Process, Power and Marine Division

SP3D Piping Reference Data

3-Piping Material Control data

INTERGRAPH

Piping Commodity Material Control Data

- The Piping Commodity Material Control Data sheet defines the material control data for the piping specification. This information does not vary per piping materials class.

ContractorCommodityCode	FirstSizeFrom	FirstSizeTo	FirstSizeUnits	SecondSizeFrom	SecondSizeTo	SecondSizeUnits	MultisizeOption	IndustryCommodityCode	ClientCommodityCode	CIMISCommodityCode	ShortMaterialDescription	LocalizedShortMaterialDesc	LongMaterialDescription	GeometricIndustryStandard	Vendor	Manufacturer	FabricationType	SupplyResponsibility
MFLAHAAZZAKQZZZEXUM											Monitor, CL150 FFFE, station typ			4750			7	10
MFLAHAAZZAKRZZZEYUM											Monitor, CL150 FFFE, station typ			4751			7	10
MFKAHAAZZAKQZZZZZUM											Monitor, CL150 FFFE, elevated ty			4750			7	10
MFKAMAAZZAKRZZZZZUM											Monitor, CL300 FFFE, elevated ty			4751			7	10
MFMAFAAZZAEEAAMZZUM											Fire hydrant, CL125 FFFE, 5" siz			1125			7	10
MFOAMBUZZAJPZZZEZUS											Hose rack, 300#, FTE, w/valve,			4225			7	10
MFQZZBNZZAGXZZZZZUM											Spray sprinkler, MTE, filled cone			2715			7	10

Contractor Commodity Code

ContractorCommodityCode	FirstSizeFrom	FirstSizeTo	FirstSizeUnits	SecondSizeFrom	SecondSizeTo	SecondSizeUnits	MultisizeOption	IndustryCommodityCode	ClientCommodityCode	CIMISCommodityCode	ShortMaterialDescription	LocalizedShortMaterialDesc	LongMaterialDescription	GeometricIndustryStandard	Vendor	Manufacturer	FabricationType	SupplyResponsibility
MFLAHAAZZAKQZZZEXUM											Monitor, CL150 FFFE, station typ			4750			7	10
MFLAHAAZZAKRZZZEYUM											Monitor, CL150 FFFE, station typ			4751			7	10
MFKAHAAZZAKQZZZZZUM											Monitor, CL150 FFFE, elevated ty			4750			7	10
MFKAMAAZZAKRZZZZZUM											Monitor, CL300 FFFE, elevated ty			4751			7	10
MFMAFAAZZAEEAAMZZUM											Fire hydrant, CL125 FFFE, 5" siz			1125			7	10
MFOAMBUZZAJPZZZEZUS											Hose rack, 300#, FTE, w/valve,			4225			7	10
MFQZZBNZZAGXZZZZZUM											Spray sprinkler, MTE, filled cone			2715			7	10

This is a string that represents the engineering contractor's commodity code, if different from the client's commodity code.

Size Range & Multi-size Option

ContractorCommodityCode	FirstSizeFrom	FirstSizeTo	FirstSizeUnits	SecondSizeFrom	SecondSizeTo	SecondSizeUnits	MultisizeOption	IndustryCommodityCode	ClientCommodityCode	CIMISCommodityCode	ShortMaterialDescription	LocalizedShortMaterialDesc	LongMaterialDescription	GeometricIndustryStandard	Vendor	Manufacturer	FabricationType	SupplyResponsibility
MFLAHAAZZAKQZZZEXUM											Monitor, CL150 FFFE, station typ			4750			7	10
MFLAHAAZZAKRZZZEYUM											Monitor, CL150 FFFE, station typ			4751			7	10
MFKAHAAZZAKQZZZZZUM											Monitor, CL150 FFFE, elevated ty			4750			7	10
MFKAMAAZZAKRZZZZZUM											Monitor, CL300 FFFE, elevated ty			4751			7	10
MFMAFAAZZAEEAAMZZUM											Fire hydrant, CL125 FFFE, 5" siz			1125			7	10
MFOAMBUZZAJPZZZEZUS											Hose rack, 300#, FTE, w/valve,			4225			7	10
MFQZZBNZZAGXZZZZZUM											Spray sprinkler, MTE, filled cone			2715			7	10

If the material control data properties may vary with size, then you should use these size ranges.

Industry Commodity Code

ContractorCommodityCode	FirstSizeFrom	FirstSizeTo	FirstSizeUnits	SecondSizeFrom	SecondSizeTo	SecondSizeUnits	MultisizeOption	IndustryCommodityCode	ClientCommodityCode	CIMISCommodityCode	ShortMaterialDescription	LocalizedShortMaterialDesc	LongMaterialDescription	GeometricIndustryStandard	Vendor	Manufacturer	FabricationType	SupplyResponsibility
MFLAHAAZZAKQZZZEXUM											Monitor, CL150 FFFE, station typ			4750			7	10
MFLAHAAZZAKRZZZEYUM											Monitor, CL150 FFFE, station typ			4751			7	10
MFKAHAAZZAKQZZZZZUM											Monitor, CL150 FFFE, elevated ty			4750			7	10
MFKAMAAZZAKRZZZZZUM											Monitor, CL300 FFFE, elevated ty			4751			7	10
MFMAFAAZZAEEAAMZZUM											Fire hydrant, CL125 FFFE, 5" siz			1125			7	10
MFOAMBUZZAJPZZZEZUS											Hose rack, 300#, FTE, w/valve,			4225			7	10
MFQZZBNZZAGXZZZZZUM											Spray sprinkler, MTE, filled cone			2715			7	10

This is an optional string that represents the industry commodity code, if different from the engineering contractor's commodity code.This is the commodity code that is intended to be used to access the Piping Catalog, when the Industry Commodity code option for the Piping Specification has been enabled.

Client Commodity Code

ContractorCommodityCode	FirstSizeFrom	FirstSizeTo	FirstSizeUnits	SecondSizeFrom	SecondSizeTo	SecondSizeUnits	MultisizeOption	IndustryCommodityCode	ClientCommodityCode	CIMISCommodityCode	ShortMaterialDescription	LocalizedShortMaterialDesc	LongMaterialDescription	GeometricIndustryStandard	Vendor	Manufacturer	FabricationType	SupplyResponsibility
MFLAHAAZZAKQZZZEXUM											Monitor, CL150 FFFE, station typ			4750			7	10
MFLAHAAZZAKRZZZEYUM											Monitor, CL150 FFFE, station typ			4751			7	10
MFKAHAAZZAKQZZZZZUM											Monitor, CL150 FFFE, elevated ty			4750			7	10
MFKAMAAZZAKRZZZZZUM											Monitor, CL300 FFFE, elevated ty			4751			7	10
MFMAFAAZZAEEAAMZZUM											Fire hydrant, CL125 FFFE, 5" siz			1125			7	10
MFOAMBUZZAJPZZZEZUS											Hose rack, 300#, FTE, w/valve,			4225			7	10
MFQZZBNZZAGXZZZZZUM											Spray sprinkler, MTE, filled cone			2715			7	10

This is an optional string that represents the client's commodity code, if different from the engineering contractor's commodity code. This is the commodity code that is intended to be used during the operations and maintenance phase.

Short Material Description

ContractorCommodityCode	FirstSizeFrom	FirstSizeTo	FirstSizeUnits	SecondSizeFrom	SecondSizeTo	SecondSizeUnits	MultisizeOption	IndustryCommodityCode	ClientCommodityCode	CIMISCommodityCode	ShortMaterialDescription	LocalizedShortMaterialDesc	LongMaterialDescription	GeometricIndustryStandard	Vendor	Manufacturer	FabricationType	SupplyResponsibility
MFLAHAAZZAKQZZZEXUM											Monitor, CL150 FFFE, station typ		4750			7	10
MFLAHAAZZAKRZZZEYUM											Monitor, CL150 FFFE, station typ		4751			7	10
MFKAHAAZZAKQZZZZZUM											Monitor, CL150 FFFE, elevated ty		4750			7	10
MFKAMAAZZAKRZZZZZUM											Monitor, CL300 FFFE, elevated ty		4751			7	10
MFMAFAAZZAEEAAMZZUM											Fire hydrant, CL125 FFFE, 5" siz		1125			7	10
MFOAMBUZZAJPZZZEZUS											Hose rack, 300#, FTE w/valve,		4225			7	10
MFQZZBNZZAGXZZZZZUM											Spray sprinkler, MTE, filled cone		2715			7	10

This is a string that represents the material description to be used for the bill-of-materials on the isometric drawing, reporting, and visual feedback to the piping designer for design, construction, and fabrication.

Long Material Description

ContractorCommodityCode	FirstSizeFrom	FirstSizeTo	FirstSizeUnits	SecondSizeFrom	SecondSizeTo	SecondSizeUnits	MultisizeOption	IndustryCommodityCode	ClientCommodityCode	CIMISCommodityCode	ShortMaterialDescription	LocalizedShortMaterialDesc	LongMaterialDescription	GeometricIndustryStandard	Vendor	Manufacturer	FabricationType	SupplyResponsibility
MFLAHAAZZAKQZZZEXUM											Monitor, CL150 FFFE, station typ		4750			7	10
MFLAHAAZZAKRZZZEYUM											Monitor, CL150 FFFE, station typ		4751			7	10
MFKAHAAZZAKQZZZZZUM											Monitor, CL150 FFFE, elevated ty		4750			7	10
MFKAMAAZZAKRZZZZZUM											Monitor, CL300 FFFE, elevated ty		4751			7	10
MFMAFAAZZAEEAAMZZUM											Fire hydrant, CL125 FFFE, " siz		1125			7	10
MFOAMBUZZAJPZZZEZUS											Hose rack, 300#, FTE, w/valve,		4225			7	10
MFQZZBNZZAGXZZZZZUM											Spray sprinkler, MTE, filled cone		2715			7	10

This is a string that represents the material description to be used for requisitioning.

Geometric Industry Standard

ContractorCommodityCode	FirstSizeFrom	FirstSizeTo	FirstSizeUnits	SecondSizeFrom	SecondSizeTo	SecondSizeUnits	MultisizeOption	IndustryCommodityCode	ClientCommodityCode	CIMISCommodityCode	ShortMaterialDescription	LocalizedShortMaterialDesc	LongMaterialDescription	GeometricIndustryStandard	Vendor	Manufacturer	FabricationType	SupplyResponsibility
MFLAHAAZZAKQZZZEXUM											Monitor, CL150 FFFE, station typ			4750			7	10
MFLAHAAZZAKRZZZEYUM											Monitor, CL150 FFFE, station typ			4751			7	10
MFKAHAAZZAKQZZZZZUM											Monitor, CL150 FFFE, elevated ty			4750			7	10
MFKAMAAZZAKRZZZZZUM											Monitor, CL300 FFFE, elevated ty			4751			7	10
MFMAFAAZZAEEAAMZZUM											Fire hydrant, CL125 FFFE, 5" siz			1125			7	10
MFOAMBUZZAJPZZZEZUS											Hose rack, 300#, FTE, w/valve,			4225			7	10
MFQZZBNZZAGXZZZZZUM											Spray sprinkler, MTE, filled cone			2715			7	10

This is an enumerated value that represents the source, normally either an industry standard or a manufacturer, used in the preparation of the catalog data applicable to the piping commodity.

Vendor

ContractorCommodityCode	FirstSizeFrom	FirstSizeTo	FirstSizeUnits	SecondSizeFrom	SecondSizeTo	SecondSizeUnits	MultisizeOption	IndustryCommodityCode	ClientCommodityCode	CIMISCommodityCode	ShortMaterialDescription	LocalizedShortMaterialDesc	LongMaterialDescription	GeometricIndustryStandard	Vendor	Manufacturer	FabricationType	SupplyResponsibility
MFLAHAAZZAKQZZZEXUM											Monitor, CL150 FFFE, station typ			4750			7	10
MFLAHAAZZAKRZZZEYUM											Monitor, CL150 FFFE, station typ			4751			7	10
MFKAHAAZZAKQZZZZZUM											Monitor, CL150 FFFE, elevated ty			4750			7	10
MFKAMAAZZAKRZZZZZUM											Monitor, CL300 FFFE, elevated ty			4751			7	10
MFMAFAAZZAEEAAMZZUM											Fire hydrant, CL125 FFFE, 5" siz			1125			7	10
MFOAMBUZZAJPZZZEZUS											Hose rack, 300#, FTE, w/valve,			4225			7	10
MFQZZBNZZAGXZZZZZUM											Spray sprinkler, MTE, filled cone			2715			7	10

This is an enumerated value that represents the vendor that is supplying the piping commodity.

Manufacturer

ContractorCommodityCode	FirstSizeFrom	FirstSizeTo	FirstSizeUnits	SecondSizeFrom	SecondSizeTo	SecondSizeUnits	MultisizeOption	IndustryCommodityCode	ClientCommodityCode	CIMISCommodityCode	ShortMaterialDescription	LocalizedShortMaterialDesc	LongMaterialDescription	GeometricIndustryStandard	Vendor	Manufacturer	FabricationType	SupplyResponsibility
MFLAHAAZZAKQZZZEXUM											Monitor, CL150 FFFE, station typ			4750			7	10
MFLAHAAZZAKRZZZEYUM											Monitor, CL150 FFFE, station typ			4751			7	10
MFKAHAAZZAKQZZZZZUM											Monitor, CL150 FFFE, elevated ty			4750			7	10
MFKAMAAZZAKRZZZZZUM											Monitor, CL300 FFFE, elevated ty			4751			7	10
MFMAFAAZZAEEAAMZZUM											Fire hydrant, CL125 FFFE, 5" siz			1125			7	10
MFOAMBUZZAJPZZZEZUS											Hose rack, 300#, FTE, w/valve,			4225			7	10
MFQZZBNZZAGXZZZZZUM											Spray sprinkler, MTE, filled cone			2715			7	10

This is an enumerated value that represents the manufacturer of the piping commodity. This property is considered to be optional data, and is intended to be used in the situation where the Geometric Industry Standard identifies the industry standard, but the spec writer has a requirement to track the manufacturer for reporting purposes.

Fabrication Type

FabricationType	SupplyResponsibility	ReportingType	Quantity	GasketRequirements	BoltingRequirements	WeldingRequirement	LooseMaterialRequirements	SubstCapScrewsQuantity	SubstCapScrewCntrCommodityCode	SubstCapScrewDiameter	TappedHoleDepth	MultiportValveOpReq	ValveOperatorType	ValveOperatorGeoIndStd	ValveOperatorCatalogPartNumber	ReportableCommodityCode	PartDataSource	AltOrientationCommodityCode	HyperlinkToElectronicVendor	HyperlinkToElectronicManuals	PipingNote1	VendorPartNumber	ManufacturerPartNumber
7	10	5	1	5	5	50								3	1190	GAT-Bolted-150-3							
7	10	5	1	5	5	50								331	1190	VAAAHABAHADJADACFZZUS							
7	10	5	1	5	5	50								331	1250	VAAAHABAHADJADAHIZZUS							

FabricationType ShortDescription	FabricationType LongDescription	Codelist Number
		1
Undefined	Undefined	1
		5
SF	Shop fabricated	15
		10
CF	Contractor field fabricated	7
OF	Owner field fabricated	20
		15
SFFW	Shop fabricated, field welded	30

This is an enumerated value that represents the responsibility for fabrication or erection.

Supply Responsibility

This is an enumerated value that represents the responsibility for supply.

Reporting Type

This is an enumerated value that represents the requirements for reporting of the piping commodity from the 3D model. This is intended to address the requirement to define no-MTO items, which are to be ignored in terms of creating reports for procurement purposes

Gasket Requirements

	FabricationType	SupplyResponsibility	ReportingType	Quantity	GasketRequirements	BoltingRequirements	WeldingRequirement	LooseMaterialRequirements	SubstCapScrewsQuantity	SubstCapScrewCntrCommodityCode	SubstCapScrewDiameter	TappedHoleDepth	MultiportValveOpReq
	7	10	5	1	5	5	50						
	7	10	5	1	5	5	50						
	7	10	5	1	5	5	50						

	B	D
2	GasketRequirements ShortDescription	Codelist Number
3	*This is a system codelist. The user may change the textual v*	
4		
5	Undefined	1
6	Gaskets at bolted ends	5
7	Integral gaskets	10
8	Gaskets included	15
9	Gaskets not applicable	20
10	Clamp gaskets based on two mechanical end preps	25
11	Clamp gaskets based on mechanical hub end	30
12	Clamp gaskets which are separately ordered	35
13	Clamp gaskets where included with the clamp	40
14	Integral gasket override enabled	45
15	Integral gasket requiring another lined flange surface	50
16	Integral gasket requiring another lined flange surface override enabled	55
17	Gasket not required due to metal-to-metal seal	60
18	Gasket supplied with fitting	65

GasketRequirements / GasketType / Geomet

This is an enumerated value that represents the requirements for any gaskets with the piping commodity, if one or more bolted ends apply.

Bolt Requirements

This is an enumerated value that represents the requirements for any bolts with the piping commodity, if one or more bolted ends apply.

Weld Requirements

This is an enumerated value that represents the requirements for any welds with the piping commodity, if one or more welded ends apply.

Part Data - Catalog

- Part data stores information about the <u>dimensional details</u> of each component.

- Piping commodity part data is required to be defined by the spec writer on the basis of the commodity code and the nominal piping diameters for each end of the component. This data addresses piping commodities, stock piping specialties and stock instruments.

Pipe Stock

The pipestock sheet specifies the details of each of the pipe used along with its dimensional details and weights. Note that there is no symbol definition for Pipe

Part Class definition

The definitions of the part are made at the top of Excel sheet under heading Definition. The symbol name for component is defined in field C4 below the Key Word SymbolDefinition. The next column defines the Occurrence Attribute identified by "OA:" The attribute defined is Insulation Thickness

RDB Changes

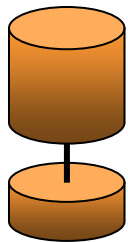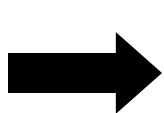**Changing dimension data on the part**

Changing the fabrication category

Changing the symbol definition
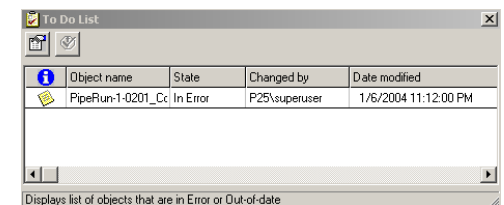
Deleting a part

Delete a piping material class

Bulkload utility

Synchronize model with catalog cmd

Model

TO Do List

Catalog