



Plummer block housing units VRE3

Plummer block housing units VRE3

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Product overview Plummer block housing units VRE3

Plummer block housing units Unsplit, with bearings and shaft

VRE3



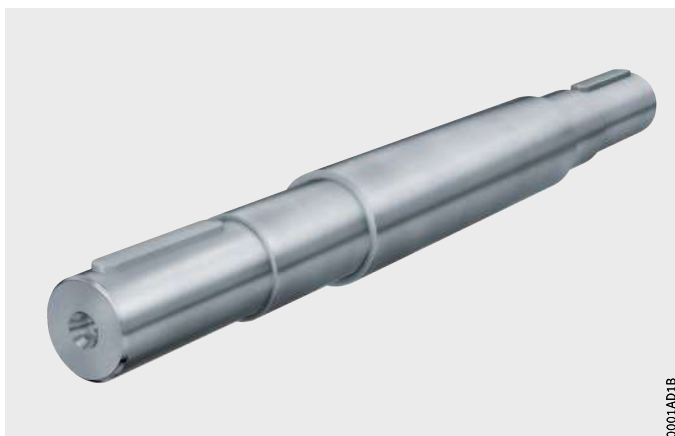
Plummer block housings Unsplit

VR3



Shafts

VRW3



Plummer block housing units VRE3

Features Plummer block housing units VRE3 were originally developed for fan applications, for the flying bearing arrangement of high speed impellers.

The units are now used wherever there is a requirement for a precise bearing arrangement that can be easily mounted, for example in:

- conveying equipment
- test rigs
- materials processing machinery
- belt drives
- laboratory equipment
- textile machinery
- feeder mechanisms.

Complete bearing units Plummer block housing units VRE3 comprise a tubular plummer block housing VR3 with seals and a shaft VRW3 supported in rolling bearings of dimension series 3. The units are completely assembled and the bearings are greased. The units can therefore be integrated directly in existing machinery without substantial preparation.

Plummer block housing units VRE3 are available in 6 designs for different areas of application, see page 273.



Range The complete plummer block housing units VRE3 are available in the designs A, B, C, D, E and F with shaft diameters of 25 mm to 120 mm.

In addition, the following components are individually available:

- housings VR3 with covers, seals and locating elements
- shafts VRW3 with locating elements
- standard rolling bearings.

Advantages Plummer block bearing units VRE3 have the following advantages:

- ease of mounting
- low maintenance requirements
- effective, low-friction sealing against dust and moisture
- bearing arrangement combined in a single-piece housing, therefore requiring no alignment work
- support of high tilting moments by two bearings with optimum spacing
- six designs allow matching to different load conditions.

Plummer block housing units VRE3

Suitable bearings

Plummer block housing units VRE3 are fitted, depending on their design, with various combinations of deep groove ball bearings, cylindrical roller bearings and angular contact ball bearings, see table. Only bearings with a cylindrical bore are fitted. The range of shaft diameters is between 25 mm and 120 mm.

Plummer block housing units and bearings

Plummer block housing unit	Bearing		
	Quantity	Bearing type	Size
VRE305A – VRE324A	2	Deep groove ball bearing	6305 – 6324
VRE305B – VRE324B	1	Cylindrical roller bearing	NJ305E – NJ324E
	1	Deep groove ball bearing	6305 – 6324
VRE305C – VRE324C	1	Cylindrical roller bearing	NU305E – NU324E
	2	Angular contact ball bearing	7305B.UA – 7324B.UA
VRE305D – VRE324D	1	Cylindrical roller bearing	NU305E – NU324E
	1	Deep groove ball bearing	6305 – 6324
VRE305E – VRE324E	2	Cylindrical roller bearing	NU305E – NU324E
	1	Deep groove ball bearing	6305 – 6324
VRE305F – VRE316F	2	Deep groove ball bearing	6305 – 6316

Housing materials and anti-corrosion protection

The housings are made from flake graphite cast iron EN-GJL-HB215. Covers and grease valves can be made from the same material or from steel S185. The shafts are made from steel E295.

All outer surfaces not machined by chip-forming methods have a universal paint coating (colour RAL 7031, bluish-grey). The coating can be finished using all synthetic resin, polyurethane, acrylic, epoxy resin, chlorinated rubber, nitrocellulose and acid-hardening hammer tone finishes.

Inner and outer surfaces of the housing body and shaft machined by chip-forming methods are provided with anti-corrosion protection that can be easily removed. It is recommended that only volatile solvents and lint-free cloths should be used.

Seals

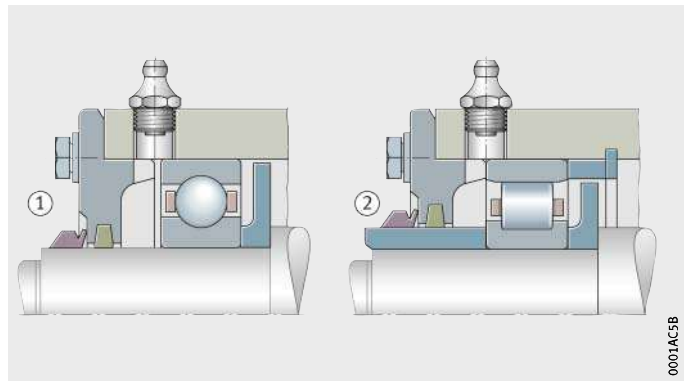
Plummer block housing units VRE3 are sealed on both sides by a combined seal comprising a felt seal and a V ring, *Figure 1*, page 273. As a result, effective sealing against the ingress of contamination and the escape of lubricant is achieved.

The oil-soaked felt strips are inserted in the slots in the covers on the housing.

The external V rings are made from NBR and are suitable for temperatures up to +100 °C. If a circumferential velocity of more than 8 m/s is present, axial support of the V rings is necessary. At or above 12 m/s, the seal lip lifts and the V ring then acts as a splash ring.

- ① Sealing of designs A, B and F
- ② Sealing of designs C, D and E

Figure 1
Felt seal with V ring
for plummer block bearing
units VRE3

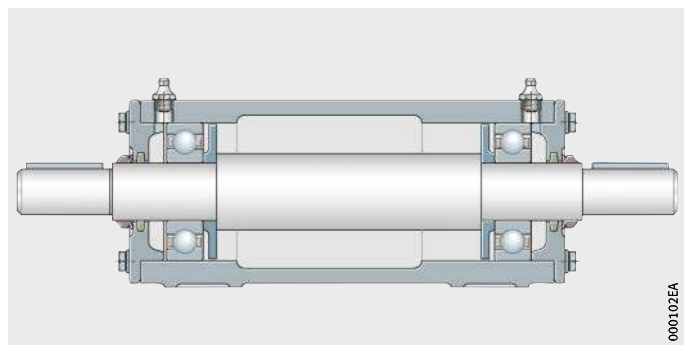


Designs

The 6 designs of plummer block housing units VRE3 represent various combinations of housings VR3, shafts VRW3 and one or more bearing types, *Figure 2 to Figure 7*, page 274.

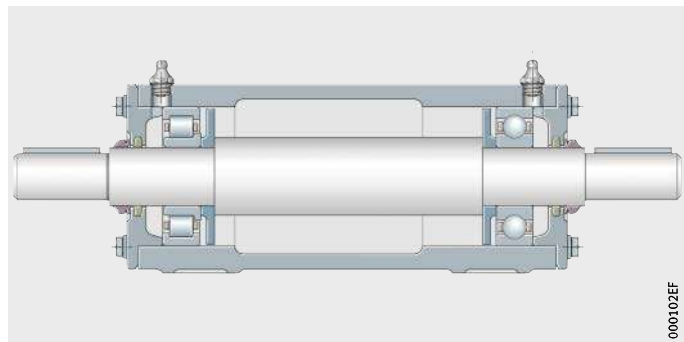
Housing VR3...-A
2 deep groove ball bearings
in floating arrangement
Shaft VRW3...-A

Figure 2
Plummer block housing
unit VRE3...-A



Housing VR3...-A
1 deep groove ball bearing and
1 cylindrical roller bearing NJ
in floating arrangement
Shaft VRW3...-A

Figure 3
Plummer block housing
unit VRE3...-B

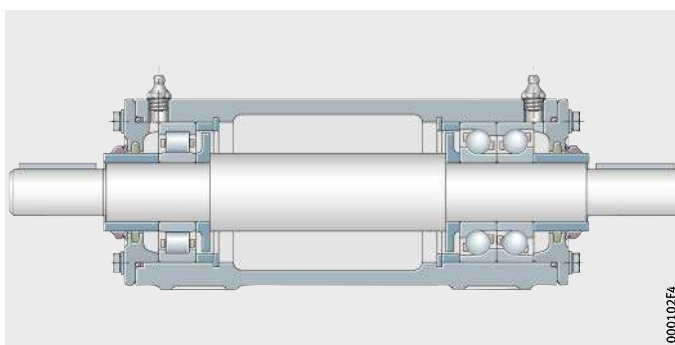


Plummer block housing units VRE3

Housing VR3...-C
Locating/non-locating bearing arrangement
with 1 cylindrical roller bearing NU and
2 angular contact ball bearings
in O arrangement
Shaft VRW3...-C

Figure 4

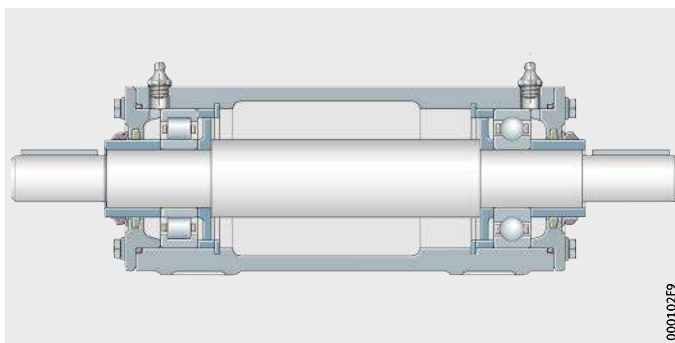
Plummer block housing
unit VRE3...-C



Housing VR3...-D
Locating/non-locating bearing arrangement
with 1 cylindrical roller bearing NU and
1 deep groove ball bearing
Shaft VRW3...-D

Figure 5

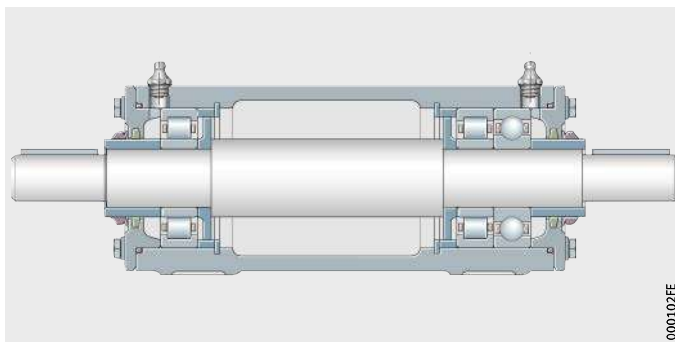
Plummer block housing
unit VRE3...-D



Housing VR3...-E
Locating/non-locating bearing arrangement
with 2 cylindrical roller bearings NU and
1 deep groove ball bearing
Shaft VRW3...-C

Figure 6

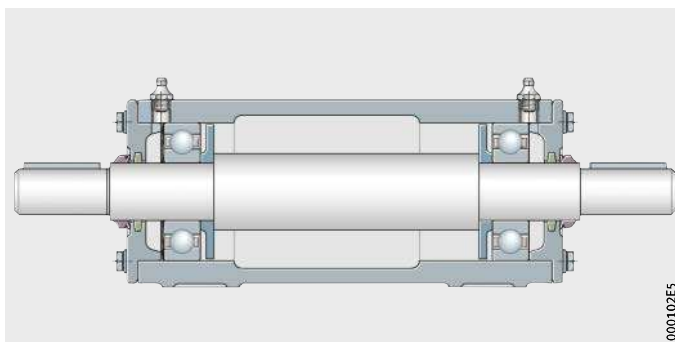
Plummer block housing
unit VRE3...-E



Housing VR3...-F
2 deep groove ball bearings
in floating arrangement,
axially adjusted by spring
between outer ring and cover
Shaft VRW3...-F

Figure 7

Plummer block housing
unit VRE3...-F



Areas of application of designs

Based on the specific bearing combination, the designs of plummer block housing units VRE3 have different areas of application.

Design A:

- predominantly radial load
- high speed
- axial load from both directions (not alternating).

Design B:

- high radial load on one side
- axial load from one direction only.

Design C:

- high radial load on one side
- high axial load from both directions.

Design D:

- axial load from both directions.

Design E:

- high radial load on both sides
- axial load from both directions.

Design F:

- predominantly radial load
- high speed
- axial load from one direction (facing away from the spring).



Maximum operating temperature

The maximum permissible operating temperature for all designs is +100 °C.

Lubrication

Plummer block housing units VRE3 are completely assembled and greased at the time of delivery.

Greases

The bearings fitted are filled with a lithium soap grease of NLGI grade 3, which has a base oil with a viscosity class ISO VG 100. For relubrication, Arcanol MULTI3 is recommended. If this grease is not available, a grease with the same oil base and NLGI grade and the most similar base oil viscosity possible should be used.

Plummer block housing units VRE3

Grease quantities

The grease quantities recommended for initial greasing are dependent on the size and design of the plummer block housing unit and the relubrication quantities are additionally dependent on the type of bearing arrangement, see table.

Recommended grease quantities for initial greasing and relubrication

Plummer block housing unit	Grease quantity			
		Initial greasing	Relubrication	
			Non-locating bearing	Locating bearing
		≈ g	≈ g	≈ g
VRE305	A, B, F	40	5	5
	C, E	45	5	10
	D	35	5	5
VRE306	A, B, F	60	5	5
	C, E	65	5	10
	D	55	5	5
VRE307	A, B, F	80	5	5
	C, E	90	5	10
	D	75	5	5
VRE308	A, B, F	110	10	10
	C, E	120	10	20
	D	100	10	10
VRE309	A, B, F	140	10	10
	C, E	155	10	20
	D	125	10	10
VRE310	A, B, F	190	10	10
	C, E	210	10	20
	D	170	10	10
VRE311	A, B, F	240	15	15
	C, E	265	15	25
	D	220	15	15
VRE312	A, B, F	300	15	15
	C, E	330	15	25
	D	270	15	15
VRE313	A, B, F	380	15	15
	C, E	420	15	25
	D	340	15	15
VRE314	A, B, F	480	20	20
	C, E	525	20	35
	D	425	20	20
VRE315	A, B, F	590	20	20
	C, E	650	20	35
	D	525	20	20
VRE316	A, B, F	700	20	20
	C, E	770	20	40
	D	620	20	20

**Recommended grease quantities
for initial greasing and relubrication
(continued)**

Plummer block housing unit		Grease quantity		
		Initial greasing ≈ g	Relubrication	
			Non-locating bearing ≈ g	Locating bearing ≈ g
VRE317	A, B	830	25	25
	C, E	900	25	40
	D	750	25	25
VRE318	A, B	1 000	25	25
	C, E	1 050	25	50
	D	850	25	25
VRE319	A, B	1 160	30	30
	C, E	1 300	30	55
	D	1 050	30	30
VRE320	A, B	1 450	35	35
	C, E	1 550	35	65
	D	1 250	35	35
VRE322	A, B	1 950	40	40
	C, E	1 950	40	75
	D	1 600	40	40
VRE324	A, B	2 350	45	45
	C, E	2 500	45	90
	D	2 050	45	45



Relubrication

For relubrication, each bearing position has a taper type lubrication nipple to DIN 71412-AM10×1. Overgreasing of the bearings is prevented by the washers mounted internally adjacent to the bearings. They convey the grease exiting the bearings into the free space in the housing between the bearing positions.

The relubrication intervals are dependent on the speed and design of the plummer block housing unit, see table. The values stated are valid for continuous operation.

**Relubrication intervals
for continuous operation**

Plummer block housing unit	Speed parameter min ⁻¹ · mm	Relubrication interval h
VRE3 A, F	200 000	3400
	300 000	2350
	400 000	1800
	B, C, D, E	200 000
		300 000
		400 000
		350

Plummer block housing units VRE3

Designation structure

The designation structure for plummer block housing units VRE3 as well as housings and shafts is shown in the tables and *Figure 8* to *Figure 10*, page 279.

Designation structure of plummer block housing units VRE3

Feature	Code	Description
① Series	VRE	Unsplit plummer block housing unit VRE3 with bearings and shaft
② Diameter series of bearing	3	Bearing of diameter series 3
③ Bore code of bearing	18	Bore diameter (18 · 5) mm = 90 mm
④ Design of housing unit	A	Design A
	B	Design B
	C	Design C
	D	Design D
	E	Design E
	F	Design F



Figure 8
Designation structure
of plummer block housing
units VRE3,
example

Designation structure of plummer block housings VR3

Feature		Code	Description
①	Series	VR	Unsplit plummer block housings VR
②	Diameter series of bearing	3	Bearing of diameter series 3
③	Bore code of bearing	18	Bore diameter (18 · 5) mm = 90 mm
④	Housing design	A	Design A
		C	Design C
		D	Design D
		E	Design E
		F	Design F



Figure 9
Designation structure
of plummer block housings VR3,
example

Designation structure of shafts VRW3

Feature		Code	Description
①	Series	VRW	Shaft VRW
②	Diameter series of bearing	3	Bearing of diameter series 3
③	Bore code of bearing	18	Bore diameter (18 · 5) mm = 90 mm
④	Housing design	A	Design A
		C	Design C
		D	Design D
		F	Design F



Figure 10
Designation structure
of shafts VRW3,
example

Plummer block housing units VRE3

Ordering examples

Plummer block housing units VRE3 are ideally ordered as complete units. However, it is also possible to order only the housing VR3 or only the shaft VRW3.

The ordering examples show the construction of orders for a complete housing unit as well as for ordering only a housing and only a shaft. The allocation of housing units, housings, bearings and accessories for all housing sizes is shown in the dimension table.

Example 1 Plummer block housing unit VRE3 of design B (rolling bearing in floating arrangement), comprising plumber block housing VR314-A, cylindrical roller bearing NJ314-E-TVP2, deep groove ball bearing 6314-C3 and shaft VRW314-A.

Order 1 plumber block housing unit VRE314-B

Example 2 Plummer block housing VR3 (without shaft, without rolling bearing) of design E, including covers, grease valves, lubrication nipples, seals and locating elements. The housing is suitable for a locating/non-locating bearing arrangement with 1 cylindrical roller bearing as well as 1 cylindrical roller bearing and 1 deep groove ball bearing on the opposing side.

Order 1 plumber block housing VR322-E

Example 3 Shaft VRW3 (without housing, without rolling bearing) of design A, including feather keys. The housing is suitable for a floating arrangement of 2 deep groove ball bearings 6314.

Order 1 shaft VRW314-A

Design and safety guidelines

Eye bolts



Housings VR3 have two eye bolts to DIN 580. After mounting, the eye bolts can be replaced by the hexagon head bolts with seals included in the packaging.

Eye bolts must always be screwed fully into the housing.

The eye bolts must not be loaded to a value greater than the mass of the housing including the bearings and shaft.

Foot screws

Foot screws are used for screw mounting of the housings to the locating surface. They are not included in the scope of delivery of the housings.

The appropriate screw size for each housing is stated, see dimension table.

The associated tightening torques are stated for screws with a metric thread in accordance with DIN 13, DIN 962 and DIN ISO 965-2, see table, page 42.

Marking

A cast-on boss on the housing body indicates:

- the position of the cylindrical roller bearing in design B
- the position of the non-locating bearing in designs C, D and E
- the position of the ondular washer in design F.

The position of the ondular washer is also indicated on the shaft VRW3...-F.



Accuracy

In the case of plummer block housing units VRE3, the tolerance of the bearing seat is dependent on the design of the associated housing, see table.

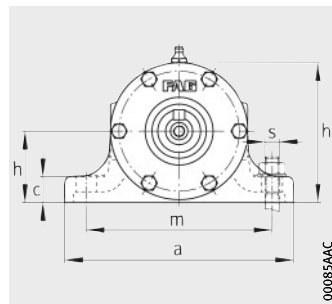
Tolerance class of bearing seat

Design		Tolerance class of bearing seat
Plummer block housing unit VRE3	Housing VR3	
A, B	A	G6
C	C	J6
D	D	J6
E	E	J6
F	F	G6

By agreement, the housings can also be supplied with other tolerance classes for the bearing seat, see section Tolerance class of bearing seat, page 47.

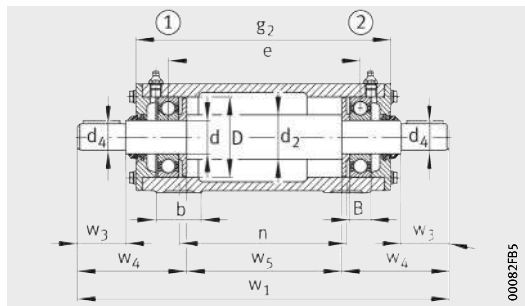
Plummer block housing units

VRE3, unsplit
With bearings and shaft

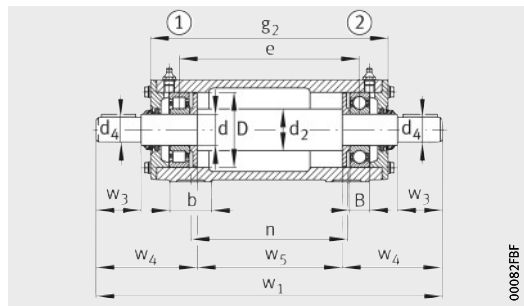


Cross-sections of
designs C, D, page 285,
designs E, F, page 287

Dimension table · Dimensions in mm																
Shaft										Housing						
Dimensions									Designation	Dimensions						
d	d ₂	d ₄	w ₁	w ₂	w ₃	w ₄	w ₅	w ₇		h	h ₁	g ₂	b	c	a	m
25	35	19	298	–	40	90,5	117	–	VRW305-A	45	87	198	35	16	155	120
25	35	19	298	–	40	90,5	117	–	VRW305-A	45	87	198	35	16	155	120
25	35	19	298	40	42	90	101	107	VRW305-C	45	87	198	35	16	155	120
25	35	19	298	40	42	90	118	–	VRW305-D	45	87	198	35	16	155	120
25	35	19	298	40	42	90	101	107	VRW305-C	45	87	198	35	16	155	120
25	35	19	298	–	40	91,25	116,25	90,5	VRW305-F	45	87	198	35	16	155	120
30	40	24	345	–	50	102,5	140	–	VRW306-A	50	98	225	40	18	160	130
30	40	24	345	–	50	102,5	140	–	VRW306-A	50	98	225	40	18	160	130
30	40	24	349	50	52	104	122	123	VRW306-C	50	98	225	40	18	160	130
30	40	24	349	50	52	104	141	–	VRW306-D	50	98	225	40	18	160	130
30	40	24	349	50	52	104	122	123	VRW306-C	50	98	225	40	18	160	130
30	40	24	345	–	50	103,25	139,25	102,5	VRW306-F	50	98	225	40	18	160	130
35	45	28	395	–	60	117,5	160	–	VRW307-A	60	113	255	45	18	190	150
35	45	28	395	–	60	117,5	160	–	VRW307-A	60	113	255	45	18	190	150
35	45	28	399	60	62	119	140	140	VRW307-C	60	113	255	45	18	190	150
35	45	28	399	60	62	119	161	–	VRW307-D	60	113	255	45	18	190	150
35	45	28	399	60	62	119	140	140	VRW307-C	60	113	255	45	18	190	150
35	45	28	395	–	60	118,5	159	117,5	VRW307-F	60	113	255	45	18	190	150
40	50	32	501	–	80	143,5	214	–	VRW308-A	60	118	317	52	20	190	150
40	50	32	501	–	80	143,5	214	–	VRW308-A	60	118	317	52	20	190	150
40	50	32	501	80	82	143	192	166	VRW308-C	60	118	317	52	20	190	150
40	50	32	501	80	82	143	215	–	VRW308-D	60	118	317	52	20	190	150
40	50	32	501	80	82	143	192	166	VRW308-C	60	118	317	52	20	190	150
40	50	32	501	–	80	144,5	213	143,5	VRW308-F	60	118	317	52	20	190	150



VRE3..-A



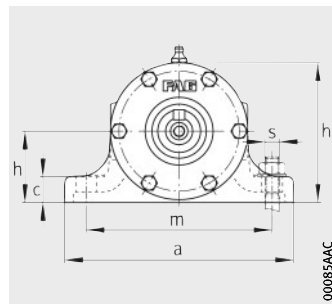
VRE3..-B

							Bearing		Plummer block housing unit	
					Mass m ≈ kg	Designation	Designation		Mass m ≈ kg	Designation Unit
n	s	D	B	e			Bearing position ①	Bearing position ②		
135	M12	62	17	148	5	VR305-A	6305-C3	6305-C3	7	VRE305-A
135	M12	62	17	149	5	VR305-A	NJ305-E-TVP2	6305-C3	7	VRE305-B
135	M12	62	17	140,5	5,2	VR305-C	NU305-E-TVP2-C3	2X7305-B-TVP-UA	7,4	VRE305-C
135	M12	62	17	149	5,2	VR305-D	NU305-E-TVP2-C3	6305-C3	7,2	VRE305-D
135	M12	62	17	132	5,2	VR305-E	NU305-E-TVP2-C3	NU305-E-TVP2-C3+6305-C3	7,5	VRE305-E
135	M12	62	17	147,25	5	VR305-F	6305-C3	6305-C3	7	VRE305-F
150	M12	72	19	173	5,8	VR306-A	6306-C3	6306-C3	9	VRE306-A
150	M12	72	19	174	5,8	VR306-A	NJ306-E-TVP2	6306-C3	9	VRE306-B
150	M12	72	19	164,5	6	VR306-C	NU306-E-TVP2-C3	2X7306-B-TVP-UA	9,4	VRE306-C
150	M12	72	19	174	6	VR306-D	NU306-E-TVP2-C3	6306-C3	9,2	VRE306-D
150	M12	72	19	155	6	VR306-E	NU306-E-TVP2-C3	NU306-E-TVP2-C3+6306-C3	9,4	VRE306-E
150	M12	72	19	172,25	5,8	VR306-F	6306-C3	6306-C3	9	VRE306-F
175	M12	80	21	197	8,5	VR307-A	6307-C3	6307-C3	13	VRE307-A
175	M12	80	21	198	8,5	VR307-A	NJ307-E-TVP2	6307-C3	13	VRE307-B
175	M12	80	21	187,5	8,8	VR307-C	NU307-E-TVP2-C3	2X7307-B-TVP-UA	13,6	VRE307-C
175	M12	80	21	198	8,8	VR307-D	NU307-E-TVP2-C3	6307-C3	13,3	VRE307-D
175	M12	80	21	177	8,8	VR307-E	NU307-E-TVP2-C3	NU307-E-TVP2-C3+6307-C3	13,6	VRE307-E
175	M12	80	21	196	8,5	VR307-F	6307-C3	6307-C3	13	VRE307-F
225	M12	90	23	257	10,9	VR308-A	6308-C3	6308-C3	18	VRE308-A
225	M12	90	23	258	10,9	VR308-A	NJ308-E-TVP2	6308-C3	18	VRE308-B
225	M12	90	23	246,5	11,7	VR308-C	NU308-E-TVP2-C3	2X7308-B-TVP-UA	19,1	VRE308-C
225	M12	90	23	258	11,7	VR308-D	NU308-E-TVP2-C3	6308-C3	18,8	VRE308-D
225	M12	90	23	235	11,7	VR308-E	NU308-E-TVP2-C3	NU308-E-TVP2-C3+6308-C3	19,2	VRE308-E
225	M12	90	23	256	10,9	VR308-F	6308-C3	6308-C3	18	VRE308-F



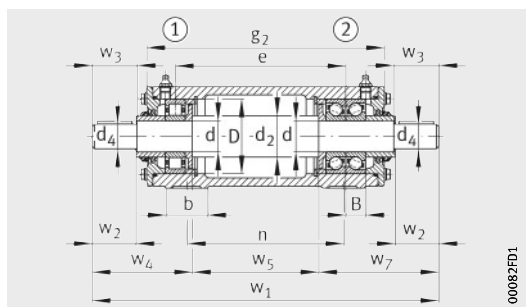
Plummer block housing units

VRE3, unsplit
With bearings and shaft

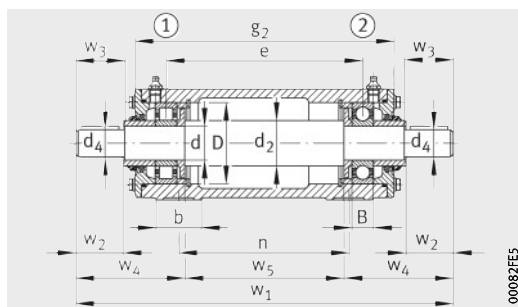


Cross-sections of
designs A, B, page 283,
designs E, F, page 287

Dimension table (continued) · Dimensions in mm																
Shaft										Housing						
Dimensions										Designation	Dimensions					
d	d ₂	d ₄	w ₁	w ₂	w ₃	w ₄	w ₅	w ₇	h		h ₁	g ₂	b	c	a	m
45	55	38	527	–	80	145,5	236	–	VRW309-A	70	135	343	52	22	210	170
45	55	38	527	–	80	145,5	236	–	VRW309-A	70	135	343	52	22	210	170
45	55	38	527	80	82	145	212	170	VRW309-C	70	135	343	52	22	210	170
45	55	38	527	80	82	145	237	–	VRW309-D	70	135	343	52	22	210	170
45	55	38	527	80	82	145	212	170	VRW309-C	70	135	343	52	22	210	170
45	55	38	527	–	80	146,5	235	145,5	VRW309-F	70	135	343	52	22	210	170
50	60	42	625	–	110	179,5	266	–	VRW310-A	70	138	381	60	25	210	170
50	60	42	625	–	110	179,5	266	–	VRW310-A	70	138	381	60	25	210	170
50	60	42	625	110	112	179	240	206	VRW310-C	70	138	381	60	25	210	170
50	60	42	625	110	112	179	267	–	VRW310-D	70	138	381	60	25	210	170
50	60	42	625	110	112	179	240	206	VRW310-C	70	138	381	60	25	210	170
50	60	42	625	–	110	180,5	265	179,5	VRW310-F	70	138	381	60	25	210	170
55	65	48	651	–	110	181,5	288	–	VRW311-A	80	158	407	60	25	260	210
55	65	48	651	–	110	181,5	288	–	VRW311-A	80	158	407	60	25	260	210
55	65	48	651	110	112	181	260	210	VRW311-C	80	158	407	60	25	260	210
55	65	48	651	110	112	181	289	–	VRW311-D	80	158	407	60	25	260	210
55	65	48	651	110	112	181	260	210	VRW311-C	80	158	407	60	25	260	210
55	65	48	651	–	110	182,5	287	181,5	VRW311-F	80	158	407	60	25	260	210
60	70	48	701	–	110	183,5	334	–	VRW312-A	80	162	457	70	25	260	210
60	70	48	701	–	110	183,5	334	–	VRW312-A	80	162	457	70	25	260	210
60	70	48	706	110	112	185,5	304	216,5	VRW312-C	80	162	457	70	25	260	210
60	70	48	706	110	112	185,5	335	–	VRW312-D	80	162	457	70	25	260	210
60	70	48	706	110	112	185,5	304	216,5	VRW312-C	80	162	457	70	25	260	210
60	70	48	701	–	110	184,5	333	183,5	VRW312-F	80	162	457	70	25	260	210



VRE3..-C



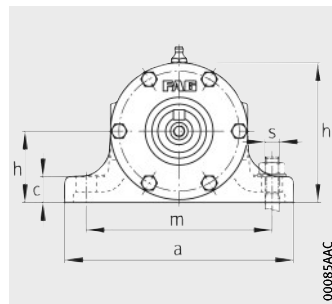
VRE3..-D

							Bearing		Plummer block housing unit	
					Mass m ≈ kg	Designation	Designation		Mass m ≈ kg	Designation Unit
n	s	D	B	e			Bearing position ①	Bearing position ②		
250	M12	100	25	281	14,9	VR309-A	6309-C3	6309-C3	24,3	VRE309-A
250	M12	100	25	282	14,9	VR309-A	NJ309-E-TVP2	6309-C3	24,4	VRE309-B
250	M12	100	25	269,5	15,3	VR309-C	NU309-E-TVP2-C3	2X7309-B-TVP-UA	25,3	VRE309-C
250	M12	100	25	282	15,3	VR309-D	NU309-E-TVP2-C3	6309-C3	24,8	VRE309-D
250	M12	100	25	257	15,3	VR309-E	NU309-E-TVP2-C3	NU309-E-TVP2-C3 + 6309-C3	25,3	VRE309-E
250	M12	100	25	280	14,9	VR309-F	6309-C3	6309-C3	24,2	VRE309-F
275	M12	110	27	313	17,3	VR310-A	6310-C3	6310-C3	30,3	VRE310-A
275	M12	110	27	314	17,3	VR310-A	NJ310-E-TVP2	6310-C3	30,3	VRE310-B
275	M12	110	27	300,5	17,9	VR310-C	NU310-E-TVP2-C3	2X7310-B-TVP-UA	31,7	VRE310-C
275	M12	110	27	314	17,9	VR310-D	NU310E-TVP2-C3	6310-C3	30,9	VRE310-D
275	M12	110	27	287	17,9	VR310-E	NU310-E-TVP2-C3	NU310-E-TVP2-C3 + 6310-C3	31,8	VRE310-E
275	M12	110	27	312	17,3	VR310-F	6310-C3	6310-C3	30,3	VRE310-F
300	M16	120	29	337	22	VR311-A	6311-C3	6311-C3	38,6	VRE311-A
300	M16	120	29	338	22	VR311-A	NJ311-E-TVP2	6311-C3	38,7	VRE311-B
300	M16	120	29	323,5	22,5	VR311-C	NU311-E-TVP2-C3	2X7311-B-TVP-UA	40,2	VRE311-C
300	M16	120	29	338	22,5	VR311-D	NU311-E-TVP2-C3	6311-C3	39,2	VRE311-D
300	M16	120	29	309	22,5	VR311-E	NU311-E-TVP2-C3	NU311-E-TVP2-C3 + 6311-C3	40,2	VRE311-E
300	M16	120	29	336	22	VR311-F	6311-C3	6311-C3	38,6	VRE311-F
340	M16	130	31	385	30,7	VR312-A	6312-C3	6312-C3	51,2	VRE312-A
340	M16	130	31	386	30,7	VR312-A	NJ312-E-TVP2	6312-C3	51,4	VRE312-B
340	M16	130	31	370,5	31,7	VR312-C	NU312-E-TVP2-C3	2X7312-B-TVP-UA	53,8	VRE312-C
340	M16	130	31	386	31,7	VR312-D	NU312-E-TVP2-C3	6312-C3	52,4	VRE312-D
340	M16	130	31	355	31,7	VR312-E	NU312-E-TVP2-C3	NU312-E-TVP2-C3 + 6312-C3	53,7	VRE312-E
340	M16	130	31	384	30,7	VR312-F	6312-C3	6312-C3	51,1	VRE312-F



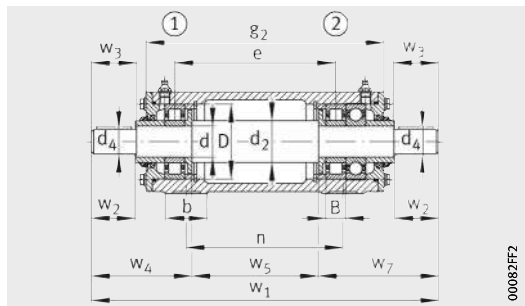
Plummer block housing units

VRE3, unsplit
With bearings and shaft

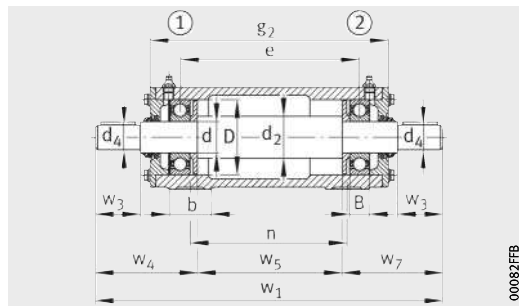


Cross-sections of
designs A, B, page 283,
designs C, D, page 285

Dimension table (continued) · Dimensions in mm																
Shaft										Housing						
Dimensions									Designation	Dimensions						
d	d ₂	d ₄	w ₁	w ₂	w ₃	w ₄	w ₅	w ₇		h	h ₁	g ₂	b	c	a	m
65	75	55	724	–	110	187,5	349	–	VRW313-A	95	183	480	70	25	290	230
65	75	55	724	–	110	187,5	349	–	VRW313-A	95	183	480	70	25	290	230
65	75	55	729	110	112	189,5	317	222,5	VRW313-C	95	183	480	70	25	290	230
65	75	55	729	110	112	189,5	350	–	VRW313-D	95	183	480	70	25	290	230
65	75	55	729	110	112	189,5	317	222,5	VRW313-C	95	183	480	70	25	290	230
65	75	55	724	–	110	189	347,5	187,5	VRW313-F	95	183	480	70	25	290	230
70	80	60	811	–	140	223	365	–	VRW314-A	95	188	500	70	25	290	230
70	80	60	811	–	140	223	365	–	VRW314-A	95	188	500	70	25	290	230
70	80	60	811	140	143	222,5	331	257,5	VRW314-C	95	188	500	70	25	290	230
70	80	60	811	140	143	222,5	366	–	VRW314-D	95	188	500	70	25	290	230
70	80	60	811	140	143	222,5	331	257,5	VRW314-C	95	188	500	70	25	290	230
70	80	60	811	–	140	224,5	363,5	223	VRW314-F	95	188	500	70	25	290	230
75	90	65	841	–	140	226	389	–	VRW315-A	100	198	530	80	30	320	260
75	90	65	841	–	140	226	389	–	VRW315-A	100	198	530	80	30	320	260
75	90	65	841	140	143	225,5	353	262,5	VRW315-C	100	198	530	80	30	320	260
75	90	65	841	140	143	225,5	390	–	VRW315-D	100	198	530	80	30	320	260
75	90	65	841	140	143	225,5	353	262,5	VRW315-C	100	198	530	80	30	320	260
75	90	65	841	–	140	227,5	387,5	226	VRW315-F	100	198	530	80	30	320	260
80	95	70	861	–	140	228	405	–	VRW316-A	112	217	550	80	30	320	260
80	95	70	861	–	140	228	405	–	VRW316-A	112	217	550	80	30	320	260
80	95	70	861	140	143	227,5	367	266,5	VRW316-C	112	217	550	80	30	320	260
80	95	70	861	140	143	227,5	406	–	VRW316-D	112	217	550	80	30	320	260
80	95	70	861	140	143	227,5	367	266,5	VRW316-C	112	217	550	80	30	320	260
80	95	70	861	–	140	229,5	403,5	228	VRW316-F	112	217	550	80	30	320	260
85	100	75	881	–	140	230	421	–	VRW317-A	112	222	570	80	30	350	290
85	100	75	881	–	140	230	421	–	VRW317-A	112	222	570	80	30	350	290
85	100	75	881	140	143	229,5	381	270,5	VRW317-C	112	222	570	80	30	350	290
85	100	75	881	140	143	229,5	422	–	VRW317-D	112	222	570	80	30	350	290
85	100	75	881	140	143	229,5	381	270,5	VRW317-C	112	222	570	80	30	350	290



VRE3..-E



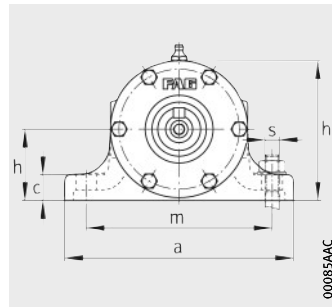
VRE3..-F

							Bearing		Plummer block housing unit	
					Mass	Designation	Designation		Mass	Designation
n	s	D	B	e	m ≈ kg		Bearing position ①	Bearing position ②		
360	M16	140	33	404	32,8	VR313-A	6313-C3	6313-C3	58	VRE313-A
360	M16	140	33	405	32,8	VR313-A	NJ313-E-TVP2	6313-C3	58,2	VRE313-B
360	M16	140	33	388,5	33,8	VR313-C	NU313-E-TVP2-C3	2X7313-B-TVP-UA	60,8	VRE313-C
360	M16	140	33	405	33,8	VR313-D	NU313-E-TVP2-C3	6313-C3	59,3	VRE313-D
360	M16	140	33	372	33,8	VR313-E	NU313-E-TVP2-C3	NU313-E-TVP2-C3 + 6313-C3	60,8	VRE313-E
360	M16	140	33	402,5	32,8	VR313-F	6313-C3	6313-C3	58	VRE313-F
380	M16	150	35	422	35	VR314-A	6314-C3	6314-C3	66,9	VRE314-A
380	M16	150	35	423	35	VR314-A	NJ314-E-TVP2	6314-C3	67,1	VRE314-B
380	M16	150	35	405,5	36	VR314-C	NU314-E-TVP2-C3	2X7314-B-TVP-UA	70,4	VRE314-C
380	M16	150	35	423	36	VR314-D	NU314-E-TVP2-C3	6314-C3	68	VRE314-D
380	M16	150	35	388	36	VR314-E	NU314-E-TVP2-C3	NU314-E-TVP2-C3 + 6314-C3	70,6	VRE314-E
380	M16	150	35	420,5	35	VR314-F	6314-C3	6314-C3	66,8	VRE314-F
400	M16	160	37	450	44,8	VR315-A	6315-C3	6315-C3	84,8	VRE315-A
400	M16	160	37	451	44,8	VR315-A	NJ315-E-TVP2	6315-C3	85	VRE315-B
400	M16	160	37	432,5	46,4	VR315-C	NU315-E-TVP2-C3	2X7315-B-TVP-UA	89,3	VRE315-C
400	M16	160	37	451	46,4	VR315-D	NU315-E-TVP2-C3	6315-C3	86,4	VRE315-D
400	M16	160	37	414	46,4	VR315-E	NU315-E-TVP2-C3	NU315-E-TVP2-C3 + 6315-C3	89,4	VRE315-E
400	M16	160	37	448,5	44,8	VR315-F	6315-C3	6315-C3	84,8	VRE315-F
420	M16	170	39	468	44	VR316-A	6316-C3	6316-C3	90,8	VRE316-A
420	M16	170	39	469	44	VR316-A	NJ316-E-TVP2	6316-C3	91	VRE316-B
420	M16	170	39	449,5	45	VR316-C	NU316-E-TVP2-C3	2X7316-B-TVP-UA	96,2	VRE316-C
420	M16	170	39	469	45	VR316-D	NU316-E-TVP2-C3	6316-C3	91,9	VRE316-D
420	M16	170	39	430	45	VR316-E	NU316-E-TVP2-C3	NU316-E-TVP2-C3 + 6316-C3	95,3	VRE316-E
420	M16	170	39	466,5	44	VR316-F	6316-C3	6316-C3	90,8	VRE316-F
440	M16	180	41	486	59,2	VR317-A	6317-C3	6317-C3	114	VRE317-A
440	M16	180	41	487	59,2	VR317-A	NJ317-E-TVP2	6317-C3	115	VRE317-B
440	M16	180	41	466,5	60	VR317-C	NU317-E-TVP2-C3	2X7317-B-TVP-UA	120	VRE317-C
440	M16	180	41	487	60	VR317-D	NU317-E-TVP2-C3	6317-C3	115	VRE317-D
440	M16	180	41	446	60	VR317-E	NU317-E-TVP2-C3	NU317-E-TVP2-C3 + 6317-C3	120	VRE317-E



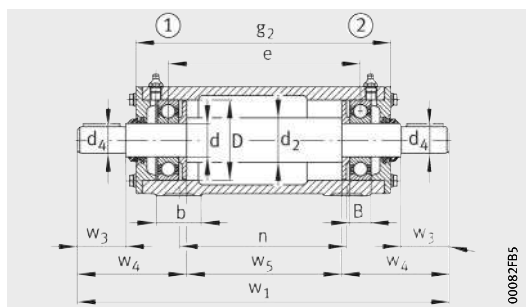
Plummer block housing units

VRE3, unsplit
With bearings and shaft

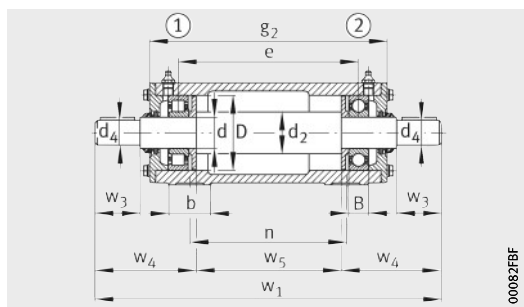


Cross-sections of
designs C, D, page 285,
design E, page 287

Dimension table (continued) · Dimensions in mm																
Shaft										Housing						
Dimensions									Designation	Dimensions						
d	d ₂	d ₄	w ₁	w ₂	w ₃	w ₄	w ₅	w ₇		h	h ₁	g ₂	b	c	a	m
90	105	80	971	–	170	263	445	–	VRW318-A	112	227	600	85	30	350	290
90	105	80	971	–	170	263	445	–	VRW318-A	112	227	600	85	30	350	290
90	105	80	975	170	173	264,5	403	307,5	VRW318-C	112	227	600	85	30	350	290
90	105	80	975	170	173	264,5	446	–	VRW318-D	112	227	600	85	30	350	290
90	105	80	975	170	173	264,5	403	307,5	VRW318-C	112	227	600	85	30	350	290
95	110	85	1004	–	170	267,5	469	–	VRW319-A	125	248	633	90	35	400	320
95	110	85	1004	–	170	267,5	469	–	VRW319-A	125	248	633	90	35	400	320
95	110	85	1008	170	173	269	425	314	VRW319-C	125	248	633	90	35	400	320
95	110	85	1008	170	173	269	470	–	VRW319-D	125	248	633	90	35	400	320
95	110	85	1008	170	173	269	425	314	VRW319-C	125	248	633	90	35	400	320
100	120	90	1036	–	170	268	500	–	VRW320-A	130	260	665	95	40	400	320
100	120	90	1036	–	170	268	500	–	VRW320-A	130	260	665	95	40	400	320
100	120	90	1040	170	173	269,5	454	316,5	VRW320-C	130	260	665	95	40	400	320
100	120	90	1040	170	173	269,5	501	–	VRW320-D	130	260	665	95	40	400	320
100	120	90	1040	170	173	269,5	454	316,5	VRW320-C	130	260	665	95	40	400	320
110	130	100	1133	–	210	313	507	–	VRW322-A	150	295	678	95	40	450	380
110	130	100	1133	–	210	313	507	–	VRW322-A	150	295	678	95	40	450	380
110	130	100	1133	210	213	312,5	458	362,5	VRW322-C	150	295	678	95	40	450	380
110	130	100	1133	210	213	312,5	508	–	VRW322-D	150	295	678	95	40	450	380
110	130	100	1133	210	213	312,5	458	362,5	VRW322-C	150	295	678	95	40	450	380
120	140	110	1160	–	210	318	524	–	VRW324-A	160	320	705	100	40	500	410
120	140	110	1160	–	210	318	524	–	VRW324-A	160	320	705	100	40	500	410
120	140	110	1160	210	213	317,5	470	372,5	VRW324-C	160	320	705	100	40	500	410
120	140	110	1160	210	213	317,5	525	–	VRW324-D	160	320	705	100	40	500	410
120	140	110	1160	210	213	317,5	470	372,5	VRW324-C	160	320	705	100	40	500	410



VRE3..-A



VRE3..-B

							Bearing		Plummer block housing unit	
					Mass	Designation	Designation		Mass	Designation
n	s	D	B	e	m ≈ kg		Bearing position ①	Bearing position ②	m ≈ kg	Unit
460	M16	190	43	510	62	VR318-A	6318-C3	6318-C3	128	VRE318-A
460	M16	190	43	511	62	VR318-A	NJ318-E-TVP2	6318-C3	128	VRE318-B
460	M16	190	43	489,5	63	VR318-C	NU318-E-TVP2-C3	2X7318-B-TVP-UA	134	VRE318-C
460	M16	190	43	511	63	VR318-D	NU318-E-TVP2-C3	6318-C3	129	VRE318-D
460	M16	190	43	468	63	VR318-E	NU318-E-TVP2-C3	NU318-E-TVP2-C3 + 6318-C3	134	VRE318-E
480	M20	200	45	540	84	VR319-A	6319-C3	6319-C3	156	VRE319-A
480	M20	200	45	541	84	VR319-A	NJ319-E-TVP2	6319-C3	157	VRE319-B
480	M20	200	45	518,5	86	VR319-C	NU319-E-TVP2-C3	2X7319-B-TVP-UA	164	VRE319-C
480	M20	200	45	541	86	VR319-D	NU319-E-TVP2-C3	6319-C3	158	VRE319-D
480	M20	200	45	496	86	VR319-E	NU319-E-TVP2-C3	NU319-E-TVP2-C3 + 6319-C3	164	VRE319-E
500	M20	215	47	570	90	VR320-A	6320-C3	6320-C3	177	VRE320-A
500	M20	215	47	571	90	VR320-A	NJ320-E-TVP2	6320-C3	177	VRE320-B
500	M20	215	47	547,5	92	VR320-C	NU320-E-TVP2-C3	2X7320-B-TVP-UA	186	VRE320-C
500	M20	215	47	571	92	VR320-D	NU320-E-TVP2-C3	6320-C3	179	VRE320-D
500	M20	215	47	524	92	VR320-E	NU320-E-TVP2-C3	NU320-E-TVP2-C3 + 6320-C3	186	VRE320-E
520	M24	240	50	580	130	VR322-A	6322-C3	6322-C3	226	VRE322-A
520	M24	240	50	581	130	VR322-A	NJ322-E-TVP2	6322-C3	226	VRE322-B
520	M24	240	50	556	132	VR322-C	NU322-E-TVP2-C3	2X7322-B-TVP-UA	238	VRE322-C
520	M24	240	50	581	132	VR322-D	NU322-E-TVP2-C3	6322-C3	228	VRE322-D
520	M24	240	50	531	132	VR322-E	NU322-E-TVP2-C3	NU322-E-TVP2-C3 + 6322-C3	238	VRE322-E
540	M24	260	55	602	170	VR324-A	6324-C3	6324-C3	276	VRE324-A
540	M24	260	55	603	170	VR324-A	NJ324-E-TVP2	6324-C3	277	VRE324-B
540	M24	260	55	575,5	172	VR324-C	NU324-E-TVP2-C3	2X7324-B-TVP-UA	294	VRE324-C
540	M24	260	55	603	172	VR324-D	NU324-E-TVP2-C3	6324-C3	278	VRE324-D
540	M24	260	55	548	172	VR324-E	NU324-E-TVP2-C3	NU324-E-TVP2-C3 + 6324-C3	291	VRE324-E

