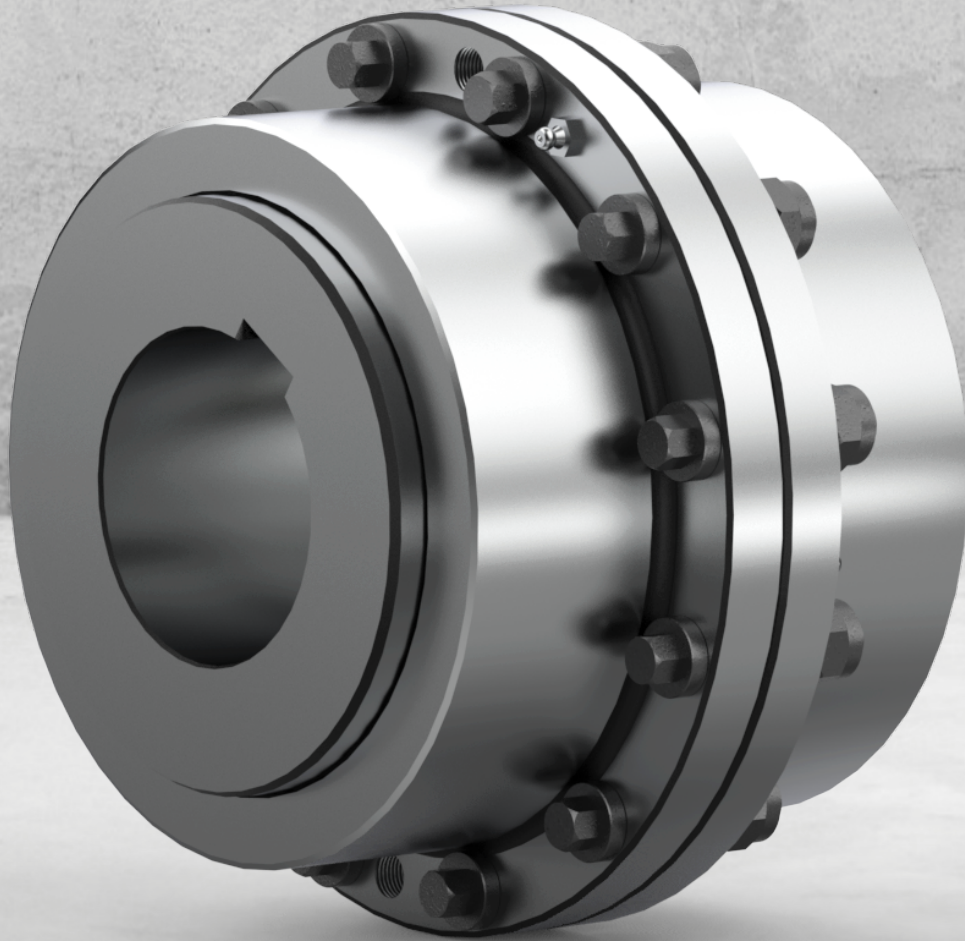


YDK SERIES

Gear Coupling



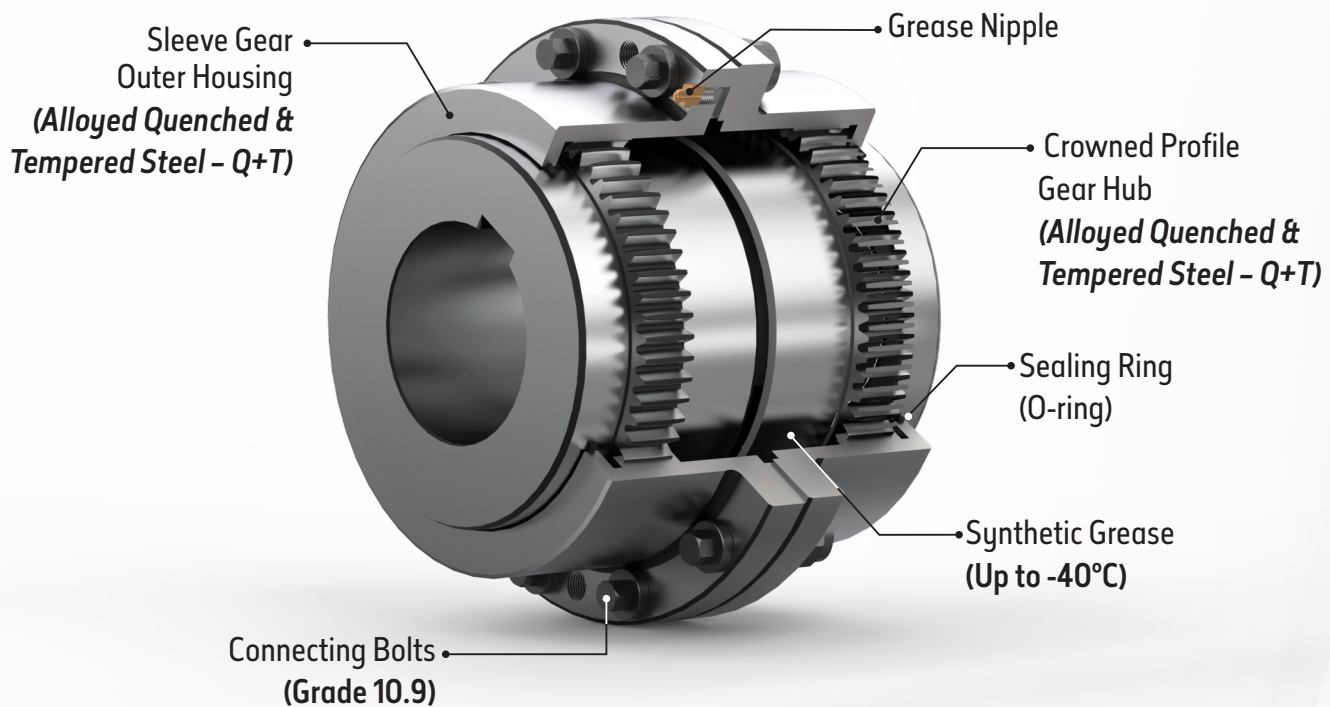
HIGH TORQUE, MAXIMUM RELIABILITY

12 Different Sizes
YDK125 - ... - YDK516
3.000 - ... - 315.000 Nm

Powerful, Reliable and Long-Lasting Torque Transmission

The YDK Series Gear Couplings, developed for maximum performance in heavy-duty applications, provide a reliable solution for power transmission systems with their high torque capacity, compact design, and superior durability characteristics.

- Wide torque range from 3,000 Nm to 315,000 Nm
- 12 different housing sizes
- Specially designed for heavy-duty applications
- High power density with a compact design
- Long service life and low maintenance requirements



Technical Advantages

High-Strength Material and Heat Treatment

- Hub and sleeve components are manufactured from **high-strength alloy quenched and tempered steel**.
- High surface hardness and superior wear resistance are achieved through **nitriding heat treatment**.
- Provides long service life with high resistance to shock loads.

Superior Lubrication for Harsh Environments

- High-performance synthetic grease
- Maximum film strength under high torque conditions
- Reliable operation down to -40°C

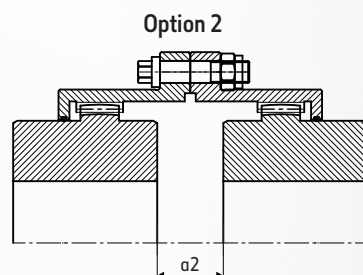
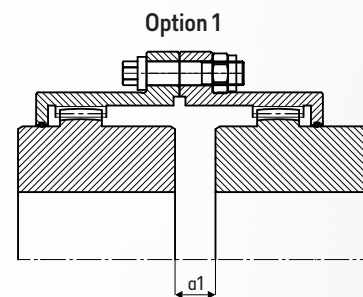
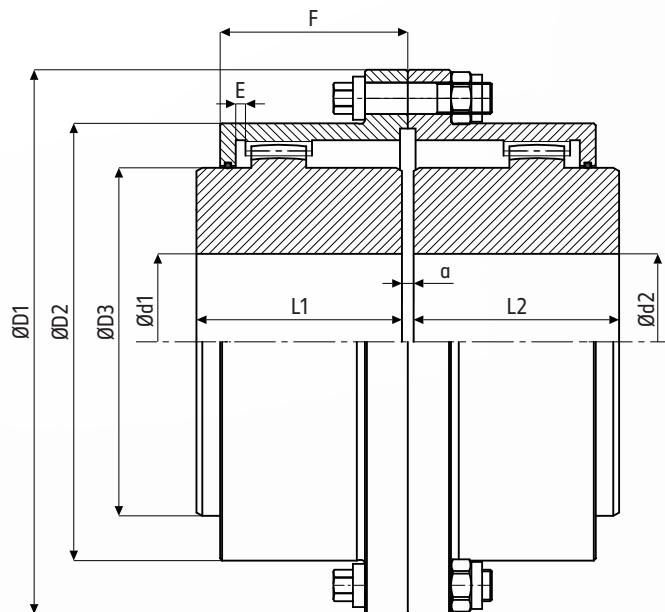
Advantages of Crowned Tooth Profile

- Compensates for angular misalignments by maintaining optimal tooth contact.
- Minimizes stress concentrations, resulting in longer tooth service life.
- Ensures safe and stable operation with high-performance power transmission.

Compact Design and High Power Density

- Provides higher torque transmission compared to elastic couplings.
- Offers a compact solution with reduced installation space.
- Enables space savings in machine design and a more rigid system structure.

PERFORMANCE AND DIMENSIONAL DATA



					DIMENSIONS (mm)												
Coupling Code	Nominal Torque T _N (Nm)	Max. Torque T _{max} (Nm)	Max. Speed n _{max} (d/dk)	Ød1 - Ød2 min.-max.	ØD1	ØD2	ØD3	L1-L2	a	a1	a2	E	F	Minimum Weight (kg) [1]	Maximum Weight (kg) [2]	Mass Moment of Inertia J (kgm²) [2]	Grease Quantity (kg) [3]
YDK125	3.090	6.180	7640	12-52	125	95	69	43	3	5	7	3	42	3,6	5,1	0,0064	0,05
YDK152	4.760	9.520	6290	18-62	152	114,5	85	50	3	8	13	3	48	6,5	8,7	0,0156	0,09
YDK180	8.950	17.900	5310	28-78	180	141,5	108	62	3	8	13	5	56	11	15	0,0389	0,12
YDK212	14.730	29.460	4510	40-98	212	171	133	76	5	12	19	5	68,5	19	27	0,1048	0,26
YDK235	22.490	44.980	4070	50-112	235	193	152	90	5	24	43	5	85	27	38	0,2020	0,39
YDK278	35.560	71.120	3440	60-132	278	223,5	178	105	6	27	48	5	96	42	61	0,4350	0,60
YDK318	55.320	110.640	3010	70-156	318	263,5	210	120	6	32	58	6	111	64	94	0,8872	0,86
YDK348	67.880	135.760	2750	85-174	348	293,5	235	135	8	37	66	6	121	85	125	1,4873	1,2
YDK382	100.670	201.340	2500	95-190	382	321	254	150	8	50	92	6	140	116	167	2,4459	1,8
YDK418	135.280	270.560	2290	110-210	418	349	280	175	8	53	98	6	158	156	227	3,9564	2,3
YDK446	218.250	436.500	2150	120-233	446	380	305	190	8	58	108	6	170	190	286	5,7571	3,0
YDK516	315.000	630.000	1860	130-280	516	437,5	355	220	10	72	134	6	200	280	450	11,9646	4,3

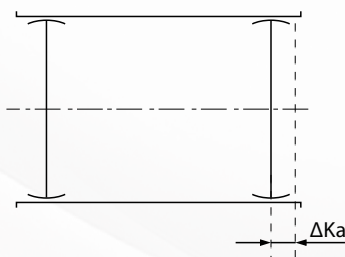
All dimensions given in the table are in millimeters (mm).

[1] The values given represent minimum bore diameters.

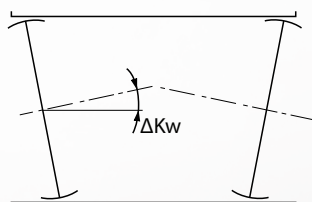
[2] The values given represent maximum bore diameters.

[3] The grease quantity is specified according to the standard design.

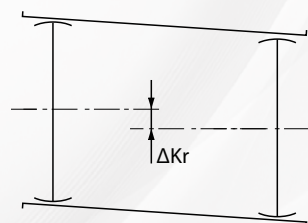
Axial Displacement (ΔKa)



Angular Misalignment (ΔKw)



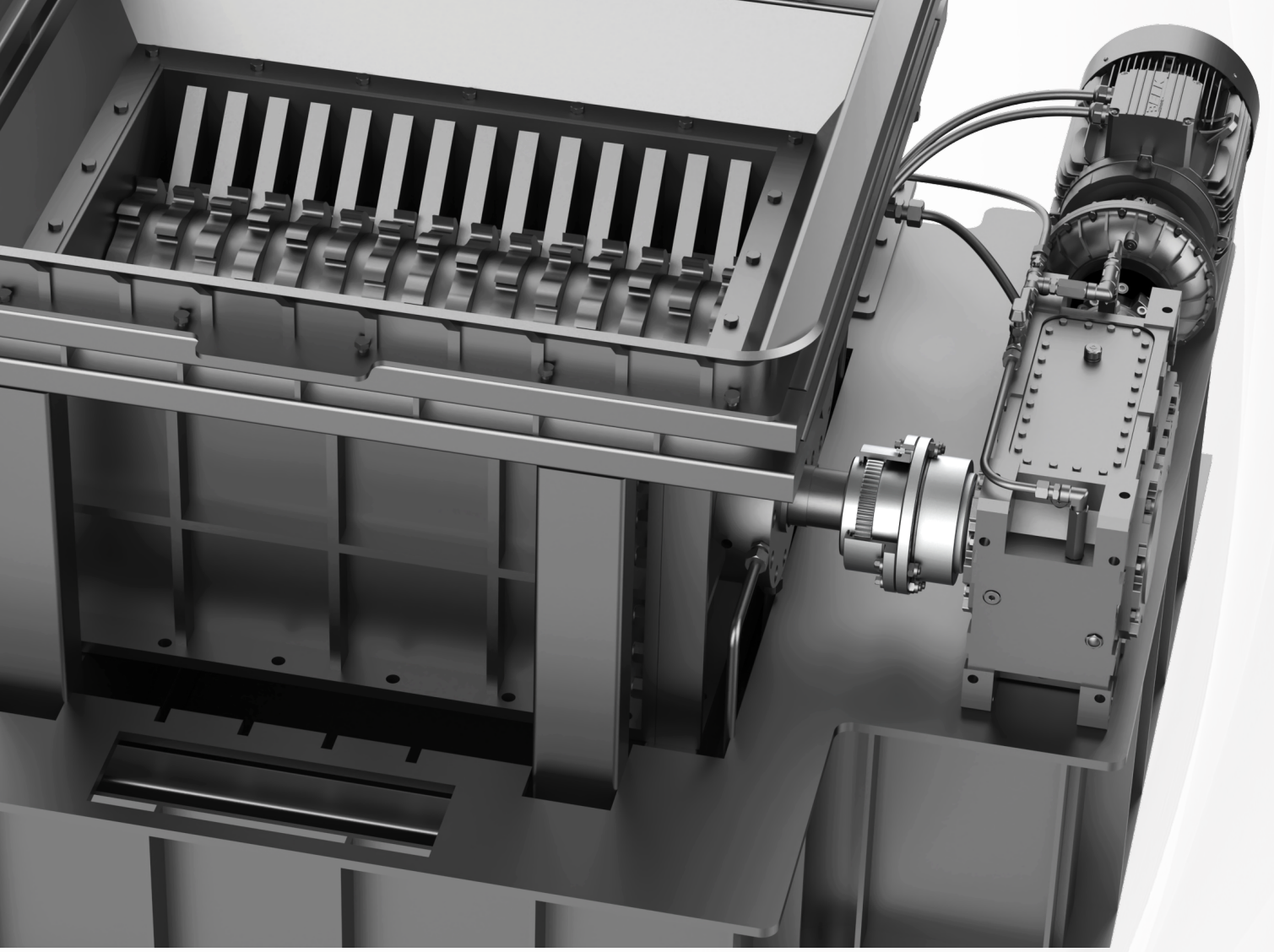
Radial Misalignment (ΔKr)



Maximum Permissible Misalignments:

- Maximum axial displacement: $\Delta Ka_{max} = 1 \text{ mm}$
- Maximum angular misalignment per coupling half: $\Delta Kw_{max} = 0,5^\circ$
- Maximum radial misalignment (ΔKr_{max}) values are given in the table below in millimeters:

YDK	125	152	180	212	235	278	318	348	382	418	446	516
$\Delta Kr_{max} (+/-)$	0,4	0,5	0,6	0,8	1,0	1,2	1,3	1,5	1,7	2,0	2,2	2,5



APPLICATION AREAS AND INDUSTRIES

- **Iron & Steel:** Rolling mills, continuous casting lines, and heavy-duty conveyors
- **Mining & Cement:** Crushers, mill drives, and drum connections
- **Energy & Heavy Industry:** Turbines, generator sets, and large-scale pump systems
- **Crane & Port Operations:** Travel drives and lifting drums

TRUST AND SUPPORT

- **Fast Integration:** Fully compliant dimensions with international standards (existing drop-in replacement)
- **Sustainability:** Low maintenance requirements and long service life, offering a “Total Cost of Ownership” advantage
- **Extensive Service Network:** After-sales technical support and fast spare parts supply



Yılmaz Redüktör Sanayi ve Ticaret A.Ş.

Atatürk Mah. Lozan Cad. No: 17, 34522 Esenyurt - İstanbul / Türkiye

Tel: +90 212 886 90 00

Fax: +90 212 886 54 57

E-Mail: yilmaz@yr.com.tr



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