

# *Point Cloud Registration Quality Report*

## **12U21782\_Tunnel900**

2013-05-02

**Produced by:** John Doe

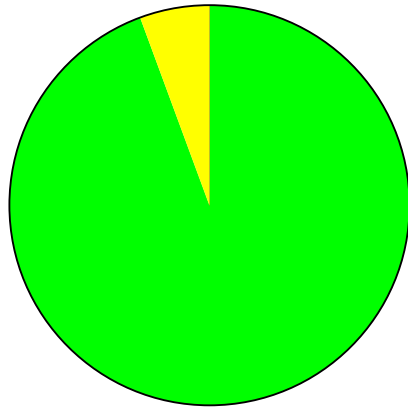
**For:** Jane Doe

**Scanner Serial Number:** LLS0123456789

**Scanner Model:** FARO Focus 3D S 120

# Summary

## Quality of scans



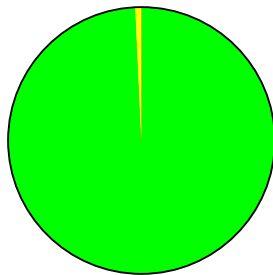
■ High; 67 (94.4%)  
■ Medium; 4 (5.6%)  
■ Low; 0 (0.0%)

Reasons for decreased quality:  
 Num distinct references (100.0%)  
 Num quadrants occupied (50.0%)

Project average point distance error

**1.5 mm**

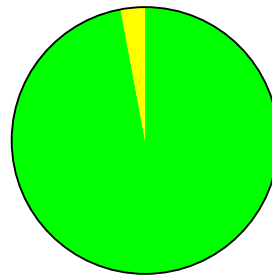
## Quality of references



■ High (99.3%)  
■ Medium (0.7%)  
■ Low (0.0%)

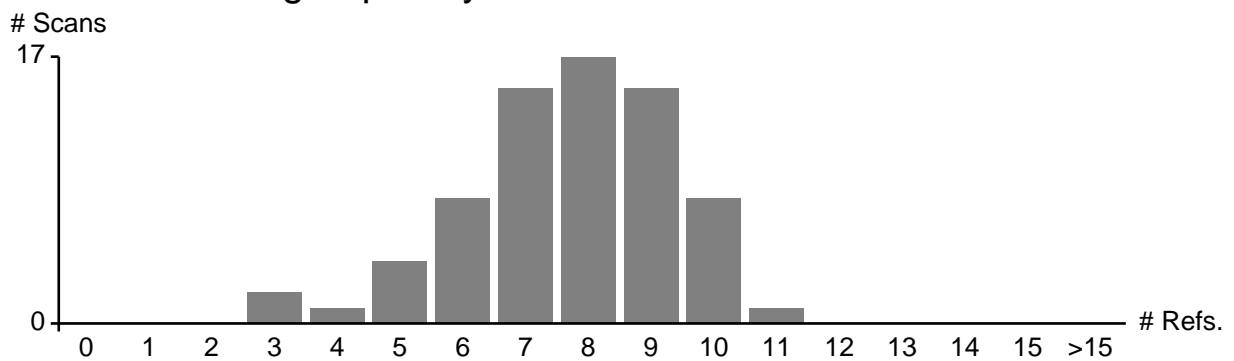
Reasons for decreased quality:  
Low point num. (100.0%)

## References used for fitting



■ Surveyed (97.1%)  
■ Derived (2.9%)

## Scans grouped by number of references used



<b>Total number of scans:</b>	71
<b>Total number of references:</b>	69 (64 surveyed and 5 derived)
<b>Based on workspace:</b>	12U21782_Tunnel900.fws (2013-05-02 18:10:15)

# Quality intervals

Quality thresholds based on template:

## FARO Normal

Name	High threshold	Low threshold
Quality of scans		
Point distance quality [mm]	10	20
Point drift quality [mm]	1	5
Longitudinal mismatch quality [mm]	10	20
Orthogonal mismatch quality [mm]	10	20
Inclinometer mismatch quality [deg]	1	5
Quality of references		
Num points quality	80	20
Distance mismatch quality [mm]	10	20
Longitudinal mismatch quality [mm]	10	20
Orthogonal mismatch quality [mm]	10	20

High

Medium

Low

*High > [High threshold] >= Medium >= [Low threshold] > Low*

# Scans

Name	Pt. dist	Refs.	Inclin.	X	Y	Z
● <a href="#">Arlanda_tunnel.900_Scan_000</a>	1.79	5	YES	146208.347	6614926.101	23.261
● <a href="#">Arlanda_tunnel.900_Scan_001</a>	1.41	5	YES	146209.228	6614924.894	22.848
● <a href="#">Arlanda_tunnel.900_Scan_002</a>	1.31	8	YES	146207.120	6614918.614	23.056
● <a href="#">Arlanda_tunnel.900_Scan_003</a>	1.10	8	YES	146207.625	6614917.259	22.823
● <a href="#">Arlanda_tunnel.900_Scan_004</a>	1.26	9	YES	146206.880	6614913.602	22.823
● <a href="#">Arlanda_tunnel.900_Scan_005</a>	1.38	9	YES	146206.659	6614914.272	23.618
● <a href="#">Arlanda_tunnel.900_Scan_006</a>	1.56	6	YES	146205.512	6614908.531	23.859
● <a href="#">Arlanda_tunnel.900_Scan_007</a>	1.32	9	YES	146206.356	6614910.741	22.384
● <a href="#">Arlanda_tunnel.900_Scan_008</a>	1.46	7	YES	146205.247	6614906.664	22.373
● <a href="#">Arlanda_tunnel.900_Scan_009</a>	1.22	7	YES	146204.295	6614905.680	23.562
● <a href="#">Arlanda_tunnel.900_Scan_010</a>	1.33	6	YES	146203.333	6614900.850	23.553
● <a href="#">Arlanda_tunnel.900_Scan_011</a>	1.13	6	YES	146204.079	6614901.054	22.354
● <a href="#">Arlanda_tunnel.900_Scan_012</a>	1.41	7	YES	146202.950	6614899.249	23.836
● <a href="#">Arlanda_tunnel.900_Scan_013</a>	1.48	7	YES	146203.475	6614899.296	23.300
● <a href="#">Arlanda_tunnel.900_Scan_014</a>	0.91	7	YES	146204.000	6614898.886	22.360
● <a href="#">Arlanda_tunnel.900_Scan_015</a>	1.64	8	YES	146201.682	6614892.614	23.760
● <a href="#">Arlanda_tunnel.900_Scan_016</a>	1.84	7	YES	146202.066	6614891.949	23.246
● <a href="#">Arlanda_tunnel.900_Scan_017</a>	1.20	7	YES	146202.566	6614891.866	22.350
● <a href="#">Arlanda_tunnel.900_Scan_018</a>	1.57	8	YES	146200.534	6614887.035	23.826
● <a href="#">Arlanda_tunnel.900_Scan_019</a>	1.10	7	YES	146200.926	6614886.477	23.236
● <a href="#">Arlanda_tunnel.900_Scan_020</a>	2.78	9	YES	146201.513	6614886.399	22.339
● <a href="#">Arlanda_tunnel.900_Scan_021</a>	3.10	6	YES	146199.358	6614880.996	23.725
● <a href="#">Arlanda_tunnel.900_Scan_055</a>	1.24	10	YES	146186.346	6614816.065	23.637
● <a href="#">Arlanda_tunnel.900_Scan_056</a>	1.32	9	YES	146186.774	6614815.572	23.398
● <a href="#">Arlanda_tunnel.900_Scan_057</a>	1.29	9	YES	146187.365	6614815.594	22.227
● <a href="#">Arlanda_tunnel.900_Scan_058</a>	1.56	8	YES	146185.174	6614810.252	23.589
● <a href="#">Arlanda_tunnel.900_Scan_059</a>	0.58	5	YES	146185.416	6614809.653	23.167
● <a href="#">Arlanda_tunnel.900_Scan_060</a>	0.83	6	YES	146186.120	6614809.562	22.203
● <a href="#">Arlanda_tunnel.900_Scan_061</a>	0.85	9	YES	146188.152	6614815.590	22.974
● <a href="#">Arlanda_tunnel.900_Scan_062</a>	1.30	5	YES	146192.857	6614814.593	23.752
● <a href="#">Arlanda_tunnel.900_Scan_063</a>	1.84	4	YES	146195.661	6614814.083	23.736
● <a href="#">Arlanda_tunnel.900_Scan_064</a>	0.90	6	YES	146188.301	6614813.816	22.969
● <a href="#">Arlanda_tunnel.900_Scan_065</a>	1.20	3	YES	146193.351	6614813.065	22.970
● <a href="#">Arlanda_tunnel.900_Scan_066</a>	0.82	7	YES	146188.915	6614817.022	22.975
● <a href="#">Arlanda_tunnel.900_Scan_067</a>	0.88	3	YES	146194.453	6614815.798	22.992
● <a href="#">Arlanda_tunnel.900_Scan_070</a>	2.14	6	YES	146199.299	6614880.934	23.762
● <a href="#">Arlanda_tunnel.900_Scan_071</a>	1.62	8	YES	146199.639	6614880.399	23.346
● <a href="#">Arlanda_tunnel.900_Scan_072</a>	1.84	7	YES	146200.234	6614879.960	22.332
● <a href="#">Arlanda_tunnel.900_Scan_073</a>	1.59	8	YES	146198.056	6614874.790	23.739
● <a href="#">Arlanda_tunnel.900_Scan_074</a>	1.56	9	YES	146198.491	6614874.519	23.270
● <a href="#">Arlanda_tunnel.900_Scan_075</a>	1.53	9	YES	146199.087	6614874.214	22.324
● <a href="#">Arlanda_tunnel.900_Scan_076</a>	2.78	9	YES	146195.748	6614863.127	23.774
● <a href="#">Arlanda_tunnel.900_Scan_077</a>	2.11	10	YES	146196.926	6614869.039	23.791
● <a href="#">Arlanda_tunnel.900_Scan_078</a>	1.07	7	YES	146197.401	6614868.994	23.249

Name	Pt. dist	Refs.	Inclin.	X	Y	Z
● <a href="#">Arlanda_tunnel.900_Scan_079</a>	1.46	8	YES	146196.161	6614862.630	23.232
● <a href="#">Arlanda_tunnel.900_Scan_080</a>	1.47	8	YES	146198.011	6614868.731	22.309
● <a href="#">Arlanda_tunnel.900_Scan_081</a>	1.79	9	YES	146196.829	6614862.941	22.292
● <a href="#">Arlanda_tunnel.900_Scan_082</a>	1.53	8	YES	146194.576	6614857.322	23.695
● <a href="#">Arlanda_tunnel.900_Scan_083</a>	1.81	8	YES	146194.907	6614856.734	23.244
● <a href="#">Arlanda_tunnel.900_Scan_084</a>	1.74	10	YES	146195.657	6614856.817	22.280
● <a href="#">Arlanda_tunnel.900_Scan_085</a>	2.02	8	YES	146193.389	6614851.410	23.630
● <a href="#">Arlanda_tunnel.900_Scan_086</a>	1.57	7	YES	146193.803	6614850.791	23.218
● <a href="#">Arlanda_tunnel.900_Scan_087</a>	1.46	8	YES	146194.430	6614850.865	22.276
● <a href="#">Arlanda_tunnel.900_Scan_088</a>	2.07	7	YES	146192.219	6614845.522	23.621
● <a href="#">Arlanda_tunnel.900_Scan_089</a>	1.64	8	YES	146192.559	6614845.019	23.198
● <a href="#">Arlanda_tunnel.900_Scan_090</a>	0.74	6	YES	146193.225	6614844.744	22.251
● <a href="#">Arlanda_tunnel.900_Scan_091</a>	2.04	8	YES	146191.081	6614839.813	23.583
● <a href="#">Arlanda_tunnel.900_Scan_092</a>	1.29	9	YES	146191.456	6614839.115	23.196
● <a href="#">Arlanda_tunnel.900_Scan_093</a>	0.93	9	YES	146192.097	6614839.248	22.252
● <a href="#">Arlanda_tunnel.900_Scan_094</a>	1.09	9	YES	146191.446	6614837.026	23.666
● <a href="#">Arlanda_tunnel.900_Scan_095</a>	1.43	8	YES	146189.879	6614833.981	23.592
● <a href="#">Arlanda_tunnel.900_Scan_096</a>	1.53	10	YES	146190.361	6614833.683	23.173
● <a href="#">Arlanda_tunnel.900_Scan_097</a>	1.08	10	YES	146190.812	6614832.944	22.241
● <a href="#">Arlanda_tunnel.900_Scan_098</a>	1.73	11	YES	146188.689	6614827.920	23.589
● <a href="#">Arlanda_tunnel.900_Scan_099</a>	1.71	10	YES	146189.064	6614827.350	23.179
● <a href="#">Arlanda_tunnel.900_Scan_100</a>	0.97	10	YES	146189.685	6614827.158	22.233
● <a href="#">Arlanda_tunnel.900_Scan_101</a>	1.15	8	YES	146187.539	6614822.256	23.614
● <a href="#">Arlanda_tunnel.900_Scan_102</a>	1.23	9	YES	146187.855	6614821.455	23.165
● <a href="#">Arlanda_tunnel.900_Scan_103</a>	0.96	10	YES	146188.506	6614821.305	22.225
● <a href="#">Arlanda_tunnel.900_Scan_104</a>	1.54	7	YES	146186.377	6614816.350	23.568
● <a href="#">Arlanda_tunnel.900_Scan_105</a>	1.51	7	YES	146186.735	6614815.432	23.168

# References

Name	Type	Size	X	Y	Z
S900S01	Sphere	70.0	146208.858	6614930.060	23.511
S900S02	Sphere	70.0	146209.220	6614924.490	23.692
S900S03	Sphere	70.0	146207.098	6614921.291	23.478
S900S04	Sphere	70.0	146208.041	6614918.592	23.266
S900S05	Sphere	70.0	146206.541	6614918.377	23.466
S900S06	Sphere	70.0	146205.931	6614915.418	23.462
S900S07	Sphere	70.0	146205.533	6614912.336	23.351
S900S08	Sphere	70.0	146206.869	6614912.767	23.240
S900S09	Sphere	70.0	146205.669	6614906.852	23.814
S900S10	Sphere	70.0	146204.284	6614906.968	23.445
S900S11	Sphere	70.0	146204.470	6614900.957	23.211
S900S12	Sphere	70.0	146203.626	6614904.031	23.442
S900S13	Sphere	70.0	146202.499	6614898.285	23.433
S900S14	Sphere	70.0	146203.319	6614895.059	23.218
S900S15	Sphere	70.0	146201.273	6614892.261	23.434
S900S16	Sphere	70.0	146202.144	6614889.202	23.780
S900S17	Sphere	70.0	146200.688	6614889.365	23.426
S900S19	Sphere	70.0	146200.694	6614886.366	24.096
S900S20	Sphere	70.0	146200.965	6614883.304	23.208
S900S21	Sphere	70.0	146199.529	6614883.460	23.415
S900S22	Sphere	70.0	146198.922	6614880.559	23.404
S900S23	Sphere	70.0	146199.758	6614877.429	23.174
S900S24	Sphere	70.0	146197.151	6614871.637	23.387
S900S25	Sphere	70.0	146198.582	6614871.536	23.746
S900S26	Sphere	70.0	146197.935	6614872.008	24.073
S900S27	Sphere	70.0	146196.565	6614868.720	23.378
S900S28	Sphere	70.0	146197.399	6614865.673	22.989
S900S29	Sphere	70.0	146195.942	6614865.784	23.382
S900S30	Sphere	70.0	146195.192	6614862.897	23.985
S900S31	Sphere	70.0	146194.783	6614859.901	23.374
S900S32	Sphere	70.0	146196.221	6614859.783	22.980
S900S33	Sphere	70.0	146194.214	6614856.969	23.365
S900S34	Sphere	70.0	146194.880	6614856.541	24.080
S900S35	Sphere	70.0	146195.053	6614853.912	23.642
S900S36	Sphere	70.0	146193.014	6614851.087	23.365
S900S37	Sphere	70.0	146192.254	6614848.232	23.648
S900S38	Sphere	70.0	146193.850	6614848.022	23.132
S900S39	Sphere	70.0	146191.857	6614845.246	23.354
S900S41	Sphere	70.0	146192.678	6614842.168	22.969
S900S42	Sphere	70.0	146190.670	6614839.363	23.342
S900S43	Sphere	70.0	146190.360	6614837.633	23.347
S900S44	Sphere	70.0	146191.499	6614836.258	23.644
S900S45	Sphere	70.0	146190.200	6614836.119	23.661
S900S46	Sphere	70.0	146189.905	6614833.468	24.022

<b>Name</b>	<b>Type</b>	<b>Size</b>	<b>X</b>	<b>Y</b>	<b>Z</b>
S900S47	Sphere	70.0	146189.482	6614833.407	23.327
S900S48	Sphere	70.0	146190.327	6614830.370	23.085
S900S49	Sphere	70.0	146188.128	6614827.637	23.611
S900S50	Sphere	70.0	146188.813	6614826.901	24.012
S900S51	Sphere	70.0	146187.958	6614825.338	23.163
S900S52	Sphere	70.0	146189.134	6614824.481	23.035
S900S53	Sphere	70.0	146187.146	6614821.726	23.309
S900S54	Sphere	70.0	146186.544	6614818.771	23.304
S900S55	Sphere	70.0	146187.973	6614818.653	23.465
S900S56	Sphere	70.0	146185.955	6614815.769	23.309
S900S57	Sphere	70.0	146186.798	6614812.737	23.629
S900S58	Sphere	70.0	146185.351	6614812.751	23.300
S900S59	Sphere	70.0	146184.201	6614806.939	23.294
S900S60	Sphere	70.0	146186.746	6614815.832	24.001
S900S61	Sphere	70.0	146188.843	6614818.225	23.025
S900S62	Sphere	70.0	146192.185	6614815.316	23.000
S900S63	Sphere	70.0	146197.429	6614813.756	23.886
S900S64	Sphere	70.0	146191.764	6614813.359	22.999
S900S65	Sphere	70.0	146187.768	6614812.795	22.958
<i>Sphere49</i>	<i>Sphere</i>	<i>70.0</i>	<i>146206.692</i>	<i>6614915.505</i>	<i>24.192</i>
<i>Sphere61</i>	<i>Sphere</i>	<i>70.0</i>	<i>146188.875</i>	<i>6614818.536</i>	<i>23.866</i>
<i>Sphere64</i>	<i>Sphere</i>	<i>70.0</i>	<i>146187.702</i>	<i>6614812.648</i>	<i>23.854</i>

# Arlanda\_tunnel.900\_Scan\_000

Position (m): 146208.347, 6614926.101, 23.261

Orientation: -0.00092, 0.00287, -1.00000

Angle (°): 102.01104

Point distance (mm): 1.79

Point drift (mm): 0.001745

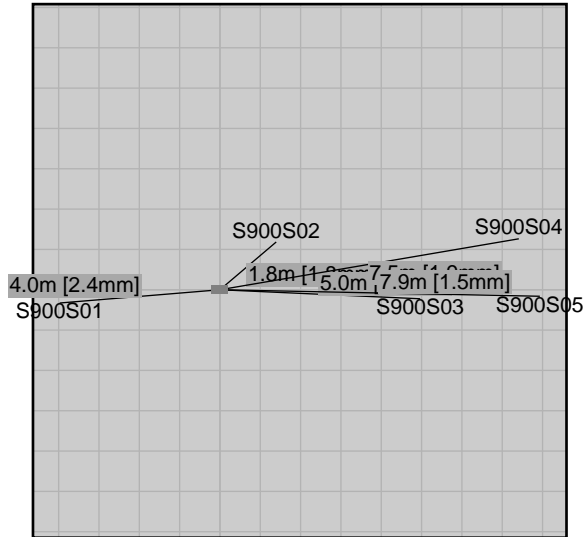
Longitudinal mismatch (mm): -0.11

Orthogonal mismatch (mm): 1.76

Angular mismatch (°): 0.025815

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S01	+	Sphere	70.0	2.4	-0.0	2.4	-4.1	-2.4	0.8
S900S02	+	Sphere	70.0	1.8	-0.2	1.8	-2.4	-0.9	3.3
S900S03	+	Sphere	70.0	1.2	0.3	1.1	-2.0	-0.6	0.5
S900S04	+	Sphere	70.0	1.9	-0.5	1.9	0.0	-2.4	-0.2
S900S05	+	Sphere	70.0	1.5	-0.1	1.5	-1.4	-1.2	-0.7



# Arlanda\_tunnel.900\_Scan\_001

Position (m): 146209.228, 6614924.894, 22.848

Orientation: 0.00960, 0.00166, -0.99995

Angle (°): 36.15100

Point distance (mm): 1.41

Point drift (mm): 0.000058

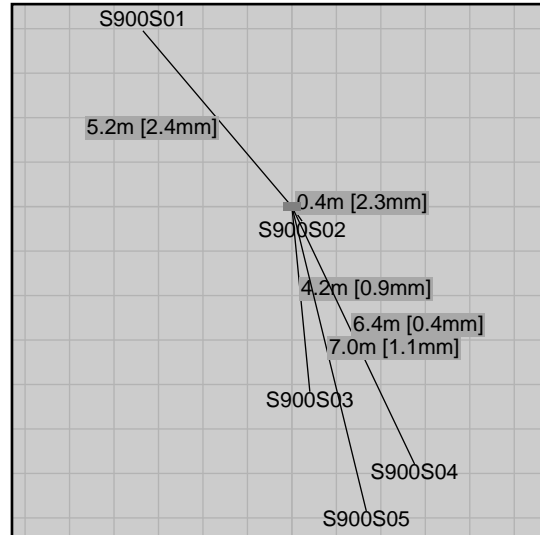
Longitudinal mismatch (mm): -0.40

Orthogonal mismatch (mm): 1.11

Angular mismatch (°): 0.022716

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S01	+	Sphere	70.0	2.4	0.2	2.4	-4.1	-2.3	-1.6
S900S02	+	Sphere	70.0	2.3	-2.0	1.1	-1.9	-0.9	3.6
S900S03	+	Sphere	70.0	0.9	-0.6	0.7	-1.3	-1.5	0.7
S900S04	+	Sphere	70.0	0.4	0.2	0.3	-1.3	-1.8	-0.0
S900S05	+	Sphere	70.0	1.1	0.2	1.0	-0.9	-1.0	-0.5

# Arlanda\_tunnel.900\_Scan\_002

Position (m): 146207.120, 6614918.614, 23.056

Orientation: -0.01299, 0.00330, -0.99991

Angle (°): 100.20473

Point distance (mm): 1.31

Point drift (mm): 0.000032

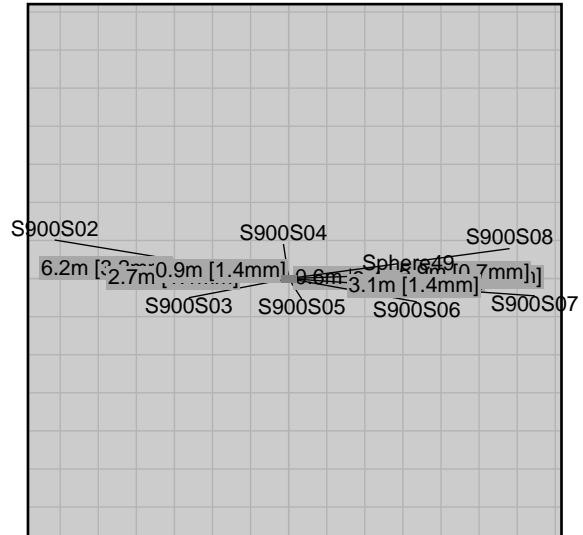
Longitudinal mismatch (mm): 0.12

Orthogonal mismatch (mm): 1.18

Angular mismatch (°): 0.031786

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S02	+	Sphere	70.0	3.2	1.5	2.8	-3.0	-1.6	-0.2
S900S03	+	Sphere	70.0	1.1	-0.3	1.1	-0.7	-1.0	0.8
S900S04	+	Sphere	70.0	1.4	-0.4	1.3	-1.4	-1.9	1.4
S900S05	+	Sphere	70.0	1.3	-0.8	1.1	-0.5	-1.5	1.5
S900S06	+	Sphere	70.0	0.5	-0.1	0.5	-1.1	-4.0	0.5
S900S07	+	Sphere	70.0	0.9	0.1	0.9	-0.5	-1.6	-0.7
S900S08	+	Sphere	70.0	0.7	-0.0	0.7	-0.1	-1.6	0.2
Sphere49	-	Sphere	70.0	1.4	0.9	1.1	0.3	0.4	-1.1

# Arlanda\_tunnel.900\_Scan\_003

Position (m): 146207.625, 6614917.259, 22.823

Orientation: 0.00321, 0.01366, -0.99990

Angle (°): 101.87361

Point distance (mm): 1.10

Point drift (mm): 0.000030

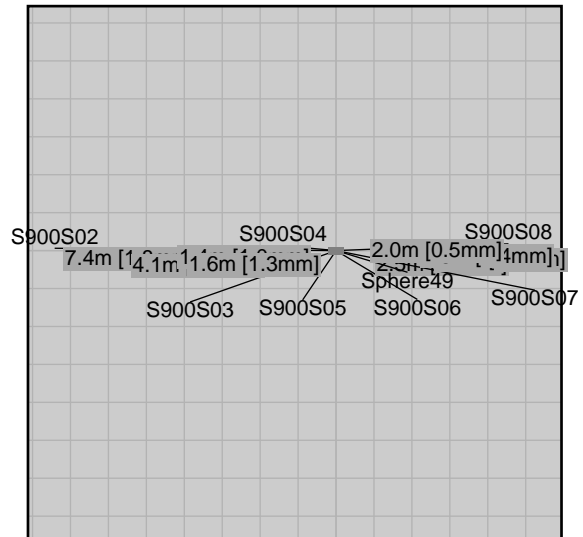
Longitudinal mismatch (mm): -0.14

Orthogonal mismatch (mm): 1.00

Angular mismatch (°): 0.019211

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S02	+	Sphere	70.0	1.8	-0.9	1.6	-1.4	-0.3	1.0
S900S03	+	Sphere	70.0	1.2	-0.7	1.0	-1.8	-0.8	0.8
S900S04	+	Sphere	70.0	1.0	-0.1	1.0	-1.6	-2.1	1.1
S900S05	+	Sphere	70.0	1.3	0.3	1.3	-0.7	-2.1	1.1
S900S06	+	Sphere	70.0	0.6	-0.5	0.4	-1.2	-4.2	0.4
S900S07	+	Sphere	70.0	1.0	0.1	1.0	-0.2	-1.7	-0.9
S900S08	+	Sphere	70.0	1.4	0.3	1.3	0.3	-1.5	-0.3
Sphere49	-	Sphere	70.0	0.5	0.3	0.4	-0.0	0.4	0.1

# Arlanda\_tunnel.900\_Scan\_004

Position (m): 146206.880, 6614913.602, 22.823

Orientation: 0.01177, 0.00887, -0.99989

Angle (°): 99.87598

Point distance (mm): 1.26

Point drift (mm): 0.000027

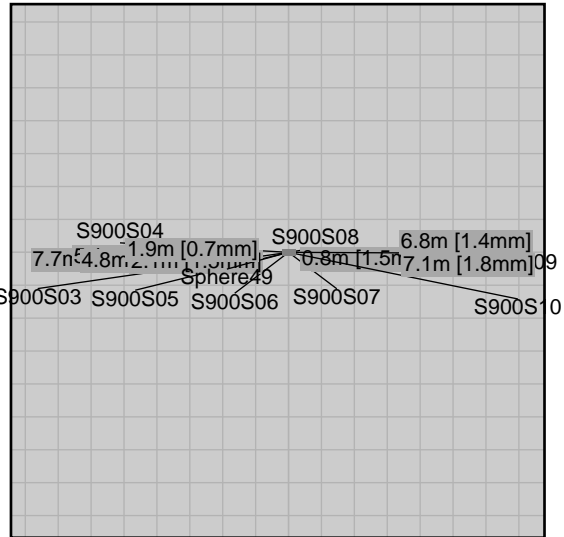
Longitudinal mismatch (mm): -0.21

Orthogonal mismatch (mm): 1.09

Angular mismatch (°): 0.024296

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S03	+	Sphere	70.0	1.3	0.0	1.3	-0.6	-1.1	-0.8
S900S04	+	Sphere	70.0	1.1	0.6	0.9	-2.2	-2.3	0.7
S900S05	+	Sphere	70.0	0.8	-0.8	0.3	-0.7	-0.6	0.7
S900S06	+	Sphere	70.0	1.5	-1.1	1.1	-1.1	-3.6	1.5
S900S07	+	Sphere	70.0	1.2	0.1	1.1	0.5	-1.8	0.8
S900S08	+	Sphere	70.0	1.5	-0.3	1.5	-0.2	-1.2	1.7
S900S09	+	Sphere	70.0	1.4	0.4	1.3	0.2	-1.0	-2.7
S900S10	+	Sphere	70.0	1.8	-0.8	1.6	1.2	-4.1	-1.2
Sphere49	-	Sphere	70.0	0.7	-0.2	0.6	-0.1	-0.2	0.5

# Arlanda\_tunnel.900\_Scan\_005

Position (m): 146206.659, 6614914.272, 23.618

Orientation: 0.00407, 0.00023, -0.99999

Angle (°): 102.43509

Point distance (mm): 1.38

Point drift (mm): 0.000029

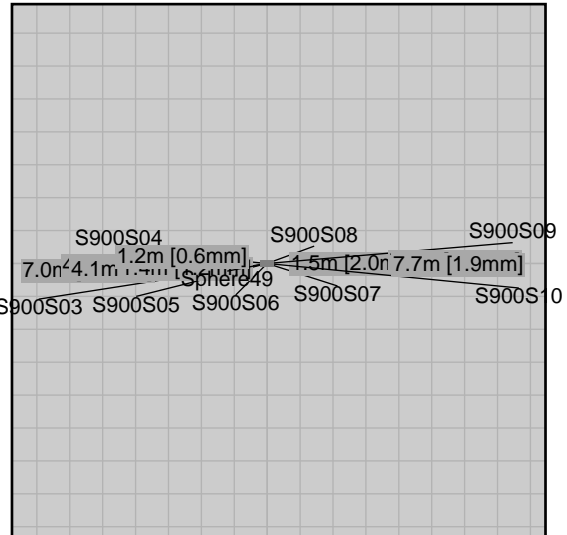
Longitudinal mismatch (mm): 0.32

Orthogonal mismatch (mm): 1.18

Angular mismatch (°): 0.023024

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S03	+	Sphere	70.0	2.3	0.7	2.2	-1.2	-1.8	-1.7
S900S04	+	Sphere	70.0	1.2	0.8	0.9	-1.7	-2.5	1.1
S900S05	+	Sphere	70.0	0.7	-0.7	0.3	-0.6	-0.6	0.1
S900S06	+	Sphere	70.0	1.2	0.7	1.0	-0.5	-4.6	1.3
S900S07	+	Sphere	70.0	1.0	0.7	0.7	-0.0	-1.2	0.5
S900S08	+	Sphere	70.0	2.0	1.0	1.8	-0.4	-1.1	2.2
S900S09	+	Sphere	70.0	1.5	-0.6	1.3	0.8	-1.8	-1.7
S900S10	+	Sphere	70.0	1.9	0.3	1.9	1.0	-2.8	-1.2
Sphere49	-	Sphere	70.0	0.6	-0.0	0.6	-0.4	-0.1	0.3

# Arlanda\_tunnel.900\_Scan\_006

Position (m): 146205.512, 6614908.531, 23.859

Orientation: 0.00298, 0.00353, -0.99999

Angle (°): 105.63411

Point distance (mm): 1.56

Point drift (mm): 0.000038

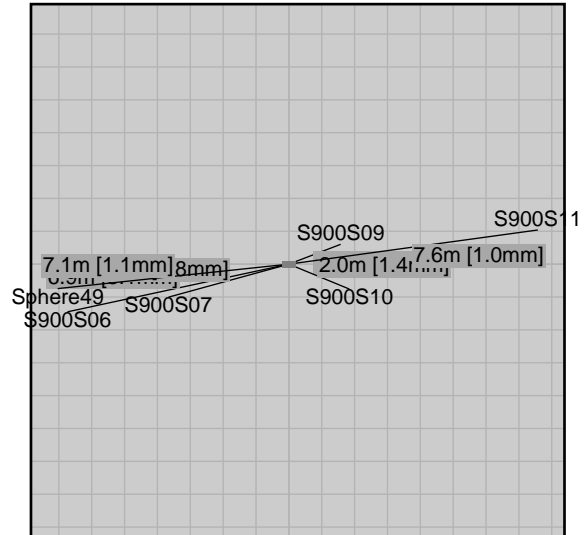
Longitudinal mismatch (mm): 0.65

Orthogonal mismatch (mm): 1.32

Angular mismatch (°): 0.023451

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S06	+	Sphere	70.0	3.1	1.0	2.9	-0.3	-5.1	-2.0
S900S07	+	Sphere	70.0	0.8	0.1	0.8	-0.4	-2.0	-0.6
S900S09	+	Sphere	70.0	2.0	0.9	1.8	-0.6	-0.4	0.1
S900S10	+	Sphere	70.0	1.4	0.7	1.3	1.7	-2.9	1.4
S900S11	+	Sphere	70.0	1.0	0.1	1.0	2.3	2.9	-0.7
Sphere49	-	Sphere	70.0	1.1	1.1	0.2	-0.0	-0.9	-0.2

# Arlanda\_tunnel.900\_Scan\_007

Position (m): 146206.356, 6614910.741, 22.384

Orientation: 0.00019, 0.01150, -0.99993

Angle (°): 100.53007

Point distance (mm): 1.32

Point drift (mm): 0.000026

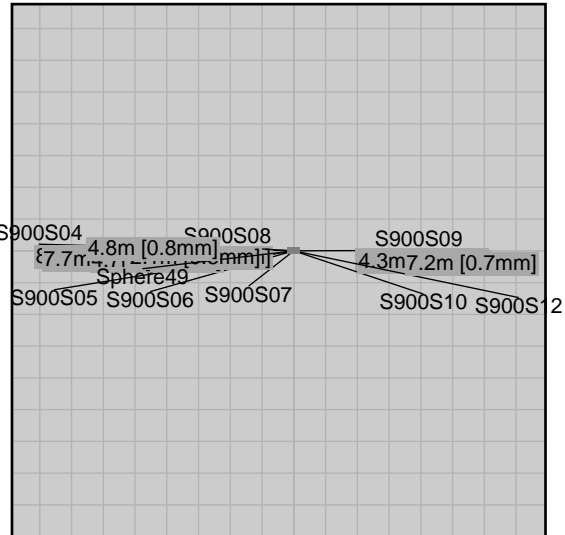
Longitudinal mismatch (mm): -0.30

Orthogonal mismatch (mm): 1.14

Angular mismatch (°): 0.013797

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S04	+	Sphere	70.0	3.5	-1.1	3.3	-2.1	-0.5	-2.4
S900S05	+	Sphere	70.0	1.3	0.2	1.3	0.5	-1.4	0.4
S900S06	+	Sphere	70.0	0.8	-0.8	0.2	-0.6	-3.5	0.7
S900S07	+	Sphere	70.0	1.0	0.3	1.0	0.0	-2.5	0.6
S900S08	+	Sphere	70.0	0.8	0.6	0.5	-1.0	-2.1	0.6
S900S09	+	Sphere	70.0	1.3	-0.4	1.3	0.5	-1.8	-2.1
S900S10	+	Sphere	70.0	1.6	-0.7	1.5	1.2	-3.4	1.6
S900S12	+	Sphere	70.0	0.7	-0.2	0.7	-0.2	-2.0	0.5
Sphere49	-	Sphere	70.0	0.8	-0.6	0.5	0.3	0.4	0.4

# Arlanda\_tunnel.900\_Scan\_008

Position (m): 146205.247, 6614906.664, 22.373

Orientation: 0.00484, -0.00085, -0.99999

Angle (°): 99.77996

Point distance (mm): 1.46

Point drift (mm): 0.000035

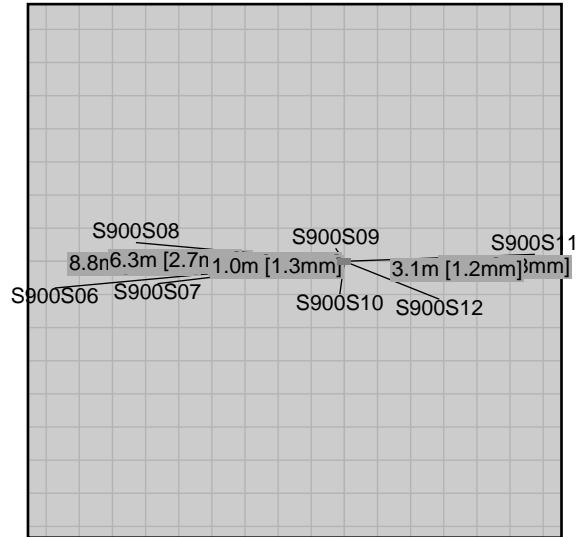
Longitudinal mismatch (mm): -0.27

Orthogonal mismatch (mm): 1.09

Angular mismatch (°): 0.013440

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S06	+	Sphere	70.0	0.9	-0.6	0.7	-0.1	-3.6	0.3
S900S07	+	Sphere	70.0	0.5	0.0	0.5	0.2	-1.9	0.3
S900S08	+	Sphere	70.0	2.7	1.2	2.4	-1.5	-2.2	-1.5
S900S09	+	Sphere	70.0	1.3	-1.3	0.1	0.1	-1.0	-0.4
S900S10	+	Sphere	70.0	1.3	-1.2	0.3	1.2	-3.4	1.2
S900S11	+	Sphere	70.0	2.3	0.1	2.3	2.5	2.5	-1.9
S900S12	+	Sphere	70.0	1.2	-0.2	1.2	0.0	-1.6	1.6



# Arlanda\_tunnel.900\_Scan\_009

Position (m): 146204.295, 6614905.680, 23.562

Orientation: -0.00011, 0.01549, -0.99988

Angle (°): 100.05468

Point distance (mm): 1.22

Point drift (mm): 0.000033

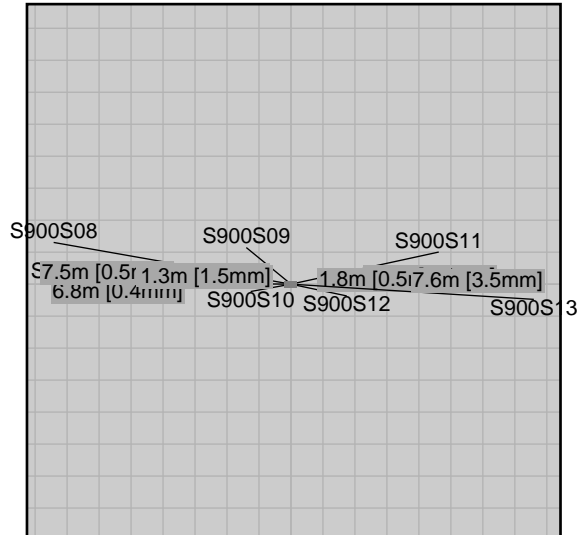
Longitudinal mismatch (mm): 0.22

Orthogonal mismatch (mm): 1.14

Angular mismatch (°): 0.021604

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S07	+	Sphere	70.0	0.4	-0.1	0.4	-0.1	-1.7	-0.4
S900S08	+	Sphere	70.0	0.5	-0.1	0.5	-0.9	-1.4	0.5
S900S09	+	Sphere	70.0	1.5	-0.1	1.5	0.0	-1.5	-0.3
S900S10	+	Sphere	70.0	1.5	0.9	1.3	2.1	-4.1	1.4
S900S11	+	Sphere	70.0	0.5	0.1	0.5	2.3	2.9	0.3
S900S12	+	Sphere	70.0	0.5	0.4	0.3	0.7	-1.8	0.9
S900S13	+	Sphere	70.0	3.5	0.5	3.5	1.2	1.6	-3.0

# Arlanda\_tunnel.900\_Scan\_010

Position (m): 146203.333, 6614900.850, 23.553

Orientation: -0.00879, 0.00259, -0.99996

Angle (°): 100.42431

Point distance (mm): 1.33

Point drift (mm): 0.000041

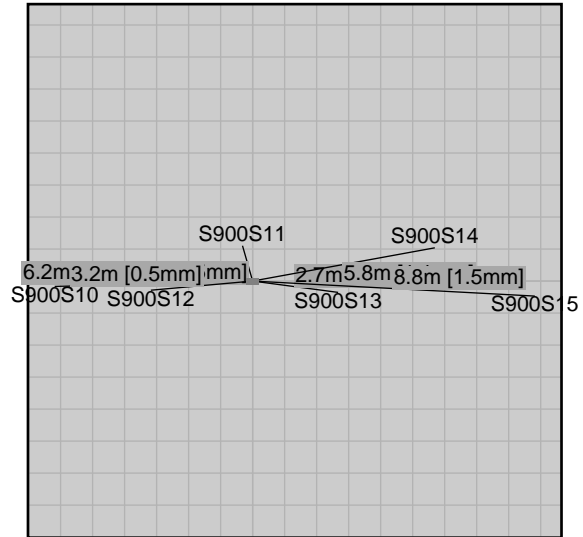
Longitudinal mismatch (mm): 0.06

Orthogonal mismatch (mm): 1.27

Angular mismatch (°): 0.024402

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S10	+	Sphere	70.0	1.7	0.6	1.6	2.3	-4.1	-1.2
S900S11	+	Sphere	70.0	1.5	0.2	1.5	2.0	3.2	1.3
S900S12	+	Sphere	70.0	0.5	-0.3	0.4	0.1	-1.7	0.7
S900S13	+	Sphere	70.0	1.7	-0.3	1.6	1.0	0.9	1.0
S900S14	+	Sphere	70.0	1.1	0.5	1.0	1.8	3.4	3.1
S900S15	+	Sphere	70.0	1.5	-0.2	1.5	1.7	1.9	-2.3

# Arlanda\_tunnel.900\_Scan\_011

Position (m): 146204.079, 6614901.054, 22.354

Orientation: -0.00554, -0.00381, -0.99998

Angle (°): 101.34269

Point distance (mm): 1.13

Point drift (mm): 0.000037

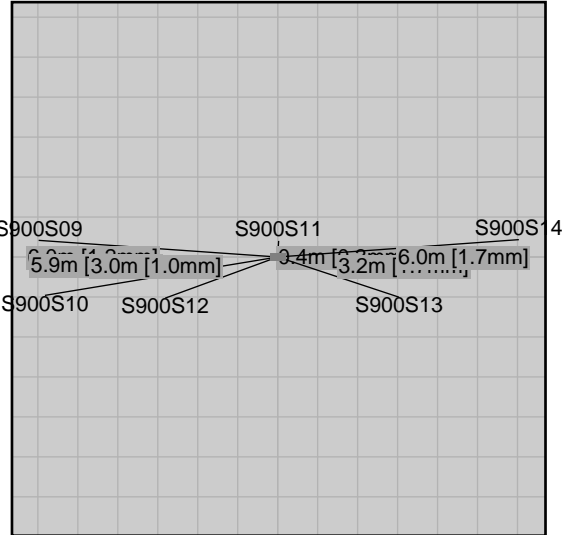
Longitudinal mismatch (mm): -0.06

Orthogonal mismatch (mm): 1.08

Angular mismatch (°): 0.016041

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S09	+	Sphere	70.0	1.2	0.4	1.1	-1.0	-1.1	-2.4
S900S10	+	Sphere	70.0	0.9	0.3	0.8	2.4	-3.8	0.5
S900S11	+	Sphere	70.0	0.3	0.0	0.3	2.1	2.9	-0.1
S900S12	+	Sphere	70.0	1.0	-0.6	0.9	0.5	-1.8	1.6
S900S13	+	Sphere	70.0	1.7	-0.4	1.7	1.3	1.5	1.1
S900S14	+	Sphere	70.0	1.7	-0.2	1.7	2.2	2.6	1.0

# Arlanda\_tunnel.900\_Scan\_012

Position (m): 146202.950, 6614899.249, 23.836

Orientation: 0.00059, 0.00415, -0.99999

Angle (°): 98.57632

Point distance (mm): 1.41

Point drift (mm): 0.000034

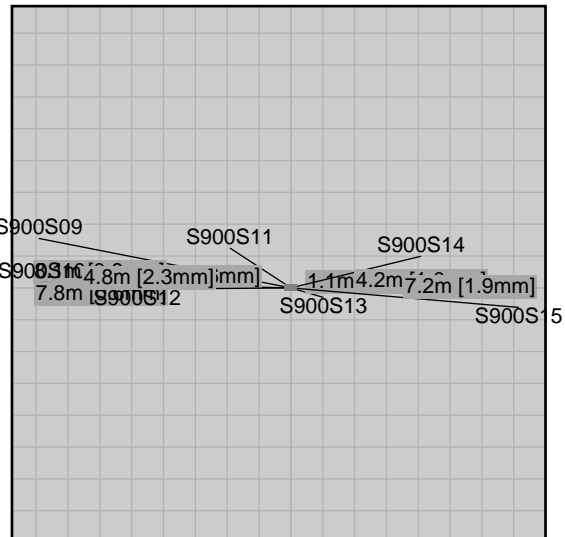
Longitudinal mismatch (mm): 0.18

Orthogonal mismatch (mm): 1.29

Angular mismatch (°): 0.024116

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S09	+	Sphere	70.0	0.8	-0.3	0.7	-0.8	-0.6	-1.6
S900S10	+	Sphere	70.0	0.6	-0.4	0.4	1.5	-3.0	0.1
S900S11	+	Sphere	70.0	1.6	0.9	1.3	1.7	2.3	1.4
S900S12	+	Sphere	70.0	2.3	0.5	2.2	1.3	-2.7	-0.9
S900S13	+	Sphere	70.0	1.7	0.9	1.5	2.0	1.3	1.4
S900S14	+	Sphere	70.0	1.0	-0.1	1.0	2.0	2.9	3.0
S900S15	+	Sphere	70.0	1.9	-0.3	1.8	1.4	2.0	-2.7

# Arlanda\_tunnel.900\_Scan\_013

Position (m): 146203.475, 6614899.296, 23.300

Orientation: -0.00154, -0.00473, -0.99999

Angle (°): 101.29999

Point distance (mm): 1.48

Point drift (mm): 0.000033

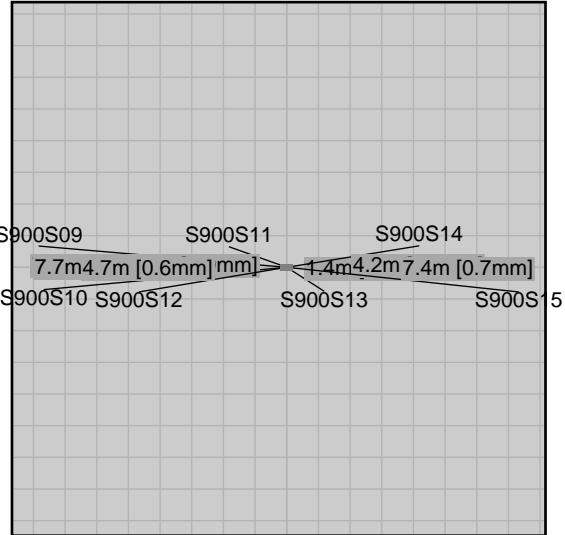
Longitudinal mismatch (mm): 0.20

Orthogonal mismatch (mm): 1.41

Angular mismatch (°): 0.025477

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S09	+	Sphere	70.0	2.4	-0.2	2.4	-1.9	-0.3	-2.8
S900S10	+	Sphere	70.0	2.1	0.2	2.1	3.1	-3.7	-1.3
S900S11	+	Sphere	70.0	1.9	1.2	1.4	1.1	2.0	1.3
S900S12	+	Sphere	70.0	0.6	0.2	0.5	0.8	-2.1	0.5
S900S13	+	Sphere	70.0	2.0	-0.1	2.0	1.9	1.3	1.7
S900S14	+	Sphere	70.0	0.7	-0.1	0.7	1.8	3.0	2.8
S900S15	+	Sphere	70.0	0.7	0.3	0.7	2.0	2.2	-1.2

# Arlanda\_tunnel.900\_Scan\_014

Position (m): 146204.000, 6614898.886, 22.360

Orientation: 0.00380, 0.00245, -0.99999

Angle (°): 101.36001

Point distance (mm): 0.91

Point drift (mm): 0.000033

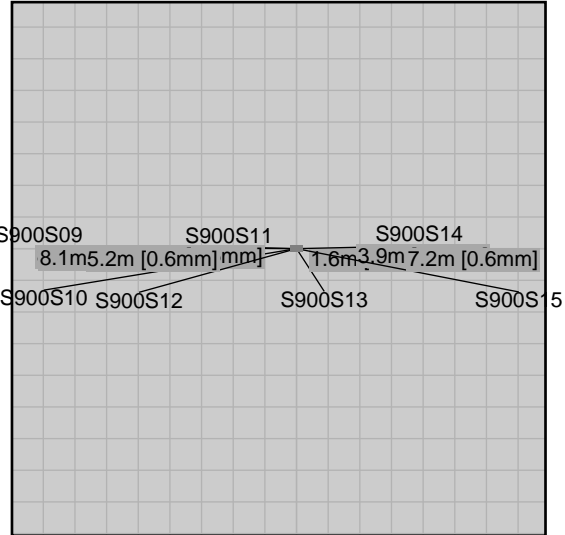
Longitudinal mismatch (mm): -0.13

Orthogonal mismatch (mm): 0.65

Angular mismatch (°): 0.009677

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S09	+	Sphere	70.0	0.3	0.2	0.3	-0.2	-1.3	-1.4
S900S10	+	Sphere	70.0	1.4	-1.2	0.5	2.0	-2.4	0.8
S900S11	+	Sphere	70.0	0.5	0.4	0.3	1.6	2.4	-0.1
S900S12	+	Sphere	70.0	0.6	0.3	0.5	0.1	-2.3	1.0
S900S13	+	Sphere	70.0	1.1	-0.8	0.7	1.9	0.8	0.9
S900S14	+	Sphere	70.0	1.9	0.7	1.8	2.2	3.2	0.7
S900S15	+	Sphere	70.0	0.6	-0.4	0.5	1.2	1.7	-1.4

# Arlanda\_tunnel.900\_Scan\_015

Position (m): 146201.682, 6614892.614, 23.760

Orientation: -0.00753, 0.00426, -0.99996

Angle (°): 99.85387

Point distance (mm): 1.64

Point drift (mm): 0.000016

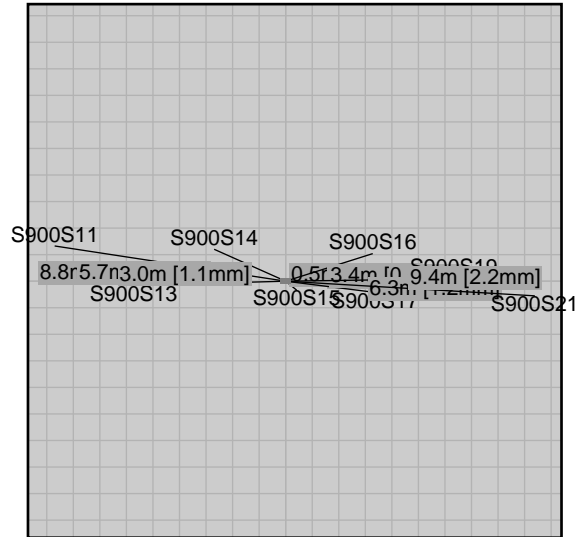
Longitudinal mismatch (mm): 0.56

Orthogonal mismatch (mm): 1.19

Angular mismatch (°): 0.029316

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S11	+	Sphere	70.0	1.7	-0.8	1.5	1.4	3.6	-1.2
S900S13	+	Sphere	70.0	2.7	1.5	2.3	3.5	-0.7	-1.2
S900S14	+	Sphere	70.0	1.1	0.9	0.5	1.1	2.5	2.8
S900S15	+	Sphere	70.0	2.9	2.4	1.8	2.1	2.9	1.5
S900S16	+	Sphere	70.0	0.7	0.6	0.5	0.5	2.9	2.0
S900S17	+	Sphere	70.0	0.5	0.4	0.4	-3.1	3.8	-3.0
S900S19	+	Sphere	70.0	1.2	0.9	0.9	-1.9	-0.3	0.9
S900S21	+	Sphere	70.0	2.2	-1.4	1.7	-1.7	0.5	-3.4

# Arlanda\_tunnel.900\_Scan\_016

Position (m): 146202.066, 6614891.949, 23.246

Orientation: -0.00665, 0.00483, -0.99997

Angle (°): 98.33136

Point distance (mm): 1.84

Point drift (mm): 0.000061

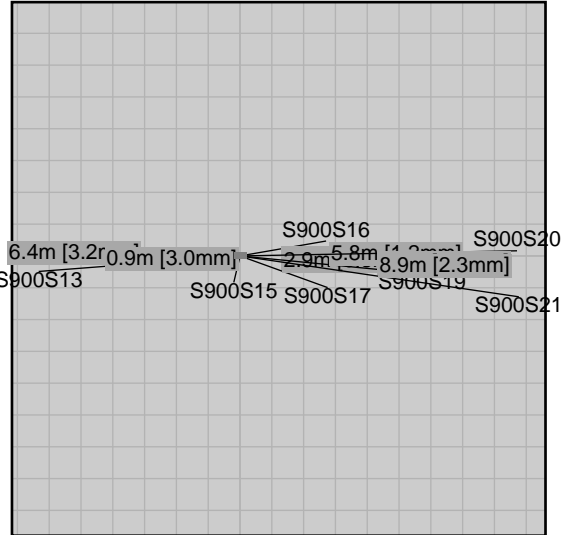
Longitudinal mismatch (mm): -0.25

Orthogonal mismatch (mm): 1.66

Angular mismatch (°): 0.036655

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S13	+	Sphere	70.0	3.2	0.8	3.1	3.9	0.1	-2.1
S900S15	+	Sphere	70.0	3.0	-1.6	2.6	0.7	3.1	1.5
S900S16	+	Sphere	70.0	0.9	-0.7	0.6	1.2	2.0	2.7
S900S17	+	Sphere	70.0	0.8	-0.4	0.7	-3.3	3.2	-2.6
S900S19	+	Sphere	70.0	1.2	0.5	1.1	-1.2	-0.8	0.0
S900S20	+	Sphere	70.0	1.4	0.3	1.4	-1.0	4.1	1.5
S900S21	+	Sphere	70.0	2.3	-0.6	2.2	-1.9	1.1	-3.7



# Arlanda\_tunnel.900\_Scan\_017

Position (m): 146202.566, 6614891.866, 22.350

Orientation: 0.00261, -0.01406, -0.99990

Angle (°): 100.82427

Point distance (mm): 1.20

Point drift (mm): 0.000040

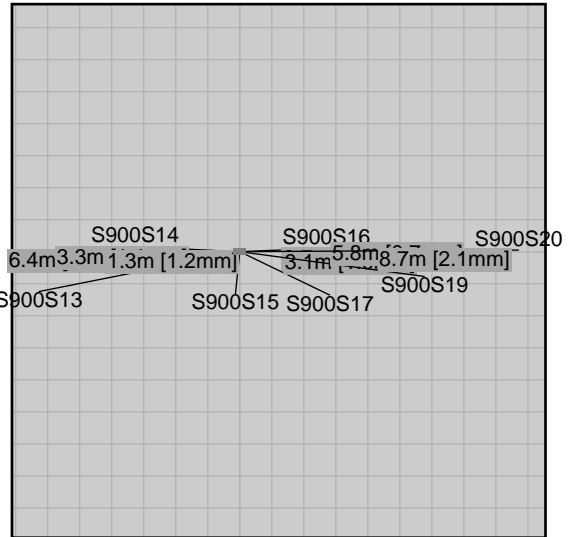
Longitudinal mismatch (mm): -0.16

Orthogonal mismatch (mm): 1.05

Angular mismatch (°): 0.016071

Inclinometer mismatch (°): 0.000001

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S13	+	Sphere	70.0	0.8	-0.5	0.6	2.6	1.4	-0.2
S900S14	+	Sphere	70.0	1.1	0.9	0.6	1.0	2.5	1.9
S900S15	+	Sphere	70.0	1.2	-0.5	1.1	1.7	2.5	-0.0
S900S16	+	Sphere	70.0	1.0	-0.6	0.8	0.9	1.8	1.8
S900S17	+	Sphere	70.0	1.6	0.1	1.6	-3.1	4.1	-2.1
S900S19	+	Sphere	70.0	0.7	0.0	0.7	-1.8	-1.0	0.9
S900S20	+	Sphere	70.0	2.1	-0.6	2.1	0.5	3.1	-0.5

# Arlanda\_tunnel.900\_Scan\_018

Position (m): 146200.534, 6614887.035, 23.826

Orientation: 0.00380, -0.00883, -0.99995

Angle (°): 101.12307

Point distance (mm): 1.57

Point drift (mm): 0.000044

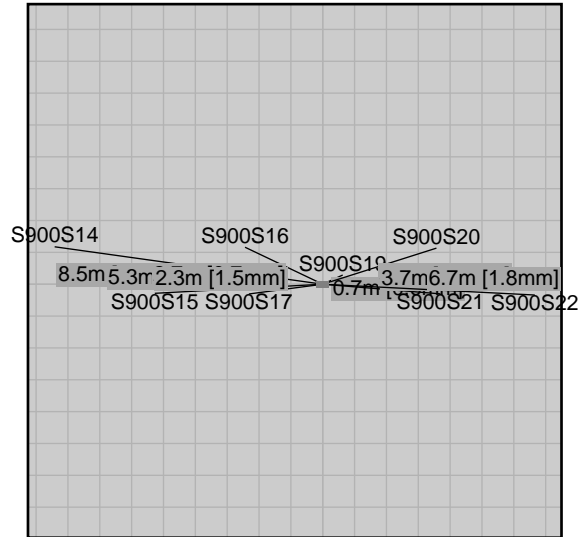
Longitudinal mismatch (mm): 0.55

Orthogonal mismatch (mm): 1.35

Angular mismatch (°): 0.021063

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S14	+	Sphere	70.0	3.3	-0.5	3.2	-0.9	4.3	1.5
S900S15	+	Sphere	70.0	1.9	1.1	1.6	2.5	1.0	-1.4
S900S16	+	Sphere	70.0	0.7	0.4	0.5	0.4	2.5	2.1
S900S17	+	Sphere	70.0	1.5	1.3	0.8	-2.4	2.3	-3.0
S900S19	+	Sphere	70.0	0.6	0.0	0.6	-1.3	-0.9	1.5
S900S20	+	Sphere	70.0	1.7	0.9	1.5	0.2	4.3	2.3
S900S21	+	Sphere	70.0	1.0	0.7	0.8	-0.5	1.9	-1.7
S900S22	+	Sphere	70.0	1.8	0.6	1.7	0.1	3.4	-2.2

# Arlanda\_tunnel.900\_Scan\_019

Position (m): 146200.926, 6614886.477, 23.236

Orientation: -0.00147, 0.00560, -0.99998

Angle (°): 102.06701

Point distance (mm): 1.10

Point drift (mm): 0.000033

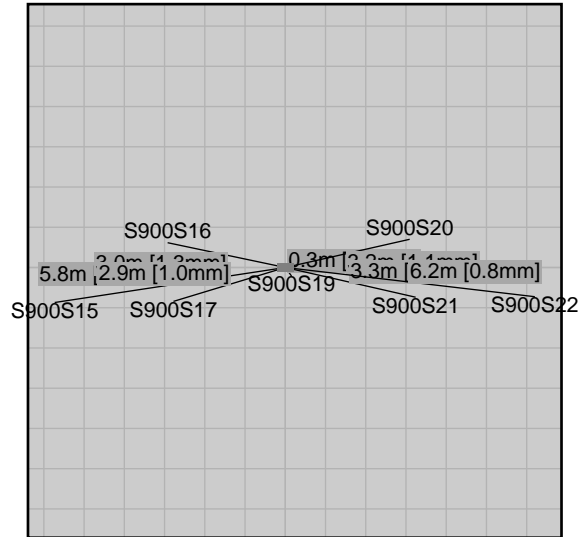
Longitudinal mismatch (mm): -0.34

Orthogonal mismatch (mm): 0.77

Angular mismatch (°): 0.016739

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S15	+	Sphere	70.0	1.2	0.2	1.2	1.6	2.0	-2.0
S900S16	+	Sphere	70.0	1.3	0.2	1.3	0.1	2.8	1.5
S900S17	+	Sphere	70.0	1.0	-1.0	0.0	-3.1	4.2	-3.2
S900S19	+	Sphere	70.0	1.7	-1.5	0.8	-1.1	-1.7	2.4
S900S20	+	Sphere	70.0	1.1	-0.8	0.8	0.2	3.1	1.6
S900S21	+	Sphere	70.0	0.6	0.3	0.6	-1.2	1.8	-1.5
S900S22	+	Sphere	70.0	0.8	0.2	0.8	-1.0	3.3	-2.0

# Arlanda\_tunnel.900\_Scan\_020

Position (m): 146201.513, 6614886.399, 22.339

Orientation: -0.01083, 0.00290, -0.99994

Angle (°): 99.63529

Point distance (mm): 2.78

Point drift (mm): 0.000051

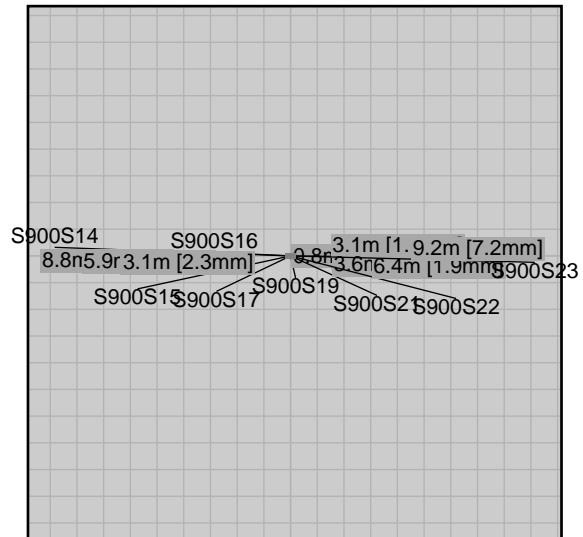
Longitudinal mismatch (mm): -0.46

Orthogonal mismatch (mm): 2.66

Angular mismatch (°): 0.035012

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S14	+	Sphere	70.0	2.2	-0.5	2.1	3.1	3.1	3.4
S900S15	+	Sphere	70.0	3.2	-0.1	3.2	-1.4	2.3	-1.8
S900S16	+	Sphere	70.0	2.2	-1.3	1.8	2.6	3.1	2.7
S900S17	+	Sphere	70.0	2.3	-0.5	2.3	-4.9	3.6	-3.9
S900S19	+	Sphere	70.0	3.4	0.1	3.4	1.3	-2.0	2.1
S900S20	+	Sphere	70.0	1.1	0.4	1.0	0.3	3.9	0.2
S900S21	+	Sphere	70.0	1.6	0.4	1.5	-0.8	2.1	-0.9
S900S22	+	Sphere	70.0	1.9	-0.7	1.8	-1.7	2.8	-2.5
S900S23	+	Sphere	70.0	7.2	-2.0	6.9	-1.4	-2.1	-6.0

# Arlanda\_tunnel.900\_Scan\_021

Position (m): 146199.358, 6614880.996, 23.725

Orientation: 0.00280, -0.00277, -0.99999

Angle (°): 99.97708

Point distance (mm): 3.10

Point drift (mm): 0.000045

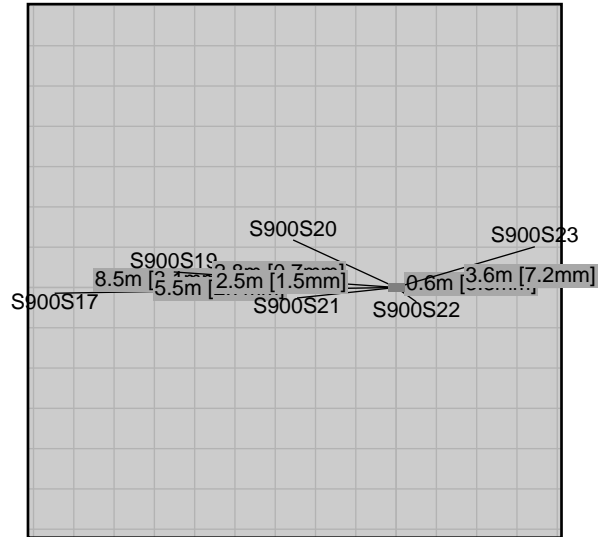
Longitudinal mismatch (mm): 0.85

Orthogonal mismatch (mm): 2.93

Angular mismatch (°): 0.075260

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S17	+	Sphere	70.0	3.1	0.4	3.0	-1.3	2.7	-5.1
S900S19	+	Sphere	70.0	2.7	0.8	2.6	-3.0	-1.3	-0.5
S900S20	+	Sphere	70.0	0.7	-0.2	0.7	-0.4	4.3	1.0
S900S21	+	Sphere	70.0	1.5	-0.1	1.5	-1.2	1.7	-0.7
S900S22	+	Sphere	70.0	3.3	1.4	3.0	-1.1	3.2	1.1
S900S23	+	Sphere	70.0	7.2	2.8	6.7	1.3	-0.0	0.3

# Arlanda\_tunnel.900\_Scan\_055

Position (m): 146186.346, 6614816.065, 23.637

Orientation: -0.00381, 0.00124, -0.99999

Angle (°): 102.16538

Point distance (mm): 1.24

Point drift (mm): 0.000337

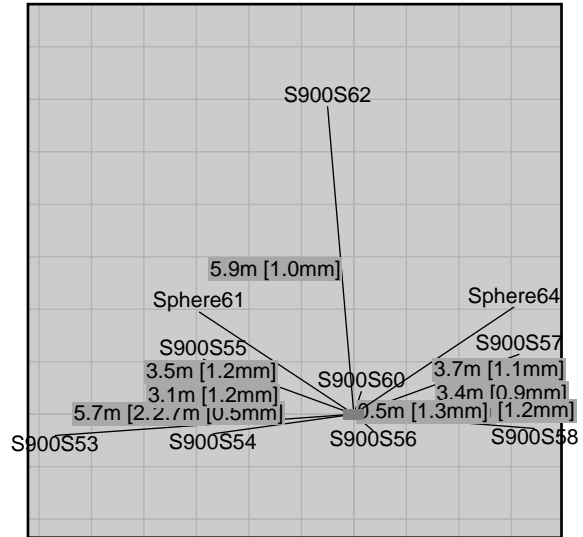
Longitudinal mismatch (mm): 0.51

Orthogonal mismatch (mm): 0.84

Angular mismatch (°): 0.024761

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 7 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S53	+	Sphere	70.0	2.1	1.7	1.1	2.6	-3.6	-1.7
S900S54	+	Sphere	70.0	0.5	-0.0	0.5	0.7	-0.8	-0.6
S900S55	+	Sphere	70.0	1.2	0.2	1.2	0.3	-0.9	4.9
S900S56	+	Sphere	70.0	2.0	1.8	0.9	1.5	0.0	0.5
S900S57	+	Sphere	70.0	0.9	0.4	0.9	0.6	4.0	1.3
S900S58	+	Sphere	70.0	1.2	-1.1	0.5	0.1	-0.6	-1.9
S900S60	+	Sphere	70.0	1.3	1.1	0.5	-0.3	-0.4	0.1
S900S62	+	Sphere	70.0	1.0	0.4	0.9	-1.8	0.2	-0.7
Sphere61	-	Sphere	70.0	1.2	-0.3	1.2	-0.1	0.3	0.9
Sphere64	-	Sphere	70.0	1.1	0.8	0.8	0.0	0.6	-0.6

# Arlanda\_tunnel.900\_Scan\_056

Position (m): 146186.774, 6614815.572, 23.398

Orientation: -0.00276, 0.00140, -1.00000

Angle (°): 104.86210

Point distance (mm): 1.32

Point drift (mm): 0.000027

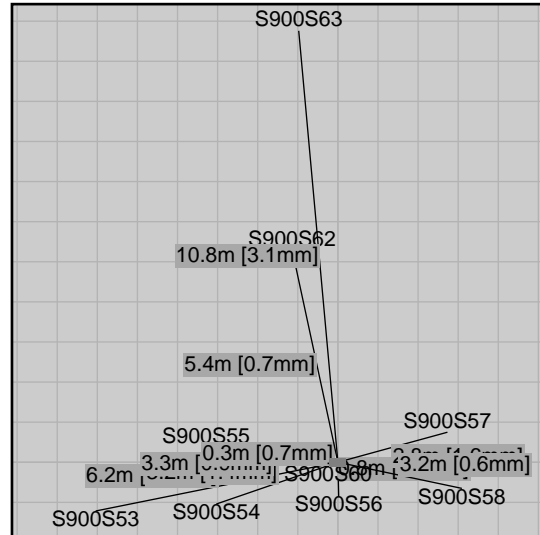
Longitudinal mismatch (mm): -0.60

Orthogonal mismatch (mm): 1.05

Angular mismatch (°): 0.026921

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S53	+	Sphere	70.0	1.3	-1.3	0.2	2.6	-1.6	-1.1
S900S54	+	Sphere	70.0	1.4	-0.6	1.3	0.8	-0.3	0.1
S900S55	+	Sphere	70.0	0.9	0.1	0.9	0.2	-0.6	4.9
S900S56	+	Sphere	70.0	1.6	-0.8	1.4	0.0	-0.1	0.1
S900S57	+	Sphere	70.0	1.6	-1.2	1.0	0.8	2.6	1.4
S900S58	+	Sphere	70.0	0.6	-0.5	0.3	-0.0	-0.1	-1.3
S900S60	+	Sphere	70.0	0.7	-0.1	0.7	0.2	-0.9	0.5
S900S62	+	Sphere	70.0	0.7	-0.0	0.7	-1.4	0.4	-0.6
S900S63	+	Sphere	70.0	3.1	-1.1	2.9	-1.4	1.2	-2.8

# Arlanda\_tunnel.900\_Scan\_057

Position (m): 146187.365, 6614815.594, 22.227

Orientation: 0.01039, 0.02054, -0.99973

Angle (°): 101.05794

Point distance (mm): 1.29

Point drift (mm): 0.000027

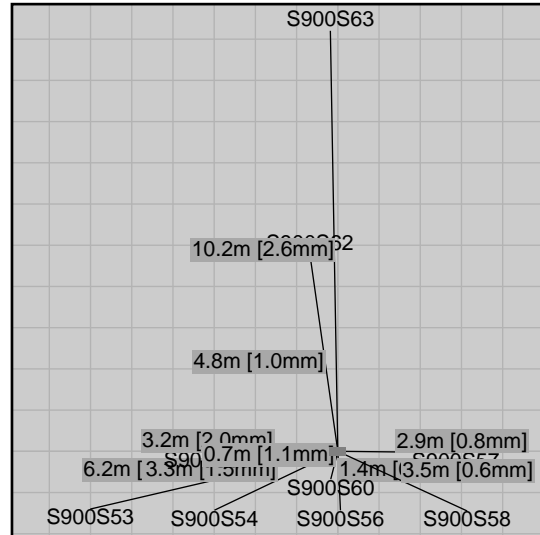
Longitudinal mismatch (mm): -0.22

Orthogonal mismatch (mm): 1.11

Angular mismatch (°): 0.015716

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 6 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S53	+	Sphere	70.0	1.2	-0.8	1.0	2.1	-2.0	-0.4
S900S54	+	Sphere	70.0	1.5	-0.5	1.4	0.5	-0.8	0.4
S900S55	+	Sphere	70.0	2.0	0.4	1.9	0.7	-1.1	5.6
S900S56	+	Sphere	70.0	0.7	0.4	0.6	0.7	-0.4	-1.7
S900S57	+	Sphere	70.0	0.8	-0.7	0.4	-0.1	3.2	2.1
S900S58	+	Sphere	70.0	0.6	0.2	0.6	0.1	0.6	-1.3
S900S60	+	Sphere	70.0	1.1	-1.0	0.5	0.7	-0.8	1.3
S900S62	+	Sphere	70.0	1.0	0.1	1.0	-1.3	0.3	-0.8
S900S63	+	Sphere	70.0	2.6	-0.0	2.6	-2.0	1.5	-2.5



# Arlanda\_tunnel.900\_Scan\_058

Position (m): 146185.174, 6614810.252, 23.589

Orientation: -0.00681, 0.00407, -0.99997

Angle (°): 105.57783

Point distance (mm): 1.56

Point drift (mm): 0.000039

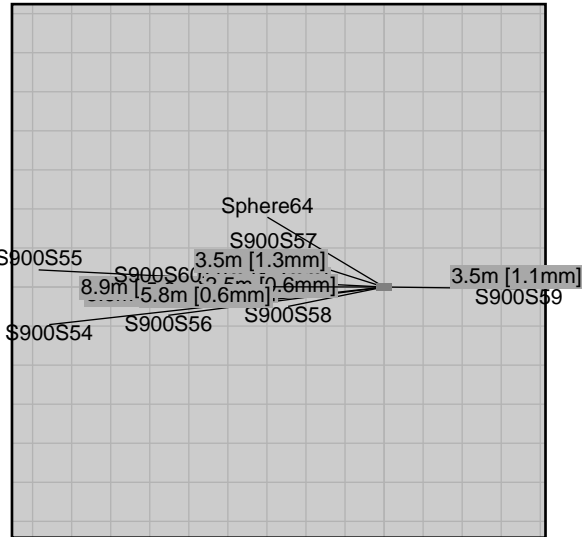
Longitudinal mismatch (mm): -0.07

Orthogonal mismatch (mm): 1.41

Angular mismatch (°): 0.016282

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S54	+	Sphere	70.0	2.0	0.2	2.0	1.7	-1.3	-2.2
S900S55	+	Sphere	70.0	4.0	-1.2	3.8	-2.8	1.5	4.7
S900S56	+	Sphere	70.0	1.2	1.1	0.4	1.0	-1.4	-0.9
S900S57	+	Sphere	70.0	1.7	-0.6	1.6	-0.3	4.6	2.9
S900S58	+	Sphere	70.0	0.6	0.2	0.6	0.5	0.1	-0.9
S900S59	+	Sphere	70.0	1.1	-0.4	1.1	1.1	-0.1	-1.1
S900S60	+	Sphere	70.0	0.6	-0.1	0.6	1.2	-0.7	0.1
Sphere64	-	Sphere	70.0	1.3	0.3	1.3	-0.7	0.3	0.8

# Arlanda\_tunnel.900\_Scan\_059

Position (m): 146185.416, 6614809.653, 23.167

Orientation: -0.00241, 0.00113, -1.00000

Angle (°): 103.14502

Point distance (mm): 0.58

Point drift (mm): 0.000053

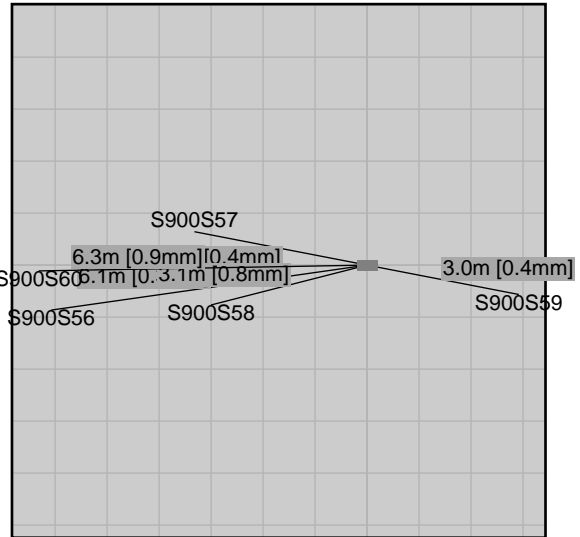
Longitudinal mismatch (mm): -0.00

Orthogonal mismatch (mm): 0.50

Angular mismatch (°): 0.007370

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 2 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S56	+	Sphere	70.0	0.3	-0.2	0.3	0.5	-0.2	-1.0
S900S57	+	Sphere	70.0	0.4	-0.2	0.4	0.2	3.9	1.7
S900S58	+	Sphere	70.0	0.8	-0.1	0.8	0.7	0.3	-0.7
S900S59	+	Sphere	70.0	0.4	-0.1	0.3	0.9	0.0	-0.5
S900S60	+	Sphere	70.0	0.9	0.6	0.7	0.7	-1.2	-0.2

# Arlanda\_tunnel.900\_Scan\_060

Position (m): 146186.120, 6614809.562, 22.203

Orientation: 0.00226, 0.00054, -1.00000

Angle (°): 102.08282

Point distance (mm): 0.83

Point drift (mm): 0.000026

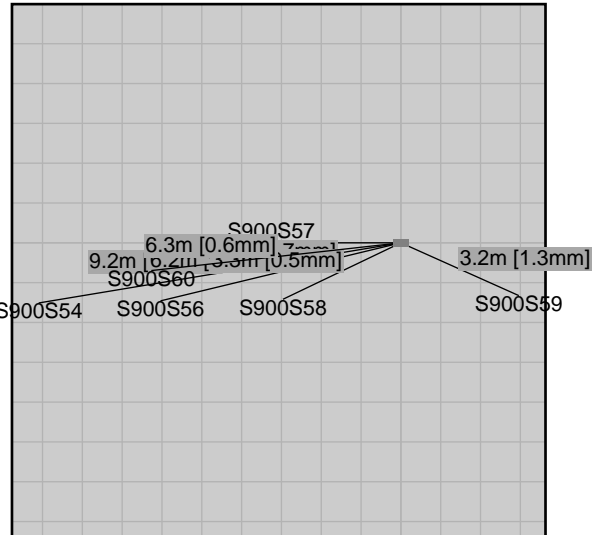
Longitudinal mismatch (mm): -0.07

Orthogonal mismatch (mm): 0.61

Angular mismatch (°): 0.008243

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 2 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S54	+	Sphere	70.0	0.7	-0.3	0.6	0.6	-0.6	-1.4
S900S56	+	Sphere	70.0	1.1	1.1	0.3	0.6	-1.3	-1.4
S900S57	+	Sphere	70.0	0.7	-0.4	0.6	0.6	3.7	2.5
S900S58	+	Sphere	70.0	0.5	-0.2	0.5	0.3	0.1	-0.9
S900S59	+	Sphere	70.0	1.3	-0.1	1.3	0.2	0.7	-0.1
S900S60	+	Sphere	70.0	0.6	-0.5	0.4	0.8	-0.2	0.2

# Arlanda\_tunnel.900\_Scan\_061

Position (m): 146188.152, 6614815.590, 22.974

Orientation: -0.00283, -0.00044, -1.00000

Angle (°): 11.00441

Point distance (mm): 0.85

Point drift (mm): 0.000029

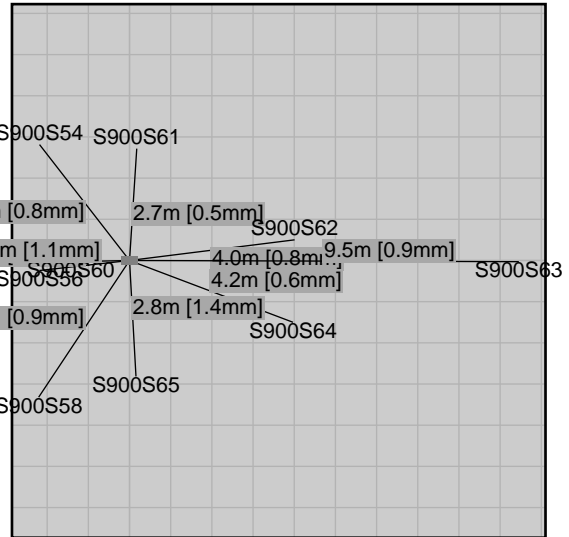
Longitudinal mismatch (mm): -0.19

Orthogonal mismatch (mm): 0.49

Angular mismatch (°): 0.009302

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 7 + inclin.

Num quadrants occupied: 4 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S54	+	Sphere	70.0	0.8	0.1	0.8	-0.1	-1.2	-1.1
S900S56	+	Sphere	70.0	0.6	-0.5	0.3	0.4	-0.2	-0.8
S900S58	+	Sphere	70.0	0.9	0.7	0.6	0.7	0.6	-1.9
S900S60	+	Sphere	70.0	1.1	0.7	0.9	1.6	-0.7	0.6
S900S61	+	Sphere	70.0	0.5	-0.4	0.3	-0.3	-2.4	0.7
S900S62	+	Sphere	70.0	0.8	0.6	0.5	-1.8	0.8	-0.2
S900S63	+	Sphere	70.0	0.9	-0.8	0.4	-1.9	0.7	-0.3
S900S64	+	Sphere	70.0	0.6	-0.6	0.2	-1.8	0.0	-0.4
S900S65	+	Sphere	70.0	1.4	-1.4	0.3	0.1	0.0	0.1

# Arlanda\_tunnel.900\_Scan\_062

Position (m): 146192.857, 6614814.593, 23.752

Orientation: -0.00493, -0.00150, -0.99999

Angle (°): 11.21173

Point distance (mm): 1.30

Point drift (mm): 0.000064

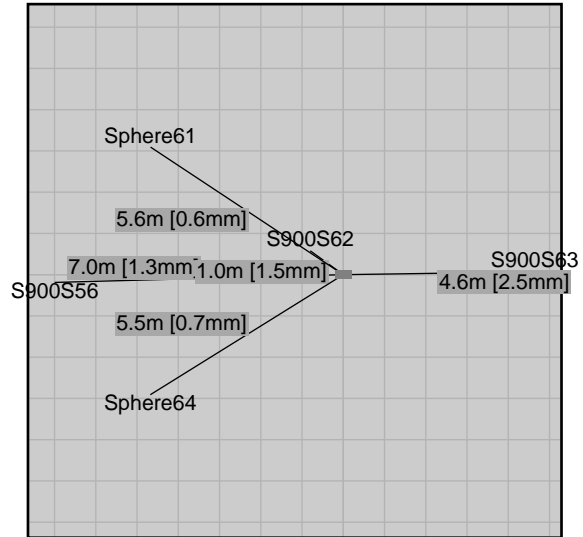
Longitudinal mismatch (mm): 0.73

Orthogonal mismatch (mm): 0.82

Angular mismatch (°): 0.011894

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S56	+	Sphere	70.0	1.3	0.4	1.2	1.2	-0.1	-2.0
S900S62	+	Sphere	70.0	1.5	1.4	0.5	-0.6	-0.1	1.0
S900S63	+	Sphere	70.0	2.5	2.1	1.2	-4.1	1.4	0.4
Sphere61	-	Sphere	70.0	0.6	-0.1	0.5	-0.3	-0.2	-0.3
Sphere64	-	Sphere	70.0	0.7	-0.2	0.6	-0.2	-0.1	-0.5

# Arlanda\_tunnel.900\_Scan\_063

Position (m): 146195.661, 6614814.083, 23.736

Orientation: -0.00302, -0.00395, -0.99999

Angle (°): 11.87028

Point distance (mm): 1.84

Point drift (mm): 0.000103

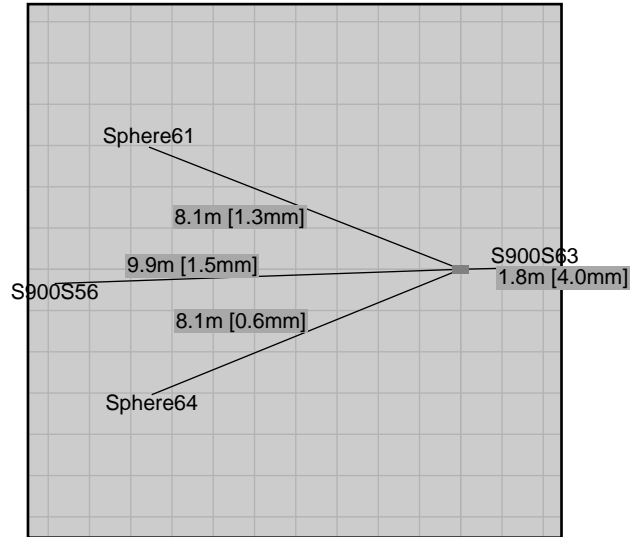
Longitudinal mismatch (mm): 0.03

Orthogonal mismatch (mm): 1.79

Angular mismatch (°): 0.036774

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S56	+	Sphere	70.0	1.5	0.0	1.5	0.9	-0.1	-2.3
S900S63	+	Sphere	70.0	4.0	-0.0	4.0	-2.7	0.8	2.7
Sphere61	-	Sphere	70.0	1.3	-0.3	1.3	-0.3	-0.1	-1.0
Sphere64	-	Sphere	70.0	0.6	0.4	0.4	0.4	-0.3	0.1

# Arlanda\_tunnel.900\_Scan\_064

Position (m): 146188.301, 6614813.816, 22.969

Orientation: -0.16899, 0.13206, -0.97673

Angle (°): 10.13130

Point distance (mm): 0.90

Point drift (mm): 0.000056

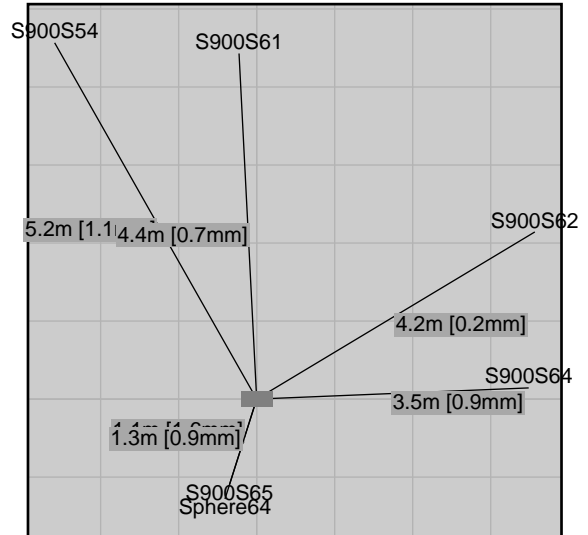
Longitudinal mismatch (mm): 0.11

Orthogonal mismatch (mm): 0.82

Angular mismatch (°): 0.023227

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S54	+	Sphere	70.0	1.1	0.1	1.1	0.3	-0.9	-1.9
S900S61	+	Sphere	70.0	0.7	0.4	0.5	-0.6	-3.1	0.1
S900S62	+	Sphere	70.0	0.2	-0.2	0.1	-1.2	0.4	0.1
S900S64	+	Sphere	70.0	0.9	0.3	0.8	-2.3	0.6	0.1
S900S65	+	Sphere	70.0	1.6	0.5	1.6	0.3	1.5	1.1
Sphere64	-	Sphere	70.0	0.9	-0.4	0.8	0.4	-0.5	0.2

# Arlanda\_tunnel.900\_Scan\_065

Position (m): 146193.351, 6614813.065, 22.970

Orientation: 0.02436, -0.06772, 0.99741

Angle (°): 35.93951

Point distance (mm): 1.20

Point drift (mm): 0.000077

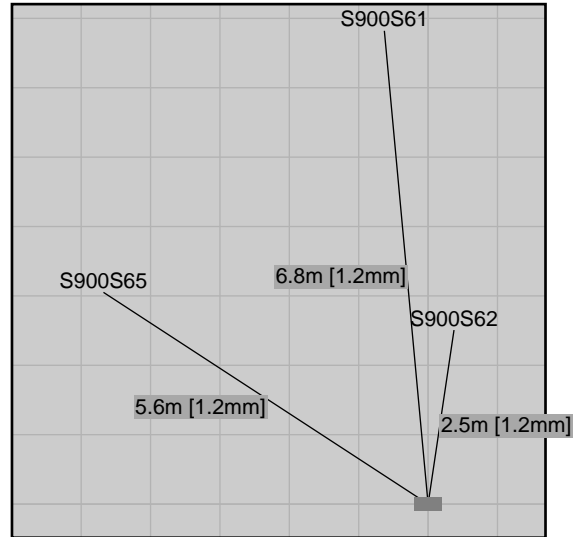
Longitudinal mismatch (mm): -0.21

Orthogonal mismatch (mm): 1.15

Angular mismatch (°): 0.016098

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 2 + inclin.

Num quadrants occupied: 1 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S61	+	Sphere	70.0	1.2	-0.5	1.1	-0.4	-2.3	-0.4
S900S62	+	Sphere	70.0	1.2	0.1	1.2	-1.2	0.2	1.1
S900S65	+	Sphere	70.0	1.2	-0.3	1.1	0.2	0.7	-0.9



# Arlanda\_tunnel.900\_Scan\_066

Position (m): 146188.915, 6614817.022, 22.975

Orientation: 0.02846, 0.00973, -0.99955

Angle (°): 14.19673

Point distance (mm): 0.82

Point drift (mm): 0.000043

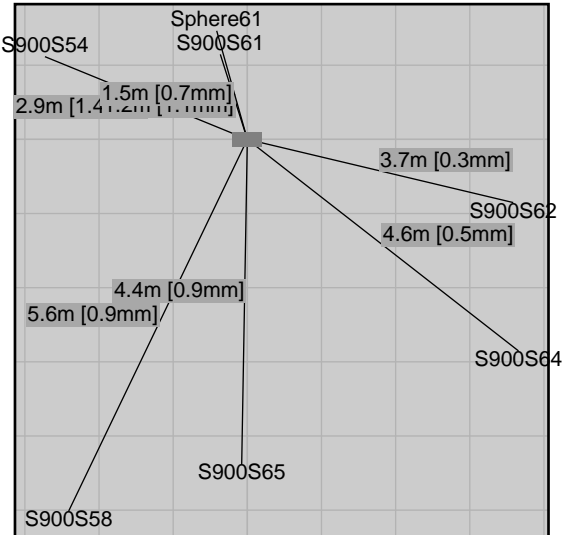
Longitudinal mismatch (mm): 0.12

Orthogonal mismatch (mm): 0.67

Angular mismatch (°): 0.016543

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 6 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S54	+	Sphere	70.0	1.4	-0.9	1.0	-0.7	-1.2	-0.9
S900S58	+	Sphere	70.0	0.9	0.6	0.7	0.9	0.4	-2.0
S900S61	+	Sphere	70.0	1.1	0.2	1.0	0.3	-2.9	1.0
S900S62	+	Sphere	70.0	0.3	0.1	0.3	-1.5	0.2	0.2
S900S64	+	Sphere	70.0	0.5	-0.0	0.5	-2.3	0.1	-0.5
S900S65	+	Sphere	70.0	0.9	0.8	0.4	0.7	1.7	0.1
Sphere61	-	Sphere	70.0	0.7	0.1	0.7	0.5	0.0	-0.2

# Arlanda\_tunnel.900\_Scan\_067

Position (m): 146194.453, 6614815.798, 22.992

Orientation: 0.08585, 0.01375, -0.99621

Angle (°): 8.58073

Point distance (mm): 0.88

Point drift (mm): 0.000150

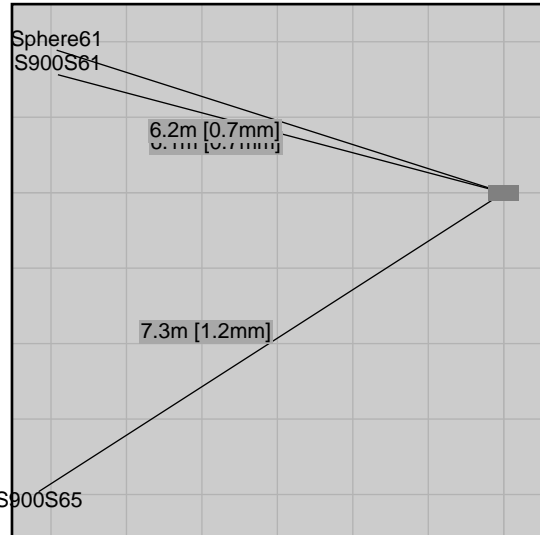
Longitudinal mismatch (mm): 0.12

Orthogonal mismatch (mm): 0.85

Angular mismatch (°): 0.007292

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 2 + inclin.

Num quadrants occupied: 1 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S61	+	Sphere	70.0	0.7	-0.1	0.7	-0.6	-3.1	0.7
S900S65	+	Sphere	70.0	1.2	0.4	1.2	0.5	1.6	-1.0
Sphere61	-	Sphere	70.0	0.7	0.1	0.7	0.2	-0.1	0.6

# Arlanda\_tunnel.900\_Scan\_070

Position (m): 146199.299, 6614880.934, 23.762

Orientation: -0.02492, 0.00232, -0.99969

Angle (°): 105.46141

Point distance (mm): 2.14

Point drift (mm): 0.003515

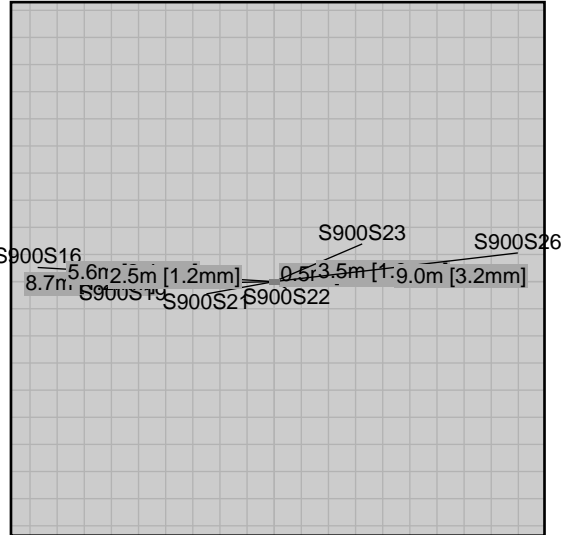
Longitudinal mismatch (mm): 0.86

Orthogonal mismatch (mm): 1.66

Angular mismatch (°): 0.044127

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S16	+	Sphere	70.0	1.2	-0.1	1.2	-15.9	0.5	-1.2
S900S19	+	Sphere	70.0	2.4	1.8	1.6	-15.5	-5.4	2.4
S900S21	+	Sphere	70.0	1.2	0.7	1.0	-11.4	-3.8	1.6
S900S22	+	Sphere	70.0	3.0	2.1	2.1	-8.8	-2.4	4.1
S900S23	+	Sphere	70.0	1.8	1.5	1.1	-4.7	-4.1	3.6
S900S26	+	Sphere	70.0	3.2	-0.9	3.1	-1.9	-7.4	-1.6

# Arlanda\_tunnel.900\_Scan\_071

Position (m): 146199.639, 6614880.399, 23.346

Orientation: 0.00295, 0.00858, -0.99996

Angle (°): 100.54118

Point distance (mm): 1.62

Point drift (mm): 0.000041

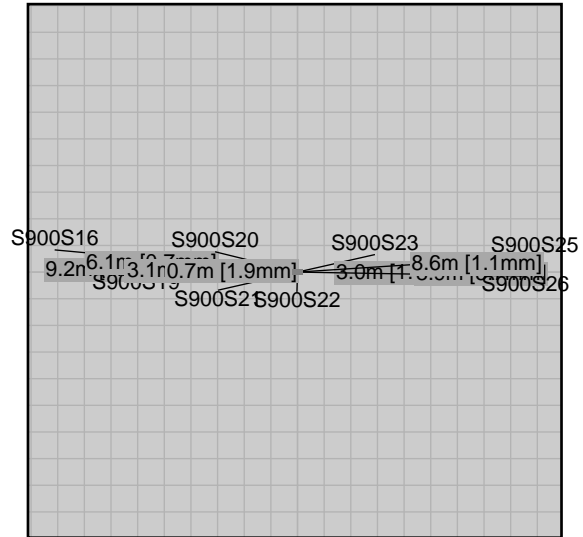
Longitudinal mismatch (mm): -0.01

Orthogonal mismatch (mm): 1.50

Angular mismatch (°): 0.026528

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S16	+	Sphere	70.0	1.2	-0.0	1.2	-17.0	0.8	-1.0
S900S19	+	Sphere	70.0	0.7	0.1	0.7	-15.9	-4.1	1.7
S900S20	+	Sphere	70.0	2.5	0.5	2.4	-11.1	-0.5	1.5
S900S21	+	Sphere	70.0	0.6	0.4	0.5	-11.8	-3.7	1.0
S900S22	+	Sphere	70.0	1.9	-1.5	1.2	-9.9	-3.3	2.9
S900S23	+	Sphere	70.0	1.3	0.3	1.3	-4.3	-5.0	3.4
S900S25	+	Sphere	70.0	3.7	-0.1	3.7	-0.5	-5.4	-2.6
S900S26	+	Sphere	70.0	1.1	0.2	1.1	-2.7	-6.0	1.3

# Arlanda\_tunnel.900\_Scan\_072

Position (m): 146200.234, 6614879.960, 22.332

Orientation: -0.00687, -0.00276, -0.99997

Angle (°): 99.47026

Point distance (mm): 1.84

Point drift (mm): 0.000043

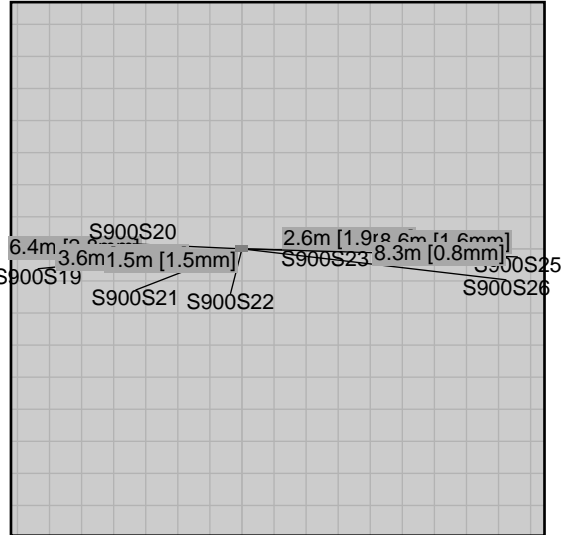
Longitudinal mismatch (mm): -0.67

Orthogonal mismatch (mm): 1.66

Angular mismatch (°): 0.024556

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S19	+	Sphere	70.0	2.8	-1.5	2.4	-15.0	-2.8	0.2
S900S20	+	Sphere	70.0	2.7	-0.2	2.7	-11.4	-0.3	1.8
S900S21	+	Sphere	70.0	1.6	-0.5	1.6	-11.1	-2.8	0.1
S900S22	+	Sphere	70.0	1.5	-1.1	1.0	-9.5	-2.4	1.9
S900S23	+	Sphere	70.0	1.9	-0.6	1.8	-4.4	-5.3	4.0
S900S25	+	Sphere	70.0	1.6	-0.7	1.5	-2.0	-5.9	-0.9
S900S26	+	Sphere	70.0	0.8	-0.1	0.8	-1.8	-6.6	0.5

# Arlanda\_tunnel.900\_Scan\_073

Position (m): 146198.056, 6614874.790, 23.739

Orientation: -0.00203, 0.00526, -0.99998

Angle (°): 103.34330

Point distance (mm): 1.59

Point drift (mm): 0.000033

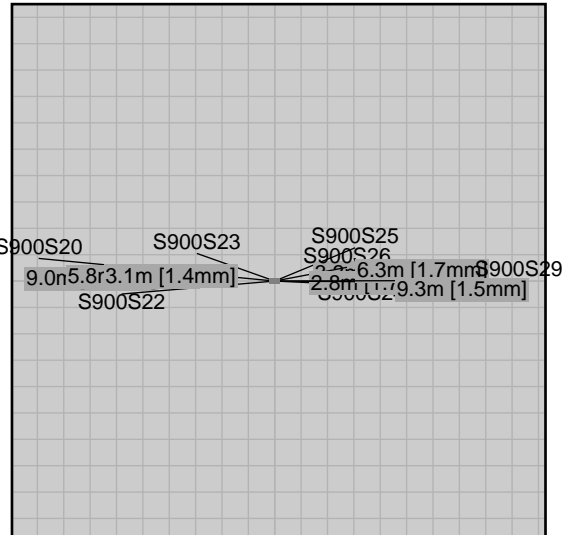
Longitudinal mismatch (mm): 0.58

Orthogonal mismatch (mm): 1.17

Angular mismatch (°): 0.014102

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S20	+	Sphere	70.0	1.1	0.4	1.0	-12.0	-0.1	-1.1
S900S22	+	Sphere	70.0	2.9	1.5	2.4	-7.8	-4.9	0.3
S900S23	+	Sphere	70.0	1.4	0.9	1.0	-5.3	-5.7	3.4
S900S24	+	Sphere	70.0	1.0	1.0	0.2	-1.7	-2.5	0.1
S900S25	+	Sphere	70.0	1.5	0.9	1.2	-1.6	-4.1	1.3
S900S26	+	Sphere	70.0	1.7	-1.3	1.1	-1.5	-7.5	2.3
S900S27	+	Sphere	70.0	1.7	1.4	1.0	1.2	-2.8	-0.1
S900S29	+	Sphere	70.0	1.5	-0.2	1.4	2.2	-4.7	-1.4

# Arlanda\_tunnel.900\_Scan\_074

Position (m): 146198.491, 6614874.519, 23.270

Orientation: 0.00349, -0.00016, -0.99999

Angle (°): 97.29043

Point distance (mm): 1.56

Point drift (mm): 0.000029

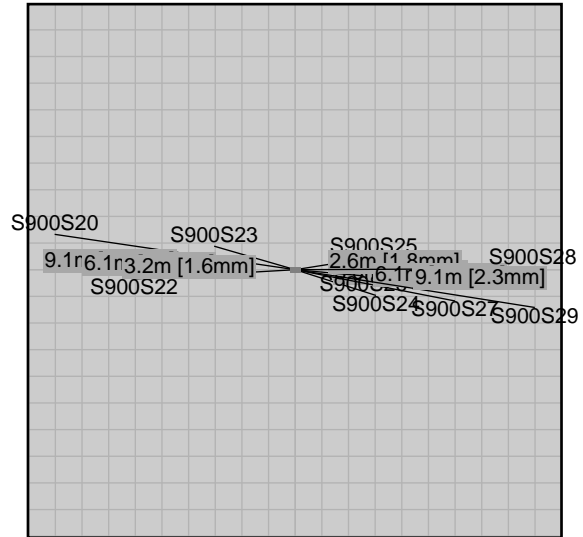
Longitudinal mismatch (mm): -0.09

Orthogonal mismatch (mm): 1.48

Angular mismatch (°): 0.018438

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S20	+	Sphere	70.0	0.9	-0.5	0.8	-11.2	0.4	-1.0
S900S22	+	Sphere	70.0	1.3	0.3	1.3	-8.3	-3.7	0.9
S900S23	+	Sphere	70.0	1.6	0.3	1.5	-4.7	-5.6	3.8
S900S24	+	Sphere	70.0	0.7	0.3	0.6	-2.3	-2.9	0.4
S900S25	+	Sphere	70.0	1.7	-0.6	1.6	-1.4	-5.3	1.7
S900S26	+	Sphere	70.0	1.8	-0.5	1.8	-1.5	-6.4	2.8
S900S27	+	Sphere	70.0	2.0	0.3	2.0	0.2	-3.5	-0.2
S900S28	+	Sphere	70.0	1.6	0.3	1.6	3.9	-1.8	2.8
S900S29	+	Sphere	70.0	2.3	-0.9	2.2	1.7	-5.3	-1.9

# Arlanda\_tunnel.900\_Scan\_075

Position (m): 146199.087, 6614874.214, 22.324

Orientation: -0.00890, -0.00056, -0.99996

Angle (°): 99.90746

Point distance (mm): 1.53

Point drift (mm): 0.000029

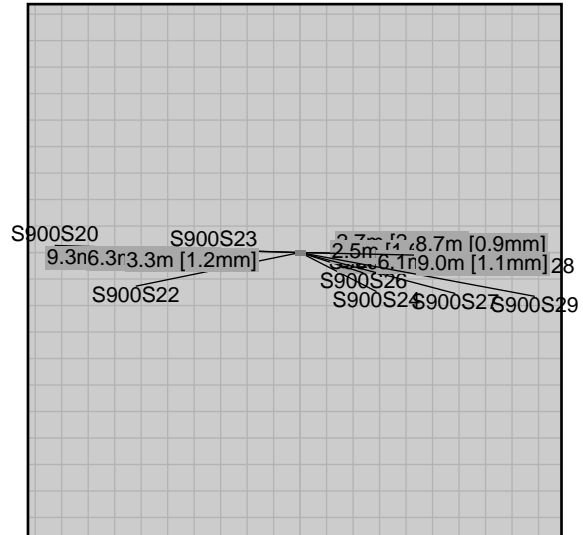
Longitudinal mismatch (mm): -0.18

Orthogonal mismatch (mm): 1.36

Angular mismatch (°): 0.015468

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S20	+	Sphere	70.0	3.5	-0.6	3.4	-11.4	0.8	-3.1
S900S22	+	Sphere	70.0	1.3	0.5	1.2	-8.2	-3.6	0.9
S900S23	+	Sphere	70.0	1.2	0.6	1.0	-4.6	-5.6	1.5
S900S24	+	Sphere	70.0	0.5	0.4	0.3	-2.0	-2.9	0.0
S900S25	+	Sphere	70.0	2.0	-1.1	1.7	-1.5	-5.3	2.0
S900S26	+	Sphere	70.0	1.6	-0.0	1.6	-1.2	-5.9	2.4
S900S27	+	Sphere	70.0	1.6	0.1	1.6	0.5	-3.5	0.4
S900S28	+	Sphere	70.0	0.9	-0.8	0.5	3.2	-2.7	4.2
S900S29	+	Sphere	70.0	1.1	-0.8	0.8	1.8	-5.2	-0.6



# Arlanda\_tunnel.900\_Scan\_076

Position (m): 146195.748, 6614863.127, 23.774

Orientation: -0.00301, -0.00191, -0.99999

Angle (°): 99.58561

Point distance (mm): 2.78

Point drift (mm): 0.000030

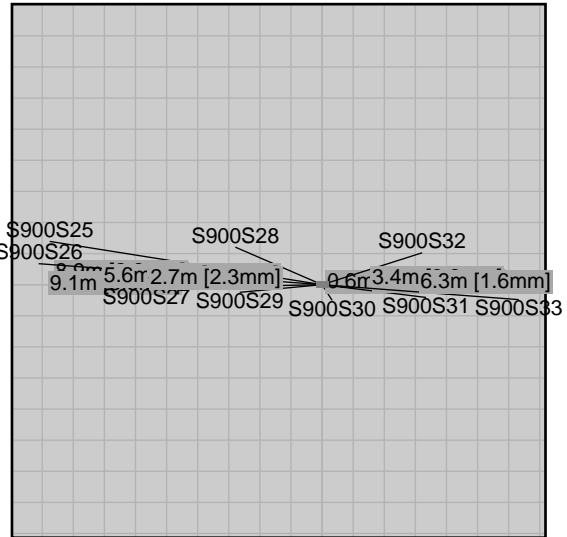
Longitudinal mismatch (mm): 0.33

Orthogonal mismatch (mm): 2.65

Angular mismatch (°): 0.050681

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S25	+	Sphere	70.0	2.6	0.5	2.5	-3.7	-5.0	-1.1
S900S26	+	Sphere	70.0	3.5	-0.7	3.4	-3.2	-5.3	-1.4
S900S27	+	Sphere	70.0	6.0	1.7	5.8	6.5	-6.5	-0.4
S900S28	+	Sphere	70.0	2.3	1.1	2.0	1.4	-1.7	5.2
S900S29	+	Sphere	70.0	2.3	0.1	2.3	4.3	-4.7	0.9
S900S30	+	Sphere	70.0	2.3	-1.0	2.1	3.4	-4.1	1.4
S900S31	+	Sphere	70.0	0.6	-0.2	0.6	3.0	-3.5	0.3
S900S32	+	Sphere	70.0	3.8	0.6	3.8	0.7	-4.4	2.4
S900S33	+	Sphere	70.0	1.6	0.8	1.4	5.2	-2.7	-0.5

# Arlanda\_tunnel.900\_Scan\_077

Position (m): 146196.926, 6614869.039, 23.791

Orientation: -0.00121, 0.00357, -0.99999

Angle (°): 102.05045

Point distance (mm): 2.11

Point drift (mm): 0.000027

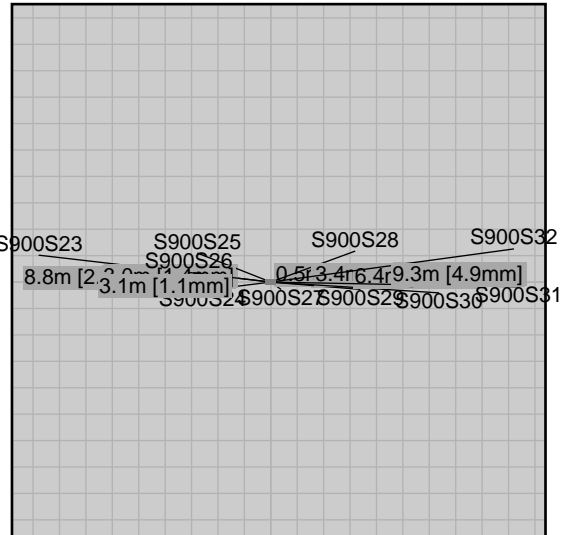
Longitudinal mismatch (mm): 0.22

Orthogonal mismatch (mm): 1.80

Angular mismatch (°): 0.036862

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S23	+	Sphere	70.0	2.3	0.5	2.2	-4.9	-5.8	0.5
S900S24	+	Sphere	70.0	0.8	0.8	0.2	-2.0	-4.0	0.0
S900S25	+	Sphere	70.0	1.4	0.8	1.1	-2.4	-5.6	1.3
S900S26	+	Sphere	70.0	1.1	-0.9	0.7	-1.7	-5.7	1.8
S900S27	+	Sphere	70.0	3.4	2.3	2.5	1.2	-3.0	3.0
S900S28	+	Sphere	70.0	1.5	0.9	1.1	2.9	-1.3	5.0
S900S29	+	Sphere	70.0	1.1	0.2	1.1	1.6	-4.3	0.2
S900S30	+	Sphere	70.0	0.8	0.1	0.8	3.3	-4.6	-0.7
S900S31	+	Sphere	70.0	3.8	-1.6	3.4	4.1	-4.9	-2.9
S900S32	+	Sphere	70.0	4.9	-1.0	4.8	6.5	-4.9	-1.7

# Arlanda\_tunnel.900\_Scan\_078

Position (m): 146197.401, 6614868.994, 23.249

Orientation: -0.00140, 0.00076, -1.00000

Angle (°): 101.41832

Point distance (mm): 1.07

Point drift (mm): 0.000036

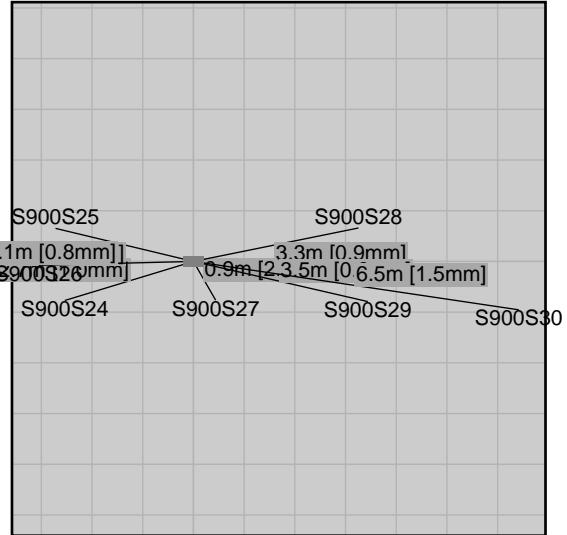
Longitudinal mismatch (mm): -0.20

Orthogonal mismatch (mm): 0.71

Angular mismatch (°): 0.015089

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S24	+	Sphere	70.0	1.0	0.6	0.8	-2.1	-3.7	-0.6
S900S25	+	Sphere	70.0	0.6	-0.4	0.5	-2.2	-4.6	0.6
S900S26	+	Sphere	70.0	0.8	-0.2	0.8	-1.1	-6.5	1.5
S900S27	+	Sphere	70.0	2.4	-2.3	0.6	-0.2	-4.7	1.1
S900S28	+	Sphere	70.0	0.9	0.6	0.6	3.5	-1.4	4.1
S900S29	+	Sphere	70.0	0.3	0.2	0.2	2.6	-4.5	-0.3
S900S30	+	Sphere	70.0	1.5	0.0	1.5	4.8	-5.2	-1.5

# Arlanda\_tunnel.900\_Scan\_079

Position (m): 146196.161, 6614862.630, 23.232

Orientation: -0.00247, 0.00116, -1.00000

Angle (°): 100.55073

Point distance (mm): 1.46

Point drift (mm): 0.000037

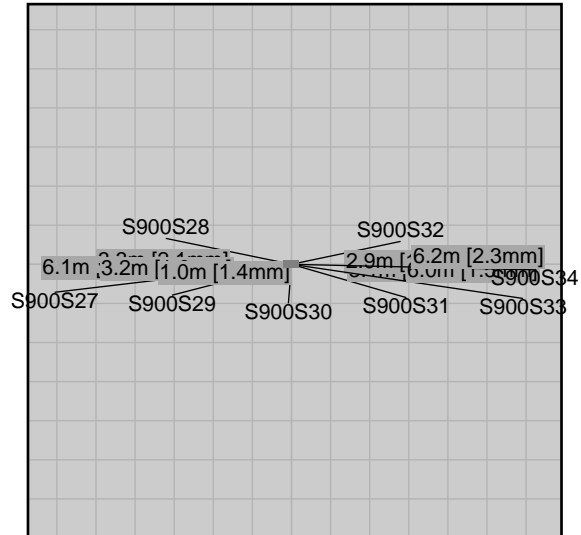
Longitudinal mismatch (mm): 0.18

Orthogonal mismatch (mm): 1.14

Angular mismatch (°): 0.015673

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S27	+	Sphere	70.0	1.4	0.1	1.4	2.2	-4.3	-0.8
S900S28	+	Sphere	70.0	2.1	1.7	1.3	2.1	-3.1	5.1
S900S29	+	Sphere	70.0	1.0	-0.4	0.9	2.6	-4.3	0.7
S900S30	+	Sphere	70.0	1.4	-1.4	0.1	3.0	-4.5	0.3
S900S31	+	Sphere	70.0	0.6	-0.0	0.6	2.8	-3.2	0.2
S900S32	+	Sphere	70.0	1.3	-0.0	1.3	4.3	-4.2	2.1
S900S33	+	Sphere	70.0	1.5	0.5	1.4	4.1	-2.7	-1.3
S900S34	+	Sphere	70.0	2.3	1.0	2.1	5.7	-1.9	0.1

# Arlanda\_tunnel.900\_Scan\_080

Position (m): 146198.011, 6614868.731, 22.309

Orientation: 0.01441, -0.00716, -0.99987

Angle (°): 99.31332

Point distance (mm): 1.47

Point drift (mm): 0.000030

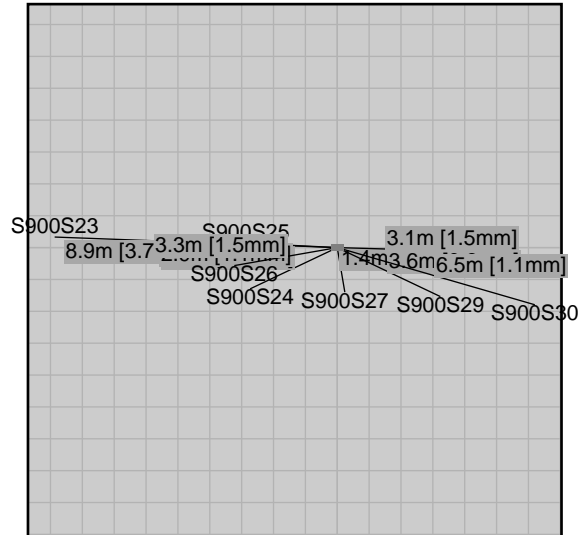
Longitudinal mismatch (mm): -0.18

Orthogonal mismatch (mm): 1.33

Angular mismatch (°): 0.018734

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S23	+	Sphere	70.0	3.7	0.0	3.7	-5.8	-4.7	-0.6
S900S24	+	Sphere	70.0	0.8	0.2	0.8	-2.1	-3.7	0.6
S900S25	+	Sphere	70.0	1.1	-1.0	0.5	-2.2	-4.2	0.6
S900S26	+	Sphere	70.0	1.5	0.1	1.4	-1.1	-7.0	2.1
S900S27	+	Sphere	70.0	1.5	-0.9	1.2	0.5	-4.5	-0.0
S900S28	+	Sphere	70.0	1.5	0.4	1.4	3.7	-1.5	4.9
S900S29	+	Sphere	70.0	0.6	0.2	0.6	2.8	-4.5	0.3
S900S30	+	Sphere	70.0	1.1	-0.4	1.0	4.6	-5.5	-0.6

# Arlanda\_tunnel.900\_Scan\_081

Position (m): 146196.829, 6614862.941, 22.292

Orientation: -0.00395, -0.00178, -0.99999

Angle (°): 101.25788

Point distance (mm): 1.79

Point drift (mm): 0.000034

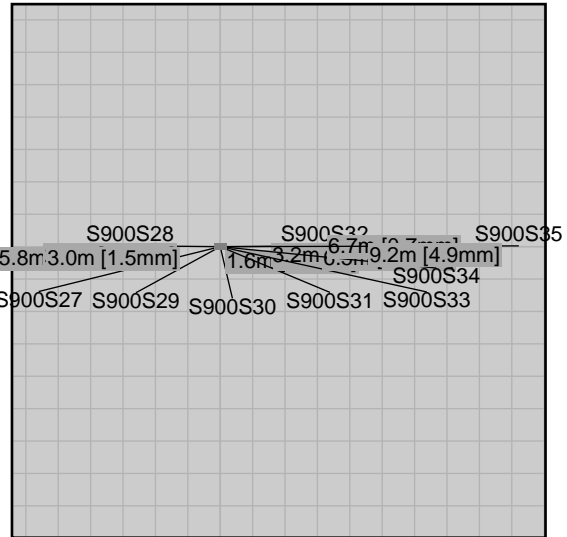
Longitudinal mismatch (mm): -0.11

Orthogonal mismatch (mm): 1.57

Angular mismatch (°): 0.018370

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S27	+	Sphere	70.0	2.2	1.2	1.8	3.4	-5.1	-0.1
S900S28	+	Sphere	70.0	1.1	0.2	1.0	2.8	-2.3	4.7
S900S29	+	Sphere	70.0	1.5	-0.5	1.4	3.1	-4.4	1.1
S900S30	+	Sphere	70.0	1.7	-1.5	0.8	2.8	-4.1	0.3
S900S31	+	Sphere	70.0	1.4	-0.2	1.4	2.3	-2.7	0.4
S900S32	+	Sphere	70.0	1.1	0.9	0.7	4.2	-3.6	0.6
S900S33	+	Sphere	70.0	1.5	0.3	1.5	2.9	-2.4	-0.3
S900S34	+	Sphere	70.0	0.7	-0.2	0.7	4.0	-2.3	1.7
S900S35	+	Sphere	70.0	4.9	-1.1	4.7	4.5	-7.9	-0.9

# Arlanda\_tunnel.900\_Scan\_082

Position (m): 146194.576, 6614857.322, 23.695

Orientation: -0.00647, 0.01071, -0.99992

Angle (°): 99.74681

Point distance (mm): 1.53

Point drift (mm): 0.000043

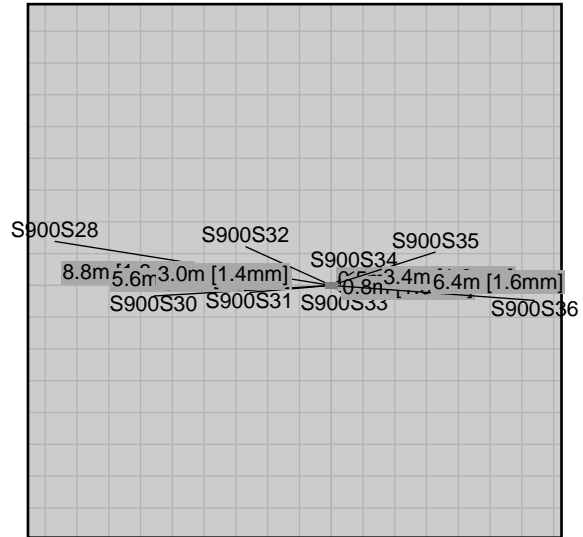
Longitudinal mismatch (mm): 0.75

Orthogonal mismatch (mm): 1.22

Angular mismatch (°): 0.038292

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S28	+	Sphere	70.0	1.3	0.4	1.3	2.9	-2.3	2.8
S900S30	+	Sphere	70.0	2.2	1.1	2.0	5.2	-5.8	-1.6
S900S31	+	Sphere	70.0	0.5	0.2	0.5	3.5	-3.6	-0.4
S900S32	+	Sphere	70.0	1.4	1.0	1.0	3.0	-4.5	2.1
S900S33	+	Sphere	70.0	3.1	2.6	1.7	4.4	-1.8	2.4
S900S34	+	Sphere	70.0	1.0	0.4	0.9	4.0	-1.9	2.3
S900S35	+	Sphere	70.0	1.0	0.6	0.9	2.3	-5.7	2.9
S900S36	+	Sphere	70.0	1.6	-0.2	1.5	4.7	0.1	-2.2

# Arlanda\_tunnel.900\_Scan\_083

Position (m): 146194.907, 6614856.734, 23.244

Orientation: 0.00460, 0.03182, -0.99948

Angle (°): 100.57381

Point distance (mm): 1.81

Point drift (mm): 0.000045

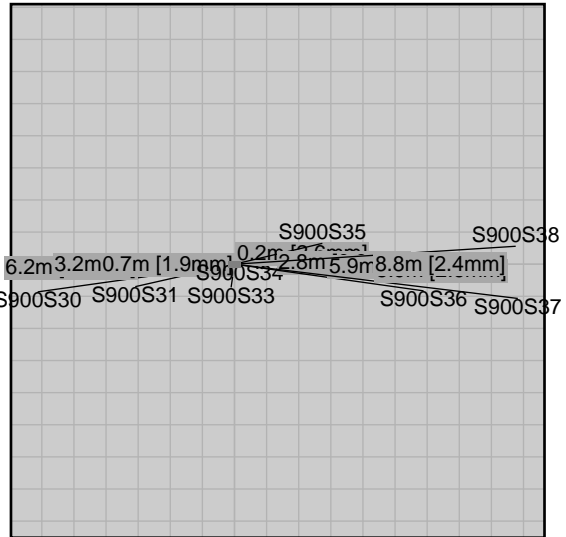
Longitudinal mismatch (mm): -0.61

Orthogonal mismatch (mm): 1.33

Angular mismatch (°): 0.029968

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S30	+	Sphere	70.0	1.3	0.1	1.3	4.2	-4.7	-1.6
S900S31	+	Sphere	70.0	0.8	-0.7	0.3	3.1	-2.8	0.1
S900S33	+	Sphere	70.0	1.9	-0.9	1.7	3.4	-3.1	1.6
S900S34	+	Sphere	70.0	2.6	-2.6	0.4	4.5	-2.4	4.1
S900S35	+	Sphere	70.0	0.9	-0.2	0.9	2.9	-6.2	3.1
S900S36	+	Sphere	70.0	1.8	1.2	1.3	4.6	1.4	-1.7
S900S37	+	Sphere	70.0	2.6	-0.5	2.6	2.9	-0.2	-2.1
S900S38	+	Sphere	70.0	2.4	-1.3	2.1	4.4	-1.8	-1.9



# Arlanda\_tunnel.900\_Scan\_084

Position (m): 146195.657, 6614856.817, 22.280

Orientation: -0.00545, 0.00950, -0.99994

Angle (°): 89.74858

Point distance (mm): 1.74

Point drift (mm): 0.000034

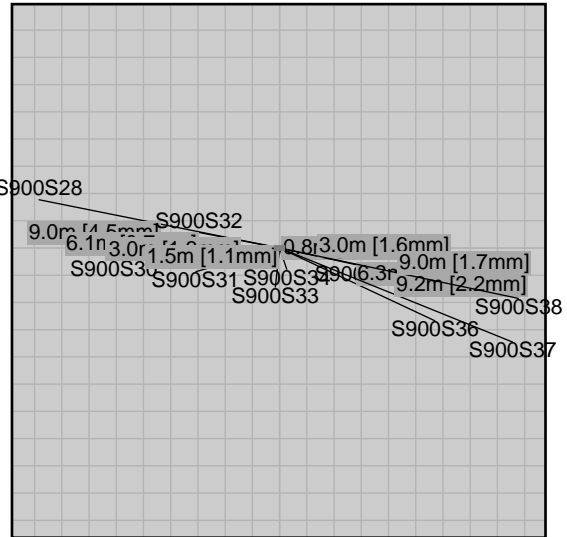
Longitudinal mismatch (mm): -0.77

Orthogonal mismatch (mm): 1.34

Angular mismatch (°): 0.016788

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S28	+	Sphere	70.0	4.5	-0.5	4.5	3.4	-1.2	-0.1
S900S30	+	Sphere	70.0	0.7	-0.4	0.6	4.4	-4.5	-0.1
S900S31	+	Sphere	70.0	1.6	-0.9	1.4	3.4	-2.9	1.1
S900S32	+	Sphere	70.0	1.3	-1.0	0.8	3.1	-3.2	1.4
S900S33	+	Sphere	70.0	1.1	-1.1	0.1	3.3	-3.1	0.7
S900S34	+	Sphere	70.0	1.5	-0.4	1.5	5.7	-2.2	2.6
S900S35	+	Sphere	70.0	1.6	0.2	1.6	2.7	-5.4	3.4
S900S36	+	Sphere	70.0	1.2	-0.4	1.1	4.6	0.1	-0.1
S900S37	+	Sphere	70.0	2.2	-2.1	0.6	2.6	-1.4	0.7
S900S38	+	Sphere	70.0	1.7	-1.0	1.3	3.3	-1.7	-2.4

# Arlanda\_tunnel.900\_Scan\_085

Position (m): 146193.389, 6614851.410, 23.630

Orientation: 0.00116, -0.00326, -0.99999

Angle (°): 98.30292

Point distance (mm): 2.02

Point drift (mm): 0.000042

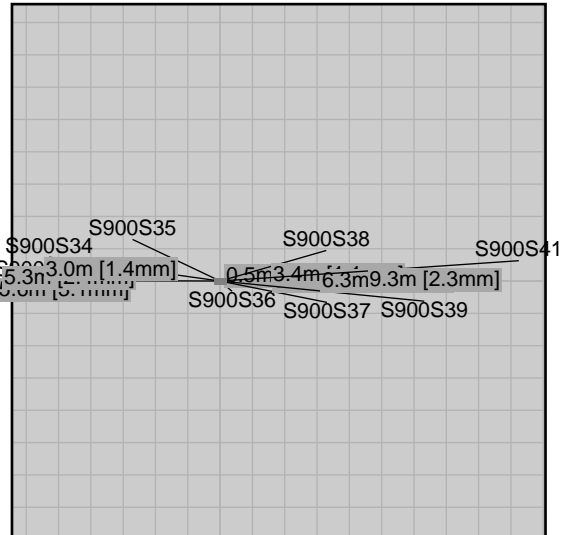
Longitudinal mismatch (mm): 0.83

Orthogonal mismatch (mm): 1.65

Angular mismatch (°): 0.046172

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S33	+	Sphere	70.0	3.1	2.1	2.3	5.4	-5.2	-1.0
S900S34	+	Sphere	70.0	2.4	0.4	2.3	2.8	-2.1	0.9
S900S35	+	Sphere	70.0	1.4	0.2	1.4	1.7	-5.6	2.3
S900S36	+	Sphere	70.0	3.9	3.1	2.4	6.3	1.0	2.2
S900S37	+	Sphere	70.0	0.7	0.3	0.7	3.9	0.3	0.7
S900S38	+	Sphere	70.0	1.1	0.3	1.0	3.0	-0.3	-0.8
S900S39	+	Sphere	70.0	1.2	0.9	0.8	3.3	1.3	-2.2
S900S41	+	Sphere	70.0	2.3	-0.7	2.2	2.2	1.1	1.3

# Arlanda\_tunnel.900\_Scan\_086

Position (m): 146193.803, 6614850.791, 23.218

Orientation: 0.00053, 0.00253, -1.00000

Angle (°): 101.95785

Point distance (mm): 1.57

Point drift (mm): 0.000047

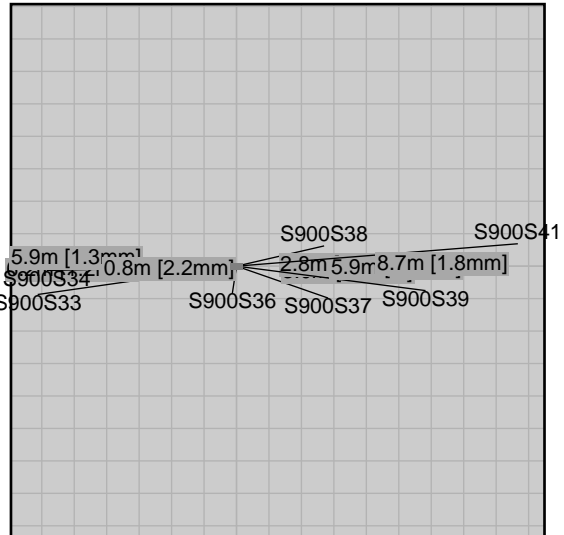
Longitudinal mismatch (mm): 0.02

Orthogonal mismatch (mm): 1.42

Angular mismatch (°): 0.033537

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S33	+	Sphere	70.0	1.2	0.3	1.2	3.7	-3.3	-1.0
S900S34	+	Sphere	70.0	1.3	0.7	1.2	5.2	-2.9	0.9
S900S36	+	Sphere	70.0	2.2	-1.0	2.0	4.5	0.0	1.0
S900S37	+	Sphere	70.0	1.5	-0.2	1.5	3.2	0.3	1.4
S900S38	+	Sphere	70.0	1.3	-0.3	1.2	3.6	-0.8	-1.0
S900S39	+	Sphere	70.0	1.5	1.1	1.1	2.4	1.8	-1.8
S900S41	+	Sphere	70.0	1.8	-0.4	1.8	3.6	1.1	1.6

# Arlanda\_tunnel.900\_Scan\_087

Position (m): 146194.430, 6614850.865, 22.276

Orientation: -0.01835, -0.00092, -0.99983

Angle (°): 101.68185

Point distance (mm): 1.46

Point drift (mm): 0.000044

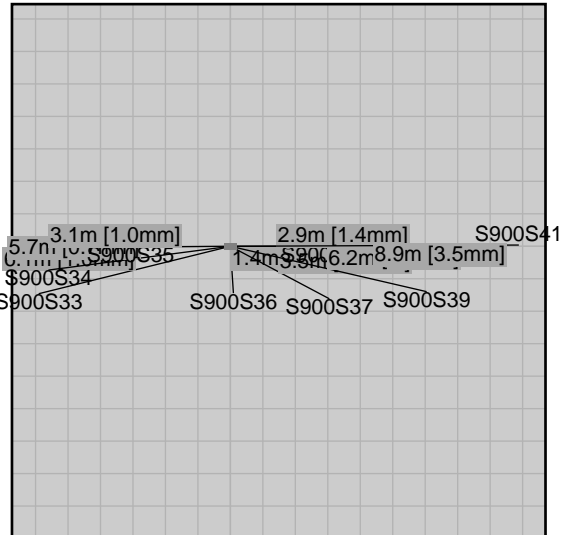
Longitudinal mismatch (mm): -0.00

Orthogonal mismatch (mm): 1.34

Angular mismatch (°): 0.016045

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S33	+	Sphere	70.0	1.0	0.6	0.8	3.5	-3.6	-0.6
S900S34	+	Sphere	70.0	0.7	0.5	0.5	5.0	-2.7	1.7
S900S35	+	Sphere	70.0	1.0	-0.5	0.8	2.7	-6.0	3.1
S900S36	+	Sphere	70.0	0.6	-0.5	0.4	4.8	-0.2	-0.7
S900S37	+	Sphere	70.0	1.7	0.0	1.7	3.5	1.0	1.4
S900S38	+	Sphere	70.0	1.4	-0.5	1.3	3.2	-0.8	-0.7
S900S39	+	Sphere	70.0	1.8	0.5	1.7	2.0	1.6	-0.8
S900S41	+	Sphere	70.0	3.5	-0.2	3.5	4.2	0.9	0.2

# Arlanda\_tunnel.900\_Scan\_088

Position (m): 146192.219, 6614845.522, 23.621

Orientation: -0.01539, -0.00346, -0.99988

Angle (°): 108.51224

Point distance (mm): 2.07

Point drift (mm): 0.000050

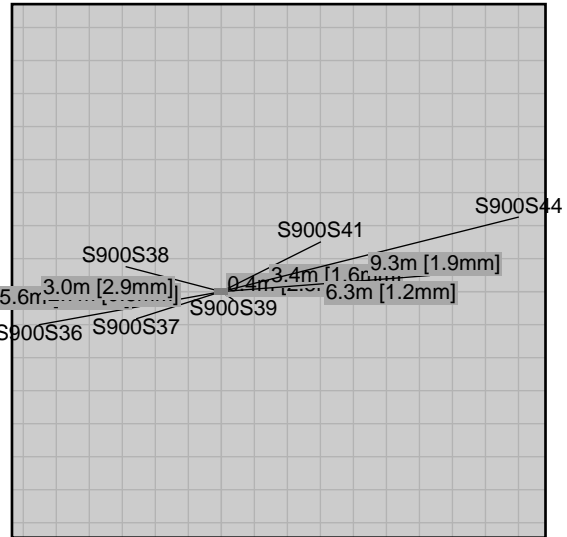
Longitudinal mismatch (mm): 0.47

Orthogonal mismatch (mm): 1.56

Angular mismatch (°): 0.041283

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S36	+	Sphere	70.0	3.9	2.1	3.4	5.8	-1.9	-3.7
S900S37	+	Sphere	70.0	0.5	-0.5	0.2	3.7	0.5	-0.0
S900S38	+	Sphere	70.0	2.9	-0.1	2.9	0.6	0.9	-1.8
S900S39	+	Sphere	70.0	2.5	2.1	1.5	3.8	1.0	0.6
S900S41	+	Sphere	70.0	1.6	0.8	1.4	3.8	2.1	4.2
S900S42	+	Sphere	70.0	1.2	0.7	0.9	0.7	3.2	-0.7
S900S44	+	Sphere	70.0	1.9	-1.7	0.7	1.8	0.3	-2.8

# Arlanda\_tunnel.900\_Scan\_089

Position (m): 146192.559, 6614845.019, 23.198

Orientation: -0.00675, 0.00293, -0.99997

Angle (°): 103.69560

Point distance (mm): 1.64

Point drift (mm): 0.000045

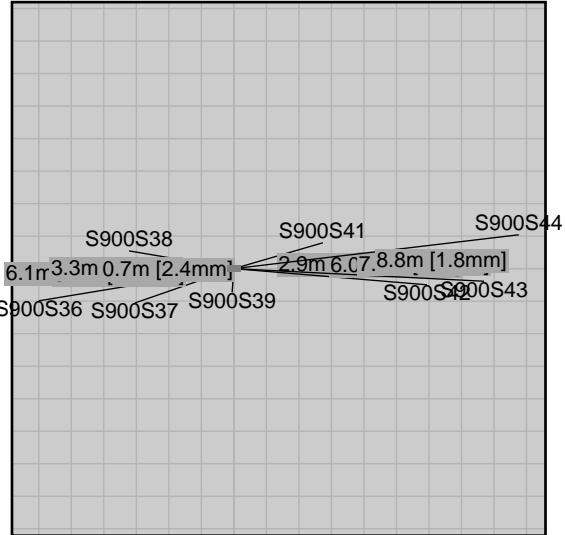
Longitudinal mismatch (mm): -0.12

Orthogonal mismatch (mm): 1.47

Angular mismatch (°): 0.035129

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S36	+	Sphere	70.0	1.6	-0.1	1.6	5.9	0.2	-2.1
S900S37	+	Sphere	70.0	0.8	-0.2	0.8	3.7	0.2	0.8
S900S38	+	Sphere	70.0	1.1	0.1	1.1	2.1	-0.3	-0.9
S900S39	+	Sphere	70.0	2.4	-0.8	2.2	2.5	0.2	0.6
S900S41	+	Sphere	70.0	1.5	0.8	1.3	3.4	2.1	4.3
S900S42	+	Sphere	70.0	1.6	1.1	1.2	1.4	3.4	-1.8
S900S43	+	Sphere	70.0	2.3	-0.7	2.1	1.8	1.7	-2.4
S900S44	+	Sphere	70.0	1.8	-1.1	1.5	1.9	0.7	-3.4

# Arlanda\_tunnel.900\_Scan\_090

Position (m): 146193.225, 6614844.744, 22.251

Orientation: -0.00934, 0.00512, -0.99994

Angle (°): 92.97113

Point distance (mm): 0.74

Point drift (mm): 0.000056

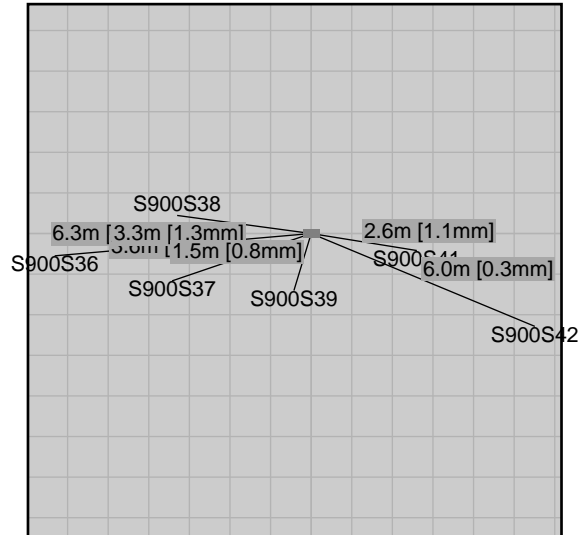
Longitudinal mismatch (mm): -0.16

Orthogonal mismatch (mm): 0.68

Angular mismatch (°): 0.012931

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S36	+	Sphere	70.0	0.5	-0.4	0.3	5.1	0.5	-1.1
S900S37	+	Sphere	70.0	0.5	-0.0	0.5	3.6	-0.0	0.5
S900S38	+	Sphere	70.0	1.3	0.1	1.3	3.1	-0.4	-2.8
S900S39	+	Sphere	70.0	0.8	-0.4	0.7	2.3	0.3	-1.5
S900S41	+	Sphere	70.0	1.1	0.0	1.1	3.6	1.7	4.0
S900S42	+	Sphere	70.0	0.3	-0.2	0.2	1.2	2.2	-0.9

# Arlanda\_tunnel.900\_Scan\_091

Position (m): 146191.081, 6614839.813, 23.583

Orientation: -0.00089, -0.00124, -1.00000

Angle (°): 99.26849

Point distance (mm): 2.04

Point drift (mm): 0.000043

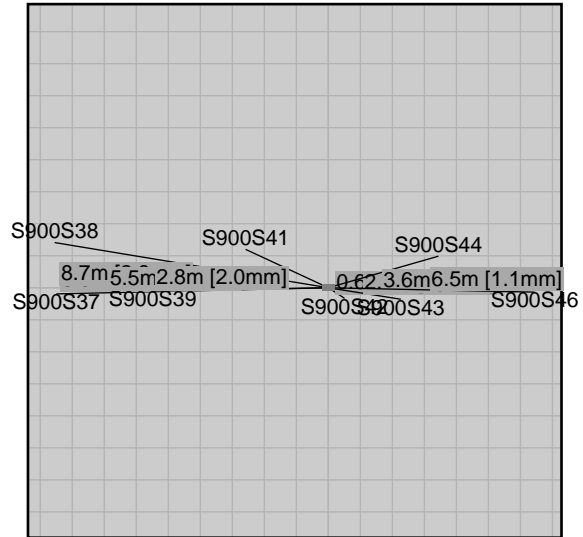
Longitudinal mismatch (mm): 0.47

Orthogonal mismatch (mm): 1.73

Angular mismatch (°): 0.040001

Inclinometer mismatch (°): 0.000001

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S37	+	Sphere	70.0	3.5	-0.6	3.4	5.6	0.4	-2.2
S900S38	+	Sphere	70.0	2.8	-0.7	2.8	1.0	0.6	-3.2
S900S39	+	Sphere	70.0	2.1	1.7	1.1	3.4	-1.1	-2.1
S900S41	+	Sphere	70.0	2.0	1.1	1.7	2.3	1.2	4.8
S900S42	+	Sphere	70.0	2.7	1.5	2.2	1.9	2.6	1.5
S900S43	+	Sphere	70.0	1.0	0.7	0.7	2.0	2.9	-0.1
S900S44	+	Sphere	70.0	1.1	0.5	0.9	1.6	2.4	-1.4
S900S46	+	Sphere	70.0	1.1	-0.6	1.0	1.7	2.7	-1.4



# Arlanda\_tunnel.900\_Scan\_092

Position (m): 146191.456, 6614839.115, 23.196

Orientation: -0.00413, 0.00198, -0.99999

Angle (°): 101.32731

Point distance (mm): 1.29

Point drift (mm): 0.000039

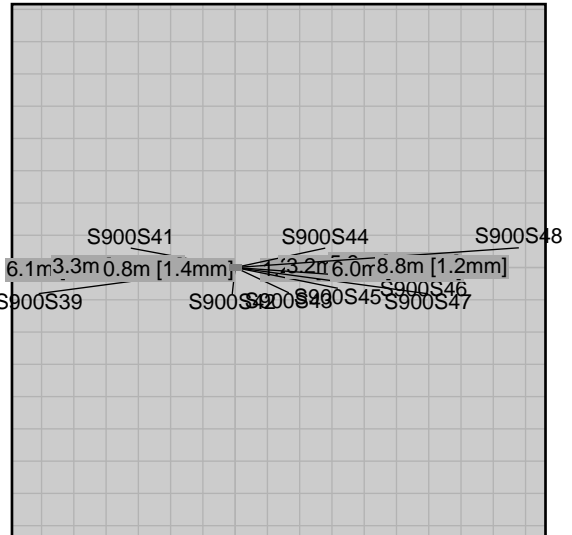
Longitudinal mismatch (mm): 0.25

Orthogonal mismatch (mm): 1.09

Angular mismatch (°): 0.023505

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S39	+	Sphere	70.0	1.8	0.9	1.5	3.3	-0.2	-2.8
S900S41	+	Sphere	70.0	1.3	0.7	1.1	2.5	1.2	4.1
S900S42	+	Sphere	70.0	1.4	-0.7	1.3	0.9	2.2	0.4
S900S43	+	Sphere	70.0	1.3	0.8	1.0	2.3	3.2	0.1
S900S44	+	Sphere	70.0	1.4	-0.6	1.3	2.3	1.4	-1.3
S900S45	+	Sphere	70.0	0.6	0.4	0.5	4.1	3.0	-0.1
S900S46	+	Sphere	70.0	1.1	0.8	0.7	1.7	4.0	-1.2
S900S47	+	Sphere	70.0	1.5	0.5	1.4	1.9	2.4	-2.1
S900S48	+	Sphere	70.0	1.2	-0.6	1.0	0.8	4.3	-1.3

# Arlanda\_tunnel.900\_Scan\_093

Position (m): 146192.097, 6614839.248, 22.252

Orientation: 0.00618, 0.00454, -0.99997

Angle (°): 99.81922

Point distance (mm): 0.93

Point drift (mm): 0.000040

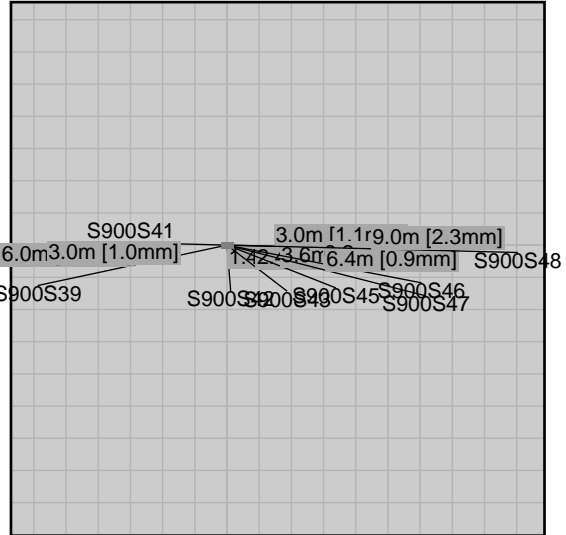
Longitudinal mismatch (mm): -0.16

Orthogonal mismatch (mm): 0.78

Angular mismatch (°): 0.010299

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S39	+	Sphere	70.0	0.5	0.4	0.3	2.8	0.2	-1.3
S900S41	+	Sphere	70.0	1.0	-1.0	0.3	3.3	2.3	3.6
S900S42	+	Sphere	70.0	0.4	0.2	0.4	1.4	2.0	-0.9
S900S43	+	Sphere	70.0	1.0	-0.2	1.0	2.2	2.6	0.3
S900S44	+	Sphere	70.0	1.1	-0.1	1.1	2.2	2.0	-1.5
S900S45	+	Sphere	70.0	0.6	0.3	0.5	4.4	2.9	0.1
S900S46	+	Sphere	70.0	0.6	-0.3	0.6	1.3	3.1	-0.7
S900S47	+	Sphere	70.0	0.9	0.2	0.8	1.8	2.1	-1.4
S900S48	+	Sphere	70.0	2.3	-1.0	2.0	0.5	3.8	-2.3

# Arlanda\_tunnel.900\_Scan\_094

Position (m): 146191.446, 6614837.026, 23.666

Orientation: 0.00173, -0.00092, -1.00000

Angle (°): 100.71556

Point distance (mm): 1.09

Point drift (mm): 0.000043

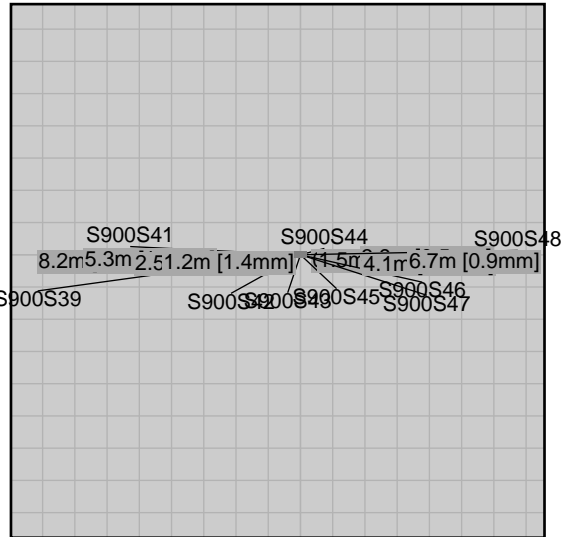
Longitudinal mismatch (mm): 0.24

Orthogonal mismatch (mm): 0.96

Angular mismatch (°): 0.026381

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 6 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S39	+	Sphere	70.0	2.4	-0.1	2.4	3.7	0.5	-3.5
S900S41	+	Sphere	70.0	1.2	0.4	1.1	2.1	1.4	3.3
S900S42	+	Sphere	70.0	0.4	0.0	0.4	1.0	2.2	-0.8
S900S43	+	Sphere	70.0	1.4	0.9	1.1	2.5	1.7	0.5
S900S44	+	Sphere	70.0	1.5	0.6	1.4	1.9	2.4	-1.1
S900S45	+	Sphere	70.0	1.0	0.5	0.9	4.7	2.7	0.6
S900S46	+	Sphere	70.0	0.5	0.4	0.4	1.8	3.7	-0.4
S900S47	+	Sphere	70.0	0.6	-0.5	0.3	1.9	1.5	-1.1
S900S48	+	Sphere	70.0	0.9	-0.1	0.9	0.4	4.9	-1.4

# Arlanda\_tunnel.900\_Scan\_095

Position (m): 146189.879, 6614833.981, 23.592

Orientation: -0.00729, 0.00104, -0.99997

Angle (°): 102.16684

Point distance (mm): 1.43

Point drift (mm): 0.000041

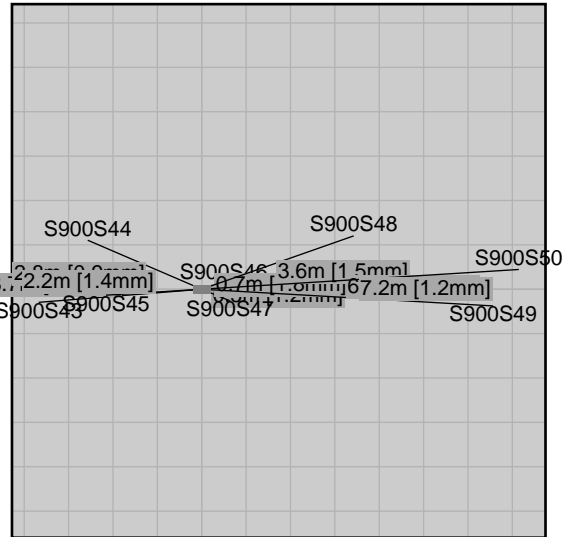
Longitudinal mismatch (mm): 0.43

Orthogonal mismatch (mm): 0.99

Angular mismatch (°): 0.036648

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S43	+	Sphere	70.0	1.6	1.1	1.2	2.5	1.2	-1.5
S900S44	+	Sphere	70.0	0.9	-0.6	0.6	2.2	2.2	-1.8
S900S45	+	Sphere	70.0	1.4	1.4	0.4	3.8	1.4	-0.2
S900S46	+	Sphere	70.0	1.2	0.5	1.1	1.4	4.1	-0.2
S900S47	+	Sphere	70.0	1.8	0.6	1.7	2.2	1.8	0.7
S900S48	+	Sphere	70.0	1.5	1.4	0.5	0.5	6.1	-0.2
S900S49	+	Sphere	70.0	1.8	0.1	1.8	-0.8	3.1	-2.2
S900S50	+	Sphere	70.0	1.2	-1.0	0.7	-0.9	2.2	-0.7

# Arlanda\_tunnel.900\_Scan\_096

Position (m): 146190.361, 6614833.683, 23.173

Orientation: -0.00467, -0.00175, -0.99999

Angle (°): 101.90427

Point distance (mm): 1.53

Point drift (mm): 0.000039

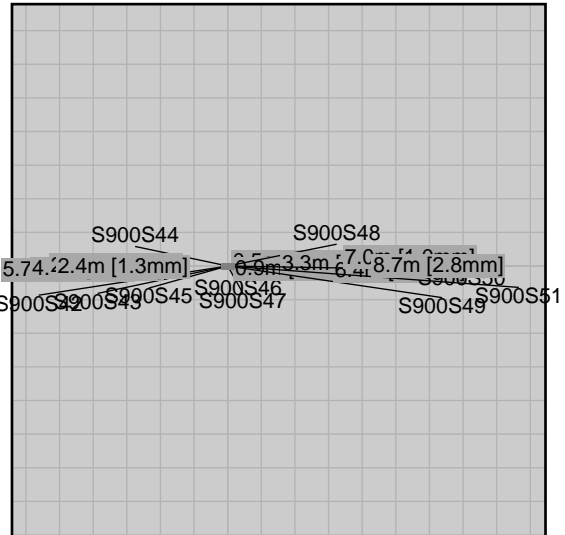
Longitudinal mismatch (mm): -0.04

Orthogonal mismatch (mm): 1.26

Angular mismatch (°): 0.030272

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S42	+	Sphere	70.0	2.2	1.4	1.7	2.1	1.1	-2.1
S900S43	+	Sphere	70.0	0.5	0.4	0.3	2.5	1.9	-0.7
S900S44	+	Sphere	70.0	1.3	-0.8	1.1	1.2	2.6	-1.5
S900S45	+	Sphere	70.0	1.3	-0.4	1.3	3.7	2.7	0.8
S900S46	+	Sphere	70.0	1.3	-0.8	1.0	2.2	3.5	0.5
S900S47	+	Sphere	70.0	2.1	-0.1	2.1	2.4	2.1	0.9
S900S48	+	Sphere	70.0	1.6	1.5	0.6	0.1	6.3	-0.1
S900S49	+	Sphere	70.0	1.1	-0.5	1.0	-0.8	2.6	-1.4
S900S50	+	Sphere	70.0	1.0	0.1	1.0	-1.0	3.2	-1.1
S900S51	+	Sphere	70.0	2.8	-1.3	2.5	-5.7	3.2	-0.7

# Arlanda\_tunnel.900\_Scan\_097

Position (m): 146190.812, 6614832.944, 22.241

Orientation: 0.00761, -0.01165, -0.99990

Angle (°): 99.68529

Point distance (mm): 1.08

Point drift (mm): 0.000052

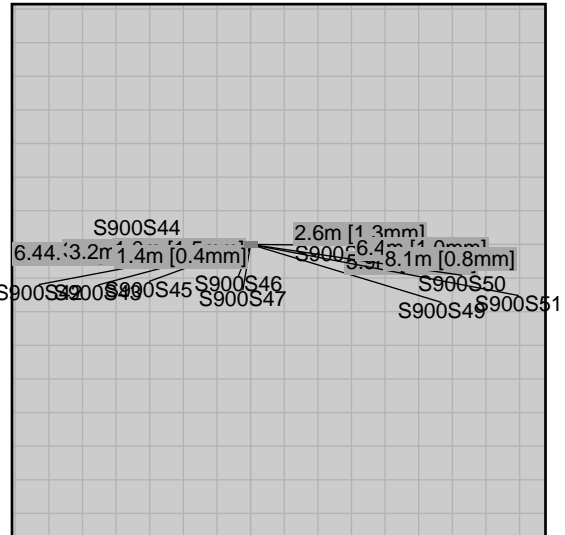
Longitudinal mismatch (mm): -0.04

Orthogonal mismatch (mm): 0.84

Angular mismatch (°): 0.013994

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 3 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S42	+	Sphere	70.0	1.2	0.3	1.2	1.6	2.3	-1.8
S900S43	+	Sphere	70.0	0.8	-0.7	0.4	2.0	2.9	-0.8
S900S44	+	Sphere	70.0	2.4	1.5	1.9	1.2	1.3	-4.3
S900S45	+	Sphere	70.0	0.8	0.1	0.8	4.0	2.1	0.4
S900S46	+	Sphere	70.0	1.5	-0.8	1.2	2.5	3.1	0.6
S900S47	+	Sphere	70.0	0.4	-0.2	0.3	2.3	2.1	-0.7
S900S48	+	Sphere	70.0	1.3	-0.3	1.2	0.7	4.9	0.4
S900S49	+	Sphere	70.0	0.5	-0.3	0.4	-0.7	2.9	-0.2
S900S50	+	Sphere	70.0	1.0	0.8	0.6	-1.2	4.1	-0.1
S900S51	+	Sphere	70.0	0.8	-0.8	0.2	-5.8	3.6	1.5

# Arlanda\_tunnel.900\_Scan\_098

Position (m): 146188.689, 6614827.920, 23.589

Orientation: 0.00276, -0.00014, -1.00000

Angle (°): 104.68285

Point distance (mm): 1.73

Point drift (mm): 0.000042

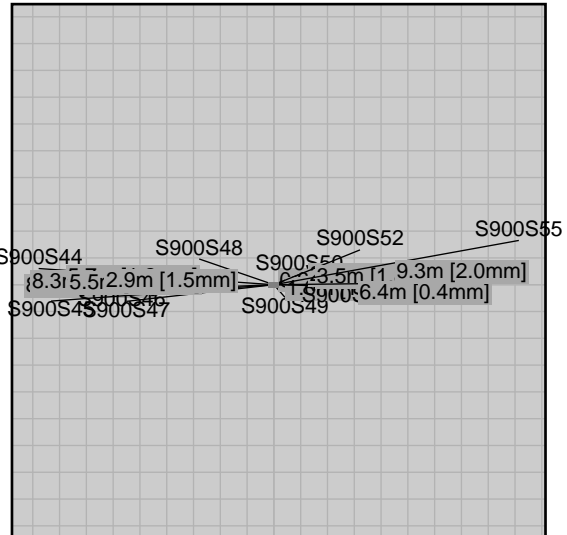
Longitudinal mismatch (mm): 0.21

Orthogonal mismatch (mm): 1.53

Angular mismatch (°): 0.035966

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S44	+	Sphere	70.0	2.9	-0.9	2.8	-0.2	3.3	-3.5
S900S45	+	Sphere	70.0	3.3	-0.5	3.3	5.6	2.7	-2.7
S900S46	+	Sphere	70.0	1.2	1.0	0.6	2.2	2.2	-0.9
S900S47	+	Sphere	70.0	1.5	1.1	1.0	2.7	0.7	-1.6
S900S48	+	Sphere	70.0	1.5	0.8	1.2	-0.6	4.8	0.4
S900S49	+	Sphere	70.0	2.3	1.2	2.0	0.5	3.5	1.2
S900S50	+	Sphere	70.0	1.6	-0.2	1.6	-1.5	3.5	1.1
S900S51	+	Sphere	70.0	0.5	0.0	0.5	-5.7	4.3	1.9
S900S52	+	Sphere	70.0	1.8	0.7	1.6	-0.8	3.0	-0.8
S900S53	+	Sphere	70.0	0.4	-0.1	0.3	-1.6	3.9	-1.3
S900S55	+	Sphere	70.0	2.0	-0.9	1.8	-2.6	5.1	-2.4

# Arlanda\_tunnel.900\_Scan\_099

Position (m): 146189.064, 6614827.350, 23.179

Orientation: 0.00095, -0.00288, -1.00000

Angle (°): 101.15968

Point distance (mm): 1.71

Point drift (mm): 0.000048

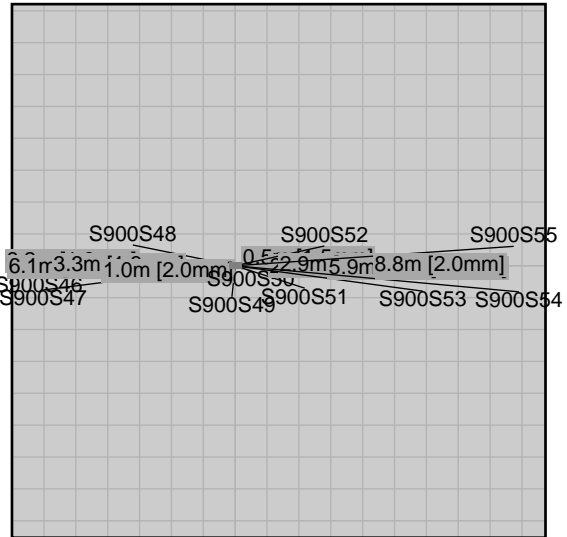
Longitudinal mismatch (mm): 0.06

Orthogonal mismatch (mm): 1.42

Angular mismatch (°): 0.030902

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S46	+	Sphere	70.0	1.3	0.9	1.0	2.2	2.4	-1.4
S900S47	+	Sphere	70.0	1.1	-0.2	1.1	2.7	2.0	-1.8
S900S48	+	Sphere	70.0	1.3	1.1	0.7	-0.4	4.2	-0.0
S900S49	+	Sphere	70.0	2.0	-1.1	1.7	-0.8	2.9	1.2
S900S50	+	Sphere	70.0	1.5	-0.4	1.5	-1.2	4.2	0.7
S900S51	+	Sphere	70.0	1.7	1.2	1.2	-5.5	5.5	2.5
S900S52	+	Sphere	70.0	1.7	-0.4	1.7	-0.7	2.0	-0.9
S900S53	+	Sphere	70.0	1.6	1.2	1.1	-1.6	5.1	-2.2
S900S54	+	Sphere	70.0	2.8	-0.4	2.8	-4.2	4.5	-4.0
S900S55	+	Sphere	70.0	2.0	-1.3	1.6	-2.4	4.7	-2.0



# Arlanda\_tunnel.900\_Scan\_100

Position (m): 146189.685, 6614827.158, 22.233

Orientation: 0.00867, 0.01276, -0.99988

Angle (°): 99.34745

Point distance (mm): 0.97

Point drift (mm): 0.000030

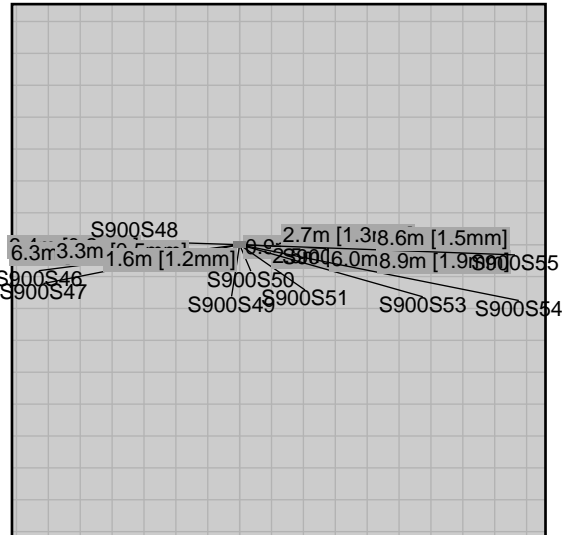
Longitudinal mismatch (mm): -0.25

Orthogonal mismatch (mm): 0.84

Angular mismatch (°): 0.013164

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S46	+	Sphere	70.0	0.2	-0.2	0.2	1.7	3.4	-0.6
S900S47	+	Sphere	70.0	0.4	0.3	0.3	2.5	1.6	-1.1
S900S48	+	Sphere	70.0	0.5	0.1	0.5	0.1	4.9	-1.1
S900S49	+	Sphere	70.0	1.2	-0.9	0.8	-0.6	3.2	0.5
S900S50	+	Sphere	70.0	1.0	-0.0	1.0	-0.5	3.8	0.2
S900S51	+	Sphere	70.0	0.9	0.0	0.9	-5.7	4.8	2.2
S900S52	+	Sphere	70.0	1.3	-0.4	1.3	-0.6	2.0	-1.5
S900S53	+	Sphere	70.0	0.7	0.3	0.6	-1.8	4.3	-1.5
S900S54	+	Sphere	70.0	1.9	-1.1	1.5	-4.4	3.8	-2.8
S900S55	+	Sphere	70.0	1.5	-0.5	1.4	-3.0	5.2	-2.0

# Arlanda\_tunnel.900\_Scan\_101

Position (m): 146187.539, 6614822.256, 23.614

Orientation: -0.00701, -0.00090, -0.99997

Angle (°): 105.16095

Point distance (mm): 1.15

Point drift (mm): 0.000067

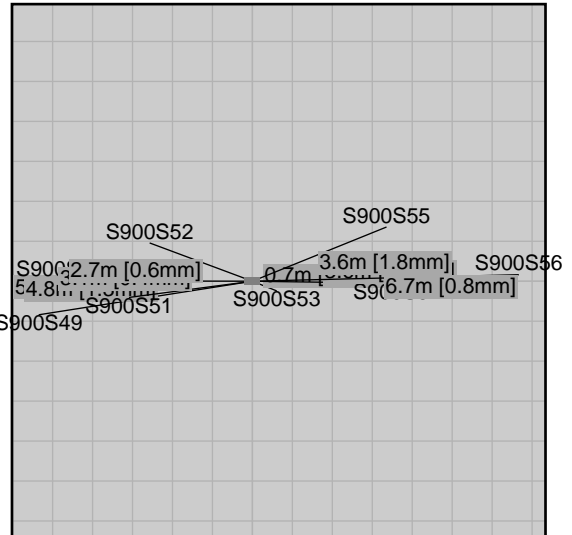
Longitudinal mismatch (mm): 0.46

Orthogonal mismatch (mm): 0.84

Angular mismatch (°): 0.026786

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S49	+	Sphere	70.0	1.5	0.3	1.5	-0.4	2.7	-1.9
S900S50	+	Sphere	70.0	1.3	0.9	0.9	-0.9	2.4	-1.0
S900S51	+	Sphere	70.0	0.4	0.1	0.4	-5.6	4.2	1.1
S900S52	+	Sphere	70.0	0.6	0.3	0.5	-1.7	2.4	-1.7
S900S53	+	Sphere	70.0	1.9	0.4	1.9	-1.8	3.7	0.2
S900S54	+	Sphere	70.0	1.0	0.8	0.5	-2.8	5.2	-1.7
S900S55	+	Sphere	70.0	1.8	1.6	0.8	-3.1	7.3	-0.1
S900S56	+	Sphere	70.0	0.8	-0.7	0.3	-4.7	5.9	-1.5

# Arlanda\_tunnel.900\_Scan\_102

Position (m): 146187.855, 6614821.455, 23.165

Orientation: 0.00301, 0.00543, -0.99998

Angle (°): 102.52036

Point distance (mm): 1.23

Point drift (mm): 0.000066

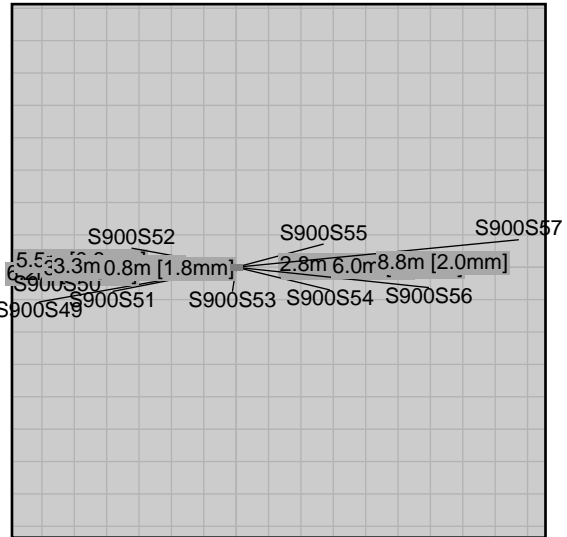
Longitudinal mismatch (mm): 0.24

Orthogonal mismatch (mm): 1.03

Angular mismatch (°): 0.023986

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S49	+	Sphere	70.0	1.0	0.4	0.9	-0.4	2.7	-1.4
S900S50	+	Sphere	70.0	0.8	0.4	0.7	-0.9	2.9	-0.8
S900S51	+	Sphere	70.0	0.3	-0.2	0.2	-5.5	4.5	1.5
S900S52	+	Sphere	70.0	1.1	1.0	0.6	-2.2	1.9	-1.9
S900S53	+	Sphere	70.0	1.8	-0.5	1.7	-1.5	4.0	0.1
S900S54	+	Sphere	70.0	1.4	0.8	1.1	-3.5	5.5	-1.0
S900S55	+	Sphere	70.0	0.8	-0.1	0.8	-2.8	5.9	-0.2
S900S56	+	Sphere	70.0	2.0	1.2	1.6	-4.3	7.4	-2.5
S900S57	+	Sphere	70.0	2.0	-0.8	1.8	-5.5	5.7	-0.8

# Arlanda\_tunnel.900\_Scan\_103

Position (m): 146188.506, 6614821.305, 22.225

Orientation: 0.00104, -0.01552, -0.99988

Angle (°): 99.28941

Point distance (mm): 0.96

Point drift (mm): 0.000033

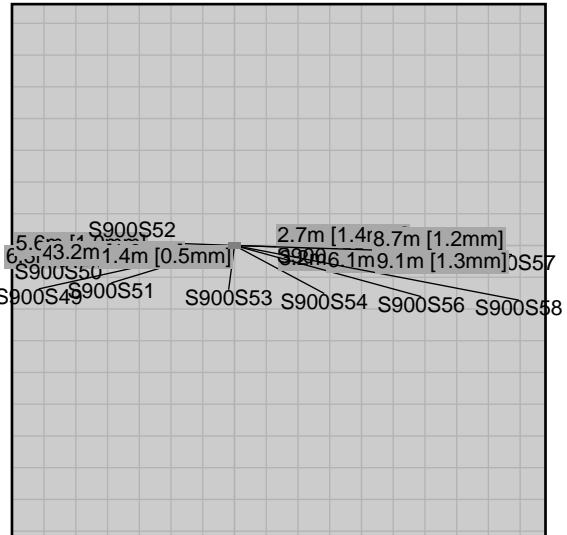
Longitudinal mismatch (mm): 0.04

Orthogonal mismatch (mm): 0.82

Angular mismatch (°): 0.010596

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S49	+	Sphere	70.0	0.4	-0.1	0.4	-0.4	3.1	-0.9
S900S50	+	Sphere	70.0	1.0	0.7	0.6	-0.7	2.4	0.1
S900S51	+	Sphere	70.0	0.5	-0.4	0.3	-5.7	4.6	1.9
S900S52	+	Sphere	70.0	1.3	0.8	1.0	-1.9	2.0	-3.2
S900S53	+	Sphere	70.0	0.5	-0.4	0.3	-1.8	4.1	-1.4
S900S54	+	Sphere	70.0	1.0	-0.2	1.0	-3.5	4.8	-0.9
S900S55	+	Sphere	70.0	1.4	0.4	1.3	-3.0	6.7	0.0
S900S56	+	Sphere	70.0	1.0	0.5	0.9	-4.4	6.7	-2.0
S900S57	+	Sphere	70.0	1.2	-0.3	1.1	-5.4	6.0	-0.1
S900S58	+	Sphere	70.0	1.3	-0.6	1.2	-5.5	7.1	-3.3

# Arlanda\_tunnel.900\_Scan\_104

Position (m): 146186.377, 6614816.350, 23.568

Orientation: -0.00659, -0.00528, -0.99996

Angle (°): 104.65146

Point distance (mm): 1.54

Point drift (mm): 0.000084

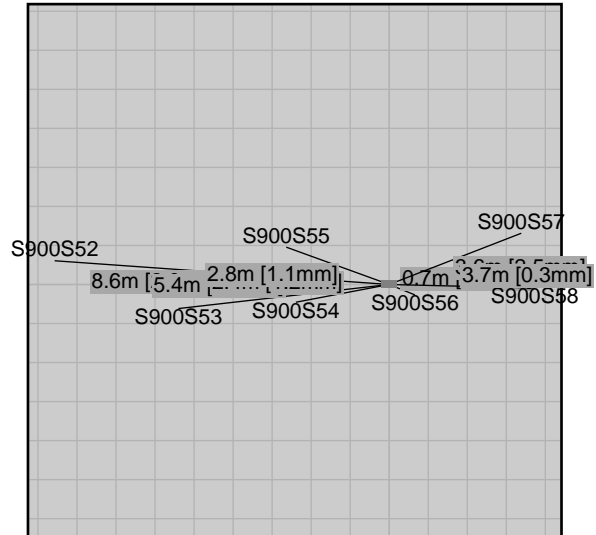
Longitudinal mismatch (mm): 0.52

Orthogonal mismatch (mm): 1.33

Angular mismatch (°): 0.032928

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 5 + inclin.

Num quadrants occupied: 2 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S52	+	Sphere	70.0	2.0	0.3	2.0	-2.4	2.4	-3.6
S900S53	+	Sphere	70.0	2.0	0.5	1.9	-0.3	3.3	-2.6
S900S54	+	Sphere	70.0	1.2	0.5	1.1	-2.8	4.2	-1.1
S900S55	+	Sphere	70.0	1.1	-0.2	1.1	-3.4	6.4	-0.1
S900S56	+	Sphere	70.0	1.7	0.2	1.7	-4.7	6.2	0.0
S900S57	+	Sphere	70.0	2.5	2.1	1.4	-6.5	7.9	1.3
S900S58	+	Sphere	70.0	0.3	0.3	0.2	-5.7	7.9	-2.4

# Arlanda\_tunnel.900\_Scan\_105

Position (m): 146186.735, 6614815.432, 23.168

Orientation: 0.00375, 0.00842, -0.99996

Angle (°): 100.41558

Point distance (mm): 1.51

Point drift (mm): 0.000088

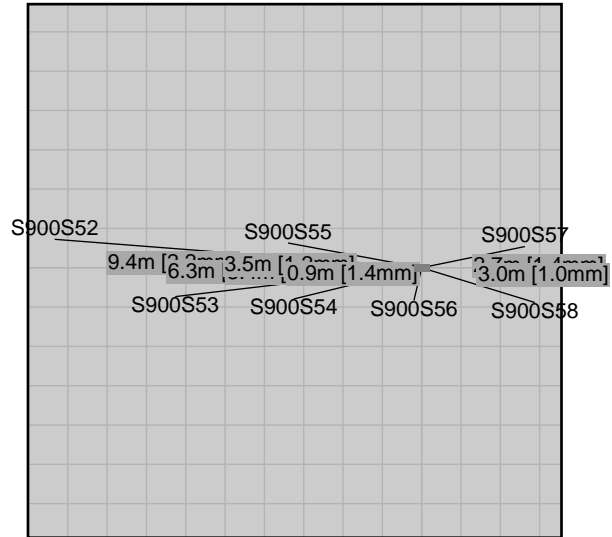
Longitudinal mismatch (mm): -0.09

Orthogonal mismatch (mm): 1.31

Angular mismatch (°): 0.027775

Inclinometer mismatch (°): 0.000000

Inclinometer used in match: YES



Num distinct references: 4 + inclin.

Num quadrants occupied: 3 + inclin.

## Matched references

Name	Surveyed	Type	Size	Dist.	Long.	Orth.	dX	dY	dZ
S900S52	+	Sphere	70.0	2.2	-1.6	1.5	-1.6	3.9	-3.4
S900S53	+	Sphere	70.0	2.2	1.2	1.8	-0.7	2.8	-2.8
S900S54	+	Sphere	70.0	1.2	0.4	1.2	-2.8	4.3	-1.0
S900S55	+	Sphere	70.0	1.2	0.2	1.2	-3.8	5.9	-0.2
S900S56	+	Sphere	70.0	1.4	-0.5	1.3	-4.9	6.3	-0.2
S900S57	+	Sphere	70.0	1.4	-0.7	1.2	-6.1	6.1	1.4
S900S58	+	Sphere	70.0	1.0	0.3	0.9	-5.8	8.0	-2.0