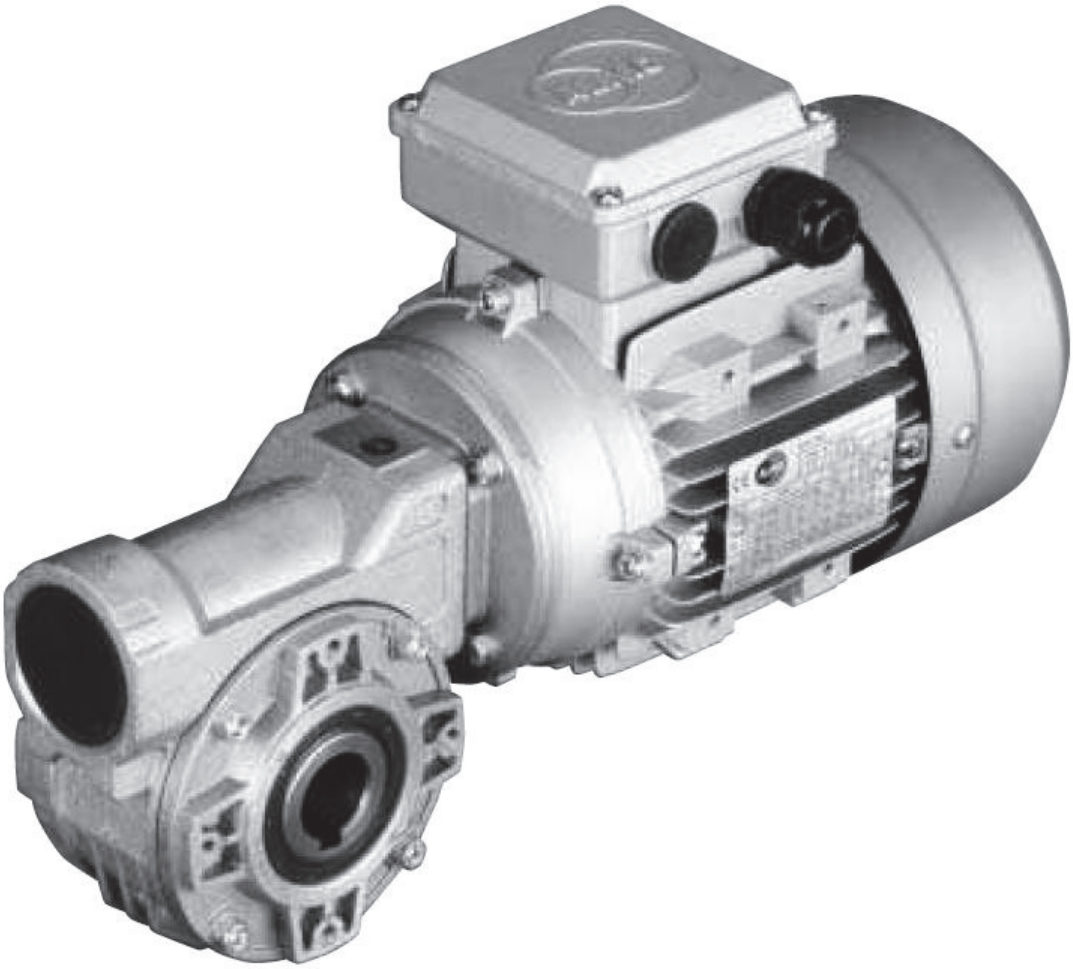
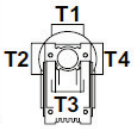


Eigenschaften:

- Die Getriebe Baugröße 030 bis 085 besitzen ein Aluminiumgehäuse
- Die größeren Getriebe besitzen ein Graugussgehäuse

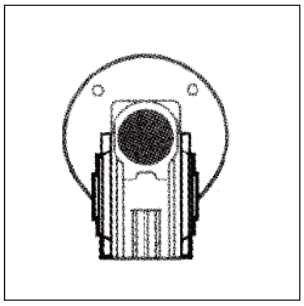
Bezeichnung:

GETRIEBE							MOTOR				
RAV	**050**	**FD**	**20**	**P71**	**B5**	**B3**	**71B4**	**B5**	**230/400**	**50Hz**	**T1**
Type	Größe	Ausführung	Übersetzung	Größe IEC	Bauform	Einbaulage	Größe IEC	Bauform	Spannung	Frequenz	Lage Klemmenkasten
RAV	030 045 050 063 63A 085 110 130	FB P. F. BR		56.. — 132..	B5 B14	B3 B6 B7 B8 V5 V6	56.. — 132..	B5 B14	—	50Hz 60Hz	T1 T2 T3 T4

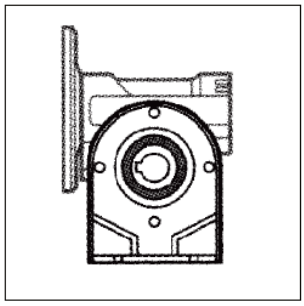


Ausführungen:

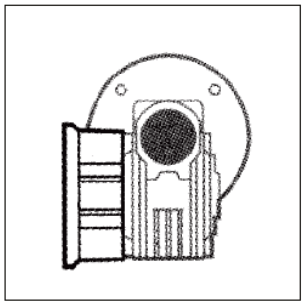
Die Schneckengetriebe RAV werden in 4 Ausführungen angeboten.



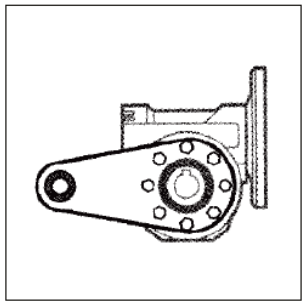
FB



P.



F.

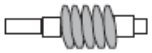


BR

Symbole:

n1	[min-1]	Eintriebsdrehzahl	sf		Servicefaktor
n2	[min-1]	Abtriebsdrehzahl	Rd	[%]	Dynamischer Wirkungsgrad
i		Übersetzung	Rs	[%]	Statischer Wirkungsgrad
P1	[kW]	Motorleistung	R2	[N]	Radialkraft
Mn	[Nm]	Getriebenennmoment			
M2	[Nm]	Abtriebsmoment			

Radsätze:

Tβ 	030	045	050	063 63A	085	110
	i					
>25°		7		7	7	7
12° - 25°	7 10,6 15	10 14	7 10	10 15	10 14 20 22	10 16 20 23
8° - 12°	19	21	14 18	19 24		
5° - 8°	30	28	26 36	30 36	28 38 46 52	30 38 45 53 64
3° - 5°	39	37 46 60	43 60 68	45 67 80	67 74 96	84 99
1° - 3°	61 80	70 102	80 100	94		

>25°	Totale Reversierung – keine Selbsthemmung
12° - 25°	Statische Reversierbarkeit Schneller Durchlauf Dynamische Reversierbarkeit
8° - 12°	Variable statische Selbsthemmung Schneller Durchlauf im Falle von Vibrationen Dynamische Reversierbarkeit
5° - 8°	Statische Selbsthemmung Durchlauf im Falle von Vibrationen Etwas dynamische Selbsthemmung
3° - 5°	Statische Selbsthemmung Etwas Durchlauf im Falle von Vibrationen Leichte dynamische Selbsthemmung*
1° - 3°	Statische Selbsthemmung Kein Durchlaufen Leichte dynamische Selbsthemmung*

* Bitte beachten Sie: Eine totale Selbsthemmung kann nicht garantiert werden, da es im Falle von Vibrationen zum Selbstdurchdrehen kommen kann. Zur absoluten Sicherheit ist ein Bremsmotor zu verwenden.

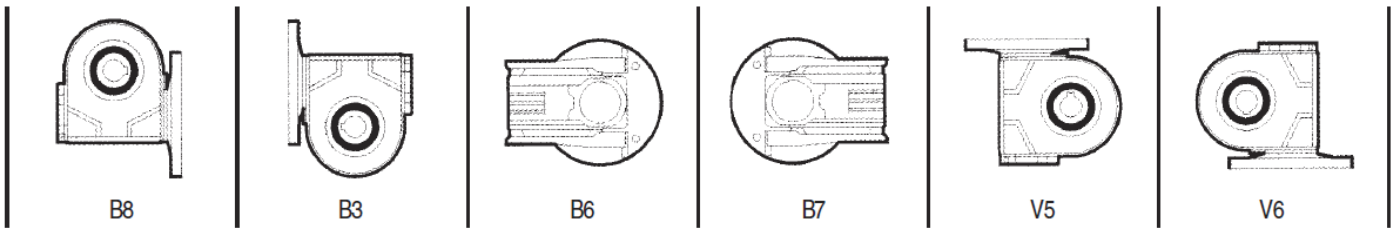
Schmierstoffe:

Die Getriebe sind für die Einbaulagen B3, B6, B7 und B8 mit Schmierstoff befüllt. Bei Einbaulage V5 und V6 bitte um Rücksprache. Bei Baugröße 110 muss die Schmierstoffmenge der Einbaulage gemäß nachfolgender Tabelle angepasst werden.

Empfohlene Schmierstoffe				
	AGIP	KLUBER	SHELL	MOBIL
030÷110	Telium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630

Einbaulagen:

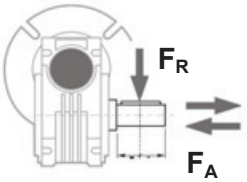
Einbaulagen



Getriebe der Größen 30 bis 85 sind lebensdauergeschmiert und wartungsfrei. Bei Getriebegröße 110 ist ein Ölwechsel nach 400 Stunden und danach alle 4000 Stunden notwendig.

	Ölfüllmenge				
	B3	B8	B6	B7	
RAV030	0,06				Lebensdauer-schmierung
RAV045	0,09				
RAV050	0,18				
RAV063	0,40				
RAV63A	0,40				
RAV085	1,2				
RAV110	**2 : 1,5 – mittels Füllstandschraube kontrollieren**				

Querkräfte:



n_2 [min^{-1}]	030		045		050		063/63A		085		110	
	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]
200	120	600	180	900	240	1200	360	1800	500	2500	600	2900
150	140	700	200	1000	280	1400	400	2000	580	2900	700	3300
100	160	800	220	1100	300	1500	460	2300	600	3000	750	3600
75	180	900	240	1200	340	1700	500	2500	700	3500	800	4000
50	200	1000	260	1400	380	1900	600	3000	800	4000	920	4600
25	250	1250	300	1800	480	2500	700	3800	1000	5000	1200	6000
15	280	1400	400	2000	560	2800	800	4000	1160	5800	1400	7000

Technische Daten:

n2 [min⁻¹]	M2 [Nm]	sf	i			
0.09kW						
23	19	1,0	61	RAV030	- MTA 56G4	4,4
36	14	1,3	39			
47	11	1,3	30			
74	8	2,0	19			
93	7	2,0	15			
132	5	2,0	10,6			
200	3	2,0	7			
0.12kW						
14	41	1,0	100	RAV050	- MTA 63K4	8
18	34	1,5	80			
21	31	2,1	68			
23	29	2,1	60			
14	40	0,8	102	RAV045	- MTA 63K4	7,4
20	31	0,8	70			
23	28	1,5	60			
30	23	2,1	46			
38	19	2,1	37			
50	15	2,1	28			
23	25	0,8	61			
36	18	1,0	39	RAV030	- MTA 63K4	6
47	15	1,0	30			
74	11	1,5	19			
93	9	1,5	15			
132	7	1,5	10,6			
200	5	1,5	7			
0.18kW						
15	60	2,1	94	RAV063	- MTA 63G4	11
18	54	2,1	80			
14	61	0,7	100	RAV050	- MTA 63G4	8
18	52	1,0	80			
21	47	1,4	68			
23	43	1,4	60			
23	42	1,0	60	RAV045	- MTA 63G4	7,4
30	34	1,4	46			
38	28	1,4	37			
50	22	1,4	28			
67	17	2,1	21			
100	13	2,1	14			
47	23	0,9	30	RAV030	- MTA 63G4	6
74	16	1,0	19			
93	13	1,0	15			
132	10	1,0	10,6			
200	7	1,0	7			

n2 [min⁻¹]	M2 [Nm]	sf	i			
0.25kW						
15	83	1,2	94	RAV063	- MTA 71K4	13
18	76	1,5	80			
21	68	1,8	67			
18	72	0,7	80	RAV050	- MTA 71K4	10
21	65	1,0	68			
23	60	1,0	60			
33	48	1,5	43			
39	42	1,5	36			
54	31	2,2	26			
78	23	2,2	18			
100	19	3,0	14			
140	14	3,0	10			
200	10	3,0	7			
30	47	1,0	46	RAV045	- MTA 71K4	9
38	40	1,0	37			
50	31	1,0	28			
67	24	1,5	21			
100	18	1,5	14			
140	13	1,5	10			
200	10	1,5	7			
0.37kW						
15	122	0,8	94	RAV063	- MTA 71G4	14
18	112	1,0	80			
21	101	1,2	67			
31	75	1,5	45			
39	62	2,0	36			
21	96	0,7	68	RAV050	- MTA 71G4	11
23	89	0,7	60			
33	71	1,0	43			
39	63	1,0	36			
54	45	1,5	26			
78	34	1,5	18			
100	28	2,0	14			
140	20	2,0	10			
200	14	2,0	7			
38	59	0,7	37	RAV045	- MTA 71G4	10
50	46	0,7	28			
67	35	1,0	21			
100	27	1,0	14			
140	20	1,0	10			
200	14	1,0	7			

Technische Daten:

n2 [min⁻¹]	M2 [Nm]	sf	i			kg
0.55kW						
14	225	2,0	99	RAV110	- MTA 80K4	45
17	201	2,0	84			
22	165	2,7	64			
15	186	1,0	96	RAV085	- MTA 80K4	27
19	160	1,4	74			
21	163	2,0	67			
27	128	2,0	52			
21	150	0,8	67	RAV063	- MTA 80K4	16
31	112	1,0	45			
39	92	1,4	36			
47	83	2,0	30			
58	68	2,0	24			
54	67	1,0	26	RAV050	- MTA 80K4	13
78	51	1,0	18			
100	41	1,4	14			
140	30	1,4	10			
200	22	1,4	7			
0.75kW						
14	307	1,5	99	RAV110	- MTA 80G4	46
17	274	1,5	84			
22	225	2,0	64			
15	253	0,7	96	RAV085	- MTA 80G4	28
19	219	1,0	74			
21	222	1,5	67			
27	175	1,5	52			
21	205	0,6	67	RAV063	- MTA 80G4	17
31	152	0,7	45			
39	125	1,0	36			
47	113	1,5	30			
58	93	1,5	24			
74	75	1,5	19			
93	61	2,0	15			
140	41	2,4	10			
200	30	2,4	7			
54	92	0,7	26	RAV050	- MTA 80G4	14
78	69	0,7	18			
100	57	1,0	14			
140	41	1,0	10			
200	29	1,0	7			

n2 [min⁻¹]	M2 [Nm]	sf	i			kg
1.1kW						
14	450	1,0	99	RAV110	- MTA 90S4	48
17	402	1,0	84			
22	329	1,4	64			
26	283	2,0	53			
31	247	2,0	45			
37	213	2,7	38			
47	170	2,7	30			
61	138	2,7	23			
19	321	0,7	74	RAV085	- MTA 90S4	30
21	325	1,0	67			
27	257	1,0	52			
30	238	1,4	46			
37	202	1,4	38			
50	158	2,0	28			
39	183	1,0	36	RAV063A	- MTA 90S4	19
47	165	1,4	30			
58	136	1,4	24			
74	111	1,4	19			
93	89	1,4	15			
140	61	1,6	10			
200	44	1,6	7			
39	183	0,7	36	RAV063	- MTA 90S4	19
47	165	1,0	30			
58	136	1,0	24			
74	111	1,0	19			
93	89	1,4	15			
140	61	1,6	10			
200	44	1,6	7			

Technische Daten:

n2 [min⁻¹]	M2 [Nm]	sf	i			kg
1.5kW						
14	614	0,7	99	RAV110	- MTA 90L4	50
17	548	0,7	84			
22	449	1,0	64			
26	386	1,5	53			
31	337	1,5	45			
37	290	2,0	38			
47	232	2,0	30			
61	188	2,0	23			
70	168	2,7	20			
21	443	0,7	67	RAV085	- MTA 90L4	32
27	350	0,7	52			
30	325	1,0	46			
37	275	1,0	38			
50	215	1,5	28			
64	175	1,5	22			
70	162	1,5	20			
100	112	2,0	14			
140	82	2,7	10			
200	63	2,7	7			
39	250	0,7	36	RAV063A	- MTA 90L4	21
47	226	1,0	30			
58	185	1,0	24			
74	151	1,0	19			
93	122	1,0	15			
140	83	1,2	10			
200	59	1,2	7			
47	226	0,7	30	RAV063	- MTA 90L4	21
58	185	0,7	24			
74	151	0,7	19			
93	122	1,0	15			
140	83	1,2	10			
200	59	1,2	7			
2.2kW						
22	659	0,7	64	RAV110	- MTA100L4	56
26	566	1,0	53			
31	495	1,0	45			
37	426	1,4	38			
47	340	1,4	30			
61	276	1,4	23			
70	246	1,8	20			
88	196	2,5	16			
50	315	1,0	28	RAV085	- MTA100L4	38
64	256	1,0	22			
70	237	1,0	20			
100	164	1,4	14			
140	120	1,8	10			
200	92	1,8	7			

n2 [min⁻¹]	M2 [Nm]	sf	i			kg
3kW						
26	771	0,7	53	RAV110	- MTA100Lx4	59
31	675	0,7	45			
37	581	1,0	38			
47	463	1,0	30			
61	376	1,0	23			
70	336	1,3	20			
88	267	1,8	16			
140	176	2,5	10			
200	126	2,5	7			
50	430	0,7	28	RAV085	- MTA100Lx4	41
64	349	0,7	22			
70	323	0,7	20			
100	223	1,0	14			
140	164	1,3	10			
200	126	1,3	7			
4kW						
37	774	0,8	38	RAV110	- MTA112M4	66
47	618	0,8	30			
61	501	0,8	23			
70	447	1,0	20			
88	356	1,4	16			
140	235	1,9	10			
200	168	1,9	7			
100	298	0,8	14	RAV085	- MTA112M4	48
140	218	1,0	10			
200	168	1,0	7			

Technische Daten:

i	n2 [min^{-1}] n1=1400min^{-1}	Pn kW	Mn Nm sf=1	Rd %	IEC - B5 56	63	71	80	90	100 112	IEC - B14 56	63	71	80	90	100 112
RAV030																
80	17,5	0,06	15	48	B						B-C					
61	23	0,09	19	50	B						B-C					
39	36	0,13	19	57	B						B-C					
30	47	0,16	20	62	B						B-C					
19	74	0,2	18	70	B						B-C					
15	93	0,24	18	73	B						B-C					
10,6	132	0,28	16	78	B						B-C					
7	200	0,42	16	80	B						B-C					
RAV045																
102	13,7	0,08	28	49		B						B-C				
70	20	0,11	29	54		B						B-C				
60	23	0,17	39	56		B						B-C				
46	30	0,21	39	59		B						B-C				
37	38	0,25	39	63		B						B-C				
28	50	0,31	39	65		B						B-C				
21	67	0,41	39	67		B						B-C				
14	100	0,39	29	77		B						B-C				
10	140	0,54	29	79		B						B-C				
7	200	0,76	29	80		B						B-C				
RAV050																
100	14	0,14	49	50		B						B-C				
80	17,5	0,18	54	54		B						B-C				
68	21	0,21	55	57		B						B-C				
60	23	0,25	59	58		B						B-C				
43	33	0,34	65	66		B						B-C				
36	39	0,41	69	69		B						B-C				
26	54	0,52	63	69		BS	B					BS-C	B-C			
18	78	0,64	59	75		BS	B					BS-C	B-C			
14	100	0,86	65	79		BS	B					BS-C	B-C			
10	140	1,1	59	80		BS	B					BS-C	B-C			
7	200	1,4	54	82		BS	B					BS-C	B-C			
RAV063																
94	14,9	0,31	103	52		BS	B						B-C	C		
80	17,5	0,36	113	57		BS	B						B-C	C		
67	21	0,43	118	60		BS	B						B-C	C		
45	31	0,63	129	66		BS	B						B-C	C		
36	39	0,84	140	68			BS	B					BS-C	B-C		
30	47	0,92	139	74			BS	B					BS-C	B-C		
24	58	1,1	135	75			BS	B					BS-C	B-C		
19	74	1,3	131	78			BS	B					BS-C	B-C		
15	93	1,6	131	79			BS	B					BS-C	B-C		
10	140	2,3	128	81			BS	B					BS-C	B-C		
7	200	3	119	83			BS	B					BS-C	B-C		

Symbole:

i		Übersetzung
n2	[min-1]	Abtriebsdrehzahl
Pn	[kW]	Nennleistung
Mn	[Nm]	Getriebenennmoment
Rd	[%]	Dynamischer Wirkungsgrad

Technische Daten:

i	n2 [min^{-1}] n1=1400min^{-1}	Pn kW	Mn Nm sf=1	Rd %	IEC - B5 56	63	71	80	90	100 112	IEC - B14 56	63	71	80	90	100 112
RAV63A																
94	14,9	0,37	124	52		BS	B						B-C	C		
80	17,5	0,47	146	57		BS	B						B-C	C		
67	21	0,55	151	60		BS	B						B-C	C		
45	31	0,82	167	66		BS	B						B-C	C		
36	39	1,1	181	68			BS	B					BS-C	B-C		
30	47	1,2	180	74			BS	B					BS-C	B-C		
24	58	1,4	176	75			BS	B					BS-C	B-C		
19	74	1,7	469	78			BS	B					BS-C	B-C		
15	93	2,1	169	79			BS	B					BS-C	B-C		
10	140	3	165	81			BS	B					BS-C	B-C		
7	200	3,9	155	93			BS	B					BS-C	B-C		
RAV085																
96	14,6	0,66	230	53			BS	B						B		
74	18,9	0,87	255	58			BS	B						B		
67	21	0,93	275	65			BS	B						B		
52	27	1,2	275	66			BS	B						B		
46	30	1,4	310	68			BS	B						B		
38	37	1,7	320	71			BS	B						B		
28	50	2,3	330	75				BS	B					BS	B	
22	64	2,4	280	78				BS	B					BS	B	
20	70	2,6	280	79				BS	B					BS	B	
14	100	3,9	290	78				BS	B					BS	B	
10	140	4,9	270	80				BS	B					BS	B	
7	200	5,8	245	88				BS	B					BS	B	
RAV110																
99	14,1	1,1	460	60			BS	B						B		
84	16,7	1,3	470	65			BS	B						B		
64	22	1,7	510	69			BS	B						B		
53	26	2,3	590	70				BS	B					BS	B	
45	31	2,5	570	73				BS	B					BS	B	
38	37	3,2	610	75				BS	B					BS	B	
30	47	4	620	76				BS	B					BS	B	
23	61	3,9	490	80				BS	B					BS	B	
20	70	4,6	520	82				BS	B					BS	B	
16	88	5,7	510	82				BS	B					BS	B	
10	140	8,5	500	86				BS	B					BS	B	
7	200	10,9	460	88				BS	B					BS	B	

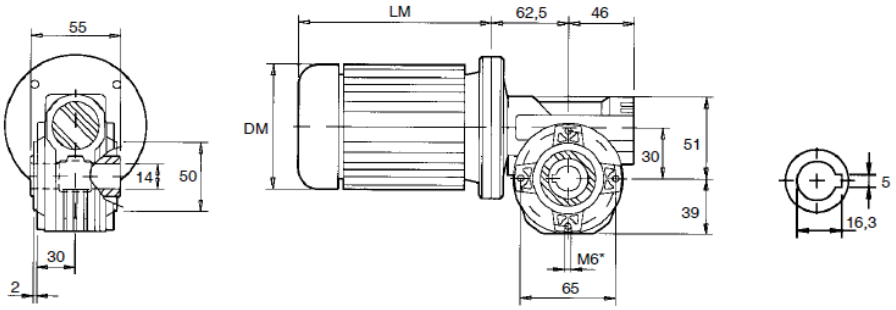
Legende:

▭	Motorflansch verfügbar
B	Montage mit Reduzierhülse
BS	Montage mit doppelter Reduzierhülse
-C	Motorflansch um 45° verdreht

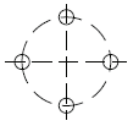
Abmessungen:

RAV 030

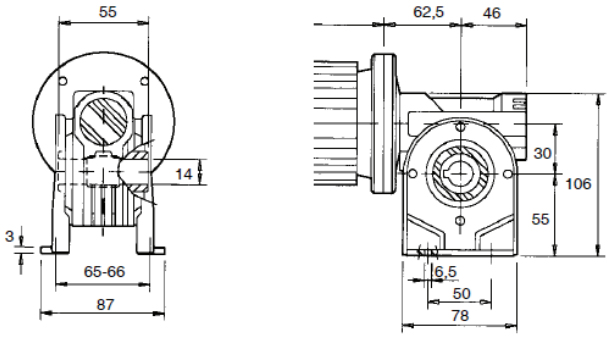
RAV 030 FB



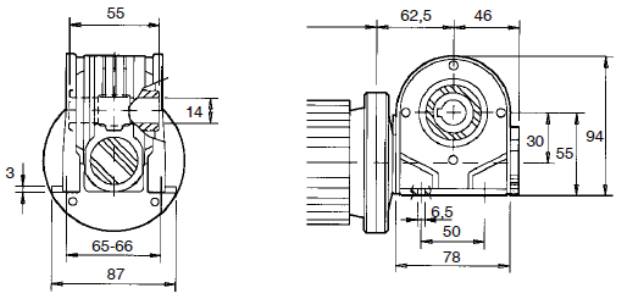
*Flanschbohrungen



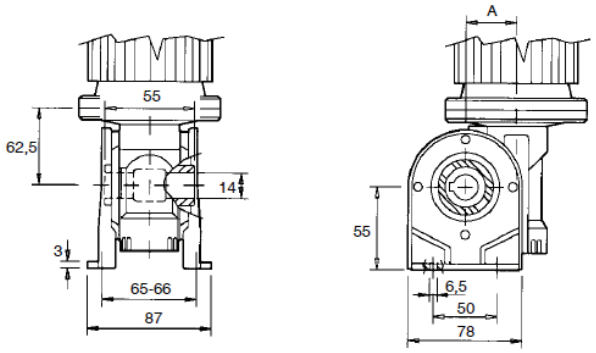
RAV 030 PA



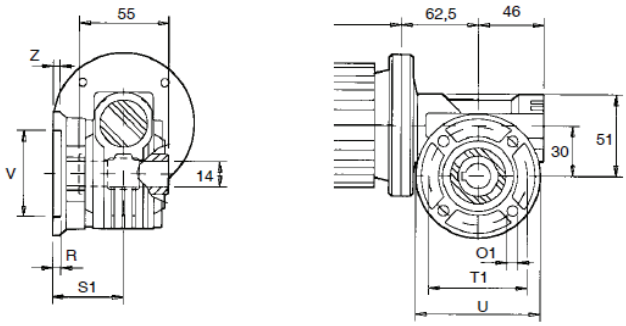
RAV 030 PB



RAV 030 PV

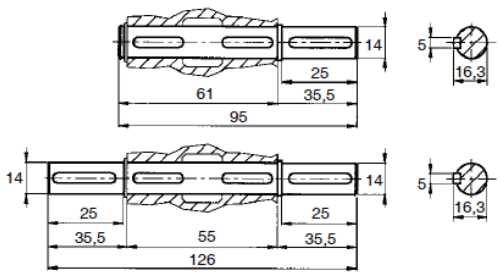


RAV 030 F.

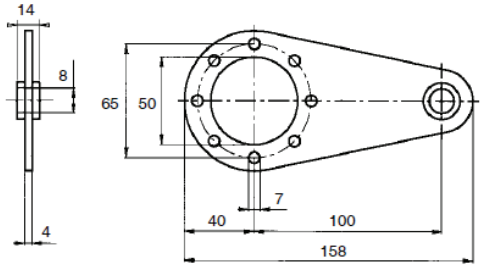


Flansch	U	T1	V	S1	O1	R	Z
FC	80	68	50	50,5	7	6	6
FL	110	87	60	55,5	8,5	6	6
F1	80	56	40	49	6,5	3,5	5,5

Vollwellen



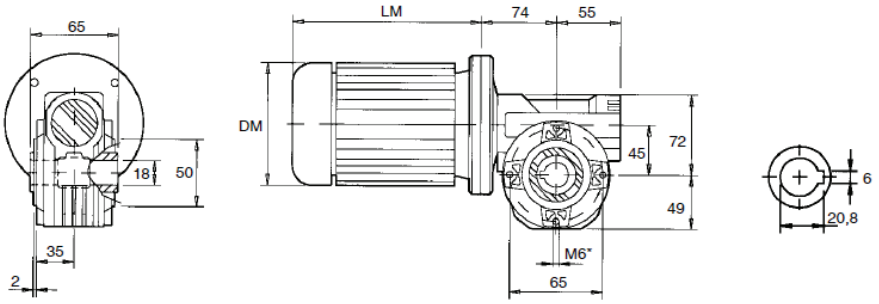
Drehmomentstütze



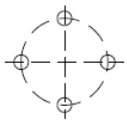
Abmessungen:

RAV 045

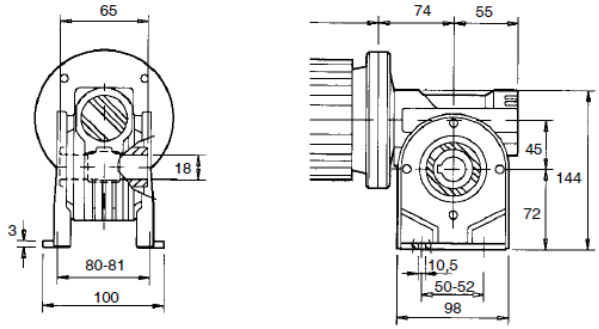
RAV 045 FB



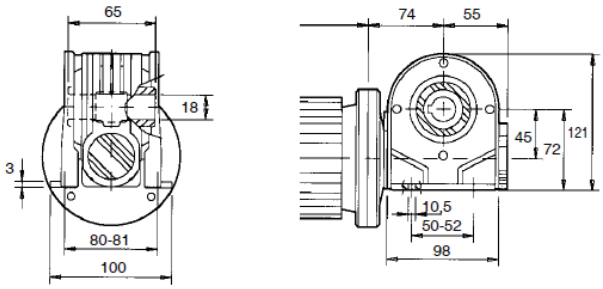
*Flanschbohrungen



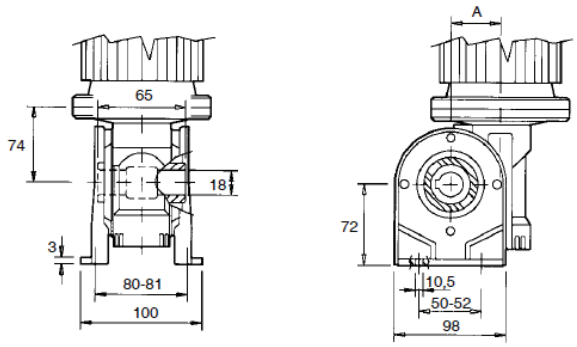
RAV 045 PA



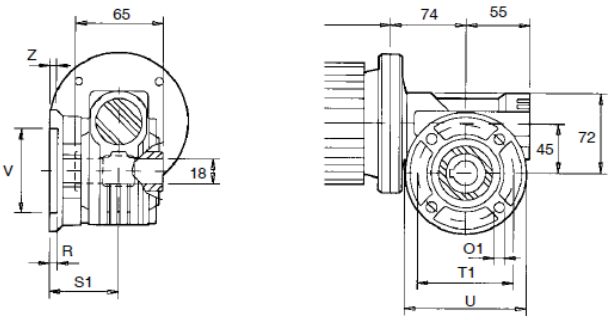
RAV 045 PB



RAV 045 PV

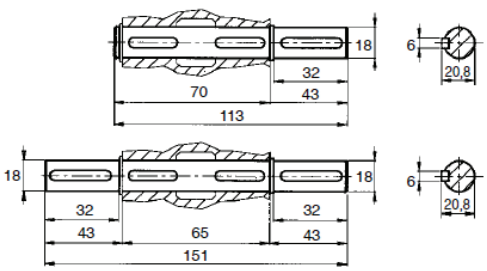


RAV 045 F.

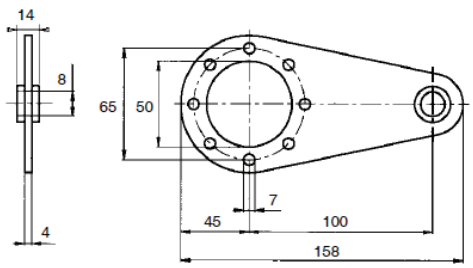


Flansch	U	T1	V	S1	O1	R	Z
FC	110	87	60	60,5	8,5	9	9
FL	110	87	60	90,5	8,5	9	9
F1	140	115	95	73,5	9	4	11
F3	120	100	80	51,5	9	3	8

Vollwellen



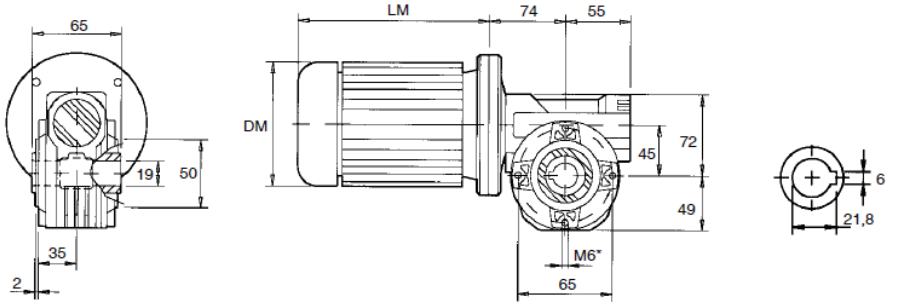
Drehmomentstütze



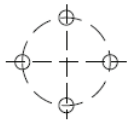
Abmessungen:

RAV S045

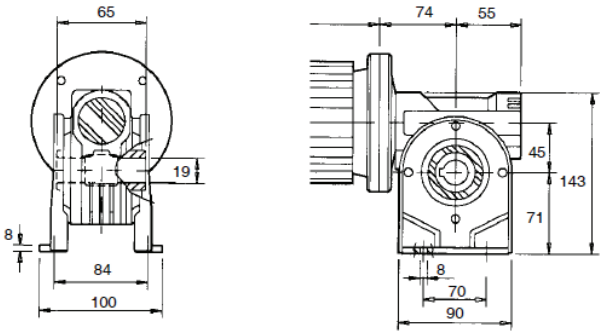
RAV S045 FB



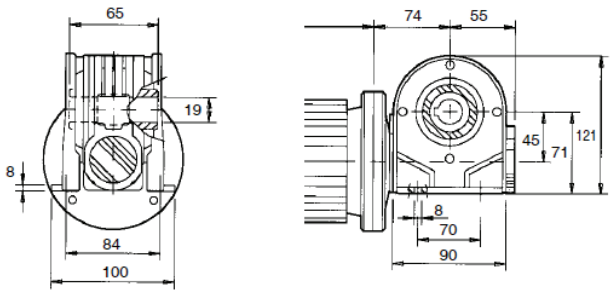
*Flanschbohrungen



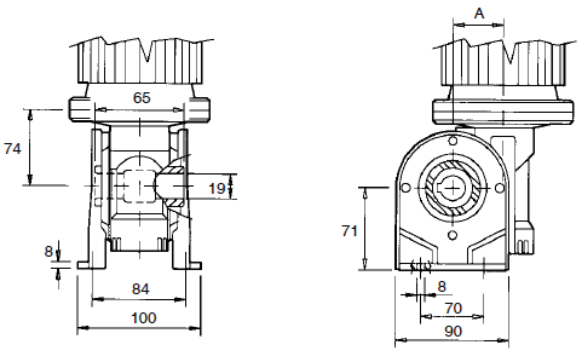
RAV S045 PA



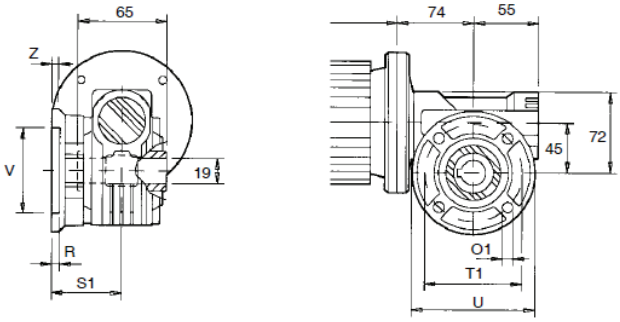
RAV S045 PB



RAV S045 PV

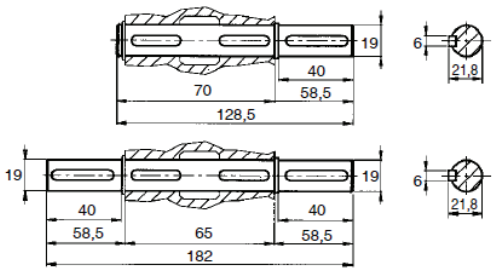


RAV S045 F.

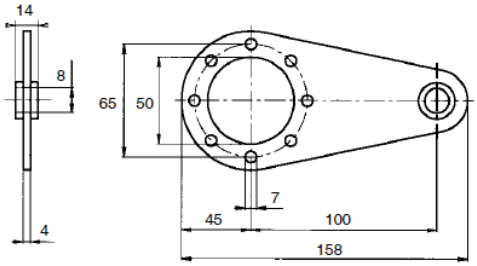


Flansch	U	T1	V	S1	O1	R	Z
FC	110	87	60	60,5	8,5	9	9
FL	110	87	60	90,5	8,5	9	9
F1	140	115	95	73,5	9	4	11

Vollwellen



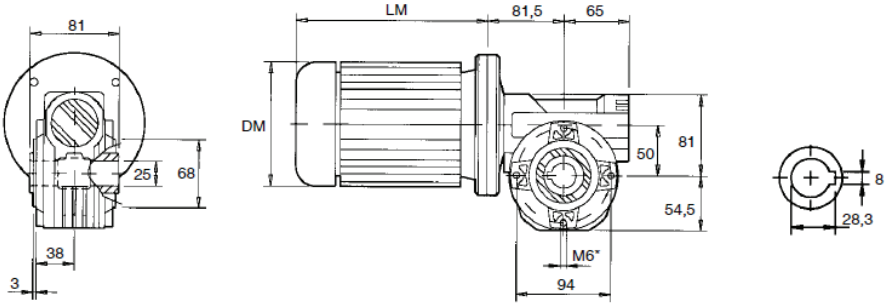
Drehmomentstütze



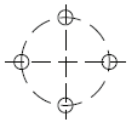
Abmessungen:

RAV 050

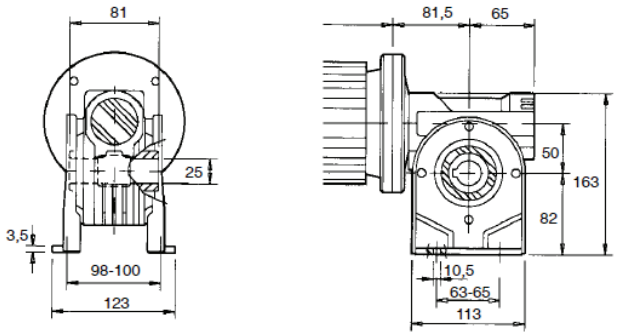
RAV 050 FB



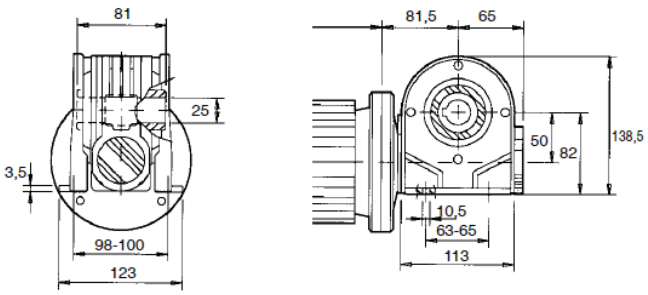
*Flanschbohrungen



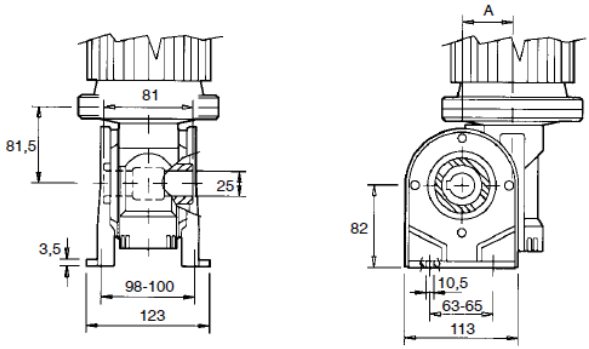
RAV 050 PA



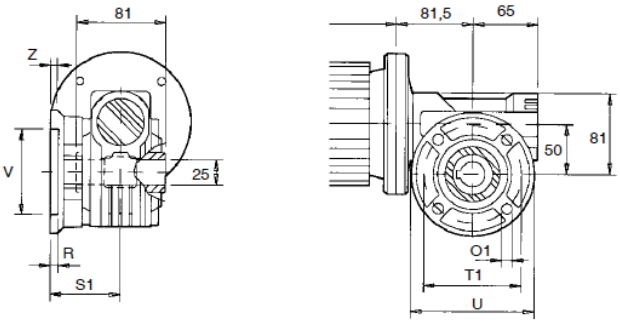
RAV 050 PB



RAV 050 PV

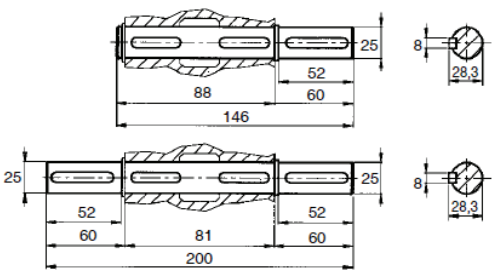


RAV 050 F.

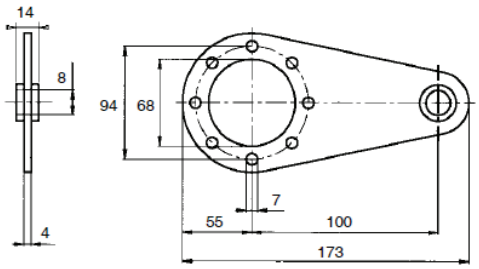


Flansch	U	T1	V	S1	O1	R	Z
FC	123	90	70	85	10,5	9	12
FL	123	90	70	114,5	10,5	9	12
F1	160	130	110	83,5	10	4	11
F2	123	90	70	76,5	10,5	9	12
F3	140	115	95	66,5	10	4	10

Vollwellen



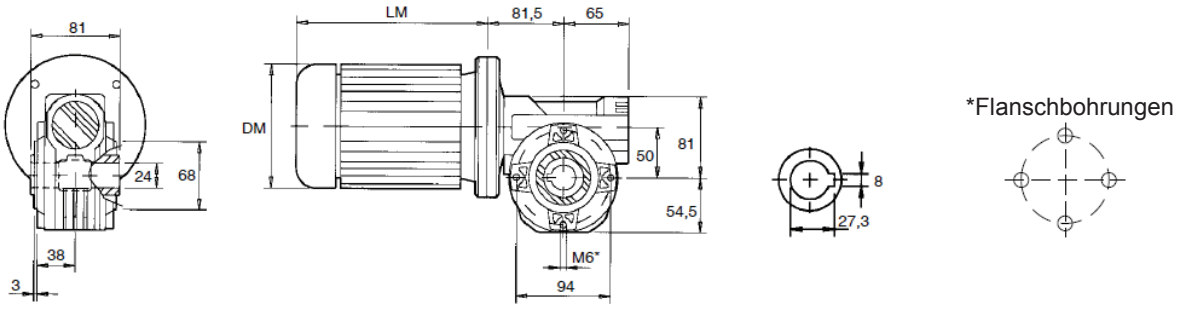
Drehmomentstütze



Abmessungen:

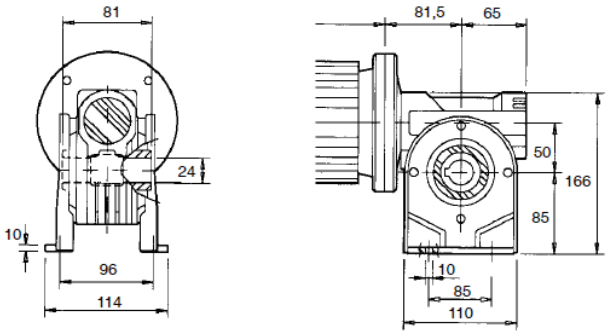
RAV S050

RAV S050 FB

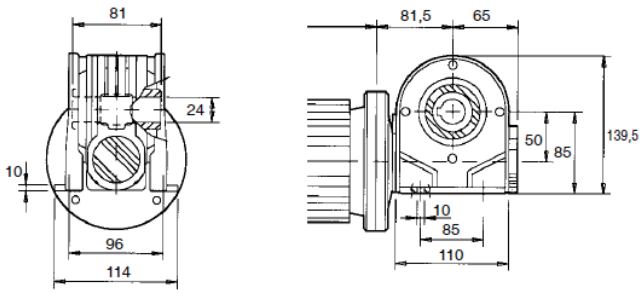


*Flanschbohrungen

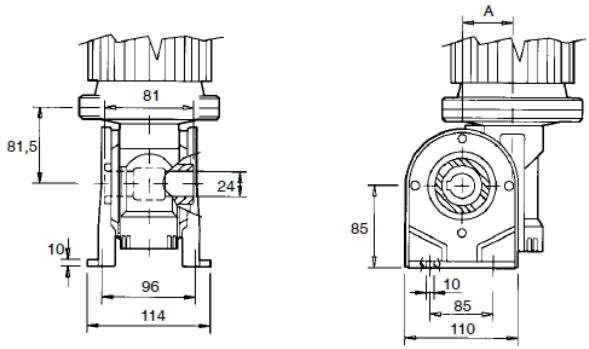
RAV S050 PA



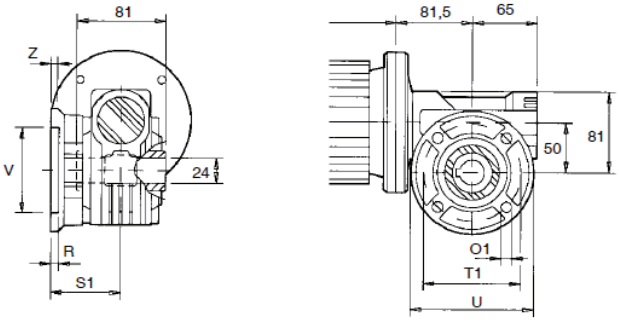
RAV S050 PB



RAV S050 PV

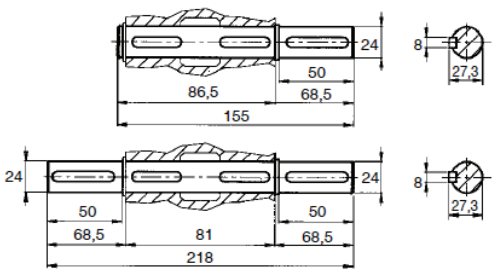


RAV S050 F.

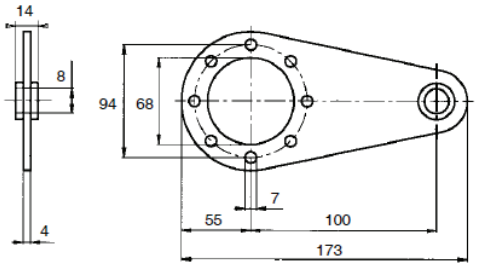


Flansch	U	T1	V	S1	O1	R	Z
FC	123	90	70	85	10,5	9	12
FL	123	90	70	114,5	10,5	9	12
F1	160	130	110	83,5	10	4	11
F2	123	90	70	76,5	10,5	9	12
F3	140	115	95	66,5	10	4	10

Vollwellen



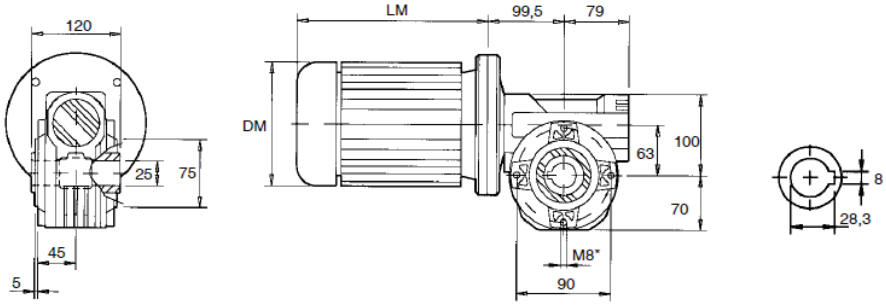
Drehmomentstütze



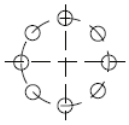
Abmessungen:

RAV 063

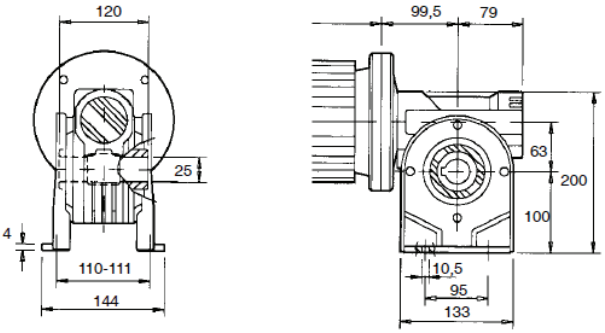
RAV 063 FB



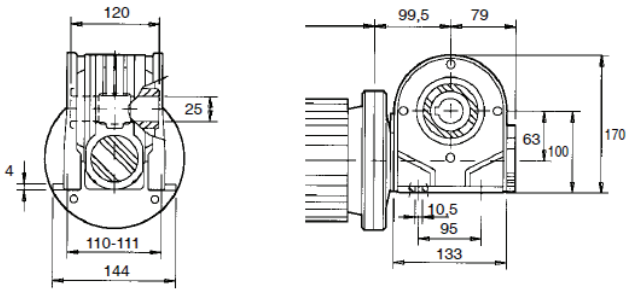
*Flanschbohrungen



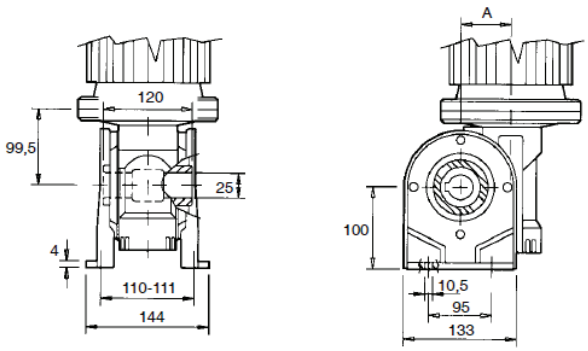
RAV 063 PA



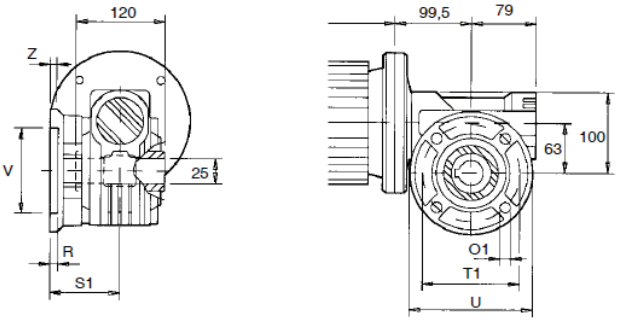
RAV 063 PB



RAV 063 PV

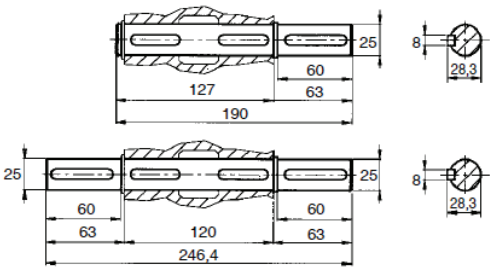


RAV 063 F.

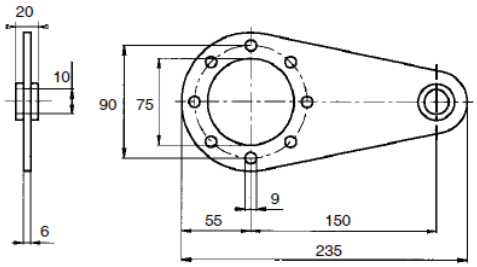


Flansch	U	T1	V	S1	O1	R	Z
FC	175	150	115	86	10,5	7	13
FL	175	150	115	116	10,5	7	13
F1	200	165	130	102	13	7	13
F3	160	130	110	82	10	5	11

Vollwellen



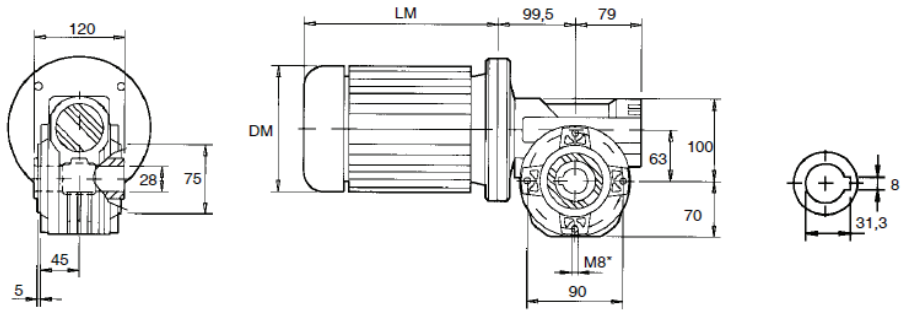
Drehmomentstütze



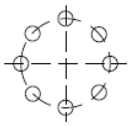
Abmessungen:

RAV 63A

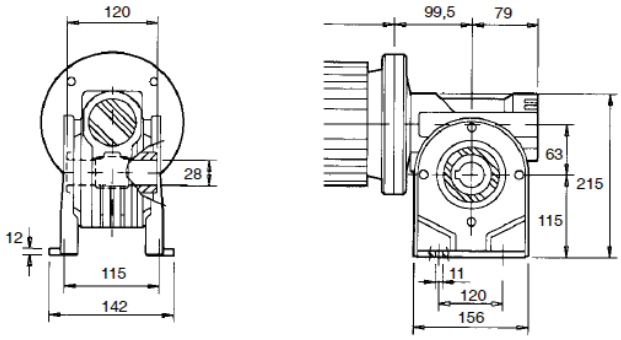
RAV 63A FB



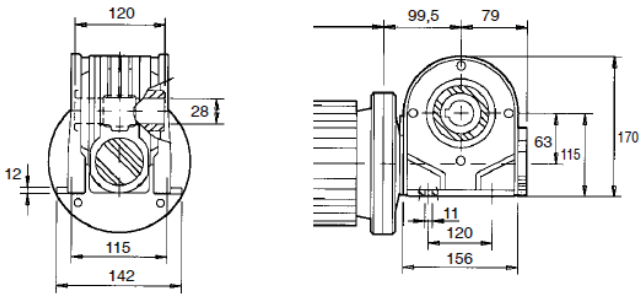
*Flanschbohrungen



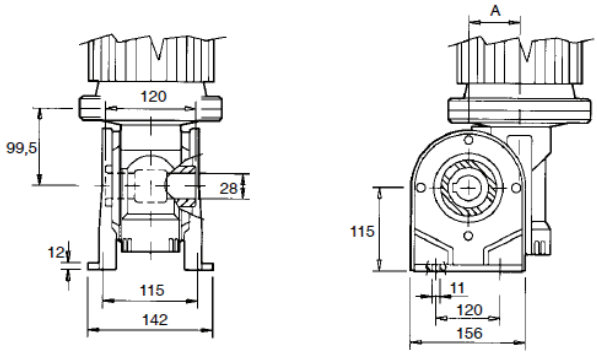
RAV 63A PA



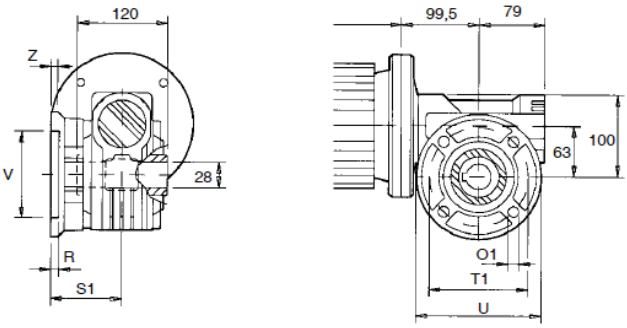
RAV 63A PB



RAV 63A PV

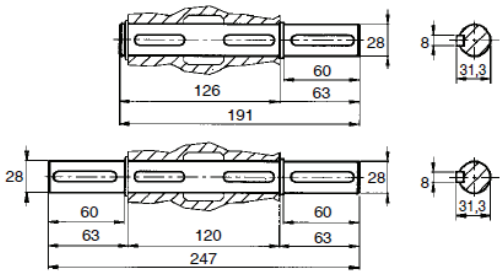


RAV 63A F.

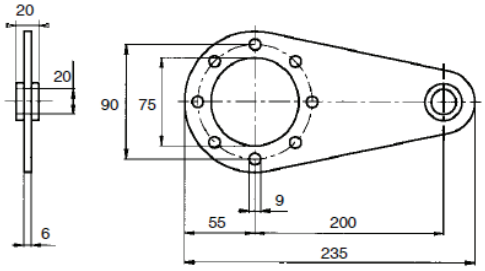


Flansch	U	T1	V	S1	O1	R	Z
FC	200	165	130	85	13	7	13
FL	200	165	130	111	13	7	13
F2	175	150	115	115,5	11	7	13
F3	160	130	110	84,5	11	5	13,5

Vollwellen



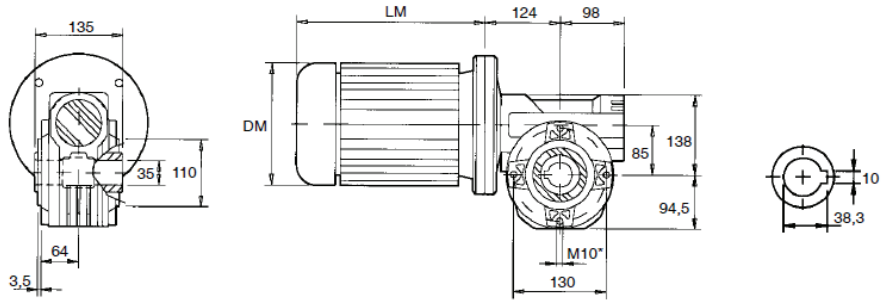
Drehmomentstütze



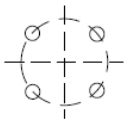
Abmessungen:

RAV 085

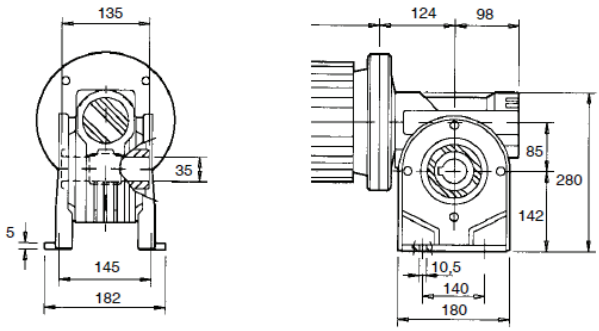
RAV 085 FB



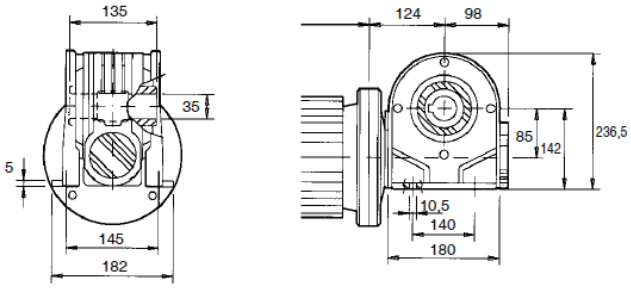
*Flanschbohrungen



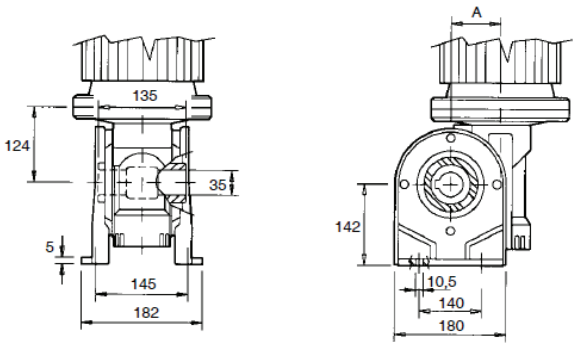
RAV 085 PA



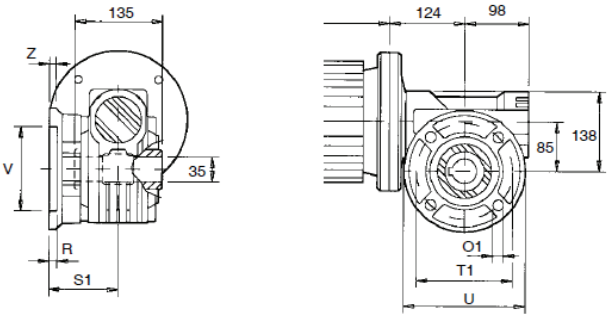
RAV 085 PB



RAV 085 PV

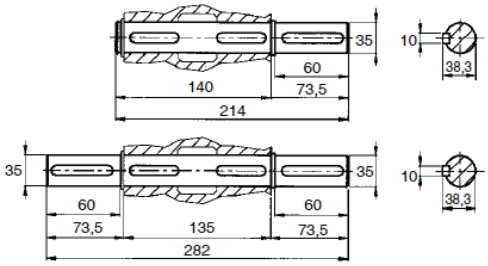


RAV 085 F.

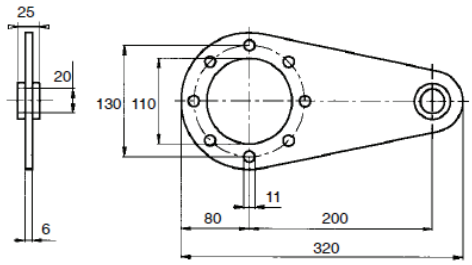


Flansch	U	T1	V	S1	O1	R	Z
FC	205	176	152	108	13	10	16
FL	205	176	152	148,5	13	10	16
F1	200	165	130	117,5	11,5	5	13
F2	205	180	152	147,5	12,5	9	15
F3	200	165	130	106,5	13	5	13

Vollwellen



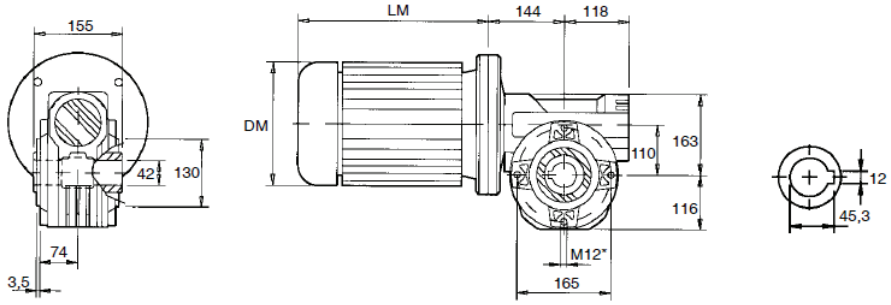
Drehmomentstütze



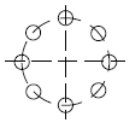
Abmessungen:

RAV 110

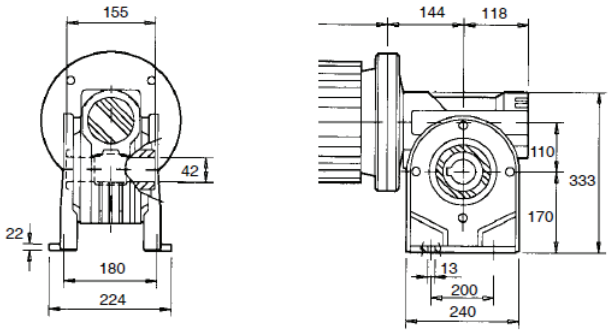
RAV 110 FB



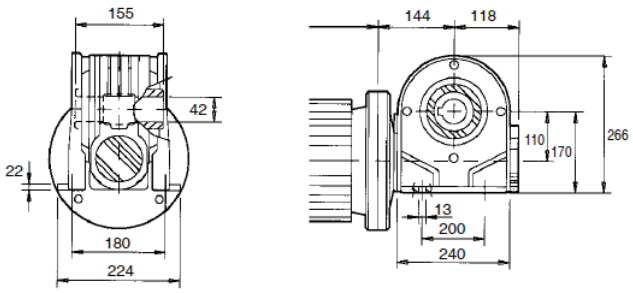
*Flanschbohrungen



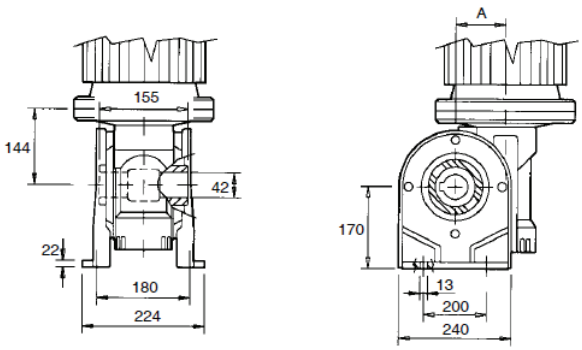
RAV 110 PA



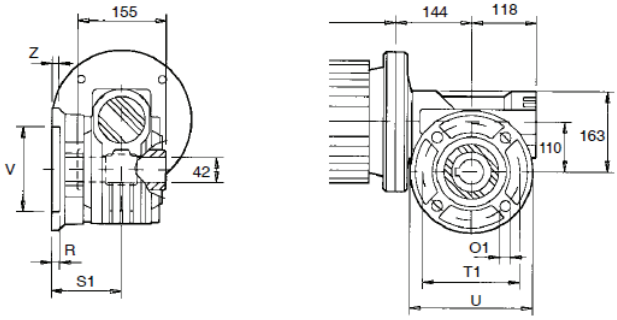
RAV 110 PB



RAV 110 PV

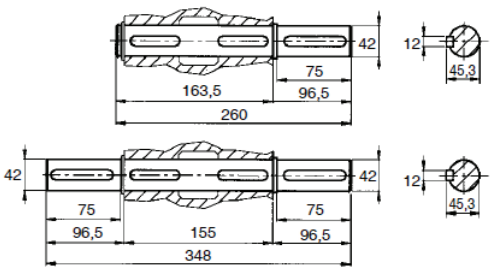


RAV 110 F.

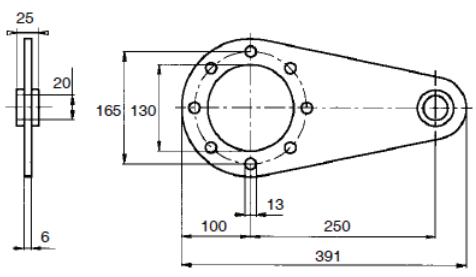


Flansch	U	T1	V	S1	O1	R	Z
FC	270	230	170	131,5	13	11	16,5
FL	270	230	170	179,5	13	11	16,5

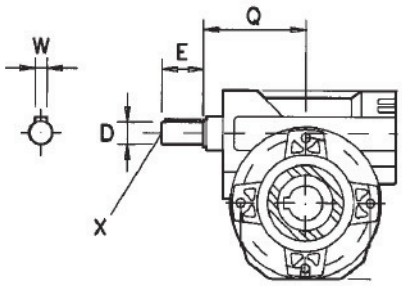
Vollwellen



Drehmomentstütze



Freie Eintriebswelle:



	D_{H7}	E	Q	W	X
RAV 030	9	20	58	3	-
RAV 045	11	30	68	4	-
RAV 050	16	30	74,5	5	M6
RAV 063	18	45	93	6	M6
RAV 63A	18	45	93	6	M6
RAV 085	25	20	112	8	M8
RAV 110	25	56	138	8	M8