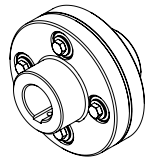
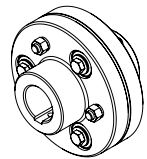


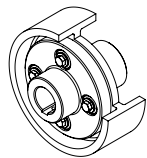
■ **A3-1** GENERAL INFORMATION



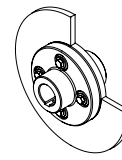
■ **A3-3** ASP PIN AND BUSH COUPLINGS



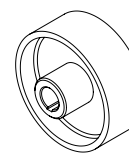
■ **A3-5** ASP (series Z) PIN AND BUSH COUPLINGS  
with enlarged torque



■ **A3-6** ATP BRAKE COUPLINGS  
with brake drum



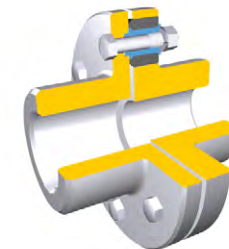
■ **A3-8** ATT DISC COUPLINGS  
with brake disc



■ **A3-9** BH BRAKE DRUMS

**ASP Pin and Bush couplings are characterized by:**

- simple and compact construction
- torsional susceptibility
- resistance to oils, greases and fuels
- vibration damping and compensation of deviations of joined shaft ends
- possibility of operation with both electric and combustion motors.



**APPLICATIONS:** pumps; fans; belt and roller conveyors; cranes; stirrers; other machinery and equipment.

**MATERIAL:** steel; flexible insert: rubber reinforced with steel mesh and cord fabric (polyurethane on request of the customer) brake discs and drums usually steel S355J2 (different materials after agreement).

**ELASTIC INSERT WORKING CONDITIONS:** work at temperature of -30°C to +60°C, in the construction HT to +80°C. Resistance to oils, greases and salt water.

**OPERATION IN THE AREAS WITH THE DANGER OF EXPLOSIONS:**

“Ex” couplings (see marking) are intended for operation in the areas with the danger of explosion (groups: I M2, II2D, II2G). Couplings of this construction are made with set screws.

**METHOD OF MARKING:**

$[ \text{name} ] - [ M_n ] - [ D_H \times B^* ] - [ L_H^* ] - [ d_1 ] / [ l_1 ] - [ d_2 ] / [ l_2 ] - [ \text{size} ] [ \text{type} ] - [ \text{variant} ] - [ \text{version}^* ]$

\* only when it concerns a given type, where:

**name** e.g. pin and bush coupling

**M<sub>n</sub>** nominal torque [Nm]

**D<sub>H</sub>×B** diameter × width of the brake drum or disc [mm] (only the types ...-SBH, STH; the width of the drum can be omitted in the marking if it equals the catalogue width)

**L<sub>H</sub>** the distance of symmetry axis of the brake drum or disc from the edge of the hub [mm] (only the types ATP,ATT)

**d<sub>1</sub>, d<sub>2</sub>** diameters of the holes [mm] (for the couplings with brake drum or disc d<sub>1</sub> – transmission side) in the case of ordering the coupling without holes for shaft ends “0” should be placed; in the case of lead hole according to the catalogue – “ow” marking, and in the case of pilot bores other than in the catalogue, the diameter of the hole should be added after the “ow” marking (e.g. “ow25”) (with pilot bores there is no “WD” construction)

**l<sub>1</sub>, l<sub>2</sub>** the length of the holes in the hubs [mm]

**size of the coupling** e.g. 084

**type of the coupling** e.g. ASP

**variant of the coupling** e.g. B

**version** WD – with set screws

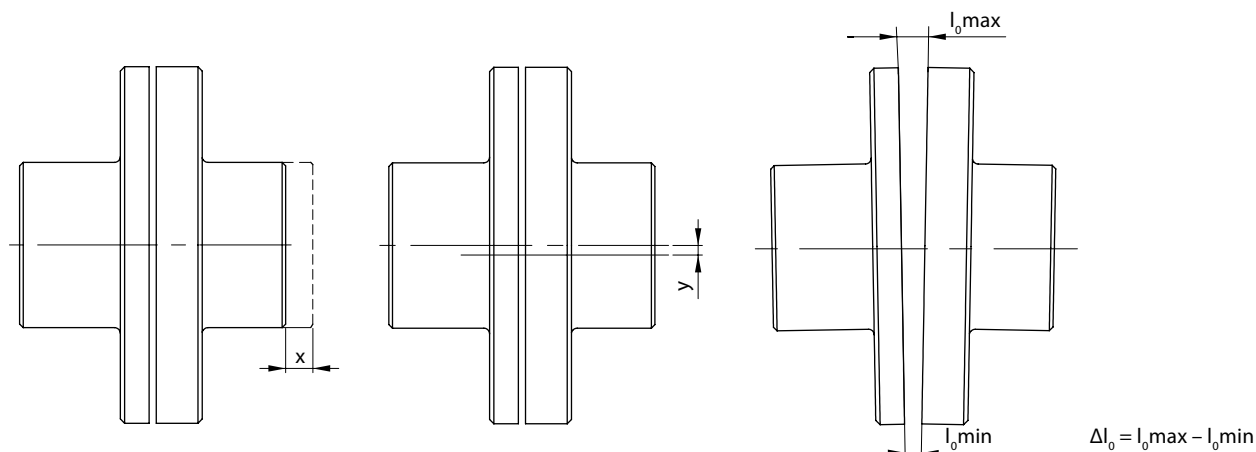
Ex – for operation in the areas with the danger of explosion

HT – for operation in higher temperatures

WS... – special (individual arrangements)

**BALANCING:** couplings are normally balanced statically (some sizes of the couplings with bigger brake drums or discs are normally balanced dynamically-check remarks in the catalogue). After the arrangement there is a possibility of dynamic balancing of each coupling.

**MAXIMUM DEVIATIONS:** Given values of maximum deviations ("x" – axial, "y" – radial, „ $\Delta l_0$ " – angular) cannot appear at the same time. At the speed above 1500 rpm for the coupling size up to 084 (054) and above 1000 rpm for the coupling size 085 (055) and bigger, the angular deviations should not exceed 50% of the deviations values given in the table.



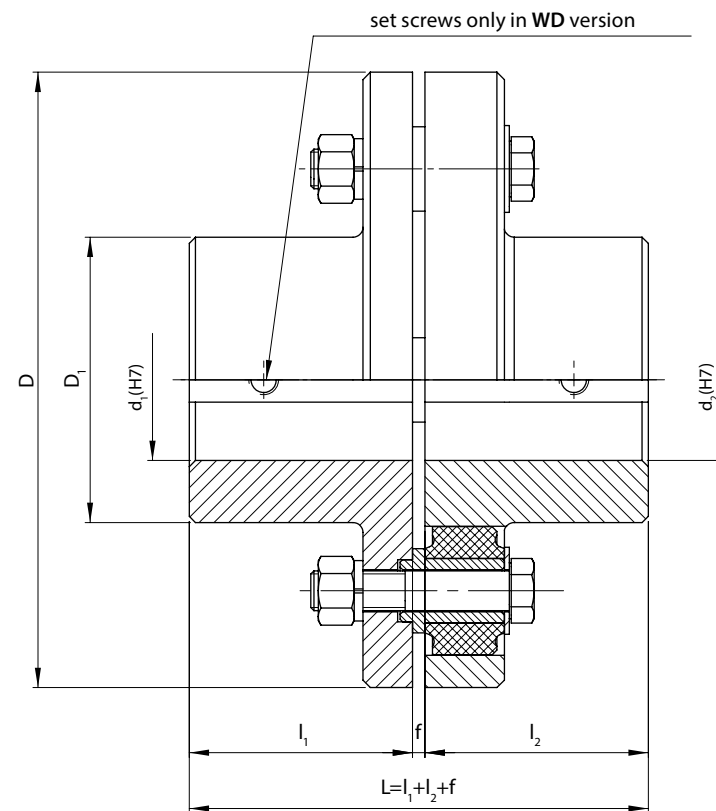
Coupling size	077	078	079 049	080 050	081 051	082 052	083 053	084 054	085 055	086 056	087 057	088 058	089	090	091	092	093
x	0,5	0,5	0,5	0,5	0,5	0,8	0,8	0,8	1,0	1,0	1,2	1,2	1,4	1,4	1,6	1,6	1,8
y	0,2	0,2	0,2	0,2	0,2	0,2	0,25	0,25	0,25	0,3	0,4	0,4	0,4	0,5	0,5	0,6	0,6
$\Delta l_0$	0,2	0,2	0,2	0,3	0,3	0,4	0,5	0,5	0,6	0,7	0,9	1	1	1,2	1,4	1,5	1,6

**Example of designation** of the ASP type coupling with the nominal torque of  $M_n=510$  Nm, hub hole diameters of  $d_1=50$  mm,  $d_2=60$  mm, hub hole lengths of  $l_1=75$  mm,  $l_2=90$  mm, size of 083 in the A variant (marking see page A3-1):

**510-50/75-60/90- 083 ASP-A Pin and Bush coupling**

- the "Ex" version – 510-50/75-60/90-083 ASP-A-**Ex** Pin and Bush coupling
- the "WD" version – 510-50/75-60/90-083 ASP-A-**WD** Pin and Bush coupling
- with pilot bores  $\varnothing 20$  – 510-**ow**20/75-**ow**20/90-083 ASP-A Pin and Bush coupling

Nominal torque $M_n$	Variant	$d_1, d_2$	$l_1, l_2$ <sup>1)</sup>	f	D	$D_1$	Max rotational speed $n_{max}$	Moment of inertia <sup>2)</sup> I	Weight <sup>2)</sup> m	Coupling size and type
		max	nomin.							
Nm		mm					1/min	kgm <sup>2</sup>	kg	-
20	B	18	30	2	78	30	8000	0,0008	1,11	077 ASP
30	C									
35	B	22	35							
50	C									
50	A	25	40							
63	B									
80	C									
80	A	28	45							
125	B									
160	C									
300	B	30	55	5	160	45	3000	0,025	7,90	081 ASP
400	C									
400	B	50	65							
540	C									
510	A	65	90							
680	B									
850	C									
1400	D	80	105							
1000	A									
1200	B									
1600	C	100	130							
2000	A									
3000	B									



► Continuation of the table on the next page

◀ Continuation of the table from the previous page

Nominal torque $M_n$	Variant	$d_1, d_2$	$l_1, l_2$ <sup>1)</sup>	f	D	D <sub>1</sub>	Max rotational speed	Moment of inertia <sup>2)</sup>	Weight <sup>2)</sup>	Coupling size and type
		max	nomin.							
Nm		mm					1/min	kgm <sup>2</sup>	kg	–
4000	A	125	165	8	400	198	1200	1,70	102	086 ASP
6000	B									
7500	A	160	200		530	248	1000	5,30	189	087 ASP
12500	B									
15000	C									
16000	A	200	280		600	305	1000	10,1	310	088 ASP
21000	B									
25000	A	200	280	10	600	305	1000	14,0	375	089 ASP
36000	A	220	280		710	350	950	28,1	544	090 ASP
42000	A	250	330		800	410	850	48,2	784	091 ASP
56000	B									
65000	A	280	380		900	460	750	80,5	1080	092 ASP
74000	A	280	380		1000	460	670	114	1237	093 ASP
83000	B									

**We also offer special designs according to the individual wishes of the customer.**

We produce keyways as recommended, normally acc. to PN-70/M-85005, with the Js9 tolerance.

<sup>1)</sup> On request, we produce couplings with hub lengths different from the nominal and extended lengths provided in the table.

<sup>2)</sup> The weight and the moment of inertia have been determined for the coupling with the maximum holes and nominal lengths of the hubs.

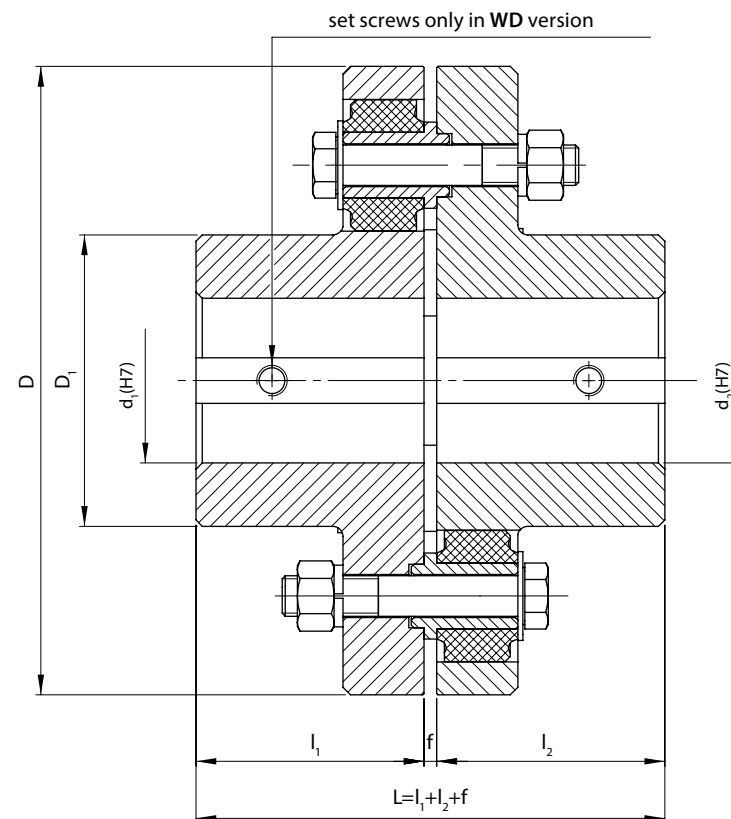
- Couplings of the size 088 ASP and bigger are normally balanced dynamically.

**Example of designation** of the ASP type coupling with the nominal torque of  $M_n=1600$  Nm, hub hole diameters of  $d_1=50$  mm,  $d_2=60$  mm, hub hole lengths of  $l_1=90$  mm,  $l_2=110$  mm, size of 083 in the Z variant (marking see page A3-1):

**1600-50/90-60/110-083 ASP-Z Pin and Bush coupling**

- the "Ex" version – 1600-50/90-60/110-083 ASP-Z-**Ex** Pin and Bush coupling
- the "WD" version – 1600-50/90-60/110-083 ASP-Z-**WD** Pin and Bush coupling
- with pilot bores  $\varnothing 20$  – 1600-**ow**20/90-**ow**20/110-083 ASP-Z Pin and Bush coupling

Nominal torque $M_n$	Variant	$d_1, d_2$	$l_1, l_2$ <sup>1)</sup>	f	D	$D_1$	Max rotational speed $n_{max}$	Moment of inertia <sup>2)</sup> I	Weight <sup>2)</sup> m	Coupling size and type
		max	nomin.							
Nm		mm					1/min	kgm <sup>2</sup>	kg	-
630	Z	30	55	5	160	45	3000	0,028	8,65	081 ASP
1000	Z	50	65		198	80	2500	0,067	14,2	082 ASP
1600	Z	65	90		248	115	2000	0,18	26,6	083 ASP
2500	Z	80	105		270	135	1800	0,26	33,9	084 ASP
4000	Z	100	130		320	170	1500	0,56	55,3	085 ASP
9000	Z	125	165	8	400	198	1200	1,90	110	086 ASP
16000	Z	160	200		530	248	1000	5,96	207	087 ASP
35000	Z	200	280	10	600	305	1000	15,8	406	089 ASP
48000	Z	220	280		710	350	950	31,8	590	090 ASP
71000	Z	250	330		800	410	850	54,7	898	091 ASP
90000	Z	280	380		900	460	750	91,6	1233	092 ASP
110000	Z	280	380		1000	460	670	131	1423	093 ASP



**We also offer special designs according to the individual wishes of the customer.**

We produce keyways as recommended, normally acc. to PN-70/M-85005, with the Js9 tolerance.

<sup>1)</sup> On request, we produce couplings with hub lengths different from the nominal and extended lengths provided in the table.

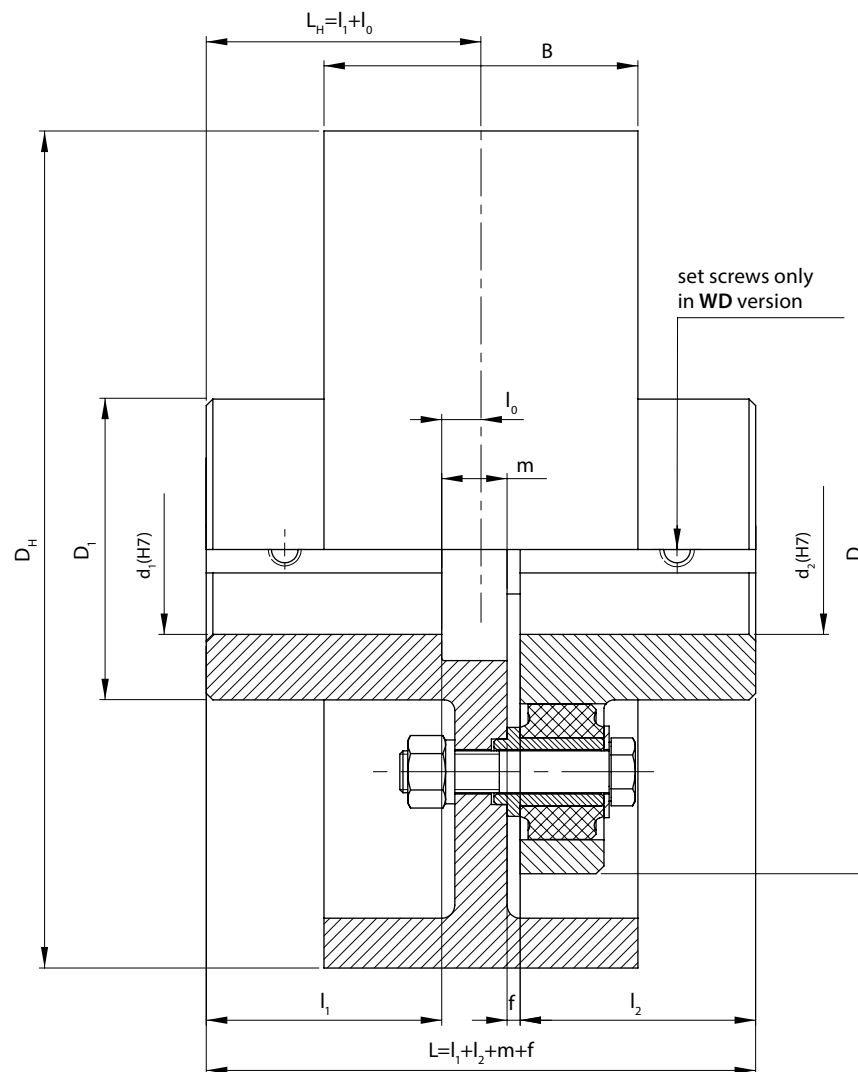
<sup>2)</sup> The weight and the moment of inertia have been determined for the coupling with the maximum holes and nominal lengths of the hubs

- Couplings of the size of ASP 089 and bigger are normally balanced dynamically.

**Example of designation** of the ATP type coupling with the nominal torque of  $M_n=510$  Nm, brake drum diameter of  $D_H=320$ mm, distance of the brake drum symmetry axis from the hub origin of  $L_H=105$  mm, hub holes diameters of  $d_1=50$  mm,  $d_2=60$ mm, hub holes lengths of  $l_1=90$  mm,  $l_2=110$  mm, size of 053, in the A variant (marking see page A3-1):

**510-320-105-50/90-60/110-053 ATP-A Brake coupling**

- the "Ex" version – 510-320-105-50/90-60/110-053 ATP-A-**Ex** Brake coupling
- the "WD" version – 510-320-105-50/90-60/110-053 ATP-A-**WD** Brake coupling
- with pilot bores  $\varnothing 20$  – 510-320-105-**ow**20/90-**ow**20/110-053 ATP-A Brake coupling



Nominal torque $M_n$	Variant	$d_1, d_2$	$l_1, l_2$ <sup>1)</sup>	f	D	D <sub>1</sub>	D <sub>H</sub> <sup>3)</sup>	B <sup>3)</sup>	l <sub>0</sub> <sup>4)</sup>	m	Max rotational speed <sup>5)</sup>	Moment of inertia <sup>2)</sup>	Weight <sup>2)</sup>	Coupling size and type							
		max	nomin.								$n_{max}$	I	m								
Nm		mm									1/min	kgm <sup>2</sup>	kg	-							
80	C	25	40	2	105	40	120	50	5	12	4000	0,0055	2,98	049 ATP							
125	B	28	45		130	45	160	60	5	13	4000	0,019	5,52	050 ATP							
160	C																				
300	B	30	55	5	160	45	200	80	5	15	3000	0,067	12,3	051 ATP							
400	C											0,070	13,5								
630	Z <sup>6)</sup>																				
400	B	50	65	5	198	80	250	100	10	20	2500	0,18	22,2	052 ATP							
540	C											0,19	23,5								
1000	Z <sup>6)</sup>																				
510	A	65	90	5	248	115	320	120	15	25	2000	0,57	43,2	053 ATP							
850	C											0,60	45,6								
1600	Z <sup>6)</sup>																				
1200	B	80	105	5	270	135	400	150	25	35	1800	0,63	48,7	054 ATP							
1600	C											0,66	51,5								
2500	Z <sup>6)</sup>																				
1200	B	100	130	5	320	170	500	190	30	40	1500	1,38	64,8	055 ATP							
1600	C											1,57	81,2								
3000	B																				
4000	Z <sup>6)</sup>										3,50	107,2	056 ATP								
2000	A	125	165	5	400	198	630	235	36	52	4,62	154,3									
3000	B										4,82	162,3									
6000	B																			11,45	218,6
9000	Z <sup>6)</sup>	160	200	8	530	248	710	265	39	55	1200	13,82	283,3	057 ATP							
4000	A										1000	21,72	336,2								
7500	A																				
12500	B	200	280	8	600	305	800	290	44	60	1000	35,06	404,5	058 ATP							
7500	A																				
12500	B																				
21000	B										38,7	510,99									

**We also offer special designs according to the individual wishes of the customer.**

We produce keyways as recommended, normally acc. to PN-70/M-85005, with the Js9 tolerance.

- <sup>1)</sup> On request, we produce couplings with hub lengths different from the nominal and extended lengths provided in the table.
- <sup>2)</sup> The weight and the moment of inertia have been determined for the coupling with the maximum holes and nominal lengths of the hubs.
- <sup>3)</sup> On request, we produce couplings brake drums with dimensions different from those provided in the table.
- <sup>4)</sup>  $l_0$  ( $l_H = l_1 + l_0$ ) dimension after the agreement can be changed according to the wishes of the customer.
- <sup>5)</sup> After the dynamic balance the maximum rotational speed can be increased (the dynamic balance must be agreed).
- <sup>6)</sup> In "Z" type the inserts are placed interchangeably in each hub (see ASP coupling "Z" series/type).
  - Couplings with brake drum Ø400 and bigger are normally balanced dynamically, other couplings are balanced statically.
  - After the agreement the couplings can be made with the holes for protective discs in hubs.



**Example of designation** of the ATT type coupling with the nominal torque of  $M_n=1600$  Nm, brake disc diameter of  $D_H=500$  mm, thickness of  $B=30$  mm, distance of the brake disc symmetry axis from the hub origin of  $L_H=74$  mm, hub holes diameters of  $d_1=50$  mm,  $d_2=60$  mm, hub holes lengths of  $l_1=90$  mm,  $l_2=110$  mm, size of 084 in the C variant (marking see page A3-1):

### 1600-500x30-74-50/90-60/110-084 ATT-C Disc coupling

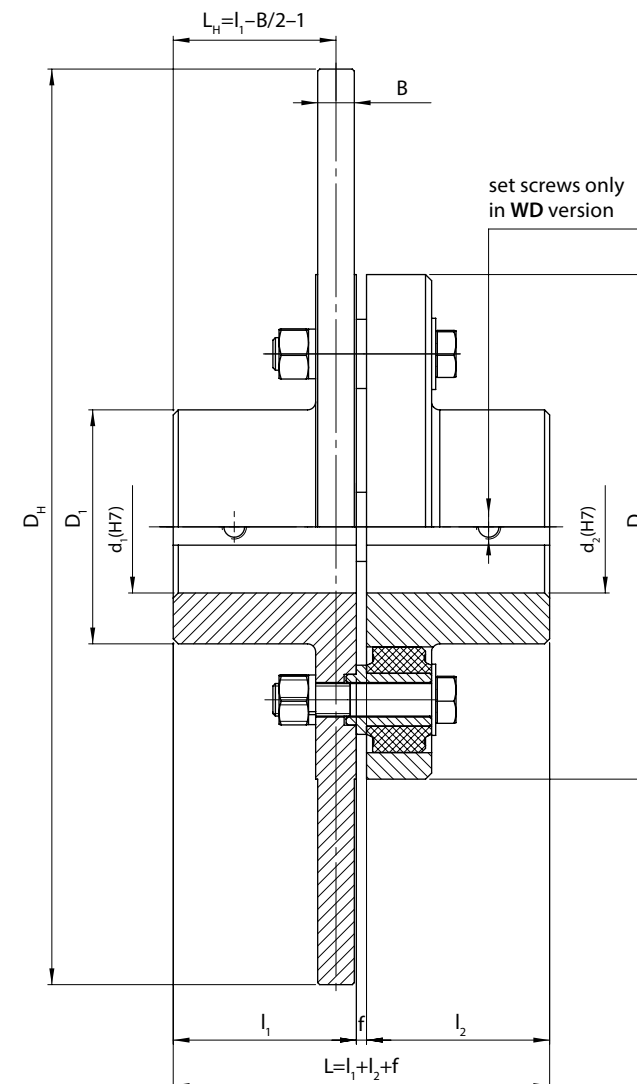
- the "Ex" version – 1600-500x30-74-50/90-60/110-084 ATT-C-**Ex** Disc coupling
- the "WD" version – 1600-500x30-74-50/90-60/110-084 ATT-C-**WD** Disc coupling
- with pilot bores  $\varnothing 20$  – 1600-500x30-74-**ow**20/90-**ow**20/110-084 ATT-C Disc coupling

Nominal torque $M_n$	Variant	$d_1, d_2$		$l_1, l_2$ <sup>1)</sup>		f	D	$D_1$	$D_H \times B$ <sup>3)</sup>	Max rotational speed $n_{max}$	Moment of inertia <sup>2)</sup> I	Weight <sup>2)</sup> m	Coupling size and type
		max	nomin.										
		mm											
540	C	50	110	5	198	80	400x30	1500	0,61	34,9	082 ATT		
1000	Z <sup>4)</sup>											450x30	
1600	C	80	110		270	135	500x30	1500	1,57	66,5	084 ATT		
2500	Z <sup>4)</sup>											630x30	
3000	B	100	140	320	170	630x30	1200	3,94	109,4	085 ATT			
4000	Z <sup>4)</sup>										800x30		
6000	B	125	165	8	400	198	710x30	1000	6,95	165,2		086 ATT	
9000	Z <sup>4)</sup>										800x30		

### We also offer special designs according to the individual wishes of the customer.

We produce keyways as recommended, normally acc. to PN-70/M-85005, with the Js9 tolerance.

- On request, we produce couplings with hub lengths different from the nominal and extended lengths provided in the table.
- The weight and the moment of inertia have been determined for the coupling with the maximum holes and nominal lengths of the hubs.
- On request, we produce couplings brake drums with dimensions different from those provided in the table.
- In "Z" type the inserts are placed interchangeably in each hub (see ASP coupling "Z" series/type)
  - Couplings with brake disc  $\varnothing 450$  and bigger are normally balanced dynamically, other couplings are balanced statically.
  - After the agreement the couplings can be made with the holes for protective discs in hubs.



**Example of designation** of BH type brake drum of the external diameter of the drum  $D_H=400$ , the width of the drum jacket  $B=150$ , the distance of the brake drum symmetry axis from the hub origin of  $L_H=130$ , the diameter of the hole in the hub  $d=100$ , the length of the hole in the hub  $l=105$ :

**400-150-130-100/105-400 BH Brake drum**

- with pilot bore  $\varnothing 20$  – 400-150-130-**ow**20/105-400 BH Brake drum

$D_H$	B	d		$L_H^{1)}$	L	$l_1^{1)}$	Max rotational speed	Moment of inertia <sup>2)</sup>	Weight <sup>2)</sup>	Drum size
		max	nomin.				$n_{max}$	I	m	
							1/min	kgm <sup>2</sup>	kg	-
120	50	32	60	60	85	66,5	5500	0,004	2,0	120 BH
160	60	40	84	70	90	90	4100	0,018	5,0	160 BH
200	80	40	84	80	120	90	3300	0,056	11,0	200 BH
250	100	50	84	80	130	90	2600	0,15	15,0	250 BH
320	120	65	107	106	166	122	2100	0,52	34,0	320 BH
400	150	80	132	125	200	141	1600	1,31	55,0	400 BH
500	190	100	157	132	227	157	1300	3,6	105	500 BH
630	235	100	167	160	277,5	185	1000	10,9	170	630 BH

**We also offer special designs according to the individual wishes of the customer.**

We produce keyways as recommended, normally acc. to PN-70/M-85005, with the Js9 tolerance.

On request of the customer we produce the brake drums intended for the cooperation with ATP brake couplings type.

- On request, we produce couplings with hub lengths different from the nominal lengths provided in the table.
- The weight and the moment of inertia have been determined for the brake drums with maximum hole in the hub without the keyway.

- Applications:** belt and bucket conveyors; cranes; other machinery and equipment.

