






Sezione M

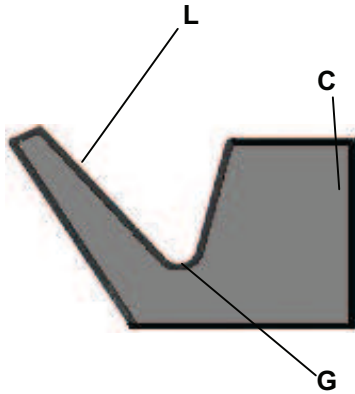
Anelli

V- Ring

Anello V-Ring

	Anelli tipo VA	9
	Anelli tipo VS	11
	Anelli tipo VL	12
VE 	Anelli tipo VE-VB	13
VB 		

Anello tipo VA



C

Il corpo o spalla del v-ring, garantisce un'ottima adesione all' albero rotante.

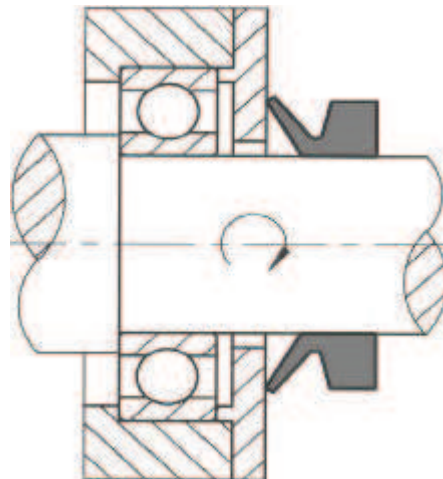
L

La struttura conica del labbro aderisce alla superficie assiale adattandosi anche ad eventuali inclinazioni dell' albero.

G

La giunzione tra il labbro e la spalla avviene tramite un prolungamento che funge da molla

L' anello V-ring viene calzato sull' albero con il labbro di tenuta aderente alla superficie assiale. L' anello V-ring ruota assieme all'albero , il labbro viceversa striscia sulla parte fissa dove garantirà una tenuta nei due versi dall'interno verso l'esterno e che inquinanti non filtrino all'interno.



Funzionamento tipico del V-ring

Anelli tipo V-Ring

Tipo VA



Profilo più comunemente usato per alberi da 3mm a 1200mm. Diametri maggiori sono realizzabili vulcanizzati.

Tipo VE



Profilo molto rigido per applicazioni molto gravose. La gamma dei diametri va da 300mm a 1200mm

Tipo VS



Profilo del labbro uguale al tipo VA. Differisce dal tipo VA per un' estensione del corpo o spalla aumentando così la forza dell'accoppiamento tra anello e albero anche del 50% . Questa tipologia si consiglia in presenza di alte velocità e lunghe esposizioni a contaminanti esterni. La gamma dei diametri va da 5mm a 200mm

Tipo VB

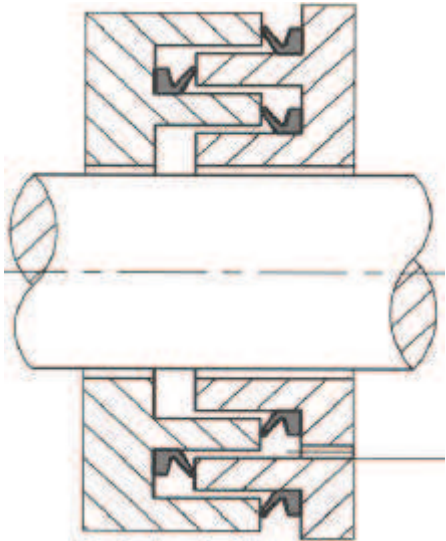


Profilo con la stessa geometria e rigidità del VE. Viene utilizzato per impieghi gravosi e su diametri oltre i 300mm fino ai 2000mm. Nella parte esterna della spalla viene ricavata una cava per installare una fascetta metallica per un migliore montaggio radiale. Il tipo VB viene realizzato da estruso vulcanizzato.

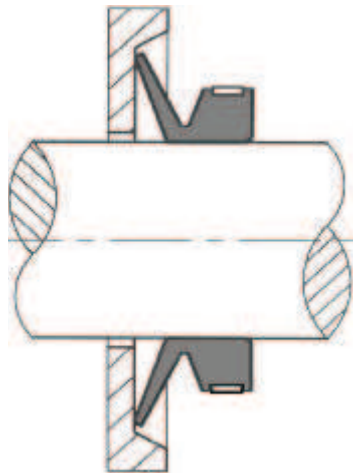
Tipo VL



Profilo caratterizzato per un ridotto ingombro indicato per applicazioni di tenuta a labirinto. La gamma dei diametri va da 120mm a 600mm



Esempio di tenute a labirinto



Montaggio tipo VB con fascetta

Anelli tipo V-Ring

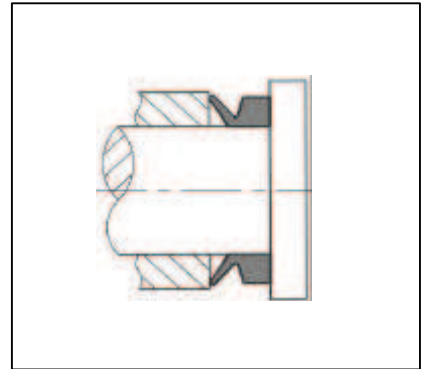
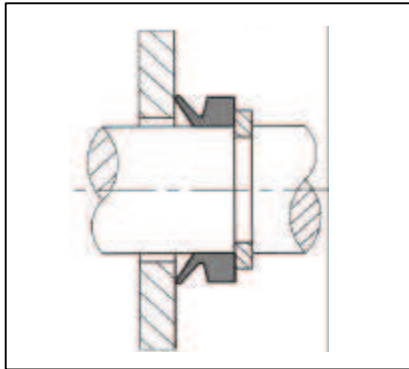
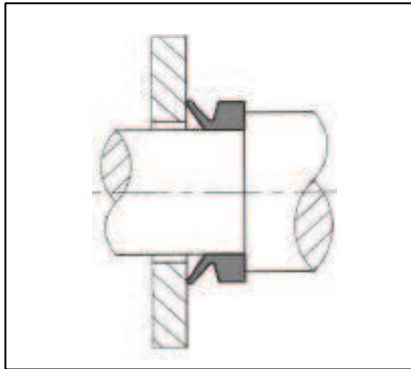
Dati tecnici

	Tipo montaggio V-ring		
	Normale	Appoggio assiale	Appoggio assiale, radiale
Velocità m/sec	8	8	12

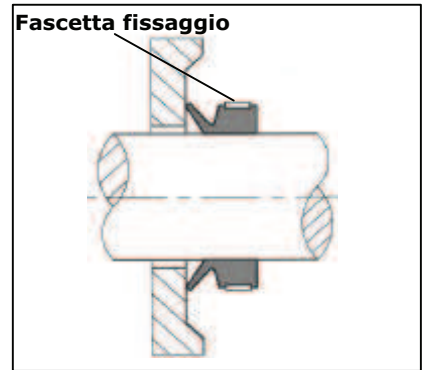
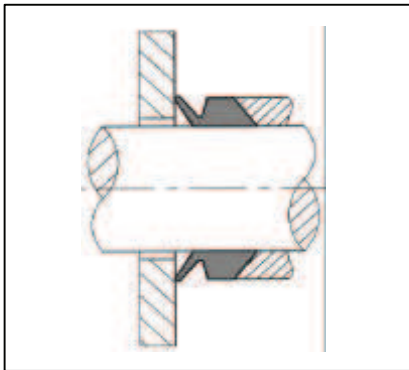
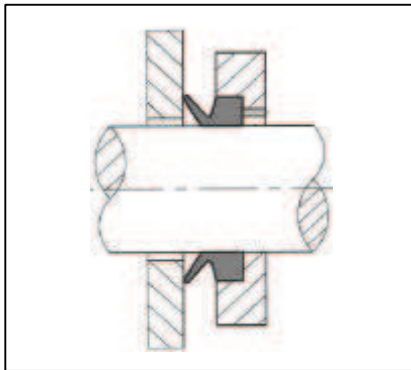
	Temp. °C	Durezza
NBR	-40 +100	60 Sh A
FPM	-20 +180	65 Sh A

Montaggi

Appoggio assiale



Appoggio assiale, radiale



Anelli tipo V-Ring

Rugosità superfici

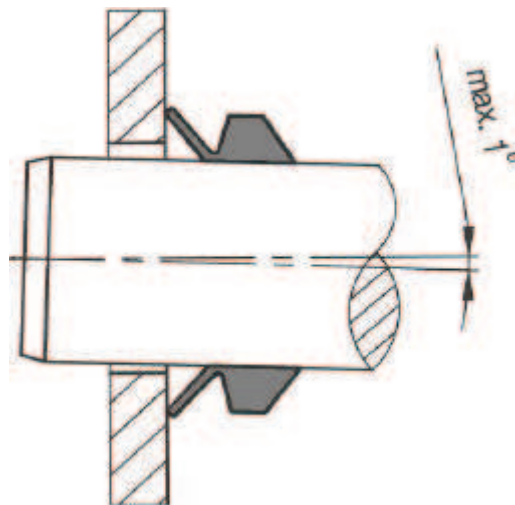
La tabella sottostante elenca i valori di rugosità (finitura superficiale) della superficie di scorrimento dove il labbro del V-ring scorre. I valori devono essere rispettati per un ottimale funzionamento anche in presenza di inclinazione dell' albero.

Rmax	10 - 16 μm
Rz	6,3 - 10 μm
Ra	1,6 - 3,2 μm

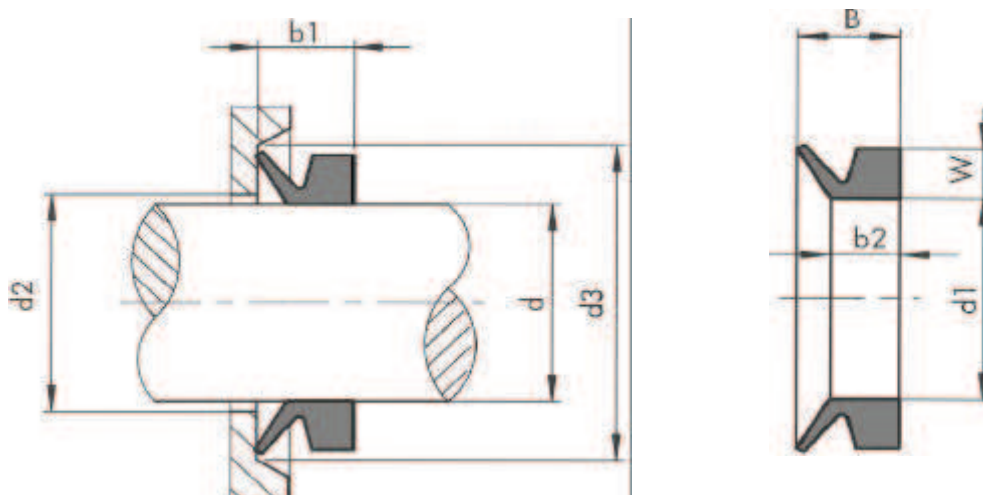
Inclinazioni dell' albero

A differenza degli altri anelli di tenuta V-ring può mantenere un ottimo grado di tenuta anche quando l' albero rotante presenta un' inclinazione rispetto all' asse di rotazione.

Si consiglia di non superare mai 1° di inclinazione.



Anello tipo VA

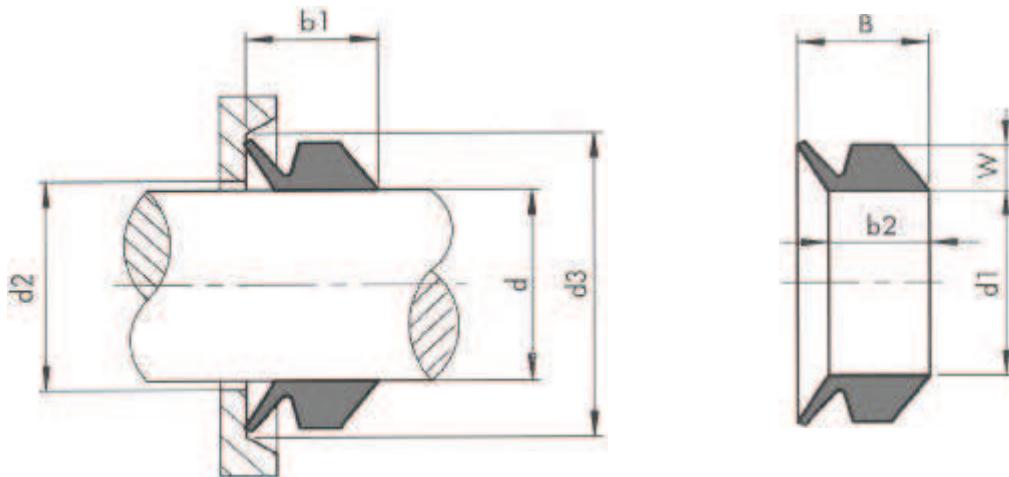


	Range diametro albero d (mm)	d2 max	d3 min	larghezza installato b1	diametro anello d1	altezza profilo W	larghezza profilo B	b2
VA00030	2,7-3,4	d+1	d+4	2,5±0,3	2,5	1,5	3,0	2,1
VA00040	3,5-4,4	d+1	d+6	3,0±0,4	3,2	2,0	3,7	2,4
VA00050	4,5-5,4	d+1	d+6	3,0±0,4	4,0	2,0	3,7	2,4
VA00060	5,5-6,4	d+1	d+6	3,0±0,4	5,0	2,0	3,7	2,4
VA00070	6,5-7,5	d+1	d+6	3,0±0,4	6,0	2,0	3,7	2,4
VA00080	8,0-9,0	d+1	d+6	3,0±0,4	7,0	2,0	3,7	2,4
VA00100	9,5-11,0	d+2	d+9	4,5±0,6	9,0	3,0	5,5	3,4
VA00120	11,5-12,0	d+2	d+9	4,5±0,6	10,5	3,0	5,5	3,4
VA00140	13,5-15,0	d+2	d+9	4,5±0,6	12,5	3,0	5,5	3,4
VA00160	15,5-17,0	d+2	d+9	4,5±0,6	14,0	3,0	5,5	3,4
VA00180	17,5-18,5	d+2	d+9	4,5±0,6	16,0	3,0	5,5	3,4
VA00200	19,0-20,5	d+2	d+12	6,0±0,8	18,0	4,0	7,5	4,7
VA00220	21,0-23,5	d+2	d+12	6,0±0,8	20,0	4,0	7,5	4,7
VA00250	24,0-26,5	d+2	d+12	6,0±0,8	22,0	4,0	7,5	4,7
VA00280	27,0-28,5	d+2	d+12	6,0±0,8	25,0	4,0	7,5	4,7
VA00300	29,0-30,5	d+3	d+12	6,0±0,8	27,0	4,0	7,5	4,7
VA00320	31,0-32,5	d+3	d+12	6,0±0,8	29,0	4,0	7,5	4,7
VA00350	33,0-35,5	d+3	d+12	6,0±0,8	31,0	4,0	7,5	4,7
VA00380	36,0-37,5	d+3	d+12	6,0±0,8	34,0	4,0	7,5	4,7
VA00400	38,0-42,0	d+3	d+15	7,0±1,0	36,0	5,0	9,0	5,5
VA00450	43,0-47,0	d+3	d+15	7,0±1,0	40,0	5,0	9,0	5,5
VA00500	48,0-52,0	d+3	d+15	7,0±1,0	45,0	5,0	9,0	5,5
VA00550	53,0-57,0	d+3	d+15	7,0±1,0	49,0	5,0	9,0	5,5
VA00600	58,0-62,0	d+3	d+15	7,0±1,0	54,0	5,0	9,0	5,5
VA00650	63,0-67,0	d+3	d+15	7,0±1,0	58,0	5,0	9,0	5,5
VA00700	68,0-72,0	d+4	d+18	9,0±1,2	63,0	6,0	11,0	6,8
VA00750	73,0-77,0	d+4	d+18	9,0±1,2	67,0	6,0	11,0	6,8
VA00800	78,0-82,0	d+4	d+18	9,0±1,2	72,0	6,0	11,0	6,8
VA00850	83,0-87,0	d+4	d+18	9,0±1,2	76,0	6,0	11,0	6,8
VA00900	88,0-92,0	d+4	d+18	9,0±1,2	81,0	6,0	11,0	6,8
VA00950	93,0-97,0	d+4	d+18	9,0±1,2	85,0	6,0	11,0	6,8
VA01000	98,0-104,0	d+4	d+18	9,0±1,2	90,0	6,0	11,0	6,8
VA01100	105,0-114,0	d+4	d+21	10,5±1,5	99,0	7,0	12,8	7,9
VA01200	115,0-124,0	d+4	d+21	10,5±1,5	108,0	7,0	12,8	7,9
VA01300	125,0-134,0	d+4	d+21	10,5±1,5	117,0	7,0	12,8	7,9

Anello tipo VA

	Range diametro albero d (mm)	d2 max	d3 min	larghezza installato b1	diametro anello d1	altezza profilo W	larghezza profilo B	b2
VA01400	135,0-144,0	d+4	d+21	10,5±1,5	126,0	7,0	12,8	7,9
VA01500	145,0-154,0	d+4	d+21	10,5±1,5	135,0	7,0	12,8	7,9
VA01600	155,0-164,0	d+5	d+24	12,0±1,8	144,0	8,0	14,5	9,0
VA01700	165,0-174,0	d+5	d+24	12,0±1,8	153,0	8,0	14,5	9,0
VA01800	175,0-184,0	d+5	d+24	12,0±1,8	162,0	8,0	14,5	9,0
VA01900	185,0-194,0	d+5	d+24	12,0±1,8	171,0	8,0	14,5	9,0
VA01990	195,0-189,0	d+5	d+24	12,0±1,8	180,0	8,0	14,5	9,0
VA02000	190,0-209,0	d+10	d+45	20,0±4,0	180,0	15,0	25,0	14,3
VA02200	210,0-234,0	d+10	d+45	20,0±4,0	198,0	15,0	25,0	14,3
VA02500	235,0-264,0	d+10	d+45	20,0±4,0	225,0	15,0	25,0	14,3
VA02750	265,0-289,0	d+10	d+45	20,0±4,0	247,0	15,0	25,0	14,3
VA03000	290,0-309,0	d+10	d+45	20,0±4,0	270,0	15,0	25,0	14,3
VA03250	310,0-334,0	d+10	d+45	20,0±4,0	292,0	15,0	25,0	14,3
VA03500	335,0-364,0	d+10	d+45	20,0±4,0	315,0	15,0	25,0	14,3
VA03750	365,0-389,0	d+10	d+45	20,0±4,0	337,0	15,0	25,0	14,3
VA04000	390,0-429,0	d+10	d+45	20,0±4,0	360,0	15,0	25,0	14,3
VA04500	430,0-479,0	d+10	d+45	20,0±4,0	405,0	15,0	25,0	14,3
VA05000	480,0-529,0	d+10	d+45	20,0±4,0	450,0	15,0	25,0	14,3
VA05500	530,0-579,0	d+10	d+45	20,0±4,0	495,0	15,0	25,0	14,3
VA06000	580,0-629,0	d+10	d+45	20,0±4,0	540,0	15,0	25,0	14,3
VA06500	630,0-664,0	d+10	d+45	20,0±4,0	600,0	15,0	25,0	14,3
VA07000	665,0-704,0	d+10	d+45	20,0±4,0	630,0	15,0	25,0	14,3
VA07250	705,0-744,0	d+10	d+45	20,0±4,0	670,0	15,0	25,0	14,3
VA07500	745,0-784,0	d+10	d+45	20,0±4,0	705,0	15,0	25,0	14,3
VA08000	785,0-829,0	d+10	d+45	20,0±4,0	745,0	15,0	25,0	14,3
VA08500	830,0-874,0	d+10	d+45	20,0±4,0	785,0	15,0	25,0	14,3
VA09000	875,0-919,0	d+10	d+45	20,0±4,0	825,0	15,0	25,0	14,3
VA09500	920,0-964,0	d+10	d+45	20,0±4,0	865,0	15,0	25,0	14,3
VA10000	965,0-1010,0	d+10	d+45	20,0±4,0	910,0	15,0	25,0	14,3
VA10500	1015,0-1060,0	d+10	d+45	20,0±4,0	955,0	15,0	25,0	14,3
VA11000	1065,0-1110,0	d+10	d+45	20,0±4,0	1000,0	15,0	25,0	14,3
VA11500	1115,0-1160,0	d+10	d+45	20,0±4,0	1045,0	15,0	25,0	14,3
VA12000	1165,0-1210,0	d+10	d+45	20,0±4,0	1090,0	15,0	25,0	14,3
VA12500	1215,0-1260,0	d+10	d+45	20,0±4,0	1135,0	15,0	25,0	14,3
VA13000	1270,0-1310,0	d+10	d+45	20,0±4,0	1180,0	15,0	25,0	14,3
VA13500	1320,0-1360,0	d+10	d+45	20,0±4,0	1225,0	15,0	25,0	14,3
VA14000	1370,0-1410,0	d+10	d+45	20,0±4,0	1270,0	15,0	25,0	14,3
VA14500	1420,0-1460,0	d+10	d+45	20,0±4,0	1315,0	15,0	25,0	14,3
VA15000	1470,0-1510,0	d+10	d+45	20,0±4,0	1360,0	15,0	25,0	14,3
VA15500	1520,0-1560,0	d+10	d+45	20,0±4,0	1405,0	15,0	25,9	14,3
VA16000	1570,0-1610,0	d+10	d+45	20,0±4,0	1450,0	15,0	25,0	14,3
VA16500	1620,0-1660,0	d+10	d+45	20,0±4,0	1495,0	15,0	25,0	14,3
VA17000	1670,0-1710,0	d+10	d+45	20,0±4,0	1540,0	15,0	25,0	14,3
VA17500	1720,0-1760,0	d+10	d+45	20,0±4,0	1585,0	15,0	25,0	14,3
VA18000	1770,0-1810,0	d+10	d+45	20,0±4,0	1630,0	15,0	25,0	14,3
VA18500	1820,0-1860,0	d+10	d+45	20,0±4,0	1675,0	15,0	25,0	14,3
VA19000	1870,0-1910,0	d+10	d+45	20,0±4,0	1720,0	15,0	25,0	14,3
VA19500	1920,0-1960,0	d+10	d+45	20,0±4,0	1765,0	15,0	25,0	14,3
VA20000	1970,0-2010,0	d+10	d+45	20,0±4,0	1810,0	15,0	25,0	14,3

Anello tipo VS



	Range diametro albero d (mm)	d2 max	d3 min	larghezza installato b1	diametro anello d1	altezza profilo W	larghezza profilo B	b2
VS00050	4,5-5,4	d+1	d+6	4,5±0,4	4,0	2,0	5,2	3,9
VS00060	5,5-6,4	d+1	d+6	4,5±0,4	5,0	2,0	5,2	3,9
VS00070	6,5-7,5	d+1	d+6	4,5±0,4	6,0	2,0	5,2	3,9
VS00080	8,0-9,0	d+1	d+6	4,5±0,4	7,0	2,0	5,2	3,9
VS00100	9,5-11,0	d+2	d+9	6,7±0,6	9,0	3,0	7,7	5,6
VS00120	11,5-13,0	d+2	d+9	6,7±0,6	10,5	3,0	7,7	5,6
VS00140	13,5-15,0	d+2	d+9	6,7±0,6	12,5	3,0	7,7	5,6
VS00160	15,5-17,0	d+2	d+9	6,7±0,6	14,0	3,0	7,7	5,6
VS00180	17,5-18,5	d+2	d+9	6,7±0,6	16,0	3,0	7,7	5,6
VS00200	19,0-20,5	d+2	d+12	9,0±0,8	18,0	4,0	10,5	7,9
VS00220	21,0-23,5	d+2	d+12	9,0±0,8	20,0	4,0	10,5	7,9
VS00250	24,0-26,5	d+2	d+12	9,0±0,8	22,0	4,0	10,5	7,9
VS00280	27,0-28,5	d+3	d+12	9,0±0,8	25,0	4,0	10,5	7,9
VS00300	29,0-30,5	d+3	d+12	9,0±0,8	27,0	4,0	10,5	7,9
VS00320	31,0-32,5	d+3	d+12	9,0±0,8	29,0	4,0	10,5	7,9
VS00350	33,0-35,5	d+3	d+12	9,0±0,8	31,0	4,0	10,5	7,9
VS00380	36,0-37,5	d+3	d+12	9,0±0,8	34,0	4,0	10,5	7,9
VS00400	38,0-42,0	d+3	d+15	11,0±1,0	36,0	5,0	13,0	9,5
VS00450	43,0-47,0	d+3	d+15	11,0±1,0	40,0	5,0	13,0	9,5
VS00500	48,0-52,0	d+3	d+15	11,0±1,0	45,0	5,0	13,0	9,5
VS00550	53,0-57,0	d+3	d+15	11,0±1,0	49,0	5,0	13,0	9,5
VS00600	58,0-62,0	d+3	d+15	11,0±1,0	54,0	5,0	13,0	9,5
VS00650	63,0-67,0	d+3	d+15	11,0±1,0	58,0	5,0	13,0	9,5
VS00700	68,0-72,0	d+4	d+18	13,5±1,2	63,0	6,0	15,5	11,3
VS00750	73,0-77,0	d+4	d+18	13,5±1,2	67,0	6,0	15,5	11,3
VS00800	78,0-82,0	d+4	d+18	13,5±1,2	72,0	6,0	15,5	11,3
VS00850	83,0-87,0	d+4	d+18	13,5±1,2	76,0	6,0	15,5	11,3
VS00900	88,0-92,0	d+4	d+18	13,5±1,2	81,0	6,0	15,5	11,3
VS00950	93,0-97,0	d+4	d+18	13,5±1,2	85,0	6,0	15,5	11,3
VS01000	98,0-104,0	d+4	d+18	13,5±1,2	90,0	6,0	15,5	11,3
VS01100	105,0-114,0	d+4	d+21	15,5±1,5	99,0	7,0	18,0	13,1
VS01200	115,0-124,0	d+4	d+21	15,5±1,5	108,0	7,0	18,0	13,1
VS01300	125,0-134,0	d+4	d+21	15,5±1,5	117,0	7,0	18,0	13,1
VS01400	135,0-144,0	d+4	d+21	15,5±1,5	126,0	7,0	18,0	13,1
VS01500	145,0-154,0	d+4	d+21	15,5±1,5	135,0	7,0	18,0	13,1
VS01600	155,0-164,0	d+5	d+24	18,0±1,8	144,0	8,0	20,5	15,0
VS01700	165,0-174,0	d+5	d+24	18,0±1,8	153,0	8,0	20,5	15,0
VS01800	175,0-184,0	d+5	d+24	18,0±1,8	162,0	8,0	20,5	15,0
VS01900	185,0-194,0	d+5	d+24	18,0±1,8	171,0	8,0	20,5	15,0
VS02000	195,0-210,0	d+5	d+24	18,0±1,8	180,0	8,0	20,5	15,0

