DRUM-COUPLINGS

THE ORIGINAL • SERIES TTXs

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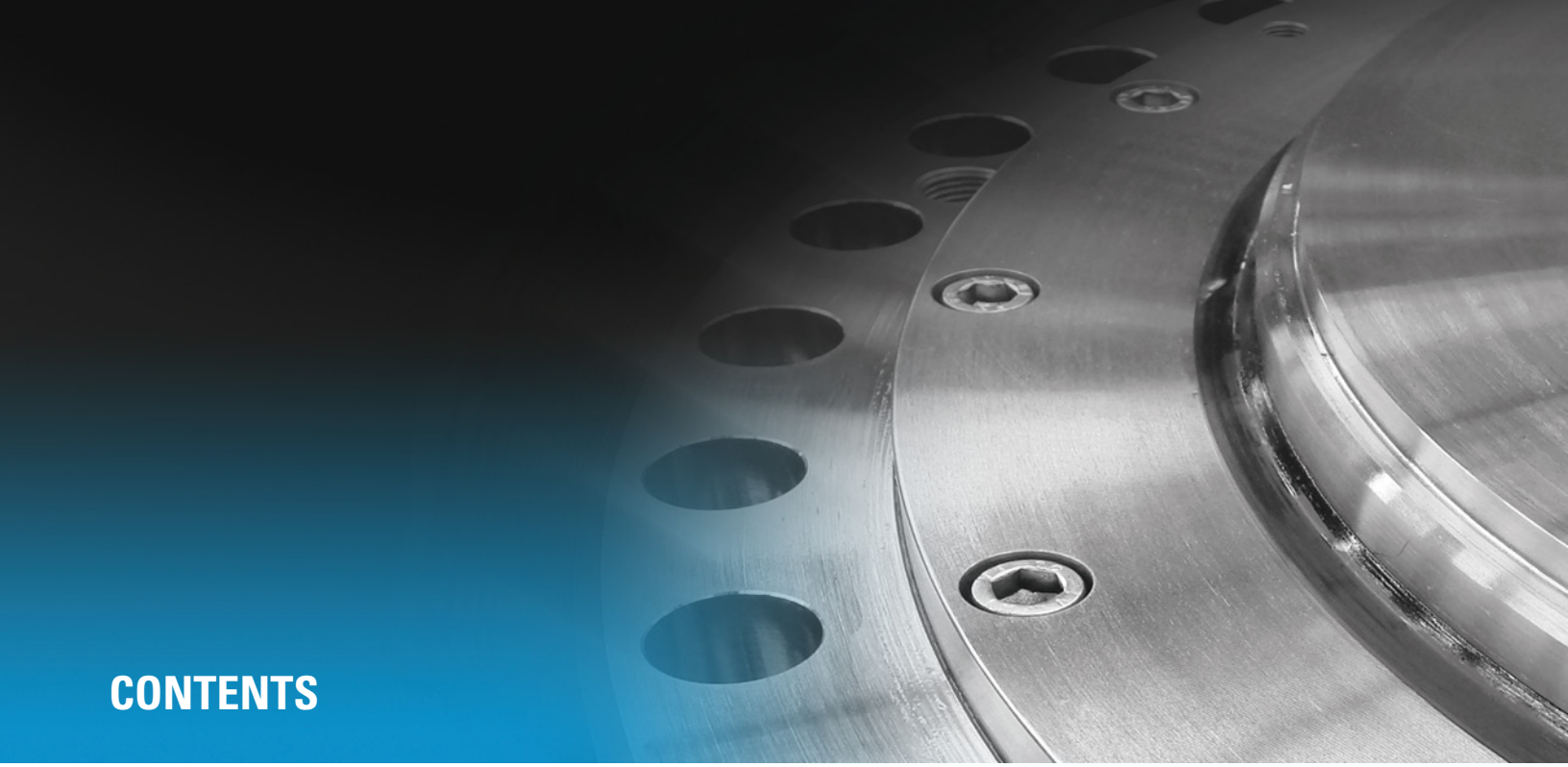


CONTENTS

Drum-Couplings
Application

Developed by MALMEDIE in the 1950s, the Drum-Coupling is especially suitable for installation in drum drives of cranes and conveying systems. More than 50 years experience of operating Drum-Couplings under the rough conditions of steelworks, reclaimers, ship unloaders and container cranes has left its mark in many of our customers' internal standard sheets. The MALMEDIE Drum-Coupling satisfies, for example, the technical requirements prescribed by the German Steel and Iron Operating Sheet *(Stahl-Eisen-Betriebsblatt) SEB 666212,* issued in Jan. 1991, and the *Norme Sidérurgie Française.*

A rigid connection between the gear shaft and the rope drum results, in a single or twin drum drive, in a statically indeterminated three or four-point support.

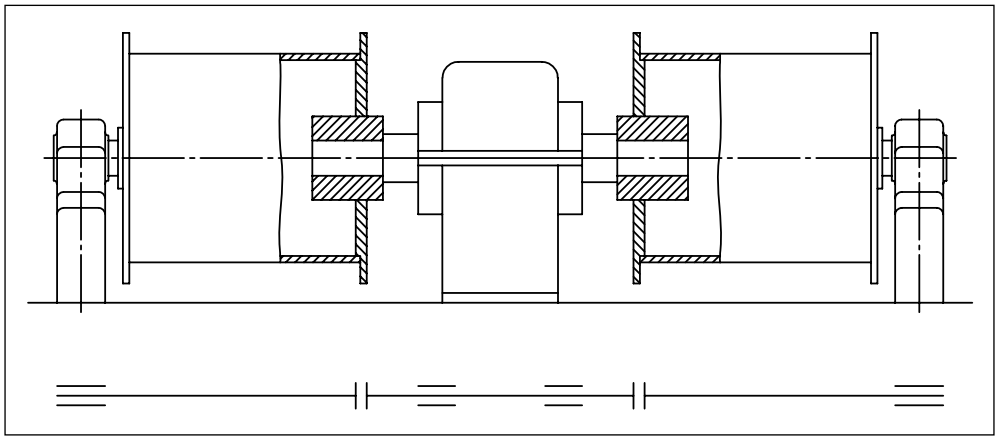


Fig. 1 Layout of a twin drum drive with four-point beared rigid shaft without a Drum-Coupling.

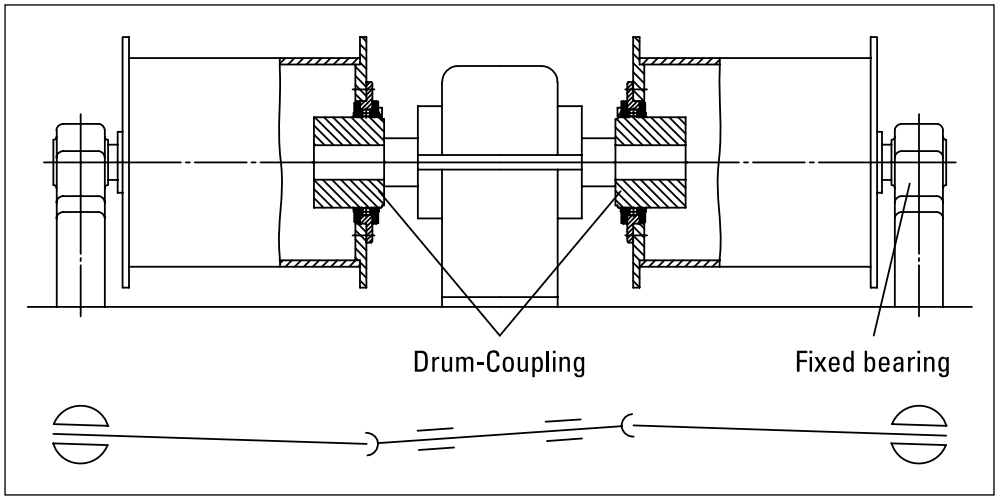


Fig. 2 Layout of a twin-drum drive with a Drum-Coupling.

- *higher load capacity*
- *up to 10 % higher permissible torque*
- *larger permissible radial load*
- *larger permissible finish bore*
- *longer service life*
- *interchangeable with preceding series*
- *optionally with automatic wear indicator*
- *suitable for use in potentially explosive hazardous areas according to directive RL 2014/34/EU* (Ex)

The two illustrations on this page are showing the arrangement of twin-drum drives for a crane unit.

This kind of connection requires a considerable amount of alignment work.

In case of misalignment due to inaccurate assembly, bending of the beams, or high wear at a roller bearing, considerable additional forces affect the shaft.

Alternating bending stresses arise on the gear shaft during rotation, and these can lead to fatigue fractures and to damage to bearings and to gear teeth.

Application

The calculation for a single-drum drive with rigid connection between gear shaft and rope drum (Fig. 3) yields, for given load F and with bending or alignment error, a maximum bending moment on the gear shaft end of M. To achieve a statically determinated bearing, the rigid connection must be replaced by a joint. The maximum determined bending moment which can occur at the gear shaft under the same load F then falls to only about 25% of M (Fig. 4).

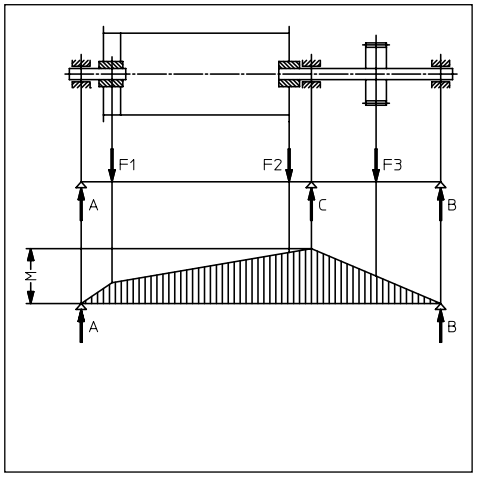


Fig. 3

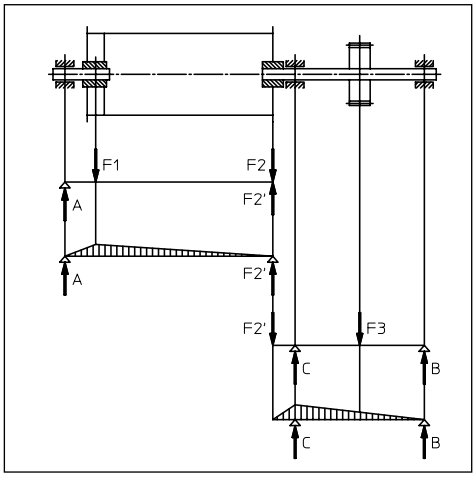


Fig. 4

Fig. 5 shows a Drum-Coupling in a single-drum drive. The Drum-Coupling's hub sits on the end of the gear shaft in the rope drum. The rope drum's plummer block is to be constructed as a fixed bearing.

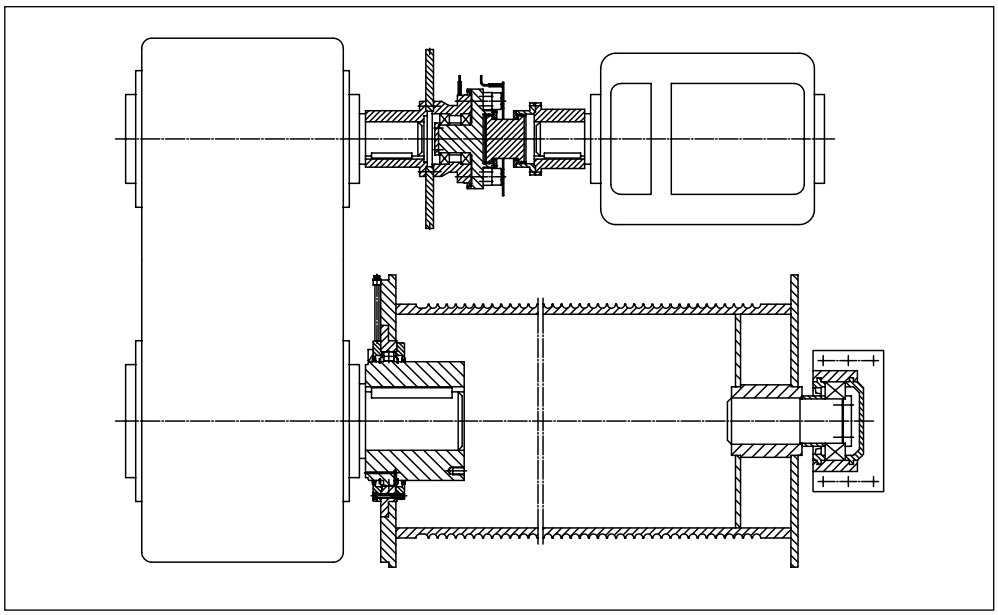


Fig. 5

The MALMEDIE TTXs Drum-Coupling is a further development of the TT, RTT, NTT and TTX series, which have been proven over many years. The new development brings an increase in capacity, accompanied by significantly improved operating security and fulfils customers' demands for continually higher performances but low weights and small installation spaces. Modern CNC manufacturing technology ensures that the connection dimensions permit the devices to be exchanged. The TTXs Drum-Coupling consists of: coupling hub, coupling housing, inner cover, outer cover, barrel rollers, pointer, seals, cover screws, circlips and thrust collars (fastening bolts are not scope of supply).

The MALMEDIE Drum-Coupling should be considered as a complete exchange part. For warranty reasons, the coupling hubs and housings cannot be supplied separately. The Drum-Couplings are supplied ready assembled, but not filled with lubricant. They are provided with a corrosion protection adequate for normal storage conditions.

The transmission of force within the Drum-Coupling takes place through positive locking. Hardened barrel rollers, placed in the holes formed by the two circular gearings, are used as the force transmitting elements. From coupling size 2 upwards, the barrel rollers are axially fixed. The cover, housing and seals prevent both the ingress of external particles and the leakage of lubricant. The torque is transmitted to the rope drum via the flattenings on the outer diameter of the coupling housing and via the friction between the coupling housing and the flanged wheel. The connecting bolts (HSFG bolts, class 10.9) between the coupling housing and flanged wheel generate the necessary friction whilst, at the same time, providing fastening. A pointer fixed to the outer cover, and corresponding markings on the coupling hub, allow external control of the wear and the axial position of the coupling housing in relation to the coupling hub. It is not necessary to dismantle the coupling for this purpose.

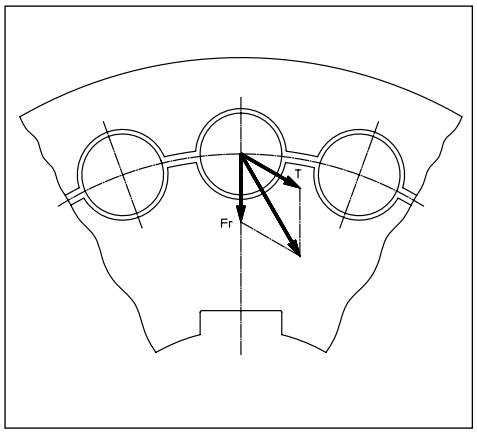


Fig. 6

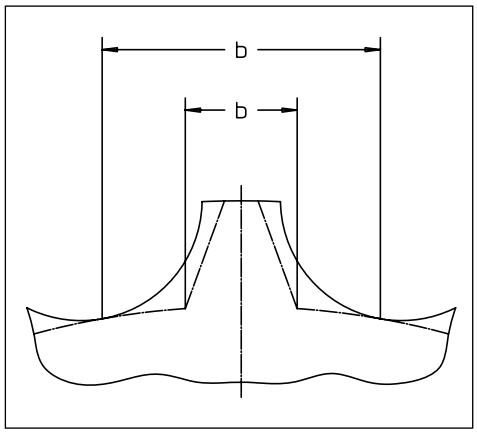


Fig. 7

The MALMEDIE Drum-Coupling type TTXs, which, with its compact form, must transmit not only torque but also large radial loads in the gearings, has the following characteristics:

- *safe absorption of large radial forces with low bending load on the tooth ground, even circumferential and radial play in the gearing, compensation of angular misalignments of up to* ***±1°***
- *depending on the size of the coupling, axial displacements of max. 3 mm up to max. 10 mm can be accepted in operation (see table of dimensions). MALMEDIE Drum-Couplings are not suitable for the absorption and transmission of axial forces (exception: special design)*
- *Sliding movement in the gearing is kept to a minimum during compensation of angular misalignment. The wear intensifying relative movement between inner and outer gearing is reduced by the barrel roller itself*
- *high safety factor against overloads*
- *the force transmission results in work hardening of the tooth flanks, thus bringing high wear resistance*

The barrel rollers accept the compressive strains caused by the torque and the radial load over a large area. This design means that the risk of a tooth fracture resulting from bending stress is excluded. (Fig. 6)

A comparison of the bending stress on the tooth base occurring with involute toothing and circular toothing yields a significant lower value for the circular toothing. (Fig. 7)

Drum-Couplings
Size selection

The required size of a coupling depends on the following factors:

1. max. torque T_{max}

2. max. radial load F_{max} [lbf]

3. Dimensions of the gear shaft

1. max. torque T_{max} [lb-ft]

The determined torque T_{max} to be transmitted on the basis of the installed or used capacity of the coupling must be smaller than the max. permissible torque Tk_{max} of the Drum-Coupling in accordance with dimension sheet 709-04.

P = used motor power [hp]
n = speed of the rope drum [rpm]
C_{erf} = necessary service factor for drive groups

$$T = \frac{P \times 5252}{n} \times C_{erf}$$

Drive group according to			Cerf
CMAA	DIN15020	F.E.M. 1.001	
A, B	1Bm/1Am	M3/M4	1.25
C	2m	M5	1.40
D	3m	M6	1.60
E	4m	M7	1.80
F	5m	M8	2.00

2. max. radial load F_{max} [lbf]

The radial load is the portion of the load that must be covered by the Drum-Coupling due to the payload and the weight of the cable hoist. Since the Drum-Coupling forms one of the drum bearings, it must bear part of the total load.

The static load GTr [N] on the rope drum must be determined first before calculating the radial load F_{max}.

Q = max. payload under hook [lbf]
G = load of tackle and ropes [lbf]
i_F = transmission ratio of tackle
η_F = efficiency of the rope drum and tackle

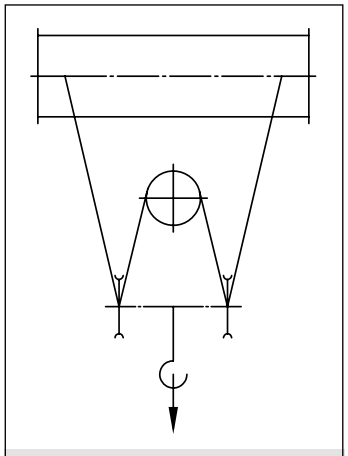
$$G_{Tr} = \frac{(Q + G)}{i_F \bullet \eta_F}$$

i_F	Efficiency η_F	
	Slide bearing	Roller bearing
2	0,92	0,97
3	0,90	0,96
4	0,88	0,95
5	0,86	0,94
6	0,84	0,93
7	0,83	0,92
8	0,81	0,91

Calculation of the radial load F_{max} with multiple rope lines to the drum

G_{Tr} = static load on the rope drum [lbf]
W = dead weight of the rope drum [lbf]

$$F_{max} = \frac{GTr}{2} + \frac{W}{2}$$



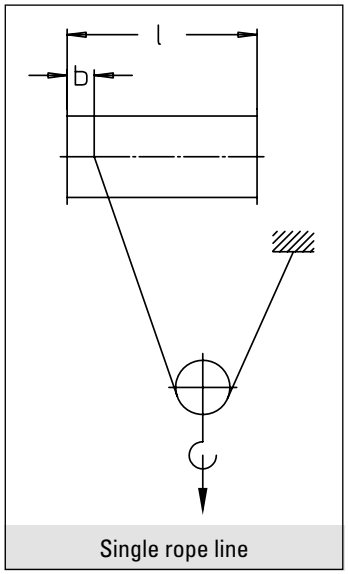
Multiple rope lines

Calculation of the radial load F_{max} with a single rope line to the drum

G_{Tr} = static load on the rope drum [lbf]
W = dead weight of the rope drum [lbf]
b = smallest distance from the rope to the middle of the barrel roller [mm]
l = distance between the bearings [mm]

The determined radial load F_{max} must be smaller than the max. permissible radial load Fr_{max} of the Drum-Coupling in accordance with dimension sheet 709-04.

$$F_{max} = \left[G_{Tr} \bullet \left(1 - \frac{b}{l} \right) \right] + \frac{W}{2}$$



Single rope line

Option for corrected radial load Fr_{korr} [lbf]

If the max. torque T_{max} is smaller than the max. permissible torque Tk_{max} of the preselected Drum-Coupling, the max. permissible radial load Fr_{max} can be corrected or increased. The unused torque can be converted for the purpose of increasing the max. permissible radial load Fr_{max} as follows:

T_{max} = max. torque [lb-ft]

Tk_{max} = max. permissible torque [lb-ft] according to dimension sheet 709-04

C_{erf} = necessary service factor for drive groups according to DIN15020 or F.E.M. 1.001

Fr_{max} = max. permissible radial force [lbf] according to dimension sheet 709-04

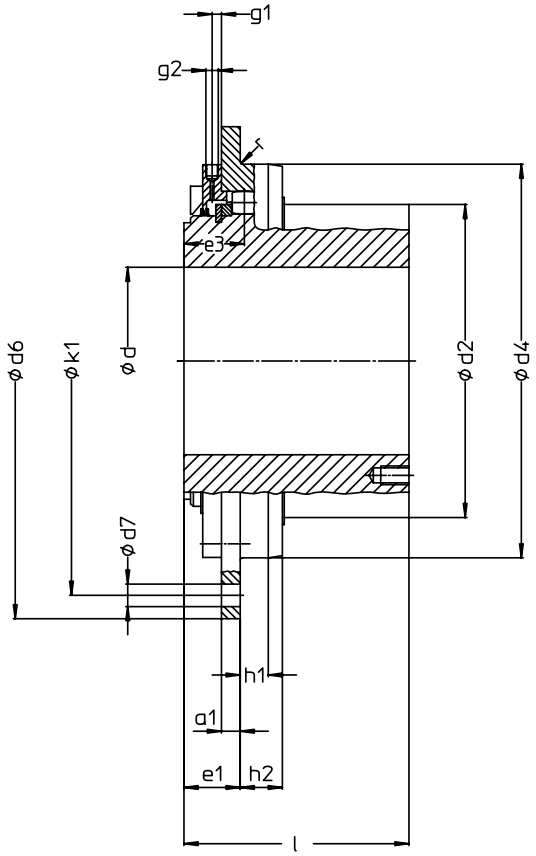
The reverse procedure, i.e. to increase the max. permissible torque if the radial load is not fully exploited, is not allowed.

$$Fr_{korr} = \frac{TK_{max} - T_{max}}{C_{erf}} + Fr_{max}$$

3. Check the geometric dimensions of the hub-shaft connection

It must also be checked whether or not the diameter of the gear shaft is smaller than the max. permissible bore diameter in the Drum-Coupling according to dimension sheet 709-04. In addition, the transmitted torque related to the hub/shaft connection must be checked for all types of connection.

Drum-Couplings
Dimension sheet 709-04 / TTXs Standard



Size	Selection SEB	Torque Tk_{max} [lb-ft]	Radial load Fr_{max} [lbf]	* Weight [lb]	Mass-moment of inertia [lb-ft²]
0,25	-	4,795	3,935	24	2
0,5	-	5,901	4,497	29	3
0,75	-	7,007	4,834	41	4
1	-	11,801	6,070	51	6
1,3	-	15,489	8,318	61	8
1,6	-	19,177	9,218	73	10
2	SG 130	22,127	10,117	98	14
3	-	30,241	11,915	117	19
4	SG 140	39,829	16,861	155	32
5	-	56,793	25,854	243	64
6	SG 185	88,508	29,226	289	86
10	SG 200	132,762	33,722	362	124
15	SG 240	177,015	40,466	574	259
21	-	243,396	59,575	666	321
26	SG 270	302,401	70,815	750	375
34	SG 315	383,533	80,932	915	527
42	SG 355	479,416	89,924	1,235	874
62	SG 400	567,923	106,785	1,588	1,367
82	-	685,933	118,025	2,205	2,255
92	-	811,319	123,645	2,426	2,824

*with max. finish bore

Size	d min. [mm]	d max. [mm]	a1 [mm]	d2 [mm]	d4 / h6 [mm]	d6 [mm]	d7 [mm]	e1 [mm]	e3 [mm]	g1 [mm]	g2*	h1 [mm]	h2 [mm]	k1 [mm]	l [mm]	r [mm]	Axial play max ± [mm]
0,25	40	65	12	95	160	250	15	42	44	7,5	G1/8	16	31	220	95	2,5	3
0,5	50	75	12	110	180	280	15	42	44	7,5	G1/8	16	31	250	100	2,5	3
0,75	60	85	15	125	200	320	19	45	46	7,5	G1/8	17	32	280	110	2,5	4
1	60	95	15	140	220	340	19	45	46	7,5	G1/8	17	32	300	125	2,5	4
1,3	80	110	15	160	240	360	19	45	47	7,5	G1/8	19	34	320	130	2,5	4
1,6	80	125	15	180	260	380	19	45	47	7,5	G1/8	19	34	340	145	2,5	4
2	100	140	15	211	280	400	19	45	48	7,5	G1/8	22	32	360	170	2,5	4
3	100	155	15	231	310	420	19	45	50	7,5	G1/8	22	33	380	175	2,5	4
4	100	180	20	272	340	450	24	60	61	10	G1/4	22	31	400	185	2,5	4
5	120	210	20	312	400	510	24	60	61	10	G1/4	22	35	460	220	2,5	6
6	120	215	20	329	420	550	24	60	65	10	G1/4	30	45	500	240	2,5	6
10	140	245	20	375	450	580	24	60	67	10	G1/4	30	46	530	260	2,5	6
15	160	290	25	433	530	650	24	65	69	10	G1/4	30	43	600	315	2,5	6
21	170	300	25	455	545	665	24	65	78	10	G1/4	35	63	615	330	4	6
26	170	310	25	470	560	680	24	65	78	10	G1/4	35	63	630	350	4	6
34	200	330	35	502	600	710	28	81	88	10	G1/4	38	59	660	380	4	8
42	230	370	35	566	670	780	28	81	88	10	G1/4	38	59	730	410	4	8
62	260	420	35	630	730	850	28	81	90	10	G1/4	40	61	800	450	4	8
82	290	450	40	693	800	940	28	86	92	10	G1/4	50	62	875	500	4	10
92	330	470	40	725	860	1025	34	86	92	10	G1/4	50	62	945	500	4	10

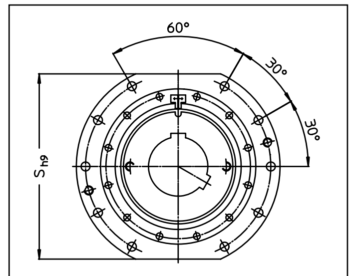
other dimensions on request

* Rc1/4, M10x1 or other connections possible via adaptor

Coupling/rope drum connection

- The material for the flanged wheel should have a minimum yield strength of 355 MPa [e.g. S355M – DIN EN10025-4].
- Bolts according to DIN931, DIN933 or DIN6914 of strength class 10.9 and washers according to DIN6916 are to be used to fasten the Drum-Coupling onto the rope drum.

Size	Selection SEB	S F8 / h9 [mm]	a2 min. [mm]	d4 F8 [mm]	d17		k1 [mm]	t4 min. [mm]	t6 [mm]	y min. [mm]
					Thread	Qty				
0,25	-	220	27	160	M12	10	220	12	0,08	50
0,5	-250		27	180	M12	10	250	12	0,08	50
0,75	-	280	30	200	M16	10	280	15	0,08	60
1	-300		30	220	M16	10	300	15	0,08	60
1,3	-	320	30	240	M16	10	320	15	0,10	60
1,6	-340		30	260	M16	10	340	15	0,10	60
2	SG 130	360	30	280	M16	10	360	15	0,10	60
3	-380		30	310	M16	10	380	15	0,10	60
4	SG 140	400	40	340	M20	10	400	20	0,10	70
5	-460		40	400	M20	10	460	20	0,10	70
6	SG 185	500	40	420	M20	10	500	20	0,15	70
10	SG 200	530	40	450	M20	14	530	20	0,15	70
15	SG 240	580	50	530	M20	14	600	25	0,20	80
21	-	590	50	545	M20	26	615	25	0,20	80
26	SG 270	600	50	560	M20	26	630	25	0,20	95
34	SG 315	640	60	600	M24	26	660	35	0,20	95
42	SG 355	700	60	670	M24	26	730	35	0,20	95
62	SG 400	760	60	730	M24	26	800	35	0,20	95
82	-	830	70	800	M24	32	875	40	0,20	95
92	-	900	70	860	M30	32	945	40	0,20	95



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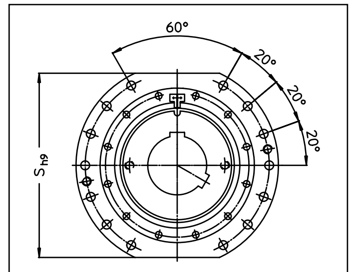

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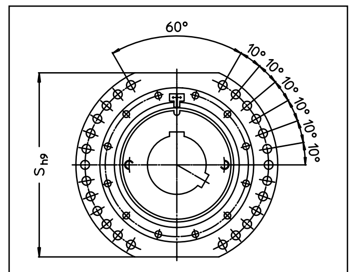

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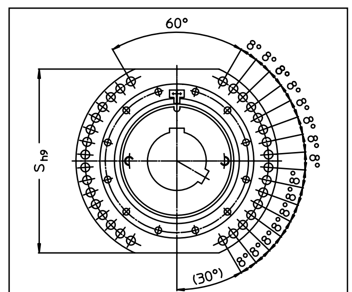

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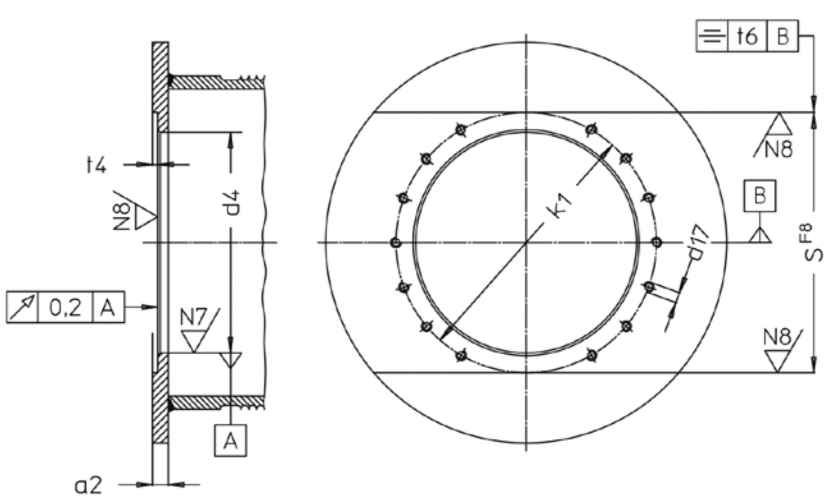
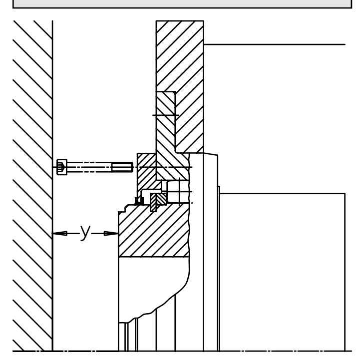
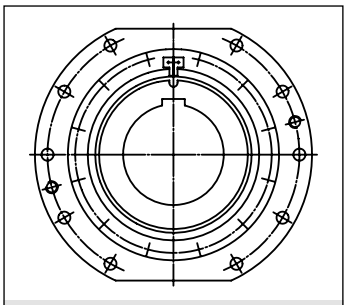
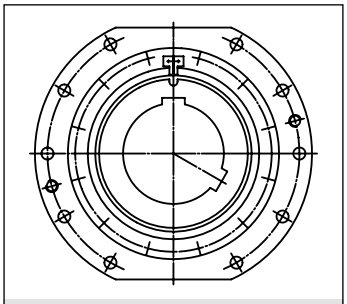




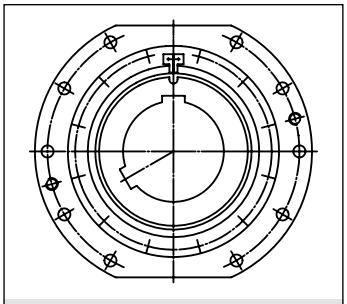
Drum-Couplings
Key connections



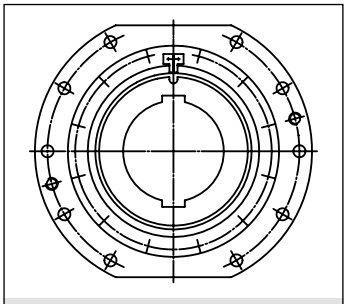
1 x key



2 x keys 120° right



2 x keys 120° left



2 x keys 180°

The given values for the bores are valid according to ANSI B17.1 Standard. As a matter of principle, every key connection must be checked with regard to the surface pressure. Keyways according to BS 46, DIN6885-1 or other standards are also possible. For other types of connection, e.g. spline connections according to DIN5480 or multiple splined shaft connections, please contact our Technical Department. Shrink-fit connections see next page.

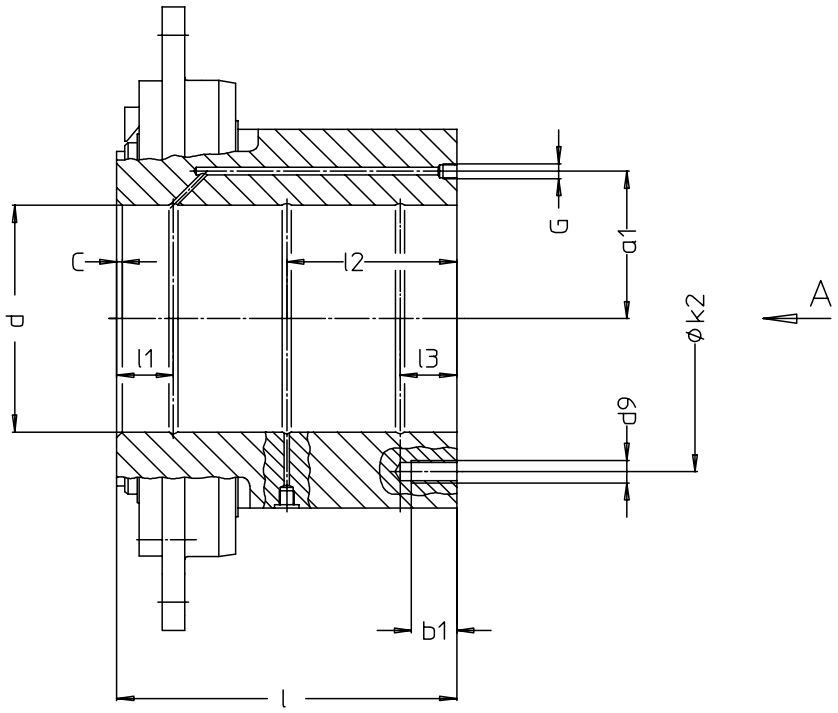
Key sizes ANSI B17.1 Standard — All dimensions in inch

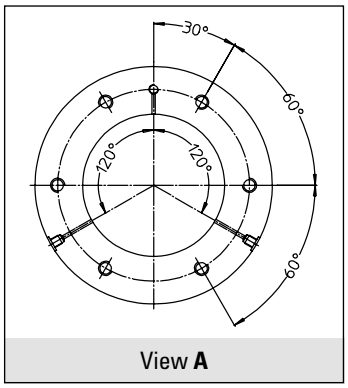
Bore d1	over	1.375	1.750	2.250	2.750	3.250	3.750
	to	1.750	2.250	2.750	3.250	3.750	4.500
Square key	width	0.375	0.500	0.625	0.750	0.875	1.000
	height	0.375	0.500	0.625	0.750	0.875	1.000
Rect. key	width	0.375	0.500	0.625	0.750	0.875	1.000
	height	0.250	0.375	0.4375	0.500	0.625	0.750

Bore d1	over	4.500	5.500	6.500	7.500	9.000	11.000
	to	5.500	6.500	7.500	9.000	11.000	13.000
Square key	width	1.250	1.500	1.750	2.000	2.500	3.000
	height	1.250	1.500	1.750	2.000	2.500	3.000
Rect. key	width	1.250	1.500	1.750	2.000	2.500	3.000
	height	0.875	1.000	1.500	1.500	1.750	2.000

Bore d1	over	13.000	15.000	18.000	22.000	26.000	30.000
	to	15.000	18.000	22.000	26.000	30.000	34.000
Square key	width	3.500	4.000	5.000	6.000	7.000	8.000
	height	3.500	4.000	5.000	6.000	7.000	8.000
Rect. key	width	3.500	4.000	5.000	6.000	7.000	8.000
	height	2.500	3.000	3.500	4.000	5.000	5.500

Drum-Couplings
Shrink-fit connections





View **A**

The Drum-Coupling's hub must be heated to the required shrinking temperature T before assembly.

T = required shrinking temperature [°F]

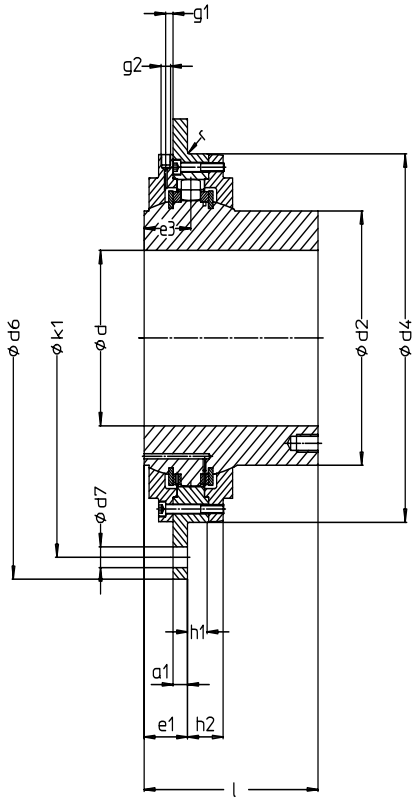
O = max. oversize [µm]

d = bore diameter [mm]

$$T = \frac{180 \cdot O}{1{,}2 \cdot d} + 248$$

Size	d min. [mm]	d max. [mm]	l [mm]	l1 [mm]	l2 [mm]	l3 [mm]	k2 [mm]	d9	Qty	b1 [mm]	G	a1 [mm]
0,25	40	65	95	15	40	-	80	M8	6	16	G1/8	40
0,5	50	75	100	20	40	-	90	M8	6	16	G1/8	45
0,75	60	85	110	20	45	-	105	M10	6	20	G1/8	52,5
1	60	95	125	25	50	-	120	M10	6	20	G1/8	60
1,3	80	110	130	30	50	-	135	M12	6	24	G1/8	67,5
1,6	80	125	145	30	60	-	150	M12	6	24	G1/8	75
2	100	140	170	30	70	-	165	M16	6	32	G1/8	82,5
3	100	155	175	30	75	-	180	M16	6	32	G1/8	90
4	100	180	185	30	80	-	215	M20	6	40	G1/8	107,5
5	120	210	220	30	110	30	255	M20	6	40	G1/4	127,5
6	120	220	240	30	120	30	260	M20	6	40	G1/4	130
10	140	250	260	35	130	35	290	M24	6	48	G1/4	145
15	160	290	315	40	157,5	40	350	M24	6	48	G1/4	175
21	170	300	330	45	165	45	375	M30	6	60	G1/4	187,5
26	170	310	350	50	175	50	375	M30	6	60	G1/4	187,5
34	200	330	380	50	190	50	395	M30	6	60	G1/4	197,5
42	230	370	410	60	205	60	445	M30	6	60	G1/4	222,5
62	260	420	450	60	225	60	500	M30	6	60	G1/4	250
82	290	450	500	60	250	60	570	M36	6	60	G1/4	285
92	330	470	500	60	250	60	640	M36	6	60	G1/4	320

Drum-Couplings
Dimension sheet 709-05 / FTTXs Fixed Bearing Version



Size	Torque Tk max [lb-ft]	Radial load Fr max. [lbf]	* Weight [lb]	Mass-moment of inertia [lb-ft²]
6	88,507	29,226	298	86
10	132,761	33,722	364	124
15	177,015	40,466	583	250
21	243,395	59,575	662	300
26	302,400	70,815	728	342
34	383,532	80,932	926	496
42	479,415	89,924	1,235	810
62	567,923	106,785	1,588	1,265
82	685,933	118,025	2,117	2,018
92	811,318	123,645	2,315	2,445

*with max. finish bore

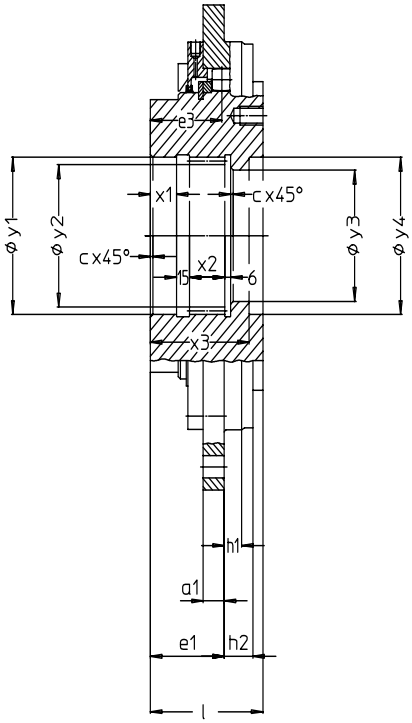
Size	d min. [mm]	d max. [mm]	a1 [mm]	d2 [mm]	d4 / h6 [mm]	d6 [mm]	d7 [mm]	e1 [mm]	e3 [mm]	g1 [mm]	g2*	h1 [mm]	h2 [mm]	k1 [mm]	l [mm]	r [mm]
6	120	205	20	294	420	550	24	60	65	10	G1/4	30	45	500	240	2,5
10	140	235	20	336	450	580	24	60	67	10	G1/4	30	46	530	260	2,5
15	160	270	25	395	530	650	24	65	69	10	G1/4	30	43	600	315	2,5
21	170	280	25	405	545	665	24	65	78	10	G1/4	35	63	615	330	4
26	170	290	25	420	560	680	24	65	78	10	G1/4	35	63	630	350	4
34	200	300	35	445	600	710	28	81	88	10	G1/4	38	59	660	380	4
42	230	340	35	510	670	780	28	81	88	10	G1/4	38	59	730	410	4
62	260	390	35	570	730	850	28	81	90	10	G1/4	42	61	800	450	4
82	290	420	40	630	800	940	28	86	92	10	G1/4	42	62	875	500	4
92	330	420	40	630	860	1025	34	86	92	10	G1/4	42	62	945	500	4

other dimensions on request

* Rc1/4, M10x1 or other connections possible via adaptor

Drum-Couplings
Dimension sheet 709-06 / MTTXs Standard

Size	* Weight [lb]	Mass-moment of inertia [lb-ft²]	Gearing DIN5480
2	117	19	N100x5x30x18x9H
3	128	24	N120x5x30x22x9H
4	164	36	N140x5x30x26x9H
5	217	67	N170x8x30x20x9H
6	247	79	N170x8x30x20x9H
10	283	103	N200x8x30x24x9H
15	430	214	N240x8x30x28x9H
21	497	238	N250x8x30x30x9H
26	483	262	N280x8x30x34x9H
34	596	356	N280x8x30x34x9H
42	684	570	N340x8x30x41x9H
62	993	902	N340x8x30x41x9H
82	1,279	1,424	N400x8x30x48x9H
92	1,411	1,875	N440x8x30x54x9H

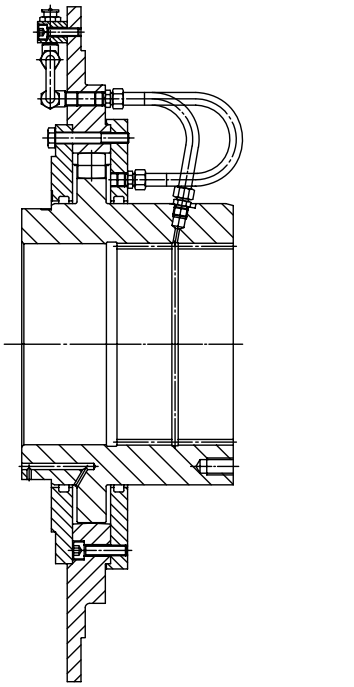


See dimension sheet 709-04 (pages 8 & 9) for all other dimensions

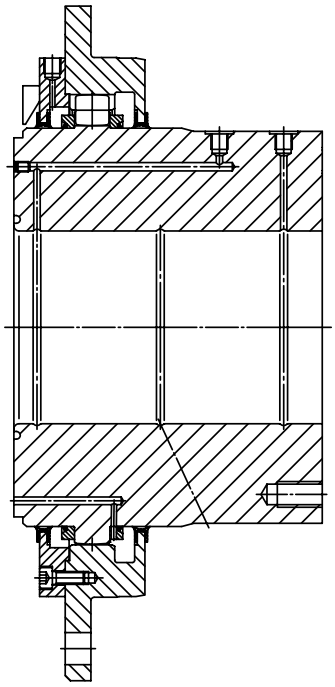
Size	x1 [mm]	x2 [mm]	x3 [mm]	y1 / K6 [mm]	y2 / H11 [mm]	y3 / H7 [mm]	y4 / +0,5 [mm]	c [mm]	a1 [mm]	e1 [mm]	e3 [mm]	h1 [mm]	h2 [mm]	l [mm]
2	39	32	110	100	90	85	101	1	32	90	76	10	20	125
3	39	32	110	120	110	105	121	1	32	85	73	10	20	120
4	40	40	121	140	130	125	141	1	32	92	81	10	21	130
5	40	40	121	170	154	150	166	2	32	92	81	10	22	130
6	38	42	121	170	154	150	166	2	32	89	82	10	30	129
10	26	50	116	200	184	180	200	2	32	91	85	10	33	131
15	27	60	129	240	224	220	240	2	40	108	96	12	35	150
21	26	70	138	250	234	230	250	2	40	108	106	19	43	162
26	26	70	138	280	264	260	280	2	40	111	109	19	45	162
34	26	70	138	280	264	260	280	2	50	109	101	19	41	162
42	33	80	161	340	324	320	350	2	50	137	129	19	43	190
62	33	80	161	340	324	320	350	2	50	137	131	19	43	190
82	35	100	190	400	384	380	410	2	50	137	133	30	50	219
92	35	100	190	440	424	420	450	2	50	137	133	30	50	219

other dimensions on request

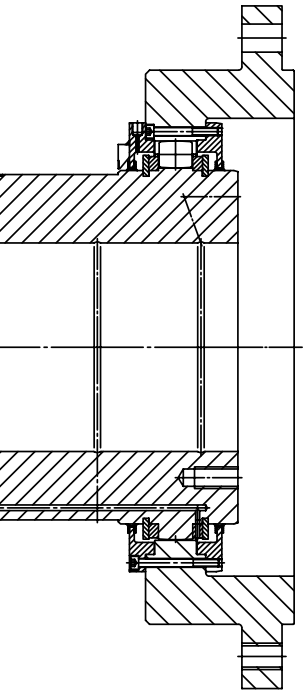
Further designs



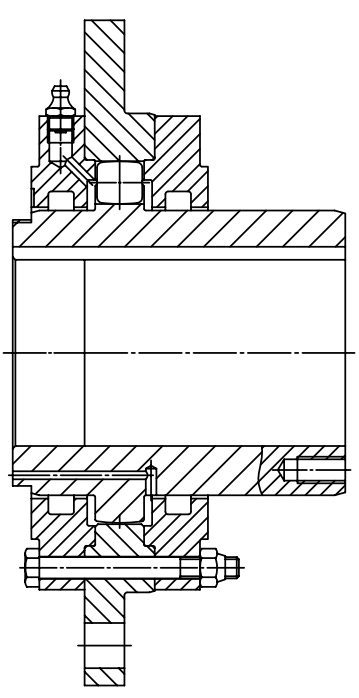
BTTXs



according to SIDMAR standard BR3-550



with special flange



for high-bay warehouses and goods lifts

Wear indicator

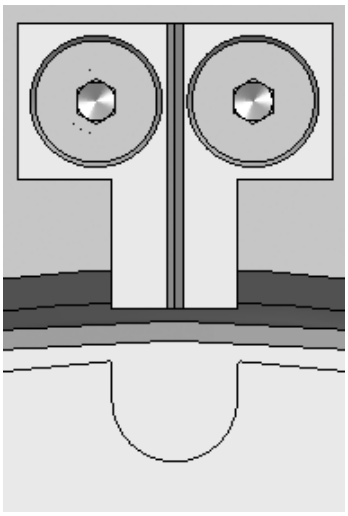
Wear which has occurred in the Drum-Coupling can be read from the displacement of the pointer in relation to the wear notch. The maximum permissible wear values $\frac{m}{2}$ are given in the table.

The Drum-Coupling must be replaced as soon as the limit value is exceeded.

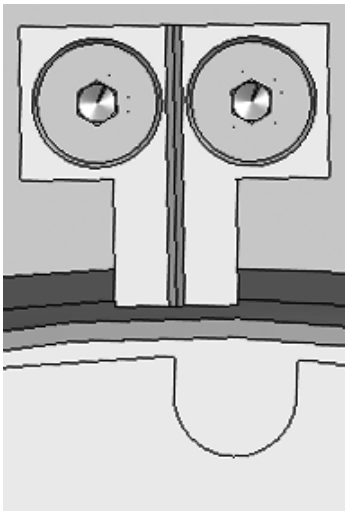
In cases where there are two load directions, the maximum permissible wear values $\frac{m}{2}$ must be halved. This must be stated when ordering, so that the appropriate wear notch can be manufactured.

Coupling size	max. permissible wear $\frac{m}{2}$
0,25 - 1	4 mm
1,3 - 5	6 mm
6 - 92	8 mm

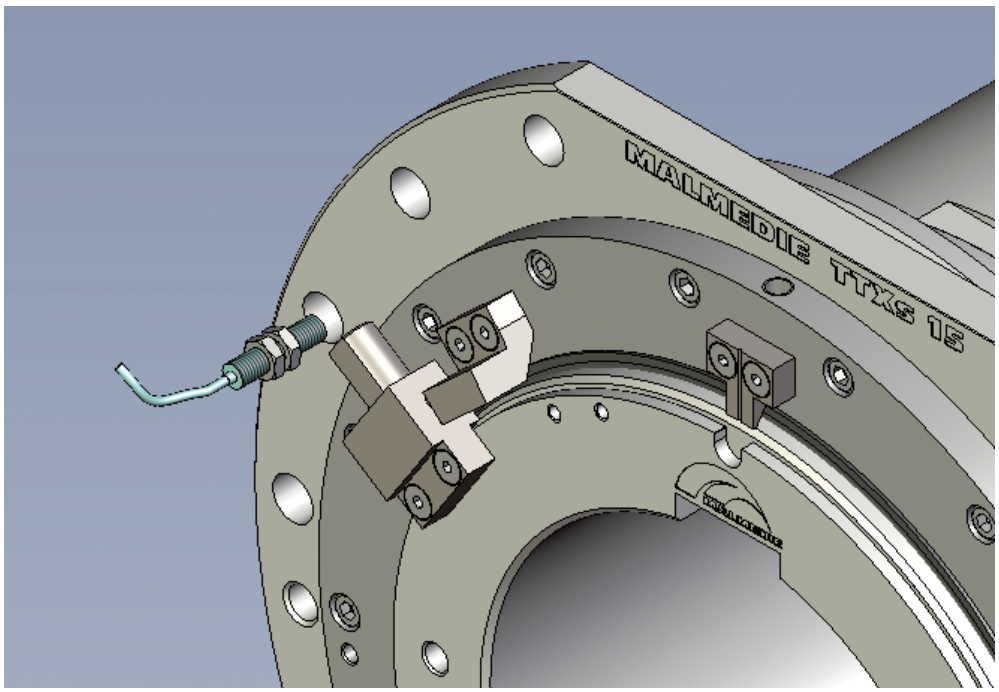
An automatic wear indicator is optionally available for coupling sizes from 6 to 62. However, this does not release from the duty to check the wear indicator regularly.



without wear



with max. wear



Application examples

TTXs ATTXs
ASTTXs MTTXs BTTXs
TTXs ATTXs
ASTTXs MTTXs BTTXs
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ASTTXs MTTXs
BTTXs TTXs ATTXs
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MTTXs BTTXs TTXs

Container cranes

Steelwork cranes

Application examples

Mining / conveying systems

Oil drilling towers (including low temperature applications)

Inquiry form
for Drum-Couplings

Company

Mr / Ms

Street

Postcode/Town

Country

Telephone

Fax

eMail

Application

☐ Hoisting winch ☐ Rope winch ☐ Grab winch boom
☐ _____ ☐ retracting winch

Technical data

Drive group _____ ☐ acc. to CMAA ☐ acc. to F.E.M. 1.001

Rope drum diameter _____ inch
Rope force on the drum _____ lbf
Drum speed _____ rpm

Nominal torque _____ lb-ft ☐ without service factor ☐ with service factor
max. torque _____ lb-ft ☐ without service factor ☐ with service factor
max. radial load _____ lbf (referred to the Drum-Coupling

Motor power _____ hp
Motor speed _____ rpm
Used motor power _____ hp
Gearbox ratio _____
Gearbox efficiency _____

Operation

Type of operation ☐ even ☐ swelling ☐ intermittent and heavy
Direction of force ☐ constant ☐ alternating

Operations per hour _____ / h
Operating time per day _____ h/d
Ambient temperature _____ °F

Version

Coupling type _____ Coupling size _____ (pre-selection)

Hub/shaft connection

☐ Key Bore _____ Keyway width _____ Keyway depth _____
Qty _____ Angle _____ Chamfer _____
☐ DIN5480 gearing _____ Length _____ Bore _____
☐ Shrink-fit connection Bore _____ Chamfer _____ Shaft _____
☐ Other _____

Remarks

_____

_____

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