

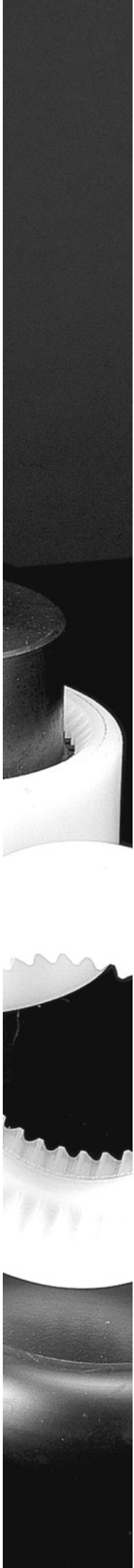
SITEX® Teeth Coupling



SITEX®
SITEX® FL

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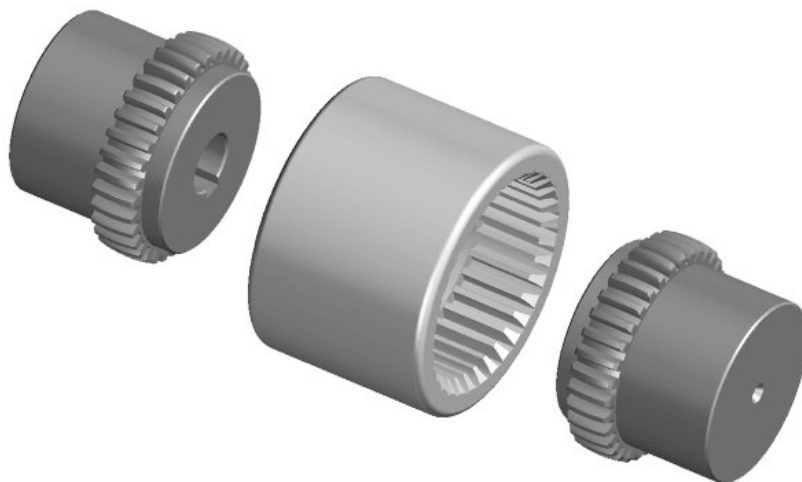


SITEX® teeth couplings

Description

SITEX® couplings consist of two toothed hubs which are connected with one internally toothed sleeve. The hubs are made of steel and the teeth, which are both profiled and section crowned, are

milled. The sleeve is manufactured from stabilized 6.6 super-polyamide resin.



Features

SITEX® couplings are members of the elastic coupling family range. Sitex couplings are well suited for applications with axial, radial, and angular displacement of the connected shafts. The double cardanic action eliminates the imposition of loads on the shafts which results from radial and axial misalignment.

The torsional rigidity of the sleeve prevents angular speed variation.

The combination of steel hubs with Polyamide sleeve makes the coupling maintenance and lubrication free.

The particular toothed profile prevents contact of tooth edges with the sleeve, ensuring long life of the coupling.

Performance

Mounting can be in both the horizontal and vertical planes. Installation is simple and quick, which lowers installation costs.

The coupling is suitable for operating in temperatures ranging from - 25°C to + 90°C.

For short intervals, temperatures of + 125°C can be tolerated. Components of the coupling are resistant to all types of lubricants and hydraulic fluids.

ATEX 94/9/EC compliance

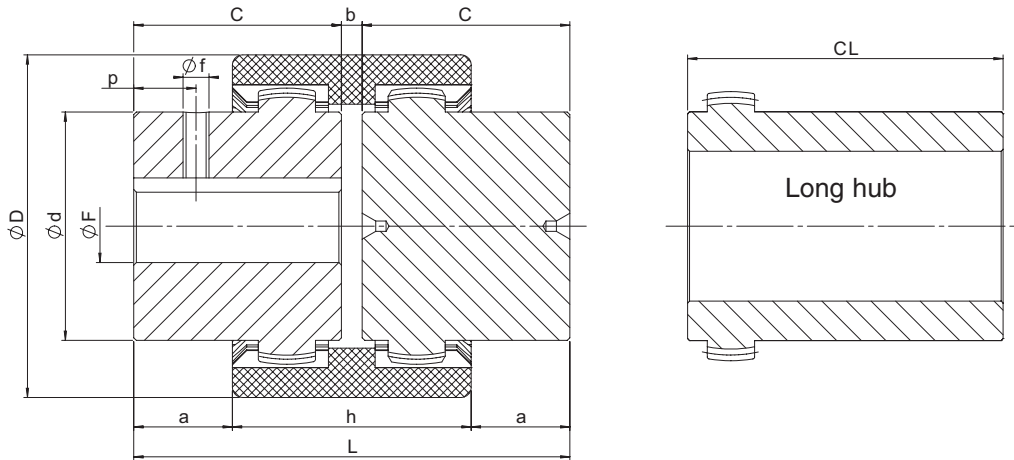
It is possible to ask for specific certification for use in hazardous area according to EC standard 94/9/EC. TRASCO couplings are available with specific mounting/operating instruction manual and conformity. For information, please contact our technical office.

Dimensional characteristics

Due to compact dimensions and excellent performances, SITEX® couplings may be used in a wide range of applications. Couplings are available from stock, both the standard and the "long" hub execution, which entirely covers the motor shaft.

SITEX hubs are available with certain stock bores as listed below. The standard solid hub has a pilot center concentric to the hub OD and can be bored to specific needs.

Approved according to EC standard ATEX 94/9/EC.



| Size | D [mm] | d [mm] | F (H7) | | | C [mm] | CL [mm] | b [mm] | a [mm] | h [mm] | L [mm] | f [mm] | p [mm] |
|------|--------|--------|--------|-----|--------------------------------|--------|---------|--------|--------|--------|--------|--------|--------|
| | | | min | max | UNI keyway and set-screw* [mm] | | | | | | | | |
| 14 | 40 | 24,5 | 8 | 14 | 11 - 14 | 23 | 30 | 4 | 6,5 | 37 | 50 | M5 | 6 |
| 19 | 48 | 30 | 8 | 19 | 11 - 14 - 19 | 25 | - | 4 | 8,5 | 37 | 54 | M5 | 6 |
| 24 | 52 | 35 | 11 | 24 | 14 - 19 - 22 - 24 | 26 | 50 | 4 | 7,5 | 41 | 56 | M5 | 6 |
| 28 | 66 | 43 | 11 | 28 | 16 - 19 - 22 - 24 - 28 | 40 | 60 | 4 | 18,5 | 47 | 84 | M8 | 10 |
| 32 | 76 | 50 | 14 | 32 | 22 - 24 - 28 - 32 | 40 | 60 | 4 | 17,5 | 48 | 84 | M8 | 10 |
| 38 | 83 | 58 | 14 | 38 | 24 - 28 - 32 - 38 | 40 | 80 | 4 | 18 | 48 | 84 | M8 | 10 |
| 42 | 92 | 65 | 14 | 42 | 25 - 28 - 32 - 38 - 42 | 42 | 110 | 4 | 18,5 | 51 | 88 | M8 | 10 |
| 48 | 100 | 68 | 19 | 48 | 32 - 38 - 42 - 48 | 50 | 110 | 4 | 27 | 50 | 104 | M8 | 10 |
| 65 | 142 | 96 | 19 | 65 | 38 - 42 - 48 - 55 - 60 | 70 | 140 | 4 | 35,5 | 73 | 144 | M10 | 20 |
| 80 | 175 | 124 | - | 80 | - | 90 | - | 6 | 46,5 | 93 | 186 | M10 | 20 |
| 100 | 210 | 152 | 36 | 100 | - | 110 | - | 8 | 63 | 102 | 228 | M10 | 20 |
| 125 | 270 | 192 | 45 | 125 | - | 140 | - | 10 | 78 | 134 | 290 | M10 | 20 |

* = Up to size 24, set-screw is 180° from keyway; from size 28 set-screw is set onto the keyway. Keyway according to DIN 6885 sheet 1 - JS9

Order form

Hub **GDM 48 F32**

GDM: SITEX® hub

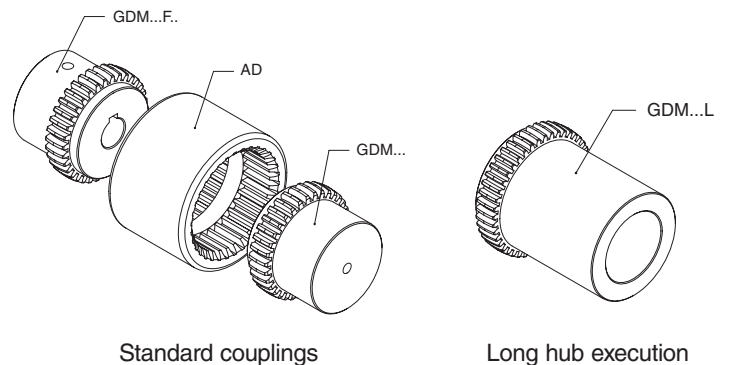
Size

L: long hub execution
F...: bore diameter

Manicotto **AD 48**

AD: SITEX® sleeve

Size



Standard couplings

Long hub execution

SITEX® coupling selection

Selection according to torque

The maximum starting torque of the driver or driven machine must not exceed the maximum torque capacity of SITEX®. With uniform loading and well aligned shafts, SITEX® can be

operated at all torques up to the maximum. In case of irregular torque, consider that the SITEX® coupling can bear peak loads up to 3 times the nominal torque indicated.

Technical characteristics

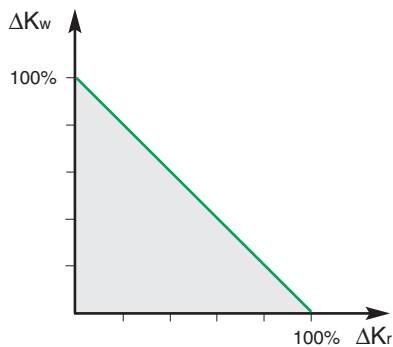
| Size | T _{KN} [Nm] | T _{Kmax} [Nm] | T _{Kw} [Nm] | [kW] | | | | | | | | | | n _{max} [min ⁻¹] | W* [kg] | J* [kg.m ²] | ΔK _a [mm] | ΔK _r [mm] | ΔK _w [°] |
|------|-------------------------|---------------------------|-------------------------|------------------------------|-------|------------------------------|-------|-------------------------------|-------|-------------------------------|--------|-------------------------------|--------|--|------------|----------------------------|-------------------------|-------------------------|------------------------|
| | | | | n = 500 [min ⁻¹] | | n = 750 [min ⁻¹] | | n = 1000 [min ⁻¹] | | n = 1500 [min ⁻¹] | | n = 3000 [min ⁻¹] | | | | | | | |
| | | | | std | max | std | max | std | max | std | max | std | max | | | | | | |
| 14 | 10 | 30 | 5 | 0,5 | 1,6 | 0,8 | 2,4 | 1,0 | 3,1 | 1,6 | 4,7 | 3,1 | 9,4 | 14.000 | 0,18 | 0,000026 | ±1 | ±0,3 | ±1 |
| 19 | 16 | 48 | 8 | 0,8 | 2,5 | 1,3 | 3,8 | 1,7 | 5,0 | 2,5 | 7,5 | 5,0 | 15,1 | 11.800 | 0,24 | 0,000054 | ±1 | ±0,3 | ±1 |
| 24 | 21 | 63 | 10,5 | 1,1 | 3,3 | 1,6 | 4,9 | 2,2 | 6,6 | 3,3 | 9,9 | 6,6 | 19,8 | 10.500 | 0,30 | 0,000088 | ±1 | ±0,3 | ±1 |
| 28 | 45 | 135 | 22,5 | 2,4 | 7,1 | 3,5 | 10,6 | 4,7 | 14,1 | 7,1 | 21,2 | 14,1 | 42,4 | 8.500 | 0,73 | 0,000312 | ±1 | ±0,4 | ±1 |
| 32 | 60 | 180 | 30 | 3,1 | 9,4 | 4,7 | 14,1 | 6,3 | 18,8 | 9,4 | 28,3 | 18,8 | 56,5 | 7.600 | 0,99 | 0,000572 | ±1 | ±0,4 | ±1 |
| 38 | 81 | 243 | 40,5 | 4,2 | 12,7 | 6,4 | 19,1 | 8,5 | 25,4 | 12,7 | 38,2 | 25,4 | 76,3 | 6.700 | 1,20 | 0,000877 | ±1 | ±0,4 | ±1 |
| 42 | 100 | 300 | 50 | 5,2 | 15,7 | 7,9 | 23,6 | 10,5 | 31,4 | 15,7 | 47,1 | 31,4 | 94,2 | 6.000 | 1,62 | 0,001467 | ±1 | ±0,4 | ±1 |
| 48 | 142 | 426 | 71 | 7,4 | 22,4 | 11,2 | 33,6 | 14,9 | 44,8 | 22,3 | 67,1 | 44,6 | 134,3 | 5.580 | 1,79 | 0,001869 | ±1 | ±0,4 | ±1 |
| 65 | 380 | 1140 | 190 | 19,9 | 59,7 | 29,8 | 89,5 | 39,8 | 119,4 | 59,7 | 179,1 | 119,4 | 358,1 | 4.000 | 5,28 | 0,010542 | ±1 | ±0,6 | ±1 |
| 80 | 700 | 2100 | 350 | 36,6 | 109,9 | 55,0 | 164,9 | 73,3 | 219,9 | 109,9 | 329,8 | 219,9 | 659,7 | 3.100 | 11,7 | 0,036774 | ±1 | ±0,7 | ±1 |
| 100 | 1210 | 3630 | 605 | 63,4 | 190,1 | 95,0 | 285,1 | 126,7 | 380,1 | 190,1 | 570,2 | 380,1 | 1140,3 | 3.000 | 20,4 | 0,095742 | ±1 | ±0,8 | ±1 |
| 125 | 2500 | 7500 | 1250 | 130,9 | 392,7 | 196,3 | 589,0 | 261,8 | 785,3 | 392,7 | 1178,0 | - | - | 2.100 | 43,3 | 0,329397 | ±1 | ±1,1 | ±1 |

*= Values are for complete couplings, max bore diameter, only.

The values shown in the table for radial and angular misalignment, must be adjusted in cases where they are simultaneously acting on the coupling.

The sum of the admissible value (A) and the respective values shown in the table must be lower or equal to 1.

$$\frac{\Delta K_{rA}}{\Delta K_r} + \frac{\Delta K_{wA}}{\Delta K_w} \leq 1$$

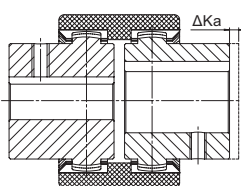


| | | |
|-------------------|------------------------------|-------------------|
| T _{KN} | Coupling nominal torque | Nm |
| T _{Kmax} | Coupling maximum torque | Nm |
| W | Weight | kg |
| J | Coupling moment of inertia | kgm ² |
| ΔK _a | Maximum axial misalignment | mm |
| ΔK _r | Maximum radial misalignment | mm |
| ΔK _w | Maximum angular misalignment | ° |
| n _{max} | Maximum rpm | min ⁻¹ |

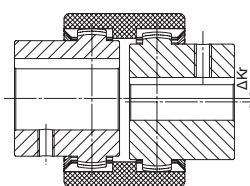
Mounting instructions

- Attach the hubs to the shafts, taking care to align the inner surfaces with the corresponding shaft ends.
- Insert the sleeve on the two hubs adjusting the distance (dimension "b") of the same ones trying at the same time to align the two shafts as much as possible.

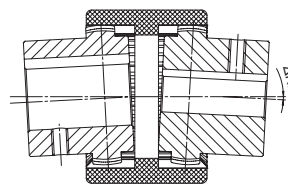
- Tighten into position the two elements to be coupled.
- Before rotating the coupling, be sure the sleeve is free to move axially.



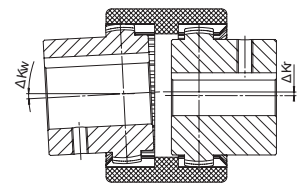
axial misalignment



radial misalignment

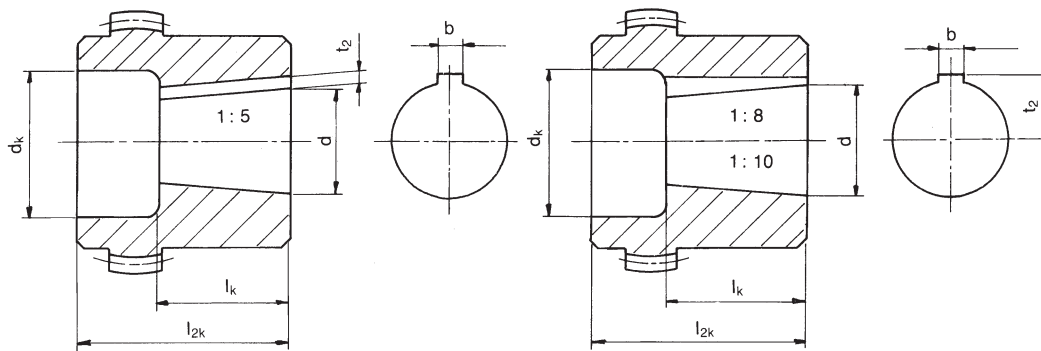


angular misalignment



both angular and radial misalignment

Tables for SITEX® couplings with taper or splined bores



Taper 1 : 5 for
BOSCH - BUCHER - LEDUC - DÜSTERLOH

| Size | dø + 0,05 | b ^{JS9} | t ² +0,1 | lk | 14 | | 19 | | 24 | | 28 | | 32 | | 38 | | 42 | | 48 | | 65 | |
|------|-----------|------------------|---------------------|------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|
| | | | | | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k |
| a1 | 9,85 | 2 | 1 | 11,5 | 18 | 23 | 22 | 25 | 24 | 26 | 35 | 26 | 36 | 26 | 45 | 26 | | | | | | |
| a2 | 16,85 | 3 | 1,8 | 18,5 | | | 25 | 30 | 28 | 30 | 35 | 40 | 36 | 40 | 45 | 40 | 45 | 42 | 45 | 42 | 45 | 50 |
| a3 | 19,85 | 4 | 2,2 | 21,5 | | | | | 28 | 36 | 35 | 40 | 36 | 40 | 45 | 40 | 45 | 42 | 45 | 42 | 45 | 50 |
| a4 | 21,95 | 3 | 1,8 | 21,5 | | | | | 30 | 26 | 32 | 40 | 32 | 40 | 42 | 40 | 45 | 42 | | | | |
| a5 | 24,85 | 5 | 2,9 | 26,5 | | | | | | | 35 | 40 | 36 | 40 | 45 | 40 | 45 | 42 | 45 | 42 | 55 | 50 |
| a6 | 29,85 | 6 | 2,6 | 31,5 | | | | | | | | | | | 45 | 55 | 45 | 55 | 45 | 55 | 55 | 55 |
| a7 | 34,85 | 6 | 2,6 | 36,5 | | | | | | | | | | | | | | | 52 | 60 | 55 | 60 |
| a8 | 39,85 | 6 | 2,6 | 41,5 | | | | | | | | | | | | | | | 52 | 60 | 65 | 70 |

Taper 1 : 8 for
ATOS - CASAPPA - GARBE LAHMEYER - JOTTI & STROZZI - MARZOCCHI - SALAMI - SAUER-FLUID

| Size | dø + 0,05 | b ^{JS9} | t ² +0,1 | lk | 14 | | 19 | | 24 | | 28 | | 32 | | 38 | | 42 | | 48 | | 65 | |
|------|-----------|------------------|---------------------|------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|
| | | | | | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k |
| b1 | 9,7 | 2,4 | 6 | 17 | 18 | 26 | 19 | 25 | 24 | 26 | 35 | 30 | 36 | 30 | 36 | 30 | | | | | | |
| b2 | 11,6 | 3 | 7,1 | 16,5 | 18 | 23 | | | 26 | 26 | 32 | 30 | | | | | | | | | | |
| b3 | 13 | 2,4 | 7,3 | 21 | | | | | 26 | 30 | 32 | 30 | | | 32 | 30 | | | | | | |
| b4 | 14 | 3 | 8,5 | 17,5 | 20 | 23 | 24 | 30 | 24 | 30 | 32 | 30 | 36 | 40 | | | | | | | | |
| b5 | 14,3 | 3,2 | 8,5 | 19,5 | | | | | | | | | | | | | | | | | | |
| b6 | 17,287 | 3,2 | 9,6 | 24 | | | | | 28 | 35 | 32 | 40 | 36 | 40 | 42 | 40 | 45 | 42 | 45 | 42 | 45 | 50 |
| b7 | 17,287 | 4 | 10,3 | 24 | | | | | 28 | 35 | 32 | 40 | 36 | 40 | 42 | 40 | 45 | 42 | 45 | 42 | 45 | 50 |
| b8 | 17,287 | 3 | 9,7 | 24 | | | | | 28 | 35 | | | | | 42 | 40 | | | 45 | 42 | | |
| b9 | 22,002 | 3,99 | 12,4 | 28 | | | | | | | 32 | 40 | 36 | 40 | 42 | 40 | 45 | 42 | 45 | 42 | 55 | 50 |
| b10 | 25,463 | 4,78 | 15,1 | 36 | | | | | | | 34 | 50 | 36 | 50 | 42 | 50 | 45 | 50 | 45 | 50 | 55 | 62 |
| b11 | 25,463 | 5 | 15,5 | 36 | | | | | | | 34 | 50 | | | | | 45 | 50 | 45 | 50 | 55 | 62 |
| b12 | 27 | 4,78 | 15,3 | 32,5 | | | | | | | | | | | 42 | 50 | | | | | | |
| b13 | 28,45 | 6 | 15,1 | 38,5 | | | | | | | | | | | 42 | 60 | 45 | 60 | | | | |
| b14 | 33,176 | 6,38 | 18,8 | 44 | | | | | | | | | | | 44 | 60 | 45 | 60 | 45 | 60 | 55 | 62 |
| b15 | 33,176 | 7 | 18,8 | 44 | | | | | | | | | | | | 45 | 60 | | | | 55 | 62 |
| b16 | 43,057 | 7,95 | 3,378 | 51 | | | | | | | | | | | | | | | | | | |
| b17 | 41,15 | 8 | 3,1 | 42 | | | | | | | | | | | | | | | 48 | 60 | 55 | 60 |

Taper 1 : 10 for
PARKER HANNIFIN NMF - TEVES

| Size | d ø + 0,05 | b ^{JS9} | t ² +0,1 | lk | 014 | | 19 | | 24 | | 28 | | 32 | | 38 | | 42 | | 48 | | 65 | |
|------|------------|------------------|---------------------|----|-----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|
| | | | | | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k | dk | l2k |
| c1 | 19,95 | 5 | 12,1 | 32 | | | | | | | 35 | 50 | | | 42 | 50 | 45 | 50 | 45 | 50 | | |
| c2 | 24,95 | 6 | 14,1 | 45 | | | | | | | | | 36 | 55 | | | 45 | 60 | 45 | 60 | 55 | 60 |
| c3 | 29,75 | 8 | 17 | 50 | | | | | | | | | | | | 54 | 60 | 54 | 60 | 55 | 70 | |

SITEX® Nylex

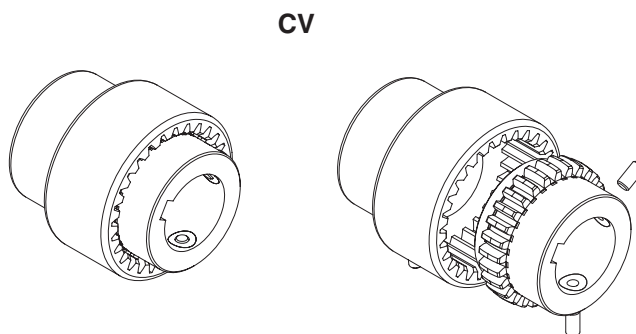
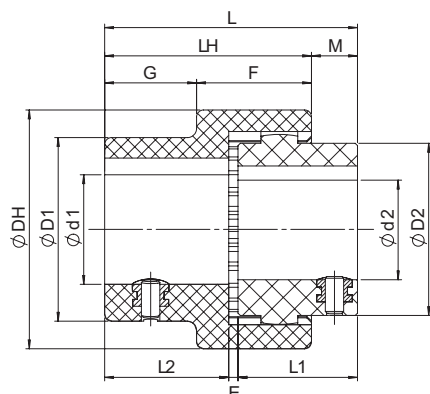
SITEX Nylex couplings are made of 100% Polyamide.
Two executions are available:

- **CV**: in 2 parts (1 hub and one sleeve including the hub);
- **C**: in 3 parts (2 hubs and one sleeve).

Designed for light applications, low cost and available with finished bore keyway and thread for set screw.

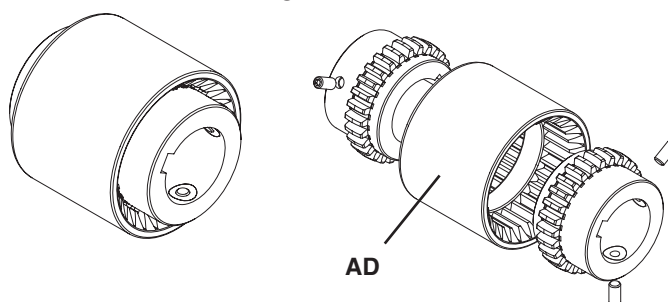
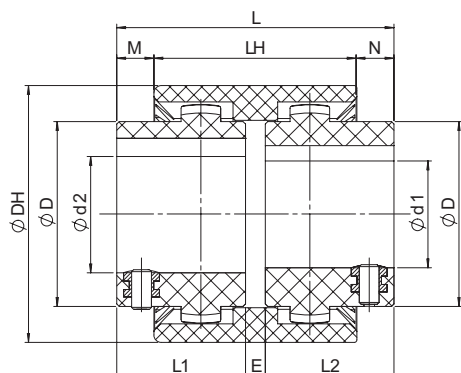
Temperature range: - 25°C ÷ + 100°C.

Approved according to EC standard ATEX 94/9/EC.



CV

| Size | d1 [mm] | | | D1 [mm] | d2 [mm] | | | D2 [mm] | DH [mm] | L1 [mm] | L2 [mm] | E [mm] | L [mm] | LH [mm] | M [mm] | F [mm] | G [mm] | TKN [Nm] | TKmax [Nm] | TKW [Nm] | nmax [min ⁻¹] |
|------|---------|-----|-------------------------------|---------|---------|-----|-------------------------------|---------|---------|---------|---------|--------|--------|---------|--------|--------|--------|----------|------------|----------|---------------------------|
| | min | max | UNI keyway and set screw [mm] | | min | max | UNI keyway and set screw [mm] | | | | | | | | | | | | | | |
| 14 | 6 | 14 | 14 | 25 | 6 | 14 | 7-9-10-11-12-14 | 26 | 40 | 23 | 23 | 2 | 48 | 40 | 8 | 23 | 17 | 5 | 10 | 2,5 | 6.000 |
| 19 | 14 | 19 | 18-19 | 31,5 | 14 | 19 | 14-17-19 | 40 | 48 | 25 | 25 | 2 | 52 | 42 | 9 | 23 | 19 | 8 | 16 | 4 | 6.000 |
| 24 | 10 | 24 | 19-20-24 | 37,5 | 10 | 24 | 10-14-16-19-20-24 | 40 | 52 | 26 | 26 | 2 | 54 | 45 | 10 | 25 | 20 | 12 | 24 | 6 | 6.000 |



C

| Taglia | d1-d2 [mm] | | | D [mm] | DH [mm] | L1 [mm] | L2 [mm] | E [mm] | L [mm] | LH [mm] | M [mm] | N [mm] | TKN [Nm] | TKmax [Nm] | TKW [Nm] | nmax [min ⁻¹] |
|--------|------------|-----|-------------------------------|--------|---------|---------|---------|--------|--------|---------|--------|--------|----------|------------|----------|---------------------------|
| | min | max | UNI keyway and set screw [mm] | | | | | | | | | | | | | |
| 14 | 6 | 14 | 7-9-10-11-12-14 | 25 | 40 | 23 | 23 | 4 | 50 | 37 | 6,5 | 6,5 | 5 | 10 | 2,5 | 6.000 |
| 19 | 14 | 19 | 14-17-19 | 31,5 | 48 | 25 | 25 | 4 | 54 | 37 | 8,5 | 8,5 | 8 | 16 | 4 | 6.000 |
| 24 | 10 | 24 | 10-14-16-19-20-24 | 37,5 | 52 | 26 | 26 | 4 | 56 | 41 | 7,5 | 7,5 | 12 | 24 | 6 | 6.000 |

Order form

Hub **GDN 14 F14**

GDN: SITEX NYLEX® hub
GDNV: SITEX NYLEX® sleeve hub

Size _____

F...: bore diameter _____

C" execution sleeve **AD 24**

AD: SITEX NYLEX® sleeve

Size _____

| | | |
|-------------------|--|-------------------|
| T _{KN} | Coupling nominal torque | Nm |
| T _{Kmax} | Coupling maximum torque | Nm |
| T _{KW} | Torque with reversal transmissible by the coupling | Nm |
| n _{max} | Maximum rpm | min ⁻¹ |