AIM Mapping Table:

| DISC_CUTTING_WORKINGSTEP | machining_workingstep | machining_workingstep <= machining_process_executable <= action_method {action_method.description="disc_cutting"} |

AIM Mapping Table:

| DEPTH_CUTTING          | disc_cutting_type_operation | disc_cutting_type_operation <= cutting_type_operation <= machining_operation <= {action_method.description="depth_cutting"} |

(* ************************************************************ *)
(* Base class for technology specific operation and strategy *)
(* ************************************************************ *)

ENTITY disc_cutting_machining_operation
  ABSTRACT SUPERTYPE OF {ONEOF(cutting_type_operation)}
  SUBTYPE OF (machining_operation);
  overcut_length: OPTIONAL length_measure;
END_ENTITY;

(* DISC Cutting type operation *)

ENTITY disc_cutting_type_operation
  ABSTRACT SUPERTYPE OF {ONEOF(depth_cutting)}
  SUBTYPE OF (disc_cutting_machining_operation);
  approach: OPTIONAL approach_retract_strategy;
  retract: OPTIONAL approach_retract_strategy;
its Machining_strategy: OPTIONAL disc_cutting_strategy;
END_ENTITY;

(* *************************************************************** *)
(* depth_cutting                                              *)
(* *************************************************************** *)

ENTITY depth_cutting
SUBTYPE OF {disc_cutting_type_operation};
END_ENTITY;
AIM Mapping Table:

<table>
<thead>
<tr>
<th>UNIDIRECTIONAL_CUTTING</th>
<th>cutting_type_strategy</th>
<th>cutting_type_strategy&lt;=machining_strategy&lt;=action_method&lt;=(action_method.description=&quot;unidirectional_cutting&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIDIRECTIONAL_CUTTING</td>
<td>cutting_type_strategy</td>
<td>cutting_type_strategy&lt;=machining_strategy&lt;=action_method&lt;=(action_method.description=&quot;bidirectional_cutting&quot;)</td>
</tr>
</tbody>
</table>

(* ******************************************************* *)
(* disc_cutting_strategy *)
(* ******************************************************* *)

ENTITY cutting_type_strategy
SUBTYPE OF (machining_strategy);
END_ENTITY;

ENTITY disc_cutting_strategy
ABSTRACT SUPERTYPE OF (ONEOF (unidirectional_cutting, bidirectional_cutting))
SUBTYPE OF (cutting_type_strategy);
overcut_length: OPTIONAL length_measure;
allow_first_passes: BOOLEAN;
number_of_first_passes: OPTIONAL INTEGER;
cutting_depth: LIST[0:?] OF length_measure;
last_pass_direction: OPTIONAL direction;
ENTITY unidirectional_cutting
SUBTYPE OF (disc_cutting_strategy);
feed_direction: direction;
back-path_direction: OPTIONAL direction;
reduced_feed_first_passes: OPTIONAL machining_feed_speed_representation;
reduced_feed_last_pass: OPTIONAL machining_feed_speed_representation;
cutting_speed: OPTIONAL machining_feed_speed_representation;
END_ENTITY;

ENTITY bidirectional_cutting
SUBTYPE OF (disc_cutting_strategy);
feed_direction: direction;
back_path_direction: OPTIONAL direction;
reduced_feed_first_passes: OPTIONAL machining_feed_speed_representation;
reduced_feed_back_path: OPTIONAL machining_feed_speed_representation;
reduced_feed_last_pass: OPTIONAL machining_feed_speed_representation;
cutting_speed: OPTIONAL machining_feed_speed_representation;
END_ENTITY;

AIM Mapping Table:

<table>
<thead>
<tr>
<th>CUTTING_TECHNOLOGY</th>
<th>machining_technology</th>
<th>machining_technology&lt;=</th>
</tr>
</thead>
<tbody>
<tr>
<td>action_method&lt;=</td>
<td>action_method&lt;=</td>
<td>(action_method.description=&quot;cutting&quot;)</td>
</tr>
</tbody>
</table>

AIM Mapping Table:
ARM:

AIM Mapping Table:

| CUTTER_TOOL | machining_tool | machining_tool<=
|-------------|----------------|-------------------|
|             | action_resource<=
|             | { action_resource.description="cutter_tool" } |
(ABS) disc_cutting_machining_operation

- overcut_length
  - 45, 47, length_measure

(ABS) cutting_type_operation

- approach
  - 16, 195, (ABS) approach_retact_strategy

- retract
  - 16, 195, (ABS) approach_retact_strategy

- depth_cutting

(ABS) disc_cutting_strategy

- overcut_length
  - 45, 47, length_measure

- allow_first_passes
  - Boolean

- number_of_first_passes
  - INTEGER

- cutting_depth [0:?]
  - 45, 132, length_measure

- last_pass_direction
  - 47, 163, direction

- lift/down_speed
  - 45, 220, speed_measure

unidirectional_cutting

- feed_direction
  - 47, 163, direction

- back_path_direction
  - 47, 163, direction

- reduced_feed_first_passes
  - 46, 200, positive_ratio_measure

- reduced_feed_last_pass
  - 46, 200, positive_ratio_measure

- feed/cutting_speed

- feed_per_rev_type
  - Real

- feed>Select

bidirectional_cutting

- feed_direction
  - 47, 163, direction

- back_path_direction
  - 47, 163, direction

- reduced_feed_back_path
  - 46, 200, positive_ratio_measure

- reduced_feed_first_passes
  - 46, 200, positive_ratio_measure

- reduced_feed_last_pass
  - 46, 200, positive_ratio_measure
(ABS) disc cutting tool

- external diameter
- cutting width
- disc body width
- reach
- nominal rot speed

19,230 (18)

45, 132, length measure

45, 132, length measure

45, 132, length measure

45, 132, length measure

45, 88, rot speed measure