

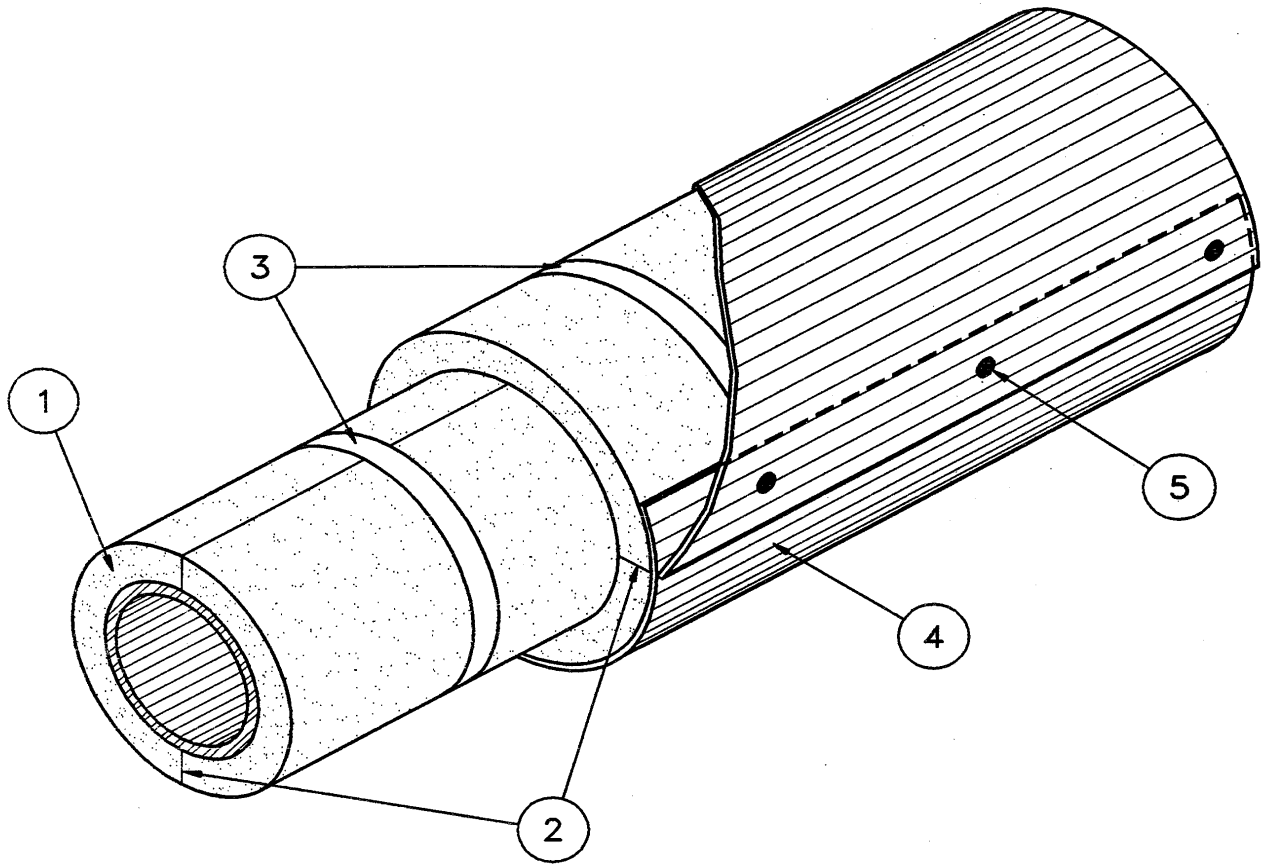
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- FIGURE 2 FLEXIBLE CLOSED CELL PIPE COVERING**
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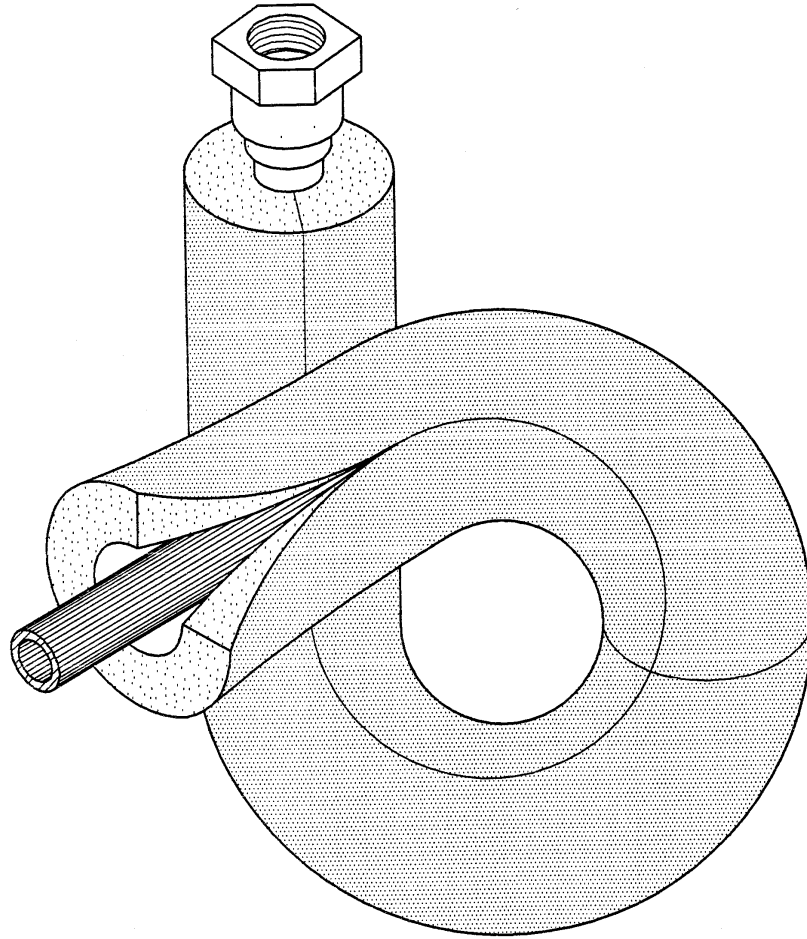
PRE-FORMED PIPE INSULATION MULTIPLE LAYER CONSTRUCTION



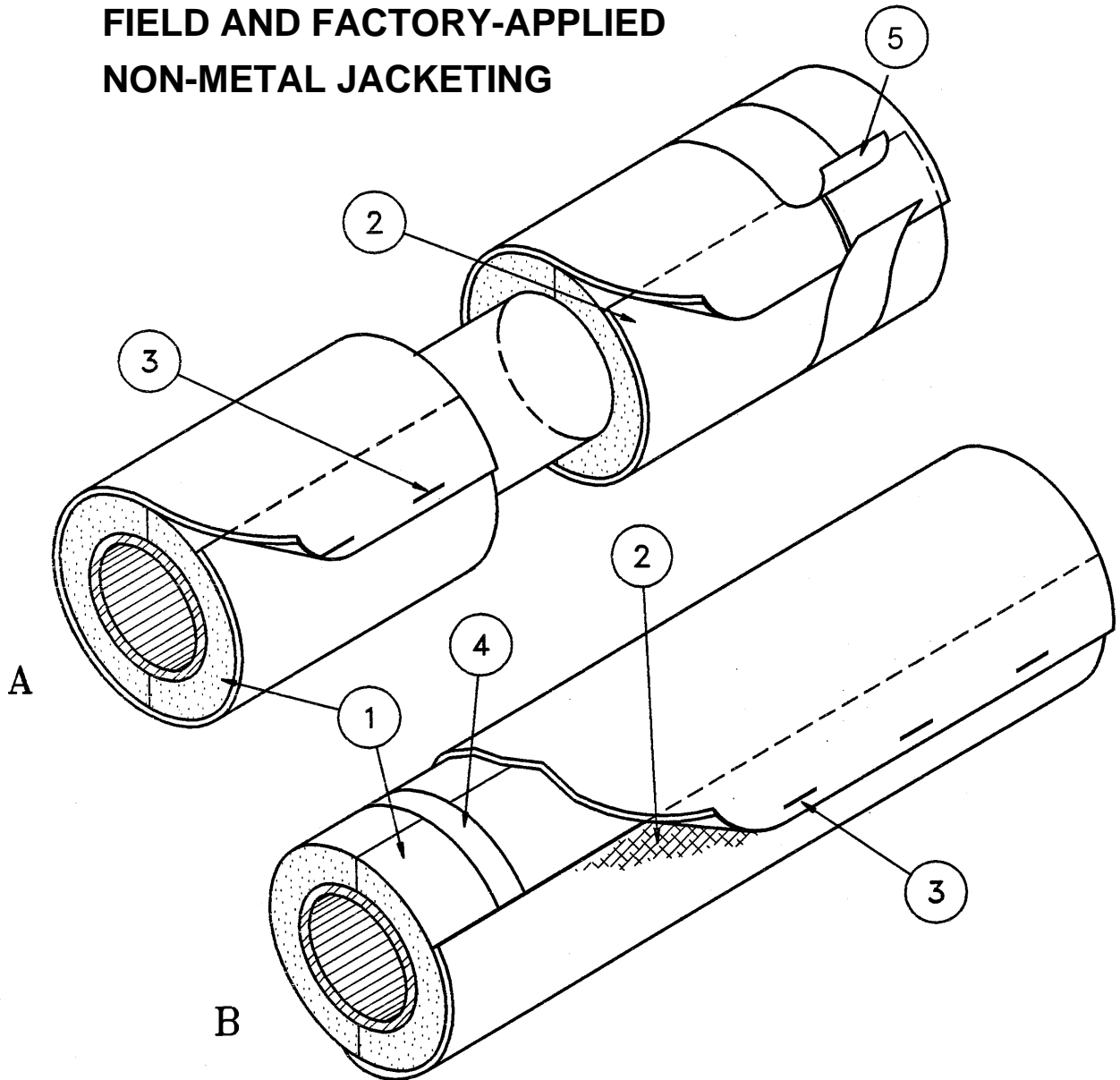
- 1 PRE-FORMED PIPE INSULATION (AS SPECIFIED)
- 2 INSULATION WITH STAGGERED JOINTS
- 3 INSULATION FASTENING
- 4 FINISH JACKET
- 5 JACKET FASTENING



FLEXIBLE CLOSED CELL PIPE COVERING



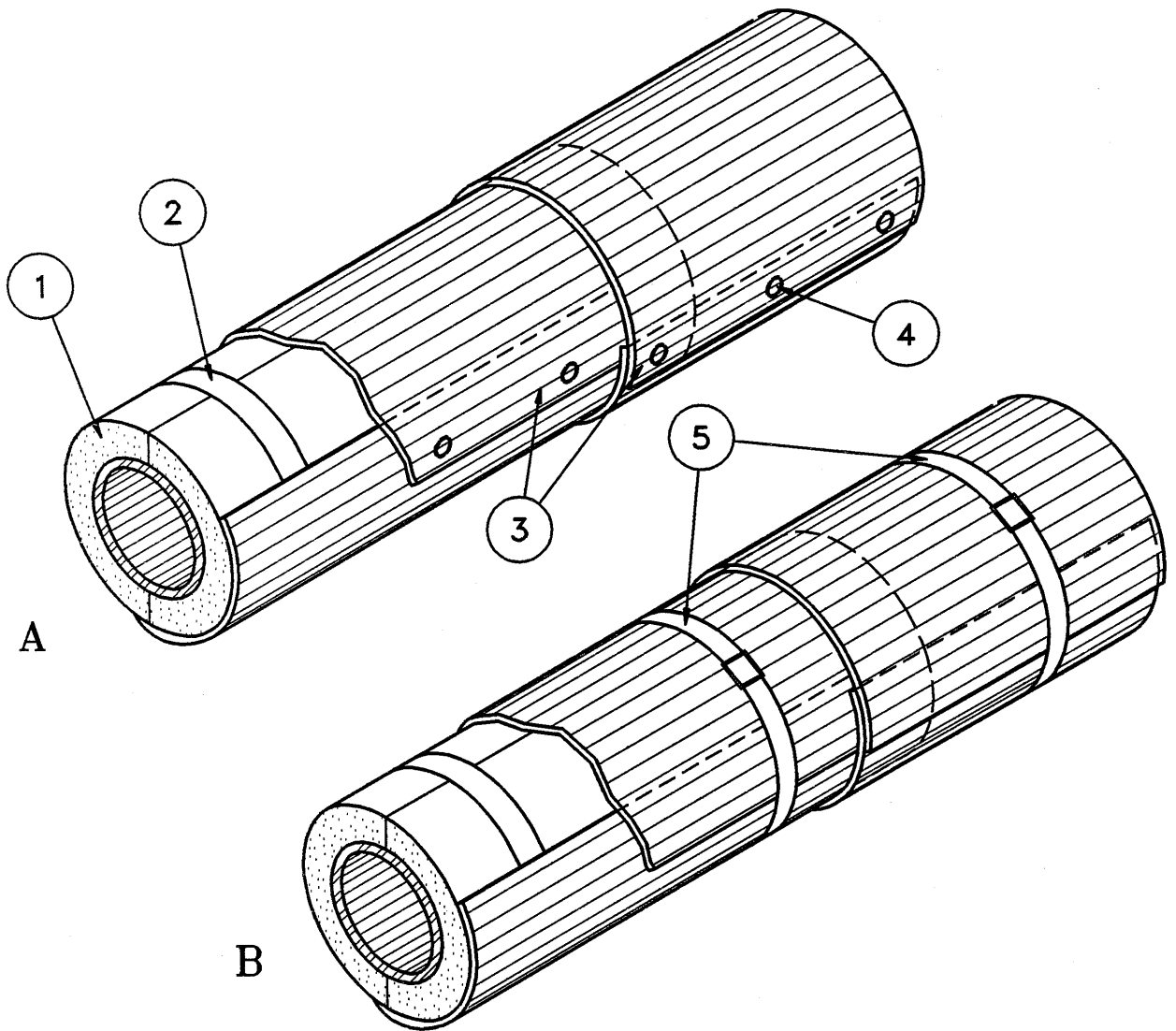
FIELD AND FACTORY-APPLIED NON-METAL JACKETING



- 1 PRE-FORMED PIPE INSULATION
- 2 VAPOUR BARRIER ADHESIVE
(NOT REQUIRED WITH SELF-SEAL LAP)
- 3 STAPLES COATED WITH VAPOUR BARRIER COATING
(NOT REQUIRED WITH SELF-SEAL LAP)
- 4 INSULATION FASTENING
(NOT REQUIRED WITH FACTORY APPLIED JACKET)
- 5 BUTT STRIP SECURED WITH VAPOUR BARRIER ADHESIVE OR
SELF SEAL



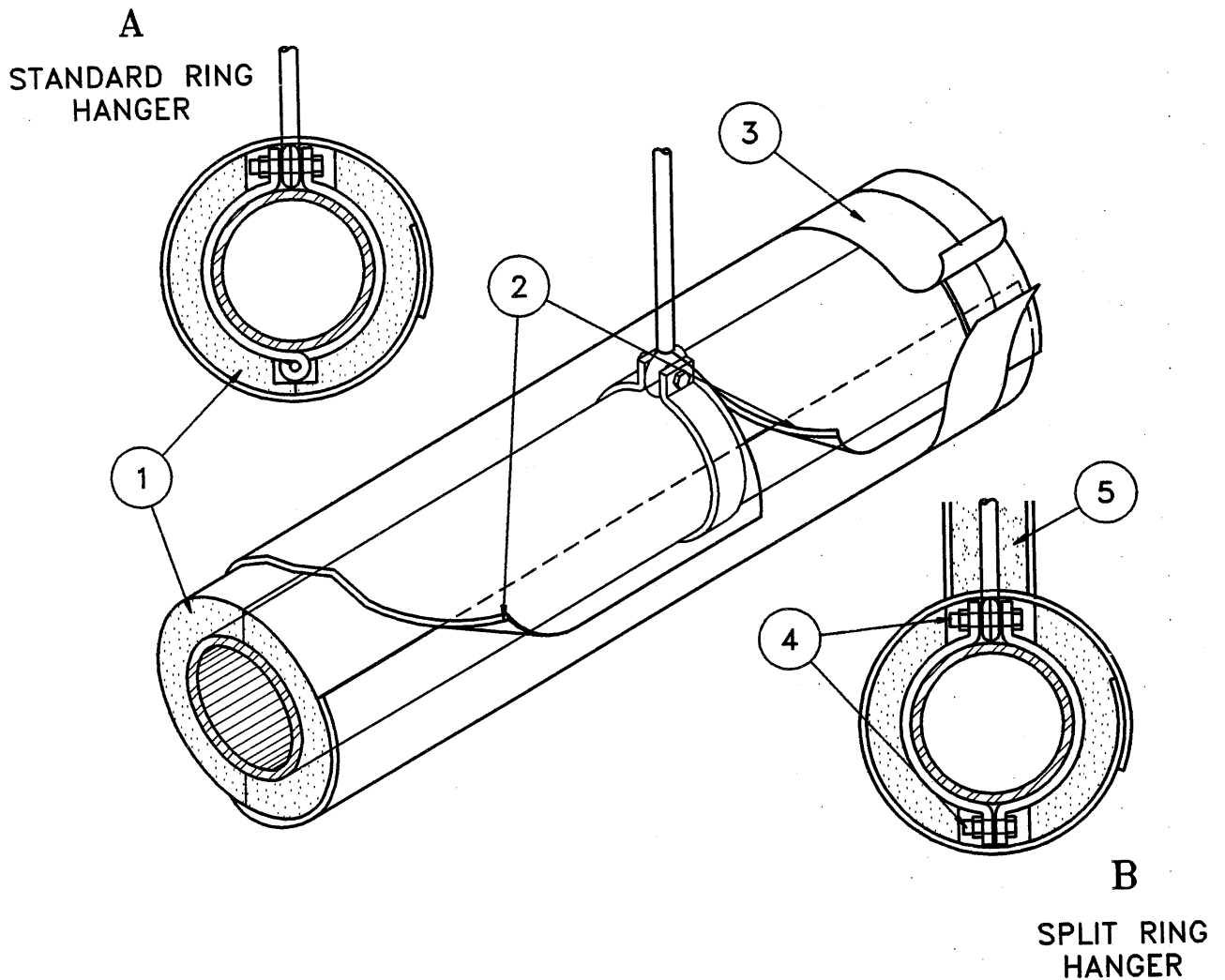
FIELD-APPLIED METAL JACKET



- 1 PRE-FORMED PIPE INSULATION
- 2 INSULATION FASTENING
- 3 JACKET OVERLAPPED (POSITION TO SHED WATER)
- 4 JACKET FASTENING OR
- 5 JACKET FASTENING



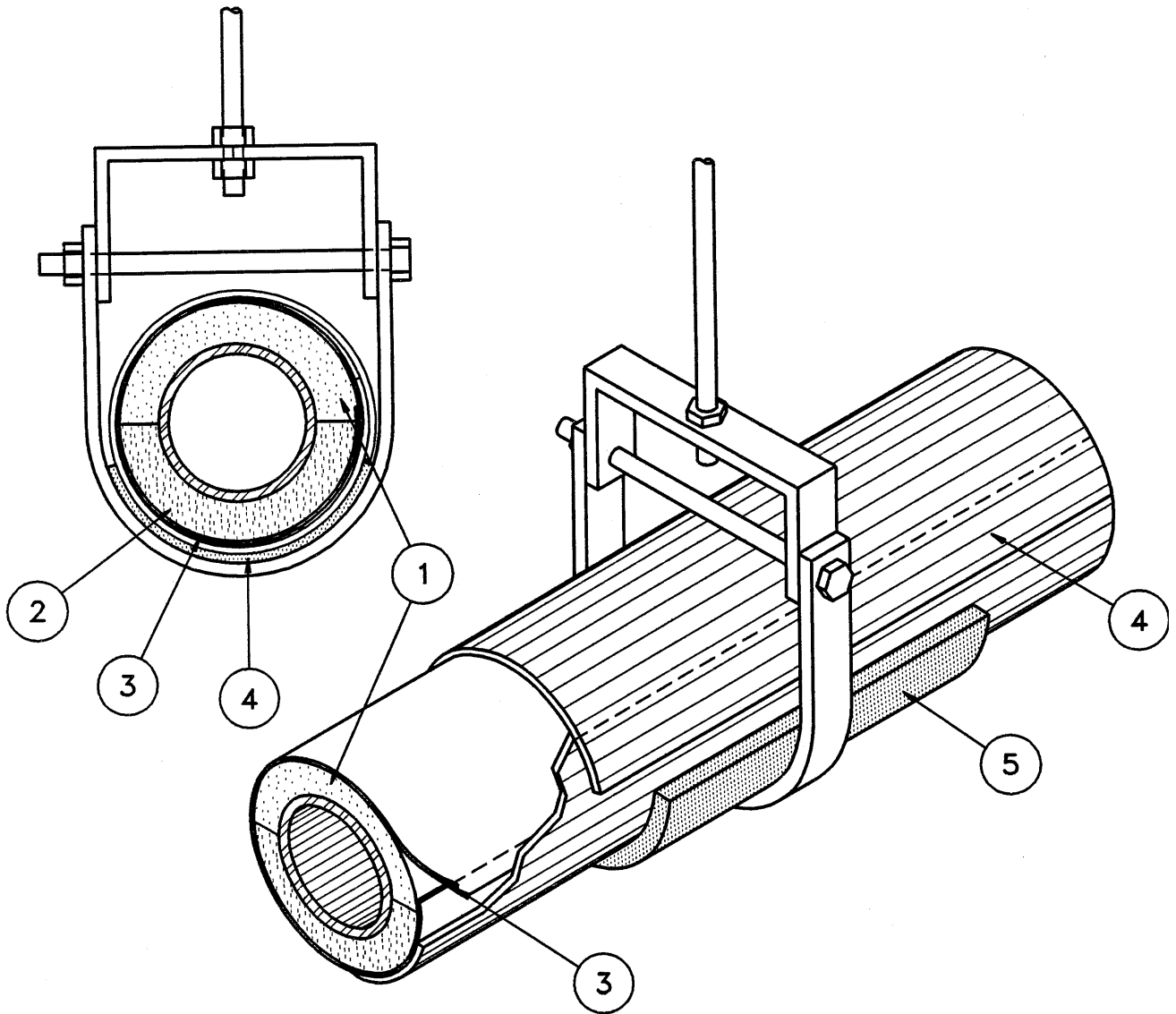
STANDARD AND SPLIT RING HANGERS



- 1 PRE-FORMED PIPE INSULATION
- 2 INSULATION FACTORY JACKET
- 3 BUTT STRIP
- 4 INSULATION NEATLY CUT TO ACCOMMODATE HANGER
- 5 INSULATION ON HANGER ROD



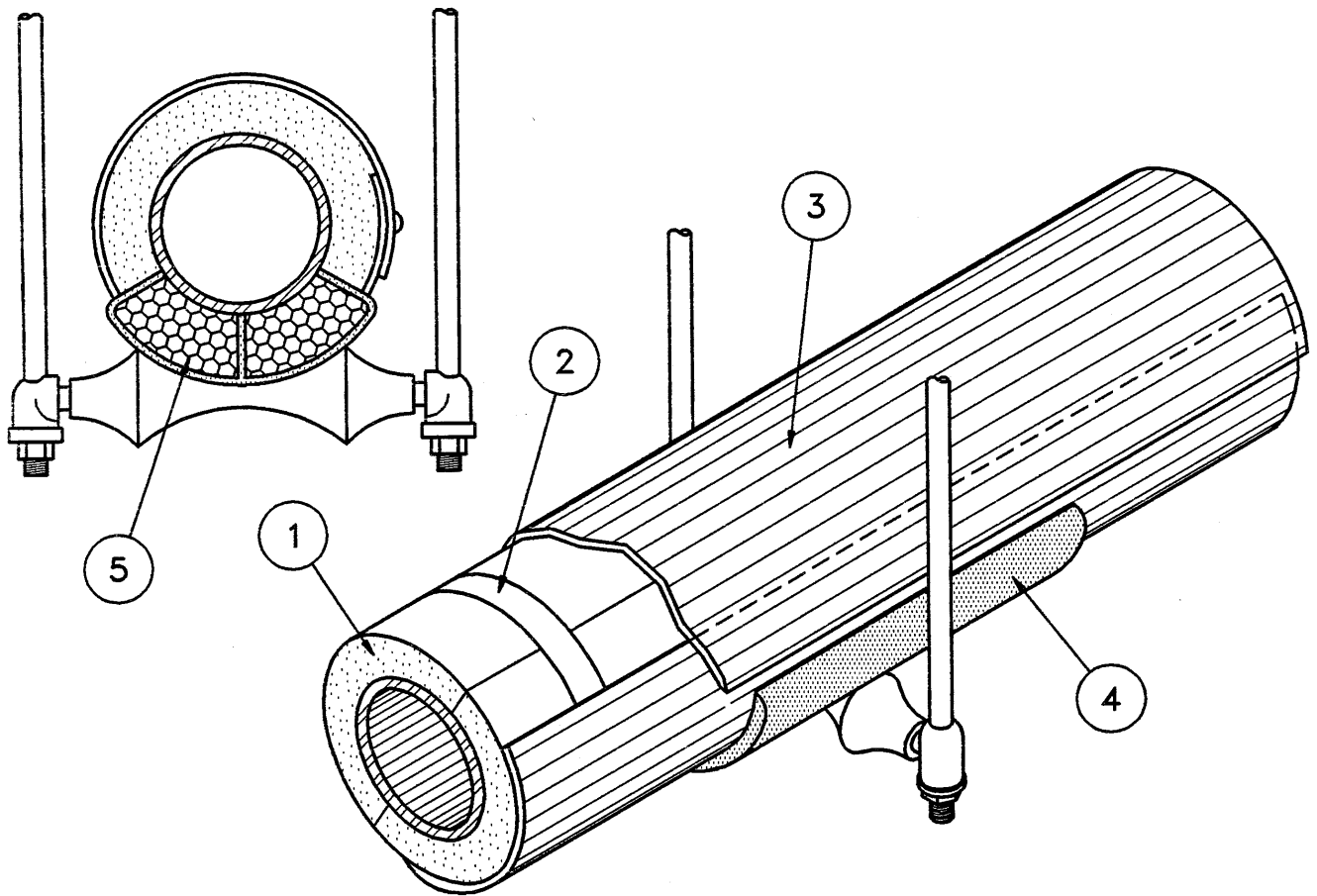
CLEVIS HANGER HIGH DENSITY INSERTS



- 1 PRE-FORMED PIPE INSULATION
- 2 HINGH DENSITY INSULATION
(EXTEND 50mm BEYOND ENDS OF SHIELD)
- 3 FACTORY APPLIED VAPOUR BARRIER
- 4 FINFISH JACKET (METAL SHOWN)
- 5 METAL SHIELD (SUPPLIED BY OTHERS)



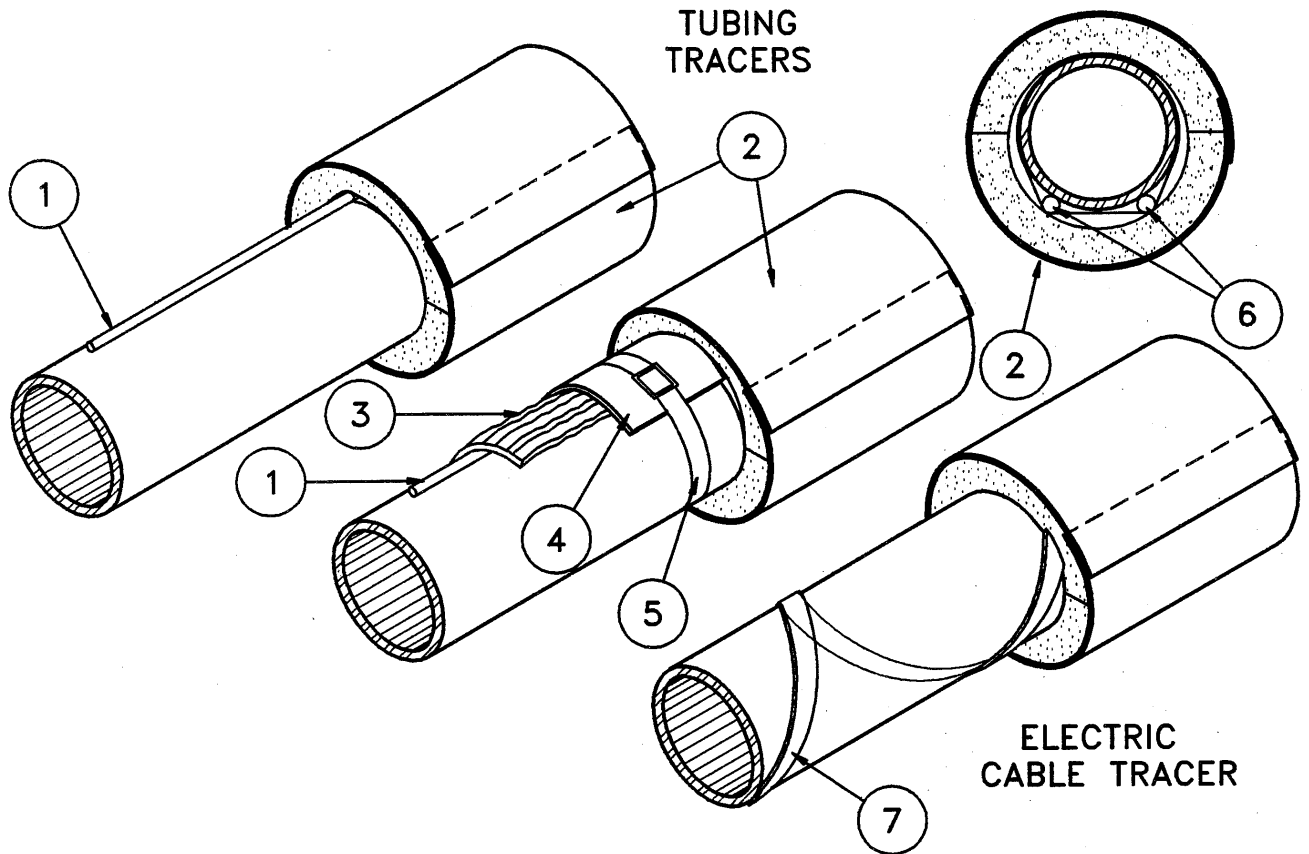
**PIPE SHOE
ON ROLLER SUPPORT**



- 1 PRE-FORMED PIPE INSULATION
- 2 INSULATION FASTENING IF NOT FACTORY JACKET
- 3 FINISH JACKET (METAL SHOWN)
- 4 PIPE SHOE SUPPLIED AND INSTALLED BY OTHERS
- 5 INSULATION IN PIPE SHOE CAVITY



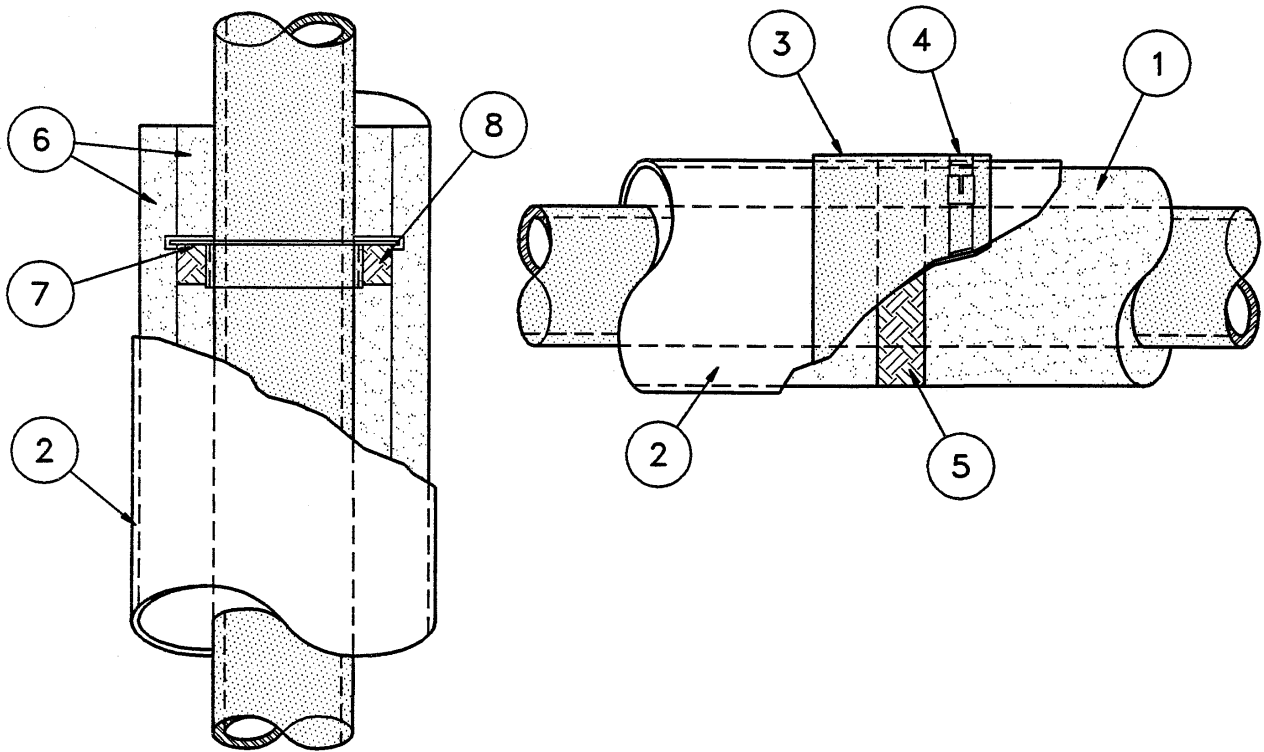
TRACED PIPING



- 1 TUBING TRACER (BY OTHERS)
- 2 PRE-FORMED PIPE INSULATION (FACTORY JACKET)
- 3 HEAT TRANSFER COMPOUND (OPTIONAL)
- 4 HEAT TRANSFER COMPOUND CHANNEL (OPTIONAL)
- 5 BANDING SECURING CHANNEL TO PIPE
- 6 MULTIPLE TUBING TRACER (BY OTHERS)
- 7 ELECTRIC CABLE OR TAPE TRACER (BY OTHERS)



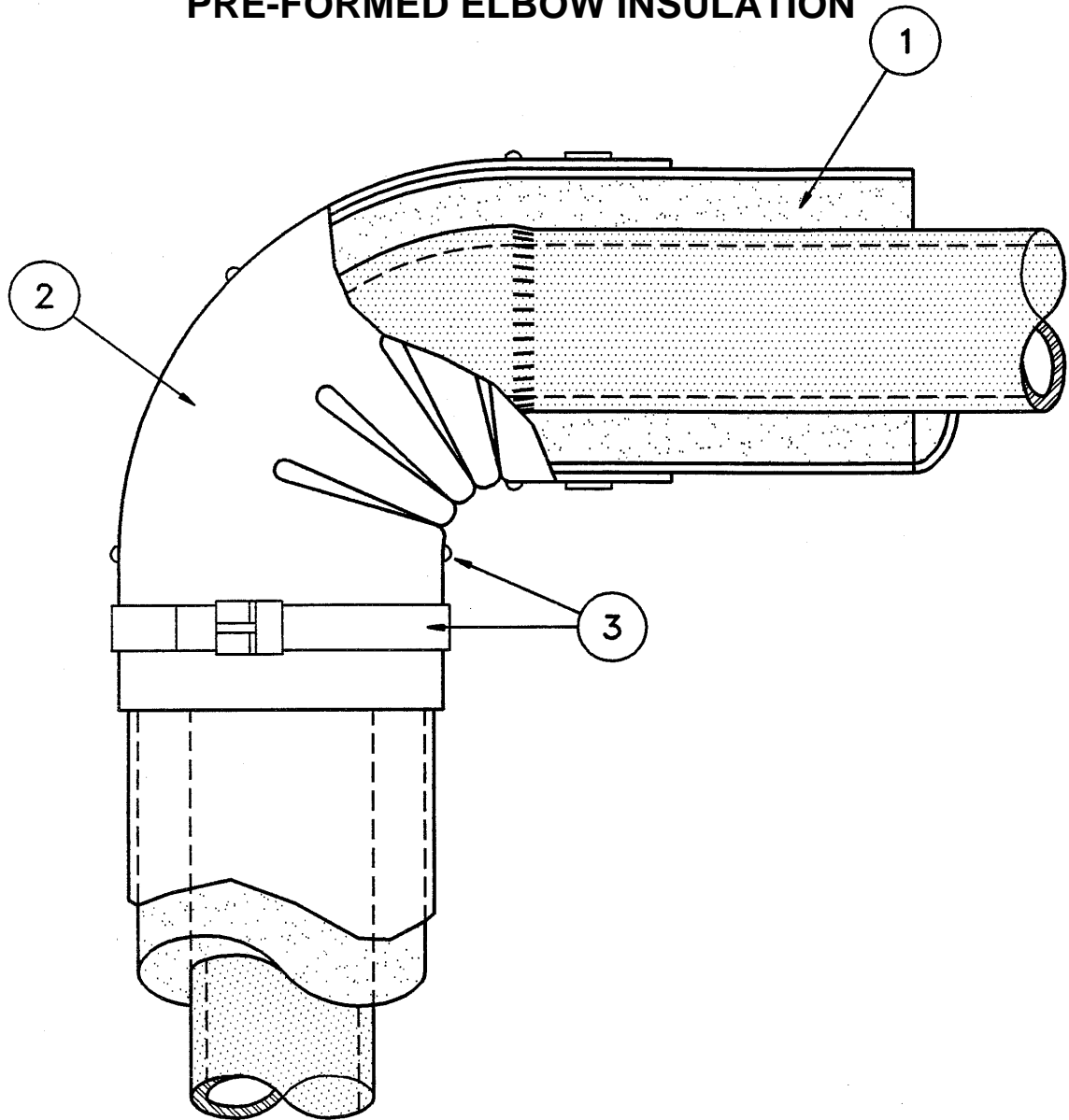
INSULATION SUPPORT RINGS / EXPANSION - CONTRACTION JOINTS



- 1 PRE-FORMED PIPE INSULATION - SINGLE LAYER
- 2 FACTORY JACKET
- 3 SLEEVE OR FACTORY JACKET MATERIAL
- 4 BANDING TO SECURE SLEEVE
- 5 COLLAR OF FLEXIBLE INSULATION
- 6 PRE-FORMED PIPE INSULATION DOUBLE LAYER
- 7 INSULATION SUPPORT RING (BY OTHERS)
- 8 COLLAR OF FLEXIBLE INSULATION BELOW SUPPORT RINGS



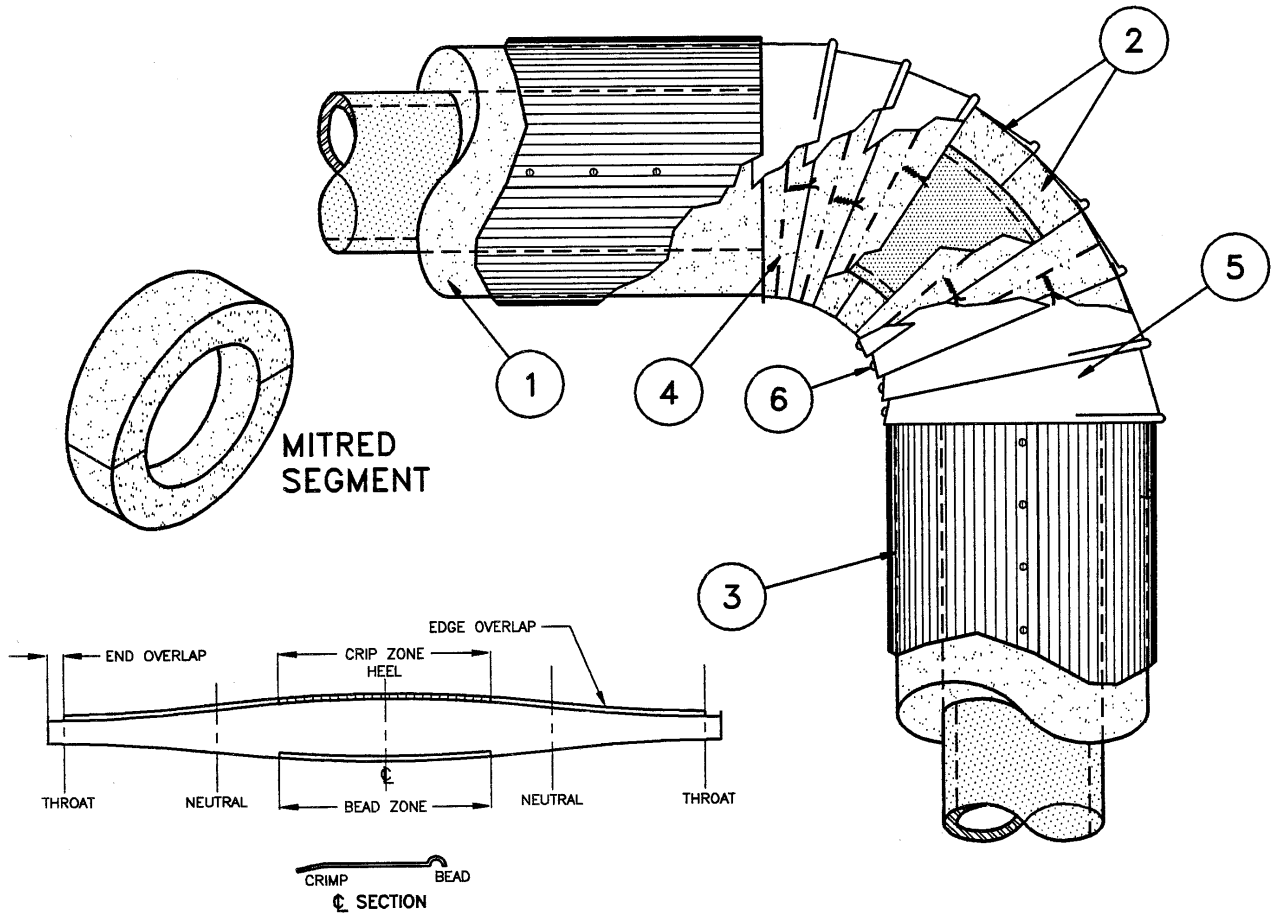
PRE-FORMED ELBOW INSULATION



- 1 PRE-FORMED PIPE INSULATION (SHOWN WITH METAL JACKET)
- 2 PRE-FORMED FITTING COVER
- 3 BANDING OR SCREWS TO SECURE FITTING COVER



MITRED INSULATION ELBOW OVERSIZE APPLICATION

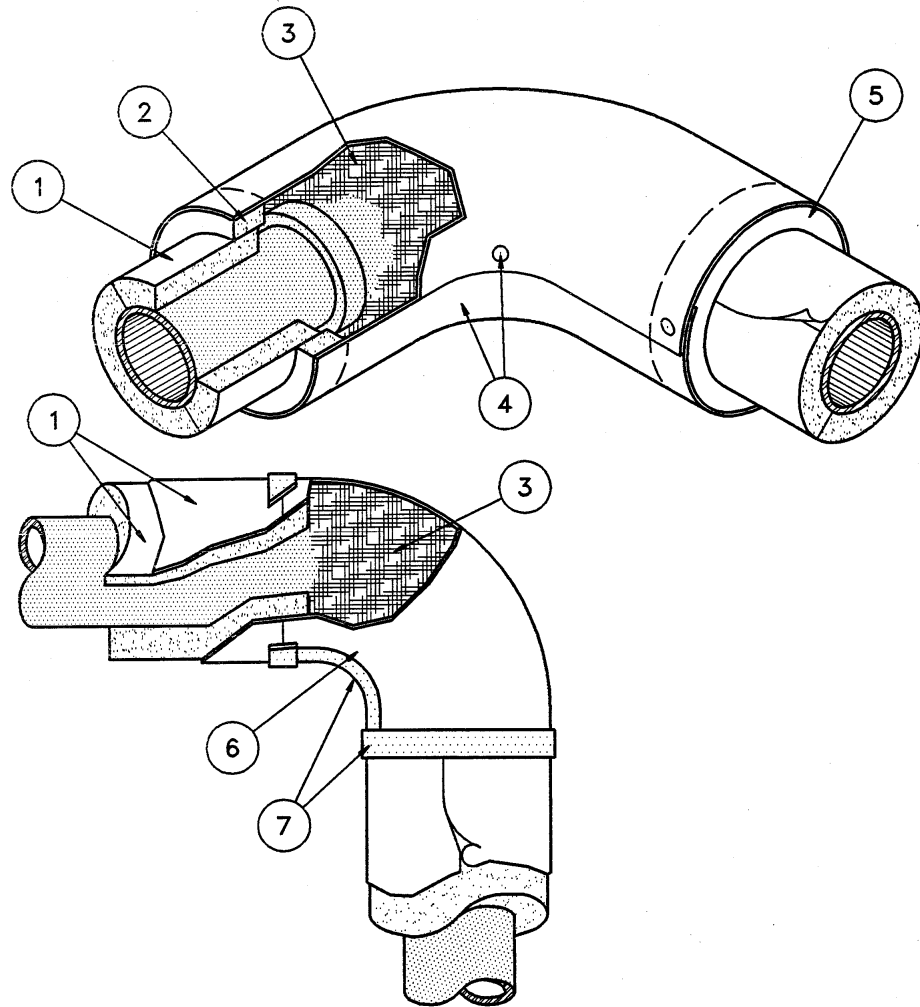


TYPICAL FITTING CORE

- 1 PRE-FORMED PIPE INSULATION
- 2 MITRED SEGMENTS OF PIPE INSULATION
- 3 FINISH JACKET
- 4 WIRE OR BANDING
- 5 FITTING COVER
(METAL CORE TYPE SHOWN)
- 6 FASTENING (SCREWS OR POP RIVETS)



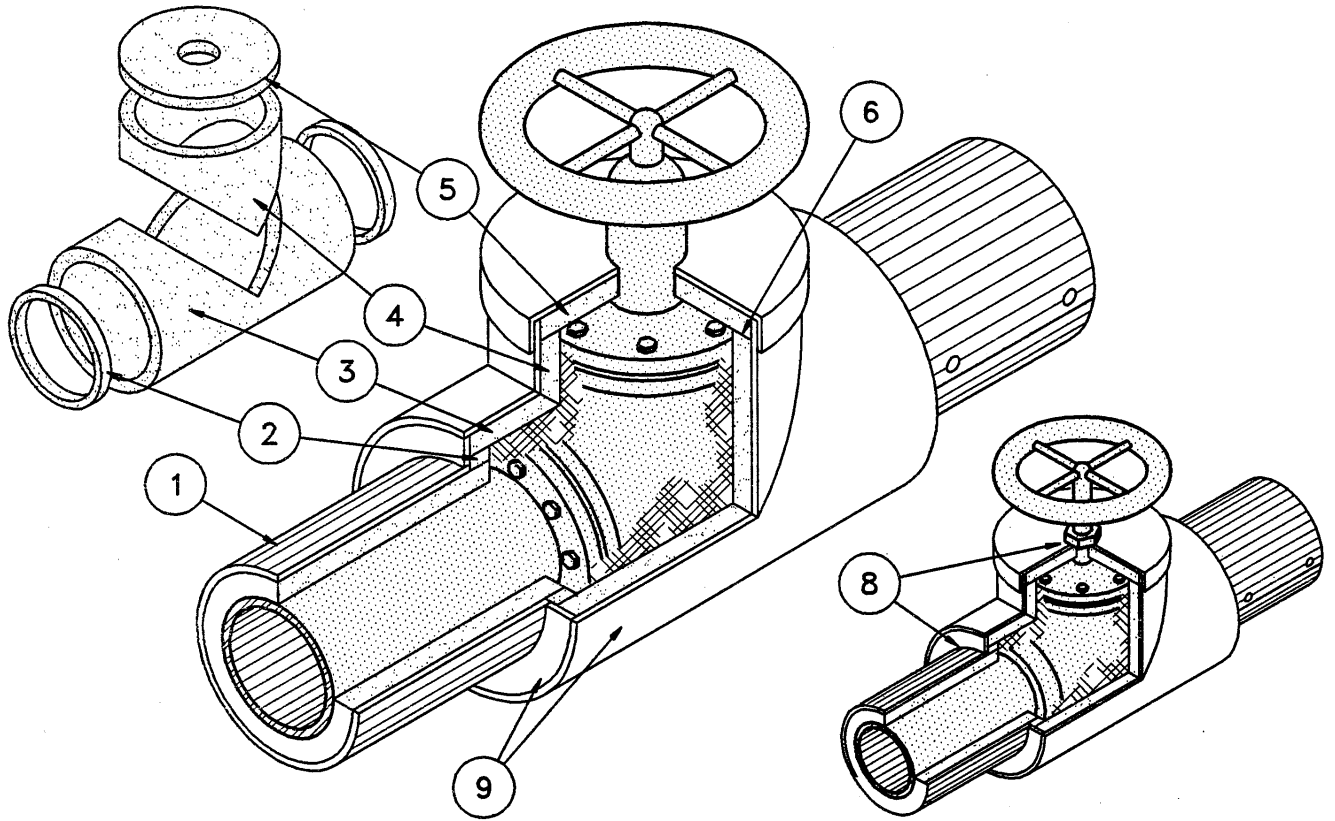
PVC / GLASS FIBRE ELBOW INSULATION SYSTEM



- 1 PRE-FORMED PIPE INSULATION WITH FACTORY JACKET
- 2 COLLAR OF OVER-SIZED PIPE INSULATION
- 3 FLEXIBLE INSULATION INSERT
- 4 PVC FITTING COVER SECURED WITH SERRATED FASTENERS
- 5 VAPOUR BARRIER END CAP
- 6 PVC FITTING COVER
- 7 VAPOUR BARRIER TAPE OR ADHESIVE



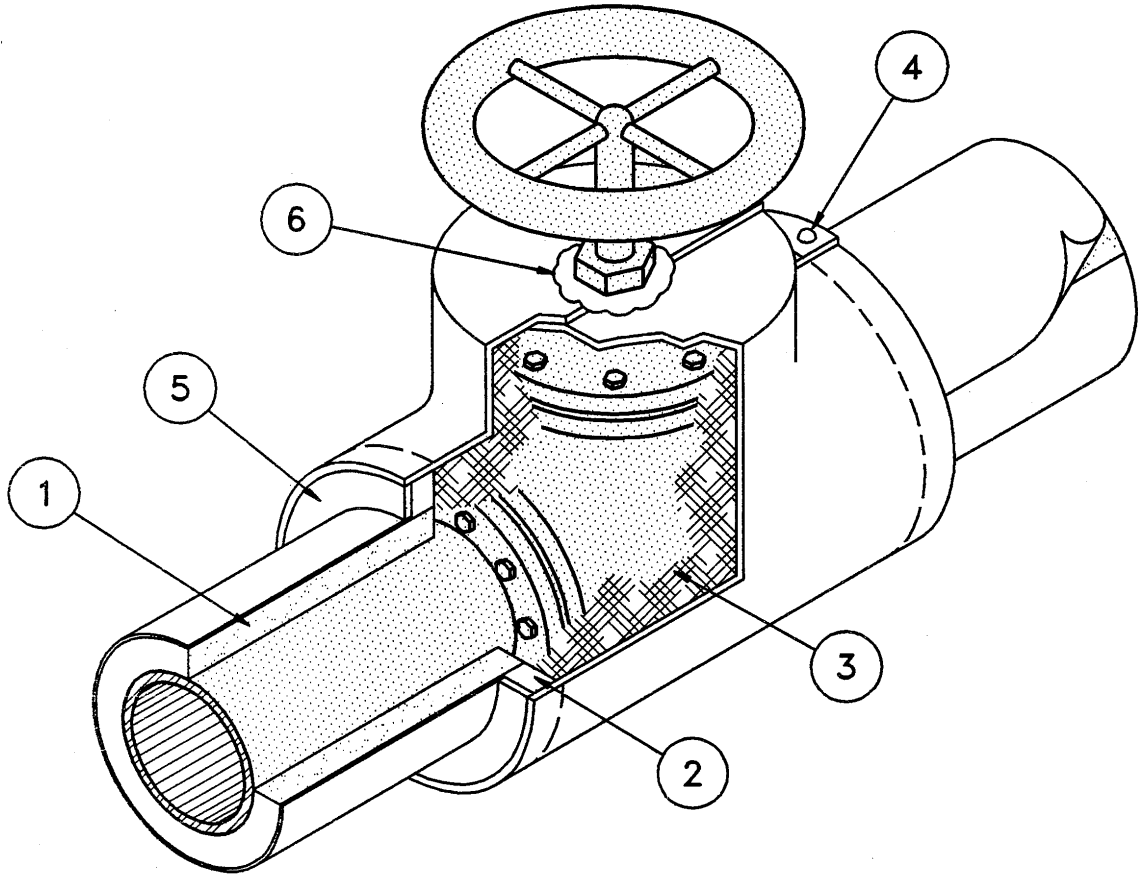
FIELD OR FACTORY -FABRICATED VALVE INSULATION



- 1 PRE-FORMED PIPE INSULATION WITH METAL JACKET
- 2 COLLAR OF PIPE INSULATION SIZED TO CLEAR FLANGES
- 3 COLLAR OF PIPE INSULATION SIZED TO CLEAR VALVE BODY
- 4 COLLAR OF PIPE INSULATION SIZED TO COVER BONNET (OPTIONAL)
- 5 COVER OF RIGID INSULATION OF BONNET INSLATED
- 6 INSULATION ADHESIVE AT JOINTS
- 7 FLEXIBLE INSULATION FILL (OPTIONAL)
- 8 CAULKING ON OUTDOOR INSTALLATIONS
- 9 METAL JACKET MATERIAL COVER



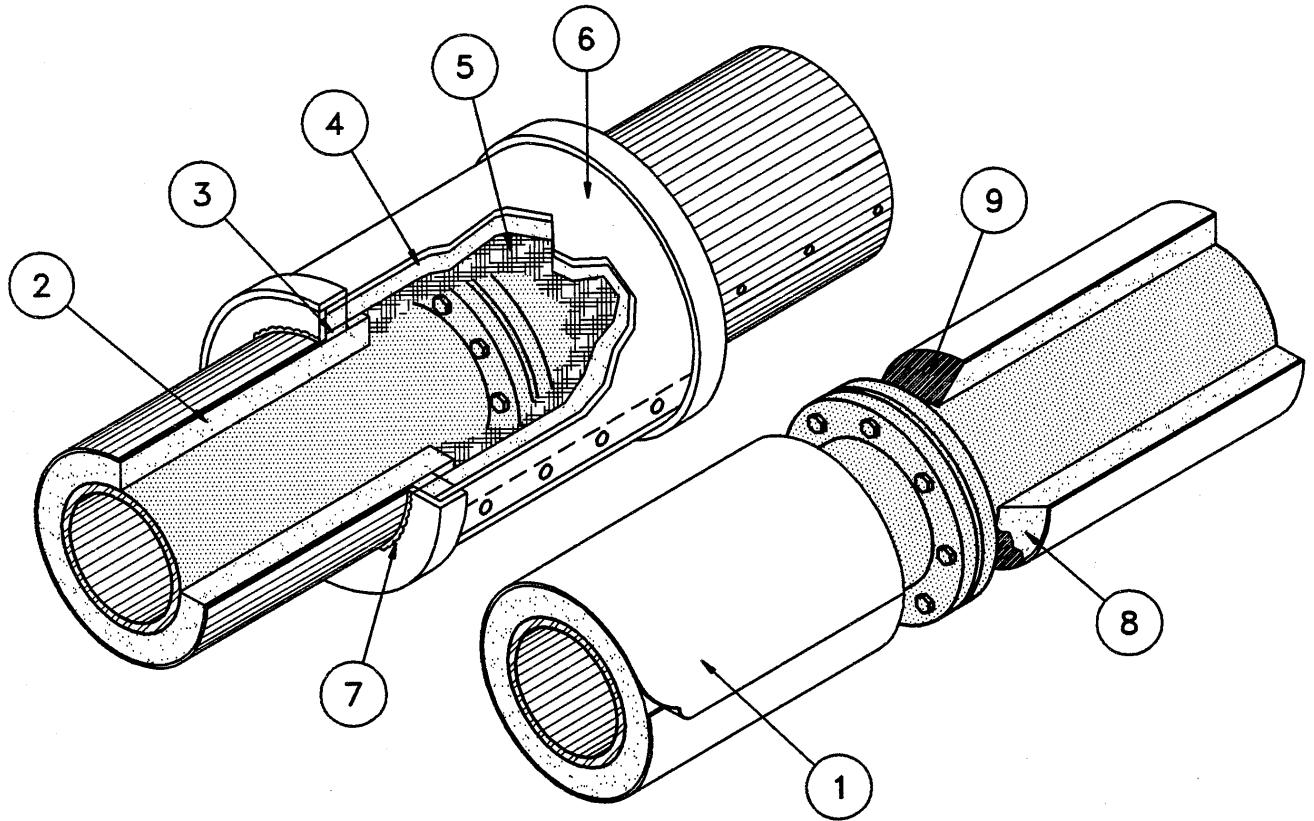
PCV / GLASS FIBRE VALVE INSULATION



- 1 PRE-FORMED PIPE INSULATION
- 2 OVER-SIZED PIPE INSULATION COLLAR
- 3 FLEXIBLE INSULATION INSERT
- 4 PVC COVER (SEAM SECURED WITH SERRATED TACKS,
ADHESIVE OR TAPE)
- 5 END COVER
- 6 CAULKING TO SEAL



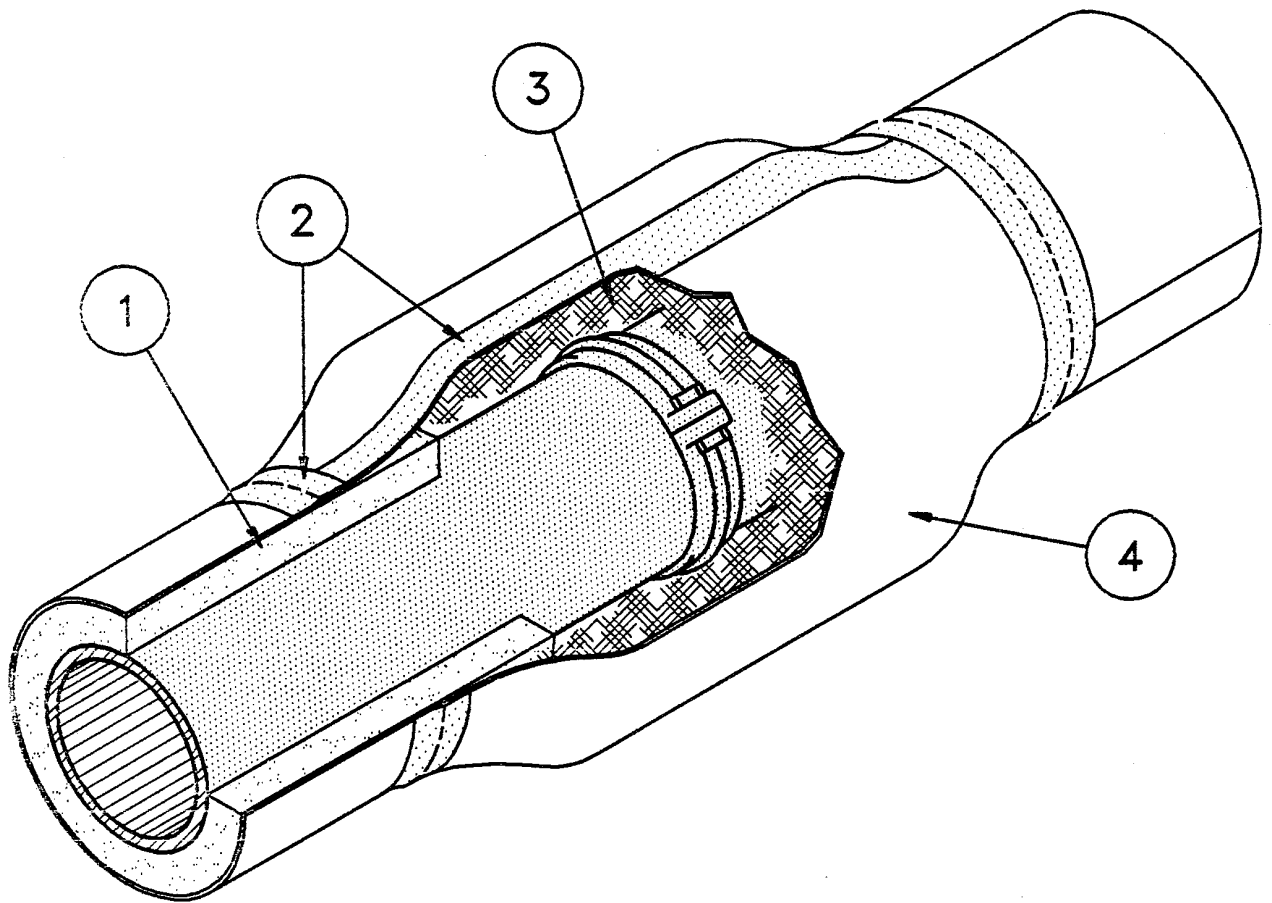
IN-LINE FLANGE INSULATION BUILT-UP AND BEVELLED



- 1 PRE-FORMED PIPE INSULATION WITH FACTORY JACKET
- 2 PRE-FORMED PIPE INSULATION WITH METAL JACKET
- 3 COLLAR OF OVER-SIZED PIPE INSULATION
- 4 SLEEVE OF OVER-SIZED PIPE INSULATION
- 5 FLEXIBLE INSULATION (OPTIONAL)
- 6 FABRICATED COVER
- 7 CAULKING
- 8 PIPE INSULATION (BEVELLED)
- 9 BARRIER COATING INDOORS / WEATHER COATING OUTDOORS



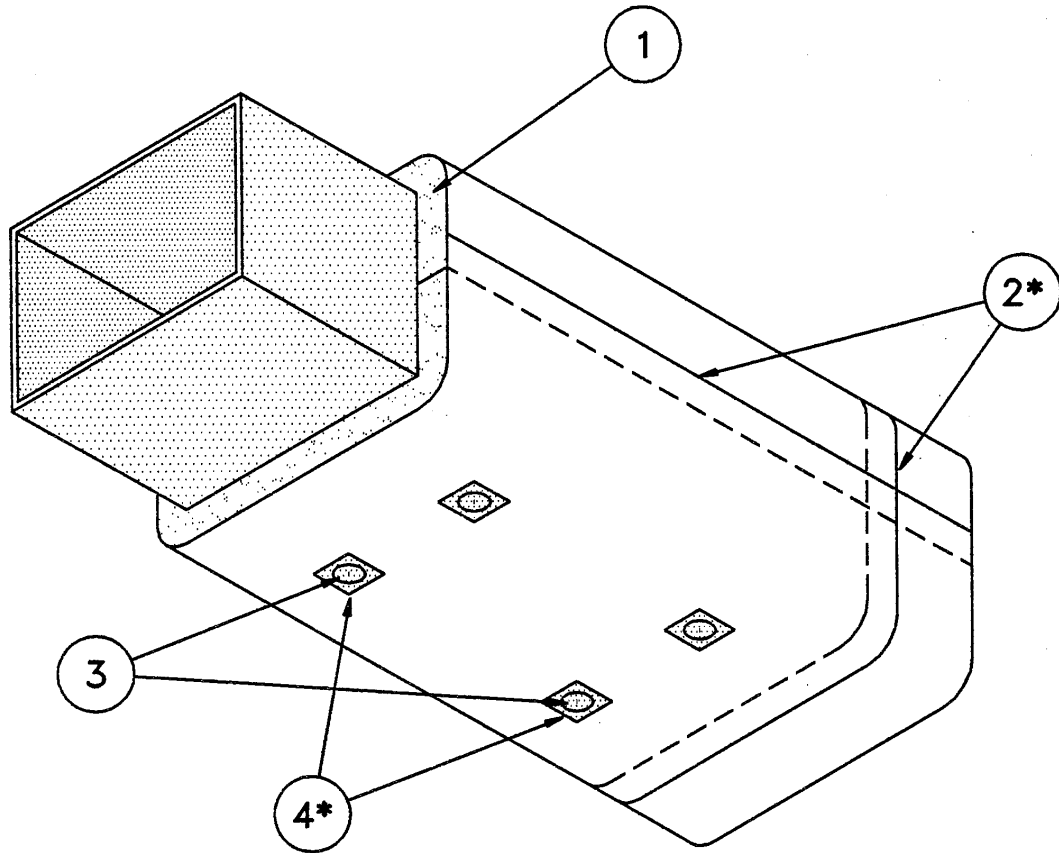
PVC/GLASS FIBRE COUPLING OR IN-LINE FLANGE INSULATION SYSTEM



- 1 PRE-FORMED PIPE INSULATION
- 2 VAPOUR BARRIER TAPE ON JOINTS
- 3 FLEXIBLE INSULATION
- 4 PVC FITTING COVER



FLEXIBLE DUCT INSULATION ON RECTANGULAR DUCTS INDOORS

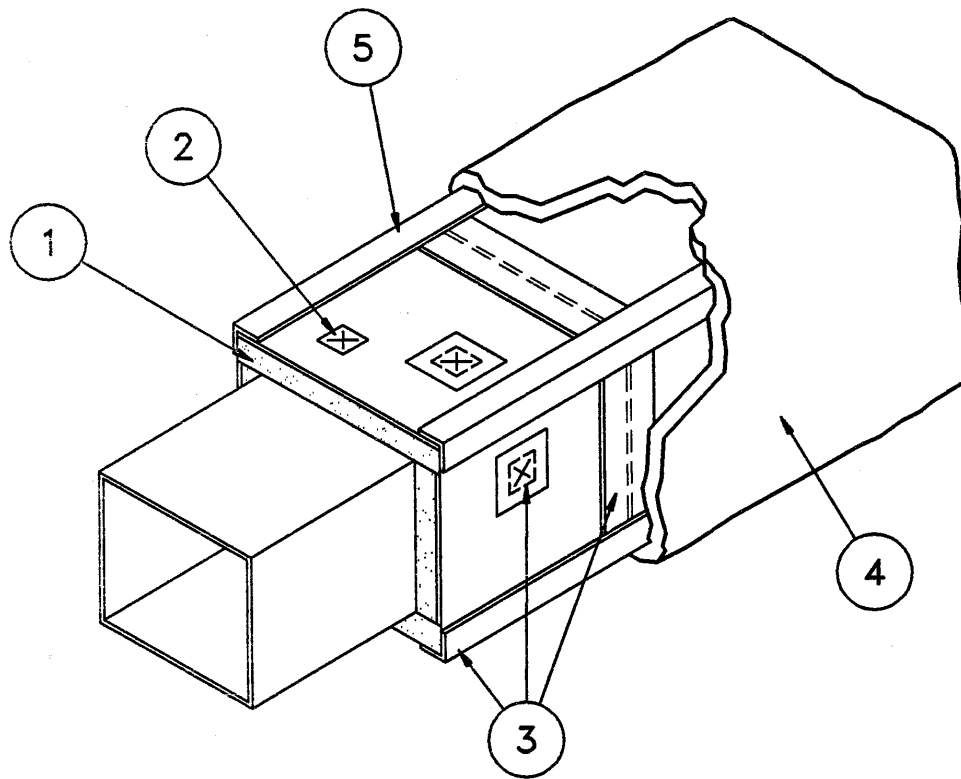


- 1 FLEXIBLE DUCT INSULATION WITH VAPOUR BARRIER
- 2 JOINTS LAPPED AND STAPLED; SEAL WITH VAPOUR BARRIER ADHESIVE OR VAPOUR BARRIER TAPE
- 3 MECHANICAL FASTENERS
- 4 VAPOUR BARRIER TAPE ON BREAKS & PENETRATIONS OF VAPOUR BARRIER

2* & 4* VAPOUR BARRIER TAPE OR SEAL NOT REQUIRED ON HOT DUCTS



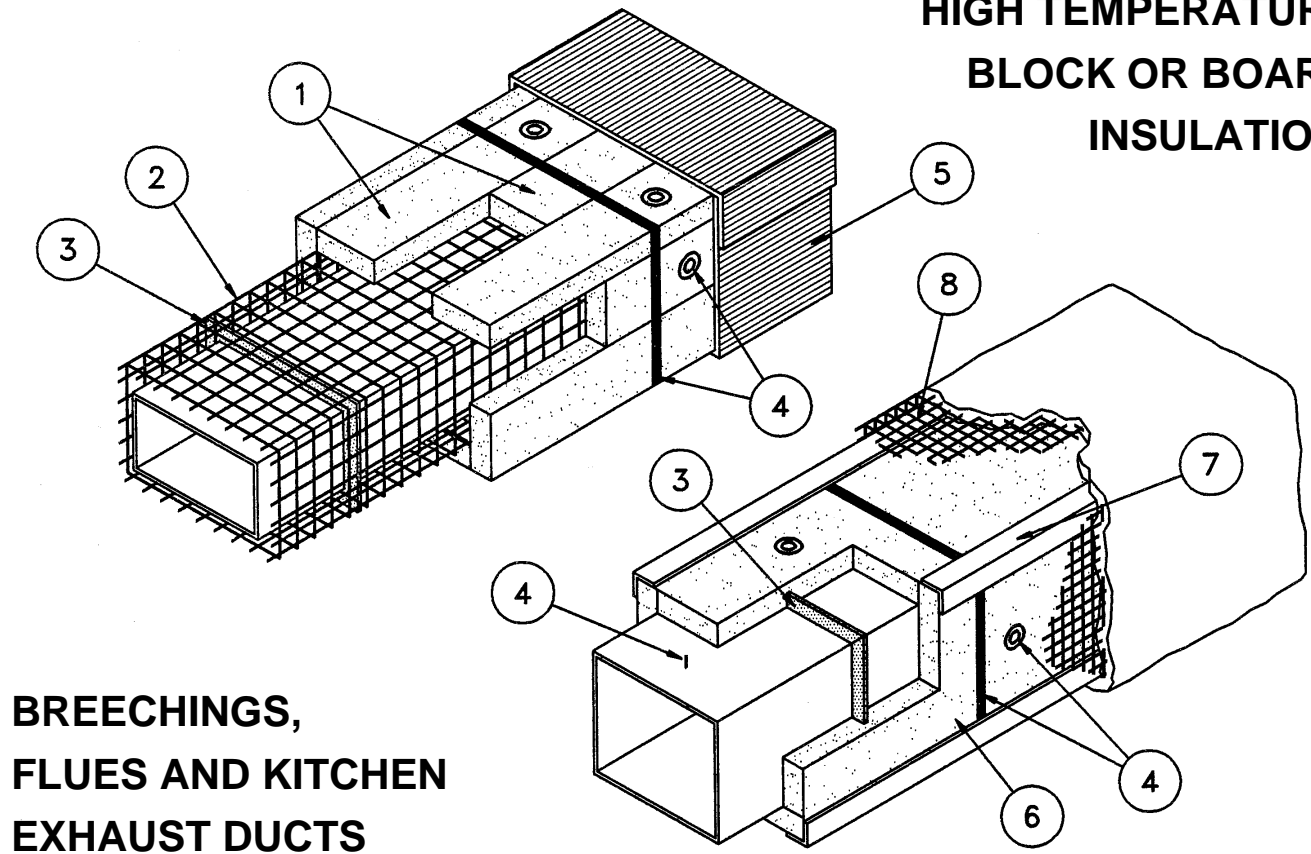
RIGID DUCT INSULATION ON RECTANGULAR EXPOSED DUCTS INDOORS



- 1 RIGID DUCT INSULATION
- 2 MECHANICAL FASTENERS
- 3 VAPOUR BARRIER TAPE ON JOINTS, BREAKS AND PENETRATIONS
- 4 CANVAS FINISH JACKET APPLIED WITH LAGGING ADHESIVE
- 5 METAL CORNER BEAD



HIGH TEMPERATURE BLOCK OR BOARD INSULATION

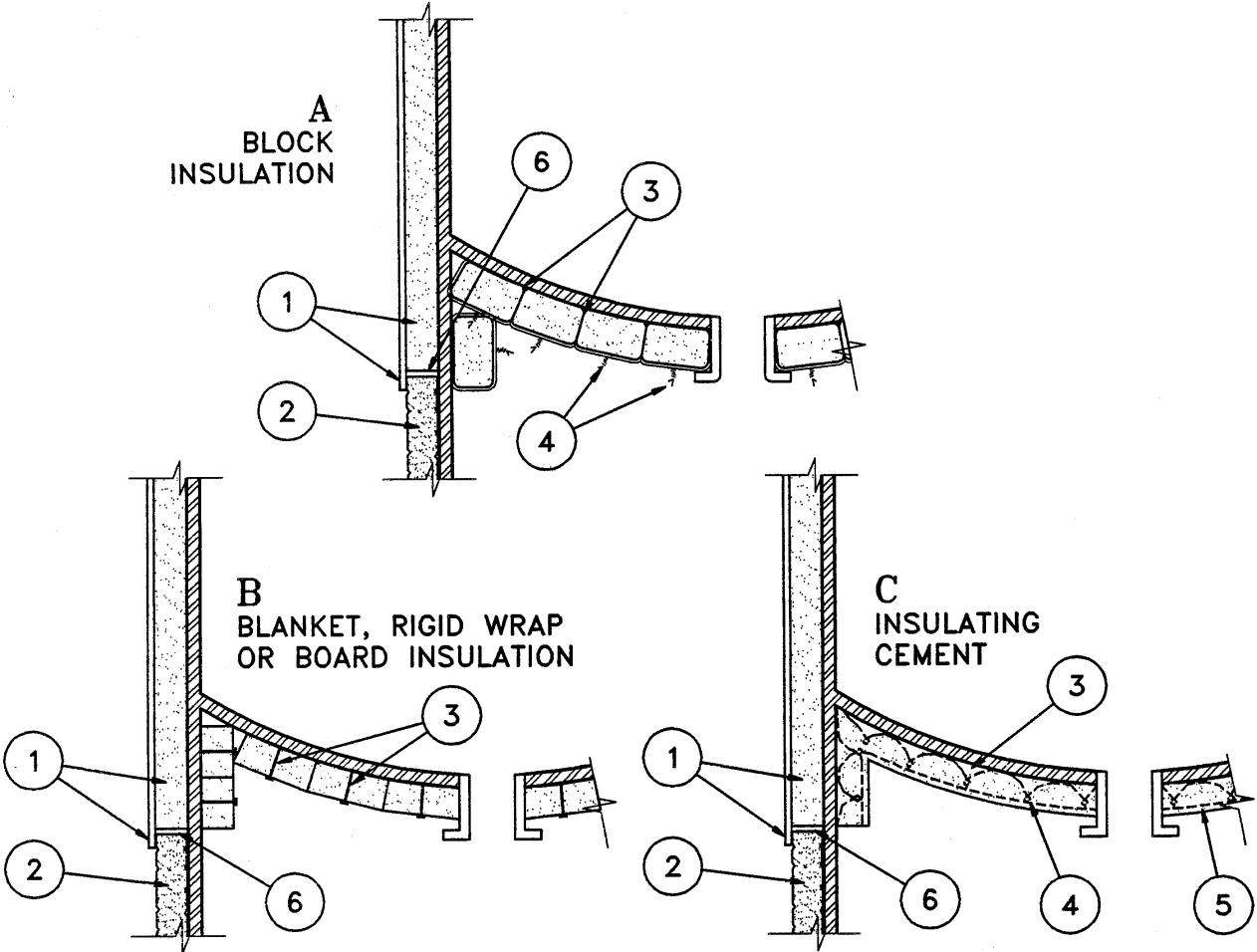


BREECHINGS, FLUES AND KITCHEN EXHAUST DUCTS

- 1 RIGID BLOCK INSULATION (JOINTS STAGGERED)
- 2 METAL MESH OVER STIFFENERS (BY OTHERS)
- 3 STIFFENER OR FLANGED CONNECTION
- 4 MECHANICAL FASTENERS OR BANDING TO SECURE INSULATION
- 5 METAL JACKET FINISH
- 6 RIGID BOARD INSULATION
- 7 METAL CORNER BEAD
- 8 REINFORCED MESH EMBEDDED IN INSULATING CEMENT AND CANVAS FINISH JACKET APPLIED WITH LAGGING ADHESIVE



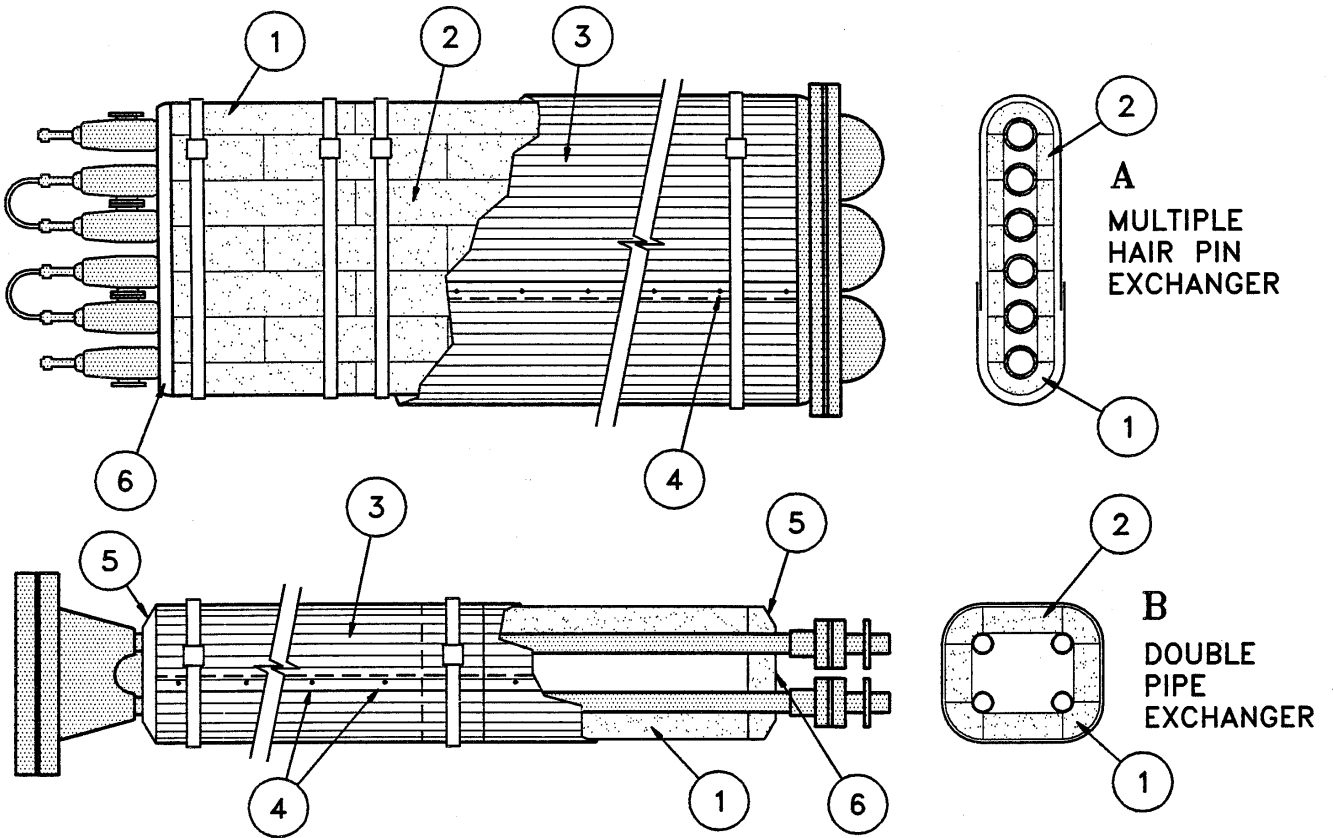
VESSEL BOTTOM HEAD, LEG, SKIRT INSULATION AND SECUREMENT



- 1 VESSEL INSULATION AND JACKET
- 2 FIREPROOFING (BY OTHERS, IF REQUIRED)
- 3 MECHANICAL FASTENERS
- 4 TIE WIRES
- 5 REINFORCING WIRE MESH & INSULATING CEMENT
- 6 INSULATION SUPPORT RING (BY OTHERS)



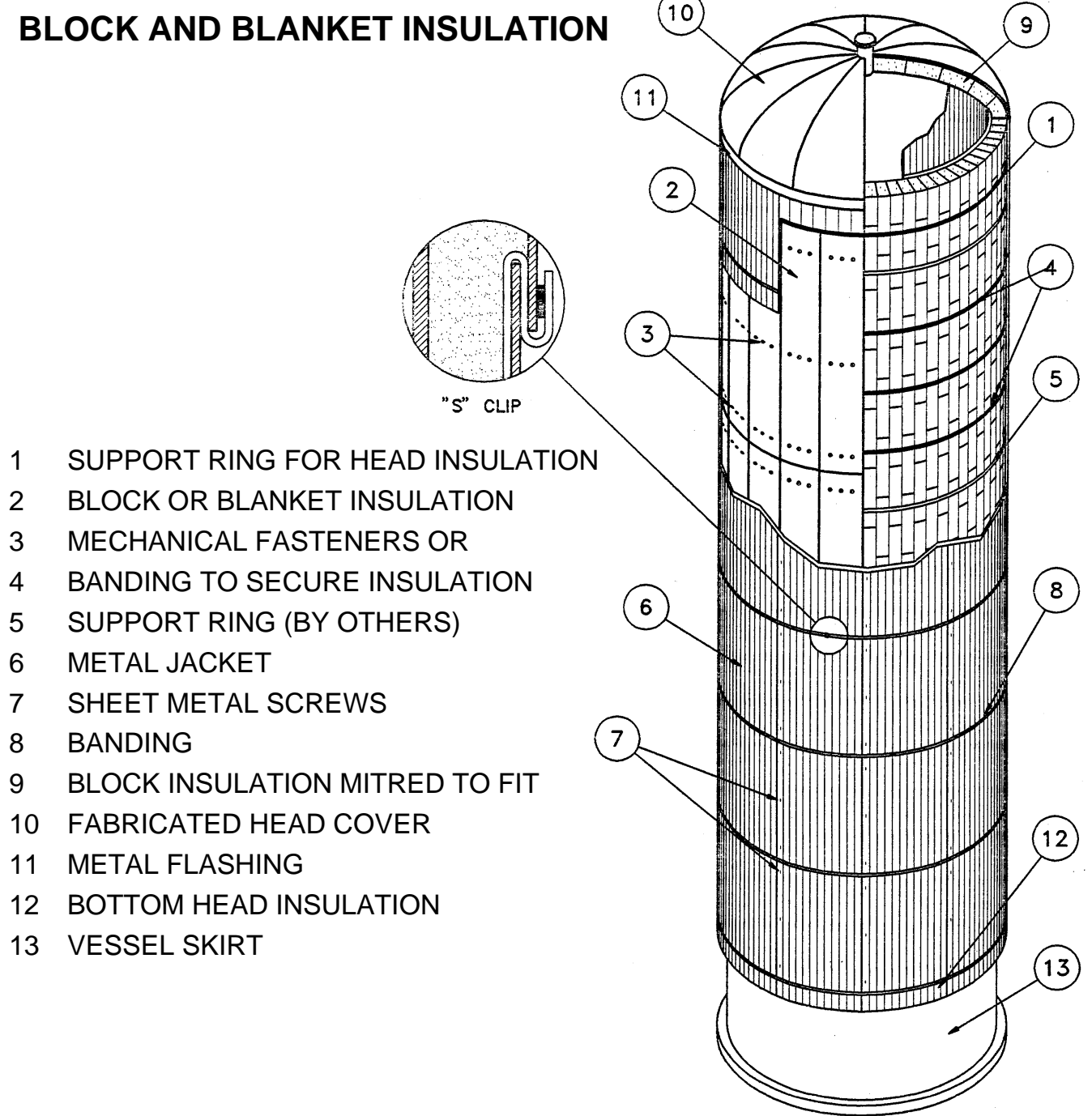
PIPE AND TUBE EXCHANGERS - ENCASED



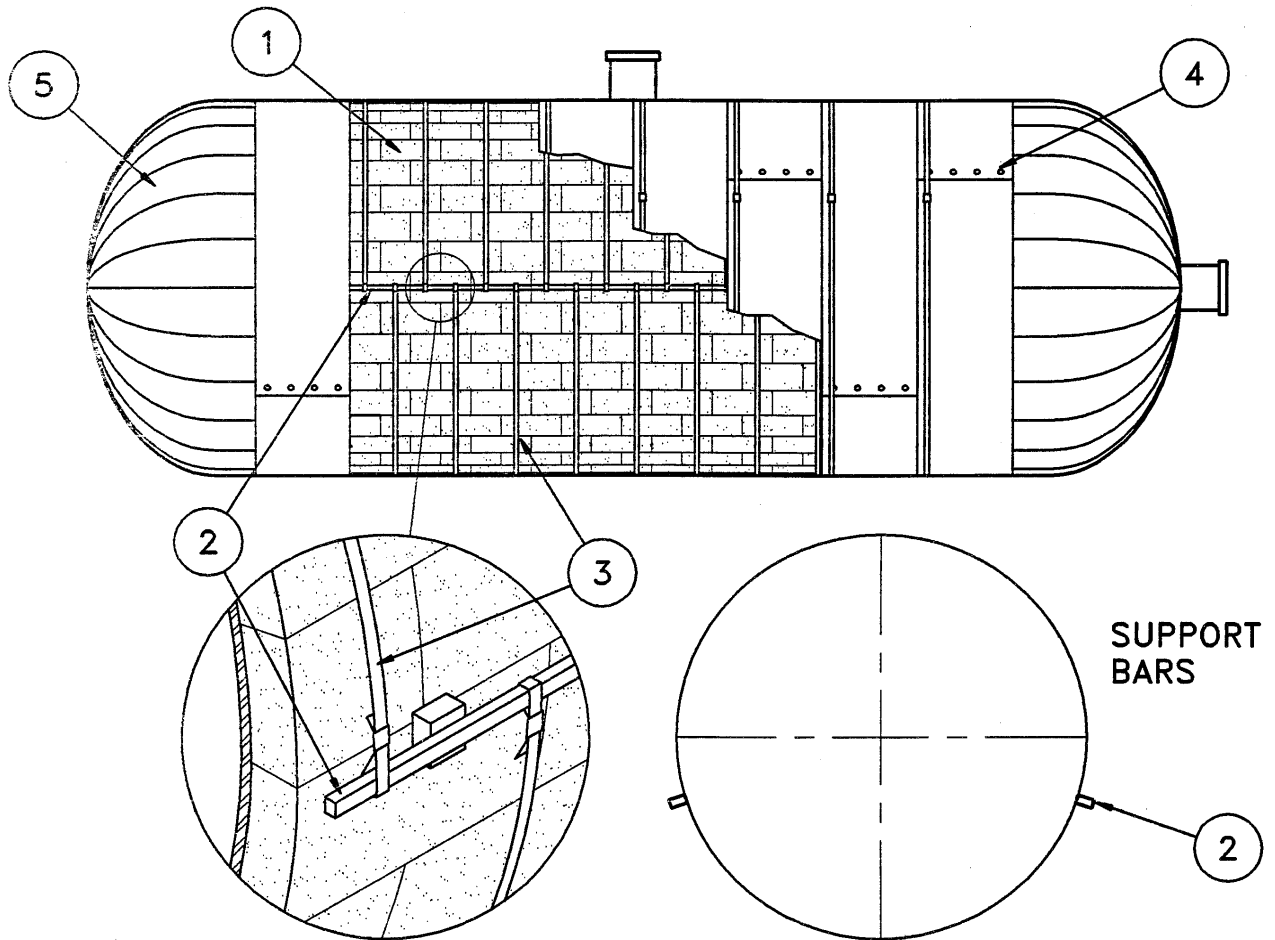
- 1 PIPE INSULATION SECURED WITH BANDING
- 2 BLOCK INSULATION SECURED WITH BANDING
- 3 FINISH JACKET (METAL SHOWN SECURED WITH BANDING)
- 4 SHEET METAL SCREWS
- 5 BEVEL INSULATION AND FINISH WITH COATING
- 6 BLOCK INSULATION AND FINISH WITH COATING



LARGE DIAMETER VERTICAL VESSELS BLOCK AND BLANKET INSULATION



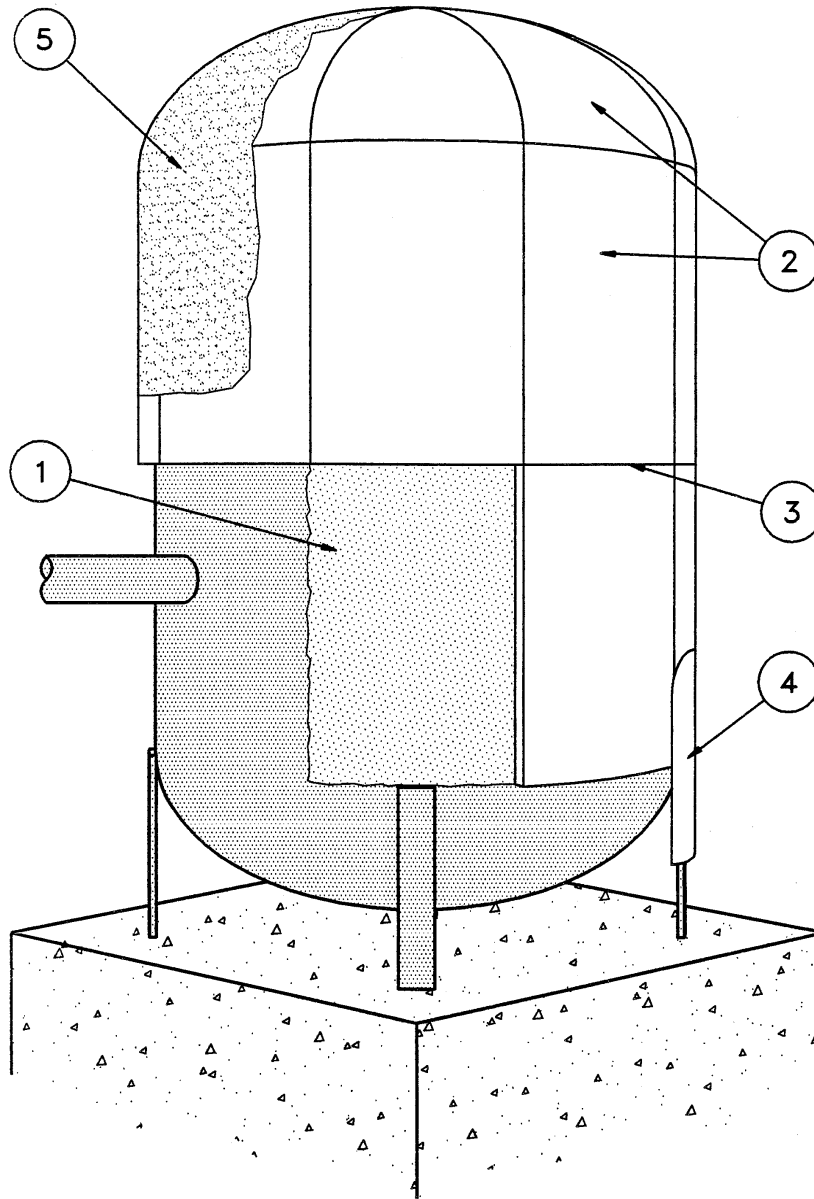
LARGE DIAMETER HORIZONTAL VESSELS INSULATION SUPPORT AND SECUREMENT



- 1 RIGID INSULATION
- 2 BANDING SUPPORT BARS
- 3 BANDING
- 4 FINISH JACKET SECURED WITH BANDING OR SCREWS
- 5 HEAD COVER



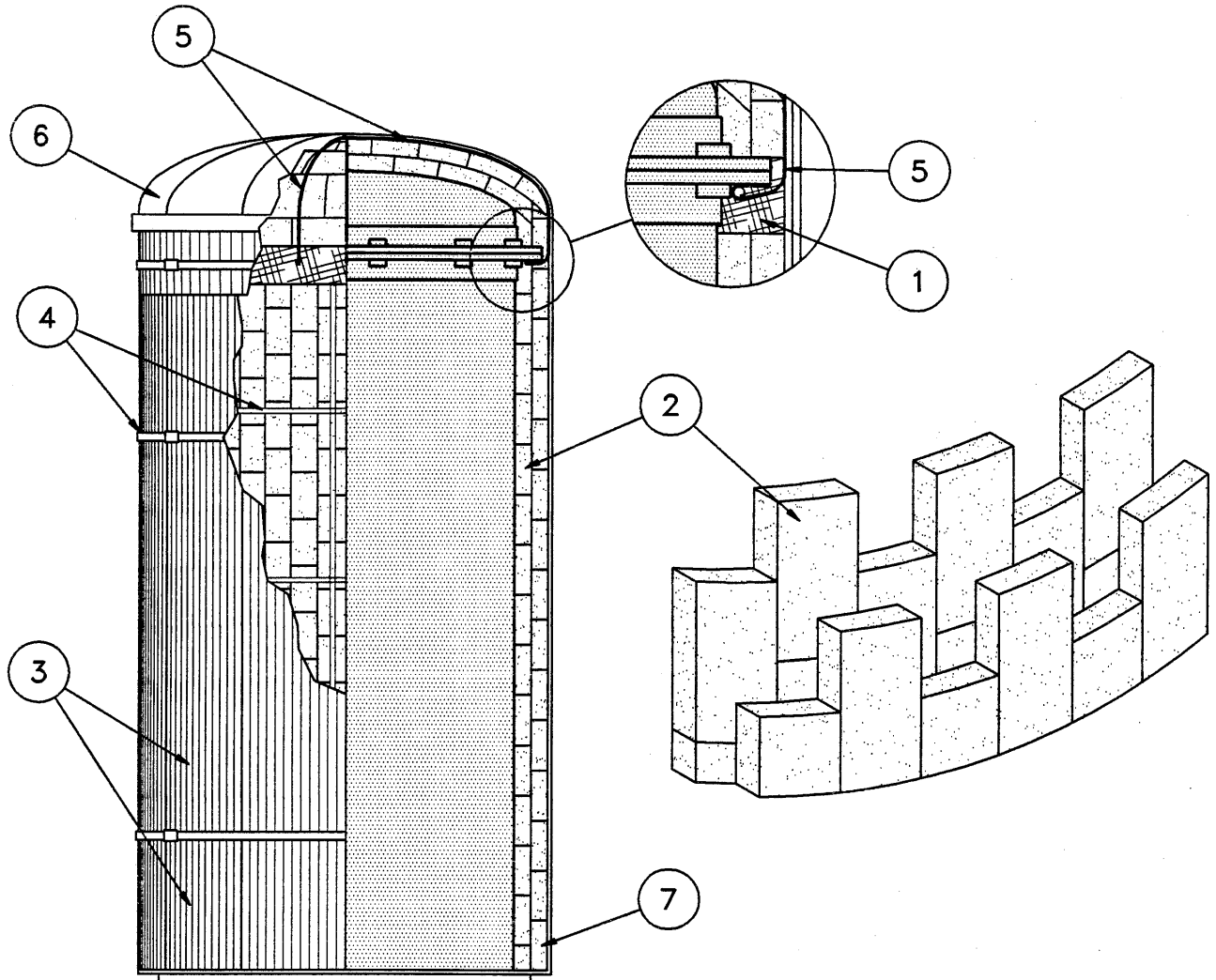
FLEXIBLE CLOSEDCELL SHEETS



- 1 INSULATION ADHESIVE (CONTACT TYPE)
- 2 FLEXIBLE CLOSED CELL INSULATION (CUT TO FIT TIGHTLY)
- 3 JOINTS SEALED WITH CONTACT TYPE ADHESIVE
- 4 LEGS & PROTRUSIONS INSULATED (OPTIONAL)
- 5 PROTECTIVE COATING WHERE REQUIRED



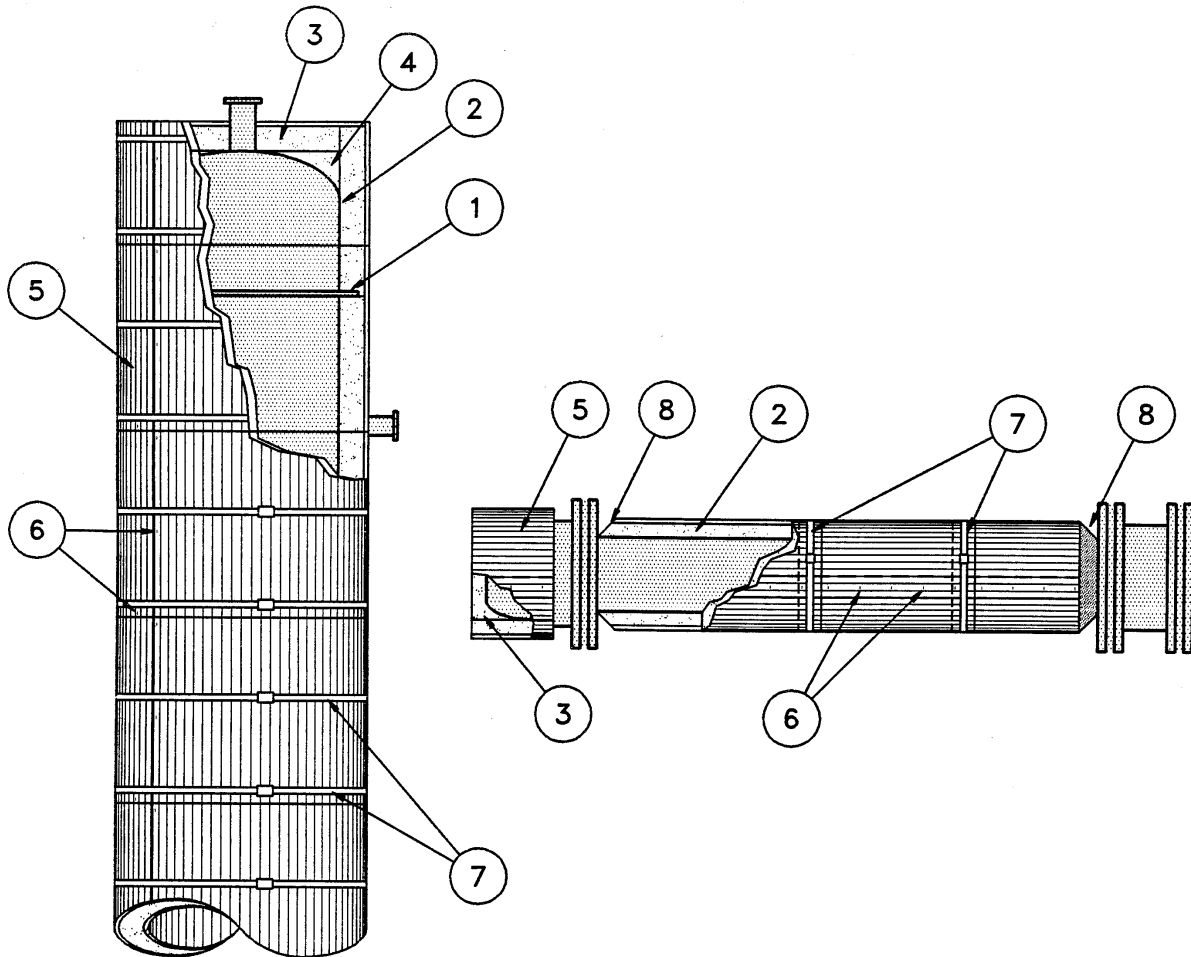
EXTREME TEMPERATURE VESSELS BLOCK INSULATION



- 1 FLEXIBLE INSULATION
- 2 INSULATION - JOINTS STAGGERED
- 3 FINISH JACKET (METAL SHOWN)
- 4 BANDING
- 5 INSULATION ATTACHMENT FOR HEAD
- 6 FABRICATED HEAD COVER
- 7 CLOSED CELL INSULATION FOR FIRST 300mm



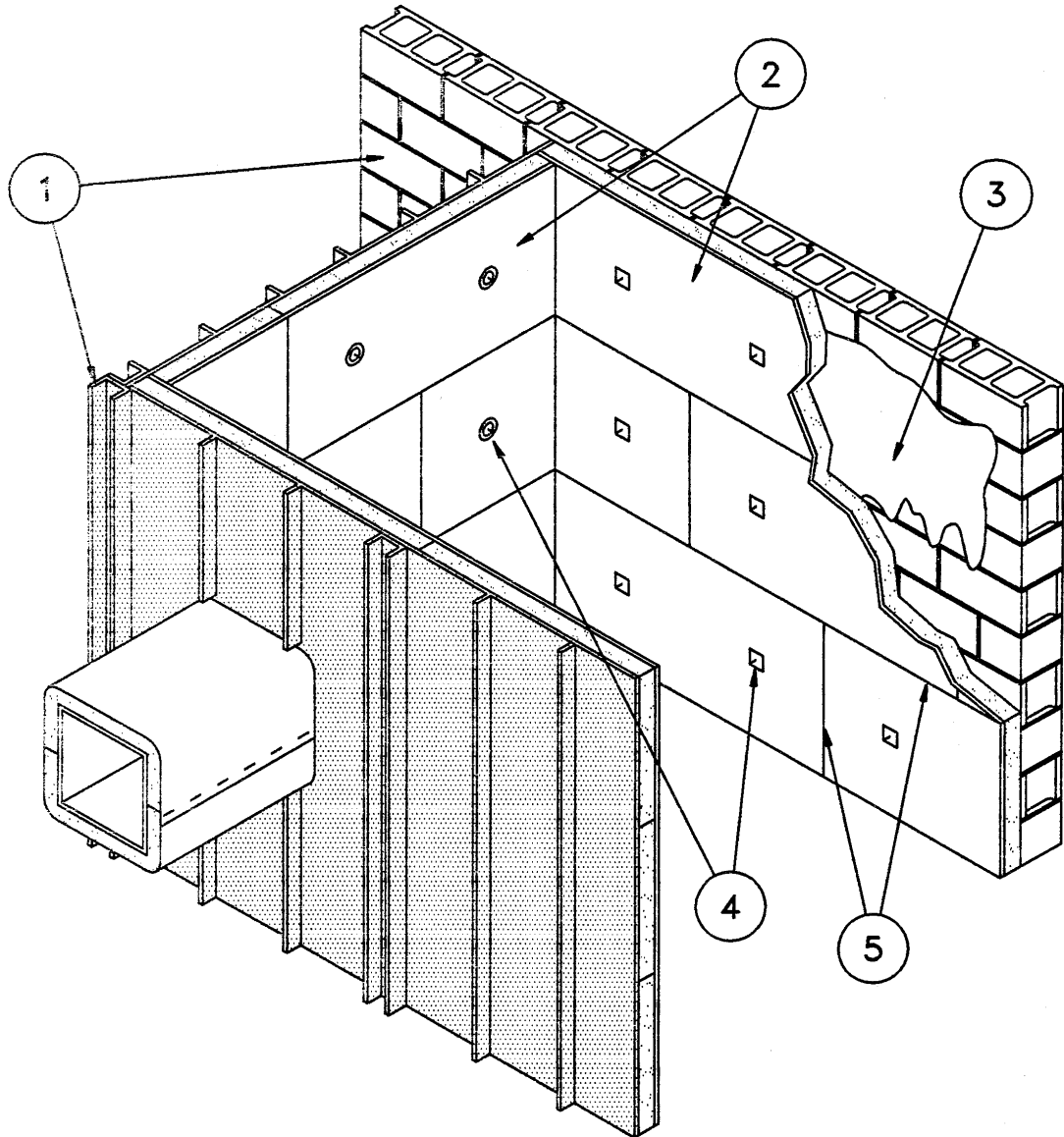
SMALL DIAMETER VESSELS / EXHAUST PIPE COVERING



- 1 INSULATION SUPPORT RING (BY OTHERS)
- 2 PIPE INSULATION SECURED WITH BANDS OR WIRE
- 3 RIGID INSULATION CUT TO FIT
- 4 FLEXIBLE INSULATION FILLER
- 5 FINISH JACKET (METAL SHOWN)
- 6 SHEET METAL SCREWS OR POP RIVETS
- 7 BANDING AS REQUIRED
- 8 BEVEL INSULATION FOR BOLT REMOVAL AND FINISH WITH COATING



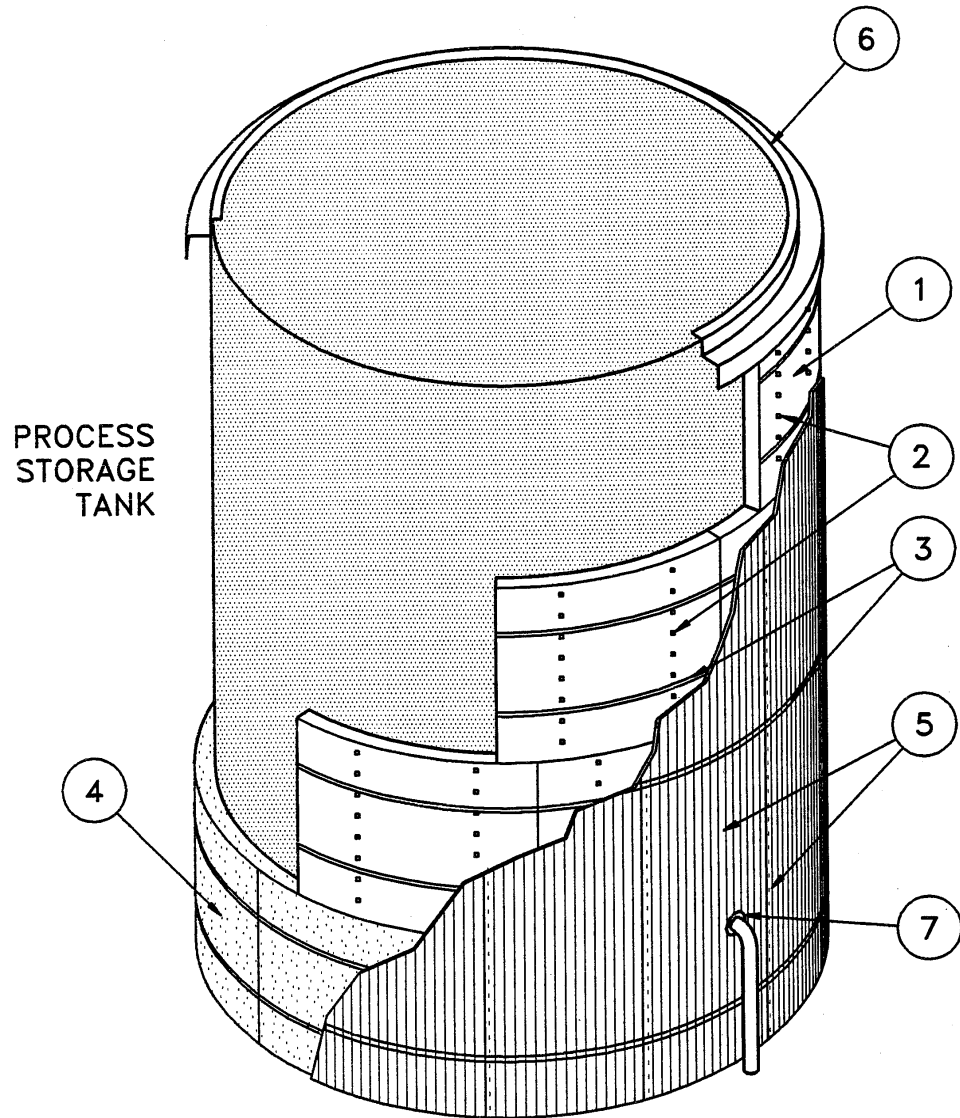
FIELD APPLIED LINING



- 1 HOUSING OR SHAFT
- 2 RIGID DUCT LINER
- 3 ADHESIVE WHERE NECESSARY
- 4 MECHANICAL FASTENERS
- 5 JOINTS SEALED WITH INSULATION COATING EMBEDDED IN REINFORCING MEMBRANE



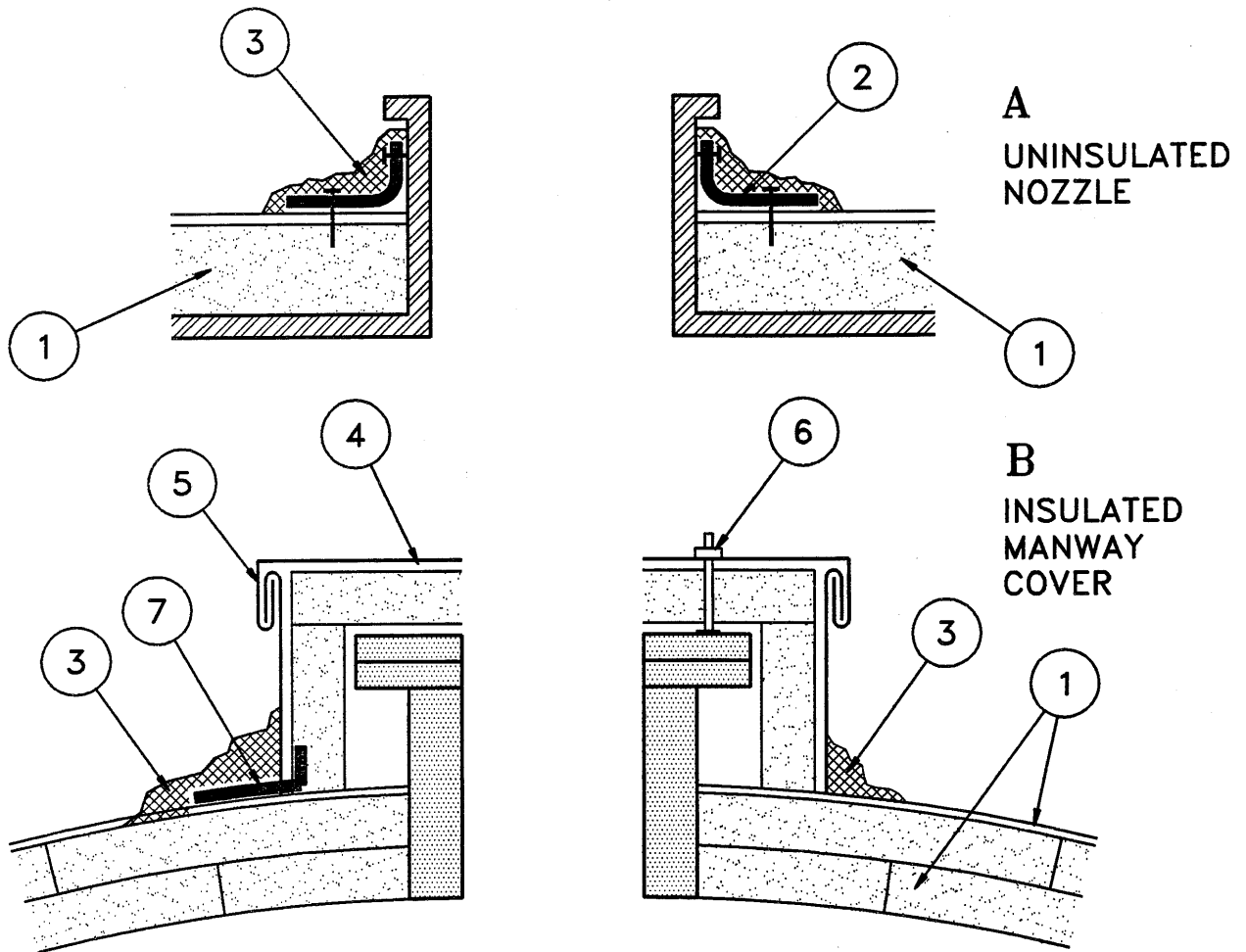
CURVED SURFACES RIGIDBOARD INSULATION



- 1 INSULATION SCORED OR BEVELLED TO FIT CURVATURE
- 2 MECHANICAL FASTENERS
- 3 BANDING
- 4 CELLULAR GLASS INSULATION ON BOTTOM 300mm
- 5 METAL JACKET
- 6 HEAD FLASHING
- 7 CAULKING



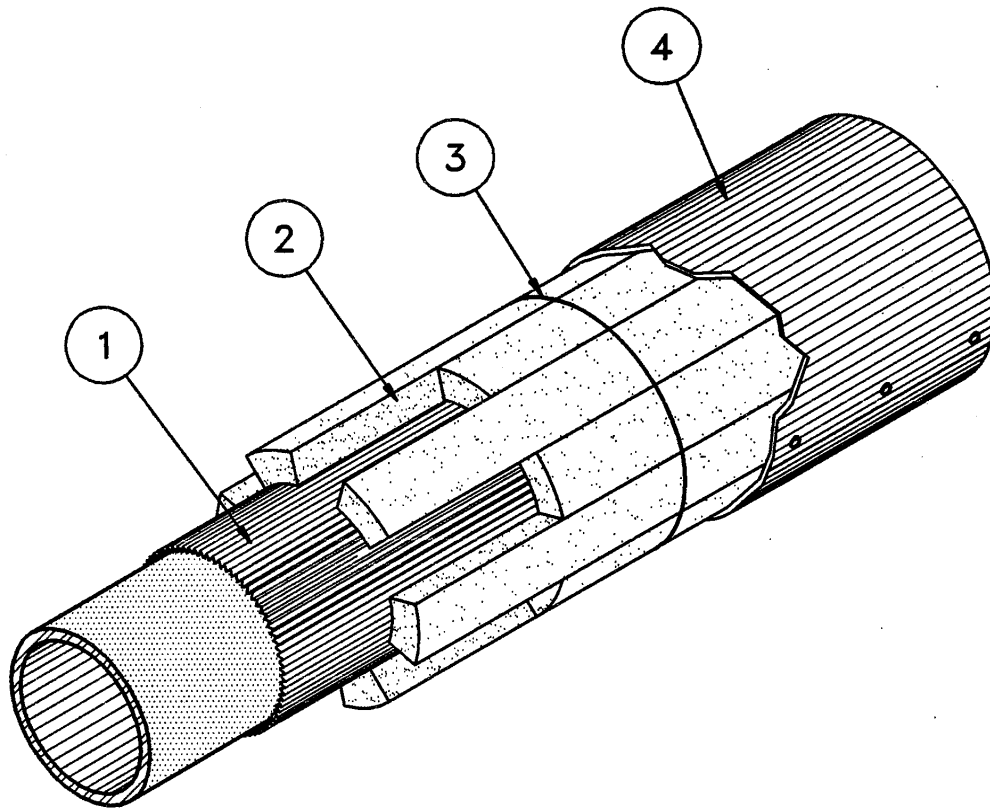
NOZZLES AND INSULATED MANWAYS



- 1 VESSEL INSULATION
- 2 METAL OR REINFORCING MEMBRANE BANDED TO NOZZLE
- 3 WEATHER BARRIER COATING OR CAULKING
- 4 METAL COVER LINED WITH RIGID INSULATION
- 5 METAL SEAM OR END CAP
- 6 MECHANICAL FASTENER AS REQUIRED
- 7 FLASHING



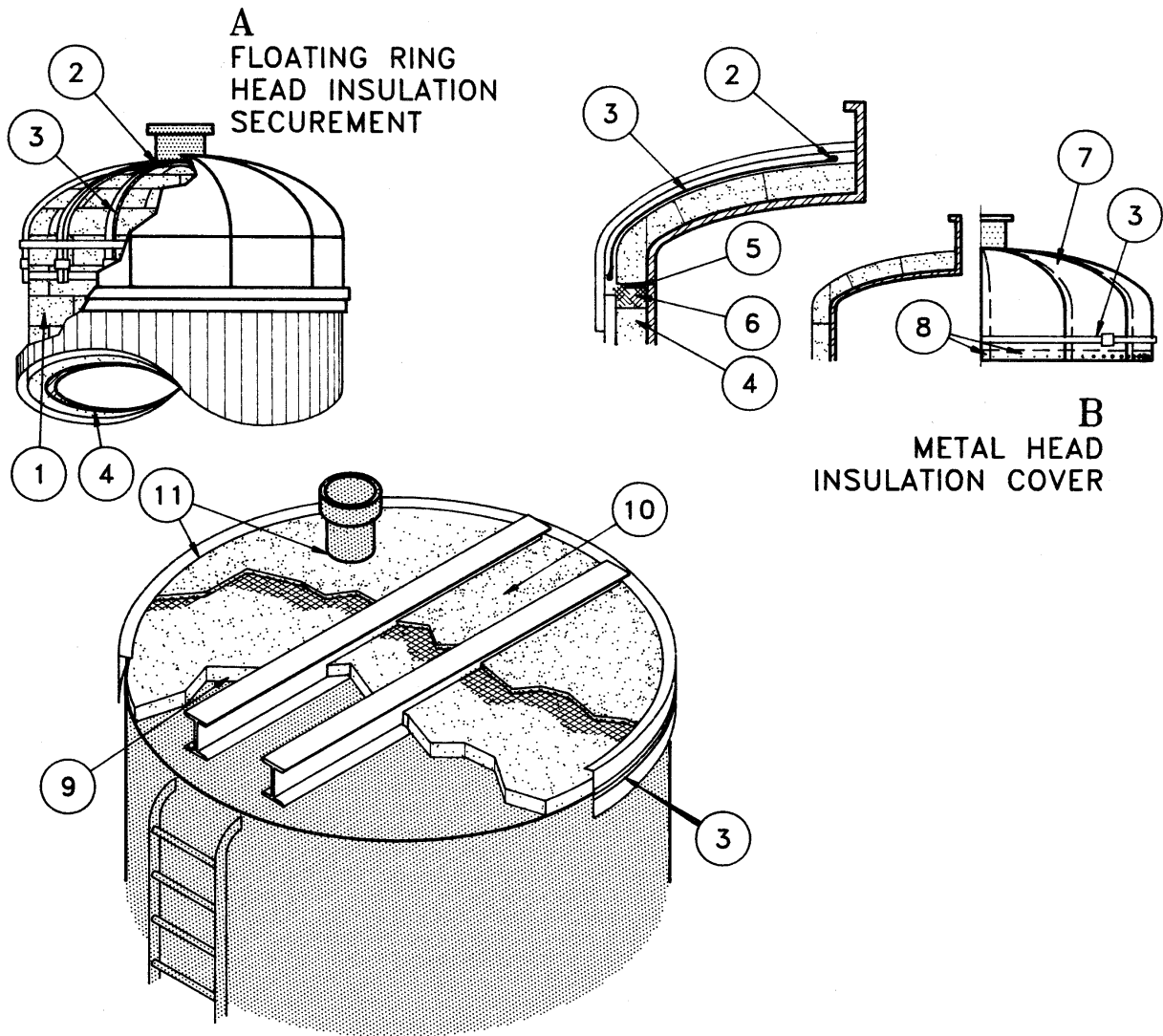
BLOCKS AND PRE-FORMED PIPE INSULATION AROUND BREECHINGS AND EXHAUST DUCTS



- 1 AIR SPACE MATERIAL (BY OTHERS)
- 2 RIGID BLOCK INSULATION
- 3 WIRE OR BANDING
- 4 METAL JACKET FINISH



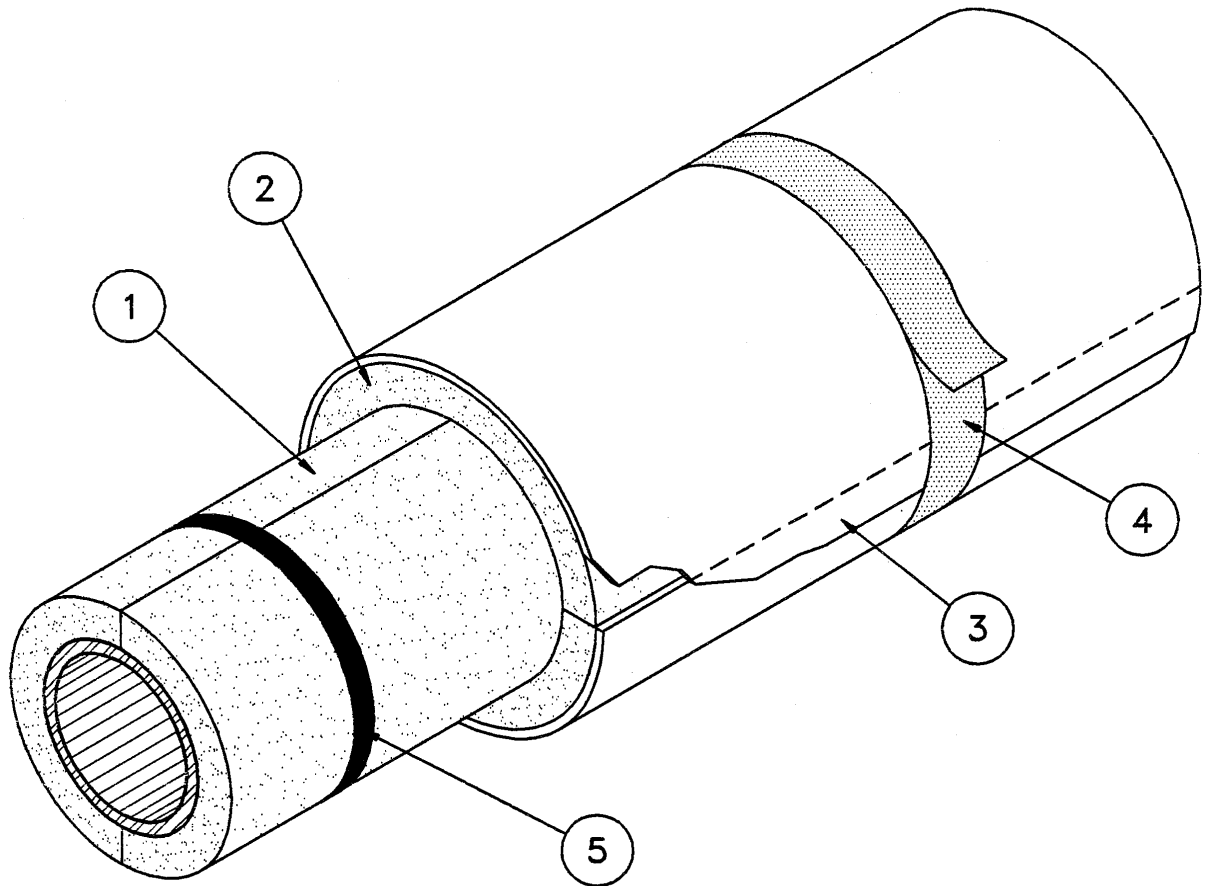
HEAD INSULATION SECUREMENT AND COVER FABRICATION



- | | | | |
|---|---------------------------------|----|---|
| 1 | HEAD INSULATION | 6 | METAL FINISH JACKET |
| 2 | FLOATING RING | 7 | FLEXIBLE INSULATION |
| 3 | BANDING | 8 | SHEET METAL SCREWS |
| 4 | SHELL INSULATION | 9 | HIGH COMPRESSIVE
STRENGTH RIGID INSULATION |
| 5 | HEAD INSULATION
SUPPORT RING | 10 | REINFORCED MASTIC |
| | | 11 | CAULKING / FLASHING |



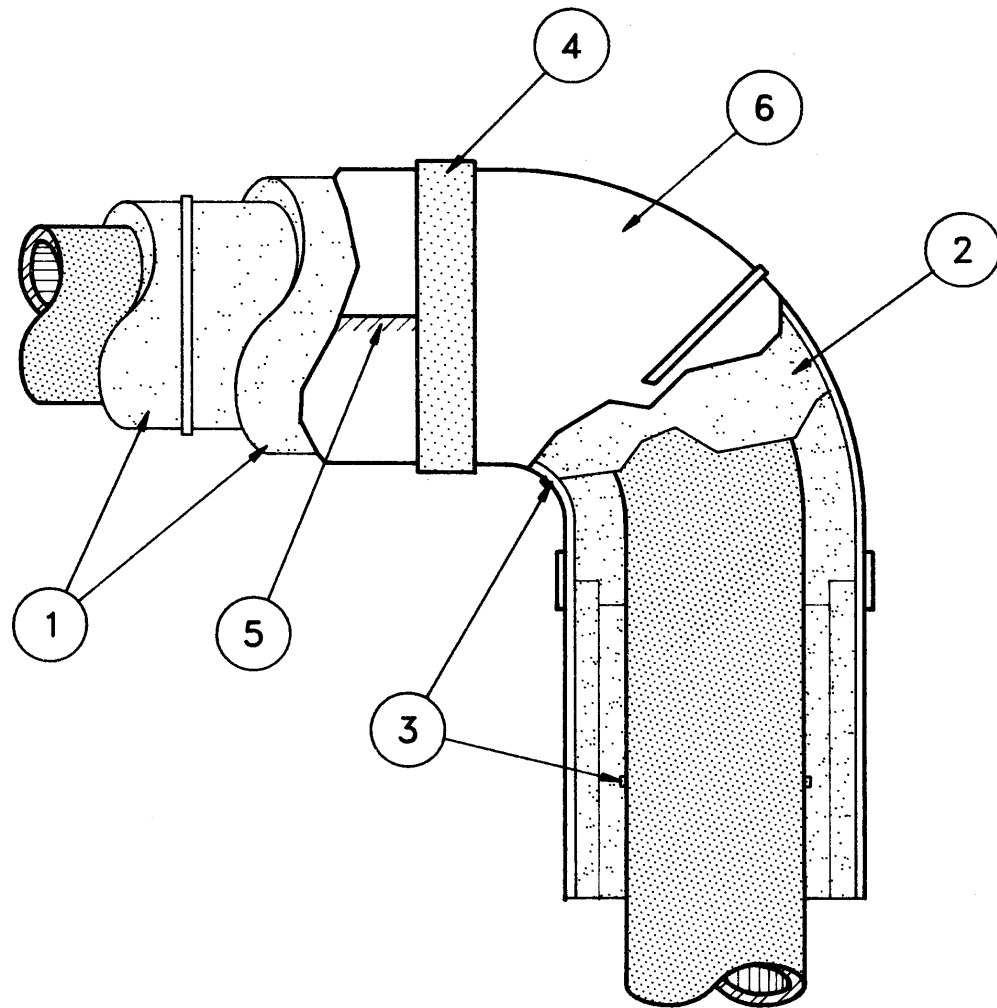
PIPING (0° C THROUGH -40° C)



- 1 INSULATION INNER LAYER
- 2 INSULATION OUTER LAYER WITH JOINTS STAGGERED
- 3 LONGITUDINAL LAP ON VAPOUR BARRIER SEALED
- 4 BUTT JOINT VAPOUR BARRIER SEALED
- 5 BANDING, WIRE OR TAPE AS REQUIRED



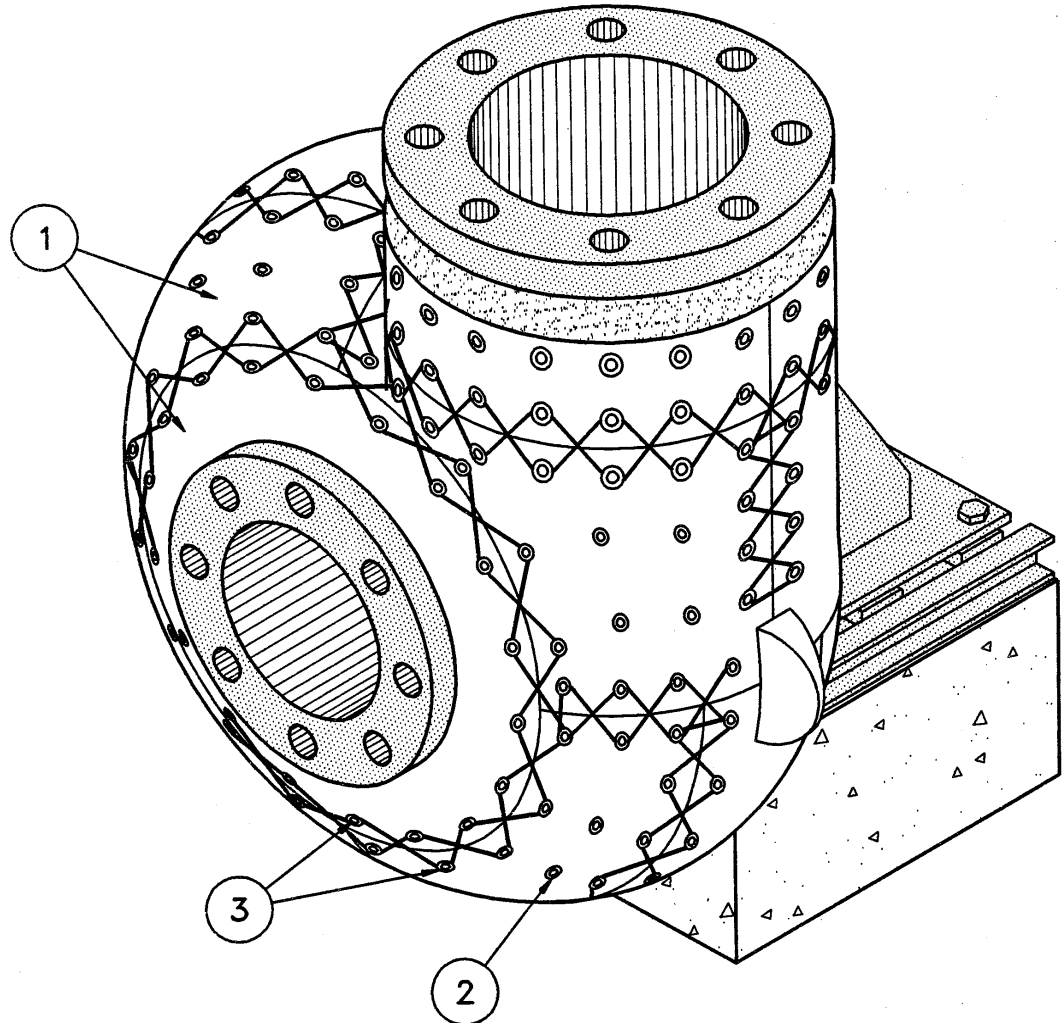
FITTINGS (0° C THROUGH -40° C)



- 1 MULTI-LAYER INSULATION; VAPOUR BARRIER ON OUTER LAYER
- 2 PREFORMED INSULATION COVER
- 3 BANDING, WIRE OR TAPE
- 4 VAPOUR BARRIER TAPE
- 5 LONGITUDINAL LAP ON VAPOUR BARRIER SEALED
- 6 PREFORMED FITTING COVER



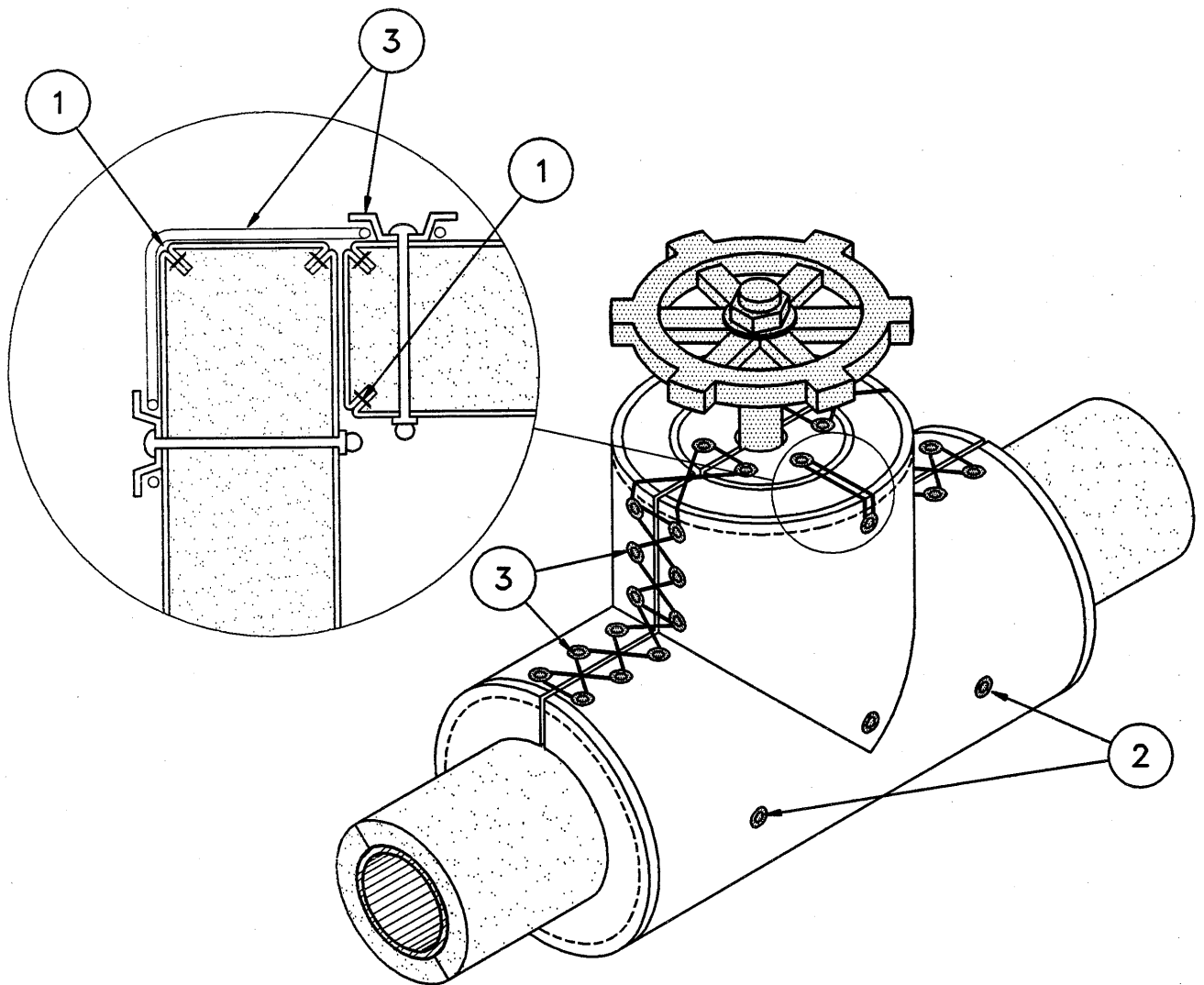
FLEXIBLE INSULATION BLANKETS



- 1 SHAPED INSULATION BLANKET
- 2 QUILTER WASHER
- 3 LACING HOOKS AND WIRE



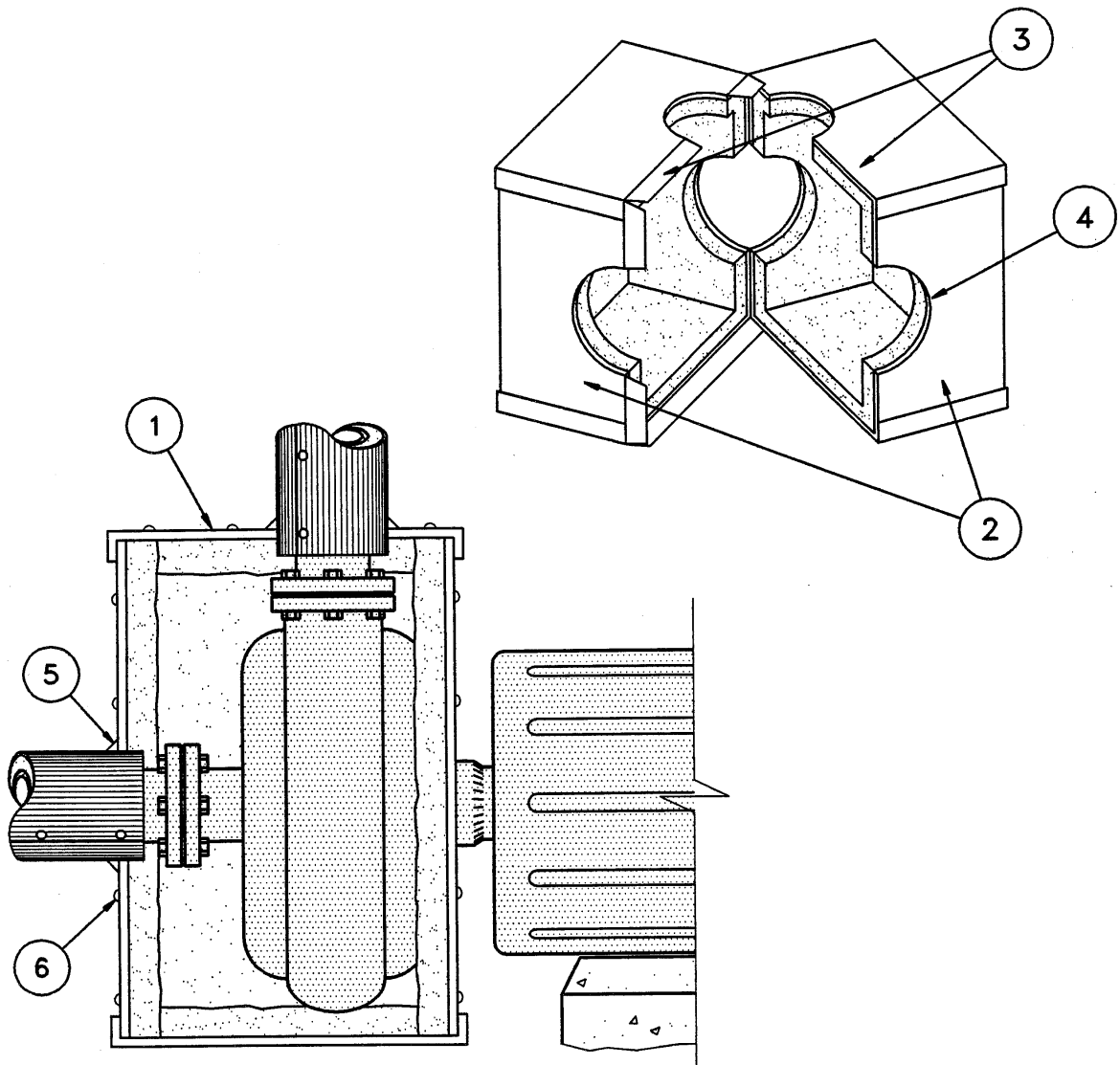
REMOVABLE AND REUSABLE INSULATION



- 1 SEAMS STITCHED
- 2 QUILTING WASHERS
- 3 LACING HOOKS AND WIRE



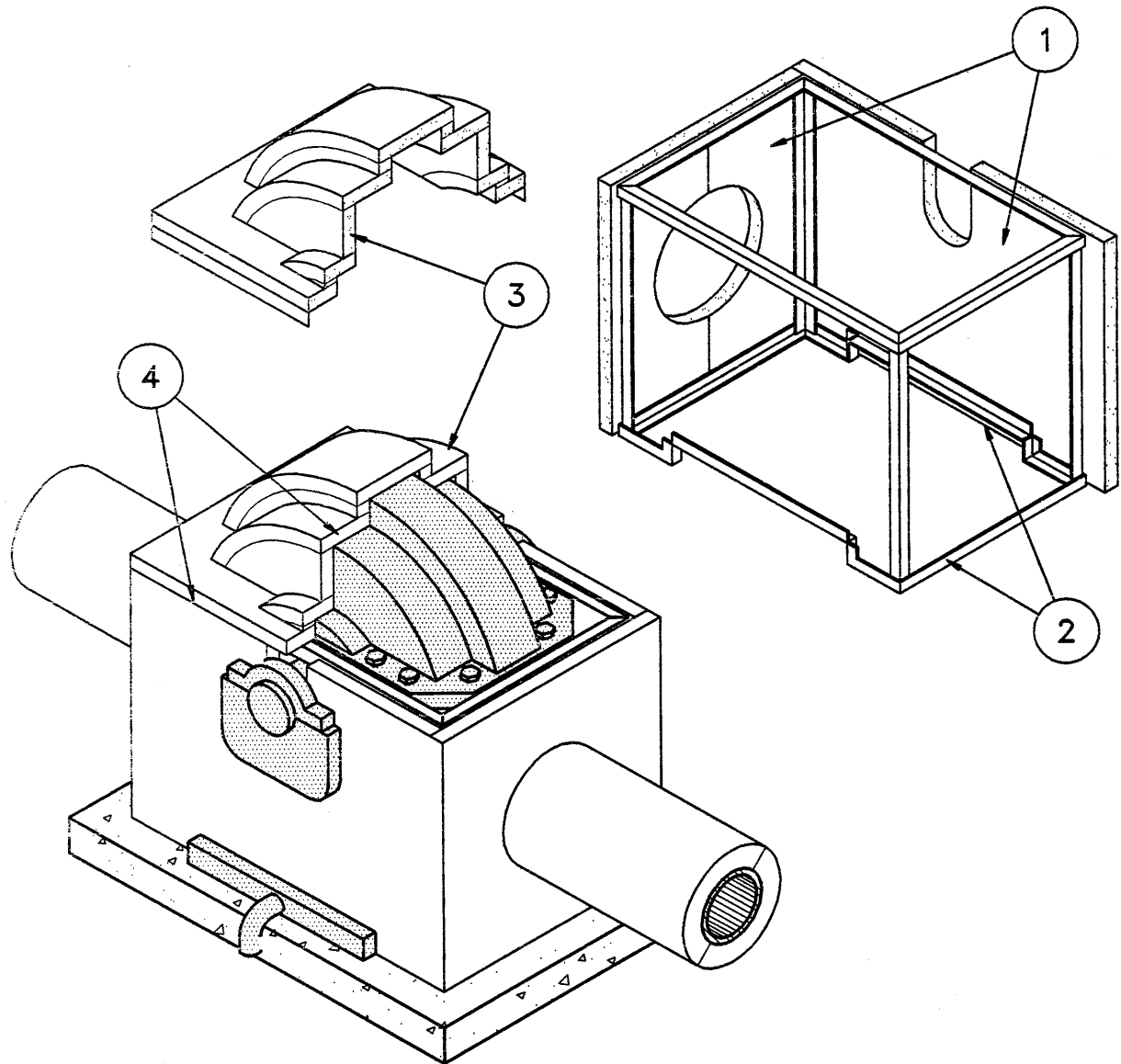
REMOVABLE INSULATED METAL EQUIPMENT COVERS



- 1 METAL CASING LINED WITH INSULATION
- 2 SECTIONS OF THE FABRICATED COVER
- 3 SLIP JOINT OR LAP SEAM WITH SHEET METAL SCREWS, POP RIVETS OR STANDING SEAM
- 4 CUT-OUTS FOR PIPES OR SHAFTS
- 5 CAULKING WHERE REQUIRED
- 6 SHEET METAL SCREWS OR POP RIVETS



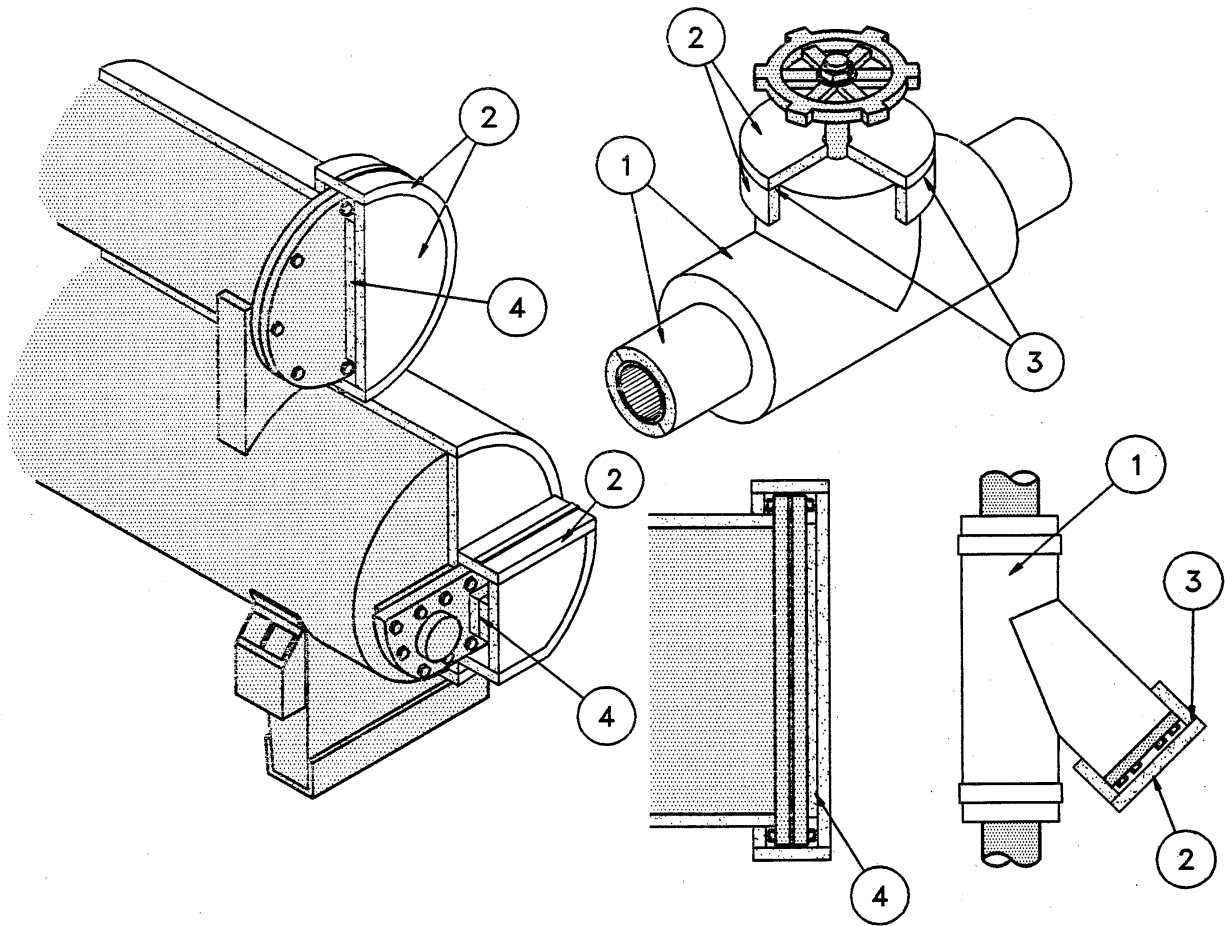
REMOVABLE AND REUSABLE INSULATION



- 1 FLEXIBLE CLOSED CELL INSULATION
- 2 METAL FRAME
- 3 REMOVABLE TOP - FORM FITTED
- 4 ADHESIVE



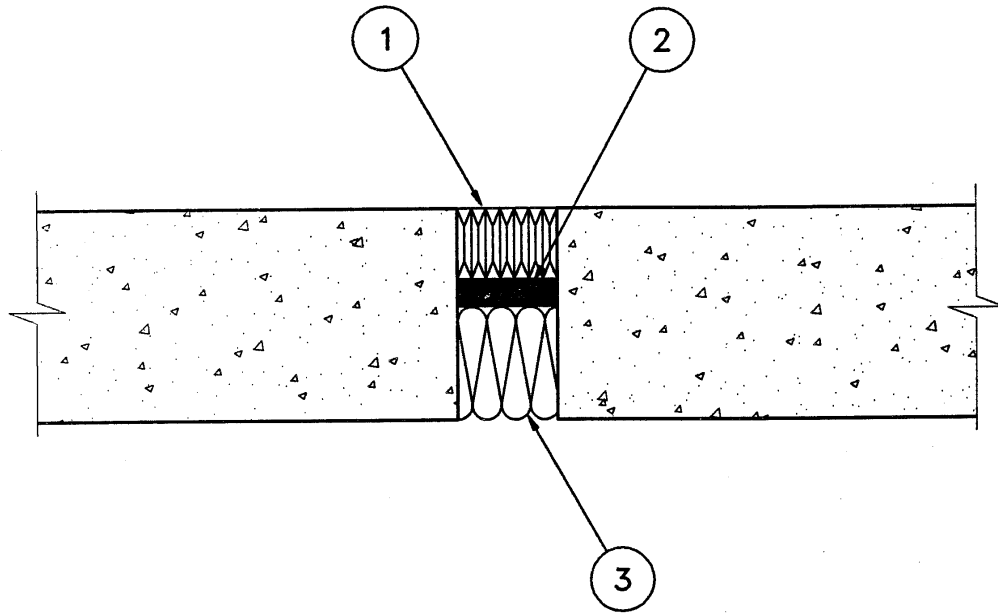
ELASTOMERIC REMOVABLE COVERS



- 1 PERMANENT INSULATION
- 2 COVERS FROM FLEXIBLE CLOSED CELL INSULATION
- 3 ADHESIVE
- 4 THICKNESS OF INSULATION FILLER EQUAL TO BOLT HEAD SIZE



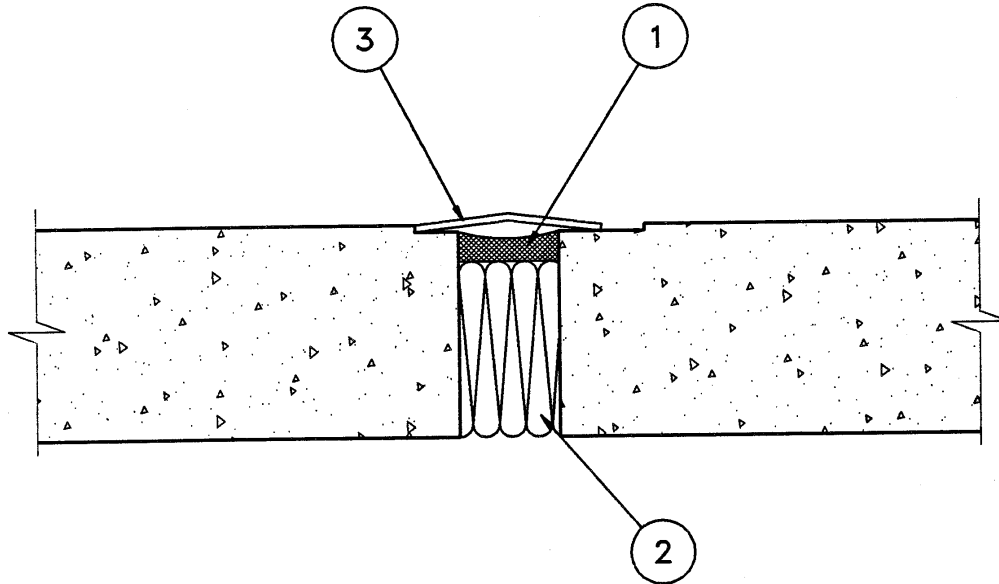
TYPICAL FIRE STOP COMPONENTS FOR FLOOR EXPANSION JOINT



- 1 COMPRESSION SEAL
- 2 ULC APPROVED FIRE STOP SEALANT
- 3 COMPRESSABLE FIRE STOP (MINERAL WOOL)



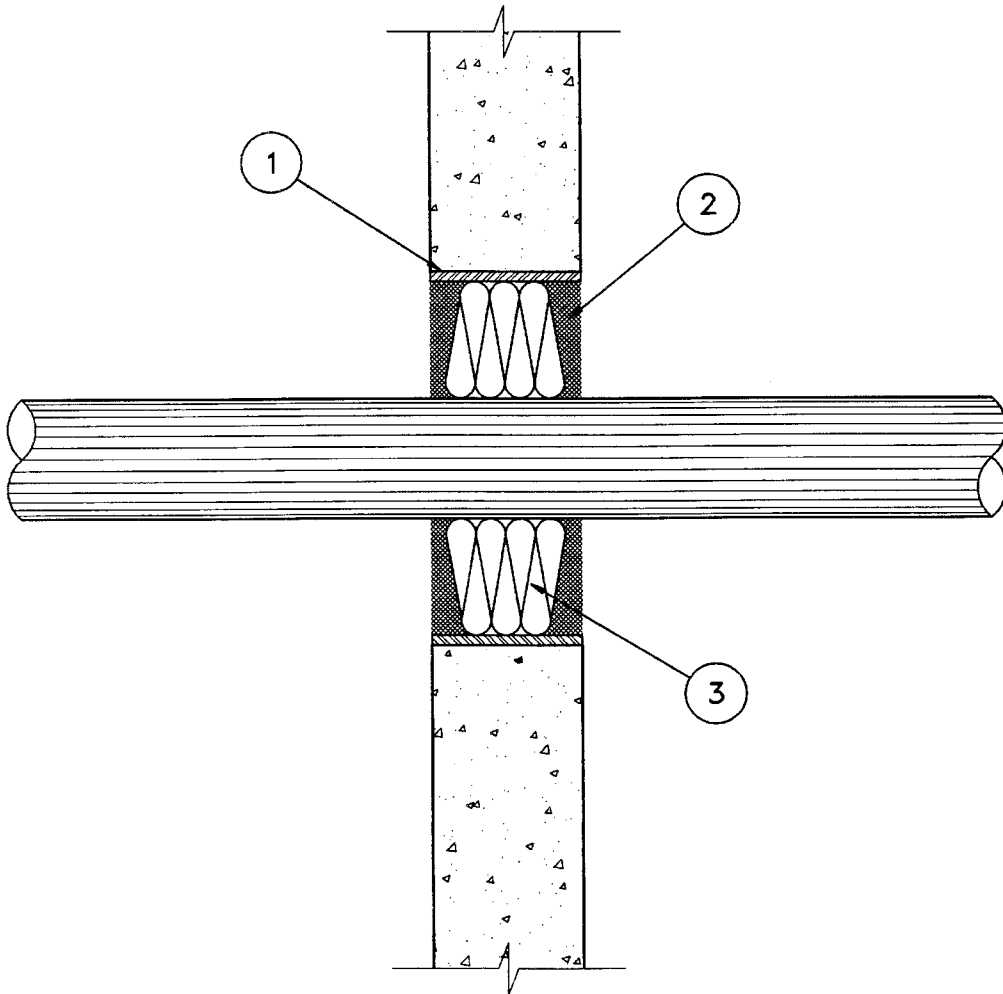
TYPICAL FIRE STOP COMPONENTS FOR FLOOR EXPANSION JOINT



- 1 ULC APPROVED FIRE STOP SEALANT
- 2 COMPRESSABLE FIRE STOP (MINERAL WOOL)
- 3 JOINT COVER (GALVANIZED STEEL)



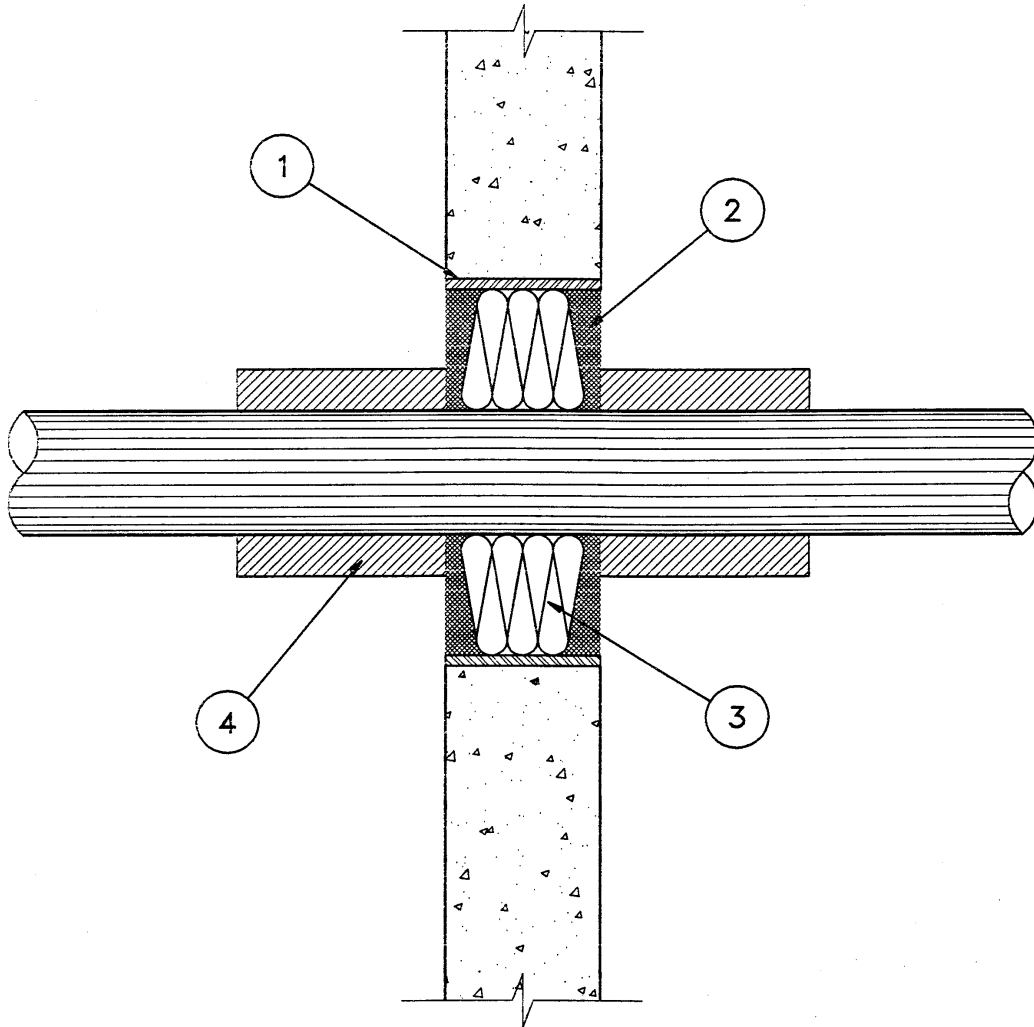
TYPICAL FIRE STOP FOR WALL PENETRATIONS



- 1 STEEL SLEEVE (OPTIONAL)
- 2 ULC APPROVED FIRE STOP SEALANT
- 3 COMPRESSIBLE FIRE STOP (MINERAL WOOL)



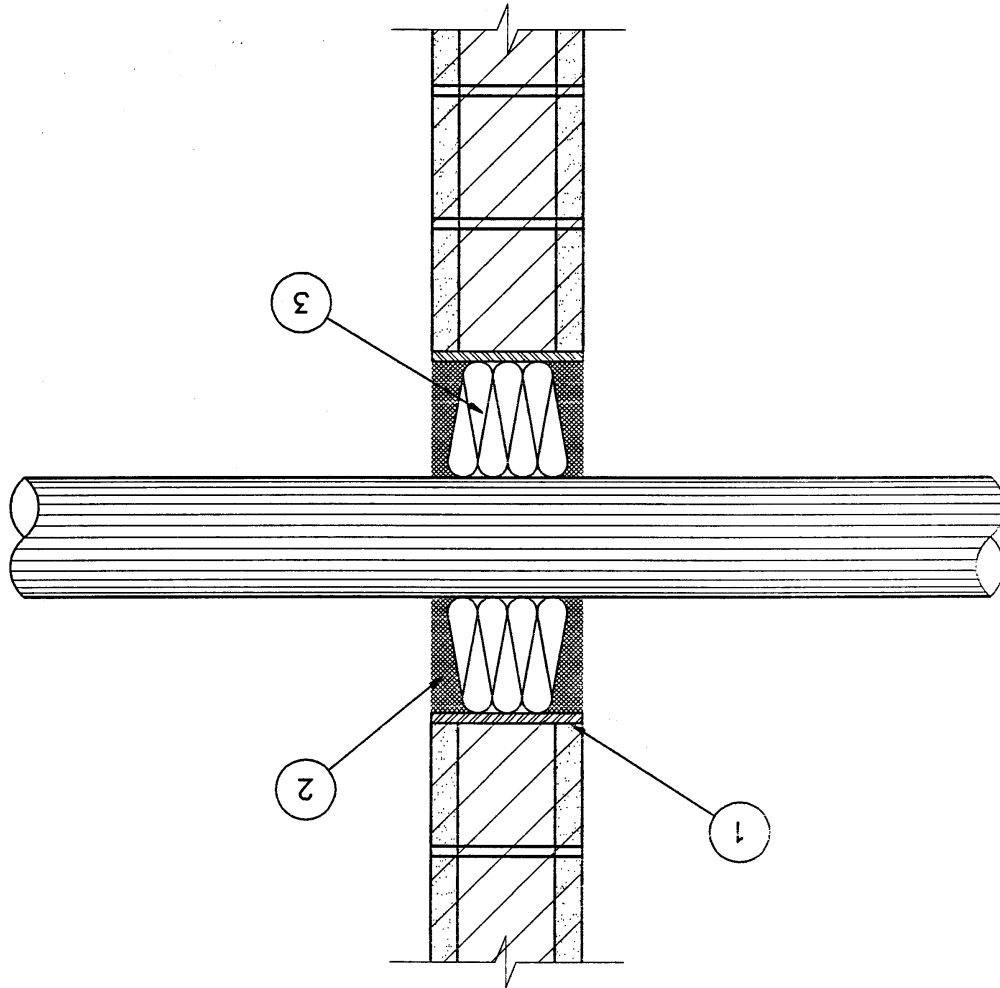
TYPICAL FIRE STOP FOR WALL PENETRATIONS



- 1 STEEL SLEEVE (OPTIONAL)
- 2 ULC APPROVED FIRE STOP SEALANT
- 3 COMPRESSIBLE FIRE STOP (MINERAL WOOL)
- 4 PIPE INSULATION (INSTALLED AFTER FIRE STOP)



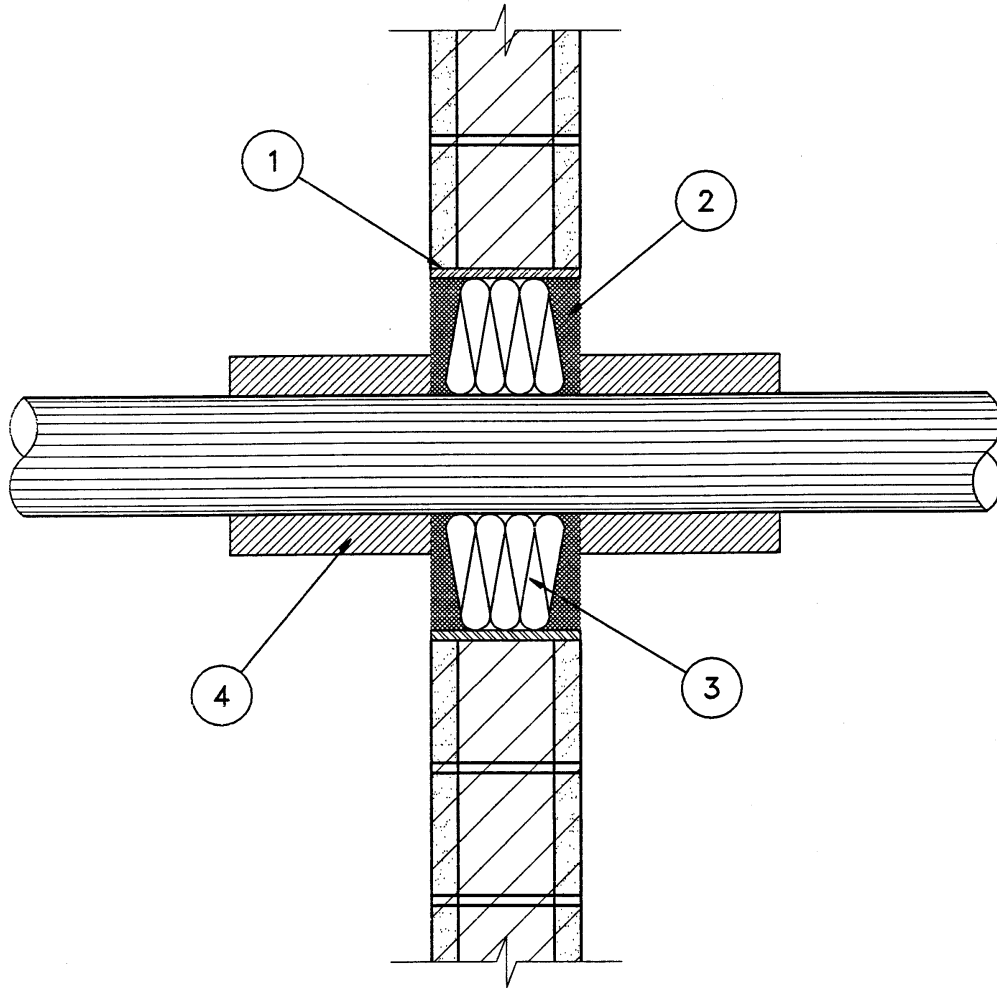
TYPICAL FIRE STOP FOR WALL PENETRATIONS



- 1 STEEL SLEEVE
- 2 ULC APPROVED FIRE STOP SEALANT
- 3 COMPRESSIBLE FIRE STOP (MINERAL WOOL)



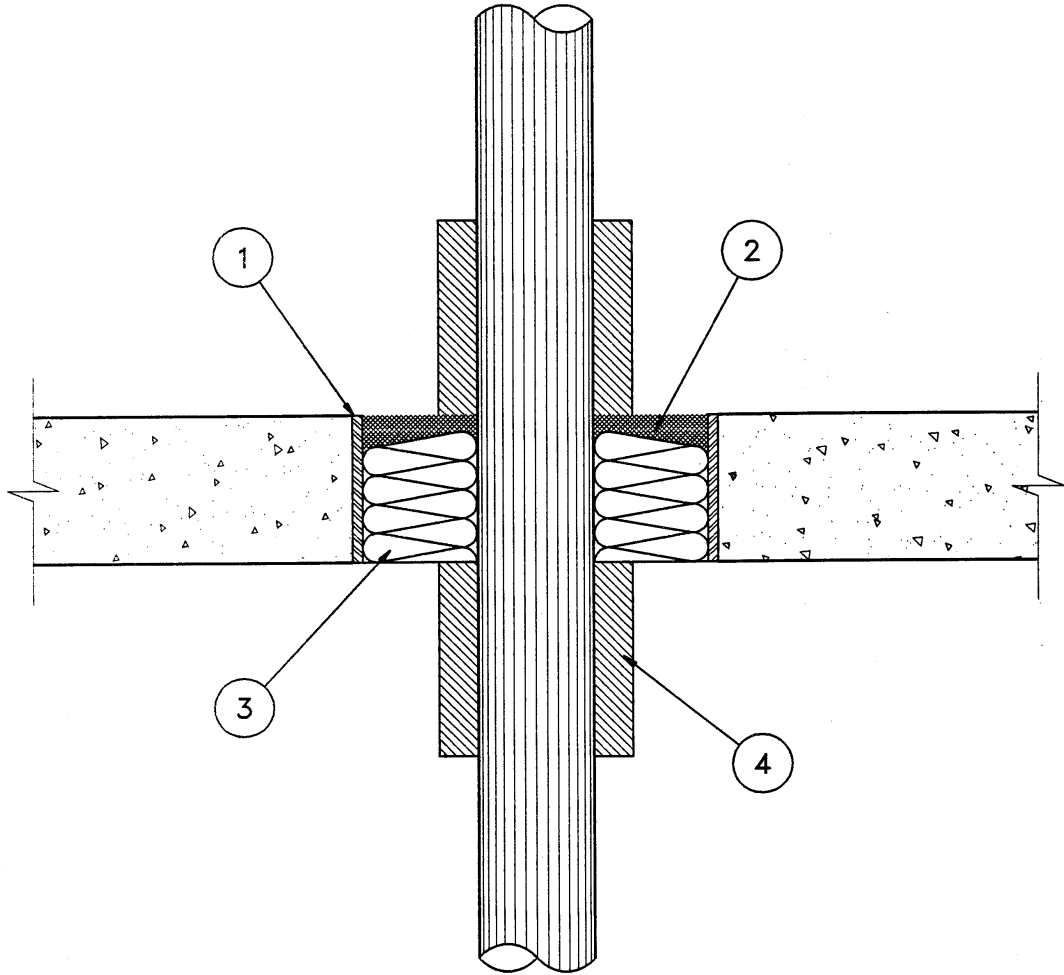
TYPICAL FIRE STOP FOR WALL PENETRATIONS



- 1 STEEL SLEEVE
- 2 ULC APPROVED FIRE STOP SEALANT
- 3 COMPRESSIBLE FIRE STOP (MINERAL WOOL)
- 4 PIPE INSULATION (INSTALLED AFTER FIRE STOP)



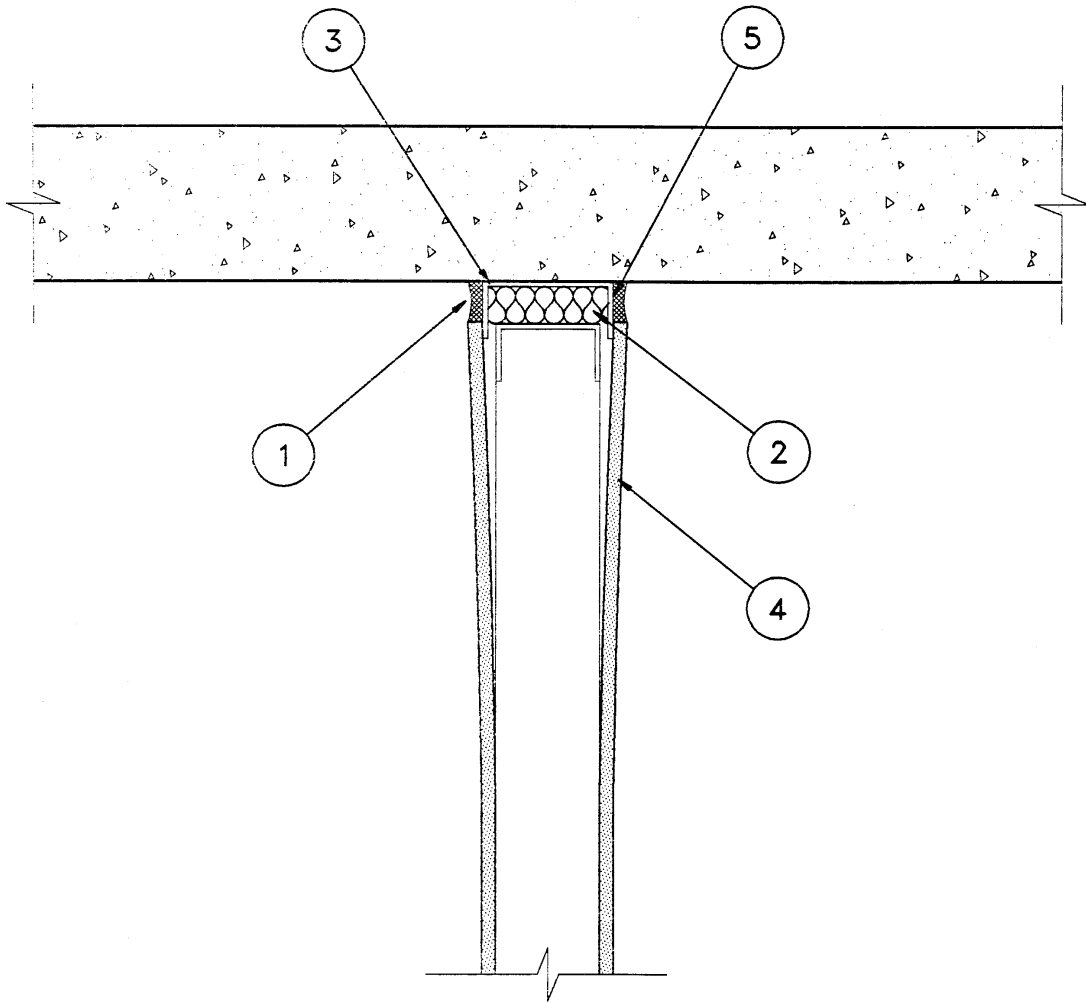
TYPICAL FIRE STOP FOR WALL PENETRATIONS



- 1 STEEL SLEEVE (OPTIONAL)
- 2 ULC APPROVED FIRE STOP SEALANT
- 3 COMPRESSIBLE FIRE STOP (MINERAL WOOL)
- 4 PIPE INSULATION (INSTALLED AFTER FIRE STOP)



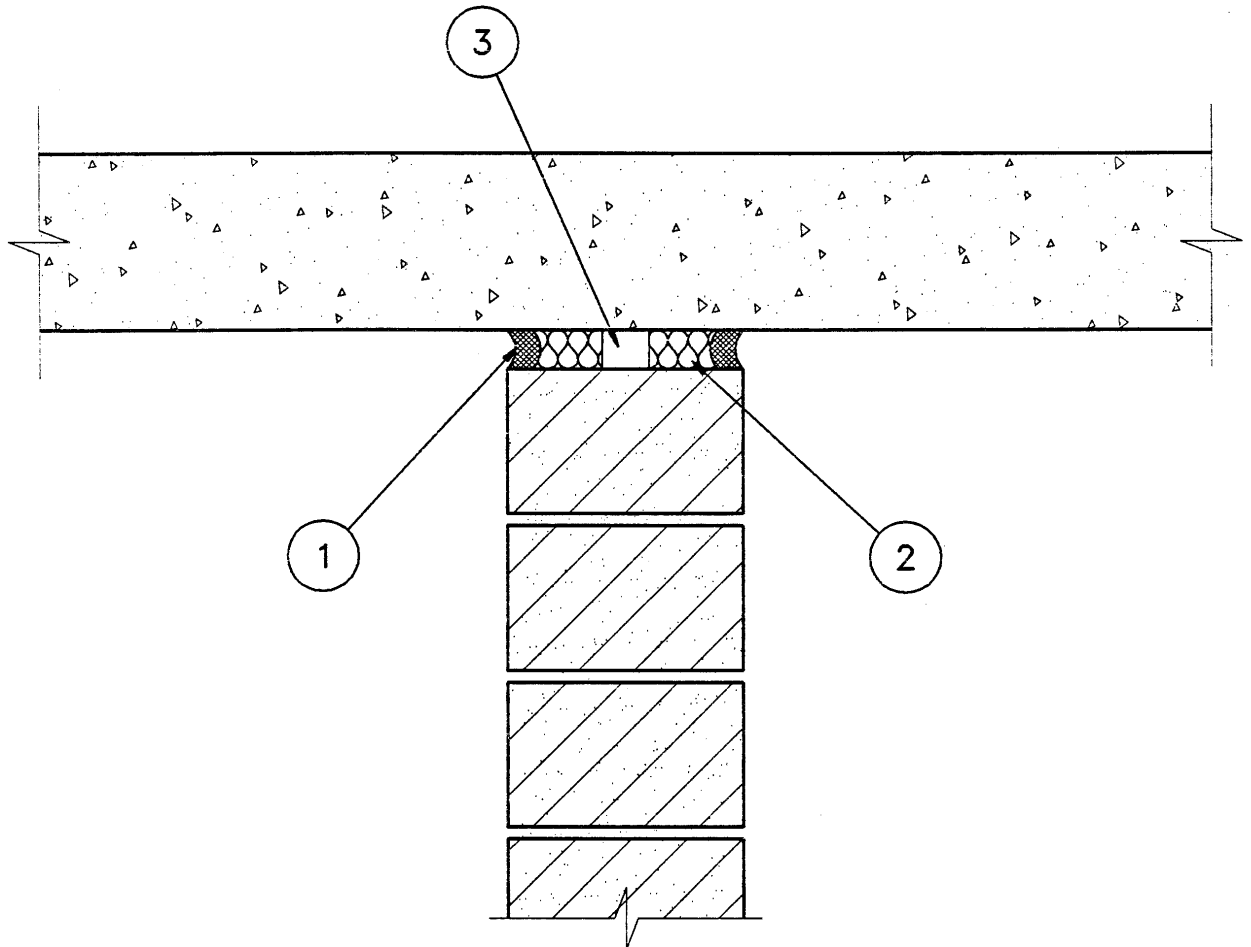
TYPICAL FIRE STOP FOR DEFLECTION OF METAL STUD WALLS



- 1 ULC APPROVED FIRE STOP SEALANT
- 2 COMPRESSIBLE FIRE STOP (MINERAL WOOL)
- 3 METAL CHANNEL SIZED TO SUIT ALLOWANCE FOR DEFLECTION & SIZE OF STUDS
- 4 GYPSUM BOARD FIXED TO STUD AND FREE TO SLIDE
- 5 TAPE BREAKER



TYPICAL FIRE STOP COMPONENTS FOR THE TOP OF THE MASONRY WALL



- 1 ULC APPROVED FIRE STOP SEALANT
- 2 COMPRESSIBLE FIRE STOP (MINERAL WOOL)
- 3 AIR SPACE

