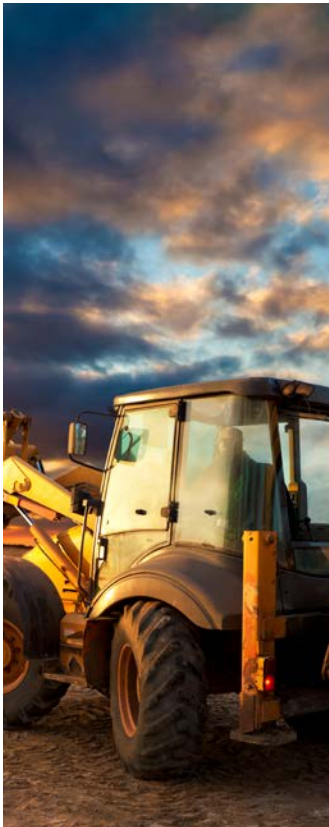


Stromag Periflex® VN Disc Couplings



Stromag

Founded in 1932, Stromag has grown to become a globally recognized leader in the development and manufacture of innovative power transmission components for industrial drivetrain applications. Stromag engineers utilize the latest design technologies and materials to provide creative, energy-efficient solutions that meet their customer's most challenging requirements.

Stromag's extensive product range includes flexible couplings, disc brakes, limit switches, an array of hydraulically, pneumatically, and electrically actuated brakes, and a complete line of electric, hydraulic and pneumatic clutches.

Stromag engineered solutions improve drivetrain performance in a variety of key markets including energy, off-highway, metals, marine, transportation, printing, textiles, and material handling on applications such as wind turbines, conveyor systems, rolling mills, agriculture and construction machinery, municipal vehicles, forklifts, cranes, presses, deck winches, diesel engines, gensets and stage machinery.

VISIT US ON THE WEB AT STROMAG.COM



Altra Motion

Altra is a leading global designer and producer of a wide range of electromechanical power transmission and motion control components and systems. Providing the essential control of equipment speed, torque, positioning, and other functions, Altra products can be used in nearly any machine, process or application involving motion. From engine braking systems for heavy duty trucks to precision motors embedded in medical robots to brakes used on offshore wind turbines, Altra has been serving customers around the world for decades.

Altra's leading brands include **Ameridrives**, **Bauer** Gear Motor, **Bibby** Turboflex, **Boston** Gear, **Delevan**, **Delroyd** Worm Gear, **Formsprag** Clutch, **Guardian** Couplings, **Huco**, **Jacobs** Vehicle Systems, **Kilian**, **Kollmorgen**, **Lamiflex** Couplings, **Marland** Clutch, **Matrix**, **Nuttall** Gear, **Portescap**, **Stieber**, **Stromag**, **Svendborg** Brakes, **TB Wood's**, **Thomson**, **Twiflex**, **Warner** Electric and **Wichita** Clutch.

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PERIFLEX® DISC COUPLING PRODUCT RANGE

SERIES G

Nominal torque range: 160 – 63,000 Nm



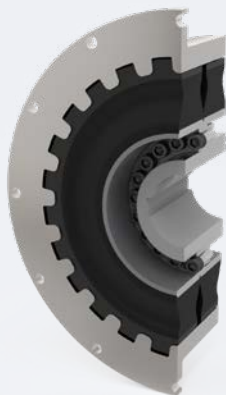
PERIFLEX® VN ... SERIES G

SERIES R - Radial installations

Nominal torque range: 160 – 63,000 Nm



PERIFLEX® VN ... SERIES R



PERIFLEX® VP ... SERIES G



PERIFLEX® VP ... SERIES R

SERIES S

Nominal torque range: 160 – 8000 Nm



PERIFLEX® VN ... SERIES S

SERIES W - Shaft Coupling

Nominal torque range: 160 – 63,000 Nm



PERIFLEX® VN ... SERIES W



PERIFLEX® VP ... SERIES W

COUPLING AT A GLANCE

STROMAG PERIFLEX® VN DISC COUPLINGS

BENEFITS INCLUDE

- Periflex®VN Couplings are highly flexible elastomer couplings with linear spring characteristics ideal for diesel engine drives.
- Allow fast and simple connection of a flange, especially a flywheel, to a shaft. Some designs also allow the connection of two shafts.
- Periflex®VN Couplings are couplings that features an axial plug-in connection for easy installation and removal, for both the entire coupling and the flexible element.
- Come with each with a range of elastomer qualities and torsional spring stiffnesses. These allow precise configurations for drives susceptible to torsional vibrations.
- Cover the torque range 160 – 63,000 Nm. The external companion dimensions conform as standard to the flywheel connections under the SAE standard J620.
The larger couplings are basically designed with metric flywheel connections.
- At the fully intermeshing teeth on the connection ring, the disc tire can be displaced along its axis by several millimeters when no torque is applied.
- On request, high temperature mixture available for stationary systems up to 8000 Nm.

APPLICATION AREAS



- Stromag Periflex® VN couplings are designed for use on piston engines. The connection ring can be bolted directly to the flywheel of an engine or compressor.
- Its axial plug-in design presents particular advantages e.g. for installations under bell covers.
- Other application fields are electrical assemblies, compressors, construction machinery, engine and shipbuilding and general machinery.

FAIL-SAFE DEVICE

The Stromag Periflex® VN coupling is available with a fail-safe device. A rupture in the flexible element causes claws to intermesh, forming a torsionally rigid, backlash connection between the drive and output sides. Temporary emergency operation is possible with limited torque. The permissible torques and speeds must be calculated separately on the basis of torsional vibrations transferred via a torsionally rigid structure.



Stromag – Flexible Couplings

COUPLING AT A GLANCE

CLASSIFICATIONS



For survey of the coupling by a classification society, the regulations of the society have to be adhered to. The coupling characteristics may differ from the definitions given in this catalogue. Accordingly prepared data sheets are available on request.

A number of classification societies prescribe fail-safe devices on ships main drives.

TORQUE RANGE

- 160 up to 63,000 Nm

INSTRUCTION FOR THE DESIGNER

The Stromag Periflex® VN coupling hubs are made of steel or ductile cast iron. The connection ring is made of aluminium. The disc tires consist of a steel or ductile cast iron angular ring with a volume of vulcanized elastomer. The variants of natural rubber (NR) can be used at temperatures of -50°C to +80°C. The high temperature Coupling variant can be used from -30°C up to 120 °C.

Damping work may cause the flexible element to reach temperatures higher than ambient. This must be considered when the coupling is to be fitted with a guard or cowl, and adequate ventilation and heat dissipation must be provided.

The Stromag Periflex® VN coupling can be delivered with EN 10204 acceptance as defined in the classification societies rules.

The coupling complies with the requirements under API 671 with consideration to our list of deviations TM 800.0010.

This list of deviations is available from the Stromag GmbH departments.

USE IN POTENCIALLY EXPLOSIVE ENVIROMENTS



The coupling conforms to the requirements under Directive 2014/34/EU and can be used as follows:

- Zone 1** (gas, Category 2G) in Groups IIA, IIB, and IIC, T4
- Zone 2** (gas, Category 3G) in Groups IIA, IIB, and IIC, T4
- Zone 22** (dust, Category 3D) for dusts with a minimum ignition energy > 3 mJ, T 125 °C

The Stromag Periflex® VN coupling compliance with the requirements for each of these zones / categories is documented in the form of the following codes on our products:

Use in gas atmospheres:

CE II 2G Ex h IIC (T4) Gb

Use in dust atmospheres:

CE II 3D Ex h IIC T120°C Dc

Use in potentially explosive environments must be based on the request form annexed to this catalogue.

THE TORSIONAL VIBRATION ANALYSIS



Stromag's Know-how in Torsional Vibration Analysis (TVA) constitutes the core of each coupling design. It provides a comprehensive analysis of loads in the crankshaft, coupling and driven side to ensure that no critical speeds occur during operation.

Unevenly rotating systems can severely degrade product quality and cause great harm to the powertrain. On a daily basis, the TVA experts at Stromag work on the challenge of detecting such deviations by measuring them and protecting the entire powertrain with ideal product selection. Stromag is capable of calculating stationary and transient operating conditions considering the stiffness and damping of the elastomers.

Stromag – Flexible Couplings

Stromag Periflex® VN Disc Coupling



| Stromag Periflex® VN NR Series output table | | | | | | | | | | | |
|---|----------|----------------|------------------------|-------------------------|--------------------------|--------------------------|-------------------------------|------------------|-----------------------|--------------------|----------------------|
| Coupling size | Tire | Nominal torque | Max torque | Adm. alternating torque | Adm. radial displacement | Radial stiffness | Torsional stiffness | Relative damping | Adm. damping power | SAE connection | Max Speed |
| | | T_{kn} Nm | $T_{k_{max}}$ 1) Nm | T_{KW} Nm | ΔK , mm | $C_{r_{dyn}}$ 4) N/mm | $C_{T_{dyn}}$ 2) 4) Nm/rad | ψ 2) 4) | P_{KV60} 3) 5) W | | n_{max} rpm |
| Periflex® VN 183 | VN 18311 | 160 | 480 | 80 | 0,4 | 375 | 1150 | 0,80 | 104 | 6 ½" 7 ½" 8" | 5000 4400 4000 |
| | VN 18331 | 200 | 480 | 100 | | 600 | 1510 | 0,96 | 104 | | |
| | VN 18321 | 200 | 480 | 100 | | 730 | 1900 | 1,00 | 104 | | |
| | VN 18341 | 200 | 480 | 100 | | 900 | 2240 | 1,20 | 104 | | |
| | VN 18351 | 200 | 480 | 100 | | 1500 | 3910 | 1,30 | 104 | | |
| Periflex® VN 230 | VN 23011 | 250 | 750 | 125 | 0,5 | 400 | 1510 | 0,80 | 156 | 8" 10" | 4000 3600 |
| | VN 23031 | 315 | 750 | 155 | | 650 | 2000 | 0,96 | 156 | | |
| | VN 23021 | 315 | 750 | 155 | | 800 | 2760 | 1,00 | 156 | | |
| | VN 23041 | 315 | 750 | 155 | | 950 | 3260 | 1,20 | 156 | | |
| | VN 23051 | 315 | 750 | 155 | | 1600 | 5690 | 1,30 | 156 | | |
| Periflex® VN 280 | VN 28011 | 400 | 1200 | 200 | 0,6 | 350 | 2280 | 0,80 | 221 | 10" 11 ½" | 3600 3600 |
| | VN 28031 | 500 | 1200 | 250 | | 750 | 3300 | 0,96 | 221 | | |
| | VN 28021 | 500 | 1200 | 250 | | 900 | 4160 | 1,00 | 221 | | |
| | VN 28041 | 500 | 1200 | 250 | | 1060 | 4920 | 1,20 | 221 | | |
| | VN 28051 | 500 | 1200 | 250 | | 1750 | 8580 | 1,30 | 221 | | |
| Periflex® VN 283 | VN 28311 | 630 | 1900 | 315 | 0,6 | 500 | 3760 | 0,80 | 234 | 10" 11 ½" | 3600 3600 |
| | VN 28331 | 800 | 1900 | 400 | | 1050 | 5450 | 0,96 | 234 | | |
| | VN 28321 | 800 | 1900 | 400 | | 1270 | 7200 | 1,00 | 234 | | |
| | VN 28341 | 800 | 1900 | 400 | | 1500 | 8120 | 1,20 | 234 | | |
| | VN 28351 | 800 | 1900 | 400 | | 2450 | 14170 | 1,30 | 234 | | |
| Periflex® VN 350 | VN 35011 | 1000 | 3000 | 500 | 0,7 | 750 | 7660 | 0,80 | 260 | 11 ½" 14" | 3600 3000 |
| | VN 35031 | 1250 | 3000 | 625 | | 1200 | 11100 | 0,96 | 260 | | |
| | VN 35021 | 1250 | 3000 | 625 | | 1500 | 13990 | 1,00 | 260 | | |
| | VN 35041 | 1250 | 3000 | 625 | | 1800 | 16540 | 1,20 | 260 | | |
| | VN 35051 | 1250 | 3000 | 625 | | 3000 | 28860 | 1,30 | 260 | | |
| Periflex® VN 358 | VN 35811 | 1600 | 4800 | 800 | 0,5 | 3400 | 16700 | 0,80 | 260 | 11 ½" 14" | 3600 3000 |
| | VN 35831 | 2000 | 4800 | 1000 | | 5100 | 24200 | 0,96 | 260 | | |
| | VN 35821 | 2000 | 4800 | 1000 | | 6300 | 33200 | 1,00 | 260 | | |
| | VN 35841 | 2000 | 4800 | 1000 | | 7650 | 36060 | 1,20 | 260 | | |
| | VN 35851 | 2000 | 4800 | 1000 | | 12600 | 58500 | 1,30 | 260 | | |
| Periflex® VN 430 | VN 43011 | 1600 | 4800 | 800 | 0,9 | 660 | 7800 | 0,80 | 494 | 14" 18" | 3000 2400 |
| | VN 43031 | 2000 | 4800 | 1000 | | 1400 | 11300 | 0,96 | 494 | | |
| | VN 43021 | 2000 | 4800 | 1000 | | 1700 | 13900 | 1,00 | 494 | | |
| | VN 43041 | 2000 | 4800 | 1000 | | 2000 | 16840 | 1,20 | 494 | | |
| | VN 43051 | 2000 | 4800 | 1000 | | 3300 | 29380 | 1,30 | 494 | | |

Stromag – Flexible Couplings

Stromag Periflex® VN Disc Coupling

| Stromag Periflex® VN NR Series output table | | | | | | | | | | | |
|---|----------|-----------------------|----------------------------|-------------------------|--------------------------|-------------------------------|------------------------------------|------------------|-------------------------------|-------------------|-------------------------|
| Coupling size | Tire | Nominal torque | Max torque | Adm. alternating torque | Adm. radial displacement | Radial stiffness | Torsional stiffness | Relative damping | Adm. damping power | SAE connection | Max Speed |
| | | T _{KN} Nm | T _{Kmax} 1) Nm | T _{KW} Nm | ΔK _r mm | C _{r dyn} 4) N/mm | C _{T dyn} 2) 4) Nm/rad | ψ 2) 4) | P _{KV 60} 3) 5) W | | n _{max} rpm |
| Periflex® VN 433 | VN 43311 | 2500 | 7500 | 1250 | 0,8 | 1400 | 18630 | 0,80 | 520 | 14" 18 | 3000 2400 |
| | VN 43331 | 3150 | 7500 | 1550 | | 2300 | 27000 | 0,96 | 520 | | |
| | VN 43321 | 3150 | 7500 | 1550 | | 2870 | 34020 | 1,00 | 520 | | |
| | VN 43341 | 3150 | 7500 | 1550 | | 3450 | 40230 | 1,20 | 520 | | |
| | VN 43351 | 3150 | 7500 | 1550 | | 5700 | 70200 | 1,30 | 520 | | |
| Periflex® VN 436 | VN 43611 | 4000 | 12000 | 2000 | 0,7 | 2300 | 25400 | 0,80 | 572 | 14" 16" 18" | 3000 2600 2400 |
| | VN 43631 | 5000 | 12000 | 2500 | | 3800 | 34600 | 0,96 | 572 | | |
| | VN 43621 | 5000 | 12000 | 2500 | | 4750 | 46600 | 1,00 | 572 | | |
| | VN 43641 | 5000 | 12000 | 2500 | | 5700 | 53640 | 1,20 | 572 | | |
| | VN 43651 | 5000 | 12000 | 2500 | | 9400 | 93600 | 1,30 | 572 | | |
| Periflex® VN 439 | VN 43911 | 3200 | 10000 | 1600 | 0,7 | 1750 | 36230 | 0,80 | 390 | 14" 16" 18" | 3000 2600 2400 |
| | VN 43931 | 4000 | 10000 | 2000 | | 2600 | 52500 | 0,96 | 390 | | |
| | VN 43941 | 4000 | 10000 | 2000 | | 3900 | 76000 | 1,20 | 390 | | |
| | VN 43951 | 4000 | 10000 | 2000 | | 6500 | 136500 | 1,30 | 390 | | |
| | | | | | | | | | | | |
| Periflex® VN 544 | VN 54411 | 6300 | 19000 | 3150 | 0,8 | 3100 | 62790 | 0,80 | 622 | 18" 21" | 2400 1800 |
| | VN 54431 | 8000 | 19000 | 4000 | | 5100 | 91000 | 0,96 | 622 | | |
| | VN 54421 | 8000 | 19000 | 4000 | | 7600 | 114700 | 1,00 | 622 | | |
| | VN 54441 | 8000 | 19000 | 4000 | | 11400 | 135600 | 1,20 | 622 | | |
| | VN 54451 | 8000 | 19000 | 4000 | | 17100 | 226400 | 1,30 | 622 | | |
| Periflex® VN 549 | VN 54911 | 8000 | 17000 | 4000 | 0,8 | 6000 | 88320 | 0,80 | 650 | 18" 21" | 2400 1800 |
| | VN 54931 | 9000 | 20000 | 4500 | | 9000 | 128000 | 0,96 | 650 | | |
| | VN 54921 | 9500 | 21000 | 4750 | | 11250 | 161300 | 1,00 | 650 | | |
| | VN 54941 | 11000 | 22000 | 5500 | | 13500 | 204700 | 1,20 | 650 | | |
| | VN 54951 | 12000 | 25000 | 6000 | | 22000 | 332800 | 1,30 | 650 | | |
| Periflex® VN 666 | VN 66611 | 16000 | 48000 | 8000 | 0,8 | 6100 | 111800 | 0,80 | 1100 | 21" 24" | 1800 1500 |
| | VN 66631 | 20000 | 48000 | 10000 | | 10200 | 162000 | 0,96 | 1100 | | |
| | VN 66621 | 20000 | 48000 | 10000 | | 15200 | 205000 | 1,00 | 1100 | | |
| | VN 66641 | 20000 | 48000 | 10000 | | 22800 | 241400 | 1,20 | 1100 | | |
| | VN 66651 | 20000 | 48000 | 10000 | | 34200 | 428500 | 1,30 | 1100 | | |
| Periflex® VN 726 | VN 72611 | 28500 | 68500 | 14250 | 0,8 | 7080 | 225000 | 0,80 | 1300 | 24" | 1500 |
| | VN 72631 | 31500 | 75500 | 15750 | | 11800 | 300000 | 0,96 | 1300 | | |
| | VN 72621 | 31500 | 75500 | 15750 | | 17630 | 370000 | 1,00 | 1300 | | |
| | VN 72641 | 31500 | 75500 | 15750 | | 26450 | 530000 | 1,20 | 1300 | | |
| | VN 72651 | 31500 | 75500 | 15750 | | 39670 | 950000 | 1,30 | 1300 | | |

| Stromag Periflex® VP NR Series output table | | | | | | | | | | | |
|---|----------|-----------------------|----------------------|-------------------------|--------------------------|-----------------------|--------------------------|------------------|--------------------------|----------------|-------------------------|
| Coupling size | Tire | Nominal torque | Max torque | Adm. alternating torque | Adm. radial displacement | Radial stiffness | Torsional stiffness | Relative damping | Adm. damping power | SAE connection | Max Speed |
| | | T _{KN} Nm | T _{Kmax} 1) | T _{KW} Nm | ΔK _r mm | C _{r dyn} 4) | C _{T dyn} 2) 4) | ψ 2) 4) | P _{KV 60} 3) 5) | | n _{max} rpm |
| Periflex® VP 433 | VN 43311 | 5000 | 15000 | 2500 | 0,8 | 2800 | 37260 | 0,80 | 1040 | 18° | 2400 |
| | VN 43331 | 6300 | 15000 | 3100 | | 4600 | 54000 | 0,96 | 1040 | | |
| | VN 43321 | 6300 | 15000 | 3100 | | 5740 | 68040 | 1,00 | 1040 | | |
| | VN 43341 | 6300 | 15000 | 3100 | | 6900 | 80460 | 1,20 | 1040 | | |
| | VN 43351 | 6300 | 15000 | 3100 | | 11400 | 140400 | 1,30 | 1040 | | |
| Periflex® VP 436 | VN 43611 | 8000 | 24000 | 4000 | 0,7 | 4600 | 50800 | 0,80 | 1140 | 18° | 2400 |
| | VN 43631 | 10000 | 24000 | 5000 | | 7600 | 69200 | 0,96 | 1140 | | |
| | VN 43621 | 10000 | 24000 | 5000 | | 9500 | 93200 | 1,00 | 1140 | | |
| | VN 43641 | 10000 | 24000 | 5000 | | 11400 | 107300 | 1,20 | 1140 | | |
| | VN 43651 | 10000 | 24000 | 5000 | | 18800 | 187200 | 1,30 | 1140 | | |
| Periflex® VP 439 | VN 43911 | 6400 | 20000 | 3200 | 0,7 | 3500 | 72460 | 0,80 | 780 | 18° | 2400 |
| | VN 43931 | 8000 | 20000 | 4000 | | 5200 | 105000 | 0,96 | 780 | | |
| | VN 43941 | 8000 | 20000 | 4000 | | 7800 | 152000 | 1,20 | 780 | | |
| | VN 43951 | 8000 | 20000 | 4000 | | 13000 | 273000 | 1,30 | 780 | | |
| Periflex® VP 544 | VN 54411 | 12600 | 38000 | 6300 | 0,8 | 6200 | 125600 | 0,80 | 1240 | 21° | 1800 |
| | VN 54431 | 16000 | 38000 | 8000 | | 10200 | 182000 | 0,96 | 1240 | | |
| | VN 54421 | 16000 | 38000 | 8000 | | 15200 | 229300 | 1,00 | 1240 | | |
| | VN 54441 | 16000 | 38000 | 8000 | | 22800 | 271200 | 1,20 | 1240 | | |
| | VN 54451 | 16000 | 38000 | 8000 | | 34200 | 452800 | 1,30 | 1240 | | |
| Periflex® VP 549 | VN 54911 | 16000 | 34000 | 8000 | 0,8 | 12000 | 176600 | 0,80 | 1300 | 21° | 1800 |
| | VN 54931 | 18000 | 40000 | 9000 | | 18000 | 256000 | 0,96 | 1300 | | |
| | VN 54921 | 19000 | 42000 | 9500 | | 22500 | 322600 | 1,00 | 1300 | | |
| | VN 54941 | 22000 | 44000 | 11000 | | 27000 | 400400 | 1,20 | 1300 | | |
| | VN 54951 | 24000 | 50000 | 12000 | | 44000 | 665600 | 1,30 | 1300 | | |
| Periflex® VP 666 | VN 66611 | 32000 | 96000 | 16000 | 0,8 | 12200 | 223600 | 0,80 | 2200 | 24° | 1500 |
| | VN 66631 | 40000 | 96000 | 20000 | | 20400 | 324000 | 0,96 | 2200 | | |
| | VN 66621 | 40000 | 96000 | 20000 | | 30400 | 410000 | 1,00 | 2200 | | |
| | VN 66641 | 40000 | 96000 | 20000 | | 45600 | 482800 | 1,20 | 2200 | | |
| | VN 66651 | 40000 | 96000 | 20000 | | 68400 | 857000 | 1,30 | 2200 | | |
| Periflex® VP 726 | VN 72611 | 57000 | 137000 | 28500 | 0,8 | 14160 | 450000 | 0,80 | 2600 | metric | 1500 |
| | VN 72631 | 63000 | 151000 | 31500 | | 23600 | 600000 | 0,96 | 2600 | | |
| | VN 72621 | 63000 | 151000 | 31500 | | 35260 | 740000 | 1,00 | 2600 | | |
| | VN 72641 | 63000 | 151000 | 31500 | | 52900 | 1060000 | 1,20 | 2600 | | |
| | VN 72651 | 63000 | 151000 | 31500 | | 79340 | 1900000 | 1,30 | 2600 | | |

1) The values listed in the tables refer to the disc tire characteristics.

2) For: $T_W = 0,2 \cdot T_{KN}$; $T = 0,8 \cdot T_{KN}$; $f = 10 \text{ Hz}$; $\vartheta = 30^\circ\text{C}$

3) This value must be reduced by the temperature factor when the coupling temperatures are higher than 30°C .

4) Tolerances on the materials may be as high as $\pm 15\%$.

5) $P_{KV 60}$ value represents the damping power that can be absorbed over a period of 60 minutes.

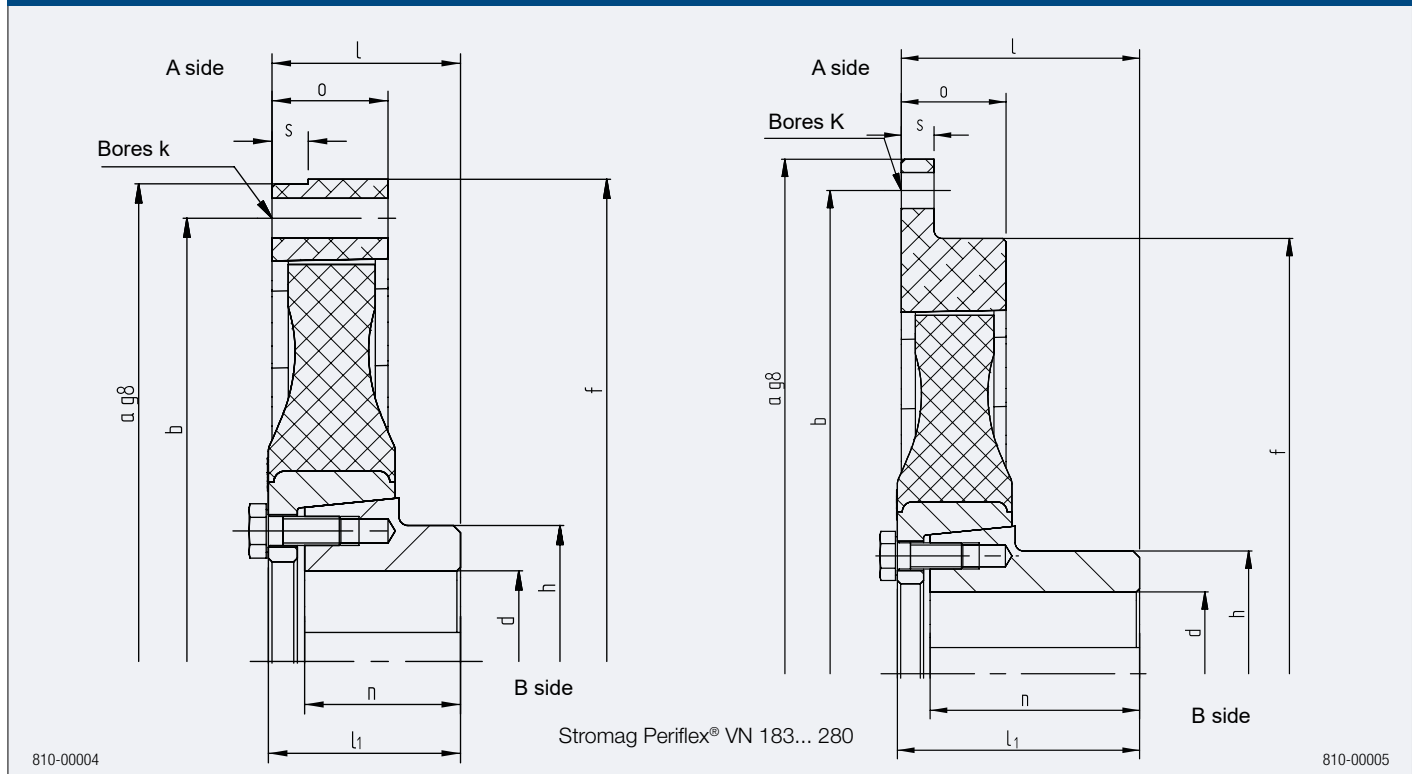
The damping power that can be absorbed permanently is $P_{KV\infty} = 0,5 \cdot P_{KV 60}$.

| Temperature factor $S_{\vartheta PKV}$ | | | | | | | | |
|--|-------------------|--|--|-------|-------|-------|-------|-------|
| Ambient temperature [°C] | -30 °C up to 30°C | | | 40 | 50 | 60 | 70 | 80 |
| Temperature factor $S_{\vartheta PKV}$ [-] | 1,0 | | | 0,875 | 0,750 | 0,625 | 0,500 | 0,375 |

Stromag – Flexible Couplings

Stromag Periflex® VN Disc Coupling

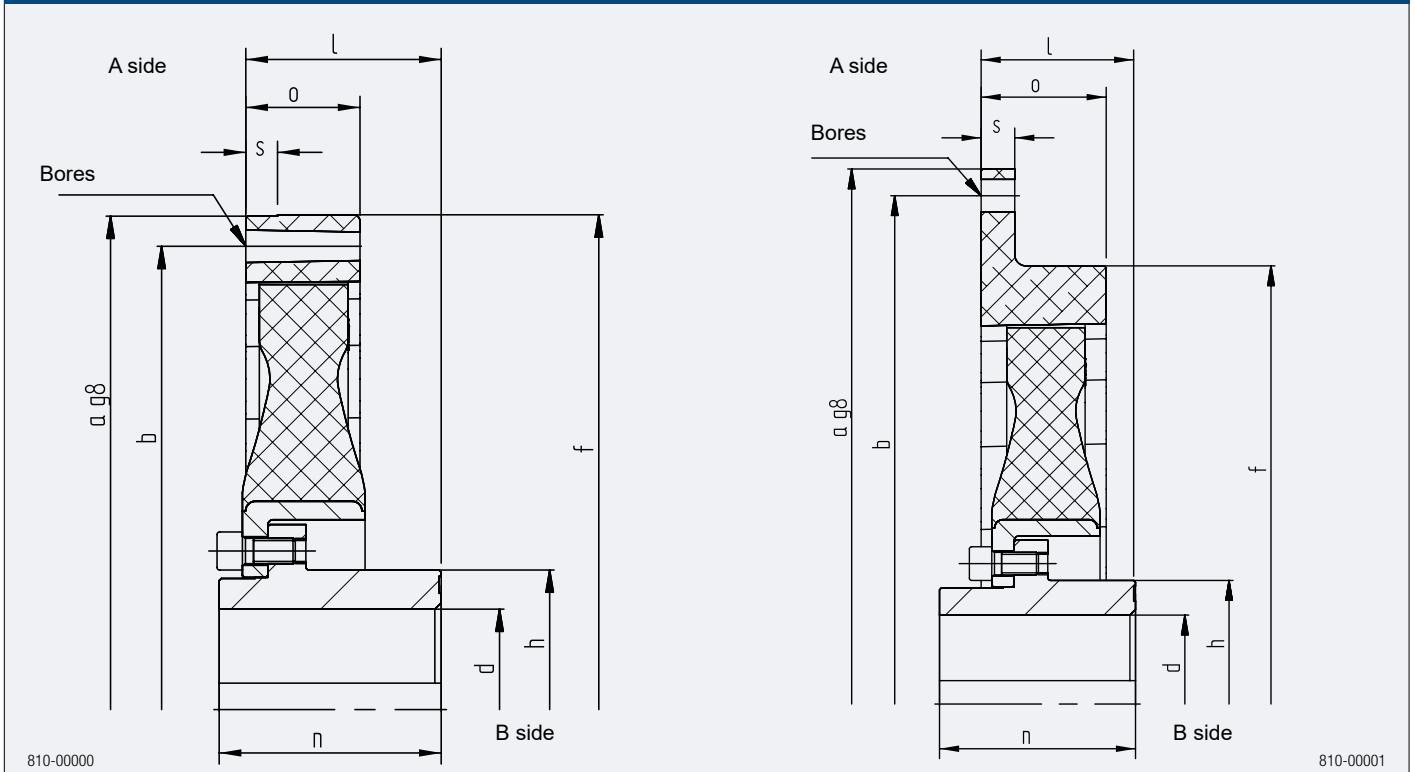
Stromag Periflex® VN...G Series



| Size | Periflex® VN 183 | | | Periflex® VN 230 | | | Periflex® VN 280 | | Periflex® VN 283 | | Periflex® VN 350 | | Periflex® VN 358 | | Periflex® VN 430 | | |
|--|--|--------|--------|--|--------|--------|--|--------|--|--------|--|--------|--|--------|--|--------|-----|
| Tire | VN 18311 VN 18331 VN 18321 VN 18341 VN 18351 | | | VN 23011 VN 23031 VN 23021 VN 23041 VN 23051 | | | VN 28011 VN 28031 VN 28021 VN 28041 VN 28051 | | VN 28311 VN 28331 VN 28321 VN 28341 VN 28351 | | VN 35011 VN 35031 VN 35021 VN 35041 VN 35051 | | VN 35811 VN 35831 VN 35821 VN 35841 VN 35851 | | VN 43011 VN 43031 VN 43021 VN 43041 VN 43051 | | |
| SAE Connection | 6½" | 7½" | 8" | 8" | 10" | 10" | 11½" | 10" | 11½" | 11½" | 14" | 11½" | 14" | 14" | 18" | | |
| Diameter mm | a | 215.9 | 241.3 | 263.5 | 263.5 | 314.4 | 314.4 | 352.4 | 314.4 | 352.4 | 352.4 | 466.7 | 352.4 | 466.7 | 466.7 | 571.5 | |
| | b | 200 | 222.3 | 244.5 | 244.5 | 295.3 | 295.3 | 333.4 | 295.3 | 333.4 | 333.4 | 438.2 | 333.4 | 438.2 | 438.2 | 542.9 | |
| | d _{max} | 45 | 45 | 45 | 50 | 50 | 60 | 60 | 70 | 70 | 85 | 85 | 95 | 95 | 95 | 95 | |
| | f | 218 | 218 | 218 | 266 | 266 | 316 | 316 | 316 | 316 | 355 | 355 | 355 | 355 | 355 | 468 | 468 |
| | h | 70 | 70 | 70 | 75 | 75 | 90 | 90 | 98 | 98 | 119 | 119 | 132 | 132 | 132 | 132 | |
| Bore k mm | 6x9 | 8x9 | 6x11 | 6x11 | 8x11 | 8x11 | 8x11 | 8x11 | 8x11 | 8x11 | 8x13.5 | 8x11 | 8x13.5 | 8x13.5 | 6x17.5 | | |
| Lengths mm | l ¹⁾ | 40 | 40 | 52 | 52 | 72,8 | 72,8 | 106,6 | 72,8 | 106,6 | 106,6 | 92,4 | 106,6 | 92,4 | 92,4 | 82,7 | |
| | l ₁ | 45 | 45 | 57 | 53 | 74 | 76 | 110 | —* | —* | —* | —* | —* | —* | —* | —* | |
| | n | 35 | 35 | 47 | 43 | 64 | 65 | 99 | 82 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | |
| | o | 25 | 25 | 25 | 32 | 32 | 40 | 40 | 40 | 40 | 55 | 55 | 55 | 55 | 54 | 80 | |
| | s | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 12 | 10 | 12 | 15 | 20 | |
| Mass moment of inertia kg m ² | J _{A side} | 0.0076 | 0.0103 | 0.0134 | 0.0203 | 0.0329 | 0.0429 | 0.0574 | 0.0485 | 0.0625 | 0.0818 | 0.2033 | 0.0842 | 0.1915 | 0.2945 | 0.7205 | |
| | J _{B side} ²⁾ | 0.0036 | 0.0036 | 0.0038 | 0.0079 | 0.0083 | 0.0186 | 0.0199 | 0.0235 | 0.0245 | 0.0547 | 0.0546 | 0.0855 | 0.0849 | 0.1265 | 0.1255 | |
| Mass kg 2) | 2.7 | 2.59 | 3.3 | 4.2 | 5.2 | 7.0 | 8.5 | 7.6 | 8.9 | 13.4 | 15.7 | 15.8 | 17.7 | 19.8 | 26.4 | | |

*) Dim l₁ not applicable on this version
 1) Dim. l can be modified by moving the connection ring within specified tolerances
 2) at max. bore d

Stromag Periflex® VN...G Series



| Size | Periflex® VN 433 | | Periflex® VN 436 | | | Periflex® VN 439 | | | Periflex® VN 544 | | Periflex® VN 549 | | Periflex® VN 666 | | Periflex® VN 726 | |
|--|--|-------|--|-------|--------|---|--------|--------|--|--------|--|---------|--|---------|--|-------|
| Tire | VN 43311 VN 43331 VN 43321 VN 43341 VN 43351 | | VN 43611 VN 43631 VN 43621 VN 43641 VN 43651 | | | VN 43911 VN 43931 – VN 43941 VN 43951 | | | VN 54411 VN 54431 VN 54421 VN 54441 VN 54451 | | VN 54911 VN 54931 VN 54921 VN 54941 VN 54951 | | VN 66611 VN 66631 VN 66621 VN 66641 VN 66651 | | VN 72611 VN 72631 VN 72621 VN 72641 VN 72651 | |
| SAE Connection | 14" | 18" | 14" | 16" | 18" | 14" | 16" | 18" | 18" | 21" | 18" | 21" | 21" | 24" | 24" | |
| Diameter mm | a | 466.7 | 571.5 | 466.7 | 517.5 | 571.5 | 466.7 | 517.5 | 571.5 | 571.5 | 673.1 | 571.5 | 673.1 | 673.1 | 733.4 | 733.4 |
| | b | 438.2 | 542.9 | 438.2 | 489 | 542.9 | 438.2 | 489 | 542.9 | 542.9 | 641.4 | 542.9 | 641.4 | 641.4 | 692.2 | 692.2 |
| | d _{max} | 110 | 110 | 120 | 120 | 120 | 130 | 130 | 130 | 160 | 160 | 180 | 180 | 190 | 190 | 250 |
| | f | 468 | 468 | 468 | 468 | 468 | – | 455 | 455 | 572 | 572 | 572 | 572 | 692 | 692 | 761 |
| | h | 154 | 154 | 168 | 168 | 168 | 185 | 185 | 185 | 225 | 225 | 300 | 300 | 270 | 270 | 350 |
| Bore k mm | 8x13.5 | | 6x17.5 | | 8x13.5 | 8x13.5 | 6x17.5 | 8x13.5 | 8x13.5 | 6x17.5 | 12x17.5 | 12x17.5 | 12x17.5 | 12x17.5 | 12x20 | 24x20 |
| Lengths mm | l ¹⁾ | 92.4 | 82.7 | 92.4 | 130.7 | 130.7 | 92.4 | 130.7 | 130.7 | 130.7 | 140 | 130.7 | 140 | 213 | 213 | 295 |
| | l _n | –* | –* | –* | 135 | 135 | –* | –* | –* | –* | –* | –* | –* | –* | –* | –* |
| | n | 105 | 105 | 105 | 130 | 130 | 105 | 130 | 130 | 130 | 130 | 130 | 150 | 190 | 190 | 260 |
| | o | 80 | 80 | 80 | 80 | 80 | 65 | 70 | 70 | 90 | 140 | 90 | 140 | 142 | 142 | 174 |
| | s | 15 | 20 | 15 | 20 | 20 | 8 | 25 | 25 | 20 | 25 | 15 | 25 | 15 | 31 | 16 |
| Mass moment of inertia kg m² | J ^a side | 0.353 | 0.679 | 0.375 | 0.528 | 0.701 | 0.253 | 0.512 | 0.748 | 1.023 | 2.254 | 1.009 | 2.055 | 3.608 | 4.208 | 4.865 |
| | J _b side ²⁾ | 0.230 | 0.229 | 0.306 | 0.320 | 0.320 | 0.315 | 0.333 | 0.333 | 0.890 | 0.852 | 1.299 | 1.324 | 2.578 | 2.578 | 6.296 |
| Mass kg²⁾ | 28.7 | 33.4 | 33.4 | 38.4 | 40.7 | 30.9 | 38.8 | 42 | 62.2 | 75.6 | 77.2 | 91.7 | 131.5 | 136.3 | 213.8 | |

*) Dim l_n not applicable on this version

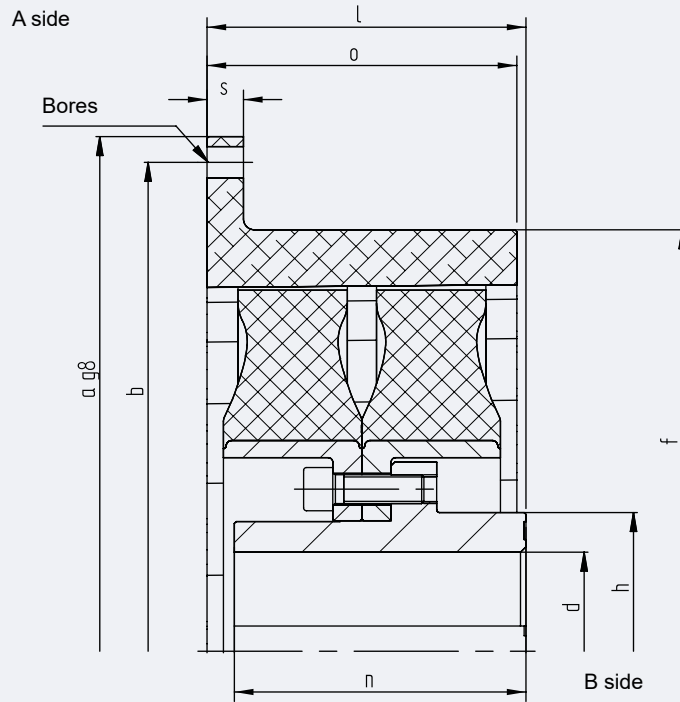
1) Dim. l can be modified by moving the connection ring within specified tolerances

2) at max. bore d

Stromag – Flexible Couplings

Stromag Periflex® VN Disc Coupling

Stromag Periflex® VP...G Series



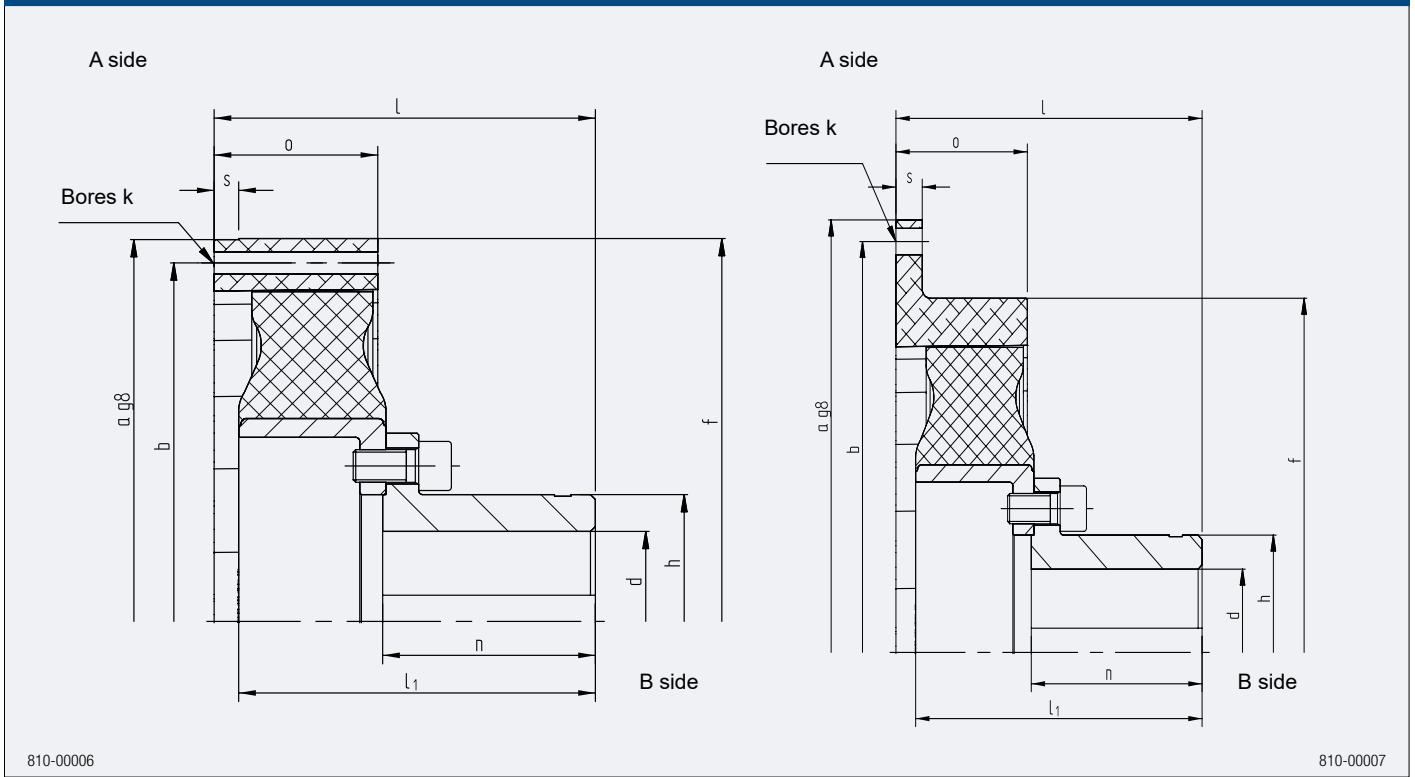
810-00013

| Size | Periflex® VP 433 | Periflex® VP 436 | Periflex® VP 439 | Periflex® VP 544 | Periflex® VP 549 | Periflex® VP 666 | Periflex® VP 726 |
|--|--|--|--|--|--|--|--|
| Tire | VN 43311 VN 43331 VN 43321 VN 43341 VN 43351 | VN 43611 VN 43631 VN 43621 VN 43641 VN 43651 | VN 43911 VN 43931 VN 43941 VN 43951 | VN 54411 VN 54431 VN 54421 VN 54441 VN 54451 | VN 54911 VN 54931 VN 54921 VN 54941 VN 54951 | VN 66611 VN 66631 VN 66621 VN 66641 VN 66651 | VN 72611 VN 72631 VN 72621 VN 72641 VN 72651 |
| SAE Connection | 18" | 18" | 18" | 21" | 21" | 24" | - |
| Diameter mm | | | | | | | |
| a | 571.5 | 571.5 | 571.5 | 673.1 | 673.1 | 733.4 | 995 |
| b | 542.9 | 542.9 | 542.9 | 641.4 | 641.4 | 692.2 | 950 |
| d _{max} | 100 | 110 | 130 | 160 | 180 | 190 | 250 |
| f | 468 | 468 | 455 | 572 | 572 | 692 | 803 |
| h | 154 | 168 | 185 | 225 | 300 | 270 | 350 |
| Bore k mm | 12x17.5 | 12x17.5 | 12x17.5 | 12x17.5 | 12x17.5 | 12x20.0 | 32x21.0 |
| Lengths mm | | | | | | | |
| l ¹⁾ | 175 | 180 | 180 | 244 | 285 | 286 | 370 |
| n | 160 | 160 | 160 | 220 | 200 | 250 | 350 |
| o | 170 | 170 | 180 | 220 | 220 | 276 | 324 |
| s | 20 | 20 | 25 | 25 | 25 | 31 | 32 |
| Mass moment of inertia kg m² | | | | | | | |
| J _{A side} | 1.186 | 1.228 | 1.205 | 3.120 | 3.132 | 7.702 | 15.850 |
| J _{B side²⁾} | 0.439 | 0.582 | 0.568 | 1.587 | 2.384 | 4.545 | 8.730 |
| Mass kg²⁾ | 61.7 | 70.0 | 67.3 | 125.0 | 151.0 | 229.6 | 367.4 |

1) Dim. l can be modified by moving the connection ring within specified tolerances

2) at max. bore d₁ and d₂

Stromag Periflex® VN...R Series



810-00006

810-00007

| Size | Periflex® VN 183 | | Periflex® VN 230 | | Periflex® VN 280 | | Periflex® VN 283 | | Periflex® VN 350 | | Periflex® VN 358 | | Periflex® VN 430 | | | |
|--|--|--------|--|--------|--|-------|--|--------|--|--------|--|--------|--|--------|--------|--------|
| Tire | VN 18311 VN 18331 VN 18321 VN 18341 VN 18351 | | VN 23011 VN 23031 VN 23021 VN 23041 VN 23051 | | VN 28011 VN 28031 VN 28021 VN 28041 VN 28051 | | VN 28311 VN 28331 VN 28321 VN 28341 VN 28351 | | VN 35011 VN 35031 VN 35021 VN 35041 VN 35051 | | VN 35811 VN 35831 VN 35821 VN 35841 VN 35851 | | VN 43011 VN 43031 VN 43021 VN 43041 VN 43051 | | | |
| SAE-Connection | 6½" | 7½" | 8" | 8" | 10" | 10" | 11½" | 10" | 11½" | 11½" | 14" | 11½" | 14" | 14" | 18" | |
| Diameter mm | a | 215.9 | 241.3 | 263.5 | 263.5 | 314.4 | 314.4 | 352.4 | 314.4 | 352.4 | 352.4 | 466.7 | 352.4 | 466.7 | 466.7 | 571.5 |
| | b | 200 | 222.3 | 244.5 | 244.5 | 295.3 | 295.3 | 333.4 | 295.3 | 333.4 | 333.4 | 438.2 | 333.4 | 438.2 | 438.2 | 542.9 |
| | d_max | 43 | 43 | 43 | 50 | 50 | 55 | 55 | 65 | 65 | 80 | 80 | 85 | 85 | 85 | 85 |
| | f | 218 | 218 | 218 | 266 | 266 | 316 | 316 | 316 | 316 | 355 | 355 | 355 | 355 | 468 | 468 |
| h | 61 | 61 | 61 | 70 | 70 | 75 | 75 | 90 | 90 | 112 | 112 | 120 | 120 | 120 | 120 | |
| Bore k mm | 6x9 | 8x9 | 6x11 | 6x11 | 8x11 | 8x11 | 8x11 | 8x11 | 8x11 | 8x11 | 8x13.5 | 8x11 | 8x13.5 | 8x13.5 | 6x17.5 | |
| Lengths mm | l ¹⁾ | 108 | 108 | 108 | 113 | 113 | 125 | 125 | 158 | 158 | 160 | 160 | 170 | 170 | 178 | 178 |
| | l ₁ | 93 | 93 | 93 | 98 | 98 | 110 | 110 | 156 | 156 | 147 | 147 | 164 | 164 | 161 | 161 |
| | n | 60 | 60 | 60 | 65 | 65 | 70 | 70 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| | o | 45 | 45 | 45 | 48.5 | 48.5 | 55 | 55 | 55 | 40 | 55 | 55 | 55 | 55 | 80 | 80 |
| | s | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 12 | 15 | 20 |
| Mass moment of inertia kg m ² | J _{A side} | 0.0125 | 0.0429 | 0.0539 | 0.0286 | 0.097 | 0.0617 | 0.1421 | 0.0634 | 0.0625 | 0.0998 | 0.1980 | 0.1028 | 0.2063 | 0.3925 | 0.7205 |
| | J _{B side} ²⁾ | 0.0036 | 0.0036 | 0.0036 | 0.008 | 0.008 | 0.0173 | 0.0173 | 0.0248 | 0.0248 | 0.0533 | 0.0533 | 0.0870 | 0.0870 | 0.1225 | 0.1225 |
| Mass kg ²⁾ | 3.3 | 4.75 | 5.8 | 4.8 | 7.8 | 7.2 | 10.0 | 9.1 | 9.9 | 13.1 | 15.5 | 16.5 | 18.9 | 21.4 | 26.3 | |

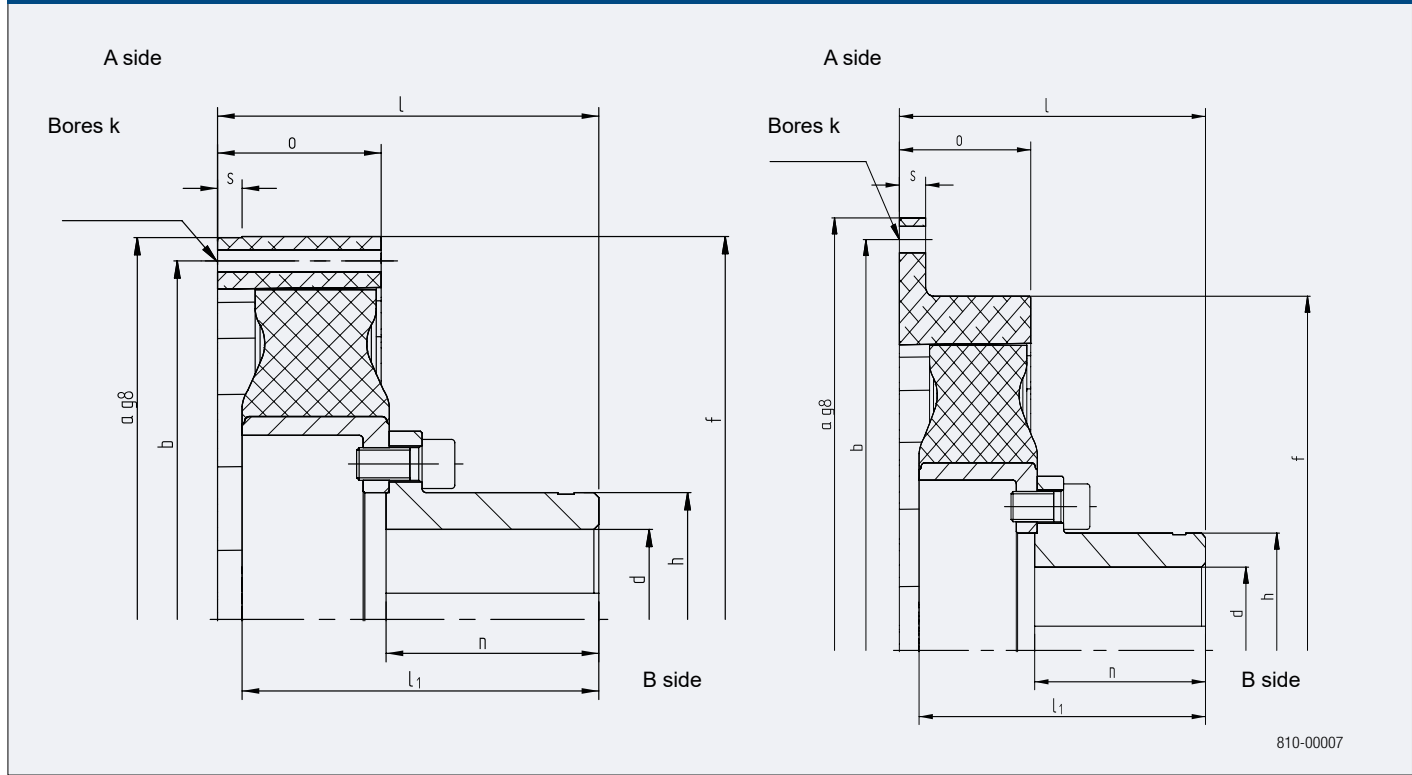
1) Dim. l can be modified by moving the connection ring within specified tolerances

2) at max. bore d

Stromag – Flexible Couplings

Stromag Periflex® VN Disc Coupling

Stromag Periflex® VN...R Series

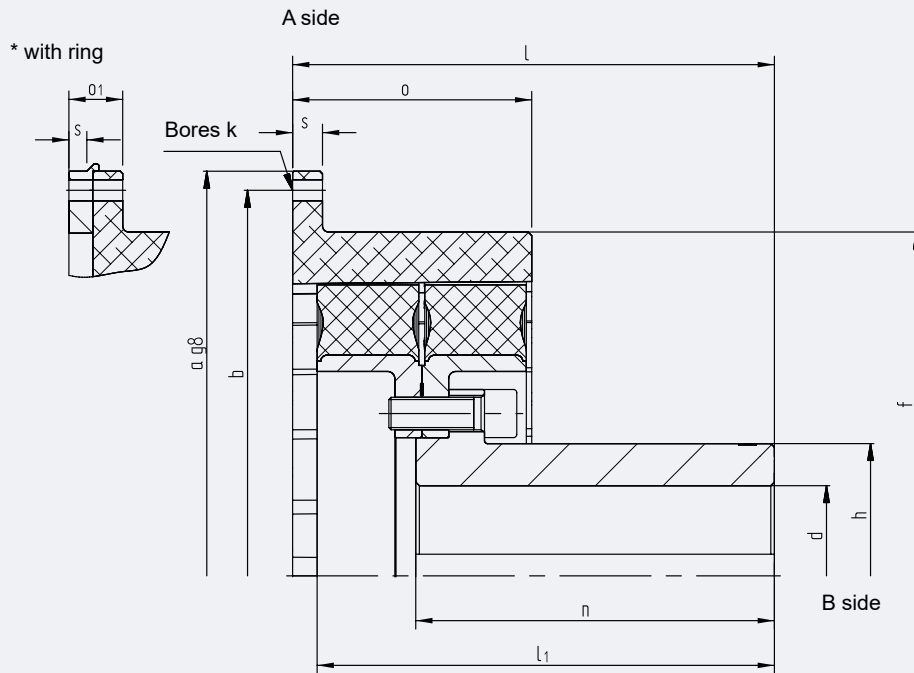


| Size | Periflex® VN 433 | | Periflex® VN 436 | | | Periflex® VN 439 | | | Periflex® VN 544 | | Periflex® VN 549 | | Periflex® VN 666 | | Periflex® VN 726 |
|--|---|-------------------------------------|--|-----------------------------------|-------------------------------------|--|-----------------------------------|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|
| Tire | VN 43311 VN 43331 VN 43321 VN 43341 VN 43351 | | VN 43611 VN 43631 VN 43621 VN 43641 VN 43651 | | | VN 43911 VN 43931 VN 43941 VN 43951 | | | VN 54411 VN 54431 VN 54421 VN 54441 VN 54451 | | VN 54911 VN 54931 VN 54921 VN 54941 VN 54951 | | VN 66611 VN 66631 VN 66621 VN 66641 VN 66651 | | VN 72611 VN 72631 VN 76221 VN 76241 VN 72651 |
| SAE Connection | 14" | 18" | 14" | 16" | 18" | 14" | 16" | 18" | 18" | 21" | 18" | 21" | 21" | 24" | 24" |
| Diameter mm | a 466.7 b 438.2 d_{max} 100 f 468 h 145 | 571.5 542.9 100 468 145 | 466.7 438.2 110 468 155 | 517.5 489 110 468 155 | 571.5 542.9 110 468 155 | 466.7 438.2 130 468 182 | 517.5 489 130 455 182 | 571.5 542.9 130 455 182 | 571.5 542.9 160 572 225 | 673.1 641.4 160 572 225 | 571.5 542.9 150 572 220 | 673.1 641.4 150 572 220 | 673.1 641.4 190 692 270 | 733.4 692.2 190 692 270 | 733.4 692.2 250 761 350 |
| Bore k mm | 8x13.5 | 6x17.5 | 8x13.5 | 8x13.5 | 6x17.5 | 8x13.5 | 8x13.5 | 6x17.5 | 12x17.5 | 12x17.5 | 12x17.5 | 12x17.5 | 12x17.5 | 12x20.0 | 24x20.0 |
| Lengths mm | l₁ 209 l₁ 199 n 125 o 80 s 15 | 209 199 125 80 20 | 233 218 130 100 15 | 233 218 130 100 20 | 233 218 130 100 20 | 207 188 130 105 15 | 227 208 150 120 25 | 227 208 150 120 25 | 319.5 306 210 105 15 | 319.5 306 210 105 25 | 307 293.5 210 105 20 | 307 293.5 210 105 25 | 325 310 190 142 15 | 325 310 190 142 31 | 427 404 260 174 16 |
| Mass moment of inertia kg m² | J^A side 0.419 J^B side²⁾ 0.241 | 0.747 0.241 | 0.522 0.320 | 0.661 0.320 | 0.850 0.320 | 0.569 0.342 | 0.686 0.342 | 0.922 0.342 | 1.235 1.024 | 1.917 1.024 | 1.241 1.162 | 1.923 1.162 | 3.608 2.623 | 4.208 2.623 | 4.865 6.447 |
| Mass kg²⁾ | 32.2 | 37.1 | 38.6 | 41.0 | 43.5 | 39.9 | 43.9 | 47.1 | 78.6 | 51.2 | 80.6 | 88.2 | 133.2 | 138.0 | 218.0 |

1) Dim. l can be modified by moving the connection ring within specified tolerances

2) at max. bore d

Stromag Periflex® VP...R Series



810-00014

| Size | Periflex® VP 433 | Periflex® VP 436 | Periflex® VP 439 | Periflex® VP 544 | Periflex® VP 549 | Periflex® VP 666 | Periflex® VP 726 |
|--|--|--|--|--|--|--|--|
| Tire | VN 43311 VN 43331 VN 43321 VN 43341 VN 43351 | VN 43611 VN 43631 VN 43621 VN 43641 VN 43651 | VN 43911 VN 43931 VN 43941 VN 43951 | VN 54411 VN 54431 VN 54421 VN 54441 VN 54451 | VN 54911 VN 54931 VN 54921 VN 54941 VN 54951 | VN 66611 VN 66631 VN 66621 VN 66641 VN 66651 | VN 72611 VN 72631 VN 72621 VN 72641 VN 72651 |
| SAE Connection | 18" | 18" | 18" | 21" | 21" | 24" | - |
| Diameter mm | | | | | | | |
| a | 571.5 | 571.5 | 571.5 | 673.1 | 673.1 | 733.4 | 995 |
| b | 542.9 | 542.9 | 542.9 | 641.4 | 641.4 | 692.2 | 950 |
| d _{max} | 100 | 110 | 130 | 160 | 150 | 190 | 250 |
| f | 468 | 468 | 455 | 572 | 572 | 692 | 803 |
| h | 145 | 155 | 182 | 225 | 220 | 270 | 350 |
| Bore k mm | 12x17.5 | 12x17.5 | 12x17.5 | 12x17.5 | 12x17.5 | 12x20.0 | 32x21 |
| Lengths mm | | | | | | | |
| l ¹⁾ | 344 | 350 | 328 | 336 | 403 | 390 | 514 |
| l ₁ | 321 | 335 | 308 | 312 | 382.5 | 370 | - |
| n | 250 | 250 | 250 | 220 | 300 | 250 | 350 |
| o | 170 | 190 | 180 | 220 | 220 | 276 | 324 |
| o ₁ | - | 40 | - | - | - | - | - |
| s | 20 | 15 | 25 | 25 | 25 | 31 | 32 |
| Mass moment of inertia kg m² | | | | | | | |
| J ^a side | 1.186 | 2.208 | 1.205 | 3.268 | 2.952 | 7.748 | 15.850 |
| J _b side ²⁾ | 0.453 | 0.817 | 0.651 | 1.577 | 2.119 | 4.519 | 9.070 |
| Mass kg²⁾ | 66.3 | 86.4 | 79.7 | 126.4 | 149.0 | 228.2 | 379.3 |

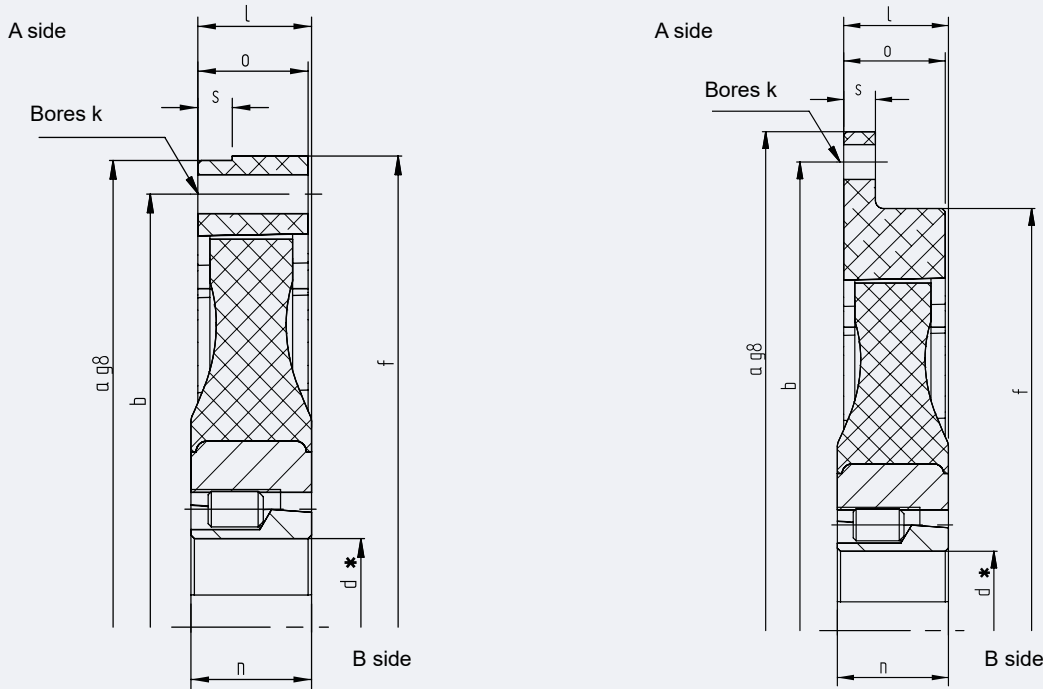
1) Dim. l can be modified by moving the connection ring within specified tolerances

2) at max. bore d

Stromag – Flexible Couplings

Stromag Periflex® VN Disc Coupling

Stromag Periflex® VN...S Series



810-00010

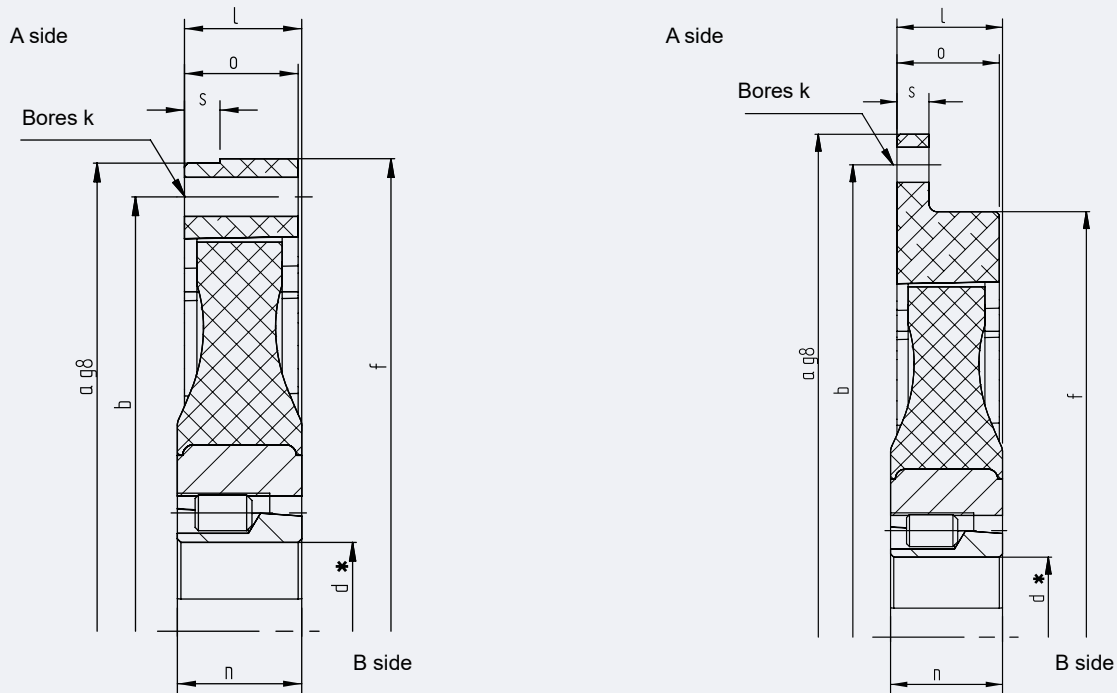
810-00011

| Size | Periflex® VN 183 | | | Periflex® VN 230 | | Periflex® VN 280 | | Periflex® VN 283 | | Periflex® VN 350 | | Periflex® VN 358 | | |
|--|--|--------|--------|--|--------|--|--------|--|--------|--|--------|--|--------|--------|
| Tire | VN 18311 VN 18331 VN 18321 VN 18341 VN 18351 | | | VN 23011 VN 23031 VN 23021 VN 23041 VN 23051 | | VN 28011 VN 28031 VN 28021 VN 28041 VN 28051 | | VN 28311 VN 28331 VN 28321 VN 28341 VN 28351 | | VN 35011 VN 35031 VN 35021 VN 35041 VN 35051 | | VN 35811 VN 35831 VN 35821 VN 35841 VN 35851 | | |
| SAE Connection | 6½" | 7½" | 8" | 8" | 10" | 10" | 11½" | 10" | 11½" | 11½" | 14" | 11½" | 14" | |
| Clamping bush | 2012 | 2012 | 2012 | 2012 | 2012 | 2517 | 2517 | 3020 | 3020 | 3020 | 3020 | 3525 | 3525 | |
| Diameter mm | a | 215.9 | 241.3 | 263.5 | 263.5 | 314.4 | 314.4 | 352.4 | 314.4 | 352.4 | 352.4 | 466.7 | 352.4 | 466.7 |
| | b | 200 | 222.3 | 244.5 | 244.5 | 295.3 | 295.3 | 333.4 | 295.3 | 333.4 | 333.4 | 438.2 | 333.4 | 438.2 |
| | d* | 50 | 50 | 50 | 50 | 50 | 60 | 60 | 75 | 75 | 75 | 95 | 95 | 95 |
| | f | 218 | 218 | 218 | 266 | 266 | 316 | 316 | 316 | 316 | 355 | 355 | 355 | 355 |
| Bore k mm | 6x9 | 8x9 | 6x11 | 6x11 | 8x11 | 8x11 | 8x11 | 8x11 | 8x11 | 8x11 | 8x13.5 | 8x11 | 8x13.5 | |
| Lengths mm | l ¹⁾ | 30 | 30 | 30 | 34 | 34 | 44 | 41.5 | 51 | 51 | 56.5 | 56.5 | 67 | 67 |
| | n | 31.8 | 31.8 | 31.8 | 31.8 | 31.8 | 45 | 45 | 51 | 51 | 51 | 51 | 64 | 64 |
| | o | 25 | 25 | 25 | 32 | 32 | 40 | 40 | 40 | 40 | 55 | 55 | 55 | 55 |
| | s | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 12 | 10 | 12 |
| Mass moment of inertia kg m ² | J _A side | 0.0076 | 0.0103 | 0.0134 | 0.0203 | 0.0329 | 0.0483 | 0.0621 | 0.0485 | 0.0625 | 0.0818 | 0.2030 | 0.0842 | 0.2040 |
| | J _B side | 0.0032 | 0.0032 | 0.0032 | 0.0076 | 0.0076 | 0.0166 | 0.0166 | 0.0235 | 0.0235 | 0.0559 | 0.0559 | 0.1143 | 0.1220 |
| Mass kg | 2.29 | 2.59 | 2.78 | 3.97 | 4.97 | 5.67 | 6.1 | 6.6 | 7.2 | 11.2 | 14.2 | 16.4 | 20.3 | |

d* max. bore of the taper lock bushing

1) Dim. l can be modified by moving the connection ring within specified tolerances

Stromag Periflex® VN...S Series



810-00010

810-00011

| Size | Periflex® VN 430 | | Periflex® VN 433 | | Periflex® VN 436 | | | Periflex® VN 544 | | |
|--|--|--------|--|--------|--|--------|--------|--|---------|-------|
| Tire | VN 43011 VN 43031 VN 43021 VN 43041 VN 43051 | | VN 43311 VN 43331 VN 43321 VN 43341 VN 43351 | | VN 43611 VN 43631 VN 43621 VN 43641 VN 43651 | | | VN 54411 VN 54431 VN 54421 VN 54441 VN 54451 | | |
| SAE Connection | 14" | 18" | 14" | 18" | 14" | 16" | 18" | 18" | 21" | |
| Clamping bush | 3535 | 3535 | 4030 | 4030 | 4535 | 4535 | 4535 | 5040 | 5040 | |
| Diameter mm | a | 466.7 | 571.5 | 466.7 | 571.5 | 466.7 | 517.5 | 571.5 | 571.5 | 673.1 |
| | b | 436.2 | 542.9 | 438.2 | 542.9 | 438.2 | 489 | 542.9 | 542.9 | 641.4 |
| | d* | 90 | 90 | 110 | 110 | 125 | 125 | 125 | 125 | 125 |
| | f | 468 | 468 | 468 | 468 | 468 | 468 | 468 | 572 | 572 |
| Bore k mm | 8x13.5 | 6x17.5 | 8x13.5 | 6x17.5 | 8x13.5 | 8x13.5 | 6x17.5 | 12x17.5 | 12x17.5 | |
| Lengths mm | l ¹⁾ | 87.5 | 100 | 78 | 78 | 85 | 85 | 85 | 99.5 | 99.5 |
| | n | 89 | 89 | 76 | 76 | 90 | 90 | 90 | 102 | 102 |
| | o | 54 | 80 | 80 | 80 | 80 | 80 | 80 | 105 | 140 |
| | s | 15 | 20 | 15 | 20 | 15 | 20 | 20 | 20 | 25 |
| Mass moment of inertia kg m² | J _A side | 0.2905 | 0.7205 | 0.419 | 0.747 | 0.442 | 0.579 | 0.753 | 1.235 | 2.254 |
| | J _B side | 0.1425 | 0.1425 | 0.264 | 0.264 | 0.356 | 0.356 | 0.356 | 1.086 | 1.086 |
| Mass kg | 20.7 | 27.7 | 30.6 | 35.5 | 36 | 38.4 | 40.6 | 73.0 | 84.9 | |

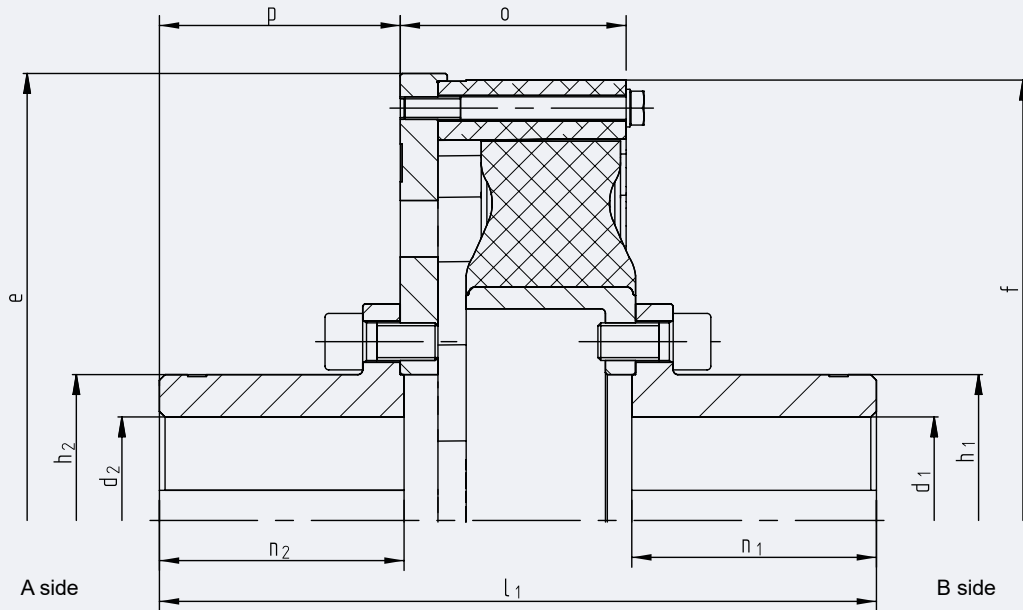
d* max. bore of the taper lock bushing

1) Dim. l can be modified by moving the connection ring within specified tolerances

Stromag – Flexible Couplings

Stromag Periflex® VN Disc Coupling

Stromag Periflex® VN...W Series



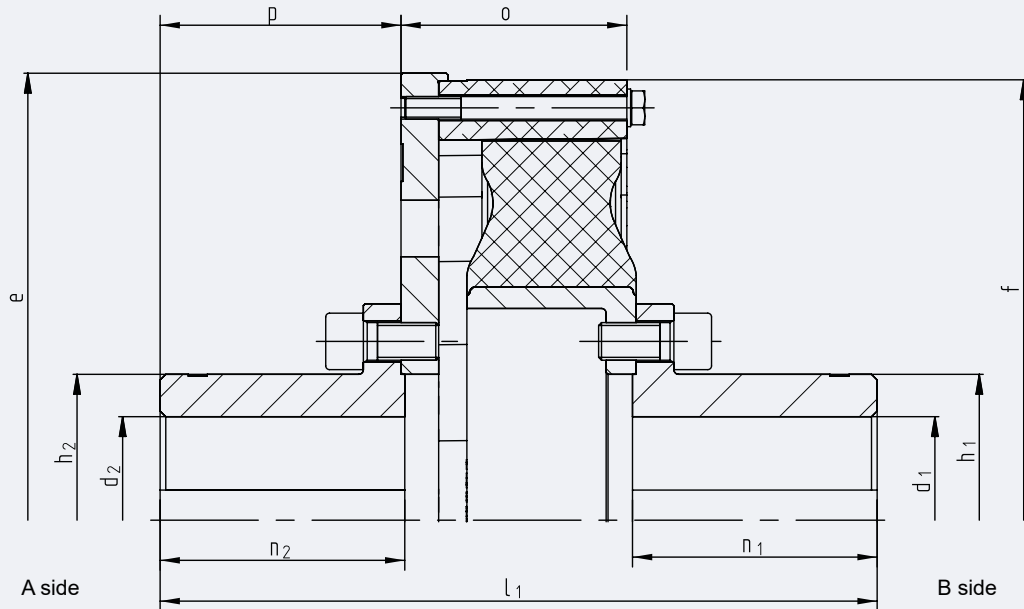
810-00012

| Size | Periflex® VN 183 | Periflex® VN 230 | Periflex® VN 280 | Periflex® VN 283 | Periflex® VN 350 | Periflex® VN 358 | |
|-------------------------------------|--|--|--|--|--|--|--------|
| Tire | VN 18311 VN 18331 VN 18321 VN 18341 VN 18351 | VN 23011 VN 23031 VN 23021 VN 23041 VN 23051 | VN 28011 VN 28031 VN 28021 VN 28041 VN 28051 | VN 28311 VN 28331 VN 28321 VN 28341 VN 28351 | VN 35011 VN 35031 VN 35021 VN 35041 VN 35051 | VN 35811 VN 35831 VN 35821 VN 35841 VN 35851 | |
| Diameter mm | d_{1max} | 43 | 50 | 55 | 65 | 80 | 85 |
| | d_{2max} | 43 | 50 | 55 | 65 | 80 | 85 |
| | e | 222 | 271 | 322 | 322 | 360 | 360 |
| | f | 218 | 266 | 316 | 316 | 355 | 355 |
| | h_1 | 61 | 70 | 75 | 90 | 112 | 120 |
| | h_2 | 61 | 70 | 75 | 90 | 112 | 120 |
| Lengths mm | l ¹⁾ | 174 | 186 | 203 | 280 | 279 | 289 |
| | n' | 60 | 65 | 70 | 105 | 105 | 105 |
| | n_2 | 60 | 65 | 70 | 105 | 105 | 105 |
| | o | 53 | 58.5 | 65 | 75 | 71 | 71 |
| | p | 58 | 63 | 68 | 103 | 103 | 103 |
| | | | | | | | |
| Mass moment of inertia $kg\ m^2$ | $J_{A\ side}^{2)}$ | 0.0282 | 0.0716 | 0.1468 | 0.1920 | 0.3190 | 0.3290 |
| | $J_{B\ side}^{2)}$ | 0.0038 | 0.0080 | 0.0177 | 0.0275 | 0.0530 | 0.0870 |
| Mass kg^2 | 6.6 | 9.4 | 15.2 | 22.1 | 30.1 | 33.8 | |

1) Dim. l can be modified by moving the connection ring within specified tolerances

2) at max. bore d_1 and d_2

Stromag Periflex® VN...W Series



810-00012

| Size | Periflex® VN 430 | Periflex® VN 433 | Periflex® VN 436 | Periflex® VN 439 | Periflex® VN 544 | Periflex® VN 549 | Periflex® VN 666 | Periflex® VN 726 |
|---|--|--|--|--|--|--|--|--|
| Tire | VN 43011 VN 43031 VN 43021 VN 43041 VN 43051 | VN 43311 VN 43331 VN 43321 VN 43341 VN 43351 | VN 43611 VN 43631 VN 43621 VN 43641 VN 43651 | VN 43911 VN 43931 VN 43941 VN 43951 | VN 54411 VN 54431 VN 54421 VN 54441 VN 54451 | VN 54911 VN 54931 VN 54921 VN 54941 VN 54951 | VN 66611 VN 66631 VN 66621 VN 66641 VN 66651 | VN 72611 VN 72631 VN 72621 VN 72641 VN 72651 |
| Diameter mm | d_{1max} | 85 | 100 | 110 | 130 | 160 | 150 | 190 |
| | d_{2max} | 85 | 100 | 110 | 130 | 160 | 150 | 190 |
| | e | 475 | 475 | 475 | 475 | 584 | 584 | 683 |
| | f | 468 | 468 | 468 | 468 | 572 | 572 | 692 |
| | h_1 | 120 | 145 | 155 | 182 | 225 | 220 | 270 |
| | h_2 | 120 | 145 | 155 | 182 | 225 | 220 | 270 |
| Lengths mm | $l^{1)}$ | 297 | 352 | 381 | 352 | 548 | 533 | 536 |
| | n_1 | 105 | 125 | 130 | 130 | 210 | 210 | 190 |
| | n_2 | 105 | 125 | 130 | 130 | 210 | 210 | 190 |
| | o | 86 | 100 | 120 | 125 | 140 | 125 | 169 |
| | p | 103 | 123 | 128 | 125 | 206 | 206 | 183.5 |
| Mass moment of inertia kg m ² | J_A side ²⁾ | 1.015 | 1.271 | 1.350 | 1.385 | 3.648 | 3.486 | 8.985 |
| | J_B side ²⁾ | 0.123 | 0.241 | 0.318 | 0.352 | 1.024 | 1.200 | 2.623 |
| Mass kg ²⁾ | 47.8 | 69.3 | 75.7 | 81.6 | 158.0 | 162.6 | 254.8 | other dimensions on request |

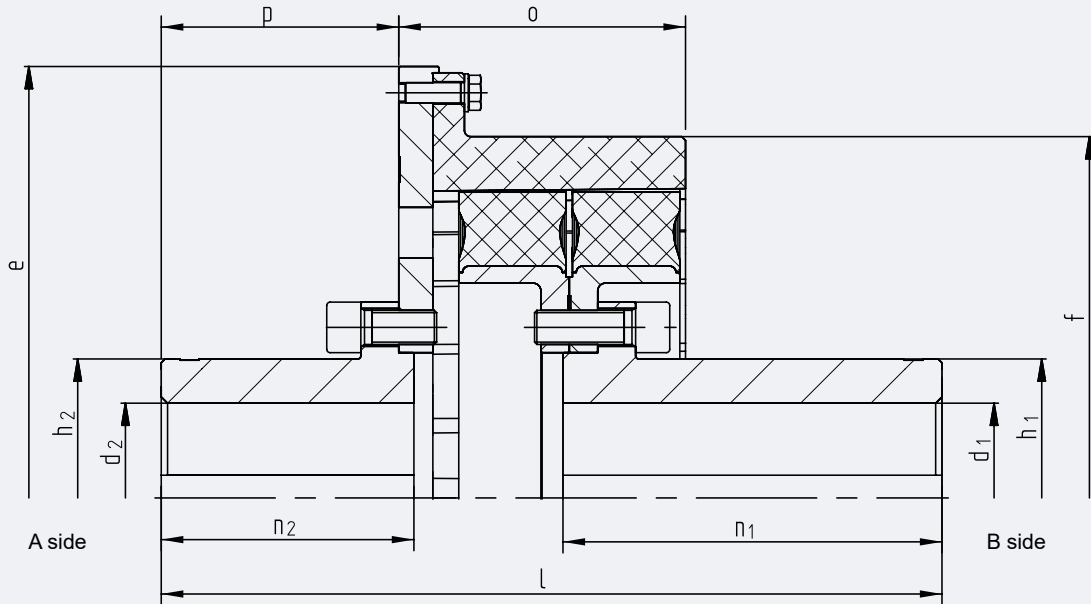
1) Dim. l can be modified by moving the connection ring within specified tolerances

2) at max. bore d_1 and d_2

Stromag – Flexible Couplings

Stromag Periflex® VN Disc Coupling

Stromag Periflex® VP...W Series



810-00015

| Size | Periflex® VP 433 | Periflex® VP 436 | Periflex® VP 439 | Periflex® VP 544 | Periflex® VP 549 | Periflex® VP 666 | Periflex® VP 726 | |
|---|--|--|--|--|--|--|--|--------------------------------|
| Tire | VN 43311 VN 43331 VN 43321 VN 43341 VN 43351 | VN 43611 VN 43631 VN 43621 VN 43641 VN 43651 | VN 43911 VN 43931 VN 43941 VN 43951 | VN 54411 VN 54431 VN 54421 VN 54441 VN 54451 | VN 54911 VN 54931 VN 54921 VN 54941 VN 54951 | VN 66611 VN 66631 VN 66621 VN 66641 VN 66651 | VN 72611 VN 72631 VN 72621 VN 72641 VN 72651 | |
| Diameter mm | d_{1max} d_{2max} e f h_1 h_2 | 100 100 475 468 145 145 | 110 110 526 468 155 155 | 130 130 526 455 182 182 | 160 160 683 572 225 225 | 150 150 683 572 220 220 | 190 190 744 692 270 270 | other dimensions on request |
| Lengths mm | l ¹⁾ n_1 n_2 o p | 519 250 160 190 155 | 524 250 160 209 155 | 503 250 160 175 155 | 569 220 210 247 206 | 618 300 200 227 188 | 659 250 250 303 242 | |
| Mass moment of inertia kg m ² | $J_{A \text{ side}}$ $J_{B \text{ side}}$ ²⁾ | 1.744 0.612 | 2.819 0.603 | 2.171 0.651 | 8.101 1.577 | 7.916 2.078 | 15.177 4.519 | |
| Mass kg ²⁾ | 102.6 | 128.0 | 98.0 | 234.4 | 255.8 | 378.3 | | |

1) Dim. l can be modified by moving the connection ring within specified tolerances

2) at max. bore d_1 and d_2

Characteristics

| | |
|---|---|
| T_{KN} | |
| The coupling's nominal torque can be permanently transferred over the whole permitted speed range. It must be higher than the system's nominal torque T _N . | $T_{KN} \geq T_N$ |
| An application factor of 1.2 is recommended for the simple design of a drive system based exclusively on the nominal torque. | $T_{KN} \geq T_N \cdot 1,2$ |
| T_{Kmax} | |
| The coupling's max torque T _{Kmax} can be endured as a peak load and may not be exceeded by peak torques T _{max1} when the system is operating in normal, nonstationary mode. A system's normal nonstationary modes are unavoidable and occur repeatedly (e.g. starting/stopping, resonance passes, switchovers, accelerations, etc.). | $T_{Kmax} \geq T_{max1}$ |
| Overloading the Stromag Periflex® VN coupling with peak torques T _{max2} in a system's anomalous nonstationary mode shortens the service life and is tolerated in individual cases. A system's anomalous nonstationary modes are avoidable and are not part of the planned operating scheme (e.g. emergency stops, sync failure, short circuits, etc.). | $T_{Kmax} \cdot 1,5 \geq T_{max2}$ |
| T_{Kw} | |
| The admissible permanent alternating torque indicates the amplitude of the admissible permanent periodic torque variation. This torque may be superimposed on a base load of T _{KN} . In this process, the maximum damping power P _{KV} must also be checked. | |
| Ψ | |
| The relative damping is a measure of the ability of the coupling to convert part of the vibration energy into heat. The Ψ data relate to a coupling torque of 0.8 • T _{KN} , an alternating torque of 0.2 • T _{KN} , and a frequency of 10 Hz on a coupling at operating temperature, with a surface temperature of about 30°C. | |
| P_{KV} | |
| The admissible damping power indicates how much damping (heat) the coupling can permanently absorb resp. dissipate. The sum of the damping power of each vibration order (i.e. ΣP _{vi}) must be less than the damping power of the coupling. | |
| $P_{vi} = \frac{\pi}{\sqrt{\left(\frac{2\pi}{\Psi}\right)^2 + 1}} \cdot \frac{T_{wi}^2 \cdot f_i}{C_{tdyn}}$ $P_{KV} \geq \Sigma P_{vi}$ | |
| The stated value P _{KV60} describes the damping power which can be absorbed over the period of 1 hour. To determine the damping power which can be permanently absorbed (P _{KV∞}), the value P _{KV60} has to be multiplied by the factor 0.5. With an ambient temperature T _U higher than 30°C, the admissible damping power must be reduced by the temperature factor S _{9PKV} . | $P_{KV}(T_U) = \frac{P_{KV}}{S_{9PKV}}$ |

Stromag – Flexible Couplings

Stromag Periflex® VN Disc Coupling

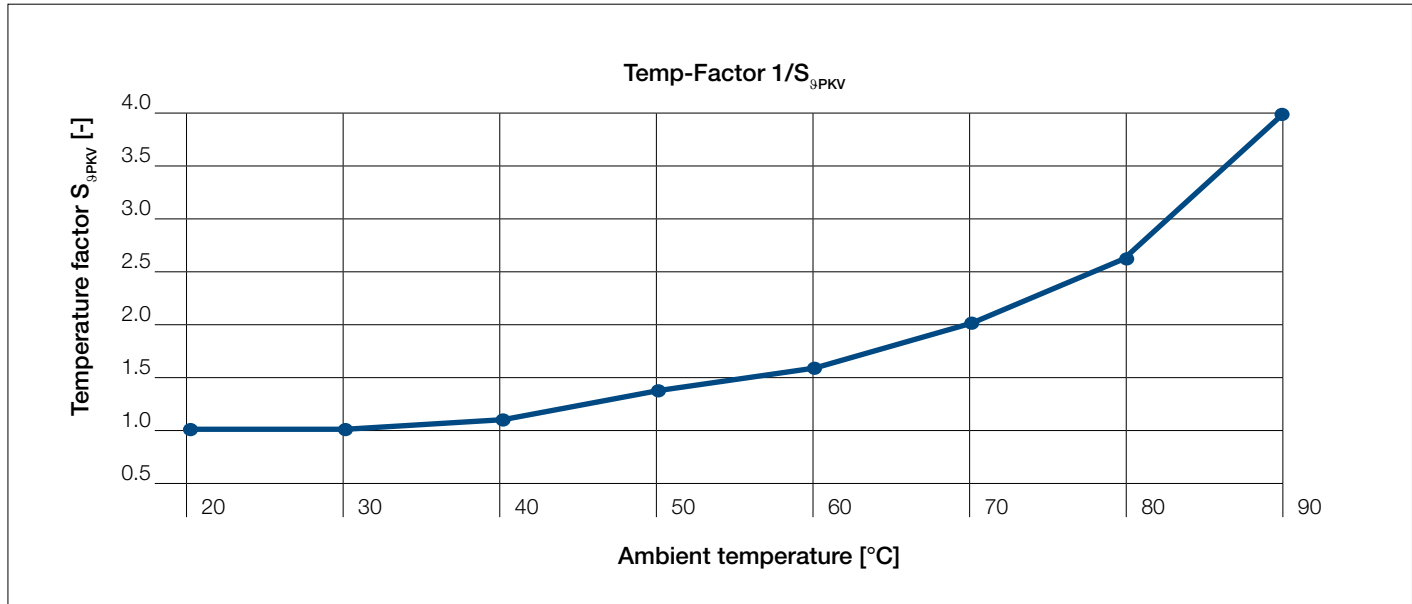
Characteristics

Temperature factors $S_{\vartheta_{PKV}}$

Temperature factors shall take into consideration the reduction of the physical characteristics of rubber-flexible material caused by heating.

The coupling temperature is determined by the ambient temperature plus an internal heating caused by internal material friction in the rubber volume, resulting from alternating torques and alternating loads due to shaft offsets.

With higher ambient temperatures the coupling characteristic value P_{KV} must be reduced through the corresponding temperature factor $S_{\vartheta_{PKV}}$.



ΔK_a

Maximum axial displacement of the coupling. The shafts' axial displacement ΔW_a must be less than ΔK_a .
The axial displacement for Stromag Periflex® VN couplings depends on the installed connection ring.
The disc tire must always lie over its full width in the connection ring.

$$\Delta K_a \geq \Delta W_a$$

ΔK_r

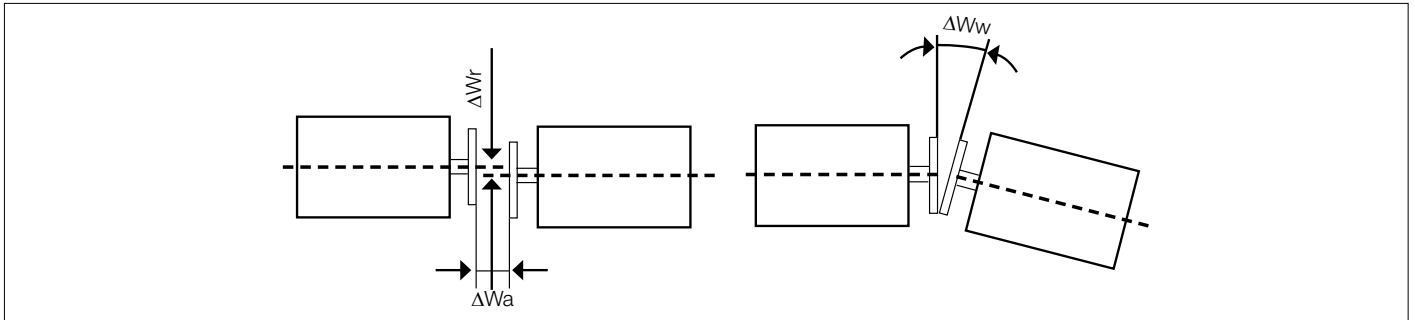
Maximum radial displacement of the coupling.
The shafts' radial displacement ΔW_r must be less than ΔK_r .

$$\Delta K_r \geq \Delta W_r$$

ΔK_w

Maximum angular displacement of the coupling.
The shafts' angular displacement ΔW_w must be less than ΔK_w .
A Δ_{KW} value of 0.5° is permitted for Periflex® VN couplings. This value, however, may be utilised to the full only when there are no other options for shaft displacement.

$$\Delta K_w \geq \Delta W_w$$



| | |
|--|--|
| C_a | |
| <p>The axial spring stiffness represents the ratio of axial reaction force to axial displacement.</p> <p>Stromag Periflex® VN couplings do not generate axial forces when the disc tire lies over its full width in the connection ring.</p> | $C_a = 0$ |
| C_r | |
| <p>The radial stiffness represents the ratio of radial reaction force to radial displacement.</p> <p>The specified values apply to the coupling at operating temperature, with a surface temperature of about 30°C.</p> | |
| C_{Tdyn} | |
| <p>The dynamic torsional spring stiffness represents the ratio of torque amplitude to torque angle during an oscillation.</p> <p>The torque amplitude is superimposed on an initial load (coupling torque). The Stromag Periflex® VN coupling's C_{Tdyn} value remains constant over the coupling torque (linear characteristic curve), but changes with the amplitude, frequency, and temperature of the flexible element.</p> <p>The specified nominal values for C_{Tdyn} are based on a coupling torque of $0.8 \cdot T_{KN}$, an alternating torque of $0.2 \cdot T_{KN}$, and a frequency of 10 Hz on a coupling at operating temperature, with a surface temperature of about 30°C.</p> | |
| <p>$C_{Tdyn \text{ warm}}$</p> <p>takes into account that high power dissipation causes the coupling to heat up.</p> | $C_{Tdyn \text{ warm}} = 0.7 \cdot C_{Tdyn}$ |
| <p>$C_{Tdyn A}$</p> <p>takes into account the effects of a small alternating torque amplitude.</p> | $C_{Tdyn A} = 1.35 \cdot C_{Tdyn}$ |
| <p>Calculations of torsional vibrations in the system are recommended to include $C_{Tdyn \text{ warm}}$ (0.7), and $C_{Tdyn A}$ (1.35)</p> | |

Stromag – Flexible Couplings

Stromag Periflex® VN Disc Coupling

Coupling Design, question sheet

| MAIN ENGINE | | |
|--|--|------------------|
| Engine type (electric, combustion engine, etc.) | | |
| Engine full designation | | |
| Engine installation (rigid or flexible) | | |
| Engine housing (SAE) | | |
| Flywheel connection | | Inch |
| Engine mass moment of inertia | | kgm ² |
| Flywheel mass moment of inertia (for combustion engine) | | kgm ² |
| Nominal power | | kW |
| Nominal speed | | rpm |
| Speed range (if application operates within a speed range) | | rpm |
| Maximum torque (breakdown torque) | | Nm |
| GEAR | | |
| Gear ratio | | |
| Moment of inertia | | kgm ² |
| CARDAN SHAFT | | |
| Type of cardan shaft deflection ("z" or "w") | | |
| Cardan shaft type (manufacturer, size) | | |
| Deflection angle | | ° |
| Moment of inertia | | kgm ² |
| Length of the cardan shaft | | mm |
| DRIVEN SIDE | | |
| Type (generator, fan, compressor, fixed or variable pitch propeller) | | |
| Main or auxiliary drive | | |
| Type of construction (free-standing or flange-mounted?) | | |
| Free-standing type (rigid or flexible installation?) | | |
| Number of blades (in case of propeller application) | | |
| Moment of inertia of driven side | | kgm ² |
| Shaft length (l) and diameter (d) | | mm |
| COUPLING | | |
| Location in the drive train (enclose schematic diagram) | | |
| Bore dimension for coupling hub | | mm |
| Ambient temperature near the coupling | | °C, °K |
| Maximum permissible coupling length | | mm |
| Classification society | | |
| ATEX certification | | |
| Ice class | | |

Use in potentially explosive environments, question sheet

| | | | |
|---|------|-----------------------|---|
| Applications | | <input type="radio"/> | Group II (above ground) |
| Potentially explosive atmosphere of air and | | <input type="radio"/> | gas |
| | | <input type="radio"/> | dust |
| Zone (Category) | gas | <input type="radio"/> | Zone 1 (Category 2G) |
| | | <input type="radio"/> | Zone 2 (Category 3G) |
| | dust | <input type="radio"/> | Zone 22 not electrically conducting (Category 3D) |
| Temperature category in atmosphere with gas | gas | <input type="radio"/> | T1 |
| | | <input type="radio"/> | T2 |
| | | <input type="radio"/> | T3 |
| | | <input type="radio"/> | T4 |
| Max surface temperature | dust | <input type="radio"/> | 125 °C |
| | | <input type="radio"/> | < 120 °C |
| | | <input type="radio"/> | -20 °C to + 40 °C |
| Ambient temperature | | <input type="radio"/> | other ambient temperatures only with certain restrictions |

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Dessauer Str. 10
06844 Dessau-Roßlau - Germany
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Electromagnetic Clutches & Brakes

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