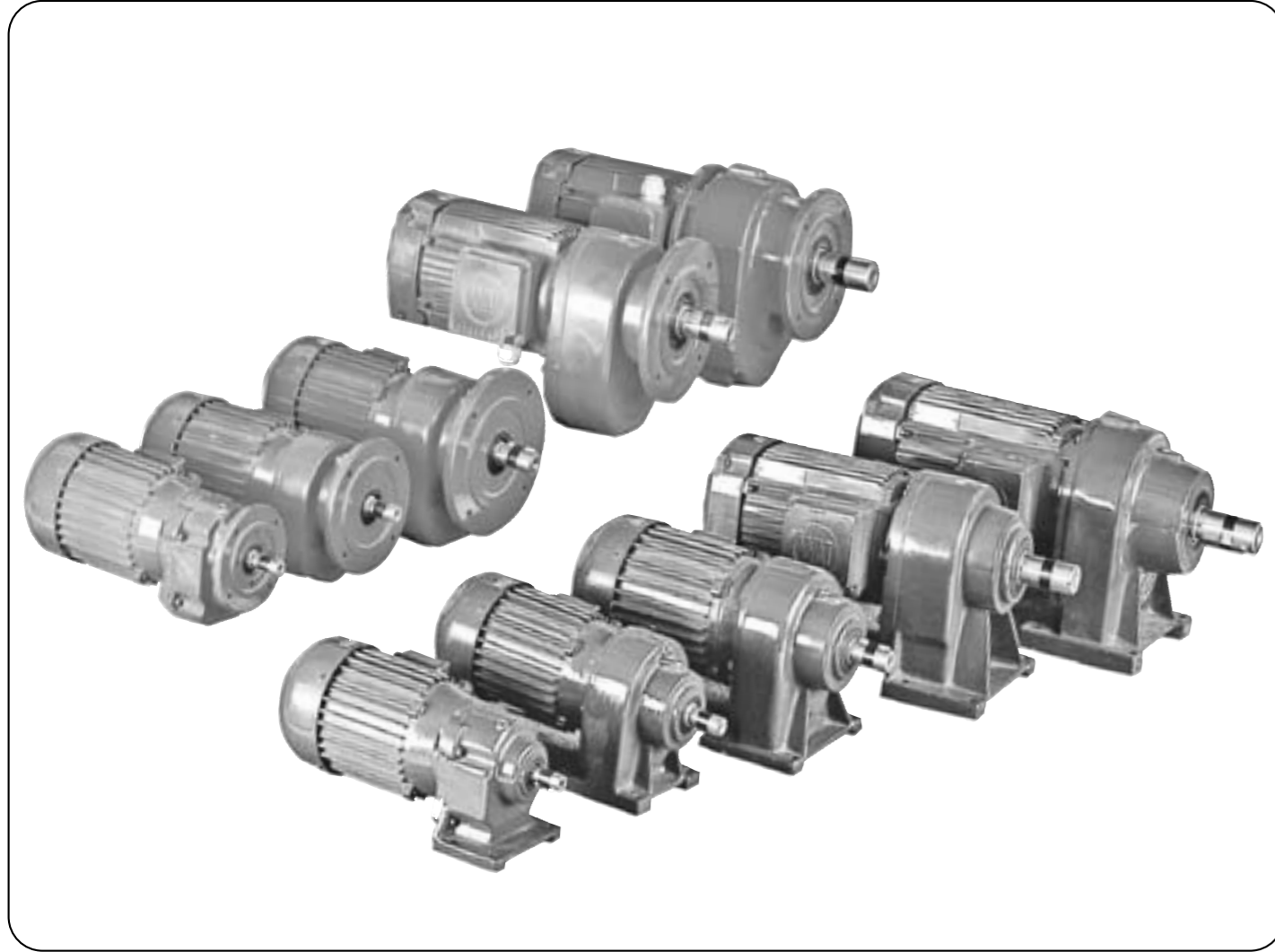


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## HELİS DİŞLİLİ REDÜKTÖRLERİN YAĞ ORANLARI

Miktar cm	Bağlantı şekli		Miktar cm	Bağlantı şekli	
İki Kademeli	B3 - B5 - B5 a- B8 - B6 - B7	V1- V3 - V5 - V6	Üç Kademeli	B3 - B5 - B5 a- B8 - B6 - B7	V1- V3 - V5 - V6
TB 0	100	150	TB 010	600	650
TB 01	250	400	TB 200	1300	1400
TB 20	510	700	TB 255	1200	1300
TB 25	700	1000	TB 300	1400	1580
TB 30	800	1400	TB 330	1500	1580
TB 33	1000	1600	TB 500	6800	7600
TB 50	3500	4400	TB 600	9000	11500
TB 60	4500	8000	TB 700	14000	16500
TB 70	5000	11500	TB 800	32000	39000
TB 80	13000	28000			

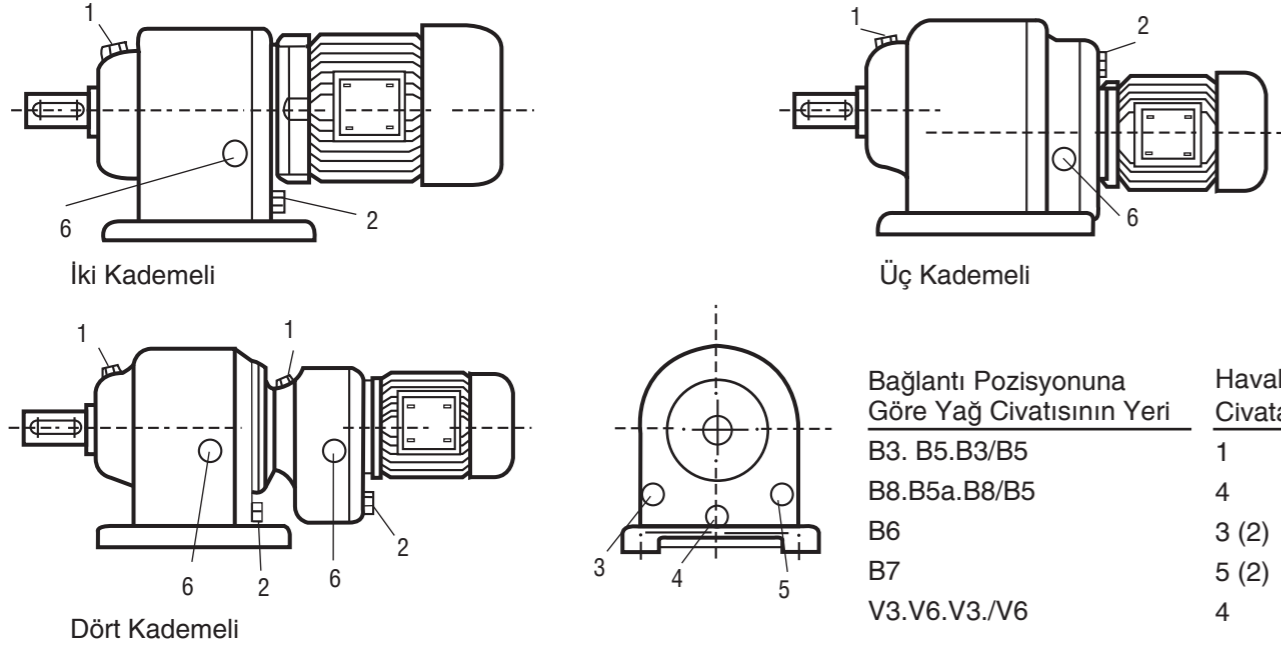
## SONSUZ VİDALI REDÜKTÖRLERİN YAĞ ORANLARI

TB 32	35	35	TB 4000	500	500
TB 400	200	320	TB 5301	800	800
TB 530	500	500	TB 6520	1350	1350
TB 652	800	800	TB 750/01	1350	1350
TB 550	500	500	TB 950/01	2750	2800
TB 750	1350	1350	TB 110/20	3000	3300
TB 950	2500	2800	TB 130/30	3500	3800
TB 110	3000	3300	TB 1050/30	4000	4500
TB 130	3500	3800			
TB 1050	4000	4500			

## YAĞ ÇEŞİTLERİ

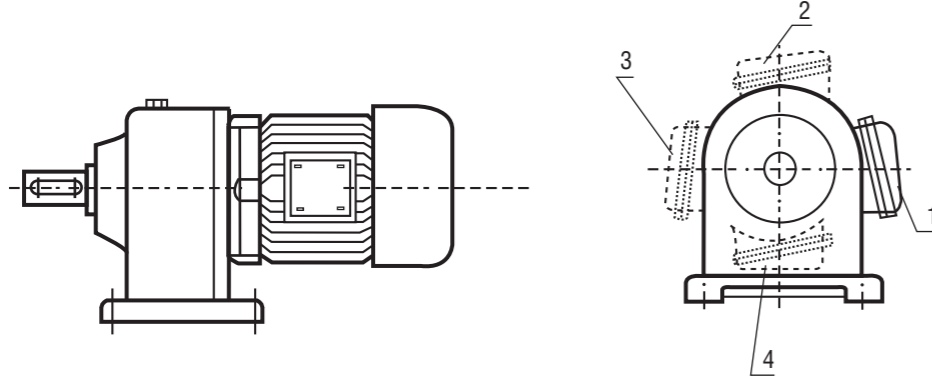
Redüktör Tipi	Yağ Özelliği	Çevre Isısı	BP	ESSO	MOBİL	SHELL
HELİS DİŞLİLİ REDÜKTÖR	Mineral Yağ	-5 / +40 (normal)	Energol GR-XP 220	Spartan EP 220	Mobilgear 630	Omala Oel 220
		-15 / +25	Energol GR-XP 100	Spartan EP 150	Mobilgear 629	Omala Oel 100
	-	-50 / -15	Energol SHF 15	Univis J 13	D.T.E. 11	Tellus Oel T 15
	Sentetik Yağ	-25 / +80	Energol SG-XP 220	Umlaufol S 220	Glygoyle 30	Tivella Oel WB
SONSUZ VİDALI REDÜKTÖR	Mineral Yağ	-5 / +40 (normal)	Energol GR-XP 220	Spartan EP 220	Mobilgear 630	Omala Oel 220
		-15 / +25	Energol GR-XP 100	Spartan EP 150	Mobilgear 629	Omala Oel 100
	-	-50 / -15	Energol SHF 15	Univis J 13	D.T.E. 11	Tellus Oel T 15
	Sentetik Yağ	-25 / +80	Energol SG-XP 220	Umlaufol S 220	Glygoyle 30	Tivella Oel WB

**YAĞ CİVATASI POZİSYONLARI**



Bağlantı Pozisyonuna Göre Yağ Cıvatasının Yeri	Havalandırma Cıvatası
B3. B5.B3/B5	1
B8.B5a.B8/B5	4
B6	3 (2)
B7	5 (2)
V3.V6.V3./V6	4

**KLEMENS KUTUSU BAĞLANTI POZİSYONLARI**



Redüktörün tipini seçerken aşağıdaki tabelayı lütfen göz önünde bulundurunuz.

İşletme faktörünün içerisinde dahil, (i.f)

1.İşletme Şekli

2.İşletme Saati ve miktarı

i.f

Ortalama	Çalışma	Saati gün/saat	16	24
0.5	3	8	16	24

Darbe derecesi

A.Sürekli darbesiz hafif yüklerin tahrik edildiği makinalar

0.5	0.8	1.0	1.15	1.25
-----	-----	-----	------	------

B.Devamlı orta darbeleri değişken yüklerin tahrik edildiği makinalar

0.8	1	1.25	1.4	1.5
-----	---	------	-----	-----

C.Çok darbeleri ağır yüklerin tahrik edildiği makinalar

1.4	1.6	1.75	1.8	2
-----	-----	------	-----	---

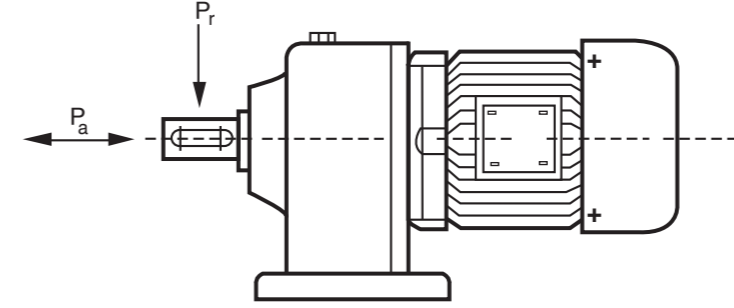
Örneğin A: Hafif transport bantları, doldurma makinaları, montaj bantları, kauçuk karıştırıcıları.

B: Beton karıştırıcıları, vinçler, marangoz makinaları, asansörler.

C: Ağır karıştırıcılar, makaslar, presler, taş kırıcıları, eksantrik presler gibi.

TİPI - TB	0	01	20	25	30	33	50	60	70	80
		010	200		300	333	500	600	700	800
Md.max.Nm	50	100	200	300	400	700	1200	2800	4000	7500

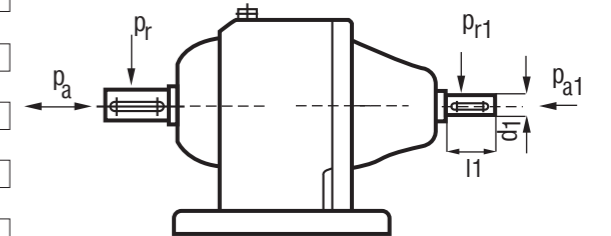
**Pa -Pr TABLOSU**



Aşağıdaki tabelada verilen Pr. değerleri milin ortasına göre hesaplanmıştır.0.5 x l  
Bu değerler şöyle değişir  
0.3 x l = Faktör 1.2  
0.75 x l = Faktör 0.85  
1 x l = Faktör 0.7

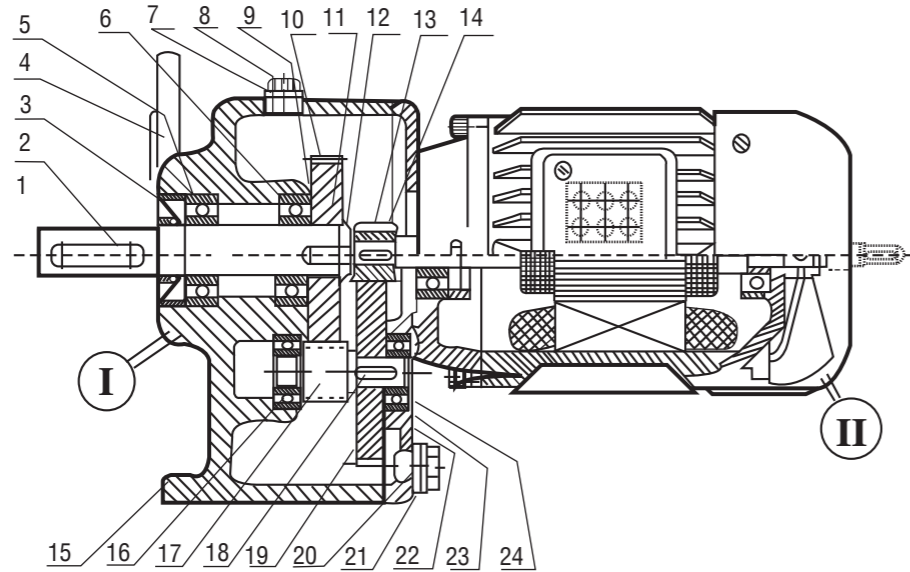
TİPI	MİL		Çıkış Devir Sayısı n2					
	d	l	0 -15	15 - 30	30 - 50	50 -100	100 -140	
TB 0	16	40	Pr (N)	850	800	700	650	600
			Pa (N)	320	300	260	250	230
TB 01.TB 010	20	40	Pr (N)	1300	1200	1000	900	800
			Pa (N)	500	450	400	350	300
TB 20	25	60	Pr (N)	2100	1900	1700	1500	1300
			Pa (N)	850	750	700	650	600
TB 200	30	70	Pr (N)	3200	2900	2700	2200	1900
			Pa (N)	1300	1150	950	850	750
TB 30.TB 300	35	70	Pr (N)	3800	3300	3000	2600	2400
			Pa (N)	1500	1350	1150	950	850
TB 33.TB 330	40	80	Pr (N)	4200	3800	3400	3000	2400
			Pa (N)	1700	1500	1300	1100	900
TB 50.TB 500	50	100	Pr (N)	5200	4500	3900	3500	3000
			Pa (N)	2100	1900	1700	1500	1200
TB 60.TB 600	65	130	Pr (N)	8500	7800	7200	6200	5500
			Pa (N)	3400	3100	2700	2300	2100
TB 70.TB 700	75	140	Pr (N)	16000	11500	10900	9000	8000
			Pa (N)	5200	4500	4000	3500	2900
TB 80.TB 800	100	210	Pr (N)	31000	26000	22000	18000	16000
			Pa (N)	12600	10000	9300	7200	6300

TİPI	MİL		n1/400	
	d1	l1		
TB 0	11	23	Pr 1	400
			Pa1	180
TB 01.TB 10.TB 010	14	30	Pr 1	550
			Pa 1	300
TB 20. TB 01 V	14	30	Pr 1	650
			Pa 1	400
TB 10 V. TB 300 V	24	50	Pr 1	850
			Pa 1	550
TB 25.TB 30. TB 330	24	50	Pr 1	950
			Pa 1	600
TB 33.TB 500	32	70	Pr 1	1100
			Pa1	700
TB 600. TB 30 V	38	80	Pr 1	1250
			Pa1	800
TB 50.TB 33 V. TB 700	42	85	Pr 1	1400
			Pa1	900
TB 500 V	60	140	Pr 1	1800
			Pa1	1000
TB 60.TB 50 V. TB 700	60	140	Pr 1	1800
			Pa1	1000

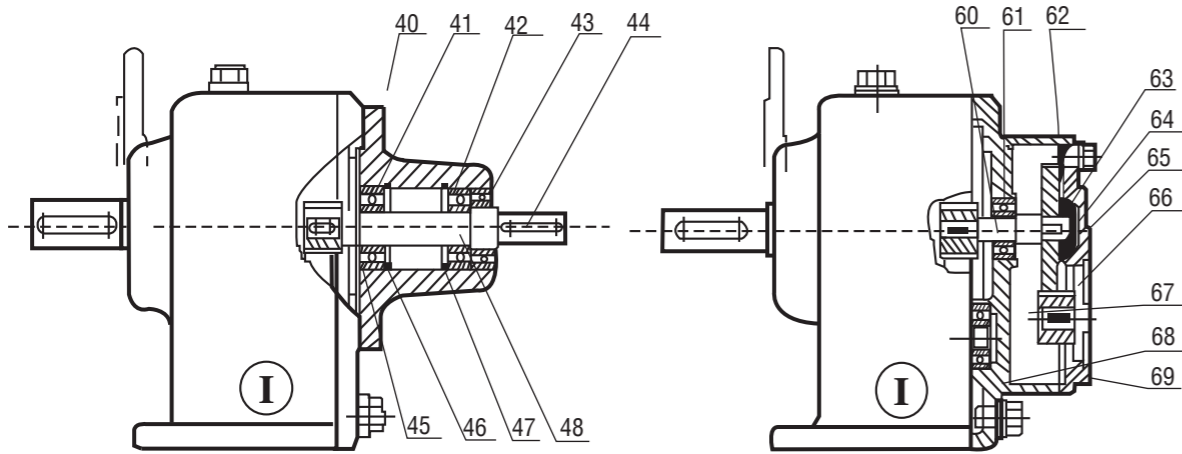




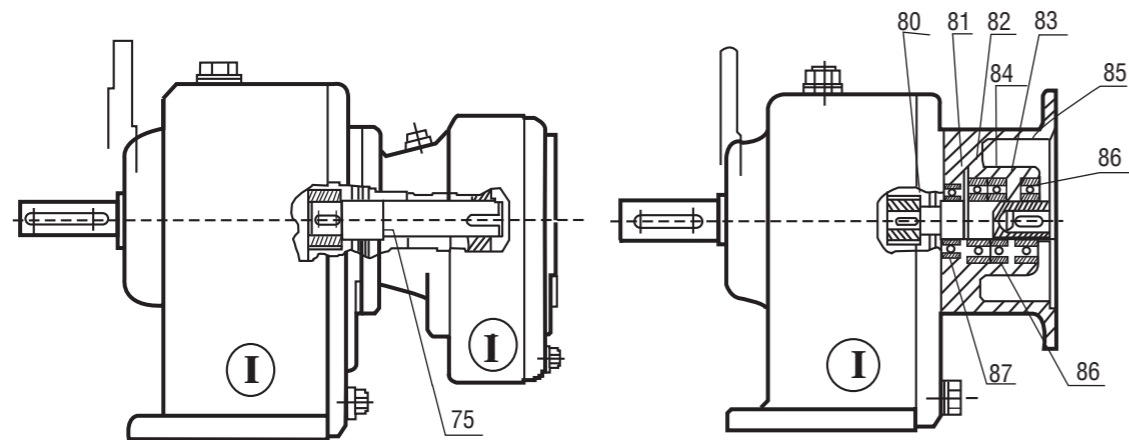
HELİS DİŞLİ REDÜKTÖRLER İKİ KADEMELİ STIRNRAD - GETRIEBEMOTOREN HELICAL GEARED MOTORS



HELİS DİŞLİ REDÜKTÖRLER ÜÇ KADEMELİ STIRNRAD - GETRIEBEMOTOREN DREISTUFIG  
HELICAL GEARED MOTORS TRIPLE REDUCTION

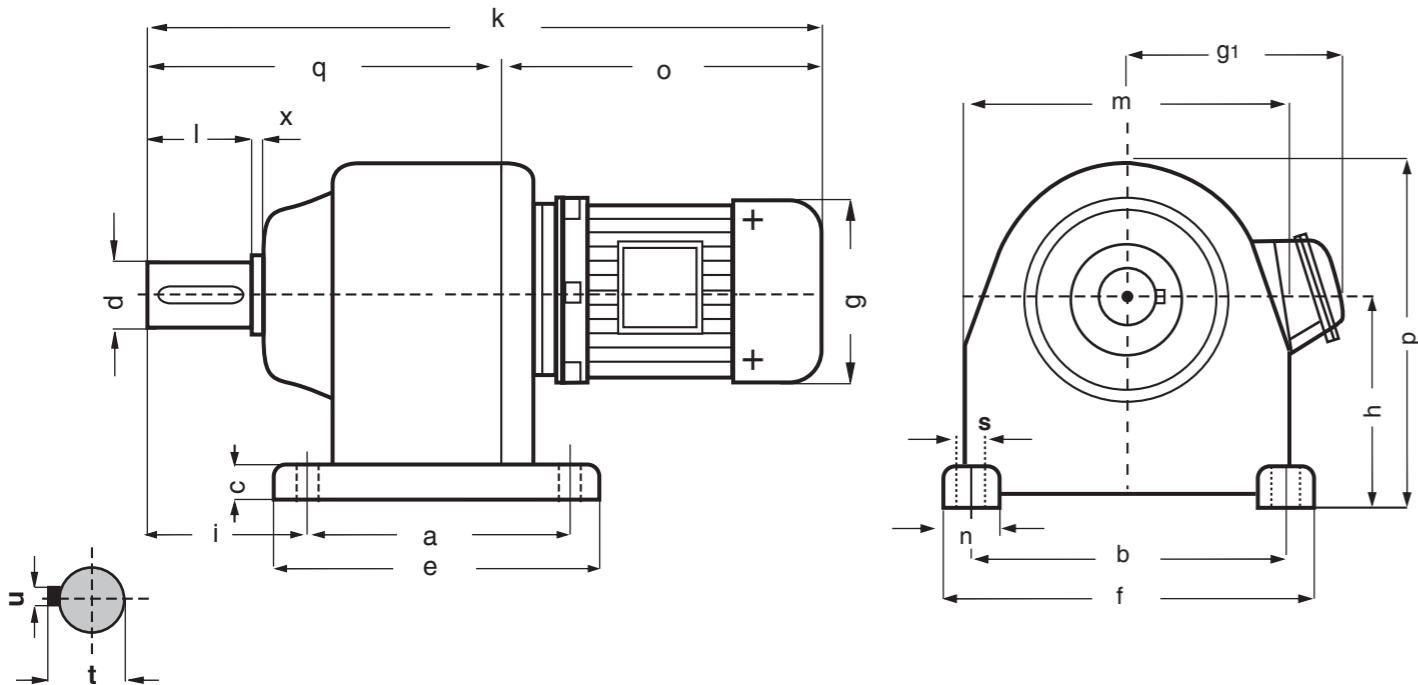


HELİS DİŞLİ REDÜKTÖRLER DÖRT KADEMELİ T ve İEC TİPİ STIRNRAD - GETRIEBEMOTOREN VIERSTUFIG T und İEC TYP  
HELICAL GEARED MOTORS FOUR REDUCTION T and İEC TYPE



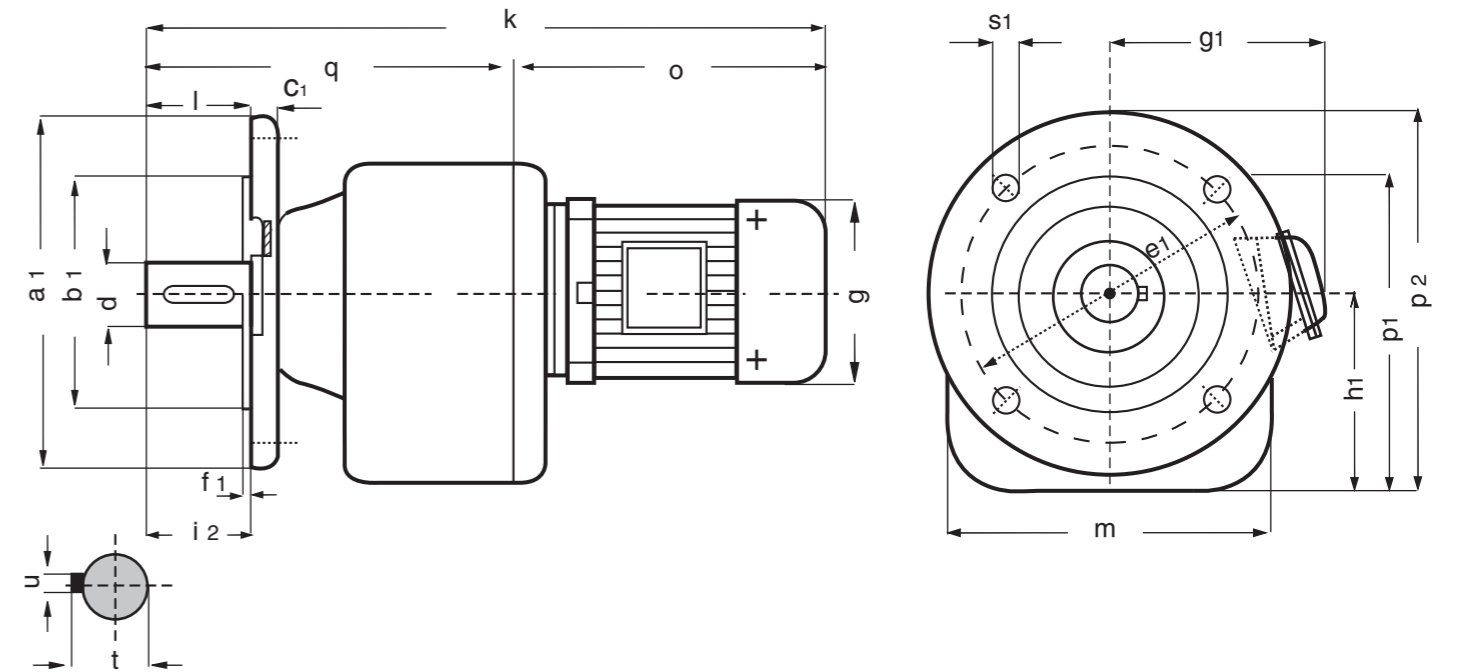
1. Çıkış Mili	Abtriebwelle	Output Shaft
2. Kama	Passfeder	Key
3. Yağ Keçesi	Wellendichtung	Shaft sauel
5. Rulman	Abtriebwellenlager,normal	Output shaft bearing,normal
5.aRulman VI	Abtriebwellenlager,verstarkt	Output shaft bearing,reinforced
6. Rulman	Abtriebwellenlager	Output shaft bearing
7. Yağ contası	İT Öldichtung	Seal
8. Havalandırma civatası	Entlüftungsschraube	Vent screw
9. Leiner	Passscheibe	Shim
10.Çıkış dişlisi	Abtriebsrad	Diven gear
11.Kama	Passfeder	Key
12.Sekman	Sicherungsring	Circlip
14.Çalıştırıcı dişli	Antriebsritzel	Driving pinion
15.Gövde	Getriebegehäuse	Gear case
16.Rulman	Ritzellager	Pinion shaft bearing
17.Dişli	Abtriebsritzel	Driving pinion
18.Kama	Passfeder	Key
19.Dişli	Antriebsrad	Driving gear
20.Yağ Contası	İT Öldichtung	Seal
21.Kör tapa	Verschlusschraube	Locking screw
22.Kapak	Getriebedeckel	Gear case cover
23.Rulman	Ritzelager	Pinion shaft bearing
24.Kama	Passscheibe	Shim
25.Altı Köşe Civata	Sechskantschraube	Hexagon screw
26.Yaylı Rondela	Federing	Grover
27.Pim	Spiralspannstift	Spiral pim
30.Conta	Dichtung	Seal
31.Leiner	Passscheibe	Shim
32.Conta	Dichtung	Seal
34.İmbus Civata	Zylinderschraube	Socket haed screw
35.Lainer	Passscheibe	Shim
38.Kama	Passfeder	Key
40.T Gövdesi	Antriebslagergehäuse	Input bearing housing
41.Rulman	Rillenkugellager	Grooved ball bearing
42.Rulman	Rillenkugellager normal	Grooved ball bearing normal
42a.Rulman VI	Rillenkugellager,vestarkt	Grooved ball bearing reinforced
43.Yağ Contası	Wellendichtung	Shagft seal
44.Kama	Passfeder	Key
45.Sekman	Sicherungsring	Circlip
46.Sekman	Sicherungsring	Circlip
47.Sekman	Sicherungsring	Circlip
48.Çalıştırıcı Dişli Mili	Antriebswelle,verzahnt	Input shaft,machined
49.Çalıştırıcı Düz Mili	Antriebswelle,glatt	Inputshaft,plain
52.Pim	Spiralspannstift	Spiral pim
53.Pim	Spiralspannstift	Spiral pim
54.Ara Dişli Mili	Zwischenwelle,verzhan	Intermediate shaft,machined
55.Altı Köşe Civata	Sechskantschraube	Hexagon screw
56.Yaylı Rondela	Federing	Grover
57.Conta	Dichtung	Seal
58.Yağ Contası	İT Öldichtung	Seal
59.Kör Tapa	Verschlusschraube	Looking screw
60.Ara Mili Düz	Zwischenwelle,glatt	Intermediate shaft plain
61.Rulman	Rillenkugellager	Grooved ball bearing
62.Rulman	Rillenkugellager	Grooved ball bearing
63.Kama	Passfeder	Key
64.Leiner	Passscheibe	Shim
65.Çalıştırıcı Dişli	Antriebsrad	Driving gear
66.Çalıştırıcı Dişli	Antriebsritzel	Driving pinion
68.Redüktör Ara Gövdesi	Getriebegehäuse 3. Stufe	Gear case 3rd.-red
69.Redüktör Kapağı	Getriebedeckel	Gear case cover
70.Altı Köşe Civata	Sechskantschraube	Hexagon screw
71.Yaylı Rondela	Federing	Grover
74.Conta	Dichtung	Seal
80.Çalıştırıcı Mil	Steckwelle	Input shaft
81.Sekman	Sicherungsring	Circlip
82.Rulman	Antriebslager	Input bearing
83.Sekman	Sicherungsring	Circlip
84.O Ring	O Ring	O Ring
85.İEC Gövdesi	İEC Gehäuse	İEC housing
86.Rulman	Antriebslager	Input bearing
87.Keçe	Wellendichring	Shaft seal





TİP Bağılantı ölçüleri (ayaklı) Bağılantı ve hacim ölçüleri (Flanşlı)  
Typ Befestigungsmasse (Fuss) Befestigungs-Raum-und Anschlussmasse (Flansch)  
Type Mounting dimensions (Foot) Outline and mounting, dimensions (Flange)

	a	b	c	e	f	n	s	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>
TB 0 - 56-S-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 0 - 63-S-L	50	110	12	78	130	20	8.5	120	95	10	115	3	8.5
TB 0 - 71-S-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 01 - 63-S-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 01 - 71-S-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 01 - 80-S-L	85	105	15	110	135	30	8.5	160	110	10	130	3.5	9
TB 01 - 90-S	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 01 - 90-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 20 - 71-S-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 20 - 80-S-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 20 - 90-S	100	130	13	125	155	30	10.5	160	110	12	130	3.5	9
TB 20 - 90-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 20 - 100-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 25 - 80-S-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 25 - 90-S	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 25 - 90-L	140	155	20	175	190	35	13	160	110	12	130	3.5	9
TB 25 - 100-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 25 - 112-M	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 30 - 80-S-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 30 - 90-S	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 30 - 90-L	90	185	20	125	210	32	13	200	130	12	165	3.5	11
TB 30 - 100-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 30 - 112-M	-	-	-	-	-	-	-	-	-	-	-	-	-



Bağılantı ölçüleri (Ayaklı + Flanşlı) Mil ölçüleri (Ayaklı + Flanşlı)  
Befestigungs dimensions ( Fuss + Flansch) Wellenmasse (Fuss + Flansch)  
Maunting dimensions (Foot + Flange) Shaft dimensions (Foot + Flange)

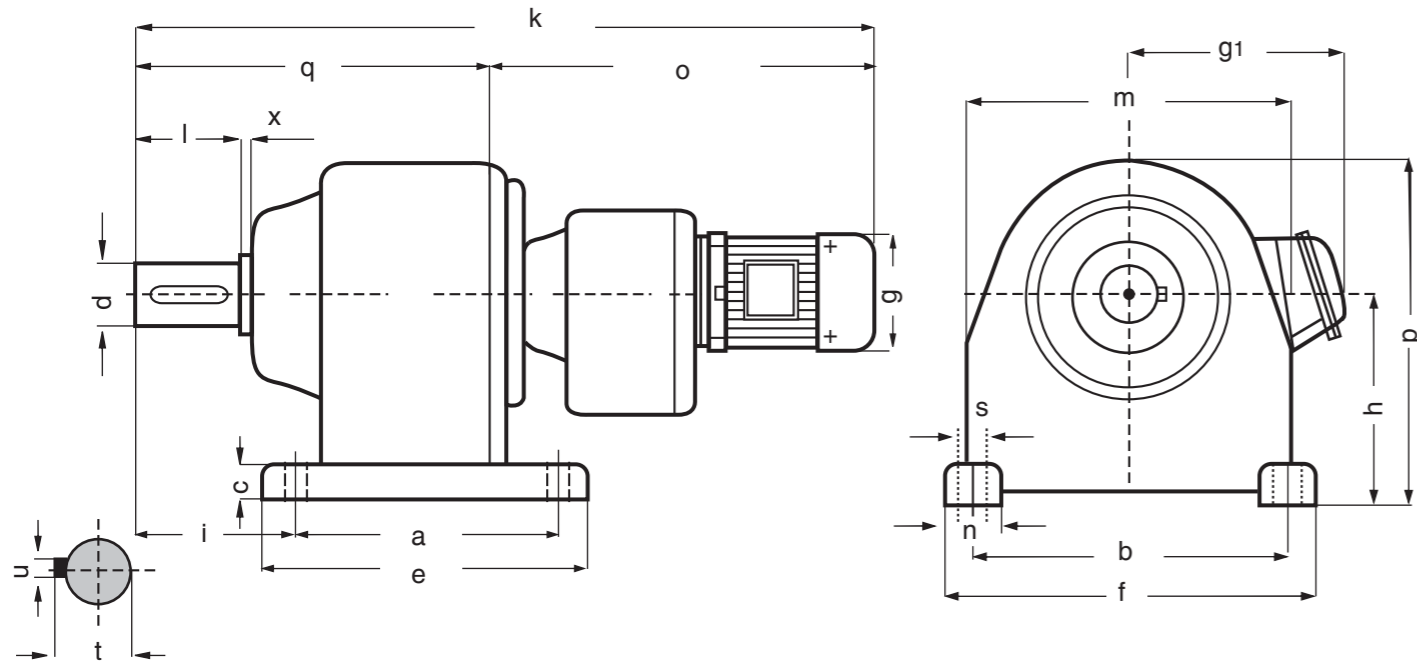
	h <sub>1</sub>	l <sub>2</sub>	p <sub>1</sub>	p <sub>2</sub>	g	g <sub>1</sub>	h	i	k	m	o	p	q	d	l	t	u	x
-	-	-	-	-	111	89	-	-	305	-	185	142	-	-	-	-	-	-
85	40	147	155	123	94	86	52	338	100	218	148	120	16	40	18	5	2	
-	-	-	-	141	125	-	-	350	-	230	157	-	-	-	-	-	-	
-	-	-	-	123	93	-	-	349	-	214	170	-	-	-	-	-	-	
-	-	-	-	141	125	-	-	365	-	233	173	-	-	-	-	-	-	
98	40	176	178	156	130	102	68	382	135	250	180	132	20	40	22.5	6	2	
-	-	-	-	177	137	-	-	399	-	267	191	-	-	-	-	-	-	
-	-	-	-	177	137	-	-	424	-	292	191	-	-	-	-	-	-	
-	-	-	-	141	125	-	-	399	-	232	200	-	-	-	-	-	-	
-	-	-	-	156	130	-	-	416	-	249	203	-	-	-	-	-	-	
123	60	201	203	177	137	125	94	433	150	266	214	167	25	50	28	8	2	
-	-	-	-	177	137	-	-	458	-	291	214	-	-	-	-	-	-	
-	-	-	-	198	147	-	-	491	-	324	224	-	-	-	-	-	-	
-	-	-	-	156	130	-	-	454	-	254	215	-	-	-	-	-	-	
-	-	-	-	177	137	-	-	471	-	271	219	-	-	-	-	-	-	
128	70	217	208	177	137	130	115	496	170	296	219	200	30	60	33	8	2	
-	-	-	-	198	144	-	-	529	-	329	229	-	-	-	-	-	-	
-	-	-	-	220	179	-	-	543	-	343	240	-	-	-	-	-	-	
-	-	-	-	156	130	-	-	452	-	254	240	-	-	-	-	-	-	
-	-	-	-	177	137	-	-	469	-	271	244	-	-	-	-	-	-	
153	70	242	253	177	137	155	86	494	170	296	244	198	35	70	38	10	3	
-	-	-	-	198	144	-	-	527	-	329	254	-	-	-	-	-	-	
-	-	-	-	220	179	-	-	541	-	343	265	-	-	-	-	-	-	





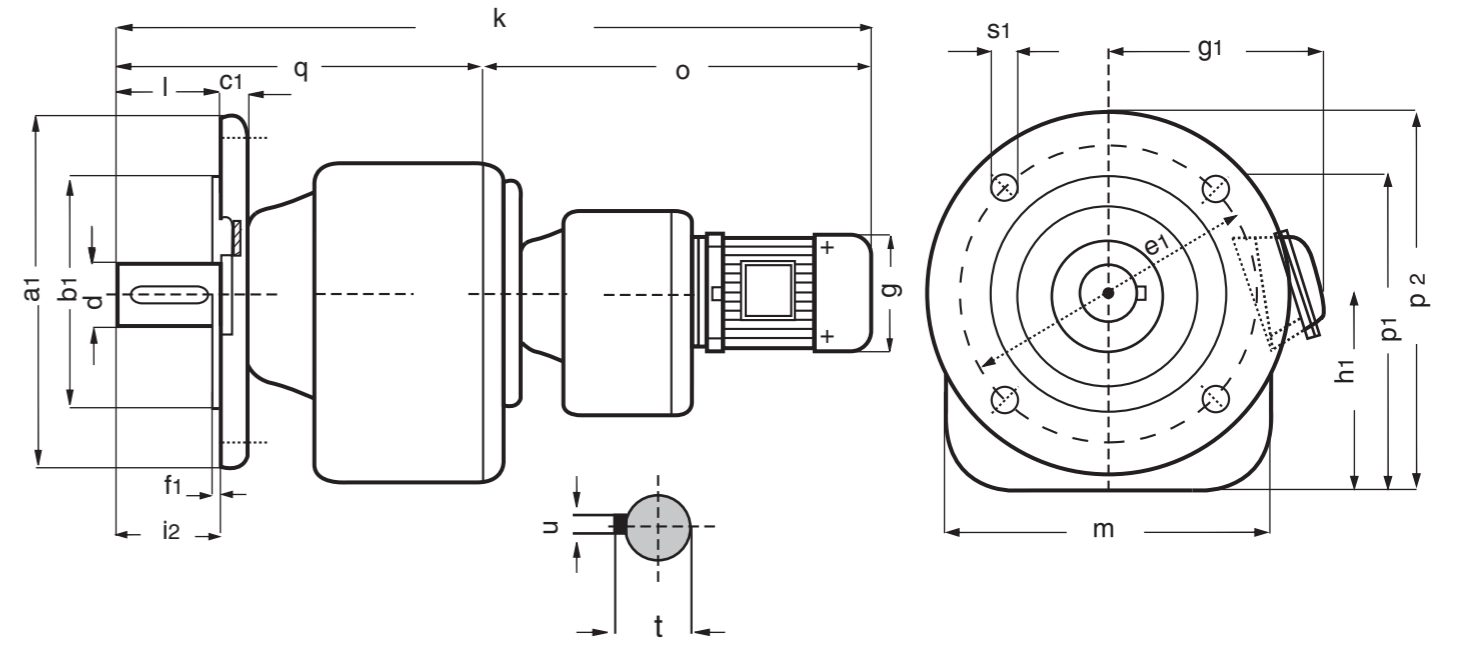






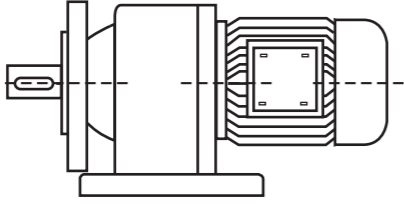
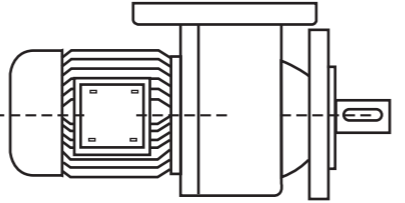
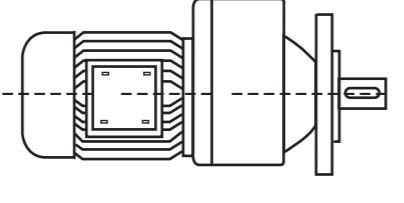
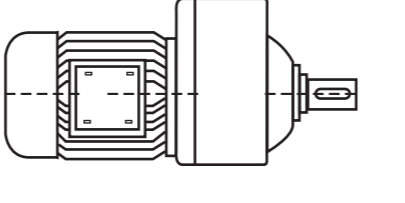
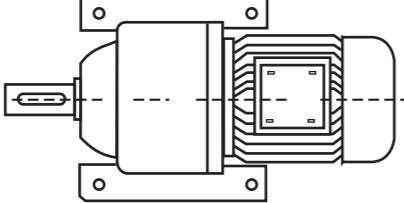
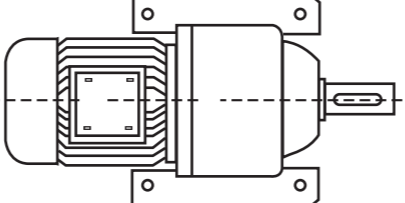
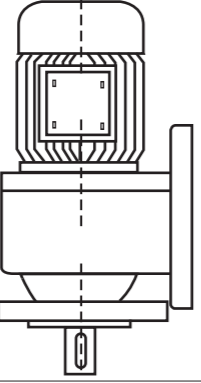
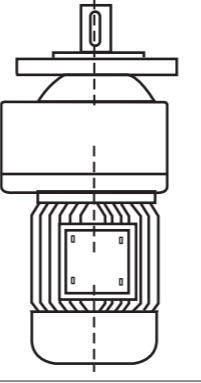
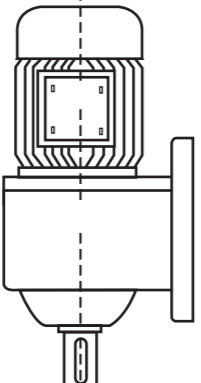
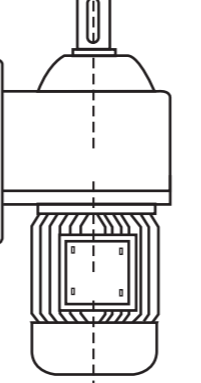
TIP	Bağlantı ölçüleri (ayaklı)	Bağlantı ve hacim ölçüleri (Flanşlı)
Typ	Befestigungsmasse (Fuss)	Befestigungs-Raum-und Anschlussmasse (Flansch)
Type	Mounting dimensions (Foot)	Outline and mounting, dimensions (Flange)

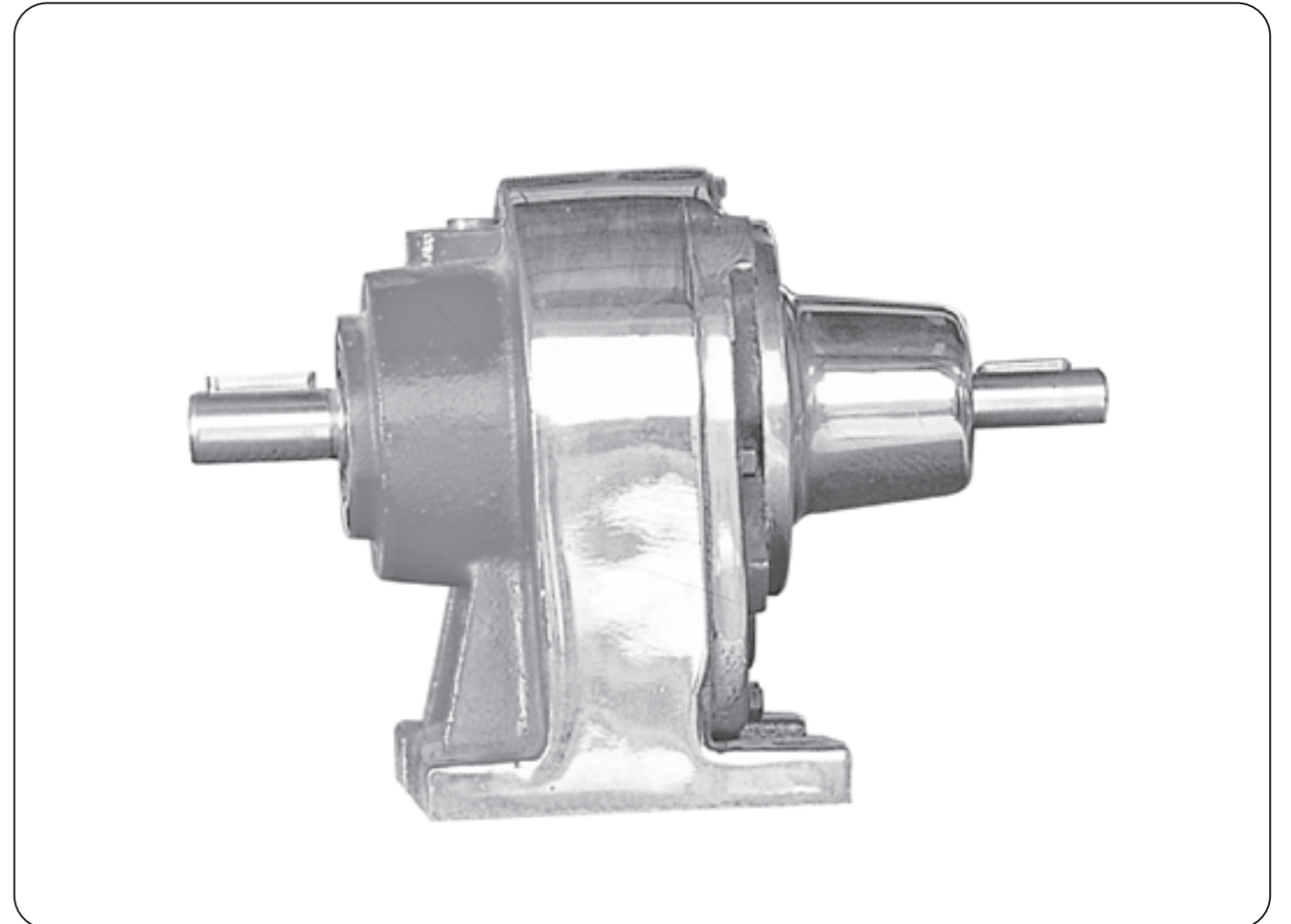
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TB 33/01-63- SL	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 33/01-71- SL	134	175	25	165	215	40	13	200	130	14	165	3.5	11
TB 33/01-80- SL	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 50/01-63- SL	-	-	-	-	-	-	-	250	180	16	215	4	14
TB 50/20-71- SL	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 50/20-80- SL	190	260	35	230	314	60	18	300	230	20	265	4	14
TB 50/20-90- S	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 50/20-90- L	-	-	-	-	-	-	-	350	250	20	300	5	18
TB 60/01-63-SL	-	-	-	-	-	-	-	300	230	20	265	4	14
TB 60/20-63-SL	-	-	-	-	-	-	-	350	250	20	300	5	18
TB 60/20-71-SL	240	325	45	300	400	70	22	400	300	20	350	5	18
TB 60/20-80-SL	-	-	-	-	-	-	-	450	350	22	400	5	18
TB 70/20-71-SL	-	-	-	-	-	-	-	300	230	20	265	4	14
TB 70/20-80-SL	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 70/30-80-SL	300	360	55	370	450	90	26	350	250	20	265	4	14
TB 70/30-90-S	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 70/30-90-L	-	-	-	-	-	-	-	450	350	22	400	5	18
TB 80/33-80-SL	-	-	-	-	-	-	-	450	350	22	400	5	18
TB 80/33-90-S	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 80/33-90-L	420	440	70	510	550	110	33	550	450	24	500	5	18
TB 80/33-100-L	-	-	-	-	-	-	-	-	-	-	-	-	-
TB 80/33-112-M	-	-	-	-	-	-	-	660	550	24	600	5	22



Bağlantı ölçüleri (Ayaklı + Flanşlı)	Mil ölçüleri (Ayaklı + Flanşlı)
Befestig dimensions (Fuss + Flansch)	Wellenmasse (Fuss + Flansch)
Maunting dimensions (Foot + Flange)	Shaft dimensions (Foot + Flansch)

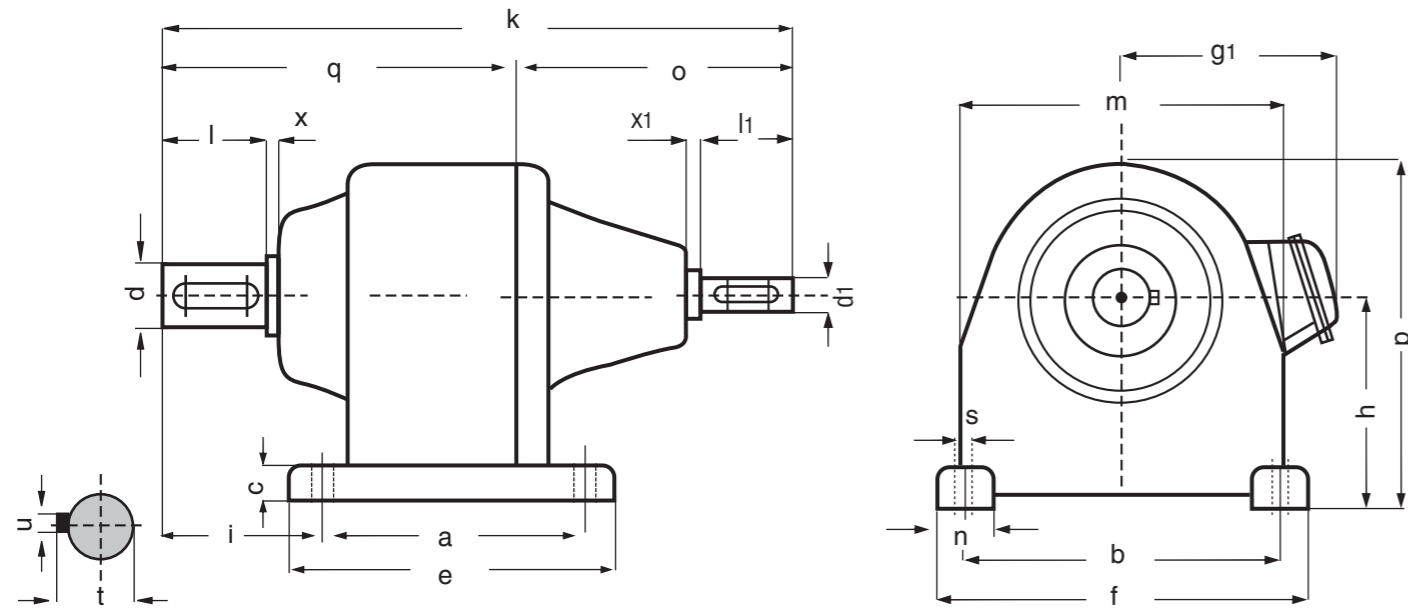
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
173	80	273	298	141	125	175	120	575	-	325	275	223	27	40	80	43.5	14	3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	370	123	93	-	-	614	-	306	-	-	-	-	-	-	-	-
-	-	-	-	141	125	-	-	633	-	325	-	-	-	-	-	-	-	-
245	100	370	395	156	130	250	134	650	250	342	375	280	28	50	100	53.5	14	4
-	-	-	-	177	137	-	-	681	-	373	-	-	-	-	-	-	-	-
-	-	-	420	177	137	-	-	706	-	398	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	425	123	93	-	-	690	-	306	-	-	-	-	-	-	-	-
-	-	-	450	123	93	-	-	701	-	320	-	-	-	-	-	-	-	-
275	130	425	445	141	125	280	169	723	300	339	430	359	35	65	130	69	18	4
-	-	-	470	156	130	-	-	740	-	356	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	450	141	125	-	-	790	-	339	-	-	-	-	-	-	-	-
-	-	-	-	156	130	-	-	807	-	356	-	-	-	-	-	-	-	-
300	145	475	475	156	130	315	185	833	350	382	490	416	41	75	140	79.5	20	10
-	-	-	-	177	137	-	-	850	-	399	-	-	-	-	-	-	-	-
-	-	-	525	177	137	-	-	875	-	424	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	605	156	130	-	-	1051	-	403	-	-	-	-	-	-	-	-
-	-	-	-	177	137	-	-	1068	-	420	-	-	-	-	-	-	-	-
380	210	590	655	177	137	390	265	1093	420	445	600	598	50	100	210	106	28	10
-	-	-	-	198	147	-	-	1126	-	478	-	-	-	-	-	-	-	-
-	-	-	710	220	179	-	-	1140	-	492	-	-	-	-	-	-	-	-

YATAY POZİSYON		WAAGERECHE ANORDNUNG		HORIZONTAL POSITION	
Sembolü Kurzeichen -Symbol	<b>B 3</b>	<b>B 3 / B 5</b>		<b>B 8 / B 5</b>	
Sembolü Kurzeichen -Symbol	<b>B 5</b>	<b>B 5 a</b>		<b>B 5</b>	
Sembolü Kurzeichen -Symbol	<b>B 8</b>	<b>B 6</b>		<b>B 7</b>	
DİKEY POZİSYON		SENKRECHTE ANORDNUNG		VERTICAL POSITION	
Sembolü Kurzeichen Symbol	<b>V 1</b>	<b>V 1/V 5</b>		<b>V 3</b>	
Sembolü Kurzeichen Symbol	<b>V 3 / V 6</b>	<b>V 5</b>		<b>V 6</b>	



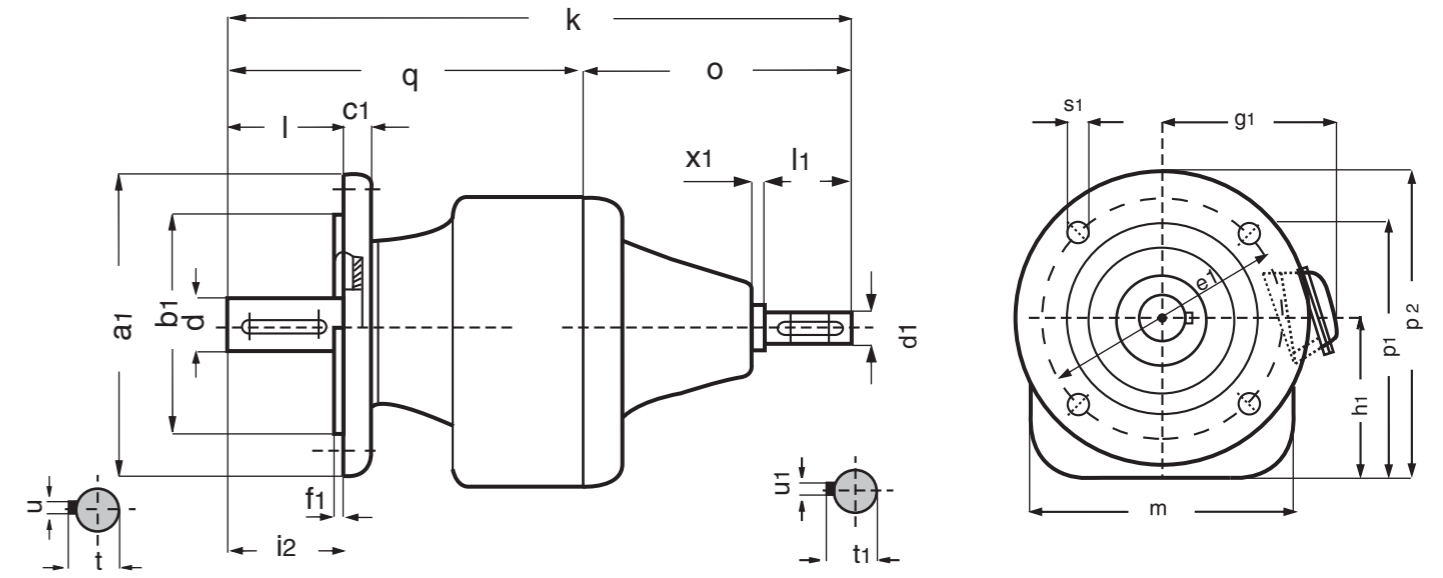






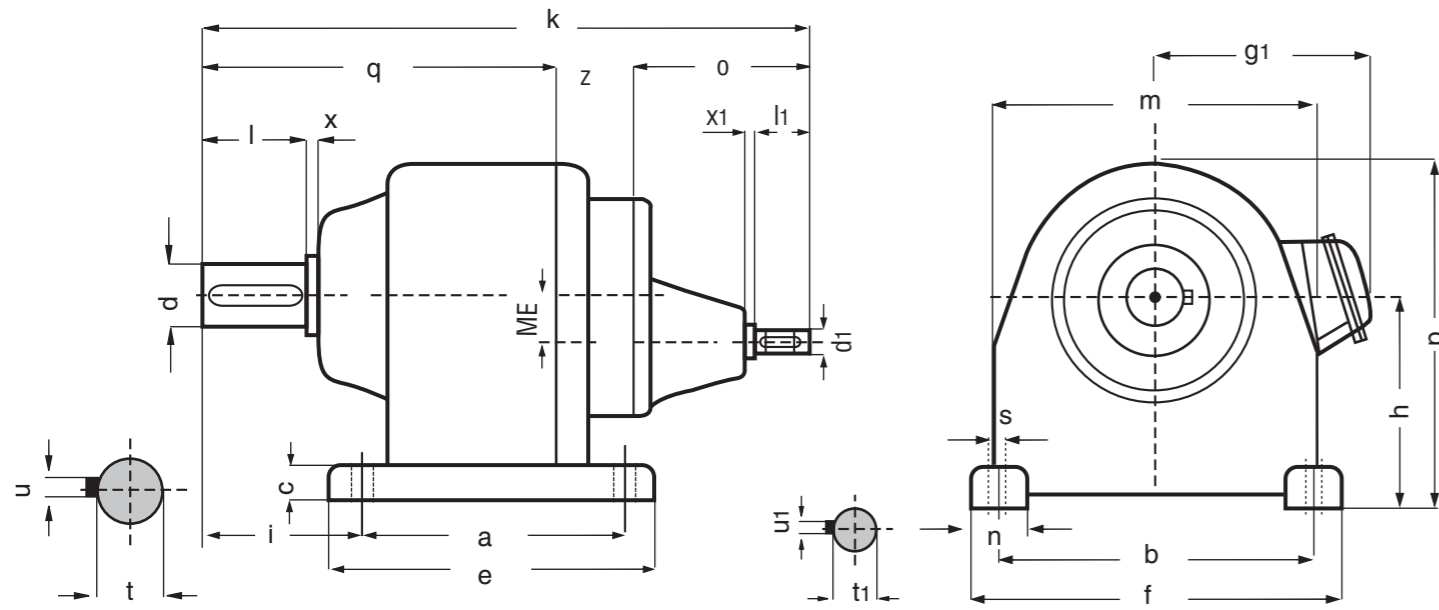
TİP Typ Type	Bağlantı ölçüleri (ayaklı) Befestigungsmasse (Fuss) Mounting dimensions (Foot)	Bağlantı ve hacim ölçüleri (Flanşlı) Befestigungs-Raum-und Anschlussmasse (Flansch) Outline and mounting, dimensions (Flange)
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	a	b	c	e	f	n	s	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	h <sub>1</sub>	i <sub>2</sub>
<b>TB 0 W</b>	50	110	12	78	130	20	8.5	120	80	10	100	3	7	85	40
<b>TB 01 W</b> <b>TB 01 V-W</b>	85	105	15	110	135	30	8.5	160	110	10	130	3.5	9	98	40
<b>TB 20 W</b> <b>TB 20 V-W</b>	100	130	13	125	155	30	10.5	160	110	10	130	3.5	9	123	60
<b>TB 25 W</b>	140	155	20	175	190	35	13	200	130	12	160	3.5	11	128	70
<b>TB 30 W</b> <b>TB 30 V-W</b>	90	185	20	125	210	35	13	200	130	12	165	3.6	11	153	70
<b>TB 33 W</b> <b>TB 33 V-W</b>	134	175	25	165	215	40	13	200	130	12	130	3.5	9	173	80
<b>TB 50 W</b> <b>TB 50 V-W</b>	190	260	35	230	314	60	18	250 300 350	180 230 250	16 20 20	215 265 300	4 4 5	14 14 18	245	100
<b>TB 60 W</b> <b>TB 60 V-W</b>	240	325	45	300	400	70	22	300 350 400 450	230 250 300 350	14 20 20 20	165 215 265 300	3.5 4 4 5	11 14 14 18	275	130
<b>TB 70 W</b> <b>TB 70 V-W</b>	300	360	55	370	450	90	26	300 350 450	230 250 300	20 20 22	265 300 400	4 5 5	14 18 18	300	145
<b>TB 80 W</b> <b>TB 80 V-W</b>	420	440	70	510	550	110	33	450 550 660	350 450 550	24 24 24	400 500 600	5 5 5	18 18 22	380	210



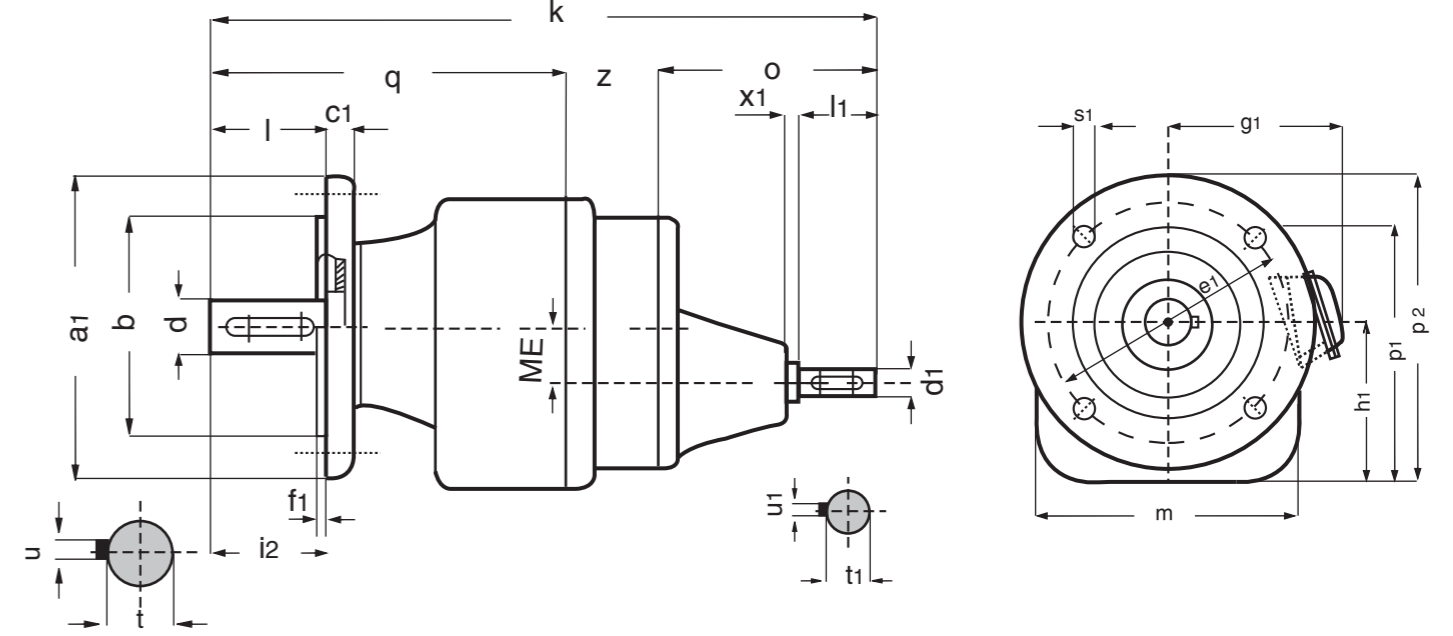
Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)	Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)
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p <sub>1</sub>	p <sub>2</sub>	h	i	i <sub>1</sub>	k	m	o	p	q	d	l	t	u	x <sub>1</sub>	d <sub>1</sub>	l <sub>1</sub>	t <sub>1</sub>	u <sub>1</sub>
135	145	86	52	108	210	100	90	136	120	16	40	18	5	2	11	23	12	4
166	178	102	68	93	245	135	113	170	132	20	40	22.5	6	2	14	30	16	5
198	203	125	94	119	313	150	146	200	167	25	50	28	8	2	19	40	21.5	6
213	253	130	115	57	342	170	142	215	200	30	60	33	8	2	24	50	27	8
238	253	155	86	174	350	170	152	240	298	35	70	38	10	3	24	50	27	8
273	273	175	120	183	437	200	214	275	223	40	80	43.5	14	3	32	70	35	10
370	370	250	134	222	546	250	266	375	280	50	100	53.5	14	4	38	80	41	10
425	425	280	169	250	659	300	300	430	359	65	130	69	18	4	42	85	45	12
475	475	315	185	344	829	350	413	490	416	75	140	79.5	20	10	60	140	64	14
590	590	390	265	315	1000	420	402	600	598	100	210	106	28	10	60	140	64	16



TİP Typ Type	Bağlantı ölçüleri (ayaklı) Befestigungsmasse (Fuss) Mounting dimensions (Foot)	Bağlantı ve hacim ölçüleri (Flanşlı) Befestigungs-Raum-und Anschlussmasse (Flansch) Outline and mounting, dimensions (Flange)
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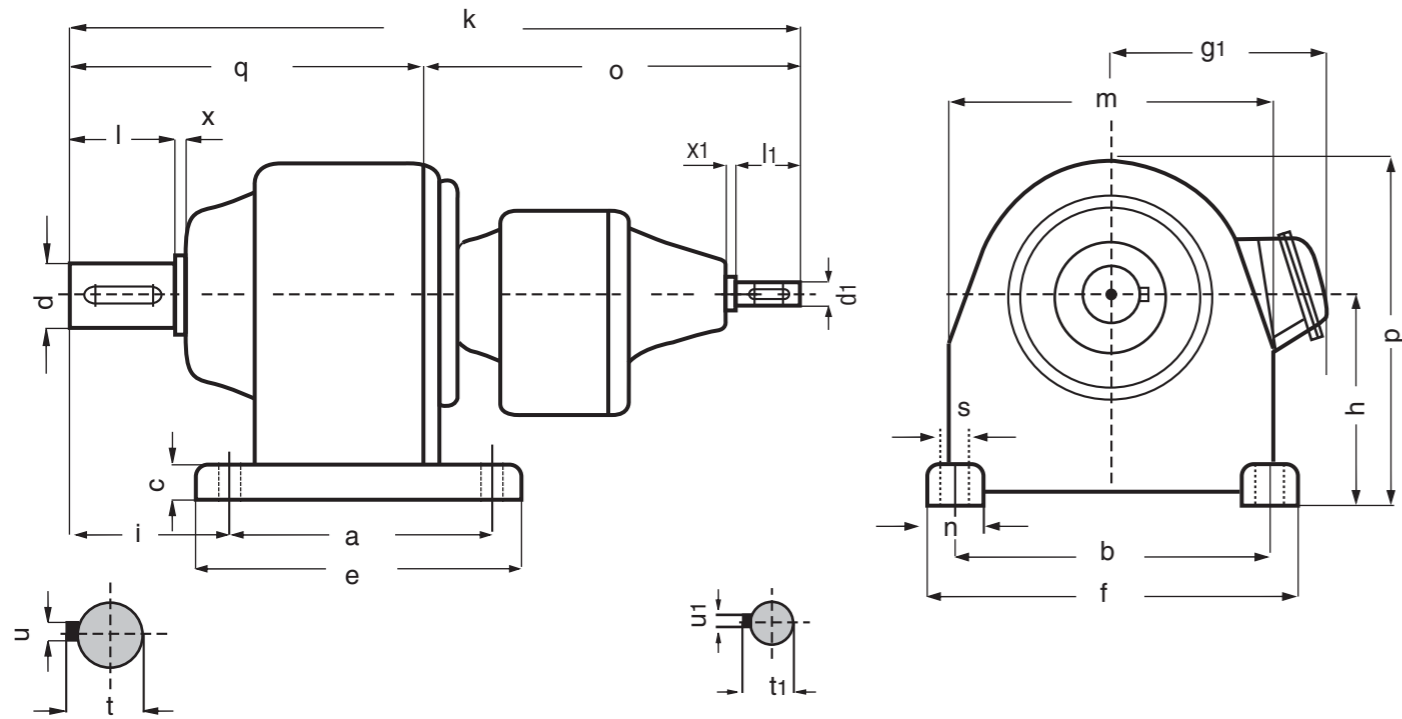
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TB 010 W TB 010 V-W	85	105	15	110	135	30	8.5	160	110	10	130	3.5	9	98	40
TB 200 W TB 200 V-W	100	130	13	125	155	30	10.5	160	110	10	130	3.5	9	123	60
TB 300 W TB 300 V-W	90	185	20	125	210	35	13	200	130	12	165	3.6	11	153	70
TB 330 W TB 330 V-W	134	175	25	165	215	40	13	200	130	12	130	3.5	9	173	80
TB 500 W TB 500 V-W	190	260	35	230	314	60	18	250 300 350	180 230 250	16 20 20	215 265 300	4 4 5	14 14 18	245	100
TB 600 W TB 600 V-W	240	325	45	300	400	70	22	300 350 400 450	230 250 300 350	14 20 20 20	165 215 265 300	3.5 4 4 5	11 14 14 18	275	130
TB 700 W TB 700 V-W	300	360	55	370	450	90	26	300 350 450	230 250 300	20 20 22	265 300 400	4 5 5	14 18 18	300	145
TB 800 W TB 800 V-W	420	440	70	510	550	110	33	450 550 660	350 450 550	24 24 24	400 500 600	5 5 5	18 18 22	380	210



Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)	Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)
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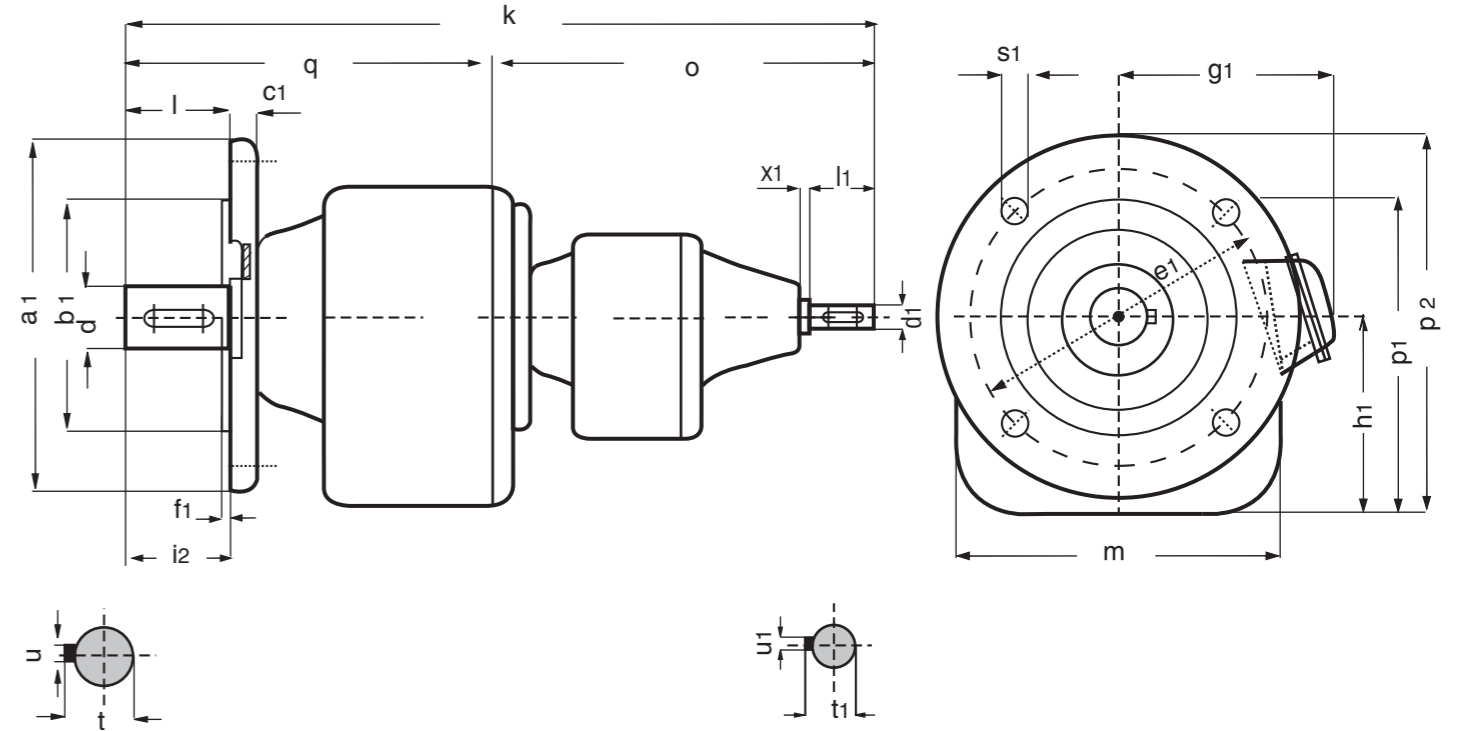
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166	178	102	68	93	280	135	108	170	132	20	40	22.5	6	2	14	30	16	40	32
198	203	125	74	119	328	150	108	200	172	25	50	28	8	2	19	40	21.5	48	32
238	253	155	86	174	359	170	114	240	198	35	70	38	10	3	14	30	16	48	47
273	273	175	120	183	425	200	142	275	223	40	80	43.5	14	3	24	50	27	60	65
370	395	250	134	222	577	250	214	375	280	50	100	53.5	14	4	38	80	41	83	86
425	450	280	169	250	659	300	214	430	359	65	130	69	18	4	42	85	45	93	86
475	475	315	185	344	784	350	266	490	416	75	140	79.5	20	10	60	140	64	102	120
590	655	390	265	315	1028	420	402	600	598	100	210	106	28	10	60	140	64	130	135





TİP Bağılantı ölçüleri (ayaklı) Bağılantı ve hacim ölçüleri (Flanşlı)  
Typ Befestigungsmasse (Fuss) Befestigungs-Raum-und Anschlussmasse (Flansch)  
Type Mounting dimensions (Foot) Outline and mounting, dimensions (Flange)

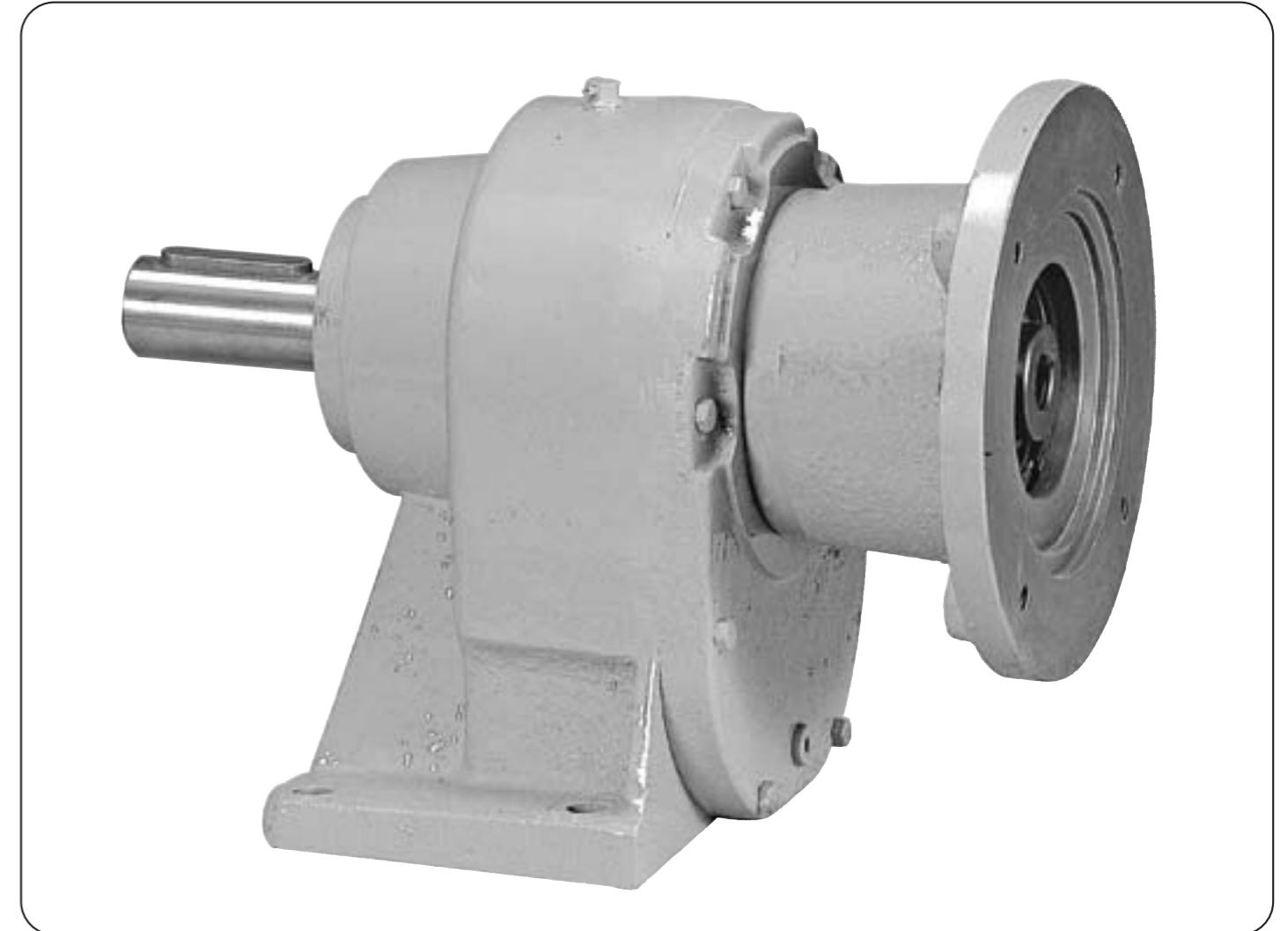
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TB 20/01W	100	130	13	125	155	30	10.5	160	110	10	130	3.5	9	123	60
TB 30/01 W	90	185	20	125	210	35	13	200	130	12	160	3.5	11	153	70
TB 33/01 W															
TB 33/20 W	134	175	25	165	215	40	13	200	130	12	130	3.5	9	173	80
TB 50/20 W								200	130	12	130	3.5	9		
TB 50/30 W	190	260	35	230	314	60	18	250	180	16	215	4	14	245	100
TB 50/33 W								300	230	16	265	4	14		
TB 60/30 W								350	250	16	300	5	18		
TB 60/33 W	240	325	45	300	400	70	22	250	180	16	215	4	14	275	130
TB 70/30 W								300	230	20	265	4	14		
TB 70/33 W	300	360	55	370	450	90	26	350	250	20	300	5	18	300	145
TB 80/50 W								450	350	20	400	5	18		
TB 80/60 W	420	440	70	510	550	110	33	550	450	24	500	5	18	380	210
								660	550	24	600	5	22		



Bağılantı ölçüleri (Ayaklı + Flanşlı) Bağılantı ve hacim ölçüleri (Ayaklı + Flanşlı)  
Befestigungsmasse ( Fuss + Flansch) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch)  
Mounting dimensions ( Foot + Flange) Outline and mounting, dimensions ( Foot + Flange)

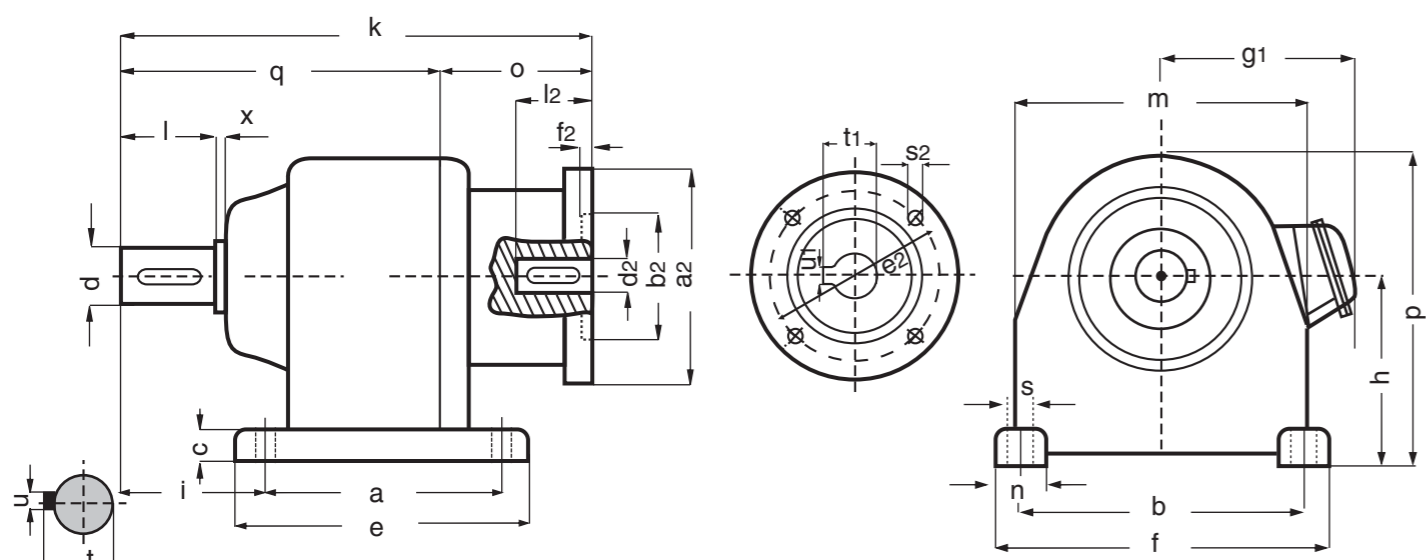
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198	203	125	94	383	150	200	200	167	25	50	28	8	2	14	30	16	5	2
238	253	155	86	439	170	200	240	198	35	70	38	10	3	14	30	16	5	2
273	273	175	120	470	200	200	275	223	40	80	43.5	14	3	14	30	16	5	2
370	395	250	134	603	250	295	375	280	50	100	53.5	14	4	24	50	27	8	2
400														32	70	35	10	2
425														32	70	35	10	
425	450	280	169	664	300	270	430	359	65	130	169	18	10	24	50	27	8	2
475	475	315	185	752	350	295	490	416	75	140	79.5	20	10	32	70	35	10	2
525														38	80	41		
590	655	390	265	1037	420	389	600	598	100	210	106	28	10	32	70	35	10	2
710				1134	486									38	80	41		

YATAY POZİSYON		WAAGERECHTE ANORDNUNG	HORIZONTAL POSITION	
Sembolü Kurzeichen -Symbol	<b>B 3</b>	<b>B 3 / B 5</b>	<b>B 8 / B 5</b>	
Sembolü Kurzeichen -Symbol	<b>B 5</b>	<b>B 5 a</b>	<b>B 5</b>	
Sembolü Kurzeichen -Symbol	<b>B 8</b>	<b>B 6</b>	<b>B 7</b>	
DİKEY POZİSYON		SENKRECHTE ANORDNUNG	VERTICAL POSITION	
Sembolü Kurzeichen Symbol	<b>V 1</b>	<b>V 1/V 5</b>	<b>V 3</b>	
Sembolü Kurzeichen Symbol	<b>V 3/V 6</b>	<b>V 5</b>	<b>V 6</b>	

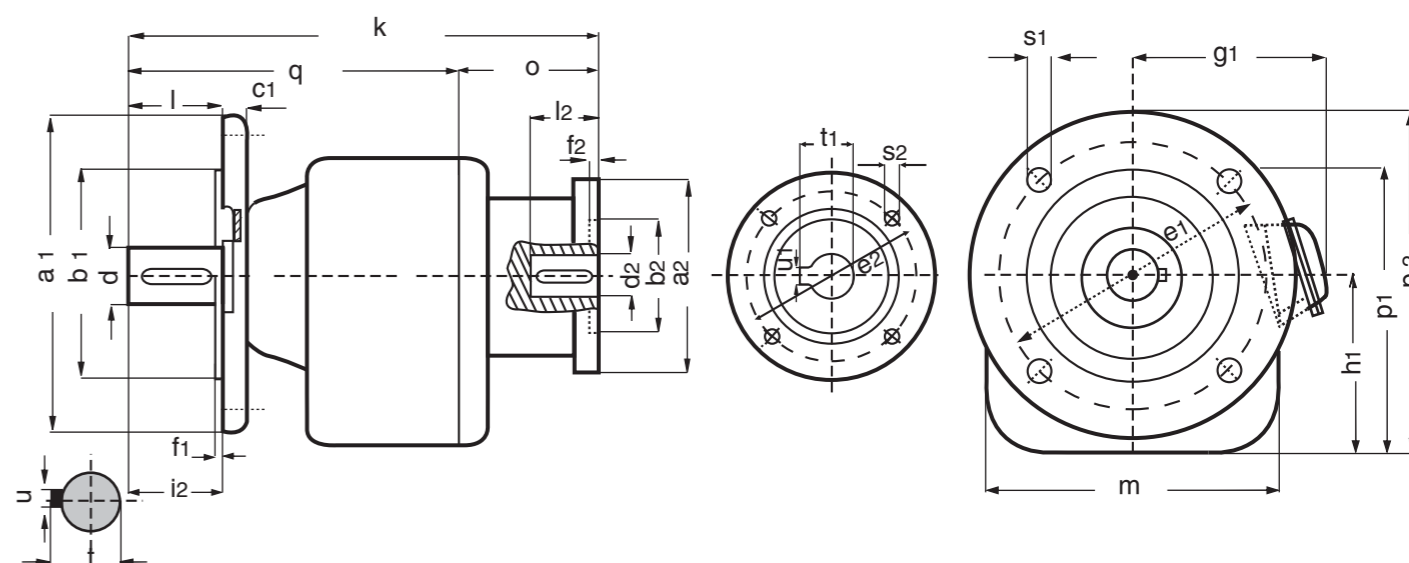




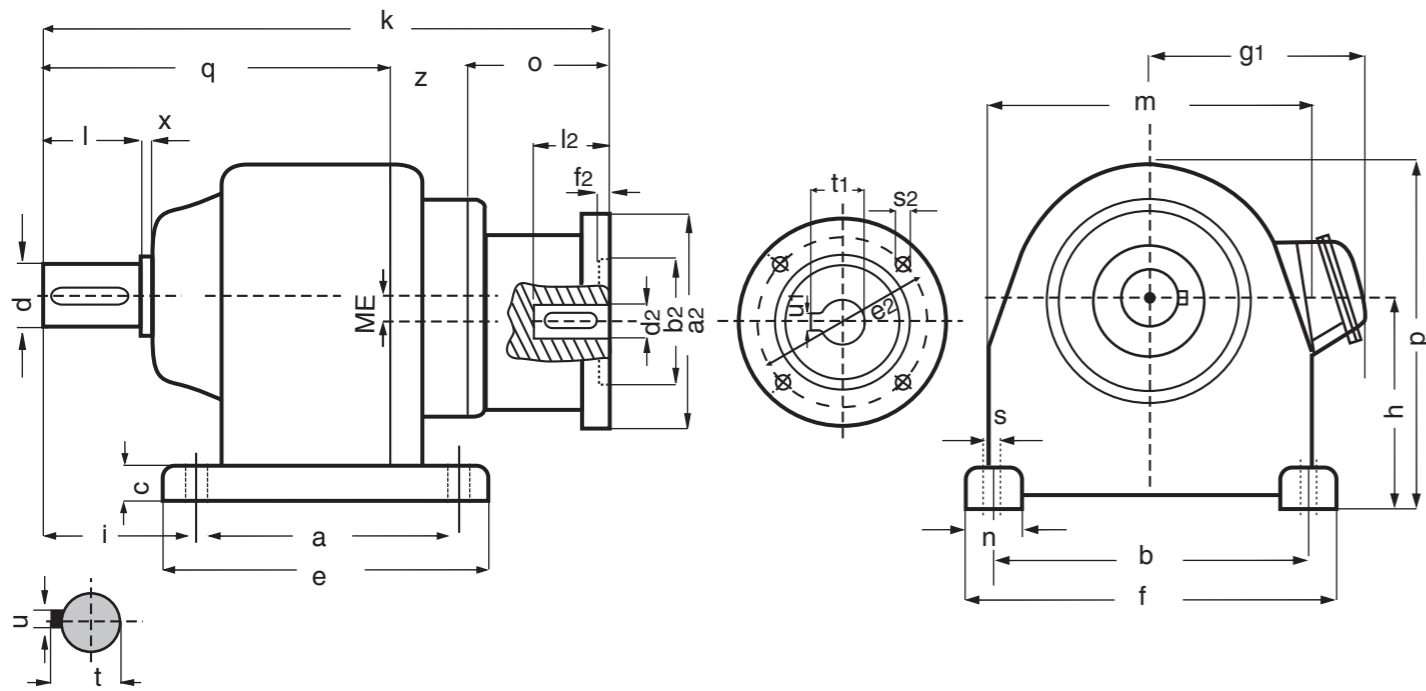




TIP Typ Type	Bağlantı ölçüleri (ayaklı) Befestigungsmasse (Fuss) Mounting dimensions (Foot)					Bağlantı ve hacim ölçüleri (Flanşlı) Befestigungs-Raum-und Anschlussmasse (Flansch) Outline and mounting, dimensions (Flange)									
	a	b	c	e	f	n	s	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	h <sub>1</sub>	i <sub>2</sub>
TB 0 IEC	50	110	12	78	130	20	8.5	120	80	10	100	3	7	85	40
TB 01 IEC	85	105	15	110	135	30	8.5	160	110	10	130	3.5	9	98	40
TB 20 V-IEC	100	130	13	125	155	30	10.5	160	110	10	130	3.5	9	123	60
TB 25 IEC	140	155	20	175	190	35	13	160	110	10	130	3.5	9	128	70
TB 30 V-IEC	90	185	20	125	210	35	13	200	130	12	165	3.5	11	153	70
TB 33 V-IEC	134	175	25	165	215	40	13	200	130	12	130	3.5	9	173	80
TB 50 V-IEC	190	260	35	230	314	60	18	300	230	20	265	4	14	245	100
TB 60 V-IEC	240	325	45	300	400	70	22	400	300	20	265	4	14	275	130
TB 70 V-IEC	300	360	55	370	450	90	26	350	250	20	300	5	18	300	145
TB 80 V-IEC	420	440	70	510	550	110	33	550	450	24	500	5	18	380	210

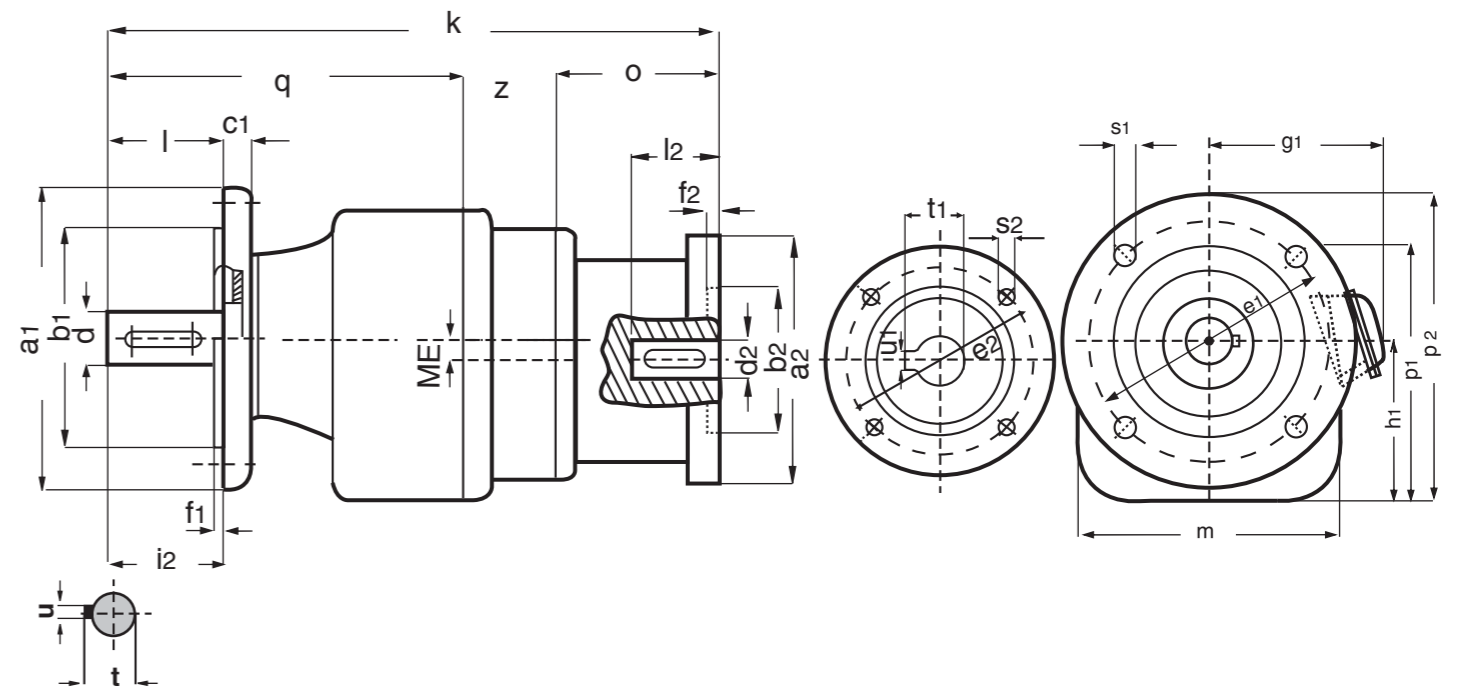


Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)												Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)												
p <sub>1</sub>	p <sub>2</sub>	h	i	k	m	o	p	q	d	l	t	u	x	mot. tip	d <sub>1</sub>	l <sub>1</sub>	t <sub>1</sub>	u <sub>1</sub>	a <sub>2</sub>	b <sub>2</sub>	e <sub>2</sub>	f <sub>2</sub>	s <sub>2</sub>	
135	155	86	52	198	100	78	136	120	16	40	18	5	2	71	14	30	16.1	5	160	110	130	4.5	M8	
166	178	102	68	209	135	77	170	132	20	40	22.5	6	2	71	14	30	16.3	5	160	110	130	4.5	M8	
				221		89								80	19	40	21.8	6	200	130	165	4.5	M10	
				243		76								71	14	30	16.3	5	160	110	130	4.5	M8	
				255		88								80	19	40	21.8	6	200	130	165	4.5	M10	
198	220	125	94	270	150	103	200	167	25	50	28	8	2	90	24	50	27.3	8	200	130	165	4.5	M10	
				283		116																		
				293		93								71	14	30	16.3	5	160	110	130	4.5	M8	
				308		108								80	19	40	21.8	6	200	130	165	4.5	M10	
213	253	130	115	321	170	121	215	200	30	60	33	8	2	90	24	50	27.3	8	200	130	165	4.5	M10	
				321		121								100	28	60	31.3	8	250	180	215	5	M12	
				291		93								80	19	40	21.8	6	200	130	165	4.5	M10	
				306		108								90	24	50	27.3	8	200	130	165	4.5	M10	
238	278	155	86	319	170	121	240	198	35	70	38	10	3	100	28	60	31.3	8	250	180	215	5	M12	
				319		121								112	28	60	31.3	8	250	180	215	5	M12	
				273		99								80	19	40	21.8	6	200	130	165	4.5	M10	
				298		114								90	24	50	27.3	8	200	130	165	4.5	M10	
273	323	175	120	350	200	127	275	223	40	80	43.5	14	3	100	28	60	31.3	8	250	180	215	5	M12	
				348		164								112	28	60	31.3	8	250	180	215	5	M12	
				370		128								100	28	60	31.3	8	250	180	215	5	M12	
370	395	250	134	408	250	128	375	280	50	100	53.5	14	4	112	28	60	31.3	8	250	180	215	5	M12	
				420		165								132	38	80	41.3	10	300	230	265	5	M12	
				425		172								132	38	80	41.3	10	300	230	265	5	M12	
				450		200								160	42	110	45.3	12	350	250	300	6	M16	
425	475	280	169	559	300	200	430	359	65	130	69	18	4	180	48	110	51.8	14	350	250	300	6	M16	
				559		200								200	55	110	59.3	16	400	300	350	6	M16	
				450		206								160	42	110	45.3	12	350	250	300	6	M16	
475	475	315	185	622	350	206	490	416	75	140	79.5	20	10	180	48	110	51.8	14	350	250	300	6	M16	
				525		208								200	55	110	59.3	16	400	300	350	6	M16	
				605		211								160	42	110	45.3	12	350	250	300	6	M16	
590	655	390	265	816	420	218	600	598	100	210	106	28	10	180	48	110	51.8	14	350	250	300	6	M16	
				710		253								200	55	110	59.3	16	400	300	350	6	M16	



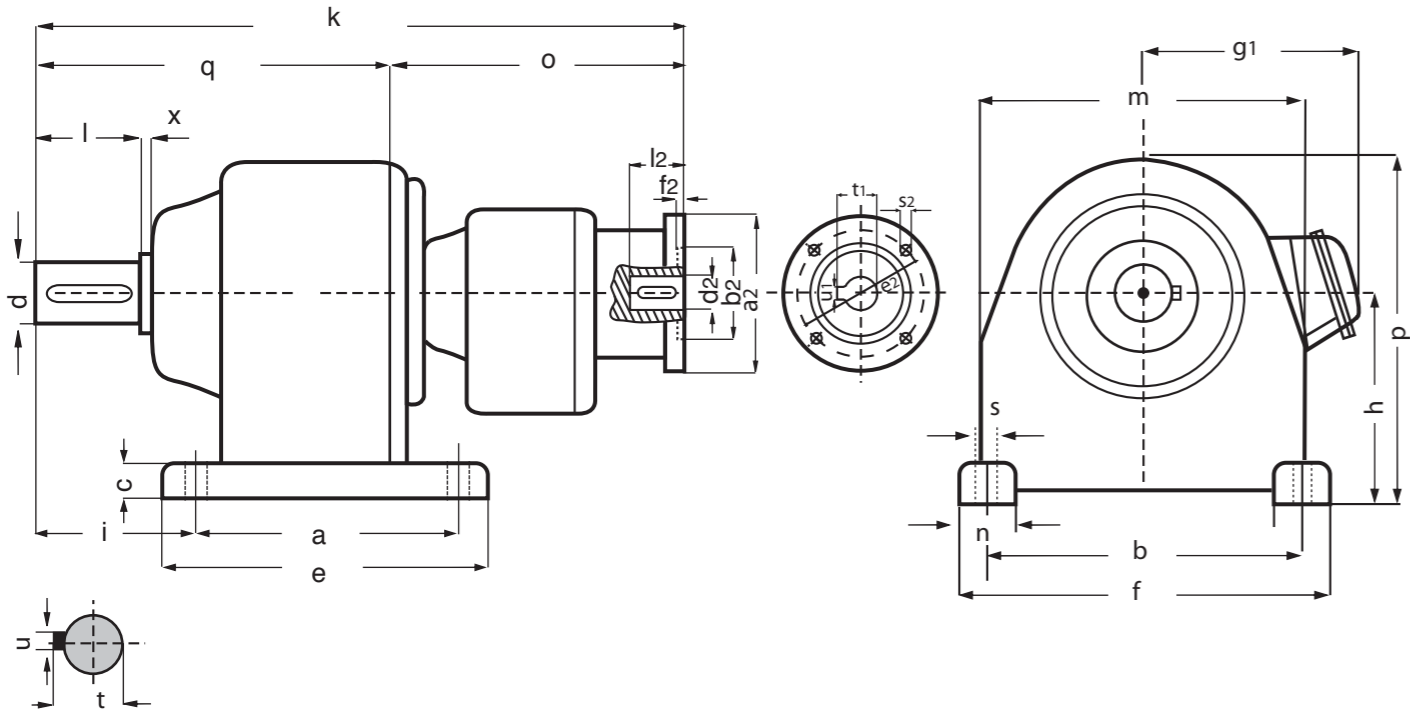
TIP	Bağlantı ölçüleri (ayaklı)	Bağlantı ve hacim ölçüleri (Flanşlı)
Typ	Befestigungsmasse (Fuss)	Befestigungs-Raum-und Anschlussmasse (Flansch)
Type	Mounting dimensions (Foot)	Outline and mounting, dimensions (Flange)

	a	b	c	e	f	n	s	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	h <sub>1</sub>	i	z	ME
TB 010 - IEC	85	105	15	110	135	30	8.5	160	110	10	130	3.5	9	98	40	40	32
TB 200 - IEC	100	130	13	125	155	30	10.5	160	110	10	130	3.5	9	123	60	48	32
TB 300 - IEC	90	185	20	125	210	35	13	200	130	12	165	3.6	11	153	70	48	47
TB 330 - IEC	134	175	25	165	215	40	13	200	130	12	130	3.5	9	173	80	60	65
TB 500 - IEC	190	260	35	230	314	60	18	250	180	16	215	4	14	245	100	83	86
TB 600 - IEC	240	325	45	300	400	70	22	300	230	14	165	3.5	11	275	130	93	86
TB 700 - IEC	300	360	55	370	450	90	26	350	250	20	265	4	14	300	145	102	120
TB 800 - IEC	420	440	70	510	550	110	33	450	350	24	400	5	18	380	210	130	135



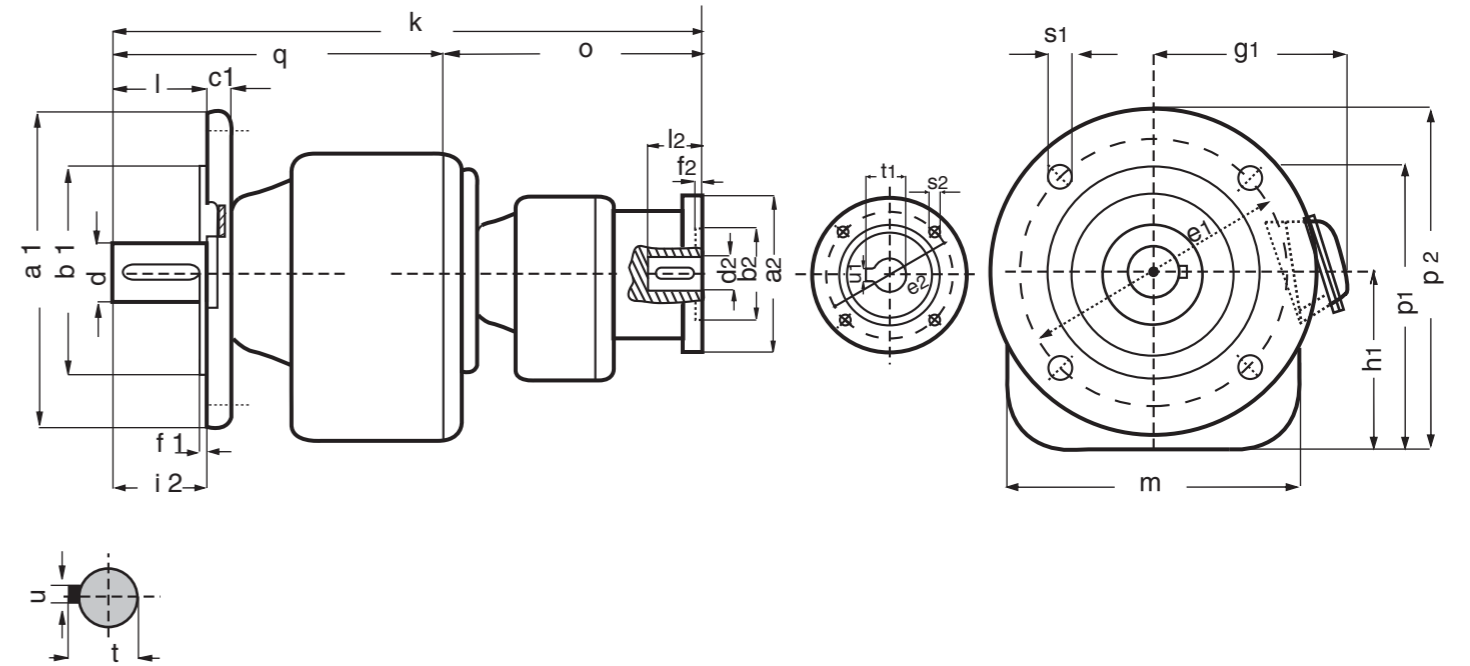
	Bağlantı ölçüleri (Ayaklı + Flanşlı)														Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı)									
	Befestigungsmasse ( Fuss + Flansch)														Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch)									
	Mounting dimensions ( Foot + Flange)														Outline and mounting, dimensions ( Foot + Flange)									

p <sub>1</sub>	p <sub>2</sub>	h	i	k	m	o	p	q	d	l	t	u	x	mot. tip	d <sub>1</sub>	l <sub>1</sub>	t <sub>1</sub>	u <sub>1</sub>	a <sub>2</sub>	b <sub>2</sub>	e <sub>2</sub>	f <sub>2</sub>	s <sub>2</sub>
166	-	102	68	249	135	77	170	132	20	40	22.5	6	2	71	14	30	16.3	5	160	110	130	4.5	M8
				261		89																	
				296		76																	
				308		88																	
198	203	125	94	296	150	103	200	167	25	60	28	8	2	71	14	30	16.3	5	160	110	130	4.5	M8
				336		116																	
				339		93								80	19	40	21.8	6	200	130	165	4.5	M10
				354		108								90	24	50	27.3	8	200	130	165	4.5	M10
238	253	155	86	367	170	121	240	198	35	70	38	10	3	100	28	60	31.3	8	250	180	215	5	M12
				367		121								112	28	60	31.3	8	250	180	215	5	M12
				382		99								80	19	40	21.8	6	200	130	165	4.5	M10
				397		114								90	24	50	27.3	8	200	130	165	4.5	M10
273	273	175	120	410	200	127	275	223	40	80	43.5	14	3	100	28	60	31.3	8	250	180	215	5	M12
				447		164								112	28	60	31.3	8	250	180	215	5	M12
				370		128								100	28	60	31.3	8	250	180	215	5	M12
370	395	250	134	491	250	128	375	280	50	100	53.5	14	4	112	28	60	31.3	8	250	180	215	5	M12
				420		165								132	38	80	41.3	10	300	230	265	5	M12
				425		172								100	28	60	31.3	8	250	180	215	5	M12
				450		200								132	38	80	41.3	10	300	230	265	5	M12
425	475	280	169	652	300	200	430	359	65	130	69	18	4	160	42	110	45.3	12	350	250	300	6	M16
				652		200								180	48	110	51.8	14	350	250	300	6	M16
				652		200								180	48	110	51.8	14	350	250	300	6	M16
				450		206								160	42	110	45.3	12	350	250	300	6	M16
475	475	315	185	724	350	206	490	416	75	140	79.5	20	10	180	48	110	51.8	14	350	250	300	6	M16
				726		208								200	55	110	59.3	16	400	300	350	6	M16
				605		211								160	42	110	45.3	12	350	250	300	6	M16
590	655	390	265	946	420	218	600	598	100	210	106	28	10	180	48	110	51.8	14	350	250	300	6	M16
				981		253								200	55	110	59.3	16	400	300	350	6	M16



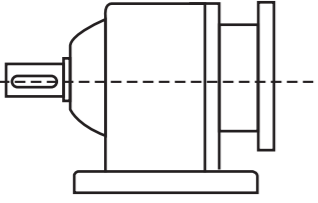
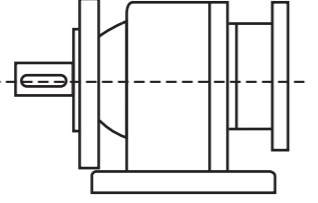
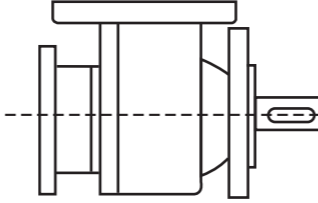
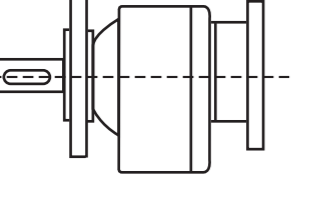
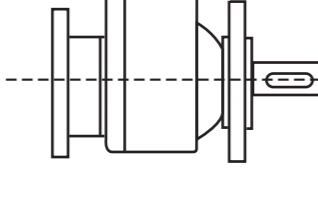
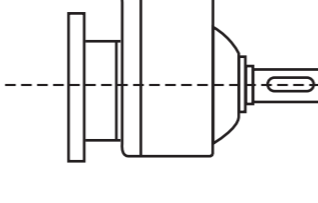
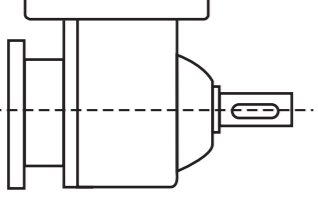
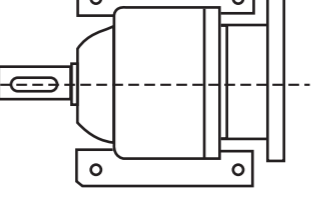
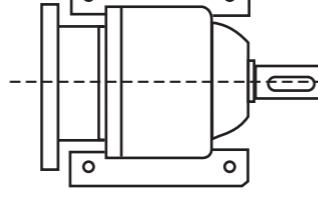
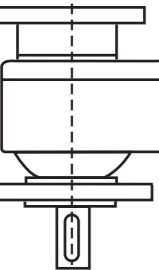
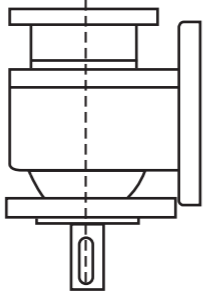
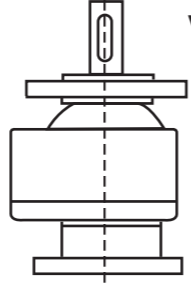
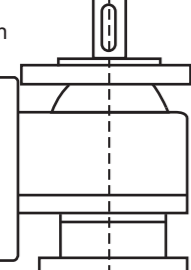
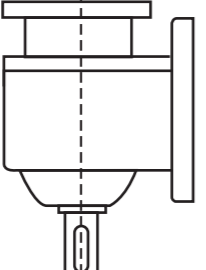
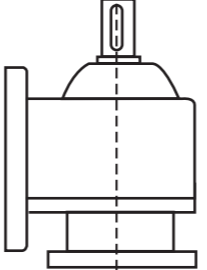
TIP	Bağlantı ölçüleri (ayaklı)	Bağlantı ve hacim ölçüleri (Flanşlı)
Typ	Befestigungsmasse (Fuss)	Befestigungs-Raum-und Anschlussmasse (Flansch)
Type	Mounting dimensions (Foot)	Outline and mounting, dimensions (Flange)

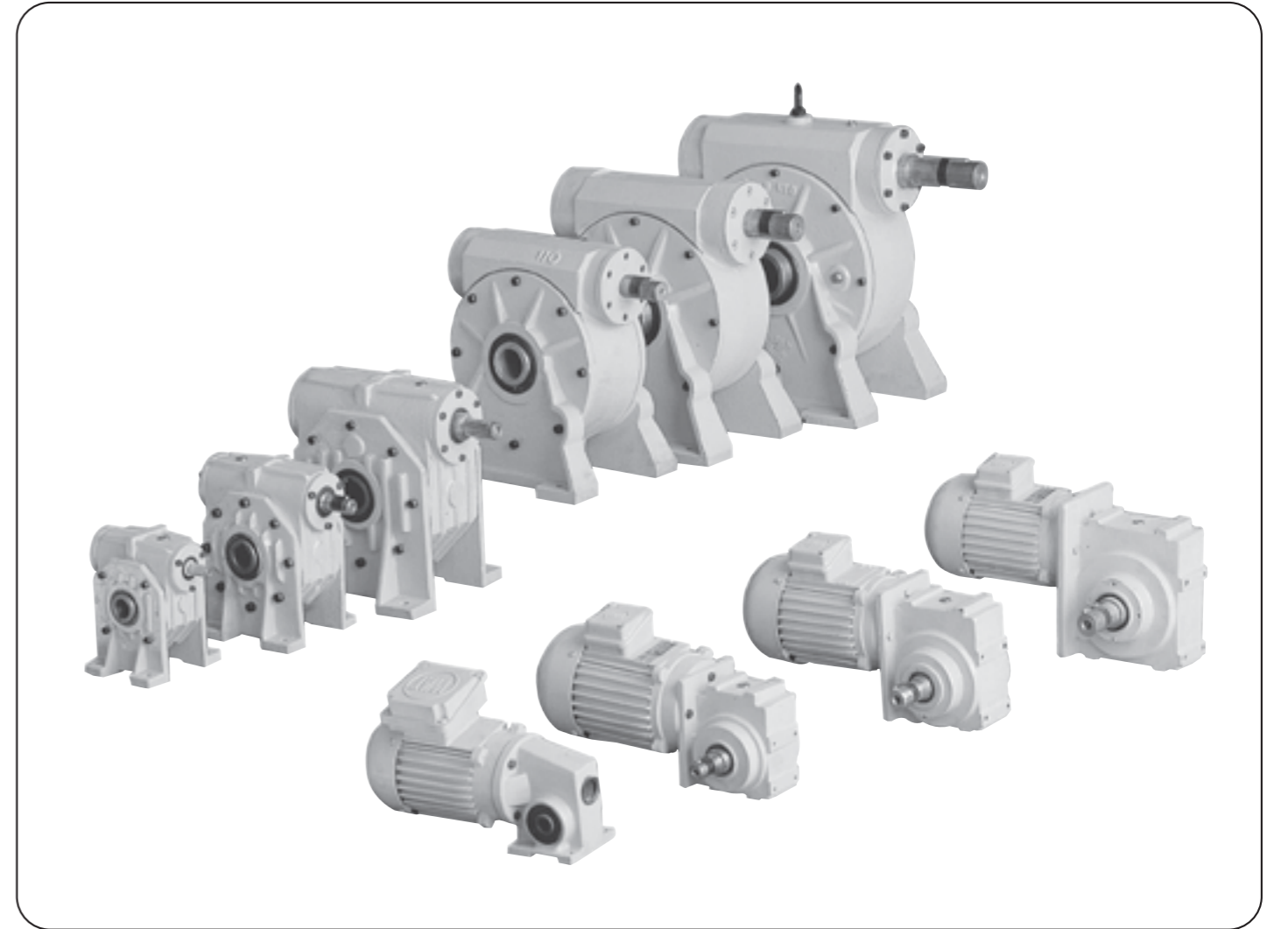
	a	b	c	e	f	n	s	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	h <sub>1</sub>	i <sub>2</sub>
TB 20/01-IEC	100	130	13	125	155	30	10.5	160	110	10	130	3.5	9	123	60
TB 30/01-IEC	90	185	20	125	210	35	13	200	130	12	160	3.5	11	153	70
TB 33/01-IEC	134	175	25	165	215	40	13	200	130	12	130	3.5	9	173	80
TB 50/20-IEC								200	130	12	130	3.5	9		
TB 50/30-IEC								250	180	16	215	4	14		
TB 50/33-IEC	190	260	35	230	314	60	18	300	230	16	265	4	14	245	100
								350	250	16	300	5	18		
TB 60/30-IEC								250	180	16	215	4	14		
TB 60/33-IEC	240	325	45	300	400	70	22	300	230	20	265	4	14	275	130
								350	250	20	300	5	18		
								450	350	20	300	5	18		
TB 70/30-IEC								300	230	14	165	3.5	11		
TB 70/33-IEC	300	360	55	370	450	90	26	350	250	20	215	4	14		
								400	300	20	265	4	14	300	145
								450	350	20	300	5	18		
TB 80/50-IEC								450	350	24	400	5	18		
TB 80/60-IEC	420	440	70	510	550	110	33	550	450	24	500	5	18	380	210
								660	550	24	600	5	22		



	Bağlantı ölçüleri (Ayaklı + Flanşlı)														Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı)									
	Befestigungsmasse ( Fuss + Flansch)														Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch)									
	Mounting dimensions ( Foot + Flange)														Outline and mounting, dimensions ( Foot + Flange)									

	p <sub>1</sub>	p <sub>2</sub>	h	i	k	m	o	p	q	d	l	t	u	mot. tip	d <sub>1</sub>	l <sub>1</sub>	t <sub>1</sub>	u <sub>1</sub>	a <sub>2</sub>	b <sub>2</sub>	e <sub>2</sub>	f <sub>2</sub>	s <sub>2</sub>
	198	203	125	94	336	150	149	200	167	25	50	28	8	71	14	30	16.3	5	160	110	130	4.5	M8
	238	253	155	86	402	170	183	240	198	35	70	38	10	80	19	40	21.8	6	200	130	165	4.5	M10
	273	273	175	120	433	200	183	275	223	40	80	43.5	14	90	24	50	27.3	8	200	130	165	4.5	M10
	370	370	250	134	491	250	183	375	280	50	100	53.5	14	100	28	60	31.3	8	250	180	215	5	M12
	425	450	280	169	491	300	183	430	359	65	130	169	18	112	28	60	31.3	8	250	180	215	5	M12
	475	450	315	185	615	350	221	490	416	75	140	79.5	20	132	38	80	41.3	10	300	230	265	5	M12
	590	655	390	265	678	420	257	600	598	100	210	106	28	160	42	110	45.3	12	350	250	300	6	M16

YATAY POZİSYON	WAAGERECHE ANORDNUNG	HORIZONTAL POSITION
Sembolü Kurzzeichen -Symbol <b>B 3</b> 	<b>B 3 / B 5</b> 	<b>B 8 / B 5</b> 
Sembolü Kurzzeichen -Symbol <b>B 5</b> 	<b>B 5 a</b> 	<b>B 5</b> 
Sembolü Kurzzeichen -Symbol <b>B 8</b> 	<b>B 6</b> 	<b>B 7</b> 
DİKEY POZİSYON	SENKRECHTE ANORDNUNG	VERTICAL POSITION
Sembolü Kurzzeichen Symbol <b>V 1</b> 	<b>V 1 / V 5</b> 	<b>V 3</b> 
Sembolü Kurzzeichen Symbol <b>V 3 / V 6</b> 	<b>V 5</b> 	<b>V 6</b> 

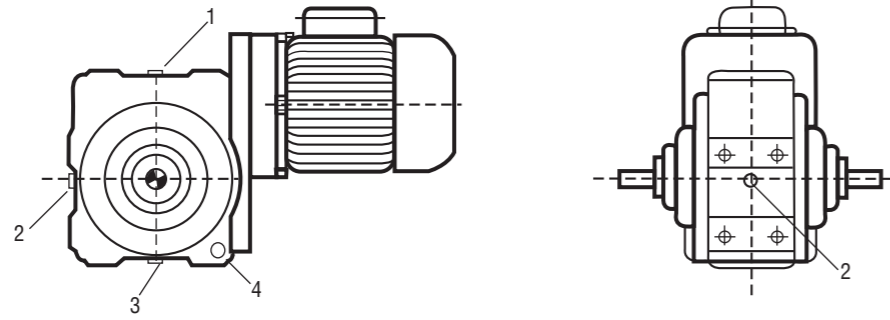




**HAVALANDIRMA, BOŞALTIMA VE YAĞ KONTROL CİVATALARININ POZİSYONLARI**

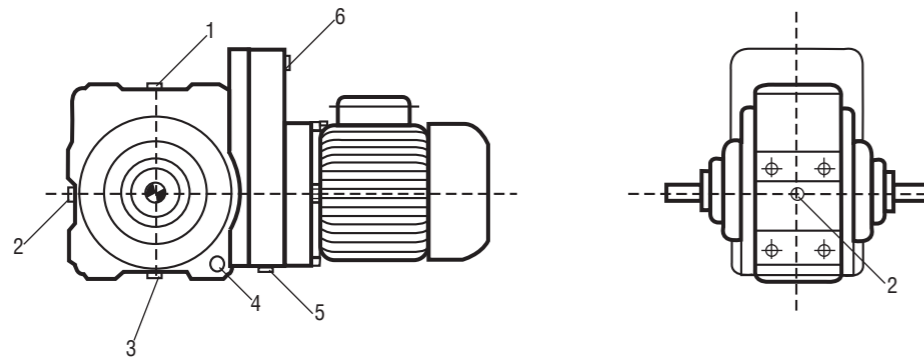
**Sonsuz Vidalı Redüktörler**

Montaj Pozisyonu	Havalandırma Cıvatası	Yağ Kontrol Cıvatası	Yağ Boşaltma Cıvatası
S1-S6-S15-S20	4	3	1
S2-S5-S16-S19	1	2	4
S3-S8-S17-S22	4	2	1
S4-S7-S18-S21	1	3	4
S9-S23	1	2	4



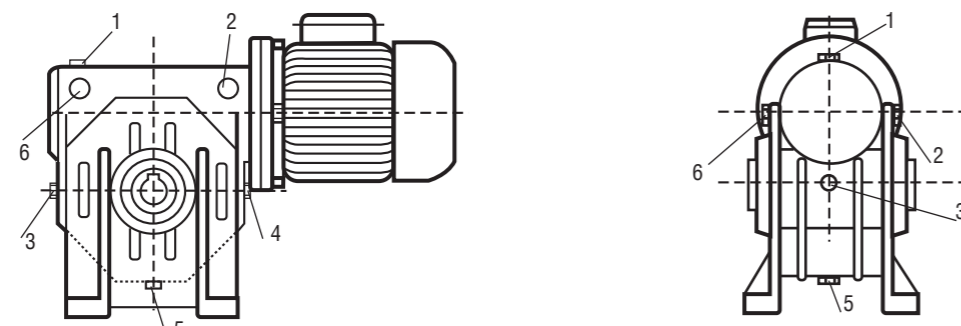
**Sonsuz Vidalı Helis Dişlili Redüktörler**

Montaj Pozisyonu	Havalandırma Cıvatası	Yağ Kontrol Cıvatası	Yağ Boşaltma Cıvatası
S1-S6-S15-S20	4 ve 6	5	1
S2-S5-S16-S19	1 ve 6	2	4 ve 5
S3-S8-S17-S22	4 ve 5	2	1 ve 6
S4-S7-S18-S21	1 ve 5	3	4 ve 6
S9-S23	1 ve 5	2 ve 3	4 ve 6

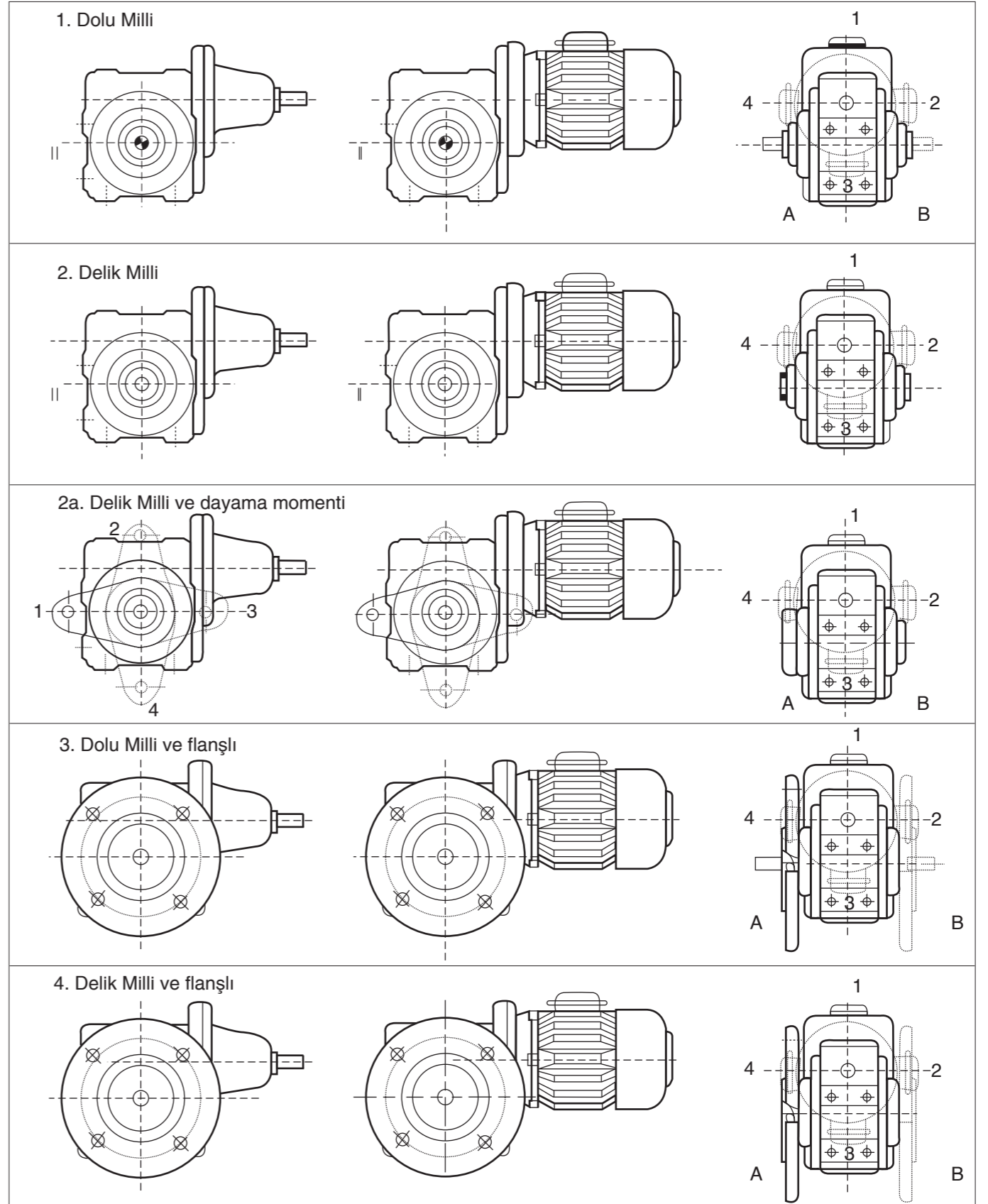


**Sonsuz Vidalı Helis Dişlili Redüktörler**

Montaj Pozisyonu	Havalandırma Cıvatası	Yağ Kontrol Cıvatası	Yağ Boşaltma Cıvatası
S1-S6-S15-S20	4 ve 6	5	1
S2-S5-S16-S19	1 ve 6	2	4 ve 5
S3-S8-S17-S22	4 ve 5	2	1 ve 6
S4-S7-S18-S21	1 ve 5	3	4 ve 6
S9-S23	1 ve 5	2 ve 3	4 ve 6



**Mil, Flanş, Klemens kutusu ve çevirme moment dayamasının pozisyonları**



Normal Yapım Şekli 1 ve 4:

Mil A tarafında, Klemens kutusu 1'de  
Flanşlı gövdelerde flanş A tarafında

## GÜÇ

HP	KW	TİPİ	Çıkış Devir Sayısı 1/dk				Ölçülendirme (sayfa)	Amper	Ağırlık (kg)				
			Çıkış momenti Nm.( )										
0.17	0.12	TB 530 - 63 L/6	12	15			56/57	0.64	15				
			(30)	(28)									
		TB 400 - 63 S/4	18	20	23	28	35	47	56	70	94	0.44	12
			(20)	(25)	(19)	(21)	(19)	(15)	(13)	(10)	(10)		
0.25	0.18	TB 530 - 71 S/6	12	15			56/57	0.90	16				
			(44)	(41)									
		TB 400 - 63 L/4	18	20	23	28	35	47	56	70	94	0.55	13
			(29)	(32)	(27)	(31)	(28)	(24)	(22)	(19)	(14)		
0.33	0.25	TB 652 - 71 L/6	12	14	18			56/57	1.3	22			
			(58)	(58)	(63)								
		TB 530 - 71 S/4	19	23	28	37	47	56	70	94	0.80	16	
			(20)	(25)	(19)	(21)	(19)	(24)	(22)	(19)			
0.50	0.37	TB 652 - 71 S/6	12	14	18			56/57	1.4	25			
			(88)	(88)	(96)								
		TB 530 - 71 L/4	19	23	28	37	47	56	70	94	1.15	17	
			(56)	(53)	(62)	(53)	(47)	(40)	(37)	(29)			
0.75	0.55	TB 652 - 80 S/6	18	21	28			56/57	1.50	25			
			(88)	(88)	(92)								
		TB 530 - 80 S/4	37	47	56	70	93			1.50	20		
			(77)	(71)	(59)	(55)	(44)						
1.0	0.75	TB 652 - 80 L/4	21	28	39	50			56/57	1.90	26		
			(117)	(123)	(101)	(89)							
		TB 530 - 80 L/4	56	67	93			1.90	21				
			(81)	(73)	(58)								
1.5	1.1	TB 652 - 90 S/4	39	50	70	93			56/57	2.90	33		
			(151)	(133)	(105)	(80)							
2	1.5	TB 652 - 90 L/4	39	50	70	93			56/57	3.7	37		
			(151)	(155)	(141)	(90)							

## GÜÇ

HP	KW	TİPİ	Çıkış Devir Sayısı 1/dk				Ölçülendirme (sayfa)	Amper	Ağırlık (kg)						
			Çıkış momenti Nm.( )												
0.17	0.12	TB 6520 - 63 L/6	1.8	2.1	2.7	3.8	4.8	5.3	6.0	6.8	7.9	56/57	0.44	23	
			(100)	(123)	(141)	(156)	(160)	(69)	(71)	(125)	(75)				
		TB 5301 - 63 S/4	2.1	2.6	3.1	4.1	5.2	6.2	7.4	9	10.4	0.44	17		
			(54)	(61)	(66)	(77)	(77)	(76)	(74)	(47)	(78)				
		TB 4000 - 63 S/4	11.5	14	16	18			0.44	16					
			(76)	(49)	(61)	(43)									
0.25	0.18	TB 6520 - 63 L/4	1.8	2.1	2.7	3.8	4.8	5.3	6.0	6.8	7.9	11	56/57	0.55	24
			(100)	(123)	(141)	(154)	(155)	(101)	(104)	(156)	(111)	(130)			
		TB 5301 - 63 L/4	3.1	4.1	5.2	6.2	7.4	9.0	10.4	11.5	14	16	0.55	18	
			(66)	(77)	(77)	(76)	(74)	(61)	(78)	(76)	(72)	(74)			
		TB 4000 - 63 L/4	3.6	4.5	6.0	7.2	9.0	10.8	13.0	16.2	18	22	0.55	17	
			(35)	(37)	(39)	(38)	(28)	(35)	(37)	(38)	(38)	(39)			
0.33	0.25	TB 6520 - 71 S/4	3.8	4.8	5.3	6.0	6.8	7.9	11	14	20	22	56/57	0.8	25
			(156)	(155)	(101)	(123)	(156)	(141)	(152)	(106)	(83)	(92)			
		TB 5301 - 71 S/4	4.1	5.2	6.2	7.4	9.0	10.4	11.5	14	16	18	0.8	19	
			(77)	(77)	(76)	(74)	(61)	(78)	(76)	(77)	(74)	(77)			
		TB 4000 - 71 S/4	6.0	7.2	9.0	10.8	13.0	16.2	18	22	26	32	0.8	18	
			(39)	(32)	(38)	(28)	(35)	(37)	(39)	(32)	(32)	(38)			
0.5	0.37	TB 6520 - 71 L/4	4.8	5.3	6.0	6.8	7.9	11	14	20	22	25	56/57	1.1	26
			(155)	(101)	(123)	(156)	(140)	(152)	(155)	(125)	(140)	(90)			
		TB 5301 - 71 L/4	18	21.5	23	26	33	36	40	51			1.1	20	
			(77)	(76)	(72)	(74)	(75)	(77)	(69)	(49)					
		TB 4000 - 71 L/4	22	26	32	43			1.1	19					
			(39)	(32)	(38)	(36)									
0.75	0.55	TB 6520 - 80 S/4	20	22	25	31	36	40	56			56/57	1.5	29	
			(156)	(152)	(135)	(139)	(104)	(85)	(77)						
		TB 5301 - 80 S/4	51	56	71	80			1.5	23					
			(74)	(77)	(58)	(58)									
1.0	0.75	TB 6520 - 80 L/4	22	25	31	36	40			56/57	1.9	30			
			(152)	(155)	(152)	(139)	(113)								
1.5	1.1	TB 6520 - 90 S/4	40	56	64	88			56/57	2.9	37				
			(155)	(153)	(144)	(98)									



**GÜÇ**

HP	KW	TIPI	Çıkış Devir Sayısı 1/dk Çıkış momenti Nm.( )				Öçülendirme (sayfa)	Amper	Ağırlık (kg)					
1.5	1.1	TB 750 -90S/4	40	50	70	93	56/60	2.9	33					
			(151)	(153)	(105)	(92)								
			23	28	35	40								
			(168)	(188)	(172)	(170)								
		TB 950 -90S/4	12.2	14	16	18 19 21			66					
			(482)	(411)	(410)	(400) (381) (350)								
			8.2	9	11	12.6 15								
			(461)	(424)	(343)	(466) (493)								
		TB 130/30 -90S/4	5	6	7	8 9.1			109					
			(900)	(900)	(840)	(726) (612)								
			2	1.5	TB 750 -90L/4	50				70	93	56/60	3.7	37
						(155)				(140)	(110)			
35	40	50												
(229)	(210)	(190)												
		TB 950 -90L/4	23	28	35			53						
			(224)	(250)	(250)									
			14	18	23									
			(286)	(239)	(200)									
		TB 130 -90L/4	7	8.1	9.6	11			112					
			(880)	(840)	(700)	(640)								
			3	2.2	TB 950 -100L/4	70				93	56/60	5.4	53	
						(236)				(180)				
35	50	56												
(344)	(294)	(268)												
		TB 110 -100L/4	23	28			69							
			(336)	(376)										
			18	23										
			(358)	(336)										
		TB 130 -100L/4	18	23			100							
			(358)	(336)										
			4	3				TB 950 -100L/40	93	56/60	7.4	58		
									(246)					
50	70	93												
(370)	(358)	(315)												
		TB 110 -100L/40	35	40	50		74							
			(458)	(410)	(390)									
			23	28										
			(448)	(501)										
		TB 130 -100L/40	23	28			105							
			(448)	(501)										
			5.5	4				TB 110 -112M/4	93	56/60	9	72		
									(330)					
50	70	93												
(505)	(433)	(350)												
		TB 130 -112M/4	35	40		116								
			(630)	(593)										
			7.5	5.5			TB 130 -132S/4	93	56/60	12	104			
								(450)						
50	70	93												
(690)	(590)	(500)												
		TB 1050 -132S/4	93	56/60	15.6	146								
			(601)											

**SONSUZ VIDALI TEK VE ÇİFT  
KADEMELİ W (T) TIPI  
REDÜKTÖRLERİN  
DEVİR SAYILARI**
**Schneckengetriebe mit  
freier An-und  
Abtriebswelle  
ein und zweistufig**
**Worm Gear units with  
free input and output  
shaft one and  
double reduction**

	i	n2	MdmaxNm	Kw	%		l	l1	l2	n2	MdmaxNm	Kw	%			
TB 550 W(T)	50	28	66	0.39	49	TB 950/01 W(T)	780	13.0	60	1.79	315	0.09	36			
	40	35	77	0.52	56		696	11.6	60	2.01	315	0.10	36			
	30	47	77	0.59	63		510	8.5	60	2.74	315	0.13	36			
	25	56	76	0.69	70		376	9.4	40	3.72	306	0.16	56			
	20	70	74	0.73	77		312	7.8	40	4.48	306	0.19	56			
	15	93	78	0.97	77		270	4.5	60	5.18	315	0.25	36			
10	140	74	1.38	80	235.8	3.92	60	5.93	315	0.28	36					
Ağırlık - Gewicht - Weight : 5.5 kg																
TB 750 W(T)	70	19	101	0.60	30	TB 110/20 W(T)	828	13.8	60	1.69	490	0.14	28			
	60	23	120	0.70	35		508	8.48	60	2.75	490	0.19	28			
	50	28	141	0.83	49		376	6.27	60	3.72	490	0.29	28			
	40	37	156	0.90	56		258	4.30	60	5.42	490	0.41	28			
	35	40	156	1.12	63		200.8	2.02	40	6.97	485	0.49	56			
	30	47	156	1.26	63		184.4	4.61	40	7.59	485	0.53	56			
	25	56	152	1.32	63		151.2	3.78	40	9.25	485	0.58	56			
	20	67	150	1.60	70		98.4	2.46	40	14.2	485	0.9	56			
	15	93	145	2.17	77		87	2.9	30	16.2	427	0.92	70			
	13.5	104	145	2.20	77		73.8	2.46	30	19.3	427	1.01	70			
	10	145	135	3.0	80		Ağırlık - Gewicht - Weight : 52 kg									
	Ağırlık - Gewicht - Weight : 13 kg															
TB 950 W(T)	80	17.5	264	0.75	30	TB 130/30 W(T)	492.5	9.85	50	2.8	660	0.29	28			
	70	20	295	0.90	35		395	7.9	50	3.72	660	0.39	28			
	60	23	315	1.09	36		280	7.0	40	4.60	660	0.49	28			
	50	28	276	1.10	49		226	5.65	40	6.33	660	0.66	28			
	40	35	306	1.46	56		169.5	5.65	30	8.48	673	0.8	36			
	35	40	265	1.45	58		118.8	3.96	30	9.15	673	0.87	36			
30	47	242	1.44	63	94	3.13	30	14.8	590	1.07	70					
25	56	211	1.46	70	89.4	2.98	30	17.4	590	1.25	70					
20	70	257	2.19	70	Ağırlık - Gewicht - Weight : 71 kg											
15	93	264	2.93	78												
Ağırlık - Gewicht - Weight : 23 kg																
TB 110 W(T)	60	23	445	1.45	36	TB1050/30W(T)	280	7.0	40	5.0	900	0.58	56			
	50	28	381	1.46	49		226.0	5.65	40	6.2	900	0.72	56			
	40	35	485	2.20	56		200.8	5.02	40	7.0	900	0.81	56			
	30	46	373	2.17	63		172.0	4.3	40	8.1	900	0.94	56			
	15	93	365	4.01	78		146.4	3.66	40	9.6	900	1.11	56			
	Ağırlık - Gewicht - Weight : 37 kg															
	TB 130 W(T)	80	17.5	565	1.51		30	126	3.15	40	11.1	900	1.28	56		
		70	20	610	1.70		35	109.8	3.66	30	13.0	824	1.28	70		
		60	23	673	2.18		36	101.7	3.39	30	13.76	824	1.51	70		
		50	28	571	2.18		49	89.40	2.98	30	15.65	824	1.75	70		
		40	35	650	2.95		56	Ağırlık - Gewicht - Weight : 98 kg								
		35	40	690	2.95		58									
Ağırlık - Gewicht - Weight : 50 kg																
TB 1050 W(T)	80	17.5	860	2.27	30											
	70	20	890	2.45	35											
	60	23	910	2.90	36											
	50	28	777	2.94	49											
	40	35	900	4.04	56											
	35	40	800	4.10	58											
	30	47	701	3.99	63											
	15	93	675	7.33	78											
Ağırlık - Gewicht - Weight : 75 kg																

Flanş merkezleme  $\varnothing$  230 mm'ye kadar ISO J6,  
230 mm'den büyüklerde ISO h6

Flanschzentrier - $\varnothing$  bis 230 mm nach ISO J6,  
über 230 mm nach ISO h6

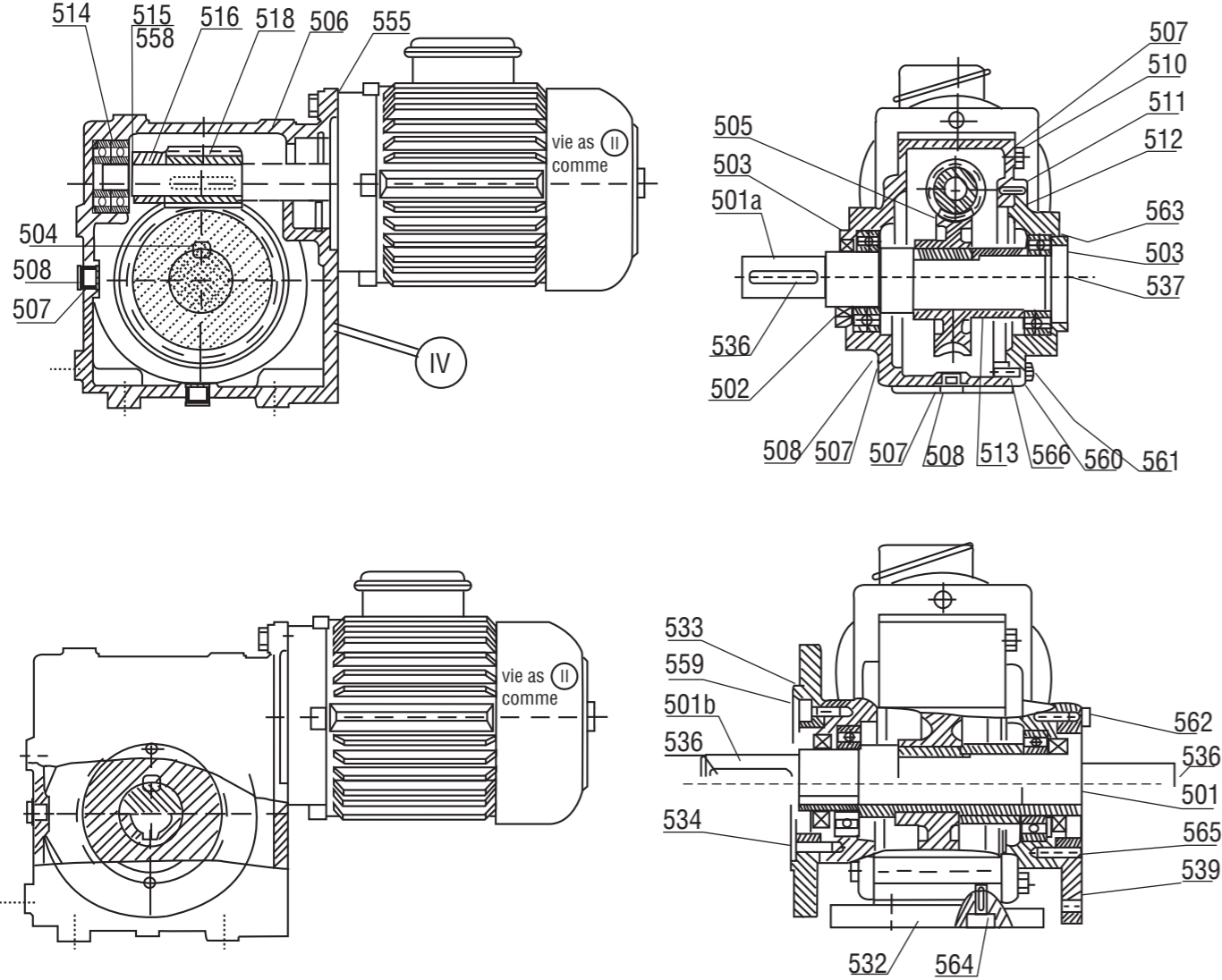
Flange centering dia. up to 230 mm ISO J6,  
over 230 mm: ISO h6



TİPİ	a1	b1	c1	e1	f1	s1
TB 400-4000	(120)	80	10	100	3	7
TB 530-5301	(140)	95	10	115	3	9
TB 652-6520	(160)	110	10	130	3.5	9

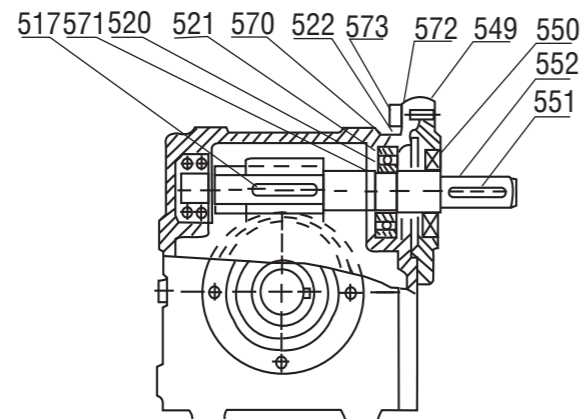
**SONSUZ V-DALI MOTORLU REDÜKTÖRLER**

**SCHNECKENGETRIEBEMOTOREN  
WORM GEARED MOTORS**

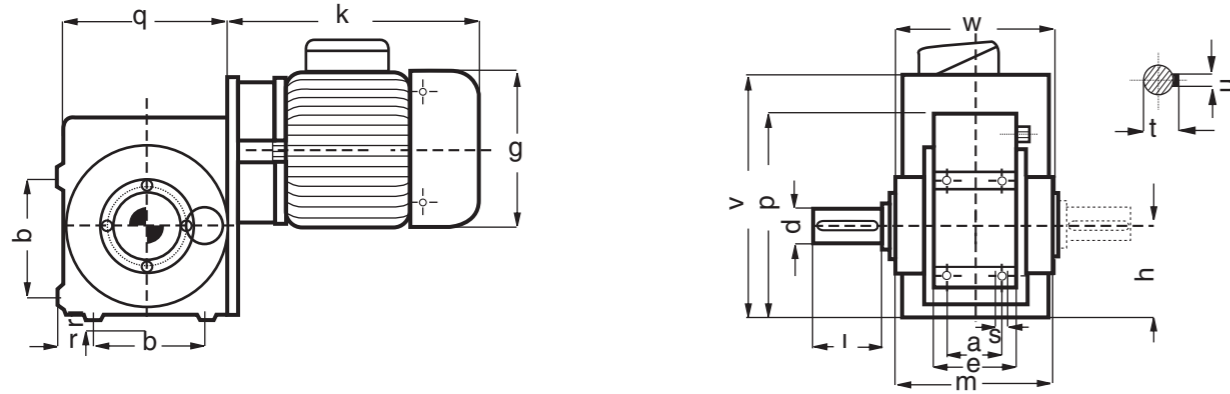


**SONSUZ VİDALI W(T) TİPİ REDÜKTÖR**

**SCHNECKENGETRIEBE MIT FREIER ANTRIEBSWELLE  
WORM GEARBOXES WITH FREE INPUT SHAFT**



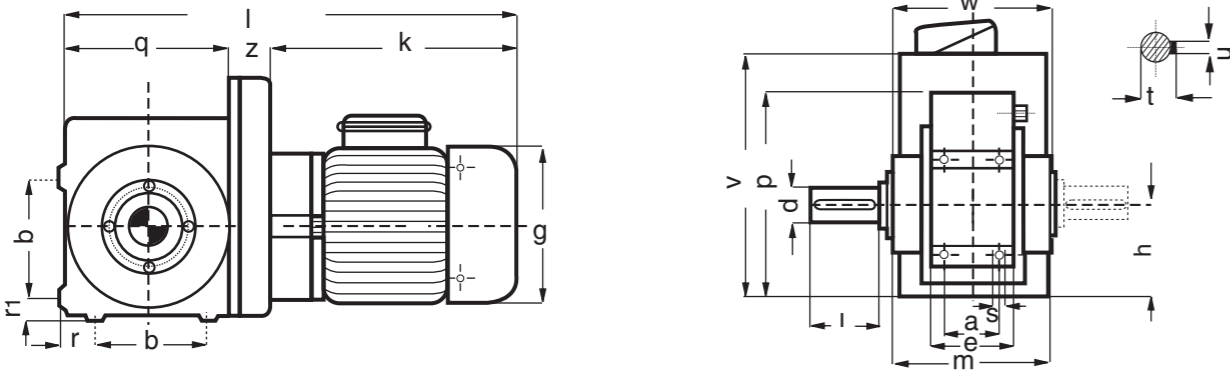
501.Delik mil	Hohlwelle	Hollow shaft
501. a-Çıkış mili	Abtriebswelle	Output shaft
501. b-Çıkış mili iki taraflı	Abtriebswelle,beidseitig	Output shaft,two sides
502.Yağ keçesi	Wellendichtring	Shaft seal
503.Rulman	Rillenkugellager	Grooved ball bearing
504.Kama	Passfader	Key
505.Salyangoz dişli	Schneckenrad	Worm well
506.Gövde	Schneckengetriebe-Gehäuse	Housing
507.Conta	IT-Oldichtung	Seal
508.Yağ tapası	Verschlusschraube	Locking screw
510.Havalandırma Civatası	Entlüftungsschruve	Vent screw
511.Pim	Kerbstift	Grooved pin
512.Gövde kapağı	Schneckengetriebe	Gear case cover
513.Burç	Distanzbuchse	Distance piece
514.Rulman	Rillenkugelleger	Grooved ball bearing
515.Sekman	Sicherungsring	Circlip
516.Burç	Distanzbuchse	Distancepiece
517.Kama	Passfader	Key
518.Sonsuz Vida	Schnecke	Worm
520.Sekman	Sicherungsring	Circlip
521.Rulman	Rillenkugelleger	Gooved ball bearing
522.Sekman	Sicherungsring	Circlip
532.Ayak plakası	Fussplatte	Base pelate
533.Flans	Flansch	Flange
534.Pim	Kerbstift	Grooved pin
536.Kama	Passfader	Key
537.Kapak	Verschlusskappe	Locking cap
539.Çevirme momenti tutucusu	Drehmomentstutze	Torque arm
549.Rulman yatağı	Antriebselager-Gehäuse	Input bearing housing
550.Yağ keçesi	Wellendichtring	Grower
551.Kama	Passfader	Key
552.Çalıştırıcı mil	Antriebswelle	Input shaft
555.Conta	Dichtug	Seal
558.Ayar pulu	Passschiebe	Shim
559.Imbus civata	Zylinderschraube	Socket head screw
560.Yağlı rondela	Federing	Grower
561.Altı köşe civata	Sechskanttschraube	Hexagon screw
562.Imbus civata	Zylinderschraube	Socket head screw
563.Ayar pulu	Passscheibe	Shim
564.Imbus civata	Zylinderschraube	Socket head screw
565.Pim	Kerbstift	Groved pin
566.Conta	Dichtug	Seal
570.Ayar pulu	Passscheibe	Shim
571.Ayar pulu	Passscheibe	Shim
572.Yağlı rondela	Federing	Grover
573.Altı köşe civata	Sechskanttschraube	Hexagon screw



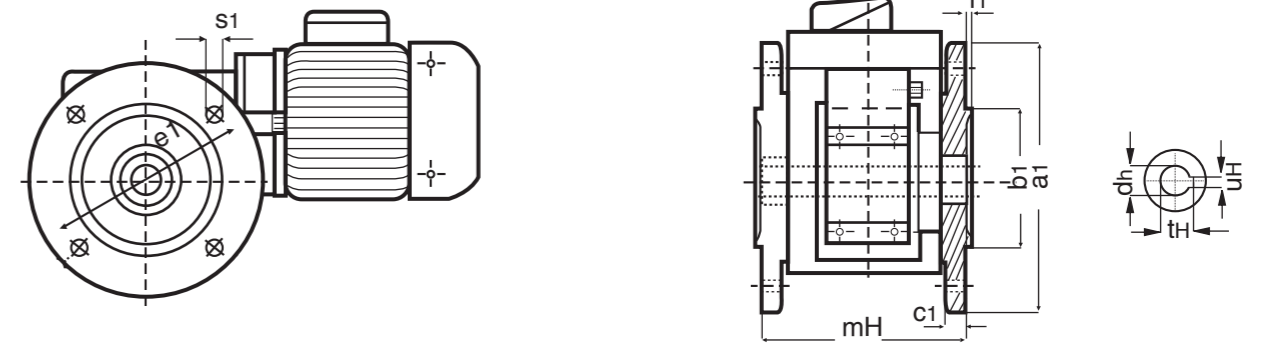
Tipi Typ Type	Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)					Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)						
	a	b	e	r	s	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	
TB 400-63	S-L	-	-	-	-	-	-	-	-	-	-	
TB 400-71	S-L	45	55	63	25.5	M6	120	80	10	100	3	7
TB 530-63	S-L	-	-	-	-	-	-	-	-	-	-	
TB 530-71	S-L	50	75	66	25.5	M8	140	95	10	115	3	9
TB 530-80	S-L	-	-	-	-	-	-	-	-	-	-	
TB 652-71	S-L	-	-	-	-	-	-	-	-	-	-	
TB 652-80	S-L	-	-	-	-	-	-	-	-	-	-	
TB 652-90	S	55	100	74	30	M8	160	110	10	130	3.5	9
TB 652-90	L	-	-	-	-	-	-	-	-	-	-	
TB 652-100	L	-	-	-	-	-	-	-	-	-	-	

**SONSUZ VİDALI HELİS DİŞLİLİ  
ÇİFT KADEMELİ MOTORLU REDÜKTÖR**

**Schnecken Stirnrad-getriebe motoren  
universalbauform zweistufig**



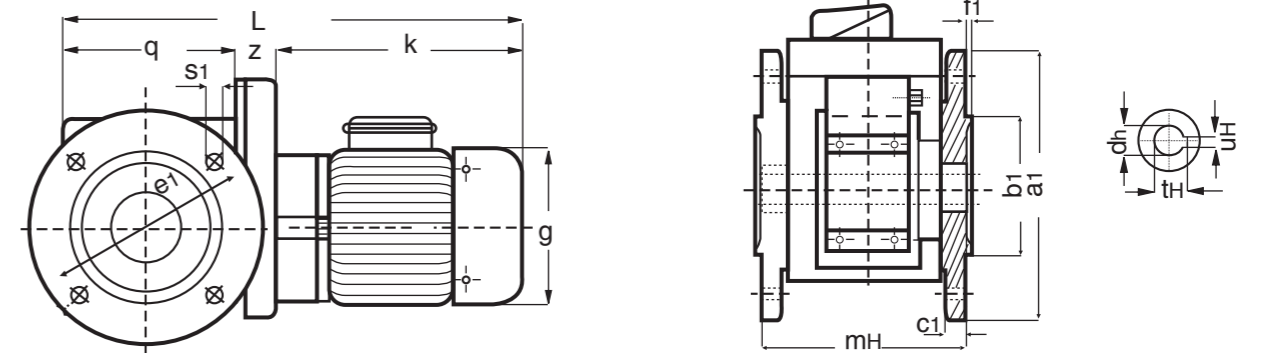
Tipi Typ Type	Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)					Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)						
	a	b	e	r	s	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	
TB 4000-63	S-L	-	-	-	-	-	-	-	-	-	-	
TB 4000-71	S-L	45	55	63	25.5	M6	120	80	10	100	3	7
TB 5301-63	S-L	-	-	-	-	-	-	-	-	-	-	
TB 5301-71	S-L	50	75	66	25.5	M8	140	95	10	115	3	9
TB 5301-80	S-L	-	-	-	-	-	-	-	-	-	-	
TB 6520-71	S-L	-	-	-	-	-	-	-	-	-	-	
TB 6520-80	S-L	-	-	-	-	-	-	-	-	-	-	
TB 6520-90	S	55	100	74	30	M8	160	110	10	130	3.5	9
TB 6520-90	L	-	-	-	-	-	-	-	-	-	-	
TB 6520-100	L	-	-	-	-	-	-	-	-	-	-	



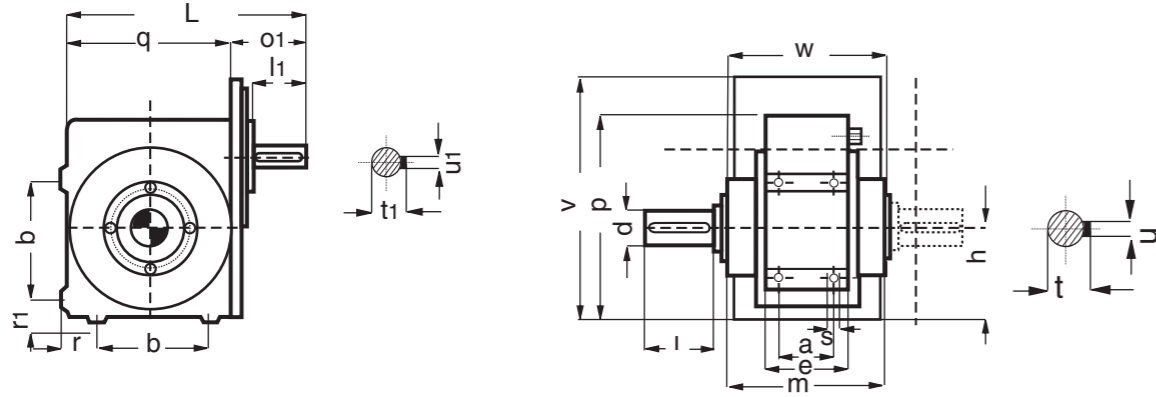
Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)												Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)				
q	k	g	v	w	m	p	h	d	l	t	u	d <sub>h</sub>	u <sub>h</sub>	t <sub>h</sub>		
-	208	123	-	-	-	-	-	-	-	-	-	-	-	-		
105	220	141	139	104	108	129	52	20	40	22.8	6	20	6	22.8		
-	208	123	-	-	-	-	-	-	-	-	-	-	-	-		
154	220	141	170	109	119	154	63	25	50	28	8	20	6	22.8		
-	241	156	-	-	-	-	-	-	-	-	-	-	-	-		
-	222	123	-	-	-	-	-	-	-	-	-	-	-	-		
-	243	141	-	-	-	-	-	-	-	-	-	-	-	-		
150	260	156	212	134	138	185	80	30	60	33	8	28	8	31.3		
-	285	177	-	-	-	-	-	-	-	-	-	-	-	-		
-	318	177	-	-	-	-	-	-	-	-	-	-	-	-		

**SONSUZ VİDALI HELİS DİŞLİLİ  
ÇİFT KADEMELİ MOTORLU REDÜKTÖR**

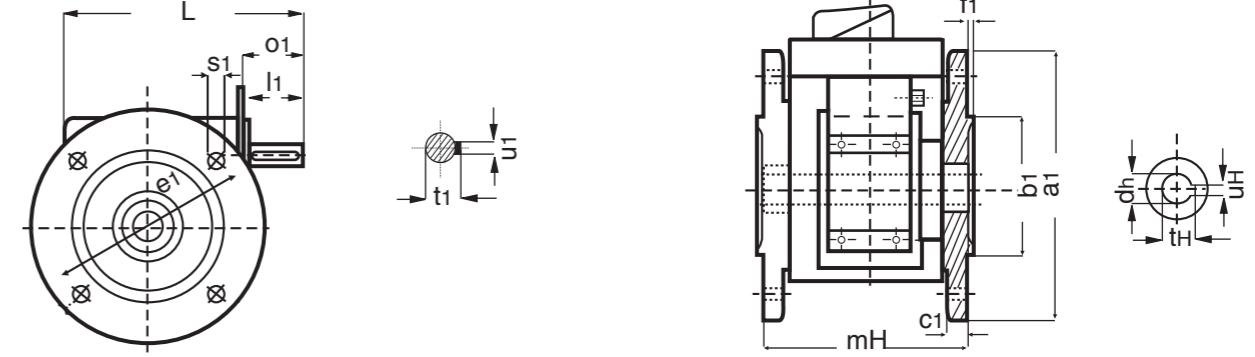
**Schnecken Stirnrad-getriebe motoren  
universalbauform zweistufig**



Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)												Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)						
q	k	g	v	w	m	p	h	d	l	t	u	d <sub>h</sub>	u <sub>h</sub>	t <sub>h</sub>	L	z	m <sub>h</sub>	
-	208	123	-	-	-	-	-	-	-	-	-	-	-	-	364	-	-	
105	220	141	139	104	108	129	52	20	40	22.8	6	20	6	22.8	376	51	124	
-	208	123	-	-	-	-	-	-	-	-	-	-	-	-	413	-	-	
154	220	141	170	109	119	154	63	25	50	28	8	20	6	22.8	425	51	136	
-	241	156	-	-	-	-	-	-	-	-	-	-	-	-	446	-	-	
-	222	123	-	-	-	-	-	-	-	-	-	-	-	-	525	-	-	
-	243	141	-	-	-	-	-	-	-	-	-	-	-	-	546	-	-	
150	260	156	212	134	138	185	80	30	60	33	8	28	8	31.3	563	52	155	
-	285	177	-	-	-	-	-	-	-	-	-	-	-	-	588	-	-	
-	318	177	-	-	-	-	-	-	-	-	-	-	-	-	620	-	-	



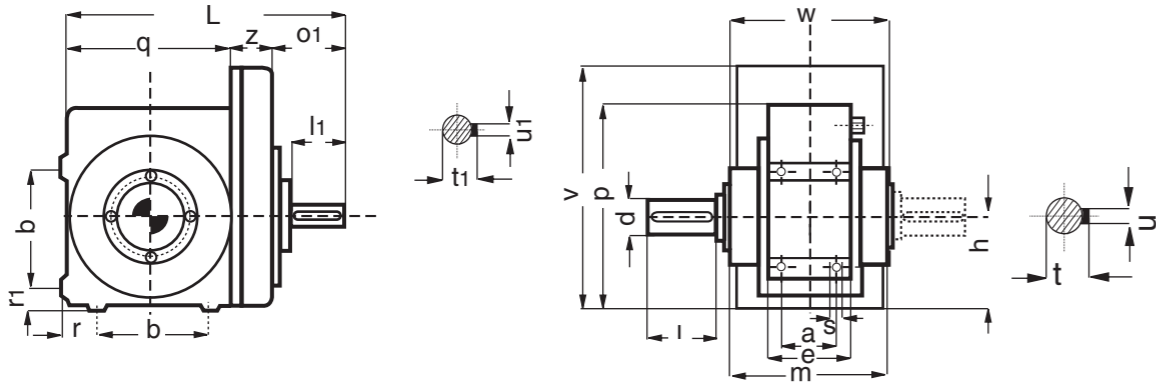
Tipi Typ Type	Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)					Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)										
	a	b	e	r	s	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	d <sub>1</sub>	l <sub>1</sub>	t <sub>1</sub>	u <sub>1</sub>	L
TB 400 W(T)	45	55	63	25.5	M6	120	80	10	100	3	7	11	23	12.5	4	149
TB 530 W(T)	50	75	66	25.5	M8	140	95	10	115	3	9	14	30	16	5	173
TB 652 W(T)	55	100	74	30	M8	160	110	10	130	3.5	9	19	40	21.3	6	225



Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)											Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)				
q	v	w	m	p	h	d	l	t	u	d <sub>h</sub>	u <sub>h</sub>	t <sub>h</sub>	o <sub>1</sub>		
105	139	104	108	129	52	20	40	22.8	6	20	6	22.8	44		
154	170	109	119	154	63	25	50	28	8	20	6	22.8	51		
150	212	134	138	185	80	30	60	33	8	28	8	31.3	75		

**SONSUZ VİDALI ÇİFT KADEMELİ  
W(T) TİPİ REDÜKTÖR**

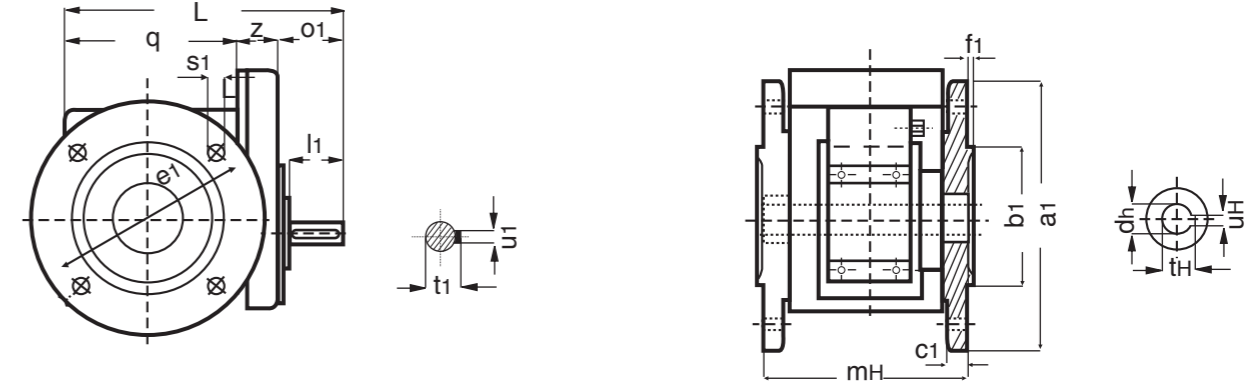
**Schnecken getriebe mit  
freier antriebswelle zweistufig**



Tipi Typ Type	Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)					Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)										
	a	b	e	r	s	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	d <sub>1</sub>	l <sub>1</sub>	t <sub>1</sub>	u <sub>1</sub>	L
TB 4000 W(T)	45	55	63	25.5	M6	120	80	10	100	3	7	11	23	12.5	4	200
TB 5301 W(T)	50	75	66	25.5	M8	140	95	10	115	3	9	14	30	16	5	224
TB 6520 W(T)	55	100	74	30	M8	160	110	10	130	3.5	9	19	40	21.3	6	276

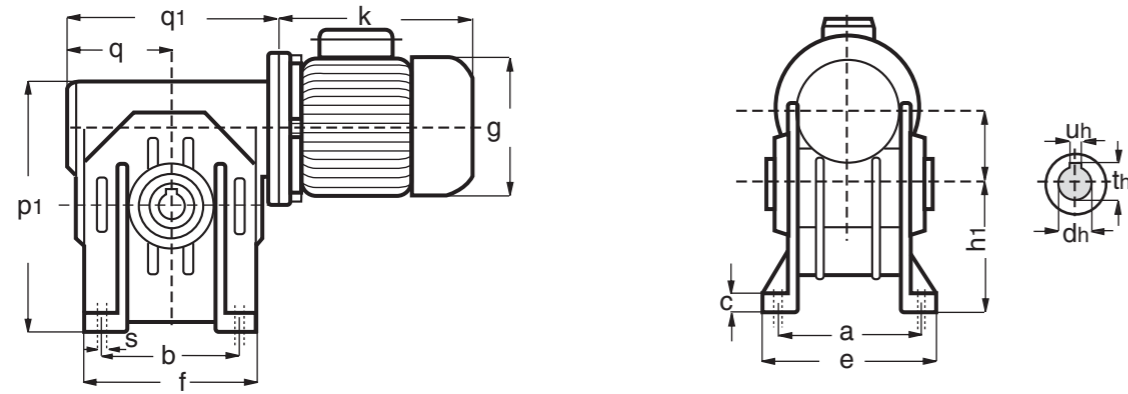
**SONSUZ VİDALI HELİS DİŞLİLİ  
ÇİFT KADEMELİ W(T) TİPİ REDÜKTÖR**

**Schnecken Stirnrad-getriebe  
mit freier Antriebswelle**



Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)											Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)				
q	v	w	m	p	h	d	l	t	u	d <sub>h</sub>	u <sub>h</sub>	t <sub>h</sub>	o <sub>1</sub>	z	
105	139	104	108	129	52	20	40	22.8	6	20	6	22.8	44	51	
154	170	109	119	154	63	25	50	28	8	20	6	22.8	51	51	
150	212	134	138	185	80	30	60	33	8	28	8	31.3	75	52	

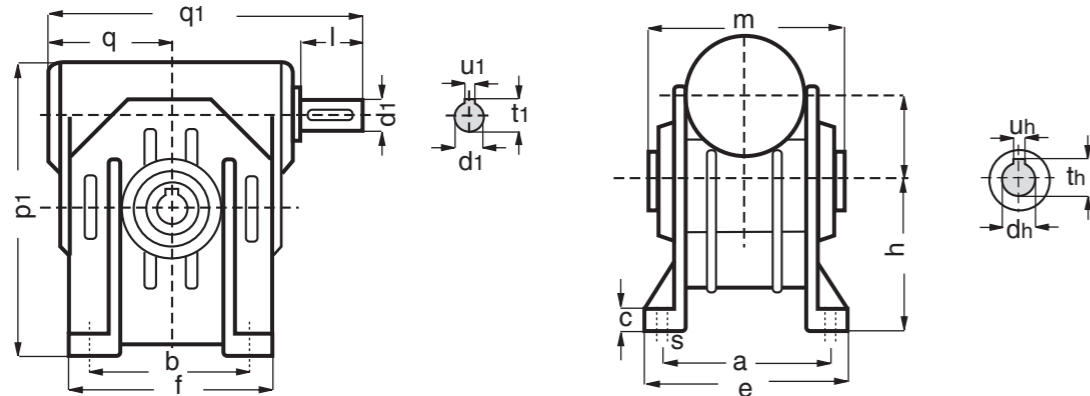




Tipi Typ Type	Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)						Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)									
	a	b	c	e	f	s	g	h	h <sub>1</sub>	k	m	p <sub>1</sub>	q	q <sub>1</sub>	w	
TB 550 / 71 S-L	105	80	10	132	110	9	141	90	60	220	98	160	70	155	85	
TB 750 / 71 S-L							141			220						
TB 750 / 80 S-L	115	120	15	144	158	11	156	115	79	233	121	191	89	187	106	
TB 750 / 90 S-L							177			250						
TB 950 / 80 S-L							156			233						
TB 950 / 90 S-L	164	160	15	196	210	13	177	150	121	275	150	271	124	250	147	
TB 950 / 100 L							198			308						
TB 110 / 90 L							177			250						
TB 110 / 100 L	180	200	15	220	270	13	198	170	140	308	155	321	144	293	170	
TB 110 / 112 L							220			322						
TB 130 / 90 L							177			275						
TB 130 / 100 L	190	240	18	244	282	15	198	200	155	308	190	363	160	323	194	
TB 130 / 112 L																
TB 1050 / 100 L							198			308						
TB 1050 / 112 L	220	280	20	260	334	19	220	240	182	322	220	422	190	382	225	
TB 1050 / 132 S							260			363						

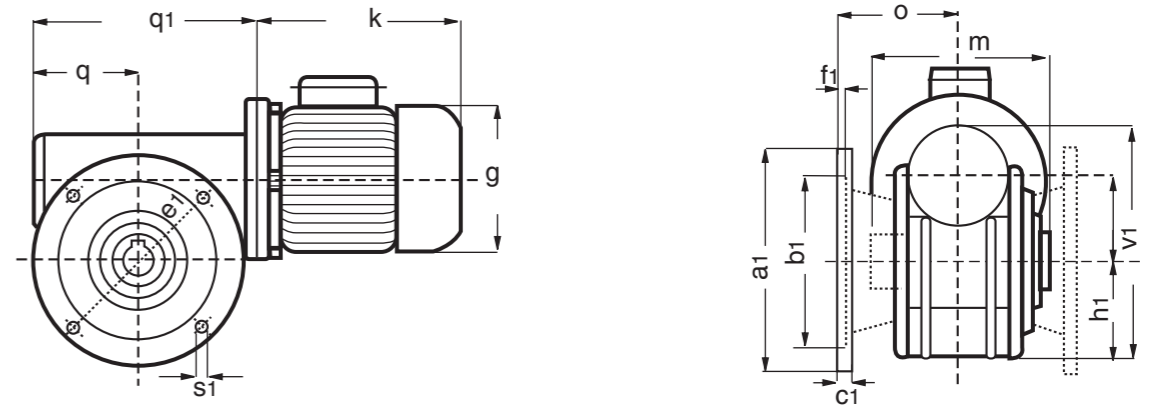
**SONSUZ VİDALI TEK KADEMELİ  
W(T) TİPİ REDÜKTÖR**

**Schnecken getriebe mit  
freier antriebswelle**



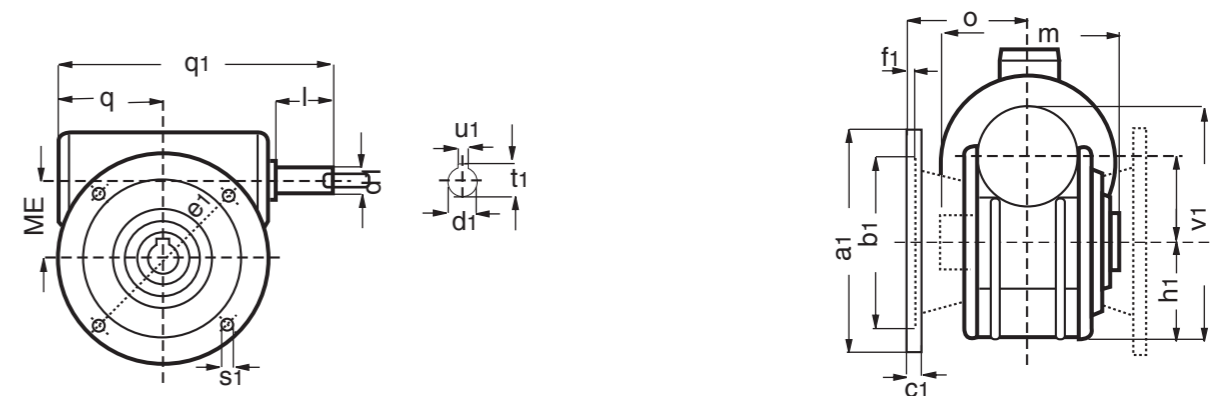
Tipi Typ Type	Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)						Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)									
	a	b	c	e	f	s	h	h <sub>1</sub>	m	p <sub>1</sub>	q	q <sub>1</sub>	w			
TB 550 T	105	80	10	132	110	9	90	60	98	160	70	155	85			
TB 750 T	115	120	15	144	158	11	115	79	121	191	89	187	106			
TB 950 T	164	160	15	196	210	13	150	121	150	271	124	250	147			
TB 110 T	180	200	15	220	270	13	170	140	155	321	144	293	170			
TB 130 T	190	240	18	244	282	15	200	155	190	363	160	323	194			
TB 1050 T	220	280	20	260	334	19	240	182	220	422	190	382	225			

**Worm geared motors**

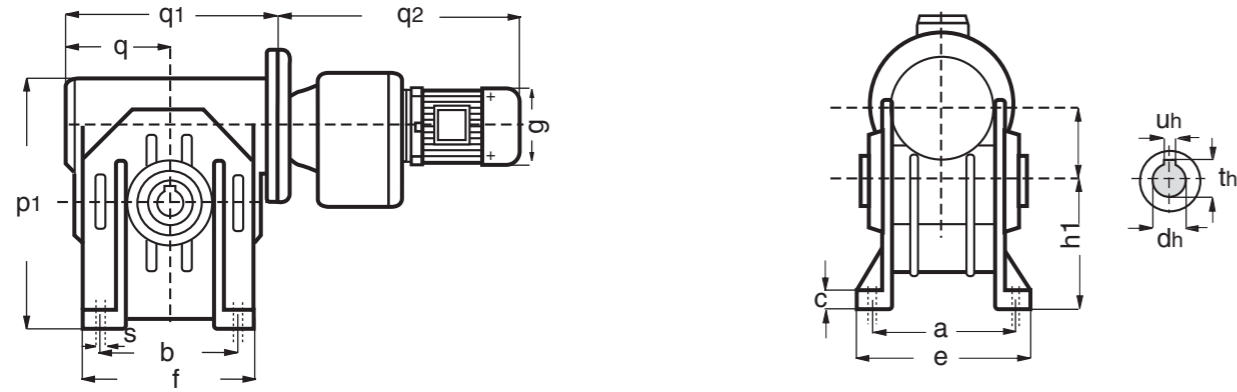


Tipi Typ Type	Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)						Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)			
	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	0	d <sub>h</sub>	t <sub>h</sub>	u <sub>h</sub>
	155	110	14	130	5	M8	92	24	26.7	8
	190	140	12	165	5	11	88	28	31.1	8
	250	180	14	215	5	13	127	38	41.7	10
	250	180	18	215	5	15	150	42	45.7	12
	300	230	18	265	5	15	150	48	52.2	14
	350	250	20	300	6	19	175	55	60.2	16

**Worm gearboxes**



Tipi Typ Type	Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)						Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)									
	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	0	d <sub>h</sub>	t <sub>h</sub>	u <sub>h</sub>	d <sub>1</sub>	l <sub>1</sub>	t <sub>1</sub>	u <sub>1</sub>		
	155	110	14	130	5	M8	92	24	26.7	8	14	30	16	5		
	190	140	12	165	5	11	88	28	31.1	8	19	40	21.5	6		
	250	180	14	215	5	13	127	38	41.7	10	24	50	27	8		
	250	180	18	215	5	15	150	42	45.7	12	32	80	35	10		
	300	230	18	265	5	15	150	48	52.2	14	38	80	41.5	10		
	350	250	20	300	6	19	175	55	60.2	16	42	110	45.2	12		

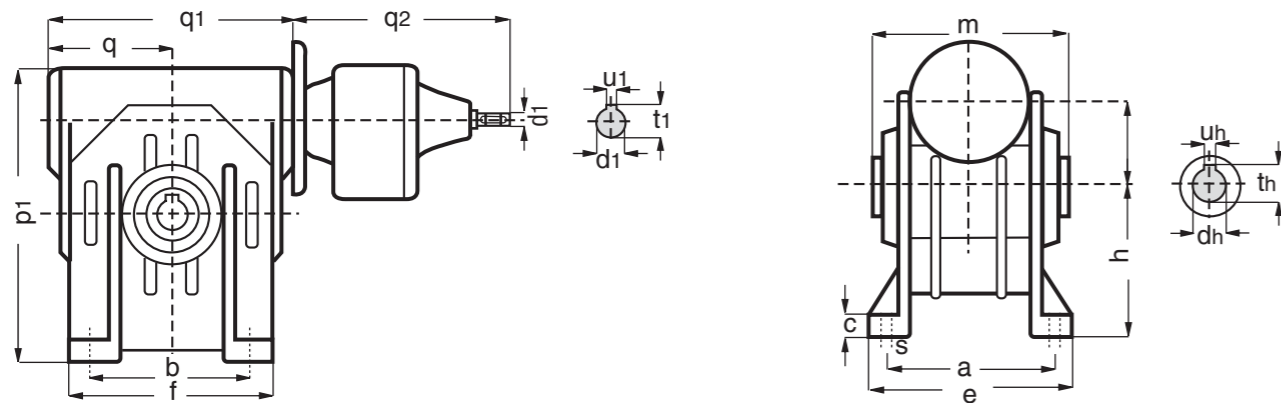


Tipi	Bağlantı ölçüleri (Ayaklı + Flanşlı)	Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı)
Typ	Befestigungsmasse ( Fuss + Flansch)	Befestigungs-Raum und Anschlussmasse ( Fuss + Flansch)
Type	Mounting dimensions ( Foot + Flange)	Outline and mounting, dimensions ( Foot + Flange)

	a	b	c	e	f	s	g	h	h <sub>1</sub>	k	m	p <sub>1</sub>	q	q <sub>1</sub>	q <sub>2</sub>	w
TB 750 / 01-71 S-L	115	120	15	144	158	11	156	115	79	233	121	191	89	187	325	106
TB 950 / 20 - 80 S-L	164	160	15	196	210	13	177	150	121	275	150	271	124	250	367	147
TB 110 / 20 - 90 S-L	180	200	15	220	270	13	198	170	140	308	155	321	144	293	383	170
TB 130 / 30 -90 S-L	190	240	18	244	282	15	198	200	155	308	190	363	160	323	399	194
TB 1050 / 33-100 L	220	280	20	260	334	19	220	240	182	322	220	422	190	382	478	225

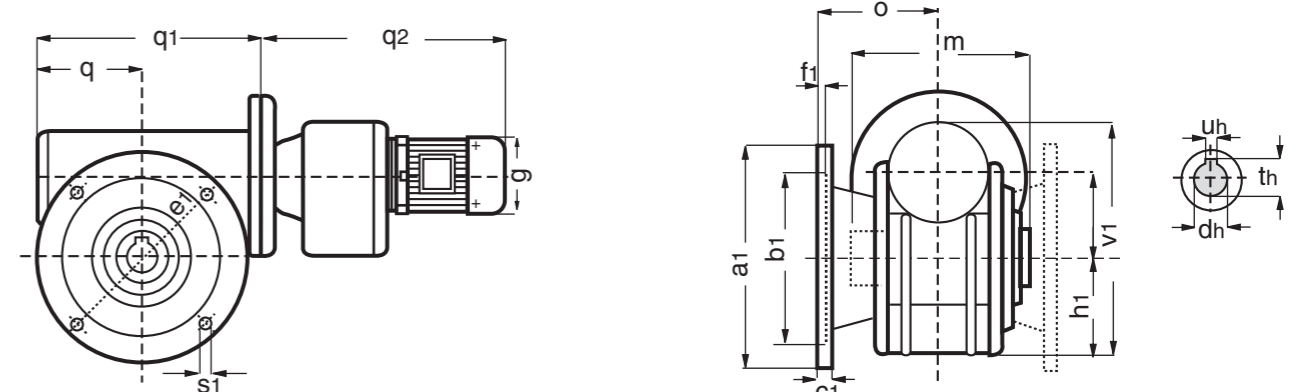
**SONSUZ VİDALI + HELİS DİŞLİLİ  
W(T) TİPİ REDÜKTÖR**

**Stirrad + Schnecken getriebe  
mit freier antriebswelle**



Tipi	Bağlantı ölçüleri (Ayaklı + Flanşlı)	Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı)
Typ	Befestigungsmasse ( Fuss + Flansch)	Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch)
Type	Mounting dimensions ( Foot + Flange)	Outline and mounting, dimensions ( Foot + Flange)

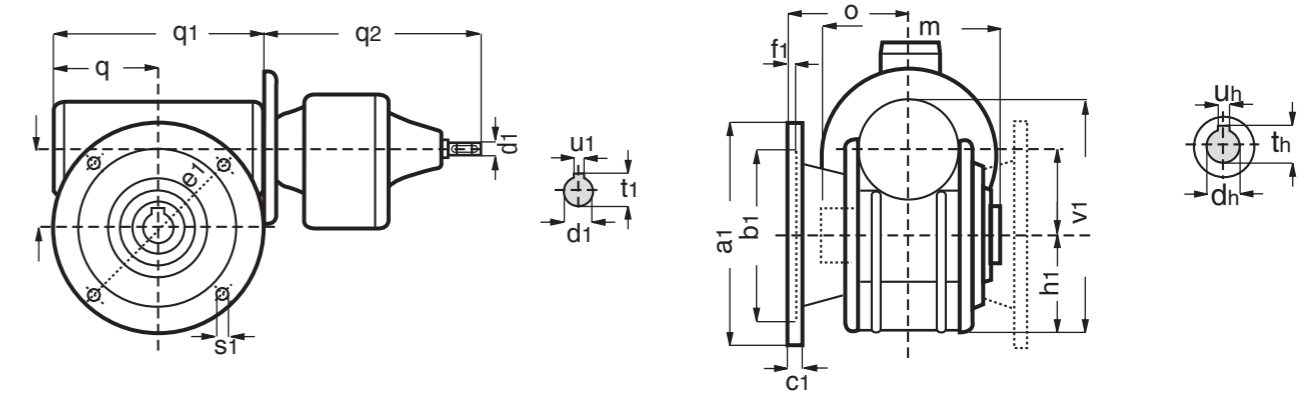
	a	b	c	e	f	s	q <sub>2</sub>	h	h <sub>1</sub>	m	p <sub>1</sub>	q	q <sub>1</sub>	w
TB 750-01 T	115	120	15	144	158	11	205	115	79	121	191	89	187	106
TB 950-20 T	164	160	15	196	210	13	253	150	121	150	271	124	250	147
TB 110-20 T	180	200	15	220	270	13	253	170	140	155	321	144	293	170
TB 130-30 T	190	240	18	244	282	15	380	200	155	190	363	160	323	194
TB 1050-33 T	220	280	20	260	334	19	357	240	182	220	422	190	382	225



Tipi	Bağlantı ölçüleri (Ayaklı + Flanşlı)	Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı)
Typ	Befestigungsmasse ( Fuss + Flansch)	Befestigungs-Raum und Anschlussmasse ( Fuss + Flansch)
Type	Mounting dimensions ( Foot + Flange)	Outline and mounting, dimensions ( Foot + Flange)

	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	0	d <sub>h</sub>	t <sub>h</sub>	u <sub>h</sub>
	190	140	12	165	5	11	88	28	31.1	8
	250	180	14	215	5	13	127	38	41.7	10
	250	180	18	215	5	15	150	42	45.7	12
	300	230	18	265	5	15	150	48	52.2	14
	350	250	20	300	6	19	175	55	60.2	16

**Helical Worm Gearboxes  
with free input shaft**

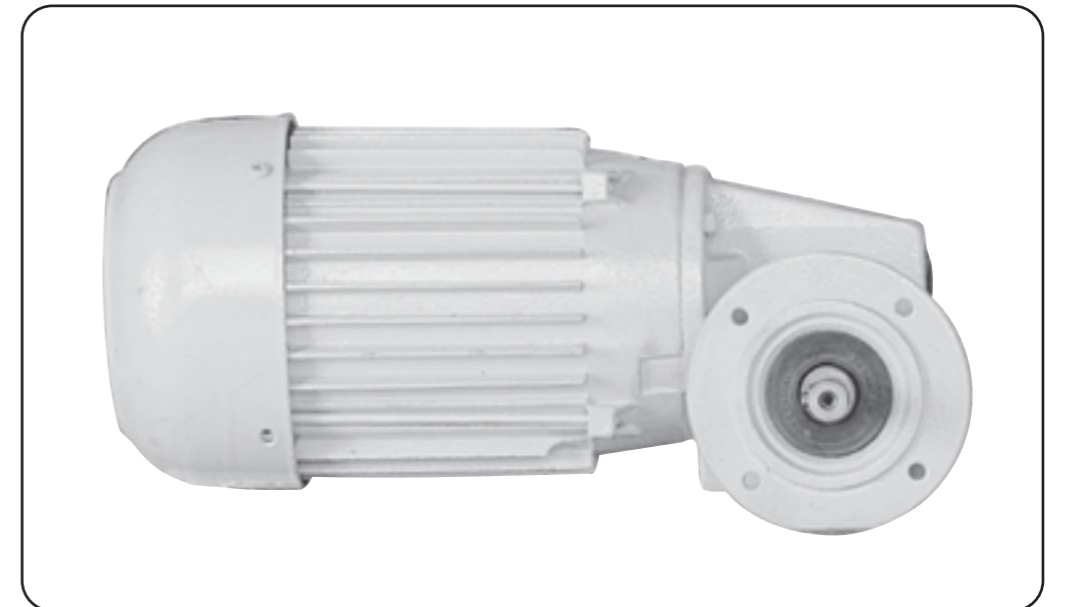
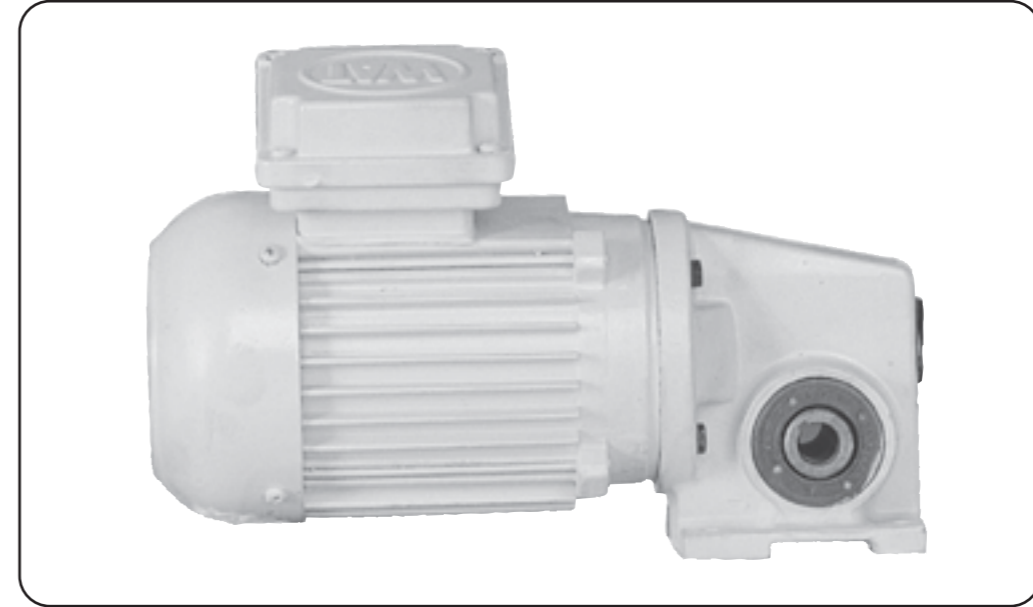


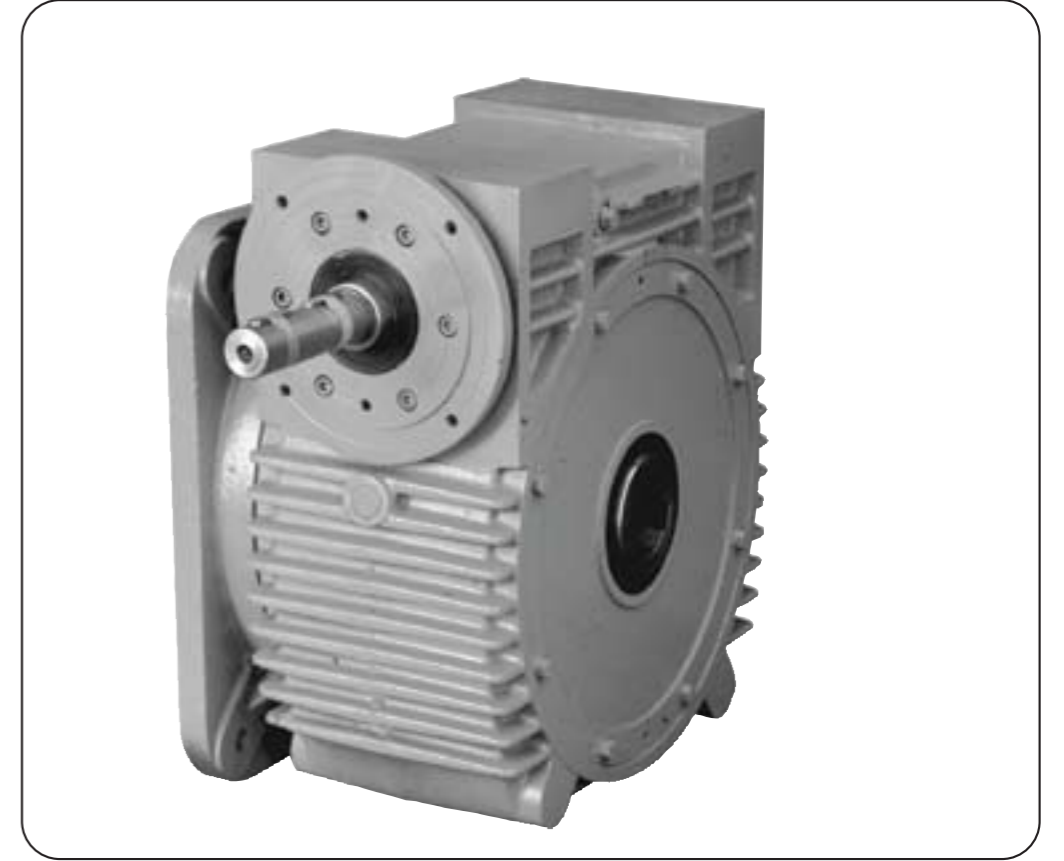
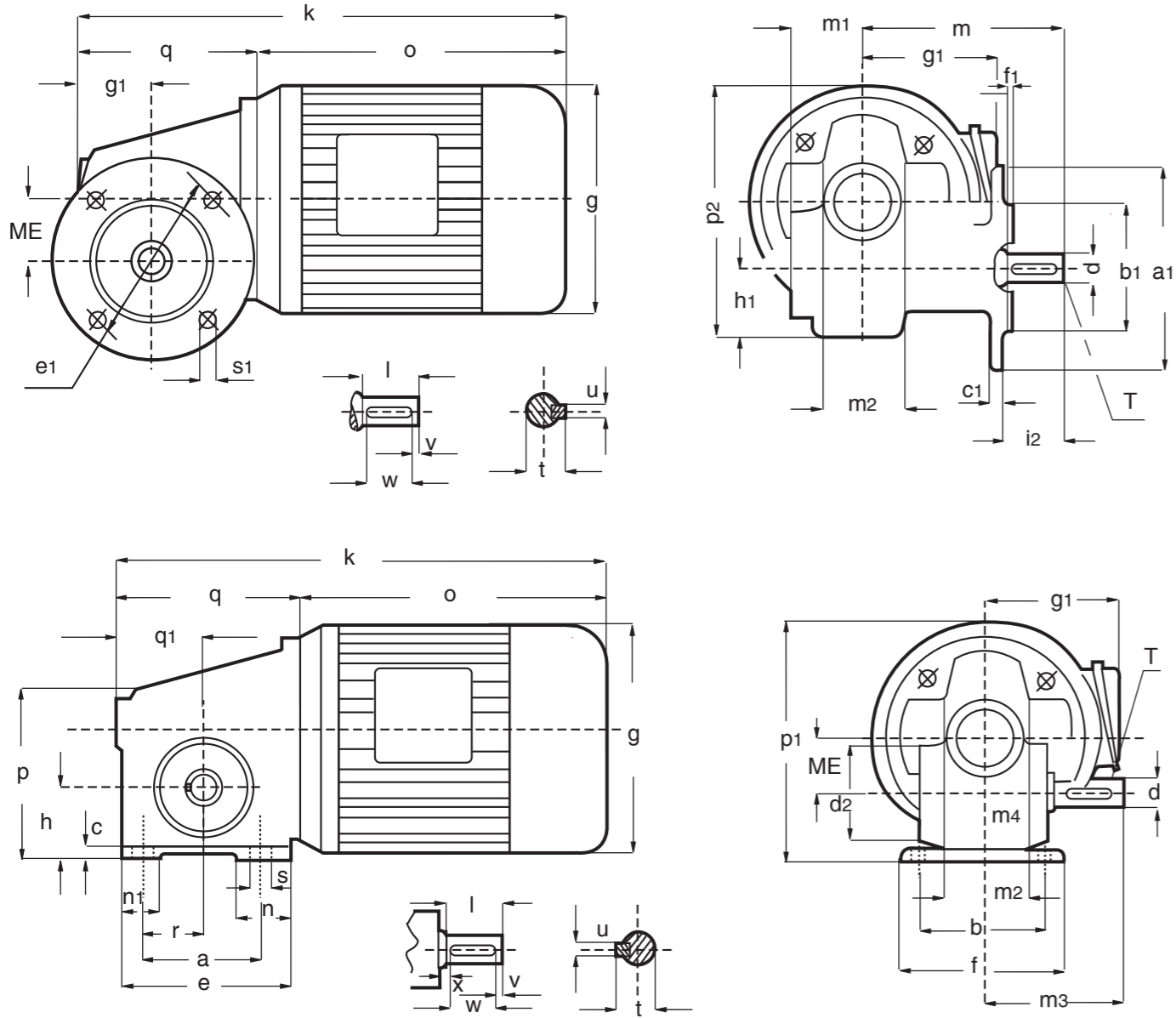
Tipi	Bağlantı ölçüleri (Ayaklı + Flanşlı)	Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı)
Typ	Befestigungsmasse ( Fuss + Flansch)	Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch)
Type	Mounting dimensions ( Foot + Flange)	Outline and mounting, dimensions ( Foot + Flange)

	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	0	d <sub>h</sub>	t <sub>h</sub>	u <sub>h</sub>	d <sub>1</sub>	l <sub>1</sub>	t <sub>1</sub>	u <sub>1</sub>
	190	140	12	165	5	11	88	28	31.1	8	14	30	16	5
	250	180	14	215	5	13	127	38	41.7	10	19	40	21.5	6
	250	180	18	215	5	15	150	42	45.7	12	19	40	21.5	6
	300	230	18	265	5	15	150	48	52.2	14	24	50	27	8
	350	250	20	300	6	19	175	55	60.2	16	32	80	35	10

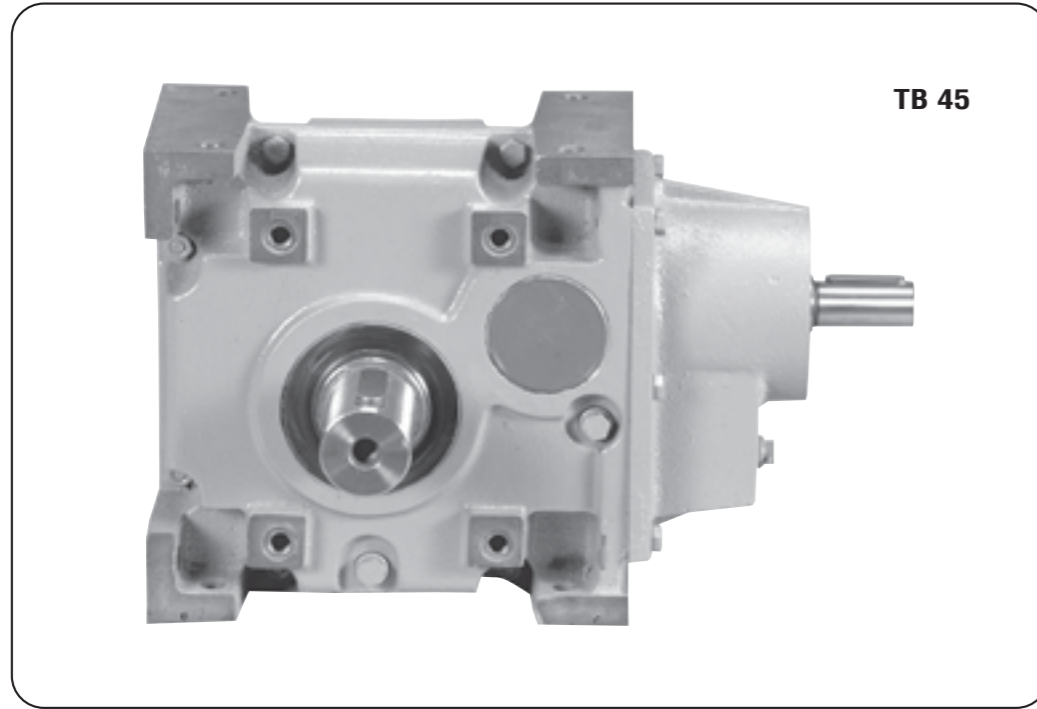
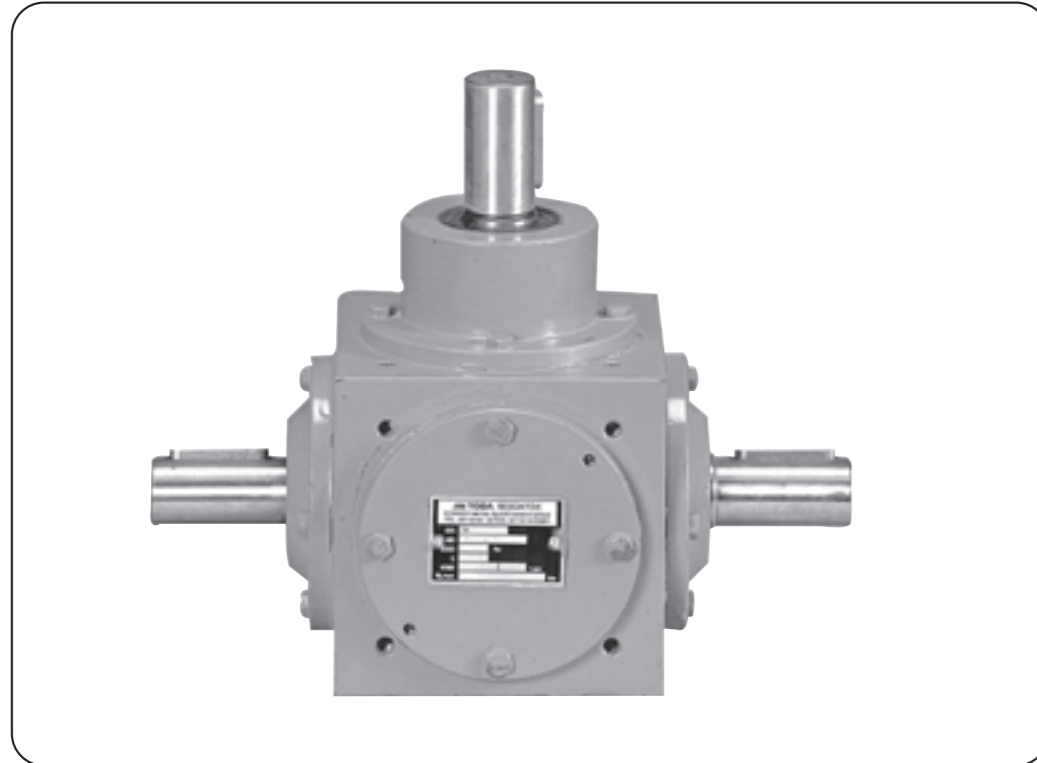
Sembolü Kurzzeichen Symbol	<b>S1 (SF1)</b> 	<b>S2 (SF2)</b> 	<b>S3 (SF3)</b> 
Sembolü Kurzzeichen Symbol	<b>S4 (SF4)</b> 	<b>S5 (SF5)</b> 	<b>S6 (SF6)</b> 
Sembolü Kurzzeichen Symbol	<b>S7(SF7)</b> 	<b>S8(SF8)</b> 	<b>S9(SF9)</b> 

<b>S15 (SF15)</b> 	<b>S16 (SF16)</b> 	<b>S17 (SF17)</b> 	<b>S18 (SF18)</b> 
<b>S19 (SF19)</b> 	<b>S20 (SF20)</b> 	<b>S21 (SF21)</b> 	<b>S22 (SF22)</b> 

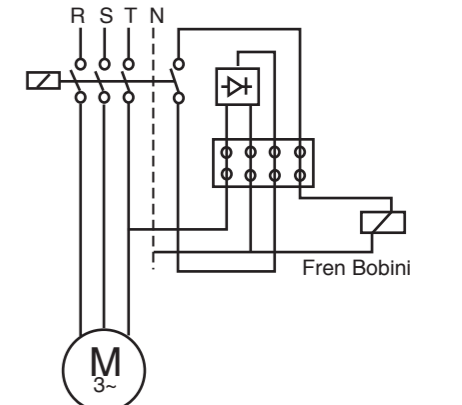
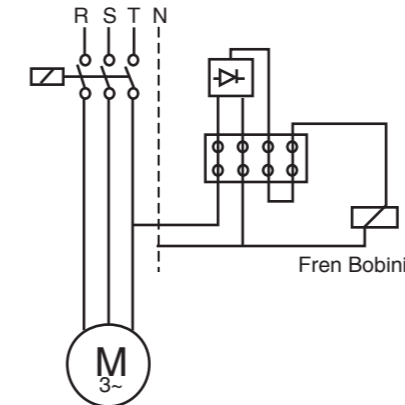
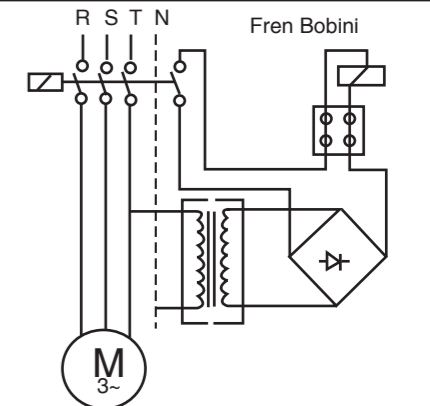
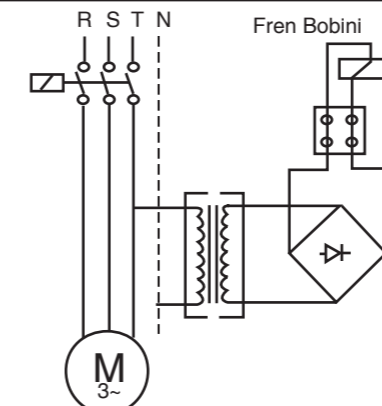




Tipi Typ Type	Bağlantı ölçüleri (Ayaklı + Flanşlı) Befestigungsmasse ( Fuss + Flansch) Mounting dimensions ( Foot + Flange)													Bağlantı ve hacim ölçüleri (Ayaklı + Flanşlı) Befestigungs-Raum-und Anschlussmasse ( Fuss + Flansch) Outline and mounting, dimensions ( Foot + Flange)										
	a	b	c	e	f	n	n <sub>1</sub>	r	s	g	g <sub>1</sub>	h	i	k	o	p	p <sub>1</sub>	q	ME	d	l	t	u	v
TB 32 56 - L										123	109			259	167	135								
TB 32 63 - S/L	105	70	8	88	90	30	18	31	6.6	130	113	40	32	282	190	95	137	92	32	14	30	16	5	2.5
TB 32 71 - S/L										145	125			304	212	145								
	w	x	T	a <sub>1</sub>	b <sub>1</sub>	c <sub>1</sub>	e <sub>1</sub>	f <sub>1</sub>	s <sub>1</sub>	h <sub>1</sub>	i <sub>2</sub>	m	m <sub>1</sub>	m <sub>2</sub>	m <sub>3</sub>	L	d <sub>h</sub>	t <sub>h</sub>	u <sub>h</sub>					
TB 32 56 - L																								
TB 32 63 - S/L	25	3	M5	105	70	8	85	2.5	6.6	38	30	95	36.5	42	69.5	80	16	18.3	5					
TB 32 71 - S/L																								

**KONİK - HELİS DİŞLİLİ REDÜKTÖR**  
 Çevirim Oranı  $i = 25$ 

**KONİK DİŞLİLİ YÖN DEĞİŞTİRME REDÜKTÖRÜ**  
 Çevirim Oranı  $i = 1$ 

**FREN SEÇİM TABLOSU** Auswahl Tabelle Break Selection Table

Motor Tipi - Grosse - Size	Fren Moment - Brems Moment - Braking Tourque Nm				
71	10				
80	10				
90	10	25			
100		25	40		
112			40	50	
132				50	100
160					100 200 300
180					200 300 400
200					300 400 500
225					400 500

**GEÇİKMELİ - Verspaeterte - Delayed Running Brake**
**ANI - Gleichzeitige Bremsung - Sudden Brake**
**FREN BAĞLANTI ŞEMASI 220V**
**Schaltplan Für 220V.Bremse**
**Circuit Diagram for 220V.**

**FREN BAĞLANTI ŞEMASI 24V**
**Schaltplan Für 24V.Bremse**
**Circuit Diagram for 24V.**


Firmamız TÜRK ELEKTRİK ENDÜSTRİ'SİNİN üretmiş olduğu WATT marka Elektrik Motorlarının Bayisidir.

MOTOR GÖVDE BÜYÜKLÜKLERİ

Motorbaugröße

Motor Sizes

Motor Gücü Leistung-Power KW	Motor Devri d/dak	Motor Drehzahl upm	Motor Speed rpm	
	3000	1500	900	750
0.12	56 / 2b	63 / 4a	-	-
0.18	63 / 2a	63 / 4b	71 / 6a	80 / 8b
0.25	63 / 2b	71 / 4b	80 / 6a	80 / 8b
0.37	71 / 2a	71 / 4b	80 / 6a	90S / 8
0.55	71 / 2b	80 / 4a	80 / 6b	90L / 8
0.75	80 / 2a	80 / 4b	90S / 6	100L / 8a
1.1	80 / 2b	90S / 4	90L / 6	100L / 8b
1.5	90S / 2	90L / 4	100L / 6	112M / 8
2.2	90L / 2	100L / 4a	112M / 6	132S / 8
3	100L / 2	100L / 4b	132S / 6	132M / 8
4	112M / 2	112M / 4	132M / 6a	160M / 8
5.5	132S / 2a	132S / 4	132M / 6b	160M / 8b
7.5	132S / 2b	132M / 4	160M / 6	160L / 8
11	160M / 2a	160M / 4	160L / 6	180L / 8
15	160M / 2b	160L / 4	180L / 6	200L / 8
18.5	160L / 2	180M / 4	200L / 6a	225S / 8
22	180M / 2	180L / 4	200L / 6b	225M / 8
30	200L / 2a	200L / 4	200M / 6	200M / 8
37	200L / 2b	225S / 4	250M / 6	280S / 8
45	225M / 2	225M / 4	280S / 6	280M / 8
55	250M / 2	250M / 4	280M / 6	315S / 8
75	280S / 2	280S / 4	315S / 6	315M / 8
90	280M / 2	280M / 4	315M / 6a	315M / 8b