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**VULKAN**

# RATO R / RATO R+

TECHNISCHE DATEN TECHNICAL DATA





08/2022

Das Handsymbol kennzeichnet Seiten, auf denen es eine Veränderung zur Vorgängerversion gibt.  
The hand symbol appears on pages which differ from the previous catalogue version.

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# RATO R / RATO R+

## EIGENSCHAFTEN CHARACTERISTICS

# DREHMOMENT TORQUE

## 12,5 kNm – 530,0 kNm

### EINSATZGEBIETE

#### Elastisch aufgestellte Anlagen, starr aufgestellte Anlagen.

In Ergänzung zu den Allround-Kupplungen RATO S und RATO S+ wurden die hochelastischen Kupplungen RATO R und RATO R+ speziell für die Anwendung in Antriebsanlagen mit der Forderung nach hoher Drehnachgiebigkeit und guten Verlagerungseigenschaften entwickelt. Bei der Konzeption wurde großer Wert auf thermische Sicherheit und gute dynamische Laufeigenschaften mit möglichst geringen rotierenden Massen gelegt. Die Anwendungen liegen somit vorrangig in schnelllaufenden Haupt- und Nebenantrieben – sei es diesel- oder elektromotorisch. In den Drehmomentbereichen, die ein Handhaben und den Einbau von geschlossenen Elementen gestatten, bieten die Kupplungen RATO R und RATO R+ eine zusätzliche Alternative. Durch die Erweiterung um die ACOTEC Größen sorgen kleinere Größen mit höherer Leistungsdichte für ein gutes Preis-Leistungsverhältnis.

### PRODUKTVORTEILE

- ⊕ Verschiedene Drehsteifigkeiten und Elementausführungen gewährleisten eine sehr gute Drehschwingungsabstimmung und damit höchste Verfügbarkeit der Antriebsanlage
- ⊕ Mit gering rotierenden Massen optimiert für den Trend zu leistungsstarken und hoch drehenden Motoren
- ⊕ Maximale Lösungsflexibilität durch sehr gute Integrierbarkeit in verschiedene Anlagen
- ⊕ Weiche Kreisringmembranen bieten bei axialer Schwingungsentkopplung einen effektiven Schutz der Wellenlager
- ⊕ Ausgezeichnete Geräuschkämpfungseigenschaften durch Vermeidung direkten Metallkontaktes

### AREAS OF APPLICATION

#### Flexibly mounted engines, rigidly mounted engines.

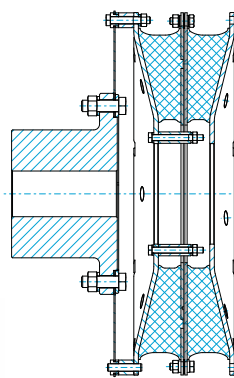
Complementary to the all-round couplings RATO S and RATO S+ the highly flexible couplings RATO R and RATO R+ has been specially designed for use in installations requiring a high level of torsional flexibility and misalignment capacity. Inherent features of the design include the high dynamic load capacity and good rotational dynamic properties due to the low rotating inertias. The area of application is primarily in high-speed main/PTO systems driven by a Diesel engine or electric motor. In the low to middle torque range where the handling and installation of a complete element is practicable the couplings RATO R and RATO R+ are an additional alternative. With the introduction of the ACOTEC range, smaller sizes with higher power density provide good price/performance ratio.

### PRODUCT BENEFITS

- ⊕ Various torsional rigidities and element designs ensure excellent coordination of the torsional vibration and therefore availability of the drive system
- ⊕ With low rotating masses, it is optimised for the trend towards high-performance and high-speed engines
- ⊕ Maximum flexibility in providing a solution considering that it can be easily integrated in different systems
- ⊕ Soft circular diaphragms provide effective protection for the shaft bearing with axial vibration decoupling
- ⊕ Excellent noise damping characteristics by avoiding direct metallic contact

# RATO R / RATO R+

## BAUREIHENÜBERSICHT SUMMARY OF SERIES



### 2200

Baureihe Series

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Zur Verbindung eines Schwungrades  
mit einer Welle.

For connecting a flywheel  
with a shaft.

Baugruppe Dimension Group	G 1920 – G 5H20
Nenn Drehmoment Nominal Torque	12,50 kNm – 530,00 kNm

### 2200

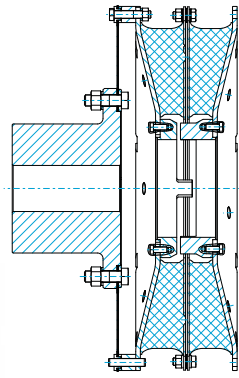
Baureihe Series

Seite 12 Page 12

Zur Verbindung eines Schwungrades  
mit einer Welle.

For connecting a flywheel  
with a shaft.

Baugruppe Dimension Group	G 4EP0 – G 5HP0
Nenn Drehmoment Nominal Torque	190,00 kNm – 530,00 kNm



## 2201

Baureihe Series

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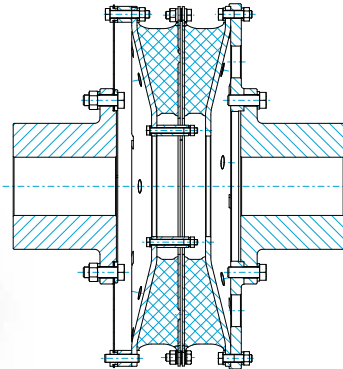
Zur Verbindung eines Schwungrades  
mit einer Welle.

For connecting a flywheel  
with a shaft.

Mit Durchdrehsicherung.

With torsional limit device.

Baugruppe	Dimension Group	G 1920 – G 4720
Nenn Drehmoment	Nominal Torque	12,50 kNm – 270,00 kNm



## 2400

Baureihe Series

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Zur Verbindung zweier Wellen.

For the connection of two shafts.

Baugruppe	Dimension Group	G 1920 – G 4720
Nenn Drehmoment	Nominal Torque	12,50 kNm – 270,00 kNm

# RATO R / RATO R+

## LEISTUNGSDATEN PERFORMANCE DATA

Kupplungstyp Type of Coupling		$T_{KN}$	$T_{Kmax1}$	$T_{Kmax2}$	$\Delta T_{Kmax}$	$T_{KW}$	$P_{KV30}$	$n_{Kmax}^{1)}$	$\Delta K_s$	$\Delta K_r^{(1)}$	$\Delta K_w$	$C_{ax1.0}$	$C_{rdyn}^{2)}$	$C_{tdyn}^{2)}$	$\psi^{2)}$
Größe Size	Baugruppe Dimension Group	Nennrehmoment Nominal Torque	Max. Drehmoment <sub>1</sub> Max. Torque <sub>1</sub>	Max. Drehmoment <sub>2</sub> Max. Torque <sub>2</sub>	Max. Drehmoment-Bereich Max. Torque Range	Wechseldrehmoment Vibratory Torque	Verlustleistung Power Loss	Drehzahl Rotational Speed	Axialer Kupplungsversatz Axial Coupling Displacement	Radialer Kupplungsversatz Radial Coupling Displacement	Winkliger Kupplungsversatz Angular Coupling Displacement	Axiale Federsteife 1,0 mm Axial Stiffness 1,0 mm	Dyn. Radiale Federsteife Dyn. Radial Stiffness	Dyn. Drehfedersteife Dyn. Torsional Stiffness	Verhältnismäßige Dämpfung Relative Damping
		[kNm]	[kNm]	[kNm]	[kNm]	[kNm]	[kW]	[1/min]	[mm]	[mm]	[°]	[kN/mm]	[kN/mm]	[kNm/rad]	[-]
G 192Z	G1920	12,5	16,0	56,5	19,0	3,8	1,020	2.750	4,0	10,8	0,5	0,7	1,3	40	0,90
G 192W	G1920	12,5	18,0	56,5	21,5	3,8	1,020	2.750	4,0	8,6	0,5	0,7	1,6	50	1,13
G 192T	G1920	16,0	21,5	72,0	25,5	4,8	1,020	2.750	4,0	7,4	0,5	0,7	2,2	70	1,13
G 212Z	G2120	16,0	20,0	72,0	24,0	4,8	1,120	2.525	5,0	11,4	0,5	1,9	1,4	51	0,90
G 212W	G2120	16,0	22,0	72,0	26,5	4,8	1,120	2.525	5,0	9,0	0,5	1,9	1,8	64	1,13
G 212T	G2120	20,0	26,5	90,0	32,0	6,0	1,120	2.525	5,0	7,6	0,5	1,9	2,5	88	1,13
G 241Z	G2410	25,0	31,1	112,5	37,4	7,8	0,880	2.125	6,0	5,4	0,5	1,1	5,8	337	0,90
G 241W	G2410	25,0	35,0	112,5	42,0	7,8	0,880	2.125	6,0	4,3	0,5	1,1	7,2	418	1,13
G 241T	G2410	31,5	41,9	142,0	50,3	7,8	0,880	2.125	6,0	3,6	0,5	1,1	10,2	594	1,13
G 241Y	G2410	35,6	45,0	142,0	54,0	7,8	0,880	2.125	6,0	3,0	0,5	1,1	15,0	730	1,13
G 2D1S	G2D10	26,5	39,8	119,3	53,0	6,6	0,600	2.350	5,5	5,9	0,5	1,5	3,6	144	0,75
G 2D1M	G2D10	28,5	42,8	128,3	57,0	7,1	0,600	2.350	5,5	4,5	0,5	1,5	5,0	204	0,90
G 2D1H	G2D10	31,5	47,3	141,8	63,0	7,9	0,600	2.350	5,5	3,6	0,5	1,5	6,4	261	1,13
G 2D2S	G2D20	26,5	39,8	119,3	53,0	6,6	1,200	2.350	5,5	11,8	0,5	1,5	1,8	72	0,75
G 2D2M	G2D20	28,5	42,8	128,3	57,0	7,1	1,200	2.350	5,5	9,0	0,5	1,5	2,5	102	0,90
G 2D2H	G2D20	31,5	47,3	141,8	63,0	7,9	1,200	2.350	5,5	7,2	0,5	1,5	3,2	131	1,13
G 2F1S	G2F10	34,0	51,0	153,0	68,0	8,5	0,650	2.125	6,0	6,3	0,5	1,1	3,8	176	0,75
G 2F1M	G2F10	36,0	54,0	162,0	72,0	9,0	0,650	2.125	6,0	5,2	0,5	1,1	4,6	220	0,90
G 2F1H	G2F10	40,0	60,0	180,0	80,0	10,0	0,650	2.125	6,0	4,0	0,5	1,1	6,2	300	1,13
G 2F2S	G2F20	34,0	51,0	153,0	68,0	8,5	1,300	2.125	6,0	12,6	0,5	1,1	1,9	88	0,75
G 2F2M	G2F20	36,0	54,0	162,0	72,0	9,0	1,300	2.125	6,0	10,4	0,5	1,1	2,3	110	0,90
G 2F2H	G2F20	40,0	60,0	180,0	80,0	10,0	1,300	2.125	6,0	8,0	0,5	1,1	3,1	150	1,13
G 2G1S	G2G10	41,5	62,3	186,8	83,0	10,4	0,710	2.000	6,0	6,3	0,5	1,0	4,4	246	0,75
G 2G1M	G2G10	44,0	66,0	198,0	88,0	11,0	0,710	2.000	6,0	5,2	0,5	1,0	5,4	300	0,90
G 2G1H	G2G10	51,0	76,5	229,5	102,0	12,8	0,710	2.000	6,0	4,0	0,5	1,0	7,0	390	1,13
G 2G2S	G2G20	41,5	62,3	186,8	83,0	10,4	1,420	2.000	6,0	12,6	0,5	1,0	2,2	123	0,75
G 2G2M	G2G20	44,0	66,0	198,0	88,0	11,0	1,420	2.000	6,0	10,4	0,5	1,0	2,7	150	0,90
G 2G2H	G2G20	51,0	76,5	229,5	102,0	12,8	1,420	2.000	6,0	8,0	0,5	1,0	3,5	195	1,13
G 273W	G2730	31,5	47,5	142,0	57,0	9,5	2,670	2.250	6,0	13,2	0,5	1,0	2,2	126	1,13
G 293W	G2930	40,0	60,0	180,0	72,0	12,0	3,090	2.250	6,0	13,4	0,5	1,0	2,5	160	1,13

### Siehe Erläuterung der Technischen Daten

- 1) Der Betriebszustand der Anlage kann eine Korrektur der gegebenen Werte notwendig machen.
- 2) Materialbedingte Steifigkeitstoleranz von +/-15% möglich. Die verhältnismäßige Dämpfung kann eine Toleranz von -45% bis +15% aufweisen.

### See Explanation of the Technical Data

- 1) The operating state of the system can make it necessary to correct the values given.
- 2) Material caused stiffness tolerance of +/-15% possible. The relative damping can be subject to a tolerance of -45% to +15%.



Kupplungstyp Type of Coupling		$T_{KN}$	$T_{Kmax1}$	$T_{Kmax2}$	$\Delta T_{Kmax}$	$T_{KW}$	$P_{KV30}$	$n_{Kmax}^{1)}$	$\Delta K_s$	$\Delta K_r^{(1)}$	$\Delta K_w$	$C_{ax1.0}$	$C_{rdyn}^{2)}$	$C_{Tdyn}^{2)}$	$\psi^{2)}$
Größe	Baugruppe	Max. Drehmoment	Max. Drehmoment <sub>1</sub>	Max. Drehmoment <sub>2</sub>	Max. Drehmoment Bereich	Wechsel-drehmoment	Verlust-leistung	Drehzahl	Axialer Kupplungs-versatz	Radialer Kupplungs-versatz	Winkliger Kupplungs-versatz	Axiale Federsteife 1,0 mm	Dyn. Radiale Federsteife	Dyn. Drehfeder-steife	Verhältnis-mäßige Dämpfung
Size	Dimension Group	Nominal Torque	Max. Torque <sub>1</sub>	Max. Torque <sub>2</sub>	Max. Torque Range	Vibratory Torque	Power Loss	Rotational Speed	Axial Coupling Displacement	Radial Coupling Displacement	Angular Coupling Displacement	Axial Stiffness 1,0 mm	Dyn. Radial Stiffness	Dyn. Torsional Stiffness	Relative Damping
		[kNm]	[kNm]	[kNm]	[kNm]	[kNm]	[kW]	[1/min]	[mm]	[mm]	[°]	[kN/mm]	[kN/mm]	[kNm/rad]	[-]
G 3B1S	G3B10	66,5	99,8	299,3	133,0	16,6	0,800	1.675	7,0	7,0	0,5	0,9	4,8	360	0,75
G 3B1M	G3B10	70,0	105,0	315,0	140,0	17,5	0,800	1.675	7,0	5,4	0,5	0,9	6,6	504	0,90
G 3B1H	G3B10	80,0	120,0	360,0	160,0	20,0	0,800	1.675	7,0	4,2	0,5	0,9	8,8	658	1,13
G 3B2S	G3B20	66,5	99,8	299,3	133,0	16,6	1,600	1.675	7,0	14,0	0,5	0,9	2,4	180	0,75
G 3B2M	G3B20	70,0	105,0	315,0	140,0	17,5	1,600	1.675	7,0	10,8	0,5	0,9	3,3	252	0,90
G 3B2H	G3B20	80,0	120,0	360,0	160,0	20,0	1,600	1.675	7,0	8,4	0,5	0,9	4,4	329	1,13
G 3C1S	G3C10	83,0	124,5	373,5	166,0	20,8	0,830	1.100	5,5	9,1	0,5	0,8	5,2	450	0,65
G 3C1M	G3C10	90,0	135,0	405,0	180,0	22,5	0,830	1.100	5,5	6,7	0,5	0,8	7,2	640	0,85
G 3C1H	G3C10	100,0	150,0	450,0	200,0	25,0	0,830	1.100	5,5	5,5	0,5	0,8	9,2	810	1,00
G 3C2S	G3C20	83,0	124,5	373,5	166,0	20,8	1,660	1.100	5,5	18,2	0,5	0,8	2,6	225	0,65
G 3C2M	G3C20	90,0	135,0	405,0	180,0	22,5	1,660	1.100	5,5	13,4	0,5	0,8	3,6	320	0,85
G 3C2H	G3C20	100,0	150,0	450,0	200,0	25,0	1,660	1.100	5,5	11,0	0,5	0,8	4,6	405	1,00
G 333Z	G3330	63,0	81,0	283,5	97,0	18,9	3,600	1.725	7,0	20,2	0,5	0,9	2,1	202	0,90
G 333W	G3330	63,0	95,0	283,5	114,0	18,9	3,600	1.725	7,0	16,2	0,5	0,9	2,6	252	1,13
G 333T	G3330	80,0	114,0	360,0	137,0	24,0	3,600	1.725	7,0	13,8	0,5	0,9	3,6	352	1,13
G 3E1S	G3E10	100,0	150,0	450,0	200,0	25,0	1,120	1.545	7,0	7,1	0,5	0,7	8,2	860	0,65
G 3E1M	G3E10	110,0	165,0	495,0	220,0	27,5	1,120	1.545	7,0	5,2	0,5	0,7	11,4	1.200	0,85
G 3E1H	G3E10	125,0	187,5	562,5	250,0	31,3	1,120	1.545	7,0	4,5	0,5	0,7	13,0	1.350	1,00
G 3E1X	G3E10	125,0	187,5	562,5	250,0	31,3	1,120	1.545	7,0	3,8	0,5	0,7	16,2	1.700	1,10
G 3E2S	G3E20	100,0	150,0	450,0	200,0	25,0	2,240	1.545	7,0	14,2	0,5	0,7	4,1	430	0,65
G 3E2M	G3E20	110,0	165,0	495,0	220,0	27,5	2,240	1.545	7,0	10,4	0,5	0,7	5,7	600	0,85
G 3E2H	G3E20	125,0	187,5	562,5	250,0	31,3	2,240	1.545	7,0	9,0	0,5	0,7	6,5	675	1,00
G 3E2X	G3E20	125,0	187,5	562,5	250,0	31,3	2,240	1.545	7,0	7,6	0,5	0,7	8,1	850	1,10
G 381Z	G3810	100,0	158,0	450,0	190,0	30,0	1,200	1.130	6,5	7,8	0,5	1,0	7,2	1.200	0,90
G 381W	G3810	125,0	177,0	562,5	212,0	37,5	1,200	1.130	6,5	6,2	0,5	1,0	9,0	1.500	1,13
G 381T	G3810	160,0	206,0	720,0	247,0	48,0	1,200	1.130	6,5	5,5	0,5	1,0	11,5	1.920	1,13
G 381Y	G3810	180,0	220,0	810,0	360,0	48,0	1,200	1.130	6,5	4,5	0,5	1,0	17,2	2.400	1,13
G 382Z	G3820	100,0	158,0	450,0	190,0	30,0	2,400	1.130	6,5	15,6	0,5	1,0	3,6	600	0,90
G 382W	G3820	125,0	177,0	562,5	212,0	37,5	2,400	1.130	6,5	12,4	0,5	1,0	4,5	750	1,13
G 382T	G3820	160,0	206,0	720,0	247,0	48,0	2,400	1.130	6,5	10,8	0,5	1,0	5,8	960	1,13
G 382Y	G3820	180,0	220,0	810,0	360,0	48,0	2,400	1.130	6,5	9,0	0,5	1,0	8,6	1.200	1,13

**Siehe Erläuterung der Technischen Daten**

- 1) Der Betriebszustand der Anlage kann eine Korrektur der gegebenen Werte notwendig machen.
- 2) Materialbedingte Steifigkeitstoleranz von +/-15% möglich. Die verhältnismäßige Dämpfung kann eine Toleranz von -45% bis +15% aufweisen.

**See Explanation of the Technical Data**

- 1) The operating state of the system can make it necessary to correct the values given.
- 2) Material caused stiffness tolerance of +/-15% possible. The relative damping can be subject to a tolerance of -45% to +15%.

# RATO R / RATO R+

## LEISTUNGSDATEN PERFORMANCE DATA

Kupplungstyp Type of Coupling		$T_{KN}$	$T_{Kmax1}$	$T_{Kmax2}$	$\Delta T_{Kmax}$	$T_{KW}$	$P_{KV30}$	$n_{Kmax}^{1)}$	$\Delta K_s$	$\Delta K_r^{(1)}$	$\Delta K_w$	$C_{ax1.0}$	$C_{rdyn}^{2)}$	$C_{tdyn}^{2)}$	$\psi^{2)}$
Größe	Baugruppe	[kNm]	[kNm]	[kNm]	[kNm]	[kNm]	[kW]	[1/min]	[mm]	[mm]	[°]	[kN/mm]	[kN/mm]	[kNm/rad]	[–]
Size	Dimension Group	Nenn Drehmoment	Max. Drehmoment <sub>1</sub>	Max. Drehmoment <sub>2</sub>	Max. Drehmoment Bereich	Wechsel-drehmoment	Verlust-leistung	Drehzahl	Axialer Kupplungs-versatz	Radialer Kupplungs-versatz	Winkliger Kupplungs-versatz	Axiale Federsteife 1,0 mm	Dyn. Radiale Federsteife	Dyn. Drehfeder-steife	Verhältnis-mäßige Dämpfung
		Nominal Torque	Max. Torque <sub>1</sub>	Max. Torque <sub>2</sub>	Max. Torque Range	Vibratory Torque	Power Loss	Rotational Speed	Axial Coupling Displacement	Radial Coupling Displacement	Angular Coupling Displacement	Axial Stiffness 1,0 mm	Dyn. Radial Stiffness	Dyn. Torsional Stiffness	Relative Damping
G 4A1S	G4A10	137,0	205,5	616,5	274,0	34,3	1,070	900	9,0	10,8	0,5	1,0	5,8	800	0,65
G 4A1M	G4A10	154,0	231,0	693,0	308,0	38,5	1,070	900	9,0	7,8	0,5	1,0	8,4	1.150	0,85
G 4A1H	G4A10	176,0	264,0	792,0	352,0	44,0	1,070	900	9,0	6,4	0,5	1,0	10,8	1.500	1,00
G 4A1X	G4A10	198,0	297,0	891,0	396,0	49,5	1,070	900	9,0	5,3	0,5	1,0	14,0	1.950	1,10
G 4A2S	G4A20	137,0	205,5	616,5	274,0	34,3	2,140	900	9,0	21,6	0,5	1,0	2,9	400	0,65
G 4A2M	G4A20	154,0	231,0	693,0	308,0	38,5	2,140	900	9,0	15,6	0,5	1,0	4,2	575	0,85
G 4A2H	G4A20	176,0	264,0	792,0	352,0	44,0	2,140	900	9,0	12,8	0,5	1,0	5,4	750	1,00
G 4A2X	G4A20	198,0	297,0	891,0	396,0	49,5	2,140	900	9,0	10,6	0,5	1,0	7,0	975	1,10
G 4E1S	G4E10	190,0	285,0	855,0	380,0	47,5	1,135	880	17,7	10,8	0,5	0,7	6,8	1.140	0,60
G 4E1M	G4E10	210,0	315,0	945,0	420,0	52,5	1,130	880	17,7	8,9	0,5	0,7	8,6	1.470	0,70
G 4E1H	G4E10	230,0	345,0	1.035,0	460,0	57,5	1,130	880	17,7	7,4	0,5	0,7	10,8	1.840	0,80
G 4E1X	G4E10	250,0	375,0	1.125,0	500,0	62,5	1,130	880	17,7	6,3	0,5	0,7	13,2	2.250	0,90
G 4E2S	G4E20	190,0	285,0	855,0	380,0	47,5	2,260	880	17,7	21,6	0,5	0,7	3,4	570	0,60
G 4E2M	G4E20	210,0	315,0	945,0	420,0	52,5	2,260	880	17,7	17,8	0,5	0,7	4,3	735	0,70
G 4E2H	G4E20	230,0	345,0	1.035,0	460,0	57,5	2,260	880	17,7	14,8	0,5	0,7	5,4	920	0,80
G 4E2X	G4E20	250,0	375,0	1.125,0	500,0	62,5	2,260	880	17,7	12,6	0,5	0,7	6,6	1.125	0,90
G 4EPS	G4EPO	190,0	285,0	855,0	380,0	66,5	2,260	880	8,4	6,4	0,4	5,8	28,6	4.750	0,80
G 4EPM	G4EPO	210,0	315,0	945,0	420,0	73,5	2,260	880	8,4	5,4	0,4	5,8	34,1	5.670	0,90
G 4EPH	G4EPO	230,0	345,0	1.035,0	460,0	80,5	2,260	880	8,4	4,8	0,4	5,8	40,1	6.670	1,00
G 4EPX	G4EPO	250,0	375,0	1.125,0	500,0	87,5	2,260	880	8,4	4,2	0,4	5,8	46,6	7.750	1,10
G 471Z	G4710	200,0	250,0	900,0	300,0	50,0	1,200	750	12,0	9,9	0,5	1,8	6,7	1.300	0,90
G 471W	G4710	224,0	280,0	1.010,0	335,0	64,0	1,200	750	12,0	7,3	0,5	1,8	9,8	1.900	1,13
G 471T	G4710	250,0	320,0	1.125,0	375,0	64,0	1,200	750	12,0	6,1	0,5	1,8	14,0	2.700	1,13
G 471Y	G4710	270,0	360,0	1.215,0	430,0	64,0	1,200	750	12,0	5,2	0,5	1,8	19,1	3.700	1,13
G 472Z	G4720	200,0	250,0	900,0	300,0	50,0	2,400	750	12,0	19,6	0,5	1,8	3,4	650	0,90
G 472W	G4720	224,0	280,0	1.010,0	335,0	64,0	2,400	750	12,0	14,6	0,5	1,8	4,9	950	1,13
G 472T	G4720	250,0	320,0	1.125,0	375,0	64,0	2,400	750	12,0	12,2	0,5	1,8	7,0	1.350	1,13
G 472Y	G4720	270,0	360,0	1.215,0	430,0	64,0	2,400	750	12,0	10,4	0,5	1,8	9,6	1.850	1,13

### Siehe Erläuterung der Technischen Daten

- 1) Der Betriebszustand der Anlage kann eine Korrektur der gegebenen Werte notwendig machen.
- 2) Materialbedingte Steifigkeitstoleranz von +/-15% möglich. Die verhältnismäßige Dämpfung kann eine Toleranz von -45% bis +15% aufweisen.

### See Explanation of the Technical Data

- 1) The operating state of the system can make it necessary to correct the values given.
- 2) Material caused stiffness tolerance of +/-15% possible. The relative damping can be subject to a tolerance of -45% to +15%.

Kupplungstyp Type of Coupling		$T_{KN}$	$T_{Kmax1}$	$T_{Kmax2}$	$\Delta T_{Kmax}$	$T_{KW}$	$P_{KV30}$	$n_{Kmax}^{1)}$	$\Delta K_s$	$\Delta K_r^{(1)}$	$\Delta K_w$	$C_{ax1.0}$	$C_{rdyn}^{2)}$	$C_{Tdyn}^{2)}$	$\psi^{2)}$
		[kNm]	[kNm]	[kNm]	[kNm]	[kNm]	[kW]	[1/min]	[mm]	[mm]	[°]	[kN/mm]	[kN/mm]	[kNm/rad]	[-]
Größe	Baugruppe	Nenn Drehmoment	Max. Drehmoment <sub>1</sub>	Max. Drehmoment <sub>2</sub>	Max. Drehmoment Bereich	Wechsel-drehmoment	Verlust-leistung	Drehzahl	Axialer Kupplungs-versatz	Radialer Kupplungs-versatz	Winkliger Kupplungs-versatz	Axiale Federsteife 1,0 mm	Dyn. Radiale Federsteife	Dyn. Drehfeder-steife	Verhältnis-mäßige Dämpfung
Size	Dimension Group	Nominal Torque	Max. Torque <sub>1</sub>	Max. Torque <sub>2</sub>	Max. Torque Range	Vibratory Torque	Power Loss	Rotational Speed	Axial Coupling Displacement	Radial Coupling Displacement	Angular Coupling Displacement	Axial Stiffness 1,0 mm	Dyn. Radial Stiffness	Dyn. Torsional Stiffness	Relative Damping
G 5B1S	G5B10	290,0	435,0	1.305,0	580,0	72,5	1.390	710	20,8	12,6	0,5	0,7	7,6	1.740	0,60
G 5B1M	G5B10	320,0	480,0	1.440,0	640,0	80,0	1.390	710	20,8	10,3	0,5	0,7	9,8	2.240	0,70
G 5B1H	G5B10	350,0	525,0	1.575,0	700,0	87,5	1.390	710	20,8	8,5	0,5	0,7	12,6	2.800	0,80
G 5B1X	G5B10	380,0	570,0	1.710,0	760,0	95,0	1.390	710	20,8	7,3	0,5	0,7	15,0	3.420	0,90
G 5B2S	G5B20	290,0	435,0	1.305,0	580,0	72,5	2.780	710	20,8	25,2	0,5	0,7	3,8	870	0,60
G 5B2M	G5B20	320,0	480,0	1.440,0	640,0	80,0	2.780	710	20,8	20,6	0,5	0,7	4,9	1.120	0,70
G 5B2H	G5B20	350,0	525,0	1.575,0	700,0	87,5	2.780	710	20,8	17,0	0,5	0,7	6,3	1.400	0,80
G 5B2X	G5B20	380,0	570,0	1.710,0	760,0	95,0	2.780	710	20,8	14,6	0,5	0,7	7,5	1.710	0,90
G 5BPS	G5BP0	290,0	435,0	1.305,0	580,0	101,5	2.720	710	9,7	7,4	0,4	6,5	32,4	7.250	0,80
G 5BPM	G5BP0	320,0	480,0	1.440,0	640,0	112,0	2.720	710	9,7	6,4	0,4	6,5	38,6	8.640	0,90
G 5BPH	G5BP0	350,0	525,0	1.575,0	700,0	122,5	2.720	710	9,7	5,6	0,4	6,5	45,4	10.150	1,00
G 5BPX	G5BP0	380,0	570,0	1.710,0	760,0	133,0	2.720	710	9,7	4,8	0,4	6,5	52,7	11.780	1,10
G 5H1S	G5H10	400,0	600,0	1.800,0	800,0	100,0	1.510	710	23,3	12,3	0,5	1,8	8,6	2.400	0,60
G 5H1M	G5H10	440,0	660,0	1.980,0	880,0	110,0	1.510	710	23,3	10,1	0,5	1,8	11,0	3.080	0,70
G 5H1H	G5H10	480,0	720,0	2.160,0	960,0	120,0	1.510	710	23,3	8,5	0,5	1,8	13,6	3.840	0,80
G 5H1X	G5H10	530,0	795,0	2.385,0	1.060,0	132,5	1.510	710	23,3	7,1	0,5	1,8	17,0	4.770	0,90
G 5H2S	G5H20	400,0	600,0	1.800,0	800,0	100,0	3.020	710	23,3	24,6	0,5	1,8	4,3	1.200	0,60
G 5H2M	G5H20	440,0	660,0	1.980,0	880,0	110,0	3.020	710	23,3	20,2	0,5	1,8	5,5	1.540	0,70
G 5H2H	G5H20	480,0	720,0	2.160,0	960,0	120,0	3.020	710	23,3	17,0	0,5	1,8	6,8	1.920	0,80
G 5H2X	G5H20	530,0	795,0	2.385,0	1.060,0	132,5	3.020	710	23,3	14,2	0,5	1,8	8,5	2.385	0,90
G 5HPS	G5HP0	400,0	600,0	1.800,0	800,0	140,0	2.950	710	10,7	7,2	0,4	7,7	36,6	10.000	0,80
G 5HPM	G5HP0	440,0	660,0	1.980,0	880,0	154,0	2.950	710	10,7	6,2	0,4	7,7	43,4	11.880	0,90
G 5HPH	G5HP0	480,0	720,0	2.160,0	960,0	168,0	2.950	710	10,7	5,4	0,4	7,7	50,9	13.920	1,00
G 5HPX	G5HP0	530,0	795,0	2.385,0	1.060,0	185,5	2.950	710	10,7	4,8	0,4	7,7	60,1	16.430	1,10

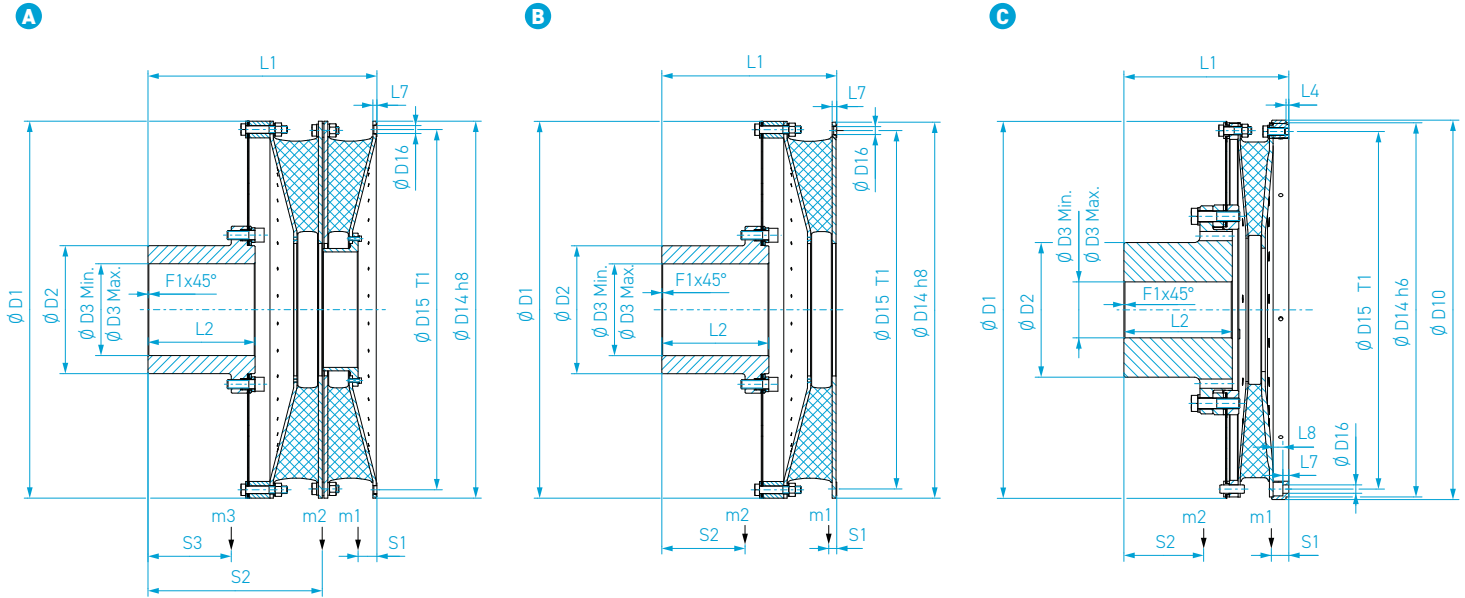
#### Siehe Erläuterung der Technischen Daten

- 1) Der Betriebszustand der Anlage kann eine Korrektur der gegebenen Werte notwendig machen.
- 2) Materialbedingte Steifigkeitstoleranz von +/-15% möglich. Die verhältnismäßige Dämpfung kann eine Toleranz von -45% bis +15% aufweisen.

#### See Explanation of the Technical Data

- 1) The operating state of the system can make it necessary to correct the values given.
- 2) Material caused stiffness tolerance of +/-15% possible. The relative damping can be subject to a tolerance of -45% to +15%.

### GEOMETRISCHE DATEN GEOMETRIC DATA

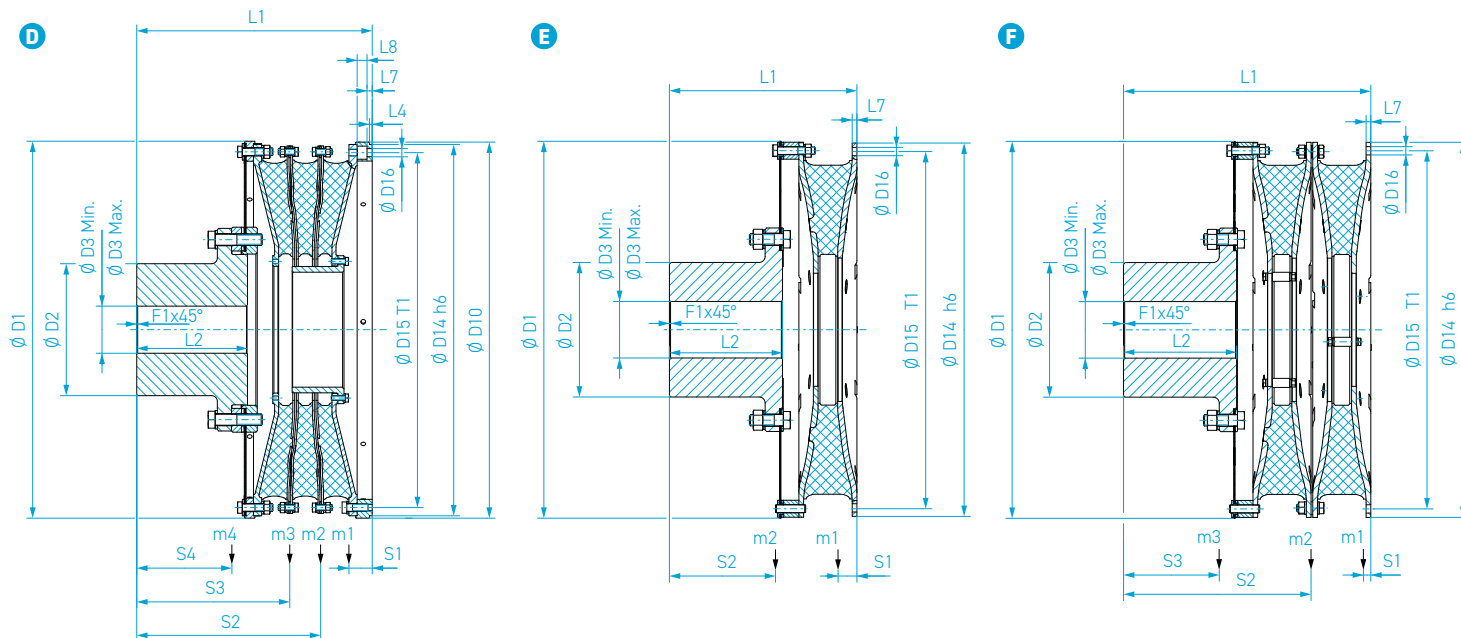


Baugruppe  
Dimension Group

Abbildung  
Figure

Abmessungen  
Dimension

		D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>		D <sub>10</sub>	D <sub>14</sub>	D <sub>15</sub>	T <sub>1</sub>	D <sub>16</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>4</sub>	L <sub>7</sub>	L <sub>8</sub>	F <sub>1</sub>
		[mm]	[mm]	[mm] Min.	[mm] Max.	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
G 1920	A	595,0	210,0	70,0	150,0	-	585,0	558,0	32	135	347,0	175,0	-	12,5	-	1,6
G 2120	A	640,0	224,0	80,0	160,0	-	635,0	608,0	32	135	390,0	185,0	-	8,0	-	1,6
G 2D10	B	685,0	238,0	110,0	170,0	-	680,0	650,0	32	15,5	315,5	195,0	-	10,0	-	1,6
G 2D20	A	685,0	238,0	110,0	170,0	-	680,0	650,0	32	15,5	411,0	195,0	-	10,0	-	1,6
G 2410	C	735,0	259,0	110,0	185,0	740,0	730,0	700,0	32	17,5	324,7	225,0	6,0	17,0	23,0	2,0
G 2F10	B	735,0	259,0	110,0	185,0	-	730,0	700,0	32	15,5	357,9	225,0	-	10,0	-	2,0
G 2F20	A	735,0	259,0	110,0	185,0	-	730,0	700,0	32	15,5	463,0	225,0	-	10,0	-	2,0
G 2G10	B	793,0	280,0	100,0	200,0	-	790,0	755,0	32	17,5	376,0	235,0	-	10,0	-	2,0
G 2G20	A	793,0	280,0	100,0	200,0	-	790,0	755,0	32	17,5	488,0	235,0	-	10,0	-	2,0
G 2730	D	800,0	280,0	100,0	200,0	800,0	790,0	755,0	32	17,5	500,0	235,0	6,0	11,0	21,0	2,0
G 2930	D	870,0	308,0	110,0	220,0	870,0	860,0	820,0	32	20,0	535,0	250,0	6,0	12,0	23,0	2,0
G 3B10	B	925,0	329,0	115,0	235,0	-	920,0	880,0	32	20,0	452,2	285,0	-	12,0	-	3,0
G 3B20	A	925,0	329,0	115,0	235,0	-	920,0	880,0	32	20,0	586,0	285,0	-	12,0	-	3,0
G 3C10	E	1.000,0	357,0	150,0	255,0	-	995,0	950,0	32	22,0	497,5	300,0	-	12,5	-	3,0
G 3C20	F	1.000,0	357,0	150,0	255,0	-	995,0	950,0	32	22,0	656,0	300,0	-	12,5	-	3,0



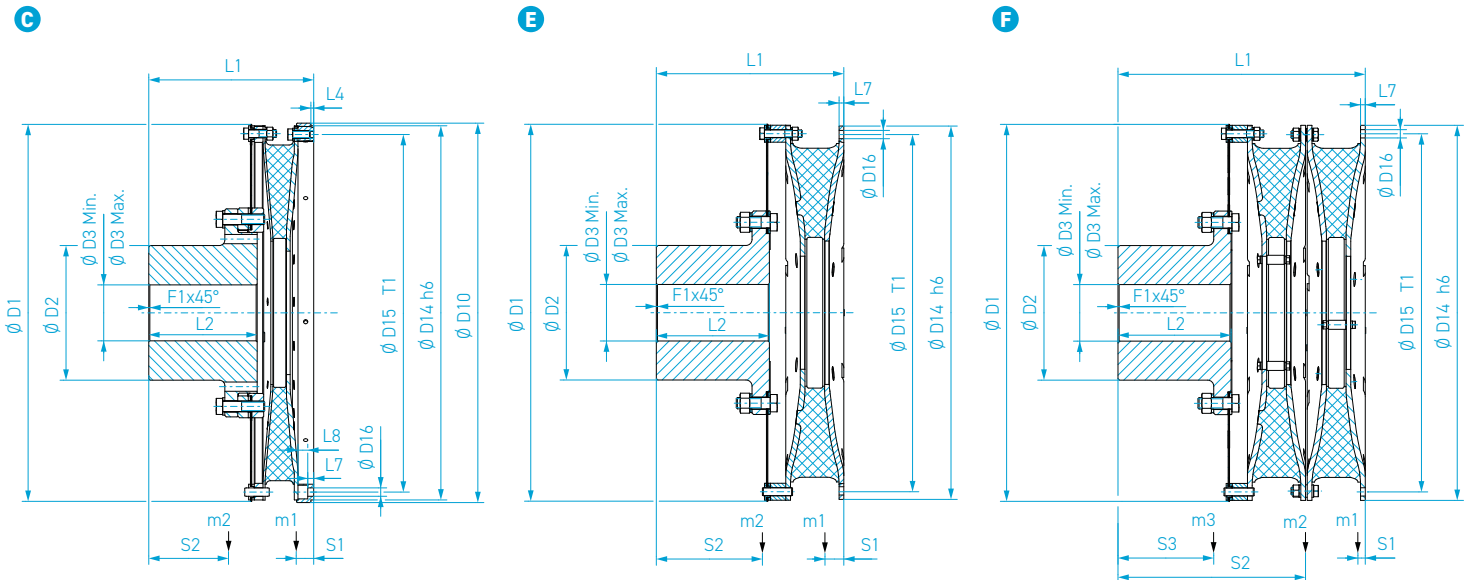
Massenträgheitsmomente Mass moments of inertia				Masse Mass				Schwerpunktsabstand Distance to center of gravity				Anmerkungen Notes
J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	J <sub>4</sub>	m <sub>1</sub>	m <sub>2</sub>	m <sub>3</sub>	m <sub>4</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	
[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kg]	[kg]	[kg]	[kg]	[mm]	[mm]	[mm]	[mm]	
1,0	1,3	2,6	-	237	26,0	97,3	-	27,0	266,0	139,0	-	
1,3	1,8	3,0	-	24,0	32,0	106,0	-	23,0	302,0	152,0	-	
2,0	3,3	-	-	33,3	105,1	-	-	24,5	149,0	-	-	
2,0	2,5	4,4	-	33,3	37,7	123,0	-	24,5	317,0	166,0	-	
2,1	5,4	-	-	30,0	147,0	-	-	13,0	172,0	-	-	
2,8	4,9	-	-	39,8	141,2	-	-	26,0	168,0	-	-	
2,8	3,4	6,2	-	39,8	46,0	162,1	-	26,0	360,0	185,0	-	
3,9	7,2	-	-	47,4	182,2	-	-	28,0	174,0	-	-	
3,9	4,8	9,1	-	47,4	55,2	206,6	-	28,0	378,0	191,0	-	
7,6	4,0	4,0	9,6	78,0	44,0	44,0	217,0	52,0	114,0	330,0	174,0	
11,7	6,0	6,0	14,9	103,0	55,0	55,0	283,0	57,0	123,0	352,0	185,0	
8,5	15,5	-	-	77,0	295,0	-	-	34,0	209,0	-	-	
8,5	10,6	19,5	-	77,0	91,0	332,0	-	34,0	454,0	228,0	-	
12,9	29,1	-	-	96,0	403,0	-	-	30,0	243,0	-	-	
13,0	28,4	29,3	-	100,5	203,5	404,0	-	31,0	500,0	244,0	-	

Alle Massen, Schwerpunkte und Massenträgheitsmomente beziehen sich auf min. Nabenbohrung (Ø D3 min).

All masses, focal points and mass moments of inertia refer to min. hub bore (Ø D3 min).



### GEOMETRISCHE DATEN GEOMETRIC DATA



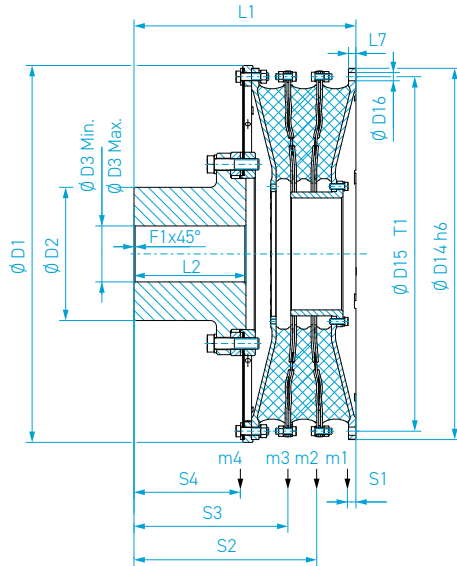
Baugruppe  
Dimension Group

Abbildung  
Figure

Abmessungen  
Dimension

		D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>		D <sub>10</sub>	D <sub>14</sub>	D <sub>15</sub>	T <sub>1</sub>	D <sub>16</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>4</sub>	L <sub>7</sub>	L <sub>8</sub>	F <sub>1</sub>	
				[mm]	[mm]												[mm]
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
				Min.	Max.				[°]								
									Teilung / Pitch								
G 3330	G	1.010,0	357,0	150,0	255,0	-	995,0	950,0	32	22,0	594,8	300,0	-	19,8	-	3,0	
G 3E10	C	1.085,0	385,0	160,0	275,0	1.085,0	1.070,0	1.025,0	32	24,0	471,7	310,0	8,0	17,0	28,0	3,0	
G 3E20	F	1.085,0	385,0	160,0	275,0	1.085,0	1.070,0	1.025,0	32	24,0	574,7	310,0	8,0	17,0	28,0	3,0	
G 3810	E	1.250,0	448,0	200,0	320,0	-	1.240,0	1.190,0	32	26,0	580,0	385,0	-	12,5	-	4,0	
G 3820	F	1.250,0	448,0	200,0	320,0	-	1.240,0	1.190,0	32	26,0	729,5	385,0	-	12,5	-	4,0	
G 4A10	E	1.250,0	448,0	200,0	320,0	-	1.240,0	1.190,0	32	26,0	626,0	385,0	-	14,0	-	4,0	
G 4A20	F	1.250,0	448,0	200,0	320,0	-	1.240,0	1.190,0	32	26,0	821,5	385,0	-	14,0	-	4,0	

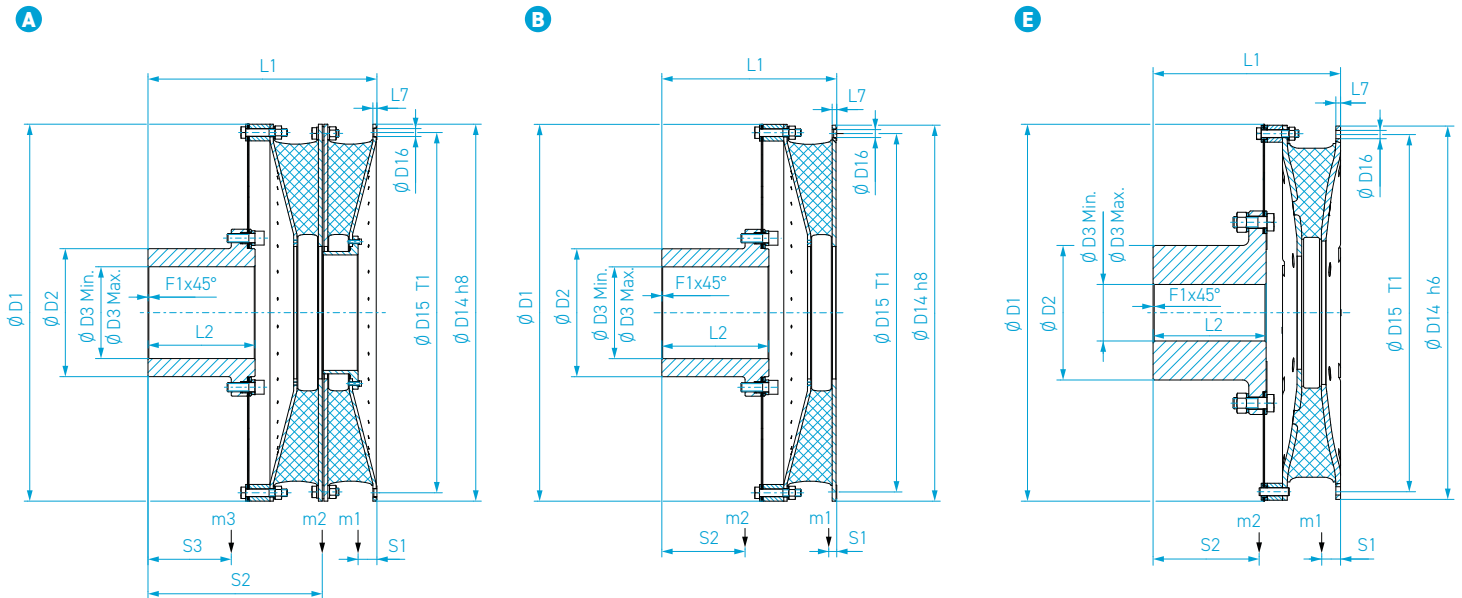
G



Massenträgheitsmomente Mass moments of inertia				Masse Mass				Schwerpunktsabstand Distance to center of gravity				Anmerkungen Notes
$J_1$	$J_2$	$J_3$	$J_4$	$m_1$	$m_2$	$m_3$	$m_4$	$S_1$	$S_2$	$S_3$	$S_4$	
[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kg]	[kg]	[kg]	[kg]	[mm]	[mm]	[mm]	[mm]	
13,0	13,0	13,0	33,0	109,0	91,0	91,0	440,0	44,0	493,0	417,0	236,0	Alle Massen, Schwerpunkte und Massenträgheitsmomente beziehen sich auf min. Nabenbohrung (Ø D3 min).
29,2	41,7	-	-	150,5	502,6	-	-	50,0	230,0	-	-	
29,2	21,3	48,1	-	150,5	126,8	562,5	-	50,0	428,0	243,0	-	
30,4	75,0	-	-	145,3	728,0	-	-	29,0	297,0	-	-	
31,0	67,2	76,0	-	152,0	311,0	730,0	-	29,0	582,0	297,0	-	
35,0	80,0	-	-	172,0	743,0	-	-	37,0	302,0	-	-	
35,0	76,0	80,0	-	172,0	350,0	749,0	-	37,0	628,0	303,0	-	All masses, focal points and mass moments of inertia refer to min. hub bore (Ø D3 min).



### GEOMETRISCHE DATEN GEOMETRIC DATA



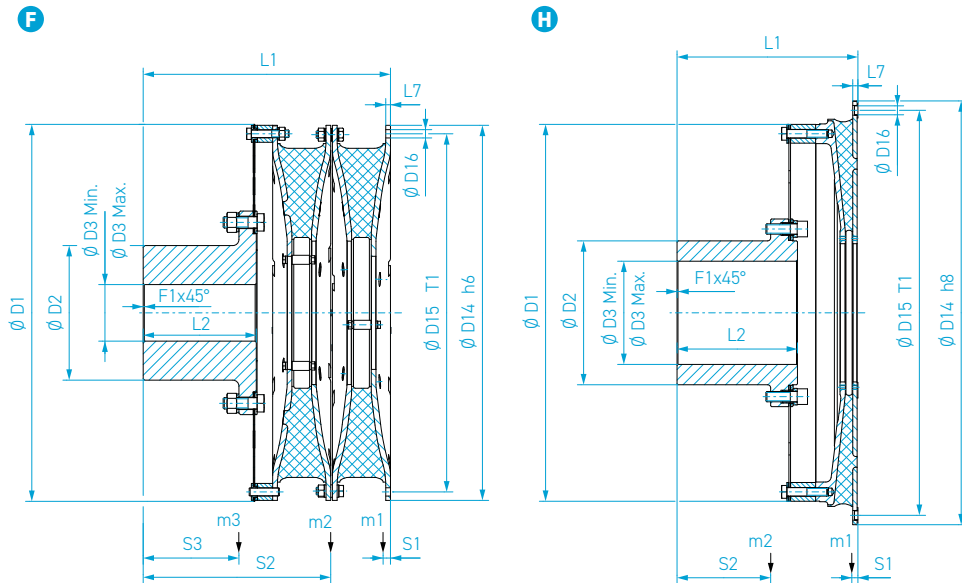
Baugruppe  
Dimension Group

Abbildung  
Figure

Abmessungen  
Dimension

		$D_1$	$D_2$	$D_3$		$D_{10}$	$D_{14}$	$D_{15}$	$T_1$	$D_{16}$	$L_1$	$L_2$	$L_4$	$L_7$	$L_8$	$F_1$
		[mm]	[mm]	[mm] Min.	[mm] Max.	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
G 4E10	B	1.355,0	460,0	300,0	330,0	-	1.355,0	1.295,0	32	28,6	629,0	385,0	-	16,5	-	2,0
G 4E20	A	1.355,0	460,0	300,0	330,0	-	1.355,0	1.295,0	32	28,6	823,0	385,0	-	14,5	-	2,0
G 4EP0	H	1.204,0	460,0	300,0	330,0	-	1.355,0	1.295,0	32	28,6	578,8	385,0	-	16,5	-	2,0
G 4710	E	1.465,0	518,0	230,0	370,0	-	1.460,0	1.395,0	32	33,0	736,6	480,0	-	14,0	-	4,0
G 4720	F	1.465,0	518,0	230,0	370,0	-	1.460,0	1.395,0	32	33,0	953,6	480,0	-	14,0	-	4,0
G 5B10	B	1.565,0	530,0	360,0	380,0	-	1.565,0	1.500,0	32	31,6	813,5	550,0	-	18,5	-	2,0
G 5B20	A	1.565,0	530,0	360,0	380,0	-	1.565,0	1.500,0	32	31,6	1.034,0	550,0	-	16,5	-	2,0
G 5BP0	H	1.390,0	530,0	360,0	380,0	-	1.565,0	1.500,0	32	31,6	756,0	550,0	-	18,5	-	2,0
G 5H10	B	1.745,0	588,0	360,0	425,0	-	1.738,0	1.675,0	32	34,6	851,5	570,0	-	19,5	-	3,0
G 5H20	A	1.745,0	588,0	360,0	425,0	-	1.738,0	1.675,0	32	34,6	1.092,0	570,0	-	19,5	-	3,0
G 5HP0	H	1.543,0	588,0	360,0	425,0	-	1.738,0	1.675,0	32	34,6	796,0	570,0	-	19,5	-	3,0





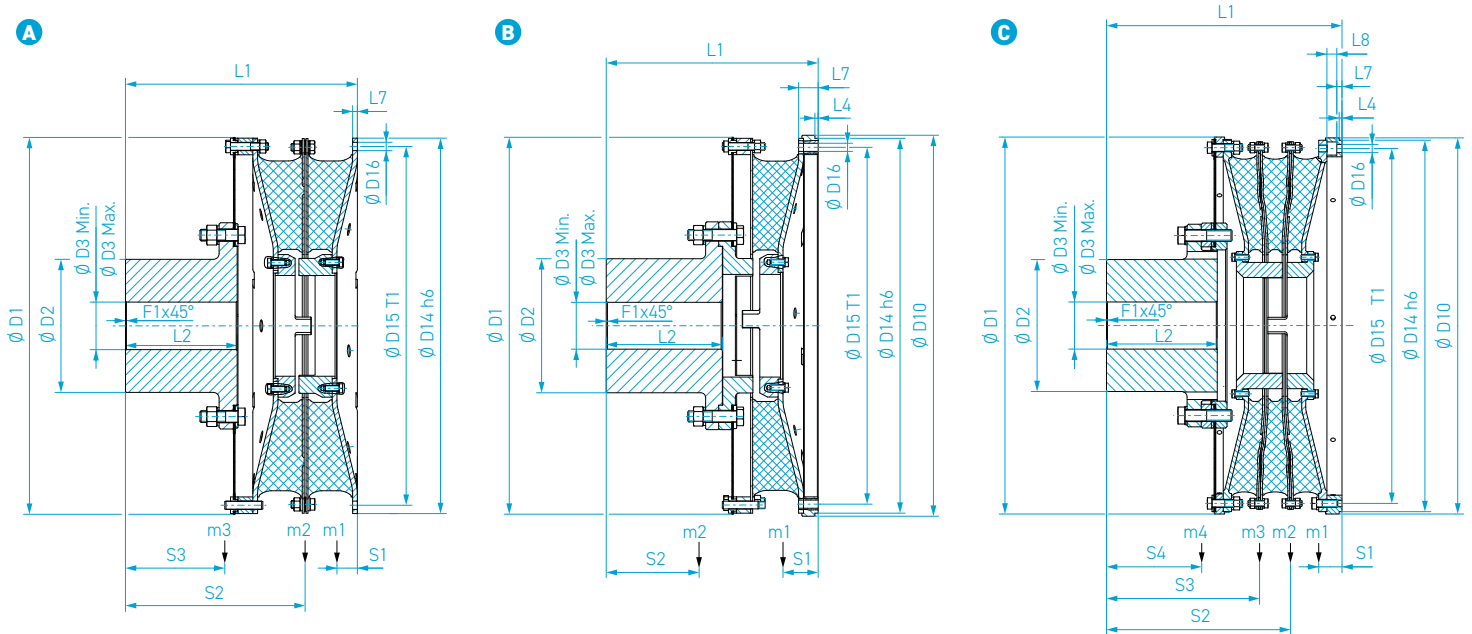
Massenträgheitsmomente Mass moments of inertia				Masse Mass				Schwerpunktsabstand Distance to center of gravity				Anmerkungen Notes
$J_1$	$J_2$	$J_3$	$J_4$	$m_1$	$m_2$	$m_3$	$m_4$	$S_1$	$S_2$	$S_3$	$S_4$	
[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kg]	[kg]	[kg]	[kg]	[mm]	[mm]	[mm]	[mm]	
50,0	109,0	-	-	201,0	682,0	-	-	22,0	328,0	-	-	
47,0	112,0	109,0	-	211,0	429,0	682,0	-	62,0	630,0	328,0	-	
41,0	106,0	-	-	163,0	701,0	-	-	12,0	336,0	-	-	
69,5	170,0	-	-	246,0	1.196,0	-	-	40,0	364,0	-	-	
69,8	156,0	171,0	-	251,0	513,0	1.210,0	-	41,0	742,0	367,0	-	
102,0	210,0	-	-	303,0	1.077,0	-	-	25,0	442,0	-	-	
96,0	225,0	210,0	-	321,0	645,0	1.077,0	-	70,0	816,0	442,0	-	
83,0	207,0	-	-	248,0	1.109,0	-	-	14,0	451,0	-	-	
161,0	353,0	-	-	391,0	1.544,0	-	-	28,0	448,0	-	-	
166,0	355,0	353,0	-	442,0	827,0	1.544,0	-	78,0	851,0	448,0	-	
128,0	351,0	-	-	312,0	1.599,0	-	-	15,0	459,0	-	-	

Alle Massen, Schwerpunkte und Massenträgheitsmomente beziehen sich auf min. Nabenbohrung ( $\varnothing D3$  min).

All masses, focal points and mass moments of inertia refer to min. hub bore ( $\varnothing D3$  min).



### GEOMETRISCHE DATEN GEOMETRIC DATA

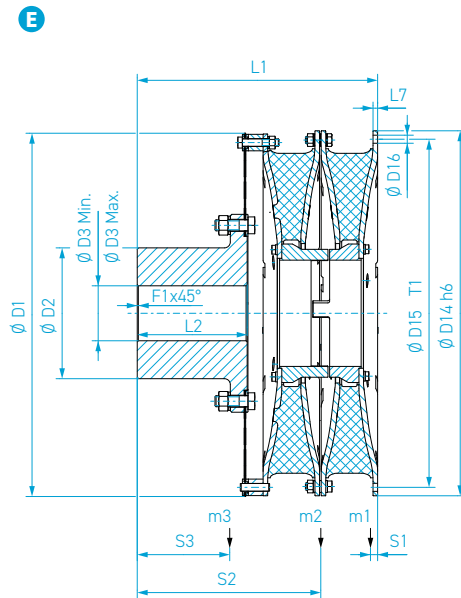
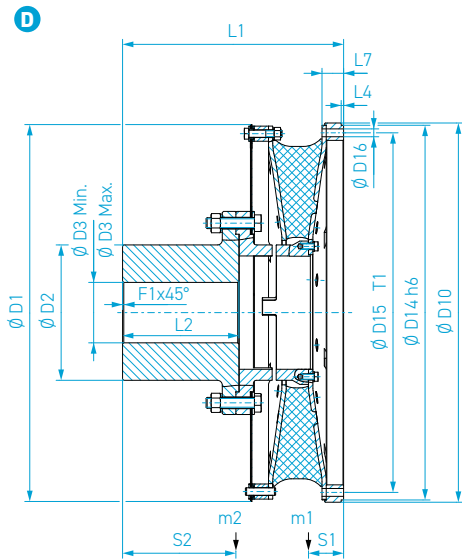


Baugruppe  
Dimension Group

Abbildung  
Figure

Abmessungen  
Dimension

		$D_1$	$D_2$	$D_3$		$D_{10}$	$D_{14}$	$D_{15}$	$T_1$	$D_{16}$	$L_1$	$L_2$	$L_4$	$L_7$	$L_8$	$F_1$
		[mm]	[mm]	[mm] Min.	[mm] Max.	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
G 1920	A	595,0	210,0	70,0	150,0	-	585,0	558,0	32	13,5	347,0	175,0	-	12,5	-	1,6
G 2120	A	640,0	224,0	80,0	160,0	-	635,0	608,0	32	13,5	390,0	185,0	-	8,0	-	1,6
G 2D10	B	685,0	238,0	110,0	170,0	690,0	680,0	650,0	32	15,5	337,5	195,0	6,0	37,0	-	1,6
G 2D20	A	685,0	238,0	110,0	170,0	-	680,0	650,0	32	15,5	411,0	195,0	-	10,0	-	1,6
G 2F10	B	735,0	259,0	110,0	185,0	740,0	730,0	700,0	32	15,5	412,9	225,0	6,0	37,0	-	2,0
G 2F20	A	735,0	259,0	110,0	185,0	-	730,0	700,0	32	15,5	463,0	225,0	-	10,0	-	2,0
G 2G10	B	793,0	280,0	100,0	200,0	800,0	790,0	755,0	32	17,5	438,0	235,0	6,0	42,0	-	2,0
G 2G20	A	793,0	280,0	100,0	200,0	-	790,0	755,0	32	17,5	488,0	235,0	-	10,0	-	2,0
G 2730	C	800,0	280,0	100,0	200,0	800,0	790,0	755,0	32	17,5	500,0	235,0	6,0	11,0	21,0	2,0
G 2930	C	870,0	308,0	110,0	220,0	870,0	860,0	820,0	32	20,0	535,0	250,0	6,0	12,0	23,0	2,0
G 3B10	B	925,0	329,0	115,0	235,0	935,0	920,0	880,0	32	20,0	520,2	285,0	8,0	48,0	-	3,0
G 3B20	A	925,0	329,0	115,0	235,0	-	920,0	880,0	32	20,0	586,0	285,0	-	12,0	-	3,0
G 3C10	D	1.000,0	357,0	150,0	255,0	1.010,0	995,0	950,0	32	22,0	563,5	300,0	8,0	46,5	-	3,0
G 3C20	E	1.000,0	357,0	150,0	255,0	-	995,0	950,0	32	22,0	656,0	300,0	-	12,5	-	3,0



Massenträgheitsmomente Mass moments of inertia				Masse Mass				Schwerpunktsabstand Distance to center of gravity				Anmerkungen Notes
$J_1$	$J_2$	$J_3$	$J_4$	$m_1$	$m_2$	$m_3$	$m_4$	$S_1$	$S_2$	$S_3$	$S_4$	
[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kg]	[kg]	[kg]	[kg]	[mm]	[mm]	[mm]	[mm]	
1,0	1,3	2,6	-	24,6	26,0	102,5	-	26,0	266,0	143,0	-	
1,4	1,8	3,0	-	30,0	32,0	111,0	-	29,0	302,0	157,0	-	
4,6	5,7	-	-	62,0	163,0	-	-	26,0	167,0	-	-	
2,1	2,5	4,4	-	39,5	37,7	128,8	-	30,0	317,0	172,0	-	
4,7	5,4	-	-	63,9	162,7	-	-	50,0	185,0	-	-	
2,9	3,4	6,3	-	49,0	46,0	170,0	-	34,0	360,0	191,0	-	
7,2	7,9	-	-	80,7	209,2	-	-	55,0	191,0	-	-	
4,1	4,8	9,3	-	60,0	55,2	216,0	-	38,0	378,0	197,0	-	
7,6	4,0	4,0	9,8	80,0	44,0	44,0	229,0	50,0	114,0	330,0	177,0	
11,7	6,0	6,0	15,2	108,0	55,0	55,0	300,0	55,0	123,0	352,0	188,0	
15,6	17,0	-	-	129,0	335,0	-	-	64,0	228,0	-	-	
9,0	10,6	19,9	-	95,2	91,0	348,5	-	43,0	454,0	236,0	-	
22,4	31,0	-	-	164,5	442,3	-	-	63,0	260,0	-	-	
13,8	28,4	30,0	-	126,8	203,5	430,7	-	42,0	500,0	255,0	-	

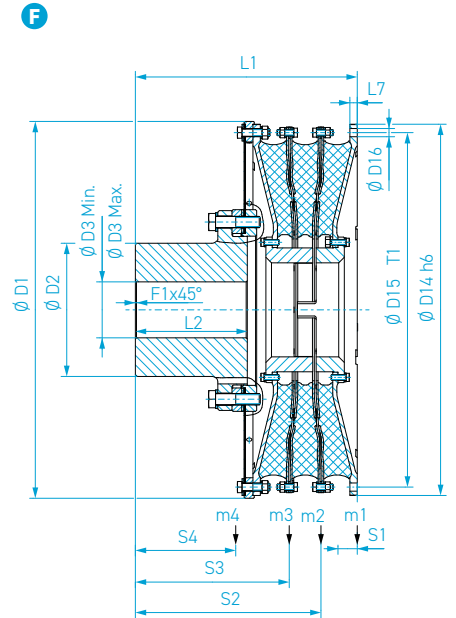
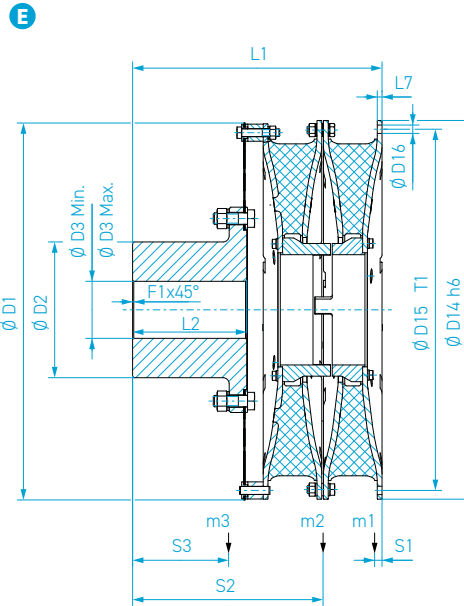
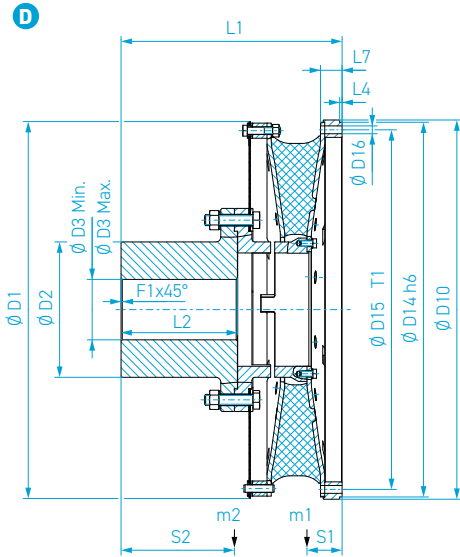
Anmerkungen  
Notes

Alle Massen, Schwerpunkte und Massenträgheitsmomente beziehen sich auf min. Nabenbohrung (Ø D3 min).

All masses, focal points and mass moments of inertia refer to min. hub bore (Ø D3 min).

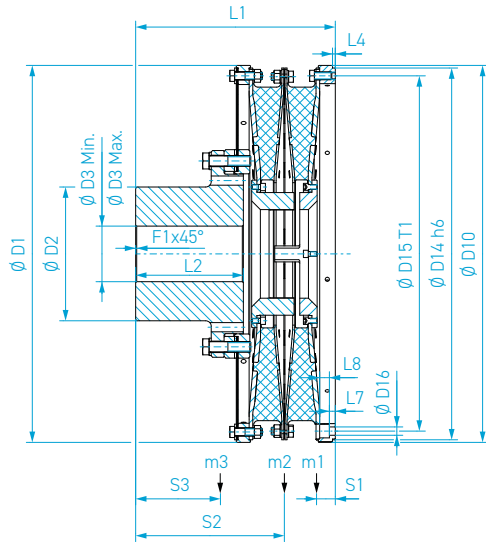


### GEOMETRISCHE DATEN GEOMETRIC DATA



Baugruppe Dimension Group	Abbildung Figure	Abmessungen Dimension														
		D <sub>1</sub> [mm]	D <sub>2</sub> [mm]	D <sub>3</sub> [mm] Min. Max.	D <sub>10</sub> [mm]	D <sub>14</sub> [mm]	D <sub>15</sub> [mm]	T <sub>1</sub> [-] Teilung / Pitch	D <sub>16</sub> [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	L <sub>4</sub> [mm]	L <sub>7</sub> [mm]	L <sub>8</sub> [mm]	F <sub>1</sub> [mm]	
G 3330	F	1.010,0	357,0	150,0	255,0	-	995,0	950,0	32	22,0	594,8	300,0	-	19,8	-	3,0
G 3E10																auf Anfrage / on request
G 3E20	G	1.085,0	385,0	160,0	275,0	1.085,0	1.070,0	1.025,0	32	24,0	574,7	310,0	8,0	17,0	28,0	3,0
G 3810	D	1.250,0	448,0	200,0	320,0	1.255,0	1.240,0	1.190,0	32	26,0	660,0	385,0	8,0	47,5	-	4,0
G 3820	E	1.250,0	448,0	200,0	320,0	1.255,0	1.240,0	1.190,0	32	26,0	764,5	385,0	8,0	12,5	-	4,0
G 4A10	D	1.250,0	448,0	200,0	320,0	1.255,0	1.240,0	1.190,0	32	26,0	732,0	385,0	8,0	72,0	-	4,0
G 4A20	E	1.250,0	448,0	200,0	320,0	-	1.240,0	1.190,0	32	26,0	821,5	385,0	-	14,0	-	4,0
G 4710	D	1.465,0	518,0	230,0	370,0	1.480,0	1.460,0	1.395,0	32	33,0	831,6	480,0	12,0	49,0	-	4,0
G 4720	E	1.465,0	518,0	230,0	370,0	-	1.460,0	1.395,0	32	33,0	954,0	480,0	-	14,0	-	4,0

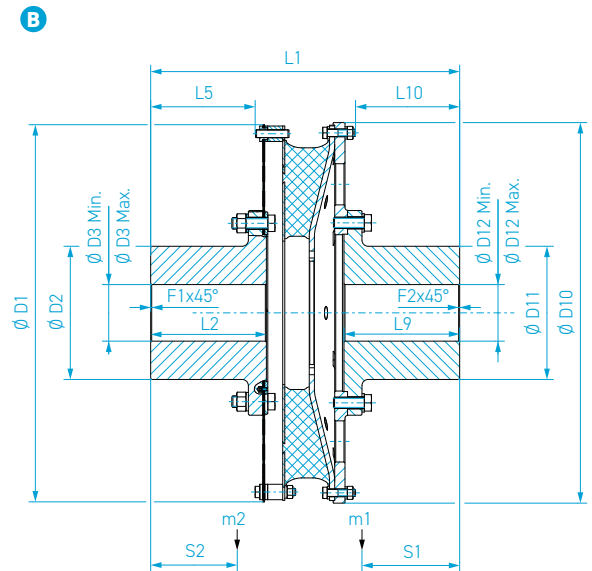
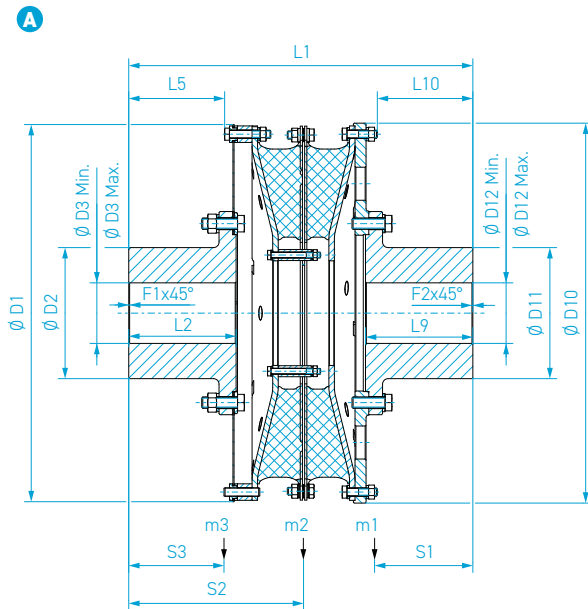
G



Massenträgheitsmomente Mass moments of inertia				Masse Mass				Schwerpunktsabstand Distance to center of gravity				Anmerkungen Notes
J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	J <sub>4</sub>	m <sub>1</sub>	m <sub>2</sub>	m <sub>3</sub>	m <sub>4</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	
[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kg]	[kg]	[kg]	[kg]	[mm]	[mm]	[mm]	[mm]	
13,0	13,0	13,0	33,0	114,0	91,0	91,0	468,0	41,0	493,0	417,0	244,0	auf Anfrage / on request
29,9	21,3	48,1	-	175,4	126,8	566,6	-	55,0	428,0	244,0	-	
52,0	82,0	-	-	243,0	810,0	-	-	62,0	321,0	-	-	Alle Massen, Schwerpunkte und Massenträgheitsmomente beziehen sich auf min. Nabenbohrung (Ø D3 min).  All masses, focal points and mass moments of inertia refer to min. hub bore (Ø D3 min).
32,7	68,1	77,9	-	191,0	312,0	770,0	-	40,0	582,0	308,0	-	
69,0	87,0	-	-	308,0	839,0	-	-	86,0	329,0	-	-	
37,6	76,6	82,2	-	222,0	351,0	799,0	-	53,0	628,0	318,0	-	
126,0	198,0	-	-	446,0	1.423,0	-	-	74,0	404,0	-	-	
75,0	156,0	176,0	-	325,0	513,0	1.284,0	-	59,0	742,0	383,0	-	



### GEOMETRISCHE DATEN GEOMETRIC DATA

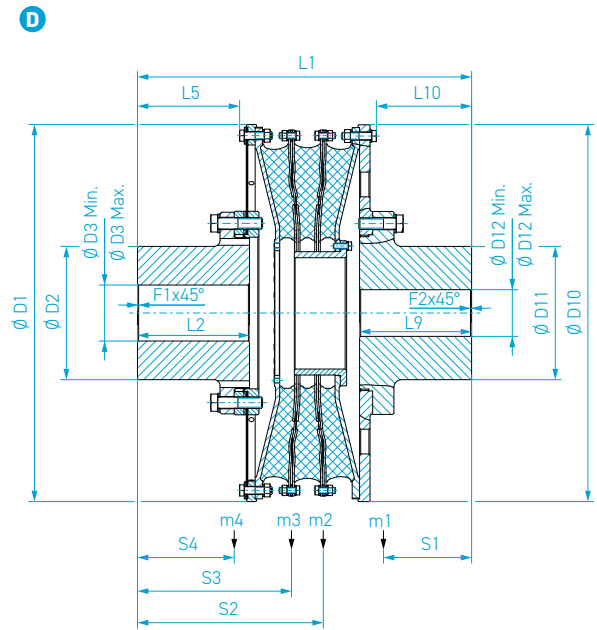
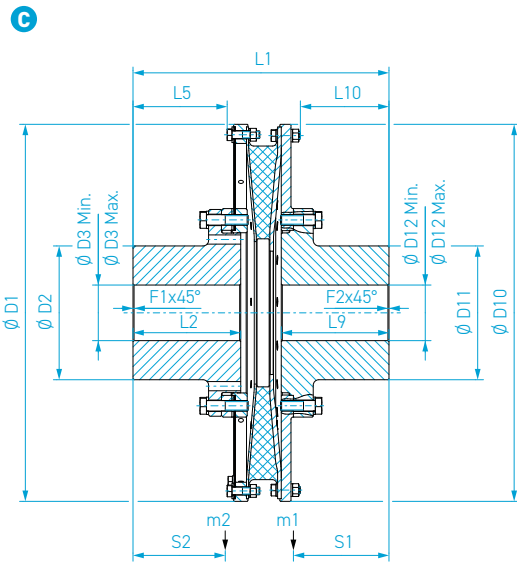


Baugruppe  
Dimension Group

Abbildung  
Figure

Abmessungen  
Dimension

		D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>		D <sub>10</sub>	D <sub>11</sub>	D <sub>12</sub>		L <sub>1</sub>	L <sub>2</sub>	L <sub>5</sub>	L <sub>9</sub>	L <sub>10</sub>	F <sub>1</sub>	F <sub>2</sub>
		[mm]	[mm]	[mm] Min.	[mm] Max.	[mm]	[mm]	[mm] Min.	[mm] Max.	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
G 1920	A	595,0	210,0	70,0	150,0	595,0	210,0	70,0	150,0	522,0	175,0	151,3	175,0	137,0	1,6	1,6
G 2120	A	640,0	224,0	80,0	160,0	645,0	224,0	80,0	160,0	594,0	185,0	165,5	185,0	166,5	1,6	1,6
G 2D10	B	685,0	238,0	110,0	170,0	690,0	238,0	110,0	170,0	529,5	195,0	174,2	195,0	173,5	1,6	1,6
G 2D20	A	685,0	238,0	110,0	170,0	690,0	238,0	110,0	170,0	625,0	195,0	174,2	195,0	173,5	1,6	1,6
G 2410	C	735,0	259,0	110,0	185,0	750,0	259,0	110,0	185,0	567,9	225,0	203,2	225,0	200,5	2,0	2,0
G 2F10	B	735,0	259,0	110,0	185,0	740,0	259,0	110,0	185,0	600,9	225,0	203,2	225,0	202,5	2,0	2,0
G 2F20	A	735,0	259,0	110,0	185,0	740,0	259,0	110,0	185,0	706,0	225,0	203,2	225,0	202,5	2,0	2,0
G 2G10	B	793,0	280,0	100,0	200,0	800,0	280,0	100,0	200,0	633,0	235,0	211,0	235,0	211,5	2,0	2,0
G 2G20	A	793,0	280,0	100,0	200,0	800,0	280,0	100,0	200,0	745,0	235,0	211,0	235,0	211,5	2,0	2,0
G 2930	D	870,0	308,0	110,0	220,0	870,0	308,0	110,0	220,0	750,0	250,0	224,0	250,0	209,0	2,0	2,0
G 3B10	B	925,0	329,0	115,0	235,0	935,0	329,0	115,0	235,0	758,2	285,0	256,5	285,0	252,5	3,0	3,0
G 3B20	A	925,0	329,0	115,0	235,0	935,0	329,0	115,0	235,0	892,0	285,0	256,5	285,0	252,5	3,0	3,0



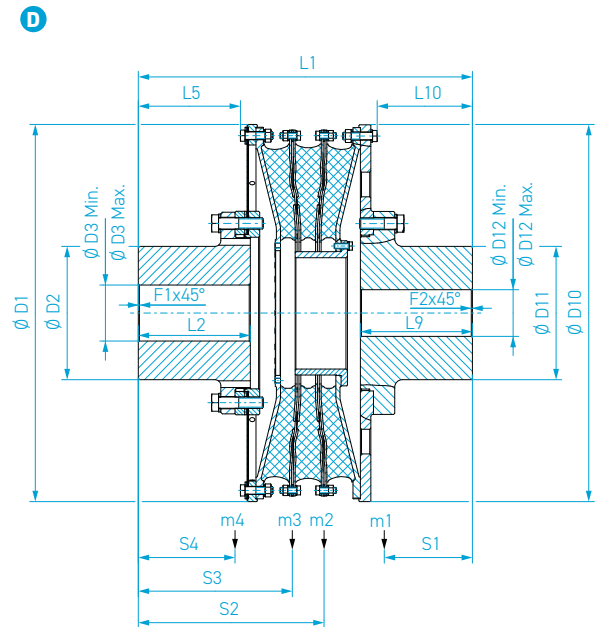
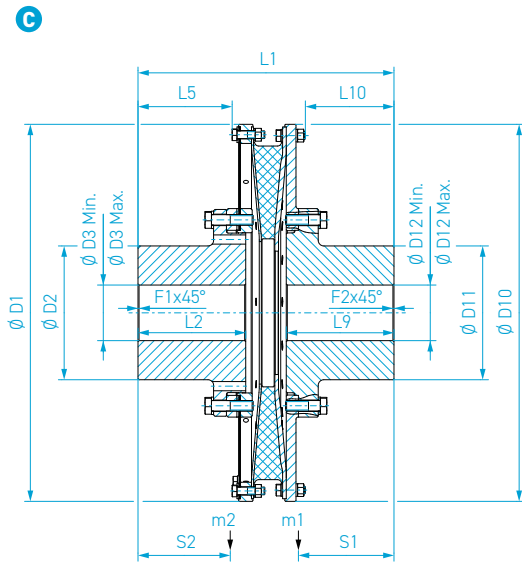
Massenträgheitsmomente Mass moments of inertia				Masse Mass				Schwerpunktsabstand Distance to center of gravity				Anmerkungen Notes
J <sub>1</sub>	J <sub>2</sub>	J <sub>3</sub>	J <sub>4</sub>	m <sub>1</sub>	m <sub>2</sub>	m <sub>3</sub>	m <sub>4</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	
[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kg]	[kg]	[kg]	[kg]	[mm]	[mm]	[mm]	[mm]	
3,5	1,3	2,6	-	119,0	26,0	97,5	-	141,0	266,0	139,0	-	
4,5	1,8	3,0	-	133,0	32,0	106,0	-	160,0	302,0	152,0	-	
6,6	3,3	-	-	154,4	105,1	-	-	172,0	149,0	-	-	
6,6	2,5	4,4	-	154,4	37,7	123,0	-	172,0	317,0	166,0	-	
8,5	5,3	-	-	185,0	147,0	-	-	183,0	172,0	-	-	
8,9	4,9	-	-	194,0	141,0	-	-	190,0	168,0	-	-	
8,9	3,4	6,2	-	194,0	46,0	162,1	-	190,0	360,0	185,0	-	
13,6	7,2	-	-	254,2	182,2	-	-	199,5	174,0	-	-	
13,6	4,8	9,1	-	254,2	55,2	206,6	-	199,5	378,0	191,0	-	
20,3	6,0	6,0	14,9	347,0	55,0	55,0	283,0	201,0	338,0	352,0	185,0	
27,6	15,5	-	-	395,0	295,0	-	-	236,0	209,0	-	-	
27,6	10,6	19,5	-	395,0	91,0	332,0	-	236,0	454,0	228,0	-	

Alle Massen, Schwerpunkte und Massenträgheitsmomente beziehen sich auf min. Nabenbohrung (Ø D3 min).

All masses, focal points and mass moments of inertia refer to min. hub bore (Ø D3 min).



### GEOMETRISCHE DATEN GEOMETRIC DATA



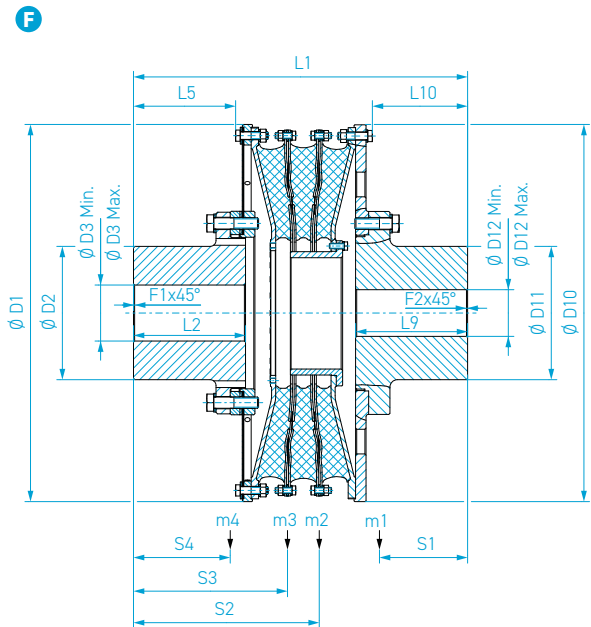
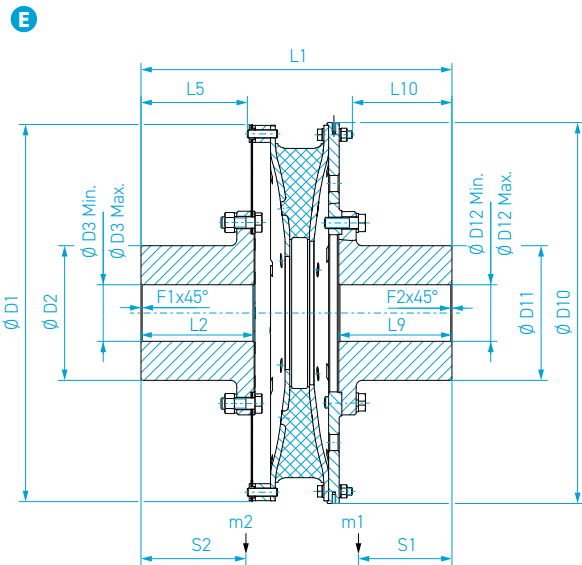
Baugruppe  
Dimension Group

Abbildung  
Figure

Abmessungen  
Dimension

		D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>		D <sub>10</sub>	D <sub>11</sub>	D <sub>12</sub>		L <sub>1</sub>	L <sub>2</sub>	L <sub>5</sub>	L <sub>9</sub>	L <sub>10</sub>	F <sub>1</sub>	F <sub>2</sub>
		[mm]	[mm]	[mm] Min.	[mm] Max.	[mm]	[mm]	[mm] Min.	[mm] Max.	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
G 3C10	E	1.000,0	357,0	150,0	255,0	1.010,0	357,0	150,0	255,0	824,5	300,0	274,5	300,0	264,0	3,0	3,0
G 3C20	F	1.000,0	357,0	150,0	255,0	1.010,0	357,0	150,0	255,0	983,0	300,0	274,5	300,0	264,0	3,0	3,0
G 3330	D	1.010,0	357,0	150,0	255,0	1.010,0	357,0	150,0	255,0	894,8	300,0	273,5	300,0	255,0	3,0	3,0
G 3E10	C	1.085,0	385,0	160,0	275,0	1.085,0	385,0	160,0	275,0	736,7	310,0	271,0	310,0	255,0	3,0	3,0
G 3E20	G	1.085,0	385,0	160,0	275,0	1.085,0	385,0	160,0	275,0	839,7	310,0	271,0	310,0	255,0	3,0	3,0
G 3810	E	1.250,0	448,0	200,0	320,0	1.255,0	448,0	200,0	320,0	995,0	385,0	355,0	385,0	346,5	4,0	4,0
G 3820	F	1.250,0	448,0	200,0	320,0	1.255,0	448,0	200,0	320,0	1.144,5	385,0	355,0	385,0	346,5	4,0	4,0
G 4A10	E	1.250,0	448,0	200,0	320,0	1.255,0	448,0	200,0	320,0	1.041,0	385,0	355,0	385,0	348,5	4,0	4,0
G 4A20	F	1.250,0	448,0	200,0	320,0	1.255,0	448,0	200,0	320,0	1.236,5	385,0	355,0	385,0	348,5	4,0	4,0
G 4710	E	1.465,0	518,0	230,0	370,0	1.480,0	518,0	230,0	370,0	1.247,6	480,0	437,3	480,0	449,3	4,0	4,0
G 4720	F	1.465,0	518,0	230,0	370,0	1.480,0	518,0	230,0	370,0	1.464,6	480,0	437,3	480,0	431,0	4,0	4,0





Massenträgheitsmomente Mass moments of inertia				Masse Mass				Schwerpunktsabstand Distance to center of gravity				Anmerkungen Notes
$J_1$	$J_2$	$J_3$	$J_4$	$m_1$	$m_2$	$m_3$	$m_4$	$S_1$	$S_2$	$S_3$	$S_4$	
[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kgm <sup>2</sup> ]	[kg]	[kg]	[kg]	[kg]	[mm]	[mm]	[mm]	[mm]	
42,9	29,1	-	-	498,0	403,0	-	-	253,0	243,0	-	-	
42,8	28,4	29,3	-	499,0	203,5	404,0	-	254,0	500,0	244,0	-	
44,6	13,0	13,0	32,8	578,0	91,0	91,0	439,0	235,0	493,8	417,0	236,0	
57,0	41,7	-	-	602,0	502,6	-	-	239,0	230,0	-	-	
57,0	21,3	48,1	-	602,0	126,8	562,5	-	239,0	428,0	243,0	-	
114,0	75,0	-	-	893,0	728,0	-	-	313,0	297,0	-	-	
114,5	68,0	76,0	-	900,0	311,4	730,6	-	314,0	582,0	297,0	-	
117,5	80,2	-	-	912,5	743,9	-	-	318,0	302,0	-	-	
118,7	76,5	80,6	-	919,5	351,0	751,5	-	318,0	628,0	303,0	-	
260,0	170,0	-	-	1.488,0	1.196,0	-	-	388,0	364,0	-	-	
260,0	156,0	171,0	-	1.494,0	513,0	1.210,0	-	389,0	742,0	367,0	-	

Alle Massen, Schwerpunkte und Massenträgheitsmomente beziehen sich auf min. Nabenbohrung (Ø D3 min).

All masses, focal points and mass moments of inertia refer to min. hub bore (Ø D3 min).



# RATO R / RATO R+

## ERLÄUTERUNGEN DES PRODUKTCODES EXPLANATIONS OF THE PRODUCT CODE

Alle VULKAN Produkte sind mit einem Produktcode gekennzeichnet. Dieser Code setzt sich aus verschiedenen Parameter-Angaben zusammen und ermöglicht es, unsere Produkte eindeutig zu identifizieren.

All VULKAN products are identified by a product code. This code consists of several parameters and it enables the clear identification of all products.

### PRODUKTCODE BEISPIEL RATO R

Hier haben wir den Code am Beispiel einer RATO R (G 241W), Größe 24, 1-reihig, Elementsteifigkeit W, Baureihe 2200 entschlüsselt dargestellt.

LEISTUNGSDATEN PERFORMANCE DATA			
Kupplungstyp Type of Coupling		$T_{KN}$	$T_{Kmax1}$
		[kNm]	[kNm]
Größe Size	Baugruppe Dimension Group	Nennrehmoment Nominal Torque	Max. Drehmoment Max. Torque
G 241W	G 2410	25,00	35,00

Auszug aus den Leistungsdaten.  
Für vollständige Daten siehe Seite 08 ff.  
Excerpt from performance data.  
Complete data see page 08 ff.

### PRODUCT CODE EXAMPLE RATO R

We have decoded here the product code of a RATO R (G 241W), Size 24, 1 row, Element stiffness W, Series 2200.

Komplettkupplung Complete coupling	Produktfamilie Product family	Größenbezeichnung Size code	Elementreihen Element rows	Elementsteifigkeit Element stiffness	Baureihe Series	Kennzeichen Key
---------------------------------------	----------------------------------	--------------------------------	-------------------------------	---	--------------------	--------------------

1

**G**

**24**

**1**

**W**

02

R



# RATO R / RATO R+

## NOTIZEN NOTICE

The image shows a technical drawing grid. The grid is composed of small squares, each divided into four triangles by a diagonal line from the top-left to the bottom-right. A central rectangular area is defined by a solid line, containing four horizontal lines for writing notes. To the right of the grid, there is a vertical scale with numerical markings from 0 to 220 in increments of 10. The scale is positioned along the right edge of the grid.

**NOTIZEN NOTICE**

The image shows a technical drawing grid. The grid is composed of small squares, each divided into four triangles by a diagonal line from the top-left to the bottom-right. A central rectangular area is defined by a double-line border and contains four horizontal lines for writing. To the right of the grid, there is a vertical scale with numerical markings from 0 to 220 in increments of 10. The scale is positioned to the right of the grid's right edge.

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- Haupt- und Nebenantriebe auf Schiffen
- Generatorsätze auf Schiffen
- Antriebe für stationäre Energieerzeugung mit Diesel- oder Gasmotoren

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- Generator sets on ships
- Drives for stationary energy production with diesel or gas engines

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Hackforth Holding GmbH & Co. KG  
VULKAN Marketing  
Heerstraße 66, 44653 Herne / Germany  
E-mail: [marketing@vulkan.com](mailto:marketing@vulkan.com)

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