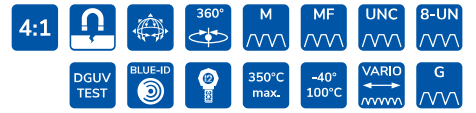


# VRS-STARPOINT

VARIO-Ring bolt.



VRS-F (with wrench)

VRS (without wrench)

## PRODUCT FEATURES

- Large WLL range 0.1 t–20 t.
- Non-detachable ICE-Bolt made of patent steel (M6–M24), thus reducing the risk of using unsuitable standard bolts. Special bolt for safe deep temperature usage with higher toughness and thus higher bending strength as well as less wear.
- The WLL information corresponds with the min. WLL (worst case scenario) in all loading directions. Higher WLL by optimised attachment or application.
- Variable bolt lengths available for use in threaded and through holes.
- Comprehensive range of threads.

<p>RUD ICE-Bolt. Up to M24.</p> 	<p>Rotatable through 360°.</p> <p>Simple adjustment in load direction.</p> 	<p>Variable bolt length.</p> 
<p>WLL Y</p> 	<p>WLL Z</p> 	<p>Star profile key –</p> <p>metric      UNC inch thread</p> 



✓ Tested and certified by DGVU.  
 Test criteria: GS-OA-15-04: 2015-12  
 Certificate no.: OA 1951039

- Rotatable through 360°.
- Much higher WLL than eye bolts in accordance with DIN 580.
- Star profile key for simple installation and removal.

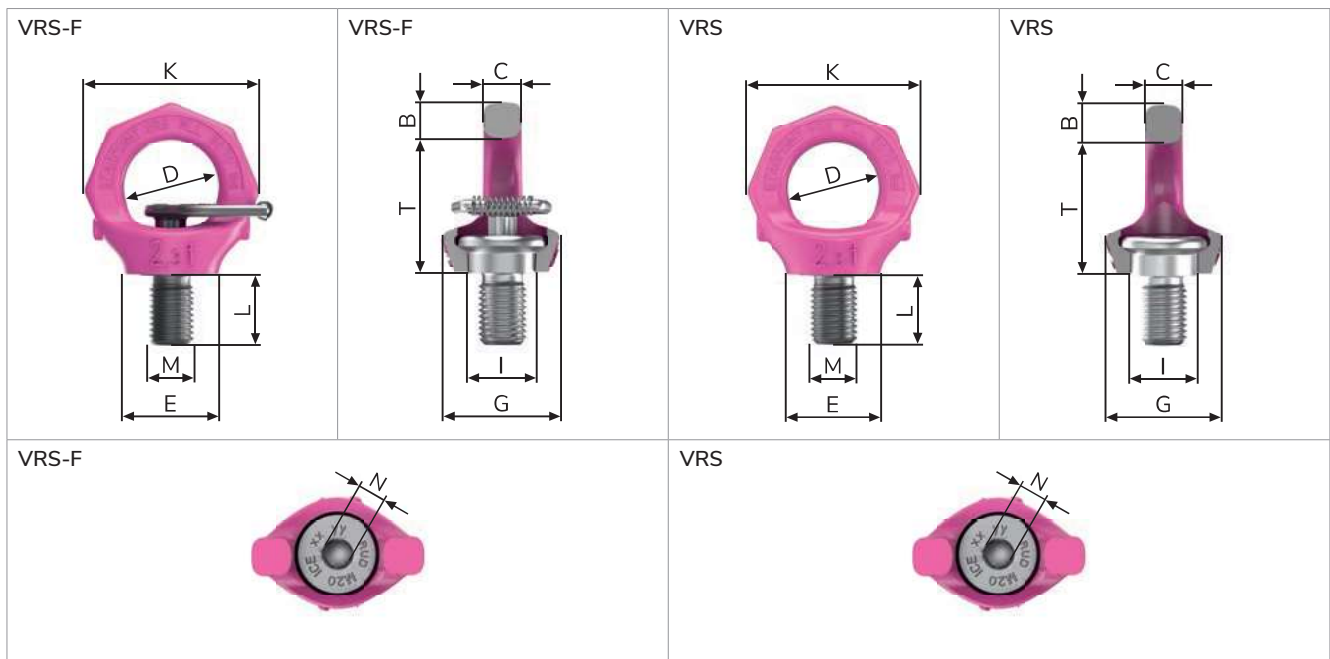
# VRS-F / VRS

Metric thread with and without key.

VRS-F / VRS STARPOINT – METRIC WITH (VRS-) AND WITHOUT KEY.

Type	WLL [t]	Weight VRS-F (kg/unit)	Weight VRS (kg/unit)	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	I [mm]	K [mm]	L [mm]	M	N [mm]	Tightening torque [Nm]	Ref. No. VRS-F	Ref. No. VRS
VRS-F-M6 / VRS-M6	0.1	0.07	0.07	28	9	7	20	23	28	13	37	9	M6	6	5	7900906	7900909
VRS-F-M8 / VRS-M8	0.3	0.12	0.1	35	11	9	25	25	30	16.3	47	12	M8	6	10	8500911	7100554
VRS-F-M10 / VRS-M10	0.4	0.12	0.1	35	11	9	25	25	30	16.3	47	15	M10	6	10	7104029	7100555
VRS-F-M12 / VRS-M12	0.75	0.19	0.19	42	13	10	30	30	34	19.8	56	18	M12	8	25	7101313	7100556
VRS-F-M14 / VRS-M14	0.75	0.22	0.2	42	13	10	30	30	34	19.8	56	18	M14	8	30	7999330	7100557
VRS-F-M16 / VRS-M16	1.5	0.36	0.33	49	15	13	35	36	40	23.5	65	24	M16	10	60	7101314	7100558
VRS-F-M18 / VRS-M18	1.5	0.37	0.33	49	15	13	35	36	40	23.5	65	24	M18	10	60	7903387	7992219
VRS-F-M20 / VRS-M20	2.3	0.6	0.54	58	17	16	40	41	50	29.3	76	30	M20	12	115	7101315	7100559
VRS-F-M22 / VRS-M22	2.3	0.62	0.56	58	17	16	40	41	50	29.3	76	30	M22	12	125	7992197	7904625
VRS-F-M24 / VRS-M24	3.2	1.06	0.97	70	20	19	49	51	60	35	92	36	M24	14	190	7101316	7100560
VRS-M24-SL2M	3.2	-	1	70	20	19	49	51	60	35	92	48	M24	14	190	-	7990615
VRS-F-M27 / VRS-M27	3.2	1.08	1	70	20	19	49	51	60	35	92	36	M27	14	250	7994138	7904626
VRS-F-M30 / VRS-M30	4.5	2.08	1.92	87	26	24	60	66	75	44	114	45	M30	17	330	7101317	7100561
VRS-F-M33 / VRS-M33	4.5	2.13	1.97	87	26	24	60	66	75	44	114	45	M33	17	350	7993439	7904627
VRS-F-M36 / VRS-M36	7	3.5	3.3	104	32	29	73	76	98	53	135	54	M36	22	590	7984201	7984198
VRS-F-M36-SL2M	7	-	3.3	103	32	29	73	76	98	53	135	72	M36	22	590	-	7991247
VRS-F-M42 / VRS-M42	9	5.4	5	122	36	34	85	86	109	62	157	63	M42	24	925	7984202	7984199
VRS-F-M48 / VRS-M48	12	8.1	7.6	138	42	38	94	101	128	70	179	72	M48	27	1.400	7984203	7984200
VRS-F-M56 / VRS-M56"	16	13	11.9	161	50	44	110	112	145	82	209	84	M56	32	1.400	7910836	7907508
VRS-F-M64 / VRS-M64"	20	17.8	16.2	176	55	48	120	122	157	90	228	96	M64	36	1.400	7910837	7907509

Subject to technical changes!



# VRS-F / VRS-G

Metric fine thread /  
metric with variable length / pipe thread.

## VRS-F STARPOINT – METRIC FINE THREAD.

Type	WLL [t]	Weight (kg/unit)	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	I [mm]	K [mm]	L [mm]	M	N [mm]	Tightening torque [Nm]	Ref. No. VRS-F
VRS-F-M8 x 1	0.3	0.12	35	11	9	25	25	30	16.3	47	12	M8 x 1	6	10	7904332
VRS-F-M12 x 1.5	0.75	0.21	42	13	10	30	30	34	19.8	56	18	M12 x 1.5	8	25	7992929
VRS-F-M16 x 1.5	1.5	0.36	49	15	13	35	36	40	23.5	65	24	M16 x 1.5	10	60	7902676
VRS-F-M20 x 2	2.3	0.6	58	17	16	40	41	50	29.3	76	30	M20 x 2	12	115	7992634
VRS-F-M24 x 2	3.2	1.06	70	20	19	49	51	60	35	92	36	M24 x 2	14	190	7992566
VRS-F-M30 x 2	4.5	2.08	87	26	24	60	66	75	44	114	45	M30 x 2	17	330	7991856
VRS-M36 x 3	7	3.3	104	32	29	73	76	98	53	135	54	M36 x 3	22	590	7992728

Subject to technical changes!

## VRS-F STARPOINT – METRIC WITH VARIABLE LENGTH.

Type	WLL [t]	Weight (kg/unit)	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	I [mm]	K [mm]	L vario [mm]	M	N [mm]	Tightening torque [Nm]	Ref. No. VRS-F
VRS-F-M10	0.4	<sup>1</sup>	35	11	9	25	25	30	16.3	47	16-70	M10	6	10	8600270
VRS-F-M12	0.75	<sup>1</sup>	42	13	10	30	30	34	19.8	56	19-150	M12	8	25	8600271
VRS-F-M16	1.5	<sup>1</sup>	49	15	13	35	36	40	23.5	65	25-120	M16	10	60	8600272
VRS-F-M20	2.3	<sup>1</sup>	58	17	16	40	41	50	29.3	76	31-160	M20	12	115	8600273
VRS-F-M24	3.2	<sup>1</sup>	70	20	19	49	51	60	35	92	37-140	M24	14	190	8600274
VRS-F-M30	4.5	<sup>1</sup>	87	26	24	60	66	75	44	114	46-190	M30	17	330	8600275

<sup>1</sup> Weight depends on the design.

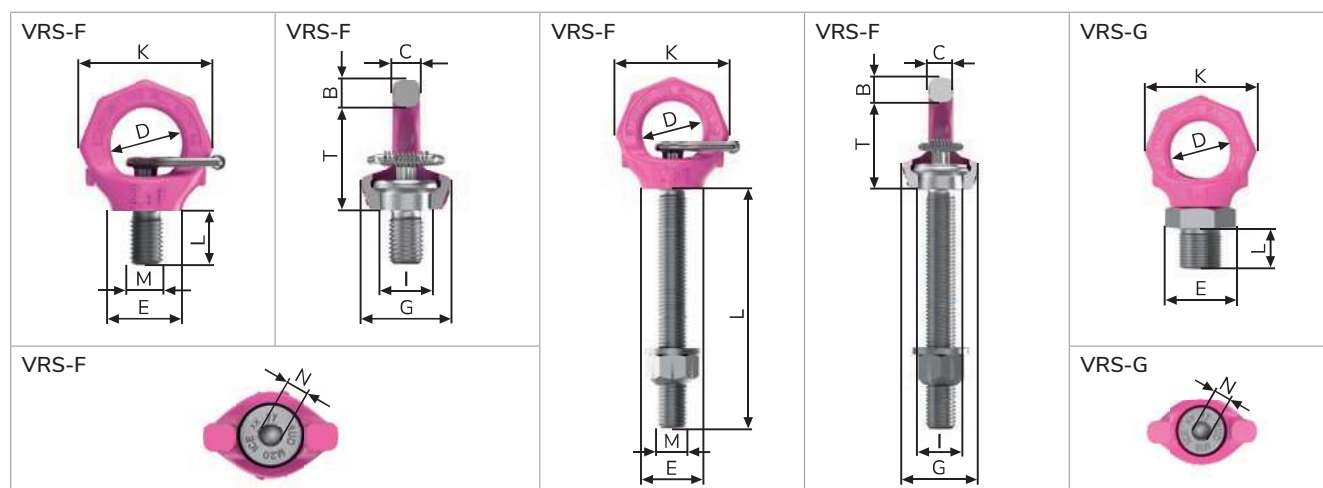
Subject to technical changes!

## VRS-G STARPOINT – PIPE THREAD ISO 228-1.

Type	WLL [t]	Weight (kg/unit)	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	I [mm]	K [mm]	L [mm]	M	N [mm]	Tightening torque [Nm]	Ref. No. VRS-G
VRS-G 1/4"	0.75	0.2	42	13	10	30	30	-	19.8	56	18	G 1/4"	8	25	7999269
VRS-G 1/2"	0.75	0.3	52	13	10	30	35	30	-	56	20	G 1/2"	8	25	7998682
VRS-G 3/4"	1.5	0.53	61	15	13	35	42	36	-	65	23	G 3/4"	10	60	7998880
VRS-G 1"	1.5	0.6	61	15	13	35	47	41	-	65	32	G 1"	10	60	7999163
VRS-G 1-1/4"	1.5	1	64	15	13	35	58	50	-	65	40	G 1-1/4"	10	60	7903732
VRS-G 2"	1.5	1.5	64	15	13	35	81	70	-	65	45	G 2"	10	100	7999164
VRS-G 2"	2.3	1.9	73	17	16	40	81	70	-	76	45	G 2"	12	115	7900433

Identical to VRS metric.

Subject to technical changes!



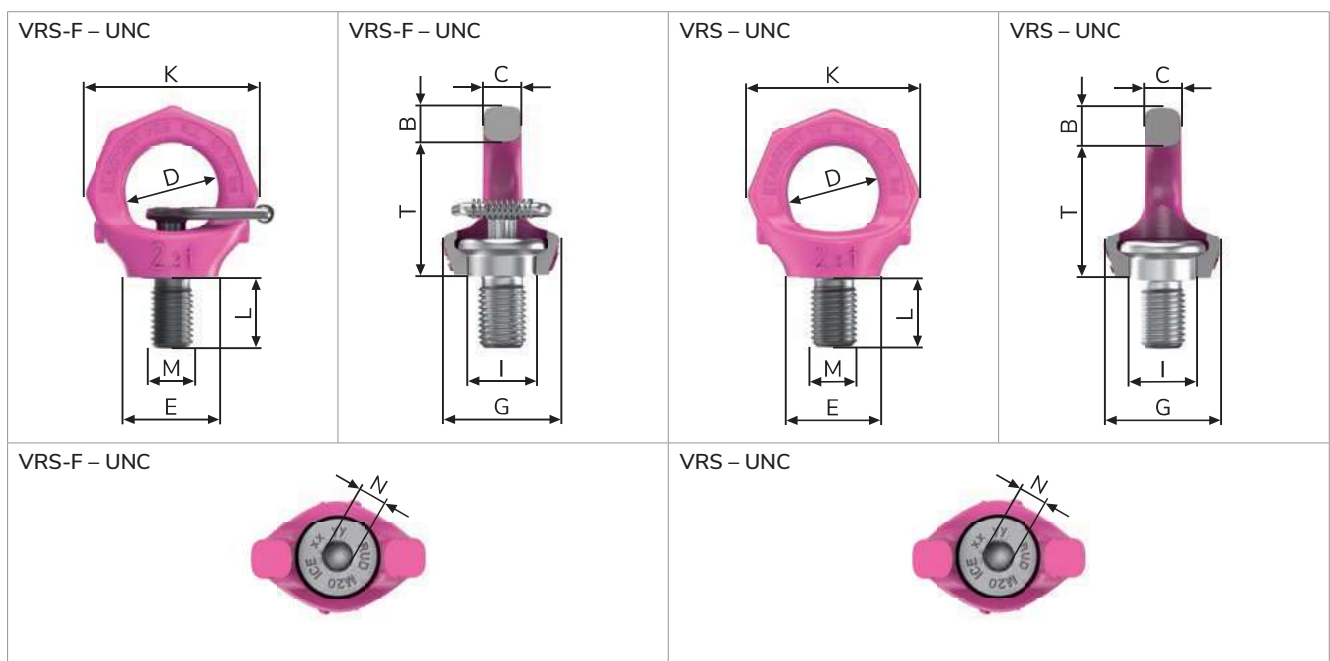
# VRS-F / VRS

UNC inch thread with and without key.

VRS-F / VRS STARPOINT – UNC INCH THREAD WITH (VRS-F) AND WITHOUT (VRS) KEY.

Type	WLL [t]	Weight VRS-F (kg/unit)	Weight VRS (kg/unit)	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	I [mm]	K [mm]	L [mm]	M	N [mm]	Tightening torque [Nm]	Ref. No. VRS-F	Ref. No. VRS
VRS-1/4"-20UNC	0.1	-	0.24	28	9	7	20	23	28	13	37	9	1/4"-20UNC	1/4"	5	-	7999105
VRS-F 5/16"-18UNC	0.3	0.13	-	35	11	9	25	25	30	16.3	47	12	5/16"-18UNC	1/4"	10	7999106	-
VRS-F / VRS 3/8"-16UNC	0.4	0.12	0.11	35	11	9	25	25	30	16.3	47	19	3/8"-16UNC	1/4"	10	7104480	7103959
VRS-F - / VRS-7/16"-14UNC	0.4	0.12	0.1	35	11	9	25	25	30	16.3	47	19	7/16"-14UNC	1/4"	10	7904195	7903118
VRS-F - / VRS-1/2"-13UNC	0.75	0.22	0.2	42	13	10	30	30	34	19.8	56	19	1/2"-13UNC	5/16"	25	7104481	7103960
VRS-F - / VRS-5/8"-11UNC	1.5	0.35	0.54	49	15	13	35	36	40	23.5	65	24	5/8"-11UNC	3/8"	60	7104482	7103961
VRS-F - / VRS-3/4"-10UNC	1.5	0.58	0.35	58	17	16	40	41	50	29.5	76	30	3/4"-10UNC	1/2"	115	7104483	7103962
VRS-F - / VRS-7/8"-9UNC	2.3	0.61	0.7	58	17	16	40	41	50	29.5	76	33	7/8"-9UNC	1/2"	115	7104484	7103963
VRS-F - / VRS-1"-8UNC	3.2	1.04	0.97	70	20	19	49	51	60	35	92	38	1"-8UNC	9/16"	190	7104485	7103964
VRS-F - / VRS-1 1/8"-8UN	3.2	1.08	1	70	20	19	49	51	60	35	92	36	1 1/8"-8UN	9/16"	250	7903386	7999385
VRS-F - / VRS-1 1/8"-7UNC	3.2	1.08	1	70	20	19	49	51	60	35	92	36	1 1/8"-7UNC	9/16"	250	7903383	7999384
VRS-F - / VRS-1 1/4"-7UNC	4.5	2.08	1.95	87	26	24	60	66	75	44	114	48	1 1/4"-7UNC	3/4"	330	7104486	7103965
VRS-F - / VRS-1 1/2"-6UNC	7	3.6	2.9	104	32	29	73	76	98	53	135	54	1 1/2"-6UNC	7/8"	590	7104487	7103966
VRS-F - / VRS-1 3/4"-5UNC	9	4.95	4.6	122	36	34	85	86	109	62	158	63	1 3/4"-5UNC	1"	925	7104488	7103967
VRS-F-2"-4.5UNC	12	7.6	7	138	42	38	96	101	128	70	180	72	2"-4.5UNC	1 1/8"	1.400	7104469	7103968

Subject to technical changes!



# VRS

## Star profile key / socket key.

### VRS-STAR PROFILE KEY – METRIC.

Type	Weight (kg/unit)	A [mm]	B [mm]	D [mm]	N [mm]	M	Ref. No.
Star profile key, width across flats 6	0.02	-	-	-	6	M6 + M8 + M10	7983986
Star profile key, width across flats 8	0.02	-	-	-	8	M12 + M14	7905453
Star profile key, width across flats 10	0.03	-	-	-	10	M16 + M18	7903254
Star profile key, width across flats 12	0.04	-	-	-	12	M20 + M22	7904282
Star profile key, width across flats 14	0.08	-	-	-	14	M24 + M27	7904283
Star profile key, width across flats 17	0.12	-	-	-	17	M30 + M33	7904284
Star profile key, width across flats 22	0.15	-	-	-	22	M36	7904285
Star profile key, width across flats 24	0.3	-	-	-	24	M42	7904286
Star profile key, width across flats 27	0.4	-	-	-	27	M48	7904287
Star profile key, width across flats 32	1.1	-	-	-	32	M56	7911045
Star profile key, width across flats 36	1.3	-	-	-	36	M64	7911046

Subject to technical changes!

### VRS-STAR PROFILE KEY – UNC INCH THREAD.

Type	Weight (kg/unit)	A [mm]	B [mm]	D [mm]	N ["]	M	Ref. No.
Star profile key, width across flats 1/4"	0.02	-	-	-	1/4	5/16"-18UNC + 3/8"-16UNC + 7/16"-14UNC	7983995
Star profile key, width across flats 5/16"	0.02	-	-	-	5/16	1/2"-13UNC	7983996
Star profile key, width across flats 3/8"	0.03	-	-	-	3/8	5/8"-11UNC	7983997
Star profile key, width across flats 1/2"	0.04	-	-	-	1/2	3/4"-10UNC + 7/8"-9UNC	7983998
Star profile key, width across flats 9/16"	0.08	-	-	-	9/16	1"-8UNC + 1 1/8"-8UNC + 1 1/8"-7UNC	7983999
Star profile key, width across flats 5/8"	0.12	-	-	-	5/8	1 1/4"-7UNC	7984000
Star profile key, width across flats 7/8"	0.15	-	-	-	7/8	1 1/2"-6UNC	7984001
Star profile key, width across flats 1"	0.3	-	-	-	1	1 3/4"-5UNC	7984002
Star profile key, width across flats 1 1/8"	0.4	-	-	-	1 1/8	2"-4.5UNC	7984003

Subject to technical changes!

### VRS SOCKET KEY.

Type	Weight (kg/unit)	A [mm]	B [mm]	D	N [mm]	M	Ref. No.
Socket key, width across flats 6	0.09	118	7.5	1/2"	6	M6 + M8 + M10	7997749
Socket key, width across flats 8	0.11	118	9	1/2"	8	M12 + M14	7997750
Socket key, width across flats 10	0.15	138	12	1/2"	10	M16 + M18	7997751
Socket key, width across flats 12	0.2	137	14	1/2"	12	M20 + M22	7997752
Socket key, width across flats 14	0.24	140	16.5	1/2"	14	M24 + M27	7997753
Socket key, width across flats 17	0.47	152	22	3/4"	17	M30 + M33	7902078
Socket key, width across flats 22	1	192	26	1"	22	M36	7902079
Socket key, width across flats 24	1.2	276	29	1"	24	M42	7902080
Socket key, width across flats 27	2	304	33	1"	27	M48	7902081
Socket key, width across flats 32	2.4	324	38	32 mm	16	M56	7908744
Socket key, width across flats 36	3.1	324	43	36 mm	20	M64	7907745

Subject to technical changes!

