

# ARCUSAFLEX®

**Reich**  
KUPPLUNGEN

**Highly torsionally flexible rubber disc coupling  
for internal combustion engine drives**



**REICH USA CORPORATION**  
Mahwah, NJ USA  
[www.reichusa.com](http://www.reichusa.com)

AC – 2012USA

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March 2011 Edition

Proprietary notice pursuant to ISO 16016 to be observed:

This ARCUSAFLEx® edition supercedes all previous catalogues of this coupling type.  
All dimensions in millimetres and inch.  
We reserve the right to change dimensions and/or design details without prior notice.

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## General

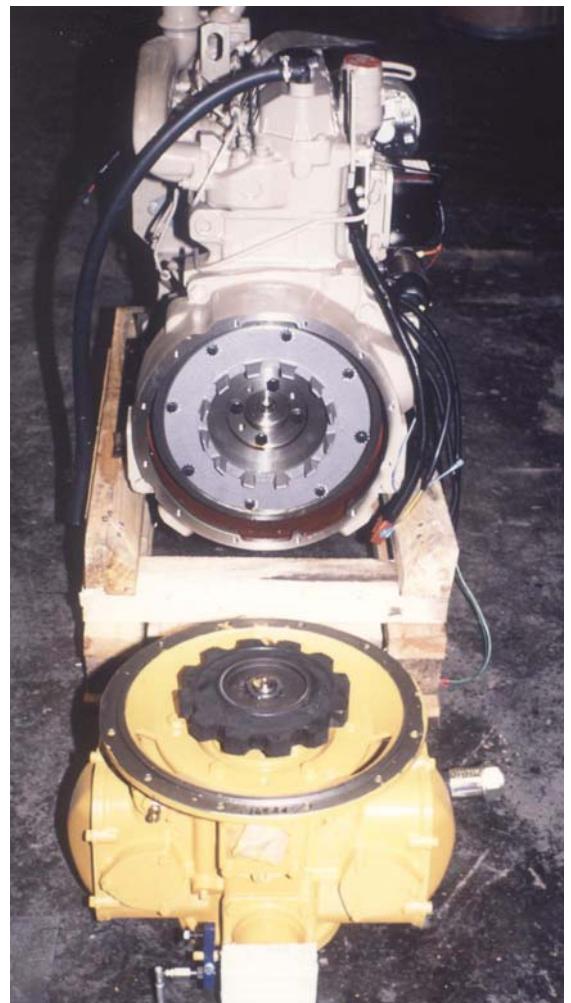


**ARCUSAFLEx® Coupling on Transmission**

### ARCUSAFLEx® Coupling on Compressor

The ARCUSAFLEx® coupling is a highly flexible flywheel coupling with an axial plug-in capability. It provides a torsionally soft connection between an internal combustion engine and a driven machine.

The highly flexible torque transmission characteristic is achieved by a disc-shaped rubber element that is subjected to a torsional load and enables both, the absorption of high torsional vibrations and the compensation of major misalignments. For an optimum adaptation to the conditions of application three different kinds of vulcanized elastomer are available: For application temperatures up to 176°F (80°C) a natural/synthetic rubber mixture as a standard version, up to 212°F (100°C) a more heat resistant mixture and for higher application temperatures up to 266°F (130°C) a silicone mixture.



The inside diameter of the rubber disc element is vulcanized directly to a taper hub or bolt-on sleeve. The toothed profile on the circumference of the element provides in service a virtually backlash-free, positive plug-in connection to the coupling flange.

The ARCUSAFLEx® flywheel coupling series covers a torque range from 1770 - 973580 lb-in (200 – 110000 Nm) (corresponding to approx. 6500 kW at 1000 rpm). Element versions of different torsional stiffnesses are available for optimizing the torsional vibration range. The flange connection dimensions of ARCUSAFLEx® couplings comply predominantly with the SAE J 620 and DIN 6281 standards. Other flange dimensions or overall lengths can be provided on request.

Shaft-to-shaft connections when required can be met by ARCUSAFLEx® shaft couplings which consist of ARCUSAFLEx® flywheel couplings of the standard design equipped with a second hub.

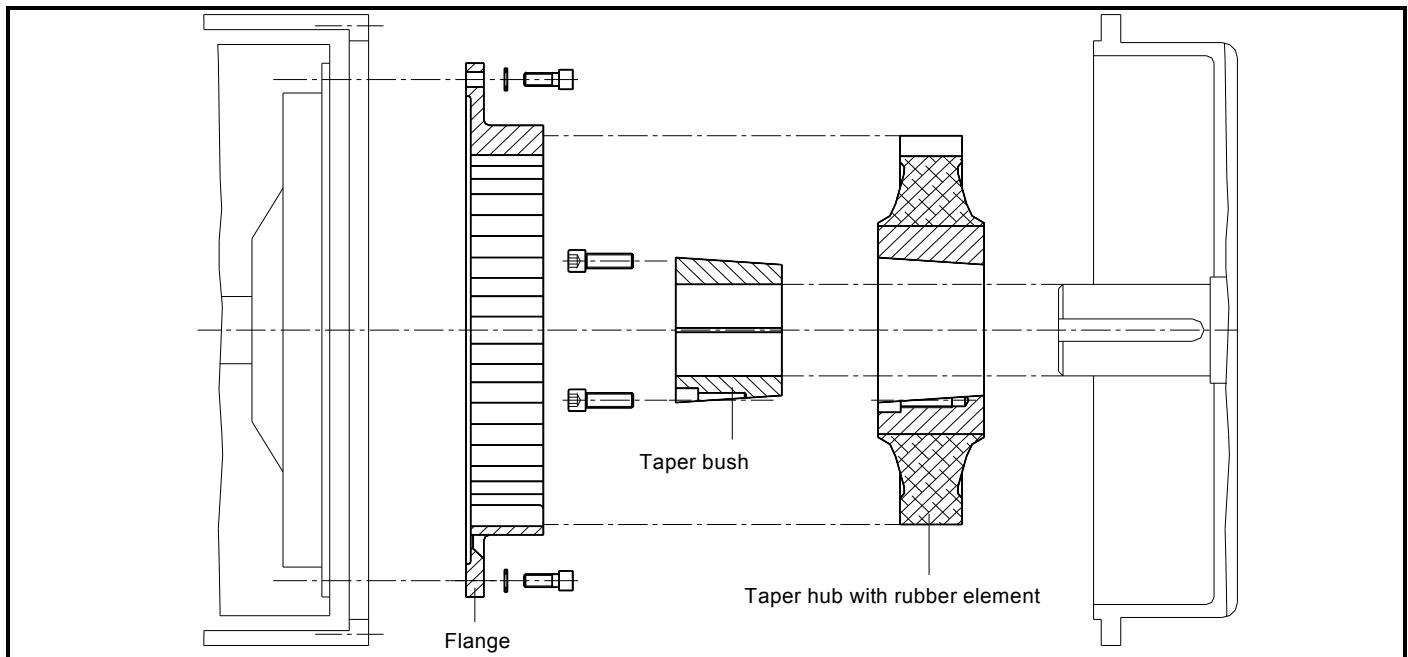
Type approvals by a number of leading classification societies are available including the American Bureau of Shipping (ABS). If required, couplings complete with fail safe devices can also be supplied.

The ARCUSAFLEx® couplings comply to explosion protection according to European Standards ATEX 95. They are certified according to the directive 94/9/EC and may be used in hazardous locations (categories M2, 2 + 3).

### Main features of the highly flexible ARCUSAFLEx® couplings

- Very high torsional flexibility with a linear torsional deflection characteristic
- High torsional vibration and shock load absorbing capability
- Backlash-free torque transmission
- Ease of assembly due to the plug-in type design with ample axial float
- Compensation of major misalignments
- Torque limitation protecting the drive against overload
- ATEX 95

## Types

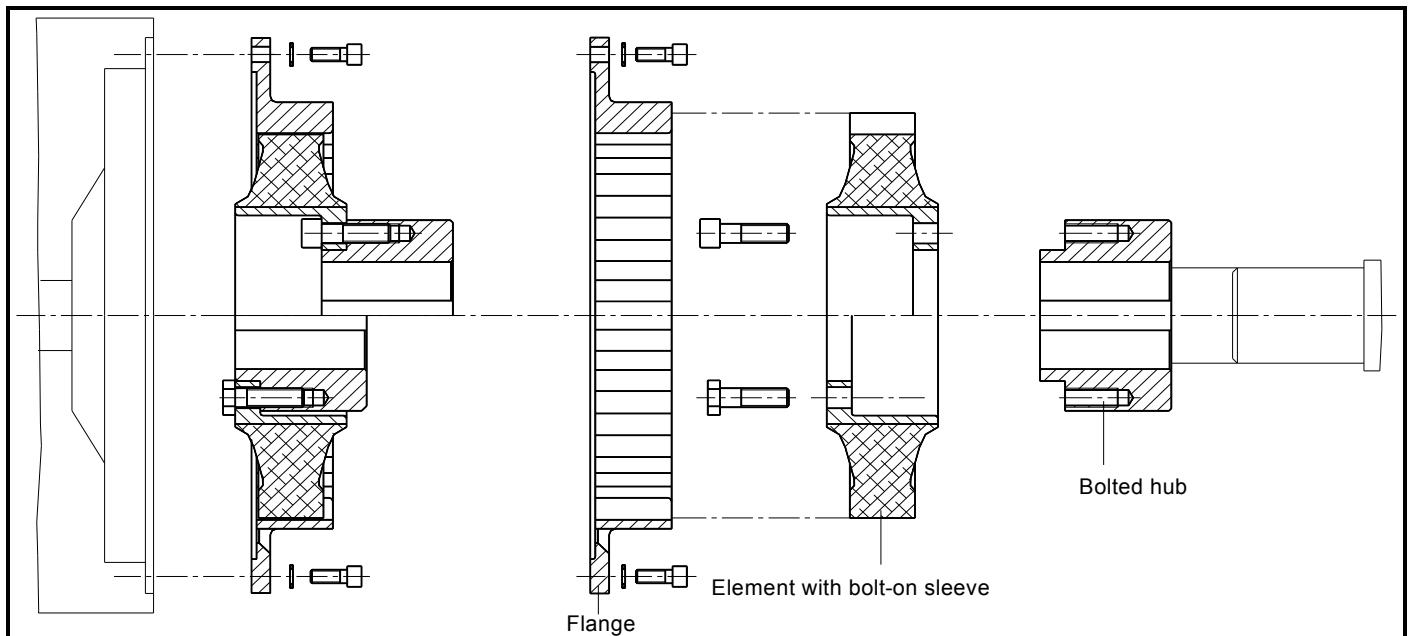


### ARCUSAFLLEX® type AC-T with taper bushing

The ARCUSAFLLEX® flywheel coupling type AC-T...F2 is equipped to accommodate a taper bushing (not included) for shaft mounting. The rubber disc element is vulcanized directly to the taper hub. After completion of the assembly, a shrink-fit-like connection, free from backlash is established between the coupling hub with rubber disc element and the shaft.

Thanks to the use of commercially available taper bushings with a number of different bore dimensions, the need for finishing the bore and keyway of the coupling hub is omitted for the ARCUSAFLLEX® coupling type AC-T. The torque, which can be transmitted, depends on the particular taper bushing.

**Advantage:** Ease of assembly and disassembly with no need for special tools!

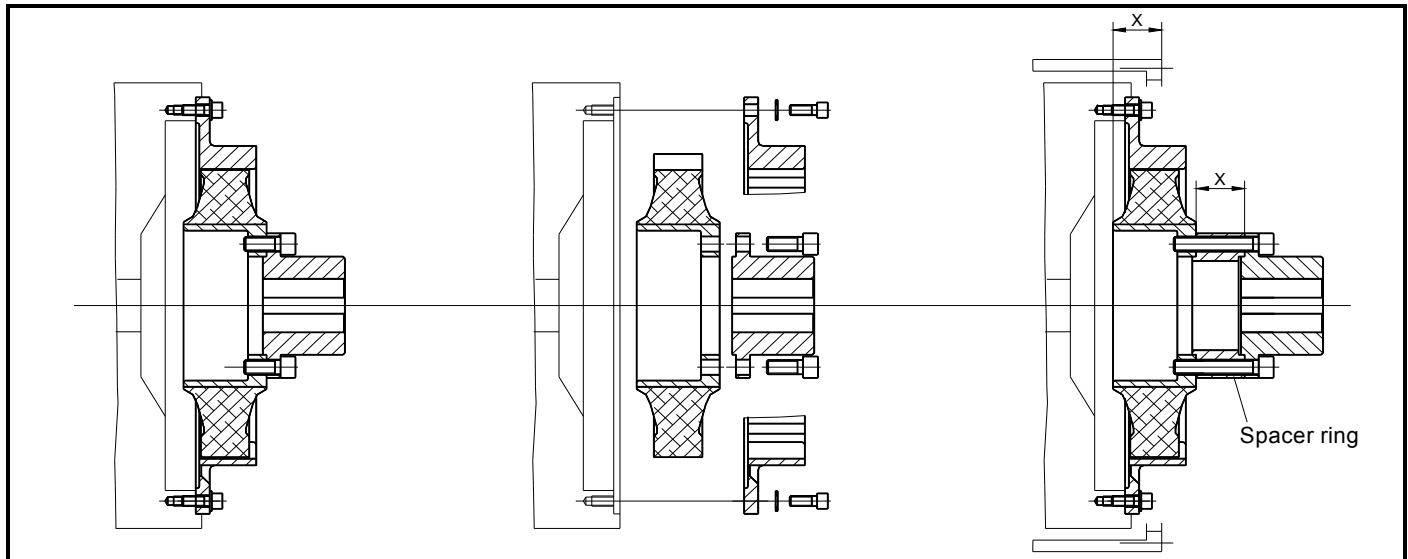


### ARCUSAFLLEX® type AC...F2 with bolted hub

The ARCUSAFLLEX® flywheel coupling type AC...F2 has the rubber disc element vulcanized to a bolt-on sleeve which in turn is bolted to a hub or similar component.

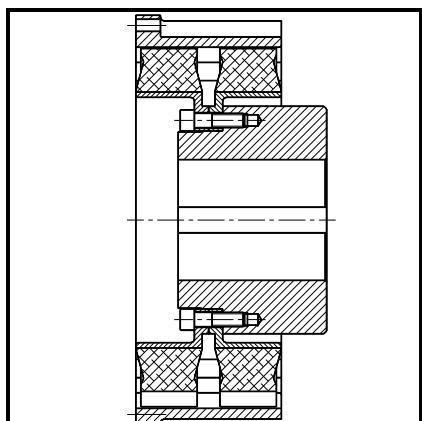
**Advantage:** Depending on the arrangement of the rubber disc element, two different mounting lengths can be achieved using one and the same coupling hub.

## Types

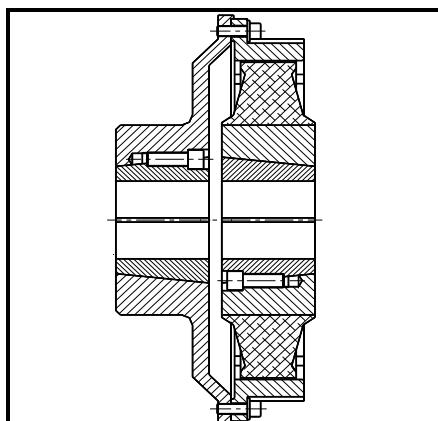


**ARCUSAFLLEX® type AC...F2K for radial element change**

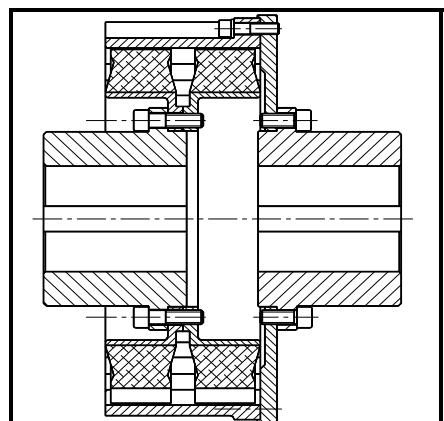
Type AC...F2K permits changing the detached element without having to move the coupled machines. Where the flywheel or flywheel housing protrudes excessively from the element, a spacer ring corresponding to oversize X is required for radial removal.



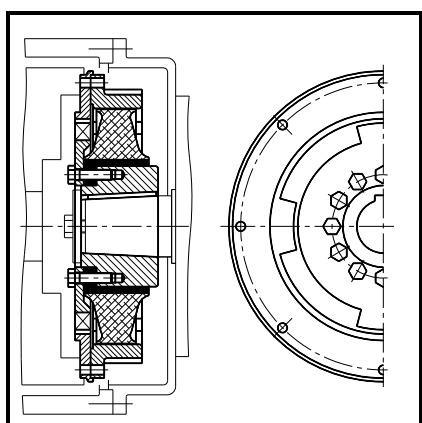
**ARCUSAFLLEX® flywheel coupling type AC...D F2 with 2 elements operating in tandem**



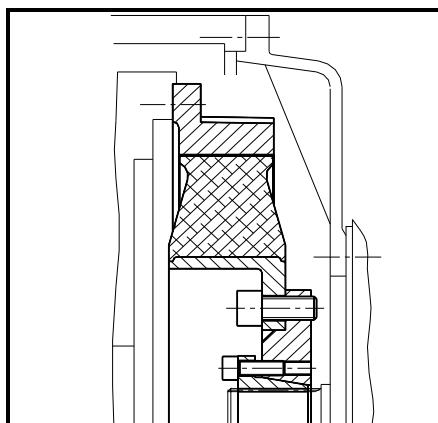
**ARCUSAFLLEX® shaft coupling type AC-T...T**



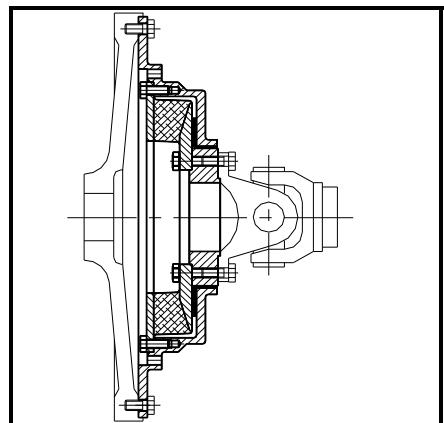
**ARCUSAFLLEX® shaft coupling type AC...D TK with 2 elements operating in tandem**



**ARCUSAFLLEX® flywheel coupling type AC...DS**  
with fail safe device, to be mounted between an internal combustion engine and a marine gearbox.



**ARCUSAFLLEX® flywheel coupling with splined clamping hub, to be mounted between an internal combustion engine and a pump drive.**



**ARCUSAFLLEX® flywheel coupling design AC-VSK...**  
with integral bearing, to be mounted to internal combustion engines as a U-joint coupling in conjunction with a cardan shaft. See separate catalog.

# Technical details

## Standard version with 1 element - Natural/synthetic rubber mixture NR/SBR

ARCUSAFLEX® coupling size	Element version	Nominal torque		Maximum torque		Fatigue torque *)		Dynamic torsional stiffness		Flange size to SAE J 620	Max. speed n <sub>max</sub> rpm
		Nm	T <sub>KN</sub>	Nm	T <sub>Kmax</sub>	Nm	T <sub>KW</sub> (10 Hz)	Nm/rad	C <sub>T dyn</sub> (x10 <sup>3</sup> ) lb-in/rad		
AC 2.3	WN	330	2921	750	6638	165	1460	1.1	9.7	6.5 - 8 10	4200 3600
	NN	360	3186	900	7966	180	1593	1.7	15.0		
	SN	400	3540	1000	8851	200	1770	2.5	22.1		
	UN	450	3983	1000	8851	225	1991	3.5	31.0		
AC 2.6	WN	500	4425	1250	11063	250	2213	2.1	18.6	8 10 11.5	4200 3600 3500
	NN	600	5310	1800	15931	300	2655	3.1	27.4		
	SN	700	6196	2100	18587	350	3098	4.5	39.8		
	UN	800	7081	2100	18587	400	3540	6.3	55.8		
AC 3	WN	800	7081	2000	17701	400	3540	3.6	31.9	10 11.5	3600 3500
	NN	900	7966	2700	23897	450	3983	5.0	44.3		
	SN	1000	8851	3000	26552	500	4425	7.5	66.4		
	UN	1150	10178	3000	26552	575	5089	10.5	92.9		
AC 4 / 4.1	WN	1200	10621	3000	26552	600	5310	8.0	70.8	10 11.5 14	3600 3500 3000
	NN	1350	11949	3600	31863	650	5753	10.0	88.5		
	SN	1550	13719	4200	37173	750	6638	13.5	119.5		
	UN	1800	15931	4200	37173	900	7966	19.0	168.2		
AC 4.9	WN	1400	12391	3500	30978	700	6196	10.0	88.5	11.5 14	3200 3000
	NN	1800	15931	4500	39828	900	7966	15.0	132.8		
	SN	2300	20357	5500	48679	1150	10178	24.0	212.4		
	UN	2700	23897	5500	48679	1350	11949	34.0	300.9		
AC 5 / 5.1	WN	1800	15931	4500	39828	900	7966	8.5	75.2	11.5 14	3200 3000
	NN	2000	17701	5400	47794	1000	8851	13.0	115.1		
	SN	2500	22127	7500	66381	1250	11063	22.0	194.7		
	UN	2900	25667	7500	66381	1450	12834	31.0	274.4		
AC 6 / 6.1	WN	3100	27437	7700	68151	1500	13276	16.0	141.6	14 18	3000 2300
	NN	3450	30535	10000	88507	1700	15046	30.0	265.5		
	SN	4200	37173	12600	111519	2100	18587	45.0	398.3		
	UN	4800	42484	12600	111519	2400	21242	63.0	557.6		
AC 6.5	WN	4000	35403	10000	88507	2000	17701	25.0	221.3	14	3000
	NN	4500	39828	13500	119485	2250	19914	40.0	354.0		
	SN	5500	48679	16500	146037	2750	24340	72.0	637.3		
	UN	6200	54875	16500	146037	3100	27437	100.0	885.1		
AC 7	WN	4600	40713	10000	88507	2300	20357	35.0	309.8	14 18	2600 2300
	NN	5200	46024	15600	138072	2600	23012	56.0	495.6		
	SN	6300	55760	18900	167279	3100	27437	100.0	885.1		
	UN	7400	65496	18900	167279	3700	32748	140.0	1239.1		
AC 7.5	WN	5600	49564	12500	110633	2800	24782	35000	309775	14 18	2600 2300
	NN	6400	56644	19200	169933	3200	28330	56000	495640		
	SN	7600	67265	22800	201795	3800	33632	100000	885071		
	UN	8800	77886	22800	201795	4400	38943	145000	1283353		
AC 8	WN	6200	54875	14000	123910	3100	27437	38.0	336.3	18 21	2300 2000
	NN	7000	61955	21000	185866	3500	30978	75.0	663.8		
	SN	7800	69036	23400	207107	3900	34518	110.0	973.6		
	UN	9200	81427	23400	207107	4600	40713	160.0	1416.1		
AC 9	WN	8000	70806	18000	159313	4200	37173	55.0	486.8	18 21	2300 2000
	NN	9000	79657	27000	238970	4800	42484	100.0	885.1		
	SN	10000	88507	30000	265522	5500	48679	190.0	1681.6		
	UN	12000	106209	30000	265522	6000	53104	300.0	2655.2		
AC 10	WN	11000	97358	28000	247821	5500	48679	75.0	663.8	18 21	2300 2000
	NN	12500	110634	37000	327478	6250	55317	120.0	1062.1		
	SN	14000	123910	42000	371731	7000	61955	210.0	1858.7		
	UN	16000	141612	42000	371731	8000	70806	320.0	2832.2		
AC 11	WN	16000	141612	40000	354030	8000	70806	150.0	1327.6	21 24	2000 1800
	NN	18000	159313	54000	477940	9000	79657	250.0	2212.7		
	SN	20000	177015	60000	531045	10000	88507	450.0	3982.8		
	UN	23000	203567	60000	531045	11500	101784	650.0	5753.0		
AC 11.9	WN	24000	212417	60000	531043	12000	106209	250000	2212663	21 24	2000 1800
	NN	26000	230119	78000	690356	13000	115059	525000	4646592		
	SN	28000	247820	84000	743460	14000	123910	1200000	10620783		
	UN	31500	278798	90000	796564	15000	132760	1750000	15488641		
AC 12	WN	25000	221269	75000	663806	12500	110634	250.0	2212.7	similar to DIN 6288	1500
	NN	28000	247821	84000	743463	14000	123910	400.0	3540.3		
	SN	31500	278798	94000	831970	15000	132761	700.0	6195.5		
	UN	36000	318627	94000	831970	18000	159313	1000.0	8850.7		
AC 13	WN	40000	354030	120000	1062089	20000	177015	375.0	3319.0	on request	1500
	NN	45000	398284	135000	1194851	21250	188078	600.0	5310.4		
	SN	50000	442537	150000	1327612	22500	199142	1050.0	9293.3		
	UN	55000	486791	150000	1327612	25000	221269	1400.0	12391.0		

Element versions: WN = 55° Shore A; NN = 65° Shore A; SN = 75° Shore A, UN = 85° Shore A

Due to the physical characteristics of the rubber materials the measurable rubber hardness is subject to a dispersion, which is defined according to DIN 53505 with ± 5° Shore A. Because of in-house manufacturing this dispersion of the shore hardness can be minimized.

\*) Continuous fatigue torque under reversing stresses ± T<sub>KW</sub> at f = 10 Hz; for other frequencies f<sub>x</sub> apply Technical details – T<sub>KW</sub> · √(10/f<sub>x</sub>)

## Natural/synthetic rubber mixture NR/SBR

ARCUSAFLEX® coupling size	Element version	Nominal torque		Maximum torque		Fatigue torque *)		Dynamic torsional stiffness $C_T \text{ dyn} (\times 10^3)$		Flange size to SAE J 620	Max. speed $n_{\max} \text{ rpm}$		
		$T_{K_N}$		$T_{K_{\max}}$		$T_{K_W} (10 \text{ Hz})$		$Nm/\text{rad}$					
		Nm	lb-in	Nm	lb-in	Nm	lb-in	Nm/rad	lb-in/rad				
AC 8D	WN	12400	109749	28000	247821	6200	54875	76.0	672.7	18	2300 2000		
	NN	14000	123910	42000	371731	7000	61955	150.0	1327.6				
	SN	15600	138072	46800	414215	7800	69036	220.0	1947.2	21	2000		
	UN	18400	162854	46800	414215	9200	81427	320.0	2832.2				
AC 9D	WN	16000	141612	36000	318627	8400	74346	110.0	973.6	18	2000 2000 1800		
	NN	18000	159313	54000	477940	9600	84967	200.0	1770.1				
	SN	20000	177015	60000	531045	11000	97358	380.0	3363.3	21			
	UN	24000	212418	60000	531045	12000	106209	600.0	5310.4	24			
AC 10 D	WN	22000	194716	56000	495642	11000	97358	150.0	1327.6	21	2000 1800		
	NN	25000	221269	74000	654955	12500	110634	240.0	2124.2				
	SN	28000	247821	84000	743463	14000	123910	420.0	3717.3	24			
	UN	32000	283224	84000	743463	16000	141612	640.0	5664.5				
AC 11 D	WN	32000	283224	80000	708060	16000	141612	300.0	2655.2	21	2000 1800		
	NN	36000	318627	108000	955881	18000	159313	500.0	4425.4				
	SN	40000	354030	120000	1062089	20000	177015	900.0	7965.7	24			
	UN	46000	407134	120000	1062089	23000	203567	1300.0	11506.0				
AC 12 D	WN	50000	442537	150000	1327612	25000	221269	500.0	4425.4	similar to DIN 6288	1300		
	NN	56000	495642	168000	1486925	28000	247821	800.0	7080.6				
	SN	63000	557597	189000	1672791	30000	265522	1400.0	12391.0				
	UN	72000	637254	189000	1672791	36000	318627	2000.0	17701.5				
AC 13 D	WN	80000	708060	240000	2124179	40000	354030	750.0	6638.1	on request	1300		
	NN	90000	796567	270000	2389701	42500	376157	1200.0	10620.9				
	SN	100000	885075	300000	2655224	45000	398284	2100.0	18586.6				
	UN	110000	973582	300000	2655224	50000	442537	2800.0	24782.1				

Element versions: WN = 55° Shore A; NN = 65° Shore A; SN = 75° Shore A, UN = 85° Shore A

Due to the physical characteristics of the rubber materials the measurable rubber hardness is subject to a dispersion, which is defined according to DIN 53505 with  $\pm 5^\circ$  Shore A. Because of in-house manufacturing this dispersion of the shore hardness can be minimized.

\*) Continuous fatigue torque under reversing stresses  $\pm T_{K_W}$  at  $f = 10 \text{ Hz}$ ; for other frequencies  $f_x$  apply  $T_{K_W} \cdot \sqrt{\frac{10}{f_x}}$

### Resonance factor VR and relative damping $\Psi$

Resonance factor $V_R$ and relative damping $\Psi$ Element version	$V_R$	$\Psi$
WN	7.85	0.80
NN	5.46	1.15
SN	5.03	1.25
UN	4.83	1.30

### Technical note:

The technical data applies only to the complete coupling or the corresponding coupling elements. It is the customer's/user's responsibility to ensure there are no inadmissible loads acting on all the components. Especially existing SAE bolt connections have to be checked regarding the transmissible torque, if necessary other measures, for example additional reinforcement by pins, may be required. It is also the customer's/user's responsibility to make sure the dimensioning of the shaft and key or other connection is correct. With the type AC-T...F2 the transmissible torque is dependant among others on the torque capacity of the taper bushing.

REICH-KUPPLUNGEN gas an extensive program of couplings to cover nearly every drive configuration. Furthermore, customized solutions can be developed and be manufactured also in small series or as prototypes. Calculation programs are available for coupling selection and sizing. - Please challenge us!

# Technical details

# METRIC/INCH DIMENSIONS

## Silicone Version

ARCUSAFLEX® coupling size	Element version	Nominal torque		Maximum torque		Maximum torque		Vibratory torque *)		Dynamic Torsional Stiffness $C_{T \text{ dyn}}$ [Nm/rad]								Permissible Power Loss $P_{KV}$ Watt				
		$T_{KN}$		$T_{Kmax1}$		$T_{Kmax2}$		$T_{KW}$ (10 Hz)		0.10 $T_{KN}$ Nm/rad	0.25 $T_{KN}$ Nm/rad	0.50 $T_{KN}$ Nm/rad	0.75 $T_{KN}$ Nm/rad	1.00 $T_{KN}$ Nm/rad								
		Nm	lb-in	Nm	lb-in	Nm	lb-in	Nm	lb-in													
AC 2.3	WX	300	2655	450	3983	675	5974	130	1151	0.75	7	1.0	9	1.2	11	1.4	12	2.0	18	115		
AC 2.6	WX	450	3983	675	5974	1000	8850	200	1770	1.25	11	1.7	15	2.1	19	2.5	22	3.7	33	145		
AC 3	WX	750	6638	1125	9957	1700	15045	320	2832	2.4	21	3.0	27	3.7	33	4.4	39	6.5	58	190		
AC 4 / 4.1	WX	1150	10178	1725	15268	2600	23010	480	4248	5.2	46	6.5	58	8.3	73	9.7	86	14.4	127	220		
AC 5 / 5.1	WX	1800	15931	2700	23897	4000	35400	720	6373	5.6	50	7.0	62	9.0	80	10.5	93	15.5	137	410		
AC 6 / 6.1	WX	3000	26552	4500	39828	6750	59743	1200	10621	13.0	115	16.0	142	20.0	177	24.0	212	36.0	319	570		
AC 7	WX	4500	39828	6750	59743	10000	88500	1800	15931	36.0	319	44.0	389	48.0	425	64.0	566	84.0	743	680		
AC 8	WX	6100	53990	9150	80984	13700	121245	2400	21242	38.0	336	48.0	425	56.0	496	68.0	602	96.0	850	860		
AC 8D	WX	12200	107979	18300	161969	27400	242510	4800	42484	76.0	673	96.0	850	112.0	991	136.0	1204	192.0	1699	1720		
AC 9	WX	7500	66381	11250	99571	16900	149577	3300	29207	54.0	478	68.0	602	82.0	726	108.0	956	148.0	1310	1210		
AC 9D	WX	15000	132761	22500	199142	33800	299154	6600	58415	108.0	956	136.0	1204	164.0	1451	216.0	1912	296.0	2620	2420		
AC 10	WX	10000	88507	15000	132761	22000	194716	4000	35403	85.0	752	104.0	920	128.0	1133	176.0	1558	240.0	2124	1520		
AC 10D	WX	20000	177015	30000	265522	44000	389432	8000	70806	170.0	1505	208.0	1841	256.0	2266	352.0	3115	480.0	4248	3040		
AC 11	WX	15000	132761	22500	199142	34000	300924	6000	53104	135.0	1195	170.0	1505	215.0	1903	305.0	2699	410.0	3629	1950		
AC 11D	WX	30000	265522	45000	398284	68000	601849	12000	106209	270.0	2390	340.0	3009	430.0	3806	610.0	5399	820.0	7257	3900		

Element version: WX =  $60 \pm 5^\circ$  Shore A

\*) Continuous fatigue torque under reversing stresses  $\pm T_{KW}$  at  $f = 10$  Hz; for other frequencies  $f_x$  apply  $T_{KW} \cdot \sqrt{\frac{10}{f_x}}$

## Additional information about selection of couplings with silicone elements:

$$1.6 - 2.0 \text{ } T_{AN} \leq T_{KN}$$

$T_{AN}$  = nominal torque of the drive

$T_{Kmax1}$  is the highest permissible maximum torque of the application taking for example into account starting, stopping and running through the resonance speed.

$T_{Kmax2}$  is the highest permissible peak torque, which can occur with a limited number of application related conditions, e.g. short-circuit, synchronization failure, emergency stop.

## Resonance factor VR and relative damping $\Psi$

Element version	$V_R$	$\Psi$
WX	5.03	1.25

# Materials of the ARCUSAFLEx® flywheel couplings

Coupling flanges:	AC 2,3 – AC 10 D high grade aluminium casting AC 6.5: AC 11 – AC 13D of spheroidal cast iron grad GGG 55
Rubber disc element:	- Standard version natural/synthetic rubber mixture for ambient temperatures from -40°F (-40°C) up to +176°F (+80°C) - More heat resistant natural/synthetic rubber mixture for ambient temperatures from -13°F (-25°C) up to +212°F (+100°C) - Silicone mixture for ambient temperatures from -76°F (-60°C) up to +266°F (+130°C)
Type AC-T:	Taper hub and taper bushing of grey cast iron grade GG 25
Type AC with bolted hub:	Bolt-on sleeve of spheroidal cast iron grade GGG 40 / bolted hub of steel (min. yield strength 360 MPa)

## Selection of the proper coupling size

The coupling size to be used in conjunction with internal combustion engines is dimensioned and selected with a view to torsional vibration. For a preliminary selection use the engine torque  $T_{AN}$ , a general safety factor of  $S = 1.3 - 1.5$  should be applied for ARCUSAFLEx couplings with flexible rubber disc elements of natural/synthetic rubber.

The following requirements should be satisfied for a proper selection of the coupling size:

1. The **nominal torque capacity  $T_{KN}$**  of the coupling should be at least equal to the max. engine torque  $T_{AN}$  at any operating temperature while taking the temperature factor  $S_t$  into account.

$$T_{KN} \geq T_{AN} \cdot S_t$$

Calculation of the nominal engine torque:

The temperature factor  $S_t$  allows for a decreasing load carrying capability of the coupling at elevated ambient temperatures. In this connection  $S_t = S_{t1}$  is valid for the standard version and  $S_t = S_{t2}$  is valid for the silicone version.

$T_{AN}[\text{Nm}] = 9550 \cdot \frac{P[\text{HP}]}{n[\text{rpm}]}$								
°F	140	158	176	194	212	230	248	266
°C	60	70	80	90	100	110	120	130
$S_{t1}$	1.25	1.4	1.6	on request	-	-	-	-
$S_{t2}$	1.5	1.5	1.5	1.7	1.9	2.1	2.3	2.5

2. The **maximum torque capacity  $T_{Kmax}$**  of the coupling should be at least equal to the highest torque  $T_{max}$  at any operating temperature while taking the temperature factor  $S_t$  into account.

$$T_{Kmax} \geq T_{max} \cdot S_t$$

3. The permissible **continuous fatigue torque under reversed stresses  $T_{KW}$**  of the coupling should be at least equal to the highest fatigue torque under reversing stresses  $T_w$  encountered throughout the operating speed range while taking the temperature and frequency into account. The frequency factor  $S_f$  allows for the frequency dependence of the permissible continuous fatigue torque under reversing stresses  $T_{KW(10\text{ Hz})}$  for other frequencies  $f_x$ .

$$T_{KW(10\text{ Hz})} \geq T_w \cdot S_t \cdot S_f$$

$$S_f = \sqrt{\frac{f_x}{10}}$$

The dimensioning of the coupling should be checked for the permissible coupling load by means of a torsional vibration analysis which we will conduct upon request. When using ARCUSAFLEx® couplings in drives with great torque transmission variations, an additional safety factor should be applied for torque transmission to the driven machine. Lists specifying couplings assigned to different ratings and torsional vibration conditions are available for all common internal combustion engines operating at constant speeds to facilitate your selection of an operationally safe coupling.

The coupling can be equipped with an additional balancing mass on the primary or secondary side, if this is required due to the torsional vibration conditions or for control reasons.

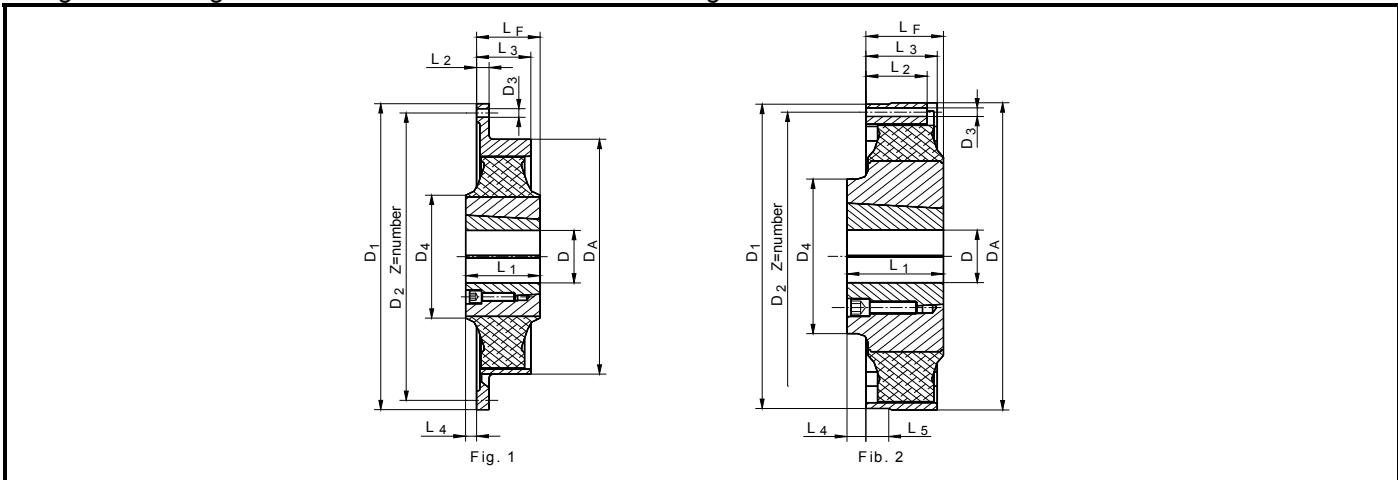
Further information about torsional vibration calculations and ARCUSAFLEx® rubber disc couplings are available upon request.

# ARCUSAFLEX® flywheel couplings

## METRIC Dimensions

Type AC-T...F2 with taper bushing

Flange connecting dimensions to SAE J 620 d and mounting dimensions to DIN 628



ARCUSAFLEX® coupling size	Fig.	Flange connection to SAE J 620					Taper-bushing No.	D <sub>A</sub> mm	D <sub>4</sub> mm	L <sub>1</sub> mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>4</sub> mm	L <sub>5</sub> mm	L <sub>F</sub> mm	DIN 6281		J <sub>1</sub> outside kgm <sup>2</sup>	J <sub>2</sub> inside kgm <sup>2</sup>	Total weight kg
		SAE size	D <sub>1</sub> mm	D <sub>2</sub> mm	D <sub>3</sub> mm	Z										T mm	L <sub>x</sub> mm			
AC-T 2.3.*).F2	-	6.5	215.9	200.0	8.5	6	2012	222	-	32	6	41	-	8	52±2	-	-	0.008	0.008	3.6
	2	7.5	241.3	222.3	8.5	8	2012	222	-	32	33	33	-	8	43±3	-	-	0.008	0.008	3.5
	1	8	263.5	244.5	10.5	6	2012	222	-	32	8	33	-	-	43±3	81.0	38	0.011	0.008	3.7
	1	10	314.3	295.3	10.5	8	2012	222	-	32	8	33	-	-	43±3	73.0	40	0.020	0.008	4.2
AC-T 2.6.*).F2	2	8	263.5	244.5	10.5	6	2517	263	150	45	33	38	3	10	42±4	81.0	41	0.011	0.019	5.9
	1	10	314.3	295.3	10.5	8	2517	263	150	45	10	38	3	-	42±4	73.0	31	0.017	0.019	6.2
	1	11.5	352.4	333.4	10.5	8	2517	263	150	45	10	38	3	-	42±4	58.6	16	0.024	0.019	6.5
AC-T 2.7.*).F2	1	8	263.5	244.5	10.5	6	2517	224	135	45	4	37	5	-	40±4	81.0	41	0.014	0.014	5.5
	1	10	314.3	295.3	10.5	8	2517	224	135	45	4	37	5	-	40±4	73.0	31	0.029	0.014	6.1
	1	11.5	352.4	333.4	10.5	8	2517	224	135	45	4	37	5	-	40±4	58.6	16	0.047	0.014	6.7
AC-T 3.*).F2	1	10	314.3	295.3	10.5	8	2517	290	150	64	16	52	6	-	58±7	73.0	14	0.026	0.026	8.5
	1	11.5	352.4	333.4	10.5	8	2517	290	150	64	16	52	6	-	58±7	58.6	0	0.036	0.026	8.8
AC-T 4.*).F2	2	10	314.3	295.3	10.5	8	3030	320	175	76	56	56	8	8	68±6	73.0	4	0.042	0.059	13.7
	1	11.5	352.4	333.4	10.5	8	3030	320	175	76	16	60	8	-	68±6	106.6	39	0.062	0.059	14.1
	1	14	466.7	438.2	13.0	8	3030	320	175	76	16	60	8	-	68±6	92.4	25	0.181	0.059	16.9
AC-T 4.9.*).F2	1	11.5	352.4	333.4	10.5	8	3535	320	180	89	16	77	-	-	92±7	106.6	14	0.080	0.097	16.8
	1	14	466.7	438.2	13.0	8	3535	320	180	89	16	77	-	-	92±7	92.4	0	0.125	0.097	17.9
AC-T 5.*).F2	2	11.5	352.4	333.4	10.5	8	3535	354	210	89	54	65	13	20	76±5	106.6	30	0.065	0.131	21.0
	1	14	466.7	438.2	13.0	8	3535	354	210	89	15	65	13	-	76±5	92.4	17	0.179	0.131	24.2
AC-T 6.*).F2	1	14	466.7	438.2	13.0	8	4040	420	240	102	18	80	10	-	92±7	92.4	0	0.220	0.334	37.0
	1	16	517.5	489.0	13.0	8	4040	420	240	102	18	80	10	-	92±7	82.7	0	0.320	0.334	37.5
	1	18	571.5	542.9	17.0	6	4040	420	240	102	18	80	10	-	92±7	82.7	0	0.470	0.334	40.6
AC-T 6.5.*).F2	1	14	466.7	438.2	13.0	8	4535	420	-	90	18	90	-	-	92±4	92.4	0	0.688	0.432	52.6
AC-T 7.*).F2	2	14	466.7	438.2	13.0	8	4545	465	235	115	85	85	28	27	87±10	92.4	5	0.312	0.761	62.8
	1	16	517.5	489.0	13.0	8	4545	465	235	115	27	85	28	-	87±10	82.7	0	0.411	0.761	64.2
	1	18	571.5	542.9	17.0	6	4545	465	235	115	18	85	28	-	87±10	82.7	0	0.519	0.761	67.5
AC-T 7.5.*).F2	2	14	466.7	438.2	13	8	4545	478	270	115	100	115	5	-	110	-	-	1.512	0.786	86.0
	1	18	571.5	542.9	17	12	4545	270	270	115	20	115	5	-	110	-	-	2.306	0.786	97.3
AC-T 8.*).F2	1	18	571.5	542.9	17.0	12	5040	514	-	102	18	84	0	-	102±7	-	-	0.478	1.058	61.4
	1	21	673.1	641.4	17.0	12	5040	514	-	102	18	84	0	-	102±7	-	-	0.948	1.058	66.2
AC-T 9.*).F2	1	18	571.5	542.9	17.0	12	5040	560	-	102	35	92	0	-	102±4	-	-	0.846	1.605	80.5
	1	21	673.1	641.4	17.0	12	5040	560	-	102	20	92	0	-	102±4	-	-	1.422	1.605	87.0

\*) For the element versions, see "Technical details"

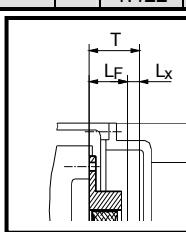
### Taper Bushings

Please note that our couplings are normally supplied without taper bushes since they are readily available from local distributors.

Ordering example: Coupling designation: **AC-T4. NN. F2.14.3030.65**  
 ARCUSAFLX® coupling size \_\_\_\_\_  
 Element version acc. to "Technical details" \_\_\_\_\_  
 Size of flange connection to SAE J 620 \_\_\_\_\_  
 Nominal size of taper bushing \_\_\_\_\_  
 Bore diameter \_\_\_\_\_

### Mounting instruction:

If engine and generator connecting dimensions comply with DIN 6281, the distance dimension L<sub>x</sub> must be observed during assembly. The coupling dimension L<sub>F</sub> must be within the tolerance.

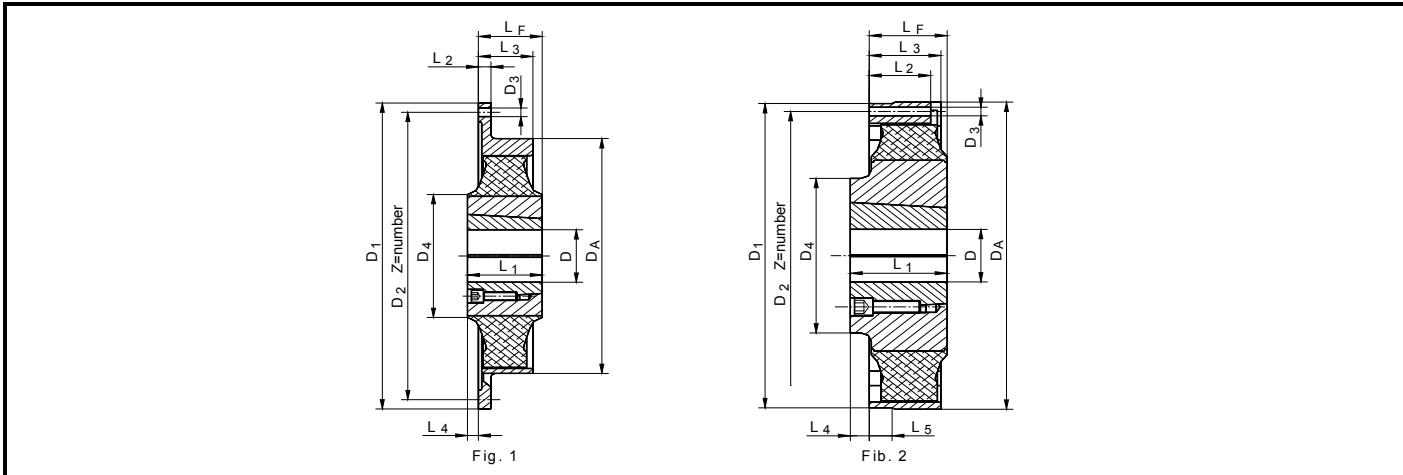


# ARCUSAFLEx flywheel couplings

**INCH Dimensions**

Type AC-T...F2 with taper bushing

Flange connecting dimensions to SAE J 620 d and mounting dimensions to DIN 6281



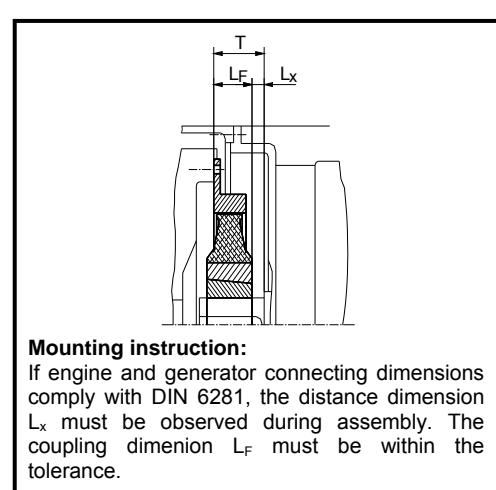
ARCUSAFLEx® coupling size	Fig.	Flange connection to SAE J 620					Taper-bushing No.	D <sub>A</sub> in	D <sub>4</sub> in	L <sub>1</sub> in	L <sub>2</sub> in	L <sub>3</sub> in	L <sub>4</sub> in	L <sub>5</sub> in	L <sub>F</sub> in	DIN 6281		J <sub>1</sub> outside lb in <sup>2</sup>	J <sub>2</sub> inside lb in <sup>2</sup>	Total weight lb
		SAE size	D <sub>1</sub> in	D <sub>2</sub> in	D <sub>3</sub> in	Z										T in	L <sub>x</sub> in			
AC-T 2.3.*).F2	-	6.5	8.500	7.875	0.33	6	2012	8.74	-	1.26	0.24	1.61	-	0.31	2.05±0.1	-	-	27	27	7.9
	2	7.5	9.500	8.750	0.33	8	2012	8.74	-	1.26	1.30	1.30	-	0.31	1.69±0.1	-	-	27	27	7.7
	1	8	10.375	9.625	0.41	6	2012	8.74	-	1.26	0.31	1.30	-	-	1.69±0.1	3.19	1.50	38	27	8.2
	1	10	12.375	11.625	0.41	8	2012	8.74	-	1.26	0.31	1.30	-	-	1.69±0.1	2.87	1.57	68	27	9.3
AC-T 2.6.*).F2	2	8	10.375	9.625	0.41	6	2517	10.35	5.91	1.77	1.30	1.50	0.12	0.39	1.65±0.2	3.19	1.61	38	65	13.0
	1	10	12.375	11.625	0.41	8	2517	10.35	5.91	1.77	0.39	1.50	0.12	-	1.65±0.2	2.87	1.22	58	65	13.7
	1	11.5	13.875	13.125	0.41	8	2517	10.35	5.91	1.77	0.39	1.50	0.12	-	1.65±0.2	2.31	0.63	82	65	14.3
AC-T 3.*).F2	1	10	12.375	11.625	0.41	8	2517	11.42	5.91	2.52	0.63	2.05	0.24	-	2.28±0.3	2.87	0.55	89	89	18.7
	1	11.5	13.875	13.125	0.41	8	2517	11.42	5.91	2.52	0.63	2.05	0.24	-	2.28±0.3	2.31	0.00	123	89	19.4
AC-T 4.*).F2	2	10	12.375	11.625	0.41	8	3030	12.60	6.89	2.99	2.20	2.20	0.31	0.31	2.68±0.2	2.87	0.16	144	202	30.2
	1	11.5	13.875	13.125	0.41	8	3030	12.60	6.89	2.99	0.63	2.36	0.31	-	2.68±0.2	4.20	1.54	212	202	31.1
	1	14	18.375	17.250	0.51	8	3030	12.60	6.89	2.99	0.63	2.36	0.31	-	2.68±0.2	3.64	0.98	619	202	37.3
AC-T 4.9.*).F2	1	11.5	13.875	13.125	0.41	8	3535	12.60	7.09	3.50	0.63	3.03	-	-	3.62±0.3	4.20	0.55	273	331	37.0
	1	14	18.375	17.250	0.51	8	3535	12.60	7.09	3.50	0.63	3.03	-	-	3.62±0.3	3.64	0.00	427	331	39.5
AC-T 5.*).F2	2	11.5	13.875	13.125	0.41	8	3535	13.94	8.27	3.50	2.13	2.56	0.51	0.79	2.99±0.2	4.20	1.18	222	448	46.3
	1	14	18.375	17.250	0.51	8	3535	13.94	8.27	3.50	0.59	2.56	0.51	-	2.99±0.2	3.64	0.67	612	448	53.4
AC-T 6.*).F2	1	14	18.375	17.250	0.51	8	4040	16.54	9.45	4.02	0.71	3.15	0.39	-	3.62±0.3	3.64	0	752	1141	81.6
	1	16	20.375	19.250	0.51	8	4040	16.54	9.45	4.02	0.71	3.15	0.39	-	3.62±0.3	3.26	0	1093	1141	82.7
	1	18	22.500	21.370	0.67	6	4040	16.54	9.45	4.02	0.71	3.15	0.39	-	3.62±0.3	3.26	0	1606	1141	89.5
AC-T 6.5.*).F2	1	14	18.375	17.250	0.51	8	4535	16.54	-	3.54	0.71	3.54	-	-	3.62±0.2	3.64	0	2351	1476	116.0
AC-T 7.*).F2	2	14	18.375	17.250	0.51	8	4545	18.31	9.25	4.53	3.35	3.35	1.10	1.06	3.43±0.4	3.64	0.20	1066	2600	138.5
	1	16	20.375	19.250	0.51	8	4545	18.31	9.25	4.53	1.06	3.35	1.10	-	3.43±0.4	3.26	0	1404	2600	141.5
	1	18	22.500	21.370	0.67	6	4545	18.31	9.25	4.53	0.71	3.35	1.10	-	3.43±0.4	3.26	0	1774	2600	148.8
AC-T 8.*).F2	1	18	22.500	21.370	0.67	12	5040	20.24	-	4.02	0.71	3.31	0	-	4.02±0.3	-	-	1633	3615	135.4
	1	21	26.500	25.250	0.67	12	5040	20.24	-	4.02	0.71	3.31	0	-	4.02±0.3	-	-	3239	3615	145.9
AC-T 9.*).F2	1	18	22.500	21.370	0.67	12	5040	22.05	-	4.02	1.38	3.62	0	-	4.02±0.2	-	-	2891	5485	177.5
	1	21	26.500	25.250	0.67	12	5040	22.05	-	4.02	0.79	3.62	0	-	4.02±0.2	-	-	4859	5485	191.8

\*) For the element versions, see "Technical details"

### Taper Bushings

Please note that our couplings are normally supplied without taper bushes since they are readily available from local distributors.

**Ordering example:** Coupling designation: **AC-T4. NN. F2.14.3030.65**  
 ARCUSAFLEx coupling size \_\_\_\_\_  
 Element version acc. to "Technical details" \_\_\_\_\_  
 Size of flange connection to SAE J 620 \_\_\_\_\_  
 Nominal size of taper bushing \_\_\_\_\_  
 Bore diameter \_\_\_\_\_



### Mounting instruction:

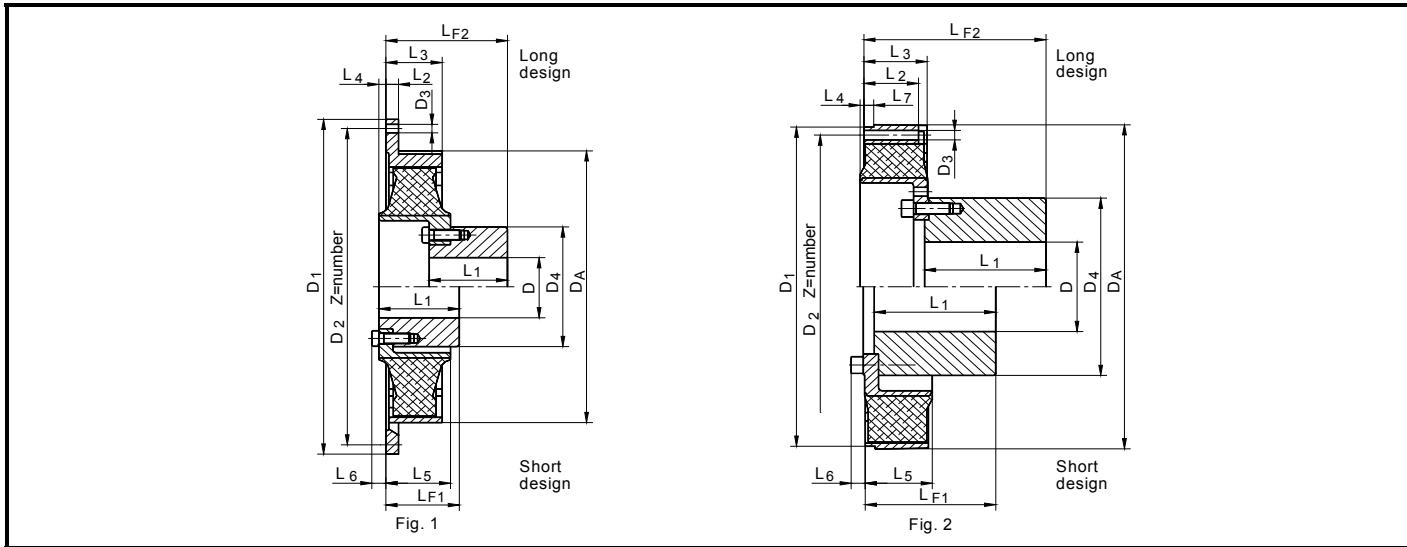
If engine and generator connecting dimensions comply with DIN 6281, the distance dimension Lx must be observed during assembly. The coupling dimension LF must be within the tolerance.

# ARCUSAFLEX® flywheel couplings

# METRIC Dimensions

## Type AC...F2 with bolted hub

Flange connecting dimensions to SAE J 620 d



ARCUSAFLEX® coupling size	Fig.	Flange connection to SAE J 620					D <sub>A</sub> mm min	D mm max	D <sub>4</sub> mm	L <sub>1</sub> mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>4</sub> mm	L <sub>5</sub> mm	L <sub>6</sub> mm	L <sub>7</sub> mm	L <sub>F1</sub> short mm	L <sub>F2</sub> long mm	J <sub>1</sub> outside kgm <sup>2</sup>	J <sub>2</sub> inside kgm <sup>2</sup>	Total weight kg
		SAE size	D <sub>1</sub> mm	D <sub>2</sub> mm	D <sub>3</sub> mm	Z															
AC 2.3.*).F2	-	6.5	215.9	200.0	8.5	6	222	60	98	54	6	41	-	52	-	8	-	103	0.008	0.010	5.8
	2	7.5	241.3	222.3	8.5	8		60	98	54	33	33	-	43	-	8	-	94	0.011	0.010	6.1
	1	8	263.5	244.5	10.5	6		60	98	54	8	33	-	43	-	-	-	94	0.011	0.010	6.4
	1	10	314.3	295.3	10.5	8		60	98	54	8	33	-	43	-	-	-	94	0.017	0.010	6.9
AC 2.6.*).F2	2	8	263.5	244.5	10.5	6	263	65	118	65	33	38	3	42	11	10	73	104	0.011	0.022	6.6
	1	10	314.3	295.3	10.5	8		65	118	65	10	38	3	42	11	-	73 <sup>1)</sup>	104	0.017	0.022	6.9
	1	11.5	352.4	333.4	10.5	8		65	118	65	10	38	3	42	11	-	73	104	0.024	0.022	7.2
AC 2.7.*).F2	1	8	263.5	244.5	10.5	6	224	65	118	65	4	37	5	40	-	-	-	102	0.014	0.018	7.2
	1	10	314.3	295.3	10.5	8		65	118	65	4	37	5	40	-	-	-	102	0.029	0.018	7.8
	1	11.5	352.4	333.4	10.5	8		65	118	65	4	37	5	40	-	-	-	102	0.047	0.018	8.4
AC 3.*).F2	1	10	314.3	295.3	10.5	8	290	65	118	68	16	52	6	59	13	-	73 <sup>1)</sup>	121	0.026	0.026	9.2
	1	11.5	352.4	333.4	10.5	8		60	118	70	16	52	6	59	13	-	59 <sup>1)</sup>	107	0.036	0.027	10.3
AC 4.*).F2	2	10	314.3	295.3	10.5	8	320	80	140	101	56	56	8	68	16	8	106	166	0.042	0.065	18.2
	1	11.5	352.4	333.4	10.5	8		80	140	101	16	60	8	68	16	-	106 <sup>1)</sup>	166	0.062	0.065	18.9
	1	14	466.7	438.2	13.0	8		80	140	87	16	60	8	68	16	-	92 <sup>1)</sup>	152	0.181	0.061	20.3
AC 4.9.*).F2	1	11.5	352.4	333.4	10.5	8	320	90	160	100	16	77	-	79	7	-	106	165	0.080	0.105	19.4
	1	14	466.7	438.2	13.0	8		90	160	90	16	77	-	79	7	-	92	151	0.125	0.105	20.5
AC 5.*).F2	2	11.5	352.4	333.4	10.5	8	354	90	160	110	54	65	13	76	23	20	106 <sup>1)</sup>	175	0.065	0.134	24.7
	1	14	466.7	438.2	13.0	8		90	160	105	15	65	13	76	23	-	92 <sup>1)</sup>	161	0.179	0.132	27.3
AC 6.*).F2	1	14	466.7	438.2	13.0	8	420	100	185	102	18	80	10	92	20	-	92 <sup>1)</sup>	174	0.220	0.321	36.3
	1	16	517.5	489.0	13.0	8		100	185	102	18	80	10	92	20	-	92	174	0.320	0.321	38.2
	1	18	571.5	542.9	17.0	6		100	185	102	18	80	10	92	20	-	92	174	0.470	0.321	40.5
AC 6.5.*).F2	1	14	466.7	438.2	13.0	8	420	120	222	125	16	90	-	92	35	-	92 <sup>1)</sup>	164	0.688	0.404	48.5
AC 7.*).F2	2	14	466.7	438.2	13.0	8	465	120	222	125	85	85	2	88	33	27	92 <sup>1)</sup>	164	0.312	0.578	55.8
	1	16	517.5	489.0	13.0	8		120	222	125	27	85	2	88	33	-	92	164	0.411	0.578	57.1
	1	18	571.5	542.9	17.0	6		120	222	125	18	85	2	88	33	-	92	164	0.519	0.578	60.5
AC 7.5.*).F2	2	14	466.7	438.2	13	8	478	130	222	130	100	115	-	115	16	-	150	240	1.512	0.668	76.3
	1	18	571.5	541.9	17	12		130	222	130	20	115	-	115	-	-	150	240	2.306	0.668	87.7
AC 8.*).F2	1	18	571.5	542.9	17.0	12	514	165	250	142	18	84	0	86	10	-	159	225	0.478	0.925	55.3
	1	21	673.1	641.4	17.0	12		165	250	142	18	84	0	86	10	-	159	225	0.948	0.925	60.1
AC 9.*).F2	1	18	571.5	542.9	17.0	12	560	150	240	140	35	92	0	103	9	-	131	237	0.846	1.232	69.0
	1	21	673.1	641.4	17.0	12		150	240	140	20	92	0	103	9	-	131	237	1.422	1.232	78.4
AC 10.*).F2	2	18	571.5	542.9	17.0	12	580	200	316	200	104	104	0	107	23	15	215	300	0.770	2.365	109.0
	1	21	673.1	641.4	17.0	12		200	316	200	26	104	0	107	23	-	215	300	1.222	2.365	113.0
AC 11.*).F2	2	21	673.1	641.4	17.0	12	682	220	380	210	85	111	0	107	24	15	232	312	3.800	5.311	205.0
	1	24	733.4	692.2	21.0	12		220	380	210	20	111	0	107	24	-	232	312	5.286	5.311	214.0
AC 11.9.*).F2	2	21	673.1	641.4	17	24	755	180	316	210	24	158	-	158	-	14	250	-	2.738	5.964	130.0
	2	24	733.4	692.2	21	12		180	316	210	22	158	-	158	-	14	250	-	3.049	5.964	131.5

<sup>\*)</sup> For the element versions, see "Technical details"

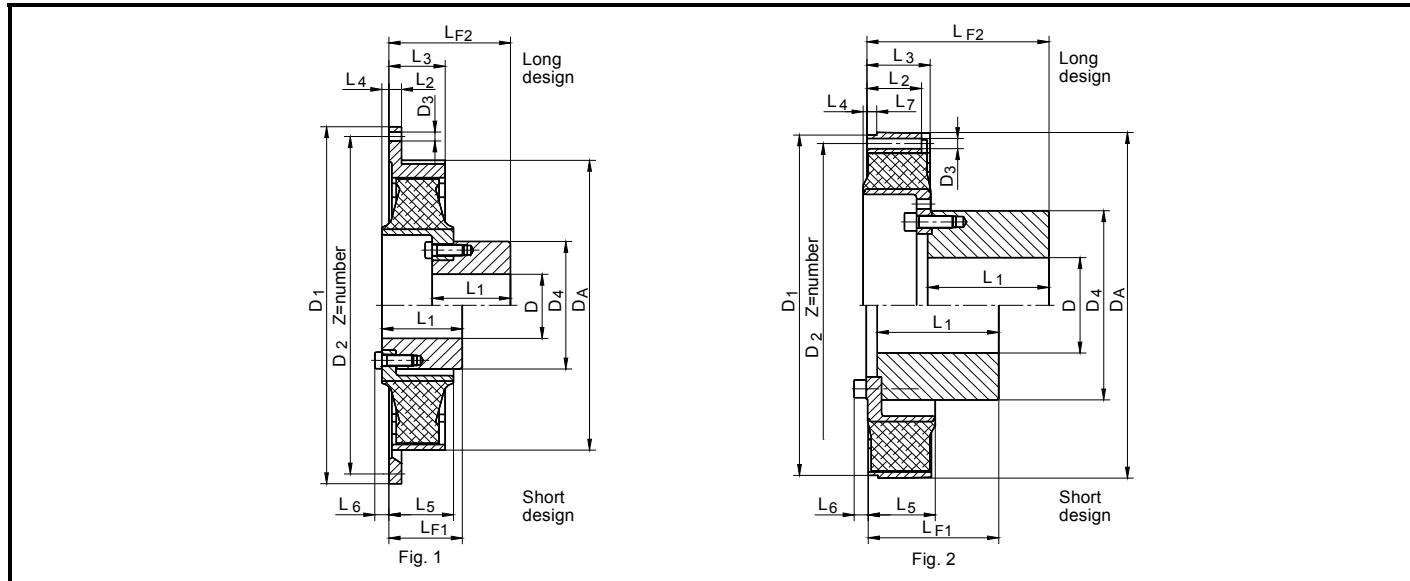
<sup>1)</sup> Mounting lengths for flange connecting dimensions to SAE J 620 and/or DIN 6281

# ARCUSAFLEX® flywheel couplings

**INCH Dimensions**

## Type AC...F2 with bolted hub

Flange connecting dimensions to SAE J 620 d



ARCUSAFLEX® coupling size	Fig.	Flange connection to SAE J 620					D <sub>A</sub> in	D in min	D <sub>4</sub> in	L <sub>1</sub> in	L <sub>2</sub> in	L <sub>3</sub> in	L <sub>4</sub> in	L <sub>5</sub> in	L <sub>6</sub> in	L <sub>7</sub> in	L <sub>F1</sub> short in	L <sub>F2</sub> long in	J <sub>1</sub> outside lbin <sup>2</sup>	J <sub>2</sub> inside lbin <sup>2</sup>	Total weight lb	
		SAE size	D <sub>1</sub> in	D <sub>2</sub> in	D <sub>3</sub> in	Z																
AC 2.3.*).F2	-	6.5	8.500	7.875	0.33	6	8.74	2.36	3.86	2.13	0.24	1.61	-	2.05	-	0.31	-	4.06	27	34	12.8	
	2	7.5	9.500	8.750	0.33	8	8.74		3.86	2.13	1.30	1.30	-	1.69	-	0.31	-	3.70	38	34	13.4	
	1	8	10.375	9.625	0.41	6	8.74		3.86	2.13	0.31	1.30	-	1.69	-	-	-	3.70	38	34	14.1	
	1	10	12.375	11.625	0.41	8	8.74		3.86	2.13	0.31	1.30	-	1.69	-	-	-	3.70	58	34	15.2	
AC 2.6.*).F2	2	8	10.375	9.625	0.41	6	10.35	2.56	4.65	2.56	1.30	1.50	0.12	1.65	0.43	0.39	2.87	4.09	38	75	14.6	
	1	10	12.375	11.625	0.41	8	10.35		4.65	2.56	0.39	1.50	0.12	1.65	0.43	-	2.87 <sup>1)</sup>	4.09	58	75	15.2	
	1	11.5	13.875	13.125	0.41	8	10.35		4.65	2.56	0.39	1.50	0.12	1.65	0.43	-	2.87	4.09	82	75	15.9	
AC 3.*).F2	1	10	12.375	11.625	0.41	8	11.42	2.56	4.65	2.68	0.63	2.05	0.24	2.32	0.51	-	2.87 <sup>1)</sup>	4.76	89	89	20.3	
	1	11.5	13.875	13.125	0.41	8	11.42		4.65	2.76	0.63	2.05	0.24	2.32	0.51	-	2.32 <sup>1)</sup>	4.21	123	92	22.7	
AC 4.*).F2	2	10	12.375	11.625	0.41	8	12.60	3.15	5.51	3.98	2.20	2.20	0.31	2.68	0.63	0.31	4.17	6.54	144	222	40.1	
	1	11.5	13.875	13.125	0.41	8	12.60		5.51	3.98	0.63	2.36	0.31	2.68	0.63	-	4.17 <sup>1)</sup>	6.54	212	222	41.7	
	1	14	18.375	17.250	0.51	8	12.60		5.51	3.43	0.63	2.36	0.31	2.68	0.63	-	3.62 <sup>1)</sup>	5.98	619	208	44.8	
AC 4.9.*).F2	1	11.5	13.875	13.125	0.41	8	12.60	3.54	6.30	3.94	0.63	3.03	-	3.11	0.28	-	4.17	6.50	273	359	42.8	
	1	14	18.375	17.250	0.51	8	12.60		6.30	3.54	0.63	3.03	-	3.11	0.28	-	3.62	5.94	427	359	45.2	
AC 5.*).F2	2	11.5	13.875	13.125	0.41	8	13.94	3.54	6.30	4.33	2.13	2.56	0.51	2.99	0.91	0.79	4.17 <sup>1)</sup>	6.89	222	458	54.5	
	1	14	18.375	17.250	0.51	8	13.94		6.30	4.13	0.59	2.56	0.51	2.99	0.91	-	3.62 <sup>1)</sup>	6.34	612	451	60.2	
AC 6.*).F2	1	14	18.375	17.250	0.51	8	16.54	3.94	7.28	4.02	0.71	3.15	0.39	3.62	0.79	-	3.62 <sup>1)</sup>	6.85	752	1097	80.0	
	1	16	20.375	19.250	0.51	8	16.54		7.28	4.02	0.71	3.15	0.39	3.62	0.79	-	3.62	6.85	1093	1097	84.2	
	1	18	22.500	21.375	0.51	6	16.54		7.28	4.02	0.71	3.15	0.39	3.62	0.79	-	3.62	6.85	1606	1097	89.3	
AC 6.5.*).F2	1	14	18.375	17.250	0.51	8	16.54	4.72	8.74	4.92	0.63	3.54	-	3.62	1.38	-	3.62 <sup>1)</sup>	6.46	2351	1381	106.9	
AC 7.*).F2	2	14	18.375	17.250	0.51	8	18.31	4.72	8.74	4.92	3.35	3.35	0.08	3.46	1.30	1.06	3.62 <sup>1)</sup>	6.46	1066	1975	123.0	
	1	16	20.375	19.250	0.51	8	18.31		8.74	4.92	1.06	3.35	0.08	3.46	1.30	-	3.62	6.46	1404	1975	125.9	
	1	18	22.500	21.375	0.67	6	18.31		8.74	4.92	0.71	3.35	0.08	3.46	1.30	-	3.62	6.46	1774	1975	133.4	
AC 8.*).F2	1	18	22.500	21.375	0.67	12	20.24	6.50	9.84	5.59	0.71	3.31	0	3.39	0.39	-	6.26	8.86	1633	3161	121.9	
	1	21	26.500	25.250	0.67	12	20.24		9.84	5.59	0.71	3.31	0	3.39	0.39	-	6.26	8.86	3239	3161	132.5	
AC 9.*).F2	1	18	22.500	21.375	0.67	12	22.05	2.95	5.91	9.45	5.51	1.38	3.62	0	4.06	0.35	-	5.16	9.33	2891	4210	152.1
	1	21	26.500	25.250	0.67	12	22.05		5.91	9.45	5.51	0.79	3.62	0	4.06	0.35	-	5.16	9.33	4859	4210	172.8
AC 10.*).F2	2	18	22.500	21.375	0.67	12	22.83	3.54	7.87	12.44	7.87	4.09	4.09	0	4.21	0.91	0.59	8.46	11.81	2631	8082	240.3
	1	21	26.500	25.250	0.67	12	22.83		7.87	12.44	7.87	1.02	4.09	0	4.21	0.91	-	8.46	11.81	4176	8082	249.1
AC 11.*).F2	2	21	26.500	25.250	0.67	12	26.85	3.54	8.66	14.96	8.27	3.35	4.37	0	4.21	0.94	0.59	9.13	12.28	12985	18149	451.9
	1	24	28.875	27.250	0.83	12	26.85		8.66	14.96	8.27	0.79	4.37	0	4.21	0.94	-	9.13	12.28	18063	18149	471.8

<sup>\*)</sup> For the element versions, see "Technical details"

<sup>1)</sup> Mounting lengths for flange connecting dimensions to SAE J 620 and/or DIN 6281

The option of mounting the coupling element internally or externally provides two different overall lengths with one and the same coupling hub.

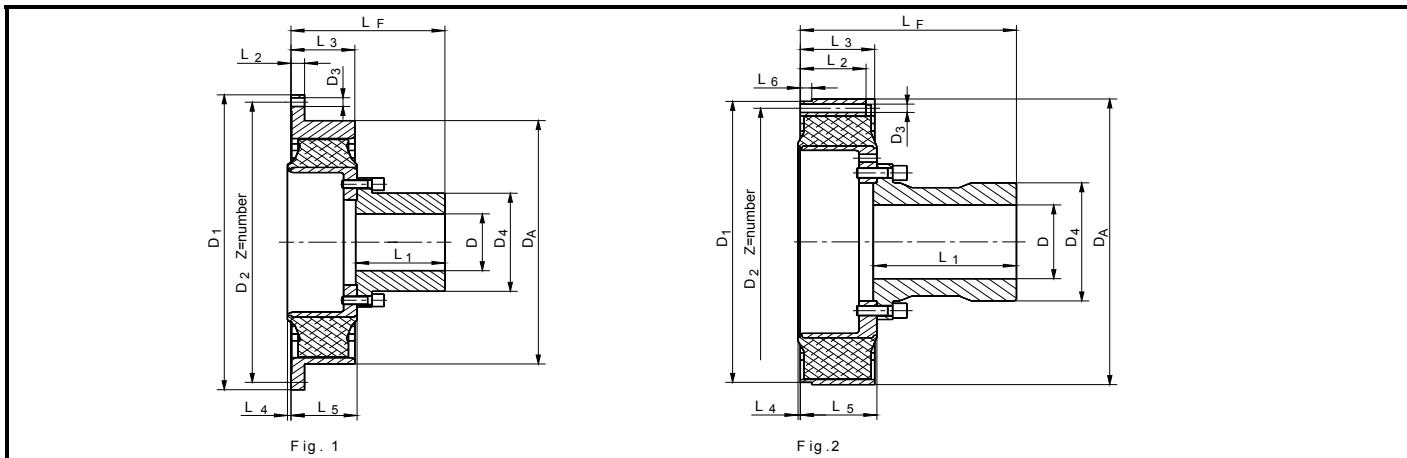
Other flange diameters and lengths available upon request.

# ARCUSAFLEX® flywheel couplings

# METRIC Dimensions

Type AC...F2K with bolted hub for radial element change

Flange connecting dimensions to SAE J 620 d



ARCUSAFLEX® coupling size	Fig.	Flange connection to SAE J 620					D <sub>A</sub> mm	D mm min. max.	D <sub>4</sub> mm	L <sub>1</sub> mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>4</sub> mm	L <sub>5</sub> mm	L <sub>6</sub> mm	L <sub>F</sub> mm	J <sub>1</sub> outside kgm <sup>2</sup>	J <sub>2</sub> inside kgm <sup>2</sup>	Total weight kg	
		SAE size	D <sub>1</sub> mm	D <sub>2</sub> mm	D <sub>3</sub> mm	Z														
AC 2.6.*).F2K	2	8	263.5	244.5	10.5	6	263	55	78	65	33	38	3	42	10	104	0.011	0.017	5.0	
	1	10	314.3	295.3	10.5	8	263	55	78	65	10	38	3	42	-	104	0.017	0.017	5.3	
	1	11.5	352.4	333.4	10.5	8	263	55	78	65	10	38	3	42	-	104	0.024	0.017	5.6	
AC 2.7.*).F2K	1	8	263.5	244.5	10.5	6	224	50	78	65	4	37	5	40	-	102	0.014	0.013	5.4	
	1	10	314.3	295.3	10.5	8	224	50	78	65	4	37	5	40	-	102	0.029	0.013	6.0	
	1	11.5	352.4	333.4	10.5	8	224	50	78	65	4	37	5	40	-	102	0.047	0.013	6.6	
AC 3.*).F2K	-	10	314.3	295.3	10.5	8	290	55	78	65	16	52	6	59	-	121	0.026	0.027	8.1	
	-	11.5	352.4	333.4	10.5	8	290	55	78	65	16	52	6	59	-	121	0.036	0.027	8.4	
AC 4.1.*).F2K	2	10	314.3	295.3	10.5	8	320	75	112	95	56	56	-	59	8	152	0.042	0.064	11.2	
	1	11.5	352.4	333.4	10.5	8	320	75	112	95	16	60	-	59	-	152	0.062	0.064	11.9	
	1	14	466.7	438.2	13.0	8	320	75	112	95	16	60	-	59	-	152	0.181	0.064	14.7	
AC 4.9.*).F2K	1	11.5	352.4	333.4	10.5	8	320	85	127	95	16	77	-	79	-	172	0.080	0.085	15.8	
	1	14	466.7	438.2	13	8	320	85	127	95	16	77	-	79	-	172	0.125	0.085	19.6	
AC 5.1.*).F2K	2	11.5	352.4	333.4	10.5	8	354	85	127	95	54	65	-	68	20	161	0.065	0.107	16.0	
	1	14	466.7	438.2	13.0	8	354	85	127	95	15	65	-	68	-	161	0.179	0.107	18.7	
AC 6.1.*).F2K	1	14	466.7	438.2	13.0	8	420	110	165	95	18	80	-	82	-	174	0.220	0.243	25.1	
	1	16	517.5	489.0	13.0	8	420	110	165	95	18	80	-	82	-	174	0.320	0.243	27.0	
	1	18	571.5	542.9	17.0	6	420	110	165	95	18	80	-	82	-	174	0.470	0.243	29.1	
AC 6.5*).F2K	1	14	466.7	438.2	13.0	8	420	130	190	119	18	90	-	92	-	209	0.688	0.542	46.5	
AC 7.*).F2K	2	14	466.7	438.2	13.0	8	465	130	190	119	85	85	2	88	27	204	0.312	0.542	40.5	
	1	16	517.5	489.0	13.0	8	465	130	190	119	27	85	2	88	-	204	0.411	0.542	41.9	
	1	18	571.5	542.9	17.0	6	465	130	190	119	18	85	2	88	-	204	0.519	0.542	45.2	
AC 7.5.*).F2K	2	14	466.7	438.2	13	8	478	130	190	119	100	115	-	120	15	237	1.512	0.584	66.3	
	1	18	571.5	542.9	17	12	478	130	190	119	20	115	-	120	-	237	2.306	0.584	77.6	
AC 8.*).F2K	1	18	571.5	542.9	17.0	12	514	155	227	162	18	84	0	86	-	245	0.478	0.942	59.1	
	1	21	673.1	641.4	17.0	12	514	155	227	162	18	84	0	86	-	245	0.948	0.942	63.9	
AC 9.*).F2K	1	18	571.5	542.9	17.0	12	560	75	165	240	140	35	92	0	103	-	237	0.846	1.232	67.5
	1	21	673.1	641.4	17.0	12	560	75	165	240	140	20	92	0	103	-	237	1.422	1.232	78.4
AC 10.*).F2K	2	18	571.5	542.9	17.0	12	580	90	165	240	200	104	104	0	107	15	302	0.770	1.652	80.0
	1	21	673.1	641.4	17.0	12	580	90	165	240	200	26	104	0	107	-	302	1.222	1.652	84.0
AC 11.*).F2K	2	21	673.1	641.4	17.0	12	682	90	200	300	210	85	111	0	107	15	312	3.800	3.623	154.0
	1	24	733.4	692.2	21.0	12	682	90	200	300	210	20	111	0	107	-	312	5.286	3.623	164.0
AC 12.*).F2K	1	-	860.0	820.0	20.0	32	780	90	260	390	255	26	135	0	137	-	389	10.70	12.04	329.0
	1	-	920.0	880.0	20.0	32	870	90	260	390	255	27	136	0	137	-	389	15.40	12.04	352.0
	1	-	995.0	950.0	22.0	32	870	90	260	390	255	27	136	0	137	-	389	20.50	12.04	374.0

\*) For the element versions, see "Technical details"

Other flange and length dimensions on request.

**Ordering example:** Coupling designation: AC 9.NN.F2K.18.237

ARCUSAFLX ® coupling size

Element version acc. to "Technical details"

Version for the element change

Size of flange connection to SAE J 620 (AC12: D<sub>1</sub>)

Mounting length L<sub>F</sub> in mm

# ARCUSAFLEx® flywheel couplings

**INCH Dimensions**

Type AC...F2K with bolted hub for radial element change

Flange connecting dimensions to SAE J 620 d

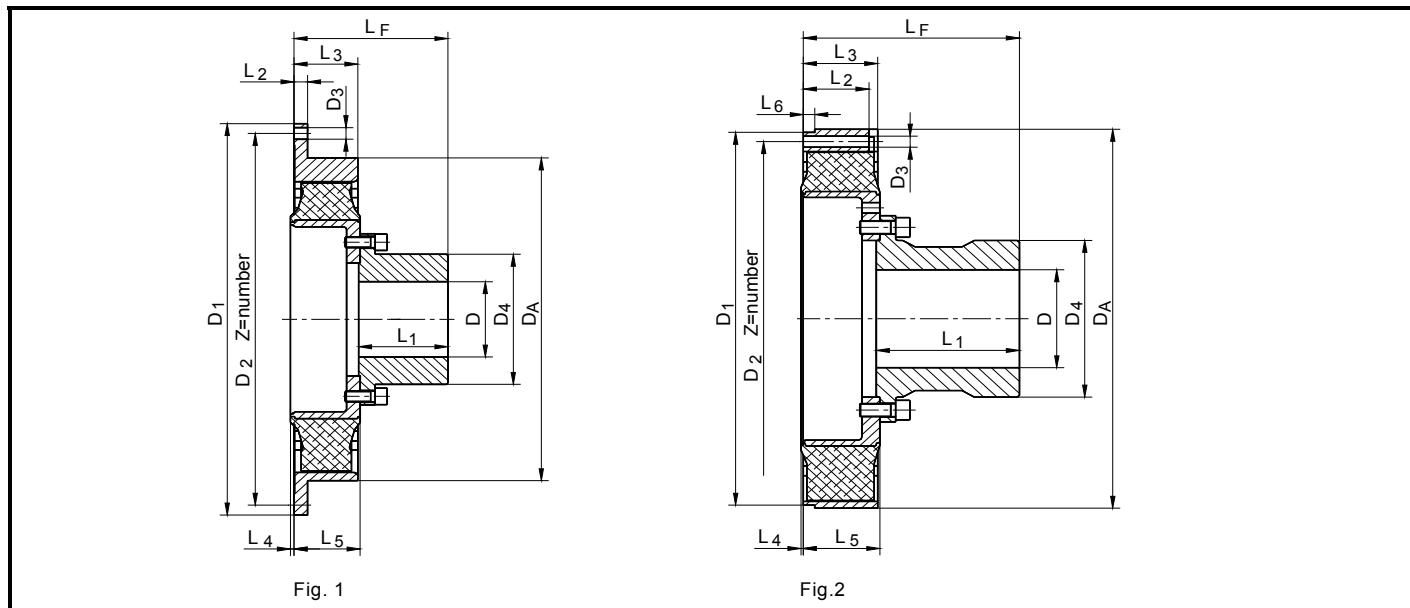


Fig. 1

Fig. 2

ARCUSAFLEx® coupling size	Fig.	Flange connection to SAE J 620					$D_A$ in	D in min. max.	$D_4$ in	$L_1$ in	$L_2$ in	$L_3$ in	$L_4$ in	$L_5$ in	$L_6$ in	$L_F$ in	$J_1$ outside lb in²	$J_2$ inside lb in²	Total weight lb	
		SAE size	$D_1$ in	$D_2$ in	$D_3$ in	Z														
AC 2.6.*).F2K	2	8	10.375	9.625	0.41	6	10.35	unbored, precentered	2.17	3.07	2.56	1.30	1.50	0.12	1.65	0.39	4.09	38	58	11.0
	1	10	12.375	11.625	0.41	8	10.35		2.17	3.07	2.56	0.39	1.50	0.12	1.65	-	4.09	58	58	11.7
	1	11.5	13.875	13.125	0.41	8	10.35		2.17	3.07	2.56	0.39	1.50	0.12	1.65	-	4.09	82	58	12.3
AC 3.*).F2K	-	10	12.375	11.625	0.41	8	11.42		2.17	3.07	2.56	0.63	2.05	0.24	2.32	-	4.76	89	92	17.9
	-	11.5	13.875	13.125	0.41	8	11.42		2.17	3.07	2.56	0.63	2.05	0.24	2.32	-	4.76	123	92	18.5
AC 4.1.*).F2K	2	10	12.375	11.625	0.41	8	12.60		2.95	4.41	3.74	2.20	2.20	-	2.32	0.31	5.98	144	219	24.7
	1	11.5	13.875	13.125	0.41	8	12.60		2.95	4.41	3.74	0.63	2.36	-	2.32	-	5.98	212	219	26.2
	1	14	18.375	17.250	0.51	8	12.60		2.95	4.41	3.74	0.63	2.36	-	2.32	-	5.98	619	219	32.4
AC 4.9.*).F2K	1	11.5	13.875	13.125	0.41	8	12.60		3.35	5.00	3.74	0.63	3.03	-	3.11	-	6.77	273	290	34.8
	1	14	18.375	17.250	0.51	8	12.60		3.35	5.00	3.74	0.63	3.03	-	3.11	-	6.77	427	290	43.2
AC 5.1.*).F2K	2	11.5	13.875	13.125	0.41	8	13.94		3.35	5.00	3.74	2.13	2.56	-	2.68	0.79	6.34	222	366	35.3
	1	14	18.375	17.250	0.51	8	13.94		3.35	5.00	3.74	0.59	2.56	-	2.68	-	6.34	612	366	41.2
AC 6.1.*).F2K	1	14	18.375	17.250	0.51	8	16.54		4.33	6.50	3.74	0.71	3.15	-	3.23	-	6.85	752	830	55.3
	1	16	20.375	19.250	0.51	8	16.54		4.33	6.50	3.74	0.71	3.15	-	3.23	-	6.85	1093	830	59.5
	1	18	22.500	21.375	0.67	6	16.54		4.33	6.50	3.74	0.71	3.15	-	3.23	-	6.85	1606	830	64.2
AC 6.5*).F2K	1	14	18.375	17.250	0.51	8	16.54		5.12	7.48	4.69	0.71	3.54	-	3.62	-	8.23	2351	1852	102.5
AC 7.*).F2K	2	14	18.375	17.250	0.51	8	18.31		5.12	7.48	4.69	3.35	3.35	0.08	3.46	1.06	8.03	1066	1852	89.3
	1	16	20.374	19.250	0.51	8	18.31		5.12	7.48	4.69	1.06	3.35	0.08	3.46	-	8.03	1404	1852	92.4
	1	18	22.500	21.375	0.67	6	18.31		5.12	7.48	4.69	0.71	3.35	0.08	3.46	-	8.03	1774	1852	99.6
AC 8.*).F2K	1	18	22.500	21.375	0.67	12	20.24		6.10	8.94	6.38	0.71	3.31	0	3.39	-	9.65	1633	3219	130.3
	1	21	26.500	25.250	0.67	12	20.24		6.10	8.94	6.38	0.71	3.31	0	3.39	-	9.65	3239	3219	140.9
AC 9.*).F2K	1	18	22.500	21.375	0.67	12	22.05		6.50	9.45	5.51	1.38	3.62	0	4.06	-	9.33	2891	4210	148.8
	1	21	26.500	25.250	0.67	12	22.05		6.50	9.45	5.51	0.79	3.62	0	4.06	-	9.33	4859	4210	172.8
AC 10.*).F2K	2	18	22.500	21.375	0.67	12	22.83		6.50	9.45	7.87	4.09	4.09	0	4.21	0.59	11.89	2631	5645	176.4
	1	21	26.500	25.250	0.67	12	22.83		6.50	9.45	7.87	1.02	4.09	0	4.21	-	11.89	4176	5645	185.2
AC 11.*).F2K	2	21	26.500	25.250	0.67	12	26.85		7.87	11.81	8.27	3.35	4.37	0	4.21	0.59	12.28	12985	12380	339.5
	1	24	28.874	27.250	0.83	12	26.85		7.87	11.81	8.27	0.79	4.37	0	4.21	-	12.28	18063	12380	361.6
AC 12.*).F2K	1	-	33.858	32.283	0.79	32	30.71		10.24	15.35	10.04	1.02	5.31	0	5.39	-	15.31	36564	41143	725.3
	1	-	36.220	34.646	0.79	32	34.25		10.24	15.35	10.04	1.06	5.35	0	5.39	-	15.31	52624	41143	776.0
	1	-	39.173	37.402	0.87	32	34.25		10.24	15.35	10.04	1.06	5.35	0	5.39	-	15.31	70052	41143	824.5

\*) For the element versions, see "Technical details"

Other flange and length dimensions on request.

**Ordering example:** Coupling designation: **AC 9.NN.F2K.18.237**

ARCUSAFLEx® coupling size

Element version acc. to "Technical details"

Version for the element change

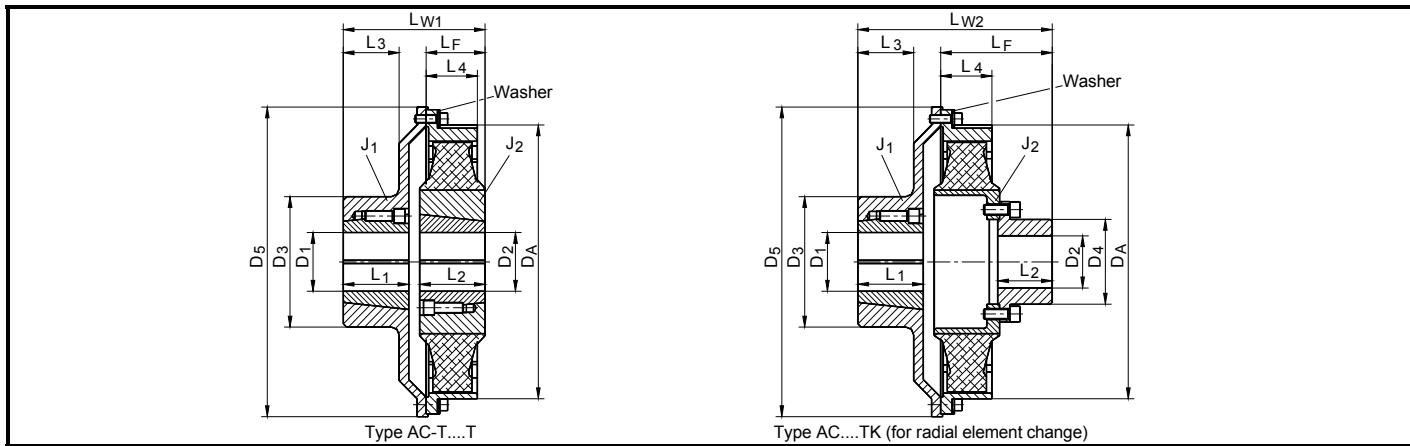
Size of flange connection to SAE J 620 (AC12:  $D_1$ )

Mounting length  $L_F$  in mm

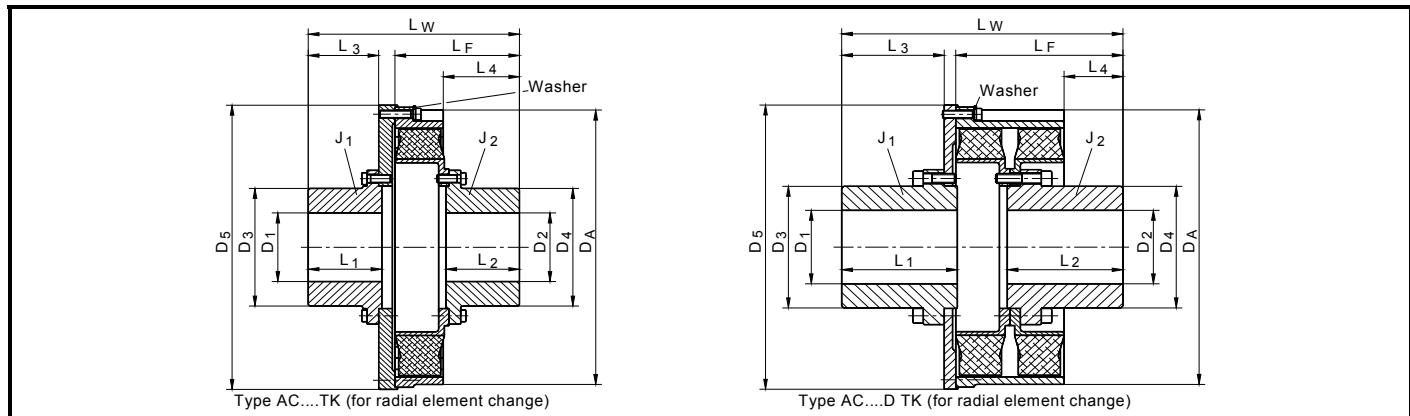
# ARCUSAFLEX® shaft couplings

**METRIC Dimensions**

Type AC-T...T and type AC...TK



ARCUSAFLEX® coupling size	Taper bushing		Taper bushing		D <sub>3</sub> mm	D <sub>4</sub> mm	D <sub>5</sub> mm	D <sub>A</sub> mm	L <sub>1</sub> mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>4</sub> mm	L <sub>F</sub> mm	L <sub>w1</sub> mm	L <sub>w2</sub> mm	J <sub>1</sub> kgm <sup>2</sup>	J <sub>2</sub> kgm <sup>2</sup>	Total weight kg
	No.	D <sub>1</sub> max. mm	No.	D <sub>2</sub> max. mm														
AC-T 2.3...T	2012	48	2012	48	102	-	225	222	32	32	23	41	52	84	-	0.026	0.008	7.4
AC-T 2.6...T	2517	60	2517	60	105	-	325	263	45	45	42	38	42	115	-	0.121	0.019	15.9
AC-T 3...T	2517	60	2517	60	105	-	325	290	45	45	42	52	58	131	-	0.133	0.026	18.2
AC 3...TK	2517	60	-	55	105	78	325	290	45	65	42	52	121	-	194	0.133	0.027	17.8
AC-T 4...T	3030	75	3030	75	140	-	360	320	76	76	64	60	68	166	-	0.229	0.059	29.4
AC 4.1...TK	3030	75	-	75	140	112	360	320	76	95	64	60	152	-	250	0.229	0.064	27.2
AC-T 4.9...T	3535	90	3535	90	170	-	360	320	89	89	74	77	92	209	-	0.290	0.097	37.8
AC 4.9...TK	3535	90	-	85	170	127	360	320	89	95	74	77	172	-	289	0.290	0.085	36.8
AC-T 5...T	3535	90	3535	90	170	-	360	354	89	89	74	65	76	193	-	0.275	0.131	42.4
AC 5.1...TK	3535	90	-	85	170	127	360	354	89	95	74	65	161	-	278	0.275	0.107	37.0
AC-T 6...T	4545	110	4040	100	220	-	475	420	115	102	98	80	92	221	-	0.957	0.334	80.8
AC 6.1...TK	4545	110	-	110	220	165	475	420	115	95	98	80	174	-	308	0.957	0.243	68.9
AC-T 6.5...T	4545	110	4535	110	220	-	475	420	115	90	98	90	92	226	-	1.425	0.432	96.4
AC 6.5...TK	4545	110	-	-	220	190	475	420	115	95	98	90	209	-	343	1.425	0.542	90.3
AC-T 7...T	4545	110	4535	110	220	-	475	465	115	90	98	85	87	221	-	1.049	0.696	97.5
AC 7...TK	4545	110	-	130	220	190	475	465	115	119	98	85	204	-	338	1.049	0.542	80.7



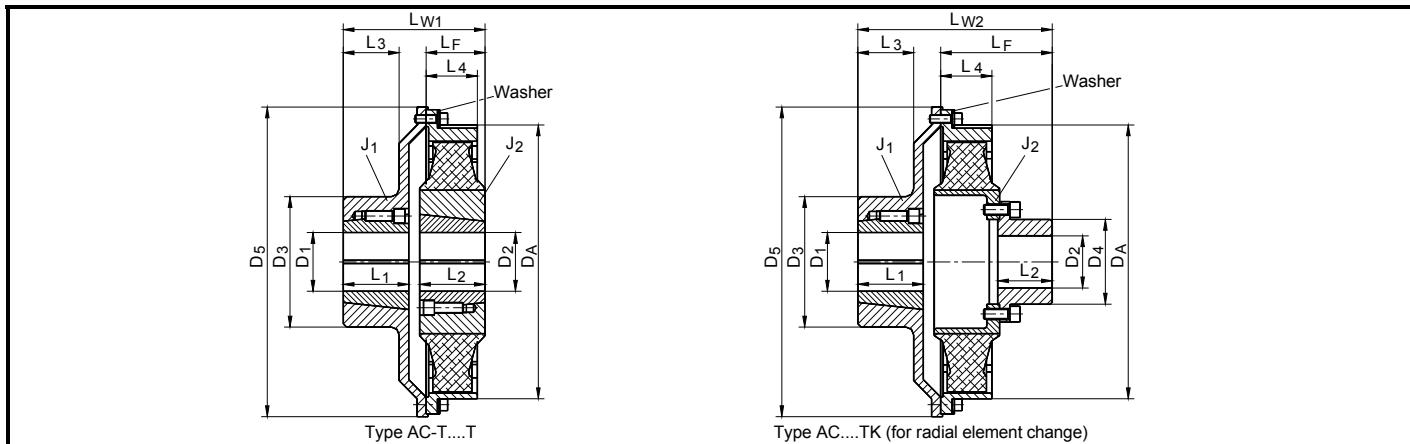
ARCUSAFLEX® coupling size	D <sub>1</sub> max. mm	D <sub>2</sub> max. mm	D <sub>3</sub> mm	D <sub>4</sub> mm	D <sub>5</sub> mm	D <sub>A</sub> mm	L <sub>1</sub> mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>4</sub> mm	L <sub>F</sub> mm	L <sub>w</sub> mm	J <sub>1</sub> kgm <sup>2</sup>	J <sub>2</sub> kgm <sup>2</sup>	Total weight kg
AC 7 ... TK	130	130	190	190	475	465	119	119	117	119	204	346	1.335	0.558	95.7
AC 8 ... TK	150	150	230	230	580	514	162	162	159	166	245	437	2.567	0.950	133.0
AC 8D ... TK	150	150	230	230	580	525	226	226	201	142	314	543	3.349	1.767	198.0
AC 9 ... TK	150	150	240	240	580	560	140	140	134	145	237	393	3.300	1.232	140.0
AC 9D ... TK	160	160	248	248	580	560	220	220	195	113	318	535	4.660	2.515	235.0
AC 10 ... TK	160	160	240	240	600	580	200	200	195	202	306	531	3.465	1.652	167.0
AC 11 ... TK	200	200	300	300	682	682	210	210	205	209	320	562	10.37	3.623	296.0
AC 12 ... TK	260	260	390	390	870	772	255	255	252	259	389	667	27.20	12.04	498.0

Other sizes and types on request / For the element versions, see "Technical details"

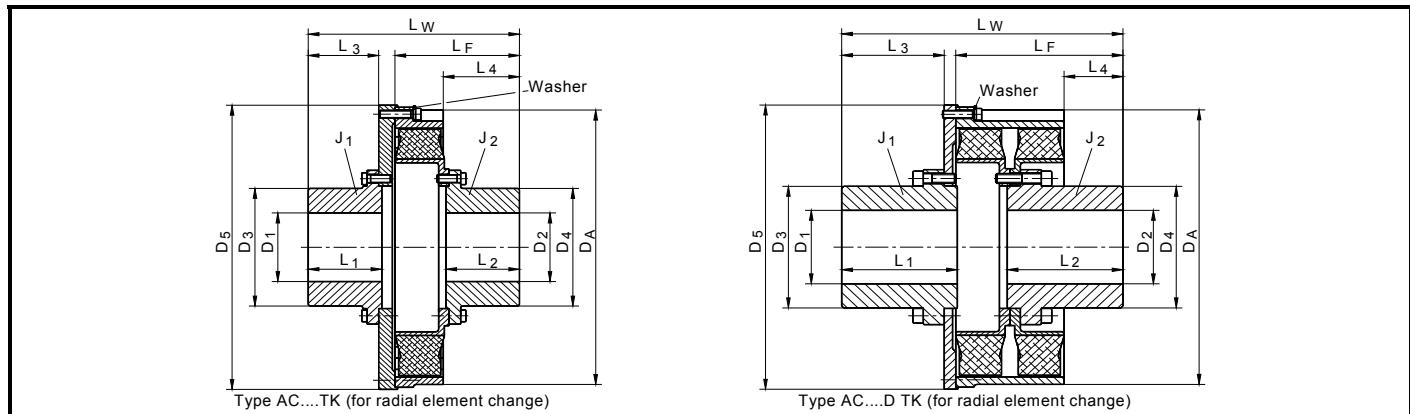
# ARCUSAFLEX® shaft couplings

**INCH Dimensions**

Type AC-T...T and type AC...TK



ARCUSAFLEX® coupling size	Taper bushing		Taper bushing		D <sub>3</sub> in	D <sub>4</sub> in	D <sub>5</sub> in	D <sub>A</sub> in	L <sub>1</sub> in	L <sub>2</sub> in	L <sub>3</sub> in	L <sub>4</sub> in	L <sub>F</sub> in	L <sub>w1</sub> in	L <sub>w2</sub> in	J <sub>1</sub> lb in <sup>2</sup>	J <sub>2</sub> lb in <sup>2</sup>	Total weight lb
	No.	D <sub>1</sub> max. in	No.	D <sub>2</sub> max. in														
AC-T 2.3...T	2012	2	2012	2	4.02	-	8.86	8.74	1.2	1.20	0.91	1.61	2.05	3.31	-	89	27	16.3
AC-T 2.6...T	2517	2½	2517	2½	4.13	-	12.8	10.35	1.7	1.70	1.65	1.50	1.65	4.53	-	413	65	35.1
AC-T 3...T	2517	2½	2517	2½	4.13	-	12.8	11.42	1.7	1.70	1.65	2.05	2.28	5.16	-	454	89	40.1
AC 3...TK	2517	2½	-	-	4.13	3.07	12.8	11.42	1.7	2.56	1.65	2.05	4.76	-	7.64	454	92	39.2
AC-T 4...T	3030	3	3030	3	5.51	-	14.17	12.60	3.0	3.00	2.52	2.36	2.68	6.54	-	783	202	64.8
AC 4.1...TK	3030	3	-	-	5.51	4.41	14.17	12.60	3.0	3.74	2.52	2.36	5.98	-	9.84	783	219	60.0
AC-T 4.9...T	3535	3½	3535	3½	6.69	-	14.17	12.60	3.5	3.50	2.91	3.03	3.62	8.23	-	991	331	83.3
AC 4.9...TK	3535	3½	-	-	6.69	5.00	14.17	12.60	3.5	3.74	2.91	3.03	6.77	-	11.38	991	290	81.1
AC-T 5...T	3535	3½	3535	3½	6.69	-	14.17	13.94	3.5	3.50	2.91	2.56	2.99	7.6	-	940	448	93.5
AC 5.1...TK	3535	3½	-	-	6.69	5.00	14.17	13.94	3.5	3.74	2.91	2.56	6.34	-	10.94	940	366	81.6
AC-T 6...T	4545	4½	4040	4	8.66	-	18.7	16.54	4.5	4.00	3.86	3.15	3.62	8.7	-	3270	1141	178.1
AC 6.1...TK	4545	4½	-	-	8.66	6.50	18.7	16.54	4.5	3.74	3.86	3.15	6.85	-	12.13	3270	830	151.9
AC-T 6.5...T	4545	4½	4535	4½	8.66	-	18.7	16.54	4.5	3.50	3.86	3.54	3.62	8.9	-	4869	1476	212.5
AC 6.5...TK	4545	4½	-	-	8.66	7.48	18.7	16.54	4.5	3.74	3.86	3.54	8.23	-	13.5	4869	1852	199.1
AC-T 7...T	4545	4½	4535	4½	8.66	-	18.7	18.31	4.5	3.50	3.86	3.35	3.43	8.7	-	3585	2378	215.0
AC 7...TK	4545	4½	-	-	8.66	7.48	18.7	18.31	4.5	4.69	3.86	3.35	8.03	-	13.31	3585	1852	177.9



ARCUSAFLEX® coupling size	D <sub>1</sub> max. in	D <sub>2</sub> max. in	D <sub>3</sub> in	D <sub>4</sub> in	D <sub>5</sub> in	D <sub>A</sub> in	L <sub>1</sub> in	L <sub>2</sub> in	L <sub>3</sub> in	L <sub>4</sub> in	L <sub>F</sub> in	L <sub>w</sub> in	J <sub>1</sub> lb in <sup>2</sup>	J <sub>2</sub> lb in <sup>2</sup>	Total weight lb
AC 7 ... TK	5.12	5.12	7.48	7.48	18.70	18.31	4.69	4.69	4.61	4.69	8.03	13.62	4562	1907	211.0
AC 8 ... TK	5.91	5.91	9.06	9.06	22.83	20.24	6.38	6.38	6.26	6.54	9.65	17.20	8772	3246	293.2
AC 8D ... TK	5.91	5.91	9.06	9.06	22.83	20.67	8.90	8.90	7.91	5.59	12.36	21.38	11444	6038	436.5
AC 9 ... TK	5.91	5.91	9.45	9.45	22.83	22.05	5.51	5.51	5.28	5.71	9.33	15.47	11277	4210	308.6
AC 9D ... TK	6.30	6.30	9.76	9.76	22.83	22.05	8.66	8.66	7.68	4.45	12.52	21.06	15924	8594	518.1
AC 10 ... TK	6.30	6.30	9.45	9.45	23.62	22.83	7.87	7.87	7.68	7.95	12.05	20.91	11841	5645	368.2
AC 11 ... TK	7.87	7.87	11.81	11.81	26.85	26.85	8.27	8.27	8.07	8.23	12.60	22.13	35436	12380	652.6
AC 12 ... TK	10.24	10.24	15.35	15.35	34.25	30.39	10.04	10.04	9.92	10.20	15.31	26.26	92947	41143	1097.9

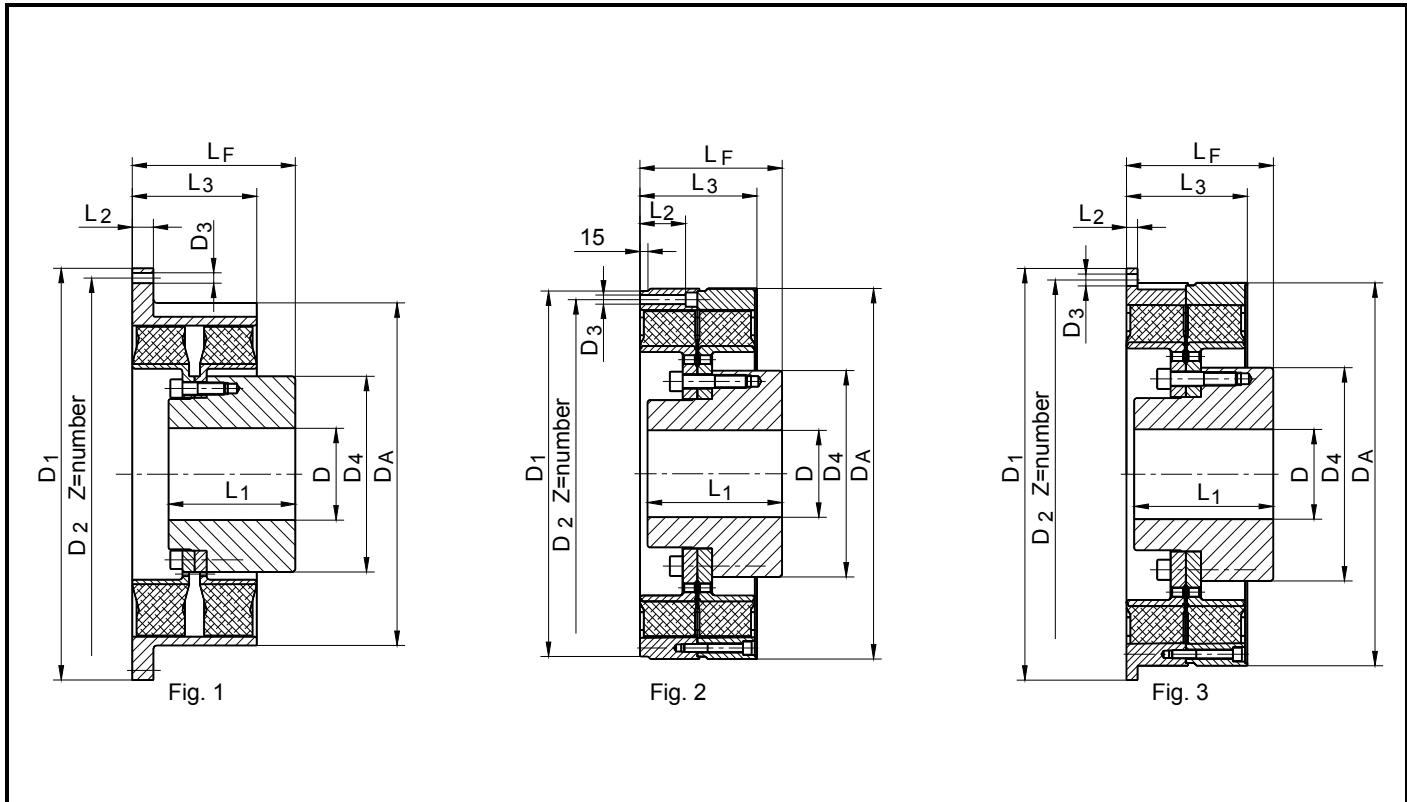
Other sizes and types on request / For the element versions, see "Technical details"

# ARCUSAFLEx® flywheel couplings

# METRIC Dimensions

with 2 elements operating in tandem

Type AC...D.F2 with bolted hub and flange connecting dimensions to SAE J 620 d



ARCUSAFLEx® coupling size	Fig.	Flange connection to SAE J 620					D <sub>A</sub> mm	D mm		D <sub>4</sub> mm	L <sub>1</sub> mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>F</sub> mm	J <sub>1</sub> outside kgm <sup>2</sup>	J <sub>2</sub> inside kgm <sup>2</sup>	Total weight kg	
		SAE size	D <sub>1</sub> mm	D <sub>2</sub> mm	D <sub>3</sub> mm	Z		min.	max.									
AC 8D.*).F2	1	18	571.5	542.9	17.0	12	525			165	250	174	25	172	255	1.007	1.554	85.4
	1	21	673.1	641.4	17.0	12	525	165	250	174	174	18	172	255	1.477	1.554	90.2	
AC 9D.*).F2	1	18	571.5	542.9	17.0	12	560	75		170	316	210	35	205	270	1.660	2.801	140.6
	1	21	673.1	641.4	17.0	12	560	75		170	316	210	25	205	270	2.168	2.801	146.5
	1	24	733.4	692.2	21.0	12	560	75		170	316	210	35	205	270	3.375	2.801	151.2
AC 10D.*).F2	1	21	673.1	641.4	17.0	24	585	90		200	316	250	26	210	350	1.996	3.840	168.0
	1	24	733.4	692.2	21.0	12	585	90		200	316	250	26	210	350	2.575	3.840	173.0
AC 11D.*).F2	2	21	673.1	641.4	17.0	12	682	90		220	380	250	85	218	265	7.600	6.966	266.0
	3	24	733.4	692.2	21.0	12	682	90		220	380	250	20	218	265	9.086	6.966	275.0

\*) For the element versions, see "Technical details"

Other flange diameters and lengths available upon request.

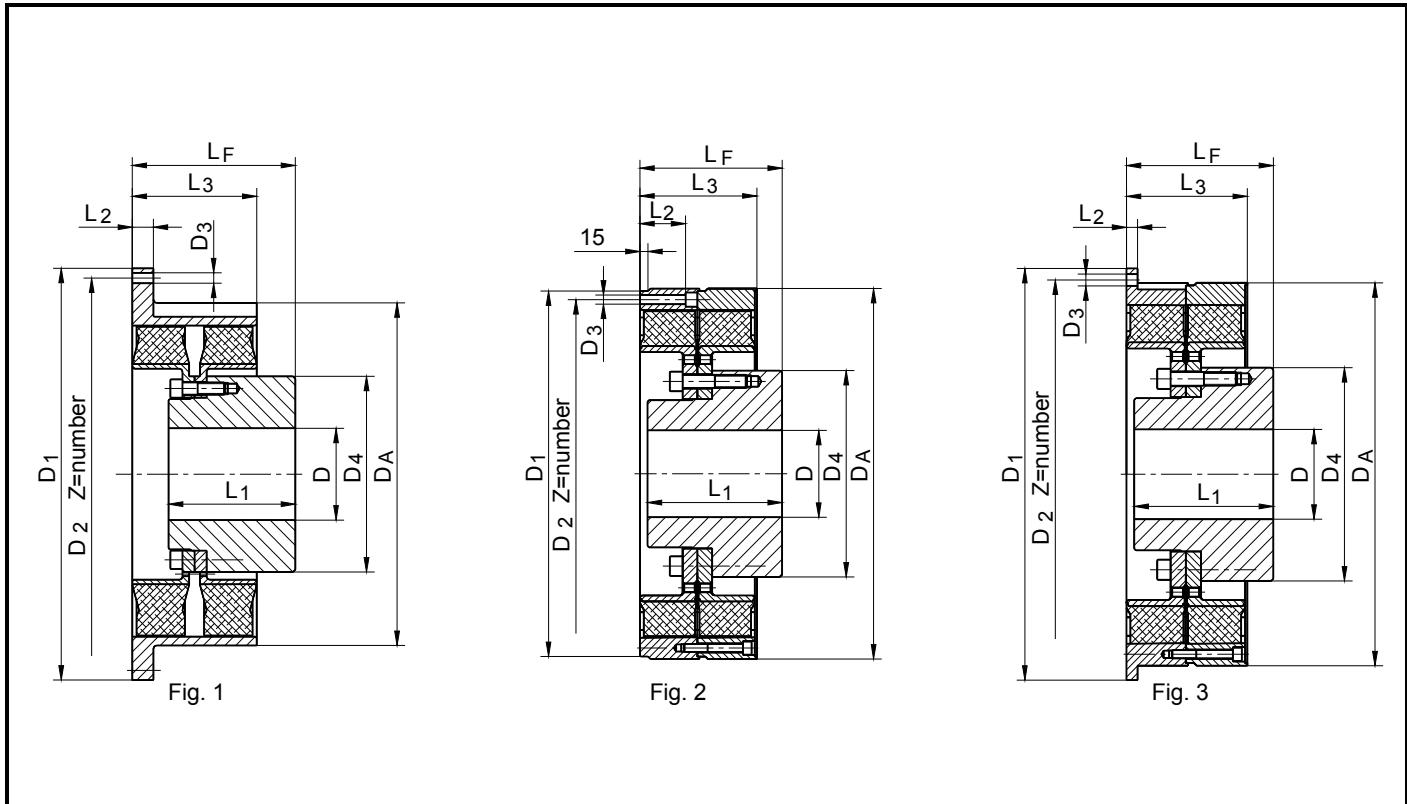
**Ordering example:** Coupling designation: AC 9D.NN.F2.18.270  
 ARCUSAFLEx® coupling size \_\_\_\_\_  
 Element version acc. to "Technical details" \_\_\_\_\_  
 Size of flange connection to SAE J 620 \_\_\_\_\_  
 Mounting length L<sub>F</sub> in mm \_\_\_\_\_

# ARCUSAFLEX® flywheel couplings

**INCH Dimensions**

with 2 elements operating in tandem

Type AC...D.F2 with bolted hub and flange connecting dimensions to SAE J 620 d



ARCUSAFLEX® coupling size	Fig.	Flange connection to SAE J 620					D <sub>A</sub> in	D in min. max.	D <sub>4</sub> in	L <sub>1</sub> in	L <sub>2</sub> in	L <sub>3</sub> in	L <sub>F</sub> in	J <sub>1</sub> outside lb in <sup>2</sup>	J <sub>2</sub> inside lb in <sup>2</sup>	Total weight lb	
		SAE size	D <sub>1</sub> in	D <sub>2</sub> in	D <sub>3</sub> in	Z											
AC 8D.*).F2	1	18	22.500	21.375	0.67	12	20.67		6.50	9.84	6.85	0.98	6.77	10.04	3441	5310	188.3
	1	21	26.500	25.250	0.67	12	20.67		6.50	9.84	6.85	0.71	6.77	10.04	5047	5310	198.9
AC 9D.*).F2	1	18	22.500	21.375	0.67	12	22.05	2.95	6.69	12.44	8.27	1.38	8.07	10.63	5673	9571	310.0
	1	21	26.500	25.250	0.67	12	22.05	2.95	6.69	12.44	8.27	0.98	8.07	10.63	7408	9571	323.0
	1	24	28.875	27.250	0.83	12	22.05	2.95	6.69	12.44	8.27	1.38	8.07	10.63	11533	9571	333.3
AC 10D.*).F2	1	21	26.500	25.250	0.67	24	23.03	3.54	7.87	12.44	9.84	1.02	8.27	13.78	6821	13122	370.4
	1	24	28.875	27.250	0.83	12	23.03	3.54	7.87	12.44	9.84	1.02	8.27	13.78	8799	13122	381.4
AC 11D.*).F2	2	21	26.500	25.250	0.67	12	26.85	3.54	8.66	14.96	9.84	3.35	8.58	10.43	25971	23804	586.4
	3	24	28.875	27.250	0.83	12	26.85	3.54	8.66	14.96	9.84	0.79	8.58	10.43	31048	23804	606.3

\*) For the element versions, see "Technical details"

Other flange diameters and lengths available upon request.

**Ordering example:** Coupling designation: AC 9D.NN.F2.18.270

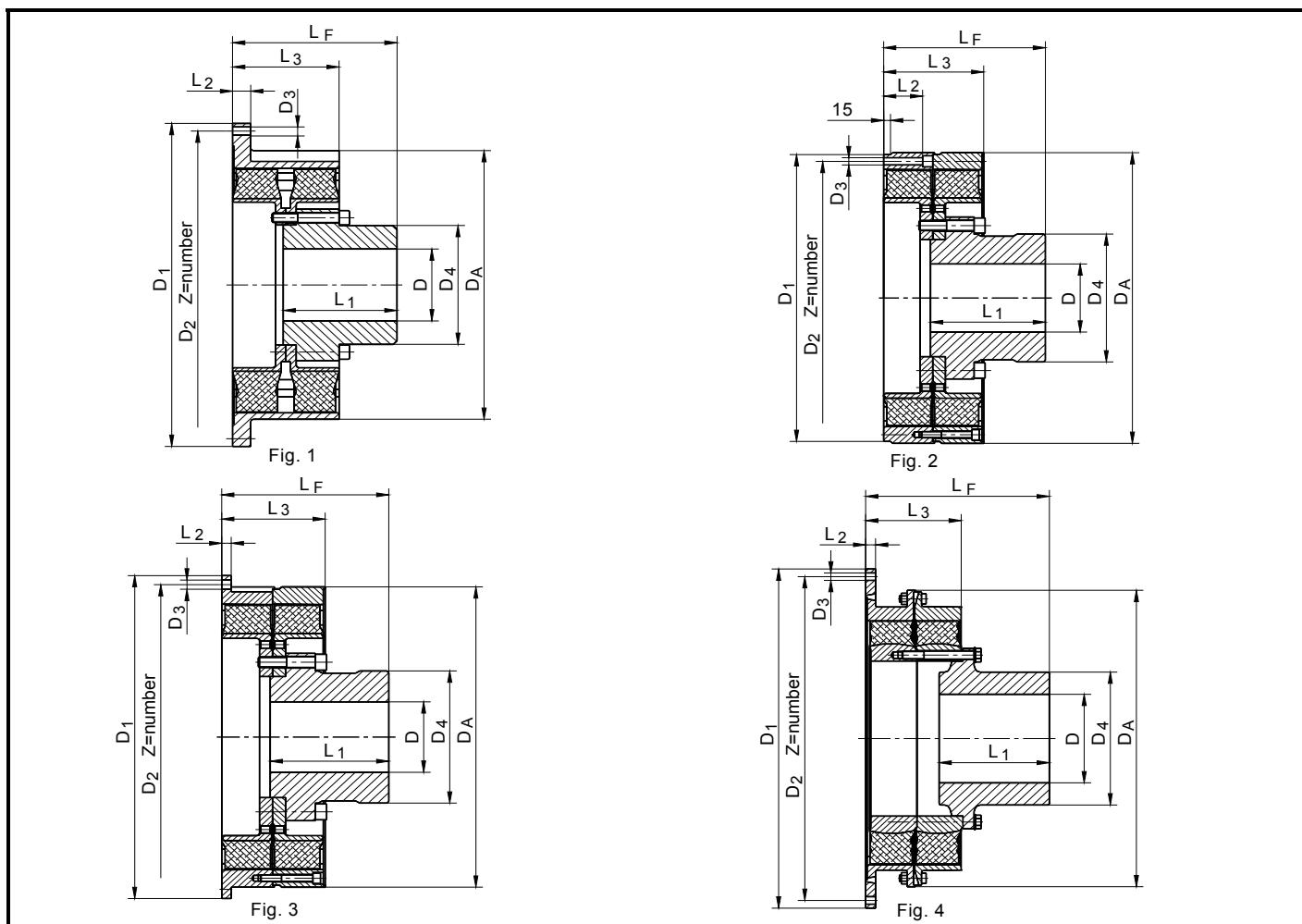
ARCUSAFLEX® coupling size	<u>  </u>
Element version acc. to "Technical details"	<u>  </u>
Size of flange connection to SAE J 620	<u>  </u>
Mounting length L <sub>F</sub> in mm	<u>  </u>

# ARCUSAFLEX® flywheel couplings

**METRIC Dimensions**

with 2 elements operating in tandem

Type AC...D.F2K with bolted hub for radial element change and flange connecting dimensions to SAE J 620 d



ARCUSAFLEX® coupling size	Fig.	Flange connection to SAE J 620					D <sub>A</sub> mm	D mm		D <sub>4</sub> mm	L <sub>1</sub> mm	L <sub>2</sub> mm	L <sub>3</sub> mm	L <sub>f</sub> mm	J <sub>1</sub> outside kgm <sup>2</sup>	J <sub>2</sub> inside kgm <sup>2</sup>	Total weight kg	
		SAE size	D <sub>1</sub> mm	D <sub>2</sub> mm	D <sub>3</sub> mm	Z		min.	max.									
AC 8D.*).F2K	1	18	571.5	542.9	17.0	12	525			150	227	226	25	172	307	1.007	1.780	104.0
	1	21	673.1	641.4	17.0	12	525	150	227	226	18	172	307	1.477	1.780	109.0		
AC 9D.*).F2K	1	18	571.5	542.9	17.0	12	560	75	160	248	220	35	205	318	1.660	2.515	131.0	
	1	21	673.1	641.4	17.0	12	560	75	160	248	220	25	205	318	2.168	2.515	135.5	
	1	24	733.4	692.2	21.0	12	560	75	160	248	220	35	205	318	3.375	2.515	145.0	
AC 10D.*).F2K	1	21	673.1	641.4	17.0	24	585	90	160	240	250	26	210	350	1.996	3.176	146.0	
	1	24	733.4	692.2	21.0	12	585	90	160	240	250	26	210	350	2.575	3.176	151.0	
AC 11D.*).F2K	2	21	673.1	641.4	17.0	12	682	90	200	300	250	85	218	352	7.600	6.516	260.0	
	3	24	733.4	692.2	21.0	12	682	90	200	300	250	20	218	352	9.086	6.516	270.0	
AC 12D.*).F2K	4	-	860.0	820.0	21.0	32	870	90	260	390	300	19	258	496	22.30	20.00	540.0	
	4	-	920.0	880.0	20.0	32	870	90	260	390	300	27	266	500	26.20	20.00	555.0	
	4	-	995.0	950.0	22.0	32	870	90	260	390	300	27	266	500	31.20	20.00	601.0	

\*) For the element versions, see "Technical details"

Other flange diameters and lengths available upon request.

**Ordering example:** Coupling designation: AC 10D.NN.F2K.21.350

ARCUSAFLEX® coupling size

Element version acc. to "Technical details"

Version for the element change

Size of flange connection to SAE J 620 (AC12D: D<sub>1</sub>)

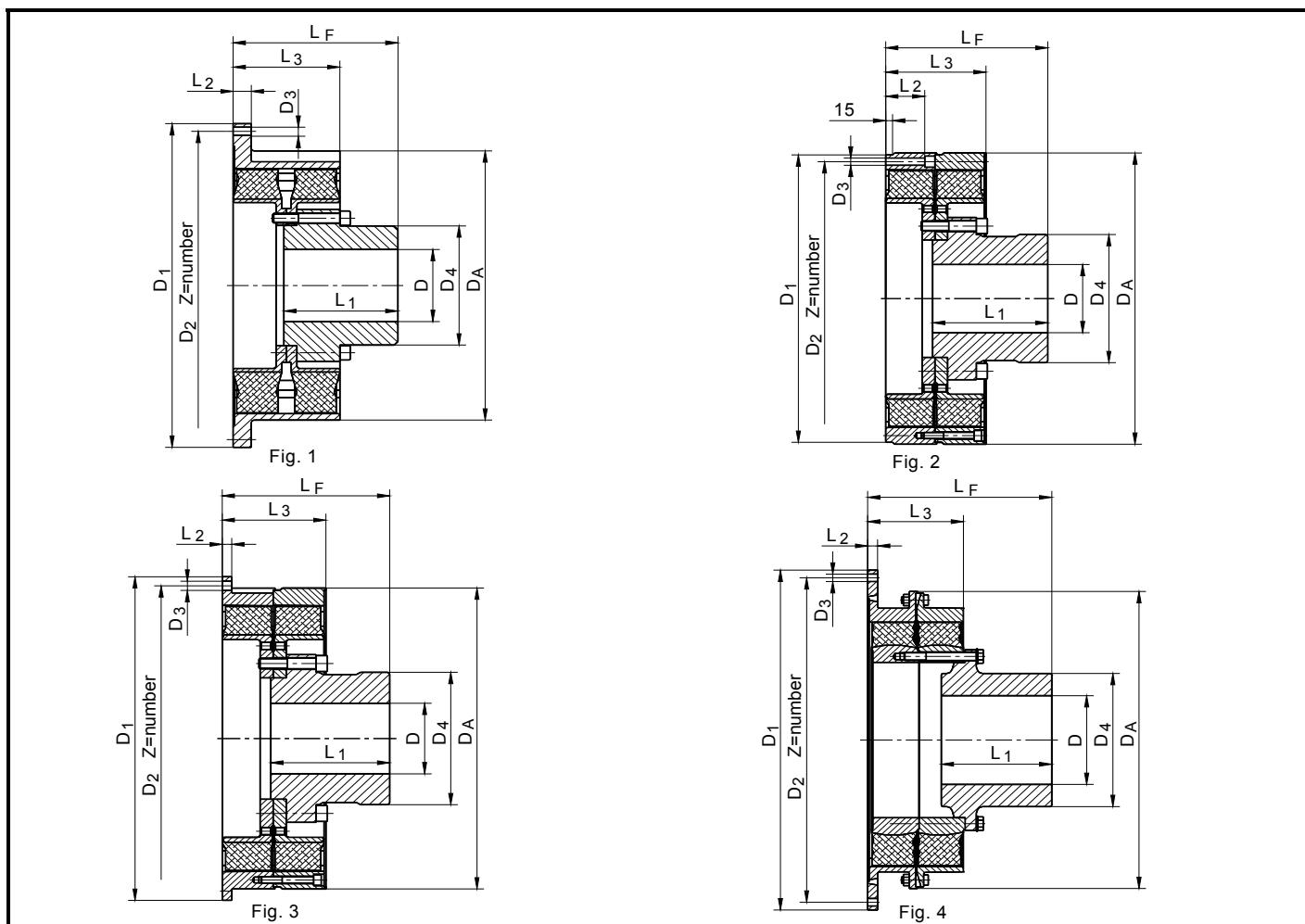
Mounting length L<sub>f</sub> in mm

# ARCUSAFLEX® flywheel couplings

**INCH Dimensions**

with 2 elements operating in tandem

Type AC...D.F2K with bolted hub for radial element change and flange connecting dimensions to SAE J 620 d



ARCUSAFLEX® coupling size	Fig.	Flange connection to SAE J 620					D <sub>A</sub> in	D in min.	D <sub>4</sub> in	L <sub>1</sub> in	L <sub>2</sub> in	L <sub>3</sub> in	L <sub>F</sub> in	J <sub>1</sub> outside lb in <sup>2</sup>	J <sub>2</sub> inside lb in <sup>2</sup>	Total weight lb	
		SAE size	D <sub>1</sub> in	D <sub>2</sub> in	D <sub>3</sub> in	Z											
AC 8D.*).F2K	1	18	22,500	21,375	0,67	12	20,67		5,91	8,94	8,90	0,98	6,77	12,09	3441	6083	229,3
	1	21	26,500	25,250	0,67	12	20,67		5,91	8,94	8,90	0,71	6,77	12,09	5047	6083	240,3
AC 9D.*).F2K	1	18	22,500	21,375	0,67	12	22,05	2,95	6,30	9,76	8,66	1,38	8,07	12,52	5673	8594	288,8
	1	21	26,500	25,250	0,67	12	22,05	2,95	6,30	9,76	8,66	0,98	8,07	12,52	7408	8594	298,7
	1	24	28,875	27,250	0,83	12	22,05	2,95	6,30	9,76	8,66	1,38	8,07	12,52	11533	8594	319,7
AC 10D.*).F2K	1	21	26,500	25,250	0,67	24	23,03	3,54	6,30	9,45	9,84	1,02	8,27	13,78	6821	10853	321,9
	1	24	28,875	27,250	0,83	12	23,03	3,54	6,30	9,45	9,84	1,02	8,27	13,78	8799	10853	332,9
AC 11D.*).F2K	2	21	26,500	25,250	0,67	12	26,85	3,54	7,87	11,81	9,84	3,35	8,58	13,86	25971	22266	573,2
	3	24	28,875	27,250	0,83	12	26,85	3,54	7,87	11,81	9,84	0,79	8,58	13,86	31048	22266	595,2
AC 12D.*).F2K	4	-	33,858	32,283	0,83	32	34,25	3,54	10,24	15,35	11,81	0,75	10,16	19,53	76203	68343	1190,5
	4	-	36,220	34,646	0,79	32	34,25	3,54	10,24	15,35	11,81	1,06	10,47	19,69	89530	68343	1223,6
	4	-	39,173	37,402	0,87	32	34,25	3,54	10,24	15,35	11,81	1,06	10,47	19,69	106616	68343	1325,0

\*) For the element versions, see "Technical details"

Other flange diameters and lengths available upon request.

**Ordering example:** Coupling designation: **AC 10D.NN.F2K.21.350**

ARCUSAFLEx® coupling size \_\_\_\_\_

Element version acc. to "Technical details" \_\_\_\_\_

Version for the element change \_\_\_\_\_

Size of flange connection to SAE J 620 (AC12D: D<sub>1</sub>) \_\_\_\_\_

Mounting length L<sub>F</sub> in mm \_\_\_\_\_

# Mounting instruction for ARCUSAFLEx® flywheel couplings

Type AC-T...F2 with taper bushing

## How to mount the taper bushing

1. The outer taper of the taper bushing and the bore along with the inner taper of the element hub shall show bright metal and must be free of grease prior to mounting. Rust proofing oil and coatings must be removed completely.
2. Insert the taper bushing into the element hub and line up all connecting bores. Make sure that half threaded holes coincide with half plain holes (Fig. 1).
3. Screw in lightly greased or oiled assembly screws. Do not tighten the screws yet (Fig. 2).
4. Slide the element hub with inserted taper bushing onto the cleaned shaft with keyway and put it into the mounting position L<sub>x</sub> (Fig. 3).
5. Tighten the screws uniformly up to the tightening torque (M<sub>A1</sub> specified in Table 1) using a torque wrench.
6. The screws can be retightened again by tapping against the taper bushing with a hammer using an intermediate plate. Repeat, if necessary.

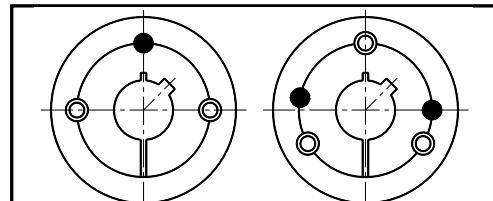


Fig. 1

Nr. 2012  
2517  
3030

Nr. 3535  
4040  
4535/4545  
5040

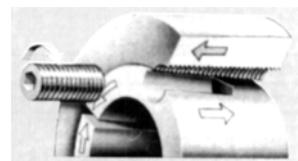


Fig. 2

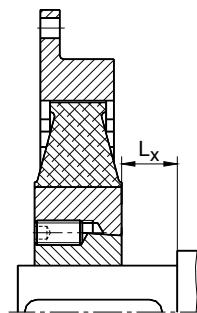


Fig. 3

## Tightening torques for mounting the taper bushing

Table 1

Coupling size	AC-T 2.3	AC-T 2.6 AC-T 3	AC-T 4	AC-T 4.9 AC-T 5	AC-T 6	AC-T 6.5 AC-T 7	AC-T 8 AC-T 9
Taper bush No.	2012	2517	3030	3535	4040	4535 4545	5040
UNC screw size *)	7/16 - 14	1/2 - 13	5/8 - 11	1/2 - 13	5/8 - 11	3/4 - 10	7/8 - 9
Tightening torque M <sub>A1</sub>	Nm	31	49	92	115	172	195
	lb·ft	23	36	68	85	127	144
Width across flats SW	mm	6	6	8	10	12	14
	in	7/32	1/4	5/16	1/4	5/16	3/8

\*) Nr.2012/2517/3030 set screw

Nr.3535/4040/4535/4545/5040 cap screw

## How to remove the element hub with taper bushing

1. Loosen and remove all screws. Depending on the taper bushing size, screw either 1 or 2 greased screws into the half pulling-off thread(s) of the taper bushing (Fig. 4).
2. Tighten the screws uniformly until the taper bushing is loose in the element hub.
3. As soon as the taper bushing is loose, the element hub can be pulled off the shaft together with the taper bushing.

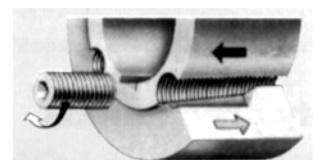
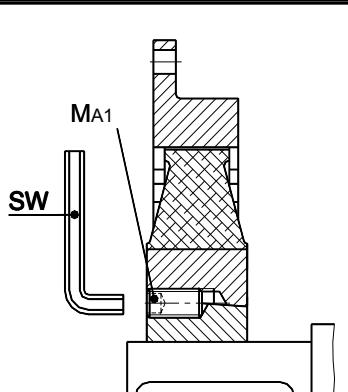


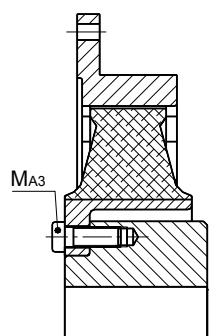
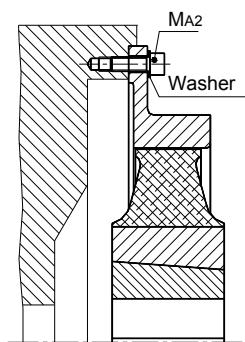
Fig. 4

# Tightening torques for ARCUSAFLEx® flywheel couplings

All bolts and screws must be tightened to the specified torques during assembly in order to ensure a reliable torque transmission. Prior to putting the machinery into operation, all bolts and screws of the coupling must be checked for proper fit and tightness. The indicated torques apply to a total friction factor of  $\mu = 0.14$ . For further questions please contact Reich USA Corp.

**Table 2**

Tightening torques for the bolted flange connection to the engine flywheel (grade 8.8)



SAE flywheel flange	6 1/2	7 1/2	8	10	11 1/2	14	16	18	21	24
Metric bolts	M8		M10		M12		M16		M20	
Tightening torque Nm MA <sub>2</sub>	25		50		85		210		420	
Ib·ft	18		37		63		155		310	
Imperial size bolts	5/16 - 18		3/8 - 16		1/2 - 13		5/8 - 11		3/4-10	
Tightening torque Nm MA <sub>2</sub>	24		42		102		203		340	
Ib·ft	18		31		75		150		250	

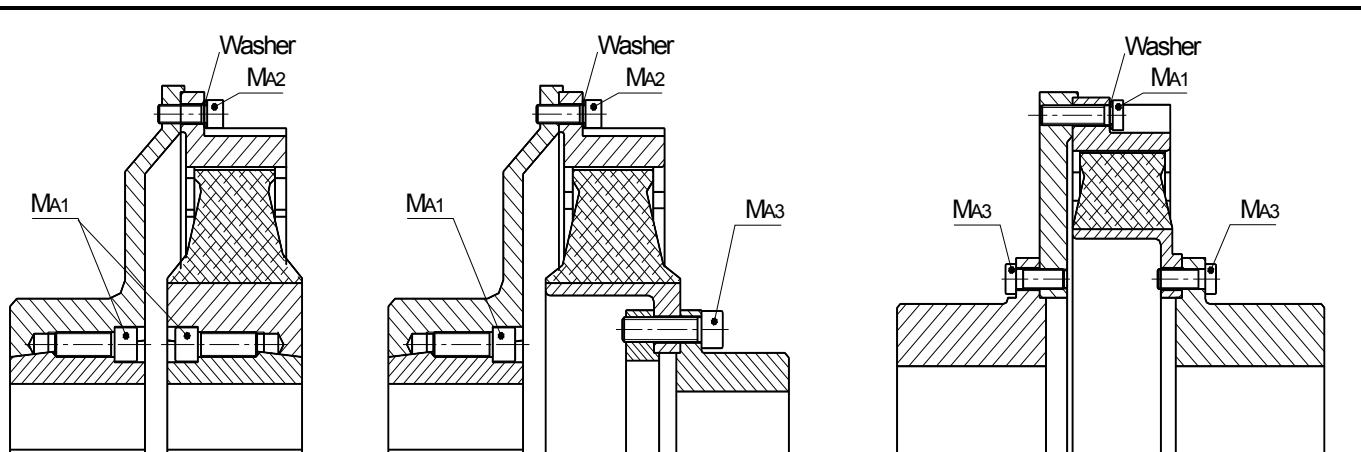
**Note:** The aluminium flanges of the coupling sizes AC 2,3 – AC 10D have to be mounted **only with washers**. We recommend to use washers as big as possible, but minimum dimensions according to DIN 433. If needed, 10.9 grade bolts with suitable washers and the corresponding tightening torque can be used (please consult us).

**Table 3**

Tightening torques for the bolted hub connection  
Types AC...F2 and AC F2.K (grade 8.8)

Coupling size	AC 2.3	AC 2.6 AC 3 AC 4/4.1	AC 4.9 AC 5/5.1	AC 6/6.1 AC 6.5	AC 7 AC 8 / AC 8D AC 9 / AC 9D	AC 10 / AC 10D AC 11 / AC 11D AC 12	AC 12D
Bolt size (metric)	M8	M12	M16	M16	M16 M20	M20 M24	M24 (10.9)
Tightening torque Nm MA <sub>3</sub>	25	85	210	210	210 420	420 710	1000
Ib·ft	18	73	155	155	155 310	310 524	738

## ARCUSAFLEx® shaft couplings



Coupling size	AC 2.3	AC 2.6 AC 3 AC 4/4.1	AC 4.9 AC 5 / AC 5.1	AC 6 / AC 6.1 AC 6.5 AC 7	AC 8 / AC 8D AC 9 / AC 9D	AC 10 AC 11 AC 12
Bolt size (metric)	M8	M10	M10	M12	M16 M20	M20 M24
Tightening torque Nm MA <sub>2</sub>	25	50	50	85	210 420	420 710
Ib·ft	18	37	37	63	155 310	310 524

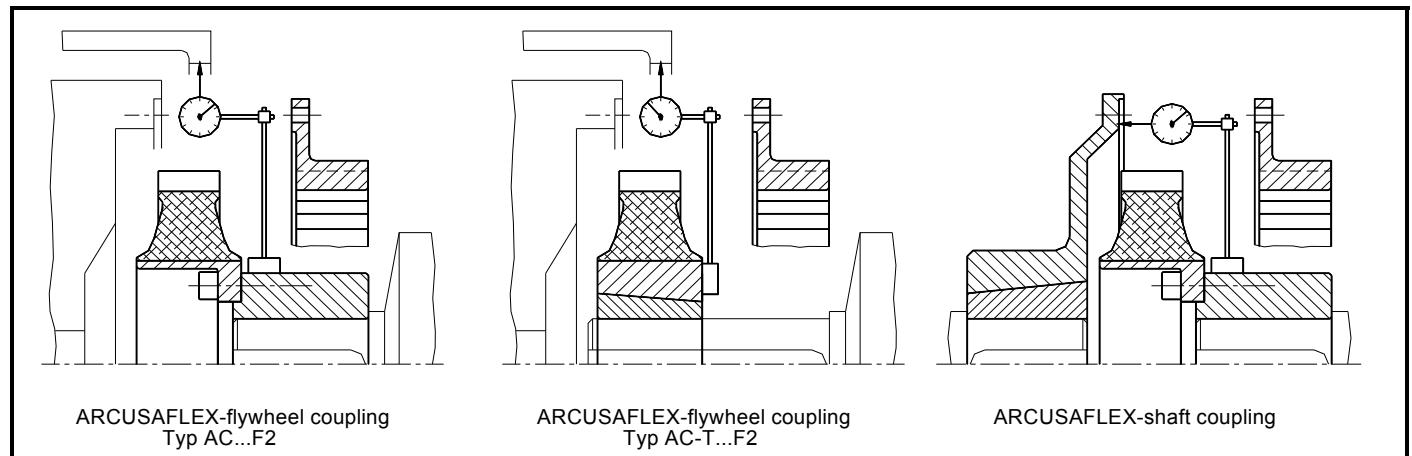
For the tightening torques MA<sub>1</sub> see the mounting instructions for taper bushings Table 1.

For the tightening torques MA<sub>3</sub> see Table 3.

## Alignment

Careful alignment of the coupling is an essential requirement for detached, non-flanged machinery in order to ensure proper functioning of the coupling and to avoid premature wear of the rubber element.

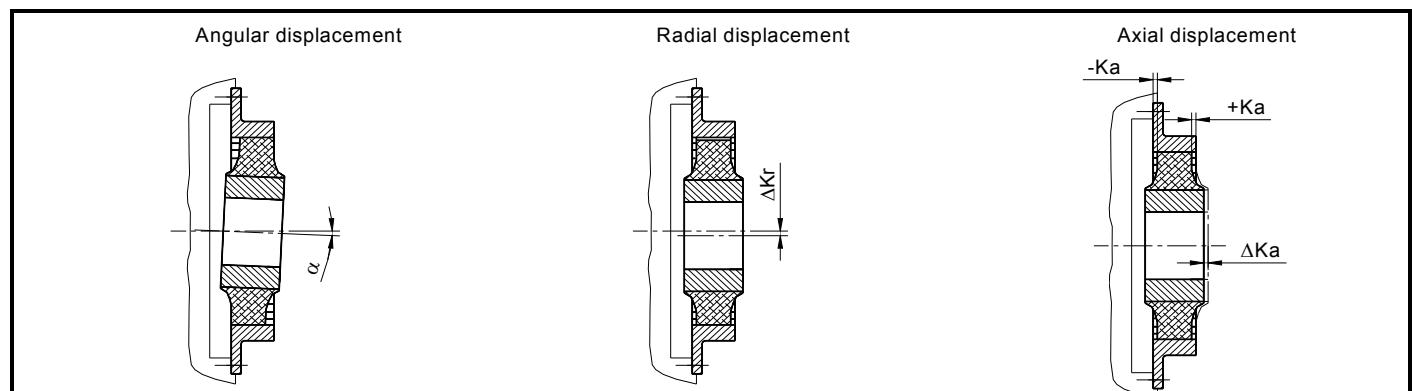
Flywheel couplings shall be aligned from the shaft-side coupling half to either one of the machined surfaces of the engine flywheel or engine housing. Where shaft couplings are used, the angular and radial displacements between the two coupling halves are determined by applying the usual dial indicator method. The alignment requirements of the other application components have to be considered additionally.



## Permissible shaft displacement

The permissible shaft displacements depend on a number of factors such as coupling size, shore hardness of the rubber element, operating speed and torque load of the coupling. The following reference values refer to an operating speed of  $\approx 1500$  rpm.

Precise alignment prevents premature wear of the rubber element.



ARCUSAFLEx®- coupling size	2.3	2.6	3	4 4.1	4.9	5 5.1	6 6.1	6.5	7	8 8D	9 9D	10 10D	11 11D	12 12D
Permissible radial displacement $\Delta Kr$	mm	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.5	1.5	1.5	1.5
	in	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06
Permissible angular displacement $\alpha$	°	0.5°	0.5°	0.5°	0.5°	0.5°	0.5°	0.4°	0.4°	0.4°	0.4°	0.3°	0.3°	0.3°
Permissible axial displacement $\Delta Ka$ *)	mm	$\pm 3$	$\pm 4$	$\pm 7$	$\pm 6$	$\pm 7$	$\pm 5$	$\pm 7$	$\pm 4$	$\pm 10$	$\pm 7$	$\pm 4$	$\pm 3$	$\pm 3$
	in	$\pm 0.12$	$\pm 0.16$	$\pm 0.28$	$\pm 0.24$	$\pm 0.28$	$\pm 0.20$	$\pm 0.28$	$\pm 0.16$	$\pm 0.39$	$\pm 0.28$	$\pm 0.16$	$\pm 0.12$	$\pm 0.16$

Larger displacements for a short duration, as may occur when starting and stopping the diesel engine, are permissible. These maximum displacements must not occur simultaneously.

\*) At types AC...F2K and AC...TK the overall length ( $L_F$ ) should always offer a plus tolerance within the possible tolerance range. This will provide the most space axially for disassembling the rubber element.

## Safety precautions

It is the customer's and user's responsibility to provide proper guards over rotating machinery and to observe the national and international safety rules and laws.

Check all bolted connections for proper fit preferably after the test run.

# Requested Data

## Coupling Selection / Torsional Vibration Calculation

### acc. to the 2-mass-system (DIN 740 part 2)

The selection of the coupling should be supported by a torsional vibration analysis particularly with a view to the acting fatigue torque under reversed stresses. We are able to conduct this analysis according to the 2 or n-mass system when all required technical details are on hand.

#### ENGINE-SIDE:

1. Engine type
2. Max Engine power [HP = 1.341 x kW]
3. Engine speed
4. In-line / V-engine
5. Number of cylinder
6. Total displacement [ $\text{inch}^3 = 0.061 \times \text{cm}^3$ ]
7. Moments of inertia (with flywheel) [ $\text{lb-in}^2 = 3416.88 \times \text{kgm}^2$ ]
8. Low Idle Engine Speed
9. Ambient Temperature [ ${}^{\circ}\text{F} = ({}^{\circ}\text{C} \times 9 / 5) + 32$ ]
10. Flywheel Drawing

P [HP]	
n [r.p.m.]	
I / V (angle)	
z	
V <sub>H</sub> [ $\text{inch}^3$ ]	
J [ $\text{lb-in}^2$ ]	
n [r.p.m.]	
${}^{\circ}\text{F}$	

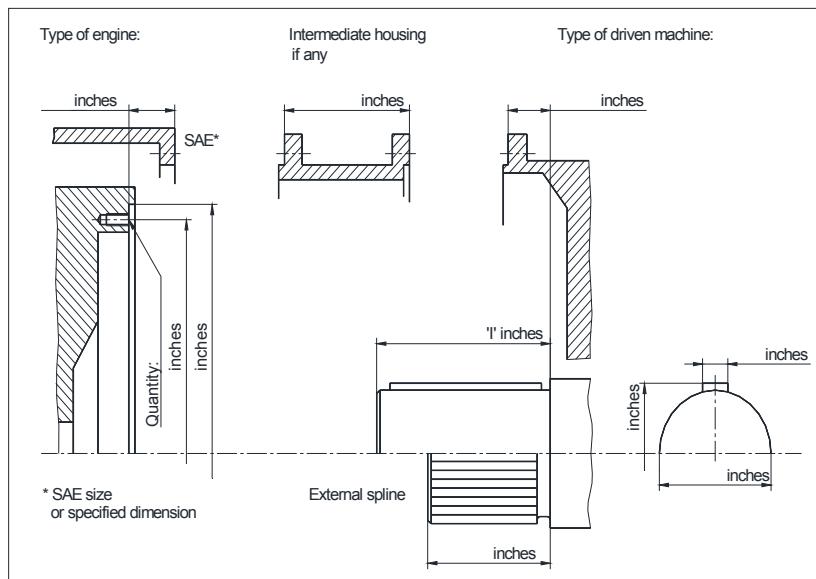
#### DRIVEN-SIDE:

1. Kind of application (alternator, pump, compressor etc.)
2. Type
3. Moments of inertia [ $\text{lb-in}^2 = 3416.88 \times \text{kgm}^2$ ]
4. Shaft diameter [ $\text{inches} = \text{mm} \setminus 25.4$ ]
5. Shaft length [ $\text{inches} = \text{mm} \setminus 25.4$ ]
6. Moments of Inertia – Clutch disengaged

J [ $\text{lb-in}^2$ ]	
d [inches]	
I [inches]	
J [ $\text{lb-in}^2$ ]	

Item 6 is for clutch applications only.

If the driven machine shall be flanged to the engine using an intermediate housing we kindly ask you to advise us the dimensions and details indicated on the following diagram enabling us to optimize the mounting position of the coupling.



The coupling should always be properly ventilated in the intermediate housing (e.g. through ventilation holes in the housing).



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