

Table 6 - Mapping table for piping_component_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
angle (concluded)				<pre> #2: (piping_component_class <= characterized_object characterized_definition = characterized_object characterized_definition <- property_definition.definition property_definition represented_definition = property_definition represented_definition <- property_definition_representation.definition property_definition_representation property_definition_representation.used_representation -> {representation representation.name = `y type lateral fitting class dimensions`} representation (representation.items[i] -> representation_item (representation_item.name = `maximum angle`) (representation_item.name = `minimum angle`)) ([representation.items[i] -> representation_item representation_item.name = `maximum angle`]) [representation.items[i] -> representation_item representation_item.name = `minimum angle`)]) representation_item => measure_representation_item <= {measure_with_unit => plane_angle_measure_with_unit} measure_with_unit [measure_with_unit.value_component] [measure_with_unit.unit_component] </pre>

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ISO 10303-227:2001
<https://standards.iteh.ai/catalog/standards/sis/2562cb1d-1ba4-4427-8c1-1c6c32f86db3/iso-10303-227-2001>

Table 6 - Mapping table for piping_component_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
centre_to_end_1_length	<p>[measure_with_unit.value_component] [measure_with_unit.unit_component]</p>	<p>41 41</p>	<p>15, 16</p>	<pre>#1: (piping_component_definition <= product_definition characterized_product_definition = product_definition characterized_product_definition characterized_definition = characterized_product_definition characterized_definition <- property_definition.definition property_definition => product_definition_shape <- [shape_aspect.of_shape {shape_aspect shape_aspect.description = `centre`} shape_aspect <- shape_aspect_relationship.relating_shape_aspect] [shape_aspect.of_shape {[shape_aspect => plant_item_connector] shape_aspect shape_aspect.description = `end 1`} shape_aspect <- shape_aspect_relationship.related_shape_aspect] shape_aspect_relationship => dimensional_location dimensional_characteristic = dimensional_location dimensional_characteristic <- dimensional_characteristic_representation.dimension dimensional_characteristic_representation dimensional_characteristic_representation.representation -> shape_dimension_representation <= shape_representation <= {representation representation.name = `y type lateral fitting dimensional shape'}</pre>

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Table 6 - Mapping table for piping_component_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
centre_to_end_1_length (concluded)				<pre> representation representation.items[i] -> {representation_item representation_item.name = `centre to end 1 length`}) #2: (piping_component_class <= characterized_object characterized_definition = characterized_object characterized_definition <- property_definition.definition property_definition represented_definition = property_definition represented_definition <- property_definition_representation.definition property_definition_representation property_definition_representation.used_representation -> {representation representation.name = `y type lateral fitting class dimensions`} representation (representation.items[i] -> {representation_item (representation_item.name = `maximum centre to end 1 length`) (representation_item.name = `minimum centre to end 1 length`)) ([representation.items[i] -> {representation_item representation_item.name = `maximum centre to end 1 length`]) [representation.items[i] -> {representation_item representation_item.name = `minimum centre to end 1 length`)]) representation_item => measure_representation_item <= {measure_with_unit => length_measure_with_unit} </pre>

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Table 6 - Mapping table for piping_component_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
centre_to_end_2_length	[measure_with_unit.value_component] [measure_with_unit.unit_component]	41 41	15, 16	#1: (piping_component_definition <= product_definition characterized_product_definition = product_definition characterized_product_definition characterized_definition = characterized_product_definition characterized_definition <- property_definition.definition property_definition => product_definition_shape <- [shape_aspect.of_shape {shape_aspect shape_aspect.description = `centre`} shape_aspect <- shape_aspect_relationship.relating_shape_aspect] [shape_aspect.of_shape {[shape_aspect => plant_item_connector] [shape_aspect shape_aspect.description = `end 2`]} shape_aspect <- shape_aspect_relationship.related_shape_aspect] shape_aspect_relationship => dimensional_location dimensional_characteristic = dimensional_location dimensional_characteristic <- dimensional_characteristic_representation.dimension dimensional_characteristic_representation dimensional_characteristic_representation.representation -> shape_dimension_representation <= shape_representation <= {representation representation.name = `y type lateral fitting dimensional shape`})

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Table 6 - Mapping table for piping_component_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
centre_to_end_2_length (concluded)				<pre> representation representation.items[i] -> {representation_item representation_item.name = `centre to end 2 length`}) #2: (piping_component_class <= characterized_object characterized_definition = characterized_object characterized_definition <- property_definition.definition property_definition represented_definition = property_definition represented_definition <- property_definition_representation.definition property_definition_representation property_definition_representation.used_representation -> {representation representation.name = `y type lateral fitting class dimensions`} representation (representation.items[i] -> {representation_item (representation_item.name = `maximum centre to end 2 length`) (representation_item.name = `minimum centre to end 2 length`)) ([representation.items[i] -> {representation_item representation_item.name = `maximum centre to end 2 length`]) [representation.items[i] -> {representation_item representation_item.name = `minimum centre to end 2 length`)]) representation_item => measure_representation_item <= {measure_with_unit => length_measure_with_unit} </pre>

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Table 6 - Mapping table for piping_component_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
centre_to_end_3_length	[measure_with_unit.value_component] [measure_with_unit.unit_component]	41 41	15, 16	#1: (piping_component_definition <= product_definition characterized_product_definition = product_definition characterized_product_definition characterized_definition = characterized_product_definition characterized_definition <- property_definition.definition property_definition => product_definition_shape <- [shape_aspect.of_shape {shape_aspect shape_aspect.description = `centre`} shape_aspect <- shape_aspect_relationship.relating_shape_aspect] [shape_aspect.of_shape {[shape_aspect => plant_item_connector] [shape_aspect shape_aspect.description = `end 3`]} shape_aspect <- shape_aspect_relationship.related_shape_aspect] shape_aspect_relationship => dimensional_location dimensional_characteristic = dimensional_location dimensional_characteristic <- dimensional_characteristic_representation.dimension dimensional_characteristic_representation dimensional_characteristic_representation.representation -> shape_dimension_representation <= shape_representation <= {representation representation.name = `y type lateral fitting dimensional shape`})

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[ISO_10303-227-2001](https://standards.iteh.ai/standard/ISO_10303-227-2001)

Table 6 - Mapping table for piping_component_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
centre_to_end_3_length (concluded)				<pre> representation representation.items[i] -> {representation_item representation_item.name = `centre to end 3 length`}) #2: (piping_component_class <= characterized_object characterized_definition = characterized_object characterized_definition <- property_definition.definition property_definition represented_definition = property_definition represented_definition <- property_definition_representation.definition property_definition_representation property_definition_representation.used_representation -> {representation representation.name = `y type lateral fitting class dimensions`} representation (representation.items[i] -> {representation_item (representation_item.name = `maximum centre to end 3 length`) (representation_item.name = `minimum centre to end 3 length`)) ([representation.items[i] -> {representation_item representation_item.name = `maximum centre to end 3 length`]) [representation.items[i] -> {representation_item representation_item.name = `minimum centre to end 3 length`)]) representation_item => measure_representation_item <= {measure_with_unit => length_measure_with_unit} </pre>

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Table 6 - Mapping table for piping_component_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
end_1_connector	plant_item_connector	227		<p>piping_component_definition <= product_definition</p> <p>characterized_product_definition = product_definition</p> <p>characterized_product_definition</p> <p>characterized_definition = characterized_product_definition</p> <p>characterized_definition <- property_definition.definition</p> <p>property_definition => product_definition_shape <- shape_aspect.of_shape</p> <p>{shape_aspect}</p> <p>shape_aspect.description = `end 1'</p> <p>shape_aspect => plant_item_connector</p>
end_2_connector	plant_item_connector	227		<p>piping_component_definition <= product_definition</p> <p>characterized_product_definition = product_definition</p> <p>characterized_product_definition</p> <p>characterized_definition = characterized_product_definition</p> <p>characterized_definition <- property_definition.definition</p> <p>property_definition => product_definition_shape <- shape_aspect.of_shape</p> <p>{shape_aspect}</p> <p>shape_aspect.description = `end 2'</p> <p>shape_aspect => plant_item_connector</p>

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Table 6 - Mapping table for piping_component_characterization UoF (concluded)

Application element	AIM element	Source	Rules	Reference path
end_3_connector	plant_item_connector	227		<pre> piping_component_definition <= product_definition characterized_product_definition = product_definition characterized_product_definition characterized_definition = characterized_product_definition characterized_definition <- property_definition.definition property_definition => product_definition_shape <- shape_aspect.of_shape {shape_aspect shape_aspect.description = `end 3'} shape_aspect => plant_item_connector </pre>

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<https://standards.iteh.ai/catalog/standards/sist/2562cb1d-1ba4-44f2-8cc1-1c6c32ff6db3/iso-10303-227-2001>
https://standards.iteh.ai/standard/ISO_10303-227-2001

Table 7 - Mapping table for piping_system_functional_characterization UoF

Application element	AIM element	Source	Rules	Reference path
LINE_BRANCH_CONNECTION	line_branch_connection	227		<pre> line_branch_connection <= shape_aspect_relationship {shape_aspect_relationship [shape_aspect_relationship.description = `branch location`] [shape_aspect_relationship.relating_shape_aspect -> shape_aspect shape_aspect.of_shape -> product_definition_shape <= property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition characterized_product_definition = product_definition product_definition => plant_line_segment_definition] [shape_aspect_relationship.related_shape_aspect -> shape_aspect => plant_line_segment_termination]} </pre>

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<https://standards.iteh.ai/catalog/standards/sist/2562cb1d-1ba4-44f2-8cc1-1c6c32f86cb3/iso-10303-227-2001>
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Table 7 - Mapping table for piping_system_functional_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
branch_sequence_id	shape_aspect_relationship.name	41		<pre> line_branch_connection <= {shape_aspect_relationship shape_aspect_relationship.relating_shape_aspect -> shape_aspect shape_aspect.of_shape -> product_definition_shape <- [shape_aspect.of_shape shape_aspect shape_aspect.description = `termination 1'] [shape_aspect.of_shape shape_aspect shape_aspect.description = `termination 2']} shape_aspect_relationship shape_aspect_relationship.name </pre>
line_branch_connection to changed_line_- branch_connection	IDENTICAL MAPPING			
LINE_BRANCH_- TERMINATION	plant_line_segment_termination	227		<pre> plant_line_segment_termination <= shape_aspect </pre>
line_branch_termination to line_branch_- connection	PATH http://standards.iteh.ai/catalog/standards/ist/256cb1d-1ba4-44f2-8cc1-106c32f86db3/iso-10303-227-2001			<pre> plant_line_segment_termination <= shape_aspect <- shape_aspect_relationship.related_shape_aspect shape_aspect_relationship </pre>

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Table 7 - Mapping table for piping_system_functional_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
LINE_PIPING_- SYSTEM_- COMPONENT_- ASSIGNMENT	product_definition_relationship	41	1, 9, 11, 13, 14	{product_definition_relationship [product_definition_relationship.name = `realization'] [product_definition_relationship.relating_product_definition -> {product_definition => plant_line_segment_definition} product_definition product_definition.frame_of_reference -> product_definition_context <= application_context_element application_context_element.name = `functional definition'] [product_definition_relationship.related_product_definition -> {product_definition => piping_component_definition} product_definition product_definition.frame_of_reference -> product_definition_context <= application_context_element (application_context_element.name = `functional occurrence') (application_context_element.name = `physical occurrence')]}
line_piping_system_- component_assignment to changed_line_- assignment	IDENTICAL MAPPING			

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Table 7 - Mapping table for piping_system_functional_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
LINE_PLANT_ITEM_- BRANCH_CONNECTION	line_plant_item_branch_connection	227		<pre> line_plant_item_branch_connection <= {shape_aspect_relationship {shape_aspect_relationship [shape_aspect_relationship.relating_shape_aspect -> shape_aspect shape_aspect.of_shape -> product_definition_shape <= property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition characterized_product_definition = product_definition product_definition => plant_line_segment_definition] [shape_aspect_relationship.related_shape_aspect -> shape_aspect => plant_item_connector]} </pre>
branch_sequence_id	shape_aspect_relationship.name	41		<pre> line_plant_item_branch_connection <= {shape_aspect_relationship shape_aspect_relationship.relating_shape_aspect -> shape_aspect shape_aspect.of_shape -> product_definition_shape <- [shape_aspect.of_shape shape_aspect shape_aspect.description = `termination 1'] [shape_aspect.of_shape shape_aspect shape_aspect.description = `termination 2']} shape_aspect_relationship shape_aspect_relationship.name </pre>

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Table 7 - Mapping table for piping_system_functional_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
line_plant_item_branch_-connection to changed_-line_plant_item_branch_-connection	IDENTICAL MAPPING			
LINE_PLANT_ITEM_-BRANCH_CONNECTOR	plant_item_connector	227	1, 9, 11, 13	<pre> plant_item_connector <= shape_aspect {shape_aspect [shape_aspect.description = `line plant item connector'] [shape_aspect.of_shape -> product_definition_shape <= property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition characterized_product_definition = product_definition product_definition product_definition.frame_of_reference -> product_definition_context <= application_context_element application_context_element.name = `functional occurrence`} } </pre>
line_plant_item_branch_-connector to line_plant_-item_branch_connection				<pre> plant_item_connector <= shape_aspect <- shape_aspect_relationship.related_shape_aspect shape_aspect_relationship => line plant item branch connection </pre>

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ISO 10303-227:2001
 PATH
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Table 7 - Mapping table for piping_system_functional_characterization UoF (continued)

Application element	AIM element	Source	Rules	Reference path
LINE_PLANT_ITEM_- CONNECTION	line_plant_item_connection	227		<pre> line_plant_item_connection <= shape_aspect_relationship {shape_aspect_relationship [shape_aspect_relationship.relating_shape_aspect -> shape_aspect => plant_line_segment_termination] [shape_aspect_relationship.related_shape_aspect -> {shape_aspect <= plant_item_connector} shape_aspect shape_aspect.of_shape -> product_definition_shape <= property_definition property_definition.definition -> characterized_definition characterized_definition = characterized_product_definition characterized_product_definition characterized_product_definition = product_definition (product_definition) (product_definition => externally_defined_plant_item_definition)]} </pre>
line_plant_item_- connection to changed_- line_plant_item_- connection	IDENTICAL MAPPING			

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