



"The Washdown Champion"

Stallion Stainless Steel Gearboxes

Stainless Steel In-line Gearboxes

Worm gearboxes



Coaxial gearboxes



**Stainless steel
motors**

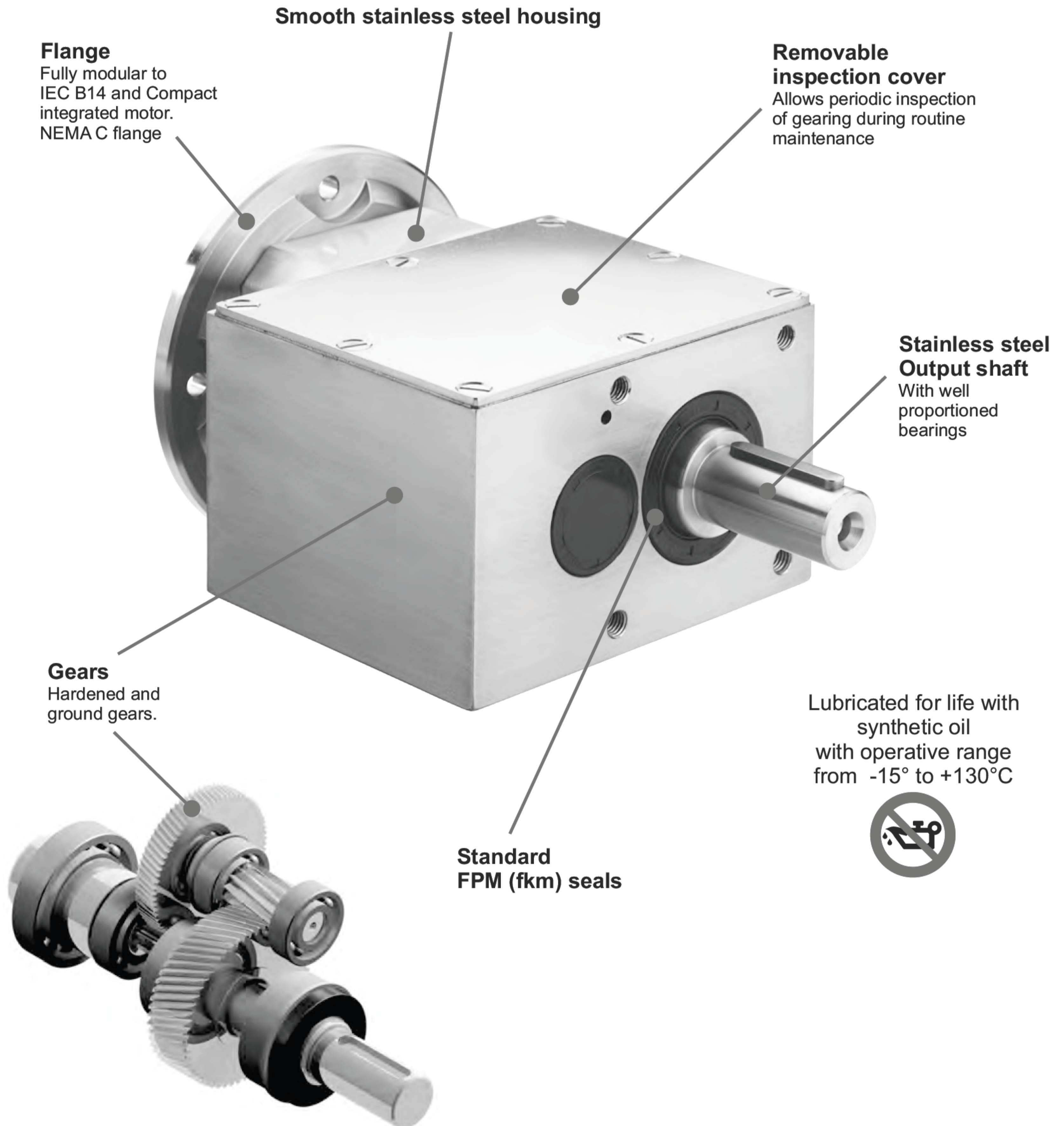


Made in Italy

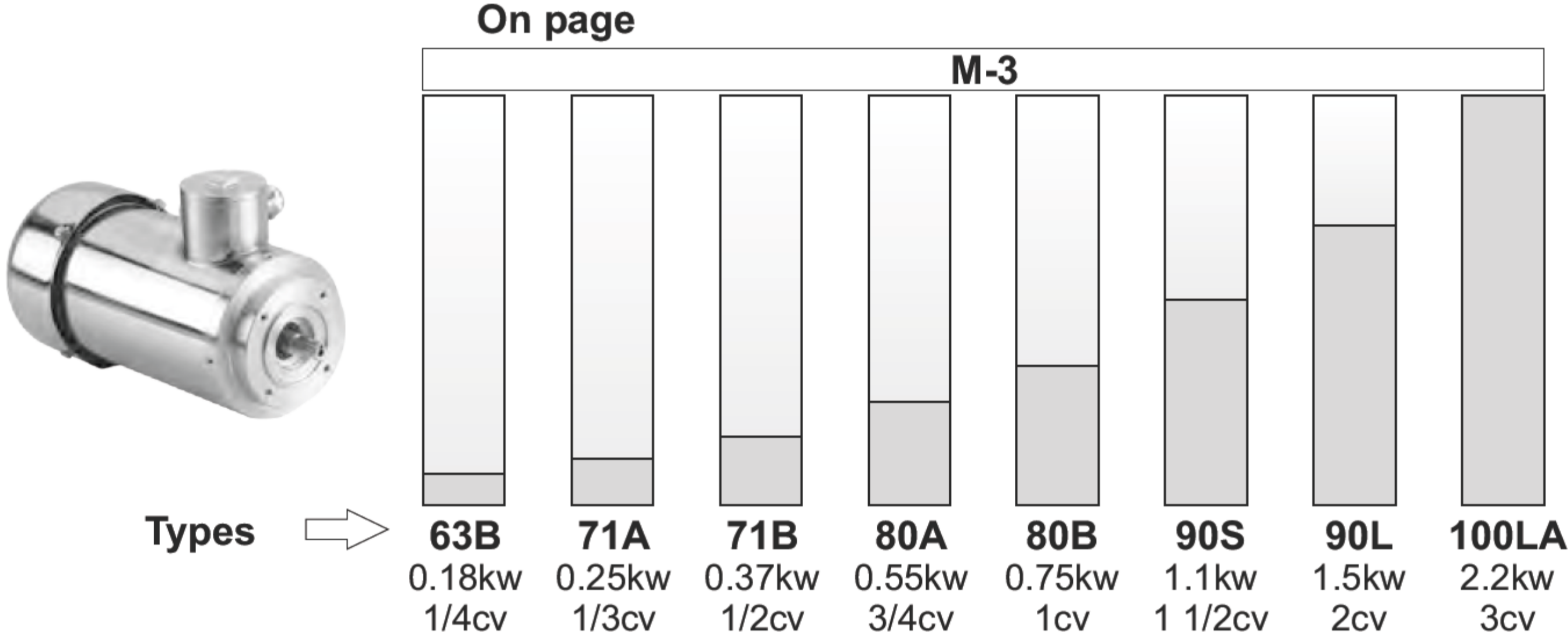
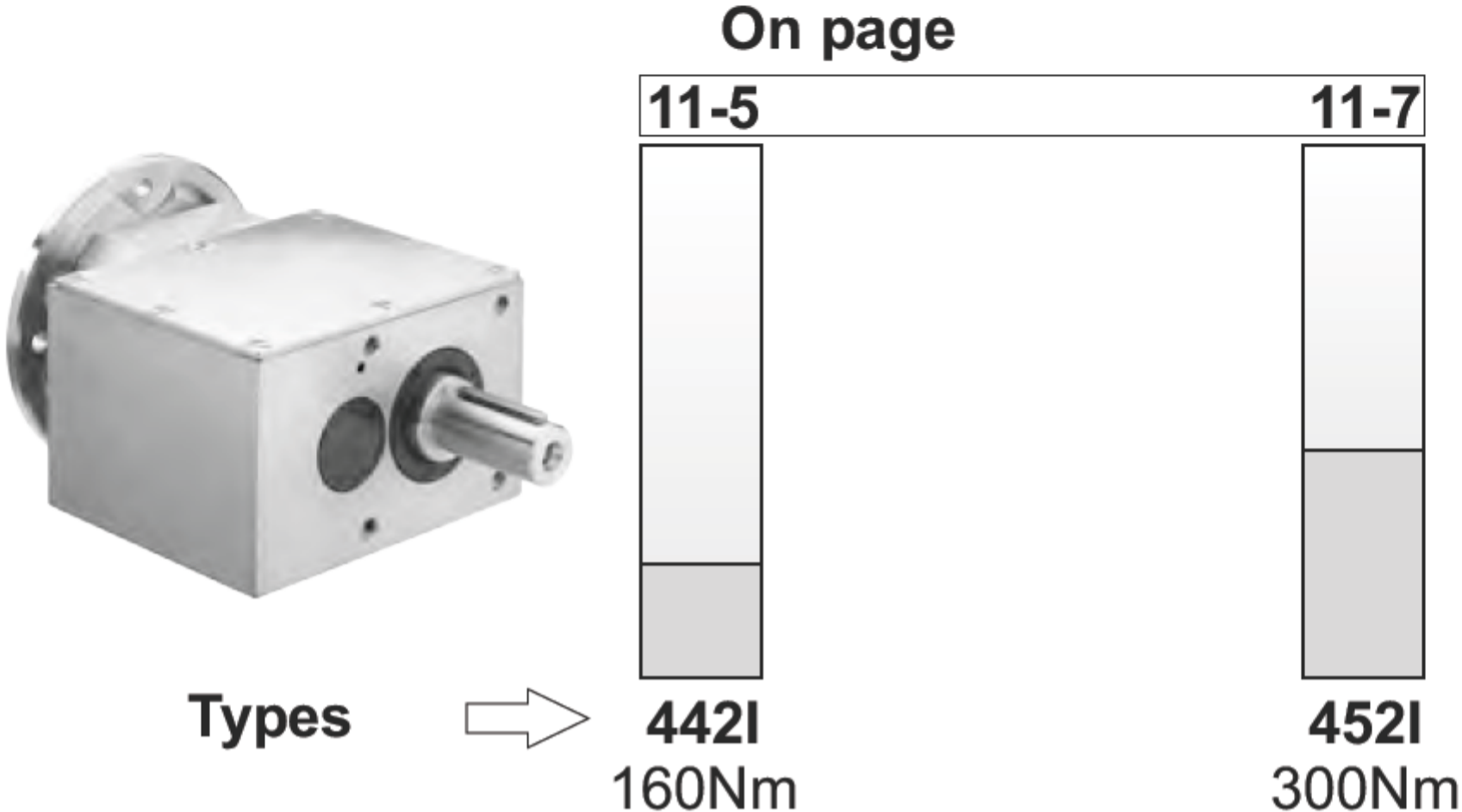


Stainless steel in line gearboxes

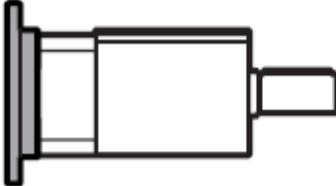
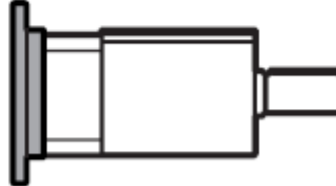
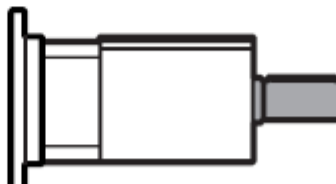
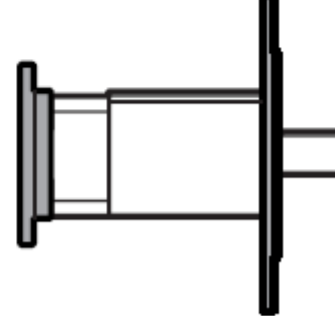
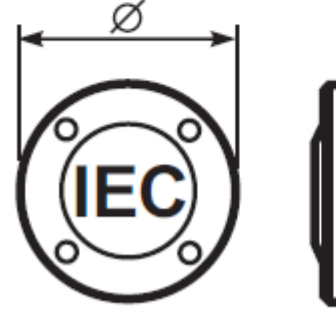
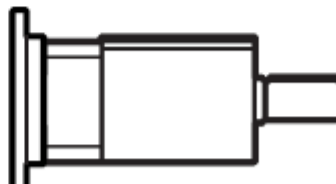
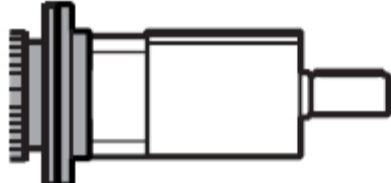
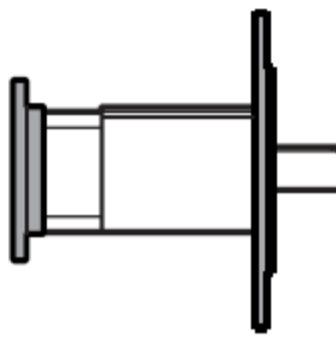
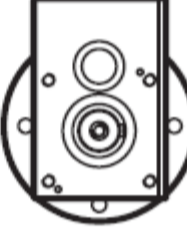
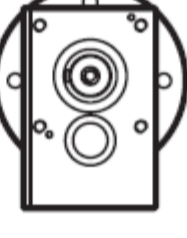
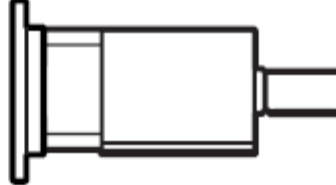

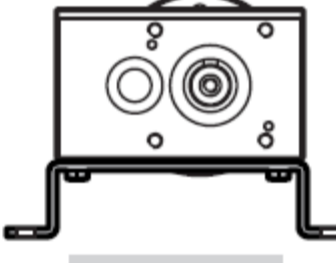
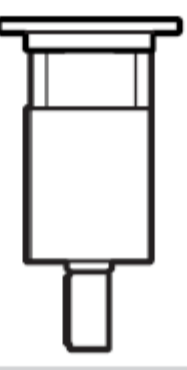
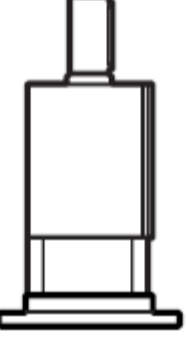
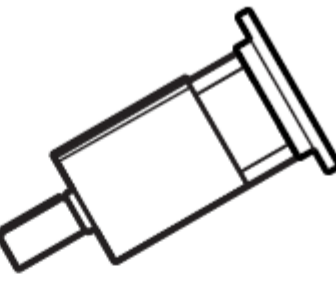
A modular and compact product



Specific type datasheet on page...

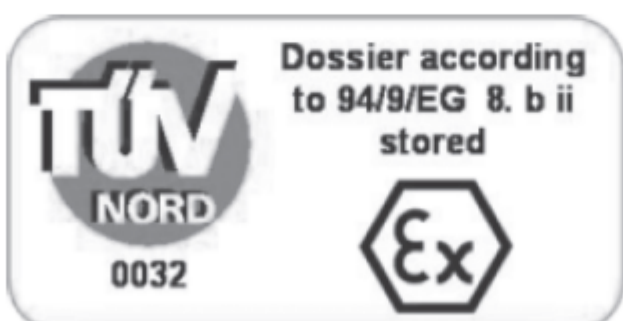


HOW TO ORDER

Type a	Size	Mounting	Ratio	Output shaft	Output flange	Motor size	Mounting position
P	442I 452I	-F	3.52	E	4	-Q	B3
 P	442I 452I	 -N	See technical data table	 E	 4	 -Q	 B3 STANDARD
 M		 -F		→ STANDARD 442I E → ∅24 452I G → ∅28	N Without flange 442I 4 → ∅200 452I 5 → ∅250	442I -Q 71B14 (∅105) -R 80B14 (∅120) -T 90B14 (∅140) 452I -D 80B5 (∅200) -E 90B5 (∅200) -U 100-112 B14 (∅160)	 B6  B7  B8
 B		 H.. You see feet code in the chart of the dimensions				Without flange 442I -1 → ∅14 (71B5) -2 → ∅19 (80B5) -3 → ∅24 (90B5) 452I -2 → ∅19 (80B5) -3 → ∅24 (90B5) -4 → ∅28 (100B5)	 V5  V6  V8

On request

B Food lube



On request we can deliver our products according to the ATEX

- B3 is supplied with standard oil quantity
- Please specify in the order if you required other mounting positions

USEFUL FORMULAS

REQUIRED POWER

Lifting

$$P \text{ [KW]} = \frac{M \text{ [Kg]} \cdot g \text{ [9.81]} \cdot v \text{ [m / s]}}{1000}$$

Rotation

$$P \text{ [KW]} = \frac{M \text{ [Nm]} \cdot n \text{ [rpm]}}{9550}$$

Linear movement

$$P \text{ [KW]} = \frac{F \text{ [N]} \cdot v \text{ [m / s]}}{1000}$$

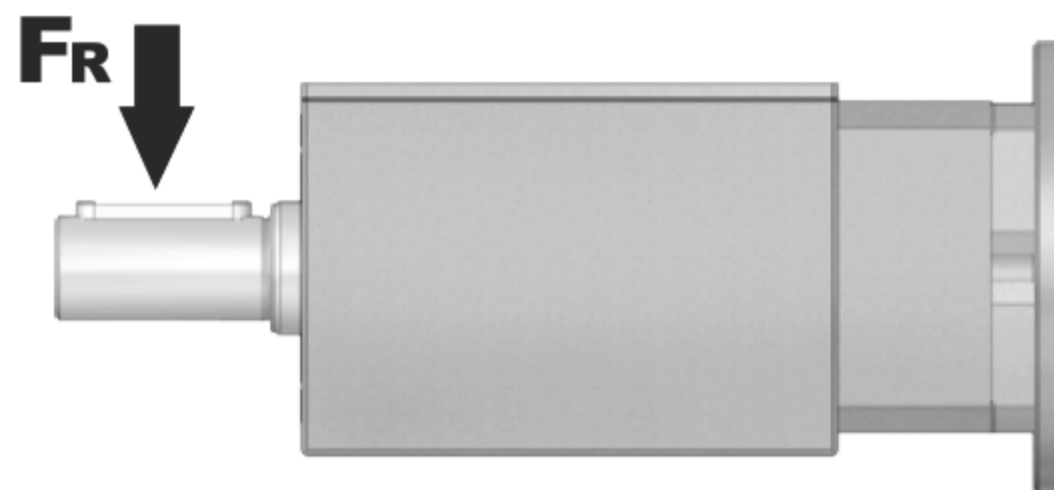
TORQUE

$$M \text{ [Nm]} = \frac{9550 \cdot P \text{ [KW]}}{n \text{ [rpm]}}$$

$$M \text{ [lb in]} = \frac{63030 \cdot P \text{ [HP]}}{n \text{ [rpm]}}$$

RADIAL LOADS

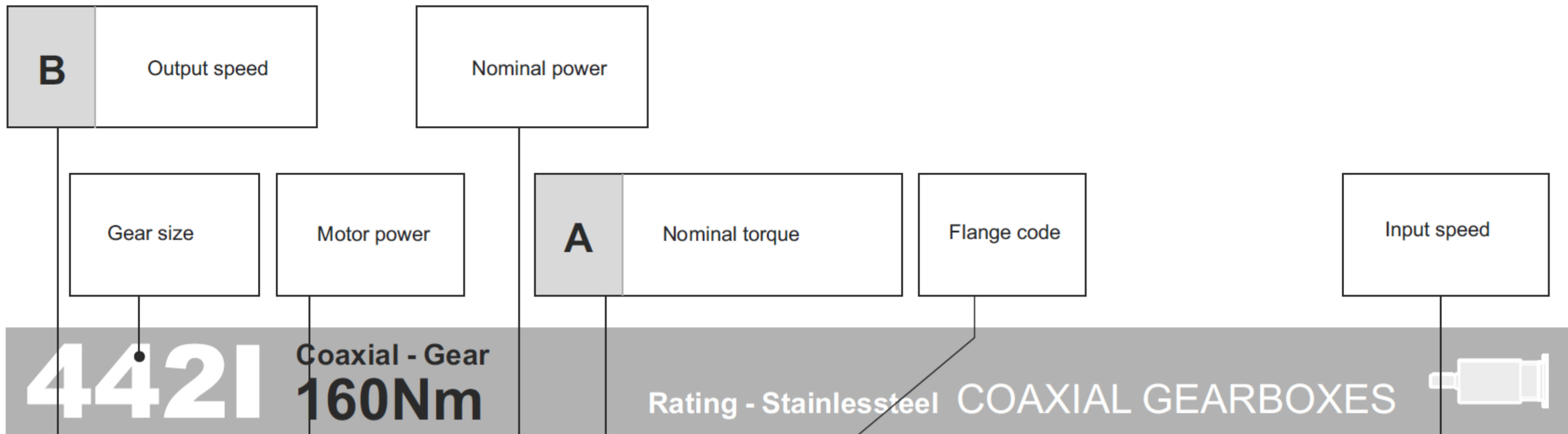
- Radial load generated by external transmissions keyed onto input and/or output shafts.



$F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$		$F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$	
M	Output torque		
d	Diam. of driving element		
f_k	Coefficient factor 1.15 Gear wheels 1.25 Chain sprochets 1.75 Narrow V-belt pulley 2.50 Flat belt pulley		

— If your application requires higher radial loads, contact our technical office. Higher load may be possible.

How to select a gearbox



QUICK SELECTION input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges not available				Available B14 motor flanges				Output Shaft		
							-	-	-	-	Q	R	T	-			Notes code
398	3.52	1.5	35	2.3	3.5	80	-	-	-	-	C	C			2821	standard ø24	01
320	4.37	1.5	43	2.1	3.2	90	-	-	-	-	C	C		2818	02		
252	5.55	1.5	55	1.8	2.8	100	-	-	-	-	C	C		2813	03		
220	6.36	1.5	62	1.5	2.3	95	-	-	-	-	C	C		1921	04		



fs

Type of load and starts per hour		Oper. hours per day		
		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour ≤ 10	o Uniform	0.8	1	1.25
	e Moderate	1	1.25	1.5
	Heavy	1.25	1.5	1.75
Intermittent application with start / hour > 10	Uniform	1	1.25	1.5
	Moderate	1.25	1.5	1.75
	Heavy	1.5	1.75	2.15

D Motor flange available

B)	Mounting with reduction ring
C)	Motor flangeholes position/terminal box position
B)	Available without reduction bushes

A	Select required torque (according to service factor)
B	Select output speed
C	On the same line of selected geared motor, you can find the gear ratio
D	Select motor flange available (if requested)



QUICK SELECTION

input speed (n_1) = 1400 min⁻¹

Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	B5 motor flanges not available				Available B14 motor flanges				Output Shaft		
							-	-	-	-	Q	R	T	-			Ratios code
398	3.52	1.5	35	2.3	3.5	80	-	-	-	-	C	C	-	-	2821	standard ø24	01
320	4.37	1.5	43	2.1	3.2	90	-	-	-	-	C	C	-	-	2818		02
252	5.55	1.5	55	1.8	2.8	100	-	-	-	-	C	C	-	-	2813		03
220	6.36	1.5	62	1.5	2.3	95	-	-	-	-	C	C	-	-	1921		04
191	7.33	1.5	72	1.7	2.5	120	-	-	-	-	C	C	-	-	2812		05
177	7.89	1.5	77	1.6	2.3	120	-	-	-	-	C	C	-	-	1918		06
139	10.06	1.5	99	1.5	2.3	150	-	-	-	-	C	C	-	-	1913		08
120	11.66	1.5	114	1.5	2.3	174	-	-	-	-	C	C	-	-	1713		09
106	13.26	1.5	130	1.2	1.8	160	-	-	-	-	C	C	-	-	1912		10
102	13.68	1.5	134	1.1	1.6	144	-	-	-	-	C	C	-	-	1513		25
91	15.37	1.5	151	1.1	1.6	160	-	-	-	-	C	C	-	-	1712		11
86	16.20	1.5	159	0.9	1.3	138	-	-	-	-	C	C	-	-	1910		12
78	18.04	1.5	177	0.9	1.4	160	-	-	-	-	C	C	-	-	1512		23
74	18.80	1.1	135	1.0	1.1	138	-	-	-	-	C	C	-	-	1710		24
65	21.54	1.1	155	1.0	1.1	160	-	-	-	-	C	C	-	-	1312		14
63	22.29	1.1	161	1.0	1.1	167	-	-	-	-	C	C	-	-	1013		15
53	26.30	0.75	129	1.1	0.80	138	-	-	-	-	C	C	-	-	1310		16
47.6	29.40	0.75	144	1.1	0.83	160	-	-	-	-	C	C	-	-	1012		17
39	35.91	0.55	129	1.1	0.59	138	-	-	-	-	C	C	-	-	1010		18
36.5	38.37	0.55	138	1.2	0.64	160	-	-	-	-	C	C	-	-	912		19
29.9	46.86	0.55	169	0.8	0.45	138	-	-	-	-	C	C	-	-	910		20
27.6	50.67	0.37	123	1.1	0.40	132	-	-	-	-	C	C	-	-	712		21
22.6	61.88	0.37	150	0.9	0.34	138	-	-	-	-	C	C	-	-	710	22	

The dynamic efficiency is **0.96** for all ratios

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

 Motor Flanges Available
 B) Supplied with Reduction Bushing
 B) Available on Request without reduction bushing
 C) Motor Flange Holes Position

EN Unit 4421 is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

Standard supplied	For these mounting position specify in the order or add oil					
0.35 LT	0.55 LT	0.55 LT	0.55 LT	0.75 LT	0.60 LT	Ask

For all details on lubrication and plugs check our website

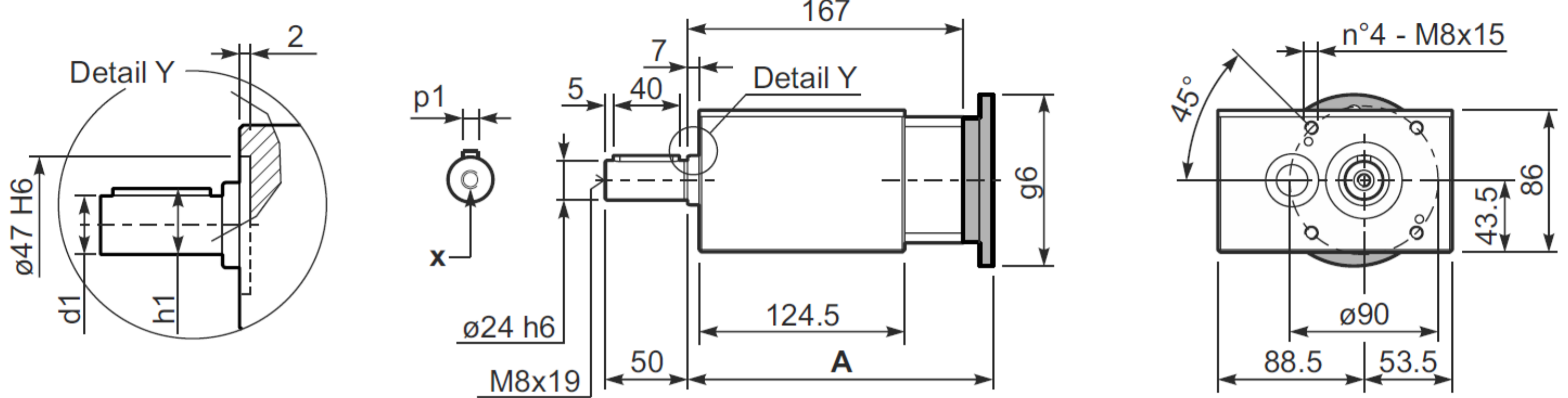
tab. 1

RADIAL AND AXIAL LOADS								
Output shaft			$F_{eq} = F_R \cdot \frac{49}{X+24}$					
n_2	FA	FR	n_2	FA	FR	n_2	FA	FR
300	310	1550	140	406	2030	70	540	2700
250	330	1650	120	448	2240	40	600	3000
200	360	1800	85	480	2400	15	600	3000

tab. 2

P442I-**N**... Basic gearbox

Gearbox weight With flange **9.9 kg**
With feet **9.2 Kg**

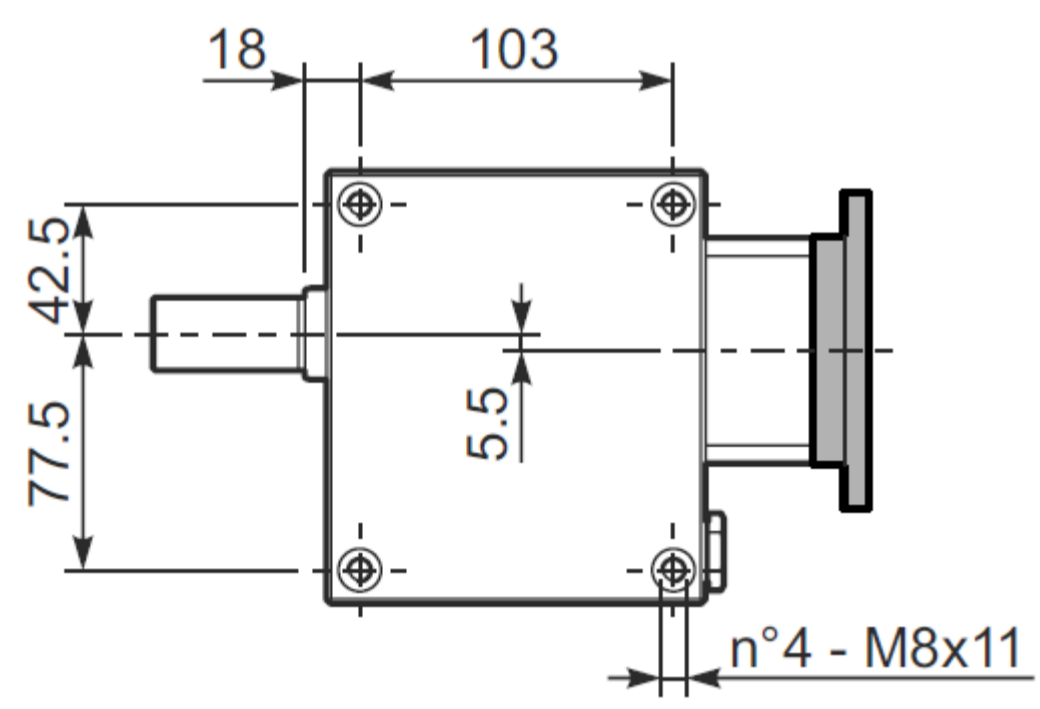


Output shafts

	Shaft - d1	p1	h1	x
Standard	ø 24x50	8	27	M8x19

Input flanges

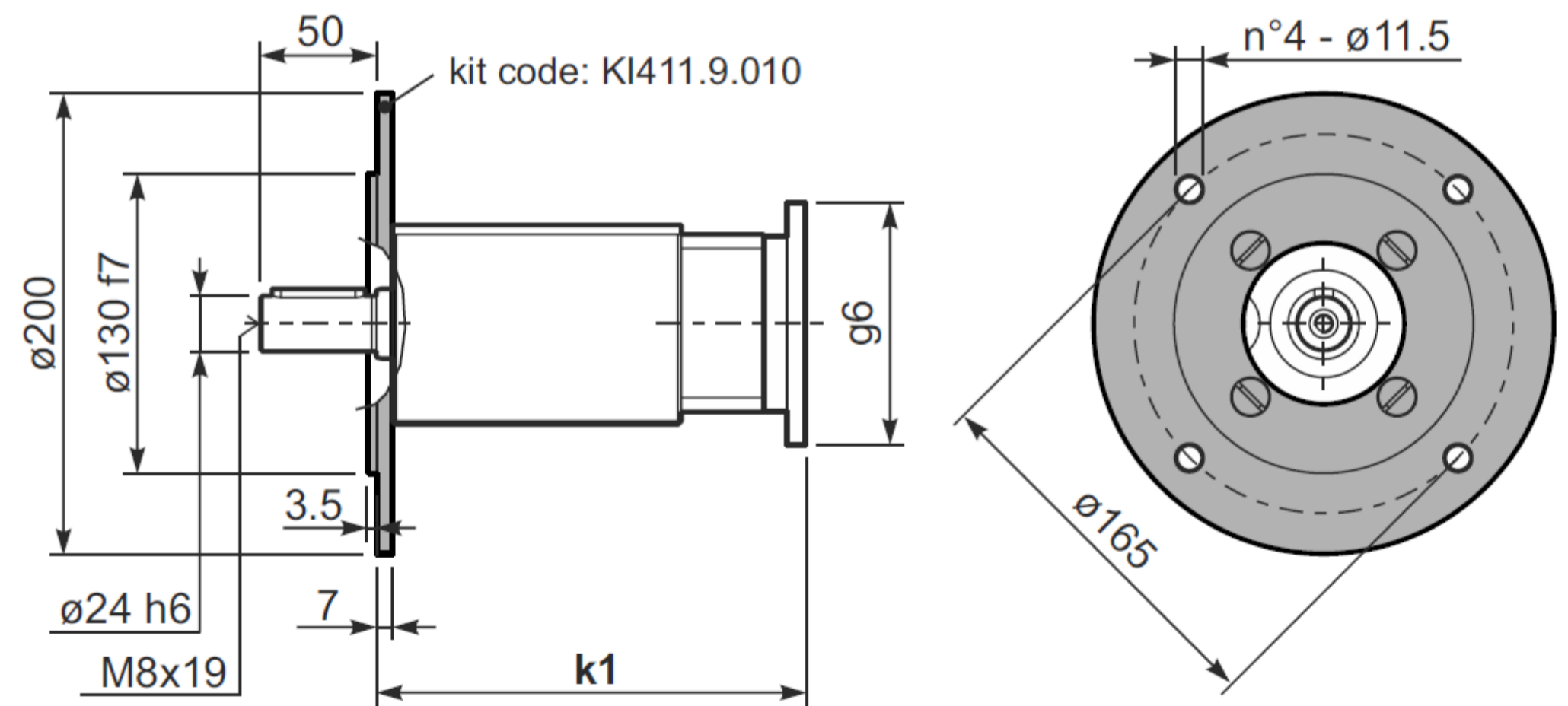
	A	g6	kit code
71 B14	185	105	KI63.4.047
80 B14	186	120	KI63.4.046
90 B14	187	140	KI63.4.041



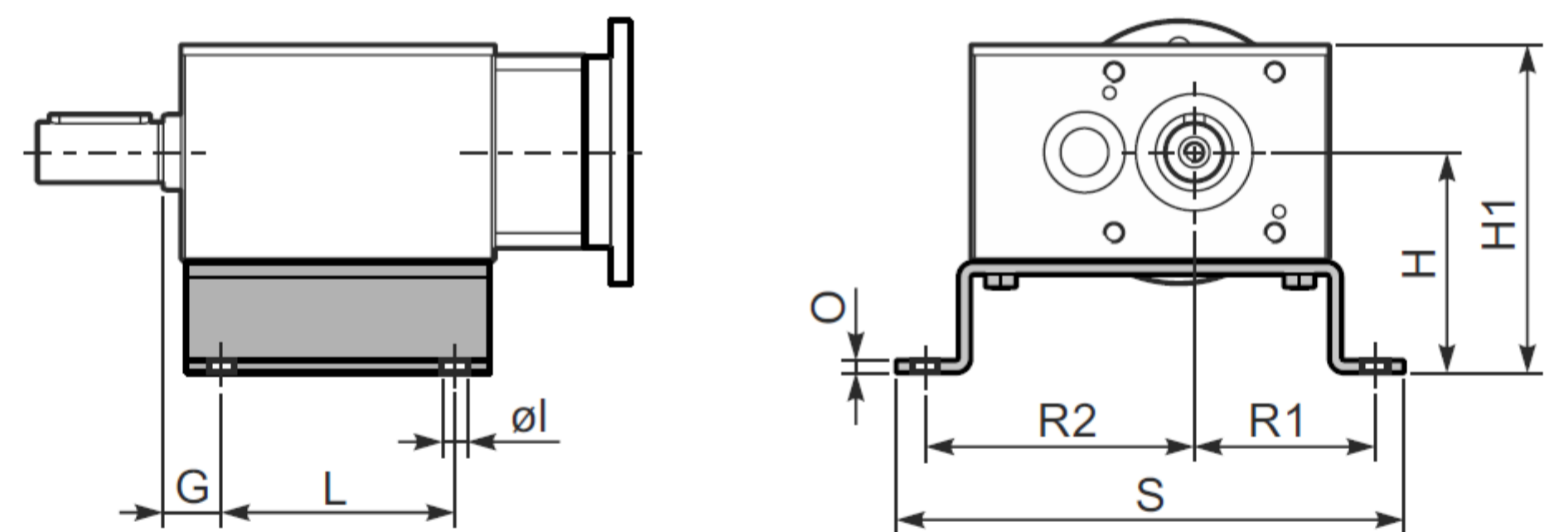
P442I-**F**... Output flanges

Input flanges

	k1	g6	kit code
71 B14	185	105	KI63.4.047
80 B14	186	120	KI63.4.046
90 B14	187	140	KI63.4.041



P442I-**H1**... With feet



Feet

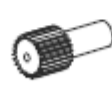
Feet Code	G	L	R1	R2	S	H	H1	O	øl	kit code
H1	19.5	100	67.5	102.5	190	49.5	92	6	10	KI4429022
H2	19.5	100	75	110	205	88	130.5	5	10	KI4429023

Other feet are available, see our web site



QUICK SELECTION

input speed (n_1) = 1400 min⁻¹

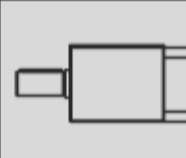
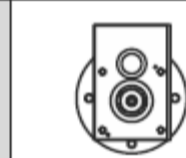
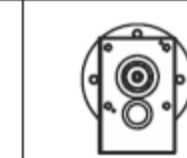
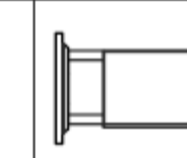
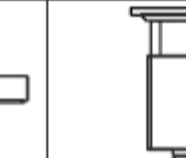


Output Speed n_2 [min ⁻¹]	Ratio i	Motor power P_{1M} [kW]	Output torque M_{2M} [Nm]	Service factor f.s.	Nominal power P_{1R} [kW]	Nominal torque M_{2R} [Nm]	Available B5 motor flanges		Available B14 motor flanges	Output Shaft  standard ø28	Ratios code
							D	E	U		
							80	90	100 - 112		
388	3.61	4	95	1.6	6.3	150				3018	01
331	4.23	4	111	1.5	6.1	170				3016	02
279	5.01	4	131	1.5	6.1	200				3014	03
231	6.07	4	159	1.6	6.3	250				3012	04
206	6.81	4	178	1.6	6.2	277				2018	05
176	7.96	4	209	1.4	5.8	300				2016	06
148	9.45	4	248	1.2	4.9	304				2014	07
122	11.43	4	299	1.0	4.0	300				2012	08
99	14.21	3	279	0.9	2.8	265				2010	09
84	16.62	3	327	0.9	2.8	304				1314	10
70	20.10	2.2	290	1.0	2.3	300				1312	11
56	24.98	1.85	303	0.9	1.6	265				1310	12
47.6	29.41	1.5	289	1.1	1.6	304				814	13
39.3	35.58	1.5	349	0.9	1.3	300				812	14
34.6	40.50	1.1	292	1.0	1.1	290				614	15
31.7	44.22	1.1	319	0.8	0.92	265				810	16
28.6	49.00	0.75	241	1.2	0.93	300				612	17
23.0	60.90	0.75	299	0.9	0.66	265				610	18

The dynamic efficiency is **0.96** for all ratios

* The nominal power should be reduced if the ambient temperature is $\geq 30^\circ\text{C}$, or when a cooler gearbox is required.

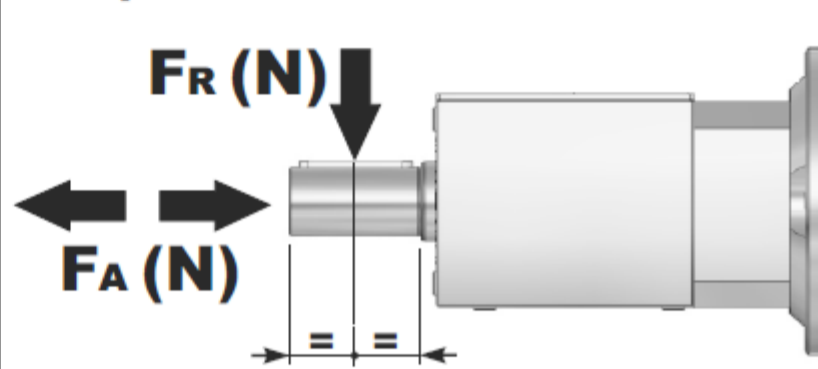
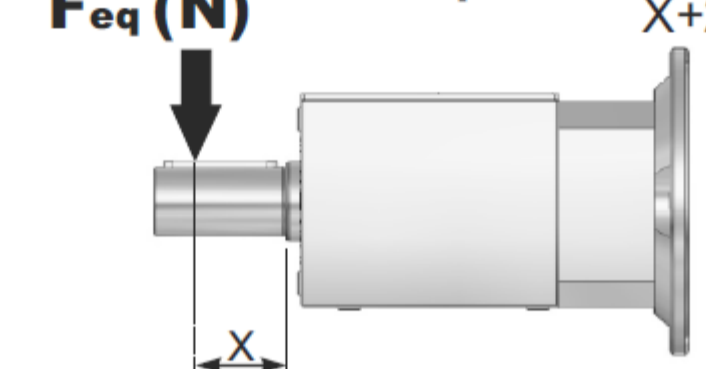
 Motor Flanges Available
  Supplied with Reduction Bushing
 B) Available on Request without reduction bushing
  **C**) Motor Flange Holes Position

EN Unit 4521 is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

Standard supplied	For these mounting position specify in the order or add oil					
						
0.60 LT	0.80 LT	0.90 LT	0.80 LT	1.10 LT	1.00 LT	Ask

For all details on lubrication and plugs check our website

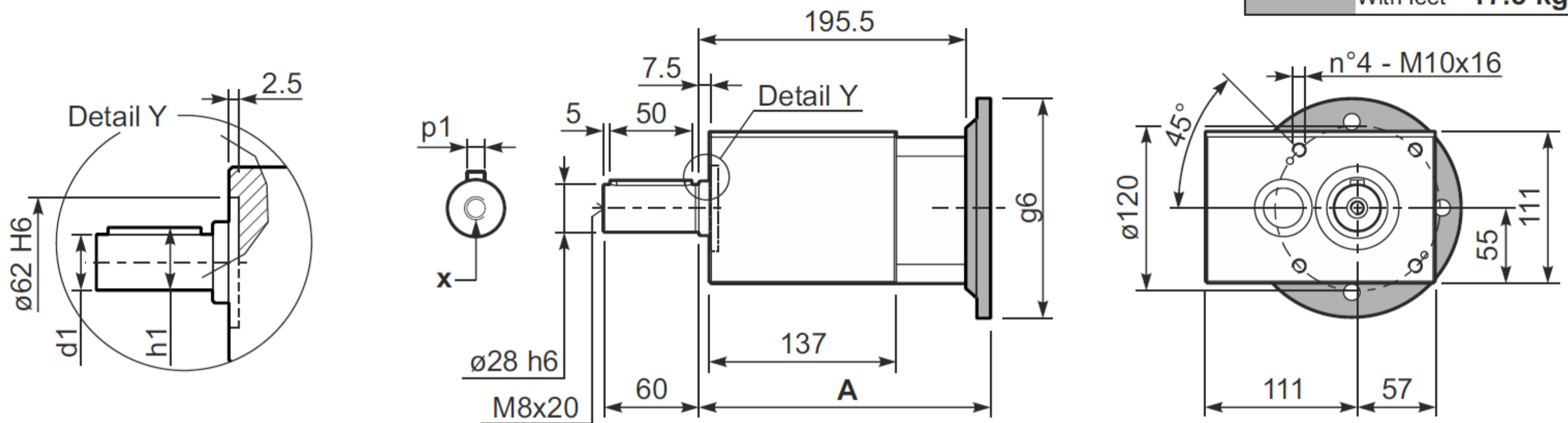
tab. 1

RADIAL AND AXIAL LOADS								
Output shaft			F_R (N)			F_{eq} (N)		
						$F_{eq} = F_R \cdot \frac{57}{X+27}$		
n_2	F_A	F_R	n_2	F_A	F_R	n_2	F_A	F_R
300	415	2070	140	540	2700	70	700	3510
250	430	2160	120	560	2790	40	810	4050
200	470	2340	85	630	3150	15	900	4500

tab. 2

P452I-**N**... Basic gearbox

Gearbox weight With flange **19.2 kg**
With feet **17.5 kg**

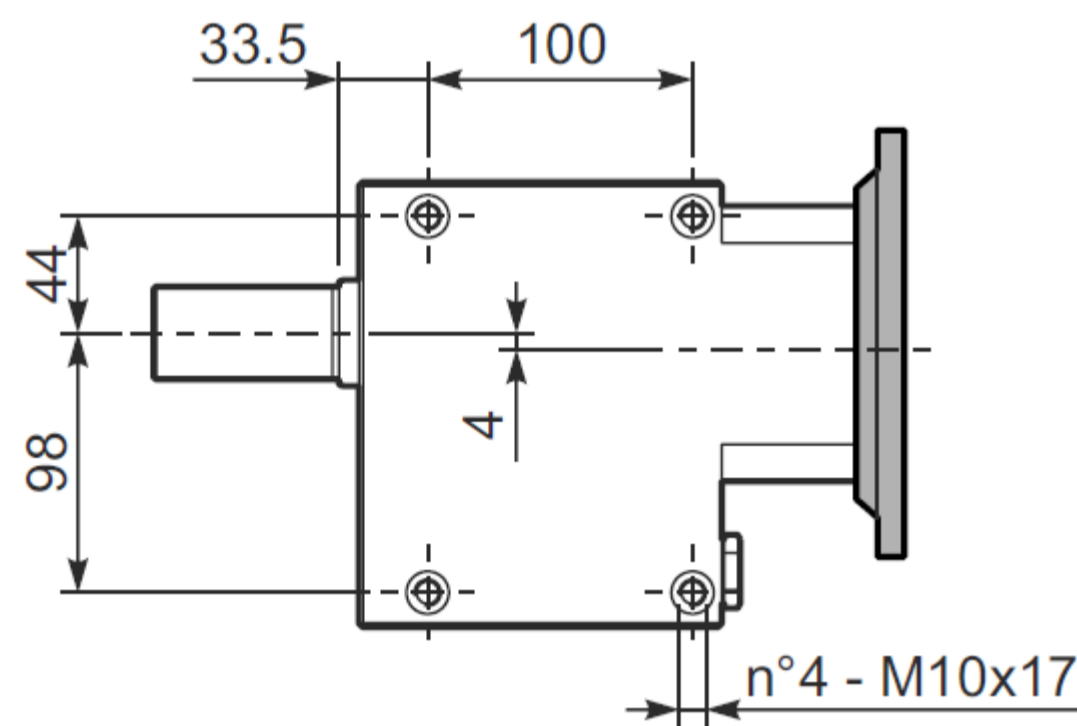


Output shafts

	Shaft - d1	p1	h1	x
Standard	ø 28x60	8	31	M8x20

Input flanges

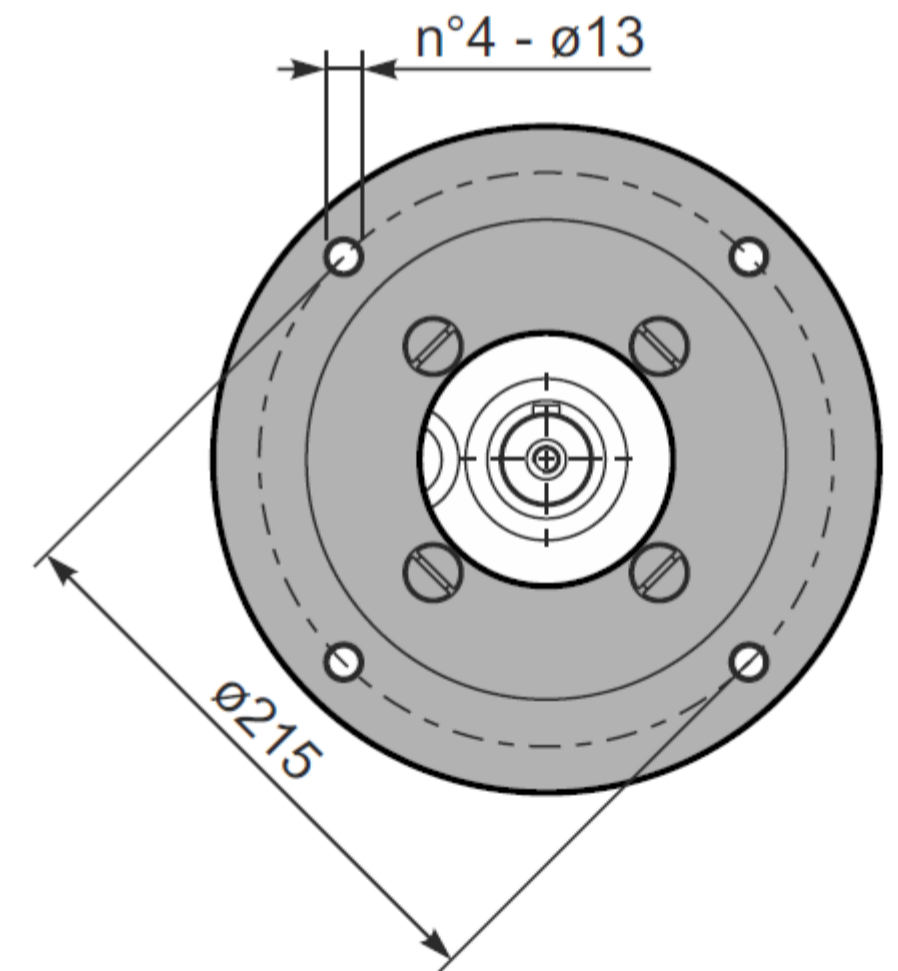
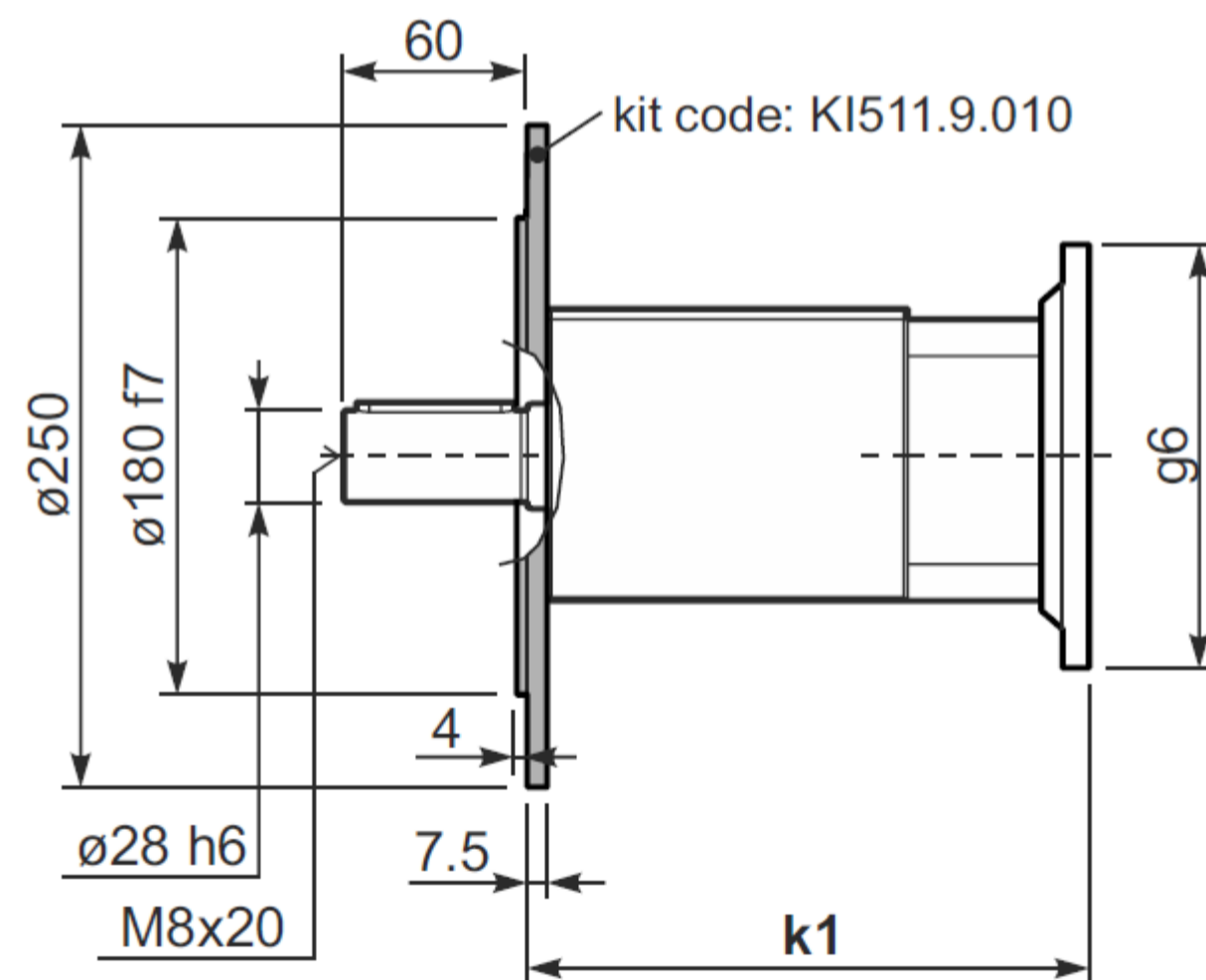
	A	g6	kit code
80-90B5	215.5	200	KI85.4.042
100-112B14	213.5	160	KI85.4.041



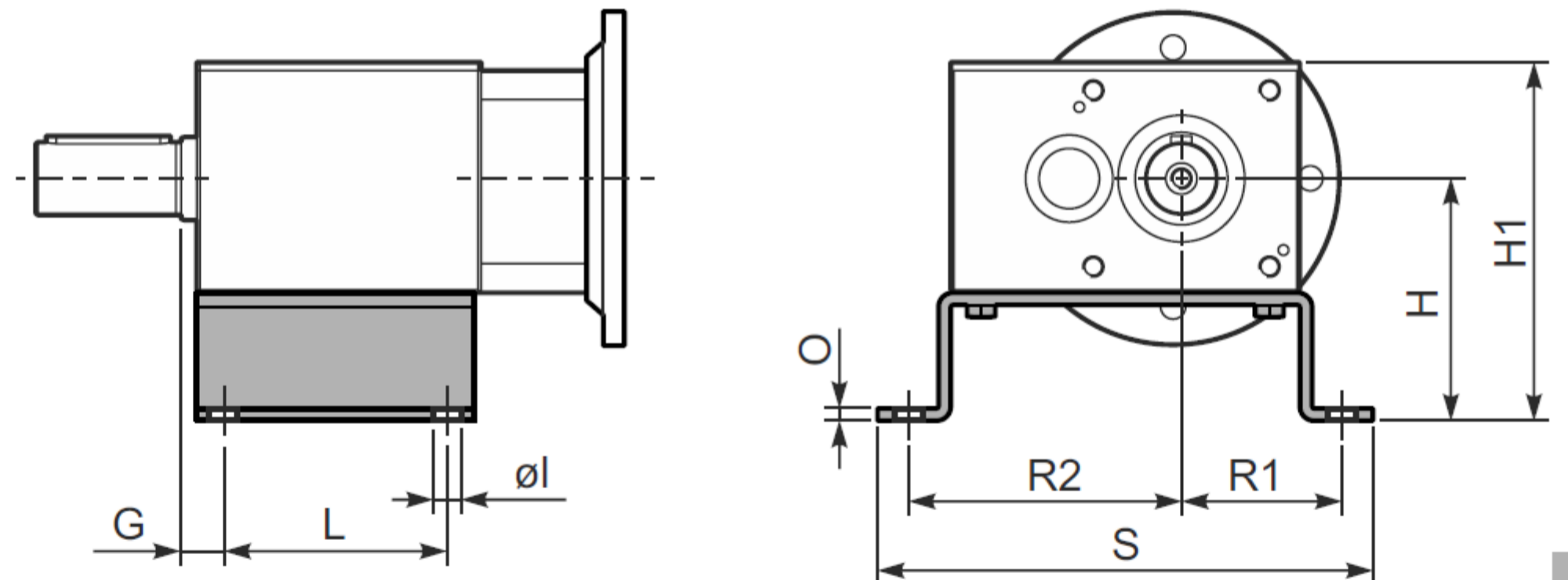
P452I-**F**... Output flanges

Input flanges

	k1	g6	kit code
80-90B5	215.5	200	KI85.4.042
100-112B14	213.5	160	KI85.4.041



P452I-**H1**... With feet



Feet

Feet Code	G	L	R1	R2	S	H	H1	O	øl	kit code
H1	21	110	73	127	220	61	117	6	11.5	KI4529022
H2	21	110	83	137	245	118	174	6	11.5	KI4529023

Other feet are available, see our web site