



STAREX® COUPLINGS

STAREX® COUPLINGS



CONTENT

Product description / Order code	175
Dimensions	176
Bore codes / Basic programme	177
Starex® FL-PA – flexible flange coupling	179

STAREX® FLEXIBLE COUPLINGS

- Double cardanic curved tooth gear coupling
- Application in mechanical engineering and hydraulics
- Compensation of misalignment of shaft axial-radial-angular
- Axially pluggable - simple mounting
- Hub material: steel
- Sleeve material: polyamide
- Finish bore with keyway, cone and tothing
- Basic programme available from stock, please see page 178



Order code STAREX® couplings			
Coupling type	Size	Bore	Bore
STAREX®	MB 38	Ø 38	N/2

STAREX® FL-PA FLEXIBLE FLANGE COUPLINGS

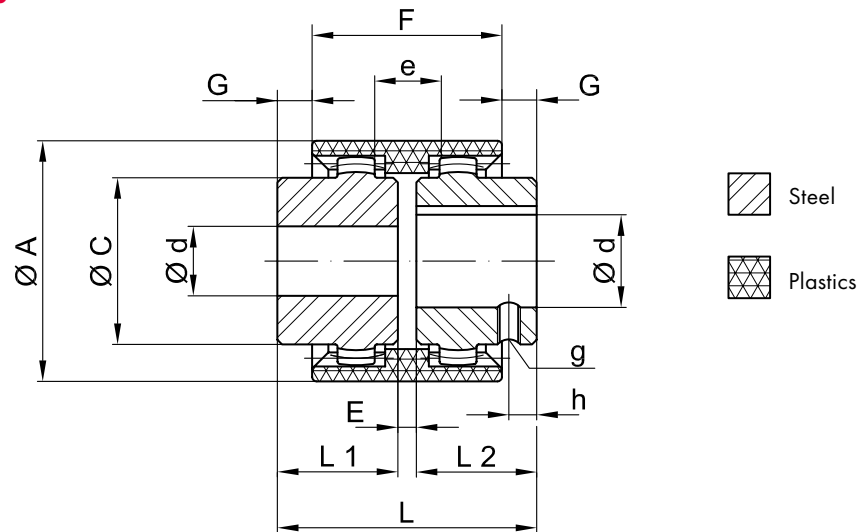
- Torsionally rigid, positive coupling for diesel engine drives of hydraulic pumps
- Short installation lengths
- Simple plug-in installation of hub and flange without aligning tools
- Maintenance free due to combination of materials plastics / steel
- High mechanical stability and temperature resistance up to +130°C due to fibre-glass reinforced polyamide flange
- For all hydrostatic drive of construction machines, harvesters and forest machineries



Order code STAREX® FL-PA couplings			
Coupling type	Size	Hub	Bore
STAREX® FL-PA	7 1/2"	48	SAE 16/32 x15Z

STAREX® FLEXIBLE COUPLINGS

DIMENSIONS



STAREX® type	Pre bore \varnothing [mm]	Finish bore ¹⁾ [mm]		Dimensions [mm]										Extended hubs L1+ L2 [mm]	Weight ²⁾ [kg]
		min	max	$\varnothing A$	$\varnothing C$	L	L1+L2	E	G	F	g	h	e		
MB 14	–	6	14	40	25	50	23	4	6.5	37	M5	6	10	30	0.18
MB 24	4	10	24	52	36	56	26	4	7.5	41	M5	6	14	50	0.32
MB 28	6	12	28	66	43	84	40	4	19	46	M8	10	13	60	0.75
MB 32	8	14	32	76	50	84	40	4	18	48	M8	10	13	60	0.95
MB 38	10	18	38	83	58	84	40	4	18	48	M8	10	13	80	1.25
MB 42	–	20	42	92	65	88	42	4	19	50	M8	10	13	110	1.50
MB 48	–	20	48	100	68	104	50	4	27	50	M8	10	13	110	1.80
MB 65	–	25	65	140	96	144	55	4	36	72	M10	20	16	70/140	4.20
MB 80	–	30	80	175	124	186	90	6	46.5	93	M10	20	20	–	11.50

¹⁾ Finish bores acc. to ISO standard H7, keyway acc. to DIN 6885, sheet 1-JS99

²⁾ Weights refer to max. $\varnothing d$ without keyway.

When mounting the coupling, dimension "E" must be set exactly.

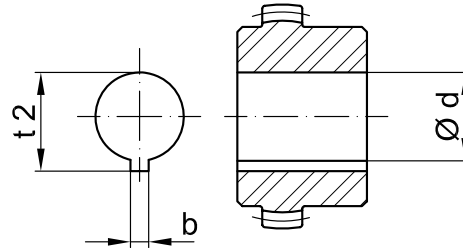
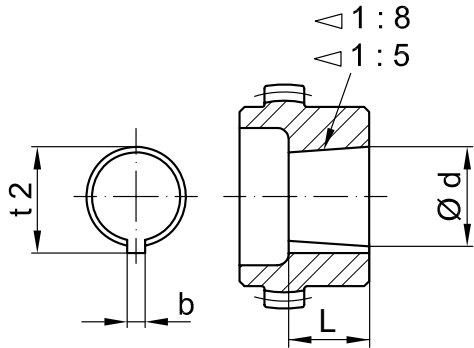
The stability of the coupling will be increased by careful alignment of the shafts.

TORQUE / MISALIGNMENT VALUES

STAREX® type	Torque [Nm]		Max. speed [1/min]	Max. misalignments		
	Nenn T_{KN}	max. $T_{Kmax.}$		Axial [mm]	Radial [mm]	Angular [°]
MB 14	10	20	14000	± 1	± 0.3	± 1° per hub
MB 24	21	42	10500			
MB 28	45	90	8500			
MB 32	60	120	7500			
MB 38	81	162	6700			
MB 42	100	200	6000			
MB 48	142	285	5500			
MB 65	380	760	4000			
MB 80	700	1400	3100			

Assembly instruction can be found in the download section of our webpage: www.hbe-hydraulics.com

BORE CODES



CONICAL (TAPER) BORES

Code	Bore details taper 1:8 [mm]			
	$\varnothing d + 0.05$	$b + 0.05$	$t_2 + 0.05$	L
... N/1	9.7	2.4	10.7	16.5
... N/1c	11.6	3	12.9	16.5
... N/1e	13	2.4	13.8	21
... N/1d	14	3	15.5	17.5
... N/1b	14.3	3.2	15.7	19.5
... N/2	17.2	3.2	18.3	24
... N/2a	17.2	4	19.0	24
... N/2b	17.2	3	18.4	24
... N/3	22	4	23.5	28
... N/4	25.4	4.78	27.8	36
... N/4b	25.4	5	28.2	36
... N/4a	27	4.78	28.8	32.5
... N/4g	28.45	6	29.3	38.5
... N/5	33	6.35	35.5	44
... N/5a	33	7	35.5	44
... N/6	43.05	7.95	46.5	51
... N/6a	41.15	8	44.2	42.5

Code	Bore details taper 1:5 [mm]			
	$\varnothing d + 0.05$	$b + 0.05$	$t_2 + 0.05$	L
... A 10	9.85	2	10.85	11.5
... B 17	16.85	3	18.65	18.5
... C 20	19.85	4	22.05	21.5
... Cs 22	21.95	3	23.75	21.5
... D 25	24.85	5	27.75	26.5
... E 30	29.85	6	32.45	31.5
... F 35	34.85	6	37.45	36.5
... G 40	39.85	6	42.45	41.5

INCH BORES

Code	Metric [mm]			Inch	
	$\varnothing d$	b	$t_2 + 0.381$	$\varnothing d$	b
DNB	11.11 + 0.025	2.4 + 0.051	12.5	7/16"	3/32"
V	11.11 + 0.025	3.2 + 0.051	12.6	7/16"	1/8"
Ta	12.7 + 0.025	3.2 + 0.051	14.3	1/2"	1/8"
E	15.875 + 0.025	3.2 + 0.051	17.5	5/8"	1/8"
Ed	15.875 + 0.025	4.78 + 0.051	18.1	5/8"	3/16"
ES	15.875 + 0.025	4.0 + 0.051	17.7	5/8"	5/32"
Ad	19.05 + 0.025	3.2 + 0.051	20.7	3/4"	1/8"
A	19.05 + 0.025	4.78 + 0.051	21.3	3/4"	3/16"
G	22.225 + 0.025	4.78 + 0.051	24.7	7/8"	3/16"
F	22.225 + 0.025	6.35 + 0.051	25.2	7/8"	1/4"
H	25.4 + 0.025	4.78 + 0.051	27.8	1"	3/16"
HS	25.4 + 0.025	6.35 + 0.051	28.7	1"	1/4"
SB	28.575 + 0.025	6.35 + 0.051	31.5	1 1/8"	1/4"
Sd	28.575 + 0.025	7.93 + 0.051	32.1	1 1/8"	5/16"
Js	31.75 + 0.025	6.35 + 0.051	34.6	1 1/4"	1/4"
K	31.75 + 0.025	7.93 + 0.051	35.5	1 1/4"	5/16"
M	34.925 + 0.025	7.93 + 0.051	38.6	1 3/8"	5/16"
CB	36.512 + 0.025	9.55 + 0.051	38.6	1 7/16"	3/8"
C	38.1 + 0.025	9.55 + 0.063	42.5	1 1/2"	3/8"
N	41.275 + 0.025	9.55 + 0.063	45.8	1 5/8"	3/8"
L	44.45 + 0.025	11.11 + 0.063	49.4	1 3/4"	7/16"
NM	47.625 + 0.025	12.73 + 0.063	53.5	1 7/8"	1/2"
DS	50.8 + 0.025	12.73 + 0.063	56.4	2"	1/2"
P	53.975 + 0.038	12.73 + 0.063	60	2 1/8"	1/2"
U	57.15 + 0.038	12.73 + 0.063	62.9	2 1/4"	1/2"
UB	60.325 + 0.038	15.875 + 0.076	67.6	2 3/8"	5/8"
W	69.85 + 0.038	15.875 + 0.076	77.3	2 3/4"	5/8"
WN	73.025 + 0.038	19.05 + 0.076	82.9	2 7/8"	3/4"
WD	85.725 + 0.038	22.225 + 0.076	95.8	3 3/8"	7/8"
WE	88.9 + 0.038	22.225 + 0.076	98.6	3 1/2"	7/8"
WF	92.075 + 0.038	22.225 + 0.076	101.9	3 5/8"	7/8"

STAREX® FLEXIBLE COUPLINGS

BASIC PROGRAMME METRICAL BORES

STAREX® type	Finish bores acc. to ISO standard H7, keyway acc. to DIN 6885, sheet 1 [mm]																												
	8	10	11	12	14	15	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70	75	80
MB 14	•	•	•	•	•																								
MB 24		•		•	•	•	•	•	•	•	•	•																	
MB 28				•	•	•		•	•	•	•	•	•																
MB 32		•	•			•	•	•	•		•																		
MB 38												•	•	•	•	•	•	•	•										
MB 42											•	•	•	•	•	•	•	•	•	•	•								
MB 48												•	•	•	•	•	•	•	•	•	•	•	•						
MB 65																				•	•	•	•	•	•	•	•	•	
MB 80																								•	•	•	•	•	•

• Standard length

■ Standard extended

Basic programme available from stock at short notice

BASIC PROGRAMME INCH BORES

STAREX® type	Inch bores					
	Ed	A	G	F	Bs	K
MB 14	•					
MB 24		•	•	•		
MB 28		•	•	•	•	
MB 32						
MB 38						•
MB 42		•	•	•	•	•

BASIC PROGRAMME CONICAL (TAPER) BORES

STAREX® type	Taper 1:5		Taper 1:8				
	A10	B17	N/1	N1d	N/2	N/2α	N/3
MB 14	•		•				
MB 24	•	•	•	•	•	•	
MB 28	•	•	•	•	•	•	
MB 32						•	
MB 38		•			•	•	•
MB 42		•					•

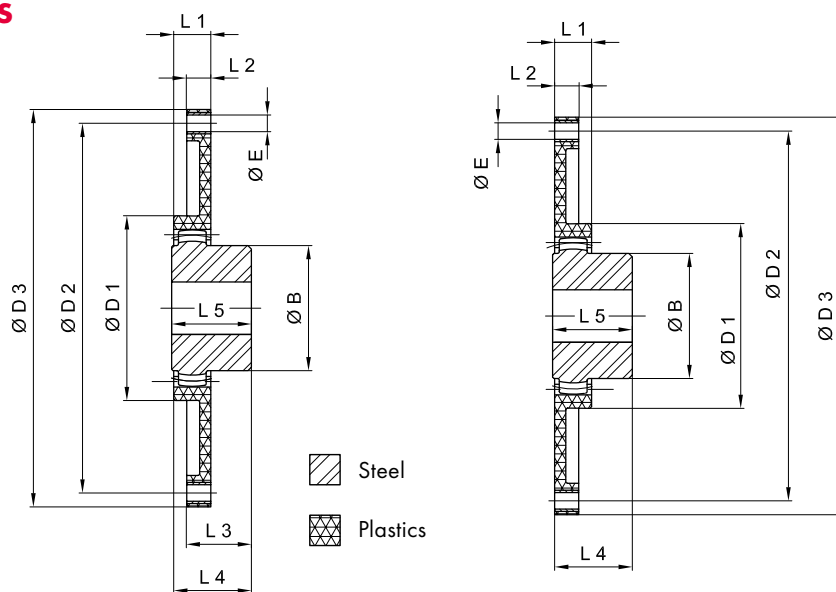
AVAILABLE INTERNAL TOOTHINGS

SAE-Profile	Profile DIN 5480	Profile DIN 5482	Profile DIN 5462
8/16 x 13Z*	N20 x 1.25	A17 x 14	B8 x 32 x 36*
8/16 x 15Z	N25 x 1.5	A22 x 19	
8/16 x 17Z	N30 x 2	A25 x 22	
12/24 x 14Z*	N35 x 2*	A28 x 25	
12/24 x 17Z*	N40 x 2	A30 x 27	
16/32 x 9Z*	N45 x 2	A35 x 31	
16/32 x 11Z	N50 x 2*	A40 x 36	
16/32 x 13Z*	N55 x 2	A45 x 41*	
16/32 x 15Z*	N60 x 2	A48 x 44	
16/32 x 21Z	N70 x 3	A50 x 45	
16/32 x 23Z	N80 x 3	A58 x 53	
16/32 x 27Z	N90 x 3		

*Basic programme

FLEXIBLE FLANGE COUPLINGS STAREX® FL-PA

DIMENSIONS



Assembly diagram 1
(short version)

Assembly diagram 2
(long version)

SAE FLANGES

FL-PA type	Dimensions [mm]			Number z	Torque [Nm]	
	ø D2	ø D3	ø E		T _{KN}	T _{Kmax}
6 1/2"-48	200.02	215.90	9	6	237	599
7 1/2"-48	222.25	241.30	9	8	237	599
8"-48	244.47	263.52	11	6	237	599
10"-48	295.27	314.32	11	8	237	599
10"-65	295.27	314.32	11	8	644	1605
11 1/2"-65	333.37	352.42	11	8	644	1605
11 1/2"-80	333.37	352.42	11	8	1198	3006

METRIC FLANGES

FL-PA type	Dimensions [mm]			Number z
	ø D2	ø D3	ø E	
96-48	50	96	9	4
125-48	100	125	9	3
135-48	100	135	9	3
130-48	105	130	11	4
150-48	130	150	9	5
152-48	122	152	12	3
152-48	125	152	12	3

HUB DIMENSIONS FOR SAE FLANGES

STA-REX® type	Finish bore [mm]		Dimensions [mm]							Extended hub L5 [mm]	Nominal size acc. to SAE (d)				
	min.	max.	ø B	ø D1	L5	L3	L4	L1	L2		6 1/2"	7 1/2"	8"	10"	11 1/2"
MB 42	20	42	65	100	42	33	40	20	13	110	x	x	x	x	-
MB 48	20	48	68	100	50	41	48	20	13	110	x	x	x	x	-
MB 65	25	65	96	132	55	45	52	27	21	70/140	-	-	-	x	-
MB 65	25	65	96	170	55	45	52	31	21	70/140	-	-	-	-	x
MB 80	25	80	124	170	90	78	87	30	21	-	-	-	-	-	x

Corresponding pump mounting plates can be found in chapter "flange couplings", page 185

Online catalogue



epaper.hbe-hydraulics.com/uk/



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