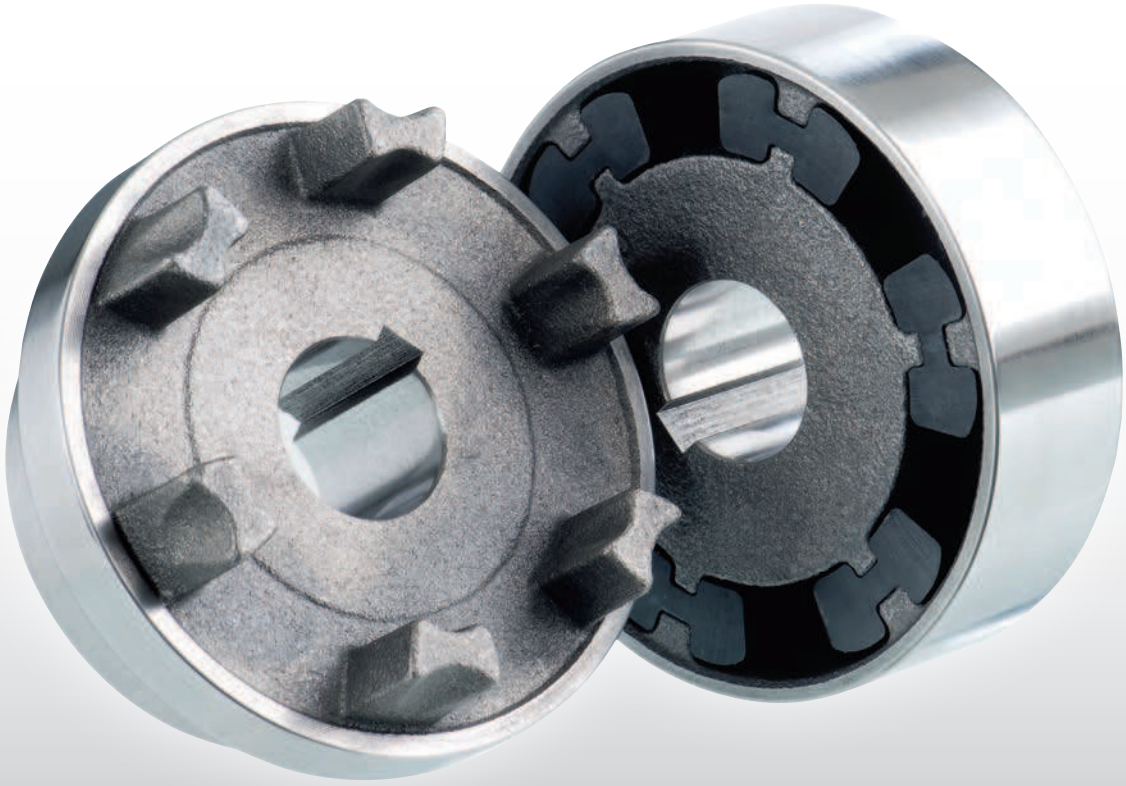
Smart Drive
Solutions

DESCH

DESCH Pex Couplings



PX 12 – GB

POWER TRANSMISSION

Flexible
DESCH Pex Couplings

The flexible DESCH Pex couplings are claw couplings with flexible elements to provide a torsionally flexible connection for shafts. The flexible elements excel in their wear resistance, ageing resistance and their temperature resistance from –30°C to +80°C. Thanks to their flexiblility, impacts, rotary vibrations and noises are effectively absorbed. The flexible elements are dimensioned such that radial, axial and angular movements between the two halves of the coupling are cancelled out. The flexible DESCH Pex couplings are of the plug-in type for installation and do not involve any particularly rigorous requirements with respect to alignment accuracy. The balancing quality is, in accordance with DIN-ISO 1940, in the quality range G 16. DESCH Pex couplings can be used in the whole of machine construction wherever a reliable shaft connection is needed between motor and machine.

Type A

The DESCH Pex type A coupling is manufactured in three-piece design. With the two-piece coupling (type B) it is possible to install packages after axial displacement of the drive engines or machines. With the three-piece coupling it is possible to install packages without axial displacement of the drive engine or machine.

Selection

The torque of the machine TAN is determind by:

$$T_{AN}\,[Nm] = 9550 \times \frac{P_{Motor}\,[kW]}{n\,[rpm]}$$

This torque T_{AN} mutiplied by a safty factor „S" depending on the application and the temperature factor S_T (see table page 5) gives the required nominal coupling torque T_{KN}.

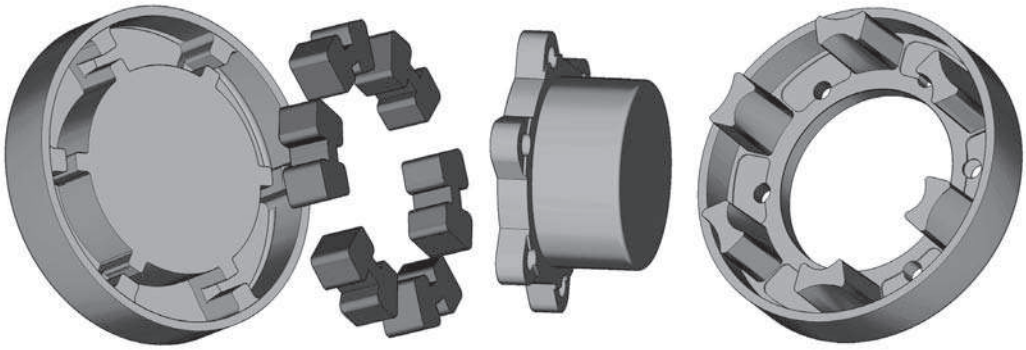
result: $T_{KN} \geq S \times S_T \times T_{AN}$

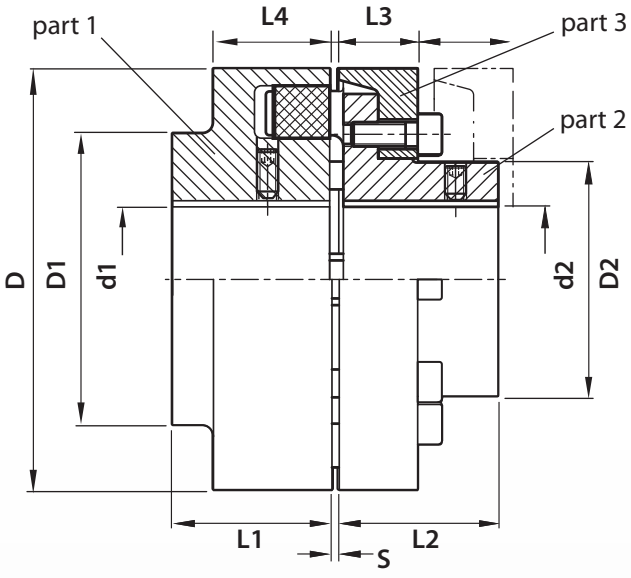
Wear indicator for DESCH Pex

The wear indicator for DESCH Pex couplings enables the condition of the flexible to be easily assessed. The wear condition can also be ascertained with the aid of a stroboscope while the coupling is rotating. The production process can thus continue undisturbed.

The wear indicatior must be attached to the outside diameter of the coupling after the coupling has been fitted.

DESCH Pex – Type A





materials: coupling half EN-GJL-250
flexible elements NBR 80° Shore A

Type A

Size	Nominal torque	Max. rotational speed	Max. bore		D	L1	L2	D1	D2	L3	L4	S	Weight [1] kg			Moments of inertia [1]	Max. shaft misalignment at rotational speed n = 1500 rpm [2]		
	Nm	rpm	d1	d2									Part 1	Part 2	Part 3	kgm²	axiale ΔK_a mm	radiale ΔK_r mm	angular ΔK_w °
110	160	5300	48	38	110	40	40	86	62	20	34	3	1,95	1,38	1,97	0,003	0,2	0,2	0,1
125	240	5100	55	45	125	50	50	100	75	23	36	3	3,05	2,42	1,97	0,005	0,25	0,25	0,1
140	360	4900	60	50	140	55	55	100	82	28	34	3	3,65	3,04	2,5	0,008	0,25	0,25	0,1
160	560	4250	65	58	160	60	60	108	95	28	39	4	5,05	4,19	3,49	0,014	0,3	0,3	0,1
180	880	3800	75	65	180	70	70	125	108	30	42	4	7,8	5,94	4,41	0,025	0,3	0,3	0,1
200	1340	3400	85	75	200	80	80	140	122	32	47	4	11	8,61	6,02	0,04	0,3	0,3	0,09
225	2000	3000	90	85	225	90	90	150	136	38	52	4	15	12,06	8,93	0,08	0,35	0,35	0,09
250	2800	2750	100	95	250	100	100	165	155	42	60	6	19,5	17,41	11,7	0,13	0,35	0,35	0,08

1) The information concerning weights and moments of mass inertia apply for medium holes.
2) The values mentioned are valid for 1500 rpm and may occur only seperataly. At multiple misalignments or higher speeds the values must be reduced.