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ZET
Gearboxes

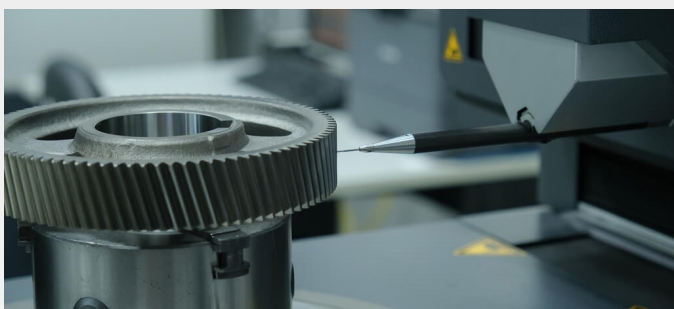


MECH
WEB

ZET GEARBOXES NASCE NEL 1957 AD ISTANBUL ED IN POCHI ANNI DIVENTA UNA DELLE AZIENDE LEADER NEL SETTORE DEI RIDUTTORI INDUSTRIALI E PRODUZIONE DI INGRANAGGI. L'AZIENDA DISPONE DI UN ECCELLENTE PARCO MACCHINE ALL'AVANGUARDIA PER OGNI FASE DEL PROCESSO PRODUTTIVO, MENTRE L'INTERA FILIERA VIENE MONITORATA DIGITALMENTE, GARANTENDO IL TRACCIAMENTO COMPLETO DI OGNI SINGOLO PEZZO.

ZET GEARBOXES was founded in 1957 in Istanbul and within a few years became one of the leading companies in the industrial gearbox and gear manufacturing sector.

The company is equipped with an outstanding, state-of-the-art machinery fleet for every stage of the production process, while the entire workflow is digitally monitored, ensuring full traceability of each individual part.



ZET GEARBOXES DISPONE INOLTRE DI UN LABORATORIO DEDICATO E DI MACCHINARI ALL'AVANGUARDIA PER IL CONTROLLO QUALITÀ, GARANTENDO VERIFICHE ACCURATE E COSTANTI SU OGNI COMPONENTE LUNGO L'INTERO PROCESSO PRODUTTIVO. OGNI PRODOTTO CHE ESCE DALLA FABBRICA RISPECCHIA QUINDI LO STATO DELL'ARTE DELLA PRODUZIONE MODERNA SOTTO OGNI ASPETTO, COMBINANDO TECNOLOGIE AVANZATE, CONTROLLO DIGITALE E STANDARD QUALITATIVI AI MASSIMI LIVELLI.

ZET GEARBOXES also operates a dedicated laboratory equipped with state-of-the-art quality-control machinery, ensuring precise and continuous inspections of every component throughout the entire production process.

Each product leaving the factory therefore reflects the state of the art of modern manufacturing in every respect, combining advanced technologies, digital oversight, and the highest quality standards.

ISO 9001:2015



TERMINOLOGIA terminology

SIMBOLO symbol	DESCRIZIONE description	
f_d	CORREZIONE FATTORE DI SERVIZIO PER FREQUENZA DI AVVIAMENTO service factor correction as per start/stop frequency	
f_n	CORREZIONE FATTORE DI SERVIZIO PER VELOCITÀ DI USCITA service factor correction as per output speed	
f_r	CORREZIONE FATTORE DI SERVIZIO PER CARICO RADIALE radial load service factor correction	
f_s	FATTORE DI SERVIZIO RICHIESTO required service factor	
f_{t1}	CORREZIONE POTENZA TERMICA PER VELOCITÀ DI INGRESSO thermal power correction as per input speed	
f_{t2}	CORREZIONE POTENZA TERMICA PER POSIZIONE DI MONTAGGIO thermal power correction as per mounting position	
f_{t3}	CORREZIONE POTENZA TERMICA PER TEMPERATURA AMBIENTE thermal power correction as per room temperature	
f_{t4}	CORREZIONE POTENZA TERMICA PER RAFFREDDAMENTO MECCANICO thermal power correction as per mechanical cooling	
f_y	CORREZIONE FATTORE DI SERVIZIO PER TIPOLOGIA CARICO service factor correction as per load type	
F_a	CARICO ASSIALE axial load	N
F_{a1}	CARICO ASSIALE AMMISSIBILE SULL'ALBERO DI INGRESSO permissible axial load on the input shaft	N
F_{a2}	CARICO ASSIALE AMMISSIBILE SULL'ALBERO DI USCITA permissible axial load on the output shaft	N
F_r	CARICO RADIALE radial load	N
F_{r1}	CARICO RADIALE AMMISSIBILE SULL'ALBERO DI INGRESSO permissible radial load on the input shaft	N
F_{r2}	CARICO RADIALE AMMISSIBILE SULL'ALBERO DI USCITA permissible radial load on the output shaft	N
i	RAPPORTO DI RIDUZIONE reduction ratio	
i_n	RAPPORTO DI RIDUZIONE NOMINALE rated reduction ratio	
M_1	COPPIA DI INGRESSO input torque	Nm
M_2	COPPIA DI USCITA output torque	Nm
M_{n1}	COPPIA DI INGRESSO NOMINALE rated input torque	Nm
M_{n2}	COPPIA DI USCITA NOMINALE rated output torque	Nm
M_{r1}	COPPIA DI INGRESSO RICHIESTA required input torque	Nm
M_{r2}	COPPIA DI USCITA RICHIESTA required output torque	Nm
n_1	VELOCITÀ DI INGRESSO input speed	rpm
n_2	VELOCITÀ DI USCITA output speed	rpm
n_{2n}	VELOCITÀ DI USCITA NOMINALE rated output speed	rpm
η	EFFICIENZA efficiency	
P_1	POTENZA DI INGRESSO input power	kW
P_2	POTENZA DI USCITA output power	kW
P_{n1}	POTENZA DI INGRESSO NOMINALE rated input power	kW
P_{n2}	POTENZA DI USCITA NOMINALE rated output power	kW
P_{r1}	POTENZA DI INGRESSO RICHIESTA required input power	kW
P_{r2}	POTENZA DI USCITA RICHIESTA required output power	kW
P_{TN}	POTENZA TERMICA NOMINALE rated thermal power	kW
P_T	POTENZA TERMICA thermal power	kW



Mech Web srl nasce dall'idea di offrire un servizio di customer care ai suoi clienti, oltre che una vasta gamma di prodotti per l'industria, così da soddisfare ogni esigenza. Con la nostra esperienza decennale siamo infatti in grado di capire ed aiutare i nostri clienti, coprendo tutto il settore industriale, dal campo dell'elettronica a quello della meccanica. Unendo queste capacità Mech-Web è in grado di realizzare progetti finiti per i propri clienti, partendo da un problema fino alla soluzione migliore.

Mech Web srl was born from the idea of offering customer care to its customers, as well as wide range of industrial products, to meet every need. With decades of experience, we understand and support our clients, covering the entire industrial sector: from electronics to mechanics. By combining these skills, Mech-Web is able to create full projects for its customers, from a problem to the best solution.



SERVIZIO COMMERCIALE trading service

MASSIMA FLESSIBILITÀ PER NECESSITÀ COMMERCIALI
high flexibility for commercial needs



SERVIZI DI PROGETTAZIONE projects service

LA NOSTRA ESPERIENZA AL VOSTRO SERVIZIO
our experience at your service



SUPPORTO TECNICO technical assistance

SUPPORTO E ASSISTENZA TECNICA POST-VENDITA
post-sale support and technical assistance





SOLUZIONI solutions

MOTORIDUTTORI gearmotors

SOLUZIONI COMPATTE, IN ALTA CLASSE DI EFFICIENZA, PER IMPIEGHI PESANTI
compact gearmotor solutions with high efficiency class, for heavy-duty applications

CHIAVI IN MANO turnkey solutions

DALL'IDEA INIZIALE AL COLLAUDO FINALE, ASSISTENZA PER TUTTE LE FASI DI PROGETTO
from an idea to the final commissioning, we provide support to our customers through all project's phases

EFFICIENTAMENTO ENERGETICO energy efficiency

IL NOSTRO IMPEGNO PER UN MONDO PIÙ ENERGETICAMENTE CONSAPEVOLE
our effort to realize a more energetic-conscious world



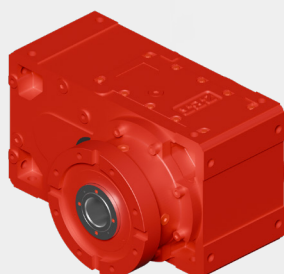
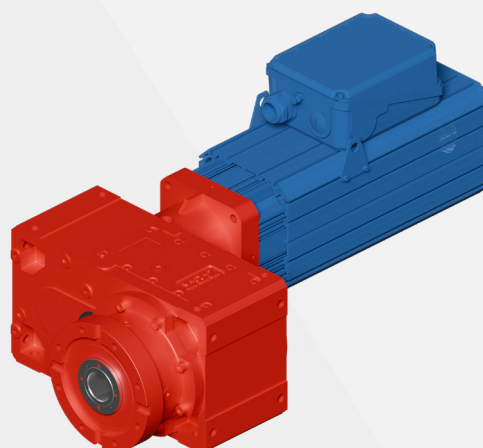
COMPONENTI components

ELETTRONICA INDUSTRIALE industrial electronics

IL CUORE DI OGNI IMPIANTO: LE ULTIME NOVITÀ DA INVERTERs A PLCs e HMIs
every plant hearth: cutting-edge products from VFDs to PLCs and HMIs

MECCANICA E TRASMISSIONE mechanics and transmission

COMPONENTI PER OGNI TIPO DI APPLICAZIONE, DA RIDUTTORI A GIUNTI E CARDANI
components for every kind of application, from gearboxes to cardans and joints

**HE****2 160****19,4****A****LEAL****M3****1****2****3****4****5****6****1****SERIE** series**HE** ASSI PARALLELI
parallel shaft**MHE** ASSI PARALLELI CON MOTORE
parallel shaft with motor**2****NUMERO DI STADI** number of stages**CARCASSA STANDARD** standard housing

STADI stages	TAGLIA size
2	140
	160
	180
	200
	225
	250
	280
	320
	360

CARCASSA LONG long housing

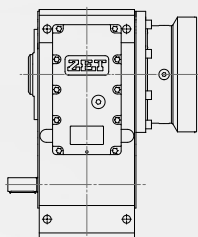
STADI stages	TAGLIA size
2	160
	180
	200
	225

3**RAPPORTO** ratio **$6,3 < i < 25$**

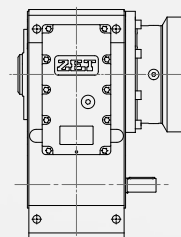


4 ALBERO DI INGRESSO input shaft

A



L

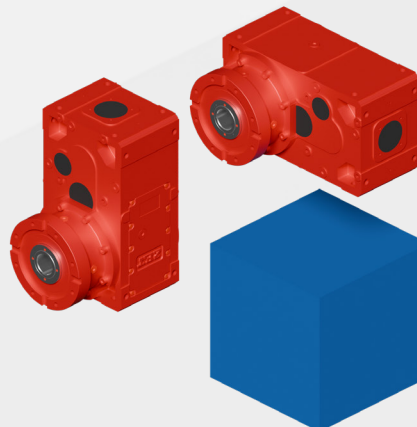


5 ALBERO DI USCITA output shaft

CARCASSA housing	CARICO load	USCITA output
STANDARD	EA HEAVY-DUTY	L SINISTRA left
L LONG DESIGN	EN NORMAL-DUTY	R DESTRA right

6 POSIZIONE DI MONTAGGIO mounting position

M6



M3

M4

M5

OPZIONI DI RAFFREDDAMENTO cooling options

pag. 40



VISCOSITÀ viscosity

VELOCITÀ speed [rpm]		TEMPERATURA AMBIENTE room temperature							
		OLIO MINERALE mineral oil				OLIO SINTETICO synthetic oil			
		0 - 20 [°C]		20 - 40 [°C]		0 - 40 [°C]			
> 220		220		220		220			
22 - 220		200		320		320			
5 - 22		320		320		320			
5 <		320		460		460			

VISCOSITÀ viscosity ISO									
OLIO MINERALE mineral oil	680	DEGOL 600XP 680	ENERGOL GR XP 680	SPARTAN EP 680	GEM 1 680	MOBILGEAR 600XP 680	OMALA 680	ALPHA SP 680	GRAVIS SP 680
	460	DEGOL 600XP 460	ENERGOL GR XP 460	SPARTAN EP 460	GEM 1 460	MOBILGEAR 600XP 460	OMALA 460	ALPHA SP 460	GRAVIS SP 460
	320	DEGOL 600XP 320	ENERGOL GR XP 320	SPARTAN EP 320	GEM 1 320	MOBILGEAR 600XP 320	OMALA 320	ALPHA SP 320	GRAVIS SP 320
	220	DEGOL 600XP 220	ENERGOL GR XP 220	SPARTAN EP 220	GEM 1 220	MOBILGEAR 600XP 220	OMALA 220	ALPHA SP 220	GRAVIS SP 220
	150	DEGOL 600XP 150	ENERGOL GR XP 150	SPARTAN EP 150	GEM 1 150	MOBILGEAR 600XP 150	OMALA 150	ALPHA SP 150	GRAVIS SP 150
	100	DEGOL 600XP 100	ENERGOL GR XP 100	SPARTAN EP 100	GEM 1 100	MOBILGEAR 600XP 100	OMALA 100	ALPHA SP 100	GRAVIS SP 100
OLIO SINTETICO synthetic oil	680	DEGOL GS 680	ENERSYN GR XP 680	-	SYNTHESO D 680 EP	MOBILGEAR GLYGOYLE 680	-	-	GRAVIS MP 680
	460	DEGOL GS 460	ENERSYN GR XP 460	GLYCOLUBE 460	SYNTHESO D 460 EP	MOBILGEAR GLYGOYLE 460	TIVELA SD	OPTIGEAR SYN PD 460	GRAVIS MP 460
	320	DEGOL GS 320	ENERSYN GR XP 320	GLYCOLUBE 320	SYNTHESO D 320 EP	MOBILGEAR GLYGOYLE 320	-	OPTIGEAR SYN PD 320	GRAVIS MP 320
	220	DEGOL GS 220	ENERSYN GR XP 220	-	SYNTHESO D 220 EP	MOBILGEAR GLYGOYLE 220	TIVELA WB	OPTIGEAR SYN PD 220	GRAVIS MP 220
	150	DEGOL GS 150	ENERSYN GR XP 150	-	SYNTHESO D 150 EP	-	-	OPTIGEAR SYN PD 150	GRAVIS MP 150
	100	-	ENERSYN GR XP 100	-	SYNTHESO D 100 EP	-	-	-	GRAVIS MP 100

SOSTITUZIONE replacement

TEMPERATURA OLIO oil temperature [°C]	ORE DI FUNZIONAMENTO operating hours	
	OLIO MINERALE mineral oil	OLIO SINTETICO synthetic oil
< 65	8000	25000
65 - 80	4000	18000
80 - 95	2000	12500
95 - 110	-	9000

CAPACITÀ TERMICA thermal capacity



LA POTENZA TERMICA NOMINALE (P_{TN}) È LA POTENZA MASSIMA CHE IL RIDUTTORE PUÒ TRASMETTERE MECCANICAMENTE IN FUNZIONAMENTO CONTINUO AD UNA TEMPERATURA AMBIENTE DI 20°C SENZA CHE LA TEMPERATURA INTERNA RAGGIUNGA UN VALORE TALE DA DANNEGGIARE I COMPONENTI DEL RIDUTTORE. IL VALORE DELLA POTENZA TERMICA (P_T) VIENE CALCOLATO IN BASE ALLE TABELLE SEGUENTI.

Rated thermal power (P_{TN}) is the maximum power that the gearbox can mechanically transmit during continuous operation at an ambient temperature of 20°C without the internal temperature reaching a value high enough to damage the gear unit's components. The thermal power (P_T) value is calculated based on the following tables.

$$P_T = P_{TN} \cdot f_{t1} \cdot f_{t2} \cdot f_{t3} \cdot f_{t4}$$

$$P_1 < P_T$$

f_{t1}

CORREZIONE PER VELOCITÀ IN INGRESSO
correction as per input speed

VELOCITÀ speed	f_{t1}
700 - 900	1,15
900 - 1200	1,1
1200 - 1500	1
1500 - 1800	0,95
1800 - 2000	0,9
2000 - 2250	0,85
2250 - 2500	0,8

f_{t2}

CORREZIONE PER POSIZIONE MONTAGGIO
correction as per mounting position

POSIZIONE position	f_{t1}
M3	1
M4	
M6	0,85
M5	0,75
M7	
M8	

f_{t3}

CORREZIONE PER TEMPERATURA AMBIENTE
correction as per room temperature

TEMP. AMBIENTE room temperature	FATTORE DI SERVIZIO duty cycle				
	S1	60%	40%	25%	15%
50 [°C]	0,6	0,7	0,8	0,9	1
40 [°C]	0,7	0,9	1	1,1	1,2
30 [°C]	0,9	1	1,15	1,3	1,5
20 [°C]	1	1,15	1,3	1,5	1,7
10 [°C]	1,1	1,3	1,5	1,7	1,9

f_{t3}

CORREZIONE PER RAFFREDDAMENTO MECCANICO
correction as per mechanical cooling

VELOCITÀ INGRESSO input speed		700	900	1200	1500
		1			
VENTILAZIONE fan cooling	1 ventilatore fan	1,1	1,15	1,2	1,3
	2 ventilatori fans	1,25	1,4	1,6	1,8
SERPENTINA cooling coil		2			



2140									
i_n	n_1	n_2	STADI stages	i	Mn_2 [Nm]	Pn_2 [kW]	PT_1 [kW]	PESO weight	pag.
8	1000	125	2	8	4316	56	33	113	23
	1200	150			4233	66	33		
	1500	188			4150	81	30		
	1800	225			4067	96	29		
10	1000	100		9,7	4384	47	33		
	1200	120			4299,3	56	33		
	1500	150			4215	68	30		
	1800	180			4131	80	29		
11	1000	91		10,6	4181	41	33		
	1200	109			4100,4	49	33		
	1500	136			4020	60	30		
	1800	164			3940	70	29		
12	1000	83		12	4472	39	33		
	1200	100			4386	46	33		
	1500	125			4300	56	30		
	1800	150			4214	66	29		
15	1000	67		15,2	4212	29	33		
	1200	80			4131	34	33		
	1500	100			4050	42	30		
	1800	120			3969	49	29		
16	1000	63		15,9	4368	29	33		
	1200	75			4284	34	33		
	1500	94			4200	41	30		
	1800	113			4116	49	29		
20	1000	50		20,1	4368	23	33		
	1200	60			4284	27	33		
	1500	75			4200	33	30		
	1800	90			4116	39	29		
24	1000	42		24,6	3702	16	33		
	1200	50			3631,2	19	33		
	1500	63			3560	23	30		
	1800	75			3489	27	29		



2160									
i_n	n_1	n_2	STADI stages	i	Mn_2 [Nm]	Pn_2 [kW]	PT_1 [kW]	PESO weight	pag.
6 6,5 (L)	1000	167	2	6,35 6,47 (L)	7332	121	45	200	24 25 (L)
	1200	200			7191	142	45		
	1500	250			7050	174	41		
	1800	300			6909	205	38		
7	1000	143		7,82	7800	104	45		
	1200	171			7650	123	45		
	1500	214			7500	151	41		
	1800	257			7350	177	38		
8 8 (L)	1000	125		8,27 8,23 (L)	7508,8	95	45		
	1200	150			7364,4	112	45		
	1500	188			7220	137	41		
	1800	225			7075,6	161	38		
10 10 (L)	1000	100		10,2 10,1 (L)	7956	82	45		
	1200	120			7803	96	45		
	1500	150			7650	118	41		
	1800	180			7497	139	38		
12 12 (L)	1000	83		12,4 12,9 (L)	6240	53	45		
	1200	100			6120	62	45		
	1500	125			6000	76	41		
	1800	150			5880	90	38		
13	1000	77		13,2	8091,2	64	45		
	1200	96			7935,6	76	45		
	1500	115			7780	93	41		
	1800	144			7624,4	109	38		
16 (L)	1000	63		16,7 (L)	6656	42	41		
	1200	75			6528	49	41		
	1500	94			6400	60	41		
	1800	113			6272	71	41		
15	1000	67		15	5824	41	45		
	1200	80			5712	48	45		
	1500	100			5600	58	41		
	1800	120			5488	69	38		
17	1000	59		17	6656	41	45		
	1200	71			6528	48	45		
	1500	88			6400	59	41		
	1800	106			6272	70	38		
19 19 (L)	1000	53		19,4 19,1 (L)	6708	36	45		
	1200	63			6579	43	45		
	1500	79			6450	52	41		
	1800	95			6321	61	38		
20	1000	50		20,8	6136	31	45		
	1200	60			6018	36	45		
	1500	75			5900	45	41		
	1800	90			5782	52	38		
23 23 (L)	1000	43		23,8 23,3 (L)	6047,6	27	45		
	1200	52			5931,3	31	45		
	1500	65			5815	38	41		
	1800	78			5698,7	45	38		



2180									
i_n	n_1	n_2	STADI stages	i	Mn_2 [Nm]	Pn_2 [kW]	PT_1 [kW]	PESO weight	pag.
10 10 (L)	1000	100	2	9,87 10,1 (L)	8975,2	95	50	220 215 (L)	26 27 (L)
	1200	120			8802,6	112	50		
	1500	150			8630	137	45		
	1800	180			8457,4	162	43		
12 (L)	1000	84		12,9 (L)	9100	76	45		
	1200	100			9282	93	45		
	1500	125			9100	114	45		
	1800	150			8910	134	45		
13	1000	77		13,2	9464	75	50		
	1200	96			9282	89	50		
	1500	115			9100	109	45		
	1800	144			8918	128	43		
15	1000	67		15,8	9360	62	50		
	1200	80			9180	73	50		
	1500	100			9000	89	45		
	1800	120			8820	105	43		
16 (L)	1000	63		16,7 (L)	8700	55	45		
	1200	75			8874	67	45		
	1500	94			8700	82	45		
	1800	113			8562	96	45		
17	1000	59		17	9048	56	50		
	1200	71			8874	66	50		
	1500	88			8700	80	45		
	1800	106			8526	95	43		
19 19 (L)	1000	53		19,4 19,1 (L)	9100	49	50		
	1200	63			8925	58	50		
	1500	79			8750	71	45		
	1800	95			8575	83	43		
20	1000	50		20,5	9308	48	50		
	1200	60			9129	56	50		
	1500	75			8950	69	45		
	1800	90			8771	81	43		
23 23 (L)	1000	43		23,4 23,3 (L)	8424	38	50		
	1200	52			8262	44	50		
	1500	65			8100	54	45		
	1800	78			7938	64	43		



2200									
i_n	n_1	n_2	STADI stages	i	Mn_2 [Nm]	Pn_2 [kW]	PT_1 [kW]	PESO weight	pag.
6 6,5 (L)	1000	167	2	6,43 6,56 (L)	11856	193	71	350 346 (L)	28 29 (L)
	1200	200			11628	227	71		
	1500	250			11400	278	65		
	1800	300			11172	327	62		
7	1000	143		7,92	12064	160	71		
	1200	171			11832	188	71		
	1500	214			11600	230	65		
	1800	257			11368	271	62		
8 8 (L)	1000	125		8,23 7,88 (L)	12532	159	71		
	1200	150			12291	188	71		
	1500	188			12050	230	65		
	1800	225			11809	270	62		
10 10 (L)	1000	100		10,1 10,1 (L)	12740	132	71		
	1200	120			12495	155	71		
	1500	150			12250	190	65		
	1800	180			12005	223	62		
11	1000	91		10,6	12792	126	71		
	1200	109			12546	148	71		
	1500	136			12300	182	65		
	1800	164			12054	214	62		
12 12 (L)	1000	83		12,7 13,1 (L)	11804	98	71		
	1200	100			11577	115	71		
	1500	125			11350	141	65		
	1800	150			11123	166	62		
13	1000	77		13,1	13000	104	71		
	1200	92			12750	123	71		
	1500	115			12500	150	65		
	1800	138			12250	177	62		
15	1000	67		15,2	13104	90	71		
	1200	80			12852	106	71		
	1500	100			12600	130	65		
	1800	120			12348	153	62		
16 (L)	1000	63		16,9 (L)	12740	79	65		
	1200	75			12495	93	65		
	1500	94			12250	114	65		
	1800	113			12005	134	65		
17	1000	59		16,9	12740	79	71		
	1200	71			12495	93	71		
	1500	88			12250	114	65		
	1800	106			12005	134	62		
19 19(L)	1000	53		19,6 19,4 (L)	12740	68	71		
	1200	63			12495	80	71		
	1500	79			12250	98	65		
	1800	95			12005	115	62		
20	1000	50		20,1	11700	61	71		
	1200	60			11475	72	71		
	1500	75			11250	88	65		
	1800	90			11025	103	62		
23 23(L)	1000	43		23,4 23,1(L)	11648	52	71		
	1200	52			11424	61	71		
	1500	65			11200	75	65		
	1800	78			10976	88	62		



2225									
i_n	n_1	n_2	STADI stages	i	Mn_2 [Nm]	Pn_2 [kW]	PT_1 [kW]	PESO weight	pag.
8	1000	167	2	7,86	16952	226	80	377 372 (L)	30 31 (L)
	1200	200			16626	266	80		
	1500	250			16300	326	73		
	1800	300			15974	383	69		
10 10 (L)	1000	143		9,68 9,64 (L)	17316	187	80		
	1200	171			16983	220	80		
	1500	214			16650	270	73		
	1800	257			16317	318	69		
11	1000	125		10,7	17160	169	80		
	1200	150			16830	199	80		
	1500	188			16500	243	73		
	1800	225			16170	286	69		
12 12 (L)	1000	100		12,5 12,5 (L)	17160	144	80		
	1200	120			16830	169	80		
	1500	150			16500	208	73		
	1800	180			16170	244	69		
15	1000	91		14,5	15496	112	80		
	1200	109			15198	132	80		
	1500	136			14900	161	73		
	1800	164			14602	190	69		
16 (L)	1000	63		16,9 (L)	16900	105	73		
	1200	75			16575	123	73		
	1500	94			16250	151	73		
	1800	113			15925	177	73		
17	1000	77		16,9	16900	105	80		
	1200	92			16575	123	80		
	1500	115			16250	151	73		
	1800	138			15925	177	69		
19 19 (L)	1000	67		19,7 19,5 (L)	16900	90	80		
	1200	80			16575	106	80		
	1500	100			16250	130	73		
	1800	120			15925	153	69		
23 23 (L)	1000	59		23,8 23,5 (L)	16068	71	80		
	1200	71			15759	83	80		
	1500	88			15450	102	73		
	1800	106			15141	120	69		



2250									
i_n	n_1	n_2	STADI stages	i	Mn_2 [Nm]	Pn_2 [kW]	PT_1 [kW]	PESO weight	pag.
6	1000	167	2	6,31	24856	412	111	675	32
	1200	200			24378	485	111		
	1500	250			23900	595	101		
	1800	300			23422	700	96		
7	1000	143		7,78	27352	368	111		
	1200	171			26826	433	111		
	1500	214			26300	531	101		
	1800	257			25774	624	96		
8	1000	125		8,08	26208	340	111		
	1200	150			25704	400	111		
	1500	188			25200	490	101		
	1800	225			24696	576	96		
10	1000	100		9,96	28808	303	111		
	1200	120			28254	356	111		
	1500	150			27700	437	101		
	1800	180			27146	514	96		
11	1000	91		10,4	26104	262	111		
	1200	109			25602	308	111		
	1500	136			25100	378	101		
	1800	164			24598	445	96		
13	1000	80		12,9	28704	234	111		
	1200	96			28152	275	111		
	1500	115			27600	337	101		
	1800	144			27048	396	96		
15	1000	67		15,3	28600	195	111		
	1200	80			28050	230	111		
	1500	100			27500	282	101		
	1800	120			26950	332	96		
17	1000	59		16,8	28600	178	111		
	1200	71			28050	210	111		
	1500	88			27500	257	101		
	1800	106			26950	303	96		
20	1000	50		20	28236	148	111		
	1200	60			27693	174	111		
	1500	75			27150	213	101		
	1800	90			26607	251	96		
21	1000	48		21	25220	126	111		
	1200	57			24735	148	111		
	1500	71			24250	182	101		
	1800	86			23765	214	96		
25	1000	40		25	25220	106	111		
	1200	48			24735	124	111		
	1500	60			24250	152	101		
	1800	72			23765	179	96		



2280									
i_n	n_1	n_2	STADI stages	i	Mn_2 [Nm]	Pn_2 [kW]	PT_1 [kW]	PESO weight	pag.
6	1000	167	2	6,32	32032	531	125	750	33
	1200	200			31416	625	125		
	1500	250			30800	765	113		
	1800	300			30184	900	108		
8	1000	125		8,08	33436	433	125		
	1200	150			32793	510	125		
	1500	188			32150	625	113		
	1800	225			31507	735	108		
10	1000	100		10,2	36400	374	125		
	1200	120			35700	634	125		
	1500	150			35000	539	113		
	1800	180			34300	634	108		
13	1000	80		13	35776	288	125		
	1200	96			35088	339	125		
	1500	115			34400	415	113		
	1800	144			33712	488	108		
17	1000	59		16,8	35672	222	125		
	1200	71			34986	262	125		
	1500	88			34300	320	113		
	1800	106			33614	377	108		
20	1000	50		20	36816	193	125		
	1200	60			36108	227	125		
	1500	75			35400	278	113		
	1800	90			34692	327	108		
21	1000	48		20,9	36504	183	125		
	1200	57			34398	310	125		
	1500	71			35100	263	113		
	1800	86			34398	310	108		
25	1000	40		24,9	36400	153	125		
	1200	48			35700	180	125		
	1500	60			35000	220	113		
	1800	72			34300	259	108		



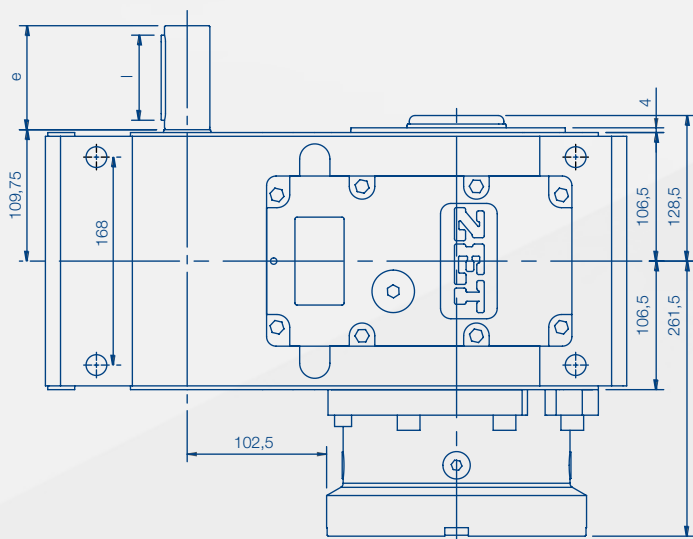
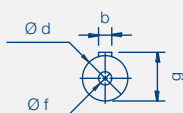
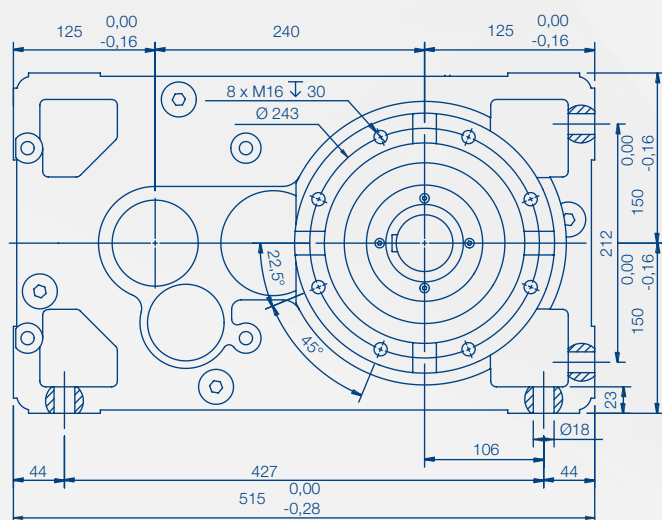
2320									
i_n	n_1	n_2	STADI stages	i	Mn_2 [Nm]	Pn_2 [kW]	PT_1 [kW]	PESO weight	pag.
6	1000	167	2	6,42	38844	634	178	1282	34 (EA) 35 (EN)
	1200	200			38097	746	178		
	1500	250			37350	914	162		
	1800	300			36603	1075	154		
8	1000	125		7,92	42536	562	178		
	1200	150			41718	662	178		
	1500	188			40900	811	162		
	1800	225			40082	954	154		
9	1000	111		9,66	46218	501	178		
	1200	133			45329	590	178		
	1500	167			44440	723	162		
	1800	200			43551	850	154		
10	1000	100		10,3	40456	410	178		
	1200	120			39678	482	178		
	1500	150			38900	591	162		
	1800	180			38122	695	154		
12	1000	83		12,6	46384	385	178		
	1200	100			45492	453	178		
	1500	125			44600	556	162		
	1800	150			43708	653	154		
17	1000	59		16,5	45552	289	178		
	1200	71			44676	340	178		
	1500	88			43800	416	162		
	1800	106			42924	490	154		
21	1000	48		20,7	47320	240	178		
	1200	57			46410	282	178		
	1500	71			45500	346	162		
	1800	86			44590	407	154		
25	1000	40		25,1	54028	226	178		
	1200	48			52989	266	178		
	1500	60			51950	326	162		
	1800	72			50911	383	154		



2360									
i_n	n_1	n_2	STADI stages	i	Mn_2 [Nm]	Pn_2 [kW]	PT_1 [kW]	PESO weight	pag.
10	1000	100	2	9,7	52000	561	200	1490	36 (EA) 37 (EN)
	1200	120			51000	661	200		
	1500	150			50000	810	181		
	1800	180			49000	952	172		
12	1000	83		13	69680	562	200		
	1200	100			68340	661	200		
	1500	125			67000	810	181		
	1800	150			65660	953	172		
15	1000	67		15,1	73320	507	200		
	1200	80			71910	597	200		
	1500	100			70500	731	181		
	1800	120			69090	860	172		
16	1000	63		15,8	51480	341	200		
	1200	75			50490	401	200		
	1500	94			49500	491	181		
	1800	113			48510	578	172		
17	1000	59		17	78832	486	200		
	1200	71			77316	572	200		
	1500	88			75800	702	181		
	1800	106			74284	825	172		
20	1000	50		19,8	73632	390	200		
	1200	60			72216	459	200		
	1500	75			70800	562	181		
	1800	90			69384	661	172		
21	1000	48		21,2	68848	340	200		
	1200	57			67524	400	200		
	1500	71			66200	490	181		
	1800	86			64876	577	172		
25	1000	40		24,7	73788	313	200		
	1200	48			72369	368	200		
	1500	60			70950	451	181		
	1800	72			69531	530	172		

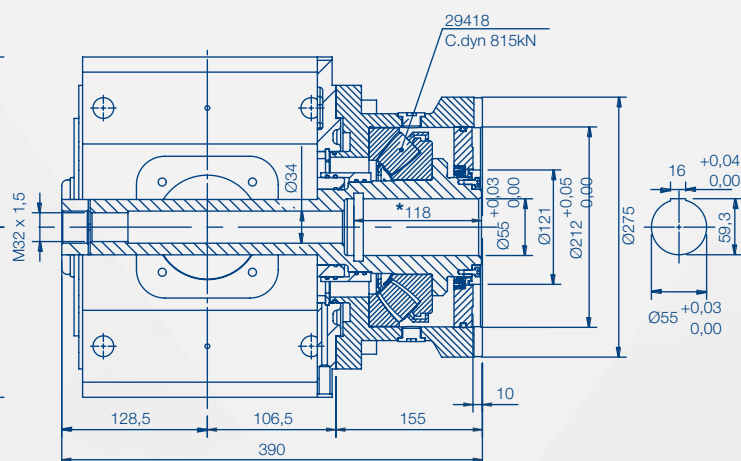






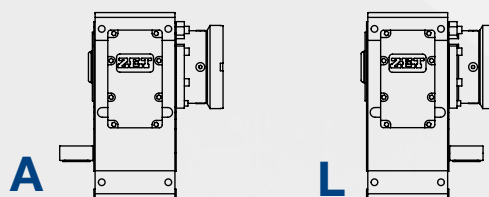
*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.

*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.

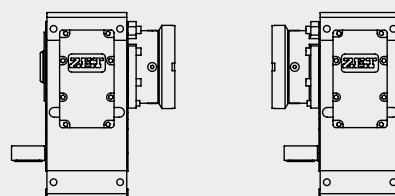


	b	d	e	g	l	f
$i > 12,5$	8	28j6	60	31	45	M10
$i < 12,5$	10	32k6	80	35	70	M12

4 ALBERO DI INGRESSO input shaft



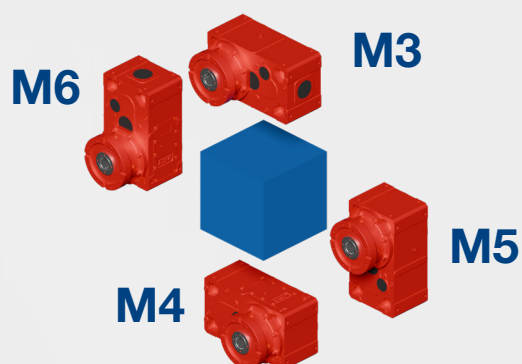
5 ALBERO DI USCITA output shaft



A-EAR

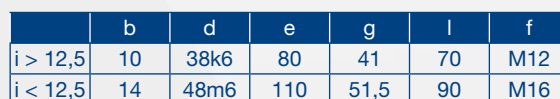
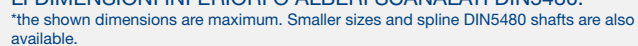
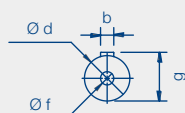
A-EAL

6 POSIZIONE DI MONTAGGIO mounting position



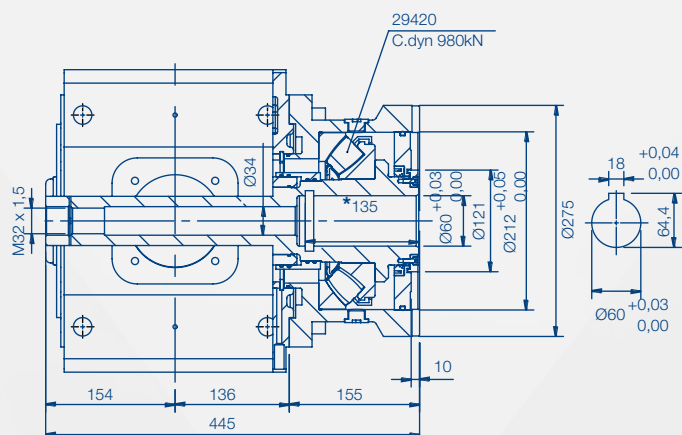
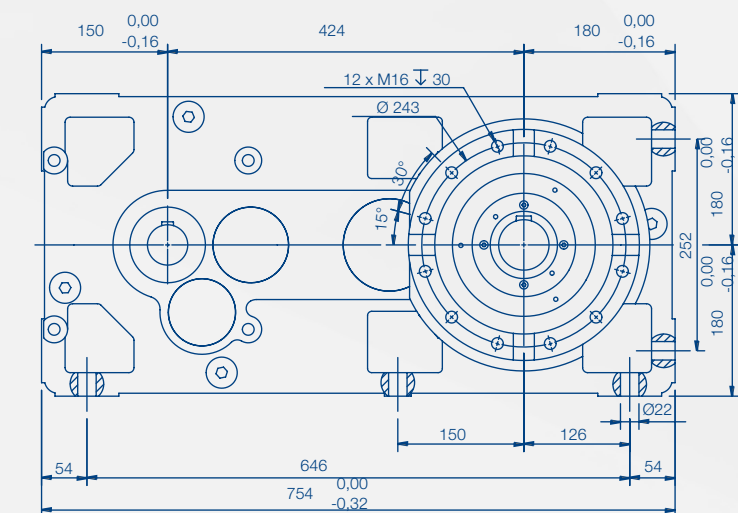
QUANTITATIVI OLIO oil quantities [L]			
M3	M4	M5	M6
8,7	10,4	11,4	13,3



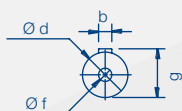
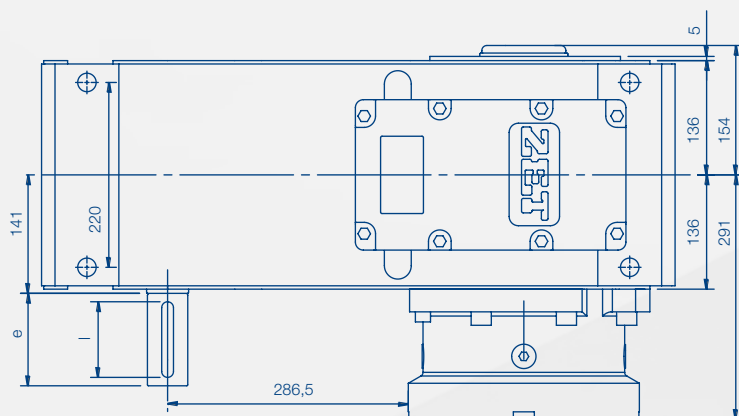


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HE 2160 - LEA DIMENSIONI drawings

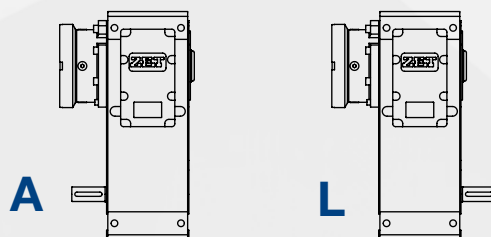


	b	d	e	g	l	f
i > 12,5	10	38k6	80	41	70	M12
i < 12,5	14	48m6	110	51,5	90	M16

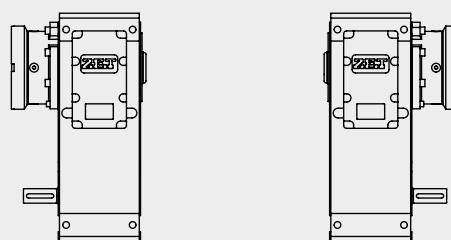


*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.
*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.

4 ALBERO DI INGRESSO input shaft

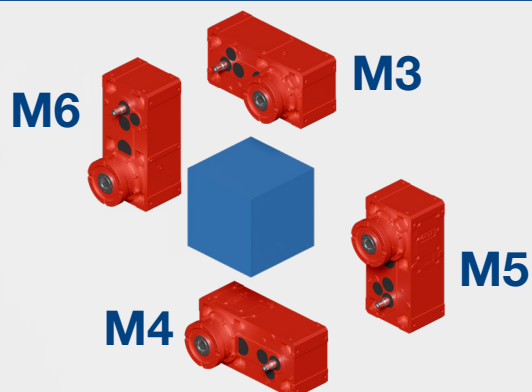


5 ALBERO DI USCITA output shaft



A-LEAL L-LEAR

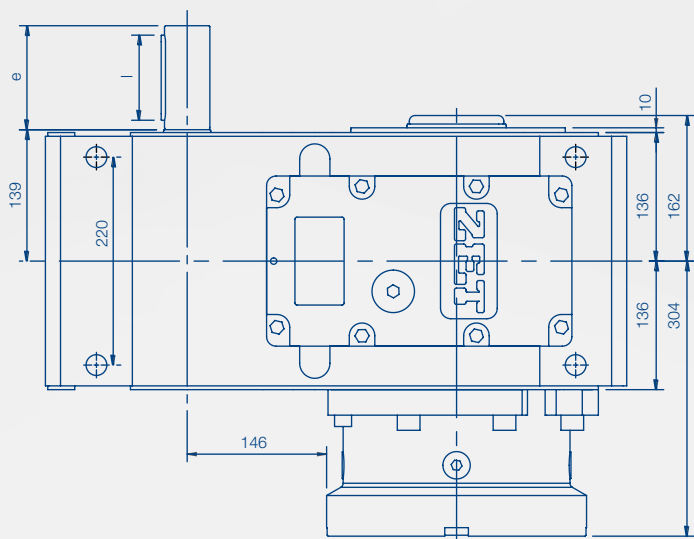
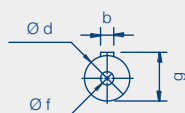
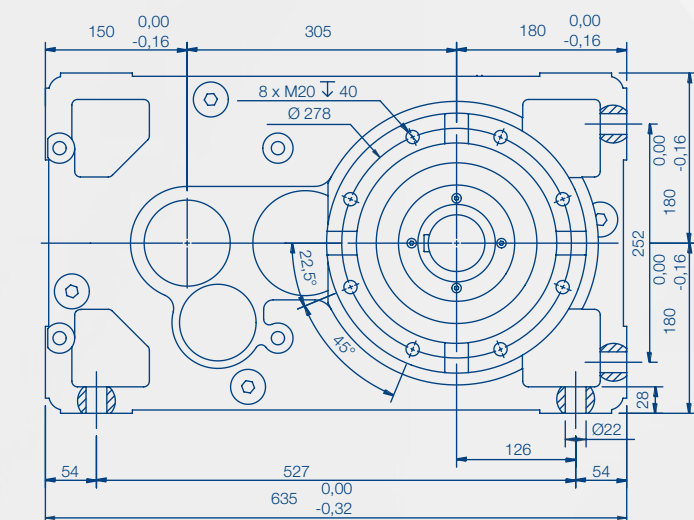
6 POSIZIONE DI MONTAGGIO mounting position



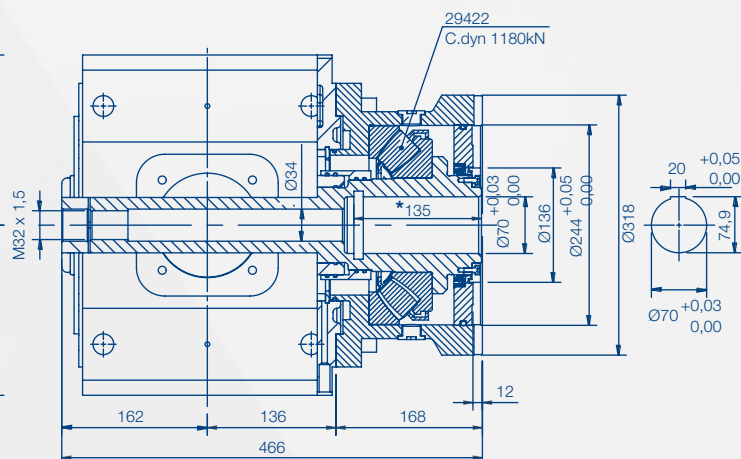
QUANTITATIVI OLIO oil quantities [L]

M3	M4	M5	M6
23,3	19,4	29,6	32

288 kg



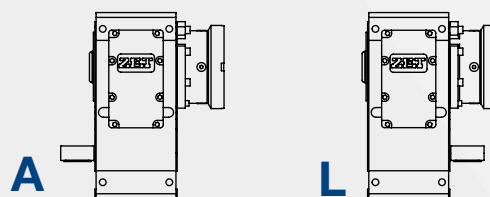
*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.
*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.



	b	d	e	g	l	f
i > 16,5	10	38k6	80	41	70	M12
i < 16,5	14	48k6	110	51,5	90	M16

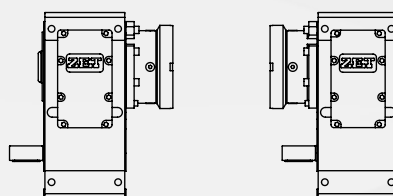
4

ALBERO DI INGRESSO input shaft



5

ALBERO DI USCITA output shaft

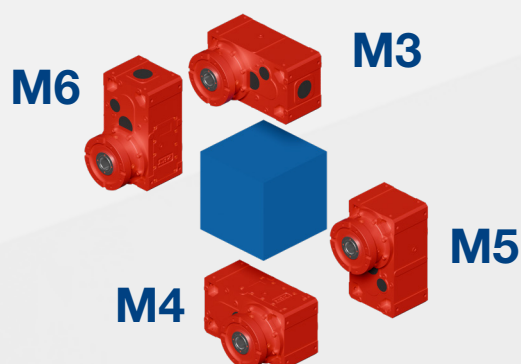


A-EAR

A-EAL

6

POSIZIONE DI MONTAGGIO mounting position

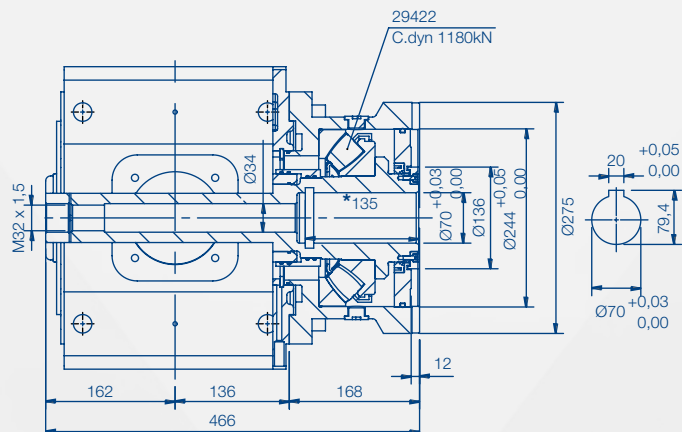
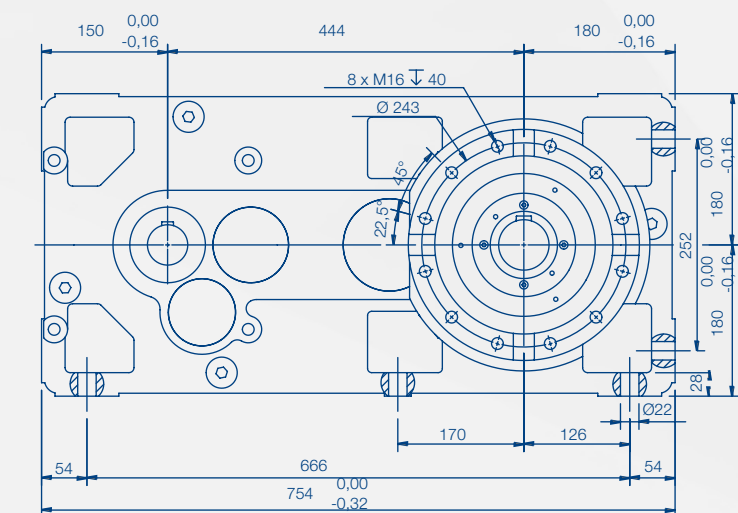


QUANTITATIVI OLIO oil quantities [L]

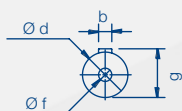
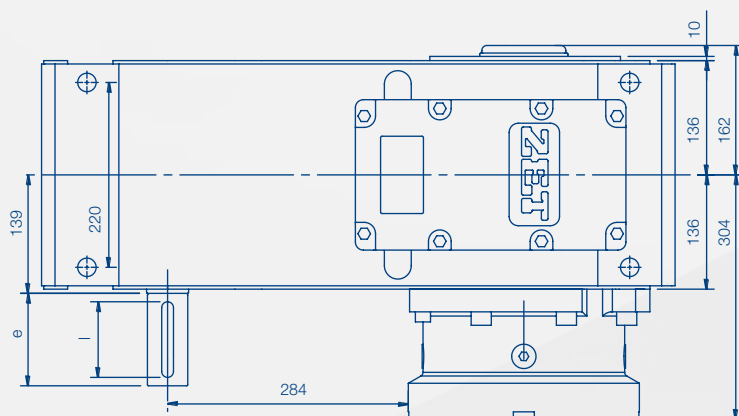
M3	M4	M5	M6
15,5	18,5	22,2	23,5

 301 kg

HE 2180 - LEA DIMENSIONI drawings

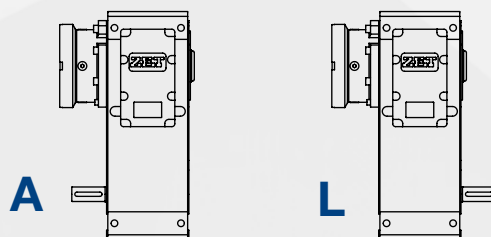


	b	d	e	g	l	f
i > 16,5	10	38k6	80	41	70	M12
i < 16,5	14	48k6	110	51,5	90	M16

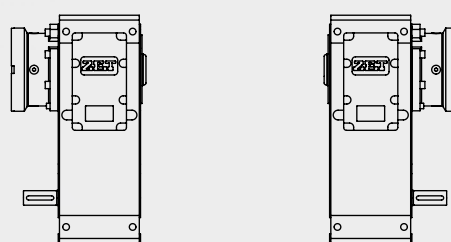


*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.
*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.

4 ALBERO DI INGRESSO input shaft

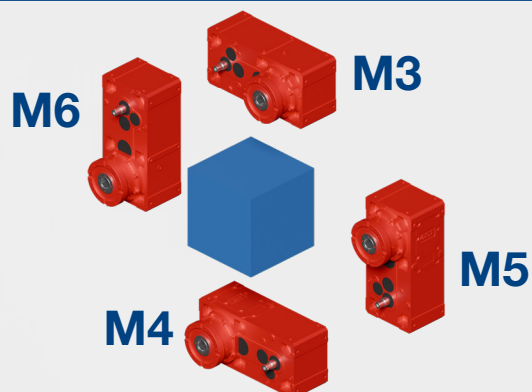


5 ALBERO DI USCITA output shaft



A-LEAL L-LEAR

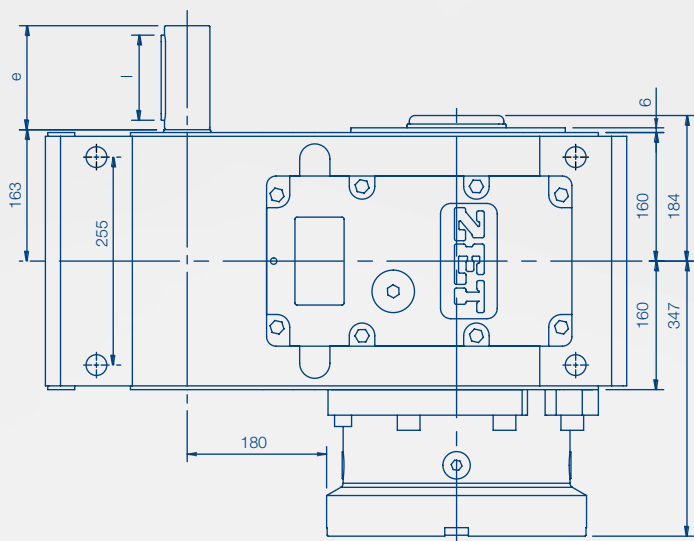
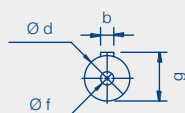
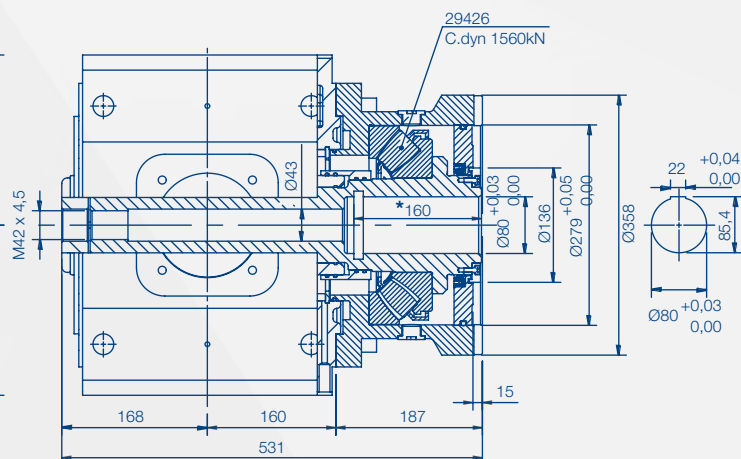
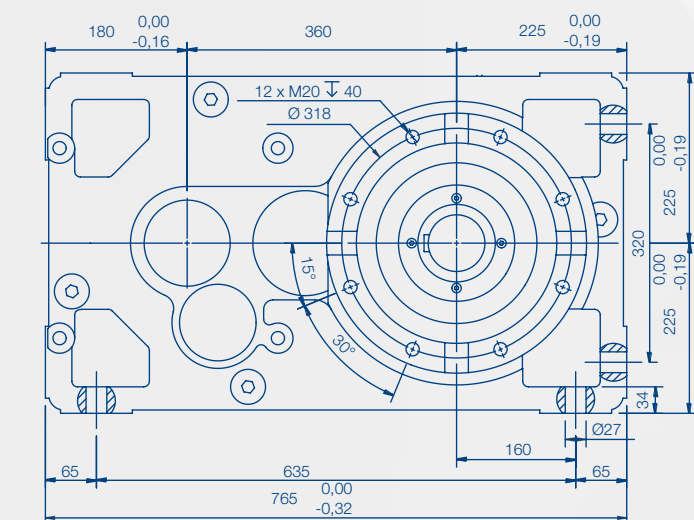
6 POSIZIONE DI MONTAGGIO mounting position



QUANTITATIVI OLIO oil quantities [L]

M3	M4	M5	M6
23,4	19,5	30,8	31,8

332 kg



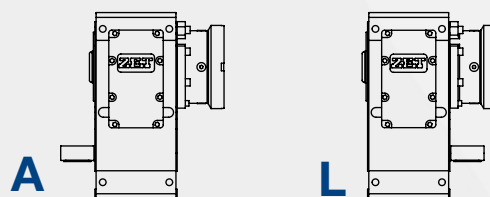
*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.

*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.

	b	d	e	g	l	f
i > 13	14	48k6	110	51,5	90	M16
i < 13	16	55m6	110	59	90	M20

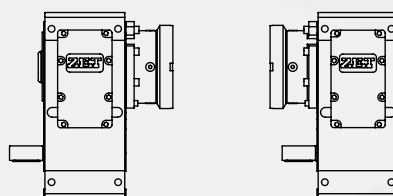
4

ALBERO DI INGRESSO input shaft



5

ALBERO DI USCITA output shaft

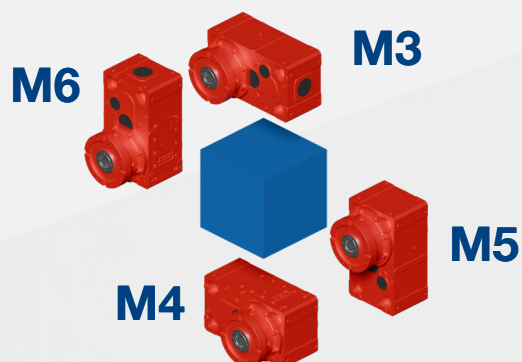


A-EAR

A-EAL

6

POSIZIONE DI MONTAGGIO mounting position

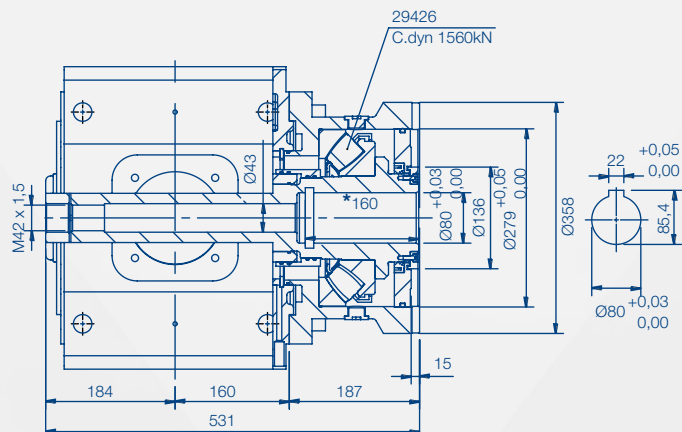
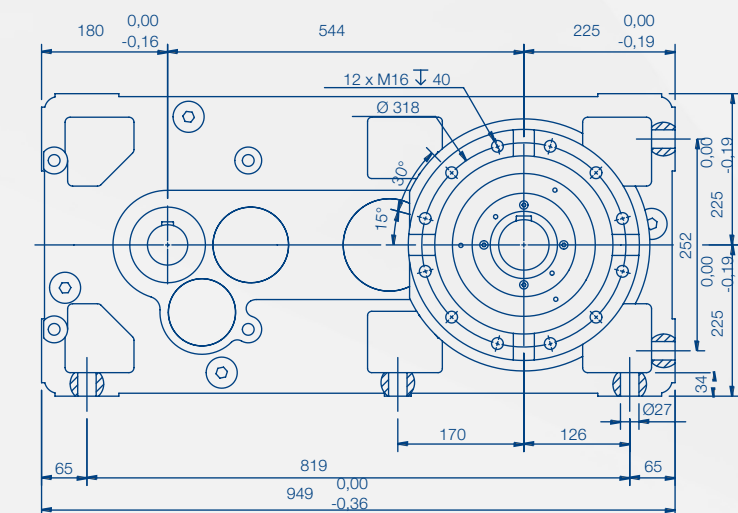


QUANTITATIVI OLIO oil quantities [L]

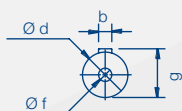
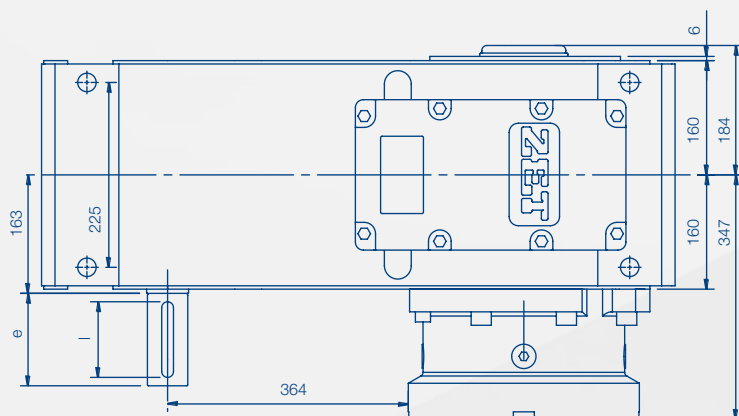
M3	M4	M5	M6
30	36,2	41	46,4

 460 kg

HE 2200 - LEA DIMENSIONI drawings

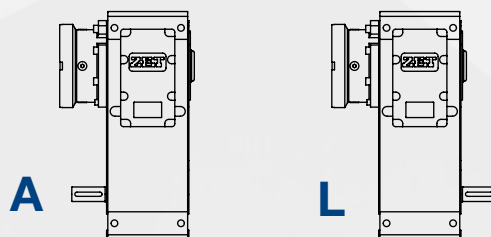


	b	d	e	g	l	f
i > 13	14	48k6	110	51,5	90	M16
i < 13	16	55m6	110	59	90	M20

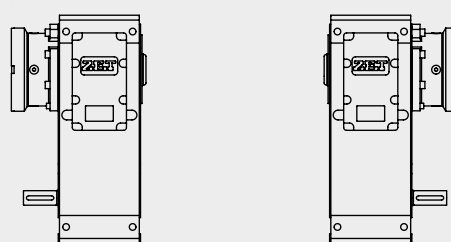


*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.
*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.

4 ALBERO DI INGRESSO input shaft

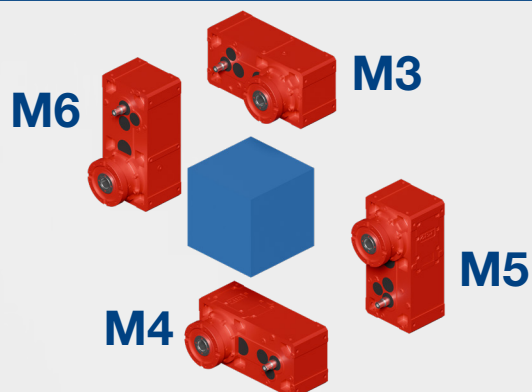


5 ALBERO DI USCITA output shaft



A-LEAL L-LEAR

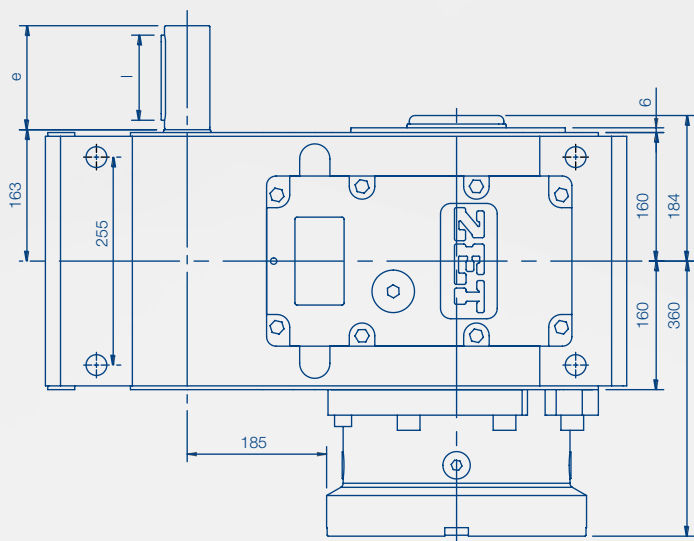
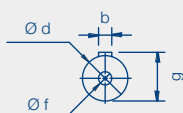
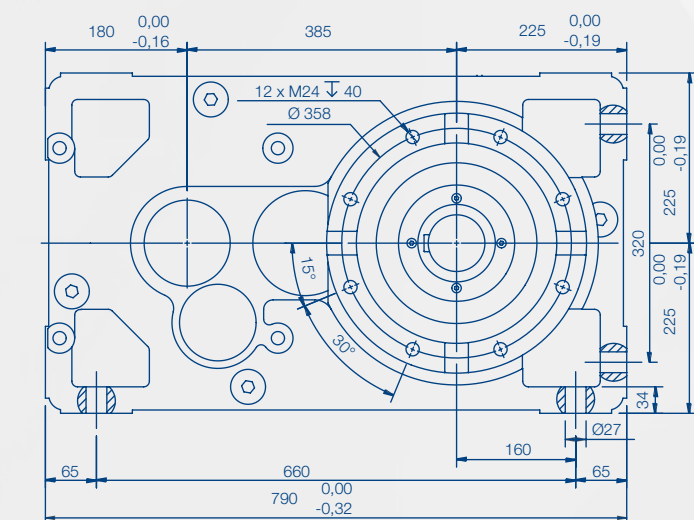
6 POSIZIONE DI MONTAGGIO mounting position



QUANTITATIVI OLIO oil quantities [L]

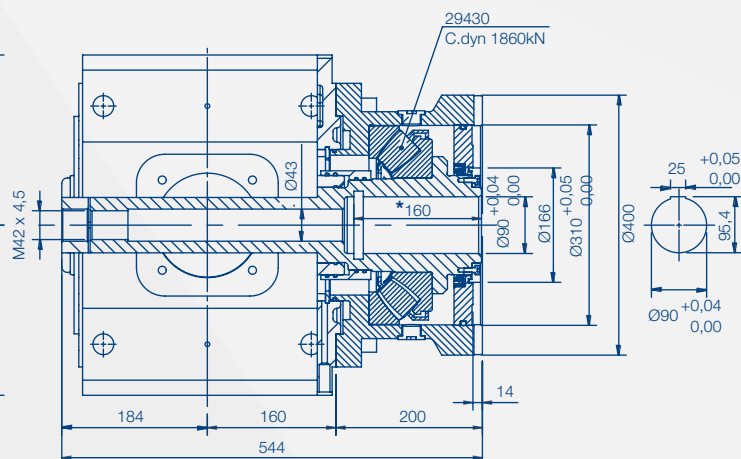
M3	M4	M5	M6
46,3	41,5	57,8	63,4

512 kg



*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.

*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.

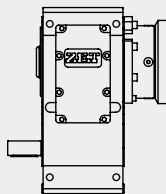


	b	d	e	g	l	f
i > 11	14	48k6	110	51,5	90	M16
i < 11	16	55m6	110	59	90	M20

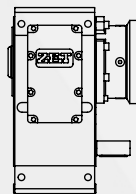
4

ALBERO DI INGRESSO input shaft

A

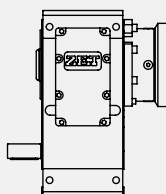


L

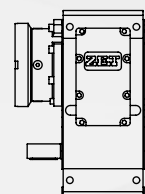


5

ALBERO DI USCITA output shaft



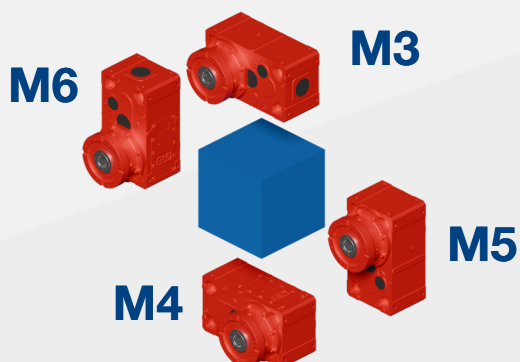
A-EAR



A-EAL

6

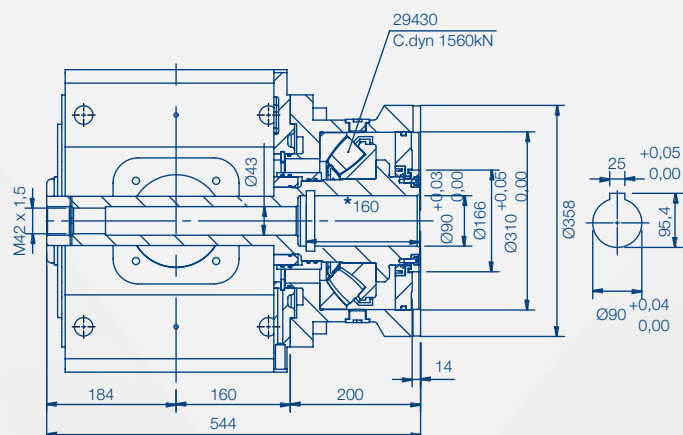
POSIZIONE DI MONTAGGIO mounting position



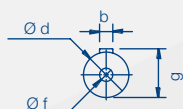
QUANTITATIVI OLIO oil quantities [L]

M3	M4	M5	M6
30	36,1	42,1	45,8

 537 kg



	b	d	e	g	l	f
i > 11	14	48k6	110	51,5	90	M16
i < 11	16	55m6	110	59	90	M20



*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.

The diagram shows four red motor blocks arranged around a central blue cube. The blocks are labeled M3, M4, M5, and M6. M3 is at the top, M4 is at the bottom, M5 is on the right, and M6 is on the left. Each block has a circular opening on one side and a small protrusion on the other. The central blue cube represents the core component of the assembly.

QUANTITATIVI OLIO oil quantities [L]			
M3	M4	M5	M6
46	37,8	58,5	62,7

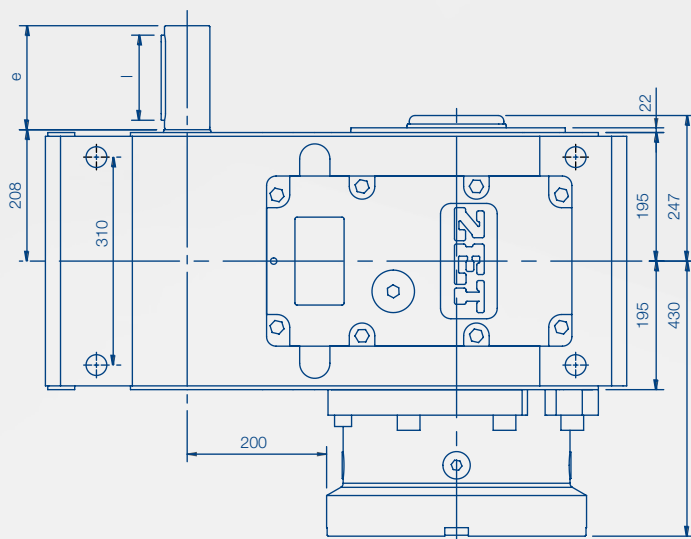
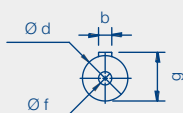
 **591 kg**



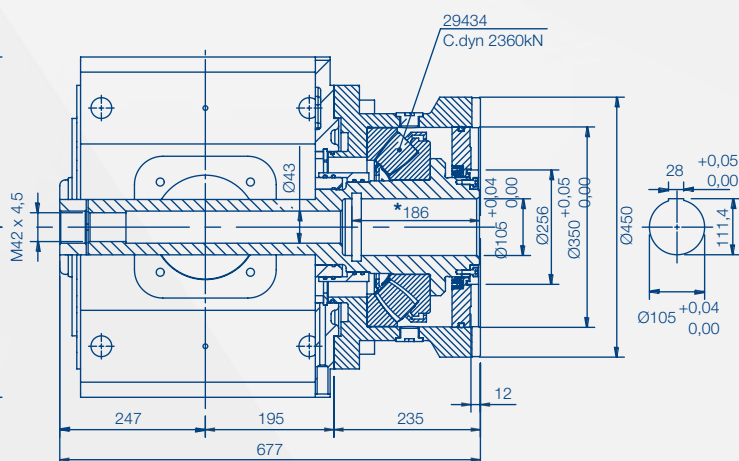
The technical drawing shows two views of a mechanical component. The top view is a plan view showing a circular central feature with concentric circles and radial slots. Dimensions include a total width of 955 mm (82 mm + 791 mm) and a total height of 396 mm (280 mm + 34 mm). A central hole has a diameter of Ø400. There are 12 M24 holes arranged in a circle around the center. Two angular dimensions, 15° and 30°, are indicated for specific features. The bottom view is a side elevation showing the profile of the component, with a total width of 955 mm and a total height of 396 mm. It includes a central vertical slot and various mounting points.

Dimensions:

- Total Width: 955^{+0,00}_{-0,36}
- Total Height: 396^{+0,00}_{-0,21}
- Central Hole Diameter: Ø400
- Hole Pattern: 12 x M24
- Angular Dimensions: 15°, 30°
- Mounting Points: 82 mm from edges

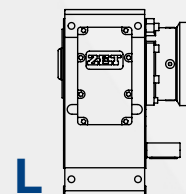
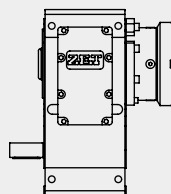


*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.

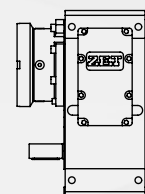
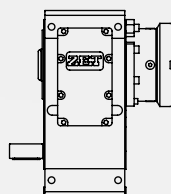


	b	d	e	g	l	f
$i > 10,2$	18	60m6	140	64	110	M20
$i < 10,2$	20	70m6	140	74,5	120	M20

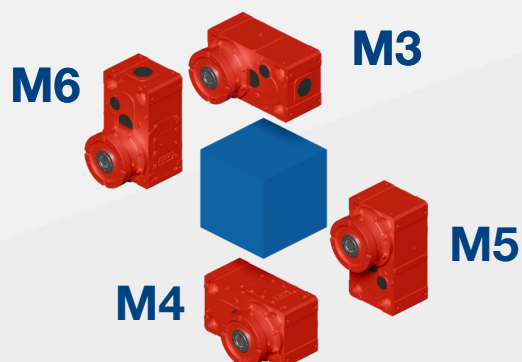
A



5

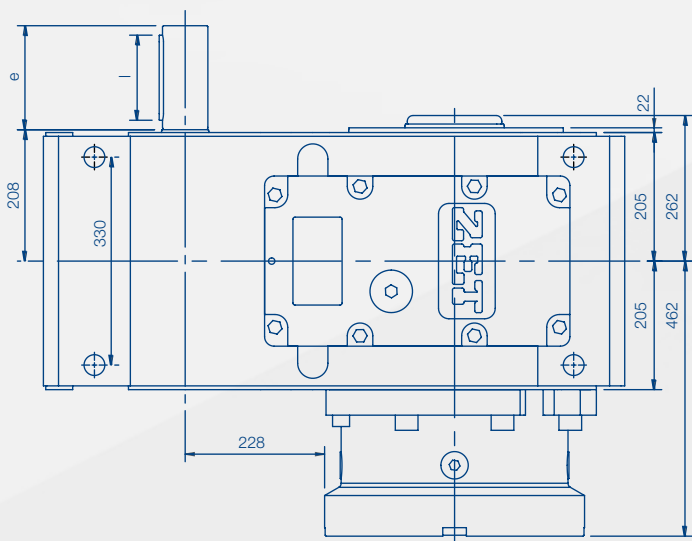
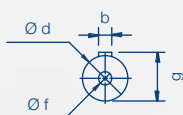
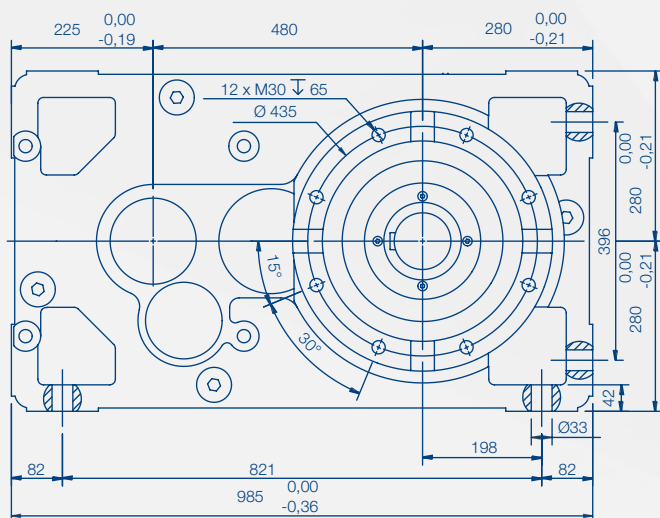


6



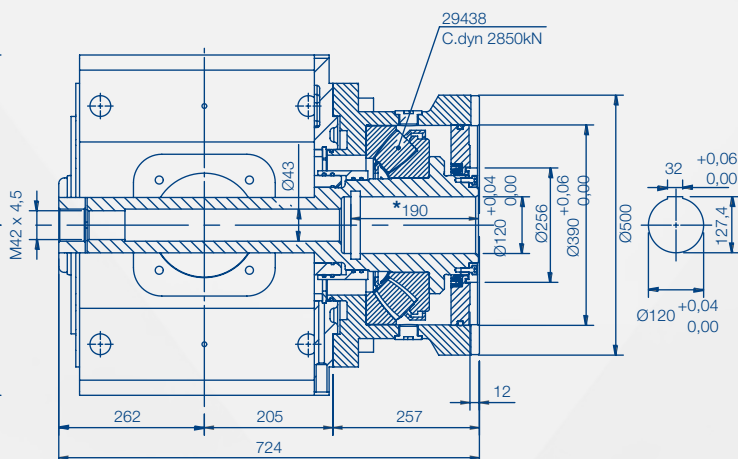
QUANTITATIVI OLIO oil quantities [L]			
M3	M4	M5	M6
57,3	69	79,2	89,7





*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.

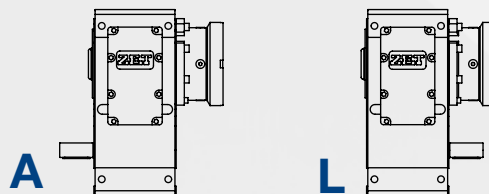
*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.



	b	d	e	g	l	f
i > 15	18	60m6	140	64	110	M20
i < 15	20	70m6	140	74,5	120	M20

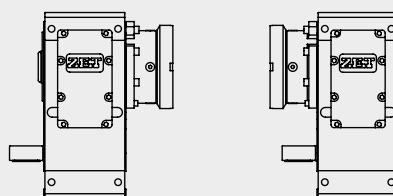
4

ALBERO DI INGRESSO input shaft



5

ALBERO DI USCITA output shaft

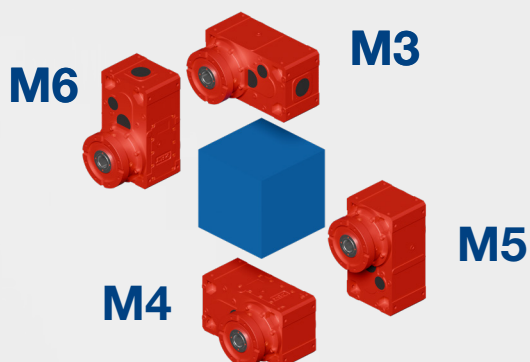


A-EAR

A-EAL

6

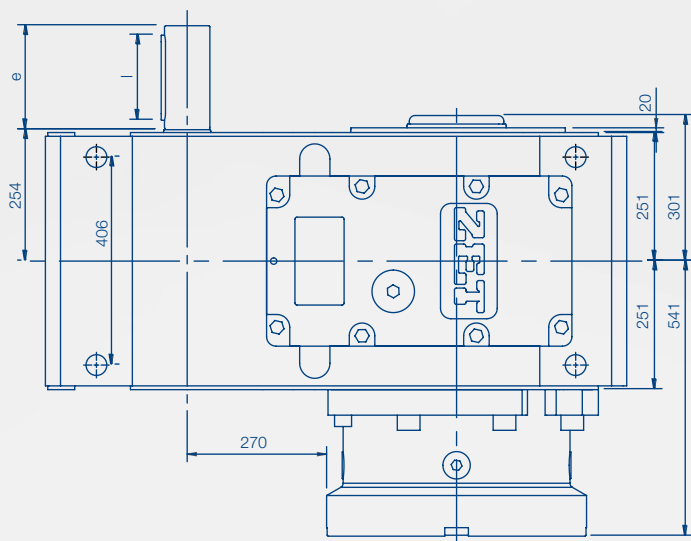
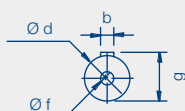
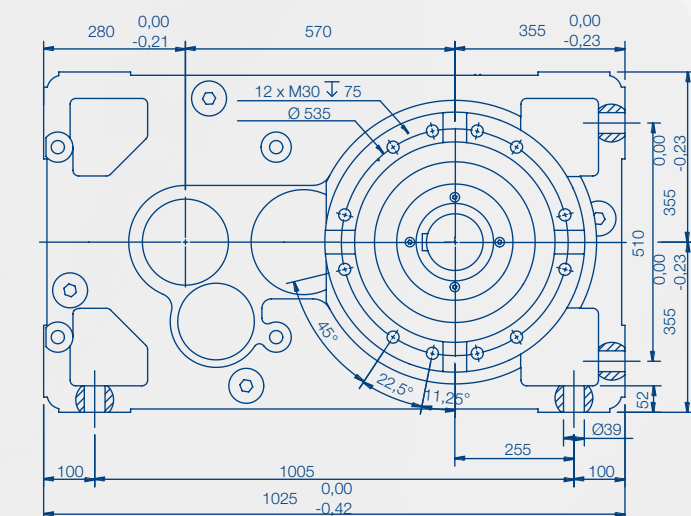
POSIZIONE DI MONTAGGIO mounting position



QUANTITATIVI OLIO oil quantities [L]

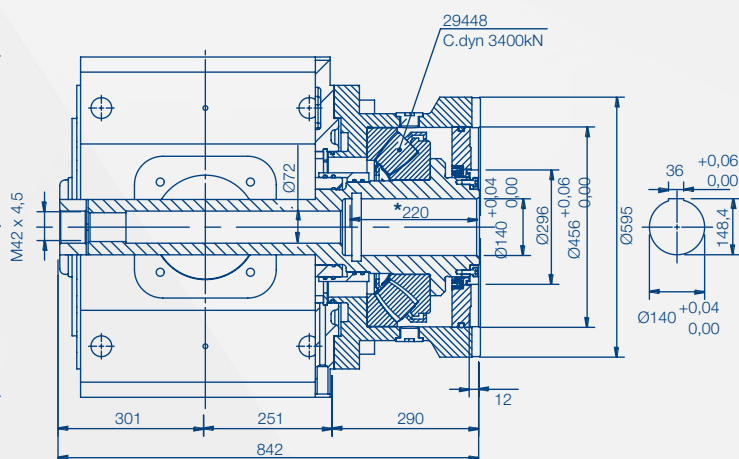
M3	M4	M5	M6
60,1	71,8	86,6	93,5

1068 kg



*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.

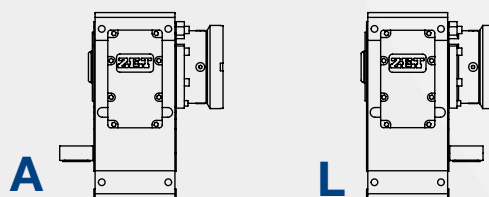
*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.



	b	d	e	g	l	f
i > 10	20	75m6	140	79,5	125	M20
i < 10	28	100m6	210	106	180	M24

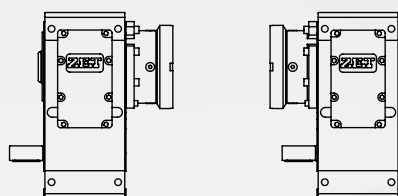
4

ALBERO DI INGRESSO input shaft



5

ALBERO DI USCITA output shaft

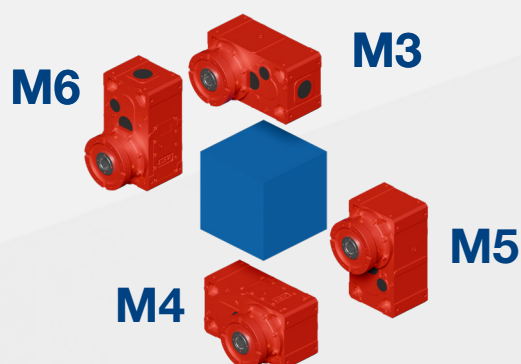


A-EAR

A-EAL

6

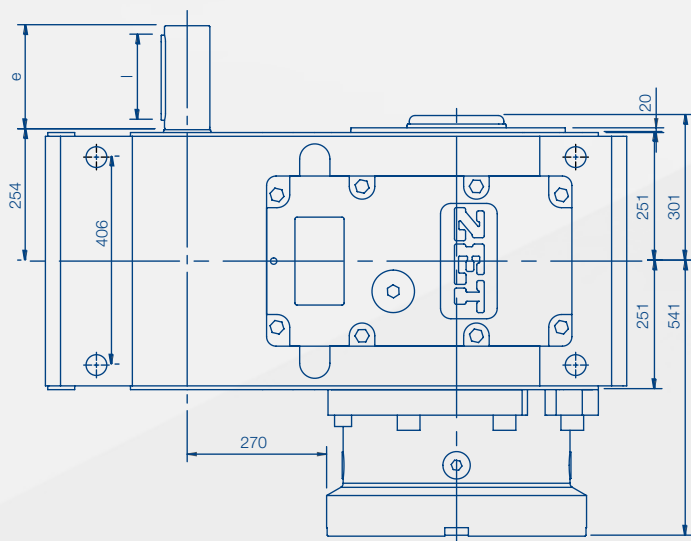
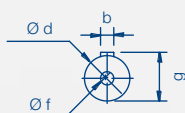
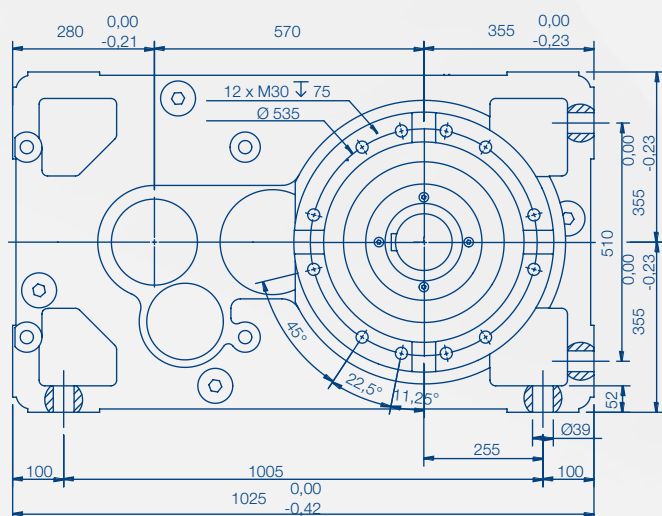
POSIZIONE DI MONTAGGIO mounting position



QUANTITATIVI OLIO oil quantities [L]

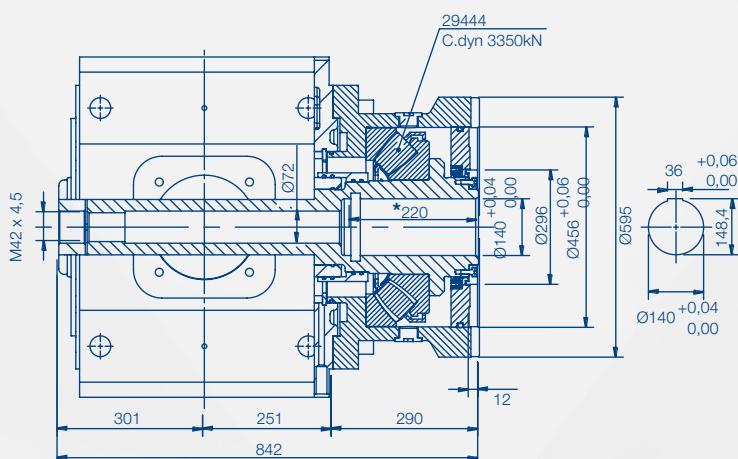
M3	M4	M5	M6
122	145	168	198

 1853 kg



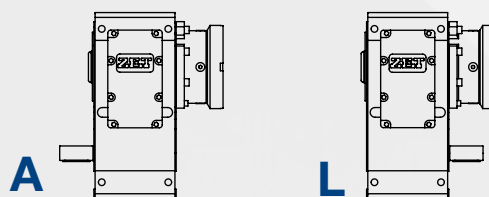
*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.

*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.

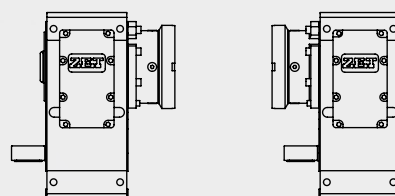


	b	d	e	g	l	f
i > 10	20	75m6	140	79,5	125	M20
i < 10	28	100m6	210	106	180	M24

4 ALBERO DI INGRESSO input shaft



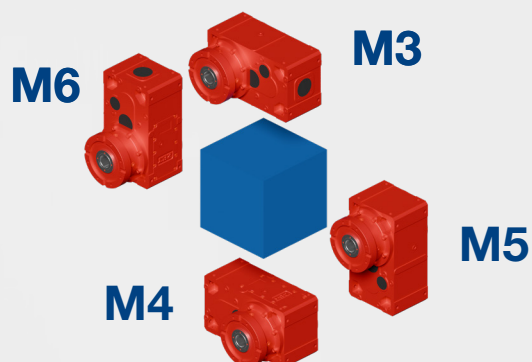
5 ALBERO DI USCITA output shaft



A-EAR

A-EAL

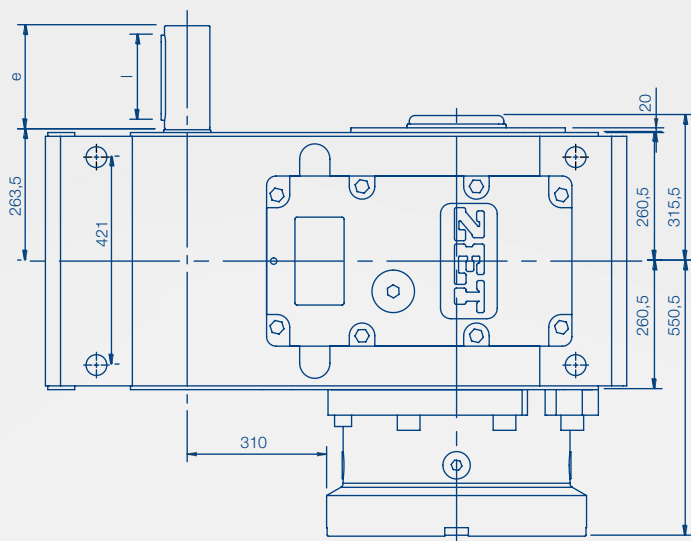
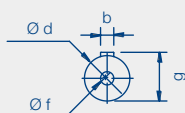
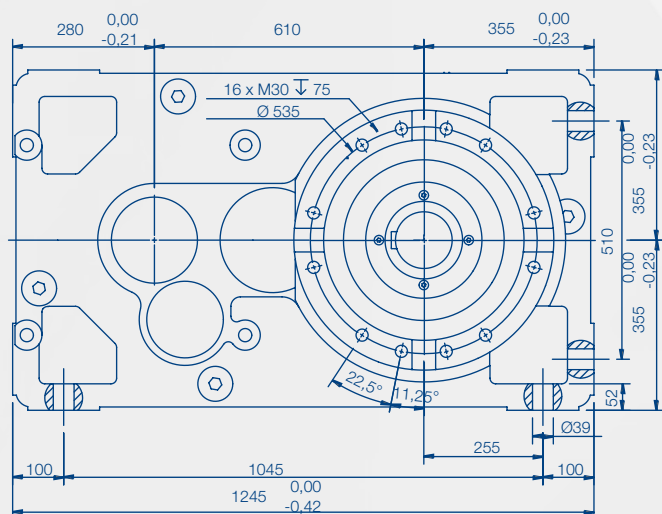
6 POSIZIONE DI MONTAGGIO mounting position



QUANTITATIVI OLIO oil quantities [L]

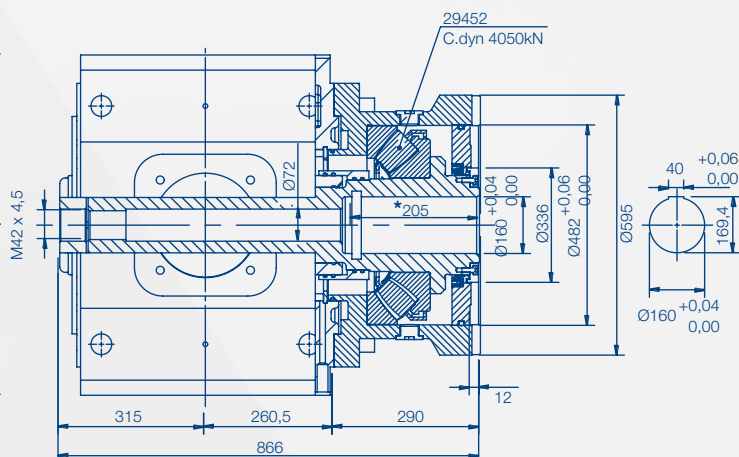
M3	M4	M5	M6
122	145	168	198

 **1853 kg**



*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.

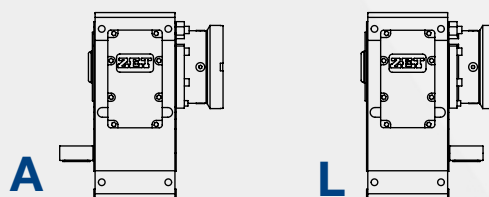
*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.



	b	d	e	g	l	f
i > 15,5	20	75m6	140	79,5	125	M20
i < 15,5	28	100m6	210	106	180	M24

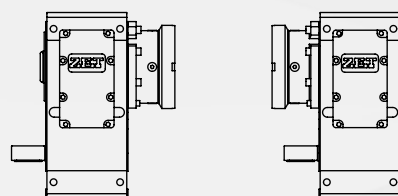
4

ALBERO DI INGRESSO input shaft



5

ALBERO DI USCITA output shaft

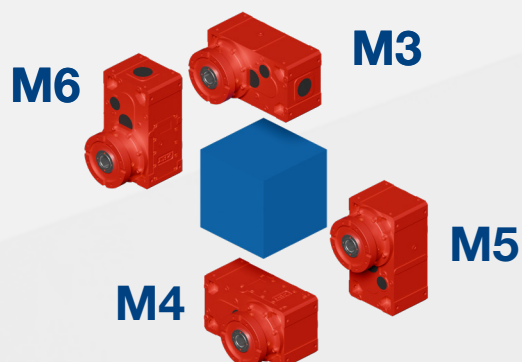


A-EAR

A-EAL

6

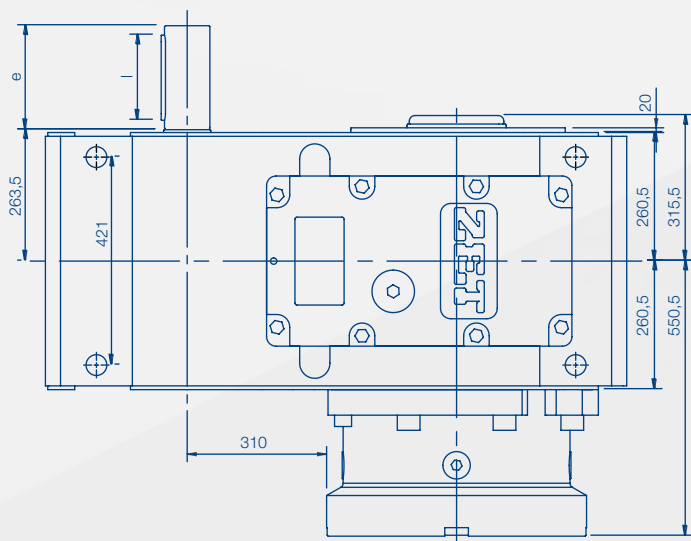
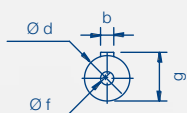
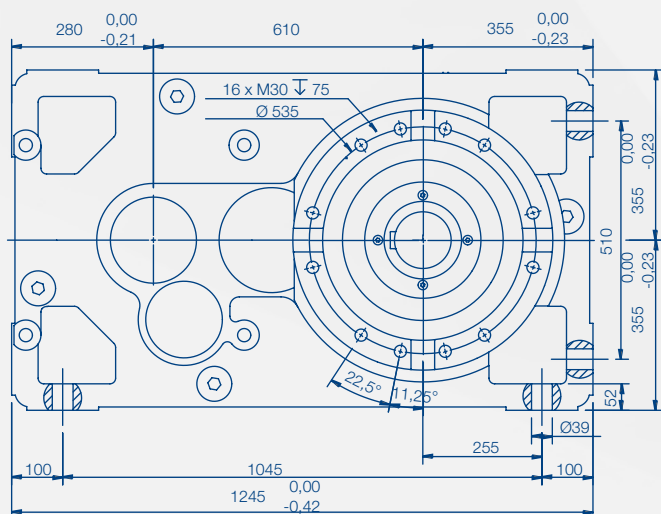
POSIZIONE DI MONTAGGIO mounting position



QUANTITATIVI OLIO oil quantities [L]

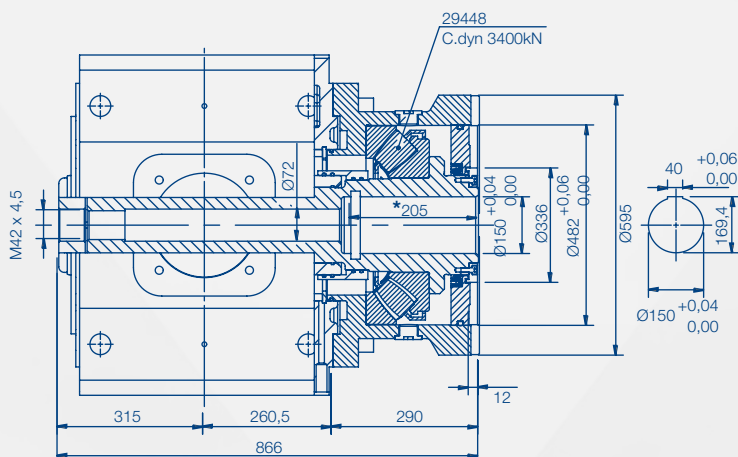
M3	M4	M5	M6
121	142	178	185

 2028 kg



*LE DIMENSIONI ILLUSTRATE SONO MASSIME. SONO DISPONIBILI DIMENSIONI INFERIORI O ALBERI SCANALATI DIN5480.

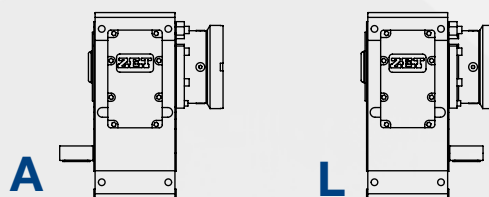
*the shown dimensions are maximum. Smaller sizes and spline DIN5480 shafts are also available.



	b	d	e	g	l	f
i > 15,5	20	75m6	140	79,5	125	M20
i < 15,5	28	100m6	210	106	180	M24

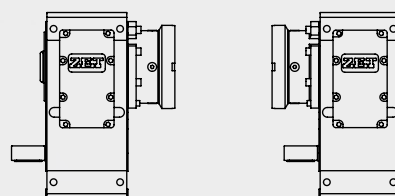
4

ALBERO DI INGRESSO input shaft



5

ALBERO DI USCITA output shaft

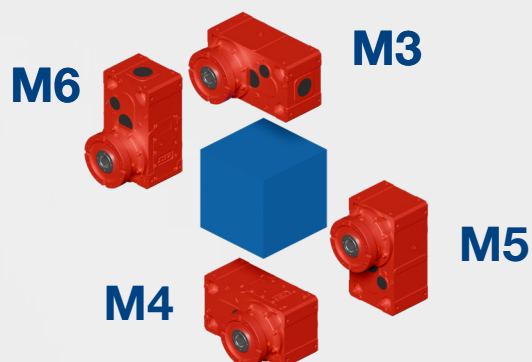


A-EAR

A-EAL

6

POSIZIONE DI MONTAGGIO mounting position



QUANTITATIVI OLIO oil quantities [L]

M3	M4	M5	M6
121	142	178	185

2028 kg



MOTORI SINCRONI synchronous motors

SERIE EXPRESS E0 E0 express series

RETROAZIONE DI SERIE
built-in feedback

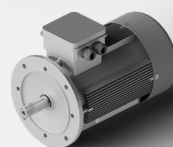
SONDA LINEARE PT1000 INTEGRATA
built-in linear PT1000 transducer

ALTA DENSITÀ DI COPPIA
high-torque density

CLASSE DI EFFICIENZA FINO A IE5
up to IE5 efficiency rating

DISPONIBILE IN VERSIONE DIRECT-DRIVE
direct-drive version available

DISPONIBILE IN FORMA IEC
IEC shape available

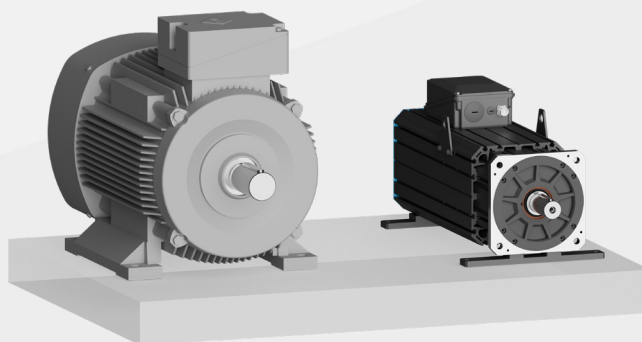


COMPARAZIONI comparisons

ASINCRONO asynchronous

SINCRONO synchronous

 75 kW
 IEC - 280
 570 kg
 IE3



 79 kW
 260mm
 160 kg
 IE5



SERIE EXPRESS E0 E0 express series

TAGLIA size	COPPIA NOMINALE nominal torque		CORRENTE NOMINALE nominal current		POTENZA NOMINALE nominal power	
	F (air)	C (liquid)	F (air)	C (liquid)	F (air)	C (liquid)
E01004	50.0 Nm	-	19 A	-	10.0 kW	-
E01005	73.0 Nm	95.0 Nm	29 A	40.2 A	15.0 kW	19.9 kW
E01007	97.0 Nm	130.0 Nm	38 A	52.3 A	20.0 kW	27.2 kW
E01008	121.0 Nm	163.5 Nm	47 A	66.0 A	25.0 kW	34.2 kW
E01010	143.0 Nm	198.0 Nm	56 A	80.0 A	30.0 kW	41.5 kW
E01012	165.0 Nm	230.0 Nm	69 A	99.0 A	34.0 kW	48.2 kW
E01013	187.0 Nm	264.0 Nm	69 A	106.0 A	39.0 kW	55.3 kW
E01215	197.0 Nm	-	75.0 A	-	41.0 kW	-
E01220	243.0 Nm	-	95.0 A	-	51.0 kW	-
E01225	285.0 Nm	-	109.0 A	-	60.0 kW	-
E01230	336.0 Nm	-	134.0 A	-	70.0 kW	-
E01235	377.0 Nm	-	164.0 A	-	79.0 kW	-
E01304	174.0 Nm	209.0 Nm	67.0 A	86.0 A	36.4 kW	43.8 kW
E01306	260.0 Nm	315.0 Nm	100.0 A	133.0 A	54.5 kW	66.0 kW
E01307	320.0 Nm	365.0 Nm	126.0 A	144.0 A	67.0 kW	76.4 kW
E01308	365.0 Nm	412.0 Nm	140.0 A	159.0 A	76.4 kW	86.3 kW
E01309	390.0 Nm	465.0 Nm	172.0 A	195.0 A	81.7 kW	97.4 kW
E01311	485.0 Nm	561.0 Nm	205.0 A	238.0 A	101.6 kW	117.5 kW
E01313	560.0 Nm	650.0 Nm	240.0 A	280.0 A	117.3 kW	136.1 kW
E01806	572.0 Nm	784.0 Nm	161.0 A	239.0 A	90.0 kW	123.1 kW
E01808	704.0 Nm	1045.0 Nm	203.0 A	334.5 A	110.0 kW	164.1 kW
E01809	842.0 Nm	1174.0 Nm	237.0 A	371.0 A	132.0 kW	184.4 kW
E01811	1020.0 Nm	1428.0 Nm	295.0 A	475.0 A	160.0 kW	224.3 kW
E01813	1175.0 Nm	1678.0 Nm	327.0 A	550.0 A	185.0 kW	263.6 kW
E01815	1275.0 Nm	1906.0 Nm	360.0 A	550.0 A	200.0 kW	299.4 kW
E01817	1405.0 Nm	2147.0 Nm	415.0 A	640.0 A	221.0 kW	337.2 kW





OPZIONI DI RAFFREDDAMENTO cooling system options

I RIDUTTORI MONOBLOCCO SONO PRODOTTI AD ALTA DENSITÀ DI POTENZA, PERTANTO LA CAPACITÀ TERMICA È UN PARAMETRO FONDAMENTALE. SONO INFATTI DISPONIBILI DIVERSE CAPACITÀ TERMICHE E DIVERSE OPZIONI DI RAFFREDDAMENTO. SE LA CAPACITÀ TERMICA DEL RIDUTTORE RISULTA INFERIORE ALLA POTENZA DEL MOTORE, UN SISTEMA DI RAFFREDDAMENTO AUSILIARIO DEVE ESSERE ADOTTATO.

Monoblock gearboxes are high power density products, therefore their thermal capacity is an important parameter. Thermic powers of the gearboxes and different cooler options are hence given. If the thermal power of the gearbox is lower than the motor power, auxiliary cooling systems should be installed.

COMPATIBILITÀ suitability

2	FN	SS	ES	RS
125	●	●	●	●
140	●	●	●	●
160	●	●	●	●
180	●	●	●	●
200	●	●	●	●
225	●	●	●	●
250	●	●	●	●
280	●	●	●	●
320	●	●	●	●
360	●	●	●	●

6	FN	SS	ES	RS
M3	●	●	●	●
M4	●	●	●	●
M5	●	●	●	●
M6	●	●	●	●
M7	●	●	●	●
M8	●	●	●	●

FN VENTILAZIONE FORZATA forced air

L'OPZIONE PREVEDE L'INSTALLAZIONE DI UN VENTILATORE ESTERNO MONTATO SULL'ALBERO DI INGRESSO VELOCE, GARANTENDO UNA VENTILAZIONE FORZATA DEL RIDUTTORE. L'OPZIONE NON È CONSIGLIATA PER APPLICAZIONI A BASSE VELOCITÀ O VELOCITÀ VARIABILI.

This cooling option consists of an additional fan installed on the fast input shaft of the gearbox, allowing for a forced air ventilation of the gearbox. The option is not recommended for low speed of variable speed applications.



SS SERPENTINA DI RAFFREDDAMENTO cooling coil

L'OPZIONE PREVEDE L'INSTALLAZIONE DI UNA SERPENTINA DI RAFFREDDAMENTO MONTATA ALL'INTERNO DEL RIDUTTORE, GARANTENDONE IL RAFFREDDAMENTO MEDIANTE IL PASSAGGIO DI ACQUA REFRIGERATA.

This cooling option consists of a cooling coil installed inside the gearbox, allowing for a fast cooling of the gearbox thanks to a water flow.



GRANDEZZA size	ATTACCO socket	PORTATA flow	TEMP. MAX maximum temperature	PRESSIONE pressure
125 - 140	G 3/8	10 - 20 l/min	20 °C	0,2 - 0,4 MPa (2,0 - 4,0 bar)
160 - 225	G 3/8			
250 - 360	G 1/2			



ES SCAMBIATORE DI CALORE ACQUA / OLIO water / oil heat exchanger

L'OPZIONE PREVEDE L'INSTALLAZIONE DI UNO SCAMBIATORE DI CALORE ESTERNO MONTATO SUL CORPO DEL RIDUTTORE, GARANTENDONE IL RAFFREDDAMENTO MEDIANTE LO SCAMBIO DI CALORE TRA L'OLIO E L'ACQUA REFRIGERATA.

This cooling option consists of a heat exchanger installed on the gearbox body, allowing for a fast cooling thanks to the heat exchange between oil and water.

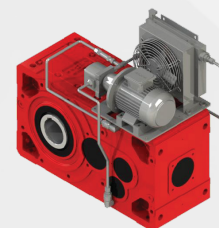


SCAMBIATORE exchanger	DISSIPAZIONE cooling power	PORTATA OLIO flow	POTENZA MOTORE motor power	PORTATA ACQUA flow
ES-03	3 kW	8 l/min	0,37 kW	≥ 8 l/min
ES-06	6 kW			≥ 10 l/min
ES-09	9 kW	18 l/min	1,1 kW	≥ 16 l/min
ES-21	21 kW		1,5 kW	≥ 40 l/min

RS SCAMBIATORE DI CALORE ARIA / OLIO air / oil heat exchanger

L'OPZIONE PREVEDE L'INSTALLAZIONE DI UNO SCAMBIATORE DI CALORE ESTERNO MONTATO SUL CORPO DEL RIDUTTORE, GARANTENDONE IL RAFFREDDAMENTO MEDIANTE LO SCAMBIO DI CALORE TRA L'OLIO E L'ARIA.

This cooling option consists of a heat exchanger installed on the gearbox body, allowing for a fast cooling thanks to the heat exchange between oil and air.



SCAMBIATORE exchanger	DISSIPAZIONE cooling power	PORTATA OLIO flow	POTENZA MOTORE motor power
RS-03	3 kW	8 l/min	1,1 kW
RS-06	6 kW	12 l/min	0,75 kW
RS-09	9 kW	14 l/min	1,1 kW
RS-14	14 kW	18 l/min	1,1 kW
RS-18	18 kW	25 l/min	1,5 kW
RS-24	24 kW	35 l/min	1,5 kW



DATI DI TARGA nameplate

RAPPORTO DI RUZIONE reduction ratio		POSIZIONE DI MONTAGGIO mounting position	
NUMERO SERIALE serial number		VELOCITÀ DI USCITA output speed	
MODELLO model			



MODEL: ■			M.P.: ■
S.N.: ■	i: ■	n ₂ : ■	
P ₁ : ■	MOTOR: ■	fs: ■	
 ■		 ■	

QUANTITATIVO OLIO model	POTENZA MOTORE motor power	PESO weight	CODICE MOTORE motor code	FATTORE DI SERVIZIO service factor
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