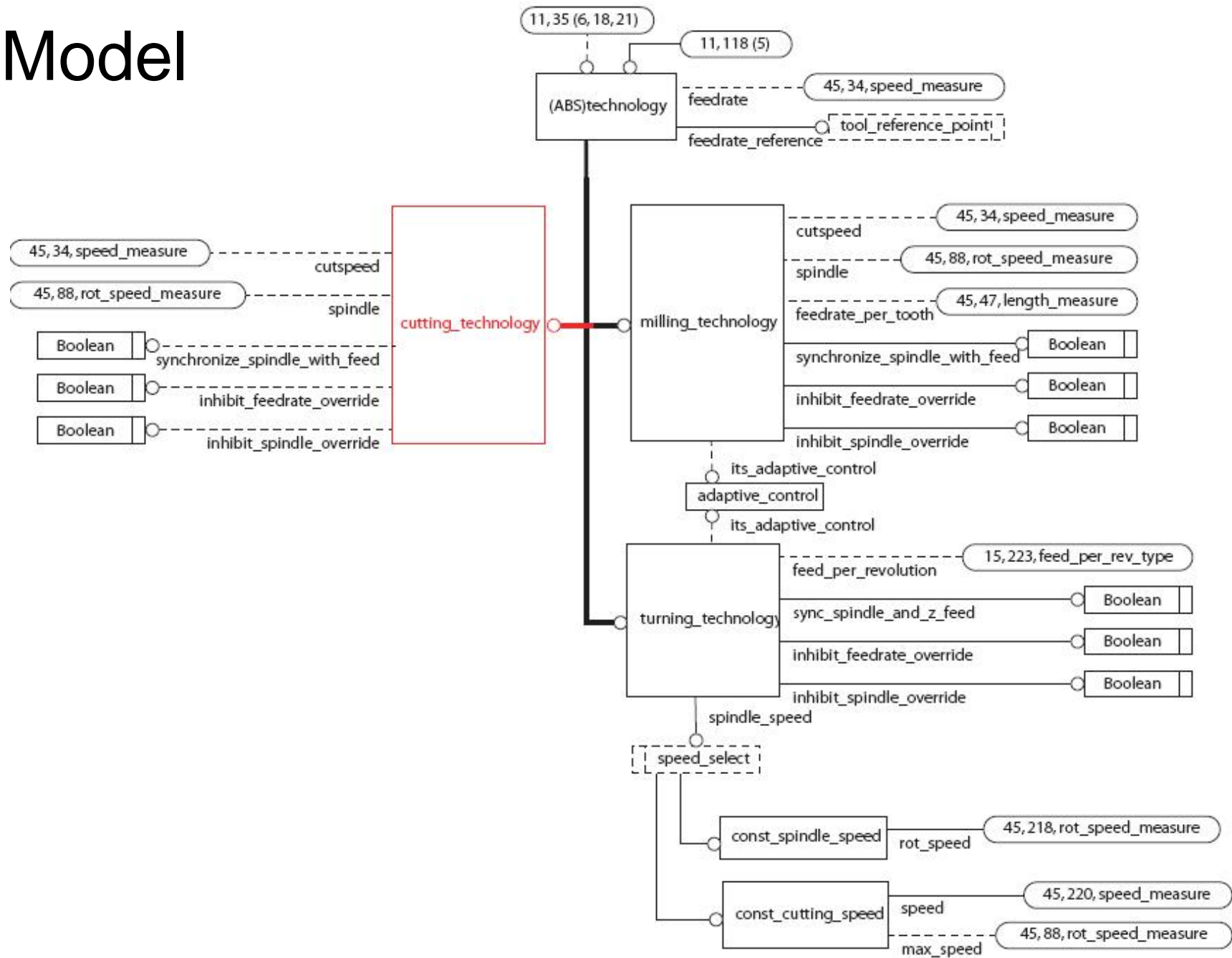
# Model



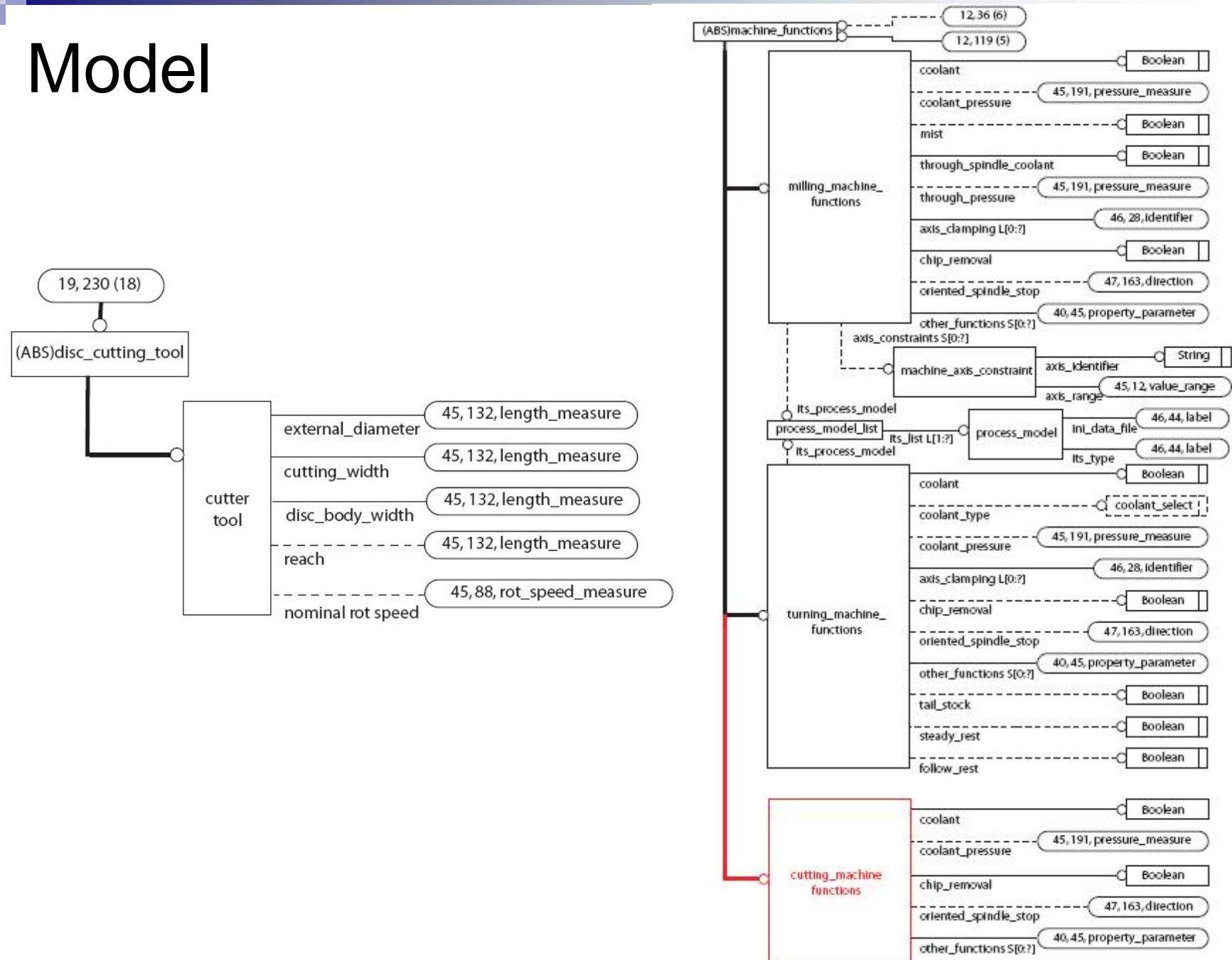
# Model



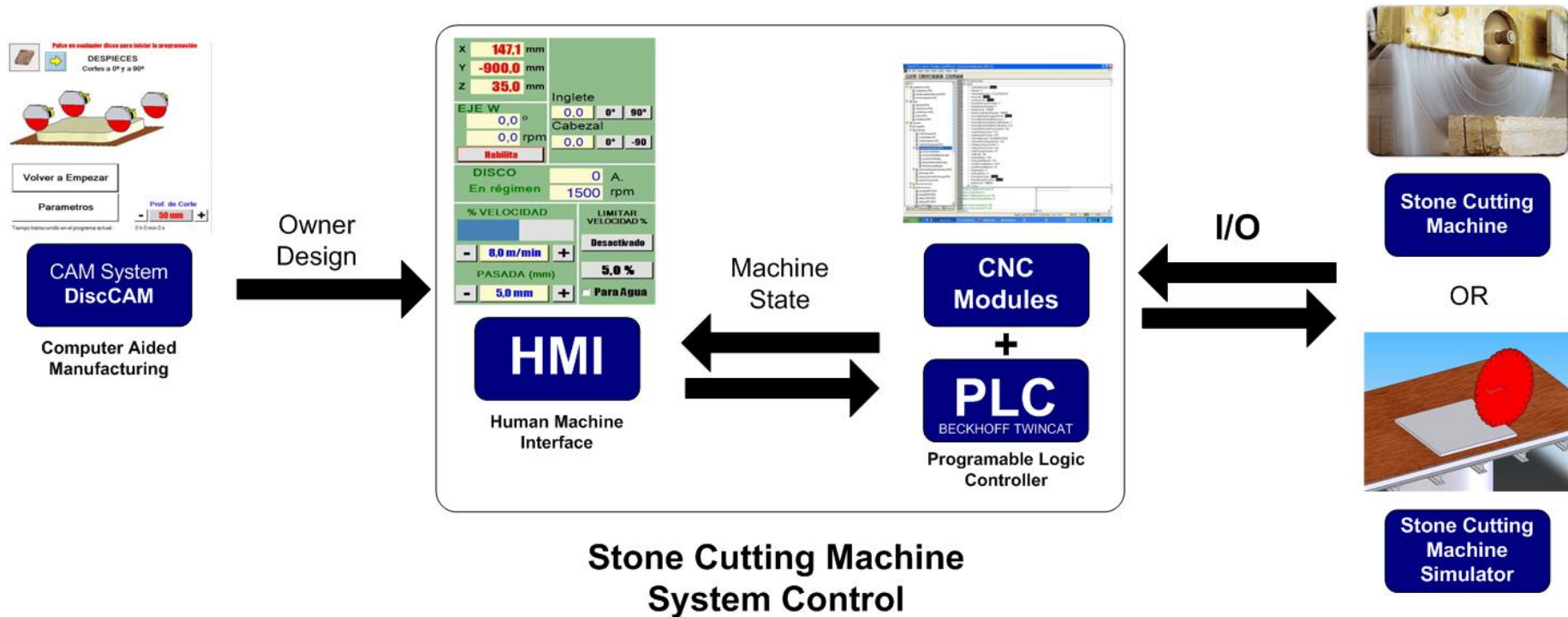
# Model



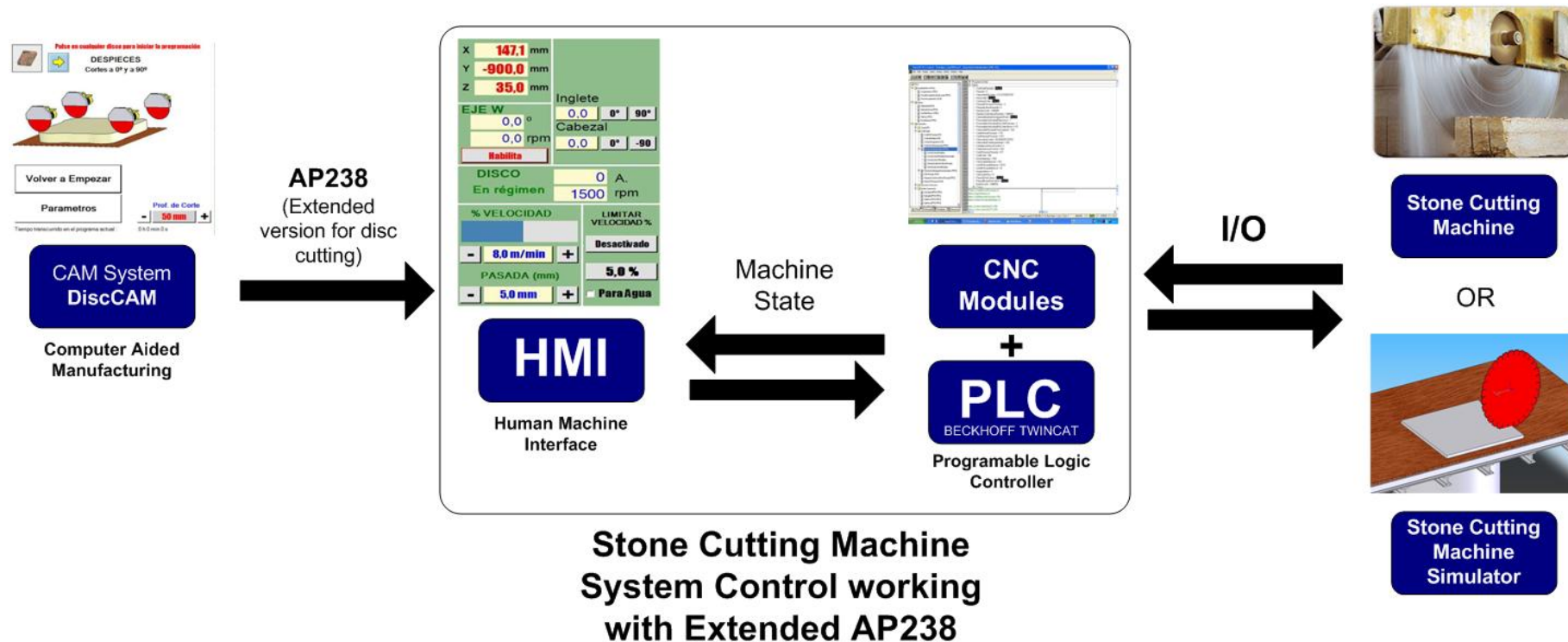
# Model



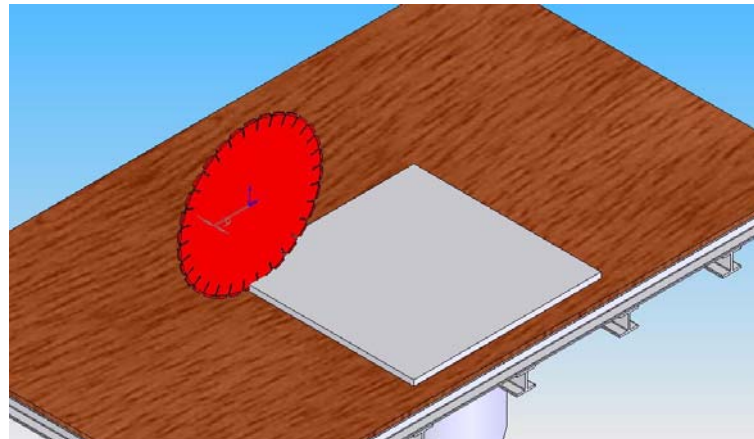
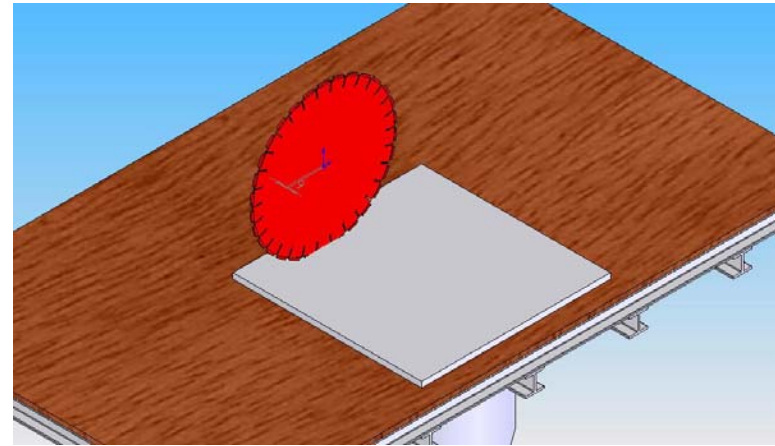
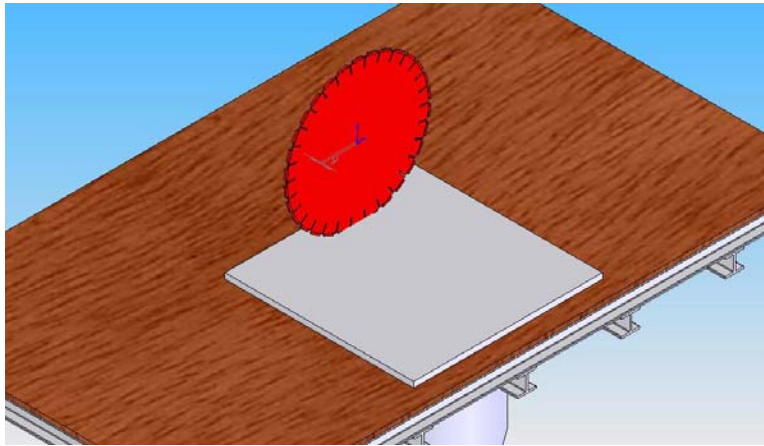
# Comercial CNC stone disc cutting machine



# AP238 Prototype implementation on a comercial CNC stone disc cutting machine



**Simulation:** The Controller and the control software is the same in the simulation and in a real machine.



# CONTROL AUTOMÁTICO

Pulse en cualquier disco para iniciar la programación

DESPIECES

Cortes a 0° y a 90°

X

0,0 mm

Y

0,0 mm

Z

0,0 mm

EJE W

0,0 °

0,0 rpm

Habilita

Inglete

0,0 0° 90°

Cabezal

0,0 0° -90°

DISCO

0 A.

En régimen

1500 rpm

% VELOCIDAD

LIMITAR VELOCIDAD %

Desactivado

-

1,5 m/min

+

PASADA (mm)

5,0 mm

-

5,0 mm

+

Para Agua

Volver a Empezar

Parametros

Prof. de Corte

50 mm

0 h 0 min 0 s

Tiempo transcurrido en el programa actual :

0 h 0 min 0 s

# CAM Application

## CAM Application: Disk parameters

# AJUSTE DIÁMETRO DISCO

Valor actual :

770,0 mm

ACTUALIZAR

Valor medido :

450,0 mm

Altura de referencia :

200,0 mm



## CAM Application: Simple feature selection





## CAM Application: Feature selection



## CAM Application: Feature selection





## CAM Application: Feature selection

