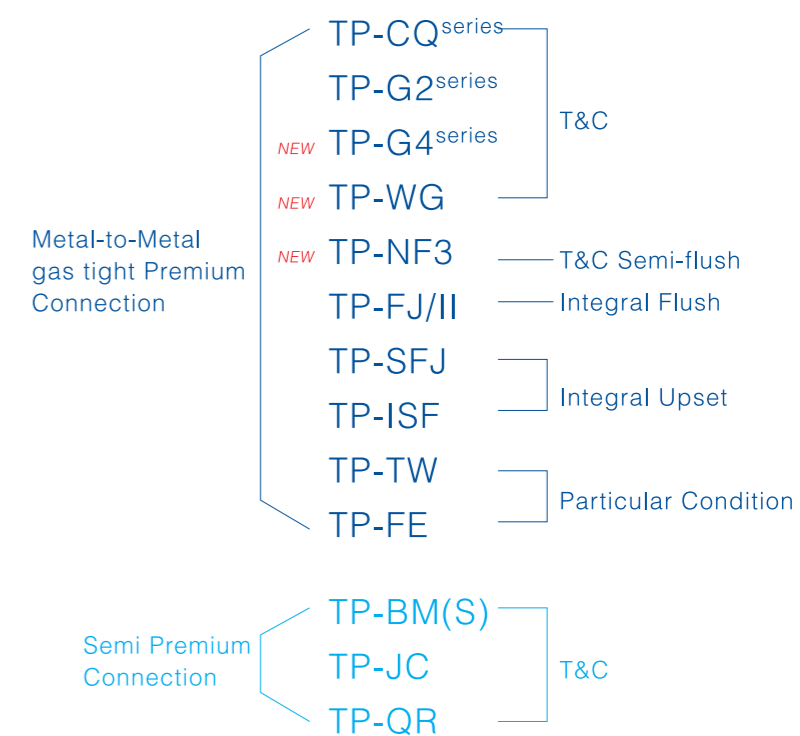




## Premium Connection TP-G2<sup>Series</sup>

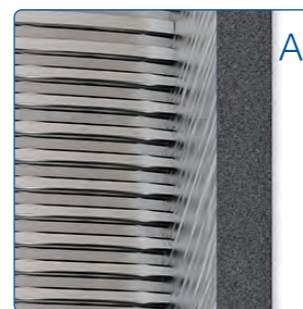


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## TP-G2 2-3/8in~20in

High performance gas-tight premium connection for casing and tubing. ISO 13679 CAL IV approved

- Excellent resistance to bending, compression and torque
- Superior anti-galling performance
- Reliable gas-tight sealing under any kind of combined loads
- Especially suited for highly deviated and long horizontal wells
- ISO13679:2002 CAL IV qualified



Hooked Thread  
Taper=1:16  
TBG: 2-3/8in~2-7/8in: (8T.P.I.)  
3-1/2in~4-1/2in: (6T.P.I.)  
CSG: 5in~8-5/8in: (5T.P.I.)  
9-5/8in~20in (4T.P.I.)



Large angle metal-to-metal seal  
Tapered pin and box seal  
Reverse angel torque shoulder  
internal flush

### Application:

- Long horizontal well
- Deep well
- High deviated well
- Surface and intermediate casing
- Tubing
- Production casing, tie back and liners

### Description

#### 1.1 Threaded connection

A modified hook thread profile with 4 degree of reverse angle on the load flank, not only provide the connection with superior tension strength but also increase its resistance to compression. The excellent structural strength including increased bending and compression resistance, makes this connection especially suited for highly deviated and long horizontal well. Optimized thread geometry minimizes the risk of galling, even when thread lubricants are poorly applied.

#### 1.2 Metal-to-Metal seal

The large angle metal-to-metal seal system offers excellent gas-tight sealing, even under the most severe combined loads. The seal integrity remains constant after repeated make-ups and break-outs.

#### 1.3 Reverse angle torque shoulder

A reverse angle torque shoulder provides a positive torque stop which allows accurate power-tight make-up and minimizes hoop stresses of the connection. The "wedge" effect caused by the reverse angle gives the connection superior structural strength. The shoulder design is optimized in order to resist adverse conditions such as combined compression and external pressure or combined bending, compression and torque.

#### 1.4 Streamlined internal profile

A pin ID chamfer, tight tolerances on the coupling center and a long shoulder combine to minimize turbulence and energy loss inside the connection for high-velocity gas flows.

#### 1.5 Coupling design

The 100% efficient connection performance has been engineered through factors such as: the coverage of the vanishing threads, long internal shoulder, and coupling critical cross sections greater than those of the pipe body.

#### 1.6 Connection low stress design

Connection low stress design can ensure that it can be safe under the corrosive environment.

### Options

- TP-G2 HC: High Compression
- TP-G2 HT: High Torque
- TP-G2(SB): Special Bevel
- TP-G2(SC): Special Clearance
- TP-G2(MS): Match Strength
- Dope Free solution

# TP-G2 | T&C | 2-3/8in~20in

## Imperial Unit

Size (OD)		Nominal weight	Wall thickness	Internal diameter	Standard Drift	Standard Coupling OD	Make up loss	Coupling length	Tension Efficiency	Joint Yield strength(1000lb.)						External pressure(psi)						Minimum internal yield pressure(psi)					
inch	mm	lb./ft	inch	inch	inch	inch	inch	inch		55ksi	80ksi	95ksi	110ksi	125ksi	140ksi	55ksi	80ksi	95ksi	110ksi	125ksi	140ksi	55ksi	80ksi	95ksi	110ksi	125ksi	140ksi
2-3/8	60.32	4.60	0.190	1.995	1.901	2.875	2.327	5.638	100%	71.7	104.3	123.9	143.4	163.0	182.5	8100	11780	13980	16130	17900	19590	7700	11200	13300	15400	17500	19600
2-7/8	73.02	6.40	0.217	2.441	2.347	3.307	2.937	6.661	100%	100	145	172	199	227	254	7680	11170	12940	14550	16070	17500	7260	10570	12550	14530	16510	18490
3-1/2	88.90	9.20	0.254	2.992	2.867	3.937	3.110	7.244	100%	142	207	246	285	324	363	7400	10540	12080	13530	14890	16160	6990	10160	12070	13970	15880	17780
		10.20	0.289	2.922	2.797	3.976	3.110	7.244	100%	160	233	277	321	364	408	8330	12120	14390	16670	18940	20770	7950	11560	13730	15900	18060	20230
		12.70	0.375	2.750	2.625	4.055	3.740	8.504	100%	202	295	350	405	460	515	10520	15310	18180	21050	23920	26790	10310	15000	17810	20630	23440	26250
4-1/2	114.30	10.50	0.224	4.052	3.927	4.827	3.268	7.481	100%	166	241	286	331	376	421	4010	4940	5310	5550	5830	6110	4790	6970	8280	9580	10890	12200
		11.60	0.250	4.000	3.875	4.871	3.268	7.481	100%	184	267	317	367	417	467	4960	6350	7030	7580	8000	8300	5350	7780	9240	10690	12150	13610
		12.60	0.271	3.958	3.833	4.906	3.268	7.481	100%	198	288	342	396	450	504	5730	7500	8410	9210	9890	10460	5800	8430	10010	11590	13170	14750
		13.50	0.290	3.920	3.795	4.937	3.268	7.481	100%	211	307	364	422	479	537	6420	8540	9660	10690	11600	12410	6200	9020	10710	12410	14100	15790
		15.10	0.337	3.826	3.701	4.969	4.056	9.056	100%	242	353	419	485	551	617	7620	11080	12760	14340	15830	17230	7210	10480	12450	14420	16380	18350
		17.00	0.380	3.740	3.615	5.035	4.056	9.056	100%	271	393	467	541	615	689	8500	12370	14690	17010	19330	21640	8130	11820	14040	16260	18470	20690
		17.70	0.402	3.696	3.571	5.068	4.056	9.056	100%	285	414	492	569	647	725	8950	13020	15460	17900	20340	22780	8600	12510	14850	17200	19540	21890
18.90	0.430	3.640	3.515	5.109	4.056	9.056	100%	302	440	522	605	687	770	9510	13830	16420	19010	21610	24200	9200	13380	15890	18390	20900	23410		
5	127.00	13.00	0.253	4.494	4.369	5.393	4.524	10.228	100%	208	302	358	415	472	528	4140	5140	5560	5840	6050	6360	4870	7080	8410	9740	11070	12400
		15.00	0.296	4.408	4.283	5.465	4.524	10.228	100%	241	350	416	481	547	612	5560	7250	8110	8850	9480	9990	5700	8290	9840	11400	12950	14500
		18.00	0.362	4.276	4.151	5.571	4.524	10.228	100%	290	422	501	580	659	738	7390	10490	12030	13470	14820	16080	6970	10140	12040	13940	15840	17740
		20.30	0.408	4.184	4.059	5.642	4.524	10.228	100%	324	471	559	647	736	824	8240	11990	14240	16490	18550	20330	7850	11420	13570	15710	17850	19990
		20.80	0.422	4.156	4.031	5.663	4.524	10.228	100%	334	486	577	668	759	850	8500	12360	14680	17000	19320	21620	8120	11820	14030	16250	18460	20680
		21.40	0.437	4.126	4.001	5.686	4.524	10.228	100%	345	501	595	689	783	877	8770	12760	15150	17550	19940	22330	8410	12240	14530	16820	19120	21410
		23.20	0.478	4.044	3.919	5.746	4.524	10.228	100%	373	543	645	747	849	951	9510	13830	16430	19020	21620	24210	9200	13380	15890	18400	20910	23420
24.10	0.500	4.000	3.875	5.777	4.524	10.228	100%	389	565	672	778	884	990	9900	14400	17100	19800	22500	25200	9630	14000	16630	19250	21880	24500		
5-1/2	139.70	15.50	0.275	4.950	4.825	5.930	4.628	10.438	100%	248	361	429	497	564	632	4040	4990	5380	5630	5890	6180	4810	7000	8310	9630	10940	12250
		17.00	0.304	4.892	4.767	5.979	4.628	10.438	100%	273	397	471	546	620	695	4910	6290	6940	7480	7890	8170	5320	7740	9190	10640	12090	13540
		20.00	0.361	4.778	4.653	6.073	4.628	10.438	100%	321	466	554	641	729	816	6620	8830	10020	11110	12080	12960	6320	9190	10910	12640	14360	16080
		23.00	0.415	4.670	4.545	6.158	4.628	10.438	100%	365	530	630	729	829	928	7670	11160	12930	14540	16060	17490	7260	10560	12540	14530	16510	18490
		26.00	0.476	4.548	4.423	6.252	4.628	10.438	100%	413	601	714	826	939	1052	8700	12650	15020	17390	19760	22140	8330	12120	14390	16660	18930	21200
		26.80	0.500	4.500	4.375	6.287	4.628	10.438	100%	432	628	746	864	982	1100	9090	13220	15700	18180	20660	23140	8750	12730	15110	17500	19890	22270
		28.40	0.530	4.440	4.315	6.331	4.628	10.438	100%	455	662	786	910	1034	1159	9580	13930	16540	19160	21770	24380	9280	13490	16020	18550	21080	23610
29.70	0.562	4.376	4.251	6.376	4.628	10.438	100%	480	697	828	959	1090	1221	10090	14680	17430	20180	22940	25690	9840	14310	16990	19670	22350	25030		
7	177.80	23.00	0.317	6.366	6.241	7.497	5.161	11.502	100%	366	532	632	732	832	932	3270	3830	4140	4440	4650	4760	4360	6340	7530	8720	9910	11100
		26.00	0.362	6.276	6.151	7.574	5.161	11.502	100%	415	604	717	830	944	1057	4330	5410	5890	6230	6450	6690	4980	7240	8600	9960	11310	12670
		29.00	0.408	6.184	6.059	7.651	5.161	11.502	100%	465	676	803	929	1056	1183	5410	7030	7840	8530	9110	9560	5610	8160	9690	11220	12750	14280
		32.00	0.453	6.094	5.969	7.725	5.161	11.502	100%	512	745	885	1025	1165	1304	6460	8600	9740	10780	11710	12530	6230	9060	10760	12460	14160	15860
		35.00	0.498	6.004	5.879	7.796	5.161	11.502	100%	559	814	966	1119	1272	1424	7270	10180	11650	13030	14310	15500	6850	9960	11830	13700	15560	17430
		38.00	0.540	5.920	5.795	7.862	5.161	11.502	100%	603	877	1041	1206	1370	1534	7830	11390	13430	15130	16740	18270	7430	10800	12830	14850	16880	18900
7-5/8	193.68	26.40	0.328	6.969	6.844	8.126	5.388	11.957	100%	414	602	714	827	940	1053	2900	3400	3710	3920	4050	4080	4140	6020	7150	8280	9410	10540
		29.70	0.375	6.875	6.750	8.207	5.388	11.957	100%	470	683	811	940	1068	1196	3910	4790	5130	5350	5670	5930	4730	6890	8180	9470	10760	12050
		33.70	0.430	6.765	6.640	8.300	5.388	11.957	100%	535	778	923	1069	1215	1361	5100	6560	7280	7870	8340	8690	5430	7900	9380	10860	12340	13820
		35.80	0.465	6.695	6.570	8.358	5.388	11.957	100%	575	837	994	1151	1307	1464	5850	7690	8640	9480	10200	10810	5870	8540	10140	11740	13340	14940
		39.00	0.500	6.625	6.500	8.415	5.388	11.957	100%	616	895	1063	1231	1399	1567	6610	8820	10000	11080	12060	12930	6310	9180	10900	12620	14340	16070
		42.80	0.562	6.501	6.376	8.513	5.388	11.957	100%	686	997	1185	1372	1559	1746	7510	10810	12410	13930	15350	16680	7090	10320	12250	14190	16120	18060
		45.30	0.595	6.435	6.310	8.564	5.388	11.957	100%	723	1051	1248	1445	1643	1840	7910	11510	13670	15440	17100	18680	7510	10920	12970	15020	17070	19120
47.10	0.625	6.375	6.250	8.611	5.388	11.957	100%	756	1100	1306	1512	1718	1924	8280	12040	14300	16550	18700	20500	7890	11480	13630	15780	17930	20080		
9-5/8	244.48	40.00	0.395	8.835	8.679	10.285	5.679	12.539	100%	630	916	1088	1260	1432	1604	2570	3090	3330	3470	3530	3530	3950	5750	6820	7900	8980	10050
		43.50	0.435	8.755	8.599	10.355	5.679	12.539	100%	691	1005	1193	1381	1570	1758	3250	3810	4130	4420	4620	4730	4350	6330	7510	8700	9890	11070
		47.00	0.472	8.681	8.525	10.418	5.679	12.539	100%	746	1086	1289	1493	1697	1900	3890	4750	5090	5300	5630	5890	4720	6870	8150	9440	10730	12010
		53.50	0.545	8.535	8.379	10.541	5.679	12.539	100%	855	1244	1477	1710	1943	2177	5130	6620	7340	7950								

## Metric Units

Size (OD)		Nominal weight	Wall thickness	Internal diameter	Standard Drift	Standard Coupling OD	Make up loss	Coupling length	Tension Efficiency	Joint Yield strength(KN.)						External pressure(MPa)						Minimum internal yield pressure(MPa)					
inch	mm	Kg/m	mm	mm	mm	mm	mm	mm		55ksi	80ksi	95ksi	110ksi	125ksi	140ksi	55ksi	80ksi	95ksi	110ksi	125ksi	140ksi	55ksi	80ksi	95ksi	110ksi	125ksi	140ksi
2-3/8	60.32	6.85	4.83	50.66	48.28	73.02	59.10	143.20	100%	319	464	551	638	725	812	55.9	81.2	96.4	111.2	123.4	135.1	53.1	77.2	91.7	106.2	120.7	135.1
2-7/8	73.02	9.52	5.51	62.00	59.62	84.00	74.60	169.20	100%	445	645	766	887	1010	1128	53.0	76.9	89.1	100.2	110.7	120.6	50.1	72.9	86.5	100.2	113.8	127.5
3-1/2	88.90	13.69	6.45	76.00	72.82	100.00	79.00	184.00	100%	632	922	1095	1267	1441	1613	51.0	72.7	83.3	93.3	102.7	111.4	48.2	70.1	83.2	96.3	109.5	122.6
		15.18	7.34	74.22	71.04	101.00	79.00	184.00	100%	712	1037	1232	1426	1619	1815	57.4	83.6	99.2	114.9	130.6	143.2	54.8	79.7	94.7	109.6	124.5	139.5
		18.90	9.52	69.86	66.68	103.00	95.00	216.00	100%	899	1311	1556	1802	2046	2291	72.5	105.6	125.3	145.1	164.9	184.7	71.1	103.4	122.8	142.2	161.6	181.0
4-1/2	114.30	15.73	5.69	102.92	99.74	122.61	83.01	190.02	100%	738	1072	1272	1472	1673	1873	27.6	34.1	36.6	38.3	40.2	42.1	33.0	48.1	57.1	66.1	75.1	84.1
		17.38	6.35	101.60	98.42	123.73	83.01	190.02	100%	818	1188	1410	1632	1855	2077	34.2	43.8	48.5	52.3	55.2	57.2	36.9	53.6	63.7	73.7	83.8	93.8
		18.75	6.88	100.54	97.36	124.62	83.01	190.02	100%	881	1281	1521	1761	2002	2242	39.5	51.7	58.0	63.5	68.2	72.1	40.0	58.1	69.0	79.9	90.8	101.7
		19.87	7.37	99.57	96.39	125.41	83.01	190.02	100%	939	1366	1619	1877	2131	2389	44.3	58.9	66.6	73.7	80.0	85.6	42.7	62.2	73.8	85.6	97.2	108.9
		22.69	8.56	97.18	94.00	126.21	103.01	230.02	100%	1076	1570	1864	2157	2451	2745	52.5	76.4	88.0	98.9	109.1	118.8	49.7	72.3	85.8	99.4	112.9	126.5
		25.30	9.65	95.00	91.82	127.89	103.01	230.02	100%	1205	1748	2077	2406	2736	3065	58.6	85.3	101.3	117.3	133.3	149.2	56.1	81.5	96.8	112.1	127.3	142.7
		26.34	10.21	93.88	90.70	128.73	103.01	230.02	100%	1268	1840	2189	2531	2878	3225	61.7	89.8	106.6	123.4	140.2	157.1	59.3	86.3	102.4	118.6	134.7	150.9
28.13	10.92	92.46	89.28	129.78	103.01	230.02	100%	1343	1956	2323	2690	3056	3424	65.6	95.4	113.2	131.1	149.0	166.9	63.4	92.3	109.6	126.8	144.1	161.4		
5	127.00	19.69	6.43	114.14	110.96	136.98	114.90	259.80	100%	925	1343	1592	1847	2100	2349	28.5	35.4	38.3	40.3	41.7	43.9	33.6	48.8	58.0	67.2	76.3	85.5
		22.69	7.52	111.96	108.78	138.81	114.90	259.80	100%	1072	1557	1849	2141	2433	2722	38.3	50.0	55.9	61.0	65.4	68.9	39.3	57.2	67.8	78.6	89.3	100.0
		27.19	9.19	108.62	105.44	141.50	114.90	259.80	100%	1290	1876	2228	2580	2931	3283	51.0	72.3	82.9	92.9	102.2	110.9	48.1	69.9	83.0	96.1	109.2	122.3
		30.21	10.36	106.28	103.10	143.31	114.90	259.80	100%	1441	2094	2486	2879	3274	3664	56.8	82.7	98.2	113.7	127.9	140.2	54.1	78.7	93.6	108.3	123.1	137.8
		30.95	10.72	105.56	102.38	143.85	114.90	259.80	100%	1486	2160	2565	2970	3376	3780	58.6	85.2	101.2	117.2	133.2	149.1	56.0	81.5	96.7	112.0	127.3	142.6
		32.13	11.10	104.80	101.62	144.42	114.90	259.80	100%	1535	2229	2647	3065	3483	3901	60.5	88.0	104.5	121.0	137.5	154.0	58.0	84.4	100.2	116.0	131.8	147.6
		34.76	12.14	102.72	99.54	145.94	114.90	259.80	100%	1659	2416	2869	3322	3777	4228	65.6	95.4	113.3	131.1	149.1	166.9	63.4	92.3	109.6	126.9	144.2	161.5
		36.15	12.70	101.60	98.42	146.74	114.90	259.80	100%	1730	2515	2989	3459	3932	4402	68.3	99.3	117.9	136.5	155.1	173.7	66.4	96.5	114.7	132.7	150.9	168.9
5-1/2	139.70	23.07	6.98	125.74	122.56	150.61	117.56	265.12	100%	1103	1605	1906	2211	2509	2809	27.9	34.4	37.1	38.8	40.6	42.6	33.2	48.3	57.3	66.4	75.4	84.5
		25.30	7.72	124.26	121.08	151.86	117.56	265.12	100%	1214	1766	2097	2428	2758	3090	33.9	43.4	47.8	51.6	54.4	56.3	36.7	53.4	63.4	73.4	83.4	93.4
		29.76	9.17	121.36	118.18	154.25	117.56	265.12	100%	1428	2074	2463	2852	3243	3630	45.6	60.9	69.1	76.6	83.3	89.4	43.6	63.4	75.2	87.1	99.0	110.9
		34.23	10.54	118.62	115.44	156.41	117.56	265.12	100%	1624	2359	2801	3244	3688	4128	52.9	76.9	89.1	100.2	110.7	120.6	50.1	72.8	86.5	100.2	113.8	127.5
		38.69	12.09	115.52	112.34	158.80	117.56	265.12	100%	1837	2673	3175	3676	4177	4678	60.0	87.2	103.6	119.9	136.2	152.6	57.4	83.6	99.2	114.9	130.5	146.2
		39.88	12.70	114.30	111.12	159.70	117.56	265.12	100%	1922	2795	3319	3843	4368	4891	62.7	91.1	108.2	125.3	142.4	159.5	60.3	87.8	104.2	120.7	137.1	153.5
		42.26	13.46	112.78	109.60	160.80	117.56	265.12	100%	2024	2944	3496	4048	4599	5155	66.1	96.0	114.0	132.1	150.1	168.1	64.0	93.0	110.5	127.9	145.3	162.8
		44.20	14.27	111.16	107.98	161.95	117.56	265.12	100%	2135	3101	3683	4265	4849	5431	69.6	101.2	120.2	139.1	158.2	177.1	67.8	98.7	117.1	135.6	154.1	172.6
7	177.80	34.23	8.05	161.70	158.52	190.42	131.08	292.16	100%	1628	2368	2812	3256	3701	4144	22.5	26.4	28.5	30.6	32.1	32.8	30.1	43.7	51.9	60.1	68.3	76.5
		38.69	9.19	159.42	156.24	192.37	131.08	292.16	100%	1846	2685	3188	3692	4199	4702	29.9	37.3	40.6	43.0	44.5	46.1	34.3	49.9	59.3	68.7	78.0	87.4
		43.16	10.36	157.08	153.90	194.33	131.08	292.16	100%	2068	3006	3572	4133	4697	5260	37.3	48.5	54.1	58.8	62.8	65.9	38.7	56.3	66.8	77.4	87.9	98.5
		47.62	11.51	154.78	151.60	196.21	131.08	292.16	100%	2277	3314	3938	4560	5182	5800	44.5	59.3	67.2	74.3	80.7	86.4	43.0	62.5	74.2	85.9	97.6	109.4
		52.09	12.65	152.50	149.32	198.03	131.08	292.16	100%	2487	3620	4299	4978	5658	6335	50.1	70.2	80.3	89.8	98.7	106.9	47.2	68.7	81.6	94.5	107.3	120.2
		56.55	13.72	150.36	147.18	199.70	131.08	292.16	100%	2682	3901	4632	5364	6094	6824	54.0	78.5	92.6	104.3	115.4	126.0	51.2	74.5	88.5	102.4	116.4	130.3
7-5/8	193.68	39.29	8.33	177.02	173.84	206.40	136.85	303.70	100%	1842	2678	3177	3679	4181	4682	20.0	23.4	25.6	27.0	27.9	28.1	28.5	41.5	49.3	57.1	64.9	72.7
		44.20	9.53	174.62	171.44	208.46	136.85	303.70	100%	2091	3038	3608	4181	4751	5322	27.0	33.0	35.4	36.9	39.1	40.9	32.6	47.5	56.4	65.3	74.2	83.1
		50.15	10.92	171.84	168.66	210.83	136.85	303.70	100%	2380	3461	4106	4755	5405	6054	35.2	45.2	50.2	54.3	57.5	59.9	37.4	54.5	64.7	74.9	85.1	95.3
		53.28	11.81	170.06	166.88	212.30	136.85	303.70	100%	2558	3722	4420	5120	5814	6513	40.3	53.0	59.6	65.4	70.3	74.5	40.5	58.9	69.9	80.9	92.0	103.0
		58.04	12.70	168.28	165.10	213.74	136.85	303.70	100%	2740	3983	4729	5476	6223	6970	45.6	60.8	68.9	76.4	83.2	89.1	43.5	63.3	75.2	87.0	98.9	110.8
		63.69	14.27	165.14	161.96	216.23	136.85	303.70	100%	3051	4439	5271	6103	6935	7767	51.8	74.5	85.6	96.0	105.8	115.0	48.9	71.2	84.5	97.8	111.1	124.5
		67.41	15.11	163.46	160.28	217.53	136.85	303.70	100%	3216	4675	5552	6428	7308	8185												