

## Used symbols (使用される記号)

d	[mm]	Nominal diameter of the shrink disc (シュリンクディスク内径)
d <sub>w</sub>	[mm]	Shaft diameter (軸径)
M <sub>max</sub>	[mm]	Maximal transmittable torque (伝達トルク)
D	[mm]	Outer diameter (シュリンクディスク外径)
ℓ	[mm]	Length of the bush (内輪高さ)
e	[mm]	Excess length (余長 (約))
H	[mm]	Width of the shrink disc (シュリンクディスク高さ)
A	[mm]	Pitch circle diameter (ボルトピッチ形)
B	[mm]	Attachment size (外輪内径)
M <sub>A</sub>	[Nm]	Tightening torque of the clamping screws (ボルト締付トルク)
Z		Number of clamping screws (ボルト数)
S		Size of the clamping screws (ボルトサイズ)
n <sub>max</sub>	[min <sup>-1</sup> ]	Permitted rotational frequency (最大許容回転数)
P <sub>N</sub>	[N/mm <sup>2</sup> ]	Moderate pressure to the hub (中空軸 面圧 (中間値))
I	[kgm <sup>2</sup> ]	Moment of inertia (慣性モーメント)

## Design of the shrink disc (シュリンクディスクのデザイン)

d < 115	Discs galvanized - without washers (外輪亜鉛メッキ、ワッシャなし)
d ≥ 115	Discs painted - with washers (外輪塗装、ワッシャあり)

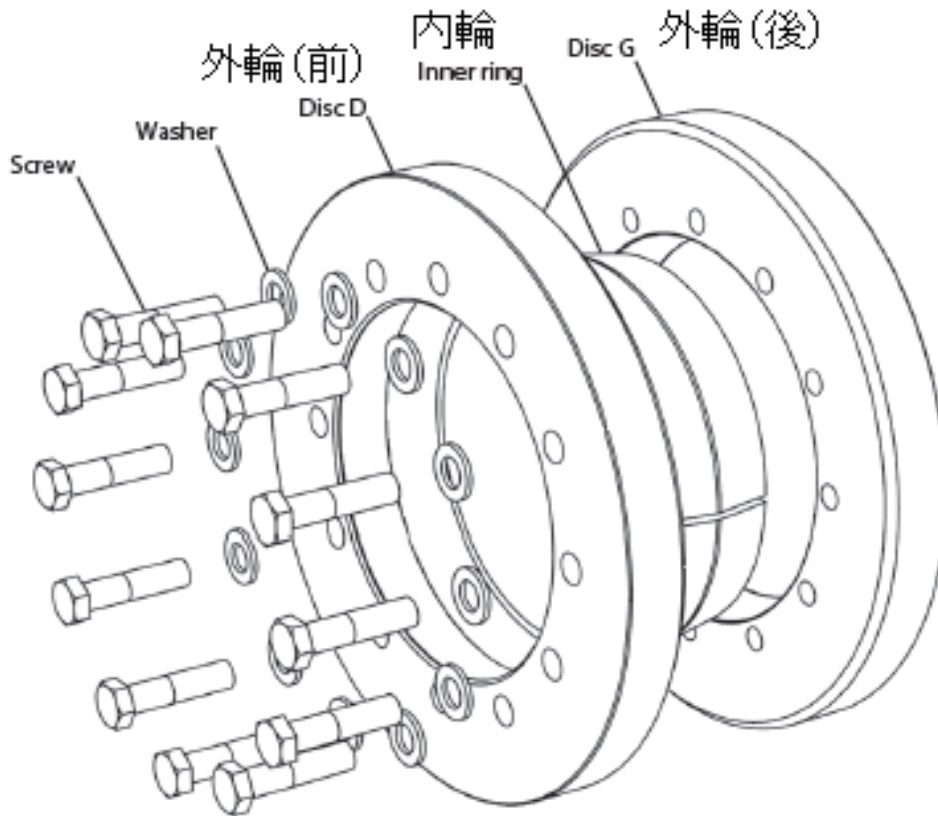
Dimensions H & e in unlocked position (H,e寸法は、無負荷時)

Hexagon head bolts are used as standard. Upon request we provide all sized shrink discs with hexagon socket head bolts (Inbus). (六角ボルト(標準)、六角穴付ボルト(対応可能))

min. yield strength Rp0,2	N/mm <sup>2</sup>
Solid shaft	350
Hub	450

(軸 降伏応力最小値)

(中空軸 降伏応力最小値)



標準シャフト径dw からの派生対応領域

dw径		minimal	maximal
>	≤	-	+
mm	mm	mm	mm
40	50	-3	2
50	140	-5	5
140	180	-10	5
180	320	-15	10
320	440	-20	10
440	600	-30	10

$$M = M_{max (Catalog)} \left( \frac{d_W (target)}{d_W (Catalog)} \right)^2$$

(see Basics - Calculation)

## 《寸法性能表》

以下、標準サイズ表示(表記以外のものでも、対応可否検討しますのでお問い合わせください。)

d	dW	Mmax	D	ℓ	e	H	A	B	MA	Z	S	DIN	Class	nmax	PN	l	Weight
mm	mm	Nm	mm	mm	mm	mm	mm	mm	Nm	Stk				min-1	N/mm2	kgm2	kg
40	30	1000	80	25	3.5	32	62	43	35	4	M8x30	933	12.9	7100	291	0.0008	0.83
44	34	1600	85	28	3	34	66	47	35	5	M8x30	933	12.9	6700	295	0.0011	1
55	45	3500	105	30	4.5	39	78	59	35	7	M8x35	933	12.9	5400	309	0.0030	1.7
62	50	3800	115	30	4.5	39	85	66	35	7	M8x35	933	12.9	4900	274	0.0043	2
68	55	4700	120	30	4.5	39	92	72	35	8	M8x35	933	12.9	4700	285	0.0050	2.1
75	60	7200	145	36	5	46	105	84	69	7	M10x40	933	12.9	4100	300	0.0102	3.3
80	65	8000	145	36	5	46	105	84	69	7	M10x40	933	12.9	3900	282	0.0123	3.6
90	70	9100	160	40	5	50	116	94	69	8	M10x40	933	12.9	3500	258	0.0202	4.8
100	75	11800	170	44	5	54	126	104	69	10	M10x45	931	12.9	3300	263	0.0263	5.4
110	80	14500	185	50	5	60	138	114	69	12	M10x45	931	12.9	3000	253	0.0411	7.1
120	85	17500	210	55	5	65	155	125	120	10	M12x50	931	12.9	2700	257	0.0731	10
125	90	19000	215	55	5	65	160	129	120	10	M12x50	931	12.9	2600	246	0.0850	11
140	100	25600	230	60	7	74	175	144	120	12	M12x55	931	12.9	2400	242	0.1178	13
155	110	35800	265	66	7	80	198	164	120	15	M12x60	931	12.9	2100	248	0.2356	20
165	120	57800	290	72	8	88	210	174	290	10	M16x65	931	12.9	1900	295	0.3757	27
175	130	63800	300	72	8	88	220	184	290	10	M16x65	931	12.9	1900	278	0.4222	28
185	140	99900	330	92	10	112	236	194	290	14	M16x80	931	12.9	1700	288	0.8230	46
200	150	114000	350	92	10	112	246	204	290	15	M16x80	931	12.9	1600	285	1.036	51
220	165	166000	370	114	10	134	270	224	290	20	M16x90	931	12.9	1500	279	1.529	66
240	180	213000	405	120	12	144	295	244	570	15	M20x100	931	12.9	1400	284	2.355	85
260	200	294000	430	136	12	160	321	265	570	18	M20x110	931	12.9	1300	277	3.283	104
280	220	390000	460	148	12	172	346	285	570	21	M20x120	931	12.9	1200	276	4.64	128
300	240	458000	485	152	12	176	364	305	570	22	M20x120	931	12.9	1100	263	5.81	143
320	250	506000	520	160	12	184	386	325	570	24	M20x130	931	12.9	1100	255	7.92	170
340	260	648000	570	176	12	200	420	345	980	21	M24x130	931	12.9	1000	276	13.1	238
350	280	741000	580	176	12	200	425	355	980	21	M24x130	931	12.9	980	268	13.94	243
360	290	812000	590	180	12	204	432	365	980	22	M24x140	931	12.9	970	267	14.81	248
380	305	850000	645	180	12	204	458	387	980	22	M24x140	931	12.9	880	253	21.65	309
390	310	934000	660	188	12	212	468	397	980	24	M24x140	931	12.9	860	257	24.68	336
420	340	1312000	690	214	12	238	504	427	980	30	M24x150	931	12.9	830	262	33.52	411
440	350	1388000	750	224	14	252	527	448	1450	24	M27x170	931	12.9	760	251	49.52	524
460	370	1752000	770	224	14	252	547	468	1450	28	M27x170	931	12.9	740	280	54.4	541
480	390	2001000	800	246	14	274	580	488	1450	30	M27x180	931	12.9	710	262	70.39	647
500	410	2256000	850	246	14	274	600	508	1450	32	M27x180	931	12.9	670	268	90.81	747
530	440	2607000	910	275	14	303	630	538	1450	34	M27x200	931	12.9	630	241	130	939
660	540	4897000	1070	310	15	340	780	670	3300	30	M36x240	931	12.9	530	264	263	1331