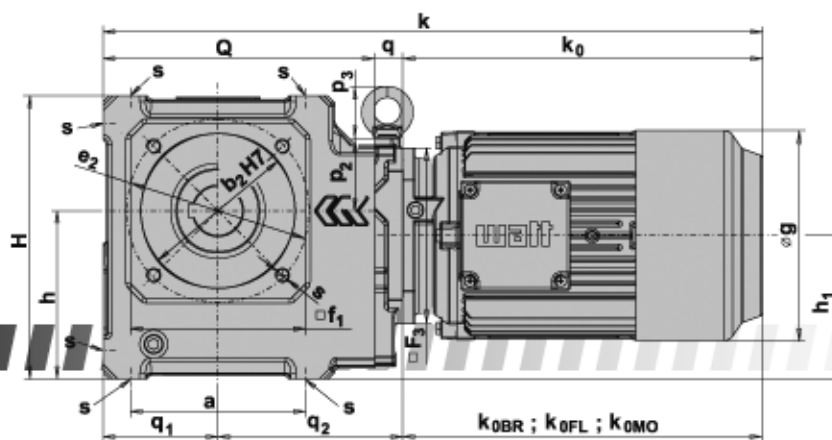


STIRNRADSCHNECKENGETRIEBEMOTOREN

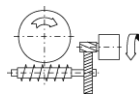
MASSBILDER

HELICAL WORM GEARED MOTORS

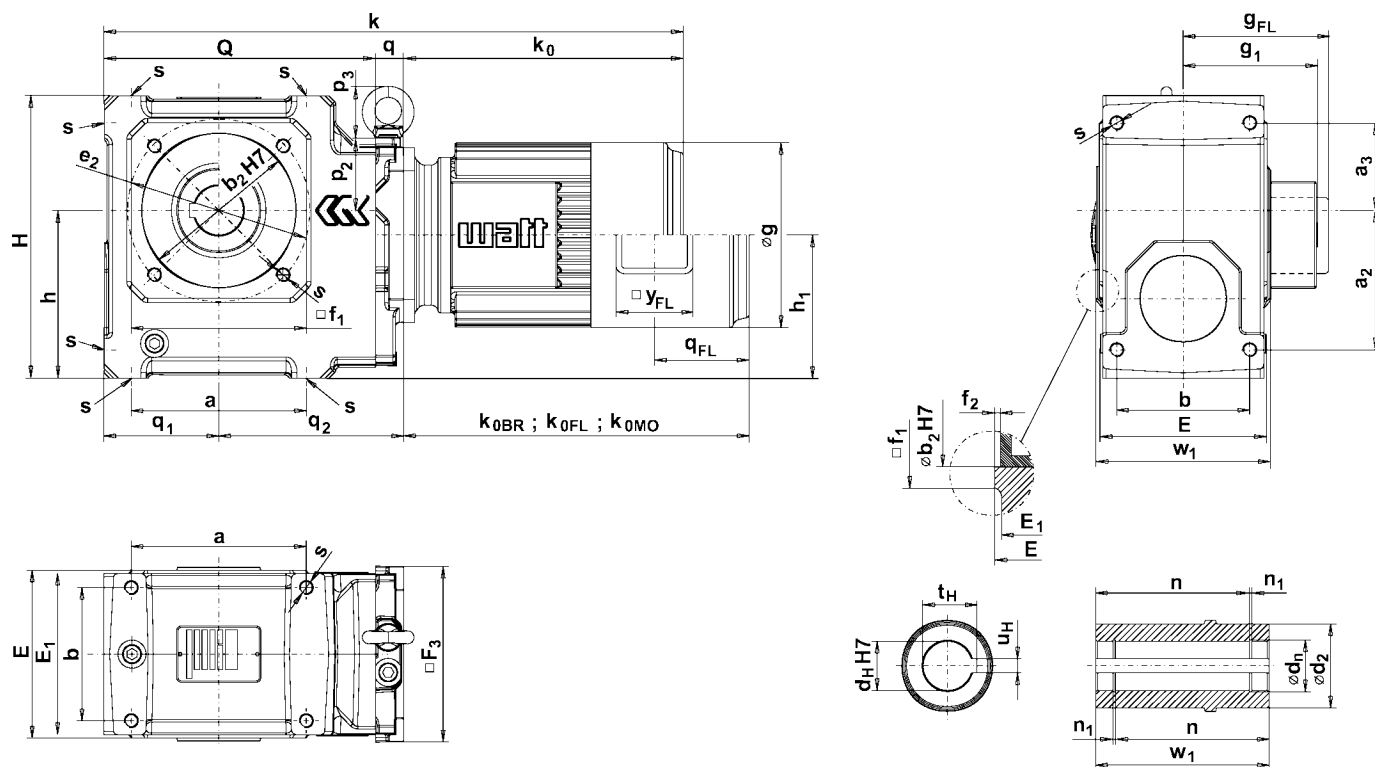
DIMENSION SHEETS



S
UNIBLOCK



SU. 404A,B,S - SU. 506A,B,S



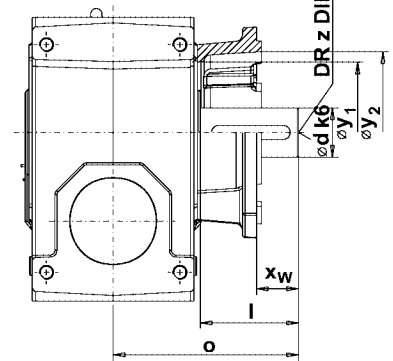
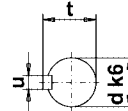
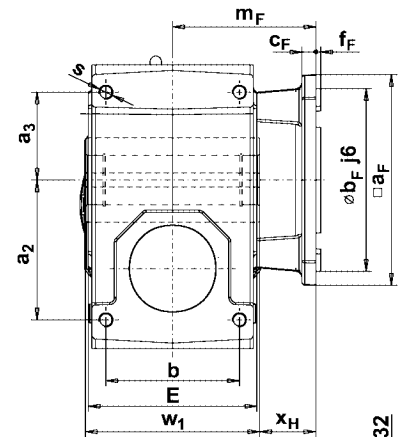
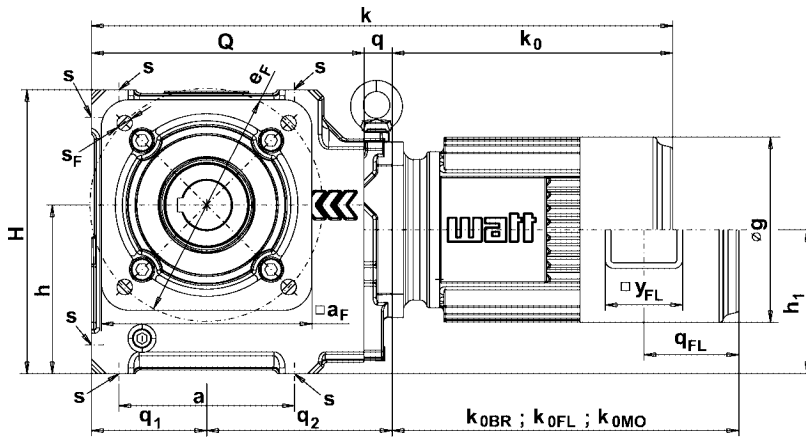
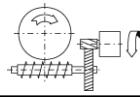
d_n ... Seegerringdurchmesser / circlip diameter

Type	Hauptabmessungen Main dimensions																	
	a	a ₂	a ₃	b	b ₂	E	E ₁	e ₂	f ₁	f ₂	H	h	h ₁	p ₂	p ₃	Q	q ₁	s
S.. 404A,B,S	70	70	34	70	75	96	92	90	85	2	140	88	85	61	-	150	52	M8x12
S.. 454A,B,S	70	70	34	70	75	96	92	90	85	2	140	88	85	61	-	150	52	M8x12
S.. 455A,B,S	100	85	50	80	90	105	100	110	105	1,5	175	105	92	64	-	168	70	M10x15
S.. 506A,B,S	125	99,5	62,5	95	110	120	115	130	125	2	202	120	102,4	57	36	194	82	M10x15

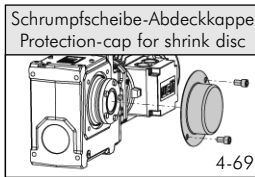
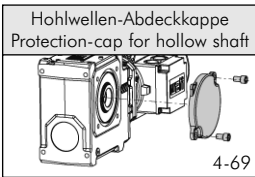
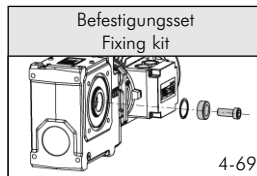
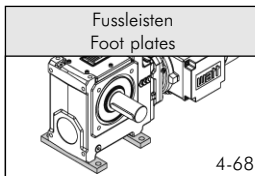
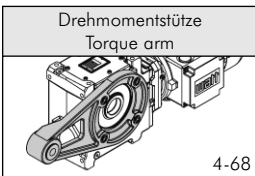
Type	Hohlwelle / Hollow shaft							
	d _H	d _n	d ₂	n	n ₁	t _H	u _H	w ₁
S.. 404A,B,S	*20	21	45	92,2	1,3	22,8	6	100
	25	26,2	45	86,2	1,3	28,3	8	100
	30	31,4	45	86,2	1,3	33,3	8	100
S.. 454A,B,S	20	21	45	92,2	1,3	22,8	6	100
	25	26,2	45	86,2	1,3	28,3	8	100
	*30	31,4	45	86,2	1,3	33,3	8	100
S.. 455A,B,S	25	26,2	50	101,7	1,3	28,3	8	109
	30	31,4	50	95,2	1,3	33,3	8	109
	*35	37	50	94,9	1,6	38,3	10	109
S.. 506A,B,S	30	31,4	60	116,7	1,3	33,3	8	124
	35	37	60	109,9	1,6	38,3	10	124
	*40	42,5	60	106,6	1,85	43,3	12	124

Ringschraube wird nicht mitgeliefert
Eye bolt not included

Nuten nach DIN 6885 Bl. 1
Keyways as per DIN 6885 sh. 1



4



Abtriebsflanschabmessungen Output flange dimensions											Abtriebswelle Output shaft						Type	
a _F ≙ IEC Ø	b _F ¹⁾	c _F	e _F	f _F	m _F	s _F	x _H	x _W	y ₁	y ₂	d ²⁾	l	o	t	u	z		
130	160	110	10	130	3	80	9	30	10	65	78	*20	40	90	22,5	6	M6	S.. 404A,B,S
									20			25	50	100	28	8	M10	
									30			30	60	110	33	8	M10	
130	160	110	10	130	3	80	9	30	10	65	78	20	40	90	22,5	6	M6	S.. 454A,B,S
									20			25	50	100	28	8	M10	
									30			*30	60	110	33	8	M10	
150	200	130	10	165	3,5	84,5	11	30	30	80	96	30	60	110	33	8	M10	S.. 455A,B,S
									40			*35	70	124,5	38	10	M12	
150	200	130	10	165	3,5	102	11	40	30	100	115	35	70	124,5	38	10	M12	S.. 506A,B,S
									40			*40	80	142	43	12	M16	

Type	Maximale Motorabmessungen (7WA,WA) Maximum motor dimensions (7WA,WA)										Maximale Hauptabmessungen (Baureihe 7WA, WA) Maximum main dimensions (Model range 7WA, WA)								
											S.. 404/454A,B,S			S.. 455A,B,S			S.. 506A,B,S		
	□F ₃ ⁸⁾	g	g ₁	g _{FL}	k ₀	k _{0BR}	k _{0FL}	k _{0MO}	q _{FL}	y _{FL}	k	q	q ₂	k	q	q ₂	k	q	q ₂
64K,N	125	130	117	115	205	250	309	361	73	95	355	-	98	373	-	98	419	20	132
72K,N	125	146	127	123	225	277	341	396	73	95	375	-	98	393	-	98	439	20	132
81K,N	125	165	137	138	260	304	387	439	73	95	410	-	98	428	-	98	474	20	132
91S,L	125	182	145	142	297	372	403	482	83	95	447	-	98	465	-	98	511	20	132
101L,LA	150	208	154	153	322	396	458	518	83	95	-	-	-	-	-	-	541	25	137
114M,ML	150	230	173	165	380	467	525	590	83	95	-	-	-	-	-	-	599	25	137

k₀, k_{0BR}, k_{0FL}, k_{0MO} siehe Seite 9-48
see page 9-48

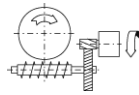
¹⁾ ≤ Ø 230mm nach/to ISO "j6"
> Ø 230mm nach/to ISO "h6"

²⁾ Ø 14 - 50mm nach/to ISO "k6"
> Ø 50mm nach/to ISO "m6"

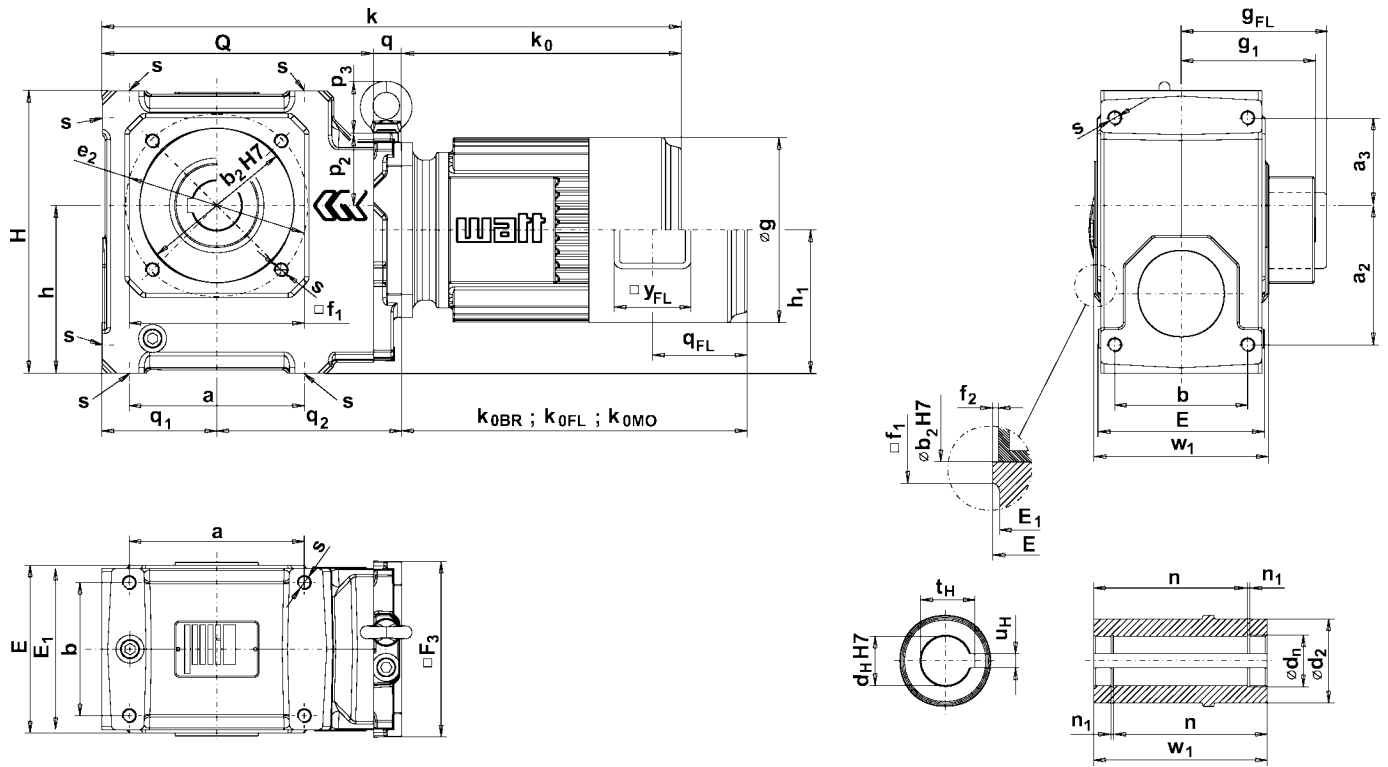
⁸⁾ Motordirektanbau siehe Seite 8-66
⁸⁾ Motor direct fixing see page 8-66

* STANDARD DIMENSION

Abnormale Abtriebs-, Hohlwellen bzw. Abtriebsflansche gegen Mehrpreis
Non standard output, hollow shaft resp. output flange against extra charge



SU. 507A,B,S - SU. 609A,B

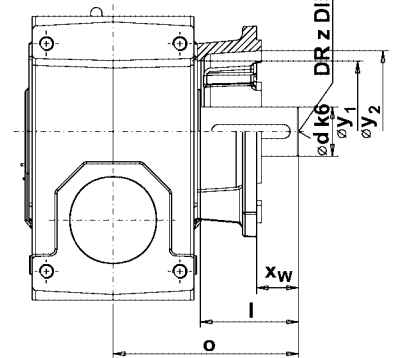
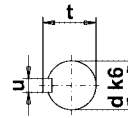
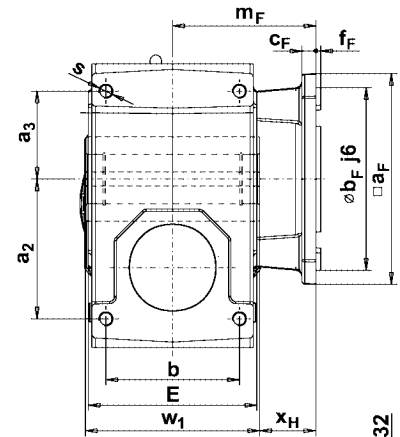
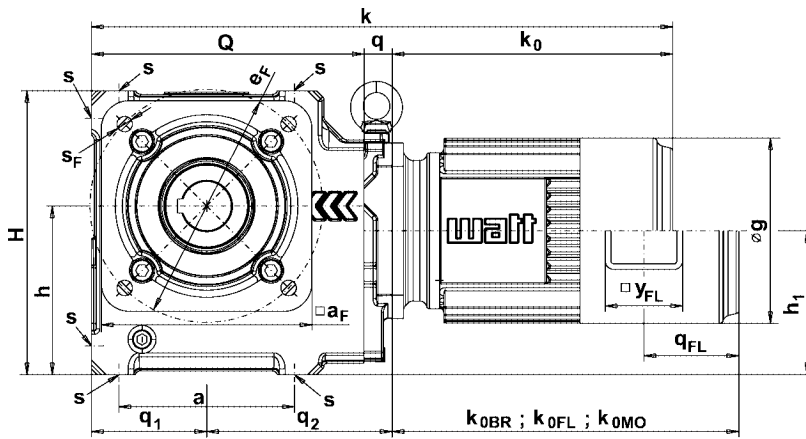
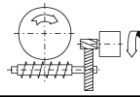


d_n ... Seegerringdurchmesser / circlip diameter

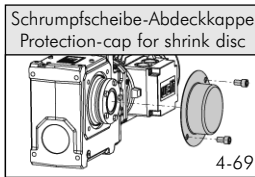
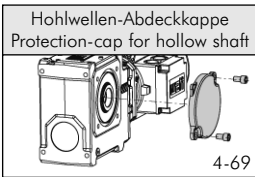
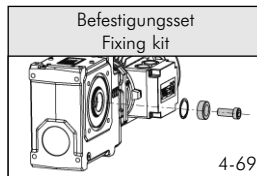
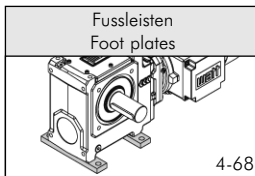
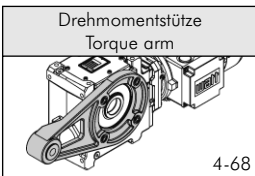
Type	Hauptabmessungen Main dimensions																	
	a	a ₂	a ₃	b	b ₂	E	E ₁	e ₂	f ₁	f ₂	H	h	h ₁	p ₂	p ₃	Q	q ₁	s
S.. 507A,B,S	140	105	65	95	120	120	115	145	140	2	220	130	104,4	49	45	202	90	M12x18
S.. 608A,B	155	122,5	77,5	115	140	140	135	165	160	5	252	150	128,1	53	45	231	102	M12x18
S.. 609A,B	170	130	80	120	160	150	145	190	180	5	270	160	128,1	68	53	239	110	M12x18

Type	Hohlwelle Hollow shaft							
	d _H	d _n	d ₂	n	n ₁	t _H	u _H	w ₁
S.. 507A,B,S	40	42,5	65	107,6	1,85	43,3	12	124
	*45	47,5	65	107,6	1,85	48,8	14	124
S.. 608A,B	40	42,5	65	132,1	1,85	43,3	12	144
	*45	47,5	65	127,6	1,85	48,8	14	144
S.. 609A,B	*50	53	75	137,3	2,15	53,8	14	154
	!60	63	75	137,3	2,15	62,3	18	154

! Nuten nach DIN 6885 Bl. 3 (niedrige Form)
! keyways as per DIN 6885 sh. 3 (low shape)



4



Abtriebsflanschabmessungen Output flange dimensions							SF	Abtriebswelle Output shaft						Type				
a _F ≙ IEC∅	b _F ¹⁾	c _F	e _F	f _F	m _F	s _F	x _H	x _W	y ₁	y ₂	d ²⁾	l	o		t	u	z	
200	250	180	12	215	4	102	14	40	50	110	118	*45	90	152	48,5	14	M16	S.. 507A,B,S
200	250	180	12	215	4	105	14	33	47	125	134	40	80	152	43	12	M16	S.. 608A,B
250	300	230	14	265	4	130	14	53	47	145	158	*50	100	177	53,5	14	M16	S.. 609A,B

Type	Maximale Motorabmessungen (7WA,WA) Maximum motor dimensions (7WA,WA)										Maximale Hauptabmessungen (Baureihe 7WA, WA) Maximum main dimensions (Model range 7WA, WA)								
	S.. 507A,B,			S.. 608A,B			S.. 609A,B			S.. 507A,B,			S.. 608A,B			S.. 609A,B			
	□F ₃ ⁸⁾	g	g ₁	g _{FL}	k ₀	k _{0BR}	k _{0FL}	k _{0MO}	q _{FL}	y _{FL}	k	q	q ₂	k	q	q ₂	k	q	q ₂
64K,N	125	130	117	115	205	250	309	361	73	95	427	20	132	456	20	149	464	20	149
72K,N	125	146	127	123	225	277	341	396	73	95	447	20	132	476	20	149	484	20	149
81K,N	125	165	137	138	260	304	387	439	73	95	482	20	132	511	20	149	519	20	149
91S,L	125	182	145	142	297	372	403	482	83	95	519	20	132	548	20	149	556	20	149
101L,LA	150	208	154	153	322	396	458	518	83	95	549	25	137	578	25	154	586	25	154
114M,ML	150	230	173	165	380	467	525	590	83	95	607	25	137	636	25	154	644	25	154
134S,M.	200	268	193	185	419	522	579	634	93	95	-	-	-	692	42	171	700	42	171

k₀, k_{0BR}, k_{0FL}, k_{0MO} siehe Seite 9-48
see page 9-48

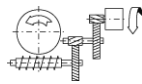
¹⁾ ≤ Ø 230mm nach/to ISO "j6"
> Ø 230mm nach/to ISO "h6"

²⁾ Ø 14 - 50mm nach/to ISO "k6"
> Ø 50mm nach/to ISO "m6"

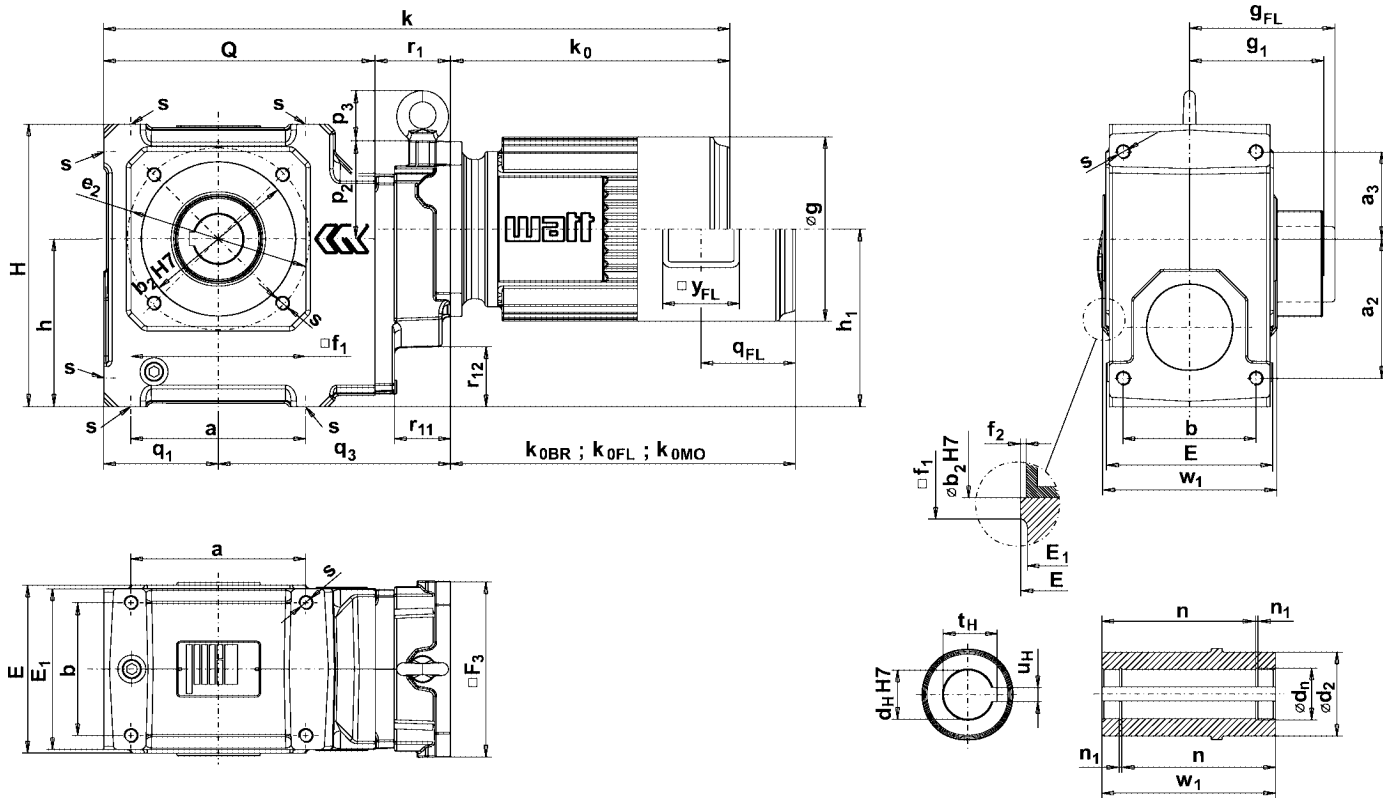
⁸⁾ Motordirektanbau siehe Seite 8-66
⁸⁾ Motor direct fixing see page 8-66

* STANDARD DIMENSION

Abnormale Abtriebs-, Hohlwellen bzw. Abtriebsflansche gegen Mehrpreis
Non standard output, hollow shaft resp. output flange against extra charge



SU. 506C - SU. 609C

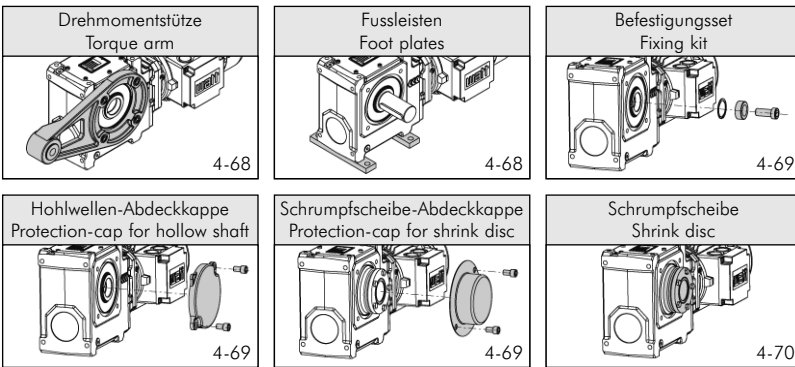
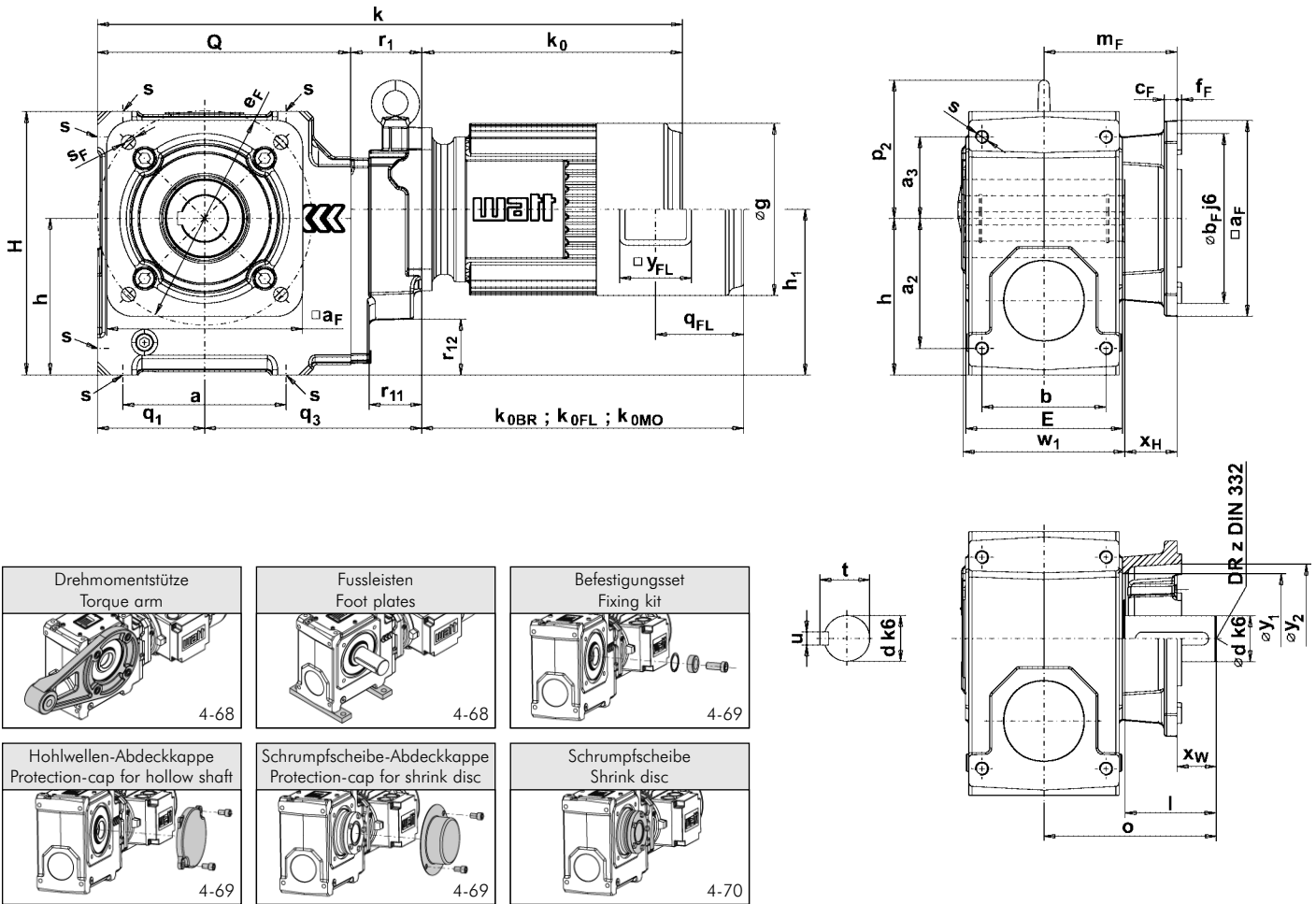
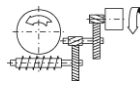


d_n ... Seegerringdurchmesser / circlip diameter

Type	Hauptabmessungen Main dimensions																			
	a	a ₂	a ₃	b	b ₂	E	E ₁	e ₂	f ₁	f ₂	H	h	h ₁	p ₂	p ₃	Q	q ₁	r ₁₁	r ₁₂	s
S.. 506C	125	99,5	62,5	95	110	120	115	130	125	2	202	120	127	70	36	194	82	40	40	M10x15
S.. 507C	140	105	65	95	120	120	115	145	140	2	220	130	129	62	36	202	90	40	40	M12x18
S.. 608C	155	122,5	77,5	115	140	140	135	165	160	5	252	150	156,5	74	45	231	102	36	70	M12x18
S.. 609C	170	130	80	120	160	150	145	190	180	5	270	160	156,5	64	45	239	110	36	70	M12x18

Type	Hohlwelle Hollow shaft								
	d _H	d _n	d ₂	n	n ₁	t _H	u _H	w ₁	
S.. 506C	30	31,4	60	116,7	1,3	33,3	8	124	
	35	37	60	109,9	1,6	38,3	10	124	
	*40	42,5	60	106,6	1,85	43,3	12	124	
S.. 507C	40	42,5	65	107,6	1,85	43,3	12	124	
	*45	47,5	65	107,6	1,85	48,8	14	124	
S.. 608C	40	42,5	65	132,1	1,85	43,3	12	144	
	*45	47,5	65	127,6	1,85	48,8	14	144	
S.. 609C	*50	53	75	137,3	2,15	53,8	14	154	
	!60	63	75	137,3	2,15	62,3	18	154	

! Nuten nach DIN 6885 Bl. 3 (niedrige Form)
! keyways as per DIN 6885 sh. 3 (low shape)



4

Abtriebsflanschabmessungen Output flange dimensions										SF		Abtriebswelle Output shaft						Type
a _F \triangleq IEC \varnothing	b _F ¹⁾	c _F	e _F	f _F	m _F	s _F	x _H	x _W	y ₁	y ₂	d ²⁾	l	o	t	u	z		
150	200	130	10	165	3,5	102	11	40	30	100	115	35	70	124,5	38	10	M12	S.. 506C
									40			*40	80	142	43	12	M16	
200	250	180	12	215	4	102	14	40	50	110	118	*45	90	152	48,5	14	M16	S.. 507C
200	250	180	12	215	4	105	14	33	47	125	134	40	80	152	43	12	M16	S.. 608C
									57			*45	90	162	48,5	14	M16	
250	300	230	14	265	4	130	14	53	47	145	158	*50	100	177	53,5	14	M16	S.. 609C

Type	Maximale Motorabmessungen (7WA,WA) Maximum motor dimensions (7WA,WA)										Maximale Hauptabmessungen (Baureihe 7WA, WA) Maximum main dimensions (Model range 7WA, WA)											
	S.. 506C		S.. 507C			S.. 608C			S.. 609C													
	□F ₃ ⁸⁾	g	g ₁	g _{FL}	k ₀	k _{0BR}	k _{0FL}	k _{0MO}	q _{FL}	y _{FL}	k	r ₁	q ₃	k	r ₁	q ₃	k	r ₁	q ₃	k	r ₁	q ₃
64K,N	125	130	117	115	205	250	309	361	73	95	453	54	166	461	54	166	490	54	183	498	54	183
72K,N	125	146	127	123	225	277	341	396	73	95	473	54	166	481	54	166	510	54	183	518	54	183
81K,N	125	165	137	138	260	304	387	439	73	95	508	54	166	516	54	166	545	54	183	553	54	183
91S,L	125	182	145	142	297	372	403	482	83	95	545	54	166	553	54	166	582	54	183	590	54	183

k₀, k_{0BR}, k_{0FL}, k_{0MO} siehe Seite 9-48
see page 9-48

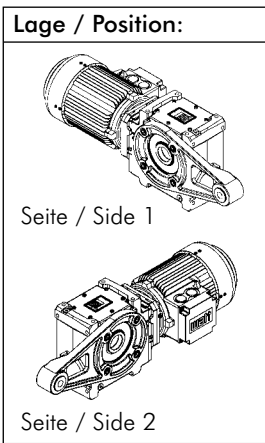
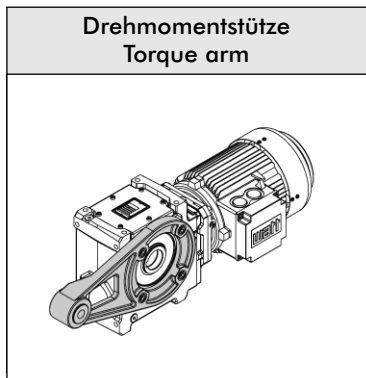
¹⁾ $\leq \varnothing 230\text{mm}$ nach/to ISO "j6"
> $\varnothing 230\text{mm}$ nach/to ISO "h6"

²⁾ $\varnothing 14 - 50\text{mm}$ nach/to ISO "k6"
> $\varnothing 50\text{mm}$ nach/to ISO "m6"

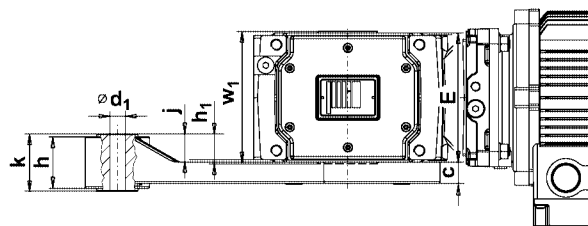
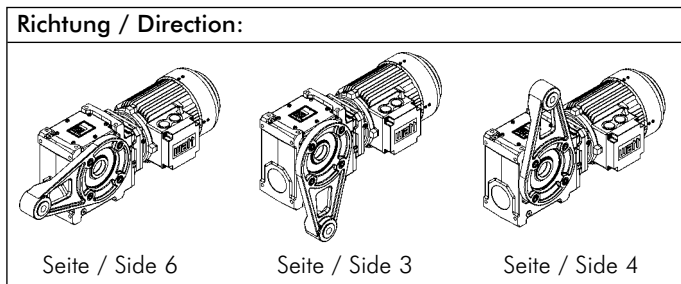
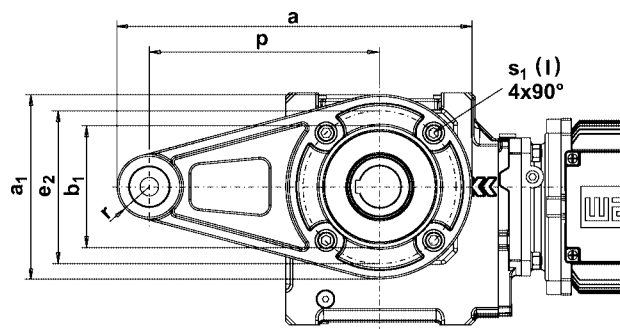
⁸⁾ Motordirektanbau siehe Seite 8-66
⁸⁾ Motor direct fixing see page 8-66

* STANDARD DIMENSION

Abnormale Abtriebs-, Hohlwellen bzw. Abtriebsflansche gegen Mehrpreis
Non standard output, hollow shaft resp. output flange against extra charge

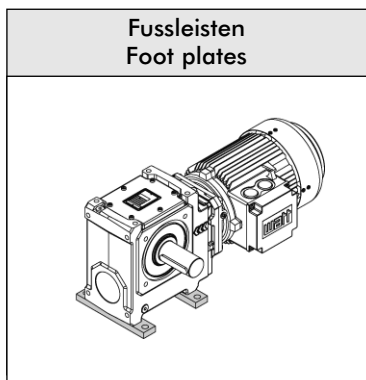


Beispiel: Lage Seite 2, Richtung Seite 6
Example: Position side 2, Direction side 6



1) 1 Set: Drehmomentarm mit 4 Schrauben und elastischer Buchse /
1 Kit: torque arm with 4 screws and flexible bushing

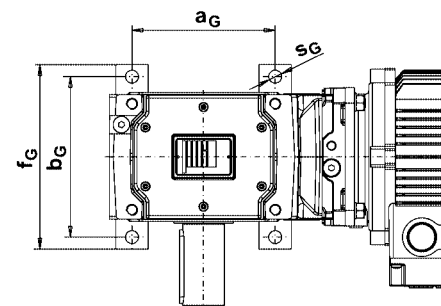
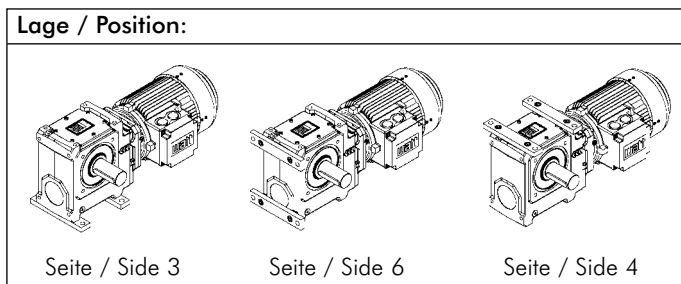
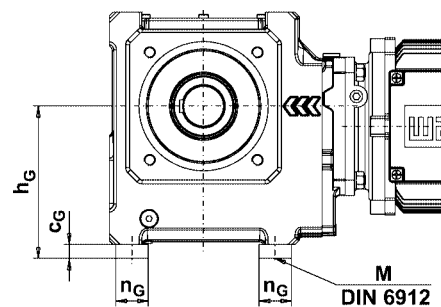
Type	a	a ₁	b ₁	c	d ₁	E	e ₂	h	h ₁	j	k	l	p	r	s ₁	w ₁	Set/Kit 1)
S.. 404.	209	114	75	15	12	96	90	32	19	17	38	M8x20	130	22	8,5	100	GMDS090
S.. 454.	209	114	75	15	12	96	90	32	19	17	38	M8x20	130	22	8,5	100	GMDS090
S.. 455.	250	136	92	17	12	105	110	32	19,5	17,5	38	M10x25	160	22	10,5	109	GMDS110
S.. 506.	302	160	108	19	12	120	130	32	19	17	38	M10x25	200	22	10,5	124	GMDS130
S.. 507.	310	176	122	21	12	120	145	32	21	19	38	M12x25	200	22	12,5	124	GMDS145
S.. 608.	385	200	132	23	20	140	165	56	31,5	29,5	62,5	M12x30	250	35	12,5	144	GMDS165
S.. 609.	393	216	152	23	20	150	190	56	31,5	29,5	62,5	M12x30	250	35	12,5	154	GMDS190

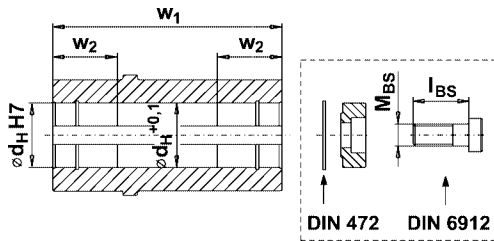


Type	a _G	b _G	c _G	f _G	h _G	n _G	s _G	M	Set/Kit 2)
SG 404.	70	120	12	136	100	30	9	M8x16	SFU404
SG 454.	70	120	12	136	100	30	9	M8x16	SFU404
SG 455.	100	135	12	156	117	30	11	M10x16	SFU455
SG 506.	125	150	12	172	132	30	11	M10x16	SFU506
SG 507.	140	154	15	180	145	35	14	M12x20	SFU507
SG 608.	155	174	15	200	165	35	14	M12x20	SFU608
SG 609.	170	184	15	210	175	35	14	M12x20	SFU609

2) 1 Set: 2 Fussleisten mit 4 Schrauben/
1 Kit: 2 foot plates with 4 screws

Beispiel: Lage Seite 3
Example: Position 3



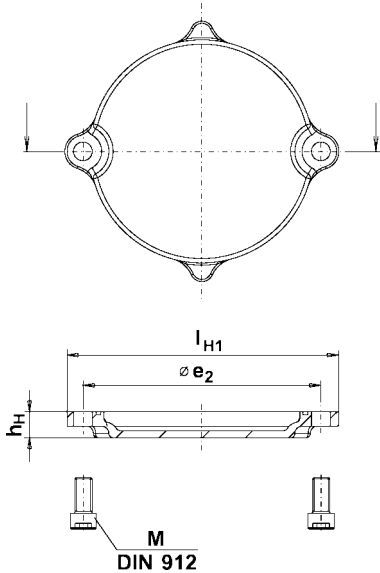
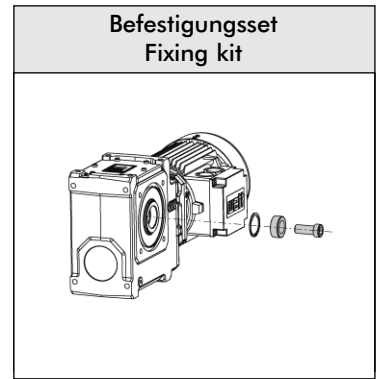


Nuten nach DIN 6885 Bl. 1
Keyways as per DIN 6885 sh. 1

! Nuten nach DIN 6885 Bl. 3 (niedrige Form)
! keyways as per DIN 6885 sh. 3 (low shape)

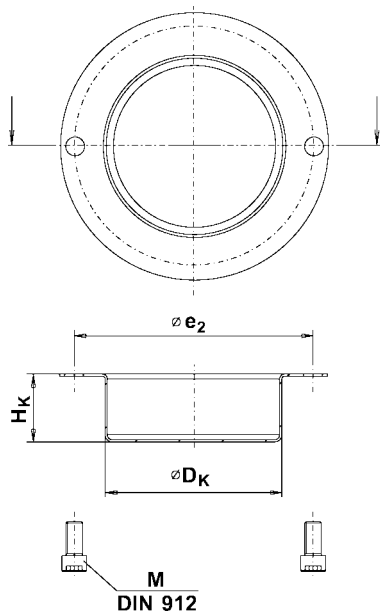
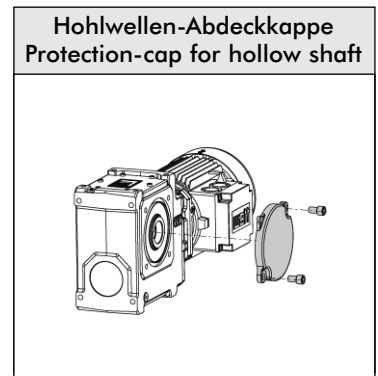
Type	d _H	l _{BS}	M _{BS}	w ₁	w ₂	Set/Kit ³⁾
S.. 404.	*20	20	M6	100	33	GMBSD020M06
	25	25	M10	100	33	GMBSD025M10
	30	25	M10	109	33	GMBSD030M10
S.. 454.	20	20	M6	100	33	GMBSD020M06
	25	25	M10	100	33	GMBSD025M10
	*30	25	M10	100	33	GMBSD030M10
S.. 455.	25	25	M10	109	31	GMBSD025M10
	30	25	M10	109	31	GMBSD030M10
	*35	30	M12	109	31	GMBSD035M12
S.. 506.	30	25	M10	124	35	GMBSD030M10
	35	30	M12	124	35	GMBSD035M12
	*40	40	M16	124	35	GMBSD040M16
S.. 507.	40	40	M16	124	35	GMBSD040M16
	*45	40	M16	124	35	GMBSD045M16
S.. 608.	40	40	M16	144	37	GMBSD040M16
	*45	40	M16	144	37	GMBSD045M16
S.. 609.	*50	40	M16	154	39	GMBSD050M16
	!60	50	M20	154	39	GMBSD060M20

³⁾ 1 Set: 1 Scheibe mit Sicherungsring und Schraube /
1 Kit: 1 disc with circlip and screw



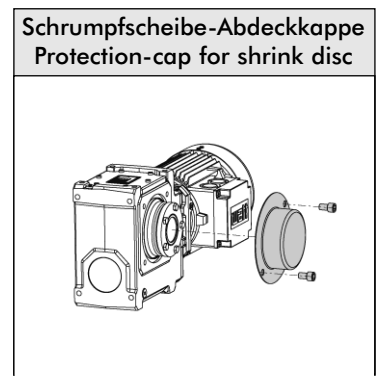
Type	l _{H1}	e ₂	h _H	M	Set/Kit ⁴⁾
S.. 404.	110	90	13	M8x16	GMAK090
S.. 454.	110	90	13	M8x16	GMAK090
S.. 455.	130	110	13	M10x20	GMAK110
S.. 506.	150	130	13	M10x20	GMAK130
S.. 507.	170	145	15	M12x25	GMAK145
S.. 608.	190	165	18	M12x25	GMAK165
S.. 609.	215	190	18	M12x25	GMAK190

⁴⁾ 1 Set: 1 Hohlwellen-Abdeckkappe mit 2 Schrauben /
1 Kit: 1 protection-cap for hollowshaft with 2 screws

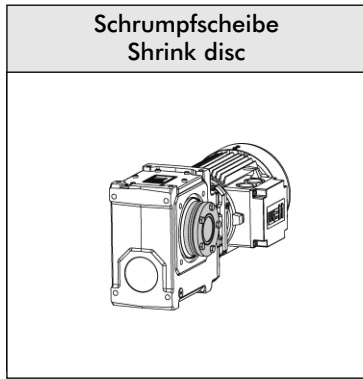


Type	D _K	e ₂	H _K	M	Set/Kit ⁵⁾
S.. 404.	76	90	34	M8x16	GMAK090SSET
S.. 454.	76	90	34	M8x16	GMAK090SSET
S.. 455.	90	110	42	M10x20	GMAK110SSET
S.. 506.	110	130	45	M10x20	GMAK130SSET
S.. 507.	120	145	50	M12x25	GMAK145SSET
S.. 608.	122	165	47	M12x25	GMAK165SSET
S.. 609.	157	190	76	M12x25	GMAK190SSET

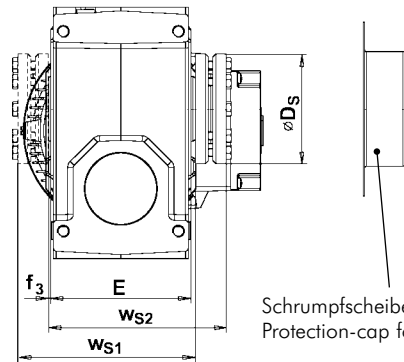
⁵⁾ 1 Set: 1 Schrumpfscheiben-Abdeckkappe mit 2 Schrauben /
1 Kit: 1 protection-cap for shrink disc with 2 screws



4

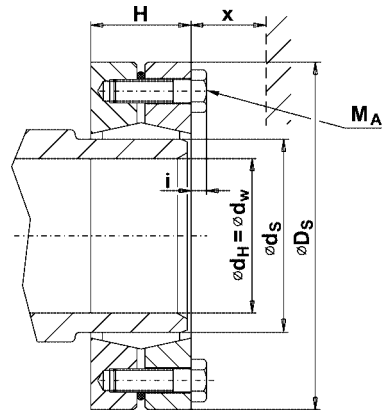
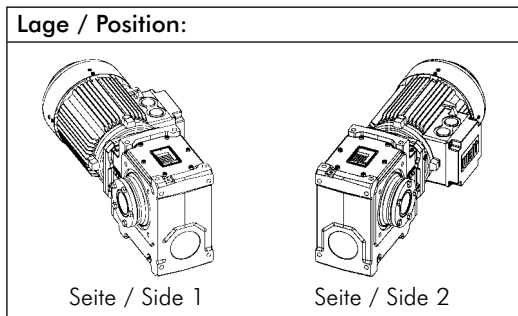
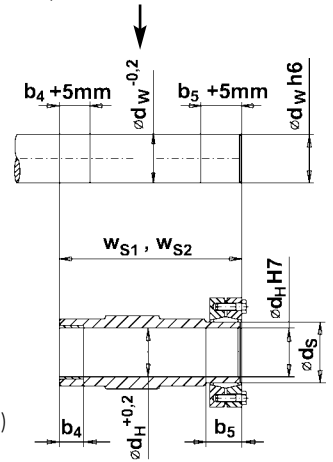


Beispiel: Schrumpfscheibe Seite 2
Example: Shrink disc on side 2



Schrumpfscheiben-Abdeckkappe (optional)
Protection-cap for shrink disc (option)

Vorschlag für Kundenwelle!
Proposal for customer shaft!



Type	b ₄	b ₅	E	f ₃	WS ₁ , WS ₂	d _H d _W	d _S	D _S	H	i	M _{Smax} [Nm]	M _A [Nm]
S.. 404., S.. 454.	20	21	96	2	126	30	36	72	23,5	4	570	12
S.. 455.	20	24	105	2	138	35	44	80	25,5	4	780	12
S.. 506.	20	25	120	2	155	40	50	90	27,5	4	1160	12
S.. 507.	20	25	120	2	162	40	50	90	27,5	4	1160	12
S.. 608.	30	26	140	2	174	50	62	110	30,5	4	2200	12
S.. 609.	30	28	150	2	215	50	62	110	30,5	4	2200	12

M_{Smax} . . . Maximal zulässiges Abtriebsdrehmoment
Zwischen Kundenwelle und Hohlwelle wurde der Reibwert $\mu=0,12$ angenommen bei absolut öl- und fettfreien Wellen (trocken) liegt das zul. Drehmoment 25% höher. Die Spannschrauben sind mit Molykote versehen, die Kegelflächen mit Spezialschmierstoff. /
M_A . . . erforderliches Anzugsmoment der Spannschrauben

M_{Smax} . . . maximum permissible output torque
Friction coefficient $\mu=0,12$ between customer shaft and hollow shaft. With absolutely oil-free and dry shafts, the permissible torque is 25% higher. The screws are provided with Molykote, the conical surfaces with special lubricant.
M_A . . . necessary fixing torque for screws

Die Länge der kundenseitigen Wellen muß mit der Länge der Hohlwelle (WS₅, WS₆) übereinstimmen.
Der Wellendurchmesser muß nach ISO h6 ausgeführt sein.

The length of the customer's shaft must correspond with the length of the hollow shaft (WS₅, WS₆).
Shaft diameter has to be machined according to ISO h6.