ANALYSIS OF ANCHORED CLEARANCE COUPLING PIPE SEGMENT (THERE ARE NO HYD LOADS AT THE ENDS)

(THIS IS REPRESENTATIVE OF AN INTERMEDIATE SEGMENT AND CAN BE USED ON EITHER EXPANSIVE OR CONTRACTIVE APPLICATIONS)

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3/12/2006

PROJECT:
TOP ANCHORED CLEARANCE COUPLING SEGMENT (TYPE 1)
Riser:
TYPICAL RISER

Note: Supports are assumed to be at floor level, if at ceiling level, identify as being on floor above

Expansion Coef 7.60E-05 in/ft/degF
Installed Temp 70
Oper Temp 91
Anchor Elevation 39 (if Anchored System)
Anchor Type FX (Fixed-FX or Floating FL)
Static Head 0 (Flat top of pipe)
Water Supported N (Y or N) Is water column weight supported by Riser?

Hyd Lift @ Top N If an Intermediate Riser section with telescoping Coupling at top, Enter "N" otherwise enter "Y"

Steam Pressure 0 (Enter a value only if steam pressure is present (psi))

Floor	Support	Local	Local	Init Support	Spring	Init Suppl Deff	Oper Suppl Deff or Disl	Oper Suppl Pl Load	Oper Tens Pl Load	Init Tens Pl Load	Oper Tens Pl Load	Initial Pipe Burst + Tens Pl Load
(Ref) Loc. Res. Ht Elev Size Pipe Liquid Pt Load Thrust Spring Init Suppl Ht Elev Size Pipe Burst + Tens Pl Load

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<thead>
<tr>
<th>Floor</th>
<th>Support</th>
<th>Local Elev</th>
<th>Local Size</th>
<th>Init Support Pt Load</th>
<th>Spring Rate</th>
<th>Init Defl</th>
<th>Oper Suppl</th>
<th>Deff or Disl Pt Load</th>
<th>Oper Tens Pl Load</th>
<th>Init Tens Pl Load</th>
<th>Oper Tens Pl Load</th>
<th>Initial Pipe Burst + Tens Pl Load</th>
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Critical Buckling Load for piping 51576 lb

SAMPLE 40 FT RISER SEGMENT WITH ANCHOR AT THE TOP AND NO INTERMEDIATE ISOLATORS

NOTE: AS THIS IS AN INTERMEDIATE SEGMENT, THE PIPE WEIGHT ONLY IS CARRIED. HYDRAULIC LOADS ARE CONDUCTED THROUGH THE FLUID TO THE TOP AND BOTTOM SEGMENTS. HYDRAULIC REACTIONS WILL OCCUR HOWEVER AT SECTION CHANGE LOCATIONS.

ANALYSIS OF TYPE 1 ANCHORED CLEARANCE COUPLING RISER SEGMENT
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KINETICS™ Riser Design Manual

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