Summary

According to a first aspect of the present invention, there is provided a cover positionable surrounding an assembly joining pipe elements, said cover comprising:

a first cover portion defining a first recess for receiving said assembly, said first cover portion having a first sidewall defining a first channel and a second sidewall defining a second channel, said first and second channels being in communication with said first recess, said first and second channels for receiving said pipe elements;

a second cover portion defining a second recess for receiving said assembly, said second cover portion having a third sidewall defining a third channel and a fourth sidewall defining a fourth channel, said third and fourth channels being in communication with said second recess, said third and fourth channels for receiving said pipe elements;

a first perimeter face positioned on said first cover portion, said first perimeter face surrounding said first recess and said first and second channels;

a second perimeter face positioned on said second cover portion, said second perimeter face surrounding said second recess and said third and fourth channels, said second perimeter face being engageable with said first perimeter face for joining said first and said second cover portions to one another surrounding said assembly;

a first canal positioned in said first sidewall transversely to said first channel;

a second canal position in said second sidewall transversely to said second channel;

a third canal positioned in said third sidewall transversely to said third channel; and

a fourth canal positioned in said fourth sidewall transversely to said fourth channel,

wherein:

at least a first portion of said first perimeter face comprises a groove extending therealong;

at least a first portion of said second perimeter face comprises a tongue extending therefrom, said tongue of said first portion of said second perimeter face being received within said groove of said first portion of said first perimeter face when said first and second cover portions are joined to one another,

said tongue of said first portion of said second perimeter face comprises a surface oriented angularly with respect to said first perimeter face and thereby defining a furrow between said first and second cover portions, and

the cover further comprises a seal positioned within said canals and within said furrow, said seal completely surrounding said first and second recesses.

The invention concerns a cover positionable surrounding an assembly joining pipe elements. In one example embodiment the cover comprises a first cover portion defining a first recess for receiving the assembly. The first cover portion has a first sidewall defining a first channel and a second sidewall defining a second channel. The first and second channels are in communication with the first recess. The first and second channels receive the pipe elements. A second cover portion defines a second recess for receiving the assembly. The second cover portion has a third sidewall defining a third channel and a fourth sidewall defining a fourth channel. The third and fourth channels are in communication with the second recess. The third and fourth channels also receive the pipe

elements. A first perimeter face is positioned on the first cover portion. The first perimeter face surrounds the first recess and the first and second channels. A second perimeter face is positioned on the second cover portion. The second perimeter face surrounds the second recess and the third and fourth channels. The second perimeter face is engageable with the first perimeter face for joining the first and the second cover portions to one another surrounding the assembly. A first canal is positioned in the first sidewall transversely to the first channel. A second canal is position in the second sidewall transversely to the second channel. A third canal is positioned in the third sidewall transversely to the third channel. A fourth canal is positioned in the fourth sidewall transversely to the fourth channel.

By way of example, at least a first portion of the first perimeter face comprises a groove extending therealong. At least a first portion of the second perimeter face comprises a tongue extending therefrom. The tongue of the first portion of the second perimeter face is received within the groove of the first portion of the first perimeter face when the first and second cover portions are joined to one another. In an example embodiment the groove of the first portion of the first perimeter face is in fluid communication with the first and the third canals when the first and second cover portions are joined to one another. Further by way of example, at least a second portion of the first perimeter face comprises a tongue

What is claimed is:

1. A cover positionable surrounding an assembly joining pipe elements, said cover comprising:

a first cover portion defining a first recess for receiving said assembly, said first cover portion having a first sidewall defining a first channel and a second sidewall defining a second channel, said first and second channels being in communication with said first recess, said first and second channels for receiving said pipe elements;

a second cover portion defining a second recess for receiving said assembly, said second cover portion having a third sidewall defining a third channel and a fourth sidewall defining a fourth channel, said third and fourth channels being in communication with said second recess, said third and fourth channels for receiving said pipe elements;

a first perimeter face positioned on said first cover portion, said first perimeter face surrounding said first recess and said first and second channels;

a second perimeter face positioned on said second cover portion, said second perimeter face surrounding said second recess and said third and fourth channels, said second perimeter face being engageable with said first perimeter face for joining said first and said second cover portions to one another surrounding said assembly;

a first canal positioned in said first sidewall transversely to said first channel;

a second canal position in said second sidewall transversely to said second channel;

a third canal positioned in said third sidewall transversely to said third channel; and

a fourth canal positioned in said fourth sidewall transversely to said fourth channel~~.~~,

wherein:

at least a first portion of said first perimeter face comprises a groove extending therealong;

at least a first portion of said second perimeter face comprises a tongue extending therefrom, said tongue of said first portion of said second perimeter face being received within said groove of said first portion of said first perimeter face when said first and second cover portions are joined to one another,

said tongue of said first portion of said second perimeter face comprises a surface oriented angularly with respect to said first perimeter face and thereby defining a furrow between said first and second cover portions, and

the cover further comprises a seal positioned within said canals and within said furrow, said seal completely surrounding said first and second recesses.

~~2. The cover according to claim 1, wherein:~~

~~at least a first portion of said first perimeter face comprises a groove extending therealong;~~

~~at least a first portion of said second perimeter face comprises a tongue extending therefrom, said tongue of said first portion of said second perimeter face being received within said groove of said first portion of said first perimeter face when said first and second cover portions are joined to one another.~~

~~3~~2. The cover according to claim ~~2~~1, wherein said groove of said first portion of said first perimeter face is in fluid communication with said first and said third canals when said first and second cover portions are joined to one another.

~~4~~3. The cover according to claim ~~2~~1, wherein:

at least a second portion of said first perimeter face comprises a tongue extending therefrom;

at least a second portion of said second perimeter face comprises a groove extending therealong, said tongue of said second portion of said first perimeter face being received within said groove of said second portion of said second perimeter face when said first and second cover portions are joined to one another.

~~5~~4. The cover according to claim ~~4~~3, wherein said groove of said second portion of said second perimeter face is in fluid communication with said second and said fourth canals when said first and second cover portions are joined to one another.

~~6~~5. The cover according to claim ~~4~~3, wherein said groove in said first portion of said first perimeter face is in fluid communication with said groove in said second portion of said second perimeter face when said first and second cover portions are joined to one another.

~~7. The cover according to claim 2, wherein said tongue of said first portion of said first perimeter face comprises a surface oriented angularly with respect to said second perimeter face and thereby defining a furrow between said first and second cover portions.~~

~~8~~6. The cover according to claim 3, wherein said tongue of said second portion of said ~~second~~ first perimeter face comprises a surface oriented angularly

with respect to said ~~first~~ second perimeter face and thereby defining a furrow between said first and second cover portions.

~~9~~7. The cover according to claim 1, wherein:

said first perimeter face comprises first and second alignment cutouts;

said second perimeter face comprises first and second alignment blocks, said first and second alignment cutouts having a complementary shape to said first and second alignment blocks so that said first and second alignment blocks interlock with said first and second alignment cutouts when said first and second cover portions are joined to one another.

~~10~~8. The cover according to claim ~~9~~7, wherein:

said first perimeter face comprises third and fourth alignment blocks;

said second perimeter face comprises third and fourth alignment cutouts, said third and fourth alignment cutouts having a complementary shape to said third and fourth alignment blocks so that said third and fourth alignment blocks interlock with said third and fourth alignment cutouts when said first and second cover portions are joined to one another.

~~11~~9. The cover according to claim ~~10~~8, wherein said alignment blocks ~~are~~ and said alignment cutouts are step-shaped.

~~12. The cover according to claim 7, further comprising a seal positioned within said canals and within said furrow, said seal completely surrounding said first and second recesses.~~

~~13~~10. The cover according to claim ~~12~~1, further comprising an opening in said first and second cover portions, said opening being located along said first and second perimeter faces, a fifth canal on said first cover portion extending

along said opening and a sixth canal extending along said second cover portion, said canals being in fluid communication with said furrow and receiving said seal.

~~14~~11. The cover according to claim ~~12~~1, wherein said seal is selected from the group consisting essentially of a continuous gasket, an extruded caulk, a rope caulk, and combinations thereof.

~~15~~12. The cover according to claim 1, wherein said first and second cover portions comprise a foam layer.

~~16~~13. The cover according to claim ~~15~~12, wherein said foam layer has an insulation value of at least R=5 per inch of thickness.

~~17~~14. The cover according to claim ~~15~~12, wherein said foam layer comprises polyisocyanurate.

~~18~~15. The cover according to claim ~~15~~12, further comprising a coating of polyvinyldiene chloride on said foam layer.

~~19~~16. The cover according to claim ~~15~~12, further comprising an exterior coating surrounding said foam layer.

~~20~~17. The cover according to claim ~~19~~16, wherein said exterior coating is selected from the group consisting essentially of polyurea, polyvinylchloride, polyvinyldiene chloride and combinations thereof.

~~21~~18. The cover according to claim ~~19~~16, wherein said foam layer and said exterior coating achieve a rating of less than 25/50 per ASTM E84 test criterial for flame propagation and smoke.

~~22. A cover positionable surrounding an assembly joining first and second pipe elements to one another, said cover comprising:~~

~~a first cover portion defining a first recess for receiving said assembly, said first cover portion defining first and second channels for receiving~~

said first pipe element, said first and second channels being in communication with said first recess;

a second cover portion defining a second recess for receiving said assembly, said second cover portion defining third and fourth channels for receiving said second pipe element, said third and fourth channels being in communication with said second recess;

said first and second cover portions being joined to one another to surround said assembly and said pipe elements at a seam, said seam comprising a furrow facing outwardly away from said first and second recesses.

23. The cover according to claim 22, wherein said furrow has an asymmetrical cross sectional shape.

24. The cover according to claim 22, further comprising a seal positioned within said furrow.

25. The cover according to claim 22, further comprising:

a first canal positioned within said first channel and in fluid communication with said furrow;

a second canal positioned within said second channel and in fluid communication with said furrow;

a third canal positioned within said third channel and in fluid communication with said furrow; and

a fourth canal positioned within said fourth channel and in fluid communication with said furrow.

26. The cover according to claim 25, wherein each of said canals has an asymmetrical cross section.

~~27. The cover according to claim 25, wherein each of said canals faces outwardly away from said first and second recesses.~~

~~28. The cover according to claim 25, further comprising a seal positioned within said canals and within said furrow, said seal completely surrounding said first and second recesses.~~

~~29. The cover according to claim 28, wherein said seal is selected from the group consisting essentially of a continuous gasket, an extruded caulk, a rope caulk, and combinations thereof.~~

~~30. The cover according to claim 22, wherein said first and second cover portions comprise a foam layer.~~

~~31. The cover according to claim 30, wherein said foam layer has an insulation value of at least R=5 per inch of thickness.~~

~~32. The cover according to claim 30, wherein said foam layer comprises polyisocyanurate.~~

~~33. The cover according to claim 30, further comprising a coating of polyvinyldiene chloride on said foam layer.~~

~~34. The cover according to claim 30, further comprising an exterior coating surrounding said foam layer.~~

~~35. The cover according to claim 34, wherein said exterior coating is selected from the group consisting essentially of polyurea, polyvinylchloride, polyvinyldiene chloride and combinations thereof.~~

~~36. The cover according to claim 34, wherein said foam layer and said exterior coating achieve a rating of less than 25/50 per ASTM E84 test criterial for flame propagation and smoke.~~

~~37. The cover according to claim 24, further comprising an opening in at least one of said cover portions, said opening being located along said seam and interrupting said furrow, a canal extending along said opening, said canal being in fluid communication with said furrow and receiving said seal.~~

~~38. The cover according to claim 24, wherein:~~

~~said first cover portion defines a first opening portion located along said seam;~~

~~said second cover portion defines a second opening portion located along said seam, said first and second opening portions being aligned to form an opening in said cover;~~

~~a first canal surrounding said first opening portion and in fluid communication with said furrow;~~

~~a second canal surrounding said second opening portion and in fluid communication with said furrow; wherein~~

~~said seal is received in said first and second canals.~~

~~39. The cover according to claim 22, wherein at least a portion of said seam is defined by a tongue extending from said first cover portion, said tongue being received within a groove positioned in said second cover portion.~~

~~40. The cover according to claim 39, wherein said furrow is defined by a first surface on one of said first and second cover portions oriented angularly with respect to a second surface on the other of said first and second cover portions, said first and second surfaces being in facing relationship.~~

~~41. The cover according to claim 40, wherein said first surface is positioned on said first cover portion adjacent to said tongue.~~

~~42. The cover according to claim 22, wherein said first and third channels surround a first bore, said second and fourth channels surround a second bore, and wherein said first and second bores are aligned with one another.~~

~~43. The cover according to claim 42 in combination with said assembly and said first and second pipe elements, wherein said assembly comprises a coupling joining said pipe elements in end to end relation.~~

~~44. The cover according to claim 42 in combination with said assembly and said first and second pipe elements, wherein said assembly comprises:~~

~~a valve;~~

~~a first pipe coupling attaching said first pipe elements to said valve;~~

~~a second pipe coupling attaching said second pipe element to said valve.~~

~~45. The cover according to claim 22, wherein said first and third channels surround a first bore, said second and fourth channels surround a second bore, and wherein said first and second bores are not aligned with one another.~~

~~46. In combination, the cover according to claim 45, and said assembly and said first and second pipe elements, wherein said assembly comprises:~~

~~an elbow fitting;~~

~~a first coupling joining said first pipe element to said elbow fitting;~~

~~a second coupling joining said second pipe element to said elbow fitting.~~

~~47. The cover according to claim 42 for further joining said first and second pipe elements to a third pipe element, wherein:~~

~~said first cover portion defines a fifth channel for receiving said third pipe element, said fifth channel being in communication with said first recess;~~

~~said second cover portion defines sixth channel for receiving said third pipe element, said sixth channel being in communication with said second recess; wherein~~

~~said fifth and sixth channels surround a third bore, said third bore not being aligned with said first and said second bores.~~

~~48. In combination, the cover according to claim 47, and said assembly and said first, second and third pipe elements, wherein said assembly comprises:~~

~~a Tee fitting;~~

~~a first coupling joining said first pipe element to said Tee fitting;~~

~~a second coupling joining said second pipe element to said Tee fitting;~~

~~a third coupling joining said third pipe element to said Tee fitting.~~