

SPECTHANE® LINED STRAIGHT SPOOLS

Designed and manufactured in Australia, ECP Polyurethanes Specthane® Lined Spools provide a long-term solution in extreme slurry environments. Combined with elbows, tees, reducers, and custom spools to offer complete slurry piping solutions.

All Spools are centrifugally cast using a proprietary hot casting process where all pipework is cast within large ovens. This process ensures the PU achieves its maximum physical properties while ensuring industry leading chemical bond between the steel and PU lining.



PIPING SPECIFICATIONS

Pipe Material	Stainless Steel (304, 316, SS904L, SAF2205) Carbon Steel
Pipe Sizes	DN50 - DN1500 (2-60")
Pipe Length	100mm to 1200m (length can vary based on pipe size and lining thickness, contact us to discuss requirements)
Pipe Types	SMLS, ERW, LSAW, DSAW, SSAW, HSAW – contact us for differing requirements
End Connections	Flanged connections, fixed or rotating – (ASME B16.5 + B16.47, AS2129, EN1092, SANS1123, BS3293, custom) Grooved (Victaulic AGS, AWWA C606, Custom) Plan end Threaded (BSP, NPT, API, custom) PU return end (Straub connection)
Custom Connections	Nozzles Branches
Other options	Wear monitoring devices

FABRICATION SPECIFICATIONS – STRAIGHT SPOOLS

Design Codes

AS4041
ASME B31.3.
ASME B31.4

NDT

Radiographic - B31.3/AS 2177.1
Ultrasonic - B31.3/AS 2207
Magnetic Particle - B31.3/AS 1171
Penetrant - B31.3/AS 2062.
Visual - B31.3/AS 1171

Mechanical Testing

Hydro Testing B31.3/AS4037

SPECTHANE® LINING SPECIFICATION – STRAIGHT SPOOLS

PROCESSES

- Blasting (Class 2.5, AS1627.4)
- Priming - MEK Wash + Primer coating applied to prepare for chemical bond.
- PU Processing – Automated, mass-flow controlled PU machines.

SPECTHANE® SUITABLE FOR EXTREME SLURRY ENVIRONMENTS

- Abrasion resistance – ability to withstand long term abrasive environments.
- Hydrolytic stability – ability long term immersion in a slurry environment
- Suitable in high velocity slurry environments
- Low friction coefficient reducing energy requirement to move slurry.
- Excellent resistance to impingement wear
- Suitable for both large and small particle slurry
- High resistance to range of chemicals
- Resistance to cold wall effect
- Chemically bonded to steel surface creating industry leading bond between substrates
- Resistance to internal scaling
- Nil corrosion allowance required.

(Note: ECP Polyurethanes have developed over 20 different polyurethane formulas. We can analyse your application and select a polyurethane that best suits your requirements.)

NDT

- Holiday/Spark Testing
- Durometer Testing
- Adhesion Test/Peel Test
- Din Abrasion test
- Storage of batch samples
- Profile checks.

STANDARD DIMENSIONS – STRAIGHT SPOOLS

Std Pipe Size					Internal Polyurethane Lining Thickness			Internal ID After Lining (mm)			Pipe length (meters)	
DIN	NPS (in)	OD (mm)	Wall (mm)	Unlined ID (MM)	Min (mm)	Std (mm)	Max (mm)	Min (mm)	Std (mm)	Max (mm)	Min (m)	Max (m)
50	2	60.3	3.91	52.48	6	6	6	41	41	41	0.1	6
80	3	88.9	5.49	77.92	6	6	10	66	66	66	0.1	6
100	4	114.3	6.02	102.26	6	6	12	91	91	91	0.1	12
125	5	141.3	6.55	128.2	6	6	12	117	117	117	0.1	12
150	6	168.3	7.11	154.08	6	8	20	143	139	143	0.1	12
200	8	219.1	8.18	202.74	6	8	20	191	187	191	0.1	12
250	10	273	9.27	254.46	6	8	20	243	239	243	0.1	12
300	12	323.8	9.53	304.74	6	10	20	293	285	293	0.1	12
350	14	355.6	9.53	336.54	6	10	20	325	317	325	0.1	12
400	16	406.4	9.53	387.34	8	12	20	372	364	376	0.1	12
450	18	457	9.53	437.94	8	12	20	422	414	426	0.1	12
500	20	508	9.53	488.94	8	14	20	473	461	477	0.1	12
550	22	559	9.53	539.94	8	14	20	524	512	528	0.1	12
600	24	610	9.53	590.94	8	16	20	575	559	579	0.1	12
650	26	660	9.53	640.94	10	16	20	621	609	629	0.1	8
700	28	711	9.53	691.94	10	16	20	672	660	680	0.1	8
750	30	762	9.53	742.94	10	16	20	723	711	731	0.1	8
800	32	813	9.53	793.94	10	16	20	774	762	782	0.1	6
850	34	864	9.53	844.94	10	16	20	825	813	833	0.1	6
900	36	914	9.53	894.94	12	16	20	871	863	883	0.1	6
950	38	965	9.53	945.94	12	16	20	922	914	934	0.1	6
1000	40	1016	9.53	996.94	16	16	20	965	965	985	0.1	4
1050	42	1067	9.53	1047.94	16	16	20	1016	1016	1036	0.1	4
1100	44	1118	9.53	1098.94	16	16	20	1067	1067	1087	0.1	4
1150	46	1168	9.53	1148.94	16	16	20	1117	1117	1137	0.1	4
1200	48	1219	9.53	1199.94	16	16	30	1168	1168	1188	0.1	4
1300	52	1321	9.53	1301.94	16	16	30	1270	1270	1290	0.1	4
1400	56	1422	9.53	1403.34	16	16	30	1372	1372	1392	0.1	4
1500	60	1524	9.53	1504.94	16	16	30	1473	1473	1493	0.1	4

Note - Above dimensions are standard options, custom options to suit specific application are available.

TECHNICAL DATA SHEET

SPECTHANE® LINED BENDS/ELBOWS

Designed and manufactured in Australia, ECP Polyurethanes Specthane® Lined Bends/Elbows provide a long-term solution in extreme slurry environments. Combined with elbows, tees, reducers, and custom spools to offer complete slurry piping solutions.

All Bends are centrifugally cast using a proprietary hot casting process where all pipework is cast within large ovens. This process ensures the PU achieves its maximum physical properties while ensuring industry leading chemical bond between the steel and PU lining.



PIPING SPECIFICATIONS

Pipe Material	Stainless Steel (304, 316, SS904L, SAF2205) Carbon Steel
Pipe Sizes	DN50 - DN1500 (2-60")
Pipe Length	100mm to 1200m (length can vary based on pipe size and lining thickness, contact us to discuss requirements)
Pipe Types	SMLS, ERW, LSAW, DSAW, SSAW, HSAW – contact us for differing requirements
End Connections	Flanged connections, fixed or rotating – (ASME B16.5 + B16.47, AS2129, EN1092, SANS1123, BS3293, custom) Grooved (Victaulic AGS, AWWA C606, Custom) Plan end Threaded (BSP, NPT, API, custom) PU return end (Straub connection)
Custom Connections	Nozzles Branches
Other options	Wear monitoring devices

FABRICATION SPECIFICATIONS – BENDS/ELBOWS

Design Codes

AS4041
ASME B31.3.
ASME B31.4

NDT

Radiographic - B31.3/AS 2177.1
Ultrasonic - B31.3/AS 2207
Magnetic Particle - B31.3/AS 1171
Penetrant - B31.3/AS 2062.
Visual - B31.3/AS 1171

Mechanical Testing

Hydro Testing B31.3/AS4037

SPECTHANE® LINING SPECIFICATION – BENDS/ELBOWS

PROCESSES

- Blasting (Class 2.5, AS1627.4)
- Priming - MEK Wash + Primer coating applied to prepare for chemical bond.
- PU Processing – Automated, mass-flow controlled PU machines.
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SPECTHANE® SUITABLE FOR EXTREME SLURRY ENVIRONMENTS

- Abrasion resistance – ability to withstand long term abrasive environments.
- Hydrolytic stability – ability long term immersion in a slurry environment
- Suitable in high velocity slurry environments
- Low friction coefficient reducing energy requirement to move slurry.
- Excellent resistance to impingement wear
- Suitable for both large and small particle slurry
- High resistance to range of chemicals
- Resistance to cold wall effect
- Chemically bonded to steel surface creating industry leading bond between substrates
- Resistance to internal scaling
- Nil corrosion allowance required.

(Note: ECP Polyurethanes have developed over 20 different polyurethane formulas. We can analyse your application and select a polyurethane that best suits your requirements.)

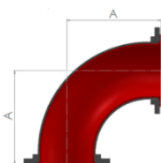
NDT

- Holiday/Spark Testing
- Durometer Testing
- Adhesion Test/Peel Test
- Din Abrasion test
- Storage of batch samples
- Profile checks

STANDARD DIMENSIONS – BENDS/ELBOWS

Pipe Sizing					Internal Polyurethane Lining Thickness								Measurement A finished length			
Std Pipe Size (ASME B36.10, Std Wt Pipe)					1D and 1.5D Elbows		3d and 5D Elbows		Centre line Radius (mm)				Weld Set + 6mm lining on flange face (mm)			
DIN	NPS (in)	OD mm	Wall mm	Unlined ID mm	Min mm	Std mm	Min mm	Std mm	1d	1.5d	3d	5d	1d	1.5d	3d	5d
50	2	60.3	3.91	52.48	6	6	6	8	51	76	152	253	63	88	164	265
80	3	88.9	5.49	77.92	6	6	8	8	76	114	229	382	88	126	241	394
100	4	114.3	6.02	102.26	6	6	8	8	102	152	305	508	114	164	317	520
125	5	141.3	6.55	128.2	6	6	8	10	127	190	381	635	139	202	393	647
150	6	168.3	7.11	154.08	6	8	8	10	152	229	457	762	164	241	469	774
200	8	219.1	8.18	202.74	6	8	8	10	203	305	610	1017	215	317	622	1029
250	10	273	9.27	254.46	6	8	10	12	254	381	762	1270	268	393	774	1282
300	12	323.8	9.53	304.74	6	10	10	16	305	457	914	1523	319	471	928	1537
350	14	355.6	9.53	336.54	6	10	12	16	356	533	1067	1778	370	547	1081	1792
400	16	406.4	9.53	387.34	8	12	12	16	406	610	1219	2032	422	626	1233	2046
450	18	457	9.53	437.94	8	12	12	16	457	686	1372	2285	473	702	1386	2299
500	20	508	9.53	488.94	10	14	14	16	508	762	1524	2540	524	778	1538	2554
550	22	559	9.53	539.94	10	14	14	16	559	838	1676	2795	575	854	1690	2809
600	24	610	9.53	590.94	12	16	16	16	610	914	1828	3050	626	930	1842	3064
650	26	660	9.53	640.94	14	16	16	16		991	1981	3300		1007	1995	3314
700	28	711	9.53	691.94	16	16	16	16		1067	2134	3555		1083	2148	3569
750	30	762	9.53	742.94	16	16	16	16		1143	2286	3810		1159	2300	3824
800	32	813	9.53	793.94	16	16	16	16		1219	2438	4065		1235	2452	4079
850	34	864	9.53	844.94	16	16	16	16		1295	2591	4320		1311	2605	4334
900	36	914	9.53	894.94	16	16	16	16		1372	2743	4570		1388	2757	4584
950	38	965	9.53	945.94	16	16	16	16		1448	2896	4825		1464	2910	4839
1000	40	1016	9.53	996.94	16	16	16	16		1524	3048	5080		1540	3062	5094
1050	42	1067	9.53	1047.94	16	16	16	16		1600	3200	5335		1616	3214	5349
1100	44	1118	9.53	1098.94	16	16	16	16		1676	3353	5590		1692	3367	5604
1150	46	1168	9.53	1148.94	16	16	16	16		1753	3505	5840		1769	3519	5854
1200	48	1219	9.53	1199.94	16	16	16	16		1829	3658	6095		1845	3672	6109
1300	52	1321	9.53	1301.94	16	16	16	16			3963	6605			3977	6619
1400	56	1422.4	9.53	1403.34	16	16	16	16			4266	7112			4280	7126
1500	60	1524	9.53	1504.94	16	16	16	16			4572	7620			4586	7634

Note – Custom radius elbows are available to suit specific applications.



TECHNICAL DATA SHEET

SPECTHANE® LINED REDUCERS

Designed and manufactured in Australia, ECP Polyurethanes Specthane® Lined Reducers provide a long-term solution in extreme slurry environments. Combined with elbows, tees, reducers, and custom spools to offer complete slurry piping solutions.

All reducers are centrifugally cast using a proprietary hot casting process where all pipework is cast within large ovens. This process ensures the PU achieves its maximum physical properties while ensuring industry leading chemical bond between the steel and PU lining.



PIPING SPECIFICATIONS

Pipe Material	Stainless Steel (304, 316, SS904L, SAF2205) Carbon Steel
Pipe Sizes	DN50 - DN1500 (2-60")
Pipe Length	100mm to 1200m (length can vary based on pipe size and lining thickness, contact us to discuss requirements)
Pipe Types	SMLS, ERW, LSAW, DSAW, SSAW, HSAW – contact us for differing requirements
End Connections	Flanged connections, fixed or rotating – (ASME B16.5 + B16.47, AS2129, EN1092, SANS1123, BS3293, custom) Grooved (Victaulic AGS, AWWA C606, Custom) Plan end Threaded (BSP, NPT, API, custom) PU return end (Straub connection)
Custom Connections	Nozzles Branches
Other options	Wear monitoring devices

FABRICATION SPECIFICATIONS – REDUCERS

Design Codes

AS4041
ASME B31.3.
ASME B31.4

NDT

Radiographic - B31.3/AS 2177.1
Ultrasonic - B31.3/AS 2207
Magnetic Particle - B31.3/AS 1171
Penetrant - B31.3/AS 2062.
Visual - B31.3/AS 1171

Mechanical Testing

Hydro Testing B31.3/AS4037

SPECTHANE® LINING SPECIFICATION – REDUCERS

PROCESSES

- Blasting (Class 2.5, AS1627.4)
- Priming - MEK Wash + Primer coating applied to prepare for chemical bond.
- PU Processing – Automated, mass-flow controlled PU machines.

SPECTHANE® SUITABLE FOR EXTREME SLURRY ENVIRONMENTS

- Abrasion resistance – ability to withstand long term abrasive environments.
- Hydrolytic stability – ability long term immersion in a slurry environment
- Suitable in high velocity slurry environments
- Low friction coefficient reducing energy requirement to move slurry.
- Excellent resistance to impingement wear
- Suitable for both large and small particle slurry
- High resistance to range of chemicals
- Resistance to cold wall effect
- Chemically bonded to steel surface creating industry leading bond between substrates
- Resistance to internal scaling
- Nil corrosion allowance required.

(Note: ECP Polyurethanes have developed over 20 different polyurethane formulas. We can analyse your application and select a polyurethane that best suits your requirements.)

NDT

- Holiday/Spark Testing
- Durometer Testing
- Adhesion Test/Peel Test
- Din Abrasion test
- Storage of batch samples
- Profile checks.

STANDARD DIMENSIONS – REDUCERS

Std Pipe Size (ASME B36.10, Std Wt Pipe)					Internal Polyurethane Lining Thickness			Internal ID After Lining (mm)			Length Face to Face (mm) Measurement A		
DIN	NPS (in)	OD (mm)	Wall (mm)	Unlined ID (MM)	Min (mm)	Std (mm)	Max (mm)	Min (mm)	Std (mm)	Max (mm)	Min (mm)	Std (mm)	Max (mm)
50	2	60.3	3.91	52	6	6	6	41	41	41	100	200	500
80	3	88.9	5.49	78	6	6	10	66	66	66	113	213	500
100	4	114.3	6.02	102	6	6	12	91	91	91	126	226	1500
125	5	141.3	6.55	128	6	6	12	117	117	117	151	251	1500
150	6	168.3	7.11	154	6	8	20	143	139	143	164	264	1500
200	8	219.1	8.18	203	6	8	20	191	187	191	166	266	1500
250	10	273	9.27	254	6	8	30	243	239	243	210	310	2000
300	12	323.8	9.53	305	6	10	30	293	285	293	235	335	2000
350	14	355.6	9.53	337	6	10	30	325	317	325	362	462	2000
400	16	406.4	9.53	387	8	12	30	372	364	372	388	488	2500
450	18	457	9.53	438	8	12	50	422	414	422	413	513	2500
500	20	508	9.53	489	8	14	50	473	461	473	540	640	2500
550	22	559	9.53	540	8	14	50	524	512	524	540	690	2500
600	24	610	9.53	591	8	16	50	575	559	575	540	690	2500
650	26	660	9.53	641	10	16	50	621	609	621	644	794	2500
700	28	711	9.53	692	10	16	50	672	660	672	644	794	2500
750	30	762	9.53	743	10	16	50	723	711	723	644	794	2500
800	32	813	9.53	794	10	16	50	774	762	774	644	794	2500
850	34	864	9.53	845	10	16	80	825	813	825	644	794	2500
900	36	914	9.53	895	12	16	80	871	863	871	644	794	2500
950	38	965	9.53	946	12	16	80	922	914	922	644	794	2500
1000	40	1016	9.53	997	16	16	80	965	965	965	644	794	2500
1050	42	1067	9.53	1048	16	16	80	1016	1016	1016	644	794	2500
1100	44	1118	9.53	1099	16	16	80	1067	1067	1067	644	794	2500
1150	46	1168	9.53	1149	16	16	100	1117	1117	1117	745	895	2500
1200	48	1219	9.53	1200	16	16	100	1168	1168	1168	745	895	2500
1300	52	1321	9.53	1302	16	16	100	1270	1270	1270	745	895	2500
1400	56	1422	9.53	1403	16	16	100	1372	1372	1372	745	895	2500
1500	60	1524	9.53	1505	16	16	100	1473	1473	1473	745	895	2500

Note - Above dimensions are standard options, custom options to suit specific application are available.



TECHNICAL DATA SHEET

SPECTHANE® LINED EQUAL AND REDUCING TEES

Designed and manufactured in Australia, ECP Polyurethanes Specthane® Lined Spools provide a long-term solution in extreme slurry environments. Combined with elbows, tees, reducers, and custom spools to offer complete slurry piping solutions.

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PIPING SPECIFICATIONS

Pipe Material	Stainless Steel (304, 316, SS904L, SAF2205) Carbon Steel
Pipe Sizes	DN50 - DN1500 (2-60")
Pipe Length	100mm to 1200m (length can vary based on pipe size and lining thickness, contact us to discuss requirements)
Pipe Types	SMLS, ERW, LSAW, DSAW, SSAW, HSAW – contact us for differing requirements
End Connections	Flanged connections, fixed or rotating – (ASME B16.5 + B16.47, AS2129, EN1092, SANS1123, BS3293, custom) Grooved (Victaulic AGS, AWWA C606, Custom) Plan end Threaded (BSP, NPT, API, custom) PU return end (Straub connection)
Custom Connections	Nozzles Branches
Other options	Wear monitoring devices

FABRICATION SPECIFICATIONS – EQUAL AND REDUCING TEES

Design Codes

AS4041
ASME B31.3.
ASME B31.4

NDT

Radiographic - B31.3/AS 2177.1
Ultrasonic - B31.3/AS 2207
Magnetic Particle - B31.3/AS 1171
Penetrant - B31.3/AS 2062.
Visual - B31.3/AS 1171

Mechanical Testing

Hydro Testing B31.3/AS4037

SPECTHANE® LINING SPECIFICATION – EQUAL AND REDUCING TEES

PROCESSES

- Blasting (Class 2.5, AS1627.4)
- Priming - MEK Wash + Primer coating applied to prepare for chemical bond.
- PU Processing – Automated, mass-flow controlled PU machines.

SPECTHANE® SUITABLE FOR EXTREME SLURRY ENVIRONMENTS

- Abrasion resistance – ability to withstand long term abrasive environments.
- Hydrolytic stability – ability long term immersion in a slurry environment
- Suitable in high velocity slurry environments
- Low friction coefficient reducing energy requirement to move slurry.
- Excellent resistance to impingement wear
- Suitable for both large and small particle slurry
- High resistance to range of chemicals
- Resistance to cold wall effect
- Chemically bonded to steel surface creating industry leading bond between substrates
- Resistance to internal scaling
- Nil corrosion allowance required.

(Note: ECP Polyurethanes have developed over 20 different polyurethane formulas. We can analyse your application and select a polyurethane that best suits your requirements.)

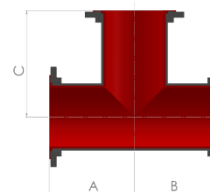
NDT

- Holiday/Spark Testing
- Durometer Testing
- Adhesion Test/Peel Test
- Din Abrasion test
- Storage of batch samples
- Profile checks

STANDARD DIMENSIONS – EQUAL AND REDUCING TEES

Std Tee Size (ASME B36.10, Std Wt Tee)					Internal Polyurethane Lining Thickness			Internal ID After Lining (mm)			Standard Face to Face (mm) Measurement			Max lengths of branch lengths (mm)		
DI	NPS (in)	OD (mm)	Wall (mm)	Unlined ID (MM)	Min (mm)	Std (mm)	Max (mm)	Min (mm)	Std (mm)	Max (mm)	A (mm)	B (mm)	C (mm)	A (mm)	B (mm)	C (mm)
50	2	60.3	3.91	52.48	6	6	6	41	41	41	114	114	114	6000	6000	1000
80	3	88.9	5.49	77.92	6	6	10	66	66	66	136	136	136	6000	6000	1000
100	4	114.3	6.02	102.26	6	6	12	91	91	91	155	155	155	6000	6000	1000
125	5	141.3	6.55	128.2	6	6	12	117	117	117	174	174	174	6000	6000	1000
150	6	168.3	7.11	154.08	6	8	20	143	139	143	193	193	193	6000	6000	1000
200	8	219.1	8.18	202.74	6	8	20	191	187	191	228	228	228	6000	6000	2000
250	10	273	9.27	254.46	6	8	30	243	239	243	266	266	266	6000	6000	2000
300	12	323.8	9.53	304.74	6	10	30	293	285	293	304	304	304	6000	6000	2000
350	14	355.6	9.53	336.54	6	10	30	325	317	325	329	329	329	6000	6000	2000
400	16	406.4	9.53	387.34	8	12	30	372	364	372	355	355	355	6000	6000	2000
450	18	457	9.53	437.94	8	12	50	422	414	422	393	393	393	6000	6000	2000
500	20	508	9.53	488.94	8	14	50	473	461	473	431	431	431	6000	6000	2000
550	22	559	9.53	539.94	8	14	50	524	512	524	469	469	469	6000	6000	2000
600	24	610	9.53	590.94	8	16	50	575	559	575	482	482	482	4000	4000	2000
650	26	660	9.53	640.94	10	16	50	621	609	621	545	545	545	4000	4000	2000
700	28	711	9.53	691.94	10	16	50	672	660	672	571	571	571	4000	4000	2000
750	30	762	9.53	742.94	10	16	50	723	711	723	609	609	609	2000	2000	2000
800	32	813	9.53	793.94	10	16	50	774	762	774	647	647	647	2000	2000	2000
850	34	864	9.53	844.94	10	16	80	825	813	825	685	685	685	2000	2000	2000
900	36	914	9.53	894.94	12	16	80	871	863	871	723	723	723	2000	2000	2000
950	38	965	9.53	945.94	12	16	80	922	914	922	761	761	761	2000	2000	2000
1000	40	1016	9.53	996.94	16	16	80	965	965	965	799	799	799	2000	2000	2000
1050	42	1067	9.53	1047.94	16	16	80	1016	1016	1016	812	812	812	2000	2000	2000
1100	44	1118	9.53	1098.94	16	16	80	1067	1067	1067	863	863	863	2000	2000	2000
1150	46	1168	9.53	1148.94	16	16	100	1117	1117	1117	901	901	901	2000	2000	2000
1200	48	1219	9.53	1199.94	16	16	100	1168	1168	1168	939	939	939	2000	2000	2000
1300	52	1321	9.53	1301.94	16	16	100	1270	1270	1270	1050	1050	1050	2000	2000	2000
1400	56	1422	9.53	1403.34	16	16	100	1372	1372	1372	1173	1173	1173	2000	2000	2000
1500	60	1524	9.53	1504.94	16	16	100	1473	1473	1473	1303	1303	1303	2000	2000	2000

Note - Above dimensions are standard options, custom options to suit specific application are available.



TECHNICAL DATA SHEET

SPECTHANE® LINED Y PIECE AND LATERAL SPOOLS

Designed and manufactured in Australia, ECP Polyurethanes Specthane® Lined Y Spools provide a long-term solution in extreme slurry environments. Combined with elbows, tees, reducers, and custom spools to offer complete slurry piping solutions.

All Spools are centrifugally cast using a proprietary hot casting process where all pipework is cast within large ovens. This process ensures the PU achieves its maximum physical properties while ensuring industry leading chemical bond between the steel and PU lining.



PIPING SPECIFICATIONS

Pipe Material	Stainless Steel (304, 316, SS904L, SAF2205) Carbon Steel
Pipe Sizes	DN50 - DN1500 (2-60")
Pipe Length	100mm to 1200m (length can vary based on pipe size and lining thickness, contact us to discuss requirements)
Pipe Types	SMLS, ERW, LSAW, DSAW, SSAW, HSAW – contact us for differing requirements
End Connections	Flanged connections, fixed or rotating – (ASME B16.5 + B16.47, AS2129, EN1092, SANS1123, BS3293, custom) Grooved (Victaulic AGS, AWWA C606, Custom) Plan end Threaded (BSP, NPT, API, custom) PU return end (Straub connection)
Custom Connections	Nozzles Branches
Other options	Wear monitoring devices

FABRICATION SPECIFICATIONS – Y PIECE AND LATERAL SPOOLS

Design Codes

AS4041
ASME B31.3.
ASME B31.4

NDT

Radiographic - B31.3/AS 2177.1
Ultrasonic - B31.3/AS 2207
Magnetic Particle - B31.3/AS 1171
Penetrant - B31.3/AS 2062.
Visual - B31.3/AS 1171

Mechanical Testing

Hydro Testing B31.3/AS4037

SPECTHANE® LINING SPECIFICATION - Y PIECE AND LATERAL SPOOLS

PROCESSES

- Blasting (Class 2.5, AS1627.4)
- Priming - MEK Wash + Primer coating applied to prepare for chemical bond.
- PU Processing – Automated, mass-flow controlled PU machines.

SPECTHANE® SUITABLE FOR EXTREME SLURRY ENVIRONMENTS

- Abrasion resistance – ability to withstand long term abrasive environments.
- Hydrolytic stability – ability long term immersion in a slurry environment
- Suitable in high velocity slurry environments
- Low friction coefficient reducing energy requirement to move slurry.
- Excellent resistance to impingement wear
- Suitable for both large and small particle slurry
- High resistance to range of chemicals
- Resistance to cold wall effect
- Chemically bonded to steel surface creating industry leading bond between substrates
- Resistance to internal scaling
- Nil corrosion allowance required.

(Note: ECP Polyurethanes have developed over 20 different polyurethane formulas. We can analyse your application and select a polyurethane that best suits your requirements.)

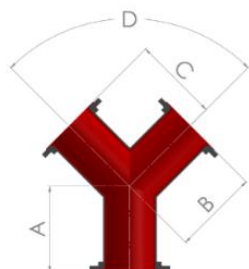
NDT

- Holiday/Spark Testing
- Durometer Testing
- Adhesion Test/Peel Test
- Din Abrasion test
- Storage of batch samples
- Profile checks.

STANDARD DIMENSIONS - Y PIECE AND LATERAL SPOOLS

Std Tee Size (ASME B36.10, Std Wt Tee)					Internal Polyurethane Lining Thickness			Internal ID After Lining (mm)			Standard Face to Face (mm) Measurement			Max lengths of branch lengths (mm)		
DIN	NPS (in)	OD (mm)	Wall (mm)	Unlined ID (MM)	Min (mm)	Std (mm)	Max (mm)	Min (mm)	Std (mm)	Max (mm)	A (mm)	B (mm)	C (mm)	A (mm)	B (mm)	C (mm)
50	2	60.3	3.91	52.48	6	6	6	41	41	41	264	264	264	500	500	500
80	3	88.9	5.49	77.92	6	6	10	66	66	58	286	286	286	500	500	500
100	4	114.3	6.02	102.26	6	6	12	91	91	79	455	455	455	2000	1500	1500
125	5	141.3	6.55	128.2	6	6	12	117	117	105	474	474	474	2000	1500	1500
150	6	168.3	7.11	154.08	6	8	20	143	139	115	493	493	493	2000	1500	1500
200	8	219.1	8.18	202.74	6	8	20	191	187	163	528	528	528	2000	1500	1500
250	10	273	9.27	254.46	6	8	30	243	239	195	716	716	716	2000	1500	1500
300	12	323.8	9.53	304.74	6	10	30	293	285	245	754	754	754	2000	1500	1500
350	14	355.6	9.53	336.54	6	10	30	325	317	277	779	779	779	2000	1500	1500
400	16	406.4	9.53	387.34	8	12	30	372	364	328	805	805	805	2000	1500	1500
450	18	457	9.53	437.94	8	12	50	422	414	338	843	843	843	2000	1500	1500
500	20	508	9.53	488.94	8	14	50	473	461	389	881	881	881	2000	1500	1500
550	22	559	9.53	539.94	8	14	50	524	512	440	919	919	919	2000	1500	1500
600	24	610	9.53	590.94	8	16	50	575	559	491	932	932	932	2000	1500	1500
650	26	660	9.53	640.94	10	16	50	621	609	541	1025	1025	1025	2000	1500	1500
700	28	711	9.53	691.94	10	16	50	672	660	592	1321	1321	1321	1500	1500	1500
750	30	762	9.53	742.94	10	16	50	723	711	643	1359	1359	1359	1500	1500	1500
800	32	813	9.53	793.94	10	16	50	774	762	694	1397	1397	1397	1500	1500	1500
850	34	864	9.53	844.94	10	16	80	825	813	685	1435	1435	1435	1500	1500	1500
900	36	914	9.53	894.94	12	16	80	871	863	735	1473	1473	1473	1500	1500	1500
950	38	965	9.53	945.94	12	16	80	922	914	786	1661	1661	1661	2000	2000	2000
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1100	44	1118	9.53	1098.94	16	16	80	1067	1067	939	1763	1763	1763	2000	2000	2000
1150	46	1168	9.53	1148.94	16	16	100	1117	1117	949	1801	1801	1801	2000	2000	2000
1200	48	1219	9.53	1199.94	16	16	100	1168	1168	1000	1839	1839	1839	2000	2000	2000
1300	52	1321	9.53	1301.94	16	16	100	1270	1270	1102	1950	1950	1950	2000	2000	2000
1400	56	1422	9.53	1403.34	16	16	100	1372	1372	1204	2000	2000	2000	2000	2000	2000
1500	60	1524	9.53	1504.94	16	16	100	1473	1473	1305	2000	2000	2000	2000	2000	2000

Note - Above dimensions are standard options, custom options to suit specific application are available.



TECHNICAL DATA SHEET

SPECTHANE® LINED CUSTOM SPOOLS

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Custom Connections	Nozzles Branches
Other options	Wear monitoring devices

FABRICATION SPECIFICATIONS - CUSTOM SPOOLS

AS4041
ASME B31.3.
ASME B31.4

NDT

Radiographic - B31.3/AS 2177.1
Ultrasonic - B31.3/AS 2207
Magnetic Particle - B31.3/AS 1171
Penetrant - B31.3/AS 2062.
Visual - B31.3/AS 1171

Mechanical Testing

Hydro Testing B31.3/AS4037

SPECTHANE® LINING SPECIFICATION – CUSTOM SPOOLS

PROCESSES

- Blasting (Class 2.5, AS1627.4)
- Priming - MEK Wash + Primer coating applied to prepare for chemical bond.
- PU Processing – Automated, mass-flow controlled PU machines.

SPECTHANE® SUITABLE FOR EXTREME SLURRY ENVIRONMENTS

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