

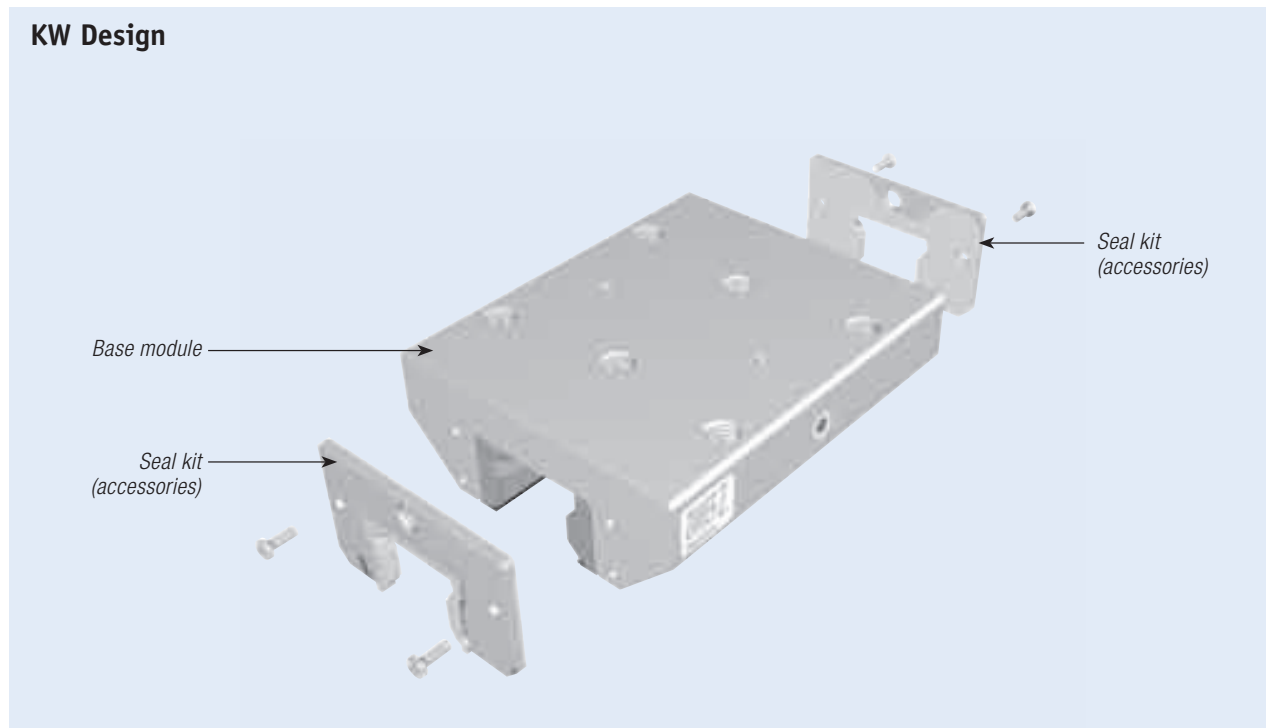
Hydraulic super-heavy load clamping: The Clamping Element with membrane technology KW

The KW series is a hydraulically operated heavy load clamping device. The hydraulic oil presses the large-surface contact sections directly onto the section rail guide via a piston mechanism. When used in harsh work environments or with cooling liquid, the elements can be fitted with original seals from the respective linear guide manufacturer and longitudinal seals as accessories. A pre-tensioned reset spring enables short cycle times. The special pressure membrane technology guarantees operational reliability.

The pressure ranges from 20 bar to a **100 bar maximum for sizes 25 and 30**. All sizes from 35 to 125 operate in a pressure range from **30 bar to a 150 bar maximum**.

The KW series features zero backlash and extremely low absorption volumes of maximum 7.6 cm³ per clamping operation. For more information visit www.zimmer-gmbh.com.

KW Design



Special characteristics:

- Super-heavy load type
- Solid and rigid outer casing
- Compact design, DIN 645 compatible
- Integrated positive fit contact sections for maximum axial rigidity
- High operational reliability by pressure membrane technology
- Exact positioning
- Supporting forces up to 46,000 N

Application scenarios for KW:

- Machine table clamping of heavy cutting work centres
- Clamping of heavy handling systems

Variations:

The KW series is available with seals (as accessories) which are recommended for harsh work environments.

Connection options:

The KW series has a hydraulic supply port on both sides.

Rail manufacturer



Type of rail	Size	Type of carriage	Item number	Measure table (page 82 and 83)
HSR	25	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 2501 AS1	5
	30	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 3001 AS1	12
	35	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 3501 AS1	19
	45	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 4501 AS1	28
	55	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 5501 AS1	34
	65	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	KWH 6501 AS1	42
	85	HSR..A, HSR..LA, HSR..B, HSR..LB, HSR..CA, HSR..HA, HSR..CB, HSR..HB	Ⓢ	
	100	HSR..HA, HSR..HB, HSR..HR	Ⓢ	
NR/NRS	25	NR / NRS..XA, NR / NRS..XLA, NR / NRS..XB, NR / NRS..XLB	KWH 2501 BS1	1
	30	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	KWH 3001 BS1	9
	35	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	KWH 3501 BS1	15
	45	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	KWH 4501 BS1	23
	55	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	KWH 5501 BS1	31
	65	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	KWH 6501 BS1	38
	75	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	Ⓢ	
	85	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	Ⓢ	
	100	NR / NRS..A, NR / NRS..LA, NR / NRS..B, NR / NRS..LB	Ⓢ	
	SHS	25	SHS..C, SHS..LC	KWH 2501 CS1
30		SHS..C, SHS..LC	KWH 3001 CS1	12
35		SHS..C, SHS..LC	KWH 3501 CS1	19
45		SHS..C, SHS..LC	KWH 4501 CS1	28
55		SHS..C, SHS..LC	KWH 5501 CS1	34
65		SHS..C, SHS..LC	KWH 6501 CS1	42
SRG	25	SRG..C, SRG..LC	KWH 2501 ES1	5
	30	SRG..C, SRG..LC	KWH 3001 ES1	12
	35	SRG..C, SRG..LC	KWH 3501 ES1	19
	45	SRG..C, SRG..LC	KWH 4501 ES1	28
	55	SRG..C, SRG..LC	KWH 5501 ES1	34
	65	SRG..C, SRG..LC	KWH 6501 ES1	42
	85	SRG..LC	KWH 8501 ES1	53
	100	SRG..LC	KWH 10001 ES1	54
SNR/SNS	25	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 2501 IS1	1
	30	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 3001 IS1	9
	35	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 3501 IS1	15
	45	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 4501 IS1	23
	55	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 5501 IS1	31
	65	SNR..C, SNR..LC, SNS..C, SNS..LC	KWH 6501 IS1	38
SRN	35	SRN..C, SRN..LC	Ⓢ	
	45	SRN..C, SRN..LC	Ⓢ	
	55	SRN..C, SRN..LC	Ⓢ	
	65	SRN..LC	Ⓢ	

See page 13 for part number explanation

Type of rail	Size	Type of carriage	Item number	Measure table (page 62 and 63)
1605, 1607 1645, 1647	25	1631, 1651, 1653, 1661, 1665	KWH 2505 AS1	3
		1622, 1623, 1632, 1662, 1666	KWH 2505 AS2	6
		1621, 1624	KWH 2505 AS3	8
	30	1631, 1651, 1653, 1661, 1665	KWH 3005 AS1	10
		1622, 1623, 1632, 1662, 1666	KWH 3005 AS2	13
		1621, 1624	KWH 3005 AS3	14
	35	1631, 1651, 1653, 1661, 1665	KWH 3505 AS1	17
		1622, 1623, 1632, 1662, 1666	KWH 3505 AS2	20
		1621, 1624	KWH 3505 AS3	22
	45	1651, 1653	KWH 4505 AS1	25
		1622, 1623	KWH 4505 AS2	27
		1621, 1624	KWH 4505 AS3	30
	55	1651, 1653	KWH 5505 AS1	33
		1622, 1623	KWH 5505 AS2	35
		1621, 1624	KWH 5505 AS3	37
	65	1651, 1653	KWH 6505 AS1	41
1622, 1623		KWH 6505 AS2	44	
1805, 1807	25	1851, 1853	KWH 2505 BS1	2
		1821, 1824	KWH 2505 BS3	7
	35	1851, 1853	KWH 3505 BS1	16
		1821, 1824	KWH 3505 BS3	21
	45	1851, 1853	KWH 4505 BS1	24
		1821, 1824	KWH 4505 BS3	29
	55	1851, 1853	KWH 5505 BS1	32
		1821, 1824	KWH 5505 BS3	36
	65	1853	KWH 6505 BS1	39
		1824	KWH 6505 BS3	43
1875, 1873	55	1872	⊕	
	65	1872	KWH 6505 BS4	52
	85	1872	⊕	
	100	1872	⊕	
1835, 1865	100	1861, 1863	⊕	
	125	1861, 1863	KWH 12505 BS1	55

Rail manufacturer

Rexroth
Bosch Group

See page 13 for part number explanation

KW

Rail manufacturer



Type of rail	Size	Type of carriage	Item number	Measure table (page 82 and 83)
MR	25	MR..A, MR..B	KWH 2503 AS1	4
	35	MR..A, MR..B	KWH 3503 AS1	18
		MR..C, MR..D, MR..E	KWH 3503 AS3	46
	45	MR..A, MR..B	KWH 4503 AS1	26
		MR..C, MR..D	KWH 4503 AS3	48
	55	MR..A, MR..B	KWH 5503 AS1	45
		MR..C, MR..D	KWH 5503 AS3	49
	65	MR..B	KWH 6503 AS1	40
100	MR..B	KWH 10003 AS1	54	

Rail manufacturer



LWH	25	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG	KWH 2510 AS1	5
	30	LWH..B, LWH..SL, LWH..M, LWHG, LWHT..B, LWHT..SL, LWHT..M, LWHTG	KWH 3010 AS1	12
	35	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	KWH 3510 AS1	19
	45	LWH..B, LWH..M, LWHG, LWHT..B, LWHT..M, LWHTG	KWH 4510 AS1	28
	55	LWH..B, LWHG, LWHT..B, LWHTG	KWH 5510 AS1	34
	65	LWH..B, LWHG, LWHT..B, LWHTG	KWH 6510 AS1	42
	85	LWHG, LWHTG	Ⓞ	
LRX	25	LRXC, LRX, LRXG	KWH 2510 BS1	5
	30	LRXC, LRX, LRXG	Ⓞ	
	35	LRXC, LRX, LRXG	KWH 3510 BS1	19
	45	LRXC, LRX, LRXG	KWH 4510 BS1	28
	55	LRXC, LRX, LRXG	KWH 5510 BS1	34
	65	LRXC, LRX, LRXG	KWH 6510 BS1	42
	85	LRX, LRXG	Ⓞ	
100	LRXG	Ⓞ		
LWE	25	LWE..Q, LWET..Q, LWEC, LWEC..SL, LWE, LWE..SL, LWEG, LWEG..SL, LWETC, LWETC..SL, LWET, LWET..SL, LWETG, LWETG..SL	KWH 2510 DS1	47
	35	LWEC, LWE, LWETC, LWET, LWE..Q, LWET..Q, LWES..Q	Ⓞ	
	45	LWE, LWET	Ⓞ	
ME	25	MEC, METC, ME, MET, MEG, METG, MH, MHT, MHG, MHTG	KWH 2510 DS1	47
	30	MEC, METC, ME, MET, MEG, METG, MH, MHT, MHG, MHTG	Ⓞ	
	35	MEC, METC, ME, MET, MH, MHT, MHG, MHTG	Ⓞ	
	45	ME, MET, MH, MHT, MHG, MHTG	Ⓞ	

Rail manufacturer



TKSD (KUJE)	25	KWSE, KWSE..L	KWH 2502 AS1	4
	30	KWSE, KWSE..L	KWH 3002 AS1	11
	35	KWSE, KWSE..L	KWH 3502 AS1	18
	45	KWSE, KWSE..L	KWH 4502 AS1	26
	55	KWSE, KWSE..L	KWH 5502 AS1	45
TKVD (KUJE)	25	KWVE..-B, KWVE..-B-L, KWVE..-B-KT, KWVE..-B-KT-L	KWH 2502 BS1	4
	30	KWVE..-B, KWVE..-B-L, KWVE..-B-KT, KWVE..-B-KT-L, KWVE..-E, KWVE..-B-EC	KWH 3002 BS1	11
	35	KWVE..-B, KWVE..-B-L, KWVE..-B-KT, KWVE..-B-KT-L, KWVE..-E, KWVE..-B-EC	KWH 3502 BS1	18
	45	KWVE..-B, KWVE..-B-L, KWVE..-B-KT, KWVE..-B-KT-L, KWVE..-E, KWVE..-B-EC	KWH 4502 BS1	26
	55	KWVE..-B, KWVE..-B-L, KWVE..-B-KT, KWVE..-B-KT-L	Ⓞ	
TSX..E (RUE)	25	RWU..-D, RWU..-D-L	KWH 2502 DS1	4
	35	RWU..-E, RWU..-E-L, RWU..-E-KT-L	KWH 3502 DS1	18
		RWU..-E-H, RWU..-E-HL, RWU..-E-KT-HL	KWH 3502 DS3	50
	45	RWU..-E, RWU..-E-L, RWU..-E-KT-L	KWH 4502 DS1	26
	55	RWU..-E, RWU..-E-L, RWU..-E-KT-L	KWH 5502 DS1	45
65	RWU..-E, RWU..-E-L	KWH 6502 DS1	40	

See page 13 for part number explanation

Type of rail Size Type of carriage Item number Measure table
 (page 62 and 63)

LH	25	LAH..EMZ, LAH..GMZ	KWH 2504 BS1	5
	30	LAH..EMZ, LAH..GMZ	KWH 3004 BS1	12
	35	LAH..EMZ, LAH..GMZ	KWH 3504 BS1	19
	45	LAH..EMZ, LAH..GMZ	KWH 4504 BS1	28
	55	LAH..EMZ, LAH..GMZ	KWH 5504 BS1	34
	65	LAH..EMZ, LAH..GMZ	KWH 6504 BS1	42
SH	35	SAH..EMZ, SAH..GMZ	KWH 3504 BS1	19
LS	25	LAS..KLZ, LAS..JMZ, LAS..EMZ	⊗	-
	30	LAS..KLZ, LAS..JMZ, LAS..EMZ	KWH 3004 AS1	12
	35	LAS..KLZ, LAS..JMZ, LAS..EMZ	KWH 3504 AS1	19
LY	25	LY..EL, LY..FL, LY..GL, LY..HL	KWH 2504 CS1	5
	30	LY..EL, LY..FL, LY..GL, LY..HL	KWH 3004 CS1	12
	35	LY..EL, LY..FL, LY..GL, LY..HL	KWH 3504 CS1	19
	45	LY..EL, LY..FL, LY..GL, LY..HL	KWH 4504 CS1	28
	55	LY..EL, LY..FL, LY..GL, LY..HL	KWH 5504 CS1	34
	65	LY..EL, LY..FL, LY..GL, LY..HL	KWH 6504 CS1	42
LA			x	
RA	25	RA..EM, RA..GM	⊗	
	30	RA..EM, RA..GM	KWH 3004 FS1	51
	35	RA..EM, RA..GM	KWH 3504 FS1	19
	45	RA..EM, RA..GM	KWH 4504 FS1	28
	55	RA..EM, RA..GM	KWH 5504 FS1	34
	65	RA..EM, RA..GM	⊗	

Rail manufacturer
NSK

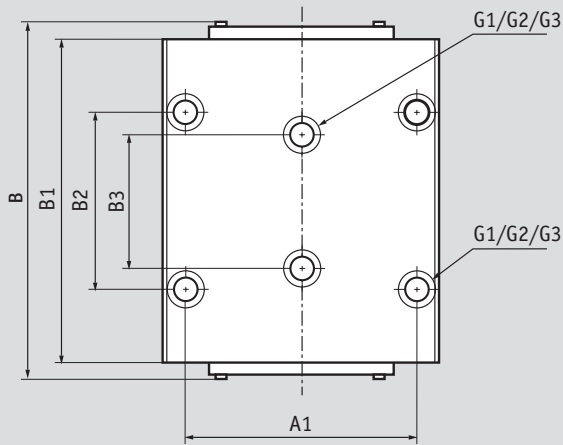
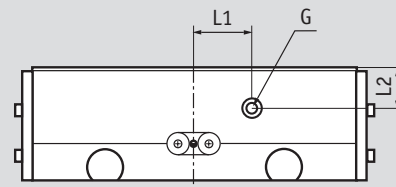
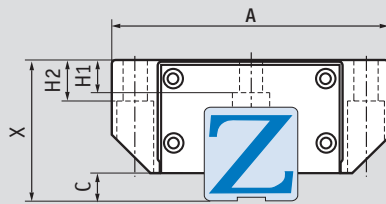
LGR..T LGR..R	25	LGW..CC, LGW..HC	KWH 2512 BS1	5
	30	LGW..CC, LGW..HC	KWH 3012 BS1	12
	35	LGW..CC, LGW..HC	KWH 3512 BS1	19
	45	LGW..CC, LGW..HC	KWH 4512 BS1	28
	55	LGW..CC, LGW..HC	KWH 5512 BS1	34
	65	LGW..CC, LGW..HC	KWH 6512 BS1	42
HGR..T HGR..R	35	HGW..CC, HGW..HC	⊗	
	45	HGW..CC, HGW..HC	⊗	
	55	HGW..CC, HGW..HC	⊗	
	65	HGW..CC, HGW..HC	⊗	
EGR..T	25	EGW...SC, EGW...CC	x	
	30	EGW...SC, EGW...CC	⊗	
RG..T	25	RGW..CC, RGW..HC	⊗	
	30	RGW..CC, RGW..HC	KWH 3012 FS1	11
	35	RGW..CC, RGW..HC	KWH 3512 FS1	18
	45	RGW..CC, RGW..HC	⊗	
	55	RGW..CC, RGW..HC	⊗	

Rail manufacturer
HIWIN
 Lineartechnologie

x : not feasible

See page 13 for part number explanation

KW



Note: Consider measurement C!

Comment:

G: The hydraulic connection is available on either side.

Only one connection is necessary for function.
Return line pressure < 1.5 bar.

Measure table	Holding power [N] KW	max. operating pressure [bar]	A [mm]	A1 [mm]	B max. [mm]	B1 [mm]	B2 [mm]	B3 [mm]	C [mm]	X [mm]	G	G1	G2 [mm]	G3	H1 [mm]	H2 [mm]	L1 [mm]	L2 [mm]
1	1600	100	70	57	116	92	45	45	5,5	31	1/8"	M8	6,8	M6	7,7	9	10	9,5
2	2200	100	70	57	100	92	45	40	6	36	1/8"	M8	6,8	M6	7,3	9	0	9,5
3	2200	100	70	57	102	92	45	40	6,5	36	1/8"	M8	6,8	M6	7	9	0	8
4	2200	100	70	57	116	92	45	40	6,5	36	1/8"	M8	6,8	M6	5,8	9	10	9
5	2200	100	70	57	116	92	45	45	6,5	36	1/8"	M8	6,8	M6	5,8	9	10	9
6	1600	100	48	35	103	92	50	50	6,5	36	1/8"	M6	-	-	8	8	10	8
7	1600	100	48	35	100	92	50	50	6,5	40	1/8"	M6	-	-	12	12	10	12
8	1600	100	48	35	103	92	50	50	6,5	40	1/8"	M6	-	-	12	12	10	12
9	2100	100	90	72	128	103,5	52	52	7	38	1/8"	M10	8,6	M8	7	10	0	10,5
10	3000	100	90	72	115	103,5	52	44	7	42	1/8"	M10	8,6	M8	8	11	0	10,5
11	3000	100	90	72	128	103,5	52	44	7	42	1/8"	M10	8,6	M8	7	10	0	10,5
12	3000	100	90	72	128	103,5	52	52	7	42	1/8"	M10	8,6	M8	7	10	0	10,5
13	3000	100	60	40	115	103,5	60	60	7	42	1/8"	M8	-	-	8	8	10	9
14	3000	100	60	40	115	103,5	60	60	7	45	1/8"	M8	-	-	11	11	10	12
15	4300	150	100	82	145	120,5	62	62	8	44	1/8"	M10	8,6	M8	7	12	0	12
16	5700	150	100	82	128,5	120,5	62	52	7	48	1/8"	M10	8,6	M8	11	12	0	12
17	5700	150	100	82	133	120,5	62	52	8	48	1/8"	M10	8,6	M8	10,2	12	0	12
18	5700	150	100	82	147	120,5	62	52	8	48	1/8"	M10	8,6	M8	6,4	12	0	12
19	5700	150	100	82	145	120,5	62	62	8	48	1/8"	M10	8,6	M8	6,4	12	0	12
20	3500	100	70	50	133	120,5	72	72	8	48	1/8"	M8	-	-	13	13	0	12
21	3500	100	70	50	128	120,5	72	72	7	55	1/8"	M8	-	-	13	13	0	18
22	3500	100	70	50	133	120,5	72	72	8	55	1/8"	M8	-	-	13	13	0	18
23	7400	150	120	100	169	155	80	80	10	52	1/8"	M12	10,5	M10	10,4	15	0	12
24	9900	150	120	100	166	155	80	60	9	60	1/8"	M12	10,5	M10	13,5	15	0	15
25	9900	150	120	100	170	155	80	60	10	60	1/8"	M12	10,5	M10	12,4	15	0	15
26	9900	150	120	100	184	155	80	60	10	60	1/8"	M12	10,5	M10	11,9	15	0	15
27	7400	100	86	60	170	155	80	80	10	60	1/8"	M10	-	-	15	15	0	15
28	9900	150	120	100	176	155	80	80	10	60	1/8"	M12	10,5	M10	11,9	15	0	15
29	7400	100	86	60	166	155	80	80	9	70	1/8"	M10	-	-	18	18	0	24
30	7400	100	86	60	170	155	80	80	10	70	1/8"	M10	-	-	18	18	0	24
31	10200	150	140	116	208	184	95	95	12	63	1/8"	M14	12,5	M12	13,7	16	0	16
32	13700	150	140	116	197	184	95	70	12	70	1/8"	M14	12,5	M12	13,7	18	0	16
33	13700	150	140	116	201	184	95	70	13	70	1/8"	M14	12,5	M12	13,5	18	0	16
34	13700	150	140	116	208	184	95	95	13	70	1/8"	M14	12,5	M12	13,5	18	0	16
35	13700	150	100	75	200	184	95	95	13	70	1/8"	M12	-	-	20,8	18	0	16
36	13700	150	100	75	197	184	95	95	12	80	1/8"	M12	-	-	19	19	0	26
37	13700	150	100	75	200	184	95	95	13	80	1/8"	M12	-	-	19	19	0	26
38	17000	150	170	142	219	200	110	110	11	75	1/4"	M16	14,5	M14	21	25	0	20
39	22700	150	170	142	238	227	110	82	14	90	1/4"	M16	14,5	M14	21,5	23	0	20
40	22700	150	170	142	256	227	110	82	14	90	1/4"	M16	14,5	M14	14,5	22	0	20
41	22700	150	170	142	256	227	110	82	14	90	1/4"	M16	14,5	M14	14	23	0	20
42	22700	150	170	142	253	227	110	110	14	90	1/4"	M16	14,5	M14	14,5	22	0	20
43	22700	150	126	76	238	227	120	120	14	90	1/4"	M16	-	-	21	21	0	20
44	22700	150	126	76	255	227	120	120	14	90	1/4"	M16	-	-	21	21	0	20
45	13700	150	140	116	215	184	95	70	13	70	1/8"	M14	12,5	M12	13,5	18	0	16
46	3500	100	70	50	140	120,5	72	72	8	55	1/8"	M8	-	-	13	13	0	18
47	2200	100	70	57	106	92	45	45	3,5	33	1/8"	M8	6,8	M6	5,8	9	10	9
48	7400	100	86	60	190	155	80	80	10	70	1/8"	M10	-	-	18	18	0	24
49	13700	150	100	75	215	184	95	95	13	80	1/8"	M12	-	-	19	19	0	26
50	3500	100	70	50	135	120,5	72	72	5	55	1/8"	M8	-	-	13	13	0	18
51	3000	100	90	72	128	103,5	52	52	6,5	42	1/8"	M10	8,6	M8	7	10	0	10,5
52	22700	150	200	172	260	227	110	110	14	100	1/4"	M14	12,5	M12	20	20	0	20
53	27400	150	215	185	210	184	140	140	16	110	1/4"	M20	17,5	M16	19,8	35	0	20
54	34000	150	250	200	230	200	150	150	15	120	1/4"	M20	17,5	M16	17,5	30	0	20
55	46000	150	320	270	245	227	102,5	102,5	25	160	1/4"	M27	24	M24	29	45	0	50

KW