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AutoPIPE 6.20 MODEL PAGE 2

**
** AUTOPIPE SYSTEM INFORMATION **
**

SYSTEM NAME : 79319860_komplett

PROJECT ID : ASU KOSICE

DESCRIPTION :

PREPARED BY : _____
WEGSTEIN

CHECKED BY : _____
FRICKHOEFER

PIPING CODE : B31.3
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : HANAU_AL
MATERIAL LIBRARY : AUTOB313
MODEL REVISION NUMBER : 0

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C O M P O N E N T D A T A L I S T I N G

*** SEGMENT A , LINE # 79319860

From A00 to A01, DX= 99.12 mm, DY= -69.40 mm, L= 121.00 mm Run

PIPE DATA:

Pipe Id= 50MMX3.9, Material= AL, Poisson= 0.300, Nom Size= 50 mm,
OD= 60.300 mm, Sch= 3.9, Wall Thk= 3.900 mm, Mill= 0.487 mm, Cor= 0 mm,
Pipe Density= 2707.12 kg/m3, Pipe Unit Wgt= 18.35 N/m, Insul Thk= 0 mm,
Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00,
Long Modulus= 0.06899 x10⁶ N/m, Hoop Modulus= 0.06899 x10⁶ N/m,
Shear Modulus= 0.02653 x10⁶ N/m, Sc= 103.4 N/mm2, Syc= 0 N/mm2

OPERATING DATA:

P1= 0 N/mm2, T1= -196.00 deg C, Exp1= -3.84587 mm/m,
E1= 0.07646 x10⁶ N/m, Sh1= 71.00 N/mm2

POINT DATA:

A00, Coordinates, X= 0.00 mm, Y= 0.00 mm, Z= 0.00 mm

SUPPORT DATA:

A00, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

From A01 to A04, DZ= -4425.50 mm Bend

COMPONENT DATA (Bend, TIP= A01, Near= A01 N, Far= A01 F):

Elbow, Radius= 120.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A01, Coordinates, X= 99.12 mm, Y= -69.40 mm, Z= 0.00 mm
A01 N, Coordinates, X= 0.01 mm, Y= -0.01 mm, Z= 0.00 mm
A01 F, Coordinates, X= 99.12 mm, Y= -69.40 mm, Z= -120.99 mm

From A04 to A07, DY= -1970.40 mm, DZ= -172.38 mm, L= 1977.93 mm Bend

COMPONENT DATA (Bend, TIP= A04, Near= A04 N, Far= A04 F):

Elbow, Radius= 120.99 mm, Bend angle= 85.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A04, Coordinates, X= 99.12 mm, Y= -69.40 mm, Z= -4425.50 mm
A04 N, Coordinates, X= 99.12 mm, Y= -69.40 mm, Z= -4314.63 mm
A04 F, Coordinates, X= 99.12 mm, Y= -179.85 mm, Z= -4435.16 mm

From A07 to A10, DZ= -1000.01 mm Bend

COMPONENT DATA (Bend, TIP= A07, Near= A07 N, Far= A07 F):

Elbow, Radius= 120.99 mm, Bend angle= 85.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

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POINT DATA:

A07, Coordinates, X= 99.12 mm, Y= -2039.80 mm, Z= -4597.88 mm
A07 N, Coordinates, X= 99.12 mm, Y= -1929.35 mm, Z= -4588.22 mm
A07 F, Coordinates, X= 99.12 mm, Y= -2039.80 mm, Z= -4708.75 mm

From A10 to A13, DY= -800.91 mm, DZ= -70.07 mm, L= 803.97 mm Bend

COMPONENT DATA (Bend, TIP= A10, Near= A10 N, Far= A10 F):

Elbow, Radius= 120.99 mm, Bend angle= 85.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A10, Coordinates, X= 99.12 mm, Y= -2039.80 mm, Z= -5597.89 mm
A10 N, Coordinates, X= 99.12 mm, Y= -2039.80 mm, Z= -5487.02 mm
A10 F, Coordinates, X= 99.12 mm, Y= -2150.25 mm, Z= -5607.55 mm

From A13 to A16, DX= 1628.25 mm, DZ= -142.45 mm, L= 1634.47 mm Bend

COMPONENT DATA (Bend, TIP= A13, Near= A13 N, Far= A13 F):

Elbow, Radius= 120.99 mm, Bend angle= 89.56 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A13, Coordinates, X= 99.12 mm, Y= -2840.71 mm, Z= -5667.96 mm
A13 N, Coordinates, X= 99.12 mm, Y= -2721.09 mm, Z= -5657.50 mm
A13 F, Coordinates, X= 218.74 mm, Y= -2840.71 mm, Z= -5678.43 mm

From A16 to A18, DX= 196.54 mm, DZ= -733.50 mm, L= 759.37 mm Bend

COMPONENT DATA (Bend, TIP= A16, Near= A16 N, Far= A16 F):

Elbow, Radius= 120.99 mm, Bend angle= 70.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A16, Coordinates, X= 1727.37 mm, Y= -2840.71 mm, Z= -5810.41 mm
A16 N, Coordinates, X= 1642.97 mm, Y= -2840.71 mm, Z= -5803.03 mm
A16 F, Coordinates, X= 1749.30 mm, Y= -2840.71 mm, Z= -5892.24 mm

From A18 to A19, DX= 32.35 mm, DZ= -120.74 mm, L= 125.00 mm Valv

COMPONENT DATA (Valve):

NS, Rating= 10, Length= 125.00 mm, Weight= 25 kg, Surface factor= 0.00,
End cond= Butt welded, SIF= 1.00, Without taper, Offset= 0.000 mm

POINT DATA:

A18, Coordinates, X= 1923.91 mm, Y= -2840.71 mm, Z= -6543.91 mm

From A19 to A20, DX= -120.74 mm, DZ= -32.35 mm, L= 125.00 mm Valv

COMPONENT DATA (Valve):

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NS, Rating= 10, Length= 125.00 mm, Weight= 25 kg, Surface factor= 0.00,
End cond= Butt welded, SIF= 1.00, Without taper, Offset= 0.000 mm

POINT DATA:

A19, Coordinates, X= 1956.26 mm, Y= -2840.71 mm, Z= -6664.65 mm

SUPPORT DATA:

A19, V-Stop, Support Id= A19 1, Connected to Ground, Mark= Undefined,
Tag#= Undefined, CompID= Undefined

From A20 to A22, DX= -1222.63 mm, DZ= -327.60 mm, L= 1265.76 mm Run

POINT DATA:

A20, Coordinates, X= 1835.52 mm, Y= -2840.71 mm, Z= -6697.00 mm

From A22 to A25, DZ= -1227.95 mm Bend

COMPONENT DATA (Bend, TIP= A22, Near= A22 N, Far= A22 F):

Elbow, Radius= 120.99 mm, Bend angle= 75.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A22, Coordinates, X= 612.89 mm, Y= -2840.71 mm, Z= -7024.60 mm
A22 N, Coordinates, X= 702.57 mm, Y= -2840.71 mm, Z= -7000.57 mm
A22 F, Coordinates, X= 612.89 mm, Y= -2840.71 mm, Z= -7117.44 mm

From A25 to A28, DX= -1000.69 mm, DY= 149.99 mm, DZ= -271.13 mm,
L= 1047.56 mm Bend

COMPONENT DATA (Bend, TIP= A25, Near= A25 N, Far= A25 F):

Elbow, Radius= 120.99 mm, Bend angle= 75.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A25, Coordinates, X= 612.89 mm, Y= -2840.71 mm, Z= -8252.55 mm
A25 N, Coordinates, X= 612.89 mm, Y= -2840.71 mm, Z= -8159.71 mm
A25 F, Coordinates, X= 524.21 mm, Y= -2827.42 mm, Z= -8276.58 mm

From A28 to A30, DZ= -6092.85 mm Bend

COMPONENT DATA (Bend, TIP= A28, Near= A28 N, Far= A28 F):

Elbow, Radius= 120.99 mm, Bend angle= 75.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A28, Coordinates, X= -387.80 mm, Y= -2690.72 mm, Z= -8523.68 mm
A28 N, Coordinates, X= -299.12 mm, Y= -2704.01 mm, Z= -8499.65 mm
A28 F, Coordinates, X= -387.80 mm, Y= -2690.72 mm, Z= -8616.52 mm

From A30 to A32, DZ= -1142.92 mm Run

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POINT DATA:

A30, Coordinates, X= -387.80 mm, Y= -2690.72 mm, Z= -14616.53 mm

From A32 to A35, DX= 486.92 mm, DZ= -130.47 mm, L= 504.10 mm Bend

COMPONENT DATA (Bend, TIP= A32, Near= A32 N, Far= A32 F):

Elbow, Radius= 120.99 mm, Bend angle= 75.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A32, Coordinates, X= -387.80 mm, Y= -2690.72 mm, Z= -15759.45 mm
A32 N, Coordinates, X= -387.80 mm, Y= -2690.72 mm, Z= -15666.61 mm
A32 F, Coordinates, X= -298.12 mm, Y= -2690.72 mm, Z= -15783.48 mm

From A35 to A38, DY= 795.50 mm, DZ= -213.16 mm, L= 823.56 mm Bend

COMPONENT DATA (Bend, TIP= A35, Near= A35 N, Far= A35 F):

Elbow, Radius= 120.99 mm, Bend angle= 86.16 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A35, Coordinates, X= 99.12 mm, Y= -2690.72 mm, Z= -15889.92 mm
A35 N, Coordinates, X= -10.16 mm, Y= -2690.72 mm, Z= -15860.64 mm
A35 F, Coordinates, X= 99.12 mm, Y= -2581.44 mm, Z= -15919.21 mm

From A38 to A41, DX= -816.42 mm, DZ= -218.76 mm, L= 845.22 mm Bend

COMPONENT DATA (Bend, TIP= A38, Near= A38 N, Far= A38 F):

Elbow, Radius= 120.99 mm, Bend angle= 86.16 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A38, Coordinates, X= 99.12 mm, Y= -1895.22 mm, Z= -16103.08 mm
A38 N, Coordinates, X= 99.12 mm, Y= -2004.50 mm, Z= -16073.80 mm
A38 F, Coordinates, X= -10.16 mm, Y= -1895.22 mm, Z= -16132.36 mm

From A41 to A44, DZ= -1313.02 mm Bend

COMPONENT DATA (Bend, TIP= A41, Near= A41 N, Far= A41 F):

Elbow, Radius= 120.99 mm, Bend angle= 75.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A41, Coordinates, X= -717.30 mm, Y= -1895.22 mm, Z= -16321.84 mm
A41 N, Coordinates, X= -627.62 mm, Y= -1895.22 mm, Z= -16297.81 mm
A41 F, Coordinates, X= -717.30 mm, Y= -1895.22 mm, Z= -16414.68 mm

From A44 to A47, DX= 804.51 mm, DY= 804.51 mm, DZ= -1137.74 mm,
L= 1609.01 mm Bend

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COMPONENT DATA (Bend, TIP= A44, Near= A44 N, Far= A44 F):
Elbow, Radius= 120.99 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A44, Coordinates, X= -717.30 mm, Y= -1895.22 mm, Z= -17634.86 mm
A44 N, Coordinates, X= -717.30 mm, Y= -1895.22 mm, Z= -17584.74 mm
A44 F, Coordinates, X= -692.24 mm, Y= -1870.16 mm, Z= -17670.30 mm

From A47 to A49, DX= 3469.00 mm

Bend

COMPONENT DATA (Bend, TIP= A47, Near= A47 N, Far= A47 F):
Elbow, Radius= 120.99 mm, Bend angle= 60.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A47, Coordinates, X= 87.21 mm, Y= -1090.71 mm, Z= -18772.60 mm
A47 N, Coordinates, X= 52.28 mm, Y= -1125.64 mm, Z= -18723.21 mm
A47 F, Coordinates, X= 157.06 mm, Y= -1090.71 mm, Z= -18772.60 mm

From A49 to A51, DX= 481.00 mm

Tee

COMPONENT DATA (Tee Header, Center= A49):
B16.9 welding tee, SIFI= 1.44, SIFO= 1.58

POINT DATA:

A49, Coordinates, X= 3556.21 mm, Y= -1090.71 mm, Z= -18772.60 mm

From A51 to A54, DY= -521.20 mm

Bend

COMPONENT DATA (Bend, TIP= A51, Near= A51 N, Far= A51 F):
Elbow, Radius= 120.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A51, Coordinates, X= 4037.21 mm, Y= -1090.71 mm, Z= -18772.60 mm
A51 N, Coordinates, X= 3916.22 mm, Y= -1090.71 mm, Z= -18772.60 mm
A51 F, Coordinates, X= 4037.21 mm, Y= -1211.70 mm, Z= -18772.60 mm

From A54 to A56, DY= -52.10 mm, DZ= -194.42 mm, L= 201.28 mm

Bend

COMPONENT DATA (Bend, TIP= A54, Near= A54 N, Far= A54 F):
Elbow, Radius= 120.99 mm, Bend angle= 75.00 deg, End flanges= 0,
Flex= 2.781, SIFI= 1.27, SIFO= 1.06

POINT DATA:

A54, Coordinates, X= 4037.21 mm, Y= -1611.91 mm, Z= -18772.60 mm
A54 N, Coordinates, X= 4037.21 mm, Y= -1519.07 mm, Z= -18772.60 mm
A54 F, Coordinates, X= 4037.21 mm, Y= -1635.94 mm, Z= -18862.27 mm

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From A56 to A57, DY= -25.88 mm, DZ= -96.59 mm, L= 100.00 mm Tee

COMPONENT DATA (Tee Header, Center= A56):
B16.9 welding tee, SIFI= 1.44, SIFO= 1.58

POINT DATA:
A56, Coordinates, X= 4037.21 mm, Y= -1664.01 mm, Z= -18967.02 mm

From A57 to A58, DY= -23.29 mm, DZ= -86.93 mm, L= 90.00 mm Valv

COMPONENT DATA (Valve):
NS, Rating= 10, Length= 90.00 mm, Weight= 25 kg, Surface factor= 0.00,
End cond= Butt welded, SIF= 1.00, Without taper, Offset= 0.000 mm

POINT DATA:
A57, Coordinates, X= 4037.21 mm, Y= -1689.89 mm, Z= -19063.61 mm

From A58 to A59, DY= 120.74 mm, DZ= -32.35 mm, L= 125.00 mm Valv

COMPONENT DATA (Valve):
NS, Rating= 10, Length= 125.00 mm, Weight= 25 kg, Surface factor= 0.00,
End cond= Butt welded, SIF= 1.00, Without taper, Offset= 0.000 mm

POINT DATA:
A58, Coordinates, X= 4037.21 mm, Y= -1713.18 mm, Z= -19150.54 mm

SUPPORT DATA:
A58, V-Stop, Support Id= A58 1, Connected to Ground, Mark= Undefined,
Tag#= Undefined, CompID= Undefined

From A59 to A60, DY= 254.10 mm, DZ= -68.09 mm, L= 263.06 mm Run

POINT DATA:
A59, Coordinates, X= 4037.21 mm, Y= -1592.44 mm, Z= -19182.89 mm

From A60 to A61, DX= 650.00 mm, DZ= -57.08 mm, L= 652.50 mm Bend

COMPONENT DATA (Bend, TIP= A60, Near= A60 N, Far= A60 F):
Elbow, Radius= 77.36 mm, Bend angle= 88.70 deg, End flanges= 0,
Flex= 4.349, SIFI= 1.72, SIFO= 1.43

POINT DATA:
A60, Coordinates, X= 4037.21 mm, Y= -1338.34 mm, Z= -19250.98 mm
A60 N, Coordinates, X= 4037.21 mm, Y= -1411.39 mm, Z= -19231.40 mm
A60 F, Coordinates, X= 4112.55 mm, Y= -1338.34 mm, Z= -19257.59 mm

From A61 to A62, DY= -400.00 mm Bend

COMPONENT DATA (Bend, TIP= A61, Near= A61 N, Far= A61 F):
Elbow, Radius= 75.50 mm, Bend angle= 90.00 deg, End flanges= 0,

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Flex= 4.456, SIFI= 1.75, SIFO= 1.45

POINT DATA:

A61, Coordinates, X= 4687.21 mm, Y= -1338.34 mm, Z= -19308.06 mm
A61 N, Coordinates, X= 4612.00 mm, Y= -1338.34 mm, Z= -19301.46 mm
A61 F, Coordinates, X= 4687.21 mm, Y= -1413.84 mm, Z= -19308.06 mm

From A62 to A63, DX= -254.60 mm

Bend

COMPONENT DATA (Bend, TIP= A62, Near= A62 N, Far= A62 F):

Elbow, Radius= 75.50 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.456, SIFI= 1.75, SIFO= 1.45

POINT DATA:

A62, Coordinates, X= 4687.21 mm, Y= -1738.34 mm, Z= -19308.06 mm
A62 N, Coordinates, X= 4687.21 mm, Y= -1662.84 mm, Z= -19308.06 mm
A62 F, Coordinates, X= 4611.71 mm, Y= -1738.34 mm, Z= -19308.06 mm

*** SEGMENT B , LINE # 79319860

From A49 to B02, DY= -1075.00 mm, DZ= 189.55 mm, L= 1091.58 mm

Tee

COMPONENT DATA (Tee Branch, Center= A49):

B16.9 welding tee, SIFI= 1.44, SIFO= 1.58

PIPE DATA:

Pipe Id= 15MMX3.9, Nom Size= 15 mm, OD= 21.300 mm, Sch= NS,
Mill= 0.488 mm

POINT DATA:

A49, Coordinates, X= 3556.21 mm, Y= -1090.71 mm, Z= -18772.60 mm

From B02 to B05, DZ= 235.45 mm

Bend

COMPONENT DATA (Bend, TIP= B02, Near= B02 N, Far= B02 F):

Elbow, Radius= 42.99 mm, Bend angle= 80.00 deg, End flanges= 0,
Flex= 1.000, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B02, Coordinates, X= 3556.21 mm, Y= -2165.71 mm, Z= -18583.05 mm
B02 N, Coordinates, X= 3556.21 mm, Y= -2130.18 mm, Z= -18589.31 mm
B02 F, Coordinates, X= 3556.21 mm, Y= -2165.71 mm, Z= -18546.98 mm

From B05 to B08, DX= 634.40 mm

Bend

COMPONENT DATA (Bend, TIP= B05, Near= B05 N, Far= B05 F):

Elbow, Radius= 42.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.000, SIFI= 1.00, SIFO= 1.00

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POINT DATA:

B05, Coordinates, X= 3556.21 mm, Y= -2165.71 mm, Z= -18347.60 mm
B05 N, Coordinates, X= 3556.21 mm, Y= -2165.71 mm, Z= -18390.59 mm
B05 F, Coordinates, X= 3599.20 mm, Y= -2165.71 mm, Z= -18347.60 mm

From B08 to B11, DZ= 300.00 mm

Bend

COMPONENT DATA (Bend, TIP= B08, Near= B08 N, Far= B08 F):

Elbow, Radius= 42.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.000, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B08, Coordinates, X= 4190.61 mm, Y= -2165.71 mm, Z= -18347.60 mm
B08 N, Coordinates, X= 4147.62 mm, Y= -2165.71 mm, Z= -18347.60 mm
B08 F, Coordinates, X= 4190.61 mm, Y= -2165.71 mm, Z= -18304.61 mm

From B11 to B14, DX= -1008.40 mm

Bend

COMPONENT DATA (Bend, TIP= B11, Near= B11 N, Far= B11 F):

Elbow, Radius= 42.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.000, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B11, Coordinates, X= 4190.61 mm, Y= -2165.71 mm, Z= -18047.60 mm
B11 N, Coordinates, X= 4190.61 mm, Y= -2165.71 mm, Z= -18090.59 mm
B11 F, Coordinates, X= 4147.62 mm, Y= -2165.71 mm, Z= -18047.60 mm

From B14 to B17, DZ= 700.00 mm

Bend

COMPONENT DATA (Bend, TIP= B14, Near= B14 N, Far= B14 F):

Elbow, Radius= 42.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.000, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B14, Coordinates, X= 3182.21 mm, Y= -2165.71 mm, Z= -18047.60 mm
B14 N, Coordinates, X= 3225.20 mm, Y= -2165.71 mm, Z= -18047.60 mm
B14 F, Coordinates, X= 3182.21 mm, Y= -2165.71 mm, Z= -18004.61 mm

From B17 to B20, DY= 200.00 mm

Bend

COMPONENT DATA (Bend, TIP= B17, Near= B17 N, Far= B17 F):

Elbow, Radius= 42.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.000, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B17, Coordinates, X= 3182.21 mm, Y= -2165.71 mm, Z= -17347.60 mm
B17 N, Coordinates, X= 3182.21 mm, Y= -2165.71 mm, Z= -17390.59 mm
B17 F, Coordinates, X= 3182.21 mm, Y= -2122.72 mm, Z= -17347.60 mm

From B20 to B23, DX= 205.00 mm

Bend

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COMPONENT DATA (Bend, TIP= B20, Near= B20 N, Far= B20 F):

Elbow, Radius= 42.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.000, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B20, Coordinates, X= 3182.21 mm, Y= -1965.71 mm, Z= -17347.60 mm
B20 N, Coordinates, X= 3182.21 mm, Y= -2008.70 mm, Z= -17347.60 mm
B20 F, Coordinates, X= 3225.20 mm, Y= -1965.71 mm, Z= -17347.60 mm

From B23 to B26, DY= -125.00 mm

Bend

COMPONENT DATA (Bend, TIP= B23, Near= B23 N, Far= B23 F):

Elbow, Radius= 42.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.000, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B23, Coordinates, X= 3387.21 mm, Y= -1965.71 mm, Z= -17347.60 mm
B23 N, Coordinates, X= 3344.22 mm, Y= -1965.71 mm, Z= -17347.60 mm
B23 F, Coordinates, X= 3387.21 mm, Y= -2008.70 mm, Z= -17347.60 mm

From B26 to B29, DZ= -475.00 mm

Bend

COMPONENT DATA (Bend, TIP= B26, Near= B26 N, Far= B26 F):

Elbow, Radius= 42.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.000, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B26, Coordinates, X= 3387.21 mm, Y= -2090.71 mm, Z= -17347.60 mm
B26 N, Coordinates, X= 3387.21 mm, Y= -2047.72 mm, Z= -17347.60 mm
B26 F, Coordinates, X= 3387.21 mm, Y= -2090.71 mm, Z= -17390.59 mm

From B29 to B31, DY= -150.00 mm

Bend

COMPONENT DATA (Bend, TIP= B29, Near= B29 N, Far= B29 F):

Elbow, Radius= 42.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.000, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B29, Coordinates, X= 3387.21 mm, Y= -2090.71 mm, Z= -17822.60 mm
B29 N, Coordinates, X= 3387.21 mm, Y= -2090.71 mm, Z= -17779.61 mm
B29 F, Coordinates, X= 3387.21 mm, Y= -2133.70 mm, Z= -17822.60 mm
B31, Coordinates, X= 3387.21 mm, Y= -2240.71 mm, Z= -17822.60 mm

SUPPORT DATA:

B31, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

*** SEGMENT C , LINE # 79319860

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C O M P O N E N T D A T A L I S T I N G

From A56 to C01, DX= -69.95 mm

Tee

COMPONENT DATA (Tee Branch, Center= A56):
B16.9 welding tee, SIFI= 1.44, SIFO= 1.58

PIPE DATA:

Pipe Id= 25MMX3.4, Nom Size= 25 mm, OD= 33.400 mm, Sch= 3.4,
Wall Thk= 3.400 mm, Mill= 0.425 mm

POINT DATA:

A56, Coordinates, X= 4037.21 mm, Y= -1664.01 mm, Z= -18967.02 mm

*** SEGMENT D , LINE # 79319860

From D00 to D01, DY= 69.32 mm, DZ= -9.74 mm, L= 70.00 mm

Junc

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm, OD= 60.300 mm, Sch= 3.9,
Wall Thk= 3.900 mm, Mill= 0.487 mm

POINT DATA:

D00, Coordinates, X= 4513.61 mm, Y= -1510.52 mm, Z= -19663.67 mm

*** SEGMENT E , LINE # 79319860

From E00 to D01, DX= -549.00 mm

Junc

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm

POINT DATA:

E00, Coordinates, X= 5062.61 mm, Y= -1441.20 mm, Z= -19673.41 mm

From D01 to E02, DX= -151.00 mm

Tee

COMPONENT DATA (Tee Header, Center= D01):
B16.9 welding tee, SIFI= 1.44, SIFO= 1.58

POINT DATA:

D01, Coordinates, X= 4513.61 mm, Y= -1441.20 mm, Z= -19673.41 mm

From E02 to E03, DY= -198.57 mm, DZ= 53.21 mm, L= 205.58 mm

Bend

COMPONENT DATA (Bend, TIP= E02, Near= E02 N, Far= E02 F):

Elbow, Radius= 75.50 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.456, SIFI= 1.75, SIFO= 1.45

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

E02, Coordinates, X= 4362.61 mm, Y= -1441.20 mm, Z= -19673.41 mm
E02 N, Coordinates, X= 4438.11 mm, Y= -1441.20 mm, Z= -19673.41 mm
E02 F, Coordinates, X= 4362.61 mm, Y= -1514.13 mm, Z= -19653.87 mm

From E03 to E04, DY= -73.41 mm, DZ= 19.67 mm, L= 76.00 mm Redu

COMPONENT DATA (Reducer):

Length= 76.00 mm, SIF= 1.00

POINT DATA:

E03, Coordinates, X= 4362.61 mm, Y= -1639.77 mm, Z= -19620.20 mm

From E04 to E05, DY= -96.59 mm, DZ= 25.88 mm, L= 100.00 mm Valv

COMPONENT DATA (Valve):

NS, Rating= 10, Length= 100.00 mm, Weight= 20 kg, Surface factor= 0.00,
End cond= Butt welded, SIF= 1.00, Without taper, Offset= 0.000 mm

PIPE DATA:

Pipe Id= 25MMX3.9, Nom Size= 25 mm, OD= 33.400 mm, Sch= NS,
Mill= 0.488 mm

POINT DATA:

E04, Coordinates, X= 4362.61 mm, Y= -1713.18 mm, Z= -19600.53 mm

From E05 to E06, DY= 25.88 mm, DZ= 96.59 mm, L= 100.00 mm Valv

COMPONENT DATA (Valve):

NS, Rating= 10, Length= 100.00 mm, Weight= 20 kg, Surface factor= 0.00,
End cond= Butt welded, SIF= 1.00, Without taper, Offset= 0.000 mm

POINT DATA:

E05, Coordinates, X= 4362.61 mm, Y= -1809.77 mm, Z= -19574.65 mm

SUPPORT DATA:

E05, V-Stop, Support Id= E05 1, Connected to Ground, Mark= Undefined,
Tag#= Undefined, CompID= Undefined

From E06 to E07, DY= 19.67 mm, DZ= 73.41 mm, L= 76.00 mm Redu

COMPONENT DATA (Reducer):

Length= 76.00 mm, SIF= 1.00

POINT DATA:

E06, Coordinates, X= 4362.61 mm, Y= -1783.89 mm, Z= -19478.06 mm

SUPPORT DATA:

E06, V-Stop, Support Id= E06 1, Connected to Ground, Mark= Undefined,
Tag#= Undefined, CompID= Undefined

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C O M P O N E N T D A T A L I S T I N G

From E07 to E08, DY= 25.88 mm, DZ= 96.59 mm, L= 100.00 mm Run

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm, OD= 60.300 mm, Sch= 3.9,
Mill= 0.487 mm

POINT DATA:

E07, Coordinates, X= 4362.61 mm, Y= -1764.22 mm, Z= -19404.65 mm

From E08 to E09, DY= 81.30 mm, DZ= 303.41 mm, L= 314.11 mm Tee

COMPONENT DATA (Tee Header, Center= E08):

B16.9 welding tee, SIFI= 1.44, SIFO= 1.58

POINT DATA:

E08, Coordinates, X= 4362.61 mm, Y= -1738.34 mm, Z= -19308.06 mm

From E09 to E10, DY= 188.32 mm Bend

COMPONENT DATA (Bend, TIP= E09, Near= E09 N, Far= E09 F):

Elbow, Radius= 75.99 mm, Bend angle= 75.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45
Rigid (E09 F to E10), Include weight= Yes, Include expansion= Yes

POINT DATA:

E09, Coordinates, X= 4362.61 mm, Y= -1657.04 mm, Z= -19004.65 mm
E09 N, Coordinates, X= 4362.61 mm, Y= -1672.13 mm, Z= -19060.97 mm
E09 F, Coordinates, X= 4362.61 mm, Y= -1598.73 mm, Z= -19004.65 mm

From E10 to E11, DY= 178.02 mm Run

PIPE DATA:

Pipe Id= 50MMXPN, Nom Size= 50 mm

POINT DATA:

E10, Coordinates, X= 4362.61 mm, Y= -1468.72 mm, Z= -19004.65 mm

From E11 to E12, DZ= 706.07 mm Bend

COMPONENT DATA (Bend, TIP= E11, Near= E11 N, Far= E11 F):

Elbow, Radius= 75.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

E11, Coordinates, X= 4362.61 mm, Y= -1290.70 mm, Z= -19004.65 mm
E11 N, Coordinates, X= 4362.61 mm, Y= -1366.69 mm, Z= -19004.65 mm
E11 F, Coordinates, X= 4362.61 mm, Y= -1290.70 mm, Z= -18928.66 mm

From E12 to E13, DZ= 76.00 mm Run

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C O M P O N E N T D A T A L I S T I N G

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm

POINT DATA:

E12, Coordinates, X= 4362.61 mm, Y= -1290.70 mm, Z= -18298.58 mm

From E13 to E14, DX= -4346.86 mm

Bend

COMPONENT DATA (Bend, TIP= E13, Near= E13 N, Far= E13 F):

Elbow, Radius= 75.50 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.456, SIFI= 1.75, SIFO= 1.45

PIPE DATA (E13 F to E14 N):

Pipe Id= 50MMXPN, Nom Size= 50 mm

POINT DATA:

E13, Coordinates, X= 4362.61 mm, Y= -1290.70 mm, Z= -18222.58 mm
E13 N, Coordinates, X= 4362.61 mm, Y= -1290.70 mm, Z= -18298.08 mm
E13 F, Coordinates, X= 4287.11 mm, Y= -1290.70 mm, Z= -18222.58 mm

From E14 to E15, DX= -200.00 mm, DY= -200.00 mm, L= 282.84 mm

Bend

COMPONENT DATA (Bend, TIP= E14, Near= E14 N, Far= E14 F):

Elbow, Radius= 75.99 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

E14, Coordinates, X= 15.75 mm, Y= -1290.70 mm, Z= -18222.58 mm
E14 N, Coordinates, X= 47.23 mm, Y= -1290.70 mm, Z= -18222.58 mm
E14 F, Coordinates, X= -6.51 mm, Y= -1312.96 mm, Z= -18222.58 mm

From E15 to E16, DY= -1874.87 mm

Bend

COMPONENT DATA (Bend, TIP= E15, Near= E15 N, Far= E15 F):

Elbow, Radius= 75.99 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

E15, Coordinates, X= -184.25 mm, Y= -1490.70 mm, Z= -18222.58 mm
E15 N, Coordinates, X= -161.99 mm, Y= -1468.44 mm, Z= -18222.58 mm
E15 F, Coordinates, X= -184.25 mm, Y= -1522.18 mm, Z= -18222.58 mm

From E16 to E17, DX= -565.27 mm, DY= -565.27 mm, L= 799.41 mm

Bend

COMPONENT DATA (Bend, TIP= E16, Near= E16 N, Far= E16 F):

Elbow, Radius= 75.99 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

E16, Coordinates, X= -184.25 mm, Y= -3365.57 mm, Z= -18222.58 mm
E16 N, Coordinates, X= -184.25 mm, Y= -3334.09 mm, Z= -18222.58 mm

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C O M P O N E N T D A T A L I S T I N G

E16 F, Coordinates, X= -206.51 mm, Y= -3387.83 mm, Z= -18222.58 mm

From E17 to E18, DX= -2611.82 mm Bend

COMPONENT DATA (Bend, TIP= E17, Near= E17 N, Far= E17 F):
Elbow, Radius= 75.99 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

E17, Coordinates, X= -749.52 mm, Y= -3930.84 mm, Z= -18222.58 mm
E17 N, Coordinates, X= -727.26 mm, Y= -3908.58 mm, Z= -18222.58 mm
E17 F, Coordinates, X= -781.00 mm, Y= -3930.84 mm, Z= -18222.58 mm

From E18 to E19, DZ= 800.00 mm Bend

COMPONENT DATA (Bend, TIP= E18, Near= E18 N, Far= E18 F):
Elbow, Radius= 75.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

E18, Coordinates, X= -3361.34 mm, Y= -3930.84 mm, Z= -18222.58 mm
E18 N, Coordinates, X= -3285.35 mm, Y= -3930.84 mm, Z= -18222.58 mm
E18 F, Coordinates, X= -3361.34 mm, Y= -3930.84 mm, Z= -18146.59 mm

From E19 to E20, DY= -503.12 mm Bend

COMPONENT DATA (Bend, TIP= E19, Near= E19 N, Far= E19 F):
Elbow, Radius= 75.50 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.456, SIFI= 1.75, SIFO= 1.45

POINT DATA:

E19, Coordinates, X= -3361.34 mm, Y= -3930.84 mm, Z= -17422.58 mm
E19 N, Coordinates, X= -3361.34 mm, Y= -3930.84 mm, Z= -17498.08 mm
E19 F, Coordinates, X= -3361.34 mm, Y= -4006.34 mm, Z= -17422.58 mm
E20, Coordinates, X= -3361.34 mm, Y= -4433.96 mm, Z= -17422.58 mm

SUPPORT DATA:

E20, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

*** SEGMENT F , LINE #

From E08 to A63, DX= 70.00 mm Tee

COMPONENT DATA (Tee Branch, Center= E08):

B16.9 welding tee, SIFI= 1.44, SIFO= 1.58

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

E08, Coordinates, X= 4362.61 mm, Y= -1738.34 mm, Z= -19308.06 mm

*** SEGMENT G , LINE #

From G00 to G01, DY= -70.00 mm

Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

PIPE DATA:

Pipe Id= 25MMX3.4, Nom Size= 25 mm, OD= 33.400 mm, Sch= 3.4,
Wall Thk= 3.400 mm, Mill= 0.425 mm

POINT DATA:

G00, Coordinates, X= 3302.62 mm, Y= 849.28 mm, Z= -22422.59 mm

SUPPORT DATA:

G00, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

From G01 to G02, DY= -235.00 mm

Run

POINT DATA:

G01, Coordinates, X= 3302.62 mm, Y= 779.28 mm, Z= -22422.59 mm
G01, Flange= WELDNECK, Rating= 16, Weight= 2.00 kg,
End cond= Butt welded, SIF= 1.00, Perform ANSI check= No, Without taper,
Joint offset= 0.000 mm

From G02 to G03, DZ= 1400.00 mm

Bend

COMPONENT DATA (Bend, TIP= G02, Near= G02 N, Far= G02 F):

Elbow, Radius= 66.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.630, SIFI= 1.00, SIFO= 1.00

POINT DATA:

G02, Coordinates, X= 3302.62 mm, Y= 544.28 mm, Z= -22422.59 mm
G02 N, Coordinates, X= 3302.62 mm, Y= 611.27 mm, Z= -22422.59 mm
G02 F, Coordinates, X= 3302.62 mm, Y= 544.28 mm, Z= -22355.60 mm

From G03 to G04, DY= -2710.00 mm, DZ= 237.09 mm, L= 2720.35 mm

Bend

COMPONENT DATA (Bend, TIP= G03, Near= G03 N, Far= G03 F):

Elbow, Radius= 66.99 mm, Bend angle= 85.00 deg, End flanges= 0,
Flex= 1.630, SIFI= 1.00, SIFO= 1.00

POINT DATA:

G03, Coordinates, X= 3302.62 mm, Y= 544.28 mm, Z= -21022.59 mm
G03 N, Coordinates, X= 3302.62 mm, Y= 544.28 mm, Z= -21083.97 mm

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C O M P O N E N T D A T A L I S T I N G

G03 F, Coordinates, X= 3302.62 mm, Y= 483.13 mm, Z= -21017.24 mm

From G04 to G05, DZ= 297.10 mm

Bend

COMPONENT DATA (Bend, TIP= G04, Near= G04 N, Far= G04 F):
Elbow, Radius= 66.99 mm, Bend angle= 85.00 deg, End flanges= 0,
Flex= 1.630, SIFI= 1.00, SIFO= 1.00

POINT DATA:

G04, Coordinates, X= 3302.62 mm, Y= -2165.72 mm, Z= -20785.50 mm
G04 N, Coordinates, X= 3302.62 mm, Y= -2104.57 mm, Z= -20790.85 mm
G04 F, Coordinates, X= 3302.62 mm, Y= -2165.72 mm, Z= -20724.12 mm

From G05 to G06, DZ= 17.95 mm

Run

POINT DATA:

G05, Coordinates, X= 3302.62 mm, Y= -2165.72 mm, Z= -20488.40 mm

From G06 to G07, DX= -120.01 mm, DZ= 207.85 mm, L= 240.01 mm

Bend

COMPONENT DATA (Bend, TIP= G06, Near= G06 N, Far= G06 F):
Elbow, Radius= 66.99 mm, Bend angle= 30.00 deg, End flanges= 0,
Flex= 1.630, SIFI= 1.00, SIFO= 1.00

POINT DATA:

G06, Coordinates, X= 3302.62 mm, Y= -2165.72 mm, Z= -20470.45 mm
G06 N, Coordinates, X= 3302.62 mm, Y= -2165.72 mm, Z= -20487.76 mm
G06 F, Coordinates, X= 3293.64 mm, Y= -2165.72 mm, Z= -20454.90 mm

From G07 to G08, DZ= 17.95 mm

Bend

COMPONENT DATA (Bend, TIP= G07, Near= G07 N, Far= G07 F):
Elbow, Radius= 66.99 mm, Bend angle= 30.00 deg, End flanges= 0,
Flex= 1.630, SIFI= 1.00, SIFO= 1.00

POINT DATA:

G07, Coordinates, X= 3182.61 mm, Y= -2165.72 mm, Z= -20262.60 mm
G07 N, Coordinates, X= 3191.59 mm, Y= -2165.72 mm, Z= -20278.14 mm
G07 F, Coordinates, X= 3182.61 mm, Y= -2165.72 mm, Z= -20245.28 mm

From G08 to G09, DZ= 2097.05 mm

Run

POINT DATA:

G08, Coordinates, X= 3182.61 mm, Y= -2165.72 mm, Z= -20244.65 mm

From G09 to G10, DX= 274.00 mm

Bend

COMPONENT DATA (Bend, TIP= G09, Near= G09 N, Far= G09 F):
Elbow, Radius= 66.99 mm, Bend angle= 90.00 deg, End flanges= 0,

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C O M P O N E N T D A T A L I S T I N G

Flex= 1.630, SIFI= 1.00, SIFO= 1.00

POINT DATA:

G09, Coordinates, X= 3182.61 mm, Y= -2165.72 mm, Z= -18147.60 mm

G09 N, Coordinates, X= 3182.61 mm, Y= -2165.72 mm, Z= -18214.59 mm

G09 F, Coordinates, X= 3249.60 mm, Y= -2165.72 mm, Z= -18147.60 mm

From G10 to G11, DZ= -584.99 mm

Bend

COMPONENT DATA (Bend, TIP= G10, Near= G10 N, Far= G10 F):

Elbow, Radius= 66.99 mm, Bend angle= 90.00 deg, End flanges= 0,

Flex= 1.630, SIFI= 1.00, SIFO= 1.00

POINT DATA:

G10, Coordinates, X= 3456.61 mm, Y= -2165.72 mm, Z= -18147.60 mm

G10 N, Coordinates, X= 3389.62 mm, Y= -2165.72 mm, Z= -18147.60 mm

G10 F, Coordinates, X= 3456.61 mm, Y= -2165.72 mm, Z= -18214.59 mm

From G11 to G12, DX= 19.62 mm, DZ= -19.62 mm, L= 27.75 mm

Bend

COMPONENT DATA (Bend, TIP= G11, Near= G11 N, Far= G11 F):

Elbow, Radius= 66.99 mm, Bend angle= 45.00 deg, End flanges= 0,

Flex= 1.630, SIFI= 1.00, SIFO= 1.00

POINT DATA:

G11, Coordinates, X= 3456.61 mm, Y= -2165.72 mm, Z= -18732.59 mm

G11 N, Coordinates, X= 3456.61 mm, Y= -2165.72 mm, Z= -18704.84 mm

G11 F, Coordinates, X= 3475.78 mm, Y= -2165.72 mm, Z= -18751.76 mm

From G12 to G13, DX= 80.38 mm, DZ= -80.38 mm, L= 113.67 mm

Run

POINT DATA:

G12, Coordinates, X= 3476.23 mm, Y= -2165.72 mm, Z= -18752.21 mm

From G13 to G14, DY= 501.71 mm, DZ= -134.43 mm, L= 519.41 mm

Bend

COMPONENT DATA (Bend, TIP= G13, Near= G13 N, Far= G13 F):

Elbow, Radius= 66.99 mm, Bend angle= 79.45 deg, End flanges= 0,

Flex= 1.630, SIFI= 1.00, SIFO= 1.00

POINT DATA:

G13, Coordinates, X= 3556.61 mm, Y= -2165.72 mm, Z= -18832.59 mm

G13 N, Coordinates, X= 3517.25 mm, Y= -2165.72 mm, Z= -18793.22 mm

G13 F, Coordinates, X= 3556.61 mm, Y= -2111.95 mm, Z= -18847.00 mm

From G14 to C01, DX= 410.65 mm

Bend

COMPONENT DATA (Bend, TIP= G14, Near= G14 N, Far= G14 F):

Elbow, Radius= 66.99 mm, Bend angle= 90.00 deg, End flanges= 0,

Flex= 1.630, SIFI= 1.00, SIFO= 1.00

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POINT DATA:

G14, Coordinates, X= 3556.61 mm, Y= -1664.01 mm, Z= -18967.02 mm
G14 N, Coordinates, X= 3556.61 mm, Y= -1728.72 mm, Z= -18949.68 mm
G14 F, Coordinates, X= 3623.60 mm, Y= -1664.01 mm, Z= -18967.02 mm

*** SEGMENT H , LINE #

From D00 to H01, DY= -344.79 mm, DZ= 48.45 mm, L= 348.18 mm Junc

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm, OD= 60.300 mm, Sch= 3.9,
Wall Thk= 3.900 mm, Mill= 0.487 mm

POINT DATA:

D00, Coordinates, X= 4513.61 mm, Y= -1510.52 mm, Z= -19663.67 mm

From H01 to H02, DX= 241.20 mm Bend

COMPONENT DATA (Bend, TIP= H01, Near= H01 N, Far= H01 F):

Elbow, Radius= 120.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

POINT DATA:

H01, Coordinates, X= 4513.61 mm, Y= -1855.31 mm, Z= -19615.22 mm
H01 N, Coordinates, X= 4513.61 mm, Y= -1735.89 mm, Z= -19632.00 mm
H01 F, Coordinates, X= 4634.20 mm, Y= -1855.31 mm, Z= -19615.22 mm

From H02 to H03, DY= -300.01 mm, DZ= 42.16 mm, L= 302.96 mm Bend

COMPONENT DATA (Bend, TIP= H02, Near= H02 N, Far= H02 F):

Elbow, Radius= 120.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

POINT DATA:

H02, Coordinates, X= 4754.81 mm, Y= -1855.31 mm, Z= -19615.22 mm
H02 N, Coordinates, X= 4634.22 mm, Y= -1855.31 mm, Z= -19615.22 mm
H02 F, Coordinates, X= 4754.81 mm, Y= -1974.73 mm, Z= -19598.44 mm

From H03 to H04, DZ= 1000.00 mm Bend

COMPONENT DATA (Bend, TIP= H03, Near= H03 N, Far= H03 F):

Elbow, Radius= 120.59 mm, Bend angle= 82.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

POINT DATA:

H03, Coordinates, X= 4754.81 mm, Y= -2155.32 mm, Z= -19573.06 mm
H03 N, Coordinates, X= 4754.81 mm, Y= -2051.51 mm, Z= -19587.65 mm
H03 F, Coordinates, X= 4754.81 mm, Y= -2155.32 mm, Z= -19468.23 mm

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From H04 to H05, DX= -991.20 mm Bend

COMPONENT DATA (Bend, TIP= H04, Near= H04 N, Far= H04 F):
Elbow, Radius= 120.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

POINT DATA:

H04, Coordinates, X= 4754.81 mm, Y= -2155.32 mm, Z= -18573.06 mm
H04 N, Coordinates, X= 4754.81 mm, Y= -2155.32 mm, Z= -18693.65 mm
H04 F, Coordinates, X= 4634.22 mm, Y= -2155.32 mm, Z= -18573.06 mm

From H05 to H06, DZ= -500.05 mm Bend

COMPONENT DATA (Bend, TIP= H05, Near= H05 N, Far= H05 F):
Elbow, Radius= 120.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

POINT DATA:

H05, Coordinates, X= 3763.61 mm, Y= -2155.32 mm, Z= -18573.06 mm
H05 N, Coordinates, X= 3884.20 mm, Y= -2155.32 mm, Z= -18573.06 mm
H05 F, Coordinates, X= 3763.61 mm, Y= -2155.32 mm, Z= -18693.65 mm

From H06 to H07, DZ= -49.95 mm Run

POINT DATA:

H06, Coordinates, X= 3763.61 mm, Y= -2155.32 mm, Z= -19073.11 mm

From H07 to H08, DX= 35.32 mm, DZ= -35.32 mm, L= 49.95 mm Bend

COMPONENT DATA (Bend, TIP= H07, Near= H07 N, Far= H07 F):
Elbow, Radius= 120.59 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

POINT DATA:

H07, Coordinates, X= 3763.61 mm, Y= -2155.32 mm, Z= -19123.06 mm
H07 N, Coordinates, X= 3763.61 mm, Y= -2155.32 mm, Z= -19073.74 mm
H07 F, Coordinates, X= 3798.48 mm, Y= -2155.32 mm, Z= -19157.93 mm

From H08 to H09, DX= 218.23 mm, DZ= -218.23 mm, L= 308.62 mm Run

POINT DATA:

H08, Coordinates, X= 3798.93 mm, Y= -2155.32 mm, Z= -19158.38 mm

From H09 to H10, DZ= -49.95 mm Bend

COMPONENT DATA (Bend, TIP= H09, Near= H09 N, Far= H09 F):
Elbow, Radius= 120.59 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

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POINT DATA:

H09, Coordinates, X= 4017.16 mm, Y= -2155.32 mm, Z= -19376.61 mm
H09 N, Coordinates, X= 3981.84 mm, Y= -2155.32 mm, Z= -19341.29 mm
H09 F, Coordinates, X= 4017.16 mm, Y= -2155.32 mm, Z= -19425.92 mm

From H10 to H11, DZ= -1359.86 mm

Run

POINT DATA:

H10, Coordinates, X= 4017.16 mm, Y= -2155.32 mm, Z= -19426.56 mm

From H11 to H12, DY= 2700.00 mm, DZ= -236.22 mm, L= 2710.31 mm

Bend

COMPONENT DATA (Bend, TIP= H11, Near= H11 N, Far= H11 F):

Elbow, Radius= 120.59 mm, Bend angle= 85.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

POINT DATA:

H11, Coordinates, X= 4017.16 mm, Y= -2155.32 mm, Z= -20786.42 mm
H11 N, Coordinates, X= 4017.16 mm, Y= -2155.32 mm, Z= -20675.92 mm
H11 F, Coordinates, X= 4017.16 mm, Y= -2045.24 mm, Z= -20796.05 mm

From H12 to H13, DX= 345.45 mm

Bend

COMPONENT DATA (Bend, TIP= H12, Near= H12 N, Far= H12 F):

Elbow, Radius= 120.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

POINT DATA:

H12, Coordinates, X= 4017.16 mm, Y= 544.68 mm, Z= -21022.64 mm
H12 N, Coordinates, X= 4017.16 mm, Y= 424.55 mm, Z= -21012.13 mm
H12 F, Coordinates, X= 4137.75 mm, Y= 544.68 mm, Z= -21022.64 mm

From H13 to H14, DZ= -1000.00 mm

Bend

COMPONENT DATA (Bend, TIP= H13, Near= H13 N, Far= H13 F):

Elbow, Radius= 120.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

POINT DATA:

H13, Coordinates, X= 4362.61 mm, Y= 544.68 mm, Z= -21022.64 mm
H13 N, Coordinates, X= 4242.02 mm, Y= 544.68 mm, Z= -21022.64 mm
H13 F, Coordinates, X= 4362.61 mm, Y= 544.68 mm, Z= -21143.23 mm

From H14 to H15, DY= 271.00 mm

Bend

COMPONENT DATA (Bend, TIP= H14, Near= H14 N, Far= H14 F):

Elbow, Radius= 120.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 2.790, SIFI= 1.28, SIFO= 1.06

POINT DATA:

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H14, Coordinates, X= 4362.61 mm, Y= 544.68 mm, Z= -22022.64 mm
H14 N, Coordinates, X= 4362.61 mm, Y= 544.68 mm, Z= -21902.05 mm
H14 F, Coordinates, X= 4362.61 mm, Y= 665.27 mm, Z= -22022.64 mm

From H15 to H16, DY= 44.00 mm

Run

POINT DATA:

H15, Coordinates, X= 4362.61 mm, Y= 815.68 mm, Z= -22022.64 mm
H16, Coordinates, X= 4362.61 mm, Y= 859.68 mm, Z= -22022.64 mm

SUPPORT DATA:

H16, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

*** SEGMENT I , LINE #

From I00 to I01, DY= 74.60 mm

Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

PIPE DATA:

Pipe Id= 25MMX3.4, Nom Size= 25 mm, OD= 33.400 mm, Sch= 3.4,
Wall Thk= 3.400 mm, Mill= 0.425 mm

POINT DATA:

I00, Coordinates, X= 5562.61 mm, Y= -3015.80 mm, Z= -19821.58 mm

*** SEGMENT J , LINE #

From E00 to J01, DX= 500.00 mm

Junc

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm, OD= 60.300 mm, Sch= 3.9,
Wall Thk= 3.900 mm, Mill= 0.487 mm

POINT DATA:

E00, Coordinates, X= 5062.61 mm, Y= -1441.20 mm, Z= -19673.41 mm

From J01 to J02, DY= -1500.00 mm

Bend

COMPONENT DATA (Bend, TIP= J01, Near= J01 N, Far= J01 F):

Elbow, Radius= 75.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

J01, Coordinates, X= 5562.61 mm, Y= -1441.20 mm, Z= -19673.41 mm

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J01 N, Coordinates, X= 5486.62 mm, Y= -1441.20 mm, Z= -19673.41 mm
J01 F, Coordinates, X= 5562.61 mm, Y= -1517.19 mm, Z= -19673.41 mm

From J02 to I01, DZ= -148.17 mm

Bend

COMPONENT DATA (Bend, TIP= J02, Near= J02 N, Far= J02 F):
Elbow, Radius= 75.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

J02, Coordinates, X= 5562.61 mm, Y= -2941.20 mm, Z= -19673.41 mm
J02 N, Coordinates, X= 5562.61 mm, Y= -2865.21 mm, Z= -19673.41 mm
J02 F, Coordinates, X= 5562.61 mm, Y= -2941.20 mm, Z= -19749.40 mm

From I01 to J04, DZ= -151.00 mm

Tee

COMPONENT DATA (Tee Header, Center= I01):
B16.9 welding tee, SIFI= 1.44, SIFO= 1.58

POINT DATA:

I01, Coordinates, X= 5562.61 mm, Y= -2941.20 mm, Z= -19821.58 mm

From J04 to J05, DX= 824.38 mm

Bend

COMPONENT DATA (Bend, TIP= J04, Near= J04 N, Far= J04 F):
Elbow, Radius= 75.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

J04, Coordinates, X= 5562.61 mm, Y= -2941.20 mm, Z= -19972.58 mm
J04 N, Coordinates, X= 5562.61 mm, Y= -2941.20 mm, Z= -19896.59 mm
J04 F, Coordinates, X= 5638.60 mm, Y= -2941.20 mm, Z= -19972.58 mm

From J05 to J06, DX= 845.00 mm

Run

COMPONENT DATA (Run):
Rigid, Include weight= Yes, Include expansion= Yes

POINT DATA:

J05, Coordinates, X= 6386.99 mm, Y= -2941.20 mm, Z= -19972.58 mm

SUPPORT DATA:

J05, V-Stop, Support Id= J05 1, Connected to Ground, Mark= Undefined,
Tag#= Undefined, CompID= Undefined, Gap-Below= 20.00 mm,
Gap-Above= 20.00 mm, Friction= 0.00 mm, Gaps setting= Weightless

From J06 to J07, DX= 626.00 mm

Run

POINT DATA:

J06, Coordinates, X= 7231.99 mm, Y= -2941.20 mm, Z= -19972.58 mm

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SUPPORT DATA:

J06, V-Stop, Support Id= J06 1, Connected to Ground, Mark= Undefined,
Tag#= Undefined, CompID= Undefined, Gap-Below= 20.00 mm,
Gap-Above= 20.00 mm, Friction= 0.00 mm, Gaps setting= Weightless

From J07 to J08, DY= 450.50 mm

Bend

COMPONENT DATA (Bend, TIP= J07, Near= J07 N, Far= J07 F):

Elbow, Radius= 75.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

J07, Coordinates, X= 7857.99 mm, Y= -2941.20 mm, Z= -19972.58 mm
J07 N, Coordinates, X= 7782.00 mm, Y= -2941.20 mm, Z= -19972.58 mm
J07 F, Coordinates, X= 7857.99 mm, Y= -2865.21 mm, Z= -19972.58 mm

From J08 to J09, DX= -317.97 mm

Bend

COMPONENT DATA (Bend, TIP= J08, Near= J08 N, Far= J08 F):

Elbow, Radius= 75.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 4.428, SIFI= 1.74, SIFO= 1.45

POINT DATA:

J08, Coordinates, X= 7857.99 mm, Y= -2490.70 mm, Z= -19972.58 mm
J08 N, Coordinates, X= 7857.99 mm, Y= -2566.69 mm, Z= -19972.58 mm
J08 F, Coordinates, X= 7782.00 mm, Y= -2490.70 mm, Z= -19972.58 mm

*** SEGMENT K , LINE

From K00 to K01, DZ= -65.05 mm

Run

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm

POINT DATA:

K00, Coordinates, X= 6213.04 mm, Y= 437.30 mm, Z= -15261.58 mm

SUPPORT DATA:

K00, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

From K01 to K02, DZ= -84.95 mm

Run

POINT DATA:

K01, Coordinates, X= 6213.04 mm, Y= 437.30 mm, Z= -15326.63 mm

*** SEGMENT L , LINE

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C O M P O N E N T D A T A L I S T I N G

From L00 to L01, DX= 51.00 mm

Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

PIPE DATA:

Pipe Id= 80MMX5.5, Nom Size= 80 mm, OD= 88.900 mm, Sch= 5.5,
Wall Thk= 5.500 mm, Mill= 0.688 mm

POINT DATA:

L00, Coordinates, X= 5962.04 mm, Y= 437.30 mm, Z= -15411.58 mm

From L01 to K02, DX= 200.00 mm

Run

POINT DATA:

L01, Coordinates, X= 6013.04 mm, Y= 437.30 mm, Z= -15411.58 mm

From K02 to L03, DX= 1450.00 mm

Tee

COMPONENT DATA (Tee Header, Center= K02):

B16.9 welding tee, SIFI= 1.48, SIFO= 1.63

POINT DATA:

K02, Coordinates, X= 6213.04 mm, Y= 437.30 mm, Z= -15411.58 mm

From L03 to L04, DX= 148.00 mm

Tee

COMPONENT DATA (Tee Header, Center= L03):

B16.9 welding tee, SIFI= 1.48, SIFO= 1.63

POINT DATA:

L03, Coordinates, X= 7663.04 mm, Y= 437.30 mm, Z= -15411.58 mm

From L04 to L05, DX= 100.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 100.00 mm, SIF= 1.00

POINT DATA:

L04, Coordinates, X= 7811.04 mm, Y= 437.30 mm, Z= -15411.58 mm

From L05 to L06, DX= 152.00 mm

Run

PIPE DATA:

Pipe Id= 100MX5.5, Nom Size= 100 mm, OD= 114.30 mm, Sch= NS

POINT DATA:

L05, Coordinates, X= 7911.04 mm, Y= 437.30 mm, Z= -15411.58 mm

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C O M P O N E N T D A T A L I S T I N G

From L06 to L07, DZ= -1052.00 mm Bend

COMPONENT DATA (Bend, TIP= L06, Near= L06 N, Far= L06 F):
Elbow, Radius= 151.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 5.841, SIFI= 2.09, SIFO= 1.74

POINT DATA:
L06, Coordinates, X= 8063.04 mm, Y= 437.30 mm, Z= -15411.58 mm
L06 N, Coordinates, X= 7911.05 mm, Y= 437.30 mm, Z= -15411.58 mm
L06 F, Coordinates, X= 8063.04 mm, Y= 437.30 mm, Z= -15563.57 mm

From L07 to L08, DY= -652.00 mm, DZ= -652.00 mm, L= 922.07 mm Bend

COMPONENT DATA (Bend, TIP= L07, Near= L07 N, Far= L07 F):
Elbow, Radius= 151.99 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 5.841, SIFI= 2.09, SIFO= 1.74

POINT DATA:
L07, Coordinates, X= 8063.04 mm, Y= 437.30 mm, Z= -16463.58 mm
L07 N, Coordinates, X= 8063.04 mm, Y= 437.30 mm, Z= -16400.62 mm
L07 F, Coordinates, X= 8063.04 mm, Y= 392.78 mm, Z= -16508.09 mm

From L08 to L09, DY= -476.00 mm Bend

COMPONENT DATA (Bend, TIP= L08, Near= L08 N, Far= L08 F):
Elbow, Radius= 151.99 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 5.841, SIFI= 2.09, SIFO= 1.74

POINT DATA:
L08, Coordinates, X= 8063.04 mm, Y= -214.70 mm, Z= -17115.58 mm
L08 N, Coordinates, X= 8063.04 mm, Y= -170.18 mm, Z= -17071.06 mm
L08 F, Coordinates, X= 8063.04 mm, Y= -277.66 mm, Z= -17115.58 mm

From L09 to L10, DY= -476.00 mm Tee

COMPONENT DATA (Tee Header, Center= L09):
B16.9 welding tee, SIFI= 1.71, SIFO= 1.95

POINT DATA:
L09, Coordinates, X= 8063.04 mm, Y= -690.70 mm, Z= -17115.58 mm

From L10 to L11, DY= -652.00 mm, DZ= 652.00 mm, L= 922.07 mm Bend

COMPONENT DATA (Bend, TIP= L10, Near= L10 N, Far= L10 F):
Elbow, Radius= 151.99 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 5.841, SIFI= 2.09, SIFO= 1.74

POINT DATA:
L10, Coordinates, X= 8063.04 mm, Y= -1166.70 mm, Z= -17115.58 mm
L10 N, Coordinates, X= 8063.04 mm, Y= -1103.74 mm, Z= -17115.58 mm

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L10 F, Coordinates, X= 8063.04 mm, Y= -1211.22 mm, Z= -17071.06 mm

From L11 to L12, DZ= 1052.00 mm Bend

COMPONENT DATA (Bend, TIP= L11, Near= L11 N, Far= L11 F):
Elbow, Radius= 151.99 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 5.841, SIFI= 2.09, SIFO= 1.74

POINT DATA:

L11, Coordinates, X= 8063.04 mm, Y= -1818.70 mm, Z= -16463.58 mm
L11 N, Coordinates, X= 8063.04 mm, Y= -1774.18 mm, Z= -16508.09 mm
L11 F, Coordinates, X= 8063.04 mm, Y= -1818.70 mm, Z= -16400.62 mm

From L12 to L13, DX= -155.05 mm Bend

COMPONENT DATA (Bend, TIP= L12, Near= L12 N, Far= L12 F):
Elbow, Radius= 151.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 5.841, SIFI= 2.09, SIFO= 1.74

POINT DATA:

L12, Coordinates, X= 8063.04 mm, Y= -1818.70 mm, Z= -15411.58 mm
L12 N, Coordinates, X= 8063.04 mm, Y= -1818.70 mm, Z= -15563.57 mm
L12 F, Coordinates, X= 7911.05 mm, Y= -1818.70 mm, Z= -15411.58 mm

From L13 to L14, DX= -96.95 mm Redu

COMPONENT DATA (Reducer):
Length= 96.95 mm, SIF= 1.00

POINT DATA:

L13, Coordinates, X= 7907.99 mm, Y= -1818.70 mm, Z= -15411.58 mm

From L14 to L15, DX= -148.00 mm Run

PIPE DATA:

Pipe Id= 80MMX5.5, Nom Size= 80 mm, OD= 88.900 mm, Sch= 5.5

POINT DATA:

L14, Coordinates, X= 7811.04 mm, Y= -1818.70 mm, Z= -15411.58 mm

From L15 to L16, DX= -1450.00 mm Tee

COMPONENT DATA (Tee Header, Center= L15):
B16.9 welding tee, SIFI= 1.48, SIFO= 1.63

POINT DATA:

L15, Coordinates, X= 7663.04 mm, Y= -1818.70 mm, Z= -15411.58 mm

From L16 to L17, DX= -200.00 mm Tee

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C O M P O N E N T D A T A L I S T I N G

COMPONENT DATA (Tee Header, Center= L16):

B16.9 welding tee, SIFI= 1.48, SIFO= 1.63

POINT DATA:

L16, Coordinates, X= 6213.04 mm, Y= -1818.70 mm, Z= -15411.58 mm

From L17 to L18, DX= -51.00 mm

Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

POINT DATA:

L17, Coordinates, X= 6013.04 mm, Y= -1818.70 mm, Z= -15411.58 mm

L18, Coordinates, X= 5962.04 mm, Y= -1818.70 mm, Z= -15411.58 mm

*** SEGMENT M , LINE #

From L03 to M01, DZ= 84.95 mm

Tee

COMPONENT DATA (Tee Branch, Center= L03):

B16.9 welding tee, SIFI= 1.48, SIFO= 1.63

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm, OD= 60.300 mm, Sch= 3.9,
Wall Thk= 3.900 mm, Mill= 0.487 mm

POINT DATA:

L03, Coordinates, X= 7663.04 mm, Y= 437.30 mm, Z= -15411.58 mm

From M01 to M02, DZ= 65.05 mm

Run

POINT DATA:

M01, Coordinates, X= 7663.04 mm, Y= 437.30 mm, Z= -15326.63 mm

M02, Coordinates, X= 7663.04 mm, Y= 437.30 mm, Z= -15261.58 mm

SUPPORT DATA:

M02, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

*** SEGMENT N , LINE #

From L09 to N01, DZ= -120.00 mm

Tee

COMPONENT DATA (Tee Branch, Center= L09):

B16.9 welding tee, SIFI= 1.71, SIFO= 1.95

PIPE DATA:

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Pipe Id= 100MX5.5, Nom Size= 100 mm, OD= 114.30 mm, Sch= NS,
Wall Thk= 5.500 mm, Mill= 0.688 mm

POINT DATA:

L09, Coordinates, X= 8063.04 mm, Y= -690.70 mm, Z= -17115.58 mm

From N01 to N02, DZ= -1760.00 mm

Run

POINT DATA:

N01, Coordinates, X= 8063.04 mm, Y= -690.70 mm, Z= -17235.58 mm

From N02 to N03, DY= -1800.00 mm

Bend

COMPONENT DATA (Bend, TIP= N02, Near= N02 N, Far= N02 F):

Elbow, Radius= 151.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 5.841, SIFI= 2.09, SIFO= 1.74

POINT DATA:

N02, Coordinates, X= 8063.04 mm, Y= -690.70 mm, Z= -18995.58 mm
N02 N, Coordinates, X= 8063.04 mm, Y= -690.70 mm, Z= -18843.59 mm
N02 F, Coordinates, X= 8063.04 mm, Y= -842.69 mm, Z= -18995.58 mm

From N03 to N04, DX= -622.97 mm

Bend

COMPONENT DATA (Bend, TIP= N03, Near= N03 N, Far= N03 F):

Elbow, Radius= 151.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 5.841, SIFI= 2.09, SIFO= 1.74

POINT DATA:

N03, Coordinates, X= 8063.04 mm, Y= -2490.70 mm, Z= -18995.58 mm
N03 N, Coordinates, X= 8063.04 mm, Y= -2338.71 mm, Z= -18995.58 mm
N03 F, Coordinates, X= 7911.05 mm, Y= -2490.70 mm, Z= -18995.58 mm

From N04 to N05, DZ= -977.00 mm

Bend

COMPONENT DATA (Bend, TIP= N04, Near= N04 N, Far= N04 F):

Elbow, Radius= 151.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 5.841, SIFI= 2.09, SIFO= 1.74

POINT DATA:

N04, Coordinates, X= 7440.07 mm, Y= -2490.70 mm, Z= -18995.58 mm
N04 N, Coordinates, X= 7592.06 mm, Y= -2490.70 mm, Z= -18995.58 mm
N04 F, Coordinates, X= 7440.07 mm, Y= -2490.70 mm, Z= -19147.57 mm

From N05 to N06, DZ= -2016.00 mm

Tee

COMPONENT DATA (Tee Header, Center= N05):

B16.9 welding tee, SIFI= 1.71, SIFO= 1.95

POINT DATA:

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C O M P O N E N T D A T A L I S T I N G

N05, Coordinates, X= 7440.07 mm, Y= -2490.70 mm, Z= -19972.58 mm

From N06 to N07, DY= -644.50 mm

Bend

COMPONENT DATA (Bend, TIP= N06, Near= N06 N, Far= N06 F):

Elbow, Radius= 151.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 5.841, SIFI= 2.09, SIFO= 1.74

POINT DATA:

N06, Coordinates, X= 7440.07 mm, Y= -2490.70 mm, Z= -21988.58 mm
N06 N, Coordinates, X= 7440.07 mm, Y= -2490.70 mm, Z= -21836.59 mm
N06 F, Coordinates, X= 7440.07 mm, Y= -2642.69 mm, Z= -21988.58 mm

From N07 to N08, DY= -160.00 mm

Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

POINT DATA:

N07, Coordinates, X= 7440.07 mm, Y= -3135.20 mm, Z= -21988.58 mm

*** SEGMENT O , LINE #

From L15 to O01, DZ= 84.95 mm

Tee

COMPONENT DATA (Tee Branch, Center= L15):

B16.9 welding tee, SIFI= 1.48, SIFO= 1.63

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm, OD= 60.300 mm, Sch= 3.9,
Wall Thk= 3.900 mm, Mill= 0.487 mm

POINT DATA:

L15, Coordinates, X= 7663.04 mm, Y= -1818.70 mm, Z= -15411.58 mm

From O01 to O02, DZ= 65.05 mm

Run

POINT DATA:

O01, Coordinates, X= 7663.04 mm, Y= -1818.70 mm, Z= -15326.63 mm
O02, Coordinates, X= 7663.04 mm, Y= -1818.70 mm, Z= -15261.58 mm

SUPPORT DATA:

O02, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

*** SEGMENT P , LINE #

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C O M P O N E N T D A T A L I S T I N G

From N05 to J09, DX= 99.95 mm

Tee

COMPONENT DATA (Tee Branch, Center= N05):

B16.9 welding tee, SIFI= 1.71, SIFO= 1.95

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm

POINT DATA:

N05, Coordinates, X= 7440.07 mm, Y= -2490.70 mm, Z= -19972.58 mm

*** SEGMENT Q , LINE #

From L16 to Q01, DZ= 84.95 mm

Tee

COMPONENT DATA (Tee Branch, Center= L16):

B16.9 welding tee, SIFI= 1.48, SIFO= 1.63

PIPE DATA:

Pipe Id= 50MMX3.9, Nom Size= 50 mm

POINT DATA:

L16, Coordinates, X= 6213.04 mm, Y= -1818.70 mm, Z= -15411.58 mm

From Q01 to Q02, DZ= 65.05 mm

Run

POINT DATA:

Q01, Coordinates, X= 6213.04 mm, Y= -1818.70 mm, Z= -15326.63 mm

Q02, Coordinates, X= 6213.04 mm, Y= -1818.70 mm, Z= -15261.58 mm

SUPPORT DATA:

Q02, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

*** SEGMENT R , LINE #

From R00 to R01, DY= 62.00 mm

Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

PIPE DATA:

Pipe Id= 40MMX1, Nom Size= 40 mm, OD= 48.300 mm, Sch= 2.6,
Wall Thk= 2.600 mm, Mill= 0.325 mm

OPERATING DATA:

Sh1= 143.00 N/mm2

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

R00, Coordinates, X= 7202.53 mm, Y= -6345.71 mm, Z= -21988.58 mm

SUPPORT DATA:

R00, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

From R01 to R02, DY= 100.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 100.00 mm, SIF= 1.00

POINT DATA:

R01, Coordinates, X= 7202.53 mm, Y= -6283.71 mm, Z= -21988.58 mm
R01, Flange= WELDNECK, Rating= 100, Weight= 4.09 kg,
End cond= Butt welded, SIF= 1.00, Perform ANSI check= No, Without taper,
Joint offset= 0.000 mm

From R02 to R03, DY= 62.96 mm

Run

PIPE DATA:

Pipe Id= 100MXPN, Nom Size= 100 mm, OD= 114.30 mm, Sch= 3.6,
Wall Thk= 3.600 mm, Mill= 0.450 mm

POINT DATA:

R02, Coordinates, X= 7202.53 mm, Y= -6183.71 mm, Z= -21988.58 mm

From R03 to R04, DX= 118.77 mm, DY= 118.77 mm, L= 167.97 mm

Bend

COMPONENT DATA (Bend, TIP= R03, Near= R03 N, Far= R03 F):

Elbow, Radius= 151.99 mm, Bend angle= 45.00 deg, End flanges= 0,
Flex= 9.239, SIFI= 2.84, SIFO= 2.36

POINT DATA:

R03, Coordinates, X= 7202.53 mm, Y= -6120.75 mm, Z= -21988.58 mm
R03 N, Coordinates, X= 7202.53 mm, Y= -6183.71 mm, Z= -21988.58 mm
R03 F, Coordinates, X= 7247.05 mm, Y= -6076.23 mm, Z= -21988.58 mm

From R04 to R05, DX= 118.77 mm, DY= 118.77 mm, L= 167.97 mm

Tee

COMPONENT DATA (Tee Header, Center= R04):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

POINT DATA:

R04, Coordinates, X= 7321.30 mm, Y= -6001.98 mm, Z= -21988.58 mm

From R05 to R06, DY= 167.96 mm

Bend

COMPONENT DATA (Bend, TIP= R05, Near= R05 N, Far= R05 F):

Elbow, Radius= 151.27 mm, Bend angle= 45.00 deg, End flanges= 0,

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C O M P O N E N T D A T A L I S T I N G

Flex= 9.282, SIFI= 2.85, SIFO= 2.37

POINT DATA:

R05, Coordinates, X= 7440.07 mm, Y= -5883.21 mm, Z= -21988.58 mm

R05 N, Coordinates, X= 7395.76 mm, Y= -5927.52 mm, Z= -21988.58 mm

R05 F, Coordinates, X= 7440.07 mm, Y= -5820.55 mm, Z= -21988.58 mm

From R06 to R07, DY= 105.00 mm

Tee

COMPONENT DATA (Tee Header, Center= R06):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

POINT DATA:

R06, Coordinates, X= 7440.07 mm, Y= -5715.25 mm, Z= -21988.58 mm

From R07 to R08, DY= 65.00 mm

Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

POINT DATA:

R07, Coordinates, X= 7440.07 mm, Y= -5610.25 mm, Z= -21988.58 mm

R07, Flange= WELDNECK, Rating= 40, Weight= 6.52 kg,

End cond= Butt welded, SIF= 1.00, Perform ANSI check= No, Without taper,

Joint offset= 0.000 mm

From R08 to R09, DY= 84.00 mm

Valv

COMPONENT DATA (Valve):

NS, Rating= 40, Length= 84.00 mm, Weight= 7 kg, Surface factor= 0.00,

End cond= Weld neck, SIF= 1.00

POINT DATA:

R08, Coordinates, X= 7440.07 mm, Y= -5545.25 mm, Z= -21988.58 mm

From R09 to R10, DY= 65.00 mm

Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

POINT DATA:

R09, Coordinates, X= 7440.07 mm, Y= -5461.25 mm, Z= -21988.58 mm

From R10 to R11, DY= 100.00 mm

Run

POINT DATA:

R10, Coordinates, X= 7440.07 mm, Y= -5396.25 mm, Z= -21988.58 mm

R10, Flange= WELDNECK, Rating= 40, Weight= 6.52 kg,

End cond= Butt welded, SIF= 1.00, Perform ANSI check= No, Without taper,

Joint offset= 0.000 mm

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C O M P O N E N T D A T A L I S T I N G

From R11 to R12, DY= 150.55 mm Tee

COMPONENT DATA (Tee Header, Center= R11):
B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

POINT DATA:
R11, Coordinates, X= 7440.07 mm, Y= -5296.25 mm, Z= -21988.58 mm

From R12 to R13, DY= 215.00 mm Tee

COMPONENT DATA (Tee Header, Center= R12):
B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

POINT DATA:
R12, Coordinates, X= 7440.07 mm, Y= -5145.70 mm, Z= -21988.58 mm

From R13 to R14, DY= 350.00 mm Valv

COMPONENT DATA (Valve):
NS, Rating= 40, Length= 350.00 mm, Weight= 60 kg, Surface factor= 0.00,
End cond= Butt welded, SIF= 1.00, Without taper, Offset= 0.000 mm

POINT DATA:
R13, Coordinates, X= 7440.07 mm, Y= -4930.70 mm, Z= -21988.58 mm

From R14 to R15, DY= 1075.50 mm Run

POINT DATA:
R14, Coordinates, X= 7440.07 mm, Y= -4580.70 mm, Z= -21988.58 mm

From R15 to R16, DY= 105.00 mm Run

POINT DATA:
R15, Coordinates, X= 7440.07 mm, Y= -3505.20 mm, Z= -21988.58 mm

From R16 to N08, DY= 105.00 mm Tee

COMPONENT DATA (Tee Header, Center= R16):
B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

POINT DATA:
R16, Coordinates, X= 7440.07 mm, Y= -3400.20 mm, Z= -21988.58 mm

*** SEGMENT S , LINE #

From R04 to S01, DZ= 89.00 mm Tee

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C O M P O N E N T D A T A L I S T I N G

COMPONENT DATA (Tee Branch, Center= R04):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

PIPE DATA:

Pipe Id= 50MMX3, Nom Size= 50 mm, OD= 60.300 mm, Sch= 2.9,
Wall Thk= 2.900 mm, Mill= 0.363 mm

POINT DATA:

R04, Coordinates, X= 7321.30 mm, Y= -6001.98 mm, Z= -21988.58 mm

From S01 to S02, DZ= 76.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 76.00 mm, SIF= 1.00

POINT DATA:

S01, Coordinates, X= 7321.30 mm, Y= -6001.98 mm, Z= -21899.58 mm

S02, Coordinates, X= 7321.30 mm, Y= -6001.98 mm, Z= -21823.58 mm

*** SEGMENT T , LINE #

From R06 to T01, DZ= 105.00 mm

Tee

COMPONENT DATA (Tee Branch, Center= R06):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

PIPE DATA:

Pipe Id= 100MXPB, Nom Size= 100 mm, OD= 114.30 mm, Sch= 3.6,
Wall Thk= 3.600 mm, Mill= 0.450 mm

POINT DATA:

R06, Coordinates, X= 7440.07 mm, Y= -5715.25 mm, Z= -21988.58 mm

T01, Coordinates, X= 7440.07 mm, Y= -5715.25 mm, Z= -21883.58 mm

*** SEGMENT U , LINE #

From R11 to U01, DZ= 107.15 mm

Tee

COMPONENT DATA (Tee Branch, Center= R11):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

PIPE DATA:

Pipe Id= 15MMXPB, Nom Size= 15 mm, OD= 21.300 mm, Sch= 2.0,
Wall Thk= 2.000 mm, Mill= 0.250 mm

POINT DATA:

R11, Coordinates, X= 7440.07 mm, Y= -5296.25 mm, Z= -21988.58 mm

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C O M P O N E N T D A T A L I S T I N G

From U01 to U02, DZ= 799.74 mm

Run

POINT DATA:

U01, Coordinates, X= 7440.07 mm, Y= -5296.25 mm, Z= -21881.43 mm

From U02 to U03, DX= 547.96 mm, DZ= 96.63 mm, L= 556.42 mm

Bend

COMPONENT DATA (Bend, TIP= U02, Near= U02 N, Far= U02 F):

Elbow, Radius= 42.59 mm, Bend angle= 80.00 deg, End flanges= 0,
Flex= 1.804, SIFI= 1.00, SIFO= 1.00

POINT DATA:

U02, Coordinates, X= 7440.07 mm, Y= -5296.25 mm, Z= -21081.69 mm

U02 N, Coordinates, X= 7440.07 mm, Y= -5296.25 mm, Z= -21117.42 mm

U02 F, Coordinates, X= 7475.26 mm, Y= -5296.25 mm, Z= -21075.48 mm

From U03 to U04, DY= -1109.45 mm

Bend

COMPONENT DATA (Bend, TIP= U03, Near= U03 N, Far= U03 F):

Elbow, Radius= 42.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.804, SIFI= 1.00, SIFO= 1.00

POINT DATA:

U03, Coordinates, X= 7988.03 mm, Y= -5296.25 mm, Z= -20985.06 mm

U03 N, Coordinates, X= 7946.09 mm, Y= -5296.25 mm, Z= -20992.45 mm

U03 F, Coordinates, X= 7988.03 mm, Y= -5338.84 mm, Z= -20985.06 mm

From U04 to U05, DX= -175.00 mm

Bend

COMPONENT DATA (Bend, TIP= U04, Near= U04 N, Far= U04 F):

Elbow, Radius= 42.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.804, SIFI= 1.00, SIFO= 1.00

POINT DATA:

U04, Coordinates, X= 7988.03 mm, Y= -6405.70 mm, Z= -20985.06 mm

U04 N, Coordinates, X= 7988.03 mm, Y= -6363.11 mm, Z= -20985.06 mm

U04 F, Coordinates, X= 7945.44 mm, Y= -6405.70 mm, Z= -20985.06 mm

From U05 to U06, DZ= -507.51 mm

Bend

COMPONENT DATA (Bend, TIP= U05, Near= U05 N, Far= U05 F):

Elbow, Radius= 42.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.804, SIFI= 1.00, SIFO= 1.00

POINT DATA:

U05, Coordinates, X= 7813.03 mm, Y= -6405.70 mm, Z= -20985.06 mm

U05 N, Coordinates, X= 7855.62 mm, Y= -6405.70 mm, Z= -20985.06 mm

U05 F, Coordinates, X= 7813.03 mm, Y= -6405.70 mm, Z= -21027.65 mm

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C O M P O N E N T D A T A L I S T I N G

From U06 to U07, DX= 208.00 mm

Bend

COMPONENT DATA (Bend, TIP= U06, Near= U06 N, Far= U06 F):

Elbow, Radius= 42.59 mm, Bend angle= 90.00 deg, End flanges= 0,

Flex= 1.804, SIFI= 1.00, SIFO= 1.00

POINT DATA:

U06, Coordinates, X= 7813.03 mm, Y= -6405.70 mm, Z= -21492.57 mm

U06 N, Coordinates, X= 7813.03 mm, Y= -6405.70 mm, Z= -21449.98 mm

U06 F, Coordinates, X= 7855.62 mm, Y= -6405.70 mm, Z= -21492.57 mm

From U07 to U08, DX= 47.00 mm

Run

POINT DATA:

U07, Coordinates, X= 8021.03 mm, Y= -6405.70 mm, Z= -21492.57 mm

U08, Coordinates, X= 8068.03 mm, Y= -6405.70 mm, Z= -21492.57 mm

SUPPORT DATA:

U07, V-Stop, Support Id= U07 1, Connected to Ground, Mark= Undefined,

Tag#= Undefined, CompID= Undefined, Gap-Below= 0.00 mm,

Gap-Above= 1000.00 mm, Friction= 0.00 mm, Gaps setting= As-built

U08, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,

KRZ= Rigid

*** SEGMENT V , LINE #

From R12 to V01, DX= 105.52 mm, DZ= 18.61 mm, L= 107.15 mm

Tee

COMPONENT DATA (Tee Branch, Center= R12):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

PIPE DATA:

Pipe Id= 25MMXPN, Nom Size= Non-standard, OD= 33.700 mm,

Sch= Non-standard, Wall Thk= 2.600 mm, Mill= 0.325 mm

POINT DATA:

R12, Coordinates, X= 7440.07 mm, Y= -5145.70 mm, Z= -21988.58 mm

V01, Coordinates, X= 7545.59 mm, Y= -5145.70 mm, Z= -21969.97 mm

*** SEGMENT W , LINE #

From R16 to W01, DX= -105.00 mm

Tee

COMPONENT DATA (Tee Branch, Center= R16):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

PIPE DATA:

Pipe Id= 100MMXPN, Nom Size= 100 mm, OD= 114.30 mm, Sch= 3.6,

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Wall Thk= 3.600 mm, Mill= 0.450 mm

POINT DATA:

R16, Coordinates, X= 7440.07 mm, Y= -3400.20 mm, Z= -21988.58 mm

*** SEGMENT X , LINE #

From X00 to X01, DY= 62.00 mm

Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

PIPE DATA:

Pipe Id= 40MMX1, Nom Size= 40 mm, OD= 48.300 mm, Sch= 2.6,
Wall Thk= 2.600 mm, Mill= 0.325 mm

POINT DATA:

X00, Coordinates, X= 6392.53 mm, Y= -6345.71 mm, Z= -21988.58 mm

SUPPORT DATA:

X00, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

From X01 to X02, DY= 100.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 100.00 mm, SIF= 1.00

POINT DATA:

X01, Coordinates, X= 6392.53 mm, Y= -6283.71 mm, Z= -21988.58 mm
X01, Flange= WELDNECK, Rating= 100, Weight= 4.09 kg,
End cond= Butt welded, SIF= 1.00, Perform ANSI check= No, Without taper,
Joint offset= 0.000 mm

From X02 to X03, DY= 87.76 mm

Run

PIPE DATA:

Pipe Id= 100MXPB, Nom Size= 100 mm, OD= 114.30 mm, Sch= 3.6,
Wall Thk= 3.600 mm, Mill= 0.450 mm

POINT DATA:

X02, Coordinates, X= 6392.53 mm, Y= -6183.71 mm, Z= -21988.58 mm

From X03 to X04, DX= -152.51 mm, DY= 88.06 mm, L= 176.11 mm

Bend

COMPONENT DATA (Bend, TIP= X03, Near= X03 N, Far= X03 F):

Elbow, Radius= 151.44 mm, Bend angle= 60.00 deg, End flanges= 0,
Flex= 9.272, SIFI= 2.84, SIFO= 2.37

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

X03, Coordinates, X= 6392.53 mm, Y= -6095.95 mm, Z= -21988.58 mm
X03 N, Coordinates, X= 6392.53 mm, Y= -6183.38 mm, Z= -21988.58 mm
X03 F, Coordinates, X= 6316.82 mm, Y= -6052.23 mm, Z= -21988.58 mm

From X04 to X05, DX= -90.93 mm, DY= 52.50 mm, L= 105.00 mm Run

POINT DATA:

X04, Coordinates, X= 6240.02 mm, Y= -6007.89 mm, Z= -21988.58 mm

From X05 to X06, DX= -166.93 mm, DY= 96.38 mm, L= 192.76 mm Tee

COMPONENT DATA (Tee Header, Center= X05):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

POINT DATA:

X05, Coordinates, X= 6149.09 mm, Y= -5955.39 mm, Z= -21988.58 mm

From X06 to X07, DY= 192.76 mm Bend

COMPONENT DATA (Bend, TIP= X06, Near= X06 N, Far= X06 F):

Elbow, Radius= 151.44 mm, Bend angle= 60.00 deg, End flanges= 0,

Flex= 9.272, SIFI= 2.84, SIFO= 2.37

POINT DATA:

X06, Coordinates, X= 5982.16 mm, Y= -5859.01 mm, Z= -21988.58 mm
X06 N, Coordinates, X= 6057.88 mm, Y= -5902.73 mm, Z= -21988.58 mm
X06 F, Coordinates, X= 5982.16 mm, Y= -5771.58 mm, Z= -21988.58 mm

From X07 to X08, DY= 105.00 mm Tee

COMPONENT DATA (Tee Header, Center= X07):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

POINT DATA:

X07, Coordinates, X= 5982.16 mm, Y= -5666.25 mm, Z= -21988.58 mm

From X08 to X09, DY= 65.00 mm Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

POINT DATA:

X08, Coordinates, X= 5982.16 mm, Y= -5561.25 mm, Z= -21988.58 mm
X08, Flange= WELDNECK, Rating= 40, Weight= 6.52 kg,
End cond= Butt welded, SIF= 1.00, Perform ANSI check= No, Without taper,
Joint offset= 0.000 mm

From X09 to X10, DY= 84.00 mm Valv

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C O M P O N E N T D A T A L I S T I N G

COMPONENT DATA (Valve):

NS, Rating= 40, Length= 84.00 mm, Weight= 7 kg, Surface factor= 0.00,
End cond= Weld neck, SIF= 1.00

POINT DATA:

X09, Coordinates, X= 5982.16 mm, Y= -5496.25 mm, Z= -21988.58 mm

From X10 to X11, DY= 65.00 mm

Run

COMPONENT DATA (Run):

Rigid, Include weight= Yes, Include expansion= Yes

POINT DATA:

X10, Coordinates, X= 5982.16 mm, Y= -5412.25 mm, Z= -21988.58 mm

From X11 to X12, DY= 75.00 mm

Run

POINT DATA:

X11, Coordinates, X= 5982.16 mm, Y= -5347.25 mm, Z= -21988.58 mm
X11, Flange= WELDNECK, Rating= 40, Weight= 6.52 kg,
End cond= Butt welded, SIF= 1.00, Perform ANSI check= No, Without taper,
Joint offset= 0.000 mm

From X12 to X13, DY= 126.55 mm

Tee

COMPONENT DATA (Tee Header, Center= X12):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

POINT DATA:

X12, Coordinates, X= 5982.16 mm, Y= -5272.25 mm, Z= -21988.58 mm

From X13 to X14, DY= 215.00 mm

Tee

COMPONENT DATA (Tee Header, Center= X13):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

POINT DATA:

X13, Coordinates, X= 5982.16 mm, Y= -5145.70 mm, Z= -21988.58 mm

From X14 to X15, DY= 350.00 mm

Valv

COMPONENT DATA (Valve):

NS, Rating= 40, Length= 350.00 mm, Weight= 60 kg, Surface factor= 0.00,
End cond= Butt welded, SIF= 1.00, Without taper, Offset= 0.000 mm

POINT DATA:

X14, Coordinates, X= 5982.16 mm, Y= -4930.70 mm, Z= -21988.58 mm

From X15 to X16, DY= 1180.50 mm

Run

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

X15, Coordinates, X= 5982.16 mm, Y= -4580.70 mm, Z= -21988.58 mm

From X16 to W01, DX= 1352.91 mm

Bend

COMPONENT DATA (Bend, TIP= X16, Near= X16 N, Far= X16 F):

Elbow, Radius= 151.99 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 9.239, SIFI= 2.84, SIFO= 2.36

POINT DATA:

X16, Coordinates, X= 5982.16 mm, Y= -3400.20 mm, Z= -21988.58 mm
X16 N, Coordinates, X= 5982.16 mm, Y= -3552.19 mm, Z= -21988.58 mm
X16 F, Coordinates, X= 6134.15 mm, Y= -3400.20 mm, Z= -21988.58 mm

*** SEGMENT Y , LINE #

From X05 to Y01, DZ= 89.00 mm

Tee

COMPONENT DATA (Tee Branch, Center= X05):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

PIPE DATA:

Pipe Id= 50MMX3, Nom Size= 50 mm, OD= 60.300 mm, Sch= 2.9,
Wall Thk= 2.900 mm, Mill= 0.363 mm

POINT DATA:

X05, Coordinates, X= 6149.09 mm, Y= -5955.39 mm, Z= -21988.58 mm

From Y01 to Y02, DZ= 76.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 76.00 mm, SIF= 1.00

PIPE DATA:

Pipe Id= PIPE0001, Nom Size= 50 mm

POINT DATA:

Y01, Coordinates, X= 6149.09 mm, Y= -5955.39 mm, Z= -21899.58 mm
Y02, Coordinates, X= 6149.09 mm, Y= -5955.39 mm, Z= -21823.58 mm

*** SEGMENT Z , LINE #

From X07 to Z01, DZ= 105.00 mm

Tee

COMPONENT DATA (Tee Branch, Center= X07):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

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AutoPIPE 6.20 MODEL PAGE 43

C O M P O N E N T D A T A L I S T I N G

PIPE DATA:

Pipe Id= 100MXPB, Nom Size= 100 mm, OD= 114.30 mm, Sch= 3.6,
Wall Thk= 3.600 mm, Mill= 0.450 mm

POINT DATA:

X07, Coordinates, X= 5982.16 mm, Y= -5666.25 mm, Z= -21988.58 mm
Z01, Coordinates, X= 5982.16 mm, Y= -5666.25 mm, Z= -21883.58 mm

*** SEGMENT AA, LINE #

From X12 to AA01, DZ= 107.15 mm

Tee

COMPONENT DATA (Tee Branch, Center= X12):

B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

PIPE DATA:

Pipe Id= 15MXPB, Nom Size= 15 mm, OD= 21.300 mm, Sch= 2.0,
Wall Thk= 2.000 mm, Mill= 0.250 mm

POINT DATA:

X12, Coordinates, X= 5982.16 mm, Y= -5272.25 mm, Z= -21988.58 mm

From AA01 to AA02, DZ= 800.42 mm

Run

POINT DATA:

AA01, Coordinates, X= 5982.16 mm, Y= -5272.25 mm, Z= -21881.43 mm

From AA02 to AA03, DX= -544.11 mm, DZ= 95.95 mm, L= 552.51 mm

Bend

COMPONENT DATA (Bend, TIP= AA02, Near= AA02N, Far= AA02F):

Elbow, Radius= 42.59 mm, Bend angle= 80.00 deg, End flanges= 0,
Flex= 1.804, SIFI= 1.00, SIFO= 1.00

POINT DATA:

AA02, Coordinates, X= 5982.16 mm, Y= -5272.25 mm, Z= -21081.01 mm
AA02N, Coordinates, X= 5982.16 mm, Y= -5272.25 mm, Z= -21116.74 mm
AA02F, Coordinates, X= 5946.97 mm, Y= -5272.25 mm, Z= -21074.80 mm

From AA03 to AA04, DY= -1133.45 mm

Bend

COMPONENT DATA (Bend, TIP= AA03, Near= AA03N, Far= AA03F):

Elbow, Radius= 42.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.804, SIFI= 1.00, SIFO= 1.00

POINT DATA:

AA03, Coordinates, X= 5438.05 mm, Y= -5272.25 mm, Z= -20985.06 mm
AA03N, Coordinates, X= 5479.99 mm, Y= -5272.25 mm, Z= -20992.45 mm
AA03F, Coordinates, X= 5438.05 mm, Y= -5314.84 mm, Z= -20985.06 mm

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C O M P O N E N T D A T A L I S T I N G

From AA04 to AA05, DX= 175.00 mm Bend

COMPONENT DATA (Bend, TIP= AA04, Near= AA04N, Far= AA04F):
Elbow, Radius= 42.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.804, SIFI= 1.00, SIFO= 1.00

POINT DATA:

AA04, Coordinates, X= 5438.05 mm, Y= -6405.70 mm, Z= -20985.06 mm
AA04N, Coordinates, X= 5438.05 mm, Y= -6363.11 mm, Z= -20985.06 mm
AA04F, Coordinates, X= 5480.64 mm, Y= -6405.70 mm, Z= -20985.06 mm

From AA05 to AA06, DZ= -507.51 mm Bend

COMPONENT DATA (Bend, TIP= AA05, Near= AA05N, Far= AA05F):
Elbow, Radius= 42.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.804, SIFI= 1.00, SIFO= 1.00

POINT DATA:

AA05, Coordinates, X= 5613.05 mm, Y= -6405.70 mm, Z= -20985.06 mm
AA05N, Coordinates, X= 5570.46 mm, Y= -6405.70 mm, Z= -20985.06 mm
AA05F, Coordinates, X= 5613.05 mm, Y= -6405.70 mm, Z= -21027.65 mm

From AA06 to AA07, DX= -208.00 mm Bend

COMPONENT DATA (Bend, TIP= AA06, Near= AA06N, Far= AA06F):
Elbow, Radius= 42.59 mm, Bend angle= 90.00 deg, End flanges= 0,
Flex= 1.804, SIFI= 1.00, SIFO= 1.00

POINT DATA:

AA06, Coordinates, X= 5613.05 mm, Y= -6405.70 mm, Z= -21492.57 mm
AA06N, Coordinates, X= 5613.05 mm, Y= -6405.70 mm, Z= -21449.98 mm
AA06F, Coordinates, X= 5570.46 mm, Y= -6405.70 mm, Z= -21492.57 mm

From AA07 to AA08, DX= -47.00 mm Run

POINT DATA:

AA07, Coordinates, X= 5405.05 mm, Y= -6405.70 mm, Z= -21492.57 mm
AA08, Coordinates, X= 5358.05 mm, Y= -6405.70 mm, Z= -21492.57 mm

SUPPORT DATA:

AA07, V-Stop, Support Id= AA07 1, Connected to Ground, Mark= Undefined,
Tag#= Undefined, CompID= Undefined, Gap-Below= 0.00 mm,
Gap-Above= 1000.00 mm, Friction= 0.00 mm, Gaps setting= As-built
AA08, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid,
KRZ= Rigid

*** SEGMENT AB, LINE #

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C O M P O N E N T D A T A L I S T I N G

From X13 to AB01, DX= -101.67 mm, DZ= 18.61 mm, L= 103.36 mm Tee

COMPONENT DATA (Tee Branch, Center= X13):
B16.9 welding tee, SIFI= 2.21, SIFO= 2.62

PIPE DATA:

Pipe Id= 25MMXP6, Nom Size= Non-standard, OD= 33.700 mm,
Sch= Non-standard, Wall Thk= 2.600 mm, Mill= 0.325 mm

POINT DATA:

X13, Coordinates, X= 5982.16 mm, Y= -5145.70 mm, Z= -21988.58 mm
AB01, Coordinates, X= 5880.49 mm, Y= -5145.70 mm, Z= -21969.97 mm

Number of points in the system: 409

Weight of Empty Pipes + Weight of Contents = Total Weight of System
585.9 kg + 0.0 kg = 585.9 kg

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm) -----
NAME X Y Z

*** SEGMENT A , LINE # 79319860
A00 0.00 0.00 0.00
A01 N 0.01 -0.01 0.00
A01 99.12 -69.40 0.00
A01 F 99.12 -69.40 -120.99
A04 N 99.12 -69.40 -4314.63
A04 99.12 -69.40 -4425.50
A04 F 99.12 -179.85 -4435.16
A07 N 99.12 -1929.35 -4588.22
A07 99.12 -2039.80 -4597.88
A07 F 99.12 -2039.80 -4708.75
A10 N 99.12 -2039.80 -5487.02
A10 99.12 -2039.80 -5597.89
A10 F 99.12 -2150.25 -5607.55
A13 N 99.12 -2721.09 -5657.50
A13 99.12 -2840.71 -5667.96
A13 F 218.74 -2840.71 -5678.43
A16 N 1642.97 -2840.71 -5803.03
A16 1727.37 -2840.71 -5810.41
A16 F 1749.30 -2840.71 -5892.24
A18 1923.91 -2840.71 -6543.91
A19 1956.26 -2840.71 -6664.65
A20 1835.52 -2840.71 -6697.00
A22 N 702.57 -2840.71 -7000.57
A22 612.89 -2840.71 -7024.60
A22 F 612.89 -2840.71 -7117.44
A25 N 612.89 -2840.71 -8159.71
A25 612.89 -2840.71 -8252.55
A25 F 524.21 -2827.42 -8276.58
A28 N -299.12 -2704.01 -8499.65
A28 -387.80 -2690.72 -8523.68
A28 F -387.80 -2690.72 -8616.52
A30 -387.80 -2690.72 -14616.53
A32 N -387.80 -2690.72 -15666.61
A32 -387.80 -2690.72 -15759.45
A32 F -298.12 -2690.72 -15783.48
A35 N -10.16 -2690.72 -15860.64
A35 99.12 -2690.72 -15889.92
A35 F 99.12 -2581.44 -15919.21
A38 N 99.12 -2004.50 -16073.80
A38 99.12 -1895.22 -16103.08
A38 F -10.16 -1895.22 -16132.36
A41 N -627.62 -1895.22 -16297.81
A41 -717.30 -1895.22 -16321.84
A41 F -717.30 -1895.22 -16414.68
A44 N -717.30 -1895.22 -17584.74
A44 -717.30 -1895.22 -17634.86
A44 F -692.24 -1870.16 -17670.30
A47 N 52.28 -1125.64 -18723.21
A47 87.21 -1090.71 -18772.60
A47 F 157.06 -1090.71 -18772.60
A49 3556.21 -1090.71 -18772.60

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C O O R D I N A T E S D A T A L I S T I N G

POINT NAME	-----COORDINATE (mm)----- X	Y	Z
A51 N	3916.22	-1090.71	-18772.60
A51	4037.21	-1090.71	-18772.60
A51 F	4037.21	-1211.70	-18772.60
A54 N	4037.21	-1519.07	-18772.60
A54	4037.21	-1611.91	-18772.60
A54 F	4037.21	-1635.94	-18862.27
A56	4037.21	-1664.01	-18967.02
A57	4037.21	-1689.89	-19063.61
A58	4037.21	-1713.18	-19150.54
A59	4037.21	-1592.44	-19182.89
A60 N	4037.21	-1411.39	-19231.40
A60	4037.21	-1338.34	-19250.98
A60 F	4112.55	-1338.34	-19257.59
A61 N	4612.00	-1338.34	-19301.46
A61	4687.21	-1338.34	-19308.06
A61 F	4687.21	-1413.84	-19308.06
A62 N	4687.21	-1662.84	-19308.06
A62	4687.21	-1738.34	-19308.06
A62 F	4611.71	-1738.34	-19308.06
A63	4432.61	-1738.34	-19308.06

*** SEGMENT B , LINE # 79319860

A49	3556.21	-1090.71	-18772.60
B02 N	3556.21	-2130.18	-18589.31
B02	3556.21	-2165.71	-18583.05
B02 F	3556.21	-2165.71	-18546.98
B05 N	3556.21	-2165.71	-18390.59
B05	3556.21	-2165.71	-18347.60
B05 F	3599.20	-2165.71	-18347.60
B08 N	4147.62	-2165.71	-18347.60
B08	4190.61	-2165.71	-18347.60
B08 F	4190.61	-2165.71	-18304.61
B11 N	4190.61	-2165.71	-18090.59
B11	4190.61	-2165.71	-18047.60
B11 F	4147.62	-2165.71	-18047.60
B14 N	3225.20	-2165.71	-18047.60
B14	3182.21	-2165.71	-18047.60
B14 F	3182.21	-2165.71	-18004.61
B17 N	3182.21	-2165.71	-17390.59
B17	3182.21	-2165.71	-17347.60
B17 F	3182.21	-2122.72	-17347.60
B20 N	3182.21	-2008.70	-17347.60
B20	3182.21	-1965.71	-17347.60
B20 F	3225.20	-1965.71	-17347.60
B23 N	3344.22	-1965.71	-17347.60
B23	3387.21	-1965.71	-17347.60
B23 F	3387.21	-2008.70	-17347.60
B26 N	3387.21	-2047.72	-17347.60
B26	3387.21	-2090.71	-17347.60
B26 F	3387.21	-2090.71	-17390.59
B29 N	3387.21	-2090.71	-17779.61
B29	3387.21	-2090.71	-17822.60

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C O O R D I N A T E S D A T A L I S T I N G

POINT NAME	-----COORDINATE (mm)----- X	Y	Z
B29 F	3387.21	-2133.70	-17822.60
B31	3387.21	-2240.71	-17822.60

*** SEGMENT C , LINE # 79319860

A56	4037.21	-1664.01	-18967.02
C01	3967.26	-1664.01	-18967.02

*** SEGMENT D , LINE # 79319860

D00	4513.61	-1510.52	-19663.67
D01	4513.61	-1441.20	-19673.41

*** SEGMENT E , LINE # 79319860

E00	5062.61	-1441.20	-19673.41
D01	4513.61	-1441.20	-19673.41
E02 N	4438.11	-1441.20	-19673.41
E02	4362.61	-1441.20	-19673.41
E02 F	4362.61	-1514.13	-19653.87
E03	4362.61	-1639.77	-19620.20
E04	4362.61	-1713.18	-19600.53
E05	4362.61	-1809.77	-19574.65
E06	4362.61	-1783.89	-19478.06
E07	4362.61	-1764.22	-19404.65
E08	4362.61	-1738.34	-19308.06
E09 N	4362.61	-1672.13	-19060.97
E09	4362.61	-1657.04	-19004.65
E09 F	4362.61	-1598.73	-19004.65
E10	4362.61	-1468.72	-19004.65
E11 N	4362.61	-1366.69	-19004.65
E11	4362.61	-1290.70	-19004.65
E11 F	4362.61	-1290.70	-18928.66
E12	4362.61	-1290.70	-18298.58
E13 N	4362.61	-1290.70	-18298.08
E13	4362.61	-1290.70	-18222.58
E13 F	4287.11	-1290.70	-18222.58
E14 N	47.23	-1290.70	-18222.58
E14	15.75	-1290.70	-18222.58
E14 F	-6.51	-1312.96	-18222.58
E15 N	-161.99	-1468.44	-18222.58
E15	-184.25	-1490.70	-18222.58
E15 F	-184.25	-1522.18	-18222.58
E16 N	-184.25	-3334.09	-18222.58
E16	-184.25	-3365.57	-18222.58
E16 F	-206.51	-3387.83	-18222.58
E17 N	-727.26	-3908.58	-18222.58
E17	-749.52	-3930.84	-18222.58
E17 F	-781.00	-3930.84	-18222.58
E18 N	-3285.35	-3930.84	-18222.58
E18	-3361.34	-3930.84	-18222.58
E18 F	-3361.34	-3930.84	-18146.59
E19 N	-3361.34	-3930.84	-17498.08
E19	-3361.34	-3930.84	-17422.58
E19 F	-3361.34	-4006.34	-17422.58

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm) -----
NAME X Y Z

E20 -3361.34 -4433.96 -17422.58

*** SEGMENT F , LINE #

E08 4362.61 -1738.34 -19308.06
A63 4432.61 -1738.34 -19308.06

*** SEGMENT G , LINE #

G00 3302.62 849.28 -22422.59
G01 3302.62 779.28 -22422.59
G02 N 3302.62 611.27 -22422.59
G02 3302.62 544.28 -22422.59
G02 F 3302.62 544.28 -22355.60
G03 N 3302.62 544.28 -21083.97
G03 3302.62 544.28 -21022.59
G03 F 3302.62 483.13 -21017.24
G04 N 3302.62 -2104.57 -20790.85
G04 3302.62 -2165.72 -20785.50
G04 F 3302.62 -2165.72 -20724.12
G05 3302.62 -2165.72 -20488.40
G06 N 3302.62 -2165.72 -20487.76
G06 3302.62 -2165.72 -20470.45
G06 F 3293.64 -2165.72 -20454.90
G07 N 3191.59 -2165.72 -20278.14
G07 3182.61 -2165.72 -20262.60
G07 F 3182.61 -2165.72 -20245.28
G08 3182.61 -2165.72 -20244.65
G09 N 3182.61 -2165.72 -18214.59
G09 3182.61 -2165.72 -18147.60
G09 F 3249.60 -2165.72 -18147.60
G10 N 3389.62 -2165.72 -18147.60
G10 3456.61 -2165.72 -18147.60
G10 F 3456.61 -2165.72 -18214.59
G11 N 3456.61 -2165.72 -18704.84
G11 3456.61 -2165.72 -18732.59
G11 F 3475.78 -2165.72 -18751.76
G12 3476.23 -2165.72 -18752.21
G13 N 3517.25 -2165.72 -18793.22
G13 3556.61 -2165.72 -18832.59
G13 F 3556.61 -2111.95 -18847.00
G14 N 3556.61 -1728.72 -18949.68
G14 3556.61 -1664.01 -18967.02
G14 F 3623.60 -1664.01 -18967.02
C01 3967.26 -1664.01 -18967.02

*** SEGMENT H , LINE #

D00 4513.61 -1510.52 -19663.67
H01 N 4513.61 -1735.89 -19632.00
H01 4513.61 -1855.31 -19615.22
H01 F 4634.20 -1855.31 -19615.22
H02 N 4634.22 -1855.31 -19615.22
H02 4754.81 -1855.31 -19615.22
H02 F 4754.81 -1974.73 -19598.44

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C O O R D I N A T E S D A T A L I S T I N G

POINT NAME	-----COORDINATE (mm)----- X	Y	Z
H03 N	4754.81	-2051.51	-19587.65
H03	4754.81	-2155.32	-19573.06
H03 F	4754.81	-2155.32	-19468.23
H04 N	4754.81	-2155.32	-18693.65
H04	4754.81	-2155.32	-18573.06
H04 F	4634.22	-2155.32	-18573.06
H05 N	3884.20	-2155.32	-18573.06
H05	3763.61	-2155.32	-18573.06
H05 F	3763.61	-2155.32	-18693.65
H06	3763.61	-2155.32	-19073.11
H07 N	3763.61	-2155.32	-19073.74
H07	3763.61	-2155.32	-19123.06
H07 F	3798.48	-2155.32	-19157.93
H08	3798.93	-2155.32	-19158.38
H09 N	3981.84	-2155.32	-19341.29
H09	4017.16	-2155.32	-19376.61
H09 F	4017.16	-2155.32	-19425.92
H10	4017.16	-2155.32	-19426.56
H11 N	4017.16	-2155.32	-20675.92
H11	4017.16	-2155.32	-20786.42
H11 F	4017.16	-2045.24	-20796.05
H12 N	4017.16	424.55	-21012.13
H12	4017.16	544.68	-21022.64
H12 F	4137.75	544.68	-21022.64
H13 N	4242.02	544.68	-21022.64
H13	4362.61	544.68	-21022.64
H13 F	4362.61	544.68	-21143.23
H14 N	4362.61	544.68	-21902.05
H14	4362.61	544.68	-22022.64
H14 F	4362.61	665.27	-22022.64
H15	4362.61	815.68	-22022.64
H16	4362.61	859.68	-22022.64
*** SEGMENT I , LINE #			
I00	5562.61	-3015.80	-19821.58
I01	5562.61	-2941.20	-19821.58
*** SEGMENT J , LINE #			
E00	5062.61	-1441.20	-19673.41
J01 N	5486.62	-1441.20	-19673.41
J01	5562.61	-1441.20	-19673.41
J01 F	5562.61	-1517.19	-19673.41
J02 N	5562.61	-2865.21	-19673.41
J02	5562.61	-2941.20	-19673.41
J02 F	5562.61	-2941.20	-19749.40
I01	5562.61	-2941.20	-19821.58
J04 N	5562.61	-2941.20	-19896.59
J04	5562.61	-2941.20	-19972.58
J04 F	5638.60	-2941.20	-19972.58
J05	6386.99	-2941.20	-19972.58
J06	7231.99	-2941.20	-19972.58
J07 N	7782.00	-2941.20	-19972.58

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C O O R D I N A T E S D A T A L I S T I N G

POINT NAME	-----COORDINATE (mm)----- X	Y	Z
J07	7857.99	-2941.20	-19972.58
J07 F	7857.99	-2865.21	-19972.58
J08 N	7857.99	-2566.69	-19972.58
J08	7857.99	-2490.70	-19972.58
J08 F	7782.00	-2490.70	-19972.58
J09	7540.02	-2490.70	-19972.58

*** SEGMENT K , LINE #

K00	6213.04	437.30	-15261.58
K01	6213.04	437.30	-15326.63
K02	6213.04	437.30	-15411.58

*** SEGMENT L , LINE #

L00	5962.04	437.30	-15411.58
L01	6013.04	437.30	-15411.58
K02	6213.04	437.30	-15411.58
L03	7663.04	437.30	-15411.58
L04	7811.04	437.30	-15411.58
L05	7911.04	437.30	-15411.58
L06 N	7911.05	437.30	-15411.58
L06	8063.04	437.30	-15411.58
L06 F	8063.04	437.30	-15563.57
L07 N	8063.04	437.30	-16400.62
L07	8063.04	437.30	-16463.58
L07 F	8063.04	392.78	-16508.09
L08 N	8063.04	-170.18	-17071.06
L08	8063.04	-214.70	-17115.58
L08 F	8063.04	-277.66	-17115.58
L09	8063.04	-690.70	-17115.58
L10 N	8063.04	-1103.74	-17115.58
L10	8063.04	-1166.70	-17115.58
L10 F	8063.04	-1211.22	-17071.06
L11 N	8063.04	-1774.18	-16508.09
L11	8063.04	-1818.70	-16463.58
L11 F	8063.04	-1818.70	-16400.62
L12 N	8063.04	-1818.70	-15563.57
L12	8063.04	-1818.70	-15411.58
L12 F	7911.05	-1818.70	-15411.58
L13	7907.99	-1818.70	-15411.58
L14	7811.04	-1818.70	-15411.58
L15	7663.04	-1818.70	-15411.58
L16	6213.04	-1818.70	-15411.58
L17	6013.04	-1818.70	-15411.58
L18	5962.04	-1818.70	-15411.58

*** SEGMENT M , LINE #

L03	7663.04	437.30	-15411.58
M01	7663.04	437.30	-15326.63
M02	7663.04	437.30	-15261.58

*** SEGMENT N , LINE #

L09	8063.04	-690.70	-17115.58
-----	---------	---------	-----------

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C O O R D I N A T E S D A T A L I S T I N G

POINT NAME	-----COORDINATE (mm)----- X	Y	Z
N01	8063.04	-690.70	-17235.58
N02 N	8063.04	-690.70	-18843.59
N02	8063.04	-690.70	-18995.58
N02 F	8063.04	-842.69	-18995.58
N03 N	8063.04	-2338.71	-18995.58
N03	8063.04	-2490.70	-18995.58
N03 F	7911.05	-2490.70	-18995.58
N04 N	7592.06	-2490.70	-18995.58
N04	7440.07	-2490.70	-18995.58
N04 F	7440.07	-2490.70	-19147.57
N05	7440.07	-2490.70	-19972.58
N06 N	7440.07	-2490.70	-21836.59
N06	7440.07	-2490.70	-21988.58
N06 F	7440.07	-2642.69	-21988.58
N07	7440.07	-3135.20	-21988.58
N08	7440.07	-3295.20	-21988.58

*** SEGMENT O , LINE #

L15	7663.04	-1818.70	-15411.58
O01	7663.04	-1818.70	-15326.63
O02	7663.04	-1818.70	-15261.58

*** SEGMENT P , LINE #

N05	7440.07	-2490.70	-19972.58
J09	7540.02	-2490.70	-19972.58

*** SEGMENT Q , LINE #

L16	6213.04	-1818.70	-15411.58
Q01	6213.04	-1818.70	-15326.63
Q02	6213.04	-1818.70	-15261.58

*** SEGMENT R , LINE #

R00	7202.53	-6345.71	-21988.58
R01	7202.53	-6283.71	-21988.58
R02	7202.53	-6183.71	-21988.58
R03 N	7202.53	-6183.71	-21988.58
R03	7202.53	-6120.75	-21988.58
R03 F	7247.05	-6076.23	-21988.58
R04	7321.30	-6001.98	-21988.58
R05 N	7395.76	-5927.52	-21988.58
R05	7440.07	-5883.21	-21988.58
R05 F	7440.07	-5820.55	-21988.58
R06	7440.07	-5715.25	-21988.58
R07	7440.07	-5610.25	-21988.58
R08	7440.07	-5545.25	-21988.58
R09	7440.07	-5461.25	-21988.58
R10	7440.07	-5396.25	-21988.58
R11	7440.07	-5296.25	-21988.58
R12	7440.07	-5145.70	-21988.58
R13	7440.07	-4930.70	-21988.58
R14	7440.07	-4580.70	-21988.58
R15	7440.07	-3505.20	-21988.58

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C O O R D I N A T E S D A T A L I S T I N G

POINT NAME	-----COORDINATE (mm)----- X Y Z
R16	7440.07 -3400.20 -21988.58
N08	7440.07 -3295.20 -21988.58

*** SEGMENT S , LINE #

R04	7321.30 -6001.98 -21988.58
S01	7321.30 -6001.98 -21899.58
S02	7321.30 -6001.98 -21823.58

*** SEGMENT T , LINE #

R06	7440.07 -5715.25 -21988.58
T01	7440.07 -5715.25 -21883.58

*** SEGMENT U , LINE #

R11	7440.07 -5296.25 -21988.58
U01	7440.07 -5296.25 -21881.43
U02 N	7440.07 -5296.25 -21117.42
U02	7440.07 -5296.25 -21081.69
U02 F	7475.26 -5296.25 -21075.48
U03 N	7946.09 -5296.25 -20992.45
U03	7988.03 -5296.25 -20985.06
U03 F	7988.03 -5338.84 -20985.06
U04 N	7988.03 -6363.11 -20985.06
U04	7988.03 -6405.70 -20985.06
U04 F	7945.44 -6405.70 -20985.06
U05 N	7855.62 -6405.70 -20985.06
U05	7813.03 -6405.70 -20985.06
U05 F	7813.03 -6405.70 -21027.65
U06 N	7813.03 -6405.70 -21449.98
U06	7813.03 -6405.70 -21492.57
U06 F	7855.62 -6405.70 -21492.57
U07	8021.03 -6405.70 -21492.57
U08	8068.03 -6405.70 -21492.57

*** SEGMENT V , LINE #

R12	7440.07 -5145.70 -21988.58
V01	7545.59 -5145.70 -21969.97

*** SEGMENT W , LINE #

R16	7440.07 -3400.20 -21988.58
W01	7335.07 -3400.20 -21988.58

*** SEGMENT X , LINE #

X00	6392.53 -6345.71 -21988.58
X01	6392.53 -6283.71 -21988.58
X02	6392.53 -6183.71 -21988.58
X03 N	6392.53 -6183.38 -21988.58
X03	6392.53 -6095.95 -21988.58
X03 F	6316.82 -6052.23 -21988.58
X04	6240.02 -6007.89 -21988.58
X05	6149.09 -5955.39 -21988.58
X06 N	6057.88 -5902.73 -21988.58
X06	5982.16 -5859.01 -21988.58

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C O O R D I N A T E S D A T A L I S T I N G

POINT NAME	-----COORDINATE (mm)----- X	Y	Z
X06 F	5982.16	-5771.58	-21988.58
X07	5982.16	-5666.25	-21988.58
X08	5982.16	-5561.25	-21988.58
X09	5982.16	-5496.25	-21988.58
X10	5982.16	-5412.25	-21988.58
X11	5982.16	-5347.25	-21988.58
X12	5982.16	-5272.25	-21988.58
X13	5982.16	-5145.70	-21988.58
X14	5982.16	-4930.70	-21988.58
X15	5982.16	-4580.70	-21988.58
X16 N	5982.16	-3552.19	-21988.58
X16	5982.16	-3400.20	-21988.58
X16 F	6134.15	-3400.20	-21988.58
W01	7335.07	-3400.20	-21988.58

*** SEGMENT Y , LINE #

X05	6149.09	-5955.39	-21988.58
Y01	6149.09	-5955.39	-21899.58
Y02	6149.09	-5955.39	-21823.58

*** SEGMENT Z , LINE #

X07	5982.16	-5666.25	-21988.58
Z01	5982.16	-5666.25	-21883.58

*** SEGMENT AA, LINE #

X12	5982.16	-5272.25	-21988.58
AA01	5982.16	-5272.25	-21881.43
AA02N	5982.16	-5272.25	-21116.74
AA02	5982.16	-5272.25	-21081.01
AA02F	5946.97	-5272.25	-21074.80
AA03N	5479.99	-5272.25	-20992.45
AA03	5438.05	-5272.25	-20985.06
AA03F	5438.05	-5314.84	-20985.06
AA04N	5438.05	-6363.11	-20985.06
AA04	5438.05	-6405.70	-20985.06
AA04F	5480.64	-6405.70	-20985.06
AA05N	5570.46	-6405.70	-20985.06
AA05	5613.05	-6405.70	-20985.06
AA05F	5613.05	-6405.70	-21027.65
AA06N	5613.05	-6405.70	-21449.98
AA06	5613.05	-6405.70	-21492.57
AA06F	5570.46	-6405.70	-21492.57
AA07	5405.05	-6405.70	-21492.57
AA08	5358.05	-6405.70	-21492.57

*** SEGMENT AB, LINE #

X13	5982.16	-5145.70	-21988.58
AB01	5880.49	-5145.70	-21969.97

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P I P E D A T A L I S T I N G

Pipe ID/ Material	Nom/ Sch	O.D. mm	-----Thickness(mm)----- W.Th. Corr Mill Insu Ling	Spec Grav	Weight(N/m)			ZL/ ZC
					Pipe	Other	Total	
50MMX3.9 AL	50 3.9	60.300	3.900 0 0.49 0 0	0	18.35	0	18.35	1.00 1.00
15MMX3.9 AL	15 NS	21.300	3.900 0 0.49 0 0	0	5.66	0	5.66	1.00 1.00
25MMX3.4 AL	25 3.4	33.400	3.400 0 0.43 0 0	0	8.51	0	8.51	1.00 1.00
25MMX3.9 AL	25 NS	33.400	3.900 0 0.49 0 0	0	9.60	0	9.60	1.00 1.00
50MMXPN AL	50 3.9	60.300	3.900 0 0.49 0 0	0	18.35	0	18.35	1.00 1.00
80MMX5.5 AL	80 5.5	88.900	5.500 0 0.69 0 0	0	38.26	0	38.26	1.00 1.00
100MX5.5 AL	100 NS	114.30	5.500 0 0.69 0 0	0	49.91	0	49.91	1.00 1.00
40MMX1 AL	40 2.6	48.300	2.600 0 0.32 0 0	0	9.91	0	9.91	1.00 1.00
100MXPN AL	100 3.6	114.30	3.600 0 0.45 0 0	0	33.24	0	33.24	1.00 1.00
50MMX3 AL	50 2.9	60.300	2.900 0 0.36 0 0	0	13.88	0	13.88	1.00 1.00
25MMXPN AL	NS	33.700	2.600 0 0.32 0 0	0	6.74	0	6.74	1.00 1.00
15MMXPN AL	15 2.0	21.300	2.000 0 0.25 0 0	0	3.22	0	3.22	1.00 1.00
PIPE0001 AL	50 2.9	60.300	2.900 0 0.36 0 0	0	13.88	0	13.88	1.00 1.00
25MMXP6 AL	NS	33.700	2.600 0 0.32 0 0	0	6.74	0	6.74	1.00 1.00

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M A T E R I A L D A T A L I S T I N G

Material Name	Pipe ID	Density kg/m3	Pois. Ratio	Temper. deg C	Modulus x10 ⁶ N/ Axial Hoop Shear			Expans. mm/m
AL	50MMX3.9	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	15MMX3.9	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	25MMX3.4	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	25MMX3.9	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	50MMXPN	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	80MMX5.5	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	100MX5.5	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	40MMX1	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	100MXP	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	50MMX3	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	25MMXPN	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	15MMXPN	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	PIPE0001	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459
AL	25MMXP6	2707.1	0.30	20.0 -196.0	0.06899 0.07646	0.06899	0.02653	-3.8459

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M A T E R I A L A L L O W A B L E D A T A L I S T I N G

Material Name	Pipe ID	Temper. deg C	Allow. N/mm2	Yield N/mm2
AL	50MMX3.9	20.0 -196.0	103.42 71.00	0.00
AL	15MMX3.9	20.0 -196.0	103.42 71.00	0.00
AL	25MMX3.4	20.0 -196.0	103.42 71.00	0.00
AL	25MMX3.9	20.0 -196.0	103.42 71.00	0.00
AL	50MMXPN	20.0 -196.0	103.42 71.00	0.00
AL	80MMX5.5	20.0 -196.0	103.42 71.00	0.00
AL	100MX5.5	20.0 -196.0	103.42 71.00	0.00
AL	40MMX1	20.0 -196.0	103.42 143.00	0.00
AL	100MXPN	20.0 -196.0	103.42 143.00	0.00
AL	50MMX3	20.0 -196.0	103.42 143.00	0.00
AL	25MMXPN	20.0 -196.0	103.42 143.00	0.00
AL	15MMXPN	20.0 -196.0	103.42 143.00	0.00
AL	PIPE0001	20.0 -196.0	103.42 143.00	0.00
AL	25MMXP6	20.0 -196.0	103.42 143.00	0.00

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TEMPERATURE AND PRESSURE DATA

-----C A S E 1-----				-----C A S E 2-----				-----C A S E 3-----			
POINT	PRESS.	TEMPER	EXPAN.	PRESS.	TEMPER	EXPAN.	PRESS.	TEMPER	EXPAN.		
NAME	N/mm2	deg C	mm/m	N/mm2	deg C	mm/m	N/mm2	deg C	mm/m		

*** SEGMENT A , LINE # 79319860

A00 0 -196 -3.846

A63 0 -196 -3.846

*** SEGMENT B , LINE # 79319860

A49 0 -196 -3.846

B31 0 -196 -3.846

*** SEGMENT C , LINE # 79319860

A56 0 -196 -3.846

C01 0 -196 -3.846

*** SEGMENT D , LINE # 79319860

D00 0 -196 -3.846

D01 0 -196 -3.846

*** SEGMENT E , LINE # 79319860

E00 0 -196 -3.846

E20 0 -196 -3.846

*** SEGMENT F , LINE #

E08 0 -196 -3.846

A63 0 -196 -3.846

*** SEGMENT G , LINE #

G00 0 -196 -3.846

C01 0 -196 -3.846

*** SEGMENT H , LINE #

D00 0 -196 -3.846

H16 0 -196 -3.846

*** SEGMENT I , LINE #

I00 0 -196 -3.846

I01 0 -196 -3.846

*** SEGMENT J , LINE #

E00 0 -196 -3.846

J09 0 -196 -3.846

*** SEGMENT K , LINE #

K00 0 -196 -3.846

K02 0 -196 -3.846

*** SEGMENT L , LINE #

L00 0 -196 -3.846

L18 0 -196 -3.846

*** SEGMENT M , LINE #

L03 0 -196 -3.846

M02 0 -196 -3.846

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TEMPERATURE AND PRESSURE DATA

-----C A S E 1-----				-----C A S E 2-----				-----C A S E 3-----			
POINT	PRESS.	TEMPER	EXPAN.	PRESS.	TEMPER	EXPAN.	PRESS.	TEMPER	EXPAN.		
NAME	N/mm2	deg C	mm/m	N/mm2	deg C	mm/m	N/mm2	deg C	mm/m		
*** SEGMENT N , LINE #											
L09	0	-196	-3.846								
N08	0	-196	-3.846								
*** SEGMENT O , LINE #											
L15	0	-196	-3.846								
O02	0	-196	-3.846								
*** SEGMENT P , LINE #											
N05	0	-196	-3.846								
J09	0	-196	-3.846								
*** SEGMENT Q , LINE #											
L16	0	-196	-3.846								
Q02	0	-196	-3.846								
*** SEGMENT R , LINE #											
R00	0	-196	-3.846								
N08	0	-196	-3.846								
*** SEGMENT S , LINE #											
R04	0	-196	-3.846								
S02	0	-196	-3.846								
*** SEGMENT T , LINE #											
R06	0	-196	-3.846								
T01	0	-196	-3.846								
*** SEGMENT U , LINE #											
R11	0	-196	-3.846								
U08	0	-196	-3.846								
*** SEGMENT V , LINE #											
R12	0	-196	-3.846								
V01	0	-196	-3.846								
*** SEGMENT W , LINE #											
R16	0	-196	-3.846								
W01	0	-196	-3.846								
*** SEGMENT X , LINE #											
X00	0	-196	-3.846								
W01	0	-196	-3.846								
*** SEGMENT Y , LINE #											
X05	0	-196	-3.846								
Y02	0	-196	-3.846								
*** SEGMENT Z , LINE #											
X07	0	-196	-3.846								
Z01	0	-196	-3.846								

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TEMPERATURE AND PRESSURE DATA

-----C A S E 1-----				-----C A S E 2-----				-----C A S E 3-----			
POINT	PRESS.	TEMPER	EXPAN.	PRESS.	TEMPER	EXPAN.	PRESS.	TEMPER	EXPAN.		
NAME	N/mm2	deg C	mm/m	N/mm2	deg C	mm/m	N/mm2	deg C	mm/m		
*** SEGMENT AA, LINE #											
X12	0	-196	-3.846								
AA08	0	-196	-3.846								
*** SEGMENT AB, LINE #											
X13	0	-196	-3.846								
AB01	0	-196	-3.846								

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H O T M O D U L U S (x10⁶ N/)

POINT

NAME	CASE 1	CASE 2	CASE 3
------	--------	--------	--------

*** SEGMENT A , LINE # 79319860

A00	0.07646		
A63	0.07646		

*** SEGMENT B , LINE # 79319860

A49	0.07646		
B31	0.07646		

*** SEGMENT C , LINE # 79319860

A56	0.07646		
C01	0.07646		

*** SEGMENT D , LINE # 79319860

D00	0.07646		
D01	0.07646		

*** SEGMENT E , LINE # 79319860

E00	0.07646		
E20	0.07646		

*** SEGMENT F , LINE #

E08	0.07646		
A63	0.07646		

*** SEGMENT G , LINE #

G00	0.07646		
C01	0.07646		

*** SEGMENT H , LINE #

D00	0.07646		
H16	0.07646		

*** SEGMENT I , LINE #

I00	0.07646		
I01	0.07646		

*** SEGMENT J , LINE #

E00	0.07646		
J09	0.07646		

*** SEGMENT K , LINE #

K00	0.07646		
K02	0.07646		

*** SEGMENT L , LINE #

L00	0.07646		
L18	0.07646		

*** SEGMENT M , LINE #

L03	0.07646		
M02	0.07646		

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H O T M O D U L U S (x10⁶ N/)

POINT

NAME	CASE 1	CASE 2	CASE 3
------	--------	--------	--------

*** SEGMENT N , LINE #

L09	0.07646		
N08	0.07646		

*** SEGMENT O , LINE #

L15	0.07646		
O02	0.07646		

*** SEGMENT P , LINE #

N05	0.07646		
J09	0.07646		

*** SEGMENT Q , LINE #

L16	0.07646		
Q02	0.07646		

*** SEGMENT R , LINE #

R00	0.07646		
N08	0.07646		

*** SEGMENT S , LINE #

R04	0.07646		
S02	0.07646		

*** SEGMENT T , LINE #

R06	0.07646		
T01	0.07646		

*** SEGMENT U , LINE #

R11	0.07646		
U08	0.07646		

*** SEGMENT V , LINE #

R12	0.07646		
V01	0.07646		

*** SEGMENT W , LINE #

R16	0.07646		
W01	0.07646		

*** SEGMENT X , LINE #

X00	0.07646		
W01	0.07646		

*** SEGMENT Y , LINE #

X05	0.07646		
Y02	0.07646		

*** SEGMENT Z , LINE #

X07	0.07646		
Z01	0.07646		

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H O T M O D U L U S (x10⁶ N/)

POINT NAME	CASE 1	CASE 2	CASE 3

*** SEGMENT AA, LINE #			
X12	0.07646		
AA08	0.07646		
*** SEGMENT AB, LINE #			
X13	0.07646		
AB01	0.07646		

* Non-standard material

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```
*** SEGMENT A , LINE # 79319860
A00      71.00*
A63      71.00*
```

```
*** SEGMENT B , LINE # 79319860
A49      71.00*
B31      71.00*
```

```
*** SEGMENT C , LINE # 79319860
A56      71.00*
C01      71.00*
```

```
*** SEGMENT D , LINE # 79319860
D00      71.00*
D01      71.00*
```

```
*** SEGMENT E , LINE # 79319860
E00      71.00*
E20      71.00*
```

```
*** SEGMENT F , LINE #
E08      71.00*
A63      71.00*
```

```
*** SEGMENT G , LINE #
G00      71.00*
C01      71.00*
```

```
*** SEGMENT H , LINE #
D00      71.00*
H16      71.00*
```

```
*** SEGMENT I , LINE #
I00      71.00*
I01      71.00*
```

```
*** SEGMENT J , LINE #
E00      71.00*
J09      71.00*
```

```
*** SEGMENT K , LINE #
K00      71.00*
K02      71.00*
```

```
*** SEGMENT L , LINE #
L00      71.00*
L18      71.00*
```

```

*** SEGMENT M , LINE #
L03      71.00*
M02      71.00*

```


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REBIS

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H O T				A L L O W A B L E S (N/mm2)					
-----C A S E 1-----				-----C A S E 2-----			-----C A S E 3-----		
POINT		NOT	NOT		NOT	NOT		NOT	NOT
NAME	ALLOW	USED	USED	ALLOW	USED	USED	ALLOW	USED	USED

*** SEGMENT AA, LINE #

X12 143.00*

AA08 143.00*

*** SEGMENT AB, LINE #

X13 143.00*

AB01 143.00*

< User-defined code allowable

* Non-code material

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THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

POINT NAME	LOAD CASE	DX (mm)	DY (mm)	DZ (mm)	RX (deg)	RY (deg)	RZ (deg)
A00	Thermal 1	-5.80	4.10	6.00	0.000	0.000	0.000
K00	Thermal 1	2.00	0.00	14.80	0.000	0.000	0.000
M02	Thermal 1	-2.00	0.00	14.80	0.000	0.000	0.000
O02	Thermal 1	-2.00	0.00	14.80	0.000	0.000	0.000
Q02	Thermal 1	2.00	0.00	14.80	0.000	0.000	0.000