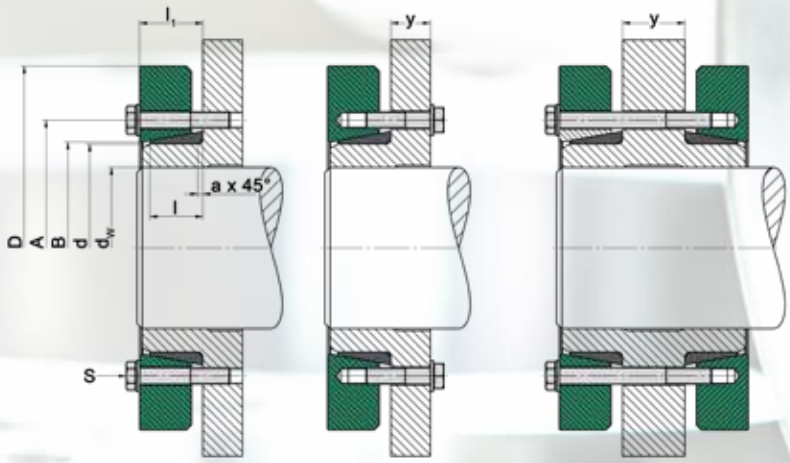
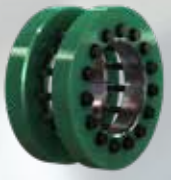
3091 Half/Split (Heavy-range)



HALF-D

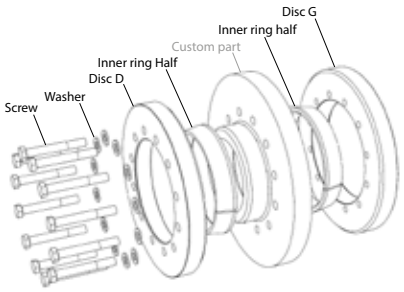
HALF-G

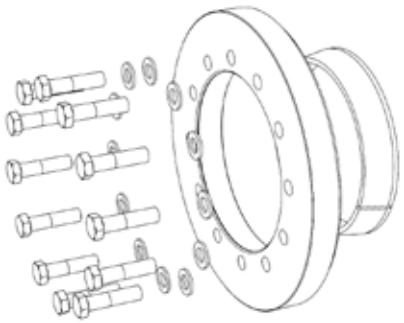


SPLIT

Used symbols

d	[mm]	Nominal diameter of the shrink disc
d_W	[mm]	Shaft diameter
M_{max}	[Nm]	Maximal transmittable torque
D	[mm]	Outer diameter
I	[mm]	Length of the inner ring
e	[mm]	Excess length
H	[mm]	Width of the shrink disc
A	[mm]	Pitch circle diameter
B	[mm]	Attachment size
M_A	[Nm]	Tightening torque of the clamping screws
Z		Number of clamping screws
S		Size of the clamping screws
n_{max}	[min^{-1}]	Permitted rotational frequency
p_N	[N/mm^2]	Average pressure to the hub
I	[kgm^2]	Moment of inertia





Design of the disc

d < 115	Discs galvanized without washers
d ≥ 115	Discs painted with washers

min. yield strength Rp0,2	N/mm²
Solid shaft	290
Hub	350

Dimensions H & e in unlocked position

Deviation from the standard shaft diameter d_W see the table „**3091 Standard-Range**“ and „**Calculation of transmissible torques and forces**“

Hexagon head bolts are used as standard. Upon request we provide all sized shrink discs with hexagon socket head bolts (Inbus). (See ordering information)

For Typ in ordering information:
- GET means SPLIT
- HALB means HALF

Ordering information: TAS 3091Typ - d - y (e.g.: TAS 3091GET-200-Y60 oder TAS 3091HALB-G-200-Y30 oder TAS 3091HALB-D-200)
with Inbus: TAS 3091Typ - d - y - Inbus (e.g.: TAS 3091GET-200-Y60-Inbus e.t.c.)

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Please note:

All values refer to shrink disk design **HALF!**
Please provide us the dimension of „y“ or the length of screws. Otherwise we can not provide appropriate screws! (see ordering information)

Applies to shrink disc design HALF-G:

- The required screw length is: Screw length **(3091 Heavy-Range)** - l_1 + 2 a + y (rounded up to standard lengths)

Applies to shrink disc design SPLIT:

- The design consists of **1x HALF-D + 1x HALF-G**
- Delivery is possible with or without screws
- Maximum transmittable torque: $\mathbf{M_{ges} = 2\ M_{max}}$
- The required screw length: Screw length **(3091 Heavy-Range)** + 2 a + y (rounded up to standard lengths)

											HALF-D only							
d mm	d_W mm	M_{max} Nm	*D* mm	*l* mm	*a* mm	l_1 mm	*A* mm	*B* mm	M_A Nm	*Z* Stk	d_B mm	*S*	*DIN*	*Class*	n_{max} min^{-1}	p_N N/mm^2	*I* kgm^2	*Weight* kg
40	30	440	80	14,5	2	18	62	43	30	4	9	M 8 x 30	933	10.9	7100	249	0,0004100	0,41
44	34	670	85	16	2	19	66	47	30	5	9	M 8 x 30	933	10.9	6700	253	0,0005611	0,49
50	40	960	95	17	2	21,5	73	54	30	7	9	M 8 x 35	933	10.9	6000	233	0,0009796	0,68
55	45	1300	105	17,5	2,5	22	78	59	30	7	9	M 8 x 35	933	10.9	5400	238	0,0014752	0,84
62	50	1600	115	17,5	2,5	22	85	66	30	7	9	M 8 x 35	933	10.9	4900	235	0,0021336	1,0
68	55	1900	120	17,5	2,5	22	92	72	30	8	9	M 8 x 35	933	10.9	4700	244	0,0023780	1,0
75	60	2900	145	22	4	27	105	84	59	7	11	M 10 x 40	933	10.9	4100	257	0,0052422	1,7
80	65	3300	145	22	4	27	105	84	59	7	11	M 10 x 40	933	10.9	3900	241	0,0061706	1,8
90	70	3800	160	25	4	30	116	94	59	8	11	M 10 x 40	933	10.9	3500	220	0,0101100	2,4
100	75	4900	170	27	4	32	126	104	59	10	11	M 10 x 45	931	10.9	3300	225	0,0131288	2,7
110	80	6000	185	30	5	35	138	114	59	12	11	M 10 x 45	931	10.9	3000	216	0,0208462	3,6
120	85	7100	210	32,5	5	37,5	155	125	100	10	13,5	M 12 x 50	931	10.9	2700	219	0,0372938	5,1
125	90	7800	215	32,5	5	37,5	160	129	100	10	13,5	M 12 x 50	931	10.9	2600	210	0,0409756	5,3
140	100	10500	230	35	5	42	175	144	100	12	13,5	M 12 x 55	931	10.9	2400	207	0,0598125	6,6
155	110	14700	265	38	5	45	198	164	100	15	13,5	M 12 x 60	931	10.9	2100	212	0,1178125	10
165	120	24000	290	41	5	49	210	174	250	10	17,5	M 16 x 70	931	10.9	1900	251	0,1809031	13
175	130	26500	300	41	5	49	220	184	250	10	17,5	M 16 x 70	931	10.9	1900	237	0,2110938	14
185	140	41700	330	51	5	61	236	194	250	14	17,5	M 16 x 80	931	10.9	1700	245	0,4114844	23
200	150	47700	350	51	5	61	246	204	250	15	17,5	M 16 x 80	931	10.9	1600	243	0,5078125	25
220	165	69300	370	65	8	75	270	224	250	20	17,5	M 16 x 90	931	10.9	1500	238	0,7643625	33
240	180	90100	405	68	8	80	295	244	490	15	22	M 20 x 100	931	10.9	1400	243	1,1912	43
260	200	123000	430	76	8	88	321	265	490	18	22	M 20 x 110	931	10.9	1300	238	1,6412	52
280	220	165000	460	84	10	96	346	285	490	21	22	M 20 x 120	931	10.9	1200	237	2,3200	64
300	240	194000	485	86	10	98	364	305	490	22	22	M 20 x 120	931	10.9	1100	225	2,9270	72
320	250	214000	520	90	10	102	386	325	490	24	22	M 20 x 130	931	10.9	1100	219	3,9610	85
340	260	273000	570	98	10	110	420	345	840	21	26	M 24 x 140	931	10.9	1000	236	6,5524	119
350	280	313000	580	98	10	110	425	355	840	21	26	M 24 x 140	931	10.9	980	229	6,9409	121
360	290	343000	590	100	10	112	432	365	840	22	26	M 24 x 140	931	10.9	970	228	7,4044	124
380	305	345000	645	103	13	115	458	387	840	22	26	M 24 x 140	931	10.9	880	216	10,79	154
390	310	394000	660	107	13	119	468	397	840	24	26	M 24 x 150	931	10.9	860	220	12,34	168

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											HALF-D only							
d mm	d_W mm	M_{max} Nm	D mm	l mm	a mm	l_1 mm	A mm	B mm	M_A Nm	Z Stk	d_B mm	S	DIN	Class	n_{max} min^{-1}	p_N N/mm^2	I kgm^2	Weight kg
400	320	408000	680	107	13	119	480	407	840	24	26	M 24 x 150	931	10.9	840	214	13,93	179
420	340	555000	690	120	13	132	504	427	840	30	26	M 24 x 160	931	10.9	830	224	16,72	205
440	350	586000	750	125	13	139	527	448	1250	24	30	M 27 x 170	931	10.9	760	215	24,76	262
460	370	741000	770	125	13	139	547	468	1250	28	30	M 27 x 170	931	10.9	740	240	27,25	271
480	390	847000	800	138	15	152	580	488	1250	30	30	M 27 x 180	931	10.9	710	224	35,25	324
500	410	955000	850	138	15	152	600	508	1250	32	30	M 27 x 180	931	10.9	670	229	45,34	373
530	440	1103000	910	152,5	15	166,5	630	538	1250	34	30	M 27 x 200	931	10.9	630	206	65,15	470
660	540	2058000	1070	170	15	185	780	670	2800	30	39	M 36 x 240	931	10.9	530	224	132	666

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