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BDSTunnelCavitySectionBuilder
# _tunnelCavitySection
+ ~BDSTunnelCavitySectionBuilder()
+ BDSTunnelCavitySectionBuilder()
+ createNewTunnelCavitySection()
+ tunnelCavitySection()
+ build()

```

```

BDSAcceleratorComponent
+ itsOuterLogicalVolume
+ itsMarkerLogicalVolume
+ itsTunnelLogicalVolume
+ itsTunnelFloorLogicalVolume
# itsBlmLocationR
# itsName
# itsLength
# itsXLength
# itsYLength
# itsOuterR
# itsBpRadius
# itsXAper
# itsYAper
# itsAngle
# itsMaterial
# itsVisAttributes
# itsBlmLocZ
# itsBlmLocTheta
# itsTunnelMaterial
# itsXOffset
# itsYOffset
# itsZOffset
# itsTunnelRadius
# itsTunnelOffsetX
# itsType
# itsTilt
# itsPhiAngleIn
# itsPhiAngleOut
# itsPhi
# itsTheta
# itsPsi
# itsK1
# itsK2
# itsK3
# itsOuterStepper
# itsUserLimits
# itsOuterUserLimits
# itsMarkerUserLimits
# itsInnerBeampipeUserLimits
# itsInnerMostLogicalVolume
# itsTunnelCavityMaterial
# itsPrecisionRegion
# itsMarkerSolidVolume
# itsTunnelSolid
# itsSoilSolid
# itsInnerTunnelSolid
# itsTunnelCavity
# itsLargerTunnelCavity
# itsTunnelFloor
# itsLargerInnerTunnelSolid
# itsTunnelMinusCavity
# itsTunnelSizedBlock
# itsBLMLogicalVolume
# itsBlmCaseLogicalVolume
# itsBLMPhysiComp
# itsSoilTunnelLogicalVolume
# itsTunnelCavityLogicalVolume
# itsTunnelMinusCavityLogicalVolume
# itsTunnelPhysiInner
# itsTunnelPhysiComp
# itsTunnelFloorPhysiComp
# itsTunnelPhysiCompSoil
# itsTunnelUserLimits
# itsSoilTunnelUserLimits
# itsInnerTunnelUserLimits
# readOutLV
- nullRotationMatrix
- tunnelRot
- VisAtt
- VisAtt1
- VisAtt2
- itsBLMSolid
- itsBlmOuterSolid
- itsSPos
- itsCopyNumber
- itsGFlashVolumes
- itsMultiplePhysicalVolumes
+ ~BDSAcceleratorComponent()
+ GetName()
+ GetType()
+ GetPrecisionRegion()
+ GetAngle()
+ GetYLength()
+ GetXLength()
+ GetArcLength()
+ GetChordLength()
+ GetPhiAngleIn()
+ GetPhiAngleOut()
+ GetPhi()
+ GetTheta()
+ GetPsi()
+ GetXOffset()
+ GetYOffset()
+ GetZOffset()
+ GetTunnelRadius()
+ GetTunnelOffsetX()
+ GetAperX()
+ GetAperY()
+ GetK1()
+ GetK2()
+ GetK3()
+ GetRotation()
+ GetPosition()
+ SetTilt()
+ GetTilt()
+ GetMarkerLogicalVolume()
+ GetTunnelLogicalVolume()
+ GetTunnelCavityMaterial()
+ GetBDSEnergyCounter()
+ SetBDSEnergyCounter()
+ GetCopyNumber()
+ GetSPos()
+ SetSPos()
+ SetGFlashVolumes()
+ GetGFlashVolumes()
+ SetMultiplePhysicalVolumes()
+ GetMultiplePhysicalVolumes()
+ SetInnerMostLogicalVolume()
+ GetInnerMostLogicalVolume()
+ GetInnerBPUserLimits()
+ GetUserLimits()
+ GetReadOutLogicalVolume()
+ PrepareField()
+ getParameterValue()
+ getParameterValueString()
+ BDSAcceleratorComponent()
+ BDSAcceleratorComponent()
+ GetVisAttributes()
# Initialise()
# Build()
# BuildTunnel()
# BuildBLMs()
# SetName()
# SetType()
# SetPhi()
# SetTheta()
# SetPsi()
# SetPrecisionRegion()
# SetK1()
# SetK2()
# SetK3()
- BDSAcceleratorComponent()
- BuildMarkerLogicalVolume()
- SetVisAttributes()
- operator=()
- BDSAcceleratorComponent()
- ConstructInit()
- CalculateLengths()

```

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BDSTunnelCavitySectionGenerator
- _tunnelCavitySectionBuilder
+ BDSTunnelCavitySectionGenerator()
+ ~BDSTunnelCavitySectionGenerator()
+ tunnelCavitySectionBuilder()
+ tunnelCavitySection()
+ constructTunnelCavitySection()

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\_angleSectionBuilder  
\_straightSectionBuilder

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BDSTunnelCavity
- _solidVolume
- _logicalVolume
- _physicalVolume
- _sectionGenerator
- _straightSectionBuilder
- _angleSectionBuilder
- _acceleratorComponent
- _widthMax
- _first
- _instance
+ ~BDSTunnelCavity()
+ build()
+ widthMax()
+ Instance()
- BDSTunnelCavity()
- inspectBeamline()
- constructSection()
- calcWidthMax()
- appendSection()
- constructLogical()

```

\_sectionGenerator

\_acceleratorComponent

\_instance

