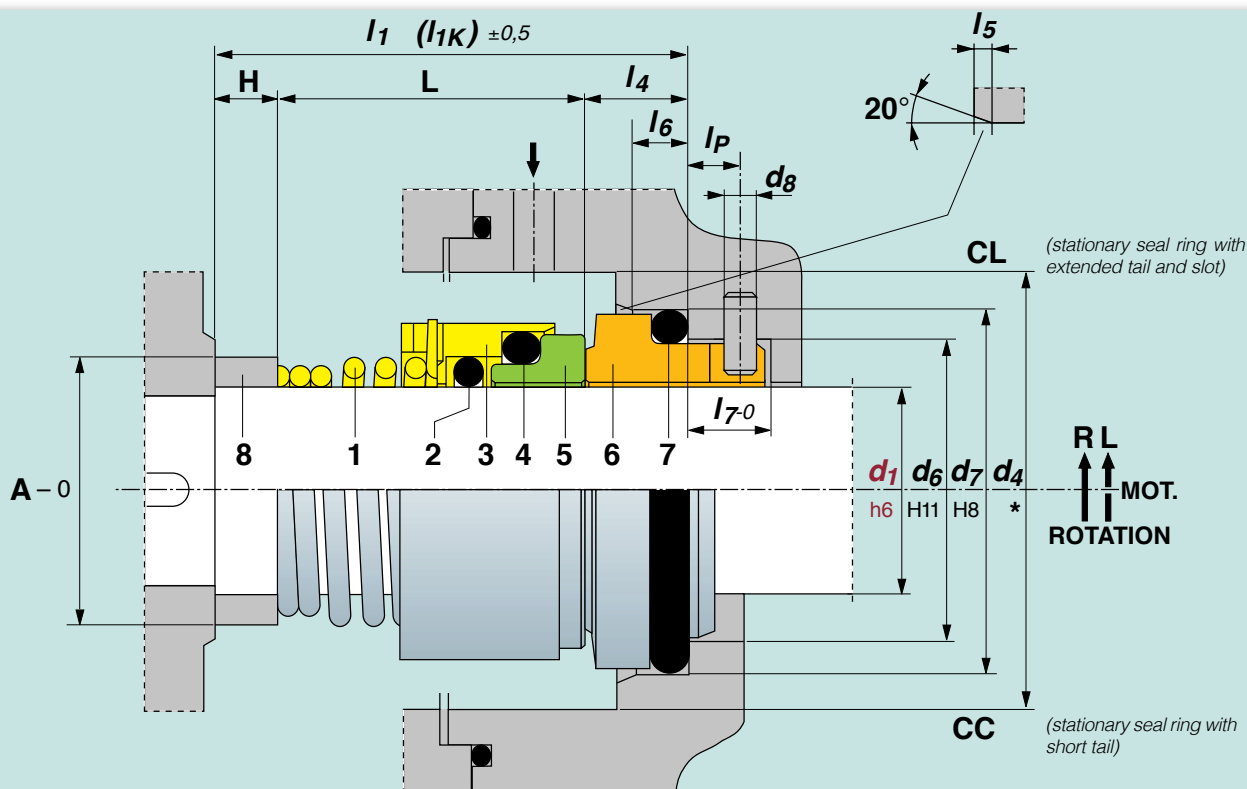


TYPE 5



ROTEN

TYPE 5 - U5

5H2

d_1	d_6	d_7	d_4	I_1	L	I_4	I_6	I_5	d_8	I_7	I_P	I_1	L
10	14	18,1	22	25,5	20	5,5	2,8	1,2	2	6,2	3,5	20,5	15
11	16,5	20,6	25	27,5	22	5,5	2,8	1,2	2	6,2	3,5	23,5	18
12	16,5	20,6	25	27,5	22	5,5	2,8	1,2	2	6,2	3,5	23,5	18
13	19	23,1	27	33	27	6	2,8	1,2	2	6,7	4	28	22
14	19	23,1	27	33	27	6	2,8	1,2	2	6,7	4	28	22
15	21	26,9	32	34	27	7	3,7	1,3	2,5	7,6	4	29	22
16	21	26,9	32	35	28	7	3,7	1,3	2,5	7,6	4	30	23
17	21	26,9	32	35	28	7	3,7	1,3	2,5	7,6	4	30	23
18	25	30,9	36	38	30	8	3,7	1,3	3	8,5	4,5	32	24
19÷20	25	30,9	36	38	30	8	3,7	1,3	3	8,5	4,5	33	25
21÷22	30	35,4	41	38	30	8	3,7	1,8	3,5	8,5	5	33	25
23÷24	30	35,4	41	40	32	8	3,7	1,8	3,5	8,5	5	35	27
25÷27	33	38,2	45	41,5	33	8,5	3,7	1,8	4	9,1	5	35,5	27
28	38	43,3	50	45	36	9	3,7	1,8	4	9,6	6	38	29
29÷32	38	43,3	50	46	37	9	3,7	1,8	4	9,6	6	39	30
33÷37	45	53,5	62	59,5	48	11,5	5,4	2,1	5	12	7,5	50,5	39
38÷43	52	60,5	70	59,5	48	11,5	5,4	2,1	5	12	7,5	50,5	39
44÷49	57	65,5	75	62,5	51	11,5	5,4	2,1	5	13	8,5	52,5	41
50	64	72,5	83	66,5	55	11,5	5,4	2,1	5	13	8,5	56,5	45
55	64	72,5	83	68,5	57	11,5	5,4	2,1	5	13	8,5	58,5	47
60	72	79,3	90	72,5	61	11,5	5,4	2,1	5	13,5	8,5	60,5	49
65	77	84,5	96	74,5	63	11,5	5,4	2,1	5	13,5	8,5	62,5	51
70	82	89,5	101	74,5	63	11,5	5,4	2,1	5	13,5	8,5	62,5	51
75	87	94,5	106	79,5	68	11,5	5,4	2,1	5	13,5	8,5	68,5	57
80	92	99,5	111	81,5	70	11,5	5,4	2,1	5	13,5	8,5	70,5	59
85	98	105,5	125	85,5	72	13,5	5,4	2,6	5	13,5	8,5	72,5	59
90	105	111,5	130	88,5	75	13,5	5,4	2,6	5	13,5	8,5	75,5	62
95	110	116,5	137	88,5	75	13,5	5,4	2,6	5	13,5	8,5	75,5	62
100	114	119,5	143	98,5	85	13,5	5,4	2,6	5	13,5	8,5	88,5	75
110	124	132,2	166	106,5	89	17,5	7,1	3,9	5	13,5	8,5	92,5	75
120	134	142,2	176	114,5	97	17,5	7,1	3,9	5	13,5	8,5	102,5	85
130	145	153,2	190	125,5	108	17,5	7,1	3,9	5	13,5	8,5	112,5	95
140	157	164,3	210	128,5	110	18,5	7,1	3,9	5	13,5	8,5	118,5	100
150	167	174,2	220	138,5	120	18,5	7,1	3,9	5	13,5	8,5	128,5	110

Dimensions in mm.

NB: The spacer is never to be considered for ROTEN 5.

UNITEN

EN 12756

TYPE 5

5K

d_1	d_6	d_7	d_4	I_1	L	I_4	I_6	I_5	H	A	d_8	I_7	I_P	I_{1k}	L
10	17	21	22	40	15	7	4	1,5	18	13	3	8,5	5	32,5	25,5
12	19	23	24	40	18	7	4	1,5	15	15	3	8,5	5	32,5	25,5
14	21	25	26	40	22	7	4	1,5	11	18	3	8,5	5	35	28
16	23	27	30+	40	23	7	4	1,5	10	20	3	8,5	5	35	28
18	27	33	34	45	24	10	5	2	11	22	3	9	5	37,5	27,5
20	29	35	36	45	25	10	5	2	10	25	3	9	5	37,5	27,5
22	31	37	38	45	25	10	5	2	10	27	3	9	5	37,5	27,5
24	33	39	40	50	27	10	5	2	13	29	3	9	5	40	30
25	34	40	41	50	27	10	5	2	13	30	3	9	5	40	30
28	37	43	48+	50	29	10	5	2	11	34	3	9	5	42,5	32,5
30	39	45	48+	50	30	10	5	2	10	36	3	9	5	42,5	32,5
32	42	48	48	55	30	10	5	2	15	38	3	9	5	42,5	32,5
33	42	48	49	55	39	10	5	2	6	40	3	9	5	42,5	32,5
35	44	50	58+	55	39	10	5	2	6	42	3	9	5	42,5	32,5
38	49	56	65+	55	42	13	6	2	—	45	4	9	5	45	32
40	51	58	65+	55	42	13	6	2	—	47	4	9	5	45	32
43	54	61	65+	60	47	13	6	2	—	51	4	9	5	45	32
45	56	63	70+	60	47	13	6	2	—	53	4	9	5	45	32
48	59	66	70+	60	47	13	6	2	—	56	4	9	5	45	32
50	62	70	76+	60	46	14	6	2,5	—	59	4	9	5	47,5	33,5
53	65	73	76+	70	56	14	6	2,5	—	62	4	9	5	47,5	33,5
55	67	75	75	70	56	14	6	2,5	—	64	4	9	5	47,5	33,5
58	70	78	83	70	56	14	6	2,5	—	68	4	9	5	52,5	38,5
60	72	80	85	70	56	14	6	2,5	—	70	4	9	5	52,5	38,5
63	75	83	88	70	56	14	6	2,5	—	73	4	9	5	52,5	38,5
65	77	85	90	80	66	14	6	2,5	—	76	4	9	5	52,5	38,5
68	81	90	93	80	64	16	7	2,5	—	79	4	9	5	52,5	36,5
70	83	92	95	80	64	16	7	2,5	—	81	4	9	5	60	44
75	88	97	104	80	64	16	7	2,5	—	86	4	9	5	60	44
80	95	105	109	90	72	18	7	3	—	92	4	9	5	60	42
85	100	110	114	90	72	18	7	3	—	98	4	9	5	60	42
90	105	115	119	90	72	18	7	3	—	103	4	9	5	65	47
95	110	120	124	90	72	18	7	3	—	108	4	9	5	65	47
100	115	125	129	90	72	18	7	3	—	114	4	9	5	65	47

Dimensions in mm.

+ This size is larger than the minimum prescribed by the EN norm

* The size d_4 is considered the minimum dimension for the stuffing box diameter. Where possible, it is better to have a larger dimension or a conical stuffing box.

The principal advantage of this seal is the possibility to replace only the wearing faces during overhauls. They can be supplied in materials such as pure alumina ceramic, solid corrosion resistant tungsten carbide and silicon carbide, normal carbon, metalised carbon, filled PTFE etc.

Metallic parts are in stainless steel or in corrosion resistant superalloys and "O" rings can be supplied in any kind of rubber; the seal design is very resilient compared to other seal types reducing the effects of vibration and misalignment of the machine on which it is installed. These features also give it great versatility particularly for heavy duties.



- UN 5 LR02** = UNITEN 5 with working length
"L" as ROTEN 2
- UN U5 LR05** = UNITEN U5 model with working length
"L" as ROTEN 5

TYPE 5 - 5H2 - 5K		TYPE U5		STANDARD MATERIALS							
POS.	COMPONENTS	POS.	COMPONENTS								
1	Self-driving spring	1	Spring	L1	X1						
2	Shaft gasket	2	Shaft gasket	B1	E1	F1	N1	P1	W1	Y1	
3	Frame	3	Frame	L1	X1						
4	Rotary gasket	4	Rotary gasket	B1	C1	E1	F1	N1	P1	W1	Y1
5	Rotary seal ring	5	Rotary seal ring	K1	K4	R1	Z1				
6	Stationary seal ring	6	Stationary seal ring	C4	K1	R1	V1	V2	V3		
7	Stationary gasket	7	Stationary gasket	B1	C1	E1	F1	N1	P1	W1	Y1
8	Spacer (if required)			G1	L1	X1					
		8	Grub screws	H1	L1	X1					
		9	Driving "U" sleeve	L1	X1						

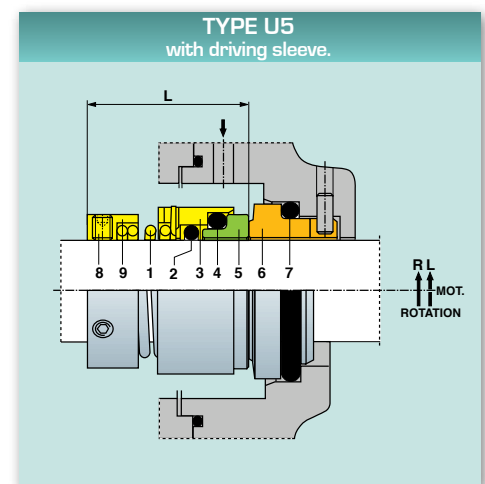
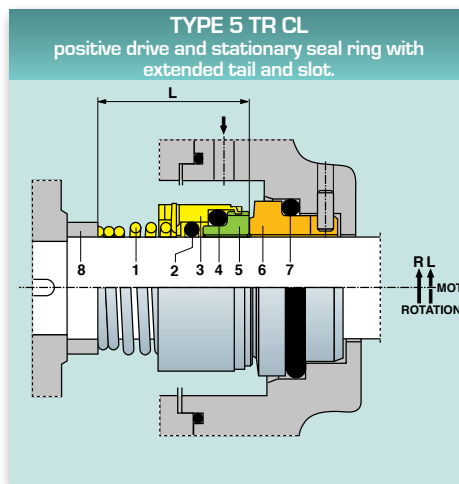
MAX. WORKING CONDITIONS

These depend on: $\varnothing$ shaft, pressure, speed, temperature and fluid to be sealed.

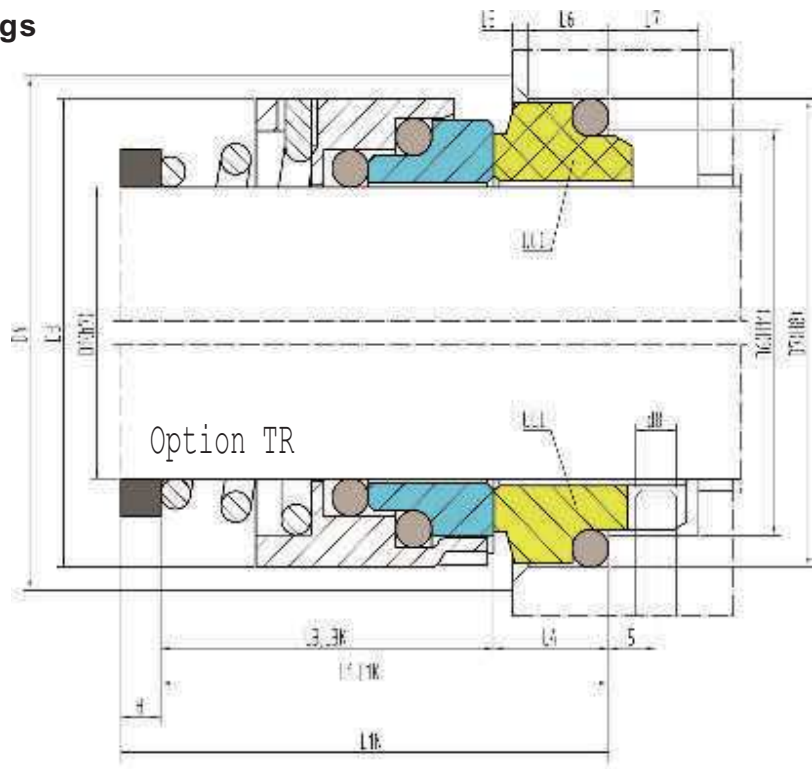
$$p \leq 16 \text{ bar}$$

$$t = -45 \div 200^{\circ}\text{C}$$

$$v \leq 15 \text{ m/s}$$



Universal seal for demanding applications
Conical spring rotating
Massive replaceable seal rings
Vibration practical



Materials:

Rotary: Q, U, V

Stationary: A, B, Q, U

Rubber parts: P, E, V, K, M

$L1 = L3 + L4$

$L1K = L3K + L4$

$L1N = L3 + H + L4$

Operating limits:

(look at working conditions page 112)

$p \leq$	16 bar
$t =$	$-35 \div 180^\circ\text{C}$
$v \leq$	15 m/s

EN 12756 (DIN 24960)

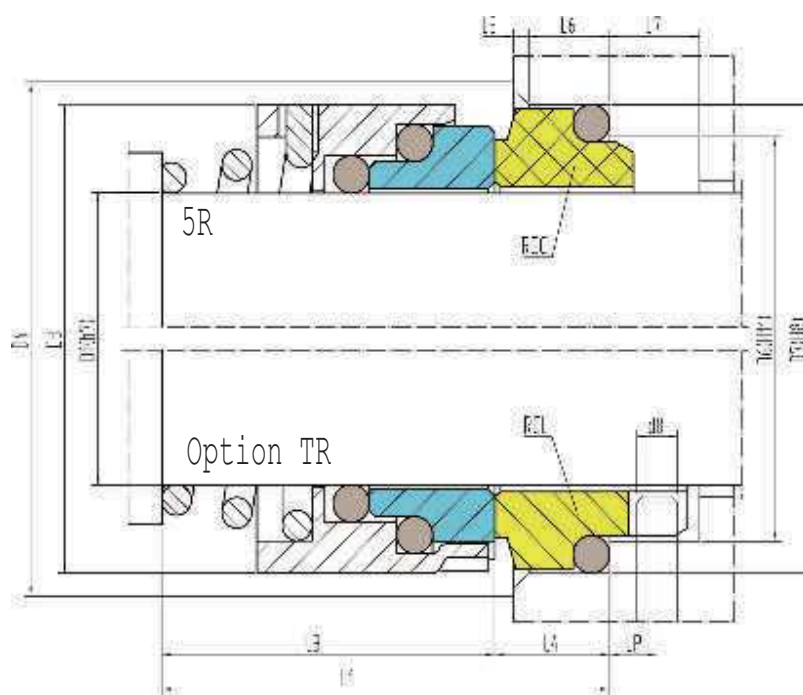
UCC UCL

D1	D6	D7	D3	D4	L1K	L3K	L1N	L1	L3	L4	L6	L5	H	D8	L7
10	17	21	21.5	22	32.5	25.5	40	22	15	7	4	1.5	18	3	8.5
12	19	23	22.5	24	32.5	25.5	40	25	18	7	4	1.5	15	3	8.5
14	21	25	24.5	26	35	28	40	29	22	7	4	1.5	11	3	8.5
16	23	27	28.5	30+	35	28	40	30	23	7	4	1.5	10	3	8.5
18	27	33	32.5	34	37.5	27.5	45	34	24	10	5	2	11	3	9
20	29	35	32.5	36	37.5	27.5	45	35	25	10	5	2	10	3	9
22	31	37	37	38	37.5	27.5	45	35	25	10	5	2	10	3	9
24	33	39	37	40	40	30	50	37	27	10	5	2	13	3	9
25	34	40	41	41	40	30	50	37	27	10	5	2	13	3	9
28	37	43	47	48+	42.5	32.5	50	39	29	10	5	2	11	3	9
30	39	45	47	48+	42.5	32.5	50	40	30	10	5	2	10	3	9
32	42	48	47	48	42.5	32.5	55	40	30	10	5	2	15	3	9
33	42	48	48	49	42.5	32.5	55	49	39	10	5	2	6	3	9
35	44	50	57	58+	42.5	32.5	55	49	39	10	5	2	6	3	9
38	49	56	64	65+	45	32	55	55	42	13	6	2	—	4	9
40	51	58	64	65+	45	32	55	55	42	13	6	2	—	4	9
43	54	61	64	65+	45	32	60	60	47	13	6	2	—	4	9
45	56	63	69	70+	45	32	60	60	47	13	6	2	—	4	9
48	59	66	69	70+	45	32	60	60	47	13	6	2	—	4	9
50	62	70	75	76+	47.5	33.5	60	60	46	14	6	2.5	—	4	9
53	65	73	75	76+	47.5	33.5	70	70	56	14	6	2.5	—	4	9
55	67	75	75	75	47.5	33.5	70	70	56	14	6	2.5	—	4	9
58	70	78	83	83	52.5	38.5	70	70	56	14	6	2.5	—	4	9
60	72	80	83	85	52.5	38.5	70	70	56	14	6	2.5	—	4	9
63	75	83	88	88	52.5	38.5	70	70	56	14	6	2.5	—	4	9
65	77	85	88	90	52.5	38.5	80	80	66	14	6	2.5	—	4	9
68	81	90	93	93	52.5	36.5	80	80	64	16	7	2.5	—	4	9
70	83	92	93	95	60	44	80	80	64	16	7	2.5	—	4	9
75	88	97	98	104	60	44	80	80	64	16	7	2.5	—	4	9
80	95	105	104	109	60	42	90	90	72	18	7	3	—	4	9
85	100	110	110	114	60	42	90	90	72	18	7	3	—	4	9
90	105	115	116	119	65	42	90	90	72	18	7	3	—	4	9
95	110	120	123	124	65	42	90	90	72	18	7	3	—	4	9
100	115	125	127	129	65	42	90	90	72	18	7	3	—	4	9

+ This size is larger than the minimum prescribed by EN 12756

Spacer ring is not included in the delivery of the mechanical seal.

Universal seal for demanding applications
Conical spring rotating
Massive replaceable seal rings
Massive frame
Vibration practical



Materials:

Rotary: Q, U, V

Stationary: A, B, Q, U

Rubber parts: P, E, V, K, M

Operating limits:

(look at working conditions page 112)

$p \leq$	16 bar
$t =$	$-35 \div 180^\circ\text{C}$
$v \leq$	15 m/s

Special fitting dimensions

RCC RCL

5RH2 RCC RCL

D1	D6	D7	D3	D4	L1	L3	L4	L6	L5	D8	L7	Lp	L1	L3
10	14	18.1	21.5	22	25.5	20	5.5	2.8	1.2	2	6.2	3.5	20.5	15
11	16.5	20.6	21.5	25	27.5	22	5.5	2.8	1.2	2	6.2	3.5	23.5	18
12	16.5	20.6	22.5	25	27.5	22	5.5	2.8	1.2	2	6.2	3.5	23.5	18
13	19	23.1	22.5	27	33	27	6	2.8	1.2	2	6.7	4	28	22
14	19	23.1	24.5	27	33	27	6	2.8	1.2	2	6.7	4	28	22
15	21	26.9	24.5	32	34	27	7	3.7	1.3	2.5	7.6	4	29	22
16	21	26.9	28.5	32	35	28	7	3.7	1.3	2.5	7.6	4	30	23
17	21	26.9	28.5	32	35	28	7	3.7	1.3	2.5	7.6	4	30	23
18	25	30.9	32.5	36	38	30	8	3.7	1.3	3	8.5	4.5	32	24
19+20	25	30.9	32.5	36	38	30	8	3.7	1.3	3	8.5	4.5	33	25
21+22	30	35.4	37	41	38	30	8	3.7	1.8	3.5	8.5	5	33	25
23+24	30	35.4	37	41	40	32	8	3.7	1.8	3.5	8.5	5	35	27
25+27	33	38.2	41	45	41.5	33	8.5	3.7	1.8	4	9.1	5	35.5	27
28	38	43.3	47	50	45	36	9	3.7	1.8	4	9.6	6	38	29
29+32	38	43.3	47	50	46	37	9	3.7	1.8	4	9.6	6	39	30
33+37	45	53.5	48	62	59.5	48	11.5	5.4	2.1	5	12	7.5	50.5	39
38+43	52	60.5	64	70	59.5	48	11.5	5.4	2.1	5	12	7.5	50.5	39
44+49	57	65.5	64	75	62.5	51	11.5	5.4	2.1	5	13	8.5	52.5	41
50	64	72.5	75	83	66.5	55	11.5	5.4	2.1	5	13	8.5	56.5	45
55	64	72.5	75	83	68.5	57	11.5	5.4	2.1	5	13	8.5	58.5	47
60	72	79.3	83	90	72.5	61	11.5	5.4	2.1	5	13.5	8.5	60.5	49
65	77	84.5	88	96	74.5	63	11.5	5.4	2.1	5	13.5	8.5	62.5	51
70	82	89.5	93	101	74.5	63	11.5	5.4	2.1	5	13.5	8.5	62.5	51
75	87	94.5	98	106	79.5	68	11.5	5.4	2.1	5	13.5	8.5	68.5	57
80	92	99.5	104	111	81.5	70	11.5	5.4	2.1	5	13.5	8.5	70.5	59
85	98	105.5	110	125	85.5	72	13.5	5.4	2.6	5	13.5	8.5	72.5	59
90	105	111.5	116	130	88.5	75	13.5	5.4	2.6	5	13.5	8.5	75.5	62
95	110	116.5	123	137	88.5	75	13.5	5.4	2.6	5	13.5	8.5	75.5	62
100	114	119.5	127	143	98.5	85	13.5	5.4	2.6	5	13.5	8.5	88.5	75
110	124	132.2	-	166	106.5	89	17.5	7.1	3.9	5	13.5	8.5	92.5	75
120	134	142.2	-	176	114.5	97	17.5	7.1	3.9	5	13.5	8.5	102.5	85
130	145	153.2	-	190	125.5	108	17.5	7.1	3.9	5	13.5	8.5	112.5	95
140	157	164.3	-	210	128.5	110	18.5	7.1	3.9	5	13.5	8.5	118.5	100
150	167	174.2	-	220	138.5	120	18.5	7.1	3.9	5	13.5	8.5	128.5	110