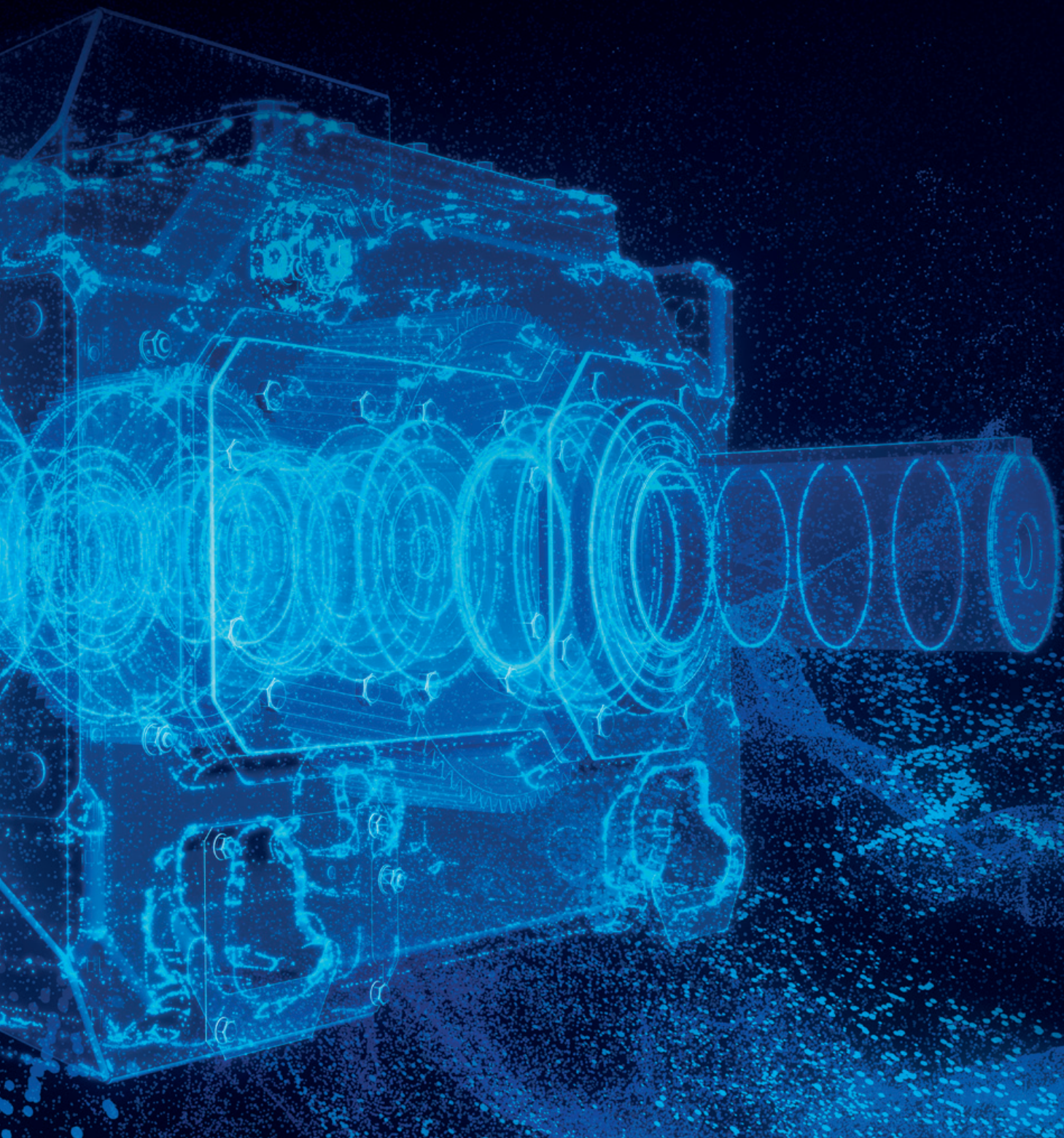
FLENDER

UNLIMIT YOUR GEARBOX

FLENDER ONE. THE INDUSTRIAL GEAR UNIT.



THE NEW FLENDER ONE. NOW ALSO FOR MULTISTAGE GEAR UNITS.

Welcome to the new era of industrial drive technology: tailor-made gear unit solutions, configured in minutes. Individual, efficient, smart. FLENDER ONE® is the new platform for the best Flender industrial gear units.

THE NEW GEAR UNIT PLATFORM 04

INDIVIDUAL 06

EFFICIENT 16

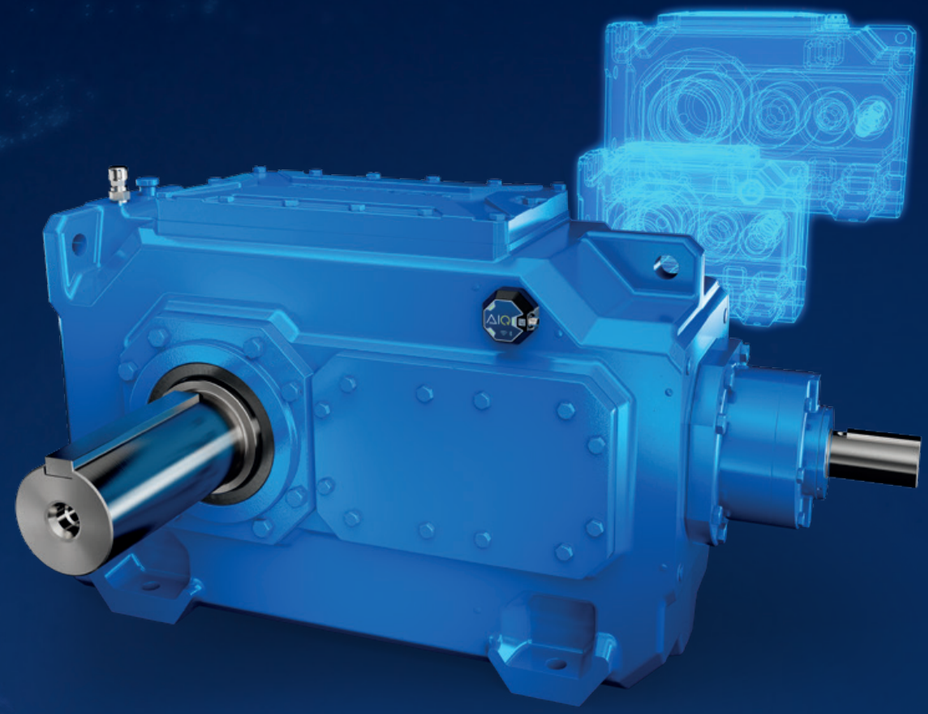
SMART 20

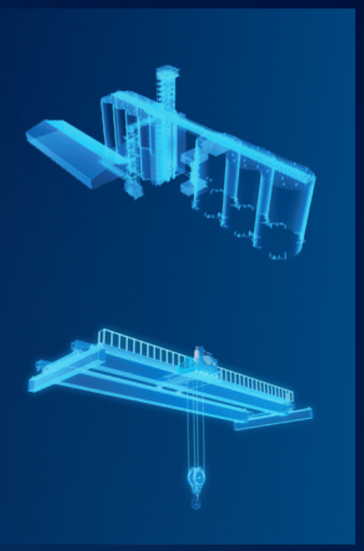
RETROFITTING 22

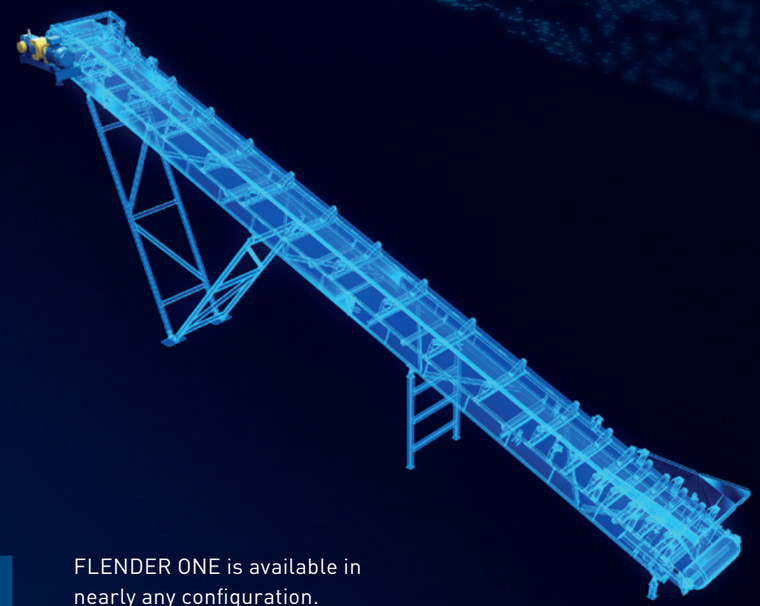
DATA SHEETS 23

THE NEW GEAR UNIT PLATFORM

The multistage FLENDER ONE – the perfect gear unit for a wide range of applications





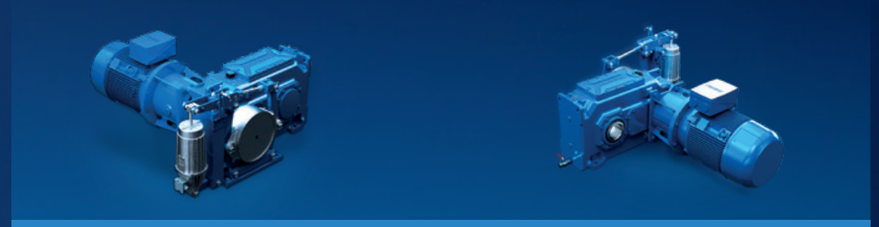


FLENDER ONE is available in nearly any configuration. The new multistage gear units are an excellent fit for more than one hundred applications, such as bucket conveyors, conveyor belts, hoisting applications and paper machines. A broad spectrum of power classes, sizes and designs enable you to cover your various requirements optimally.



BUCKET CONVEYOR

Our low-maintenance FLENDER ONE solution for bucket conveyors means less time and effort spent on inspection and servicing.



HOIST

Whether for lifting heavy loads or carrying out precision work, our FLENDER ONE hoist drive ensures the highest quality and safety standards.



CONVEYOR BELT

In conveyor belt applications, FLENDER ONE minimizes your operating expenses (OPEX) thanks to its outstanding energy efficiency.

INDIVIDUAL

Perfectly geared to your needs

Your plant is just as individual as your company. Anything unnecessary is out of place. You only buy what you need. You don't want to waste anything. With FLENDER ONE, you get tailor-made solutions that lower your operating expenses and raise your efficiency – perfect application fit.

Our new online configurator is based on our decades-long competence in drive technology and delivers on this promise. You define the connection dimensions, desired power capacity and rotation speed. We take care of the rest. An extensive portfolio of optional add-ons enables you to match the gear unit solution perfectly to your needs.

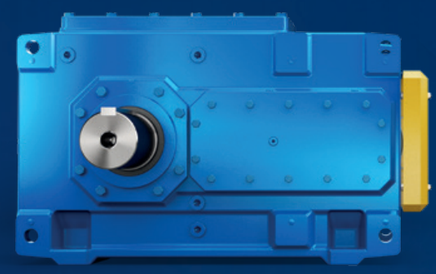
DIMENSIONING FOR A PERFECT FIT

The same performance with fewer resources

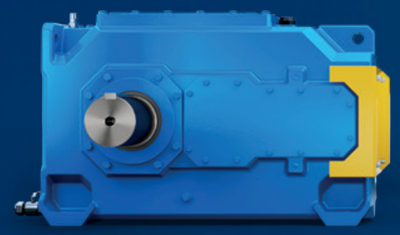
In developing FLENDER ONE, our ambition to design a gear unit platform that represented an improvement for our customers in all relevant aspects. This is based on understanding customer needs and technical specifications and dimensioning the gear unit accordingly. That's why we at Flender developed the perfect-sizing approach.
We have calibrated the bearings and thermal capacity more precisely to the requirements of our customers, so that over-dimensioning is no longer necessary. The result is a gear unit with the highest performance and, simultaneously, lower resource usage, both in production and in our customers' operations.

SAME PERFORMANCE – FEWER RESOURCES





PREDECESSOR FZG H3



FLENDER ONE

ADVANTAGES AT A GLANCE

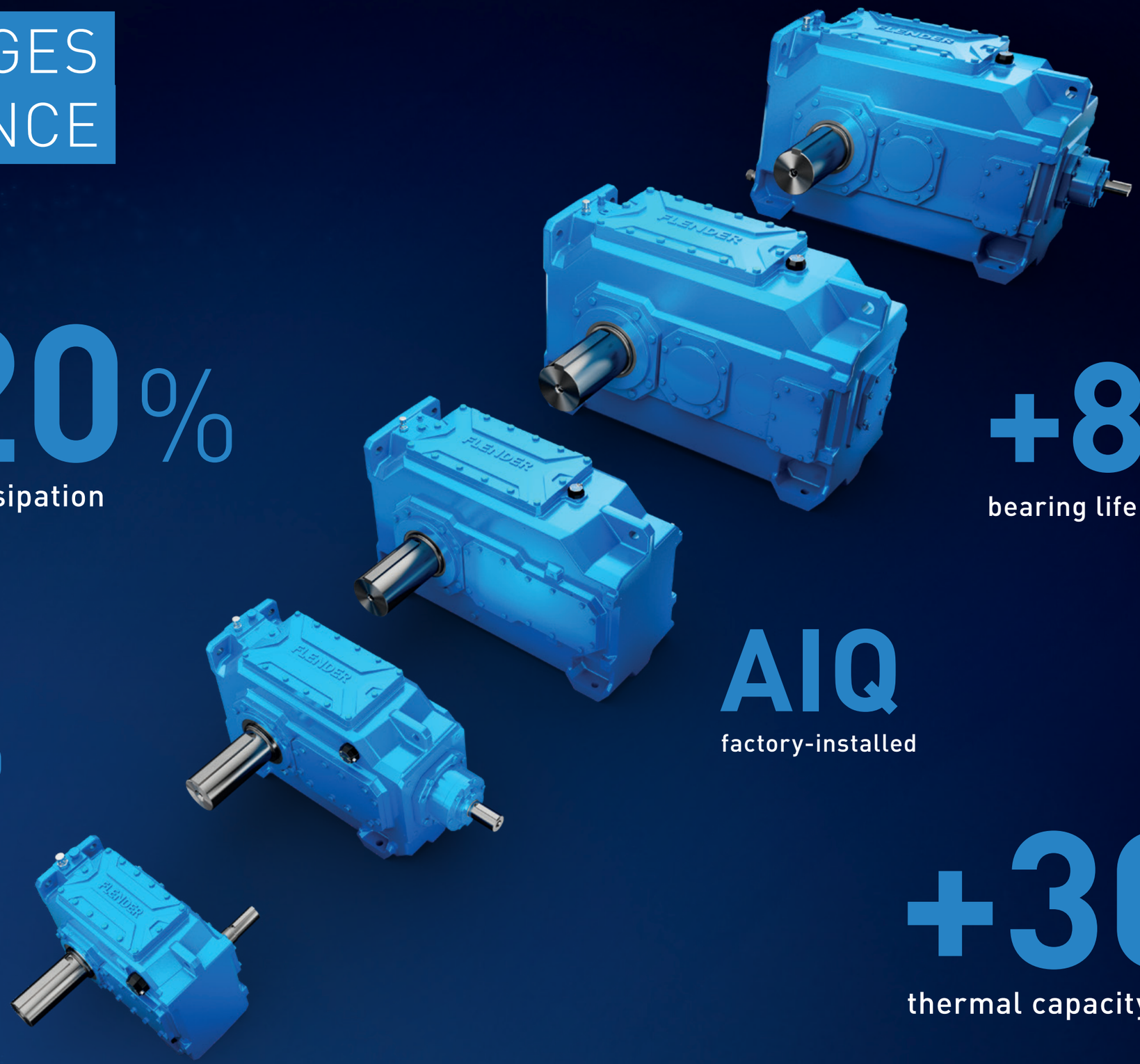
-20%
power dissipation

-5%
weight

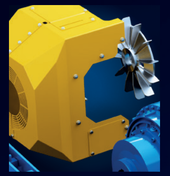
AIQ
factory-installed

+80%
bearing life

+30%
thermal capacity

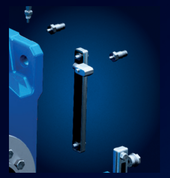


WE THOUGHT OF EVERYTHING – TO MEET YOUR SPECIFIC REQUIREMENTS



EFFICIENT COOLING

Our various fan solutions allow efficient cooling. Choose between different fan types in the configurator. Our new controlled electric fan only runs when it is needed, thus saving energy costs.



SIMPLE OIL LEVEL MONITORING

Servicing is easy due to quick and reliable oil level reading, including the option of an integrated scale thermometer. The configurator provides for various assembly positions for an optimal fit in your installation space.

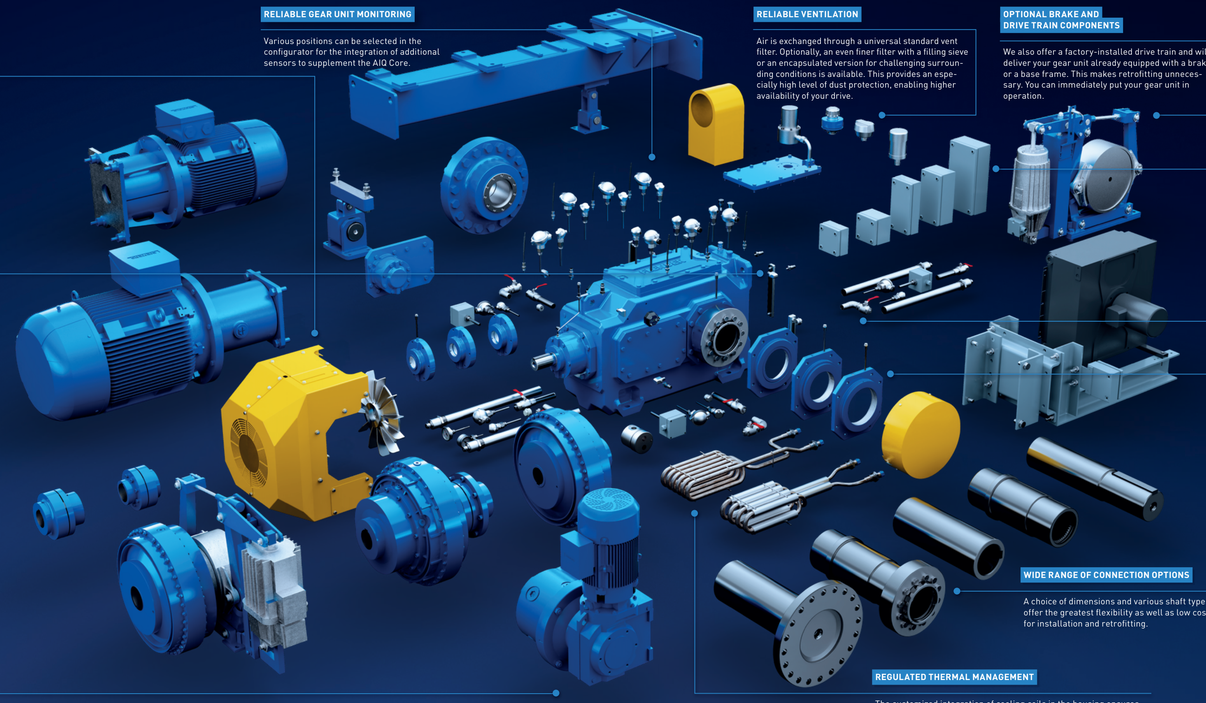


RELIABLE OPERATION (AUXILIARY DRIVES)

FLENDER ONE offers various auxiliary drive solutions for maximum flexibility.

RELIABLE GEAR UNIT MONITORING

Various positions can be selected in the configurator for the integration of additional sensors to supplement the AIQ Core.



RELIABLE VENTILATION

Air is exchanged through a universal standard vent filter. Optionally, an even finer filter with a filling sieve or an encapsulated version for challenging surrounding conditions is available. This provides an especially high level of dust protection, enabling higher availability of your drive.

OPTIONAL BRAKE AND DRIVE TRAIN COMPONENTS

We also offer a factory-installed drive train and will deliver your gear unit already equipped with a brake or a base frame. This makes retrofitting unnecessary. You can immediately put your gear unit in operation.

WELL-ORGANIZED ELECTRICAL COMPONENTS

A terminal box forms a central connection point for sensors and other electrical components. This enables the optimal integration of FLENDER ONE into your plant as a turnkey system.



EASY OIL SERVICE

Customizable oil drain cocks for draining and filling make oil change easier. Various installation positions for the drain cocks are available in the configurator, allowing optimal adaptation to your installation space.



THE RIGHT SEAL

Contact and non-contact as well as encapsulated and non-encapsulated seals are available to meet your requirements. The non-contact seal additionally enables a drop in the oil level, which leads to reduced power dissipation.



WIDE RANGE OF CONNECTION OPTIONS

A choice of dimensions and various shaft types offer the greatest flexibility as well as low costs for installation and retrofitting.

REGULATED THERMAL MANAGEMENT

The customized integration of cooling coils in the housing ensures maximum cooling efficiency for the optimal operating temperature.

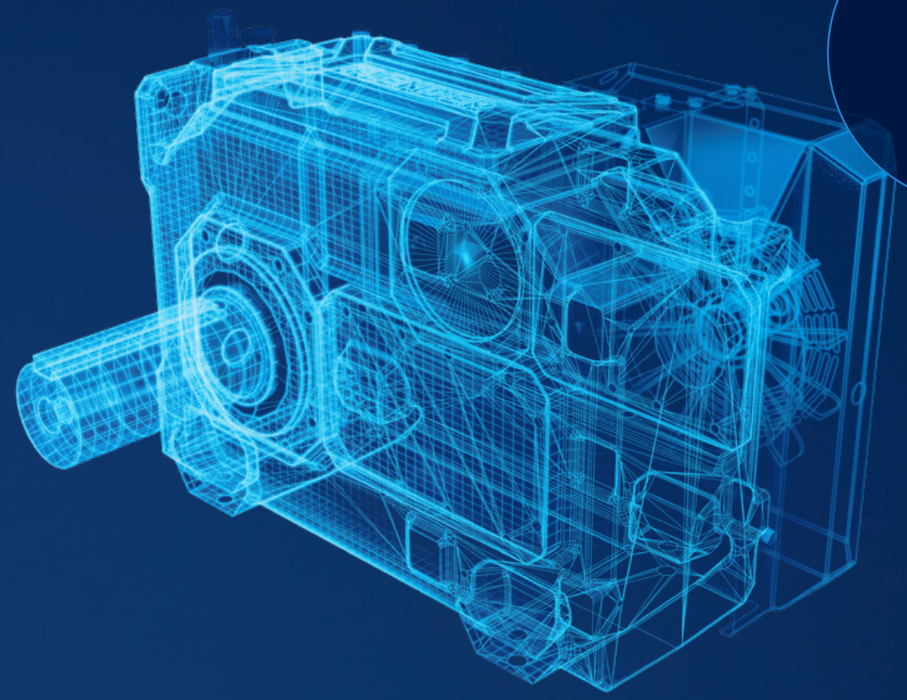
Example: three-stage FLENDER ONE with bevel-helical gear

EFFICIENT MEANS SAVING TIME

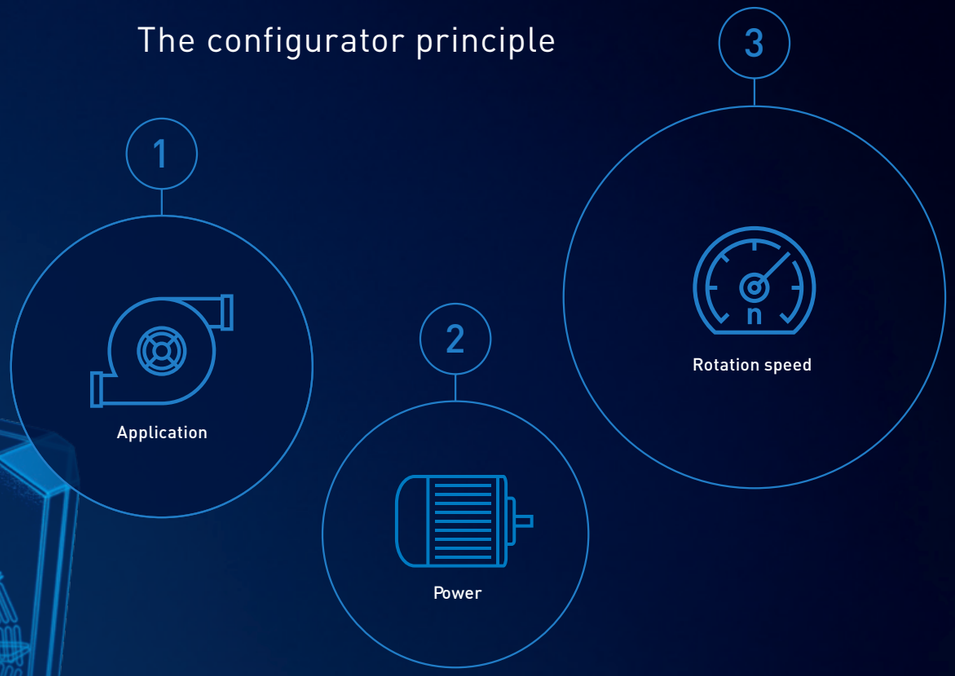
Three steps to a finished gear unit

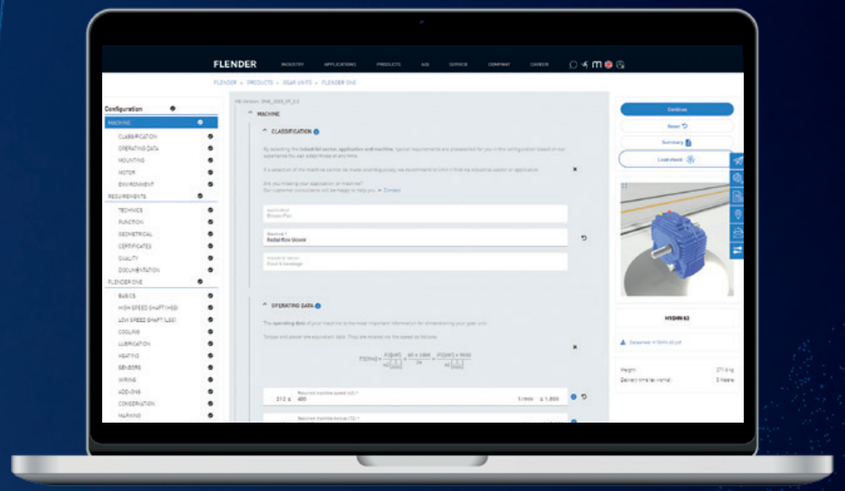
A FLENDER ONE gear unit ideally suited to your demands is efficient in planning and operation. With our solutions, you move more quickly from inquiry to plant operation:
complete and immediately available 3-D data, shorter delivery times, prompt bids and precisely configured gear units accelerate your projects right from the planning phase. In total, you can achieve time savings of around 25% in planning through simplified processes.

With the FLENDER ONE configurator, you will experience a new simplicity in purchasing a gear unit. It speaks your language, making it easy to satisfy your requirements for your finished product – even without gear unit expertise. Just by entering the application, capacity range and rotation speed, you can preconfigure your own specific FLENDER ONE. You always get an unambiguous result – the right gear unit solution for your requirements. The configurator makes all relevant information, data sheets, technical drawings and even complete 3-D CAD data directly available.



The configurator principle



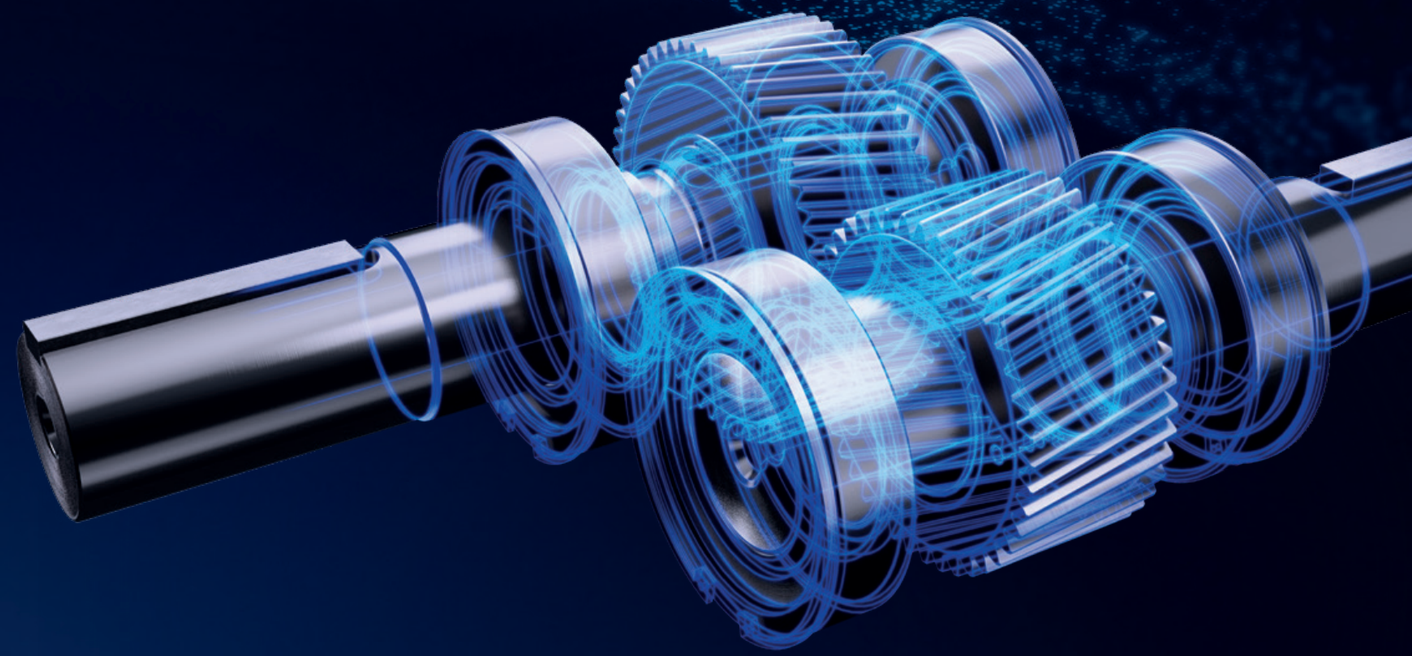


≈25%

savings potential
in the area of engineering

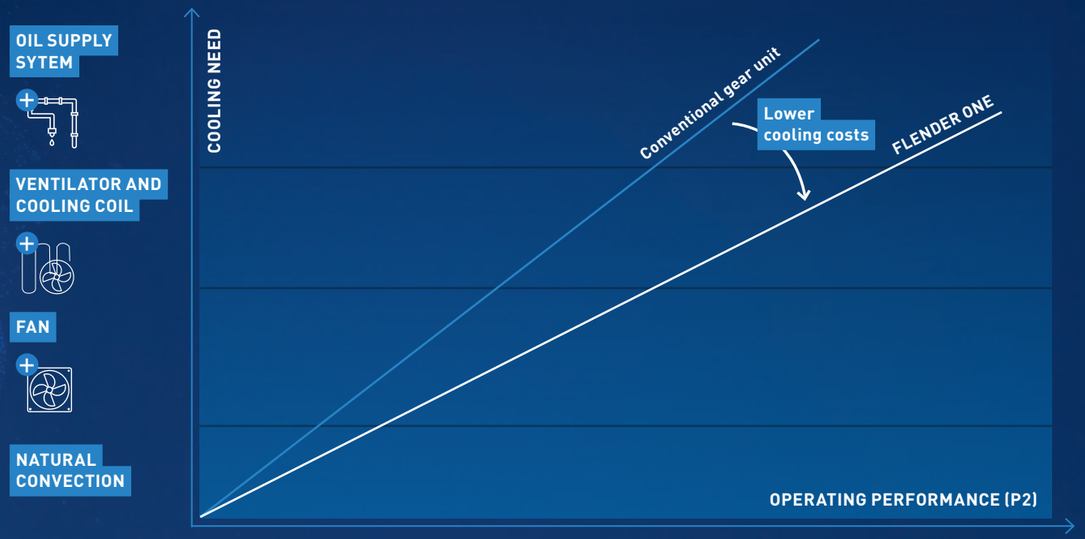
EFFICIENT MEANS SAVING MONEY

Optimized gear unit design and higher thermal capacity for greater profitability



All FLENDER ONE gear units are equipped with the performance-optimized METAPERFORM® gear teeth, which we developed from the ground up. This marks a major step forward in the field of industrial gear units. Thanks to its improved roll-off characteristics and even more uniform path of contact, the power dissipation of the multistage gear unit has been reduced by up to 20% in comparison with earlier models.

Compared to the previous series, the thermal capacity has been significantly increased according to housing size. This reduces costs for additional cooling measures, as the need for external cooling is delayed. In case of increased cooling need, Flender offers a solution that is optimized for efficiency: the new controlled electric fan, which is available as an add-on in the configuration.



-20%

power dissipation

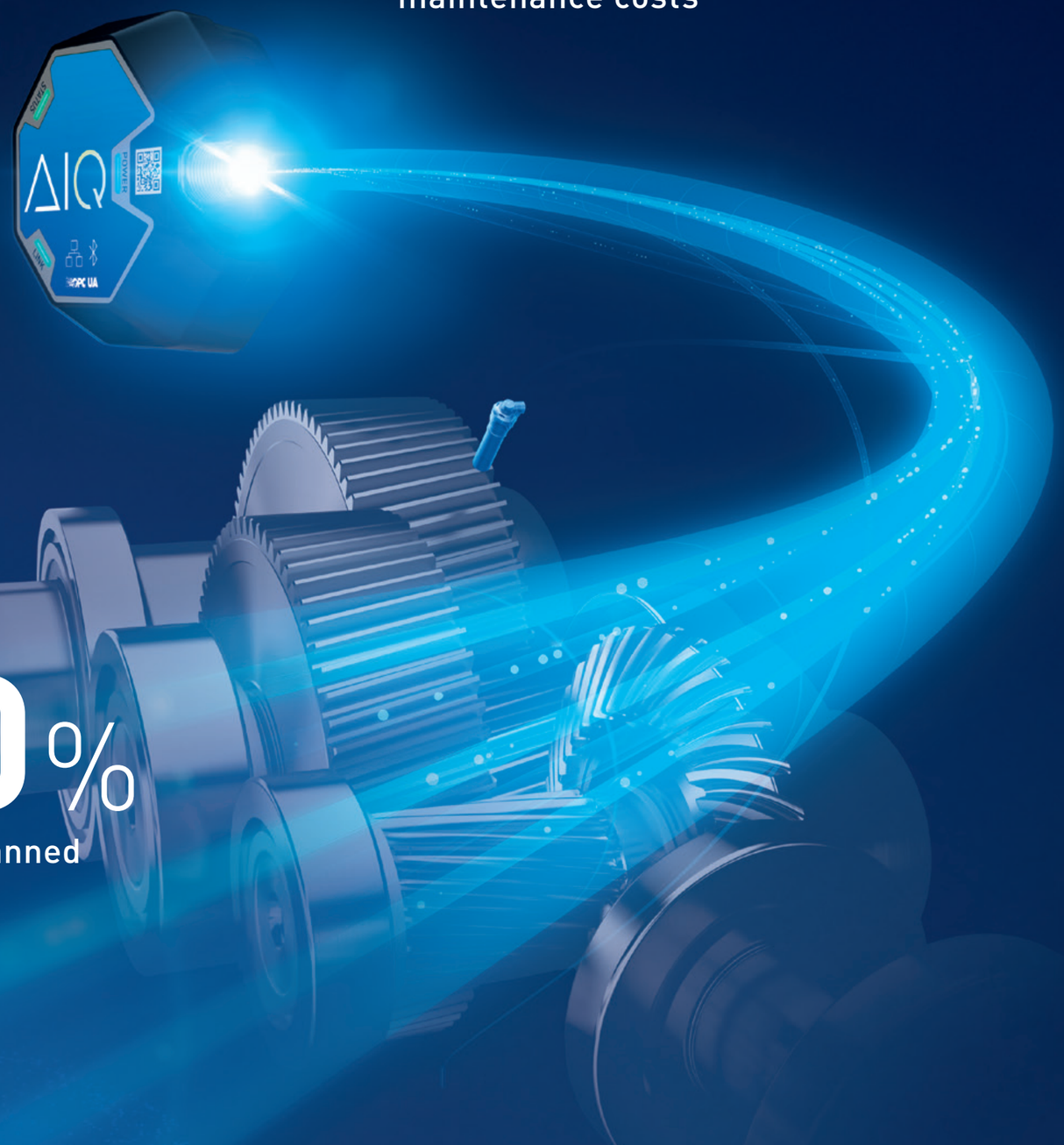
	CONVENTIONAL DRIVE	FLENDER ONE
Plant data "P2" power: 500 kW Operating time: 24 hours/7 days		
ENERGY CONSUMPTION		
Per day	420 kWh	336 kWh
Per week	2940 kWh	2352 kWh
Per month	152880 kWh	122304 kWh
ENERGY COSTS		
Electricity price (example)	0.10€/kWh	
Energy costs per year	15288€	12230€
SAVINGS		**3058€** savings per year

For example, gear unit costs of approx. €10 000 are amortized in less than 3 years.

Up to

40%

lower
maintenance costs



Up to

70%

less unplanned
downtime

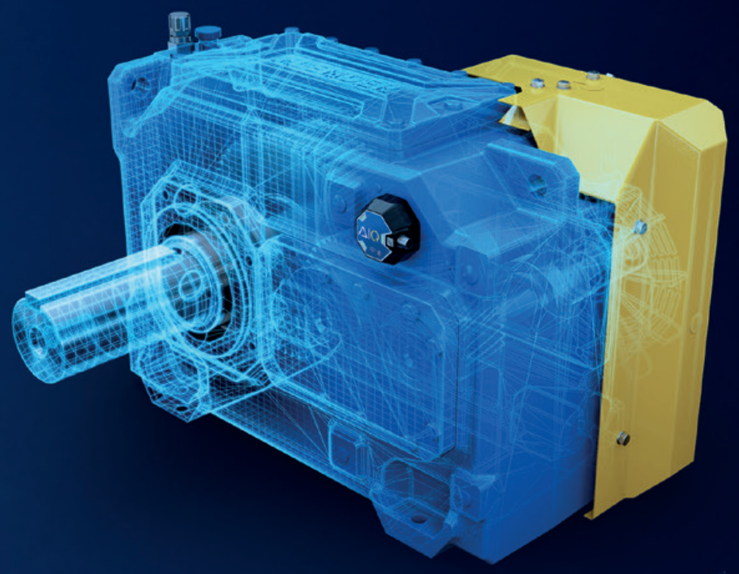
SMART

Increased plant availability and process optimization with AIQ

FLENDER ONE offers you gear unit intelligence straight from the factory. Every new gear unit is delivered with an integrated AIQ Core sensor. With the digital monitoring and intelligent onboard analytical functions, you always have your gear unit and your processes in view. You benefit from reliability, predictability and ease at the highest level.

The system enables you to avoid damage and reduce unplanned downtime by up to 70%. Data- and need-based maintenance intervals allow you to decrease your service costs by up to 40% and service-related downtime by up to 50%.

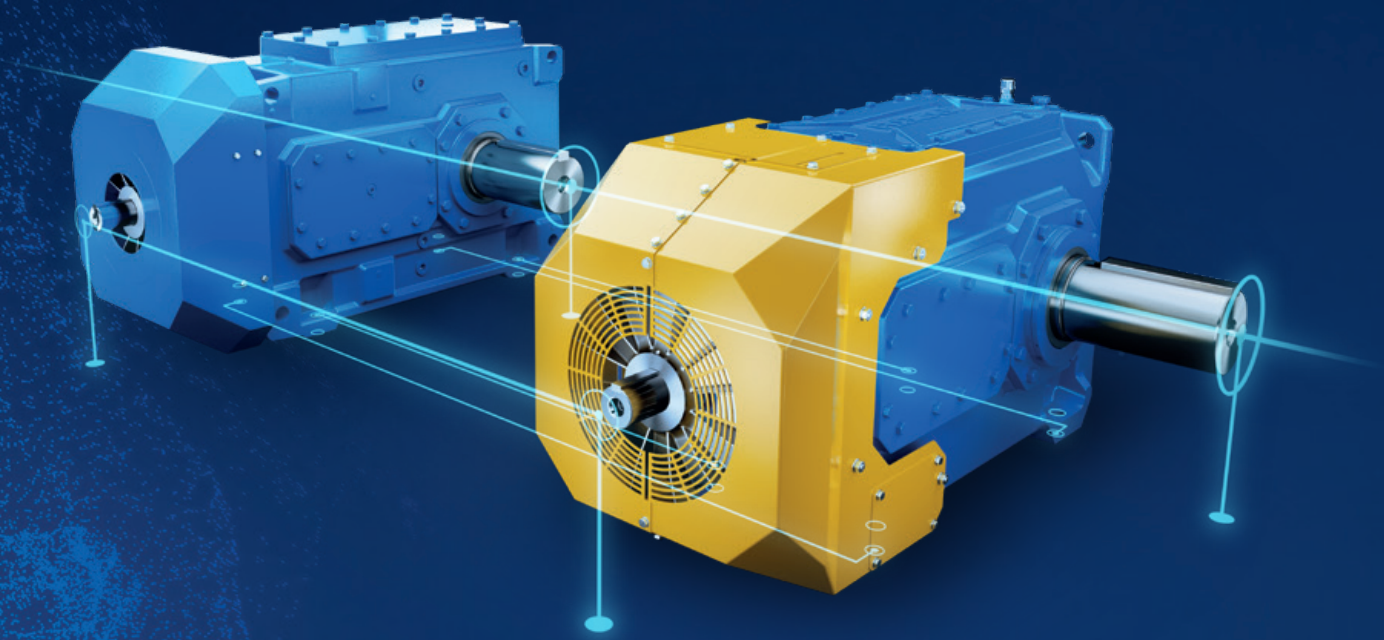
Beyond this, with the optional torque measurement function, you can check and optimize your plant's process and operating point. The AIQ Core torque can be easily selected via the configurator.



RETROFITTING

Benefit from technological evolution with FLENDER ONE

Compared with the predecessor generation, FLENDER ONE offers many advantages with the same footprint. Thus, you can upgrade your current Flender gear unit to FLENDER ONE without difficulty. With the new generation of gear units, you profit from longer operating life for bearings, higher thermal capacity, later oil change and lower weight, and a transmission ratio that is precisely aligned with your rotation speed demand. In a one-to-one replacement, FLENDER ONE offers higher performance at lower operating costs.



TECHNICAL INFORMATION

FLENDER ONE®, TWO-STAGE HELICAL GEAR UNIT

Nominal torque (Mtn; kNm) **of the main transmissions**

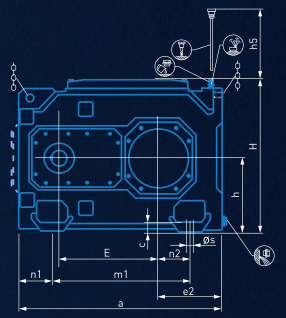
Transmission ratio (i)		6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0	18.0	20.0	22.4	25.0	28.0
Size	0042	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	-	-
	0063	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	-	-
	0070	-	-	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
	0096	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	-	-
	0104	-	-	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
	0136	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	-	-
	0151	-	-	46.9	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
	0179	62.8	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	-	-
	0200	-	-	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
	0234	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	-	-
	0257	-	112.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	-
	0294	-	-	129.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
	0312	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	-	-

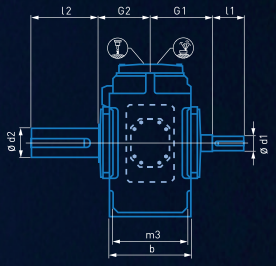
Exact transmission ratio of the main transmissions

Transmission ratio (i)		6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0	18.0	20.0	22.4	25.0	28.0
Size	0042	6.34	7.16	8.17	9.22	9.91	11.18	12.97	14.63	16.44	18.55	20.03	22.17	-	-
	0063	6.50	7.16	8.09	8.92	9.92	10.94	12.53	13.81	16.11	17.75	19.94	21.80	-	-
	0070	-	-	8.12	8.97	10.11	11.18	12.40	13.71	15.66	17.31	20.13	22.25	25,00	27.33
	0096	6.35	7.21	7.86	8.92	9.94	11.28	12.83	14.55	15.79	17.92	20.05	22.40	-	-
	0104	-	-	7.96	8.98	9.85	11.12	12.46	14.06	16.07	18.14	19.79	22.34	25,00	27.92
	0136	6.54	7.11	7.93	8.62	10.23	11.13	12.85	13.98	16.16	17.57	19.74	21.48	-	-
	0151	-	-	8.11	9.21	9.83	11.16	12.68	14.41	15.93	18.09	20.03	22.75	25.56	27.81
	0179	6.16	6.92	7.92	8.89	9.74	10.93	12.42	13.95	15.93	17.88	19.31	21.58	-	-
	0200	-	-	7.97	8.76	10.24	11.25	12.60	13.84	16.07	17.66	20.61	22.64	24.45	27.33
	0234	6.37	6.97	7.84	8.58	9.88	10.82	12.83	14.04	15.82	17.31	20.30	22.22	-	-
	0257	-	7.07	7.89	8.69	9.71	10.96	12.24	14.23	15.88	17.54	19.59	22.52	25.14	-
	0294	-	-	7.95	9.01	9.78	11.09	12.34	13.97	16.01	18.13	19.74	22.36	25.34	28.71
	0312	6.49	7.11	8.10	8.86	10.00	10.95	12.47	13.66	16.07	17.59	19.81	21.69	-	-

TECHNICAL INFORMATION

FLENDER ONE®, TWO-STAGE HELICAL GEAR UNIT





Dimension (in mm) [1] ≤ 25 mm tolerance k6 | > 25 ... 100 mm tolerance m6 | > 100 mm tolerance n6. [2] Tolerance –0.5 mm. Shaft ends with parallel keys and parallel keyways acc. to DIN 6885/1 | Shaft ends with centering holes (form DS) acc. to DIN 332/1 (exception: ø > 130 mm)

		FAST-RUNNING SHAFT			SLOW-RUNNING SHAFT			MAIN DIMENSIONS						SPACE REQUIREMENT							TRANSPORT	
		Without fan								Base area	Shaft center	Shaft center	Dip stick (max.)								3x shackles acc. to DIN 82101 *	Weight **
Size	Transmission range	Diam. d1 [1]	Length l1	G1	Diam. d2 [1]	Length l2	G2	Height H	Length a	Width b	Distance E	Height h [2]	Height h5	e2	m1	m3	n1	n2	ØS	c	"A" / "B" / "C"	kg
0042	6.3-11.2	45	100	170	80	170	140	414	560	215	270	200	323	190	355	180	100	85	19	28	1	175
	12.5-22.4	32	80																			
0063	6.3-11.2	50	100	195	100	210	165	480	640	255	315	230	369	205	430	220	105	100	19	28	2.5	285
	12.5-22.4	38	80																			
0070	8-14	50	100	195	110	210	165	480	720	255	350	230	369	250	510	220	105	145	19	28	2.5	330
	16-28	38	80																			
0096	6.3-11.2	60	135	210	120	210	195	575	785	300	385	280	418	250	545	260	120	130	24	35	2.5	465
	12.5-22.4	50	110																			
0104	8-14	60	135	210	130	250	195	575	890	300	430	280	423	310	650	260	120	190	24	35	2.5	550
	16-28	50	110																			
0136	6.3-11.2	75	140	240	140	250	235	660	925	370	450	320	472	300	635	320	145	155	28	40	4	780
	12.5-22.4	60	140																			
0151	8-14	75	140	240	160	300	235	660	1.025	370	500	320	485	350	735	320	145	205	28	40	4	920
	16-28	60	140																			
0179	6.3-11.2	90	165	275	170	300	270	787	1.105	430	545	380	554	345	775	370	165	180	35	50	6	1.275
	12.5-22.4	70	140																			
0200	8-14	90	165	275	180	300	270	787	1.245	430	615	380	530	415	930	370	165	265	35	50	6	1.505
	16-28	70	140																			
0234	6.3-11.2	100	205	330	200	350	335	910	1.295	545	635	440	616	405	1.090	475	105	305	35	60	8	2.175
	12.5-22.4	85	170																			
0257	7.1-12.5	100	205	330	210	350	335	910	1.435	545	705	440	627	475	1.230	475	105	375	35	60	8	2.545
	14-25	85	170																			
0294	8-14	100	205	330	220	380	345	980	1.550	545	740	475	663	555	1.310	460	120	435	42	70	10	2.895
	16-28	85	170																			
0312	6.3-11.2	120	210	365	230	410	380	1.012	1.557	620	762	500	685	485	1.310	535	130	365	42	70	12	3.285
	12.5-22.4	100	210																			

* Or similar. ** Without oil filling and add-on parts.

TECHNICAL INFORMATION

FLENDER ONE®, THREE-STAGE HELICAL GEAR UNIT

Nominal torque (Mtn; kNm) **of the main transmission**

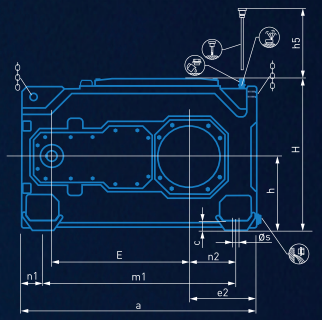
Transmission ratio (i)		22.4	25.0	28.0	31.5	35.5	40.0	45.0	50.0	56.0	63.0	71.0	80.0	90.0	100.0	112.0
Size	0063	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	-	-
	0070	-	-	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
	0096	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	-	-
	0104	-	-	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
	0136	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	-	-
	0151	-	-	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
	0179	63.5	61.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	-	-
	0200	-	-	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
	0234	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	-	-
	0257	-	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0
	0294	-	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
	0312	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	-	-

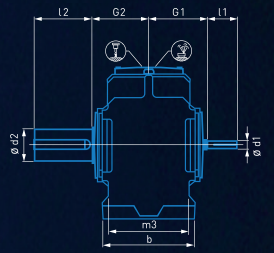
Exact transmission ratio of the main transmissions

Transmission ratio (i)		22.4	25.0	28.0	31.5	35.5	40.0	45.0	50.0	56.0	63.0	71.0	80.0	90.0	100.0	112.0
Size	0063	22.07	25.47	28.07	32.08	35.36	39.69	43.75	49.48	54.53	61.54	71.43	77.75	85.69	-	-
	0070	-	-	27.67	31.84	35.19	40.10	44.32	49.62	54.84	61.85	68.36	77.15	89.29	97.19	107.42
	0096	23.45	25.44	28.87	32.92	37.35	39.92	45.30	52.23	59.27	64.79	71.52	79.17	89.84	-	-
	0104	-	-	29.23	31.89	36.00	41.26	46.57	50.04	56.48	65.46	73.90	80.78	89.64	99.23	112.01
	0136	21.56	25.52	27.75	32.02	34.82	39.27	42.71	49.57	53.91	60.84	67.82	78.28	85.12	-	-
	0151	-	-	27.92	31.62	35.92	39.69	45.09	48.67	55.29	61.44	69.80	78.77	87.81	97.00	110.20
	0179	21.70	23.62	26.52	31.01	34.81	39.22	44.04	50.62	56.83	64.09	66.61	77.90	87.45	-	-
	0200	-	-	27.48	30.56	33.58	40.12	44.08	50.75	55.76	65.49	71.96	81.15	84.35	100.78	110.74
	0234	21.47	24.83	27.18	30.80	33.71	39.75	43.50	49.91	54.63	60.21	67.69	76.70	83.95	-	-
	0257	-	24.29	27.54	30.75	34.16	38.14	44.09	49.22	55.36	61.81	68.12	76.59	85.08	94.99	106.41
	0294	-	24.48	27.73	31.00	35.11	38.44	43.55	49.62	56.20	62.31	70.57	77.78	87.44	95.75	108.46
	0312	21.31	25.26	27.66	31.87	34.89	39.21	42.92	50.01	54.75	62.13	67.15	77.39	84.72	-	-

TECHNICAL INFORMATION

FLENDER ONE®, THREE-STAGE HELICAL GEAR UNIT





Dimension (in mm) [1] ≤ 25 mm tolerance k6 | > 25 ... 100 mm tolerance m6 | > 100 mm tolerance n6. (2) Tolerance –0.5 mm. Shaft ends with parallel keys and parallel keyways acc. to DIN 6885/1 | Shaft ends with centering holes (form DS) acc. to DIN 332/1 (exception: ø > 130 mm)

		FAST-RUNNING SHAFT			SLOW-RUNNING SHAFT			MAIN DIMENSIONS						SPACE REQUIREMENT							TRANSPORT	
		Without fan								Base area	Shaft center	Shaft center	Dip stick (max)								3x shackles acc. to DIN 82101*	Weight**
Size	Transmission range	Diam. d1 [1]	Length l1	G1	Diam. d2 [1]	Length l2	G2	Height H	Length a	Width b	Distance E	Height h [2]	Height h5	e2	m1	m3	n1	n2	ØS	c	"A" / "B" / "C"	kg
0063	22.4-45	40	110	180	100	210	165	480	690	255	405	230	369	205	480	220	105	100	19	28	2.5	310
	50-63	30	90																			
	71-90	24	78	182																		
0070	28-56	40	110	180	110	210	165	480	770	255	440	230	369	250	560	220	105	145	19	28	2.5	355
	63-80	30	90																			
	90-112	24	78	182																		
0096	22.4-45	45	120	210	120	210	195	575	845	300	495	280	419	250	605	260	120	130	24	35	2.5	510
	50-63	35	100																			
	71-90	28	90																			
0104	28-56	45	120	210	130	250	195	575	950	300	540	280	424	310	710	260	120	190	24	35	2.5	590
	63-80	35	100																			
	90-112	28	90																			
0136	22.4-45	60	145	260	140	250	235	660	1000	370	580	320	472	300	710	320	145	155	28	40	4	850
	50-63	45	120																			
	71-90	32	100																			
0151	28-56	60	145	260	160	300	235	660	1.100	370	630	320	485	350	810	320	145	205	28	40	4	990
	63-80	45	120																			
	90-112	32	100																			
0179	22.4-45	70	170	280	170	300	270	787	1.200	430	705	380	554	345	870	370	165	180	35	50	6	1.395
	50-63	50	130																			
	71-90	42	120																			
0200	28-56	70	170	280	180	300	270	787	1.340	430	775	380	522	415	1.025	370	165	265	35	50	6	1.615
	63-80	50	130																			
	90-112	42	120																			
0234	22.4-45	85	180	335	200	350	335	910	1.398	545	820	440	578	405	1.195	475	103	305	35	60	8	2.305
	50-63	60	155																			
	71-90	50	130																			
0257	25-50	85	180	335	210	350	335	910	1.538	545	890	440	578	475	1.335	475	103	375	35	60	8	2.660
	56-71	60	155																			
	80-112	50	130																			
0294	25-56	85	180	335	220	380	345	980	1.653	545	925	475	620	555	1.415	460	118	435	42	70	10	3.030
	63-80	60	155																			
	90-112	50	130																			
0312	22.4-45	100	220	365	230	410	380	1.012	1.685	620	987	500	637	485	1.440	535	125	365	42	70	12	3.510
	50-63	75	160																			
	71-90	60	160																			

* Or similar. ** ** Without oil filling and add-on parts.

TECHNICAL INFORMATION

FLENDER ONE®, THREE-STAGE BEVEL-HELICAL GEAR UNIT

Nominal torque (Mtn; kNm) **of the main transmissions**

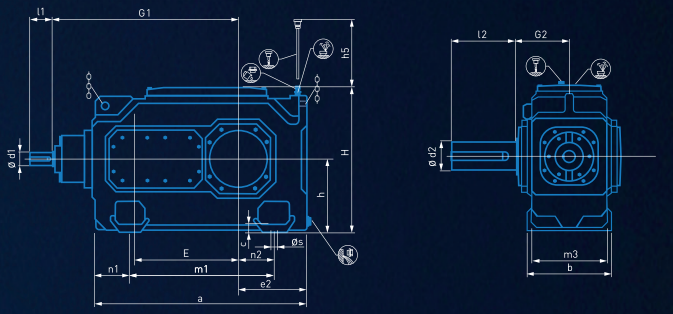
Transmission ratio (i)		12.5	14.0	16.0	18.0	20.0	22.4	25.0	28.0	31.5	35.5	40.0	45.0	50.0	56.0	63.0	71.0	80.0	90.0
Size	0042	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.5	6.7	-	-
	0063	9.4	10.3	10.8	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.0	11.6	-	-
	0070	-	-	11.6	12.9	13.5	15.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	13.9	15.2
	0096	16.6	18.9	20.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	-	-
	0104	-	-	20.7	23.6	25.9	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
	0136	28.1	30.7	33.6	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	34.2	36.0	-	-
	0151	-	-	34.7	39.7	41.6	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	42.5	47.5
	0179	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	-	-
	0200	-	-	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
	0234	89.8	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	-	-
	0257	-	99.0	111.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0
	0294	-	-	111.0	127.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
	0312	151.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	-	-

Exact transmission ratio of the main transmissions

Transmission ratio (i)		12.5	14.0	16.0	18.0	20.0	22.4	25.0	28.0	31.5	35.5	40.0	45.0	50.0	56.0	63.0	71.0	80.0	90.0
Size	0042	12.56	14.16	15.62	17.62	19.97	22.53	25.37	28.61	31.68	35.74	39.25	44.27	50.26	56.68	63.14	71.21	-	-
	0063	12.45	13.72	15.62	17.21	19.67	21.68	25.30	27.88	31.60	34.83	39.15	43.15	50.12	55.24	62.97	69.40	-	-
	0070	-	-	15.56	17.20	19.52	21.58	24.59	27.17	31.62	34.95	39.50	43.66	48.94	54.09	62.65	69.25	78.72	87.00
	0096	12.48	14.16	15.75	17.88	20.38	23.12	25.88	29.37	32.33	36.69	40.06	45.45	51.28	58.19	64.43	73.11	-	-
	0104	-	-	15.64	17.66	19.75	22.29	25.55	28.83	32.44	36.62	40.52	45.74	50.20	56.67	64.27	72.55	80.76	91.15
	0136	12.49	13.58	15.70	17.07	19.71	21.43	25.35	27.56	31.66	34.43	39.22	42.65	50.22	54.61	63.10	68.61	-	-
	0151	-	-	15.48	17.59	19.46	22.11	24.42	27.74	31.41	35.69	39.24	44.58	48.61	55.22	62.23	70.70	78.19	88.83
	0179	11.93	13.39	14.94	16.77	19.61	22.02	25.23	28.32	31.51	35.37	39.04	43.82	49.98	56.11	62.79	70.49	-	-
	0200	-	-	15.43	16.95	19.33	21.24	25.37	27.88	32.63	35.86	40.77	44.79	50.50	55.49	64.66	71.04	81.24	89.26
	0234	12.34	13.50	15.64	17.12	19.40	21.24	24.96	27.32	31.17	34.12	38.62	42.27	49.44	54.12	62.12	67.99	-	-
	0257	-	13.68	15.28	17.35	19.37	21.52	24.03	27.68	30.91	34.58	38.61	42.84	47.83	54.84	61.23	68.91	76.94	86.18
	0294	-	-	15.40	17.44	19.53	22.12	24.22	27.44	31.15	35.29	38.91	44.08	48.21	54.61	61.72	69.91	77.55	87.84
	0312	12.66	13.86	15.80	17.29	19.93	21.82	25.06	27.43	31.30	34.27	38.78	42.45	49.65	54.35	62.38	68.29	-	-

TECHNICAL INFORMATION

FLENDER ONE®, THREE-STAGE BEVEL-HELICAL GEAR UNIT



Dimension (in mm) [1] ≤ 25 mm tolerance k6 | > 25 ... 100 mm tolerance m6 | > 100 mm tolerance n6. (2) Tolerance –0.5 mm. Shaft ends with parallel keys and parallel keyways acc. to DIN 6885/1 | Shaft ends with centering holes (form DS) acc. to DIN 332/1 (exception: ø > 130 mm)

		FAST-RUNNING SHAFT			SLOW-RUNNING SHAFT			MAIN DIMENSIONS						SPACE REQUIREMENT							TRANSPORT	
		Without fan								Base area	Shaft center	Shaft center	Dip stick (max.)								3x shackles acc. to DIN 82101*	Weight**
Size	Transmission range	Diam. d1 [1]	Length l1	G1	Diam. d2 [1]	Length l2	G2	Height H	Length a	Width b	Distance E	Height h [2]	Height h5	e2	m1	m3	n1	n2	ØS	c	"A" / "B" / "C"	kg
0042	12.5-45	35	70	500	80	170	140	404	560	215	270	200	313	190	355	180	100	85	19	28	1	195
	50-56	35	60																			
	63-71	25	60																			
0063	12.5-45	40	80	575	100	210	165	465	640	255	315	230	354	205	430	220	105	100	19	28	2.5	305
	50-56	40	60																			
	63-71	35	60																			
0070	16-56	40	80	610	110	210	165	480	720	255	350	230	369	250	510	220	105	145	19	28	2.5	355
	63-71	40	60																			
	80-90	35	60																			
0096	12.5-45	50	100	690	120	210	195	552	785	300	385	280	399	250	545	260	120	130	24	35	2.5	500
	50-56	50	80																			
	63-71	40	80																			
0104	16-56	50	100	735	130	250	195	575	890	300	430	280	424	310	650	260	120	190	24	35	2.5	590
	63-71	50	80																			
	80-90	40	80																			
0136	12.5-45	60	110	800	140	250	235	635	925	370	450	320	447	300	635	320	145	155	28	40	4	820
	50-56	60	100																			
	63-71	50	100																			
0151	16-56	60	110	850	160	300	235	660	1025	370	500	320	485	350	735	320	145	205	28	40	4	985
	63-71	60	100																			
	80-90	50	100																			
0179	12.5-45	70	135	960	170	300	270	762	1105	430	545	380	529	345	775	370	165	180	35	50	6	1.360
	50-56	70	110																			
	63-71	60	110																			
0200	16-56	70	135	1.030	180	300	270	787	1.245	430	615	380	526	415	930	370	165	265	35	50	6	1.605
	63-71	70	110																			
	80-90	60	110																			
0234	12.5-45	80	165	1.125	200	350	335	910	1.295	545	635	440	585	405	1.090	475	105	305	35	60	8	2.325
	50-71	70	140																			
0257	14-50	80	165	1.195	210	350	335	910	1.435	545	705	440	585	475	1.230	475	105	375	35	60	8	2.675
	56-90	70	140																			
0294	16-56	80	165	1.230	220	380	345	980	1.550	545	740	475	626	555	1.310	460	120	435	42	70	10	3.055
	63-90	70	140																			
0312	12.5-45	95	165	1.367	230	410	380	1.012	1.557	620	762	500	637	485	1.310	535	130	365	42	70	12	3.590
	50-56	95	140																			
	63-71	80	140																			

* Or similar. ** Without oil filling and add-on parts.

TECHNICAL INFORMATION

FLENDER ONE®, FOUR-STAGE HELICAL GEAR UNIT

Nominal torque (Mtn; kNm) of the main transmissions

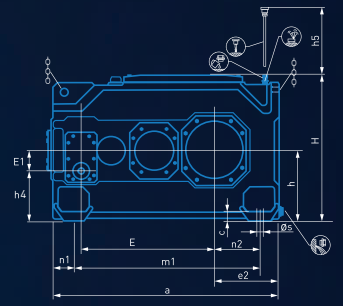
Transmission ratio (i)		100	112	125	140	160	180	200	224	250	280	315	355	400	450
Size	0063	11.6	11.6	11.6	11.6	-	-	-	-	-	-	-	-	-	-
	0070	-	-	15.5	15.5	15.5	15.5	-	-	-	-	-	-	-	-
	0096	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	-	-
	0104	-	-	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
	0136	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	-	-
	0151	-	-	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
	0179	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	0.0	0.0
	0200	-	-	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
	0234	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	-	-
	0257	-	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0
	0294	-	-	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
	0312	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	-	-

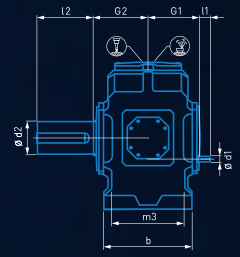
Exact transmission ratio of the main transmissions

Transmission ratio (i)		100	112	125	140	160	180	200	224	250	280	315	355	400	450
Size	0063	99.1	109.2	126.2	139.0	-	-	-	-	-	-	-	-	-	-
	0070	-	-	123.8	136.9	157.7	174.3	-	-	-	-	-	-	-	-
	0096	101.3	114.9	129.0	146.4	158.6	180.0	201.3	228.5	252.4	286.4	315.5	358.0	-	-
	0104	-	-	127.0	143.3	161.7	182.5	198.8	224.4	252.3	284.8	316.4	357.1	395.5	446.4
	0136	102.6	111.5	127.0	138.1	157.1	170.8	195.8	212.9	251.8	273.8	307.7	334.6	-	-
	0151	-	-	127.1	144.4	157.3	178.7	194.7	221.2	242.7	275.7	312.0	354.5	381.3	433.2
	0179	100.9	113.2	129.9	145.9	157.6	176.9	206.2	231.4	261.4	293.5	312.5	350.8	-	-
	0200	-	-	130.5	143.4	168.1	184.7	203.9	224.0	266.7	293.1	338.2	371.6	404.3	444.2
	0234	99.8	109.3	124.4	136.1	152.5	166.9	192.5	210.7	247.5	270.9	304.0	332.7	-	-
	0257	-	110.7	123.6	137.9	154.0	169.2	188.9	213.6	238.4	274.6	306.6	337.2	376.5	421.7
	0294	-	-	124.6	141.2	155.2	175.9	190.4	215.7	240.3	272.2	309.0	350.0	379.5	429.8
	0312	100.9	110.4	124.9	136.7	157.9	172.9	203.8	223.1	250.9	274.7	313.6	343.3	-	-

TECHNICAL INFORMATION

FLENDER ONE®, FOUR-STAGE HELICAL GEAR UNIT





Dimension (in mm) [1] ≤25 mm tolerance k6 | > 25 ... 100 mm tolerance m6 | > 100 mm tolerance n6. (2) Tolerance –0.5 mm. Shaft ends with parallel keys and parallel keyways acc. to DIN 6885/1 | Shaft ends with centering holes (form DS) acc. to DIN 332/1 (exception: ø > 130 mm)

		FAST-RUNNING SHAFT			SLOW-RUNNING SHAFT			MAIN DIMENSIONS								SPACE REQUIREMENT							TRANSPORT	
		Without fan								Base area	Shaft center	Shaft center	Shaft center	Shaft center	Dip stick (max.)								3x shackles acc. to DIN 82101*	Weight**
Size	Transmission range	Diam. d1 [1]	Length l1	G1	Diam. d2 [1]	Length l2	G2	Height H	Length a	Width b	Distance E	Distance E1	Height h [2]	Height h4	Height h5	e2	m1	m3	n1	n2	ØS	c	"A" / "B" / "C"	kg
0063	100-140	30	50	160	100	210	165	450	690	255	405	80	230	150	382	205	480	220	105	100	19	28	2.5	310
0070	125-180	30	50	160	110	210	165	450	770	255	440	80	230	150	410	250	560	220	105	145	19	28	2.5	355
0096	100-180	30	50	180	120	210	195	540	845	300	495	80	280	200	437	250	605	260	120	130	24	35	2.5	510
	200-355	24	40																					
0104	125-224	30	50	180	130	250	195	540	950	300	540	80	280	200	432	310	710	260	120	190	24	35	2.5	595
	250-450	24	40																					
0136	100-180	35	60	215	140	250	235	620	1.000	370	580	90	320	230	489	300	710	320	145	155	28	40	4	840
	200-355	28	50																					
0151	125-224	35	60	215	160	300	235	620	1.100	370	630	90	320	230	496	350	810	320	145	205	28	40	4	985
	250-450	28	50																					
0179	100-180	45	100	250	170	300	270	740	1.200	430	705	110	380	270	581	345	870	370	165	180	35	50	6	1.385
	200-355	32	80																					
0200	125-224	45	100	250	180	300	270	740	1.340	430	775	110	380	270	579	415	1.025	370	165	265	35	50	6	1.605
	250-450	32	80																					
0234	100-180	50	100	305	200	350	335	860	1.400	545	820	130	440	310	632	405	1.195	475	105	305	35	60	8	2.265
	200-355	38	80																					
0257	112-200	50	100	305	210	350	335	860	1.540	545	890	130	440	310	635	475	1.335	475	105	375	35	60	8	2.600
	224-450	38	80																					
0294	125-224	50	100	305	220	380	345	930	1.655	545	925	130	475	345	714	555	1.415	460	120	435	42	70	10	2.990
	250-450	38	80																					
0312	100-180	60	135	345	230	410	380	960	1.687	620	987	160	500	340	698	485	1.440	535	137	365	42	70	12	3.495
	200-355	50	110																					

* Or similar. ** Without oil filling and add-on parts.

TECHNICAL INFORMATION

FLENDER ONE®, FOUR-STAGE BEVEL-HELICAL GEAR UNIT

Nominal torque (Mtn; kNm) of the main transmissions

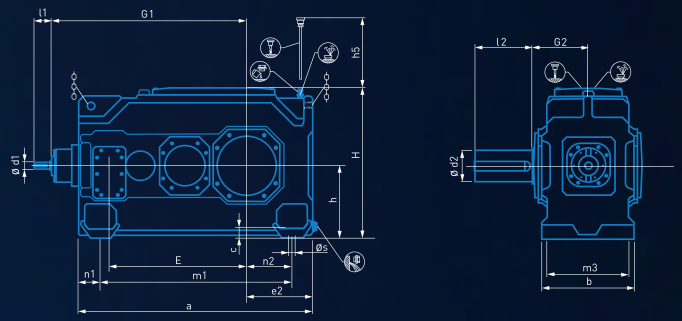
Transmission ratio (i)		80	90	100	112	125	140	160	180	200	224	250	280	315	355	400
Size	0063	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	-	-
	0070	-	-	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
	0096	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	-	-
	0104	-	-	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
	0136	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	-	-
	0151	-	-	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
	0179	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	-	-
	0200	-	-	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
	0234	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	-	-
	0257	-	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0
	0294	-	-	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
	0312	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	-	-

Exact transmission ratio of the main transmissions

Transmission ratio (i)		80	90	100	112	125	140	160	180	200	224	250	280	315	355	400
Size	0063	78.7	86.7	99.9	110.1	124.8	137.6	154.6	170.4	198.0	218.2	248.7	274.1	302.1	-	-
	0070	-	-	98.4	108.7	124.9	138.1	156.0	172.4	193.3	213.6	247.5	273.5	310.9	343.6	378.7
	0096	80.5	91.3	102.2	115.9	127.6	144.8	158.1	179.4	202.4	229.7	254.3	288.6	318.1	-	-
	0104	-	-	100.8	113.8	128.1	144.5	160.0	180.6	198.2	223.7	253.7	286.4	318.8	359.8	396.5
	0136	77.8	84.6	100.1	108.9	125.1	136.0	154.9	168.5	198.4	215.7	249.2	271.0	298.7	-	-
	0151	-	-	96.5	109.6	124.1	141.0	155.0	176.1	192.0	218.1	245.8	279.3	308.8	350.9	386.7
	0179	80.4	90.3	102.2	114.7	127.6	143.3	158.1	177.5	202.4	227.2	254.3	285.5	314.6	-	-
	0200	-	-	104.1	114.4	132.2	145.2	165.1	181.4	204.5	224.7	261.9	287.7	329.0	361.5	398.4
	0234	76.5	83.8	98.4	107.7	123.0	134.6	152.3	166.7	195.0	213.5	245.0	268.2	295.6	-	-
	0257	-	84.9	94.8	109.2	121.9	136.4	152.3	169.0	188.7	216.3	241.5	271.8	303.5	334.4	374.6
	0294	-	-	95.5	108.2	122.9	139.2	153.5	173.9	190.2	215.4	243.5	275.8	305.9	346.5	381.8
	0312	79.0	86.4	101.6	111.2	126.9	138.9	157.2	172.0	201.2	220.3	252.8	276.7	305.0	-	-

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FLENDER ONE®, FOUR-STAGE BEVEL-HELICAL GEAR UNIT



Dimension (in mm) [1] ≤25 mm tolerance k6 | > 25 ... 100 mm tolerance m6 | > 100 mm tolerance n6. (2) Tolerance –0.5 mm. Shaft ends with parallel keys and parallel keyways acc. to DIN 6885/1 | Shaft ends with centering holes (form DS) acc. to DIN 332/1 (exception: ø > 130 mm)

		FAST-RUNNING SHAFT			SLOW-RUNNING SHAFT			MAIN DIMENSIONS						SPACE REQUIREMENT							TRANSPORT	
		Without fan								Base area	Shaft center	Shaft center	Dip stick (max.)								3x shackles acc. to DIN 82101*	Weight **
Size	Transmission range	Diam. d1 [1]	Length l1	G1	Diam. d2 [1]	Length l2	G2	Height H	Length a	Width b	Distance E	Height h [2]	Height h5	e2	m1	m3	n1	n2	ØS	c	"A" / "B" / "C"	kg
0063	80-224	28	55	615	100	210	165	450	690	255	405	230	381	205	480	220	105	100	19	28	2.5	320
	250-315	20	50																			
0070	100-280	28	55	615	110	210	165	450	770	255	440	230	380	250	560	220	105	145	19	28	2.5	365
	315-400	20	50																			
0096	80-180	35	70	725	120	210	195	540	845	300	495	280	434	250	605	260	120	130	24	35	2.5	515
	200-224	35	60																			
	250-315	25	60																			
00104	100-224	35	70	725	130	250	195	540	950	300	540	280	432	310	710	260	120	190	24	35	2.5	600
	250-280	35	60																			
	315-400	25	60																			
0136	80-180	40	80	840	140	250	235	620	1.000	370	580	320	488	300	710	320	145	155	28	40	4	845
	200-224	40	60																			
	250-315	35	60																			
0151	100-224	40	80	840	160	300	235	620	1.100	370	630	320	493	350	810	320	145	205	28	40	4	995
	250-280	40	60																			
	315-400	35	60																			
0179	80-180	50	100	1.010	170	300	270	740	1.200	430	705	380	579	345	870	370	165	180	35	50	6	1.395
	200-224	50	80																			
	250-315	40	80																			
0200	100-224	50	100	1.010	180	300	270	740	1.340	430	775	380	580	415	1.025	370	165	265	35	50	6	1.490
	250-280	50	80																			
	315-400	40	80																			
0234	80-180	60	110	1.170	200	350	335	860	1.400	545	820	440	631	405	1.195	475	105	305	35	60	8	2.070
	200-224	60	100																			
	250-315	50	100																			
0257	90-200	60	110	1.170	210	350	335	860	1.540	545	890	440	635	475	1.335	475	105	375	35	60	8	2.360
	224-250	60	100																			
	280-400	50	100																			
0294	100-224	60	110	1.170	220	380	345	930	1.655	545	925	475	673	555	1.415	460	120	435	42	70	10	2.745
	250-280	60	100																			
	315-400	50	100																			
0312	80-180	70	135	1.402	230	410	380	960	1.687	620	987	500	697	485	1.440	535	127	365	42	70	12	3.485
	200-224	70	110																			
	250-315	60	110																			

* Or similar. ** Without oil filling and add-on parts.

FLENDER

CONTACT

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