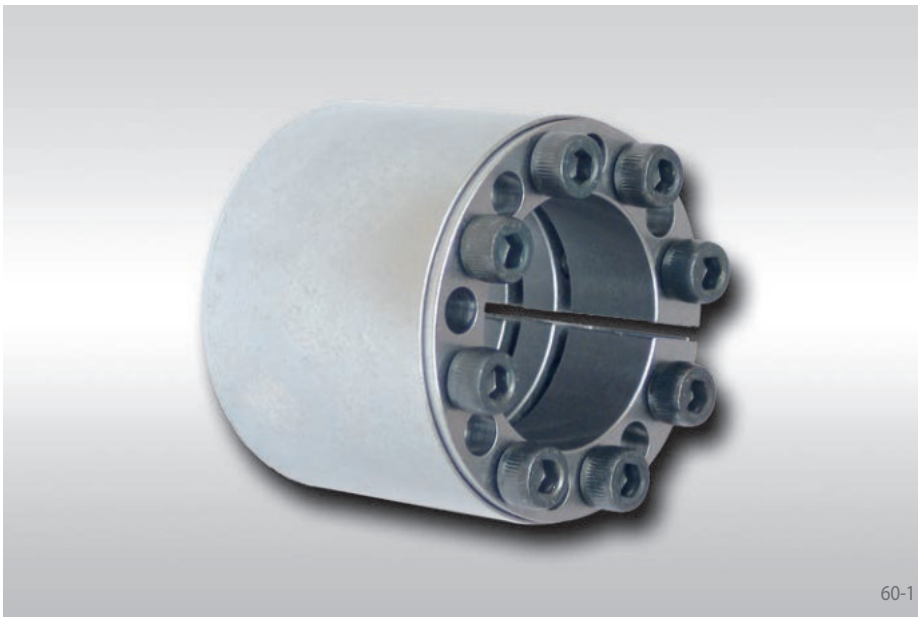


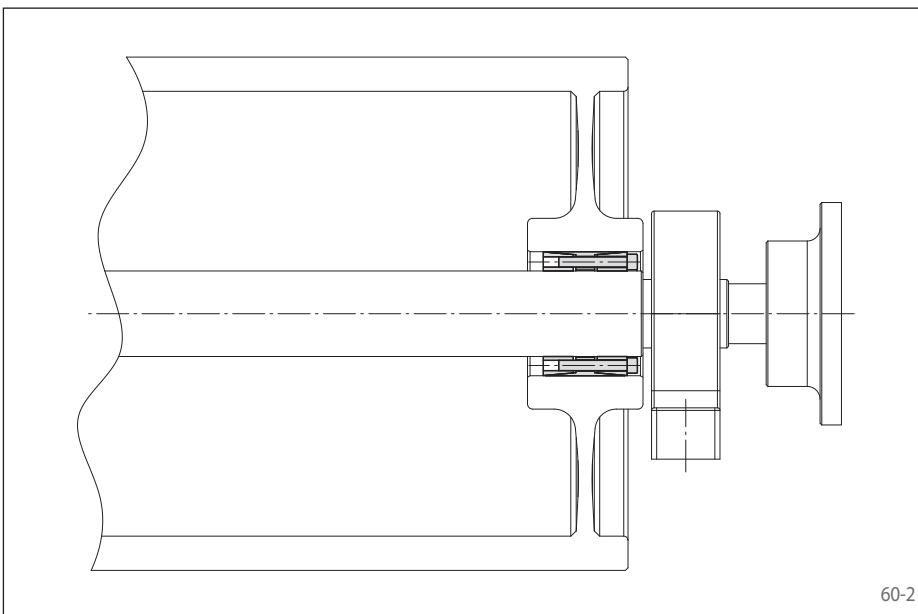
Cone Clamping Elements RLK 402

centres the hub to the shaft
highest transmissible torques



Features

- Centres the hub to the shaft
- Highest transmissible torques
- For heavy duty applications
- No axial displacement between hub and shaft during clamping procedure
- Transmissible torque of 840 Nm up to 414 500 Nm
- For shaft diameters between 25 mm and 300 mm



Application example

Backlash free attachment of a belt drum to the drive shaft of a conveyor belt with a Cone Clamping Element RLK 402. The Cone Clamping Element can be used to transmit all acting loads of a driven belt drum. It centres the belt drum on the drive shaft. As no axial shift occurs during the clamping process, the axial position of the belt drum in relation to the drive shaft remains unchanged.

Transmissible torques and axial forces

The transmissible torques or axial forces listed on the following page are subject to the following tolerances, surface characteristics and material requirements. Please contact us in the case of deviations.

Tolerances

- h8 for shaft diameter d
- H8 for hub bore D

Surfaces

Average surface roughness at the contact surfaces between the shaft and the hub bore:
 $R_z = 10 \dots 25 \mu\text{m}$.

Materials

The following apply to the shaft and the hub:

- E-module $\geq 170 \text{ kN/mm}^2$

Installation

Please request our installation and operating instructions for Cone Clamping Elements RLK 402.

Simultaneous transmission of torque and axial force

The transmissible torques M which are shown in the tables apply for axial forces $F = 0 \text{ kN}$ and conversely, the indicated axial forces F apply to torques $M = 0 \text{ Nm}$. If torque and axial force are to be transmitted simultaneously, the transmissible torque and the transmissible axial force are reduced. Please refer to the technical points on pages 72 and 73.

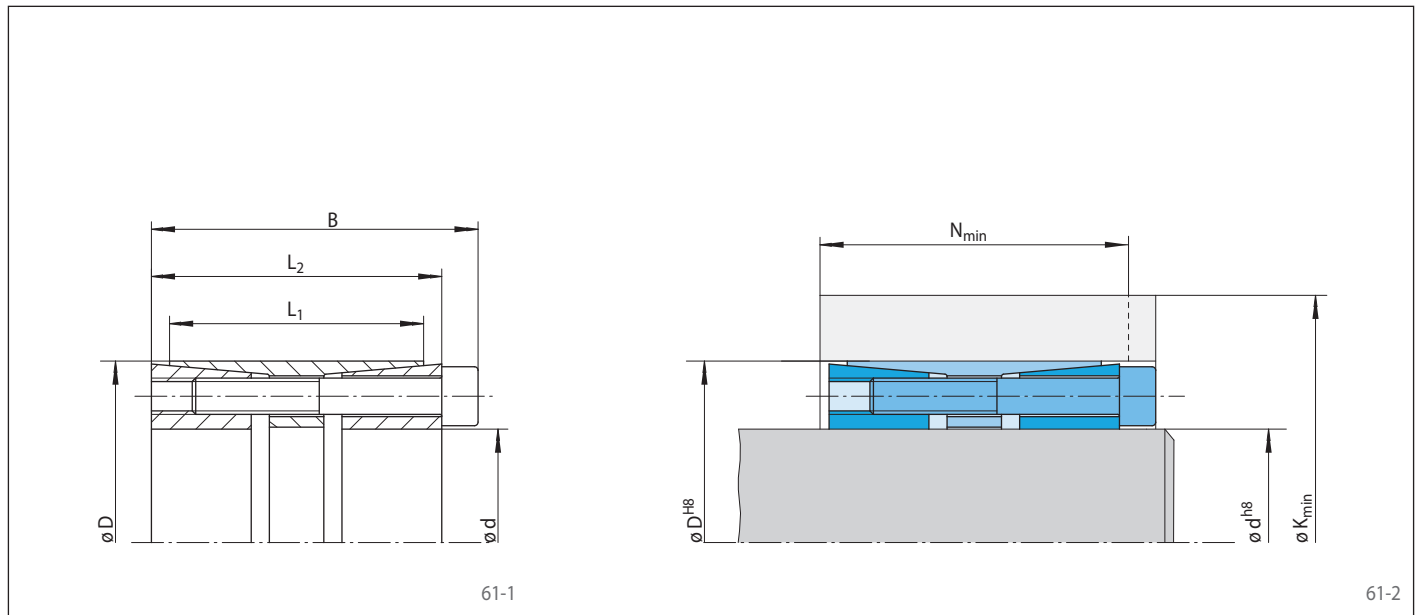
Example for ordering

Cone Clamping Element RLK 402 for shaft diameter $d = 100 \text{ mm}$:

- RLK 402, size 100 x 145
Article number 4205-100201-000000

Cone Clamping Elements RLK 402

centres the hub to the shaft
highest transmissible torques

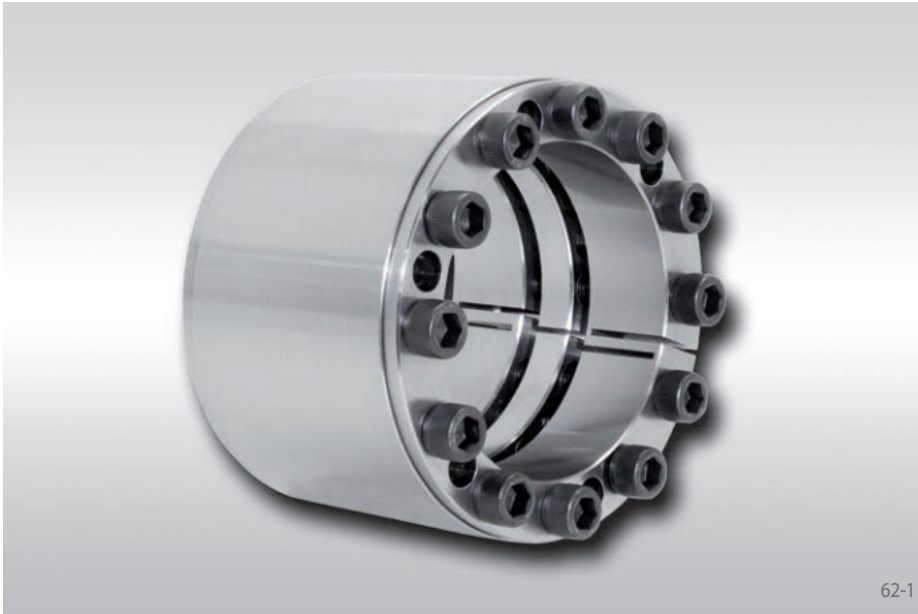


Dimensions												Technical Data								Article number
Size		Yield strength R_e of the hub material [N/mm ²]										Transmissible torque or axial force		Contact pressure at		Clamping screws			Weight	
d mm	D mm	B mm	L ₁ mm	L ₂ mm	200		320		500		M Nm	F kN	Shaft P _w N/mm ²	Hub P _N N/mm ²	Tightening torque M _s Nm	Number	Size	Length mm		
25	50	51	41	45	115	49	82	40	68	37	840	67	222	111	17,4	6	M 6	35	0,5	4205-025201-000000
28	55	51	41	45	147	55	100	44	79	38	1 250	89	265	135	17,4	8	M 6	35	0,5	4205-028201-000000
30	55	51	41	45	147	55	100	44	79	38	1 350	89	247	135	17,4	8	M 6	35	0,5	4205-030201-000000
32	60	51	41	45	143	53	102	43	83	38	1 450	89	232	124	17,4	8	M 6	35	0,8	4205-032201-000000
35	60	51	41	45	143	53	102	43	83	38	1 550	89	212	124	17,4	8	M 6	35	0,7	4205-035201-000000
38	65	51	41	45	173	58	120	45	96	39	2 100	110	252	147	17,4	10	M 6	35	1,1	4205-038201-000000
40	65	51	41	45	173	58	120	45	96	39	2 250	110	239	147	17,4	10	M 6	35	1,1	4205-040201-000000
42	75	51	41	45	236	71	159	51	122	42	3 400	160	344	193	42,2	8	M 8	35	1,2	4205-042201-000000
45	75	51	41	45	236	71	159	51	122	42	3 700	160	321	193	42,2	8	M 8	35	1,1	4205-045201-000000
48	80	70	58	62	192	72	136	58	111	52	3 900	160	205	123	42,2	8	M 8	55	1,5	4205-048201-000000
50	80	70	58	62	192	72	136	58	111	52	4 100	160	197	123	42,2	8	M 8	55	1,4	4205-050201-000000
55	85	70	58	62	194	70	141	56	117	50	4 500	160	188	122	42,2	8	M 8	55	1,5	4205-055201-000000
60	90	70	58	62	232	78	163	61	131	53	6 100	200	215	143	42,2	10	M 8	55	1,6	4205-060201-000000
65	95	70	58	62	229	76	165	60	135	52	6 600	200	198	136	42,2	10	M 8	55	1,7	4205-065201-000000
70	110	86	70	76	287	101	199	79	159	69	11 200	320	218	139	83	10	M 10	60	3,0	4205-070201-000000
75	115	86	70	76	283	98	201	78	163	68	12 000	320	203	133	83	10	M 10	60	3,2	4205-075201-000000
80	120	86	70	76	330	109	226	83	179	71	15 500	390	229	153	83	12	M 10	60	3,1	4205-080201-000000
85	125	86	70	76	330	106	231	81	185	69	16 500	390	223	152	83	12	M 10	60	3,5	4205-085201-000000
90	130	86	70	76	327	104	233	80	189	69	17 500	390	211	146	83	12	M 10	60	3,6	4205-090201-000000
95	135	86	70	76	324	102	235	79	193	69	18 500	390	200	141	83	12	M 10	60	3,9	4205-095201-000000
100	145	110	92	98	380	133	262	104	210	91	28 500	570	203	140	144	12	M 12	80	5,9	4205-100201-000000
110	155	110	92	98	373	129	266	102	218	90	31 000	570	185	131	144	12	M 12	80	6,4	4205-110201-000000
120	165	110	92	98	419	138	296	107	239	93	39 500	660	198	144	144	14	M 12	80	6,9	4205-120201-000000
130	180	128	108	114	439	151	312	119	254	105	50 500	780	184	133	229	12	M 14	90	9,7	4205-130201-000000
140	190	128	108	114	495	163	347	126	278	108	63 500	900	200	147	229	14	M 14	90	10,2	4205-140201-000000
150	200	128	108	114	549	174	380	131	301	112	77 500	1 050	213	160	229	16	M 14	90	10,2	4205-150201-000000
160	210	128	108	114	543	169	385	129	309	110	82 500	1 050	202	154	229	16	M 14	90	11,4	4205-160201-000000
170	225	162	136	146	553	192	391	152	318	134	105 000	1 250	176	133	354	14	M 16	110	17,1	4205-170201-000000
180	235	162	136	146	615	205	428	159	343	137	127 000	1 400	190	146	354	16	M 16	110	18,0	4205-180201-000000
190	250	162	136	146	605	199	434	156	354	136	134 500	1 400	180	137	354	16	M 16	110	20,8	4205-190201-000000
200	260	162	136	146	601	196	439	155	363	136	141 500	1 400	171	132	354	16	M 16	110	21,9	4205-200201-000000
220	285	162	136	146	713	215	513	165	416	141	194 500	1 750	198	153	354	20	M 16	110	25,5	4205-220201-000000
240	305	162	136	146	759	222	550	170	447	144	233 000	1 950	199	157	354	22	M 16	110	27,9	4205-240201-000000
260	325	162	136	146	757	214	563	166	465	141	252 500	1 950	188	150	354	22	M 16	110	30,3	4205-260201-000000
280	355	197	165	177	832	249	613	195	504	168	348 000	2 500	182	143	692	18	M 20	130	45,6	4205-280201-000000
300	375	197	165	177	895	260	658	201	540	172	414 500	2 800	188	151	692	20	M 20	130	50,7	4205-300201-000000

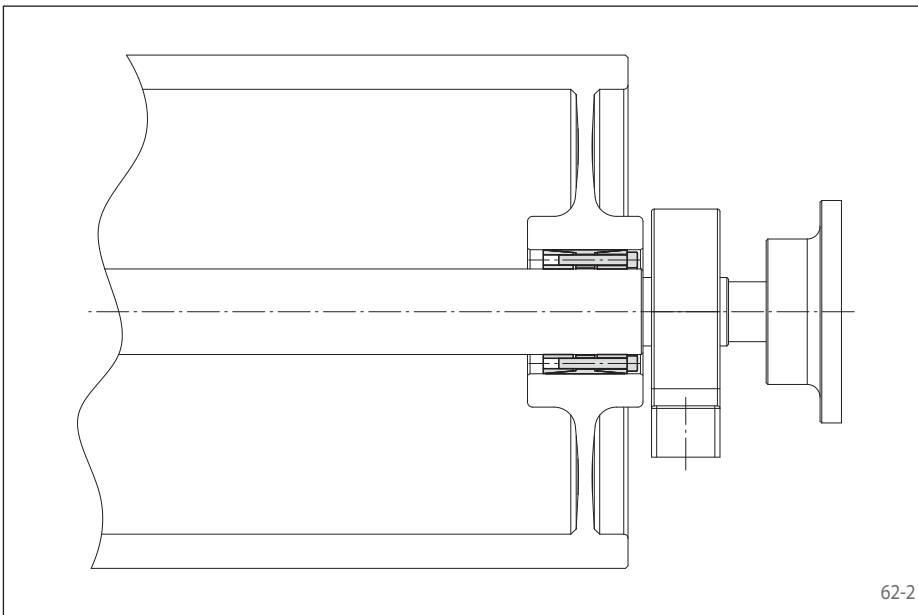
Larger elements available on request.

Cone Clamping Elements RLK 402 TC

Premium quality for high centering accuracy
Can be assembled multiple times



62-1



62-2

Transmissible torques and axial forces

The transmissible torques or axial forces listed on the following page are subject to the following tolerances, surface characteristics and material requirements. Please contact us in the case of deviations.

Tolerances

- h8 for shaft diameter d
- H8 for hub bore D

Surfaces

Average surface roughness at the contact surfaces between the shaft and the hub bore:
 $R_z = 10 \dots 25 \mu\text{m}$.

Materials

The following apply to the shaft and the hub:

- E-module $\geq 170 \text{ kN/mm}^2$

Installation

Please request our installation and operating instructions for Cone Clamping Elements RLK 402 TC.

Features

- Centres the shaft to the hub. Double slot for high centering accuracy.
- Can be assembled multiple times
- Highest transmissible torque
- For heavy duty applications
- No axial displacement between hub and shaft during clamping procedure
- Highest machining quality
- Transmissible torque of 11 200 Nm up to 1 701 000 Nm
- For shaft diameters between 70 mm and 600 mm

Application example

Backlash free attachment of a belt drum to the drive shaft of a conveyor belt with a Cone Clamping Element RLK 402 TC. The Cone Clamping Element can be used to transmit all acting loads of a driven belt drum. It centres the belt drum on the drive shaft. As no axial shift occurs during the clamping process, the axial position of the belt drum in relation to the drive shaft remains unchanged.

Simultaneous transmission of torque and axial force

The transmissible torques M which are shown in the tables apply for axial forces $F = 0 \text{ kN}$ and conversely, the indicated axial forces F apply to torques $M = 0 \text{ Nm}$. If torque and axial force are to be transmitted simultaneously, the transmissible torque and the transmissible axial force are reduced. Please refer to the technical points on pages 72 and 73.

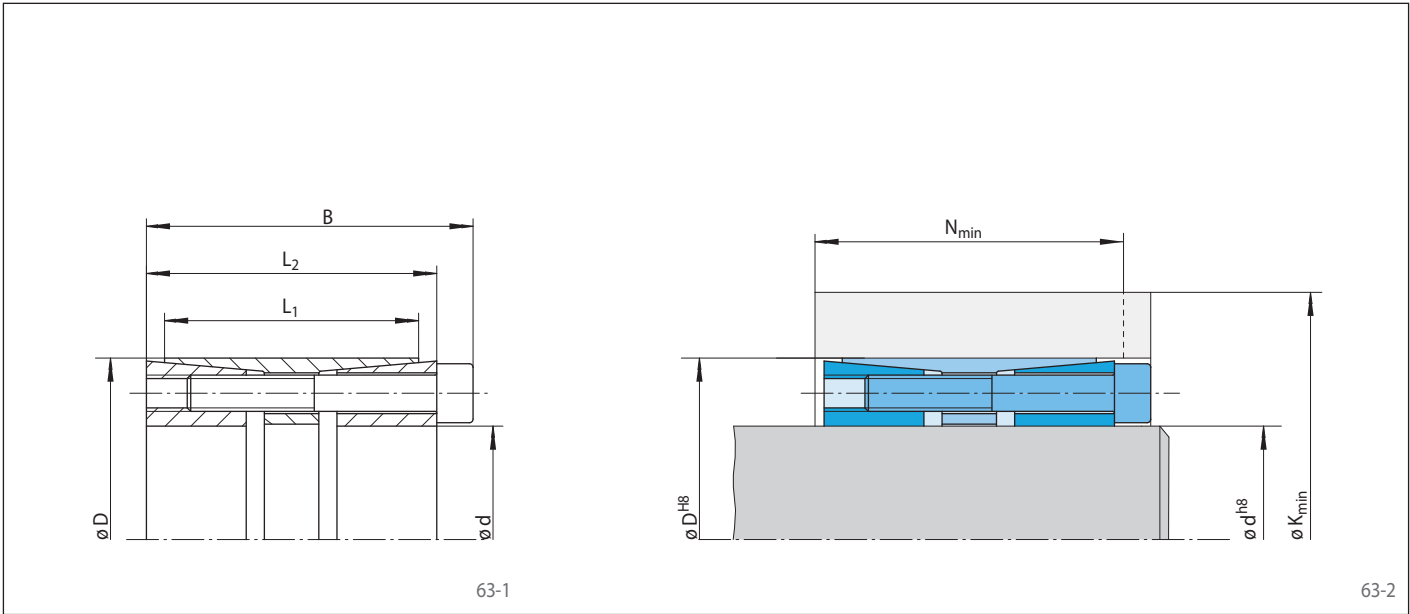
Example for ordering

Cone Clamping Element RLK 402 TC for shaft diameter $d = 100 \text{ mm}$:

- RLK 402 TC, size 100 x 145
Article number 4205-100201-TC0000

Cone Clamping Elements RLK 402 TC

Premium quality for high centering accuracy
Can be assembled multiple times



Dimensions						Technical Data										Article number				
Size		Yield strength R_e of the hub material [N/mm ²]				Transmissible torque or axial force		Contact pressure at		Clamping screws				Weight						
d	D	B	L ₁	L ₂	200		320		500		M	F	Shaft	Hub	Tightening torque	Number	Size	Length	kg	
mm	mm	mm	mm	mm	K _{min}	N _{min}	K _{min}	N _{min}	K _{min}	N _{min}	Nm	kN	N/mm ²	N/mm ²	M _s		mm	mm		
70	110	88	70	78	287	101	199	79	159	69	11 200	320	218	139	83	10	M 10	60	3,0	4205-070201-TC0000
80	120	88	70	78	305	103	214	80	173	70	14 000	350	210	140	83	11	M 10	60	3,1	4205-080201-TC0000
90	130	88	70	78	327	104	233	80	189	69	17 500	390	211	146	83	12	M 10	60	3,6	4205-090201-TC0000
100	145	112	90	100	351	126	249	100	203	89	26 000	520	186	129	144	11	M 12	80	5,9	4205-100201-TC0000
110	155	112	90	100	373	129	266	102	218	90	31 000	570	185	131	144	12	M 12	80	6,4	4205-110201-TC0000
120	165	112	90	100	419	138	296	107	239	93	39 500	660	198	144	144	14	M 12	80	6,9	4205-120201-TC0000
130	180	130	104	116	439	151	312	119	254	105	50 500	780	184	133	229	12	M 14	90	9,7	4205-130201-TC0000
140	190	130	104	116	495	163	347	126	278	108	63 500	900	200	147	229	14	M 14	90	10,2	4205-140201-TC0000
150	200	130	104	116	518	166	365	128	293	110	72 500	970	200	150	229	15	M 14	90	10,2	4205-150201-TC0000
160	210	130	104	116	543	169	385	129	309	110	82 500	1050	202	154	229	16	M 14	90	11,4	4205-160201-TC0000
170	225	162	134	146	553	192	391	152	318	134	105 000	1 250	176	133	354	14	M 16	110	17,1	4205-170201-TC0000
180	235	162	134	146	581	197	412	155	334	135	119 500	1 350	178	136	354	15	M 16	110	18,0	4205-180201-TC0000
190	250	162	134	146	605	199	434	156	354	136	134 500	1 400	180	137	354	16	M 16	110	20,8	4205-190201-TC0000
200	260	162	134	146	601	196	439	155	363	136	141 500	1 400	171	132	354	16	M 16	110	21,9	4205-200201-TC0000
220	285	162	134	146	656	201	484	158	401	137	175 000	1 600	178	138	354	18	M 16	110	25,5	4205-220201-TC0000
240	305	162	134	146	705	208	523	163	432	140	212 000	1 750	181	143	354	20	M 16	110	27,9	4205-240201-TC0000
260	325	162	134	146	707	202	537	159	451	138	229 500	1 750	171	137	354	20	M 16	110	30,3	4205-260201-TC0000
280	355	197	165	177	832	249	613	195	504	168	348 000	2 500	182	143	692	18	M 20	140	45,6	4205-280201-TC0000
300	375	197	165	177	895	260	658	201	540	172	414 500	2 800	188	151	692	20	M 20	140	50,7	4205-300201-TC0000
320	405	197	165	177	920	259	691	202	574	173	464 000	2 900	185	147	692	21	M 20	140	66,5	4205-320201-TC0000
340	425	197	165	177	948	261	718	204	599	174	516 500	3 000	183	146	692	22	M 20	140	63,8	4205-340201-TC0000
360	455	224	190	202	1016	290	765	228	638	196	649 500	3 600	178	141	945	21	M 22	160	79,8	4205-360201-TC0000
380	475	224	190	202	1048	293	794	230	665	198	718 000	3 800	176	141	945	22	M 22	160	79,8	4205-380201-TC0000
400	495	224	190	202	1111	304	841	237	701	202	824 500	4 100	183	148	945	24	M 22	160	91,0	4205-400201-TC0000
420	515	224	190	202	1110	299	852	235	717	201	866 000	4 100	174	142	945	24	M 22	160	92,1	4205-420201-TC0000
440	535	224	190	202	1112	294	865	233	735	200	907 000	4 100	166	137	945	24	M 22	160	96,6	4205-440201-TC0000
460	555	224	190	202	1115	290	878	231	752	200	948 500	4 100	159	132	945	24	M 22	160	103,2	4205-460201-TC0000
480	575	224	190	202	1230	314	953	245	805	208	1 154 500	4 800	178	148	945	28	M 22	160	108,4	4205-480201-TC0000
500	595	224	190	202	1232	309	965	243	822	207	1 202 500	4 800	171	143	945	28	M 22	160	112,5	4205-500201-TC0000
520	615	224	190	202	1288	318	1 008	248	856	211	1 340 000	5 200	176	149	945	30	M 22	160	117,3	4205-520201-TC0000
540	635	224	190	202	1292	314	1 021	247	873	210	1 391 500	5 200	169	144	945	30	M 22	160	121,1	4205-540201-TC0000
560	655	224	190	202	1346	323	1 063	252	907	213	1 539 500	5 500	174	149	945	32	M 22	160	125,6	4205-560201-TC0000
580	675	224	190	202	1375	325	1 090	254	933	215	1 644 500	5 700	173	149	945	33	M 22	160	134,1	4205-580201-TC0000
600	695	224	190	202	1380	321	1 103	252	950	214	1 701 000	5 700	168	145	945	33	M 22	160	132,9	4205-600201-TC0000

Morskate®



Any questions? Please contact us.

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