

VUL-MEX



GENERALITIES

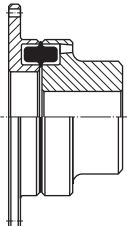
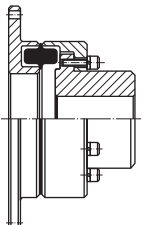
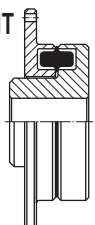
VUL-MEX elastic couplings are of the hub/flange type for direct application on the flywheels of internal combustion motors. Its flexibility enables absorption of radial, axial and angular misalignments inevitable in the assembly between flywheel and shaft. The maximum misalignment values allowed are given in a table on page 3.

VUL-MEX, with its "torsional elasticity", is capable of partially

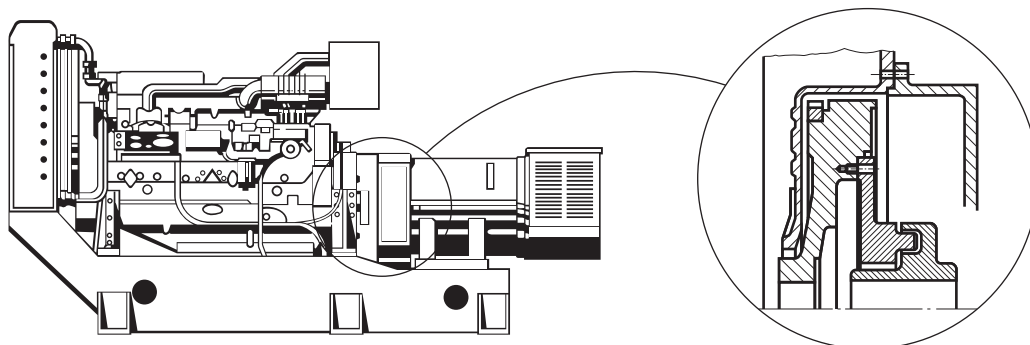
absorbing additional impact loads and vibrations from driving and driven machines, protecting them from load peaks.

Due to their constructive features and moderate torsional elasticity, they are proper for use in drives of pumps, compressors and generator sets driven by internal combustion motors.

EMBODIMENTS

ME EMBODIMENT 	Basic embodiment, made up of a flange according to SAE J620d standard, for connection to the motor flywheel, a hub for connection to the driven shaft and an elastic element made of synthetic rubber resistant to oils, greases and operating temperature of up to 90°C.
MG EMBODIMENT 	Embodiment derived from the basic embodiment, with claw screwed to the hub with the aim of allowing replacement of the elastic element without the need to withdraw the coupled machines, as well as to allow their interdependent drive.
MV EMBODIMENT 	Embodiment derived from the basic embodiment, with the hub assembled in inverted form, which allows reduction of the axial space in the assembly.

VUL-MEX APPLICATION IN GENERATOR SET



ADVANTAGES

- Constructive simplicity (simple assembly)
- Reliability
- Available in various sizes and three embodiments.

We reserve the right to make changes without prior notice.

VUL-MEX

DETAILED SELECTION

When selecting a coupling, it is essential to take into account the torques of the driving machine and the irregularity degree of the system, as well as the magnitude of the masses that have to be

accelerated. For initial determination of the coupling, one must consider the service factors described below which, multiplied to the rated torque of the driving machine will determine the equivalent

torque (Meq). The nominal torque (Mnom) of the coupling selected must be equal to or greater than the equivalent torque.

$$Meq = \frac{C \times N \times Fs}{n}$$

Meq = equivalent moment (Nm)

N = driving machine power (kW/hp)

n = coupling working rotation (rpm)

Fs = F1 x F2 x F3 x F4 = service factor

Mnom = coupling nominal torque (Nm)

C = constant: $\begin{cases} 9550 \text{ for power in kW} \\ 7030 \text{ for power in hp} \end{cases}$

CONDITION FOR

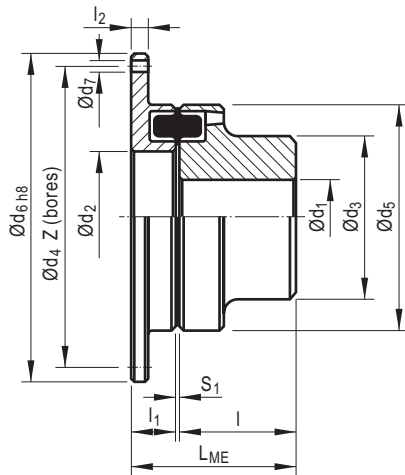
SELECTING A COUPLING: $Mnom \geq Meq$

DRIVING MACHINE:					Combustion motor with 1 to 3 cylinders									
					Combustion motor with 4 or more cylinders									
					Electric motor or steam turbine									
DRIVEN MACHINES												Service Factor - "F1"		
a) Regular operation and small masses that have to be accelerated: - Centrifuge pumps for liquid goods, electric generators, fans with N/n < 0.05, etc.										1.5	1.8	2.1		
b) Regular operation and smaller masses that have to be accelerated: - Small elevators, exhausters, conveyor belts for bulk materials, stirrers for liquid goods, textile machines, rotary compressors, escalators, fans with N/n = 0.05 to 0.1, etc.										1.6	2.0	2.3		
c) Irregular operation and medium masses that have to be accelerated: - Rotary piston blowers, rotary furnaces, printing machines, conveyor belts for piece goods, cranes, wood working machines, rotary pumps for semi-liquid goods, freight elevators, stirrers for semi-liquid goods, fans with N/n > 0.1, etc.										1.7	2.2	2.5		
d) Irregular operation and medium masses that have to be accelerated, with additional impact loads: - Pulp grinders, piston pumps and compressors with irregularity level of 1:100 to 1:200, ball grinders, pumps for pasty substances, shafts for ships, centrifugal mills, conveyor threads, sugarcane breakers, shears, mills, roller table, etc.										1.9	2.5	2.8		
e) Irregular operation and large masses that have to be accelerated, with strong additional impact loads: - Dredge, lead rolling mills, wire pulls, swing-hammer mills, calendars, piston pumps and compressors with small flywheel, presses, vibrators, car travel and crane, etc.										2.1	2.8	3.1		
f) Irregular operation and very large to be accelerated, with very strong additional impact loads: - With piston compressors and pumps without flywheel, welding generators, multiple blade frame saws and metal roll train, etc.										2.4	3.0	3.5		
g) Other equipments										Upon inquiry				
DAILY SERVICE LIFE (hours)	over till	- 8	8 16	16 24	STARTING PER HOUR	01 10	11 20	21 40	41 80	81 160	above 160			
FACTOR – "F2"		1.0	1.07	1.10	IN FUNCTION OF THE LOAD TYPE OF THE F1 TABLE	FACTOR – "F4"								
AMBIENT TEMP. (°C) over till		- 75	75 85	85 -		a)	1	1.10	1.20	1.25	1.40	1.50		
						b)	1	1.10	1.15	1.20	1.35	1.40		
						c)	1	1.07	1.15	1.20	1.30	1.40		
						d)	1	1.07	1.12	1.15	1.20	1.30		
						e)	1	1.05	1.12	1.15	1.20	1.30		
						f)	1	1.05	1.10	1.12	1.12	1.12		
FACTOR – "F3"		1.0	1.2	*		g)	Upon inquiry							

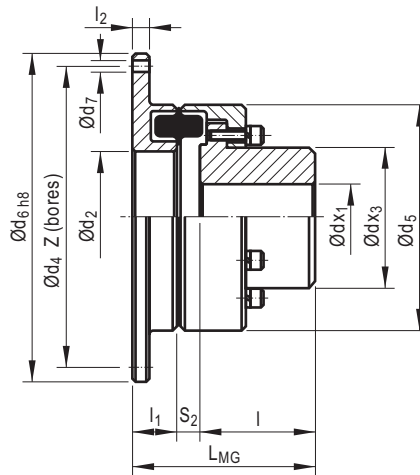
* Upon inquiry

We reserve the right to make changes without prior notice.

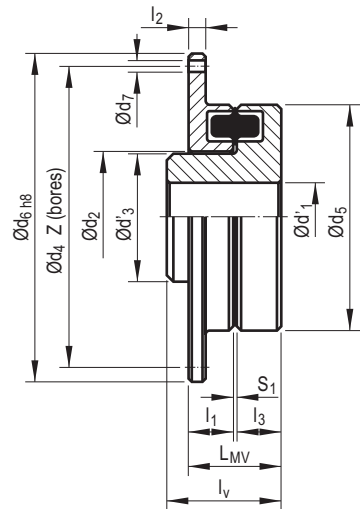
DIMENSIONS AND TECHNICAL DATA



ME EMBODIMENT



MG EMBODIMENT



MV EMBODIMENT

SIZE	Nom. torque (Nm)	Max. torque (Nm)	d ₁	dx ₁	d' ₁	d ₂	d ₃	dx ₃	d' ₃	d ₄	d ₅	d ₆	d ₇	Z	l	l _v	l ₁	l ₂	l ₃	L _{ME}	L _{MG}	L _{MV}	S ₁	S ₂	Weight (kg)		
																									ME	MG	MV
97-6 1/2"	170	340	0-45	0-35	9-30	50	69	54.5	45	200.02	97	215.90	9.5	6	50	38	20	10	15	73	83	38	3±1	13±1	4.4	4.9	3.3
112-6 1/2"	270	540	0-50	0-42	9-35	60	79	64.5	55	200.02	112	215.90	9.5	6	60	43	22	10	17.5	85.5	95	43	3.5±1	13±1	5.2	5.3	3.7
112-7 1/2"	270	540	0-50	0-42	9-35	60	79	64.5	55	222.25	112	241.30	9.5	8	60	43	22	10	17.5	85.5	95	43	3.5±1	13±1	5.9	6.0	4.7
128-7 1/2"	432	865	0-60	0-48	10-42	70	90	74.5	65	222.25	128	241.30	9.5	8	70	48	25	13	19.5	98.5	109	48	3.5±1	14±1	8.3	8.4	6.5
128-8"	432	865	0-60	0-48	10-42	70	90	74.5	65	244.47	128	263.52	11	6	70	48	25	13	19.5	98.5	109	48	3.5±1	14±1	9.2	9.3	7.3
128-10"	432	865	0-60	0-48	10-42	70	90	74.5	65	295.27	128	314.32	11	8	70	48	25	13	19.5	98.5	109	48	3.5±1	14±1	11.3	11.4	9.5
148-8"	675	1350	0-70	0-60	16-55	90	107	92.5	85	244.47	148	263.52	11	6	80	60	28	13	21.5	111.5	124	53	3.5±1	16±1	11.4	11.5	8.9
148-10"	675	1350	0-70	0-60	16-55	90	107	92.5	85	295.27	148	314.32	11	8	80	60	28	13	21.5	111.5	124	53	3.5±1	16±1	13.6	13.7	11.0
168-10"	1125	2250	0-80	0-65	20-60	100	124	104.5	95	295.27	168	314.32	11	8	90	70	34	13	27.5	127.5	142	65	3.5±1	18±1.5	17.0	17.1	13.0
168-11 1/2"	1125	2250	0-80	0-65	20-60	100	124	104.5	95	333.37	168	352.42	11	8	90	70	34	13	27.5	127.5	142	65	3.5±1	18±1.5	21.4	21.5	15.1
194-11 1/2"	1800	3600	0-90	20-75	25-70	115	140	121.5	107	333.37	194	352.42	11	8	100	80	38	16	33.5	141.5	159	75	3.5±1	21±1.5	27.7	28.4	19.6
194-14"	1800	3600	0-90	20-75	25-70	115	140	121.5	107	438.15	194	466.72	14.5	8	100	80	38	16	33.5	141.5	159	75	3.5±1	21±1.5	33.2	33.9	28.3
214-11 1/2"	2700	5400	0-100	28-85	28-80	130	157	135.5	122	333.37	214	352.42	11	8	110	90	42	16	36	156	175	82	4±2	23±2	34.1	34.2	28.4
214-14"	2700	5400	0-100	28-85	28-80	130	157	135.5	122	438.15	214	466.72	14.5	8	110	90	42	16	36	156	175	82	4±2	23±2	39.0	39.1	32.8
240-14"	4320	8640	0-120	38-95	42-90	145	179	146	137	438.15	240	466.72	14.5	8	120	100	45	20	43	169	192	92	4±2	27±2	48.1	47.5	41.0
265-14"	6750	13500	44-130	44-105	54-100	160	198	164	152	438.15	265	466.72	14.5	8	140	110	50	20	49.5	195.5	220	105	5.5±2.5	30±2.5	59.3	58.6	48.7

Note: Dimensions in mm

Materials:

Hub and flange - gray cast iron
Elastic element - rubber

Attention:

For peripheral speed: 25 m/s, we recommend dynamic balancing according to VDI 2060, Q6,3 minimum.

MAXIMUM MISALIGNMENTS ALLOWED

Size	97	112	128	148	168	194	214	240	265
Misalignment									
Axial ± x (mm)	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5
Radial y (mm)	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Angular (°)	1.5	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

We reserve the right to make changes without prior notice.

VUL-MEX

Remarks

[illegible]



- Headquarter**
- Subsidiaries**
- Representatives**

Alemanha

VULKAN Kupplungs- und Getriebebau

B.Hackforth GmbH & Co.Kg
Heerstrasse 66
D-44653 Herne
Tel. +49 2325 9220 · Fax +49 2325 71110
E-mail: info@vulkan24.com
Internet: www.vulkan24.com

Austrália

VULKAN Industries
Far East Pte Ltd/Australian Branch
P.O. Box 790, Gosford NSW 2250,
12 Wollong Street
Tel. +61 2 43228533 · Fax +61 2 43228599
E-Mail: enquiries@vulkan.com.au

Bélgica

VULKAN Benelux
Veersedijk 97,
3341 LL Hendrik-Ido-Ambacht Postbus 99,
3340 AB Hendrik-Ido-Ambacht/Netherlands
Tel. +31 78 6810780 · Fax +31 78 6810799
E-Mail: info@vulkan-benelux.com

Brazil

VULKAN do Brasil Ltda.
Rodovia Engenheiro Constancio Cintra
Km 91 - B. da Ponte - Cep 13252-200
Caixa Postal 141 - Itatiba - SP
PABX: (11) 4894-7300 · Fax: (11) 4894-7329
E-mail: vulkan@vulkan-brasil.com.br

China

WUXI VULKAN Technologies Co., Ltd.
Xinzhou Road, Lot 93D-3 in Wuxi Science &
Technology
Industrial Park, 214028 Jiangsu Prov. P. R. China
Tel. +86 510 8534 2222 · Fax +86 510 8534 2345
E-Mail: service@vulkanchina.com

Dinamarca

VULKAN Büro Dänemark
Rugenbarg 277
22549 Hamburg/Germany
Tel. +49 40 840556-0 · Fax +49 40 835892
E-Mail: Helge.Hansen@vulkan24.com

França

VULKAN France SA
12, Avenue Emile Zola, Zac L'Agavon,
13170 Les Pennes Mirabeau/ France
Tel. +33 4 42022100 · Fax +33 4 42022109
E-Mail: krabba@vulkan.fr

Inglatera

VULKAN Industries LTD
Archer Road
Armytage Road Industrial Estate,
Brighouse, W.-Yorkshire, HD6 1XF/GB
Tel. +44 1484 712273 · Fax +44 1484 721376
E-Mail: info@vulkan.co.uk

Noruega

VULKAN Skandinavia AS
Postboks 298
6401 Molde/Norway
Byfogd Motzfeldtsgate 6
6413 Molde/Norway
Tel. +47 71 245990 · Fax +47 71 245995
E-Mail: office@vulkan.no

Portugal

VULKAN Española S.A.
Avda. Montesde Oca, 19, Nave 7
28709 San Sebastian de los Reyes
Tel. +34 91 3590971/72 · Fax +34 91 3453182
E-Mail: vulkan@vulkan.es

Suécia

VULKAN Skandinavia AS
Postboks 298
6401 Molde/Norge
Byfogd Motzfeldtsgate 6
6413 Molde/Norge
Tel. +47 71 245990 · Fax +47 71 245995
E-Mail: office@vulkan.no

Singapura

VULKAN Industries
Far East PTE Ltd.
25, International Business Park
02-61/64 German Centre
Singapore 609916
Tel. +65 6562 9188 · Fax +65 6562 9189
E-Mail: info@vulkan.com.sg

Espanha

VULKAN Española, S.A.
Avda. Montes de Oca, 19, Nave 7
28709 S. S. Reyes, Madrid
Tel. +34 91 3590971/72 · Fax +34 91 3453182
E-Mail: vulkan@vulkan.es

E.U.A.

American VULKAN Corporation
2525 Dundee Road
Winter Haven,
Florida 33884/USA
Tel. +1 863 3242424 · Fax +1 863 3244008
E-Mail: vulkanusa@vulkanusa.com