



ARCUSAFLEX-VSK

Highly-flexible U-joint coupling for drive shafts

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SIMPLY **POWERFUL.**





D2C – Designed to Customer

The guiding principle of Designed to Customer is the recipe for success behind REICH. In addition to the catalog products, we supply our customers with couplings developed to their specific requirements.

The designs are mainly based on modular components to provide effective and efficient customer solutions.

The special nature of our close cooperation with our partners ranges from; consulting, development, design, manufacture and integration to existing environments, to customer-specific production, logistics concepts and after-sales service - worldwide.

This customer-oriented concept applies to both standard products and production in small batch sizes.

The company policy at REICH embraces, first and foremost, principles such as customer satisfaction, flexibility, quality, prompt delivery and adaptability to the requirements of our customers.

REICH provides you with not only a coupling, but a solution:

Designed to Customer – SIMPLY **POWERFUL**.

D2C
Designed to Customer



ARCUSAFLEX-VSK

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ARCUSAFLEX-VSK

General Technical Description

ARCUSAFLEX-VSK

Highly-flexible U-joint coupling for drive shafts

Drive shafts are used in a drive train when a large shaft displacement or an extended distance between the drive and the driven components must be compensated. Depending on the arrangement of the drive train components, a non-uniform motion of the speed may result, and since drive shafts exhibit some torsional flexibility, the mass of the prime mover and driven machine may induce a resonant system.

If the prime mover is an internal combustion engine, a highly flexible ARCUSAFLEX-VSK (short form: AC-VSK) U-joint coupling is required to protect the drive train from dynamic overload. Highly flexible AC-VSK U-joint couplings are capable of shifting resonant ranges below the lowest operating speed and of reducing resonance-induced vibratory torques under reversed stresses to tolerable levels.

The highly flexible AC-VSK U-joint coupling is mounted on the engine flywheel, ahead of the drive train with drive shaft. The AC-VSK U-joint coupling has an axial and radial integral bearing to accommodate the weight of the drive shaft and its reaction forces.

The AC-VSK coupling series is available in nine standard sizes covering a torque range from 3,450 to 177,000 lb-in (390 Nm to 20 000 Nm). REICH has an extensive range of couplings to cover nearly every drive configuration. Customized solutions can be developed and manufactured even in small batches or as prototypes. In addition calculation programs are available for all necessary dimensioning.

Application of the highly flexible

ARCUSAFLEX-VSK U-joint couplings

For use with combustion engines in conjunction with drive shafts for splitter gearboxes, torque converters, ship gearboxes, control gears and pump drives, for example in drives of construction equipment, excavators, cranes, marine propulsion, locomotives, pump installations and dump trucks.



ARCUSAFLEX-VSK

Nominal torques from 3.450 to 177.000 lb-in
(390 Nm to 20 000 Nm)

ARCUSAFLEX-VSK

Advantages

The most important attributes and advantages of the highly flexible ARCUSAFLEX-VSK coupling are:

- Linear torsional deflection characteristic
- Elements available in different torsional stiffnesses
- Enhanced damping capacity through frictional damping
- Maintenance-free coupling bearings
- Radial bearing close to the cardan joint
- A variety of designs for different drive shaft configurations
- Many types with SAE connection dimensions or as specified
- Compact construction, the highly flexible element being protected by the housing
- Fail-safe device visible from the outside

ARCUSAFLEX-VSK

Technical Layout

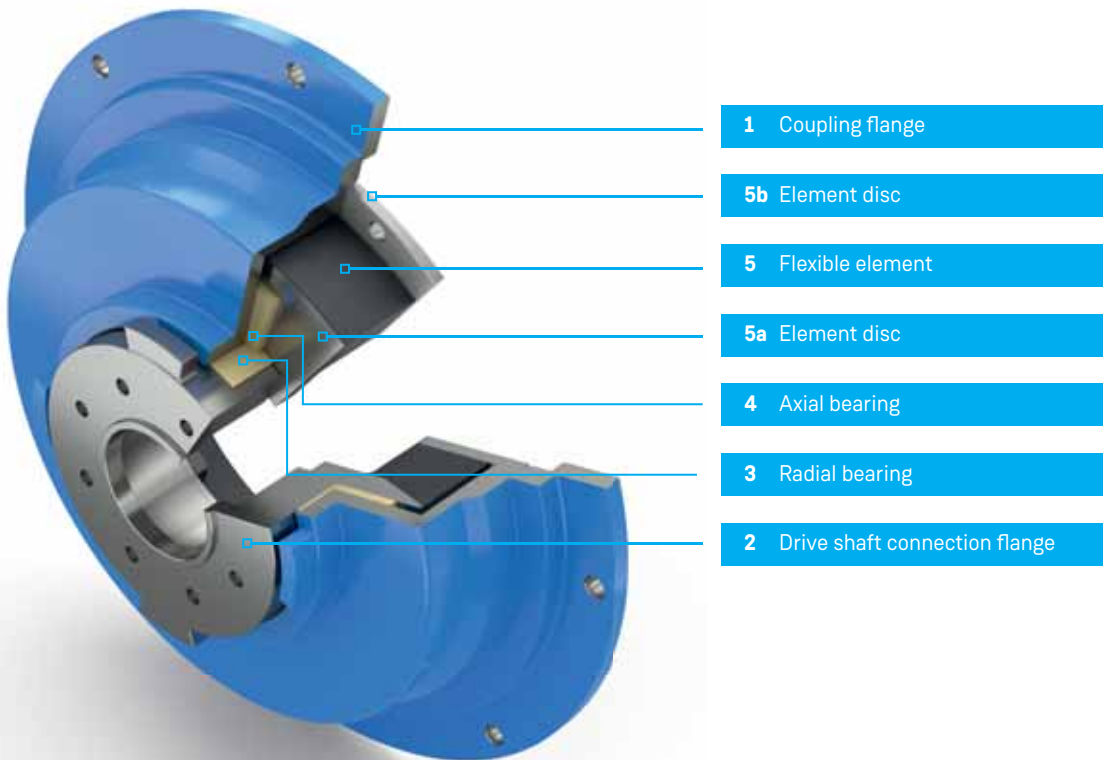
The highly flexible ARCUSAFLEX-VSK U-joint couplings of type AC-VSK F2 are specially designed for fitting to flywheels of internal combustion engines. The coupling flanges (1) of the standard type therefore match engine flywheels with SAE connecting dimensions.

The highly flexible coupling element (5), comprising a rubber/steel bond and is mounted with an axial pre-load acting on the thrust

bearing (4). The output side drive shaft flange (2), used to connect the drive shaft is precisely located by means of the radial bearing (3) ensuring excellent concentricity.

The pre-loaded rubber element improves the dynamic performance of the coupling by stabilizing the support bearings, providing enhanced damping capacity due to additional frictional damping.

ARCUSAFLEX-VSK layout and materials



i The coupling shown corresponds to the version with fail-safe device

ARCUSAFLEX-VSK

Materials



Materials Overview

Component	Designation	Material
1	Coupling flange	Standard design spheroidal cast iron EN-GJS-400-15
2	Drive shaft connection flange	Steel (yield strength min. 360 MPa)
3	Radial bearing	Plastic-metal composite or plastic (maintenance-free)
4	Axial bearing	Composite material
5	Flexible element	Rubber according to technical details
5a, 5b	Element discs	Steel

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 any of the components. In particular, existing connections, e.g. bolted connections, must be checked with regard to the torques to be transmitted. If necessary, further measures, such as additional reinforcement with pins, may be necessary. It is the customer's/user's responsibility to make sure the dimensioning of the shaft and keyed or other connection, e.g. shrinking or clamping connection, is correct.

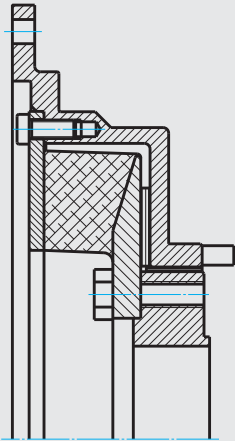
All components that can rust are protected against corrosion as standard.

REICH have an extensive range of couplings and coupling systems to cover nearly every drive configuration. Customized solutions can be developed and manufactured even in small batches or as prototypes. In addition calculation programs are available for all necessary dimensioning.

ARCUSAFLEX-VSK

Standard Types

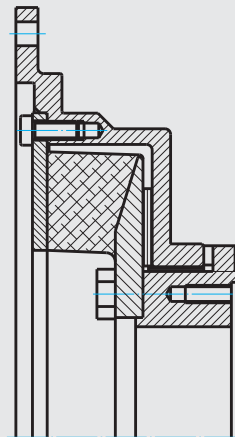
Type AC-VSK F2



Flange coupling

To connect an engine flywheel to a drive shaft with metric DIN flange.

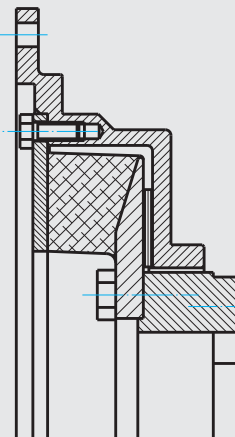
Type AC-VSK F2



Flange coupling

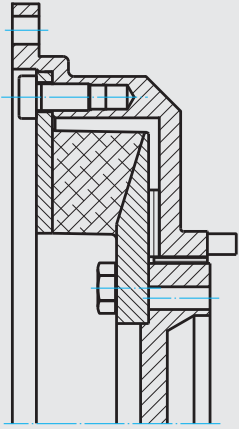
To connect an engine flywheel to a SPICER-drive shaft.

Type AC-VSK F2



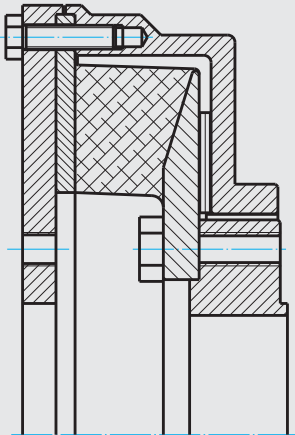
Flange coupling

To connect an engine flywheel to a MECHANICS-drive shaft.



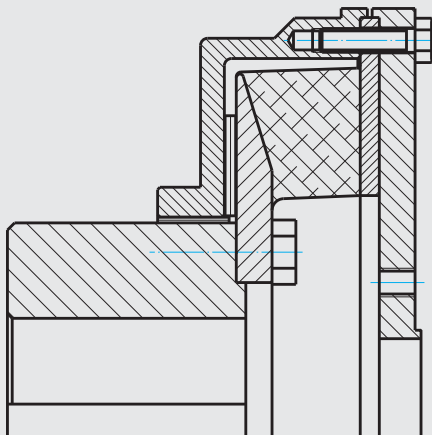
Flange coupling

To connect an engine flywheel to a constant velocity shaft.



Double flange coupling

To connect a flange with drive shaft connection to a drive shaft.



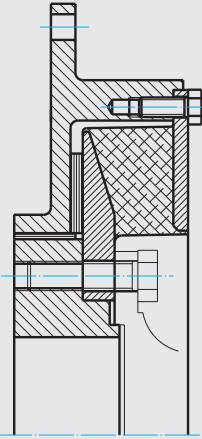
Shaft coupling

To connect a shaft to a drive shaft.

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Special types

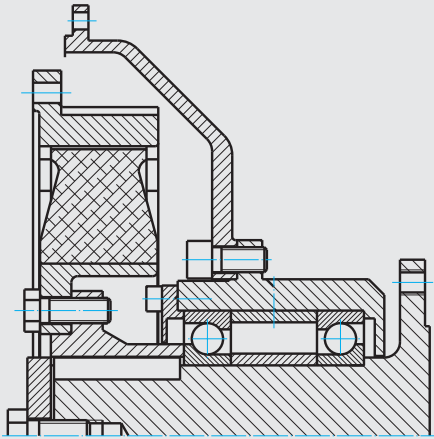
Short Type AC-VSK F2



Flange coupling

with narrow axial width, i.e. short installation length, for connecting an engine flywheel to a drive shaft.

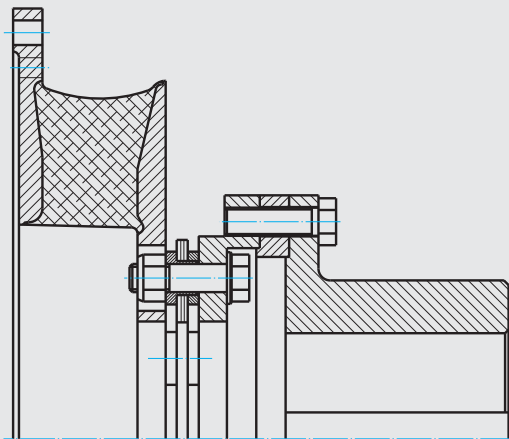
Type AC - F2 FG-GL



Flange coupling

Highly torsionally flexible ARCUSAFLEX® flange coupling with integral shaft support to connect a cardan shaft having a large deflection angle, also available with integrated clutch. A separate shaft bearing support attached to the engine housing keeps the crankshaft of the engine free from the additional stresses arising from cardan shaft deflection.

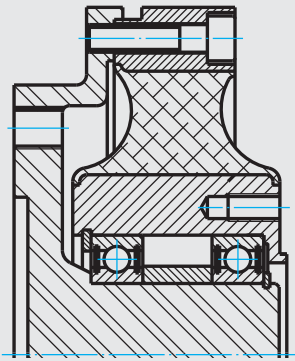
Type FD-VSK



AC with coupling housing

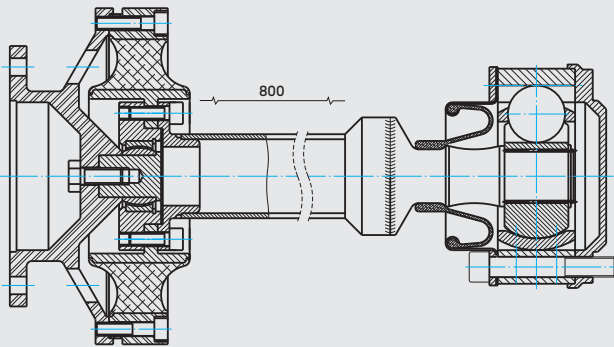
Highly torsionally flexible VSK coupling element in combination with FLEXDUR disc pack. To compensate for a large shaft displacement (e.g. with a flexibly mounted engine).

The coupling element compensates for the radial shaft displacement and the FLEXDUR disc pack compensates for the axial misalignment; for torques up to 247 821 lb-in.



Highly flexible torsionally optimized coupling

used in connection with a drive shaft, constant velocity shaft, flange or splined shaft profile. An extra catalog is available.



Highly flexible torsionally optimized coupling for engine test benches

Available designs: Integrated bearing with cardan shafts, integrated bearing with constant velocity shafts, double element coupling with/without telescopic unit.

ARCUSAFLEX-VSK

General Technical Data



Standard Type

Coupling size	Element version	Nominal torque		Maximum torque		Fatigue torque		Permissible power loss	Dynamic torsional stiffness		Max. speed			
		T_{KN}		T_{Kmax}		$T_{KW} (10 \text{ Hz})$			$P_{KV} 86 \text{ °F}$ (30 °C)	$C_T \text{ dyn}$		n_{max}		
		[Nm]	[lb-in]	[Nm]	[lb-in]	[Nm]	[lb-in]	[W]		[Nm/rad]	[lb-in/rad]	[rpm]	SAE	
AC-VSK 15	EN	390	3452	1170	10355	140	1239	120	2400	21242	4500	8"		
	WN	450	3983	1350	11949				2900	25667			4000	10"
	NN	560	4956	1680	14869				4500	39828			3500	11.5"
AC-VSK 25	EN	710	6284	2130	18852	250	2213	190	4500	39828	4000	10"		
	WN	820	7258	2440	21596				5200	46024			3500	11.5"
	NN	1000	8851	3000	26552				8000	70806			3000	14"
AC-VSK 35	EN	1100	9736	3300	29207	400	3540	220	7800	69036	3600	10"		
	WN	1250	11063	3750	33190				9500	84082			3500	11.5"
	NN	1600	14161	4800	42484				14000	123910			3000	14"
AC-VSK 45	EN	1400	12391	4200	37173	525	4647	240	9000	79657	3500	11.5"		
	WN	1600	14161	4800	42484				11000	97358			3000	14"
	NN	2100	18587	6300	55760				17000	150463			2600	18"
AC-VSK 50	EN	2000	17701	6000	53104	750	6638	280	14000	123910	3000	14"		
	WN	2300	20357	6900	61070				18000	159313			2300	18"
	NN	3000	26552	9000	79657				24000	212418			2600	18"
AC-VSK 55	EN	3500	30978	10500	92933	1250	11063	335	24000	212418	2600	14"		
	WN	4000	35403	12000	106209				30000	265522			2300	18"
	NN	5000	44254	15000	132761				45000	398284			2500	18"
AC-VSK 60	EN	4400	38943	13200	116830	1550	13719	375	35000	309776	2500	14"		
	WN	5000	44254	15000	132761				42000	371731			2300	18"
	NN	6200	54875	18600	164624				65000	575298			2100	21"
AC-VSK 70	EN	7000	61955	21000	185866	2500	22127	445	50000	442537	2300	18"		
	WN	8000	70806	24000	212418				62000	548746			2100	21"
	NN	10000	88507	30000	265522				93000	823119			2100	21"
AC-VSK 85	EN	14000	123910	42000	371731	5000	44254	650	96000	849672	2100	21"		
	WN	16000	141612	48000	424836				120000	1062089			185000	1637388
	NN	20000	177015	60000	531045									

i 1) The relative damping relates only to the elastomer. The frictional damping of the bearings has to be considered separately, depending on the type of operation

Shore hardness ShA, Resonance factor V_R and relative damping Ψ

Element version	Sh A	V_R	Ψ
EN	50	6.28	1.0
WN	55	5.03	1.25
NN	65	4.49	1.40

i Due to the physical properties of the rubber material, the measurable rubber hardness is subject to a variation that is defined as $\pm 5^\circ$ Shore A according to DIN 53505. However, this variation is minimized by our own rubber production.

ARCUSAFLEX-VSK

Selection of the coupling size

The selected coupling for internal combustion engine drives should be verified by a torsional vibration analysis which we will provide on request. A preliminary selection of the coupling can, however, be made based on the continuous engine power being transmitted.

In selecting the coupling size the following should be satisfied:

The **nominal torque of the coupling** T_{KN} must be taken into account at every temperature and operating load of the coupling, while observing the service factors S (e.g. temperature factor S_t) shall be at least equal to the maximum nominal torque on the drive side T_{AN} ; the temperature in the immediate vicinity of the coupling must be taken into account.

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

The **nominal torque on the drive side** T_{AN} is calculated with the driving power P_{AN} and the coupling speed n_{AN} .

$$T_{AN} \text{ [Nm]} = 63.000 \frac{P_{AN} \text{ [HP]}}{n_{AN} \text{ [rpm]}}$$

The **temperature factor** S_t allows for the decreasing load capacity of the coupling when affected by elevated ambient temperatures in the vicinity of the coupling.

Temperature t	140 °F	158 °F	176 °F	>176 °F
	60 °C	70 °C	80 °C	>80 °C
S_t	1.25	1.4	1.6	on request

A continuous torsional vibration analysis to verify the coupling selection should confirm that the permissible **continuous fatigue torque** T_{KW} is at least equal to the highest fatigue torque T_W under reversing stresses encountered throughout the operating speed range while taking into account the temperature and frequency.

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

The **frequency factor** S_f allows for the frequency dependence of the permissible continuous fatigue torque under reversing stresses $T_{KW} (10 \text{ Hz})$ with an operating frequency f_x .

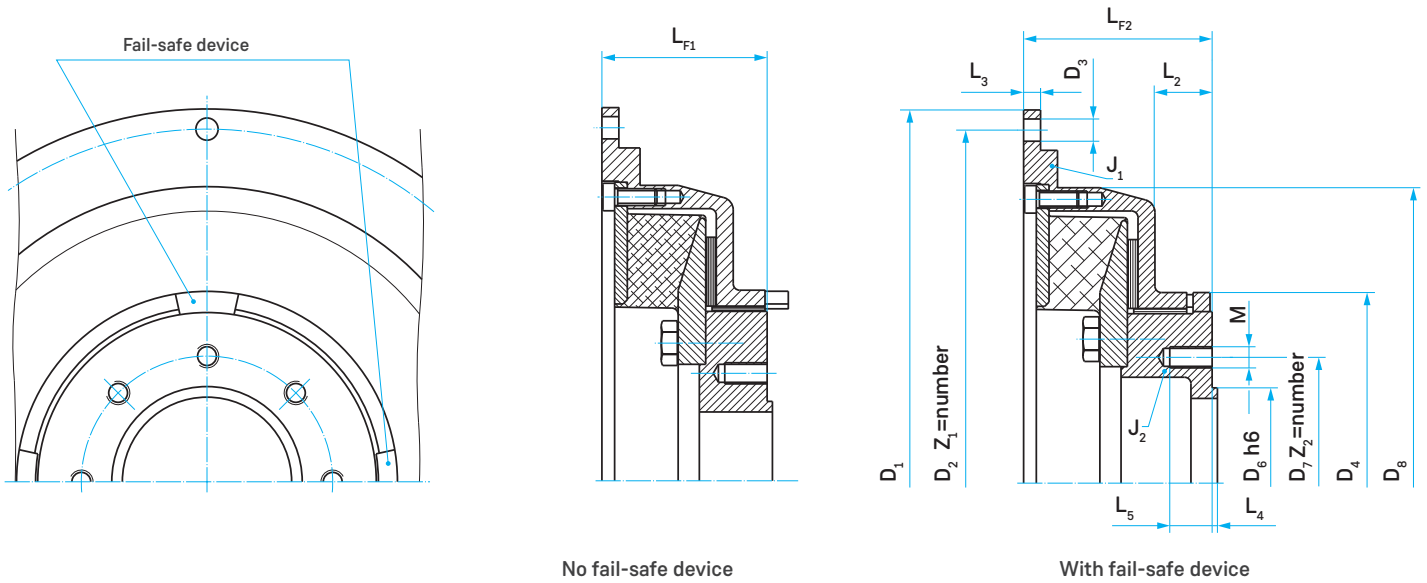
$$S_f = \sqrt{\frac{f_x}{10}}$$

Conversion table

1 [°F]	9/5 °C + 32	1 [°C]	5/9 (°F - 32)
1 [lb] (avdp)	0.454 [kg]	1 [kg]	2.205 [lb] (avdp)
1 [in]	25.4 [mm]	1 [mm]	0.039 [in]
1 [lb-in]	0.113 [Nm]	1 [Nm]	8.851 [lb-in]
1 [lb-in/rad]	0.113 [Nm/rad]	1 [Nm/rad]	8.851 [lb-in/rad]
1 [lb-in ²]	0.000292 [kgm ²]	1 [kgm ²]	3417.17 [lb-in ²]
1 psi	0.069 bar	1 bar	14.5 psi

ARCUSAFLEX-VSK

Type AC-VSK...F2 for drive shafts with metric DIN flange



METRIC DIMENSIONS

Coupling details

Engine flywheels with SAE-connecting dimensions according to J 620

Coupling size	Flywheel connection dimensions											Cardan shaft connecting dimensions								Total weight ⁵⁾ [kg]
	SAE size	D ₁ [mm]	D ₂ [mm]	D ₃ [mm]	Z ₁	D ₄ [mm]	D ₈ [mm]	L ₂ [mm]	L ₃ [mm]	L _{F1} [mm]	L _{F2} [mm]	Flange Ø	D ₆ h6 [mm]	D ₇ [mm]	Z ₂ x M ²⁾ [mm]	L ₄ [mm]	L ₅ [mm]	J ₁ [kgm ²]	J ₂ ⁵⁾ [kgm ²]	
- 15. ¹⁾ F2	8	263.5	244.5	10.5	6	140	215	18	8	57	68	100	57	84.0	6 x M8	2.0	16	0.061	0.008	9.1
	10	314.3	295.3	10.5	8							120	75	101.5	8 x M10			0.089		11.0
- 25. ¹⁾ F2	10	314.3	295.3	10.5	8	144	260	22	10	75.5	86.5	120	75	101.5	8 x M10	2.0	20	0.171	0.021	15.3
	11.5	352.4	333.4	10.5																
- 35. ¹⁾ F2	10	314.3	295.3	10.5	8	180	279	17.3	16	79.3	90.3	120	75	101.5	8 x M10	2.0	20	0.140	0.045	16.6
	11.5	352.4	333.4	10.5					8									0.176		18.0
	14	466.7	438.2	13.0					8			150	90	130.0	8 x M12	2.5	0.345	21.5		
- 45. ¹⁾ F2	11.5	352.4	333.4	10.5	8	180	314	24	26	89	100	150	90	130.0	8 x M12	2.5	20	0.280	0.057	22.8
	14	466.7	438.2	13.0					10									0.508		28.3
- 50. ¹⁾ F2	14	466.7	438.2	13.0	8	210	352	35	12	103	120	150	90	130.0	8 x M12	2.5	25	0.650	0.109	36.0
	18	571.5	542.9	17.0								180	110	155.5	8 x M14	3.0	30	1.130		42.3
- 55. ¹⁾ F2	14	466.7	438.2	13.0	8	285	417	35	28	115	130	180	110	155.5	8 x M14	3.0	25	1.037	0.332	90.6
	18	571.5	542.9	17.0					6			15	225	140	196.0			8 x M16		4.0
	250	140	218.0	8 x M18	4.0	30	1.667	0.327	98.4											
- 60. ¹⁾ F2	14	466.7	438.2	13.0	8	300	424	47	25 ³⁾	119.5	136.5	225	140	196.0	8 x M16	4.0	45	1.109	0.430	60.6
	18	571.5	542.9	17.0					6			15	130.5	147.5	250			140		218.0
- 70. ¹⁾ F2	18	571.5	542.9	17.0	12	348	510	45	15	139	160	250	140	218.0	8 x M18	4.0	30	2.567	0.923	96.7
	21	673.1	641.4	17.0								12	285	175	245.0	8 x M20	5.0	35	3.606	0.992
- 85. ¹⁾ F2	21	673.1	641.4	17.0	12	440	610	64	36 ⁴⁾	158.5	179.4	285	175	245.0	8 x M20	5.0	35	7.206	2.171	165
												315	175	280.0	8 x M22	5.0	35			

- i** 1) Element version according to 'Technical Data' 4) Centering depth 14 mm
- 2) Alternative connection threads on request 5) Values without fail-safe device
- 3) Centering depth 9 mm

Ordering example

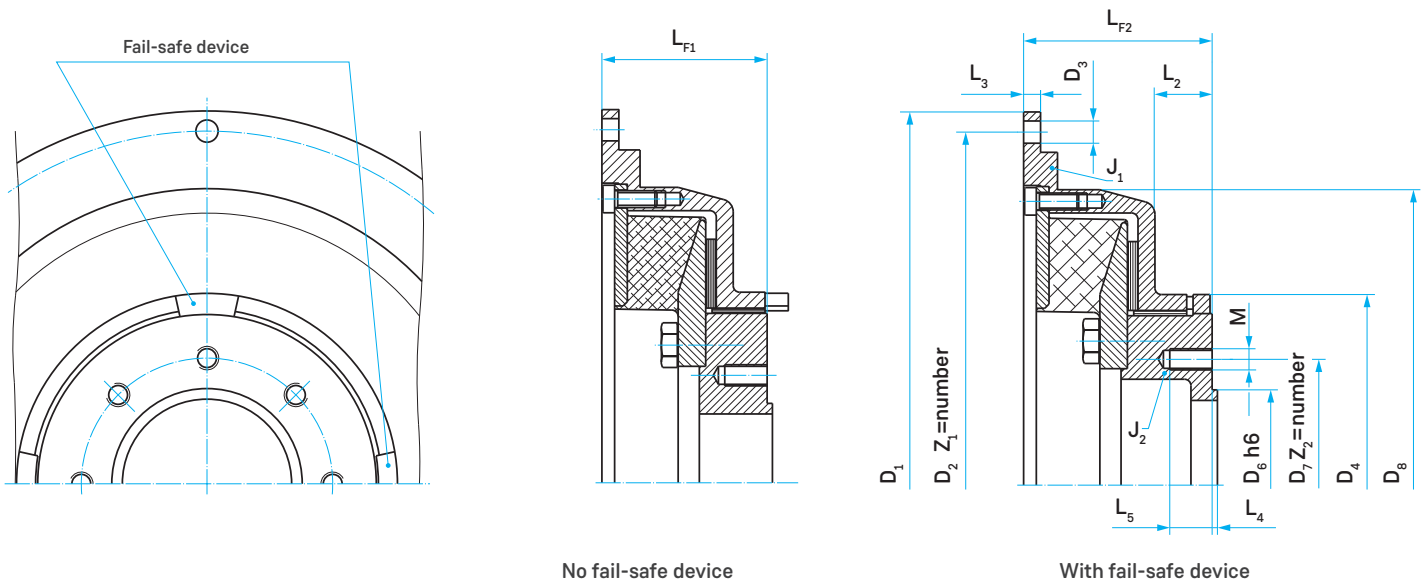
Coupling size Element version acc. to 'Technical Data' Flange version SAE flywheel connection Drive shaft flange Ø Version with fail-safe device

AC-VSK 50 .WN. F2. 14. 150. DS

Coupling designation: AC-VSK 50 .WN. F2. 14. 150. DS

ARCUSAFLEX-VSK

Type AC-VSK...F2 for drive shafts with metric DIN flange



INCH DIMENSIONS

Coupling details

Engine flywheels with SAE-connecting dimensions according to J 620

Coupling size	Flywheel connection dimensions											Cardan shaft connecting dimensions								Total weight ⁵⁾ [lb]		
	SAE size	D ₁ [in]	D ₂ [in]	D ₃ [in]	Z ₁	D ₄ [in]	D ₈ [in]	L ₂ [in]	L ₃ [in]	L _{F1} [in]	L _{F2} [in]	Flange ∅	D ₆ h6 [in]	D ₇ [in]	Z ₂ x M ²⁾ [in]	L ₄ [in]	L ₅ [in]	J ₁ [lb-in ²]	J ₂ ⁵⁾ [lb-in ²]			
- 15. ¹⁾ F2	8	10.375	9.625	0.41	6	5.51	8.46	0.71	0.31	2.24	2.68	3.94	2.244	3.307	6 x M8	0.08	0.63	208.5	27.3	20.1		
	10	12.375	11.625	0.41	8							4.72	2.953	3.996	8 x M10			304.1		24.3		
- 25. ¹⁾ F2	10	11.625	11.625	0.41	8	5.67	10.24	0.87	0.39	2.97	3.41	4.72	2.953	3.996	8 x M10	0.08	0.79	505.7	71.8	34.9		
	11.5	13.875	13.125	0.41														584.3		33.8		
- 35. ¹⁾ F2	10	12.375	11.625	0.41	8	7.09	10.98	0.68	0.63	3.12	3.56	4.72	2.953	3.996	8 x M10	0.08	0.79	478.4	153.8	36.6		
	11.5	13.875	13.125	0.41					0.31									601.4		39.7		
	14	13.875	17.250	0.51					0.31									1178.9		47.5		
- 45. ¹⁾ F2	11.5	13.875	13.125	0.41	8	7.09	12.36	0.94	1.02	3.50	3.94	5.91	3.543	5.118	8 x M12	0.10	0.79	956.8	194.8	50.3		
	14	18.375	17.250	0.51					0.39									1735.9		62.5		
- 50. ¹⁾ F2	14	18.375	17.250	0.51	8	8.27	13.86	1.38	0.47	4.06	4.72	5.91	3.543	5.118	8 x M12	0.10	0.98	2221.2	372.5	79.5		
	18	22.500	21.375	0.67								7.09	4.331	6.122	8 x M14	0.12	1.18	3861.4		93.4		
- 55. ¹⁾ F2	14	18.375	17.250	0.51	8	11.22	16.42	1.38	1.10	4.53	5.12	7.09	4.331	6.122	8 x M14	0.12	0.98	3543.6	1134.5	200.0		
	18	22.500	21.375	0.67					6			0.59	8.86	5.512	7.717			8 x M16		5696.4	1117.4	217.2
													9.84	5.512	8.583			8 x M18		0.16	1.18	
- 60. ¹⁾ F2	14	18.375	17.250	0.51	8	11.81	16.69	1.85	0.98 ³⁾	4.70	5.37	8.86	5.512	7.717	8 x M16	0.16	1.77	3789.6	1469.4	133.7		
	18	22.500	21.375	0.67					6			0.59	5.14	5.81	9.84			5.512		8.583	8 x M18	6362.8
- 70. ¹⁾ F2	18	22.500	21.375	0.67	12	13.70	20.08	1.77	0.59	5.47	6.30	9.84	5.512	8.583	8 x M18	0.16	1.18	8771.9	3154.1	213.4		
	21	26.500	25.250	0.67								12	11.22	6.890	9.646	8 x M20	0.20	1.38		12322.3	3389.8	237.7
- 85. ¹⁾ F2	21	26.500	25.250	0.67	12	17.32	24.02	2.52	1.42 ⁴⁾	6.24	7.06	11.22	6.890	9.646	8 x M20	0.20	1.38	24624.1	7418.7	364.4		
												12.40	6.890	11.024	8 x M22	0.20	1.38					

- i 1) Element version according to 'Technical Data' 4) Centering depth 0.55 in
- 2) Alternative connection threads on request 5) Values without fail-safe device
- 3) Centering depth 0.35 in

Ordering example

Coupling size Element version acc. to 'Technical Data' Flange version SAE flywheel connection Drive shaft flange ∅ Version with fail-safe device

AC-VSK 50 .WN. F2. 14. 150. DS

Coupling designation: AC-VSK 50 .WN. F2. 14. 150. DS

ARCUSAFLEX-VSK

Type AC-VSK...F2 for SPICER cardan shafts

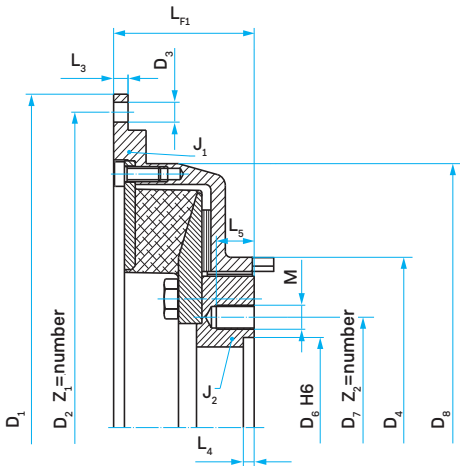


Fig. 1: no fail-safe device

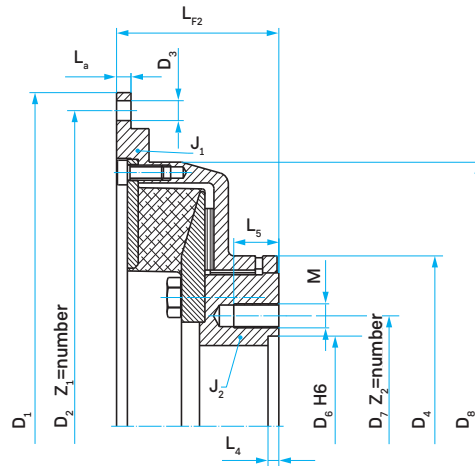


Fig. 1: with fail-safe device

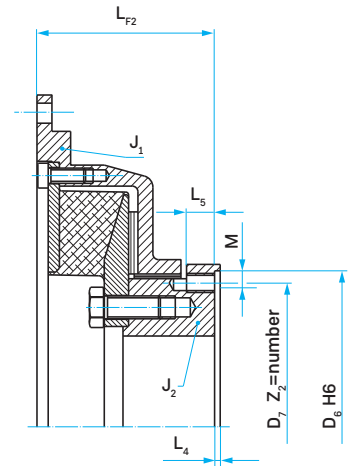


Fig. 2: no fail-safe device

METRIC DIMENSIONS

Coupling details

Engine flywheels with SAE-connecting dimensions according to J 620

Coupling size	Flywheel connection dimensions					SPICER cardan shaft connecting dimensions													Total weight ⁶⁾ [kg]	
	SAE size	D ₁ [mm]	D ₂ [mm]	D ₃ [mm]	Z ₁	D ₄ [mm]	D ₈ [mm]	L ₃ [mm]	L _{F1} [mm]	L _{F2} [mm]	size	Fig.	D ₆ H6 [mm]	D ₇ [mm]	Z ₂ x M ²⁾	L ₄ [mm]	L ₅ [mm]	J ₁ [kgm ²]		J ₂ ⁶⁾ [kgm ²]
- 15. ¹⁾ F2	8	263.5	244.5	10.5	6	140	215	8	57	68	1280/1310	1	60.33	79.38	4 x 3/8"- 24	5	20	0.055	0.010	8.9
	10	314.3	295.3	10.5	8						1350/1410		69.85	95.25	4 x 7/16"- 20			10.3		
- 25. ¹⁾ F2	10	314.3	295.3	10.5	8	144	260	10	75.5	86.5	1280/1310	1	60.33	79.38	4 x 3/8"- 24	5	20	0.148	0.023	15.8
	11.5	352.4	333.4	10.5							1350/1410		69.85	95.25	4 x 7/16"- 20			17.2		
- 35. ¹⁾ F2	10	314.3	295.3	10.5	8	180	279	16	79.3	90.3	1480/1550	1	95.25	120.65	4 x 1/2"- 20	6	25	0.144	0.058	17.0
	11.5	352.4	333.4	10.5							8				96.3			-		1610 ³⁾
	14	466.7	438.2	13.0				8	96.3	-	1610 ³⁾	2	168.28	155.58	8 x 3/8"- 24	1.5	15	0.362		23.5
- 45. ¹⁾ F2	11.5	352.4	333.4	10.5	8	180	314	26	89	100	1480/1550	1	95.25	120.65	4 x 1/2"- 20	6	25	0.281	0.066	23.9
	14	466.7	438.2	13.0				10	105	-	1610 ³⁾	2	168.28	155.58	8 x 3/8"- 24	1.5	15	0.517	0.072	30.5
- 50. ¹⁾ F2	14	466.7	438.2	13.0	8	210	352	12	100	117	1610	2	168.28	155.58	8 x 3/8"- 24	1.5	30	0.668	0.138	37.2
															8 x 3/8"- 24			17		0.138
	18	571.5	542.9	17.0	6	125	-	1760/1810 ³⁾	2	196.85	184.15	12 x 7/16"- 20	1.5	17	1.180	46.7				
- 55. ¹⁾ F2	14	466.7	438.2	13.0	8	285	417	28	112	127	1710	2	196.85	184.15	8 x 3/8"- 24	1.5	30	1.087	0.380	55.0
									1760/1810	1	177.80				209.55			8 x 5/8"- 18		7
	18	571.5	542.9	17.0	6	115	130	1880/1910	1	177.80	209.55	8 x 5/8"- 18	7	1.754	64.4					
- 60. ¹⁾ F2	14	466.7	438.2	13.0	8	300	424	25 ⁴⁾	116.5	133.5	1760/1810	2	196.85	184.15	12 x 7/16"- 20	1.5	30	1.100	0.509	64.9
	18	571.5	542.9	17.0	6			15	131.5	147.5	1880/1910	1	177.80	209.55	8 x 5/8"- 18	7		1.878		76.6
- 70. ¹⁾ F2	18	571.5	542.9	17.0	12	348	510	15	139	160	1880/1910	1	177.80	209.55	8 x 5/8"- 18	7	35	2.681	1.080	106
	21	673.1	641.4	17.0	12						1950		209.55	249.30	12 x 3/4"- 16			3.747	1.073	117
- 85. ¹⁾ F2	21	673.1	641.4	17.0	12	440	610	35 ⁵⁾	158.5	179.4	1880/1910	1	177.80	209.55	8 x 5/8"- 18	7	35	6.857	2.229	158
											1950		209.55	249.30	12 x 3/4"- 16					

- 1) Element version according to 'Technical Data'
- 2) Alternative connection threads on request
- 3) This version not available with fail-safe device
- 4) Centering depth 9 mm
- 5) Centering depth 14 mm
- 6) Values without fail-safe device

Ordering example

Coupling size Element version acc. to 'Technical Data' Flange version SAE flywheel connection SPICER drive shaft Version with fail-safe device

AC-VSK 50 .WN. F2. 14. 1610. DS

Coupling designation: AC-VSK 50 .WN. F2. 14. 1610. DS

ARCUSAFLEX-VSK

Type AC-VSK...F2 for SPICER cardan shafts

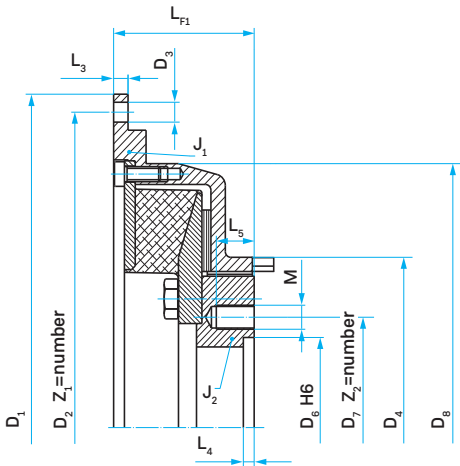


Fig. 1: no fail-safe device

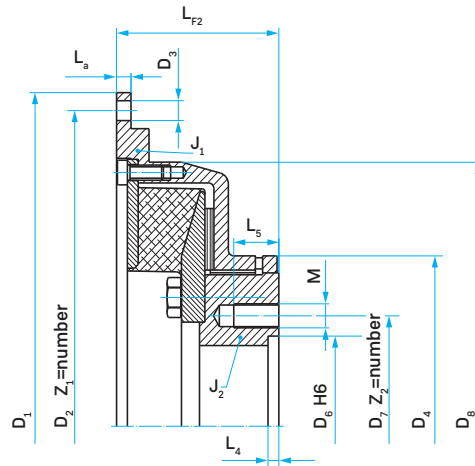


Fig. 1: with fail-safe device

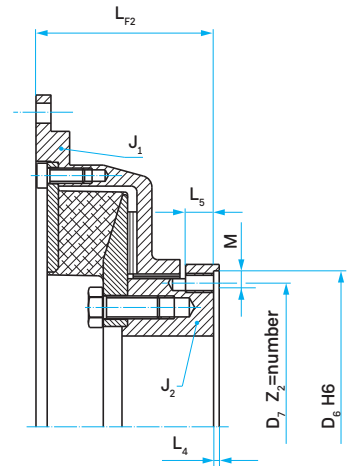


Fig. 2: no fail-safe device

INCH DIMENSIONS

Coupling details

Engine flywheels with SAE-connecting dimensions according to J 620

Coupling size	Flywheel connection dimensions											SPICER cardan shaft connecting dimensions									Total weight ⁶⁾ [lb]
	SAE size	D ₁ [in]	D ₂ [in]	D ₃ [in]	Z ₁	D ₄ [in]	D ₈ [in]	L ₃ [in]	L _{F1} [in]	L _{F2} [in]	size	Fig.	D ₆ H6 [in]	D ₇ [in]	Z ₂ x M ²⁾	L ₄ [in]	L ₅ [in]	J ₁ [lb-in ²]	J ₂ ⁶⁾ [lb-in ²]		
- 15. ¹⁾ F2	8	10.375	9.625	0.41	6	5.51	8.46	0.31	2.24	2.68	1280/1310	1	2.375	3.125	4 x 3/8"- 24	0.20	0.79	187.9	34.2	19.6	
	10	12.375	11.625	0.41	8						1350/1410		2.750	3.750	4 x 7/16"- 20			22.7			
- 25. ¹⁾ F2	10	12.375	11.625	0.41	8	5.67	10.24	0.39	2.97	3.41	1280/1310	1	2.375	3.125	4 x 3/8"- 24	0.20	0.79	505.7	78.6	34.9	
	11.5	13.875	13.125	0.41							1350/1410		2.750	3.750	4 x 7/16"- 20			642.4		38.0	
- 35. ¹⁾ F2	10	12.375	11.625	0.41	8	7.09	10.98	0.63	3.12	3.56	1480/1550	1	3.750	4.750	4 x 1/2"- 20	0.24	0.98	492.1	177.7	37.5	
	11.5	13.875	13.125	0.41				0.31	3.79	-	1610 ³⁾		2	6.625	6.125			8 x 3/8"- 24		604.8	198.2
	14	18.375	17.250	0.51				1237.0	51.9												
- 45. ¹⁾ F2	11.5	13.875	13.125	0.41	8	7.09	12.36	1.02	3.50	3.94	1480/1550	1	3.750	4.750	4 x 1/2"- 20	0.24	0.98	960.2	225.5	52.7	
	14	18.375	17.250	0.51				0.39	4.13	-	1610 ³⁾	2	6.625	6.125	8 x 3/8"- 24	0.06	0.59	1766.7	246.0	67.3	
- 50. ¹⁾ F2	14	18.375	17.250	0.51	8	8.27	13.86	0.47	3.94	4.61	1610	2	6.625	6.125	8 x 3/8"- 24	0.06	1.18	2282.7	420.3	82.1	
	18	22.500	21.375	0.67					6	4.92	-		1710 ³⁾	7.750	7.250			8 x 3/8"- 24		0.67	471.6
	18	22.500	21.375	0.67					6	1760/1810 ³⁾	12 x 7/16"- 20	4032.3	103.1								
- 55. ¹⁾ F2	14	18.375	17.250	0.51	8	11.22	16.42	1.10	4.41	5.00	1710	2	7.750	7.250	8 x 3/8"- 24	0.06	1.18	3714.5	1298.5	121.4	
	18	22.500	21.375	0.67					6	4.53	5.12		1880/1910	1	7.000			8.250		8 x 5/8"- 18	0.28
	18	22.500	21.375	0.67					6	1760/1810	12 x 7/16"- 20	1298.5									
- 60. ¹⁾ F2	14	18.375	17.250	0.51	8	11.81	16.69	0.98 ⁴⁾	4.59	5.26	1760/1810	2	7.750	7.250	12 x 7/16"- 20	0.06	1.18	3758.9	1739.3	143.2	
	18	22.500	21.375	0.67				6	0.59	5.18	5.81	1880/1910	1	7.000	8.250	8 x 5/8"- 18	0.28	6417.4		169.1	
- 70. ¹⁾ F2	18	22.500	21.375	0.67	12	13.70	20.08	0.59	5.47	6.30	1880/1910	1	7.000	8.250	8 x 5/8"- 18	0.28	1.38	9161.4	3690.5	233.1	
	21	26.500	25.250	0.67	12						1950		8.250	9.815	12 x 3/4"- 16			12804.1		3666.6	257.1
- 85. ¹⁾ F2	21	26.500	25.250	0.67	12	17.32	24.02	1.38 ⁵⁾	6.24	7.06	1880/1910	1	7.000	8.250	8 x 5/8"- 18	0.28	1.38	23431.5	7616.9	348.3	
	21	26.500	25.250	0.67	12						1950		8.250	9.815	12 x 3/4"- 16			7616.9			

- 1) Element version according to 'Technical Data'
- 2) Alternative connection threads on request
- 3) This version not available with fail-safe device
- 4) Centering depth 0.35 in
- 5) Centering depth 0.55 in
- 6) Values without fail-safe device

Ordering example

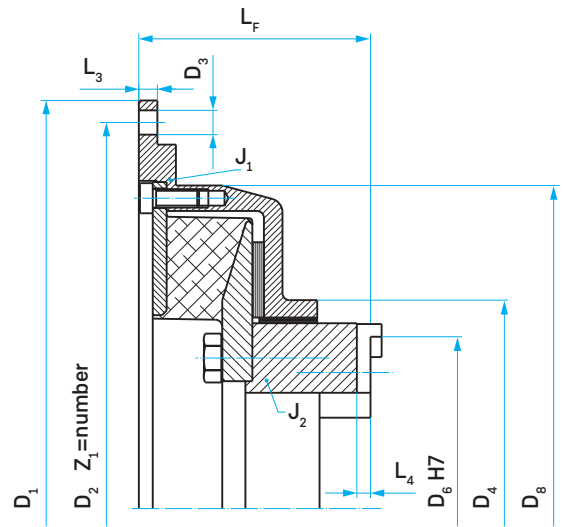
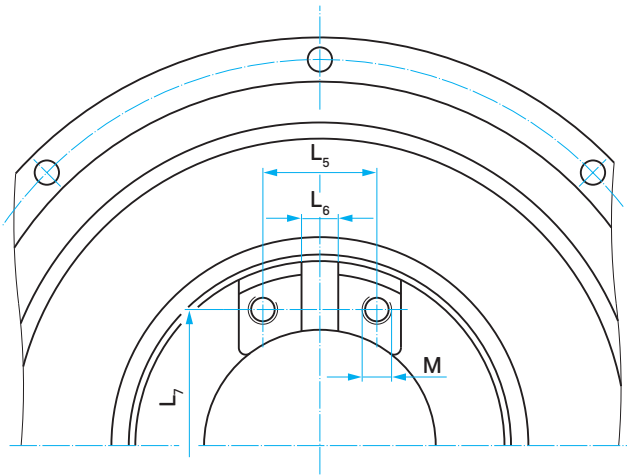
Coupling size Element version acc. to 'Technical Data' Flange version SAE flywheel connection SPICER drive shaft Version with fail-safe device

AC-VSK 50 .WN. F2. 14. 1610. DS

Coupling designation: AC-VSK 50 .WN. F2. 14. 1610. DS

ARCUSAFLEX-VSK

Type AC-VSK...F2 for MECHANICS cardan shafts



METRIC DIMENSIONS

Coupling details

Engine flywheels with SAE-connecting dimensions according to J 620

Coupling size	Flywheel connection dimensions										MECHANICS cardan shaft connecting dimensions								Total weight [kg]
	SAE size	D ₁ [mm]	D ₂ [mm]	D ₃ [mm]	Z ₁	D ₄ [mm]	D ₈ [mm]	L ₃ [mm]	L _F [mm]	size	D ₆ H7 [mm]	L ₄ [mm]	L ₅ [mm]	L ₆ [mm]	L ₇ [mm]	M [mm]	J ₁ [kgm ²]	J ₂ [kgm ²]	
- 15. ¹⁾ F2	8	263.5	244.5	10.5	6	140	215	8	83	4C	107.92	3.8	36.5	9.5	87.3	5/16"-24	0.055	0.010	8.8
	10	314.3	295.3	10.5	8					5C	115.06	5.1	42.9	14.26	88.9	3/8"-24	0.084		10.2
- 25. ¹⁾ F2	10	314.3	295.3	10.5	8	144	260	10	96.5	5C	115.06	5.1	42.9	14.26	88.9	3/8"-24	0.148	0.022	15.3
	11.5	352.4	333.4	10.5													0.188		16.7
- 35. ¹⁾ F2	10	314.3	295.3	10.5	8	180	279	16	101.3	5C	115.06	5.1	42.9	14.26	88.9	3/8"-24	0.144	0.048	16.0
	11.5	352.4	333.4	10.5													0.177		17.9
	14	466.7	438.2	13.0				8	6C	140.46	5.1	42.9	14.26	114.3	3/8"-24	0.362	22.2		
- 45. ¹⁾ F2	11.5	352.4	333.4	10.5	8	180	314	26	111	5C	115.06	5.1	42.9	14.26	88.9	3/8"-24	0.281	0.063	23.5
	14	466.7	438.2	13.0				10									6C		140.46
- 50. ¹⁾ F2	14	466.7	438.2	13.0	8	210	352	12	130	6C	140.46	5.1	42.9	14.26	114.3	3/8"-24	0.668	0.115	36.2
										7C	148.39	6	49.2	15.85	117.5	1/2"-20		0.116	36.3
	18	571.5	542.9	17.0	6	8.5C	165.08	6	71.4	15.85	123.8	1/2"-20	1.180	0.114	43.1				
- 55. ¹⁾ F2	14	466.7	438.2	13.0	8	285	417	28	155	8C	206.32	6	49.2	15.85	174.6	1/2"-20	1.087	0.348	52.1
										8.5C	165.08	6	71.4	15.85	123.8	1/2"-20	1.754	0.353	63.1
	18	571.5	542.9	17.0	6	9C	209.52	6	71.4	15.85	168.3	1/2"-20	0.356	62.2					
- 60. ¹⁾ F2	14	466.7	438.2	13.0	8	300	424	25 ²⁾	145.5	8.5C	165.08	6	71.4	15.85	123.8	1/2"-20	1.100	0.471	62.1
	18	571.5	542.9	17.0	6			15	171.5	9C	209.52	6	71.4	15.85	168.3	1/2"-20	1.878		73.8
- 70. ¹⁾ F2	18	571.5	542.9	17.0	12	348	510	15	170	9C	209.52	6	71.4	15.85	168.3	1/2"-20	2.681	0.964	99.0
	21	673.1	641.4	17.0	12					10C	212.70	9.5	92.1	25.35	165.1	5/8"-18	3.747		110
- 85. ¹⁾ F2	21	673.1	641.4	17.0	12	440	610	35 ³⁾	198.5	12C	289.05	12.5	92.1	25.35	241.3	5/8"-18	6.857	2.305	157
										15C	260.00	12.5	100	31.78	200.0	3/4"-16			
										280	280.00	9	92	35.00	227.0	M18			

i 1) Element design according to 'Technical Data'
Version with fail-safe device on request

2) Centering depth 9 mm
3) Centering depth 14 mm

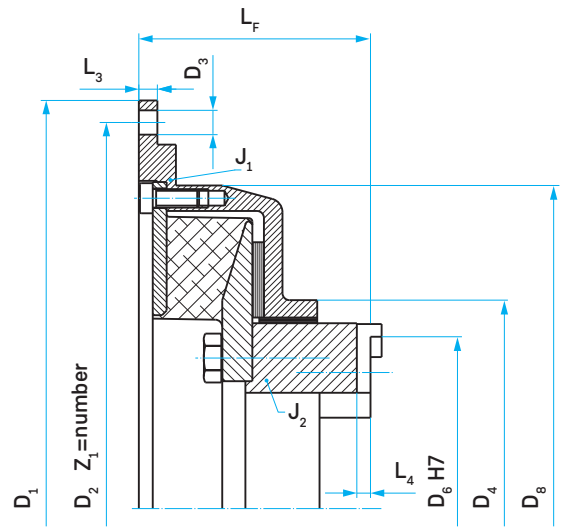
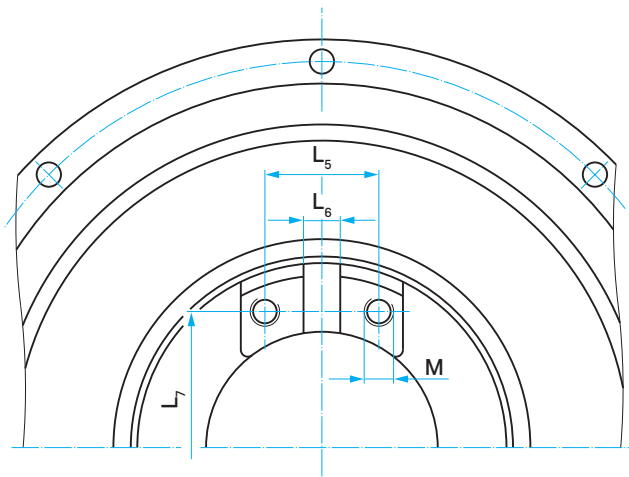
Ordering example

Coupling size	Element version acc. to 'Technical data'	Flange version	SAE flywheel connection	MECHANICS drive shaft connection
AC-VSK 50	.WN.	F2.	14.	7C

Coupling designation: AC-VSK 50 .WN. F2. 14. 7C

ARCUSAFLEX-VSK

Type AC-VSK...F2 for MECHANICS cardan shafts



INCH DIMENSIONS

Coupling details

Engine flywheels with SAE-connecting dimensions according to J 620

Coupling size	Flywheel connection dimensions									MECHANICS cardan shaft connecting dimensions									Total weight [lb]
	SAE size	D ₁ [in]	D ₂ [in]	D ₃ [in]	Z ₁	D ₄ [in]	D ₈ [in]	L ₃ [in]	L _F [in]	size	D ₆ H7 [in]	L ₄ [in]	L ₅ [in]	L ₆ [in]	L ₇ [in]	M [in]	J ₁ [lb-in ²]	J ₂ [lb-in ²]	
- 15. ¹⁾ F2	8	10.375	9.625	0.41	6	5.51	8.46	0.31	3.27	4C	4.249	0.15	1.44	0.37	3.44	⁵ / ₁₆ "-24	187.9	34.2	19.4
	10	12.375	11.625	0.41	8					5C	4.530	0.20	1.69	0.56	3.50	³ / ₈ "-24	287.0		22.5
- 25. ¹⁾ F2	10	12.375	11.625	0.41	8	5.67	10.24	0.39	3.80	5C	4.530	0.20	1.69	0.56	3.50	³ / ₈ "-24	505.7	75.2	33.8
	11.5	13.875	13.125	0.41													642.4		36.9
- 35. ¹⁾ F2	10	12.375	11.625	0.41	8	7.09	10.98	0.63	3.99	5C	4.530	0.20	1.69	0.56	3.50	³ / ₈ "-24	492.1	164.0	35.3
	11.5	13.875	13.125	0.41													604.8		39.5
	14	18.375	17.250	0.51				0.31		6C	5.530	0.20	1.69	0.56	4.50	³ / ₈ "-24	1237.0		49.0
- 45. ¹⁾ F2	11.5	13.875	13.125	0.41	8	7.09	12.36	1.02	4.37	5C	4.530	0.20	1.69	0.56	3.50	³ / ₈ "-24	960.2	215.3	51.9
	14	18.375	17.250	0.51				0.39									6C		5.530
- 50. ¹⁾ F2	14	18.375	17.250	0.51	8	8.27	13.86	0.47	5.12	6C	5.530	0.20	1.69	0.56	4.50	³ / ₈ "-24	2282.7	393.0	79.9
										7C	5.842	0.24	1.94	0.62	4.63	¹ / ₂ "-20		396.4	80.1
	18	22.500	21.375	0.67						6	8.5C	6.499	0.24	2.81	0.62	4.87	¹ / ₂ "-20	4032.3	389.6
- 55. ¹⁾ F2	14	18.375	17.250	0.51	8	11.22	16.42	1.10	6.10	8C	8.123	0.24	1.94	0.62	6.87	¹ / ₂ "-20	3714.5	1189.2	115.0
										8.5C	6.499	0.24	2.81	0.62	4.87	¹ / ₂ "-20	5993.7	1206.3	139.3
	18	22.500	21.375	0.67						6	9C	8.249	0.24	2.81	0.62	6.63	¹ / ₂ "-20	1216.5	137.3
- 60. ¹⁾ F2	14	18.375	17.250	0.51	8	11.81	16.69	0.98 ²⁾	5.73	8.5C	6.499	0.24	2.81	0.62	4.87	¹ / ₂ "-20	3758.9	1609.5	137.1
	18	22.500	21.375	0.67				6		0.59	6.75	9C	8.249	0.24	2.81	0.62	6.63		¹ / ₂ "-20
- 70. ¹⁾ F2	18	22.500	21.375	0.67	12	13.70	20.08	0.59	6.69	9C	8.249	0.24	2.81	0.62	6.63	¹ / ₂ "-20	9161.4	3294.2	218.5
	21	26.500	25.250	0.67						12	10C	8.374	0.37	3.63	1.00	6.50	⁵ / ₈ "-18		12804.1
- 85. ¹⁾ F2	21	26.500	25.250	0.67	12	17.32	24.02	1.38 ³⁾	7.81	12C	11.380	0.49	3.63	1.00	9.50	⁵ / ₈ "-18	23431.5	7876.6	346.9
										15C	10.236	0.49	3.94	1.25	7.87	³ / ₄ "-16			
										280	11.024	0.35	3.62	1.38	8.94	M18			

i 1) Element design according to 'Technical Data'
Version with fail-safe device on request

2) Centering depth 0.35 in
3) Centering depth 0.55 in

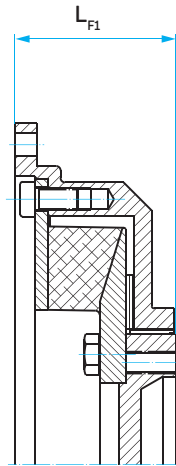
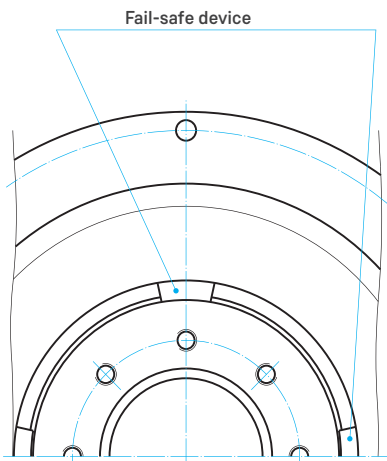
Ordering example

Coupling size	Element version acc. to 'Technical data'	Flange version	SAE flywheel connection	MECHANICS drive shaft connection
AC-VSK 50	.WN.	F2.	14.	7C

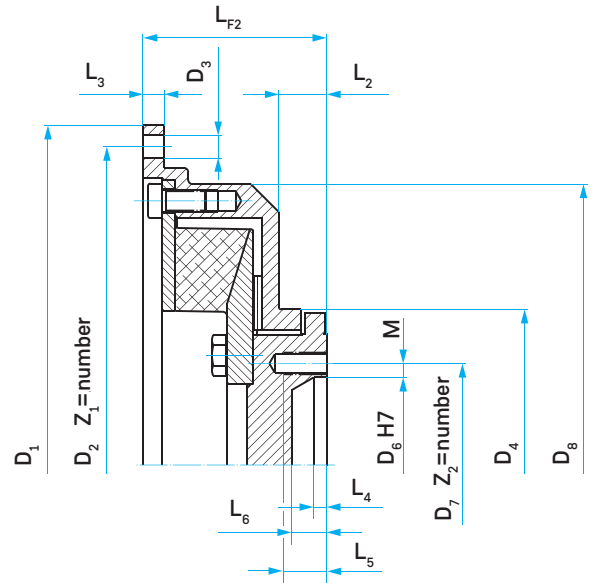
Coupling designation: AC-VSK 50 .WN. F2. 14. 7C

ARCUSAFLEX-VSK

Type AC-VSK...F2.CV for constant velocity shafts



No fail-safe device



With fail-safe device

METRIC DIMENSIONS

Coupling details

Engine flywheels with SAE-connecting dimensions according to J 620

Coupling size	Flywheel connection dimensions												Constant velocity shaft connections							Total weight 2)	
	SAE size	D ₁ [mm]	D ₂ [mm]	D ₃ [mm]	Z ₁	D ₄ [mm]	D ₈ [mm]	L ₂ [mm]	L ₃ [mm]	L _{F1} [mm]	L _{F2} [mm]	size	D ₆ H7 [mm]	D ₇ [mm]	Z ₂ x M	L ₄ [mm]	L ₅ [mm]	L ₆ [mm]	J ₁ [kgm ²]		J ₂ ²⁾ [kgm ²]
- 15. ¹⁾ F2	8	263.5	244.5	10.5	6	140	215	18	8	57	68	CV 15	81	94	6 x M10	6	15	16	0.055	0.009	8.1
	10	314.3	295.3	10.5	8														0.084		9.5
- 25. ¹⁾ F2	10	314.3	295.3	10.5	8	144	260	22	10	75.5	86.5	CV 15	81	94	6 x M10	6	20	16	0.148	0.022	15.2
	11.5	352.4	333.4	10.5															0.188		16.6
- 35. ¹⁾ F2	10	314.3	295.3	10.5	8	180	279	28	16	79.3	90.3	CV 21	90	108	6 x M12	8	20	20	0.144	0.049	17.0
	11.5	352.4	333.4	10.5					8										0.177		17.2
- 45. ¹⁾ F2	11.5	352.4	333.4	10.5	8	180	314	25	26	89	100	CV 30	112	128	6 x M12	12	23	25	0.281	0.055	22.8
	14	466.7	438.2	13.0					10										0.517		28.4
- 50. ¹⁾ F2	14	466.7	438.2	13.0	8	210	352	36	12	103	120	CV 30	112	128	6 x M12	12	25	25	0.668	0.115	36.2
												CV 32									
- 55. ¹⁾ F2	14	466.7	438.2	13.0	8	285	417	35	28	115	130	CV 42	144	165	8 x M16	10	35	26	1.087	0.357	54.7
- 60. ¹⁾ F2	14	466.7	438.2	13.0	8	300	424	48	25 ³⁾	119.5	146.5	CV 42	144	165	8 x M16	10	35	26	1.100	0.465	62.0
	18	571.5	542.9	17.0	6				15										1.878		73.7
- 70. ¹⁾ F2	18	571.5	542.9	17.0	12	348	510	46	15	134	155	CV 60	216	245	8 x M20	5	35	25	2.681	0.929	95.7
	21	673.1	641.4	17.0	12														3.747		108

i 1) For the element version see 'Technical Data'

3) Centering depth 9 mm

2) Values without fail-safe device

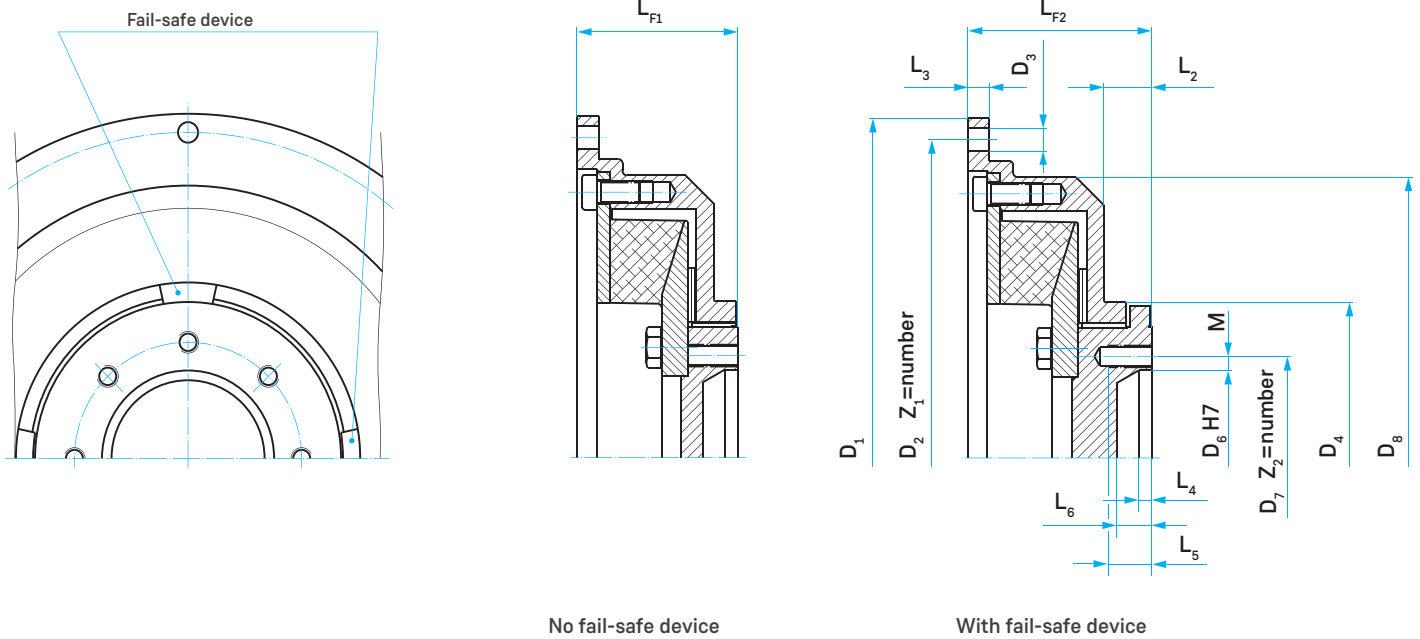
Ordering example

Coupling size	Element version acc. to 'Technical Data'	Flange version	SAE flywheel connection	Size of joint Ø	Version with fail-safe device
AC-VSK 50	.WN.	F2.	14.	CV32.	DS

Coupling designation: AC-VSK 50 .WN. F2. 14. CV32. DS

ARCUSAFLEX-VSK

Type AC-VSK...F2.CV for constant velocity shafts



INCH DIMENSIONS

Coupling details

Engine flywheels with SAE-connecting dimensions according to J 620

Coupling size	Flywheel connection dimensions												Constant velocity shaft connections								Total weight 2) [lb]
	SAE size	D ₁ [in]	D ₂ [in]	D ₃ [in]	Z ₁	D ₄ [in]	D ₈ [in]	L ₂ [in]	L ₃ [in]	L _{F1} [in]	L _{F2} [in]	size	D ₆ H7 [in]	D ₇ [in]	Z ₂ x M	L ₄ [in]	L ₅ [in]	L ₆ [in]	J ₁ [lb-in ²]	J ₂ ²⁾ [lb-in ²]	
- 15. ¹⁾ F2	8	10.375	9.625	0.41	6	5.51	8.46	0.71	0.31	2.24	2.68	CV 15	3.189	3.70	6xM10	0.24	0.59	0.63	187.9	30.8	17.9
	10	12.375	11.625	0.41	8														287.0		21.0
- 25. ¹⁾ F2	10	12.375	11.625	0.41	8	5.67	10.24	0.87	0.39	2.97	3.41	CV 15	3.189	3.70	6xM10	0.24	0.79	0.63	505.7	75.2	33.5
	11.5	13.875	13.125	0.41															642.4		36.6
- 35. ¹⁾ F2	10	12.375	11.625	0.41	8	7.09	10.98	1.10	0.63	3.12	3.56	CV 21	3.543	4.25	6xM12	0.31	0.79	0.79	492.1	167.4	37.5
	11.5	13.875	13.125	0.41					0.31										CV 30		4.409
- 45. ¹⁾ F2	11.5	13.875	13.125	0.41	8	7.09	12.36	0.98	1.02	3.50	3.94	CV 30	4.409	5.04	6xM12	0.47	0.91	0.98	960.2	187.9	50.3
	14	18.375	17.250	0.51					0.39										1766.7		62.7
- 50. ¹⁾ F2	14	18.375	17.250	0.51	8	8.27	13.86	1.42	0.47	4.06	4.72	CV 30	4.409	5.04	6xM12	0.47	0.98	0.98	2282.7	393.0	79.9
												CV 32	5.354	5.04	6xM16		1.18	1.02			
- 55. ¹⁾ F2	14	18.375	17.250	0.51	8	11.22	16.42	1.38	1.10	4.53	5.12	CV 42	5.669	6.12	8xM16	0.39	1.38	1.02	3714.5	1219.9	120.7
- 60. ¹⁾ F2	14	18.375	17.250	0.51	8	11.81	16.69	1.89	0.98 ³⁾	4.70	5.77	CV 42	5.669	6.50	8xM16	0.39	1.38	1.02	3758.9	1589.0	136.8
	18	22.500	21.375	0.67	6				0.59										6417.4		162.7
- 70. ¹⁾ F2	18	22.500	21.375	0.67	12	13.70	20.08	1.81	0.59	5.28	6.10	CV 60	8.504	6.50	8xM20	0.20	1.38	0.98	9161.4	3174.6	211.2
	21	26.500	25.250	0.67	12														12804.1		238.4

i 1) For the element version see 'Technical Data'

3) Centering depth 0.35 in

2) Values without fail-safe device

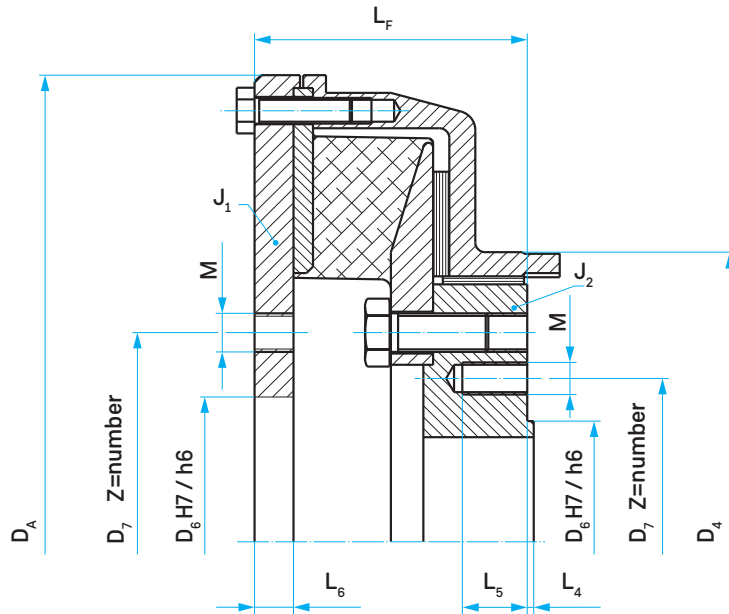
Ordering example

Coupling size	Element version acc. to 'Technical Data'	Flange version	SAE flywheel connection	Size of joint Ø	Version with fail-safe device
AC-VSK 50	.WN.	F2.	14.	CV32.	DS

Coupling designation: AC-VSK 50 .WN. F2. 14. CV32. DS

ARCUSAFLEX-VSK

Type AC-VSK...F1



METRIC DIMENSIONS

Coupling details

For mounting between a drive shaft and related adapter flange. Alternative flange dimensions are available.

Coupling size	D _A [mm]	D ₄ [mm]	L _F [mm]	Flange and cardan shaft connecting dimensions ²⁾							J ₁ [kgm ²]	J ₂ [kgm ²]	Total weight [kg]
				Flange Ø	D ₆ H7/h6 [mm]	D ₇ [mm]	Z x M ²⁾	L ₄ [mm]	L ₅ [mm]	L ₆ [mm]			
- 15.1).F1	222	140	60	100	57	84.0	6 x M8	2.0	16	10	0.068	0.0086	10.8
				120	75	101.5	8 x M10						
- 25.1).F1	268	144	76.5	120	75	101.5	8 x M10	2.0	20	10	0.164	0.022	17.5
- 35.1).F1	290	180	85.3	120	75	101.5	8 x M10	2.0	20	12	0.222	0.048	23.5
				150	90	130.0	8 x M12	2.5	23				
- 45.1).F1	320	180	92	150	90	130.0	8 x M12	2.5	23	12	0.408	0.063	33.3
- 50.1).F1	360	210	108	150	90	130.0	8 x M12	2.5	25	14	0.659	0.114	42.7
				180	110	155.5	8 x M14	3.0	30				
- 55.1).F1	475	285	130	180	110	155.5	8 x M14	3.0	25	18	1.711	0.350	73.0
				225	140	196.0	8 x M16						
				250	140	218.0	8 x M18	4.0	30				
- 60.1).F1	475	300	134.5	180	110	155.5	8 x M14	3.0	25	20	1.796	0.464	83.4
				225	140	196.0	8 x M16						
				250	140	218.0	8 x M18	4.0	30				
- 70.1).F1	580	348	154	250	140	218.0	8 x M18	4.0	30	20	3.965	0.945	127
				285	175	245.0	8 x M20	5.0	35				
- 85.1).F1	685	440	178.4	285	175	245.0	8 x M20	5.0	35	22	10.23	2.231	212
				315	175	280.0	8 x M22						

i 1) For the element version see 'Technical Data'

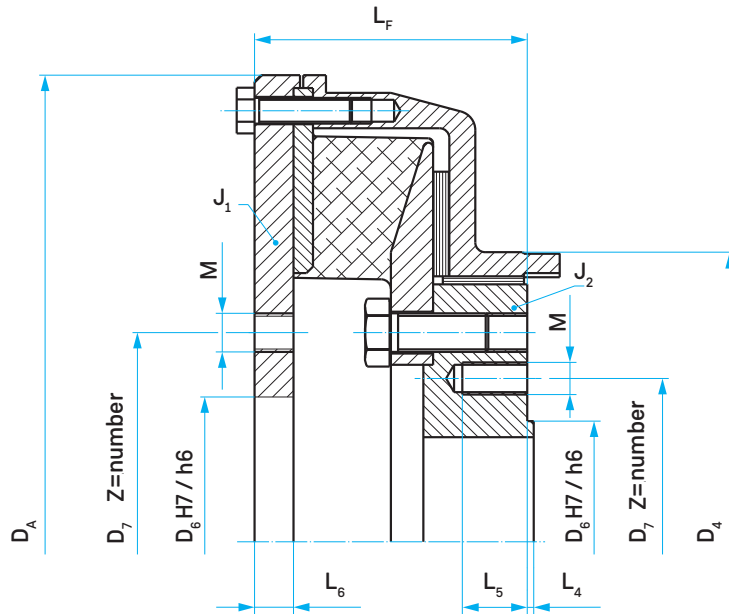
2) Alternative connecting dimensions and threads on request

Ordering example

Coupling size	Element version acc. to 'Technical data'	Flange version	Drive shaft Ø (part J ₂)	Drive shaft Ø (part J ₁)
AC-VSK 50	.WN.	F1.	150.	180
Coupling designation: AC-VSK 50 .WN. F1. 150. 180				

ARCUSAFLEX-VSK

Type AC-VSK...F1



INCH DIMENSIONS

Coupling details

For mounting between a drive shaft and related adapter flange. Alternative flange dimensions are available.

Coupling size	D _A [in]	D ₄ [in]	L _F [in]	Flange and cardan shaft connecting dimensions ²⁾							J ₁ [lb-in ²]	J ₂ [lb-in ²]	Total weight [lb]
				Flange Ø	D ₆ H7/h6 [in]	D ₇ [in]	Z x M ²⁾	L ₄ [in]	L ₅ [in]	L ₆ [in]			
- 15. ¹⁾ F1	8.740	5.512	2.362	3.937	2.244	3.307	6 x M8	0,079	0,630	0,394	232.4	29.4	23.8
				4.724	2.953	3.996	8 x M10						
- 25. ¹⁾ F1	10.551	5.669	3.010	4.724	2.953	3.996	8 x M10	0.079	0.787	0.394	560.4	75.2	38.6
- 35. ¹⁾ F1	11.417	7.087	3.360	4.724	2.953	3.996	8 x M10	0.079	0.787	0.472	758.6	164.0	51.9
				5.906	3.543	5.118	8 x M12	0.098	0.906				
- 45. ¹⁾ F1	12.598	7.087	3.622	5.906	3.543	5.118	8 x M12	0.098	0.906	0.472	1394.2	215.3	73.5
- 50. ¹⁾ F1	14.173	8.268	4.252	5.906	3.543	5.118	8 x M12	0.098	1.181	0.551	2251.9	389.6	94.2
				7.087	4.331	6.122	8 x M14	0.118	0.984				
- 55. ¹⁾ F1	18.701	11.220	5.118	7.087	4.331	6.122	8 x M14	0.118	1.181	0.709	5846.8	1196.0	161.1
				8.858	5.512	7.717	8 x M16						
				9.843	5.512	8.583	8 x M18	0.157	0.984				
- 60. ¹⁾ F1	19.094	11.811	5.300	7.087	4.331	6.122	8 x M14	0.118	1.181	0.787	6137.2	1585.6	184.1
				8.858	5.512	7.717	8 x M16						
				9.843	5.512	8.583	8 x M18	0.157	1.181				
- 70. ¹⁾ F1	22.835	13.701	6.063	9.843	5.512	8.583	8 x M18	0.157	1.181	0.787	13549.1	3229.2	280.3
				11.220	6.890	9.646	8 x M20	0.197	1.378				
- 85. ¹⁾ F1	26.969	17.323	7.087	11.220	6.890	9.646	8 x M20	0.197	1.378	0.866	34971.3	7623.7	467.2
				12.402	6.890	11.024	8 x M22						

i 1) For the element version see 'Technical Data'

2) Alternative connecting dimensions and threads on request

Ordering example

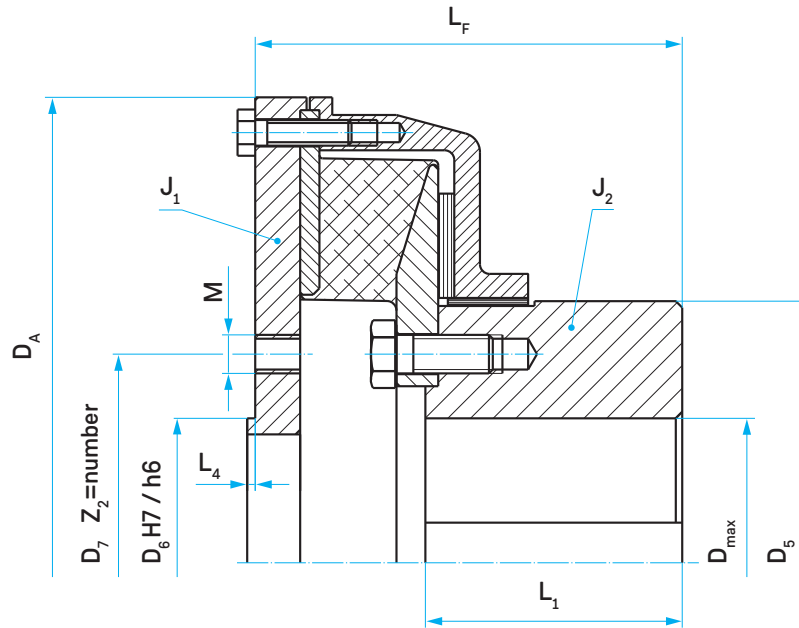
Coupling size Element version acc. to 'Technical data' Flange version Drive shaft Ø (part J₂) Drive shaft Ø (part J₁)

AC-VSK 50 .WN. F1. 150. 180

Coupling designation: AC-VSK 50 .WN. F1. 150. 180

ARCUSAFLEX-VSK

Type AC-VSK...F1W



METRIC DIMENSIONS

Coupling details

To connect a shaft to a drive shaft

Coupling size	D _A [mm]	D ₅ [mm]	D _{max} [mm]	L ₁ [mm]	L _F [mm]	Cardan shaft connecting dimensions 2)					J ₁ [kgm ²]	J ₂ [kgm ²]	Total weight [kg]
						Flange ∅	D ₆ H7/h6 [mm]	D ₇ [mm]	Z x M ²⁾	L ₄ [mm]			
- 15.1).F1	222	123	60	65	104	100	57	84.0	6 x M8	2.0	0.080	0.015	15.3
						120	75	101.5	8 x M10				
- 25.1).F1	268	123	60	65	115.5	120	75	101.5	8 x M10	2.0	0.164	0.028	19.9
- 35.1).F1	290	163	90	80	134.3	120	75	101.5	8 x M10	2.0	0.187	0.067	26.5
						150	90	130.0	8 x M12	2.5			
- 45.1).F1	320	163	90	80	139	150	90	130.0	8 x M12	2.5	0.320	0.077	32.7
- 50.1).F1	360	183	100	100	171	150	90	130.0	8 x M12	2.5	0.539	0.158	47.2
						180	110	155.5	8 x M14	3.0			
- 55.1).F1	475	255	120	140	230	180	110	155.5	8 x M14	3.0	1.653	0.638	104
						225	140	196.0	8 x M16				
						250	140	218.0	8 x M18	4.0			
- 60.1).F1	475	260	120	140	222.5	180	110	155.5	8 x M14	3.0	1.730	0.729	109
						225	140	196.0	8 x M16				
						250	140	218.0	8 x M18	4.0			
- 70.1).F1	580	305	150	170	275	250	140	218.0	8 x M18	4.0	4.171	1.663	184
						285	175	245.0	8 x M20				

1) Element version according to 'Technical Data'

2) Other connection dimensions and thread on request



Ordering example

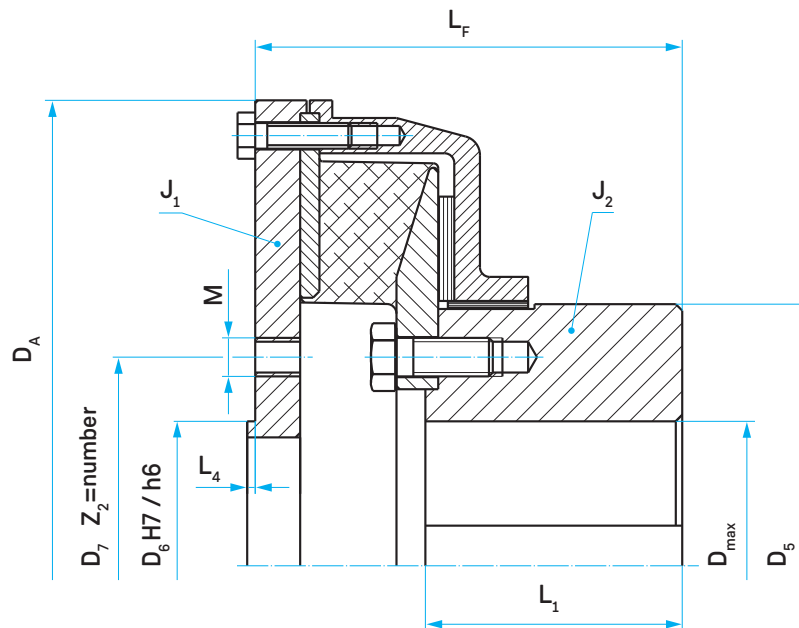
Coupling size Element version acc. to 'Technical data' Flange version Drive shaft flange ∅

AC-VSK 50 .WN. F1W. 150

Coupling designation: AC-VSK 50 .WN. F1W. 150

ARCUSAFLEX-VSK

Type AC-VSK...F1W



INCH DIMENSIONS

Coupling details

To connect a shaft to a drive shaft

Coupling size	D _A [in]	D ₅ [in]	D _{max} [in]	L ₁ [in]	L _F [in]	Cardan shaft connecting dimensions 2)					J ₁ [lb-in ²]	J ₂ [lb-in ²]	Total weight [lg]
						Flange Ø	D ₆ H7/h6 [in]	D ₇ [in]	Z x M ²⁾	L ₄ [in]			
- 15.1).F1	8.740	4.84	2.362	2.559	4.094	3.937	2.244	3.307	6 x M8	0.079	273.4	51.3	33.8
						4.724	2.953	3.996	8 x M10				
- 25.1).F1	10.551	4.84	2.362	2.559	4.547	4.724	2.953	3.996	8 x M10	0.079	560.4	95.7	43.9
- 35.1).F1	11.417	6.42	3.543	3.150	5.287	4.724	2.953	3.996	8 x M10	0.079	639.0	229.0	58.5
						5.906	3.543	5.118	8 x M12				
- 45.1).F1	12.598	6.42	3.543	3.150	5.472	5.906	3.543	5.118	8 x M12	0.098	1093.5	263.1	72.2
- 50.1).F1	14.173	7.21	3.937	3.937	6.732	5.906	3.543	5.118	8 x M12	0.098	1841.9	539.9	104.2
						7.087	4.331	6.122	8 x M14				
- 55.1).F1	18.701	10.04	4.724	5.512	9.055	7.087	4.331	6.122	8 x M14	0.118	5648.6	2180.2	228.9
						8.858	5.512	7.717	8 x M16				
						9.843	5.512	8.583	8 x M18				
- 60.1).F1	19.094	10.24	4.724	5.512	8.760	7.087	4.331	6.122	8 x M14	0.118	5911.7	2491.1	241.5
						8.858	5.512	7.717	8 x M16				
						9.843	5.512	8.583	8 x M18				
- 70.1).F1	22.835	12.01	5.906	6.693	10.827	9.843	5.512	8.583	8 x M18	0.157	14253.0	5682.8	406.3
						11.220	6.890	9.646	8 x M20				

i 1) Element version according to 'Technical Data'

2) Other connection dimensions and thread on request



Ordering example

Coupling size	Element version acc. to 'Technical data'	Flange version	Drive shaft flange Ø
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AC-VSK 50	.WN.	F1W.	150
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Coupling designation: AC-VSK 50 .WN. F1W. 150

ARCUSAFLEX-VSK

Data Required for Coupling Size Selection

General

1. Project: _____
2. Application (drive, generator, pump, etc.): _____
3. Operating mode (continuous operation, main drive, auxiliary drive, etc.): _____
4. Place of operation/location: _____ Ambient temperature: T_U _____ [°C]
5. Certification/class/requisite rules for selecting the coupling size: _____
6. Fail-safe device? with without

Engine side

1. Engine (manufacturer, designation/type): _____ Diesel Gas
 2. Engine power (nominal operation): P _____ [kW]
 3. Engine speed (nominal speed): n _____ [min⁻¹]
 4. Idling speed available? yes no
If adjustable from: n _____ [min⁻¹] to _____ [min⁻¹]
 5. If variable speed operation, speed range from: n _____ [min⁻¹] to _____ [min⁻¹]
- !** Please attach corresponding speed/torque/power diagram.
6. Total stroke volume: V_H _____ [ccm] R/V (angle): _____ Number of cylinders: _____
 7. Moments of inertia engine incl. damper without flywheel: J _____ [kgm²]
Moments of inertia flywheel: J _____ [kgm²]
Total moments of inertia of the engine (incl. damper, flywheel, etc.): J _____ [kgm²]

drive shaft

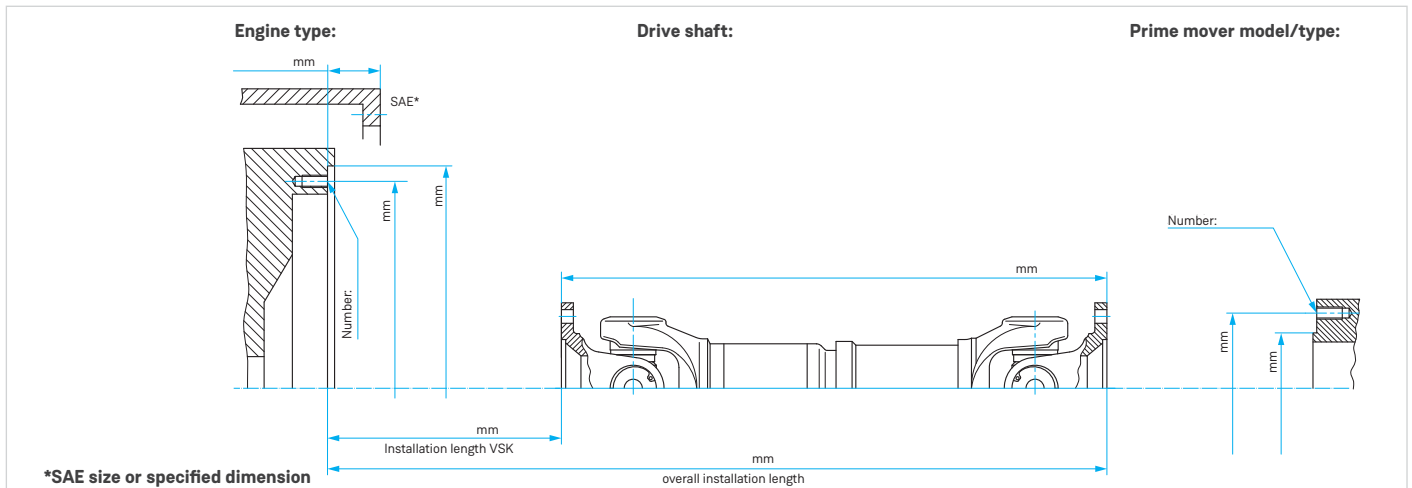
1. Cardan shaft (DIN flange) SPICER drive shaft MECHANICS drive shaft constant velocity shaft
2. Connection flange: _____
3. Max.deflection angle of installed drive shaft: _____
4. Moments of inertia drive shaft: J _____ [kgm²]

Output side

1. Type (generator, pump transfer case, pump, compressor, ...): _____
2. Type (manufacturer, designation): _____
3. Moments of inertia: J _____ [kgm²]
4. Connecting dimensions: _____

! For branched systems: System sketch with details of the individual inertias (with details of the reference speed) and transmission ratios.

Installation or mounting position and details of dimensions and details according to the following sketch:











ARCUSAFLEX-VSK


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March 2020 edition

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