

## **NEWS LETTER-30**

### **Software for selection of components from PHSPL catalogue and generation of 3D model in Aveva E3D**

PHSPL has developed a software for selection of hangers and other components from its catalogue and generation of the 3D model of the assembly in Aveva E3D. Customers may contact us to obtain the software.

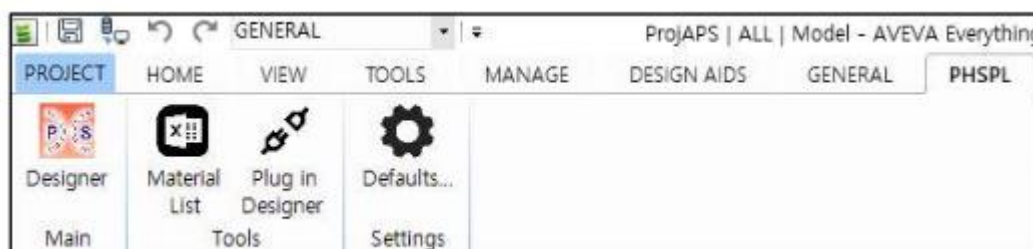
The 3D models can be generated by two methods:

1. By utilising the interface that has been created within E3D to input data, do the selection and generate the 3D model of the assembly
2. Using the existing PHSDRAW software to input the data and do the selection. Use the plugin available in our software within E3D which generates the 3D model by reading the output file of PHSDRAW

While the first method enables the user to work completely in the E3D environment, the second method allows the user to carry out the selection outside E3D thereby greatly reducing the requirement of an E3D license.


#### **1. Generation of 3d model by giving input within E3D**

The software has an easy to use intuitive interface to input various data such as the type of support, type of arrangement, load , thermal movement and other data required for selecting the supports. It includes a wide variety of configurations which takes care of all common requirements. Some of the screens used in the software are reproduced below to showcase the capability.



**Customised Graphical User Interface**

A



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1. Logical Support

NEW ATTA
GET ATTA
THROUGH

Position: e

m

u

20

	x	-x	y	-y	z	-z
Force(kg)	0	0	0	0	0	50
Movement(mm)	0	0	0	0	0	0

**- Pipe Information**





Pipe O.D.

Ins. Thk.

Temper.

Material
Carbon

2. Physical Support

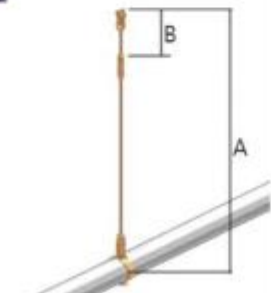





CLAMP:
PA3

TOP PART:
UA1

A:

B:



**Logical Support:**  
Defining support point to be designed pipes support model.  
ATTA should be collected from designated PIPE(LINE).

**Support data:**  
Defining pipe support coordination & stress data.

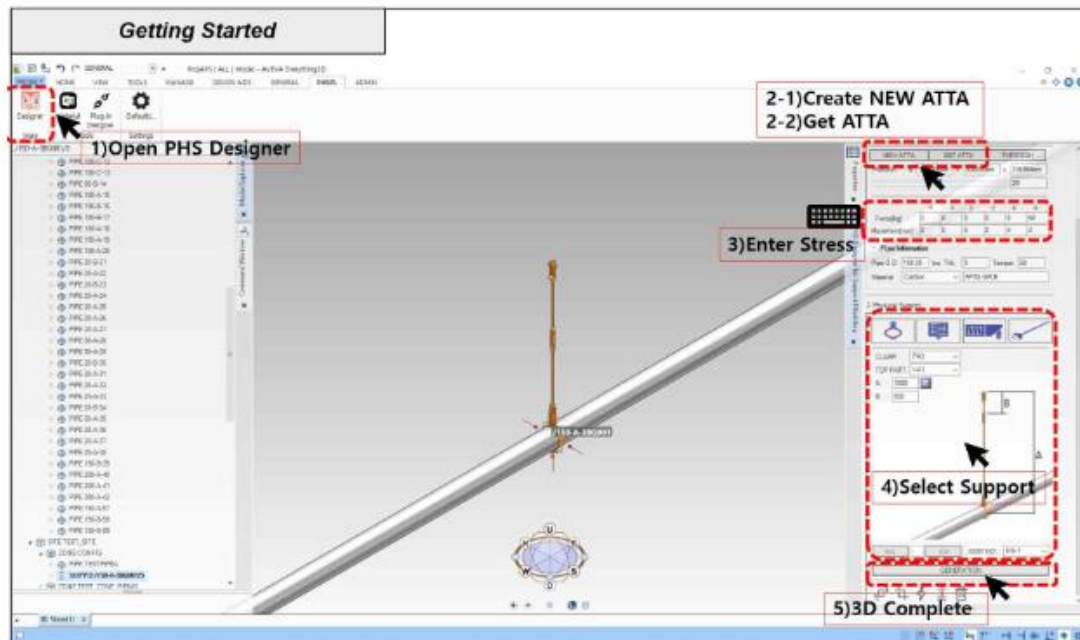
**Pipe Information:**  
Pipe size, material, temperature & insulation thickness

**Type Selection:**  
Categorized support type, spring & snubber category shall be indicated when vertical movement is inputting

**Detail definition:**  
Pipe support dimension data

**Main form for Catalog Modelling**





Hanger assembly Model Generation



Sample of hanger configurations

PHS Designer for Support Modeling

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1. Logical Support

NEW ATTA GET ATTA THROUGH

Position: x: -309706mm y: 306080mm z: 104964mm

Force(kg)

0	0	0	0	0	50
---	---	---	---	---	----

Movement(mm)

0	0	0	0	0	2
---	---	---	---	---	---

2. Physical Support

Pipe Information

Pipe O.D: 168.30 Ins. Thk: 0 Temper: 50

Material: Carbon API5L GR.B

CLAMP: PA3

TOP PART: UA1

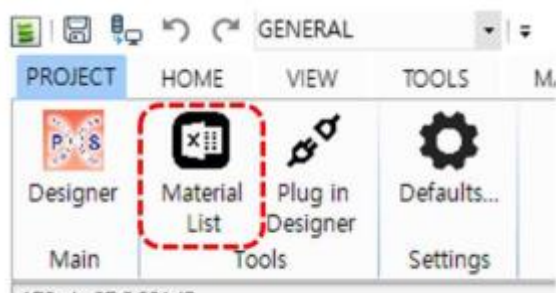
A: 1500

B: 500

ASSY NO.: HN-1

GENERATION

3D Hanger Model Generation



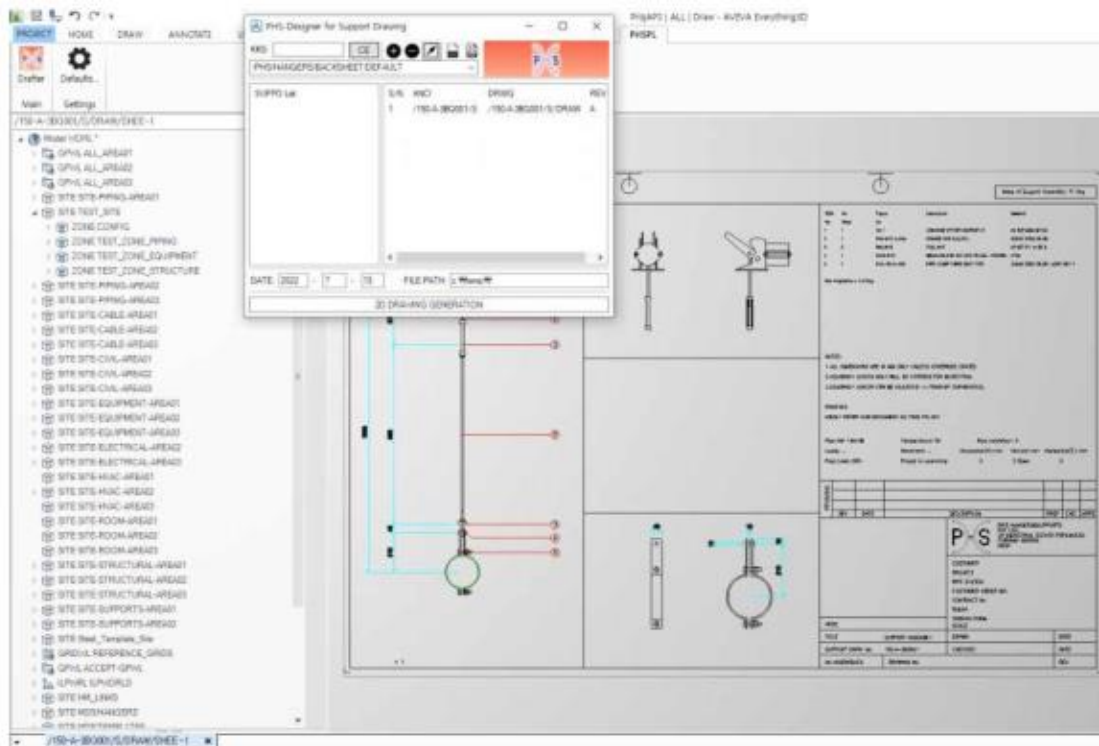
Menu item for Material Take off (MTO)

NO.	SUPPORT TAG NO.	ITEM NO.	DESCRIPTION	TYPE(SIZE)	LENGTHS	QTY.	MATERIAL	UNIT WEIGHT	TOTAL WEIGHT	REMARK
01	150-A-3BQ002	1	LUG ATTACHMENT	1A1M12	-	1	A30	0.1	0.1	-
01	150-A-3BQ002	2	CLEVIS PIN	1A14M12	-	1	A105	0.1	0.1	-
01	150-A-3BQ002	3	CLEVIS	1A13M12	-	1	A105 OR A30	0.1	0.1	-
01	150-A-3BQ002	4	CONSTANT EFFORT SUPPORT	1/2-51-CA-1-50	-	1	-	0.0	0.0	-
01	150-A-3BQ002	5	HANGER ROD	1A2M12	-	2	A30	0.9	1.8	-
01	150-A-3BQ002	6	FULL NUT	1A5M12	-	4	A193B7 AND A194 GR 2H	0.0	0.0	-
01	150-A-3BQ002	7	WELDLESS EYE NUT	1A15M12	-	1	A105	0.3	0.3	-
01	150-A-3BQ002	8	PIPE CLAMP THREE BOLT TYPE	PA3-150-0-400	-	1	A30 / A307 GRADE 12 CLASS 2/RAE 11 CLASS 2 / A307 GRADE 22 CLASS 2	0.7	0.7	-

## Material Take off

[illegible]

## 2D Drawing Generation Form

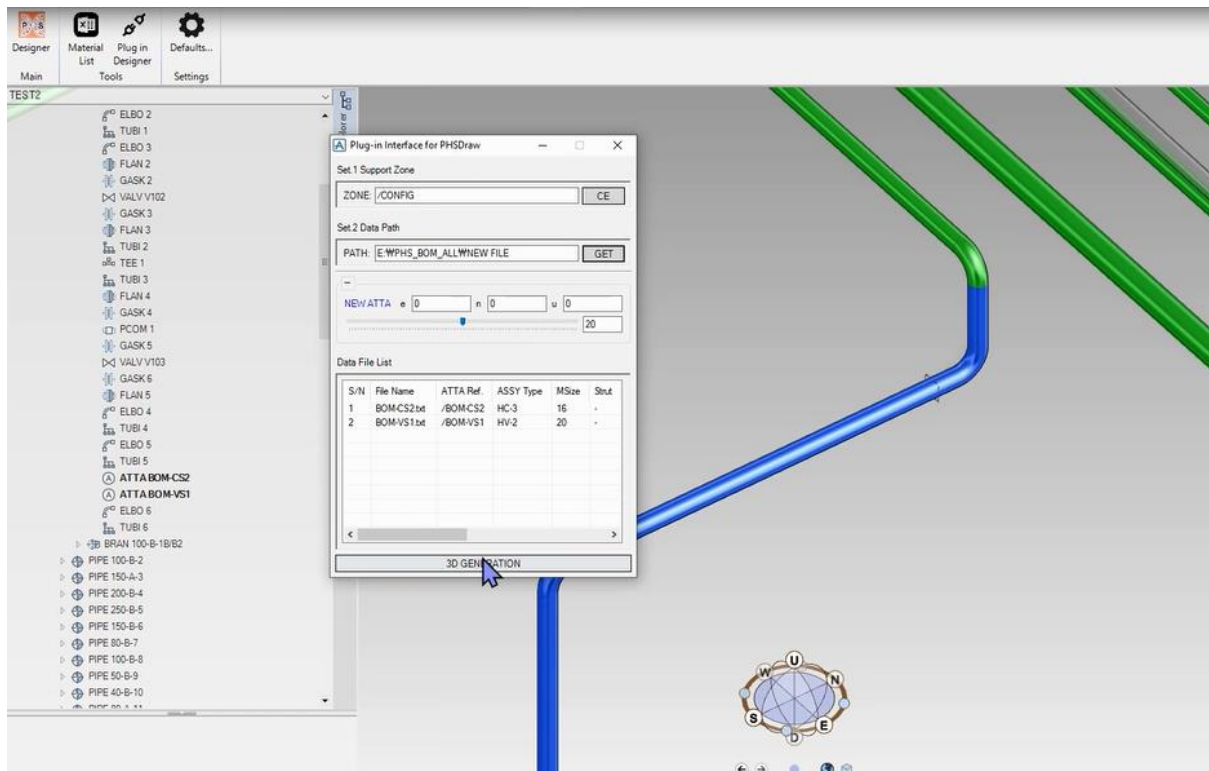


2D Drawing



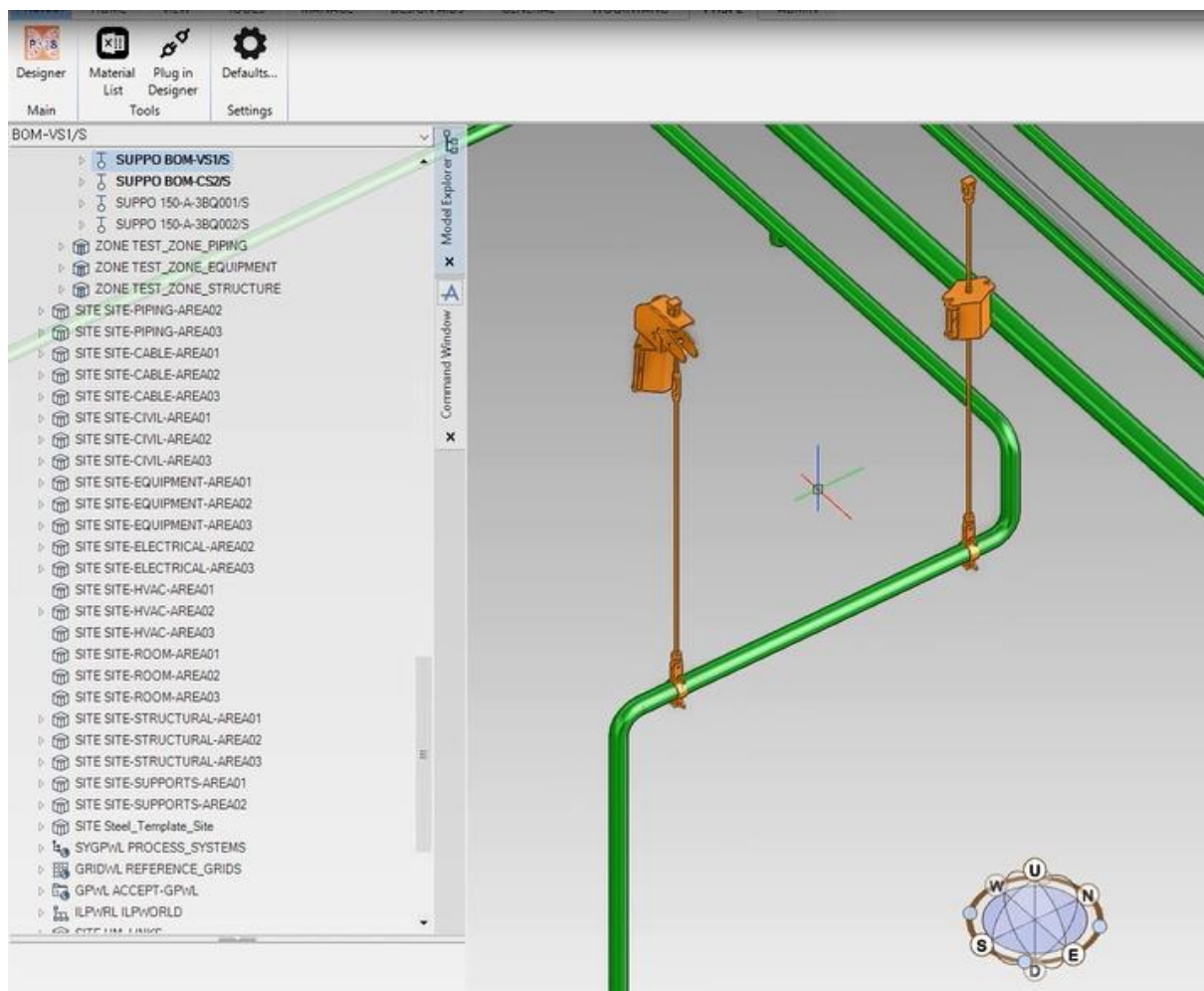
## 2. Using Plug-in software to generate 3D model based on output of PHSDRAW

The Plug-in software allows the user to select the input files for 3D model generation and generates the 3D models automatically.



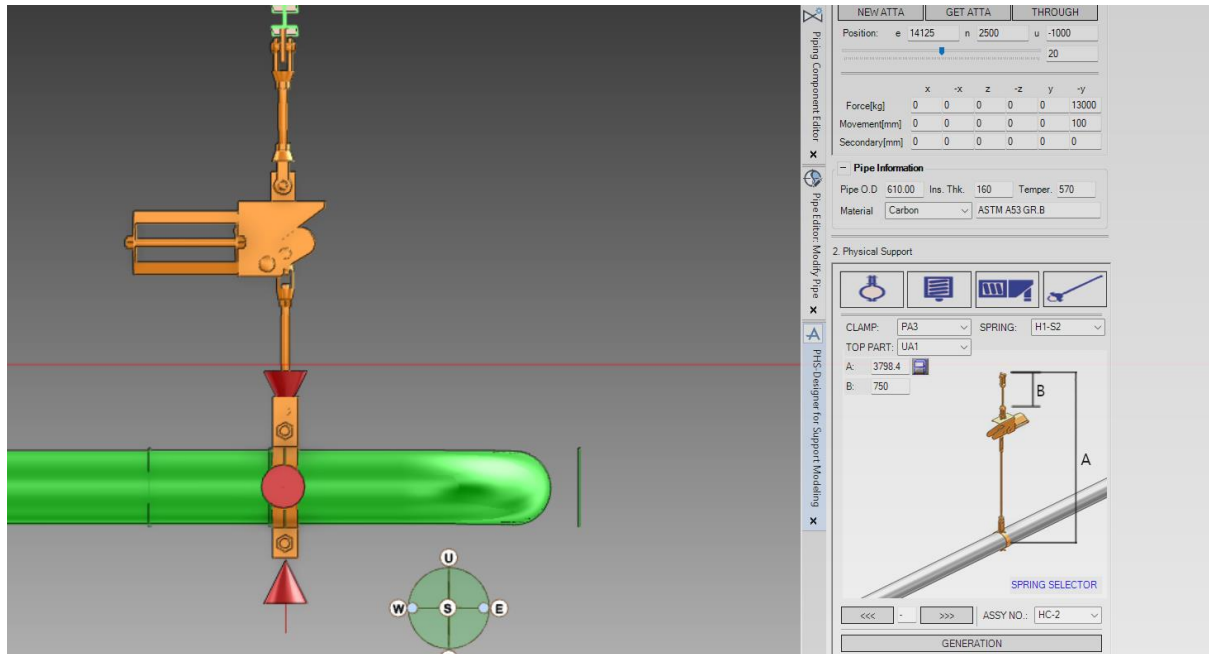
**Menu of Plug-in Designer**



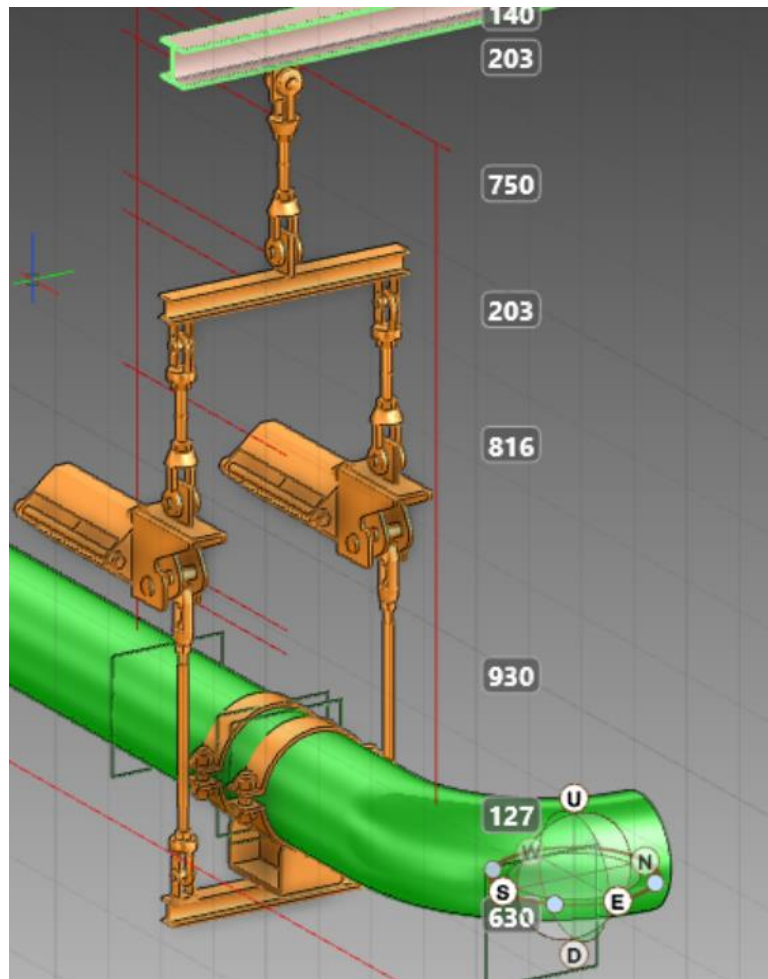


**3D model generation using Plug-in Designer**

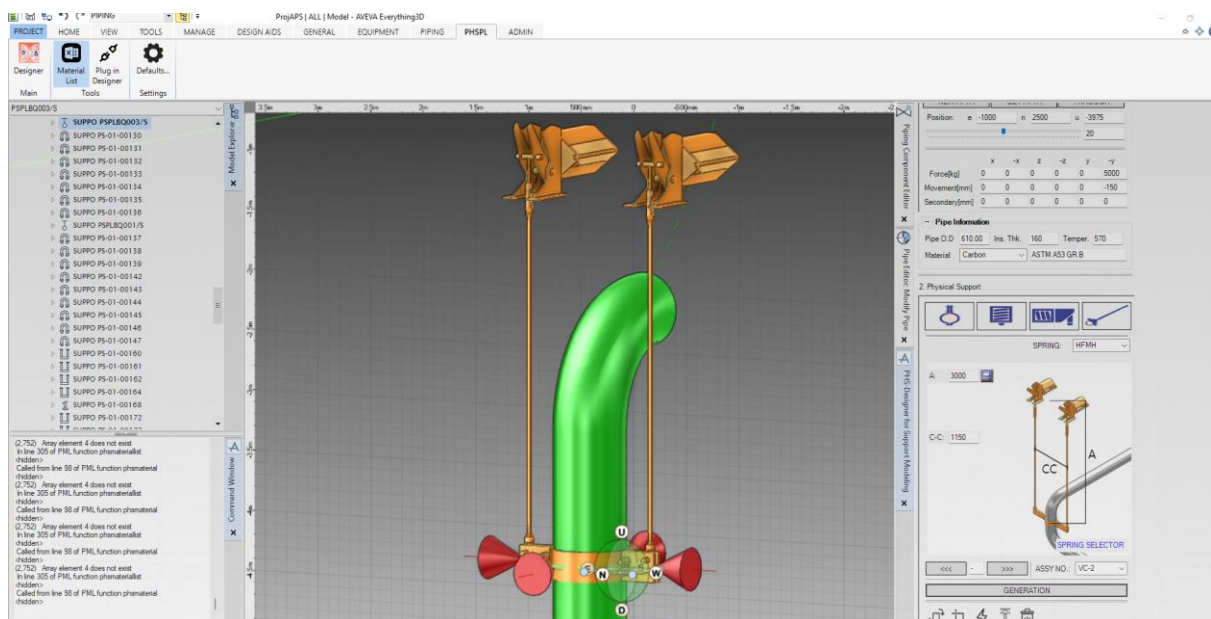
## Samples of 3D models generated using the software



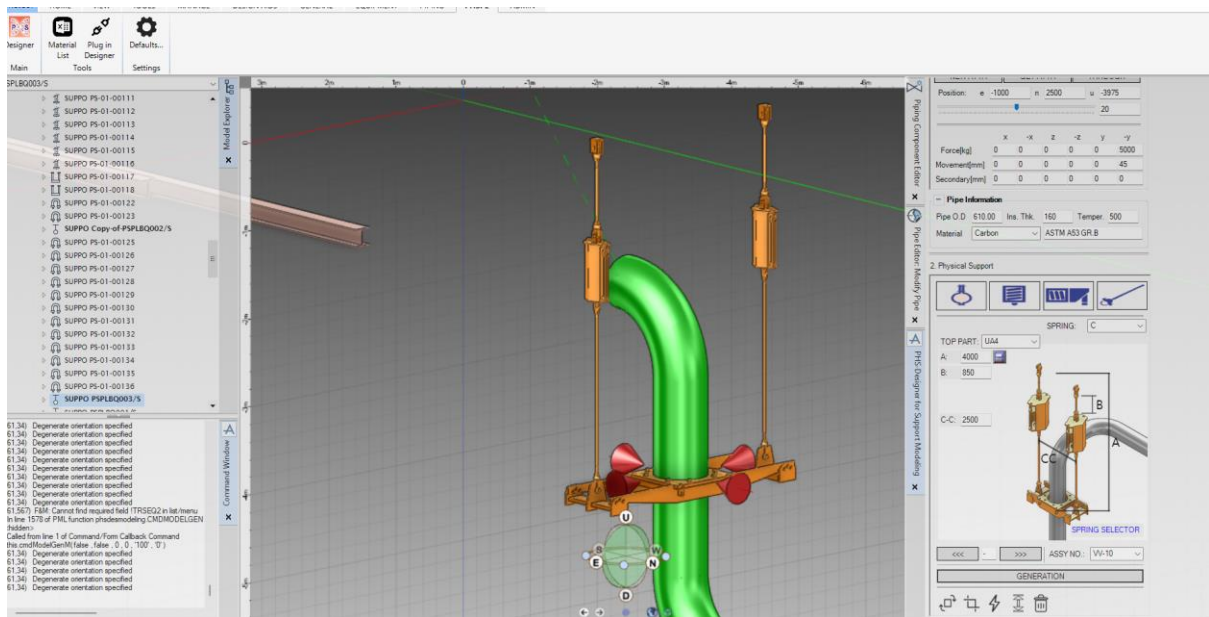
Hanger on a horizontal pipe



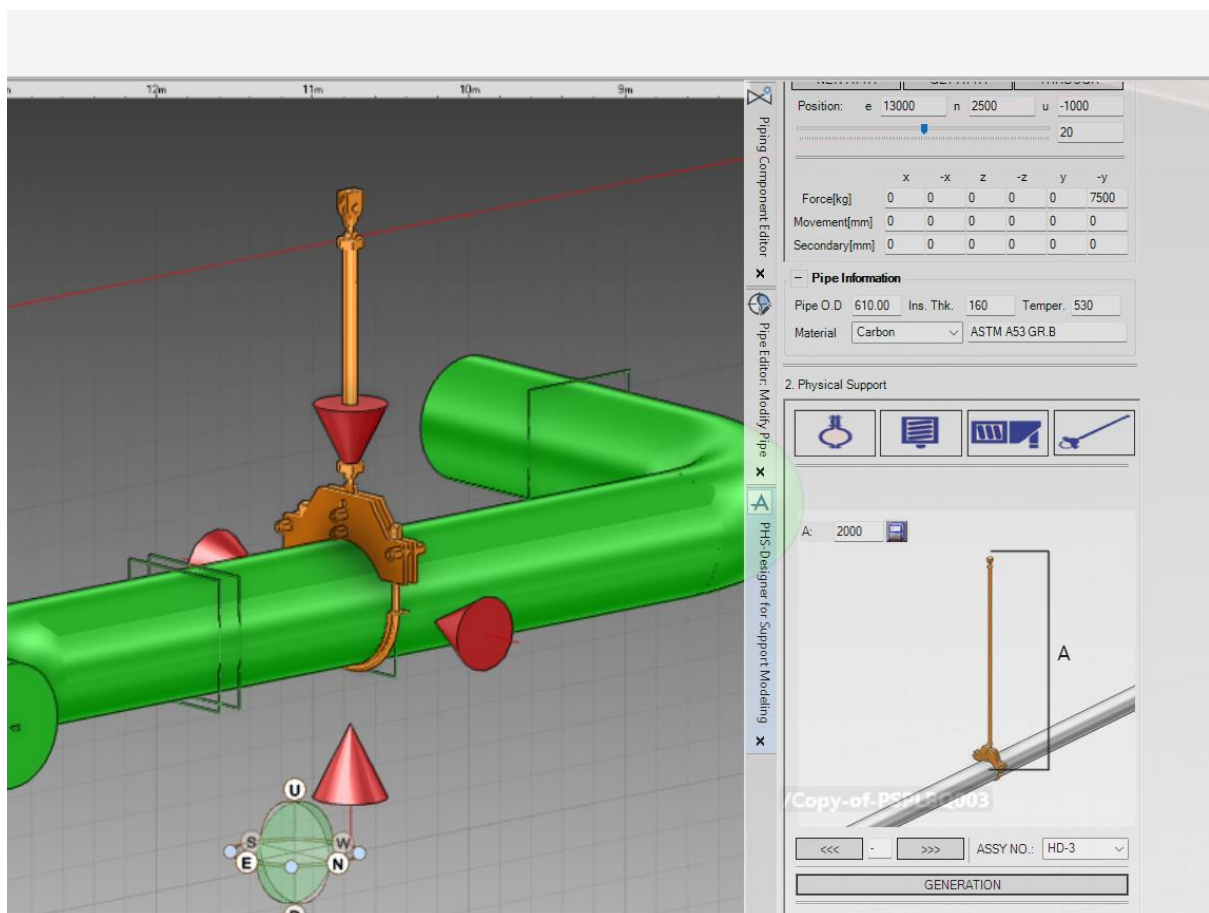
**Twin hangers with pipe base and spreader beam**



**Riser clamp on a vertical pipe**



**Flat plate riser clamp on a vertical pipe**



**Rigid Strut with stiff clamp**

For past newsletters please look up our website [www.pipehangers.in](http://www.pipehangers.in)

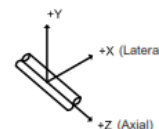
**About Pipe Hangers:**

## **A Global Solution to Spring Hangers and Supports**

**We are the leading manufacturer of spring hangers, supports & accessories. Over the past 39 years we have supplied to major power plants, refineries, nuclear installations & process industries in India & several International projects.**

# **Pipe Hangers & Supports Private Limited**

## Ordering Information



- 1) Hot Load (Operating Load) in Kgs : \_\_\_\_\_
- 2) Thermal Movement / Travel (Direction + or -) in mm : UP (+) \_\_\_\_\_ mm
- 3) Type of Hanger Variable / Constant / Rigid : Variable Effort Support
- 4) For Constant Add Over Travel : ☐ Yes ☐ No
- 5) For Variable Springs Max Allowable % Load Variation : \_\_\_\_\_ %
- 6) Horizontal / Lateral Movement (If any) : 'X' Dir \_\_\_\_\_ mm / 'Z' Dir \_\_\_\_\_ mm
- 7) Hydro Load ( If any) : \_\_\_\_\_ Kgs
- 8) Model & Type of Support : \_\_\_\_\_
- 9) Assembly Length (From BOS/TOS to Pipe CL ) : \_\_\_\_\_ mm
- 10) Operating Temperature : \_\_\_\_\_ Deg C
- 11) Pipe Insulation Thk : \_\_\_\_\_ mm
- 12) Pipe Material : \_\_\_\_\_
- 13) Require Pipe Shoe for Foot Mounted Support : ☐ Yes ☐ No
- 14) For Foot Mounted Support Match Height : ☐ Yes ☐ No
- 15) Attachments like Lugs, Cleats Welded to Pipe in Scope : ☐ Yes ☐ No
- 16) Operating Load includes Wt of Accessories like  
Clamp, Tie Rods, Cleats, Lugs etc. : ☐ Yes ☐ No
- 17) Preferred Surface Protection / Painting : \_\_\_\_\_
- 18) For 'G' Type / Double / Trapeze type Hanger the  
Load Given above is for 1 assembly consisting of  
2 Hangers / Individual Hanger : ☐ Yes ☐ No

