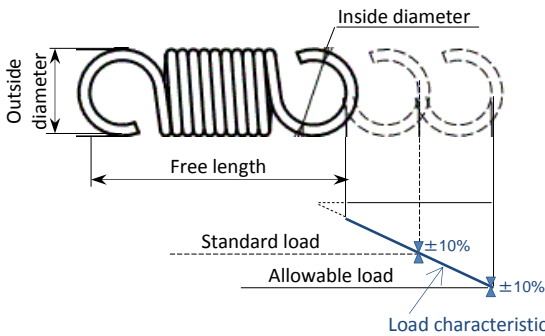


# UltraSpring™ Extension Spring

ウルトラスプリング・引張コイルばね



<b>E series</b> (212items)	Numbered by the "Standard load" which is originally standardized by Accurate Inc. and regarding the Japanese standardization of springs (JSMA No.8) (社)日本ばね工業会制定の規格を基に、当社独自の管理項目(基準荷重)を追加し配列した規格です。
<b>DE series</b> (670items)	Numbered by the "Standard load" which is originally standardized by Accurate Inc. and regarding the German standardization of springs (DIN2098) 欧州において普及しているドイツの規格(DIN2098)引張ばねを参考に、当社独自の管理項目(基準荷重)を追加し、配列した規格です。

## SPECIFICATIONS 規格及びばね仕様

### Material 材質

	Wire diameter 線径	Kinds of steel 鋼種
<b>E series</b>	All	SUS304WPB (18-8 stainless steel wire for springs)
<b>DE series</b>	Less than φ0.5	SUS304WPB (18-8 stainless steel wire for springs)
	φ0.5 and greater	SWP-B (Music wire)

### Load characteristic 荷重特性

Controlled by 2 points of load characteristic.  
次の二点で荷重管理しています。

		Tolerance
<b>Allowable load</b> 許容荷重	Defined by 64% of allowable torsional stress given from JIS B 2704.	±10%
<b>Standard load</b> 基準荷重	Defined by 60% of allowable load.	±10%

\*Please avoid usage exceeding allowable load.  
許容荷重を超えてのご使用はおやめください。

### Free length 自由長さ

Generally, free length is a reference value when the load characteristic is specified.  
荷重特製の指定がある場合は一般的に参考値となります。

### Outside coil diameter コイル外径

Controlled by outside diameter with the tolerance of JIS class 2  
コイル径は外径基準で管理しています。許容差はJIS 2級に基づいています。

	Class	Tolerance (JIS class 2)
D/d	Greater than 4 to 8	±1.5% min ±0.20mm
	Greater than 8 to 15	±2.0% min ±0.30mm
	Greater than 15 to 22	±3.0% min ±0.50mm

D/d=Spring index is the ratio of mean coil diameter and wire diameter.  
ばね指数。コイル平均径と線径の比です。

### Number of total coils 総巻数

Generally, number of total coils is a reference value when the load characteristic is specified.  
荷重重視により、参考値です。

### Direction of wind 巻方向

Right hand coil  
右巻き

### Hooks shape フック形状

Both hooks are counter type full loop and relative angle of hooks opening is 180°  
両端ともに、逆丸フック。フックの対角角は180度です。

Fig. Counter type full loop

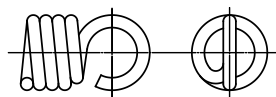
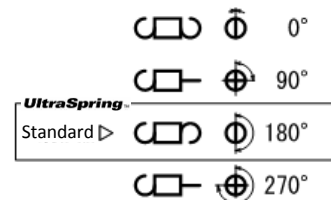


Fig. Relative angle of hooks opening



\*Colour of appearance or gloss level may be seen differently by production lots though this is caused by low temperature annealing and does not affect spring characteristics.  
製造ロットにより外観色・光沢に若干差が生じることがありますが、これは低温焼鈍(テンパー)によるもので、ばね特性に影響はありません。

\*Specifications are subject to change without notice.  
仕様は予告なく変更する場合があります。

## Helical extension spring

引張コイルばね

## SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
E501	0.29	3.2	0.20	9.5	15.5	0.031	0.54	24.8	0.059	20
E502	0.29	3.2	0.20	11.3	24.5	0.021	0.54	34.6	0.059	20
E503	0.29	3.2	0.20	14.3	39.5	0.013	0.54	52.0	0.059	20
E504	0.29	3.2	0.20	18.9	62.5	0.008	0.54	80.2	0.059	20
E505	0.34	4.0	0.23	11.6	15.5	0.028	0.64	32.3	0.049	20
E506	0.34	4.0	0.23	13.7	24.5	0.018	0.64	47.0	0.049	20
E507	0.34	4.0	0.23	17.1	39.5	0.011	0.64	71.7	0.049	20
E508	0.34	4.0	0.23	22.4	62.5	0.007	0.64	108.1	0.049	20
E509	0.39	2.5	0.20	7.9	15.5	0.071	0.69	16.1	0.108	20
E510	0.39	2.5	0.20	9.7	24.5	0.045	0.69	22.5	0.108	20
E511	0.39	2.5	0.20	12.7	39.5	0.028	0.69	33.0	0.108	20
E512	0.39	2.5	0.20	17.3	62.5	0.018	0.69	50.1	0.108	20
E513	0.44	3.2	0.23	9.8	15.5	0.057	0.78	21.7	0.108	20
E514	0.44	3.2	0.23	11.9	24.5	0.037	0.78	30.1	0.108	20
E515	0.44	3.2	0.23	15.3	39.5	0.024	0.78	44.1	0.108	20
E516	0.44	3.2	0.23	20.6	62.5	0.015	0.78	66.6	0.108	20
E517	0.49	4.0	0.26	11.9	15.5	0.047	0.93	29.6	0.098	20
E518	0.49	4.0	0.26	14.3	24.5	0.03	0.93	41.7	0.098	20
E519	0.49	4.0	0.26	18.2	39.5	0.019	0.93	62.9	0.098	20
E520	0.49	4.0	0.26	24.2	62.5	0.012	0.93	95.0	0.098	20
E521	0.54	2.0	0.20	6.8	15.5	0.147	0.88	11.6	0.177	20
E522	0.54	2.0	0.20	8.6	24.5	0.094	0.88	16.1	0.177	20
E523	0.54	2.0	0.20	11.6	39.5	0.059	0.88	23.6	0.177	20
E524	0.54	2.0	0.20	16.2	62.5	0.038	0.88	34.7	0.177	20
E525	0.59	2.5	0.23	8.3	15.5	0.128	1.03	14.8	0.196	20
E526	0.59	2.5	0.23	10.4	24.5	0.082	1.03	20.5	0.196	20
E527	0.59	2.5	0.23	13.8	39.5	0.052	1.03	29.8	0.196	20
E528	0.59	2.5	0.23	19.1	62.5	0.032	1.03	44.9	0.196	20
E529	0.69	3.2	0.26	10.2	15.5	0.096	1.18	20.5	0.186	20
E530	0.69	3.2	0.26	12.5	24.5	0.062	1.18	28.5	0.186	20
E531	0.69	3.2	0.26	16.4	39.5	0.038	1.18	42.3	0.186	20
E532	0.69	3.2	0.26	22.4	62.5	0.025	1.18	62.8	0.186	20
E533	0.74	4.0	0.29	12.3	15.5	0.075	1.27	27.0	0.177	20
E534	0.74	4.0	0.29	14.9	24.5	0.047	1.27	38.2	0.177	20
E535	0.74	4.0	0.29	19.3	39.5	0.03	1.27	55.4	0.177	20
E536	0.74	4.0	0.29	25.9	62.5	0.019	1.27	84.9	0.177	20
E537	0.78	5.0	0.32	14.9	15.5	0.055	1.37	37.0	0.157	20
E538	0.78	5.0	0.32	17.8	24.5	0.035	1.37	52.2	0.157	20
E539	0.78	5.0	0.32	22.6	39.5	0.023	1.37	76.5	0.157	20
E540	0.78	5.0	0.32	29.9	62.5	0.014	1.37	118.5	0.157	20

## Helical extension spring

引張コイルばね

## SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity パック内個数
E541	0.93	2.5	0.26	8.6	15.5	0.218	1.52	14.1	0.333	20
E542	0.93	2.5	0.26	11.0	24.5	0.14	1.52	19.5	0.333	20
E543	0.93	2.5	0.26	14.9	39.5	0.087	1.52	28.5	0.333	20
E544	0.93	2.5	0.26	20.9	62.5	0.056	1.52	42.1	0.333	20
E545	0.98	3.2	0.29	10.5	15.5	0.154	1.62	19.0	0.304	20
E546	0.98	3.2	0.29	13.2	24.5	0.099	1.62	26.5	0.304	20
E547	0.98	3.2	0.29	17.5	39.5	0.062	1.62	38.8	0.304	20
E548	0.98	3.2	0.29	24.2	62.5	0.039	1.62	57.7	0.304	20
E549	0.98	4.0	0.32	12.7	15.5	0.114	1.72	25.4	0.275	20
E550	0.98	4.0	0.32	15.6	24.5	0.073	1.72	35.5	0.275	20
E551	0.98	4.0	0.32	20.4	39.5	0.045	1.72	52.4	0.275	20
E552	0.98	4.0	0.32	27.7	62.5	0.028	1.72	78.4	0.275	20
E553	0.98	5.0	0.35	15.2	15.5	0.079	1.77	34.6	0.226	20
E554	0.98	5.0	0.35	18.4	24.5	0.052	1.77	48.0	0.226	20
E555	0.98	5.0	0.35	23.6	39.5	0.031	1.77	72.7	0.226	20
E556	0.98	5.0	0.35	31.7	62.5	0.021	1.77	106.5	0.226	20
E557	1.18	6.3	0.40	18.7	15.5	0.067	2.06	45.9	0.245	20
E558	1.18	6.3	0.40	22.3	24.5	0.043	2.06	64.4	0.245	20
E559	1.18	6.3	0.40	28.3	39.5	0.026	2.06	96.8	0.245	20
E560	1.18	6.3	0.40	37.5	62.5	0.018	2.06	140.3	0.245	20
E561	1.37	4.0	0.35	13.0	15.5	0.166	2.26	24.1	0.412	20
E562	1.37	4.0	0.35	16.2	24.5	0.106	2.26	33.6	0.412	20
E563	1.37	4.0	0.35	21.4	39.5	0.066	2.26	49.5	0.412	20
E564	1.37	4.0	0.35	29.5	62.5	0.042	2.26	73.2	0.412	20
E565	1.37	2.5	0.29	9.0	15.5	0.352	2.16	13.7	0.52	20
E566	1.37	2.5	0.29	11.6	24.5	0.225	2.16	18.9	0.52	20
E567	1.37	2.5	0.29	16.0	39.5	0.141	2.16	27.6	0.52	20
E568	1.37	2.5	0.29	22.6	62.5	0.089	2.16	41.0	0.52	20
E569	1.37	3.2	0.32	10.9	15.5	0.235	2.21	18.3	0.471	20
E570	1.37	3.2	0.32	13.8	24.5	0.151	2.21	25.3	0.471	20
E571	1.37	3.2	0.32	18.6	39.5	0.094	2.21	37.0	0.471	20
E572	1.37	3.2	0.32	26.0	62.5	0.06	2.21	55.0	0.471	20
E573	1.57	5.0	0.40	15.8	15.5	0.141	2.65	31.4	0.441	20
E574	1.57	5.0	0.40	19.4	24.5	0.09	2.65	43.9	0.441	20
E575	1.57	5.0	0.40	25.4	39.5	0.057	2.65	64.2	0.441	20
E576	1.57	5.0	0.40	34.6	62.5	0.036	2.65	95.4	0.441	20
E577	1.67	6.3	0.45	19.3	15.5	0.11	2.94	42.3	0.412	20
E578	1.67	6.3	0.45	23.4	24.5	0.071	2.94	59.2	0.412	20
E579	1.67	6.3	0.45	30.1	39.5	0.044	2.94	87.4	0.412	20
E580	1.67	6.3	0.45	40.5	62.5	0.028	2.94	129.5	0.412	10

## Helical extension spring

引張コイルばね

## SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity パック内個数
E581	1.77	3.2	0.35	11.3	15.5	0.347	2.89	17.7	0.677	20
E582	1.77	3.2	0.35	14.4	24.5	0.223	2.89	24.4	0.677	20
E583	1.77	3.2	0.35	19.7	39.5	0.139	2.89	35.6	0.677	20
E584	1.77	3.2	0.35	27.7	62.5	0.088	2.89	52.8	0.677	10
E585	2.06	4.0	0.40	13.6	15.5	0.294	3.38	22.6	0.735	20
E586	2.06	4.0	0.40	17.2	24.5	0.188	3.38	31.3	0.735	20
E587	2.06	4.0	0.40	23.2	39.5	0.118	3.38	45.7	0.735	20
E588	2.06	4.0	0.40	32.6	62.5	0.075	3.38	68.1	0.735	10
E589	2.26	5.0	0.45	16.4	15.5	0.233	3.78	29.4	0.735	20
E590	2.26	5.0	0.45	20.5	24.5	0.149	3.78	40.9	0.735	20
E591	2.26	5.0	0.45	27.2	39.5	0.093	3.78	59.8	0.735	10
E592	2.26	5.0	0.45	37.6	62.5	0.059	3.78	89.3	0.735	10
E593	2.35	8.0	0.55	24.3	15.5	0.119	4.17	54.8	0.549	10
E594	2.35	8.0	0.55	29.2	24.5	0.076	4.17	76.5	0.549	10
E595	2.35	8.0	0.55	37.6	39.5	0.047	4.17	114.5	0.549	10
E596	2.35	8.0	0.55	50.1	62.5	0.03	4.17	169.1	0.549	10
E597	2.35	6.3	0.50	19.9	15.5	0.172	4.07	39.6	0.686	20
E598	2.35	6.3	0.50	24.4	24.5	0.11	4.07	55.2	0.686	10
E599	2.35	6.3	0.50	31.9	39.5	0.069	4.07	81.2	0.686	10
E600	2.35	6.3	0.50	43.4	62.5	0.044	4.07	120.1	0.686	10
E601	3.04	4.0	0.45	14.2	15.5	0.491	4.85	21.7	1.147	20
E602	3.04	4.0	0.45	18.3	24.5	0.315	4.85	30.1	1.147	20
E603	3.04	4.0	0.45	25.0	39.5	0.196	4.85	43.9	1.147	10
E604	3.04	4.0	0.45	35.4	62.5	0.125	4.85	65.2	1.147	10
E605	3.14	8.0	0.60	24.9	15.5	0.172	5.49	52.1	0.824	20
E606	3.14	8.0	0.60	30.3	24.5	0.11	5.49	72.8	0.824	10
E607	3.14	8.0	0.60	39.3	39.5	0.069	5.49	107.3	0.824	10
E608	3.14	8.0	0.60	53.1	62.5	0.044	5.49	158.9	0.824	10
E609	3.24	5.0	0.50	17.1	15.5	0.369	5.25	28.2	1.147	20
E610	3.24	5.0	0.50	21.6	24.5	0.235	5.25	39.0	1.147	20
E611	3.24	5.0	0.50	29.1	39.5	0.147	5.25	57.0	1.147	10
E612	3.24	5.0	0.50	40.6	62.5	0.093	5.25	84.6	1.147	10
E613	3.24	6.3	0.55	20.5	15.5	0.258	5.39	37.5	1.01	20
E614	3.24	6.3	0.55	25.5	24.5	0.166	5.39	52.0	1.01	10
E615	3.24	6.3	0.55	33.7	39.5	0.103	5.39	76.3	1.01	10
E616	3.24	6.3	0.55	46.4	62.5	0.066	5.39	113.1	1.01	10
E617	4.12	8.0	0.65	25.5	15.5	0.241	6.96	49.5	1.177	10
E618	4.12	8.0	0.65	31.3	24.5	0.155	6.96	68.6	1.177	10
E619	4.12	8.0	0.65	41.1	39.5	0.096	6.96	101.3	1.177	10
E620	4.12	8.0	0.65	56.0	62.5	0.061	6.96	151.2	1.177	10

## Helical extension spring

引張コイルばね

## SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
E621	4.22	4.0	0.50	14.9	15.5	0.782	6.72	21.3	1.736	20
E622	4.22	4.0	0.50	19.4	24.5	0.5	6.72	29.4	1.736	20
E623	4.22	4.0	0.50	26.9	39.5	0.313	6.72	42.8	1.736	10
E624	4.22	4.0	0.50	38.4	62.5	0.198	6.72	63.6	1.736	10
E625	4.22	6.3	0.60	21.1	15.5	0.375	7.06	36.1	1.442	20
E626	4.22	6.3	0.60	26.5	24.5	0.24	7.06	49.9	1.442	10
E627	4.22	6.3	0.60	35.5	39.5	0.15	7.06	73.0	1.442	10
E628	4.22	6.3	0.60	49.3	62.5	0.095	7.06	108.4	1.442	10
E629	4.31	5.0	0.55	17.7	15.5	0.557	6.96	27.2	1.667	20
E630	4.31	5.0	0.55	22.6	24.5	0.356	6.96	37.5	1.667	20
E631	4.31	5.0	0.55	30.9	39.5	0.224	6.96	54.6	1.667	10
E632	4.31	5.0	0.55	43.5	62.5	0.141	6.96	81.0	1.667	10
E633	5.1	8.0	0.70	26.1	15.5	0.331	8.63	47.2	1.648	10
E634	5.1	8.0	0.70	32.4	24.5	0.212	8.63	65.4	1.648	10
E635	5.1	8.0	0.70	42.9	39.5	0.132	8.63	95.6	1.648	10
E636	5.1	8.0	0.70	59.0	62.5	0.084	8.63	141.8	1.648	10
E637	5.59	6.3	0.65	21.7	15.5	0.532	9.02	34.8	2.059	20
E638	5.59	6.3	0.65	27.6	24.5	0.34	9.02	48.1	2.059	10
E639	5.59	6.3	0.65	37.3	39.5	0.212	9.02	70.2	2.059	10
E640	5.59	6.3	0.65	52.3	62.5	0.134	9.02	104.1	2.059	10
E641	5.79	5.0	0.60	18.3	15.5	0.816	9.17	26.7	2.314	20
E642	5.79	5.0	0.60	23.7	24.5	0.523	9.17	36.8	2.314	20
E643	5.79	5.0	0.60	32.7	39.5	0.327	9.17	53.7	2.314	10
E644	5.79	5.0	0.60	46.7	62.5	0.207	9.17	79.8	2.314	10
E645	5.98	10.0	0.80	31.7	15.5	0.282	10.2	61.6	1.765	10
E646	5.98	10.0	0.80	38.9	24.5	0.18	10.2	85.6	1.765	10
E647	5.98	10.0	0.80	50.9	39.5	0.114	10.2	125.0	1.765	10
E648	5.98	10.0	0.80	69.3	62.5	0.072	10.2	187.1	1.765	10
E649	7.06	6.3	0.70	22.3	15.5	0.733	11.28	34.0	2.746	10
E650	7.06	6.3	0.70	28.6	24.5	0.47	11.28	46.8	2.746	10
E651	7.06	6.3	0.70	39.1	39.5	0.293	11.28	68.2	2.746	10
E652	7.06	6.3	0.70	55.2	62.5	0.186	11.28	101.0	2.746	10
E653	10.79	6.3	0.80	23.5	15.5	1.321	16.97	32.9	4.511	10
E654	10.79	6.3	0.80	30.7	24.5	0.845	16.97	45.4	4.511	10
E655	10.79	6.3	0.80	42.7	39.5	0.528	16.97	66.3	4.511	10
E656	10.79	6.3	0.80	61.1	62.5	0.335	16.97	98.2	4.511	10
E657	11.47	8.0	0.90	28.5	15.5	0.984	18.34	42.6	4.511	10
E658	11.47	8.0	0.90	36.6	24.5	0.629	18.34	58.6	4.511	10
E659	11.47	8.0	0.90	50.1	39.5	0.393	18.34	85.3	4.511	5
E660	11.47	8.0	0.90	70.8	62.5	0.25	18.34	126.1	4.511	5



## Helical extension spring

引張コイルばね

SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity パック内個数
E673	6.86	12.5	0.90	38.4	15.5	0.226	11.18	80.5	1.687	5
E674	6.86	12.5	0.90	46.5	24.5	0.147	11.18	111.0	1.687	5
E675	6.86	12.5	0.90	60.0	39.5	0.088	11.18	167.6	1.687	5
E676	6.86	12.5	0.90	80.7	62.5	0.059	11.18	242.0	1.687	4
E677	9.81	12.5	1.00	39.6	15.5	0.353	15.4	75.3	2.785	5
E678	9.81	12.5	1.00	48.6	24.5	0.226	15.4	104.5	2.785	5
E679	9.81	12.5	1.00	63.6	39.5	0.137	15.4	155.5	2.785	5
E680	9.81	12.5	1.00	86.6	62.5	0.088	15.4	229.5	2.785	3
E681	11.77	16.0	1.20	49.7	15.5	0.343	20.4	99.4	3.344	5
E682	11.77	16.0	1.20	60.5	24.5	0.216	20.4	139.6	3.344	4
E683	11.77	16.0	1.20	78.5	39.5	0.137	20.4	202.7	3.344	3
E684	11.77	16.0	1.20	106.1	62.5	0.088	20.4	299.3	3.344	3
E685	19.61	16.0	1.40	52.1	15.5	0.657	31.68	90.2	6.649	5
E686	19.61	16.0	1.40	64.7	24.5	0.422	31.68	124.1	6.649	3
E687	19.61	16.0	1.40	85.7	39.5	0.265	31.68	180.2	6.649	3
E688	19.61	16.0	1.40	117.9	62.5	0.167	31.68	268.0	6.649	3
E689	22.56	20.0	1.60	63.4	15.5	0.569	36.77	115.5	7.12	3
E690	22.56	20.0	1.60	77.8	24.5	0.363	36.77	159.5	7.12	3
E691	22.56	20.0	1.60	101.8	39.5	0.226	36.77	233.3	7.12	2
E692	22.56	20.0	1.60	138.6	62.5	0.147	36.77	340.2	7.12	2
E693	31.38	20.0	1.80	65.8	15.5	0.932	51.29	108.1	11.866	3
E694	31.38	20.0	1.80	82.0	24.5	0.598	51.29	147.9	11.866	3
E695	31.38	20.0	1.80	109.0	39.5	0.373	51.29	214.8	11.866	2
E696	31.38	20.0	1.80	150.4	62.5	0.235	51.29	317.9	11.866	2
E697	41.19	12.5	1.60	46.9	15.5	2.716	61.98	63.0	18.338	4
E698	41.19	12.5	1.60	61.3	24.5	1.736	61.98	86.4	18.338	3
E699	41.19	12.5	1.60	85.3	39.5	1.089	61.98	125.4	18.338	3
E700	41.19	12.5	1.60	122.1	62.5	0.686	61.98	185.7	18.338	3
E701	42.17	16.0	1.80	57.0	15.5	1.961	65.7	81.1	18.437	3
E702	42.17	16.0	1.80	73.2	24.5	1.255	65.7	110.9	18.437	3
E703	42.17	16.0	1.80	100.2	39.5	0.785	65.7	160.5	18.437	2
E704	42.17	16.0	1.80	141.6	62.5	0.5	65.7	236.1	18.437	2
E705	44.13	20.0	2.00	68.2	15.5	1.471	70.31	103.5	18.437	3
E706	44.13	20.0	2.00	86.2	24.5	0.941	70.31	141.3	18.437	2
E707	44.13	20.0	2.00	116.2	39.5	0.588	70.31	204.4	18.437	2
E708	44.13	20.0	2.00	162.2	62.5	0.373	70.31	301.4	18.437	1
E709	60.8	16.0	2.00	59.4	15.5	3.128	90.42	79.4	27.949	3
E710	60.8	16.0	2.00	77.4	24.5	2.001	90.42	108.6	27.949	3
E711	60.8	16.0	2.00	107.4	39.5	1.255	90.42	157.2	27.949	2
E712	60.8	16.0	2.00	153.4	62.5	0.794	90.42	232.0	27.949	2

## Helical extension spring

引張コイルばね

## SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
DE001	0.1	1.3	0.10	5.6	31.5	0.016	0.16	13.7	0.029	20
DE002	0.1	1.3	0.10	6.4	39.5	0.013	0.16	16.5	0.029	20
DE003	0.1	1.3	0.10	7.4	49.5	0.01	0.16	20.1	0.029	20
DE004	0.1	1.3	0.10	8.7	62.5	0.008	0.16	24.7	0.029	20
DE005	0.1	1.3	0.10	10.4	79.5	0.006	0.16	30.8	0.029	20
DE006	0.1	1.3	0.10	3.5	10.5	0.047	0.16	6.2	0.029	20
DE007	0.1	1.3	0.10	3.7	12.5	0.04	0.16	6.9	0.029	20
DE008	0.1	1.3	0.10	4.0	15.5	0.032	0.16	8.0	0.029	20
DE009	0.1	1.3	0.10	4.4	19.5	0.025	0.16	9.4	0.029	20
DE010	0.1	1.3	0.10	4.9	24.5	0.021	0.16	11.2	0.029	20
DE011	0.12	1.1	0.10	6.0	39.5	0.022	0.19	12.8	0.039	20
DE012	0.12	1.1	0.10	7.0	49.5	0.018	0.19	15.5	0.039	20
DE013	0.12	1.1	0.10	8.3	62.5	0.014	0.19	19.0	0.039	20
DE014	0.12	1.1	0.10	10.0	79.5	0.011	0.19	23.6	0.039	20
DE015	0.12	1.1	0.10	3.1	10.5	0.081	0.19	4.9	0.039	20
DE016	0.12	1.1	0.10	3.3	12.5	0.069	0.19	5.4	0.039	20
DE017	0.12	1.1	0.10	3.6	15.5	0.055	0.19	6.2	0.039	20
DE018	0.12	1.1	0.10	4.0	19.5	0.044	0.19	7.3	0.039	20
DE019	0.12	1.1	0.10	4.5	24.5	0.035	0.19	8.7	0.039	20
DE020	0.12	1.1	0.10	5.2	31.5	0.027	0.19	10.6	0.039	20
DE021	0.13	1.7	0.12	5.7	19.5	0.023	0.21	13.4	0.033	20
DE022	0.13	1.7	0.12	6.3	24.5	0.018	0.21	16.0	0.033	20
DE023	0.13	1.7	0.12	7.1	31.5	0.014	0.21	19.6	0.033	20
DE024	0.13	1.7	0.12	8.1	39.5	0.011	0.21	23.7	0.033	20
DE025	0.13	1.7	0.12	9.3	49.5	0.009	0.21	28.9	0.033	20
DE026	0.13	1.7	0.12	10.8	62.5	0.007	0.21	35.6	0.033	20
DE027	0.13	1.7	0.12	12.9	79.5	0.006	0.21	44.4	0.033	20
DE028	0.13	1.7	0.12	4.6	10.5	0.041	0.21	8.7	0.033	20
DE029	0.13	1.7	0.12	4.8	12.5	0.034	0.21	9.8	0.033	20
DE030	0.13	1.7	0.12	5.2	15.5	0.028	0.21	11.3	0.033	20
DE031	0.15	0.9	0.10	6.6	49.5	0.034	0.23	11.5	0.059	20
DE032	0.15	0.9	0.10	7.9	62.5	0.026	0.23	14.1	0.059	20
DE033	0.15	0.9	0.10	9.6	79.5	0.021	0.23	17.5	0.059	20
DE034	0.15	0.9	0.10	2.7	10.5	0.16	0.23	3.7	0.059	20
DE035	0.15	0.9	0.10	2.9	12.5	0.134	0.23	4.1	0.059	20
DE036	0.15	0.9	0.10	3.2	15.5	0.108	0.23	4.7	0.059	20
DE037	0.15	0.9	0.10	3.6	19.5	0.086	0.23	5.5	0.059	20
DE038	0.15	0.9	0.10	4.1	24.5	0.069	0.23	6.5	0.059	20
DE039	0.15	0.9	0.10	4.8	31.5	0.053	0.23	7.9	0.059	20
DE040	0.15	0.9	0.10	5.6	39.5	0.042	0.23	9.5	0.059	20



## Helical extension spring

引張コイルばね

## SUS304WPB

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DE041	0.17	1.3	0.12	6.2	31.5	0.032	0.27	12.8	0.059	20
DE042	0.17	1.3	0.12	7.2	39.5	0.026	0.27	15.4	0.061	20
DE043	0.17	1.3	0.12	8.4	49.5	0.021	0.27	18.7	0.061	20
DE044	0.17	1.3	0.12	10.0	62.5	0.017	0.27	22.9	0.061	20
DE045	0.17	1.3	0.12	12.0	79.5	0.013	0.27	28.5	0.061	20
DE046	0.17	1.3	0.12	3.7	10.5	0.098	0.27	5.9	0.061	20
DE047	0.17	1.3	0.12	4.0	12.5	0.082	0.27	6.5	0.061	20
DE048	0.17	1.3	0.12	4.3	15.5	0.067	0.27	7.5	0.061	20
DE049	0.17	1.3	0.12	4.8	19.5	0.053	0.27	8.8	0.061	20
DE050	0.17	1.3	0.12	5.4	24.5	0.042	0.27	10.5	0.061	20
DE051	0.21	1.1	0.12	6.8	39.5	0.045	0.32	12.0	0.086	20
DE052	0.21	1.1	0.12	8.0	49.5	0.036	0.32	14.6	0.086	20
DE053	0.21	1.1	0.12	9.6	62.5	0.028	0.32	17.8	0.086	20
DE054	0.21	1.1	0.12	11.6	79.5	0.023	0.32	22.2	0.086	20
DE055	0.21	1.1	0.12	3.3	10.5	0.17	0.32	4.7	0.086	20
DE056	0.21	1.1	0.12	3.5	12.5	0.142	0.32	5.2	0.086	20
DE057	0.21	1.1	0.12	3.9	15.5	0.115	0.32	5.9	0.086	20
DE058	0.21	1.1	0.12	4.4	19.5	0.091	0.32	7.0	0.086	20
DE059	0.21	1.1	0.12	5.0	24.5	0.073	0.32	8.2	0.086	20
DE060	0.21	1.1	0.12	5.8	31.5	0.057	0.32	10.0	0.086	20
DE061	0.24	2.2	0.16	6.2	12.5	0.056	0.4	12.1	0.063	20
DE062	0.24	2.2	0.16	6.7	15.5	0.045	0.4	14.1	0.063	20
DE063	0.24	2.2	0.16	7.3	19.5	0.036	0.4	16.6	0.063	20
DE064	0.24	2.2	0.16	8.1	24.5	0.028	0.4	19.9	0.063	20
DE065	0.24	2.2	0.16	9.2	31.5	0.023	0.4	24.4	0.063	20
DE066	0.24	2.2	0.16	10.5	39.5	0.018	0.4	29.5	0.063	20
DE067	0.24	2.2	0.16	12.1	49.5	0.014	0.4	35.9	0.063	20
DE068	0.24	2.2	0.16	14.2	62.5	0.011	0.4	44.3	0.063	20
DE069	0.24	2.2	0.16	16.9	79.5	0.009	0.4	55.2	0.063	20
DE070	0.24	2.2	0.16	5.9	10.5	0.067	0.4	10.9	0.063	20
DE071	0.29	1.8	0.16	7.2	24.5	0.056	0.49	14.0	0.108	20
DE072	0.29	1.8	0.16	8.3	31.5	0.043	0.49	17.1	0.108	20
DE073	0.29	1.8	0.16	9.6	39.5	0.034	0.49	20.6	0.108	20
DE074	0.29	1.8	0.16	11.2	49.5	0.027	0.49	25.0	0.108	20
DE075	0.29	1.8	0.16	13.3	62.5	0.022	0.49	30.7	0.108	20
DE076	0.29	1.8	0.16	16.0	79.5	0.018	0.49	38.1	0.108	20
DE077	0.29	1.8	0.16	5.0	10.5	0.13	0.49	7.9	0.108	20
DE078	0.29	1.8	0.16	5.2	12.5	0.11	0.49	8.7	0.108	20
DE079	0.29	1.8	0.16	5.8	15.5	0.088	0.49	10.1	0.108	20
DE080	0.29	1.8	0.16	6.4	19.5	0.071	0.49	11.8	0.108	20

## Helical extension spring

引張コイルばね

SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
DE081	0.37	2.7	0.20	7.3	10.5	0.083	0.62	13.5	0.098	20
DE082	0.37	2.7	0.20	7.7	12.5	0.071	0.62	15.0	0.098	20
DE083	0.37	2.7	0.20	8.3	15.5	0.057	0.62	17.4	0.098	20
DE084	0.37	2.7	0.20	9.1	19.5	0.045	0.62	20.6	0.098	20
DE085	0.37	2.7	0.20	10.1	24.5	0.036	0.62	24.5	0.098	20
DE086	0.37	2.7	0.20	11.5	31.5	0.027	0.62	30.1	0.098	20
DE087	0.37	2.7	0.20	13.1	39.5	0.023	0.62	36.4	0.098	20
DE088	0.37	2.7	0.20	15.1	49.5	0.018	0.62	44.3	0.098	20
DE089	0.37	2.7	0.20	17.7	62.5	0.014	0.62	54.6	0.098	20
DE090	0.37	2.7	0.20	21.1	79.5	0.011	0.62	68.1	0.098	20
DE091	0.4	1.4	0.16	7.5	31.5	0.103	0.63	11.7	0.186	20
DE092	0.4	1.4	0.16	8.7	39.5	0.082	0.63	14.1	0.186	20
DE093	0.4	1.4	0.16	10.3	49.5	0.066	0.63	17.0	0.186	20
DE094	0.4	1.4	0.16	12.4	62.5	0.052	0.63	20.9	0.186	20
DE095	0.4	1.4	0.16	15.1	79.5	0.041	0.63	25.9	0.186	20
DE096	0.4	1.4	0.16	4.1	10.5	0.31	0.63	5.5	0.186	20
DE097	0.4	1.4	0.16	4.4	12.5	0.26	0.63	6.1	0.186	20
DE098	0.4	1.4	0.16	4.9	15.5	0.21	0.63	7.0	0.186	20
DE099	0.4	1.4	0.16	5.6	19.5	0.167	0.63	8.2	0.186	20
DE100	0.4	1.4	0.16	6.3	24.5	0.132	0.63	9.6	0.186	20
DE101	0.46	2.2	0.20	7.2	15.5	0.111	0.76	12.6	0.167	20
DE102	0.46	2.2	0.20	8.0	19.5	0.088	0.76	14.8	0.167	20
DE103	0.46	2.2	0.20	9.0	24.5	0.07	0.76	17.5	0.167	20
DE104	0.46	2.2	0.20	10.4	31.5	0.055	0.76	21.4	0.167	20
DE105	0.46	2.2	0.20	12.0	39.5	0.043	0.76	25.7	0.167	20
DE106	0.46	2.2	0.20	14.0	49.5	0.034	0.76	31.2	0.167	20
DE107	0.46	2.2	0.20	16.6	62.5	0.027	0.76	38.4	0.167	20
DE108	0.46	2.2	0.20	20.0	79.5	0.022	0.76	47.7	0.167	20
DE109	0.46	2.2	0.20	6.2	10.5	0.164	0.76	9.8	0.167	20
DE110	0.46	2.2	0.20	6.6	12.5	0.137	0.76	10.9	0.167	20
DE111	0.56	3.5	0.25	9.3	10.5	0.097	0.9	17.0	0.147	20
DE112	0.56	3.5	0.25	9.8	12.5	0.081	0.9	18.9	0.147	20
DE113	0.56	3.5	0.25	10.6	15.5	0.066	0.9	21.9	0.147	20
DE114	0.56	3.5	0.25	11.6	19.5	0.052	0.9	25.9	0.147	20
DE115	0.56	3.5	0.25	12.8	24.5	0.042	0.9	30.8	0.147	20
DE116	0.56	3.5	0.25	14.6	31.5	0.032	0.9	37.7	0.147	20
DE117	0.56	3.5	0.25	16.6	39.5	0.025	0.9	45.6	0.147	20
DE118	0.56	3.5	0.25	19.1	49.5	0.021	0.9	55.5	0.147	20
DE119	0.56	3.5	0.25	22.3	62.5	0.017	0.9	68.4	0.147	20
DE120	0.56	3.5	0.25	26.6	79.5	0.013	0.9	85.2	0.147	20

## Helical extension spring

引張コイルばね

## SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
DE121	0.58	1.8	0.20	8.2	24.5	0.137	0.93	13.1	0.245	20
DE122	0.58	1.8	0.20	9.6	31.5	0.107	0.93	16.0	0.245	20
DE123	0.58	1.8	0.20	11.2	39.5	0.085	0.93	19.2	0.245	20
DE124	0.58	1.8	0.20	13.2	49.5	0.068	0.93	23.2	0.245	20
DE125	0.58	1.8	0.20	15.8	62.5	0.054	0.93	28.5	0.245	20
DE126	0.58	1.8	0.20	19.2	79.5	0.042	0.93	35.4	0.245	20
DE127	0.58	1.8	0.20	5.4	10.5	0.32	0.93	7.5	0.245	20
DE128	0.58	1.8	0.20	5.8	12.5	0.268	0.93	8.3	0.245	20
DE129	0.58	1.8	0.20	6.3	15.5	0.217	0.93	9.5	0.245	20
DE130	0.58	1.8	0.20	7.2	19.5	0.172	0.93	11.1	0.245	20
DE131	0.72	2.8	0.25	7.8	10.5	0.204	1.13	11.9	0.265	20
DE132	0.72	2.8	0.25	8.3	12.5	0.172	1.13	13.2	0.265	20
DE133	0.72	2.8	0.25	9.1	15.5	0.138	1.13	15.2	0.265	20
DE134	0.72	2.8	0.25	10.1	19.5	0.11	1.13	17.8	0.265	20
DE135	0.72	2.8	0.25	11.3	24.5	0.087	1.13	21.1	0.265	20
DE136	0.72	2.8	0.25	13.0	31.5	0.068	1.13	25.6	0.265	20
DE137	0.72	2.8	0.25	15.0	39.5	0.054	1.13	30.9	0.265	20
DE138	0.72	2.8	0.25	17.5	49.5	0.043	1.13	37.4	0.265	20
DE139	0.72	2.8	0.25	20.8	62.5	0.034	1.13	45.9	0.265	20
DE140	0.72	2.8	0.25	25.0	79.5	0.027	1.13	56.9	0.265	20
DE141	0.76	1.4	0.20	8.7	31.5	0.252	1.18	11.7	0.412	20
DE142	0.76	1.4	0.20	10.3	39.5	0.201	1.18	14.1	0.412	20
DE143	0.76	1.4	0.20	12.3	49.5	0.161	1.18	17.0	0.412	20
DE144	0.76	1.4	0.20	14.9	62.5	0.127	1.18	20.9	0.412	20
DE145	0.76	1.4	0.20	18.3	79.5	0.1	1.18	25.9	0.412	20
DE146	0.76	1.4	0.20	4.5	10.5	0.757	1.18	5.5	0.412	20
DE147	0.76	1.4	0.20	4.9	12.5	0.635	1.18	6.1	0.412	20
DE148	0.76	1.4	0.20	5.5	15.5	0.513	1.18	6.9	0.412	20
DE149	0.76	1.4	0.20	6.3	19.5	0.407	1.18	8.1	0.412	20
DE150	0.76	1.4	0.20	7.3	24.5	0.325	1.18	9.6	0.412	20
DE151	0.89	2.3	0.25	8.0	15.5	0.271	1.37	11.5	0.392	20
DE152	0.89	2.3	0.25	9.0	19.5	0.215	1.37	13.5	0.392	20
DE153	0.89	2.3	0.25	10.2	24.5	0.171	1.37	15.9	0.392	20
DE154	0.89	2.3	0.25	11.9	31.5	0.133	1.37	19.3	0.392	20
DE155	0.89	2.3	0.25	13.9	39.5	0.106	1.37	23.1	0.392	20
DE156	0.89	2.3	0.25	16.4	49.5	0.084	1.37	28.0	0.392	20
DE157	0.89	2.3	0.25	19.7	62.5	0.067	1.37	34.3	0.392	20
DE158	0.89	2.3	0.25	24.0	79.5	0.053	1.37	42.5	0.392	20
DE159	0.89	2.3	0.25	6.7	10.5	0.399	1.37	9.1	0.392	20
DE160	0.89	2.3	0.25	7.2	12.5	0.335	1.37	10.1	0.392	20

## Helical extension spring

引張コイルばね

## SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
DE161	0.92	4.3	0.32	11.8	10.5	0.134	1.52	21.0	0.255	20
DE162	0.92	4.3	0.32	12.4	12.5	0.113	1.52	23.5	0.255	20
DE163	0.92	4.3	0.32	13.4	15.5	0.09	1.52	27.1	0.255	20
DE164	0.92	4.3	0.32	14.6	19.5	0.073	1.52	32.0	0.255	20
DE165	0.92	4.3	0.32	16.2	24.5	0.058	1.52	38.1	0.255	20
DE166	0.92	4.3	0.32	18.5	31.5	0.045	1.52	46.7	0.255	20
DE167	0.92	4.3	0.32	21.0	39.5	0.035	1.52	56.4	0.255	20
DE168	0.92	4.3	0.32	24.2	49.5	0.028	1.52	68.6	0.255	20
DE169	0.92	4.3	0.32	28.4	62.5	0.023	1.52	84.5	0.255	20
DE170	0.92	4.3	0.32	33.8	79.5	0.018	1.52	105.2	0.255	20
DE171	1.12	1.9	0.25	8.1	19.5	0.42	1.67	10.6	0.588	20
DE172	1.12	1.9	0.25	9.3	24.5	0.334	1.67	12.5	0.588	20
DE173	1.12	1.9	0.25	11.1	31.5	0.26	1.67	15.2	0.588	20
DE174	1.12	1.9	0.25	13.1	39.5	0.207	1.67	18.2	0.588	20
DE175	1.12	1.9	0.25	15.6	49.5	0.166	1.67	22.1	0.588	20
DE176	1.12	1.9	0.25	18.8	62.5	0.13	1.67	27.0	0.588	20
DE177	1.12	1.9	0.25	23.1	79.5	0.103	1.67	33.5	0.588	20
DE178	1.12	1.9	0.25	5.8	10.5	0.78	1.67	7.2	0.588	20
DE179	1.12	1.9	0.25	6.3	12.5	0.654	1.67	7.9	0.588	20
DE180	1.12	1.9	0.25	7.1	15.5	0.528	1.67	9.1	0.588	20
DE181	1.16	3.5	0.32	10.0	10.5	0.265	1.86	15.3	0.431	20
DE182	1.16	3.5	0.32	10.6	12.5	0.216	1.86	17.0	0.431	20
DE183	1.16	3.5	0.32	11.6	15.5	0.177	1.86	19.6	0.431	20
DE184	1.16	3.5	0.32	12.9	19.5	0.137	1.86	22.9	0.431	20
DE185	1.16	3.5	0.32	14.5	24.5	0.108	1.86	27.1	0.431	20
DE186	1.16	3.5	0.32	16.7	31.5	0.088	1.86	33.0	0.431	20
DE187	1.16	3.5	0.32	19.3	39.5	0.069	1.86	39.7	0.431	20
DE188	1.16	3.5	0.32	22.5	49.5	0.059	1.86	48.2	0.431	20
DE189	1.16	3.5	0.32	26.6	62.5	0.044	1.86	59.1	0.431	20
DE190	1.16	3.5	0.32	32.1	79.5	0.034	1.86	73.4	0.431	20
DE191	1.43	5.4	0.40	14.7	10.5	0.168	2.4	26.5	0.392	20
DE192	1.43	5.4	0.40	15.5	12.5	0.14	2.4	29.6	0.392	20
DE193	1.43	5.4	0.40	16.7	15.5	0.114	2.4	34.2	0.392	20
DE194	1.43	5.4	0.40	18.3	19.5	0.09	2.4	40.4	0.392	20
DE195	1.43	5.4	0.40	20.3	24.5	0.072	2.4	48.1	0.392	20
DE196	1.43	5.4	0.40	23.1	31.5	0.056	2.4	58.9	0.392	20
DE197	1.43	5.4	0.40	26.3	39.5	0.044	2.4	71.3	0.392	20
DE198	1.43	5.4	0.40	30.3	49.5	0.035	2.4	86.7	0.392	20
DE199	1.43	5.4	0.40	35.6	62.5	0.028	2.4	106.8	0.392	20
DE200	1.43	5.4	0.40	42.3	79.5	0.023	2.4	133.0	0.392	20

## Helical extension spring

引張コイルばね

## SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
DE201	1.48	2.8	0.32	8.5	10.5	0.549	2.3	11.4	0.657	20
DE202	1.48	2.8	0.32	9.1	12.5	0.461	2.3	12.6	0.657	20
DE203	1.48	2.8	0.32	10.1	15.5	0.373	2.3	14.4	0.657	20
DE204	1.48	2.8	0.32	11.3	19.5	0.294	2.3	16.8	0.657	20
DE205	1.48	2.8	0.32	12.9	24.5	0.235	2.3	19.9	0.657	20
DE206	1.48	2.8	0.32	15.2	31.5	0.186	2.3	24.1	0.657	20
DE207	1.48	2.8	0.32	17.7	39.5	0.147	2.3	28.9	0.657	20
DE208	1.48	2.8	0.32	20.9	49.5	0.118	2.3	35.0	0.657	20
DE209	1.48	2.8	0.32	25.1	62.5	0.088	2.3	42.9	0.657	20
DE210	1.48	2.8	0.32	30.5	79.5	0.069	2.3	53.2	0.657	20
DE211	1.78	4.4	0.40	40.1	79.5	0.043	2.89	91.3	0.677	20
DE212	1.78	4.4	0.40	12.5	10.5	0.324	2.89	19.1	0.677	20
DE213	1.78	4.4	0.40	13.3	12.5	0.275	2.89	21.2	0.677	20
DE214	1.78	4.4	0.40	14.5	15.5	0.226	2.89	24.3	0.677	20
DE215	1.78	4.4	0.40	16.1	19.5	0.177	2.89	28.5	0.677	20
DE216	1.78	4.4	0.40	18.1	24.5	0.137	2.89	33.8	0.677	20
DE217	1.78	4.4	0.40	20.9	31.5	0.108	2.89	41.1	0.677	20
DE218	1.78	4.4	0.40	24.1	39.5	0.088	2.89	49.4	0.677	20
DE219	1.78	4.4	0.40	28.1	49.5	0.069	2.89	59.9	0.677	20
DE220	1.78	4.4	0.40	33.3	62.5	0.055	2.89	73.5	0.677	20
DE221	1.84	2.3	0.32	10.2	19.5	0.579	2.79	13.3	1.01	20
DE222	1.84	2.3	0.32	8.9	15.5	0.726	2.79	11.4	1.01	20
DE223	1.84	2.3	0.32	11.8	24.5	0.461	2.79	15.7	1.01	20
DE224	1.84	2.3	0.32	14.1	31.5	0.353	2.79	19.0	1.01	20
DE225	1.84	2.3	0.32	16.6	39.5	0.284	2.79	22.8	1.01	20
DE226	1.84	2.3	0.32	19.8	49.5	0.226	2.79	27.6	1.01	20
DE227	1.84	2.3	0.32	24.0	62.5	0.177	2.79	33.9	1.01	20
DE228	1.84	2.3	0.32	29.4	79.5	0.137	2.79	42.0	1.01	20
DE229	1.84	2.3	0.32	7.4	10.5	1.069	2.79	9.0	1.01	20
DE230	1.84	2.3	0.32	8.0	12.5	0.902	2.79	9.9	1.01	20
DE231	2.24	3.6	0.40	10.7	10.5	0.637	3.53	14.6	1	20
DE232	2.24	3.6	0.40	11.5	12.5	0.539	3.53	16.1	1	20
DE233	2.24	3.6	0.40	12.7	15.5	0.431	3.53	18.5	1	20
DE234	2.24	3.6	0.40	14.3	19.5	0.343	3.53	21.6	1	20
DE235	2.24	3.6	0.40	16.3	24.5	0.275	3.53	25.5	1	20
DE236	2.24	3.6	0.40	19.1	31.5	0.216	3.53	30.9	1	20
DE237	2.24	3.6	0.40	22.3	39.5	0.167	3.53	37.1	1	20
DE238	2.24	3.6	0.40	26.3	49.5	0.137	3.53	44.9	1	20
DE239	2.24	3.6	0.40	31.5	62.5	0.108	3.53	55.0	1	20
DE240	2.24	3.6	0.40	38.3	79.5	0.088	3.53	68.2	1	20

## Helical extension spring

引張コイルばね

SUS304WPB

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity パック内個数
DE241	2.31	1.9	0.32	9.4	19.5	1.128	3.33	11.0	1.422	20
DE242	2.31	1.9	0.32	10.9	24.5	0.902	3.33	13.0	1.422	20
DE243	2.31	1.9	0.32	13.2	31.5	0.697	3.33	15.9	1.422	20
DE244	2.31	1.9	0.32	15.8	39.5	0.556	3.33	19.2	1.422	20
DE245	2.31	1.9	0.32	19.0	49.5	0.444	3.33	23.2	1.422	20
DE246	2.31	1.9	0.32	23.1	62.5	0.351	3.33	28.5	1.422	20
DE247	2.31	1.9	0.32	28.6	79.5	0.277	3.33	35.4	1.422	20
DE248	2.31	1.9	0.32	6.5	10.5	2.092	3.33	7.3	1.422	20
DE249	2.31	1.9	0.32	7.1	12.5	1.757	3.33	8.2	1.422	20
DE250	2.31	1.9	0.32	8.1	15.5	1.417	3.33	9.4	1.422	20
DE251	2.85	2.9	0.40	9.2	10.5	1.334	4.36	11.2	1.579	20
DE252	2.85	2.9	0.40	10.0	12.5	1.128	4.36	12.4	1.579	20
DE253	2.85	2.9	0.40	11.2	15.5	0.912	4.36	14.2	1.579	20
DE254	2.85	2.9	0.40	12.8	19.5	0.726	4.36	16.6	1.579	20
DE255	2.85	2.9	0.40	14.8	24.5	0.579	4.36	19.6	1.579	20
DE256	2.85	2.9	0.40	17.6	31.5	0.451	4.36	23.8	1.579	20
DE257	2.85	2.9	0.40	20.8	39.5	0.353	4.36	28.5	1.579	20
DE258	2.85	2.9	0.40	24.8	49.5	0.284	4.36	34.5	1.579	20
DE259	2.85	2.9	0.40	30.0	62.5	0.226	4.36	42.3	1.579	20
DE260	2.85	2.9	0.40	36.8	79.5	0.177	4.36	52.5	1.579	20
DE261	3.57	2.4	0.40	10.1	15.5	1.775	5.15	11.7	2.216	20
DE262	3.57	2.4	0.40	11.7	19.5	1.412	5.15	13.7	2.216	20
DE263	3.57	2.4	0.40	13.7	24.5	1.118	5.15	16.3	2.216	20
DE264	3.57	2.4	0.40	16.5	31.5	0.873	5.15	19.8	2.216	20
DE265	3.57	2.4	0.40	19.7	39.5	0.696	5.15	23.9	2.216	20
DE266	3.57	2.4	0.40	23.7	49.5	0.559	5.15	28.9	2.216	20
DE267	3.57	2.4	0.40	28.9	62.5	0.441	5.15	35.5	2.216	20
DE268	3.57	2.4	0.40	35.7	79.5	0.343	5.15	44.1	2.216	20
DE269	3.57	2.4	0.40	8.1	10.5	2.618	5.15	9.2	2.216	20
DE270	3.57	2.4	0.40	8.9	12.5	2.393	5.15	10.2	2.216	20

## Helical extension spring

引張コイルばね

## SWP-B

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
DE500	2.91	6.8	0.50	44.4	62.5	0.039	4.85	152.5	0.608	10
DE501	2.91	6.8	0.50	53.0	79.5	0.032	4.85	190.4	0.608	5
DE502	2.91	6.8	0.50	18.5	10.5	0.233	4.85	36.4	0.608	10
DE503	2.91	6.8	0.50	19.5	12.5	0.196	4.85	40.9	0.608	10
DE504	2.91	6.8	0.50	21.0	15.5	0.158	4.85	47.6	0.608	10
DE505	2.91	6.8	0.50	23.0	19.5	0.126	4.85	56.5	0.608	10
DE506	2.91	6.8	0.50	25.5	24.5	0.1	4.85	67.7	0.608	10
DE507	2.91	6.8	0.50	29.0	31.5	0.078	4.85	83.3	0.608	10
DE508	2.91	6.8	0.50	33.0	39.5	0.062	4.85	101.1	0.608	10
DE509	2.91	6.8	0.50	38.0	49.5	0.049	4.85	123.5	0.608	10
DE510	3.67	5.5	0.50	50.1	79.5	0.059	5.98	129.7	1.059	10
DE511	3.67	5.5	0.50	15.6	10.5	0.471	5.98	26.0	1.059	20
DE512	3.67	5.5	0.50	16.6	12.5	0.392	5.98	29.0	1.059	20
DE513	3.67	5.5	0.50	18.1	15.5	0.314	5.98	33.5	1.059	20
DE514	3.67	5.5	0.50	20.1	19.5	0.255	5.98	39.5	1.059	20
DE515	3.67	5.5	0.50	22.6	24.5	0.196	5.98	47.0	1.059	20
DE516	3.67	5.5	0.50	26.1	31.5	0.157	5.98	57.6	1.059	10
DE517	3.67	5.5	0.50	30.1	39.5	0.127	5.98	69.6	1.059	10
DE518	3.67	5.5	0.50	35.1	49.5	0.098	5.98	84.6	1.059	10
DE519	3.67	5.5	0.50	41.6	62.5	0.078	5.98	104.2	1.059	10
DE520	4.53	8.6	0.63	48.0	49.5	0.061	7.35	152.6	0.962	5
DE521	4.53	8.6	0.63	56.2	62.5	0.048	7.35	188.3	0.962	5
DE522	4.53	8.6	0.63	66.9	79.5	0.038	7.35	235.0	0.962	5
DE523	4.53	8.6	0.63	23.4	10.5	0.287	7.35	45.3	0.962	10
DE524	4.53	8.6	0.63	24.7	12.5	0.241	7.35	50.8	0.962	10
DE525	4.53	8.6	0.63	26.5	15.5	0.195	7.35	59.3	0.962	10
DE526	4.53	8.6	0.63	29.1	19.5	0.155	7.35	70.1	0.962	10
DE527	4.53	8.6	0.63	32.2	24.5	0.124	7.35	83.8	0.962	10
DE528	4.53	8.6	0.63	36.6	31.5	0.096	7.35	103.1	0.962	10
DE529	4.53	8.6	0.63	41.7	39.5	0.076	7.35	125.1	0.962	10
DE530	4.58	4.5	0.50	13.4	10.5	0.912	7.26	19.5	1.569	20
DE531	4.58	4.5	0.50	14.4	12.5	0.765	7.26	21.7	1.569	20
DE532	4.58	4.5	0.50	15.9	15.5	0.618	7.26	25.0	1.569	20
DE533	4.58	4.5	0.50	17.9	19.5	0.49	7.26	29.4	1.569	20
DE534	4.58	4.5	0.50	20.4	24.5	0.392	7.26	34.8	1.569	20
DE535	4.58	4.5	0.50	23.9	31.5	0.304	7.26	42.5	1.569	10
DE536	4.58	4.5	0.50	27.9	39.5	0.245	7.26	51.2	1.569	10
DE537	4.58	4.5	0.50	32.9	49.5	0.196	7.26	62.2	1.569	10
DE538	4.58	4.5	0.50	39.4	62.5	0.157	7.26	76.4	1.569	10
DE539	4.58	4.5	0.50	47.9	79.5	0.118	7.26	95.0	1.569	10

## Helical extension spring

引張コイルばね

## SWP-B

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック 内個数
DE540	5.73	3.7	0.50	11.7	10.5	1.785	8.83	15.2	2.403	20
DE541	5.73	3.7	0.50	12.7	12.5	1.5	8.83	16.8	2.403	20
DE542	5.73	3.7	0.50	14.2	15.5	1.206	8.83	19.4	2.403	20
DE543	5.73	3.7	0.50	16.2	19.5	0.961	8.83	22.8	2.403	20
DE544	5.73	3.7	0.50	18.7	24.5	0.765	8.83	27.0	2.403	20
DE545	5.73	3.7	0.50	22.2	31.5	0.588	8.83	32.9	2.403	10
DE546	5.73	3.7	0.50	26.2	39.5	0.471	8.83	39.6	2.403	10
DE547	5.73	3.7	0.50	31.2	49.5	0.382	8.83	48.1	2.403	10
DE548	5.73	3.7	0.50	38.2	63.5	0.294	8.83	59.9	2.403	10
DE549	5.73	3.7	0.50	46.2	79.5	0.235	8.83	73.4	2.403	10
DE550	5.76	6.9	0.63	52.4	62.5	0.099	9.12	127.5	1.677	5
DE551	5.76	6.9	0.63	63.1	79.5	0.081	9.12	158.7	1.677	5
DE552	5.76	6.9	0.63	19.7	10.5	0.588	9.12	32.1	1.677	10
DE553	5.76	6.9	0.63	20.9	12.5	0.494	9.12	35.8	1.677	10
DE554	5.76	6.9	0.63	22.8	15.5	0.398	9.12	41.3	1.677	10
DE555	5.76	6.9	0.63	25.3	19.5	0.317	9.12	48.6	1.677	10
DE556	5.76	6.9	0.63	28.5	24.5	0.252	9.12	57.8	1.677	10
DE557	5.76	6.9	0.63	32.9	31.5	0.196	9.12	70.6	1.677	10
DE558	5.76	6.9	0.63	38.0	39.5	0.157	9.12	85.3	1.677	10
DE559	5.76	6.9	0.63	44.2	49.5	0.125	9.12	103.6	1.677	10
DE560	7.26	5.6	0.63	16.8	10.5	1.177	11.08	23.9	2.501	20
DE561	7.26	5.6	0.63	18.1	12.5	0.99	11.08	26.6	2.501	20
DE562	7.26	5.6	0.63	19.9	15.5	0.794	11.08	30.6	2.501	20
DE563	7.26	5.6	0.63	22.5	19.5	0.637	11.08	35.8	2.501	10
DE564	7.26	5.6	0.63	25.6	24.5	0.5	11.08	42.5	2.501	10
DE565	7.26	5.6	0.63	30.1	31.5	0.392	11.08	51.7	2.501	10
DE566	7.26	5.6	0.63	35.1	39.5	0.314	11.08	62.3	2.501	10
DE567	7.26	5.6	0.63	41.4	49.5	0.255	11.08	75.6	2.501	10
DE568	7.26	5.6	0.63	49.6	62.5	0.196	11.08	92.8	2.501	10
DE569	7.26	5.6	0.63	60.3	79.5	0.157	11.08	115.3	2.501	5
DE570	7.33	3.0	0.50	10.1	10.5	3.736	10.69	12.0	3.462	20
DE571	7.33	3.0	0.50	11.1	12.5	3.138	10.69	13.4	3.462	20
DE572	7.33	3.0	0.50	12.6	15.5	2.53	10.69	15.4	3.462	20
DE573	7.33	3.0	0.50	14.6	19.5	2.01	10.69	18.1	3.462	20
DE574	7.33	3.0	0.50	17.1	24.5	1.598	10.69	21.6	3.462	20
DE575	7.33	3.0	0.50	20.6	31.5	1.245	10.69	26.4	3.462	10
DE576	7.33	3.0	0.50	24.6	39.5	0.99	10.69	31.8	3.462	10
DE577	7.33	3.0	0.50	29.6	49.5	0.794	10.69	38.7	3.462	10
DE578	7.33	3.0	0.50	36.1	62.5	0.628	10.69	47.6	3.462	10
DE579	7.33	3.0	0.50	44.7	79.5	0.49	10.69	59.2	3.462	10



## Helical extension spring

引張コイルばね

## SWP-B

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
DE580	7.35	10.8	0.80	46.2	31.5	0.127	11.57	124.1	1.579	5
DE581	7.35	10.8	0.80	52.6	39.5	0.098	11.57	150.4	1.579	5
DE582	7.35	10.8	0.80	60.6	49.5	0.081	11.57	183.3	1.579	5
DE583	7.35	10.8	0.80	71.0	62.5	0.065	11.57	226.1	1.579	5
DE584	7.35	10.8	0.80	84.6	79.5	0.051	11.57	282.0	1.579	5
DE585	7.35	10.8	0.80	29.4	10.5	0.382	11.57	55.1	1.579	10
DE586	7.35	10.8	0.80	31.0	12.5	0.324	11.57	61.7	1.579	10
DE587	7.35	10.8	0.80	33.4	15.5	0.255	11.57	71.5	1.579	10
DE588	7.35	10.8	0.80	36.6	19.5	0.206	11.57	84.7	1.579	10
DE589	7.35	10.8	0.80	40.6	24.5	0.167	11.57	101.1	1.579	5
DE590	9.07	4.6	0.63	14.6	10.5	2.295	13.44	18.8	3.609	20
DE591	9.07	4.6	0.63	15.9	12.5	1.932	13.44	20.8	3.609	20
DE592	9.07	4.6	0.63	17.7	15.5	1.559	13.44	24.0	3.609	20
DE593	9.07	4.6	0.63	20.3	19.5	1.236	13.44	28.1	3.609	20
DE594	9.07	4.6	0.63	23.5	24.5	0.981	13.44	33.3	3.609	20
DE595	9.07	4.6	0.63	27.9	31.5	0.765	12.94	39.9	3.609	10
DE596	9.07	4.6	0.63	32.9	39.5	0.608	12.94	48.0	3.609	10
DE597	9.07	4.6	0.63	39.2	49.5	0.49	12.94	58.2	3.609	10
DE598	9.07	4.6	0.63	47.4	62.5	0.382	12.94	71.4	3.609	10
DE599	9.07	4.6	0.63	58.1	79.5	0.304	12.94	88.7	3.609	10
DE600	9.18	8.8	0.80	56.2	49.5	0.159	14.02	127.3	2.707	5
DE601	9.18	8.8	0.80	66.6	62.5	0.126	14.02	156.4	2.707	5
DE602	9.18	8.8	0.80	80.2	79.5	0.099	14.02	194.6	2.707	5
DE603	9.18	8.8	0.80	25.0	10.5	0.747	14.02	39.8	2.707	10
DE604	9.18	8.8	0.80	26.6	12.5	0.628	14.02	44.3	2.707	10
DE605	9.18	8.8	0.80	29.0	15.5	0.506	14.02	51.0	2.707	10
DE606	9.18	8.8	0.80	32.2	19.5	0.402	14.02	60.0	2.707	10
DE607	9.18	8.8	0.80	36.2	24.5	0.321	14.02	71.2	2.707	10
DE608	9.18	8.8	0.80	41.8	31.5	0.249	14.02	86.9	2.707	5
DE609	9.18	8.8	0.80	48.2	39.5	0.199	14.02	104.9	2.707	5
DE610	11.3	13.5	1.00	57.8	31.5	0.16	17.16	149.4	2.461	3
DE611	11.3	13.5	1.00	65.8	39.5	0.127	17.16	180.9	2.461	3
DE612	11.3	13.5	1.00	75.8	49.5	0.101	17.16	220.1	2.461	3
DE613	11.3	13.5	1.00	88.8	62.5	0.08	17.16	271.2	2.461	3
DE614	11.3	13.5	1.00	105.8	79.5	0.063	17.16	338.0	2.461	3
DE615	11.3	13.5	1.00	36.8	10.5	0.479	17.16	67.0	2.461	5
DE616	11.3	13.5	1.00	38.8	12.5	0.402	17.16	74.8	2.461	5
DE617	11.3	13.5	1.00	41.8	15.5	0.324	17.16	86.6	2.461	5
DE618	11.3	13.5	1.00	45.8	19.5	0.258	17.16	102.3	2.461	5
DE619	11.3	13.5	1.00	50.8	24.5	0.206	17.16	122.0	2.461	5

## Helical extension spring

引張コイルばね

## SWP-B

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
DE620	11.34	3.8	0.63	12.9	10.5	4.491	15.89	15.1	5.413	20
DE621	11.34	3.8	0.63	14.1	12.5	3.776	15.89	16.8	5.413	20
DE622	11.34	3.8	0.63	16.0	15.5	3.04	15.89	19.4	5.413	20
DE623	11.34	3.8	0.63	18.5	19.5	2.412	15.89	22.8	5.413	20
DE624	11.34	3.8	0.63	21.7	24.5	1.922	15.89	27.0	5.413	20
DE625	11.34	3.8	0.63	26.1	31.5	1.5	15.89	33.0	5.413	10
DE626	11.34	3.8	0.63	31.2	39.5	1.196	15.89	39.8	5.413	10
DE627	11.34	3.8	0.63	37.5	49.5	0.951	15.89	48.3	5.413	10
DE628	11.34	3.8	0.63	45.7	62.5	0.755	15.89	59.4	5.413	10
DE629	11.34	3.8	0.63	56.4	79.5	0.588	15.89	73.9	5.413	10
DE630	11.66	7.1	0.80	62.9	62.5	0.255	17.36	114.3	4.07	5
DE631	11.66	7.1	0.80	76.5	79.5	0.206	17.36	142.0	4.07	5
DE632	11.66	7.1	0.80	21.3	10.5	1.53	17.36	29.7	4.07	10
DE633	11.66	7.1	0.80	22.9	12.5	1.285	17.36	33.0	4.07	10
DE634	11.66	7.1	0.80	25.3	15.5	1.04	17.36	37.8	4.07	10
DE635	11.66	7.1	0.80	28.5	19.5	0.824	17.36	44.4	4.07	10
DE636	11.66	7.1	0.80	32.5	24.5	0.657	17.36	52.5	4.07	10
DE637	11.66	7.1	0.80	38.1	31.5	0.51	17.36	63.9	4.07	10
DE638	11.66	7.1	0.80	44.5	39.5	0.412	17.36	76.9	4.07	5
DE639	11.66	7.1	0.80	52.5	49.5	0.324	17.36	93.2	4.07	5
DE640	14.11	11.0	1.00	60.3	39.5	0.248	21.08	127.7	4.236	5
DE641	14.11	11.0	1.00	70.3	49.5	0.198	21.08	154.9	4.236	5
DE642	14.11	11.0	1.00	83.3	62.5	0.157	21.08	190.2	4.236	5
DE643	14.11	11.0	1.00	100.3	79.5	0.124	21.08	236.4	4.236	5
DE644	14.11	11.0	1.00	31.3	10.5	0.934	21.08	48.9	4.236	5
DE645	14.11	11.0	1.00	33.3	12.5	0.785	21.08	54.3	4.236	5
DE646	14.11	11.0	1.00	36.3	15.5	0.633	21.08	62.5	4.236	5
DE647	14.11	11.0	1.00	40.3	19.5	0.503	21.08	73.4	4.236	5
DE648	14.11	11.0	1.00	45.3	24.5	0.402	21.08	86.9	4.236	5
DE649	14.11	11.0	1.00	52.3	31.5	0.311	21.08	106.0	4.236	5
DE650	14.69	5.8	0.80	73.6	79.5	0.402	21.08	110.0	6.306	5
DE651	14.69	5.8	0.80	18.4	10.5	3.06	21.08	23.1	6.306	10
DE652	14.69	5.8	0.80	20.0	12.5	2.569	21.08	25.6	6.306	10
DE653	14.69	5.8	0.80	22.4	15.5	2.069	21.08	29.4	6.306	10
DE654	14.69	5.8	0.80	25.6	19.5	1.648	21.08	34.4	6.306	10
DE655	14.69	5.8	0.80	29.6	24.5	1.314	21.08	40.7	6.306	10
DE656	14.69	5.8	0.80	35.2	31.5	1.02	21.08	49.5	6.306	10
DE657	14.69	5.8	0.80	41.6	39.5	0.814	21.08	59.6	6.306	10
DE658	14.69	5.8	0.80	49.6	49.5	0.647	21.08	72.2	6.306	10
DE659	14.69	5.8	0.80	60.1	62.5	0.51	21.08	88.6	6.306	5

## Helical extension spring

引張コイルばね

## SWP-B

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック内個数
DE660	16.96	17.3	1.25	58.1	19.5	0.3	25.5	129.9	3.756	5
DE661	16.96	17.3	1.25	64.3	24.5	0.238	25.5	154.7	3.756	3
DE662	16.96	17.3	1.25	73.1	31.5	0.185	25.5	189.5	3.756	3
DE663	16.96	17.3	1.25	83.1	39.5	0.148	25.5	229.3	3.756	3
DE664	16.96	17.3	1.25	95.6	49.5	0.118	25.5	279.0	3.756	3
DE665	16.96	17.3	1.25	111.8	62.5	0.093	25.5	343.6	3.756	3
DE666	16.96	17.3	1.25	133.1	79.5	0.074	25.5	428.0	3.756	3
DE667	16.96	17.3	1.25	46.8	10.5	0.557	25.5	85.1	3.756	5
DE668	16.96	17.3	1.25	49.3	12.5	0.468	25.5	95.1	3.756	5
DE669	16.96	17.3	1.25	53.0	15.5	0.378	25.5	110.0	3.756	5
DE670	17.64	9.0	1.00	65.9	49.5	0.382	25.5	115.3	6.257	5
DE671	17.64	9.0	1.00	78.9	62.5	0.304	25.5	141.3	6.257	5
DE672	17.64	9.0	1.00	95.9	79.5	0.245	25.5	175.4	6.257	5
DE673	17.64	9.0	1.00	26.9	10.5	1.824	25.5	37.1	6.257	10
DE674	17.64	9.0	1.00	28.9	12.5	1.53	25.5	41.1	6.257	10
DE675	17.64	9.0	1.00	31.9	15.5	1.236	25.5	47.1	6.257	5
DE676	17.64	9.0	1.00	35.9	19.5	0.981	25.5	55.1	6.257	5
DE677	17.64	9.0	1.00	40.9	24.5	0.785	25.5	65.2	6.257	5
DE678	17.64	9.0	1.00	47.9	31.5	0.608	25.5	79.2	6.257	5
DE679	17.64	9.0	1.00	55.9	39.5	0.49	25.5	95.2	6.257	5
DE680	18.37	4.8	0.80	16.2	10.5	5.982	25.01	18.8	8.865	20
DE681	18.37	4.8	0.80	17.8	12.5	5.021	25.01	20.9	8.865	20
DE682	18.37	4.8	0.80	20.2	15.5	4.05	25.01	24.1	8.865	20
DE683	18.37	4.8	0.80	23.4	19.5	3.217	25.01	28.3	8.865	20
DE684	18.37	4.8	0.80	27.4	24.5	2.56	25.01	33.6	8.865	20
DE685	18.37	4.8	0.80	33.0	31.5	1.991	25.01	41.0	8.865	10
DE686	18.37	4.8	0.80	39.4	39.5	1.589	25.01	49.4	8.865	10
DE687	18.37	4.8	0.80	47.4	49.5	1.265	25.01	60.0	8.865	10
DE688	18.37	4.8	0.80	57.8	62.5	1	25.01	73.8	8.865	10
DE689	18.37	4.8	0.80	71.4	79.5	0.785	25.01	91.7	8.865	10
DE690	21.71	13.8	1.25	65.4	31.5	0.392	31.38	128.5	6.61	3
DE691	21.71	13.8	1.25	75.4	39.5	0.314	31.38	154.6	6.61	3
DE692	21.71	13.8	1.25	87.9	49.5	0.245	31.38	187.3	6.61	3
DE693	21.71	13.8	1.25	104.1	62.5	0.196	31.38	230.4	6.61	3
DE694	21.71	13.8	1.25	125.4	79.5	0.157	31.38	285.5	6.61	3
DE695	21.71	13.8	1.25	39.1	10.5	1.167	31.38	59.8	6.61	5
DE696	21.71	13.8	1.25	41.6	12.5	0.981	31.38	66.3	6.61	5
DE697	21.71	13.8	1.25	45.3	15.5	0.794	31.38	76.1	6.61	5
DE698	21.71	13.8	1.25	50.4	19.5	0.628	31.38	89.2	6.61	5
DE699	21.71	13.8	1.25	56.6	24.5	0.5	31.38	105.6	6.61	3

## Helical extension spring

引張コイルばね

## SWP-B

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック 内個数
DE700	22.41	7.3	1.00	75.2	62.5	0.628	31.38	110.3	9.159	5
DE701	22.41	7.3	1.00	92.2	79.5	0.49	31.38	136.9	9.159	5
DE702	22.41	7.3	1.00	23.2	10.5	3.736	31.38	28.8	9.159	10
DE703	22.41	7.3	1.00	25.2	12.5	3.138	31.38	32.0	9.159	10
DE704	22.41	7.3	1.00	28.2	15.5	2.53	31.38	36.7	9.159	10
DE705	22.41	7.3	1.00	32.2	19.5	2.01	31.38	42.9	9.159	5
DE706	22.41	7.3	1.00	37.2	24.5	1.598	31.38	50.8	9.159	5
DE707	22.41	7.3	1.00	44.2	31.5	1.245	31.38	61.7	9.159	5
DE708	22.41	7.3	1.00	52.2	39.5	0.99	31.38	74.3	9.159	5
DE709	22.41	7.3	1.00	62.2	49.5	0.794	31.38	89.9	9.159	5
DE710	27.14	11.3	1.25	69.9	39.5	0.606	38.25	116.4	9.767	5
DE711	27.14	11.3	1.25	82.4	49.5	0.483	38.25	140.8	9.767	5
DE712	27.14	11.3	1.25	98.6	62.5	0.383	38.25	172.5	9.767	5
DE713	27.14	11.3	1.25	120.0	79.5	0.301	38.25	214.0	9.767	5
DE714	27.14	11.3	1.25	33.6	10.5	2.28	38.25	45.7	9.767	5
DE715	27.14	11.3	1.25	36.1	12.5	1.915	38.25	50.6	9.767	5
DE716	27.14	11.3	1.25	39.8	15.5	1.545	38.25	57.9	9.767	5
DE717	27.14	11.3	1.25	44.9	19.5	1.226	38.25	67.6	9.767	5
DE718	27.14	11.3	1.25	51.1	24.5	0.981	38.25	79.8	9.767	5
DE719	27.14	11.3	1.25	59.9	31.5	0.76	38.25	96.9	9.767	5
DE720	27.6	21.6	1.60	62.1	12.5	0.637	41.68	116.2	6.306	3
DE721	27.6	21.6	1.60	66.9	15.5	0.52	41.68	134.2	6.306	3
DE722	27.6	21.6	1.60	73.3	19.5	0.412	41.68	158.2	6.306	3
DE723	27.6	21.6	1.60	81.3	24.5	0.324	41.68	188.2	6.306	2
DE724	27.6	21.6	1.60	92.5	31.5	0.255	41.68	230.3	6.306	2
DE725	27.6	21.6	1.60	105.3	39.5	0.206	41.68	278.3	6.306	2
DE726	27.6	21.6	1.60	121.3	49.5	0.157	41.68	338.3	6.306	2
DE727	27.6	21.6	1.60	142.1	62.5	0.127	41.68	416.4	6.306	1
DE728	27.6	21.6	1.60	169.3	79.5	0.098	41.68	518.4	6.306	1
DE729	27.6	21.6	1.60	58.9	10.5	0.765	41.68	104.2	6.306	3
DE730	28.23	6.0	1.00	89.3	79.5	0.981	37.76	112.6	14.612	5
DE731	28.23	6.0	1.00	20.3	10.5	7.473	37.76	23.2	14.612	5
DE732	28.23	6.0	1.00	22.3	12.5	6.276	37.76	25.8	14.612	5
DE733	28.23	6.0	1.00	25.3	15.5	5.06	37.76	29.7	14.612	5
DE734	28.23	6.0	1.00	29.3	19.5	4.021	37.76	34.9	14.612	5
DE735	28.23	6.0	1.00	34.3	24.5	3.197	37.76	41.3	14.612	5
DE736	28.23	6.0	1.00	41.3	31.5	2.491	37.76	50.4	14.612	5
DE737	28.23	6.0	1.00	49.3	39.5	1.981	37.76	60.8	14.612	5
DE738	28.23	6.0	1.00	59.3	49.5	1.589	37.76	73.7	14.612	5
DE739	28.23	6.0	1.00	72.3	62.5	1.255	37.76	90.5	14.612	5

## Helical extension spring

引張コイルばね

## SWP-B

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック 内個数
DE740	33.92	9.3	1.25	78.0	49.5	0.941	46.09	111.5	14.092	5
DE741	33.92	9.3	1.25	94.2	62.5	0.745	46.09	136.7	14.092	5
DE742	33.92	9.3	1.25	115.5	79.5	0.588	46.09	169.5	14.092	5
DE743	33.92	9.3	1.25	29.2	10.5	4.452	46.09	36.1	14.092	5
DE744	33.92	9.3	1.25	31.7	12.5	3.736	46.09	39.9	14.092	5
DE745	33.92	9.3	1.25	35.4	15.5	3.02	46.09	45.7	14.092	5
DE746	33.92	9.3	1.25	40.5	19.5	2.403	46.09	53.5	14.092	5
DE747	33.92	9.3	1.25	46.7	24.5	1.912	46.09	63.2	14.092	5
DE748	33.92	9.3	1.25	55.5	31.5	1.481	46.09	76.7	14.092	5
DE749	33.92	9.3	1.25	65.5	39.5	1.187	46.09	92.2	14.092	5
DE750	34.5	17.6	1.60	64.5	19.5	0.804	50.5	113.1	10.836	3
DE751	34.5	17.6	1.60	72.5	24.5	0.637	50.5	133.7	10.836	3
DE752	34.5	17.6	1.60	83.7	31.5	0.5	50.5	162.6	10.836	3
DE753	34.5	17.6	1.60	96.5	39.5	0.392	50.5	195.6	10.836	2
DE754	34.5	17.6	1.60	112.5	49.5	0.314	50.5	236.9	10.836	2
DE755	34.5	17.6	1.60	133.3	62.5	0.255	50.5	290.6	10.836	2
DE756	34.5	17.6	1.60	160.5	79.5	0.196	50.5	360.7	10.836	2
DE757	34.5	17.6	1.60	50.1	10.5	1.491	50.5	75.9	10.836	3
DE758	34.5	17.6	1.60	53.3	12.5	1.255	50.5	84.2	10.836	3
DE759	34.5	17.6	1.60	58.1	15.5	1.01	50.5	96.5	10.836	3
DE760	41.23	27.0	2.00	73.6	10.5	0.956	61.78	126.8	9.846	1
DE761	41.23	27.0	2.00	77.6	12.5	0.804	61.78	141.1	9.846	1
DE762	41.23	27.0	2.00	83.6	15.5	0.647	61.78	162.6	9.846	1
DE763	41.23	27.0	2.00	91.6	19.5	0.52	61.78	191.3	9.846	1
DE764	41.23	27.0	2.00	101.6	24.5	0.412	61.78	227.2	9.846	1
DE765	41.23	27.0	2.00	115.6	31.5	0.314	61.78	277.4	9.846	1
DE766	41.23	27.0	2.00	131.6	39.5	0.255	61.78	334.7	9.846	1
DE767	41.23	27.0	2.00	151.6	49.5	0.206	61.78	406.5	9.846	1
DE768	41.23	27.0	2.00	177.6	62.5	0.157	61.78	499.7	9.846	1
DE769	41.23	27.0	2.00	211.6	79.5	0.127	61.78	621.6	9.846	1
DE770	43.07	7.6	1.25	90.5	62.5	1.53	55.9	112.7	21.477	5
DE771	43.07	7.6	1.25	111.7	79.5	1.206	55.9	140.1	21.477	5
DE772	43.07	7.6	1.25	25.5	10.5	9.12	55.9	29.0	21.477	10
DE773	43.07	7.6	1.25	28.0	12.5	7.659	55.9	32.2	21.477	10
DE774	43.07	7.6	1.25	31.7	15.5	6.178	55.9	37.1	21.477	10
DE775	43.07	7.6	1.25	36.7	19.5	5.001	55.9	43.5	21.477	5
DE776	43.07	7.6	1.25	43.0	24.5	3.903	55.9	51.5	21.477	5
DE777	43.07	7.6	1.25	51.7	31.5	3.04	55.9	62.8	21.477	5
DE778	43.07	7.6	1.25	61.7	39.5	2.422	55.9	75.7	21.477	5
DE779	43.07	7.6	1.25	74.2	49.5	1.932	55.9	91.8	21.477	5

## Helical extension spring

引張コイルばね

## SWP-B

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック 内個数
DE780	44.16	14.1	1.60	76.0	31.5	1.04	63.25	120.3	16.397	3
DE781	44.16	14.1	1.60	88.8	39.5	0.834	63.25	144.5	16.397	3
DE782	44.16	14.1	1.60	104.8	49.5	0.667	63.25	174.7	16.397	3
DE783	44.16	14.1	1.60	125.6	62.5	0.53	63.25	214.0	16.397	2
DE784	44.16	14.1	1.60	152.8	79.5	0.412	63.25	265.4	16.397	2
DE785	44.16	14.1	1.60	42.4	10.5	3.138	63.25	56.8	16.397	4
DE786	44.16	14.1	1.60	45.6	12.5	2.628	63.25	62.8	16.397	4
DE787	44.16	14.1	1.60	50.4	15.5	2.118	63.25	71.9	16.397	4
DE788	44.16	14.1	1.60	56.8	19.5	1.687	63.25	84.0	16.397	3
DE789	44.16	14.1	1.60	64.8	24.5	1.344	63.25	99.1	16.397	3
DE790	51.53	22.0	2.00	72.6	15.5	1.265	76	118.4	16.936	2
DE791	51.53	22.0	2.00	80.6	19.5	1.01	76	138.4	16.936	2
DE792	51.53	22.0	2.00	90.6	24.5	0.804	76	163.5	16.936	2
DE793	51.53	22.0	2.00	104.6	31.5	0.618	76	198.6	16.936	1
DE794	51.53	22.0	2.00	120.6	39.5	0.5	76	238.7	16.936	1
DE795	51.53	22.0	2.00	140.6	49.5	0.392	76	288.8	16.936	1
DE796	51.53	22.0	2.00	166.6	62.5	0.314	76	353.9	16.936	1
DE797	51.53	22.0	2.00	200.6	79.5	0.245	76	439.1	16.936	1
DE798	51.53	22.0	2.00	62.6	10.5	1.863	76	93.3	16.936	2
DE799	51.53	22.0	2.00	66.6	12.5	1.569	76	103.3	16.936	2
DE800	55.19	11.6	1.60	83.3	39.5	1.628	76	114.1	25.203	3
DE801	55.19	11.6	1.60	99.3	49.5	1.294	76	138.0	25.203	3
DE802	55.19	11.6	1.60	120.1	62.5	1.04	76	169.1	25.203	3
DE803	55.19	11.6	1.60	147.3	79.5	0.804	76	209.7	25.203	3
DE804	55.19	11.6	1.60	36.9	10.5	6.119	76	44.8	25.203	4
DE805	55.19	11.6	1.60	40.1	12.5	5.139	76	49.5	25.203	4
DE806	55.19	11.6	1.60	44.9	15.5	4.148	76	56.7	25.203	4
DE807	55.19	11.6	1.60	51.3	19.5	3.295	76	66.3	25.203	3
DE808	55.19	11.6	1.60	59.3	24.5	2.618	76	78.2	25.203	3
DE809	55.19	11.6	1.60	70.5	31.5	2.04	76	95.0	25.203	3
DE810	60.26	34.5	2.50	93.6	10.5	1.108	91.2	160.6	15.034	1
DE811	60.26	34.5	2.50	98.7	12.5	0.932	91.2	178.6	15.034	1
DE812	60.26	34.5	2.50	106.1	15.5	0.755	91.2	205.7	15.034	1
DE813	60.26	34.5	2.50	116.1	19.5	0.598	91.2	241.8	15.034	1
DE814	60.26	34.5	2.50	128.6	24.5	0.481	91.2	286.9	15.034	1
DE815	60.26	34.5	2.50	146.1	31.5	0.373	91.2	350.0	15.034	1
DE816	60.26	34.5	2.50	166.1	39.5	0.294	91.2	422.1	15.034	1
DE817	60.26	34.5	2.50	191.1	49.5	0.235	91.2	512.3	15.034	1
DE818	60.26	34.5	2.50	223.6	62.5	0.186	91.2	629.5	15.034	1
DE819	60.26	34.5	2.50	266.1	79.5	0.147	91.2	782.9	15.034	1

## Helical extension spring

引張コイルばね

## SWP-B

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック 内個数
DE820	64.42	18.0	2.00	81.8	24.5	1.559	91.2	123.4	25.017	2
DE821	64.42	18.0	2.00	95.8	31.5	1.216	91.2	149.5	25.017	2
DE822	64.42	18.0	2.00	111.8	39.5	0.971	91.2	179.3	25.017	2
DE823	64.42	18.0	2.00	131.8	49.5	0.775	91.2	216.6	25.017	2
DE824	64.42	18.0	2.00	157.8	62.5	0.608	91.2	265.1	25.017	1
DE825	64.42	18.0	2.00	191.8	79.5	0.481	91.2	328.5	25.017	1
DE826	64.42	18.0	2.00	53.8	10.5	3.648	91.2	71.2	25.017	3
DE827	64.42	18.0	2.00	57.8	12.5	3.06	91.2	78.7	25.017	3
DE828	64.42	18.0	2.00	63.8	15.5	2.471	91.2	89.9	25.017	3
DE829	64.42	18.0	2.00	71.8	19.5	1.961	91.2	104.8	25.017	2
DE830	68.99	9.6	1.60	94.9	49.5	2.638	89.24	115.6	35.471	3
DE831	68.99	9.6	1.60	115.7	62.5	2.01	89.24	141.9	35.471	3
DE832	68.99	9.6	1.60	142.9	79.5	1.579	89.24	176.3	35.471	3
DE833	68.99	9.6	1.60	32.5	10.5	11.964	89.24	36.6	35.471	4
DE834	68.99	9.6	1.60	35.7	12.5	10.042	89.24	40.7	35.471	4
DE835	68.99	9.6	1.60	40.5	15.5	8.1	89.24	46.7	35.471	4
DE836	68.99	9.6	1.60	46.9	19.5	6.433	89.24	54.8	35.471	4
DE837	68.99	9.6	1.60	54.9	24.5	5.119	89.24	65.0	35.471	3
DE838	68.99	9.6	1.60	66.1	31.5	3.981	89.24	79.1	35.471	3
DE839	68.99	9.6	1.60	78.9	39.5	3.177	89.24	95.3	35.471	3
DE840	77.14	27.5	2.50	78.2	10.5	2.334	114.74	114.9	26.458	1
DE841	77.14	27.5	2.50	83.2	12.5	1.961	114.74	127.1	26.458	1
DE842	77.14	27.5	2.50	90.7	15.5	1.579	114.74	145.4	26.458	1
DE843	77.14	27.5	2.50	100.7	19.5	1.255	114.74	169.8	26.458	1
DE844	77.14	27.5	2.50	113.2	24.5	1	114.74	200.3	26.458	1
DE845	77.14	27.5	2.50	130.7	31.5	0.775	114.74	243.1	26.458	1
DE846	77.14	27.5	2.50	150.7	39.5	0.618	114.74	291.9	26.458	1
DE847	77.14	27.5	2.50	175.7	49.5	0.49	114.74	352.9	26.458	1
DE848	77.14	27.5	2.50	208.2	62.5	0.392	114.74	432.2	26.458	1
DE849	77.14	27.5	2.50	250.7	79.5	0.304	114.74	535.9	26.458	1
DE850	82.45	14.5	2.00	88.1	31.5	2.55	112.78	116.3	39.423	2
DE851	82.45	14.5	2.00	104.1	39.5	2.03	112.78	139.6	39.423	2
DE852	82.45	14.5	2.00	124.1	49.5	1.618	112.78	168.8	39.423	2
DE853	82.45	14.5	2.00	150.1	62.5	1.285	112.78	206.6	39.423	2
DE854	82.45	14.5	2.00	184.1	79.5	1.01	112.78	256.2	39.423	2
DE855	82.45	14.5	2.00	46.1	10.5	7.649	112.78	55.2	39.423	3
DE856	82.45	14.5	2.00	50.1	12.5	6.423	112.78	61.0	39.423	3
DE857	82.45	14.5	2.00	56.1	15.5	5.178	112.78	69.7	39.423	3
DE858	82.45	14.5	2.00	64.1	19.5	4.119	112.78	81.4	39.423	3
DE859	82.45	14.5	2.00	74.1	24.5	3.275	112.78	95.9	39.423	2

## Helical extension spring

引張コイルばね

## SWP-B

Part No. 製品番号	Standard Load 基準荷重 (P1) N	Outer Coil Diameter 外径 (OD) mm	Wire Diameter 線径 (d) mm	Free Length 自由長 (Hf) mm	Number of Total Coils 総巻数 (Nt)	Spring Rate ばね定数 (k) N/mm	Allowable Load 許容荷重 (P2) N	Allowable Length 許容荷重時 (H2) mm	Initial Tension 初張力 (Pi) N	Packing Quantity バック 内個数
DE860	96.42	22.5	2.50	79.7	15.5	3.089	140.24	111.6	39.089	1
DE861	96.42	22.5	2.50	89.7	19.5	2.452	140.24	130.1	39.089	1
DE862	96.42	22.5	2.50	102.2	24.5	1.961	140.24	153.1	39.089	1
DE863	96.42	22.5	2.50	119.7	31.5	1.52	140.24	185.4	39.089	1
DE864	96.42	22.5	2.50	139.7	39.5	1.216	140.24	222.3	39.089	1
DE865	96.42	22.5	2.50	164.7	49.5	0.971	140.24	268.4	39.089	1
DE866	96.42	22.5	2.50	197.2	62.5	0.765	140.24	328.4	39.089	1
DE867	96.42	22.5	2.50	239.7	79.5	0.598	140.24	406.8	39.089	1
DE868	96.42	22.5	2.50	67.2	10.5	4.56	140.24	88.6	39.089	1
DE869	96.42	22.5	2.50	72.2	12.5	3.834	140.24	97.8	39.089	1
DE870	103.07	12.0	2.00	98.6	39.5	3.972	134.35	118.1	55.427	2
DE871	103.07	12.0	2.00	118.6	49.5	3.168	134.35	143.1	55.427	2
DE872	103.07	12.0	2.00	144.6	62.5	2.511	134.35	175.6	55.427	2
DE873	103.07	12.0	2.00	178.6	79.5	1.971	134.35	218.2	55.427	2
DE874	103.07	12.0	2.00	40.6	10.5	14.945	134.35	45.5	55.427	3
DE875	103.07	12.0	2.00	44.6	12.5	12.553	134.35	50.5	55.427	3
DE876	103.07	12.0	2.00	50.6	15.5	10.12	134.35	58.0	55.427	3
DE877	103.07	12.0	2.00	58.6	19.5	8.041	134.35	68.0	55.427	3
DE878	103.07	12.0	2.00	68.6	24.5	6.404	134.35	80.5	55.427	3
DE879	103.07	12.0	2.00	82.6	31.5	4.982	134.35	98.0	55.427	3
DE880	120.52	18.5	2.50	93.4	24.5	3.815	166.71	121.7	56.388	1
DE881	120.52	18.5	2.50	110.9	31.5	2.971	166.71	147.4	56.388	1
DE882	120.52	18.5	2.50	130.9	39.5	2.363	166.71	176.9	56.388	1
DE883	120.52	18.5	2.50	155.9	49.5	1.893	166.71	213.7	56.388	1
DE884	120.52	18.5	2.50	188.4	62.5	1.5	166.71	261.5	56.388	1
DE885	120.52	18.5	2.50	230.9	79.5	1.177	166.71	324.1	56.388	1
DE886	120.52	18.5	2.50	58.4	10.5	8.904	166.71	70.2	56.388	1
DE887	120.52	18.5	2.50	63.4	12.5	7.482	166.71	77.5	56.388	1
DE888	120.52	18.5	2.50	70.9	15.5	6.031	166.71	88.6	56.388	1
DE889	120.52	18.5	2.50	80.9	19.5	4.795	166.71	103.3	56.388	1
DE890	154.27	15.0	2.50	103.2	31.5	6.227	203	121.4	86.603	2
DE891	154.27	15.0	2.50	123.2	39.5	4.962	203	146.2	86.603	1
DE892	154.27	15.0	2.50	148.2	49.5	3.962	203	177.1	86.603	1
DE893	154.27	15.0	2.50	180.7	62.5	3.138	203	217.3	86.603	1
DE894	154.27	15.0	2.50	223.2	79.5	2.471	203	269.9	86.603	1
DE895	154.27	15.0	2.50	50.7	10.5	18.682	203	56.5	86.603	2
DE896	154.27	15.0	2.50	55.7	12.5	15.691	203	62.7	86.603	2
DE897	154.27	15.0	2.50	63.2	15.5	12.651	203	71.9	86.603	2
DE898	154.27	15.0	2.50	73.2	19.5	10.062	203	84.3	86.603	2
DE899	154.27	15.0	2.50	85.7	24.5	8.002	203	99.8	86.603	2