

# Rexnord Modulflex Torsionally Stiff Disc Couplings







# Why Choose Rexnord Modulflex Disc Couplings?

## Why Choose Rexnord?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Rexnord is the most reliable in the industry. Our commitment to customer satisfaction and superior value extends to every area of our business.

## Delivering Lowest Total Cost of Ownership

The highest quality products are designed to help prevent equipment downtime, increase productivity and deliver dependable operation.

## Valuable Expertise

An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

## Solutions to Enhance Ease of Doing Business

Our commitment to operational excellence means you benefit from getting the right products to the right place at the right time.

## Patent-pending Design

Rexnord® has applied for a patent for this new innovative design. The simplified disc and bolt connection with its slotted bush is a ground-breaking development, and helps bring greater efficiency and improved productivity to customers.

## Reliable Performance

Rexnord Modulflex® Coupling Disc Packs are installed under compression which allows reciprocating loads. The simplified disc pack connection and improved precision in disc and hardware connection increases the dynamic safety inside the disc joint.

## Meet Several Application Requirements

The coupling design allows additional components like extended spacers, special adapters and composite material spacers to be added to meet application needs. Rexnord Modulflex Disc Couplings comply with the rules of approval societies such as DNV, Lloyd's Register and American Bureau of Shipping (ABS) and are ATEX (II2G / II2D and M2 T6) compliant when specified.

## Low Equipment Lifetime Cost

Rexnord Modulflex Disc Couplings require no lubrication and the disc pack modules allow visible inspection and are designed for infinite dynamic load life. These couplings are easy to install, and, when required, the modules are simple to replace-in-place.

# Rexnord Modulflex 92x5 Disc Couplings — Modular design for your application

With decades of experience in the coupling business, the Rexnord Modulflex Disc Coupling design offers a variety of solutions for the most challenging applications. You will find our couplings in marine drive shafts, compressors, large industrial fans, and more, in the automotive, marine, metal, and energy industries.

## Torsionally stiff couplings for your application

- **Reliable performance** — Rexnord Modulflex 92x5 Coupling Disc Packs are installed under compression, allowing reciprocating loads. The simplified disc pack connection and improved precision in disc and hardware connection increases the dynamic safety inside the disc joint.
- **Meets several application requirements** — The coupling design allows additional components like extended spacers, special adapters and composite material spacers to be added to meet application needs. Rexnord Modulflex 92x5 Disc Couplings comply with the rules of approval societies such as DNV GL Business Assurance, Lloyd's Register (LR) and American Bureau of Shipping (ABS) for marine applications.
- **Low equipment lifetime cost** — Rexnord Modulflex 92x5 Disc Couplings require no lubrication and the disc pack modules, allowing visual inspections, are designed for infinite dynamic load life. These couplings are easy to install, and when required, the modules are simple to replace-in-place.

## Features and benefits

- Disc packs are built under compression allowing reciprocating torques at high speeds
- High-precision manufacturing methods eliminate backlash and joint vibration
- Modular design allows customized couplings that are easy to install
- High-strength stainless steel disc packs, designed for infinite dynamic load life even with reciprocating forces
- Flexible disc design offers angular, radial and axial misalignment capability
- Are EN 10204-3.2 and ATEX II 2GD c T6 compliant when specified

## For replace-in-place and adapted to existing connecting equipment applications

### Type 9205-XX-0000\*



- Single flexible element design
- Factory assembled disc pack
- Base for spacer and long spacer coupling configurations
- Element can be used with finished bore or Rexnord Koniclamp® hub configurations
- Special materials available (Aluminum 9805-XX-0000\*)

### Type 9205-XX-0500\*



- Double flexible element design
- Factory assembled disc pack
- Base element for short distance between shaft end connections
- Element can be used with finished bore or Rexnord Koniclamp hub configurations
- Special materials available (Aluminum 9805-XX-0500\*)

\*\*"XX" represents the coupling size. When placing an order, please replace the "XX" with your specified coupling size.

## For applications where the overall shaft-to-shaft spacing is minimal

Type 9215-XX-3500\*



- Double flexible element design with finished bore hubs
- Short distance between shaft end connections
- Hubs can be machined for bore and key, or hydraulic bore shaft connections (Type 9215-XX-3500\*)
- Rexnord Koniclamp keyless shaft connection (Type 9215-XX-4500\*)
- Application examples: test bench, roller tables

Type 9215-XX-4500\*



## For applications with intermediate spacer

Type 9235-XX-3000\*



- Spacer coupling design with finished bore hubs (Type 9235-XX-3000\*)
- Spacer coupling design with Rexnord Konicclamp hubs (Type 9235-XX-4000\*)
- Industry standard spacer lengths to meet ISO and ANSI requirements
- Non standard spacer lengths up to 500 millimeters
- Hubs can be machined for bore and key, or hydraulic bore shaft connections (Type 9235-XX-3000\*)
- Rexnord Konicclamp keyless shaft connection (Type 9235-XX-4000\*)
- Application examples: slurry pumps, large industrial fans

Type 9235-XX-4000\*



## For applications with extended spacer

Type 9255-XX-3000\*



- Welded spacer coupling design with finished bore hubs (Type 9255-XX-3000\*)
- Welded spacer coupling design with Rexnord Konicclamp hubs (Type 9255-XX-4000\*)
- Spacer lengths up to 6 meters
- Hubs can be machined for bore and key, or hydraulic bore shaft connections (Type 9255-XX-3000\*)
- Rexnord Konicclamp keyless shaft connection (Type 9255-XX-4000\*)
- Application examples: marine main drives, large vertical pumps

Type 9255-XX-4000\*



## For applications requiring adaptation to flywheel or brake discs, and more

Type 9275-XX-3000\*

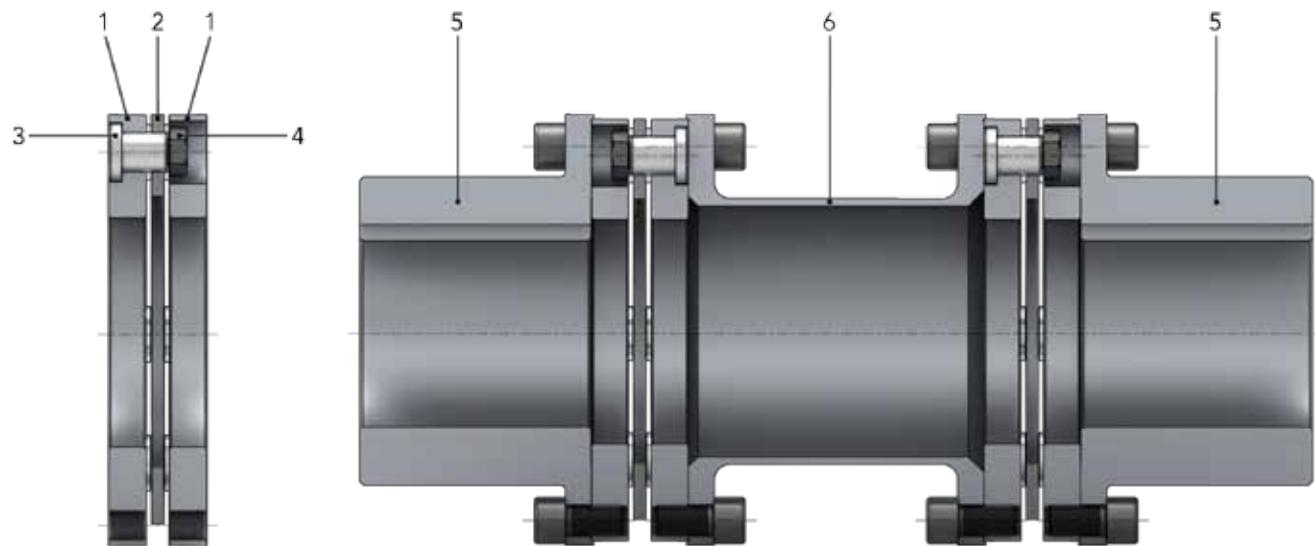


- Spacer coupling design with flywheel adapter and finished bore hub (Type 9275-XX-3000\*)
- Spacer coupling design with flywheel adapter and Rexnord Konicclamp hub (Type 9275-XX-4000\*)
- Torsionally tuned spacer coupling design with flywheel adapter and Rexnord Konicclamp hub (Type 9275-XX-4000 TT\*)
- Industry standard spacer lengths to meet ISO and ANSI requirements
- Non standard spacer lengths up to 500 millimeters
- Flywheel adapter plate which bolts directly to the flywheel of an engine or compressor
- Hub can be machined for bore and key, or hydraulic bore shaft connections (Type 9275-XX-3000\*)
- Rexnord Konicclamp keyless shaft connection (Type 9275-XX-4000\*)
- Application examples: reciprocating compressors, engine drives

Type 9275-XX-4000\*



## Design and Functionality of Rexnord Modulflex Disc Coupling

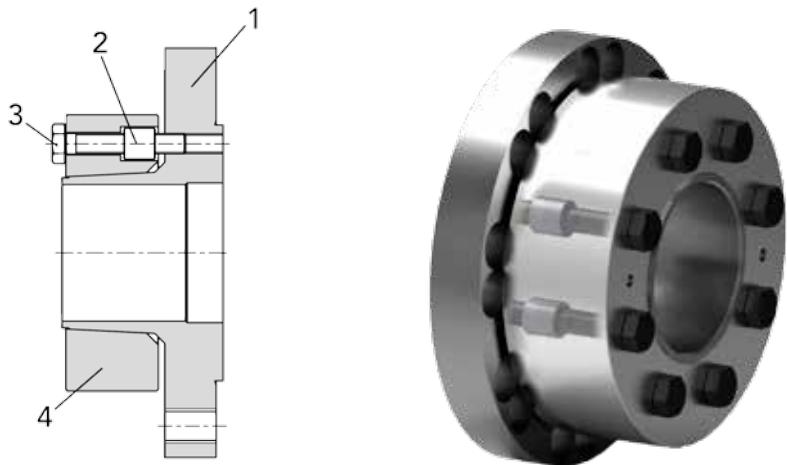


1. Flange
2. Disc Pack
3. Bushing
4. Hexagon head screw
5. Hub
6. Spacer

Rexnord Modulflex Torsionally Stiff, Flexible Disc Couplings are all-metal couplings complying with standard 740. The couplings consist of two disc packs, two flanges or hubs and one spacer. The flexible disc pack is the basis of all types and is alternately bolted to the flange or hub. The disc pack consists of a number of thin discs made of stainless steel. Torsionally stiff and flexible couplings compensate for axial, angular and - when equipped with two disc packs - also for radial misalignment.

Couplings provide nearly unlimited lifetime provided proper selection, installation and operation. Restoring forces and loads on the bearings are negligible, except extreme short distance versions. These couplings can be operated even at high environmental temperatures.

## Design and Functionality of Rexnord Koniclamp Clamping Hubs



1. Clamping hub
2. Release bush
3. Compression and releasing bolts
4. Clamping ring

Rexnord Koniclamp® Clamping Hubs with integrated releasing technology provide frictional shaft connection. Moreover, hubs are secured against axial movement on the shaft. Clamping bolts also serve as releasing bolts. Additional fastening elements or special tools are not necessary. Clamping hubs are supplied as steel or aluminum versions.

### Mounting

The clamping bolts are tightened up with a torque spanner one after the other (not crosswise) in stages to increasing levels of torque, starting with approximately 1/5th of the nominal torque and then in 1/5th increasing steps whereby several rotations will be necessary for each step. The tightening process has been completed when all the screws have been tightened to the nominal torque stated in the drawing.

### Dismounting

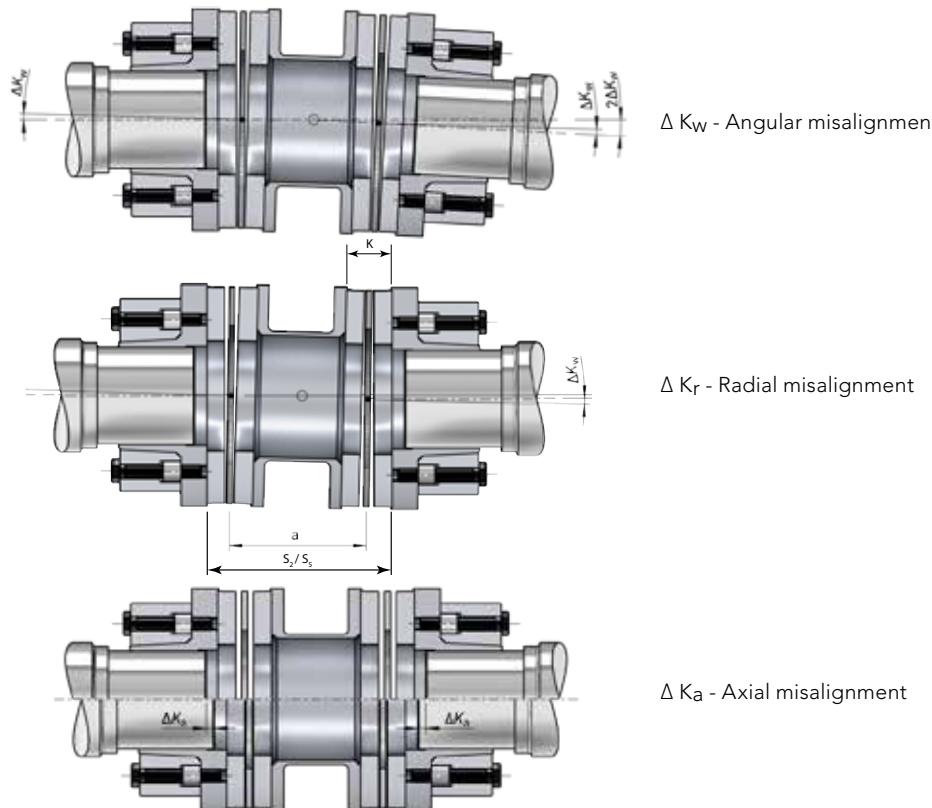
Thanks to the smart design of the Rexnord Koniclamp Clamping Hub, the clamping bolts also serve as push-off screws. The initial slackening is carried out with the torque necessary for this. All the screws are screwed back until resistance is felt. Then the screws are loaded - one after the other - with an increasing torque up to the point at which the clamping ring is released.

## Rexnord Modulflex Disc Coupling Misalignment Capabilities

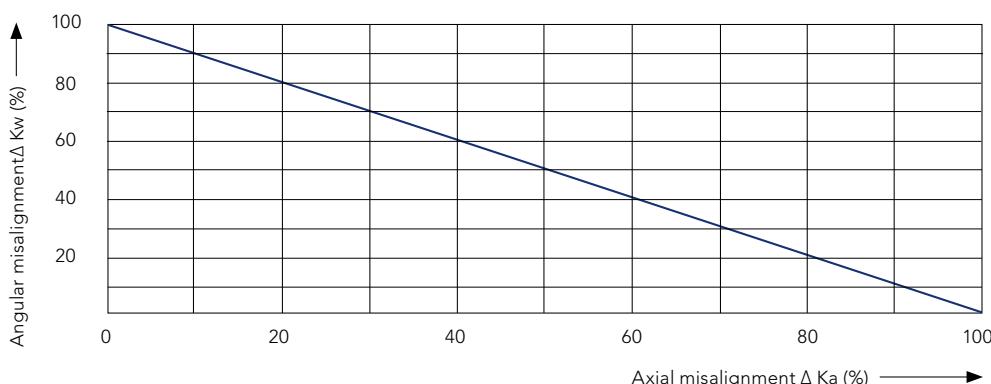
Below illustrations show the principle design of double-flex couplings and their characteristics for shaft misalignment. In general, the three depicted types of misalignment occur simultaneously during operation. They superimpose to a total misalignment which has to be compensated for by the coupling. Whereas a single-flex element only compensates for angular and axial misalignment, radial misalignment capacity of double-flex couplings is a result of the ratio of admissible angular misalignment and distance between the two disc packs (=a) according to this formula:

$$\begin{aligned}\text{admissible radial misalignment} &= \\ a \times \text{tangent admissible angular misalignment} \\ a &= S_2 - K \\ a &= S_5 - K\end{aligned}$$

The radial misalignment capacity of couplings with variable spacer length depends on the length of the spacer or intermediate shaft.



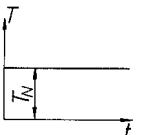
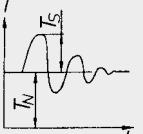
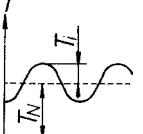
Graph 1 Misalignment



Values  $\Delta Kr$  and  $\Delta Kw$  as indicated in the respective data sheets apply at  $\Delta Ka = 0$ . If  $\Delta Ka$  takes a value  $\neq 0$ , values  $\Delta Kw$  are reduced acc. to graph 1. Values  $\Delta Kw$  at  $\Delta Ka \neq 0$  acc. to graph 1 are then used in the formula determining  $\Delta Kr$ . Example: At axial misalignment, the admissible angular misalignment  $\Delta Kw$  is reduced to a percental smaller value.

Note: dynamic balancing required for high speeds.

## Questionnaire for the selection of flexible shaft couplings in accordance with DIN 740

Peak period	Driver side T <sub>AO</sub> Driven side T <sub>LO</sub>	Duration of non-periodic torque peaks in the drive, e.g. starting up time, brake time, etc.	s
Nominal torque drive side		T <sub>AN</sub> Nominal torque of driving machine calculated from nominal power and nominal speed	Nm
Nominal torque driven side		T <sub>LN</sub> Maximum load torque calculated from power and speed	
Torque peak drive side		T <sub>AS</sub> Value of non-periodic torque peak on driving side, e.g. occurring in starting up and change in speed. For electric motors the equation M=T may be applied (pull out torque)	Nm
Torque peak driven side		T <sub>LS</sub> Value of non-periodic torque peak on load side, e.g. load variations and braking	
Periodic torque peak drive side		$\pm T_{Ai}$ Value of periodic torque initiation of i-order arising from drive side	Nm
Periodic torque peak driven side		$\pm T_{Li}$ Value of periodic torque initiation of i-order arising from load side	
Moment of load during acceleration	T <sub>L</sub>	Torque which appears during acceleration	Nm
Moment of inertia drive side	J <sub>1</sub>	Total of inertia moments on driving side acting on coupling shaft, except coupling	kgm <sup>2</sup>
Moment of inertia driven side	J <sub>2</sub>	Total of inertia moments on driven side acting on coupling shaft, except coupling	
Speed (rpm)	n <sub>N</sub>	Speed of coupling shaft	min <sup>-1</sup>
Pulses per rotation	i	Number of oscillations (surges of torque) per revolution	l
Starting frequency	Z	Numbers of starts (accelerations) per hour. On start-up with braking or on reversing Z should be doubled.	h <sup>-1</sup>
Temperature	θ	Highest ambient temperature of coupling during operation.	°C
Maximum axial misalignment	ΔW <sub>a</sub>	Maximum axial misalignment occurring between connecting shafts	mm
Maximum radial misalignment	ΔW <sub>r</sub>	Maximum radial misalignment occurring between connecting shafts	
Maximum angular misalignment	ΔW <sub>w</sub>	Maximum angular (cardanic) misalignment occurring between connecting shafts	rad

## Coupling Selection

The standard selection method can be used for most motor, turbine or engine-driven applications. The following information is required to select a flexible coupling:

- Horsepower or Kilowatts or torque
- Running rpm
- Application or type of equipment to be connected (motor to pump, gear drive to conveyor, etc.)
- Shaft diameters
- Distance between shaft ends
- Physical space limitations
- Special bore or finish information and type of fit
- Torsional rigidity, weight and inertia

Consider application peak loads and brake and reversing torques. If loads are higher than application nominal torque use values to select the appropriate coupling size.

**1. Rating:** Determine the system torque. If the torque is not given, calculate as shown below:

$$\text{System Torque (Nm)} = \text{kW} \times 9550 / \text{Rpm} \quad \text{System Torque (Nm)} = \text{PS} \times 9550 \times 0.746 / \text{Rpm}$$

Power (kW) is the actual or transmitted power required by the application (if unknown, use the motor or turbine nameplate rating). Rpm is the actual speed at which the coupling is rotating. Applications that require rapid direction changes or torque reversals should be taken into consideration when selecting the coupling size. Oscillations bandwidth torque values should be used in the coupling selection, considering that the coupling minimum positive or negative torque ratings are not exceeded.

**2. Required Minimum Coupling Rating:** Determine the required minimum coupling rating as shown below:

Coupling nominal rating > application nominal torque (Nm), peak or reversing torque as shown in the below table.

**3. Size:** Refer to the torque rating table below and select the coupling size that can transmit the required torque

**4. Type:** Refer to the overview on pages 4 and 5 for the coupling type and trace down the torque column to a value that is equal or greater than what you determined in step 3 above.

**5. Check:** Check speed (rpm), bore capacity, distance between shaft ends and the main dimensions to ensure the coupling fits in the available space.

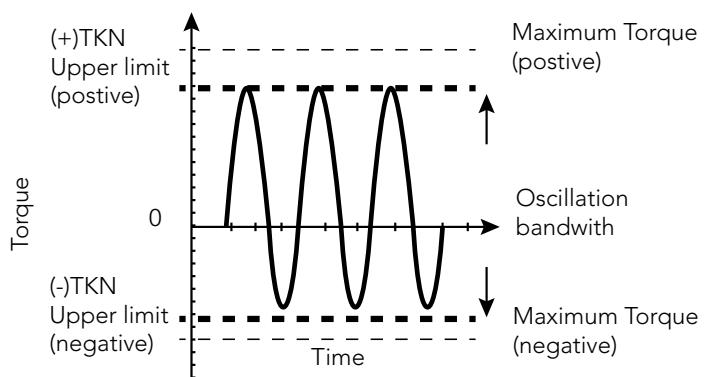
Coupling Size	Nominal Torque <sup>①</sup>	Nominal Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Perm. Oscill. Bandwidth <sup>②④</sup>
	(+) $T_{KN}$ [N·m]	(-) $T_{KN}$ [N·m]	(+) $T_{K\max}$ [N·m]	(-) $T_{K\max}$ [N·m]	$T_{KW}$ [N·m]
2,8	330	- 330	500	- 500	660
4,5	540	- 540	800	- 800	1 080
6,4	760	- 760	1 250	- 1 250	1 520
11	1 300	- 1 300	2 000	- 2 000	2 600
17	2 000	- 2 000	3 150	- 3 150	4 000
28	3 300	- 3 300	5 000	- 5 000	6 600
45	5 400	- 5 400	8 000	- 8 000	10 800
64	7 600	- 7 600	12 500	- 12 500	15 200
110	13 200	- 13 200	20 000	- 20 000	26 400
170	20 400	- 20 400	31 500	- 31 500	40 800
280	33 600	- 33 600	50 000	- 50 000	67 200
450	54 000	- 54 000	80 000	- 80 000	108 000
640	76 800	- 76 800	125 000	- 125 000	153 600
1100	132 000	- 132 000	193 000	- 193 000	264 000
1700	204 000	- 204 000	300 000	- 300 000	408 000
2800	336 000	- 336 000	500 000	- 500 000	672 000

<sup>①</sup> According to DIN 740-2:1986-08

<sup>②</sup> According to DIN 50100:1978-02

<sup>③</sup> Referring to one flexible module

<sup>④</sup> This value is for testing purpose only



Description	Code	Explanation
Upper limit positive (Nominal torque)	(+)TKN	Torque which can be transmitted continuously over the entire speed range of the coupling.
Upper limit negative (Reversing torque)	(-)TKN	Negative torque which can be transmitted continuously.
Permissible oscillation bandwidth	TKW	Torque amplitude of the permissible periodic torque fluctuation with a frequency of 10Hz and basic load of TKN or dynamic load up to TKN. This value is for testing purpose only.
Peak torque positive (Startup torque)	(+) $T_{K\max}$	Torque which can be transmitted during the entire life of the coupling => $10^5$ times as peak load or $5 \times 10 \times 10^4$ times as alternating load.
Peak torque negative (Breaking torque)	(-) $T_{K\max}$	Torque which can be transmitted during the entire life of the coupling => $10^5$ times as peak load or $5 \times 10 \times 10^4$ times as alternating load.

## Selection Examples

### Selection example for motor driven applications:

Select a coupling to connect a 55 kW, 1500 rpm electric motor driving a lobe-type blower.

Motor shaft diameter is 42 mm, blower shaft diameter is 38 mm.

Distance between shaft ends is 140 mm. Shaft extensions are 140 mm and 110 mm.

1. Determine required rating: System torque (Nm) =  $55 \text{ kW} \times 9550 / 1500 \text{n-min} = 350 \text{ Nm}$
  2. Required minimum coupling rating: 350 Nm
  3. Size: Select the coupling size from the table on page 10 with the system torque calculated in step 1. Modulflex Size 4,5 is the proper coupling size based on a torque rating of 540 Nm, exceeding the required minimum coupling rating of 350 Nm.
  4. Type: Select the suitable Rexnord Modulflex Disc Coupling type from the overview on page 4 and 5, which meets the application requirements. In this case the shaft to hub connection has a key way connection, which means that type 9235 is required.
  5. Check: Allowable speed capacity of 9235-4,5-3000 exceeds the required speed of 1500 rpm. Maximum bore capacity of 44 mm exceeds the actual shaft diameters. Minimum C-dimension is less than 140mm.
- Note: On high inertia applications, please contact Rexnord technical support to ensure proper coupling selection.

Selected coupling:

Rexnord Modulflex 9235-4,5-3000 c=140mm D1/D2=42H7+38H7+KEY WAY (JS9) + SET SCREW (M8)

### Selection example for engine driven applications:

Select a coupling to connect a 450hp at 1500 rpm nominal power engine driven reciprocating compressor.

Engine shaft diameter is 110 mm, compressor shaft diameter is 115 mm. distance between shaft ends is 250mm

Shaft extensions are 140 mm and 130 mm.

1. Determine required rating:
  - Engine nominal torque (Nm) =  $450 \times 0,746 \times 9550 / 1500 \text{n-min} = 2137 \text{ Nm}$ .
  - Alternating torque (Nm) based on engine torque curves provided by engine manufacturer 1630 Nm to 2360 Nm
- 1.1 Determinate required rating: Based on compressor manufacturer given torque curves torque variates from +860 Nm to -420 Nm
2. Required minimum coupling rating: Engine nominal torque 2137 Nm. Driven (compressor) created torque.
3. Size: From Table 1, Rexnord Modulflex Disc Coupling size 45 is the appropriate coupling size based on a torque rating of 54000 Nm exceeding the required minimum coupling rating of 3300 Nm.
4. Type: Select the suitable Rexnord Modulflex Disc Coupling type from the overview on page 4 and 5, which meets the application requirements. In this case the shaft to hub connection has a keyway connection, type 9235 is required.
5. Check: Allowable speed capacity of 9235-45-4000 exceeds the required speed of 1500 rpm. Maximum bore capacity of 120 mm exceeds the actual shaft diameters. Minimum C-dimension is less than 250mm.

Selected coupling:

Rexnord Modulflex 9235-45-4000 c=250mm D1/D2=110/115

Single-flexing Coupling Element

# Modulflex 9205-XX-0000



Single flexible element as basis for spacer and long spacer coupling configurations. For replace-in-place and adapting to existing connecting equipment. The element can be used with finished bore or Rexnord Konicclamp® hub configurations.

## Features

- Disc pack is built under compression
- High precision accuracy on bolt and disc joint
- Large diameter disc connection bolts
- Disc designed for infinite dynamic load life

## Benefits

- Zero backlash & joint vibration
- Requires no extra safety factor for the coupling
- High torque per outer diameter
- High potential speeds
- Minimizes bolt cycle fatigue
- Compensates for angular and axial misalignment thus protecting the torque flange
- Rigid coupling to meet system torsional requirements
- Reliable performance even when the system experiences reciprocating forces
- No dynamic load life limit

## Construction

**Elements:** Alloy steel with a typical tensile strength of 900 - 1200 N/mm

**Disc Packs:** Stainless steel. Max. misalignment: 0,7° per disc pack

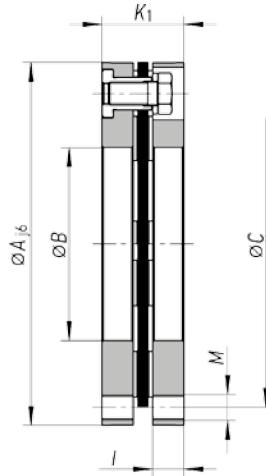
**Coatings available:** Nickel plating or phosphate. Other coatings available upon request

## As alternative:

**Elements:** High-strength Aluminum 7075 to ensure low weight and inertia

Technical data almost identical to the steel version

**Available coating:** Hard coating to protect against corrosion and to harden the surface



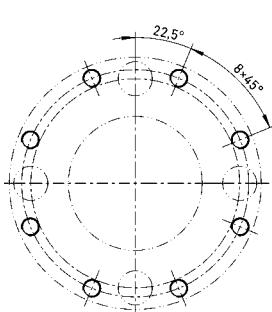
### 9205-XX-0000 DIMENSIONS

Coupling Size	Nominal Torque <sup>①</sup>	Nominal Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Perm. Oscill. Bandwidth <sup>②</sup>	Axial Misalignment	Radial Misalignment	Angular Misalignment	Torsional Spring Rate	Moment of Inertia	Weight	Maximum Speed	Dimensions					Bolt Hole Pattern
	(+) T <sub>KN</sub> [N·m]	(-) T <sub>KN</sub> [N·m]	(+) T <sub>Kmax</sub> [N·m]	(-) T <sub>Kmax</sub> [N·m]	T <sub>KW</sub> [N·m]	ΔK <sub>a</sub> [± mm]	ΔK <sub>r</sub> [± mm]	ΔK <sub>w</sub> [deg]	C <sub>Tsp</sub> [MN·m/rad]	m [kg·m <sup>2</sup> ]	m [kg]	n <sub>max</sub> [min <sup>-1</sup> ]	A [mm]	B [mm]	C [mm]	I [mm]	K <sub>1</sub> [mm]	M [mm]
2,8	330	- 330	500	- 500	660	1,0	-	0,75	0,11	0,0006	0,7	44 000	75	39	64	12	29,5	M8 A
4,5	540	- 540	800	- 800	1 080	1,2	-	0,75	0,16	0,0013	1,0	39 000	88	47	77	13	32,5	M8 A
6,4	760	- 760	1 250	- 1 250	1 520	1,3	-	0,75	0,41	0,0029	1,6	31 400	110	55	99	12	31	M8 B
11	1 300	- 1 300	2 000	- 2 000	2 600	1,4	-	0,75	0,75	0,0073	2,5	27 100	139	68	127	12,2	32	M8 B
17	2 000	- 2 000	3 150	- 3 150	4 000	1,5	-	0,75	1,3	0,0089	2,6	23 200	146	82	134	12,5	32,5	M8 C
28	3 300	- 3 300	5 000	- 5 000	6 600	1,6	-	0,75	2,19	0,018	3,9	21 000	170	90	154	13	34,5	M10 C
45	5 400	- 5 400	8 000	- 8 000	10 800	2,0	-	0,75	3,53	0,044	7,0	18 400	200	102	182	17	44	M12 C
64	7 600	- 7 600	12 500	- 12 500	15 200	2,1	-	0,75	4,63	0,076	9,9	15 600	222	118	200	19,1	50	M16 D
110	13 200	- 13 200	20 000	- 20 000	26 400	2,5	-	0,75	6,52	0,138	14	14 500	248	135	224	22,8	58	M16 D
170	20 400	- 20 400	31 500	- 31 500	40 800	2,9	-	0,75	11,91	0,275	21	12 800	285	152	258	25,5	65,5	M20 D
280	33 600	- 33 600	50 000	- 50 000	67 200	3,2	-	0,75	17,18	0,556	33	11 300	325	162	295	30	76,5	M24 D
450	54 000	- 54 000	80 000	- 80 000	108 000	3,6	-	0,75	29,09	1,04	48	10 100	366	195	330	35,7	90	M27 D
640	76 800	- 76 800	125 000	- 125 000	153 600	4,1	-	0,75	39,48	1,83	68	8 100	408	215	369	40,5	101,5	M30 D
1100	132 000	- 132 000	193 000	- 193 000	264 000	4,6	-	0,75	59,24	3,83	110	7 700	465	250	420	51	126	M33 D
1700	204 000	- 204 000	300 000	- 300 000	408 000	4,8	-	0,75	74,61	6,48	157	6 900	504	275	458	64	153	M33 D
2800	336 000	- 336 000	500 000	- 500 000	672 000	5,0	-	0,75	121,91	11,9	226	5 500	590	290	510	75	185	M42 D

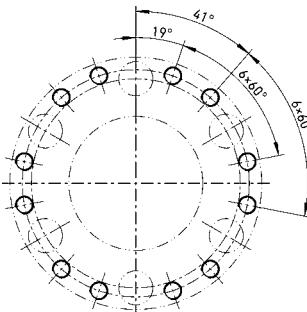
① According to DIN 740-2:1986-08

② According to DIN 50100:1978-02

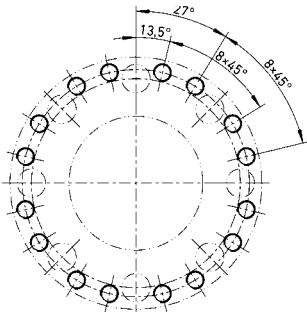
Bolt Hole Pattern "A"



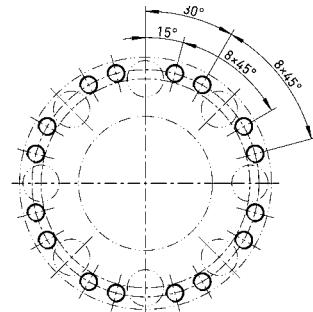
Bolt Hole Pattern "B"



Bolt Hole Pattern "C"



Bolt Hole Pattern "D"



Note: Bolt circle diameter (C) and bolt hole (M) dimensions are shown in above table.

# Modulflex 9205-XX-0500



Double flexible element as basis for spacer and long spacer coupling configurations. For replace-in-place and adapting to existing connecting equipment. The element can be used with finished bore or Rexnord Koniclamp® hub configurations.

## Features

- Disc packs are built under compression
- High precision accuracy on bolt and disc joint
- Large diameter disc connection bolts
- Disc designed for infinite dynamic load life

## Benefits

- Zero backlash & joint vibration
- Requires no extra safety factor for the coupling
- High torque per outer diameter
- High potential speeds
- Minimizes bolt cycle fatigue
- Compensates for radial, angular and axial misalignment thus protecting the torque flange
- Rigid coupling to meet system torsional requirements
- Reliable performance even when the system experiences reciprocating forces
- No dynamic load life limit

## Construction

**Elements:** Alloy steel with a typical tensile strength of 900 - 1200 N/mm

**Disc Packs:** Stainless steel. Max. misalignment: 0,7° per disc pack

**Coatings available:** Nickel plating or phosphate. Other coatings available upon request

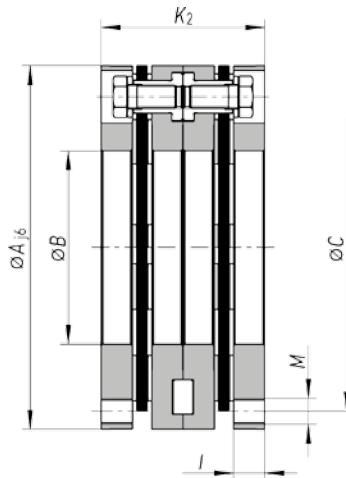
## As alternative:

**Elements:** High-strength Aluminum 7075 to ensure low weight and inertia

Technical data almost identical to the steel version

**Available coating:** Hard coating to protect against corrosion and to harden the surface

# Moduliflex 9205-XX-0500



## 9205-XX-0500 DIMENSIONS

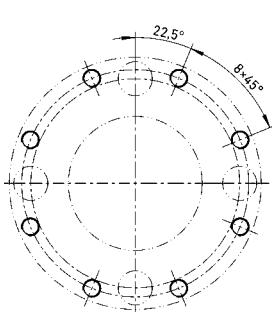
Coupling Size	Nominal Torque <sup>①</sup>	Nominal Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Perm. Oscill. Bandwidth <sup>②</sup>	Axial Misalignment	Radial Misalignment	Angular Misalignment <sup>③</sup>	Torsional Spring Rate	Moment of Inertia	Weight	Maximum Speed	Dimensions					Bolt Hole Pattern
	(+) T <sub>KN</sub> [N·m]	(-) T <sub>KN</sub> [N·m]	(+) T <sub>Kmax</sub> [N·m]	(-) T <sub>Kmax</sub> [N·m]	T <sub>KW</sub> [N·m]	ΔK <sub>a</sub> [± mm]	ΔK <sub>r</sub> [± mm]	ΔK <sub>w</sub> [deg]	C <sub>r,sp</sub> [MN·m/rad]	m [kg·m <sup>2</sup> ]	m [kg]	n <sub>max</sub> [min <sup>-1</sup> ]	A [mm]	B [mm]	C [mm]	I [mm]	K <sub>2</sub> [mm]	M [mm]
2,8	330	- 330	500	- 500	660	2,0	0,38	0,75	0,055	0,0012	1,4	44 000	75	39	64	12	59	M8 A
4,5	540	- 540	800	- 800	1 080	2,4	0,42	0,75	0,080	0,0026	2,0	39 000	88	47	77	13	65	M8 A
6,4	760	- 760	1 250	- 1 250	1 520	2,6	0,41	0,75	0,205	0,0058	3,2	31 400	110	55	99	12	62	M8 B
11	1 300	- 1 300	2 000	- 2 000	2 600	2,8	0,42	0,75	0,375	0,0146	5,0	27 100	139	68	127	12,2	64	M8 B
17	2 000	- 2 000	3 150	- 3 150	4 000	3,0	0,42	0,75	0,650	0,0178	5,2	23 200	146	82	134	12,5	65	M8 C
28	3 300	- 3 300	5 000	- 5 000	6 600	3,2	0,45	0,75	1,10	0,036	7,8	21 000	170	90	154	13	69	M10 C
45	5 400	- 5 400	8 000	- 8 000	10 800	4,0	0,58	0,75	1,77	0,088	14,0	18 400	200	102	182	17	88	M12 C
64	7 600	- 7 600	12 500	- 12 500	15 200	4,2	0,65	0,75	2,32	0,152	19,8	15 600	222	118	200	19,1	100	M16 D
110	13 200	- 13 200	20 000	- 20 000	26 400	5,0	0,76	0,75	3,26	0,276	28,2	14 500	248	135	224	22,8	116	M16 D
170	20 400	- 20 400	31 500	- 31 500	40 800	5,8	0,86	0,75	5,96	0,55	42	12 800	285	152	258	25,5	131	M20 D
280	33 600	- 33 600	50 000	- 50 000	67 200	6,4	1,00	0,75	8,59	1,11	66	11 300	325	162	295	30	153	M24 D
450	54 000	- 54 000	80 000	- 80 000	108 000	7,2	1,18	0,75	14,55	2,08	96	10 100	366	195	330	35,7	180	M27 D
640	76 800	- 76 800	125 000	- 125 000	153 600	8,2	1,33	0,75	19,74	3,66	136	8 100	408	215	369	40,5	203	M30 D
1100	132 000	- 132 000	193 000	- 193 000	264 000	9,2	1,65	0,75	29,62	7,66	220	7 700	465	250	420	51	252	M33 D
1700	204 000	- 204 000	300 000	- 300 000	408 000	9,6	2,00	0,75	37,31	12,96	314	6 900	504	275	458	64	306	M33 D
2800	336 000	- 336 000	500 000	- 500 000	672 000	10,0	2,42	0,75	60,96	23,73	452	5 500	590	290	510	75	370	M42 D

① According to DIN 740-2:1986-08

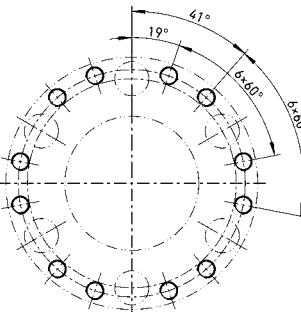
② According to DIN 50100:1978-02

③ Referring to one flexible module

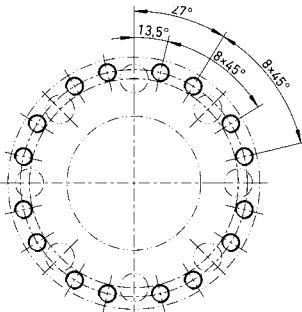
Bolt Hole Pattern "A"



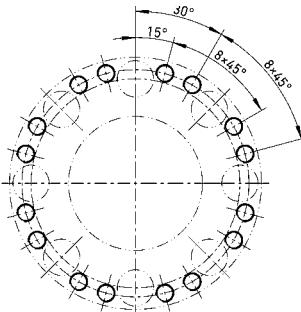
Bolt Hole Pattern "B"



Bolt Hole Pattern "C"



Bolt Hole Pattern "D"



Note: Bolt circle diameter (C) and bolt hole (M) dimensions are shown in above table.

Double-flexing Coupling Element with Shaft Hub

# Modulflex 9215-XX-3500



Double flexible element with finished bored standard hubs. Applications include any situation where the overall shaft-to-shaft spacing is minimal. The center member consists of two flexible elements and permits maintenance of the couplings without moving the hubs or the connected equipment. Center member is piloted into the adapter providing high-speed potential at high-torque density.

## Features

- Disc packs are built under compression
- High precision accuracy on bolt and disc joint
- Large diameter disc connection bolts
- Disc designed for infinite dynamic load life

## Benefits

- Zero backlash & joint vibration
- Requires no extra safety factor for the coupling
- High torque per outer diameter
- High potential speeds
- Minimizes bolt cycle fatigue
- Compensates for radial, angular and axial misalignment thus protecting the torque flange
- Rigid coupling to meet system torsional requirements
- Reliable performance even when the system experiences reciprocating forces
- No dynamic load life limit

## Construction

**Elements:** Alloy steel with a typical tensile strength of 900 - 1200 N/mm

**Hubs:** Carbon steel

**Bolts:** Alloy steel

**Disc Packs:** Stainless steel. Max. misalignment: 0,7° per disc pack

**Coatings available:** Nickel plating or phosphate. Other coatings available upon request

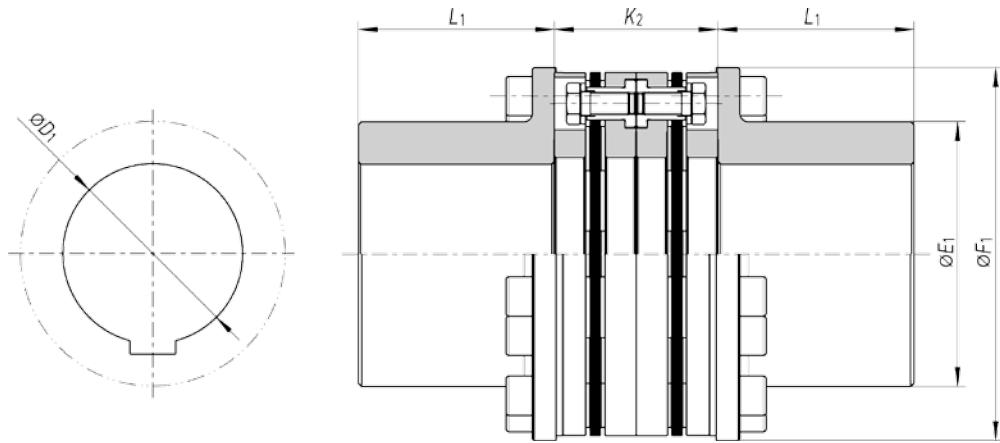
## As alternative:

**Elements:** High-strength Aluminum 7075 to ensure low weight and inertia

Technical data almost identical to the steel version

**Available coating:** Hard coating to protect against corrosion and to harden the surface

# Moduliflex 9215-XX-3500



## 9215-XX-3500 DIMENSIONS

Coupling Size	Nominal Torque <sup>①</sup>	Nominal Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Perm. Oscill. Bandwidth <sup>②</sup>	Axial Misalignment	Radial Misalignment	Angular Misalignment <sup>③</sup>	Torsional Spring rate <sup>④⑤</sup>	Moment of Inertia	Weight	Maximum Speed	Dimensions				
	(+) T <sub>KN</sub> [N·m]	(-) T <sub>KN</sub> [N·m]	(+) T <sub>Kmax</sub> [N·m]	(-) T <sub>Kmax</sub> [N·m]	T <sub>KW</sub> [N·m]	ΔK <sub>a</sub> [ $\pm$ mm]	ΔK <sub>r</sub> [ $\pm$ mm]	ΔK <sub>w</sub> [deg]	C <sub>Tdyn</sub> [MN·m/rad]	m [kg·m <sup>2</sup> ]	m [kg]	n <sub>max</sub> [min <sup>-1</sup> ]	D <sub>1max</sub> [mm]	E <sub>1</sub> [mm]	F <sub>1</sub> [mm]	K <sub>2</sub> [mm]	L <sub>1</sub> [mm]
2,8	330	- 330	500	- 500	660	2,0	0,38	0,75	0,05	0,002	2,3	44 000	35	48	79	59	45
4,5	540	- 540	800	- 800	1 080	2,4	0,42	0,75	0,075	0,004	3,4	39 000	44	60	92	65	50
6,4	760	- 760	1 250	- 1 250	1 520	2,6	0,41	0,75	0,189	0,010	5,7	31 400	55	75	114	62	55
11	1 300	- 1 300	2 000	- 2 000	2 600	2,8	0,42	0,75	0,354	0,027	10,5	27 100	70	100	143	64	70
17	2 000	- 2 000	3 150	- 3 150	4 000	3,0	0,42	0,75	0,603	0,034	11,3	23 200	80	110	150	65	75
28	3 300	- 3 300	5 000	- 5 000	6 600	3,2	0,45	0,75	0,986	0,064	16,0	21 000	90	120	174	69	85
45	5 400	- 5 400	8 000	- 8 000	10 800	4,0	0,58	0,75	1,602	0,165	30,3	18 400	105	145	205	88	110
64	7 600	- 7 600	12 500	- 12 500	15 200	4,2	0,65	0,75	2,111	0,281	41,3	15 600	120	162	227	100	120
110	13 200	- 13 200	20 000	- 20 000	26 400	5,0	0,76	0,75	3,009	0,537	63,1	14 500	135	188	252	116	140
170	20 400	- 20 400	31 500	- 31 500	40 800	5,8	0,86	0,75	5,299	0,990	86	12 800	160	210	293	131	160
280	33 600	- 33 600	50 000	- 50 000	67 200	6,4	1,00	0,75	7,875	2,13	143	11 300	180	250	334	153	180
450	54 000	- 54 000	80 000	- 80 000	108 000	7,2	1,18	0,75	12,79	3,65	193	10 100	200	268	375	180	200
640	76 800	- 76 800	125 000	- 125 000	153 600	8,2	1,33	0,75	17,32	6,48	288	8 100	240	308	416	203	240
1100	132 000	- 132 000	193 000	- 193 000	264 000	9,2	1,65	0,75	26,43	13,6	434	7 700	270	358	475	252	270
1700	204 000	- 204 000	300 000	- 300 000	408 000	9,6	2,00	0,75	33,44	22,6	593	6 900	300	395	516	306	300
2800	336 000	- 336 000	500 000	- 500 000	672 000	10,0	2,42	0,75	49,62	35,0	5 500	350	420	602	370	360	

① According to DIN 740-2:1986-08    ② According to DIN 50100:1978-02    ③ Referring to one flexible module    ④ Based on 1/3 shaft penetration

⑤ These values are valid for the shaft compression. In case of keyway connection, the values need to be recalculated.

Double-flexing Coupling Element with Koniclamp

# Modulflex 9215-XX-4500



Double flexible element with Koniclamp® Clamping Hubs. Applications include any situation where the overall shaft-to-shaft spacing is minimal. The center member consists of two flexible elements and permits maintenance of the couplings without moving the hubs or the connected equipment. Center member is piloted into the adapter providing high-speed potential at high-torque density.

## Features

- Disc packs are built under compression
- High precision accuracy on bolt and disc joint
- Large diameter disc connection bolts
- Disc designed for infinite dynamic load life

Koniclamp hubs are the recommended shaft-hub connection to ensure a backlash-free and true-running connection.

## Benefits

- Zero backlash & joint vibration
- Requires no extra safety factor for the coupling
- High torque per outer diameter
- High potential speeds
- Minimizes bolt cycle fatigue
- Compensates for radial, angular and axial misalignment thus protecting the torque flange
- Rigid coupling to meet system torsional requirements
- Reliable performance even when the system experiences reciprocating forces
- No dynamic load life limit

## Construction

**Elements and outer ring clamping hub:** Alloy steel with a typical tensile strength of 900 - 1200 N/mm

**Hubs:** Carbon steel

**Bolts:** Alloy steel

**Disc Packs:** Stainless steel. Max. misalignment: 0,7° per disc pack

**Coatings available:** Nickel plating or phosphate. Other coatings available upon request

## As alternative:

**Elements and Konicclamp:** High-strength Aluminum 7075 to ensure low weight and inertia

Technical data almost identical to the steel version

**Available coating:** Hard coating to protect against corrosion and to harden the surface



# Modulflex 9235-XX-3000



Spacer coupling design with finish bored hubs and industry standard spacer lengths to meet ISO and ANSI requirements and non standard spacer lengths of up to 500 mm. This optimized 5-piece design allows for the smallest possible package for an application. The hubs are pilot fitted to the factory assembled disc pack element. The design allows for repeatable installations without special tooling. Additional modifications may be made to reduce coupling weight, or special mountings to make it an economical option on various critical and high speed applications. Common engineered solutions are available such as torque overload protection, electrical insulation, spark resistance and alloy construction.

## Features

- Disc packs are built under compression
- High precision accuracy on bolt and disc joint
- Large diameter disc connection bolts
- Torsionally tuned center member
- Disc designed for infinite dynamic load life

## Benefits

- Zero backlash & joint vibration thus not requiring an additional safety factor for the coupling
- Requires no extra safety factor for the coupling
- High torque per outer diameter
- High potential speeds
- Minimizes bolt cycle fatigue
- Compensates for radial, angular and axial misalignment thus protecting the torque flange
- Rigid coupling to meet system torsional requirements
- Reliable performance even when the system experiences reciprocating forces
- No dynamic load life limit

## Construction

**Elements:** Alloy steel with a typical tensile strength of 900 - 1200 N/mm

**Hubs and spacer:** Carbon steel

**Bolts:** Alloy steel

**Disc Packs:** Stainless steel. Max. misalignment: 0,7° per disc pack

**Coatings available:** Nickel plating or phosphate.

Other coatings available upon request

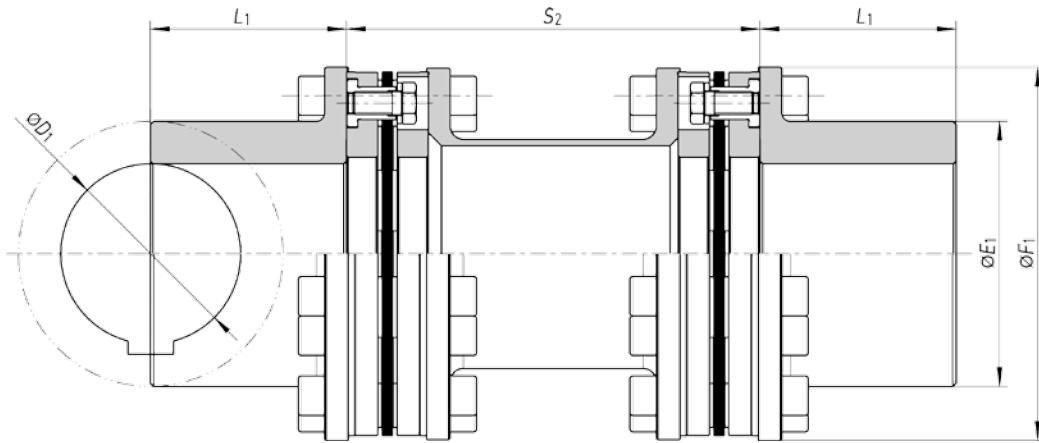
## As alternative:

**Elements and spacer:** High-strength Aluminum 7075 to ensure low weight and inertia

Technical data almost identical to the steel version

**Available coating:** Hard coating to protect against corrosion and to harden the surface

# Moduliflex 9235-XX-3000



## 9235-XX-3000 DIMENSIONS

Coupling Size	Nominal Torque <sup>①</sup>	Nominal Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Perm. Oscill. Bandwidth <sup>②</sup>	Axial Misalignment	Radial Misalignment <sup>③</sup>	Angular Misalignment <sup>④</sup>	Torsional Spring Rate <sup>⑤⑥</sup>	Moment of Inertia <sup>③</sup>	Weight <sup>③</sup>	Dimensions			Distance Between Shaft Ends			
	(-) T <sub>KN</sub> [N·m]	(+) T <sub>KN</sub> [N·m]	(+) T <sub>K,max</sub> [N·m]	(-) T <sub>K,max</sub> [N·m]	T <sub>KW</sub> [N·m]	ΔK <sub>x</sub> [ $\pm$ mm]	ΔK <sub>y</sub> [ $\pm$ mm]	ΔK <sub>z</sub> [deg]	C <sub>T,dyn</sub> [MN·m/rad]	m [kg·m <sup>2</sup> ]	m [kg]	D <sub>1,max</sub> [mm]	E <sub>1</sub> [mm]	F <sub>1</sub> [mm]	L <sub>1</sub> [mm]	S <sub>2,min</sub> [mm] = S <sub>2</sub> = 140mm = 180mm = 250mm = 300mm	S <sub>2</sub> [mm]	S <sub>3</sub> [mm]
2,8	330	- 330	500	- 500	660	2,0	0,9	0,75	0,041	0,002	2,7	35	48	79	45	101	X	
4,5	540	- 540	800	- 800	1 080	2,4	1,0	0,75	0,064	0,004	4,0	44	60	92	50	107	X	
6,4	760	- 760	1 250	- 1 250	1 520	2,6	1,2	0,75	0,148	0,012	6,8	55	75	114	55	125	X	
11	1 300	- 1 300	2 000	- 2 000	2 600	2,8	1,2	0,75	0,293	0,033	12,4	70	100	143	70	126	X	
17	2 000	- 2 000	3 150	- 3 150	4 000	3,0	1,2	0,75	0,522	0,041	13,2	80	110	150	75	126	X	
28	3 300	- 3 300	5 000	- 5 000	6 600	3,2	1,5	0,75	0,824	0,076	18,9	90	120	174	85	149	X	
45	5 400	- 5 400	8 000	- 8 000	10 800	4,0	1,6	0,75	1,251	0,196	35,8	105	145	205	110	170	X	
64	7 600	- 7 600	12 500	- 12 500	15 200	4,2	2,7	0,75	1,484	0,339	49,0	120	162	227	120	253	X	
110	13 200	- 13 200	20 000	- 20 000	26 400	5,0	2,8	0,75	2,222	0,637	74,0	135	188	252	140	272	X	
170	20 400	- 20 400	31 500	- 31 500	40 800	5,8	3,4	0,75	3,637	1,200	104	160	210	293	160	324		
280	33 600	- 33 600	50 000	- 50 000	67 200	6,4	3,7	0,75	5,469	2,51	168	180	250	334	180	356		
450	54 000	- 54 000	80 000	- 80 000	108 000	7,2	4,2	0,75	8,53	4,41	235	200	268	375	200	414		
640	76 800	- 76 800	125 000	- 125 000	153 600	8,2	4,5	0,75	12,53	7,64	319	240	308	416	240	442		
1100	132 000	- 132 000	193 000	- 193 000	264 000	9,2	5,0	0,75	20,1	15,9	512	270	358	475	270	505		
1700	204 000	- 204 000	300 000	- 300 000	408 000	9,6	5,4	0,75	27,1	26,3	702	300	395	516	300	568		
2800	336 000	- 336 000	500 000	- 500 000	672 000	10,0	8,1	0,75			350	420	602	360	802			

① According to DIN 740-2:1986-08

② According to DIN 50100:1978-02

③ Referring to min. spacer length design

④ Referring to one flexible module

⑤ Based on 1/3 shaft penetration

⑥ These values are valid for the shaft compression. In case of keyway connection, the values need to be recalculated.

Short Spacer Coupling with Koniclamp

# Modulflex 9235-XX-4000



Spacer coupling design with Rexnord Koniclamp clamping hubs and industry standard spacer lengths to meet ISO and ANSI requirements and non standard spacer lengths of up to 500 mm. This optimized 5-piece design allows for the smallest possible package for an application. The hubs are pilot fitted to the factory assembled disc pack element. The design allows for repeatable installations without special tooling. Additional modifications may be made to reduce coupling weight, or special mountings to make it an economical option on various critical and high speed applications. Common engineered solutions are available such as torque overload protection, electrical insulation, spark resistance and alloy construction.

## Features

- Disc packs are built under compression
- High precision accuracy on bolt and disc joint
- Large diameter disc connection bolts
- Torsionally tuned center member
- Disc designed for infinite dynamic load life

Koniclamp hubs are the recommended shaft-hub connection to ensure a backlash-free and true-running connection.

## Benefits

- Zero backlash & joint vibration
- Requires no extra safety factor for the coupling
- High torque per outer diameter
- High potential speeds
- Minimizes bolt cycle fatigue
- Compensates for radial, angular and axial misalignment thus protecting the torque flange
- Rigid coupling to meet system torsional requirements
- Reliable performance even when the system experiences reciprocating forces
- No dynamic load life limit

## Construction

**Elements and outer ring clamping hub:** Alloy steel with a typical tensile strength of 900 - 1200 N/mm

**Hubs and spacer:** Carbon steel

**Bolts:** Alloy steel

**Disc Packs:** Stainless steel. Max. misalignment: 0,7° per disc pack

**Coatings available:** Nickel plating or phosphate. Other coatings available upon request

## As alternative:

**Elements, Koniclamp and spacer:** High-strength Aluminum 7075 to ensure low weight and inertia

Technical data almost identical to the steel version

**Available coating:** Hard coating to protect against corrosion and to harden the surface



Long Spacer Coupling with Shaft Hub

# Modulflex 9255-XX-3000



Welded spacer coupling design with Rexnord Konicclamp clamping hubs and spacer lengths of up to 6 meters.

Spacers with lengths above 6 meters and for high speed applications also available (carbon fibre version). Floating shaft couplings are used to connect units which are relatively far apart. Such arrangements are particularly suited to transmit power into areas where moisture, dust or corrosive conditions would adversely affect the driving machinery. The operating speeds of floating shaft couplings are dependent upon the length of span required and center tube material thickness. Consult Rexnord for center tube critical speed calculation and special balancing requirements.

## Features

- Disc packs are built under compression
- High precision accuracy on bolt and disc joint
- Large diameter disc connection bolts
- Torsionally tuned center member
- Disc designed for infinite dynamic load life

## Benefits

- Zero backlash & joint vibration
- Requires no extra safety factor for the coupling
- High torque per outer diameter
- High potential speeds
- Minimizes bolt cycle fatigue
- Compensates for radial, angular and axial misalignment thus protecting the torque flange
- Rigid coupling to meet system torsional requirements
- Reliable performance even when the system experiences reciprocating forces
- No dynamic load life limit

## Construction

**Elements:** Alloy steel with a typical tensile strength of 900 - 1200 N/mm

**Hubs:** Carbon steel

**Bolts:** Alloy steel

**Disc Packs:** Stainless steel. Max. misalignment: 0,7° per disc pack

**Coatings available:** Nickel plating or phosphate.

Other coatings available upon request

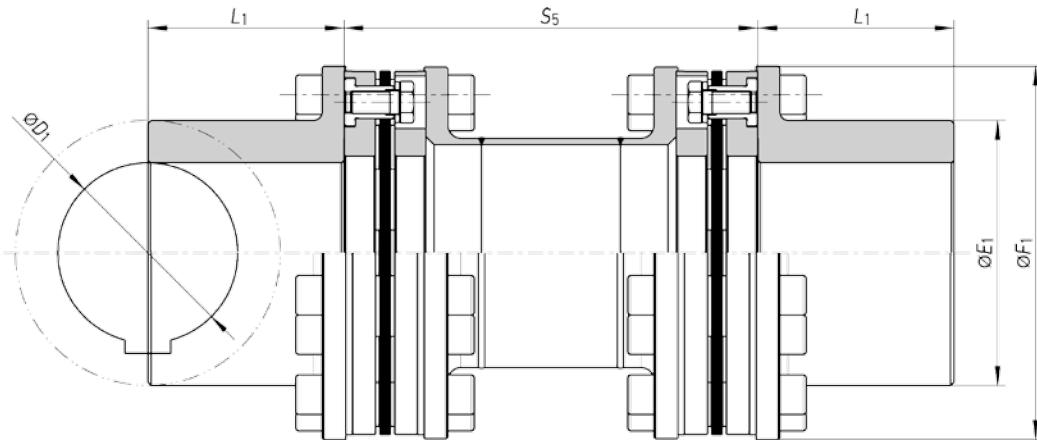
## As alternative:

**Elements:** High-strength Aluminum 7075 to ensure low weight and inertia

Technical data almost identical to the steel version

**Available coating:** Hard coating to protect against corrosion and to harden the surface

# Moduliflex 9255-XX-3000



## 9255-XX-3000 DIMENSIONS

Coupling Size	Nominal Torque <sup>①</sup>	Nominal Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Perm. Oscill. Bandwidth <sup>②</sup>	Axial Misalignment	Radial Misalignment <sup>③</sup>	Angular Misalignment <sup>④</sup>	Torsional Spring Rate <sup>⑤⑥</sup>	Moment of Inertia <sup>③</sup>	Weight <sup>③</sup>	Dimensions				Distance Between Shaft Ends
	(-) T <sub>KN</sub> [N·m]	(+) T <sub>KN</sub> [N·m]	(+) T <sub>K,max</sub> [N·m]	(-) T <sub>K,max</sub> [N·m]	T <sub>KW</sub> [N·m]	ΔK <sub>a</sub> [± mm]	ΔK <sub>r</sub> [± mm]	ΔK <sub>φ</sub> [deg]	C <sub>T,dyn</sub> [MN·m/rad]	m [kg·m <sup>2</sup> ]	m [kg]	D <sub>1,max</sub> [mm]	E <sub>1</sub> [mm]	F <sub>1</sub> [mm]	L <sub>1</sub> [mm]	S <sub>2,max</sub> [mm]
2,8	330	- 330	500	- 500	660	2,0	0,9	0,75	0,041	0,002	2,7	35	48	79	45	6000
4,5	540	- 540	800	- 800	1 080	2,4	1,0	0,75	0,064	0,004	4,0	44	60	92	50	6000
6,4	760	- 760	1 250	- 1 250	1 520	2,6	1,2	0,75	0,148	0,012	6,8	55	75	114	55	6000
11	1 300	- 1 300	2 000	- 2 000	2 600	2,8	1,2	0,75	0,293	0,033	12,4	70	100	143	70	6000
17	2 000	- 2 000	3 150	- 3 150	4 000	3,0	1,2	0,75	0,522	0,041	13,2	80	110	150	75	6000
28	3 300	- 3 300	5 000	- 5 000	6 600	3,2	1,5	0,75	0,824	0,076	18,9	90	120	174	85	6000
45	5 400	- 5 400	8 000	- 8 000	10 800	4,0	1,6	0,75	1,251	0,196	35,8	105	145	205	110	6000
64	7 600	- 7 600	12 500	- 12 500	15 200	4,2	2,7	0,75	1,484	0,339	49,0	120	162	227	120	6000
110	13 200	- 13 200	20 000	- 20 000	26 400	5,0	2,8	0,75	2,222	0,637	74,0	135	188	252	140	6000
170	20 400	- 20 400	31 500	- 31 500	40 800	5,8	3,4	0,75	3,637	1,200	104	160	210	293	160	6000
280	33 600	- 33 600	50 000	- 50 000	67 200	6,4	3,7	0,75	5,469	2,51	168	180	250	334	180	6000
450	54 000	- 54 000	80 000	- 80 000	108 000	7,2	4,2	0,75	8,53	4,41	235	200	268	375	200	6000
640	76 800	- 76 800	125 000	- 125 000	153 600	8,2	4,5	0,75	12,53	7,64	319	240	308	416	240	6000
1100	132 000	- 132 000	193 000	- 193 000	264 000	9,2	5,0	0,75	20,1	15,9	512	270	358	475	270	6000
1700	204 000	- 204 000	300 000	- 300 000	408 000	9,6	5,4	0,75	27,1	26,3	702	300	395	516	300	6000
2800	336 000	- 336 000	500 000	- 500 000	672 000	10,0	8,1	0,75			350	420	602	360	6000	

① According to DIN 740-2:1986-08

② According to DIN 50100:1978-02

③ Referring to min. spacer length design

④ Referring to one flexible module

⑤ Based on 1/3 shaft penetration

⑥ These values are valid for the shaft compression. In case of keyway connection, the values need to be recalculated.

Long Spacer Coupling with Koniclamp

# Modulflex 9255-XX-4000



Welded spacer coupling design with Koniclamp hubs and spacer lengths of up to 6.000 mm. Spacers with lengths above 6.000 mm and for high speed applications also available (carbon fibre version). Floating shaft couplings are used to connect units which are relatively far apart. Such arrangements are particularly suited to transmit power into areas where moisture, dust or corrosive conditions would adversely affect the driving machinery. The operating speeds of floating shaft couplings are dependent upon the length of span required and center tube material thickness. Consult Rexnord for center tube critical speed calculation and special balancing requirements.

## Features

- Disc packs are built under compression
- High precision accuracy on bolt and disc joint
- Large diameter disc connection bolts
- Torsionally tuned center member
- Disc designed for infinite dynamic load life

Koniclamp hubs are the recommended shaft-hub connection to ensure a backlash-free and true-running connection.

## Construction

**Elements and outer ring clamping hub:** Alloy steel with a typical tensile strength of 900 - 1200 N/mm

**Hubs:** Carbon steel

**Bolts:** Alloy steel

**Disc Packs:** Stainless steel. Max. misalignment: 0,7° per disc pack

**Coatings available:** Nickel plating or phosphate. Other coatings available upon request

## As alternative:

**Elements and Konicclamp:** High-strength Aluminum 7075 to ensure low weight and inertia

Technical data almost identical to the steel version

**Available coating:** Hard coating to protect against corrosion and to harden the surface

## Benefits

- Zero backlash & joint vibration
- Requires no extra safety factor for the coupling
- High torque per outer diameter
- High potential speeds
- Minimizes bolt cycle fatigue
- Compensates for radial, angular and axial misalignment thus protecting the torque flange
- Rigid coupling to meet system torsional requirements
- Reliable performance even when the system experiences reciprocating forces
- No dynamic load life limit



Coupling with Adapter and Shaft Hub

# Modulflex 9275-XX-3000



Spacer coupling design with flywheel adapter and finished bored hub. Modulflex 9275 couplings are used in heavy-duty, medium speed applications where high-starting torque, shock loads, torque reversals or continuous alternating torque are present. The open lug type center member provides ample clearance for assembly while minimizing the space required for coupling installation.

## Features

- Disc packs are built under compression
- High precision accuracy on bolt and disc joint
- Large diameter disc connection bolts
- Disc designed for infinite dynamic load life

## Benefits

- Zero backlash & joint vibration
- Requires no extra safety factor for the coupling
- High torque per outer diameter
- High potential speeds
- Minimizes bolt cycle fatigue
- Compensates for radial, angular and axial misalignment thus protecting the torque flange
- Rigid coupling to meet system torsional requirements
- Reliable performance even when the system experiences reciprocating forces
- No dynamic load life limit

## Construction

**Elements:** Alloy steel with a typical tensile strength of 900 - 1200 N/mm

**Hubs and spacer < 500 mm:** Carbon steel

**Spacer > 500 mm:** Carbon steel, carbon fibre

**Bolts:** Alloy steel

**Disc Packs:** Stainless steel. Max. misalignment: 0,7° per disc pack

**Coatings available:** Nickel plating or phosphate.

Other coatings available upon request

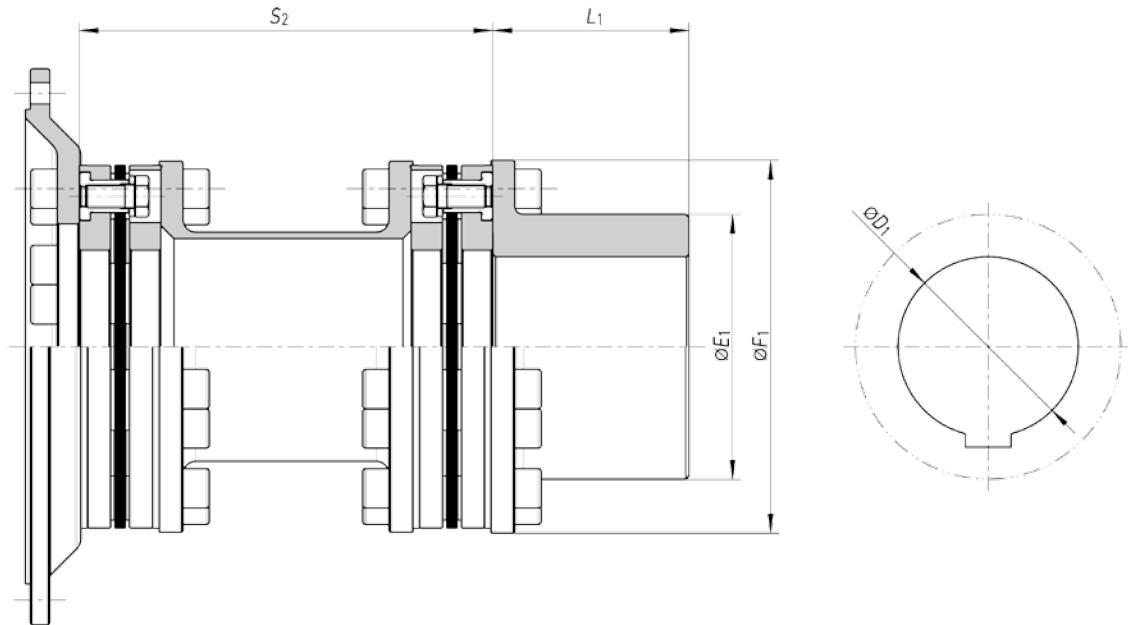
## As alternative:

**Elements and spacer < 500 mm:** High-strength Aluminum 7075 to ensure low weight and inertia

Technical data almost identical to the steel version

**Available coating:** Hard coating to protect against corrosion and to harden the surface

# Moduliflex 9275-XX-3000



## 9275-XX-3000 DIMENSIONS

Coupling Size	Nominal Torque <sup>①</sup>	Nominal Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Maximum Torque <sup>①</sup>	Perm. Oscill. Bandwidth <sup>②</sup>	Axial Misalign-ment	Radial Misalign-ment <sup>③</sup>	Angular Misalign-ment <sup>④</sup>	Torsional Spring Rate <sup>⑤⑥</sup>	Moment of Inertia <sup>③</sup>	Weight <sup>③</sup>	Dimensions				Distance Between Shaft Ends				
	(-) $T_{K_N}$ [N·m]	(+) $T_{K_N}$ [N·m]	(+) $T_{K_{max}}$ [N·m]	(-) $T_{K_{max}}$ [N·m]	$T_{K_N}$ [N·m]	$\Delta K_x$ [ $\pm$ mm]	$\Delta K_y$ [ $\pm$ mm]	$\Delta K_z$ [deg]	$C_{T_{dyn}}$ [MN·m/rad]	$m$ [ $\text{kg}\cdot\text{m}^2$ ]	$m$ [kg]	$D_{1max}$ [mm]	$E_1$ [mm]	$F_1$ [mm]	$L_1$ [mm]	$S_{2min}$ [mm]	$S_2 = 140\text{mm} = 180\text{mm} = 250\text{mm} = 300\text{mm}$	$S_2$ [mm]	$S_2$ [mm]	$S_2$ [mm]
2,8	330	- 330	500	- 500	660	2,0	0,9	0,75	0,043	0,002	2,3	35	48	79	45	101	X			
4,5	540	- 540	800	- 800	1 080	2,4	1,0	0,75	0,066	0,004	3,3	44	60	92	50	107	X			
6,4	760	- 760	1 250	- 1 250	1 520	2,6	1,2	0,75	0,152	0,010	5,6	55	75	114	55	125	X			
11	1 300	- 1 300	2 000	- 2 000	2 600	2,8	1,2	0,75	0,3	0,027	9,7	70	100	143	70	126	X			
17	2 000	- 2 000	3 150	- 3 150	4 000	3,0	1,2	0,75	0,539	0,033	10,2	80	110	150	75	126	X			
28	3 300	- 3 300	5 000	- 5 000	6 600	3,2	1,5	0,75	0,859	0,062	14,8	90	120	174	85	149	X			
45	5 400	- 5 400	8 000	- 8 000	10 800	4,0	1,6	0,75	1,297	0,158	27,7	105	145	205	110	170	X			
64	7 600	- 7 600	12 500	- 12 500	15 200	4,2	2,7	0,75	1,532	0,275	38,3	120	162	227	120	253	X			
110	13 200	- 13 200	20 000	- 20 000	26 400	5,0	2,8	0,75	2,287	0,507	56,5	135	188	252	140	272	X			
170	20 400	- 20 400	31 500	- 31 500	40 800	5,8	3,4	0,75	3,78	0,980	82	160	210	293	160	324				
280	33 600	- 33 600	50 000	- 50 000	67 200	6,4	3,7	0,75	5,632	2,001	130	180	250	334	180	356				
450	54 000	- 54 000	80 000	- 80 000	108 000	7,2	4,2	0,75	8,887	3,625	187	200	268	375	200	414				
640	76 800	- 76 800	125 000	- 125 000	153 600	8,2	4,5	0,75	13,11	6,23	243	240	308	416	240	442				
1100	132 000	- 132 000	193 000	- 193 000	264 000	9,2	5,0	0,75	20,96	12,93	405	270	358	475	270	505				
1700	204 000	- 204 000	300 000	- 300 000	408 000	9,6	5,4	0,75	28,29	21,48	565	300	395	516	300	568				
2800	336 000	- 336 000	500 000	- 500 000	672 000	10,0	8,1	0,75				350	420	602	360	802				

① According to DIN 740-2:1986-08

② According to DIN 50100:1978-02

③ Referring to min. spacer length design

④ Referring to one flexible module

⑤ Based on 1/3 shaft penetration

⑥ These values are valid for the shaft compression. In case of keyway connection, the values need to be recalculated.

# Modulflex 9275-XX-4000



Spacer coupling design with flywheel adapter and Konicclamp clamping hub. Modulflex 9275 couplings are used in heavy-duty, medium speed applications where high-starting torque, shock loads, torque reversals or continuous alternating torque are present. The open lug type center member provides ample clearance for assembly while minimizing the space required for coupling installation.

## Features

- Disc packs are built under compression
- High precision accuracy on bolt and disc joint
- Large diameter disc connection bolts
- Disc designed for infinite dynamic load life

Konicclamp hubs are the recommended shaft-hub connection to ensure a backlash-free and true-running connection.

## Benefits

- Zero backlash & joint vibration
- Requires no extra safety factor for the coupling
- High torque per outer diameter
- High potential speeds
- Minimizes bolt cycle fatigue
- Compensates for radial, angular and axial misalignment thus protecting the torque flange
- Rigid coupling to meet system torsional requirements
- Reliable performance even when the system experiences reciprocating forces
- No dynamic load life limit

## Construction

**Elements and outer ring clamping hub:** Alloy steel with a typical tensile strength of 900 - 1200 N/mm

**Hubs and spacer < 500 mm:** Carbon steel

**Spacer > 500 mm:** Carbon steel, carbon fibre

**Bolts:** Alloy steel

**Disc Packs:** Stainless steel. Max. misalignment: 0,7° per disc pack

**Coatings available:** Nickel plating or phosphate. Other coatings available upon request

## As alternative:

**Elements, Konicclamp and spacer <500 mm:** High-strength Aluminum 7075 to ensure low weight and inertia  
Technical data almost identical to the steel version

**Available coating:** Hard coating to protect against corrosion and to harden the surface



## Why Choose Rexnord?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Rexnord is the most reliable in the industry. Commitment to customer satisfaction and superior value extend across every business function.

### Delivering Lowest Total Cost of Ownership

The highest quality products are designed to help prevent equipment downtime and increase productivity and dependable operation.

### Valuable Expertise

An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

### Solutions to Enhance Ease of Doing Business

Commitment to operational excellence ensures the right products at the right place at the right time.

## REXNORD

### Rexnord Company Overview

Rexnord is a growth-oriented, multi-platform industrial company with leading market shares and highly trusted brands that serve a diverse array of global end markets.

### Process & Motion Control

The Rexnord Process & Motion Control platform designs, manufactures, markets and services specified, highly engineered mechanical components used within complex systems where our customers' reliability requirements and the cost of failure or downtime are extremely high.

### Water Management

The Rexnord Water Management platform designs, procures, manufactures and markets products that provide and enhance water quality, safety, flow control and conservation.