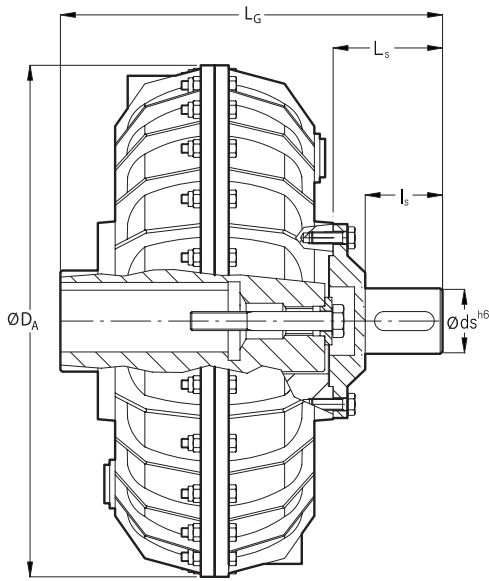
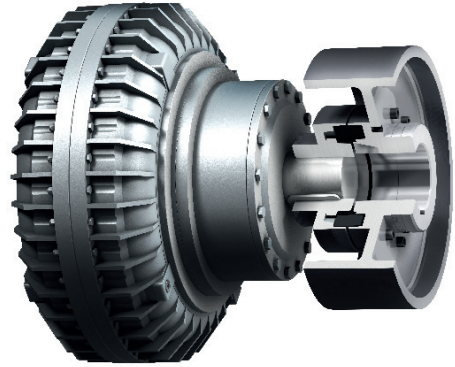


Type K fitted with output shaft



- Fluid coupling is fitted with output shaft
- Also delay chambers can be provided for this version. Delay chambers are flange-connected to the coupling, and the output shaft is flange-connected to the delay chamber.
- Flexible coupling can be mounted on the output shaft and allow for compensation of misalignments

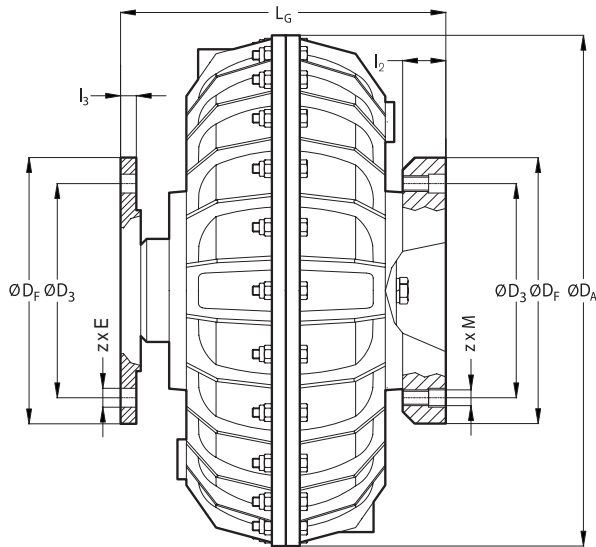


Technical data						
Size	Dimensions [mm]					
	Basic coupling					
	max. finish bore Ød ¹	D _A	L _s	L _G	d _s ^{H6}	l _s
10	24	193	35	133	19	25
	28			149		
20	28	230	44	169	24	32
	38			179		
30	42	290	63	225	38	45
	48			253		
	55			282		
30P	42	327	63	225	38	45
	48			253		
	55			282		
40P	55	338	76	274	48	55
	60			303		
50	65	430	92	271	55	65
	65			303		
55	75	430	92	302	55	65
	75			302		
60	75	520	110	302	60	80
	80			332		
65	80	520	110	350	60	80
	90			362		
70P	100	640	122	402	70	90
	90			387		
75P	100	640	122	402	70	90
	110			415		
80P	125	810	145	431	80	110
	125			485		
85P	135	810	145	485	80	110
	130			584		
90P	140	1000	220	684	110	180
	130			699		
95P	140	1000	220	806	160	180
	190			752		
1200	190	1300	290	752	180	250

¹⁾ Finish bore acc. to ISO fit H7; feather keyway acc. to DIN 6885 sheet 1 - JS9
 Finish bore Ø ≤ 32: H7; Finish bore Ø ≥ 33: G7
 Finish bore length: min. 2xd; max. 2,5xd

Hydrodynamic couplings

Fluid coupling for flanged gear type couplings

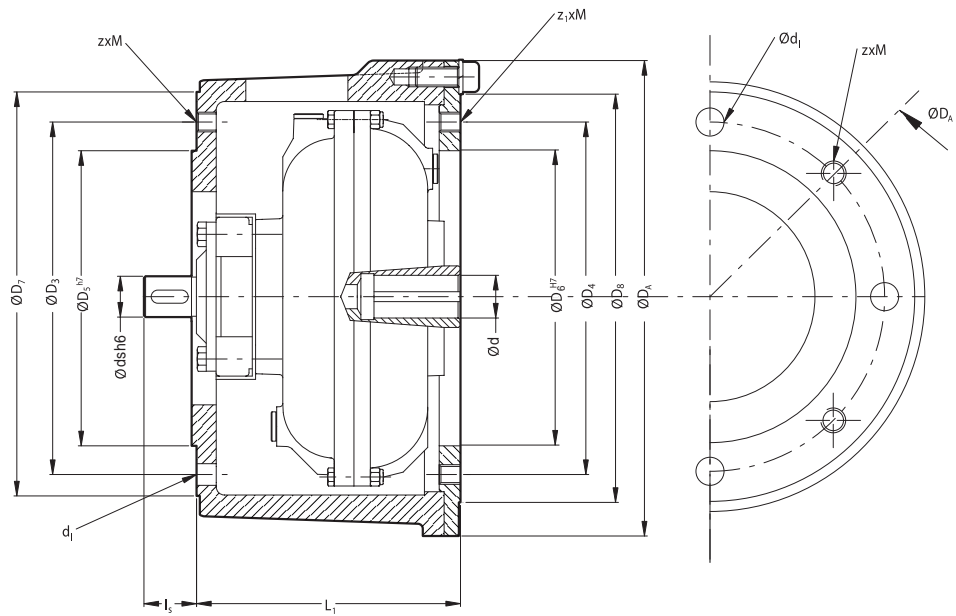


- Fluid coupling can be fitted with GEARex®
- GEARex® type FR with single parted sleeve
- GEARex® type DR with split sleeve
- Also delay chambers can be provided for this version.

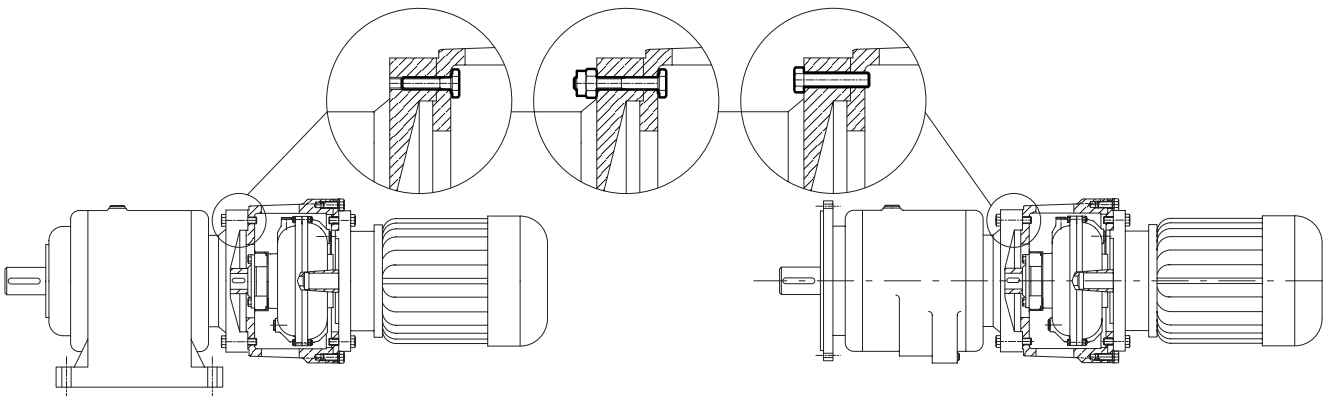
Technical data									
Size	Dimensions [mm]								
	D _A	L _G	D _F	D ₃	z x E	z x M	l ₃	l ₂	
20	230	150	116	95,25	6x6,4	6x 1/4 28 UNF	6,5	17	
30	290	192,5						18,5	
30P	327	192,5	152,5	122,22	8x9,57	8x 3/8 24 UNF	6,5	21	
40P	338	231							
50	430	212						24,5	
55	430	253						25,5	
60	520	235	213	177,8	10x12,57	10x 1/2 20 UNF	10	25,5	
65	520	283							
70P	640	258,5	240	206,37	8x15,875	8x 1/2 20 UNF	10	25,5	
75P	640	313,5							
80P	810	355	280	241,3	8x19,05	8x 3/4 10 UNF	28	50	
85P	810	425							
90P	1000	456	318	279,4	8x19,05	8x 3/4 10 UNF	28	50	

Hydrodynamic couplings

Fluid coupling with housing



- Fluid coupling is fitted with housing
- To be fitted to electric motors (flange motors) and hollow shaft gearbox



Flange mounted gearbox

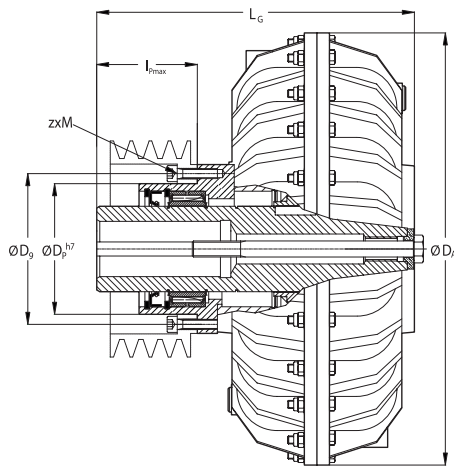
Foot mounted gearbox

Technical data												
Size	Dimensions [mm]											
	max. finish bore $\varnothing d^1$	D_A	L_1	$z \times M$	d_1	ds^{h6}	L_2	$D_3 = D_4$	$D_5^{H7} = D_6^{H7}$	$D_7 = D_8$	$z \times M$	
10	19	240	128	4x M10	4x $\varnothing 11$	19	25	165	130	200	8x M10	
	24					24						
20	28	292	161	4x M12	4x $\varnothing 13$	28	32	215	180	250	8x M112	
30	38	350	210	4x M12	4x $\varnothing 13$	38	45	265	230	300	8x M12	
30P	42	400	210	4x M16	4x $\varnothing 17$	42	45	300	250	350	8x M16	
40P	48	400	255	4x M16	4x $\varnothing 17$	48	48	300	250	350	8x M16	

¹⁾ Finish bore acc. to ISO fit H7; feather keyway acc. to DIN 6885 sheet 1 - JS9
 Finish bore $\varnothing \leq 32$: H7; Finish bore $\varnothing \geq 33$: G7
 Finish bore length: min. 2xd; max. 2,5xd

Hydrodynamic couplings

Hydrodynamic coupling with pulley



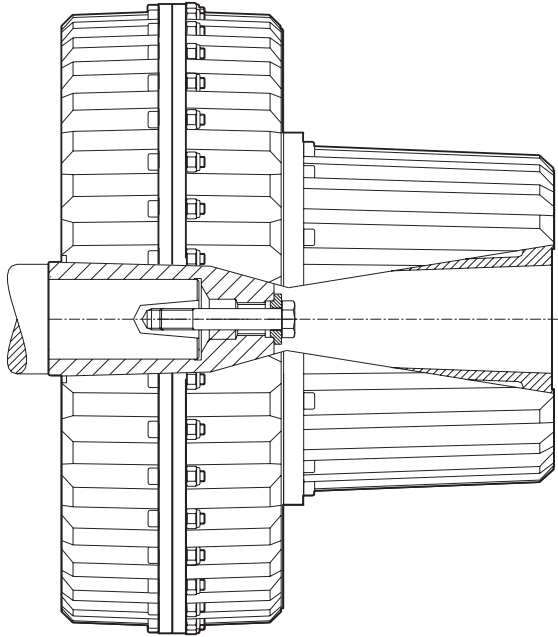
- Diverse pulleys on request
- Coupling can be fitted with delay chambers
- Vertical and horizontal assembly possible

Technical data							
Size	Dimensions [mm]						
	max. finish bore Ø ¹⁾	D _A	L _G	D _p ^{h7}	D ₀	l _{pmax}	z x M
20	28	229	185	60	75	70	6x M8
	38		218	75	90	85	
	42		218	85	100	50	
30	55	290	230	96	110	62	8x M8
	42		238	85	100	70	
	42		262	85	100	94	
	55		285	96	110	117	
30P	42	327	230	96	110	62	8x M8
	42		238	85	100	94	
	55		285	96	110	117	
40P	48	338	247			63	8x M8
	60		273	112	130	89	
	60		301			117	
	60		325			141	
50	65	430	244	130	150	70	8x M8
			274			100	
			309			135	
			334			160	
55	65	430	286	130	150	70	8x M8
			316			100	
			351			135	
			356			180	
60	80	520	302	150	170	110	8x M10
			342			150	
			350			158	
			390			198	
65	80	520	402	150	170	210	8x M10
			350			110	
			390			150	
			440			200	
70P	100	640	475	188	210	235	8x M12
			380			140	
			420			180	
			440			200	
75P	100	640	485	188	210	245	8x M12
			420			130	
			470			180	
			490			200	
80P	100	810	535	214	240	245	8x M14
			386			130	
			436			180	
			481			225	
85P	100	810	481	225	250	143	8x M16
			460			130	
			530			200	
			555			225	
	125		555	225	250	143	8x M16

¹⁾ Finish bore acc. to ISO fit H7, feather keyway acc. to DIN 6885 sheet 1 - JS9
 Finish bore Ø ≤ 32: H7; Finish bore Ø ≥ 33: G7
 Finish bore length: min. 2xd; max. 2,5xd

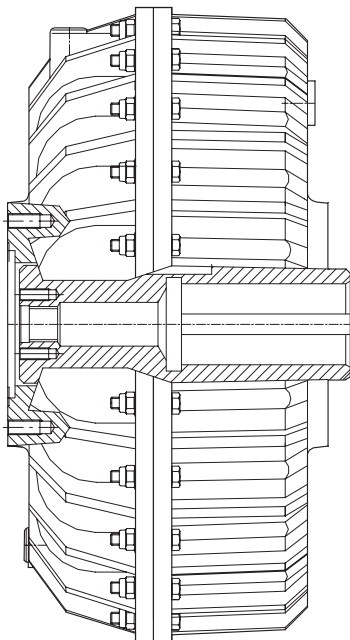
Hydrodynamic couplings

Additional types



Hydrodynamic coupling with an annular chamber

- Fluid coupling is fitted with enlarged delay chamber and annular chamber
- Start-up factor can be further reduced to 1.0-1.2
- Due to the reduced start-up factor even smoother and longer start-ups of the driven machine are enabled.
- Inner and outer drive possible
- Flexible couplings allow for compensation of misalignments



Hydrodynamic coupling with mechanical lock-up at nominal speed

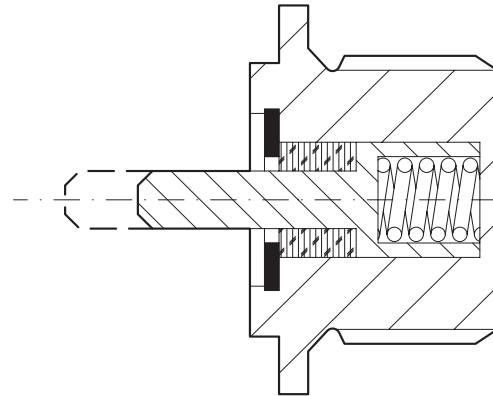
- Hydraulic coupling which provides for smooth acceleration
- Mechanical lock-up at nominal operation (similar to centrifugal clutch)
- No slip at nominal operation
- Can be offered with delay chambers, pulleys, output shaft

Hydrodynamic couplings

Monitoring devices

Fusible plug and thermal switch

Diverse monitoring may be offered supplementary to the fluid coupling. To protect from overheating, fluid couplings are equipped with fusible plugs that provide for the different temperatures (120 °C; 145 °C; 180° C) at which discharge of the fluid occurs. Standard feature couplings are provided with a fusible plug which allows for discharge at 145 °C. In order to avoid the discharge of oil, and thus loss of operation a thermal switch can be supplied (Figure i). Upon reaching response temperature, a spring-activated pin contacts a microswitch and, depending on the type of circuit, either triggers an alarm or switches off the motor



Non-contact monitoring system

The non-contact monitoring system measures speed variations between drive and driven side (input and output) of the coupling. If a set reference value is exceeded, an alarm occurs or the motor is switched off. Manual settings allow the operator to determine periods during which no alarm occurs and the motor is not switched off, thus allowing for speed fluctuation and start-up phase.

Oils and temperatures

Following oils are recommended for operating temperatures between – 20 °C and 180 °C:

The oil filling level may vary depending on the required start-up time. Decreasing the oil filling level will lead to a slower, more gradual, and thus smoother start-up as well as higher slippage during nominal operation.

Manufacturer	Oil
BP	ENERGOL HLP 22/HLP 32
Castrol	Hyspin AWS 46
ESSO	Spinesso 22
Mobil	Velocite
Shell	Tellus 22/Tellus 32

Hydrodynamic couplings

Questionnaire: Technical selection

1. Drive side

Electric-motor

Manufacturer: _____ Type: _____
Nominal power: _____ kW
Nominal speed: _____ rpm
Moment of inertia: _____ kgm² reduced to coupling speed
Motor shaft length: _____ mm
Motor shaft diameter: _____ mm
Activation: Star-delta Direct Other
Other: _____

Diesel engine

Manufacturer: _____ Type: _____
Nominal power: _____ kW
Nominal speed: _____ Rpm
Two-stroke Four-stroke No. of cylinders _____ Piston Ø _____ mm
V-motor in-line V-angle _____ ° stroke _____ mm
Other: _____

2. Driven machine

Application/type of machine _____
Mass moment of inertia _____ kgm² based on _____ rpm
Rated power _____ kW
Start-ups/hour _____
Required starting-time: _____ sec Start-up factor: _____
Dimensions of gearbox/machine shaft Ø _____ x length _____ mm

3. Design variant:

Installation position of the coupling: horizontal vertical
Vertical motor: up down
 Inner Drive Outer drive
Radial disassembly: Yes No

Brake drum: diameter _____ mm length _____ mm
Brake disc: diameter _____ mm length _____ mm
Pulley: diameter _____ mm groove profile _____ No. of grooves _____

4. General

Ambient temperature: _____
Environment: _____
Other: _____

5. Remarks:

(quantity, installation, other couplings ...)

Any questions? Please contact us.