

RUBBER EXPANSION JOINTS RANGE

DATA SHEET

1

Single Sphere



2

Spool Type



3

Union Type



PRODUCT RANGE

A Selection of Rubber Expansion Joints

PTFE-LINED RUBBER EXPANSION JOINTS

PTFE lining option for single Sphere and spool type expansion joints

Performance

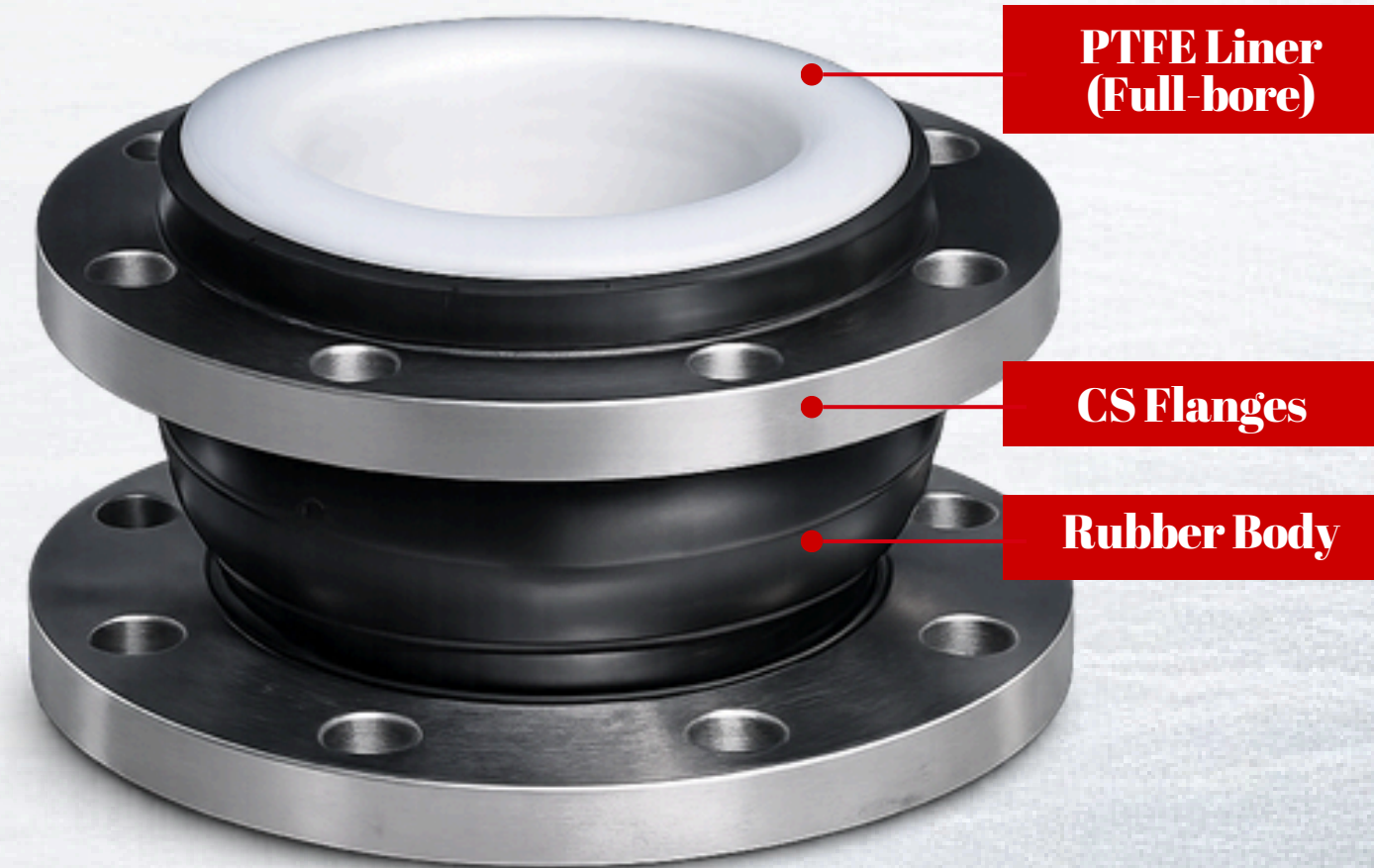
- Pressure and movement capabilities depend on the base expansion joint type
- PTFE liner does not increase movement capacity
- Maximum temperature limited by elastomer body not PTFE liner
- Vacuum resistance available with vacuum support ring (on request)

Why PTFE LINING

- Excellent chemical resistance
- Non-stick, low friction flow surface
- Protects elastomer from aggressive media
- Extends service life in a corrosive applications

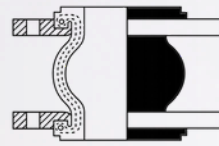
Typical Applications

- Chemical processing lines
- Acid / alkali transfer systems
- Aggressive wastewater & effluent lines
- Industrial process piping requiring chemical resistance



totflex

SINGLE SPHERE RUBBER EXPANSION JOINT



PERFORMANCE

Temp:
-30°C to +150°C

Pressure Rating:
up to 40 bar

Burst Pressure:
3× working pressure

Vacuum max:
to -3 bar (with vacuum ring)



SINGLE SPHERE RUBBER EXPANSION JOINTS

Absorb vibration . Componsate movment . Protect piping



Carbon Steel Flange

Rubber Body

Flexible Expansion joints are used in HVAC, water treatment, and industrial piping systems to reduce vibration, absorb movment, and protect equipment



Vibration & noise isolation



Misalignment tolerance



Thermal expansion compensation



Reduc stress on pumps
& equipment



Product Overview

TOTFLEX T270 Single Sphere Rubber Expansion Joints are engineered flexible connectors designed to reduce vibration and noise, compensate thermal expansion, and accommodate minor pipeline misalignment in HVAC, water, and industrial piping systems. Available in multiple rubber compounds and flange drilling options for common piping standards.

SINGLE SPHERE RUBBER EXPANSION JOINT - COMPACT - PN10

Description - T270 compact series is a compact-length configuration of the TOTFLEX single-sphere joint, using DN-based face-to-face lengths (**95–260 mm**) while keeping the same single-arch bellow design.

Size Range

DN32-DN600

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

PN 10

Connection

Flanged

Options:

PIFE Lining, Tie Rods, Control Rods



Axial Compression
20 - 28 mm



Axial Extension
20 - 25 mm



Lateral Deflection
14 - 24 mm



Angular Deflection
10° - 15°

DN	Length	Outer Diameter	Internal Diameter	PN10 Flange
mm	mm	mm	mm	Item code
32	95	77	32	T270_10000084-00
40	95	84	40	T270_10000088-00
50	105	87	50	T270_10000092-00
65	115	112	65	T270_10000096-00
80	130	127	80	T270_10000100-00
100	150	147	100	T270_10000020-00
125	165	184	125	T270_10000104-00
150	180	208	150	T270_10000108-00
200	203	267	200	T270_10000112-00
250	230	321	250	T270_10000116-00
300	245	371	300	T270_10000120-00
350	255	431	350	T270_10000124-00
400	255	484	400	T270_10000128-00
450	255	537	450	T270_10000132-00
500	255	589	500	T270_10000136-00
600	260	689	600	T270_10000060-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

Advantages

- Vibration & noise isolation to protect connected equipment
- Thermal movement compensation (expansion/contraction in pipe runs)
- Misalignment tolerance for easier installation and reduced strain
- Lower stress at pumps/valves to support longer service life of components
- Selectable rubber compounds to match media and temperature needs
- Multiple flange drilling options (EN / ANSI) for broad compatibility

Application Areas

- HVAC: chilled water, hot water, condenser lines
- Pump rooms: suction/discharge lines (stress reduction at equipment nozzles)
- Water & wastewater: treatment plants, distribution, utility rooms
- Industrial process lines: general service fluids (compound selection dependent)
- Compressed air lines (compound selection dependent)

SINGLE SPHERE RUBBER EXPANSION JOINT - COMPACT - PN 16

Description - T270 compact series is a compact-length configuration of the TOTFLEX single-sphere joint, using DN-based face-to-face lengths (95-260 mm) while keeping the same single-arch bellow design.

Size Range

DN32-DN600

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

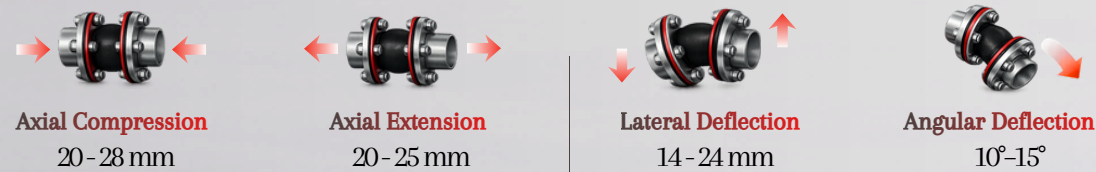
PN 16

Connection

Flanged

Options:

PIFE Lining, Tie Rods, Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN16 Flange
mm	mm	mm	mm	Item code
32	95	77	32	T270_10000085-00
40	95	84	40	T270_10000089-00
50	105	87	50	T270_10000093-00
65	115	112	65	T270_10000097-00
80	130	127	80	T270_10000101-00
100	150	147	100	T270_10000021-00
125	165	184	125	T270_10000105-00
150	180	208	150	T270_10000109-00
200	203	267	200	T270_10000113-00
250	230	321	250	T270_10000117-00
300	245	371	300	T270_10000121-00
350	255	431	350	T270_10000125-00
400	255	484	400	T270_10000129-00
450	255	537	450	T270_10000133-00
500	255	589	500	T270_10000137-00
600	260	689	600	T270_10000061-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - COMPACT - PN 25

Description - T270 compact series is a compact configuration of the TOTFLEX single-sphere joint, using DN-based face-to-face lengths (95-260 mm) while keeping the same single-arch bellow design.

Size Range

DN32-DN600

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

PN 25

Connection

Flanged

Options:

PIFE Lining, Tie Rods, Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN25 Flange
mm	mm	mm	mm	Item code
32	95	77	32	T270_10000086-00
40	95	84	40	T270_10000090-00
50	105	87	50	T270_10000094-00
65	115	112	65	T270_10000098-00
80	130	127	80	T270_10000102-00
100	150	147	100	T270_10000022-00
125	165	184	125	T270_10000106-00
150	180	208	150	T270_10000110-00
200	203	267	200	T270_10000114-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - COMPACT - CLASS 150

Description - T270 compact series is a compact-length configuration of the TOTFLEX single-sphere joint, using DN-based face-to-face lengths (95–260 mm) while keeping the same single-arch bellow design.

Size Range

DN32-DN600

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

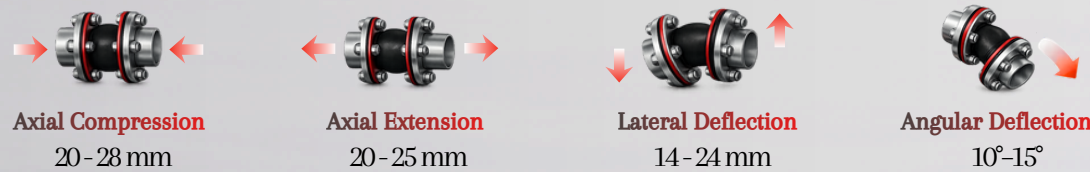
Class 150

Connection

Flanged

Options:

PTFE Lining, Tie Rods, Control Rods



DN	Length	Outer Diameter	Internal Diameter	Class 150 Flange
mm	mm	mm	mm	Item code
32	95	77	32	T270_10000087-00
40	95	84	40	T270_10000091-00
50	105	87	50	T270_10000095-00
65	115	112	65	T270_10000099-00
80	130	127	80	T270_10000103-00
100	150	147	100	T270_10000023-00
125	165	184	125	T270_10000107-00
150	180	208	150	T270_10000111-00
200	203	267	200	T270_10000115-00
250	230	321	250	T270_10000119-00
300	245	371	300	T270_10000123-00
350	255	431	350	T270_10000127-00
400	255	484	400	T270_10000131-00
450	255	537	450	T270_10000135-00
500	255	589	500	T270_10000139-00
600	260	689	600	T270_10000063-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - SHORT- PN 10

Description - T270 short series is a uniform short-length configuration with a fixed face-to-face length of 130 mm for DN32–DN300, suitable where consistent installation length is required.

Size Range

DN32-DN300

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

PN 10

Connection

Flanged

Options:

PTFE Lining, Tie Rods, Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN10 Flange
mm	mm	mm	mm	Item code
32	130	77	32	T270_10000140-00
40	130	84	40	T270_10000144-00
50	130	87	50	T270_10000148-00
65	130	112	65	T270_10000152-00
80	130	127	80	T270_10000100-00
100	130	147	100	T270_10000156-00
125	130	184	125	T270_10000160-00
150	130	208	150	T270_10000164-00
200	130	267	200	T270_10000168-00
250	130	321	250	T270_10000172-00
300	130	371	300	T270_10000176-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - SHORT- PN 16

Description - T270 short series is a uniform short-length configuration with a fixed face-to-face length of 130 mm for DN32-DN300, suitable where consistent installation length is required.

Size Range

DN32-DN300

Design:

Single sphere / single arch bellow

Rubber Options

EPDM/NBR/CR/NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

PN 16

Connection

Flanged

Options:

PTFE Lining , Tie Rods , Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN16 Flange
mm	mm	mm	mm	Item code
32	130	77	32	T270_10000141-00
40	130	84	40	T270_10000145-00
50	130	87	50	T270_10000149-00
65	130	112	65	T270_10000153-00
80	130	127	80	T270_10000101-00
100	130	147	100	T270_10000157-00
125	130	184	125	T270_10000161-00
150	130	208	150	T270_10000165-00
200	130	267	200	T270_10000169-00
250	130	321	250	T270_10000173-00
300	130	371	300	T270_10000177-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - SHORT- PN 25

Description - T270 short series is a uniform short-length configuration with a fixed face-to-face length of 130 mm for DN32-DN300, suitable where consistent installation length is required.

Size Range

DN32-DN300

Design:

Single sphere / single arch bellow

Rubber Options

EPDM/NBR/CR/NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

PN 25

Connection

Flanged

Options:

PTFE Lining , Tie Rods , Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN25 Flange
mm	mm	mm	mm	Item code
32	130	77	32	T270_10000142-00
40	130	84	40	T270_10000146-00
50	130	87	50	T270_10000150-00
65	130	112	65	T270_10000154-00
80	130	127	80	T270_10000102-00
100	130	147	100	T270_10000158-00
125	130	184	125	T270_10000162-00
150	130	208	150	T270_10000166-00
200	130	267	200	T270_10000170-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - SHORT- CLASS 150

Description - T270 short series is a uniform short-length configuration with a fixed face-to-face length of 130 mm for DN32–DN300, suitable where consistent installation length is required.

Size Range

DN32–DN300

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

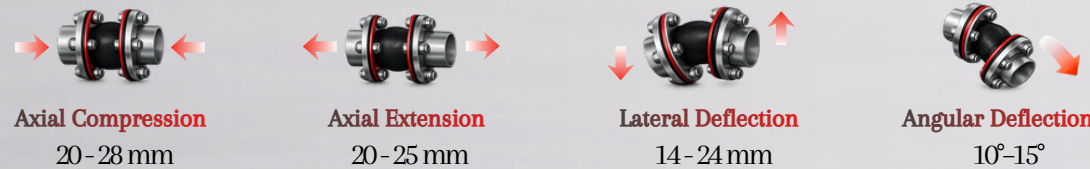
Class 150

Connection

Flanged

Options:

PIFE Lining, Tie Rods, Control Rods



DN	Length	Outer Diameter	Internal Diameter	Class 150
mm	mm	mm	mm	Item code
32	130	77	32	T270_10000143-00
40	130	84	40	T270_10000147-00
50	130	87	50	T270_10000151-00
65	130	112	65	T270_10000155-00
80	130	127	80	T270_10000103-00
100	130	147	100	T270_10000159-00
125	130	184	125	T270_10000163-00
150	130	208	150	T270_10000167-00
200	130	267	200	T270_10000171-00
250	130	321	250	T270_10000175-00
300	130	371	300	T270_10000179-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - STANDARD- PN 10

Description - T270 standard series is the standard-length configuration using DN-group face-to-face lengths (152 / 203 / 260 mm) to match common installation envelopes across a wide size range.

Size Range

DN32–DN1200

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

PN 10

Connection

Flanged

Options:

PIFE Lining, Tie Rods, Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN10 Flange
mm	mm	mm	mm	Item code
32	152	77	32	T270_10000000-00
40	152	84	40	T270_10000004-00
50	152	87	50	T270_10000008-00
65	152	112	65	T270_10000012-00
80	152	127	80	T270_10000016-00
100	152	147	100	T270_10000020-00
125	152	184	125	T270_10000024-00
150	152	208	150	T270_10000028-00
200	152	267	200	T270_10000032-00
250	203	321	250	T270_10000036-00
300	203	371	300	T270_10000040-00
350	203	431	350	T270_10000044-00
400	203	484	400	T270_10000048-00
450	203	537	450	T270_10000052-00
500	203	589	500	T270_10000056-00
600	260	689	600	T270_10000060-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - STANDARD - PN 16

Description - T270 standard series is the standard-length configuration using DN-group face-to-face lengths (152 / 203 / 260 mm) to match common installation envelopes across a wide size range.

Size Range

DN32-DN1200

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

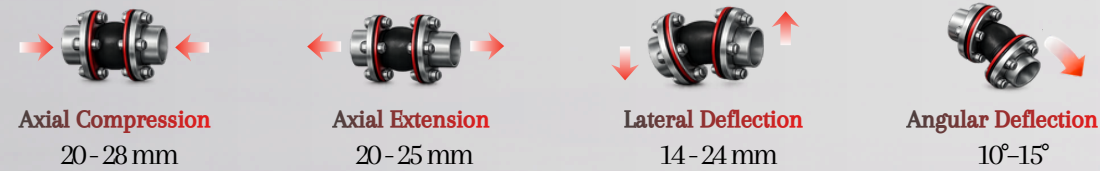
PN 16

Connection

Flanged

Options:

PIFE Lining , Tie Rods , Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN16 Flange
mm	mm	mm	mm	Item code
32	152	77	32	T270_10000001-00
40	152	84	40	T270_10000005-00
50	152	87	50	T270_10000009-00
65	152	112	65	T270_10000013-00
80	152	127	80	T270_10000017-00
100	152	147	100	T270_10000021-00
125	152	184	125	T270_10000025-00
150	152	208	150	T270_10000029-00
200	152	267	200	T270_10000033-00
250	203	321	250	T270_10000037-00
300	203	371	300	T270_10000041-00
350	203	431	350	T270_10000045-00
400	203	484	400	T270_10000049-00
450	203	537	450	T270_10000053-00
500	203	589	500	T270_10000057-00
600	260	689	600	T270_10000061-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - STANDARD - PN 25

Description - T270 standard series is the standard-length configuration using DN-group face-to-face lengths (152 / 203 / 260 mm) to match common installation envelopes across a wide size range.

Size Range

DN32-DN1200

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

PN 25

Connection

Flanged

Options:

PIFE Lining , Tie Rods , Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN25 Flange
mm	mm	mm	mm	Item code
32	152	77	32	T270_10000002-00
40	152	84	40	T270_10000006-00
50	152	87	50	T270_10000010-00
65	152	112	65	T270_10000014-00
80	152	127	80	T270_10000018-00
100	152	147	100	T270_10000022-00
125	152	184	125	T270_10000026-00
150	152	208	150	T270_10000030-00
200	152	267	200	T270_10000034-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - STANDARD - CLASS 150

Description - T270 standard series is the standard-length configuration using DN-group face-to-face lengths (152 / 203 / 260 mm) to match common installation envelopes across a wide size range.

Size Range

DN32-DN1200

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

Class 150

Connection

Flanged

Options:

PIFE Lining , Tie Rods , Control Rods



DN	Length	Outer Diameter	Internal Diameter	Class 150
mm	mm	mm	mm	Item code
32	152	77	32	T270_10000003-00
40	152	84	40	T270_10000007-00
50	152	87	50	T270_10000011-00
65	152	112	65	T270_10000015-00
80	152	127	80	T270_10000019-00
100	152	147	100	T270_10000023-00
125	152	184	125	T270_10000027-00
150	152	208	150	T270_10000031-00
200	152	267	200	T270_10000035-00
250	203	321	250	T270_10000039-00
300	203	371	300	T270_10000043-00
350	203	431	350	T270_10000047-00
400	203	484	400	T270_10000051-00
450	203	537	450	T270_10000055-00
500	203	589	500	T270_10000059-00
600	260	689	600	T270_10000063-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - ULTRA COMPACT- PN 10

Description - T270 ultra compact series is an extra-compact configuration, using L = 100 mm (DN32-DN100) and L = 120 mm (DN125-DN200) for maximum space saving without changing the single-sphere joint design.

Size Range

DN32-DN200

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

PN 10

Connection

Flanged

Options:

PIFE Lining , Tie Rods , Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN10 Flange
mm	mm	mm	mm	Item code
32	100	77	32	T270_10000180-00
40	100	84	40	T270_10000184-00
50	100	87	50	T270_10000188-00
65	100	112	65	T270_10000192-00
80	100	127	80	T270_10000196-00
100	100	147	100	T270_10000200-00
125	120	184	125	T270_10000204-00
150	120	208	150	T270_10000208-00
200	120	267	200	T270_10000212-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - ULTRA COMPACT- PN 16

Description - T270 ultra compact series is an extra-compact configuration, using L = 100 mm (DN32-DN100) and L = 120 mm (DN125-DN200) for maximum space saving without changing the single-sphere joint design.

Size Range

DN32-DN200

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

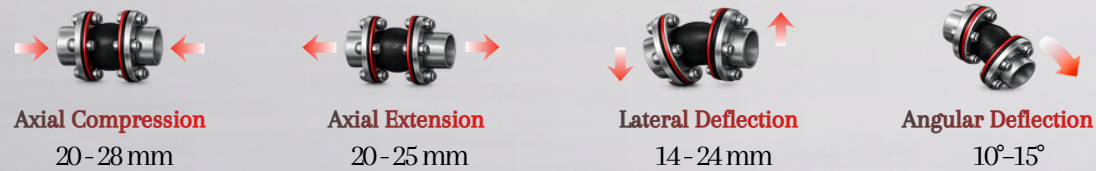
PN 16

Connection

Flanged

Options:

PIFE Lining , Tie Rods , Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN16 Flange
mm	mm	mm	mm	Item code
32	100	77	32	T270_10000181-00
40	100	84	40	T270_10000185-00
50	100	87	50	T270_10000189-00
65	100	112	65	T270_10000193-00
80	100	127	80	T270_10000197-00
100	100	147	100	T270_10000201-00
125	120	184	125	T270_10000205-00
150	120	208	150	T270_10000209-00
200	120	267	200	T270_10000213-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - ULTRA COMPACT- PN 25

Description - T270 ultra compact series is an extra-compact configuration, using L = 100 mm (DN32-DN100) and L = 120 mm (DN125-DN200) for maximum space saving without changing the single-sphere joint design.

Size Range

DN32-DN200

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

PN 25

Connection

Flanged

Options:

PIFE Lining , Tie Rods , Control Rods



DN	Length	Outer Diameter	Internal Diameter	PN25 Flange
mm	mm	mm	mm	Item code
32	100	77	32	T270_10000182-00
40	100	84	40	T270_10000186-00
50	100	87	50	T270_10000190-00
65	100	112	65	T270_10000194-00
80	100	127	80	T270_10000198-00
100	100	147	100	T270_10000202-00
125	120	184	125	T270_10000206-00
150	120	208	150	T270_10000210-00
200	120	267	200	T270_10000214-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.

SINGLE SPHERE RUBBER EXPANSION JOINT - ULTRA COMPACT- CLASS 150

Description - T270 ultra compact series is an extra-compact configuration, using L = 100 mm (DN32-DN100) and L = 120 mm (DN125-DN200) for maximum space saving without changing the single-sphere joint design.

Size Range

DN32-DN200

Design:

Single sphere / single arch bellow

Rubber Options

EPDM / NBR / CR / NR

Construction:

Reinforced rubber body + fabric layers + reinforced ring

Flange drilling/rating:

Class 150

Connection

Flanged

Options:

PIPE Lining , Tie Rods , Control Rods



Axial Compression
20 - 28 mm



Axial Extension
20 - 25 mm



Lateral Deflection
14 - 24 mm



Angular Deflection
10°-15°

DN	Length	Outer Diameter	Internal Diameter	Class 150
mm	mm	mm	mm	Item code
32	100	77	32	T270_10000183-00
40	100	84	40	T270_10000187-00
50	100	87	50	T270_10000191-00
65	100	112	65	T270_10000195-00
80	100	127	80	T270_10000199-00
100	100	147	100	T270_10000203-00
125	120	184	125	T270_10000207-00
150	120	208	150	T270_10000211-00
200	120	267	200	T270_10000215-00



** For sizes outside the listed range, please contact us with your required DN and connection details for a custom quotation.



SINGLE SPHERE RUBBER EXPANSION JOINT