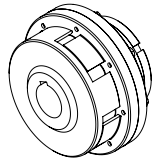


■ **A7-1** GENERAL INFORMATION



■ **A7-3** **APMX** OVERLOAD COUPLINGS

■ **A7-4** SPECIAL VERSIONS

Overload couplings limit the value of transferred torque to the safe value – in the case of exceeding the adjusted slipping moment on the friction linings the slip takes place. The value of slipping moment is adjusted by tightening up or undoing the adjusting nut. In the case of machine overloading, which does not yield automatically, it is recommended to provide a system of automatic turning off the drive or immediate turning off by the service staff. The coupling is not intended for operation on the slip because it causes fast wear of friction linings and the drop of slipping moment together with the change of their thickness.

Overload couplings are also characterized by:

- compensation of the deviations of joined shaft ends position,
- torsional susceptibility.

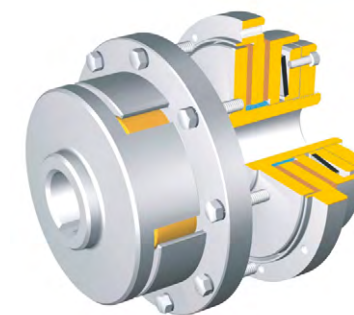
APPLICATIONS: chain drives, gear drives and belt drives, belt conveyors, stirrers, combined cutter loaders, excavating/dumping conveyors, and other machinery and equipment.

MATERIAL: steel, flexible insert: polyurethane, asbestos-free friction lining.

ELASTIC INSERT WORKING CONDITIONS: operation in the scope of temperatures from -30°C up to $+80^{\circ}\text{C}$, the friction lining protected against the contact with oils and greases.

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, II 2D, II 2G). With such kind of usage of the couplings the drive must be equipped with the sensor of coupling operation on the slip or temperature sensor, preventing the appearance of too high temperatures with blocking the drive and the coupling operation on the slip. Couplings of this construction are made with set screws.



METHOD OF MARKING:

$[\text{name}] - [M_k] - [d_1] / [l_1] - [d_2] / [l_2] - [\text{size}] [\text{type}] - [\text{version}^*]$

* only when it concerns a given type, where:

name e.g. overload coupling

M_k slipping moment [Nm]

d_1, d_2 diameters of the holes [mm]

l_1, l_2 the length of the holes in the hubs [mm]

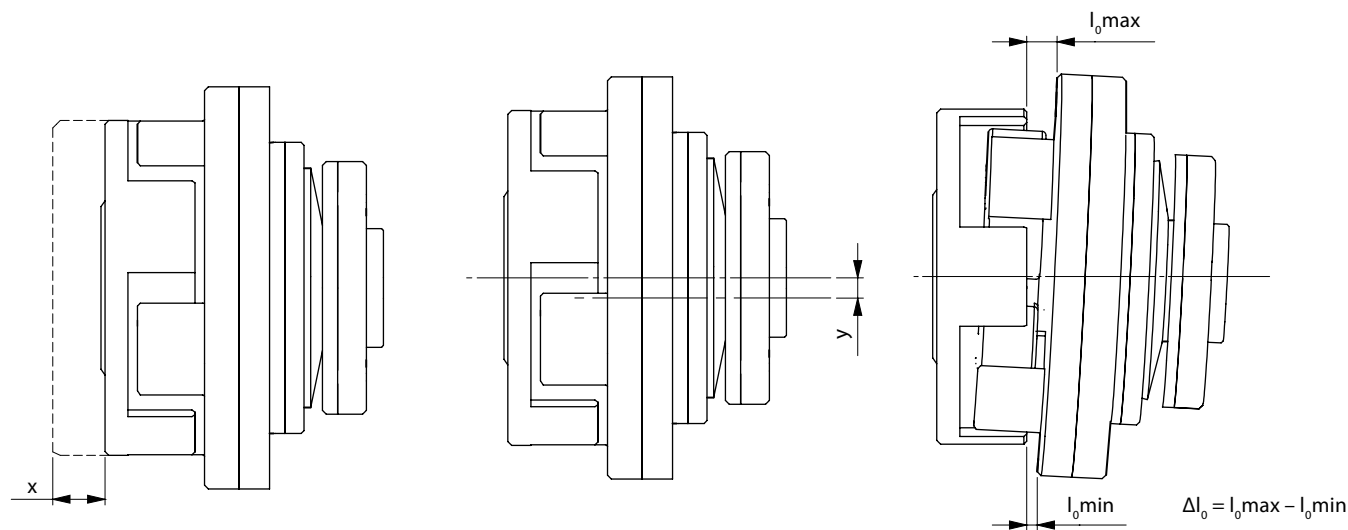
size e.g. 003

type e.g. APMX

version 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.

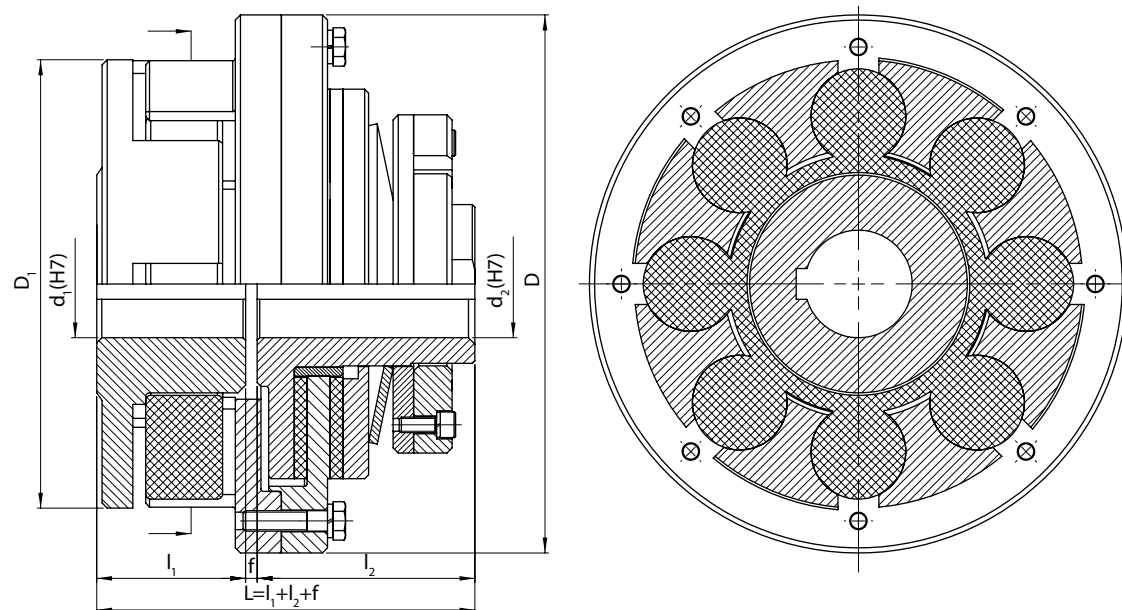
MAXIMUM DEVIATIONS: Given values of maximum deviations ("x" – axial, "y" – radial, " Δl_0 " – angular) cannot appear at the same time.



Coupling size	001	002	003	004	005	006	007
x	1,4	1,5	1,8	2	2,1	2,2	2,6
y	0,3	0,4	0,4	0,4	0,5	0,5	0,5
Δl_0	0,45	0,6	0,7	0,8	0,8	0,9	0,9

Example of designation of the APMX coupling with the slipping moment of $M_k = 250$ Nm, hub hole diameters of $d_1 = 35$ mm, $d_2 = 30$ mm, hub hole lengths of $l_1 = 55$ mm, $l_2 = 60$ mm, size of 003 (marking see page A7-1):

250-35/55-30/60-003 APMX Overload coupling



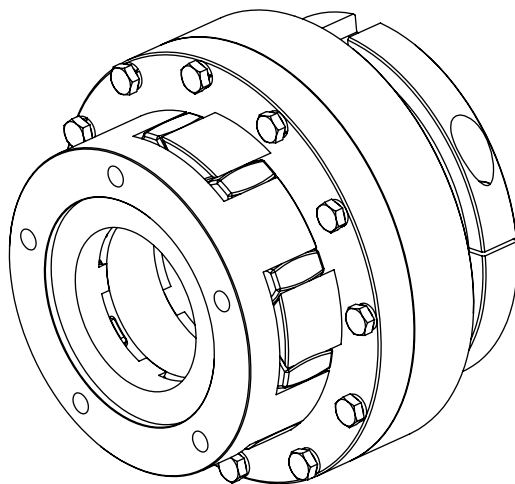
A7-3

Slipping moment M_k	d_1	d_2	l_1	l_2	f	D	D_1	Max rotational speed n_{max}	Moment of inertia ¹⁾ I	Weight ¹⁾ m	Coupling size and type
	max	max	min	min							
Nm	mm							1/min	kgm ²	kg	-
50÷90	24	25	40	40	2	120	85	3000	0,005	3,41	001 APMX
90÷200	28	32	50	55		150	105	2500	0,017	7,23	002 APMX
120÷300	35	32	50	55		170	125	2000	0,028	9,3	003 APMX
220÷500	40	40	55	80	5	190	145	1800	0,059	15,2	004 APMX
330÷800	60	45	70	90		240	175	1500	0,164	27,2	005 APMX
530÷1400	65	50	80	105		290	200	1200	0,39	45,7	006 APMX
920÷2100	75	65	90	120	7	320	230	1000	0,68	64,4	007 APMX

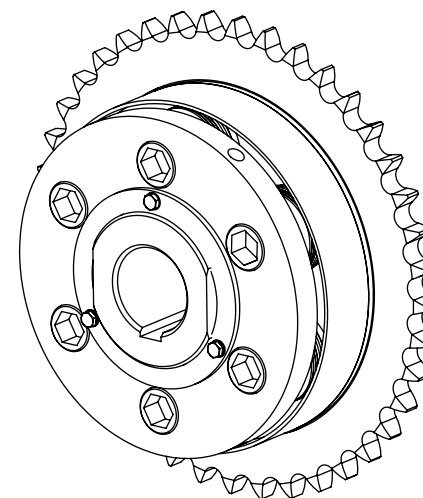
We produce keyways as recommended, normally acc. to PN-70/M-85005, with the Js9 tolerance.

¹⁾ The weight and the moment of inertia have been determined for the coupling with the maximum holes and nominal lengths of the hubs.

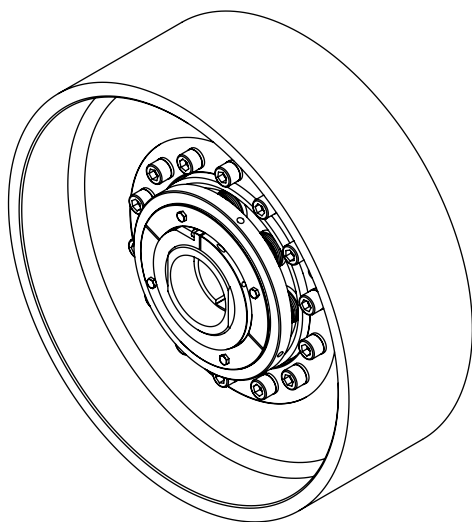
On request we produce special types of couplings taking into account the individual needs and requirements of the customer. The special constructions can have different dimensions in relation to the catalogue dimensions and they can also constitute a new construction adjusted to the needs and the construction of the machine to which the coupling is going to be inbuilt. Below several solutions are presented.



APMX-K
Overload coupling
with flange connection



APMX-KZ
Overload coupling
with chain wheel



APMX-SBH
Overload coupling
with brake drum